

CITY OF BEAUFORT
STATE OF SOUTH CAROLINA
REQUEST FOR PROPOSAL



RFP NO. 2021-116

Carnegie Library Window Restoration

DUE: July 20, 2021

CITY OF BEAUFORT, SC REQUEST FOR PROPOSAL RFP NO. 2021-116

SEALED PROPOSALS will be received in the Finance Department, 2nd Floor, City Hall, 1911 Boundary Street, Beaufort, South Carolina until **2:00 P.M. ET Tuesday July 20, 2021**. All qualified contractors are invited to submit proposals to the City of Beaufort for the following:

CITY OF BEAUFORT Carnegie Library Window Restoration

SUBMIT: One (1) unbound original and three (3) bound copies of all requested documentation must be received on or **2:00 P.M. ET Tuesday July 20, 2021**.

OR

One (1) portable document format (pdf) format file as an email attachment on or **before 2:00 P.M. ET Tuesday July 20, 2021**. File size limitations may require use of a file sharing platform (i.e., Dropbox). Electronically submitted proposals must be followed will an additional email, without an attachment to advise of the submission and verify receipt by the Procurement Administrator. Procurement administrator will verify receipt with a return e-mail. Unverified receipt of electronic submissions may be excluded. The Procurement Administrator will follow up and advise accordingly if a Dropbox submission is necessary. RFPs submitted in PDF format should be complete documents for presentation or printing. Incomplete or unorganized electronic submissions will not be accepted.

ADDRESS TO: City of Beaufort, City Hall, 2nd Floor Finance Department, Attention: John Robinson

MAILING ADDRESS: 1911 Boundary St., Beaufort, South Carolina 29902

OFFICE ADDRESS: 1911 Boundary St., Beaufort, South Carolina 29902

EMAIL ADDRESS: jrobinson@cityofbeaufort.org

PHONE NUMBER: 843-525-7035

FAX NUMBER: 843-986-5606

MARK OUTSIDE ENVELOPE: "RFP 2021- 116" Carnegie Library Window Restoration

A NON-MANDATORY PRE-PROPOSAL MEETING WILL BE HELD AT 2:00 PM, TUESDAY, JUNE 15, 2021 ALL POTENTIAL OFFERORS ARE ENCOURAGED TO ATTEND.

The pre-bid meeting will be held in the City of Beaufort, City Hall at 1911 Boundary Street, 2nd Floor, Room # 230, referred to as Executive Conference Room #2.

A SITE VISIT WITH THE PRESERVATION ARCHITECT WILL TAKE PLACE ON TUESDAY, JUNE 15, 2021 IMMEDIATELY FOLLOWING THE PRE-BID MEETING. THIS WILL BE THE ONLY HOSTED SITE VISIT.

Pre-Bid attendees will drive to the location for the site visit.

A PUBLIC BID OPENING MEETING WILL BE HELD AT 2:01 PM ET ON TUESDAY, JULY 20, 2021. ALL POTENTIAL OFFERORS ARE ENCOURAGED TO ATTEND.

ZOOM link: <https://us02web.zoom.us/j/84560997874?pwd=dIFrYURmQUhPVWZ0N1haRHVZZmF5UT09>

DUE TO THE IMPACT OF THE COVID-19 VIRUS AND THE STATE OF SOUTH CAROLINA EXECUTIVE ORDER 2020-12 DATED MARCH 21, 2020 REGARDING "SOCIAL DISTANCING" PRACTICES, THE BID OPENING MEETING WILL BE CONDUCTED VIA ZOOM VIDEO CONFERENCING.

DEADLINE ENFORCED

PROPOSALS DELIVERED AFTER THE TIME AND DATE SET FOR RECEIPT OF PROPOSALS SHALL NOT BE ACCEPTED AND WILL BE RETURNED UNOPENED TO THE OFFEROR. IT IS THE OFFEROR'S RESPONSIBILITY TO ENSURE TIMELY DELIVERY OF THEIR PROPOSALS. WEATHER, FLIGHT DELAYS, CARRIER ERRORS AND OTHER ACTS OF OTHERWISE EXCUSABLE NEGLIGENCE ARE RISKS ALLOCATED TO OFFERORS AND WILL NOT BE EXEMPTED FROM DEADLINE REQUIREMENTS. TELEPHONE, OR FACSIMILE PROPOSALS WILL NOT BE ACCEPTED.

Any offer submitted as a result of this RFP shall be binding on the offeror for **NINETY (90)** calendar days following the specified opening date. Any proposal for which the offeror specifies a shorter acceptance period may be rejected.

Proprietary and/or Confidential Information

Your proposal package is a public document under the South Carolina Freedom of Information Act (FOIA), except as to information that may be treated as confidential as an exception to disclosure under the FOIA. If you cannot agree to this standard, please do not submit your qualification.

All information that is to be treated as confidential and/or proprietary must be **CLEARLY** identified, and each page containing confidential and/or proprietary information, in whole or in part, must be stamped and/or denoted as **CONFIDENTIAL**, in bold, in a font of at least 12-point type, in the upper right-hand corner of the page.

All information

not so denoted and identified shall be subject to disclosure by the City.

This Request for Proposal is being issued by the City of Beaufort. Direct all questions or request for clarification of this RFP by email, mail, or fax to contact information listed above.

Offerors are specifically directed not to contact any other City personnel for meetings, conferences, or technical discussions related to this request unless otherwise stated in this RFP. Failure to adhere to this policy may be grounds for rejection of your proposal.

Offerors ARE CAUTIONED that any statement made by City staff persons that materially changes any portion of this RFP shall not be relied upon unless they are subsequently ratified by a formal written amendment to this RFP. Any revisions to this RFP will be issued and distributed as an addendum. All addenda, additional communications, responses to questions, etc. pertaining to the Request for PROPOSAL may be accessed on the City of Beaufort website under Quick Links – “Bid Opportunities” at www.cityofbeaufort.org.

All Offerors should consult this website for updates before submitting bids.

THE DEADLINE FOR QUESTIONS IS: 5:00 PM, JUNE 24, 2021. ANSWERS TO SUBMITTED QUESTIONS WILL BE POSTED ON THE CITY WEBSITE BY 5:00 PM ON JULY 1, 2021

If the Offeror discovers any ambiguity, conflict, discrepancy, omission or other error in the RFP, Offeror shall immediately notify the City of such error in writing and request modification or clarification of the document. The Offeror is responsible for clarifying any ambiguity, conflict, discrepancy; omission or other error in the RFP or it shall be deemed waived.

The City of Beaufort reserves the right to reject any or all proposals, or any parts thereof, waive informalities, negotiate terms and conditions, and to select an Offeror that best meets the needs of the City of Beaufort and its employees.

Compliance with the South Carolina Illegal Immigration Reform Act

Any Contractor entering into a service contract with the City of Beaufort must certify to the City of Beaufort that the Contractor intends to verify any new employees' status, and require any sub-consultants performing services under the service contract to verify their new employees' status, per the terms of the South Carolina Illegal Immigration Reform Act, and as set out in Title 41, Chapter 8 of the Code of Laws of South Carolina, 1976.

POLICY CONCERNING MINORITY AND WOMAN OWNED BUSINESS ENTERPRISES

Intent

Businesses owned and operated by women and minority persons, in general, have been historically restricted from full participation in the nation's free enterprise system to a degree disproportionate to other businesses.

The City believes it is in the community's best interest to assist minority and woman owned businesses to develop fully, in furtherance of City's policies and programs which are designed to promote balanced economic and community growth.

The City, therefore, wishes to ensure that minority and woman owned businesses (M/WBEs) are afforded the opportunity to fully participate in the City's overall procurement process and will not be discriminated against on the grounds of race, color, sex, or national origin in consideration for an award.

Title VI of the Civil Rights Act of 1964

Title VI of the Civil Rights Act of 1964 Section 504 of the Rehabilitation Act of 1973, and the Age Discrimination Act of 1975, as amended, prohibiting discrimination on the basis of race, color, national origin, disability or age in programs assisted by the U.S. Department of the Interior.

Debarment Certification

Debarment Certification, 43 CFR, Part 12, Section 12.510 and state that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

Copeland "Anti-Kickback" Act

Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). This act provides that each contractor or subgrantee shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he is otherwise entitled.

Goal for Participation

The City adopts the State of South Carolina's goal for participation of M/WBEs: ten percent (10%) of annual controllable procurement expenditures which are defined as agreements between the City and a Vendor to provide or procure labor, materials, equipment, supplies and services to, for or on behalf of the City. However, a specific expectation has not been set for this RFP.

Required Forms

Contractors submitting proposals are required to include completed forms that are found at the end of the General Terms & Conditions. The City's General Terms & Conditions, a required component of all competitive procurement proposals, may be accessed on the City's website under Quick Links – Bid Opportunities – www.cityofbeaufort.org. All proposers are to certify that they have read the General Terms & Conditions and will adhere to them as a component of the contract documents.

Contractors should also be aware that, should a contract be awarded, the City will require reports of the utilization of any minority business enterprises to be filed along with requests for payment. The City reserves the right to audit accuracy of the utilization reports that are filed.

The City of Beaufort reserves the right to reject any or all bids; to waive any informality or irregularity not affected by law; to evaluate, in its absolute discretion, the bids submitted; to award the contract according to the bid which best serves the interests of the City; or to not award the contract if the City determines that it is not in its best interest to do so.

Proposals that are not signed will not be accepted as complete and shall not be considered. Proposals must be signed in ink (not typed) in the appropriate space(s) by an authorized officer or employee of the offeror.

The words "Bidder", "Offeror", "Proposer", "Vendor", "Operator", "Contractor", and "Company" are used interchangeably throughout this RFP, and are used in place of the person, vendor, or corporation submitting a bid.

**CITY OF BEAUFORT
REQUEST FOR PROPOSAL
Carnegie Library Window Restoration
RFP 2021-116**

INTRODUCTION

The Carnegie Library is a local historic site and a contributing structure in the City of Beaufort's National Historic Landmark District. The Beaufort Historic District is designated a National Historic Landmark for its architectural and historic significance. It is considered to have irreplaceable cultural, material, and aesthetic value.

The scope of work for this project includes window restoration and an alternate for restoration of select exterior doors.

The work is funded in part by the Emergency Supplemental Historic Preservation Fund, administered by the National Park Service, Department of the Interior; the funding of which is subject to having all work items meet The Secretary of the Interior's Standards for the Treatment of Historic Properties.

SCOPE OF WORK OVERVIEW OF PROJECT

1. The general contractor shall provide all labor, materials, and services required to comply with all descriptions of work, notes, specifications, design and other as noted in Attachment A- Carnegie Library Project Manual dated May 15, 2021 and in Attachment B - Carnegie Library Construction Drawings project 20-0128 dated 5/14/2021.
2. The intent of the project is to restore all wood windows on the first and second floor of the Carnegie Library Building, excluding dormer windows 34-38 and storefront windows 39-42.
3. The Carnegie Library Building currently houses the Greater Beaufort-Port Royal Convention and Visitor Bureau offices. This building is to remain open during construction. At all times, the building envelope it to remain watertight. Special care should be taken to protect the interior contents.
4. All work is to be executed in accordance with the attached plans, specifications and applicable construction standards and codes. It shall be the responsibility of the contractor to ensure that all work is in compliance with all current adopted building codes, ordinances, and regulations of all public authorities having jurisdiction.
5. It shall be the responsibility of the contractor to obtain all permits and approvals from all public authorities having jurisdiction.
6. The general contractor shall verify and assume responsibility for all dimensions and site conditions, as well as inspect the premises and take note of existing conditions prior to submitting prices. No claim shall be allowed for problems which could have been reasonably prevented by a thorough examination.

CURRENT CONDITIONS

The City of Beaufort Carnegie Library building is located at 701 Craven Street Beaufort, SC 29902. The structure is built slab on grade. The exterior walls are brick with wood windows and doors. Asbestos/Lead-Based Paint Survey are included in the attachments.

SCHEDULE

All work should be completed, inspected, and satisfactory to the owner within six (6) months of the date of the signed contract.

I. ADDITIONAL DOCUMENTS

Additional documents may be available online. Proposers are required to review and be familiar with any documents as they are a part of the RFP and will become part of the awarded contract. These additional documents may be accessed on the City of Beaufort website under How Do I – Bid Proposals – Current Bid Opportunities at www.cityofbeaufort.org.

II. SUBMISSION REQUIREMENTS

- I. **Required content of proposal:** The detailed requirements set forth in the Proposal Format are recommended. Failure by any Proposer to respond to a specific requirement may result in disqualification. Proposers are reminded that proposals will be considered exactly as submitted. Points of clarification will be solicited from proposers at the discretion of the City. Those proposals determined not to be in compliance with provisions of this RFP and the applicable law and/or regulations will not be processed. In addition to the information required as described below, a Respondent may submit supplemental information that it feels may be useful in evaluating its proposal. This information may include documents such as a firm profile or brochure.

All costs incurred by the Proposer associated with RFP preparations and subsequent interviews and/or negotiations, which may or may not lead to execution of a contract, shall be the responsibility entirely and exclusively by the proposer.

- II. **Proposal format:** The proposal format requirements were developed to aid Proposers in their proposal development. They also provide a structured format so reviewers can systematically evaluate several proposals. These directions apply to all proposals submitted.

The purpose of the Proposal is to demonstrate the technical capabilities, professional qualifications, past project experiences, and knowledge within this industry. Proposer's proposal must address all the points outlined herein as required, in the following order:

- a. **Transmittal Letter:** A transmittal letter must be submitted with a Proposer's proposal which shall include:
 - i. Name of the firm responding, including mailing address, e-mail address, telephone number, and names of contact person.

- ii. The name of the person or persons authorized to make representations on behalf of the Proposer, binding the firm to a contract.
- iii. Prepare an executive summary stating the respondent's understanding of the project and opinion why the respondent's firm should be chosen. Include any general information the proposer wishes the City to consider about the proposal.
- iv. An affirmative statement that the proposer has read and agrees to the General Terms and Conditions and will adhere to them as a component of the contract documents.

b. Proposer's Work History and References:

- i. Contractor should have at least (5) years of demonstrated construction and historic preservation experience.
- ii. Provide client references (name, address, e-mail, and phone number) for a minimum of two (2) historic preservation projects completed in the last five (5) years and similar in size and nature. References from South Carolina and the southeast United States are preferred.
- iii. Identify any additional or unique resources, options, capabilities, or assets which the Proposer would bring to this project.

c. Required Forms:

- i. Proposals must include the required forms.
 - 1. Certificates of Insurance showing present coverage as described in the "Insurance" section of the General Terms and Conditions.
 - 2. Ethics in Public Contracting Certification
 - 3. Non-Collusion Affidavit
 - 4. Small / Woman-Owned / Minority Business Enterprise Form
 - 5. Non-Resident Taxpayer Affidavit (S.S. Department of Revenue I-312)
 - 6. RFP Signature page (must be signed in ink)
 - 7. Price Summary Form

d. Other Information to Provide:

- i. List any lawsuits or arbitration proceedings that have been initiated by or against your company in the past five years. Briefly describe the nature of the action and the outcome.
- ii. Proposer shall be responsible for providing a letter from the surety company that would issue Performance and Payment bonds for the Contractor included on your team, providing information on the Contractor's bonding capacity. Performance and Payment bonds are required.

III. PROPOSAL EVALUATION and SELECTION PROCESS

The City will evaluate proposals based on the factors outlined within this RFP, which shall be applied to all eligible, responsive proposals in selecting the successful firm. The City reserves the right to disqualify any proposal for, but not limited to; person or persons it deems as non-responsive and/or non-responsible. The City reserves the right to make such investigations of the qualifications of the Proposer as it deems appropriate.

Lowest responsible bidder. Contracts shall be awarded to the lowest responsible bidder. In determining “lowest responsible bidder”, in addition to price, the City shall consider:

- (a) The ability, capacity, and skill of the bidder to perform the contract or provide the service required;
- (b) Whether the bidder can perform the contract or provide the service promptly, or within the time specified, without delay or interference;
- (c) The character, integrity, reputation, judgment, experience, and efficiency of the bidder;
- (d) The quality of performance of previous contracts or services;
- (e) The previous and existing compliance by the bidder with laws and ordinances relating to the contract or services;
- (f) The sufficiency of the financial resources and ability of the bidder to perform the contract or provide the service;
- (g) The quality, availability and adaptability of the supplies or contractual services to the particular use required;
- (h) The ability of the bidder to provide future maintenance and service for the use of the subject: of the contract;
- (i) The number and scope of conditions attached to the bid.

It is the City’s intent to contract with one proposer to provide the services as detailed herein. Award of any proposal may be made without discussion with Proposers after responses are received. The Proposers submitting sealed proposals will be evaluated by an evaluation committee. The committee will evaluate each component separately. After careful evaluation, the committee will rank the Proposers and make a recommendation to the City Manager of the lowest responsible bidder. The City reserves the right to accept or reject any and all bids that is in the best interest of the City.

The City may choose to interview one or more contractor(s) responding to this RFP. The City reserves the right to request and obtain, from one or more contractor(s), supplementary information as may be necessary for the City to analyze the proposal pursuant to the evaluation criteria. The City reserves the right to accept or reject any and all proposals that is in the best interest of the City.

Evaluation Criteria and Selection Process Scoring Points

Adherence to requirements listed in the "Scope of Work." and Specifications of the Materials and Installation	0-25
Quality of similar historic preservation projects submitted	0-20
Schedule of work completed within 6 months of contract	0-20
Experience of Proposer and References	0-20
Cost of Project	0-15

**CITY OF BEAUFORT
SOUTH CAROLINA
RFP SIGNATURE PAGE
RFP 2021-116**

PROPOSER'S NAME: _____

The undersigned, having become familiar with the existing conditions and the Proposal Scope of Services hereby proposed, agrees to complete the work as described in accordance with the Request for Proposal and Contract Documents.

Proposer warrants that no gratuities, in the form of gifts, entertainment, or otherwise, were offered or given by the **Proposer**, to any officer or employee of the City with a view toward securing the contract or securing favorable treatment with respect to any determination concerning the performance of the contract.

This offer is genuine and not made in interest of or on behalf of any undisclosed person, vendor or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; **Proposer** has not directly induced or solicited any other **Proposer** to submit false or sham bid; **Proposer** has not solicited or sought by collusion to obtain for itself any advantage over any other **Proposer** or other **Owner**.

The words "Bidder", "Offeror", "Proposer", "Vendor", and "Company" are used interchangeably throughout this solicitation, and are used in place of the person, vendor, or corporation submitting a solicitation.

Proposer has examined copies of all documents and of the following addenda (if applicable):

Addendum No.	Date
_____	_____
_____	_____
_____	_____

Address: Post Office Box: _____ Zip: _____
Street: _____ Zip: _____
City: _____ State: _____
Telephone: _____ Fax: _____
Email: _____

*Signature: _____ Title: _____

Proposal will not be accepted unless signed in ink (not typed) in the appropriate space by an authorized officer or employee of the bidder.

Printed Name: _____ Date: _____

ATTACHMENT A

Carnegie Library Project Manual

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PROJECT MANUAL

**CITY OF BEAFORT –
CARNEGIE LIBRARY WINDOW RESTORATION**
PROJECT NO. 2021-102

MEADORS, Inc.

2811 Azalea Drive, Charleston SC, 29405

PHONE: 843-723-8585 | FAX: 843-577-3107 | WEBSITE: meadorsinc.com

Bid Set
May 15, 2021

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PROJECT NUMBER: 2021-102

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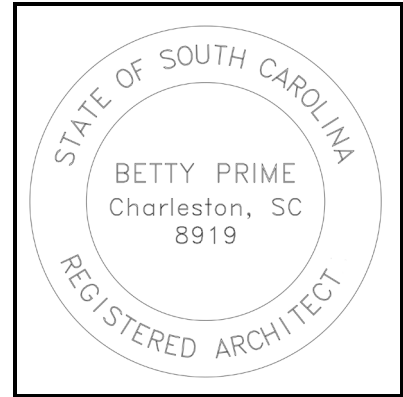
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1.1 DESIGN PROFESSIONALS OF RECORD

BUILDING
ARCHITECT

Betty Prime
SC #8919
Architectural Sections in
Divisions 01 – 14;
Section 313116



SECTION 003126 – EXISTING HAZARDOUS MATERIAL INFORMATION

PART 1 - GENERAL

1.1 HAZARDOUS MATERIALS REPORTS

A. The following reports are attached for Contractor's information:

1. "Limited Asbestos/Lead-Based Paint Survey" performed by Trident Environmental Services, Inc., Survey Date: February 23, 2021.

END OF SECTION 003126

LIMITED ASBESTOS/LEAD-BASED PAINT SURVEY

COMMERCIAL BUILDING
WINDOW REPLACEMENT
701 CRAVEN STREET
BEAUFORT, SC 29902



Prepared For:

CITY OF BEAUFORT
Attn: Mrs. Linda Roper
500 Carteret Street, Suite B2
Beaufort, SC 29902
(843) 525-7084

Performed By:

TES

Trident Environmental Services, Inc.

Consultants in Industrial Hygiene and Safety
500 Oakbrook Lane, Suite E
Summerville, SC 29485
(843) 873-3648

LIMITED ASBESTOS LEAD-BASED PAINT SURVEY

Window Replacement
701 Craven Street
Beaufort, SC 29902

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EXECUTIVE SUMMARY

The limited asbestos survey performed by Trident Environmental Services, Inc. on February 23, 2021 of the interior/exterior windows located 701 Craven Street in Beaufort, South Carolina **did not** reveal the presence of asbestos containing building materials. The following table lists the asbestos identified at the referenced site.

Asbestos

Description	Type
NO ASBESTOS DETECTED	

RACM – Regulated Asbestos Containing Material

PACM – Presumed Asbestos Containing Material

Abatement of the identified ACM should be performed by a properly trained and licensed abatement contractor prior to the planned renovation/demolition activities.

BACKGROUND

Trident Environmental Services, Inc. was contracted by *City of Beaufort* to perform a limited asbestos survey of the interior/exterior windows located at 701 Craven Street in Beaufort, South Carolina. This survey was performed in order to satisfy the NESHAP requirements for future renovation/replacement of windows. The structure is built slab on grade and the area inspected consists of approximately 3,300 square feet. Interior walls are concrete. Exterior walls are brick with wood windows and doors wood. **Note: The inspection was limited to the materials associated with the future window replacement and should not be used or considered as an all-inclusive asbestos survey for the building.**

Non-suspect material includes wood, glass, concrete or concrete block, brick, masonry or grout, natural stone or ceramic, metal components, ductwork or piping, PVC pipes, silicone caulk, fiberglass, foam or rubber insulation.

Asbestos

The inspection was conducted to identify ACM which may be disturbed during the renovation/demolition activities. The identification of asbestos will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos fibers. Identification of ACM complies with Title 40 Code of the Federal Regulations, Part 61, South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, and Title 29 Code of Federal Regulations, Part 1926 enforced by the Occupational Safety and Hazard Administration (OSHA). The Asbestos Survey describes the investigative procedures utilized, results of the suspect ACM sampled/analyzed, and recommendations regarding the structures as related to asbestos.

Visual Inspection

The survey began with a visual observation of building and/or structure components to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials, which appear similar throughout in terms of color, texture and date of application. Building materials not identified as concrete, glass, wood, masonry, metal, rubber, foam or plastic were not considered a suspect material.

Limitations

There is a possibility that suspect materials may be located in areas that are inaccessible. In the event that suspect ACM is discovered during renovation or demolition activities, work should stop until receipt of laboratory results confirming the material is non asbestos.

ASBESTOS SURVEY

Asbestos Investigative Procedures

The Asbestos Survey describes the investigative procedures utilized, laboratory results of sampled/analyzed, and recommendations regarding the structure(s) as related to asbestos. The survey began with a visual observation of interior and exterior building and/or structure components to identify homogeneous areas of suspect ACM. A homogeneous area consists of building materials, which appear similar throughout in terms of color, texture and date of application. Building materials not identified as concrete, glass, wood, masonry, metal, rubber, foam or plastic were not considered to be a suspect material.

Laboratory

A sampling strategy was developed to provide representative samples for analysis. Samples were then extracted from a variety of suspect ACM. Bulk samples collected were recorded on a Chain-of-Custody record and submitted to Electron Microscopy Services Laboratory Analytical, Inc. (EMSL) a Polarized Light Microscopy (PLM) laboratory. The laboratory is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), administered by the National Institute of Standards and Technology (NIST). EMSL is accredited by NVLAP for the analysis of bulk asbestos by PLM and Transmission Electron Microscopy (TEM) ([NVLAP Lab Code: 200841-0](#)). Non-Friable Organically Bound (NOB) samples were analyzed by TEM.

The suspect materials were analyzed by trained microscopists utilizing PLM techniques coupled with dispersion staining in accordance with EPA Test Method Title 40 CFR Regulations, Chapter I (1-1-87 edition), Part 763, Subpart F- Appendix A. This method identifies asbestos mineral fibers based on six optical characteristics: morphology, birefringence, refractive index, extinction angle, sign of elongation and dispersion staining colors. The laboratory analysis reports the specific type of asbestos identified (there are six asbestos minerals) and the percentage of asbestos present. The EPA and SCDHEC defines materials as asbestos containing if an asbestos content of greater than one percent (>1%) is detected in a representative sample. OSHA considered a material with any content of asbestos as an ACM.

SCDHEC requires NOB materials with negative or trace results by PLM to be analyzed by at least one TEM. SCDHEC in accordance with ASTM E 2356-04 defines NOB materials as “materials that are not friable and that consist of fibers and other particulate matter embedded in a solid matrix of asphalt, vinyl or other organic substances.” Examples of NOB materials include but are not limited to flooring materials such as vinyl floor tiles, vinyl sheet flooring, adhesives, mastics, asphalt shingles, roofing materials, glazing, caulks, and cove base.

Asbestos Classifications & Categories

The EPA classifies ACM into two categories, friable and non-friable. A friable material creates a greater health hazard due to the fact that it may be “crumbled, pulverized or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations.”

Friable Asbestos material means any material containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763 section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. If the asbestos content is less than 10 percent as determined by a method other than point counting by polarized light microscopy (PLM), verify the asbestos content by point counting using PLM.

Category I Non Friable Asbestos-Containing Material (ACM) means asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than one percent asbestos as determined using the method specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy.

Category II Non Friable ACM means any material, excluding Category I non friable ACM, containing more than one percent asbestos as determined using the methods specified in appendix A, subpart F, 40 CFR part 763, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. (cement siding, transite board shingles, etc.)

Regulated Asbestos-Containing Material (RACM) means (a) Friable asbestos material, (b) Category I non friable ACM that has become friable, (c) Category I non friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

The following section summarizes the sample numbers, locations, type material, asbestos type, percent of asbestos detected, present condition of the asbestos containing material, potential for disturbance, and hazard assessment ratings. The asbestos sample laboratory analyses and chain of custody records are included at the end of this report.

Asbestos Abbreviations and Hazard Assessment Key

The EPA and SCDHEC require that confirmed ACM is given a hazard assessment based on its present condition and potential for future disturbance. This hazard assessment is used as a tool for prioritization in future remedial actions regarding the ACM. The following key demonstrates the criteria that make up the hazard assessment.

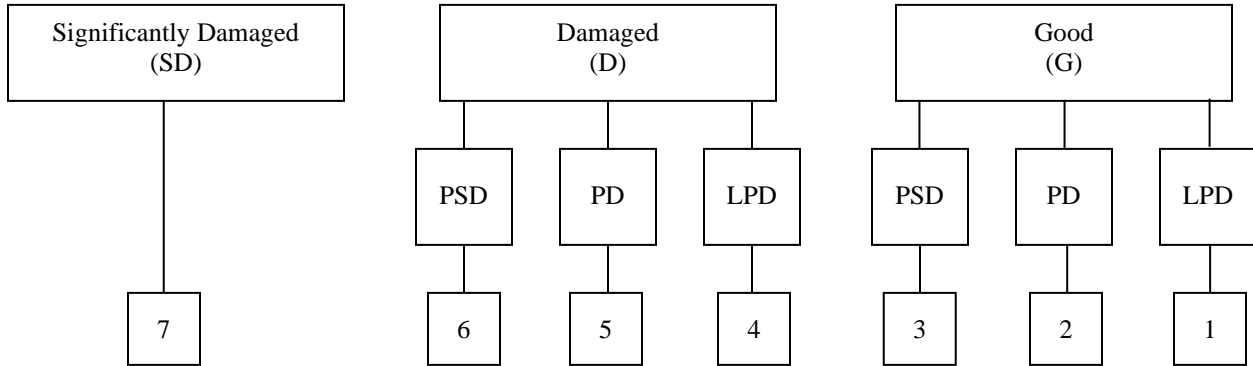
Present Condition

- F = Friable
- NF = Non-friable
- G = Good (very localized limited damage)
- D = Damaged (<10% distributed and/or <25% localized)
- S = Significantly Damaged (\geq 10% distributed and/or 25% localized)

Potential for Future Disturbance

- LPD = Low Potential for Disturbance (Contact, Vibration, and/or Air Erosion – low concern)
- PD = Potential for Damage (Contact, Vibration, and/or Air Erosion – moderate concern)
- PSD = Potential for Significant Damage (Contact, Vibration and/or Air Erosion – high concern)

Hazard Assessment



ASBESTOS SUMMARY

DESCRIPTION	TYPE	LOCATION	ESTIMATED QUANTITY
NO ASBESTOS DETECTED			

RACM – Regulated Asbestos Containing Material

PACM – Presumed Asbestos Containing Material

HOMOGENOUS AREA ESTIMATED QUANTITY TABLE

HOMOGENOUS AREA ID #	DESCRIPTION	ESTIMATED QUANTITY
01	Window Glaze	150 SF
02	Exterior Window Caulk	120 SF

ASBESTOS SAMPLE DATA TABLE

DESCRIPTION OF EACH SAMPLE AREA				LABORATORY		ASSESSMENT OF MATERIALS	
Homogeneous Area & Sample ID	Description	Unit # / Room	Friable (Y/N)	Asbestos Present		Condition Assessment Category	Hazard Assessment Category
				Percent	Asbestos		
01-01	Window Glaze	Window A	Y	0.0%	ND	7	N/A
01-02	Window Glaze	Window B	Y	0.0%	ND	7	N/A
01-03 T	Window Glaze	Window C	Y	0.0%	ND	7	N/A
02-04	Exterior Window Caulk	Window A	N	0.0%	ND	7	N/A
02-05	Exterior Window Caulk	Window D	N	0.0%	ND	7	N/A
02-06 T	Exterior Window Caulk	Window F	N	0.0%	ND	7	N/A

Assessment Categories

- | | |
|--|---|
| (1) Thermal Systems Insulation – Good Condition | (5) Surfacing – Damaged |
| (2) Thermal Systems Insulation – Damaged | (6) Surfacing – Significantly Damaged |
| (3) Thermal Systems Insulation – Significantly Damaged | (7) Miscellaneous – Good Condition |
| (4) Surfacing – Good Condition | (8) Miscellaneous – Damaged |
| | (9) Miscellaneous – Significantly Damaged |

Asbestos Present

- | | |
|----------------------|--------------------------|
| AMOS – Amosite | ACTI – Actinolite |
| CHRY – Chrysotile | ND – None Detected |
| CROC – Crocidolite | NT – Not Tested |
| ANTH – Anthophyllite | PACM – Presumed ACM |
| TREM – Tremolite | Asbestos Detected |

CONCLUSIONS/RECOMMENDATIONS

The limited asbestos survey performed by Trident Environmental Services, Inc. on February 23, 2021 of the interior/exterior windows located at 701 Craven Street in Beaufort, South Carolina **did not** identify the presence of asbestos in building materials associated with the window replacement. Renovation or demolition activities that will disturb the ACM will require removal per state and federal regulations. Asbestos materials can become hazardous when, due to damage, disturbance, or deterioration over time, they release asbestos fibers into the air of the building. All areas that contain asbestos should be utilized in a controlled manner to reduce the potential for disturbance. OSHA requires notification to all trades/contractors about the condition of the ACM to prevent possible occupational exposures.

Demolition activities in public and commercial buildings are regulated by OSHA, EPA, and SCDHEC. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, “National Emissions Standards for Hazardous Air Pollutants” (NESHAP), and SCDHEC Regulation 61-86.1 require the proper removal and disposal of asbestos that is affected by renovation or demolition. Demolition of the subject structures will require written notification, proper transportation, and disposal per state and federal regulations.

PHOTOGRAPHS



HOMOGENEOUS AREA 01
WINDOW GLAZE



HOMOGENEOUS AREA 02
EXTERIOR WINDOW CAULK

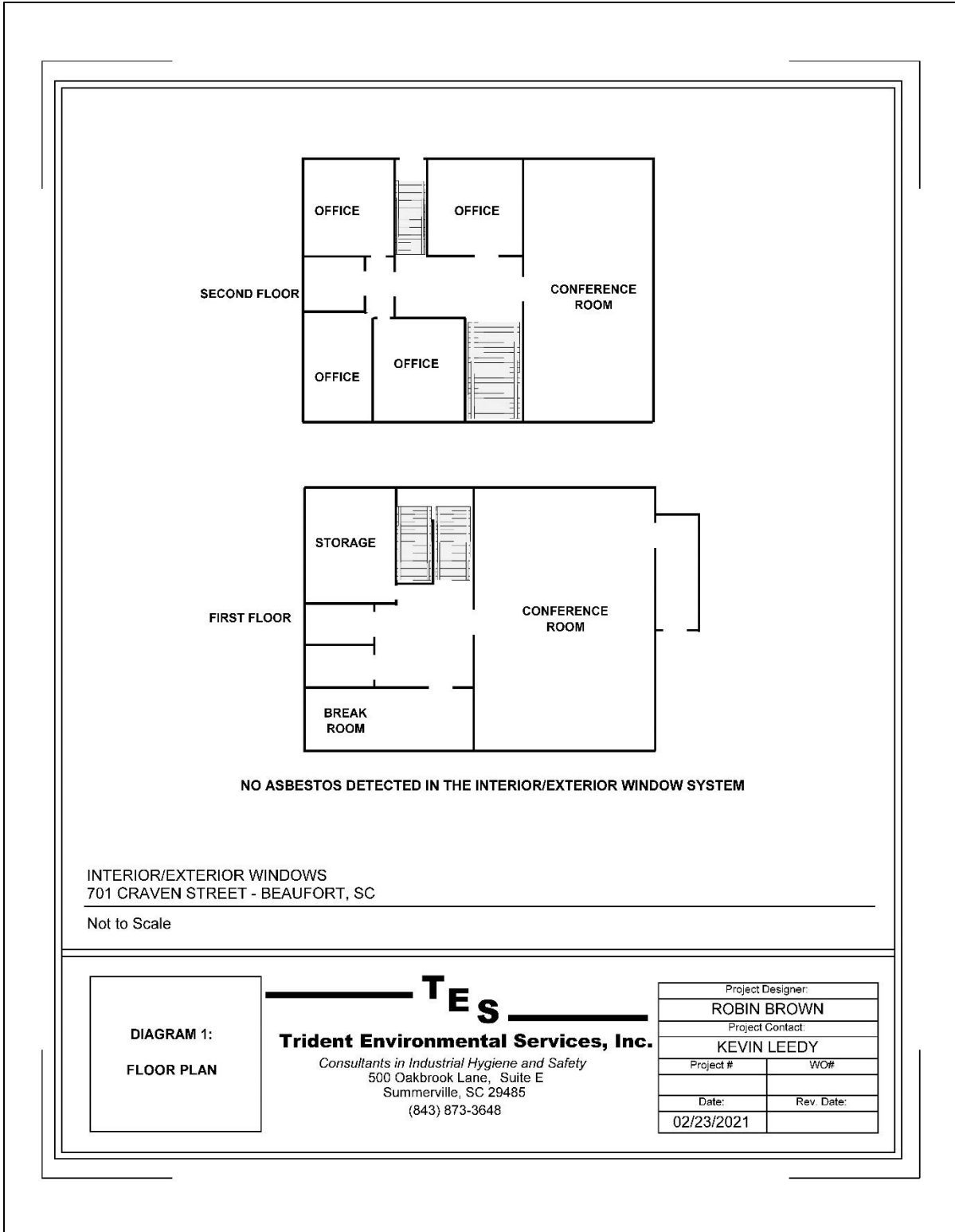


DIAGRAM 1:
 FLOOR PLAN

TES
Trident Environmental Services, Inc.
Consultants in Industrial Hygiene and Safety
 500 Oakbrook Lane, Suite E
 Summerville, SC 29485
 (843) 873-3648

Project Designer:	
ROBIN BROWN	
Project Contact:	
KEVIN LEEDY	
Project #	WO#
Date:	Rev. Date:
02/23/2021	

**LIMITED
ASBESTOS/LEAD-BASED PAINT SURVEY**

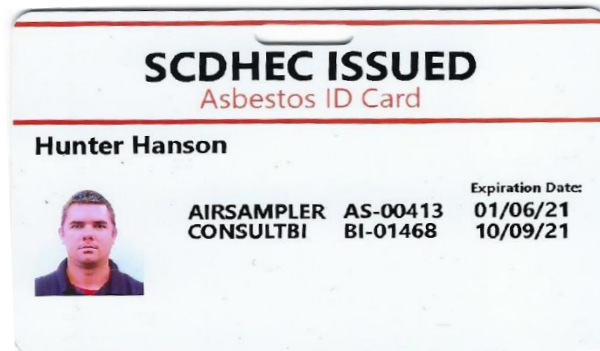
Inspection Date: 02/23/2021

Preparation Date: 03/01/2021

Inspected & Prepared By:



Hunter Hanson
S.C. Inspector License BI – 01468





January 8, 2021

To whom it may concern:

Due to an unforeseen printer outage the SC Department of Health and Environmental Control Asbestos Program cannot issue a Standard Asbestos License

BI - 01468 exp 10/9/2021
for license number: AS - 00413 exp 1/3/2022

Please accept this correspondence as a temporary acknowledgment

of Air Sampler & Building Inspector licensing status.

Hunter Hanson will be issued a standard license card once our systems are fully operational.

Keep this letter with you all the time during work at the job site.

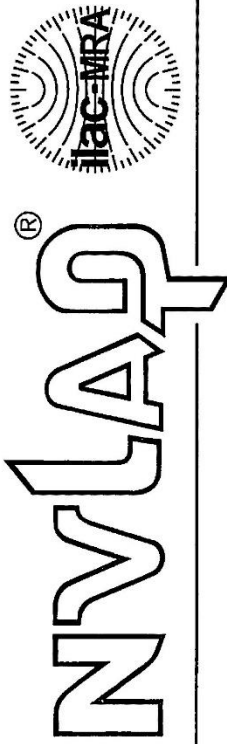
If you have any questions, please call the Asbestos Section at 803-898-4289.

Sincerely,



Jennifer Lynn Boryk
Manager, Asbestos Section
Bureau of Air Quality

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 200841-0

EMSL Analytical, Inc.
Pineville, NC

is accredited by the National Voluntary Laboratory Accreditation Program for specific services,
listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated January 2009).

2020-07-01 through 2021-06-30
Effective Dates



A handwritten signature in black ink, appearing to read 'John S. Lumb', is written over a horizontal line.

For the National Voluntary Laboratory Accreditation Program

**National Voluntary
Laboratory Accreditation Program**



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

EMSL Analytical, Inc.
10801 Southern Loop Blvd.
Pineville, NC 28134
Mr. Lee Plumley
Phone: 704-525-2205 Fax: 704-525-2382
Email: lplumley@emsl.com
<http://www.emsl.com>

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 200841-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.

A handwritten signature in black ink, appearing to read 'Lee Plumley', is written over a horizontal line.

For the National Voluntary Laboratory Accreditation Program

OrderID: 412101619



EMSL ANALYTICAL INC.
 REGULATORY - PROCESS - TRAINING

Asbestos Chain of Custody
EMSL Order Number (Lab Use Only):

412101619

PHONE:
 FAX:

Company Name : Trident Environmental Services, Inc.		EMSL Customer ID:	
Street: 500 Oakbrook Lane, Suite E		City: Summerville	State/Province: SC
Zip/Postal Code: 29485	Country: US	Telephone #: 843-873-3648	Fax #:
Report To (Name): Hunter Hanson		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: hunterhanson@tridentenvironmental.com		Purchase Order:	
Project Name/Number: Commercial Building Window Replacement		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken: Beaufort SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax <input type="checkbox"/> Other: _____	
EMSL Bill to: <input type="checkbox"/> Same <input type="checkbox"/> Different - If Bill to is Different note instructions in Comments* Third Party Billing requires written authorization from third party			
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Weeks *For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign a authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)	
PLM - Bulk (reporting limit) 72hr <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk 72hr <input checked="" type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	Soil/Rock/Vermiculite <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLI/ITE A (BC only) Other: _____	
<input checked="" type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input checked="" type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: Hunter Hanson		Samplers Signature: <i>Hunter Hanson</i>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Client Sample # (s):	-	Total # of Samples: 6	
Relinquished (Client): <i>Hunter Hanson</i>	Date: 2-23-21	Time:	
Received (Lab): <i>Ken Collier</i>	Date: 2/24/21	Time: 1135 Fx	
Comments/Special Instructions: Layer upon Request, Positive Stop, SCDHEC Rules for NOB1		8166 1233 4924	



EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134
 Tel/Fax: (704) 525-2205 / (704) 525-2382
<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 412101619
 Customer ID: TRID50
 Customer PO:
 Project ID:

<p>Attention: Hunter Hanson Trident Environmental Services, Inc. 500 Oakbrook Lane Suite E Summerville, SC 29485</p>	<p>Phone: (843) 873-3648 Fax: Received Date: 02/24/2021 11:35 AM Analysis Date: 02/24/2021 Collected Date: 02/23/2021</p>
<p>Project: Commercial Building - 701 Craven Street, Beaufort, SC</p>	

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
01-01 <small>412101619-0001</small>	Window A - Window Glaze	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
01-02 <small>412101619-0002</small>	Window B - Window Glaze	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected
02-04 <small>412101619-0003</small>	Window A - Exterior Window Caulk	White Non-Fibrous Homogeneous		20% Ca Carbonate 80% Non-fibrous (Other)	None Detected
02-05 <small>412101619-0004</small>	Window D - Exterior Window Caulk	White Non-Fibrous Homogeneous		15% Ca Carbonate 85% Non-fibrous (Other)	None Detected

Analyst(s)
 Eric Loomis (2)
 Sarah Breneman (2)

Lee Plumley, Laboratory Manager
 or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method") but augmented with procedures outlined in the 1993 ("final") version of the method. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-fragile organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial report from: 02/24/2021 15:58:06

**Limited Asbestos/Lead-Based Paint Survey
Commercial Building Window Replacement
701 Craven Street – Beaufort, SC
Survey Date: February 23, 2021**



EMSL Analytical, Inc.
10801 Southern Loop Blvd Pineville, NC 28134
Tel/Fax: (704) 525-2205 / (704) 525-2382
<http://www.EMSL.com> / charlottelab@emsl.com

EMSL Order: 412010289
Customer ID: TRID50
Customer PO:
Project ID:

Attention: Kevin Leedy
Trident Environmental Services, Inc.
500 Oakbrook Lane
Suite E
Summerville, SC 29485
Project: JB CHS - Bldg. 669 (CAFB)

Phone: (843) 670-9987
Fax:
Received Date: 12/07/2020 9:55 AM
Analysis Date: 12/09/2020
Collected Date: 12/03/2020

**Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via
EPA/600/R-93/116 Section 2.5.5.1**

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
03-11 412010289-0022	Break Room - 12" Floor Tile (Gray Speckle)	Gray Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
04-14 412010289-0023	Break Room - Tile Mastic	Tan Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
06-22 412010289-0024	Men's Room - FRP Mastic (Yellow)	Tan Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected
07-25 412010289-0025	Overhead - HVAC - Duct Ins Mastic (White)	White Non-Fibrous Homogeneous	100.0 Other	None	No Asbestos Detected

Analyst(s)

Aaron Hartley (4)

Lee Plumley, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. EMSL recommends that samples reported as none detected or <1% undergo additional analysis via PLM to avoid the possibility of false negatives.

Samples analyzed by EMSL Analytical, Inc. Pineville, NC

Initial report from: 12/10/2020 08:32:05

LEAD BASED PAINT INSPECTION

Lead-based paint testing was conducted in order to identify finishes that contain lead and which may be disturbed during the scheduled demolition/renovation. The identification of these lead painted finishes will aid in the prevention of occupational exposure and/or environmental releases of lead dust. The lead survey describes the types, locations, and recommendations regarding the areas as related to lead-based paint.

Lead-Based Paint

The Consumer Product Safety Commission and the SCDHEC Bureau of Land and Waste Management define lead-based paint as paint or other surface coatings, including varnish, shellac, stains, and enamels, that contain lead equal to or greater than 0.5% by weight or 5000 parts per million (ppm). OSHA does not recognize a percentage of lead by weight for definition purposes, only the presence or absence of lead. The current OSHA regulations recognize an airborne action level of thirty micrograms per cubic meter (30ug/m³) during an eight-hour work shift, and a permissible exposure limit of fifty micrograms per cubic meter (50ug/m³). For the purpose of this survey, the OSHA Standard of any detectable limit is considered a lead-based paint.

Lead-Based Paint Investigative Procedures

Representative samples were collected from suspect paint finishes of the subject structure. Samples were collected by scoring the area of a suspect paint down to the substrate utilizing a sharp implement and placing the sample in a sealed container. The suspect finishes were based on the color of the topcoat and the underlying layers and/or the substrate on which it has been applied.

The necessary data including sample number, location, and description were recorded. A chain-of-custody form was completed for the samples and accompanied the samples when shipped via Federal Express to the laboratory for analysis. The suspect lead-based paint samples were recorded on a Chain of Custody and shipped to Electron Microscopy Services Laboratory Analytical, Inc. (EMSL) to be analyzed by Flame Atomic Absorption Spectrophotometer (AAS) NIOSH method 7082 per the American Society for Testing and Materials (ASTM) Standard D3335-85A. The laboratory is accredited by the AIHA Lab Accreditation Program. ([Lab Code: 192283](#)).

LEAD-BASED PAINT SUMMARY & DATA TABLE

Lead-Based Paint Summary

Two of the three suspected lead-based paint samples collected and analyzed from the interior/exterior windows at 701 Craven Street in Beaufort, South Carolina exhibited concentrations above the SCDHEC Bureau of Land and Waste Management and CPSC threshold of equal to, or greater than, 0.05% total lead by weight. Three of the three samples met the OSHA Standard of any detectable limit of lead-based paint.

Lead-Based Paint Data Table

Sample ID	Surface Area	Substrate	Location	Paint Description	Lead Concentration
*Pb-01	4 sq. in	Wood	Interior Window	White	3.5%
*Pb-02	4 sq. in	Wood	Exterior Window	White	6.7%
**Pb-03	4 sq. in	Brick	Exterior	Beige	0.028%

*SCDHEC Regulatory Limit 0.05%

**OSHA Regulatory Limit = any detectable level of lead

LEAD-BASED PAINT CONCLUSION / RECOMMENDATIONS

Conclusions

The lead-based paint survey revealed that two of the three painted surfaces contained lead above the SCDHEC and CPSC level of 0.05%, by weight. Three of the three samples meet the OSHA Standard of any detectable limit of lead-based paint Destructive actions to lead-based, painted finishes that may create a lead exposure hazard (sanding, torching, blasting, etc.) require compliance with OSHA, including proper training and exposure monitoring. Air monitoring for airborne lead concentrations is recommended during any lead abatement activities.

Recommendations

Refer to State (SCDHEC) guidelines for additional information about the state-specific requirements regarding the disposal of materials containing lead paint including Toxicity Characteristic Leaching Procedure (TCLP) analysis. Accumulations of lead paint (chips, blasting debris, etc.) must be analyzed by TCLP to determine if the debris is classified as “hazardous waste” (greater than or equal to 5mg/kg). Collection and analysis of a TCLP sample is recommended prior to disposal of any waste with a potential to contain lead.

Destructive actions to lead-based paint finishes that may create a lead exposure hazard (sanding, manual demolition, torch cutting, blasting, etc.) require compliance with OSHA, including proper training, exposure monitoring and proper disposal. OSHA considers all lead containing paints applicable to enforcement, and would require training, engineering controls, and administrative controls in accordance with 29 CFR 1926.62. In the event building components that tested positive for lead are disturbed during renovations, then contractors and workers should be informed as to the presence of LBP. Air monitoring for airborne lead concentrations is recommended during any lead abatement activities.

Building components containing lead are to be handled and disposed of in accordance with federal and state regulations when removed from the building. Components containing lead can be segregated from other building materials, wrapped in plastic, secured, and disposed of at a **Municipal Solid Waste Landfill**, also termed Subtitle D landfill. The waste generated by renovation and/or demolition activities is also regulated.



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

376 Crompton Street, Unit 71, Charlotte, NC 28273
Laboratory ID: 192283

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- ✓ INDUSTRIAL HYGIENE Accreditation Expires: September 01, 2018
- ✓ ENVIRONMENTAL LEAD Accreditation Expires: September 01, 2018
- ✓ ENVIRONMENTAL MICROBIOLOGY Accreditation Expires: September 01, 2018
- FOOD Accreditation Expires:
- UNIQUE SCOPES Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

William Walsh

William Walsh, CIH
Chairperson, Analytical Accreditation Board

Revision 15: 03/30/2016

Cheryl O. Morton

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Date Issued: 09/29/2016

LEAD-BASED PAINT PHOTOGRAPHS



PB - 01
INTERIOR WOOD WINDOW SILL & FRAME
(WHITE)



PB - 02
EXTERIOR WOOD WINDOW SILL & FRAME
(WHITE)



PB - 03
EXTERIOR BRICK (BEIGE)

OrderID: 412101613



EMSL ANALYTICAL, INC.
 LABORATORY PRODUCTS TRAINING

Lead (Pb) Chain of Custody
EMSL Order ID (Lab Use Only):

412101613

PHONE: ()
 FAX: ()

Company: Trident Environmental Services		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different <small>If Bill to is Different note Instructions in Comments**</small>	
Street: 500 Oakbrook Lane, Suite E		<small>Third Party Billing requires written authorization from third party</small>	
City: Summerville	State/Province: SCC	Zip/Postal Code: 29485	Country: US
Report To (Name): Kevin Leedy		Telephone #: 8438733648	
Email Address: kevinleedy@tridentenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 701 Craven Street		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: Beaufort, SC		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input checked="" type="checkbox"/> 24 Hour <input checked="" type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
<small>*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide</small>			
Matrix	Method	Instrument	Reporting Limit
Chips <input checked="" type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm ² <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter
Wipe* <input type="checkbox"/> ASTM non ASTM <input type="checkbox"/> <small>*if no box checked, non-ASTM Wipe assumed</small>	SW846-7000B	Flame Atomic Absorption	10 µg/wipe
	SW846-6010B or C	ICP-OES	1.0 µg/wipe
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1311/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1312/SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter
Other:			
Name of Sampler:		Signature of Sampler:	
Sample #	Location	Volume/Area	Date/Time Sampled
Pb-01	Interior Window (white)	4 sq in	02/23/21
Pb-02	Exterior Window (white)	4 sq in	02/23/21
Client Sample #s -Pb-01-Pb-03		Total # of Samples: 3	
Relinquished (Client): <i>Hunter Dean</i>	Date: 2-23-21	Time:	
Received (Lab): <i>BLA Colli</i>	Date: 2/24/21	Time: 1135 Fx	
Comments: Pb-03 Exterior Brick (beige) 4 sq in 02/23/21			8166 1233 4924



EMSL Analytical, Inc.
 10801 Southern Loop Blvd, Pineville, NC 28134
 Phone/Fax: (704) 525-2205 / (704) 525-2382
<http://www.EMSL.com> charlottelab@emsl.com

EMSL Order: 412101613
 CustomerID: TRID50
 CustomerPO:
 ProjectID:

Attn: **Kevin Leedy**
Trident Environmental Services, Inc.
500 Oakbrook Lane
Suite E
Summerville, SC 29485

Phone: (843) 873-3648
 Fax:
 Received: 2/24/2021 11:35 AM
 Collected: 2/23/2021

Project: **701 Craven Street, Beaufort, SC**

Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)*

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
Pb-01	412101613-0001	2/23/2021	2/25/2021	.2496 g	3.5 % wt
	Site: Interior Window (White)				
Pb-02	412101613-0002	2/23/2021	2/25/2021	.2088 g	6.7 % wt
	Site: Exterior Window (White)				
Pb-03	412101613-0003	2/23/2021	2/25/2021	.2267 g	0.028 % wt
	Site: Exterior Brick (Beige)				

Kyle Collins, Technical Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.
 Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.
 Samples analyzed by EMSL Analytical, Inc. Pineville, NC AIHA-LAP, LLC - ELLAP 192283

Initial report from 02/25/2021 14:40:17

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Project information.
 - 2. Work covered by Contract Documents.
 - 3. Work by Owner.
 - 4. Regulatory requirements.
 - 5. Access to site.
 - 6. Coordination with occupants.
 - 7. Work restrictions.
 - 8. Specification and drawing conventions.
- B. Related Requirements:
 - 1. Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

- A. Project Identification: Carnegie Library
 - 1. Project Location: 701 Craven Street, Beaufort, South Carolina 29902.
- B. Owner: City of Beaufort
 - 1. Owner's Representative: Jay Phillips
- C. Architect: Meadors, Inc., PO Box 21758, Charleston, SC 29413.

1.4 WORK COVERED BY CONTRACT DOCUMENTS

- A. The Work of Project is defined by the Contract Documents and consists of the following:
 - 1. The Carnegie Library is a local historic site and a contributing structure in the City of Beaufort's National Historic Landmark District. The scope of work for this project includes historic window restoration and an alternate for the restoration of select exterior doors, installing window film, and unblocking the interior of select windows.
- B. Type of Contract:
 - 1. Project will be constructed under a single prime contract.

1.5 REGULATORY REQUIREMENTS

- A. Conform to requirements of all authorities having jurisdiction.
- B. Standards for Historic Properties: All work shall comply with the Secretary of the Interior's "Standards for the Treatment of Historic Properties."

1.6 ACCESS TO SITE

- A. General: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.
- B. Use of Site: Limit use of Project site to work outlined in drawings. Do not disturb portions of Project site beyond areas in which the Work is indicated.
 - 1. Driveways, Walkways and Entrances: Keep driveways loading areas, and entrances serving premises clear and available to Owner, Owner's employees, and emergency vehicles at all times. Do not use these areas for parking or storage of materials.
 - a. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.
- C. Owner to provide key(s) to access the site.
- D. Condition of Existing Building: Maintain portions of existing building affected by construction operation throughout construction period. Repair damage caused by construction operations.

1.7 COORDINATION WITH OCCUPANTS

- A. Owner Limited Occupancy of Completed Areas of Construction: The building is to remain open during construction. Maintain existing exits unless otherwise indicated.
 - 1. Maintain access to existing walkways, corridors and other adjacent occupied or used facilities. Do not close or obstruct walkways, corridors or other occupied or used areas without written permission from Owner and approval of authorities having jurisdiction.
 - 2. All entrances and exits are to remain clear at all times so patrons and staff can come and go unimpeded. Active work areas are to be delineated by appropriate cautionary tape or like signage.
 - 3. Notify Owner not less than 72 hours in advance of activities that will affect Owner's operations of adjacent properties.

1.8 WORK RESTRICTIONS

- A. The project is partially funded by a grant. The grant completion date is December 31, 2021.
- B. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- C. On-Site Work Hours: The building is to remain open during construction.
 - 1. Monday - Friday work hours between 7:30 AM – Dark
 - 2. Weekend Hours: Saturday 8:30 AM – 5 PM. Notify owner in advance when planning to work Sundays. No loud noises on Sundays due to proximity to Churches. Confirm that weekend work hours do not conflict with special events held on site.
 - 3. Hours for Core Drilling and Other Noisy Activity: 8:00 AM -10:30 PM

- D. Property surrounding the building is not owned by the City of Beaufort (with the exception of the Beaufort Arsenal). The surrounding properties must be returned to their current condition at the close of construction.
- E. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner.
- F. Cleanup: Job site shall remain litter- and debris-free at all times. It shall be contractor's responsibility to clean both interior and exterior work sites thoroughly at the end of each workday.
- G. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances.
- H. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

1.9 SPECIFICATION AND DRAWING CONVENTIONS

- A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 1. Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
 2. Specification requirements are to be performed by Contractor unless specifically stated otherwise.
- B. Document Interpretation: In the case of conflicts or discrepancies between drawings and Divisions 02-49 of the specifications, or within or among the Contract Documents and not clarified by Addendum, the most stringent requirement shall apply.
 1. Note: None of the documents included in the drawing index are intended to be considered in isolation of one another.
 2. All bidders, sub-bidders, contractors, and sub-contractors shall utilize complete sets of the bidding and/or Construction Documents in quantifying and construction. Neither the owner nor architect assume responsibility for errors, omissions, or misinterpretations resulting from the use of incomplete sets of bidding and/or construction documents.
- C. Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.
- D. Drawing Coordination: Requirements for materials and products identified on Drawings are described in detail in the Specifications. One or more of the following are used on Drawings to identify materials and products:
 1. Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
 2. Abbreviations: Materials and products are identified by abbreviations scheduled on Drawings.
 3. Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012300 - ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate No. 1: Window Film

1. Base Bid: None.
2. Alternate: Install new 3M Climate Control 75 Film on interior of all windows. Film must be installed by certified installer. Alternate excludes windows 10, 11, 26, 27, and 29 which have textured privacy glass.
3. State amount to ADD.

B. Alternate No.2: Window Restoration- Fixed Lower Sash

1. Base Bid: Restore all windows, Upper sash to be fixed in place, lower sash to be operable.
2. Alternate: Restore all windows. Upper and lower sash to be fixed in place.
3. State amount to DEDUCT.

C. Alternate No.3: Door Restoration

1. Base Bid: None
2. Alternate: Restore historic exterior doors as detailed in construction documents.
3. State amount to ADD.

D. Alternate No.4: Window Restoration- Unblock Interior of Windows 26, 28, & 29.

1. Base Bid: None.
2. Alternate: Restore interior of windows 26, 28, and 29. Windows are currently blocked on the interior. Match interior trim details of other historic windows within the building. Install new 3M Climate Control 75 Film on interior of windows. Film must be installed by certified installer. Alternate
3. State amount to ADD.

END OF SECTION 012300

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for substitutions after award of Contract.

1.3 DEFINITIONS

- A. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1. Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2. Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.

1.4 ACTION SUBMITTALS

- A. Substitution Requests: Submit one copy of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1. Substitution Request Form: Use facsimile of form provided in Project Manual.
 - 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication, or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or revisions needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable Specification Section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.

- d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.
 - k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or seven days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Architect's Supplemental Instructions for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- A. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage a qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- A. Coordination: Revise or adjust affected work as necessary to integrate work of the approved substitutions.

PART 2 - PRODUCTS

2.1 SUBSTITUTIONS

- A. Substitutions for Cause: Submit requests for substitution immediately on discovery of need for change, but not later than 15 days prior to time required for preparation and review of related submittals.
1. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Requested substitution provides sustainable design characteristics that specified product provided.
 - c. Substitution request is fully documented and properly submitted.
 - d. Requested substitution will not adversely affect Contractor's construction schedule.
 - e. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - f. Requested substitution is compatible with other portions of the Work.
 - g. Requested substitution has been coordinated with other portions of the Work.
 - h. Requested substitution provides specified warranty.
 - i. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.
- B. Substitutions for Convenience: Not allowed.

PART 3 - EXECUTION (Not Used)

END OF SECTION 012500

COMPLETE AND SUBMIT THIS FORM FOR APPROVAL OF SUBSTITUTES. SUBMISSION SHALL BE MADE IN DUPLICATE FOR EACH PROPOSED SUBSTITUTE ITEM.

SUBSTITUTION REQUEST FORM

TO: Betty Prime, Meadors, Inc., betty@meadorsinc.com

PROJECT: Carnegie Library Window Restoration Project

We submit for your consideration the following product instead of the specified item for the above project:

<u>Section</u>	<u>Paragraph</u>	<u>Specified Item</u>
_____	_____	_____

Proposed Substitution: _____

Attach complete technical data, including laboratory tests, if applicable.

Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation.

Fill in blanks below:

A. Does the substitution affect dimensions shown on the drawings?

Yes _____ No __

B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by the requested substitution?

Yes _____ No __

C. What effect does substitution have on other trades?

D. Differences between proposed substitution and specified item?

E. Manufacturer's guarantees of proposed and specified items are:

Same

Different (Explain on Attachments)

The Undersigned states that the function, appearance, and quality are equivalent or superior to the specified item.

Submitted by:

Signature

For Use by Design Consultant

Firm

Accepted Accepted as Noted
 Not Accepted Received Too Late

Address

By: _____

Date: _____

Date: _____

Date: _____ TEL/FAX: _____

Notes:

Attachment to Section 00120 - Supplementary Instructions to Bidders

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for handling and processing Contract modifications.
- B. Related Requirements:
 - 1. Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.3 MINOR CHANGES IN THE WORK

- A. Architect will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time, on AIA Document G710, "Architect's Supplemental Instructions."

1.4 PROPOSAL REQUESTS

- A. Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1. Work Change Proposal Requests issued by Architect are not instructions either to stop work in progress or to execute the proposed change.
 - 2. Within time specified in Proposal Request or 20 days, when not otherwise specified, after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include costs of labor and supervision directly attributable to the change.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

- B. Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to Architect.
1. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 2. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 4. Include costs of labor and supervision directly attributable to the change.
 5. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.
 6. Comply with requirements in Section 012500 "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.

1.5 ADMINISTRATIVE CHANGE ORDERS

- A. Unit-Price Adjustment: See Section 012200 "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit-price work.

1.6 CHANGE ORDER PROCEDURES

- A. On Owner's approval of a Work Changes Proposal Request, Architect will issue a Change Order for signatures of Owner and Contractor on Owner approved form.

1.7 CONSTRUCTION CHANGE DIRECTIVE

- A. Change Directive: Architect may issue a Change Directive on AIA Document G714. Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
1. Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.
- B. Documentation: Maintain detailed records on a time and material basis of work required by the Change Directive.
1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements necessary to prepare and process Applications for Payment.
- B. Related Requirements:
 - 1. Section 012200 "Unit Prices" for administrative requirements governing the use of unit prices.
 - 2. Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
 - 3. Section 013200 "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.

1.3 DEFINITIONS

- A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A. Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule. Gantt Chart may serve to satisfy requirements for the schedule of values.
 - 1. Coordinate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a. Application for Payment forms with continuation sheets.
 - b. Submittal schedule.
 - c. Items required to be indicated as separate activities in Contractor's construction schedule.
 - 2. Submit the schedule of values to Architect at earliest possible date, but no later than seven (7) days before the date scheduled for submittal of initial Applications for Payment.
- B. Format and Content: Use Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one-line item for each Specification Section.
 - 1. Identification: Include the following Project identification on the schedule of values:
 - a. Project name and location.
 - b. Name of Architect.
 - c. Architect's project number (20-0128).

- d. Contractor's name and address.
- e. Date of submittal.
- 2. Arrange schedule of values consistent with format of AIA Document G703.
- 3. Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a. Related Specification Section or Division.
 - b. Description of the Work.
 - c. Name of subcontractor.
 - d. Name of manufacturer or fabricator/supplier.
 - e. Change Orders (numbers) that affect value.
 - f. Dollar value of the percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
- 4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with Project Manual table of contents.
- 5. Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a. Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
- 6. Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
- 7. Each item in the schedule of values and Applications for Payment shall be complete.
 - a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the schedule of values or distributed as general overhead expense, at Contractor's option.
- 8. Schedule Updating: Update and resubmit the schedule of values before the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment following the initial Application for Payment shall be consistent with previous applications and payments as certified by Architect and paid for by Owner.
 - 1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involve additional requirements.
- B. Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
 - 1. Submit draft copy of Application for Payment seven (7) days prior to due date for review by Architect.
- A. Application for Payment Forms: Use AIA Document G702 and AIA Document G703 Continuation Sheets as form for Applications for Payment.
- B. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. Architect will return incomplete applications without action.
 - 1. Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2. Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.

3. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 4. Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- C. **Stored Materials:** Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
1. Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 2. Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation.
 3. Provide summary documentation for stored materials indicating the following:
 - a. Value of materials previously stored and remaining stored as of date of previous Applications for Payment.
 - b. Value of previously stored materials put in place after date of previous Application for Payment and on or before date of current Application for Payment.
 - c. Value of materials stored since date of previous Application for Payment and remaining stored as of date of current Application for Payment.
- D. **Transmittal:** Submit one signed and notarized PDF copy of each Application for Payment to Architect by a method ensuring receipt within 24 hours. Include waivers of lien and similar attachments if required.
1. Transmit each copy with PDF transmittal form listing attachments and recording appropriate information about application.
- E. **Waivers of Mechanic's Lien:** With each Application for Payment, submit waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
1. Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 2. When an application shows completion of an item, submit conditional final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work must submit waivers.
 4. **Waiver Forms:** Submit executed waivers of lien on forms acceptable to Owner.
- F. **Initial Application for Payment:** Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
1. List of subcontractors.
 2. Schedule of values.
 3. Contractor's construction schedule (preliminary if not final).
 4. Certificates of insurance and insurance policies.
 5. Performance and payment bonds.
 6. Data needed to acquire Owner's insurance.
 7. Progress and preconstruction photographs.
- G. **Application for Payment at Substantial Completion:** After Architect issues the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
1. Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.
 2. This application shall reflect Certificate(s) of Substantial Completion issued previously for Owner occupancy of designated portions of the Work.

- H. Final Payment Application: After completing Project closeout requirements, submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:
1. Evidence of completion of Project closeout requirements (maintenance documents, warranties, etc.).
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
 5. AIA Document G706A, "Contractor's Affidavit of Release of Liens."
 6. AIA Document G707, "Consent of Surety to Final Payment."
 7. Evidence that claims have been settled.
 8. Final liquidated damages settlement statement.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative provisions for coordinating construction operations on Project including, but not limited to, the following:
 - 1. General coordination procedures.
 - 2. Requests for Information (RFIs).
 - 3. Project meetings.
- B. Related Requirements:
 - 1. Section 013200 "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
 - 2. Section 017700 "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

- A. RFI: Request from Owner, Architect, or Contractor seeking information required by or clarifications of the Contract Documents.

1.4 INFORMATIONAL SUBMITTALS

- A. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
 - 1. Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2. Number and title of related Specification Section(s) covered by subcontract.
 - 3. Drawing number and detail references, as appropriate, covered by subcontract.
- B. Key Personnel Names: Within 15 days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including office, and cellular telephone numbers and e-mail addresses. Provide names, addresses, and telephone numbers of individuals assigned as alternates in the absence of individuals assigned to Project.

1.5 GENERAL COORDINATION PROCEDURES

- A. Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections, that depend on each other for proper installation, connection, and operation.
1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
 2. Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
 3. Make adequate provisions to accommodate items scheduled for later installation.
- B. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:
1. Preparation of Contractor's construction schedule.
 2. Preparation of the schedule of values.
 3. Installation and removal of temporary facilities and controls.
 4. Delivery and processing of submittals.
 5. Progress meetings.
 6. Progress photographic documentation.
 7. Pre-installation conferences.
 8. Project closeout activities.
- C. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1.6 REQUESTS FOR INFORMATION (RFIs)

- A. General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
1. Architect will return RFIs submitted to Architect by other entities controlled by Contractor with no response.
 2. Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.
- B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:
1. Project name.
 2. Project number.
 3. Date.
 4. Name of Contractor.
 5. Name of Architect.
 6. RFI number, numbered sequentially.
 7. RFI subject.
 8. Specification Section number and title and related paragraphs, as appropriate.
 9. Drawing number and detail references, as appropriate.
 10. Field dimensions and conditions, as appropriate.

11. Contractor's suggested resolution. If Contractor's suggested resolution impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
 12. Contractor's signature.
 13. Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
 - a. Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.
- C. RFI Forms: AIA Document G716 or similar software-generated form, acceptable to Architect.
1. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. Architect's Action: Architect will review each RFI, determine action required, and respond. Allow seven (7) working days for Architect's response for each RFI. RFIs received by Architect after 1:00 p.m. will be considered as received the following working day.
1. The following Contractor-generated RFIs will be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for approval of Contractor's means and methods.
 - d. Requests for coordination information already indicated in the Contract Documents.
 - e. Requests for adjustments in the Contract Time or the Contract Sum.
 - f. Requests for interpretation of Architect's actions on submittals.
 - g. Incomplete RFIs or inaccurately prepared RFIs.
 2. Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
 3. Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."
 - a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Architect in writing within 10 days of receipt of the RFI response.
- E. RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Use Log Form with not less than the following:
1. Project name.
 2. Name and address of Contractor.
 3. Name and address of Architect.
 4. RFI number including RFIs that were returned without action or withdrawn.
 5. RFI description.
 6. Date the RFI was submitted.
 7. Date Architect's response was received.
- F. On receipt of Architect's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify Architect within seven days if Contractor disagrees with response.

1. Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request, as appropriate.
2. Identification of related Field Order, Work Change Directive, and Proposal Request, as appropriate.

1.7 PROJECT MEETINGS

- A. General: Schedule and conduct meetings and conferences at Project site unless otherwise indicated.
1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 2. Agenda: Prepare the meeting agenda. Distribute the agenda to all invited attendees.
 3. Minutes: Entity responsible for conducting meeting will record significant discussions and agreements achieved. Distribute an electronic copy of the meeting minutes to everyone concerned, including Owner and Architect, within three days of the meeting.
- B. Preconstruction Conference: Schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than 15 days after execution of the Agreement.
1. Conduct the conference to review responsibilities and personnel assignments.
 2. Attendees: Authorized representatives of Owner Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Trades:
 - a. Carpentry (historic windows).
 - b. Stucco (repairs around windows).
 4. Agenda: Discuss items of significance that could affect progress, including the following:
 - a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. Lines of communications.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. Preparation of record documents.
 - m. Use of the premises and existing building.
 - n. Work restrictions.
 - o. Working hours.
 - p. Owner's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Procedures for moisture and mold control.
 - s. Procedures for disruptions and shutdowns.
 - t. Construction waste management and recycling.
 - u. Parking availability.

- v. Work, and storage areas.
 - w. Equipment deliveries and priorities.
 - x. First aid.
 - y. Security.
 - z. Progress cleaning.
5. Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.
- C. Progress Meetings: **Conduct progress meetings weekly. Expect daily site visits from the City's assigned project manager for the duration of the project. Architect will attend meetings at project milestones and at the request of the owner.**
1. Coordinate dates of meetings with preparation of payment requests.
 2. Attendees: In addition to representatives of Owner and Architect, Contractor, subcontractor (at the discretion of the Contractor), and other concerned entities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
 3. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.
 - 1) Review schedule for next period.
 - b. Review present and future needs of each entity present, including the following:
 - 1) Interface requirements.
 - 2) Sequence of operations.
 - 3) Status of submittals.
 - 4) Deliveries.
 - 5) Access.
 - 6) Site utilization.
 - 7) Temporary facilities and controls.
 - 8) Progress cleaning.
 - 9) Quality and work standards.
 - 10) Status of correction of deficient items.
 - 11) Field observations.
 - 12) Status of RFIs.
 - 13) Status of proposal requests.
 - 14) Pending changes.
 - 15) Status of Change Orders.
 - 16) Pending claims and disputes.
 - 17) Documentation of information for payment requests.
 4. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

- a. Schedule Updating: Revise monthly Contractor's construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
 - 1. Contractor's construction schedule.
 - 2. Construction schedule updating reports.
 - 3. Site condition reports.
 - 4. Special reports.
- B. Related Requirements:
 - 1. Section 013300 "Submittal Procedures" for submitting schedules and reports.

1.3 INFORMATIONAL SUBMITTALS

- A. Format for Submittals: Submit required submittals in the following format:
 - 1. PDF electronic file.
- B. Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.
 - 1. Submit a PDF electronic copy of schedule.
- C. Construction Schedule Updating Reports: Submit monthly with Applications for Payment.
- D. Daily Logs: Submit at the conclusion of the project, a copy of the log will be turned over to the City's assigned project manager to memorialize the restorative effort.
- E. Site Condition Reports: Submit at time of discovery of differing conditions.
- F. Special Reports: Submit at time of unusual event.

1.4 COORDINATION

- A. Coordinate Contractor's construction schedule with the schedule of values, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1. Secure time commitments for performing critical elements of the Work from entities involved.

2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Time Frame: Extend schedule from date established for the Notice to Proceed to date of final completion.
 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- B. Activities: Treat each story or separate area as a separate numbered activity for each main element of the Work. Comply with the following:
 1. Activity Duration: Define activities by location.
 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 3. Submittal Review Time: Include review and resubmittal times indicated in Section 013300 "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Architect's administrative procedures necessary for certification of Substantial Completion.
 5. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and final completion.
- C. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule and show how the sequence of the Work is affected.
 1. Work Restrictions: Show the effect of the following items on the schedule:
 - a. Limitations of continued occupancies. The site will remain open for the duration of construction.
 - b. Uninterruptible services.
 - c. Seasonal variations.
 - d. **No more than 25% of windows to be covered at a time. Contractor to provide construction phasing window schedule.**
 2. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
 - a. Submittals.
 - b. Mockups.
 - c. Disassembly.
 - d. Installation.
 - e. Tests and inspections.
 - f. Curing.
 3. Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities.

- D. Recovery Schedule: When periodic update indicates the Work is 14 or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

2.2 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)

- A. Gantt-Chart Schedule with Critical Path: Submit a comprehensive, fully developed, horizontal, Gantt-chart-type, Contractor's construction schedule due (5 business days) before restoration work commences. Critical path is required.
- B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
 - 1. For construction activities that require three months or longer to complete, indicate an estimated completion percentage in 10 percent increments (by location) within time bar.

2.3 REPORTS

- A. Site Condition Reports: Immediately on discovery of a difference between site conditions and the Contract Documents, prepare and submit a detailed report. Submit with a Request for Information. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.

2.4 SPECIAL REPORTS

- A. General: Submit special reports directly to Owner within one day of an occurrence. Distribute electronic copies of report to parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities.
 - 1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
 - 2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
 - 3. As the Work progresses, indicate final completion percentage for each activity.

- B. Distribution: Distribute copies of approved schedule to Architect and Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
 - 1. When revisions are made, distribute updated schedules to the same parties. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
- C. At a minimum, reports and schedule to be submitted with pay applications monthly.

END OF SECTION 013200

SECTION 013233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Preconstruction photographs.
 - 2. Periodic construction photographs.
 - 3. Final Completion construction photographs.
- B. Related Requirements:
 - 1. Section 013300 "Submittal Procedures" for submitting photographic documentation.
 - 2. Section 017700 "Closeout Procedures" for submitting photographic documentation as project record documents at Project closeout.

1.3 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan in PDF or JPEG format of Project site and building with notation of vantage points marked for location and direction of each photograph. Indicate elevation or story of construction. Include same information as corresponding photographic documentation. Key plan required for preconstruction and final completion construction photographs.
- B. Construction Photographs: Submit images within three days of taking photographs.
 - 1. Digital Camera: Minimum sensor resolution of 8 megapixels.
 - 2. Format: Minimum 3200 by 2400 pixels, in unaltered original files, with same aspect ratio as the sensor, uncropped, date and time stamped, in folder named by date of photograph, accompanied by key plan file.
 - 3. Identification: Name photos based on location and date. Example: "Perimeter Wall – North Elevation_02.16.18"

1.4 COORDINATION

- A. Auxiliary Services: Cooperate with Owner or Architect's photographer and provide auxiliary services requested, including access to Project site and use of temporary facilities, including temporary lighting required to produce clear, well-lit photographs without obscuring shadows.

1.5 USAGE RIGHTS

- A. Obtain and transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CONSTRUCTION PHOTOGRAPHS

- A. General: Take photographs using the maximum range of depth of field, and that are in focus, to clearly show the Work. Photographs with blurry or out-of-focus areas will not be accepted.
 - 1. Maintain key plan with each set of construction photographs that identifies each photographic location.
- B. Digital Images: Submit digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.
 - 1. Date: Include date in file name for each image.
- C. Preconstruction Photographs: Before commencement of demolition, take photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points, as directed by Architect.
 - 1. Take a minimum of 75 photographs to show existing conditions adjacent to areas of construction before starting the Work.
 - 2. All preconstruction photographs must be submitted and approved by Architect before any work begins.
- D. Periodic Construction Photographs: Take a minimum of 20 digital photographs weekly. Select vantage points to show status of construction and progress since last photographs were taken.
- E. Architect-Directed Construction Photographs: From time to time, Architect will instruct photographer about number and frequency of photographs and general directions on vantage points. Select actual vantage points and take photographs to show the status of construction and progress since last photographs were taken.
- F. Final Completion Construction Photographs: Take 75 color photographs after date of Substantial Completion for submission as project record documents. Vantage points should match preconstruction photographs.
 - 1. Do not include date stamp.
- G. Additional Photographs: Architect and Owner may issue requests for additional photographs, in addition to periodic photographs specified.
 - 1. Three days' notice will be given, where feasible.
 - 2. In emergency situations, take additional photographs within 24 hours of request.

3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Immediate follow-up when on-site events result in construction damage or losses.
 - b. Substantial Completion of a major phase or component of the Work.
 - c. Extra record photographs at time of final acceptance.
 - d. Owner's request for special publicity photographs.

END OF SECTION 013233

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Requirements:
 - 1. Section 012900 "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2. Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 3. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."
- B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."
- C. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

- A. Architect's Digital Data Files: Upon completion of Architect's release form, electronic digital data files of the Contract Drawings may be provided by Architect for Contractor's use in preparing submittals.
 - 1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.

- a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
 - b. Digital Drawing Format: Architect will provide Drawings in PDF format.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
 3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
 4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
 1. Initial Review: Allow 7 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
 2. Resubmittal Review: Allow 7 days for review of each resubmittal.
- D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:
 1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
 2. Name file with submittal number or other unique identifier, including revision identifier.
 3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.
 4. Transmittal Form for Electronic Submittals: Use electronic form acceptable to Owner, containing the following information:
 - a. Project name.
 - b. Date.
 - c. Name and address of Architect.
 - d. Name of Contractor.
 - e. Name of firm or entity that prepared submittal.
 - f. Names of subcontractor, manufacturer, and supplier.
 - g. Category and type of submittal.
 - h. Submittal purpose and description.
 - i. Specification Section number and title.
 - j. Specification paragraph number or drawing designation and generic name for each of multiple items.
 - k. Drawing number and detail references, as appropriate.

- l. Location(s) where product is to be installed, as appropriate.
 - m. Related physical samples submitted directly.
 - n. Indication of full or partial submittal.
 - o. Transmittal number, numbered consecutively.
 - p. Submittal and transmittal distribution record.
 - q. Other necessary identification.
 - r. Remarks.
- E. Options: Identify options requiring selection by Architect.
 - F. Resubmittals: Make resubmittals in same form as initial submittal.
 - 1. Note date and content of previous submittal.
 - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
 - 3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.
 - G. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities.
 - H. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

- A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.
 - 1. Submit electronic submittals via email as PDF electronic files.
 - a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - 2. Action Submittals: Submit one PDF copy of each submittal unless otherwise indicated.
 - 3. Informational Submittals: Submit one PDF copy of each submittal unless otherwise indicated.
 - 4. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a. Provide a digital signature with digital certificate on electronically submitted certificates and certifications where indicated.
 - b. Provide a notarized statement on original paper copy certificates and certifications where indicated.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 2. Mark each copy of each submittal to show which products and options are applicable.
 3. Include the following information, as applicable:
 - a. Manufacturer's catalog cuts.
 - b. Manufacturer's product specifications.
 - c. Standard color charts.
 - d. Statement of compliance with specified referenced standards.
 - e. Testing by recognized testing agency.
 - f. Application of testing agency labels and seals.
 - g. Notation of coordination requirements.
 - h. Availability and delivery time information.
 4. Submit Product Data before or concurrent with Samples.
 5. Submit Product Data in the following format:
 - a. PDF electronic file via email.
 6. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
- C. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 2. Identification: Attach label on unexposed side of Samples that includes the following:
 - a. Generic description of Sample.
 - b. Product name and name of manufacturer.
 - c. Sample source.
 - d. Number and title of applicable Specification Section.
 - e. Specification paragraph number and generic name of each item.
 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b. Samples not incorporated into the Work are the property of Owner.
 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
 - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- D. Contractor's Construction Schedule: Comply with requirements specified in Section 013200 "Construction Progress Documentation."

- E. Application for Payment and Schedule of Values: Comply with requirements specified in Section 012900 "Payment Procedures."
- F. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 017700 "Closeout Procedures."
- G. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person as required in the Contract Documents.
- H. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- I. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- J. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- K. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- L. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- M. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- N. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
 - 1. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Project Closeout and Maintenance Material Submittals: See requirements in Section 017700 "Closeout Procedures."
- C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date

of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

- A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- B. Informational Submittals: Architect will review each submittal and will return it, or will not return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.
- D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.
- E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 013300

SECTION 013591- HISTORIC TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This project involves the restoration of historic windows. Treat the building respectfully. Carefully inspect existing conditions and treat existing materials as irreplaceable. Do not remove, alter or disfigure any existing materials, elements or finishes, unless indicated on the Drawings, specified herein, or directed by the Architect.
- B. Section includes general protection and treatment procedures for designated historic spaces, rooms, areas, and surfaces in the entire Project, including general project guidelines, selected historic preservation resources and the following specific work:
 - 1. General Historic Treatment Procedures.
 - 2. Historic removal and dismantling.
- C. Codes and standards set forth by:
 - 1. All work shall be performed in accordance with the "Secretary of the Interior's Standards for Preservation, "U.S. Department of the Interior, National Park Service, 1995."

1.3 REFERENCES

- A. United States Department of the Interior, Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring and Reconstructing Historic Buildings.
- B. United States General Services Administration: Historic Preservation Technical Procedures.
- C. National Park Service Historic Preservation Briefs
 - 1. Preservation Brief 9: The Repair of Historic Windows
 - 2. Preservation Brief 16: The Use of Substitute Materials on Historic Building Exteriors
 - 3. Preservation Brief 17: Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character

1.4 DEFINITIONS

- A. Consolidate: To strengthen loose or deteriorated materials in place.
- B. Dismantle: To disassemble and detach items by hand from existing construction to the limits indicated, using small hand tools and small one-hand power tools, so as to protect nearby

historic surfaces; and legally dispose of dismantled items off-site, unless indicated to be salvaged or reinstalled.

- C. Existing to Remain: Existing items that are not to be removed or dismantled.
- D. Historic: Spaces, areas, rooms, surfaces, materials, finishes, and overall appearance which are important to the successful preservation, conservation, restoration, and reconstruction as determined by the Owner and Architect. Designated historic spaces, areas, rooms, and surfaces may be indicated on drawings.
- E. Match: To blend with adjacent construction and manifest no apparent difference in material type, species, cut, form, detail, color, grain, texture, or finish; as approved by the Owner or Architect.
- F. Reconstruct: To remove existing item, replicate damaged or missing components, and reinstall in original position.
- G. Refinish: To remove existing finishes to substrate and apply new finish to match original or as otherwise indicated.
- H. Reinstall: To protect removed or dismantled item, repair and clean it as indicated for reuse, and reinstall it in original position, or where indicated.
- I. Remove: Specifically, for historic spaces, areas, rooms, and surfaces, the term means to detach an item from existing construction to the limits indicated, using hand tools and hand-operated power equipment, and legally dispose of it off-site, unless indicated to be salvaged or reinstalled.
- J. Repair: To correct damage and defects, retaining existing materials, features, and finishes while employing as little new material as possible. Includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials.
- K. Replace: To remove, duplicate, and reinstall entire item with new material. The original item is the pattern for creating duplicates unless otherwise indicated.
- L. Replicate: To reproduce in exact detail, materials, and finish, unless otherwise indicated.
- M. Reproduce: To fabricate a new item, accurate in detail to the original, and in either the same or a similar material as the original, unless otherwise indicated.
- N. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.
- O. Retain: To keep existing items that are not to be removed or dismantled.
- P. Reversible: New construction work, treatments, or processes that can be removed or undone in the future without damaging historic materials, unless otherwise indicated.
- Q. Salvage: To protect removed or dismantled items and deliver them to Owner.
- R. Stabilize: To provide structural reinforcement of unsafe or deteriorated items while maintaining the essential form as it exists at present; also, to reestablish a weather-resistant enclosure or to stabilize loose or detached original material in an effort to halt deterioration or future loss of historic material

- S. Strip: To remove existing finish down to base material, unless otherwise indicated.

1.5 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, artifacts, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during removal and dismantling work remain Owner's property. Carefully dismantle and salvage each item or object.
- B. Coordinate with Owner's representative, who will establish special procedures for dismantling and salvage.

1.6 SUBMITTALS

- A. Historic Treatment Qualifications: Submit documentation of past project experience that meet the work experience outlined in the RFP and specifications.**

1.7 REGULATORY REQUIREMENTS

- A. Comply with governing EPA notification regulations before beginning removal and dismantling work. Comply with hauling and disposal regulations of authorities having jurisdiction. The required research report and manufacturer's data shall be on site and used for reference.
 - 1. Conform to all safety guidelines
 - 2. For Cleaning: Comply with municipal and Federal regulations governing cleaning, chemical waste disposal, scaffolding and protection of adjacent surfaces.
- B. Standards: Comply with ANSI/ASSE A10.6.
- C. Comply with all OSHA regulations and safety guidelines for scaffolding and protection.

1.8 SITE PROTECTION

- A. Protect persons, surrounding surfaces of building, and building site from harm resulting from historic treatment procedures.
 - 1. Use only proven protection methods, appropriate to each area and surface being protected.
 - 2. Provide barricades, barriers, and temporary directional signage to exclude public from areas where historic treatment work is being performed.
 - 3. Contain dust and debris generated work and prevent it from reaching the public or adjacent surfaces.
 - 4. Protect floors and other surfaces along haul routes from damage, wear, and staining.
 - 5. Provide supplemental sound-control treatment to isolate work from other areas of the building.
 - 6. Provide protection against spreading water at or beyond the work area by sheeting and tarpaulins.
 - 7. Provide masking or covering on adjacent surfaces and permanent equipment. Secure coverings without the use of adhesive type tapes. Impervious sheeting which produces condensation should not be used.

- B. All necessary precautions shall be taken to protect all parts of the historic building not being repaired from the effects of the work, including excessive amounts of water that should not be allowed to pond in any areas.

1.9 PROJECT CONDITIONS

- A. General Size Limitation in Historic Spaces: Materials, products, and equipment used for performing the Work and for transporting debris, materials, and products shall be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches or more.
- B. Conditions existing at time of inspection for pricing purpose will be maintained by Owner as far as practical.
- C. If unanticipated asbestos is suspected, stop work in the area of potential hazard, shut off fans and other air handlers ventilating the area, and rope off area until the questionable material is identified. Re-assign workers to continue work in unaffected areas. Resume work in the area of concern after safe working conditions are verified.
- D. Do not change sources or brands of materials during the course of the work.
- E. Storage or sale of removed or dismantled items on-site is not permitted unless otherwise indicated.

1.10 GENERAL HISTORIC TREATMENT

- A. The principal aim of any work must be to halt the process of deterioration and stabilize the item's condition. Repair is a second option which becomes necessary only where preservation is not sufficient to ensure mid- to long-term survival. Repair should always be based on the fundamental principal of 'minimal disturbance'. Follow the procedures approved in the historic treatment program.
 - 1. Retain as much existing material as possible; repairing and consolidating rather than replacing.
 - 2. Use additional material or structure to reinforce, strengthen, prop, tie, and/or support existing material or structure.
 - 3. Use reversible processes wherever possible.
 - 4. Use of traditional materials and historically accurate repair and replacement techniques.
- B. Record existing work before each procedure (preconstruction) and progress during the work with digital preconstruction documentation photographs. Comply with requirements in Division 01 Section "Photographic Documentation."
- C. Ensure supervisory personnel are present when historic preservation treatment work begins and during its progress.
- D. Notify Architect of Record and Owner of visible changes in the integrity of material or components whether due to environmental causes including biological attack, UV degradation, freezing, or thawing; or due to structural defects including cracks, movements, or distortion.
- E. Owner's approval is required for any change, addition or removal of historic structural fabric or historic property.

- F. Where missing features are indicated to be repaired or replaced, provide features whose designs are based on accurate duplications rather than conjectural designs subject to the approval of the Owner and Architect.
- G. Where work requires existing features to be removed or dismantled and reinstalled, perform these operations without damage to the material itself, to adjacent materials, or to the substrate.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
 - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

PART 3 - EXECUTION (Not Used)

END OF SECTION 013591

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A. General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Architect, occupants of Project, testing agencies, and authorities having jurisdiction.
- B. Water and Sewer Service from Existing System: Water from Owner's existing water system is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.
- C. Electric Power Service from Existing System: Electric power from Owner's existing temporary source is available for use without metering and without payment of use charges. Provide connections and extensions of services as required for construction operations.

1.4 QUALITY ASSURANCE

- A. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

- A. Temporary Use of Permanent Facilities: Engage Installer of each permanent service to assume responsibility for operation, maintenance, and protection of each permanent service during its use as a construction facility before Owner's acceptance, regardless of previously assigned responsibilities.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

- A. **Field Offices, General:** Field Offices are not allowed on site.
- B. **Dumpster:** Dumpster, no larger than 15 tons is allowed to be placed directly behind the building. Th city does not have space adjacent to the building and will be using a corner of the parking lot owned by the neighboring church. Contractor footprint to remain as small as possible. Construction debris to be cleaned up nightly. Location of dumpster to be coordinated with owner prior to installation.
- C. **Sanitary Facilities:** Contractor to provide portalet. Portalet to be placed adjacent to dumpster. Location of portalet to be coordinated with owner prior to installation.
- D. **Storage:** Storage not available on site. Storage box permitted at 500 Carteret Street parking lot.

2.2 EQUIPMENT

- A. **Fire Extinguishers:** Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Locate facilities where they will result in minimum interference with day to day operations of the building and performance of the Work. Relocate and modify facilities as required by progress of the Work.

3.2 TEMPORARY UTILITY INSTALLATION

- A. **General:** Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. **Sewers and Drainage:** Provide temporary utilities to remove effluent lawfully. Provide a method to prevent solids such as stone, mortar, paint, residue from entering the drains and drain lines. Contractor shall be responsible for cleaning out drains and drain lines that become blocked or filled by sand or any other solids because of work performed under this contract.
- C. **Water Service:** Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- D. **Sanitary Facilities:** Provide portalet.

- E. Heating and Cooling: Provide temporary heating and cooling required by construction activities for curing or drying of completed installations or for protecting installed construction from adverse effects of low temperatures or high humidity. Select equipment that will not have a harmful effect on completed installations or elements being installed.
- F. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- G. Lighting: Provide temporary lighting that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
 - 1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.3 SUPPORT FACILITIES INSTALLATION

- A. Parking: 1 on street parking space provided for construction personnel. Additional parking can be provided in the 500 Carteret Street parking lot.
- B. Waste Disposal Facilities: Provide waste-collection container no larger than 15 tons. Comply with requirements of authorities having jurisdiction. All waste must be removed from site daily.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
- B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.
 - 1. Comply with work restrictions specified in Section 011000 "Summary."
- C. Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.
- D. Temporary Fire Protection:
 - 1. General: Develop and supervise an overall fire-prevention and protection program for personnel at Project site. Instruct personnel in methods and procedures. Post warnings and information.
 - a. Follow fire-prevention plan and the following.
 - b. Retain option Comply with NFPA 241 requirements unless otherwise indicated.
 - c. Remove and keep area free of combustibles including, rubbish, paper, waste, and chemicals, except to the degree necessary for the immediate work.
 - d. Prohibit smoking by all persons within the Project work and staging areas.
 - 2. Heat-Generating Equipment and Combustible Materials: Not allowed on site. Exception: Welding equipment for installation of internal gutters.
 - 3. Fire Extinguishers, Fire Blankets, and Rag Buckets: Maintain fire extinguishers, fire blankets, and rag buckets for disposal of rags with combustible liquids. Maintain each as suitable for the type of fire risk in each work area. Ensure that nearby personnel and the fire watch is trained in fire-extinguisher and blanket operation.

3.5 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures.
 - 2. Final completion procedures.
 - 3. Warranties.
 - 4. Final cleaning.
 - 5. Repair of the Work.
- B. Related Requirements:
 - 1. Section 013233 "Photographic Documentation" for submitting final completion construction photographic documentation.
 - 2. Section 017839 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.

1.3 ACTION SUBMITTALS

- A. Product Data: For cleaning agents.
- B. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.
- C. Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 CLOSEOUT SUBMITTALS

- A. Certificates of Release: From authorities having jurisdiction.
- B. Certificate of Insurance: For continuing coverage.

1.5 SUBSTANTIAL COMPLETION PROCEDURES

- A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's punch list), indicating the value of each item on the list and reasons why the Work is incomplete.

- B. Submittals Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 2. Submit closeout submittals specified in other Division 01 Sections, including project record documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Architect. Label with manufacturer's name and model number where applicable.
 - a. Schedule of Maintenance Material Items: Prepare and submit schedule of maintenance material submittal items, including name and quantity of each item and name and number of related Specification Section. Obtain Architect's signature for receipt of submittals.
 5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- C. Procedures Prior to Substantial Completion: Complete the following a minimum of 10 days prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.
1. Advise Owner of pending insurance changeover requirements.
 2. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 3. Complete startup and testing of systems and equipment.
 4. Perform preventive maintenance on equipment used prior to Substantial Completion.
 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
 6. Advise Owner of changeover in heat and other utilities.
 7. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 8. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 9. Complete final cleaning requirements, including touchup painting.
 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- D. Inspection: Submit a written request for inspection to determine Substantial Completion a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Results of completed inspection will form the basis of requirements for final completion.

1.6 FINAL COMPLETION PROCEDURES

- A. Submittals Prior to Final Completion: Before requesting final inspection for determining final completion, complete the following:
 - 1. Submit a final Application for Payment according to Section 012900 "Payment Procedures." All closeout documents must be submitted before final payment will be processed.
 - 2. Certified List of Incomplete Items: Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. Certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
 - 3. Certificate of Insurance: Submit evidence of final, continuing insurance coverage complying with insurance requirements.
- B. Inspection: Submit a written request for final inspection to determine acceptance a minimum of 10 days prior to date the work will be completed and ready for final inspection and tests. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
 - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.7 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - 1. Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - 3. Include the following information at the top of each page:
 - a. Project name.
 - b. Date.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Page number.
 - 4. Submit list of incomplete items in the following format:
 - a. PDF electronic file via email.

1.8 SUBMITTAL OF PROJECT WARRANTIES

- A. Time of Submittal: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated, or when delay in submittal of warranties might limit Owner's rights under warranty.
- B. Organize warranty documents into an orderly sequence based on the table of contents of Project Manual.
 - 1. Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or

- installation, including the name of the product and the name, address, and telephone number of Installer.
3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
 4. Warranty Electronic File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document. Submit via email.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a designated portion of Project:
 - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c. Remove tools, construction equipment, machinery, and surplus material from Project site.
 - d. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - e. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - f. Sweep concrete floors broom clean in unoccupied spaces.
 - g. Clean transparent materials, including glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Polish glass, taking care not to scratch surfaces.
 - h. Remove labels that are not permanent.
 - i. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.

- j. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.
- k. Leave Project clean and ready for occupancy.

3.2 REPAIR OF THE WORK

- A. Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.
- B. Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired. Restore damaged construction and permanent facilities used during construction to specified condition.
 - 1. Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that that already show evidence of repair or restoration.

END OF SECTION 017700

SECTION 017839 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for project record documents, including the following:
 - 1. Record Drawings.
 - 2. Record Specifications.
 - 3. Record Product Data.
 - 4. Miscellaneous record submittals.
- B. Related Requirements:
 - 1. Section 017700 "Closeout Procedures" for general closeout procedures.

1.3 CLOSEOUT SUBMITTALS

- A. Record Drawings: Comply with the following:
 - 1. Number of Copies: Submit copies of record Drawings as follows:
 - a. Initial Submittal:
 - 1) Submit PDF electronic files of scanned record prints.
 - 2) Architect will indicate whether general scope of changes, additional information recorded, and quality of drafting are acceptable.
 - b. Final Submittal:
 - 1) **Submit PDF electronic files of scanned record prints on thumb drive and two set(s) of prints.**
 - 2) Print each drawing, whether or not changes and additional information were recorded.
- B. 3-Ring binder with tabbed divisions Including the following:
 - 1. Record Specifications: **Submit annotated PDF electronic files of Project's Specifications, including addenda and contract modifications on thumb drive. Provide one printed copy for Owner.**
 - 2. Record Product Data: **Submit annotated PDF electronic files and directories of each submittal on thumb drive. Provide one printed copy for Owner.**

3. Miscellaneous Record Submittals: See other Specification Sections for miscellaneous record-keeping requirements and submittals in connection with various construction activities. **Submit annotated PDF electronic files and directories of each submittal on thumb drive. Provide one printed copy for Owner.**

PART 2 - PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of marked-up paper copies of the Contract Drawings and Shop Drawings, incorporating new and revised drawings as modifications are issued.
 1. Preparation: Mark record prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to provide information for preparation of corresponding marked-up record prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an acceptable drawing technique.
 - c. Record data as soon as possible after obtaining it.
 - d. Record and check the markup before enclosing concealed installations.
 - e. Cross-reference record prints to corresponding archive photographic documentation.
 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Revisions to routing of piping and conduits.
 - d. Actual equipment locations.
 - e. Locations of concealed internal utilities.
 - f. Changes made by Change Order or Change Directive.
 - g. Details not on the original Contract Drawings.
 - h. Field records for variable and concealed conditions.
 - i. Record information on the Work that is shown only schematically.
 3. Mark the Contract Drawings and Shop Drawings completely and accurately. Use personnel proficient at recording graphic information in production of marked-up record prints.
 4. Mark record sets with red-colored pen. Use other colors to distinguish between changes for different categories of the Work at same location.
 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
- B. Record Digital Data Files: Immediately before inspection for Certificate of Substantial Completion, review marked-up record prints with Architect. When authorized, scan a full set of record prints of the Contract Drawings, as follows:

1. Format: PDF electronic file with comment function enabled via email for initial review submittal.
- C. Format: Identify and date each record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
1. Record Prints: Organize record prints and newly prepared record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 2. Format: Annotated PDF electronic file with comment function enabled via email. Provide **two** printed copies for Owner.
 3. Record Files: Organize digital data information into separate electronic files that correspond to each sheet of the Contract Drawings. Name each file with the sheet identification. Include identification in each digital data file.
 4. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 4. For each principal product, indicate whether record Product Data has been submitted in operation and maintenance manuals instead of submitted as record Product Data.
 5. Note related Change Orders, record Product Data, and record Drawings where applicable.
- B. Format: Submit record Specifications as annotated PDF electronic file on thumb drive. Provide one printed copy for Owner.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, record Specifications, and record Drawings where applicable.

- B. Format: Submit record Product Data as annotated PDF electronic file on thumb drive. Provide one printed copy for Owner.
- C. Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.
- B. Format: Submit miscellaneous record submittals as PDF electronic file on thumb drive. Provide one printed copy for Owner.
 - 1. Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for project record document purposes. Post changes and revisions to project record documents as they occur; do not wait until end of Project.
- B. Maintenance of Record Documents and Samples: Store record documents and Samples in the apart from the Contract Documents used for construction. Do not use project record documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to project record documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 040513 – MORTARS FOR STRUCTURAL REPAIRS AND REPOINTING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 013591: Historic Treatment Procedures
- C. Codes and Standards set forth by:
 - 1. Preservation Brief #1, "The Cleaning and Waterproof Coating of Masonry Buildings" as published by the US National Park Service.
 - 2. Preservation Brief #2, "Repointing Mortar Joints in Historic Buildings" as published by the U. S. National Park Service.
 - 3. Brick Institute of America Applied Standards

1.2 SUMMARY

- A. Work includes, all labor, materials, equipment, and services necessary to complete the work of repointing mortars as shown in the Drawings, and as specified herein, and as may be required by conditions and authorities having jurisdiction, including, but is not necessarily limited to, the following:
 - 1. Repointing of historic brick masonry substrate adjacent to windows.
 - a. Contractor is responsible for repairing brick and mortar damage caused by contractor during the process of restoring the windows and doors only.
 - b. Contractor is responsible for repairing deteriorated or missing brick and mortar adjacent to windows and doors. Repairs are limited to those required to ensure a watertight assembly at the windows and doors.
- B. Related Sections:
 - 1. Section 013591 "Historic Treatment Procedures".

1.3 SCOPE

- A. Provide all labor and materials to repair and restore masonry elements as specified herein and as detailed on the Drawings.

1.4 SUBMITTALS

- 1. Contractor Qualifications: Submit documentation of contractor's past project experience that meets the work experience outlined in the specification. Provide references for a minimum of two (2) projects completed in the last five years, including contact names and phone numbers.
- 2. Supervisor and Lead Tradesman Qualifications: Submit resume for supervisor/lead mason. Must have a minimum of five (5) years demonstrated experience repointing historic structures.

3. Product Data: For each type of product indicated, include material descriptions and all product labels for each product used. Include all MSDS and Material Specifications for all products used.
4. Contractor to mark areas of wall requiring mortar replacement and obtain Owner and Architect approval prior to starting work.
5. Repointing of a masonry joints around one window will be required for approval by the owner and architect prior to commencement of the work at no additional cost. Mockup shall serve as the project standard for the mortar color, texture and joint profile and shall remain in place until the work is completed.
6. Replacement Brick Samples.

1.5 PROJECT CONDITIONS

- A. The Contractor is responsible for protecting existing adjacent materials and surfaces during the execution of the work and shall provide all necessary protection and follow all necessary work procedures to avoid damage to existing material assemblies not a part of the work in the Section.
- B. The Contractor shall provide visible barriers and / or warning tape around the perimeter of the work area for visitor protection and shall also provide that nearby vehicles and adjacent structures will be protected from damage during the course of the work.
- C. The Contractor shall coordinate masonry repointing with the other trades involved in exterior restoration work.

1.6 ENVIRONMENTAL CONDITIONS

- A. General: Perform work only when temperature of products being used, and air temperature and humidity comply with the manufacturer's requirements and requirements of this Section. In case of conflict, the most stringent requirements shall govern.
- B. Take precautionary measures necessary to assure that excessive temperature changes do not occur.
- C. General Weather Limitations: If masonry work must be done when ambient temperature is freezing, or below, all masonry material must be at temperature between 50 degrees Fahrenheit and 85 degrees Fahrenheit, and the mortar, when used, shall have a temperature between 60- and 80-degrees Fahrenheit. In addition, all masonry shall be protected from temperatures below 40 degrees Fahrenheit for at least 24 hours after being laid. Heat for heating materials and heated temporary enclosures will be provided by Contractor.
- D. Hot Weather Limitations: Protect fresh mortar from rapid drying when temperature, humidity, and wind conditions might cause rapid drying of mortar.
 1. If ambient the air temperature exceeds 85 deg F or exceeds 80 deg F with a wind velocity greater than 8mph, flush mixer, transport container, and boards with cool water before they come into contact with the mortar ingredients. Maintain temperature of mortar below 120 deg F and use fresh mortar within the open time outlined by the manufacturer.
 2. Limit spread of beds to 4ft when temperatures exceeds 85 deg F or exceeds 80 deg F with a wind velocity greater than 8mph

- E. Antifreeze admixtures will not be allowed in the mortar. No frozen work shall be built upon. No masonry unit having a film of frost on its surface shall be installed in the work. Any completed work found to be affected by frost shall be taken down and rebuilt.

1.7 QUALITY ASSURANCE

- A. This structure is an historic building. The mortar work on this project is critical to the satisfactory execution of the work.
 - 1. Work Experience:
 - a. Contractor must have a minimum of five (5) years demonstrated experience working on projects of similar scope. Contractor to have a working knowledge of the Secretary of the Interior's Standards for Treatment of Historic Properties.
 - b. Supervisor and/or lead mason must have a minimum of five (5) years demonstrated experience repointing historic structures.
 - 1) Experience only in new mortar work is insufficient experience for work.
 - 2) Site supervisor and/or lead mason cannot be changed without approval by the Owner and Architect.
- B. Source of materials: The Contractor shall not change sources or manufacturers of mortar materials during the course of the work.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site and store in manufacturer's original unopened containers and packaging, bearing labels as to type and names of products and manufacturers, and which shall show grade, batch, and production data.
- B. Deliver, store, and handle all products and materials to prevent damage, deterioration, or degradation and intrusion of foreign materials.
- C. Storage and Protection: All materials must be protected from rainwater and ground moisture, and from staining or intermixture with earth or other types of materials.
 - 1. Sand
 - a. Maintain sand at constant moisture content.
 - b. Cover pile when not in use
 - c. Arrange pile for free drainage.
 - d. Do not use bottom portion of pile (wet or in contact with earth) in mortar
 - 2. Lime
 - a. Do not tarp or wrap materials so as to trap moisture or permit condensation to form
 - b. Allow air to circulate freely around units.
 - c. Do not use bags that have been broken or exposed to moisture.
 - 3. Discard and remove from site deteriorated, contaminated materials, and products that have exceeded their restoration dates. Replace with fresh materials.
 - 4. The contractor becomes responsible for the product at the time it is received.
- D. Laws, Codes, and Regulations: Work of this Section shall comply with all applicable federal, state, and local laws, codes, and regulations.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Brick: Replacement brick shall match existing in size, shape, color, and texture. Replacement brick shall be approved by Owner and Architect.
- B. Grade and Quality: Lime and aggregate shall conform to the requirements of this Section and shall be new, free from defects and of recent manufacture in date.
- C. Prohibited materials: the following materials are strictly prohibited in all mortar specified in this section.
 - 1. Antifreeze compounds or other admixtures
 - 2. Air entraining agents
- D. Portland Based Mortar
 - 1. Portland Cement: ASTM C 150, Type 1
 - 2. Lime: Shall conform to ASTM C207, Type S hydrated lime.
 - 3. Aggregate: Shall be a variable graded (coarse to fine) washed sand matching the texture and range of sizes found in the original mortar. Natural or manufactured sharp sand, with at least four grades of sand forming a substantial part of the sand and no more than 1% of the particles smaller than grade 200. Clean, well-graded, sharp, angular crushed aggregate complying with the requirements for deleterious substances and soundness of ASTM C 144. Sand aggregate shall have a nominal top size of 2.38mm (No. 8 US sieve) with over 75% of the material having a diameter between 1mm (No. 16 US sieve) and 0.297mm (No. 50 US sieve).
 - 4. Water: Shall be clean and free of acids, Alkalis or organic materials. If water must be transported or stored in a container, the container must not impart any chemicals to the water.

2.2 MORTAR MIXES

- A. Repointing Mortar
 - 1. Option 1
 - a. 1 Part portland cement
 - b. 1/2 Part lime
 - c. 4-4 1/2 Parts aggregate
 - 2. Option 2
 - a. Type S Masonry Cement mixed with sand according to the manufacturer's recommendations.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Contractor to mark areas of wall requiring mortar replacement and obtain Owner and Architect approval prior to starting work.

- B. On exposed masonry, remove all deteriorated mortar by hand with a chisel and mallet. Do not use power tools unless approved by Owner and Architect. Chisels are to be the appropriate size to fit cleanly into mortar joints without damage to surrounding surfaces.
 - 1. Rake joints to a depth of 1.5 times the mortar joint width or to sound mortar.
- C. Brush, vacuum, or flush joints to remove all dirt and loose debris. Loose or disintegrated mortar beyond the minimum depth shall be removed.
- D. Removal of the mortar shall be done in a manner that does not score, chip, or otherwise damage masonry units or adjacent elements. Mortar should be removed cleanly from the masonry units, leaving square corners at the back of the cut.
- E. Use a hand chisel to finish joints adjacent to door and window openings to avoid damage to frames and trim.
- F. Provide temporary support where necessary to prevent displacement during repointing and until mortar has achieved sufficient strength.

3.2 MIXING

- A. All ingredients shall be measured by volume using pre-established uniform measure, rather than a less uniform measure such as a shovel.
- B. Dry mix all dry materials
- C. Mortar shall be mixed in an approved power operated batch mixer. Mixing time shall be such as to produce a homogenous plastic mortar but shall not be less than five minutes; approximately two minutes of which shall be for mixing the dry materials and not less than three minutes for continuing the mixing after water has been added.
- D. A minimum amount of water shall be used to produce a workable consistency for the mortar's intended purpose.
- E. Mortar for repointing shall be as dry a consistency as will produce a mortar sufficiently plastic to be worked into the joints and to hang onto a trowel. Record the amount of water used so that it may serve as a guide for future batches.
- F. Mortar shall be placed in final position within the open time outlined by the manufacturer. Non-factory bagged mortars shall be placed in final position within 2 ½ hours. Re-tempering of hardened material shall not be permitted.

3.3 INSTALLATION

- A. Repointing of Exterior Walls & Repair of Cracks in Mortar Joints
 - 1. Use only clean tools and equipment, free from hardened or partially hardened materials.
 - 2. Dampen masonry prior to repointing to reduce suction of water from the mortar and shrinkage cracks. Do not fully saturate masonry.
 - 3. Maintain hand mister bottles or a garden sprayer with clean, clear, potable water immediately available to masons at all times during the repointing process. A very low-pressure spray (garden hose with nozzle adjusted to a fine, low-volume mist) may be used over large areas providing erosion of joints is prevented.

4. Pack joints with new mortar leaving no voids. Match existing depth of sound mortar. Care shall be taken not to over pack joints.
5. Use and place mortar in final position within the open time outlined in section 3.2. Do not re-temper or use material that has partially set, is caked or is lumpy.
6. Finish joints uniformly. Do not overwork. Leave the surface of the masonry clean.
7. New mortar shall match the color and texture of the original mortar as close as practical. Match aggregate to the original in content, color and gradation. The color of the new mortar ideally should be achieved through the color and texture of the sand only.
8. Remove any portion of the work that does not comply with the specification and replace with proper materials and install in compliance with these specifications at no additional cost to the Owner and Architect.

3.4 CURING

A. Curing:

1. Protect completed work from adverse weather, heavy rainfall, freezing, and drying by direct sunlight and winds until cured.
2. If ambient the air temperature exceeds 100 deg F or exceeds 90 deg F with a wind velocity greater than 8mph, fog spray all newly applied mortar until damp, a minimum of three times a day for 1 day following application.
3. Shield from direct sun and drying winds for the first 24 hours after installation.

3.5 CLEAN UP

- A. Maintain clean surfaces on the face, sills, ledges, and projections of masonry on a daily basis.
- B. With a trowel, strike off minor dabs of adherent mortar from face of masonry.
- C. Remove minor mortar marks from masonry by misting with water and brushing with a small, stiff-bristle brush.

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Joint sealants.

1.3 ACTION SUBMITTALS

- A. Product Data & MSDS Sheets: For each joint-sealant product indicated.

- B. Joint-Sealant Schedule: Include the following information:

- 1. Joint-sealant application, joint location, and designation.
- 2. Joint-sealant manufacturer and product name.
- 3. Joint-sealant formulation.
- 4. Joint-sealant color.

- C. Warranties: Sample of special warranties.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each kind of joint sealant from single source from single manufacturer.

- B. Product Testing: Test joint sealants using a qualified testing agency.

- 1. Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.
- 2. Test according to SWRI's Sealant Validation Program for compliance with requirements specified by reference to ASTM C 920 for adhesion and cohesion under cyclic movement, adhesion-in-peel, and indentation hardness.

1.5 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:

- 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.

2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.6 WARRANTY

- A. Special Installer's Warranty: Manufacturer's standard form in which Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period: Two years from date of Substantial Completion.
- B. Special Manufacturer's Warranty: Manufacturer's standard form in which joint-sealant manufacturer agrees to furnish joint sealants to repair or replace those that do not comply with performance and other requirements specified in this Section within specified warranty period.
 1. Warranty Period for Urethane Sealants: 5 years from date of Substantial Completion.
 2. Warranty Period for Silicone Sealants: 20 years from date of Substantial Completion.
- C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:
 1. Movement of the structure caused by structural settlement or errors attributable to design or construction resulting in stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
 2. Disintegration of joint substrates from natural causes exceeding design specifications.
 3. Mechanical damage caused by individuals, tools, or other outside agents.
 4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.
- B. Liquid-Applied Joint Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied joint sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.

- C. Stain-Test-Response Characteristics: Where sealants are specified to be non-staining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- D. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

2.3 ELASTOMERIC JOINT SEALANTS

- A. Elastomeric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- B. Joint Sealant Material (Wood to Wood): Sealant to be paintable.
 - 1. Exterior
 - a. Sashco Big Stretch Sealant
 - b. An approved equal

NOTE: Sealants must be primed

2.4 URETHANE JOINT SEALANTS

- A. Joint Sealant Material (Wood to Metal) (Metal to Masonry)(Wood to Masonry):
 - 1. Exterior
 - a. Single-Component, Nonsag, Urethane Joint Sealant: ASTM C 920, Type S, Grade NS, Class 25, for Use NT.
 - 1) Sika Corporation, Inc.; Sikaflex - 1a
 - 2) BASF Building Systems; Sonolastic NP1.
 - 3) Tremco; Vulkem 116.

2.5 JOINT-SEALANT BACKING

- A. General: Provide sealant backings of material and type that are non-staining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by sealant manufacturer based on field experience and laboratory testing.
- B. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) or other type, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
- C. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.6 MISCELLANEOUS MATERIALS

- A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests. Prime all joint substrates unless indicated otherwise in writing by the Architect.

- B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any way, and formulated to promote optimum adhesion of sealants to joint substrates.
- C. Cylindrical Sealant Backings: ASTM C 1330, Type C (closed-cell material with a surface skin) or other type, as approved in writing by joint-sealant manufacturer for joint application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance:
- D. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer for preventing sealant from adhering to rigid, inflexible joint-filler materials or joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.
- E. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.
- C. Before commencement of work, carefully examine all surfaces to receive work and notify the Architect in writing of any conditions detrimental to the performance of this work. Do not proceed until unsatisfactory or deteriorated conditions have been inspected, corrected and are acceptable to the Architect and the applicator. Commencement of work will be construed as the applicator's acceptance of all surfaces. Commencement of the work prior to the Architect's inspection and acceptance is done at the applicator's risk.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
 1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
 2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air.
 3. Remove laitance and form-release agents from concrete.

4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.
- B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
 1. Do not leave gaps between ends of sealant backings.
 2. Do not stretch, twist, puncture, or tear sealant backings.
 3. Remove absorbent sealant backings that have become wet before sealant application and replace them with dry materials.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
 1. Place sealants so they directly contact and fully wet joint substrates.
 2. Completely fill recesses in each joint configuration.
 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
- E. Tooling of Non-sag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
 1. Remove excess sealant from surfaces adjacent to joints.
 2. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.
 3. Provide concave joint profile per Figure 8A in ASTM C 1193, unless otherwise indicated.
 - a. Use masking tape to protect surfaces adjacent to recessed tooled joints.
- F. Installation of Preformed Foam Sealants: Install each length of sealant immediately after removing protective wrapping. Do not pull or stretch material. Produce seal continuity at ends,

turns, and intersections of joints. For applications at low ambient temperatures, apply heat to sealant in compliance with sealant manufacturer's written instructions.

3.4 CLEANING

- A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION

SECTION 080314 – HISTORIC TREATMENT OF WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This project involves the rehabilitation of an historic building. Treat the building respectfully. Carefully inspect existing conditions and treat existing materials as irreplaceable. Do not remove, alter or disfigure any existing materials, elements or finishes, unless indicated on the Drawings, specified herein, or directed by the Architect.
- B. Work includes, but is not necessarily limited to, the following:
 - 1. Alternate 3: Restore exterior doors including transoms.
 - a. Restoration or replacement of damaged wooden elements, paneling, and hardware of all exterior doors and as indicated on the Drawings.
 - b. Fabrication and installation of new exterior door components, jambs, hardware, and trim as indicated on Drawings and to match existing historic doors.

1.3 DEFINITIONS

- A. Restoration: The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features, removal of inadequate and incongruous repairs, and the repair of existing features from the restoration period.
- B. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.

1.4 SCOPE

- A. General: Provide all labor, materials, equipment, and services required to complete wood door restoration and installation of new doors as specified herein and required by existing conditions and authorities having jurisdiction.
- B. Wood door restoration may include, but is not limited to, the following:
 - 1. Restore doors to sound and operational condition. Adjust door as required to open and close freely.
 - 2. All doors shall operate satisfactorily including closing tightly against stop, latching correctly, and latch appropriately where required.
 - 3. Doors previously trimmed or currently undersized and allowing air to infiltrate the building to be fully weather-stripped and repaired to ensure a tight seal around all doors.
 - 4. Replace missing, damaged, and deteriorated hardware as indicated in the drawings.
 - 5. Provide new door hardware as indicated in the Drawings.
 - 6. Restore all door trim to sound condition and complete appearance.

7. Fabricate and install new doors, jambs, thresholds, and trim as indicated on Drawings.
8. Provide all labor and materials including hardware.

C. Intent: It is the specific intent of this Section that repairs maximize the retention of historic fabric while making all doors operational for long term use and serviceable for cyclical maintenance.

1.5 SUBMITTALS

- A. Prior to application, submit to the Architect for approval the following:
1. Product Data: Samples of all specified materials, product information and data, and Material Safety Data Sheets (MSDS).
 2. Qualification Data: For historic treatment specialists including field supervisors and workers.
 3. Submit a complete list of all materials proposed to be furnished and installed under this portion of the Work. This shall in no way be construed as permitting substitutions of materials for those specified or approved for this Work by the Architect. All substitutions must be approved by architect prior to installation.

1.6 QUALITY ASSURANCE

- A. Craftspeople: Wood door restoration shall be carried out by a crew of skilled craftspeople who are thoroughly experienced with materials and methods specified and have at a minimum of five years' experience working on similar historic projects in nature.
- B. Prototype Restoration Samples: The Contractor shall restore one door and surrounding trim per this Specification that shall demonstrate the quality of Work. The Contractor shall submit the prototype restoration for approval by the Architect. The approved prototypes shall be used for comparison with all other work and shall be the basis for acceptance of the Work. The Contractor shall not proceed with the wood door restoration Work until the prototype(s) have been approved.
- C. Laws, Codes, and Regulations: All work of this Section shall comply with all applicable federal, state, and local laws, codes, and regulations.

1.7 PROJECT CONDITIONS

- A. Do not install products that are wet, moisture damaged, or contaminated.
- B. The Contractor must create a catalog of all items removed site with a template approved by the Architect prior to removal. Template shall include a description of each item, location in structure, date of removal, location to which item was removed to, and date of return to the site.
- C. The Contractor is responsible for protecting existing adjacent materials and surfaces during the execution of the work and shall provide all necessary protection and follow all necessary work procedures to avoid damage to existing material assemblies not a part of the work in the Section.
- D. The Contractor shall provide visible barriers and / or warning tape around the perimeter of the work area for visitor protection and shall also provide that nearby vehicles and adjacent structures will be protected from damage during the course of the work.

1.8 ENVIRONMENTAL CONDITIONS

- A. General: Perform work only when temperature of products being used and air temperature and humidity comply with the manufacturer's requirements and requirements of this Section. In case of conflict, the most stringent requirements shall govern.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site and store in manufacturer's original unopened containers and packaging, bearing labels as to type and names of products and manufacturers, and which shall show grade, batch, and production data.
- B. Deliver, store, and handle all products and materials to prevent damage, deterioration, or degradation and intrusion of foreign materials.
 - 1. Storage procedures shall follow those specified in Section 015000 Temporary Facilities and Controls.
- C. Materials shall be stored indoors in such a manner so as not to interfere with other trades working in the building. Architect shall approve proposed material storage locations prior to material delivery.
- D. Replacements: In the event of damage to the products, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 Materials

- A. STANDARDS: American Softwood Lumber Standard PS20 American Plywood Association, American Wood Preservers Bureau Standards. AWI Architectural Woodwork Quality Standards.
- B. Door Repairs to Historic Doors: **Match** species, grade, grain pattern, and other special characteristics of existing woodwork unless otherwise noted. If reclaimed material is not available, Sapele may be used.
- C. New Doors: Solid wood, panel doors as indicated on the Drawings. No finger joining material is allowed. Use Sapele.
- D. Interior Trim:
 - 1. Dutchman: Match species, grade, grain pattern, and other special characteristics of existing woodwork unless otherwise noted.
 - 2. Complete Replacement:
 - a. Wood, General: Clear fine-grained lumber; Southern Yellow Pine kiln dried to a moisture content of 6 to 12 percent at time of fabrication; no finger joints, glue stain, knots, pitch pockets, and surface checks larger than 1/32 inch deep by 2 inches wide.
 - 1) Species: Match species of each existing type of wood component or assembly unless otherwise indicated.
- E. Exterior Trim, Casing, and Jamb:

1. Dutchman: Match species, grade, grain pattern, and other special characteristics of existing woodwork unless otherwise noted.
 2. Complete Replacement:
 - a. Wood, General: Clear fine-grained lumber; Southern Yellow Pine kiln dried to a moisture content of 6 to 12 percent at time of fabrication; no finger joints, glue stain, knots, pitch pockets, and surface checks larger than 1/32 inch deep by 2 inches wide.
 - 1) Species: Match species of each existing type of wood component or assembly unless otherwise indicated. If reclaimed material is not available, Sapele may be used.
- F. Exterior Fasteners: All exterior fasteners shall be stainless steel grade 304 or better.
- G. Interior Fasteners: All interior fasteners shall be hot-dip zinc coated complying with ASTM A 153/A 153M.
- H. Wood Filler
1. Use a Bisphenol A based low viscosity liquid epoxy resin with appropriate hardener that cures to a high strength plastic solid under room temperatures.
 2. Epoxy to hardener ratio shall not exceed 5:1.
 3. Product shall be specifically designed to bond with historic wood fiber and must be able to be sanded and shaped when cured.
- I. See Section 079200 "Joint Sealants" for joint sealant specification.
- J. See Section 099000 "Architectural Coatings" for paint specification.
1. Paint exterior doors, trim, frames, jambs, and side panels complete. Paint hinges complete.

PART 3 - EXECUTION

3.1 GENERAL: DOORS

- A. Match existing detailing.
- B. In kind replacement: Except as specifically indicated otherwise, provide replacement elements with configurations, profiles, dimensions, and joinery exactly matching those of existing elements.
- C. Machining and Surfacing: Machine and surface all new and replacement wood elements to provide smooth even surfaces without saw marks or plane marks. Wood with surface irregularities, including but not limited to scratches, saw marks, and plane knife marks, visible after finish has been applied will be rejected and shall be replaced with properly finished wood elements at no additional cost. Do not damage or alter profile or finish of adjacent wood.
- D. Existing Wood Doors: Repair and retain existing doors. All doors shall be adjusted to swing and lock properly.
- E. Replacement Door Trim: Match existing or as detailed on drawings. Dutchman repairs shall be in kind. Match existing detailing.

- F. Restore existing hardware and install new hardware and locksets as indicated on Drawings and in specifications. Refer to Section 087100 "Hardware" for hardware schedule.
- G. Refer to Section 099000 "Architectural Coatings" for final finishing of installed wooden elements.

3.2 DOOR PATCH-TYPE REPAIR

- A. General: Patch wood members that are damaged, rotten, or decayed.
- B. Remove doors from frames before performing patch-type repairs at meeting or sliding surfaces unless otherwise indicated.
- C. Verify that all surfaces are sufficiently clean and free of paint residue prior to patching.
- D. Treat wood members with a wood consolidant prior to application of patching compound. Coat wood surfaces by brushing, applying multiple coats until wood is saturated and refuses to absorb more material. Allow treatment to harden before filling void with patching compound.
- E. Remove rotten or decayed wood down to sound wood.
- F. Apply wood patching compound to fill depressions, nicks, cracks, and other voids created by removed or missing wood.
- G. Follow manufacturer's written instructions for applying wood patching compound.
- H. Mix only as much patching compound as can be applied according to the manufacturer's written instructions.
- I. Apply patching compound in layers as recommended by manufacturer until the void is completely filled.
- J. Finish patch surface to match contour of adjacent wood member. Sand patching compound smooth and flush, matching contour of existing wood member.

3.3 COMPONENT REPLACEMENT

- A. Match existing materials and features, retaining as much original material as possible to perform repairs.
- B. In kind replacement: Except as specifically indicated otherwise, provide replacement elements with configurations, profiles, dimensions and joinery exactly matching those of existing elements.
- C. Machining and Surfacing: Machine and surface all new and replacement wood elements to provide smooth even surfaces without saw marks or plane marks. Wood with surface irregularities, including but not limited to scratches, saw marks, and plane knife marks, visible after finish has been applied will be rejected and shall be replaced with properly finished wood elements at no additional cost. Do not damage or alter profile or finish of adjacent wood.

3.4 DUTCHMAN REPAIRS

- A. General: Provide dutchman repairs where wood is structurally compromised. Dutchman repairs shall provide continuous smooth surfaces matching planes and profiles of wood members being repaired. Dutchman shall match wood being repaired in species, and cut. In wood for clear finish, grain pattern of dutchman shall match grain pattern of wood into which it is inserted.
- B. Preparation: Neatly cut out existing opening as required to provide a prismatic void. Where possible create voids that will provide mechanical attachments as in dovetails. The amount of wood removed should be minimized but the amount should include all damaged wood and extend just past damaged wood to prevent spread of any fungus contained therein. Cut away area will provide ample glue surface.
- C. Dutchman: Cut dutchman to exactly fit void, with exposed portion matching original profile of woodwork and just slightly proud of original surface. Orient grain of dutchman parallel to grain of element being patched. Where deterioration or loss at end of component requires dutchman repair, use a diagonal scarf joint for end-to-end joint between dutchman and remaining portion of component.
- D. Installation: Clean glue surfaces with acetone or denatured alcohol. Insert dutchman using specified adhesive and clamp in place until glue is set. Where clamping is not feasible, use small brads; remove brads and fill holes after adhesive has set.
- E. Surfacing: Plane or scrape dutchman to provide smooth continuous surface coplanar with adjacent wood. Do not damage or alter profile or finish of adjacent wood.

3.5 SECURING OF LOOSE TRIM

- A. General: Loose trim shall be secured using noncorrosive finishing nails or trim screws.
- B. Set molding in original position.
- C. Secure trim with non-corrosive trim screw or finishing nails of appropriate size. Pre-drill holes to avoid splitting wood.
- D. Fill holes and match existing finish.

3.6 CLEAN UP

- A. Protect door surfaces from contact with contaminating substances resulting from construction operations. Monitor door surfaces adjacent to and below exterior masonry work during construction for presence of dirt, scum, alkaline deposits, stains, or other contaminants.
- B. Clean interior and exterior door surfaces promptly after installation. Take care to avoid damage to historic and protective coatings and finishes. Remove excess sealants, glazing and patching materials, dirt, and other substances.
- C. Upon completion of wood door restoration, remove tools, equipment, and other unnecessary materials from site. Return adjacent area and surrounding property to the condition which existed prior to the start of work.
- D. Remove and legally dispose off-site all debris, rubbish, and other materials resulting from operations of this section.

END OF SECTION 080314

SECTION 080352 – HISTORIC TREATMENT OF WOOD WINDOWS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Codes and standards set forth by:
 - 1. Preservation Brief #6, "The Repair of Historic Wooden Windows" as published by the U. S. National Park Service.
 - 2. All work shall be performed in accordance with the "Secretary of the Interior's Standards for Rehabilitation, "U.S. Department of the Interior, National Park Service, 1995."
 - a. Repair or replace, where necessary, deteriorated materials with new materials that duplicate old as closely as possible in appearance, color, and texture.
 - b. Retain original material wherever possible.

1.2 SUMMARY

- A. This project involves the rehabilitation of an historic building. Treat the building respectfully. Carefully inspect existing conditions and treat existing materials as irreplaceable. Do not remove, alter, or disfigure any existing materials, elements or finishes, unless indicated on the Drawings, specified herein, or directed by the Architect.
- B. Work includes, but is not necessarily limited to, the following:
 - 1. All Windows.
 - a. Repair and restore all windows complete including but not limited to all damaged, deteriorated, and/or missing wooden elements (sills, sash, jamb, casing, stool, and trim). All upper window sashes will be fixed. Lower window sashes will be operable. It is the intention to retain as much historic material as possible.
 - b. Install new sash locks.
 - c. Install new weather-stripping to all windows.
 - d. Glazing putty to be removed complete. New glazing putty to be installed complete.
 - e. Existing unbroken glass to be retained. Replace all missing, broken, or damaged glass.
 - f. Remove all extraneous hardware, fasteners, staples, past inappropriate repairs, and all miscellaneous extraneous items complete.
 - g. Replace missing sash lifts.
 - 2. Alternates:
 - a. Alternate 1: Install 3M climate control 75 film on interior of all windows. Film must be installed by certified installer. Alternate excludes windows 10,11, 26, 27, 28, and 29 which have textured privacy glass.
 - b. Alternate 2: Lower window sash to be fixed in place. Basis of Design: Fixed upper sash, operable lower sash.
 - c. Alternate 4: Unblock interior of windows 26, 28, and 29. Install new 3M Climate Control 75 Film on interior of widows.

1.3 DEFINITIONS

- A. Restoration: The act or process of accurately depicting the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and reconstruction of missing features from the restoration period.
- B. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.

1.4 SCOPE

- A. General: Provide all labor, materials, equipment, and services required to complete wood window restoration as specified herein and required by existing conditions and authorities having jurisdiction.
- B. Wood window restoration may include, but is not limited to, the following:
 - 1. Temporarily remove all interior shutters as required and reinstall following window restoration.
 - 2. Restore damaged window sash while maintaining current profiles. Sash are required to be removed for restoration.
 - 3. Restore all window trim, casings, jambs, and interior stools to sound condition and appearance.
 - 4. **Windows with added elements and/or inappropriate repairs shall be returned to original appearance. Previous repairs that deviate from original details to be removed and appropriate repairs executed in accordance with the specifications. Final determination of repairs in question will be made by the architect. All elements of the jamb and casing to be in plane with original materials.**
 - 5. Repair, restore, consolidate, or repair deteriorated wood sills and framing members as approved by Architect.
 - 6. Install temporary protection with adequate weatherproofing where sash and other window elements are to be removed.
 - 7. Existing glass is to be retained unless otherwise noted.
 - 8. Remove all glazing putty and replace with new glazing putty.
 - 9. Install new weather-stripping on all windows. Vinyl weatherstripping to be set in appropriate groove. Notify Architect if felt weatherstripping cannot be installed at the mid-rail without modifying the sash.
 - 10. All repaired wood must be primed before assembly and installation as specified by Section 099000 Architectural Coatings.
 - 11. Reinstall repaired window sash. Upper sash shall remain fixed. Lower sash to be operable.
 - 12. Paint and finish all wood elements as necessary including those disturbed during work in this section to match original finishes.
 - 13. Clean all glass.
 - 14. Restore existing window hardware and provide new in-kind window hardware where existing hardware is missing or is too damaged or deteriorated to be restorable. Architects approval is required where hardware must be replaced.
 - a. Install new sash locks.
 - b. Install new brass chain as opposed to sash cords.
 - c. Replace missing sash lifts.
- C. Intent: It is the specific intent of this Section that repairs will maximize the retention of historic fabric while making the windows weather resistant for long-term use and serviceable for cyclical maintenance.

1.5 SUBMITTALS

- A. Prior to application, submit to the Architect for approval the following:
1. Product Data: Submit product data and applicable MSDS sheets for all materials specified within this section.
 2. One window must be disassembled in presence of Architect on site prior to start of work. Approval of Architect is required before the start of window restoration work.
 3. Contractor Qualifications: Submit documentation of contractor's past project experience that meets the work experience outlined in the specification. Provide references for a minimum of two (2) projects completed in the last five years, including contact names and phone numbers.
 4. Lead Tradesman Qualifications: Submit resume for lead carpenter. Must have a minimum of five (5) years demonstrated experience restoring historic windows.

1.6 PROJECT CONDITIONS

- A. Do not install products that are wet, moisture damaged, or contaminated.
- B. The Contractor must create a catalog of all items removed site with a template approved by the Architect prior to removal. Template shall include a description of each item, location in structure, date of removal, location to which item was removed to, and date of return to the site.
- C. Protect windows from damage or deterioration until time of substantial completion.
- D. The Contractor is responsible for protecting existing adjacent materials and surfaces during the execution of the work and shall provide all necessary protection and follow all necessary work procedures to avoid damage to existing material assemblies not a part of the work in the Section.
1. Ensure that building interior remains watertight and weathertight while renovating existing spaces. Special cares should be taken in the museum to protect collections.
- E. The Contractor shall provide visible barriers and / or warning tape around the perimeter of the work area for visitor protection and shall also provide that nearby vehicles and adjacent structures will be protected from damage during the course of the work.

1.7 ENVIRONMENTAL CONDITIONS

- A. General: Perform work only when temperature of products being used and air temperature and humidity comply with the manufacturer's requirements and requirements of this Section. In case of conflict, the most stringent requirements shall govern.

1.8 QUALITY ASSURANCE

- A. This structure is an historic building. The window restoration work on this project is critical to the satisfactory execution of the work.
1. Work Experience:
 - a. Contractor must have a minimum of five (5) years demonstrated experience working with historic windows and are thoroughly experienced with materials and methods specified. Contractor to have a working knowledge of the Secretary of the Interior's Standards for Treatment of Historic Properties.
 - b. Supervisor and/or lead carpenter must have a minimum of five (5) years demonstrated experience restoring historic windows.
 - 1) Lead carpenter cannot be changed without approval by the Architect.

- B. Laws, Codes, and Regulations: All work of this Section shall comply with all applicable federal, state, and local laws, codes, and regulations.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to site and store in manufacturer's original unopened containers and packaging, bearing labels as to type and names of products and manufacturers, and which shall show grade, batch, and production data.
- B. Deliver, store, and handle all products and materials to prevent damage, deterioration, or degradation and intrusion of foreign materials.
- C. Replacements: In the event of damage to the products, immediately make all repairs and replacements at no additional cost to the Architect.

PART 2 - PRODUCTS

2.1 Materials

- A. STANDARDS: American Softwood Lumber Standard PS20 American Plywood Association, American Wood Preservers Bureau Standards. AWI Architectural Woodwork Quality Standards
- B. Window Sash and Transoms: Sapele shall be used for all new and replacements pieces.
- C. Window Casing, Jamb, and Trim: Sapele shall be used for all new and replacements pieces.
- D. Window Sills: Sapele shall be used for all new and replacement sills.
- E. Interior Stool: Poplar shall be used for all new and replacement sills. Dutchman to be reclaimed heart pine material or sapele.
- F. Replacement Hardware: Replace existing sash locks with Locking Fitch Sash Locks.
 - 1. Manufacturers:
 - a. Broughtons Lighting and Ironmongery
 - 1) Product Name: Locking Fitch Fastener
 - a) Hardware Finish: Antique Satin Brass, uncoated
 - b) Product Number: WFSF0023ASB
 - b. An approved equal
 - 1) Hardware Finish: Solid Brass, uncoated
- G. Sash Lifts: Match existing.
- H. Sash Cording: All sash cording to be replaced with solid, unlacquered brass chain. Sizing to be determined based on existing pullies.
 - 1. House of Antique Hardware or approved equal.
- I. Exterior Fasteners: All exterior fasteners shall be stainless steel grade 304 or better.
- J. Interior Fasteners: All interior fasteners shall be hot-dip zinc coated complying with ASTM A 153/A 153M.
- K. Wood Filler

1. Use a Bisphenol A based low viscosity liquid epoxy resin with appropriate hardener that cures to a high strength plastic solid under room temperatures.
2. Epoxy to hardener ratio shall not exceed 5:1
3. Product shall be specifically designed to bond with historic wood fiber and must be able to be sanded and shaped when cured.
 - a. Manufacturers:
 - 1) West System
 - 2) An Approved equal

L. Wood Consolidant

1. Use a Bisphenol A based low viscosity liquid epoxy resin (unthickened) with appropriate hardener that cures to a high strength plastic solid under room temperatures.
2. Epoxy to hardener ratio shall not exceed 5:1
3. Product shall be specifically designed to bond with historic wood fiber and must be able to be sanded and shaped when cured.
 - a. Manufacturers:
 - 1) West System
 - 2) An Approved equal

M. Window Glazing Compound

1. Sarco DualGlaze Glazing Compound

N. Replacement Non-textured Glass

1. Double Strength Single Pane Annealed Float Glass.
 - a. Thickness: 1/8"

O. Replacement Textured Glass

1. Patterned Florentine Glass
 - a. Manufacturers: Franklin Art Glass or Approved equal.

P. Weather-stripping

1. Meeting Rail: Gray wool felt with adhesive back (tape), min. 1".
 - a. Southeastern Felt and Supply Corporation or approved equal.
2. Lower Sash: Vinyl weather-stripping from Conservation Technology, Inc.
 - a. Sides: WS-75, color: white
 - b. Bottom: WS-10, color: white
 - c. Note: Confirm specified vinyl weather-stripping is compatible with window configuration. Exact vinyl selections for sides and bottom may need to be modified. Submit to architect for approval.

PART 3 - EXECUTION

3.1 GENERAL

- A. Remove all extraneous hardware complete.
- B. Remove all extraneous items complete.
- C. Remove all previous inappropriate repairs.

3.2 GLASS REMOVAL

- A. Existing glass scheduled to be retained. Replace all cracked and broken glass panes. Glass broken by the contractor during restoration to be replaced at no additional cost to the Owner. Special care should be taken to salvage as much of the historic glass as possible.
- B. Label each pane of glass with location and orientation within the sash so that the historic glass can be returned to its original location and orientation. Use painters' tape to label glass and consistently label on either interior or exterior to avoid confusion at reinstallation.
- C. Remove all face glazing compound from each window sash.

3.3 WOOD WINDOWS

- A. Sash Removal
 - 1. Remove all window components necessary for restoration and proper reinstallation.
 - 2. Identify and label each component that is to be removed and repaired for reinstallation with window opening designator and location in jamb. Record numbers and locations of components.
 - 3. Remove adjacent elements as required to modify or replace elements of window jambs, heads, and sills that must be altered to accommodate restored window sash. Use all care necessary to prevent damage or deterioration of elements removed and elements remaining in place.
 - 4. To minimize breakages, paint lines at the edges of window stops must be cub/scribed first with a putty knife or a sharp knife before moldings are removed.
 - 5. Remove interior vertical stop beads on either side of the window.
 - 6. Carefully remove sash from window. Sash are required to be removed for restoration.
 - 7. Label each sash removed during work so that it may be reinstalled in the proper location.
 - 8. Install temporary protection with adequate weatherproofing where sash and other window elements are to be removed.
- B. Repair and Replacement of Existing Wood Window
 - 1. General: Replace parts of or entire wood window members where damage is too extensive to patch. Remove previous inappropriate repairs.
 - 2. Match existing detailing. Construct of sapele.
 - 3. In kind replacement: Except as specifically indicated otherwise, provide replacement elements with configurations, profiles, dimensions and joinery exactly matching those of existing elements.
 - 4. Machining and Surfacing: Machine and surface all new and replacement wood elements to provide smooth even surfaces without saw marks or plane marks. Wood with surface irregularities, including but not limited to scratches, saw marks, and plane knife marks, visible after finish has been applied will be rejected and shall be replaced with properly finished wood elements at no additional cost.
 - 5. Repair remaining depressions, holes, or similar voids with patch-type repairs.
 - 6. All existing glass is to be retained. Glass broken by the contractor during restoration to be replaced.
 - 7. Glazing: Re-glaze units prior to reinstallation. Glazing must be dry prior to applying paint. Note: It may take from several weeks to dry. Contractor to phase work accordingly.
 - 8. All upper sashes to remain fixed. All lower sashes to be operable.
 - 9. Install new weather-stripping on all windows. Vinyl weather-stripping to be set in appropriate groove. Notify Architect if felt weather-stripping cannot be installed at the mid-rail without modifying the sash.
 - 10. Caulk upper sash shut on all windows to minimize air infiltration.
 - 11. Install new sash locks. Special care should be taken to protect sash lock finish from over painting. Install locks after paint work has been completed.
 - 12. Install new sash chain.

13. Install missing sash lifts.

3.4 WINDOW PATCH-TYPE REPAIR

- A. General: Patch wood members that are damaged and exhibit depressions, holes, or similar voids, and that have limited rotted or decayed wood.
 1. Remove sashes from windows before performing repairs.
 2. Verify that all surfaces are sufficiently clean and free of paint residue prior to patching.
 3. Treat wood members with a wood consolidant prior to application of patching compound. Coat wood surfaces by brushing, applying multiple coats until wood is saturated and refuses to absorb more material. Allow treatment to harden before filling void with patching compound.
 4. Remove Rotten or decayed wood down to sound wood.
- B. Apply wood patching compound to fill depressions, nicks, cracks, and other voids created by removed or missing wood.
 1. Follow manufacturer's written instructions for applying wood patching compound.
 2. Mix only as much patching compound as can be applied according to the manufacturer's written instructions.
 3. Apply patching compound in layers as recommended by manufacturer until the void is completely filled.
 4. Finish patch surface to match contour of adjacent wood member. Sand patching compound smooth and flush, matching contour of existing wood member.

3.5 SASH INSTALLATION

- A. General: Install restored sash as per contract. At completion of installation, windows shall be complete with all components and with unblemished paint and finish coats.

3.6 ADJUSTING

- A. General: Adjust operating sash and hardware to provide a tight fit at contact points and weather-stripping, if specified, and to provide smooth operation and a weathertight closure. Lubricate hardware and moving parts.

3.7 CLEAN UP

- A. Protect window surfaces from contact with contaminating substances resulting from construction operations.
- B. Clean interior and exterior window surfaces promptly after installation. Take care to avoid damage to historic and protective coatings and finishes. Remove excess sealants, glazing and patching materials, dirt, and other substances.
- C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- D. Upon completion of wood window restoration, remove tools, equipment, and other unnecessary materials from site. Return adjacent area and surrounding property to the condition which existed prior to the start of work.
- E. Remove and legally dispose off-site all debris, rubbish, and other materials resulting from operations of this section.

END OF SECTION 080352

SECTION 087100 - HARDWARE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 013591: Historic Treatment Procedures
- C. Section 080314: Historic Treatment of Wood Doors
- D. Section 099000: Architectural Coatings

1.2 SUMMARY

- A. This project involves the rehabilitation of an historic building. Treat the building respectfully. Carefully inspect existing conditions and treat existing materials as irreplaceable. Do not remove, alter or disfigure any existing materials, elements or finishes, unless indicated on the Drawings, specified herein, or directed by the Architect.
- B. This Section includes the following:
 - 1. Remove and salvage all hardware noted on the Drawings. Salvaged hardware to remain the property of the Owner. Retain a log of all salvaged hardware.
 - 2. New residential door hardware (exterior).
 - 3. Restored historic hardware (exterior).

1.3 SUBMITTALS

- A. Product Data: Include installation details, material descriptions, dimensions of individual components and profiles, and finishes.
- B. Samples: For each type of exposed door hardware, in specified finish, full size. Tag with full description for coordination with the Door Hardware Schedule. Submit samples before, or concurrent with, submission of the final Door Hardware Schedule.
 - 1. Samples will be returned to Contractor. Units that are acceptable and remain undamaged through submittal, review, and field comparison process may, after final check of operation, be incorporated into the Work, within limitations of keying requirements.

- C. Door Hardware Schedule: Prepared by or under the supervision of supplier, detailing fabrication, and assembly of door hardware, as well as procedures and diagrams. Coordinate the final Door Hardware Schedule with doors, frames, and related work to ensure proper size, thickness, hand, function, and finish of door hardware.
1. Format: Comply with scheduling sequence and vertical format in DHI's "Sequence and Format for the Hardware Schedule."
 2. Organization: Organize the Door Hardware Schedule into door hardware sets indicating complete designations of every item required for each door or opening.
 3. Content: Include the following information:
 - a. Type, style, function, size, label, hand, and finish of each door hardware item.
 - b. Manufacturer of each item.
 - c. Fastenings and other pertinent information.
 - d. Location of each door hardware set, cross-referenced to Drawings, both on floor plans and in door and frame schedule.
 - e. Explanation of abbreviations, symbols, and codes contained in schedule.
 - f. Mounting locations for door hardware.
 - g. Door and frame sizes and materials.
 4. Submittal Sequence: Submit the final Door Hardware Schedule at earliest possible date, particularly where approval of the Door Hardware Schedule must precede fabrication of other work that is critical in the Project construction schedule. Include Product Data, Samples, Shop Drawings of other work affected by door hardware, and other information essential to the coordinated review of the Door Hardware Schedule.
- D. Keying Schedule: Prepared by or under the supervision of supplier, detailing Owner's final keying instructions for locks. Include schematic keying diagram and index each key set to unique door designations.
1. All new door hardware must be keyed alike.
- E. Maintenance Data: For each type of door hardware to include in maintenance manuals specified in Division 01.
- F. Warranties: Special warranties specified in this Section.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer who has completed door hardware similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Source Limitations: Obtain each type and variety of door hardware from a single manufacturer, unless otherwise indicated.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for door hardware delivered to Project site.
- B. Tag each item or package separately with identification related to the final Door Hardware Schedule and include basic installation instructions with each item or package.

- C. Salvaged hardware to remain the property of the Owner. Retain a log of all salvaged hardware.

1.6 COORDINATION

- A. Templates: Obtain and distribute to the parties involved templates for doors, frames, and other work specified to be factory prepared for installing door hardware. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

1.7 WARRANTY

- A. General Warranty: Special warranties specified in this Article shall not deprive Owner of other rights Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by Contractor under requirements of the Contract Documents.
- B. Special Warranty: Written warranty, executed by manufacturer agreeing to repair or replace components of door hardware that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
 - 1. Structural failures including excessive deflection, cracking, or breakage.
 - 2. Faulty operation of operators and door hardware.
 - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
- C. Warranty Period: Three years from date of Substantial Completion, unless otherwise indicated.

1.8 MAINTENANCE SERVICE

- A. Maintenance Tools and Instructions: Furnish a complete set of specialized tools and maintenance instructions as needed for Owner's continued adjustment, maintenance, and removal and replacement of door hardware.
- B. Maintenance Service: Beginning at Substantial Completion, provide one-year full maintenance by skilled employees of door hardware Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door hardware operation. Provide parts and supplies as used in the manufacture and installation of original products.

PART 2 - PRODUCTS

- C. Screws for Attaching Restored Existing Hardware: Clean, salvage existing screws in so far as possible. Where screws are missing or damaged so as to be unsalvageable, provide new screws to match existing screws in material, size, and configuration.
- D. Screws for Attaching Replacement Hardware: New screws matching screws in existing hardware.
- E. UNLESS OTHERWISE NOTED ALL PAINT GRADE HISTORIC HARDWARE SCHEDULED TO REMAIN SHOULD BE BEAD BLASTED AND PAINTED WITH A CLEAR LACQUER FINISH.

2.2 DOOR HARDWARE

- A. DOOR 01: FIRST FLOOR ENTRY DOUBLE DOOR
 - a. Lockset: Salvage existing door lockset. Restore to operable condition. Replace missing latch. Existing model appear to be Yale.
 - i. Salvage Sources: Olde Good Things, Governors Antiques, Eco Relics.
 - b. Deadbolt: Existing to remain.
 - c. Interior Surface Mounted Handle: Existing to remain.
 - d. Interior Slide Bolt: Existing to remain. Adjust as required to open and close freely.
 - e. Hinges: Bead blast existing hinges. Paint.
 - f. Closer: Adjust as required to function properly.
 - g. Weather-stripping
 - i. Stop: Conservation Technology, Inc., WS-32-36 (dependent on gap size, field verify size), color: white
 - ii. Bottom of Door: Conservation Technology, Inc., WS-40 channel, WS-17 sweep seal, color: white
 - h. Mail Slot Plate: New unlacquered brass letter box plate.
 - i. Baldwin model # 0017.031. finish: non-lacquered brass.
- B. DOOR 02: FIRST FLOOR EXTERIOR DOOR HARDWARE (PORCH)
 - a. Lockset: Install new door lockset. Key to match front door.
 - i. Baldwin Estate Keyed Entry Lever set with Emergency Exit Function. Finish: non-lacquered brass.
 - b. Door Reinforcer (backplate): 9" Solid unlacquered brass door reinforcer.
 - c. Deadbolt: Install new deadbolt. Key to match front door.
 - i. Baldwin Estate Traditional Single Cylinder Deadbolt. Finish: non-lacquered brass.
 - d. Hinges: Bead blast existing hinges. Paint.
 - e. Weather-stripping
 - i. Stop: Conservation Technology, Inc., WS-32-36 (dependent on gap size, field verify size), color: white
 - f. Threshold: Pemko 145B Interlocking Threshold, solid brass.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire door assembly construction, wall and floor construction, and other conditions affecting performance.
- B. Salvaged hardware to remain property of Owner.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- D. Mounting Heights: Mount door hardware units at heights to match heights on historic doors.
- E. Exterior Doors: Modify doors as necessary to install new hardware.

- F. Install each door hardware item to comply with manufacturer's written instructions. Where cutting and fitting are required to install door hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation of surface protective trim units with finishing work specified in Division 09 Sections.
 - 1. Set units level, plumb, and true to line and location. Adjust and reinforce attachment substrates as necessary for proper installation and operation.
 - 2. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
 - 3. Thresholds to be provided at transitions between rooms unless otherwise noted.

3.2 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
- B. Six-Month Adjustment: Approximately six months after date of Substantial Completion, Installer shall perform the following:
 - 1. Examine and readjust each item of door hardware as necessary to ensure function of doors and door hardware.
 - 2. Consult with and instruct Owner's personnel on recommended maintenance procedures.
 - 3. Replace door hardware items that have deteriorated or failed due to faulty design, materials, or installation of door hardware units.

3.3 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items as necessary to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain door hardware and door hardware finishes.

END OF SECTION 087100

SECTION 099000 – ARCHITECTURAL COATINGS FOR HISTORIC SUBSTRATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. Section 013959: Historic Treatment Procedures
- C. Section 040310: Masonry Cleaning
- D. Codes and standards set forth by:
 - 1. "Standard (Type 1)" as defined by the Painting and Decorating Contractors of America in their "Modern Guide to Paint Specifications", current edition.
 - 2. MPI Standards:
 - a. Products: Complying with MPI standards indicated and listed in "MPI Approved Products List."
 - b. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.
 - 3. ASTM D16-03 "Standard Terminology for Paint, Related Coatings, Materials, and Applications"
 - 4. **In addition to complying with all pertinent codes and standards, it shall be assumed that the existing painted surfaces are lead based. Painting contractor shall be responsible for complying with all EPA, DHEC and OSHA standards concerning the safe removal, disposal and cleanup of any lead-based paint and the safety of the workers and people outside the work areas. All dust, debris and residue shall be contained within the work area. Painting contractor shall be certified by the EPA.**

1.2 SUMMARY

- A. This project involves the rehabilitation of an historic building. Treat the building respectfully. Carefully inspect existing conditions and treat existing materials as irreplaceable. Do not remove, alter or disfigure any existing materials, elements or finishes, unless indicated on the Drawings, specified herein, or directed by the Architect.
- B. Section includes historic treatment of plain painting as follows:
- C. Paint building exterior in locations indicated on the Drawings. Locations include but are not limited to all windows (interior and exterior complete), all exterior doors (interior and exterior complete) and all areas disturbed by construction. Scope of work includes the following:
 - 1. Preparing substrates.
 - 2. Plain painting of exterior historic surfaces.
 - 3. Plain painting of exterior wood.
- D. Paint exposed surfaces, except where these Specifications indicate that the surface or material is not to be painted or is to remain natural. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.

1. Do not paint prefinished items, finished metal surfaces, operating parts, and labels.

1.3 DEFINITIONS

- A. "Paint" includes coating systems materials, primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate, or finish coats.

1.4 SCOPE

- A. This Section includes all labor, materials, equipment, and services required to furnish and apply all of the painting materials indicated on the Drawings and as specified herein.
 1. Different colors shall be utilized as specified by Architect and illustrated in Drawings.
- B. It is the intent of this Specification to require that all exposed surfaces, unless otherwise specified or indicated to receive a factory finish shall receive the painter's finish as outlined herein.

1.5 SUBMITTALS

- A. Product Data: For each paint system indicated. Include block fillers and primers.
 1. Provide manufacturers' technical information, label analysis, and application instructions for each material proposed for use.
- B. Product List: For each product indicated, include the following:
 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
- C. Qualifications: Submit documentation of painters past project experience that meet the work experience outlined in the specification. Provide references for a minimum of two (2) historic projects completed in the last five years, including contact names and phone numbers. Submit documentation of required Lead Awareness Training.
- D. Samples. Provide samples of each color and material to be applied, with texture to simulate actual conditions, on representative samples of the actual substrate.
 1. Define each separate coat, including block fillers and primers. Use representative colors when preparing samples for review. Resubmit until required sheen, color, and texture is achieved.
 2. Provide a list of materials and application for each coat of each sample. Label each sample as to location and application.
- E. Paint Color Schedule: Prior to requesting inspection for Substantial Completion, submit schedule indicating all paint manufacturers, product numbers and colors for all painted surfaces.
- F. Closeout Documentation: Contractor shall leave one can of each product used appropriately marked with details of location on the building. Provide list of color names, numbers, and formulas.

1.6 QUALITY ASSURANCE

1. Work Experience: A qualified painting specialist with five years' expertise in matching and touching up existing paint on an historic structure. Experience only in new painting work is insufficient experience for work. **For manual lead paint disturbance, the painting specialist is required to have completed initial and annual OSHA compliant Lead Awareness Training. For mechanical lead paint disturbance, the painting specialist is required to have completed Renovation, Repair, and Painting Training.**
- B. Mockups: Prepare mockups for each type of coating system and substrate indicated and each color and finish required to demonstrate aesthetic effects and to set quality standards for materials and execution. Duplicate appearance of approved Sample submittals.
 1. Surface-preparation mockups using applicable specified methods of cleaning and other surface preparation.
 2. Coating mockups to represent surfaces and conditions for application of each type of coating system.
- C. Lead Based Paint: The areas to be prepared for repainting may contain paint from the late early twentieth century. Based on coatings of similar age, there will be lead in the existing paint when encountered:
 1. Take all necessary actions and precautions to assure safety of the public, property and the environment, and workers in scraping, sanding, removing and disposing of any existing paint.
 2. Comply with applicable health, safety and environmental regulations of the government agencies having jurisdiction.
 3. See Hazardous Material Testing Report at included in the Project Manual.

1.7 PROJECT CONDITIONS

- A. The Contractor is responsible for protecting existing adjacent materials and surfaces during the execution of the work and shall provide all necessary protection and follow all necessary work procedures to avoid damage to existing material assemblies not a part of the work in the Section.
- B. The Contractor shall provide visible barriers and / or warning tape around the perimeter of the work area for visitor protection and shall also provide that nearby vehicles and adjacent structures will be protected from damage during the course of the work.

1.8 ENVIRONMENTAL CONDITIONS

- A. The coating manufacturer's requirements for ambient temperature, humidity, and ventilation during painting operations, and temperature of surfaces to receive a coating shall be strictly followed.
- B. Comply with the manufacturer's recommendations as to environmental conditions under which the coating systems may be applied.
- C. Do not paint exterior when temperature is below 50° F when the surface is damp, or when temperature is likely to drop freezing within 24 hours. Avoid painting when surface is exposed to hot sun or early morning dew.
 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

- D. Do not apply paint in areas where dust is being generated.
- E. VOC Content: Provide materials that comply with VOC limits of authorities having jurisdiction.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Deliver all coating materials to site and store in manufacturer's original unopened containers and packaging, bearing manufacturer's name and label and the following information:
 - 1. Product name or title of material
 - 2. Product description (generic classification or binder type).
 - 3. Manufacturer's stock number and date of manufacture.
 - 4. Contents by volume, for pigment and vehicle constituents.
 - 5. Thinning instructions.
 - 6. Application instructions.
 - 7. Color name and number.
- B. Protection
 - 1. Store only the approved materials on the job site and store only in a suitable and designated area restricted to the storage of paint materials. Space shall comply with the paint manufacturer's requirements for storage temperature. Protect from freezing.
 - 2. Use all means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste.
 - 3. Use all means necessary to protect paint materials before, during, and after application and to protect the installed work and materials of all other Trades.
 - 4. Keep storage area neat and orderly. Remove oily rags and waste daily.
- C. Replacements: In the event of damage to the products, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the Owner.
 - 1. Order replacement materials at the earliest possible date, to avoid delaying completion of the Work.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.

2.2 MODERN PAINT MATERIALS, GENERAL

- A. Transition Coat: Paint manufacturer's recommended coating for use where a residual existing coating is incompatible with the paint system.

- B. Products listed below represent materials that will likely be used for painting elements. This section assures quality of Work by listing regulatory language and by setting standards of quality for materials. Information from the testing shall guide product selection.

2.3 MANUFACTURERS

- A. Manufactures: Provide best quality grade of paint as regularly manufactured by specified manufacturer. Primer coats must be produced by the same manufacturer as the topcoats unless otherwise specified. Subject to compliance with requirements, provide products by one of the following or equivalent MPI listed manufacturer:
 1. Sherwin-Williams Co.
 2. Benjamin Moore & Co.
 3. PPG Industries, Inc.
- B. Substitutions must be approved by Architect.

2.4 PREPARATORY MATERIALS

- A. Pigments, thinners, and solvents used with any coating material shall be as recommended by the paint manufacturer for the particular product.

2.5 PAINT MATERIALS, GENERAL

- A. Material Compatibility:
 1. All paint and finishing materials shall be lead free.
 2. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 3. For each coat in a paint system, provide products recommended in writing by manufactures of topcoat for use in paint system and on substrate indicated.
 4. Colors: As selected by Architect from manufacture's full range.

2.6 EXTERIOR METAL PRIMER & PAINT (HINGES)

- A. Rust Inhibitor
 1. Ospho Rust Treatment
 2. Or an Approved Equal
- B. Exterior Metal Primer (1 coat)
 1. Sherwin Williams All Surface Enamel Latex Primer
 2. Or an Approved Equal
- C. Exterior Metal Paint (2 coats)
 1. Sherwin Williams Emerald Urethane Trim Enamel, Semi-gloss
 2. Or an Approved Equal

2.7 EXTERIOR MASONRY PAINT

- A. Existing paint system is latex-based. Touch-up paint to match existing.

- B. Exterior Primer [if necessary] (1 coat)
 - 1. Loxon Conditioner
 - 2. Or an Approved Equal.
- C. Exterior Wood Paint (2 coats)
 - 1. Sherwin Williams Emerald Rain Refresh Latex Paint, Match existing sheen.
 - 2. Or an Approved Equal

2.8 EXTERIOR WOOD PRIMER & PAINT

- A. Exterior Wood Primer [bare wood] (1 coat)
 - 1. Sherwin Williams Exterior Oil Based Penetrating Primer
 - 2. Or an Approved Equal.
- B. Exterior Wood Primer [over all exterior wood surfaces] (1 coat)
 - 1. Sherwin Williams Exterior Oil Based Wood Primer
 - 2. Or an Approved Equal.
- C. Exterior Wood Paint (2 coats)
 - 1. Sherwin Williams Emerald Urethane Trim Enamel, Semi-gloss
 - 2. Or an Approved Equal

2.9 INTERIOR WOOD PAINT (CASINGS, TRIM, DOORS, WINDOWS)

- A. Interior Wood Primer (1 coat)
 - 1. Sherwin Williams Premium Wall and Wood Primer
- B. Interior Wood Paint (2 coats)
 - 1. Sherwin Williams Emerald Urethane Trim Enamel, Semi-gloss
 - 2. Or an Approved Equal.

2.10 INTERIOR PAINT (WALLS)

- A. Interior Wood Primer (1 coat)
 - 1. Sherwin Williams Premium Wall and Wood Primer
- B. Interior Wood Paint (2 coats)
 - 1. Sherwin Williams Emerald Interior Latex, Match existing sheen.
 - 2. Or an Approved Equal.

PART 3 - EXECUTION

3.1 PAINTING, GENERAL

- A. Execution of the Work:
 - 1. Remove failed coatings and corrosion and repaint.
 - 2. Verify that substrate surface conditions are suitable for painting.
 - 3. Allow other trades to repair items in place and retain as much original material as possible before repainting.

4. Install temporary protective measures to protect historic painted surfaces that shall be treated later.
- B. Matching Existing Painted Surfaces:
 1. Color match existing painted surfaces to ensure new painting visually matches the existing coatings in color and sheen.
 - C. Mechanical Abrasion: Where mechanical abrasion is needed for the work, use only the gentlest mechanical methods, such as scraping and lightly hand sanding, that will not abrade softer substrates, reducing clarity of detail. Do not use abrasive methods such as rotary sanding, rotary wire brushing, or power tools except as indicated as part of the historic treatment program and as approved by Architect.
 - D. Heat Processes: Do not use torches, heat guns, or heat plates.
- 3.2 EXAMINATION:
- A. Before commencement of work, carefully examine all surfaces to be painted and notify the Architect in writing of any conditions detrimental to the performance of this work. Do not proceed until unsatisfactory or deteriorated conditions have been inspected, corrected and are acceptable to the Architect and the applicator. Commencement of work will be construed as the applicator's acceptance of all surfaces. Commencement of the work prior to the Architect's inspection and acceptance is done at the applicator's risk.
 - B. Maximum Moisture Content of Substrates: Do not begin application of coatings unless moisture content of exposed surface is below the maximum value recommended in writing by paint manufacturer and not greater than the following maximum values when measured with an electronic moisture meter appropriate to the substrate material:
 1. Masonry (Clay and CMU): 12 percent.
- 3.3 INSPECTION:
- A. Prior to all work of this Section, carefully inspect the installed work of all other Trades and verify that all such work is complete to the point where this installation may properly commence.
 - B. Verify that paint finishes may be applied in strict accordance with all pertinent codes and regulations and the requirements of these Specifications.
- 3.4 DISCREPANCIES
- A. In the event of discrepancy, immediately notify the Architect.
 - B. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved. Commencement of work shall be construed as acceptance of the surfaces and, therefore, the Contractor shall be fully responsible for satisfactory work as required herein.

3.5 SURFACE PREPARATION

- A. General: For application of approved removal products, use only such equipment as is recommended for application of the paint removal product by the manufacturer, and as approved by the Architect.
 - 1. General: Use only the gentlest, appropriate method necessary to clean surfaces in preparation for painting. Clean all surfaces, corners, contours, and interstices.
- B. Compatibility: Prior to actual use of the application equipment, use all means necessary to verify that the proposed equipment is actually compatible with the material to be applied and that the integrity of the finish will not be jeopardized by use of the proposed application equipment. Contractor to coordinate with manufacturer's representatives on appropriate tools and equipment.
- C. Prior to all surface preparation and paint operations, completely mask, remove, or otherwise adequately protect all hardware, accessories, machined surfaces, plates, lighting fixtures, and similar items in contact with painted surfaces but not scheduled to receive paint.
- D. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease and incompatible paint and encapsulates.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- E. Do not proceed with treatment until proper protection has been installed for adjacent materials.
- F. Detergent Cleaning: Wash surfaces by hand using clean rags, sponges, and bristle brushes. Scrub surface with detergent solution and bristle brush until soil is thoroughly dislodged and can be removed by rinsing. Use small brushes to remove soil from joints and crevices. Dip brush in solution often to ensure that adequate fresh detergent is used and that surface remains wet. Rinse with water applied by clean rags or sponges.
- G. Solvent Cleaning: Use solvent cleaning to remove oil, grease, smoke, tar, and asphalt from painted or unpainted surfaces before other preparation work. Wipe surfaces with solvent using clean rags and sponges. If necessary, spot-solvent cleaning may be employed just prior to commencement of paint application, provided enough time is allowed for complete evaporation.
- H. Mildew: Clean off existing mildew, algae, moss, plant material, loose paint, grease, dirt, and other debris by scrubbing with bristle brush or sponge and detergent solution. Scrub mildewed areas with mildewcide. Rinse with water applied by clean rags or sponges. Apply biocide according to Section 040310 "Masonry Cleaning."
- I. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates and paint systems indicated.
- J. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection.
- K. Contractor shall reclaim and dispose of all spent media used in conjunction with this project in accordance with applicable laws.

- L. **All loose, brittle, and detached painted to be removed complete. Feather edges of paint in areas of uneven surfaces. No hard paint edges to be visible following application of new paint system.**

3.6 PAINT REMOVAL

A. Ferrous Metal Substrates

1. Mechanical Rust Removal

- a. Remove rust with approved abrasives for ferrous-metal cleaning. Clean to bright metal.
- b. Wipe off residue with mineral spirits and either steel wool or soft rags.
- c. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
- d. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed.
- e. Coat with rust inhibitive primer as soon as possible (preferably the same day) to discourage rust bloom.
 - 1) On existing metal surfaces apply one coat of Ospho rust inhibitor primer to bare metal
- f. Allow to dry thoroughly before application of paint.

2. Chemical Rust Removal

- a. Thoroughly clean all surfaces until they are completely free from dirt, oil, grease, and rust. Notify the Architect of any severe corrosion or delaminating members.
- b. Remove loose rust scale with approved abrasives for ferrous-metal cleaning.
- c. Apply rust remover with brushes or as recommended in writing by manufacturer.
- d. Allow rust remover to remain on surface for period recommended in writing by manufacturer or as determined by preconstruction testing. Do not allow extended dwell time.
- e. Wipe off residue with mineral spirits and either steel wool or soft rags, or clean with method recommended in writing by manufacturer to remove residue.
- f. Dry immediately with clean, soft cloths. Follow direction of grain in metal.
- g. Prime immediately to prevent rust. Do not touch cleaned metal surface until primed
- h. Coat with rust inhibitive primer as soon as possible (preferably the same day)
- i. to discourage rust bloom
 - 1) On existing metal surfaces apply one coat of Ospho rust inhibitor primer to bare metal
- j. Allow to dry thoroughly before application of paint.

- B. Schedule all cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Adequate illumination shall be provided in all areas where painting and staining operations are in progress.
- D. Efflorescence on any area that is scheduled to be painted shall be removed.

3.7 MATERIAL PREPARATION OF PAINT

- A. Mix and prepare materials in accordance with manufacturer's directions or those specified herein, whichever is more stringent.
- B. Stir materials before application to produce a mixture of uniform density and stir as required during application of the materials. Do not stir into the material any foreign materials, residue or surface film. Remove any such deleterious material and strain coating materials before using if necessary.

- C. Add minimum amount of solvents or thinners to coating materials as necessary to achieve proper consistency for method of application.

3.8 PAINT APPLICATION

- A. Apply paints according to manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable items same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed items with prime coat only.
 - 3. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
 - 4. Paint both sides and edges of exterior doors and entire exposed surface of exterior door frames.
 - 5. Paint entire exposed surface of window frames and sashes.
 - 6. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 7. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint undercoats same color as topcoat but tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Provide sufficient difference in shade of undercoats to distinguish each separate coat.
- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply a transition coat over incompatible existing coatings.
- E. General Finish Application for Paint
 - 1. All materials shall be applied under adequate illumination, evenly spread, and smoothly flowed on with the proper type and size of brushes, roller covers, and bucket grids, to avoid run, sags, holidays, brush marks, air bubbles, and excessive roller stipple.
 - 2. The number of coats and film thickness shall be the same regardless of the method of application. Do not apply succeeding coats until previous coat has dried or cured as recommended by paint manufacturer. Give special attention to ensure that surfaces, including edges, corners, and crevices receive a dry film thickness equivalent to that of flat surfaces.
 - 3. Apply each coat at not less than recommended spreading rate to provide the dry film millimeter thickness specified by the manufacturer for each paint coating.
 - 4. Coverage and hiding shall be complete. When color, stain, mark of any kind, dirt or undercoats show through the final schedule coat of paint to the surface, it shall be covered by additional coats until the paint film is of uniform finish, color, appearance and coverage at no additional cost to the Owner.
 - 5. Back prime any new material before installation unless specified to receive a transparent finish.
 - 6. Touch-up painting as required to provide smooth, even finish prior to final acceptance of work.
- F. Iron
 - 1. Newly cleaned iron should be painted immediately with a corrosion-inhibiting primer before new rust begins to form.

2. Prior to applying paint, ensure surface is dry.
3. Follow manufacturer's recommendations for application of primer and finish coats.

G. All materials must be inspected by Architect prior to application of finish coat.

3.9 CLEAN UP

A. General

1. Provide daily cleanup.
2. During progress of the Work, do not allow the accumulation of empty containers or other excess items except in area specifically set aside for that purpose. Do not store paint materials uncovered.
3. Prevent accidental spilling or splashing of paint materials, and in the event of such spill, immediately remove all spilled material and the waste or other equipment used to clean up the spill, and wash the surfaces to their original undamaged condition, all at no additional cost to the Owner.

B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

C. Upon completion of the painting or finishing, remove excess paint materials, tools and equipment, drop cloths and other protective materials, and debris from the site.

D. Prior to final acceptance: Upon completion of this portion of the Work, visually inspect the surfaces. Clean paint spots or spatters from surfaces not scheduled to receive paint, such as landings, adjacent masonry, and fixtures, leaving surfaces in a satisfactory condition.

3.10 EXTERIOR PAINTING SCHEDULE

A. All materials for a given finishing system shall be the products of a single manufacturer.

B. Exterior and Interior Painting Color Schedule to Be Determined by Architect and the Owner.

END OF SECTION 099000

ATTACHMENT B

Carnegie Library Construction Drawings

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RFP 2021-102

CARNEGIE LIBRARY WINDOW RESTORATION

CONTACTS

Owner:

City of Beaufort
1911 Boundary Street
Beaufort, SC 29902

Jay Phillips
Owner Representative/Procurement Administrator
Email: jphillips@cityofbeaufort.org

Architect:

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Charleston, South Carolina 29413
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Betty Prime, AIA
Project Architect
Email: betty@meadorsinc.com

Kalen McNabb
Conservator
Email: kalen@meadorsinc.com

PROJECT DATA

1. General Information

Address: Carnegie Library
701 Craven Street
Beaufort, SC 29902

Property ID: R120 004 000 0819 0000
Flood Zone: A11
Flood Insurance Map Panel #450026 0005D

Site Area: 3,659 SF (.08 Acres)

PROJECT DESCRIPTION

The Carnegie Library is a local historic site and a contributing structure in the City of Beaufort's National Historic Landmark District. The scope of work for this project includes historic window restoration and an alternate for the restoration of select exterior doors, installing window film, and unblocking the interior of select windows.

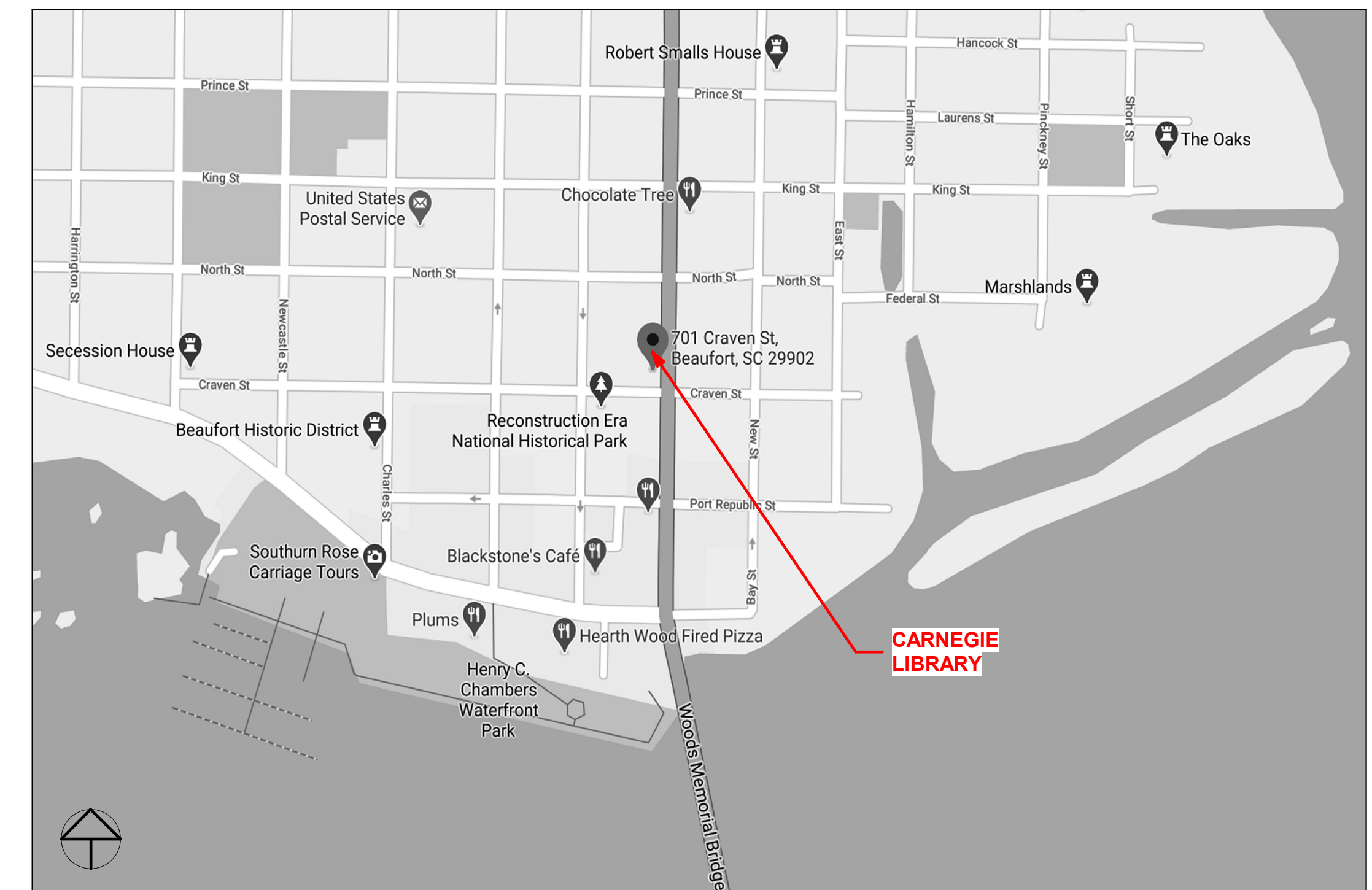
The Beaufort Historic District is designated a National Historic Landmark for its architectural and historic significance. It is considered to have irreplaceable cultural, material, and aesthetic value. The work is funded in part by the Emergency Supplemental Historic Preservation Fund, administered by the National Park Service, Department of the Interior; the funding of which is subject to having all work items meet The Secretary of the Interior's Standards for the Treatment of Historic Properties.

DRAWING LIST

A000 COVER/TITLE SHEET
A001 NOTES & SPECIFICATIONS
A100 SITE/GRADE PLAN
A101 BASEMENT DEMO & PROPOSED PLANS
A102 1ST FLR DEMO & PROPOSED PLANS
A201 BUILDING ELEVATIONS
A601 WINDOW SCHEDULE & ELEVATIONS
A602 DOOR SCHEDULE & ELEVATIONS
A603 EXISTING CONDITIONS- WINDOWS



EXISTING SOUTH ELEVATION



LOCATOR MAP- 701 CRAVEN STREET BEAUFORT, SC

MEADORS

SINCE 1984
2811 AZALEA DRIVE ■ CHARLESTON, SC ■ 843.723.8585

CARNEGIE LIBRARY
WINDOW RESTORATION
701 CRAVEN STREET
BEAUFORT, SC 29902

BID
DOCUMENTS

PROJ. 20-0128
ISSUE DATE: 05/14/2021

REVISIONS

#	DATE	NOTES

COVER/TITLE
SHEET

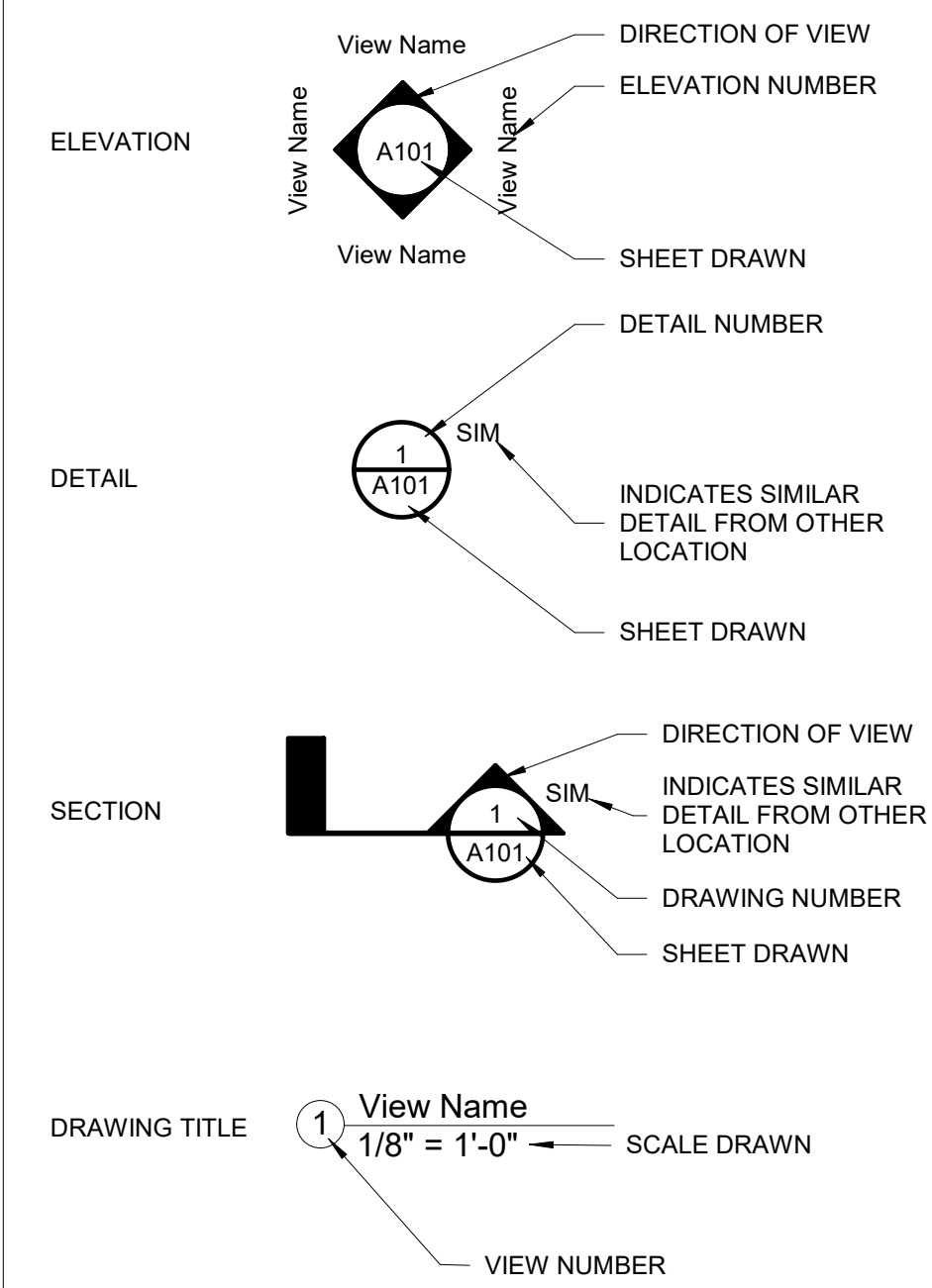
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NOT FOR CONSTRUCTION

PROJECT GENERAL NOTES

- THE BUILDING IS HISTORIC, CARE SHALL BE TAKEN TO PROTECT THE BUILDING AND PROPERTY FROM DAMAGE DURING ALL WORK. ALL EFFORT SHALL BE MADE TO PROTECT, RETAIN, AND PRESERVE AS MUCH EXISTING ORIGINAL MATERIAL AS POSSIBLE. NEW MATERIAL MUST MATCH THE ORIGINAL LOCATION, SIZE, MATERIAL, PROFILE (WHERE APPLICABLE), AND INSTALLATION METHOD.
- THE TERM "WORK" AS USED IN THESE NOTES SHALL INCLUDE ALL PROVISIONS AS DRAWN OR SPECIFIED IN THESE DOCUMENTS AS WELL AS ALL OTHER PROVISIONS SPECIFICALLY INCLUDED BY THE OWNER IN THE FORM OF DRAWINGS, SPECIFICATIONS, AND WRITTEN INSTRUCTIONS AND APPROVED BY THE ARCHITECT.
- THE TERM "CONTRACTOR" AS USED IN THESE NOTES SHALL REFER TO THE GENERAL CONTRACTOR OR TO THE SUB-CONTRACTORS.
- SCOPE OF WORK. THE CONTRACTOR SHALL INCLUDE AND PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION, TAXES, PERMITS, AND FEES AND PAY ALL EXPENSES INCURRED IN THE PROPER COMPLETION OF WORK UNLESS SPECIFICALLY NOTED TO BE THE WORK OF OTHERS. CONTRACTOR SHALL PERFORM ALL WORK NECESSARY FOR PRODUCING A COMPLETE, HABITABLE PROJECT.
- BEFORE CONSTRUCTION BEGINS, THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
- IF THE CONTRACT DRAWINGS AND SPECS ARE FOUND TO BE UNCLEAR, AMBIGUOUS OR CONTRADICTORY, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH THAT PART OF THE WORK.
- THE ARCHITECT SHALL HAVE UNRESTRICTED ACCESS TO THE SITE DURING CONSTRUCTION OF THE PROJECT. IF A CONDITION EXISTS, THAT REQUIRES OBSERVATION OR ACTION BY THE ARCHITECT OR ANY OF THE ARCHITECT'S CONSULTANTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING.
- CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL ENSURE THE COMPLIANCE OF THE WORK WITH ALL LOCAL, STATE AND FEDERAL CODES, TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IN THE EVENT OF CONFLICT BETWEEN LOCAL, STATE, AND NATIONAL CODES, THE MORE STRINGENT SHALL GOVERN.
- THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION, AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY ARE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS AS OUTLINED IN THE CONTRACT DRAWINGS AND SPECIFICATIONS, AND ALL SAFETY PROCEDURES AND FOR COORDINATION OF ALL PORTIONS OF THE WORK.
- INSURANCE: WORKMEN'S COMPENSATION, AS REQUIRED BY LAW AND GENERAL LIABILITY SHALL BE CARRIED BY THE CONTRACTOR, NAMING THE OWNER AND ARCHITECTS AS ADDITIONALLY INSURED.
- GUARANTEE: THE CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL MATERIALS AND WORKMANSHIP FURNISHED OR INSTALLED BY HIM OR HIS SUBCONTRACTORS FOR A PERIOD OF TWO (2) YEAR FROM DATE OF ACCEPTANCE, UNLESS NOTED OTHERWISE IN THE DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL REPLACE ANY DEFECTIVE WORK WITHIN THAT PERIOD WITHOUT EXPENSE TO THE OWNER AND PAY FOR ALL DAMAGES TO OTHER PARTS OF THE BUILDING RESULTING FROM DEFECTIVE WORK OR ITS REPAIR. THE CONTRACTOR SHALL REPLACE DEFECTIVE WORK WITHIN TEN (10) DAYS AFTER IT IS BROUGHT TO HIS ATTENTION.**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK AND THAT OF HIS SUBCONTRACTORS, FOR LOSSES AND DAMAGES TO EQUIPMENT, TOOLS AND MATERIALS USED IN CONJUNCTION WITH THE WORK AND FOR ACTS OF HIS EMPLOYEES AND SUBCONTRACTORS.
- CLEANING UP: THE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIALS AND RUBBISH AND, AT THE COMPLETION OF THE WORK, SHALL REMOVE ALL RUBBISH, IMPLEMENTS, AND SURPLUS MATERIALS, AND LEAVE THE PROJECT CLEAN AND IN SAFE CONDITION.
- CONTRACTOR TO PROVIDE THE OWNER WITH A LIST OF ALL SUBCONTRACTORS USED, COMPLETE WITH ADDRESSES, PHONE NUMBERS AND COPIES OF ALL WARRANTIES AND OPERATIONS AND MAINTENANCE MANUALS ASSOCIATED WITH ANY COMPONENT INCLUDED AS PART OF THE SCOPE OF WORK.
- CONTRACTOR SHALL KEEP A RECORD SET OF DRAWINGS ON SITE AND NOTE DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS AND DOCUMENT SPECIAL CONDITIONS THAT ARE EXPOSED. CONTRACTOR SHALL TURN THE RECORD SET OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.
- NO OPEN FLAME DEVICES ARE ALLOWED WITHIN THE BUILDING OR ON COMPONENTS STILL ATTACHED TO THE BUILDING. THIS INCLUDES, BUT IS NOT LIMITED TO, TORCHES, WELDERS OR CIGARETTES.
- DO NOT SCALE OFF DRAWINGS.
- THESE DOCUMENTS ARE THE COPYRIGHTED AND INTELLECTUAL PROPERTY OF MEADORS INC. THE DOCUMENTS ARE NOT TO BE REPRODUCED OR UTILIZED FOR ANY PURPOSE OTHER THAN ORIGINALLY INTENDED AS STIPULATED ON THE COVER SHEET AND TITLEBLOCK. USE OF THE DOCUMENTS FOR ANY PURPOSE, SPECIFICALLY STIPULATED OR NOT, SHALL BE GRANTED ONLY VIA AUTHORIZED WRITING BY MEADORS INC.
- NONE OF THE DOCUMENTS INCLUDED IN DRAWING INDEX ARE INTENDED TO BE CONSIDERED IN ISOLATION OF ONE ANOTHER. ALL PARTIES/ENTITIES UTILIZING THESE DOCUMENTS FOR BIDDING, QUANTITY SURVEY, AND/OR CONSTRUCTION SHALL CONSULT THE GENERAL NOTES AND INFORMATION LOCATED ON THIS SHEET AND ALL SHEETS FOR INFORMATION AND CONDITIONS GOVERNING WORK DESCRIBED IN DOCUMENTS LISTED IN THE DRAWING INDEX BEFORE PROCEEDING WITH PROCUREMENT AND/OR CONSTRUCTION. GENERAL INFORMATION AND DATA SHEET(S) PROVIDE CODE PROCEDURAL AND USE GUIDELINES GOVERNING ALL BID AND/OR CONSTRUCTION DOCUMENTS. ALL BIDDERS, SUB-BIDDERS, CONTRACTORS, AND SUB-CONTRACTORS SHALL UTILIZE COMPLETE SETS OF THE BIDDING AND/OR CONSTRUCTION DOCUMENTS IN QUANTIFYING AND CONSTRUCTING. NEITHER THE OWNER NOR ARCHITECT ASSUMES RESPONSIBILITY FOR ERRORS, OMISSIONS, OR MISINTERPRETATIONS RESULTING FROM THE USE OF INCOMPLETE SETS OF BIDDING AND/OR CONSTRUCTION DOCUMENTS.
- ALL CONSTRUCTION, MATERIALS, AND INSTALLATIONS SHALL CONFORM TO THE CURRENT CODES NOTED ON THE COVER SHEET OF THESE DRAWINGS AS WELL AS APPLICABLE STATE AND LOCAL CODES, TRADE ASSOCIATION STANDARDS AND/OR MANUFACTURER'S STANDARDS AS ADOPTED BY THE APPLICABLE LOCAL JURISDICTION HAVING AUTHORITY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS FROM ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- COORDINATE AREAS FOR LAYDOWN, STORAGE AND PARKING WITH ARCHITECT AND OWNER PRIOR TO BEGINNING THE WORK.

SYMBOLS LEGEND



APPLICABLE CODES

Code Compliance with the Following:
 International Building Code (IBC), 2018 Edition with South Carolina Modifications
 International Existing Building Code (IEBC), 2018 Edition (*Work Area Compliance Method, Repairs*)
 International Fire Code (IFC), 2018 Edition with South Carolina Modifications
 International Mechanical Code (IMC), 2018 Edition
 International Plumbing Code (IPC), 2018 Edition
 National Electrical Code, 2017 Edition, NFPA 70
 International Energy Conservation Code (IECC) 2009
 ICC/ANSI A117.1 2017 Edition

This project utilizes a Work Area Compliance Method, Repairs as detailed in Chapters 6 & 12 of the 2018 International Existing Building Code.

ABBREVIATIONS LEGEND

&	AND	KDAT	KILN DRIED AFTER TREATMENT
@	AT	LT WT	LIGHT WEIGHT
ACOUS	ACOUSTICAL	LLH	LONG LEG HORIZONTAL
ACT	ACOUSTICAL CEILING TILE	LLV	LONG LEG VERTICAL
ADA	AMERICANS WITH DISABILITY ACT	LP	LOW POINT
AFF	ABOVE FINISHED FLOOR	LVL	LAMINATED VENEER LUMBER
ALT	ALTERNATE		
ALUM	ALUMINUM	MAT'L	MATERIAL
APPROX	APPROXIMATE	MAX	MAXIMUM
ARCH	ARCHITECTURAL	MECH	MECHANICAL
		MFR	MANUFACTURER
BLDG	BUILDING	MIN	MINIMUM
BLKG	BLOCKING	MISC	MISCELLANEOUS
BM	BEAM	MO	MASONRY OPENING
B.O.	BOTTOM OF	MTL	METAL
CAT	CATALOGUE	NIC	NOT IN CONTRACT
CJ	CONTROL JOINT	NOM	NOMINAL
CL	CENTERLINE	NON-COM	NON-COMBUSTIBLE
CLG	CEILING	NTS	NOT TO SCALE
CMU	CONCRETE MASONRY UNIT		
COL	COLUMN	OC	ON CENTER
CONC	CONCRETE	OPNG	OPENING
CONN	CONNECTION	OPP	OPPOSITE
CONST	CONSTRUCTION		
CONT	CONTINUOUS	PLUMB	PLUMBING
		PR	PAIR
DET / DTL	DETAIL	PRE-FAB	PRE-FABRICATED
DIAG	DIAGONAL	PT	PAVER TILE
DIA	DIAMETER	PT	PRESSURE-TREATED
DIM	DIMENSION	PVB	POLY VAPOR BARRIER
DN	DOWN		
DR	DOOR		
DS	DOWNSPOUT	RAD	RADIUS
DWGS	DRAWINGS	RD	ROOF DRAIN
		REF	REFERENCE
EA	EACH	REINF	REINFORCING
EJ	EXPANSION JOINT	REQ'D	REQUIRED
ELEV	ELEVATION	REV	REVISION
EOS	EMERGENCY OVERFLOW SCUPPER	RO	ROUGH OPENING
EQ	EQUAL		
EQUIP	EQUIPMENT	SCHED	SCHEDULE
EX/EXIST	EXISTING	SEC	SECURE / SECURITY
EXT	EXTERIOR	SECT	SECTION
		SIM	SIMILAR
FACP	FIRE ALARM CONTROL PANEL	SOG	SLAB ON GRADE
FD	FLOOR DRAIN	SPECS	SPECIFICATIONS
FDN	FOUNDATION	SQ	SQUARE
FE	FIRE EXTINGUISHER	SQ FT	SQUARE FEET
FEC	FIRE EXTINGUISHER & CABINET	STD	STANDARD
FFE	FURNITURE, FIXTURES, & EQUIPMENT	STL	STEEL
FIG	FIGURE	STRUCT	STRUCTURE / STRUCTURAL
FIN	FINISH	SYM	SYMMETRICAL
FLR	FLOOR		
FRP	FIBERGLASS REINFORCED PLASTIC	TEMP	TEMPORARY
FTG	FOOTING	THK'NS	THICKNESS
		T.O.	TOP OF
GALV	GALVANIZED	TRTD	TREATED
GA	GAUGE OR GAGE	T.T.W.	TO THE WEATHER
GYP BD	GYPSONUM BOARD	TYP	TYPICAL
GIR	GIRDER		
GRD BM	GRADE BEAM	UNO	UNLESS NOTED OTHERWISE
H/C	HANDICAPPED	VCT	VINYL COMPOSITION TILE
HB	HOSE BIB	VERT	VERTICAL
HM	HOLLOW METAL	VIF	VERIFY IN FIELD
HORIZ	HORIZONTAL	VL	VINYL
HP	HIGH POINT		
HT	HEIGHT	W/	WITH
HVAC	HEATING, VENTILATION, & AIR CONDITIONING	W/O	WITHOUT
		WP	WATERPROOFING
		WS	WATER STOP
		WT	WEIGHT
INSUL	INSULATION		
INTR	INTERIOR		
INV	INVERT		
JT	JOINT		

GENERAL DEMOLITION NOTES

- PLANS ARE GENERAL AND DIAGRAMMATIC IN NATURE. THE PLANS ARE NOT INTENDED TO REPRESENT THE TOTAL SCOPE OF WORK. THESE PLANS DO NOT SHOW EACH ITEM THAT IS REQUIRED TO BE REMOVED. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE ACTUAL CONDITIONS AS THEY EXIST IN THE FIELD THROUGH SITE INSPECTION AND REVIEW OF THESE DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND COORDINATE THE REMOVAL AND DEMOLITION WORK AS REQUIRED TO ACHIEVE THE FINAL PRODUCT AS INDICATED IN THESE DOCUMENTS.
- REMOVE, CLEAN, PATCH/REPAIR EXISTING SURFACES/FINISHES AS NECESSARY FOR THE INSTALLATION OF SCHEDULED FINISHES. REFER TO KEYED REPAIR PLAN FOR LIMITED SCOPE.
- THE OWNER AND HIS DESIGNATED REPRESENTATIVES HAVE FIRST RIGHT OR REFUSAL REGARDING SALVAGEABLE ITEMS. CONTRACTOR SHALL COORDINATE WITH OWNER.
- EXISTING STRUCTURAL SYSTEM SHALL NOT BE REMOVED OR MODIFIED UNLESS APPROVED IN ADVANCE BY THE ARCHITECT AND/OR ENGINEER.
- REMOVE EXISTING ITEMS AS REQUIRED FOR REUSE IN THE NEW PLAN OR NEW FINISH. CATALOG AND STORE ITEMS IN A SAFE STORAGE AREA SUBJECT TO THE OWNER'S APPROVAL UNTIL THE TIME OF REINSTALLATION. LOST ITEMS SHALL BE REPLACED WITH COMPARABLE NEW ITEM AT NO COST TO THE OWNER.
- DURING THE COURSE OF DEMOLITION, IF ITEMS OR AREAS OF HISTORIC SIGNIFICANCE ARE DISCOVERED, CONTRACTOR SHALL CEASE WORK ON ITEM OR AREA OF INTEREST AND IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE AND ARCHITECT.
- SALVAGED MATERIAL: DOCUMENT ITEMS TO BE SALVAGED BEFORE PERFORMING ANY WORK. ITEMS TO BE MARKED WITH A REMOVABLE LABEL DESIGNATING ORIGINAL LOCATION AND STORED IN AN AREA TO PROTECT THEM FROM DAMAGE OR THEFT.
- EACH EXISTING HISTORICAL COMPONENT MAY VARY SLIGHTLY IN SIZE, SHAPE, AND DETAIL. VERIFY EACH COMPONENT IN THE FIELD PRIOR TO PERFORMING WORK IN THAT AREA.
- ANY ITEMS NOT SHOWN TO BE DEMOLISHED THAT ARE DAMAGED SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ANY ITEMS NOT TO BE RETAINED BY THE OWNER SHALL BE DISPOSED OF BY THE CONTRACTOR PER APPROPRIATE REGULATIONS.
- COORDINATE LOCATION OF CONSTRUCTION BARRICADES AND DUMPSTER WITH OWNER. DUMPSTER SHALL HAVE A COVER TO AVOID WIND-BLOWN DEBRIS ONTO THE SITE.
- PROVIDE DUST & CONSTRUCTION DEBRIS CONTROL & CONTAINMENT IN AREAS WHERE WORK IS BEING PERFORMED.
- CLEAN AND RETURN EACH SPACE TO PRE-CONSTRUCTION CONDITION READY FOR USE BY OWNER PRIOR TO PROCEEDING TO NEXT WORK AREA.
- AVOID DAMAGE TO INTERIOR FINISHES DURING THE COURSE OF WORK. IF NECESSARY, A UTILITY KNIFE SHOULD BE USED TO CAREFULLY SEPARATE ELEMENTS TO BE DEMOLISHED FROM THOSE TO REMAIN. SPECIAL CARE SHOULD BE TAKEN TO PRESERVE HISTORIC MATERIALS.
- NOTIFY ARCHITECT PRIOR TO PROCEEDING WITH THE WORK IF MATERIALS ARE EXPOSED THAT ARE DAMAGED AND WERE NOT SCHEDULED FOR REPLACEMENT.
- GC SHALL KEEP A TRACKING LOG OF ALL HISTORIC BUILDING ELEMENTS THAT ARE SALVAGED AND REMOVED FROM THE BUILDING; LOG SHALL STATE ORIGINAL LOCATION, WHEN REMOVED & BY WHOM, WHERE TAKEN, AND WHEN RETURNED. GC SHALL UPDATE LOG REGULARLY AND PRESENT TO OWNER & ARCHITECT AS REQUIRED.
- PROVIDE SIGNAGE FOR ACCESS TO BUILDING & MAINTAIN EMERGENCY EGRESS THROUGHOUT CONSTRUCTION.
- REMOVE ALL FASTENERS, BRACKETS, CONDUITS, WIRES, ETC. THAT ARE NOT IN USE (TYP.)

GENERAL SPECIFICATIONS NOTES

THIS DRAWING SET IS TO BE PAIRED WITH PROVIDED OUTLINE SPECIFICATIONS DOCUMENT. NEITHER THE DRAWINGS OR THE OUTLINE SPECIFICATIONS DOCUMENT ARE INTENDED TO BE CONSIDERED IN ISOLATION OF ONE ANOTHER. BOTH THE DRAWINGS AND THE OUTLINE SPECIFICATIONS DOCUMENTS ARE TO BE CONSIDERED IN THE SCOPE OF WORK FOR THIS PROJECT.

ADDITIONAL NOTES:

***** Contractor is responsible to verify all dimensions and relevant bidding criteria.**

PROJECT ALTERNATES

- ALTERNATE 1: ALTERNATE 1: INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF ALL WINDOWS. FILM MUST BE INSTALLED BY CERTIFIED INSTALLER. ALTERNATE EXCLUDES WINDOWS 10,11, 26, 27, 28, AND 29 WHICH HAVE TEXTURED PRIVACY GLASS (ADD).**
- ALTERNATE 2: LOWER WINDOW SASH TO BE FIXED IN PLACE (DEDUCT).**
- ALTERNATE 3: RESTORE EXTERIOR DOORS, INCLUDING TRANSOMS (ADD).**
- ALTERNATE 4: UNBLOCK INTERIOR OF WINDOWS 26, 28, AND 29. INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF WINDOWS (ADD).**

MEADORS

SINCE 1984

2811 AZALEA DRIVE ■ CHARLESTON, ■ 843.723.8585

CARNEGIE LIBRARY
WINDOW RESTORATION

701 CRAVEN STREET
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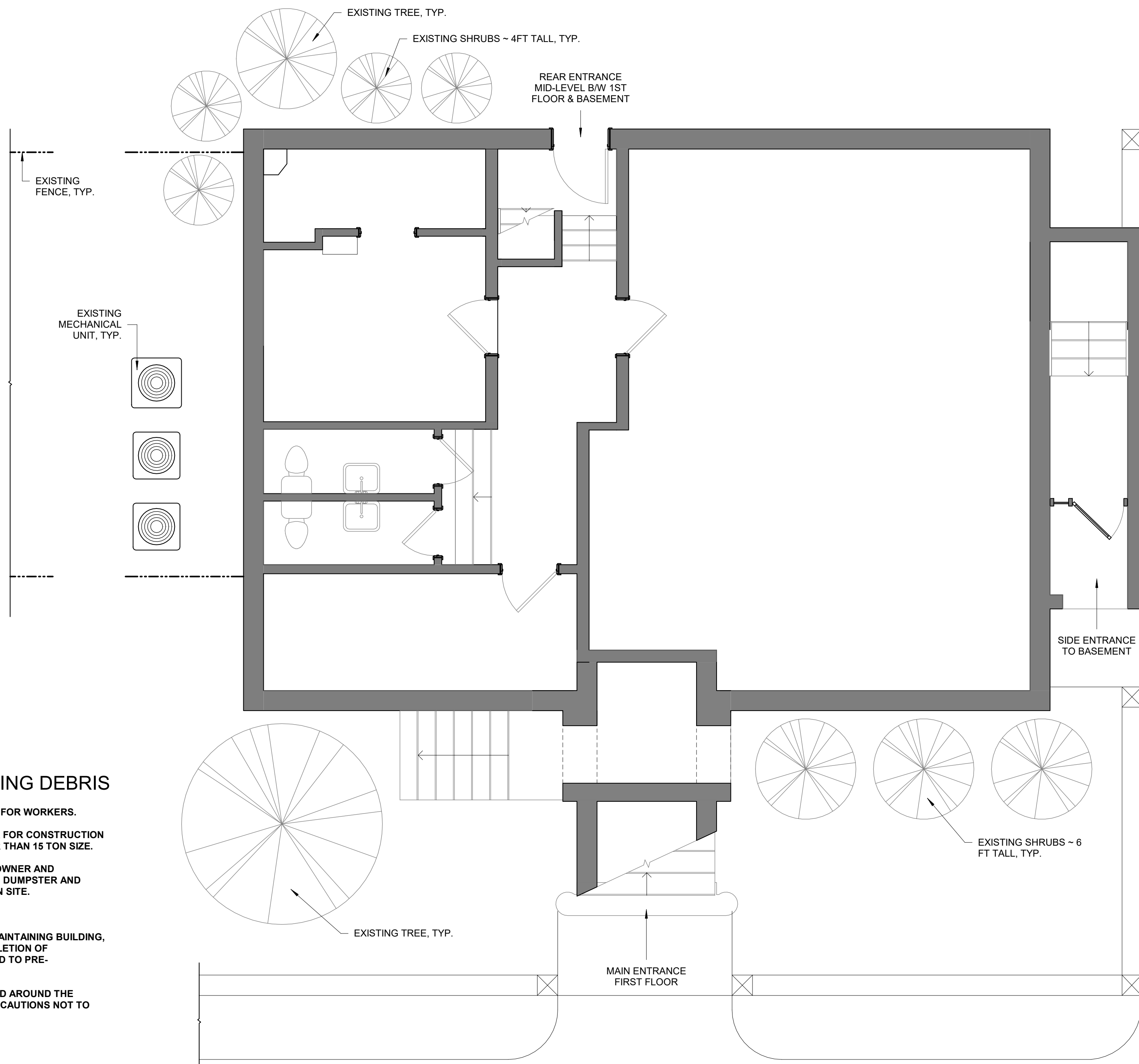
REVISIONS

| DATE | NOTES

NOTES &
SPECIFICATIONS

A001

NOT FOR CONSTRUCTION



SITE WORK AND MANAGING DEBRIS

1. CONTRACTOR TO PROVIDE PORTALET FOR WORKERS.
2. CONTRACTOR TO PROVIDE DUMPSTER FOR CONSTRUCTION DEBRIS. DUMPSTER TO BE NO LARGER THAN 15 TON SIZE.
3. CONTRACTOR TO COORDINATE WITH OWNER AND ARCHITECT TO CONFIRM LOCATION OF DUMPSTER AND PORTALET PRIOR TO INSTALLATION ON SITE.
4. SITE DEBRIS TO BE CLEANED DAILY.
5. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING BUILDING, SITE, AND VEGETATION. AT THE COMPLETION OF CONSTRUCTION, SITE TO BE RESTORED TO PRE-CONSTRUCTION CONDITION.
6. TERMITE BATE STATIONS ARE LOCATED AROUND THE BUILDING. CONTRACTOR TO TAKE PRECAUTIONS NOT TO DAMAGE.

1 00 - GRADE/SITE PLAN
 1/4" = 1'-0"



EXISTING CONDITIONS- SOUTH ELEVATION
 NOT TO SCALE



EXISTING CONDITIONS- SOUTHEAST ELEVATION
 NOT TO SCALE



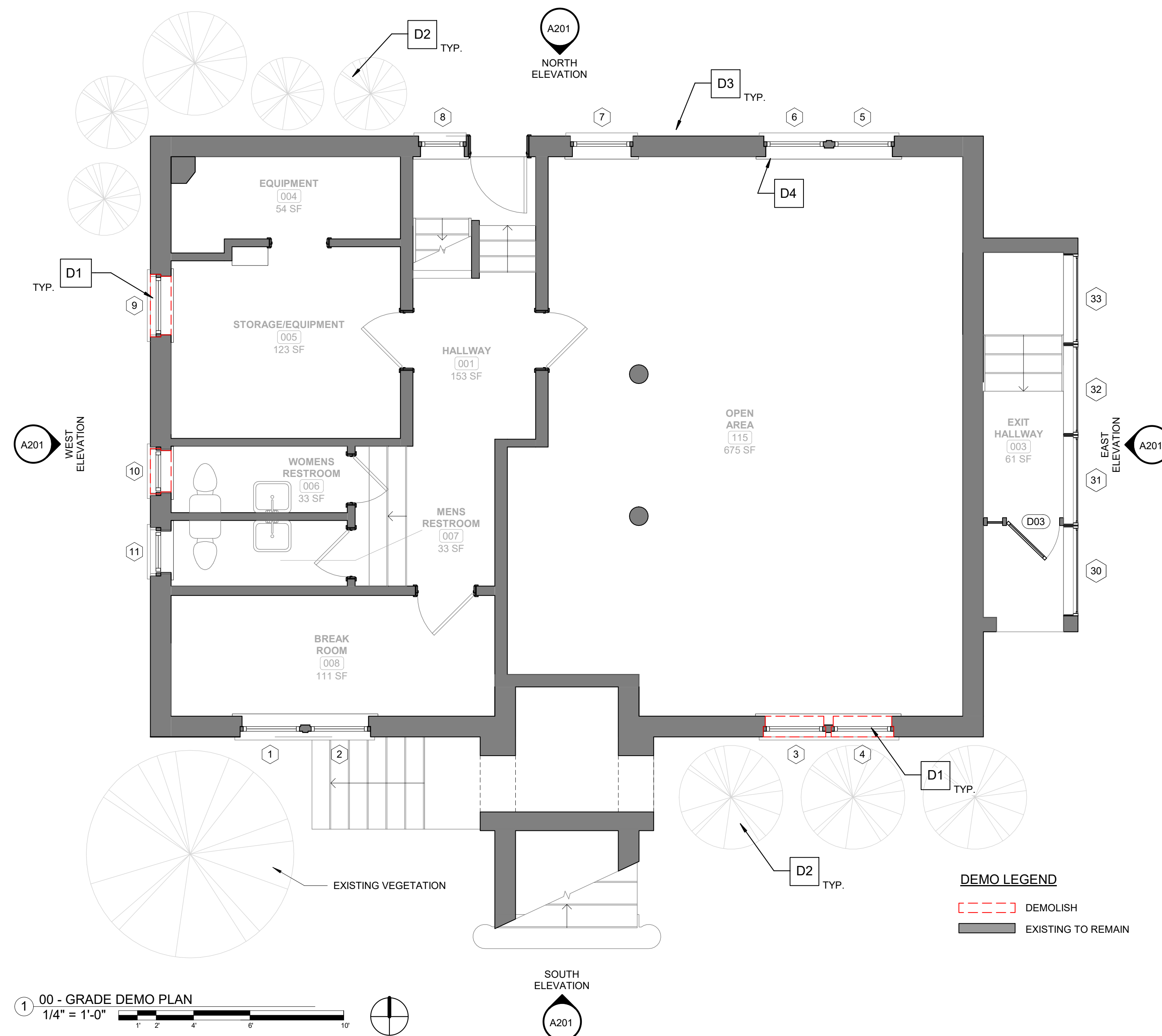
EXISTING CONDITIONS- WEST ELEVATION
 NOT TO SCALE



EXISTING CONDITIONS- NORTH ELEVATION
 NOT TO SCALE



EXISTING CONDITIONS- EAST ELEVATION
 NOT TO SCALE



GENERAL DEMOLITION NOTES

- DEMOLITION DRAWINGS ARE INTENDED TO SHOW GENERAL AREAS OF DEMOLITION AS WELL AS GENERAL EXISTING CONDITIONS. THEY DO NOT SHOW ALL WORK WHICH MAY BE NECESSARY. COMPARE WITH DRAWINGS INDICATING NEW CONSTRUCTION.
- EXISTING WORK TO REMAIN SHALL BE TEMPORARILY SECURED, BRACED AND STABILIZED UNTIL PERMANENT CONSTRUCTION IS IN PLACE.
- VERIFY FIELD CONDITIONS PRIOR TO START OF DEMOLITION/CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- VERIFY THAT CONSTRUCTION INDICATED FOR REMOVAL IS NOT LOAD-BEARING OR IS ADEQUATELY SHORED PRIOR TO STARTING ANY WORK.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT DEMO IS PERFORMED IN A SAFE MANNER.
- THE OWNER HAS FIRST RIGHT OF ALL MATERIALS REMOVED AS A RESULT OF THE DEMOLITION OF EXISTING CONDITIONS. ANY/ALL NON-CLAIMED ITEMS BY THE OWNER ARE THE RESPONSIBILITY OF THE CONTRACTOR TO BE REMOVED AND DISCARDED FROM THE PROJECT SITE ACCORDING TO EPA AND LOCAL CODES.

DEMOLITION NOTES

D1 REMOVE INCOMPATIBLE REPLACEMENT WINDOW COMPONENTS. RESTORE WINDOW TO MATCH EXISTING HISTORIC WINDOWS. EXTANT ELEMENTS OF THE ORIGINAL HISTORIC WINDOW TO REMAIN IN PLACE.

D2 TRIM VEGETATION A MINIMUM OF THREE FEET AWAY FROM THE BUILDING.

D3 LOWER GRADE AROUND PERIMETER OF BUILDING TO A MINIMUM OF 4" BELOW MASONRY WINDOW SILL, WHERE SMALL SHRUBS ARE PRESENT, REMOVE AND REPLANT AS REQUIRED TO LOWER GRADE. MULCH BED WITH CEDAR MULCH WHEN COMPLETE.

D4 REMOVE VINE GROWING INTO CEILING AND WINDOW. TRACK VINE TO ROOT AND APPLY BIOCIDES TO PERMANENTLY REMOVE.

D5 ALTERNATE 4 (ADD): UNBLOCK INTERIOR OF WINDOWS 26, 28, AND 29. RETAIN HISTORIC TRIM AND JAMBS WHERE INTACT.

GENERAL CONSTRUCTION NOTES

- THE INTENT OF THE PROJECT IS TO RESTORE ALL WOOD WINDOWS ON THE FIRST AND SECOND FLOOR OF THE CARNEGIE LIBRARY BUILDING. THE SCOPE OF WORK EXCLUDES DORMER WINDOWS 34-38 AND STOREFRONT WINDOWS 39-42.
- THE CARNEGIE LIBRARY BUILDING CURRENTLY HOUSES THE BEAUFORT REGIONAL CHAMBER OF COMMERCE. THE BUILDING IS TO REMAIN OPEN DURING CONSTRUCTION. AT ALL TIMES, THE BUILDING ENVELOPE IS TO REMAIN WATERTIGHT. SPECIAL CARE SHOULD BE TAKEN TO PROTECT ALL INTERIOR CONTENTS.
- ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND APPLICABLE CONSTRUCTION STANDARDS AND CODES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL WORK IS IN COMPLIANCE WITH ALL CURRENT ADOPTED BUILDING CODES, ORDINANCES, AND REGULATIONS OF ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS FROM ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF DRAWINGS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION. ALL SUBCONTRACTORS SHALL BE PROVIDED WITH A SET OF DRAWINGS.
- THE GENERAL CONTRACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS, AS WELL AS INSPECT THE PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR PROBLEMS WHICH COULD HAVE BEEN REASONABLY PREVENTED BY A THOROUGH EXAMINATION.
- COORDINATE ALL WORK WITH EXISTING CONDITIONS. ALL DIMENSIONS TO BE FIELD VERIFIED.
- ALL CONSTRUCTION SHALL BE TRUE, PLUMB, LEVEL, SQUARE, AND IN PROPER ALIGNMENT.
- PROVIDE TEMPORARY SUPPORT AS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE BUILDING UNDER CONSTRUCTION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION-RELATED ACTIVITIES.
- CONSTRUCTION EQUIPMENT NOISE SHALL BE MINIMIZED DURING THE CONSTRUCTION PHASES BY MUFFLING AND SHIELDING IMPACT TOOLS WHENEVER POSSIBLE.

FLOOR PLAN LEGEND

Room name

101 ← ROOM NUMBER
150 SF

101 ← DOOR NUMBER
REFER TO DOOR SCHEDULE

11 ← WINDOW NUMBER
REFER TO WINDOW SCHEDULE

← EXISTING WALL CONSTRUCTION

3 ← NEW CONSTRUCTION NUMBERED NOTE
REFER TO DESCRIPTIONS ON THIS PAGE

GENERAL FLOOR PLAN NOTES:

A. REFER TO LARGE SCALE PLANS, ELEVATIONS, & DETAILS FOR MORE INFORMATION.

B. REFER TO GENERAL NOTES ON SHEET A001.

C. DOORS AND WINDOWS ARE DIMENSIONED TO THE FINISHED OPENING.

NEW CONSTRUCTION NOTES

1 REPAIR, RESTORE & PAINT ALL WINDOWS, SEE WINDOW SCHEDULE AND GENERAL WINDOW NOTES.

BASIS OF DESIGN: UPPER WINDOW SASH TO BE FIXED, LOWER WINDOW SASH TO BE OPERABLE.

ALL BRICK AND WOODEN ELEMENTS DAMAGED DURING RESTORATION OF THE WINDOWS TO BE RESTORED WITH COMPATIBLE MATERIALS. REPOINT MASONRY SUBSTRATE AS REQUIRED. ALL REPAIRS SHALL MATCH EXISTING TEXTURE. MATERIALS DAMAGED AND REPAIRED DURING WINDOW RESTORATION TO BE PAINTED TO MATCH EXISTING.

REPLACE ALL JOINT SEALANT AT THE EXTERIOR JOINT BETWEEN WOOD CASING AND MASONRY.

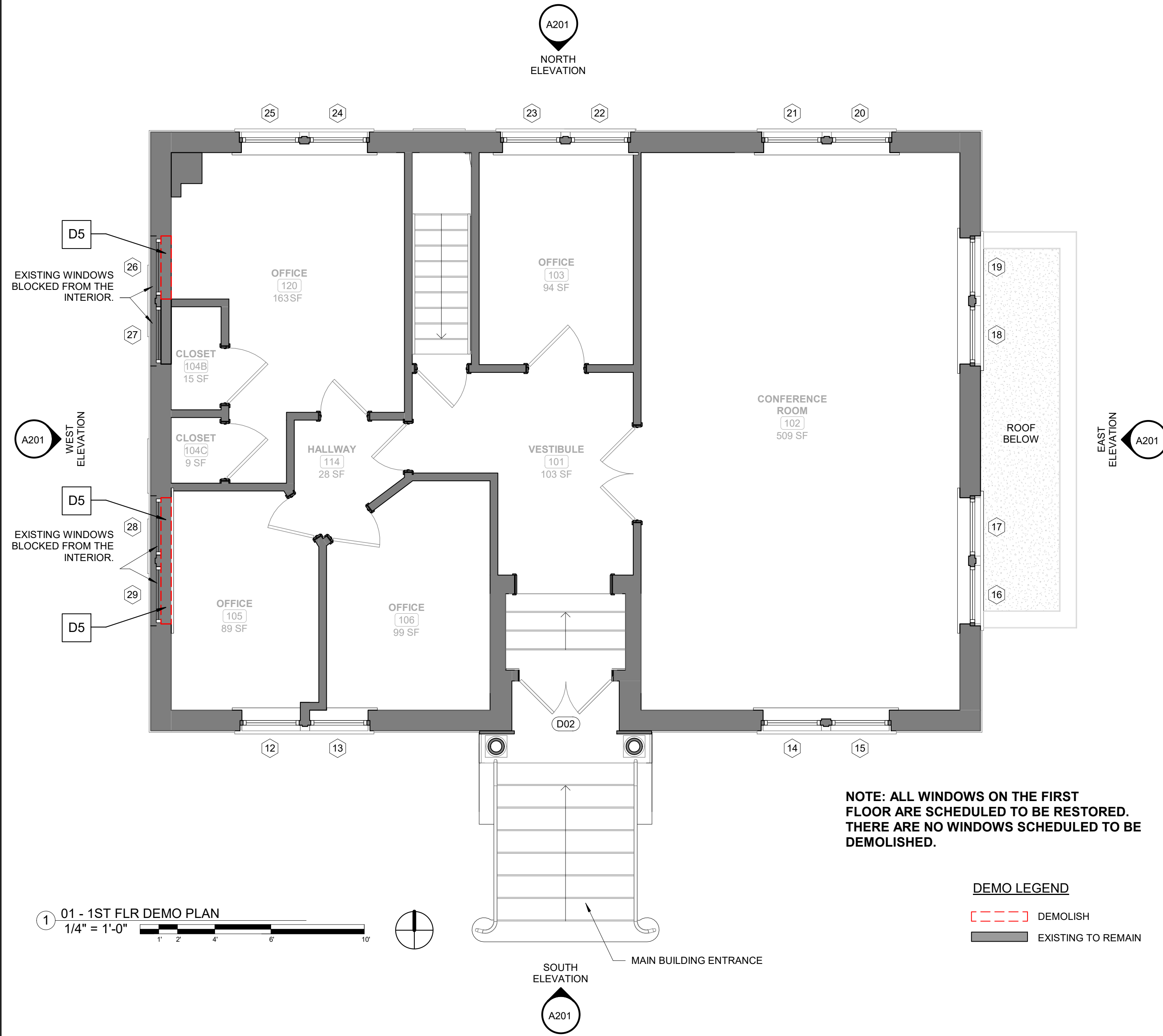
NOTE: EXISTING CONSTRUCTION INCLUDING BUT NOT LIMITED TO CEILINGS, INTERIOR SHUTTERS, AND WALL DIVIDERS MAY REQUIRE PARTIAL REMOVAL TO RESTORE WINDOWS. CONTRACTOR IS RESPONSIBLE FOR REINSTALLING ALL ELEMENTS TO ORIGINAL LOCATION AND CONDITION.

ALTERNATE 1 (ADD): INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF WINDOWS (EXCLUDES WINDOWS 10, 11, 26, 27, 28, & 29). FILM MUST BE INSTALLED BY CERTIFIED INSTALLER (ADD).

ALTERNATE 2 (DEDUCT): LOWER SASH TO BE FIXED IN PLACE.

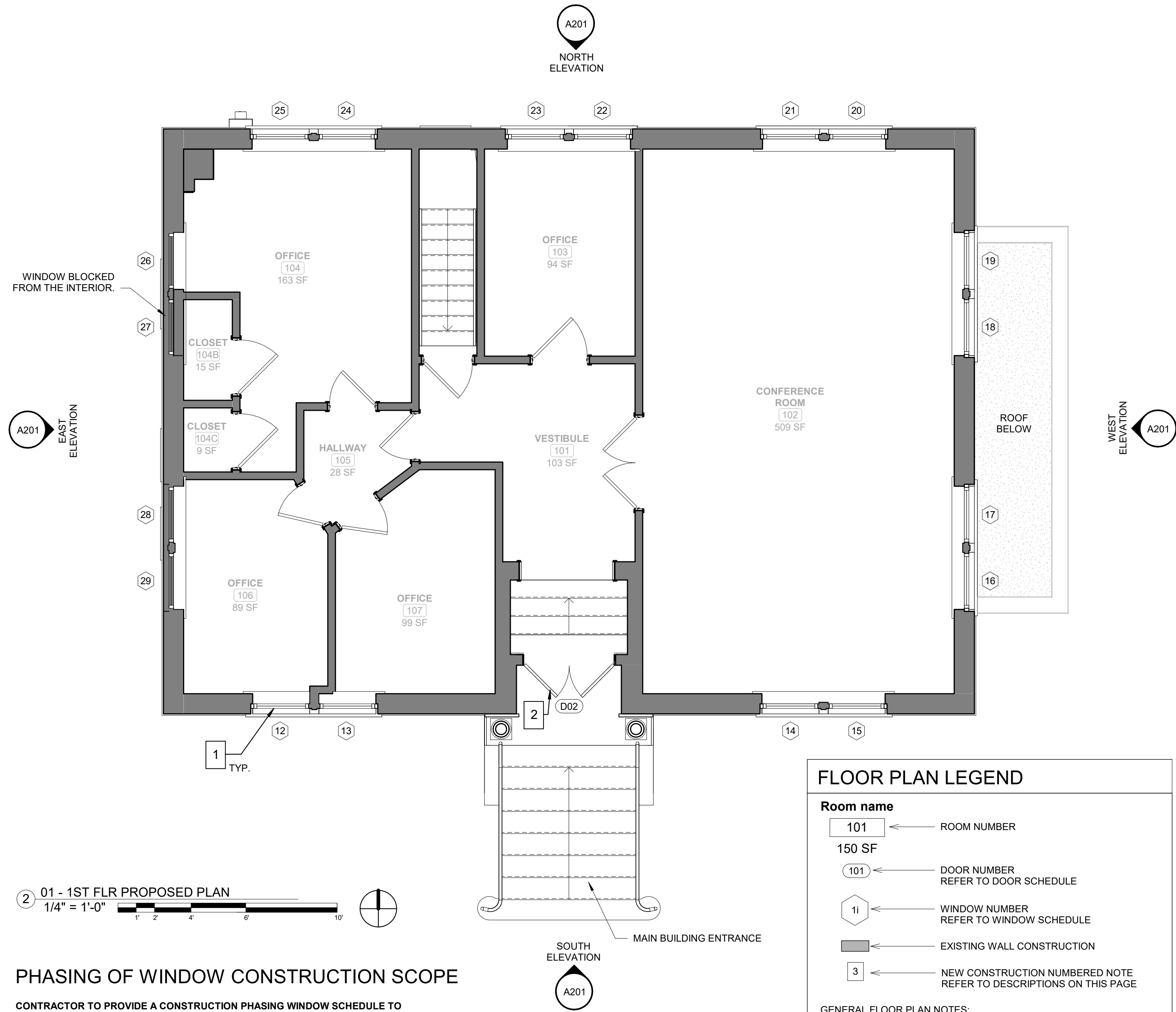
ALTERNATE 4 (ADD): RESTORE WINDOWS 26, 28, AND 29 COMPLETE. NEW WINDOW COMPONENTS TO BE INSTALLED WHERE MISSING OR TOO DETERIORATED TO BE REUSED. ALL NEW COMPONENTS TO MATCH HISTORIC PROFILES OF INTACT WINDOWS. MODIFY CEILING TO CONSTRUCT INSET LIGHT WELL AT NEWLY EXPOSED WINDOWS TO ALLOW LIGHT TO ENTER THE OFFICE SPACE. NOTE: CEILING IS DROPPED IN OFFICE SPACES. INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF WINDOWS.

2 ALTERNATE 3 (ADD): REPAIR, RESTORE, & PAINT TWO (2) EXTERIOR WOOD DOORS COMPLETE, INCLUDING TRANSOMS, JAMB, AND TRIM. SEE GENERAL DOOR NOTES.



01 - 1ST FLR DEMO PLAN
1/4" = 1'-0"

DEMO LEGEND
 DEMOLISH
 EXISTING TO REMAIN



01 - 1ST FLR PROPOSED PLAN
1/4" = 1'-0"

FLOOR PLAN LEGEND

Room name

101 ← ROOM NUMBER
150 SF

101 ← DOOR NUMBER
REFER TO DOOR SCHEDULE

11 ← WINDOW NUMBER
REFER TO WINDOW SCHEDULE

← EXISTING WALL CONSTRUCTION

3 ← NEW CONSTRUCTION NUMBERED NOTE
REFER TO DESCRIPTIONS ON THIS PAGE

GENERAL FLOOR PLAN NOTES:

A. REFER TO LARGE SCALE PLANS, ELEVATIONS, & DETAILS FOR MORE INFORMATION.
 B. REFER TO GENERAL NOTES ON SHEET A001.
 C. DOORS AND WINDOWS ARE DIMENSIONED TO THE FINISHED OPENING.

PHASING OF WINDOW CONSTRUCTION SCOPE

CONTRACTOR TO PROVIDE A CONSTRUCTION PHASING WINDOW SCHEDULE TO ARCHITECT DURING THE PRE-CONSTRUCTION CONFERENCE PRIOR TO START OF WORK. SCHEDULE TO INCLUDE DETAILED DESCRIPTION OF GROUPING AND PHASING TIMELINE FOR REMOVAL AND COMPLETION OF WINDOW RESTORATION. NO MORE THAN 25% OF WINDOWS TO BE COVERED AT A TIME. WINDOWS TO BE LABELED NUMERICALLY TO MATCH WINDOW NUMBERING IN CONSTRUCTION DOCUMENTS.

CONTRACTOR TO SECURE AND TEMPORARILY WEATHERIZE WINDOW OPENINGS WHEN WINDOW COMPONENTS ARE REMOVED. CONTRACTOR TO COVER WINDOWS FROM THE EXTERIOR WITH A MINIMUM 5/8" THICKNESS PLYWOOD SHEATHING PAINTED TO MATCH THE EXTERIOR. WITH ANY OTHER ASSOCIATED BLOCKING OR STIFFENING MEMBERS TO KEEP OPENING SECURE AND WEATHERTIGHT. PLYWOOD COVERINGS TO BE INSTALLED IN A MANNER TO MINIMIZE FASTENER PENETRATIONS INTO EXISTING WOOD TRIM. CONTRACTOR IS RESPONSIBLE FOR REPAIRING BUILDING COMPONENTS ONCE TEMPORARY WINDOW OPENINGS ARE REMOVED.

GENERAL CONSTRUCTION NOTES

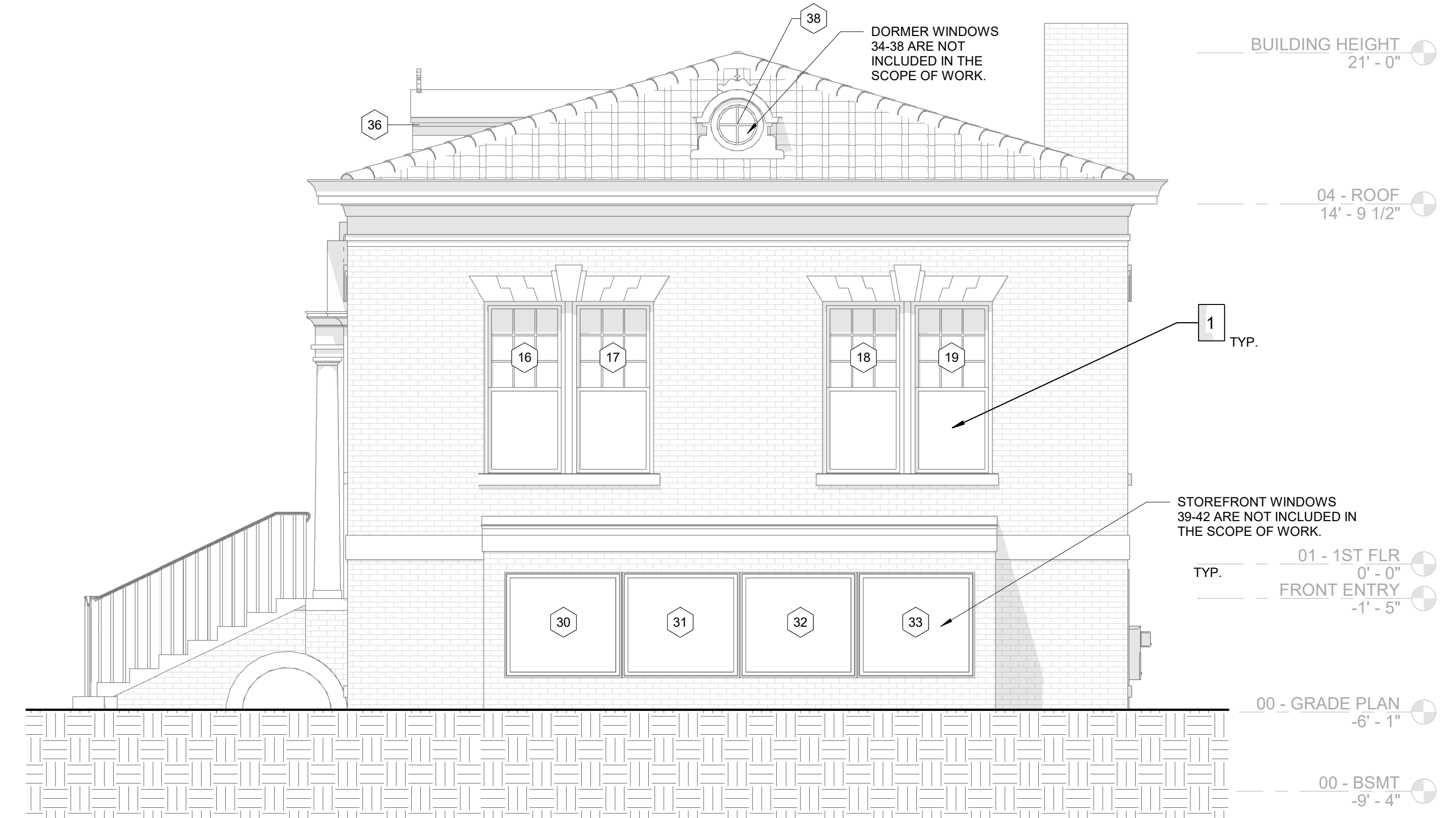
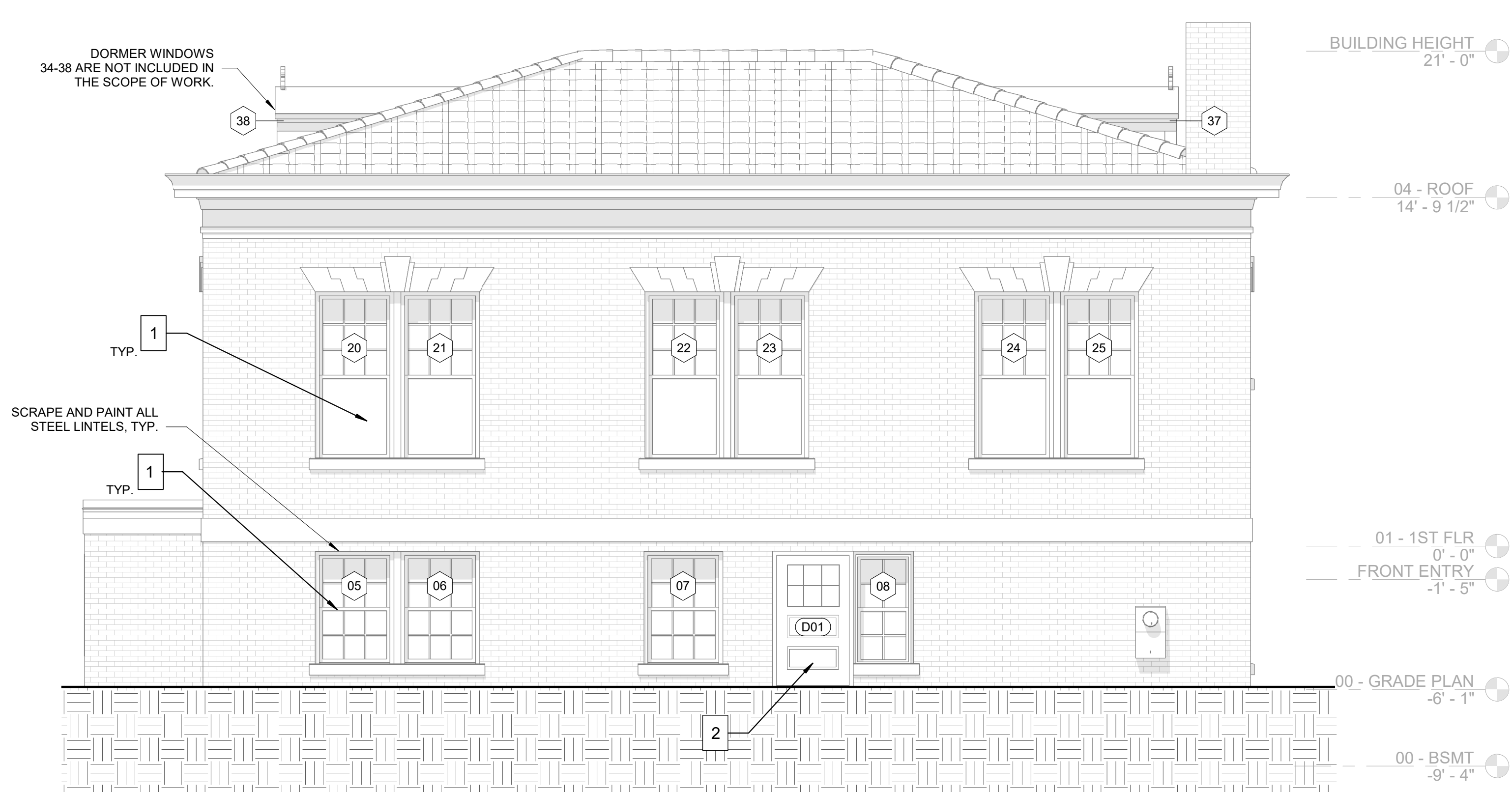
- THE INTENT OF THE PROJECT IS TO RESTORE ALL WOOD WINDOWS ON THE FIRST AND SECOND FLOOR OF THE CARNEGIE LIBRARY BUILDING. THE SCOPE OF WORK EXCLUDES DORMER WINDOWS 34-38 AND STOREFRONT WINDOWS 39-42.
- THE CARNEGIE LIBRARY BUILDING CURRENTLY HOUSES THE BEAUFORT REGIONAL CHAMBER OF COMMERCE. THE BUILDING IS TO REMAIN OPEN DURING CONSTRUCTION. AT ALL TIMES, THE BUILDING ENVELOPE IS TO REMAIN WATERTIGHT. SPECIAL CARE SHOULD BE TAKEN TO PROTECT ALL INTERIOR CONTENTS.
- ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND APPLICABLE CONSTRUCTION STANDARDS AND CODES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL WORK IS IN COMPLIANCE WITH ALL CURRENT ADOPTED BUILDING CODES, ORDINANCES, AND REGULATIONS OF ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS FROM ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF DRAWINGS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION. ALL SUBCONTRACTORS SHALL BE PROVIDED WITH A SET OF DRAWINGS.
- THE GENERAL CONTRACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS, AS WELL AS INSPECT THE PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR PROBLEMS WHICH COULD HAVE BEEN REASONABLY PREVENTED BY A THOROUGH EXAMINATION.
- COORDINATE ALL WORK WITH EXISTING CONDITIONS. ALL DIMENSIONS TO BE FIELD VERIFIED.
- ALL CONSTRUCTION SHALL BE TRUE, PLUMB, LEVEL, SQUARE, AND IN PROPER ALIGNMENT.
- PROVIDE TEMPORARY SUPPORT AS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE BUILDING UNDER CONSTRUCTION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION-RELATED ACTIVITIES.
- CONSTRUCTION EQUIPMENT NOISE SHALL BE MINIMIZED DURING THE CONSTRUCTION PHASES BY MUFFLING AND SHIELDING IMPACT TOOLS WHENEVER POSSIBLE.

GENERAL DEMOLITION NOTES

- DEMOLITION DRAWINGS ARE INTENDED TO SHOW GENERAL AREAS OF DEMOLITION AS WELL AS GENERAL EXISTING CONDITIONS. THEY DO NOT SHOW ALL WORK WHICH MAY BE NECESSARY. COMPARE WITH DRAWINGS INDICATING NEW CONSTRUCTION.
- EXISTING WORK TO REMAIN SHALL BE TEMPORARILY SECURED, BRACED AND STABILIZED UNTIL PERMANENT CONSTRUCTION IS IN PLACE.
- VERIFY FIELD CONDITIONS PRIOR TO START OF DEMOLITION/CONSTRUCTION AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- VERIFY THAT CONSTRUCTION INDICATED FOR REMOVAL IS NOT LOAD-BEARING OR IS ADEQUATELY SHORED PRIOR TO STARTING ANY WORK.
- IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE THAT DEMO IS PERFORMED IN A SAFE MANNER.
- THE OWNER HAS FIRST RIGHT OF ALL MATERIALS REMOVED AS A RESULT OF THE DEMOLITION OF EXISTING CONDITIONS. ANY/all NON-CLAIMED ITEMS BY THE OWNER ARE THE RESPONSIBILITY OF THE CONTRACTOR TO BE REMOVED AND DISCARDED FROM THE PROJECT SITE ACCORDING TO EPA AND LOCAL CODES.

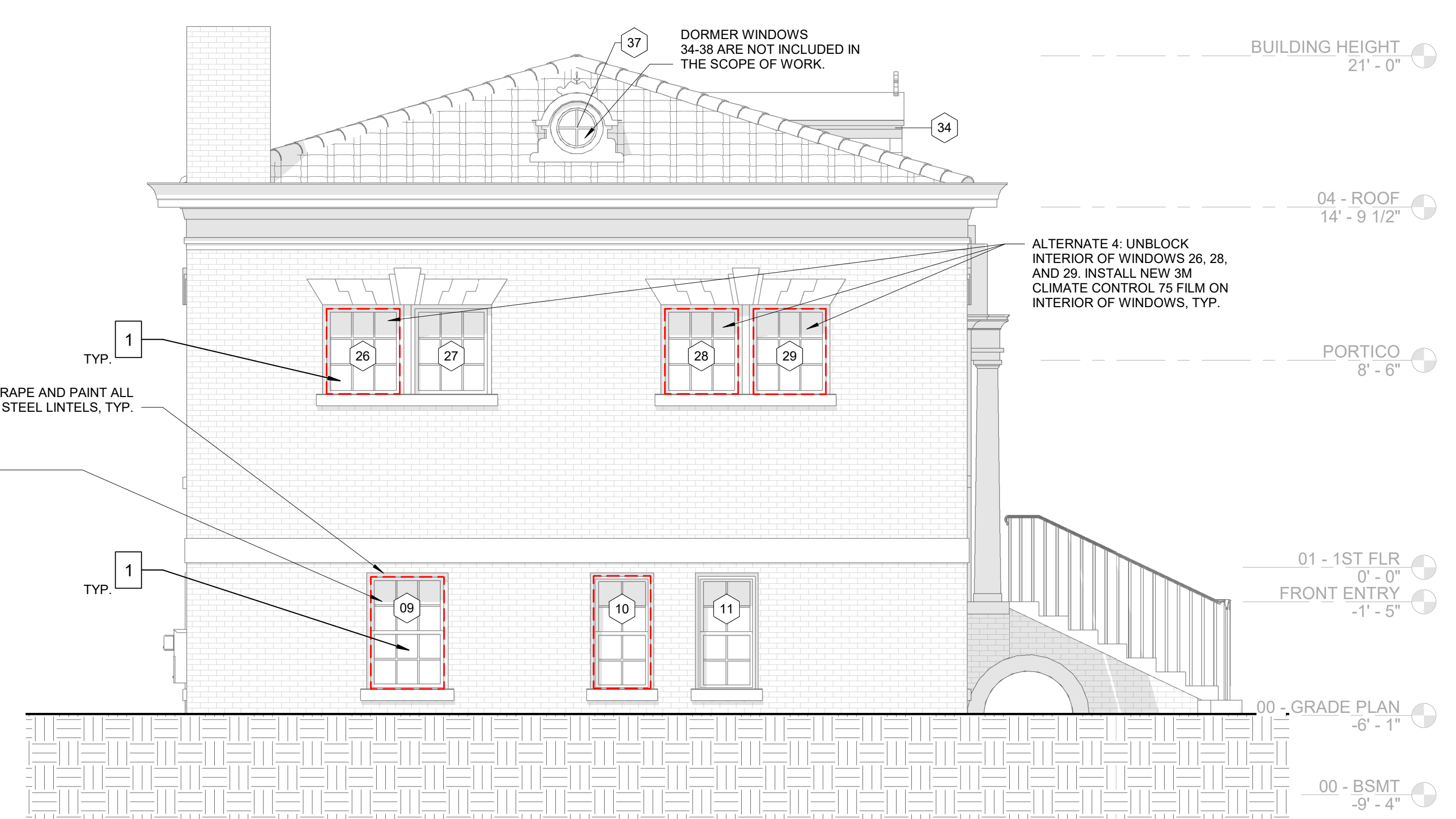
DEMOLITION NOTES

- D1 REMOVE INCOMPATIBLE REPLACEMENT WINDOW COMPONENTS. RESTORE WINDOW TO MATCH EXISTING HISTORIC WINDOWS. EXTANT ELEMENTS OF THE ORIGINAL HISTORIC WINDOW TO REMAIN IN PLACE.
- D2 TRIM VEGETATION A MINIMUM OF THREE FEET AWAY FROM THE BUILDING.
- D3 LOWER GRADE AROUND PERIMETER OF BUILDING TO A MINIMUM OF 4" BELOW MASONRY WINDOW SILL, WHERE SMALL SHRUBS ARE PRESENT, REMOVE AND REPLANT AS REQUIRED TO LOWER GRADE. MULCH BED WITH CEDAR MULCH WHEN COMPLETE.
- D4 REMOVE VINE GROWING INTO CEILING AND WINDOW. TRACK VINE TO ROOT AND APPLY BIOCIDES TO PERMANENTLY REMOVE.
- D5 ALTERNATE 4 (ADD): UNBLOCK INTERIOR OF WINDOWS 26, 28, AND 29. RETAIN HISTORIC TRIM AND JAMBS WHERE INTACT.



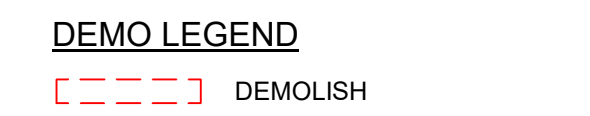
1 NORTH ELEVATION
1/4" = 1'-0"

2 EAST ELEVATION
1/4" = 1'-0"



3 SOUTH ELEVATION
1/4" = 1'-0"

4 WEST ELEVATION
1/4" = 1'-0"



PHASING OF WINDOW CONSTRUCTION SCOPE

CONTRACTOR TO PROVIDE A CONSTRUCTION PHASING WINDOW SCHEDULE TO ARCHITECT DURING THE PRE-CONSTRUCTION CONFERENCE PRIOR TO START OF WORK. SCHEDULE TO INCLUDE DETAILED DESCRIPTION OF GROUPING AND PHASING TIMELINE FOR REMOVAL AND COMPLETION OF WINDOW RESTORATION. NO MORE THAN 25% OF WINDOWS TO BE COVERED AT A TIME. WINDOWS TO BE LABELED NUMERICALLY TO MATCH WINDOW NUMBERING IN CONSTRUCTION DOCUMENTS.

CONTRACTOR TO SECURE AND TEMPORARILY WEATHERIZE WINDOW OPENINGS WHEN WINDOW COMPONENTS ARE REMOVED. CONTRACTOR TO COVER WINDOWS FROM THE EXTERIOR WITH A MINIMUM 5/8" THICKNESS PLYWOOD SHEATHING PAINTED TO MATCH THE EXTERIOR. WITH ANY OTHER ASSOCIATED BLOCKING OR STIFFENING MEMBERS TO KEEP OPENING SECURE AND WEATHERTIGHT. PLYWOOD COVERINGS TO BE INSTALLED IN A MANNER TO MINIMIZE FASTENER PENETRATIONS INTO EXISTING WOOD TRIM. CONTRACTOR IS RESPONSIBLE FOR REPAIRING BUILDING COMPONENTS ONCE TEMPORARY WINDOW OPENINGS ARE REMOVED.

GENERAL CONSTRUCTION NOTES

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- THE CARNEGIE LIBRARY BUILDING CURRENTLY HOUSES THE BEAUFORT REGIONAL CHAMBER OF COMMERCE. THE BUILDING IS TO REMAIN OPEN DURING CONSTRUCTION. AT ALL TIMES, THE BUILDING ENVELOPE IS TO REMAIN WATERTIGHT. SPECIAL CARE SHOULD BE TAKEN TO PROTECT ALL INTERIOR CONTENTS.
- ALL WORK IS TO BE EXECUTED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND APPLICABLE CONSTRUCTION STANDARDS AND CODES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL WORK IS IN COMPLIANCE WITH ALL CURRENT ADOPTED BUILDING CODES, ORDINANCES, AND REGULATIONS OF ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMITS AND APPROVALS FROM ALL PUBLIC AUTHORITIES HAVING JURISDICTION.
- THE GENERAL CONTRACTOR SHALL MAINTAIN A CURRENT AND COMPLETE SET OF DRAWINGS ON THE JOB SITE DURING ALL PHASES OF CONSTRUCTION. ALL SUBCONTRACTORS SHALL BE PROVIDED WITH A SET OF DRAWINGS.
- THE GENERAL CONTRACTOR SHALL VERIFY AND ASSUME RESPONSIBILITY FOR ALL DIMENSIONS AND SITE CONDITIONS, AS WELL AS INSPECT THE PREMISES AND TAKE NOTE OF EXISTING CONDITIONS PRIOR TO SUBMITTING PRICES. NO CLAIM SHALL BE ALLOWED FOR PROBLEMS WHICH COULD HAVE BEEN REASONABLY PREVENTED BY A THOROUGH EXAMINATION.
- COORDINATE ALL WORK WITH EXISTING CONDITIONS. ALL DIMENSIONS TO BE FIELD VERIFIED.
- ALL CONSTRUCTION SHALL BE TRUE, PLUMB, LEVEL, SQUARE, AND IN PROPER ALIGNMENT.
- PROVIDE TEMPORARY SUPPORT AS NECESSARY TO ENSURE THE STRUCTURAL INTEGRITY OF THE BUILDING UNDER CONSTRUCTION. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION-RELATED ACTIVITIES.
- CONSTRUCTION EQUIPMENT NOISE SHALL BE MINIMIZED DURING THE CONSTRUCTION PHASES BY MUFFLING AND SHIELDING IMPACT TOOLS WHENEVER POSSIBLE.

NEW CONSTRUCTION NOTES

- REPAIR, RESTORE, & PAINT ALL WINDOWS, SEE WINDOW SCHEDULE AND GENERAL WINDOW NOTES.
 BASIS OF DESIGN: UPPER WINDOW SASH TO BE FIXED, LOWER WINDOW SASH TO BE OPERABLE.
 ALL BRICK AND WOODEN ELEMENTS DAMAGED DURING RESTORATION OF THE WINDOWS TO BE RESTORED WITH COMPATIBLE MATERIALS. REPOINT MASONRY SUBSTRATE AS REQUIRED. ALL REPAIRS SHALL MATCH EXISTING TEXTURE. MATERIALS DAMAGED AND REPAIRED DURING WINDOW RESTORATION TO BE PAINTED TO MATCH EXISTING. REPLACE ALL JOINT SEALANT AT THE EXTERIOR JOINT BETWEEN WOOD CASING AND MASONRY.
 ALTERNATE 1 (ADD): INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF WINDOWS (EXCLUDES WINDOWS 10, 11, 26, 27, 28, & 29). FILM MUST BE INSTALLED BY CERTIFIED INSTALLER (ADD).
 ALTERNATE 2 (DEDUCT): LOWER SASH TO BE FIXED IN PLACE.
 ALTERNATE 4 (ADD): RESTORE WINDOWS 26, 28, AND 29 COMPLETE. NEW WINDOW COMPONENTS TO BE INSTALLED WHERE MISSING OR TOO DETERIORATED TO BE REUSED. ALL NEW COMPONENTS TO MATCH HISTORIC PROFILES OF INTACT WINDOWS. MODIFY CEILING TO CONSTRUCT INSET LIGHT WELL AT NEWLY EXPOSED WINDOWS TO ALLOW LIGHT TO ENTER THE OFFICE SPACE. NOTE: CEILING IS DROPPED IN OFFICE SPACES. INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF WINDOWS.
- ALTERNATE 3 (ADD): REPAIR, RESTORE, & PAINT TWO (2) EXTERIOR WOOD DOORS COMPLETE, INCLUDING TRANSOMS, JAMB, AND TRIM. SEE GENERAL DOOR NOTES.

WINDOW SCHEDULE

Mark	Type	Width	Height	Method of Repair	Replacement Glass Type	Window Notes
01	Historic Double Hung Window	3' - 1 1/2"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
02	Historic Double Hung Window	3' - 1 1/2"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
03	Modern Replacement Window	3' - 1 1/2"	4' - 8"	Demolish Existing, Install new window using existing historic windows as a template	Double Strength Plate Glass	
04	Modern Replacement Window	3' - 1 1/2"	4' - 8"	Demolish Existing, Install new window using existing historic windows as a template	Double Strength Plate Glass	
05	Historic Double Hung Window	3' - 1 1/2"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
06	Historic Double Hung Window	3' - 1 1/2"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
07	Historic Double Hung Window	3' - 1 1/2"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
08	Historic Double Hung Window	2' - 4"	4' - 8"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
09	Modern Replacement Window	3' - 1 1/2"	4' - 8"	Demolish Existing, Install new window using existing historic windows as a template	Double Strength Plate Glass	Interior trim is currently missing. Restore complete, match existing historic trim. Vent currently installed at upper sash window pane. New plastic vent cover and plastic sleeve to be installed and connected to existing duct. Vent cover to fit size of one glass pane. Contractor to submit detail and product specifications to architect for approval.
10	Replacement Window	2' - 4"	4' - 8"	Demolish Existing, Install new window using existing historic windows as a template	Replace existing glass panes with patterned Florentine Glass	Existing glass to be catalogued and returned to the owner
11	Historic Double Hung Window	2' - 4"	4' - 8"	Existing to Remain, Restore Complete	Replace existing non-matching glass panes with patterned Florentine Glass, Historic Florentine Glass to Remain	Historic Florentine glass is still intact. Special care should be taken not to damage panes during restoration
12	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
13	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
14	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
15	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
16	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
17	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
18	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
19	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
20	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
21	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
22	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
23	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
24	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
25	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Existing Glass to Remain, Broken, Missing, or Damaged Glass to be replaced with Double Strength Plate Glass	
26	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Replace existing glass panes with patterned Florentine Glass, Alternate 4: Replace existing glass panes with Double Strength Plate Glass	Existing glass to be catalogued and returned to the owner, Alternate 4: Unblock interior of window. Retain historic trim and jambs where intact. Restore windows complete. Modify ceiling to construct inset light well at newly exposed windows to allow light to enter the office space. Note ceiling is dropped in office spaces.
27	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Replace existing glass panes with patterned Florentine Glass	Existing glass to be catalogued and returned to the owner, window to remain blocked from the interior
28	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Replace existing glass panes with patterned Florentine Glass, Alternate 4: Replace existing glass panes with Double Strength Plate Glass	Existing glass to be catalogued and returned to the owner, Alternate 4: Unblock interior of window. Retain historic trim and jambs where intact. Restore windows complete. Modify ceiling to construct inset light well at newly exposed windows to allow light to enter the office space. Note ceiling is dropped in office spaces.
29	Historic Double Hung Window	3' - 1 1/2"	7' - 0"	Existing to Remain, Restore Complete	Replace existing glass panes with patterned Florentine Glass, Alternate 4: Replace existing glass panes with Double Strength Plate Glass	Existing glass to be catalogued and returned to the owner, Alternate 4: Unblock interior of window. Retain historic trim and jambs where intact. Restore windows complete. Modify ceiling to construct inset light well at newly exposed windows to allow light to enter the office space. Note ceiling is dropped in office spaces.
30	Storefront Window	4' - 9 1/2"	4' - 4"	Not Included in Project Scope of Work	N/A	
31	Storefront Window	4' - 9 1/2"	4' - 4"	Not Included in Project Scope of Work	N/A	
32	Storefront Window	4' - 9 1/2"	4' - 4"	Not Included in Project Scope of Work	N/A	
33	Storefront Window	4' - 9 1/2"	4' - 4"	Not Included in Project Scope of Work	N/A	
34	Metal Dormer Window	2' - 1"	4' - 0"	Not Included in Project Scope of Work	N/A	
35	Metal Dormer Window	2' - 1"	4' - 0"	Not Included in Project Scope of Work	N/A	
36	Metal Dormer Window	2' - 1"	4' - 0"	Not Included in Project Scope of Work	N/A	
37	Metal Dormer Window	2' - 1"	4' - 0"	Not Included in Project Scope of Work	N/A	
38	Metal Dormer Window	2' - 1"	4' - 0"	Not Included in Project Scope of Work	N/A	

GENERAL WINDOW NOTES

- REFER TO SITE FOR EXISTING WINDOW CONDITIONS.
 - BASIS OF DESIGN: REPAIR & RESTORE ALL WINDOWS IN FULL. RESTORE LOWER SASH TO OPERABLE CONDITION, UPPER SASH FIXED. COMPLETE SASH REPLACEMENT MUST BE APPROVED BY THE ARCHITECT. ALL WINDOWS TO HAVE A COMPLETE ASSEMBLY INCLUDING BUT NOT LIMITED TO SASH, JAMBS, SILLS, TRIM, STOPS, AND STOOLS.**
 - FIELD VERIFY ALL WINDOW DIMENSIONS.
 - REMOVE ALL EXISTING AND ABANDONED HARDWARE.
 - INSTALL NEW LOCKABLE SASH LOCKS ON ALL OPERABLE WINDOWS (BROUGHTONS LOCKING FITCH SASH LOCK IN ANTIQUE SATIN BRASS, OR APPROVED EQUAL).
 - ALL WEIGHTS TO BE CHECKED TO ENSURE WINDOWS ARE PROPERLY COUNTERBALANCED; AND OPERATE SMOOTHLY. AUGMENT WEIGHTS WITH NON FERROUS WEIGHTS AS REQUIRED TO ACCOUNT FOR WEIGHT OF EXISTING AND NEW SASH.
 - REMOVE EXISTING ROPE SASH CORDS. INSTALL NEW SOLID, UNLACQUERED BRASS CHAIN FROM HOUSE OF ANTIQUE HARDWARE OR APPROVED EQUAL.
 - ALL WINDOWS TO HAVE SASH LIFTS. MISSING LIFTS TO BE REPLACED WITH NEW LIFTS MATCHING EXISTING. PAINT TO MATCH WINDOW SASH.
 - EXISTING CONSTRUCTION INCLUDING BUT NOT LIMITED TO CEILINGS, INTERIOR SHUTTERS, AND WALL DIVIDERS MAY REQUIRE PARTIAL REMOVAL TO RESTORE WINDOWS. CONTRACTOR IS RESPONSIBLE FOR REINSTALLING ALL ELEMENTS TO ORIGINAL LOCATION AND CONDITION.
 - INSTALL NEW WEATHERSTRIPPING AT SASHES AND MIDRAIL.
 - REPLACE GLAZING COMPLETE.
 - EXISTING GLASS, UNLESS SCHEDULED TO RECEIVE TEXTURED PRIVACY GLASS, TO BE REUSED UNLESS BROKEN, DAMAGED, OR MISSING. ALL BROKEN, DAMAGED, OR DETERIORATED GLASS TO BE REPLACED.
 - PAINT AND CAULK WINDOWS COMPLETE (INTERIOR AND EXTERIOR COMPONENTS). REMOVE CAULK AROUND MASONRY OPENINGS AND WINDOWS AND INSTALL NEW.
 - ALL STEEL LINTELS AT OPENINGS TO BE SCRAPED AND PAINTED.
 - ALTERNATE 1: INSTALL NEW 3M CLIMATE CONTROL 75 FILM ON INTERIOR OF ALL WINDOWS. FILM MUST BE INSTALLED BY CERTIFIED INSTALLER. ALTERNATE EXCLUDES WINDOWS 10, 11, 26, 27, 28, AND 29 WHICH HAVE TEXTURED PRIVACY GLASS.**
 - ALTERNATE 2: LOWER WINDOW SASH TO BE FIXED IN PLACE.**
 - ALTERNATE 4: RESTORE WINDOWS 26, 28, AND 29 COMPLETE. NEW WINDOW COMPONENTS TO BE INSTALLED WHERE MISSING OR TOO DETERIORATED TO BE REUSED. ALL NEW COMPONENTS TO MATCH HISTORIC PROFILES OF INTACT WINDOWS. MODIFY CEILING TO CONSTRUCT INSET LIGHT WELL AT NEWLY EXPOSED WINDOWS TO ALLOW LIGHT TO ENTER THE OFFICE SPACE. NOTE: CEILING IS DROPPED IN OFFICE SPACES.**
 - NOTE: WINDOWS WITH ADDED ELEMENTS AND/OR INAPPROPRIATE REPAIRS SHALL BE RETURNED TO ORIGINAL APPEARANCE. PREVIOUS REPAIRS THAT DEVIATE FROM ORIGINAL DETAILS TO BE REMOVED AND APPROPRIATE REPAIRS EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS. FINAL DETERMINATION OF REPAIRS IN QUESTIONS WILL BE MADE BY THE ARCHITECT. ALL REPAIR ELEMENTS TO BE IN PLANE WITH ORIGINAL MATERIALS.
 - NEW WINDOWS AND COMPONENTS TO MATCH EXISTING HISTORIC WINDOWS. WINDOWS ARE NOT DP RATED. WINDOWS HAVE CLEAR SINGLE PANE GLASS WITH A SOLAR HEAT GAIN COEFFICIENT (SHGC) OF .81.
 - ALTERNATE: 3M CLIMATE CONTROL 75 FILM HAS A SOLAR HEAT GAIN COEFFICIENT (SHGC) OF .53.
 - THE BUILDING IS HISTORIC. CARE SHALL BE TAKEN TO PROTECT THE BUILDING AND PROPERTY FROM DAMAGE DURING THE WORK. ALL EFFORT SHALL BE MADE TO PROTECT, RETAIN, AND PRESERVE AS MUCH EXISTING ORIGINAL MATERIALS POSSIBLE. NEW MATERIAL MUST MATCH THE ORIGINAL IN LOCATION, SIZE, MATERIAL, PROFILE (WHERE APPLICABLE) AND INSTALLATION METHOD.
 - BEFORE CONSTRUCTION BEGINS, THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
 - IF THE CONTRACT DRAWINGS ARE FOUND TO BE UNCLEAR, AMBIGUOUS OR CONTRADICTORY, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH THAT PART OF THE WORK.
 - CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL ENSURE THE COMPLIANCE OF THE WORK WITH ALL LOCAL, STATE, AND FEDERAL CODES, TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IN THE EVENT OF CONFLICT BETWEEN LOCAL, STATE, AND NATIONAL CODES, THE MORE STRINGENT SHALL GOVERN.
 - CHEMICAL OR PHYSICAL TREATMENTS, IF APPROPRIATE, WILL BE UNDERTAKEN USING THE GENTLEST MEANS POSSIBLE. TREATMENTS THAT CAUSE DAMAGE TO HISTORIC MATERIALS WILL NOT BE USED.
 - DO NOT SCALE OFF DRAWINGS.
 - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 - REPAIR MASONRY DAMAGED DURING WINDOW RESTORATION. MASONRY DAMAGED AND REPAIRED DURING WINDOW RESTORATION TO BE PAINTED TO MATCH EXISTING WALL.
- FINISH NOTES**
- CONTRACTOR TO ENSURE THAT FINISHES ARE FLUSH, CLEAN, AND FREE OF DUST AND DEFECTS PRIOR TO THE APPLICATION OF PAINT COATINGS. ALL HARD EDGES OF PAINT TO BE FEATHERED SO THAT VARIATIONS IN PAINT THICKNESS ARE NOT VISIBLE. DUE TO THE CONDITION OF THE EXTERIOR PAINT, COMPONENTS MAY REQUIRE COMPLETE PAINT REMOVAL TO ACHIEVE STABLE, WELL ADHERED, AND VISIBLE HOMOGENOUS PAINT.
 - ANY CUT OR NOTCHED EXTERIOR WOOD SHALL BE COATED WITH AN EPOXY SEALER TO PROTECT END GRAINS FROM ABSORBING WATER.
 - PROVIDE 1 COAT PRIMER AND 2 FINISH COATS OF PAINT AT INTERIOR AND EXTERIOR SURFACES.
 - REMOVE OVERPAINTING BOTH NEW AND OLD FROM ALL GLASS AND HARDWARE INTENDED TO BE AN UNPAINTED METAL SURFACE.
 - ALL STEEL LINTELS AT OPENINGS TO BE SCRAPED AND PAINTED.

MEADORS

SINCE 1984
2811 AZALEA DRIVE ■ CHARLESTON, ■ 843 723 8585

CARNEGIE LIBRARY WINDOW RESTORATION

701 CRAVEN STREET
BEAUFORT, SC 29902

BID DOCUMENTS

PROJ. 20-0128
ISSUE DATE: 05/14/2021

REVISIONS

#	DATE	NOTES

WINDOW SCHEDULE & ELEVATIONS

A601

NOT FOR CONSTRUCTION



A BASEMENT PAIR OF DOUBLE HUNG WINDOWS (HISTORIC)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE A IS FOUND ON WINDOWS 1, 2, 5, & 6.

B BASEMENT PAIR OF DOUBLE HUNG WINDOWS (MODERN REPLACEMENT)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE B IS FOUND ON WINDOWS 3 & 4.

C BASEMENT SINGLE DOUBLE HUNG WINDOW (HISTORIC)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE C IS FOUND ON WINDOWS 7.

D BASEMENT SINGLE DOUBLE HUNG WINDOW (MODERN REPLACEMENT)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE D IS FOUND ON WINDOWS 9.

E BASEMENT SINGLE DOUBLE HUNG WINDOW (REPLACEMENT)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE E IS FOUND ON WINDOWS 10.

F BASEMENT SINGLE DOUBLE HUNG WINDOW (HISTORIC)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE F IS FOUND ON WINDOWS 11.

G 1ST FLOOR PAIR OF DOUBLE HUNG WINDOWS (HISTORIC)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE G IS FOUND ON WINDOWS 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, & 25

H 1ST FLOOR PAIR OF DOUBLE HUNG WINDOWS (HISTORIC)
REFERENCE PHOTOGRAPH WINDOW TYPE IS EXISTING.
TYPE H IS FOUND ON WINDOWS 26, 27, 28, & 29

WINDOW ELEVATIONS- PHOTOGRAPH LEGEND

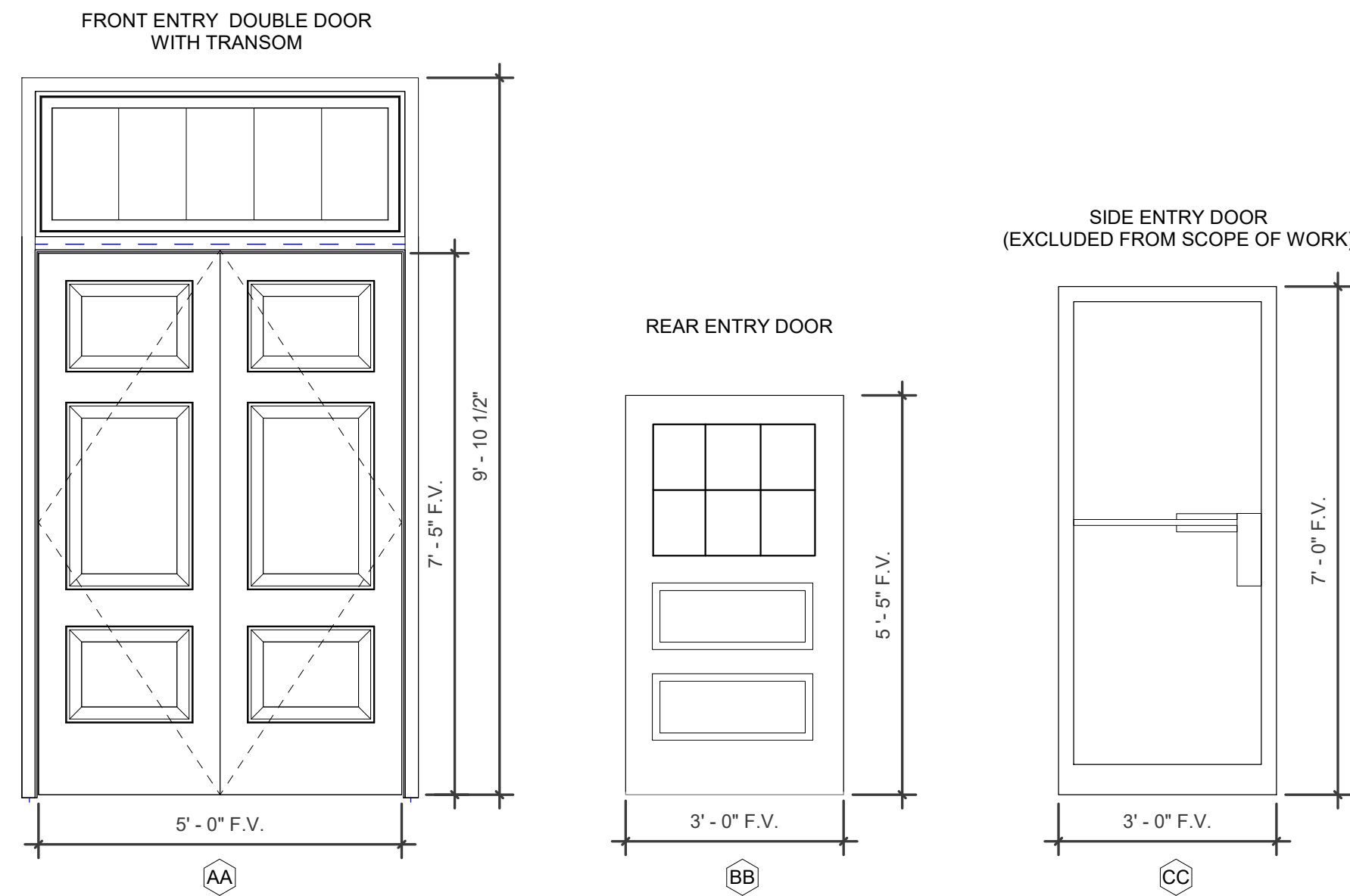
DOOR SCHEDULE							
Door ID	Type	Construction Type	Function	Door Thickness	Description	Door Notes	Hardware
D01	AA	WOOD	Exterior	1 3/4"	SWINGING, SINGLE	HISTORIC WOOD PANEL DOOR WITH TRANSOM, RESTORE	Install new solid unlacquered brass mail slot. Restore existing entry lockset, source and install missing latch. Existing deadbolt to remain. Install new weatherstripping, sweep, and hardware. Hinges to be sandblasted and reused.
D02	BB	WOOD	Exterior	1 3/4"	SWINGING, DOUBLE	HISTORIC WOOD PANEL AND GLASS DOOR, RESTORE	Install new lock and deadbolt. Repair mortise box and prepare door for new lock hardware. Install new weatherstripping, brass interlocking threshold, and hardware. Hinges to be sandblasted and reused. Remove mail slot and plywood. Restore door. Door has previously been modified and no longer fits the opening. Restore trim and jamb that has previously been cut.
D03	CC	STOREFRONT	Exterior	1 3/4"	SWINGING, SINGLE	NON-HISTORIC GLASS DOOR, EXCLUDED FROM SCOPE OF WORK	N/A

GENERAL DOOR NOTES

- ALTERNATE 3: REPAIR AND RESTORE TWO (2) EXTERIOR WOOD DOORS COMPLETE, INCLUDING TRANSOMS (WHERE APPLICABLE), JAMB, AND TRIM. INTERIOR AND EXTERIOR SIDES TO BE RESTORED. PAINT COMPLETE (INTERIOR AND EXTERIOR SIDES), PRIME AND PAINT HINGES WITH RUST INHIBITING PRIMER. REMOVE PAINT FROM METAL DOOR HARDWARE SCHEDULED TO BE REMAIN. SEE DOOR SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION RELATED TO WEATHERSTRIPPING AND DOOR HARDWARE.**
 - FIELD VERIFY ALL WINDOW DIMENSIONS.
 - REMOVE ALL EXTRANEOUS AND ABANDONED HARDWARE.
 - REPLACE ALL GLAZING ON DOOR TRANSOMS.
 - ADJUST AND MODIFY DOORS TO ENSURE OPENING IS WEATHERTIGHT. ARCHITECT TO APPROVE MEDICATIONS PRIOR TO EXECUTION.
 - INSTALL NEW WEATHERSTRIPPING.
 - INSTALL HARDWARE AS SPECIFIED IN DOOR SCHEDULE. MODIFY AND REPAIR DOORS AS REQUIRED TO INSTALL ALL SPECIFIED HARDWARE. HINGES TO BE SANDBLASTED AND REUSED. PAINT HINGES.
 - PAINT AND CAULK DOORS COMPLETE (INTERIOR AND EXTERIOR COMPONENTS). REMOVE CAULK AROUND MASONRY OPENINGS AND DOORS AND INSTALL NEW.
 - ALL STEEL LINTELS AT OPENINGS TO BE SCRAPED AND PAINTED.
- THE BUILDING IS HISTORIC. CARE SHALL BE TAKEN TO PROTECT THE BUILDING AND PROPERTY FROM DAMAGE DURING THE WORK. ALL EFFORT SHALL BE MADE TO PROTECT, RETAIN, AND PRESERVE AS MUCH EXISTING ORIGINAL MATERIALS POSSIBLE. NEW MATERIAL MUST MATCH THE ORIGINAL IN LOCATION, SIZE, MATERIAL, PROFILE (WHERE APPLICABLE) AND INSTALLATION METHOD.
- BEFORE CONSTRUCTION BEGINS, THE CONTRACTOR SHALL VISIT THE SITE TO VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
- IF THE CONTRACT DRAWINGS ARE FOUND TO BE UNCLEAR, AMBIGUOUS OR CONTRADICTIONARY, THE CONTRACTOR SHALL REQUEST CLARIFICATION FROM THE ARCHITECT IN WRITING BEFORE PROCEEDING WITH THAT PART OF THE WORK.
- CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL ENSURE THE COMPLIANCE OF THE WORK WITH ALL LOCAL, STATE, AND FEDERAL CODES, TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IN THE EVENT OF CONFLICT BETWEEN LOCAL, STATE, AND NATIONAL CODES, THE MORE STRINGENT SHALL GOVERN.
- DO NOT SCALE OFF DRAWINGS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

FINISH NOTES

- CONTRACTOR TO ENSURE THAT FINISHES ARE FLUSH, CLEAN, AND FREE OF DUST AND DEFECTS PRIOR TO THE APPLICATION OF PAINT COATINGS. ALL HARD EDGES OF PAINT TO BE FEATHERED SO THAT VARIATIONS IN PAINT THICKNESS ARE NOT VISIBLE. DUE TO THE CONDITION OF THE EXTERIOR PAINT, COMPONENTS MAY REQUIRE COMPLETE PAINT REMOVAL TO ACHIEVE STABLE, WELL ADHERED, AND VISIBLE HOMOGENOUS PAINT.
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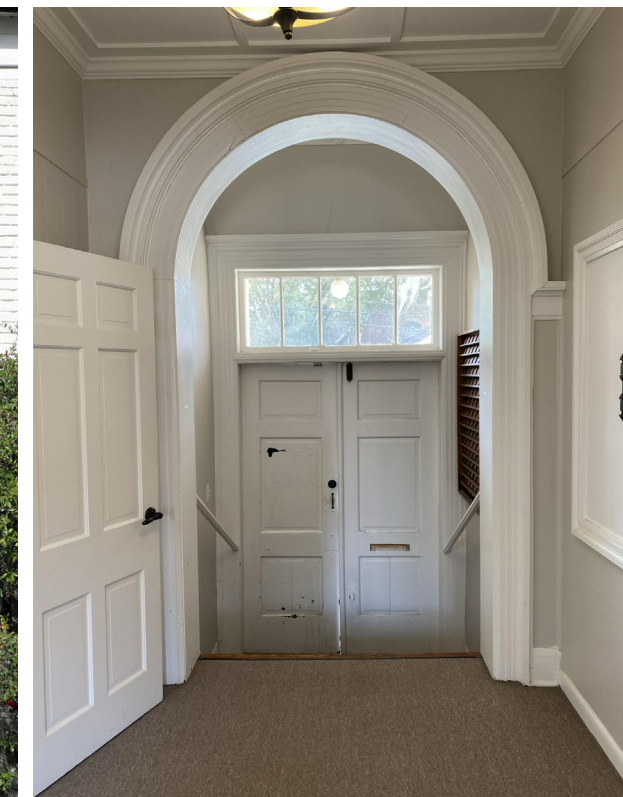
DOOR ELEVATION LEGEND

1/2" = 1'-0"

GENERAL NOTE: WINDOW AND DOOR MEASUREMENTS ARE APPROXIMATE. CONTRACTOR RESPONSIBLE FOR FIELD VERIFYING EXACT DIMENSIONS OF WINDOWS AND ROUGH OPENINGS.



AA ENTRY DOUBLE DOOR 001
REFERENCE PHOTOGRAPH
DOOR TYPE IS EXISTING.



BB REAR ENTRY DOOR 002
REFERENCE PHOTOGRAPH
DOOR TYPE IS EXISTING



CC SIDE ENTRY DOOR 003
REFERENCE PHOTOGRAPH
DOOR TYPE IS EXISTING
(EXCLUDED FROM SCOPE OF WORK)



DOOR ELEVATIONS- PHOTOGRAPH LEGEND

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ELEVATIONS

A602

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EXISTING CONDITIONS- WINDOW #9

NOT TO SCALE

MODERN REPLACEMENT WINDOW. NOTE: HVAC VENT EXITING THROUGH WINDOW PANE.



EXISTING CONDITIONS- WINDOWS #5 & 6

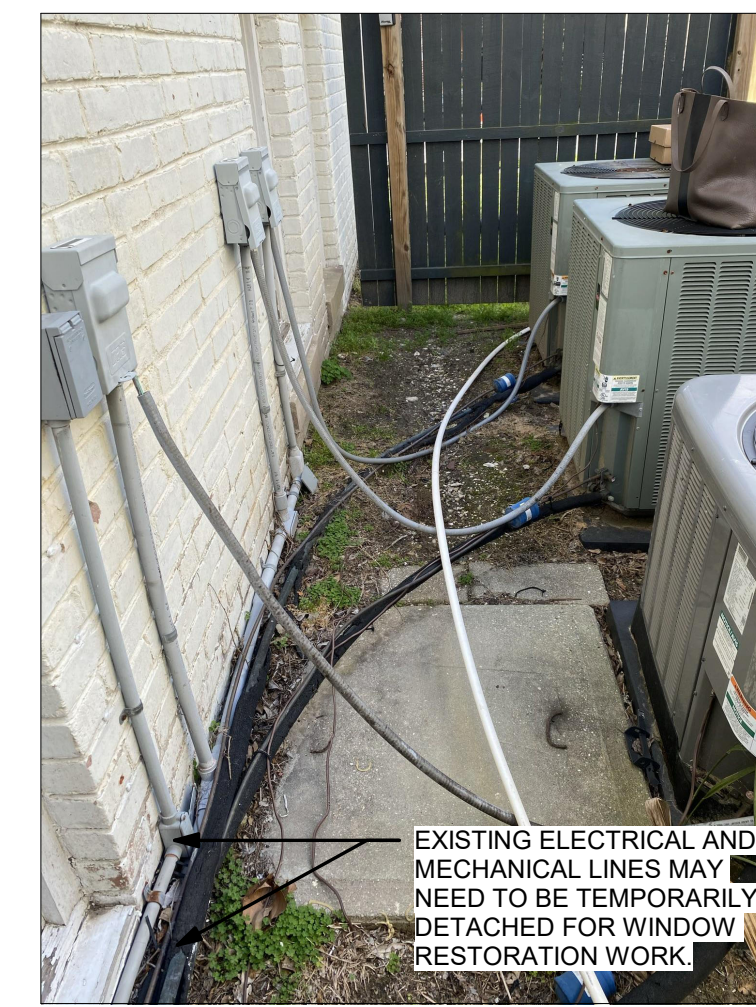
NOT TO SCALE



EXISTING CONDITIONS- WINDOWS #3 & 4

NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. CEILINGS MAY NEED TO BE TEMPORARILY REMOVED FOR WINDOW RESTORATION WORK.



EXISTING CONDITIONS- HVAC UNITS, ADJACENT TO WINDOWS # 9, 10, & 11

NOT TO SCALE

EXISTING ELECTRICAL AND MECHANICAL LINES MAY NEED TO BE TEMPORARILY DETACHED FOR WINDOW RESTORATION WORK.



EXISTING CONDITIONS- RESTROOM ROOM 006

NOT TO SCALE

NOTE: PRESENCE OF PRIVACY GLASS.



EXISTING CONDITIONS- CONFERENCE ROOM 102

NOT TO SCALE

NOTE CEILING IS FULL HEIGHT IN THE CONFERENCE ROOM.



EXISTING CONDITIONS- OFFICE ROOM 104

NOT TO SCALE

NOTE A PAIR OF WINDOWS HAS BEEN BLOCKED FROM THE INTERIOR. ONE WINDOW IS SCHEDULED TO BE REOPENED AS PART OF ALTERNATE #4.



EXISTING CONDITIONS- OFFICE ROOM 104

NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. PORTIONS OF CEILING AND SHUTTERS MAY NEED TO BE TEMPORARILY REMOVED TO RESTORE WINDOWS.



EXISTING CONDITIONS- OFFICE ROOM 106

NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. PORTIONS OF CEILING MAY NEED TO BE TEMPORARILY REMOVED TO RESTORE WINDOWS.

NOTE A PAIR OF WINDOWS HAS BEEN BLOCKED FROM THE INTERIOR. BOTH WINDOW ARE SCHEDULED TO BE REOPENED AS PART OF ALTERNATE #4.



EXISTING CONDITIONS- OFFICE ROOM 106

NOT TO SCALE

NOTE A PAIR OF WINDOWS HAS BEEN BLOCKED FROM THE INTERIOR. BOTH WINDOW ARE SCHEDULED TO BE REOPENED AS PART OF ALTERNATE #4.



EXISTING CONDITIONS- OFFICE ROOM 106

NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. PORTIONS OF CEILING AND SHUTTERS MAY NEED TO BE TEMPORARILY REMOVED TO RESTORE WINDOWS.



EXISTING CONDITIONS- OFFICE ROOM 107

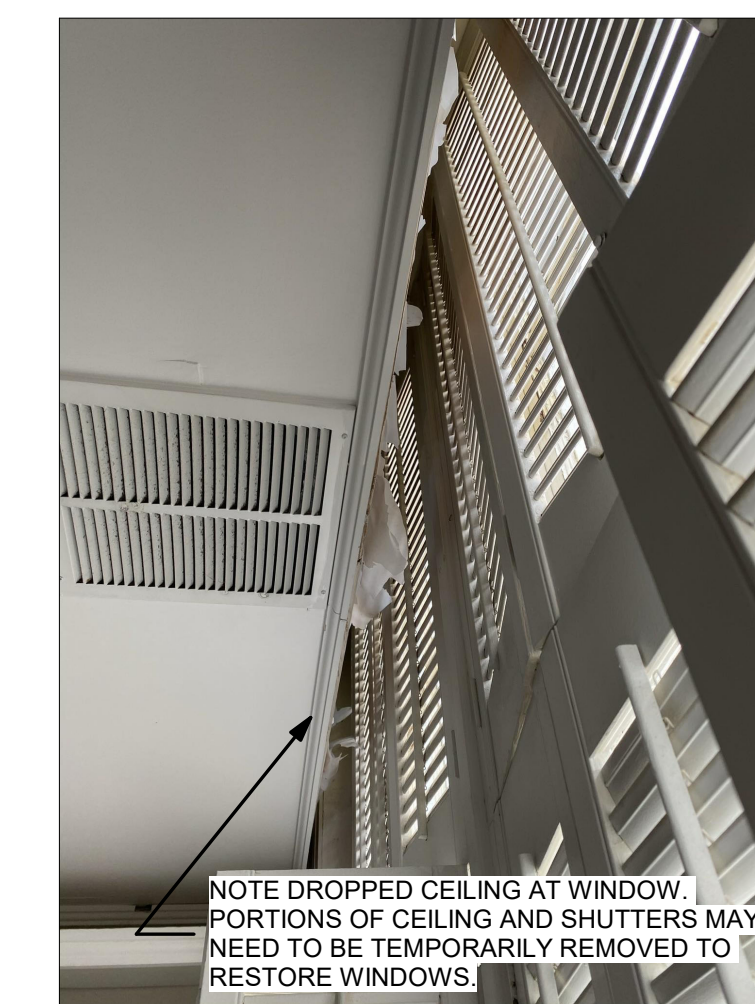
NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. PORTIONS OF CEILING AND SHUTTERS MAY NEED TO BE TEMPORARILY REMOVED TO RESTORE WINDOWS.



EXISTING CONDITIONS- OFFICE ROOM 103

NOT TO SCALE



EXISTING CONDITIONS- WINDOWS #22 & 23

NOT TO SCALE

NOTE DROPPED CEILING AT WINDOW. PORTIONS OF CEILING AND SHUTTERS MAY NEED TO BE TEMPORARILY REMOVED TO RESTORE WINDOWS.