



# COMMISSION OF ARCHITECTURAL REVIEW

## APPLICATION FOR CERTIFICATE OF APPROPRIATENESS

### PROPERTY (location of work)

Address 1015 East Clay Street, Richmond, VA 23219  
Historic district "Other Districts": Valentine Museum

Date/time rec'd: \_\_\_\_\_  
Rec'd by: \_\_\_\_\_  
Application #: \_\_\_\_\_  
Hearing date: \_\_\_\_\_

### APPLICANT INFORMATION Check if Billing Contact

Name Fernando Viege, AIA, NCARB Phone (804) 649-9303  
Company Glave & Holmes Architecture Email fviego@glaveandholmes.com  
Mailing Address 2101 E. Main Street Applicant Type:  Owner  Agent  
Richmond, VA 23223  Lessee  Architect  Contractor  
 Other (please specify): \_\_\_\_\_

### OWNER INFORMATION (if different from above) Check if Billing Contact

Name Sarah Whiting, Director of Operations & Capital Projects Company The Valentine  
Mailing Address 1015 East Clay Street, Richmond, VA 23219 Phone (804) 649-0711 Ext.: 320  
Email swhiting@thevalentine.org

### PROJECT INFORMATION

Project Type:  Alteration  Demolition  New Construction  
(Conceptual Review Required)

Project Description: (attach additional sheets if needed)

Refer to the attached additional sheet(s) for project description and additional information.

### ACKNOWLEDGEMENT OF RESPONSIBILITY

**Compliance:** If granted, you agree to comply with all conditions of the certificate of appropriateness (COA). Revisions to approved work require staff review and may require a new application and approval from the Commission of Architectural Review (CAR). Failure to comply with the conditions of the COA may result in project delays or legal action. The COA is valid for one (1) year and may be extended for an additional year, upon written request and payment of associated fee.

**Requirements:** A complete application includes all applicable information requested on checklists available on the CAR website to provide a complete and accurate description of existing and proposed conditions, as well as payment of the application fee. Applicants proposing major new construction, including additions, should meet with Staff to review the application and requirements prior to submitting an application. Owner contact information and signature is required. Late or incomplete applications will not be considered.

**Zoning Requirements:** Prior to Commission review, it is the responsibility of the applicant to determine if zoning approval is required and application materials should be prepared in compliance with zoning.

Signature of Owner

William "Bill" J. Martin, Director of the Valentine

Date

1/27/22



# CERTIFICATE OF APPROPRIATENESS

## ALTERATION AND ADDITION CHECKLIST

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**Well in advance** of the COA application deadline contact staff to discuss your project, and if necessary, to make an appointment to meet with staff for a project consultation.

Complete all applicable sections and submit with the COA application form. Staff can assist you in determining what items are required for your scope of work. An incomplete application may cause delays in processing or may be deferred to the next agenda. Application materials must clearly represent current and proposed conditions. Refer to Standards for Rehabilitation outlined in Section 30.930.7(b) of the City Code, as well as, the *Richmond Old and Historic Districts Handbook and Design Review Guidelines*.

**PROPERTY ADDRESS:** The Valentine: 1015 East Clay Street, Richmond, VA 23219

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### BUILDING TYPE

- |  |  |
|--|--|
| <input type="checkbox"/> single-family residence           | <input type="checkbox"/> garage              |
| <input type="checkbox"/> multi-family residence            | <input type="checkbox"/> accessory structure |
| <input type="checkbox"/> commercial building               | <input type="checkbox"/> other               |
| <input type="checkbox"/> mixed use building                |  |
| <input checked="" type="checkbox"/> institutional building |  |

### ALTERATION TYPE

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> addition                                  | <input type="checkbox"/> roof             |
| <input type="checkbox"/> foundation   | <input type="checkbox"/> awning or canopy |
| <input type="checkbox"/> wall siding or cladding                              | <input type="checkbox"/> commercial sign  |
| <input type="checkbox"/> windows or doors                                     | <input type="checkbox"/> ramp or lift     |
| <input checked="" type="checkbox"/> porch or balcony<br>Existing Porch Infill | <input type="checkbox"/> other            |

### WRITTEN DESCRIPTION

- property description, current conditions and any prior alterations or additions
- proposed work: plans to change any exterior features, and/or addition description
- current building material conditions and originality of any materials proposed to be repaired or replaced
- proposed new material description: attach specification sheets if necessary

**PHOTOGRAPHS** place on 8 ½ x 11 page, label photos with description and location (refer to photograph guidelines)

- elevations of all sides
- detail photos of exterior elements subject to proposed work
- historical photos as evidence for restoration work

**DRAWINGS** (refer to required drawing guidelines)

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> current site plan      | <input checked="" type="checkbox"/> list of current windows and doors | <input checked="" type="checkbox"/> current elevations (all sides)   |
| <input checked="" type="checkbox"/> proposed site plan     | <input checked="" type="checkbox"/> list of proposed window and door  | <input checked="" type="checkbox"/> proposed elevations (all sides)  |
| <input checked="" type="checkbox"/> current floor plans    | <input checked="" type="checkbox"/> current roof plan                 | <input checked="" type="checkbox"/> demolition plan                  |
| <input checked="" type="checkbox"/> proposed floor plans   | <input checked="" type="checkbox"/> proposed roof plan                | <input checked="" type="checkbox"/> perspective and/or line of sight |
| <input checked="" type="checkbox"/> legal "plat of survey" |   |  |



January 28, 2022

Alex Dandridge  
Commission of Architectural Review (CAR)  
900 E. Broad St., Room 510  
Richmond, VA 23219

**Valentine Collections Rehabilitation**  
**G&HA Commission No.: 19114**

**Re: CAR Application- Project Description**

My Dandridge,

Please add this Project to the agenda for the next CAR meeting on February 22, 2022.

Thank you for meeting with Sarah Whiting, Lisa Bricker and I yesterday to review the details of the Valentine Project. We have made some minor revisions to the projection wall and revised the size of windows/louvers at the Bransford Cecil house porch infill per your recommendations. Below is a brief summary of the Work, please contact me anytime with any comments and/or questions.

## **EXECUTIVE SUMMARY**

The following Project Design Narrative along with the associated attached Drawings exhibits the proposed rehabilitation and expansion Work at the Valentine Museum. We understand the Project to consist of renovations to the second floor of the Bransford Cecil House and the second and third floor of the Valentine Row Houses and 1977 Collections Wing along with ancillary improvements to the other levels of the museum as affected by the proposed work. We anticipate an addition to the Loading Dock area including the addition of two floors over an existing one-story element of the existing building. This project intends to rehabilitate and expand the existing Valentine Museum collections storage and support spaces and to accomplish the following:

- Provide improved and separate circulation paths for the public, collection, catering, receiving and delivery.

- Improve circulation paths in the existing buildings for the full Life Cycle of an Object related to the In processing and Out Processing of each object. (ie.: collection quarantine).
- Provide separate public reading room area and viewing room for Archives with ADA toilet on the 2<sup>nd</sup> floor.
- Improve ramp access between the row houses and the Bransford Cecil House on the 2<sup>nd</sup> floor.
- Provide better preservation of collection through improved storage and access. Refer to attached Collection Storage Plan.
- Improve environmental conditions of the collection storage areas.
- Improve curatorial support spaces (including offices and workrooms) to support better access and preservation/ conservation of the collections.

## **The Site**

The existing site is located on E. Clay Street with parking lot access off N. 10<sup>th</sup> Street. MCV is on the block directly to the east of the site, MCV children's hospital is on the block directly to the south and City Hall is catty cornered on the south/west block. The 6 buildings that make up the Valentine Museum facilities surround a large garden to the south which is utilized for functions such as outdoor lunch dining for the garden café building and space rental for wedding celebrations.

## **The Building**

The rehabilitation of the building will include: repairs to the exterior envelope and detail work; repairs to the structural system; roof repair or replacement; replacement of finishes; modification of interior layout; greater accessibility where possible; repair, modification and/or replacement of mechanical, plumbing, electrical and sprinkler systems as needed for new Work.

The expansion will be at the existing loading dock area. The expansion is 3 stories tall, with approximately 800 square feet at each level. Typical floor to floor heights vary around 12 feet. The expansion will include a loading dock, receiving, in/out processing, storage and circulation/ corridors.

In addition to the expansion, there is also a proposed second story existing porch infill to allow two additional offices for the Archive Collection Storage in the Bransford Cecil House. The existing porch will be infilled with windows and louvers to match the existing exterior windows and louvers.

All materials including new windows, doors, trim, masonry, etc to match the existing as close as possible, or compliment the existing colors and details. Refer to attached photos for more information.

## Existing Structure Description

The main building of The Valentine consists of (6) structures of different eras that have been connected together throughout the past 100+ years: The Wickham House (c. 1812), The Row Houses (c.1870s), The Bransford-Cecil House (c.1840, moved and reconstructed c. 1954), The Archive Addition (c. 1977), the Sculpture Studio (c. 1832, moved and reconstructed c. 1937) , & the Café Addition (c. 1994). Structurally, The Wickham House, Row Houses, Bransford-Cecil House, and connecting corridors act as one building. The large, plan south portion of the 1970s Archive Addition is structurally separated with a building movement joint where it meets existing (excluding the smaller, plan north Archive Addition portion). The plan north portion of the Archive Addition, Sculpture Studio, and Café act structurally as a separate building and similarly have a building movement joint detaching it from the plan south portion of the archive. The Wickham House and Café Addition are not in contract for the proposed scope of new work.

### **The Row Houses (c. 1870s)**

Most of the existing substructure foundations are unknown, but likely consist of belled clay brick masonry wall footings (typical of that era of construction). Additional concrete foundations were later added in a series of renovations throughout its history including steel column spread footings, CMU wall footings, and an elevator pit mat foundation. The basement floor is constructed of a concrete slab-on-grade (unknown date of construction) that was later modified/partially replaced during the 1970s renovation and the 2013 renovation per available existing drawings.

The original superstructure consists of unreinforced clay brick masonry bearing walls (four exterior walls, three interior party walls). Supplemental steel columns and beams were later added in a previous renovation of an unknown construction date (likely as part of a 1938 renovation). The 1970s renovation added CMU stairwells, structural steel stairs, and a CMU elevator shaft. Both the brick masonry and CMU walls are gravity load-bearing elements and contribute to the lateral-resisting structural system of the Row Houses.

The original wood floor joists remain at the first, second, and third floors except at the 1970s stairwells, which consist of a 5" concrete suspended slab and steel beams. In some areas, the original floor joists have been reinforced either by sistering with new wood and/or reinforced with steel beams and columns.

For the most part, the roof structure consists of the original sloped double roof joists except where the 1970s stairwells occur. At the top of the stairwells, the CMU walls are capped with a 5" concrete slab.

**The Bransford-Cecil House (c. 1840, moved and reconstructed c. 1954)**

The existing substructure foundations consist of 1'-0" thick, 2'-0" wide concrete wall footings per the 1950s reconstruction drawings. The basement floor is a 4" concrete slab-on-grade.

The existing superstructure consists of 8" or 12" unreinforced masonry block bearing walls (block type unknown), open-web steel floor and attic joists, 2.5" concrete slabs on wood lath, and steel beams. The hip roof is constructed with sawn lumber hip beams, roof joists, and stud knee walls. The masonry walls are gravity load-bearing elements and act as the lateral resisting system for The Bransford-Cecil House.

Part of the porch's first floor was modified, lowered, and sloped during the 1970s renovation with new open-web steel joists and a 2.5" concrete slab on metal lath form. The four porch columns are built-up wood box composite columns. The second floor porch framing consists of 2"x8" wood joists at 16" on center and built-up 2"x8" beams.

The first and second floor steel joist on slab structure was previously analyzed to support up to 125 pounds per square foot (psf) of superimposed, unfactored area load.

**The Sculpture Studio (c. 1832, moved and reconstructed c. 1937)**

The existing substructure construction is unknown, but evidence within the 1938 reconstruction drawings suggest belled clay brick masonry wall footings. The plan east corner of the building was underpinned as part of the 1970s Archive Addition. The ground floor consists of grouted clay brick pavers.

The existing superstructure consists of unreinforced clay brick masonry walls (2-wythe and 3-wythe), second floor wood joists, and sloped wood roof joists. The unreinforced masonry walls act as gravity load-bearing elements and as the lateral resisting system for The Sculpture Studio.

**The Archive Addition (c. 1977)**

The existing substructure consists of perimeter concrete wall footings, 2'-6" thick grade beams below columns, and an elevator pit mat foundation. The ground floor is constructed as a 6" concrete slab-on-grade with a variable concrete topping. The reinforced CMU walls below the first floor are structural, transitioning from 14" CMU at the base to 8" CMU where the brick veneer starts.

The superstructure for the plan south portion of the archive consists of concrete columns, pan joists, beams, and cantilevered suspended slabs. The mechanical penthouse roof is framed with open-web steel joists, 8" unreinforced CMU bearing walls, and a 1.5" metal roof deck. Although not implicitly specified on the existing drawings, the concrete moment frames likely act as the lateral-resisting system for this portion of the Archive Addition.

The first, second, and third floor structure was previously analyzed to support up to 150 pounds per square foot (psf) of superimposed, allowable area load (Allowable Stress Design, ASD).

The superstructure for the plan north, two-story portion of the archive consists of a suspended 6" concrete slab and pan joists (only above the basement electrical room at the first floor), 8" unreinforced CMU bearing walls, open-web steel roof joists, and a 1.5" metal roof deck. The open web roof joists are pocketed into the Sculpture Studio brick wall which is utilized as part of the lateral resisting system for this portion of the Archive Addition.

**The Row House/Bransford-Cecil Connector (c. 1954/1977)**

The original masonry connector was built as part of the 1954 reconstruction of the Bransford-Cecil House. The original connector was later modified and expanded with a new second floor and roof structure as part of the 1970s renovation. The existing second floor ramp structure consists of steel beams and a concrete slab on metal deck spanning between the exterior walls of the two buildings. The sloped connector roof structure is framed with a 1.5" metal deck on open-web steel joists.

**The Wickham House/Row House Connector (c. Unknown)**

There is no existing documentation on the connector between the Wickham House and Row Houses. It is likely that it was constructed around 1938 when the Row Houses were purchased and renovated by the museum.

Please contact me anytime with any comments and/or questions.

Sincerely,

Fernando B. Viego, AIA, NCARB, CSI, CDT

*Fernando B. Viego*

For Glavé & Holmes Architecture, P.C.

Enclosure: Application, checklist, Site Plans, Floor Plans, Elevations, 3-D drawings of exterior improvements, photographs and spec sections and cut sheets for windows, doors and curtainwall.

Cc: Sarah Whiting, Valentine  
Central File, G&HA

# VALENTINE COLLECTIONS REHABILITATION

## SECTION 084413 – GLAZED ALUMINUM CURTAIN WALLS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions (DGS Form CO-7CM) and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

##### A. Section Includes:

- 1. Conventionally glazed aluminum curtain walls.

##### B. Related Requirements:

- 1. Section 079200 "Joint Sealants" for installation of joint sealants installed with glazed aluminum curtain walls and for sealants to the extent not specified in this Section.
- 2. Section 088000 "Glazing" for curtain wall glazing.

#### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.

#### 1.4 ACTION SUBMITTALS

##### A. Product Data: For each type of product.

- 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

##### B. Shop Drawings: For glazed aluminum curtain walls. Include plans, elevations, sections, full-size details, and attachments to other work.

- 1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
- 2. Include full-size isometric details of each type of vertical-to-horizontal intersection of glazed aluminum curtain walls, showing the following:
  - a. Joinery, including concealed welds.
  - b. Anchorage.
  - c. Expansion provisions.
  - d. Glazing.
  - e. Flashing and drainage.
- 3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.



## VALENTINE COLLECTIONS REHABILITATION

- C. Samples for Initial Selection: For units with factory-applied color finishes.
- D. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.
- E. Fabrication Sample: Of each vertical-to-horizontal intersection of assemblies, made from 12-inch300-mm lengths of full-size components and showing details of the following:
  - 1. Joinery, including concealed welds.
  - 2. Anchorage.
  - 3. Expansion provisions.
  - 4. Glazing.
  - 5. Flashing and drainage.
- F. Delegated-Design Submittal: For glazed aluminum curtain walls, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data:
  - 1. For Installer.
  - 2. For professional engineer's experience with providing delegated-design engineering services of the kind indicated, including documentation that engineer is licensed in the state in which Project is located.
- B. Energy Performance Certificates: For glazed aluminum curtain walls, accessories, and components from manufacturer.
  - 1. Basis for Certification: NFRC-certified energy performance values for each glazed aluminum curtain wall.
- C. Product Test Reports: For glazed aluminum curtain walls, for tests performed by manufacturer and witnessed by a qualified testing agency.
- D. Quality-Control Program: Developed specifically for Project, including fabrication and installation, according to recommendations in ASTM C 1401. Include periodic quality-control reports.
- E. Source quality-control reports.
- F. Sample Warranties: For special warranties.

### 1.6 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For glazed aluminum curtain walls to include in maintenance manuals.

### 1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

## VALENTINE COLLECTIONS REHABILITATION

- B. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. 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.
  - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.

### 1.8 MOCKUPS

- A. Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
  - 1. Build mockup of typical decorative metal panel in configuration shown on Drawings.
  - 2. Testing shall be performed on mockups according to requirements in "Field Quality Control" Article.
  - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

### 1.9 WARRANTY

- A. Special Assembly Warranty: Manufacturer agrees to repair or replace components of glazed aluminum curtain wall that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including, but not limited to, excessive deflection.
    - b. Noise or vibration created by wind and thermal and structural movements.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
    - d. Water penetration through fixed glazing and framing areas.
    - e. Failure of operating components.
  - 2. Warranty Period: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazed aluminum curtain walls.
- B. General Performance: Comply with performance requirements specified, as determined by testing of glazed aluminum curtain walls representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.

## VALENTINE COLLECTIONS REHABILITATION

1. Glazed aluminum curtain walls shall withstand movements of supporting structure, including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
  2. Failure also includes the following:
    - a. Thermal stresses transferring to building structure.
    - b. Glass breakage.
    - c. Noise or vibration created by wind and thermal and structural movements.
    - d. Loosening or weakening of fasteners, attachments, and other components.
    - e. Failure of operating units.
- C. Structural Loads:
1. Wind Loads: As indicated on Drawings.
  2. Other Design Loads: As indicated on Drawings.
- D. Deflection of Framing Members: At design wind pressure, as follows:
1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to **13 feet 6 inches** **4.1 m** and to 1/240 of clear span plus **1/4 inch** **6.35 mm** for spans of greater than **13 feet 6 inches** **4.1 m** or an amount that restricts edge deflection of individual glazing lites to **3/4 inch** **19.1 mm**, whichever is less.
  2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than **1/8 inch** **3.2 mm**.
  3. Cantilever Deflection: Where framing members overhang an anchor point, as follows:
    - a. Perpendicular to Plane of Wall: No greater than 1/240 of clear span plus **1/4-inch** **6.35-mm** for spans of greater than **11 feet 8-1/4 inches** **3.6 m** or 1/175 times span, for spans of less than **11 feet 8-1/4 inches** **3.6 m**.
- E. Structural: Test according to ASTM E 330/E 330M as follows:
1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
  2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
  3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- F. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:
1. Fixed Framing and Glass Area:
    - a. Maximum air leakage of **0.06 cfm/sq. ft.** **0.30 L/s per sq. m** at a static-air-pressure differential of **6.24 lbf/sq. ft.** **300 Pa**.
- G. Water Penetration under Static Pressure: Test according to ASTM E 331 as follows:
1. No evidence of water penetration through fixed glazing and framing areas when tested according to a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than **6.24 lbf/sq. ft.** **300 Pa**.
  2. Maximum Water Leakage: According to AAMA 501.1. Water leakage does not include water controlled by flashing and gutters or water that is drained to exterior.

## VALENTINE COLLECTIONS REHABILITATION

- H. Interstory Drift: Accommodate design displacement of adjacent stories indicated.
  - 1. Design Displacement: As indicated on Drawings.
  - 2. Test Performance: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.4 at design displacement and 1.5 times the design displacement.
- I. Energy Performance: Certify and label energy performance according to NFRC as follows:
  - 1. Thermal Transmittance (U-factor): Fixed glazing and framing areas as a system shall have U-factor of not more than 0.38 Btu/sq. ft. x h x deg F 2.16 W/sq. m x K as determined according to NFRC 100.
  - 2. SHGC: Fixed glazing and framing areas as a system shall have a SHGC of no greater than 0.29 as determined according to NFRC 200.
  - 3. Condensation Resistance: Fixed glazing and framing areas as a system shall have an NFRC-certified condensation resistance rating of no less than 35 as determined according to NFRC 500.
- J. Noise Reduction: Test according to ASTM E 90, with ratings determined by ASTM E 1332, as follows:
  - 1. Outdoor-Indoor Transmission Class: Minimum 30.
  - 2. Sound Transmission Class: Minimum 34.
- K. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
  - 1. Temperature Change: 120 deg F 67 deg C, ambient; 180 deg F 100 deg C, material surfaces.
  - 2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.
    - a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F 82 deg C.
    - b. Low Exterior Ambient-Air Temperature: 0 deg F minus 18 deg C.

### 2.2 SOURCE LIMITATIONS

- A. Obtain all components of curtain-wall system and storefront system, including framing, spandrel panels, entrances, and accessories, from single manufacturer.

### 2.3 GLAZED ALUMINUM CURTAIN WALL SYSTEMS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Kawneer North America, an Arconic company; 1600 Wall System 1 (7 1/2" x 2 1/2").
  - 2. Tubelite Inc.
  - 3. YKK AP America Inc.
- B. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
  - 1. Construction: Thermally broken.
  - 2. Glazing System: Retained mechanically with gaskets on four sides
  - 3. Glazing Plane: Front.

## VALENTINE COLLECTIONS REHABILITATION

4. Finish: Color anodic finish.
  5. Fabrication Method: Factory-fabricated unit and mullion system.
  6. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
  7. Steel Reinforcement: As required by manufacturer.
- C. Pressure Caps: Manufacturer's standard aluminum components that mechanically retain glazing.
1. Include snap-on aluminum trim that conceals fasteners.
- D. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
- E. Insulated Spandrel Panels: Provide recessed metal panel in configuration indicated made from laminated, metal-faced flat panels with no deviations in plane exceeding 0.8 percent of panel dimension in width or length.
1. Overall Panel Thickness: 1 inch (25.4 mm).
  2. Exterior Skin: Aluminum.
    - a. Thickness: Manufacturer's standard for finish indicated.
    - b. Finish: Match framing system.
    - c. Texture: Smooth.
    - d. Backing Sheet: 0.157-inch- (4-mm-) thick, cement board.
  3. Interior Skin: Manufacturer's standard galvanized-steel sheet.
  4. Thermal Insulation Core: Manufacturer's standard rigid, closed-cell, polyisocyanurate board .
- F. Glazing: As specified in Section 088000 "Glazing".
- G. Entrance Door Systems: Comply with Section 084113 "Aluminum-Framed Entrances and Storefronts" .

### 2.4 GLAZING

- A. Glazing: Comply with Section 088000 "Glazing."
1. Sealant shall comply with the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

### 2.5 MATERIALS

- A. Sheet and Plate: ASTM B 209ASTM B 209M.
- B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221ASTM B 221M.
- C. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
- D. Structural Profiles: ASTM B 308/B 308M.
- E. Steel Reinforcement:
1. Structural Shapes, Plates, and Bars: ASTM A 36/A 36M.
  2. Cold-Rolled Sheet and Strip: ASTM A 1008/A 1008M.

## VALENTINE COLLECTIONS REHABILITATION

3. Hot-Rolled Sheet and Strip: ASTM A 1011/A 1011M.

- F. Steel Reinforcement Primer: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pre-treatment. Select surface preparation methods according to recommendations in SSPC-SP COM, and prepare surfaces according to applicable SSPC standard.
- G. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- H. Recycled Content of Aluminum Components: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 50 percent.
- I. Interior wet-applied sealants and sealant primers: Comply with low-emitting requirements in Division 01 Section Sustainable Design Requirements - LEED.

### 2.6 ACCESSORIES

- A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
  - 1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
  - 2. Reinforce members as required to receive fastener threads.
  - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
- B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch25.4 mm that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.
  - 1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.
- C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
- D. Bituminous Paint: Cold-applied asphalt-mastic paint containing no asbestos, formulated for 30-mil0.762-mm thickness per coat.

### 2.7 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- C. Fabricate components that, when assembled, have the following characteristics:
  - 1. Profiles that are sharp, straight, and free of defects or deformations.
  - 2. Accurately fitted joints with ends coped or mitered.
  - 3. Physical and thermal isolation of glazing from framing members.
  - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.

## VALENTINE COLLECTIONS REHABILITATION

5. Provisions for field replacement of glazing from exterior.
  6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- D. Fabricate components to resist water penetration as follows:
1. Internal guttering system or other means to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior.
  2. Pressure-equalized system or double barrier design with primary air and vapor barrier at interior side of glazed aluminum curtain wall and secondary seal weeped and vented to exterior.
- E. Curtain-Wall Framing: Fabricate components for assembly using manufacturer's standard assembly method .
- F. Factory-Assembled Frame Units:
1. Rigidly secure nonmovement joints.
  2. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions, to ensure compatibility and adhesion.
  3. Preparation includes, but is not limited to, cleaning and priming surfaces.
  4. Seal joints watertight unless otherwise indicated.
  5. Install glazing to comply with requirements in Section 088000 "Glazing."
- G. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

### 2.8 ALUMINUM FINISHES

- A. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
1. Color: Dark bronze.

END OF SECTION 084413

# VALENTINE COLLECTIONS REHABILITATION

## SECTION 085200 - WOOD WINDOWS AND DOORS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes:
  - 1. Fixed Wood-Framed Aluminum Clad Wood Windows
  - 2. Exterior Aluminum Clad Commercial Wood Doors
  - 3. UV Solar Control Film

#### 1.2 DEFINITIONS

Retain abbreviations, definitions, and terms that remain after this Section has been edited.

- A. Performance class designations according to AAMA/WDMA 101/I.S.2/NAFS:
  - 1. LC: Light Commercial.
- B. Performance grade number according to AAMA/WDMA 101/I.S.2/NAFS:
  - 1. Design pressure of 40 pounds force per square foot to be used to determine the structural test pressure and water test pressure.
- C. Structural Test Pressure: For uniform load structural test, is equivalent to 150 percent of the design pressure.
- D. Minimum Test Size: Smallest size permitted for performance class (gateway test size). Products must be tested at minimum test size or at a size larger than minimum test size to comply with requirements for performance class.

#### 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. Size required by AAMA/WDMA 101/I.S.2/NAFS for gateway performance.
- B. Structural Performance: Provide wood windows capable of withstanding the effects of the following loads based on testing units representative of those indicated for Project that pass AAMA/WDMA 101/I.S.2/NAFS, Uniform Load Structural Test:
  - 1. Design Wind Loads: Determine design wind loads applicable to Project from basic wind speed indicated in miles per hour at 33 feet above grade, according to ASCE 7, Section 6.5, "Method 2- Analytical Procedure," based on mean roof heights above grade indicated on Drawings.
    - a. Basic Wind Speed: 90 mph.
    - b. Exposure Category: B.
  - 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 testing



## VALENTINE COLLECTIONS REHABILITATION

performed according to AAMA/WDMA 101/I.S.2/NAFS, Uniform Load Deflection Test or structural computations.

### 1.4 QUALITY ASSURANCE

- A. **Manufacturer Qualifications:** A manufacturer capable of fabricating wood windows that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.
- B. **Source Limitations:** Obtain wood windows through one source from a single manufacturer.
- C. **Product Options:** Drawings indicate size, profiles, and dimensional requirements of wood windows and are based on the specific system indicated. Refer to Division 1 Section "Product Requirements." Do not modify size and dimensional requirements.
  - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.
- D. **Fenestration Standard:** Comply with AAMA/WDMA 101/I.S.2/NAFS, "North American Fenestration Standard Voluntary Performance Specification for Windows, Skylights and Glass Doors," for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
- E. **Glazing Publications:** Comply with published recommendations of glass manufacturers and with GANA's "Glazing Manual" unless more stringent requirements are indicated.

### 1.5 WARRANTY

- A. **Special Warranty - Windows:** Manufacturer's standard form in which manufacturer agrees to repair or replace wood windows that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Failure to meet performance requirements.
    - b. Structural failures including excessive deflection, water leakage, air infiltration, or condensation.
    - c. Faulty operation of movable sash and hardware.
    - d. Deterioration of wood, metals, vinyl, other materials, and finishes beyond normal weathering.
    - e. Failure of insulating glass.
  - 2. **Warranty Period:**
    - a. Window: 10 years from date of Substantial Completion.
    - b. Insulating glass units: 20 years from date of Substantial Completion.
    - c. Metal Finish: 10 years from date of Substantial Completion.
- B. **Warranty – Doors**
  - 1. Doors shall be warranted to be free from defects in manufacturing, materials, and workmanship for a period of ten (10) years from purchase date.

## VALENTINE COLLECTIONS REHABILITATION

2. Insulating glass shall be warranted against visible obstruction through the glass caused by a failure of the insulating glass air seal for a period of twenty (20) years from the date of original purchase.
3. Please see separate manufacturer warranties for Commercial Door hardware components, sills and steel frames.

### 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 the following:
  1. Aluminum-Clad Wood Windows and Doors:
    - a. Marvin Windows and Doors; Ultimate Clad, Basis-of-Design.
    - b. Kolbe & Kolbe Millwork Co., Inc.

#### 2.2 MATERIALS

- A. Wood: Clear ponderosa pine or another suitable fine-grained lumber; 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. Aluminum Extrusions for Cladding: Manufacturer's standard extruded-aluminum cladding, mechanically bonded to exterior exposed wood members. Provide aluminum alloy and temper recommended by wood window manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi ultimate tensile strength, and not less than 16,000-psi minimum yield strength.
  1. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
  2. Products incorporating rolled aluminum cladding not allowed.
  3. High-Performance Organic Finish for Extrusions: 4-coat fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in both color coats and clear topcoat. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
    - a. Color: Custom white color to match aluminum entrances, and aluminum trim, as approved by Architect.
- C. Wood Trim and Glazing Stops: Material and finish to match frame members.
- D. Clad Trim and Glazing Stops: Hollow extrusions material and finish to match clad frame members.
- E. 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.
- F. 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.

## VALENTINE COLLECTIONS REHABILITATION

- G. 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.
- H. Compression-Type Weather Stripping: Provide compressible weather stripping as required to seal fixed sash window units.
  - 1. Weather-Stripping Material: Manufacturer's standard system and materials complying with AAMA/WDMA 101/I.S.2/NAFS.

### 2.3 WINDOW UNITS

- A. Window Type: Fixed windows as indicated on Drawings.
- B. AAMA/WDMA Performance Requirements: Provide wood windows of performance indicated that comply with AAMA/WDMA 101/I.S.2/NAFS.
  - 1. Performance Class and Grade: H-LC40.
- C. Thermal Transmittance: Provide wood windows with a whole-window, U-factor maximum indicated at 15-mph exterior wind velocity and winter condition temperatures when tested according to NFRC 100.
  - 1. U-Factor: 0.24 Btu/sq. ft. x h x deg F or less.
- D. Solar Heat-Gain Coefficient (SHGC): Provide wood windows with a whole-window SHGC maximum of 0.27, determined according to NFRC 200 procedures.
- E. Visible Light Transmittance: Provide wood windows with a VLT minimum of 63%.
- F. Water Resistance: No water leakage as defined in AAMA/WDMA referenced test methods at a water test pressure equaling that indicated, when tested according to AAMA/WDMA 101/I.S.2/NAFS, Water Resistance Test.
  - 1. Test Pressure: 15 percent of positive design pressure, but not less than 6.00 lbf/sq. ft. or more than 15 lbf/sq. ft. .
- G. Interior Finish:
  - 1. Factory-Primed Windows: Provide manufacturer's standard factory-prime coat complying with WDMA T.M. 11 on exposed interior wood surfaces.

### 2.4 DOOR UNITS

- A. Frame Description:
  - 1. Manufacturer's standard frame components.
  - 2. Kiln dried to moisture content no greater than twelve (12) percent at the time of fabrication.
  - 3. Water repellent, preservative treated in accordance with WDMA I.S.4.
  - 4. Frame width: 6-9/16 inches (167 mm).
  - 5. Frame thickness: 1-1/16 inches (27 mm).
  - 6. Exterior extruded aluminum clad 0.050 inch (1.3 mm) thick.
- B. Panel Description:
  - 1. Stiles: finger jointed, edge-glued LVL. Rails: Manufacturer's standard core and hardwood veneer.
  - 2. Kiln dried to moisture content no greater than twelve (12) percent at time of fabrication.

## VALENTINE COLLECTIONS REHABILITATION

3. Water repellent, preservative treated in accordance with WDMA I.S.4.
4. Stiles contain laminated veneer lumber (LVL) core, solid wood top and bottom rail, with clear pine, white oak, cherry, mahogany, vertical grain Douglas fir veneers.
5. Composite panel thickness: 2 ¼ inches (57mm).
6. Exterior extruded aluminum clad 0.055 inch (1.4 mm) thick.
7. Top rail width: 8 1/8 inches (206 mm).
8. Stile width: 6 inches (152 mm).
9. Bottom rail height: 11-3/8 inches (289 mm).
10. Panel corners glued and fastened with 5/8 X 4 inch (16 mm X 102 mm) fluted hardwood dowels. Nailed on glazing stops

### C. Glazing:

1. Select quality complying with ASTM C 1036. Comply with 16 CFR 1201 Safety Standard for Architectural Glazing Materials. Tempered insulating glass IGMA/IGCC certified to performance level CBA when tested in accordance with ASTM E 774.
2. Glazing Method: Tempered Insulating Glass (Altitude Adjusted).
3. Glass Type: Clear; Manufacturer's standard Low-E.
4. Glazing Seal: Silicone bedding, exterior.

### D. Finish:

1. Exterior: Aluminum clad. Fluoropolymer modified acrylic topcoat applied over primer. Meets or exceeds AAMA 2605 requirements.
  - a. Color: Custom color
2. Interior: Treated bare wood; Latex prime coat, white

## 2.5 ACCESSORIES

- A. Aluminum Extrusion Mouldings: Brick mould and other trim profiles as detailed on the drawings. Finish to be the same fluoropolymer four coat system and color used on the window and door units.

## 2.6 UV SOLAR CONTROL FILM

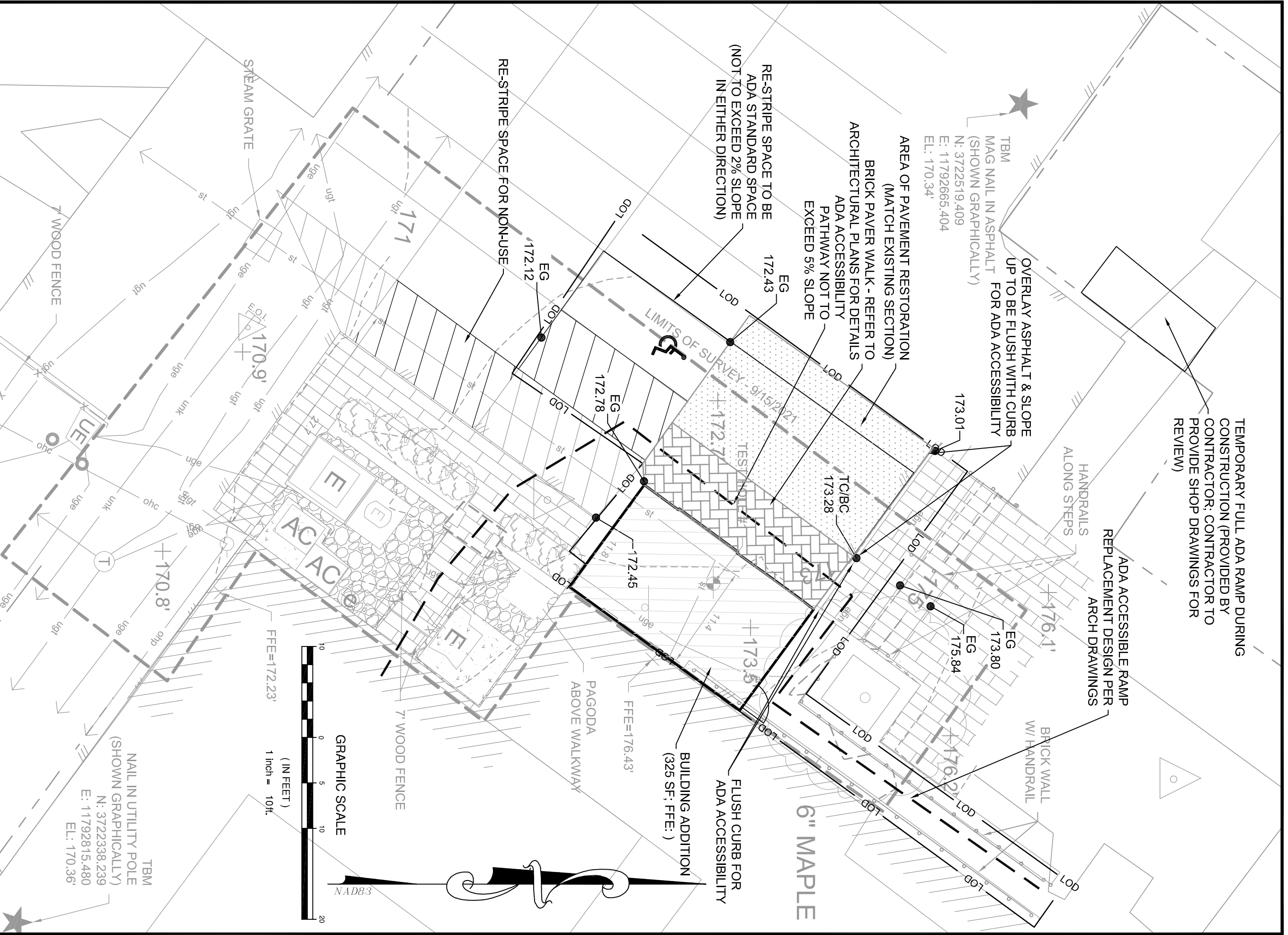
### A. Provide the following:

1. Solar Control Film: Presitge Series, PR-70, by 3M
  - a. UV filtering: 99%
  - b. Non-metallic
2. Install on interior face of each individual pane of glass on windows with gallery exposure and as indicated.

END OF SECTION 085200

VALENTINE COLLECTIONS REHABILITATION

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TEMPORARY FULL ADA RAMP DURING CONSTRUCTION (PROVIDED BY CONTRACTOR; PROVIDER TO PROVIDE SHOP DRAWINGS FOR REVIEW)

ADA ACCESSIBLE RAMP REPLACEMENT DESIGN PER ARCH DRAWINGS

BRICK WALL W/ HANDRAIL

OVERLAY ASPHALT & SLOPE UP TO BE FLUSH WITH CURB FOR ADA ACCESSIBILITY (SHOWN GRAPHICALLY)

TBM  
MAG NAIL IN ASPHALT  
(SHOWN GRAPHICALLY)  
N: 3722519.409  
E: 11792665.404  
EL: 170.34'

AREA OF PAVEMENT RESTORATION (MATCH EXISTING SECTION)  
BRICK PAVEMENT WALK - REFER TO ARCHITECTURAL PLANS FOR DETAILS  
ADA ACCESSIBILITY PATHWAY NOT TO EXCEED 5% SLOPE

RE-STRIPE SPACE TO BE ADA STANDARD SPACE (NOT TO EXCEED 2% SLOPE IN EITHER DIRECTION)

FLUSH CURB FOR ADA ACCESSIBILITY  
BUILDING ADDITION (325 SF; FFE: )

PAGODA ABOVE WALKWAY

RE-STRIPE SPACE FOR NON-USE

GRAPHIC SCALE

(IN FEET)  
1 inch = 10 ft.

TBM  
NAIL IN UTILITY POLE (SHOWN GRAPHICALLY)  
N: 3722338.239  
E: 11792815.480  
EL: 170.36'



**Draper Aden Associates**

Engineering • Surveying • Environmental Services

1030 Wilmer Avenue, Suite 100 Blacksburg, VA  
Richmond, VA 23227 Charlottesville, VA  
804-264-2228 Fax: 804-264-8773 Hampton Roads, VA Virginia Beach, VA

DESIGNED SMM  
DRAWN SMM  
CHECKED SMM  
DATE 01/27/22

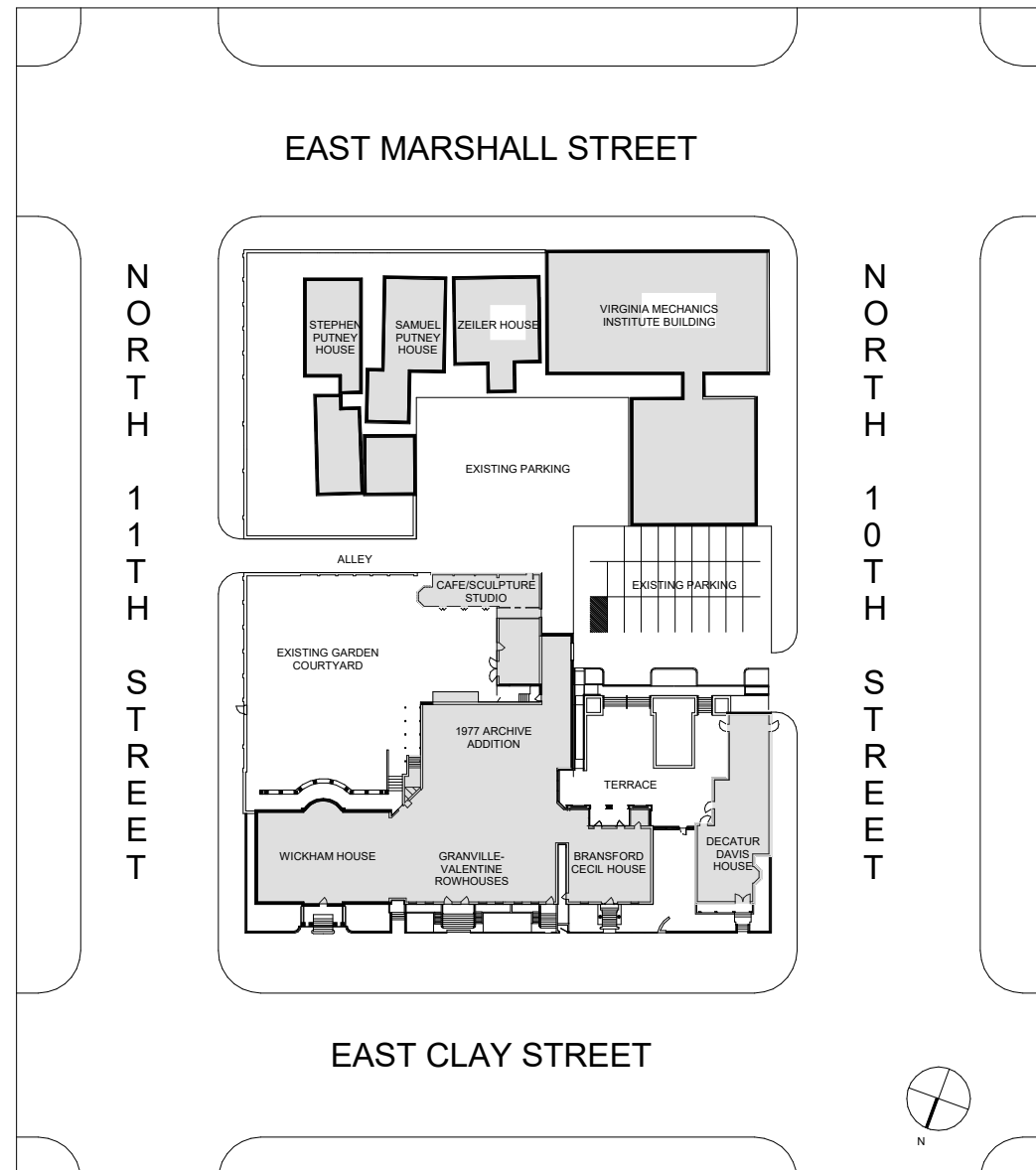
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PROJECT: 2101722

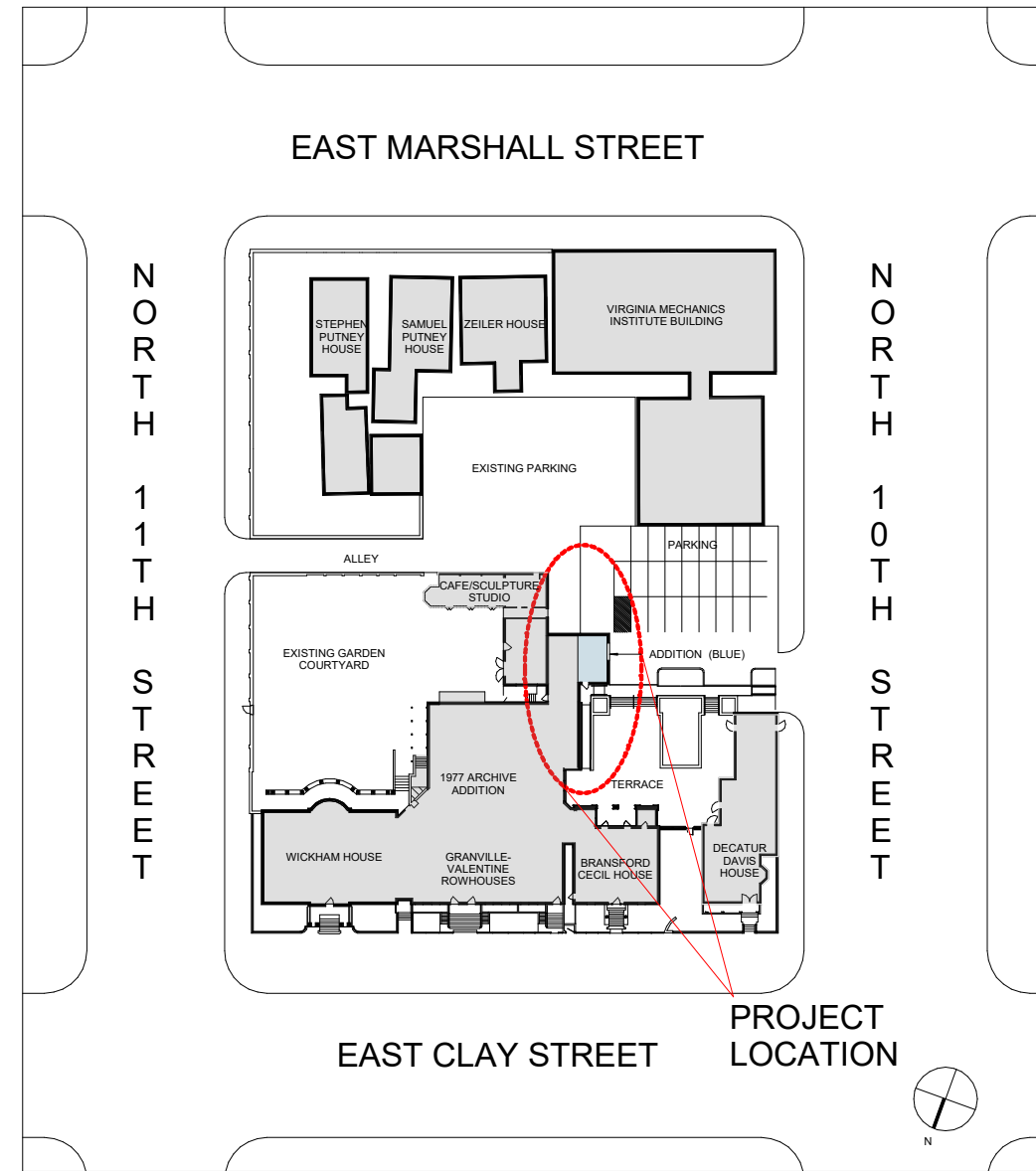
FIGURE

A

**SITE LAYOUT PLAN**  
**VALENTINE COLLECTIONS REHABILITATION**  
**CITY OF RICHMOND, VIRGINIA**

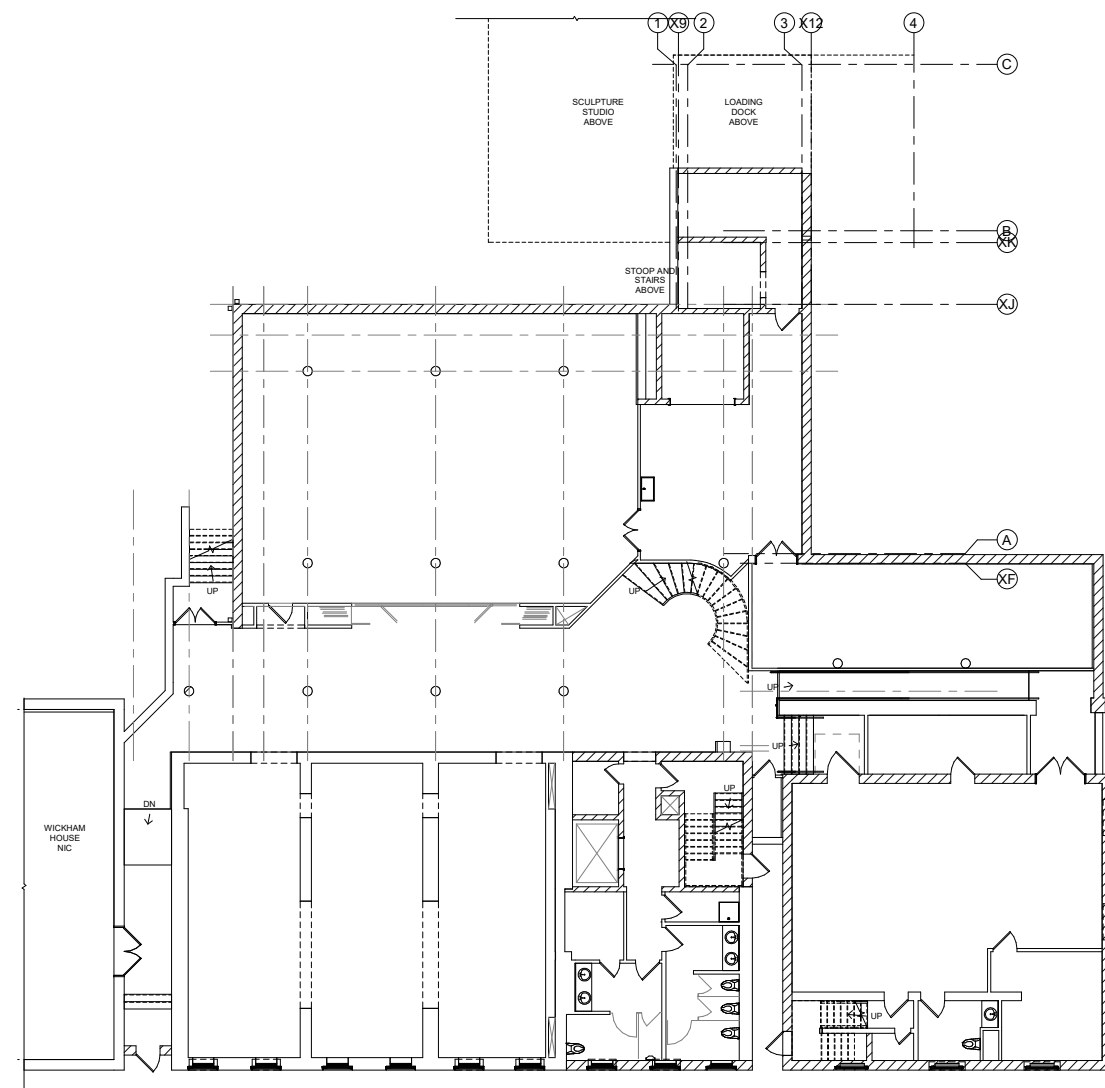


EXISTING SITE PLAN

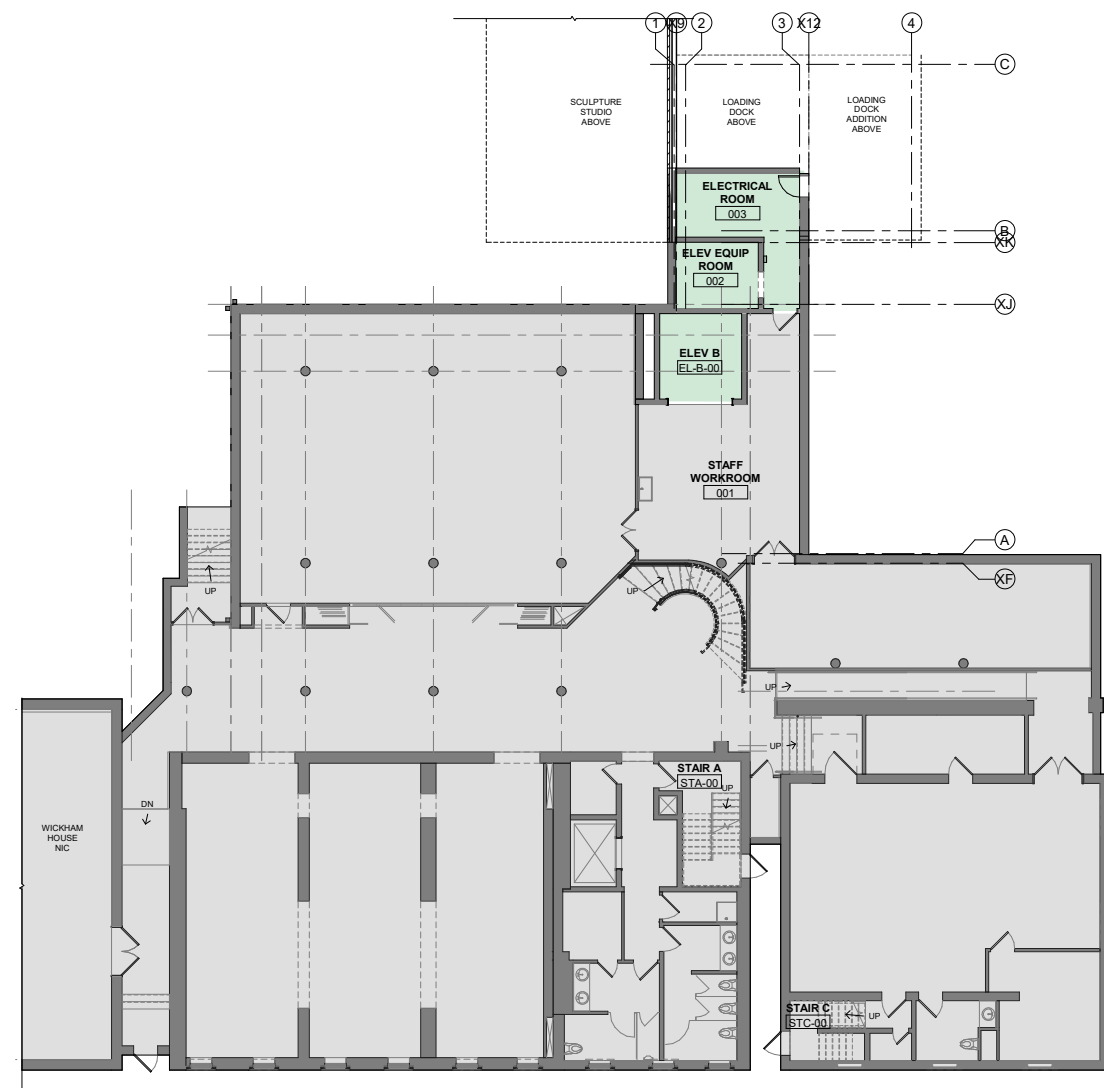


PROPOSED SITE PLAN





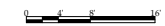
LOWER LEVEL EXISTING PLAN



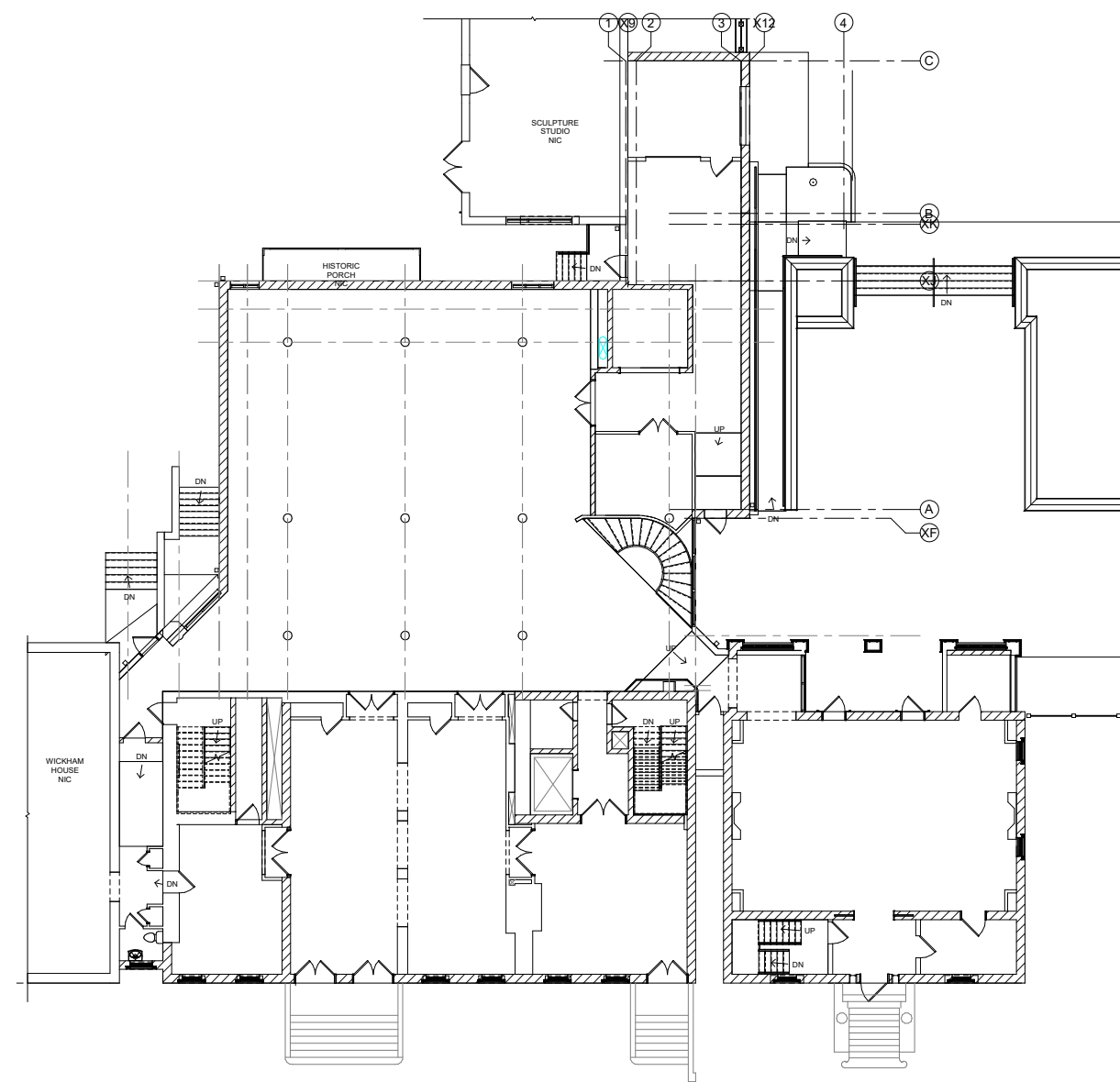
LOWER LEVEL PROPOSED PLAN

**LEGEND**

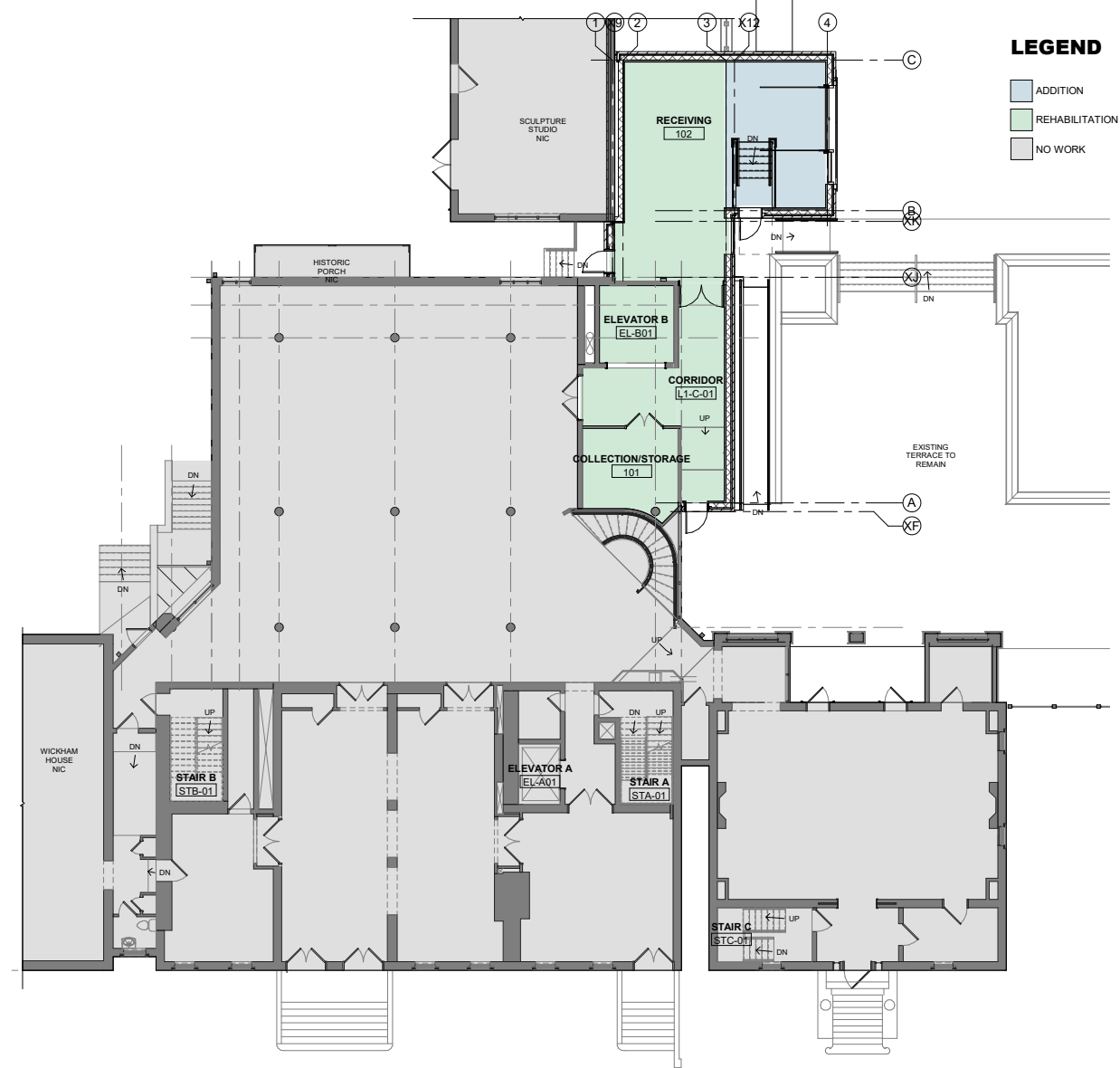
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- NO WORK







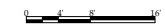
1ST FLOOR EXISTING PLAN

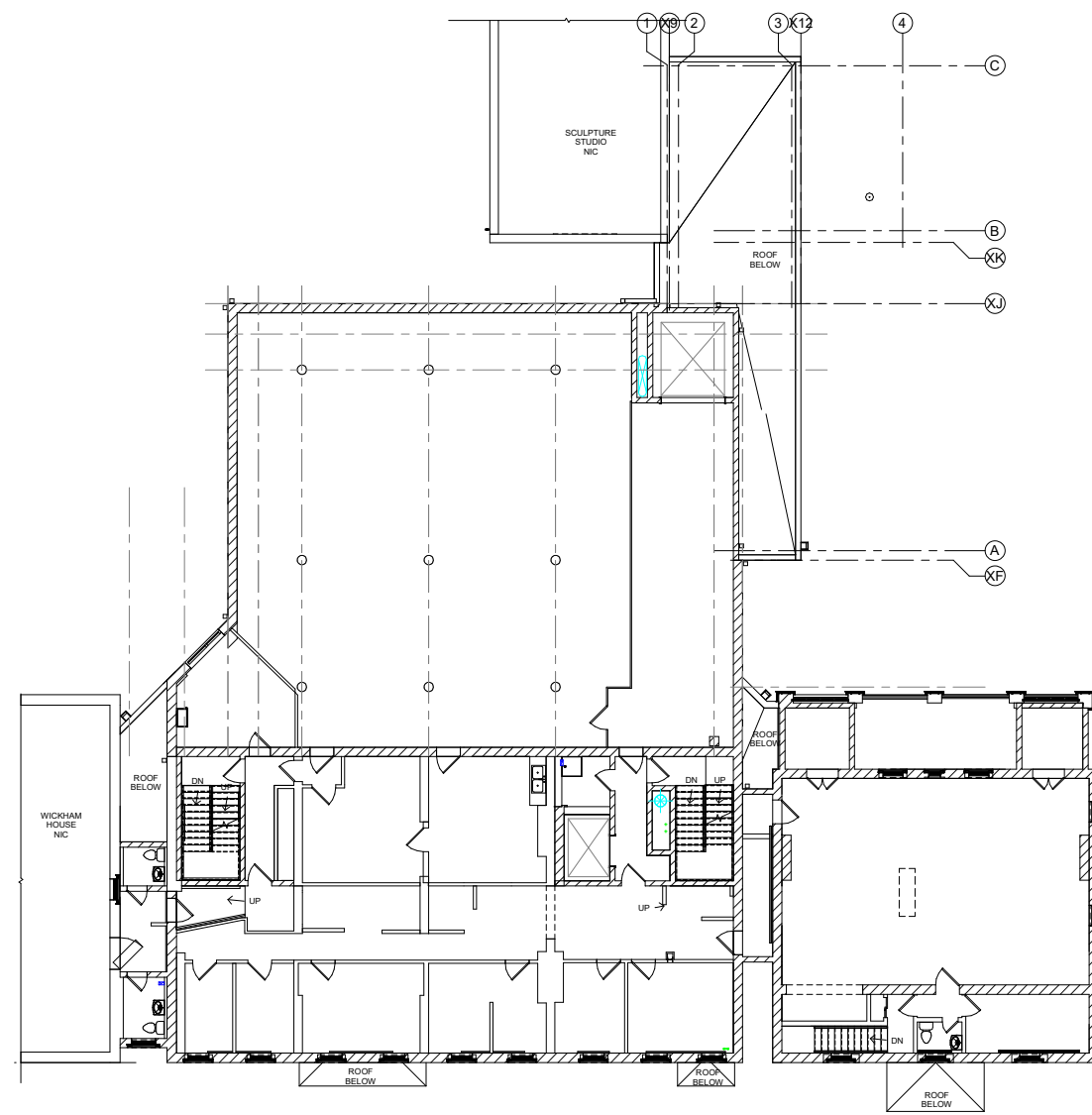


1ST FLOOR PROPOSED PLAN

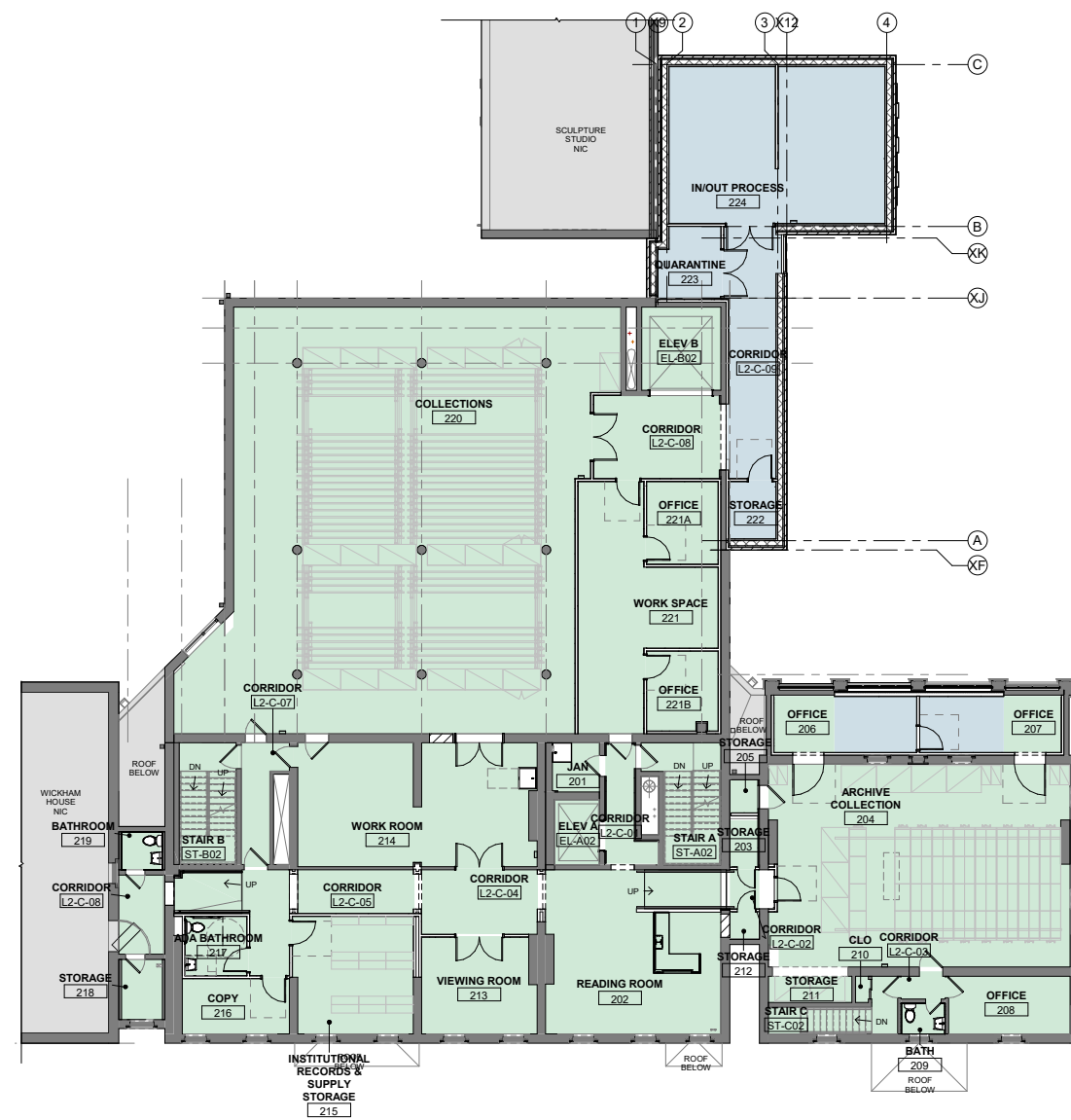
**LEGEND**

- ADDITION
- REHABILITATION
- NO WORK





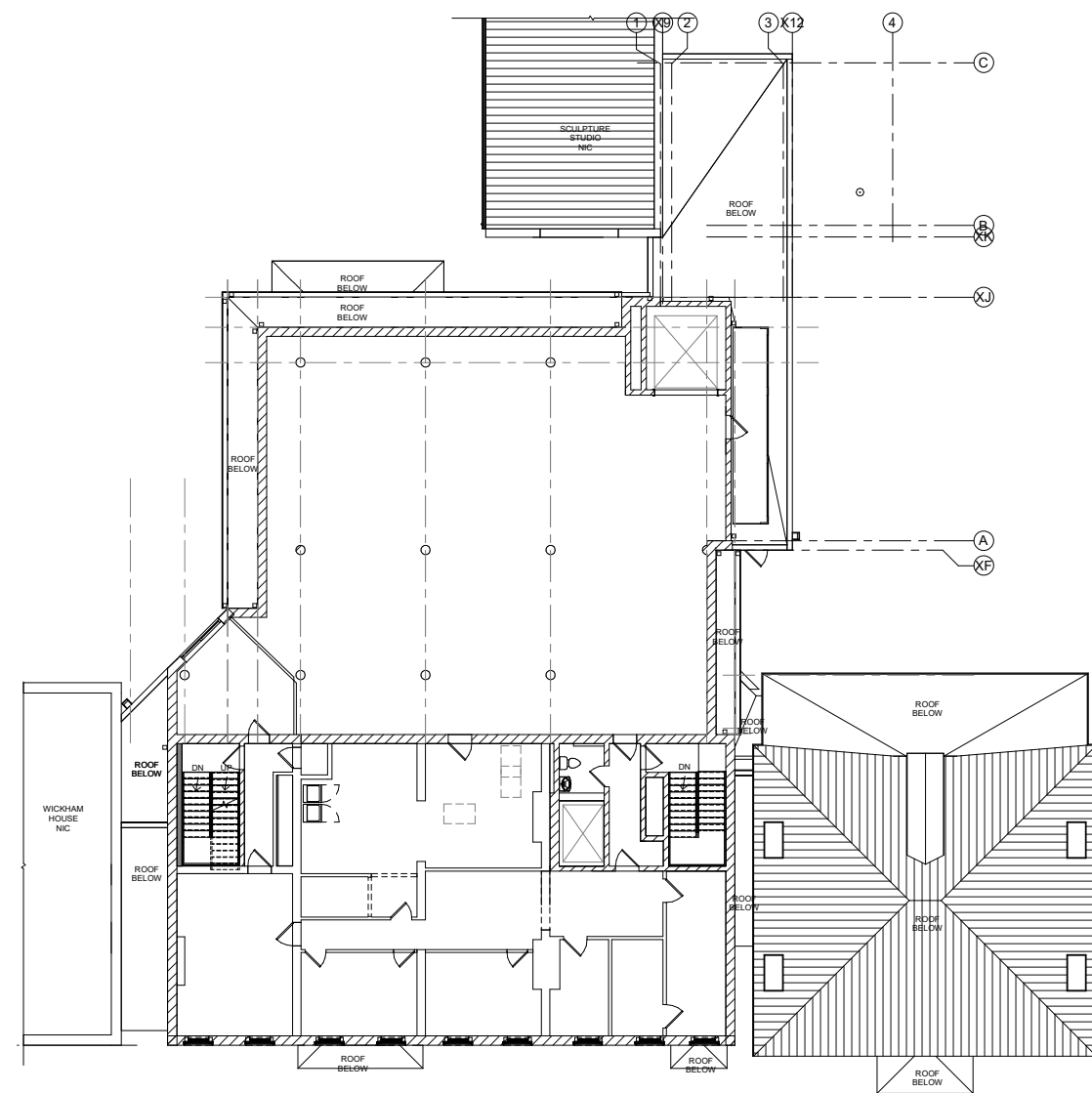
2ND FLOOR EXISTING PLAN



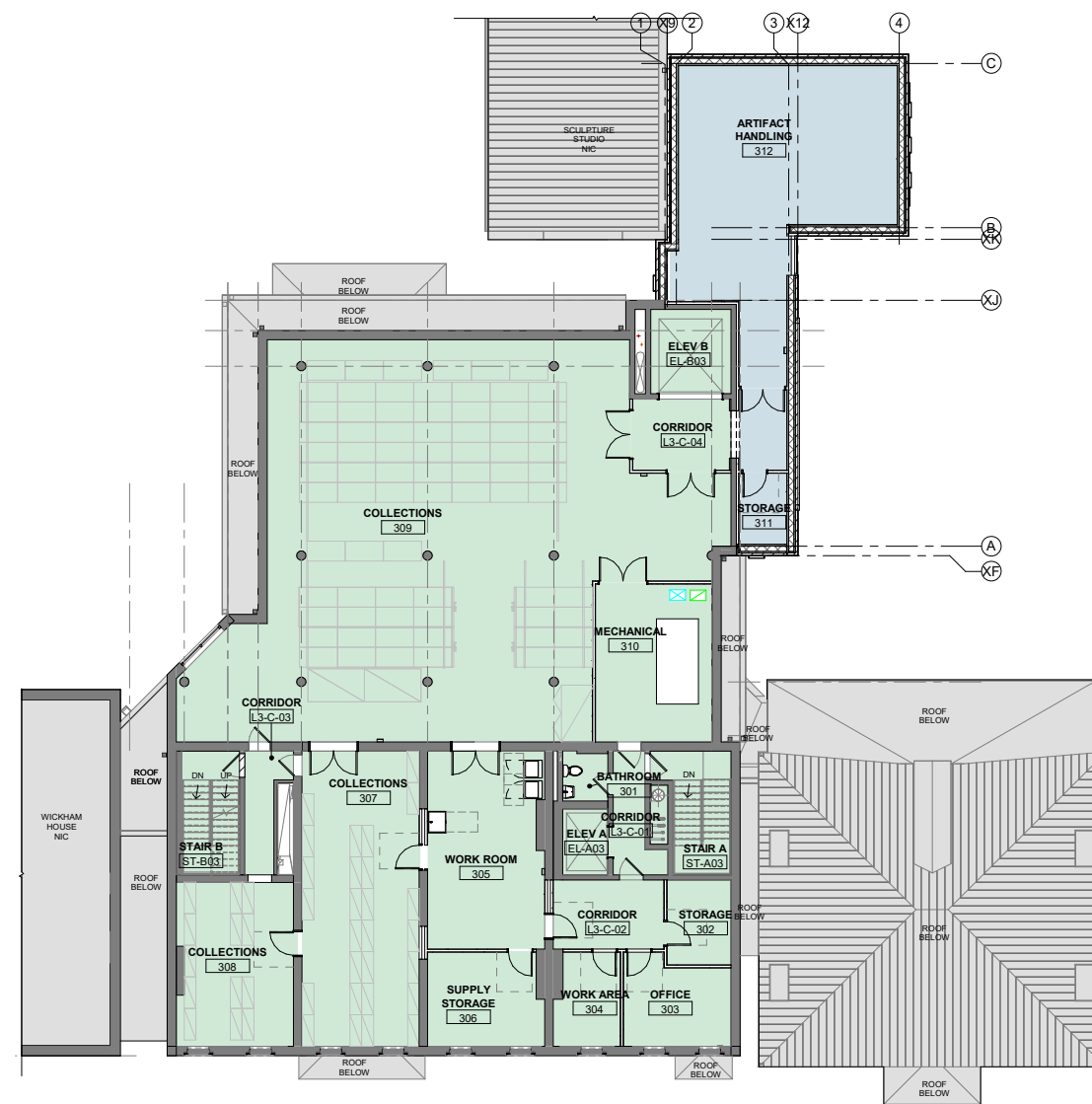
2ND FLOOR PROPOSED PLAN

**LEGEND**

- ADDITION
- REHABILITATION
- NO WORK



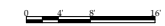
3RD FLOOR EXISTING PLAN

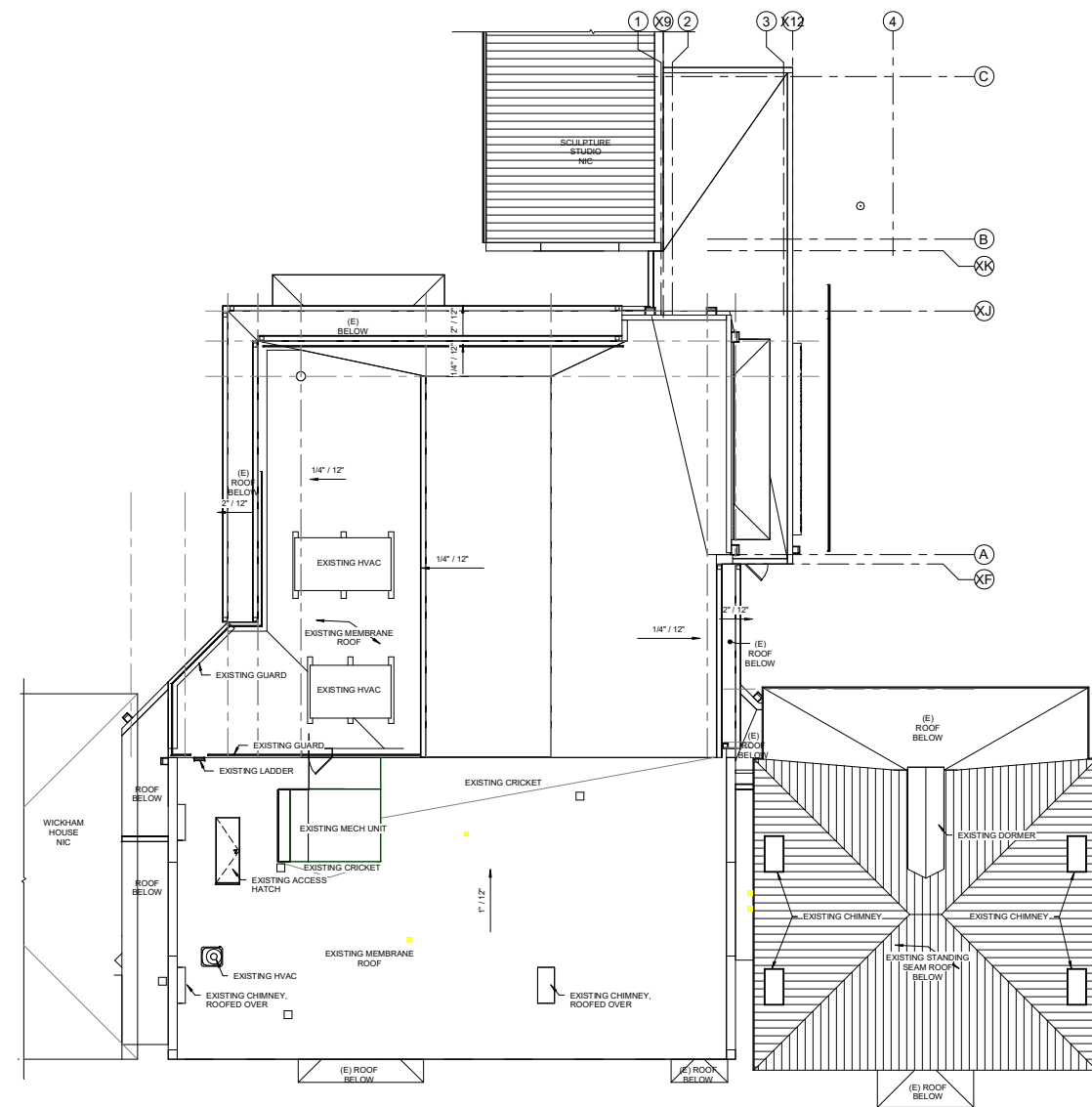


3RD FLOOR PROPOSED PLAN

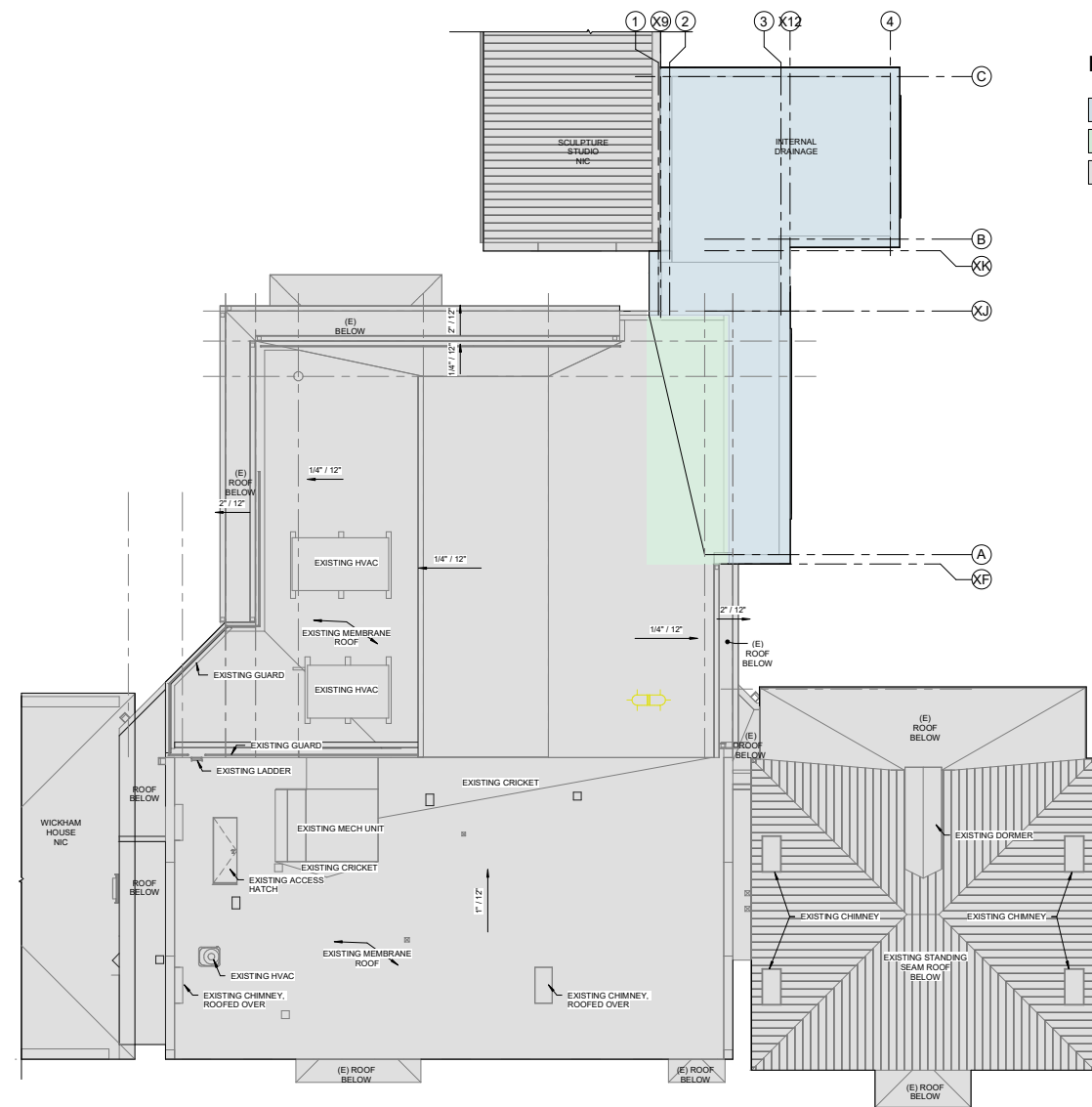
**LEGEND**

- ADDITION
- REHABILITATION
- NO WORK





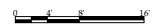
EXISTING ROOF PLAN

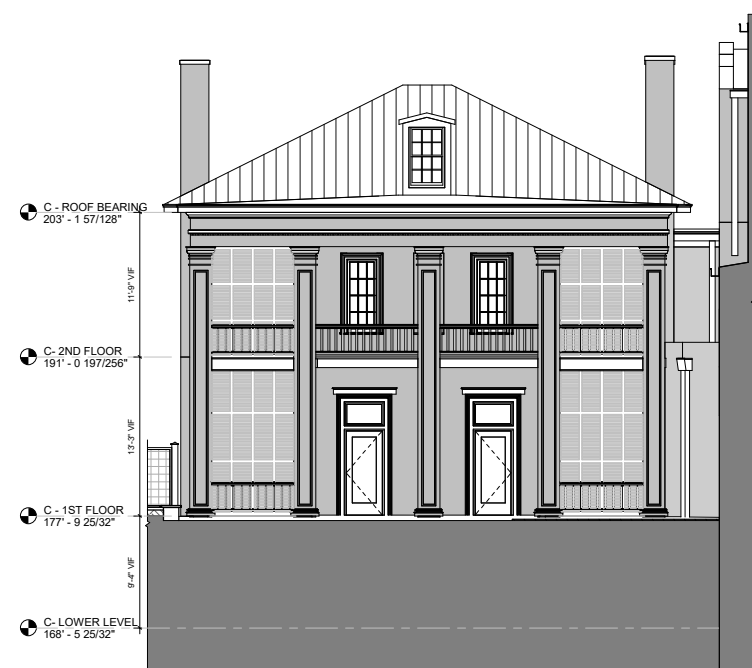


PROPOSED ROOF PLAN

**LEGEND**

- ADDITION
- REHABILITATION
- NO WORK



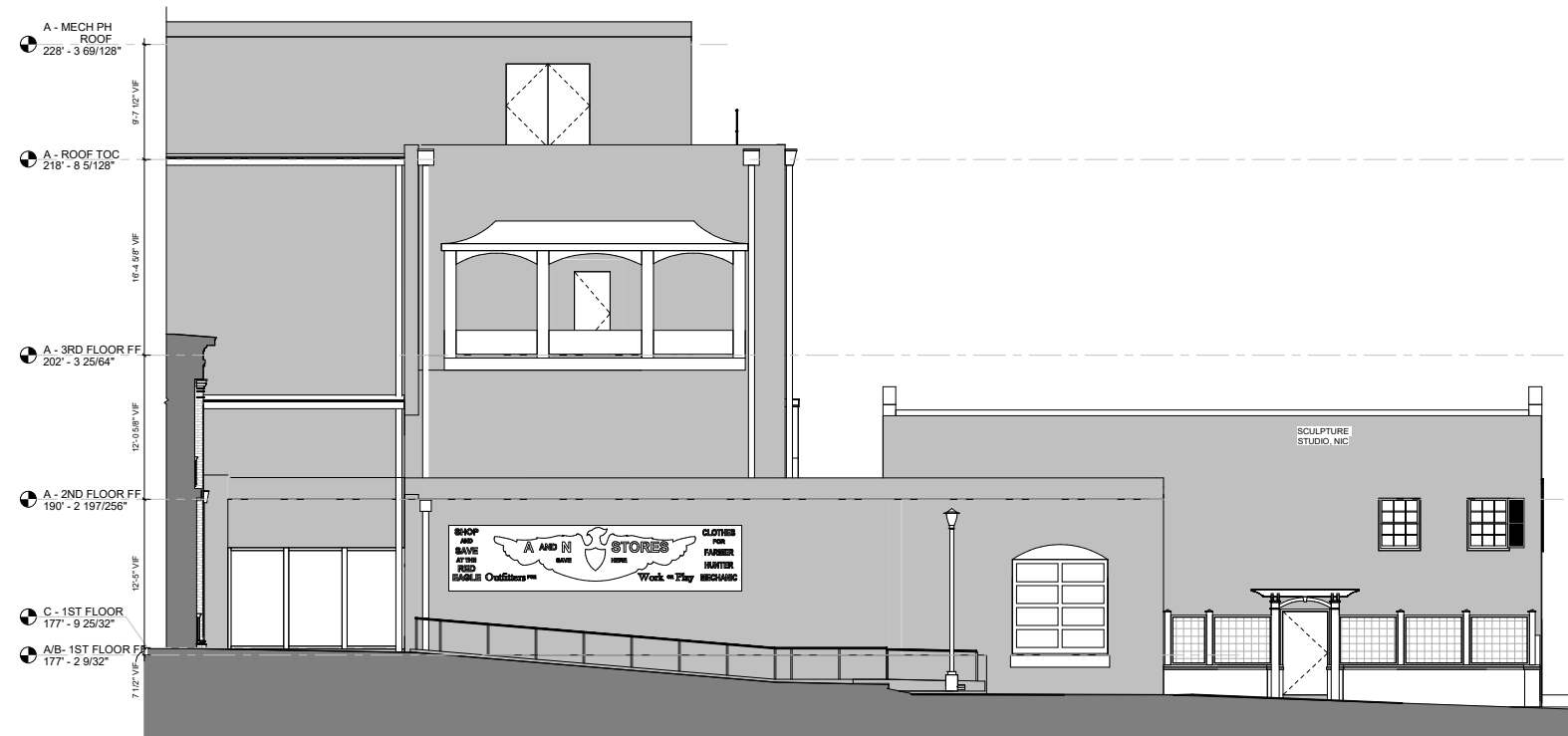


SOUTH ELEVATION - C - BRANSFORD CECIL HOUSE (OPTION A)

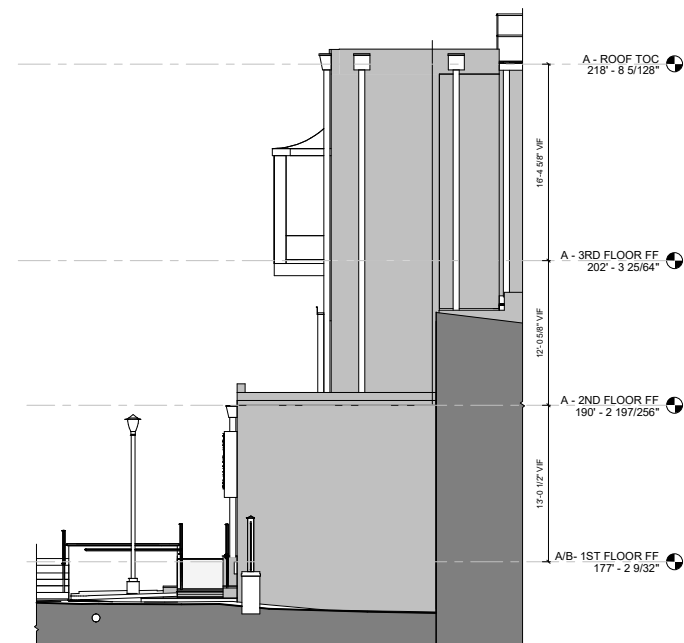


EXISTING EAST ELEVATION - A - LOADING DOCK

NORTH ELEVATION - A - LOADING DOCK

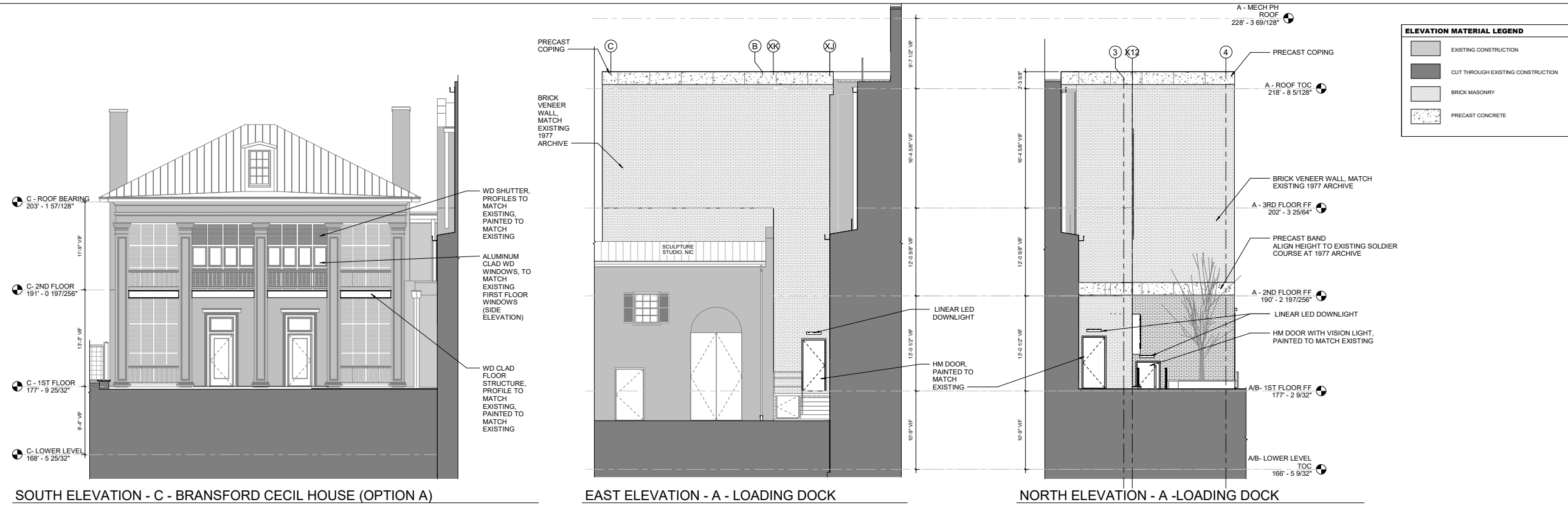


EXISTING WEST ELEVATION



SOUTH ELEVATION - A - LOADING DOCK

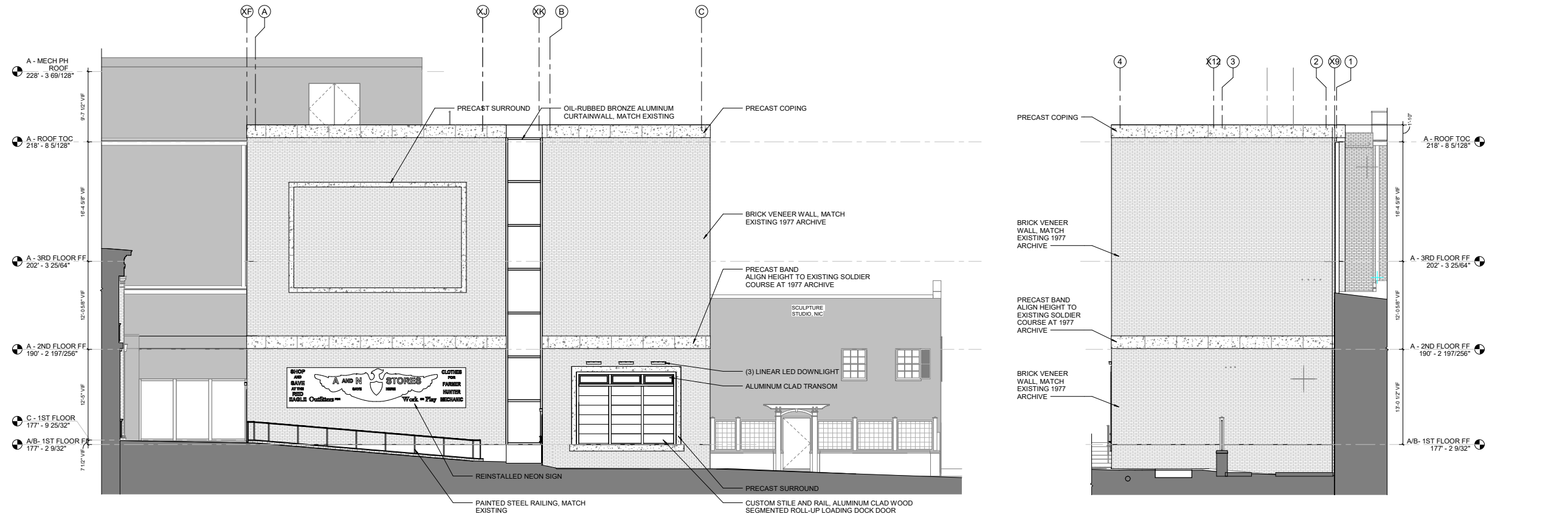




SOUTH ELEVATION - C - BRANSFORD CECIL HOUSE (OPTION A)

EAST ELEVATION - A - LOADING DOCK

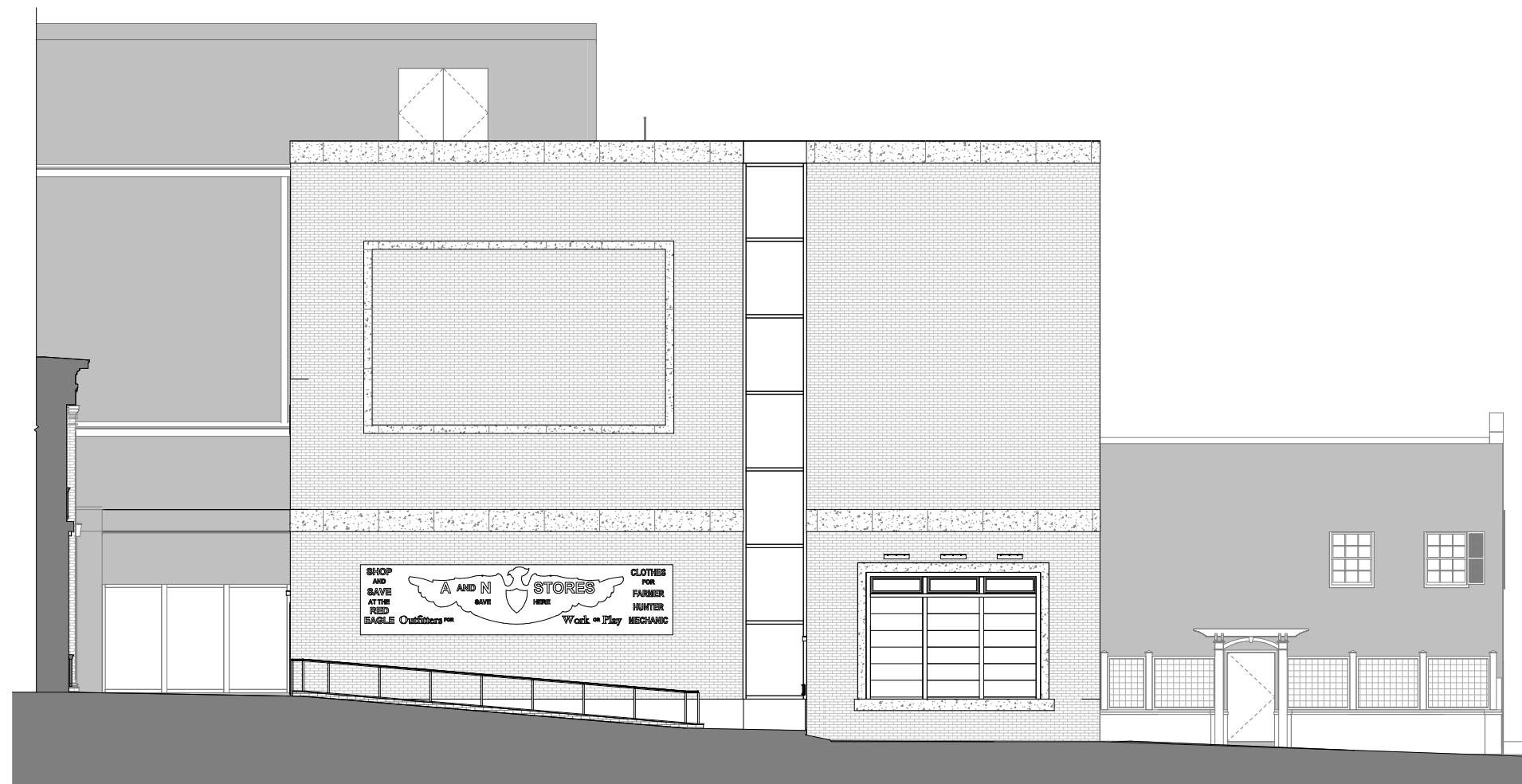
NORTH ELEVATION - A - LOADING DOCK



WEST ELEVATION - A - LOADING DOCK

SOUTH ELEVATION - A - LOADING DOCK





PROPOSED WEST ELEVATION - ENLARGED



PROPOSED WEST ELEVATION - ENLARGED  
 JANUARY 28, 2022

VALENTINE COLLECTIONS REHABILITATION

*THE VALENTINE*

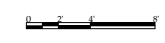




SOUTH ELEVATION - C - BRANSFORD CECIL HOUSE (OPTION A)



SOUTH ELEVATION - C - BRANSFORD CECIL HOUSE (OPTION B)



PROPOSED SOUTH ELEVATION - FENESTRATION  
JANUARY 28, 2022

VALENTINE COLLECTIONS REHABILITATION  
*THE VALENTINE*



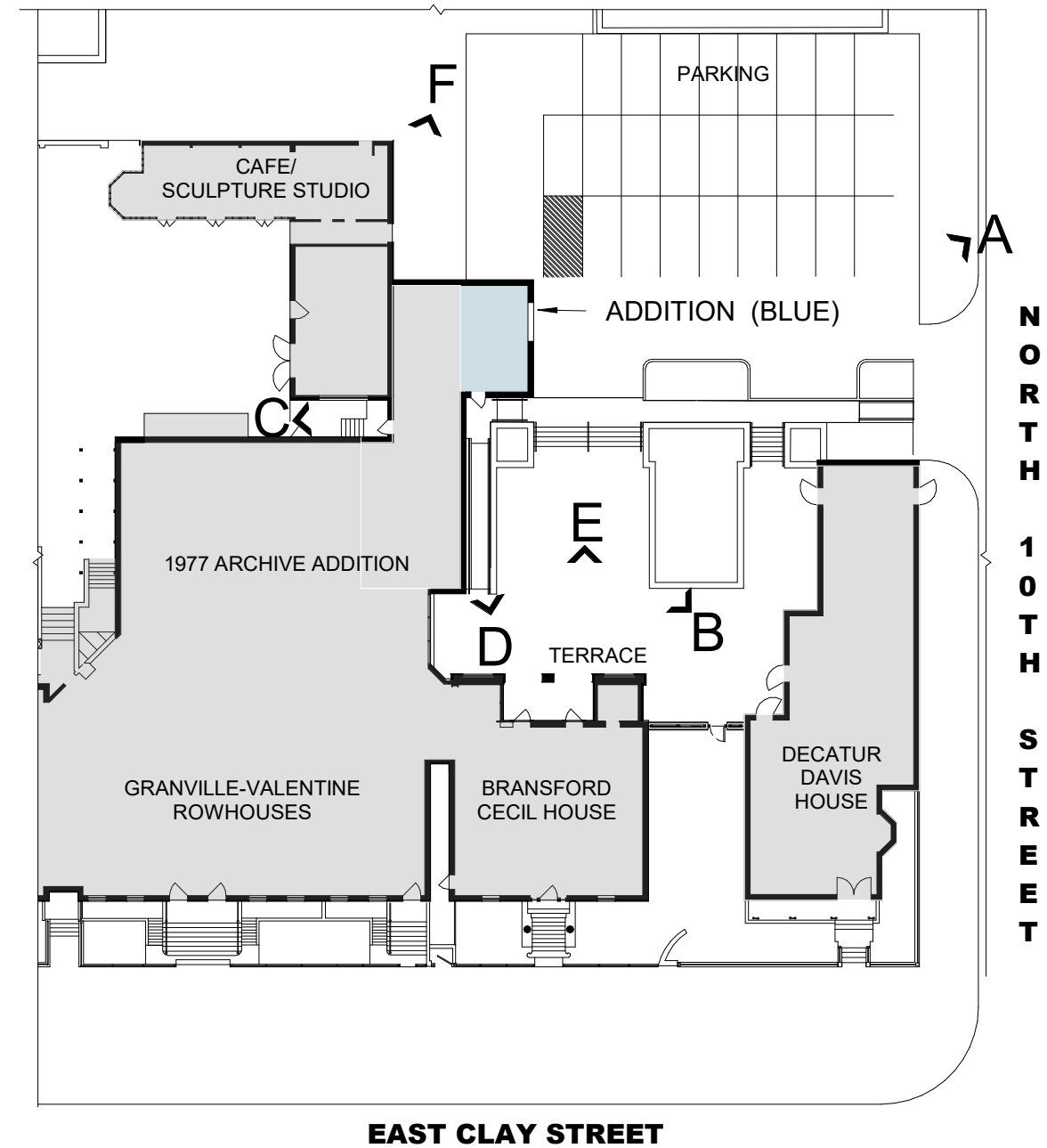




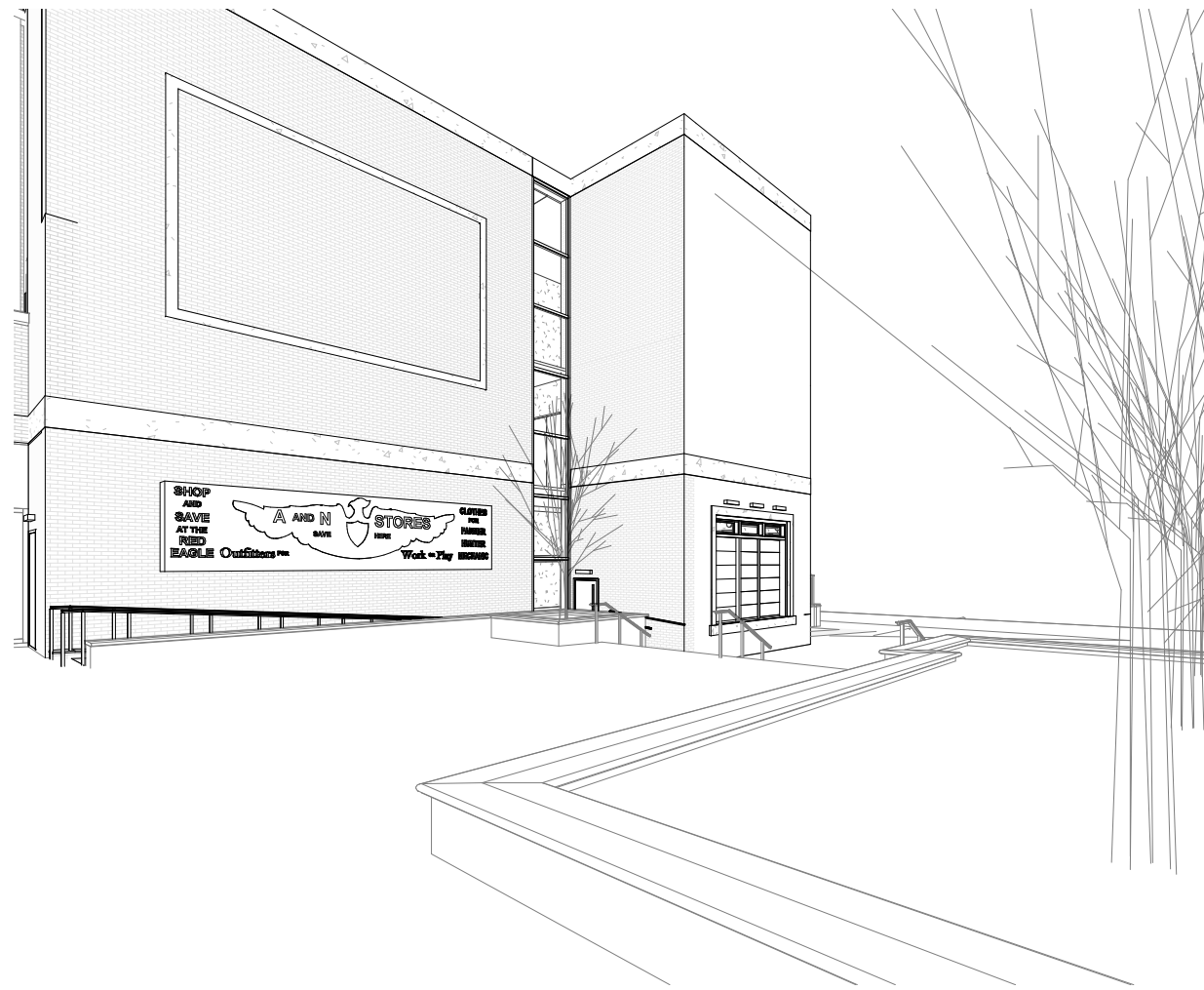
**A - EXISTING - VIEW TO NORTHEAST**



**A- PROPOSED - VIEW TO NORTHEAST**



**PHOTO KEY PLAN**



**B PROPOSED - VIEW TO SOUTHEAST**



**B EXISTING - VIEW SOUTHEAST**

PHOTOGRAPH AND 3D VIEW  
JANUARY 28, 2022

## VALENTINE COLLECTIONS REHABILITATION

*THE VALENTINE*





C-EXISTING



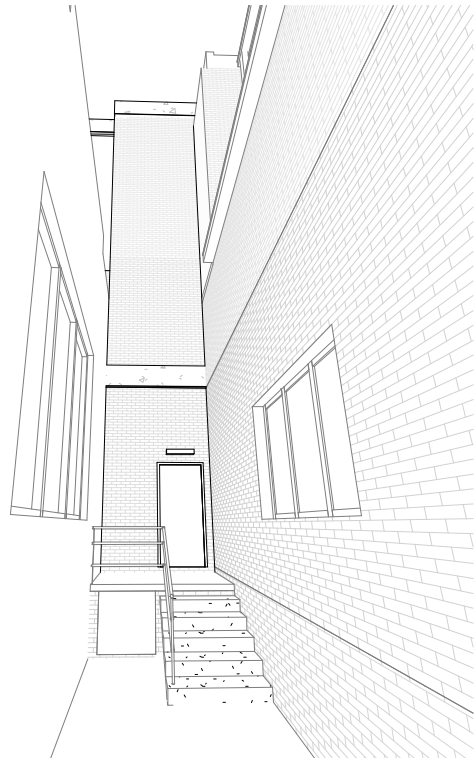
D-EXISTING



E-EXISTING



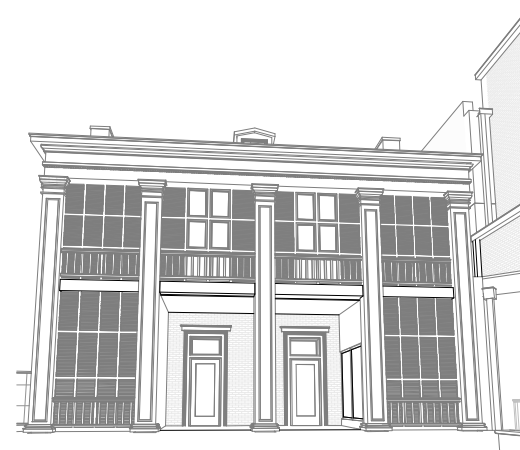
F-EXISTING



C-PROPOSED



D-PROPOSED



E - PROPOSED



F - PROPOSED

PHOTOGRAPH AND 3D VIEW  
JANUARY 28, 2022

# VALENTINE COLLECTIONS REHABILITATION

*THE VALENTINE*

