



**DESIGN AND CONSTRUCTION GROUP
THE GOVERNOR NELSON A. ROCKEFELLER
EMPIRE STATE PLAZA
ALBANY, NY 12242**

ADDENDUM NO. 1 TO PROJECT NO. Q1661

**CONSTRUCTION, HVAC, PLUMBING AND ELECTRICAL WORK
REPLACE DOMESTIC WATER
HEATERS AND EPDM ROOFING
BUILDING NO. 9
ATTICA CORRECTIONAL FACILITY
EXCHANGE STREET
ATTICA, NY**

March 18, 2016

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

SPECIFICATION GROUP

CONSTRUCTION WORK

1. SECTION 040121 MASONRY RESTORATION: Add the accompanying Section (pages 040121 – 1 through 040121 – 4) to the Project Manual.
2. SECTION 051200 STRUCTURAL STEEL: Add the accompanying Section (pages 051200 – 1 through 051200 – 5) to the Project Manual.
3. SECTION 412200 HOISTS: Add the accompanying Section (pages 412200 – 1 through 412200 – 3) to the Project Manual.
4. Page 028213-1, Sub-Paragraph 1.01.C, Change “55 LF” to “5 LF”.

PLUMBING WORK

5. Section 220519 - WATER METERS:
 - a. Delete section 220519 in its entirety.

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6. Section 221100 - PLUMBING PIPING:
a. Add Article 2.07 to read as follows:

"2.07 FLEXIBLE CONNECTORS

- A. Underground or Above Ground Application:
1. Acceptable Companies:
 - a. Titeflex Inc., Springfield, MA.
 - b. Metraflex, Chicago, IL.
 - c. Flex-Hose Co., Inc., Syracuse, NY
 - d. Flextronics Inc., Syracuse, NY
 2. Features:
 - a. Construction: Corrugated, Type 321 stainless steel inner core, minimum .012 inch wall thickness covered with braided Type 304 stainless steel outer jacket.
 - b. Factory installed male swivel on one end.
 - c. Shall be third party tested and listed (by a laboratory in compliance with all applicable requirements of ISO/IEC 17025) and marked in accordance with Section 1417(d) of the Safe Drinking Water Act. Must meet the lead content requirements of Section 116875 of the California Health & Safety Code, and the criteria of NSF/ANSI 372 for low lead."

7. Section 221123 - PUMPS:
a. Refer to Article 2.02.A.1. Add Item b. to read as follows:

"b. Motors shall be electronically commutated motors (ECM) with speed adjustments able to be controlled by remote sensor or from input signals from the building management system."

- b. Add Article 2.04 to read as follows:

"2.04 SUCTION DIFFUSER

- A. Type: Angle pattern flow straightening fitting as manufactured by Bell & Gossett.
- B. Features:
1. Body and Cover: Cast iron.
 2. Straightening Vanes: Full length, steel.
 3. Diffuser Strainer Orifice Cylinder: Steel with 3/16 inch perforations.
 4. Start Up Strainer: 16 mesh bronze.
 5. O-Ring Seal: EPDM.
 6. End Connections: Threaded or flanges as required.
 7. Adjustable support foot.
 8. Replaceable internal components.
 9. Maximum Working Pressure: 175 psig."

8. Section 223500 - DOMESTIC WATER HEATER:
a. Refer to Article 2.01.A.12. Delete Item a in its entirety.
b. Refer to Article 2.01.C. Replace "Division 23" with "system equipment vendor".

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9. Add Section 230924 - MODIFICATIONS TO DIRECT DIGITAL BUILDING CONTROL SYSTEM to the project manual.
10. Add Section 260502 - BASIC ELECTRICAL MATERIALS AND METHODS FOR DIRECT DIGITAL BUILDING CONTROL SYSTEM to the project manual.
11. Section 260221 - MOTORS AND MOTOR CONTROLLERS
 - a. Refer to Article 2.01. Add Paragraph I to read as follows:

"I. Motors: Motors shall be electronically commutated motors (ECM) with speed adjustments able to be controlled by remote sensor or from input signals from the building management system."
 - b. Refer to Article 2.01, Paragraph B. 1: Change the word, "Nominal" to "Minimal".

HVAC AND ELECTRICAL WORK

No HVAC and Electrical specifications addenda

APPENDIX

CONSTRUCTION WORK

12. BDC 406.1 STATEMENT OF SPECIAL INSPECTIONS: Add the accompanying Document (pages 1 through 6) to the Project Manual.
13. Schedule of Submittals:
 - a. Schedule of Submittals dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued document and forms part of the Contract Documents.

PLUMBING WORK

14. Schedule of Submittals:
 - a. Schedule of Submittals dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued document and forms part of the Contract Documents.

HVAC AND ELECTRIC WORK

No HVAC or Electrical Appendix addenda

GENERAL DRAWINGS

15. Revised Drawing:
 - a. Drawing G-002, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.

CONSTRUCTION WORK DRAWINGS

16. Revised Drawing:
 - a. Drawing H-101, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract

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Documents.

17. Revised Drawing:
 - a. Drawing H-102, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
18. Revised Drawing:
 - a. Drawing H-104, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
19. Revised Drawing:
 - a. Drawing A-101, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
20. Revised Drawing:
 - a. Drawing A-102, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
21. Revised Drawing:
 - a. Drawing A-201, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
22. Revised Drawing:
 - a. Drawing A-301, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
23. Revised Drawing:
 - a. Drawing A-302, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
24. Revised Drawing:
 - a. Drawing A-501, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
25. Revised Drawing:
 - a. Drawing A-601, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompany this Addendum and supersedes the same numbered originally issued drawing and forms part of the Contract Documents.
26. Addendum Drawing:
 - a. Drawing No. A-502, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompanies this Addendum and forms part of the Contract Documents.
27. Addendum Drawing:
 - a. Drawing No. A-503, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompanies this Addendum and forms part of the Contract Documents.

28. Addendum Drawing:

Revised 3/16/2016

Edited and/or Printed 03/21/2016

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- a. Drawing No. A-504, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompanies this Addendum and forms part of the Contract Documents.
29. Addendum Drawing:
- a. Drawing No. A-505, noted "ADDENDUM NO. 1" and dated "03/16/2016" accompanies this Addendum and forms part of the Contract Documents.
30. Drawing No. H-101, GENERAL DRAWING NOTES:
- a. Note G: Change "QUANTITIES REPORTED WITHIN THE PRE-RENOVATION ASBESTOS INSPECTION REPORT ARE APPROXIMATED AND NOT TO BE CONSIDERED FOR BIDDING PURPOSES." to "SEE ASBESTOS REPORT."
 - b. Add Note: "K. COORDINATE DISPOSAL AS SOLID WASTE WITH THE DIRECTOR'S REPRESENTATIVE AND PLANT SUPERINTENDENT. ALL REMOVED ACM TO BE STORED IN A LOCKABLE CONTAINER ON SITE WHERE DIRECTED UNTIL TRANSPORTED TO A WAST DESTINATION FACILITY. TURN OVER WASTE DISPOSAL MANIFEST PER SPECIFICATION 028213."
 - c. Add Note: "L. THE DIRECTOR'S REPRESENTATIVE WILL EMPLOY THE SERVICES OF AN INDEPENDENT TESTING COMPANY TO PERFORM THE VISUAL PROJECT MONITORING. THE PROJECT MONITOR WILL BE ON SITE AT ALL TIMES FOR THE DURATION OF THE ASBESTOS REMOVAL WORK, PER NYS DOL 12NY CODE RULE 56."
31. Drawing No. H-102, GENERAL DRAWING NOTES:
- a. Note G: Change "QUANTITIES REPORTED WITHIN THE PRE-RENOVATION ASBESTOS INSPECTION REPORT ARE APPROXIMATED AND NOT TO BE CONSIDERED FOR BIDDING PURPOSES." to "SEE ASBESTOS REPORT IN PROJECT MANUAL."
 - b. Add Note: "K. COORDINATE DISPOSAL AS SOLID WASTE WITH THE DIRECTOR'S REPRESENTATIVE AND PLANT SUPERINTENDENT. ALL REMOVED ACM TO BE STORED IN A LOCKABLE CONTAINER ON SITE WHERE DIRECTED UNTIL TRANSPORTED TO A WAST DESTINATION FACILITY. TURN OVER WASTE DISPOSAL MANIFEST PER SPECIFICATION 028213."
 - c. Add Note: "L. THE DIRECTOR'S REPRESENTATIVE WILL EMPLOY THE SERVICES OF AN INDEPENDENT TESTING COMPANY TO PERFORM THE VISUAL PROJECT MONITORING. THE PROJECT MONITOR WILL BE ON SITE AT ALL TIMES FOR THE DURATION OF THE ASBESTOS REMOVAL WORK, PER NYS DOL 12NY CODE RULE 56."
32. Drawing No. H-104, GENERAL DRAWING NOTES:
- a. Note G: Change "QUANTITIES REPORTED WITHIN THE PRE-RENOVATION ASBESTOS INSPECTION REPORT ARE APPROXIMATED AND NOT TO BE CONSIDERED FOR BIDDING PURPOSES." to "SEE ASBESTOS REPORT IN PROJECT MANUAL."
 - b. Add Note: "K. COORDINATE DISPOSAL AS SOLID WASTE WITH THE DIRECTOR'S REPRESENTATIVE AND PLANT SUPERINTENDENT. ALL REMOVED ACM TO BE STORED IN A LOCKABLE CONTAINER ON SITE WHERE DIRECTED UNTIL TRANSPORTED TO A WAST DESTINATION FACILITY. TURN OVER WASTE DISPOSAL MANIFEST PER SPECIFICATION 028213."
 - c. Add Note: "L. THE DIRECTOR'S REPRESENTATIVE WILL EMPLOY THE SERVICES OF AN INDEPENDENT TESTING COMPANY TO PERFORM THE VISUAL PROJECT MONITORING. THE PROJECT MONITOR WILL BE ON SITE AT ALL TIMES FOR THE

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DURATION OF THE ASBESTOS REMOVAL WORK, PER NYS DOL 12NY CODE RULE 56.”

- d. Detail 1/H-104: Add an arrow from Asbestos Removal Note 3 on the Lower Roof to the west parapet wall.
33. Drawing No. A-101:
- a. Detail 2: Along north parapet wall, change “±3’ DIA” to “±3 INCHES DIA”.
 - b. GENERAL REMOVAL NOTES:
 - 1) Note 4: Change “A601” to “G-002”
 - 2) Add Note 5: “GRAVEL BALLAST TO BE STOCKPILED ON SITE AND TURNED OVER TO THE FACILITY. COORDINATE LOCATION WITH THE DIRECTOR’S REPRESENTATIVE.”
 - c. REMOVAL NOTES:
 - 1) Note 5: Change “ENTIRETY.” to “ENTIRETY ALONG THE PERIMETER EDGE.”
 - 2) Note 7:
 - a) Change “REMOVE MORTAR OR CAULK” to “REMOVE MORTAR AND CAULK (ASSUME CAULK IS HAZARDOUS)”
 - b) Change “3 LINEAR FEET EACH JOINT.” to “3 LINEAR FEET EACH JOINT, 80 COPING STONES.”
34. Drawing No. A-102
- a. GENERAL NOTES:
 - 1) Note 1: Change “SYMBOLS, ABBREVIATIONS, PARTITION ASSEMBLIES, ROOF ASSEMBLIES” to “SYMBOLS AND ABBREVIATIONS.”
 - 2) Add Note 2: “REFER TO A-601 FOR PARTITION ASSEMBLY AND ROOF ASSEMBLY.”
 - 3) Add Note 3: “CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND CONDITIONS”
 - 4) Add Note 4: PRIOR TO THE REMOVAL OF THE ROOFING SYSTEM AND AFTER THE INSTALLATION OF THE ROOFING SYSTEM ARE COMPLETE, REMOVE THE ROOF DRAIN STRAINERS, CLEAN OUT AND TEST ALL ROOF DRAINS AND ROOF DRAIN HORIZONTAL LATERALS IN THEIR ENTIRETY TO THE FIRST VERTICAL MAIN CONDUCTOR.”
 - b. CONSTRUCTION NOTES:
 - 1) Note 2: Change “3 LINEAR FEET PER JOINT – TYPICAL” to “3 LINEAR FEET PER JOINT, 80 COPING STONES (TYPICAL).”
35. Drawing No. A-201
- a. CONSTRUCTION NOTES:
 - 1) Note 2: Change “3 LINEAR FEET PER JOINT – TYPICAL” to “3 LINEAR FEET PER JOINT, 80 COPING STONES (TYPICAL).”
 - b. Elevation 1:
 - 1) At note under Floor Datum Marker (“02 SECOND FLOOR”): Change “PREVIOUSLY REMOVED EXHAUST FAN.” to “OPENING”
 - 2) At right existing pipe penetrations note : Change “EXISTING PIPE” to “EXISTING 8 INCH PIPE”
 - 3) At left existing pipe penetrations note : Change “EXISTING PIPE” to “EXISTING 8 INCH PIPE (AT UPPER PIPE), EXISTING 2 INCH PIPE (AT LOWER PIPE)”
36. Drawing No. A-301
- a. Section 1: Add vertical dimension (±10’-11”) from right note “EXISTING STONE COPING TO REMAIN” to Floor Datum Marker (“LOWER ROOF”)

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- b. Detail 2: Add note "SCRAPE, CLEAN, AND PRIME EXISTING FASTENER OPENINGS IN EXISTING METAL CLOSURE PANEL. REPAIR EXISTING CONCRETE DECK AT FASTENER LOCATIONS TO ALLOW FOR SECUREMENT OF PANEL - PROVIDE 1-1/2 INCH GALVANIZED MASONRY SCREWS TO SECURE EXISTING METAL CLOSURE THROUGH PLYWOOD SHEATHING INTO EXISTING CONCRETE DECK" to fastener, at bottom of detail marked "EXISTING GALVANIZED METAL..."
 - c. Section 3: Add right-facing Elevation Marker (1/A-201) at Storage (Room 1-12)
 - d. Section 4: Add right-facing Elevation Marker (1/A-201) at Storage (Room 1-10)
 - e. Detail 5:
 - 1) At bubbled upper note: Change "FASTENED AT 8" O.C." to "FASTENED (WITH MASONRY ANCHORS) AT 8" O.C."
 - 2) At bubbled lower note: Change "FASTENED AT 8" O.C." to "FASTENED (WITH SCREWS) AT 8" O.C."
37. Drawing No. A-501
- a. Section 1:
 - 1) At bottom right note: Change "EXISTING PIPE (VERIFY DIAMETER IN FIELD)" to "EXISTING PIPE (REFER TO A-102 FOR DIAMETER)"
 - 2) Add anchors to upper wood block penetrating into lower wood block.
 - b. Detail 3, At bottom 2 notes: Change "(VERIFY WORKING CONDITION)" to "(REFER TO GENERAL REMOVAL NOTE 2 ON SHEET A-101)"
 - c. Detail 5 Title: Change "DOOR" to "EXTERIOR LOWER ROOF DOOR SILL"
 - d. Detail 7:
 - 1) At top note pointing to coping stone:
 - a) Change "REMOVE MORTAR OR CAULK" to "REMOVE MORTAR AND CAULK".
 - b) Change "3 LINEAR FEET EACH JOINT (TYP)" to "REFER TO CONSTRUCTION NOTE 2 ON SHEET A-102"
 - e. Detail 9, at upper right note: Change "STAINLESS STEEL FASTENERS" to "1-1/2 INCH STAINLESS STEEL FASTENERS"
 - f. Detail 10 Title: Change "DOOR" to "EXTERIOR LOWER ROOF DOOR"
38. Drawing No. A-601, DOOR SCHEDULE:
- a. Column TO/FROM, for DOOR NO. 1A: Change "TO" to "FROM"
 - b. Change Column "FRAME DEPTH" to "JAMB DEPTH"
 - c. Column DOOR HAND, for DOOR NO. 1A: Change "LH" to "RHR"
 - d. Column REMARKS, for DOOR NO. 1A: Change "FIELD VERIFY DOOR DIMENSIONS" to "FIELD VERIFY ROUGH OPENING DIMENSIONS"

HVAC WORK DRAWINGS

39. Drawing M-101:
- a. Refer to Drawing Note 1; revise note to read "Provide PRV station in accordance with Detail 4/M601".
 - b. Add General Note O to read as follows:
 - "O Coordinate MPS and MPC piping and associated hangers above domestic water heaters with hoist and rail system."

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PLUMBING WORK DRAWINGS

40. Drawing P-001:
 - a. Replace drawing with revised P-001, dated March 16, 2016.
41. Drawing P-101:
 - a. Replace drawing with revised P-101, dated March 16, 2016.
42. Drawing P-402:
 - a. Replace drawing with revised P-402, dated March 16, 2016.

NO ELECTRICAL WORK DRAWINGS ADDENDA

END OF ADDENDUM

Margaret F. Larkin
Executive Director
Design and Construction

SECTION 040121

MASONRY RESTORATION

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data:
 - 1. Portland Cement: Brand and manufacturer's name.
 - 2. Lime: Brand and manufacturer's name.
 - 3. Mortar Pigments: Brand and manufacturer's name.
 - 4. Packaged Products: Manufacturer's specifications and application instructions for products specified.
 - 5. Sand: Location of pit, name of owner, and previous test data.

- B. Samples: Deliver to the Site for comparison with existing masonry.
 - 1. Mortar for Exposed Joints and Cracks: Each required type, minimum 12 inches long by full thickness, showing finish and color.
 - 2. Masonry Units: Each required type, full size, showing finish and full color range.

1.02 QUALITY ASSURANCE

- A. Field Examples: Prior to performing the Work of this Section, prepare a sample panel of not less than 12 sq ft for each type of masonry restoration Work required. Do not proceed further with the Work until the sample panel has been approved by the Director's Representative. Approved samples will be used as quality standards for the Work. Maintain approved samples at the Site until the Work is completed.
 - 1. Sample panels may be a portion of existing masonry which is to be restored, at a location directed by the Director's Representative.

- B. Material Container Labels: Material containers shall bear the manufacturer's label indicating manufacturer's name, trade name of product, lot number, shelf life of product, and mix ratio (if applicable).

1.03 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Products:
 - 1. Deliver materials to the site in manufacturer's original, sealed containers. Do not deliver materials which have exceeded shelf life limitation set forth by the manufacturer.
 - 2. Comply with manufacturer's printed instructions for storing and protecting materials.

- B. Bulk Aggregate: Store in a manner which will keep aggregate clean and protected from the weather elements.

1.04 PROJECT CONDITIONS

- A. Environmental Requirements:
 - 1. For factory packaged products, comply with the manufacturer's printed limitations and instructions.
 - 2. At temperatures below 40 degrees F, maintain mortar temperature between 40 degrees F and 120 degrees F unless otherwise recommended by the material manufacturer. If necessary, heat mixing water and sand to produce the required results.
 - 3. At temperatures between 32 degrees F and 20 degrees F, provide wind breaks and cover the restored masonry to prevent wetting and freezing. Maintain restored masonry above freezing for not less than 16 hours using auxiliary heat or insulating blankets.
 - 4. At temperatures below 20 degrees F, provide heated enclosures for performing the Work. At the end of the workday, maintain the enclosures and keep the Work from freezing for not less than 24 hours.
 - 5. Do not lower freezing point of mortar by use of antifreeze, calcium chloride, or other additives.
 - 6. Do not use frozen materials or materials coated with ice or frost.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Mortar Types:
 - 1. Type N Mortar: ASTM C 270, Type N.
 - 2. Modified Type N Pointing Mortar: ASTM C 270, Type N, modified with an acrylic additive in accordance with the additive manufacturer's printed instructions for the intended usage.
 - 3. Type C-1 Patching Mortar: "Thorite" by Thoro System Products; "Sonopatch" by Sonneborn Building Products; "Deco-Rez TPM 722" or "Deco-Rez TPM 723" by General Polymers Corp.; "SikaTop 122" or "SikaTop 123" by Sika Corp.; "Emaco R300 CI" or "Emaco R320 CI" or "Emaco R350 CI" or "Emaco S88 CI" by Master Builders, Inc.
- B. Mortar Color: For exposed Type N mortar and Modified Type N pointing mortar, select materials (complying with the requirements) and proportion pigments with other ingredients as necessary to match the color of existing corresponding materials.
- C. Mortar Pigments: High purity, finely ground, chemically inert, unfading, lime proof mineral oxides specially prepared for use in mortar.
- D. Acrylic Additive: "Acryl 60" by Thoro System Products; "Sonocrete" by Sonneborn Building Products; "Anchor - IT" by Anti-Hydro Waterproofing Co.
- E. Masonry Units: Match existing units in type, grade, size, appearance, and texture unless otherwise indicated.

- F. Accessories:
 - 1. Helical Stainless Steel Reinforcing Bar: “Helibar” By Helifix Sustainable Structural Solutions; “Heli-Tie” By Simpson Strong-Tie.

PART 3 EXECUTION

3.01 PREPARATION

- A. Protection: Protect adjacent surfaces not being restored. Protect sills, ledges, and projections from material droppings.
- B. Surface Preparation:
 - 1. Prepare surfaces to be restored in compliance with product manufacturer’s printed instructions and as specified.
 - 2. Remove dirt, dust, and foreign material from surfaces to be restored.
 - 3. Clean areas to be restored with compressed air or water flushing, except as otherwise recommended by the mortar manufacturer.
- C. Materials Preparation:
 - 1. Dry concrete masonry units and stone that have become wet. Do not wet these masonry units.
 - 2. Wet bricks that have a high absorption rate. Wet bricks until water runs off. Install bricks when surface is slightly damp.
 - 3. Prepare exposed Type N mortar and Modified Type N pointing mortar to match the color and appearance of existing adjoining mortar.

3.02 REPOINTING JOINTS

- A. Rake or cut out joints to a minimum depth of 5/8 inch and until sound surface is reached. Where cutting is required to remove existing mortar and joint filler, use a rotary power masonry saw wherever possible without damaging masonry. Cut the mortar and joint filler cleanly from the sides of the joints, leaving square corners. Flush joints clean with water or compressed air.
- B. Dampen joints slightly before application of mortar, making sure there is no free water. Backpack joints tightly out to a depth of 5/8 inch from the face of masonry with Modified Type N pointing mortar. After backpacking mortar has attained initial set, redampen remaining 5/8 inch depth of joints, fill with Modified Type N pointing mortar, and finish joints to match existing adjoining joints.

3.03 REPLACING MASONRY UNITS

- A. Provide temporary shoring or other supports as required to prevent displacement of existing masonry which is to remain. Perform the removal Work with such care as may be required to prevent damage to adjoining masonry which is to remain.

- B. Remove the deteriorated and damaged masonry units to their full depth, including the surrounding joint mortar. Wherever possible without damaging masonry, use a rotary power masonry saw for cutting Work. Leave square corners at adjoining masonry which is to remain. Clean joints and cavities by flushing with water or compressed air.
- C. Dampen contact surfaces slightly before application of mortar, making sure there is no free water. Install matching masonry units with Type N mortar. Install units to match and align with existing masonry. Maintain bonding and coursing pattern of existing masonry. Use presoaked wood wedges where necessary to properly set the units and maintain uniform matching joints. Backpack and fill joints full of mortar. Finish joints to match existing adjoining joints.
- D. Accessories:
 - 1. Helical Stainless Steel Reinforcing Bar: Install as per Manufacturers instructions.

3.04 CLEANING

- A. As the Work proceeds and after completion of Work, remove excess mortar, droppings, smears, stains, and other soiling substances resulting from the Work of this Section. Remove misplaced materials from surfaces immediately.

END OF SECTION

SECTION 051200

STRUCTURAL STEEL

PART 1 GENERAL

1.01 REFERENCES

- A. Except as shown or specified otherwise, the Work of this Section shall meet the requirements of the following:
1. Design, Fabrication, and Erection: "Specification for Structural Steel Buildings, Allowable Stress Design and Plastic Design", June 1, 1989, by the American Institute of Steel Construction (AISC Specification).
 2. Standard Practice: Fabrication and erection practices shall comply with the "Code of Standard Practice for Steel Buildings and Bridges", June 10, 1992, by the American Institute of Steel Construction (AISC Code).
 3. Welding: "Structural Welding Code - Steel, AWS D1.1", by the American Welding Society (AWS Code).
 4. High-Strength Bolting: "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts", November 13, 1985, by the Engineering Foundation's Research Council on Structural Connections (Specification for Structural Joints).
 5. Cleaning Steel: Comply with the appropriate specifications (SSPC SP-X) by the Steel Structures Painting Council.

1.02 DEFINITIONS

- A. AISC Manual: Where reference is made to the AISC Manual, it shall mean the Manual of Steel Construction, Ninth Edition, of the American Institute of Steel Construction.

1.03 REQUIREMENTS FOR CONNECTIONS

- A. Shop Connections: Welded or high strength bolted, unless otherwise indicated. Field connections required to be welded or fully-tensioned high-strength bolted shall meet the same requirements when fabricated in the shop.
- B. Field Connections:
1. The following field connections shall be welded or fully-tensioned high strength bolted as indicated on the Drawings or, when not indicated, shall be either welded or fully-tensioned high strength bolted at the Contractor's option:
 - a. Column bracing.
 - b. Connections for support of machinery.
- C. Standard Beam Connections:
1. Unless otherwise shown on the Drawings or required in the Specifications, all beam connections shall be framed in accordance with Part 4 of the AISC Manual, with sizes and lengths of angles and welds and with fasteners spacings as shown therein.
 2. Standard beam connections shown on the Drawings shall be fabricated as detailed. Substitutions will not be approved.

- D. Design, Fabrication and Erection (Amendments to the AISC Specification):
1. In Item A6. of the specification, change "American Welding Society" to "American Welding Society (Latest Adoption Date)". Delete the date from all referenced AWS Codes.
 2. In Item J1.8. of the specification, change the last sentence to read: "Weld access holes and beam copes in other shapes shall be ground smooth, but need not be inspected by dye penetrant or magnetic particle methods."
 3. In Item J1.8. of the specification, delete "or with A307 bolts" from the second paragraph.
 4. In Item J2. of the specification, change the introductory sentence to read: "All provisions of the American Welding Society Structural Welding Code-Steel, AWS D1.1, except Sections 2.3.2.4, 2.5, 8.13.1 and 9, apply to work performed under this Specification."
 5. In Item J3.2.c of the specification, change the first sentence to two sentences as follows: "Oversized holes are permitted in any or all plys of slip-critical connections, except those with galvanized faying surfaces. Oversized holes shall not be used in slip-critical connections with galvanized faying surfaces, or in bearing-type connections."
 6. In Item J3.2.d. of the specification, change the second sentence to two sentences as follows: "Short-slotted holes are permitted without regard to direction of loading in slip-critical connections, except those with galvanized faying surfaces. The length of the slot shall be normal to the direction of the load in slip-critical connections with galvanized faying surfaces and in bearing-type connections."
 7. In Item J3.2.e of the specification, change the second sentence to two sentences as follows: "Long-slotted holes are permitted without regard to direction of loading in slip-critical connections, except those with galvanized faying surfaces. The length of the slot shall be normal to the direction of the load in slip-critical connections with galvanized faying surfaces and in bearing-type connections."
 8. In Item M2.2. of the specification, delete the first two paragraphs.
 9. In Item M2.5. of the specification, change the second sentence of the fifth paragraph to read: "Burrs shall be removed."
 10. Delete Item M4.5. of the specification in its entirety.
 11. In Item M5.4. of the specification, delete "Slip-critical" from the heading and delete "slip-critical" from the first sentence.
- E. Fabrication and Erection (Amendments to the AISC Code):
1. In Item 4.1. of the code, delete the last sentence of the first paragraph.
 2. In Item 5.1. of the code, change the first paragraph to read: "Contract Drawings are not considered released for construction. Orders for materials may be placed only after approval of erection drawings or written approval of the Director."

1.04 SUBMITTALS

- A. Shop Drawings: Submit shop drawings for all structural steel. Machine duplicated copies of Contract Drawings will not be accepted as shop drawings. Shop drawings shall be standard 24 by 36 inch size sheets. The fabricator's name, address, and telephone number shall be indicated in the title block on each drawing.
1. Include anchor bolt and base plate plans, erection drawings, and detail drawings for all members.

2. Indicate shop and field welds by standard AWS welding symbols in accordance with AWS A2.4.
 3. When shop drawings are marked "Approved as Noted", promptly resubmit copies of corrected shop drawings for formal approval and record.
 4. Contract Drawings are not considered released for construction. Orders for materials may be placed only after approval of erection drawings or written approval of the Director.
- B. Product Data:
1. Shop Paint: Manufacturer's name and printed product literature, including storage and application instructions.
- C. Quality Control Submittals:
1. Certificates: Submit evidence, in triplicate, of steel material compliance with this Specification. Evidence shall consist of certification of source of material, copies of purchase orders and manufacturer's certifications. For stock material, submit copies of latest mill or purchase orders for material replacement.
 2. Fabricator's and Erector's Qualifications Data: Name and experience of fabricator and erector.

1.05 QUALITY ASSURANCE

- A. Fabricator's and Erector's Qualifications: The fabricator and erector shall be experienced in structural steel work and shall be subject to the approval of the Director.
- B. Inspection: Shop and field quality assurance inspection may be made by the State. If quality assurance inspection is made by the State, it shall not relieve the fabricator and erector of responsibility for their own quality control programs.

1.06 WELDING PROCESS

- A. Use only shielded metal arc, submerged-arc, gas metal arc, or flux cored arc welding.
- B. Shielded metal arc, submerged-arc, gas metal arc, or flux cored arc welding procedures that comply with the provisions of the AWS D1.1 Code shall be considered to be prequalified.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Coordinate delivery of anchor bolts and other anchorage devices to be built into other construction to avoid delay.
- B. Upon delivery to the site, promptly cover and protect steel items (which are not required to receive shop paint) from rusting.
- C. Store shop paint in accordance with paint manufacturer's printed instructions.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Structural Steel: ASTM A 992.
- B. Angles: ASTM A 36.
- C. Plate and Bar: ASTM A 36
- D. Anchor Bolts, Miscellaneous Rods and Anchors, and Other Detail Material Not Proportioned for Calculated Stress: ASTM A 36; or ASTM A 675, Grade 70.
- E. Expansion Anchors: Hilti HLC Sleeve Anchor or approved equal.
- F. Steel Structural Tubing: ASTM A 500, Grade B; or ASTM A 501.
- G. Weld Filler Metal: Weld filler metal for shielded metal arc welding complying with AWS Specifications A5.1 or A5.5.
- H. Cold Galvanizing Compound: Single component compound giving 93 percent pure zinc in the dried film, and meeting the requirements of DOD-P-21035A (NAVY).
- I. Shop Paint (General): Steel primer selected from the following:
 - 1. TNEMEC 10-99 (Red), 10-99G (Green) or 10-1009 (Gray).
 - 2. Rust-Oleum 769.
 - 3. Valspar 13-R-53.
 - 4. Sherwin-Williams "Kromik".

2.02 FABRICATION

- A. Do not commence fabrication until the fabricator has been approved and the fabrication schedule has been coordinated with the designated Quality Assurance inspection agency (independent inspection laboratory or the State).
 - 1. Give the Director's Representative one week advance notice of the commencement of fabrication.
- B. Progress shop fabrication from "Approved" or "Approved as Noted" detail drawings only.
 - 1. When detail drawings are "Approved as Noted", progress fabrication in strict accordance with notes thereon.
 - 2. Fabrication progressed from "DISAPPROVED" or "RETURNED FOR CORRECTION" detail drawings will be rejected. The contractor shall have no claim against the State for any costs or delays due to rejection of items fabricated from "DISAPPROVED" or "RETURNED FOR CORRECTION" detail drawings.

- C. Finish column ends at base plates and at load carrying cap plates to a true plane square to the column, with a maximum American National Standards Institute surface roughness value of 500 microinches.
- D. Make provisions for connections of other Work, including all cutting and punching of structural members where required by the Drawings, or for which information is furnished prior to approval of the shop drawings.
- E. Prepare material in accordance with Section 3 of the AWS Code. Do not use gas or air carbon-arc cutting to cut or enlarge bolt holes.
- F. Cleaning Steel: Thoroughly clean all structural steel. Remove oil, grease, and similar contaminants in accordance with SSPC SP-1 "Solvent Cleaning". Remove loose mill scale, loose rust, weld slag and spatter, and other detrimental material in accordance with SSPC SP-2 "Hand Tool Cleaning", SSPC SP-3 "Power Tool Cleaning", or SSPC SP-7 "Brush-Off Blast Cleaning".
- G. Shop Painting:
 - 1. Apply one coat of shop paint to all steel surfaces except as follows:
 - a. Do not paint steel members designated "NP" on the Drawings".
 - b. Do not shop paint steel surfaces to be field welded, contact surfaces of high-strength bolted slip critical connections, and steel to be encased in cast-in-place concrete.
 - c. Apply 2 coats of shop paint, before assembly, to steel surfaces inaccessible after assembly, except surfaces in contact.
 - 3. Apply paint and compound on dry surfaces in accordance with the manufacturer's printed instructions, and to the following minimum thickness per coat:
 - a. Shop Paint (General): 4.0 mils wet film.

PART 3 EXECUTION

3.01 ERECTION

- A. Erect steel in accordance with the AISC Specification, the AISC Code, the AWS Code and the Specification for Structural Joints, except as otherwise specified.
- B. Do not use gas or air carbon-arc cutting to cut or enlarge bolt holes.
- C. Do not make corrections or alterations to fabricated steel without prior written approval by the Director's Representative.

END OF SECTION

SECTION 230924

MODIFICATIONS TO DIRECT DIGITAL BUILDING CONTROL SYSTEM

PART 1 GENERAL

1.01 RELATED WORK SPECIFIED ELSEWHERE

- A. Basic Electrical Materials and Methods for Direct Digital Building Control System: Section 260502.

1.03 DESCRIPTION OF EXISTING SYSTEM

- A. The existing system is a Schneider Electric / Andover Control system installed by Day Automation Systems.

1.04 MODIFICATIONS TO EXISTING SYSTEM

- A. Add (3) Flow Meters, and (2) BTU Meters. Meter readings are to be provided as inputs into the existing Schneider Electric / Andover Control system and displayed at the Continuum Front End user interface.

1.05 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Submittals Package: Submit the shop drawings, product data, catalog sheets indicating size, materials of construction, connections, sensitivity, installation instructions and quality control submittals specified below at the same time as a package.
- C. Shop Drawings:
 - 1. Composite wiring and/or schematic diagrams of the modifications as proposed to be installed (standard diagrams will not be acceptable).
- D. Product Data:
 - 1. Catalog sheets, specifications and installation instructions.
 - 2. Bill of materials.
 - 3. Detailed description of system operation.
- E. Quality Control Submittals:
 - 1. Company Field Advisor Data: Include:
 - a. Name, business address and telephone number of Company Field Advisor secured for the required services.
 - b. Certified statement from the Company listing the qualifications of the Company Field Advisor.
 - c. Services and each product for which authorization is given by the Company, listed specifically for this project.

- F. Test Report: Certified factory test curve indicating percentage of accuracy of meters and loss of head in psi from 0 to 100 percent delivery range.
- G. Contract Closeout Submittals:
 - 1. System acceptance test report.
 - 2. Certificate: Affidavit, signed by the Company Field Advisor and notarized, certifying that the system meets the contract requirements and is operating properly.
 - 3. Operation and Maintenance Data:
 - a. Deliver 2 copies, covering the installed products, to the Director's Representative. Include:
 - 1) Operation and maintenance data for each product.
 - 2) Complete point to point wiring diagrams of entire system as installed. Number all conductors and show all terminations and splices. (Numbers shall correspond to markers installed on each conductor.)

1.06 REGULATORY REQUIREMENTS

- A. Comply with the applicable requirements of pertinent American Water Works Association (AWWA) Standards.

1.07 EXTENDED WARRANTY

- A. Provide 5 year warranty for water meters.

PART 2 PRODUCTS

2.01 CONTROL COMPONENTS

- A. Ultrasonic Flowmeters, Clamp-On Type for 3" and larger:
 - 1. Basis of Design: ONICON Model F-4200 Clamp-on Transit Time Ultrasonic Flow Meter.
 - 2. Matched high temperature transducers, self-aligning installation hardware and coaxial transducer cables installed without making any openings in the pipe wall and shall utilize non-wetted ultrasonic transducers that may be located up to 300 ft. from the meter.
 - 3. Ultrasonic transducers must be optimized for the specific pipe and process conditions for each application and the transducer frequency shall be automatically matched to the resonant frequency of the pipe at start-up.
 - 4. An integral auto-zero function shall be provided for zero precision and high accuracy, even at very low flow velocities.
 - 5. Accuracy shall be within $\pm 1\%$ of rate from 1 to 40 ft/sec and ± 0.01 ft/sec for velocities below 1 ft/sec. Overall turndown shall exceed 400:1.
 - 6. The meter shall display flow rate and flow total with an integral LCD display and support field programming of all parameters.
 - 7. The meter shall also have integral diagnostics to verify installation conditions and the proper operation of the meter.

8. The meter shall provide a loop-powered 4-20 mA output signal for connection to the System-10 Btu Meter. In addition, an integral pulse output for flow totalization shall be provided. All outputs shall be linear with flow rate.
- B. Energy BTU Measurement System:
1. Basis of Design: ONICON Model System-10 Series BTU Meter with local control panel, connected to the Direct Digital Building Control System.
 2. The entire Energy Measurement System shall be built and calibrated by a single manufacturer, and shall consist of a flow meter, two temperature sensors, a BTU meter, temperature thermowells, and all required mechanical installation hardware. A certificate of NIST* traceable calibration shall be provided with each system. All equipment shall be covered by the manufacturer's two year warranty.
 3. BTU Meter: The BTU meter shall provide the following points both at the integral LCD and as outputs to the building control system: Energy Total, Energy Rate, Flow Rate, Supply Temperature and Return Temperature. Output signals shall be via individual analog and pulse outputs. Each BTU meter shall be factory programmed for its specific application, and shall be re-programmable using the front panel keypad (no special interface device or computer required).
 4. Temperature sensors: Temperature sensors shall be industrial grade 100 ohm platinum RID's with matched 20 mA transmitters and 316L stainless steel thermowells for high temperature applications and shall be bath-calibrated and matched (NIST* traceable) for the specific temperature range for each application. The calculated differential temperature used in the energy calculation shall be accurate to within +0.15°F (including the error from individual temperature sensors, sensor matching, input offsets, and calculations).

2.02 WIRING

- A. See Section 260502.

2.03 ACCESSORIES

- A. Include accessories required for the modifications to perform the functions specified and indicated on the drawings.

PART 3 EXECUTION

3.01 VERIFICATION OF CONDITIONS

- A. Test of Existing System:
 1. Prior to modifying the system, test portions of the existing system to ascertain their operating condition. Specifically, test:
 - a. Active points which will be modified.
 - b. Primary operators station (POS) and distributed control processor (DCP) functions associated with the modifications.
 2. Prepare a written report for the Director's Representative indicating the repairs required, if any, to make the existing system function properly.
 3. Repairs to the existing system are not included in the Work unless requested by Order on Contract.

3.02 INTERRUPTIONS TO EXISTING SYSTEM

- A. Maintain the existing system in its present condition to the extent possible while installing new Work.
- B. Prior to making changes relative to the existing system, notify the Director's Representative and have procedures approved.

3.03 INSTALLATION

- A. Install the Work in accordance with the Company's printed instructions unless otherwise indicated.
- B. Reprogram the system to include new sensor and control points and update existing system program to include changes and additions requested by facility
 - 1. Obtain from the facility personnel through the Director's Representative, a list of desired system program changes, additions, etc.
- C. Identification, Labeling, Marking:
 - 1. Identification of Circuits: Identify wires, cables, and tubing by system and function in interconnection cabinets, POSs and DCPs to which they connect with premarked, self-adhesive, wraparound type markers. Designations shall correspond with point to point wiring diagrams.

3.04 FIELD QUALITY CONTROL

- A. Preliminary System Test:
 - 1. Preparation: Have the Company Field Advisor adjust the completed system and then operate it long enough to assure that it is performing properly.
 - 2. Run a preliminary test for the purpose of:
 - a. Determining whether the system is in a suitable condition to conduct an acceptance test.
 - b. Checking and adjusting equipment.
- B. System Acceptance Test:
 - 1. Preparation: Notify the Director's Representative at least 3 working days prior to the test so arrangements can be made to have a Facility Representative witness the test.
 - 2. Make the following tests:
 - a. Test system operational functions associated with the modifications.
 - b. Test each monitor and control device connected or added under this project.
 - 3. Supply all equipment necessary for system adjustment and testing.
 - 4. Submit written report of test results signed by Company Field Advisor and the Director's Representative. Mount a copy of the written report in a plexiglas enclosed frame assembly adjacent to the POS.

3.05 POINT DESCRIPTION, PROGRAM LIST AND SEQUENCES

A. Domestic Hot Water System:

Description	Points				Notes
	Input		Output		
	Binary	Analog	Binary	Analog	
Domestic Hot Water Flow		X			Flow Meter
Cold Water Make-up Flow		X			Flow Meter
How Water Recirc Flow		X			Flow Meter
Domestic HW Temp		X			
Domestic Water Feeding Heaters Temp		X			
Steam Pressure Serving Domestic Water Htrs.		X			
Recirculation Pump Start/Stop			X		(Typ. 2)
Recirculation Pump Status	X				(Typ. 2)
Domestic Water Heater Status	X				(Typ. 4)
Domestic HW Temp. Reset				X	(Typ. 4)

END OF SECTION

SECTION 260502

BASIC ELECTRICAL MATERIALS AND METHODS FOR DIRECT DIGITAL BUILDING CONTROL SYSTEM

PART 1 GENERAL

1.01 REFERENCES

- A. NEMA, ANSI, and UL.

1.02 SUBMITTALS

- A. Product Data:
 - 1. Catalog sheets, specifications and installation instructions.
 - 2. Statement from the Company producing the system, for each size and type of cable proposed for communication bus use, indicating that the electrical characteristics meet the requirements of the Company.
 - 3. For fire rated construction, prove that materials and installation methods proposed for use are in accordance with the listing requirements of the classified construction.

PART 2 PRODUCTS

2.01 RACEWAYS, FITTINGS AND ACCESSORIES

- A. Rigid Ferrous Metal Conduit: Steel, hot dipped galvanized on the outside and inside, UL categorized as Rigid Ferrous Metal Conduit (identified on UL Listing Mark as Rigid Metal Conduit - Steel or Rigid Steel Conduit), by Allied Tube & Conduit Corp., LTV Copperweld, or Wheatland Tube Co.
- B. Insulated Bushings, Insulated Grounding Bushings: By Appleton Electric Co., Cooper/Crouse-Hinds, OZ/Gedney Co., or Thomas & Betts Corp.
- C. Connectors and Couplings:
 - 1. Locknuts: UL, steel/zinc electroplate; Appleton Electric Co.'s BL-50 Series, Cooper/Crouse-Hinds' 11 Series, OZ/Gedney Co.'s 1-50S Series, Raco Inc.'s 1002 Series, Steel City/T&B Corp.'s LN-101 Series, or Thomas & Betts Corp.'s 141 Series.
 - 2. Couplings (For Rigid Metal): Standard galvanized threaded couplings as furnished by conduit manufacturer, Allied Tube & Conduit Corp.'s Kwik-Couple, or Thomas & Betts Corp.'s Shamrock.
 - 3. Three Piece Conduit Coupling (For Rigid Metal): Steel, malleable iron, zinc electroplate; Allied Tube & Conduit Corp.'s Kwik-Couple, Appleton Electric Co.'s EC-50 Series, Cooper/Crouse-Hinds' 190M Series, OZ/Gedney Co.'s 4-50 Series, Raco Inc.'s 1502 Series, Steel City/T & B Corp.'s EK-401 Series, or Thomas & Betts Corp.'s 675 Series.

- D. Conduit Bodies (Threaded):
1. Dry, Damp Locations: Zinc electroplate malleable iron or cast iron alloy bodies with zinc electroplate steel covers; Appleton Electric Co.'s Unilets, Cooper/Crouse-Hinds' Condulets, OZ/Gedney Co.'s Conduit Bodies, or Thomas & Betts Corp.'s Conduit Bodies.
 2. Wet Locations: Malleable iron or cast iron alloy bodies and covers with hot dipped galvanized or other specified corrosion resistant finish; Cooper/Crouse-Hinds' Condulets (Corro-free epoxy powder coat), Thomas & Betts Corp.'s Conduit Bodies (hot dipped galvanized), or OZ/Gedney Co.'s Conduit Bodies (hot dipped galvanized). Stainless steel cover screws, covers gasketed to suit application.
- E. Expansion Fittings:
1. Dry, Damp Locations:
 - a. Malleable iron, zinc electroplate finish: Appleton Electric Co.'s XJ or OZ/Gedney Co.'s AX, with external bonding jumper.
 - b. Electrogalvanized Steel: Cooper/Crouse-Hinds' XJG, or Thomas & Betts Corp.'s XJG, with internal grounding.
 2. Wet Locations: Cooper/Crouse-Hinds XJG (Corro-free epoxy powder coat), OZ Gedney Co.'s AX, EXE (end type, hot dipped galvanized), or Thomas & Betts Corp.'s XJG (hot dipped galvanized).
- F. Deflection Fittings:
1. Dry Locations: Appleton Electric Co.'s DF, Cooper/Crouse-Hinds' XD, or OZ/Gedney Co.'s Type DX.
 2. Wet Locations: Ductile iron couplings with hot dipped galvanized finish, neoprene sleeve, and stainless steel bands, Appleton Electric Co.'s CF; or bronze couplings, neoprene sleeve, and stainless steel bands, OZ/Gedney Co.'s Type DX.
- G. Sealing Fittings:
1. Dry, Damp Locations: Appleton Electric Co.'s EYS, ESU w/Kwiko sealing compound and fiber filler, Cooper/Crouse-Hinds' EYS, EZS w/Chico A sealing compound and Chico X filler, OZ/Gedney Co.'s EY, EYA with EYC sealing compound and EYF damming fiber, or Thomas & Betts Corp.'s. EYS w/Chico A sealing compound and Chico X filler.
 - a. Other Type Fittings: As required to suit installation requirements, by Appleton Electric Co., Cooper/Crouse-Hinds, OZ/Gedney Co, or Thomas & Betts Corp.
 2. Wet Locations: Malleable iron body with hot dipped/mechanically galvanized finish, neoprene sleeve, and stainless steel bands, Appleton electric Co.'s CF; or bronze couplings, neoprene sleeve, and stainless steel bands, OZ/Gedney Co.'s Type DX.
 - a. Horizontal: Cooper/Crouse-Hinds' EYS with Chico A sealing compound and Chico X filler, OZ/Gedney Co.'s EYD with EYC sealing compound and EYF damming fiber, or Thomas & Betts Corp.'s. EYS w/Chico A sealing compound and Chico X filler.
 - b. Vertical (with Drain): Cooper/Crouse-Hinds with Chico A sealing compound and Chico X filler, OZ/Gedney Co.'s EY, EYA with EYC sealing compound and EYF damming fiber, or Thomas & Betts Corp.'s. w/Chico A sealing compound and Chico X filler.

- c. Other Type Fittings. As required to suit installation requirements, by Cooper/Crouse-Hinds, OZ/Gedney Co., or Thomas & Betts Corp. with hot dipped/mechanically galvanized finish or epoxy powder coat.
- H. Sealant for Raceways Exposed to Different Temperatures: Sealing compounds and accessories to suit installation; Appleton Electric Co.'s DUC, or Kwiko Sealing Compound with fiber filler, Cooper/Crouse-Hinds' Chico A Sealing Compound with Chico X fiber, Electrical Products Division 3M Scotch products, OZ Gedney Co.'s DUX or EYC sealing compound with EYF damming fiber, or Thomas & Betts Corp.'s Blackburn DX.
- I. Vertical Conductor Supports:
 - a. Dry, Damp Locations: Kellems/Hubbell Inc.'s Conduit Riser Grips, or OZ/Gedney Co.'s Type M, Type R.
 - b. Wet Locations: Kellems/Hubbell Inc.'s Conduit Riser Grips (stainless steel or tin coated bronze), or OZ/Gedney Co.'s hot dipped galvanized finish Type CMT or Type W.

2.02 OUTLET, JUNCTION AND PULL BOXES

- A. Galvanized Steel Boxes For Concealed Work: Standard galvanized steel boxes and device covers by Appleton Electric Co., Beck Mfg./Picoma Industries, Cooper/Crouse-Hinds, Raco/Div. of Hubbell , or Steel City/T & B Corp.
- B. Galvanized Steel Junction and Pull Boxes For Exposed Work: Code gage, galvanized steel screw cover boxes by Delta Metal Products Inc., Hoffman Enclosures Inc., Hubbell Wiegmann, Lee Products Co., or Rittal/Electromate.
- C. Threaded Type Boxes For Exposed Work:
 - 1. Outlet Boxes:
 - a. For Dry, Damp Locations: Zinc electroplate malleable iron or cast iron alloy boxes by Appleton Electric Co., Cooper/Crouse-Hinds Co., OZ/Gedney Co., or Thomas & Betts Corp. with zinc electroplate steel covers to suit application.
 - b. For Wet Locations: Malleable iron or cast iron alloy boxes with hot dipped galvanized or other specified corrosion resistant finish as produced by Cooper/Crouse-Hinds (hot dipped galvanized or Corro-free epoxy powder coat), OZ/Gedney Co. (hot dipped galvanized), or Thomas & Betts Corp. (hot dipped galvanized) with stainless steel cover screws, and malleable iron covers gasketed to suit application.
 - 2. Junction And Pull Boxes:
 - a. For Dry, Damp Locations: Zinc electroplate cast iron boxes by Appleton Electric Co., Cooper/Crouse-Hinds, OZ/Gedney Co., or Thomas & Betts Corp. with zinc electroplate steel or cast iron cover.
 - b. For Wet Locations: Cast iron boxes by Cooper/Crouse-Hinds' (hot dipped galvanized or Corro-free epoxy powder coat), OZ/Gedney Co. (hot dipped galvanized), or Thomas & Betts Corp. (hot dipped galvanized) with stainless steel cover screws and cast iron cover gasketed to suit application.

3. Conduit Bodies, Threaded (Provided with a Volume Marking):
 - a. For Dry, Damp Location: Zinc electroplate malleable iron or cast iron alloy bodies with zinc electroplate steel covers; Appleton Electric Co.'s Unilets, Cooper/Crouse-Hinds' Condulets, OZ/Gedney Co.'s Conduit Bodies, or Thomas & Betts Corp.'s Conduit Bodies.
 - b. For Wet Locations: Malleable iron or cast iron alloy bodies with hot dipped galvanized or other specified corrosion resistant finish; Cooper/Crouse-Hinds' Condulets (hot dipped galvanized or Corro-free epoxy power coat), OZ/Gedney Co.'s Conduit Bodies (hot dipped galvanized), or Thomas & Betts Corp.'s Conduit Bodies (hot dipped galvanized) with stainless steel cover screws and malleable iron covers gasketed to suit application.

- D. Specific Purpose Outlet Boxes: As fabricated by manufacturers for mounting their equipment.

- E. Outlet Boxes and Related Products for Fire Rated Construction:
 1. Parameters For Use of Listed Metallic Outlet or Device Boxes: UL Electrical Construction Equipment Directory - Metallic Outlet Boxes (QCIT).
 2. Wall Opening Protective Materials: As listed in UL Fire Resistance Directory - Wall Opening Protective Materials (CLIV), or UL Electrical Construction Equipment Directory - Wall Opening Protective Materials (QCSN).

2.03 CONDUCTORS AND ACCESSORIES

- A. Date of Manufacture: No insulated conductor over one year old when delivered to the site will be acceptable.

- B. Conductors: Annealed uncoated copper or annealed coated copper in conformance with the applicable standards for the type of insulation to be applied on the conductor.

- C. Types for Power and Class 1, 2 and 3 Circuits:
 1. Power Wiring:
 - a. General: Rated 600V, NFPA 70 Type FEP, THHN, THW, THW-2, THWN, THWN-2, XHH, XHHW, XHHW-2.
 2. Class 1 Wiring:
 - a. No. 18 and No. 16 AWG: Insulated copper conductors suitable for 600 volts, NFPA 70 types KF-2, KFF-2, PAFF, PF, PFF, PGF, PGFF, PTF, SF-2, SFF-2, TF, TFF, TFN, TFFN, ZF, or ZFF.
 - b. Larger than No. 16 AWG: Insulated copper conductors suitable for 600 volts, in compliance with NFPA 70 Article 310.
 - c. Conductor with other types and thickness of insulation may be used if listed for Class 1 circuit use.
 3. Class 2 Wiring:
 - a. Multiconductor Cables: NFPA 70 Article 725, Types CL2P, CL2R, CL2.
 - b. Other types of cables may be used in accordance with NFPA 70 Table 725-61 "Cable Uses and Permitted Substitutions", as approved.
 4. Class 3 Wiring:
 - a. Single Conductors No. 18 and No. 16 AWG: Same as Class 1 No. 18 and No. 16 AWG conductors, except that:

- 1) Conductors are also listed as CL3.
 - 2) Voltage rating not marked on cable except where cable has multiple listings and voltage marking is required for one or more of the listings.
 - b. Multiconductor Cables: NFPA 70 Article 725, Types CL3P, CL3R, CL3.
 - c. Other types of cables may be used in accordance with NFPA 70, Table 725-61 "Cable Uses and Permitted Substitutions", as approved.
- D. Connectors:
1. General: Connectors specified are part of a system. Furnish connectors and components, and use specific tools and methods as recommended by connector manufacturer to form complete connector system.
 2. Splices:
 - a. Spring Type:
 - 1) Rated 105° C, 600V; Buchanan/Ideal Industries Inc.'s B-Cap, Electrical Products Div./3M's Scotchlok Type Y, R, G, B, O/B+, R/Y+, or B/G+, or Ideal Industries Inc.'s Wing Nuts or Wire Nuts.
 - 2) Rated 150° C, 600V; Ideal Industries Inc.'s High Temperature Wire-Nut Model 73B, 59B.
 - b. Indent Type with Insulating Jacket:
 - 1) Rated 105° C, 600V; Buchanan/Ideal Industries Inc.'s Crimp Connectors, Ideal Industries Inc.'s Crimp Connectors, Penn-Union Corp.'s Penn-Crimps, or Thomas & Betts Corp.'s STA-KON.
 - c. Indent Type (Uninsulated): Anderson/Hubbell's Versa-Crimp, VERSAtile, Blackburn/T&B Corp.'s Color-Coded Compression Connectors, Electrical Products Div./3M's Scotchlok 10000, 11000 Series, Framatome Connectors/Burndy's Hydent, Penn-Union Corp.'s BCU, BBCU Series, or Thomas & Betts Corp.'s Compression Connectors.
 - d. Connector Blocks: NIS Industries Inc.'s Polaris System, or Thomas & Betts Corp.'s Blackburn AMT Series.
 - e. Resin Splice Kits: Electrical Products Div./3M's Scotchcast Brand Kit Nos. 82A Series, 82-B1 or 90-B1, or Scotchcast Brand Resin Pressure Splicing Method.
 - f. Heat Shrinkable Splices: Electrical Products Div./3M's ITCSN, Raychem Corp.'s Thermofit Type WCS, or Thomas & Betts Corp.'s SHRINK-KON Insulators.
 - g. Cold Shrink Splices: Electrical Products Div./3M's 8420 Series.
- E. Terminals: Nylon insulated pressure terminal connectors by Amp-Tyco/Electronics, Electrical Products Div./3M, Framatome Connectors/Burndy, Ideal Industries Inc., Panduit Corp., Penn-Union Corp., Thomas & Betts Corp., or Wiremold Co.
- F. Insulation Tapes:
1. Plastic Tape: Electrical Products Div./3M's Scotch Super 33+ or Scotch 88, Plymouth Rubber Co.'s Plymouth/ Bishop Premium 85CW.
 2. Rubber Tape: Electrical Products Div./3M's Scotch 130C, or Plymouth Rubber Co.'s Plymouth/Bishop W963 Plysafe.

- G. Moisture Sealing Tape: Electrical Products Div./3M's Scotch 2200 or 2210, or Plymouth Rubber Co.'s Plymouth/Bishop 4000 Plyseal-V.
- H. Wire Management Products: Cable clamps and clips, cable ties, spiral wraps, etc., by Catamount/T&B Corp., or Ideal Industries, Inc.

2.04 SUPPORTING DEVICES

- A. "C" Beam Clamps:
 - 1. For 1 Inch Conduit Maximum: B-Line Systems Inc.'s BG-8-C2, BP-8-C1 Series, or Caddy/Erico Products Inc.'s BC-8P and BC-8PSM Series.
 - 2. For 3 Inch Conduit Maximum: Appleton Electric Co.'s BH-500 Series beam clamp with H50WB Series hangers, Kindorf/T&B Corp.'s 500 Series beam clamp with 6HO-B Series hanger, or OZ/Gedney Co.'s IS-500 Series beam clamp with H-OWBS Series hanger.
 - 3. For 1/4 Inch Hanger Rods: B-Line Systems Inc.'s BC, Caddy/Erico Products Inc.'s BC, Kindorf/T&B Corp.'s 500, 510, or Unistrut Corp.'s P1648S, P2398S, P2675, P2676.
 - 4. For 3/8 Inch Hanger Rods: Caddy/Erico Products Inc.'s BC, Kindorf/T&B Corp.'s 231-3/8, 502, or Unistrut Corp.'s P1649AS, P2401S, P2675, P2676.
- B. Pipe Straps: Two hole steel conduit straps; Kindorf/T&B Corp.'s C-144 Series, or Unistrut Corp.'s P-2558 Series.
- C. Pipe Clamps: One hole malleable iron clamps; Kindorf/T&B Corp.'s HS-400 Series, or OZ/ Gedney Co.'s 14-G Series.
- D. Supporting Fastener (Metal Stud Construction): Metal stud supports, clips and accessories as produced by Caddy/Erico Products Inc.

PART 3 EXECUTION

3.01 INSTALLATION, GENERAL

- A. Provide wiring for the Direct Digital Building Control System.
 - 1. Provide Class 1, 2, and 3 wiring, communication bus wiring and connections.

3.02 RACEWAY INSTALLATION

- A. Conduits Penetrating Concrete Floor Slabs (Concrete slabs that are both ceilings and floors shall be treated as floor slabs):
 - 1. Provide a minimum of 2 inches between conduits that vertically penetrate elevated concrete slabs.
 - 2. Provide firestopping and spray on fireproofing at locations where conduits penetrate surface of floor slab and slab is part of fire rating required for construction.

- B. Conduit Installed Exposed:
1. Install conduit exposed where indicated on the drawings. If not indicated, conduit may be installed exposed, as approved, in:
 - a. Unfinished spaces, and finished spaces housing mechanical or electrical equipment that is generally accessible only to facility maintenance personnel.
 - b. Areas where existing conduits have been installed exposed.
 - c. Areas where conduit cannot be installed concealed.
 2. Install conduit tight to the surface of the building construction. Exceptions:
 - a. Where otherwise indicated or directed.
 - b. Where conduit is exposed in wet locations. Install entire wiring system including conduit, boxes, and fittings so that there is 1/4 inch air space between it and the wall or supporting surface.
 3. Install vertical runs perpendicular to the floor.
 4. Install runs on the ceiling perpendicular or parallel to the walls.
 5. Install horizontal runs parallel to the floor.
 6. Do not run conduits near heating pipes.
 7. Installation of conduit directly on the floor will not be permitted.
- C. Conduit Size: Not smaller than 3/4 inch electrical trade size.
- D. Raceways Exposed to Different Temperatures: Where portions of an interior raceway system are exposed to widely different temperatures, seal interior and exterior of raceway to prevent circulation of air from a warmer to a colder section through the raceway installation.
1. Heated Areas to Unheated Areas: After conductors are installed, seal interior of the raceway at the nearest conduit body, outlet or junction box in the heated area adjoining the unheated area.
- E. Conduit in Waterproofed Floors: Install conduit runs in waterproof floors to avoid penetrating the waterproofing. Avoid penetration of waterproofing with conduit risers so far as practicable.
1. Where it is necessary to puncture the waterproofing for a conduit riser, install a standard weight steel pipe sleeve extending one inch above the finished floor level. Flash the steel pipe sleeve to the waterproofing with 16 ounce copper. Construct the flashing with a copper tube extending the full height of the sleeve, soldered to a copper base extending 6 inches in all directions from the sleeve.
 2. The flashing will be integrated into the waterproofing by the Construction Contractor. Provide solid cast brass floor plates with chromium finish where pipe sleeves are exposed in rooms.
- F. Raceway Schedule:
1. Rigid Ferrous Metal Conduit: Install in all locations unless otherwise specified or indicated on the drawings.
- G. Fittings and Accessories Schedule:
1. General:
 - a. Use zinc electroplate or hot dipped galvanized steel/malleable iron or cast alloy fittings and accessories in conjunction with ferrous raceways in dry and damp locations unless otherwise specified or indicated on the drawings.

- b. Use malleable iron or cast iron alloy fittings and accessories having hot dipped/mechanically galvanized finish or other specified corrosion resistant finish in conjunction with ferrous raceways in wet locations unless otherwise specified or indicated on the drawings.
 - c. Use caps or plugs to seal ends of conduits until wiring is installed (to exclude foreign material).
 - d. Use insulated grounding bushings on the ends of conduits that are not directly connected to the enclosure (such as stub-ups under equipment, etc.) and bond between bushings and enclosure with equipment grounding conductor.
 - e. Use expansion fittings where raceways cross expansion joints.
 - f. Use deflection fittings where raceways cross expansion joints that move in more than one plane.
 - g. Use 2 locknuts and an insulated bushing on end of each conduit entering sheet metal cabinet or box in dry or damp locations.
 - 1) Plastic bushing may be used in lieu of insulated bushing on 1/2 and 3/4 inch conduit.
 - 2) Terminate conduit ends within cabinet/box at the same level.
 - h. Use watertight hub on end of each conduit entering cabinets or boxes (in wet locations) that are not constructed with integral threaded hubs.
2. For Rigid and Intermediate Metal Conduit: Use threaded fittings and accessories. Use 3 piece conduit coupling where neither piece of conduit can be rotated.

3.03 OUTLET, JUNCTION AND PULLBOX INSTALLATION

- A. Box Schedule For Concealed Conduit System:
 - 1. Non-Fire Rated Construction:
 - a. Depth: To suit job conditions and comply with NFPA 70 Article 370.
 - b. For Junction and Pull Boxes: Use galvanized steel boxes with flush covers.
 - c. For Devices:
 - 1) Plaster or Cast-In-Place Concrete Walls: Use 4 inch or 4-11/16 inch galvanized steel boxes with device covers.
 - 2) Walls Other Than Plaster or Cast-In-Place Concrete: Use type of galvanized steel box which will allow wall plate to cover the opening made for the installation of the box.
 - 2. Recessed Boxes in Fire Rated (2 hour maximum) Bearing and Nonbearing Wood or Steel Stud Walls (Gypsum Wallboard Facings):
 - a. Use listed single and double gang metallic outlet and device boxes. The surface area of individual outlet or device boxes shall not exceed 16 square inches.
 - b. The aggregate surface area of the boxes shall not exceed 100 square inches per 100 square feet of wall surface.
 - c. Securely fasten boxes to the studs. Verify that the opening in the wallboard facing is cut so that the clearance between the box and the wallboard does not exceed 1/8 inch.
 - d. Separate boxes located on opposite sides of walls or partitions by a minimum horizontal distance of 24 inches. This minimum separation distance may be reduced when wall opening protective materials are installed according to the requirements of their classification.

- e. Use wall opening protective material in conjunction with boxes installed on opposite sides of walls or partitions of staggered stud construction in accordance with the classification requirements for the protective material.
 - 3. Other Fire Rated Construction: Use materials and methods to comply with the listing requirements for the classified construction.
- B. Box Schedule For Exposed Conduit System:
- 1. Dry and Damp Locations: Use zinc electroplate or hot dipped galvanized threaded type malleable iron or cast iron alloy outlet, junction, and pullboxes or conduit bodies provided with a volume marking in conjunction with ferrous raceways unless otherwise specified or indicated on the drawings.
 - a. Galvanized steel boxes may be used in conjunction with conduit sizes over 1 inch in non-hazardous dry and damp locations.
 - b. Galvanized steel boxes may be used in conjunction with electrical metallic tubing where it is installed exposed as branch circuit conduits at elevations over 10'-0" above finished floor.
 - 2. Wet Locations: Use threaded type malleable iron or cast iron alloy outlet junction, and pullboxes or conduit bodies (provided with a volume marking) with hot dipped galvanized or other specified corrosion resistant coating in conjunction with ferrous raceways unless otherwise specified or indicated on the drawings.
 - 3. Finishing Collar or Combination Finishing Collar/Outlet Box (Surface Mounted Equipment Used With Exposed Raceway):
 - a. Use finishing collar where surface mounted equipment is installed on an exposed raceway outlet box and the equipment base is larger than the outlet box.
 - b. Use combination finishing collar/outlet box where surface mounted equipment is not indicated to be installed on an exposed raceway outlet box, but raceway cannot be run directly into equipment body due to equipment design.
- C. Specific Purpose Outlet Boxes: Use to mount equipment when available and suitable for job conditions. Unless otherwise specified, use threaded type boxes with finish as specified for exposed conduit system, steel (painted) for surface metal raceway system and galvanized steel for recessed installations.

3.04 CONDUCTOR INSTALLATION

- A. Install conductors in raceways.
 - 1. Exceptions:
 - a. Raceway is not required for plenum rated Class 2, or Class 3 circuits, or communication bus circuits installed above suspended ceilings.
- B. Conductor Size: Install conductors of size shown on drawings or specified. Where conductor size is not indicated, the minimum size allowed is:
 - 1. For Power Circuits: No. 12 AWG.
 - 2. For Class 1 Circuits:
 - a. No. 18 and No. 16 AWG may be used provided they supply loads that do not exceed 6 amps (No. 18 AWG), or 8 amps (No. 16 AWG).

- b. Larger than No. 16 AWG: Use to supply loads not greater than the ampacities given in NFPA 70 Section 310-15.
 - 3. For Class 2 Circuits: Any size to suit application.
 - 4. For Class 3 Circuits: No. 18 AWG.
 - 5. For Communication Bus Circuits: No. 18 AWG.
- C. Color Code for Wiring: In accordance with ICEA/NEMA WC-30 "Color Coding of Wires and Cables". Other coding methods may be used, as approved.
- D. Use wire management products to bundle, route, and support wiring in junction boxes, pullboxes, wireways, gutters, channels, and other locations where wiring is accessible.
- E. Insulated Conductor Schedule:
 - 1. Power Circuits:
 - a. FEP, THHN, THW, THW-2, THWN, THWN-2, XHH, XHHW, or XHHW-2: Wiring in dry or damp locations (except where special type insulation is required).
 - b. THWN, THWN-2, XHHW, XHHW-2, USE, or USE-2: Wiring in wet locations (except where type USE or USE-2 insulated conductors are specifically required, or special type insulation is required).
 - 2. Class 1 Circuits: Use Class 1 wiring specified in Part 2 (except where special type insulation is required).
 - 3. Class 2 Circuits: Use Class 2 wiring specified in Part 2 (except where special type insulation is required).
 - 4. Class 3 Circuits: Use Class 3 wiring specified in Part 2 (except where special type insulation is required).
 - 5. Interior Communication Bus Circuits: Use multiconductor cable PLTC.
- F. Connector Schedule:
 - 1. Temperature Rating: Use connectors that have a temperature rating, equal to, or greater than the temperature rating of the conductors to which they are connected.
 - 2. Splices:
 - a. Dry Locations:
 - 1) For Conductors No. 8 AWG or Smaller: Use spring type pressure connectors, indent type pressure connectors with insulating jackets, or connector blocks (except where special type splices are required).
 - b. Damp Locations: As specified for dry locations, except apply moisture sealing tape over the entire insulated connection (moisture sealing tape not required if heat shrinkable splices or cold shrink splices are used).
 - c. Wet Locations: Use uninsulated indent type pressure connectors and insulate with resin splice kits, cold shrink splices or heat shrinkable splices. Exception: Splices above ground which are totally enclosed and protected in NEMA 3R, 4, 4X enclosures may be spliced as specified for damp locations.
 - 3. Terminations:
 - a. For Conductors No. 10 AWG or Smaller: Use terminals for connecting wiring to terminal strips, and to equipment designed for use with terminals.

3.05 SUPPORTING DEVICE INSTALLATION

- A. Attachment of Conduit System:
 - 1. Wood Construction: Attach conduit to wood construction by means of pipe straps or pipe clamps and wood screws or lag bolts.
 - 2. Masonry Construction: Attach conduit to masonry construction by means of pipe straps or pipe clamps and masonry anchorage devices.
 - 3. Steel Beams: Attach conduit to steel beams by means of “C” beam clamps and hangers.
 - 4. Conduit Above Suspended Ceiling: Do not rest conduit directly on runner bars, T-bars, etc. Support conduit from ceiling supports or from construction above suspended ceiling.

- B. Metal Stud Construction: Attach raceways and boxes to metal studs by means of supporting fasteners manufactured specifically for the purpose.
 - 1. Support and attach outlet boxes so that they cannot torque/twist. Either:
 - a. Use bar hanger assembly, or:
 - b. In addition to attachment to the stud, also provide far side box support.

END OF SECTION

SECTION 412200

HOISTS

PART 1 GENERAL

1.01 REFERENCES

- A. AISC Specification for the Design, Fabrication and Erection of Structural Steel for Buildings.
- B. ANSI MH 27.1, Specifications for Underhung Cranes and Monorail Systems.
- C. ANSI B30.16 Safety Standard for Overhead Hoists (Underhung).
- D. ANSI B30.11 Safety Standards for Monorails and Underhung Cranes.
- E. ANSI/ASME HST-2M Performance Standard for Hand Chain Manually Operated Chain Hoists.
- F. ASME NOG-1, Rules for Construction of Overhead and Gantry Cranes.
- G. AWS D1.1, Code for Welding in Building Construction.
- H. OSHA 29 CFR 1910.179, Overhead and Gantry Cranes.

1.02 SYSTEM DESCRIPTION

- A. Hoist and Crane System: The system specified consists of an overhead crane, with trolley mounted manual chain hoist, supported by a runway framework and the building structure, and meeting the requirements of the referenced specifications, standards, rules and codes.

1.03 DESIGN REQUIREMENTS

- A. System Capacity: Will lift and move 1 ton of containers, materials or equipment.
- B. Crane shall be manually operated single girder with a total length of 41 feet, as shown on the Contract Drawings.
- C. Hoist shall be suspended from a manually operated trolley.
- D. Runway track shall be supported by and bolted through the concrete slab above.
- E. Distance between runway supports shall be 10'-0".
- F. Overall length of runway shall be 41'-0".
- G. Distance from floor to top of runway shall be a minimum of 15'-4".

1.04 SUBMITTALS

- A. Waiver of Submittals: The “Waiver of Certain Submittal Requirements” in Section 013300 does not apply to this Section.
- B. Submittals Package: Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package.
- C. Shop Drawings:
 - 1. Show the construction details of the hoist and crane system and the crane support structure.
 - 2. Show installation details.
- D. Product Data:
 - 1. Catalog sheets, specifications, and installation instructions.
 - 2. Bill of materials.
 - 3. Name, address, and telephone number of nearest fully equipped service organization.
- E. Quality Control Submittals:
 - 1. Design data, including safety factor of materials.
 - 2. Test report of hoist and crane system.
 - 3. Certificate required under Quality Assurance.
- F. Contract Closeout Submittals:
 - 1. Operation and maintenance data.
 - 2. Warranty.
 - 3. Test reports of the completed hoist and crane system.

1.05 QUALITY ASSURANCE

- A. Company Field Advisor: Secure the services of a Company Field Advisor for a minimum of 10 hours for the following:
 - 1. Render advice regarding installation of the hoist and crane system.
 - 2. Witness final system test and then certify with an affidavit that the hoist and crane system is installed in accordance with the contract requirements and is operating properly.

PART 2 PRODUCTS

2.01 HOIST SYSTEMS

- A. Hoist: Manual chain Hoist as manufactured by Coffing Hoists Model LHH-IB15, or Approved Equal with all parts and accessories to install on Bridge Crane and meeting the following requirements:
 - 1. Maximum lifting capacity of one (1) ton.
 - 2. 15 foot lift with 53lb pull required for rated load.
 - 3. Steel Housing.

4. Hardened Steel Gears
5. Load Brakes.
6. Hardened Chain.
7. 360° Swivel hook with Safety Latch.
8. Rated for Indoor and Outdoor use.
9. Trolley: One (1) Ton Heavy Duty Hoist as Manufactured by Harrington Hoists and Crane Model PTF2010, Dayton Electric MFG, Model 3MB57 or Approved Equal with Au Parts and accessories to install on the Bridge Crane and meeting the following requirements.
 - a. Maximum Capacity of one (1) ton.
 - b. Ball Bearing Steel or Solid Machined Cast Iron Wheels.
 - c. Fit Beam Flange width up to 5 ½ ‘.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install the Work in this Section in accordance with the manufacturer’s printed instructions, shop drawings, and directions of the Company Field Advisor.

END OF SECTION



SCHEDULE OF SUBMITTALS									
PROJECT NO.: Q1661-C									
SUBMITTALS FOR APPROVAL					Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:	
013113 PROJECT SCHEDULE									
013113		QCS	CMU-01 Agreement Form	S	X				
013300 SUBMITTALS									
013300		PD	Schedule of Submittals (This form completed and edited)	F	X				
013300		QCS	Proof of Payment	F	X				
013300		QCS	Submittal Coordinator Qualifications	F/O	X				
017716 CONTRACT CLOSEOUT									
017716		CCS	Project Record Documents	F					
017716		CCS	Operation and maintenance, 2 copies	F					
017716		CCS	Warranties	F					
017716		CCS	Spare Parts and Maintenance Materials	F					
028213 ASBESTOS ABATEMENT									
028213		PD	Disposal Bags	D					
028213		PD	Equipment	D					
028213		PD	Fireproofing	D					
028213		PD	Glove Bags	D					
028213		PD	Negative Air Pressure Units	D					
028213		PD	Plastic Sheets	D					
028213		PD	Respirators	D					
028213		PD	Vacuum Cleaners	D					
028213		QCS	specific variance is sought submit the following: One	D					
028213		QCS	specific variance is sought submit the following: One	D					
028213		QCS	Notification Compliance Data	D					
028213		QCS	Work Plan	D					
028213		QCS	Abatement Contractor's Qualifications Data	D					
028213		QCS	Abatement Worker's Qualifications Data	D					
028213		QCS	Testing Lab Qualifications Data	D					
028213		QCS	Waste Transporter Permit	D					
028213		QCS	Landfill Permit	D					
028213		QCS	Negative Air Pressure Equipment Data	D					
028213		QCS	Waste Shipment Records and Disposal Site Receipts	D					
028213		QCS	Daily Log	D					
028213		QCS	Certificates	D					
028213		QCS	Air Monitoring Data	D					
028304 HANDLING OF LEAD CONTAINING MATERIALS									
028304		PD	Respirators	D					
028304		PD	Vacuum Cleaners	D					

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
028304		PD	Plastic Sheets	D				
028304		PD	Disposal Bags	D				
028304		PD	Equipment	D				
028304		PACK	submittal package at the same time.	D				
028304		QCS	Work Plan	D				
028304		QCS	Lead Handling Contractor's Qualifications Data	D				
028304		QCS	Lad Handling Worker's Qualifications Data	D				
028304		QCS	Testing Lab Qualifications Data	D				
028304		QCS	Waste Transporter Permit	D				
028304		QCS	Landfill Permit	D				
028304		QCS	Disposal Site Receipts	D				
028304		QCS	Test Data	D				
028304		QCS	Certificates	D				
040121 MASONRY RESTORATION								
040121		PD	Portland Cement	D				
040121		PD	Lime	D				
040121		PD	Mortar Pigments	D				
040121		PD	Packaged Products: Manufacturer's specifications and application instructions for products specified	D				
040121		PD	Sand	D				
040121		SAM	Mortar for Exposed Joints and Cracks	F				
040121		SAM	Masonry Units	F				
051200 STRUCTURAL STEEL (Allowable Stress Design)								
051200		SD	Initial Submission: Drawings of proposed job standards for shop and field connections, including standard and special connections, complying with the requirements	D				
051200		SD	Initial Submission: Erection drawings indicating sizes, weights, and locations of all structural members.	D				
051200		SD	Initial Submission: Anchor bolt and base plate plans	D				
051200		SD	Subsequent Submission: Index sheets and revised erection drawings to which erection marks have been added	D				
051200		SD	Subsequent Submission: Detail drawings of all structural members	D				
051200		PD	Shop paint	D				
051200		QCS	Test Reports: Steel manufacturer's mill test reports	D				
051200		QCS	Test Reports: Bolt manufacturer's test reports	D				
051200		QCS	Certificates: Submit evidence, in triplicate, of steel material compliance with this Specification.	D				
051200		QCS	Fabricator's and Erector's Qualifications Data	F				
051200		QCS	Welding Procedure Specifications	D				
051200		QCS	Welder's Certification	F				
071400 LIQUID APPLIED WATERPROOFING SYSTEM								

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
071400		PD	Membrane material	D				
071400		PD	Primer	D				
071400		PD	Static Joint and Crack Filler	D				
071400		PD	Bond Breaker Tape	D				
071400		PD	Wax	D				
071400		QCS	in specifications	D				
071400		QCS	Certification - Installers Qualifications Data	D				
072100 BUILDING INSULATION								
072100		PD	Rigid (Board) Insulation: Extruded polystyrene thermal insulation boards; ASTM C 578, Type IV, manufactured with CFC-free blowing agents	D				
072100		PD	Mechanical Anchors	D				
072100		SAM	Rigid Type	F				
072100		QCS	Certificate Affidavit required under Quality Assurance Article	D				
075323 ADHERED EPDM ROOFING SYSTEM								
075323		PACK	Submit all items, except contract closeout submittals and MSDS, at one time as a complete package.	D				
075323		PD	Proposed Deviations from Contract Documents	D				
075323		PD	EPDM (Ethylene, Propylene, Diene, Monomer) Sheet Membrane	D				
075323		PD	Sheet Flashing	D				
075323		PD	Inseam Tape	D				
075323		PD	Cured EPDM Cover Tape	D				
075323		PD	Uncured EPDM Cover Tape	D				
075323		PD	Related Products: Membrane manufacturer's bonding adhesive, splicing cement, lap sealant, water cut-off mastic, nite seal, pourable sealer, splice joint cleaning agent and primer, insulation adhesive, and all other products related to the sheet membrane system.	D				
075323		PD	Tapered Insulation System	D				
075323		PD	Coverboard Insulation	D				
075323		PD	Tapered Cricket System	D				
075323		PD	Insulation and Membrane Fasteners	D				
075323		PD	Base Flashing Fasteners	D				
075323		PD	Termination Bar and Fasteners	D				
075323		PD	EPDM Anchor Strips	D				
075323		PD	Coverboard and Insulation Adhesive	D				
075323		PD	Pipe Flashing	D				
075323		PD	Compression Clamp	D				
075323		PD	Walkway, Protection Pads	D				
075323		PD	Retro Fit Roof Drains	D				
075323		PD	Sealant	D				
075323		PD	Materials For Vapor Retarder Over Concrete Decks	D				
075323		SAM	Sheet Membrane	F				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
075323		SAM	Sheet Flashing	F				
075323		SAM	EPDM Cover Tape	F				
075323		SAM	Inseam Tape	F				
075323		SAM	Fasteners	F				
075323		SAM	Insulation	F				
075323		SAM	Coverboard	F				
075323		QCS	Fire Hazard Certification	D				
075323		QCS	Wind Uplift Certification	D				
075323		QCS	Material Certification Membrane Manufacturer's Certification	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
075323		QCS	Membrane Manufacturer's Certification	D				
075323		QCS	Installer's Certification	D				
075323		QCS	Warranty: Sample Copy	D				
075323		CCS	Warranty Extension	F				
075323		CCS	Manufacturer's Warranty	F				
076000 FLASHING AND TRIM								
076000		SD	Show the manner of forming, jointing and securing the metal flashings and trim	D				
076000		PD	Prefinished Aluminum Sheet	D				
076000		PD	Nails	D				
076000		PD	Screws, Bolts and other Fastening Accessories	D				
076000		PD	Anchors	D				
076000		SAM	Materials for Flashings	F				
076000		SAM	Anchors	F				
076000		SAM	Cap Flashings	F				
076000		SAM	Gravel Stop	F				
076000		SAM	Coping	F				
079200 JOINT SEALERS								
079200		PD	Type 1 Sealant	D				
079200		PD	Backer Rod	D				
079200		PD	Bond Breaker Tape	D				
079200		PD	Cleaning Solvents	D				
079200		SAM	Sealant	F				
079200		SAM	Backer Rods	F				
079200		SAM	Bond Breaker Tape	F				
081102 STEEL DOORS AND FRAMES								
081102		SD	Quality Assurance Package	D				
081102		SD	Door and Frame Schedule with Product Data Package	D	X			
081102		CCS	Closeout Submittal Package	F				
087100 FINISH HARDWARE								
087100		SD	Quality Control Package	D				
087100		SD	Finish Hardware Package	D	X			
087100		CCS	Closeout Submittals Package	F				
092213 NON-LOAD BEARING FRAMING AND FURRING								
092213		PD	Studs, Tracks, Furring	D				
092213		PD	Fasteners	D				
092213		SAM	Steel Framing and Furring	F				
092213		SAM	Fasteners	F				
412200 HOISTS AND CRANES								
412200		PACK	Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-C

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
412200		SD	Show the construction details of the hoist and crane system and the crane support structure	D				
412200		SD	Show the electric wiring and control system	D				
412200		SD	Show installation details	D				
412200		PD	Bill of materials	D				
412200		PD	Name, address, and telephone number of nearest fully equipped service organization	F				
412200		PD	Hoist	D				
412200		PD	Crane	D				
412200		QCS	Design data, including safety factor of materials.	D				
412200		QCS	Test report of hoist and crane system	D				
412200		QCS	Certificate required under Quality Assurance	F				
412200		CCS	Operation and maintenance data	F				
412200		CCS	Warranty.	F				
412200		CCS	Test reports of the completed hoist and crane system	F				



SCHEDULE OF SUBMITTALS										
PROJECT NO.: Q1661-P										
SUBMITTALS FOR APPROVAL					Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)			
Spec Section	Sub Section	Type	Description			Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:	
				F						
				F/O						
				D						
				S						
007213			GENERAL CONDITIONS							
007213		PD	ARTICLE 6: Designate in writing competent supervision and/or management representatives as required - include contact number in case of an emergency after work hours, including weekends and holidays (see 011000 Summary of Work)	F						
007213		PD	ARTICLE 8: Permits and licenses	F						
013113			PROJECT SCHEDULE							
013113		QCS	CMU-01 Agreement Form	S	X					
013300			SUBMITTALS							
013300		PD	Schedule of Submittals (This form completed and edited)	F	X					
013300		QCS	Proof of Payment	F	X					
013300		QCS	Submittal Coordinator Qualifications	F/O	X					
017716			CONTRACT CLOSEOUT							
017716		CCS	Project Record Documents	F						
017716		CCS	Operation and maintenance, 2 copies	F						
017716		CCS	Warranties	F						
017716		CCS	Spare Parts and Maintenance Materials	F						
033001			CAST-IN-PLACE CONCRETE BROADSCOPE SHORT VERSION							
033001		PACK	Submit product data for design mix(es) and materials for concrete specified below at the same time as a package	D						
033001		SAM	Fabric Reinforcement	F						
033001		SAM	Bar Supports	F						
033001		QCS	Certificates: Affidavit required under Quality Assurance Article	F						
079200			JOINT SEALERS							
079200		PD	Type 6 Sealant	D						
079200		PD	Sealant Colors	D						
079200		PD	Joint Primer/Sealer/Conditioner	D						
079200		PD	Backer Rod	D						
079200		PD	Bond Breaker Tape	D						
079200		PD	Cleaning Solvents	D						
079200		SAM	Sealant	F						
079200		SAM	Joint Primer/Sealer/Conditions	F						
079200		SAM	Backer Rods	F						

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-P

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
079200		SAM	Bond Breaker Tape	F				
079200		QCS	Installer's Qualifications Data	F				
079200		QCS	Company Field Advisor Data	F				
099103 MECHANICAL PAINTING								
099103		PD	Painting Schedule - Interior Substrates	D				
099103		PD	Type IAL-3: Interior Acrylic Latex, Semigloss Enamel	D				
099103		PD	Type IAL-4: Interior Acrylic Latex, Gloss Enamel	D				
099103		PD	Type ISP: Interior Steel Primer, Flat.	D				
099103		PD	Type HR-1: Ambient to 350 degrees Fahrenheit	D				
099103			Colors	F				
099103		SAM	Finish Paint Type Samples: Two finish paint samples applied over recommended primers for each substrate to be painted	F				
099103		QCS	Test Reports: Furnish certified test results from an independent testing laboratory	F				
099103		QCS	Certificates of Quality Assurance Article	F				
099103		CCS	Extra Materials: Paint Types EAL and IAL: Two gallons	F				
099103		CCS	Extra Materials: Color Coded Paints: One gallon, each type.	F				
099103		CCS	Extra Materials: Other Paint Types: One gallon, each type	F				
220523 VALVES								
220523		PD	Valve Schedule	D				
220523		PD	Gate Valves - Type C	D				
220523		PD	Gate Valves Type D	D				
220523		PD	Check Valve - Type V	D				
220523		PD	Butterfly Valves	D				
220523		PD	Safety and Relief Valves	D				
220523		PD	Needle Stop Valves	D				
220523		PD	Gage Cocks	D				
220523		PD	Ball Valves	D				
220523		CCS	Special Tools - one wrench for each type and size wrench operated plug valve	F				
220529 PIPE HANGERS AND SUPPORTS								
220529		SD	Details of trapeze hangers and upper hanger attachments	D				
220529		SD	Details of pipe anchors	D				
220529		PD	Combination clevis hanger, pipe insulation shield and vapor barrier	D				
220529		PD	Pipe Insulation Shields	D				
220529		PD	Pipe Covering Protection Saddles	D				
220529		PD	Pipe Hangers	D				
220529		PD	Adjustable Floor Rests and Base Flanges	D				
220529		PD	Hanger Rods	D				
220529		PD	Riser Clamps	D				
220529		PD	Rollers	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-P

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
220529		PD	Sleeve Anchors	D				
220529		PD	Wedge Anchors	D				
220529		PD	Self-Drilling Anchors	D				
220529		PD	Non-Drilling Anchors	D				
220529		PD	Beam Clamps	D				
220529		PD	Metal Deck Ceiling Bolts	D				
220529		QCS	Seismic Restraint Manufacturer's Qualifications Data	F				
220529		QCS	Company Field Advisor Data	F				
220549			CONCRETE PADS FOR EQUIPMENT					
220549		PACK	Submit product data for design mix and materials for concrete specified below at the same time as a package	D				
220549		SAM	Fabric Reinforcement	F				
220549		SAM	Bar supports	F				
220549		QCS	Certificates: Bar reinforcement manufacturer's certification	F				
220553			PIPE AND VALVE IDENTIFICATION					
220553		PD	Snap-on Marker	D				
220553		PD	Pipe Marker Legend and Color Field Sizes	D				
220553		PD	Banding Tapes	D				
220553		PD	Pipe Service Identification Tags	D				
220553		PD	Valve Service Identification Tags	D				
220553		PD	Valve Service Identification Chart Frames	D				
220576			DRAINAGE ACCESSORIES					
220576		PD	Cleanout plug	D				
220576		PD	Cleanout	D				
220576		PD	Cleanout deck Plate	D				
220576		PD	Vandal Resistant Fasteners	D				
220576		CCS	Special Tools: Tools for Vandal Resistant Fasteners - One for each type and size	F				
220576		CCS	Special Tools: T-Handle Wrench for Cleanout Plugs - One for each type and size	F				
220577			FLOOR AND AREA DRAINS					
220577		PD	Type A Floor Drain	D				
220577		PD	Fasteners	D				
220577		CCS	Special Tools for Vandal Resistant Fasteners - One for each type and size	F				
220700			PIPING INSULATION					
220700		PD	Fibrous Glass (Mineral Fiber) Insulation	D				
220700		PD	High Density Jacketed Insulation Inserts for Hangers and Supports	D				
220700		PD	Laminated Vapor Barrier Jackets for Piping	D				
220700		PD	Canvas Jackets	D				
220700		PD	Premolded PVC Fitting Jackets	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-P

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
220700		PD	Metal Jacketing	D				
220700		QCS	Installer's Qualification Data	F				
220800			CLEANING AND TESTING					
220800		QCS	Test Reports (Field Tests)	F				
221100			PLUMBING PIPING					
221100		PD	Material Schedule	D				
221100		PD	Copper and Brass Pipe, Tubing and Fittings	D				
221100		PD	Cast Iron Pipe and Fittings	D				
221100		PD	Bolted Mechanical Branch Connection	D				
221100		PD	Joining and Sealant Materials	D				
221100		PD	Pipe Sleeves	D				
221100		PD	Floor, Wall and Ceiling Plates	D				
221100		PD	Flexible Connectors	D				
221122			THERMOMETERS AND GAUGES					
221122		PD	Direct Reading Thermometers	D				
221122		PD	Remote Reading Thermometers	D				
221122		PD	Thermometers for Sensing Liquid Temperature	D				
221122		PD	Bimetallic Actuated Thermometers	D				
221122		PD	Vapor Tension or Gas Actuated Capillary Thermometers	D				
221122		PD	Pressure and Compound Gauges	D				
221123			PUMPS					
221123		PD	Pump schedule	D				
221123		PD	Pumps - General	D				
221123		PD	Circulating Water Pumps	D				
221123		PD	Suction Diffusers	D				
221123		QCS	Performance curves for each pump	D				
221123		QCS	Parallel pump curve and system curve for parallel operating pumps	D				
221123		CCS	Operation, Maintenance Data, Parts Lists - 2 copies	F				
221123		CCS	Spare Parts: Deliver one spare set of mechanical seals for each size and type of pump equipped with mechanical seals	F				
223500			DOMESTIC WATER HEAT EXCHANGERS					
223500		PD	Circulating, Domestic - Water Heat Exchangers	D				
223500		PD	Domestic - Water, Heat - Exchanger Accessories	D				
223500		PD	Source Quality Control	D				
230924			MODIFICATIONS TO DIRECT DIGITAL BUILDING CONTROL SYSTEM					
230924		PD	Preliminary Submittal: Existing system test report.	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-P

SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
230924		PACK	Submit the shop drawings, product data, and quality control submittals specified below at the same time as a package	D				
230924		SD	Composite wiring and/or schematic diagrams of the modifications as proposed to be installed	D				
230924		PD	Bill of Materials	D				
230924		PD	Detailed description of system operation	D				
230924		PD	Electronic Analog Sensors:	D				
230924		PD	Ultrasonic Flow Meters	D				
230924		PD	Energy BTU Measurement System Panel	D				
230924		PD	Temperature Sensors	D				
230924		PD	Binary Sensors	D				
230924		PD	Field Panels and Points	D				
230924		PD	Wiring	D				
230924		PD	Accessories	D				
230924		QCS	Company Field Advisor Data	F				
230924		CCS	System Acceptance Test Report	F				
230924		CCS	Certificate: Affidavit certifying the system meets the contract requirements and is operating properly	F				
230924		CCS	Operation and Maintenance Data - 2 copies	F				
260221			MOTORS AND MOTOR CONTROLLERS					
260221		PACK	Submit the product data, and quality control submittals specified below at the same time as a package	D				
260221		QCS	Harmonic analysis report	D				
260221		QCS	Company Field Advisor Data	D				
260221		CCS	System acceptance test report	F				
260221		CCS	Certificate: Affidavit, signed by the Company Field Advisor and notarized	F				
260221		CCS	Operation and Maintenance Data - 2 copies	F				
260221		CCS	Nameplates	F				
260221		CCS	Service Availability: A fully equipped service organization shall be available to service the completed Work	F				
260502			BASIC ELECTRICAL MATERIALS AND METHODS FOR DIRECT DIGITAL BUILDING CONTROL SYSTEM					
260502		PD	Statement from the Company producing the system, for each size and type of cable proposed for communication bus use, indicating that the electrical characteristics meet the requirements of the Company	D				
260502		PD	For fire rated construction, prove that materials and installation methods proposed for use are in accordance with the listing requirements of the classified construction	D				
260502		PD	Rigid Ferrous Metal Conduit	D				
260502		PD	Insulated Bushings, Insulated Grounding Bushings	D				

SCHEDULE OF SUBMITTALS

PROJECT NO.: Q1661-P

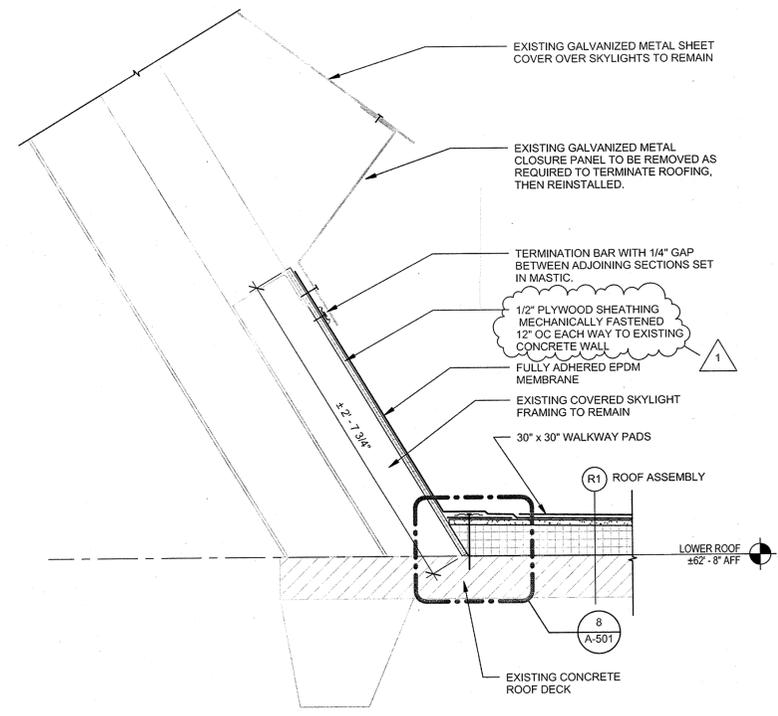
SUBMITTALS FOR APPROVAL				Send to:	Critical Submittals	Contractor's Projected Dates Allow at least 4 weeks for Approval (allows time for any resubmission)		
Spec Section	Sub Section	Type	Description	F F/O D S	Mark "X" for all that apply	Projected Transmittal Date:	Projected Approval Date:	Projected Delivery Date:
260502		PD	Connectors and Couplings	D				
260502		PD	Conduit Bodies (Threaded)	D				
260502		PD	Expansion Fittings	D				
260502		PD	Deflection Fittings	D				
260502		PD	Sealing Fittings	D				
260502		PD	Sealant for Raceways Exposed to Different Temperatures	D				
260502		PD	Vertical Conductor Supports	D				
260502		PD	Galvanized Steel Junction and Pull Boxes For Exposed Work	D				
260502		PD	Threaded Type Boxes For Exposed Work	D				
260502		PD	Specific Purpose Outlet Boxes	D				
260502		PD	Outlet Boxes and Related Products for Fire Rated Construction	D				
260502		PD	Conductors and Accessories	D				
260502		PD	"C" Beam Clamps	D				
260502		PD	Pipe Straps	D				
260502		PD	Pipe Clamps	D				
260502		PD	Supporting Fastener (Metal Stud Construction)	D				
260523			WIRING FOR MOTORS AND MOTOR CONTROLLERS					
260523		SD	Complete wiring diagrams of all power and control connections (Standard diagrams will not be accepted).	D				
260523		SD	Complete wiring diagrams of all power and control connections (Standard diagrams will not be accepted)	D				
260523		PD	Raceways, Fittings and Accessories	D				
260523		PD	Outlet/Device, Junction and Pull Boxes	D				
260523		PD	Conductors and Accessories	D				
260523		PD	"C" Beam Clamps	D				
260523		PD	Pipe Straps	D				
260523		PD	Pipe Clamps	D				
260523		PD	Supporting Fastener (Metal Stud Construction)	D				
310000			EARTHWORK					
310000		PD	Select Granular Material	D				
310000		PD	Subbase Course Type 2	D				
310000		PD	Cushion Material	D				
310000		SAM	Select Granular Material	F				
310000		SAM	Subbase Course Type 2	F				
310000		SAM	Cushion Material	F				
310000		QCS	Subbase Materials	D				
310000		QCS	Other Aggregates	D				
310000		QCS	Excavation Procedure	F				
310000		QCS	Sheeting, Shoring, and Bracing (Not shown on the Drawings)	F				
310000		QCS	Excavation Procedure	F				

WARNING:
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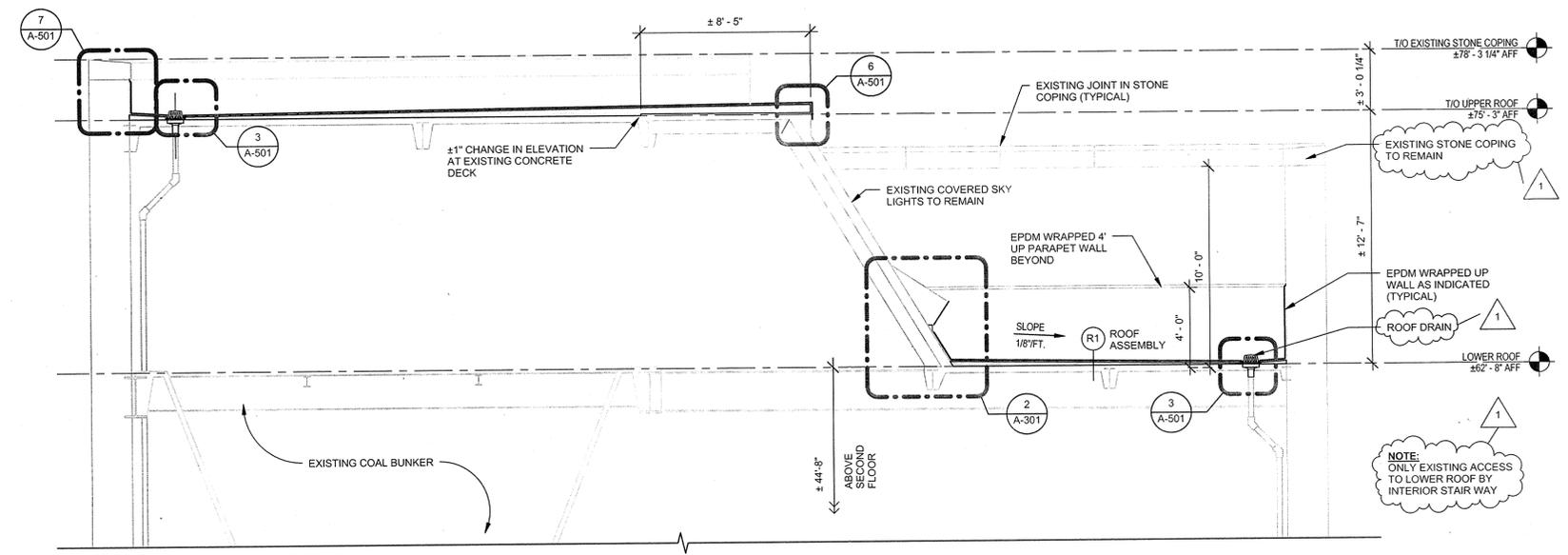


CONTRACT: CONSTRUCTION
 TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING No.9
 LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK
 CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

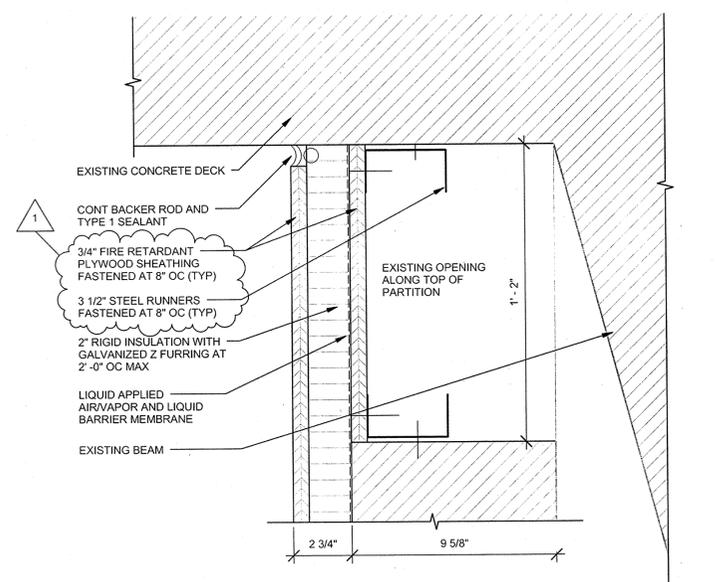
MARK	DATE	DESCRIPTION
△	03/16/2016	ADDENDUM NO. 1
	01/11/2016	BID DOCUMENTS
PROJECT NUMBER: Q1661-C		
DESIGNED BY: MMO		
DRAWN BY: MMO		
FIELD CHECK: AY		
APPROVED: AEG		
SHEET TITLE: SECTIONS		
DRAWING NUMBER: A-301		
SHEET 10 OF 23		



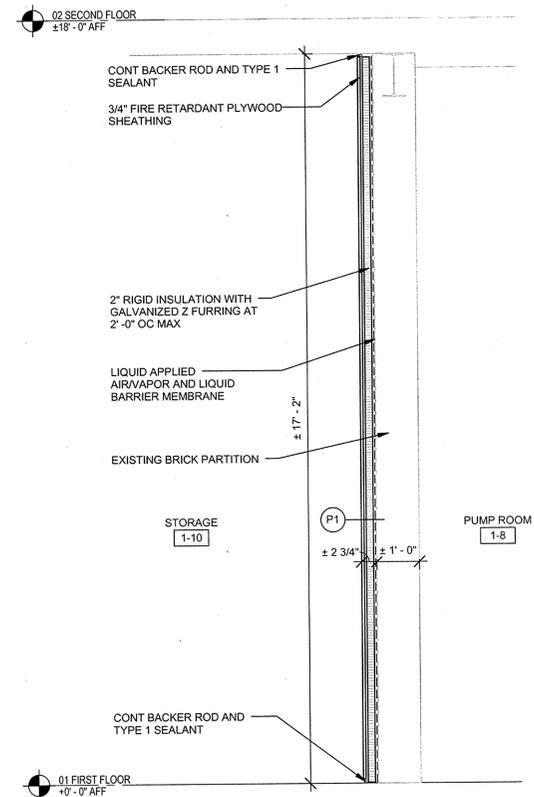
LOWER SKYLIGHT SECTION DETAIL
 SCALE: 1 1/2" = 1'-0"
 2 A-301



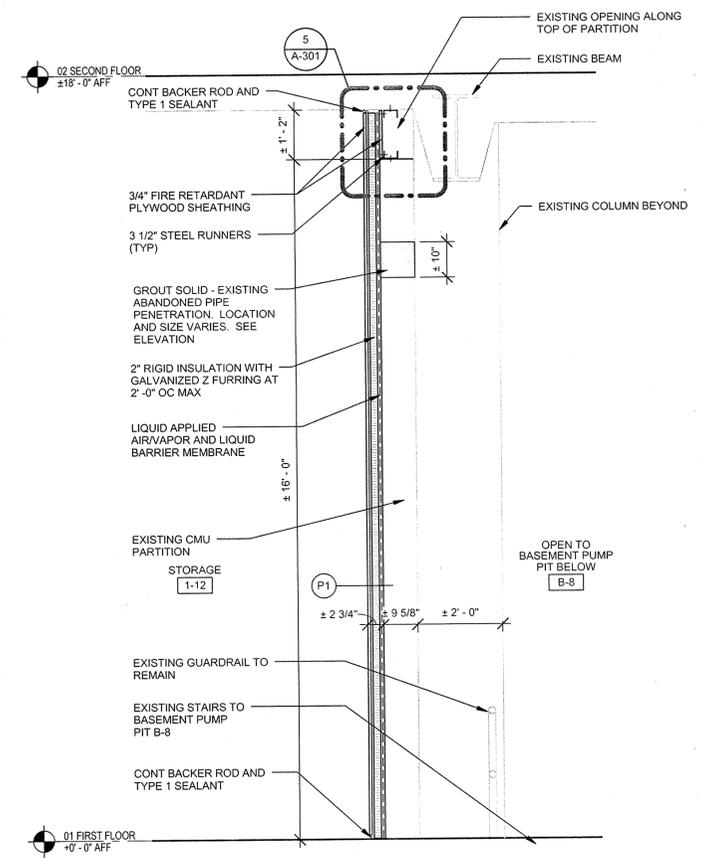
BUILDING SECTION
 SCALE: 1/4" = 1'-0"
 1 A-301



TOP OF WALL SECTION DETAIL
 SCALE: 3" = 1'-0"
 5 A-301

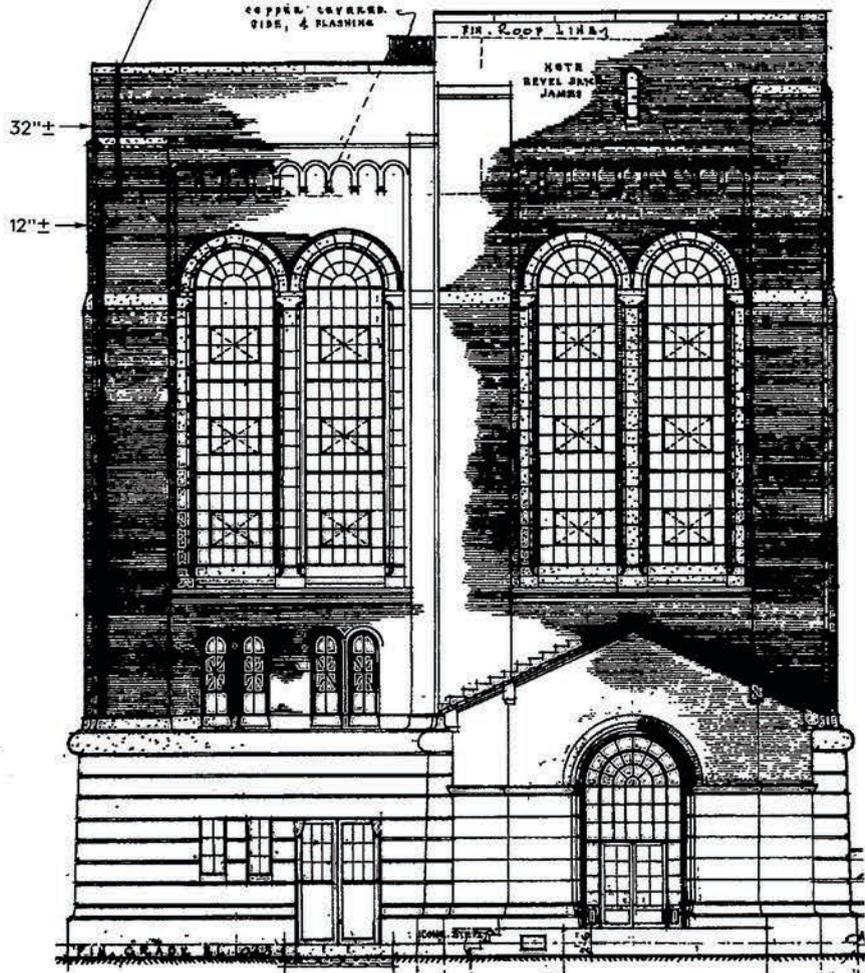


WALL SECTION
 SCALE: 1/2" = 1'-0"
 4 A-301



WALL SECTION
 SCALE: 1/2" = 1'-0"
 3 A-301

APPROXIMATE LOCATION OF CRACK. INSTALL HELICAL STITCHING BARS AT 12" ON CENTER MAXIMUM PER MANUFACTURERS INSTRUCTIONS. REPLACE CRACKED BRICKS AND REPOINT WITHIN LIMITS OF REPAIR AS NECESSARY.



SOUTH ELEVATION

SCALE: NONE

1
A-502



CONSULTANTS

Kidney Architects
MECHANICAL/ELECTRICAL/PLUMBING CONSULTANTS

SINGLETON Construction Consultants
SIENNA ENVIRONMENTAL TECHNOLOGIES

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CONSTRUCTION

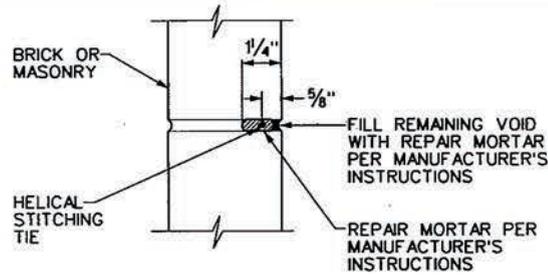
REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING NO. 9
ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

		03/16/2018	ADDENDUM No. 1
MARK	DATE	DESCRIPTION	
PROJECT NUMBER:		Q1661-C	
DESIGNED BY:	JAF		
DRAWN BY:	LJB		
CHECKED BY:			
APPROVED BY:	AY		

SHEET TITLE
MASONRY REPAIR

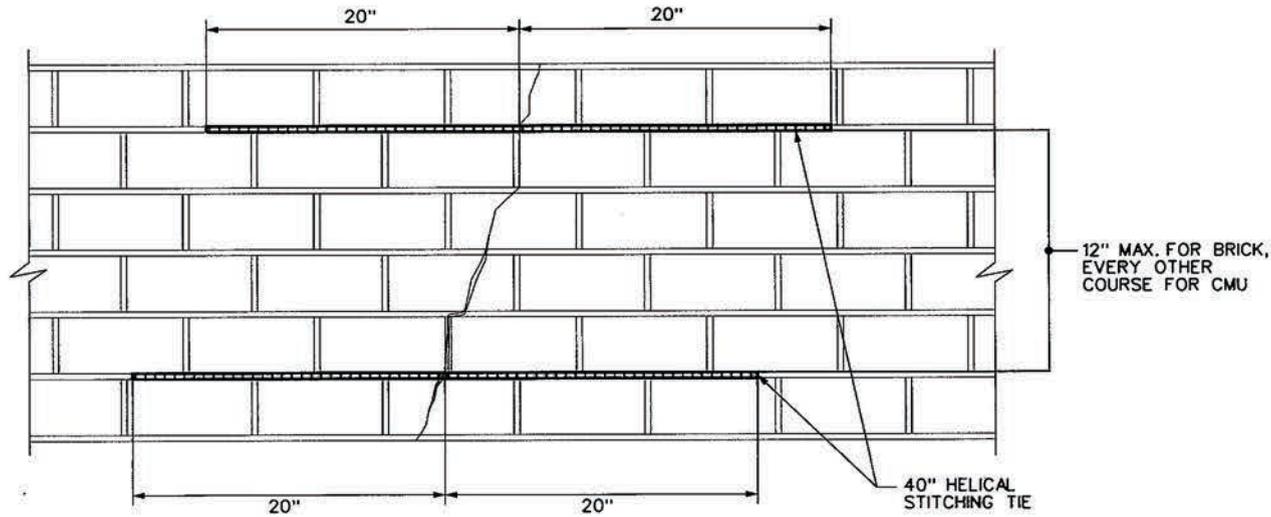
A-502
SHEET OF



SECTION THRU HELICAL STITCHING TIE

SCALE: 3" = 1'-0"

1
A-503



NOTE:
WHERE CRACK IS LESS THAN 20" FROM THE END OF THE WALL, HELICAL STITCHING BAR IS TO BE CONTINUED AROUND CORNER A MINIMUM OF 8"

HELICAL STITCHING TIE DETAIL

SCALE: 1 1/2" = 1'-0"

2
A-503



CONSULTANTS

Kidney Architects
ARCHITECTS P.C.
MECHANICAL/ELECTRICAL/PLUMBING CONSULTANTS

SINGLETON
Construction Consultants
SIENNA
COMMERCIAL TECHNOLOGIES

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CONSTRUCTION

REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING NO. 9

ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION

PROJECT NUMBER: Q1661-C

DESIGNED BY: JAF

DRAWN BY: LJB

CHECKED BY:

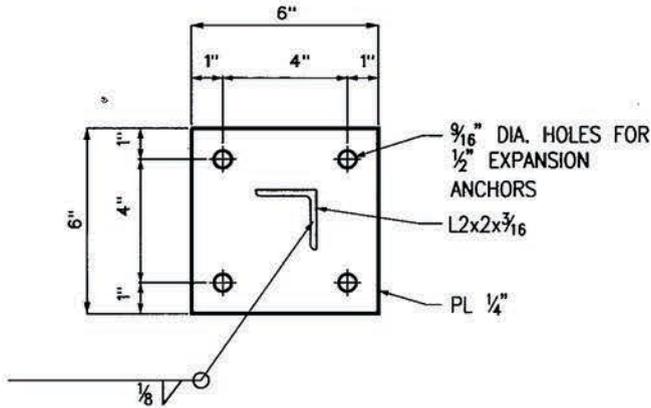
APPROVED BY: JAY

SHEET TITLE

MASONRY REPAIR

A-503

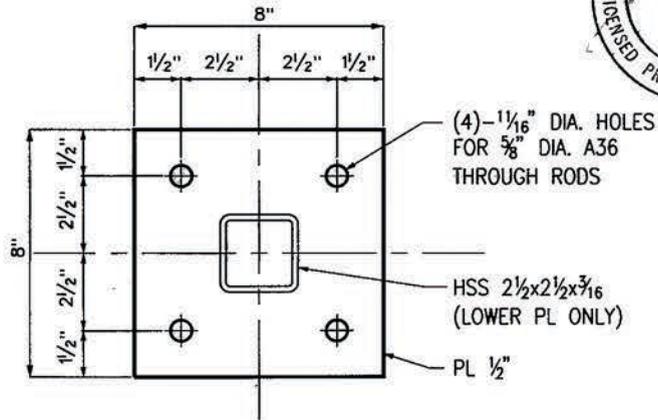
SHEET OF



L2x2x3#16 PLATE DETAIL

SCALE: 3" = 1'-0"

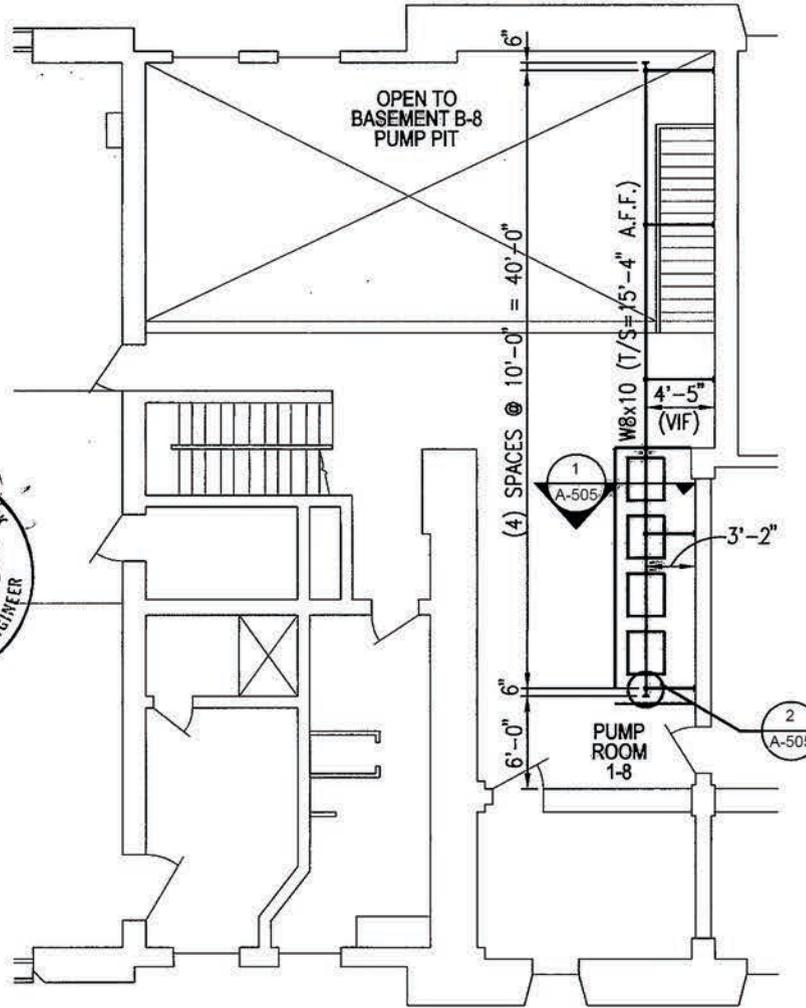
3
A-504



HANGER PLATE DETAIL

SCALE: 3" = 1'-0"

2
A-504



PARTIAL FRAMING PLAN

SCALE: 1/8" = 1'-0"

1
A-504

CONSULTANTS

Kidney Architects
K
KIDNEY ARCHITECTS P.C.
ARCHITECTURAL
ENGINEERING CONSULTANTS
Serving Architects P.C.
Serving Engineers P.C.

SINGLETON
Construction Consultants
SIENNA
PERFORMANCE TECHNOLOGIES

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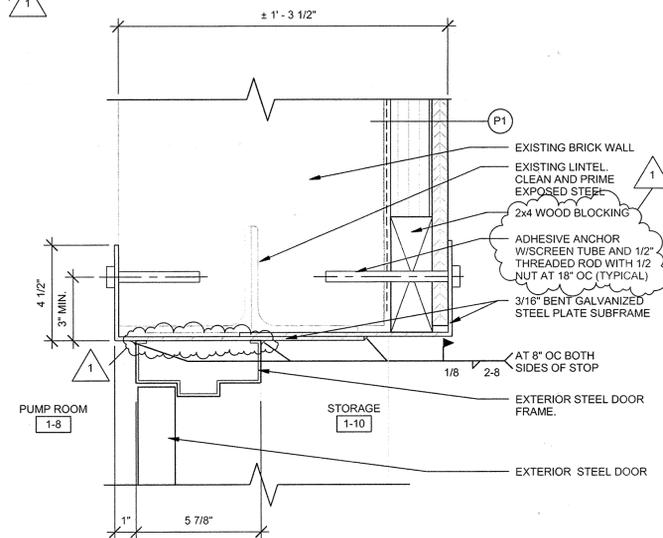
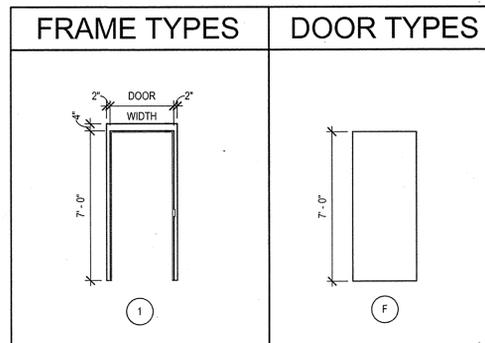
CONSTRUCTION
REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING NO. 9
ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION
PROJECT NUMBER:		Q1661-C
DESIGNED BY:	JAF	
DRAWN BY:	JJB	
CHECKED BY:		
APPROVED BY:	JAY	

SHEET TITLE
RAIL AND HOIST

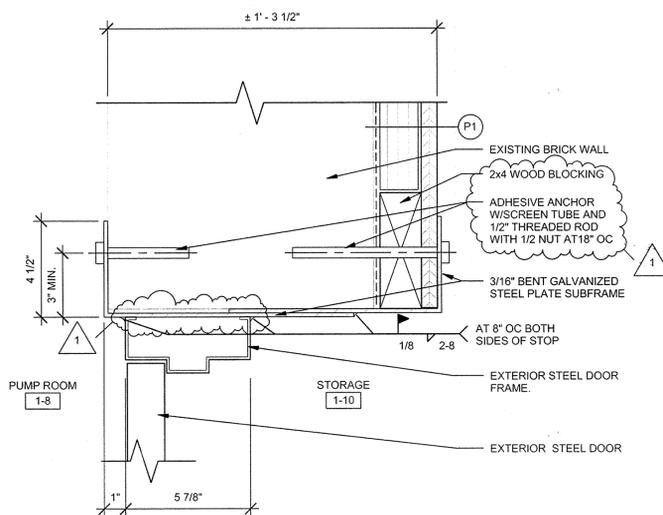
DOOR NO.	DOORS						FRAME														DOOR NO.							
	LOCATION			SIZE			TYPE	MATERIAL	FINISH	GLASS TYPE	TYPE	MATERIAL	HEAD	JAMB	FINISH	FRAME DEPTH	FRAME ANCHOR	FRAME PROFILE	THRESHOLD	DETENTION OPENING		HARDWARE GROUP	DOOR HAND	KEY SIDE	COVER PLATE	FIRE RATING	REMARKS	
	ROOM NAME & NUMBER	TO / FROM	ROOM NAME & NUMBER	WIDTH	HEIGHT	THICKNESS																						
1A	PUMP ROOM 1-8	TO	STORAGE 1-10	3'-0"	7'-0"	1 3/4"	F	STEEL	PREFIN	-	1	STEEL	1/A-601	2/A-601	PAINT EAL-3	5 3/4"	-	-	3/A-601	-	1	LH	-	-	-	-	FIELD VERIFY DOOR DIMENSIONS	1A



HEAD DETAIL

SCALE: 3" = 1'-0"

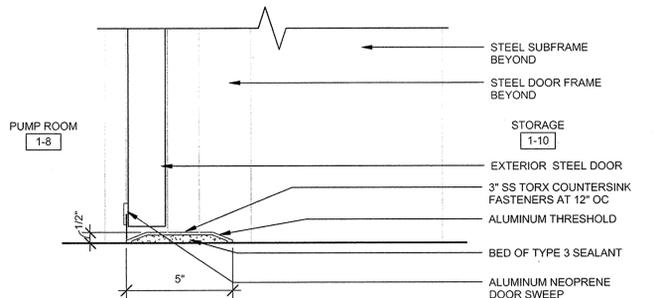
1
A-601



JAMB DETAIL

SCALE: 3" = 1'-0"

2
A-601



THRESHOLD DETAIL

SCALE: 3" = 1'-0"

3
A-601

PARTITION ASSEMBLY				
TYPE	FIRE TEST DESIGN No.	FIRE RATING	SECTION	BASIC COMPONENTS
(P1)				<ul style="list-style-type: none"> 3/4" PLYWOOD SHEATHING 2" METAL Z-SHAPED FURRING(25 ga.) AT 16" OC 2" RIGID BOARD INSULATION (R-10) AIR/VAPOR AND LIQUID BARRIER MEMBRANE EXISTING PARTITION
REFER TO NOTES BELOW				

ASSEMBLY NOTES

- ENTIRE PARTITION SHALL EXTEND FROM FLOOR TO UNDERSIDE OF SUBSTRATE OR STRUCTURE ABOVE.
- ALL DUCTS, PIPES, CONDUITS, FRAMING MEMBERS, ETC. PASSING THROUGH WALLS OR PARTITIONS AS WELL AS GAPS AT PERIMETER OF PARTITIONS SHALL BE ENCLOSED IN GALVANIZED SHEET METAL SLEEVES PACKED IN STAVING INSULATION WHEN PASSING THRU NEW OR EXISTING WALLS OR PARTITIONS.

ROOF ASSEMBLY				
TYPE	EXT. FIRE TEST EXPOSURE	WIND UPLIFT CERTIFICATION	SECTION	BASIC COMPONENTS
(R1)	CLASS A	CLASS 1-90		<ul style="list-style-type: none"> EPDM 90 MIL BLACK MEMBRANE FULLY ADHERED (1) LAYER 1/2" COVER BOARD (PRIMED) TAPERED POLYISOCYANURATE RIGID INSULATION R-12 VAPOR RETARDER TYPICAL OVER CONCRETE DECK EXISTING CONCRETE DECK

CONSULTANT

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MECHANICAL/ELECTRICAL
ENGINEERING CONSULTANTS

Kidney Architects
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Kidney Architects, P.C.
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CONTRACT: CONSTRUCTION

TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING No.9

LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION

PROJECT NUMBER: Q1661-C
DESIGNED BY: MMO
DRAWN BY: MMO
FIELD CHECK: AY
APPROVED: AEG

SHEET TITLE: DOOR SCHEDULE, ASSEMBLIES, NOTES AND TYPICAL DETAILS

DRAWING NUMBER: A-601

MATERIAL SYMBOLS

	CONCRETE
	MASONRY
	METAL
	WOOD
	INSULATION
	FINISHES PLAN AND SECTION INDICATORS
	PARTITION INDICATORS
	ELEVATION INDICATORS

DRAFTING SYMBOLS

	DETAIL SYMBOL
	SECTION SYMBOL
	ASSEMBLY SYMBOL
	INTERIOR ELEVATION SYMBOL
	DOOR SYMBOL
	ROOM SYMBOL
	PARTITION SYMBOL

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
CL	CENTERLINE
CONC	CONCRETE
CONT	CONTINUOUS
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
ELEC	ELECTRIC
EXIST	EXISTING
GALV	GALVANIZED
MAX	MAXIMUM
MIN	MINIMUM
OC	ON CENTER
PBS	PLUMBING
PNT	PAIN
PREFIN	PREFINISHED
RD	ROOF DRAIN
SM	SMILAS
SPEC	SPECIFICATION
SS	STAINLESS STEEL
TYP	TYPICAL
VENT	VENTILATOR
VIF	VERIFY IN FIELD

PHASING NOTES

- THE WORK SHALL BE COMPLETED IN THE FOLLOWING ORDER:
 - ALL HAZARDOUS MATERIALS REMOVAL/ABATEMENT WORK.
 - REWORK ELECTRICAL BRANCH CIRCUIT PANEL TO FACILITATE INSULATION OF WALL.
 - ALL ARCHITECTURAL REMOVALS AND WORK IN AREAS WHERE PLUMBING, MECHANICAL AND/OR ELECTRICAL WORK WILL BE PERFORMED.
 - ELECTRICAL WORK RELATED TO THE REPLACEMENT OF THE MAIN DISTRIBUTION PANEL.
- THE FOLLOWING WORK MAY BE PERFORMED SIMULTANEOUSLY FOLLOWING THE COMPLETION OF THE WORK LISTED ABOVE:
 - PLUMBING, MECHANICAL AND ELECTRICAL WORK RELATED TO THE REPLACEMENT OF THE WATER HEATERS.
 - ALL WORK RELATED TO THE REPLACEMENT OF THE ROOF INCLUDING REPOINTING OF PARAPET.
- EACH TRADE SHALL COORDINATE THEIR WORK WITH THAT OF OTHER TRADES TO ASSURE THERE ARE NO CONFLICTS OR INTERFERENCES.

EXISTING BUILDING CODE OF NEW YORK STATE (EBCO) - 2010

CHAPTER 4: CLASSIFICATION OF WORK
SECTION 403: ALTERATION - LEVEL 1 at BUILDING No. 9

SECTION 403.1: SCOPE: ALTERATIONS INCLUDE THE REMOVAL AND REPLACEMENT OR COVERING OF EXISTING MATERIAL, ELEMENTS, EQUIPMENT OR FIXTURES USING NEW MATERIALS, ELEMENTS, EQUIPMENTS OR FIXTURES THAT SERVE THE SAME PURPOSE.

SECTION 403.2: APPLICATION:
LEVEL 1 ALTERATIONS SHALL COMPLY WITH THE PROVISIONS OF SECTION 403.1.

CHAPTER 6: ALTERATION LEVEL 1
SECTION 601.1: LEVEL 1 ALTERATIONS AS DESCRIBED IN SECTION 403 SHALL COMPLY WITH THE REQUIREMENTS OF THIS CHAPTER.

SECTION 601.2: PERFORMANCE:
ALTERATION WORK SHALL BE PERFORMED IN SUCH A MANNER THAT THE BUILDING BECOMES LESS SAFE THAN ITS EXISTING CONDITION.

SECTION 608.1: GENERAL:
ALTERATION WORK INCLUDES REPLACEMENT OF EQUIPMENT THAT IS SUPPORTED BY THE BUILDING OR WHERE A REROOFING PERMIT IS REQUIRED, THE STRUCTURAL PROVISIONS OF THIS SECTION SHALL APPLY.

SECTION 608.1.1: MATERIALS AND METHODS OF APPLICATIONS USED FOR COVERING OR REPLACING AN EXISTING ROOF SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 15 OF THE BUILDING CODE OF NEW YORK STATE. EXCEPT ROOFING SHALL NOT BE REQUIRED TO MEET THE MINIMUM DESIGN LOADS SPECIFIED IN SECTION 1507 OF THE BUILDING CODE OF NEW YORK STATE (2 PERCENT SLOPE) IN SECTION 1507 OF THE BUILDING CODE OF NEW YORK STATE FOR ROOF THAT PROVIDE POSITIVE DRAINAGE.

SECTION 608.2: STRUCTURAL AND CONSTRUCTION LOADS:
STRUCTURAL ROOF COMPONENTS SHALL BE CAPABLE OF SUPPORTING THE ROOF-COVERING SYSTEM AND THE MATERIAL AND EQUIPMENT LOADS THAT WILL BE ENCOUNTERED DURING INSTALLATION OF THE SYSTEMS.

SECTION 608.6: FLASHINGS:
FLASHINGS SHALL BE RECONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. METAL FLASHING TO WHICH BITUMINOUS MATERIALS ARE TO BE ADHERED SHALL BE PRIMED PRIOR TO INSTALLATION.

BUILDING CODE OF NEW YORK STATE 2010 - BUILDING NO. 9

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION:
SECTION 311.3: LOW-HAZARD STORAGE, GROUP S-2.

SECTION 312.1: UTILITY AND MISCELLANEOUS GROUP U

OCCUPANCY GROUP: S-2 / U

CHAPTER 6: CONSTRUCTION CLASSIFICATION
TABLE 602:
BUILDING 9
CONSTRUCTION TYPE IIIb

TABLE 601:
STRUCTURAL FRAME: 0 HOURS
BEARING WALLS: 2 HOURS
INTERIOR WALLS: 0 HOURS
NON-BEARING WALLS: 0 HOURS
EXTERIOR WALLS: 0 HOURS
ROOF CONSTRUCTION: 0 HOURS

CHAPTER 15: ROOF ASSEMBLIES AND ROOFTOP STRUCTURES
SECTION 1510: REROOFING

SECTION 1510.1: GENERAL MATERIALS AND METHODS OF APPLICATION USED FOR REROOFING SHALL COMPLY WITH THE REQUIREMENTS OF THE EXISTING BUILDING CODE OF NEW YORK STATE.

CHAPTER 16: STRUCTURAL DESIGN

GENERAL WIND DESIGN DATA:
BASIC WIND SPEED (V): 90 MPH
WIND LOAD IMPORTANCE FACTOR (I_w): 1.15
OCCUPANCY CATEGORY: III (JAILS & DETENTION FACILITIES)
INTERNAL PRESSURE COEFFICIENT (C_{pi}): ±0.18-0.18
(FOR ENCLOSED STRUCTURE)

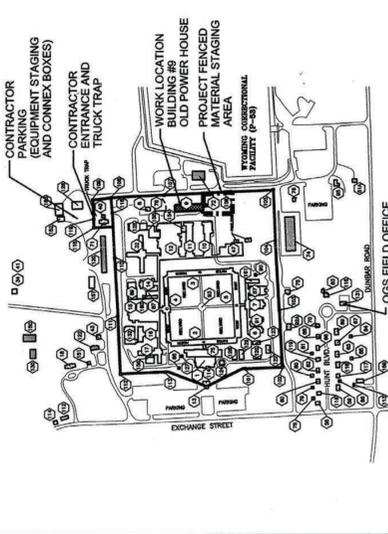
SEISMIC DESIGN DATA:
SEISMIC IMPORTANCE CATEGORY: 1.25
S_s = 0.263g
S_i = 0.059g

SITE CLASSIFICATION:
S_{MS} = 0.07g
S_{MS1} = 0.07g

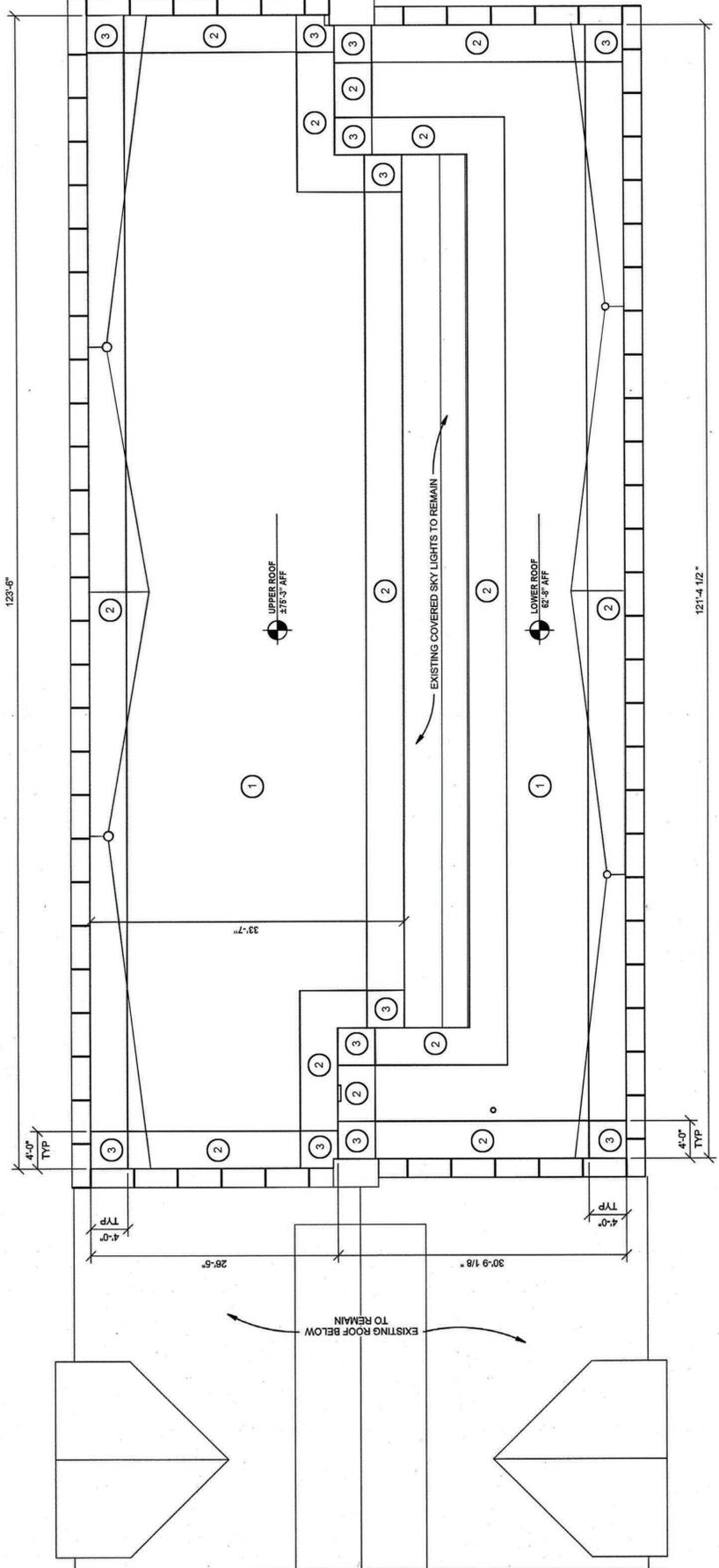
SEISMIC DESIGN CATEGORY: B
BASIC SEISMIC FORCES RESISTING SYSTEM:
ORDINARY PLAN MASONRY SHEAR WALLS
SEISMIC RESPONSE COEFFICIENT: C_s0.23
RESPONSE MODIFICATION COEFFICIENT: 1.5

CLIMATE ZONE: 6
ROOF INSULATION: R-12
ROOF SYSTEM U_L CLASS: A PER U_L-790

USGS SEISMIC DESIGN MAPS WEBSITE



KEY PLAN
NOT TO SCALE



ROOF COMPONENTS AND CLADDING WIND LOADS

1	INTERIOR ZONES	46 PSF
2	END ZONES	71 PSF
3	CORNER ZONES	97 PSF

PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"

 Office of General Services DESIGN & CONSTRUCTION CONSULTANT	 Kideney Architects MECHANICAL/ELECTRICAL/PLUMBING ENGINEERING CONSULTANTS	 SIENNA ENVIRONMENTAL TECHNOLOGIES	 SINGLETON Construction Consultants	WARNING: THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER, OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS "A" MISDEMEANOR.	 STATE OF NEW YORK PROFESSIONAL ENGINEER LICENSE NO. 13003	CONTRACT: C.H.P. & E TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING NO. 9 LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION	MARK: PROJECT NUMBER: DESIGNED BY: DRAWN BY: FIELD CHECK: APPROVED: SHEET TITLE: Q1661-C,H,P,E DATE: 01/11/2016 BID DOCUMENTS DESCRIPTION 03/16/2016 ADDENDUM No.1	STAGING, PHASING NOTES, CODE REVIEW, ABBREVIATIONS AND SYMBOLS G-002 DRAWING NUMBER: SHEET 2 OF 23
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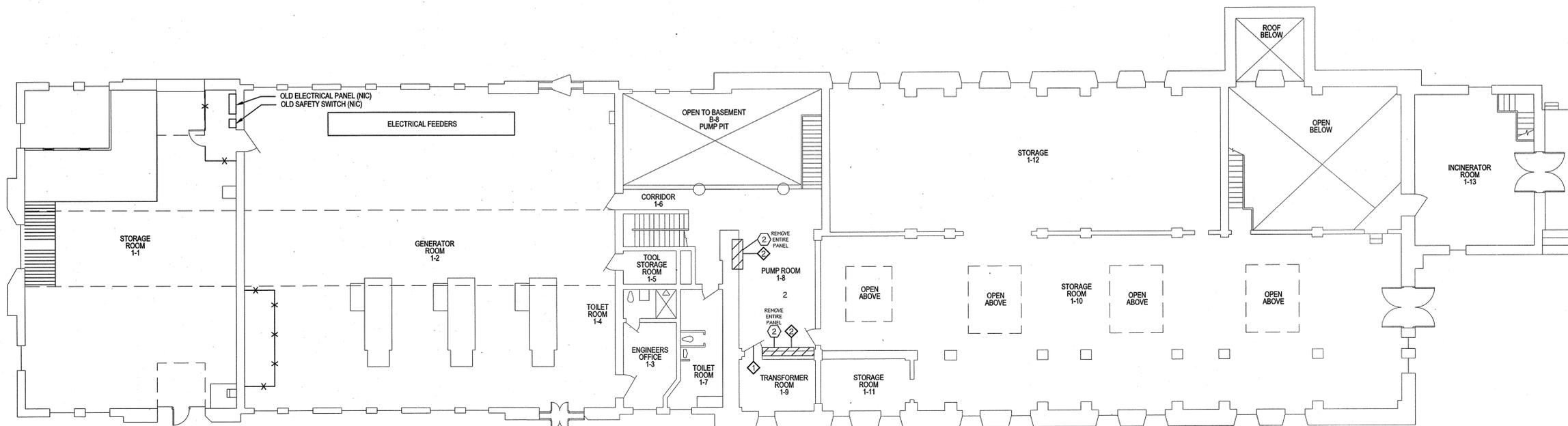


CONTRACT: CONSTRUCTION

TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING 9

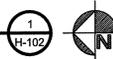
LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION



FIRST FLOOR HAZARDOUS MATERIALS ABATEMENT PLAN

SCALE: 3/32" = 1'-0"



GENERAL DRAWING NOTES:

- A. THE CONTRACTOR SHALL PERFORM ALL ASBESTOS REMOVAL WORK, INCLUDING AREA CONTAINMENT MEASURES AND REMOVAL, IN ACCORDANCE WITH: THE PROJECT SPECIFICATION, ALL FEDERAL, STATE AND LOCAL REGULATIONS, AND ANY APPROPRIATE APPLICABLE VARIANCES AND SITE-SPECIFIC VARIANCES. APPLICABLE REGULATIONS INCLUDE, BUT ARE NOT LIMITED TO: OSHA 29 CFR 1926.1101, 40 CFR PART 763 (AHERA), 40 CFR PART 61 SUBPART M (NESHAP STANDARD FOR DEMOLITION AND RENOVATION), AND NEW YORK STATE INDUSTRIAL CODE RULE 56.
- B. THE CONTRACTOR SHALL PERFORM ALL LEAD REMOVAL AND HANDLING WORK, INCLUDING AREA CONTAINMENT MEASURES IN ACCORDANCE WITH: THE PROJECT SPECIFICATION, ALL FEDERAL, STATE AND LOCAL REGULATIONS INCLUDING, BUT NOT LIMITED TO: OSHA 29 CFR 1926.62. ALL TRANSPORTATION AND DISPOSAL SHALL BE CONDUCTED IN ACCORDANCE WITH NYSDEC 6NYCRR PARTS 360, 364, AND 370-375 AND EPA RCRA SECTION 3004.
- C. AREAS OF ACTIVE HAZARDOUS MATERIAL REMOVAL SHALL BE PROPERLY POSTED WITH WARNING SIGNS AND SECURED SO AS TO PREVENT UNAUTHORIZED ENTRY.
- D. THE LOCATION OF ANY ON-SITE STORAGE OF MATERIALS, EQUIPMENT DUMPSTER/WASTE TRAILER AND DECONTAMINATION FACILITIES SHALL BE COORDINATED WITH AND APPROVED BY THE DIRECTOR'S REPRESENTATIVE.
- E. THE DIRECTOR'S REPRESENTATIVE HAS NOT APPLIED FOR A SITE SPECIFIC VARIANCE FOR THIS PROJECT. ANY VARIANCE APPLICATION PREPARED BY THE CONTRACTOR OR ITS AGENT MUST BE SUBMITTED TO THE DIRECTOR'S REPRESENTATIVE FOR APPROVAL PRIOR TO SUBMISSION TO THE STATE OF NEW YORK DEPARTMENT OF LABOR ENGINEERING SERVICES FOR PROCESSING. THE DIRECTOR'S REPRESENTATIVE SHALL BEAR NO ADDITIONAL COST AS A RESULT OF THE APPROVAL OF, THE DENIAL OF, AND/OR CONDITIONS SET FORTH WITHIN THE SITE SPECIFIC VARIANCE.

CONSTRUCTION ABBREVIATIONS AND SYMBOLS

- ERD -EXISTING ROOF DRAIN
- EV -EXISTING VENTILATOR
- FT -FEET
- LF -LINEAR FEET
- SF -SQUARE FEET

F. CONTRACTOR SHALL REFER TO COMPLETE DRAWING SET FOR COORDINATION OF NOTES.

- G. THE PROJECT MANUAL INCLUDES THE PRE-RENOVATION ASBESTOS INSPECTION REPORT FOR CONTRACTOR REFERENCE. THE CONTRACTOR SHALL MAINTAIN A COPY OF THE REPORT ON-SITE FOR THE DURATION OF THE PROJECT. QUANTITIES REPORTED WITHIN THE PRE-RENOVATION ASBESTOS INSPECTION REPORT ARE APPROXIMATED AND NOT TO BE CONSIDERED FOR BIDDING PURPOSES.
- H. ALL ABATEMENT AND/OR REMOVAL OF ASBESTOS CONTAINING MATERIAL MUST PASS VISUAL INSPECTION PER 12NYCRR56 BEFORE GENERAL DEMOLITION WORK MAY COMMENCE.
- I. IF DURING PROJECT WORK, A SUSPECT HAZARDOUS MATERIAL IS FOUND THAT WILL BE IMPACTED BY THE SCOPE OF WORK, AND WHICH HAS NOT BEEN TESTED AS DOCUMENTED IN THE PRE-RENOVATION INSPECTION REPORTS, THE CONTRACTOR SHALL CEASE OPERATIONS, AND NOTIFY THE DIRECTOR'S REPRESENTATIVE IMMEDIATELY.
- J. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE DIRECTOR'S REPRESENTATIVE THE DE-ENERGIZING OF ALL DEVICES, EQUIPMENT, AND FIXTURES TO BE REMOVED PRIOR TO THE COMMENCEMENT OF ABATEMENT ACTIVITIES.

LEAD-BASED PAINT NOTES:

- GENERAL NOTE TO ALL TRADES- VARIOUS BUILDING COMPONENTS HAVE BEEN IDENTIFIED AS LEAD-CONTAINING MATERIALS THAT MAY BE DISTURBED DURING THE PLANNED RENOVATIONS. A COMPLETE LISTING CAN BE FOUND IN THE "ASBESTOS-CONTAINING MATERIALS, LEAD-BASED PAINT AND PCB INSPECTION REPORT". ALL CONTRACTORS ARE RESPONSIBLE FOR MAKING THEMSELVES AND THEIR EMPLOYEES AWARE OF THE PRESENCE, LOCATION AND QUANTITY OF EXISTING LEAD-BASED PAINT COVERED BUILDING COMPONENTS, AND TO WARN THEIR EMPLOYEES OF THE POTENTIAL HAZARDS OF DISTURBING LEAD-BASED PAINT.
- NO GRINDING, SANDING, TORCHING, OR CUTTING OF LEAD-BASED PAINT COATED MATERIALS SHALL BE ALLOWED.
- THE FOLLOWING BUILDING COMPONENTS HAVE BEEN IDENTIFIED TO CONTAIN ABOVE 1.0 mg/cm²:
- MEZZANINE
 - GREEN METAL DOOR TO ELECTRIC ROOM TO REMAIN UNDISTURBED
 - GREEN METAL ELECTRIC PANELS TO BE REMOVED UNDER ASBESTOS ABATEMENT CONDITIONS
 - TANK ROOM
 - WHITE / GREY CONCRETE WALLS TO REMAIN UNDISTURBED
 - ROOF
 - GREY LEAD PLUMBING VENT FLASHING TO BE REMOVED

ASBESTOS REMOVAL NOTES:

- 1 REMOVE AND PROPERLY DISPOSE OF ASBESTOS-CONTAINING PIPE INSULATION ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF DOMESTIC WATER HEATERS AND RE-CIRCULATING PUMPS. REMOVAL IS CONSIDERED OSHA CLASS I WORK. ALL WASTE IS CONSIDERED EPA REGULATED ASBESTOS CONTAINING MATERIAL.
- 2 REMOVE AND PROPERLY DISPOSE OF CLOTH WIRE INSULATION ASSOCIATED WITH THE REMOVAL AND REPLACEMENT OF EXISTING ELECTRICAL PANELS. THE WIRING WAS NOT SAMPLED AND IS TO BE TREATED AS AN ASSUMED ASBESTOS-CONTAINING MATERIAL. IT WAS IDENTIFIED INSIDE ELECTRIC PANELS AND CONDUIT WHERE IT ENTERS THE WALL. REMOVAL IS CONSIDERED OSHA CLASS II WORK. ALL WASTE IS CONSIDERED EPA REGULATED ASBESTOS CONTAINING MATERIAL.
- 3 REMOVE AND PROPERLY DISPOSE IN ITS ENTIRETY THE ORIGINAL ROOF FLASHING LOCATED AROUND THE PERIMETER OF THE UPPER AND LOWER ROOF SYSTEM. THE ORIGINAL ROOF FLASHING WAS SAMPLED AND IDENTIFIED TO BE AN ASBESTOS-CONTAINING MATERIAL. REMOVAL IS CONSIDERED OSHA CLASS II WORK. ALL WASTE IS CONSIDERED EPA NON-FRIABLE MATERIAL.

MARK	DATE	DESCRIPTION
▲	3/16/2016	ADDENDUM No. 1
	1/11/16	BID DOCUMENTS

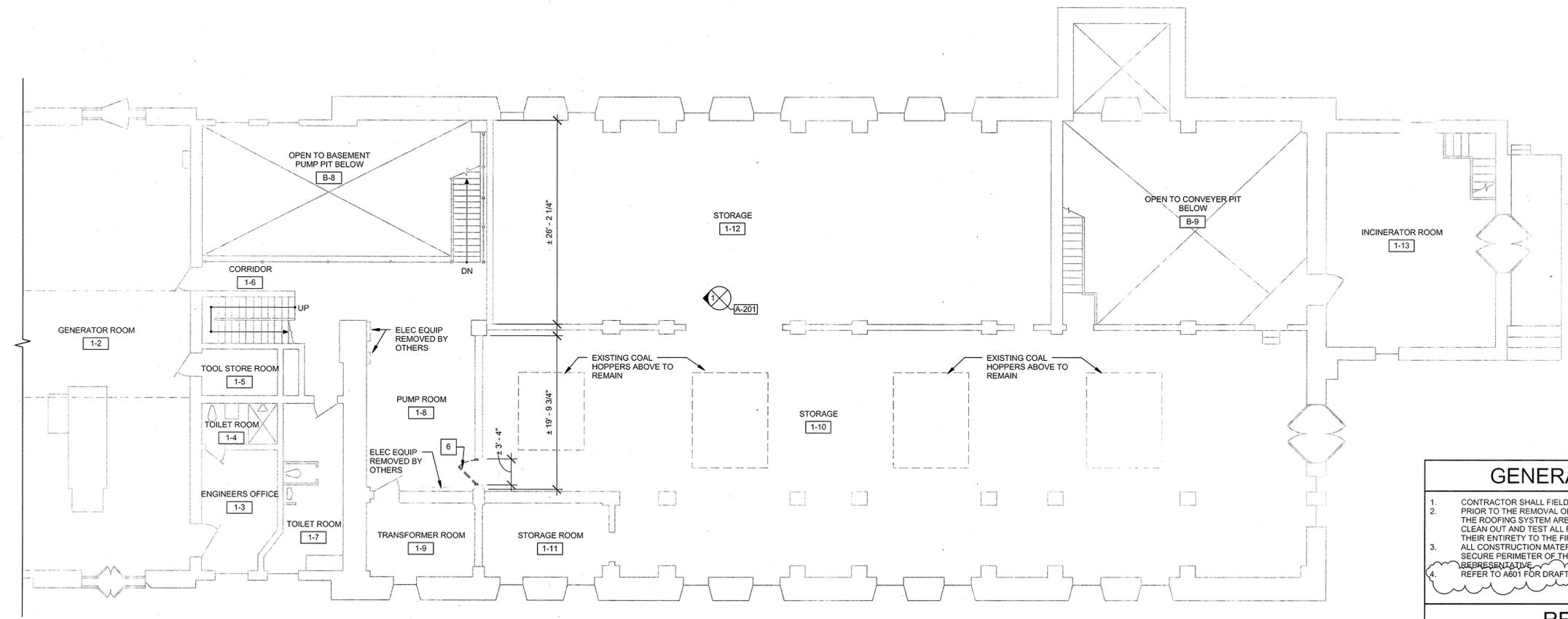
PROJECT NUMBER:	Q1661- C
DESIGNED BY:	PJM
DRAWN BY:	EJR
FIELD CHECK:	AY
APPROVED:	
SHEET TITLE:	FIRST FLOOR HAZARDOUS MATERIALS ABATEMENT PLAN
DRAWING NUMBER:	H-102
SHEET	4 OF 23

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LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK
CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

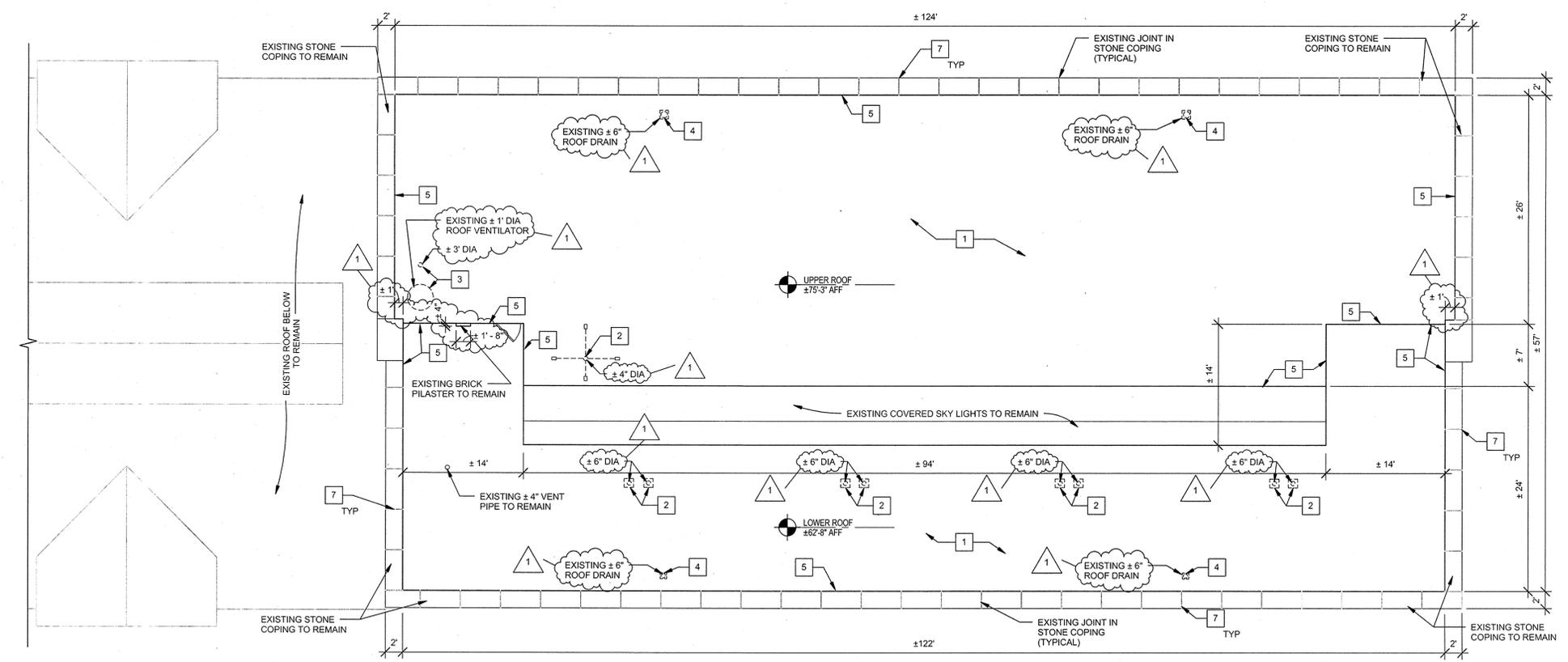
MARK	DATE	DESCRIPTION
△	03/16/2016	ADDENDUM NO. 1
	01/11/2016	BID DOCUMENTS
PROJECT NUMBER: Q1661-C		
DESIGNED BY: MMO		
DRAWN BY: MMO		
FIELD CHECK: AY		
APPROVED: AEG		
SHEET TITLE: FIRST FLOOR AND ROOF REMOVAL PLAN		
DRAWING NUMBER: A-101		
SHEET 7 OF 23		



PARTIAL FIRST FLOOR REMOVAL PLAN

SCALE: 1/8" = 1'-0"

1
A-101

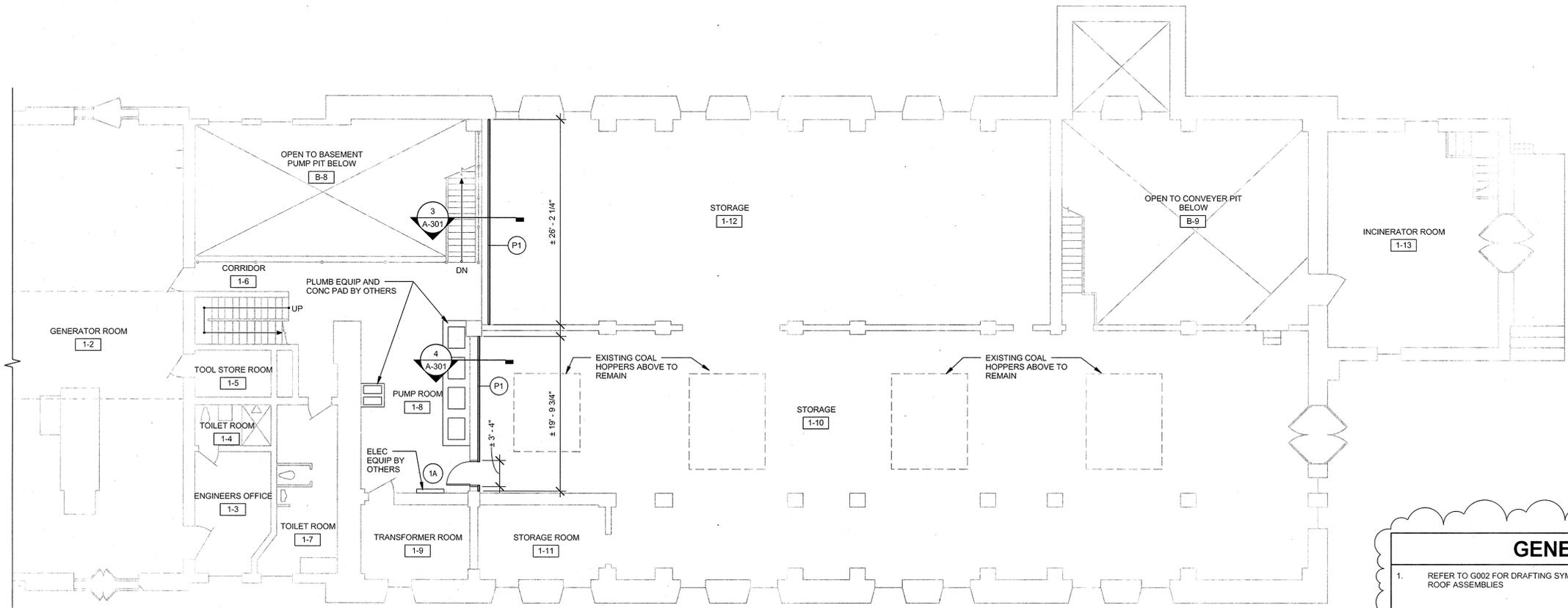


PARTIAL ROOF REMOVAL PLAN

SCALE: 1/8" = 1'-0"

2
A-101

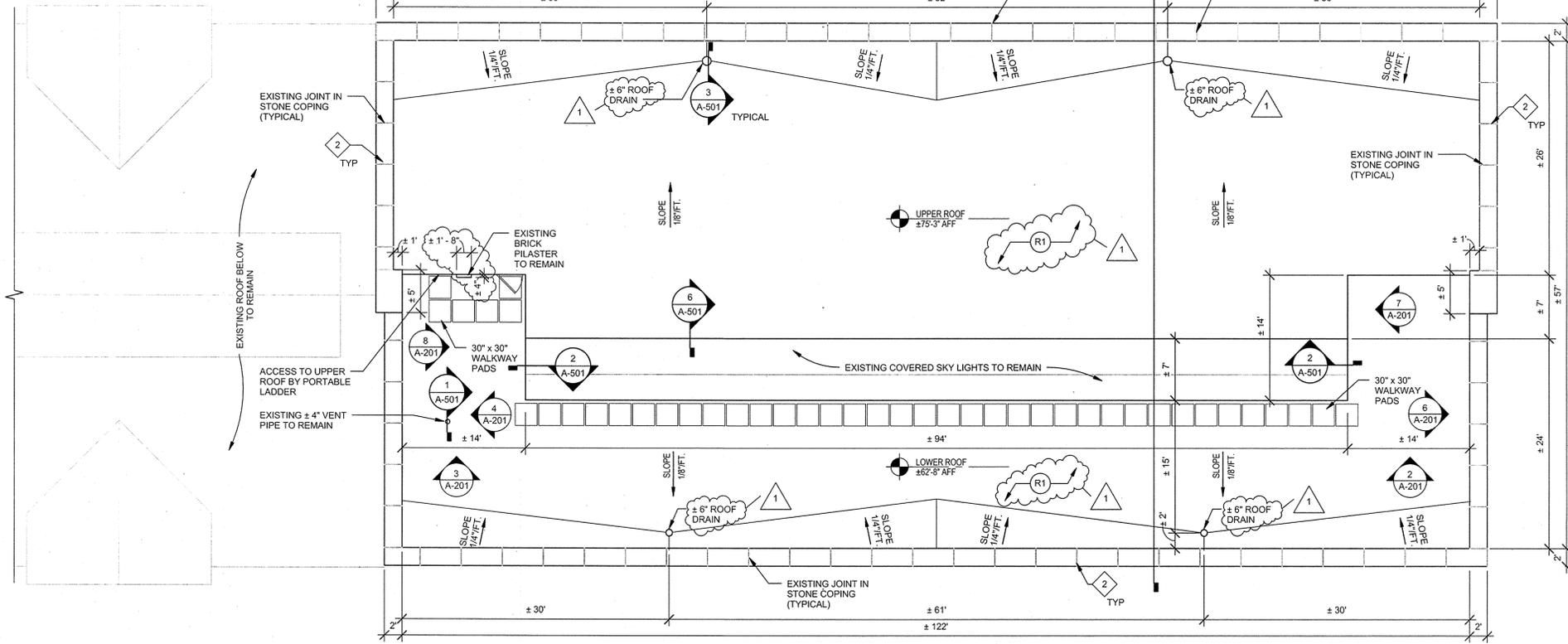




PARTIAL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

1
A-102



PARTIAL ROOF PLAN

SCALE: 1/8" = 1'-0"

2
A-102



GENERAL NOTES

- REFER TO G002 FOR DRAFTING SYMBOLS, ABBREVIATIONS, PARTITION ASSEMBLIES, ROOF ASSEMBLIES

CONSTRUCTION NOTES

- REPOINT BRICK JOINTS WHERE MORTAR HAS DETERIORATED AS INDICATED ON DRAWINGS AND AS IDENTIFIED IN THE FIELD BY DIRECTOR'S REPRESENTATIVE. REPLACE DAMAGED OR BROKEN BRICK TO MATCH EXISTING. PROVIDE 650 SQUARE FEET OF REPOINTING. PROVIDE 200 SQUARE FEET OF BRICK REPLACEMENT.
- AT TOP AND ROOF SIDE OF ALL STONE COPING, CAULK JOINTS WITH BACKER ROD AND TYPE 1 SEALANT. SEALANT COLOR TO MATCH MORTAR. 3 LINEAR FEET PER JOINT - TYPICAL.

DESIGN & CONSTRUCTION

CONSULTANT



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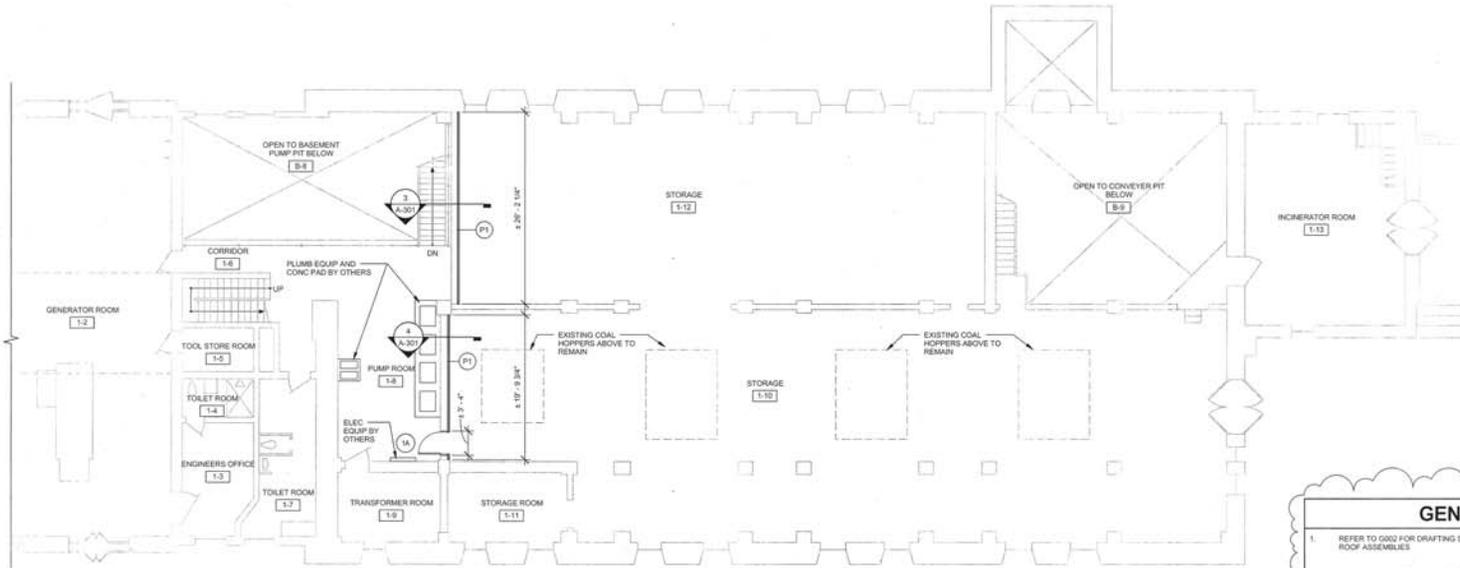
CONTRACT: CONSTRUCTION
 TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING No.9
 LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK
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MARK	DATE	DESCRIPTION
△	03/16/2016	ADDENDUM NO. 1
△	01/11/2016	BID DOCUMENTS

PROJECT NUMBER: Q1661-C
 DESIGNED BY: MMO
 DRAWN BY: MMO
 FIELD CHECK: AY
 APPROVED: AEG
 SHEET TITLE:

FIRST FLOOR AND ROOF PLAN

DRAWING NUMBER: A-102



PARTIAL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

1
A-102

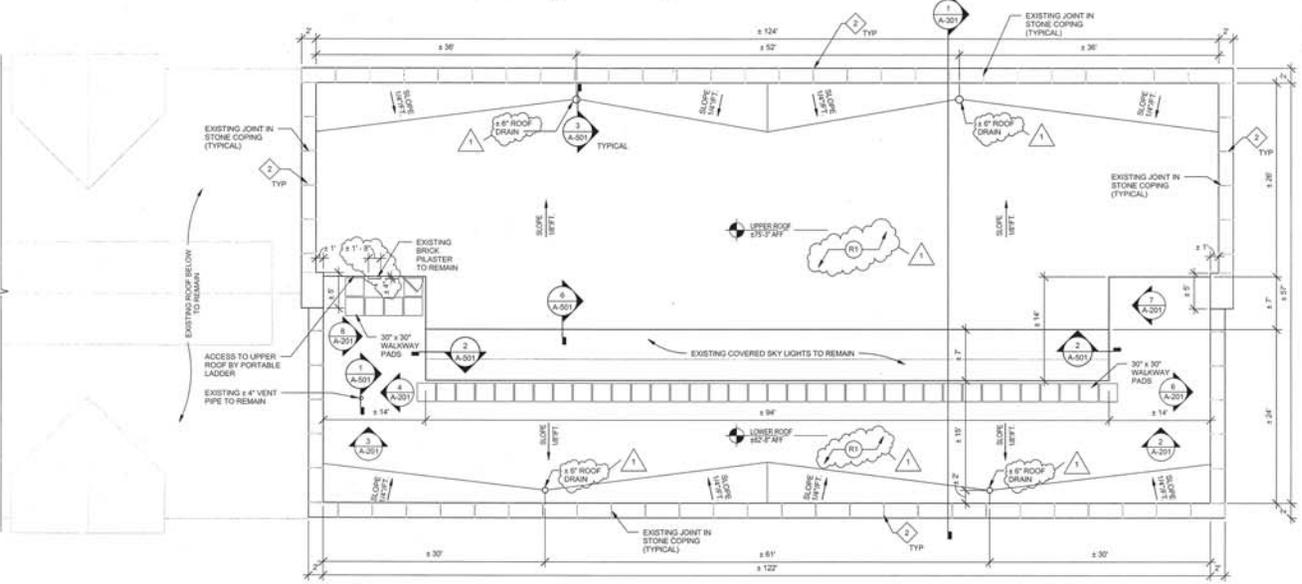
GENERAL NOTES

1. REFER TO 0002 FOR DRAFTING SYMBOLS, ABBREVIATIONS, PARTITION ASSEMBLIES, ROOF ASSEMBLIES

CONSTRUCTION NOTES

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2. AT TOP AND ROOF SIDE OF ALL STONE CORING, CAULK JOINTS WITH BACKER ROD AND TYPE 1 SEALANT. SEALANT COLOR TO MATCH MORTAR. 3 LINEAR FEET PER JOINT - TYPICAL.



PARTIAL ROOF PLAN

SCALE: 1/8" = 1'-0"

2
A-102

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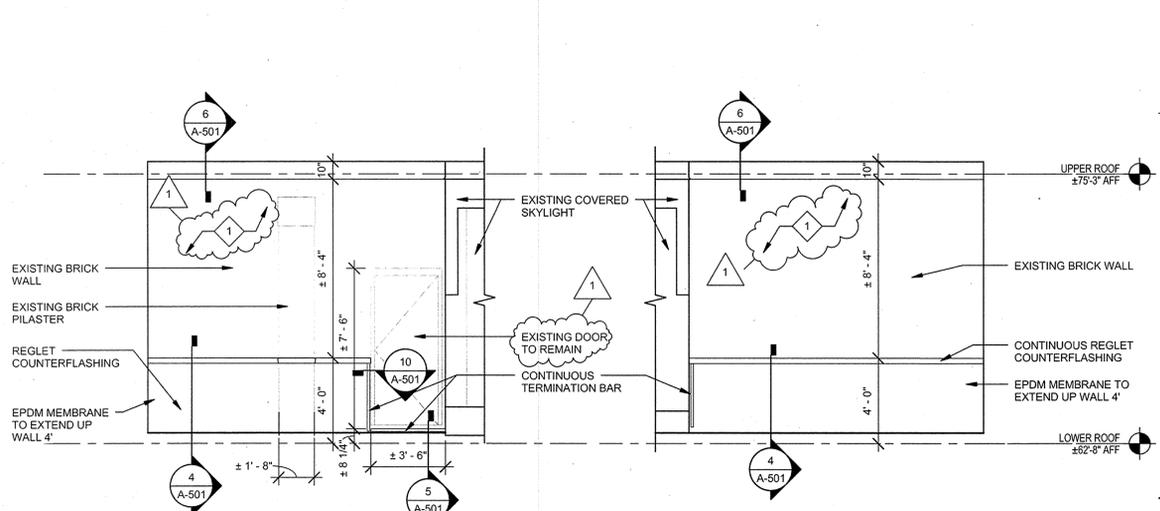
NO.	DATE	DESCRIPTION
1	03/16/2016	ADDENDUM NO. 1
2	01/11/2016	ISSUE DOCUMENTS

PROJECT NUMBER: Q1661-C

DESIGNED BY: HWS
DRAWN BY: HWS
FIELD CHECK: AF
APPROVED: AGC

FIRST FLOOR AND ROOF PLAN

DRAWING NUMBER: A-102

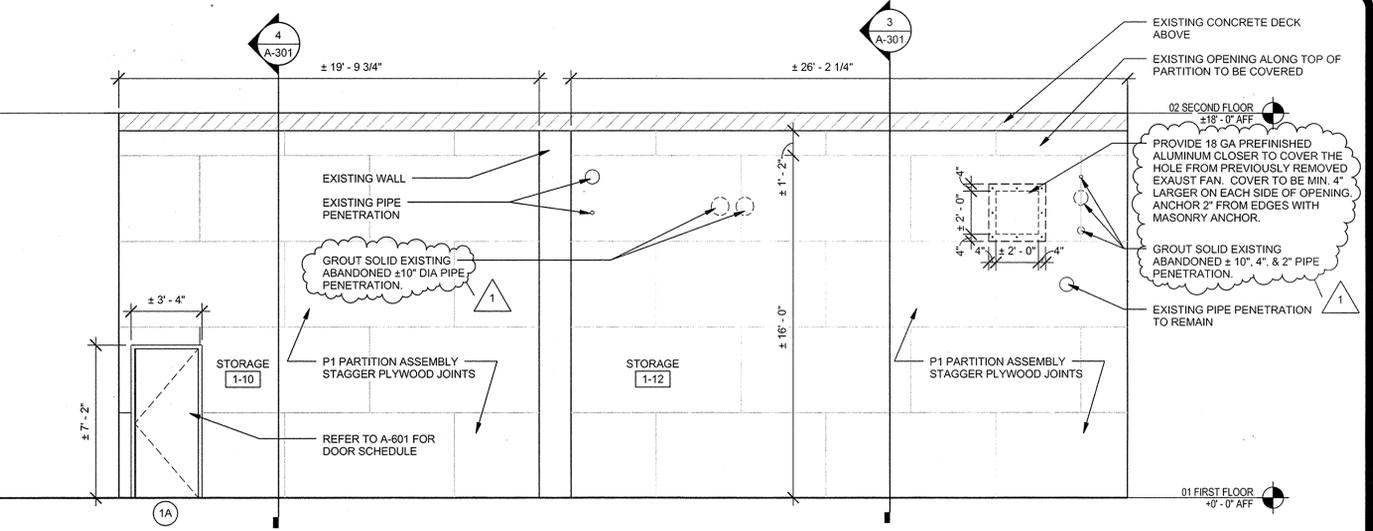


LOWER ROOF WALL - NORTH - EAST

SCALE: 1/4" = 1'-0"

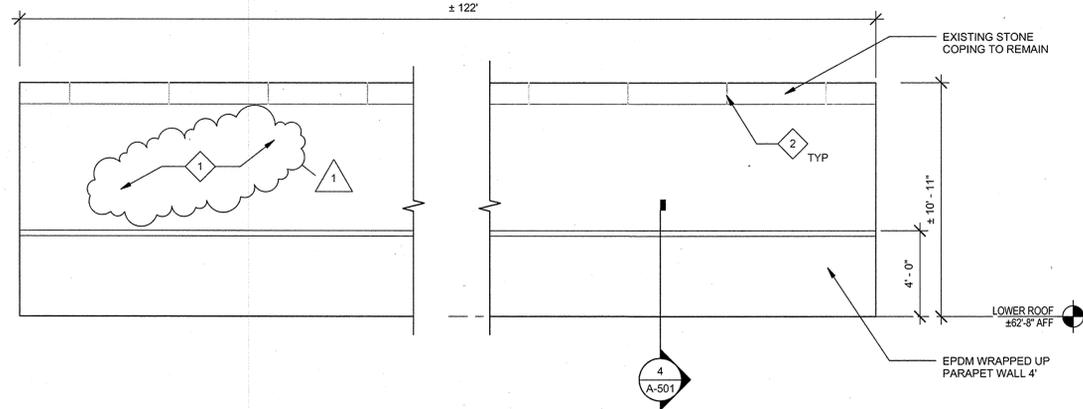
LOWER ROOF WALL - SOUTH - EAST

SCALE: 1/4" = 1'-0"



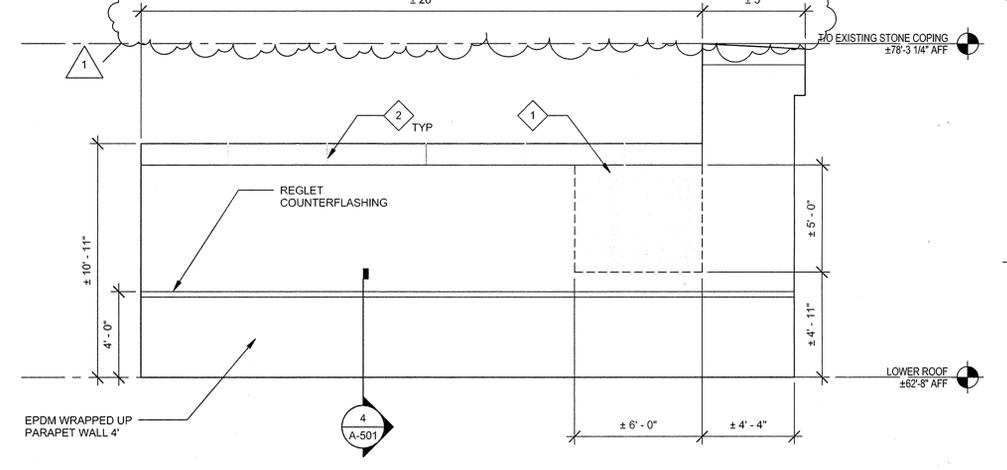
NORTH WALL - STORAGE ROOM 1-10 & 1-12

SCALE: 1/4" = 1'-0"



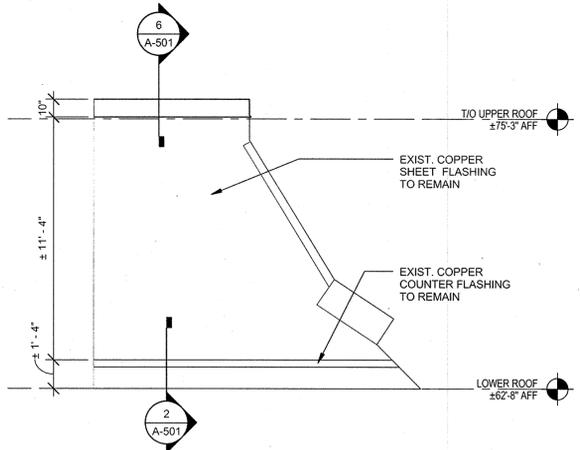
LOWER ROOF PARAPET WALL - WEST

SCALE: 1/4" = 1'-0"



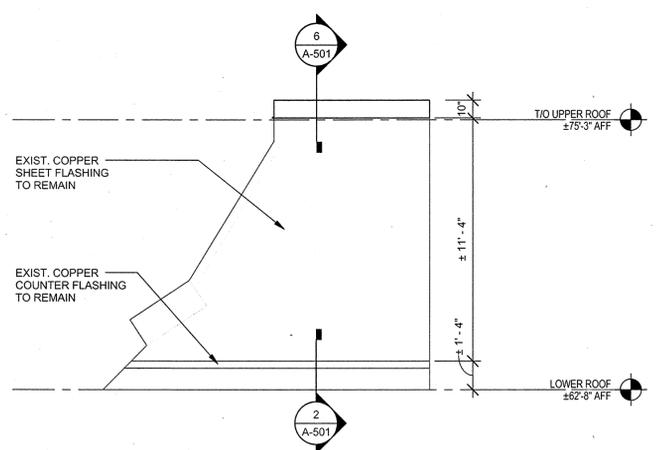
LOWER ROOF PARAPET WALL - NORTH

SCALE: 1/4" = 1'-0"



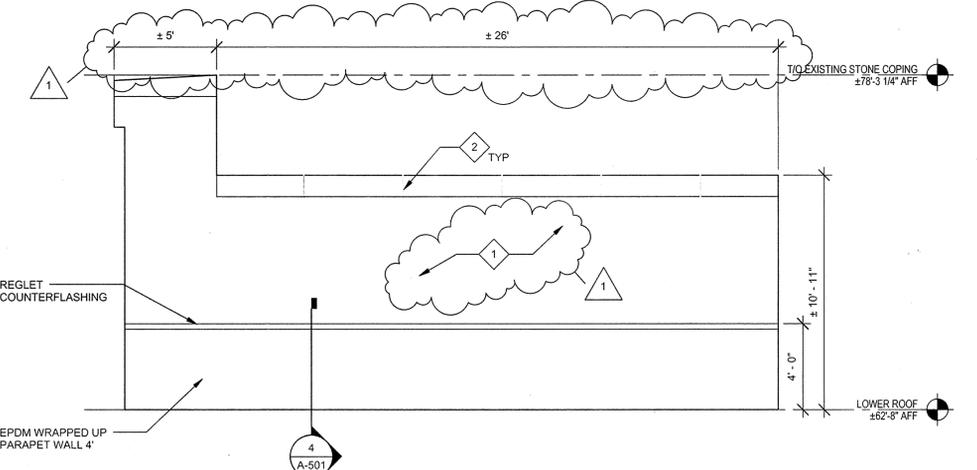
LOWER ROOF SKYLIGHT WALL - NORTH

SCALE: 1/4" = 1'-0"



LOWER ROOF SKYLIGHT WALL - SOUTH

SCALE: 1/4" = 1'-0"



LOWER ROOF PARAPET WALL - SOUTH

SCALE: 1/4" = 1'-0"

- CONSTRUCTION NOTES**
- 1 REPOINT BRICK JOINTS WHERE MORTAR HAS DETERIORATED AS INDICATED ON DRAWINGS AND AS IDENTIFIED IN THE FIELD BY DIRECTOR'S REPRESENTATIVE. REPLACE DAMAGED OR BROKEN BRICK TO MATCH EXISTING. PROVIDE 650 SQUARE FEET OF REPOINTING. PROVIDE 200 SQUARE FEET OF BRICK REPLACEMENT.
 - 2 AT TOP AND ROOF SIDE OF ALL STONE COPING, CAULK JOINTS WITH BACKER ROD AND TYPE 1 SEALANT. SEALANT COLOR TO MATCH MORTAR. 3 LINEAR FEET PER JOINT - TYPICAL.

NEW YORK STATE OF OPPORTUNITY | **Office of General Services**
 DESIGN & CONSTRUCTION

CONSULTANT

W/E ENGINEERING P.C.
 MECHANICAL/ELECTRICAL ENGINEERING CONSULTANTS

Kidney Architects
 KIDNEY ARCHITECTS P.C.
 ARCHITECTS

SINGLETON Construction Consultants

SIENNA ENVIRONMENTAL TECHNOLOGIES

WARNING:
 THE ALTERATION OF THIS MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPARABLE PROFESSIONAL, I.E. ARCHITECT FOR AN ARCHITECT, ENGINEER FOR AN ENGINEER OR LANDSCAPE ARCHITECT FOR A LANDSCAPE ARCHITECT, IS A VIOLATION OF THE NEW YORK STATE EDUCATION LAW AND/OR REGULATIONS AND IS A CLASS 'A' MISDEMEANOR.



CONTRACT: CONSTRUCTION

TITLE: REPLACE DOMESTIC WATER HEATERS AND EPDM ROOFING BUILDING No.9

LOCATION: ATTICA CORRECTIONAL FACILITY EXCHANGE STREET ATTICA, NEW YORK

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

MARK	DATE	DESCRIPTION
△	03/16/2016	ADDENDUM NO. 1
	01/11/2016	BID DOCUMENTS
PROJECT NUMBER: Q1661-C		
DESIGNED BY:	DJS	
DRAWN BY:	DJS	
FIELD CHECK:	AY	
APPROVED:	AEG	
SHEET TITLE:		

ELEVATIONS AND DETAILS

DRAWING NUMBER: **A-201**

SHEET 9 OF 23



STATEMENT OF SPECIAL INSPECTIONS

Project No.: **Q1661**

Instructions: BCNYS Section 1704.1.1 requires the project Design Professional to complete the Statement of Special Inspections as a condition for issuance of the Construction Permit. Complete each section of this form as applicable, and submit it to the Code Compliance Manager with the Summary of Special Inspections (BDC 406) and Construction Permit Application (BDC 399).

PROJECT INFORMATION:

DESIGNER INFORMATION:

CONSTRUCTION INFORMATION:

Project Description: <i>(Project Title, Facility Name and Address)</i> Replace Domestic Hot Water Tanks and EPDM Roofing, Building No. 9 Attica Correctional Facility Exchange Street Attica, NY	Architect/Engineer/Consultant: DiDonato Associates, PC		Engineer In Charge:	Region:
	Name of Person Completing Form: <i>(if different from above)</i> Jeffrey J. Blank, P.E.		Name of Person Completing Form: <i>(if different from above)</i>	
	Phone: 716-656-1900	Date: 3/16/16	Phone:	Date:
Business Unit: 1	Comments:		Comments:	
Team Leader: Richard Whitebread, P.E.				

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD	BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
	A. Steel Construction							
<input type="checkbox"/>	1. Material verification of high-strength bolts, nuts, and washers.		<input type="checkbox"/>	Applicable ASTM material specifications. AISC ASD, Section A3.4; AISC LRFD, Section A3.3	1704.3			
<input type="checkbox"/>	2. Inspection of high-strength bolting.	<input type="checkbox"/>	<input type="checkbox"/>	AISC LRFD, Section M2.5	1704.3, 1704.3.3			
<input checked="" type="checkbox"/>	3. Material verification of structural steel.			ASTM A 6 or A 568	1704.3, 1708.4	051200		
<input checked="" type="checkbox"/>	4. Material verification of weld filler materials.			AISC, ASD, Section A3.6; AISC LRFD, Section A3.5	1704.3	051200		

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD	BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
<input checked="" type="checkbox"/>	5. Inspection of welding:			AWS D1.1, D1.3, D1.4; ACI 318: 3.5.2	1704.3, 1704.3.1, 1903.5.2	051200		
<input checked="" type="checkbox"/>	a. Structural steel	<input type="checkbox"/>	<input checked="" type="checkbox"/>			051200		
<input type="checkbox"/>	b. Reinforcing steel	<input type="checkbox"/>	<input type="checkbox"/>					
	6. Inspection of steel frame joint details		<input checked="" type="checkbox"/>		1704.3, 1704.3.2	051200		
	B. Concrete Construction							
<input type="checkbox"/>	1. Inspection of reinforcing steel, including prestressing tendons, and placement		<input type="checkbox"/>	ACI 318: 3.5, 7.1-7.7	1704.4, 1903.5, 1907.1, 1907.7, 1914.4			
<input type="checkbox"/>	2. Inspection of reinforcing steel welding.			AWS D1.4; ACI 318: 3.5.2	1704.4, 1903.5.2			
<input type="checkbox"/>	3. Inspection of bolts to be installed in concrete prior to and during placement.	<input type="checkbox"/>			1704.4, 1912.5			
<input type="checkbox"/>	4. Verify use of required design mix.		<input type="checkbox"/>	ACI 318: Ch. 4, 5.2-5.4	1704.4, 1904, 1905.2-1905.4, 1914.2, 1914.3			
<input type="checkbox"/>	5. Sampling fresh concrete: slump, air content, temperature, strength test specimens.	<input type="checkbox"/>		ASTM C 172, C 31; ACI 318: 5.6, 5.8	1704.4, 1905.6, 1914.10			
<input type="checkbox"/>	6. Inspection of placement for proper application techniques.	<input type="checkbox"/>		ACI 318: 5.9, 5.10	1704.4, 1905.9, 1905.10, 1914.6, 1914.7, 1914.8			
<input type="checkbox"/>	7. Inspection for maintenance of specified curing temperature and techniques.		<input type="checkbox"/>	ACI 318: 5.11, 5.13	1704.4, 1905.11, 1905.13, 1914.9			
<input type="checkbox"/>	8. Inspection of prestressed concrete.	<input type="checkbox"/>		ACI 318: 18.20, 18.18.4	1704.4			
<input type="checkbox"/>	9. Erection of precast concrete members.		<input type="checkbox"/>	ACI 318: Ch. 16	1704.4			
<input type="checkbox"/>	10. Verification of in-situ concrete strength prior to stressing of tendons and prior to removal of shores and forms from beams and slabs.		<input type="checkbox"/>	ACI 318: 6.2	1704.4, 1906.2			

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD		BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
				ACI 530/ ASCE 5/TMS 402, Ch. 35	ACI 530.1/ ASCE 6/TMS 602, Ch. 35				
	C. Masonry Construction L1 = Level 1 Inspection required for nonessential facilities. L2 = Level 2 Inspection required for essential facilities. See 1704.5 for clarification.								
	1. Verify to ensure compliance:								
<input checked="" type="checkbox"/>	a. Proportions of site prepared mortar and grout.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		2.6A	1704.5	040121		
<input checked="" type="checkbox"/>	b. Placement of masonry units and construction of mortar joints.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		3.3B	1704.5	040121		
<input checked="" type="checkbox"/>	c. Location and placement of reinforcement, connectors, tendons, anchorages.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		3.4, 3.6A	1704.5	040121		
<input type="checkbox"/>	d. Prestressing technique and installation.		<input type="checkbox"/> L1 <input type="checkbox"/> L2		3.6A, 3.6B	1704.5			
<input type="checkbox"/>	e. Grade and size of tendons and anchorages.		<input type="checkbox"/> L1		2.4B, 2.4H	1704.5			
<input checked="" type="checkbox"/>	f. Grout space prior to grouting.	<input checked="" type="checkbox"/> L2			3.2D	1704.5	040121		
<input checked="" type="checkbox"/>	g. Placement of grout.	<input checked="" type="checkbox"/> L2			3.5	1704.5	040121		
<input type="checkbox"/>	h. Grouting of tendons.	<input type="checkbox"/> L2			3.6C	1704.5			
	2. Inspection shall verify:								
<input type="checkbox"/>	a. Size and location of structural elements.		<input type="checkbox"/> L1 <input type="checkbox"/> L2		3.3G	1704.5			
<input type="checkbox"/>	b. Type, size, and location of anchors.	<input type="checkbox"/> L2	<input type="checkbox"/> L1	1.15.4, 2.1.1		1704.5			
<input checked="" type="checkbox"/>	c. Specified size, grade, and types of reinforcement.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2	1.12	2.4, 3.4	1704.5	040121		
<input type="checkbox"/>	d. Welding of reinforcement bars.	<input type="checkbox"/> L1 <input type="checkbox"/> L2		2.1.10.6, 2.1.10.6.2		1704.5			
<input checked="" type="checkbox"/>	e. Cold/hot weather protection of masonry construction.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		1.8	1704.5, 2104.3, 2104.4	040121		
<input type="checkbox"/>	f. Prestressing force measurement and application.	<input type="checkbox"/> L2	<input type="checkbox"/> L1		3.6B	1704.5			

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD		BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
<input checked="" type="checkbox"/>	3. Inspection prior to grouting.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2	1.12	3.2D, 3.4, 2.6B, 3.3B	1704.5	040121		
<input checked="" type="checkbox"/>	4. Grout placement.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		3.5, 3.6C	1704.5	040121		
<input checked="" type="checkbox"/>	5. Preparation of grout specimens, mortar specimens, and/or prisms.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		1.4	1704.5, 2105.2.2, 2105.3	040121		
<input checked="" type="checkbox"/>	6. Compliance with documents and submittals.		<input checked="" type="checkbox"/> L1 <input type="checkbox"/> L2		1.5	1704.5	040121		
<input type="checkbox"/>	D. Wood Construction Fabrication of wood structural elements and assemblies.					1704.6, 1704.2			
	E. Soils								
<input type="checkbox"/>	1. Site preparation.					1704.7.1			
<input type="checkbox"/>	2. During fill placement.					1704.7.2			
<input type="checkbox"/>	3. Evaluation of in-place density.					1704.7.3			
<input type="checkbox"/>	F. Pile Foundations Installation and load tests.					1704.8			
<input type="checkbox"/>	G. Pier Foundations Seismic Design Category (SDC) C, D, E, F.					1704.9, 1616.3			
<input type="checkbox"/>	H. Sprayed Fire-Resistant Materials								
<input type="checkbox"/>	I. Mastic and Intumescent Fire-Resistant Coatings				AWCI 12-B	1704.11			
<input type="checkbox"/>	1. Structural member surface conditions.					1704.10.1			
<input type="checkbox"/>	2. Application.					1704.10.2			
<input type="checkbox"/>	3. Thickness.				ASTM E 605	1704.10.3			
<input type="checkbox"/>	4. Density.				ASTM E 605	1704.10.4			
<input type="checkbox"/>	5. Bond strength.				ASTM E 736	1704.10.5			
<input type="checkbox"/>	J. Exterior Insulation and Finish Systems (EIFS)					1704.12			
<input type="checkbox"/>	K. Special Cases					1704.13			
<input type="checkbox"/>	L. Smoke Control					1704.14			

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD	BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
	M. Special Inspections for Seismic Resistance Applicable to specific structures, systems, and components.							
<input type="checkbox"/>	1. Structural steel.	<input type="checkbox"/>		AISC Seismic	1707.2			
<input type="checkbox"/>	2. Structural wood.	<input type="checkbox"/>	<input type="checkbox"/>		1707.3			
<input type="checkbox"/>	3. Cold-formed steel framing.		<input type="checkbox"/>		1707.4			
<input type="checkbox"/>	4. Storage racks and access floors.		<input type="checkbox"/>		1707.5			
<input type="checkbox"/>	5. Architectural components.		<input type="checkbox"/>		1707.6			
<input type="checkbox"/>	6. Mechanical and electrical components.		<input type="checkbox"/>		1707.7			
<input type="checkbox"/>	7. Seismic isolation system.		<input type="checkbox"/>		1707.8			
	N. Structural Testing for Seismic Resistance Applicable to specific structures, systems, and components.							
<input type="checkbox"/>	1. Testing and verification of masonry materials and assemblies.				1708.1			
<input type="checkbox"/>	2. Testing for seismic resistance.				1708.2			
<input type="checkbox"/>	3. Reinforcing and prestressing steel.			ACI 318	1708.3, 1903.5.2			
<input type="checkbox"/>	4. Structural steel.			AISC Seismic	1708.4			
<input type="checkbox"/>	5. Mechanical and electrical equipment.				1708.5			
<input type="checkbox"/>	6. Seismically isolated structures.				1708.6, 1623.1			
<input type="checkbox"/>	O. Structural Observations Applicable to specific structures.				1709.1			

Check if Required	INSPECTION AND TESTING Continuous and Periodic as defined by the BCNYS	Continuous	Periodic	REFERENCE STANDARD	BCNYS REFERENCE	SPEC SECTION	COMMENTS	REGIONAL INSPECTION ASSIGNMENTS
	P. Wind Resistance Applicable in Exposure Category B with a basic wind speed of 120 mph and Exposure Categories C or D with basic wind speed of 110 mph or greater.							
<input type="checkbox"/>	1. Verification of roof cladding and roof framing connections.				1705.4.2			
<input type="checkbox"/>	2. Verification of wall connections to roof and floor diaphragms and framing.				1705.4.2			
<input type="checkbox"/>	3. Verification of roof and floor diaphragm systems, including collectors, drag struts and boundary elements.				1705.4.2			
<input type="checkbox"/>	4. Verification of vertical windforce-resisting systems, including braced frames, moment frames and shear walls.				1705.4.2			
<input type="checkbox"/>	5. Verification of windforce- resisting system connections to the foundation.				1705.4.2			
<input type="checkbox"/>	6. Verification of fabrication and installation of systems or components required to meet the impact-resistance requirements of 1609.1.2.				1705.4.2			