



**Battery Park
City Authority**

**REQUEST FOR PROPOSALS
FOR
SITE-SPECIFIC ART (BELVEDERE PYLONS AND GLASS
BENCHES)
RESTORATION AND LED LIGHTING CONVERSION PROJECT**

Table of Contents

I.	SUMMARY.....	1
II.	GENERAL PROVISIONS	1
III.	TIMETABLE & DESIGNATED CONTACT	2
	A. Key Dates	2
	B. Anticipated Contract Term.....	2
IV.	GENERAL REQUIREMENTS.....	2
	A. Minimum Qualification Requirements.....	2
	B. MBE/WBE/SDVOB Participation, Joint Ventures, and Sub-contracting Goals	2
	C. Restricted Period	3
	D. Submission of Proposals	3
V.	PROPOSAL FORMAT AND CONTENTS.....	3
	A. Proposal Format	3
	B. Proposal Content	4
VI.	INFORMATION REQUIRED	4
	A. Questions and Information Sought Relating to the Work	4
	B. Questions and Information Sought Relating to Proposer’s Firm & Eligibility	5
	C. Required Attachments	6
VII.	INSURANCE AND BONDING REQUIREMENTS.....	7
	A. General Requirements	7
	B. Insurance Requirements for the Selected Proposer.....	7
	C. Insurance Requirements for all Subcontractors.....	8
	D. Bonding.....	9
VIII.	COST PROPOSAL; FORMAT AND REQUIRED INCLUSIONS	9
IX.	SELECTION PROCESS	9
	A. Evaluation	9
	B. Interviews.....	9
	C. Evaluation Criteria for Selection.....	9
	D. Basis for Contract Award.....	10
X.	NON-COLLUSION.....	10
XI.	IRAN DIVESTMENT ACT	10
XII.	ENCOURAGING USE OF NEW YORK STATE BUSINESSES IN CONTRACT PERFORMANCE..	10
	EXHIBIT A – SCOPE OF WORK	
	EXHIBIT B – MBE/WBE/SDVOB REQUIREMENTS PACKAGE	
	EXHIBIT C – BPCA’S STANDARD FORM OF CONTRACT	
	EXHIBIT D – ACKNOWLEDGEMENT OF ADDENDA	
	EXHIBIT E – LIST OF BPCA & BPCPC BOARD MEMBERS AND EMPLOYEES	
	EXHIBIT F – COST PROPOSAL	
	EXHIBIT G – SCHEDULE OF VALUES	
	EXHIBIT H – LABOR RATES	
	EXHIBIT I – DRAWINGS AND SPECIFICATIONS	

I. SUMMARY

Battery Park City Authority d/b/a Hugh L. Carey Battery Park City Authority (“BPCA”) requests proposals (individually a “Proposal” and collectively the “Proposals”) from qualified general contractors (individually a “Proposer” and collectively the “Proposers”) to repair and restore certain outdoor site-specific art elements in Battery Park City, specifically ten (10) glass benches, located adjacent to the Irish Hunger Memorial, roughly west of the intersection of North End Avenue and Vesey Street)) and the “Pylons,” a two-piece art installation located north of the North Cove Marina). Such restoration will include, but not be limited to: (1) retrofitting of existing light fixtures; (2) the installation of LED lighting; (3) custom steel alterations; (4) concrete pouring; and (5) ribbed glass installation. A detailed scope of work for which the selected Proposer will be responsible is attached hereto as Exhibit A (the “Work” or the “Project”).

Created in 1968, BPCA is a New York State public benefit corporation responsible for financing, developing, constructing, maintaining, and operating Battery Park City as a richly diversified mixed use community providing residential and commercial space, with related amenities such as parks, plazas, recreational areas, and a waterfront esplanade. A summary of BPCA’s structure, mission, and history, as well as the Battery Park City project area, may be viewed at: <http://bpca.ny.gov/>. Public information regarding BPCA’s finances, budget, internal controls, guidelines, and policies may be viewed at: <http://bpca.ny.gov/public-information/>. Information relating to the Battery Park City Parks Conservancy Corporation (“BPCPC”), BPCA’s affiliate, may be viewed at: <http://bpcparks.org/>.

New York State-certified Minority-Owned Business Enterprises (“MBE”), Women-Owned Business Enterprises (“WBE”) and Service-Disabled Veteran-Owned Business Enterprises (“SDVOB”) are encouraged to submit Proposals.

II. GENERAL PROVISIONS

This request for Proposals, including attachments, exhibits, and any amendments or addenda (collectively, the “RFP”) is subject to the rights reserved by BPCA, including, but not limited to BPCA’s right to:

- withdraw and/or cancel this RFP at any time before final award of the contract;
- request clarification and/or additional information from any or all Proposers;
- amend any term or requirement of this RFP at any time before award of a contract (Proposers may amend their Proposals, as directed by BPCA, if BPCA materially alters or amends the RFP after submission of Proposals);
- alter any key dates or deadlines related to this RFP;
- award the Work, in whole or in part, to one or more Proposers with or without interviews or negotiations;
- reject any Proposal that does not strictly conform to the requirements of this RFP;
- conduct an interview with any or all of the Proposers to aid the evaluation process;
- negotiate potential contract terms with any Proposer;

BPCA is not liable or responsible in any way for any expenses incurred in the preparation of a Proposal in response to this RFP. All information submitted in response to this RFP is subject to the Freedom of Information Law, Article 6 of the New York State Public Officers Law (“FOIL”), which requires public access to certain documents possessed by BPCA, unless a specific exemption applies. Proposers are responsible for identifying any information in their respective Proposals considered by them to be confidential and exempt from disclosure under FOIL. BPCA, however, is obligated to disclose information consistent with the requirements of FOIL, NYS Public Officers Law Section 87.

III. TIMETABLE & DESIGNATED CONTACT

A. *Key Dates*

Subject to change at BPCA's discretion, the following are key dates for this RFP:

- RFP issued: July 23, 2018
- Pre-proposal meeting: July 30, 2018 at 9:00 am at 6 River Terrace New York NY
- Deadline to submit questions to BPCA: August 2, 2018 by 4:00 p.m. (by email only)

All questions regarding this RFP should be submitted in writing via email to the "Designated Contact": Michael LaMancusa, Assistant Contracting Officer, Battery Park City Authority, at michael.lamancusa@bpca.ny.gov.

- BPCA's response to substantive questions: August 6, 2018 (by email)
- PROPOSAL DUE DATE: August 13, 2018 by 3:00 p.m. (the "Due Date")
- Contract start date: September 2018 (approximate)

B. *Anticipated Contract Term*

BPCA expects that the term of the contract awarded pursuant to this RFP (the "Contract") will be fourteen (14) months; however, the duration of the Work is anticipated to be no more than six (6) months. BPCA reserves the right to terminate the Contract at any time, with or without cause, in accordance with the terms of the Contract. BPCA's sample form of contract is attached as Exhibit C.

IV. GENERAL REQUIREMENTS

A. *Minimum Qualification Requirements*

The following are the minimum qualification requirements for this RFP. Proposals that fail to meet these requirements will be rejected.

- 1) Proposer must have an office in New York State (a New York City office is preferred);
- 2) The Proposer must be lawfully authorized to do business in the State of New York; and
- 3) Proposer must have at least five (5) years of experience in providing general contracting services and must provide as part of its proposing team a New York City-licensed electrician.

B. *MBE/WBE/SDVOB Participation, Joint Ventures, and Sub-contracting Goals*

Contractor requirements and procedures for business participation opportunities for New York State certified MBEs/WBEs/SDVOBs and equal employment opportunity requirements relating to minority group members and women are attached as Exhibit B. For questions relating to MBE/WBE/SDVOB participation, joint ventures and sub-contracting goals *only*, please contact the "MBE/WBE/SDVOB Designated Contact" Mr. Anthony Peterson at Anthony.peterson@bpca.ny.gov or 212-417-2337.

C. Restricted Period

New York State's State Finance Law sections 139-j and 139-k apply to this RFP, restricting Proposers' contacts with BPCA. Proposers are restricted from making any contact (defined as oral, written or electronic communications with BPCA under circumstances where a reasonable person would infer that a communication was intended to influence BPCA's conduct or decision with respect to a procurement) relating to this RFP with anyone other than the Designated Contact, as specified in Section III.A., or MBE/WBE/SDVOB Designated Contact, as specified in Section IV.B., from the time of Proposer's receipt of notice of this RFP through the date of the Final Award as defined in BPCA's Procurement Guidelines (the "Restricted Period"). BPCA employees must record certain contacts during the Restricted Period, including, but not limited to, any oral or written communications that could reasonably be seen as intended to influence BPCA's conduct or award of this RFP. Upon notice of an improper contact, BPCA must make a determination regarding the Proposer's eligibility to continue participating in this RFP.

D. Submission of Proposals

Proposals must be received by BPCA no later than 3:00 p.m. on AUGUST 13, 2018

Each Proposer must submit (6) paper copies and a PDF version (via CD-ROM or flash drive) in a sealed package clearly marked "Proposal Enclosed – Site-Specific Art (Belvedere Pylons and Glass Benches) – Restoration and LED Lighting Conversion Project" to the Designated Contact by messenger, overnight courier or certified mail to the following address:

Michael LaMancusa
Battery Park City Authority
200 Liberty Street, 24th Floor
New York, NY 10281
michael.lamancusa@bpca.ny.gov

BPCA is not responsible for late Proposals, no matter the cause. Proposals *must* arrive at the time and place specified herein and be time stamped by BPCA by the Due Date. Please leave ample time for building security. Late Proposals will NOT be accepted. Proposals submitted by fax or electronic transmission will NOT be accepted. A Proposer may, after submitting a Proposal, amend its Proposal by submitting an amended Proposal, clearly labeled "Amended Proposal – Site-Specific Art (Belvedere Pylons and Glass Benches) – Restoration and LED Lighting Conversion Project," as long as the amended Proposal is submitted by the Due Date.

V. PROPOSAL FORMAT AND CONTENTS

A. Proposal Format

The Proposal must:

- Be printed on 8½" x 11" paper;
- Have numbered pages; and
- Be no longer than ten (10) single-sided pages, exclusive of the Cover Letter, Cost Proposal, and Required Attachments.

B. Proposal Content

In addition to the separately sealed Cost Proposal, described in Section VIII. below, each Proposal must include the following in the order listed:

- 1) Cover Letter, signed by a person within the firm who is authorized to bind the Proposer, which includes representations that:
 - (a) Except as disclosed in the Proposal, no officer or employee of the Proposer is directly or indirectly a party to or in any other manner interested financially or otherwise in this RFP;
 - (b) Proposer satisfies all of the minimum qualification requirements in Section IV.A; and
 - (c) Proposer has reviewed BPCA's form of contract, attached as Exhibit C to this RFP, and either has no objections or has detailed their objections in an appendix to their Proposal.
- 2) Executive Summary.
- 3) Responses to the Questions as well as all of the Information Required (Sections VI.A. and B.).
- 4) Required Attachments (Section VI. C.).

BPCA reserves the right to reject any Proposals that fail to include any required item described in this Section V. B., including Cover Letters that are unsigned or fail to include each of the above representations (including the required appendix if there are objections to BPCA's form of contract).

VI. INFORMATION REQUIRED

A. Questions and Information Sought Relating to the Work

- 1) Describe your firm's background, history and experience as these factors are relevant to the Work, with an emphasis on exterior electrical and lighting work and LED conversions.
- 2) Describe your experience working with exterior public art installations.
- 3) Describe your experience with custom steel installation and/or ribbed glass installation.
- 4) Describe your proposed approach and methodology, including staffing, schedule and sequencing for performance of the Project.
- 5) Describe any training and/or other instructional material your firm will provide to BPCA staff.
- 6) List each key member of the team you intend to assign to this engagement and include for each listed individual: (a) area(s) of specialization; (b) title and/or position within your firm; (c) the services to be performed.
- 7) Identify the person who will be the lead project manager (the "Lead PM") and primary contact in providing services to BPCA, and any other persons who will be listed as a "key person" in any contract with BPCA.

- 8) Identify any subcontractors you intend to use for this engagement, and describe the services to be performed by each subcontractor.
- 9) Describe your proposed team's experience with similar work for other public entities, with an emphasis on New York State public entities.
- 10) Clearly identify any information in your Proposal that you believe to be confidential and exempt from FOIL, and state the reasons. Please note that this question is for informational purposes only, and BPCA will determine whether information or materials are exempt from disclosure under FOIL within its sole discretion.
- 11) Identify any and all exceptions taken to BPCA's standard form of contract, attached as Exhibit C, explaining the reasons for such exceptions. Such exceptions must be detailed in an appendix to your Proposal labeled, "Appendix: Objections to BPCA Form of Contract." No exceptions to the Contract will be considered by BPCA after submission of the Proposals. BPCA maintains the right to reject Proposals based on non-conformance with the standard form of Contract.
- 12) Provide at least (3) client references for whom your firm has performed similar work to that requested in this RFP. For each client, describe the project, the project's date, and services performed, and provide the name, address, and telephone number for a person at client's firm familiar with your firm's work.

B. Questions and Information Sought Relating to Proposer's Firm & Eligibility

- 13) Within the past three (3) years, have there been any significant developments in your firm such as changes in ownership or restructuring? Do you anticipate any significant changes in the near future? If so, please describe.
- 14) How does your firm identify and manage conflicts of interest?
- 15) Are there any potential conflict of interest issues posed by your firm's performance of the Work on behalf of BPCA?
- 16) Has your firm or have any of the firm's partners/employees been disciplined or censured by any regulatory body within the last five (5) years? If so, please describe the relevant facts and disposition.
- 17) Within the last five (5) years, has your firm, or a partner or employee in your firm, been involved in litigation or other legal proceedings relating to the provision of professional services? If so, please provide an explanation and the current status or disposition of the matter.
- 18) List any professional or personal relationships your firm's Employee's may have with BPCA's Board Members and/or employees. A list of BPCA Board Members and employees is attached as Exhibit E.
- 19) If selected, will your firm assign any person to this engagement who was previously an employee of BPCA or BPCPC? If so, please: i) identify when (month and year) that person's employment at BPCA/BPCPC terminated, and ii) describe that person's involvement, if any, with matters related to this RFP during his/her employment at BPCA/BPCPC.

- 20) In the past five (5) years, have any public sector clients terminated their working relationship with your firm? If so, please provide a brief statement of the reasons. Provide the name of the client and provide a contact person, address and telephone number.

C. Required Attachments

1) Mandatory Forms:

Each Proposal must include a completed copy of all “Mandatory Forms” found at: <http://bpca.ny.gov/wp-content/uploads/2015/03/Vendor-ResponsibilityQuestionnaire.pdf>. The Mandatory Forms include the following:

- a) NYS Standard Vendor Responsibility Questionnaire, notarized and signed by the individual(s) authorized to contractually bind the Proposer, indicating the signer’s title/position within the firm.*
- b) State Finance Law § 139 Form 1, signed by the individual(s) authorized to contractually bind the Proposer.*
- c) W-9 form.
- d) Statement of Non-Collusion.
- e) MBE/WBE/SDVOB Utilization Plans. Please note that all such plans must be submitted even if Proposer is a MBE/WBE/SDVOB.

*In addition to the copy required to be included in each bound Proposal, Proposers must additionally provide one (1) unbound, completed original, with ink signatures, of the NYS Standard Vendor Responsibility Questionnaire and SFL 139 Form 1.

- 2) Response to the question regarding the use of New York State businesses set forth in Section XII.
- 3) Completed MBE/WBE and EEO Policy Statement and Diversity Practices Questionnaire (attached as part of Exhibit B).
- 4) Financial Statements:

Provide a copy of your firm’s most recent Audited Financial Statements (within the last year). In the event you do not have audited financials you must provide a statement to that effect with your proposal, and summary financial information for the calendar year most recently ended.

5) Acknowledgement of Addenda:

Attach a completed and signed Acknowledgement of Addenda Form, attached as Exhibit D, acknowledging receipt of all addenda to this RFP, if any, issued by BPCA before the Due Date. Addenda are posted by BPCA as necessary and can be found on the BPCA website at www.bpca.ny.gov. It is the responsibility of each Proposer to check the BPCA website for addenda and to review addenda prior to submitting any proposal in response to this RFP.

6) Appendices:

- a) Attach professional biographies for all employees identified in your Proposal.
- b) Attach a project schedule, bar chart showing dates from commencement to final completion of all Work.

VII. INSURANCE AND BONDING REQUIREMENTS

A. *General Requirements*

The total cost of the required insurance listed in paragraphs 2) and 3) below, must be incorporated into the Cost Proposal. The additional insured protection afforded BPCA, BPCPC, and the State of New York must be on a primary and non-contributory basis. All policies must include a waiver of subrogation in favor of BPCA, BPCPC, and the State of New York, no policies may contain any limitations / exclusions for New York Labor Law claims, and cross liability coverage must be provided for BPCA, BPCPC, and the State of New York.

All of the carriers that provide the below required insurance must be rated "A-VII" or better by A.M. Best and must provide direct written notice of cancellation or non-renewal to BPCA, BPCPC, and the State of New York at least 30 days before such cancellation or non-renewal is effective, except for cancellations due to non-payment of premium, in which case 10 days written notice is acceptable.

B. *Insurance Requirements for the Selected Proposer*

The selected Proposer will be required to obtain and provide proof of the types and amounts of insurance listed below prior to the award of the Contract. The insurance policies listed below must also conform to the applicable terms of the Contract, as shown in BPCA's sample form of contract attached as Exhibit C.

- **Commercial General Liability Insurance**, written on ISO Form CG 00 01 or its equivalent and with no modification to the contractual liability coverage provided therein, shall be provided on an occurrence basis and limits shall not be less than:
 - \$1,000,000 per occurrence
 - \$2,000,000 general aggregate which must apply on a per location / per project basis
 - \$2,000,000 products/completed operations aggregate

BPCA, BPCPC, and the State of New York must be protected as additional insureds on ISO Form CG 2010 (11/85) or its equivalent on policies held by the selected Proposer and any of its subcontractors. Should the Proposer's work include construction activities of any kind then the Proposer must maintain Products / Completed Operations coverage for no less than three years after the construction work is completed, and continue to include Additional Insured protection for BPCA, BPCPC & The State of New York for the prescribed timeframe. When providing evidence of insurance the Proposer must include a completed Acord 855 NY form.

- **Automobile Liability Insurance** with a combined single limit of not less than \$1,000,000. Coverage must apply to the Proposer's owned, hired, and non-owned vehicles and protect BPCA, BPCPC, and the State of New York as additional insured.

- **Workers' Compensation, Employer's Liability, and Disability Benefits** shall not be less than statutory limits, including United States Longshore and Harbor Workers Act coverage as applicable to the operations of the Proposer.
- **Umbrella Liability Insurance** at a limit not less than \$5,000,000 per occurrence and in the aggregate. BPCA, BPCPC, and the State of New York must be protected as additional insureds on policies held by the selected Proposer and any of its subcontractors.
- **Builder's Risk / Installation Floater Insurance** in an amount not less than 100% of the full contract price. Coverage must be written on ISO Special Form CP 10 30 04 02 or its equivalent on a completed value non-reporting basis and provide coverage for the Proposer, all subcontractors, BPCA, BPCPC, and the State of New York. Coverage must apply to property while on site, off site, and in transit, include an agreed amount provision which eliminates any coinsurance provision, and include BPCA as a loss payee. Coverage must include the insurable interests of all subcontractors retained by the Proposer.

C. Insurance Requirements for all Subcontractors

Any subcontractor(s) utilized by the selected Proposer will be required to obtain the types and amounts of insurance listed below: (i) as a condition of commencing any Work; and (ii) continuing throughout the duration of the subcontractor's Work. The insurance policies listed below must also conform to the applicable terms of the Contract, as shown in BPCA's sample form of contract attached as Exhibit C.

- **Commercial General Liability Insurance**, written on ISO Form CG 00 01 or its equivalent and with no modification to the contractual liability coverage provided therein, shall be provided on an occurrence basis and limits shall not be less than:
 - \$1,000,000 per occurrence
 - \$2,000,000 general aggregate which must apply on a per location / per project basis
 - \$2,000,000 products/completed operations aggregate

BPCA, BPCPC, and the State of New York must be protected as additional insureds on ISO Form CG 2010 (11/85) or its equivalent on policies held by all subcontractors. Should the subcontractor's work include construction activities of any kind then the subcontractor must maintain Products / Completed Operations coverage for no less than three years after the construction work is completed and continue to include Additional Insured protection for BPCA, BPCPC & The State of New York for the prescribed timeframe. When providing evidence of insurance the subcontractor must include a completed Acord 855 NY form.

- **Automobile Liability Insurance** with a combined single limit of not less than \$1,000,000. Coverage must apply to the subcontractor's owned, hired, and non-owned vehicles and protect BPCA, BPCPC, and the State of New York as additional insured.
- **Workers' Compensation, Employer's Liability, and Disability Benefits** shall not be less than statutory limits, including United States Longshore and Harbor Workers Act coverage as applicable to the operations of the subcontractor.
- **Subcontractors will also be required to obtain all other insurances listed in Section (2) unless otherwise approved in writing by BPCA prior to commencement of any Subcontractor's work.**

D. Bonding:

Provide a letter from surety(ies) stating that the Proposer is able to provide a payment and performance bond as required in the standard form of contract set forth in Exhibit C.

VIII. COST PROPOSAL; FORMAT AND REQUIRED INCLUSIONS

Each Cost Proposal must state a lump-sum amount for the completion of the Work, with an itemized Schedule of Values for all services contemplated to be provided. To submit a complete Cost Proposal, Proposer must complete each of the following:

- 1) Cost Proposal in the form attached hereto as Exhibit F ("Form of Cost Proposal"),
- 2) Schedule of Values in the form attached hereto as Exhibit G; and
- 3) Labor Rates in the form attached hereto as Exhibit H ("Form of Labor Rates").

The Cost Proposal must be submitted in its own separate, sealed envelope within the sealed package containing all other Proposal documents. Please provide six (6) copies of the Cost Proposal.

IX. SELECTION PROCESS

A. Evaluation

Each timely submitted Proposal will be reviewed for compliance with the form and content requirements of this RFP. A committee of BPCA employees selected by BPCA (the "Committee") will then review and evaluate the Proposals in accordance with the evaluation criteria set forth below. While only Committee members will score the evaluation criteria, the Committee may consult an outside expert for advisement on the evaluation of matters requiring technical expertise. Before final selection, BPCA must determine that the proposed selected Proposer is responsible, in accordance with applicable law and BPCA's Procurement Guidelines, which may be viewed at: <http://bpca.ny.gov/public-information/>.

B. Interviews

BPCA reserves the right to decide whether to interview any or all of the Proposers. The Committee may conduct interviews for many reasons, including to further assess a Proposer's ability to perform the Work or provide specific services, or to seek information related to any other evaluation criteria. The proposed Lead PM, as well all other key personnel proposed to perform the Work, must be available to participate in the interview.

C. Evaluation Criteria for Selection

Selection will be based upon the following criteria:

- 1) Technical Evaluation:
 - Expertise in & experience with exterior electrical & lighting work, including LED conversions: 25%
 - Experience with public art restoration, including custom steel & ribbed glass installation: . 25%
 - Quality, expertise and experience of Project personnel, including subcontractors: 20%

- Overall approach to work, sequencing & schedule: 20%
- Response to Diversity Practices Questionnaire: 10%

2) Cost Proposal evaluation.

D. Basis for Contract Award

The Contract will be awarded to the highest technically rated Proposer whose Proposal is determined to be responsive and in the best interests of BPCA, subject to a determination that the Cost Proposal is fair, reasonable, and provides the best value to BPCA given the requirements of the project.

X. NON-COLLUSION

By submitting a Proposal, each Proposer warrants and represents that any ensuing Contract has not been solicited or secured directly or indirectly in a manner contrary to the laws of the State of New York, and that said laws have not been violated and shall not be violated as they relate to the procurement or the performance of the Contract by any conduct, including the paying or giving of any fee, commission, compensation, gift, or gratuity or consideration of any kind, directly or indirectly, to any member of the board of directors, employee, officer or official of BPCA.

XI. IRAN DIVESTMENT ACT

By submitting a Proposal or by assuming the responsibility of any Contract awarded hereunder, each Proposer certifies that it is not on the “Entities Determined To Be Non-Responsive Bidders/Offerers Pursuant to The New York State Iran Divestment Act of 2012” list (“Prohibited Entities List”) posted on the New York State Office of General Services website at: <http://www.ogs.ny.gov/about/regs/docs/ListofEntities.pdf> and further certifies that it will not utilize any subcontractor/consultant that is identified on the Prohibited Entities List on this Contract. The selected Proposer agrees that should it seek to renew or extend any Contract awarded hereunder, it must provide the same certification at the time the Contract is renewed or extended. The selected Proposer also agrees that any proposed assignee of the Contract will be required to certify that it is not on the Prohibited Entities List before BPCA may approve a request for assignment of the Contract.

During the term of any Contract awarded hereunder, should BPCA receive information that a person (as defined in State Finance Law §165-a) is in violation of the above-referenced certifications, BPCA will review such information and offer the person an opportunity to respond. If the person fails to demonstrate that it has ceased its engagement in the investment activity which is in violation of the New York State Iran Divestment Act of 2012 within 90 days after the determination of such violation, then BPCA shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, seeking compliance, recovering damages, or declaring the selected Proposer in default of the awarded Contract.

BPCA reserves the right to reject any request for renewal, extension, or assignment for an entity that appears on the Prohibited Entities List prior to the renewal, extension, or assignment of the Contract, and to pursue a responsibility review with the selected Proposer should it appear on the Prohibited Entities List hereafter.

XII. ENCOURAGING USE OF NEW YORK STATE BUSINESSES IN CONTRACT PERFORMANCE

New York State businesses have a substantial presence in State contracts and strongly contribute to the economies of the state and the nation. In recognition of their economic activity and leadership in doing business in New York State, Proposers for this Contract for commodities, services or technology are strongly

encouraged and expected to consider New York State businesses in the fulfillment of the requirements of the Contract. Such partnering may be as subcontractors, suppliers, protégés or other supporting roles.

Proposers are strongly encouraged, to the maximum extent practical and consistent with legal requirements, to use responsible and responsive New York State businesses in purchasing commodities that are of equal quality and functionality and in utilizing services and technology. Furthermore, Proposers are reminded that they must continue to utilize small, minority and women-owned businesses, consistent with current State law.

Utilizing New York State businesses in State contracts will help create more private sector jobs, rebuild New York's infrastructure, and maximize economic activity to the mutual benefit of the contractor and its New York State business partners. New York State businesses will promote the contractor's optimal performance under the Contract, thereby fully benefiting the public sector programs that are supported by associated procurements.

Public procurements can drive and improve the State's economic engine through promotion of the use of New York businesses by its contractors. The State therefore expects bidders/proposers to provide maximum assistance to New York businesses in their contracts. The potential participation by all kinds of New York businesses will deliver great value to the State and its taxpayers.

Proposers can demonstrate their commitment to the use of New York State businesses by responding to the question below. Each proposer must include a response to this question with their proposal. Please note that a "yes" response requires supporting information. If yes, identify New York State businesses that will be used and attach identifying information.

Will New York State businesses be used in the performance of this contract? ☐ Yes ☐ No

EXHIBIT A

Scope of Work

SITE-SPECIFIC ART (BELVEDERE PYLONS AND GLASS BENCHES) – RESTORATION AND LED LIGHTING CONVERSION SCOPE OF WORK

The Site-Specific Art (Belvedere Pylons and Glass Benches) – Restoration and LED Lighting Conversion Project (the “Project”) is a two-component project, including (1) the replacement of LED lights in and restoration of the glass benches located south of the Irish Hunger Memorial (the “Bench Restoration Work”) and (2) the LED lighting conversion and restoration of the Belvedere Plaza Pylons, a public art installation located north of the North Marina (the “Pylon Work”). Both Project components (collectively, the “Work”) may be performed concurrently, subject to BPCA’s approval of the Project Schedule. There is minimal laydown area for material storage.

Prior to beginning the Work, the selected Proposer shall perform an on-site survey of each Work site, verifying all relevant identifying information for each element, including, but not limited to, structural and electrical components and dimensions, component locations, as well as any noted inconsistencies with existing conditions as depicted in the drawings and specifications (the “Construction Documents”).

I. Bench Restoration Work

The purpose of the Bench Restoration Work is to replace the existing LED lighting system, repair all damaged areas of the glass benches, and permanently remove two (2) existing benches at the location(s) depicted in the Construction Documents.

a) Bench Removal:

The selected Proposer shall, in accordance with the Construction Documents:

- Disassemble and remove all benches, which consist of glass panels, stainless steel, light fixtures and drivers.
- Dispose of all stainless steel kick plates, lighting fixtures and drivers.
- Following disassembly of the benches, carefully label and safely store in a location provided by the selected Proposer and approved by BPCA all materials that are to be reinstalled so that they may be reassembled in the same configuration.
- Thoroughly clean the area within the remaining bench footprint so that all dirt, dust and miscellaneous debris are removed.
- For Bench I and J, deliver stainless steel ribs and glass to the Battery Park City Parks storage facility located at 141 Beard Street, Brooklyn NY 11231, (Building #15) except that one section of either Bench I or J shall be used as replacement material for the repair of Bench E.
- Cap all electrical wiring for Benches I & J.

b) LED Lighting and Bench Installation:

The selected Proposer shall, in accordance with the Construction Documents:

- Thoroughly clean all existing materials to be reused prior to reinstallation.
- Prior to the installation of new LED drivers, test all power lines to confirm the voltage of the power source.
- Install new LED light strips, including all luminaires and drivers, as per manufacturer's specifications.
- For Benches A-H; reinstall all glass panels and stainless steel pieces in the original locations. Supply and install all new kick plates.
- For the locations of removed Benches I & J, install anchors and rebar; form and pour concrete as shown in Construction Documents.
- For the location of removed Bench I, install new cast stone cladding panels to match existing and extend green roof system over new construction.

II. Pylon Work

The purpose of the Pylon Work is to replace the existing light fixture components of and restore the Belvedere Plaza Pylons. There are two pylons in the Plaza: one is an "open" style throughout (the "Open Pylon"), and the other is a "closed" style throughout (the "Closed Pylon").

a) Open Pylon

The Open Pylon has six platforms which contain lighting fixtures. The lowest platform has been previously retrofitted, and is not included in the Project Work. The five remaining lighting platforms are included in the Pylon Work as described below and as further specified in the Construction Documents. For this portion of the Pylon Work, the selected Proposer shall, in accordance with the Construction Documents:

- Remove existing light fixtures and 12/3 SJ Wiring.
- Install new 12/3 SJ Cable.
- Replace existing in-line fuse holders with new AGC Waterproof Fuse Holder (18-12 gauge – Part # 79005 or approved equal).
- Splice all circuit wiring utilizing Ideal Underground wire connectors or approved equal.
- Retrofit Global Tech LED 135w Screw in LED Retrofit Kit (Catalog # GTR-AR-5498-HO-SV-BR-NL-SOLY-MGL).
- Replace existing frosted lens in kind.
- Install a Bundy Power Block Distribution (Catalog # BDCSCHC142/01 or an approved equal), at each location, utilizing Penetrox or similar protection compound on all terminations.

- Ensure that all hardware installed under this Project is stainless steel.

The top two fixture platforms do not have existing openings large enough to accommodate new fixtures. The selected Proposer shall cut the existing weld at the second fixture elevation from top and remove any structural ties to the lower structure. After the proposed electrical work is complete, the selected Proposer shall weld the two components back together. Welds shall be smooth to give appearance that the structure has not been altered.

b) Closed Pylon

With respect to the Closed Pylon, the selected Proposer shall, in accordance with the Construction Documents:

- Remove and discard existing fixtures, drivers, ballasts, and wiring.
- Install new 12/3 SJ cable, fed through the recessed junction box at the base of the Closed Pylon.
- Splice all circuit wiring utilizing Ideal Underground wire connectors or approved equal.
- Replace existing in-line fuse holders with new AGC Waterproof Fuse Holder (18-12 gauge – Part # 79005 or approved equal).
- Retrofit with RAB compact 5w LED Floodlights (Catalog # LFLED5NA (Neutral Light 4000K) along with /accessory Reflector Kits – Catalog # RAB-LNSLFLED8A (Narrow Spot Kit)).
- Install a Bundy Power Block Distribution (Catalog # BDCSCHC142/01 or an approved equal) at each location, utilizing Penetrox or similar protection compound on all terminations.
- Ensure that all hardware installed under this Project is stainless steel.

The selected Proposer shall repair each in-scope platform, as indicated in the Construction Documents. All installation and repair work shall adhere to the Construction Documents and all relevant manufacturers' specifications, recommendations, and standards.

EXHIBIT B

CONTRACTOR REQUIREMENTS AND PROCEDURES FOR PARTICIPATION BY NEW YORK STATE-CERTIFIED MBEs/WBEs/SDVOBs AND EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITY GROUP MEMBERS AND WOMEN

NEW YORK STATE LAW

Pursuant to New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations BPCA is required to promote opportunities for the maximum feasible participation of New York State-certified MBEs/WBEs (collectively, “MWBE(s)”) and the employment of minority group members and women in the performance of BPCA contracts. Pursuant to New York State Executive Law Article 17-B and 9 NYCRR §252, BPCA recognizes its obligation under the law to promote opportunities for maximum feasible participation of certified SDVOBs.

Business Participation Opportunities for MWBEs

For purposes of this solicitation, BPCA hereby establishes the following MWBE participation goals, based on the current availability of MWBEs:

Overall goal for total MWBE participation: **30%**

NYS-Certified Minority-Owned Business (“MBE”) Participation: **15%**

NYS-Certified Women-Owned Business (“WBE”) Participation: **15%**

A contractor (“Contractor”) on any contract resulting from this procurement (“Contract”) must document its good faith efforts to provide meaningful participation by MWBEs as subcontractors and suppliers in the performance of the Contract. To that end, by submitting a response to this RFP, the Proposer agrees that BPCA may withhold payment pursuant to any Contract awarded as a result of this RFP pending receipt of the required MWBE documentation. The directory of MWBEs can be viewed at: <https://ny.newnycontracts.com>. For guidance on how BPCA will evaluate a Contractor’s “good faith efforts,” refer to 5 NYCRR § 142.8.

The Proposer understands that only sums paid to MWBEs for the performance of a commercially useful function, as that term is defined in 5 NYCRR § 140.1, may be applied towards the achievement of the applicable MWBE participation goal. The portion of a contract with an MWBE serving as a supplier that shall be deemed to represent the commercially useful function performed by the MWBE shall be 60 percent of the total value of the contract. The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be the monetary value for fees, or the markup percentage, charged by the MWBE.

In accordance with 5 NYCRR § 142.13, the Proposer further acknowledges that if it is found to have willfully and intentionally failed to comply with the MWBE participation goals set forth in a Contract resulting from this RFP, such finding constitutes a breach of contract and BPCA may withhold payment as liquidated damages.

Such liquidated damages shall be calculated as an amount equaling the difference between: (1) all sums identified for payment to MWBEs had the Contractor achieved the contractual MWBE goals; and (2) all sums actually paid to MWBEs for work performed or materials supplied under the Contract.

By submitting a bid or proposal, a Proposer agrees to demonstrate its good faith efforts to achieve the applicable MWBE participation goals by submitting evidence thereof through the New York State Contract System (“NYSCS”), which can be viewed at <https://ny.newnycontracts.com>, provided, however, that a Proposer may arrange to provide such evidence via a non-electronic method by contacting Mr. Anthony Peterson at Anthony.peterson@bpca.ny.gov

or 212-417-2337. Please note that the NYSCS is a one-stop solution for all of your MBE/WBE and Article 15-A contract requirements. For additional information on the use of the NYSCS to meet the Proposer's MBE/WBE requirements, please see the attached MBE/WBE guidance from the New York State Division of Minority and Women's Business Development, "Your MWBE Utilization and Reporting Responsibilities Under Article 15-A."

Additionally, a Proposer will be required to submit the following documents and information as evidence of compliance with the foregoing:

- A. An MWBE Utilization Plan with their bid or proposal. Any modifications or changes to an accepted MWBE Utilization Plan after the Contract award and during the term of the Contract must be reported on a revised MWBE Utilization Plan and submitted to BPCA for review and approval.
- B. BPCA will review the submitted MWBE Utilization Plan and advise the Proposer of BPCA acceptance or issue a notice of deficiency within 30 days of receipt.
- C. If a notice of deficiency is issued, the Proposer will be required to respond to the notice of deficiency within seven (7) business days of receipt by submitting to Mr. Anthony Peterson at BPCA, by email at Anthony.peterson@bpca.ny.gov, a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by BPCA to be inadequate, BPCA shall notify the Proposer and direct the Proposer to submit, within five (5) business days, a request for a partial or total waiver of MWBE participation goals. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or proposal.
- D. BPCA may disqualify a Proposer as being non-responsive under the following circumstances:
 - 1) If a Proposer fails to submit an MWBE Utilization Plan;
 - 2) If a Proposer fails to submit a written remedy to a notice of deficiency;
 - 3) If a Proposer fails to submit a request for waiver; or
 - 4) If BPCA determines that the Proposer has failed to document good faith efforts.

The successful Proposer will be required to attempt to utilize, in good faith, any MBE or WBE identified within its MWBE Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to Contract Award may be made at any time during the term of the Contract to BPCA, but must be made no later than prior to the submission of a request for final payment on the Contract.

The successful Proposer will be required to submit a quarterly M/WBE Contractor Compliance & Payment Report to BPCA, by the 10th day following each end of quarter over the term of the Contract documenting the progress made toward achievement of the MWBE goals of the Contract.

Business Participation Opportunities for SDVOBs

For purposes of this solicitation, BPCA hereby establishes an overall goal of 6% for SDVOB participation. A Proposer must document good faith efforts to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract and Proposer agrees that BPCA may withhold payment pending receipt of the required SDVOB documentation. The directory of New York State Certified SDVOBs can be viewed at: http://www.ogs.ny.gov/Core/docs/CertifiedNYS_SDVOB.pdf. For guidance on how BPCA will determine a Contractor's "good faith efforts," refer to 9 NYCRR §252.2(f)(2).

In accordance with 9 NYCRR §252.2(s), the Proposer acknowledges that if it is found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in the Contract, such finding constitutes a breach of Contract and Contractor shall be liable for damages as specified in the Contract.

Such damages shall be calculated based on the actual cost incurred by BPCA related to BPCA's expenses for personnel, supplies and overhead related to establishing, monitoring and reviewing certified SDVOB programmatic goals.

- A. Additionally, a Proposer agrees to submit a Utilization Plan with their bid or Proposal as evidence of compliance with the foregoing. Any modifications or changes to the Utilization Plan after the Contract award and during the term of the Contract must be reported on a revised Utilization Plan and submitted to BPCA.
- B. BPCA will review the submitted Utilization Plan and advise the Proposer of BPCA's acceptance or issue a notice of deficiency within 30 days of receipt.
- C. If a notice of deficiency is issued, Proposer agrees that it shall respond to the notice of deficiency within seven (7) business days of receipt by submitting to Mr. Anthony Peterson at BPCA, by email at Anthony.peterson@bpca.ny.gov, a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by BPCA to be inadequate, BPCA shall notify the Proposer and direct the Proposer to submit, within five (5) business days, a request for a partial or total waiver of SDVOB participation goals. Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or Proposal.
- D. BPCA may disqualify a Proposer as being non-responsive under the following circumstances:
 - 1) If a Proposer fails to submit a Utilization Plan;
 - 2) If a Proposer fails to submit a written remedy to a notice of deficiency;
 - 3) If a Proposer fails to submit a request for waiver; or
 - 4) If BPCA determines that the Proposer has failed to document good faith efforts.

The successful Proposer shall attempt to utilize, in good faith, any SDVOB identified within its Utilization Plan, during the performance of the Contract. Requests for a partial or total waiver of established goal requirements made subsequent to the Contract award may be made at any time during the term of the Contract to BPCA, but must be made no later than prior to the submission of a request for final payment on the Contract.

The successful Proposer is required to submit a Contractor's SDVOB Contractor Compliance & Payment Report to BPCA on a monthly basis over the term of the Contract documenting the progress made toward achievement of the SDVOB goals of the Contract.

Equal Employment Opportunity Requirements

By submission of a bid or proposal in response to this solicitation, the Proposer agrees with all of the terms and conditions of the attached MWBE Equal Employment Opportunity Policy Statement. The Proposer is required to ensure that it and any subcontractors awarded a subcontract for the construction, demolition, replacement, major repair, renovation, planning or design of real property and improvements thereon (the "Work"), except where the Work is for the beneficial use of the Proposer, undertake or continue programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, equal opportunity shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, termination, and rates of pay or other forms of compensation. This requirement does not apply to: (i) work, goods, or services unrelated to the Contract; or (ii) employment outside New York State.

The Proposer will be required to submit a Minority and Women-owned Business Enterprise and Equal Employment Opportunity Policy Statement, Form # 4, to BPCA with its bid or proposal.

If awarded a Contract, Proposer shall submit a Workforce Utilization Report and shall require each of its Subcontractors to submit a Workforce Utilization Report, in such format as shall be required by BPCA on a monthly basis during the term of the Contract.

Pursuant to Executive Order #162, contractors and subcontractors will also be required to report the gross wages paid to each of their employees for the work performed by such employees on the contract utilizing the Workforce Utilization Report on a quarterly basis.

Further, pursuant to Article 15 of the Executive Law (the "Human Rights Law"), all other State and Federal statutory and constitutional non-discrimination provisions, the Contractor and sub-contractors will not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

Please Note: Failure to comply with the foregoing requirements may result in a finding of non-responsiveness, non-responsibility and/or a breach of the Contract, leading to the withholding of funds, suspension or termination of the Contract or such other actions or enforcement proceedings as allowed by the Contract.



Your MBE/WBE Utilization and Reporting Responsibilities Under Article 15-A

The New York State Contract System (“NYSCS”) is your one stop tool compliance with New York State’s MBE/WBE Program. It is also the platform New York State uses to monitor state contracts and MBE/WBE participation.

GETTING STARTED

To access the system, please login or create a user name and password at <https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=7562>. If you are uncertain whether you already have an account set up or still need to register, please send an email to the customer service contact listed on the Contact Us & Support page, or reach out to Mr. Anthony Peterson at Anthony.peterson@bpca.ny.gov or 212-417-2337. For verification, in the email, include your business name and contact information.

VENDOR RESPONSIBILITIES

As a vendor conducting business with New York State, you have a responsibility to utilize minority- and/or women-owned businesses in the execution of your contracts, per the MBE/WBE percentage goals stated in your solicitation, incentive proposal or contract documents. NYSCS is the tool that New York State uses to monitor MBE/WBE participation in state contracting. Through the NYSCS you will submit utilization plans, request subcontractors, record payments to subcontractors, and communicate with your project manager throughout the life of your awarded contracts.

There are several reference materials available to assist you in this process, but to access them, you need to first be registered within the NYSCS. Once you log onto the website, click on the **Help & Support** >> link on the lower left hand corner of the Menu Bar to find recorded trainings and manuals on all features of the NYSCS. You may also click on the **Help & Tools** icon at the top right of your screen to find videos tailored to primes and subcontractors. There are also opportunities available to join live trainings, read up on the “Knowledge Base” through the Forum link, and submit feedback to help improve future enhancements to the system. Technical assistance is always available through the **Contact Us & Support** link on the NYSCS website (<https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp?TN=ny&XID=7562>).

For more information, contact Mr. Anthony Peterson at Anthony.peterson@bpca.ny.gov or 212-417-2337.

MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISES

EQUAL EMPLOYMENT OPPORTUNITY POLICY STATEMENT

MBE/WBE AND EEO POLICY STATEMENT

I, _____ (the "Contractor"), agree to adopt the following policies with respect to the project being developed at, or services rendered to, the Battery Park City Authority ("BPCA").

MBE/WBE

This organization will and will cause its contractors and subcontractors to take good faith actions to achieve the MBE/WBE contract participations goals set by the State for that area in which the State-funded project is located, by taking the following steps:

- (1) Actively and affirmatively soliciting bids for contracts and subcontracts from qualified State certified MBEs or WBEs, including solicitations to MBE/WBE contractor associations.
- (2) Requesting a list of State-certified MBEs/WBEs from BPCA and soliciting bids from these MBEs/WBEs directly.
- (3) Ensuring that plans, specifications, request for proposals and other documents used to secure bids will be made available in sufficient time for review by prospective MBEs/WBEs.
- (4) Where feasible, dividing the work into smaller portions to enhance participations by MBEs/WBEs and encourage the formation of joint venture and other partnerships among MBE/WBE contractors to enhance their participation.
- (5) Documenting and maintaining records of bid solicitation, including those to MBEs/WBEs and the results thereof. The Contractor will also maintain records of actions that its subcontractors have taken toward meeting MBE/WBE contract participation goals.
- (6) Ensuring that progress payments to MBEs/WBEs are made on a timely basis so that undue financial hardship is avoided, and that bonding and other credit requirements are waived or appropriate alternatives are developed to encourage MBE/WBE participation.

EEO

(a) This organization will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability or marital status, will undertake or continue existing diversity programs to ensure that minority group members are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force on State contracts.

- (b) This organization shall state in all solicitation or advertisements for employees that in the performance of the State contract all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex disability or marital status.
- (c) At the request of BPCA, this organization shall request that each employment agency, labor union, or authorized representative will not discriminate on the basis of race, creed, color, national origin, sex, age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of this organization's obligations herein.
- (d) The Contractor shall comply with the provisions of the Human Rights Law, all other State and Federal statutory and constitutional non-discrimination provisions. The Contractor and subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.
- (e) This organization will include the provisions of sections (a) through (d) of this agreement in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each subcontractor as to work in connection with the State contract.

Battery Park City Authority Request For Proposals

Agreed to this _____ day of _____, 2016

By _____

Print: _____ Title: _____

_____ is designated as the Consultant's Minority Business Enterprise Liaison responsible for administering the Minority and Women-Owned Business Enterprises - Equal Employment Opportunity (MBE/WBE - EEO) program.

MBE/WBE Contract Goals

30% Minority and Women's Business Enterprise Participation

____% Minority Business Enterprise Participation

____% Women's Business Enterprise Participation

EEO Contract Goals (if applicable)

____% Minority Labor Force Participation

____% Female Labor Force Participation

(Authorized Representative)

Title: _____

Date: _____

Diversity Practices Questionnaire

I, _____, as _____ (title) of _____ company (the "Company"), swear and/or affirm under penalty of perjury that the answers submitted to the following questions are complete and accurate to the best of my knowledge:

1. Does your Company have a Chief Diversity Officer or other individual who is tasked with supplier diversity initiatives? Yes or No

If Yes, provide the name, title, description of duties, and evidence of initiatives performed by this individual or individuals.

2. What percentage of your Company's gross revenues (from your prior fiscal year) was paid to New York State certified MBEs/WBEs as subcontractors, suppliers, joint-ventures, partners or other similar arrangement for the provision of goods or services to your Company's clients or customers?

3. What percentage of your Company's overhead (i.e. those expenditures that are not directly related to the provision of goods or services to your Company's clients or customers) or non-contract-related expenses (from your prior fiscal year) was paid to New York State certified MBEs/WBEs as suppliers/contractors?¹

4. Does your Company provide technical training² to MBEs/WBEs? Yes or No

If Yes, provide a description of such training which should include, but not be limited to, the date the program was initiated, the names and the number of MBEs/WBEs participating in such training, the number of years such training has been offered and the number of hours per year for which such training occurs.

5. Is your Company participating in a government approved M/WBE mentor-protégé program?

If Yes, identify the governmental mentoring program in which your Company participates and provide evidence demonstrating the extent of your Company's commitment to the governmental mentoring program.

6. Does your Company include specific quantitative goals for the utilization of MBEs/WBEs in its non-government procurements? Yes or No

If Yes, provide a description of such non-government procurements (including time period, goal, scope and dollar amount) and indicate the percentage of the goals that were attained.

7. Does your Company have a formal M/WBE supplier diversity program? Yes or No

If Yes, provide documentation of program activities and a copy of policy or program materials.

8. Does your Company plan to enter into partnering or subcontracting agreements with New York State certified MBEs/WBEs if selected as the successful Proposer? Yes or No

If Yes, complete the attached Utilization Plan

¹ Do not include onsite project overhead.

² Technical training is the process of teaching employees how to more accurately and thoroughly perform the technical components of their jobs. Training can include technology applications, products, sales and service tactics, and more. Technical skills are job-specific as opposed to soft skills, which are transferable.

Battery Park City Authority Request For Proposals

All information provided in connection with the Diversity Practices Questionnaire is subject to audit and any fraudulent statements are subject to criminal prosecution and debarment.

Signature of
Owner/Official
Printed Name of
Signatory
Title

Name of Business

Address

City, State, Zip

STATE OF _____

COUNTY OF _____) ss:

On the _____ day of _____, 20____, before me, the undersigned, a Notary Public in and for the State of _____, personally appeared _____, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to this certification and said person executed this instrument.

Notary Public

EXHIBIT C

(BPCA Sample Form of Contract)

CONSTRUCTION AGREEMENT

between

HUGH L. CAREY BATTERY PARK CITY AUTHORITY

and

[NAME OF COMPANY, INC. CORP, CO.]

Dated as of **[DATE]**

Contract No. **[ENTER CONTRACT NUMBER]**

(PROJECT NAME)

TABLE OF CONTENTS

Contents

ARTICLE 1 - DEFINITIONS	1
ARTICLE 2 - SCOPE OF WORK, MATERIALS AND LABOR	4
2.1 <i>DEFINITION OF WORK</i>	4
2.2 <i>CONTRACT DOCUMENTS</i>	4
2.3 <i>INTENT OF CONTRACT DOCUMENTS</i>	4
2.4 <i>COMPLETION OF DRAWINGS AND SPECIFICATIONS</i>	6
2.5 <i>TITLE TO MATERIALS</i>	6
2.6 <i>CONTRACTOR'S OBLIGATIONS</i>	6
2.7 <i>"OR EQUAL" CLAUSE</i>	7
2.8 <i>QUALITY AND LABELING</i>	8
ARTICLE 3 - COMMENCEMENT AND COMPLETION OF THE WORK	9
3.1 <i>COMMENCEMENT, COMPLETION AND PROGRESS SCHEDULE</i>	9
3.2 <i>COORDINATION WITH OTHER CONTRACTORS</i>	11
3.3 <i>NOTICE OF DELAY</i>	11
3.4 <i>EXTENSION OF TIME</i>	12
ARTICLE 4 - CONTRACT PRICE	12
ARTICLE 5 - METHOD, SCHEDULE AND TERMS OF PAYMENTS	13
5.1 <i>PARTIAL PAYMENT</i>	13
5.2 <i>REQUISITIONS</i>	13
5.3 <i>TRADE PAYMENT BREAKDOWN</i>	13
5.4 <i>PAYMENT FOR STORED MATERIALS</i>	13
5.5 <i>RECEIPTS AND RELEASES OF LIENS</i>	14
5.6 <i>TIME OF PAYMENT</i>	14
5.7 <i>REDUCTION OF RETAINAGE</i>	15
5.8 <i>FINAL PAYMENT</i>	15
5.9 <i>RELEASE AND CONSENT OF SURETY</i>	15
5.10 <i>BPCA'S RIGHT TO AUDIT AND INSPECT RECORDS</i>	15
5.11 <i>WITHHOLDING OF PAYMENTS</i>	16
ARTICLE 6 – CONTRACTOR	16
6.1 <i>SUPERINTENDENCE BY CONTRACTOR, DISCIPLINE AND EMPLOYEE SKILLS</i>	16

6.2	<i>REPRESENTATIONS AND WARRANTIES</i>	17
6.3	<i>VERIFYING DIMENSIONS AND SITE CONDITIONS</i>	17
6.4	<i>COPIES OF CONTRACT DOCUMENTS FOR CONTRACTOR</i>	18
6.5	<i>MEETINGS</i>	18
6.6	<i>RELATED WORK</i>	18
6.7	<i>SURVEYS AND LAYOUT</i>	18
6.8	<i>REPORTS AND ACCESS</i>	18
6.9	<i>FINANCIAL INFORMATION</i>	18
ARTICLE 7 - CONTRACT ADMINISTRATION		18
7.1	<i>ARCHITECT’S RESPONSIBILITIES AND FUNCTIONS</i>	18
7.2	<i>CONSTRUCTION MANAGER’S RESPONSIBILITIES AND FUNCTIONS</i>	19
7.3	<i>SCOPE OF RESPONSIBILITY OF ARCHITECT AND CONSTRUCTION MANAGER</i>	19
ARTICLE 8 - INSPECTION AND ACCEPTANCE		19
8.1	<i>ACCESS TO THE WORK</i>	19
8.2	<i>NOTICE OF REQUIRED INSPECTIONS AND TESTS</i>	19
8.3	<i>ADDITIONAL INSPECTIONS AND TESTS</i>	19
8.4	<i>UNCOVERING OF WORK</i>	20
8.5	<i>CORRECTION OF WORK</i>	20
8.6	<i>CERTIFICATE OF SUBSTANTIAL COMPLETION</i>	20
8.7	<i>COMPLETION OF WORK AND ACCEPTANCE</i>	21
ARTICLE 9 - CHANGES IN THE WORK		21
9.1	<i>CHANGE ORDERS</i>	21
9.2	<i>CHANGE IN CONTRACT PRICE AND TIME</i>	22
9.3	<i>FIELD ORDERS</i>	23
9.4	<i>CHANGED CONDITIONS</i>	23
ARTICLE 10 - SUBCONTRACTS AND PURCHASE ORDERS		24
10.1	<i>SELECTION OF SUBCONTRACTORS AND MATERIALMEN AND APPROVAL OF SUBCONTRACTS AND PURCHASE ORDERS</i>	24
10.2	<i>ACCESS BY BPCA AND OTHERS</i>	24
10.3	<i>RETAINAGE</i>	25
10.4	<i>MISCELLANEOUS</i>	25
ARTICLE 11 - ASSIGNMENT.....		25
11.1	<i>NO ASSIGNMENT OF DUTIES</i>	25

11.2	<i>NO ASSIGNMENT OF MONIES</i>	26
11.3	<i>ASSIGNMENT BY BPCA</i>	26
	ARTICLE 12 - MECHANICS' LIENS AND CLAIMS	26
	ARTICLE 13 – INSURANCE AND CONTRACT SECURITY	27
13.1	<i>INSURANCE</i>	27
13.2	<i>EFFECT OF PROCUREMENT OF INSURANCE</i>	31
13.3	<i>CONTRACT SECURITY</i>	31
13.4	<i>ADDITIONAL OR SUBSTITUTE BOND</i>	31
	ARTICLE 14 - CLAIMS FOR EXTRA WORK.....	31
	ARTICLE 15 - TERMINATION.....	32
15.1	<i>TERMINATION FOR CAUSE</i>	32
15.2	<i>TERMINATION FOR CONVENIENCE OF BPCA</i>	34
15.3	<i>SUSPENSION OF WORK</i>	35
	ARTICLE 16 - COMPOSITE DRAWINGS AND COOPERATION	35
	ARTICLE 17 - PROTECTION OF RIGHTS, PERSONS AND PROPERTY	36
17.1	<i>ACCIDENT PREVENTION</i>	36
17.2	<i>SAFETY PROGRAMS</i>	36
17.3	<i>PROTECTION OF WORK AND PROPERTY</i>	36
17.4	<i>ADJOINING PROPERTY</i>	37
17.5	<i>RISKS ASSUMED BY CONTRACTOR</i>	37
	ARTICLE 18 - USE PRIOR TO ACCEPTANCE BY BPCA	38
	ARTICLE 19 - EXEMPTION FROM SALES AND COMPENSATING USE TAXES	38
19.1	<i>BPCA EXEMPT</i>	38
19.2	<i>CERTIFICATES</i>	38
	ARTICLE 20 - WARRANTIES AND GUARANTIES	38
20.1	<i>IN GENERAL</i>	38
20.2	<i>ADDITIONAL GUARANTIES</i>	39
20.3	<i>REPAIR BY ANOTHER</i>	39
	ARTICLE 21 - INDEMNITY	39
21.1	<i>DELAY OR FAILURE</i>	39
21.2	<i>INVENTIONS</i>	40
21.3	<i>LIABILITY</i>	40
	ARTICLE 22 - PATENTS AND ROYALTIES	40

ARTICLE 23 - AS-BUILT DRAWINGS.....	41
ARTICLE 24 - SHOP DRAWINGS AND SAMPLES	42
24.1 CONTRACTOR SUBMITTAL.....	42
24.2 CONTRACTOR’S RESPONSIBILITY.....	42
ARTICLE 25 – NOTICES.....	42
ARTICLE 26 – EMPLOYMENT AND DIVERSITY	43
26.1 PARTICIPATION BY MINORITY AND WOMEN-OWNED BUSINESS ENTERPRISES.....	43
26.2 PARTICIPATION BY SERVICE-DISABLED VETERAN-OWNED BUSINESSES	48
ARTICLE 27 - STANDARD PROVISIONS	51
27.1 PROVISION REQUIRED BY LAW DEEMED INSERTED.....	51
27.2 COMPLIANCE WITH LAWS, RULES AND REGULATIONS	51
27.3 APPLICABLE LAW, FORUM AND JURISDICTION	51
27.4 NO THIRD PARTY RIGHTS	52
27.5 EXCULPATION; LIMITATION OF LIABILITY	52
27.6 PROTECTION OF LIVES AND HEALTH.....	52
27.7 WAIVER OF IMMUNITY CLAUSE	52
27.8 PROHIBITED INTERESTS.....	53
27.9 LABOR PROVISIONS	53
27.10 DISPUTES RESOLUTION PROCEDURE	55
27.11 ADDITIONAL PROVISIONS RELATING TO THE PROSECUTION OF CLAIMS FOR MONEY DAMAGES	56
27.12 LIMITATION ON ACTIONS	57
27.13 WAIVER OF REMEDIES.....	57
27.14 MODIFICATION OF AGREEMENT	58
27.15 SIGNS AND PARKING.....	58
27.16 ENTIRE AGREEMENT	58
27.17 RIGHTS AND REMEDIES	58
27.18 PARTICIPATION IN INTERNATIONAL BOYCOTT PROHIBITED	58
27.19 COMPLIANCE WITH “BUY-AMERICAN” STATUTES	59
27.20 PERMITTED SUCCESSORS	59
27.21 MACBRIDE FAIR EMPLOYMENT PRINCIPLES	59
27.22 IRAN DIVESTMENT ACT.....	59
27.23 TERMINATION FOR FAILURE TO DISCLOSE UNDER STATE FINANCE LAW §139K	59

27.24	<i>LABOR PEACE</i>	59
27.25	<i>COMPTROLLER'S APPROVAL</i>	60
27.26	<i>KEY PERSON/PERSONNEL</i>	60
27.27	<i>FORM OF AGREEMENT NOT AN OFFER</i>	60
27.28	<i>GENERAL RESPONSIBILITY</i>	60

EXHIBITS

EXHIBIT A - SCOPE OF WORK
EXHIBIT B - DRAWINGS
EXHIBIT C - SPECIFICATIONS
EXHIBIT D - MONTHLY UTILIZATION COMPLIANCE REPORTS
EXHIBIT E - PROMPT PAYMENT POLICY
EXHIBIT F - INCIDENT REPORT FORM

CONSTRUCTION AGREEMENT

AGREEMENT made as of _____ by and between BATTERY PARK CITY AUTHORITY, d/b/a HUGH L. CAREY BATTERY PARK CITY AUTHORITY, (“**BPCA**”), a body corporate and politic, constituting a public benefit corporation and having a place of business at 200 Liberty Street, 24th Floor, New York, New York 10281, and [NAME OF COMPANY], formed under the laws of the State of [STATE], having an office at [Street Address, City, Zip Code] (“**Contractor**”).

W I T N E S S E T H:

WHEREAS, BPCA has fee title to certain real property located in the City, County and State of New York, generally consisting of approximately 92 acres of land located on the west side of lower Manhattan, bounded by Pier A to the South, the westerly extension of Reade Street to the North, the United States Bulkhead Line to the East and the United States Pierhead Line to the West (collectively, “**Battery Park City**”); and

WHEREAS, BPCA has caused the staged development of Battery Park City, in individual parcels, creating a richly diversified mixed use community providing residential and commercial space, with related amenities such as parks, plazas, recreational areas and a waterfront esplanade; and

WHEREAS, BPCA intends to hire a contractor to perform [type of services], consisting of the Work, as hereinafter defined, for the [structure] upon which work will be performed (the “**Project**”), located in and adjacent to [location], in Battery Park City, in the Borough of Manhattan, County, City and State of New York (the “**Site**”); and

WHEREAS, Contractor has been selected to perform the Work, upon the terms and conditions hereinafter provided; and

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and BPCA hereby agree as follows:

ARTICLE 1 - DEFINITIONS

The following terms, wherever used in the Contract Documents, as defined herein, shall have the meanings set forth below or in the Section enumerated below next to each term:

- (a) Agreement - as defined in Section 2.2(a).
- (b) Agreement Termination Date - as defined in Section 3.1(a).
- (c) Architect - [include Name, Address, etc., as applicable].
- (d) Artist - [include Name, Address, etc., as applicable].
- (e) BPCA - as defined in the introductory clause of this Agreement. BPCA hereby designates [BPCA Person and Title], as the representative of BPCA for the purpose of acting on behalf

of BPCA whenever action is required to be taken hereunder by BPCA. Such designation may be revoked in writing at any time after notice given by BPCA to Contractor. In addition, such representative of BPCA shall have full power and authority to delegate in writing any or all of her responsibilities hereunder to any one or more persons after notice to Contractor.

- (f) Certificate of Substantial Completion - as defined in Section 8.6.
- (g) Change Order - as defined in Section 9.1(b).
- (h) Construction Manager - [include Name, Address, etc., as applicable].
- (i) Contract Documents - as defined in Section 2.2.
- (j) Contract Price - as defined in Article 4.
- (k) Contract Time - the duration of time during which Construction Manager schedules and coordinates the Work of Contractor pursuant to Section 7.2 hereof.
- (l) Contractor - as defined in the first Recital of this Agreement.
- (m) Drawings - Project drawings comprising part of Exhibit [x].
- (n) Engineer [include Name, Address, etc., as applicable].
- (o) Extra Work - any work in addition to the Work to be performed by Contractor pursuant to the Contract Documents.
- (p) Field Order - as defined in Section 9.3.
- (q) Final Acceptance - as defined in Section 8.7.
- (r) Final Requisition - as defined in Section 5.2.
- (s) Guarantor - as defined in Section 27.3.
- (t) Joint Venture - an entity created pursuant to a written agreement among two or more contractors pursuant to which each shares in the direction and performance of the Work and shares in a stated percentage of profits or losses.
- (u) Key Person/Personnel - as defined in Section 27.25.
- (v) Materialman - supplier of Materials.
- (w) Materials - all products, materials, fixtures, tools, equipment, apparatus, and furnishings intended to form a part of the Work.
- (x) Minority Business Enterprise or Minority Owned Business Enterprise or MBE - as defined in Article 26.

- (y) Minority or Minority Group Member - as defined in Article 26.
- (z) Notice to Proceed - a written directive from BPCA to Contractor signed by a duly authorized BPCA representative directing Contractor to begin performance of the Work set forth in this Agreement on a particular date.
- (aa) Payment Bond - as defined in Section 13.3.
- (bb) Performance Bond - as defined in Section 13.3.
- (cc) Preceding Covered Date - as defined in Section 5.5.
- (dd) Product Data - illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by Contractor to illustrate a Material, product or system for some portion of the Work.
- (ee) Progress Schedule for the Work - as defined in Section 3.1(a).
- (ff) Project - as defined in the third Recital of this Agreement.
- (gg) Purchase Order - as defined in Section 10.1(e).
- (hh) Requisitions - as defined in Section 5.2.
- (ii) Samples - physical examples which illustrate Materials or workmanship and establish standards by which the Work will be judged.
- (jj) Site - as defined in the third Recital of this Agreement.
- (kk) Specifications - the specifications comprising part of Exhibit [x].
- (ll) Subcontract - an agreement between the Contractor and a Subcontractor (as defined in subsection (mm) below) for work on the Site.
- (mm) Subcontractor - a person, firm, partnership or corporation under contract with Contractor.
- (nn) Term - as defined in Section 3.1(a).
- (oo) Trade Payment Breakdown - as defined in Section 5.3.
- (pp) Women's Business Enterprise or Women Owned Business Enterprise or WBE - as defined in Article 26.
- (qq) Work - as defined in Section 2.1.
- (rr) Work Completion Date - as defined in Section 3.1(a).

ARTICLE 2 - SCOPE OF WORK, MATERIALS AND LABOR

2.1 Definition of Work

Contractor shall perform and complete (and shall cause all Subcontractors to perform and complete) for BPCA the work more particularly described in Exhibit A (the “**Work**”) annexed hereto and made a part hereof, required by and in conformity with the Contract Documents in connection with the construction of the Project on the Site. All materials to be furnished and labor and work to be performed and completed by Contractor and/or Subcontractors as required in the Contract Documents and in conformity with all requirements applicable with respect thereto are herein collectively referred to as the “Work.”

2.2 Contract Documents

The “**Contract Documents**” shall consist of the following:

(a) This instrument (the “**Agreement**”), which includes, in addition to the text comprising Articles 1 through 27, the following:

- (1) EXHIBIT A - SCOPE OF WORK (as applicable)
- (2) EXHIBIT B – DRAWINGS (as applicable)
- (3) EXHIBIT C – SPECIFICATIONS (as applicable)
- (4) EXHIBIT D - MONTHLY UTILIZATION COMPLIANCE REPORTS (as applicable)
- (5) EXHIBIT E - PROMPT PAYMENT POLICY (as applicable)
- (6) EXHIBIT F - INCIDENT REPORT FORM (as applicable)

(b) The Payment and Performance Bonds (as defined in Section 13.3).

(c) Change Orders adopted pursuant to Article 9.

The Contract Documents form the contract between BPCA and Contractor. References in the Contract Documents to “the Contract”, “this Contract” or “the Construction Contract” shall be deemed to include all of the Contract Documents. References to “this Agreement” or “the Agreement” shall refer to this instrument (including the Exhibits attached hereto), which is one of the Contract Documents.

2.3 Intent of Contract Documents

(a) The intent of the Contract Documents is to include in the Work all labor and materials, insurance, tools, equipment, permits, licenses, taxes, approvals, transportation, surveys, testing, field engineering and other professional services (other than the services of BPCA’s Architect, Construction Manager, Engineers, and attorneys, and the inspection, survey and testing services of BPCA) and any other items required to execute and complete the Work satisfactorily and in accordance with the Contract Documents. Contractor shall perform and complete the Work in accordance with the true intent and meaning of the Contract Documents and shall perform all Work incident thereto or as is usually performed in connection therewith or as is reasonably inferable therefrom, it being the intention that all work usually performed by the trade covered by

this Agreement and necessary to produce the intended result be performed by Contractor whether or not specifically covered by the Contract Documents.

(b) The Contract Documents are complementary and what is called for by one shall be as binding as if called for by all.

(c) If any conflicts or ambiguities are found in or between the Drawings and Specifications, or among any of the Contract Documents, they shall be brought to the attention of Construction Manager immediately for resolution. Architect and Construction Manager will interpret the Contract Documents so as to secure in all cases the most substantial and complete performance of the Work as is most consistent with the needs and requirements of the Work. In the event that Architect and Construction Manager disagree as to the interpretation of the Contract Documents, such dispute shall be presented to BPCA, which shall have sole authority to resolve the dispute.

(d) Addenda to parts of the Contract Documents are for the purpose of varying, modifying, rescinding or adding to the affected portion of the Contract Documents. All addenda should be read together with the portions of the Contract Documents to which they pertain. Where an addendum modifies a portion of a paragraph or a Section, the remainder of the paragraph or Section shall remain in force unless otherwise stated in the addendum.

(e) Captions, headings, cover pages, tables of contents and footnote instructions contained in the Contract Documents are inserted only to facilitate reference and for convenience and in no way define, limit or describe the scope, intent or meaning of any provision of the Agreement.

(f) Words and abbreviations which have well-known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

(g) Drawings and Specifications are complementary. Anything shown in the Drawings and not mentioned in the Specifications, or mentioned in the Specifications and not shown in the Drawings, shall have the same effect as if shown or mentioned in both.

(h) A typical or representative detail indicated on the Drawings shall constitute the standard for workmanship and Materials throughout corresponding parts of the Work. Where necessary, and where reasonably inferable from the Drawings or Specifications, Contractor shall adapt such representative detail for application to such corresponding parts of the Work. The details of such adaptation shall be subject to prior approval by Architect. Repetitive features shown in outline on the Drawings shall be in exact accordance with corresponding features completely shown.

(i) The layout of mechanical and electrical systems, equipment, fixtures, piping, ductwork, conduit, specialty items, and accessories indicated on the Drawings is diagrammatic, and all variations in alignment, elevation, and detail required to avoid interferences and satisfy Architectural and structural limitations are not necessarily shown. Actual layout of the Work shall be carried out without affecting the architectural and structural integrity and limitations of the Work and shall be performed in such sequence and manner as to avoid conflicts, provide clear access to all control points, including valves, strainers, control devices, and specialty items of

every nature related to such systems and equipment, obtain maximum headroom, and provide adequate clearances as required for operation and maintenance.

2.4 Completion of Drawings and Specifications

Contractor acknowledges that there are items of work which are not drawn or specified with complete detail in the Drawings and Specifications but which are required for the completion of the Work. Any such item, when identified as part of the reasonable development of the Work, shall be drawn or specified by Architect in consultation with Contractor, in a manner consistent with contemplated kind and quality and customary standards. When such drawing or specification is approved by BPCA, the drawing or specification so approved shall thereupon be part of the Contract Documents and the item of work shall be performed by Contractor as part of the Work without further action or order of Construction Manager or BPCA and without any increase in the Contract Price (as hereinafter defined) as if such drawing and/or specification were originally included in the Contract Documents.

2.5 Title to Materials

Title to all Materials shall immediately vest in BPCA upon payment in respect of such Materials, whether or not then incorporated or installed into the Project. The Materials shall then become the sole property of BPCA subject to the right of BPCA, Construction Manager or Architect to reject same for failure to conform to the standards of any or all of the Contract Documents. Title to all Work and Materials shall be in BPCA, free and clear of all liens, claims, security interests or encumbrances. Contractor warrants that no Work or Materials shall be fabricated or delivered to the Site by Contractor or any Subcontractor or Materialman subject to any security interest, lien or similar encumbrance.

2.6 Contractor's Obligations

(a) Contractor shall in a good and workmanlike manner perform all the Work required by this Agreement in accordance with the best practice of Contractor's trade within the time specified herein. Contractor shall supervise and direct the Work using its best skill and attention. Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures within the scope of Contractor's Work.

(b) Contractor shall furnish, erect, maintain, and remove such construction plant and such temporary Work as may be required for the performance of the Work. Contractor shall be responsible for the safety, efficiency and adequacy of Contractor's plant, appliances and methods, and for damage that may result from failure or improper construction, maintenance or operation of such plant, appliances and methods. Contractor shall comply with all terms of the Contract Documents, and shall do, carry on and complete the entire Work under the direction of and to the satisfaction of BPCA.

(c) Contractor shall provide all equipment, tools and materials and whatever else may be required for proper performance of the Work unless stated otherwise in the Contract Documents.

(d) Contractor shall deliver all Materials at such times and in such quantities as will insure the speedy and uninterrupted progress of the Work. All Materials shall be delivered to the Site in proper order and quantity and shall be stored at the Site, if storage space is available in Construction Manager's opinion, in such places as Construction Manager shall direct; provided, that no delivery of Materials shall be made to the Site without prior approval by Construction Manager. Contractor has been advised and is aware that the Project is located in a congested metropolitan area, and there may not be sufficient space to store Materials on Site. If storage space is unavailable on Site, Contractor shall make arrangements to store Materials off Site at Contractor's own cost. Contractor shall not be entitled to additional compensation for moving Materials from one storage area to another, whether such storage areas are on or off Site. No Materials shall be removed from the Site without the consent of Construction Manager. Contractor shall handle and take care of all Materials used in performance of the Work whether furnished by Contractor or BPCA, as the same are delivered to the Site or to any applicable offsite storage location and shall be solely responsible for the security and condition of the same. After final completion and acceptance of the Work, or sooner if requested by Construction Manager, Contractor shall remove all surplus Materials and scaffolding furnished by it which have not been incorporated in the Work.

(e) Contractor shall follow and perform the Work in accordance with the Contract Documents as interpreted by Architect, Construction Manager, and BPCA.

(f) Unless otherwise provided in the Contract Documents, Contractor shall secure and pay for all permits and governmental fees, licenses and inspections necessary for the proper execution and completion of the Work. Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and lawful orders of any public authority bearing on the performance of the Work. If Contractor observes that any of the Contract Documents are at variance with any applicable laws in any respect, Contractor shall promptly notify Architect and Construction Manager in writing, and any necessary changes shall be accomplished by appropriate modification. If Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to Architect and Construction Manager, Contractor shall assume full responsibility therefor and shall bear all costs attributable thereto.

(g) Contractor shall be responsible for collecting all paper, cartons and other debris caused by its Work or personnel, placing the same in a location designated by Construction Manager and keeping the portion of the Site upon which Contractor is performing the Work free from all debris.

(h) Contractor shall attend meetings as directed by BPCA or Construction Manager.

2.7 *"Or Equal" Clause*

(a) The Materials of manufacturers referred to in the Specifications and on the Drawings are intended to establish the standard of quality and design required by Architect; however, Materials of manufacturers, other than those specified, may be used if equivalent and approved by Architect, Construction Manager and BPCA.

(b) It is deemed that the term "or approved equal" is included after all Materials

referred to in the Specifications or on the Drawings.

(c) Architect will initially judge the equivalency of proposed substitute Materials. Architect will make written recommendation of acceptance or rejection to Construction Manager and/or BPCA. Construction Manager and/or BPCA will then authorize Architect to issue to Contractor written approval or rejection of the substitution.

(d) If Contractor desires to use a substitute item, Contractor shall make application to Architect in writing in sufficient time (with regard to the progress of the Work, the period of delivery of the goods concerned and adequate time for Architect's review) stating and fully identifying the proposed substitute, cost changes (if any), and submitting substantiating data, samples, brochures of the item proposed. It is Contractor's responsibility to provide at its sole expense sufficient evidence by tests or other means to support any request for approval of substitutions.

(e) Prior to proposing any substitute item, Contractor shall satisfy itself that the item Contractor proposes is, in fact, equal to that specified and had been used satisfactorily in similar applications to the application proposed for the Work, for at least three years, that it will fit into the space allocated and within the load allocated for the same, that it affords comparable ease of operations, maintenance and service, that its appearance, longevity and suitability for the climate and use are comparable to that specified, and that the substitution requires no change in dimension or design of any other Work of Contractor, of any other contractor or in the time required for the performance thereof.

(f) The burden of proof that a proposed substitution is equal to a specified item shall be upon Contractor, who shall support its request with sufficient test data and other means to permit Architect to make a fair and equitable decision on the merits of the proposal. Any item by the manufacturer other than those cited in the Contract Documents, or of brand name or model number or of generic species other than those cited in the Contract Documents, will be considered a substitution.

(g) Acceptance of substitutions shall not relieve Contractor from responsibility for compliance with all the requirements of the Contract Documents. If, notwithstanding the provisions of subsection (e) above, changes in other parts of the Work or the work of other contractors are required by its substitutions, Contractor shall be responsible for the costs of any such changes including the cost of all design and redesign services related thereto incurred by the Architect and its Contractors.

(h) The Contract Time shall not be extended by any circumstances resulting from a proposed substitution, nor shall Contractor be entitled to any compensation for any delay caused thereby or related thereto.

2.8 Quality and Labeling

All Materials furnished shall be new and the quality thereof shall be in accordance with the Contract Documents. When Materials are specified to conform to a given standard, the Materials delivered to the Site shall bear manufacturer's labels stating that the Materials meet such standard. The above requirements shall not restrict or affect BPCA's right to test Materials as provided in

this Agreement.

ARTICLE 3 - COMMENCEMENT AND COMPLETION OF THE WORK

3.1 Commencement, Completion and Progress Schedule

(a) Contractor shall prepare and submit a progress schedule for the Work (“**Progress Schedule for the Work**”) and agrees to be bound by and comply with the Work Completion Date and the Progress Schedule for the Project (as the Progress Schedule for the Project shall be updated pursuant to subsection (b)) and waives any right to charge or claim damages or any increased cost, charges or expenses against BPCA, Construction Manager, or Architect, for delays or disruptions from any cause whatsoever. Contractor’s sole remedy as against BPCA, Construction Manager, or Architect for any delays or disruptions shall be as provided in Section 3.4 hereof. Notwithstanding the foregoing, the Work shall be completed by no later than [date] (the “**Work Completion Date**”) with time being of the essence in respect of said Work Completion Date, as more fully set forth in subsection (h) below; this Agreement shall terminate by [date] (the “**Agreement Termination Date**”) (the period between the date of commencement of the Work and the Agreement Termination Date, the “**Term**”).

(b) The Progress Schedule for the Work shall be formatted in a detailed precedence-style critical path method, or such other format satisfactory to BPCA and Construction Manager and shall also (a) provide a graphic representation of all activities and events including float values that will affect the critical path of the Work, (b) incorporate and coordinate all pertinent information involving each phase of Work, and (c) identify dates that are critical to ensuring the timely and orderly completion of the work in accordance with the requirements of the Contract Documents, including the dates for Substantial Completion of each respective phase of the Work. The Progress Schedule for the Work shall be updated weekly, or at any other time at the request of Construction Manager or BPCA, and submitted to Construction Manager and BPCA for review and approval. Failure to submit any requested update shall constitute a material breach of this Agreement. The Contractor shall promptly give written notice of any actual or potential delays to BPCA and Construction Manager. After submission of the Progress Schedule for the Work, Construction Manager shall coordinate the Progress Schedule for the Work with the Progress Schedule for the Project. The Progress Schedule for the Work may be revised by Construction Manager from time to time.

(c) Contractor shall commence the Work upon receipt of a written notice to proceed signed by BPCA (the “**Notice to Proceed**”), and shall prosecute the Work diligently and in accordance with the time and place requirements of the Project as determined and directed by Construction Manager, by using such means and methods of construction as will assure that the Work will be performed hereunder in accordance with the Contract Documents and Progress Schedule for the Work, and to the satisfaction of BPCA, Architect, and Construction Manager.

(d) If, in the opinion of Construction Manager, Contractor falls behind the Progress Schedule for the Project then in effect, Contractor shall take whatever steps may be necessary to improve its progress and shall, if requested by Construction Manager, submit operational plans to demonstrate the manner in which the lost time may be regained. It is the responsibility of Contractor to maintain its schedule so as not to delay the progress of the Project or the schedules

of other contractors. If Contractor delays the progress of its Work or the work of other contractors, it shall be the responsibility of Contractor to increase the number of workers, the number of shifts, the days of Work and/or, to the extent permitted by law, to institute or increase overtime operations, all without additional cost to BPCA, in order to regain any time lost and maintain the Progress Schedule for the Project then in effect as established by Construction Manager.

(e) If Contractor shall fail to complete the Work by the Work Completion Date, or within the time to which such completion may have been extended, BPCA may, at its option, withhold from any sums otherwise due and owing to Contractor hereunder, so much of the balance thereof as BPCA shall deem necessary to secure it against any costs, expenses, or damages which may be incurred by BPCA as a result of said failure, but any such withholding shall not be deemed to be a waiver of any rights hereunder, and Contractor shall be liable to and shall indemnify and hold BPCA harmless from any and all cost, expense or damage incurred by BPCA by reason of such failure.

[(f) If Contractor shall neglect, fail or refuse to complete the Work on or before the Work Completion Date or any changes thereto in accordance with, or upon the expiration of, any proper extension granted by BPCA, Contractor agrees to pay to BPCA (\$\$\$\$\$), not as a penalty, **but as liquidated** damages for loss of beneficial use of the Project, for each and every calendar day that the Contractor is in default. Default shall include abandonment of the Work by Contractor.] **[delete if no liquidated damages]**

(g) [Said amount of liquidated damages is agreed upon by and between Contractor and BPCA because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages which BPCA would sustain for loss of beneficial use of the Project in the event of delay in completion, and said amount is agreed to be the amount of damages sustained by BPCA and said amount may be retained from time to time by BPCA. The foregoing liquidated damages are intended to compensate BPCA only for the loss of beneficial use of the Project. In addition,] **[delete if no liquidated damages]** Contractor shall be liable to BPCA, to the fullest extent permitted by law, for whatever actual damages (other than actual loss of beneficial use) BPCA may incur as a result of any actions or inactions of Contractor or its Subcontractors including, without limitation, interest expense and carrying costs, liabilities to other Contractors working on the Project or other third parties, job extension costs, and other losses incurred by BPCA. The provisions of this paragraph are exclusive to BPCA, and shall not accrue to other contractors or third parties.

(h) It is further agreed that time is of the essence for each and every portion of the Work. In any instance in which additional time is allowed for the completion of any Work, the new time of completion established by said extension shall be of the essence. Contractor shall not be charged with [liquidated damages or] **[delete if no liquidated damages]** any excess cost if BPCA determines that Contractor is without fault and that the delay in completion of the Work is due to:

(1) any preference, priority or allocation order duly issued by the Government of the United States or the State of New York;

(2) an unanticipated cause beyond the control and without the fault of, or

negligence of Contractor, and approved by BPCA, including, but not limited to, acts of God or of public enemy, fires, epidemics, quarantine, strikes, freight embargoes and unusually severe weather; and

(3) any delays of Subcontractors or Materialmen occasioned by any of the causes specified in subsections 1 and 2 of this paragraph.

(i) Notwithstanding the foregoing, and whether or not, at any given time, a Progress Schedule, or update thereto (as appropriate) has been submitted, the Work shall be completed by the Work Completion Date.

(j) Notwithstanding anything to the contrary, a schedule submitted by Contractor showing a time of completion earlier than that specified in the Contract shall not entitle Contractor to any additional compensation in the event the earlier time of completion is not realized.

3.2 Coordination with Other Contractors

Contractor shall coordinate the Work to be performed hereunder with the work of other contractors performing work for the Project in such manner as Construction Manager shall direct. Contractor shall indemnify and hold BPCA, Construction Manager, and Architect harmless from any and all claims or judgments for damages, costs and expenses to which BPCA, Construction Manager or Architect may be subjected or which they may suffer or incur by reason of Contractor's failure to promptly comply with Construction Manager's directions. If Contractor notifies Construction Manager in writing that another contractor is failing to coordinate its work with the Work to be performed hereunder, Construction Manager shall promptly investigate the charge. If Construction Manager finds that charge to be true, it shall promptly issue such direction to the other contractor with respect thereto as the situation may require. BPCA, Construction Manager and Architect shall not, however, be liable for any damages suffered by Contractor by reason of the other contractor's failure to promptly comply with the directions so issued by Construction Manager or by reason of another contractor's default in performance. Should Contractor sustain any damage through any act or omission of any other contractor, Contractor shall have no claim against BPCA, Construction Manager or Architect for such damage but shall have a right to recover such damage from the other contractor, under a provision similar to a provision contained in the following sentence which is part of this Agreement and which has been or will be inserted in the contracts with the other contractors engaged in the Project.

Should any other contractor having or who shall hereafter have a contract with BPCA for the performance of work upon the Project sustain any damage through any act or omission of Contractor hereunder, Contractor shall reimburse such other contractor for all such damages and to indemnify and hold BPCA, Construction Manager and Architect harmless from all such claims. Any claim against a performance bond surety made by any contractor shall be subordinated to any claim of BPCA then existing or that may arise in the future against such other contractor or its performance bond surety.

3.3 Notice of Delay

Should Contractor be or anticipate being delayed or disrupted in performing the Work hereunder for any reason, including, without limitation, its financial condition or Contractor's

general nonpayment of its debts as such debts become due, it shall promptly and in no event more than three (3) days after the commencement of any condition that is causing or is threatening to cause such delay or disruption notify Construction Manager in writing of the effect of such condition upon the Progress Schedule for the Project, stating why and in what respects the condition is causing or is threatening to cause delay, provided, however, that notwithstanding the above, if such delay or disruption, or anticipated delay or disruption, should be the result of any change or anticipated change in Contractor's financial condition, Contractor shall notify Construction Manager forthwith of such cause or anticipated cause. Failure to strictly comply with this notice requirement shall be sufficient cause to deny Contractor a change in schedule and to require it to conform to the Progress Schedule for the Project then in effect established by Construction Manager.

3.4 Extension of Time

(a) An extension of time under the Progress Schedule for the Project then in effect may be granted by BPCA subject to the provisions hereof upon written application therefor by Contractor. An application for an extension of time under the Progress Schedule for the Project then in effect must set forth in detail the nature of each cause of delay in the performance of the Work, the date or dates upon which each cause of delay began and ended and the number of days delay attributable to each such cause. After the application is submitted, Contractor shall supply any other data that Construction Manager may request.

(b) Contractor shall be entitled to an extension of time under the Progress Schedule for the Project then in effect for delays in the performance of the Work, if caused:

(1) solely by unanticipated acts or omissions of BPCA, Construction Manager or Architect; or

(2) by the unanticipated acts or omissions of other contractors or unanticipated causes beyond the control and without the fault or negligence of Contractor including, but not limited to, acts of God, acts of public enemy, acts of any Government body, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of Subcontractors or Materialmen arising from unforeseeable causes beyond the control and without the fault or negligence of both Contractor and such Subcontractors or Materialmen; provided, that Contractor shall have used its best efforts and diligently sought to have minimized any such period of delay, by taking whatever measures are necessary, including without limitation, if applicable, seeking alternate sources of Materials, other Subcontractors or other facilities in which to perform the required construction operations; and provided, further, that an application is made pursuant to the requirements of the immediately preceding paragraph.

ARTICLE 4 - CONTRACT PRICE

For the performance and completion of the Work, BPCA shall pay Contractor a lump sum amount of (\$\$\$\$), (such sum is herein sometimes referred to as the "**Contract Price**"), which amount shall include any monies earned by or paid to Contractor prior to the execution of this Agreement, provided, that if the Contract Price shall be expressly revised by a Change Order in accordance with Article 9 hereof, the Contract Price shall thereafter mean the Contract Price as so

revised. Contractor will submit appropriate Time Sheets in the form of Exhibit [x].

ARTICLE 5 - METHOD, SCHEDULE AND TERMS OF PAYMENTS

5.1 Partial Payment

(a) In accordance with Requisitions (as defined in Section 5.2) submitted and approved as provided below for Work performed in accordance with this Agreement, Contractor shall be entitled to partial payment on account of the Contract Price in an amount equal to the value, as determined in accordance with the Trade Payment Breakdown (as defined in Section 5.3), of the portions of the Work completed and acceptable to BPCA and Construction Manager for purposes of such payment, less a retainage equal to ten percent (10%) of the total amount of all prior partial payments. Partial payments shall constitute advances against the Contract Price until final payment is made and accepted. No partial payment made, nor approval of a portion of the Work given for purposes of making a partial payment, shall constitute an acceptance of any Work not in accordance with the Contract Documents.

(b) Upon completion of fifty percent of the Work, Contractor may make written application to BPCA requesting reduction of the retainage set forth in Section 5.1(a) hereof. Approval of such reduction of retainage and the percentage to which the retainage shall be reduced is in the sole discretion of BPCA. If BPCA approves a reduction of retainage as herein described, BPCA shall so notify Contractor in writing. Any reduction of retainage pursuant to this paragraph (b) shall not be deemed to be a waiver of retainage requirements for future partial payments.

5.2 Requisitions

Applications for partial payments (“**Requisitions**”) and application for final payment (“**Final Requisition**”) shall be in the form previously supplied by BPCA and shall be submitted by Contractor to Construction Manager or its designee in five original copies in the manner hereinafter provided for the approval of BPCA and Construction Manager. Each Requisition shall be supported by such data substantiating Contractor’s right to payment as BPCA and Construction Manager may require.

5.3 Trade Payment Breakdown

Prior to the submission of the first Requisition, Contractor shall present to Construction Manager for approval a trade payment breakdown (the “**Trade Payment Breakdown**”) of the various portions of the Work, aggregating the Contract Price, prepared in such form as specified by BPCA and supported by such data to substantiate its correctness as Construction Manager may require. After approval by BPCA and Construction Manager, the Trade Payment Breakdown shall not be changed or revised in any way without the written consent of Construction Manager. The Trade Payment Breakdown, when approved by Construction Manager, shall be used only as a basis for Requisitions and shall not be considered as a basis for reducing or increasing the Contract Price.

5.4 Payment for Stored Materials

If approved in advance of delivery by BPCA and Construction Manager, payments will be

made on account of 80% of the value of Materials that have not been incorporated in the Work to date, but delivered and suitably stored at the Site or at some other offsite location agreed upon in writing by BPCA and Construction Manager. Such payments shall be conditioned upon submission by Contractor of bills of sale or other supporting documentation satisfactory to BPCA and Construction Manager to establish BPCA's title to such Materials including applicable insurance and transportation to the Site for those Materials stored offsite. In the event that Contractor, with approval of BPCA, stores any Materials offsite, the conditions for payment of Material stored off-site shall include but not be limited to the following: (a) the Material shall be properly stored in a secured location approved by the BPCA and/or Construction Manager; (b) the Material will be covered under the BPCA's builder's risk policy subject to policy limits and restrictions; and (c) the Material may be inspected by the BPCA and /or Construction Manager to assure compliance with Contract Documents.

5.5 Receipts and Releases of Liens

With each Requisition, Contractor shall furnish its affidavit of payment and waiver of lien for Work done and Materials furnished through the date covered by the last preceding partial payment (the "**Preceding Covered Date**") and shall furnish its affidavit certifying that all Subcontractors and Materialmen have been paid for Work performed and Materials furnished through the Preceding Covered Date except for any permitted retainage. BPCA may also require Contractor to attach to each Requisition (i) affidavits of payment and waivers of lien from all Subcontractors and Materialmen dealing directly or indirectly with Contractor for Work performed and Materials furnished through the Preceding Covered Date and/or (ii) the consent of the surety issuing the Payment Bond to such payment. BPCA may require Contractor to execute a waiver of lien at the time payment is made for a Requisition for all Work performed through the date of the Requisition in respect of which payment is being made.

In addition to the documents required to be furnished by the preceding paragraph, with the Final Requisition, Contractor shall furnish (y) its affidavit that there are no liens, claims or demands by, and that there is no indebtedness to, Subcontractors, Materialmen, laborers, other employees or third persons for which BPCA, Construction Manager, or Architect might in any way be responsible and (z) releases from all Subcontractors and Materialmen dealing directly or indirectly with Contractor. Should any such Subcontractor or Materialman fail or refuse to furnish such release, Contractor may be required to furnish a bond satisfactory to BPCA to indemnify it against any such lien, claim or demand. If any such lien, claim or demand remains unsatisfied after all payments are made to Contractor, Contractor shall refund to BPCA all monies that BPCA may be compelled to pay in discharging such lien, claim or demand including all costs, expenses and attorneys' fees which BPCA may incur in connection therewith.

5.6 Time of Payment

Requisitions shall be submitted by Contractor to BPCA and Construction Manager by the seventh day of each calendar month for Work completed up to the last calendar day of the previous month or other day approved by BPCA, and payment shall be made (pursuant to BPCA's Prompt Payment Policy, a copy of which is attached hereto and made part hereof as Exhibit E) on or about twenty days after BPCA receives the Requisition together with the documents required pursuant to Sections 5.2 and 5.5 hereof. Contractor shall be entitled to payment only in the amount approved

by BPCA and Construction Manager with respect to such Requisitions, each of which must be signed by BPCA and Construction Manager before payment is made. The value of any Work included in a Requisition for partial payment which is found unacceptable by BPCA or Construction Manager may be deducted from that or any subsequent Requisition.

5.7 Reduction of Retainage

Upon the issuance of a Certificate of Substantial Completion, as defined in Section 8.6, Contractor shall submit a Requisition in an amount equal to the Contract Price less five percent (5%) of the total contract amount (including all approved Change Orders and pending Change Order proposals), and less the total amount of all prior payments. Upon approval of the same by BPCA, BPCA shall pay to Contractor the amount approved less any amount which BPCA is entitled to withhold hereunder.

5.8 Final Payment

(a) The final balance due Contractor under this Agreement shall be payable to Contractor by BPCA, as final payment hereunder, within thirty days after all of the following have taken place:

- (1) Contractor's Final Requisition has been submitted by Contractor and approved by BPCA and Construction Manager;
- (2) the affidavit provided for in Section 5.5 hereof has been submitted by Contractor, and any other documents or actions expressly specified in the Contract Documents as preconditions to final payment have been submitted or completed; and
- (3) any inspections or approvals with respect to any of the Work that BPCA deems legally required or appropriate by governmental authorities or by the applicable Board of Fire Underwriters have been performed or obtained.

(b) The acceptance of final payment shall constitute a waiver of all claims by Contractor.

5.9 Release and Consent of Surety

Notwithstanding any other provision of this Agreement, before final payment pursuant to Section 5.8 shall become due pursuant hereto or before reduction of retainage, Contractor shall submit to BPCA a consent of surety to final payment or reduction of retainage in form and substance acceptable to BPCA.

5.10 BPCA's Right to Audit and Inspect Records

Contractor shall maintain and shall keep for a period of at least six years after the date of Final Acceptance of the Work, pursuant to Section 8.7, all records and other data relating to the Work. BPCA or its designee shall have the right to inspect and audit all records and other data of Contractor relating to the Work at any time and from time to time until the end of such six year

period. Contractor shall promptly respond to any inquiries of BPCA or any representative of BPCA arising out of any such inspection or audit.

5.11 Withholding of Payments

(a) BPCA may withhold payment or, because of subsequently discovered evidence, may nullify the whole or any part of any previously approved Requisition to such extent as may, in the judgment of BPCA, be necessary:

- (1) to assure payment of just claims or liens of any persons supplying labor or Materials for the Work;
- (2) to protect BPCA from loss due to defective Work or to reimburse BPCA, Construction Manager and Architect for fines on account of non-compliance with applicable laws, rules and regulations, including rules promulgated by the Office of Safety & Health Administration;
- (3) to protect BPCA from loss due to death or injury to persons or damage to the Work or property of BPCA, other contractors or others caused by the act or neglect of the Contractor;
- (4) in the event that there is reasonable evidence that the Work will not be completed for the unpaid balance of the Contract Price;
- (5) in the event that there is reasonable evidence that the Work will not be completed within the time provided; or
- (6) in the event that Contractor persistently fails to perform the Work in accordance with the Contract Documents.

In any of such events, BPCA shall have the right to apply any such amounts so withheld in such manner as BPCA may deem proper to satisfy such claims, to secure such protection, to complete the Work or to compensate BPCA for any loss suffered by reason of Contractor's delay. Such application shall be deemed payment for the account of Contractor. In the event that BPCA gives Contractor notice that it intends to make such application, Contractor shall be estopped from disputing liability or the amount of liability unless, within three days after receipt of such notice, it indicates to BPCA in writing that it is not liable or that the amount of its liability is different from that set forth in the notice.

(b) The provisions of this Section 5.11 are solely for the benefit of BPCA, and any action or non-action by BPCA shall not give rise to any liability on the part of BPCA. Failure to so act shall not be deemed a waiver of any present or future claims of BPCA.

ARTICLE 6 – CONTRACTOR

6.1 Superintendence by Contractor, Discipline and Employee Skills

Contractor shall provide a competent construction superintendent to be in charge of the

Work. The construction superintendent shall devote full time to the Work, shall be present at the Site during the time the Work is required to be performed and shall have full authority to accept instructions, make decisions and act for Contractor at all times. If at any time the construction superintendent is not satisfactory to BPCA or Construction Manager, Contractor shall, if requested by BPCA, replace such superintendent with another satisfactory to BPCA. Contractor shall enforce strict discipline and good order at all times among Contractor's employees and all Subcontractors. Contractor shall not engage any employee not skilled in the task assigned.

6.2 Representations and Warranties

Contractor represents and warrants that:

(a) Contractor is financially solvent and is experienced in, and competent to perform the Work and has the staff, manpower, equipment, Subcontractor, and suppliers available to complete the Work within the time specified in this Agreement for the Contract Price;

(b) Contractor is familiar with all Federal, State or other laws, ordinances, orders, rules and regulations, which may in any way affect the Work;

(c) any temporary and permanent Work required by this Agreement can be satisfactorily constructed, and such construction will not injure any person or damage any property; and

(d) Contractor has carefully examined the Contract Documents and the Site and, from Contractor's own investigations, is satisfied as to the nature and location of the Work, the character, quality and quantity of surface and subsurface materials likely to be encountered, the character of equipment and other facilities needed for the performance of the Work, the general and local conditions, and all other conditions or items that may affect the Work. Prior to submitting its bid for performance of the Work, Contractor notified BPCA or Construction Manager in writing of any discrepancies or errors in the Contract Documents.

6.3 Verifying Dimensions and Site Conditions

Before proceeding with the Work, Contractor will check all previous and surrounding work and determine the correctness of the same; failure on its part to detect or report discrepancies will relieve BPCA of liability from any and all claims to recover cost, expense, loss or damage resulting therefrom. Contractor shall take, determine, investigate and verify all field measurements, dimensions, field construction criteria and Site conditions for the performance of the Work and shall check and coordinate the information contained in the Contract Documents and the boring logs which shall be available for inspection with the requirements of the Work. Contractor shall be responsible for determining the exact location of and to verify the spatial relationships of all Work. If any conflicts or discrepancies are found in the Contract Documents or if Contractor has any questions concerning the foregoing, it shall immediately notify Construction Manager and shall thereafter perform the Work in accordance with the directions of Construction Manager.

6.4 Copies of Contract Documents for Contractor

BPCA shall furnish to Contractor, without charge, two sets of the Contract Documents. Any sets in excess of the number mentioned above may be furnished to Contractor at the cost of reproduction and mailing.

6.5 Meetings

Contractor shall attend all meetings as directed by BPCA or Construction Manager, including meetings set forth in Section 26.3, and shall be represented at such meetings by a person having knowledge of the Work and authorized to act for Contractor at all times. If at any time such person is not satisfactory to BPCA or Construction Manager, Contractor shall, if requested by BPCA, be represented by another person satisfactory to BPCA, having knowledge of the Work and authorized to act for Contractor at all times.

6.6 Related Work

Contractor shall examine the Contract Documents for related work to ascertain the relationship of such work to the Work under the Contract Documents.

6.7 Surveys and Layout

Unless otherwise expressly provided in this Agreement, BPCA shall furnish Contractor survey points necessary for the Work, but Contractor shall lay out the Work.

6.8 Reports and Access

Contractor shall furnish BPCA and Construction Manager with daily and monthly manpower reports on forms provided by BPCA or Construction Manager and such other reports as may be required by BPCA or Construction Manager. BPCA, Construction Manager and Architect shall have full and free access to the shops, plants and factories of Contractor, any Materialmen and Subcontractors to inform themselves as to the progress of the Work.

6.9 Financial Information

During the Term, Contractor agrees to notify BPCA forthwith in writing of any event which has caused or is reasonably anticipated to cause a material adverse change in Contractor's business or financial condition from that shown in the then most recent financial statements furnished by Contractor to BPCA. Contractor has furnished to BPCA financial statements regarding the period from [date] to [date]. Contractor agrees to furnish to BPCA, at BPCA's request from time to time hereafter, quarterly, or annual financial statements (which shall be audited, if such is the practice of Contractor for financial statements covering the applicable period) and such additional information as BPCA shall deem necessary or desirable to satisfy itself of Contractor's continuing ability to complete the Work.

ARTICLE 7 - CONTRACT ADMINISTRATION

7.1 Architect's Responsibilities and Functions

Contractor acknowledges that the role of Architect with respect to the Work shall be as specified in this Agreement. Contractor will comply with the instructions of Architect pursuant hereto.

Architect's duties and services shall in no way supersede or dilute Contractor's obligation to perform and complete the Work in conformity with the Contract Documents.

7.2 Construction Manager's Responsibilities and Functions

(a) Construction Manager shall coordinate and schedule construction to insure that the completion of the Project is on schedule and that the Project is well constructed in accordance with the Contract Documents. Contractor acknowledges that the role of Construction Manager with respect to the Work shall be as specified in this Agreement. Contractor hereby agrees to comply with the directions and instructions of Construction Manager.

(b) Construction Manager shall call for meetings of Contractor, other contractors, Subcontractors and Materialmen as necessary for the proper coordination of the Work. Such meetings shall be held at the Site on regular working days, during regular working hours, unless otherwise directed by BPCA. Attendance shall be mandatory for all parties notified to attend.

7.3 Scope of Responsibility of Architect and Construction Manager

In no event shall any act or omission on the part of the Construction Manager or Architect relieve Contractor of its obligation to perform the Work in full compliance with the Contract Documents. Neither Architect nor Construction Manager will be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, and neither will be responsible for Contractor's failure to carry out the Work in accordance with the Contract Documents or the failure to fulfill any of the requirements of this Agreement.

ARTICLE 8 - INSPECTION AND ACCEPTANCE

8.1 Access to the Work

BPCA, Construction Manager, Architect or their authorized representatives shall at all times have access to and the right to observe the Work and all facilities where the Work or any part thereof is being fabricated or stored, and Contractor shall provide proper facilities for such access and observation.

8.2 Notice of Required Inspections and Tests

If the Contract Documents, or any laws, rules, ordinances or regulations, require that any Work be inspected or tested, Contractor shall give BPCA, Construction Manager and Architect at least five days prior written notice of readiness of the Work for inspection or testing and the date fixed for such inspection or testing.

8.3 Additional Inspections and Tests

(a) Whenever, in the opinion of BPCA, Construction Manager or Architect, it is desirable to require inspection or testing of the Work or its individual components in addition to any such testing that may be originally included in the Work, they shall have authority to do so whether or not such Work be then fabricated, installed, covered or completed. If such inspection or testing reveals a failure of the Work to comply (1) with the requirements of the Contract Documents, or (2) with respect to the performance of the Work, with laws, ordinances, rules, regulations or orders of any public authority having jurisdiction, Contractor shall bear all costs thereof, including Architect's and Construction Manager's additional services made necessary by such failure; otherwise BPCA shall bear such costs, and an appropriate Change Order shall be issued.

(b) In the event that any item of the Work fails inspection or testing, BPCA, Architect or Construction Manager may require inspection or testing of any or all of the other items of the Work at Contractor's cost and expense.

8.4 Uncovering of Work

(a) If any Work shall be covered or concealed contrary to the request of BPCA, Architect or Construction Manager, such Work shall, if required by BPCA, Architect or Construction Manager, be uncovered by examination, inspection or testing. Any examination, testing or inspection shall not relieve Contractor of the responsibility to maintain quality control over the Work. If any test results are below specified minimums, BPCA may order additional testing. The cost of such additional examination, inspection or testing, any additional professional services required, and any other expenses incurred by BPCA as a result of such examination, inspection or testing shall be borne by Contractor.

(b) In the event that a typical detail fails inspection or testing, BPCA, Architect or Construction Manager may require inspection or testing of any or all of other such typical details at Contractor's cost and expense.

8.5 Correction of Work

Any Work not approved by BPCA, Architect and Construction Manager shall immediately be reconstructed, made good, replaced or corrected by Contractor including all Work of other contractors destroyed or damaged by such removal or replacement. Rejected material shall be removed immediately from the Site. Acceptance of Materials and workmanship by BPCA shall not relieve Contractor from Contractor's obligation to replace all Work which is not in full compliance with the Contract Documents.

8.6 Certificate of Substantial Completion

Upon their receipt of written notice from Contractor stating that in Contractor's estimation the Work has been substantially performed in conformity with the Contract Documents, Architect and/or Construction Manager shall perform an inspection for the purposes of determining whether the Work has been so performed, commencing such inspection within ten (10) days of receipt of such notice and completing it with all due diligence. When Architect and/or Construction Manager find upon inspection that, to the best of their knowledge and belief, the Work is so performed, they shall prepare and deliver to BPCA for delivery to Contractor a certificate specifying the date of

substantial completion of the Work for purposes of this Agreement (“**Certificate of Substantial Completion**”) and a punch list of items of Work remaining to be completed.

The delivery of a Certificate of Substantial Completion shall not terminate or alter Contractor’s obligation under this Agreement to complete the Work as expeditiously as practicable in conformity with the Contract Documents and to fulfill all terms and conditions of this Agreement.

8.7 Completion of Work and Acceptance

Upon their receipt of written notice from Contractor stating its belief that the Work has been fully performed in conformity with the Contract Documents, and confirming that Contractor has completed any items of Work previously noted to it by Architect and Construction Manager as not having been acceptably completed in any punch list or otherwise, Architect and Construction Manager shall perform an inspection for purposes of determining whether the Work has been so performed. Architect and Construction Manager shall commence such inspection within ten (10) days of receipt of such notice and shall pursue and complete it with all due diligence. When BPCA and Construction Manager find upon inspection that, to the best of their knowledge and belief, the Work has been so performed, they shall prepare a certificate of final completion, and, upon delivery by BPCA to Contractor of said certificate, the Work shall be deemed to be finally accepted by BPCA (such delivery of the certificate of final completion to Contractor is hereinafter referred to as “**Final Acceptance**”).

Final Acceptance shall not terminate or alter Contractor’s obligation under this Agreement to complete the Work in conformity with the Contract Documents and to fulfill all terms and conditions of this Agreement.

ARTICLE 9 - CHANGES IN THE WORK

9.1 Change Orders

(a) BPCA may, at any time, in any quantity or amount, without notice to the sureties and without invalidating or abandoning this Agreement, order Extra Work. Notwithstanding the terms of subsection 3.1(a) hereof, BPCA may, but shall be under no obligation to, change the manner, sequence or method of performance of the Work or direct acceleration of the Work and Contractor shall, therefor, be entitled to a Change Order (as defined in Section 9.1(b)) provided that such change or acceleration was not ordered to maintain the Progress Schedule for the Project, the Progress Schedule for the Work or to coordinate the Work with the work of other contractors. Contractor shall be obligated to perform changed Work promptly in conformity with any Change Order or Field Order issued in accordance herewith and may not suspend or otherwise refuse to perform the Work contained therein or any other aspect of the Work required under this Agreement because a Change Order has yet to be fully executed.

(b) “**Change Order**” shall mean a written order issued by BPCA to Contractor after execution of this Agreement, authorizing or requiring:

- (1) Extra Work,

- (2) items that were erroneously deleted or omitted from the Work,
- (3) items that were included in the Work but were subsequently deleted,
- (4) an extension or decrease of time to complete Work,
- (5) an increase or reduction in the payment to Contractor, or
- (6) any other change in the Contract Documents or in the sequence of performing or phasing of the Work.

(c) All Change Orders shall be prepared, signed and issued by Construction Manager at the instruction of BPCA, and to be valid, must be countersigned by BPCA and Contractor.

9.2 Change in Contract Price and Time

(a) The Contract Price will not be revised due to any change of the Work except as and to the extent expressly provided in the Change Orders. The amount by which the Contract Price is to be increased or decreased by any Change Order shall be determined by BPCA and Construction Manager by one or more of the following methods:

- (1) accepting an amount agreed upon by BPCA and Contractor;
- (2) applying the applicable unit prices and alternates where the Work involved is covered by unit prices in this Agreement;
- (3) receiving from Contractor a detailed breakdown satisfactory to BPCA and Construction Manager, including actual time slips and invoices, itemizing the direct cost of labor and Materials to perform the changed Work and adding thereto fifteen percent (15%) to cover profit and all indirect and overhead costs, except that where the changed Work is performed by a Subcontractor or Materialman, the direct cost of labor and Materials to perform the changed Work plus fifteen percent (15%) for profit and all indirect and overhead costs to Subcontractor or Materialman and an additional sum for profit and all indirect and overhead costs of Contractor equal to ten percent (10%) of the first \$100,000, five percent (5%) of the second \$100,000 and three percent (3%) of any cost in excess of \$200,000 to Contractor. No allowance shall be paid on the premium portion of overtime pay. Where the changed Work involves both an increase and a reduction in any contract Work, the above percentage override shall be applied only on the amount, if any, by which the cost of the increase exceeds the cost of the reduction.
- (4) receiving from Contractor a true copy of its bid work sheets to determine the contract price for the elimination of any contract Work. The amount of reduction shall not include the overhead or profit of Contractor for the eliminated Work. Should Contractor fail to furnish BPCA with such bid work sheets, then Construction Manager shall determine the amount of the reduction. The determination of Construction Manager shall be final and binding unless erroneously or fraudulently arrived at, or arbitrary and capricious;
- (5) adding to the Contract Price only the amount of the premium portion of overtime pay resulting from an acceleration of the Work; or

(6) adding to the Contract Price, the actual incremental labor and equipment costs incurred by the Contractor resulting from a change in the manner, sequence or method of performing the Work.

(b) The compensation specified in a Change Order shall constitute a release and full payment for the Extra Work covered thereby and for any delay and disruption cost or expense occasioned by reason of said change in the Work.

(c) No time extension shall be granted Contractor by reason of the issuance of any Change Order unless it is expressly stated therein.

9.3 Field Orders

Construction Manager shall have the authority to order minor changes in the Work by the issuance of written field orders (“**Field Orders**”), which may be issued without prior approval by BPCA. Field Orders must be countersigned by Contractor. Minor changes in the Work for purposes of this Section shall mean only changes that do not necessitate or warrant any revision in the Contract Price in excess of \$5,000 or affect the time of performance of Contractor’s Work, any change in the basic character or design of the Project, or deviation from design standards established for the Project. Except as otherwise provided in the preceding sentence relating to an increase in the Contract Price, no claim for an increase in the Contract Price may be based upon any Field Order. If Contractor, on receipt of a Field Order, claims that the change of Work involved necessitates a Change Order, it shall proceed in accordance with the Field Order under protest and notify BPCA immediately of its claim for additional compensation for Extra Work pursuant to Article 14.

9.4 Changed Conditions

(a) BPCA assumes no responsibility for the correctness of any boring or other subsurface information and makes no representation of any kind regarding subsurface conditions and test borings, reports, rock cores, foundation investigation and topographical maps which may be made available to Contractor.

(b) Contractor shall promptly, and before such conditions are disturbed, notify Construction Manager of: (1) subsurface or latent physical conditions differing materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Agreement. Construction Manager shall promptly investigate the conditions, and if it finds that such conditions do materially so differ and cause an increase or decrease in Contractor’s cost of, or the time required for, performance of any part of the Work under this Agreement, Contractor shall be paid in the manner provided for payment with respect to any Change Order and receive, if warranted, a time extension.

(c) No claim of Contractor under this clause shall be allowed unless Contractor has given the notice required in subsection (b) above.

ARTICLE 10 - SUBCONTRACTS AND PURCHASE ORDERS

10.1 Selection of Subcontractors and Materialmen and Approval of Subcontracts and Purchase Orders

(a) Contractor shall submit to Construction Manager, within 21 calendar days of the issuance of the Notice to Proceed, the names of all persons with whom it has contracted or intends to contract or hereafter contracts with respect to the Work.

(b) Except as specifically provided herein, Contractor shall not enter into any Subcontracts or issue any Purchase Orders (as hereinafter defined) to any Materialmen in connection with the performance of Contractor's obligations hereunder without the prior written consent of BPCA to the use of each such Subcontractor or Materialman, and to the agreement to be entered into between Contractor and any such Subcontractor or Materialman. Contractor shall inform BPCA in writing of any interest it may have in a proposed Subcontractor or Materialman. No such consent by BPCA, or employment, contract, or use by Contractor, shall relieve Contractor of any of its obligations hereunder nor may BPCA be held responsible in any way for the performance of a Subcontractor or Materialman to whom BPCA gave its consent.

(c) Contractor shall be responsible for the performance of the Work of any Subcontractors or Materialmen engaged, including the maintenance of schedules, coordination of their Work and resolutions of all differences between or among Contractor and any Subcontractors. It is expressly understood and agreed that any and all Subcontractors or Materialmen engaged by Contractor hereunder shall at all times be deemed engaged by Contractor and not by BPCA.

(d) Upon the request of BPCA, Contractor shall cause any Subcontractor or Materialman employed by the Contractor in connection with this Agreement to execute a copy of the Agreement wherein such Subcontractor or Materialman shall acknowledge that it has read and is fully familiar with the terms and provisions hereof and agrees to be bound thereby as such terms and provisions are or may be applicable to such Subcontractors or Materialmen.

(e) Contractor shall submit to BPCA promptly following execution, three copies of every revision, amendment, modification or cancellation executed or issued by Contractor with respect to any Subcontractor or Materialman. BPCA is not obligated to make payment on account of Work performed or Materials furnished by a Subcontractor or a Materialman under a Subcontract or contract for construction supplies or Materials (hereinafter "**Purchase Order(s)**") unless there shall have been filed with BPCA prior to the submission of a Requisition for each payment, three copies of such Subcontract or Purchase Order containing the provisions required by this Agreement to be contained therein, except as may otherwise be specified by BPCA with respect to Purchase Orders for minor purchases.

10.2 Access by BPCA and Others

Contractor shall include a provision in all Subcontracts and Purchase Orders stating that, to permit verification of Contractor's costs, BPCA shall have the right to have its representatives inspect and audit the books of account and records of the Subcontractor and Materialmen, including the right to make excerpts from such books and records. All payments by Contractor to a Subcontractor or Materialman shall be by check specifically indicating that payment is

attributable to this Agreement and identifying the invoice(s) for which payment is being made. Contractor shall include a provision in all Subcontracts and Purchase Orders that will enable representatives of the State of New York, Construction Manager and BPCA, as the case may be, to obtain access during working hours to the appropriate books of account and records of the Subcontractors or Materialmen relating to the Work to determine if there is compliance with the requirements of law or this Agreement.

10.3 Retainage

Contractor may provide for a retainage under any of its Subcontracts or Purchase Orders provided that where a Subcontract or Purchase Order provides for a retainage, the retainage shall be no greater in percentage than that provided for under Sections 5.1 or 5.7 hereof with respect to Contractor itself, unless otherwise approved in writing by BPCA. Contractor shall submit with each Requisition a statement setting forth the amounts of all retainage, if any, under its Subcontracts and Purchase Orders.

10.4 Miscellaneous

(a) Contractor shall be fully responsible for the work, acts and omissions of Subcontractors and Materialmen, and of persons either directly or indirectly employed by Subcontractors and Materialmen.

(b) Contractor's use of Subcontractors and Materialmen shall not diminish Contractor's obligation to complete the Work in accordance with the Contract Documents. Contractor shall control and coordinate the work of Subcontractors and Materialmen.

(c) Nothing contained in this Agreement shall create any contractual relationship between Subcontractors or Materialmen and BPCA, Construction Manager or Architect. Nothing in this Section shall obligate BPCA to pay or to see to the payment of any sums to any Subcontractor or Materialmen.

(d) Contractor shall include a provision in all Subcontracts and Purchase Orders exceeding \$50,000, requiring the Subcontractor or Materialman, if requested by BPCA, until the Subcontractor or Materialman finishes its portion of the Work, to deliver to Contractor unaudited and, if available, audited financial statements of the Subcontractor or Materialman similar to the obligation of Contractor under Section 6.8 and promptly upon receipt thereof Contractor shall deliver copies thereof to BPCA.

ARTICLE 11 - ASSIGNMENT

11.1 No Assignment of Duties

Contractor shall not assign this Agreement or the performance of any obligations of Contractor under this Agreement, nor enter into any Subcontract in respect of the Work or any part thereof except in compliance with Article 10 hereof and with the prior written consent of BPCA, and each and every such assignment, Purchase Order and Subcontract without such compliance and consent shall be void and shall revoke and annul this Agreement.

11.2 No Assignment of Monies

Contractor shall not assign any monies payable hereunder nor execute and deliver any order for payment unless Contractor and the assignee shall have complied with the following terms and conditions:

(a) the assignee shall be a commercial bank or finance company regularly engaged in the business of provided financing to construction contractors and shall be providing such financing to Contractor;

(b) the assignee shall, simultaneously with the assignment, execute and deliver to BPCA an undertaking, in favor of BPCA, in form and substance satisfactory to BPCA, providing that:

(1) assignee will cause Contractor to apply for trust purposes, as defined in New York Lien Law Article 3-A (the “**Lien Law**”), all funds advanced by assignee to Contractor;

(2) assignee will file a copy of the assignment, containing the covenant required by the Lien Law, with the County Clerk of New York County and the head of the agency having charge of the underlying project;

(c) the assignee shall agree with BPCA in writing that BPCA and Contractor may modify any of the terms of this Agreement, including any of the terms of payment, without the consent of assignee;

(d) the assignee shall agree with BPCA in writing that after the effective date of the assignment, BPCA may make payment directly to any Subcontractor or Materialman without any liability to the assignee;

(e) the assignee shall agree with BPCA in writing that the assignee shall require and cause Contractor to keep his books and records in the form and manner described in New York Consolidated Laws Service Lien Law Article 3-A Section 75; and

(f) the assignee shall agree with BPCA in writing that the assignee will indemnify and hold BPCA harmless from and against any loss, claim or expense incurred as a result of any failure of performance in accordance with the terms of such undertaking.

11.3 Assignment by BPCA

This Agreement or any rights of BPCA under this Agreement, including any guaranties or warranties of workmanship or material, may at any time be assigned by BPCA to the State of New York or any political subdivision, public corporation or agency of the State.

ARTICLE 12 - MECHANICS’ LIENS AND CLAIMS

If any mechanic’s lien or other claim shall be filed for or on account of the Work, Contractor shall discharge such lien or claim within thirty days of receiving written notice of such lien or other claim.

ARTICLE 13 – INSURANCE AND CONTRACT SECURITY

13.1 Insurance

(a) Contractor shall procure and maintain all of the insurance required under this Article 13 until Final Acceptance of the Work, except with respect to Completed Operations Coverage, as described in 13.1(f)(3) below.

(b) Contractor shall not commence physical performance of the Work at the Site until Contractor has obtained, and required each Subcontractor to obtain, all the insurance required under this Article and until it has furnished to BPCA the certificate or certificates of insurance required by Section 13.1(c) hereof.

(c) Contractor shall furnish to BPCA, before or upon execution of this Agreement, attention: [name], a certificate or certificates of the insurance required under this Article and, upon BPCA's request, certified copies of the original policies of insurance, within the time period required by BPCA and before commencing physical performance of the Work at the Site. Such certificate or certificates shall be in form satisfactory to BPCA, shall list the various coverages and shall contain, in addition to any other provisions required hereby, a provision that the policy shall not be changed, canceled or reduced and that it shall be automatically renewed upon expiration and continued in force until two years after Final Acceptance unless BPCA is given 90 days' written notice to the contrary. Such certificates shall also include riders providing that violation of any of the terms of any policy shall not by itself invalidate such policy. Such policies and certificates should name as additional insureds BPCA, Battery Park City Parks Conservancy Corporation ("BPCPC"), the State of New York, Construction Manager, and Architect.

(d) All insurance required to be procured and maintained must be procured from insurance companies that have a financial rating by A.M. Best Company as published in the most current key rating guide of "A-X" or better and which are authorized to do business in the State of New York.

(e) If at any time any of the required insurance policies should be canceled, terminated or modified so that insurance is not in effect as required, then, if BPCA shall so direct, Contractor shall suspend performance of the Work. If the Work is not suspended then BPCA may, at BPCA's option, obtain insurance affording coverage equal to that required, the cost of such insurance to be payable by Contractor to BPCA.

(f) Contractor and each Subcontractor shall secure in a form satisfactory to BPCA:

(1) Worker's Compensation and Employer's Liability Insurance (including United States Longshoreman & Harbor Workers and Jones Act Coverages) during the Term for the benefit of such employees as are required to be insured by the applicable provisions of law and voluntary compensation for employees excluded from statutory benefits. Employer's Liability Insurance and benefits resulting from disease shall not be less than an annual aggregate amount of (\$\$\$\$\$) for each consecutive 12-month period.

(2) Disability Benefit Insurance during the life of this Agreement for the benefit of such employees as are required to be insured by the applicable provisions of law.

(3) Commercial General Liability Insurance as follows:

Standard commercial general liability insurance policy with contractual, products and completed operations and explosion, blasting, collapse, excavation and underground damage liability coverages, under the occurrence policy format, issued to and covering the liability of Contractor for all the Work and operations relating thereto and all obligations assumed by Contractor under this Agreement including, but not limited to indemnity obligations in an amount which shall not be less than the following limits:

Combined Single Limits, Bodily Injury and Property Damage Liability

(\$\$\$\$\$) per each occurrence and (\$\$\$\$\$) in the aggregate.

Product and Completed Operations

(\$\$\$\$\$)

The completed operations coverage shall continue in force until three years after Final Acceptance of the Work and shall contain, in addition to any other provisions required hereby, a provision that the policy shall not be changed, canceled or reduced. As a condition precedent to the making of Final Payment, Contractor shall furnish BPCA with a certified copy of the completed operations policy.

(4) Automobile Liability Insurance as follows:

A policy covering the use in connection with the Work of all owned, non-owned and hired vehicles bearing license plates, or under the circumstances that such vehicles are being used they are required by the Motor Vehicle Laws of the State of New York to bear license plates. The coverage under such policy shall not be less than the following limits:

Combined Single Limits,

Bodily Injury and Property Damage Liability

(\$\$\$\$\$) per each occurrence.

(5) Marine Protection and Indemnity insurance of not less than [amount] per occurrence, if Contractor or any of its Subcontractors utilizes floating equipment, barges or floats, or performs marine-related construction, covering any and all claims for personal injury, death and property damage arising out of or in connection with this Agreement.

(6) Pollution Liability Insurance, on an occurrence basis, providing coverage for bodily injury liability, property damage or environmental damage caused by pollution conditions with a limit of liability of not less than [amount] per occurrence and in the aggregate. The policy shall include coverage for environmental clean-up on land, in air and on water. The policy shall include coverage for completed operations for two (2) years after the completion of the performance of the Work, gradual and sudden and accidental pollution coverage, with a time element of no less than seven (7) days' notice and thirty (30) days' reporting. The policy shall not

contain a sunset provision, or any other provision, which would prohibit the reporting of a claim and the subsequent defense and indemnity that would normally be provided by the policy. The policy shall provide transportation coverage for the hauling of hazardous materials from the Project Site to the final disposition location.

(7) Vessel Pollution Liability Insurance, on an occurrence basis, providing coverage for bodily injury liability, property damage or environmental damage caused by pollution conditions, emanating from any floating equipment, barges or floats, utilized by Contractor or Subcontractors in the performance of Marine related construction, with a limit of liability of not less than [amount] per occurrence and in the aggregate. The policy shall include coverage for environmental clean-up on land, in air and on water.

(8) Contractor shall secure, pay for, and maintain Property Insurance necessary for protection against the loss of owned, borrowed or rented equipment, tools and materials used in Contractor's performance of the Work. The requirement to secure and maintain such insurance is solely for the benefit of Contractor. Contractor's failure to secure such insurance or to maintain adequate levels of coverage shall not render BPCA or any other Additional Insureds, or their agents and employees, responsible for any such losses, and Owner, the other Additional Insureds, and their agents and employees shall have no such liability.

(9) Valuable Papers Insurance insuring, for the benefit of Contractor and BPCA all plans, designs, drawings, specifications, and documents used under this Agreement by Contractor in a total amount of not less than [\$\$\$\$\$] Contractor may furnish full coverage under one policy, or may submit separate policies from any Subcontractor(s) for their proportionate shares of such coverage.

(10) Comprehensive Crime/Employee Dishonesty Insurance in a reasonable amount or an amount which is customary in the applicable industry, trade or profession.

(11) If the Work involves the removal, repair, installation or testing of underground petroleum storage tanks, or petroleum remediation operations, or the performance of work or services related to excavation, loading, transporting or unloading of hazardous or contaminated materials, Contractor shall provide Contractors Professional Liability Insurance with a limit of [\$\$\$\$\$]. Coverage shall provide and encompass the following:

(i) Contractor's negligent acts, errors or omissions in rendering or failing to render services of an engineering or consulting nature arising out of their environmental engineering or consulting.

(ii) Maximum self-insured retention of [\$\$\$\$\$], or an amount acceptable to BPCA.

(12) Umbrella Liability Insurance [excess of general liability, automobile liability, Marine protection and indemnity, pollution liability, vessel pollution liability and Employer's Liability] in an amount of not less than [amount].

(g) The insurance required under subsections 13.1(f) 3, 4 [and 5] shall be of a type which shall protect Contractor and Subcontractors, respectively, against damage claims which may

arise from operations under this Agreement, whether such operations be by the insured or by anyone directly or indirectly employed by the insured. Each of the aforesaid policies shall provide that the insurance company or an attorney approved and retained by the insurance company shall defend any suit or proceeding against BPCA or any officers, agents or employees of BPCA whether or not such suit is groundless, false or fraudulent. Notwithstanding the foregoing, BPCA shall have the right to engage its own attorneys for the purpose of defending any suit or proceeding against it or its respective officers, agents or employees, and, in such event, Contractor shall, indemnify BPCA for all attorneys' fees and disbursements and other costs incurred by it arising out of, or incurred in connection with, any such defense. The said insurance shall name BPCA, BPCPC, the State of New York, Construction Manager and Architect as additional insureds as respects this location and shall, where applicable, be written on an occurrence basis and shall contain a provision that it is primary and that any similar insurance which BPCA, BPCPC, the State of New York, Construction Manager, Architect, Contractor or Subcontractor elect to carry for their own benefit is secondary or excess and not contributing insurance.

(h) BPCA, at BPCA's cost and expense, may, at its sole option, procure and maintain such insurance as shall in the opinion of BPCA, protect BPCA from contingent liability of BPCA to others for damages arising from bodily injury, including death and property damages which may arise from operations under this Agreement. The procurement and maintenance of such insurance by BPCA shall not in any way be construed or be deemed to relieve Contractor from, or to be a limitation on the nature or extent of, such obligations and risk.

(i) BPCA shall, at all times during the period of construction and until completion and Final Acceptance of the Work procure and maintain at the cost and expense of BPCA "**Builders Risk**" insurance, or its functional equivalent, against direct physical loss or damage to the Work and on all Materials to be made a part of the Work in the names of BPCA, Construction Manager, Contractor and Subcontractors, said amount of insurance to be procured and maintained on a one hundred percentage (100%) completed value basis on the insurable portion of the Work, which insurance shall contain a deductible provision for all losses except flood and earthquake in the amount of TEN THOUSAND DOLLARS (\$10,000) and a deductible provision for flood and earthquake in the amount of TEN THOUSAND DOLLARS (\$10,000). BPCA recognizes that the deductible applicable to flood and earthquake may be greater than TEN THOUSAND DOLLARS (\$10,000) due to insurance market conditions and shall notify Contractor if such deductible is greater than TEN THOUSAND DOLLARS (\$10,000). Losses up to and including the amounts of such deductible provisions shall be borne by Contractor. The insurance specified above may, in certain instances, include other parties as named insureds, as the interests of such parties may appear. Loss, if any, is to be made adjustable with and payable to BPCA on behalf and for the named insureds as the interests of such insureds may appear. BPCA shall, in BPCA's sole discretion, have power to adjust and to settle with the insureds any loss or claim under such insurance. The above is not intended to be a complete, full or accurate description of the coverage provided by the policies of insurance, copies of which are on file with BPCA. This subsection (i) is not intended to create or give any rights to Contractor or Subcontractors other than those which may be made available to such Contractors or Subcontractors under the terms of such policies. BPCA assumes no obligation to obtain insurance other than that evidenced by said policies. Contractor and Subcontractors shall not violate or permit to be violated any term or condition of such policies and shall at all times satisfy the safety requirements of BPCA and of the insurance companies issuing the aforementioned policies. The Contractor shall, upon notification by BPCA,

obtain such insurance at BPCA's expense on a date determined by BPCA, which date shall not be less than thirty (30) days after notice to Contractor of such determination by the BPCA.

13.2 Effect of Procurement of Insurance

Neither the procurement nor the maintenance of any type of insurance by BPCA or Contractor shall in any way be construed or be deemed to limit, discharge, waive or release Contractor from any of the obligations and risks impressed upon Contractor by this Agreement or to be a limitation on the nature or extent of such obligations and risks.

13.3 Contract Security

Contractor shall, if it has not already done so, furnish to BPCA, with the execution of this Agreement, to BPCA, a bond in the form acceptable to BPCA in an amount at least equal to one hundred percent (100%) of the Contract Price for performance of the Work (the "**Performance Bond**"), and a labor and material payment bond in the form acceptable to BPCA in an amount at least equal to one hundred percent (100%) of the Contract Price for the payment of all persons performing labor or providing Materials in connection with the Work (the "Payment Bond"). The surety on said bond shall be a surety company authorized to do business in the State of New York and shall be rated at last B+ by A.M. Best and Company, or meet such other requirements as are acceptable to BPCA.

13.4 Additional or Substitute Bond

If at any time BPCA shall be or shall become dissatisfied with any surety or sureties then obligated upon the Performance Bond or the Payment Bond, or if for any other reason such bonds shall cease to be adequate security to BPCA, Contractor shall within five (5) days after notice from BPCA to do so, substitute an acceptable bond or bonds in such form and sum and signed by such other surety or sureties as may be satisfactory to BPCA, except that the penal sum of said bond shall not exceed the Contract Price as adjusted by Change Orders. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished such an acceptable bond or bonds to BPCA.

ARTICLE 14 - CLAIMS FOR EXTRA WORK

(a) If Contractor is of the opinion that (i) any work that it has been ordered to perform is Extra Work and not Work as set forth in the Contract Documents, (ii) any action or omission of BPCA, Construction Manager or Architect is contrary to the terms and provisions of the Contract Documents and will require the performance of Extra Work or will cause additional expense to Contractor or (iii) any determination, order or directive of BPCA, Construction Manager or Architect is contrary to the terms of the Contract Documents and will require the performance of Extra Work or will cause additional expense to Contractor, Contractor shall:

(1) promptly comply with each determination, order or directive and proceed diligently with the performance of the Work in accordance with BPCA's instructions,

(2) notify BPCA, Construction Manager and Architect in writing within 72 hours of such determination, order, act or omission that Contractor believes such will require it to

perform Extra Work or incur additional expense and the basis for Contractor's conclusion and request a final determination thereon by BPCA; and

(3) present to the Construction Manager for signature daily time and Material tickets to confirm quantities of Material and hours of labor in cases where Contractor is performing the Work which it considers to be Extra Work.

If BPCA determines that (x) such work is Work required to be performed hereunder and not Extra Work, (y) such action or omission is proper, or (z) such determination, order or directive is proper, Contractor, in order to reserve its right to claim compensation for or damages resulting from the performance of such work or the compliance with such determination, order or directive, must notify BPCA in writing within three (3) working days after receiving notice of BPCA's determination that it is performing such work or complying with such determination, order or directive under protest.

In addition to the foregoing, Contractor must submit to BPCA, Construction Manager and Architect within thirty (30) days after it has performed such work or complied with such determination, order or directive, a detailed statement of the extra expense claimed to have been incurred and of any claimed damages resulting from the performance of such work or the compliance with such determination, order or directive.

(b) No claim for Extra Work shall be allowed unless the same was done pursuant to written order approved in writing by BPCA. Contractor's failure to comply with any provision of this Article:

(1) shall constitute a conclusive and binding determination on the part of Contractor that such action, omission, determination, order or directive does not involve Extra Work, has not caused extra expense or damages to Contractor, and is not contrary to the terms and provisions of the Contract Documents; and

(2) shall constitute an irrevocable waiver by Contractor of any claim for compensation for or damages resulting from the performance of such work or the compliance with such determination, order or directive.

(c) The value of claims for Extra Work, if allowed, shall be determined by the methods described in Section 9.2(a).

ARTICLE 15 - TERMINATION

15.1 Termination for Cause

(a) If any of the following events shall occur (an "**Event of Default**") then BPCA or Construction Manager may serve written notice upon Contractor and upon Contractor's surety, if any, terminating this Agreement at a specified date. The notice shall contain the reasons for termination but shall not be effective to terminate this Agreement if Contractor cures all Events of Default stated in the notice prior to the date specified in the notice of termination.

(1) Contractor shall violate any substantial provision of this Agreement,

including, without limitation, by failing to maintain the Progress Schedule for the Project or Progress Schedule for the Work then in effect in accordance with, or failing to discharge any of its responsibilities under, Section 3.1(d) hereof, including abandonment of the Work by Contractor, or by failing to indemnify and hold harmless BPCA (as required by Sections 3.1(e), 3.2, 17.5, 21.1, 21.2, 22(c) or any other provision of this Agreement) from and against any and all claims, liabilities, losses, costs or damages arising out of Contractor's performance of, or failure to perform, its obligations under this Agreement in accordance with its terms, or if the Contractor fails to maintain the insurance required by the provisions of Section 13; or

(2) any material adverse change shall take place in the financial condition of the Contractor;

(3) Contractor takes any action which would result in it becoming the subject of any insolvency proceeding. The term "insolvency proceeding" as used herein shall include the filing of a petition for relief under Title 11 of the United States Code by Contractor or the consent, acquiescence or taking of any action by Contractor, or the filing by or against Contractor of petition or action, looking to or seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under any other regulation; or the appointment, with or without the consent of Contractor, of any trustee, custodian, receiver or liquidator of Contractor or of any property or assets of Contractor; or Contractor's making of an assignment for the benefit of creditors or its inability to pay its debts as they become due;

(4) Contractor misrepresented or omitted information in its submission of the Statement of Qualifications of Contractor submitted by Contractor to BPCA in connection with this Agreement; or

(5) any partner, principal, director, officer or shareholder owning in excess of five percent (5%) of the stock of Contractor shall have been convicted of a felony.

(b) Upon the occurrence of an Event of Default, at BPCA's option exercised by written notice to Contractor, title to any or all of Contractor's Materials, equipment, work product, work in process and dies and tools, whether on the Site or off site, which are necessary or useful in completing the Work shall vest in BPCA and BPCA may take possession of and utilize the same for completion of the Work; provided that title to such items shall revert to Contractor upon effectuation of a cure of the Event of Default prior to the termination of this Agreement. If no cure has been effected, this Agreement has been terminated and BPCA has taken possession of the same, then after BPCA has taken possession and the Work shall have been completed by or on behalf of BPCA, BPCA shall pay to Contractor, in respect to the items for which title has vested in BPCA, an amount equal to the sum of:

(1) the direct costs of Contractor for such Materials and Work in progress, and

(2) the depreciated book value of such tools and dies less, if BPCA elects to return the tools and dies to Contractor, the salvage value thereof. BPCA shall have the right to set off against such payment due to Contractor any amounts then due and payable by Contractor to BPCA which may accrue as damages owing by Contractor to BPCA under the terms of this Agreement. Contractor shall execute any further documents (including Form UCC-1 Financing

Statements to give public notice of the potential ownership interest of BPCA as set forth herein) required by BPCA to confirm the terms of this subsection 15.1(b).

(c) Upon termination of this Agreement, BPCA shall have the right, in addition to all other rights and remedies, to complete or have the Work completed by such means and in such manner, by contract or otherwise, with or without public letting as permitted by law, as BPCA deems advisable. BPCA may deduct any loss it incurs thereby from any payment then or thereafter due to Contractor without prejudice to any other remedy BPCA may have.

(d) Immediately upon termination in accordance with the provisions of this Section, each and every Subcontract and Purchase Order entered into by Contractor shall, at BPCA's option, be automatically assigned to BPCA, and Contractor shall insert a provision to this effect in all Subcontracts and Purchase Orders.

(e) Contractor shall, upon the date when such termination shall take effect, promptly notify the union or unions, if any, having jurisdiction over the work by its employees that it releases the Project and consents that the Work be performed by others and Contractor expressly authorizes BPCA to notify the union or unions of such release in the name of Contractor. The failure, neglect or refusal of Contractor to issue such release or the disclaimer by it of the effectiveness of the release issued by BPCA shall subject Contractor to all damages sustained by BPCA.

(f) If this Agreement shall have been terminated by BPCA pursuant to this Section 15.1 and it shall be finally determined by BPCA or a court of competent jurisdiction that adequate grounds for such termination did not exist, then such termination shall be deemed a termination for convenience of BPCA under Section 15.2 hereof and the sole right, remedy and recourse of Contractor against BPCA shall be governed and determined by Section 15.2 hereof.

15.2 Termination for Convenience of BPCA

(a) BPCA, at any time, may terminate this Agreement for its own convenience. Any such termination shall be effected by delivering to Contractor a notice of termination specifying the extent to which performance of Contractor's Work under the Contract is terminated and the date upon which such termination becomes effective. Upon receipt of the notice of termination, Contractor shall:

(1) stop work under this Agreement on the date specified in the notice of termination;

(2) place no further Purchase Orders or Subcontracts for Materials, services or facilities;

(3) unless directed otherwise by BPCA, terminate all Purchase Orders and Subcontracts;

(4) assign to BPCA, in the manner, at the times, and to the extent directed by Construction Manager, all of the right, title and interest of Contractor under the Purchase Orders and Subcontractors so terminated, in which case BPCA shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such Purchase Orders and

Subcontracts;

(5) to the extent required by Construction Manager, settle all outstanding liabilities and all claims arising out of such termination of Purchase Orders and Subcontracts, with the approval or ratification of Construction Manager, which approval or ratification shall be final for all the purposes of this Section 15.2;

(6) transfer title to BPCA and deliver in the manner, at the time, and to the extent, if any, directed by the Construction Manager (i) the fabricated or unfabricated parts, Work in process, completed Work, supplies, and other Material produced as a part of, or acquired in connection with the performance of, the Work terminated by the notice of termination, and (ii) the completed or partially completed plans, drawings, work product, information and other property, which if this Agreement had been completed, would have been required to be furnished to BPCA; and

(7) take such action as may be necessary, or as the Construction Manager may direct, for the protection and preservation of the property related to this Agreement which is in the possession of Contractor and in which BPCA has or may acquire an interest.

(b) In the event of a termination of this Agreement pursuant to this Section 15.2, Contractor shall be paid by BPCA only the apportioned Contract Price for Work installed, the fair and reasonable value of Materials stored on the Site and under order for which Contractor is responsible for payment, less any sums properly deductible by BPCA, except that in no event shall Contractor be entitled to compensation in excess of the total Contract Price.

15.3 Suspension of Work

(a) BPCA may at any time and for any reason direct Contractor to suspend, stop, or interrupt the Work or any part thereof for a period of time. Such direction shall be in writing and shall specify the period during which the Work is to be stopped. Upon receipt of a direction of suspension, Contractor shall, as soon as practicable, cease performance of the Work as ordered and take immediate affirmative measures to protect the Work from loss or damage. Contractor shall resume the Work upon the date specified in such direction or upon such other date as BPCA may thereafter specify in writing.

(b) The period during which the Work shall have been suspended, stopped or interrupted may, if warranted, be added to the time fixed for performance. A suspension, stoppage or interruption of the Work pursuant to this provision shall not give rise to any claim against BPCA for additional compensation.

ARTICLE 16 - COMPOSITE DRAWINGS AND COOPERATION

Where Contractor shall perform Work in close proximity to work of other contractors or subcontractors, or where there is evidence that Contractor's Work may interfere with work of other contractors, or subcontractors, Contractor shall assist in arranging space conditions to make satisfactory adjustment for the performance of such work and the Work. Contractor shall prepare composite scale working drawings and specifications as directed by Construction Manager, clearly showing how Contractor's Work is to be performed in relation to work of other contractors or

Subcontractors. Such direction may include the following: the scale of the drawings, where the drawings are to be drafted, the number of prints or reproducibles, and the requirement of attendance at meetings. The determination as to who shall provide the composite drawings and the contents of the same shall rest exclusively with Construction Manager. Upon request by Construction Manager, Contractor shall sign and be bound by such composite drawings. Such signature shall indicate Contractor's acknowledgment that such drawing is acceptable as related to its Work covered or included in such drawing. If Contractor performs the Work in a manner that causes interference with the work of other contractors, or Subcontractors, Contractor shall make the changes necessary to correct the condition as directed by Construction Manager.

ARTICLE 17 - PROTECTION OF RIGHTS, PERSONS AND PROPERTY

17.1 Accident Prevention

Contractor shall at all times take every precaution against injuries to persons or damage to property and for the safety of persons engaged in the performance of the Work.

17.2 Safety Programs

Contractor shall be responsible for the initiation, maintenance and supervision of safety precautions and programs as prescribed by Construction Manager in connection with the Work.

17.3 Protection of Work and Property

(a) Contractor shall at all times guard BPCA's property from injury or loss in connection with the Work. Contractor shall at all times guard and protect the Site, the Work and adjacent property. Contractor shall replace or make good any such loss or injury unless such loss or injury is caused directly by BPCA.

(b) Contractor shall have full responsibility to install, protect and maintain all Materials in proper condition and forthwith repair, replace and make good any damage thereto until Final Acceptance of the Work.

(c) No provision is included for stresses or loads imposed by construction operations. If Contractor desires to place such loads in excess of the design load (as shown on the Drawings or Specifications), Contractor shall submit to Architect drawings and calculations prepared by, and bearing the seal of a professional engineer, showing the proposed method for supporting such loads, for Architect's review and approval. No loading of any kind in excess of design loads shall be placed on any part of the Project prior to Architect's approval of such submitted drawings and calculations. The costs of the Architect's review shall be reimbursed to BPCA by Contractor.

(d) Contractor shall be responsible for all cutting, fitting or patching that may be required to complete the Work, to make its several parts fit together properly and to make the Work fit together properly with previous and surrounding work. The requirement to cut, fit or patch shall be determined by Construction Manager; provided, that structural elements of the Project shall not be cut, patched, or otherwise altered or repaired without prior authorization by BPCA. Authorization to proceed with remedial operation on any damaged or defective element or portion of the Project shall not constitute a limitation or a waiver of BPCA's, Construction Manager's or

Architect's right to require the removal and replacement of any Work which fails to fulfill the requirements of the Contract Documents.

17.4 Adjoining Property

Contractor shall protect all adjoining property and shall repair or replace any such property damaged or destroyed during the progress of the Work.

17.5 Risks Assumed by Contractor

(a) Contractor solely assumes the following risk whether such risk arises from acts or omissions (whether negligent or not and whether supervisory or otherwise) of BPCA, Construction Manager, of Architect or Contractor, of any Subcontractor, of any Materialman, of third persons or from any other cause, including unforeseen obstacles and difficulties which may be encountered in the prosecution of the Work, whether such risk is within or beyond the control of Contractor and whether such risk involves any legal duty, primary or otherwise, imposed upon BPCA:

The risk of loss or damage, direct or indirect, of whatever nature, to the Work or to any Materials furnished, used, installed or received by BPCA, Contractor or any Subcontractor, Materialmen or workmen performing services or furnishing Materials for the Work, whether such Work or Materials are stored at the Site or at an offsite location in accordance with Section 5.4 hereof. Contractor shall bear such risk of loss or damage until Final Acceptance of the Work by BPCA or until completion of such Materials or removal of such Materials from the Site following a determination that they will no longer be needed for the Project and delivery to the location at which they are to be subsequently stored or disposed of, whichever event occurs last. A portion of the risk of such loss or damage may be insured against under the terms of a "builder's risk" insurance policy maintained in the name of Contractor, among others, as described in Section 13.1(i). Notwithstanding the status of any actual or potential recovery or claim under the said "builder's risk" insurance policy, in the event of any loss or damage, Contractor immediately shall repair, replace or make good any such loss or damage.

(b) Contractor shall not, without obtaining express advance permission of BPCA, raise any defense involving in any way the: (i) jurisdiction of any court in which BPCA brings an action arising under this Agreement, (ii) the governmental nature of BPCA, or (iii) the provisions of any statutes respecting suits against BPCA.

(c) Contractor's obligations under this Article 17 shall not be deemed waived, limited or discharged by the enumeration or procurement of any insurance for liability for damages.

(d) Neither Final Acceptance of the Work nor any payment made hereunder shall release Contractor from Contractor's obligations under this Article 17. The enumeration elsewhere in this Agreement of particular risks assumed by Contractor or of particular claims for which Contractor is responsible shall not be deemed to limit the effect of the provisions of this Article 17 or to imply that Contractor assumes or is responsible for only risks or claims of the type enumerated; and neither the enumeration in this Article 17 nor the enumeration elsewhere in this Agreement of particular risks assumed by Contractor of particular claims for which Contractor is responsible shall be deemed to limit the risks which Contractor would assume or the claims for which Contractor would be responsible in the absence of such enumerations.

(e) The Contractor is advised that the Work under this Agreement may impose certain obligations and requirements mandated by the U.S. Department of Labor Occupational Safety and Health Administration regulations, Title 29 CFR Part 1926.62 Lead Exposure in Construction, relative to the potential exposure to lead by its employees. The Contractor assumes entire responsibility and liability for complying fully in all respects with these regulations.

(f) Contractor agrees that any unsatisfied claims of the BPCA arising from Contractor's obligations under this Article 17 or Article 13 (Insurance) may be offset or deducted by BPCA from any payments due to Contractor hereunder.

ARTICLE 18 - USE PRIOR TO ACCEPTANCE BY BPCA

(a) If before Final Acceptance of Work, BPCA desires to use the Site or any part thereof that is completed or partly completed, or to place or install therein or thereon equipment, BPCA shall have the right to do so, and Contractor shall in no way interfere with or object to such use by BPCA.

(b) Such use shall not (1) constitute acceptance of space, systems, Materials or elements of the Work, (2) affect the start of any guaranty period, nor (3) affect the obligations of Contractor to complete the Work in accordance with the requirements of this Agreement or other obligations of Contractor under the Contract Documents.

(c) Contractor shall continue the performance of the Work in a manner that shall not unreasonably interfere with such use by BPCA.

ARTICLE 19 - EXEMPTION FROM SALES AND COMPENSATING USE TAXES

19.1 BPCA Exempt

BPCA is exempt from payment of sales and compensating use taxes of the State of New York and of cities and counties thereof on all Materials that will become an integral component of the completed Project pursuant to this Agreement.

19.2 Certificates

Contractor shall obtain and cause Subcontractors and Materialmen to obtain any and all necessary certificates or other documentation from the appropriate governmental agency or agencies, and use such certificates or other documentation as required by law, rule or regulations to obtain said tax exemption.

ARTICLE 20 - WARRANTIES AND GUARANTIES

20.1 In General

(a) Contractor guarantees that all Work performed and all Materials furnished will conform to the Contract Documents as to kind, quality, functions, design and characteristics of material and workmanship. Contractor shall remove, replace and repair, at its sole cost and expense, all defects in workmanship, Materials, ratings, capacities, or design characteristics

occurring in or to the Work including, without limitation, any portion of the Work furnished or performed by any Subcontractor or Materialman, within one year from the date of Final Acceptance. Contractor guarantees that all Work performed and all Materials furnished will conform to the Contract Documents as to kind, quality, functions, design and characteristics of material and workmanship. Contractor hereby acknowledges that BPCA may be required to incur substantial expense if correction of the Work is required particularly if such correction involves the uncovering, removal or replacement of concrete, wiring and piping installed at the Site. If Contractor shall fail to reimburse BPCA for any such expense which may become payable as provided in this paragraph, BPCA shall be entitled to deduct such expense from any payments required to be made by BPCA to Contractor pursuant to this Agreement. Contractor, upon demand, shall pay for any and all damage to any Work affected by or from such defects and all expenses necessary to remove, replace and repair such Work that may be damaged in removing, replacing or repairing such defects.

(b) The benefits of this Article 20 shall inure to the benefit of BPCA and its respective successors and assigns. In addition, any bond or guaranty that may be required of Contractor or any Subcontractor or Materialman under the Contract Documents shall inure to the benefit of BPCA and its respective successors and assigns.

(c) The rights and remedies afforded BPCA under this Section are in addition to and not in lieu of and do not in any way affect, change, alter, modify, vary or prejudice any right, remedy or recourse that BPCA may have under other provisions of this Agreement or pursuant to law.

20.2 Additional Guaranties

In addition to the general guaranty set forth in Section 20.1, any other guaranties set forth in the Contract Documents shall be applicable.

20.3 Repair by Another

If BPCA has requested Contractor to correct any Work and Contractor shall not have completed any correction of the Work as shall be required pursuant to this Article 20 within ten (10) working days after receipt of written notice from BPCA specifying the defect or damage required to be removed, replaced or repaired, or if such defect or damage is of such a nature that it cannot be completely removed, repaired and replaced within such ten (10) day period and Contractor shall not have diligently commenced removing, repairing and replacing such defect and damage within such ten (10) day period or shall not thereafter with reasonable diligence and in good faith proceed to do such work, BPCA may employ such other person, firm or corporation as it may choose, to perform such removal, replacement and repair, and Contractor shall, upon demand, pay to BPCA all amounts that BPCA expends for such removal, replacement and repair.

ARTICLE 21 - INDEMNITY

21.1 Delay or Failure

Contractor and its sureties shall be responsible for and pay to BPCA, all loss, damage and additional cost incurred by reasons or on account of (i) the unexcused delays of Contractor

(determined as set forth in Section 3.1 hereof) or (ii) Contractor's failure to fully and completely carry out the terms of this Agreement.

21.2 Inventions

In addition to the indemnity set forth in Section 17.5(a), Contractor shall indemnify and hold BPCA harmless from all claims, demands or liabilities of any kind or nature, including costs and expenses, for or on account of any patented or unpatented plan, design, invention, article, arrangement, appliance, Material, or preparation, manufactured, used or followed in the performance of or incident to the Work hereunder, and shall defend any and all actions arising out of the same. In the event of any injunction or legal action by reason thereof, which shall operate to stop or retard the Work, BPCA shall have the right to substitute such other articles of like kind as will enable it to complete the Project, and all costs and expenses occasioned thereby shall be borne by Contractor.

21.3 Liability

To the fullest extent allowed by law, Contractor shall hold BPCA, BPCPC, the State of New York, Construction Manager and Architect and their servants, agents and employees harmless from and shall indemnify them against any and all liability, loss, cost, damage or expense, including attorneys' fees, by reason of claims of Contractors employees or employees of its Subcontractors or Materialmen for injuries or death or by reason of claims of any other person or persons, including BPCA, BPCPC, the State of New York, Construction Manager, and Architect and their servants, agents or employees, for injuries to person or property or for death occasioned in whole or in part by any act or omission of Contractor, its Subcontractors and Materialmen and their servants, agents and employees whether or not it is contended that BPCA contributed thereto or was responsible therefor by reason of nondelegable duty. If, however, this indemnification is limited by applicable law, then the said indemnification hereby shall be similarly limited to conform with such law, it being the intention that this indemnification shall be as permitted by applicable law. BPCA may retain any monies due or to become due hereunder sufficient to indemnify BPCA, BPCPC, the State of New York, Construction Manager, and Architect and their servants, agents and employees against such injuries, claims, suits, actions, costs or damages should any such claim arise. Contractor shall, at the sole option of BPCA and upon written demand of BPCA, assume the defense in behalf of BPCA, BPCPC, the State of New York, Construction Manager, and Architect or their servants, agents or employees of any action or proceeding commenced against them whether or not Contractor is named as a party therein as part of Contractor's aforementioned obligation to indemnify and hold them harmless.

ARTICLE 22 - PATENTS AND ROYALTIES

(a) In the prosecution of the Work, Contractor will not use or furnish any patented appliance, article, device or method of construction unless it has authorization for such use. Contractor shall pay all royalty and license fees.

(b) Any approval of Materials by Architect shall be construed merely as an approval of their adequacy for the Work.

(c) Contractor will be responsible for all claims against BPCA for the infringement of

any patents. Contractor shall defend all suits and claims for infringement of any patent rights and shall indemnify and hold BPCA harmless from loss on account thereof. Any expenses incurred by Contractor in connection with suits and claims will not offset the Contract Price.

(d) Contractor hereby and presently grants to BPCA an irrevocable and non-exclusive license to utilize all of the Contractor's rights in and to all:

- (1) United States patents and patents registered in any other foreign country;
- (2) proprietary knowledge, data and trade secrets; and
- (3) Engineering data and information necessary in connection with and solely in connection with, all work performed by BPCA or other contractors hired by BPCA to complete the work after termination of this Agreement pursuant to Section 15.1.

Each Purchase Order and Subcontract shall contain a similar clause with respect to the rights of Subcontractor and Materialman in and to the foregoing, in form and substance acceptable to BPCA, granting BPCA the aforesaid license. BPCA shall not be obligated to pay any royalties, license fees or any other consideration to Contractor or any Subcontractor or Materialman for this license. Contractor and each Subcontractor and Materialman shall execute a separate license agreement, in form and substance satisfactory to BPCA, concurrently with the execution of this Agreement, or any Subcontract or Purchase Order, or within ten (10) days thereafter, embodying the terms of this Section. On request, Contractor and each Subcontractor and Materialman shall furnish BPCA with copies of all related Engineering and technical data required to complete the work.

ARTICLE 23 - AS-BUILT DRAWINGS

(a) Contractor shall be furnished by BPCA, at BPCA's expense, with one physical set and two electronic copies (on disk) of 48" x 36" Drawings, on which Contractor, where applicable, shall record the installation of underground utilities, concealed piping, concealed valves and control equipment and record changes in the Work. Such recording shall be kept current and include final and actual sizes as well as the location and elevation of the above figures and offset distances in feet and inches to permanent surface improvements such as buildings, retaining walls or curbs. During the progress of the Work, at the request of Construction Manager and prior to the approval of any Requisition of Contractor, Contractor shall provide a 48" x 36" PDF to BPCA of the up to-date Drawings showing the Work as installed. At completion of the Work, Contractor shall complete, sign and date the 48" x 36" physical set of Drawings and deliver it to Architect.

(b) After review by Architect and return to Contractor for any required changes, Contractor shall furnish to BPCA, at Contractor's expense, at least one physical set and two electronic copies (on disk) of 48" x 36" final Drawings.

ARTICLE 24 - SHOP DRAWINGS AND SAMPLES

24.1 Contractor Submittal

Contractor shall submit to Construction Manager the shop drawings, Product Data and Samples required by the Contract Documents and shall adhere to all submittal and scheduling requirements with respect thereto. After review of such shop drawings, Product Data and Samples by Construction Manager and their approval by Architect, each of such items shall be returned in accordance with the procedures established therefor.

24.2 Contractor's Responsibility

Architect's approval of shop drawings, Product Data and Samples shall not relieve Contractor of responsibility for and deviation from the requirements of the Contract Documents. Contractor shall be responsible for the accuracy of the shop drawings, Product Data and Samples and for the conformity of Documents unless Contractor has notified Architect of the deviation in writing at the time of submission and has received from Architect written approval by separate letter of the specified deviations. Architect's approval shall not relieve Contractor of responsibility for errors or omissions in the shop drawings, Product Data or Samples.

ARTICLE 25 – NOTICES

Whenever it is provided herein that notice, demand, request, consent, approval or other communication shall or may be given to, or served upon, either of the parties by the other, or whenever either of the parties desires to give or serve upon the other any notice, demand, request, consent, approval or other communication with respect hereto, each such notice, demand, request, consent, approval or other communication shall be in writing and shall be effective for any purpose only if given or served by hand with proof of delivery, by delivery by an overnight courier service which obtains receipts, or by mailing the same by express or certified mail, postage prepaid, return receipt requested, addressed to:

- (a) if to BPCA:

Battery Park City Authority
Attn: [Name], [Title]
200 Liberty Street, 24th Fl
New York, NY 10281

with a copy to: General Counsel, at the same address

or to such other address as BPCA may from time to time designate in the manner set forth above.

- (b) if to Contractor:

[Company]
Attn: [Name], [Title]
[Street Address]

[City, State, Zip]

or to such other addresses as Contractor may from time to time designate in the manner set forth above.

- (c) if to Construction Manager

[Company]

Attn: [Name], [Title]

[Street Address]

[City, State, Zip]

or to such other addresses as the Construction Manager may from time to time designate in the manner set forth above.

- (d) if to Architect/Engineer/etc.

[Company]

Attn: [Name], [Title]

[Street Address]

[City, State, Zip]

or to such other addresses as Architect or Engineer may from time to time designate in the manner set forth above.

Every notice, demand, request, consent, approval or other communication hereunder shall be deemed to have been given or served (i) in the case of express or certified mail, on the date the receipt is dated by the Post Office or express mail carrier, as the case may be, and (ii) in the case of notice by hand or by overnight courier service, upon delivery, as evidenced by a signed receipt.

ARTICLE 26 – EMPLOYMENT AND DIVERSITY

26.1 Participation by Minority and Women-Owned Business Enterprises

- (a) General Provisions

(1) Owner is required to implement the provisions of New York State Executive Law Article 15-A and Parts 140-145 of Title 5 of the New York Codes, Rules and Regulations (“NYCRR”) for all contracts, as defined therein, with a value (1) in excess of \$25,000 for labor, services, equipment, materials, or any combination of the foregoing or (2) in excess of \$100,000 for real property renovations and construction.

(2) Contractor agrees, in addition to any other nondiscrimination provision herein and at no additional cost to Owner, to fully comply and cooperate with Owner in the implementation of New York State Executive Law Article 15-A and the regulations promulgated thereunder. These requirements include equal employment opportunities for minority group members and women (“EEO”) and contracting opportunities for New York State-certified minority and women-owned business enterprises (“MWBEs”). Contractor’s demonstration of

“good faith efforts” pursuant to 5 NYCRR § 142.8 shall be a part of these requirements. These provisions shall be deemed supplementary to, and not in lieu of, the nondiscrimination provisions required by New York State Executive Law Article 15 (the “Human Rights Law”) and other applicable federal, state, and local laws.

(3) Failure to comply with all of the requirements herein may result in a finding of non-responsiveness, non-responsibility and/or a breach of contract, leading to the assessment of liquidated damages pursuant to Section 26.1(g) and such other remedies as are available to Owner.

(b) Contract Goals

(1) For purposes of this Contract, Owner hereby establishes an overall goal of XX% for MWBE participation, XX% for New York State-certified minority-owned business enterprise (“MBE”) participation and XX% for New York State-certified women-owned business enterprise (“WBE”) participation (collectively, “MWBE Contract Goals”) based on the current availability of MBEs and WBEs.

(2) For purposes of providing meaningful participation by MWBEs on the Agreement and achieving the MWBE Contract Goals established in Section 26.1(b)(1) hereof, Contractor should reference the directory of MWBEs at the following internet address: <https://ny.newnycontracts.com>.

(3) Additionally, Contractor is encouraged to contact the Division of Minority and Women’s Business Development at (212) 803-2414 to discuss additional methods of maximizing participation by MWBEs on this Agreement.

(4) Contractor understands that only sums paid to MWBEs for the performance of a commercially useful function, as that term is defined in 5 NYCRR § 140.1, may be applied towards the achievement of the applicable MWBE participation goal. [FOR CONSTRUCTION CONTRACTS – The portion of a contract with an MWBE serving as a supplier that shall be deemed to represent the commercially useful function performed by the MWBE shall be 60% of the total value of the contract. The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be the monetary value for fees, or the markup percentage, charged by the MWBE]. [FOR ALL OTHER CONTRACTS - The portion of a contract with an MWBE serving as a broker that shall be deemed to represent the commercially useful function performed by the MWBE shall be 25% of the total value of the contract.]

(5) Contractor must document “good faith efforts,” pursuant to 5 NYCRR § 142.8, to provide meaningful participation by MWBEs as Subcontractors and suppliers in the performance of this Agreement. Such documentation shall include, but not necessarily be limited to:

- (A) Evidence of outreach to MWBEs;
- (B) Any responses by MWBEs to Contractor’s outreach;
- (C) Copies of advertisements for participation by MWBEs in appropriate general circulation, trade, and minority or women-oriented publications;

- (D) The dates of attendance at any pre-bid, pre-award, or other meetings, if any, scheduled by Owner with MWBEs; and,
- (E) Information describing specific steps undertaken by Contractor to reasonably structure the Work to maximize opportunities for MWBE participation.

(c) Equal Employment Opportunity (“EEO”)

(1) The provisions of Article 15-A of the Executive Law and the rules and regulations promulgated thereunder pertaining to equal employment opportunities for minority group members and women shall apply to this Agreement.

(2) In performing the Agreement, Contractor shall:

(A) Ensure that each Contractor and Subcontractor performing work on the Agreement shall undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status. For these purposes, EEO shall apply in the areas of recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, layoff, or termination and rates of pay or other forms of compensation.

(B) Contractor shall submit an EEO policy statement to Owner within seventy-two (72) hours after the date of the notice by Owner to award the Agreement to Contractor.

(C) If Contractor, or any of its Subcontractors, does not have an existing EEO policy statement, Owner may require Contractor or Subcontractor to adopt a model statement (see Exhibit D – Equal Employment Opportunity Policy Statement).

(D) Contractor’s EEO policy statement shall include the following language:

(i) Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, age, disability, or marital status, will undertake or continue existing EEO programs to ensure that minority group members and women are afforded equal employment opportunities without discrimination, and shall make and document its conscientious and active efforts to employ and utilize minority group members and women in its work force.

(ii) Contractor shall state in all solicitations or advertisements for employees that, in the performance of the contract, all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, national origin, sex, age, disability or marital status.

(iii) Contractor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union, or representative will not discriminate on the basis of race, creed, color, national origin, sex

age, disability or marital status and that such union or representative will affirmatively cooperate in the implementation of Contractor's obligations herein.

(iv) Contractor will include the provisions of Sections 26.1(c)(2)(D)(i) through (iii), which provides for relevant provisions of the Human Rights Law, in every subcontract in such a manner that the requirements of the subdivisions will be binding upon each Subcontractor as to the Work.

[PLEASE NOTE THAT THIS REQUIREMENT “C” IS ONLY APPLICABLE WHERE A STATE AGENCY EXPECTS TO ENTER INTO A STATE CONTRACT WITH A TOTAL EXPENDITURE IN EXCESS OF \$250,000. NOTE: THIS LANGUAGE SHOULD BE DELETED FROM THE FINAL CONTRACT]

(3) Staffing Plan. To ensure compliance with this Section, Contractor shall submit a staffing plan to document the composition of the proposed workforce to be utilized in the performance of the Agreement by the specified categories listed, including ethnic background, gender, and Federal occupational categories. Contractor shall complete the staffing plan form (<https://www.ogs.ny.gov/MWBE/Docs/EEO100.docx>) and submit it as part of their bid or proposal or within a reasonable time, as directed by Owner.

WORKFORCE UTILIZATION REPORTS SHALL BE COLLECTED ON A MONTHLY BASIS FOR CONSTRUCTION CONTRACTS AND A QUARTERLY BASIS FOR ALL OTHER CONTRACTS. NOTE: THIS LANGUAGE SHOULD BE DELETED FROM THE FINAL CONTRACT]

(4) Workforce Utilization Report

(A) Contractor shall submit a Workforce Utilization Report (https://its.ny.gov/sites/default/files/documents/eo_workforce_utilization_report.xlsx) and shall require each of its Subcontractors to submit a Workforce Utilization Report, in such form as shall be required by Owner on a monthly/quarterly basis during the term of this Agreement.

(B) Separate forms shall be completed by Contractor and any Subcontractors.

(C) Pursuant to Executive Order #162, Contractors and Subcontractors are also required to report the gross wages paid to each of their employees for the work performed by such employees on the contract on a monthly/quarterly basis.

(5) Contractor shall comply with the provisions of the Human Rights Law, and all other State and Federal statutory and constitutional non-discrimination provisions. Contractor and its Subcontractors shall not discriminate against any employee or applicant for employment because of race, creed (religion), color, sex, national origin, sexual orientation, military status, age, disability, predisposing genetic characteristic, marital status or domestic violence victim status, and shall also follow the requirements of the Human Rights Law with regard to non-discrimination on the basis of prior criminal conviction and prior arrest.

(d) MWBE Utilization Plan

(i) Contractor represents and warrants that Contractor has submitted an MWBE Utilization Plan, or shall submit an MWBE Utilization Plan at such time as shall be required by Owner, through the New York State Contract System ("NYSCS"), which can be viewed at <https://ny.newnycontracts.com>, provided, however, that Contractor may arrange to provide such evidence via a non-electronic method to Owner, either prior to, or at the time of, the execution of the contract.

(ii) Contractor agrees to adhere to such MWBE Utilization Plan in the performance of the Work.

(iii) Contractor further agrees that failure to submit and/or adhere to such MWBE Utilization Plan shall constitute a material breach of the terms of the Agreement. Upon the occurrence of such a material breach, Owner shall be entitled to any remedy provided herein, including but not limited to, a finding that Contractor is non-responsive.

(e) Waivers

(i) If Contractor, after making good faith efforts, is unable to achieve the MWBE Contract Goals stated herein, Contractor may submit a request for a waiver through the NYSCS, or a non-electronic method provided by Owner. Such waiver request must be supported by evidence of Contractor's good faith efforts to achieve the maximum feasible MWBE participation towards the applicable MWBE Contract Goals. If the documentation included with the waiver request is complete, Owner shall evaluate the request and issue a written notice of approval or denial within twenty (20) business days of receipt.

(ii) If Owner, upon review of the MWBE Utilization Plan, quarterly MWBE Contractor Compliance Reports described in Section 26.1(c)(iv)(C), or any other relevant information, determines that Contractor is failing or refusing to comply with the MWBE Contract Goals, and no waiver has been issued in regards to such non-compliance, Owner may issue a notice of deficiency to Contractor. Contractor must respond to the notice of deficiency within seven (7) business days of receipt. Such response may include a request for partial or total waiver of MWBE Contract Goals.

(f) Contractor is required to submit a quarterly MWBE Contractor Compliance Report through the NYSCS, provided, however, that Contractor may arrange to provide such report via a non-electronic method to Owner by the 10th day following the end of each quarter during the term of the Agreement.

(g) Liquidated Damages - MWBE Participation

(1) Where Owner determines that Contractor is not in compliance with the requirements of this Section 26.1 and Contractor refuses to comply with such requirements, or if Contractor is found to have willfully and intentionally failed to comply with the MWBE participation goals, Contractor shall be obligated to pay to Owner liquidated damages.

(2) Such liquidated damages shall be calculated as an amount equaling the difference between:

(A) All sums identified for payment to MWBEs had Contractor achieved the contractual MWBE goals; and

(B) All sums actually paid to MWBEs for work performed or materials supplied under the Agreement.

(3) In the event a determination has been made which requires the payment of liquidated damages and such identified sums have not been withheld by Owner, Contractor shall pay such liquidated damages to Owner within sixty (60) days after they are assessed. Provided, however, that if Contractor has filed a complaint with the Director of the Division of Minority and Women's Business Development pursuant to 5 NYCRR § 142.12, liquidated damages shall be payable only in the event of a determination adverse to Contractor following the complaint process.

26.2 Participation by Service-Disabled Veteran-Owned Businesses

(a) General Provisions

Article 17-B of the New York State Executive Law provides for more meaningful participation in public procurement by New York State-certified Service-Disabled Veteran-Owned Businesses ("SDVOB"), thereby further integrating such businesses into New York State's economy. Owner recognizes the need to promote the employment of service-disabled veterans and to ensure that certified service-disabled veteran-owned businesses have opportunities for maximum feasible participation in the performance of Owner contracts.

In recognition of the service and sacrifices made by service-disabled veterans and in recognition of their economic activity in doing business in New York State, Contractors are expected to consider SDVOBs in the fulfillment of the requirements of the Agreement. Such participation may be as Subcontractors or suppliers, as protégés, or in other partnering or supporting roles.

(b) Contract Goals

(i) Owner hereby establishes an overall goal of ___% for SDVOB participation, based on the current availability of qualified SDVOBs. For purposes of providing meaningful participation by SDVOBs, the Contractor should reference the directory of New York State Certified SDVOBs found at: http://ogs.ny.gov/Core/docs/CertifiedNYS_SDVOB.pdf. Questions regarding compliance with SDVOB participation goals should be directed to Anthony Peterson at anthony.peterson@bpca.ny.gov or (212) 417-2337. Additionally, following execution of this Agreement, Contractor is encouraged to contact the Office of General Services' Division of Service-Disabled Veterans' Business Development at 518-474-2015 or VeteransDevelopment@ogs.ny.gov to discuss additional methods of maximizing participation by SDVOBs on the Agreement.

(ii) Contractor must document “good faith efforts” to provide meaningful participation by SDVOBs as subcontractors or suppliers in the performance of the Contract (see Section 26.2(d) below).

(c) SDVOB Utilization Plan

(i) In accordance with 9 NYCRR § 252.2(i), Contractors are required to submit a completed SDVOB Utilization Plan on Form SDVOB 100 (https://ogs.ny.gov/Veterans/Docs/2016/SDVOB_100_Utilization_Plan.docx) with their bid.

(ii) The Utilization Plan shall list the SDVOBs that Contractor intends to use to perform the Work, a description of the Work that Contractor intends the SDVOB to perform to meet the goals on the Agreement, the estimated dollar amounts to be paid to an SDVOB, or, if not known, an estimate of the percentage of Work the SDVOB will perform. By signing the Utilization Plan, Contractor acknowledges that making false representations or providing information that shows a lack of good faith as part of, or in conjunction with, the submission of a Utilization Plan is prohibited by law and may result in penalties including, but not limited to, termination of a contract for cause, loss of eligibility to submit future bids, and/or withholding of payments. Any modifications or changes to the agreed participation by SDVOBs after the contract award and during the term of the Agreement must be reported on a revised SDVOB Utilization Plan and submitted to Owner.

(iii) Owner will review the submitted SDVOB Utilization Plan and advise the Contractor of Owner acceptance or issue a notice of deficiency within 20 days of receipt.

(iv) If a notice of deficiency is issued, Contractor agrees that it shall respond to the notice of deficiency, within seven business days of receipt, by submitting to Owner a written remedy in response to the notice of deficiency. If the written remedy that is submitted is not timely or is found by Owner to be inadequate, Owner shall notify Contractor and direct the Contractor to submit, within five business days of notification by Owner, a request for a partial or total waiver of SDVOB participation goals on Form SDVOB 200 (https://ogs.ny.gov/Veterans/Docs/2016/SDVOB_200_Waiver_Form.docx). Failure to file the waiver form in a timely manner may be grounds for disqualification of the bid or proposal.

(v) Owner may disqualify a Contractor’s bid or proposal as being non-responsive under the following circumstances:

- (A) If Contractor fails to submit an SDVOB Utilization Plan;
- (B) If Contractor fails to submit a written remedy to a notice of deficiency;
- (C) If Contractor fails to submit a request for waiver; or
- (D) If Owner determines that Contractor has failed to document good faith efforts.

(vi) Contractor certifies that it will follow the submitted SDVOB Utilization Plan for the performance of SDVOBs on the Agreement pursuant to the prescribed SDVOB contract goals set forth above.

(vii) Contractor further agrees that a failure to use SDVOBs as agreed in the Utilization Plan shall constitute a material breach of the terms of the Contract. Upon the occurrence of such a material breach, Owner shall be entitled to any remedy provided herein, including but not limited to, a finding of Contractor non-responsibility.

(d) Waivers

(i) Prior to submission of a request for a partial or total waiver, Contractor shall speak to Anthony Peterson at anthony.peterson@bpca.ny.gov or (212) 417-2337 for guidance.

(ii) In accordance with 9 NYCRR § 252.2(m), a Contractor that is able to document good faith efforts to meet the goal requirements, as set forth in Section 26.2(e) below, may submit a request for a partial or total waiver on Form SDVOB 200 (https://ogs.ny.gov/Veterans/Docs/2016/SDVOB_200_Waiver_Form.docx), accompanied by supporting documentation. Contractor may submit the request for waiver at the same time it submits its SDVOB Utilization Plan. If a request for waiver is submitted with the SDVOB Utilization Plan and is not accepted by Owner at that time, the provisions of Section 26.2(c)(iii), (iv) and (v) will apply. If the documentation included with the Contractor's waiver request is complete, Owner shall evaluate the request and issue a written notice of acceptance or denial within 20 days of receipt.

(iii) Contractor shall attempt to utilize, in good faith, the SDVOBs identified within its SDVOB Utilization Plan, during the performance of the Work. Requests for a partial or total waiver of established goal requirements made subsequent to award of the Agreement may be made at any time during the term of the Agreement to Owner, but must be made no later than prior to the submission of a request for final payment.

(iv) If Owner, upon review of the SDVOB Utilization Plan and Monthly SDVOB Compliance Report determines that Contractor is failing or refusing to comply with the contract goals and no waiver has been issued in regards to such non-compliance, Owner may issue a notice of deficiency to the Contractor. The Contractor must respond to the notice of deficiency within seven business days of receipt. Such response may include a request for partial or total waiver of SDVOB contract goals. Waiver requests should be sent to Owner.

(e) Required Good Faith Efforts. In accordance with 9 NYCRR § 252.2(n), Contractors must document their good faith efforts toward utilizing SDVOBs on the Agreement. Evidence of required good faith efforts shall include, but not be limited to, the following:

(i) Copies of solicitations to SDVOBs and any responses thereto.

(ii) Explanation of the specific reasons each SDVOB that responded to Contractors' solicitation was not selected.

(iii) Dates of any pre-bid, pre-award or other meetings attended by Contractor, if any, scheduled by Owner with certified SDVOBs whom Owner determined were capable of fulfilling the SDVOB goals set in the Agreement.

(iv) Information describing the specific steps undertaken to reasonably structure the Work for the purpose of subcontracting with, or obtaining supplies from, certified SDVOBs.

(v) Other information deemed relevant to the waiver request.

(f) Monthly SDVOB Contractor Compliance Report

In accordance with 9 NYCRR § 252.2(q), Contractor is required to report Monthly SDVOB Contractor Compliance to Owner during the term of the Agreement for the preceding month's activity, documenting progress made towards achieving the SDVOB goals. This information must be submitted using form SDVOB 101 available at https://ogs.ny.gov/Veterans/Docs/2016/SDVOB_101_Monthly_Compliance%20Report.docx and should be completed by the Contractor and submitted to Owner, by the 10th day of each month during the term of the Contract, for the preceding month's activity to: Anthony Peterson at anthony.peterson@bpca.ny.gov.

(g) Breach of Contract and Damages

In accordance with 9 NYCRR § 252.2(s), any Contractor found to have willfully and intentionally failed to comply with the SDVOB participation goals set forth in this Agreement, shall be found to have breached the Agreement and Contractor shall pay damages as set forth therein.

ARTICLE 27 - STANDARD PROVISIONS

27.1 Provision Required by Law Deemed Inserted

Each and every provision of law and governmental regulation required by law to be inserted in the Contract Documents shall be deemed to be inserted therein and this Agreement shall read and shall be enforced as though so included therein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party, this Agreement shall be deemed to be amended to make such insertion or correction. If this Agreement contains any unlawful provision, the same shall be deemed of no effect and shall, upon the application of either party, be deemed stricken from this Agreement without affecting the binding force of the remainder.

27.2 Compliance with Laws, Rules and Regulations

Contractor and each Subcontractor and Materialman shall comply fully with all applicable laws, rules and regulations pertaining to the Project and the Work.

27.3 Applicable Law, Forum and Jurisdiction

This Agreement shall be governed by the laws of the State of New York. All actions or proceedings relating, directly or indirectly, to this Agreement shall be litigated only in courts located within the County of New York. Contractor, any guarantor of the performance of its obligations hereunder (including sureties for Payment and Performance Bonds) (“**Guarantor**”) and their successors and assigns hereby subject themselves to the jurisdiction of any state or federal

court located within such county, waive the personal service of any process upon them in any action or proceeding therein and consent that such process be served by certified or registered mail, return receipt requested, directed to the Contractor and any successor at Contractor's address hereinabove set forth, to Guarantor and any successor at the address set forth in the instrument of guaranty and to any assignee at the address set forth in the instrument of assignment. Such service shall be deemed made as of the date of the return receipt.

27.4 No Third Party Rights

Nothing in this Agreement shall create or shall give to third parties any claim or right of action against BPCA, Construction Manager, or Architect beyond such as may legally exist irrespective of this Agreement.

27.5 Exculpation; Limitation of Liability

In no event shall any claim be asserted under this Agreement by Contractor or any Subcontractor or Materialman against any member, officer, employee, lessee, Contractor or agent of BPCA, Construction Manager, or Architect. By execution of this Agreement, Contractor agrees to look solely to BPCA with respect to any claim which may arise. It is hereby understood by and between the parties hereto that BPCA shall only be liable to the extent of monies available to BPCA.

27.6 Protection of Lives and Health

(a) Contractor's, Subcontractor's and Materialman's attention is specifically called to the rules and regulations, codes and bulletins of the New York State Department of Labor. Attention is also directed to the standards imposed under the Federal Occupational Safety and Health Act of 1970, as amended.

(b) Contractor shall maintain an accurate record of all cases of death, occupational disease, and injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on work under this Agreement, and shall immediately notify BPCA in writing of any injury which results in hospitalization or death. Contractor shall also complete and submit to BPCA the "Incident Report Form" attached hereto and made a part hereof as Exhibit F within 48 hours of the occurrence of any such injury.

(c) Contractor alone shall be responsible for the safety, efficiency and adequacy of contractor's work, plant, appliances and methods, and for any damage that may result from the failure, or the improper construction, maintenance, or operation of such work, plant, appliances and methods.

27.7 Waiver of Immunity Clause

Contractor hereby agrees to the provisions of New York Public Authorities Law Section 2875, which require that a person, when called before a grand jury, head of a State department, temporary State commission, or other State agency, the Organized Crime Task Force in the State Department of Law, head of a department or other City agency, which is empowered to compel the attendance of witnesses and examine them under oath, to testify in an investigation concerning

any transaction or contract had with the State, any political subdivision thereof, or with any public department, agency or official of the State, a public authority or with any public department, agency or official of the State or of any political subdivision thereof or of a public authority, that person must sign a waiver of immunity against subsequent criminal prosecution or to answer any relevant questions concerning such transaction or contract. Upon the refusal of any person to comply with such provisions:

(a) such person, and any firm, partnership or corporation of which such person is a member, partner, director or officer shall be disqualified from thereafter selling to or submitting bids to or receiving awards from or entering into any contracts with any public authority or official thereof, for goods, work or services, for a period of five (5) years after such refusal; and

(b) any and all contracts made with any public authority or official thereof, by such person, and by any firm, partnership or corporation of which such person is a member, partner, director or officer may be canceled or terminated by the public authority without incurring any penalty or damages on account of such cancellation or termination, but any monies owing by the public authority for goods delivered or work done prior to the cancellation or termination shall be paid.

27.8 Prohibited Interests

No official of BPCA who is authorized in such capacity and on behalf of BPCA to negotiate, make, accept, or approve, or take part in negotiating, making, accepting, or approving any Architectural, Engineering, inspection, Purchase Order or any Subcontract in connection with the Work, shall become directly or indirectly interested personally in the Agreement. Contractor is advised that no official or employee of BPCA is permitted to indirectly solicit, accept, or receive gifts whether in the form of money, service, loan, travel, entertainment, hospitality, thing or promise, or in any other form. No officer, employee, architect, attorney, engineer, inspector or Contractor of or for BPCA who is authorized in such capacity and on behalf of BPCA to exercise any legislative, executive, supervisory or other similar functions in connection with the Work, shall become directly or indirectly interested personally in the Agreement, any Purchase Order, Subcontract, insurance contract, or any other contract pertaining to the Work.

27.9 Labor Provisions

(a) It is hereby agreed that all applicable provision of the Labor Law of the State of New York shall be carried out in the performance of the Work.

(b) Contractor specifically agrees, as required by New York Labor Law Sections 220 and 220-d as amended, that:

(1) no laborer, workman or mechanic, in the employ of Contractor, Subcontractor, Materialman or other person doing or contracting to do the whole or any part of the Work contemplated by the Contract Documents shall be permitted or required to work more than eight (8) hours in any one calendar day or more than five (5) days in any one week, except in the emergencies set forth in the Labor Law.

(2) the wages paid for a legal day's work shall be not less than the prevailing

rate of wages as defined by law;

(3) the minimum hourly rate of wage to be paid shall be not less than that stated in the Contract Documents and as shall be designated by the Industrial Commissioner of the State of New York; and

(4) Contractor shall post at appropriate conspicuous points at the Site, a schedule showing all determined minimum wage rates for the various classes of laborers and mechanics to be engaged in the Work and all deductions, if any, required by law to be made from unpaid wages actually earned by the laborers and mechanics so engaged.

(c) The minimum wage rates, if any, herein specified for apprentices shall apply only to persons working with the tools of the trade which such persons are learning under the direct supervision of journeymen mechanics. Except as otherwise required by law, the number of apprentices in each trade or occupation employed by Contractor or any Subcontractor or Materialman shall not exceed the number permitted by the applicable standards of the New York State Department of Labor, or, in the absence of such standards, the number permitted under the usual practice prevailing between the unions and the employers' association of the respective trades or occupations.

(d) All employees of Contractor and each Subcontractor and Materialman shall be paid in accordance with the provisions of the Labor Law.

(e) Contractor agrees that, in case of underpayment of wages to any worker engaged in the Work by Contractor or any Subcontractor or Materialman, BPCA shall withhold from Contractor out of payments due an amount sufficient to pay such worker the difference between the wages actually paid such worker for the total number of hours worked, and that BPCA may disburse such amount so withheld by BPCA for and on account of Contractor to the employee to whom such amount is due. Contractor further agrees that the amount to be withheld pursuant to this paragraph may be in addition to the percentages to be retained by BPCA pursuant to other provisions of the Contract Documents.

(f) The Labor Law provides that this Agreement may be terminated for cause and no sum paid for any Work done thereunder upon a second conviction for willfully paying less than:

- (1) the stipulated wage scale as set forth in New York Labor Law Section 220, subdivision 3, as amended, or
- (2) less than the stipulated minimum hourly wage scale as specified in Labor Law, Section 220-d, as amended.

(g) Contractor specifically agrees, as required by the New York Labor Law Section 220-e, as amended, that:

(1) in the hiring of employees for the performance of Work under this Agreement or any Subcontract or Purchase Order hereunder, or for the manufacture, sale or distribution of Materials, equipment or supplies hereunder, but limited to operations performed within the territorial limits of the State of New York, no Contractor, Subcontractor, Materialman

or any person acting on behalf of such Contractor or Subcontractor, or Materialman, shall by reason of race, creed, color, sex 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;

(2) no Contractor, Subcontractor, Materialman, or any person on behalf of such Contractor, Subcontractor or Materialman shall, in any manner, discriminate against or intimidate any employee hired for the performance of work under this Agreement on account of race, creed, color, sex or national origin;

(3) there may be deducted from the amount payable to Contractor, by BPCA under this Agreement, a penalty of \$50.00 for each person for each calendar day during which such person was discriminated against or intimidated in violation of the terms of this Agreement; and

(4) this Agreement may be canceled or terminated for cause by BPCA and all monies due or to become due hereunder may be forfeited for a second or any subsequent violation of the terms or conditions of this Section of this Agreement.

(h) Where applicable, Contractor agrees to settle labor disputes in accordance with the provisions of The New York Plan For The Settlement of Jurisdictional Disputes Between The Building And Construction Trades Council Of Greater New York And The Building Trades Employers' Association Of The City of New York.

27.10 Disputes Resolution Procedure

(a) The provisions of this Article shall constitute Contractor's sole means for challenging any determination, order or other act or omission of BPCA or otherwise asserting against BPCA any claim of whatever nature arising under, or in any way relating to, this Agreement (any such challenge or assertion by Contractor being herein referred to as a "**Dispute(s)**"). Exhaustion of these dispute resolution procedures, including the judicial review set forth below, shall be the parties' sole remedy in connection with any Dispute.

(b) The parties to this Agreement hereby authorize and agree to the resolution of all Disputes arising out of, under or in connection with, this Agreement in accordance with the following and pursuant to the procedures set forth in paragraph (c) of this Section 27.10. With respect to any Dispute which relates in whole or primary part to technical issue(s) under this Agreement including, without limitation, determinations as to the acceptability or fitness of any Work, the meaning or interpretation of the Contract Documents, the question of whether any Work falls within the scope of the Specifications set forth in the Contract Documents, the acceptability of any proposed substitutions, modifications or other submissions under this Agreement, the disapproval of proposed Subcontractors or Materialmen (to the extent such disapproval is related to technical issues), the extension of time to the extent related to a technical matter, the question of whether substantial completion or final completion has been achieved, the parties hereby authorize the General Counsel of BPCA, or his/her designee, (hereinafter referred to as the "**Arbiter**"), acting personally, to render a final and binding decision.

(c) All Disputes shall be initiated through a written submission by either party (such submission to be hereinafter referred to as the "**Dispute Notice**") to the Arbiter within ten (10)

days of the determination, order or other act or omission which is the subject of the Dispute. Within ten (10) days after the submission of such Dispute Notice, the party initiating the Dispute shall provide the Arbiter with all evidence and other pertinent information in support of the party's position and/or claim. Within thirty (30) days from the date of the Dispute Notice, the party against whom the Dispute Notice was filed shall submit any and all materials which it deems pertinent to the Arbiter. Upon submission of a Dispute Notice to the Arbiter, the Arbiter shall render its decision in writing and deliver a copy of same to the parties within a reasonable time not to exceed sixty (60) days after the receipt of all materials. In rendering such decision, the Arbiter may seek such technical or other expertise as it shall deem necessary or appropriate (notifying both parties to the Dispute when he/she so seeks such other information or expertise) and seek any such additional oral and/or written argument or materials from either or both parties to the Dispute as he/she deems fit. The Arbiter shall have the discretion to extend the time for submittals required hereunder. The Arbiter's ability to render and the effect of a decision hereunder shall not be impaired or waived by any negotiations or settlement offers in connection with the matter presented, whether or not the Arbiter participated therein, or by any prior decision of others, or by any termination or cancellation of this Agreement. The decision of the Arbiter shall be final and binding on both parties to this Agreement.

(d) It is expressly understood and agreed that the pendency of a Dispute hereunder shall at no time and in no respect constitute a basis for any modification, limitation or suspension of Contractor's obligation to fully perform in accordance with this Agreement and that Contractor shall remain fully obligated to perform the Work notwithstanding the existence of any such Dispute.

27.11 Additional Provisions Relating to the Prosecution of Claims for Money Damages

(a) Except as otherwise provided in this Agreement, if Contractor claims or intends to claim compensation or money damages for any damage or loss sustained by reason of any determination, order or other act or omission of BPCA, Contractor shall furnish a written notice to the Arbiter setting forth the nature of the claim and the extent of the damage sustained within ten (10) days of the occurrence of such loss or damages. This written notice shall constitute Contractor's submission to the Arbiter for the purposes of requesting the Arbiter's determination in accordance with Section 27.10 above. Any such claim shall state as fully as then possible all information relating thereto and shall be supported by any then available documentation, including daily records showing all costs incurred. Such information shall be supplemented with any and all further information, including information relating to the quantum of losses or damages sustained, as soon as practicable after the information becomes or reasonably should become known to the Contractor.

(b) Any claim for compensation or monetary damages, the successful prosecution of which necessarily depends upon a technical determination favorable to Contractor, may not proceed unless and until Contractor first obtains such a favorable determination with respect to the technical issue and must be made within ten (10) days of such determination; moreover, Contractor must submit to the Arbiter any documentation or proof in support of the monetary claim within fifteen (15) days of such determination in order to proceed with such a claim. This written notice shall constitute Contractor's submission to the Arbiter for the purposes of requesting the Arbiter's determination in accordance with Section 27.10 above.

(c) Compliance with the provisions hereof shall constitute a condition precedent to the Contractor's submission of a Dispute pursuant to Section 27.10 with respect to any claim for compensation or monetary damages and the Contractor shall be deemed to have waived any claim not submitted in accordance herewith.

(d) Any final determination of the Arbiter with respect to a Dispute initiated pursuant to this Article 27 shall be subject to review solely in the form of a challenge following the decision by the Arbiter in a Court of competent jurisdiction of the State of New York, County of New York, under Article 78 of the New York Civil Practice Law and Rules or a United States Court located in New York City under the procedures and laws applicable in that court, it being understood the review of such Court shall be limited to the question of whether or not the Arbiter's determination is arbitrary, capricious or lacks a rational basis. No evidence or information shall be introduced or relied upon in such proceeding which has not been duly presented to the Arbiter in accordance with this Article 27.

27.12 Limitation on Actions

(a) Subject to the provisions of Section 27.11, no action or proceeding shall lie or shall be maintained by Contractor against BPCA, Construction Manager, or Architect unless (i) such action or proceeding shall be commenced within six (6) months of the date of the issuance of the Certificate of Substantial Completion to Contractor; or (ii) in the case of an action or proceeding for monies due pursuant to Section 5.7 hereof, or arising exclusively from or pertaining exclusively to work performed after the date of issuance of the Certificate of Substantial Completion, unless such action or proceeding is commenced no later than six (6) months after the issuance of the certificate of final completion to Contractor; or (iii) if this Agreement is terminated by BPCA prior to the issuance of the Certificate of Substantial Completion, unless such action or proceeding is commenced within six (6) months after the date of such termination.

(b) Nothing in this Section 27.12 shall be construed to modify or lengthen a shorter limitations period provided by applicable law.

(c) No action or proceeding shall be commenced by Contractor against BPCA, Construction Manager, or Architect except in the Supreme Court of the State of New York, County of New York.

(d) Nothing in this Section 27.12 shall be construed to suggest that Contractor, under any circumstances, may bring an action or proceeding against Construction Manager, or Architect.

27.13 Waiver of Remedies

Contractor acknowledges that it can be compensated adequately by money damages for any breach of this Agreement which may be committed by BPCA, Construction Manager, or Architect. Contractor agrees that no default, act or omission of BPCA, Construction Manager, or Architect shall constitute a material breach of contract entitling Contractor to cancel or rescind this Agreement or to suspend or abandon performance thereof, other than the failure of BPCA to make a payment of the Contract Price in accordance with the terms hereof solely because sufficient funds to pay the Contract Price have not been appropriated or will otherwise not be made available to BPCA. Contractor hereby waives any and all rights and remedies to which Contractor might

otherwise be or become entitled to because of any wrongful act or omission of BPCA, Construction Manager, or Architect except as provided in this Section 27.13 and Contractor's right to money damages.

27.14 Modification of Agreement

No change in or modification, termination or discharge of this Agreement in any form whatsoever shall be valid or enforceable unless it is in writing and signed by the party to be charged therewith or its duly authorized representative, provided, however, that any change in or modification, termination or discharge of this Agreement expressly provided for in this Agreement shall be effective as so provided.

27.15 Signs and Parking

Contractor agrees that it shall not display on or about the Site any sign, trademark or other advertisement without the approval of BPCA and Construction Manager. Contractor shall not and shall not permit any of its Subcontractors or Materialmen to park any vehicles on the Site.

27.16 Entire Agreement

The Contract Documents constitute the entire Agreement between the parties and incorporate all prior understandings in connection with the subject matter hereof.

27.17 Rights and Remedies

The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by BPCA, Construction Manager, or Architect or Contractor including, but not limited to, the making of any payment or permitting Contractor to continue with the performance of the Work shall constitute a waiver of any right or duty afforded any of them under this Agreement, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

27.18 Participation in International Boycott Prohibited

Contractor agrees, as a material condition of this Agreement, that neither Contractor nor any substantially owned or affiliated person, firm, partnership or corporation has participated or is participating or shall participate in an international boycott in violation of the provisions of the United States Export Administration Act of 1969, as amended, or the United States Export Administration Act of 1979, as amended, or the Regulations of the United States Department of Commerce promulgated thereunder. This Agreement shall be rendered forfeit and void by the Comptroller of the State of New York if, subsequent to execution, such person, firm, partnership or corporation has been convicted of a violation of the provisions of either of such federal acts or such Regulations or has been found upon the final determination of the United States Commerce Department or any other appropriate agency of the United States to have violated the provisions of either of such federal acts or such Regulations.

27.19 Compliance with “Buy-American” Statutes

Contractor and any substantially owned or affiliated person, firm, partnership or corporation agrees to comply with the New York Public Authorities Law, Section 2603-A as amended (affects steel or steel products).

27.20 Permitted Successors

References to parties and entities herein shall be deemed to include their permitted successors.

27.21 MacBride Fair Employment Principles

If the amount payable to Contractor under this Agreement is greater than \$15,000, Contractor hereby certifies that it and/or any individual or legal entity in which it holds a 10% or greater ownership interest, and any individual or legal entity that holds a 10% or greater ownership in it, either have no business operations in Northern Ireland; or shall take lawful steps in good faith to conduct any business operations they have in Northern Ireland in accordance with the MacBride Fair Employment Principles relating to nondiscrimination in employment and freedom of workplace opportunity regarding such operations in Northern Ireland, as set forth in New York State Finance Law Article XI Section 165(5), and shall permit independent monitoring of their compliance with such Principles.

27.22 Iran Divestment Act

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

27.23 Termination for Failure to Disclose Under State Finance Law §139k

BPCA reserves the right to terminate this Agreement in the event it is found that the certification filed by Contractor pursuant to New York State Finance Law §139-k was intentionally false or intentionally incomplete. Upon such finding, BPCA may exercise its termination right by providing written notification to the Contractor in accordance with the written notification terms of this contract. If a contract is terminated in accordance with State Finance Law §139k(5), BPCA, its subsidiaries and affiliates, will include a statement in BPCA’s procurement record describing the basis for any action taken under the termination provision.

27.24 Labor Peace

The Contractor and its Subcontractors and Materialmen shall not employ on the Work any labor, materials or means whose employment, or utilization during the course of this Agreement, 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, Materialmen, or by any of the trades working in or about the buildings and premises where Work is being performed

under this Agreement, or by other contractors or their subcontractors pursuant to other agreements, or on any other building or premises owned or operated by BPCA, its contractors or affiliates. Any violation by the Contractor of this requirement may be considered as proper and sufficient cause for declaring the Contractor to be in default, and for BPCA to take action against Contractor as set forth in Article 15 of this Agreement, or such other Section of this Agreement as BPCA may deem proper.

27.25 Comptroller's Approval

If this Agreement is considered an "eligible contract," as defined by New York Code, Rules and Regulations Title 2 Part 206.2, it is subject to the New York State Comptroller's approval, and therefore shall not be valid and enforceable until that approval has been obtained. A contract is considered an "eligible contract," as defined by Title 2 of NYCRR Part 206.2, if it is not a specifically exempt contract, is executed by a state authority on or after March 1, 2010, the aggregate consideration under the contract may reasonably be valued in excess of one million dollars (including all reasonably anticipated renewals and amendments), AND the contract (A) was or shall be awarded on a single-source basis, sole-source basis or pursuant to any other method of procurement that is not a competitive procurement OR (B) shall be paid in whole or in part with monies appropriated by the State, either directly to a state authority or to a state agency that pays the money to a state authority.

27.26 Key Person/Personnel

The parties understand that in entering into this Agreement, BPCA has relied upon Contractor's representation that [name(s) and title(s)] (hereinafter the "**Key Personnel**") will be directly and consistently involved in supervising the Work and actively engaged in the day-to-day management of the Work, which shall include attending mandatory Project meetings. If the Key Personnel is/are not available as described herein, or if the Key Personnel depart from the firm or severs his/her/their relationship with the Contractor, or for whatever other reason is/are not available to work on the Project, then BPCA shall have the right to terminate this Agreement. The parties also agree that at any time during the course of the Work, BPCA may designate additional or substitute key personnel to perform the Work. Contractor agrees to make the additional or substituted key personnel available under the same conditions set forth herein.

27.27 Form of Agreement Not an Offer

Notwithstanding anything herein to the contrary, the submission of this form of Agreement by BPCA to Contractor shall not constitute an offer, and execution hereof by Contractor shall not be considered acceptance of an offer. A binding contract between the parties shall exist only if and at such time as both parties have executed this Agreement.

27.28 General Responsibility

(a) The Contractor shall at all times during the Agreement term remain responsible. The Contractor agrees, if requested by BPCA or its designee, to present evidence of Contractor's continuing legal authority to do business in New York State, integrity, experience, ability, prior performance, and organizational and financial capacity.

(b) BPCA or its designee, in its sole discretion, reserves the right to suspend any or all activities under this Agreement, at any time, when BPCA discovers information that calls into question the responsibility of Contractor. In the event of such suspension, Contractor will be given written notice outlining the particulars of such suspension. Upon issuance of such notice, Contractor must comply with the terms of the suspension order. Activity under the Agreement may resume at such time as BPCA or its designee issues a written notice authorizing a resumption of performance under the Agreement.

(c) Upon written notice to the Contractor, and a reasonable opportunity to be heard with appropriate BPCA officials or staff, the Agreement may be terminated by BPCA or its designee at Contractor's expense where Contractor is determined by BPCA or its designee to be nonresponsible. In such event, BPCA or its designee may complete the contractual requirements in any manner BPCA may deem advisable and pursue available legal or equitable remedies for breach.

27.29. Counterparts

This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one instrument, but the Agreement shall not be deemed effective unless signed by all parties.

27.30. Section Headings

Section headings contained in this Agreement are for convenience only and shall not be considered for any purpose in governing, limiting, modifying, construing or affecting the provisions of this Agreement and shall not otherwise be given legal effect.

27.31. Subordination of Terms in the Exhibits

In the event of a conflict of terms, the terms stated in Sections 1-27 herein, shall take precedence over and shall prevail over any printed, typed, or handwritten terms located in the Exhibits.

SIGNATURE PAGE FOLLOWS

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, as of the date first above written.

BATTERY PARK CITY AUTHORITY, d/b/a

HUGH L. CAREY BATTERY PARK CITY AUTHORITY

By: _____

Name: _____

Title: _____

[CONTRACTOR NAME]

By: _____

Name: _____

Title: _____

FEIN #

EXHIBIT D

(Acknowledgement of Addenda)

RFP TITLE: SITE-SPECIFIC ART (BELVEDERE PYLONS AND GLASS BENCHES) – RESTORATION AND LED LIGHTING CONVERSION PROJECT

Complete Part I <u>or</u> Part II, whichever is applicable, and sign your name in Part III.
--

Part I

Listed below are the dates of issue for each Addendum received in connection with this RFP:

Addendum # 1, Dated _____, ____

Addendum # 2, Dated _____, ____

Addendum # 3, Dated _____, ____

Addendum # 4, Dated _____, ____

Addendum # 5, Dated _____, ____

Addendum # 6, Dated _____, ____

Part II Acknowledgement of No Receipt

_____ No Addendum was received in connection with this RFP

Part III

Proposer's Name: _____

Proposer's Authorized Representative:

Name: _____

Title: _____

Signature: _____

Date: _____

EXHIBIT E

List of BPCA & BPCPC Board Members and Employees

(attached)

LIST OF BOARD MEMBERS

George J. Tsunis

Donald Cappocia

Lester Petracca

Louis J. Bevilacqua

Catherine McVay Hughes

Martha J. Gallo

Anthony Kendall

Employees

Debbie Addison
Curtis Afzal
Elsa Alvarez
Dana Anders
Anthony Andriano
Stephen Arciold
Sharmila Baichu
Marie Baptiste
Brett Beecham
Freddy Belliard
Emily Birdseye
Nidia Blake-Reeder
LaToya Brooks-Jones
Nancy Buivid
Anthony Buquicchio
Peter Campbell
Frances Caperchi
Monica Centeno
Carlton Chotalal
Julissa Cooke
Deshay Crabb
Gwen Dawson
Gilbert DePadua
Paul Diaz-Larui
Tonasia Dopson
Patricia Ehlers
Abigail Ehrlich
Maria Ellison
Richard Faraino
Anitra Fauntleroy
Pamela Frederick
James Gallagher
Joseph Ganci
Abigail Goldenberg
Anastasia Gonzalez
Lenron Goode
Neresa Gordon
Sakina Graves
Ned Greenberg
Evelyn Gregg
Jonathan Gross
Robert Hansen
Nimisha Haribaran

Nicole Heater
Sankar Heerah
Sonia Henry
Stephanie Huayta
Craig Hudon
Amy Jogie
William John
Jasmine Johnson
Benjamin Jones
Roland Kemp
Ann Ketring
Susie Kim
Karl Koenig
Betzayda Laboy
Leandro Lafuente
Michael Lamancusa
Della Lee
Rene Lopcy
Robert Maggi
Evelin Maisonet
Kevin McCabe
Jonathan McCain
Princess McNeill
Vanessa Mesine
Ronnie Mohammed
Dana Morgera
Lauren Murtha
Bertha Narcisse
Robert Nesmith
Siu May NG
Yoshihiro Nishida
Anne O'Neill
Bienvenido Osorio
Kevin O'Toole
Hector Oyola
Willem Paillant
Jonathan Parker
Gladys Pearlman
Dahlia Pena
Anthony Peterson
Bruno Pomponio
Katherine Powell

Sandra Power
Robert Quon
Jason Rachnowitz
Madelin Ramirez
Manual Rivera
Anthony Robinson
Andrea Rodriguez
Nelson Rogers
Jose Rosado
Holly Ross
Carlos Santiago
Nicholas Sbordone
Jean Schwartz
Jesse Schwartz
Lindsey Senn
Rekha Sewraj
Sean Simon
Kemnarine Singh
Timothy Skipper
Sarah Smedley
Bruce Spierer
Nicole Stallworth-Roper
Shinay Stewart
Jerome Sturiano
Lance Super
John Tam
Alexis Torres
Ryan Torres
Douglas Van Horn
Noe Velasquez
Evangelio Villalobos
Jeffrey Vixamar
Sharon Wade
David Wallace
Eric White
Angela Whitehead
Dwight Williams
Kenneth Windman
Al Wright
Jouli Yohannes

EXHIBIT F

COST PROPOSAL

(Proposer to submit executed Cost Proposal on its letterhead)

Date:

Battery Park City Authority
200 Liberty Street - 24th Floor
New York, New York 10281

Attention: Mr. Michael LaMancusa
Contracts Administrator

Dear Mr. LaMancusa,

The undersigned (the "Proposer") hereby proposes to provide all specified work necessary to perform the work for the **Glass Bench Repair and Belvedere Pylons LED Replacement Project** in accordance with the terms stipulated in the following pages, for the sum written below.

Base Proposal for the Glass Bench Repair and Belvedere Pylons LED Replacement Project

A total lump sum amount of \$_____ (_____ Dollars and _____ Cents) to perform all Work as described in the Scope of Work in Exhibit A and in accordance with the Construction Documents attached as Exhibit I of BPCA's Request for Proposals for Glass Bench Repair and Belvedere Pylons LED Replacement Project (the "RFP").

A. Itemized Proposal and Labor Rates

1. The Proposer has submitted with its Proposal an itemized cost for the Work, according to the attached schedule of values (Exhibit G), for the Scope of Work in Exhibit A of the RFP.
2. The Proposer has submitted with its Proposal, labor rates for all trades, including all costs except overhead and profit, in the form attached as Exhibit H to the RFP. Prices shown are "fully-loaded" rates, and include the base hourly rate, overtime rate, insurance and benefits.

In the event of a discrepancy, the lump sum price stated above shall control.

Name of Proposer:

By: _____

Title: _____

EXHIBIT G

SCHEDULE OF VALUES

Glass Bench Repair and Belvedere Pylons LED Replacement Project
New York, New York

Proposal Submitted By: _____

Unit Price Proposal Shall Be Provided as Follows:

Item No.	Item Description	Estimated Quantity²	Unit	Unit Price¹	Extended Price (Est. Quantity x Unit Price)
i	LED LIGHTING CONVERSION				
A	Glass Bench				
1	Deconstruction of Glass Benches A-H	160	LF		
2	Deconstruction of Glass Benches I and J	13	LF		
3	Install New LED Light System	320	LF		
4	Reconstruct Glass Benches A-H	160	LF		
5	Replacement of Bench I	1	EA		
6	Replacement of Bench J	1	EA		
ii	PUBLIC ART RESTORATION				
A	Open Pylon				
7	Removal of Top Two Fixture Elevations for Access	1	LS		
8	Removal and Disposal of Existing 12/3 SJ Cable and Fixture Housings	1	LS		
9	Furnish and Install New 12/3 SJ Cable and Fuse Holders	200	LF		
10	Furnish and Install New Lighting Fixture and Junction Box	5	EA		
11	Replace All Bolts In Kind with Stainless-Steel Hardware	1	LS		
12	Install New Cover and Hardware for Recessed Junction Box at Base	1	LS		
13	Reinstall and Weld Top Two Fixture Elevations Back to Existing Structure	1	LS		
B	Closed Pylon				

Battery Park City Authority Request For Proposals

14	Removal and Disposal of Existing Cable Components and Fixture Housings	1	LS		
15	Install New 12/3 SJ Cable and Fuse Holders	150	LF		
16	Furnish and Install New Lighting Fixture	47	EA		
17	Furnish and Install New Junction Box	5	EA		
18	Replace All Bolts In Kind with Stainless-Steel Hardware	1	LS		
19	Furnish and Install New Cover and Hardware for Recessed Junction Box at Base	1	LS		
	ADDITIONAL COSTS				
20	Mobilization / Demobilization	1	LS		
21	General Conditions	1	LS		
	PROJECT TOTAL	X	X	X	

Notes:

- 1.** Unit Prices to Include All Work Necessary to Complete Each Listed Item Including, But Not Limited to, Labor, Materials, Equipment, Overhead and Profit.
- 2.** Quantities Provided Above are Estimated and are Provided Solely for the Purpose of Facilitating the Bid Process.
- 3.** Omission of work items from the unit prices worksheet shall not constitute a limit on the obligation of the Contractor to complete the Work.

EXHIBIT H

LABOR RATES

The following labor rates are to be listed by craft and classification (Foreman, Journeyman, etc.) and are to include base wages, benefits, taxes, insurance and payroll costs complete. Overhead and profit are not to be included:

<u>CRAFT</u>	<u>CLASSIFICATION</u>	<u>HOURLY RATES</u>	<u>OVERTIME</u>
<u>LABORER</u> <u>CONCRETE</u>	_____	_____	_____
<u>CARPENTER</u>	_____	_____	_____
<u>ELECTRICIAN</u>	_____	_____	_____
<u>LABORER</u>	_____	_____	_____
<u>LABORERS - LESS</u> <u>SKILLED</u>	_____	_____	_____
<u>OPERATING</u> <u>ENGINEER</u>	_____	_____	_____
<u>FIELD SUPERVISOR</u>	_____	_____	_____
<u>FOREMAN</u>	_____	_____	_____
<u>TEAMSTER</u>	_____	_____	_____
<u>WELDER</u>	_____	_____	_____
<u>GLASIER</u>	_____	_____	_____

<Name of Company>

<Name of Proposer>

Signed

Date

By: <Printed Name>

EXHIBIT I

Drawings and Specifications

(“Construction Documents”)

FILE NAME: P:\Proj\40\40950.08\10_Dwgs\CADD\T-000 Cover Sheet.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:14pm LAST SAVE: Wed, 11 Apr 2018 - 2:25pm BY: cwtbber

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PROJECT NO.		140950.08	
SCALE		AS NOTED	
DATE		07/07/2016	
DRAWN BY		CGW	
CHECKED BY		MCG	
DRAWING NO.		T-000.00	
1		OF 26	
SHEET		SHEET	
TITLE PAGE			
SHEET TITLE			
PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION		NEW YORK, NEW YORK	
PROJECT		NEW YORK	
 McLaren ENGINEERING GROUP applied ingenuity 131 West 35th Street, 4th Floor, New York, NY 10001 T: (212) 324-4300 F: (212) 324-4653 www.mclarengroup.com		M. G. McLAREN, P.E. 4/11/18 NO. DATE ISSUE FOR BID REVISION BY	

1. BUILDING CODE:
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH 2014 NEW YORK CITY BUILDING CODE. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THIS CODE AND LOCAL REQUIREMENTS.
2. DESIGN LOADS
 - A. WIND LOAD (ASCE 7-10)
WIND SPEED = 106 MPH
 - B. LIVE LOAD:
DISTRIBUTED LIVE LOAD = 100 PSF
3. CONTRACTOR SHALL REVIEW SPECIFICATIONS LOCATED IN THE CONTRACT DOCUMENTS. IF THERE ARE DISCREPANCIES, NOTIFY THE ENGINEER.
4. CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.

1. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, COUNTY, OR LOCAL CODES HAVING JURISDICTION OVER SUCH WORK. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THAT PORTION OF THE WORK.
2. CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, AND SAFETY OF WORK.
3. DIMENSIONS SHOWN ON THESE CONTRACT PLANS HAVE BEEN OBTAINED FROM EXISTING DRAWINGS AND MAY NOT ACCURATELY REFLECT PRESENT FIELD CONDITIONS. ACCORDINGLY, THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURES IMPACTED BY THE PROJECT TO ASSURE CONSISTENCY WITH THE PROPOSED CONSTRUCTION PLANS; THAT IS, THE CONTRACTOR SHALL FIELD VERIFY ACTUAL CONDITIONS, DIMENSIONS, CLEARANCES, ELEVATIONS, AND OTHER INFORMATION INDICATED IN THE DOCUMENTS PRIOR TO ORDERING ANY MATERIALS, COMMENCING ANY FABRICATIONS, OR PERFORMING ANY WORK. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY FIELD CONDITIONS WHICH MAY DIFFER FROM THAT REPRESENTED PRIOR TO COMMENCING WORK.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL VISIT THE SITE AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY ADDITIONAL UTILITIES, STRUCTURES, OR ANY OTHER ELEMENTS WHICH MAY IMPEDE WORK. UTILITY AND/OR STRUCTURE RELOCATIONS, IF NECESSARY, SHALL BE COORDINATED THROUGH THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
5. PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL SCHEDULE AND COORDINATE ALL WORK THROUGH THE OWNER'S REPRESENTATIVE AND ANY OTHER OCCUPYING TENANT WHO WILL BE AFFECTED BY REPAIR OPERATIONS. THE CONTRACTOR SHALL COORDINATE THE WORK SO AS TO MINIMIZE INTERRUPTIONS IN FACILITY OPERATIONS.
6. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE OSHA REGULATIONS AND SAFETY PROCEDURES TO ENSURE PERSONNEL HEALTH AND SAFETY. THE CONTRACTOR MUST MAINTAIN A SAFE AND CLEAN WORKING ENVIRONMENT AND SHALL ASSURE PROPER PERSONAL PROTECTIVE EQUIPMENT AT ALL TIMES. PEDESTRIAN AND/OR PUBLIC SAFETY MAY BE AFFECTED BY THE WORK. THE CONTRACTOR SHALL CORDON OFF THE WORK AREA ACCORDINGLY.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH THE TERMS AND CONDITIONS OF ALL PERMITS ISSUED BY ANY REGULATING AGENCY HAVING JURISDICTION OVER THE WORK OF THIS PROJECT.
8. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO PREVENT DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THEIR OPERATIONS. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE AT NO ADDITIONAL COST.
9. ALL DEBRIS AS A RESULT OF OR IN THE IMMEDIATE VICINITY OF THE WORK SHALL BE RECOVERED AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST.
10. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT ALL CONSTRUCTION DEBRIS OR WASTE FROM FALLING INTO THE WATER. ANY DEBRIS FALLING INTO THE WATER SHALL BE RECOVERED AND PROPERLY DISPOSED.

1. DEMOLITION PLAN SHOWING ALL PROPOSED REMOVALS.
2. SHOP DRAWINGS/ERECTION DRAWINGS
3. PRODUCT DATA
4. MATERIAL CERTIFICATES
5. CONSTRUCTION SCHEDULE
6. CUSTOM FIXTURE DRAWINGS
7. ONE-LINE/WIRING DIAGRAMS

1. GLASS BENCHES SEE TECHNICAL SPECIFICATION "SUMMARY OF WORK" SECTION 1.09
2. OPEN PYLON:
 - A. REMOVE SELECT PORTIONS OF PYLON FOR LIGHT FIXTURE ACCESS.
 - B. REMOVE AND DISPOSE OF ALL EXISTING 12/3 SJ CABLE AND FIXTURE HOUSINGS.
 - C. FURNISH AND INSTALL NEW 12/3 SJ CABLE AND FUSE HOLDERS.
 - D. FURNISH AND INSTALL NEW LIGHTING FIXTURES AND JUNCTION BOXES.
 - E. FURNISH AND REPLACE ALL HARDWARE IN KIND WITH STAINLESS STEEL COMPONENTS.
 - F. REPLACE EXISTING FROSTED LENS IN KIND.
 - G. FURNISH AND INSTALL NEW COVER AND HARDWARE FOR REASSESSED JUNCTION BOX AT BASE.
 - H. REINSTALL AND WELD PREVIOUSLY REMOVED STAINLESS STEEL COMPONENTS TO PYLON STRUCTURE.
2. CLOSED PYLON:
 - A. REMOVE AND DISPOSE OF EXISTING CABLE COMPONENTS AND FIXTURE HOUSINGS.
 - B. FURNISH AND INSTALL NEW 12/3 SJ CABLE AND FUSE HOLDERS.
 - C. FURNISH AND INSTALL NEW LIGHTING FIXTURES.
 - D. FURNISH AND INSTALL NEW JUNCTION BOXES.
 - E. FURNISH AND REPLACE ALL HARDWARE IN KIND WITH STAINLESS STEEL COMPONENTS.
 - F. FURNISH AND INSTALL NEW COVER AND HARDWARE FOR RECESSED JUNCTION BOX AT BASE.

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1. THE SHOP DRAWINGS SHALL CONTAIN ALL DIMENSIONAL AND GEOMETRIC INFORMATION. MATERIALS SHALL NOT BE ORDERED, FABRICATED, OR DELIVERED TO THE SITE BEFORE THE SHOP DRAWINGS HAVE BEEN APPROVED.
2. PRIOR TO REVIEW OF THE SHOP DRAWINGS BY THE ENGINEER, SUCH SHOP DRAWINGS SHALL HAVE BEEN REVIEWED AND APPROVED BY THE CONTRACTOR AND SHALL BE STAMPED TO INDICATE THIS BY THE CONTRACTOR. SUCH APPROVAL BY THE CONTRACTOR SHALL CONSTITUTE THE CONTRACTOR'S REPRESENTATION THAT THE CONTRACTOR HAS VERIFIED ALL QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR DATA WITH RESPECT THERETO AND HAS REVIEWED OR COORDINATED EACH SHOP DRAWING WITH OTHER SHOP DRAWINGS AND SAMPLES AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DRAWINGS AND SPECIFICATIONS.
3. SHOP DRAWINGS SHALL INCLUDE LAYOUTS AND DETAILS SHOWING THE NEW LED FIXTURES, ELECTRICAL CONNECTIONS AND LOCATIONS, WELDS, AND OTHER PERTINENT DATA.
5. SHOP DRAWINGS SHALL BE SUBMITTED IN COMPLETE PACKAGES SO THAT INDIVIDUAL PARTS AND THE ASSEMBLED UNIT MAY BE REVIEWED TOGETHER.
6. THE REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL NOT IN ANY WAY RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR THE ADEQUACY OF THE DESIGN OF THE CONNECTIONS AND ALL REQUIRED DETAILING, THE RESPONSIBILITY FOR THE PROPER FITTING OF THE WORK IN STRICT CONFORMANCE WITH THE CONTRACT REQUIREMENTS AND FROM THE NECESSITY OF FURNISHING MATERIAL AND WORKMANSHIP REQUIRED BY CONTRACT DRAWINGS AND SPECIFICATIONS IN ADDITION TO THAT INDICATED ON THE SHOP DRAWINGS.
7. THE CONTRACTOR SHALL KEEP A COMPLETE SET OF SHOP DRAWINGS BEARING THE ENGINEER'S ACCEPTANCE STAMP ON THE JOB SITE AT ALL TIMES SUBSEQUENT TO SUCH ACCEPTANCE.

1. DELIVER MATERIALS TO THE CONSTRUCTION SITE AT APPROPRIATE INTERVALS SO AS TO ENSURE UNINTERRUPTED PROGRESS OF WORK.
2. CONTRACTOR SHALL COORDINATE MATERIAL STORAGE WITH OWNER. ADEQUATE PROTECTION SHALL BE PROVIDED TO PREVENT DISTORTION AND OTHER DAMAGE. PROPOSED REPLACEMENT FIXTURES AND SUPPORTING COMPONENTS SHALL BE STORED AND HANDLED AS TO NOT DAMAGE THE PRODUCT. ALL SECTIONS WHICH ARE TO BE PLACED IN GROUND STORAGE SHALL BE READILY ACCESSIBLE FOR INSPECTION.
3. MATERIALS WHICH FAIL TO COMPLY WITH SPECIFIED REQUIREMENTS, EITHER AT THE SHOP OR CONSTRUCTION SITE, SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH ACCEPTABLE MATERIAL, WITHOUT ADDITIONAL COST TO THE OWNER, AND WITHOUT CAUSING DELAY IN WORK.

1. THE CONTRACTOR SHALL SUBMIT A REMOVAL SCHEDULE TO THE OWNERS REPRESENTATIVE. THE CONTRACTOR SHALL NOT COMMENCE WORK WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE OF THE DEMOLITION AND REMOVAL SCHEDULE.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING, IDENTIFYING AND MARKOUT OF ALL UTILITIES PRIOR TO START OF DEMOLITION WORK.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND STAGING DEMOLITION WORK WITH OTHER CONSTRUCTION ACTIVITIES AT THE SITE.
4. THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER OR TENANT, WILL NOT BE DAMAGED. IF CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, OR WHICH ARE TO REMAIN THE PROPERTY OF THE OWNER OR TENANT, DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO OWNER'S REPRESENTATIVE AT THE EXPENSE OF THE CONTRACTOR.
5. WHENEVER ITEMS IN THE CONTRACT REQUIRE MATERIALS TO BE REMOVED AND DISPOSED, THE COST OF SUPPLYING A DISPOSAL AREA AND TRANSPORTATION TO THAT AREA SHALL BE INCLUDED IN THE PRICE BID FOR THOSE ITEMS.
6. ALL DEBRIS AS A RESULT OF, OR IN THE IMMEDIATE VICINITY OF THE WORK SHALL BE RECOVERED AND PROPERLY DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

1. ALL CONCRETE WORK SHALL CONFORM TO REQUIREMENTS OF THE ACI BUILDING CODE REQUIREMENT FOR STRUCTURAL CONCRETE (318-08 ULTIMATE STRENGTH DESIGN).
2. ALL CONCRETE SHALL BE AIR ENTRAINED, 6% \pm 1.5% BY VOLUME, FOR 3/4" COARSE AGGREGATE.
3. ALL CONCRETE SHALL BE MIXED, TRANSPORTED AND PLACED IN ACCORDANCE WITH ACI STANDARDS 301, 304, AND 318.
4. FOLLOW ACI STANDARD 211.1 FOR MIXING WATER REQUIREMENTS.
5. ALL CONCRETE SHALL HAVE COMPRESSIVE STRENGTH $F'_c = 5,000$ PSI AT 28 DAYS, UNLESS NOTED OTHERWISE ON SCHEDULES OR NOTES, AND A MAXIMUM W/C RATIO OF 0.40.
6. MAXIMUM CONCRETE SLUMP SHALL BE 4" PRIOR TO ADDITION OF WATER REDUCING ADMIXTURES.
7. TEST CYLINDERS SHALL BE TAKEN FROM THE MIXER IN ACCORDANCE WITH ASTM C172 AND THE PROJECT SPECIFICATIONS.
8. ALL EMBEDDED STEEL SHALL BE ASTM A36, A573 OR A992. ALUMINUM INSERTS ARE NOT PERMITTED.
9. CORROSION INHIBITOR SHALL BE PROVIDED IN ALL CONCRETE USING DCI AT A RATE OF 4 GALLONS/YD³ (OR EQUAL).

1. CONCRETE COVER MEASURED TO THE FACE OF THE REINFORCING BAR (INCLUDING TIES AND STIRRUPS) SHALL BE 2" UNLESS OTHERWISE INDICATED IN THE PLANS.
2. ALL REINFORCING BARS SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. WELDING OF REINFORCEMENT IS PROHIBITED UNLESS OTHERWISE NOTED.
3. ALL REINFORCING BARS SHALL BE EPOXY COATED PER ASTM A775.
4. USE TENSION SPLICE FOR ALL SPLICES (U.O.N.).
5. THE CONTRACTOR MAY SUBMIT LESSER SPLICE LENGTHS FOR REVIEW AND APPROVAL TO THE ENGINEER OF RECORD AT THE SAME TIME PROVIDING THE FOLLOWING INFORMATION:
 - A. DETAILS PREPARED AND SUBMITTED BY THE CONTRACTOR INDICATING LOCATION AND PROPOSED LAP BUT NOT REBARS AND LENGTHS OF SPLICES.
 - B. WHERE THE SIZE AND NUMBER OF THE SPLICES, THE REDUCTION OF LAP LENGTH, THOSE BARS SHALL BE INDICATED ON THE DETAILS.
 - C. WHERE COMPUTED STRESS VALUES PERMIT THE REDUCTION OF LAP LENGTH, COMPUTATIONS SHALL BE SUBMITTED FOR REVIEW.
 - D. THE APPLICABLE SECTION OF THE ACI-318-08 CODE PERMITTING THE LESSER SPLICE LENGTH SHALL BE INDICATED ON THE SUBMITTED MATERIAL.
6. WHERE BARS OF DIFFERENT SIZES ARE TO BE SPLICED, THE SPLICE LENGTH FOR ALL BARS SHALL BE THAT REQUIRED FOR THE LARGEST.
7. ALL WELDED WIRE MESH SHALL CONFORM TO ASTM A185.

ADD'L.	ADDITIONAL
ALT.	ALTERNATE
ARCH.	ARCHITECTURAL
BOT.	BOTTOM
BPCA	BATTERY PARK CITY AUTHORITY
CLR.	CLEAR
¢	CENTERLINE
CONC.	CONCRETE
CONT.	CONTINUOUS
CONST.	CONSTRUCTION
DIA. OR Ø	DIAMETER
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
EL. OR ELEV.	ELEVATION
EQ.	EQUAL
EW	EACH WAY
EXIST.	EXISTING
FIN.	FINISH
FT. OR '	FEET OR FOOT
Fy.	YIELD STRESS
GALV.	GALVANIZED
GR.	GRADE
HOR.	HORIZONTAL
H.P.	HIGH POINT
HT.	HEIGHT
IN. OR "	INCHES
KSI.	KIPS PER SQUARE INCHES
LED	LIGHT EMITTING DIODE
LONG.	LONGITUDINAL
L.P.	LOW POINT
MAX.	MAXIMUM
MIN.	MINIMUM
MISC.	MISCELLANEOUS
NAVDB88	NORTH AMERICAN VERTICAL DATUM
NAVGD29	NATIONAL GEODETTIC VERTICAL DATUM
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG.	OPENING
OPP.	OPPOSITE
¢	PLATE
PSI.	POUNDS PER SQUARE INCH
PSF.	POUNDS PER SQUARE FOOT
QTY	QUANTITY
R	RADIUS
REINF.	REINFORCING
REF.	REFERENCE
REQD.	REQUIRED
SECT.	SECTION
SIM.	SIMILAR
SPEC.	SPECIFICATION
SST/ST. STL.	STAINLESS STEEL
STRUCT.	STRUCTURE
SYMM.	SYMMETRICAL
THK. OR THKNS.	THICK OR THICKNESS
T	TOP
TYP.	TYPICAL
U.O.A.N.	UNLESS OTHERWISE NOTED
VAR.	VARIABLES
VERT.	VERTICAL
V.I.F.	VERIFY IN FIELD
W/	WITH
WP	WORK POINT

PROJECT

PUBLIC ART RESTORATION AND
LED LIGHTING CONVERSION

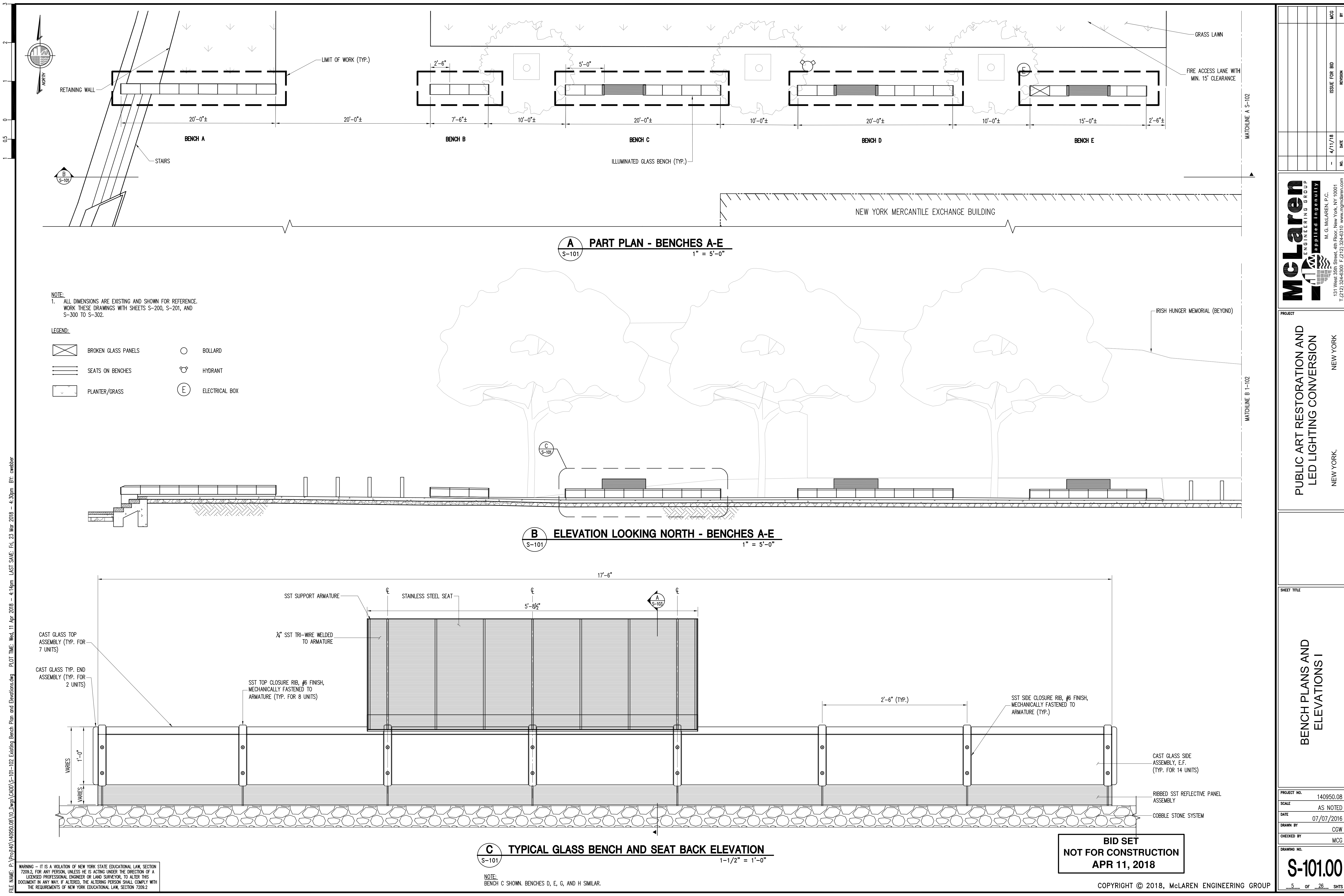
NEW YORK, NEW YORK

SHEET TITLE

PROJECT NO.	140950.08
SCALE	AS NOTED
DATE	07/07/2016
DRAWN BY	CGW
CHECKED BY	MCG

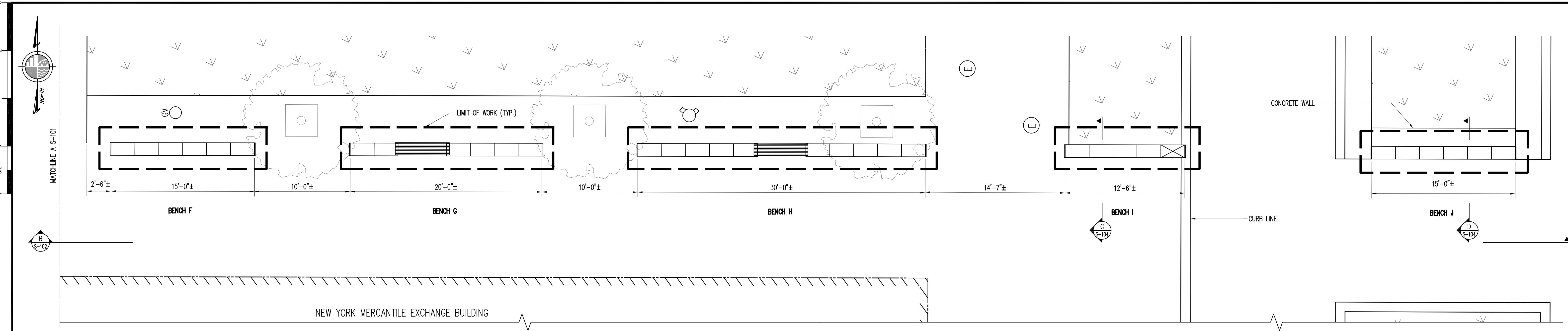
G-001.00
2 OF 26 SHTS

**BID SET
NOT FOR CONSTRUCTION
APR 11, 2018**



FILE NAME: P:\Proj\140\140950.08\10_Dwg\CAD\00\S-101-102 Existing Bench Plan and Elevations.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:14pm LAST SAVE: Fri, 23 Mar 2018 - 4:30pm BY: cwelber

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A PART PLAN - BENCHES F-J
1" = 5'-0"

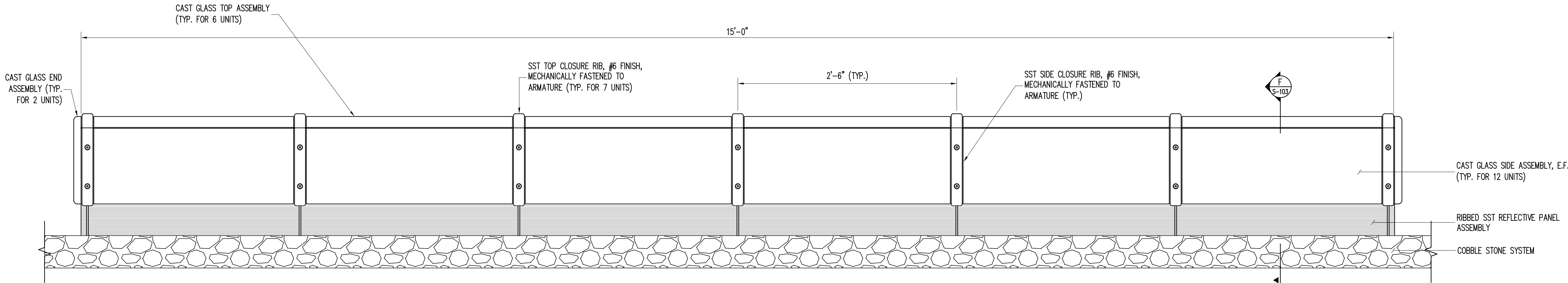
NOTE:
1. ALL DIMENSIONS ARE EXISTING AND SHOWN FOR REFERENCE.
WORK THESE DRAWINGS WITH SHEETS S-200, S-201, AND S-300 TO S-302.

LEGEND:

- | | | | |
|--|---------------------|--|----------------|
| | BROKEN GLASS PANELS | | BOLLARD |
| | SEATS ON BENCHES | | HYDRANT |
| | PLANTER/GRASS | | ELECTRICAL BOX |



B ELEVATION LOOKING NORTH - BENCHES F-J
1" = 5'-0"



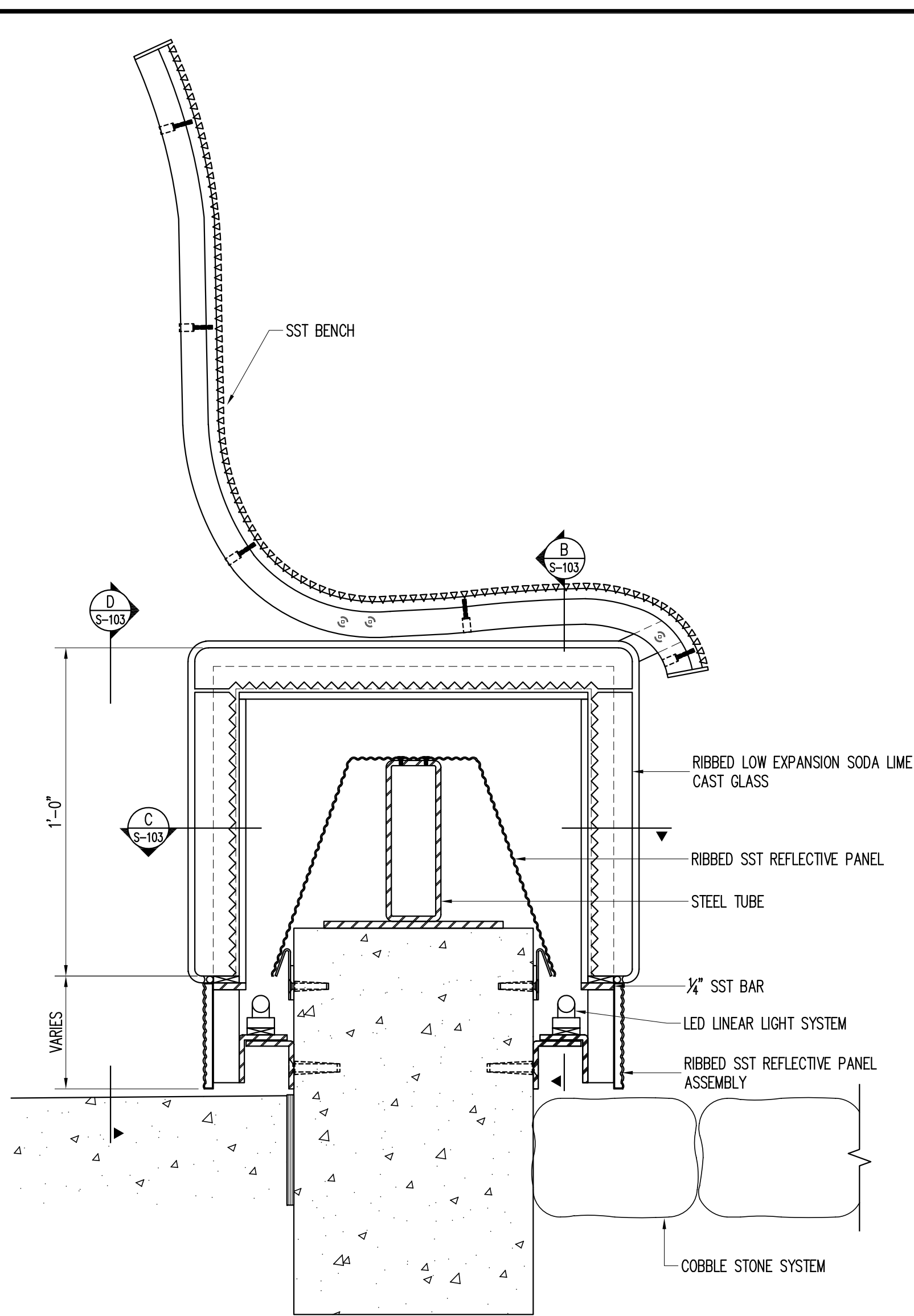
C TYPICAL GLASS BENCH ELEVATION
1-1/2" = 1'-0"

NOTE:
BENCH F SHOWN. BENCHES A & B SIMILAR

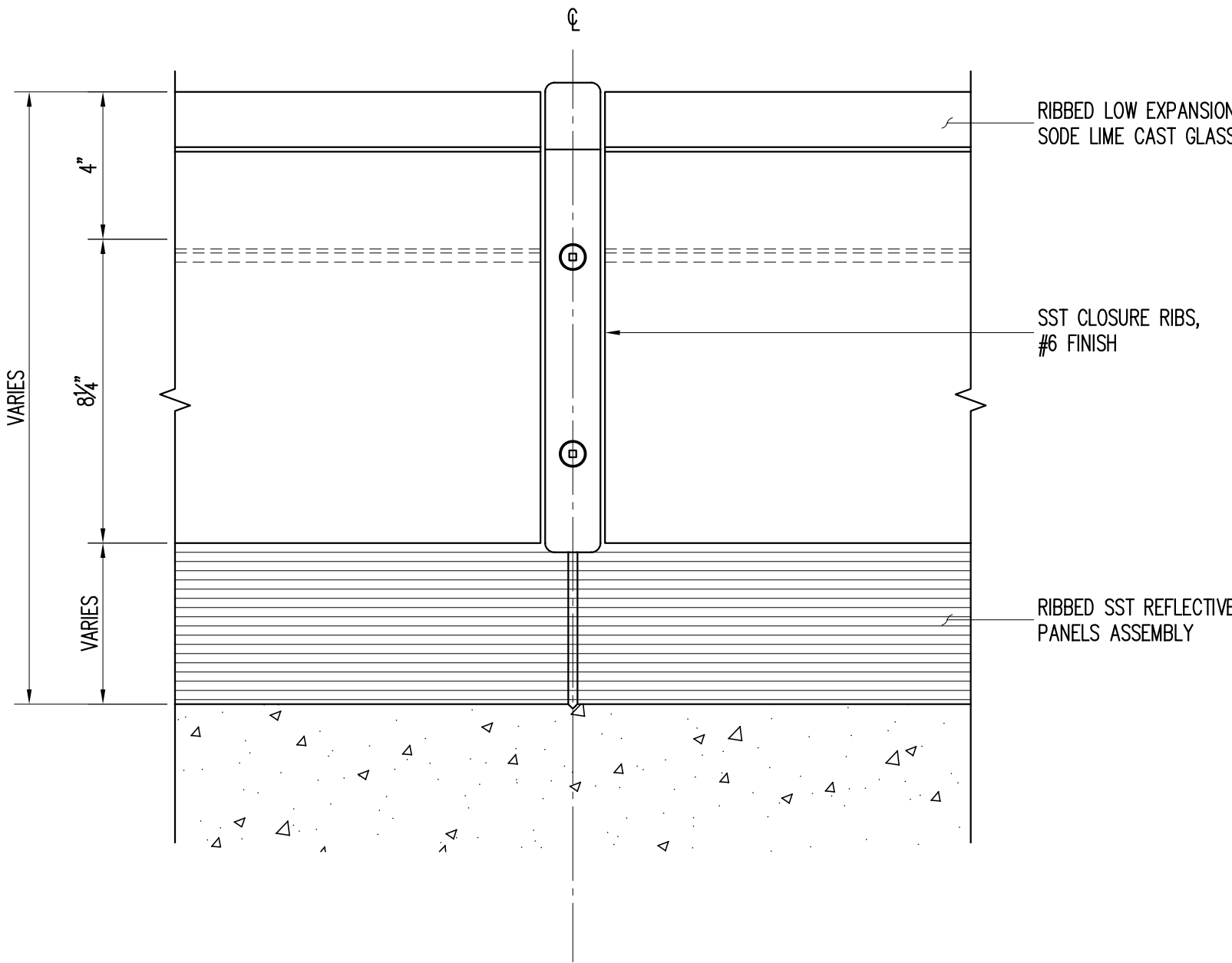
**BID SET
NOT FOR CONSTRUCTION
APR 11, 2018**

McLaren		ENGINEERING GROUP		M. G. McLAREN P.C.		131 West 35th Street, 4th Floor, New York, NY 10001		T: (212) 324-5300 F: (212) 324-5310 www.mclaren.com	
PROJECT		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION		NEW YORK		NEW YORK		BY	
SHEET TITLE		BENCH PLANS AND ELEVATIONS II		NEW YORK		NEW YORK		BY	
PROJECT NO.		140950.08		SCALE		AS NOTED		DATE	
DATE		07/07/2016		DRAWN BY		CGW		CHECKED BY	
CHECKED BY		MCG		DRAWING NO.		S-102.00		OF	
OF		26		SHTS		BY		MCG	
BY		MCG		ISSUE FOR BID		4/11/18		REVISION	

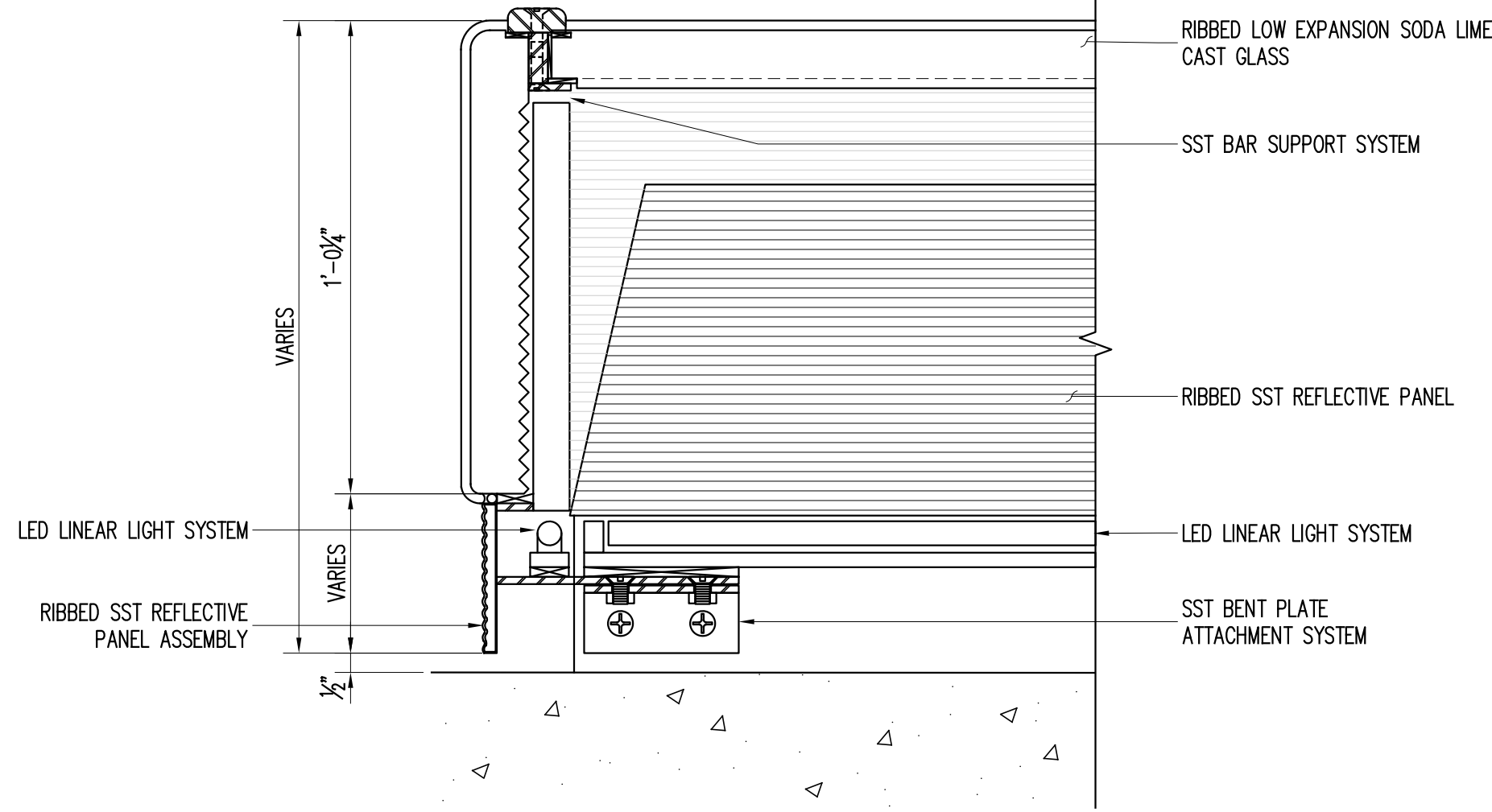
FILE NAME: P:\Proj\140\140950.08\10_Dwg\10-03-104 Existing Bench Sections.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:14pm LAST SAVE: Tue, 27 Mar 2018 - 9:25am BY: cwebber



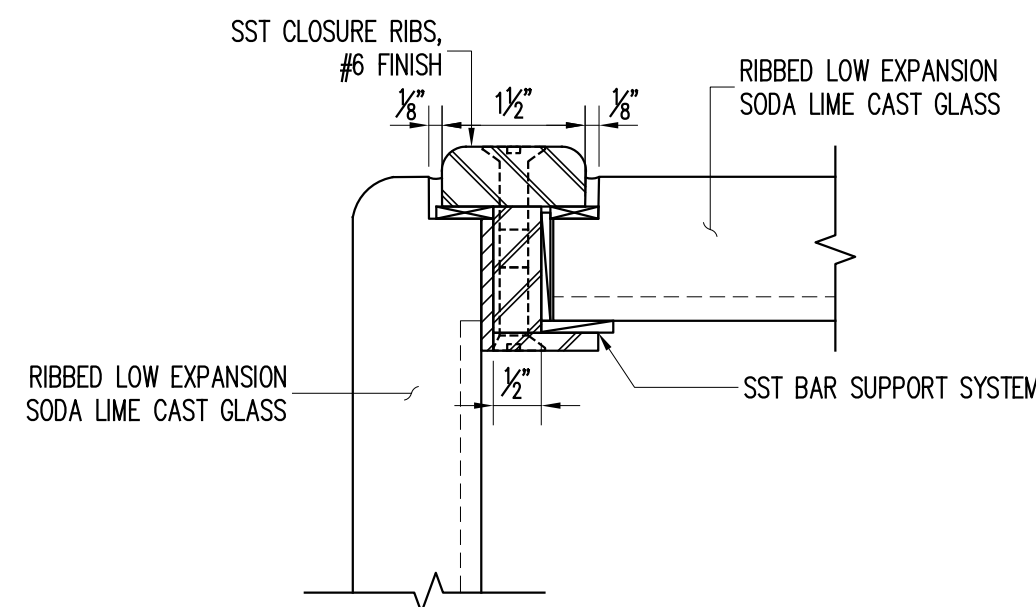
A GLASS BENCH AND STAINLESS STEEL SEAT SECTION
S-103 3" = 1'-0"



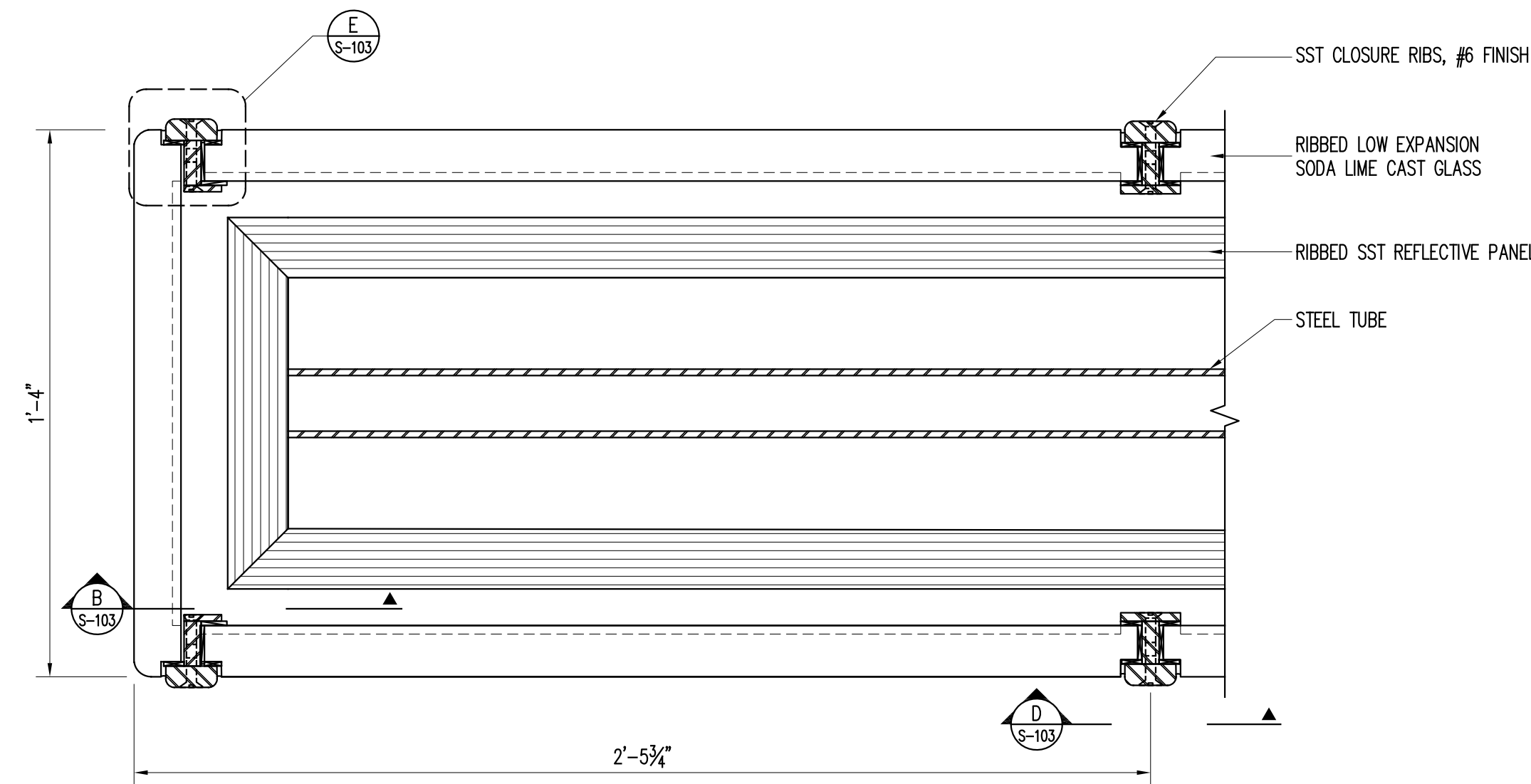
D GLASS BENCH ELEVATION
S-103 3" = 1'-0"



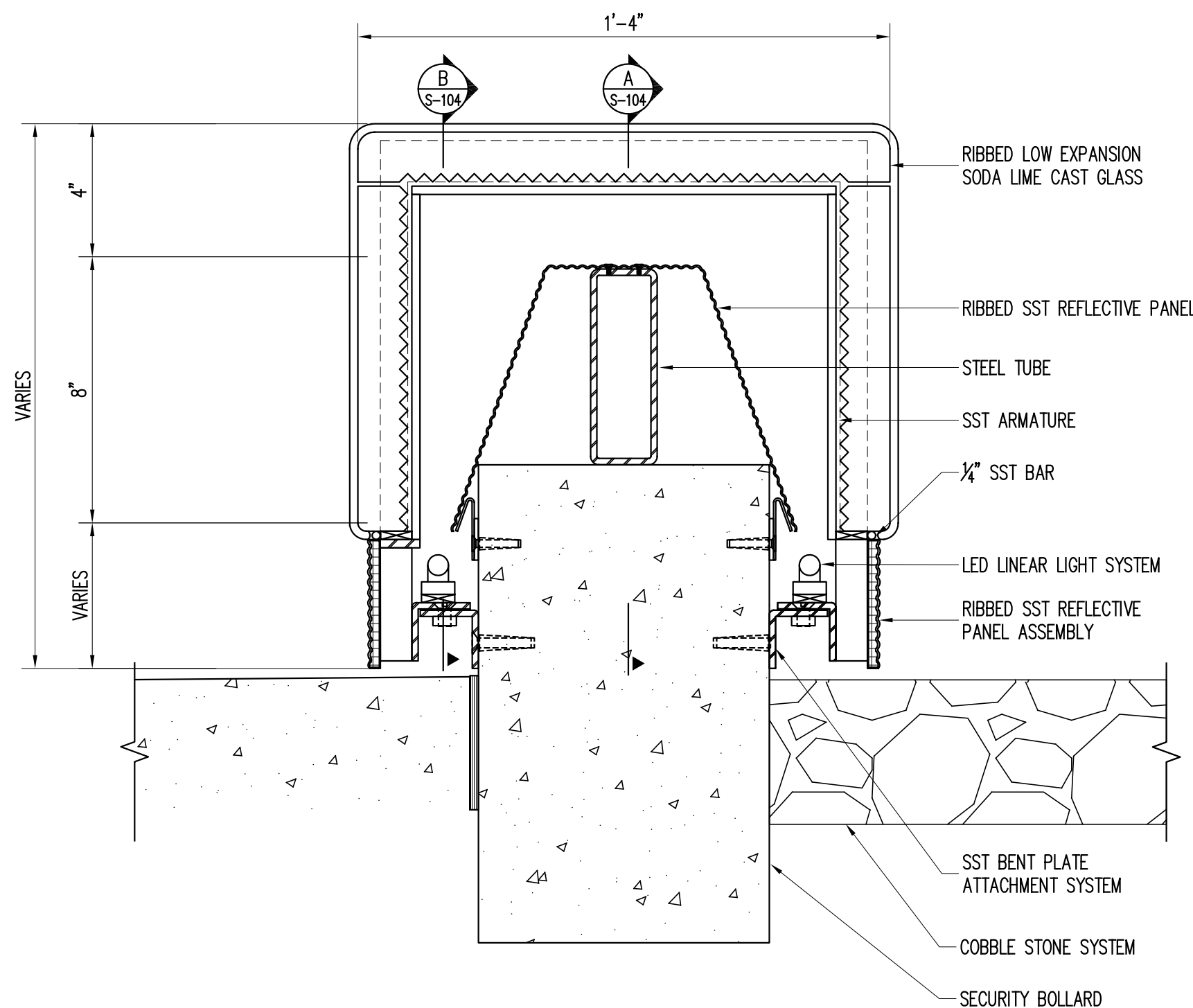
B EXISTING SECTION DETAIL
S-103 3" = 1'-0"



E SECTION AT CORNER AND TOP
S-103 6" = 1'-0"



C PLAN DETAIL
S-103 3" = 1'-0"



F CROSS SECTION
S-103 3" = 1'-0"

- NOTES:
- SECTIONS ARE OBTAINED FROM LIMITED FIELD SURVEY BY McLAREN AND 100% CONSTRUCTION DRAWING TITLED "BATTERY PARK CITY STREETSCAPES VESEY STREET IMPROVEMENTS" DEVELOPED BY ROGER MARVEL ARCHITECTS, PLLC, DATED AUGUST 16, 2004.
 - CONTRACTOR SHALL VERIFY ALL SECTIONS AND DETAILS BEFORE STARTING WORK.
 - ALL DIMENSIONS ARE EXISTING AND SHOWN FOR REFERENCE. WORK THESE DRAWINGS WITH SHEETS S-200, S-201, AND S-300 TO S-302.

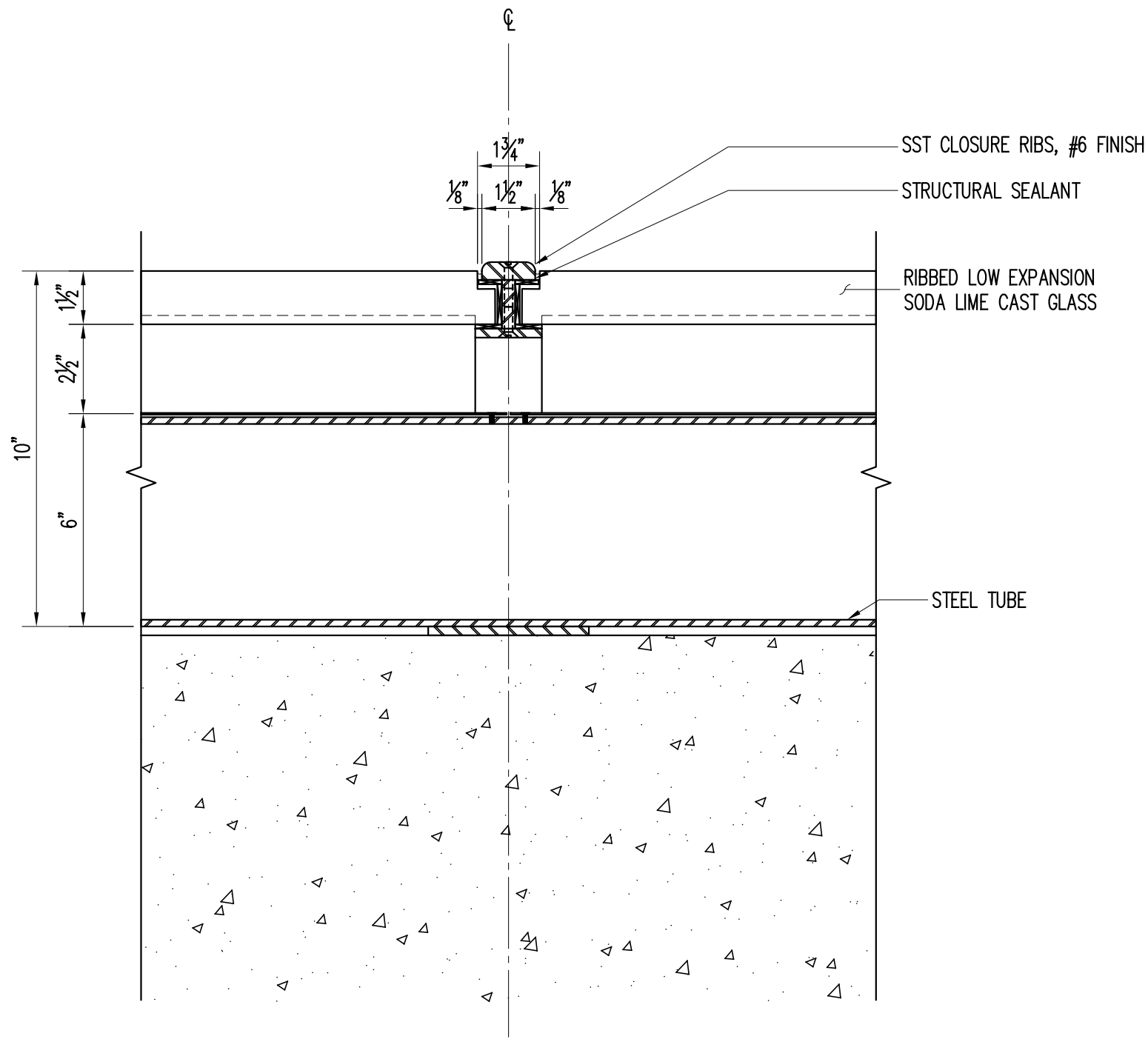
**BID SET
NOT FOR CONSTRUCTION
APR 11, 2018**

PROJECT		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION		NEW YORK, NEW YORK	
SHEET TITLE		EXISTING BENCH SECTIONS I			
PROJECT NO.		140950.08			
SCALE		AS NOTED			
DATE		07/07/2016			
DRAWN BY		CGW			
CHECKED BY		MCG			
DRAWING NO.		S-103.00			
MCG		ISSUE FOR BID		BY	
NO.		4/11/18		DATE	
REVISION					

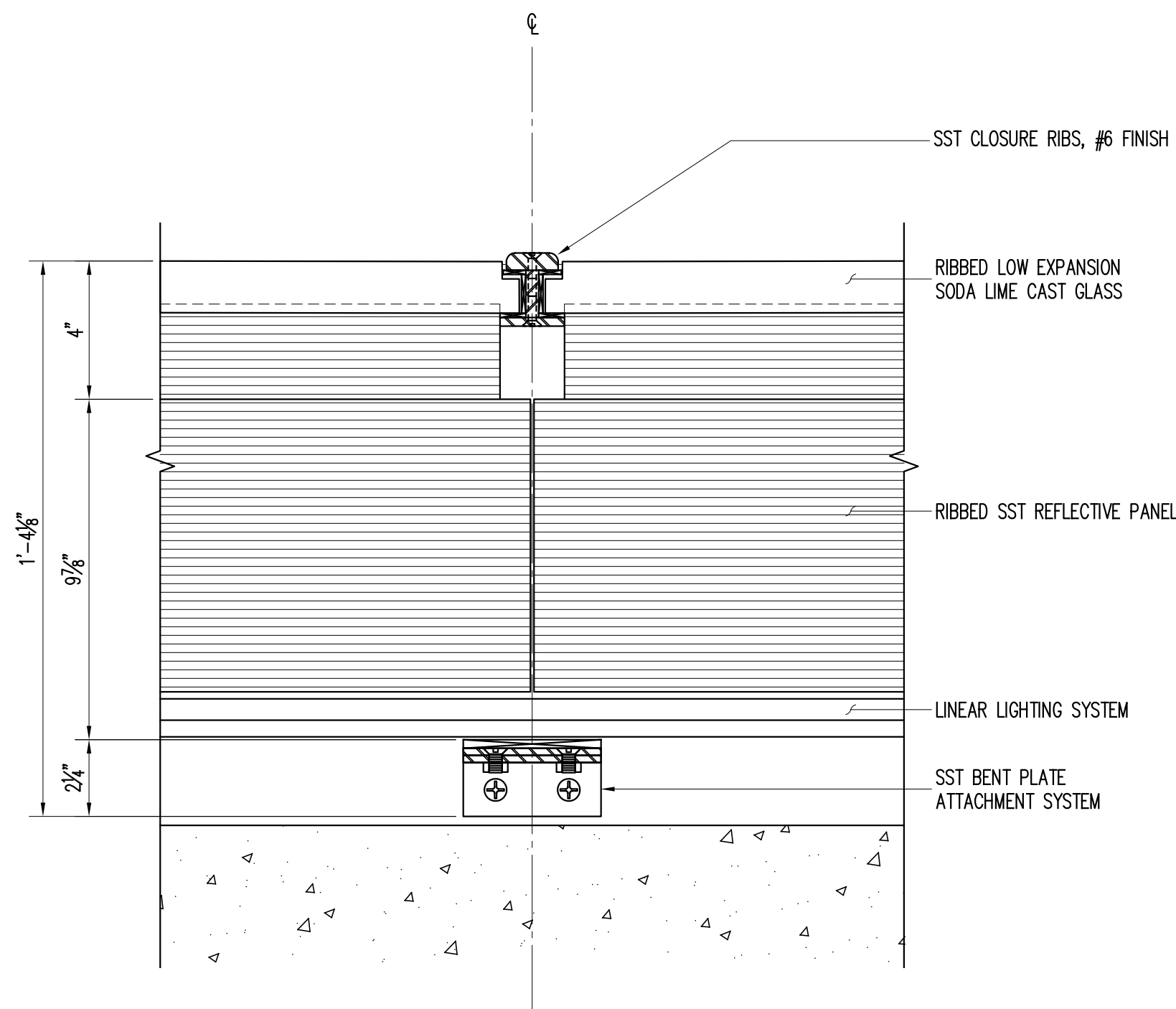
McLaren
ENGINEERING GROUP
applied ingenuity
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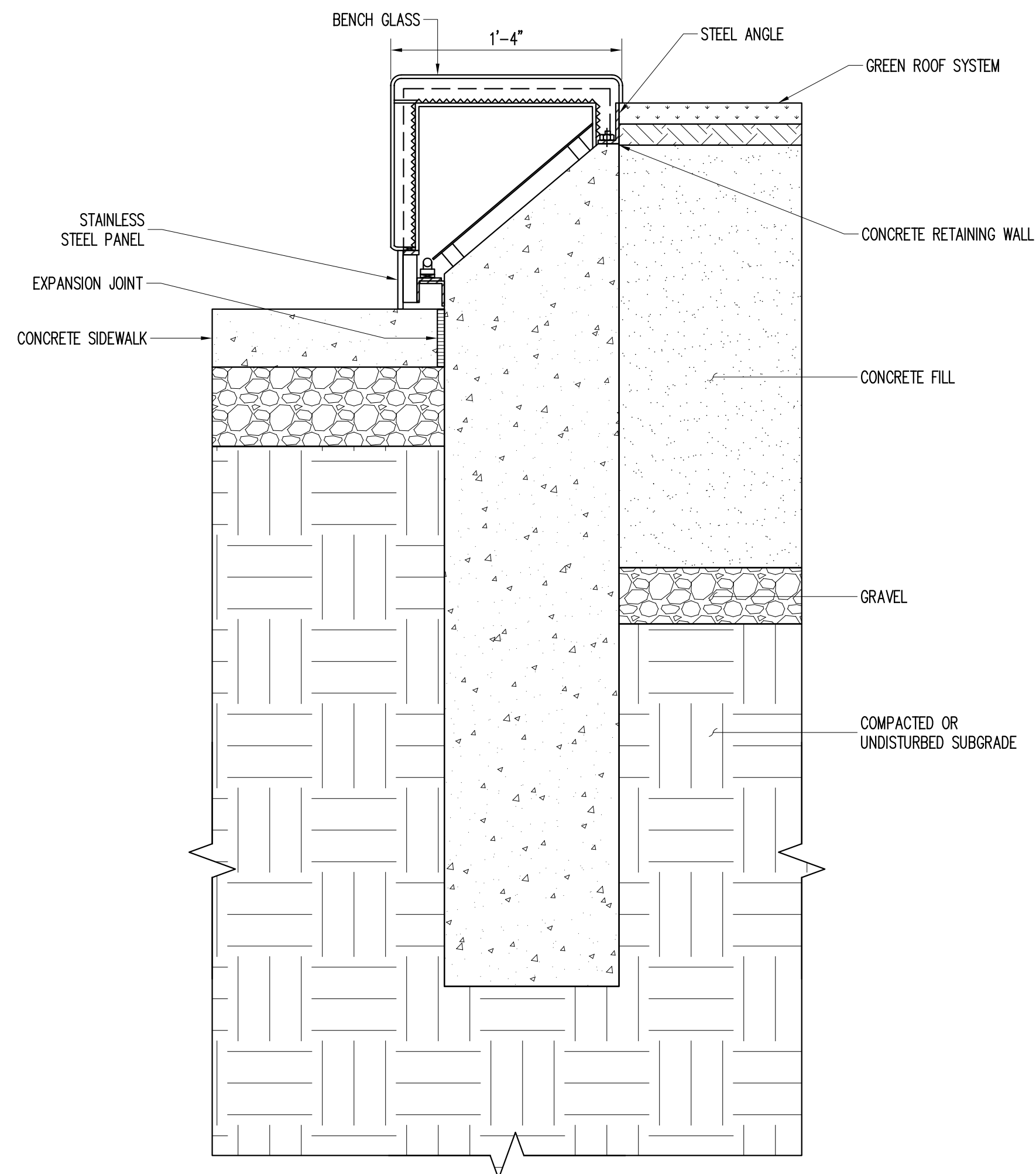
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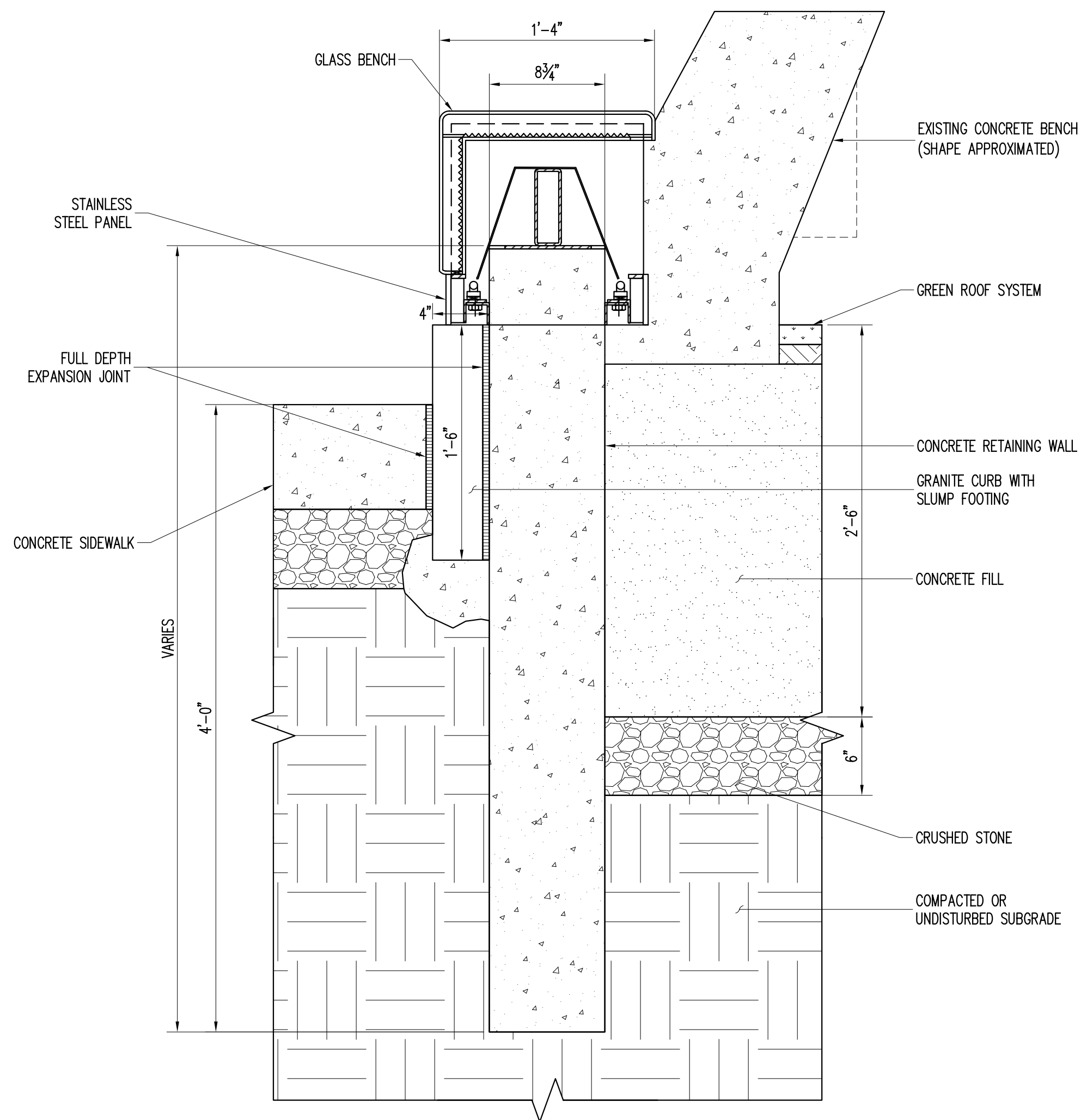
A SECTION DETAIL
S-104 3" = 1'-0"



B SECTION DETAIL
S-104 3" = 1'-0"



C BENCH 'I' SECTION
S-104 1-1/2" = 1'-0"



D BENCH 'J' SECTION
S-104 1-1/2" = 1'-0"

- NOTES:
1. SECTIONS ARE OBTAINED FROM LIMITED FIELD SURVEY BY McLAREN AND 100% CONSTRUCTION DRAWING TITLED "BATTERY PARK CITY STREETSCAPES VESEY STREET IMPROVEMENTS" DEVELOPED BY ROGER MARVEL ARCHITECTS, PLLC, DATED AUGUST 16, 2004.
 2. CONTRACTOR SHALL VERIFY ALL SECTIONS AND DETAILS BEFORE STARTING WORK.
 3. ALL DIMENSIONS ARE EXISTING AND SHOWN FOR REFERENCE. WORK THESE DRAWINGS WITH SHEETS S-200, S-201, AND S-300 TO S-302.



PROJECT
**PUBLIC ART RESTORATION AND
LED LIGHTING CONVERSION**
NEW YORK, NEW YORK

SHEET TITLE
**EXISTING BENCH
SECTIONS II**

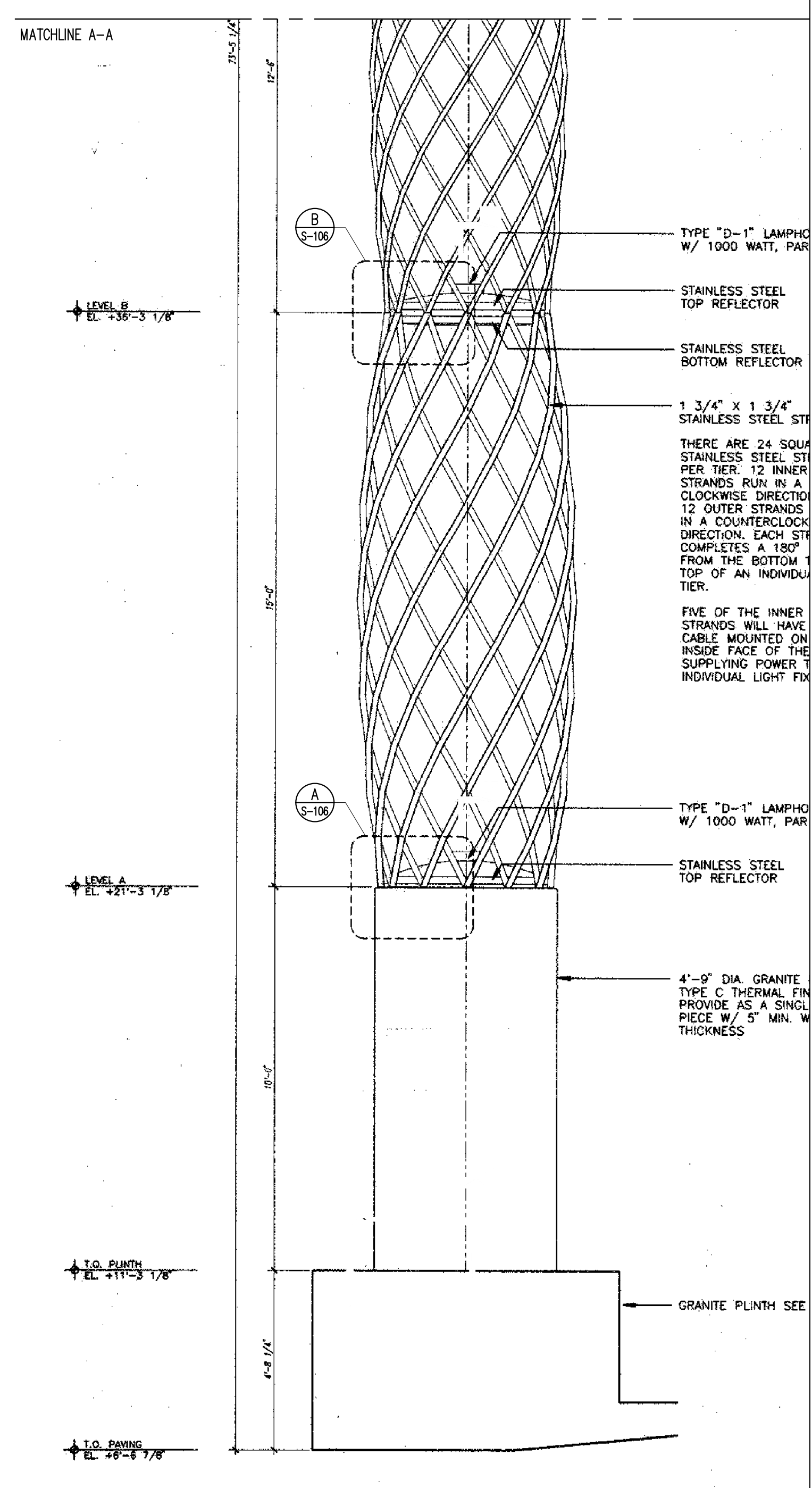
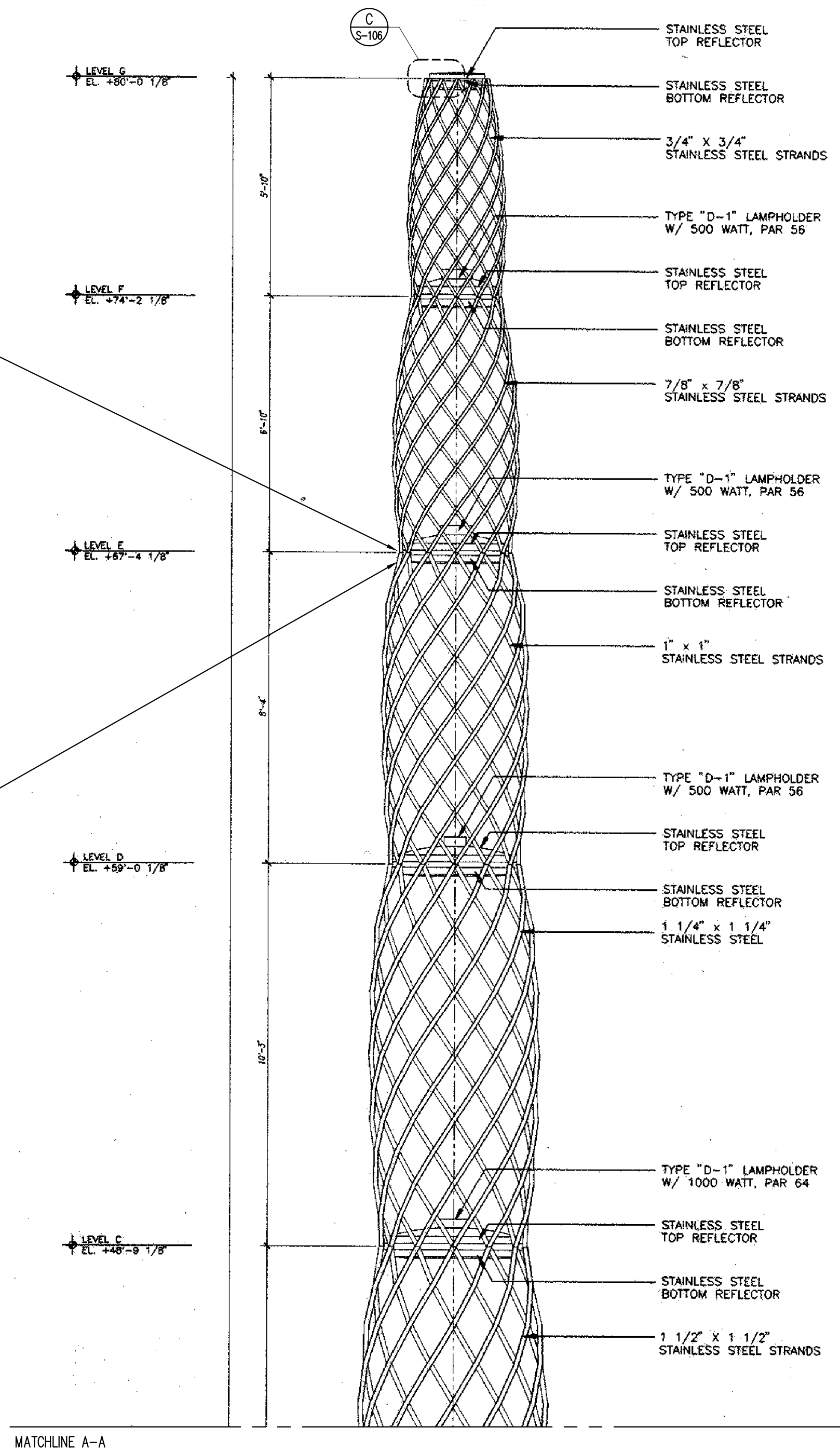
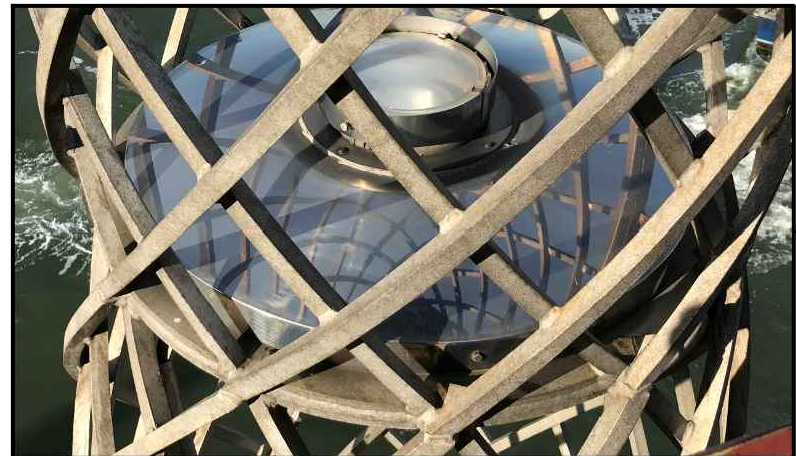
PROJECT NO. 140950.08
SCALE AS NOTED
DATE 07/07/2016
DRAWN BY CGW
CHECKED BY MCG

DRAWING NO.
S-104.00
8 OF 26 SHTS

**BID SET
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APR 11, 2018**

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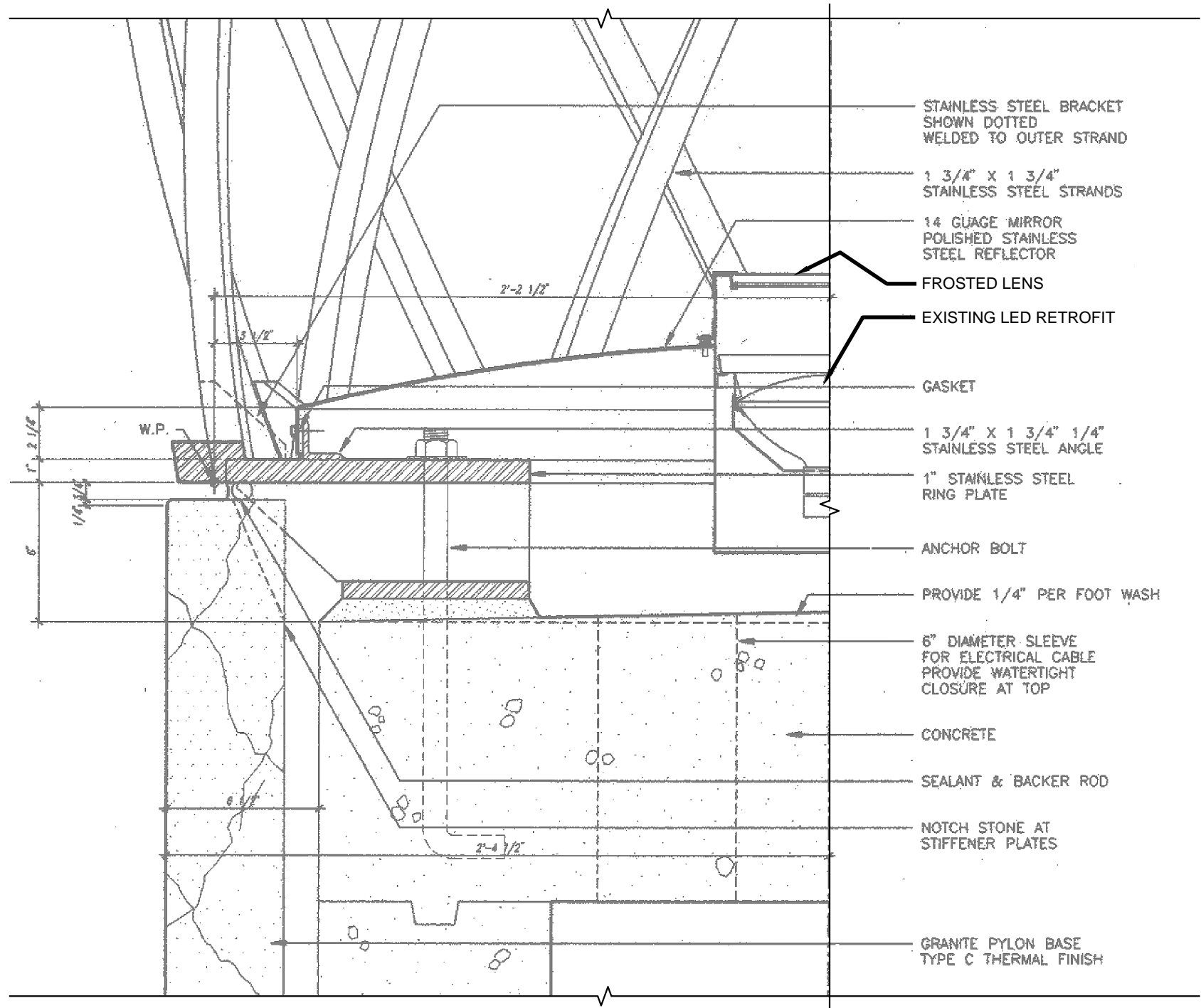


OPEN PYLON EXISTING ELEVATION

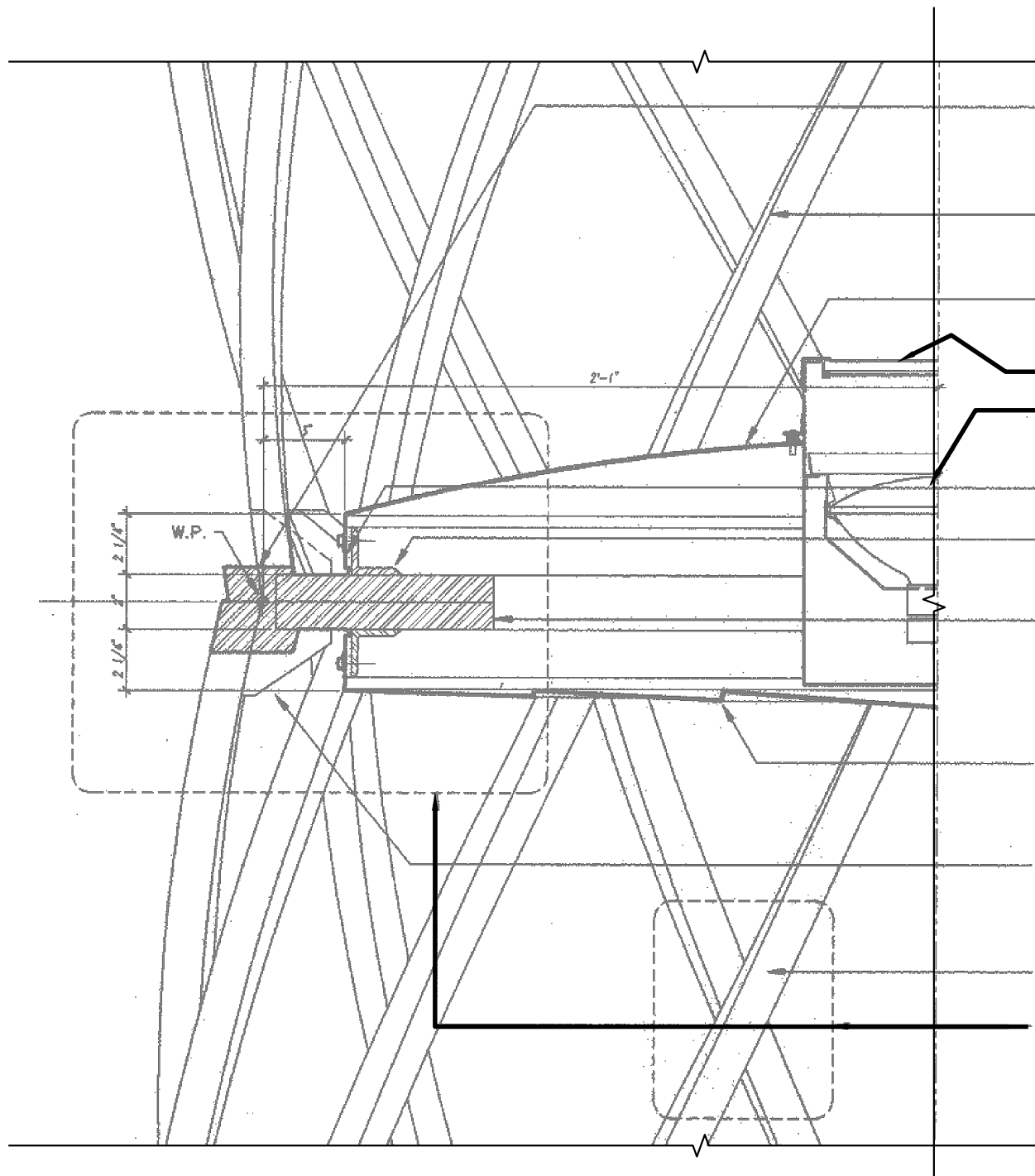
N.T.S.

NOTES:

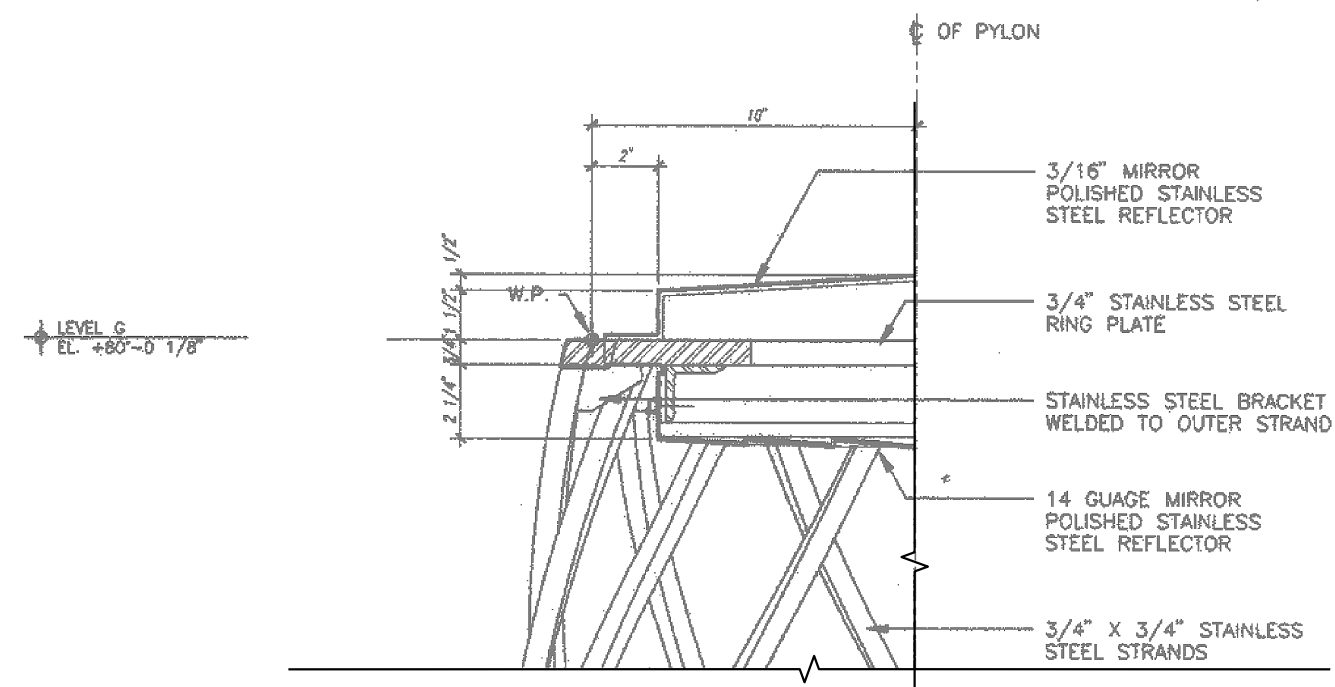
- EXISTING OPEN PYLON INFORMATION PROVIDED BY MITCHELL/GURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
- MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.



A OPEN PYLON EXISTING DETAILS AT LEVEL A
S-106 N.T.S.



B OPEN PYLON EXISTING DETAILS AT LEVEL B
S-106 N.T.



C OPEN PYLON EXISTING DETAILS AT LEVEL G
S-106 N.T.S.

- NOTES:
1. THERE IS NO EXISTING LIGHT FIXTURE AT LEVEL G, DETAIL INCLUDED FOR INFORMATION ONLY.

- NOTES:
1. EXISTING OPEN PYLON INFORMATION PROVIDED BY MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
 2. McLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.



A EXISTING FIXTURE (LEVEL B - E)
S-107



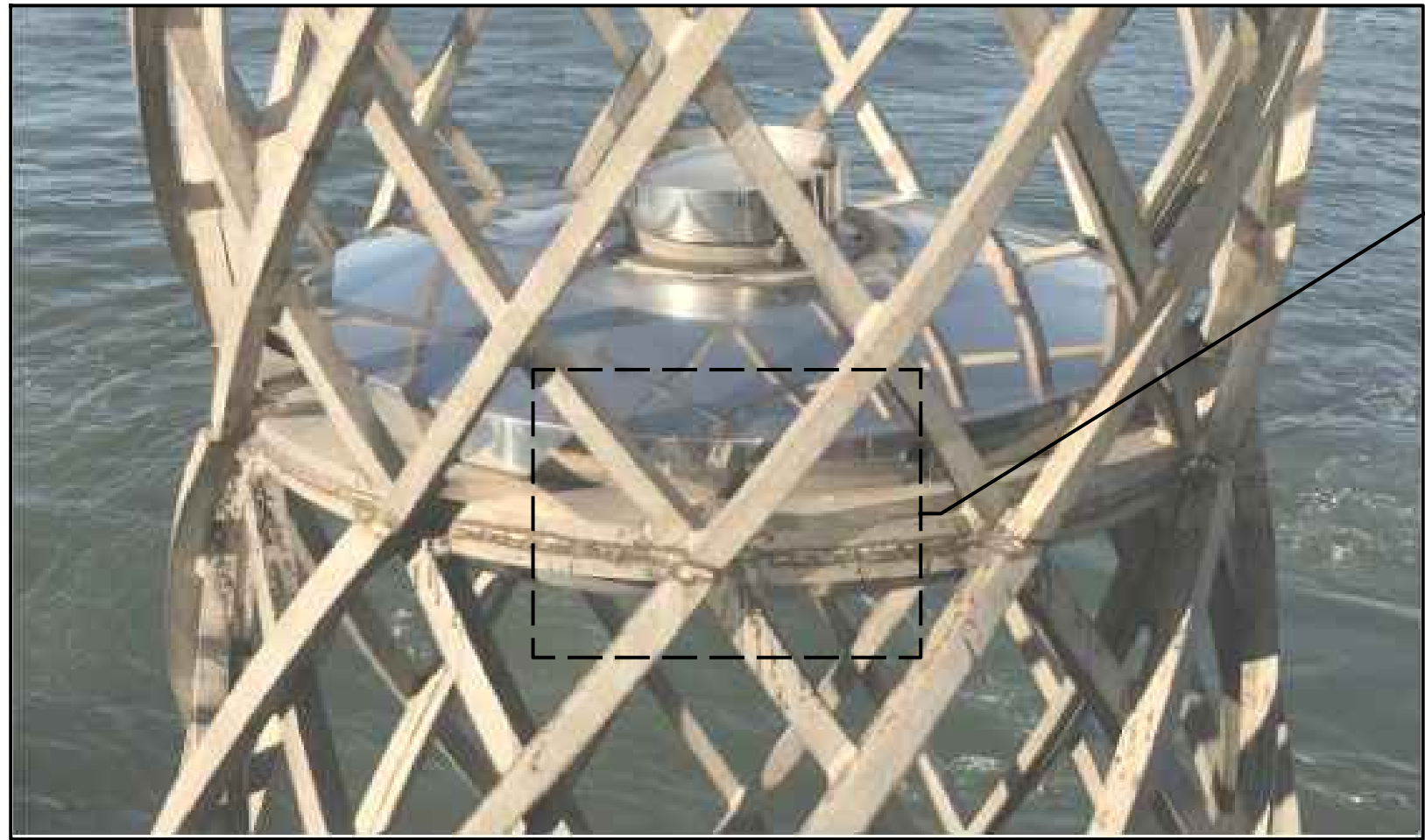
B PREVIOUSLY RETROFITTED FIXTURE (LEVEL A)
S-107



C EXISTING FIXTURE WIRING
S-107



D
S-107



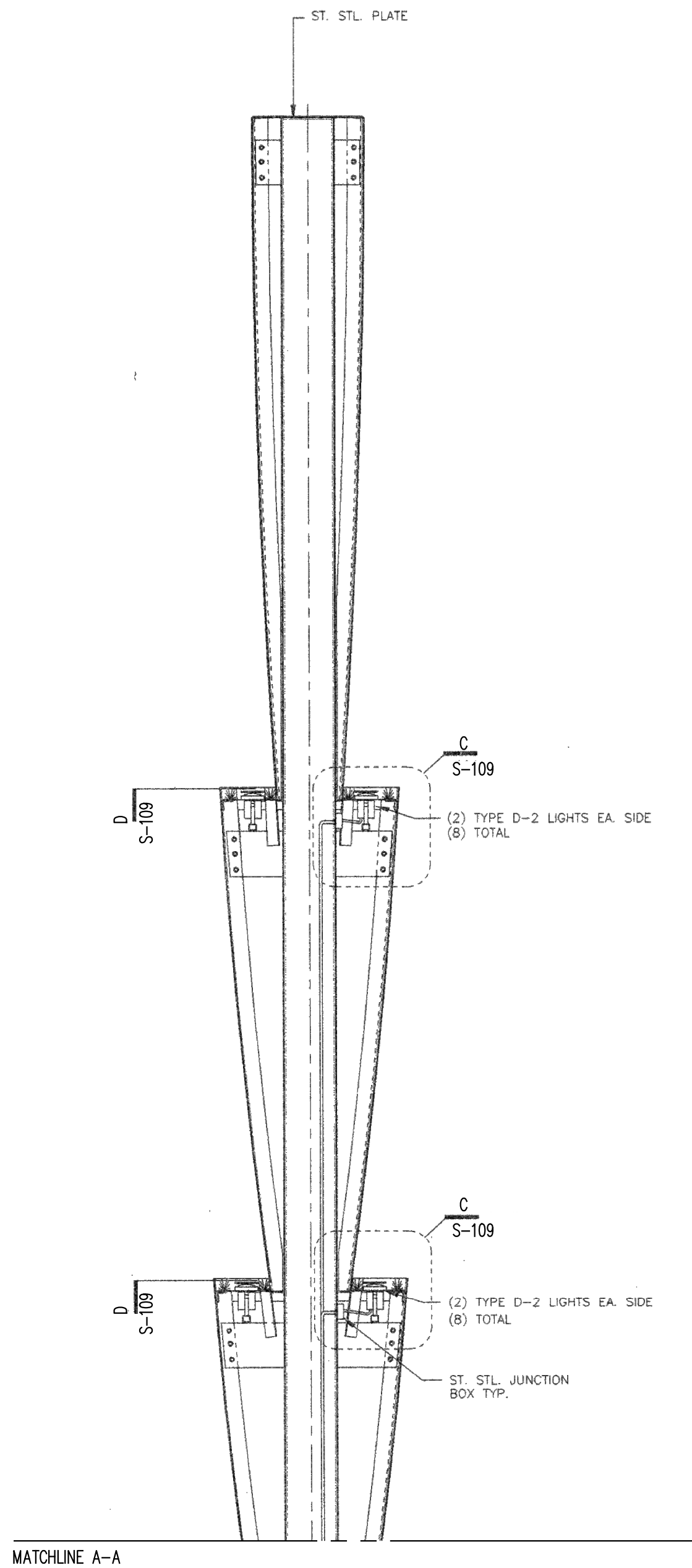
E PREVIOUSLY REWELDED LEVEL (LEVEL D)
S-107



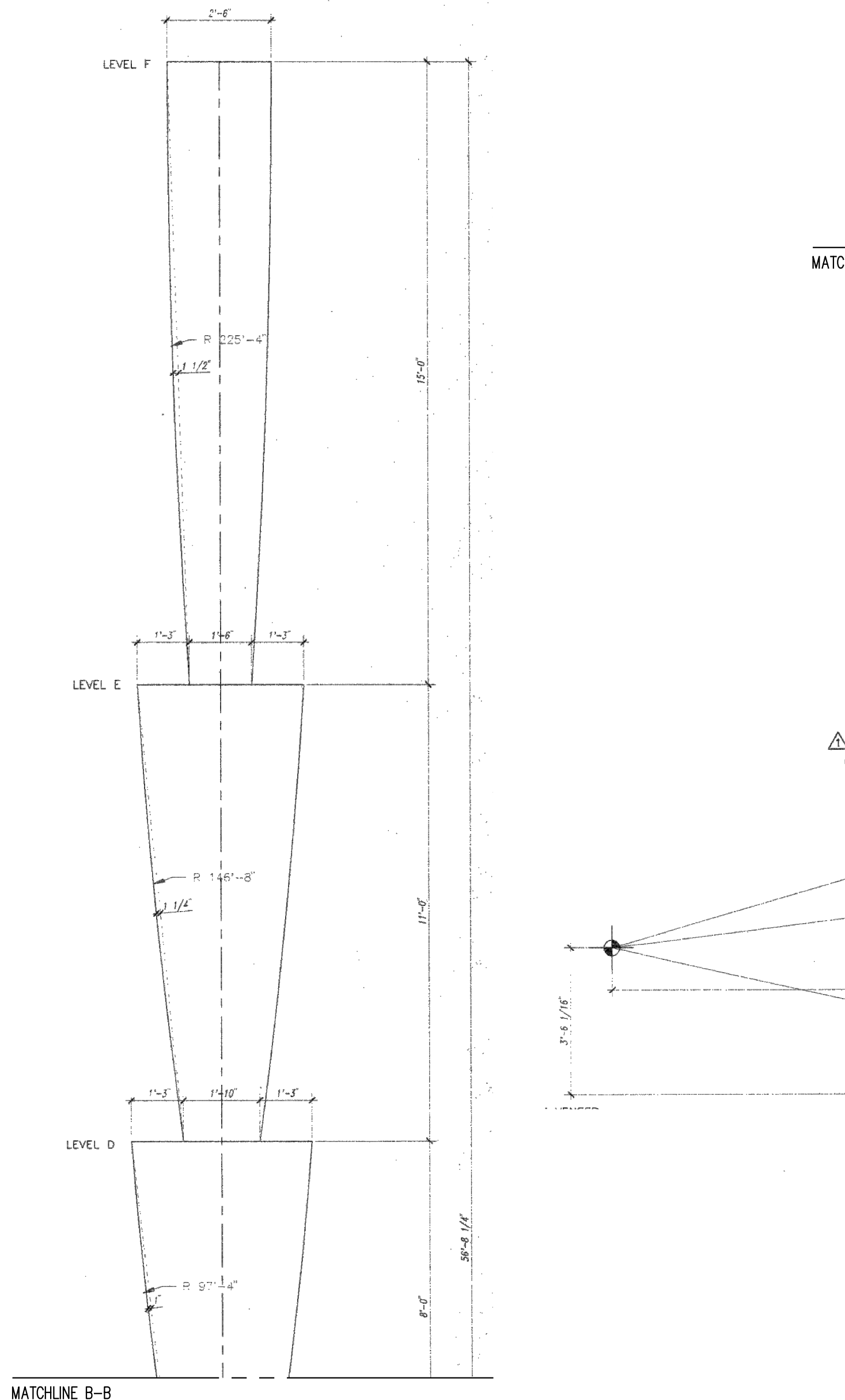
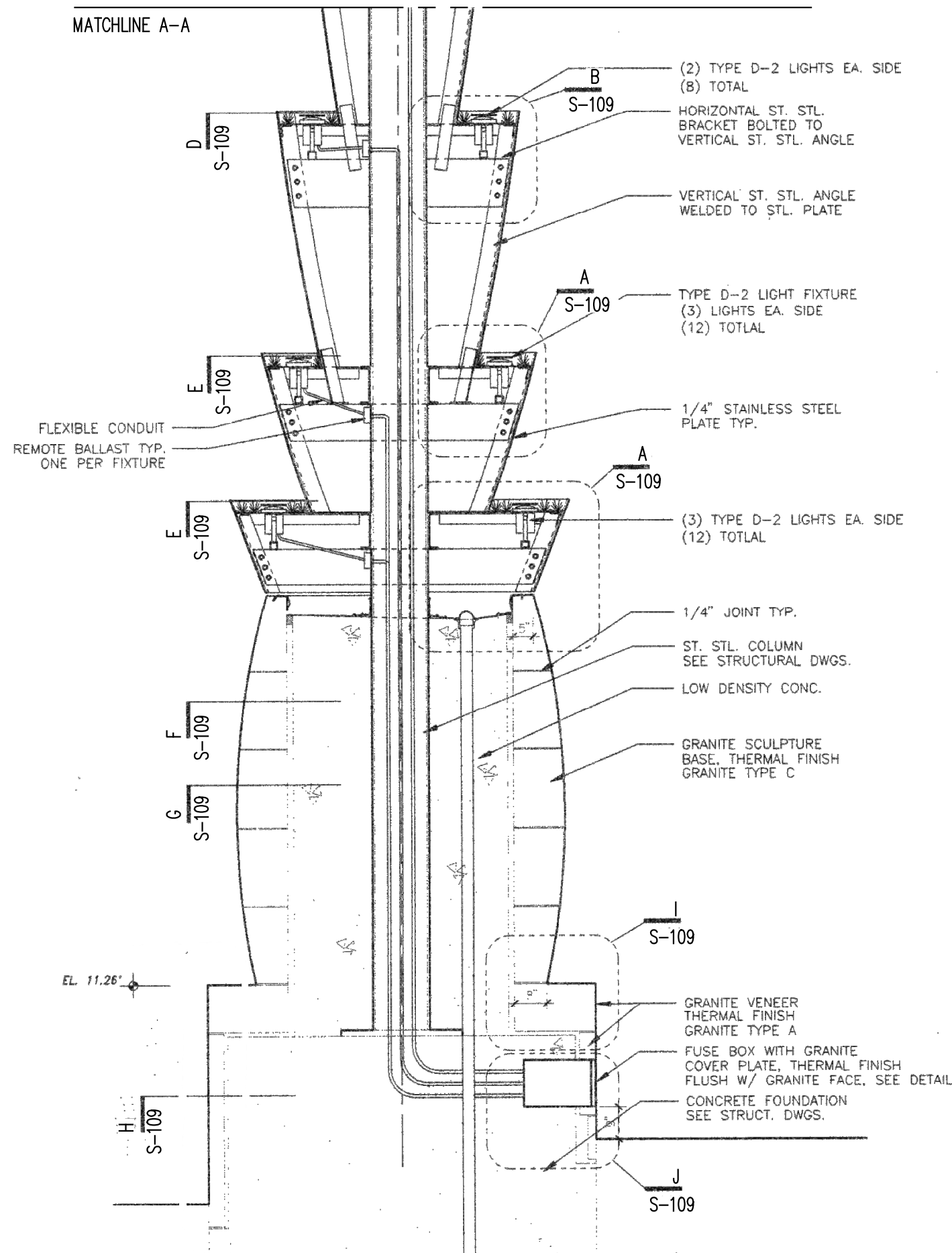
NOTE:
PHOTOS ARE FOR CLARITY ONLY.
FOR PYLON SCOPE OF WORK, REFER TO
GENERAL NOTES ON G-001.



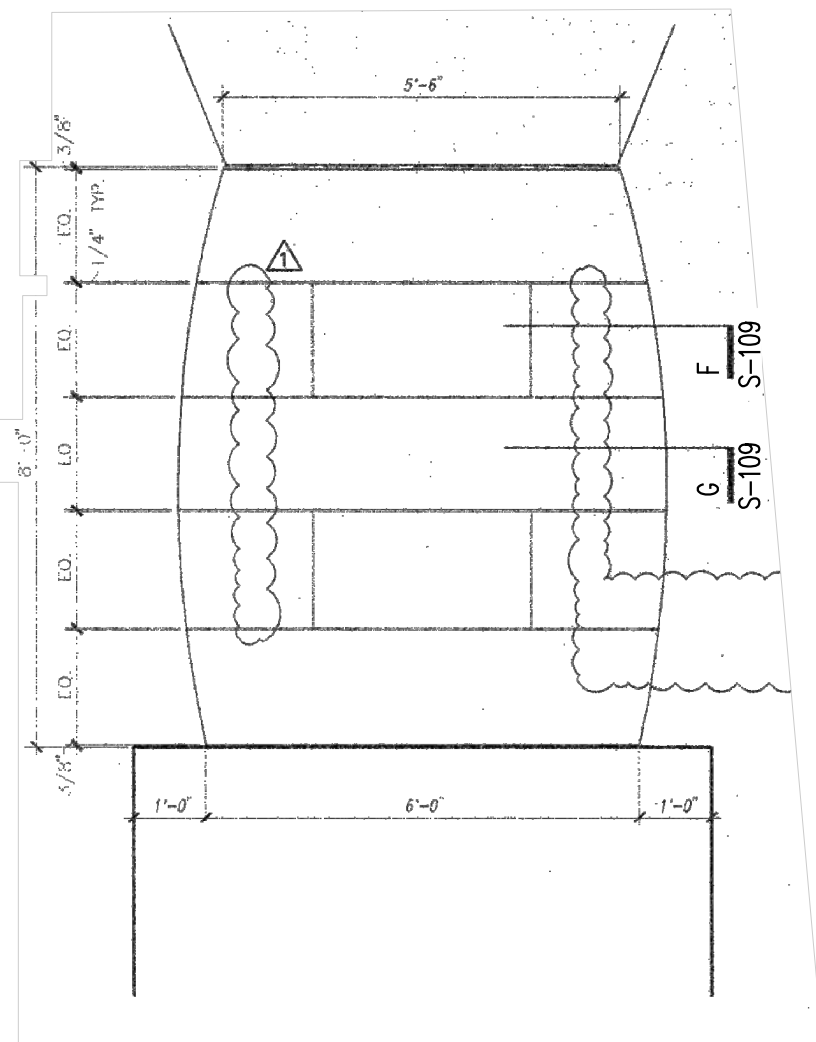
F EXISTING RECESSED JUNCTION
S-107



A CLOSED PYLON ELEVATION
S-108 N.T.S.

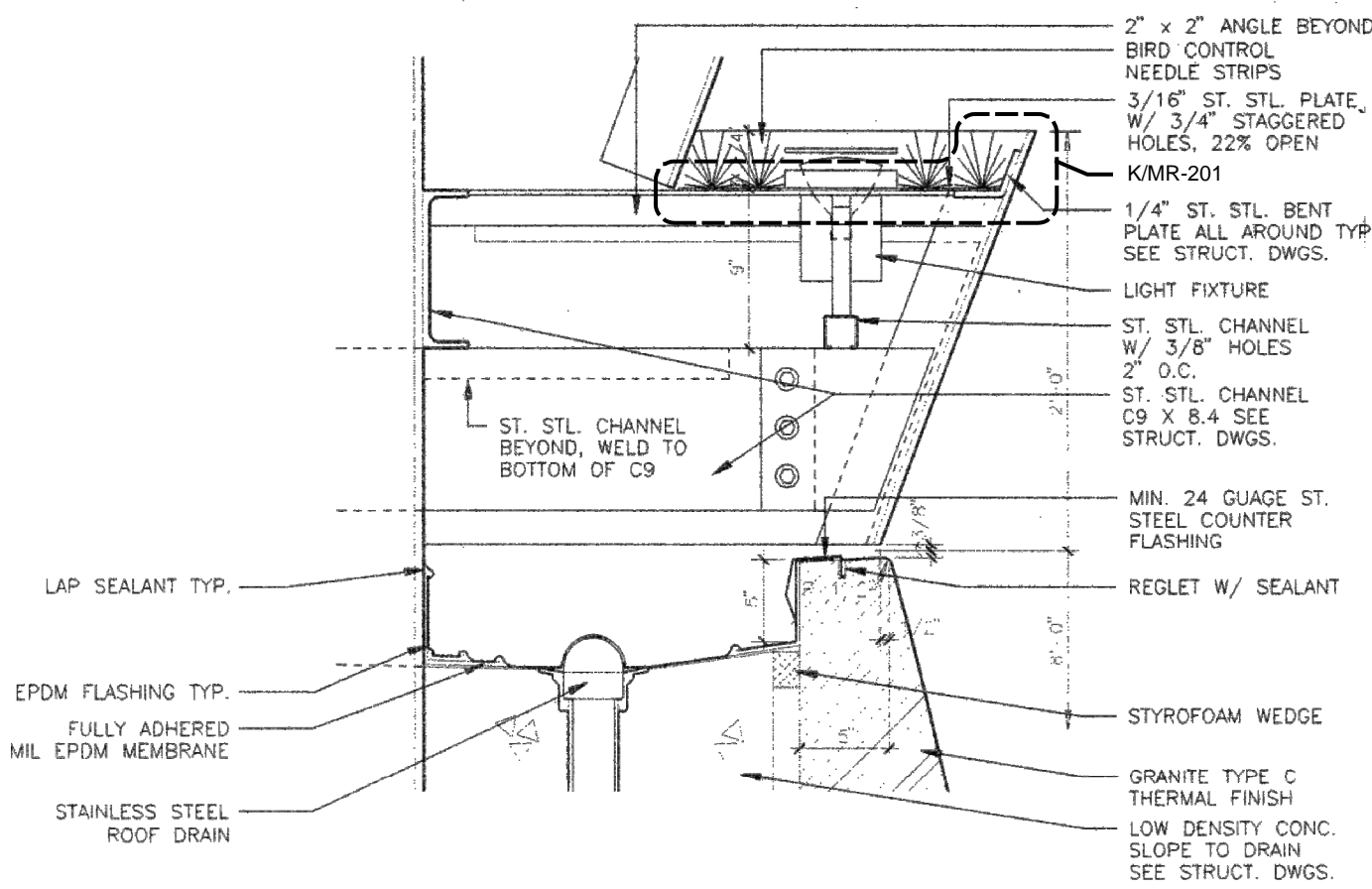


B CLOSED PYLON ELEVATION LOOK
S-108

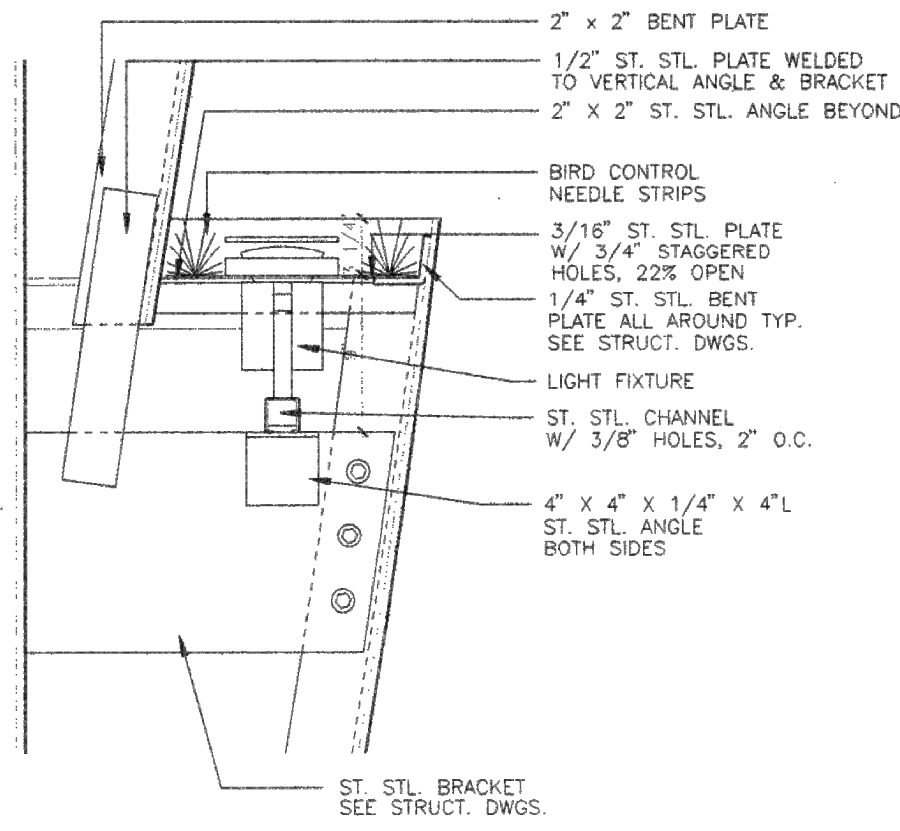


C PYLON BASE ELEVATION FACING NORTH SOUTH
S-108 N.T.S.

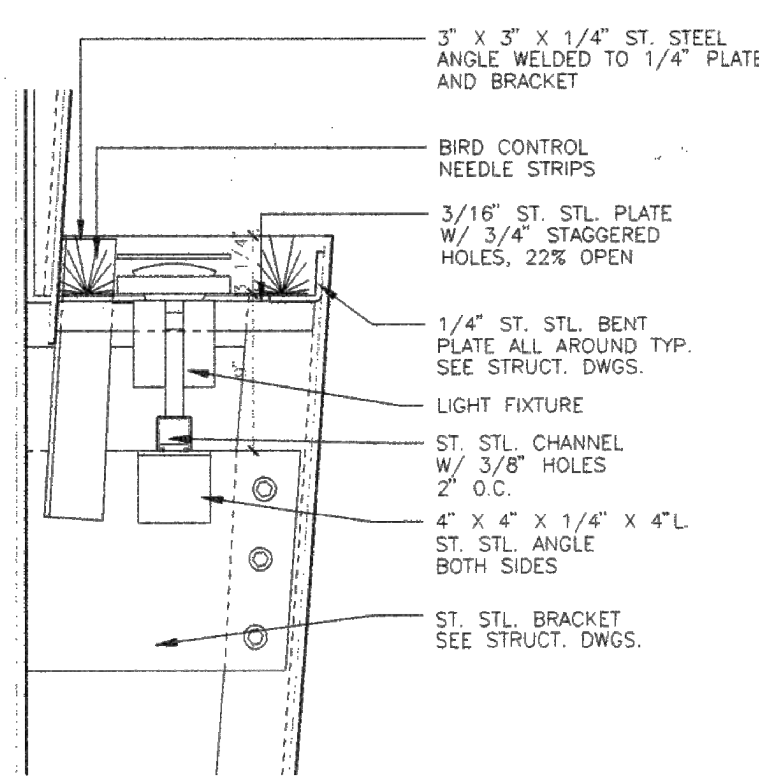
- NOTES:
1. EXISTING CLOSED PYLON INFORMATION PROVIDED MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 2009.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY, IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 2209.2
 2. REVISION CLOUDS ARE A PART OF BASE MITCHELL/GIURGOLA DRAWINGS AND SHOULD BE UNLESS OTHERWISE NOTED.
 3. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF EXISTING DRAWINGS.



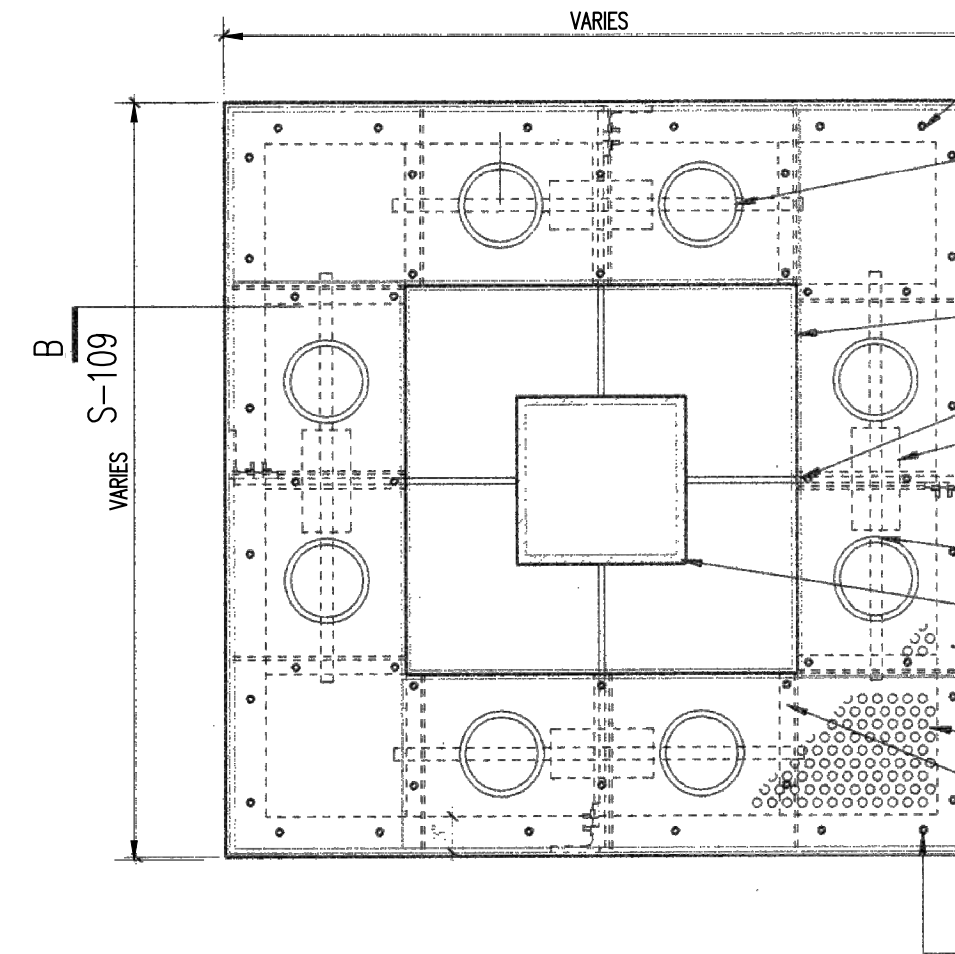
A SECTION DETAIL
S-109 N.T.S.



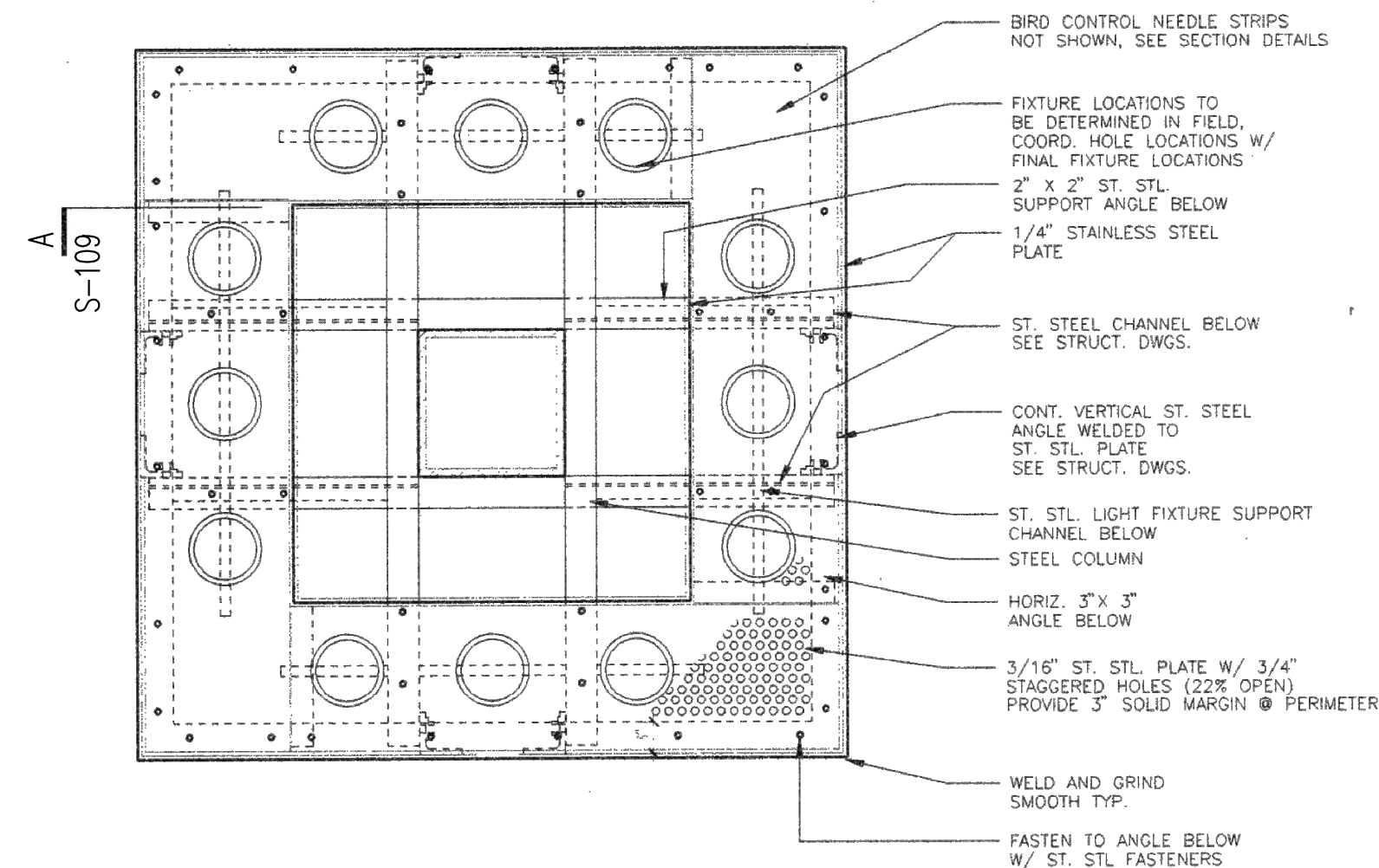
B SECTION DETAIL
S-109 N.T.S.



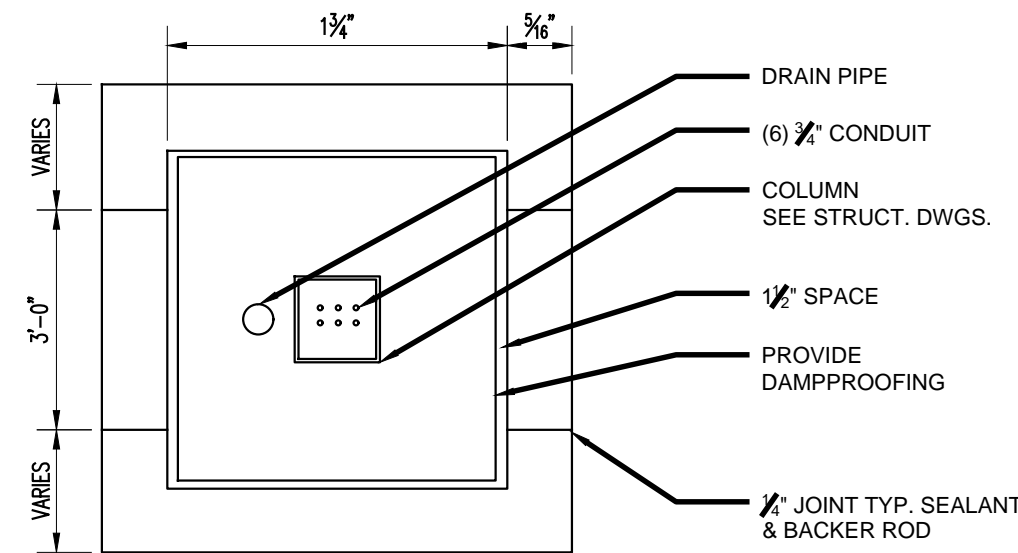
C SECTION DETAIL
S-109 N.T.S.



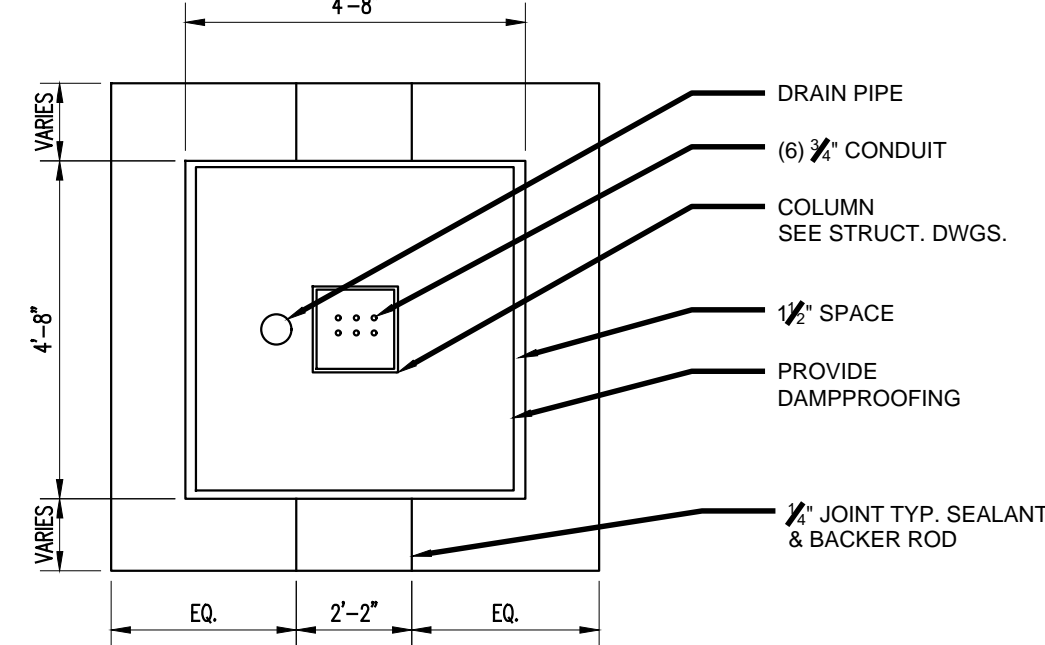
D CLOSED PYLON TYP. F
S-109



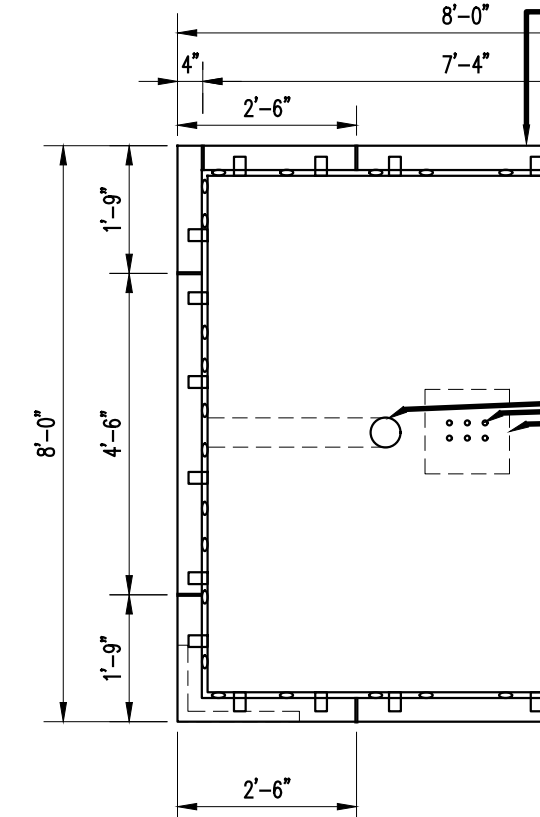
E CLOSED PYLON TYP. PLAN SECTION
S-109 N.T.S.



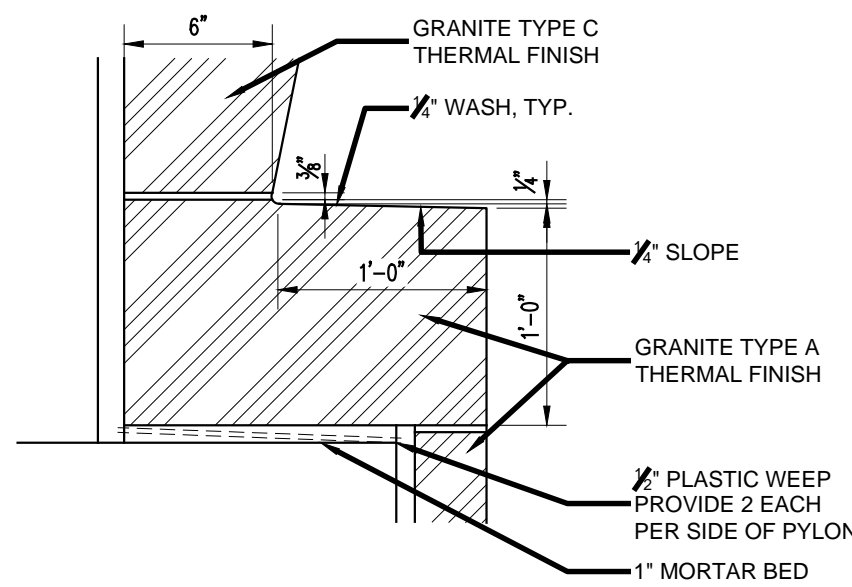
F PYLON BASE PLAN SECTION
S-109 N.T.S.



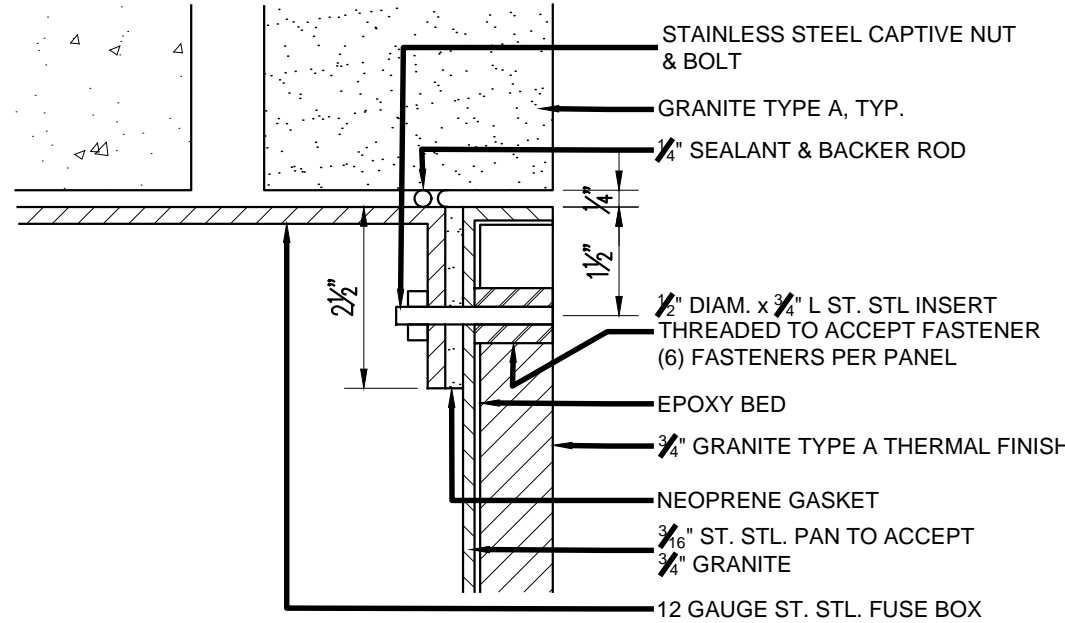
G PYLON BASE PLAN SECTION
S-109 N.T.S.



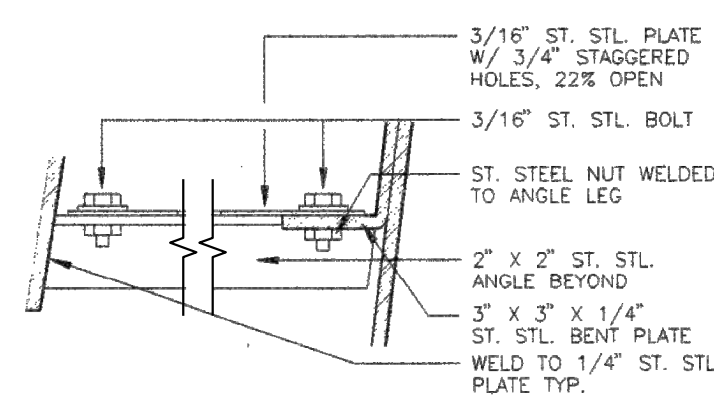
H PEDESTAL
S-109



I PEDESTAL SECTION DETAIL
S-109 N.T.S.



J FUSE BOX OVERALL DETAIL
S-109 N.T.S.



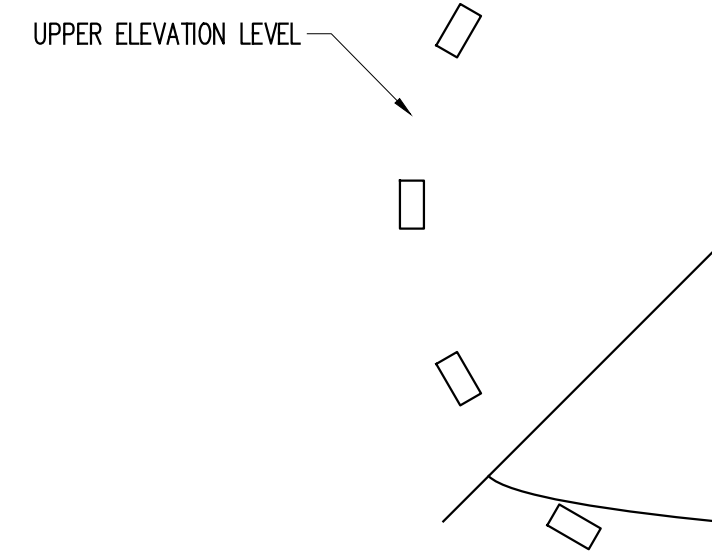
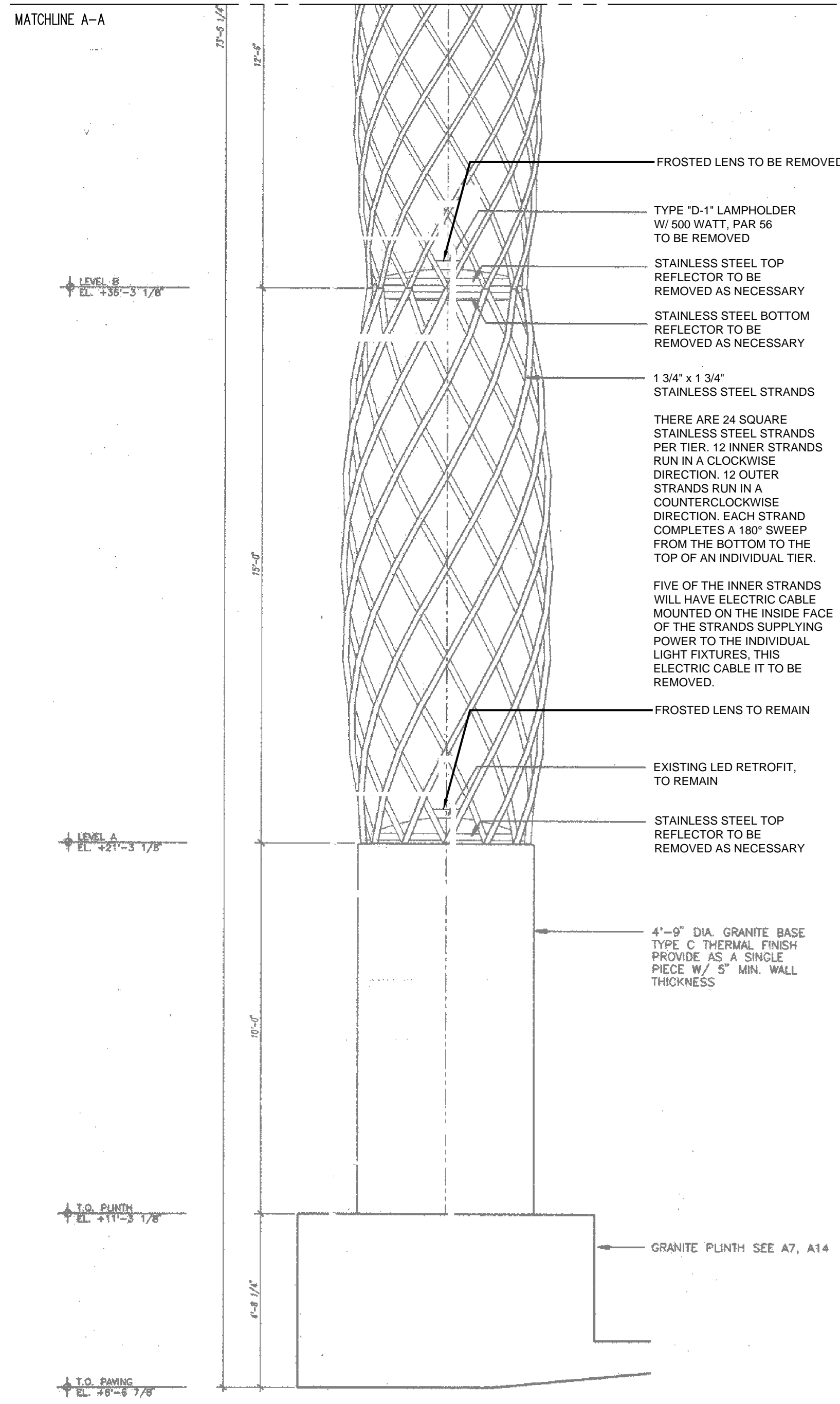
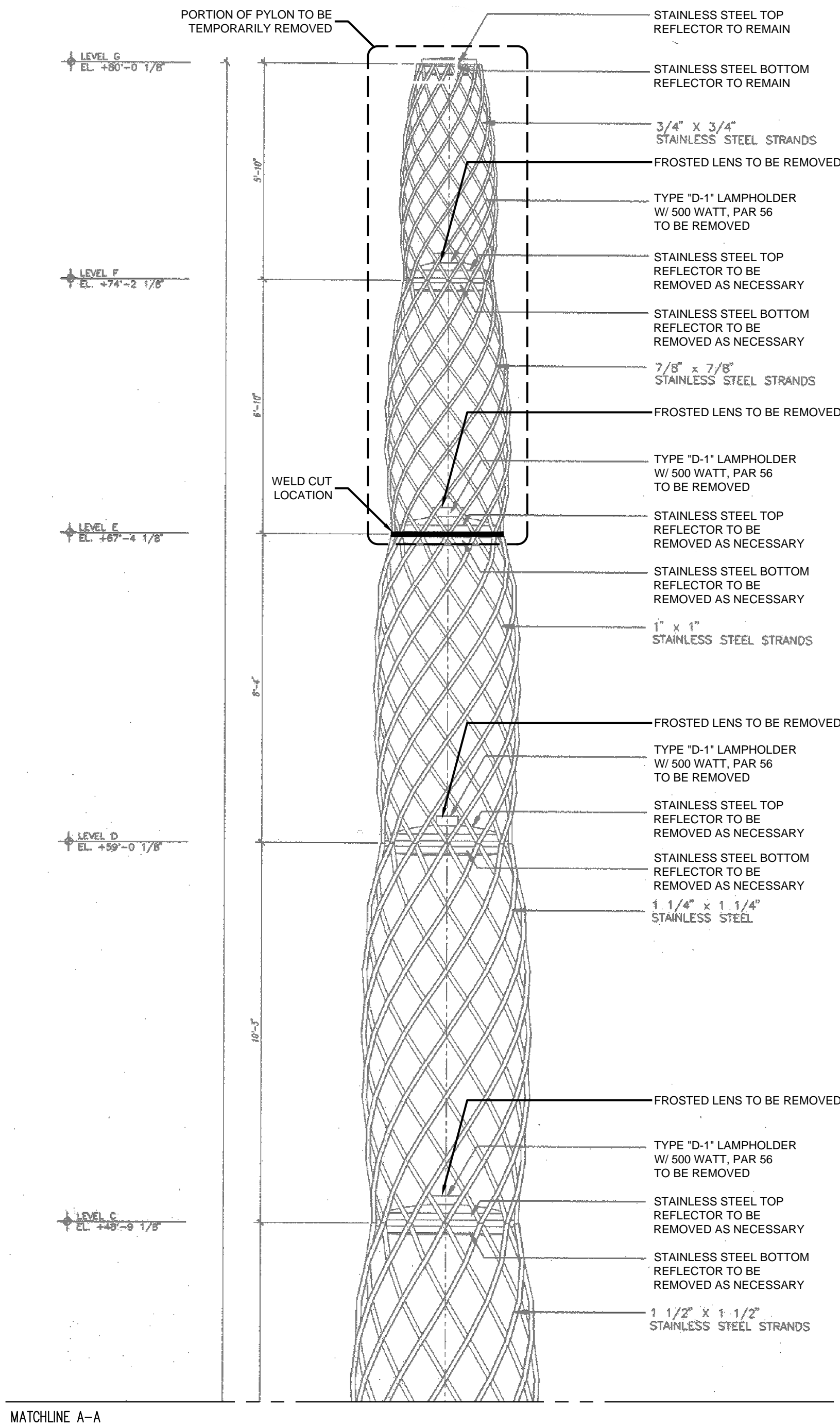
K FIXTURE COVER CONNECTION DETAIL
S-109 N.T.S.

- NOTES:
1. EXISTING CLOSE MITCHELL/GIURG
 2. REVISION CLOUD MITCHELL/GIURG
 3. UNLESS OTHER MCLAREN IS NO EXISTING DRAWING



4. CONTRACTOR TO CAP ELECTRICAL CONDUITS WITH A WATERPROOF SEAL COMPATIBLE WITH EXISTING MATERIALS.
5. CONTRACTOR SHALL VERIFY ALL COMPONENTS BEFORE STARTING WORK.

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B TYPICAL WI

- NOTES:
1. LOCATION AND QUANTITY OF 1 ELEVATION
 2. CONTRACTOR TO VERIFY LOCAT REMOVAL. THERE ARE FIVE RA IS ONE LESS RACEWAY AT EA
 3. ONLY ONE EXISTING WIRE AND
 4. OUTER STRANDS NOT SHOWN
 5. CONTRACTOR TO REMOVE EXIS COMPROMISING EXISTING RACEWAYS SHALL BE REPAIRED TO THE OWNER.

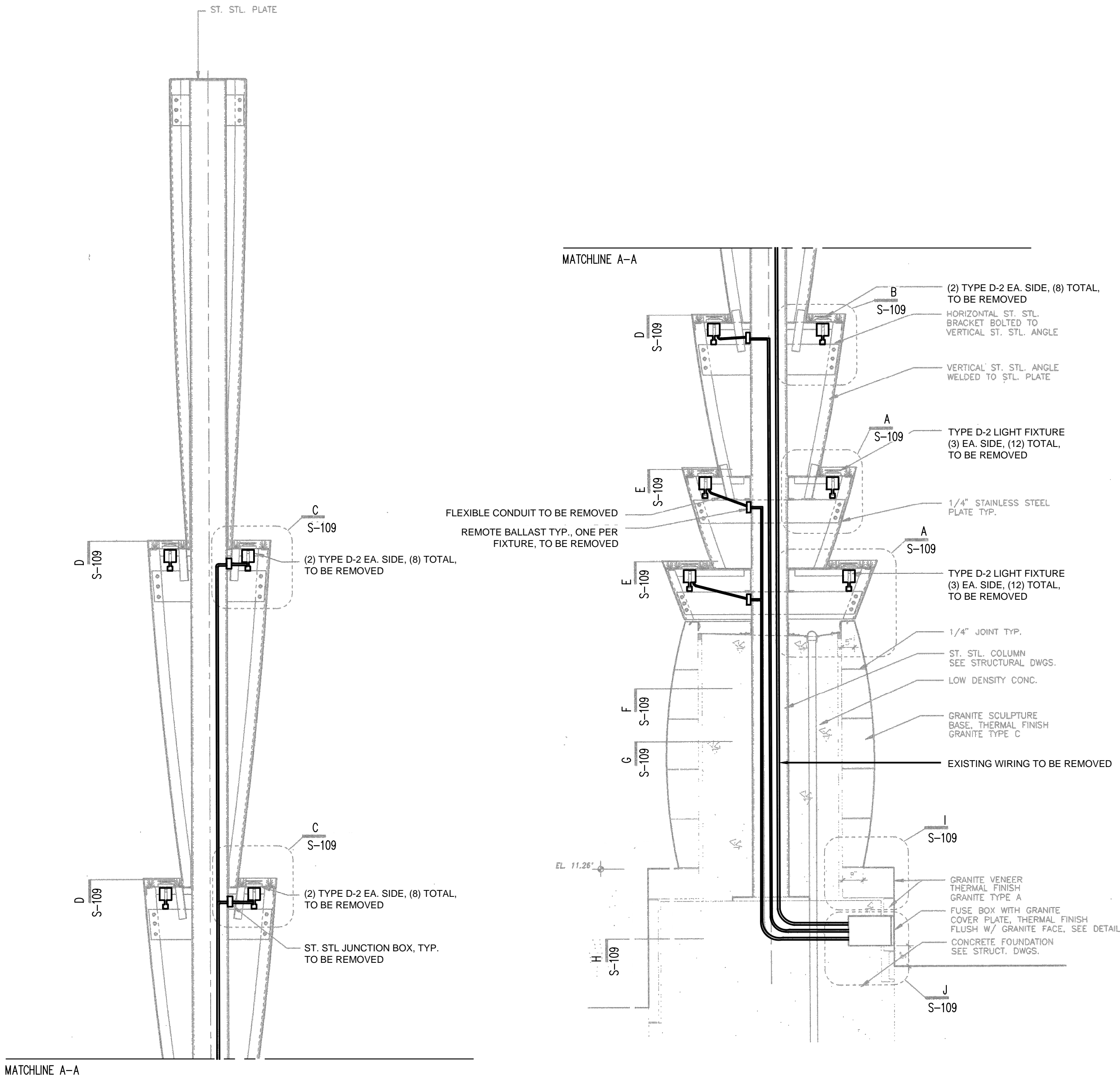
A OPEN PYLON REMOVAL PLAN

N.T.S.

- NOTES:
1. EXISTING OPEN PYLON INFORMATION PROVIDED BY MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
 2. ADDITIONAL CUTS MAY BE REQUIRED TO GAIN ADEQUATE ACCESS TO FIXTURES FOR REMOVALS AND INSTALLATION OF NEW LED LIGHTS.
 3. PRIOR TO MAKING ANY ADDITIONAL CUTS, THE CONTRACTOR SHALL SUBMIT A DRAWING SHOWING PROPOSED CUTS FOR APPROVAL BY THE ENGINEER.
 4. ALL ADDITIONAL CUTS SHALL BE REWELDED PER DETAILS ON S-107 AND SHALL ADHERE TO THE GENERAL NOTES AND PROJECT SPECIFICATIONS.
 5. WELDS SHALL BE SMOOTH TO MATCH EXISTING FINISH.
 6. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.

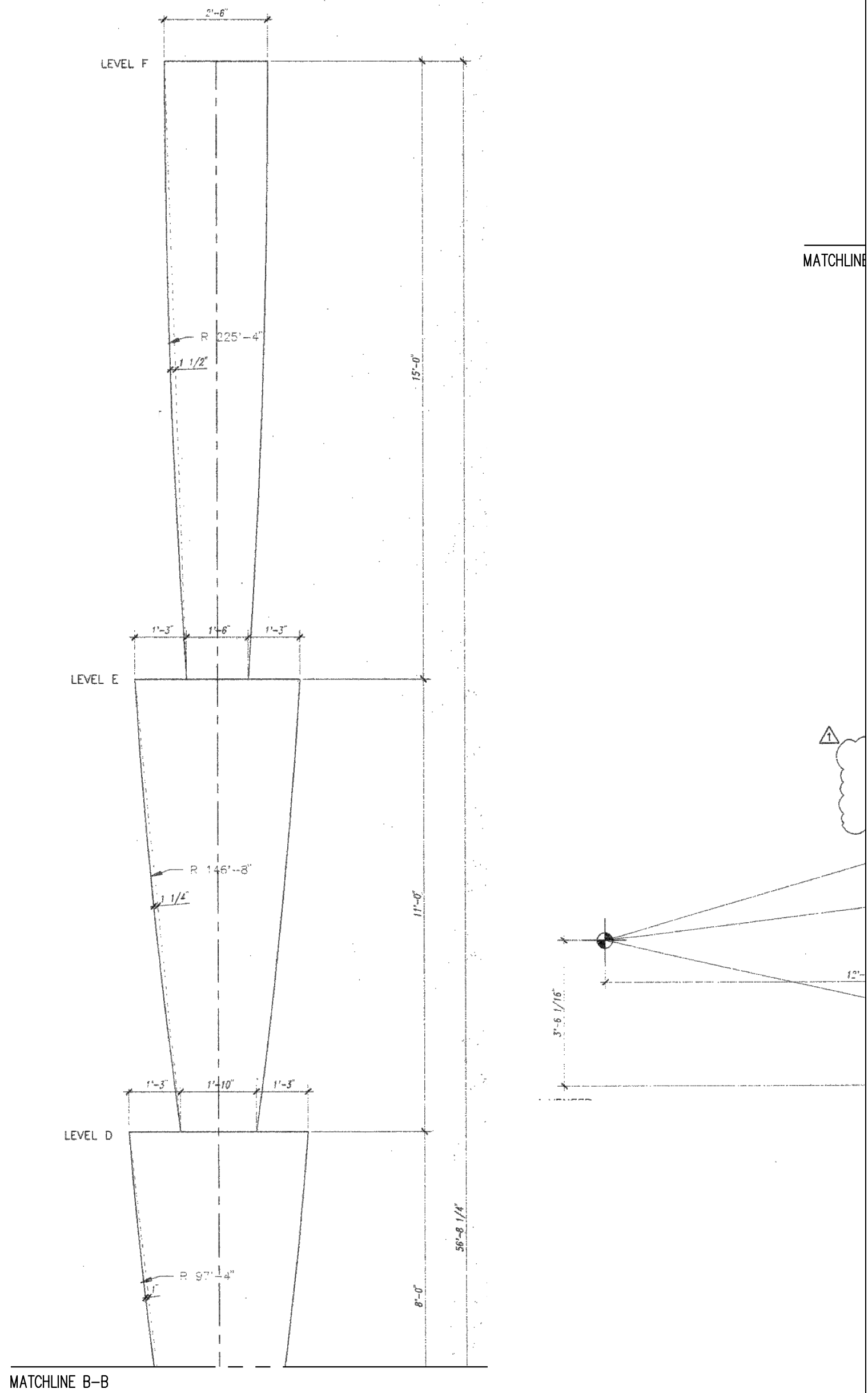
C LEVEL A - L

- NOTES:
1. INNER STRAND PATH FOR REN
 2. WIRE RACEWAYS ARE NOT SH FACE OF THE INNER STRANDS

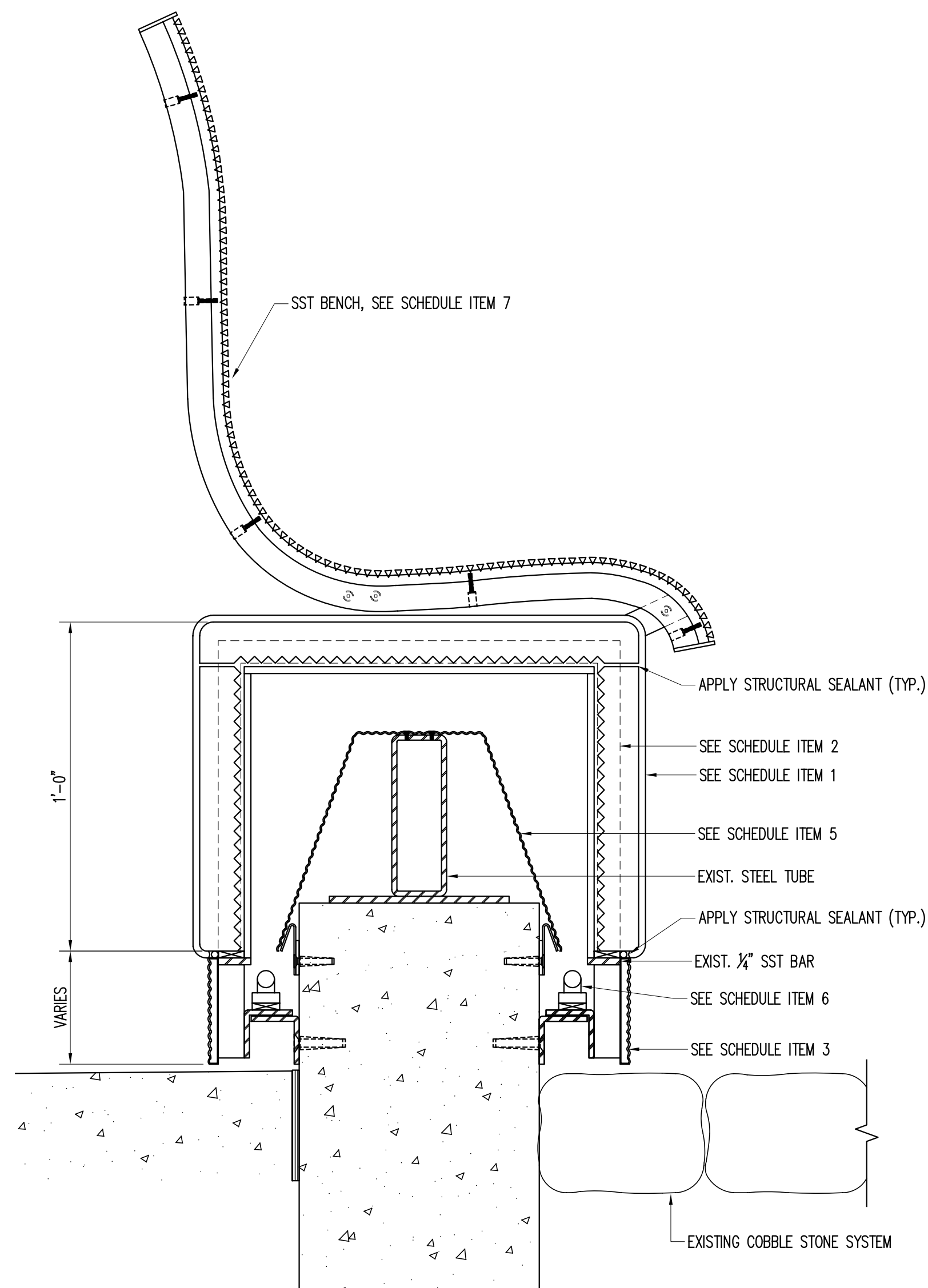


A CLOSED PYLON REMOVAL PLAN
S-203 N.T.S.

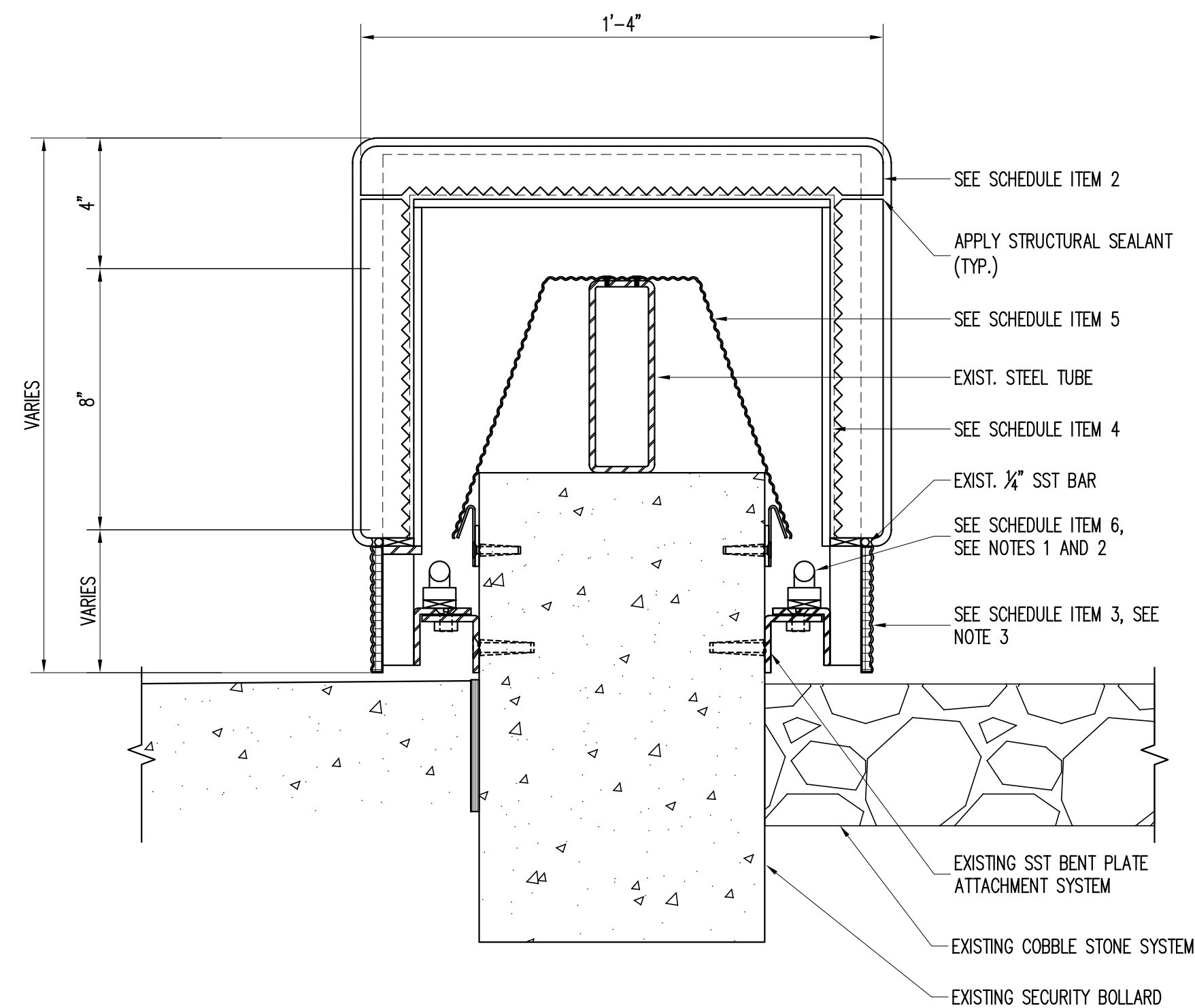
- NOTES:
1. EXISTING CLOSED PYLON INFORMATION PROVIDED BY MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
 2. REVISION CLOUDS ARE A PART OF BASE MITCHELL/GIURGOLA DRAWINGS AND SHOULD BE IGNORED UNLESS OTHERWISE NOTED.
 3. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.



B CLOSED PYLON ELEVATION PLAN LO
S-203



**GLASS BENCH WITH
STAINLESS STEEL SEAT SECTION**



**GLASS BENCH WITHOUT
STAINLESS STEEL SECTION**

- NOTES:
1. REPLACE LIGHTING SYSTEM WITH 24VDC COOL WHITE LED LIGHT STRIPS.
 2. EXISTING DRIVERS SHALL BE REPLACED PER GENERAL NOTES.
 3. SEE SCHEDULE S-302 FOR NEW SKIRT DETAILS.

ITEM SCHEDULE		
ITEM #	NAME	SCOPE OF WORK
1	SST CLOSURE RIBS, #6 FINISH (SIDE AND TOP.)	REINSTALL STORED ITEMS
2	RIBBED LOW EXPANSION SODA LIME CAST GLASS	REINSTALL STORED ITEMS
3	RIBBED SST SKIRT PANELS	INSTALL NEW KICK PLATES, SEE S-302
4	SST ARMATURE, MILL FINISH	USE AS MOUNTING FOR NEW SST SKIRT DETAILS
5	RIBBED SST REFLECTIVE PANEL	REMAIN
6	LED LINEAR LIGHT SYSTEM	INSTALL PER MANUFACTURER'S SPEC.
7	SST BENCH	REINSTALL STORED ITEMS

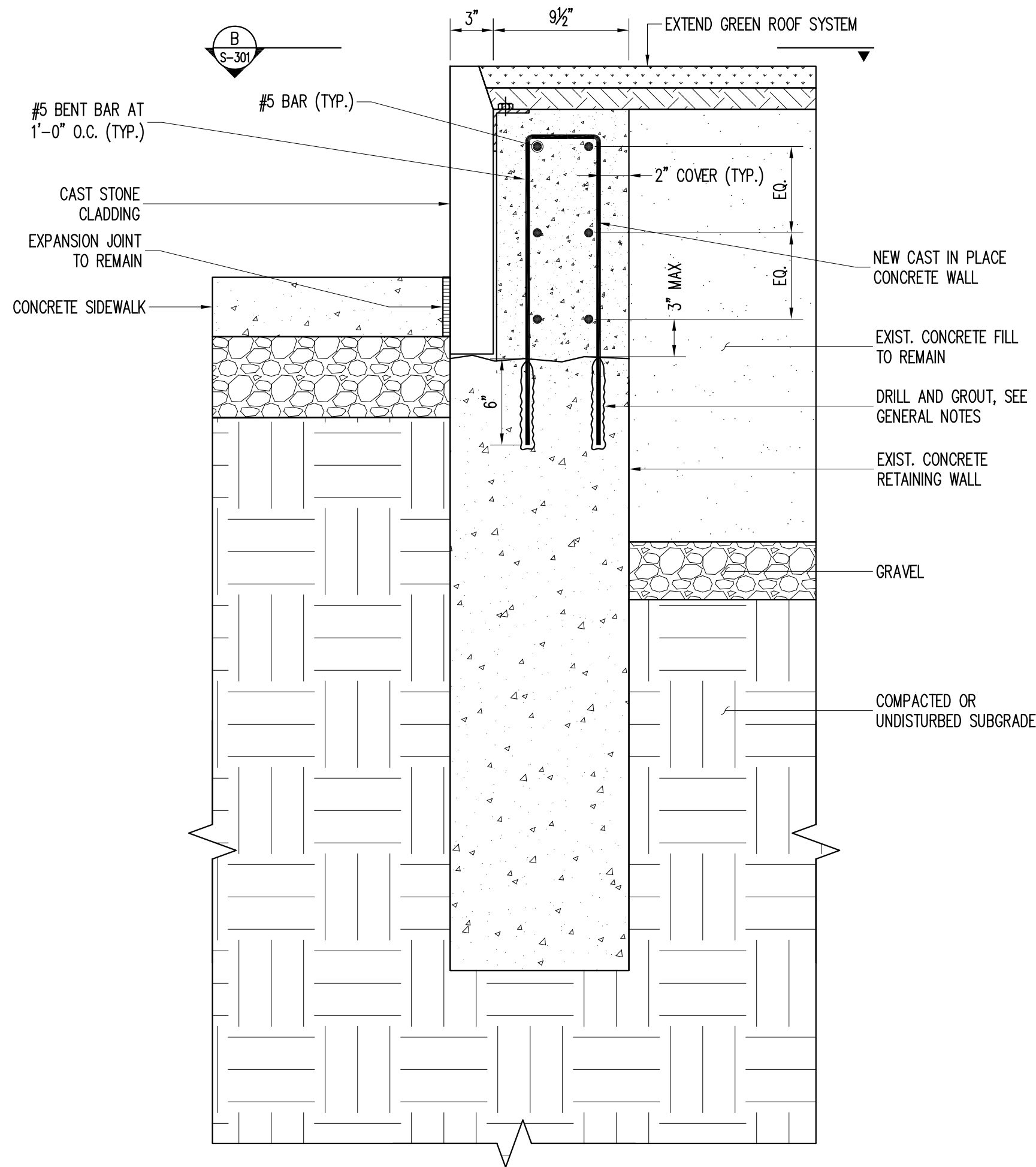
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APR 11, 2018**

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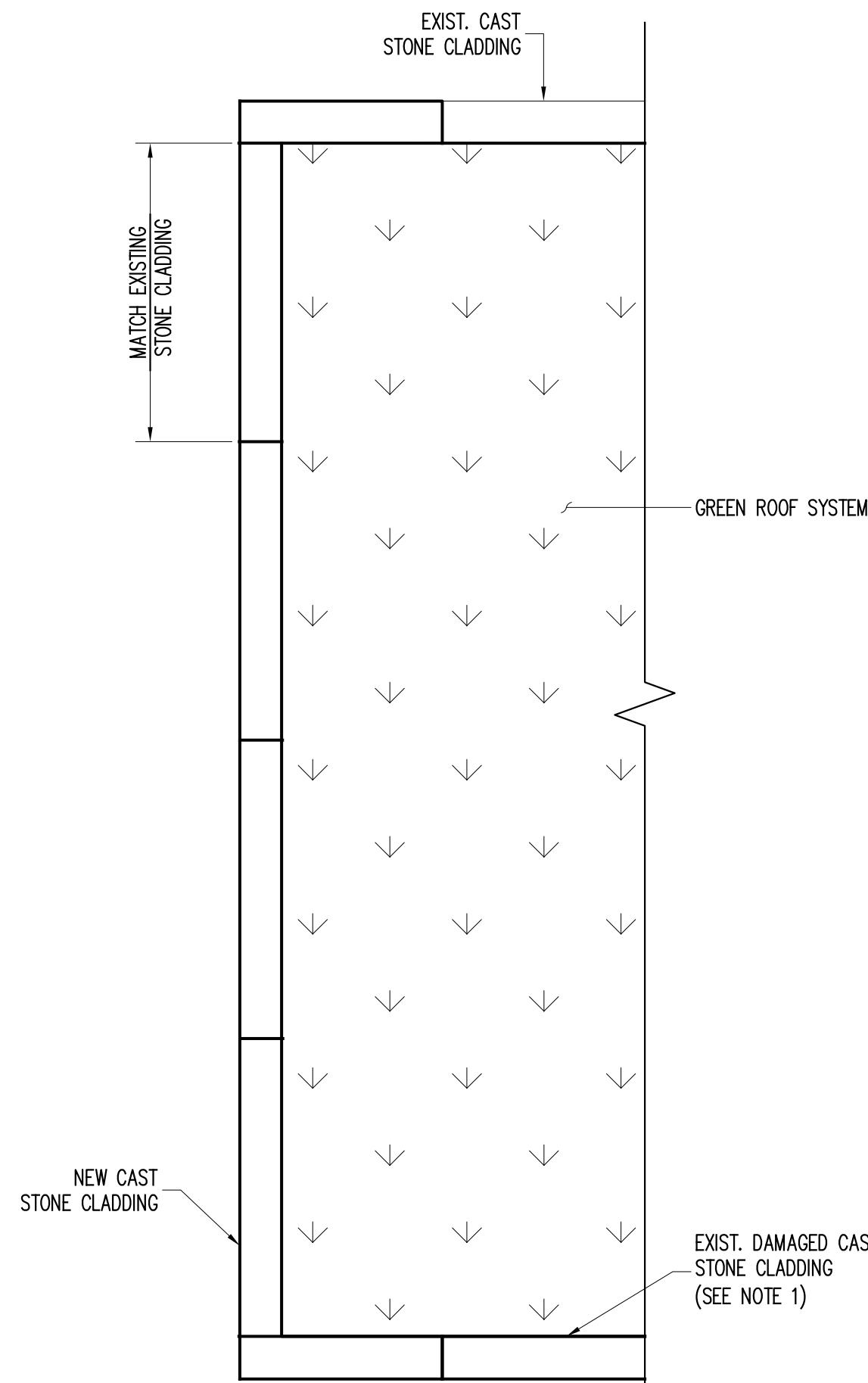
FILE NAME: P:\Proj\140\140950.08\10_Dwgs\CAD\01-S-301 Bench I-J Proposed Details.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:15pm LAST SAVE: Mon, 26 Mar 2018 - 1:28pm BY: cwiebler

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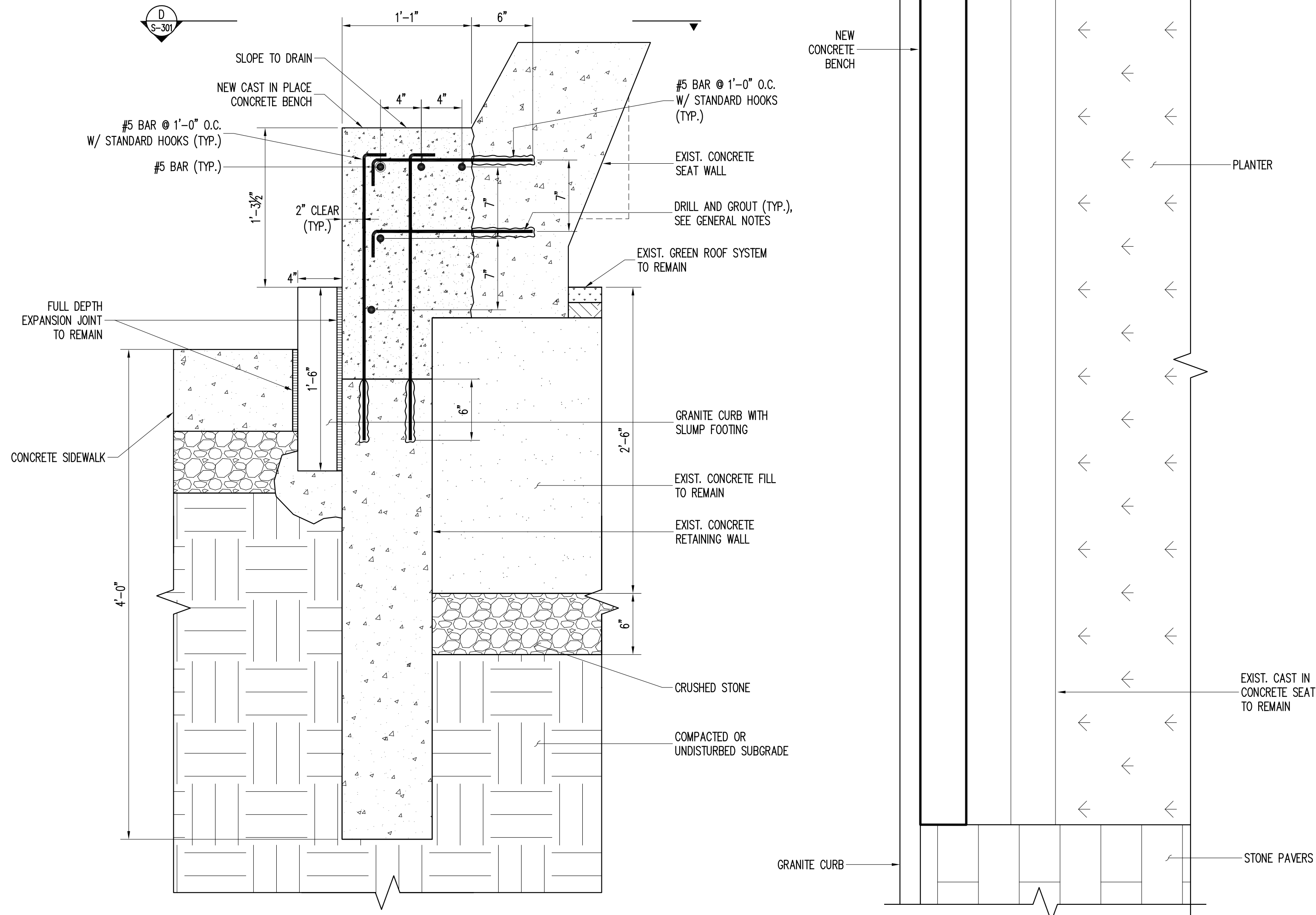
A PROPOSED SECTION - BENCH "I"
S-301 1'-1/2" = 1'-0"

- NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR DESIGN OF CAST STONE CLADDING.
 2. ALL REINFORCING AND CONNECTION HARDWARE FOR CAST STONE CLADDING SHALL BE STAINLESS STEEL.
 3. PRIOR TO FABRICATING CAST STONE PANELS, CONTRACTOR SHALL PREPARE SAMPLE CAST STONE PANEL AT LEAST 2'-0"x2'-0" MATCHING COLOR AND TEXTURE OF EXISTING. SUBMIT TEST PANEL TO ENGINEER FOR APPROVAL.



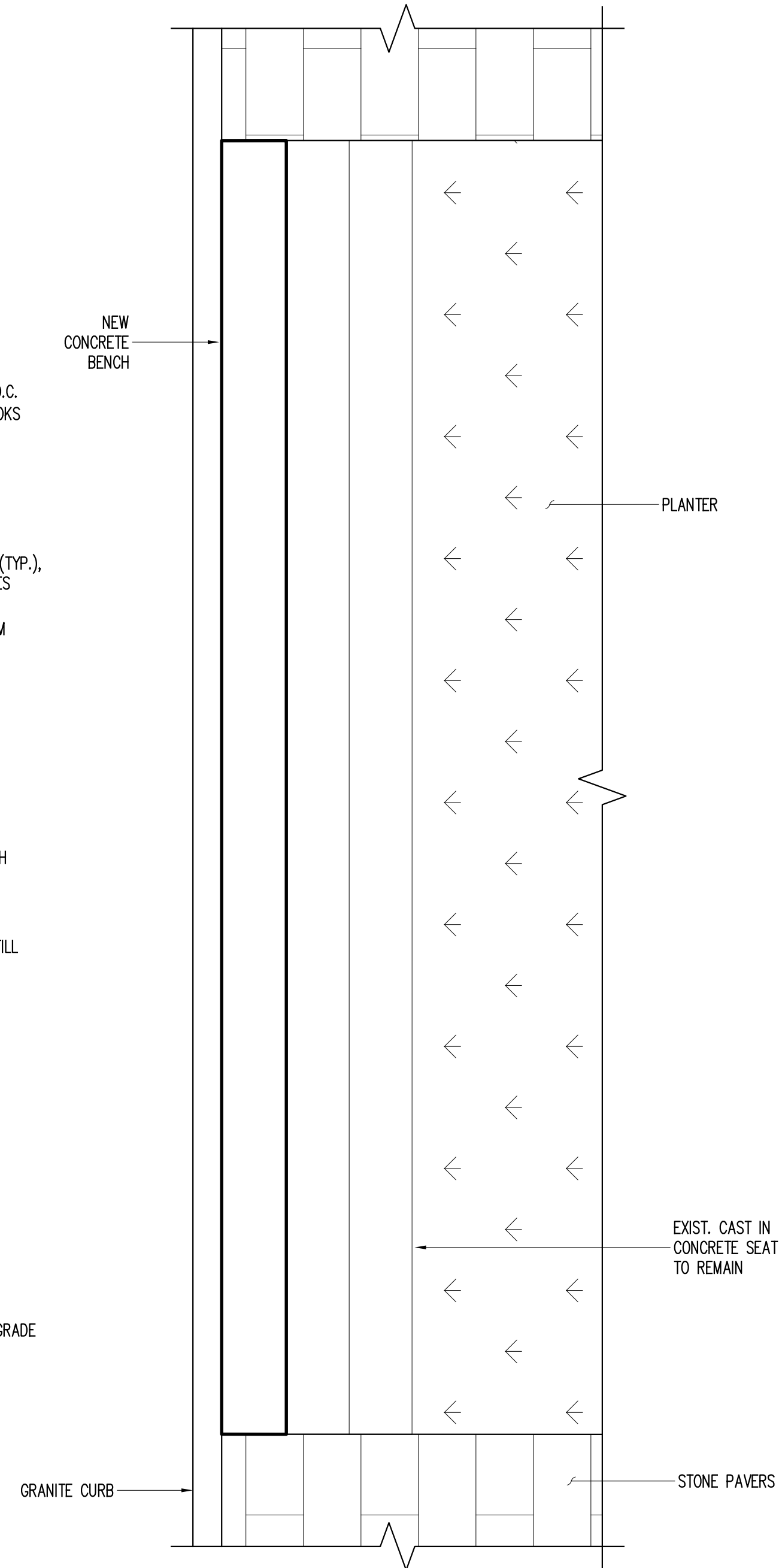
B PROPOSED PLAN - BENCH "I"
S-301 3/4" = 1'-0"

- NOTES:
1. CONTRACTOR TO IDENTIFY ALL DAMAGED CAST STONE CLADDING; REMOVE AND REPLACE IN KIND.



C PROPOSED SECTION - BENCH "J"
S-301 1'-1/2" = 1'-0"

- NOTES:
1. REBAR SHALL BE GROUTED INTO EVERY CONCRETE WALL.
 2. TAKE CARE TO NOT DAMAGE SIDEWALK DURING DEMOLITION.
 3. SUBMIT CONCRETE COLOR SAMPLE TO ENGINEER FOR APPROVAL.



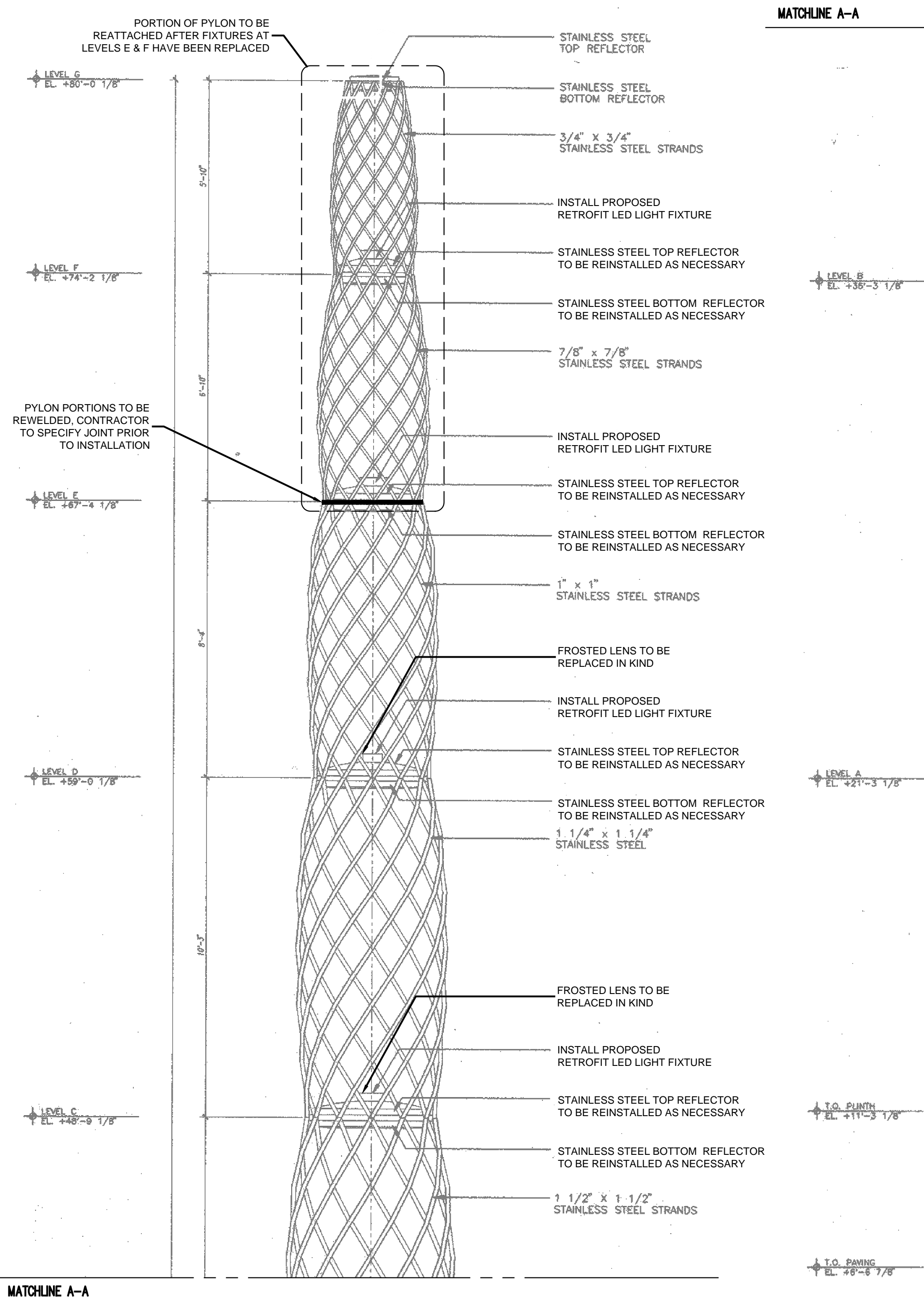
D PROPOSED PLAN - BENCH "J"
S-301 3/4" = 1'-0"

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NOT FOR CONSTRUCTION
APR 11, 2018

PROJECT NO. 140950.08	
SCALE AS NOTED	
DATE 07/07/2016	
DRAWN BY CGW	
CHECKED BY MCG	
DRAWING NO. S-301.00	
PROJECT PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION NEW YORK, NEW YORK	
SHEET TITLE BENCH I-J PROPOSED DETAILS	
MCLAREN ENGINEERING GROUP M. G. McLAREN, P.C. 131 West 35th Street, 4th Floor, New York, NY 10001 T: (212) 324-5300 F: (212) 324-5310 www.mgclaren.com	
NO.	DATE
4/11/18	4/11/18
REVISION	ISSUE FOR BID
BY	MCG

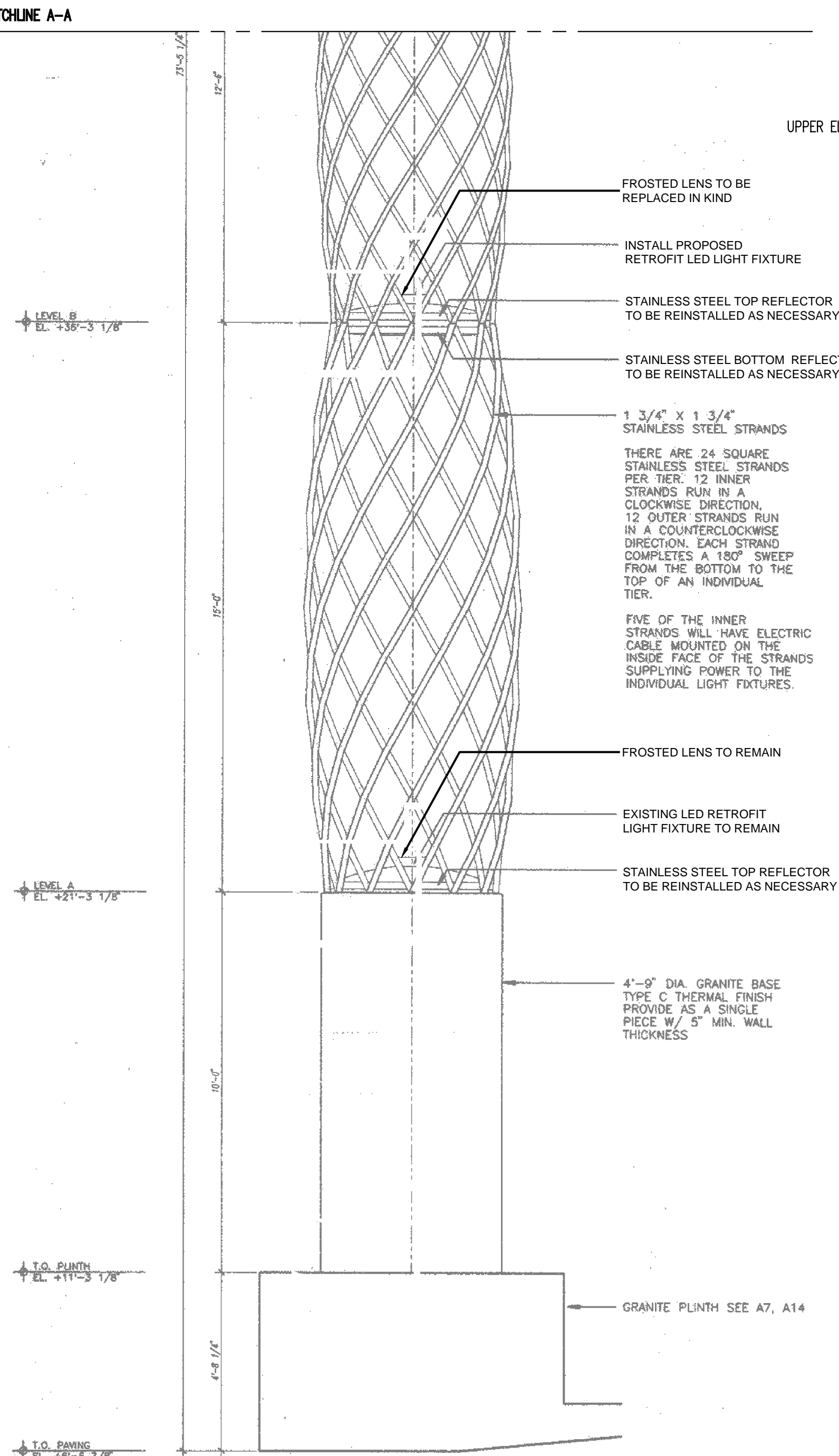
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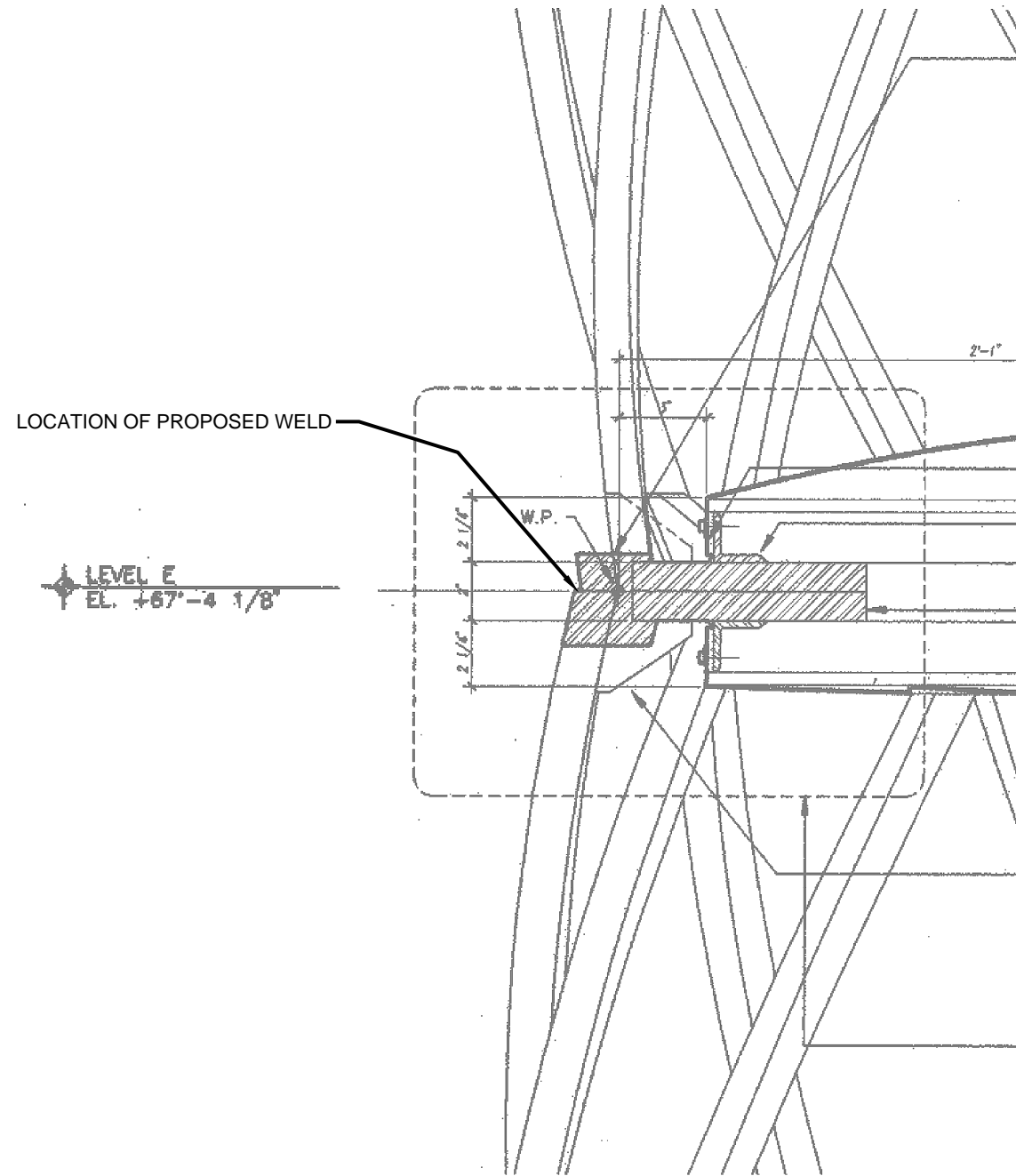
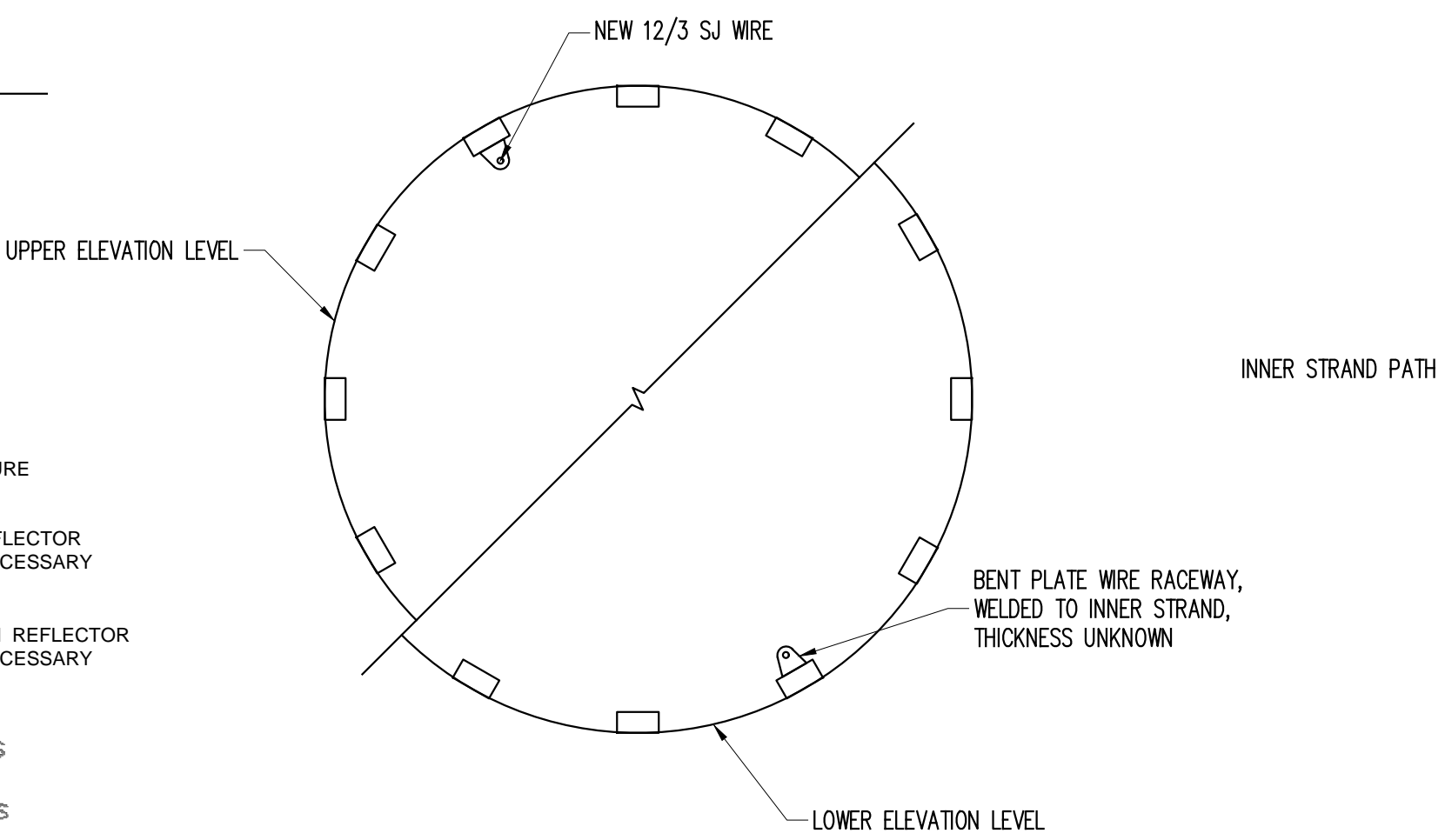
A OPEN PYLON INSTALLATION PLAN
S-303 N.T.S.

- NOTES:
1. EXISTING OPEN PYLON INFORMATION PROVIDED BY MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
 2. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.
 3. CONTRACTOR TO ENSURE THE RACEWAY OF THE REINSTALLED PYLON PORTION IS TO MATCH THE LOCATION OF THE RACEWAY PRIOR TO REMOVAL.



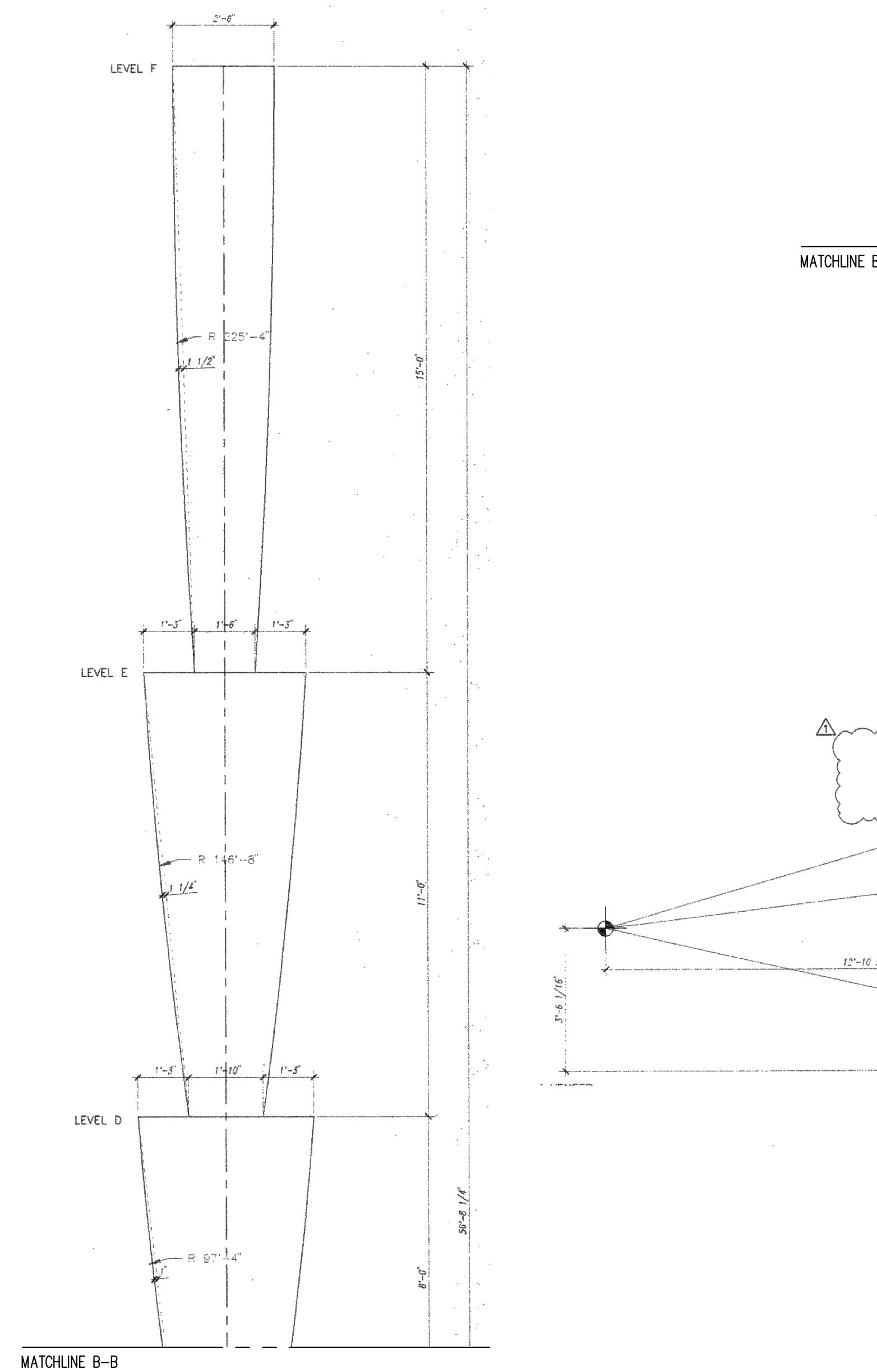
B TYPICAL WIRE INSTALLATION PLAN
S-303 1" = 1'-0"

- NOTES:
1. LOCATION AND QUANTITY OF 12/3 SJ WIRE AND RACEWAYS VARY BY ELEVATION
 2. CONTRACTOR TO VERIFY LOCATION OF RACEWAYS AND WIRES FOR INSTALLATION. THERE ARE FIVE RACEWAYS FROM LEVEL A TO LEVEL B. THERE IS ONE LESS RACEWAY AT EACH SUBSEQUENT ELEVATION UNTIL LEVEL F.
 3. CONTRACTOR TO UTILIZE EXISTING RACEWAYS DURING INSTALLATION.



D OPEN PYLON INSTALLATION
S-303

- NOTES:
1. EXISTING OPEN PYLON INFORMATION PROVIDED BY MITCHELL/GIURGOLA ARCHITECTS DATED OCTOBER 30, 1992.
 2. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE DRAWINGS.

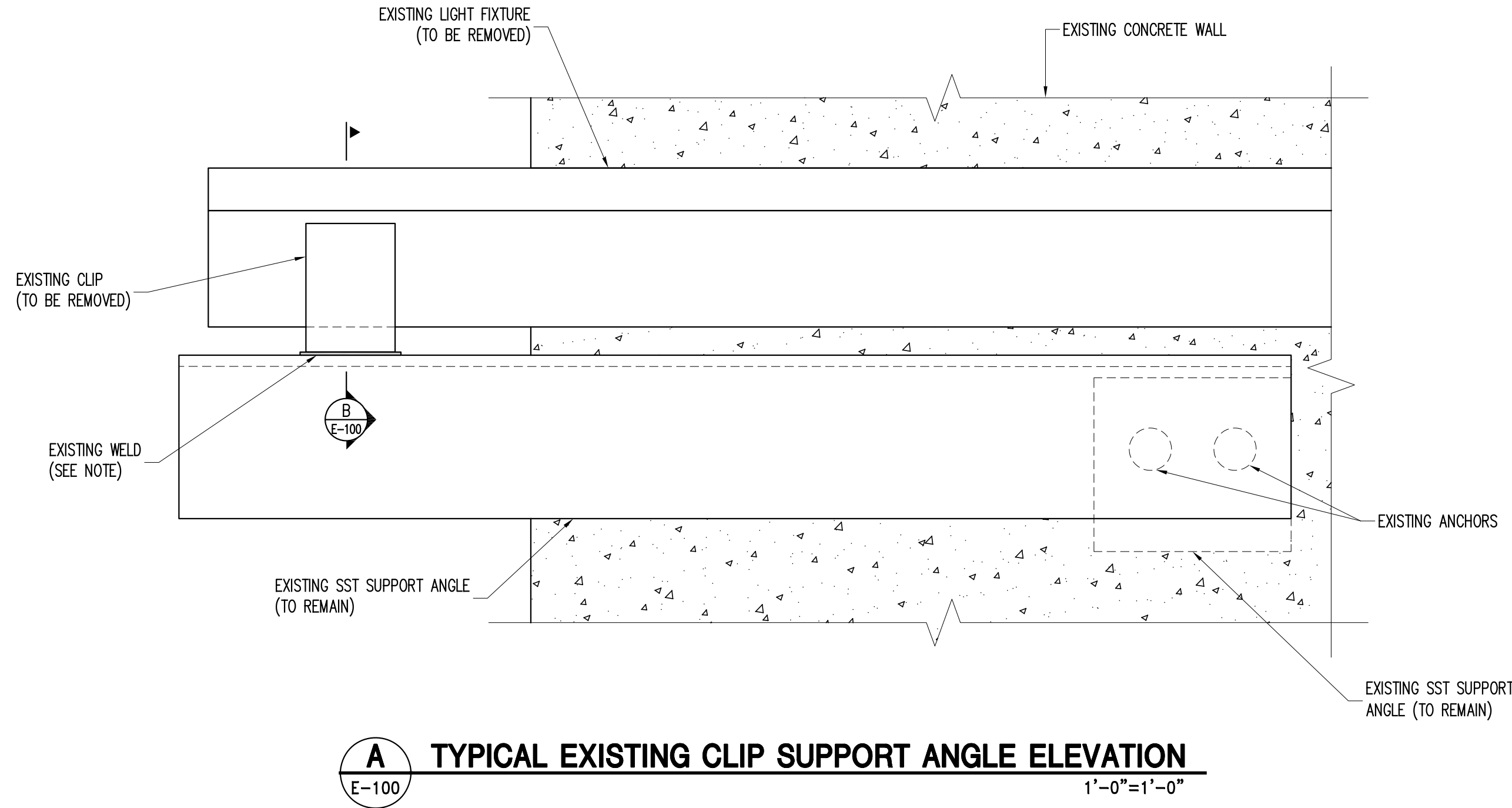


B **CLOSED PYLON ELEVATION PLAN LO**

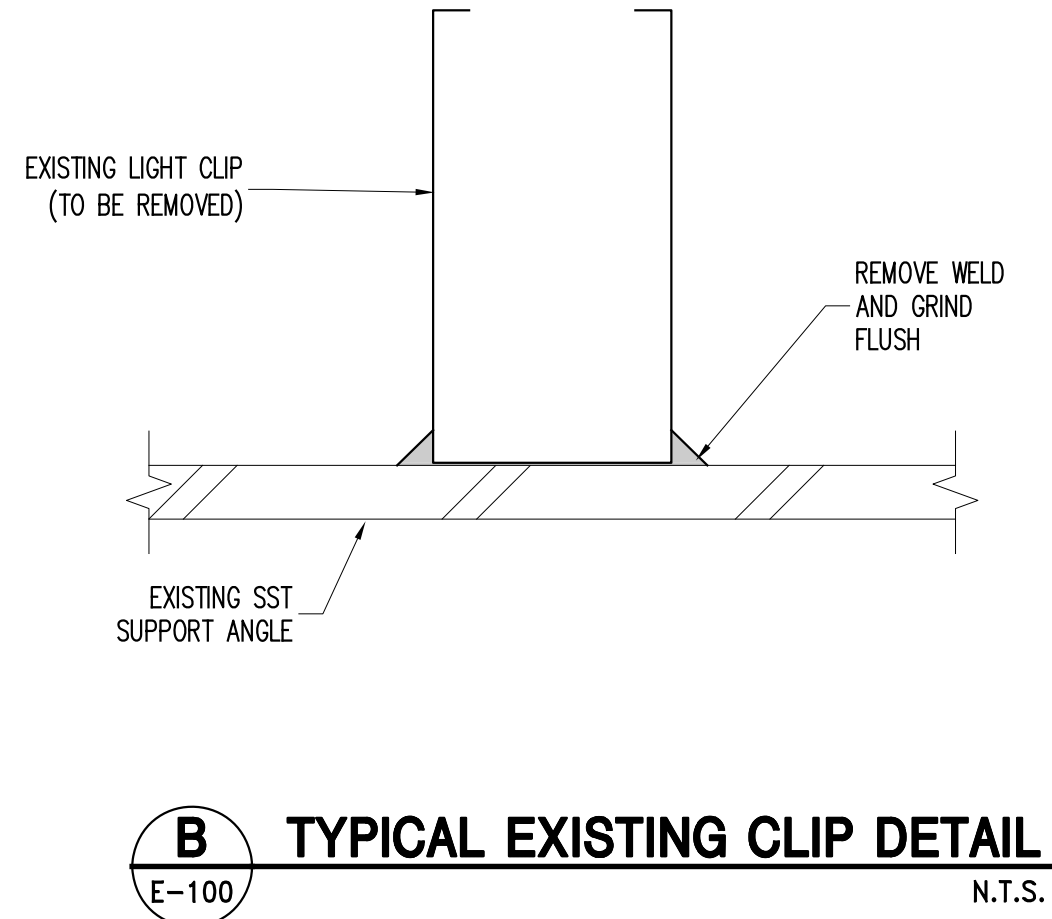
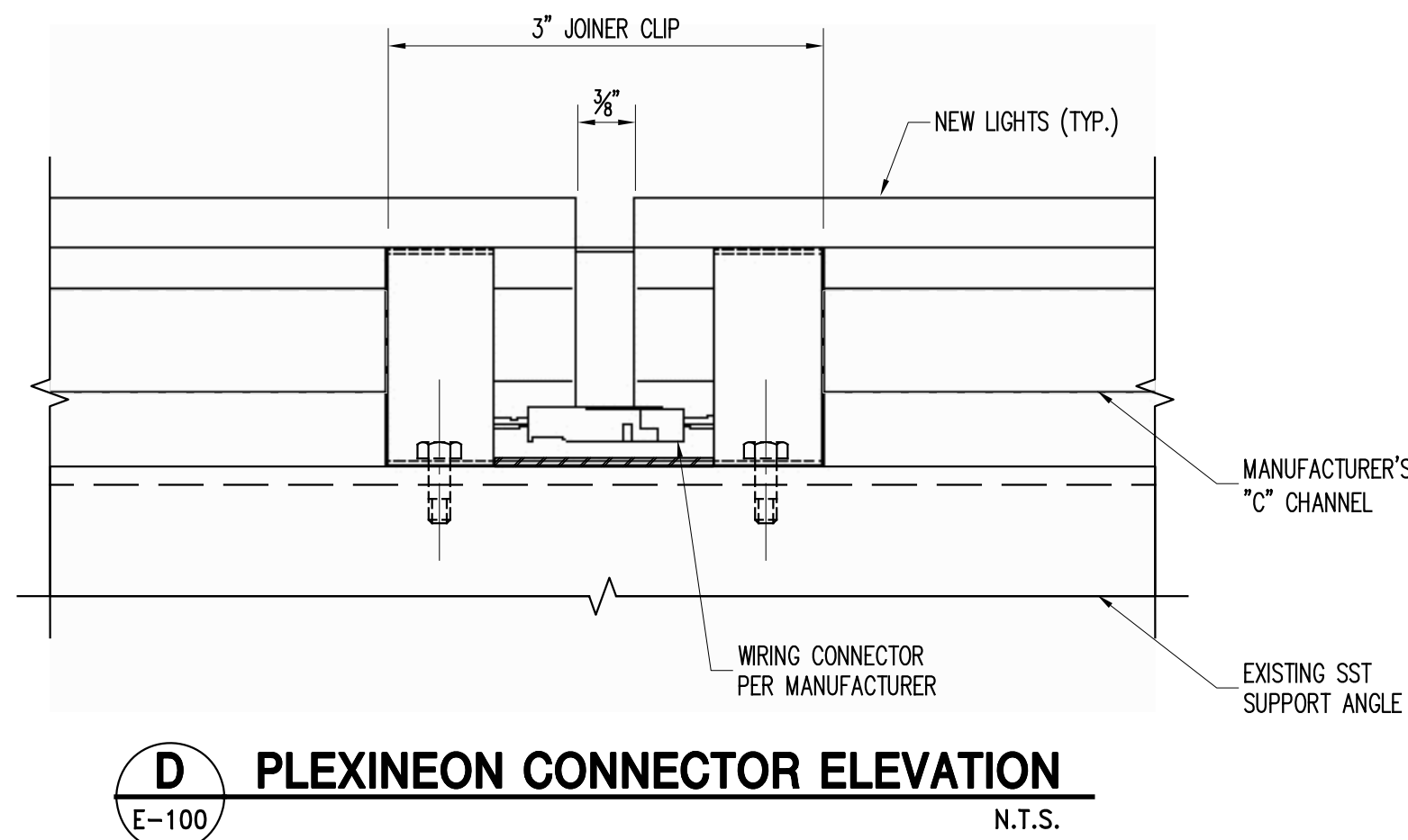
- WARNING - IT IS A VIOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 7209.2

FILE NAME: P:\Proj\140\140950.08\10_Dwg\CAD\E-100 Electrical Details.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:15pm LAST SAVE: Fri, 16 Mar 2018 - 12:02pm BY: cwebber

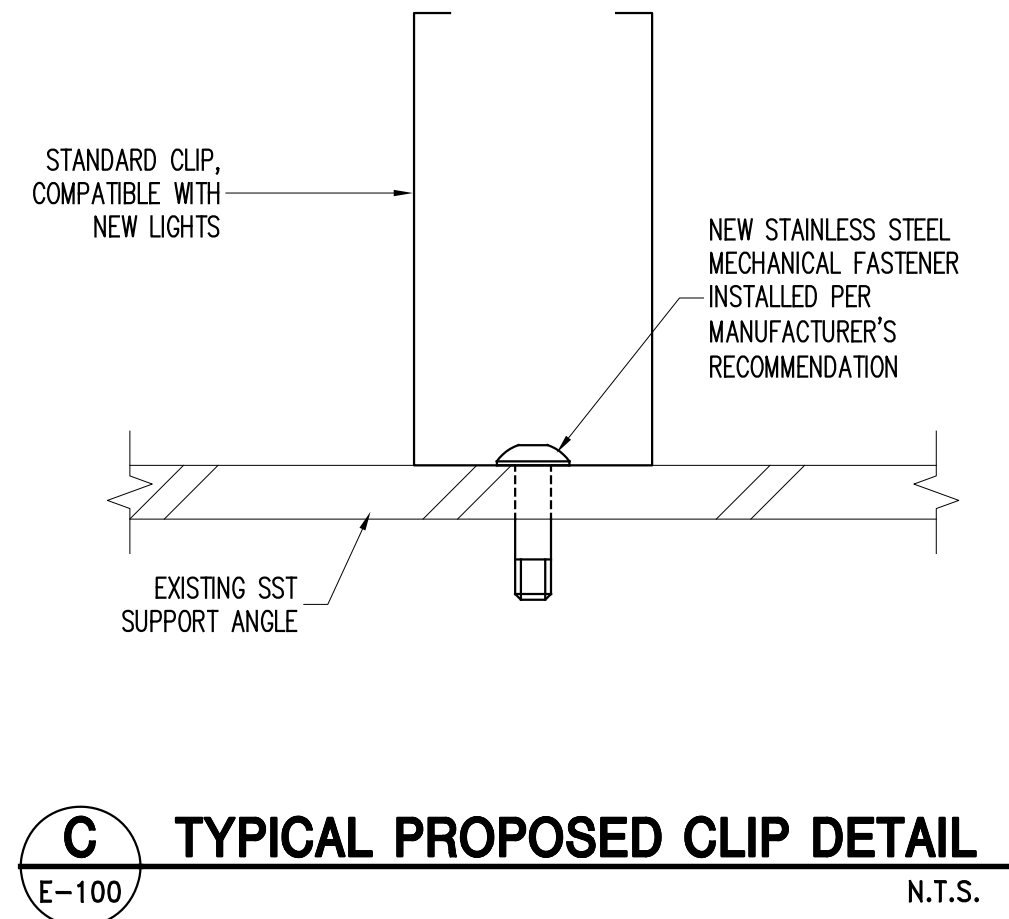
WARNING - IT IS A VIOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 7209.2



NOTE:
END ANGLE SHOWN. INTERMEDIATE ANGLE SIMILAR.



NOTE:
LIGHTS NOT SHOWN FOR CLARITY.



NOTE:
FASTENER MUST BE EASILY REMOVABLE ONCE INSTALLED FOR MAINTENANCE PURPOSES.

ADDITIONAL NOTES:

1. NEW LIGHT FIXTURES SHALL BE PLEXINEON WHITE 1X SERIES L.E.D. LIGHTS BY ILIGHT TECHNOLOGIES (OR APPROVED EQUAL). ADDITIONAL WORK AS A RESULT OF AN APPROVED SUBSTITUTION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE AUTHORITY.
2. NEW SST CLIPS SHALL BE COMPATIBLE WITH NEW LIGHTING FIXTURES. NUMBER OF CLIPS AND ATTACHMENT TO EXISTING STRUCTURE PER MANUFACTURER'S RECOMMENDATIONS.
3. WHEN FIXTURES ARE CONNECTED IN SERIES THEY SHALL BE SPACED $\frac{3}{8}$ " FROM END TO END AND A JOINER CLIP SHALL BE USED (SEE DETAIL D).
4. ALL DRIVERS SHALL BE REPLACED. EXACT NUMBER OF DRIVERS IS UNKNOWN. FOR BIDDING PURPOSES, CONTRACTOR TO ASSUME 4 DRIVERS PER BENCH.
5. DRIVERS SHALL BE APPROVED BY THE LIGHT MANUFACTURERS. IF ADDITIONAL MOUNTS ARE REQUIRED, THEY SHALL MATCH EXISTING.
6. REFER TO R-100 FOR EXISTING ELECTRICAL LIGHTING PLAN.

**BID SET
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APR 11, 2018**

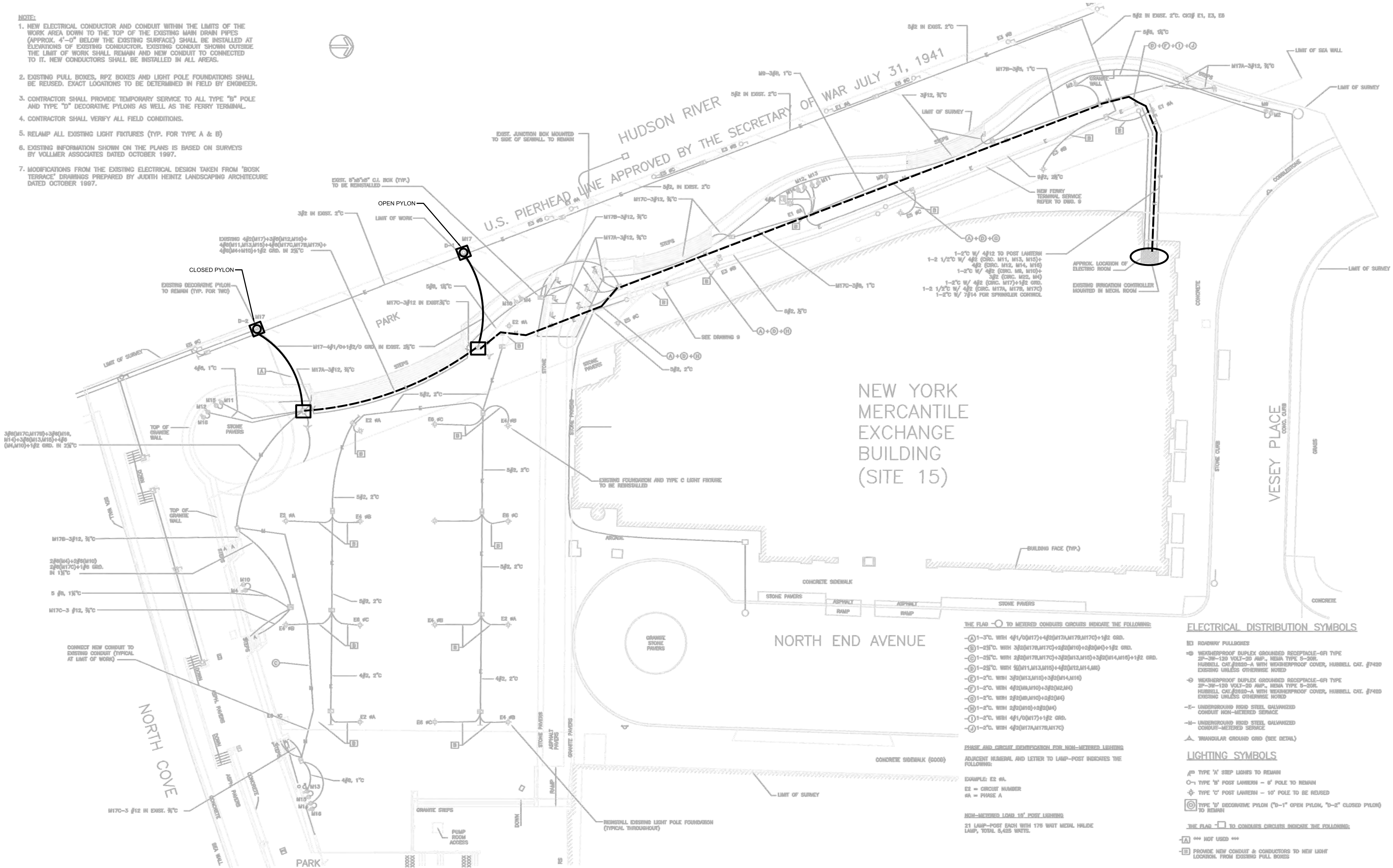
PROJECT		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION		NEW YORK, NEW YORK	
SHEET TITLE		LIGHTING ELECTRICAL DETAILS FOR GLASS BENCHES			
PROJECT NO.		140950.08			
SCALE		AS NOTED			
DATE		07/07/2016			
DRAWN BY		CGW			
CHECKED BY		MCG			
DRAWING NO.		E-100.00			
BY		MCG			
REVISION		ISSUE FOR BID			
DATE		4/11/18			
NO.		-			

McLaren
ENGINEERING GROUP
applied industry
M. G. McLAREN P.C.
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NOTE:

1. NEW ELECTRICAL CONDUCTOR AND CONDUIT WITHIN THE LIMITS OF THE WORK AREA DOWN TO THE TOP OF THE EXISTING MAIN DRAIN PIPES (APPROX. 4'-0" BELOW THE EXISTING SURFACE) SHALL BE INSTALLED AT ELEVATIONS OF EXISTING CONDUCTOR. EXISTING CONDUIT SHOWN OUTSIDE THE LIMIT OF WORK SHALL REMAIN AND NEW CONDUIT TO CONNECTED TO IT. NEW CONDUCTORS SHALL BE INSTALLED IN ALL AREAS.
2. EXISTING PULL BOXES, RPZ BOXES AND LIGHT POLE FOUNDATIONS SHALL BE REUSED. EXACT LOCATIONS TO BE DETERMINED IN FIELD BY ENGINEER.
3. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICE TO ALL TYPE "B" POLE AND TYPE "D" DECORATIVE PYLONS AS WELL AS THE FERRY TERMINAL.
4. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS.
5. RELAMP ALL EXISTING LIGHT FIXTURES (TYP. FOR TYPE A & B)
6. EXISTING INFORMATION SHOWN ON THE PLANS IS BASED ON SURVEYS BY VOLLMER ASSOCIATES DATED OCTOBER 1997.
7. MODIFICATIONS FROM THE EXISTING ELECTRICAL DESIGN TAKEN FROM "BOSK TERRACE" DRAWINGS PREPARED BY JUDITH HEINTZ LANDSCAPING ARCHITECTURE DATED OCTOBER 1997.



EXISTING ELECTRICAL PLAN

N.T.S.

NOTES:

1. EXISTING ELECTRICAL INFORMATION PROVIDED BY CASHIN ASSOCIATED, P.C. DATED JULY 1, 1998.
2. MCLAREN IS NOT RESPONSIBLE FOR THE ACCURACY OF THE EXISTING DRAWINGS.

LEGEND:

- RESPECTIVE ELECTRICAL BOXES
- SITE ELECTRICAL ROOM
- RELEVANT UNDERGROUND RIGID STEEL GALVANIZED CONDUIT - METERED SERVICE

THE FLAG - O - TO METERED CONDUITS INDICATES THE FOLLOWING:

- ① 1-2" W/ 4/8" TO POST LANTERN
- ② 1-2" W/ 4/8" TO POST LANTERN
- ③ 1-2" W/ 4/8" TO POST LANTERN
- ④ 1-2" W/ 4/8" TO POST LANTERN
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- ㊾ 1-2" W/ 4/8" TO POST LANTERN
- ㊿ 1-2" W/ 4/8" TO POST LANTERN

PHASE AND CIRCUIT IDENTIFICATION FOR NON-METERED LIGHTING

ADJACENT NUMERICAL AND LETTER TO LAMP-POST INDICATES THE FOLLOWING:

EXAMPLE: E2 #A
E2 = CIRCUIT NUMBER
#A = PHASE A

NON-METERED LIGHT 10' POST LIGHTING

21 LAMP-POST EACH WITH 175 WATT METAL HALIDE LAMP, TOTAL 3,645 WATTS.

ELECTRICAL DISTRIBUTION SYMBOLS

- RD ROADWAY PULLBOXES
- WEATHERPROOF DUPLEX GROUNDED RECEPTACLE-GFI TYPE 20-30-120 VOLT-20 AMP., IEEE TYPE 5-200, HUBBELL CAT. #2000-A WITH WEATHERPROOF COVER, HUBBELL CAT. #7400 EXISTING UNLESS OTHERWISE NOTED
- WEATHERPROOF DUPLEX GROUNDED RECEPTACLE-GFI TYPE 20-30-120 VOLT-20 AMP., IEEE TYPE 5-200, HUBBELL CAT. #2000-A WITH WEATHERPROOF COVER, HUBBELL CAT. #7400 EXISTING UNLESS OTHERWISE NOTED
- UNDERGROUND RIGID STEEL GALVANIZED CONDUIT NON-METERED SERVICE
- UNDERGROUND RIGID STEEL GALVANIZED CONDUIT-METERED SERVICE
- TRIANGULAR GROUND GRID (SEE DETAIL)

LIGHTING SYMBOLS

- TYPE "N" STEP LIGHTS TO REMAIN
- TYPE "B" POST LANTERN - 6' POLE TO REMAIN
- TYPE "C" POST LANTERN - 10' POLE TO BE REUSED
- TYPE "D" DECORATIVE PYLON ("D-1" OPEN PYLON, "D-2" CLOSED PYLON) TO REMAIN
- THE FLAG - O - TO CONDUITS INDICATES THE FOLLOWING:
 - NOT USED ***
 - PROVIDE NEW CONDUIT & CONDUCTORS TO NEW LIGHT LOCATION FROM EXISTING PULL BOXES

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APR 11, 2018

PROJECT		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION		NEW YORK	
SHEET TITLE		EXISTING SITE ELECTRICAL PLAN FOR PYLONS			
PROJECT NO.		140950.08			
SCALE		AS NOTED			
DATE		07/07/2016			
DRAWN BY		CGW			
CHECKED BY		MCG			
DRAWING NO.		E-200.00			
ISSUE FOR BID		4/11/18		MCG	
REVISION				BY	

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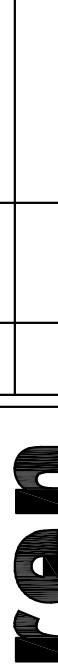
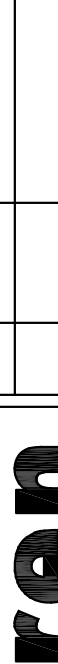
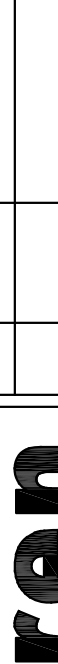
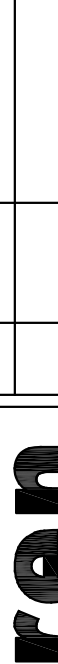
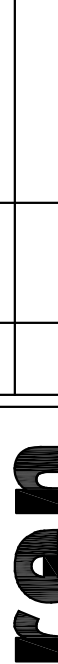
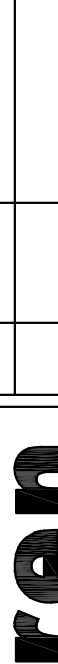
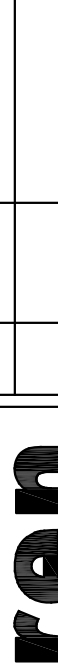
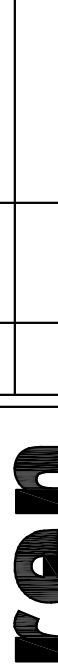


- NOTES:
1. THERE ARE 6 CIRCUITS, (12/3 SJ), 5 HAVE IN LINE FUSE HOLDERS, ONE DOES NOT.
 2. EACH 12/3 GOES TO A LEVEL SERVING AN INDIVIDUAL FIXTURE.



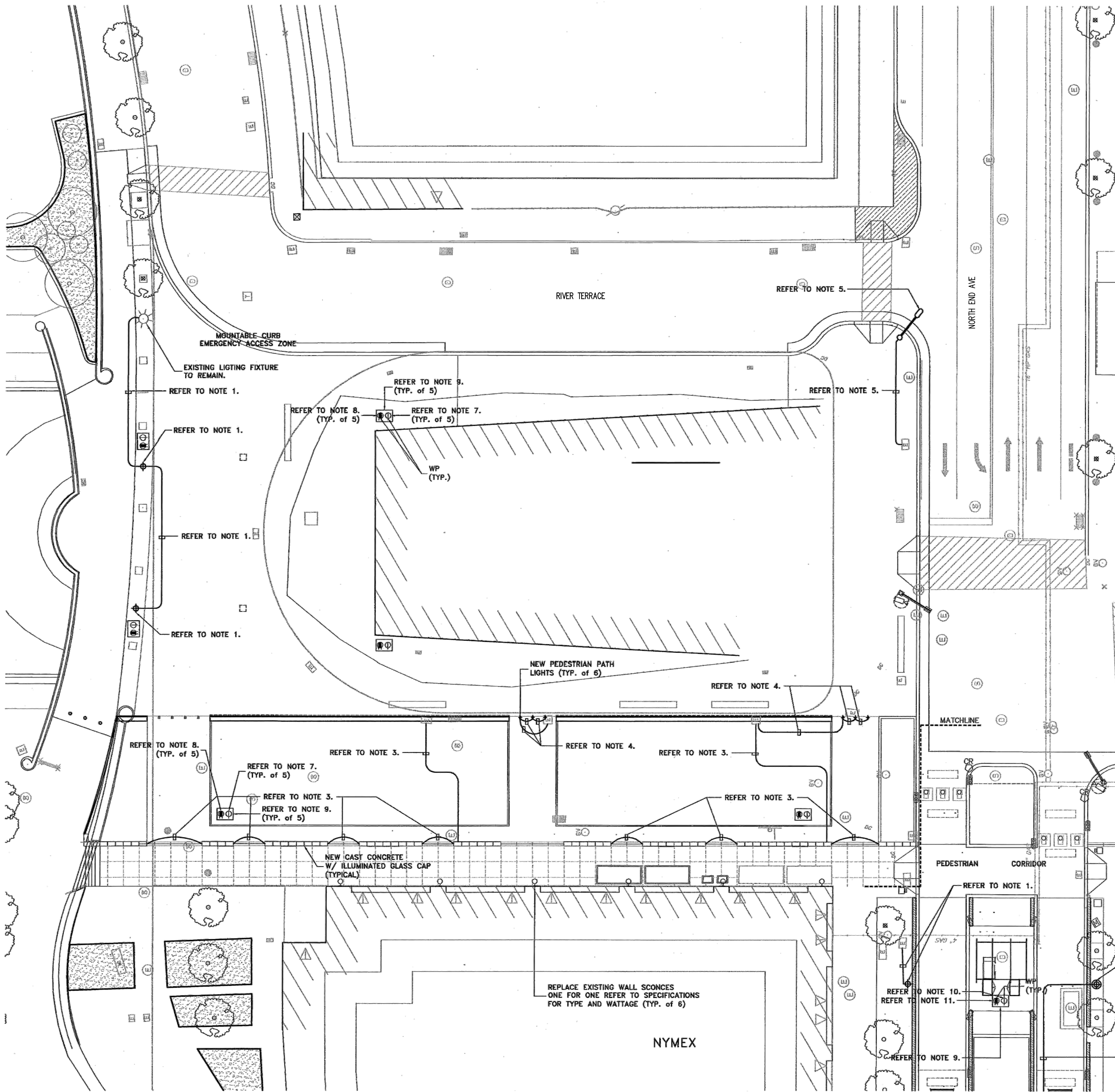
- NOTES:
1. EACH PHASE FEEDS 2 CIRCUITS WITH IN LINE FUSE HOLDERS LOCATED IN THE RECESSED JUNCTION BOX AT BASE OF PYLON.
 2. TWO OF THE $\frac{3}{4}$ " CONDUITS HAVE 3 CONDUCTOR SJ CORD, 2 CONDUITS HAVE 5 #12 AWG. THHN, AND 2 CONDUITS ARE EMPTY.
 3. ALL WIRING IN $\frac{3}{4}$ " CONDUIT SHOULD BE NEW #12 AWG.

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APR 11, 2018**

PROJECT		 McLaren ENGINEERING GROUP M. G. McLAREN, P.C. 131 West 35th Street, 4th Floor, New York, NY 10001 T: (212) 324-6300 F: (212) 324-6310 www.mgclaren.com	
SHEET TITLE		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION NEW YORK, NEW YORK	
DRAWING NO.		E-20100	
SCALE		AS NOTED	
DATE		07/07/2016	
DRAWN BY		CGW	
CHECKED BY		MCG	
PROJECT NO.		14095.08	
DATE		07/07/2016	
DRAWN BY		CGW	
CHECKED BY		MCG	
PROJECT		 McLaren ENGINEERING GROUP M. G. McLAREN, P.C. 131 West 35th Street, 4th Floor, New York, NY 10001 T: (212) 324-6300 F: (212) 324-6310 www.mgclaren.com	
SHEET TITLE		PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION NEW YORK, NEW YORK	
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DATE		07/07/2016	
DRAWN BY		CGW	
CHECKED BY		MCG	
PROJECT			

FILE NAME: P:\Proj\140\140950.08\10_Dwg\1000 Reference Drawing.dwg PLOT TIME: Wed, 11 Apr 2018 - 4:17pm LAST SAVE: Fri, 16 Mar 2018 - 12:05pm BY: cwelber

WARNING - IT IS A VIOLATION OF NEW YORK STATE EDUCATIONAL LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF NEW YORK EDUCATIONAL LAW, SECTION 7209.2



ELECTRICAL SYMBOL LIST	
	EXISTING BATTERY PARK CITY LIGHTING FIXTURE.
	NEW PEDESTRIAN PATH LIGHT
	NEW BISHOP CROOK LIGHT BY OTHERS
	DUPLEX THREE WIRE GROUND RECEPTACLE, 20A, 125V. (NEMA 5-20R) WITH "GFI" GROUND FAULT INTERRUPTER.
	SIMPLEX THREE WIRE GROUND RECEPTACLE, 30A, 225V. (NEMA 6-30R) WITH "GFI" GROUND FAULT INTERRUPTER.
	WEATHERPROOF
	GROUND

- NOTES:
1. PROVIDE NEW WIRING & CONDUIT TO NEW "B-POLE" LOCATIONS. ALL CONDUIT & WIRING TO MATCH EXISTING. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DWG D1.01 AND L1.01 FOR EXACT LOCATIONS AND QUANTITIES OF EXISTING "B-POLE" LIGHTING FIXTURE BEING REMOVED AND REUSED.
 2. THE CONTRACTOR IS TO COORDINATE ALL SHUTDOWNS, AND DISRUPTIONS TO NORMAL SERVICES WITH BATTERY PARK CITY.
 3. PROVIDE 2#8+1#8G-1 1/2" C. FOR THE NEW CAST CONCRETE W/ ILLUMINATED GLASS CAP CONNECT TO EXISTING ELECTRICAL UTILITY HAND HOLE. ALL NEW LIGHTING FIXTURE ARE TO BE PROVIDED BY OTHERS.
 4. PROVIDE 2#12+1#12G-1" C. FOR THE NEW PEDESTRIAN PATH LIGHTS. CONNECT TO EXISTING ELECTRICAL UTILITY HAND. ALL NEW LIGHTING FIXTURE ARE TO BE PROVIDED BY OTHERS.
 5. PROVIDE NEW WIRING & CONDUIT TO RELOCATED STREET LIGHT. ALL CONDUIT & WIRING TO MATCH EXISTING. CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DWG D1.01 AND L1.01 FOR EXACT LOCATIONS.
 6. PROVIDE 2#12+1#12G-1" C. FOR THE NEW BISHOP CROOK LIGHT. CONNECT TO EXISTING ELECTRICAL UTILITY HAND HOLE. ALL NEW LIGHTING FIXTURE ARE TO BE PROVIDED BY OTHERS.
 7. PROVIDE A 30A, 2POLE CIRCUIT BREAKER AT EXISTING HUNGER MEMORIAL BLDG WITH 2#8+1#G IN 1" RGS CONDUIT 36" BELOW GRADE. (TYPICAL)
 8. PROVIDE A 20A, 1POLE CIRCUIT BREAKER AT EXISTING HUNGER MEMORIAL BLDG WITH 2#8+1#G IN 1" RGS CONDUIT 36" BELOW GRADE. (TYPICAL)
 9. PROVIDE ONE (1) WEATHER PROOF AND GR 110V. DUPLEX OUTLETS, AND ONE (1) WEATHER PROOF AND GFI 220V. SIMPLEX OUTLET IN "QUATZITE" 18"x12"x18" HAND HOLE FLUSH MOUNTED OR APPROVED EQUAL.
 10. PROVIDE A 30A, 2POLE CIRCUIT BREAKER AT EXISTING MERILL LYNCH BLDG WITH 2#8+1#G IN 1" RGS CONDUIT 36" BELOW GRADE. (TYPICAL)
 11. PROVIDE A 20A, 1POLE CIRCUIT BREAKER AT EXISTING MERILL LYNCH BLDG WITH 2#8+1#G IN 1" RGS CONDUIT 36" BELOW GRADE. (TYPICAL)

HUGH L. CAREY
BATTERY PARK CITY AUTHORITY

GEORGE E. PATAKI
GOVERNOR, STATE OF NEW YORK

JAMES F. GILL
COMPTROLLER

CHARLES J. URSTADT
VICE CHAIRMAN

DAVID CORNSTEIN
BOARD MEMBER

TIMOTHY S. CAREY
PRESIDENT

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LIGHTING DESIGN: **FISCHER MARANTZ STONE**
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CIVIL ENGINEER: **LANGAN ENGINEERING AND ENVIRONMENTAL SERVICES**
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ELECTRICAL & PLUMBING CONSULTANT: **DVL CONSULTING ENGINEERS**
375 NASS STREET
HUDSON, NJ 07631
201 678-2224 201 678-1860 FAX

IRRIGATION CONSULTANT: **NORTHERN DESIGNS**
326 WEST MAIN ST.
MILFORD, CT 06460
203 879-2210

REVISION: DATE: COMMENT:

ISSUE: **100% CONTRACT DOCUMENTS**

PREPARED BY: **DVL CONSULTING ENGINEERS, INC.**
375 NASS STREET
HUDSON, NJ 07631
201 678-2224 201 678-1860 FAX

SEAL:

PROJECT NO. 0220
BATTERY PARK CITY STREETSCAPES VESEY STREET IMPROVEMENTS

BATTERY PARK CITY, NEW YORK, NY

DRAWING TITLE:
ELECTRICAL LIGHTING PLAN

DATE: 07.29.04

SCALE: 1/16" = 1'-0"

DRAWN BY: MAR **E1.01**

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BID SET
NOT FOR CONSTRUCTION
APR 11, 2018

PROJECT

PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION

NEW YORK, NEW YORK

SHEET TITLE

REFERENCE DRAWING

PROJECT NO. 140950.08

SCALE NTS

DATE 07/07/2016

DRAWN BY CGW

CHECKED BY MCG

DRAWING NO. **R-100.00**

26 OF 26 SHTS

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TECHNICAL SPECIFICATIONS
FOR
BATTERY PARK CITY AUTHORITY
PUBLIC ART RESTORATION AND LED
LIGHTING CONVERSION
NEW YORK, NEW YORK

Issued for Bid
April 2018

MEG Project No. 140950.06 & .08

Submitted by:
McLaren Engineering Group
131 West, 35th Street,
New York, NY 10001



**BATTERY PARK CITY AUTHORITY
PUBLIC ART RESTORATION AND LED LIGHTING CONVERSION
TECHNICAL SPECIFICATIONS**

TABLE OF CONTENTS

LED Lighting Conversion:

- A. Section 000005 – General Conditions
- B. Section 011100 – Summary of Work
- C. Section 011400 – Work Restrictions
- D. Section 013100 – Project Management & Coordination
- E. Section 013200 – Construction Progress Documentation
- F. Section 013300 – Submittal Procedures
- G. Section 024119 – Selective Demolition
- H. Section 033000 – Cast in Place Concrete
- I. Section 055000 – Miscellaneous Metals
- J. Section 079200 – Joint Sealants
- K. Section 130001 – Deconstruction of Glass Bench A-H
- L. Section 130002 – Deconstruction of Glass Bench I-J
- M. Section 130003 – Install New Led Light System
- N. Section 130004 – Reconstruction of Glass Bench A-H
- O. Section 130005 – Replacement of Bench I
- P. Section 130006 – Replacement of Bench J
- Q. Section 265600 – Exterior Lighting

Public Art Restoration

- A. Section 013516 – Alteration Project Procedures
- B. Section 024119 – Selective Demolition
- C. Section 050170.61 – Decorative Metal Repair
- D. Section 130003 - Install New LED Light System
- E. Section 260545 – Pylon Upgrade
- F. Section 265600 – Exterior Lighting

LED Lighting Conversion

SECTION 000005

GENERAL CONDITIONS

AIA Document A201 – General Conditions of the Contract for Construction shall be referenced if not stated in the Contract Documents.

Notwithstanding anything in these specifications and drawings to the contrary, all provisions in the Battery Park City Authority contract hereforth shall supersede any conflicting provisions in these documents. All other provisions of the Contract Documents shall remain in full force and effect. References to the "Authority" in these Conditions shall be deemed to mean "Owner/Owner's Representative" and vice versa.

1.01 INTRODUCTION

- A. If, during the performance of the Work, the Contractor finds a conflict, error, or discrepancy in the Contract Documents, the Contractor shall report to the Owner's Representative in writing immediately. Before proceeding with the Work affected thereby, the Contractor shall obtain a written interpretation or clarification from the Owner's Representative which shall be provided within 24 hours of notification from the Owner. Any work done before the Owner's Representative renders his/her decision is at the Contractor's sole risk. Contractor may be forced to remove / modify said work at no additional cost to the Owner.
- B. In the event of discrepancies in the Contract Documents, interpretations will be based upon the following priorities, in descending order of precedence:
 - 1. The Scope of Work, as defined in the Request for proposal.
 - 2. The Agreement including Regulatory Authorizations, and any properly executed Change-Orders thereto.
 - 3. The Drawings and Specifications.
 - 4. AIA Document A201-General Conditions of the Contract for Construction.

The Agreement, the provisions in the Contract and other Contract documents are intended to supplement and complement each other and shall, where possible, be thus interpreted. If, however, any provision of the Agreement irreconcilably conflicts with a provision of the Contract and the other Contract Documents, the provision imposing the greater duty or obligation on the Contractor shall govern. In the event of any dispute over the meaning or application, it shall be interpreted fairly and reasonably and neither more strongly for nor against either party to said provision.

In case of inconsistency between Drawings and Specifications, or within either document not clarified by Addendum, the better quality or greater quantity of work shall be provided in accordance with the Owner's interpretation.

- C. The Specification covers the repairs of the glass benches at the Irish Hunger Memorial in Battery Park City, Manhattan, NY, also referred to herein as the "Project Site" and as shown in the Contract Drawings.
- D. The Contractor guarantees that in the performance of work, he and every person in his direct or indirect employment (i.e. subcontractors) shall abide by and comply with all federal,

state, and local laws including the Occupational Safety and Health Act and governing environmental authorities.

- E. The term Owner, as used throughout the Contract Documents, designates Battery Park City Authority (BPCA) as the Owner, or its duly authorized representative.
- F. The term Owner's Representative, as used throughout these Specifications, indicates the Owner's authorized representative for a particular activity. The term includes Construction Manager, Engineer-Of-Record, and/or Special Inspector.
- G. It is the responsibility of the Owner's Representative to delegate responsibility for particular activities.
- H. The term Engineer-Of-Record or Engineer as used throughout the Contract Documents, designates McLaren Engineering Group (McLaren).
- I. All correspondence between the Contractor and Engineer of Record shall be directed through the Owner's Representative.
- J. The Work shall commence in accordance with the Contractor's accepted schedule. If, in the opinion of the Owner, the Contractor has not mobilized sufficient resources and/or if the Contractor does not demonstrate that sufficient work is underway according to the accepted schedule, the Owner reserves the right to terminate the Contract.
- K. In the event of termination of the Contract pursuant to the conditions set forth herein, such termination shall not act so as to relieve the Contractor from liability for any damages sustained by the Owner as a result of any breach by the Contractor of the terms of the Contract.
- L. At the completion of each work day the area around Pier A must be clear of all construction equipment, materials and debris. The Contractor shall coordinate with the Owner regarding equipment and material lay down area.
- M. Definitions
 - 1. Work: Material, equipment, labor, and services required for Contractor to fulfill his/her obligations of project or the part of the project considered.
 - 2. Project Site: between the Irish Hunger Memorial, and New York Mercantile Exchange Building New York, NY 10282.
 - 3. Provide: Furnish and install; provide in place.
 - 4. Furnish: Furnish only, not including installation.
 - 5. Install: Furnish and Install in place materials or structures. (Installation of materials furnished by others will be specifically identified).

6. Shall: Mandatory requirement (understood to be applicable whether or not “shall” is used in the sentence structure): omission of “shall” does not make the Specification or Contract Drawing non-mandatory.
7. Contract Sum: This shall be read as the Total Base Proposal amount and will be adjusted based on actual quantities of completed Work, including Owner-accepted Alternatives and Unit Price as included in the Form of Proposal.
8. Day: Contract "day" shall be as defined in the BPCA master contract.

1.02 DESCRIPTION OF WORK

The Work shall include, but not be limited to:

This Agreement covers the complete scope for the type of work included herein, including all incidental work necessary to complete the work not necessarily indicated or described in the “scope” documents. This Agreement is let on the basis of such documents with the understanding that the Proposer is to furnish all items required for proper completion of the work without adjustment to the Contract Price. It is intended that the Work be of sound and quality installation and the Proposer shall be solely responsible for the inclusion of adequate amounts to cover installation of all items indicated, described or implied.

- A. Mobilization to and demobilization from the site.
- B. Furnish, installation and maintenance of temporary works.
- C. Cleaning, demolition and authorized disposal of components associated with repairs.
- D. All repairs shown in the Contract Drawings.
- E. Providing coordination with the Owner’s Representative for securing testing services and test results confirming accordance with Contract Documents for Engineer of Record approval.
- F. Providing submittals.
- G. Attendance of authorized representative at project meetings.
- H. Coordination with Owner’s Representative and/or Engineer of Record for review of Work.
- I. Providing bi-weekly schedule of anticipated work.
- J. Providing daily construction reports.
- K. Providing detailed outline of Proposer's QA/QC protocol.

1.03 GENERAL SCOPE OF WORK

Schedule

Unless otherwise stated in Section 013300, the following submittal schedule of all shop drawings, etc., for review by the Owner's Representative and Engineer of Record shall be as follows:

1. Contractor's Submittal

Proposer shall submit within two (2) weeks after receipt of Contract or Notice to Proceed a detailed schedule to the Owner's Representative conforming with the project milestone installation dates.

Contractor shall be responsible to meet all project milestone dates. If the contractor does not meet the milestone dates or is progressing behind schedule, the contractor will be directed by the Owner/Owner's Representative to work additional shifts, hours and weekends at no additional cost to the Owner, in order to ensure substantial completion no later than project closeout date.

Contractor shall be required to submit an original certificate of insurance to the Owner's Representative one week prior to commencement of contracted work in accordance with the Owner's contract.

2. Owner's Representative Review and Comments

Within five (5) days after receipt of Contractor's submittal.

The Work shall be performed in a general sequence developed by the Contractor and submitted to the Owner's Representative for review, in accordance with the requirements of the Contract. The Contractor is solely responsible for the means and methods of construction and for the sequences and procedures to be used.

The Contractor shall furnish and coordinate all plant, labor, supervision, materials, equipment and appliances for all demolition and/or construction work in connection with the demolition and/or construction of the facilities.

The Contractor acknowledges and is aware that the area is occupied by others and that the site will not be fully closed from public access. All material delivery and operations associated with the Work shall be coordinated with other activities at the site in such a manner as to minimize the impedance on the site's tenants and the public, while maximizing the cost effectiveness and time of the Work. Coordination of equipment mobilization, construction, deliveries, etc. must be made with the Owner's Representative.

1.04 EXAMINATION OF EXISTING CONDITIONS

Before submitting a proposal, it is a requirement of this Contract that each proposer visit the site to determine the conditions under which the Work is to be done. Such examination shall include, but not be limited to:

- A. Structural detail of the existing structures and related facilities.
- B. Various on-site utilities and structures not within the Scope of this Contract, but that may impact the execution of the Work. These will remain fully operational throughout the construction period.
- C. The layout and structural and finish condition of the existing structures.
- D. Access space, possible work areas, and load restrictions.

1.05 CONTRACTOR-FURNISHED MATERIALS

- A. The Contractor shall furnish all materials for installation in the completed Work as specified hereinafter.
- B. The Contractor shall handle these materials as they are delivered to the site or off-site work areas, and shall store them in a storage area designated by the Owner. If sufficient room is not available, the Contractor shall store materials at his own cost.
- C. The Contractor-furnished material is subject to review by the Owner or Owner's Representative at the plant of manufacture at the Owner's option. Review by the Owner or Owner's Representative is not to be construed as technical in nature and in no way shall be deemed to relieve the Contractor from his/her obligation herein to insure the quality and integrity of the materials supplied by the Contractor for this project.
- D. Project material furnished by the Contractor shall conform to the requirements of the Specifications stated hereinafter. The Contractor shall, as part of the Contract fee, also furnish all consumable materials necessary to complete the Work, such as, but not limited to, welding electrodes, safety equipment, etc.

1.06 LAYOUT

- A. The Contractor shall be solely responsible for the accuracy of all locations, dimensions, and levels and no plea as to instructions or order received from any other sources other than information contained on Contract Drawings, Specifications or in written orders of the Owner or Owner's Representative shall justify departure from the dimensions and elevations required by the Contract Drawings.
- B. The Contractor shall take his own measurements at the site, verifying same with the Contract Drawings and existing facilities, and will be held responsible for the proper fit and alignment of completed work in position.

1.07 GUARANTEE

- A. The Contractor shall guarantee to the Owner all materials and workmanship against original defects, or against injury from proper and usual wear when used for the purpose intended, for twelve (12) months after date of final payment certifications, and shall maintain all items in perfect condition during the period of guarantee.

- B. Defects appearing during the period of guarantee shall be made good by the Contractor at Contractor's expense upon written demand of the Owner, it being required that all work shall be in perfect condition when the period of guarantee shall have elapsed. In the event of default by the Contractor, the Company shall have the right to make good any and all defects and bill the Contractor as per the contract for administration fees. The Owner shall provide notice of correction along with time frame for correction prior to taking action regarding guarantee bonds or penalties.
- C. The Proposer shall follow any and all anti-terrorism security procedures, guidelines, instructions, and regulations with respect to ingress into and egress from the work site, transportation and disposition of material that might be considered contraband as well as any emergency procedures. It is the Proposer's responsibility to make contingencies for the effect upon the scheduling and performance of their work of any and all such regulations and procedures. The cost of such contingencies shall be included in the Contract Price.

1.08 PARKING, STORAGE AND ACCESS TO WORK AREA

- A. The Contractor shall coordinate with the Owner available parking, storage and access to the work area. In no event shall these areas interrupt or disturb the Owner's operations. The Contractor shall protect the stored equipment and material from the elements in such a manner as to be satisfactory to the manufacturer of the equipment or material and the Owner.
- B. Should questions of labor jurisdiction arise, this Proposer will immediately take steps to settle such disputes and will use such labor as may be determined to have jurisdiction, at no additional cost to the Owner. Should it fail to take expeditious action, it will be responsible for any time lost because of delays arising from such disputes.
- C. The Contract includes the cost of all standby trades, Owner Representative fees, and additional cost for inspections by the engineer should Proposer work prior to or later than normal working hours and on Saturdays, Sundays and Holidays, if Proposer desires to work outside of normal working hours.
- D. BPCA is a State Agency. Proposer shall be aware that all BPCA projects require the employment of labor at prevailing wage rates. Outside State and Federal Agencies will closely monitor all projects.
- E. Contractor shall be responsible for providing all equipment required for unloading, installation, clean-up and hauling of debris. Contractor is to be aware that due to the spacing limitations of the surrounding area of work there is to be no staging of equipment on site, unless approved in the Contractor's Staging Plan.
- F. Contractor shall not use the site for staging of construction materials or equipment, unless approved in the Contractor's Staging Plan.
- G. Proposer shall not store any material or equipment on site unless directed by the Owner/Owner's Representative.
- H. Proposer shall not use the site for staging of installation materials or equipment except as approved by the Owner.

1.09 SUBCONTRACTORS

- A. A list of Subcontractors, pre-qualified by the Contractor, shall be submitted to the Owner by

the Contractor with his proposal. The Owner has the ultimate right to accept or reject any one or more of the subcontractors, and must do so in writing after receipt of said list from the Contractor. No deviations shall be allowed from this list without written approval of the Owner. Valid insurance certificates for subcontractors shall be submitted by the Contractor to the Owner with Contractor's proposal.

- B. The Owner shall receive, upon completion of this Contract in full from the Contractor, any reduction in the Subcontractor's price, which may result from a reduced scope of the Contractor's work.

1.10 SITE CONDITIONS

- A. At the Contractor's expense, the Contractor's working areas shall be cleaned by the Contractor on a day-to-day basis, with all rubbish removed from the site and all work areas cleaned at the end of each day. At final completion of all work, the Contractor shall leave the entire premises, within the site of operations, clean and free from the rubbish resulting from Contractor's construction operations.
- B. Each Proposer is responsible for progress cleaning of its own areas on a daily basis. All Proposers are responsible for consolidating any debris caused by their work. The proposer for General Construction (G) shall be responsible for cleanup of the entire site which includes removal of debris for ALL proposers on site on a daily basis. The proposer for General Construction (G) shall legally dispose consolidated debris off-site. Each Proposer is advised that failure to comply with cleaning requirements will result in backcharges and /or reductions in payments.
- C. Contractor shall perform site cleanup and removal of debris on a daily basis and broom clean all installation areas at completion of the day. Surplus equipment, parts & installation materials are to be removed by contractor upon completion of installation unless it is mutually agreed, in writing, from Owner that this material can remain on site.
- D. Contractor shall be responsible for ice, snow and frost removal at site during construction in order to accommodate performance of work.
- E. The Proposer shall take special care to provide temporary damage protection for any and all existing conditions to remain in proximity to the work area. The protection shall remain in place while performing the work shown or described herein or elsewhere in the Contract Documents. Any damage to existing conditions to remain as a result of work by the Proposer shall be repaired or replaced to the satisfaction of the Owner and at no cost to the Owner.

1.11 COMPENSATION

- A. Compensation shall be based upon the Owner-accepted Schedule of Values and authorized Change Orders thereto.
- B. Contractor shall provide interim As-Built documents in PDF format and a hard copy with each application for payment. These will be incorporated into the final As-Built documentation.
- C. Requisitions for this project shall be due to the Owner's Representative by the 5th of every month as a "pencil copy". The final signed and sealed requisition is then due to the owner by the 15th of every month in the format specified in the Owner's contract.

1.12 UTILITIES

The Contractor is responsible to provide and maintain any and all utilities he deems necessary to affect the Work. Should existing site utilities be made available for the Contractor's use by the Owner, it is the responsibility of the Proposer to verify the suitability of existing site utilities for their needs. The Contractor may use such provided utilities at his own risk. Damages shall be the sole responsibility of the Contractor and repairs shall be made immediately at no additional cost to the Owner.

1.13 FIRE PROTECTION

The Contractor shall provide and maintain at his expense all required fire protection systems and devices as necessary to safely perform the Work in accord with the applicable regulations. They shall be operational throughout the period of construction. The Contractor shall also maintain sufficient means for fire and emergency rescue vehicles to access the site.

1.14 COMPLIANCE WITH CONTRACT

The Owner shall have the right to withhold without penalty any payment described above, or sections referenced herein, for completed work should the Contractor fail to meet any obligations or requirements of the Contract, cause damage to the existing site, structures or facilities, or violate a condition of the Permits. Any withheld payment shall be promptly made upon the Contractor's full compliance with the Contract, or resolution of impending fines or damage claims.

1.15 ENVIRONMENTAL PROTECTION

The Contractor shall comply with all local, state, and federal requirements for protection of:

- A. The environment during the Work. No later than fifteen (15) days following award of contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit a comprehensive plan describing the means and methods to be employed for protection, containment, and clean up. Contractor shall ensure that personnel are properly trained and that sufficient equipment and materials are readily available for use if required. Contractor shall abide by state and federal spill-reporting requirements. Clean-up required as a result of Contractor negligence shall be the sole responsibility of the Contractor at no additional cost to the Owner.
- B. The work by the Contractor shall conform to the applicable section of the New York City Noise Code regarding the sound level standards and the time and duration of construction activities.

1.16 TEMPORARY WORK

Labor, equipment, materials, and services required to perform the Work that, upon completion, are not a part of the Work, shall be furnished, installed, and subsequently removed from the site by the Contractor.

1.17 SAFETY PLAN

No later than ten (10) days following award of Contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit two (2) copies of his project-specific Safety Plan by the Owner.

1.18 MATERIAL SAFETY DATA SHEETS

No later than ten (10) days following award of contract and at least ten (10) days prior to mobilization to the site, Contractor shall submit two (2) three-ring bound sets of all Material Safety Data Sheets (MSDS) for materials anticipated for use in execution of the Work. As the Work progresses and new materials are used on the project, Contractor shall submit two (2) copies of the corresponding MSDS's for these new materials no later than the time of arrival of the materials on site. ALL MSDS sheets regarding materials used in the execution of the Work shall be up-to-date and stored in the Contractor's onsite job trailer or office.

1.19 WORK SCHEDULE REQUIREMENTS

Access to the site and acceptable working hours are to be determined by the Owner, specified prior to the commencement of Work, and strictly adhered to throughout contract Work. Work shall be in compliance with local noise restriction ordinances.

1.20 ENGINEERING SERVICES CHARGEABLE TO THE CONTRACTOR

The Owner reserves the right to charge the Contractor for additional engineering and inspection services if required, including, but not limited to, Contractor's actions or inactions, delays, quality assurance failures, re-work, etc.

1.21 CONTRACTOR'S REPRESENTATIVE

The Contractor shall assign an individual to be the single point of contact for all job-related correspondence and issues. This individual shall be assigned to the project from start to finish, and shall not be replaced without permission from the Owner whose permission should not be unreasonably withheld. This individual shall be responsible to disseminate information to other members of the Contractor's staff and to applicable subcontractors as necessary. This individual shall be the Contractor's designated representative at the site, and shall be authorized to conclude all matters, financial and otherwise, on the Contractor's behalf. The Contractor's Representative shall attend all project meetings and shall be on site at all times while the Contractor or his Subcontractors are present on site.

1.22 MEANS AND METHODS

The furnishing of this work is solely the responsibility of the Contractor. Review of construction by the Engineer of Record is for general conformance with the Contract Documents only. Lack of comment by the Owner and Owner's Representative with regard to construction procedures shall not be interpreted as approval or acceptance of any such procedures.

1.23 PRECEDENCE

It is expressly understood and agreed that failure by the Owner or Owner's Representative to exercise his authority or prerogative to order the Contractor for any duly authorized purpose shall not be considered to set a precedent for any other activities.

1.24 SAFETY OF PERSONS AND PROPERTY

The Contractor is solely responsible for the safety of his operations. The Contractor shall take precautions for the safety of, and shall provide protection to prevent damage, injury or loss to:

- A. Persons employed by the Contractor in performance of the Work, and persons nearby that may be affected by the Contractor's operations or the Work;
- B. The Work, including all equipment and materials which will be incorporated in the Work;
- C. Other properties and structures at the site, or on adjacent properties.

1.25 UNCOVERING WORK

The Contractor shall notify the Owner's Representative prior to covering any Work. The Contractor shall not proceed to cover the Work until formal approval from the Owner's Representative is provided in writing. If any Work is covered prior to acceptance by the Owner or Owner's Representative, the Work shall, if requested by the Owner, be uncovered for the Owner's observation and then be re-covered at the Contractor's sole cost and expense.

1.26 DAILY CONSTRUCTION REPORTS

For each day that Work is performed at the site, the Contractor shall prepare and submit a Daily Construction Report to the Owner's Representative. Contractor shall include the following information in the report, as a minimum:

- A. Project name
- B. Contractor name
- C. Date
- D. Hours worked
- E. Weather conditions
- F. Subcontractors working on site
- G. Material deliveries (material, quantity, and vendor)
- H. Trades working on site (trade and number of workers per trade)
- I. Equipment on site (manufacturer and model number, with notation of whether the equipment was idle or was used in the Work)
- J. Specific work performed, location and type of work

- K. Visitors to the site
- L. Materials or equipment leaving the site (including debris removal)
- M. Incident descriptions
- N. Contractor shall submit reports no later than 24 hours for the previous day's work.

1.27 MONITORING OF EXISTING STRUCTURES DURING CONSTRUCTION

The Owner reserves the right to establish an independent monitoring program in order to evaluate the effect of the Work on the existing structures to remain on site. Such monitoring may include, but is not necessarily limited to, settlement gauges, tilt plates, and crack gauges.

The Owner reserves the right to suspend the Contractor's operations at any time based upon the monitoring data.

1.28 ENGINEERING REVIEW AND SPECIAL INSPECTION

At key stages throughout the Work, engineering inspections are required to ensure the Work is being performed in accordance with the Contract Documents. These inspections will be performed by a Special Inspector, as selected by the Owner's Representative at the discretion of the Owner. The final acceptance of the Work will be performed by the Engineer of Record. The key stages are specific to each repair type. Additional pre and post inspection criteria may be required at the discretion of the Owner's Representative.

1.29 EQUIPMENT

Proposers shall use ultra-low sulfur diesel fuel or compressed natural gas (CNG) for all construction vehicles with a carrying capacity in excess of 5 tons and for all portable generators, consistent with Local Law 77 for Lower Manhattan. All diesel engines of greater than 50 horsepower must use ultra-low sulfur diesel fuel with a sulfur content no greater than 15 ppm. Equip the above vehicles with high performance engines and diesel oxidation catalyst (DOC) filters or another previously demonstrated advanced retrofit technology, consistent with NYC Local Law 77 for Lower Manhattan. On-road vehicles used in construction may not idle for more than five consecutive minutes except under practical considerations such as during vehicle maintenance, while stopped in traffic, and in cold weather conditions below 25 degrees F.

END OF SECTION 000005

SECTION 011100

SUMMARY OF WORK

PART I - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work as described herein, and shown on the Construction Drawings.

1.02 EXAMINATION OF DOCUMENTS AND SITE OF WORK

The Proposer acknowledges the following:

- A. The Proposer has reviewed and examined the Proposal Documents to the degree which he is satisfied that the Proposal submitted includes the cost to perform the Work as set forth in the proposed Contract Documents.
- B. The Proposer has informed himself of the existing conditions and limitations under which the Work is to be performed and that the Proposal submitted includes the cost to account for these existing conditions and limitations.
- C. The Proposer acknowledges that any substructure and subsurface condition information provided with the Proposal Documents is for information only.
- D. The Proposer is permitted to perform his own investigation solely for purposes of development of a Proposal. Any site investigation that the Proposer performs, including subsurface, hydrographic, above or below water, or any other non-destructive or destructive testing, shall be documented by the Proposer at the time of the investigation. Results of any investigation performed by the Proposer, which is not representative in the Proposal Documents, and which impact the Proposal, shall be submitted with the Proposal. This information shall be kept confidential during the Contractor selection process.
- E. Proposers are permitted to perform investigations at the site by appointment prior to submitting a proposal. Appointment requests shall be in writing and shall be made through the Owner's Representative at least seventy-two hours prior to the intended time of visit. The Proposer shall provide all required insurance and forms to the Owner's Representative and receive authorization prior to performing any investigation.

1.03 PROOF OF COMPETENCY OF PROPOSER

A Proposer may be required to furnish evidence satisfactory to the Owner that he and his proposed subcontractors have sufficient means and experience in the types of work called for to assure completion of the Contract in a satisfactory manner. Such evidence includes representative project information, similar to the scope and magnitude of this project, consisting of references, contract value, and other pertinent information.

1.04 EXECUTION OF AGREEMENT

- A. Certificates of Insurance shall be approved by the Owner before the successful Proposer may proceed with the Work. Failure or refusal to provide Certificates of Insurance in a form satisfactory to the Owner shall subject the successful Proposer to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.
- B. Certificates of Insurance shall name, at a minimum, the Owner, Owner's Representative and Consulting Engineer as additional insured parties.

1.05 INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO PROPOSING

- A. If any person contemplating submitting a Proposal for construction of the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies in or omissions from any part of the proposed Contract Documents, he must submit to the Owner's Representative, with copy to the Owner, a written request for interpretation thereof by not later than seven (7) days prior to the Proposal due date. The person submitting the request shall be responsible for its prompt delivery.
- B. Interpretation or correction of Contract Documents will be made only by Addendum and will be mailed or delivered to each Proposer of Record. The Owner and Owner's Representative will not be responsible for any other explanations or interpretations of the Contract Documents.

1.06 PRE-PROPOSAL CONFERENCE AND JOB SITE WALKTHROUGH

A Pre-Proposal Conference will be held at the site for the purpose of considering questions posed by Proposers and for the purpose of holding a walkthrough of the project site.

Proposers are expected to provide written confirmation of attendance to the Owner's Representative at least two (2) days prior to the Pre-Proposal Conference.

Clarifications, corrections, and changes, made as a result of the Pre-Proposal Conference, shall be made by Addendum only. The Proposer shall not construe statements made during the Pre-Proposal Conference, by the Owner or the Owner's Representative (Engineer), as a change of terms or conditions of the Proposal Documents.

1.07 CONSTRUCTION TIME

The Contractor shall commence and perform the Work expeditiously in accordance with the Contractor's construction schedule with adequate, trained crews and shall achieve substantial completion and final completion within the times stated within the schedule.

Within the Form of Proposal, provide the total number of days which the Proposer proposes to complete the Work. The schedule is to commence with issuance of the Owner's Executed Contract.

1.08 BASE BID

Base Bid provided shall be complete, including all mark-up, and shall include all appropriate overheads, profit, and cost of labor, materials, equipment, required permits to perform the Work and costs associated with services necessary to complete the substructure rehabilitation work in accordance with the Contract Documents.

For Work to be performed on a unit price based on linear footage, or as specifically directed by the Owner, the estimated quantities are not guaranteed and are solely for the purpose of comparison of proposals and determining an initial Contract price.

1.09 SCOPE OF WORK

A. The scope of work for **Deconstruction of Glass Benches A-H** shall consist of the following:

1. Remove and clean all stainless steel closure ribs. Store ribs in order in secure location to be reinstalled at the same location the rib was taken from.
2. Remove and clean all ribbed low expansion soda lime cast glass panels. Store panels in order in secure location to be reinstalled at the same location the panel was taken from.
3. Remove and clean all stainless steel benches. Store benches in order in secure location to be reinstalled at the same location the bench was taken from.
4. Remove kick plates.
5. Clean interior of benches of dust and debris. Miscellaneous steel shall be removed and disposed of.
6. Remove all electrical equipment.

Deconstruction of Glass Benches A-H shall be bid on a per linear foot (LF) basis, and shall include all three sections (top and two sides) of each glass bench seat and end caps (where applicable). Bench sections are typically approximately 2ft 6in.

B. The scope of work for **Deconstruction of Glass Benches I and J** shall consist of the following:

1. Remove and clean all stainless steel closure ribs. Deliver ribs to Owner's off-site storage facility (please note: one section worth of Bench J shall be used in the repair of Bench E).
2. Remove and clean all ribbed low expansion soda lime cast glass panels. Deliver ribs to Owner's off-site storage facility (please note: one section worth of Bench J shall be used in the repair of Bench E).
3. Remove kick plates.
4. Remove all electrical equipment.
5. Cap all electrical wiring.
6. Remove steel armature and reflective panels (please note: one section of Bench J shall be used in the repair of Bench E).

Deconstruction of Glass Benches I and J be bid on a per linear foot basis, and include the top and side sections (Bench J may be 3 sided) of each glass bench seat and the end caps (where applicable). Bench sections are typically approximately 2ft 6in.

C. The scope of work for **Install New LED Light System** shall consist of the following:

1. Installation of new LED light strip system, including all luminaires and drivers as specified by

the manufacturer of the system.

2. Install new stainless steel kick plates.

Install New LED Light System shall be bid on a per linear foot basis, and shall only apply to benches A-H. Assume 4 drivers per bench for bidding purposes.

- D. The scope of work for **Reconstruct Glass Benches A-H** shall consist of the following:

1. Reinstall all ribbed low expansion soda lime cast glass panels in original location. At broken sections at Bench E, install glass panels from Bench J to replace.
2. Reinstall all stainless steel closure ribs and benches in original location. At location of broken glass panels at Bench E, install closure ribs from Bench J to replace.
3. Apply structural sealant to all joints including, but not limited to glass to glass joints, glass to rib joints, and glass to kick plate joints.

Reconstruct Glass Benches A-H shall be bid on a per linear foot basis, and shall apply to benches A-H.

- E. The scope of work for **Replacement of Bench I** shall consist of the following:

1. Install post-installation anchors and rebar as shown on the Contract Drawings.
2. Form and pour concrete as shown on the Contract Drawings.
3. Install new cast stone cladding panels to match panels of the existing remaining structure.
4. Extend green roof system over new construction.

Replacement of Bench I shall be bid on an each (EA) basis.

- F. The scope of work for **Replacement of Bench J** shall consist of the following:

1. Install post-installation anchors and rebar as shown on the Contract Drawings.
2. Form and pour concrete as shown on the Contract Drawings

Replacement of Bench J shall be bid on an each (EA) basis.

1.10 GENERAL CONDITIONS

The Contractor shall commence and perform the Work expeditiously in accordance with the Contractor's construction schedule with adequate, trained forces and shall achieve substantial completion and final completion within the times stated within the schedule.

Within the Form of Proposal, provide the total number of days which the Proposer proposes to complete the Work. The schedule is to commence with issuance of the Owner's Executed Contract.

1.11 EXISTING WORK

- A. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work that remains.
- B. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as approved by the Owner. At the completion of operations, existing work shall be in a condition equal to or better than that which existed

before new work started.

1.12 QUALITY ASSURANCE

- A. Use adequate number of skilled work personnel who are thoroughly trained and experienced in the necessary trades, and familiar with the specified requirements and methods required for proper performance of the work outlined in this specification.
- B. The Contractor shall coordinate the work to ensure no conflicts occur to compromise the timely completion of all work specified.

1.13 WORKING CONDITIONS

- A. The Contractor is responsible for any precautions and scheduling necessary in order to maintain this status. Work may begin only after a schedule representing an acceptable plan is approved by the Owner.
- B. The Contractor shall coordinate day-to-day activities with the Owner. All conflicts will be resolved by the Owner's representative.

1.14 WORKING HOURS

The Contractor is permitted to perform construction work between the hours of 7:00 AM and 4:30 PM Mondays through Fridays, excluding Saturdays, Sundays, and Federal Holidays. Work performed at any other time other than these periods will only be allowed pending approval of the Owner, following a 48 hour advanced request (72 hour for Sundays and Holidays) a DOB after hours work permit, and approval from BPCA.

1.15 AVAILABILITY OF UTILITIES

- A. Electrical: The Contractor shall provide its own electrical power and equipment. OSHA requirements will govern the use of such utility.
- B. Water: The Contractor will be responsible for supplying its own water and equipment, including all hoses, adapters and backflow preventer as required.
- C. Sanitary Facilities: The Contractor shall be responsible for furnishing and maintaining temporary toilet facilities for their employees, and for the Owner's Engineer.
- D. The Contractor is responsible for the cost of all utilities.

1.16 EQUIPMENT

The Contractor shall supply all equipment necessary to perform all work, including but not limited to Dive set up, small tools, ladders, etc.

1.17 RECEIPT OF MATERIALS

Shipments of equipment, materials, and supplies shall be addressed to the Contractor, not the Owner. The Contractor shall provide all equipment, materials and labor for off-loading. The Owner will not accept shipments for the Contractor.

1.18 STORAGE OF MATERIALS

Contractor's materials may be stored on site at a location that is approved by the Owner.

1.19 EXISTING MATERIALS

The Owner shall have the opportunity to salvage all materials removed prior to disposal by Contractor.

1.20 FINAL INSPECTION

Final Inspection will not be made until all work under the contract is complete. The Contractor shall notify the Owner in writing 48 hours prior to the date on which the project will be ready for final inspection.

1.21 DUMPING AREA

- A. All discarded material shall be removed from the Owner's property and disposed of in an approved site complying with Local, State, and Federal regulations. Certified weight tickets shall be supplied to the Owner within 15 days of the date of the weight ticket for all trash and construction debris disposed. All dumpsters/containers shall be supplied by the Contractor. The contractor shall provide appropriate signs or covers to prevent use by Tenants.
- B. No material shall be washed or swept out of equipment or vehicles (including concrete from chutes of trucks, loose debris, etc.) onto Owner property or in the water. Any material spilled from Contractor furnished dumpsters/containers shall be immediately cleaned up by the Contractor.

1.22 RECYCLABLES

The Contractor shall recycle or reuse all material designated as recyclable or prohibited from landfilling. Definitions for recyclables and landfill prohibited material can be obtained from the contracted trash hauler. Certified weight tickets shall be supplied to the Owner within 15 days of the date of removal from the facility for all material recycled or reused, and for landfill prohibited materials.

1.23 AS-BUILT DRAWINGS

- A. The Owner will furnish one complete set of black and white prints of all drawings which shall be used to indicate any changes from the contract set. Each sheet shall be marked "AS-BUILT

- DRAWINGS" in red pencil, and all changes or modifications shall be noted thereon by the Contractor.
- B. Changes shall be noted during the construction process for all trades.
 - C. Keep "AS-BUILT DRAWINGS" current. Do not permanently conceal any work until the required information has been accurately recorded.
 - D. Use colored pencils or pens for graphic work conforming to the following color code:
 - Red - Architectural and Structural Work
 - Green - Electrical Work
 - Use blue pen for written work
 - E. Submit a complete set of "AS-BUILT DRAWINGS" to the Owner when all work has been completed, or as directed.

PART II - PRODUCTS

Not used.

PART III - EXECUTION

Not used.

END OF SECTION 011100

SECTION 011400

WORK RESTRICTIONS

PART I - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to this section.

1.02 USE OF PREMISES

- A. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of site beyond areas in which the Work is indicated.
 - 1. Limits: Confine construction operations to those areas delineated as included in the Construction Documents.
 - 2. Owner Occupancy: Allow for Owner occupancy of portions of the site and for use by the public at any and all times during the life of the contract. The Owner reserves the right to maintain and provide full public access to the Site within the contract limits at any time during the entire life of the contract. Contractor will be responsible for securing and maintaining temporary construction fencing as necessary to achieve and maintain this access.
 - 3. Contractor shall, throughout the life of the contract, maintain clear access to all areas of the pier to personnel of Battery Park City Authority (Owner) for maintenance and repair operations. Specifically, the Owner and/or its agents shall be unencumbered from performing all required maintenance operations for all areas adjacent to and within the contract limits.
 - 4. Construction Gates / Entrances: Keep all construction gates / entrances, if required, serving the premises clean, clear and available to the Owner, Owner's employees, emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize use of construction gates and entrances.
 - b. Schedule deliveries to coordinate with other contractor's gaining access to the site.
 - c. Provide flag-person services for all deliveries into and out of the site so as to protect the public.
 - d. Secure all construction entrances and gates to the site at all times.
 - e. Provide durable signage limiting public access to the construction site at all construction gate / entrances as directed by the Construction Manager.
 - f. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Use of Existing Site: Maintain existing site throughout the construction period. Repair damage caused by construction operations.

1.03 OCCUPANCY REQUIREMENTS

- A. Partial Owner Occupancy: Owner may occupy portions of the site during the construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's operations.

PART II – PRODUCTS

Not used.

PART III – EXECUTION

Not used.

END OF SECTION 011400

SECTION 013100

PROJECT MANAGEMENT & COORDINATION

PART I - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to this section.

1.02 SUMMARY

- A. This Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General project coordination procedures.
 - 2. Conservation.
 - 3. Coordination Drawings.
 - 4. Administrative and supervisory personnel.
 - 5. Project meetings.
- B. Each contractor shall participate in coordination requirements. Certain areas of responsibility will be assigned to a specific contractor.
- C. Related Sections: The following Sections contain requirements that relate to this Section:
 - 1. Division 1 – Section “Construction Progress Documentation” for preparing and submitting the Contractor’s Construction Schedule.
 - 2. Division 1 – Section “Submittal Procedures” for means and methods of submitting product data, shop drawings, and construction operations to perform the Contract Work.

1.03 COORDINATION

- A. Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations included in different Sections that depend on each other for proper installation, connection, and operation.
 - 1. Schedule construction operations in sequence required to obtain the best results where performance of one part of the Work depends on performance of other components, before or after its own completion.
 - 2. Coordinate performance of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
 - 3. Make adequate provisions to accommodate items scheduled for later Contract Work.
 - 4. Provide detailed written construction work plans within 5 days of award in a format and containing information as requested by the Construction Manager.

- B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.
 - 1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.
- C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
 - 1. Preparation of Contractor's Construction Schedule.
 - 2. Preparation of the Schedule of Values for payment of completed work.
 - 3. Installation and removal of temporary facilities and controls.
 - 4. Delivery and processing of submittals.
 - 5. Progress meetings.
 - 6. Pre-installation conferences.
 - 7. Project closeout activities.
- D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

1.04 SUBMITTALS

- A. Coordination Drawings / Work Plans: Prepare Coordination Drawings and/or detailed work plans where careful coordination is needed for performance of repair by separate entities and/or as requested by the Owner. Prepare coordination drawings and/or work plans where limited space availability necessitates utilization of space for efficient installation of different components.
 - 1. Indicate relationship of components shown on separate Shop Drawings and/or work plans.
 - 2. Indicate required installation sequences.
- B. Staff Names: Within 5 days of award, submit a list of principal staff assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone.

1.05 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to Project superintendent, provide the resumes of other administrative and supervisory personnel as required for proper performance of the Work, including but not limited to.
 - 1. Project Manager
 - 2. Project superintendent
 - 3. Site Safety Representative

4. Staff Engineer

1.06 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
 - 1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner of scheduled meeting dates and times.
 - 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3. Minutes: Record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner and the Engineer, within 5 days of the meeting.
- B. Pre-construction Conference: Schedule a pre-construction conference before starting construction, at a time convenient to Owner but no later than 5 days after execution of the Agreement. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.
 - 1. Attendees: Authorized representatives of Owner, Engineer, and their consultants; Contractor and its superintendents; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 - 2. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Designation of responsible personnel.
 - c. Procedures for processing field decisions and Change Orders.
 - d. Procedures for processing Applications for Payment.
 - e. Distribution of the Contract Documents.
 - f. Submittal procedures.
 - g. Preparation of Record Documents.
 - h. Use of the premises.
 - i. Responsibility for temporary facilities and controls.
 - j. Parking availability.
 - k. Office, work, and storage areas.
 - l. Equipment deliveries and priorities.
 - m. Testing and inspection requirements.
 - n. Required performance results.
 - o. Protection of construction personnel.
 - p. First aid.
 - q. Security.
 - r. Progress cleaning.
 - s. Working hours.
 - 3. Record significant conference discussions, agreements, and disagreements.

4. Do not proceed with performance of Contract Work if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- C. Progress Meetings: Conduct progress meetings as necessary, but bi-weekly at a minimum. Coordinate dates of meetings with preparation of payment requests.
1. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - b. Review present and future needs of each entity present, including the following:
 1. Interface requirements.
 2. Sequence of operations.
 3. Status of submittals.
 4. Deliveries.
 5. Off-site fabrication.
 6. Access.
 7. Site utilization.
 8. Temporary facilities and controls.
 9. Work hours.
 10. Hazards and risks.
 11. Quality and work standards.
 12. Change Orders.
 13. Documentation of information for payment requests.
 3. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
 - a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

- D. Coordination Meetings: Conduct Project coordination meetings as needed. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.
1. Attendees: In addition to representatives of Owner and Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 2. Agenda: Review and correct or approve minutes of previous coordination meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Combined Contractor's Construction Schedule: Review progress since the last coordination meeting. Determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to Combined Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract time.
 - b. Schedule Updating: Revise Combined Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report for each meeting.
 - c. Review present and future needs of each contractor present, including the following:
 1. Interface requirements.
 2. Sequence of operations.
 3. Status of submittals.
 4. Deliveries.
 5. Off-site fabrication.
 6. Access.
 7. Site utilization.
 8. Temporary facilities and controls.
 9. Work hours.
 10. Hazards and risks.
 11. Quality and work standards.
 12. Change Orders.
 3. Reporting: Record meeting results and distribute copies within two (2) days to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

PART II – PRODUCTS

Not used.

PART III – EXECUTION

Not used.

END OF SECTION 013100

SECTION 013200

CONSTRUCTION PROGRESS DOCUMENTATION

PART I - GENERAL

1.01 RELATED DOCUMENTS

- A. Specification section 013300, submittal procedures.

1.02 SUBMITTALS

The Contractor shall submit the following to the Approving Authority in accordance with Section entitled "Submittal Procedures, Section 013300."

- A. Schedules
 - 1. Construction schedule
 - 2. Material delivery schedule

1.03 CONSTRUCTION SCHEDULE

Within 5 days after receipt of the Notice of Award, prepare and submit to the Owner's representative for approval a Critical Path Method (CPM) Schedule.

1.04 MATERIAL DELIVERY SCHEDULE

- A. Initial Schedule

Within 10 calendar days after approval of the proposed construction schedule, submit for Owner's representative approval a schedule showing procurement plans for materials and equipment. Submit in the format and content as prescribed by the Owner's representative, and include as a minimum the following information:

- 1. Description.
- 2. Date of the purchase order.
- 3. Promised shipping date.
- 4. Name of the manufacturer or supplier.
- 5. Date delivery is expected.
- 6. Date the material or equipment is required, according to the current construction schedule.

1.05 NETWORK ANALYSIS SYSTEM (NAS)

- A. As an alternative to the critical path method (CPM) schedule, the Contractor may use, subject to the approval of the Owner's Representative, some other computer generated network analysis system affording similar and equal information and control to that provided by the CPM.
- B. The schedule shall have a minimum of 15 activities and a maximum of 200 activities. The schedule shall identify as a minimum:
 - 1. Construction time for all major systems and components;
 - 2. Manpower requirements for each activity;
 - 3. Major submittals and submittal processing time; and
 - 4. Major material and equipment lead time.
 - 5. Cleaning, blasting, priming, and painting sequence for inspection purposes.
- C. CPM Submittals and Procedures

Submit all network analysis and updates electronically via e-mail. The network analysis system shall be submitted in Microsoft Project 2010. The network analysis system shall be kept current, with changes made to reflect the actual progress and status of the construction.

1.06 UPDATED SCHEDULES

Update the construction schedule and material delivery schedule at monthly intervals to correspond to payment applications or when schedule has been revised. Reflect any changes occurring since the last update. Submit copies of the purchase orders and confirmation of the delivery dates as directed by the Owner's representative.

PART II – PRODUCTS

Not used.

PART III – EXECUTION

Not used.

END OF SECTION 013200

SECTION 013300

SUBMITTAL PROCEDURES

PART I - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to this section.

1.02 DEFINITIONS

- A. Submittal: Submittal requirements are specified in the respective specification sections.

- B. Types of Submittals (SD)

1. SD-01 Preconstruction Submittals

Certificates of Insurance, List of Proposed Subcontractors, List of Proposed Products, Construction Progress Schedule, Submittal Register, Schedule of Prices, Health and Safety Plan, Work Plan, Quality Control Plan, Environmental Protection Plan, Site Utilization Plan.

2. SD-02 Shop Drawings

- a. Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.
- b. Diagrams and instructions from a manufacturer or fabricator for use in producing the product and acts as aids to the Contractor for integrating the product or system into the project.
- c. Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated. An attachment shall be provided with the Shop Drawings which clearly define the methodology for each repair type.
- d. Approval of shop drawings shall not relieve the Contractor of the responsibility for any errors or for furnishing materials of the proper size.

3. SD-03 Product Data.

Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate a portion of the work, but not prepared exclusively for this Contract. Product data includes but is not limited to the following:

- a. LED Lights
- b. LED Drivers
- c. Structural Sealant
- d. Steel Fasteners
- e. Structural Shapes

- f. Concrete mix
- 4. SD-04 Test Reports
 - a. Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements (Testing must have been within three (3) years of date of contract award for the project).
 - b. Report which includes findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.
 - c. Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.
- 5. SD-05 Certificates
 - a. Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of this project contract and clearly name the project and list the specific requirements which it is intended to address.
 - b. Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to prove quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.
- 6. SD-06 Manufacturer's Instructions
 - a. Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.
- 7. SD-07 Schedules
 - a. A tabular list of data or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.
- 8. SD-08 Closeout Submittals
 - a. The Owner's Representative is responsible for providing the following to the Engineer of Record for review prior to the project close out:
 - i. Field Reports
 - 1. Upon completion of the work, and prior to the final project closeout, the Owner's Representative shall submit to the Engineer of Record all Field Reports from the engineering review site visits. These include, but are not limited to:
 - a. Certification by the Special Inspector that all test results have met

or exceeded the minimum requirements laid out in the Contract Documents.

ii. As-Built Drawings:

1. Contractor shall submit six (6) sets of drawings, marked "As-Built" within four (4) weeks upon Contractor demobilization. These drawings shall be submitted to the Owner's Representative, who shall forward to the Engineer of Record. Approval from the Engineer of Record is required for the final project closeout.

iii. Test Reports:

1. Upon completion of the work, and prior to the final project closeout, the Owner's Representative shall submit to the Engineer of Record all Test Reports from the required materials and products testing as laid in the Contract Documents. Test reports must confirm that all materials and products placed during the Work have met or exceeded the minimum requirements of the Contract Documents in order for the Engineer of Record's approval. All Test Reports must be approved by the Engineer of Record for the final project closeout.

iv. Photographs

1. The Owner's Representative shall submit to the Engineer of Record a typical photograph illustrating each type of repair in its Pre-Inspection and Post-Inspection completeness.

- v. The items required for final review by the Engineer of Record are not limited to those listed above.

C. Approving Authority: Person authorized to approve submittal. The Engineer of Record shall review submittals in regard to materials, methodology, shop drawings and other components involved in the quality assurance of the work. The Owner's Representative shall review submittals in regard to but not limited to site utilization, disposal, coordination, environmental controls, schedule, safety and health requirements, etc.

D. Work: As used in this section, on- and off-site construction required by contract documents, including labor necessary to produce submittals, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction.

PART II – PRODUCTS

NOT USED.

PART III – EXECUTION

3.01 SUBMITTAL REGISTER

- A. Within 5 calendar days after receipt of Notice to Proceed, provide submittal register listing all submittals required by the contract. Contractor shall maintain at the site, an up-to-date

submittal register showing the status of all submittals as the work progresses. The submittal register format is subject to review and approval by the Owner's Representative and Engineer of Record. The Contractor shall indicate critical submittals and critical dates for approval. The register shall also include the following at a minimum:

1. Activity Number: Activity number from the project schedule.
 2. Transmittal Number: Contractor assigned list of consecutive numbers.
 3. Contractor Submittal Date: Scheduled date for approving authority to receive submittals.
 4. Contractor Approval Date: Date Contractor needs approval of submittal.
 5. Contractor Material Date: Date that Contractor needs material delivered to Contractor control.
- B. The Owner's Representative or Engineer of Record will not review submittals until the register has been submitted in accordance with the previous paragraph and approved. Should a submittal register be generated by the Engineer of Record, it can be used as a guideline by the Contractor but does not relieve him of submissions required by the Contract Documents that may have been omitted.
- C. Items may be added or removed from the Submittal Register throughout the duration of the Work, as desired by the Owner's Representative or Engineer of Record. Additional submittals that are not listed in the Submittal Register may be required as per the Owner's Representative's contract.

3.02 PROCEDURES FOR SUBMITTALS

- A. Contractor shall make submittals required by the Contract Documents, and revise and resubmit as necessary to establish compliance with the specified requirements. Submittals that are not required will not be reviewed by the Owner's Representative.
1. Constraints
 - a. Submittals listed or specified in this contract shall conform to provisions of this section, unless explicitly stated otherwise.
 - b. Submittals shall be complete for each definable feature of work; components of definable feature interrelated as a system shall be submitted at same time.
 - c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.
 - d. Approval of a separate material, product, or component does not imply approval of assembly in which item functions.
 2. Scheduling
 - a. Coordinate scheduling, sequencing, preparing and processing of submittals with

performance of work so that work will not be delayed by submittal processing. Allow for potential requirements to resubmit.

- b. Except as specified otherwise, allow for review period, beginning with receipt by approving authority, which includes at least 5 working days for submittals. Period of review for each re-submittal is the same as for initial submittal.

3.03 VARIATIONS

- A. Variations from contract requirements require the Engineer of Record's approval. Do not substitute materials, equipment, or methods unless such substitution has been specifically accepted in writing by the Owner's Representative.
 - 1. Considering Variations: Discussion with the Owner's Representative prior to submission will help ensure functional and quality requirements are met and minimize rejections and re-submittals. When contemplating a variation which results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).
 - 2. Proposing Variations: When proposing a variation, deliver written request to the Owner's Representative, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to the Owner. If lower cost is a benefit, also include an estimate of the cost-savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation, identify variations from the contract requirements and changes in other work or products.
 - 3. Warranting That Variations Are Compatible: When delivering a variation for approval, Contractor warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work. In submitting a substitution or variation, the Contractor represents that he will coordinate the installation of accepted substitutions or variation, and additional costs or delays caused by the substitution or variation will not constitute grounds for adjustments to the contract.
 - 4. Review Schedule Is Modified: In addition to normal submittal review period, a minimum period of five (5) and maximum period of 14 working days will be allowed for consideration by the Owner of submittals with variations.

3.04 CONTRACTOR'S RESPONSIBILITIES

- A. Determine and verify field measurements, materials, field construction criteria; review each submittal; and check and coordinate each submittal with requirements of the work and contract documents.
- B. Transmit submittals to Owner's Representative in accordance with schedule on approved Submittal Register, and to prevent delays in the work, delays to the Owner, or delays to separate Contractors.
- C. Advise Owner's Representative as required by paragraph entitled: "Variations."
- D. Correct and resubmit submittal as directed by approving authority. When resubmitting disapproved transmittals or transmittals noted for re-submittal, the Contractor shall

provide copy of that previously submitted transmittal including all reviewer comments for use by approving authority. Direct specific attention in writing or on resubmitted submittal to revisions not requested by approving authority on previous submissions.

- E. Submittals are to be done electronically, via email to the team determined by the owner, in PDF format.
- F. Furnish hard copies of submittal when requested by the Owner's Representative, to a limit of 6 copies per submittal.
- G. Complete work which must be accomplished as basis of a submittal in time to allow submittal to occur as scheduled.
- H. Ensure no work has begun until submittals for that work have been reviewed and returned stamped by the Engineer of Record, as explained in Paragraph 3.8 D or this Section, except to the extent that a portion of work must be accomplished as basis of submittal.

3.05 DELIVERY OF SUBMITTALS

- A. Transmittal Form: Transmit each submittal, except sample installations and sample panels, to office of approving authority. Transmit submittals electronically with transmittal form prescribed by Owner's Representative and standard for project. The transmittal form shall identify Contractor, indicate date of submittal, and include information prescribed by transmittal form and required in paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample panels and sample installations. All submittals must be sent to the Owner's Representative, who shall forward submittals as necessary, for approval.
- B. Identifying Submittals: Identify submittals, except sample panel and sample installation, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:
 - 1. Construction contract number.
 - 2. Section number of the specification section by which submittal is required.
 - 3. Submittal description (SD) number of each component of submittal.
 - 4. When resubmitting, add suffix on submittal description, for example, SD-10R1, to indicate resubmission.
 - 5. Name, address, and telephone number of subcontractor, supplier, manufacturer, and any other second tier Contractor associated with submittal.
 - 6. Product identification and location in project.

3.06 FORMAT OF SUBMITTALS

- A. Format for SD-02 Shop Drawings
 - 1. Shop drawings shall not be less than 8½ by 11 inches nor more than 22 by 34 inches.

Submit in the form of blue line or black line prints of each sheet. Blue prints will not be accepted.

2. Present 8½ by 11 inch sized shop drawings as part of the bound volume for submittals required by section. Present larger drawings in sets.
3. Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to information required in paragraph entitled "Identifying Submittals."
4. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Shop drawing dimensions shall be the same unit of measure as indicated on the contract drawings. Identify materials and products for work shown.

B. Format of SD-03 Product Data and SD-06 Manufacturer's Instruction's

1. Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.
2. Indicate, by prominent notation, each product which is being submitted; indicate specification section number and paragraph number to which it pertains
3. Supplement product data with material prepared for project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project.

C. Format of SD-03 Design Data and SD-05 Certificates

1. Provide design data and certificates on 8½ by 11 inches paper. Provide a bound volume for submittals containing numerous pages.

D. Format of SD-04 Test Reports

1. Provide reports on 8½ by 11 inch paper in a complete bound volume.
2. Indicate by prominent notation, each report in the submittal. Indicate specification number and paragraph number to which it pertains.

E. Format of SD-01 Preconstruction Submittals and SD-08 Closeout Submittals

1. When submittal includes a document which is to be used in project or become part of project record, other than as a submittal, do not apply Contractor's approval stamp to document, but to a separate sheet accompanying document.
2. As-Built drawings sets shall be full sized (22" x 34") and represent the installed condition of the Work. The drawings shall clearly mark out where the installed condition differs from the Contract Documents. In addition to the hard copies, the As-Built drawings shall be submitted electronically in both AutoCAD format (.dwg) version 2007 or newer and Portable Document Format (.pdf).

3. Photographs shall be submitted electronically in JPEG-format (.jpg) as well as Portable Document Format (.pdf). Photographs shall be in color and shall be a minimum of 3 megapixels in size. The location, photo directions, elevation, and date/time taken shall be submitted in conjunction with the PDF submission.

3.07 QUANTITY OF SUBMITTALS

- A. Unless otherwise noted, all submittals should be in PDF format and transmitted electronically. If hard copies are requested:
 1. Number of copies of SD-02 Shop Drawings
 - a. The Owner and/or Owner's Representative may designate that all submittals shall be "paperless" and the contractor may transmit submittals via electronic file.
 - b. Submit four (4) copies of submittals of Shop Drawings. One (1) print with the Owner's Representative's review comments will be returned to the Contractor. The Contractor may make and distribute such copies as desired.
 2. Number of Copies of SD-03 Product Data and SD-06 Manufacturer's Instructions
 - a. Submit in compliance with quantity requirements specified for shop drawings.
 3. Number of Copies SD-05 Certificates
 - a. Submit in compliance with quantity requirements specified for shop drawings.
 4. Number of Copies SD-04 Test Reports
 - a. Submit in compliance with quantity requirements specified for shop drawings.
 5. Number of Copies of SD-01 Preconstruction Submittals and SD-08 Closeout Submittals.
 - a. Unless otherwise specified, submit administrative submittals compliance with quantity requirements specified for shop drawings. Submit six (6) copies of all Closeout Submittals.

3.08 REVIEW BY OWNER'S REPRESENTATIVE

- A. Review by the Owner's Representative and Engineer of Record does not relieve the Contractor from responsibility for errors or omissions which may exist in the submitted data.
- B. Revisions:
 1. Make revisions required by the Owner's Representative and Engineer of Record.
 2. If the Contractor considers any required revision to be a change, he shall so notify the Owner's Representative in accordance with the specifications.

3. Make only those revisions directed or accepted by the Owner's Representative and Engineer of Record.

C. Reimbursement of Owner's Representative's Costs:

1. In the event substitutions are proposed to the Owner's Representative after the Contract has been awarded, the Owner's Representative will record all time used by him and by his consultants in evaluation of each such proposed substitution.
2. Whether or not the Owner's Representative and/or Engineer of Record accepts a proposed substitution, the Contractor may be responsible for the costs of the Owner's Representative and/or Engineer of Record and consultants for all time spent by them in evaluating the proposed substitution, plus administrative fees. The costs will be deducted from outstanding pay requests due to the Contractor by way of a Change Order.

D. Engineer of Record Review Stamp:

1. The Engineer of Record will use the following approval statement when returning submittals to the Contractor as "Fabrication May Proceed" or "Do Not Fabricate":
 - a. "Submission has been checked for general conformance with design concept of the project. Comments made on [type of submittal] do not relieve the Contractor from compliance with requirements of the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction; and for coordination of the work of all trades."

Fabrication May Proceed: _____ Do Not Fabricate: _____

By: _____ Date: _____

Note: _____

2. Actions Possible

- a. The Engineer of Record review stamp will indicate the status of the submittal, and corresponding action to be taken by the Contractor as follows:
 - i. Submission is in general conformance with design concept: When the Engineer of Record marks the submittal "Submission is in general conformance with design concept", the Work covered by the submittal may proceed, provided it complies with the requirements of the Contract Documents. Final payment depends on that compliance.
 - ii. Submission is in general conformance with design concept, except as noted: When the Engineer of Record marks the submittal "Submission is in general conformance with design concept, except as noted", the Work covered by the submittal may proceed provided it complies with the notations on the submittal

and requirements of the Contract Documents. Final payment depends on that compliance.

- iii. Revise and Resubmit: When the Engineer of Record marks the submittal “Revise and Resubmit”, the Work covered by the submittal may proceed provided it complies with the notations on the submittal and requirements of the Contract Documents. The submittal must be revised to comply with the notations on the submittal and requirements of the Contract Documents, and must then resubmit to the Engineer of Record. Final payment depends on that compliance.
- iv. Submission is rejected for non-conformance with design concept: When the Engineer of Record marks the submittal “Submission is rejected for non-conformance with design concept”, do not proceed with the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise and prepare a new submittal according to the notations, resubmit without delay. Repeat if necessary to obtain a different action mark.

Do not use, or allow others to use submittals marked “Submission is rejected for non-conformance with design concept” at the Project Site or elsewhere where Work is in progress.

PART IV – MEASUREMENT AND PAYMENT

Include within the Contract prices the amount sufficient to cover all costs for work of this section. No separate payment will be made for work completed under this section. A Schedule of Values shall be submitted to and approved by the Owner's Representative.

END OF SECTION 013300

SECTION 024119

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes:
 - 1. Demolition and removal of selected portions of glass benches.
 - 2. Salvage of existing bench items to be reused or recycled.
- B. Related Requirements:
 - 1. Section 011000 "Summary of Work" for restrictions on the use of the premises, Owner-occupancy requirements, and phasing requirements.

1.03 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Carefully detach from existing construction, in a manner to prevent damage, and deliver to Owner ready for reuse.
- C. Remove and Reinstall: Detach items from existing construction, prepare for reuse, and reinstall where indicated.
- D. Existing to Remain: Existing items of construction that are not to be permanently removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.04 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
 - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.05 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project Site, or location of Battery Park City Authority's choosing.
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review structural load limitations of existing structure.
 - 3. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 - 4. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 - 5. Review areas where existing construction is to remain and requires protection.

1.06 INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, for dust control, and for noise control. Indicate proposed locations and construction of barriers.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure on-site operations are uninterrupted.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
- C. Inventory: Submit a list of items to be removed and salvaged and deliver to Owner prior to start of demolition.
- D. Predemolition Photographs or Video: Submit before Work begins.
- E. Warranties: Documentation indicated that existing warranties are still in effect after completion of selective demolition.

1.07 CLOSEOUT SUBMITTALS

- A. Inventory: Submit a list of items that have been removed and salvaged.
- B. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept construction and demolition.

1.08 FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. Hazardous materials will be removed by Owner before start of the Work.
 - 2. If suspected hazardous materials are encountered, do not disturb; immediately notify Engineer and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI/ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review record documents of existing construction provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in record documents.
- C. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Engineer.
 - 1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.
- E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

1. Inventory and record the condition of items to be removed and salvaged. Provide photographs or video of conditions that might be misconstrued as damage caused by salvage operations.

3.02 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain all services/systems, and protect them against damage.
 1. Comply with requirements for existing services/systems interruptions specified in Section 011000 "Summary of Work".
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 2. Arrange to shut off indicated utilities with utility companies.

3.03 PREPARATION

- A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Comply with requirements for access and protection specified in Section 015000 "Temporary Facilities and Controls."
- B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied areas.
 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 3. Protect existing construction that is to remain or that is exposed during selective demolition operations.
 4. Cover and protect furniture, furnishings, and equipment that have not been removed.
 5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."
- C. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 1. Strengthen or add new supports when required during progress of selective demolition.

3.04 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials.
 - 4. Maintain adequate ventilation when using cutting torches.
 - 5. Dispose of demolished items and materials promptly.
- B. Removed and Salvaged Items:
 - 1. Clean salvaged items.
 - 2. Pack or crate items after cleaning. Identify contents of containers.
 - 3. Store items in a secure area until delivery to Owner.
 - 4. Transport items to Owner's storage area
 - 5. Protect items from damage during transport and storage.
- C. Removed and Reinstalled Items:
 - 1. Clean and repair items to functional condition adequate for intended reuse.
 - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 - 3. Protect items from damage during transport and storage.
 - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.05 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn demolished
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

3.06 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.07 SELECTIVE DEMOLITION SCHEDULE

- A. Existing Items to Be Removed:
 - 1. Interior framing of benches I and J.
 - 2. All existing lights and drivers.
 - 3. All miscellaneous steel located within benches that is not structural.
- B. Existing Items to Be Removed and Salvaged:
 - 1. Glass panels and stainless steel ribs from benches I and J.
- C. Existing Items to Be Removed and Reinstalled:
 - 1. All Glass panels and stainless steel ribs from benches.
- D. Existing Items to Remain:
 - 1. All items as not indicated above.

END OF SECTION 024119

SECTION 033000

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes, for the following:
 - 1. Concrete Benches.

1.3 DEFINITIONS

- A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash and other pozzolans, ground granulated blast-furnace slag, and silica fume; subject to compliance with requirements.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.
 - 1. Indicate amounts of mixing water to be withheld for later addition at Project site.
- C. Steel Reinforcement Shop Drawings: Placing drawings that detail fabrication, bending, and placement. Include bar sizes, lengths, material, grade, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, splices and laps, mechanical connections, tie spacing, hoop spacing, and supports for concrete reinforcement.
- D. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork.
 - 1. Shoring and Reshoring: Indicate proposed schedule and sequence of stripping formwork, shoring removal, and reshoring installation and removal.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Material Certificates: For each of the following, signed by manufacturers:
 - 1. Cementitious materials.
 - 2. Admixtures.
 - 3. Form materials and form-release agents.
 - 4. Steel reinforcement and accessories.
 - 5. Bonding agents.
 - 6. Adhesives.
- C. Material Test Reports: For the following, from a qualified testing agency, indicating compliance with requirements:
 - 1. Aggregates.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer who employs on Project personnel qualified as ACI-certified Flatwork Technician and Finisher and a supervisor who is an ACI-certified Concrete Flatwork Technician.
- B. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 - 1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- C. Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 for testing indicated.
 - 1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.
 - 2. Personnel performing laboratory tests shall be ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician - Grade I. Testing Agency laboratory supervisor shall be an ACI-certified Concrete Laboratory Testing Technician - Grade II.
- D. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- E. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints.
 - 1. Plywood, metal, or other approved panel materials.
 - 2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:
 - a. High-density overlay, Class 1 or better.
 - b. Medium-density overlay, Class 1 or better; mill-release agent treated and edge sealed.
 - c. Structural 1, B-B or better; mill oiled and edge sealed.
 - d. B-B (Concrete Form), Class 1 or better; mill oiled and edge sealed.
- B. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.
- C. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
 - 1. Formulate form-release agent with rust inhibitor for steel form-facing materials.
- D. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.
 - 1. Furnish units that will leave no corrodible metal closer than 1 inch (25 mm) to the plane of exposed concrete surface.
 - 2. Furnish ties that, when removed, will leave holes no larger than 1 inch (25 mm) in diameter in concrete surface.

2.2 STEEL REINFORCEMENT

- A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 60 percent. Retain first paragraph below for galvanized-steel reinforcement. Retain type of reinforcement from first set of options and zinc coating class from second set. Class I has at least 50 percent more zinc weight than Class II.
- B. Epoxy-Coated Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420) ASTM A 706/A 706M, deformed bars, ASTM A 767/A 767M, epoxy coated with less than 2 percent damaged coating in each 12 inch bar length.
- C. Stainless-Steel Reinforcing Bars: ASTM A 955/A 955M, Grade 60 (Grade 420), Type 304 deformed.

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:

1. Portland Cement: ASTM C 150, Type I/II gray Supplement with the following:
 - a. Fly Ash: ASTM C 618, Class F or C.
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120. Silica fume in first paragraph below is most often used in high-strength concrete and in special applications such as bridge decks to enhance durability by lowering permeability of concrete. ACI 301 identifies silica fume as a cementitious material.
- B. Silica Fume: ASTM C 1240, amorphous silica.
- C. Normal-Weight Aggregates: ASTM C 33, Class 3S or Class 3M coarse aggregate or better, graded. Provide aggregates from a single source with documented service record data of at least 10 years' satisfactory service in similar applications and service conditions using similar aggregates and cementitious materials.
 1. Maximum Coarse-Aggregate Size: 3/4 inch (19 mm) nominal.
 2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
- D. Water: ASTM C 94/C 94M and potable.

2.4 ADMIXTURES

- A. Air-Entraining Admixture: ASTM C 260.
- B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
 2. Retarding Admixture: ASTM C 494/C 494M, Type B.

2.5 REPAIR MATERIALS

- A. Repair Underlayment: Cement-based, polymer-modified, self-leveling product that can be applied in thicknesses from 1/8 inch (3.2 mm) and that can be feathered at edges to match adjacent floor elevations.
 1. Cement Binder: ASTM C 150, portland cement or hydraulic or blended hydraulic cement as defined in ASTM C 219.
 2. Primer: Product of underlayment manufacturer recommended for substrate, conditions, and application.
 3. Aggregate: Well-graded, washed gravel, 1/8 to 1/4 inch (3.2 to 6 mm) or coarse sand as recommended by underlayment manufacturer.
 4. Compressive Strength: Not less than 5000 psi (29 MPa) at 28 days when tested according to ASTM C 109/C 109M.

2.6 CONCRETE MIXTURES, GENERAL

- A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.
 - 1. Use a qualified independent testing agency for preparing and reporting proposed mixture designs based on laboratory trial mixtures.
- B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:
 - 1. Fly Ash: 25 percent.
 - 2. Combined Fly Ash and Pozzolan: 25 percent.
 - 3. Ground Granulated Blast-Furnace Slag: 50 percent.
 - 4. Combined Fly Ash or Pozzolan and Ground Granulated Blast-Furnace Slag: 50 percent portland cement minimum, with fly ash or pozzolan not exceeding 25 percent.
 - 5. Silica Fume: 10 percent.
 - 6. Combined Fly Ash, Pozzolans, and Silica Fume: 35 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
 - 7. Combined Fly Ash or Pozzolans, Ground Granulated Blast-Furnace Slag, and Silica Fume: 50 percent with fly ash or pozzolans not exceeding 25 percent and silica fume not exceeding 10 percent.
- C. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.
- D. Admixtures: Use admixtures according to manufacturer's written instructions.
 - 1. Use water-reducing admixture in concrete, as required, for placement and workability.
 - 2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
 - 3. Use water-reducing admixture in pumped concrete, concrete for heavy-use industrial slabs and parking structure slabs, concrete required to be watertight, and concrete with a water-cementitious materials ratio below 0.50.
 - 4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.
- E. Color Pigment: Add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

2.7 CONCRETE MIXTURES

- A. Proportion normal-weight concrete mixture as follows:
 - 1. Minimum Compressive Strength: 5000 psi (34.5 MPa at 28 days).
 - 2. Maximum Water-Cementitious Materials Ratio: 0.45.
 - 3. Slump Limit: 5 inches (125 mm), plus or minus 1 inch (25 mm).
 - 4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-1/2-inch (38-mm) nominal maximum aggregate size.

2.8 FABRICATING REINFORCEMENT

- A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.9 CONCRETE MIXING

- A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.
 - 1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
- B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix concrete materials in appropriate drum-type batch machine mixer.
 - 1. For mixer capacity of 1 cu. yd. (0.76 cu. m) or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
 - 2. For mixer capacity larger than 1 cu. yd. (0.76 cu. m), increase mixing time by 15 seconds for each additional 1 cu. yd. (0.76 cu. m).
 - 3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixture time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.
- C. Limit concrete surface irregularities, designated by ACI 347 as abrupt or gradual, as follows:
 - 1. Class A, 1/8 inch (3.2 mm) for smooth-formed finished surfaces.
- D. Construct forms tight enough to prevent loss of concrete mortar.
- E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
 - 1. Install keyways, reglets, recesses, and the like, for easy removal.
 - 2. Do not use rust-stained steel form-facing material.
- F. Chamfer exterior corners and edges of permanently exposed concrete.
- G. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items.

- H. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.
- I. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.
- J. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.2 REMOVING AND REUSING FORMS

- A. General: Formwork for sides of beams, walls, columns, and similar parts of the Work that does not support weight of concrete may be removed after cumulatively curing at not 24 hours after placing concrete. Concrete has to be hard enough to not be damaged by form-removal operations and curing and protection operations need to be maintained.
 - 1. Leave formwork for beam soffits, joists, slabs, and other structural elements that supports weight of concrete in place until concrete has achieved at least 70 percent of its required 28-day design compressive strength.
- B. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.
- C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Architect.

3.3 VAPOR RETARDERS

- A. Sheet Vapor Retarders: Place, protect, and repair sheet vapor retarder according to ASTM E 1643 and manufacturer's written instructions.
 - 1. Lap joints 6 inches (150 mm) and seal with manufacturer's recommended tape.
- B. Bituminous Vapor Retarders: Place, protect, and repair bituminous vapor retarder according to manufacturer's written instructions.
- C. Granular Course: Cover vapor retarder with granular fill, moisten, and compact with mechanical equipment to elevation tolerances of plus 0 inch (0 mm) or minus 3/4 inch (19 mm).
 - 1. Place and compact a 1/2-inch- (13-mm-) thick layer of fine-graded granular material over granular fill.

3.4 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that would reduce bond to concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.
- D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.
- E. Epoxy-Coated Reinforcement: Repair cut and damaged epoxy coatings with epoxy repair coating according to ASTM D 3963/D 3963M. Use epoxy coated steel wire ties to fasten epoxy coated steel reinforcement.

3.5 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301.
 - 1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.
- C. Deposit and consolidate concrete for benches in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.
 - 1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
 - 2. Maintain reinforcement in position on chairs during concrete placement.
 - 3. Screed surfaces with a straightedge and strike off to correct elevations.
- D. Cold-Weather Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
 - 1. When average high and low temperature is expected to fall below 40 deg F (4.4 deg C) for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
 - 2. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 - 3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.
- E. Hot-Weather Placement: Comply with ACI 301 and as follows:
 - 1. Maintain concrete temperature below 90 deg F (32 deg C) at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 - 2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

3.6 FINISHING FORMED SURFACES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.
 - 1. Apply to concrete surfaces exposed to public view.
- B. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.7 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures after work of other trades is in place unless otherwise indicated. Mix, place, and cure concrete, as specified, to blend with in-place construction. Provide other miscellaneous concrete filling indicated or required to complete the Work.
- B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

3.8 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Formed Surfaces: Cure formed concrete surfaces. If forms remain during curing period, moist cure after loosening forms. If removing forms before end of curing period, continue curing for the remainder of the curing period.
- D. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces.
- E. Cure concrete according to ACI 308.1, by one or a combination of the following methods:
 - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
 - a. Water.
 - b. Continuous water-fog spray.

- c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch (300-mm) lap over adjacent absorptive covers.
- 2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven (7) days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
 - b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
 - c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer certifies will not interfere with bonding of floor covering used on Project.
- 3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - a. Removal: After curing period has elapsed, remove curing compound without damaging concrete surfaces by method recommended by curing compound manufacturer.
- 4. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

3.9 JOINT FILLING

- A. Prepare, clean, and install joint filler according to manufacturer's written instructions.
 - 1. Defer joint filling until concrete has aged at least one month(s). Do not fill joints until construction traffic has permanently ceased.
- B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joint clean and dry.
- C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches (50 mm) deep in formed joints. Overfill joint and trim joint filler flush with top of joint after hardening.

3.10 CONCRETE SURFACE REPAIRS

- A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

- B. Patching Mortar: Mix dry-pack patching mortar, consisting of one part portland cement to two and one-half parts fine aggregate passing a No. 16 (1.18-mm) sieve, using only enough water for handling and placing.
- C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.
 - 1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch (13 mm) in any dimension to solid concrete. Limit cut depth to 3/4 inch (19 mm). Make edges of cuts perpendicular to concrete surface. Clean, dampen with water, and brush-coat holes and voids with bonding agent. Fill and compact with patching mortar before bonding agent has dried. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.
 - 2. Repair defects on surfaces exposed to view by blending white Portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike off slightly higher than surrounding surface.
 - 3. Repair defects on concealed formed surfaces that affect concrete's durability and structural performance as determined by Architect.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.
 - 1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch (0.25 mm) wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions.
 - 2. After concrete has cured at least 14 days, correct high areas by grinding.
 - 3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.
 - 4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.
 - 5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch (6 mm) to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.
 - 6. Repair defective areas, except random cracks and single holes 1 inch (25 mm) or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least a 3/4-inch (19-mm) clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mixture as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.
 - 7. Repair random cracks and single holes 1 inch (25 mm) or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching

mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.

- E. Perform structural repairs of concrete, subject to Architect's approval, using epoxy adhesive and patching mortar.
- F. Repair materials and installation not specified above may be used, subject to Architect's approval.

3.11 FIELD QUALITY CONTROL

- A. Testing and Inspecting: Contractor will engage a special inspector to perform field tests and inspections and prepare test reports.
- B. Testing and Inspecting: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.
- C. Inspections:
 - 1. Steel reinforcement placement.
 - 2. Steel reinforcement welding.
 - 3. Headed bolts and studs.
 - 4. Verification of use of required design mixture.
 - 5. Concrete placement, including conveying and depositing.
 - 6. Curing procedures and maintenance of curing temperature.
 - 7. Verification of concrete strength before removal of shores and forms from beams and slabs.
- D. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements:
 - 1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd. (4 cu. m), but less than 25 cu. yd. (19 cu. m), plus one set for each additional 50 cu. yd. (38 cu. m) or fraction thereof.
 - 2. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. (76 cu. m) or fraction thereof of each concrete mixture placed each day.
 - a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.
 - 3. Slump: ASTM C 143/C 143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
 - 4. Air Content: ASTM C 231, pressure method, for normal-weight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 - 5. Concrete Temperature: ASTM C 1064/C 1064M; one test hourly when air temperature is 40 deg F (4.4 deg C) and below and when 80 deg F (27 deg C) and above, and one test for each composite sample.
 - 6. Unit Weight: ASTM C 567, fresh unit weight of structural lightweight concrete; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
 - 7. Compression Test Specimens: ASTM C 31/C 31M.

- a. Cast and laboratory cure two sets of two standard cylinder specimens for each composite sample.
 - b. Cast and field cure three sets of two standard cylinder specimens for each composite sample.
8. Compressive-Strength Tests: ASTM C 39/C 39M; test one set of two laboratory-cured specimens at seven (7) days and one set of two specimens at 28 days.
 - a. Test one set of two field-cured specimens at seven (7) days and one set of two specimens at 28 days.
 - b. A compressive-strength test shall be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.
9. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, Contractor shall evaluate operations and provide corrective procedures for protecting and curing in-place concrete.
10. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi (3.4 MPa).
11. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
12. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.
13. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42/C 42M or by other methods as directed by Architect.
14. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
15. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the

END OF SECTION 033000

SECTION 05 50 00

MISCELLANEOUS METALS

PART I - GENERAL

1.1 SUMMARY

A. The work covered by this section consists of furnishing all supervision, labor, materials, testing, and equipment necessary for the completion of the following Work, as hereinafter specified and detailed on the contract drawings.

1. Furnish, transport, and install miscellaneous steel and hardware.
2. Furnish all submittals required by this Section.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC S303	Steel Buildings and Bridges
AISC S335	Structural Steel Buildings, Allowable Stress Design and Plastic Design
AISC S342L	Load and Resistance Factor Design, Specification for Structural Steel Buildings

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI B18.2.1	Square and Hex Bolts and Screws Inch Series
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AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 36	Carbon Structural Steel
ASTM A 47	Ferritic Malleable Iron Castings
ASTM A 48	Gray Iron Castings
ASTM A 53	Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
ASTM A 123	Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A 153	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 276	Standard Specification for Stainless Steel Bars and Shapes
ASTM A 325	Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength
ASTM A 480	Standard Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip
ASTM A 500	Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes
ASTM A 569	Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip Commercial Quality
ASTM A 653	Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM A 687	High-Strength Nonheaded Steel Bolts and Studs
ASTM A 780	Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings

ASTM D 1187	Asphalt-Base Emulsions for Use as Protective Coatings for Metal
ASTM F 593	Standard Specification for Stainless Steel Bolts, Hex cap Screws, and Studs

AMERICAN WELDING SOCIETY, INC. (AWS)

AWS D1.1	Structural Welding Code Steel
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STEEL STRUCTURES PAINTING COUNCIL (SSPC)

SSPC SP 3	Power Tool Cleaning
SSPC SP 6	Commercial Blast Cleaning

1.3 SUBMITTALS

Submit the following in accordance with section entitled "Submittal Procedures."

- A. Refer to and comply with Division 1 – Section “Submittal Procedures”, for procedures and other submittal criteria.
- B. Manufacturer's Catalog and Product Data
 - 1. Each type of structural steel.
 - 2. Each type of connecting hardware.
 - 3. Each type of coating.
- C. Drawings
 - 1. Shop drawings of fabricated parts.
- D. Samples
 - 1. One sample of each fabricated part.

Samples may be installed in the work, provided each sample is clearly identified and its location recorded.

1.4 QUALIFICATION OF WELDERS

Qualify welders in accordance with AWS D1.1. Use procedures, materials, and equipment of the type required for the work.

1.5 DELIVERY, STORAGE, AND PROTECTION

Protect from corrosion, deformation, and other types of damage. Store items in an enclosed area free from contact with soil and weather. Remove and replace damaged items with new items.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Stainless Steel – Conform to ASTM A276 and ASTM A480 type S316 or approved equal, unless

otherwise noted on the Contract Drawings.

B. Fasteners – Conform to ASTM F593, unless otherwise noted on the Contract Drawings

C. Reinforcement:

1. Reinforcing Bars: Comply with ASTM A615/A615M Grade 60. Unless otherwise indicated, bars shall be epoxy coated in conformance with ASTM 775. Splices shall conform to the requirements of ACI 318 and ACI 315.

2.2 FINISHES

C. Shop Cleaning and Painting

1. Surface Preparation

Blast clean surfaces in accordance with SSPC SP 6. Wash cleaned surfaces which become contaminated with rust, dirt, oil, grease, or other contaminants with solvents until thoroughly clean. Steel to be embedded in concrete shall be free of dirt and grease.

2. Pretreatment, Priming and Painting

Apply pretreatment, primer, and paint in accordance with manufacturer's printed instructions.

PART 3 – EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.
- B. Field Welding: Comply with the following requirements:
 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 2. Obtain fusion without undercut or overlap.
 3. Remove welding flux immediately.
 4. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction. Provide threaded fasteners for use with concrete and masonry inserts, toggle bolts, through bolts, lag screws, wood screws, and other connectors

3.2 ADJUSTING AND CLEANING

- A. Immediately after erection, clean field welds, bolted connections, and abraded areas, and provide a finished surface that will match the original surface.

END OF SECTION 055000

SECTION 079200

JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Silicone joint sealants.

1.3 PRECONSTRUCTION TESTING

- A. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:
 - 1. Locate test joints where indicated on Project or, if not indicated, as directed by Engineer.
 - 2. Conduct field tests for each application indicated below:
 - a. Each kind of sealant and joint substrate indicated.
 - 3. Notify Engineer seven days in advance of dates and times when test joints will be erected.
 - 4. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
 - a. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
 - 1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
 - 5. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
 - 6. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.4 ACTION SUBMITTALS

- A. Product Data: For each joint-sealant product indicated.
- B. Joint-Sealant Schedule: Include the following information:
 - 1. Joint-sealant application, joint location, and designation.
 - 2. Joint-sealant manufacturer and product name.
 - 3. Joint-sealant formulation.
 - 4. Joint-sealant color.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified Installer.
- B. Product Certificates: For each kind of joint sealant and accessory, from manufacturer.
- C. Sealant, Waterproofing, and Restoration Institute (SWRI) Validation Certificate: For each sealant specified to be validated by SWRI's Sealant Validation Program.
- D. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, indicating that sealants comply with requirements.
- E. Preconstruction Compatibility and Adhesion Test Reports: From sealant manufacturer, indicating the following:
 - 1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
 - 2. Interpretation of test results and written recommendations for primers and substrate preparation needed for adhesion.
- F. Preconstruction Field-Adhesion Test Reports: Indicate which sealants and joint preparation methods resulted in optimum adhesion to joint substrates based on testing specified in "Preconstruction Testing" Article.
- G. Field-Adhesion Test Reports: For each sealant application tested.
- H. Warranties: Sample of special warranties.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.
- C. Product Testing: Test joint sealants using a qualified testing agency.
 - 1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.

2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.
- D. Mockups: Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

1.7 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
 2. When joint substrates are wet.
 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.8 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period: to match Manufacturer's Warranty.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period: As indicated by Manufacturer, and Standard for approved product.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 3. Mechanical damage caused by individuals, tools, or other outside agents.
 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- C. Colors of Exposed Joint Sealants: Clear, Gray, or White.

2.2 SILICONE JOINT SEALANTS

- A. Single-Component, Non-sag, Neutral-Curing Silicone Joint Sealant: ASTM C 920, Type S, Grade NS, Class 100/50, for Use NT.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Dow Corning Corporation; 790.
 - b. Momentive; SilPruf LM SCS2700.
 - c. May National Associates, Inc.; Bondaflex Sil 728 NS.
 - d. Sika Corporation, Construction Products Division; SikaSil WS-290.
 - e. Or approved Equal.
- B. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.
- C. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- D. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 - 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 - 2. Remove laitance and form-release agents from concrete.
 - 3. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:
 - a. Metal.
 - b. Glass.
 - c. Porcelain enamel.
 - d. Glazed surfaces of ceramic tile.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 - 1. Do not leave gaps between ends of sealant backings.
 - 2. Do not stretch, twist, puncture, or tear sealant backings.
 - 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
- E. Install sealants using proven techniques that comply with the manufacturer's specifications.

- F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 - 1. Remove excess sealant from surfaces adjacent to joints.
 - 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 - 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.

3.4 FIELD QUALITY CONTROL

- A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
 - 1. Extent of Testing: Test completed and cured sealant joints as follows:
 - a. Perform 1 test for each 1000 feet (300 m) of joint length.
 - 2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant Joint Hand Pull Tab, in Appendix X1 in ASTM C 1193 or Method A, Tail Procedure, in ASTM C 1521.
 - a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.
 - 3. Inspect tested joints and report on the following:
 - a. Whether sealants filled joint cavities and are free of voids.
 - b. Whether sealant dimensions and configurations comply with specified requirements.
 - c. Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion passes sealant manufacturer's field-adhesion hand-pull test criteria.
 - 4. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant fill, sealant configuration, and sealant dimensions.
 - 5. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.
- B. Evaluation of Field-Adhesion Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

3.5 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.6 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 130001

DECONSTRUCTION OF GLASS BENCHES A-H

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100
Specification 024119

SUMMARY OF WORK
SELECTIVE DEMOLITION

1.02 SUMMARY

This specification includes the deconstruction of glass benches A-H, the storage of parts after the benches have been deconstructed, and disposal of items to be replaced in the benches

1.03 DESCRIPTION OF WORK

- A. Removal of steel closure ribs: ribs are to be removed from the glass benches, cleaned, and stored to be reinstalled. Ribs are held to the bench framing by spanner fasteners. Closure ribs secure the glass panels into the framing. Ribs should be cleaned of all dust, debris, and existing sealant from initial construction.
- B. Removal of ribbed low expansion soda lime cast glass panels: glass panels are to be removed from the benches, cleaned, and stored to be reinstalled. Glass panels are to be removed carefully so as not to scratch or damage panels. Glass panels are to be cleaned of all dust, debris, and existing sealant from initial construction.
- C. Removal of stainless steel benches: stainless steel bench seats are to be removed from the bench frames, cleaned, and stored to be reinstalled. Stainless steel benches are mechanically fastened to the bench frames.
- D. Removal of kick plates: existing kick plates are to be removed and disposed of by the contractor. Kick plates are not present at all locations.
- E. Removal of electrical equipment: existing electrical equipment (existing light strips, drivers) are to be removed and disposed of by the contractor. Electrical wiring at benches that are to be left for any period of time, shall be capped or electrical current shall be temporarily cut off at these locations so as to prevent harm to members of the public or cause damage to the areas around the benches.
- F. Interior framing and reflecting panels: interior framing and reflective panels are to be cleaned of all dust and debris. Miscellaneous, and unattached stainless steel within the frame of the benches shall be removed and disposed of by the contractor.

1.04 STORAGE OF MATERIALS

- A. Contractor shall coordinate with BPCA for storage areas. For bidding purposes, assume no on-site storage will be provided, and materials removed from benches shall be transported from the job site daily.
- B. If on-site storage is made available to the contractor by BPCA, the Contractor shall only store materials removed from the benches, and equipment approved by BPCA for storage on site. It will be the contractor's responsibility to provide security for the storage area, and ensure materials within the storage area are not damaged or stolen.

1.05 SUBMITTALS

- A. Materials and equipment to be stored on site shall be submitted to BPCA for approval.

PART 2 – PAYMENT

Payment for **Deconstruction of Glass Benches A-H** shall be made on a per linear foot (LF) basis. Each linear foot shall include the top and both side panels of each bench section and all materials within that section of framework. Typical bench sections are 2 feet 6 inches long. Sections adjacent to ends shall include the ends of each bench.

END OF SECTION 130001

SECTION 130002

DECONSTRUCTION OF GLASS BENCHES I and J

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100	SUMMARY OF WORK
Specification 024119	SELECTIVE DEMOLITION

1.02 SUMMARY

This specification includes the deconstruction of glass benches A-H, the storage of parts after the benches have been deconstructed, and disposal of items to be replaced in the benches

1.03 DESCRIPTION OF WORK

- A. Removal of steel closure ribs: ribs are to be removed from the glass benches, cleaned, and stored to be reinstalled or stored at BPCA's offsite storage facility. Ribs are held to the bench framing by spanner fasteners. Closure ribs secure the glass panels into the framing. Ribs should be cleaned of all dust, debris, and existing sealant from initial construction.
- B. Removal of ribbed low expansion soda lime cast glass panels: glass panels are to be removed from the benches, cleaned, and stored to be reinstalled or stored at BPCA's offsite storage facility. Glass panels are to be removed carefully so as not to scratch or damage panels. Glass panels are to be cleaned of all dust, debris, and existing sealant from initial construction.
- C. Removal of kick plates: existing kick plates are to be removed and disposed of by the contractor. Kick plates are not present at all locations.
- D. Removal of electrical equipment: existing electrical equipment (existing light strips, drivers) are to be removed and disposed of by the contractor. Electrical wiring at benches shall be permanently capped.
- E. Interior framing and reflecting panels: interior framing and reflective panels shall be removed and disposed of by the contractor.

1.04 STORAGE OF MATERIALS

- A. Contractor shall coordinate with BPCA for storage areas. For bidding purposes, assume no on-site storage will be provided, and materials removed from benches shall be transported from the job site daily.
- B. If on-site storage is made available to the contractor by BPCA the contractor shall only store materials removed from the benches, and equipment approved by BPCA for storage on site. It will be the contractor's responsibility to provide security for the storage area, and ensure materials within the storage area are not damaged or stolen.

- C. The western most end panel, the western most section of top panels, and the first two western section panels and corresponding stainless steel ribs of Bench J shall be cleaned and prepared/stored to be reinstalled in place of the broken glass panel sections on Bench E.

1.05 SUBMITTALS

- A. Materials and equipment to be stored on site shall be submitted to BPCA for approval.

PART 2 – PAYMENT

Payment for **Deconstruction of Glass Benches I and J** shall be made on a per linear foot (LF) basis. Each linear foot shall include the top and the side panels of each bench section and all materials within that section of framework. Typical bench sections are 2 feet 6 inches long. Sections adjacent to ends shall include the ends of each bench.

END OF SECTION 130002

SECTION 130003

INSTALL NEW LED LIGHT SYSTEM

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100	SUMMARY OF WORK
Specification 055000	MISCELLANEOUS METALS
Specification 265600	EXTERIOR LIGHTING

1.02 SUMMARY

This specification includes the installation of LED light systems at benches A-H. Power sources have previously been directed to the benches.

1.03 DESCRIPTION OF WORK:

- A. Install new LED light strips per manufacturer's recommendations. Installation shall include manufacturer's recommended clips, spaced per manufacturer's instructions, and placed per manufacturer's recommendations. Contractor will provide drivers for each bench which shall be mounted in the existing housing cases.
- B. Install new stainless steel kick plates per the Contract Drawings.

1.04 QUALITY ASSURANCE

- A. Installation procedures of electrical components shall be approved by LED light strip manufacturer, and when the Engineer deems necessary shall be present on site during installation.

1.05 SUBMITTALS

- A. Product Data:
 - 1. Prior to the start of any work, the Contractor shall submit to the Engineer for approval a list of all materials and equipment specified or otherwise required to complete the Work of this Section.
 - 2. Submit manufacturer's technical product data, including specifications and installation instructions, on the jacketing forms to be used, to show compliance with the Contract Documents, including a drawing which shows method of support, spacing and stabilization of formwork.
- B. Shop Drawings, detailing at a minimum locations, dimensions, and installation order of lights, corresponding clips, and drivers.

C. All submittals as required in Specification 055000 – Miscellaneous Metals.

D. All submittals as required in Specification 265600 – Exterior Lighting.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver the specified products in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged or contaminated materials shall be removed from the site immediately, at Contractor's expense.

PART 2 – PRODUCTS

2.01 PRODCUTS

A Products under this section will be subject to the parameters detailed in Specifications 055000 – Miscellaneous Metals and 265600 – Exterior Lighting.

PART 3 – PAYMENT

Payment for **Install New LED Light System** shall be made on a per linear foot (LF) basis, and shall only apply to benches A-H. Assume 4 drivers per bench for bidding purposes.

END OF SECTION 130003

SECTION 130004

RECONSTRUCT GLASS BENCHES A-H

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100	SUMMARY OF WORK
Specification 079200	JOINT SEALANTS
Specification 130001	DECONSTRUCTION OF BENCHES A-H
Specification 130002	DECONSTRUCTION OF BENCHES I AND J

1.02 SUMMARY

This section includes the reconstruction of benches A-H.

1.03 DESCRIPTION OF WORK:

- A. Reinstall all ribbed low expansion soda lime cast glass panels. All glass panels shall be placed in their original position prior to being removed. The broken panels and armature from glass Bench E shall be replaced with materials from Bench J as described in Specification 130002 – Deconstruction of Benches I and J.
- B. Reinstall all stainless steel closure ribs. All closure ribs shall be placed in their original position prior to being removed. The replaced glass panels at Bench E shall have their corresponding closure ribs from Bench J as described in Specification 1300022 – Deconstruction of Benches I and J.
- C. Reinstall stainless steel bench seats in their original positions prior to being removed.
- D. Apply structural sealant to all joints between glass panels, including but not limited to: glass to glass joints; glass to closure rib joints; and glass to kick plate joints.

1.04 SUBMITTALS

- A. Refer to and comply with Division 1 – Section “Submittal Procedures”, for procedures and other submittal criteria.
- B. Product Data: Per Specification 079200 – Joint Sealants.

PART 2 – PAYMENT

Payment for **Reconstruct Glass Benches A-H** shall be on a per linear foot (LF) basis, and each linear foot shall include top and both side panels of each bench section. Typical bench sections are 2 feet 6 inches long. Sections adjacent to ends shall include the ends of each bench.

END OF SECTION 130004

SECTION 130005

REPLACEMENT OF BENCH I

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100	SUMMARY OF WORK
Specification 033000	CAST IN PLACE CONCRETE
Specification 130002	DECONSTRUCTION OF BENCHES I AND J

1.02 SUMMARY

This section includes the replacement of Bench I to match existing stone cladding system.

1.03 DESCRIPTION OF WORK:

- A. Install post-installation anchors and rebar as shown on the Contract Drawings.
- B. Form and pour new concrete in place of the removed glass bench.
- C. Install new cast stone cladding panels to match existing panels of the remaining structure. Panels shall be precast, and shall match existing in color and texture.
- D. Extend green roof system over new construction, to match the existing green roof system.

1.04 QUALITY ASSURANCE

- A. General:
 - 1. Insofar as possible, all materials and equipment used in the installation of this work shall be of the same brand or manufacturer throughout for each class of material and/or equipment.
 - 2. Use numbers of skilled workers equal to work requirement or occasion. The skilled workers shall be thoroughly trained and experienced in the necessary crafts and shall be completely familiar with the specified requirements and methods needed for proper performance of the Work in this Section.
- B. Installer's Qualifications: A firm with at least five years of successful installation experience on projects with work of installing pile protection systems similar to that required for this Work.

1.05 SUBMITTALS

- A. Refer to and comply with Division 1 – Section “Submittal Procedures”, for procedures and other submittal criteria.

B. Product Data:

1. Prior to the start of any work, the Contractor shall submit to the Engineer for approval a list of all materials and equipment specified or otherwise required to complete the Work of this Section.
2. Submit manufacturer's technical product data, including specifications and installation instructions, on the jacketing forms to be used, to show compliance with the Contract Documents, including a drawing which shows method of support, spacing and stabilization of formwork.

C. Shop Drawings, detailing at a minimum location of rebar, and stone cladding.

D. Provide samples of the stone cladding for the engineer's and owner's approval. Cladding shall be an exact match, if possible by the same manufacturer of the original stone cladding.

E. Additional submittals as detailed in Specification 033000 – Cast In Place Concrete.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver the specified products in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged or contaminated materials shall be removed from the site immediately, at Contractor's expense.

PART 4 – EXECUTION

Payment for **Replacement of Bench I** shall be done on an each (EA) basis. Payment will be provided upon completion of the Bench I replacement.

END OF SECTION 130005

SECTION 130006

REPLACEMENT OF BENCH J

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

Specification 011100	SUMMARY OF WORK
Specification 033000	CAST IN PLACE CONCRETE
Specification 130002	DECONSTRUCTION OF BENCHES I AND J

1.02 SUMMARY

This section includes the replacement of Bench J with a cast in place concrete bench.

1.03 DESCRIPTION OF WORK:

- A. Install post-installation anchors and rebar as shown on the Contract Drawings.
- B. Form and pour new concrete in place of the removed glass bench as shown on the Contract Drawings.

1.04 QUALITY ASSURANCE

- A. General:
 - 1. Insofar as possible, all materials and equipment used in the installation of this work shall be of the same brand or manufacturer throughout for each class of material and/or equipment.
 - 2. Use numbers of skilled workers equal to work requirement or occasion. The skilled workers shall be thoroughly trained and experienced in the necessary crafts and shall be completely familiar with the specified requirements and methods needed for proper performance of the Work in this Section.
- B. Installer's Qualifications: A firm with at least five years of successful installation experience on projects with work of installing pile protection systems similar to that required for this Work.

1.05 SUBMITTALS

- A. Refer to and comply with Division 1 – Section "Submittal Procedures", for procedures and other submittal criteria.
- B. Product Data:
 - 1. Prior to the start of any work, the Contractor shall submit to the Engineer for approval a list of all materials and equipment specified or otherwise required to complete the Work of this Section.

2. Submit manufacturer's technical product data, including specifications and installation instructions, on the jacketing forms to be used, to show compliance with the Contract Documents, including a drawing which shows method of support, spacing and stabilization of formwork.

C. Additional submittals as detailed in Specification 033000 – Cast In Place Concrete.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver the specified products in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged or contaminated materials shall be removed from the site immediately, at Contractor's expense.

PART 4 – EXECUTION

Payment for **Replacement of Bench J** shall be done on an each (EA) basis. Payment will be provided upon completion of the Bench J replacement.

END OF SECTION 130006

SECTION 265600
EXTERIOR LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Exterior luminaires with drivers.

1.3 DEFINITIONS

- A. CCT: Correlated color temperature.
- B. CRI: Color-rendering index.
- C. HID: High-intensity discharge.
- D. LER: Luminaire efficacy rating.
- E. LED: Light-emitting diode.
- F. Luminaire: Complete lighting fixture, including driver housing if provided.
- G. Pole: Luminaire support structure, including tower used for large area illumination.
- H. Standard: Same definition as "Pole" above.

1.4 ACTION SUBMITTALS

- A. Product Data: For each luminaire and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
 - 1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
 - 2. Details of attaching luminaires and accessories.
 - 3. Details of installation and construction.
 - 4. Luminaire materials.
 - 5. Drivers, including energy-efficiency data.
 - 6. Lamps, including life, output, CCT, CRI, lumens, and energy-efficiency data.

7. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
8. Anchor bolts for attachment accessories.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection. Retain subparagraph below if equipment includes wiring.
2. Wiring Diagrams: For power, signal, and control wiring.

C. Samples: For products designated for sample submission in the Exterior Lighting Device Schedule. Each Sample shall include lamps and ballasts.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified agencies providing photometric data for lighting fixtures.
- B. Field quality-control reports.
- C. Warranty: Sample of special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For luminaires to include in emergency, operation, and maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Lamps: 100 linear feet of LED fixtures installed. Furnish at least one of each type.
 2. Plastic Lenses, Covers, and Other Optical Parts: 100 linear feet of each type and rating installed. Furnish at least one of each type.
 3. Drivers: 50 linear feet of each type and rating installed. Furnish at least one of each type.

1.8 QUALITY ASSURANCE

- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with IEEE C2, "National Electrical Safety Code."
- D. Comply with NFPA 70.

1.9 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, improper installation or unauthorized repairs or alterations from special warranty coverage.
 - 1. Warranty Period for Luminaires: Three years from date of Substantial Completion.
 - 2. Warranty Period for Metal Corrosion: Five years from date of Substantial Completion.
 - 3. Warranty Period for Color Retention: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Products: Subject to compliance with requirements, provide iLight-Tech Plexineon White 1X or approved equal.

2.2 GENERAL REQUIREMENTS FOR LUMINAIRES

- A. Metal Parts: Free of burrs and sharp corners and edges.
- B. Housings: Rigidly formed, weather- and light-tight enclosures that will not warp, sag, or deform in use. Provide filter/breather for enclosed luminaires.
- C. Exposed Hardware Material: Stainless steel.
- D. Plastic Parts: High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
- E. Reflecting surfaces shall have minimum reflectance as follows unless otherwise indicated:
 - 1. White Surfaces: 85 percent.
 - 2. Specular Surfaces: 83 percent.
 - 3. Diffusing Specular Surfaces: 75 percent.
- F. Factory-Applied Labels: Comply with UL 1598. Include recommended lamps and drivers. Labels shall be located where they will be readily visible to service personnel, but not seen from normal viewing angles when lamps are in place.

PART 3 - EXECUTION

3.1 LUMINAIRE INSTALLATION

- A. Install LED lights in each luminaire per manufacturer's recommendations.
- B. Fasten luminaire to stainless steel bent plate or concrete block.

- C. Adjust luminaires that require field adjustment or aiming. Align units for optimum directional alignment of light distribution.

3.2 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.
 - 1. Verify operation of photoelectric controls.
- C. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.
- D. Employ a manufacturer representative to ensure proper installation of luminaires.

3.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain luminaires.

END OF SECTION 265600

Public Art Restoration

SECTION 01 35 16

ALTERATION PROJECT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Section includes special procedures for alteration work.

1.3 DEFINITIONS

- A. Alteration Work: This term includes remodeling, renovation, repair, and maintenance work performed within existing spaces or on existing surfaces as part of the Project.
- B. Consolidate: To strengthen loose or deteriorated materials in place.
- C. Design Reference Sample: A sample that represents the Engineer's Prebid selection of work to be matched; it may be existing work or work specially produced for the Project.
- D. Dismantle: To remove by disassembling or detaching an item from a surface, using gentle methods and equipment to prevent damage to the item and surfaces; disposing of items unless indicated to be salvaged or reinstalled.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by Engineer.
- F. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.
- G. Repair: To correct damage and defects, retaining existing materials, features, and finishes. This includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- H. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- I. Replicate: To reproduce in exact detail, materials, and finish unless otherwise indicated.
- J. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.
- K. Retain: To keep existing items that are not to be removed or dismantled.
- L. Strip: To remove existing finish down to base material unless otherwise indicated.

1.4 COORDINATION

- A. Alteration Work Sub-schedule: A construction schedule coordinating the sequencing and scheduling of alteration work for entire Project, including each activity to be performed, and based on Contractor's Construction Schedule. Secure time commitments for performing critical construction activities from separate entities responsible for alteration work.
 - 1. Schedule construction operations in sequence required to obtain best Work results.
 - 2. Coordinate sequence of alteration work activities to accommodate the following:
 - a. Owner's continuing occupancy of portions of existing building.
 - b. Owner's partial occupancy of completed Work.
 - c. Other known work in progress.
 - d. Tests and inspections.
 - 3. Detail sequence of alteration work, with start and end dates.
 - 4. Utility Services: Indicate how long utility services will be interrupted. Coordinate shutoff, capping, and continuation of utility services.
 - 5. Equipment Data: List gross loaded weight, axle-load distribution, and wheel-base dimension data for mobile and heavy equipment proposed for use in existing structure. Do not use such equipment without certification from Contractor's professional engineer that the structure can support the imposed loadings without damage.
- B. Pedestrian and Vehicular Circulation: Coordinate alteration work with circulation patterns within Project building(s) and site. Some work is near circulation patterns. Circulation patterns cannot be closed off entirely and in places can be only temporarily redirected around small areas of work. Plan and execute the Work accordingly.

1.5 PROJECT MEETINGS FOR ALTERATION WORK

- A. Preliminary Conference for Alteration Work: Before starting alteration work, McLaren will host a conference at Project site.
 - 1. Attendees: In addition to representatives of Owner, Contractor, testing service representative, and specialists shall be represented at the meeting.
 - 2. Agenda: Discuss items of significance that could affect progress of alteration work, including review of the following:
 - a. Alteration Work Subschedule: Discuss and finalize; verify availability of materials, specialists' personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Fire-prevention plan.
 - c. Governing regulations.
 - d. Areas where existing construction is to remain and the required protection.
 - e. Hauling routes.
 - f. Sequence of alteration work operations.
 - g. Storage, protection, and accounting for salvaged and specially fabricated items.
 - h. Existing conditions, staging, and structural loading limitations of areas where materials are stored.
 - i. Qualifications of personnel assigned to alteration work and assigned duties.
 - j. Requirements for extent and quality of work, tolerances, and required clearances.

- k. Embedded work such as flashings and lintels, special details, collection of waste, protection of occupants and the public, and condition of other construction that affects the Work or will affect the work.
- 3. Reporting: McLaren will record conference results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from conference.

1.6 MATERIALS OWNERSHIP

- A. Historic items, relics, sculptures, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered or uncovered during the Work, regardless of whether they were previously documented, remain Owner's property.
 - 1. Carefully dismantle and salvage each item or object in a manner to prevent damage and protect it from damage, then promptly deliver it to Owner where directed at Project site.

1.7 INFORMATIONAL SUBMITTALS

- A. Alteration Work Subschedule:
 - 1. Submit alteration work subschedule within seven days of date established for commencement of alteration work.
- B. Preconstruction Documentation: Show preexisting conditions of adjoining construction and site improvements that are to remain, including finish surfaces, that might be misconstrued as damage caused by Contractor's alteration work operations.
- C. Alteration Work Program: Submit five days before work begins.
- D. Fire-Prevention Plan: Submit five days before work begins.

1.8 QUALITY ASSURANCE

- A. Field Supervisor Qualifications: Full-time supervisors experienced in specialty work similar in nature, material, design, and extent to that indicated for this Project. Supervisors shall be on-site when specialty work begins and during its progress. Supervisors shall not be changed during Project except for causes beyond the control of the specialist firm.
- B. Alteration Work Program: Prepare a written plan for alteration work for whole Project, including each phase or process and protection of surrounding materials during operations. Show compliance with indicated methods and procedures specified in this and other Sections. Coordinate this whole-Project alteration work program with specific requirements of programs required in other alteration work Sections.
 - 1. Dust and Noise Control: Include locations of proposed temporary dust- and noise-control partitions and means of egress from occupied areas coordinated with continuing on-site operations and other known work in progress.

2. Debris Hauling: Include plans clearly marked to show debris hauling routes, turning radii, and locations and details of temporary protective barriers.
- C. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-control devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements. Include fire-watch personnel's training, duties, and authority to enforce fire safety.
- D. Safety and Health Standard: Comply with ANSI/ASSE A10.6 and any relevant OSHA guidelines.

1.9 STORAGE AND HANDLING OF SALVAGED MATERIALS

- A. Salvaged Materials:
 1. Clean loose dirt and debris from salvaged items unless more extensive cleaning is indicated.
 2. Pack or crate items after cleaning; cushion against damage during handling. Label contents of containers.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's designated storage area.
 5. Protect items from damage during transport and storage.
- B. Salvaged Materials for Reinstallation:
 1. Repair and clean items for reuse as indicated.
 2. Protect items from damage during transport and storage.
 3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make items functional for use indicated.
- C. Existing Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Owner, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after alteration and other construction work in the vicinity is complete.
- D. Storage: Catalog and store items where they are protected
 1. Secure stored materials to protect from theft.

1.10 FIELD CONDITIONS

- A. Survey of Existing Conditions: Record existing conditions that affect the Work by use of preconstruction photographs and drawings.
- B. Discrepancies: Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with removal and dismantling work.
- C. Size Limitations in Existing Spaces: Materials, products, and equipment used for performing the Work and for transporting debris, materials, and products shall be of sizes that clear surfaces within existing spaces, including temporary protection.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION

- A. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from alteration work.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where alteration work is being performed.
 - 3. Erect temporary barriers to form and maintain fire-egress routes.
 - 4. Erect temporary protective covers over walkways and at points of pedestrian and vehicular entrance and exit that must remain in service during alteration work.
 - 5. Contain dust and debris generated by alteration work, and prevent it from reaching the public or adjacent surfaces.
 - 6. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.
 - 7. Protect floors and other surfaces along hauling routes from damage, wear, and staining.
 - 8. Provide supplemental sound-control treatment to isolate demolition work from other areas of the building.
- B. Temporary Protection of Materials to Remain:
 - 1. Protect existing materials with temporary protections and construction. Do not remove existing materials unless otherwise indicated.
 - 2. Do not attach temporary protection to existing surfaces except as indicated as part of the alteration work program.
- C. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.
- D. Utility and Communications Services:
 - 1. Notify Owner, Engineer, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by alteration work before commencing operations.
 - 2. Disconnect and cap pipes and services as required by authorities having jurisdiction, as required for alteration work.
 - 3. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.

3.2 PROTECTION FROM FIRE

- A. General: Follow fire-prevention plan and the following:
 - 1. Comply with NFPA 241 requirements unless otherwise indicated.

2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.
 - a. If combustible material cannot be removed, provide fire blankets to cover such materials.
- B. Heat-Generating Equipment and Combustible Materials: Comply with the following procedures while performing work with heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are anticipated:
 1. Obtain Owner's approval for operations involving use of welding or other high-heat equipment. Notify Owner at least 24 hours before each occurrence, indicating location of such work.
 2. As far as practicable, restrict heat-generating equipment to shop areas or outside the building.
 3. Do not perform work with heat-generating equipment in or near rooms or in areas where flammable liquids or explosive vapors are present or thought to be present. Use a combustible gas indicator test to ensure that the area is safe.
 4. Use fireproof baffles to prevent flames, sparks, hot gases, or other high-temperature material from reaching surrounding combustible material.
 5. Prevent the spread of sparks and particles of hot metal through open windows, doors, holes, and cracks in floors, walls, ceilings, roofs, and other openings.
 6. Fire Watch: Before working with heat-generating equipment or combustible materials, station personnel to serve as a fire watch at each location where such work is performed. Fire-watch personnel shall have the authority to enforce fire safety. Station fire watch according to NFPA 51B, NFPA 241, and as follows:
 - a. Train each fire watch in the proper operation of fire-control equipment and alarms.
 - b. Prohibit fire-watch personnel from other work that would be a distraction from fire-watch duties.
 - c. Cease work with heat-generating equipment whenever fire-watch personnel are not present.
 - d. Have fire-watch personnel perform final fire-safety inspection each day beginning no sooner than 20 minutes after conclusion of relevant work to detect hidden or smoldering fires and to ensure that proper fire prevention is maintained.
- C. Fire-Control Devices: Provide and maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire-watch personnel are trained in fire-extinguisher and blanket use.

3.3 GENERAL ALTERATION WORK

- A. Have specialty work performed only by qualified specialists.
- B. Ensure that supervisory personnel are present when work begins and during its progress.
- C. Notify Engineer of visible changes in the integrity of material or components whether from environmental causes including biological attack, UV degradation, freezing, or thawing or from structural defects including cracks, movement, or distortion.

1. Do not proceed with the work in question until directed by Engineer.

END OF SECTION 013516

SECTION 02 41 19

SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 1. Demolition and removal of selected portions of structure.
 2. Salvage of existing items to be reused.

1.3 DEFINITIONS

- A. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.

1.4 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at Project site
 1. Inspect and discuss condition of construction to be selectively demolished.
 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.
 3. Review requirements of work performed by other trades that rely on substrates exposed by selective demolition operations.
 4. Review areas where existing construction is to remain and requires protection.

1.5 SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection, and for dust control. Indicate proposed locations and construction of barriers.
- B. Schedule of Selective Demolition Activities: Indicate the following:
 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 3. Coordination for shutoff, capping, and continuation of utility services.
- C. Predemolition Photographs: Show existing conditions of adjoining construction, including finish surfaces that might be misconstrued as damage caused by demolition operations.

- D. Inventory: Submit a list of items that have been removed and salvaged.

1.6 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- B. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Storage or sale of removed items or materials on-site is not permitted.
- D. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.
- B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.
- C. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs.
 - 1. Inventory and record the condition of items to be removed and salvaged. Provide photographs of conditions that might be misconstrued as damage caused by salvage operations.
 - 2. Before selective demolition or removal of existing building elements that will be reproduced or duplicated in final Work, make permanent record of measurements, materials, and construction details required to make exact reproduction.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
 - 1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of the park.
 - 2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
 - 3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
 - 4. Cover and protect furnishings, and equipment that have not been removed.
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
 - 1. Strengthen or add new supports when required during progress of selective demolition.
- C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
 - 2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 5. Maintain fire watch during and for at least 20 minutes after flame-cutting operations.
 - 6. Maintain adequate ventilation when using cutting torches.
 - 7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
 - 8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
 - 9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.

10. Dispose of demolished items and materials promptly.

- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Reinstalled Items:
 - 1. Clean and repair items to functional condition adequate for intended reuse.
 - 2. Protect items from damage during transport and storage.
 - 3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition.

3.5 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 024119

SECTION 05 01 70.61

DECORATIVE METAL REPAIR

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Section includes decorative metal repairs as follows:
 - 1. Removing metal for shop repair and replacement of components; reinstalling repaired metal.
- B. Related Requirements:
 - 1. Section 013516 "Alteration Project Procedures" for general remodeling, renovation, repair, and maintenance requirements.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at the Project Site.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include recommendations for product application and use.
 - 2. Include test data substantiating that products comply with requirements.
- B. Shop Drawings:
 - 1. Include plans, elevations, and sections showing locations and extent of repair and replacement work, with enlarged details of replacement parts indicating materials, profiles, methods of attachment, accessory items, and finishes.
 - 2. Include field-verified dimensions and the following:
 - a. Identification of each new metal item and component and its location on the structure in annotated plans and elevations.
 - b. Provisions for expansion, weep holes, and conduits as required for each location and exposure.

1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For record.

1.6 QUALITY ASSURANCE

- A. Decorative Metal Repair Specialist Qualifications: A qualified decorative metal fabrication and repair specialist. Experience installing and finishing new decorative metalwork is insufficient experience for repairing decorative metal.
 - 1. Single Specialist: Subject to compliance with requirements, engage the same specialist firm to perform the work of Section 050170.51 "Decorative Metal Cleaning" Section 050170.63 "Decorative Metal Refinishing" and the work of this Section.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Pack, deliver, and store decorative metal items to ensure that products are not deformed, cracked, or otherwise damaged.

1.8 FIELD CONDITIONS

- A. Weather Limitations: Proceed with decorative metal repairs only when existing and forecasted weather conditions are within the environmental limits set by each manufacturer's written instructions and specified requirements.

PART 2 - PRODUCTS

2.1 METAL MATERIALS

- A. General: Provide decorative metal materials made of the alloys, forms, and types that match existing metals and have the ability to receive finishes matching existing finishes unless otherwise indicated. Exposed-to-view surfaces exhibiting imperfections inconsistent with existing materials are unacceptable.

2.2 MISCELLANEOUS MATERIALS

- A. Welding Electrodes and Filler Metal: Select according to AWS specifications for metal alloy welded; use metal type and alloy as recommended in writing by producer of metal to be welded or filled and as required for color match, strength, and compatibility in fabricated items.
- B. Other Products: Select materials and methods of use based on the following, subject to approval of a mockup:
 - 1. Previous effectiveness in performing the work involved.
 - 2. Little possibility of damaging exposed surfaces.
 - 3. Consistency of each application.
 - 4. Uniformity of the resulting overall appearance.

5. Do not use products or tools that could do the following:
 - a. Remove, alter, or in any way harm the present or future condition of existing surfaces, including surrounding surfaces not in the Contract.
 - b. Leave an unintended residue on surfaces.

2.3 METAL FABRICATION

- A. Fabricate repairs of decorative metal items and components in sizes and profiles to match existing decorative metal, with accurate curves, lines, and angles. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
- B. Provide uniform, neat seams with minimum exposure of welds, brazing, solder, and sealant.
- C. Comply with AWS for recommended practices in welding and brazing. Provide welds and brazes behind finished surfaces without distorting or discoloring exposed side. Clean exposed welded and brazed joints of flux, and dress exposed and contact surfaces.
 1. Use materials and methods that match color of base metal, minimize distortion, and develop maximum strength and corrosion resistance.
 2. Remove flux immediately.
 3. At exposed connections, match contours of adjoining surfaces, and finish exposed surfaces smooth and blended so no roughness shows after finishing.

2.4 FINISHES, GENERAL

- A. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.5 STAINLESS-STEEL FINISHES

- A. Surface Preparation: Remove tool and die marks and stretch lines from new replacement stainless steel, or blend into finish.

PART 3 - EXECUTION

3.1 PROTECTION

- A. Comply with each manufacturer's written instructions for protecting building and other surfaces against damage from exposure to its products. Prevent chemical solutions from coming into contact with people, motor vehicles, landscaping, buildings, and other surfaces that could be harmed by such contact.
 1. Cover adjacent surfaces with materials that are proved to resist chemical solutions being used unless products being used will not damage adjacent surfaces. Use protective materials that are waterproof and UV resistant. Apply masking agents to comply with manufacturer's

- written instructions. Do not apply liquid masking agent to painted or porous surfaces. When no longer needed, promptly remove masking to prevent adhesive staining.
- 2. Do not apply chemical solutions during winds of enough force to spread them to unprotected surfaces.
- 3. Neutralize alkaline and acid wastes before disposal.
- 4. Dispose of runoff from operations by legal means and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.

3.2 DECORATIVE METAL REPAIR, GENERAL

- A. Repair Appearance Standard: Repaired surfaces are to have a uniform appearance as viewed from 40 feet away by Engineer and/or Owner.
- B. Execution of the Work: In repairing items, disturb remaining existing work as minimally as possible and as follows:
 - 1. Stabilize decorative metal to reestablish structural integrity and weather resistance while maintaining the existing form of each item.
 - 2. Remove deteriorated coatings and corrosion.
 - 3. Sequence work to minimize time before protective coatings are reapplied.
 - 4. Repair items where stabilization is insufficient to stop progress of deterioration.
 - 5. Repair items in place where possible.
 - 6. Replace or reproduce items where indicated or scheduled.
 - 7. Install temporary protective measures to stabilize decorative metal that is indicated to be repaired later.
- C. Mechanical Coating Removal: Use gentle methods, such as scraping and wire brushing, that will not abrade metal substrate.
- D. Repair Decorative Metal Item: Match existing materials and features.

3.3 PREPARATORY CLEANING

- A. General: Use those methods indicated for each type of decorative metal and its location.
 - 1. Brushes: If using wire brushes, use brushes of same base metal composition as metal being cleaned. Use brushes that are resistant to chemicals being used.
 - 2. Uniformity: Perform each cleaning method in a manner that results in uniform coverage of all surfaces, including corners, contours, and interstices, and that produces an even effect without streaks or damaging surfaces.
 - 3. Protection: After cleaning is complete, remove protection no longer required. Remove tape and adhesive marks.
- B. Mechanical Rust Removal:
 - 1. Remove rust with approved abrasives for ferrous metal cleaning.
 - 2. Wipe off residue with mineral spirits and either steel wool or soft rags.
 - 3. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
 - 4. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.

3.4 REMOVAL, REPAIR, AND REINSTALLATION

- A. General: Perform removal work as required in Section 024119 "Selective Demolition" for specific requirements relating to selectively demolishing construction, including decorative metal removal for repair or reinstallation elsewhere.

END OF SECTION 050170.61

SECTION 13 00 03

INSTALL NEW LED LIGHT SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. Specification 265600 EXTERIOR LIGHTING

1.2 SUMMARY

- A. This specification includes the installation of LED light systems within the pylons located at Belvedere Park. Power sources have previously been directed to the pylons.

1.3 DESCRIPTION OF WORK

- A. Install new LED light fixtures per manufacturer's recommendations. Installation shall include all manufacturer's recommendations. Contractor will provide drivers for each bench which shall be mounted in the existing housing cases. Revise "Alteration Work" Paragraph below to clarify the type(s) of work covered by this Section.
- B. Install new stainless-steel hardware and other components per the Contract Drawings.

1.4 QUALITY ASSURANCE

- A. Installation procedures of electrical components shall be approved by LED light fixture manufacturer, and when the Engineer deems necessary shall be present on site during installation.

1.5 SUBMITTALS

- A. Product Data:
 - 1. Prior to the start of any work, the Contractor shall submit to the Engineer for approval a list of all materials and equipment specified or otherwise required to complete the Work of this Section.
 - 2. Submit manufacturer's technical product data, including specifications and installation instructions, on the jacketing forms to be used, to show compliance with the Contract Documents.
- B. Shop Drawings, detailing at a minimum locations, dimensions, and installation order of lights and the installed 12/3 SJ Cable.
- C. All submittals as required in Specification 265600 – Exterior Lighting.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver the specified products in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged or contaminated materials shall be removed from the site immediately, at Contractor's expense.

PART 2 - PRODUCTS

2.1 PRODUCTS

- A. Products under this section will be subject to the parameters detailed in Specification 265600 – Exterior Lighting.

PART 3 - PAYMENT

- A. Payment for **Installation of New LED Light Fixtures** shall be made on a per fixture (EA) basis. Please refer to the Scope of Work and Specification 265600 – Exterior Lighting.

END OF SECTION 130003

SECTION 26 05 45

BATTERY PARK CITY NORTH COVE LINK
LIGHTING UPGRADE FOR OPEN & CLOSED PYLONS**1.1 PROJECT DESCRIPTION:**

Existing Pylon lighting and associated wiring was damaged due to Hurricane Sandy. The following represents procedure and replacement for upgrade/repair.

1.2 INITIAL INVESTIGATION/OBSERVATIONS:

At the base of each pylon [one "open" style, north bound & one "closed" style, south bound] exists a recessed stainless-steel junction box measuring 17 ¼" wide x 17 ¼" high x 11 ½" deep. Each junction box is fed via a 2" RGS conduit with five, 2/0 AWG conductors, three phases, neutral and ground. The feeder conduit and associated junction boxes were traced to the electric closet which houses an ASCO contractor triggered by a photo eye for controlling the lighting. The adjacent in the ground junction boxes which are tapped to feed the pylons were opened and inspected. Wire insulation and splice kits appeared in good condition. Power was applied and conductors were tested for voltage. Although no circuits tripped, it should be noted that wiring for existing walkway lighting adjacent to pylons was replaced after hurricane Sandy. Pylon feeders were not.

2.1 OPEN PYLON (NORTH TOWER)

The open pylon consists of six fixtures. One fixtures at each segmented level. Three 1000W and three 500W incandescent PAR 64 mogul base. There are no ballasts. [The lower three are 1000W, one per level, and upper three are 500W, one per level] the fixtures are housed in a circular housing 10" in diameter and 14" deep secured by four 10 x 32 x 1" hex head screws. Each fixture is fed via 12/3 SJ cord with one gang weatherproof box connected to the fixture. The junction box at the base of the pylon has wiring fed via one 5" conduit with 12/3 SJ cord. The total number of circuits are five with in line fuse holders and one circuits appears to run straight thru without a fuse. [Since the lower level has already been replaced this contract requires upgrade of five fixtures]

2.2 OPEN PYLON REPLACEMENT PROCEDURE:

1. The existing fixtures are to be removed and retro fitted with Global Tech LED 135 Watt Screw in Yoke LED Retrofit Kit, Catalog No. GTR-AR-5498-HO-SV-BR-NL=SOLY-MGL. 135 Watt LED, Rated Lumens 13,164, Input Voltage, 120-277 Volt, -40 Degree C to 55 Degree Nominal, L70 150,000 Hours. Warranty on Driver is 5 Years, Light Engine 10 Years. Product is manufactured in the USA and is UL Approved.
2. All existing circuit wiring is to be replaced with new 12/3 SJ.
3. In line fuse holders are to be replaced with new AGC Waterproof Fuse Holder-18-12 Gauge part number #79005 including identification of circuit / fixture. [add additional fuse protection for the one circuit not currently fused]
4. All hardware is to be replaced with stainless steel.
5. Splicing of all circuit wiring utilize ideal underground wire connectors or approved equal.

6. Replace existing frosted lenses with new.
7. Install Burndy Power Block Distribution Cat No. BDCSCHC 142/01 or equal at base mounted junction box. Use Penetrox or similar protection compound on all Terminations.
8. Install new stainless steel tamperproof mounting hardware for base junction box cover.

2.3 NOTE:

There is an access issue with the upper elevations of the open pylon. The spacing of the stainless steel stranding gets smaller making accessibility difficult for installing a new fixture installation and for maintenance. Suggestion is to cut and weld hinges onto stranding to allow for "door" access. APPROVAL REQUIRED PRIOR TO STARTING WORK.

3.1 CLOSED PYLON (SOUTH TOWER)

There is a total of forty-eight metal halide 70W fixtures powered by high intensity diffusion core and coil ballast. They are housed in a square opening 13" x 13" x 20 1/2" deep. There is a grill above the fixture with bird needle strips and a 9" in diameter opening for the fixture lens. These fixtures are fed via 12/3 #12 SJ cord which daisy chains from one fixture to the next. The fixtures are mounted via a cross bar spanning the driver compartment secured by two 9/16" x 1 1/2" hex head bolts. Each phase feeding the lights serves two circuits utilizing in line fuses. A total of six circuits for 48 lights equal eight lights per circuit. The junction box at the base of the pylon, wiring is run thru six 3/4" conduits extending up thru pylon; two conduits have 3 conductor SJ cord, two conduits have 5 Individual #12 conductors and two conduits are empty.

3.2 CLOSED PYLON REPLACEMENT PROCEDURE:

1. The existing fixtures are to be removed and retro fitted with RAB compact 5 watt LED Floodlight Catalog No. LFLED5NA [Neutral Light 4000k] and Accessory Reflector Kit Catalog Number RAB-LNSLFLED8A Narrow Spot kit.
2. Existing drivers, ballast and wiring to be removed and properly disposed of.
3. Splicing of all Circuit wiring utilize ideal underground wire connectors or approved equal.
4. All hardware is to be replaced with stainless steel.
5. Install Burndy Power Block Distribution Cat no. BDCSCHC142/010 or equal at base mounted junction box. Use Penetrox or similar protection compound on all terminations.
6. Install new stainless steel tamperproof mounting hardware for base junction box cover.
7. In line fuse holders are to be replaced with new AGC waterproof Fuse Holder 18-12 Gauge Part Number #79005 including identification of circuit /fixture.

SECTION 26 56 00

EXTERIOR LIGHTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Exterior Light Fixture Systems for both the Open and Closed Pylon at Belvedere Park.

1.3 ACTION SUBMITTALS

- A. Product Data: For each fixture and support component, arranged in order of lighting unit designation. Include data on features, accessories, finishes, and the following:
 - 1. Physical description of luminaire, including materials, dimensions, effective projected area, and verification of indicated parameters.
 - 2. Details of attaching luminaires and accessories.
 - 3. Details of installation and construction.
 - 4. Luminaire materials.
 - 5. Drivers, including energy-efficiency data.
 - 6. Lamps, including life, output, CCT, CRI, lumens, and energy-efficiency data.
 - 7. Means of attaching luminaires to supports, and indication that attachment is suitable for components involved.
 - 8. Anchor bolts for attachment accessories.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
 - 1. Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection. Retain subparagraph below if equipment includes wiring.
 - 2. Wiring Diagrams: For power, signal, and control wiring.
- C. Samples: For products designated for sample submission in the Exterior Lighting Device Schedule.

1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For qualified agencies providing photometric data for lighting fixtures.
- B. Field quality-control reports.
- C. Warranty: Sample of special warranty.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For luminaires to include in emergency, operation, and maintenance manuals.

1.6 QUALITY ASSURANCE

- A. Luminaire Photometric Data Testing Laboratory Qualifications: Provided by manufacturers' laboratories that are accredited under the National Volunteer Laboratory Accreditation Program for Energy Efficient Lighting Products.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- C. Comply with IEEE C2, "National Electrical Safety Code."
- D. Comply with NFPA 70.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace products that fail in materials or workmanship; that corrode; or that fade, stain, perforate, erode, or chalk due to effects of weather or solar radiation within specified warranty period. Manufacturer may exclude lightning damage, hail damage, vandalism, abuse, improper installation or unauthorized repairs or alterations from special warranty coverage.
 - 1. Warranty Period for Luminaires: Three years from date of Substantial Completion.
 - 2. Warranty Period for Metal Corrosion: Five years from date of Substantial Completion.
 - 3. Warranty Period for Color Retention: Three years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 Manufacturers

- A. Products:
 - 1. Open Pylon
 - a. Global Tech LED 135-Watt Screw in LED Retrofit Kit
 - 1) Catalog No. GTR-AR-5498-HO-SV-BR-NL-SOLY-MGL
 - b. Burndy Power Block Distribution or approved equal base mounted junction box
 - 1) Catalog No. BDCSCHC142/01
 - c. Penetrox or similar protection compound on all terminations
 - d. AGC Waterproof Fuse Holder – 18-12 Gauge or approved equal fuse holder
 - 1) Part #79005
 - e. Ideal Underground Wire Connectors for all splicing or approved equal wire connectors
 - 2. Closed Pylon
 - a. RAB compact 5-Watt LED Floodlights with Accessory Reflector Kit
 - 1) Catalog No. LFLED5NA [Neutral Light 4000K]
 - 2) Catalog No. RAB-LNSLFLED8A [Narrow Spot Kit]
 - b. Burndy Power Block Distribution or approved equal base mounted junction box

- 1) Catalog No. BDCSCHC142/01
- c. Penetrox or similar protection compound on all terminations
- d. AGC Waterproof Fuse Holder – 18-12 Gauge or approved equal fuse holder
 - 1) Part #79005
- e. Ideal Underground Wire Connectors for all splicing or approved equal wire connectors

2.2 GENERAL REQUIREMENTS

- A. All replaced hardware is to be stainless-steel and replaced in kind.

PART 3 - EXECUTION

3.1 FIXTURE INSTALLATION

- A. Install LED light fixtures in each pylon per manufacturer's recommendations.
- B. Fasten LED fixtures to stainless steel bent plate or concrete block.
- C. Adjust LED fixtures that require field adjustment or aiming. Align units for optimum directional alignment of light distribution.

3.2 FIELD QUALITY CONTROL

- A. Inspect each installed fixture for damage. Replace damaged fixtures and components.
- B. Illumination Observations: Verify normal operation of lighting units after installing luminaires and energizing circuits with normal power source.
- C. Prepare a written report of tests, inspections, observations, and verifications indicating and interpreting results. If adjustments are made to lighting system, retest to demonstrate compliance with standards.
- D. Employ a manufacturer representative to ensure proper installation of LED light fixtures.

3.3 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain luminaires.

END OF SECTION 265600