

ADDENDUM NO. 3

PART I - GENERAL

1.1 PROJECT INFORMATION

- A. Project Name: Renovations and Addition to Old City Hall, Quincy, MA
- B. Owner: City of Quincy
- C. Architect: Holmes & Edwards, Inc.
- D. Architect Project Number: #1003
- E. Date of Addendum: July 18, 2013

1.2 NOTICE TO BIDDERS

- A. This Addendum is issued to all General Contractors and Subcontractors pursuant to the Instruction to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual and Drawings. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.
- B. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

SPECIFICATIONS

Division 00 – Procurement and Contracting Requirements

- 1. Document 001131 Bid Bond
 - Line 5: delete blank space after the word “assigns”.
 - Line 6: insert a period after the word “assigns”.See attached revised Bid Bond document.

Section 001117 – Instructions to Bidders

- 1. Delete reference in Addendum No. 1 which indicates no Liquidated Damages associated with project completion.
- 2. Insert Subcontractors and General Contractors shall have Liquidated Damages in the amount of \$1,500 per day.

Section 022100 – Site Preparation, Part 3 – Execution, 3.8 Demolition & Abandonments

- 1. Add Note G. The General Contractor is responsible for the careful removal and storage of all memorial bricks within the limits of the work area. All bricks with memorialized inscriptions shall be organized and stored on approximately 3’x3’ pallets furnished by the General Contractor. Bricks shall be carefully stacked 5 layers to a pallet with ½ ” plywood between layers. Avoid damage to all memorial bricks. General Contractor to tabulate all names or brick inscription per

pallet with each pallet numbered for reference. Computerized lists of brick identifications per pallet shall be provided to the Owner. Each pallet shall be banded and shrink wrapped and delivered to a location within the City as directed by the Architect. The approximate count of bricks requiring salvage and storage is 2,500. All other bricks to be discarded as construction waste.

Section 028213 – Asbestos Abatement

1. Estimated quantities of ACMs are provided in 1.02 Summary of Work. The unit price sheet (refers to removal of ACMs identified outside the outlined work area or areas that are not abated as listed therein) shall be filled in by the Contractor and included in the submission of the GC bid.

Section 028416 – Light Fixture Lamp and Ballast Removal

1. Refer to 1.01 Description of Work. The Contractor on the basis of field inspections shall determine the actual quantities required for removal.

Section 055000 – Metal Fabrications, Part 1 – General

1. 1.2A Description of Work (9a through 9f)
Omit 9a,9d,9e and 9f
Notes 9b and 9c to remain

Section 055300 – Metal Grating, Part 1 – General, 1.3 Performance Requirements

1. 1.3B.1 delete reference 250 psf., change to read 100 psf.

Section 073126 – Slate Roofing

1. The Filed Sub-Bidder is responsible for the removal of existing slate, flashing and other materials down to the existing wood decking which is scheduled to remain. Ventilators (2), roof hatch, gutters, downspouts and other roof related appurtenances shall be removed.
2. The Filed Sub-Bidder shall be responsible for weather protection of the existing structure during demolition and roof installation operations.

Section 084420 – Point Supported Glazing – Revised Section ADDED

Section 085200 – Wood Windows – Revised Section ADDED

Section 099000 – Painting and Coating,

1. Add new Par. 3.7E: Gold Leaf Border in the Great Hall #203 (Typically 10” wide): System shall include surface preparation, primer, sizing, gold leaf, and two glazing coatings. Applicator shall have a minimum of 2 years experience applying gold leaf. Provide genuine gold leaf, 23 kt with an alloy of 94 percent gold, 3 percent silver and 3 percent copper, extra heavy weight gold leaf with average gram weight of not less than 18 grams of gold per 1,000 sheets based on sheets 3-3/8 inch square. Acceptable suppliers include Sepp Leaf Products, New York, NY or equal. Prime with 3 lb. cut orange shellac primer by Zinnzer or equal; apply coat of slow oil size and allowed to come to tack. Apply gold leaf with 1/4 inch overlap. Apply first glazing using non-yellowing varnish and second glazing using Liquin Glazing Liquid by Windsor Newton or as recommended by gilder. Delete reference to 5” border on drawing.

Section 102220 – Folding Panel Partitions, Part 1 – General, 1.2 Description of Work

1. Subsection 1.2A.1. Delete “manually operated”. Change to read “electrically operated”.

Section 113100 Appliances, Part 2 – Products

1. All appliances shown on drawings and called out in Subsection 2.1 Appliances are N.I.C. and to be supplied by the Owner.

Section 123020 – Stainless Steel Specialties – DELETED

Section 140001 – Elevators – Revised Section ADDED

Section 142100 – Traction Elevators – DELETED

Section 142400 – Hydraulic Elevators – Revised Section ADDED

Section 230000 – Heating Ventilating and Air Conditioning

1. Delete Part 2.1, Item E. Flexible Duct.

DRAWINGS

CIVIL

C1.0 – Site Preparation Plan

The memorial granite sphere located in front of City Hall Annex shall be relocated to an adjacent location in McIntyre mall. All granite base materials formed in an octagonal pattern and surrounding the ball and base elements shall be carefully removed by the contractor and packaged in $\frac{3}{4}$ plywood and steel banding and transported to the City's DPW yard at 55 Sea Street. The materials will be offloaded and stored by the City.

The two main supporting elements for the sphere together with the sphere itself shall be relocated within the McIntyre mall as shown on the attached sketch SK-2. A new 10" thick reinforced concrete pad shall support the sphere and its supporting elements. Reinforcing to be #5 @ 12" o.c., E.W., mid-depth.

For approximate location of new chiller and for routing of conduit associated with the new chiller refer to Mechanical Drawing M-10. See attached sketch (HSH – SK01) for details regarding chiller concrete pad and associated bollards.

ARCHITECTURAL

AD- 104 – Attic and Roof Demolition Plans – Roof Demolition Key Notes.

- a. Delete Key Note R2.
- b. Delete R2 Key Note from Old City Hall Demotion Roof Plan.
- c. Slate Roofing Filed Sub Bidder responsible for Key Note R1.

A-203 – Window Types, Details & Notes

Detail 9: Revise note "steel angle by others".

A-605 – Stair No. 3 & 4 Sections, Plans & Details

Stair #4, Section 1&2: Note: New 1 ½" steel pipe rail painted black to be revised to read: New 1 ½" aluminum pipe rail.

A-701 Room Finish Schedule & Misc. Details

Acoustical Tile:

USG Halcyon ClimaPlus tiles of sizes shown in the Reflected Ceiling Plans, Class A, NRC .90, with Finline $1/8$ " suspension system.

Ceramic Tile

Floor Tile & Base: Daltile Unglazed ColorBody Porcelain 3" x 3"

Wall Tiles and Bullnose Shapes: Daltile Semi-Gloss and Matte Wall Tiles 4 $1/4$ " x 4 $1/4$ " or as approved by Architect. Refer to Specifications, Section 093000 – Tiling.

Carpet Tiles

Shaw Contract Group or equal 18" x 36", 24 oz. face weight, solution dyed nylon. Tiles to be LEED certified, Green Initiative 006. Colors and textures of carpets as selected by Architect. Refer to Specifications, Section 096810 – Tile Carpeting.

Sheet Carpet

Carpeting in the Great Hall Room 203: Shaw Contract Group Performance Broadloom Legacy Collection Pattern Grace or equal.

Sheet carpet in all other rooms other than Great Hall Room 203 shall be Shaw Collection: Frame Pattern line or equal. Refer to Specifications, Section 096820 – Sheet Carpeting.

A-703 Wall Types & Misc. Plan Details

Wall type 1 & 1A Note: Change "Damp proofing" to "Air Barrier".

A-802 Roof Details

The Note: "Aluminum extruded trim anchored to steel typ" on Details 5,7 & 8 to be changed to read: " $3/16$ " (1.875 GA.) aluminum extruded trim anchored to steel by roofing & flashing FSB".

STRUCTURAL

Structural drawings notes regarding Existing Conditions: IX Special Notes Regarding the use of These Drawings, notes 3 and 4 on S-002, Notes Regarding Existing Conditions on S-100N, S-101E, S-101N, S-102E, S-102N, S-103E, S-103N, S-104E, S-104N, S-105E, S-105N, S-106, S-202, S-203, S-204, Reused Floor Joist Note on S-101N and S-102N. Delete reference to Contractor carrying a contingency in pricing for differences in conditions shown, including but not limited to A) Different Framing Conditions, B) Different Foundations Conditions, C) Hidden Damage or deterioration in structural members.

PLUMBING

P-3 Proposed First Floor – Plan 2

1. Add hose bibb HB-1 to northern exterior wall in Women's Toilet 103. Connect new $3/4$ "CW piping to $1/2$ "CW riser in plumbing chase. Run all new piping above ceiling and in wall.
2. Add hose bibb HB-1 to southern exterior wall in Meeting Room 106, between column lines 5-6. Connect new $3/4$ "CW piping to $3/4$ "CW riser in Janitor Closet 109. Run all new piping above ceiling and in walls.
3. Add hose bibb HB-1 to western exterior wall in Stair-2 114, under stair landing in fire rated chase. Connect new $3/4$ "CW piping to $1/2$ "CW riser in Unisex Toilet 110. Run all new piping above ceiling and in walls.

MECHANICAL

M-5 – First Level Ductwork Plan

The 8"x4" exhaust duct serving Toilet-110 shall be re-routed to clear the open to above ceiling area in the lobby

M-10 – Partial First Floor Plan – Annex

Provide and install new electric wall mounted heater (EH-3) in the new Reception area in the Annex Building. Unit shall be manufactured by Qmark model HT1502SS, 1.5kW, 5.1 MBH, 12.5 Amps, 120 Volt with recessed mounting frame and integral thermostat and temperature LED readout. Unit dimension is 14"W x 20"H x 3.75"D. Unit shall be mounted 12" above floor and 12" from adjacent wall.

ELECTRICAL

E-2 – Site Plan Electrical

Provide single receptacle in weatherproof outlet box and cover for submersible sump pump at two locations on site. One pump located adjacent to Fountain Vault and one location located at northeast corner of building. Connect one receptacle to circuit #B1-46 and the second receptacle to circuit #B1-48. Provide GFCI type circuit breakers for these circuits.

E-3 – Basement Floor Plans

Meeting Room #B04: Provide junction box and 20A/1P electric circuit from Panel B1-53 to motorized partition and associated controls. Verify exact mounting location of control box in field with Architect."

E-4 – First Floor Plans

Provide power connection to new electric heater #EH3 in Annex Building Reception Area. Provide toggle type disconnect switch and connection to new 20A/1P circuit breaker in existing power panel. Verify exact panel location in field.

E-5 – Second Floor Plans

Two duplex receptacles at the counter in Second Floor Annex, Break Room #202 shall be clarified as being GFCI duplex receptacles.

CLARIFICATIONS

1. Gas Utility Charges: Plumbing contractor shall pay all utility company fees as indicated in Specification, Section 220000 – Plumbing, 1.2, 1.4 & 3.9.
2. Temporary Water/Heat/ Facilities for Project: Temporary facilities shall not be by the plumbing contractor as indicated in Specification, Section 22000, 1.5.
3. Trap Primers and Trap Guards: Trap primers are required to be installed as indicated on the contract drawings. Trap guards are not approved for installation. See Plumbing Plans and Schedule for Trap Primer, TP-1 & TP locations.
4. Work on south side of building and adjacent cemetery and associated structures. Refer to Drawing S-002 General Note 1 under X. Engineering Requirements for Contractor.
5. Drawing S-400 Detail 1: The 8 x 4 x ½ angles field welded to bottom flange of floor and roof beams and bolted to CMU walls is provided by the Structural Steel Contractor.
6. Drawing S-400 Details 4,5 &10: The 6 x 4 x ¾ and 5 x 3 ½ x ¾ angle supporting metal decking and wood blocking at roof edge are furnished and installed by the Structural Steel Contractor.
7. Drawing S-400 Detail 8: The 8 x 8 x ½ angle is provided by the Structural Steel Contractor.

8. Drawing A-601, S-102N & S204: The new steel framing including the HSS and angle stringers at stair No. 1 is provided by the Structural Steel Contractor.
9. Drawing A-702 Door Schedule: The two pairs of glass doors FG under the glass and glazing file sub bid.
10. Addendum No. 1 Clarification Note: Chilled glycol underground pipe anchors: Drawing M-10 Note: "pipe anchors per manufacturer", Change to: "pipe anchors shall be sized and quantity requirements by the pipe manufacturer provided and installed by the Contractor."
11. All existing wood windows to be replaced with new custom wood windows per drawing A-203. Details on A-203 used for bidding purposes. Profiles shown are representations of existing, field measure windows prior to removal.
12. Components for the Stainless Steel Guard Rail 2nd Floor Lobby: The stainless steel framework provided by Misc. Metals 057300. Glass panels by glazing 088000 installed by misc. metals and wood cap fabricated and installed by section 064020.
13. Areaway grate replacement: Post install is at existing areaways and cast in place for new areaways.
14. Load Capacity for Areaway Grates: Use 100 psf for all areaway grates.
15. Footing Schedule: No footing schedule shown. Refer to the two footing notes, F1 & F2 on Foundation Plan drawing, S-100N.
16. Drawing S-002, Note 10 Under X Engineering Requirements for Contractor: The General Contractor is responsible to obtain engineered details and design calculations stamped/signed by Mass. P.E. for the hanging and bracing of HVAC equipment in attic. All this info to be reviewed by Architect and Engineers.
17. Temporary Shoring and Bracing Structure During all demolition and Construction Phases of Work: It is the sole responsibility of the general contractor to provide for a safe and efficient method of shoring and/or bracing the structure during all demolition and construction phases. Note that temporary bracing is required for all columns and walls to remain where interconnected framing members (such as beams, girders, diagonal braces, or slabs) are to be removed. The contractor shall engage a structural engineer, licensed in the Commonwealth of Massachusetts, to provide stamped structural calculations and drawings for all temporary shoring and bracing systems, as well as an analysis of any temporary loads that the contractor chooses to impose upon the existing structure. Contractor shall provide all additional shoring, floor reinforcement, or other measures as required to support such temporary loads. All shoring shall be placed continuous down to foundations.
18. All field sub-bidders are responsible for providing fire watch details as required by Quincy Fire Department.
19. Demolition of existing granite walls in the basement and creation of all new openings in the building is the responsibility of the General Contractor.
20. The General Contractor is responsible for the vapor mitigation system at slabs specified in Section 096110.
21. Glass and glazing for Section 084420 – Point-Supported Glazing is specified in that section. It is not the work of Section 088000.
22. Air Leakage Testing Section 014000 - 1.8 H. is the responsibility of the General Contractor.
23. Work of Section 092710 – Glass Fiber Reinforced Gypsum is work of the General Contractor. It is not part of FSB 090001.
24. For trench patch detail in Hancock Street, refer to Drawing C3.0.

ATTACHMENTS:

Document 001131 Bid Bond
Section 084420 Point Supported Glazing (Revised/New)
Section 085200 Wood Windows (Revised/New)
Section 140001 * Elevators (Revised/New)

Section 142400	Hydraulic Elevators
SK-1	Lobby 111 & 2 nd Floor Lobby 206 Plan, Floor Finish, dated 7/18/13
SK-2	Memorial Granite Sphere Relocation Plan, dated 7/18/13
SK-3	Gold Leaf Border – Great Hall, Detail, dated 7/18/13
HSH – SK1	Proposed Chiller Pad, dated 7/18/13

END OF ADDENDUM NO. 3

BID BOND

Note: This form may be substituted with standardized form issued by insurance/bonding agent.

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned,
_____ as Principal and
_____ as Surety, are hereby held and firmly bound unto
_____ as OWNER in the penal sum of _____
_____ for the payment of which, well and truly to be made, we hereby jointly and
severally bind ourselves, successors and assigns.

Signed this _____ day of _____, 20 _____

The Condition of the above obligation is such that whereas the Principal has submitted to:
_____ a certain BID, attached hereto and hereby made a part hereof
to enter into a contract in writing for the:

NOW, THEREFORE,

- (A) If said BID shall be rejected, or
- (B) If said BID shall be accepted and the Principal shall execute and deliver a contract int he Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor, or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall in no way be impaired or affected by any extension of the time within which the OWNER may accept such BID, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their proper officers the day and year first set forth above.

Principal (L.S.)

Surety

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Cir. 570, as amended) and be authorized to transact business in the state where the project is located.

SECTION 084420

POINT-SUPPORTED GLAZING

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
 - 1. Structural point-supported glazing system.
- B. Related Work: The following items are not included in this Section and will be performed under the designated Sections:
 - 1. Section 084410 – GLAZED ALUMINUM CURTAIN WALLS for aluminum-framed systems.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide glazed aluminum curtain-wall systems, including anchorage, capable of withstanding, without failure, the effects of the following:
 - 1. Structural loads.
 - 2. Thermal movements.
 - 3. Movements of supporting structure indicated on Drawings including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
 - 4. Dimensional tolerances of building frame and other adjacent construction.
 - 5. Failure includes the following:
 - a. Deflection exceeding specified limits.
 - b. Thermal stresses transferred to building structure.
 - c. Framing members transferring stresses, including those caused by thermal and structural movements, to glazing.
 - d. Noise or vibration created by wind and thermal and structural movements.
 - e. Loosening or weakening of fasteners, attachments, and other components.
 - f. Sealant failure.
- B. Structural Performance: Provide units and connections capable of withstanding the following design loads within limits and under conditions indicated:
 - 1. Loads: As indicated, and not less than as required by Code.

2. Wind Loads: Minimum design wind pressures acting on the surface of the work shall be the greater of those shown on the special building elevation drawings delineating the results of a Wind Tunnel Study performed by RWDI. Refer to RWDI's Cladding Wind Pressure Study for Project Redstone – Draft Final Report dated March 30, 2010 and the Final Report when issued.
 3. Seismic Performance: Provide dimension stone cladding system capable of withstanding the effects of earthquake motions determined according to the Massachusetts State Building Code, Eighth Edition 1613-1615 for Design of New Buildings.
 4. Design framing system and connections to maintain clearances at openings, to allow for fabrication and construction tolerances, to accommodate live-load deflection, shrinkage and creep of primary building structure, and upward and downward movement of 1/8 inch at points of gravity support on columns and 1/4 inch at points at gravity support on horizontal steel framing.
 5. Thermal Movements: Provide for in-plane thermal movements resulting from annual ambient temperature changes of 120 deg F.
 6. Horizontal Building Movement (Interstory Drift): Allow for maximum horizontal building movement equal to quotient resulting from dividing floor-to-floor height at any floor by 400 for wind loads and floor-to-floor ht/150 for seismic loads.
- C. Structural-Test Performance: Provide point-supported glazing systems tested according to ASTM E 330 as follows:
1. When tested at positive and negative wind-load design pressures, systems do not evidence deflection exceeding specified limits.
 2. When tested at 150 percent of positive and negative wind-load design pressures, systems, including anchorage, do not evidence material failures, structural distress, and permanent deformation of main framing members exceeding 0.2 percent of span.
 3. Test Duration: As required by design wind velocity but not less than 10 seconds.
- D. Deflection of Framing Members:
1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans up to 13 feet 6 inches, and to 1/240 of clear span plus 1/4 inch for spans greater than 13 feet 6 inches or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
 2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller, amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8 inch.
- E. Air Infiltration: Provide point-supported glazing systems with maximum air leakage of 0.06 cfm/sq. ft. of fixed wall area when tested according to ASTM E 283 at a minimum static-air-pressure differential of 6.24 lbf/sq. ft.
- F. Water Penetration Under Static Pressure: Provide aluminum glazed curtain-wall systems that do not evidence water penetration when tested according to ASTM E 331 at a minimum differential static pressure of 20 percent of positive design wind load, but not less than 10 lbf/sq. ft.
1. Maximum Water Leakage: No uncontrolled water penetrating systems or appearing on systems' normally exposed interior surfaces from sources other than condensation.

Water controlled by flashing and gutters that is drained to exterior and cannot damage adjacent materials or finishes is not considered water leakage.

- G. Condensation Resistance: Provide point-supported glazing systems with condensation-resistance factor (CRF) of not less than 55 when tested according to AAMA 1503.
- H. Solar Heat-Gain Coefficient: Provide units with a whole-unit SHGC maximum as required by Code, determined according to NFRC 200 procedures. Submit proof of compliance with submittals as specified.
- I. Thermal Transmittance: Provide window units that have a U-value as required by Code rated in BTU/hour/sq. ft./degrees F at 15-mph exterior wind velocity, when tested in accordance with AAMA 1503.1. Test unit to be 4 ft. x 6 ft. Submit proof of compliance with submittals as specified.

1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of product indicated.
- B. Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication and assembly of point-supported glazing systems.
 - 1. Include structural analysis data signed and sealed by the qualified professional engineer licensed in the Commonwealth of Massachusetts responsible for their preparation.
 - 2. Include structural analysis of story drift and deflection from anticipated live loads, and determination whether head receptors are required.
- C. Samples for Verification: For each type of glass and exposed finish required, in manufacturer's standard sizes.
- D. Fabrication Sample: Of each vertical-to-horizontal intersection of systems, made from 12-inch lengths of full-size components and showing details of the following:
 - 1. Joinery.
 - 2. Anchorage.
 - 3. Expansion provisions.
 - 4. Glazing.
 - 5. Flashing and drainage.
- E. Samples: Submit samples of glass and glazing materials required for the project. Samples of glass shall be 300 mm x 300 mm; samples of sealants or gaskets shall be 300 mm long. Submit samples of fixing hardware assemblies, complete with the glass, bolt and accessories.
- F. Calculations: Submit calculations proving the structural glazing system's performance and compliance with specified loads, with the stamp of a licensed professional engineer registered and permitted to practice the Commonwealth of Massachusetts.
- G. Test reports: Submit test reports from an independent laboratory certifying that the structural glass system assemblies proposed for use have been tested. The assemblies must be similar in the type, material and design shown on the architect's drawings, utilizing (flush countersunk) or (countersunk, external disc), bolted attachments through the glass, or conventional patch

system assemblies. If test reports are not available, proposed assemblies will be tested. All costs for testing will be borne by the glass system manufacturer.

- H. Qualification data for Installer.
- I. Field quality-control test reports.
- J. Warranties: Special warranties specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Capable of assuming engineering responsibility and performing Work of this Section and who is acceptable to manufacturer.
- B. System Sole Source Responsibility: Glazing Material and System Design: Glass, glazing, system design and accessories are the sole responsibilities of the point-supported glazing system provider.
- C. Installation Sole Source Responsibility: Provide installation by glazing contractor acceptable to glass wall system supplier. The installer of the structural glass system is responsible for supplying and erecting the complete structural glazing system, coordinating and maintaining tolerances, between the structure and glazing system, with individual suppliers and manufacturers, and the installation of the glazing system.
- D. Safety Glass: Where safety glass is indicated or required by authorities having jurisdiction, provide the types of products that comply with ANSI Z97.1 and 16 CFR 1201 Category II
- E. Structural Glazing System: Fittings are designed to give a (single-point fixed) or (flush) as indicated on the Drawings appearance to the outward surface of the glazing system. Attachment fittings to be "spider"-type or conventional patch system assemblies. The design of the structural fittings is the sole responsibility of manufacturer. All connection members are to be designed to prevent high-stress concentration at the hole positions and must cope with: Negative and positive wind loading; Seismic loads; Thermal movement; Construction tolerances; Live load and dead load movements.
 - 1. All connection assemblies for the glass façade must be designed to incorporate a durable, flexible disc/pads, to accommodate hole sizes in fixing members, which allow for thermal movement and glass manufacturing tolerances.
- F. **Heat Soak Test: All tempered glass shall be heat soak tested to convert nickel sulfide inclusions from the alpha phase to the beta phase so that the glass will fracture in the test. Heat soak shall comply with the European DIN standard as a minimum.**
- G. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01. Review methods and procedures related to point-supported glazing systems including, but not limited to, the following:
 - 1. Review structural load limitations.
 - 2. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - 3. Review required testing, inspecting, and certifying procedures.

1.6 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of structural supports for point-supported glazing systems by field measurements before fabrication and indicate measurements on Shop Drawings.
1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish dimensions and proceed with fabricating point-supported glazing systems without field measurements. Coordinate construction to ensure that actual dimensions correspond to established dimensions.

1.7 WARRANTY

- A. Special Assembly Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of point-supported glazing systems that do not comply with requirements or that deteriorate as defined in this Section within specified warranty period.
1. **Warranty shall include design integrity, weather ability and durability of the Point supported structural glass system. Warranty shall cover all aspects of the system including engineering, glass and fittings.**
 2. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration caused by thermal movements.
 - c. Deterioration of metals and other materials beyond normal weathering.
 - d. Water leakage.
 - e. Failure of operating components to function normally.
 3. **Manufacturer shall submit a letter signed by the glass manufacturer clearly stating the glass and fittings to be used on the project are part of the manufacturer's system and are acceptable to the manufacturer and that they have reviewed the contract documents and will issue a project specific 12-year warranty including the entire system. Partial multiple warranties of various project elements will not be accepted. System shall be manufactured from one source. Glass cannot be supplied by one manufacturer and hardware from another to comply with this warranty.**
 4. **Written warranties against nickel sulfide inclusions in lieu of heat soaking will not be accepted.**
 5. Warranty Period: **Twelve** years from date of Substantial Completion.
- B. Special Finish Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components on which finishes fail within specified warranty period. Warranty does not include normal weathering.
1. Warranty Period: Ten years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 BASIS-OF-DESIGN

- A. Structural Glass Wall System: The system shall be designed to have custom attachment plates and fasteners whereby the facade glass will fasten to the structural support system as indicated on the Drawings.
1. Manufacturer: Pilkington 905 Planar System. Pilkington, P.O Box 799, 811 Madison Avenue, Toledo, OH 43697-0799 Tel: (419) 247 3731; Fax: (419) 247 4517.
 2. Design and Installation: System design and installation by W&W Glass Systems, Inc. 300 AIRPORT EXECUTIVE PARK SUITE 302, NANUET, NEW YORK 10954-7403 TEL. 1-800-452-7925 or manufacturer-approved equal
 3. Glazing: Pilkington insulating unit consisting of 12 mm Optiwhite with 73/43 on No. 2 surface, 16 mm air space, 10 mm Optiwhite. SHGCc of 0.44, U Summer of 0.24, U winter of 0.27, VTC 0.74
- B. Glass:
1. All glass shall be fully tempered insulating glass. Overall thickness of the facade glass is to be determined by the structural glass wall system provider in accordance with specifications and drawings. Laminated glass is to be produced using laid-in-place interlayer bonded via an autoclave heat and pressure process. Minimum interlayer thickness is to be 0.060". (Poured or cast resin laminates will not be permitted.)
 2. All glass must be horizontally tempered, eliminating tong marks. All edges will be ground flat with a frosted appearance unless otherwise noted. All edgework, holes and notches in the tempered glass panels will be completed before tempering and will comply with the requirements stated below:
 - a. ASTM C1036 Standard Specification for Flat Glass
 - b. ASTM C1048 Standard Specification For Heat-Treated Flat Glass
 - c. ASTM C1172 Standard Specification for Laminated Architectural Flat Glass
 - d. Safety glazing requirements as defined in ANSI Z97.1 and CPSC 16CFR1201
 - e. Glass strength: Wind Loading: Vertical–1/1,000; Sloped–1/1,000; Thermal stress design factor, 2.5 (8/1,000); Deflection must be limited to prevent disengagement from framing members and to ensure conditions well within the criteria defined above.
- C. Colors of Exposed Glazing Sealants: As selected by Architect from manufacturer's full range.
- D. High-Performance Organic Finish: Three-coat thermocured system with fluoropolymer topcoats containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2605. Color and gloss as selected by Architect.
- E. Fittings:
1. Conventional patch system assemblies as detailed, Stainless Steel Grade 316.
 2. Attachment plates shall provide a tolerance capability, which will cope with the full range of movements:
 - a. Thermal movements occurring as a result of differential coefficients of thermal expansion within the range specified. The components used within the system

- shall noiselessly withstand all thermal movements without any buckling, distortion, cracking, failure of joint seals or undue stress on the glass or fixing assemblies.
- b. Deflection of edge beams due to loading applied after the erection of the cladding to the magnitude specified.
 - c. Maximum side sway of the structure due to wind load occurring to the magnitude specified or seismic movement to the degree specified.
 - d. Deflection due to self-weight of the structural glass system.
 - e. Inward and outward movements due to the design wind loads specified.
3. Exterior countersunk discs, flush countersunk bolts and articulated swivel bolts will be machine finished; socket head bolt will be with hexagonal shank, stainless steel grade 316, or conventional patch system assemblies (for walls).
 4. Bushings shall be UV-resistant nylon.
 5. Gaskets shall be fully vulcanized fiber, neoprene or pre-cured silicone.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General:
 1. Comply with manufacturer's written instructions.
 2. Do not install damaged components.
 3. Fit joints to produce hairline joints free of burrs and distortion.
 4. Rigidly secure nonmoving joints.
 5. Install anchors with separators and isolators to prevent metal corrosion, electrolytic deterioration, and impediments to movement of joints.
 6. Weld components in concealed locations to minimize distortion or discoloration of finish. Protect glazing surfaces from welding.
 7. Seal joints watertight unless otherwise indicated.
- B. Metal Protection:
 1. Where aluminum will contact dissimilar metals, protect against galvanic action by painting contact surfaces with primer, applying sealant or tape, or installing nonconductive spacers as recommended by manufacturer for this purpose.
 2. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
- C. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within point-supported glazing to exterior.
- D. Install components plumb and true in alignment with established lines and grades.

- E. Install glazing as specified in Section 088000 - GLAZING. Prepare surfaces that will contact structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.
1. Install in accordance with the glass system provider's requirements and the shop drawings..
 2. Employ only experienced glaziers who have had previous experience with the materials and systems being applied. Use tools and equipment recommended by the manufacturer.
 3. Plate-to-plate joints of glass are to be sealed with silicone sealant. Joint dimensions will be designed to be compatible with sealant properties and live load movement of the structure.
 4. Bolt torque: torque bolts to torques specified on shop drawings using a calibrated tool. Lock torque bolts into position to prevent back-off. Reset calibrations regularly to ensure an accurate torque.
 5. Clean glazing connectors receiving glazing materials of deleterious substances that might impair the work. Remove protective coatings that might fail in adhesion or interfere with the bonding of materials of deleterious substances that might impair the work. Remove protective coatings that might fail in adhesion or interfere with bond of sealants. Comply with the manufacturer's instructions for final wiping of surfaces immediately before the application of primer and glazing sealants. Wipe metal surfaces with an appropriate cleaning agent.
 6. Inspect each unit of glass immediately before installation. Glass that has significant impact damage at edges, scratches, abrasion of faces or any other evidence of damage will not be installed.
 7. Locate setting blocks, if required by the drawings, at the quarter points of the sill, but no closer than 6 inches to corners of the glass. Use blocks of proper sizes to support the glass in accordance with the manufacturer's recommendations.
 8. Provide spacers to separate the glass from attachment plates.
 9. Set the glass in a manner that produces the greatest possible degree of uniformity in appearance. Face all glass, which has a dissimilar face with matching faces in the same direction.
 10. Use masking tape or other suitable protection to limit the coverage of glazing materials on the surfaces intended for sealants.
 11. Tool the exposed surfaces of glazing materials.
 12. Clean excess sealant from the glass and support members immediately after the application, using solvents or cleaners recommended by the manufacturers.

3.3 ERECTION TOLERANCES

- A. Erection Tolerances: Install to comply with the following non-accumulating maximum tolerances:
1. Plumb: 1/8 inch in 10 feet; 1/4 inch in 40 feet.
 2. Level: 1/8 inch in 20 feet; 1/4 inch in 40 feet.
 3. Alignment:
 - a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch wide, limit offset from true alignment to 1/16 inch.
 - b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch wide, limit offset from true alignment to 1/8 inch.
 - c. Where surfaces are separated by reveal or protruding element of 1 inch wide or more, limit offset from true alignment to 1/4 inch.

4. Location: Limit variation from plane to 1/8 inch in 12 feet; 1/2 inch over total length.

3.4 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Testing Services: Testing and inspecting of representative areas to determine compliance of installed system with specified requirements shall take place as follows and in successive stages as indicated on Drawings. Do not proceed with installation of the next area until test results for previously completed areas show compliance with requirements.
 1. Air Infiltration: Areas shall be tested for air leakage of 1.5 times the rate specified under Part 1 "Performance Requirements" Article, but not more than 0.09 cfm/sq. ft. of fixed wall area when tested according to ASTM E 783 at a minimum static-air-pressure differential of 6.24 lbf/sq. ft.
 2. Water Penetration: Areas shall be tested according to ASTM E 1105 at minimum cyclic static-air-pressure difference of 0.67 times the pressure specified under Part 1 "Performance Requirements" Article, but not less than 6.24 lbf/sq. ft. and shall not evidence water penetration.
 3. Water Spray Test: After the installation of minimum area of 75-feet-by-2-story glazed aluminum curtain-wall system has been completed but before installation of interior finishes has begun, a 2-bay area of system designated by Design Professional shall be tested according to AAMA 501.2 and shall not evidence water penetration.
- C. Repair or remove work where test results and inspections indicate that it does not comply with specified requirements.
- D. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

END OF SECTION

SECTION 085200

WOOD WINDOWS

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:
1. Fixed and operable wood-framed windows with factory-installed glass and glazing, and with primed wood interior finish.
 2. **Replacement single-hung and casement wood windows to match existing, including true divided lites and brick moldings.**
- B. Alternates: Not Applicable.
- C. Items To Be Installed Only: Not Applicable.
- D. Items To Be Furnished Only: Not Applicable.
- E. Related Work: The following items are not included in this Section and are specified under the designated Sections:
1. Section 088000 - GLAZING for glazing requirements for wood windows, except those specified to be factory glazed.
 2. Section 099000 – PAINTING AND COATING for field painting work of this Section.

1.3 PERFORMANCE REQUIREMENTS

- A. General: Provide wood windows capable of complying with performance requirements indicated, based on testing manufacturer's windows that are representative of those specified and that are of test size indicated below:
1. Minimum size required by AAMA/NWWDA 101/I.S.2.
- B. AAMA/NWWDA Performance Requirements: Provide wood windows of the performance class and grade indicated that comply with AAMA/NWWDA 101/I.S.2.
1. Performance Class: C - Commercial.
 2. Performance Grade: Minimum for performance class indicated.
 3. Exception to AAMA/NWWDA 101/I.S.2: In addition to requirements for performance class and performance grade, design glass framing system to limit lateral deflections of

glass edges to less than 1/175 of glass-edge length or 3/4 inch, whichever is less, at design pressure based on Code requirements.

- C. Structural Performance: Provide wood windows capable of withstanding the following, including wind loads based on passing AAMA/NWWDA 101/I.S.2, Uniform Load Structural Test, at basic wind speed indicated:
 - 1. Deflection: Based on passing AAMA/NWWDA 101/I.S.2, Uniform Load Deflection Test.
 - 2. Deflection: Design glass framing system to limit lateral deflections of glass edges to less than 1/175 of glass-edge length or 3/4 inch , whichever is less, at design pressure based on structural computations.
 - 3. Wind Speed: As required by Code.
- D. Air Infiltration: Maximum rate not more than indicated when tested according to AAMA/NWWDA 101/I.S.2, Air Infiltration Test.
 - 1. Maximum Rate: As required by Code.
- E. Water Resistance: No water leakage as defined in AAMA/NWWDA referenced test methods at a water test pressure equaling that indicated, when tested according to AAMA/NWWDA 101/I.S.2, Water Resistance Test.
 - 1. Test Pressure: 15 percent of positive design pressure, but not less than 2.86 lbf/sq. ft. or more than 12 lbf/sq. ft..
- F. Thermal Transmittance: Provide wood windows with a whole-window U-value maximum indicated at 15-mph exterior wind velocity and winter condition temperatures when tested according to AAMA 1503.
 - 1. U-Value: As required by Code.

1.4 SUBMITTALS

- A. Product Data: Include construction details, material descriptions, fabrication methods, dimensions of individual components and profiles, hardware, finishes, and operating instructions for each type of wood window indicated.
- B. Shop Drawings: Include plans, elevations, sections, details, hardware, attachments to other Work, operational clearances, and the following:
 - 1. Mullion details, including reinforcement and stiffeners.
 - 2. Joinery details.
 - 3. Expansion provisions.
 - 4. Flashing and drainage details.
 - 5. Weather-stripping details.
 - 6. Glazing details.
 - 7. Window cleaning provisions.
 - 8. For installed products indicated to comply with design loads, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation and used to determine the following:
 - a. Structural test pressures and design pressures from basic wind speeds indicated.

- b. Deflection limitations of glass framing systems.
 - C. Samples for Verification: For wood window components required, prepared on Samples of size indicated below.
 - 1. Main Framing Member: 12-inch-long, full-size sections of extrusions with factory-applied color finish.
 - 2. Hardware: Full-size units with factory-applied finish.
 - 3. Weather Stripping: 12-inch-long sections.
 - D. Qualification Data: For Installer and professional engineer.
 - E. Product Test Reports: Based on evaluation of comprehensive tests performed within the last four years by a qualified testing agency, for each type, grade, and size of wood window. Test results based on use of downsized test units will not be accepted.
 - F. Maintenance Data: For operable window sash, operating hardware, weather-stripping and finishes to include in maintenance manuals.
- 1.5 QUALITY ASSURANCE
- A. Installer Qualifications: An installer acceptable to wood window manufacturer for installation of units required for this Project.
 - B. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, with the experience and capability to conduct the testing indicated, as documented according to ASTM E 548.
 - C. Source Limitations: Obtain wood windows through one source from a single manufacturer.
 - D. Product Options: Information on Drawings and in Specifications establishes requirements for wood windows' aesthetic effects and performance characteristics. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction. Performance characteristics are indicated by criteria subject to verification by one or more methods including preconstruction testing, field testing, and in-service performance.
 - E. Fenestration Standard: Comply with AAMA/NWWDA 101/I.S.2, "Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors," for minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
 - 1. Provide AAMA-certified wood windows with an attached label.
 - F. Glazing Publications: Comply with published recommendations of glass manufacturers and GANA's "Glazing Manual" unless more stringent requirements are indicated.
- 1.6 PROJECT CONDITIONS
- A. Field Measurements: Verify wood window openings by field measurements before fabrication and indicate measurements on Shop Drawings.

1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating wood windows without field measurements. Coordinate wall construction to ensure that actual opening dimensions correspond to established dimensions.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
 1. Failure to meet performance requirements.
 2. Structural failures including excessive deflection.
 3. Water leakage, air infiltration, or condensation.
 4. Faulty operation of movable sash and hardware.
 5. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 6. Insulating glass failure.
- B. Warranty Period: Two years from date of Substantial Completion.
- C. Warranty Period for Metal Finishes: Ten years from date of Substantial Completion.
- D. Warranty Period for Glass: Ten years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. ~~Aluminum-Clad~~ Wood Windows:
 - a. Eagle Window & Door, Inc..
 - b. Kolbe & Kolbe Millwork Co., Inc.
 - c. **H. Hirschmann, Ltd.**

2.2 MATERIALS

- A. Wood: **Mahogany**; kiln dried to a moisture content of 6 to 12 percent at time of fabrication; free of visible finger joints, blue stain, knots, pitch pockets, and surface checks larger than 1/32 inch deep by 2 inches wide; water-repellent preservative treated.
- B. Wood Trim and Glazing Stops: Material and finish to match frame members.
- C. Fasteners: Aluminum, nonmagnetic stainless steel, epoxy adhesive, or other materials warranted by manufacturer to be noncorrosive and compatible with wood window members, cladding, trim, hardware, anchors, and other components.
 1. Exposed Fasteners: Unless unavoidable for applying hardware, do not use exposed fasteners. For application of hardware, use fasteners that match finish of member or hardware being fastened, as appropriate.

- D. Anchors, Clips, and Accessories: Aluminum, nonmagnetic stainless steel, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- E. Reinforcing Members: Aluminum, or nonmagnetic stainless steel, or nickel/chrome-plated steel complying with ASTM B 456 for Type SC 3 severe service conditions, or zinc-coated steel or iron complying with ASTM B 633 for SC 3 severe service conditions; provide sufficient strength to withstand design pressure indicated.
- F. Sliding-Type Weather Stripping: Provide woven-pile weather stripping of wool, polypropylene, or nylon pile and resin-impregnated backing fabric. Comply with AAMA 701/702.
 - 1. Weather Seals: Provide weather stripping with integral barrier fin or fins of semirigid, polypropylene sheet or polypropylene-coated material. Comply with AAMA 701/702.
- G. Replaceable Weather Seals: Comply with AAMA 701/702.

2.3 GLAZING

- A. Insulating-Glass Units for Vertical Glazing: **True-divided lites, minimum 7/8 inch thick** insulating glass consisting of two equal lites with low-e coating on No. 2 surface and argon gas filled. Thickness sufficient to maintain DP rating on the window for each window size on the project. Acceptable manufacturers include Cardinal, Guardian, PPG and Viracon.

2.4 HARDWARE

- A. General: Comply with AAMA/NWWDA 101/I.S. 2.

2.5 INSECT SCREENS

- A. General: Design windows and hardware to accommodate screens in a tight-fitting, removable arrangement, with a minimum of exposed fasteners and latches. Provide for each operable exterior sash or ventilator.
- B. Aluminum Insect Screen Frames: Manufacturer's standard aluminum alloy complying with SMA 1004. Fabricate frames with mitered or coped joints, concealed fasteners, and removable PVC spline/anchor concealing edge of frame.
 - 1. Aluminum Tubular Framing Sections and Cross Braces: Roll-formed from aluminum sheet with minimum wall thickness as required for class indicated.
 - 2. Finish: Baked-on organic coating in color selected by Designer from manufacturer's full range.
- C. Glass-Fiber Mesh Fabric: Manufacturer's standard mesh of PVC-coated, glass-fiber threads; woven and fused to form a fabric mesh resistant to corrosion, shrinkage, stretch, impact damage, and weather deterioration in the following color. Comply with ASTM D 3656.
- D. Wickets: Provide sliding wickets, framed and trimmed for a tight fit and durability during handling.

~~2.6 ACCESSORIES~~

- ~~A. Grids: Removable grids and simulated divided lites as indicated on the Drawings. Color as selected by Designer.~~

2.7 FABRICATION

- A. General: Fabricate **single-hung and casement** wood windows, in sizes **to match existing**, that comply with AAMA/NWWDA 101/I.S.2 for performance class and performance grade indicated. Include a complete system for assembling components and anchoring windows.

B. Brick Moulding: Fabricate wood brick moulding to match existing

- ~~C. Exterior Cladding: Minimum thickness 0.050 inch.~~

- D. Reglazing: Fabricate wood windows that are reglazable without dismantling sash or ventilator framing.

- E. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator, unless otherwise indicated.

1. **Single-Hung Windows:** Provide weather stripping only at horizontal rails of operable sash.

- F. Factory machine windows for openings and hardware that is not surface applied.

- G. Mullions: Provide mullions and cover plates as shown, matching window units, complete with anchors for support to structure and installation of window units. Allow for erection tolerances and provide for movement of window units due to thermal expansion and building deflections, as indicated. Provide mullions and cover plates capable of withstanding design loads of window units.

- H. Factory-Glazed Fabrication: Except for light sizes in excess of 100 united inches, glaze wood windows in the factory where practical and possible for applications indicated. Comply with AAMA/NWWDA 101/I.S.2.

- I. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation. Allow for scribing, trimming, and fitting at Project site.

2.8 WOOD FINISHES

- A. Factory-Finished Windows: Provide fabricator's standard factory finish consisting of prime coat applied to interior **and exterior** wood surfaces. **Refer to Section 099000 – PAINTING AND COATING for field finishing work of this Section.**

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances; rough opening dimensions; levelness of sill plate; coordination with wall flashings, vapor retarders, and other built-in components; and other conditions affecting performance of work.
 - 1. Masonry Surfaces: Visibly dry and free of excess mortar, sand, and other construction debris.
 - 2. Metal Surfaces: Dry; clean; free of grease, oil, dirt, rust, corrosion, and welding slag; without sharp edges or offsets at joints.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components; Drawings; and Shop Drawings.
- B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction.
- C. Set sill members in bed of sealant or with gaskets, as indicated, for weathertight construction.
- D. Metal Protection: Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials by complying with requirements specified in "Dissimilar Materials" Paragraph in Appendix B in AAMA/NWWDA 101/I.S.2.

3.3 ADJUSTING

- A. Adjust operating sashes and ventilators, screens, hardware, and accessories for a tight fit at contact points and weather stripping for smooth operation and weathertight closure. Lubricate hardware and moving parts.

3.4 PROTECTION AND CLEANING

- A. Protect window surfaces from contact with contaminating substances resulting from construction operations. In addition, monitor window surfaces adjacent to and below exterior concrete and masonry surfaces during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written recommendations.
- B. Clean exposed surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Clean factory-glazed glass immediately after installing windows. Comply with manufacturer's written recommendations for final cleaning and maintenance. Remove nonpermanent labels and clean surfaces.

- D. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

END OF SECTION

SECTION 140001

ELEVATORS

(Filed Sub-Bid Required)

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

B. Time, Manner and Requirements for Submitting Sub-Bids:

1. Sub-bids for work under this Section shall be for the complete work and shall be filed in a sealed envelope with the City of Quincy at a time and place as stipulated in the "NOTICE TO CONTRACTORS".

The following should appear on the upper left hand corner of the envelope:

NAME OF SUB-BIDDER: (Insert name of sub-bidder)

MASS. STATE PROJECT: ((Insert project number from top of page))

SUB-BID FOR SECTION: 140001 – ELEVATORS

2. Each sub-bid submitted for work under this Section shall be on forms furnished by the City of Quincy as required by Section 44F of Chapter 149 of the General Laws, as amended. Sub-bid forms may be obtained at the office of the Purchasing Department or may be obtained by written or telephone request; telephone 617-376-1060
3. Sub-bids filed with the City of Quincy shall be accompanied by BID BOND or CASH or CERTIFIED CHECK or TREASURER'S CHECK or CASHIER'S CHECK issued by a responsible bank or trust company payable to the City of Quincy in the amount of five percent of the sub-bid. A sub-bid accompanied by any other form of bid deposit than those specified will be rejected.

C. Sub Sub-Bid Requirements: (None required under this Section.)

D. Reference Drawings: The Work of this Filed Sub-Bid is shown on the Contract Drawings.

1.2 DESCRIPTION OF WORK

A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. All Work of Section **142400 – HYDRAULIC ELEVATORS.**
- B. Alternates: Not Applicable.

END OF SECTION

SECTION 142400

HYDRAULIC ELEVATORS

(Part of Work of Section 140001 - ELEVATORS, Filed Sub-Bid Required)

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. Attention is directed to the CONTRACT AND GENERAL CONDITIONS and all Sections within DIVISION 01 - GENERAL REQUIREMENTS which are hereby made a part of this Section of the Specifications.

1.2 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the work of this Section, including but not limited to the following:

1. Hydraulic passenger elevators.

- B. Alternates: Not Applicable.

- C. Items To Be Installed Only: Not Applicable.

- D. Items To Be Furnished Only: Furnish the following items for installation by the designated Sections

1. Section 033000 - CAST-IN-PLACE CONCRETE:
 - a. Lintels, sleeves, anchors, inserts, plates and similar items for elevators.
2. Section 042000 - UNIT MASONRY:
 - a. Elevator rail bracket inserts.

- E. Related Work: The following items are not included in this Section and are specified under the designated Sections:

1. Section 033000 - CAST-IN-PLACE CONCRETE for lintels, sleeves, anchors, inserts, plates and similar items for elevators.
2. Section 042000 - UNIT MASONRY for elevator rail bracket inserts.
3. Section 051200 - STRUCTURAL STEEL FRAMING for the hoist beams, attachment plates, angle brackets, and other preparation of structural steel for fastening guide-rail brackets.
4. Section 055000 - METAL FABRICATIONS for miscellaneous framing and supports for hoisting machines, and for elevator door sills, cants in hoistways made from sheet steel, and elevator pit ladders.
5. Division 26 - ELECTRICAL for telephone service to elevators.
6. Division 26 - ELECTRICAL for electrical service for elevators to and including disconnect switches at machine room door and telephone wiring to elevator.

1.3 DEFINITIONS

- A. Definitions in ASME A17.1 apply to work of this Section.
- B. Defective Elevator Work: Operation or control system failures; performances below specified ratings; excessive wear; unusual deterioration or aging of materials or finishes; unsafe conditions; the need for excessive maintenance; abnormal noise or vibration; and similar unusual, unexpected, and unsatisfactory conditions.

1.4 SUBMITTALS

- A. Product Data: Include capacities, sizes, performances, operations, safety features, finishes, and similar information. Include product data for the following:
 - 1. Car enclosures and hoistway entrances.
 - 2. Operation, control, and signal systems.
- B. Shop Drawings: Show plans, elevations, sections, and large-scale details indicating service at each landing, machine room layout, coordination with building structure, relationships with other construction, and locations of equipment and signals. Include large-scale layout of car control station and standby power operation control panel. Indicate variations from specified requirements, maximum dynamic and static loads imposed on building structure at points of support, and maximum and average power demands.
- C. Samples for Verification: For exposed finishes of cars, hoistway doors and frames, and signal equipment; 3-inch-square Samples of sheet materials; and 4-inch lengths of running trim members.
- D. Manufacturer Certificates: Signed by elevator manufacturer certifying that hoistway, pit, and machine room layout and dimensions, as shown on Drawings, and electrical service, as shown and specified, are adequate for elevator system being provided.
- E. Qualification Data: For Installer.
- F. Operation and Maintenance Data: For elevators to include in emergency, operation, and maintenance manuals.
- G. Inspection and Acceptance Certificates and Operating Permits: As required by authorities having jurisdiction for normal, unrestricted elevator use.
- H. Warranty: Special warranty specified in this Section.
- I. Continuing Maintenance Proposal: Service agreement specified in this Section.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Elevator manufacturer or manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- B. Source Limitations: Obtain elevators through one source from a single manufacturer.

1. Provide major elevator components, including pump-and-tank units, plunger-cylinder assemblies, controllers, signal fixtures, door operators, car frames, cabs, and entrances, manufactured by a single manufacturer.

C. Regulatory Requirements: Comply with ASME A17.1 and Massachusetts Elevator Code.

D. Accessibility Requirements: Comply with Section 4.10 in the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG) and the Massachusetts Architectural Access Board.

E. Fire-Rated Hoistway Entrance Assemblies: Door and frame assemblies complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing at as close to neutral pressure as possible according to NFPA 252.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle materials, components and equipment in manufacturer's protective packaging.

B. Store materials, components, and equipment off of ground, under cover, and in a dry location. Handle according to manufacturer's written recommendations to prevent damage, deterioration, or soiling.

1.7 COORDINATION

A. Coordinate installation of sleeves, block outs, and items that are embedded in concrete or masonry for elevator equipment. Furnish templates and installation instructions and deliver to Project site in time for installation.

B. Furnish well casing and coordinate delivery with related excavation work.

C. Coordinate sequence of elevator installation with other work to avoid delaying the Work.

D. Coordinate locations and dimensions of other work relating to hydraulic elevators including pit ladders, sumps, and floor drains in pits; entrance subsills; and electrical service, electrical outlets, lights, and switches in pits and machine rooms.

1.8 WARRANTY

A. Special Manufacturer's Warranty: Manufacturer's standard form in which manufacturer agrees to repair, restore, or replace defective elevator work within specified warranty period.

1. Warranty Period: One year from date of Substantial Completion.

1.9 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, provide one year's full maintenance service by skilled employees of elevator Installer. Include monthly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper elevator operation at rated speed and capacity. Provide parts and supplies same as those used in the manufacture and installation of original equipment.

1. Include 24-hour-per-day, 7-day-per-week emergency callback service.
- B. Continuing Maintenance Proposal: Provide a continuing maintenance proposal from Installer to Owner, in the form of a standard one-year maintenance agreement, starting on date initial maintenance service is concluded. State services, obligations, conditions, and terms for agreement period and for future renewal options.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering hydraulic elevators that may be incorporated into the Work include, but are not limited to, the following:
 1. Fujitec America, Inc.
 2. Otis Elevator Co.
 3. Schindler Elevator Corp.
 4. ThyssenKrupp Elevator.
- B. Basis-of-Design: 330A Holeless Hydraulic Elevator by Schindler.

2.2 PASSENGER ELEVATORS

- A. Elevators:
 1. Type: Under-the-car single cylinder.
 2. Rated Load: 2500 lb.
 3. Rated Speed: 125 fpm
 4. Operation System: Selective collective automatic operation.
 5. Auxiliary Operations:
 - a. Standby power operation.
 - b. Standby powered lowering.
 - c. Battery-powered lowering.
 - d. Independent service.
 - e. Loaded-car bypass.
 - f. Automatic dispatching of loaded car.
 - g. Nuisance call cancel.
 6. Car Enclosures: As follows:
 - a. Inside Width: As indicated on Drawings.
 - b. Inside Depth: As indicated on Drawings.
 - c. Inside Height: As indicated on Drawings.
 - d. Front Walls: Satin stainless steel with integral car door frames.
 - e. Car Fixtures: Satin stainless steel.
 - f. Side and Rear Wall Panels: Satin stainless steel.
 - g. Reveals: Satin stainless steel.
 - h. Door Faces (Interior): Satin stainless steel.

- i. Door Sills: Aluminum.
 - j. Ceiling: Luminous ceiling.
 - k. Handrails: Satin stainless steel, at side and rear walls.
 - l. Floor prepared to receive carpet specified in Section 096820 - SHEET CARPETING.
7. Hoistway Entrances: As follows:
- a. Width: As indicated on Drawings.
 - b. Height: As indicated on Drawings.
 - c. Type: Single-speed side sliding.
 - d. Frames: Satin stainless steel.
 - e. Doors: Satin stainless steel.
 - f. Sills: Aluminum.
8. Hall Fixtures: Satin stainless steel.
9. Additional Requirements: As follows:
- a. Provide inspection certificate in each car, mounted under acrylic cover with satin stainless-steel frame.
 - b. Provide protective blanket hooks in all cars and two complete sets of full-height blankets.

2.3 SYSTEMS AND COMPONENTS

- A. General: Provide manufacturer's standard elevator systems. Where components are not otherwise indicated, provide standard components published by manufacturer as included in standard preengineered elevator systems and as required for complete system.
- B. Pump Units: Positive-displacement type with a maximum of 10 percent variation between no load and full load and with minimum pulsations. Provide either of the following:
- 1. Pump, with fan-cooled squirrel-cage induction motor, mounted on oil tank with vibration isolation mounts. Enclose pump in prime-painted steel enclosure lined with 1-inch-thick, glass-fiber insulation board.
 - 2. Submersible pump, with submersible squirrel-cage induction motor, suspended inside oil tank from vibration isolation mounts.
 - 3. Provide motor with wye-delta or solid-state starting.
- C. Hydraulic Silencers: Provide hydraulic silencer containing pulsation-absorbing material in a blowout-proof housing at pump unit.
- D. Piping: Provide size, type, and weight piping recommended by manufacturer, and provide flexible connectors to minimize sound and vibration transmissions from power unit.
- 1. Provide dielectric couplings at cylinder units.
 - 2. Casing for Underground Piping: PVC pipe complying with ASTM D 1785, joined with PVC fittings complying with ASTM D 2466 and solvent cement complying with ASTM D 2564.

- E. Hydraulic Fluid: Nontoxic, readily biodegradable, fire-resistant fluid made from vegetable oil with antioxidant, anticorrosive, antifoaming, and metal-passivating additives. Hydraulic fluid is approved by elevator manufacturer for use with elevator equipment.
- F. Inserts: Furnish required concrete and masonry inserts and similar anchorage devices for installing guide rails, machinery, and other components of elevator work where installation of devices is specified in another Section.
- G. Car Frame and Platform: Welded steel units.
- H. Guides: Provide either roller guides or sliding guides at top and bottom of car and counterweight frames. If sliding guides are used, provide guide-rail lubricators or polymer-coated, nonlubricated guides.

2.4 OPERATION SYSTEMS

- A. General: Provide manufacturer's standard microprocessor operation system for each elevator as required to provide type of operation system indicated.
- B. Single-Car Auxiliary Operations: In addition to primary operation system features, provide the following operational features for elevators where indicated:
 - 1. Standby Power Operation: On activation of standby power, car is returned to a designated floor and parked with doors open. Car can be manually put in service on standby power, either for return operation or for regular operation, by switches in control panel located at main lobby. Manual operation causes automatic operation to cease.
 - 2. Nuisance Call Cancel: When car calls exceed a preset number while car load is less than a predetermined weight, all car calls are canceled. Preset number of calls and predetermined weight can be adjusted.
- C. Security Features: Provide the following security features, where indicated. Security features shall not affect emergency firefighters' service.
 - 1. Card-Reader Operation: System uses card readers at car control stations to authorize calls. Security system determines which landings and at what times calls require authorization by card reader. Provide required conductors in traveling cable and panel in machine room for interconnecting card readers, other security access system equipment, and elevator controllers. Provide stripe-swipe card reader integral with each car control station.
 - 2. Keyswitch Operation: Push buttons are activated and deactivated by security keyswitches at car control stations. Key is removable only in deactivated position.
 - 3. Car-to-Lobby Feature: Feature, activated by keyswitch at main lobby, that causes car to return immediately to lobby and open doors for inspection. On deactivation by keyswitch, calls registered before keyswitch activation are completed and normal operation is resumed.

2.5 DOOR REOPENING DEVICES

- A. Infrared Array: Provide door reopening devices with uniform array of 36 or more microprocessor-controlled, infrared light beams projecting across car entrance. Interruption of one or more of the light beams shall cause doors to stop and reopen.

2.6 FINISH MATERIALS

- A. General: Provide the following materials for exposed parts of elevator car enclosures, car doors, hoistway entrance doors and frames, and signal equipment as indicated.
- B. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, commercial steel, Type B, exposed, matte finish.
- C. Hot-Rolled Steel Sheet: ASTM A 1011/A 1011M, commercial steel, Type B, pickled.
- D. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304.
- E. Stainless-Steel Tubing: ASTM A 554, Grade MT 304.

2.7 CAR ENCLOSURES

- A. General: Provide enameled-steel car enclosures to receive removable wall panels, with removable car roof, access doors, power door operators, and ventilation.
 - 1. Provide standard railings complying with ASME A17.1 on car tops where required by ASME A17.1.
 - 2. Provide finished car including materials and finishes specified below.
- B. Materials and Finishes: Provide manufacturer's standards, but not less than the following:
 - 1. Subfloor: Underlayment grade, exterior plywood, 5/8-inch nominal thickness.
 - 2. Fabricate car with recesses and cutouts for signal equipment.
 - 3. Fabricate car door frame integrally with front wall of car.
 - 4. Stainless-Steel Doors: Flush, hollow-metal construction; fabricated from stainless-steel sheet.
 - 5. Sight Guards: Provide sight guards on car doors.
 - 6. Sills: Extruded nickel silver, with grooved surface, 1/4 inch thick.
 - 7. Handrails: Manufacturer's standard handrails meeting code requirements, of shape, metal, and finish indicated.

2.8 HOISTWAY ENTRANCES

- A. General: Provide manufacturer's standard horizontal-sliding, door-and-frame hoistway entrances complete with track systems, hardware, sills, and accessories. Provide frame size and profile to coordinate with hoistway wall construction.
 - 1. Where gypsum board wall construction is indicated, provide self-supporting frames with reinforced head sections.
- B. Materials and Fabrication: Provide manufacturer's standards, but not less than the following:
 - 1. Stainless-Steel Frames: Formed from stainless-steel sheet.
 - 2. Sight Guards: Provide sight guards on doors matching door edges.
 - 3. Sills: Extruded metal, with grooved surface, 1/4 inch thick.
 - 4. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107.

2.9 SIGNAL EQUIPMENT

- A. General: Provide hall-call and car-call buttons that light when activated and remain lit until call has been fulfilled. Fabricate lighted elements with long-life incandescent lamps and acrylic or other permanent, nonyellowing translucent plastic diffusers or LEDs.
- B. Car Control Stations: Provide manufacturer's standard recessed car control stations. Mount in return panel adjacent to car door, unless otherwise indicated.
- C. Emergency Communication System: Provide system that complies with ASME A17.1 and the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)." On activation, system dials preprogrammed number of monitoring station and identifies elevator location to monitoring station. System provides two-way voice communication without using a handset and provides visible signals that indicate when system has been activated and when monitoring station has responded. System is contained in flush-mounted cabinet, with identification, instructions for use, and battery backup power supply.
- D. Firefighters' Two-Way Telephone Communication Service: Provide flush-mounted cabinet in each car and required conductors in traveling cable for firefighters' two-way telephone communication service specified in Division 26 - ELECTRICAL.
- E. Car Position Indicator: Provide illuminated, digital-type car position indicator, located above car door or above car control station. Also provide audible signal to indicate to passengers that car is either stopping at or passing each of the floors served.
 - 1. Include travel direction arrows if not provided in car control station.
- F. Hall Push-Button Stations: Provide one hall push-button station at each landing for each single elevator or group of elevators, but not less than one station for each four elevators in a group.
- G. Hall Lanterns: Units with illuminated arrows; but provide single arrow at terminal landings. Provide the following:
 - 1. Manufacturer's standard wall-mounted units, for mounting above entrance frames.
- H. Hall Annunciator: With each hall lantern, provide audible signals indicating car arrival and direction of travel. Signals sound once for up and twice for down.
 - 1. At manufacturer's option, audible signals may be placed on each car.
- I. Corridor Call Station Pictograph Signs: Provide signs matching hall push-button stations, with text and graphics as required by authorities having jurisdiction, indicating that in case of fire elevators are out of service and exits should be used instead. Provide one sign at each hall push-button station, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine elevator areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Verify critical dimensions and examine supporting structure and other conditions under which elevator work is to be installed.
 - 1. For the record, prepare a written report, endorsed by Installer, listing dimensional discrepancies and conditions detrimental to performance or indicating that dimensions and conditions were found to be satisfactory.
 - 2. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install cylinder plumb and accurately centered for elevator car position and travel. Anchor securely in place, supported at pit floor and braced at intervals as needed to maintain alignment. Anchor cylinder guides at spacing needed to maintain alignment and avoid overstressing guides.
- B. Welded Construction: Provide welded connections for installing elevator work where bolted connections are not required for subsequent removal or for normal operation, adjustment, inspection, maintenance, and replacement of worn parts. Comply with AWS standards for workmanship and for qualifications of welding operators.
- C. Sound Isolation: Mount rotating and vibrating equipment on vibration-isolating mounts designed to effectively prevent transmission of vibrations to structure and thereby eliminate sources of structure-borne noise from elevator system.
- D. Install piping above the floor, where possible. Where not possible, install underground piping in Schedule 40 PVC pipe casing assembled with solvent-cemented fittings.
- E. Lubricate operating parts of systems as recommended by manufacturers.
- F. Alignment: Coordinate installation of hoistway entrances with installation of elevator guide rails for accurate alignment of entrances with car. Where possible, delay installation of sills and frames until car is operable in shaft. Reduce clearances to minimum, safe, workable dimension at each landing.
- G. Leveling Tolerance: 1/4 inch, up or down, regardless of load and direction of travel.
- H. Set sills flush with finished floor surface at landing. Fill space under sill solidly with nonshrink, nonmetallic grout.
- I. Locate hall signal equipment for elevators as follows, unless otherwise indicated:
 - 1. Place hall lanterns either above or beside each hoistway entrance.
 - 2. Mount hall lanterns at a minimum of 72 inches above finished floor.

3.3 FIELD QUALITY CONTROL

- A. Acceptance Testing: On completion of elevator installation and before permitting use (either temporary or permanent) of elevators, perform acceptance tests as required and recommended by ASME A17.1 and by governing regulations and agencies.
- B. Advise Owner, Architect, and authorities having jurisdiction in advance of dates and times tests are to be performed on elevators.

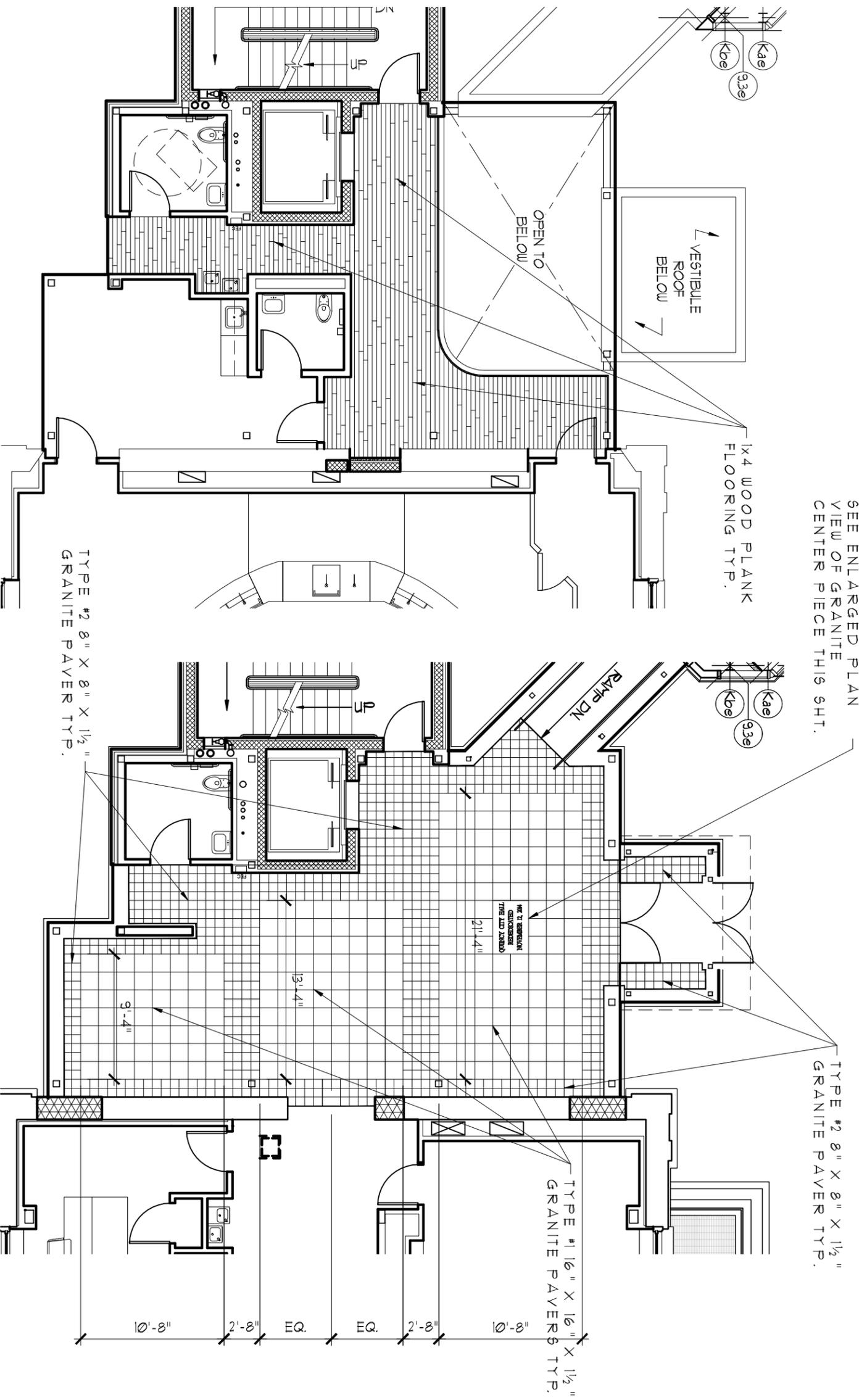
3.4 PROTECTION

- A. Temporary Use: Limit temporary use for construction purposes to one elevator. Comply with the following requirements for each elevator used for construction purposes:
 - 1. Provide car with temporary enclosure, either within finished car or in place of finished car, to protect finishes from damage.
 - 2. Provide strippable protective film on entrance and car doors and frames.
 - 3. Provide padded wood bumpers on entrance door frames covering jambs and frame faces.
 - 4. Provide other protective coverings, barriers, devices, signs, and procedures as needed to protect elevator and elevator equipment.
 - 5. Do not load elevators beyond their rated weight capacity.
 - 6. Engage elevator Installer to provide full maintenance service. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as necessary for proper elevator operation at rated speed and capacity. Provide parts and supplies same as those used in the manufacture and installation of original equipment.
 - 7. Engage elevator Installer to restore damaged work, if any, so no evidence remains of correction. Return items that cannot be refinished in the field to the shop, make required repairs and refinish entire unit, or provide new units as required.

3.5 DEMONSTRATION

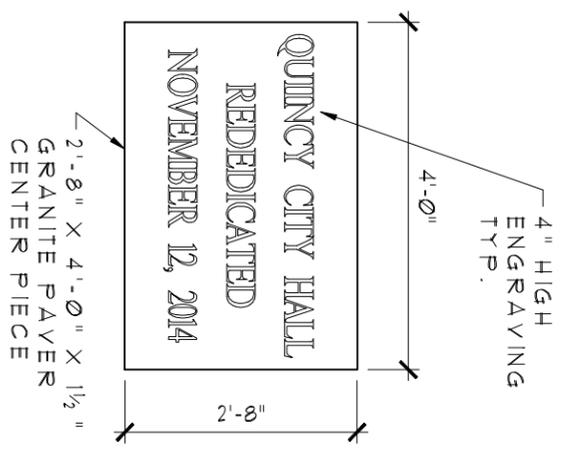
- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to operate elevator.
- B. Check operation of each elevator with Owner's personnel present and before date of Substantial Completion. Determine that operation systems and devices are functioning properly.

END OF SECTION



PARTIAL SECOND FLOOR PLAN LOBBY/BALCONY 206
SCALE: 1/8" = 1'-0"

PARTIAL FIRST FLOOR PLAN LOBBY III
SCALE: 1/8" = 1'-0"



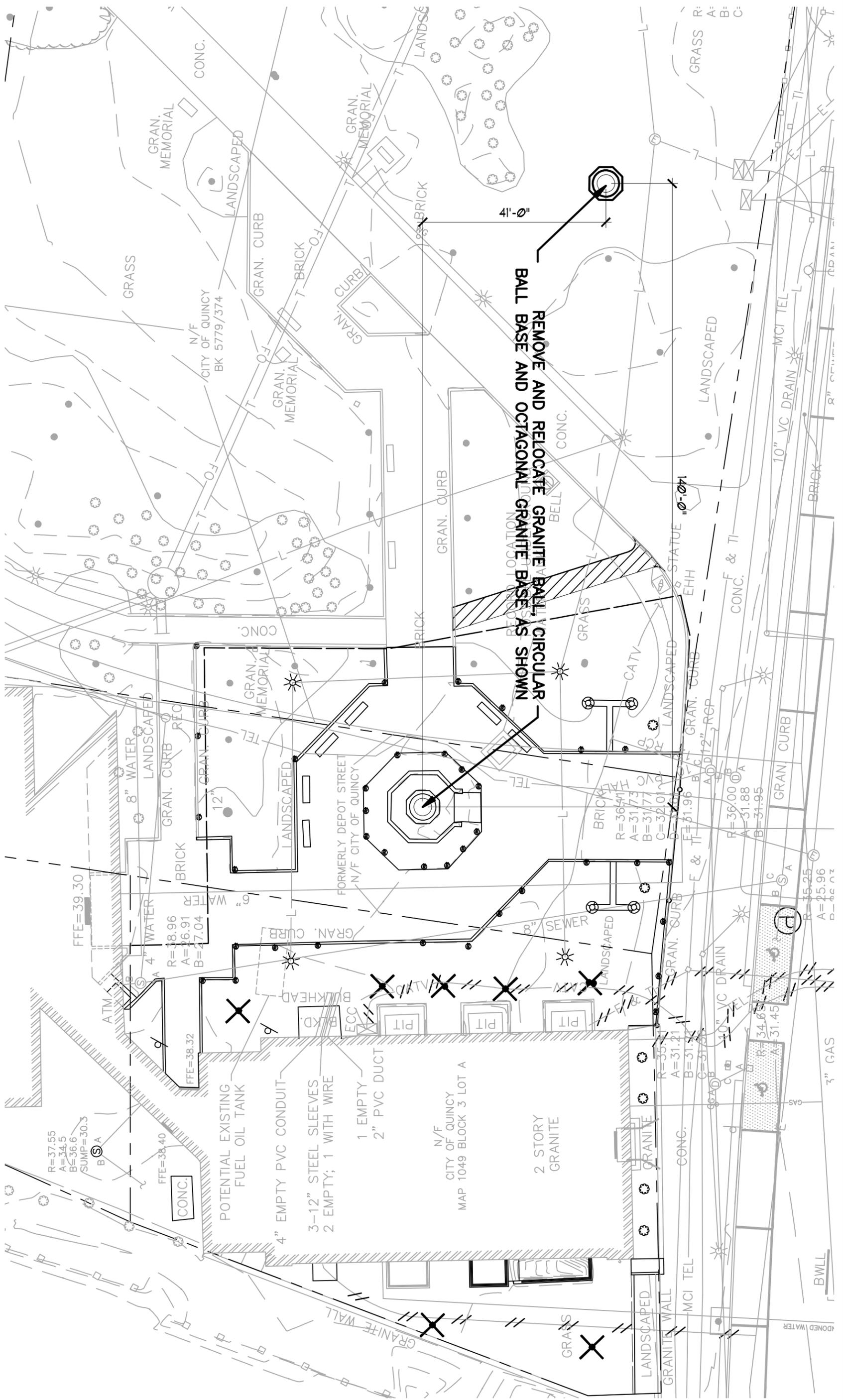
PLAN VIEW OF
GRANITE CENTER PIECE
SCALE: 1/2" = 1'-0"

HOLMES & EDWARDS, INC., ARCHITECTS
26 Chestnut Street, Quincy, Mass. 02169

QUINCY CITY HALL RESTORATION
1305 HAWCOCK ST., QUINCY, MA.
HONORABLE THOMAS P. KOCH, MAYOR

Sheet Name:
LOBBY-AND-SECOND-FLOOR-PLAN
Scale:
AS-SHOWN Date:
7-10-19 Drawn By:
WBS

Sheet Number:
SK-1



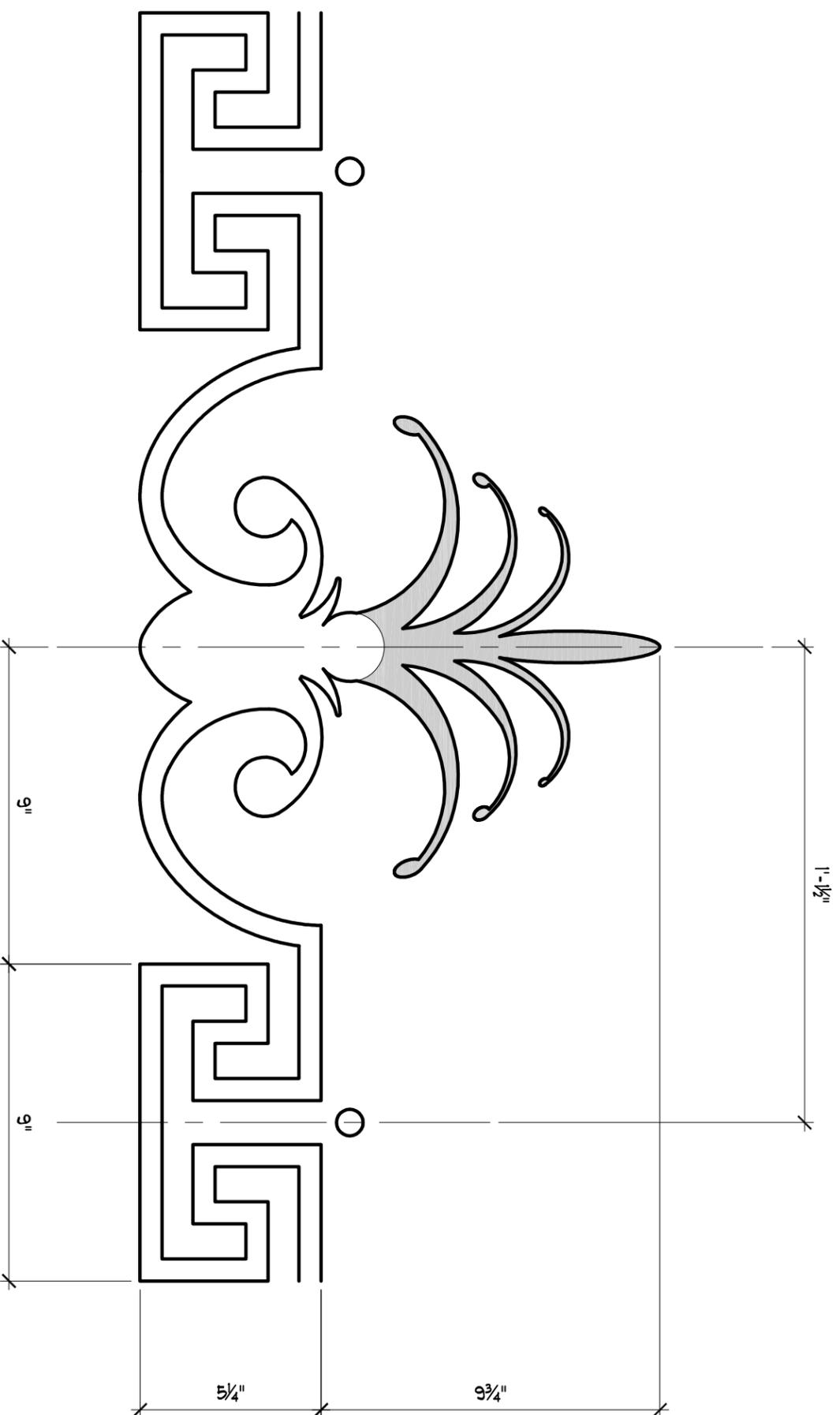
REMOVE AND RELOCATE GRANITE BALL, CIRCULAR
 BALL BASE AND OCTAGONAL GRANITE BASE AS SHOWN

HOLMES & EDWARDS, INC., ARCHITECTS
 26 Chestnut Street, Quincy, Mass. 02169

QUINCY CITY HALL RESTORATION
 1305 HANCOCK ST., QUINCY, MA
 HONORABLE THOMAS P. KOCH, MAYOR

Sheet Name: **MEMORIAL GRANITE SPHERE
 RELOCATION PLAN**
 Scale: **AS SHOWN**
 Date: **7-18-13**
 Drawn By: **WBS**

Sheet Number: **SK-2**



GOLD LEAF BORDER - GREAT ROOM DETAIL

HOLMES & EDWARDS, INC., ARCHITECTS
 26 Chestnut Street, Quincy, Mass. 02169

QUINCY CITY HALL RESTORATION
 1305 HANCOCK ST., QUINCY, MA.
 HONORABLE THOMAS P. KOCH, MAYOR

Sheet Name: GOLD LEAF BORDER -
 GREAT ROOM DETAIL

Scale: 3" = 1'-0"

Date: 07/18/2013

Drawn By: TNB

Sheet Number:
SK-3

City of Quincy

**Thomas P. Koch
Mayor**



**Purchasing
Department**

Quincy City Hall
1305 Hancock Street
Quincy, MA 02169

Phone: (617) 376-1061

Fax: (617) 376-1074

Kathryn R. Hobin
Director of Purchasing

Attention Bidders:

Please find a new bid bond sheet to present to bond agents. Some vendors had trouble using the one originally included in the bid as a result of extra lines through out the document. If you had no trouble with the other one then feel free to use either one. Thank you.

BID BOND

Note: This form may be substituted with standardized form issued by insurance/bonding agent.

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned,
_____ as Principal and
_____ as Surety, are hereby held and firmly bound unto
_____ as OWNER in the penal sum of _____
_____ for the payment of which, well and truly to be made, we hereby jointly and
severally bind ourselves, successors and assigns.

Signed this _____ day of _____, 20 _____

The Condition of the above obligation is such that whereas the Principal has submitted to:
_____ a certain BID, attached hereto and hereby made a part hereof
to enter into a contract in writing for the:

NOW, THEREFORE,

- (A) If said BID shall be rejected, or
- (B) If said BID shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said BID) and shall furnish a BOND for his faithful performance of said contract, and for the payment of all persons performing labor, or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said BID,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its BOND shall in no way be impaired or affected by any extension of the time within which the OWNER may accept such BID, and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these present to be signed by their proper officers the day and year first set forth above.

Principal (L.S.)

Surety

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Cir. 570, as amended) and be authorized to transact business in the state where the project is located.