ADDENDUM #1

Project Name:
DAS MEBS House Structural Repairs
DAS# 9364.00
RFQ 936400-01
Addendum #1
Dated: July 3, 2025

This Addendum forms a part of the bidding and contract documents. This Addendum supersedes and supplements all portions of the original bidding and contract documents dated March 25, 2025 with which it conflicts.

ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED ON THE BID FORM. FAILURE TO DO SO MAY SUBJECT THE BIDDER TO DISQUALIFICATION.

1.1 CLARIFICATIONS

A. RFQ due date has been changed to 07/15/2025.

B. Hazmat Survey Report has been added to the RFQ.

C. Exhibit A - Pricing Form - has been updated to include the unit pricing called out in the specifications. Please ensure to utilize the updated pricing form for submission.

D. Basement Floor Plan. Sheet A1.0. Change the note for the two basement door leaves at the bottom of the exterior stair to read, " Remove, rebuild and reinstall the two doors leaves." Rebuild the two door leaves using as much salvaged boards as possible. Reinstall using the same hinges and latch. Do not reconnect the rod lever attachment on the north leaf. The doors should be operable and able to swing freely.

1.2 PLANS

A. No items.

1.3 QUESTIONS AND CLARIFICATIONS

A. Do you have a preferred method you would like quoted for the underpinning of the foundation. I.e., Mass concrete underpinning, helical piers or beam and base method?
   1. There is no preferred method for shoring. The means and methods of all required activities are the contractors discretion. During procurement & the submittal review process; the State expects a licensed structural engineer to provide stamped drawings and calculations supporting the contractor's proposed underpinning/shoring method. Any damage to the existing structure caused by underpinning/shoring is the contractor's responsibility to restore back to Iowa SHPO approved condition.
   2. Methods above are costly and complex, suggest a simple series of posts with beams transverse to the wall.

B. Also, this project falls under the Iowa Lead Safe Renovation Act, so all work done on structures that are lead will need to be done IAW Iowa and EPA Regulations. With that said, I have not seen a proposed budget for this project, could you please share that with me?
   1. Due to various feasible methods of construction there is no budget set at this time.

C. What type of bonds are required?

   1. Performance & payment bond for full contract value.

D. Is lead abatement required?

   1. We have a contract out for an asbestos & lead containing materials survey and will have that report issued prior to quote due date. We expect the work areas to require some ACM abatement & lead safe practices.

E. Documents call for unit pricing (01 2200), but the bid form has no line for them.

   1. TSG to edit bid form to include unit pricing line items for additional plaster patching, additional wood floor board replacement, additional trim & siding painting, additional siding replacement.

F. Does the owner have any events scheduled that we would need to work around.

   1. No. The building is currently closed to the public due to the condition.

G. Owner Occupancy Requirements?

   1. No. The building is currently closed to the public due to the condition.

H. Will any parts be needed to reinstall flue pipe for cook stove or wood stove?

   1. No additional parts or components are expected to be installed during the re-installation. The project is centered around re-stabilization of the residential house & preservation of it's historic nature. The intent of the re-installation is to keep the historic piece in the house.

I. Are there any repairs required for the foundation outside of the east wall and the cellar walls?

   1. No.

J. Confirm that Linoleum flooring is not being replaced.

   1. Yes. See sheet A1.1 keynote F.

K. How many mortar analyses will be required? Has this already been done?

1. Mortar analysis is not required. Please see spec section 04 2000. Delete paragraph 2.5 C, and change 2.5.B to " Setting and Pointing Mortar Mix for Limestone: Type L for Lime, 0 parts Portland Cement (not allowed), 1 part Hydrated Lime, 3 parts Sand.

L. Does limestone at the main stairs get a scratch coat?

1. No. See 2/A3.0.

M. Does the basement chimney need the brick removed and re-laid at the fracture?

1. Yes. See keynote M on sheet A1.0. Replace the cracked brick and tuckpoint around the cracked brick full height both sides. Posts and footings on both sides should be in place to take the beam load off the chimney before repairing the brick.

N. Has a paver brick been selected at the dry-stack area below the main basement stairs?

1. Re-lay existing. Provide new brick close to matching as needed. See 2/A3.0. Also, provide matching paver brick as needed to complete the angled brick faces on the stepped knee walls on both sides as shown in Details 3/A3.2 and 4/A3.2. Salvage brick for knee walls when removing the collapsed dirt in the two corners and replace as needed.

O. Regarding the wood floor joists.

1. a. What species are preferred?
   a. See 06 1000 Para. 2.3.C standard framing lumber species are listed. Doug-Fir-Larch or Yellow Pine is preferred.
2. b. Do they need to be rough-sawn?
   a. Not rough sawn, but 2x10s cut down to actual 8" height. See note on Detail 1/A3.2.
3. c. If so, will a lumber grade stamp be required?
   a. See 06 1000 Para. 2.3.C. Grade stamped No. 2 or Better.

P. Can 6x8 beam at main stairs be changed to 4 ply 2x8?

1. Yes. See note on Detail 1/A3.2 top right. Build the beam of (4) 2x10s cut down to actual 8" hgt. Note that the Dutch laps should be half laps that extend min. 8" longer on ends of two 2x10s for bolting into the existing sill beams. The cut ends of the existing sill beams need to stagger cut to receive the Dutch laps. The longer ends of the Dutch lap need to be on the inside basement side for ease of installing.

Q. A comment was made to reuse existing 1x stringer at the kitchen stairs.

1. Not reusing the existing 1x. See the note on Detail 1/A3.0 for new treated 2x10 stringer material. The existing 1x stringer can be viewed as a pattern for the treads.

R. A comment was made to reinstall the basement shelving north of the main basement stair. Do they need to be reinstalled or just salvaged?

1. Not reinstalled, just move the material to the west side of the basement. Keep in tact as much as possible.

S. What is the species of exterior siding and deck post material?

1. Redwood or Western red cedar. Rot resistant, not standard lumber.

T. Is wood epoxy acceptable for repairs?

1. Only for small holes. Otherwise replace siding trim and boards.

U. Regarding plaster work. How much should be figured to be replaced at the kitchen ceiling?

1. For Base Bid include a 4ft x 6ft ceiling area around the chimney. Any plaster replacement beyond that will be added (to be determined) using Unit Price #1.

V. Does wood flooring attach directly to joist? Yes.

1. a. There appears to be no sub flooring.
   a. There is no subfloor.
2. b. Appears to stop before exterior wall framing.
   a. Believe that to be due to settling. The base cove should cover it.

W. Is the sanding of new wood flooring required after installation?

1. One pass of sanding to take off any board edges is acceptable.

X. How far is lacing needed? Across both edges of the floor replacement area.

1. a. Appears to break on the floor joist with no subflooring.
   a. Yes.
2. b. Would every other joint be on the same joist?
   a. Yes. Staggered between two joists on each side.

Y. It is rough-sawn on the bottom/ basement-facing side is required?

1. No but the cut edge from ripping down the 2x10s to the 8" hgt. could be facing down.

Z. What is the wood flooring species?

1. The wood flooring species has not been determined. Match the species when demolished pieces can be used to identify.

1.4 SUBSTITUTION REQUESTS

A. No items.

1.5 ATTACHMENTS

A. See updated RFQ below.

END OF ADDENDUM

IOWA | Department of Administrative Services

May 21st, 2025

To: All Potential Respondents
From: Construction Procurement
Subject: RFQ936400-01 DAS MEBS House Structural Repairs

Request for Quote

The State of Iowa is conducting a Request for Quote for a contractor to restabilize the structural integrity of the historic residential house located at the Matthew Edel Blacksmith Shop in Haverhill, IA. See Exhibit B, C, D, E and F for additional details.

Construction shall be substantially completed no later than November 10TH, 2025.

The Project is located at 214 1st St, Haverhill, Iowa 50120.

Please upload your quote on the Exhibit A pricing form of this solicitation utilizing the Iowa IMPACS Procurement System (https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=DASIowa) prior to **07/15/2025 at 02:00 PM (CT).**

An optional pre-quote meeting will be held on 06/10/2025 at 10:00 AM (CT). This meeting will take place onsite at 214 1st St, Haverhill, Iowa 50120. Interested contractors shall meet at the blacksmith shop

All questions regarding this solicitation must be received by email **by 03:00 PM (CT) on 06/18/2025.**

Contract Terms and Conditions
This procurement will result in a Consensus 802 Agreement. By submitting a quote, respondent agrees to the contract terms and conditions available at:

https://das.iowa.gov/sites/default/files/procurement/pdf/ConsensusDoc802.pdf

Warranty
Respondents must provide a one-year warranty from the date of substantial completion.

Performance Bond
Respondent must provide a Performance and Payment Bond in accordance with Section 10.8 of Consensus 802 Agreement.

Insurance Requirements
See sample Certificate of Insurance attached as Exhibit D for required limits, additional insured requirements and waiver of subrogation.

Exhibit A Pricing Form
DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

Due Tuesday, July 15TH at 02:00 PM (CT)

Please submit this completed form with your Quote to:
Iowa IMPACS Procurement System
(https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=DASIowa)

This form is to be completed in ink or typewritten.
Only pricing on this form or an exact copy of this form will be accepted.
Pricing Form shall be signed by an officer of the firm with authority to bind Respondent to Contract.

Respondent acknowledges receipt of the following Addenda (if issued) which are part of the RFQ documents:

Addendum No. _____1_____Date_____07/03/2025_____

Addendum No._____ Date _____

Freight Terms: FOB Destination, Freight Pre-Paid

The State reserves the right to reject any or all quotes without penalty and to waive minor deficiencies and informalities if, in the judgement of the State, it's best interests will be served.

Respondents must submit pricing for all scope of work items indicated per the attached Exhibit B. The State reserves the right to evaluate pricing. The State intends to make one Award for this project.

QP #01 – Lump Sum Price for all repairs associated with the DAS MEBS House Structural Repairs project

Lump Sum (Labor and Material(s)) Total $_____

UNIT PRICE No. 1: ADDITIONAL PLASTER PATCHING REPAIRS

1. State the square foot cost to remove any additional loose or water damaged plaster around the north Kitchen chimney beyond that included under the Base Bid condition and provide new plaster patching over wood lath and paint to match. Provide a base coat over lath and top coat veneer as specified in Section 09 2400 Cement Plastering. Verify and match thickness of existing plaster. Verify extent of plaster repairs with Owner and CM prior to work.

One Square Foot (Labor and Material(s)) Total $_____

UNIT PRICE NO. 2: ADDITIONAL WOOD FLOOR BOARD REPLACEMENT

1. Provide a Unit Cost for cutting out existing rotted or water damaged tongue and groove floor boards in the first floor area to be patched. Remove, replace, and install new floor boards according to Section 06 2023 – Interior Finish Carpentry. Unit price to include stain finishing of the floor boards.

One Square Foot (Labor and Material(s)) Total $_____

UNIT PRICE NO. 3: ADDITIONAL TRIM AND SIDING PAINTING

1. Provide a Unit Cost for additional painting of new trim or clapboard siding. Painting preparation, priming and paint coats are to be completed according to Section 09 9100 – Painting. Unit price to include abatement of lead paint as part of painting preparation on existing wood trim or siding that is to remain, or demolition of existing wood that has lead containing paint.

One Square Foot (Labor and Material(s)) Total $_____

UNIT PRICE NO. 4: ADDITIONAL SIDING REPLACEMENT

1. Provide a Unit Cost to remove and replace additional clapboard siding beyond that identified in the Base Scope. Remove and replace wood clapboard siding to Section 06 2013 - Exterior Finish Carpentry. Unit Price #3 above shall be applied for painting of any additional wood siding that is replaced.

One Square Foot (Labor and Material(s)) Total $_____

Please note all pricing is to be delivered price. That is why we are stating FOB Destination, Freight Pre-Paid.

Signature _____

Name (Print) _____

Title _____

Company _____

Address _____

City, St., Zip _____

Phone #_____ **Fax #**_____

E-mail _____

Exhibit B Scope of Work

DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

Due TUESDAY, JULY 15TH at 02:00 PM (CT)

1.01 GENERAL WORK REQUIREMENTS

A. The Contractor's Work includes all labor, supervision, materials, equipment, services, supplies, tools, facilities, transportation, hoisting, storage, receiving, licenses, inspections, certifications, overhead, profit, or other items required or reasonably inferable to properly and timely perform and complete all work and services to be performed by the Contractor pursuant to this Agreement. Unless specifically stated otherwise, incidental work required to accomplish the work of this Request for Quote shall be included in the quote. This would include, but not be limited to, temporary facilities, protection of the work, security of equipment, materials, and work in progress, etc. Contractor's Work shall be performed in accordance with the Drawings, Specifications, and Request for Quote.

B. Contractor is responsible for all labor and equipment to unload, account for all material delivered, stock, and delivery for this scope of work. Storage and delivery of materials and equipment at the Site shall be permitted only to the extent approved in advance by the Construction Manager, and if anything so stored obstructs the progress of any portion of the work, it shall be promptly removed or relocated by the Contractor without reimbursement.

C. On site supervision by Prime Contractor at all times work by that contractor or their subcontractors/suppliers is taking place.

D. Provide all temporary facilities required for this scope of work including telephone, secured storage, temporary power for work, temporary and task lighting for work, etc. as determined necessary by the Contractor. Coordinate location of trailers, material storage and utility lines with Construction Manager. Limited space is available, and permission to bring any such facility or excess materials on to the site shall be approved by the Construction Manager. No job office trailers will be permitted onsite.

E. Contractor shall provide all equipment and tools for Contractor's own cleanup. Clean up shall be done at end of every shift or more frequently if required for the Contractor to perform their work, for other Contractors to perform their work, as required by the Owner's operations, and at the discretion of the Construction Manager.

F. All turf, landscaping, and subgrade disturbances caused by equipment traffic or other activities related to the Contractor's scope shall be repaired or restored to proper conditions by the Contractor.

G. Protect adjacent existing building elements from damage from Scope of work. Repair existing building elements damaged during Contractor's Scope of work.

H. All Contractors are responsible for on-the-job supervision of their work, or any subcontracted work. An onsite Superintendent or lead foreman is required during any time that work is being performed to coordinate their work and work with other trades. No superintendent or lead foreman may be replaced without approval of the Owner and The Samuels Group. Any work necessary to be performed after the regular working hours shall be supervised and shall be done at no additional cost to the Owner.

I. Tools, materials, and equipment storage and security is the responsibility of each Contractor.

J. All Authorities having Jurisdiction inspections shall be requested by the responsible contractor and coordinated through the Construction Manager. Attendance by contractors is mandatory as applicable to the work being inspected.

K. The Contractor shall have personnel attending regular project meetings. These meetings will be held at intervals established by the Construction Manager. Contractors must have a representative attending when they are on the job or needed for coordination prior to having work start on the project. The representative attending must be able to adequately represent the Contractor and speak on the Contractors behalf providing valuable information to the meeting; specifically, things such as schedule, cost, production, manpower, etc.

L. The Contractor will be required to attend all pre-installation conferences before commencement of related work.

M. The Contractor shall complete a daily log for each workday on site and submit it to the Construction Manager. Content of the daily log will be directed by the Construction Manager.

1.02 SAFETY

A. The contractor shall comply with all local and federal, safety and health requirements.

B. The contractor will provide a safety plan customized for the project to The Samuels Group.

C. All prime contractors, subcontractors, and/or any second/third tier subcontractors must conduct weekly internal “toolbox safety” meetings and submit documentation of such to the Construction Manager.

D. It is the contractor’s responsibility to notify other contractors on the jobsite of any hazardous materials to which their employees may be exposed. This communication shall be defined as the ability to produce all material SDS information customized for the project. This documentation shall be available for the duration a prime contractor, subcontractor, and/or any second/third/etc. tier subcontractors are onsite.

E. All Contractors shall inform their employees to immediately advise their supervisor of any unsafe conditions that are encountered. The supervisor shall promptly remediate such danger and/or contact the Construction Manager.

F. Contractors performing hot work are to have a fire extinguisher in their work areas at all times as applicable.

G. All Contractors are responsible for their own fall protection.

H. Contractors are required to provide emergency phone numbers at the request of the Construction Manager. Emergency phone numbers are numbers where the Contractor can be reached during off hours.

I. All floor edge, roof and similar openings, barricades, handrails, or cabling for fall protection will be installed by the Contractor that creates the hazard as part of that Contractor’s scope of work. At no time shall an opening be left unprotected from fall hazard. All Contractors shall protect and maintain

such devices per OSHA standards. When a device conflicts with the work of this bid package or when the work of this bid package replaces the need for such devices, this Contractor is responsible for removal. If the work of this Contractor requires additional holes/penetrations, this Contractor shall provide necessary protection until final materials are installed.

J. No fire exit can be blocked at any time.

1.03 SITE MANAGEMENT

A. All contractors are responsible for all their own utility locates. This shall include both public and private locates. All Contractors shall coordinate locates with One Call Services.

B. When active services are encountered in the Work, protect, brace and support existing active sewers, gas, electric or other services, where required for proper execution of the Work. If existing active services are encountered that require relocation, make a request in writing for determination. Do not proceed with Work until written directions are received. Do not prevent or disturb the operation of active services that are to remain.

C. All contractors are required to protect their work. Provide proper protection for all existing work performed by others when performing your work next to, or around, other materials. Repair or replacement of any damaged material will be the responsibility of the contractor who damaged it.

D. All contractors/vendors are responsible for their own cutting and patching unless otherwise specified.

E. All contractors are responsible for maintaining dust control during their work. Contractor will provide a dust control plan customized for the project to The Samuels Group.

F. Contractors shall be responsible for maintaining traffic control coordination with the Owner, The Samuels Group, and the Authority Having Jurisdiction.

G. Public and private roadways will be maintained and cleaned as required by the contractor leaving debris, mud, excess gravel, etc. on roadways at their expense as defined in bid packages.

H. No steel track mounted equipment will be allowed on finished paved surfaces. Any damage to the finished paved surfaces will be repaired at the cost to the contractor causing such damage.

I. Bridging of finished pavement will be the responsibility of the contractor. This includes bridging curbs, pavement, sidewalks, etc. Any damage to the aforementioned including pavement markings, will be repaired or replaced at the cost of the contractor causing such damage.

J. Contractors that have work that requires equipment off of the existing roadways are required to locate and protect from damage all under and above ground existing features such as utilities, tunnels, landscaping, etc… The Contractor will be responsible to repair back to original condition any damages that occur, including but not limited to ruts and sod damage.

K. Any areas disturbed or damaged by one’s operation are to be repaired to Owner/Construction Manager’s satisfaction.

L. The Contractor shall clean their installed materials prior to the next successor activity.

M. Any signs located on the jobsite must be approved by the Construction Manager. Signage will not be allowed in most cases unless it is required for safety or provides instructions.

N. Receiving, unloading and handling of material provided by the contractor shall be included. Spotting location shall be coordinated with the Construction Manager. All deliveries shall be coordinated with other Contractors and Construction Manager in advance of the delivery. Provide freight to the jobsite for any material provided. If storage is not available onsite, each contractor shall include other means of secure storage. If the contractor is not onsite to unload delivery, the delivery will be rejected and will have to be rescheduled at the contractor's expense. Materials must be stored off the ground, out of the mud and on a solid surface. As required or needed, material should be stored on dunnage or pallets in order to keep it off the ground or surface below. Special storage is the responsibility of the respective contractor.

O. Contractors shall not store materials within construction designated locations without approval from the Construction Manager. No materials storage will be allowed that may inhibit construction progress.

P. The Contractors shall layout and correctly establish all lines, levels, grades, positions, walls, partitions, equipment and location of all Work on the Project and be responsible for their accuracy and proper correlation with control lines, monuments and data furnished. Such monuments and data shall be carefully preserved and, if displaced, reset at the expense of the persons displacing them.

Q. All Contractors are responsible for the coordination of their work with the complete set of specifications, construction drawings, addenda, request for information (RFI's), Architect's Supplemental Instruction to Contractor (ITC/ASI), shop drawings, coordination drawings, and other contract modifications.

R. The Contractor shall carefully inspect any work performed by others that is to receive, align, abut or similarly relate to the Contractor's work and shall immediately notify the Construction Manager in writing of any apparent defects or inconsistencies. The Contractor is responsible for coordinating and verifying the dimensions, measurements, and elevations at the project site relevant to the Contractor's work. If Contractor commences his work without such written notice, such commencement shall constitute acceptance of all such work performed by others and of all such field conditions, and all costs incurred in connection with the Contractor's work as a result thereof shall be borne by Contractor.

S. Incorporate construction tolerances for the work of others into the design of the systems in this scope of work. Include field measurements of work by others and any necessary adjustments to systems prior to fabrication to accommodate such allowable tolerances, or accept all costs to correct materials, which do not fit job conditions.

T. Any interior work that is scheduled to be completed while Owner is in normal operation must be sensitive to the Owner's continued use of the building. No workers are allowed to be in areas of the building that are not directly related to their scope of work. Hallways and general access paths to construction areas must also be kept clean at all times. The Owner has the right at any time to shut down any construction activities that they deem to be too much of a distraction to the occupants of the building.

U. All contractors are responsible for familiarizing themselves with the coordination and sequencing requirements related to Owner furnished equipment.

V. If not already required by the contract documents and reasonably requested by the Construction Manager, the Contractor shall prepare coordinated drawings in areas of congestion specifically noting and advising the Construction Manager of potential conflicts between the Contractor's work and other work at the project. Even with such cooperative and coordinated efforts should a conflict occur the Construction Manager will determine how such conflicts should be resolved and its decision in that

regard will be final. The Contractor agrees to abide by such decisions and make any changes required to eliminate such conflict without additional costs or expense to the Owner.

1.04 SCHEDULE MANAGEMENT

A. A Preliminary Construction Schedule as developed by the Construction Manager will be used as the basis of the overall Construction Schedule. In consultation with the Prime Contractor, the Construction Manager shall incorporate the Prime Contract Work and work of other prime contractors into the overall Construction Schedule for the entire project. Critical Milestones and working hours as defined by the Construction Manager will not be altered.

B. The Prime Contractor shall on a weekly basis (at a minimum) provide the Construction Manager with scheduling information with regards to progress and work to be performed in the next 4 (four) weeks. The Prime Contractor shall be bound by the Construction schedule. Nothing in the Prime Contract Agreement shall relieve the Prime Contractor of any liability for any unexcused failure to comply with the agreed upon overall Construction Schedule or any completion dates. The Construction Manager shall have the right to coordinate the Prime Contractors, including the right, if necessary, to change the time, order and priority in which the various portions of the Prime Contract Work and other work associated with the Project shall be performed.

C. All prime contractors, subcontractors, and/or any second/third tier subcontractors on site shall participate in coordination meetings with the Construction Manager as well as weekly meetings as the project progresses.

D. All Contractors shall cooperate with the Construction Manager and with other Contractors. The completion of the Work will depend upon a collective effort by all parties involved.

1.05 GENERAL HOUSEKEEPING

A. No dumpster services are anticipated for this scope of work. Contractor shall remove debris from the jobsite on a daily basis.

B. Daily cleanup (broom clean) of dust and debris from construction operation is part of each contractor's scope of work. If any contractor fails to keep the site clean and organized on a continuous basis, the Construction Manager will notify the contractor in writing only once. The contractor will then have 24 hours to correct the situation. If the contractor fails to correct the situation, the Construction Manager will hire another party for cleaning and charge the said contractor. The Contractor shall submit prior to beginning work a plan to the Construction Manager defining manpower and methods for achieving daily cleanup. If the Construction Manager deems necessary, each Contractor shall provide 1 employee for each 5 employees on the project to clean all work areas and/or staging areas to a broom clean condition. If the Contractor has less than 5 employees on site, the contractor will provide 1 employee to the necessary cleanup requirement. Cleanup duration will take as long as it takes to achieve the broom clean results.

C. Daily cleanup shall include all applicable portions of a project including but not limited to the building, site, public streets, lay-down areas, and designated contractor parking areas.

D. If rework is necessary to be performed by any contractor, that contractor shall be responsible for all associated cleanup and installation/removal of protection measures on all adjacent surfaces where rework took place including access to and from the area.

1.06 CONTRACTOR CERTIFICATION OF INSURANCE

A. Contractor shall review the included sample of certificate of insurance and ensure all requirements can be met. (see exhibit D)
B. Contractor shall provide a copy of their certificate of insurance prior to contracting.
C. Contractor shall ensure description of operations matches example (see exhibit D) and includes project# 9364.00 DAS MEBS House Structural Repairs in the description.

1.07 CONSTRUCTION SCOPE REQUIREMENTS

A. <u>QP #01 – DAS MEBS House Structural Repairs</u>
   a. This project involves restabilizing the structural integrity of the historic residential house located at the Matthew Edel Blacksmith Shop in Haverhill, Iowa. The activities include, but are not limited to:
      - Shoring the existing structure to create a safe working environment
      - Abatement of hazardous materials in the work area(s)
      - Repairing and providing additional support for the foundational walls and footings
      - Removing and replacing rotted:
        - Columns
        - Floor joists
        - Floor boards
        - Interior stairs
        - Linoleum floor
        - Door headers
        - Exterior door flashing/doors
      - Chimney/masonry repairs
      - Exterior foundation tuckpointing
      - Removal, preservation and relocation of multiple historic miscellaneous items
   b. This project is intended to encompass the entirety of all construction documents, drawings and specifications, bearing the name MEBS House Structural Repairs, dated 05-21-2025 and prepared by Genesis Architectural Design; as well as, any Addendum(s) issued after 05-21-2025.

Exhibit C Facility Work Requirements

DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

Due TUESDAY, JULY 15TH at 02:00 PM (CT)

1.01 WORK HOUR RESTRICTIONS

A. Work hours are from 7:00 AM to 5:00 PM, Monday through Friday unless arrangements are made in advance.

1.02 CONTRACTOR USE OF SITE AND PREMISES

A. Construction Operations: Limited to areas noted on Drawings.

B. Provide access to and from site as required by law and Owner:

a. Emergency Building Exits During Construction: Keep all exits required by code open during construction period; provide temporary exit signs if exit routes are temporarily altered.

b. Do not obstruct roadways, sidewalks, or other public ways without permission of Owner and permit if required.

C. Facility will be occupied at all times during the duration of work. Contractor personnel shall conduct themselves in an agreeable manner at all times. Failure to do so may result in removal from the work site.

1.03 OWNER OCCUPANCY

A. Owner intends to occupy the Project upon Substantial Completion.

B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.

C. Schedule the Work to accommodate Owner occupancy.

1.04 RULES FOR CONSTRUCTION WORKERS

A. The staff of the State of Iowa has a responsibility to protect the public by providing a secure environment. All work site rules must be followed to the letter, at all times.

B. Hot Work Permit Processes and Fire Watch, when necessary, will be adhered to for this project.

a. Fire Watch: Written request will be required four days in advance of work. When the fire alarm system must be put in bypass or test, the contractor shall provide personnel at the fire alarm panel to continuously monitor the panel. The personnel shall be required to meet with the State prior to fire watch for training. Anticipate less than one hour for training. If the fire detection systems will be disabled, the contractor shall also provide sufficient personnel dedicated to fire watch only in the areas disabled and maintain a fire watch log. Template notifications, procedures, and logs are available for the contractor's use.

b. Hot Work: Hot work shall be conducted per OSHA guidelines. It will be the responsibility of the contractor to provide personnel for fire watch and to maintain a fire watch log.

C. All State properties are tobacco free. No smoking will be permitted or tolerated on campus unless in designated areas.

D. You are permitted access only to the work site and no other area of the institution.

E. No drugs, alcohol, or firearms are allowed on the work site.

F. Do not leave money, drugs, alcohol, or firearms in your personal vehicle.

G. Company and personal vehicles are to be parked and locked in designated or authorized areas of the work. Contractors will be allowed to park in the ramp.

H. Secure all tools at the end of the day.

I. Maintain control of all tools, supplies, and debris at all times during the work.

J. Any shutdowns to existing systems will need to be coordinated seven (7) business days in advance and will need to be reviewed with DCI Group and the States maintenance personnel.

1.05 State Historic Site

A. This is a listed property in Iowa's State Historic Preservation Office (SHPO). All construction activities must abide by the requirements set forth by SHPO in an effort to protect and preserve this historic site. All repair work and preservation treatments will follow the recommendations of the secretary of interior's standards for historic preservation and guidelines for rehabilitating historic buildings. Copies of these documents can be found online or requested through the national park service.

Exhibit D Sample Certification of Insurance

DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

Due TUESDAY, JULY 15TH at 02:00 PM (CT)

SAMPLE

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): XX/XX/XXXX

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Agent's Name Agent's Address	CONTACT NAME: Agent's Information PHONE (A/C, No, Ext): FAX (A/C, No): E-MAIL ADDRESS:
INSURED Trade Contractor's Name Trade Contractor's Mailing Address	INSURER(S) AFFORDING COVERAGE / NAIC # INSURER A: Company A (AM Best Rated A/VI or Better) — Admitted Carriers INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

	INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS (Minimum)	
*	A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY [X] PRO-JECT [ ] LOC OTHER:	X	X	#TBD- CGL	3/1/17	3/1/18	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ $ $1,000,000 $2,000,000 $1,000,000
	B	AUTOMOBILE LIABILITY [X] ANY AUTO ALL OWNED AUTOS HIRED AUTOS SCHEDULED AUTOS NON-OWNED AUTOS	X	X	#TBD-AL	3/1/17	3/1/18	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
	C	UMBRELLA LIAB [X] OCCUR EXCESS LIAB [ ] CLAIMS-MADE DED RETENTION $	X	X	#TBD-UMB	3/1/17	3/1/18	EACH OCCURRENCE AGGREGATE	$ 2,000,000 $
	D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y / N [ ] If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	#TBD-WC	3/1/17	3/1/18	[X] PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$500,000 $500,000 $500,000
*	E	Owners Contrators Protective Liability			#TBD-OCP	3/1/17	3/1/18	*Limits equal to CGL (or) as required by owner (Note- Would be either CGL or OCP, not both)	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Additional Insured on a Primary & Non-Contributory basis (CGL;AL;UMB/Excess) in favor of : (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.
Waiver of Subrogation (CGL;AL;WC/EL;UMB/Excess) in favor of: (Owner) Iowa Department of Administrative Services (DAS), Officers, Directors, Members, Consultants, Agents, and Employees.

Project XXXX.XX (Number varies by project)

CERTIFICATE HOLDER	CANCELLATION
Iowa Department of Administrative Services (DAS) 109 SE 13th Street Des Moines, IA 50319	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE Signature

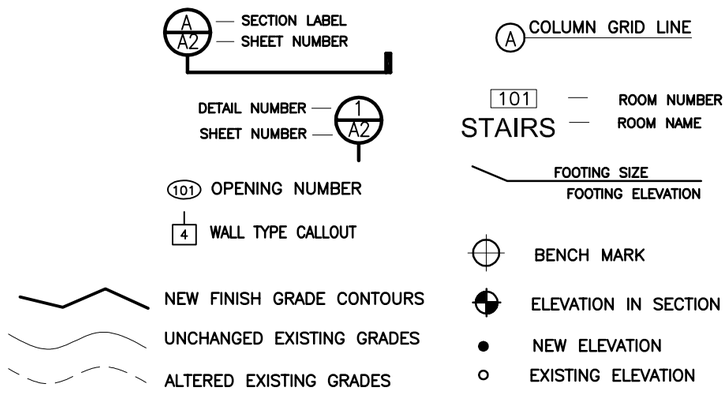
Exhibit E Project Drawings & Specifications

DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

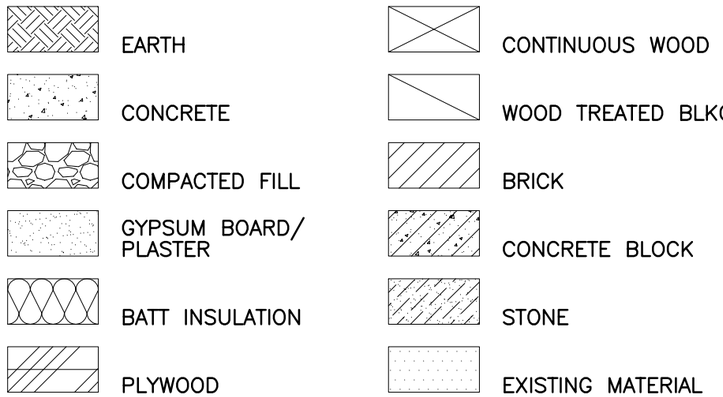
Due TUESDAY, JULY 15TH at 02:00 PM (CT)

Drawings & Specifications by Genesis Architectural Design

SYMBOLS LEGEND



MATERIALS LEGEND



DAS MEBS HOUSE STRUCTURAL REPAIRS

at the MATTHEW EDEL HISTORIC SITE

214 1st STREET

HAVERHILL, IOWA 50120

DAS PROJECT # 9364.00

GENESIS PROJECT # 2407

NATIONAL REGISTER OF HISTORIC PLACES # 83-000391

SHEET INDEX

CONTACT INFORMATION

OWNERS:
STATE OF IOWA
DEPT. OF ADMIN. SERVICES
109 SE 13TH STREET
DES MOINES, IOWA 50319
DAS REPRESENTATIVE:
OLIVER SHIMP
PH: 515-675-4741

CLIENT:
STATE HISTORICAL SOCIETY OF IOWA
600 E. LOCUST ST.
DES MOINES, IA 50319
CLIENT REPRESENTATIVE:
MICHAEL PLUMMER
PH: 319-666-9149

CONSTRUCTION MANAGER:
THE SAMUELS GROUP
2929 WESTOWN PARKWAY, STE 200
WEST DES MOINES, IOWA 50266
PROJECT MANAGER:
MAC MCKEEVER
PH: 712-898-3654

ARCHITECT:
GENESIS ARCHITECTURAL DESIGN
939 OFFICE PARK ROAD
WEST DES MOINES, IOWA 50265
PROJECT ARCHITECT:
EDWARD L. MATT, AIA
PH: 515-440-1681

ENGINEER:
PETERSON ENGINEERS
1200 VALLEY W DR # 505
WEST DES MOINES, IA 50266
STRUCTURAL ENGINEER:
DONALD PETERSON, P.E.
OFFICE: 515-225-2821

LICENSED PROFESSIONAL ARCHITECT
EDWARD L. MATT
05761
IOWA

I hereby certify that the portion of this technical submission described below was prepared by me or under my supervisor and responsible charge. I am a duly registered Architect under the laws of the State of Iowa.

Digitally signed by Edward L Matt
DN: C=US, E=ematt@gendsn.com, OU="", O=GENESIS Design, CN=Edward L Matt
Date: 2025.05.29 20:52:04-05'00'

Signature Edward L Matt 05761

Edward L. Matt Reg. No.

Pages or Sheets covered in part or whole by this seal:
A0.0, A0.1, A0.2, A1.0, A1.1, A2.0, A3.0, A3.1, & A3.2

Date Issued: MAY 29, 2025

LICENSED PROFESSIONAL ENGINEER
DONALD G. PETERSON
7845
IOWA

I hereby certify that this engineering document was prepared by me or under my direct personal supervision, and that I am a duly licensed professional engineer under the laws of the state of Iowa.

Signature 7845

DON PETERSON, PE Reg. No.

Pages or Sheets covered in part or whole by this seal:
S1.0

Date Issued: _____

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GENESIS ARCHITECTURAL DESIGN

DAS MEBS HOUSE STRUCTURAL REPAIRS
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HAVERHILL, IOWA 50120

SYMBOLS, ABBREVIATIONS AND SHEET INDEX

DAS PROJECT NO. 9364.00

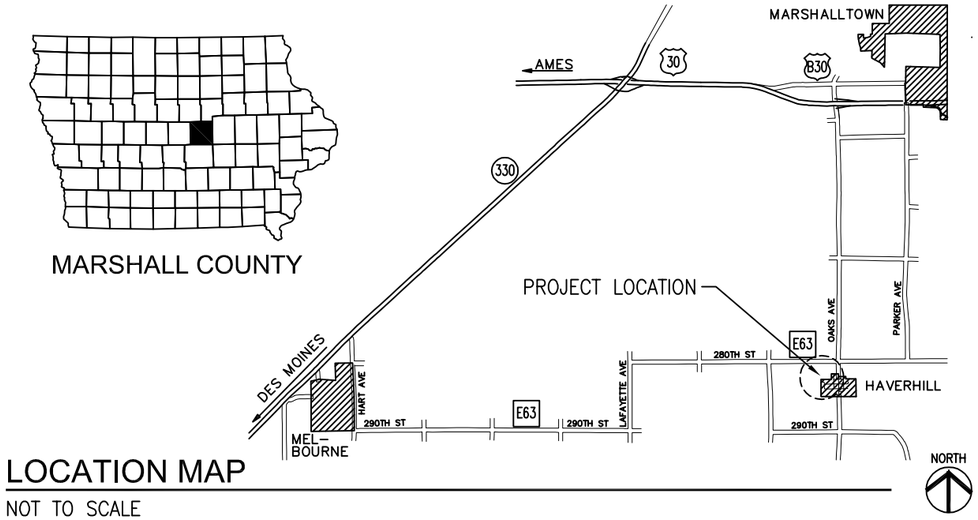
PROJECT NO. 2407

ISSUE DATE 05-21-2025

SHEET NUMBER A0.0

ABBREVIATIONS

ADJ	ADJUSTABLE
A/E	ARCHITECT / ENGINEER
AHJ	AUTHORITY HAVING JURISDICTION
ALUM	ALUMINUM
AMT	AMOUNT
ARCH	ARCHITECT
ASPH	ASPHALT
BLK	BLOCK
BSMT	BASEMENT
BUR	BUILT UP ROOFING
CFLG	COUNTER FLASHING
CHNLS	CHANNELS
℄	CENTER LINE
COL	COLUMN
CRS	COURSES
CSB	CONCRETE SPLASH BLOCK
DBL	DOUBLE
DO	REPEAT
DWG	DRAWING
EF	EXHAUST FAN
EJF	EXPANSION JOINT FILLER
ELEC	ELECTRICAL
ELEV	ELEVATION
ENCL	ENCLOSURE
EXP	EXPOSED OR EXPANSION
FIN	FINISH
FO	FINISH OPINING
FR	FRAME
GND	GROUND
GYP	GYPSUM
H	HIGH
HDW	HARDWARE
HR	HOUR
INT	INTERIOR
KW	KEY WALL
LF	LINEAR FOOT
LW	LIGHT WEIGHT
LT	LAMBS TONGUE
MAU	MAKE UP AIR UNIT
MFR	MANUFACTURER
MTD	MOUNTED
NO	NUMBER
NOM	NOMINAL
OC	ON CENTER
OTS	OPEN TO STRUCTURE
PARG	PARGING
PL	PLATE
PNL	PANEL
PROT	PROTECTION
PRV	POWER ROOF VENTILATOR
PT	PAINT
P.T.	PRESSURE TREATED
PV	PLUMBING VENT
PVC	POLYVINYL CHLORIDE
R	RISER
RA	ROOF ANCHOR
R&R	REMOVE AND REPLACE
RCJ	REINFORCED CONTROL JOINT
RCMU	REIN. CONC. MASONRY JT.
REBAR	REINFORCING BAR
REF	ROOF EXHAUST FAN
REJ	ROOF EXPANSION JOINT
REQ'D	REQUIRED
RH	ROOF HATCH
RM	ROOM
RO	ROUGH OPENING
RS	ROOF SLOPE
RV	ROOF VENT
SCHED	SCHEDULE
SECT	SECTION
SKL	SKY LIGHT
SL	SIDE LIGHT
SS	STAINLESS STEEL
STOR	STORAGE
SUSP	SUSPENDED
T	TREAD
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TOC	TOP OF CURB, TOP OF CONC.
TOW	TOP OF WALL
UC	UTILITY CURB
UNO	UNLESS NOTED OTHERWISE
VENT	VENTILATOR
W/	WITH
W/O	WITHOUT
WA	WALL ANCHOR
WD	WOOD
WDW	WINDOW
WP	WATERPROOFING OR WALKPAD
WS	WEATHER STRIP
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH



LOCATION MAP

NOT TO SCALE

SITE AERIAL IMAGE

NOT TO SCALE

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LOCATION MAP & SITE AERIAL MAP

DAS PROJECT NO.	9364.00
PROJECT NO.	2407
ISSUE DATE	05-21-2025
SHEET NUMBER	A0.1

HISTORIC PRESERVATION NOTES:

A. MATTHEW EDEL HOUSE IS A HISTORIC SITE THAT IS OWNED AND MAINTAINED BY THE STATE OF IOWA. IT WAS LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES IN 1983. THE MANSION AND OUTBUILDINGS ON THIS SITE ALL CONTRIBUTE TO THE SITE'S HISTORIC SIGNIFICANCE. ALL REPAIR WORK AND PRESERVATION TREATMENTS WILL FOLLOW THE RECOMMENDATIONS OF THE SECRETARY OF INTERIOR'S STANDARDS FOR HISTORIC PRESERVATION AND GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS. COPIES OF THESE DOCUMENTS CAN BE FOUND ONLINE OR REQUESTED THROUGH THE NATIONAL PARK SERVICE.

B. PRESERVATION: TO APPLY MEASURES NECESSARY TO SUSTAIN THE EXISTING FORM, INTEGRITY, AND MATERIALS OF A HISTORIC PROPERTY. THE GOAL OF PRESERVATION IS TO HALT THE PROCESS OF DETERIORATION AND STABILIZE THE ITEM'S CONDITION.

C. REHABILITATION: TO MAKE POSSIBLE A COMPATIBLE USE FOR A PROPERTY THROUGH REPAIR, ALTERATIONS, AND ADDITIONS WHILE PRESERVING THOSE PORTIONS OR FEATURES THAT CONVEY ITS HISTORICAL, CULTURAL, OR ARCHITECTURAL VALUES.

D. PROTECT AND MAINTAIN: TO REMOVE DETERIORATING MATERIALS, APPLY PROTECTIVE PRODUCTS, AND INSTALL PROTECTIVE MEASURES, TO PROVIDE THE LEAST DEGREE OF INTERVENTION.

E. MATERIAL IN KIND: MATERIAL THAT MATCHES EXISTING MATERIALS, AS MUCH AS POSSIBLE, IN SPECIES, CUT, COLOR, GRAIN, TEXTURE, AND FINISH.

F. REPAIR: TO STABILIZE, CONSOLIDATE, OR CONSERVE; TO RETAIN EXISTING MATERIALS AND FEATURES WHILE EMPLOYING AS LITTLE NEW MATERIAL AS POSSIBLE. REPAIR INCLUDES PATCHING, PIECING–IN, SPLICING, CONSOLIDATING, OR OTHERWISE REINFORCING OR UPGRADING MATERIALS. WITHIN RESTORATION, REPAIR ALSO INCLUDES LIMITED REPLACEMENT IN KIND, REHABILITATION, AND RECONSTRUCTION, WITH COMPATIBLE SUBSTITUTE MATERIALS FOR DETERIORATED OR MISSING PARTS OF FEATURES WHEN THERE ARE SURVIVING PROTOTYPES.

G. REPLACE: TO DUPLICATE AND REPLACE ENTIRE FEATURES WITH NEW MATERIAL IN KIND. REPLACEMENT INCLUDES THE FOLLOWING CONDITIONS:

1. DUPLICATION: INCLUDES REPLACING ELEMENTS DAMAGED BEYOND REPAIR OR MISSING. ORIGINAL MATERIAL IS INDICATED AS THE PATTERN FOR CREATING NEW DUPLICATED ELEMENTS.
2. REPLACEMENT WITH NEW MATERIALS: INCLUDES REPLACEMENT WITH NEW MATERIAL WHEN ORIGINAL MATERIAL IS NOT AVAILABLE AS PATTERNS FOR CREATING NEW DUPLICATED ELEMENTS.
3. REPLACEMENT WITH SUBSTITUTE MATERIALS: INCLUDES REPLACEMENT WITH COMPATIBLE SUBSTITUTE MATERIALS. SUBSTITUTE MATERIALS ARE NOT ALLOWED, UNLESS OTHERWISE INDICATED.

H. RESTORE: TO CONSOLIDATE, REPLICATE, REPRODUCE, REPAIR, AND REFINISH AS REQUIRED TO ACHIEVE THE INDICATED RESULTS.

I. WHERE REPAIR WORK IS REQUIRED OR SPECIFICALLY INDICATED, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:

1. RETAIN AS MUCH EXISTING MATERIAL AS POSSIBLE; REPAIR AND CONSOLIDATE RATHER THAN REPLACE.
2. USE ADDITIONAL MATERIAL OR STRUCTURE TO REINFORCE, STRENGTHEN, PROP, TIE, AND SUPPORT EXISTING MATERIAL OR STRUCTURE.
3. USE REVERSIBLE PROCESSES WHEREVER POSSIBLE.
4. USE TRADITIONAL REPLACEMENT MATERIALS AND TECHNIQUES. NEW WORK SHALL BE DISTINGUISHABLE TO THE TRAINED EYE, ON CLOSE INSPECTION, FROM OLD WORK.
5. RECORD THE WORK BEFORE THE PROCEDURE WITH PRECONSTRUCTION PHOTOGRAPHS AND DURING THE WORK WITH PERIODIC CONSTRUCTION PHOTOS.

J. WHERE WORK REQUIRES EXISTING FEATURES TO BE REMOVED, CLEANED, AND REUSED, PERFORM THESE OPERATIONS WITHOUT DAMAGE TO THE MATERIAL ITSELF, TO ADJACENT MATERIALS, OR TO THE SUBSTRATE.

K. IF ANY UNANTICIPATED ITEMS ARE DISCOVERED DURING DEMOLITION, EXCAVATION, OR CONSTRUCTION THAT MAY HAVE HISTORICAL, ARCHITECTURAL, OR ARCHEOLOGICAL SIGNIFICANCE, PLEASE IMMEDIATELY NOTIFY THE OWNER, ARCHITECT, OR CONSTRUCTION MANAGER.

L. REFER TO THE SPECIFICATIONS MANUAL FOR SECTIONS ON SPECIFIC HISTORIC TREATMENT PROCEDURES.

GENERAL NOTES:

1. ALL WORK IS TO CONSTRUCTED IN COMPLIANCE WITH STATE BUILDING CODES. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES.
2. NOTE DRAWING SCALES FOR EACH PLAN AND SHEET. PLANS AND DETAILS VARY IN SCALE.
3. CONTRACTOR VERIFY ALL DIMENSIONS WITH FIELD MEASUREMENTS. ITEMS, QUANTITIES AND SQUARE FOOT QUANTITIES ARE ESTIMATES. FIELD VERIFY ALL QUANTITIES.
4. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS. REPORT ANY DISCREPANCIES TO ARCHITECT BEFORE PROCEEDING WITH WORK.
5. PROTECT ALL FINISHED WORK FROM ADJACENT CONSTRUCTION FOR THE REMAINING DURATION OF CONSTRUCTION.
6. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING AND TEMPORARY BRACING WHEREVER NECESSARY.
7. ANY CUTTING AND PATCHING SHALL BE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR PERFORMING THE WORK.
8. PROVIDED TREATED WOOD WHERE WOOD IS IN CONTACT WITH CONCRETE OR EARTH.

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HISTORIC PRESERVATION & GENERAL NOTES

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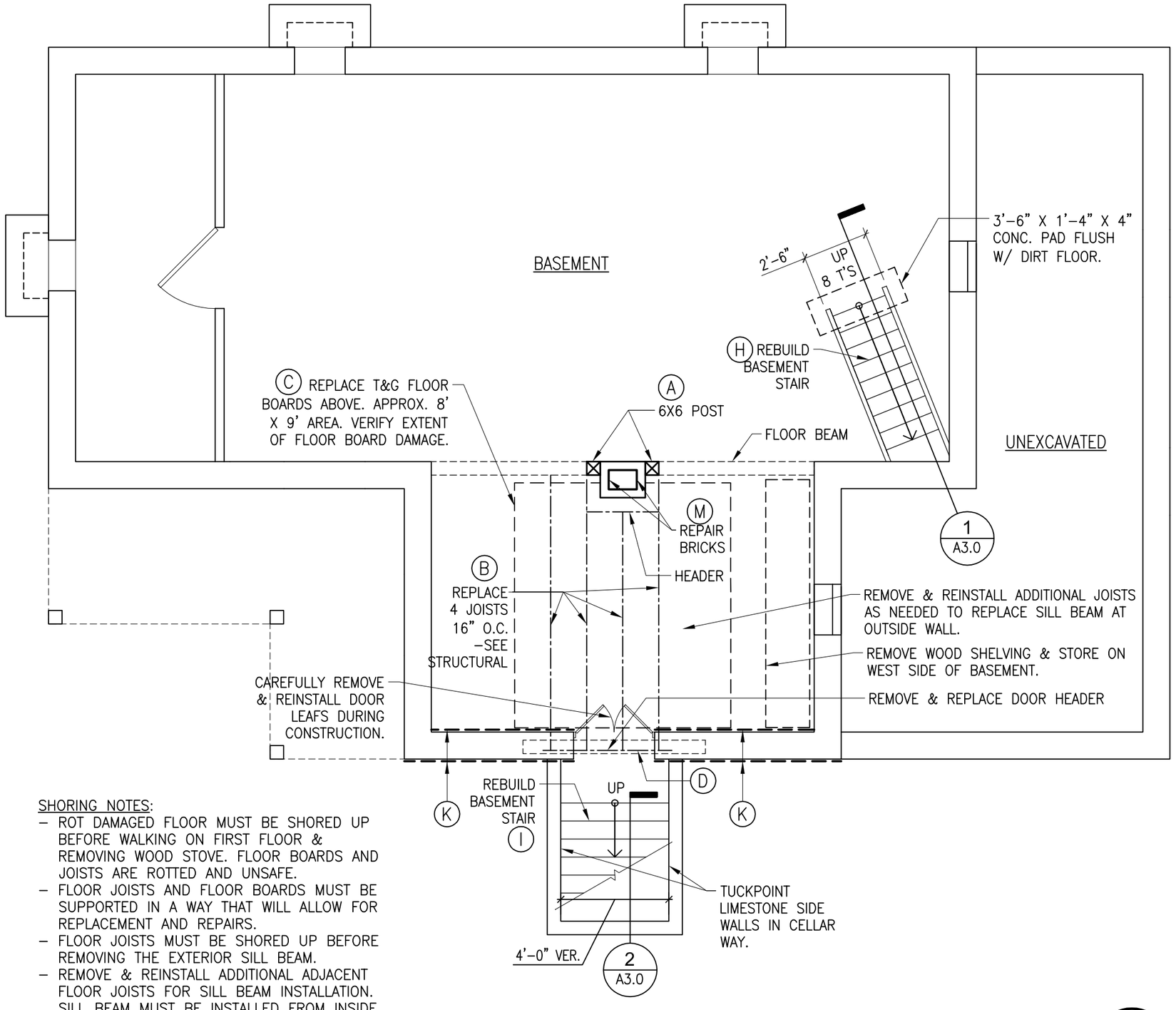
SHEET NUMBER A0.2



SHORING NOTES:

- ROT DAMAGED FLOOR MUST BE SHORED UP BEFORE WALKING ON FIRST FLOOR & REMOVING WOOD STOVE. FLOOR BOARDS AND JOISTS ARE ROTTED AND UNSAFE.
- FLOOR JOISTS AND FLOOR BOARDS MUST BE SUPPORTED IN A WAY THAT WILL ALLOW FOR REPLACEMENT AND REPAIRS.
- FLOOR JOISTS MUST BE SHORED UP BEFORE REMOVING THE EXTERIOR SILL BEAM.
- REMOVE & REINSTALL ADDITIONAL ADJACENT FLOOR JOISTS FOR SILL BEAM INSTALLATION. SILL BEAM MUST BE INSTALLED FROM INSIDE.

NORTH

BASEMENT FLOOR PLAN

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

1 / A1.0

WORK SCOPE KEYNOTES:

(A) INSTALL TWO FLOOR BEAM SUPPORT POSTS WOOD 6" X 6" TREATED ON EACH SIDE OF CHIMNEY. SET POSTS ON CONCRETE PAD FOOTINGS. SEE STRUCTURAL

(B) REPLACE FOUR ROT DAMAGED 2X8 FLOOR JOISTS FULL LENGTH. REMOVE FLOORING ABOVE AND SHORE UP ADJACENT FLOOR JOISTS AS NEEDED. SEE STRUCTURAL

(C) REMOVE AND REPLACE 3/4" T&G (3 ¼" WIDE) FLOOR BOARDS IN AREA INDICATED. (APPROX. 8FT X 9FT) STAGGER END BUTT JOINTS MIN. 16" REPLACE FLOOR BOARDS AFTER REPLACING FLOOR JOISTS. APPLY SEMI OPAQUE STAIN TO NEW BOARDS.

(D) REMOVE AND REPLACE DAMAGED SAGGING EXTERIOR 6" X 8" PERIMETER FLOOR BEAM. APPROX. 7 FT LONG SECTION. (VER) SEE SECTION 1/A3.2 & STRUCTURAL.

(E) REMOVE EXISTING CAST IRON WOOD STOVE, FLOOR SHIELD & STORE. REINSTALL AFTER FLOORING HAS BEEN REPAIRED.

(F) REMOVE AND DISPOSE EXISTING LINOLEUM FLOOR IN KITCHEN. SEE HAZARDOUS MATERIAL REPORT.

(G) REPAIR BRICK AND PLASTER CHIMNEY. SEE DET. 2/A3.1.

(H) REBUILD INTERIOR STEPS TO BASEMENT. SEE SECTION 1/3.0.

(I) REBUILD EXTERIOR BASEMENT STEPS TO BASEMENT. SEE SECTION 2/3.0.

(J) REPAIR BOTTOM 3 FT SECTION OF PORCH COLUMN WITH DUTCHMAN REPAIR. SHORE UP PORCH ROOF AND RAISE TO PROPER HGT. FOR ROOF DRAINAGE. PRIME AND PAINT.

(K) TUCKPOINT EXTERIOR LIMESTONE FOUNDATION AT EXPOSED AREAS. PROVIDE DEEP BED JOINT REPOINTING TO INTERIOR BASEMENT LIMESTONE FULL LENGTH OF EAST WALL. APPROX. 16'-4" (LESS DOORWAY). LIMESTONE WALL HGT IN BASEMENT IS APPROX. 7'-0" HGT.

(L) CUT BACK TOPS OF CELLAR DOORS & PROVIDE TOP FLASHING. SEE DET. 2/A3.2.

(M) TUCKPOINT & REPLACE CRACKED BRICK BOTH SIDES OF CHIMNEY FULL HGT.

(N) MOVE, STORE & RESET COOK STOVE. REINSTALL FLUE PIPE TO CHIMNEY

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BASEMENT FLOOR PLAN

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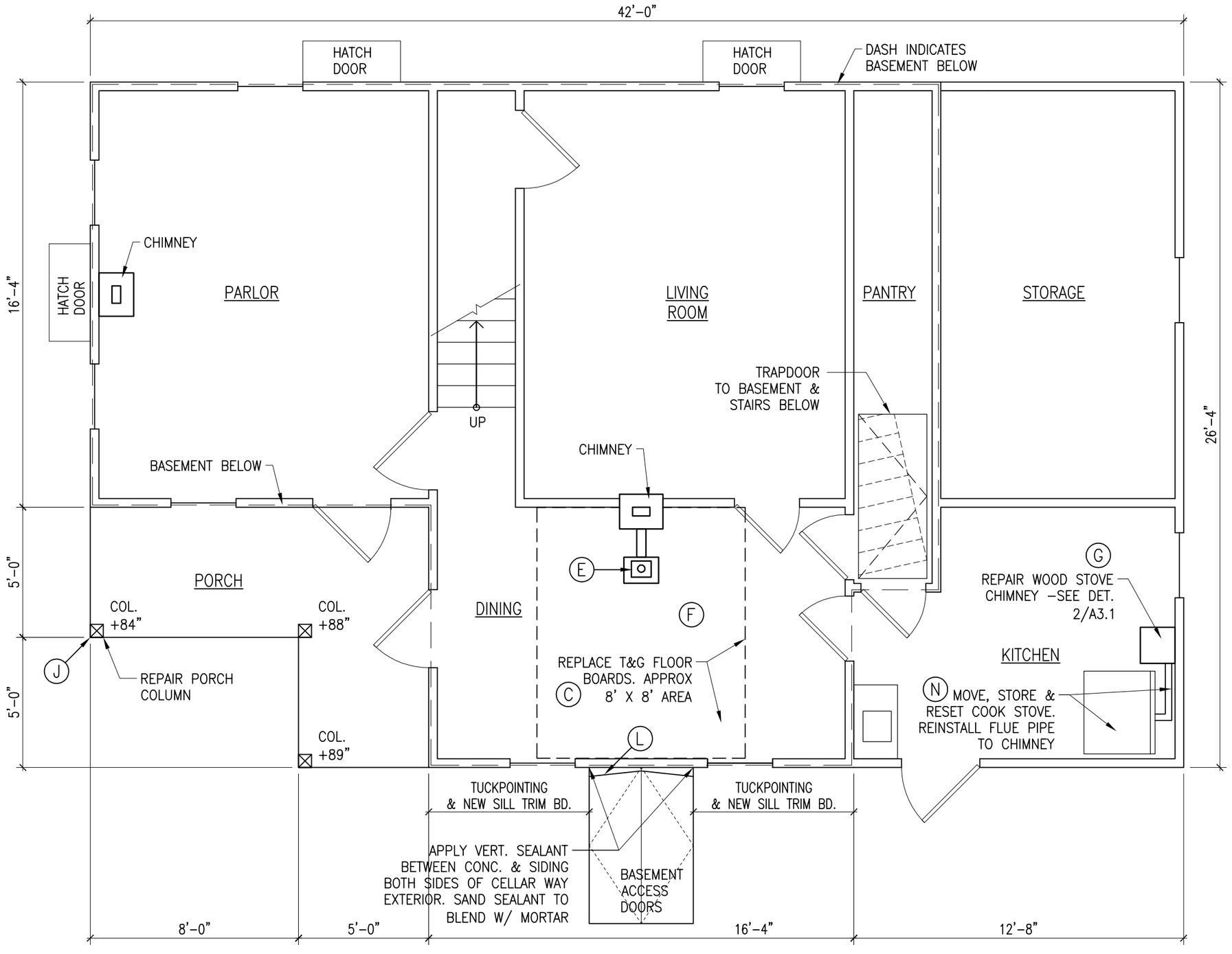

NORTH

FIRST FLOOR PLAN

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

1 / A1.1

WORK SCOPE KEYNOTES:

(A) INSTALL TWO FLOOR BEAM SUPPORT POSTS WOOD 6" X 6" TREATED ON EACH SIDE OF CHIMNEY. SET POSTS ON CONCRETE PAD FOOTINGS. SEE STRUCTURAL

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FIRST FLOOR PLAN

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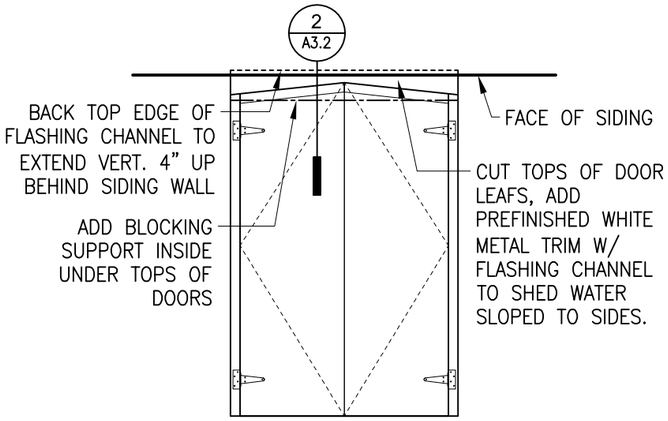
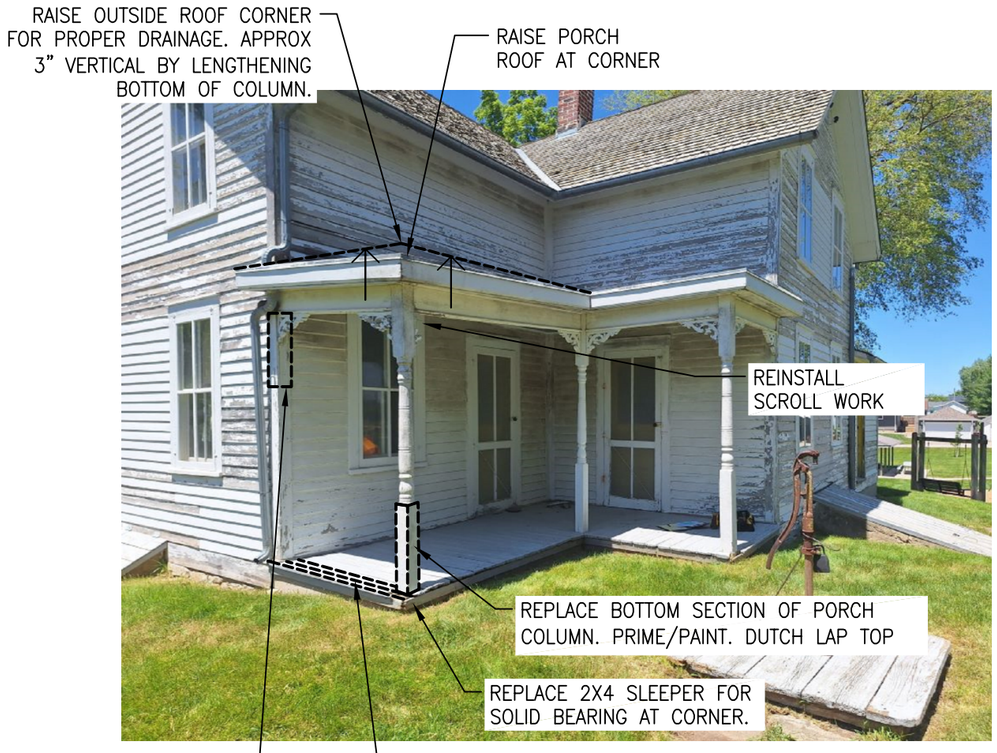


CELLAR DOOR FLASHING DETAIL

3 / A2.0

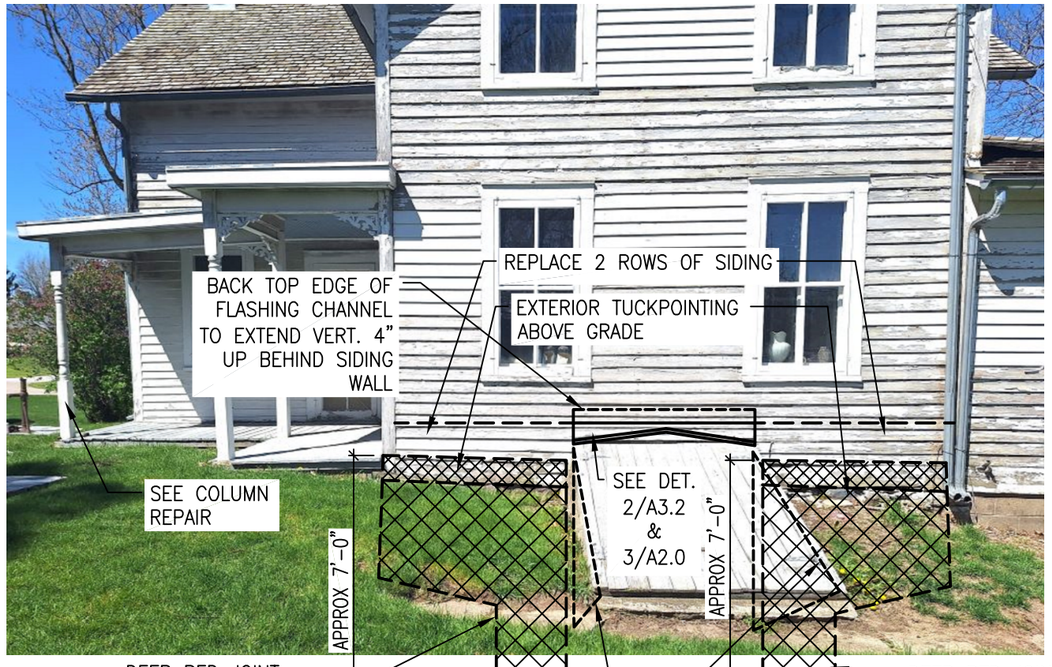
SCALE 3/8" = 1'-0"



SOUTH EAST ELEVATION

2 / A2.0

N.T.S.



EAST ELEVATION

1 / A2.0

N.T.S.

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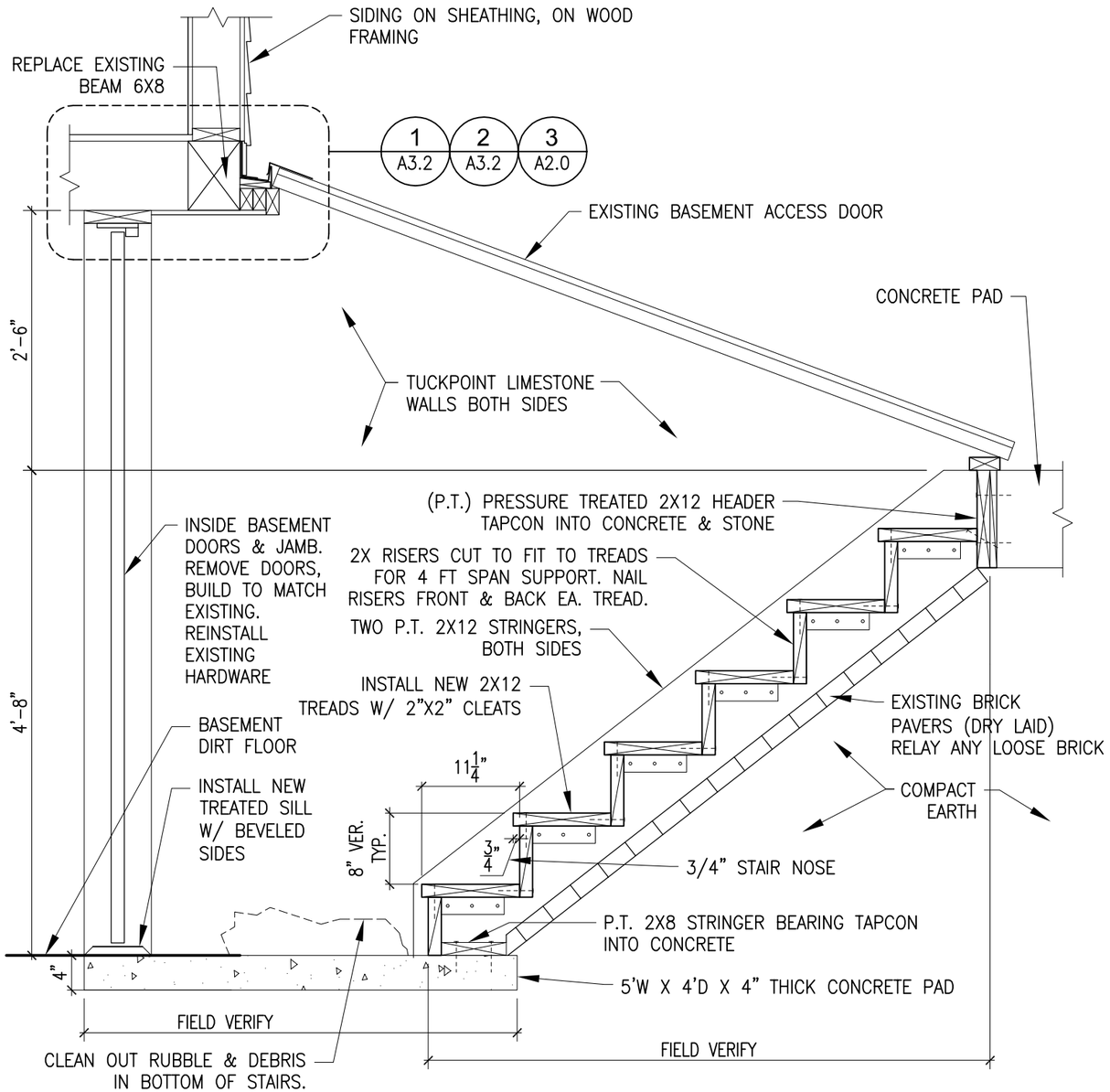
TEL: 515-440-1681
FAX: 515-440-1687
GENESIS ARCHITECTURAL DESIGN

DAS MEBS HOUSE STRUCTURAL REPAIRS
at the MATTHEW EDEL HISTORIC SITE
214 1st STREET
HAVERHILL, IOWA 50120

ELEVATIONS

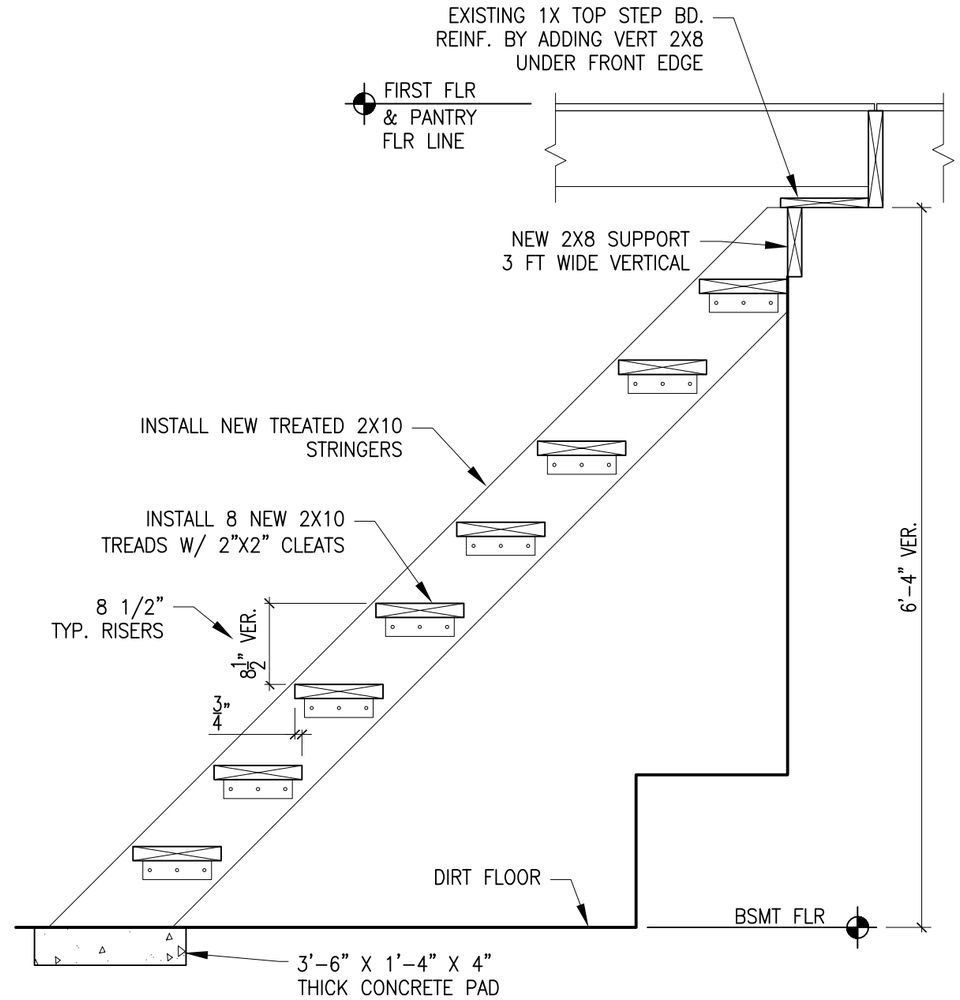
DAS PROJECT NO.	9364.00
PROJECT NO.	2407
ISSUE DATE	05-21-2025
SHEET NUMBER	A2.0



EXTERIOR BASEMENT STAIRS

SCALE: 3/4" = 1'-0"

2 / A3.0



INTERIOR STAIR SECTION

SCALE: 3/4" = 1'-0"

1 / A3.0

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DAS MEBS HOUSE STRUCTURAL REPAIRS
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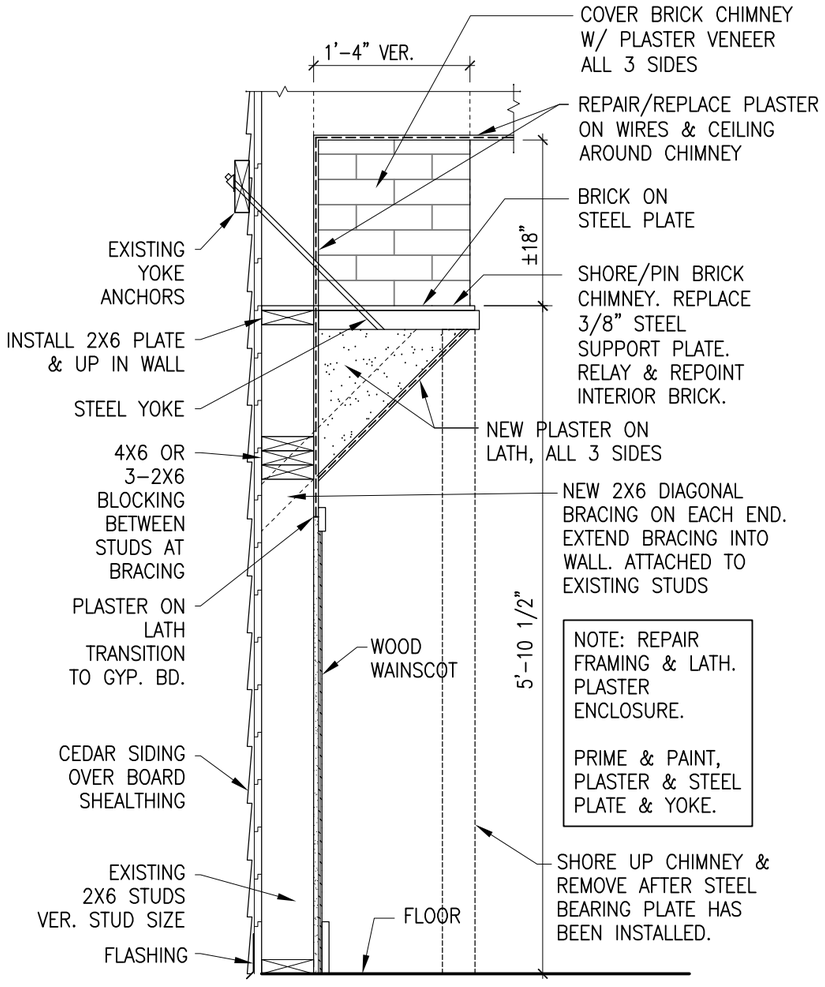
214 1st STREET
HAVERHILL, IOWA 50120

DETAILS

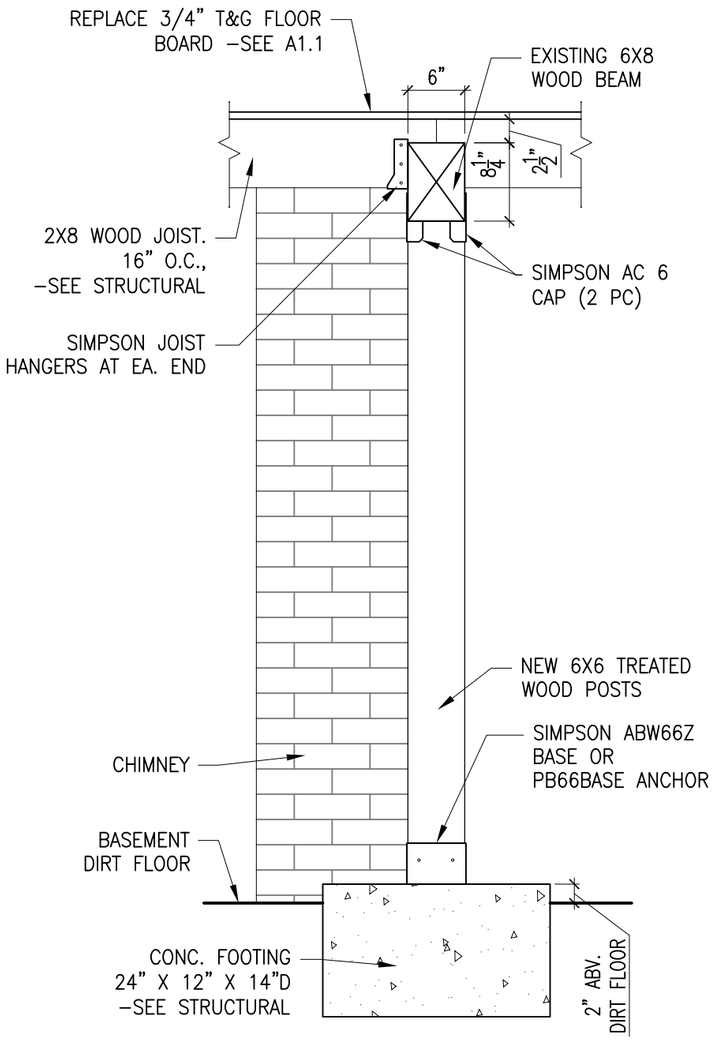
DAS PROJECT NO.	9364.00
PROJECT NO.	2407
ISSUE DATE	05-21-2025
SHEET NUMBER	A3.0



NORTH KITCHEN CHIMNEY DETAIL

SCALE: 3/4" = 1'-0"

2 / A3.1



FLOOR FRAMING DETAIL

SCALE: 3/4" = 1'-0"

1 / A3.1

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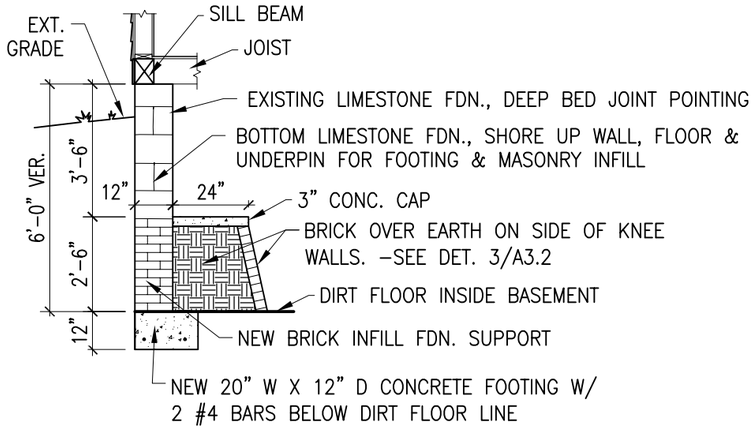
DAS MEBS HOUSE STRUCTURAL REPAIRS
at the MATTHEW EDEL HISTORIC SITE
214 1st STREET
HAVERHILL, IOWA 50120

DETAILS

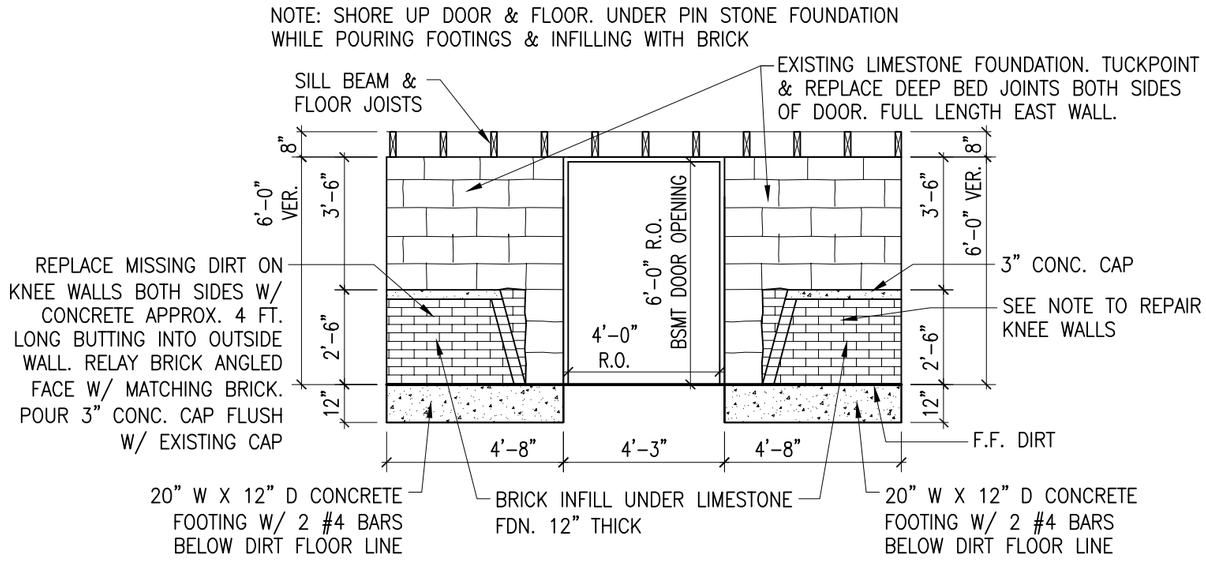
DAS PROJECT NO.	9364.00
PROJECT NO.	2407
ISSUE DATE	05-21-2025
SHEET NUMBER	A3.1



FOUNDATION SECTION

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

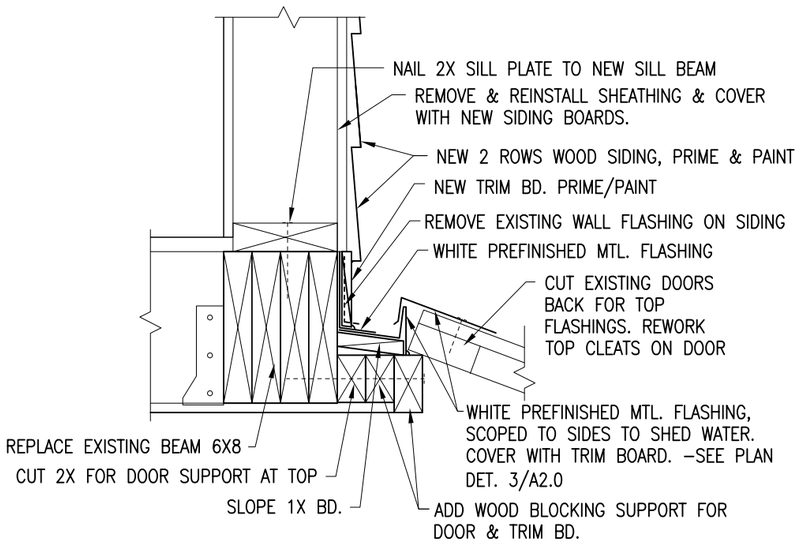
4 / A3.2



EAST WALL ELEVATION IN BSMT

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

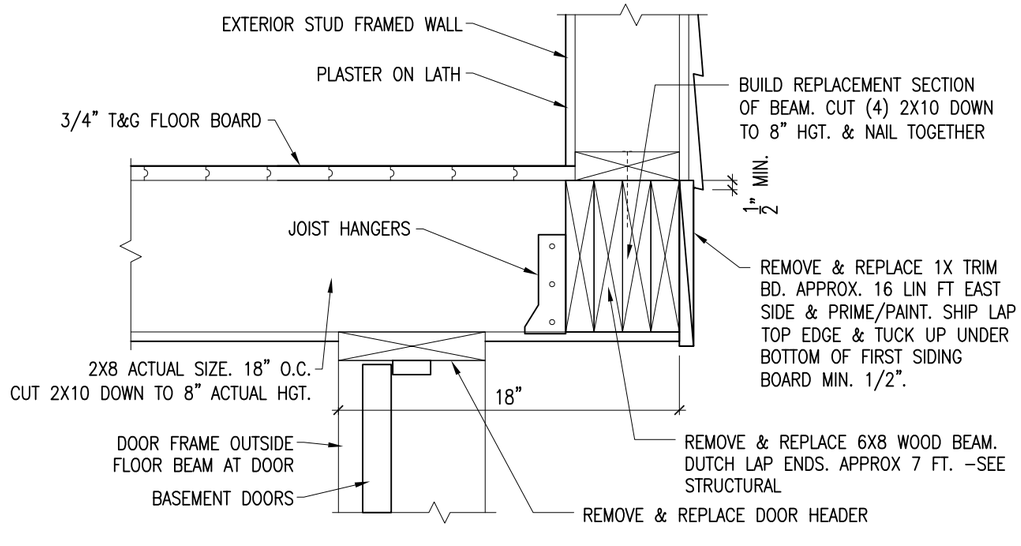
3 / A3.2



BASEMENT HATCH DOOR FLASHING

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

2 / A3.2



FLOOR OVER JOIST DETAIL

SCALE: 3/4" = 1'-0"

1 / A3.2

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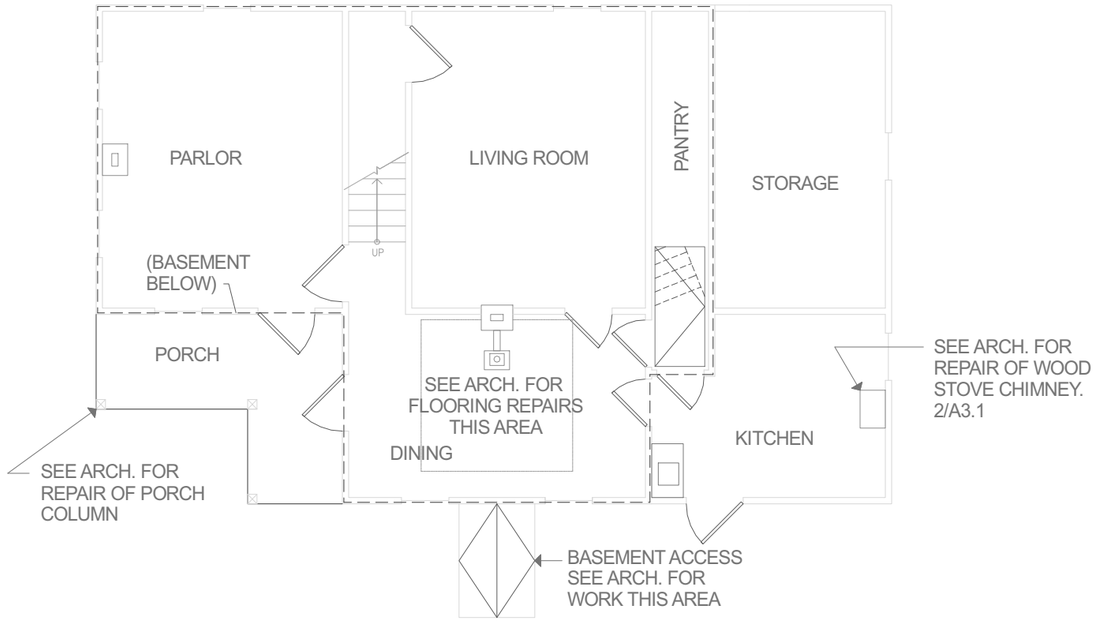
HAVERHILL, IOWA 50120

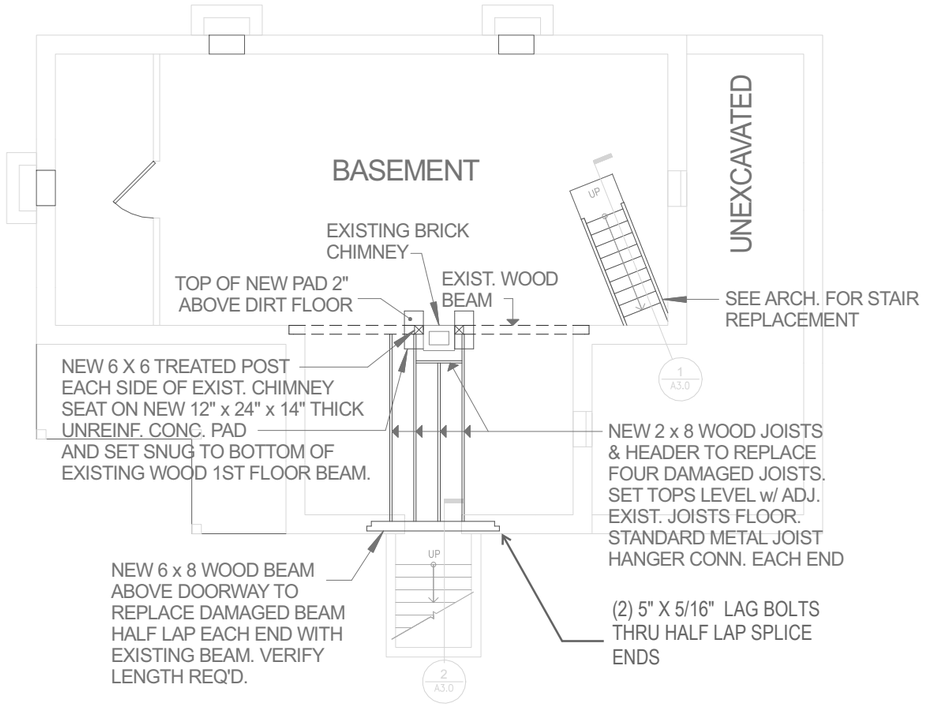
DETAILS

DAS PROJECT NO. 9364.00
PROJECT NO. 2407
ISSUE DATE 05-21-2025
SHEET NUMBER A3.2



2 / S1.0 FIRST FLOOR PLAN - STRUCTURAL REPAIRS

SCALE: 1/8" = 1' 0"



1 / S1.0 BASEMENT PLAN - STRUCTURAL REPAIRS

SCALE: 1/8" = 1' 0"

DESIGN DATA:

1. DESIGN STRESSES FOR NEW WOOD JOISTS, BEAMS:
   BENDING STRESS: Fb = 900 P.S.i.
2. MINIMUM CONCRETE STRENGTH (f'c @ 28 DAYS):

   ALL STRUCTURAL CONCRETE: 4,000 P.S.i.
3. REINFORCING STEEL: ASTM A615, GRADE 60

STRUCTURAL NOTES:

1. CONTRACTOR SHALL CORRELATE ALL DIMENSIONS ON STRUCTURAL DRAWINGS WITH ARCH. DRAWINGS AND VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS THAT AFFECT NEW WORK. NOTIFY ARCHITECT OF ALL DISCREPANCIES.
2. SEE ARCHITECTURAL DRAWINGS AND PROJECT MANUAL FOR ITEMS REQUIRING PARTICULAR ATTENTION TO DETAIL FOR RESTORATION WORK.

939 OFFICE PARK RD. #101
WEST DES MOINES, IA 50265
TEL: 515-440-1681
GENESIS ARCHITECTURAL DESIGN

STRUCTURAL ENGINEER:
PETTERSON ENGINEERS
STEVEN L. PETTERSON, P.E.
WEST DES MOINES, IA 50265-1906
TELEPHONE: 515-225-2821
email: PetEng@qwest.com

PROJECT TITLE:

DAS MEBS HOUSE STRUCTURAL REPAIRS
at the MATTHEW EDEL HISORIC SITE
214 1ST STREET
HAVERHILL, IOWA 50120

SHEET CONTENTS:
STRUCTURAL PLANS AND DETAILS

REVISIONS:

NOTE:	DATE:

DAS NO. 9364.00

GENESIS PROJECT NO. 2407

ISSUE DATE 05-21-2025

SHEET NUMBER S1.0

SECTION 00 0107 – CERTIFICATION PAGE

I hereby certify that the portion of this technical submission described below was prepared by me or under my supervision and responsible charge. I am a duly registered architect under the laws of the state of Iowa.

GENESIS Architectural Design
Edward L. Matt, AIA

_____
Signature

Pages or sheets covered in part or whole by this seal:
Specifications Div.1 thru 9.

Date Issued: May 21, 2025

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TABLE OF CONTENTS

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SECTION 00 0115 – ENUMERATION OF DRAWINGS

ARCHITECTURAL DRAWINGS
A0.0 COVER SHEET
A0.1 LOCATION MAP AND AERIAL SITE MAP
A0.2 HISTORIC PRESERVATION & GENERAL NOTES
A1.0 BASEMENT FLOOR PLAN
A1.1 FIRST FLOOR PLAN
A2.0 ELEVATIONS
A3.0 DETAILS
A3.1 DETAILS
A3.2 DETAILS

STRUCTURAL DRAWINGS
S1.0 STRUCTURAL PLAN

DOCUMENT 00 3126 - EXISTING HAZARDOUS MATERIAL INFORMATION

1.1 EXISTING HAZARDOUS MATERIAL INFORMATION

A. This Document with its referenced attachments is part of the Procurement and Contracting Requirements for Project. They provide Owner's information for Bidders' convenience and are intended to supplement rather than serve in lieu of Bidders' own investigations. They are made available for Bidders' convenience and information, but are not a warranty of existing conditions. This Document and its attachments are not part of the Contract Documents.

B. A Hazardous Materials Testing report, to include lead paint testing, is available for viewing as provided by the Owner.

C. Related Requirements:

1. Document "Instructions to Bidders" for the Bidder's responsibilities for examination of Project site and existing conditions.
2. Section 02 4119 "Selective Structure Demolition" for notification requirements if materials suspected of containing hazardous materials are encountered.

END OF DOCUMENT 00 3126

SECTION 01 1000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Work phases.
3. Work under other contracts.
4. Work hours.
5. Use of premises.
6. Owner's occupancy requirements.
7. Specification formats and conventions.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: DAS Project No. 9364.00 – DAS MEBS House Structural Repairs. GENESIS Project No. 2407.

1. Project Location: Matthew Edel Historic Site, 214 1st Street, Haverhill, Iowa 50120.

B. Owner: Iowa Department of Administrative Services, 109 SE 13th Street, Des Moines, IA 50319

1. Owner's Representative: Oliver Shimp.

C. Construction Manager: The Samuels Group, Project Manager: Jason Mclendon2929 Westown Parkway, Suite 200, West Des Moines, IA 50266.

D. Architect: Edward Matt, AIA, GENESIS Architectural Design, 939 Office Park Road, Suite 101, West Des Moines, IA 50265.

E. Structural Engineer: Peterson Engineers, Donald Peterson, P.E., 3524 Elm Street, West Des Moines, IA 50265

F. The Work consists of the following:

1. Work scope includes stone foundation tuckpointing to the exterior and interior basement of the house. Multiple areas will have sections of concrete footings added. Work also includes replacing rotted floor joist framing and tongue and groove floor boards. Replacing a partial section of wood sill beam on the exterior wall. Adding two wood basement floor posts on each side of the chimney. Brick repairs on two chimneys, brick foundation infills in the basement and repointing of brick. Work also includes rebuilding two basement stairs, along with exterior column, siding, and trim repairs. Miscellaneous work includes sealants, flashings, wood staining and painting.

G. Project will be constructed under a single bid package contract under the direction of the Owner's Construction Manager.

1.3 WORK PHASES

A. The Work shall be conducted in multiple sequences as separated out between work areas.

B. Before commencing work contractor shall submit a construction schedule showing the sequence, commencement, completion dates for all portions of the work.

1.4 WORK UNDER OTHER CONTRACTS

1. Owner may engage separate contracts for lead paint abatement and abatement of Asbestos Containing Materials (ACM). Coordinate with Owner for work interface and cooperate with Owner's other contractors.

1.5 WORK HOURS

A. Typical work hours may be Monday thru Friday between the hours of 7:30 a.m. and 5:00 p.m.

1. Extended hours beyond this time frame may be arranged upon mutual understanding between Owner and Contractor.

2. Contractor must close and secure all areas of construction at the end of each day's work activities.

1.6 USE OF PREMISES

A. General: Contractor shall have limited use of premises for construction operations, as described herein, and as indicated on Drawings by the Contract limits. Do not disturb portions of building and site beyond areas in which Work is indicated. Contractor's use of premises may be limited by Owner's right to perform work or to retain other contractors on portions of Project.

B. Use of Site: Limit use of premises to work in areas indicated.

C. Limits: Confine construction operations and repair any sod, drive or sidewalk damage that may occur due to unloading or deliveries. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways and Entrances: Keep adjacent roads and driveways serving building clear and available to Owner, public visitors, and emergency vehicles at all times. Coordinate areas for parking or storage of materials with Construction Manager.

a. Schedule deliveries to minimize use of driveways and entrances.

b. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on site. Deliveries and Contractor access to buildings shall be limited as much as possible while keeping the buildings secure at all times. Coordinate with Owner for security for all site stored materials.
c. Coordinate with Owner for locations available for a job trailer or enclosed material storage container.

1.7 OWNER'S OCCUPANCY REQUIREMENTS

A. Full Owner Occupancy: Owner and public will occupy site and existing buildings during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. 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, exits, or other occupied areas or use facilities without written permission from Owner and authorities having jurisdiction.

1.8 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Format: The Specifications are organized into Divisions and Sections using the 16-division format and CSI/CSC's "MasterFormat" numbering system.

B. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications. 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. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meaning shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjective mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 2200 - UNIT PRICES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for unit prices.

B. See Division 01 Section "Allowances" for procedures for using unit prices to adjust quantity allowances.

1.2 DEFINITIONS

A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.3 PROCEDURES

A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, applicable taxes, overhead, and profit.

B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices. Methods of measurement and payment for unit prices are specified in those Sections.

C. Contractor shall photograph, document and quantify necessary additional scope with photos and submit with a Change Order Request. Owner’s representative or the Construction Manager will review and approve the additional work scope. The Contractor is required to get Owner approval before proceeding with any additional scope that would require the application of Unit Costs.

D. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.

E. List of Unit Prices: A list of unit prices is included in Part 3. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 LIST OF UNIT PRICES

A. UNIT PRICE No. 1: ADDITIONAL PLASTER PATCHING REPAIRS

1. Description: State the square foot cost to remove any additional loose or water damaged plaster around the north Kitchen chimney beyond that included under the Base Bid condition and provide new plaster patching over wood lath and paint to match. Provide a base coat over lath and top coat veneer as specified in Section 09 2400 Cement Plastering. Verify and match thickness of existing plaster. Verify extent of plaster repairs with Owner and CM prior to work.

   Unit of Measurement: One Square Foot.

B. UNIT PRICE NO. 2: ADDITIONAL WOOD FLOOR BOARD REPLACEMENT.

1. Description: Provide a Unit Cost for cutting out existing rotted or water damaged tongue and groove floor boards in the first floor area to be patched. Remove, replace, and install new floor boards according to Section 06 2023 – Interior Finish Carpentry. Unit price to include stain finishing of the floor boards.

2. Unit of Measurement: One Square Foot.

C. UNIT PRICE NO. 3: ADDITIONAL TRIM AND SIDING PAINTING.

1. Description: Provide a Unit Cost for additional painting of new trim or clapboard siding. Painting preparation, priming and paint coats are to be completed according to Section 09 9100 – Painting. Unit price to include abatement of lead paint as part of painting preparation on existing wood trim or siding that is to remain, or demolition of existing wood that has lead containing paint.

2. Unit of Measurement: One Square Foot.

D. UNIT PRICE NO. 4: ADDITIONAL SIDING REPLACEMENT.

1. Description: Provide a Unit Cost to remove and replace additional clapboard siding beyond that identified in the Base Scope. Remove and replace wood clapboard siding to Section 06 2013 - Exterior Finish Carpentry. Unit Price #3 above shall be applied for painting of any additional wood siding that is replaced.

2. Unit of Measurement: One Square Foot.

END OF SECTION 01 2200

SECTION 01 3233 - PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes administrative and procedural requirements for the following:

1. Preconstruction photographs.
2. Periodic construction photographs.

1.2 SUBMITTALS

A. Preconstruction Photographs: Before starting construction, take digital photographs of project site and the existing buildings, including existing items to remain during construction, from different vantage points.

1. Format: Digital images that can be uploaded onto the State's Procore project management system. Verify appropriate resolution for image uploads.
2. Submittal Identification: Provide a combined photo document as a Word document or Pdf file.

    a. File Title: "PRE- CONSTRUCTION PHOTOGRAPHS" with the Name of Project and Location.
    b. Name of Contractor.
    c. Date photograph was taken if not date stamped by camera.

3. Photo Descriptions: Provide a brief description for each photograph describing the image, giving vantage point, indicating location, direction (by compass point), and/or elevation of construction.

B. Periodic Construction Photographs: Take photographs weekly or monthly during construction progress at key work areas while excavated, exposed, or during installation. Select vantage points to show status of construction and progress since last photographs were taken.

C. Final Construction Photographs: At Final Completion, submit digital images of each elevation improved by the work, include photos of details of work capturing representative images of the types improvements.

1. Format: Digital images that can be uploaded onto the State's Procore project management system. Verify appropriate resolution for image uploads.
2. Submittal Identification: Provide a combined photo document as a Word document or Pdf file.

    a. File Title: "FINAL CONSTRUCTION PHOTOGRAPHS" with the Name of Project and Location.
    b. Name of Contractor.
    c. Date photograph was taken if not date stamped by camera.

3. Photo Descriptions: Provide a brief description for each photograph describing the image, giving vantage point, indicating location, direction (by compass point), and/or elevation of construction.
4. Project Close Out Images: Submit a complete set of digital image electronic files as requirement for Record Documents. See Section 01 7839 Project Record Documents.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC MEDIA

A. Digital Images: Provide images in uncompressed TIFF or JPEG format, produced by a digital camera with minimum sensor size of 4.0 megapixels, and at an image resolution of not more than 1024 by 768 pixels.

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.

B. Digital Images: Document digital images exactly as originally recorded in the digital camera, without alteration, manipulation, editing, or modifications using image-editing software.

1. Date and Time: Include date and time in filename for each image.
2. Field Office Images: Maintain one set of images, available at all times for reference.

C. Preconstruction Photographs: Before construction, digital photographs of Project site and surrounding properties, including existing items to remain during construction, from different vantage points.

D. Periodic Construction Photographs: Take multiple photographs weekly, as needed to document the work changes. Select vantage points to show status of construction and progress since last photographs were taken.

E. Final Construction Photographs: At Final Completion, submit digital images of each elevation improved by the work, include photos of details of work capturing representative images of the types improvements.

END OF SECTION 01 3233

SECTION 01 3591 - HISTORIC TREATMENT PROCEDURES

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes special procedures for historic treatment on Project including, but not limited to, the following:

1. Temporary protection of historic materials during construction.
2. Historic treatment procedures.

1.2 DEFINITIONS

A. "Preservation": To apply measures necessary to sustain the existing form, integrity, and materials of a historic property. Work may include preliminary measures to protect and stabilize the property.

B. "Rehabilitation": To make possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.

C. "Restoration": To accurately depict 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 the reconstruction of missing features from the restoration period.

D. "Reconstruction": To reproduce in the exact form and detail a building, structure, or artifact as it appeared at a specific period in time.

E. Consolidate: To strengthen loose or deteriorated materials in place.

F. Dismantle: To disassemble or detach a historic item from a surface, or a nonhistoric item from a historic surface, using gentle methods and equipment to prevent damage to historic items and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

G. "Existing to Remain" or "Retain": Existing items of construction that are not to be removed and that are not otherwise indicated to be removed and salvaged, or removed and reinstalled.

H. 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 Architect.

I. "Material in Kind": Material that matches existing materials, as much as possible, in species, cut, color, grain, and finish.

J. "Protect and Maintain": To remove deteriorating materials, apply protective products, and install protective measures such as temporary guards; to provide the least degree of intervention.

K. Refinish: To remove existing finishes to base material and apply new finish to match original, or as otherwise indicated.

L. Reinstall: To protect removed or dismantled item, repair and clean it as indicated for reuse, and reinstall it in original position, or where indicated.

M. "Remove": To detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.

N. "Remove and Reinstall": To detach items from existing construction, repair and clean them for reuse, and reinstall them where indicated.

O. "Repair": To stabilize, consolidate, or conserve; to retain existing materials and features while employing as little new material as possible. Repair includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials. Within restoration, repair also includes limited replacement in kind, rehabilitation, and reconstruction, with compatible substitute materials for deteriorated or missing parts of features when there are surviving prototypes.

P. "Replace": To duplicate and replace entire features with new material in kind. Replacement includes the following conditions:

1. Duplication: Includes replacing elements damaged beyond repair or missing. Original material is indicated as the pattern for creating new duplicated elements.
2. Replacement with New Materials: Includes replacement with new material when original material is not available as patterns for creating new duplicated elements.
3. Replacement with Substitute Materials: Includes replacement with compatible substitute materials. Substitute materials are not allowed, unless otherwise indicated.

Q. Reproduce: To fabricate a new item, accurate in detail to the original, and from either the same or a similar material as the original, unless otherwise indicated.

R. Restore: To consolidate, replicate, reproduce, repair, and refinish as required to achieve the indicated results.

S. Retain: To keep existing items that are not to be removed or dismantled.

T. Reversible: New construction work, treatments, or processes that can be removed or undone in the future without damaging historic materials unless otherwise indicated.

U. Salvage: To protect removed or dismantled items and deliver them to Owner ready for reuse.

V. 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.

W. Strip: To remove existing finish down to base material unless otherwise indicated.

1.3 PROJECT MEETINGS FOR HISTORIC TREATMENT

A. Preliminary Historic Treatment Conference: Before starting historic treatment work, Owner's CM or Architect will conduct conference either at project site or with an online virtual meeting. Meeting will coincide with the Preconstruction conference.

1. Attendees: In addition to representatives of Owner, Construction Manager, Architect, Contractor and subcontractors whose work interfaces with or affects historic treatment shall be represented at the meeting.
2. Agenda: Discuss items of significance that could affect progress of historic treatment work, including review of the following:

a. Fire-prevention plan.
b. State Historic Preservation Office (SHPO) requirements.
c. Areas where existing construction is to remain and the required protection.
d. Sequence of historic treatment work operations.
e. Storage, protection, and accounting for salvaged and specially fabricated items.
f. Existing conditions, staging, and limitations of areas where materials are stored.

1.4 SUBMITTALS

A. Historic Treatment Program: Submit 2 weeks before work begins. Include Fire-Prevention Plan.

B. Shoring Plan: Submit 2 weeks before work begins.

1.5 PROJECT-SITE CONDITIONS

A. Photographs or Videotape: Document existing conditions around the work area to record conditions before work commences. Photo document final conditions of the work area after work has been completed.

1.6 QUALITY ASSURANCE

A. Contractor Field Supervision: Contractor shall provide a full-time foreman or supervisor that is employed by company executing the work to supervise preservation work activities for workers and subcontractors. Supervisors shall be on the Project site when historic treatment work begins and during its progress.

B. Historic Treatment Program: Prepare a written plan for historic treatment for the Project, including each phase, section, or work area, and the proposed protection of surrounding materials during operations. Describe in detail the materials, methods, and equipment to be used for each phase of work. Coordinate this whole-Project historic treatment program with specific requirements of programs required in other historic treatment Sections. Include the following:

1. Dust and Noise Control: Include locations of proposed temporary dust- and noise-control partitions and means of egress from occupied areas coordinated with continuing on-site operations and other known work in progress.

2. Debris Hauling: Include plans clearly marked to show debris hauling routes, and locations and details of temporary protective barriers.
3. Alternative Methods and Materials: If alternative methods and materials to those indicated are proposed for any phase of work, provide a written description including evidence of successful use on other, comparable projects, and program of testing to demonstrate effectiveness for use on this Project.
4. Fire-Prevention Plan: Prepare a written plan for preventing fires during the Work, including placement of fire extinguishers, fire blankets, rag buckets, and other fire-prevention devices during each phase or process. Coordinate plan with Owner's fire-protection equipment and requirements.

C. Shoring Plan: Shoring Plan indicating proposed locations, methods, materials and means for providing temporary shoring to include bracing of members that are to remain in place during dismantling operations, and bearing distribution of load bearing shoring. Indicate methods that will be used to protect existing building materials during shoring operations.

1.7 STORAGE AND HANDLING OF HISTORIC MATERIALS

A. Salvaged Historic Materials:

1. Any items discovered on site during construction are to be salvaged to the Owner.
2. Clean loose dirt and debris from salvaged historic items unless more extensive cleaning is indicated.
3. Pack items in containers after cleaning; protect against damage during handling. Label contents of containers.
4. Store items in a secure area for hand off to Owner.
5. Transport items to Owner's storage area on-site as designated by Owner.

B. Historic Materials for Reinstallation:

1. Repair and clean historic items for reuse as indicated.
2. Pack, crate, or move items after cleaning and repairing; cushion and/or protect against damage during handling. Label contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment unless otherwise indicated. Provide connections, supports, and miscellaneous materials to make item functional for use indicated.

C. Existing Historic Materials to Remain: Protect construction indicated to remain against damage and soiling from construction work. Where permitted by Architect, items may be dismantled and taken to a suitable, protected storage location during construction work and reinstalled in their original locations after historic treatment and construction work in the vicinity is complete.

D. Storage: Catalog and store historic items within a weathertight enclosure where they are protected from weather.

1. Identify each item with a nonpermanent mark to document its original location. Indicate original locations on plans, elevations, sections, or photographs by annotating the identifying marks. Keep identifying documents stored with historic items.
2. Secure stored materials to protect from theft.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PROTECTION, GENERAL

A. Ensure that supervisory personnel are present when work begins and during its progress. Ensure that supervisory personnel are mindful of preservation goals during all construction sequences.

B. Protect persons, motor vehicles, surrounding surfaces of building, building site, plants, and surrounding buildings from harm resulting from historic treatment procedures.

1. Use only proven protection methods, appropriate to each area and surface being protected.
2. Provide temporary barricades, barriers, and directional signage to exclude the public from areas where historic treatment work is being performed.
3. Contain dust and debris generated by historic treatment work, and prevent it from reaching the public or adjacent surfaces.
4. Provide shoring, bracing, and supports as necessary. Do not overload structural elements.

C. Temporary Protection of Historic Materials during Construction:

1. Protect existing materials during installation of temporary protections and construction. Do not deface or remove existing materials.

D. Comply with each product manufacturer's written instructions for protections and precautions. Protect against adverse effects of products and procedures on people and adjacent materials, components, and vegetation.

E. Utility Services:

1. Notify Owner, Architect, authorities having jurisdiction, and entities owning or controlling wires, conduits, pipes, and other services affected by historic treatment work before commencing operations.
2. Maintain existing services unless otherwise indicated; keep in service, and protect against damage during operations. Provide temporary services during interruptions to existing utilities.

3.2 PROTECTION FROM FIRE

A. General: Follow fire-prevention plan and the following:

1. Comply with NFPA 241 requirements unless otherwise indicated.
2. Remove and keep area free of combustibles, including rubbish, paper, waste, and chemicals, unless necessary for the immediate work.

    a. If combustible material cannot be removed, provide fire blankets to cover such materials.

3. Prohibit smoking by all persons within Project work and staging areas**.**

B. Heat-Generating Equipment and Combustible Materials: Heat-generating equipment or combustible materials, including welding, torch-cutting, soldering, brazing, removing paint with heat, or other operations where open flames or implements using high heat or combustible solvents and chemicals are not allowed.

1. Any exceptions must be preapproved by the Owner and Construction Manager. Written “Hot Plan” requests must be submitted 30 days prior to proposed date of use.

C. 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 all personnel are trained in fire-extinguisher and blanket use.

D. Smoking is prohibited by personnel performing work on or near historic structures.

3.3 PROTECTION DURING APPLICATION OF CHEMICALS

A. Protect surrounding surfaces of building being restored, building site, plants, and surrounding buildings from harm or damage resulting from applications of chemicals and adhesives.

B. Cover adjacent surfaces with protective materials. Use covering materials and masking agents that will not stain or leave residue on surfaces to which they are applied. Apply protective materials according to manufacturer's written instructions.

C. Neutralize alkaline and acid wastes and legally dispose of off Owner's property.

3.4 GENERAL HISTORIC TREATMENT

A. The principal aim of preservation work is to halt the process of deterioration and stabilize the item's condition, unless otherwise indicated. Repair is required where specifically indicated. The following procedures shall be followed:

1. Retain as much existing material as possible; repair and consolidate rather than replace.
2. Use additional material or structure to reinforce, strengthen, prop, tie, and support existing material or structure.
3. Use reversible processes wherever possible.
4. Use traditional replacement materials and techniques. New work shall be distinguishable to the trained eye, on close inspection, from old work.

5. Record the work before the procedure with preconstruction photos and during the work with periodic construction photos.

A. Have historic treatment work performed only by qualified historic treatment specialists.

B. Ensure that supervisory personnel are present when historic treatment work begins and during its progress.

C. Record existing work before each procedure (preconstruction), and record progress during the work. Use digital preconstruction documentation photographs or video recordings.

D. Where missing features are indicated to be repaired or replaced, provide work with appearance based on accurate duplications rather than on conjecture, subject to approval of Architect.

E. 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.

F. Record new and replacement materials in the locations they are installed on the Project Record Drawings.

END OF SECTION 01 3591

SECTION 02 4119 - SELECTIVE STRUCTURE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Demolition and removal of selected portions of building or structure.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.

B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.

C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.

D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.3 SUBMITTALS

A. Schedule of Selective Demolition Activities: Submit proposed demolition schedule to Owner/Architect for review, discussion, coordination and approval at Pre-Demolition Conference. Indicate detailed sequence of selective demolition and removal work, with starting and ending dates for each activity, interruption of utility services, use of elevator and stairs, and locations of temporary partitions and means of egress.

B. Pre-demolition Photographs or Videotapes: Show existing conditions of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damage caused by selective demolition operations.

1.4 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI A10.6 and NFPA 241.

C. Pre-demolition Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: Hazardous materials are present in construction to be selectively demolished. A report on the presence of hazardous materials is included is included in the specification manual for review and use. Examine the report to become aware of locations where hazardous materials are present.

1. Hazardous material removal is not a part of this contract. Hazardous materials will be removed under a separate contract by the Owner before start of the Work.
2. If other materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.

E. Storage or sale of removed items or materials on or off site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.6 WARRANTY

A. Existing Warranties: On adjacent work areas; remove, replace, patch, and repair materials and surfaces cut, punctured or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that any utilities in the work area have been disconnected and capped.

B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

C. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.

D. The Owner will engage a professional engineer to survey condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective demolition operations.

E. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.

3.3 PREPARATION

A. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

1. Comply with requirements for access and protection specified in Division 01 Section "Temporary Facilities and Controls."

B. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

3.4 SELECTIVE DEMOLITION

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
3. Do not use cutting torches or spark producing equipment unless coordinated with Owner and facility prior.
4. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
5. Dispose of demolished items and materials promptly.

B. Removed and Salvaged Items:

1. Package or bundle material for storage.
2. Transport items to the Owner's on-site storage area.

C. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Protect items from damage during storage.
3. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

D. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and reinstalled in their original locations after selective demolition operations are complete.

3.5 DISPOSAL OF DEMOLISHED MATERIALS

A. General: Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.

B. Burning: Do not burn demolished materials.

C. Disposal: Transport demolished materials off Owner's property and legally dispose of them unless otherwise noted.

3.6 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 4119

SECTION 02 4296 - HISTORIC REMOVAL AND DISMANTLING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes historic treatment procedures in the form of special types of selective demolition work for designated historic spaces and surfaces.

B. Related Requirements:

1. Section 01 3591 Historic Treatment Procedures for Historic Treatment Plan.
2. Section 01 3591 Historic Treatment Procedures for Shoring Plan.

1.2 DEFINITIONS

A. Dismantle: To disassemble or detach a historic item from a surface, or a non-historic item from a historic surface, using gentle methods and equipment to prevent damage to historic items and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

B. Existing to Remain: Existing items that are not to be removed or dismantled, except to the degree indicated for performing required Work.

C. Remove: To take down or detach a non-historic item located within a historic space, area, or room, using methods and equipment to prevent damage to historic items and surfaces; disposing of items unless indicated to be salvaged or reinstalled.

D. Retain: To keep existing items that are not to be removed or dismantled.

E. Salvage: To protect removed or dismantled items and deliver them to Owner.

1.3 PRECONSTRUCTION MEETINGS

A. Preconstruction Conference: Conduct conference at a location to be determined.

1. Review minutes of Preliminary Historic Treatment Conference that pertain to removal and dismantling procedures and protection of historic areas and surfaces.
2. Review list of items indicated to be salvaged.
3. Review methods and procedures related to removal and dismantling work.
4. Review Fire Prevention Plan.

1.4 SUBMITTALS

A. List of Items Indicated to Be Salvaged: Prepare a list of items indicated on Drawings to be salvaged for Owner's use or for reinstallation.

B. Inventory of Salvaged Items: After removal or dismantling work is complete, submit a list of items that have been salvaged. Indicate original and stored locations for each item.

1.5 QUALITY ASSURANCE

A. Contractor Field Supervision: Contractor shall provide a full-time foreman or supervisor that is employed by company executing the work to supervise preservation work activities for workers and subcontractors. Supervisors shall be on the Project site when historic treatment work begins and during its progress.

1.6 FIELD CONDITIONS

A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

1. Before removal and dismantling, Owner will remove the following items:

a. Owner will remove any adjacent historic items in the House for the floor and basement repairs.

B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with removal and dismantling work.

C. Storage or sale of removed or dismantled items on-site is not permitted unless otherwise indicated.

PART 2 - PRODUCTS - (Not Used)

PART 3 - EXECUTION

3.1 EXAMINATION

A. Preparation for Removal and Dismantling: Examine construction to be removed or dismantled to determine best methods to safely and effectively perform removal and dismantling work.

1. Inventory and record the condition of items to be removed and dismantled for reinstallation or salvage. Enter this information on the submittal of inventory of salvaged items.

B. Survey of Existing Conditions: Record existing conditions by use of preconstruction photographs and preconstruction video recordings.

3.2 HISTORIC REMOVAL AND DISMANTLING

A. Perform work according to the historic treatment program.

B. Wood and Framing Members: For items to be removed and reinstalled provide the following:

1. Clearly label and number each wood member before detaching and removing.
2. Provide a numbering scheme that is documented on a framing diagram.
3. Labeling system should be easily understood for reassembly.

C. Anchorages:

1. Remove anchorages associated with removed items.
2. Dismantle anchorages associated with dismantled items.
3. In non-historic surfaces, patch holes created by anchorage removal or dismantling according to the requirements for new work.
4. In historic surfaces, patch or repair holes created by anchorage removal or dismantling according to Section that is specific to the historic surface being patched.

END OF SECTION 02 4296

SECTION 03 3053 - MISCELLANEOUS CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, finishes and repairs for all concrete work.

1.2 SUBMITTALS

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

B. Design Mixtures: For each concrete mixture. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.

B. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, obtain aggregate from one source, and obtain admixtures through one source from a single manufacturer.

C. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
1. ACI 301, "Specification for Structural Concrete," Sections 1 through 5.
2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

D. Pre-installation Conference: Conduct conference at Project site.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

B. Form- Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

2.2 CONCRETE MATERIALS

A. Mix Material: Use the following materials, of the same type, brand, and source, throughout Project:

1. Portland Cement: ASTM C 150, Type I.

2. Normal-Weight Aggregates: (For Exterior Concrete) ASTM C 33, graded, 3/4-inch nominal maximum coarse-aggregate size.

3. Water: ASTM C 94/C 94M and potable.

4. Air-Entraining Admixture: ASTM C 260.

B. Chemical Admixtures: Provide admixtures certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.

1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A.
2. Retarding Admixture: ASTM C 494/C 494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D.
4. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.

2.3 VAPOR RETARDERS

A. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.

2.4 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.

2.5 CONCRETE MIXTURES

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, according to ACI 301.

B. Proportion normal-weight concrete mixture as follows:
1. Minimum Compressive Strength: 4,000 psi.

2. Maximum Water-Cementitious Materials Ratio: 0.45.
3. Slump Limit: 4 inches for concrete with verified slump of 2 to 4 inches before adding high range water reducing admixture or plasticizing admixture, plus or minus 1 inch.
4. Air Content: 6 percent, plus or minus 1.5 percent at point of delivery for 1-inch nominal maximum aggregate size for exterior concrete.

2.6 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F reduce mixing and delivery time to 60 minutes.

B. Bag-Mixed Concrete: (Contractor's Option) For pre-packaged dry mixes, measure and mix on-site according to ASTM C 387 and manufacturer's instructions.

1. Pre-packaged dry mixes are combinations of cementitious materials, aggregates, designed to be combined with water on-site.

PART 3 - EXECUTION

3.1 FORMWORK

A. Design, erect, shore, brace, and maintain formwork according to ACI 301 to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Provide slight chamfer exterior corners and edges of permanently exposed concrete.

3.2 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.

B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.

1. Consolidate placed concrete with mechanical vibrating equipment according to ACI 301.

C. The maximum deviation of the top surface of any section shall not exceed one-eight inch 1/8” or the inside face not more than one-fourth inch 1/4” from a straight line.

D. Hot-Weather Placement: Comply with ACI 301.

3.3 FINISHING FORMED SURFACES

A. Trowel Finish: Apply a trowel finish to exterior concrete as indicated.

3.4 CONCRETE PROTECTING AND CURING

A. General: Protect freshly placed concrete from premature drying. Comply with ACI 301 for hot-weather protection during curing.

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating concrete, but before float finishing.

C. Cure concrete according to ACI 308.1, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days.
2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days.

3.5 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Architect. Remove and replace concrete that cannot be repaired and patched to Architect's approval.

B. Patching Mortar: Mix Dry-pack patching mortar, consisting of one part Portland cement to and one-half parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.

3.6 FINAL CLEANING

A. Concrete trucks are not allowed to deposit “washout” on any of the streets, sidewalks, driveways, or storm sewers near the site. Coordinate wash out location with Owner.

END OF SECTION 03 3053

SECTION 04 0343 - HISTORIC STONE MASONRY REPOINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes historic treatment work consisting of repointing stone masonry joints.

B. Related Requirements:

1. Section 01 3591 "Historic Treatment Procedures."

1.2 DEFINITIONS

A. Low-Pressure Spray: 100 to 400 psi; 4 to 6 gpm.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at the location determined.

1. Review minutes of Preliminary Historic Treatment Conference that pertain to masonry historic treatment and repointing.
2. Review methods and procedures related to repointing historic stone masonry.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.5 QUALITY ASSURANCE

A. Mockups: Prepare mockups of historic treatment to demonstrate aesthetic effects and to set quality standards for materials and execution.

1. Repointing: Rake out joints in two separate areas**,** each approximately 48 inches high by 48 inches wide for each type of joint requiring repointing.

2. Approved mock ups can remain as part of the completed work.

PART 2 - PRODUCTS

2.1 MORTAR MATERIALS

A. See Section 04 2000 – Unit Masonry for pointing mortar material requirements.

2.2 MORTAR MIXES

A. See Section 04 2000 – Unit Masonry for pointing mortar mix requirements.

PART 3 - EXECUTION

3.1 PROTECTION

A. Prevent mortar from staining face of surrounding stone and other surfaces.

B. Remove metallic items, mounted accessories and associated hardware adjacent to immediate work area and store during stone repointing work. Reinstall when repointing is complete.

3.2 REPOINTING STONEWORK

A. Rake out and repoint joints to the following extent:

1. All joints in areas indicated.
2. Joints at locations of the following defects:

a. Holes and missing mortar.
b. Cracks that can be penetrated 1/4 inch or more by a knife blade 0.027 inch thick.
c. Cracks 1/8 inch or more in width and of any depth.
d. Hollow-sounding joints when tapped by metal object.
e. Eroded surfaces 1/4 inch or more deep.
f. Deterioration to point that mortar can be easily removed by hand, without tools.
g. Joints filled with substances other than mortar.

B. Do not rake out and repoint joints where not required.

C. Rake out joints as follows, according to procedures demonstrated in approved mockup:

1. Remove mortar from joints to depth of 2 times joint width, but not less than 3/4 inch or not less than that required to expose sound, unweathered mortar. Do not remove unsound mortar more than 2 inches deep; consult Architect for direction.
2. Remove mortar from stone surfaces within raked-out joints to provide reveals with square backs and to expose stone for contact with pointing mortar. Brush, vacuum, or flush joints to remove dirt and loose debris.
3. Do not spall edges of stone units or widen joints. Replace or patch damaged stone units as directed by Architect.

a. Cut out mortar by hand with chisel and resilient mallet. Do not use power-operated grinders without Architect's written approval based on approved quality-control program.
b. Cut out center of mortar bed joints using angle grinders with diamond-impregnated metal blades. Remove remaining mortar in bed joints and mortar in head joints by hand with chisel and resilient mallet.

D. Notify Architect of unforeseen detrimental conditions including voids in mortar joints, cracks, loose stone, rotted wood, rusted metal, and other deteriorated items.

E. Pointing with Mortar:

1. Rinse joint surfaces with water to remove dust and mortar particles. Time rinsing application so, at time of pointing, joint surfaces are damp but free of standing water. If rinse water dries, dampen joint surfaces before pointing.
2. Apply pointing mortar first to areas where existing mortar was removed to depths greater than surrounding areas. Apply in layers not greater than 3/8 inch until a uniform depth is formed. Fully compact each layer thoroughly and allow it to become thumbprint hard before applying next layer.
3. After deep areas have been filled to same depth as remaining joints, point joints by placing mortar in layers not greater than 3/8 inch. Fully compact each layer and allow it to become thumbprint hard before applying next layer. Where existing stone has worn or rounded edges, slightly recess finished mortar surface below face of stone to avoid widened joint faces. Take care not to spread mortar beyond joint edges onto exposed stone surfaces or to featheredge the mortar.
4. When mortar is thumbprint hard, tool joints to match original appearance of joints as demonstrated in approved mockup. Remove excess mortar from edge of joint by brushing.

    a. Mortar Joint Profile: Concave Tooled.

5. Hairline cracking within the mortar or mortar separation at edge of a joint is unacceptable. Remove mortar and repoint.

F. Mortar Curing: (for Lime Mortar)

1. Cure mortar by maintaining in thoroughly damp condition for at least 72 consecutive hours, including weekends and holidays.

    a. Acceptable curing methods include covering with wet burlap and plastic sheeting, periodic hand misting, and periodic mist spraying using system of pipes, mist heads, and timers.
    b. Adjust curing methods to ensure that pointing mortar is damp throughout its depth without eroding surface mortar.

G. Allow mortar to harden at least 14 days before beginning final cleaning work.

3.3 FINAL CLEANING

A. After mortar has fully hardened, thoroughly clean exposed stone surfaces of excess mortar and foreign matter; use wood scrapers, stiff-nylon or -fiber brushes, and clean water applied by low-pressure spray.

1. Do not use metal scrapers or brushes. Do not use acidic or alkaline cleaners.

END OF SECTION 04 0343

SECTION 04 2000 - UNIT MASONRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes unit masonry assemblies consisting of the following:

1. Face brick.

1.2 SUBMITTALS

A. Product Data and Samples: For each type of product indicated.

B. Mortar Mix Designs: For each type of mortar. Include description of type and proportions of ingredients.

1.3 QUALITY ASSURANCE

A. Masonry Standard: Comply with ACI 530.1/ASCE 6/TMS 602 unless modified by requirements in the Contract Documents.

B. Fire-Resistance Ratings: Where indicated, provide materials and construction identical to those of assemblies with fire-resistance ratings determined per ASTM E 119 by a testing and inspecting agency, by equivalent concrete masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

C. Mock Up Sample Panels: Provide a dry board, brick stack or sample panel to verify selections made under sample submittals and to demonstrate aesthetic effects.

1. Build sample panels for typical exterior wall. Size: equivalent to 1 square foot.

1.4 PROJECT CONDITIONS

A. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Warm materials that will be laid in temperatures below 40 degrees ambient temperature. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602. Provide temporary heat in protective enclosures for masonry that is laid in temperatures below 40 degrees for a minimum of 24 to 48 hours.

B. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.

C. Pre-installation Conference: The Owner’s Construction Manager will conduct a conference at Project site.

1. Discussions during the Pre-installation Conference Agenda will include the following:

    a. Review of mock ups.
    b. Coordination with other work.
    c. Required performance results.
    d. Protection of adjacent work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The following requirements apply to product selection:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 BRICK

A. General: Provide shapes indicated and as follows:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
2. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.

2.3 COLORS, TEXTURES, AND PATTERNS

A. Exposed Masonry Units: Provide face brick to match existing exterior brick color, texture, mortar color and unit size to match adjacent masonry.

1. When matching existing brick, provide blend of colors to achieve a similar color mix to that of existing adjacent brick. Submit mock up for Architect’s approval.

2. Match brick at each chimney.

B. Face Brick: ASTM C 216. Grade as required to match existing.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 3000 psi.
2. Size (Actual Dimensions): 2-1/4 inches high by 7-5/8 inches long.

2.4 MORTAR MATERIALS

A. Hydrated Lime: ASTM C 207, Type S, or Natural Hydrated Lime.

B. Mortar Sand: ASTM C 144 unless otherwise indicated.

1. Match size, texture, and gradation of existing mortar sand as closely as possible. Blend several sands if necessary to achieve suitable match.
2. Color: Provide natural sand of color necessary to produce required mortar color.

C. Mortar Pigments: Iron oxides and chromium oxides, compounded for use in mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortar.

D. Aggregate for Mortar: ASTM C 144.

1. For joints less than 1/4 inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.
2. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.

E. Water: Potable.

2.5 MORTAR AND GROUT MIXES

A. General: Do not use admixtures, unless otherwise indicated.

1. Do not use calcium chloride in mortar or grout.
2. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.

B. Mortar for Unit Masonry: Comply with ASTM C 270 and BIA Technical Notes 8A Proportion Specification.

C. Mortar for Unit Masonry: Comply with ASTM C 270 and BIA Technical Notes 8A Property Specification.
1. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions; and for other applications where another type is not indicated, use Type N.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Use full-size units without cutting if possible. If cutting is required, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.

C. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. per minute when tested per ASTM C 67. Allow units to absorb water so they are damp but not wet at time of laying.

D. Comply with tolerances in ACI 530.1/ASCE 6/TMS 602 and with the following:

1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 feet maximum.
2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 feet maximum.

3.2 LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in running bond; do not use units with less than nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.

C. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

D. Fill space between steel frames and masonry solidly with mortar, unless otherwise indicated.

E. Fill cores in hollow concrete masonry units with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.

3.3 COLD WEATHER PROTECTION

A. Provide temporary heat in protective enclosures for masonry that is laid in temperatures below 40 degrees for 24 to 48 hours.

3.4 MORTAR BEDDING AND JOINTING

A. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.

B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness, unless otherwise indicated.

C. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint), unless otherwise indicated.

3.9 CLEANING

A. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.

B. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry as follows:
   1. Clean brick by bucket-and-brush hand-cleaning method described in BIA Technical Notes 20.
   2. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.

3.10 MASONRY WASTE DISPOSAL

A. Waste Disposal as Fill Material: Remove excess clean masonry waste and legally dispose of off Owner’s property.

END OF SECTION 04 2000

SECTION 05 5000 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Miscellaneous steel framing and supports.

1.2 SUBMITTALS

A. Shop Drawings: Include plans, elevations, sections, and details of metal fabrications and their connections. Show anchorage and accessory items.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products specified.

2.2 METALS

A. Metal Surfaces, General: Provide materials with smooth, flat surfaces without blemishes.

B. Ferrous Metals:

1. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

2.3 MISCELLANEOUS FRAMING AND SUPPORTS

A. General: Provide steel framing and supports not specified in other Sections as needed to complete the Work.

B. Fabricate units from steel shapes, plates, and bars of welded construction unless otherwise indicated. Fabricate to sizes, shapes, and profiles indicated and as necessary to receive adjacent construction.

C. Prime miscellaneous steel trim with zinc-rich primer. See Division 09 for Painting.

2.4 FASTENERS

A. General: Zinc-plated fasteners with coating complying with ASTM B 633. Select fasteners for type, grade, and class required.

2.5 FABRICATION

A. General: Preassemble items in the shop to greatest extent possible. Use connections that maintain structural value of joined pieces.

1. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges. Remove sharp or rough areas on exposed surfaces.

B. Miscellaneous Steel Trim: Fabricate units from steel shapes, plates, and bars of profiles shown with smooth exposed edges. Provide cutouts, fittings, and anchorages as needed to coordinate assembly and installation with other work.

1. Miscellaneous Steel Trim: Prime with zinc-rich primer.

2.6 FINISHES

A. Steel and Iron Finishes: Universal Shop Primer: Fast-curing, lead- and chromate-free, universal zinc-rich primer complying with MPI#79 and compatible with topcoat.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Perform cutting, drilling, and fitting required for installing metal fabrications. Set metal fabrications accurately in location, with edges and surfaces level, plumb, and true.

1. Fit exposed connections accurately together. Weld connections that are not to be left as exposed joints but cannot be shop welded. Do not weld, cut, or abrade surfaces of exterior units that have been hot-dip galvanized after fabrication.
2. Provide anchorage devices and fasteners where metal fabrications are required to be fastened to in-place construction.
3. Provide temporary bracing or anchors in formwork for items that are to be built into concrete, masonry, or similar construction.

3.2 ADJUSTING AND CLEANING

1. Touch up surfaces to be painted after erection. Clean field welds, bolted connections, and abraded areas and touch up paint with the same material as used for shop painting.

END OF SECTION 05 5000

SECTION 06 0523 - WOOD, PLASTIC, AND COMPOSITE FASTENINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Manufactured anchors for construction materials.

1.2 SUBMITTALS

A. Product Data:
   1. Manufacturer's data sheets on each product to be used.
   2. Identify and indicate locations for installation.
   3. Preparation instructions and recommendations.
   4. Typical installation methods.

1.3 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with documented experience.

B. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store and handle in compliance with manufacturer's written instructions and recommendations.

B. Protect from damage due to weather, excessive temperature, and construction operations.

1.5 WARRANTY

A. Manufacturer's standard limited warranty unless indicated otherwise.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Fastener Manufacturers: Basis of Design: Simpson Strong Tie Company Inc.

B. Manufacturers: Subject to compliance with requirements, provide products by one of the following manufacturers:

   1. Simpson Strong Tie Company Inc.
   2. The Hilti Group.
   3. Lakeside Construction Fasteners.
   4. Others as pre-approved.

2.4 WOOD CONNECTORS

A. Strong-Tie Wood Connectors: Joist Hangers.

1. LUS28 Face mounted U-shaped standard Post Base for solid sawn lumber.
2. Fasteners: Galvanized nails. Nails must be driven at an angle through the joist to meet double shear loading requirements. Use appropriate nail lengths.
3. Size: Pocket Width: 1-9/16 inch. Hgt: 6-5/8 inches. Heel Projection: 1-3/4 inch.
4. Gauge: 18 ga.
5. Finish: Mechanically galvanized coating.

B. Strong-Tie Wood Connectors: Post Base.

1. ABW66Z Adjustable Post Base with Wind Uplift for wood posts. With built-in 1 inch stand-off.
2. Fasteners: Attach to concrete with anchor bolt through slotted hole in base. Attach to the post with nails or Strong-Drive SD Connector screws.
3. Size: Width: 5-9/16 inches. Length: 5-9/16 inches. Hgt: 3 inches.
4. Gauge: 12 ga.
5. Finish: Mechanically galvanized coating.

C. Strong-Tie Wood Connectors: Post Cap.

1. AC6 Adjustable Post Cap for wood posts. Two pieces per post cap.
2. Fasteners: Attach to the post with nails or Strong-Drive SD Connector screws.
3. Size: Width: 5-1/2 inches. Length: 8-1/2 inches.
4. Gauge: 18 ga.
5. Finish: Mechanically galvanized coating.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly constructed and prepared.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

3.4 FIELD QUALITY CONTROL

A. Field Inspection: Coordinate field inspection of anchors and fasteners with Constructions Manager and Architect to allow for observation before work is covered.

3.5 CLEANING AND PROTECTION

A. Clean products in accordance with the manufacturer's recommendations.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 06 0523

SECTION 06 1000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Framing with dimension lumber.
2. Wood blocking, and nailers.
3. Wood furring and grounds.
4. Wood sleepers.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Provide dressed lumber, S4S, unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA C2,

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, and similar concealed members in contact with masonry or concrete.
3. Wood base plates that are installed over concrete slabs-on-grade.

2.3 DIMENSION LUMBER FRAMING

A. Maximum Moisture Content: Provide kiln dried wood with a moisture content of 19 percent or less.

B. Non-Load-Bearing Interior Partitions and miscellaneous framing: Provide Stud or No. 3 or better grade in any species.

C. Framing for Load-Bearing Partitions: Load bearing dimension lumber for plates, studs, joists and headers shall be identified by a grade mark of a lumber or inspection agency that has been approved by an accreditation body that complies with DOC PS 20. Provide No. 2 or better grade in any of the following species:

1. Douglas fir.
2. Hem-fir.
3. Southern pine.
4. Spruce-pine-fir.

2.4 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Furring.

B. For exposed boards, provide Finish grade lumber with 19 percent maximum moisture content of eastern white pine; in B and Better, surfaced on all four sides (S4S).

C. For concealed boards, provide Common grade lumber with 19 percent maximum moisture content and the following species and grades:

1. Mixed southern pine, No. 2 grade.
2. Eastern softwoods, No. 2 grade.

2.5 FASTENERS

A. General: Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

B. Bolts: Steel bolts complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); with ASTM A 563 (ASTM A 563M) hex nuts and, where indicated, flat washers.

C. Screw Fasteners: Screws complying with ASTM F2329, for zinc coating applied to carbon steel and alloy steel bolts, screws, washers, nuts, and special threaded fasteners.

2.6 METAL FRAMING ANCHORS

A. See Section 06 0523 Wood Plastic and Composite Fastenings.

B. Allowable Design Loads: Provide products with allowable design loads, as published by manufacturer, that meet or exceed those required for each application.

C. Galvanized Steel Sheet: Hot-dip, zinc-coated steel sheet complying with ASTM A 653/A 653M, G60 (Z180) coating designation.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.

B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction," unless otherwise indicated.

C. Do not splice structural members between supports, unless otherwise indicated.

D. Metal Framing Anchors: Install metal framing to comply with manufacturer's written instructions.

E. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

F. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. NES NER-272 for power-driven fasteners.
2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
3. Table 23-II-B-1, "Nailing Schedule," and Table 23-II-B-2, "Wood Structural Panel Roof Sheathing Nailing Schedule," in ICBO's Uniform Building Code.
4. Table 602.3(1), "Fastener Schedule for Structural Members," and Table 602.3(2), "Alternate Attachments," in ICC's International One- and Two-Family Dwelling Code.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06 1000

SECTION 06 2013 - EXTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Exterior wood trim.
2. Beveled wood siding.

1.2 SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by ALSC's Board of Review.

2.2 EXTERIOR TRIM

A. Lumber Trim:

1. Species and Grade: Eastern white pine, eastern hemlock-balsam fir-tamarack, eastern spruce, or white woods; Finish or 1 Common NeLMA, NLGA, WCLIB, or WWPA.
2. Maximum Moisture Content: 19 percent.
3. Face Surface: Smooth Surfaced.

2.3 LUMBER SIDING

A. Provide kiln-dried lumber siding complying with DOC PS 20**,** factory coated with exterior alkyd primer.

B. Species and Grade: Grade A western red cedar; NLGA, WCLIB, or WWPA.

C. Siding Styles:

1. Beveled or clapboard siding.

2.4 MISCELLANEOUS MATERIALS

A. Fasteners for Exterior Finish Carpentry: Provide nails in sufficient length to penetrate not less than 1-1/2 inches into wood substrate.

1. For applications indicated, provide hot-dip galvanized steel fasteners.

B. Flashing: Comply with requirements in Section 07 6200 "Sheet Metal Flashing and Trim" for flashing materials installed in exterior finish carpentry.

C. Sealants: Latex, complying with ASTM C 834, and with applicable requirements in Division 07 Section "Joint Sealants," recommended by sealant manufacturer and manufacturer of substrates for intended application.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prime lumber to be painted, including both faces and edges. Cut to required lengths and prime ends. Comply with requirements in Division 09 Section "Exterior Painting."

3.2 INSTALLATION, GENERAL

A. Install exterior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

1. Scribe and cut exterior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.

3.3 STANDING AND RUNNING TRIM INSTALLATION

A. Install flat-grain lumber with crown side exposed to weather.

B. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary.

1. Use scarf joints for end-to-end joints.
2. Stagger end joints in adjacent and related members.

C. Fit exterior joints to exclude water. Cope at returns and miter at corners to produce tight-fitting joints, with full-surface contact throughout length of joint. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.

3.4 HISTORIC SIDING REPAIRS

A. General: In treating historic items, disturb them as minimally as possible and as follows:

1. Stabilize and repair existing wood to reestablish structural integrity and weather resistance while maintaining the existing form of each item.
2. Repair items in place where possible.
3. Replace siding in the smallest sections necessary, splicing over wall studs. Stagger splices vertically to blend.
4. When replacing siding, take care when loosening upper course to prevent additional damage.

3.5 SIDING INSTALLATION

A. Install siding to comply with manufacturer's written instructions.

B. Beveled Lumber Siding: Apply starter strip along bottom edge of sheathing or sill. Install first course of siding with lower edge at least 1/8 inch below starter strip and subsequent courses lapped 1 inch over course below. Nail at each stud matching existing nailing methods. Do not allow nails to penetrate more than one thickness of siding.

END OF SECTION 06 2013

SECTION 07 6200 - SHEET METAL FLASHING AND TRIM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Sheet metal fabrications.

1.2 SUBMITTALS

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

B. Shop Drawings: Show dimensioned fabrication layouts of sheet metal flashing and trim, including plans, elevations, expansion-joint locations, and keyed details. Identify locations for each trim fabrication.

1.3 QUALITY ASSURANCE

A. To provide quality assurance for Sheet Metal Flashing and Trim comply with the following:

1. Comply with SMACNA's "Architectural Sheet Metal Manual" unless more stringent requirements are specified or shown on Drawings.

1.4 WARRANTY

A. Special Warranty on Finishes: Manufacturer's standard form in which manufacturer agrees to repair finish or replace sheet metal flashing and trim that shows evidence of deterioration of factory-applied finishes within 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Provide products for the following approved manufacturers:

1. Available Products:

a. ColorKlad by Vincent Materials;
b. Gibraltor Building Products;
c. PAC-Clad by Peterson Aluminum;
d. Others as pre-approved.

2.2 SHEET METALS

A. General: Protect mechanical and other finishes on exposed surfaces from damage by applying a strippable, temporary protective film before shipping.

B. Metallic-Coated Steel Sheet: Restricted flatness steel sheet, metallic coated by the hot-dip process and pre-painted by the coil-coating process to comply with ASTM A 755/A 755M.

1. Zinc-Coated (Galvanized) Steel Sheet: ASTM A 653/A 653M, G90 (Z275) coating designation; structural quality. 24 gauge sheet metal, primed on both sides with an acrylic wash coat on the back side. Pre-finished face side shall have a factory installed strippable film for protection during fabrication and installation.

a. Two-Coat Fluoropolymer: AAMA 621. Kynar 500 or equivalent fluoropolymer finish containing not less than 70 percent PVDF resin by weight in color coat.

2. Color: White.

C. Aluminum sheet, 0.024 inch thick or thicker as required to meet performance requirements.

a. Finish: Color anodic or baked enamel coating finish.

2. Color: White.

2.3 UNDERLAYMENT MATERIALS

A. Felt: ASTM D 226, Type II (No. 30), asphalt-saturated organic felt, nonperforated.

2.4 MISCELLANEOUS MATERIALS

A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation and recommended by manufacturer of primary sheet metal unless otherwise indicated.

B. Fasteners: Provide suitable fasteners designed to withstand wind loads and as recommended by manufacturer of primary sheet metal.

1. General: Exposed Fasteners: Heads matching color of sheet metal using factory-applied coating head.

C. Elastomeric Sealant: ASTM C 920, elastomeric polymer sealant; low modulus; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.

2.5 FABRICATION, GENERAL

A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, geometry, metal thickness, and other characteristics of item indicated. Fabricate items at the shop to greatest extent possible.

1. Obtain field measurements for accurate fit before shop fabrication.
2. Form sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
3. Conceal fasteners and expansion provisions where possible. Exposed fasteners are not allowed on faces exposed to view.

B. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant.

C. Seams: Fabricate for flat overlapping seams. Form seams and seal with elastomeric sealant unless otherwise recommended by sealant manufacturer for intended use.

2.6 COUNTERFLASHINGS

A. Siding Zee Flashings: Manufactured to dimensions indicated and in lengths not exceeding 10 feet:

1. Zinc-Coated Steel: Nominal 0.022-inch thickness.
2. Formed Aluminum: 0.024 inch thick.

2.7 FABRICATED CUSTOM FLASHINGS

A. Siding Zee Flashings: Field fabricate to profile and dimensions indicated in the Drawings.

1. Zinc-Coated Steel: Minimum 28 gauge thickness.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement so that completed sheet metal flashing and trim shall not rattle, leak, or loosen, and shall remain watertight. Use fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.

1. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and sealant.

2. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
3. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
4. Install sealant tape where indicated.

B. Metal Protection:

1. Underlayment: Where installing metal flashing directly on cementitious or wood substrates, install a course of felt underlayment and cover with a slip sheet or install a course of polyethylene sheet.

C. Fastener Sizes: Use fasteners of sizes that will penetrate wood sheathing not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws as recommended by fastener manufacturer to achieve maximum pull-out resistance.

D. Seal joints as shown and as required for watertight construction.

3.2 CLEANING AND PROTECTION

A. Clean exposed metal surfaces of substances that interfere with uniform oxidation and weathering.

B. Clean off excess sealants.

C. Remove temporary protective coverings and strippable films as sheet metal flashing and trim are installed unless otherwise indicated in manufacturer's written installation instructions.

END OF SECTION 07 6200

SECTION 07 9200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes joint sealants for the following applications:

1. Exterior joints in vertical surfaces and horizontal nontraffic surfaces.

1.2 PERFORMANCE REQUIREMENTS

A. Provide elastomeric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates.

B. Provide joint sealants for interior applications that establish and maintain airtight and water-resistant continuous joint seals without staining or deteriorating joint substrates.

1.3 SUBMITTALS

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

1.4 WARRANTY

A. Manufacturer's Warranty: Manufacturer's standard form in which elastomeric sealant manufacturer agrees to furnish elastomeric 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: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, products listed in other Part 2 articles.

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 sealant manufacturer, based on testing and field experience.

B. VOC Content of Interior Sealants: Provide interior sealants and sealant primers that comply with the following limits for VOC content when calculated according to 40 CFR 59, Subpart D (EPA Method 24):

1. Sealants: 250 g/L.
2. Sealant Primers for Nonporous Substrates: 250 g/L.
3. Sealant Primers for Porous Substrates: 775 g/L.

C. Colors of Exposed Joint Sealants: As selected by Architect from manufacturer's full range.

D. Acrylic Latex: Siliconized acrylic latex. Comply with ASTM C 834, General purpose interior and exterior sealant.

1. Available Products:
   a. Bostik Findley; Chem-Calk 600.
   b. Pecora Corporation; AC-20+.
   c. Schnee-Morehead, Inc.; SM 8200.
   d. MasterSeal; NP-520.
   e. Tremco; Tremflex 834.
   f. Others as pre-approved.

2. Type and Grade: S (single component).
3. Class: 12.5.
4. Use Related to Exposure: NT (nontraffic).
5. Uses Related to Joint Substrates: O (other) as applicable to joint substrates indicated.

2.3 MISCELLANEOUS MATERIALS

A. Masking Tape: Non-staining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants.

B. Masking Tape: Use masking tape where required to prevent contact of sealant 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.

3.2 INSTALLATION

A. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

B. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

C. 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.

D. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified 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 configuration per Figure 5A in ASTM C 1193, unless otherwise indicated.

E. 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.

3.3 EXTERIOR JOINT-SEALANT SCHEDULE

A. J Joint-Sealant Application EJS-1: Exterior joints between different materials.

1. Joint Sealant: Acrylic Latex sealant.
2. Joint-Sealant Color: White.

3.4 INTERIOR JOINT-SEALANT SCHEDULE

A. Joint-Sealant Application IJS-1: Interior joints between different materials.

1. Joint Sealant: Acrylic Latex sealant.
2. Joint-Sealant Color: Color to match adjacent materials.

END OF SECTION 07 9200

SECTION 09 2400 - CEMENT PLASTERING

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes interior vertical 2-coat cement plaster work.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 WOOD LATH

A. Wood Lath: Provide rough finished wood lath suitable for plastering, 1/4 inch thick and 1- 1/2 inches wide. Apply with spacing of 1/4 inch gaps between lath.

2.2 PLASTER MATERIALS

A. Portland Cement: ASTM C 150/C 150M, Type I.

1. Color for Finish Coats: White.

B. Masonry Cement: ASTM C 91, Type N.

1. Color for Finish Coats: White.

C. Plastic Cement: ASTM C 1328.

D. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.

E. Sand Aggregate: ASTM C 897.

2.3 PLASTER MIXES

A. General: Comply with ASTM C 926 for applications indicated.

B. Base-Coat Mixes for Use over Unit Masonry and Concrete: Single base (scratch) coat for two-coat plasterwork on high-absorption plaster bases as follows:

1. Portland Cement Mix: For cementitious material, mix 1-part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.

2. Masonry Cement Mix: Use 1 part masonry cement and 2-1/2 to 4 parts aggregate.
3. Portland and Masonry Cement Mix: For cementitious material, mix 1-part portland cement and 1 part masonry cement. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
4. Plastic Cement Mix: Use 1 part plastic cement and 2-1/2 to 4 parts aggregate.

C. Ready-Mixed Base-Coat Plaster: Mill-mixed portland cement, aggregates, coloring agents, and proprietary ingredients.

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

a. Plaster Wall Patch Dry Mix, by DAP.
b. Two-Way Hardwall Plaster, by Gold Bond.
c. Lahabra FastWall, by Parex.
d. Quikrete Stucco Finish, by Sakrete.
e. Others as pre-approved.

D. Ready-Mixed Finish-Coat Plaster: Mill-mixed portland cement, aggregates, coloring agents, and proprietary ingredients.

1. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:

a. Stucco Patch, by DAP.
b. Quick Set Gauging Plaster, by Gold Bond.
c. Lahabra PermaFinish, by Parex.
d. Quikrete Stucco Patch, by Sakrete.
e. Others as pre-approved.

2. Color: Match existing wall finish.

2.4 MISCELLANEOUS MATERIALS

A. Water for Mixing and Finishing Plaster: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.

B. Fiber for Base Coat: Polypropylene fibers, nominal 1/2 inch long, free of contaminants, manufactured for use in cement plaster meeting requirements of ASTM C1116.

C. Bonding Compound: ASTM C 932.

PART 3 - EXECUTION

3.1 WOOD LATH INSTALLATION

A. Wood Lath: Attach wood lath to framing nailed at right angles with 3d galvanized nails. Apply with spacing of 1/4 inch gaps between lath.

3.2 PLASTER INSTALLATION, GENERAL

A. Prepare smooth, solid substrates for plaster according to ASTM C 926.

3.3 PLASTER APPLICATION

A. General: Comply with ASTM C 926.

B. Application over Wood Lath:

1. Dampen the lath prior to installation to allow for a good bond and to prevent premature drying of plaster.
2. Mix base coat plaster to a consistency that will allow for proper slumping into lath gaps.
3. Add fiber to base coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities. Mix in reinforcing fibers evenly throughout.
4. Press base coat plaster into gaps between lath with trowel in a way that the plaster "slumps" over the back of the lath to form a "key & lug," which will act as a hook to hold the plaster in suspension.
5. Apply base coat to a nominal thickness of 3/8 inch.
6. Cure for 3-5 days or per manufacturer’s recommendations. After curing, dampen previous coat prior to applying finish coat.
7. Apply finish coat to a nominal thickness of 1/8 to 3/16 inch.
8. Finish inside and outside corners using a corner trowel.

C. Walls; Base-Coat Mix: For base (scratch) coat, for two-coat plasterwork and having 3/8-inch on wood lath and 1/2-inch thickness on masonry walls.

1. Allow to cure per manufacturer’s instructions before applying finish coat.

D. Plaster Finish Coats: Apply 1/8-inch to 3/16 inch thick to provide a float finish to match existing adjacent wall finish.

1. Allow to cure per manufacturer’s instructions before painting.

3.4 PLASTER REPAIRS

A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

END OF SECTION 09 2400

SECTION 09 6460 - WOOD FLOORING

1.1 SUMMARY

A. Section includes field-finished wood flooring.

1.2 SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For each type of wood floor system and accessory. Include plans, sections, and attachment details. Include expansion provisions and trim details.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Softwood Flooring: Provide flooring certification that carries MFMA mark on each bundle or piece.

B. Contractor’s option to shop fabricate flooring boards.

2.2 FIELD-FINISHED WOOD FLOORING

A. Solid-Wood Flooring: Kiln dried to 6 to 9 percent maximum moisture content; tongue and groove and end matched; with backs channeled.

1. Grade and Species: Grade C & BTR - Flooring Douglas fir.
2. Cut: Plain sawn.
3. Thickness: 3/4 inch.
4. Face Width: 3-1/8 inches. Note: Field verify exact flooring dimension to match existing.
5. Lengths: Random-length strips Random-length strips required to form pattern indicated.

2.3 ACCESSORY MATERIALS

A. Fasteners: As recommended by manufacturer, but not less than that recommended in NWFA's "Installation Guidelines."

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with flooring manufacturer's written installation instructions, but not less than applicable recommendations in NWFA's "Installation Guidelines."

B. Solid-Wood Flooring: Blind nail flooring directly to floor joists.

3.2 FIELD FINISHING

A. Machine-sand flooring to remove offsets, ridges, cups, and sanding-machine marks that are noticeable after finishing. Machine sand with coarse, medium, and fine paper to a smooth, even and uniform surface.

B. Vacuum and tack with a clean cloth immediately before applying finish.

C. See Section 09 9100 for floor stain finish.

3.3 PROTECTION

A. Protect installed wood flooring during remainder of construction period with covering of heavy kraft paper or other suitable material. Do not use plastic sheet or film that might cause condensation.

1. Do not store or move heavy and sharp objects directly over kraft-paper-covered wood flooring.

3.4 CLEANING

A. Remove and dispose of protection paper upon final completion.

B. Remove all project waste off site and legally dispose.

END OF SECTION 09 6460

SECTION 09 9100 - PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes surface preparation and the application of paint systems on the following interior substrates:

1. Steel.
2. Wood.
3. Plaster.

1.2 SUBMITTALS

A. Product Data: For each type of paint product indicated.

1.3 QUALITY ASSURANCE

A. MPI Standards:
1. Preparation and Workmanship: Comply with requirements in "MPI Architectural Painting Specification Manual" for products and paint systems indicated.

B. Mockups: Apply benchmark samples of each paint system indicated and each color and finish selected to verify preliminary selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Architect will select one surface to represent surfaces and conditions for application of each paint system.

a. Exterior Siding and Trim Surfaces: Provide mockup samples of at least 2 square feet.
b. Interior Plaster Surfaces: Provide mockup samples of at least 2 square feet.
c. Interior Floor Stain: Provide mockup sample of at least 2 square feet.

2. Final approval of color selections will be based on mockup samples.

a. If preliminary color selections are not approved, apply additional mockup samples of additional colors selected by Architect at no added cost to Owner.

3. Final approved color selections in mockups can remain as apart of the completed work.

PART 2 - PRODUCTS

2.1 PAINT, GENERAL

2.2 MANUFACTURERS

A. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to products by the following:

1. Paint Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

    a. Behr Paint Company.
    b. Benjamin Moore &Co.Diamond Vogel.
    c. Diamond Vogel.
    d. PPG Paints.
    e. Pratt & Lambert.
    f. Rust-Oleum Corp.
    g. Sherwin-Williams Company.
    h. Others as pre-approved.

2. Stain Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

    a. Benjamin Moore &Co.
    b. Diamond Vogel, Old Masters.
    c. Minwax Wood Finish.
    d. Pratt & Lambert.
    e. Olympic.
    f. Varathane.
    g. Others as pre-approved.

B. 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 top coat for use in paint system and on substrate indicated.

C. Colors: As selected or pre-selected by Architect from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

1. Wood: 15 percent.
2. Plaster: 12 percent.

C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.

D. Begin coating application only after unsatisfactory conditions have been corrected and surfaces are dry.

1. Beginning coating application constitutes Contractor's acceptance of substrates and conditions.

3.2 PREPARATION AND APPLICATION

A. Comply with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual" applicable to substrates indicated.

B. Clean substrates of substances that could impair bond of paints, including dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers as required to produce paint systems indicated.

C. New surfaces should be fully primed, and previously painted surfaces may be primed or spot primed as necessary.

D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections.

E. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.

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

G. Apply wood stain finishes according to manufacturer's written instructions. Apply evenly without streaks, spotting, or overlaps.

3.3 INTERIOR PAINTING SCHEDULE

A. Steel Substrates:

1. Latex System, Alkyd Primer MPI INT 5.1Q:

a. Prime Coat: Primer, alkyd, anti-corrosive, for metal**,** MPI #79 or zinc-rich shop primer.

b. Intermediate Coat: Latex, interior, matching topcoat.
c. Topcoat: Latex, interior, flat, MPI Gloss Level 1.

B. Gypsum Board and Plaster Substrates:

1. Latex over Latex Sealer System: MPI INT 9.2A.

1. Latex System:

a. Prime Coat: Interior latex matching topcoat.
b. Intermediate Coat: Interior latex matching topcoat.
c. Topcoat: Interior latex (eggshell).

3.4 INTERIOR STAIN SCHEDULE

A. Wood Flooring Substrates:

1. Latex over Latex Sealer System: MPI INT 9.2A.

a. Stain System: Penetrating water based wiping stain, semi-transparent finish for interior applications.
a. Coats: One to two coats to achieve desired effect.
b. Topcoat: None.

3.5 EXTERIOR PAINTING SCHEDULE

A. Wood Siding and Trim:

1. Alkyd System:

a. Primer Coat: Alkyd for Exterior Wood**,** MPI #5.
b. Intermediate Coat: Alkyd, Exterior, matching topcoat.
c. Topcoat: Alkyd, exterior flat, satin, MPI #8.
d. Color: Match existing or as indicated in the Drawings.

B. Other Substrates: Provide primer and topcoats in accordance with manufacturer's recommendations.

END OF SECTION 09 9100

MATTHEW EDEL HOUSE - VIEW OF N.E. CORNER

MATTHEW EDEL HOUSE - EAST SIDE OF BUILDING

VIEW OF S.E. CORNER PORCH & ENTRANCE

PORCH COLUMN AND FLOOR REPAIR

BASEMENT CELLAR DOORS AND EXTERIOR STAIRS

PORCH TRIM REPAIR

EXTERIOR STONE TUCK POINTING AND BOTTOM OF SIDING - RIGHT SIDE

EXTERIOR STONE TUCK POINTING AND BOTTOM OF SIDING - LEFT SIDE

CELLARWAY TUCK POINTING - RIGHT SIDE

CELLARWAY TUCK POINTING - LEFT SIDE

BASEMENT CELLARWAY - EXTERIOR STAIRS & SAGGING SILL BEAM

ROTTED FLOOR JOISTS AND FLOORING

STONE FOUNDATION NEEDING UNDERPIN & INFILL - RIGHT SIDE OF BSMT DOOR

STONE FOUNDATION NEEDING UNDERPIN & INFILL - LEFT SIDE OF BSMT DOOR

BASEMENT CHIMNEY - LOCATION OF BRICK CRACK REPAIR AND NEW SUPPORT POSTS

INTERIOR PANTRY STAIRS TO BE REBUILT

NORTH KITCHEN CHIMNEY TO BE REPAIRED

NORTH KITCHEN CHIMNEY AND PLASTER TO BE REPAIRED

ENTRANCE ROOM SAGGING ROTTED FLOOR TO BE REPLACED

Exhibit F Hazardous Materials Survey Report

DAS MEBS House Structural Repairs
214 1st St, Haverhill, Iowa 50120
Request for Quote RFQ936400-01

Due TUESDAY, JULY 15TH at 02:00 PM (CT)

Hazardous Materials Survey Report by Terracon

Limited Asbestos and Lead-Containing Paint Inspection Report

Matt Edel Blacksmith Shop Historic Site

Former Residential House

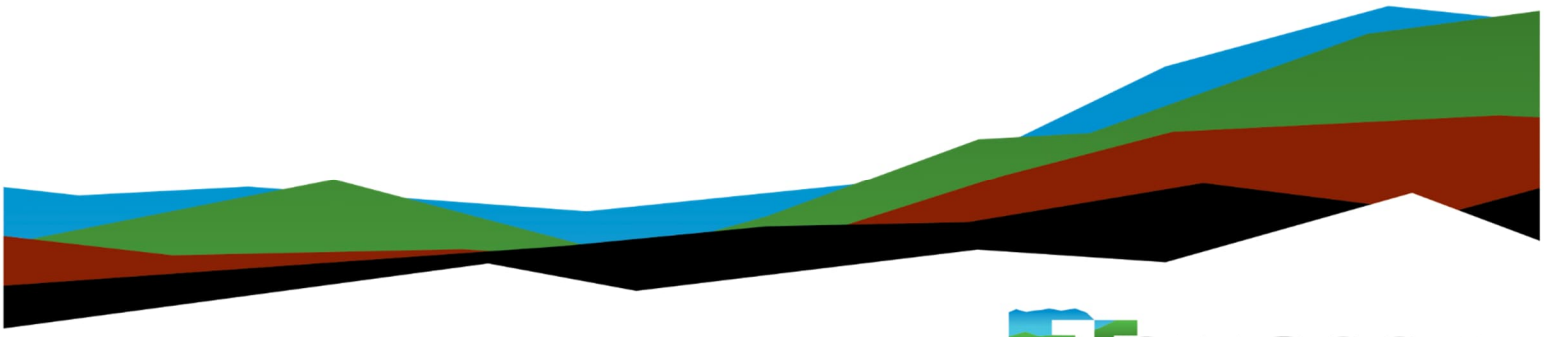
100 3rd Avenue

Haverhill, Iowa 50120

June 26, 2025 | Project Number: 08257180

Prepared for:

State of Iowa
109 SE 13th Street
Des Moines, Iowa 50319



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June 26, 2025

State of Iowa
109 SE 13th Street
Des Moines, Iowa 50319

Attn: Mr. Oliver Shimp
P (515) 675-4741
E Oliver.Shimp@iowa.gov

RE: Limited Asbestos and Lead Containing Paint Inspection Report
Matt Edel Blacksmith Shop – Former Residential House
100 3rd Avenue
Haverhill, Iowa 50120
Terracon Project No. 08257180

Dear Mr. Shimp:

Terracon Consultants, Inc. (Terracon) is pleased to present this limited asbestos and lead-containing paint inspection report to the State of Iowa (the State, or the Client). The purpose of this report is to present the findings of Terracon's services conducted on June 18, 2025, at the Matt Edel Blacksmith Shop historic site in Haverhill, Iowa. Terracon's services were completed in general accordance with Terracon Proposal No. P08257180 dated June 9, 2025.

Asbestos-containing materials were not identified; however, lead-containing coatings were identified. Please refer to the report for additional details.

Terracon appreciates the opportunity to continue to provide services to the State. If you have any questions regarding this report, please contact Austin at (515) 783-8592 or Austin.Potthoff@terracon.com.

Sincerely,
Terracon Consultants, Inc.

Prepared by:

Austin J. Potthoff
Project Manager

Reviewed by:

Matt Valenti
Authorized Project Reviewer

Table of Contents

1.0 Introduction

Terracon Consultants, Inc. (Terracon) conducted a limited asbestos and lead-containing paint inspection of the Matt Edel Blacksmith Shop historic site located at 100 3rd Avenue in Haverhill, Iowa. Terracon was requested by State of Iowa (the State, or the Client)-representative, Samuels Group (the Client-representative) to conduct the inspection in anticipation of renovation activities for the former residential house at the site. The purpose of the inspection was to:

- Locate, sample (if accessible), quantify, and assess suspect asbestos-containing building materials for the presence of asbestos; and
- Locate, measure, and quantify surface coatings (i.e., paint) for the presence of lead-containing paint (LCP)

Terracon's services were completed in general accordance with Terracon Proposal No. P08257180 dated June 9, 2025.

1.1 Project Objective

Terracon understands that the asbestos inspection was requested in support of future renovation activities and to satisfy the requirements of the United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 61, Subpart M, the National Emission Standards for Hazardous Air Pollutants (NESHAP). Terracon also understands that the intent of the inspection is to assist the client with communicating the presence, location, identity, condition, and approximate quantities of asbestos-containing materials (ACMs) in the area inspected to employees, vendors, and contractors expected to be working at the site in order to meet the requirements of the Occupational Safety and Health Administration (OSHA) communication of hazard requirements found at 29 CFR 1926.1101.

The Occupational Health and Safety Administration (OSHA) has promulgated a worker protection standard for the disturbance of lead-containing paints during demolition projects. The lead paint sampling was performed to meet informational needs to comply with the OSHA Lead in Construction Standard (29 CRF 1926.62). Currently, proposed renovations or demolition activities which may impact lead paint are subject to OSHA regulation 29 CFR 1926.62 – Lead Exposure in Construction.

Contractors should be notified of the presence of regulated materials in areas where demolition activities might result in potential employee exposures so that they can take the necessary actions to comply with OSHA requirements and disposal requirements. The Resource Conservation and Recovery Act (RCRA) provides the EPA with the authority to regulate the waste status of demolition debris, including lead-containing materials. Specific

regulatory requirements must be addressed prior to transporting, treating, storing, or disposing of regulated or hazardous waste.

1.2 Reliance

This report is for the exclusive use of the State. Reliance by any other party is prohibited without the written authorization of Terracon and the State. Reliance on this report by the State and all authorized parties is subject to the terms, conditions, and limitations stated in the proposal.

2.0 Building Description

Based on Terracon's observations, the building consists of a two-story residential structure with a basement. The project areas included the 1st floor and basement in areas anticipated to be impacted by future stabilization efforts; it is our understanding that the building is not currently structurally-sound.

Table A. Former Residential Structure Description

Building Description and Information			
Address	100 3rd Avenue		
Building Use	Unoccupied – former residential structure		
Building Area Square Footage	936 SF	Number of Floors	3 (including basement)
Construction Date	1890		

Building Construction	
Main Structure	Stone foundation
Flooring Finishes	Wood, vinyl, laminate
Interior Wall Finishes	Plaster
Ceilings	Plaster, wood
Roof Type	Asphalt, gable
HVAC[1] Equipment	Gas forced air

3.0 Field Activities

Terracon conducted the field services on June 18, 2025. The building was unoccupied at the time of the services and the utilities were active. Terracon was accompanied on site by Client-representative, Mr. Mac McKeever.

3.1 Asbestos Inspection

The asbestos inspection was conducted by Mr. Aaron Heuss, a State of Iowa licensed asbestos inspector (license # 25-12871). A copy of his license is included in Appendix F. The asbestos inspection was conducted in general accordance with the sample collection protocols established in USEPA 40 CFR 763.86, Sampling. A summary of the inspection activities is provided below.

3.1.1 Visual Assessment

The visual assessment of the project area was completed to establish homogeneous areas (HAs) of suspect ACMs. An HA consists of building materials that appear similar throughout in terms of color, texture, and date of application. The assessment was conducted in visually accessible areas of the building. Although reasonable efforts were made to inspect suspect

[1] HVAC – heating, ventilating, and air conditioning

ACM, additional suspect but unsampled materials could be located in walls, in voids, or in other concealed areas.

3.1.2 Physical Assessment

A physical assessment of each HA of suspect ACM was conducted to assess the friability and condition of the materials. A friable material is defined by the EPA as a material that can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Friability is assessed by physically touching suspect ACM.

3.1.3 Sample Collection

Based on results of the visual observation, bulk samples of suspect ACM were collected in accordance with the sampling protocols outlined in 40 CFR 763.86 – Sampling. Samples of suspect ACM were collected from randomly selected locations from each HA. Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker. The selection of sample locations and frequency of sampling were based on Terracon's observations and the assumption that like materials in the same area are homogenous in content. It should be noted that sample collection activities were limited to the identified project areas and materials anticipated to be impacted by future stabilization efforts as-indicated by the on-site Client-representative.

Terracon collected a total of 39 bulk samples from 13 HAs of suspect ACM. A summary of suspect ACM samples collected during the inspection is provided in Table 2 in Appendix A and is included as part of the chain of custody (COC) presented in Appendix B.

3.1.4 Sample Analysis

Bulk samples were submitted under COC to Eurofins J3 Resources, Inc. (Eurofins) in Pasadena, Texas, for analysis by polarized light microscopy (PLM) with dispersion staining techniques in accordance with USEPA's *Method for the Determination of Asbestos in Bulk Building Materials* (600/R-93-116). The percentage of asbestos, if present, was determined by microscopic visual estimation. Eurofins is NVLAP accredited (Lab Code 200525-0).

Eurofins separated multi-layered samples into individual layers for analysis; the laboratory analyzed a total of 39 individual layers from the samples submitted from the project areas.

3.2 Lead-Containing Paint Inspection

The lead paint portion of the inspection was completed by Mr. Aaron Heuss. The purpose of the lead-containing paint (LCP) inspection was to assess for the presence of lead in coatings that might be present in materials anticipated to be impacted by future renovation activities.

The LCP inspection was conducted concurrently with the ACM inspection. Surface coatings on building components were assessed for lead content via collection of paint chip samples. The USEPA has stated that components removed with intact LBP that is not delaminating from the substrate may be disposed as general demolition debris. If the LBP is stripped from components, or if it is delaminating from the substrate, the waste may be subject to hazardous waste rules [i.e., Toxicity Characteristics Leaching Procedure (TCLP)].

4.0 Findings and Recommendations

4.1 Asbestos Findings and Recommendations

4.1.1 Asbestos Findings

Asbestos was not identified in the samples submitted for analysis.

Table 1 contains the sample summary. Sample location diagrams are included in Appendix B. The laboratory analytical report and chain of custody are included in Appendix C.

4.1.2 Asbestos Recommendations

The State is responsible for NESHAP regulatory compliance regarding the proper removal, handling, and disposal of ACMs prior to any renovation or demolition. Per the State of Iowa regulations, please be aware that IDAS must notify the Iowa Department of Natural Resources (IDNR) at least 10 business days prior to asbestos abatement activities at certain quantity thresholds and prior to all renovation and/or demolition activities.

If additional materials are discovered during renovation activities, those materials must also either be sampled by a State of Iowa licensed asbestos inspector or assumed to contain asbestos and abated.

A summary of applicable asbestos regulations is presented in Appendix E.

4.2 Lead-Containing Paint Findings and Recommendations

4.2.1 Lead-Containing Paint Findings

Based on the LCP inspection, lead concentrations above laboratory detection limits were identified. Please refer to Table 2 in Appendix A for a summary of the LCP inspection. Lead-containing sample location diagrams are included in Appendix B.

4.2.2 Lead-Containing Paint Recommendations

The lead findings presented herein should not be construed as a comprehensive inspection of all coated surfaces in the building.

All renovation activities should adhere to the OSHA construction standards for lead; OSHA's lead standard for construction (29 CFR 1926.62) applies regardless of the lead concentration. In accordance with OSHA regulations, the results (as available) should be provided to the contractor conducting activities that will disturb lead-containing paint or other coated surfaces potentially containing lead. Where lead is present, it should be assumed that workers will be exposed to lead above the action level and personal protective measures should be implemented until an exposure assessment is completed in accordance with OSHA regulation 29 CFR 1926.62.

Lead-containing waste from renovation activities, such as debris, paint chips, dust, and sludges, that exhibit the toxicity characteristic must be managed and disposed as a hazardous waste under RCRA, with the exception of whole-building demolition debris. A composite, representative sample of the renovation debris must be tested to determine if it is regulated as hazardous waste under 40 CFR 261 Identification and Listing of Hazardous Waste. The hazardous waste criterion for lead wastes as established under RCRA, Subtitle C, is 5.0 milligrams per liter (mg/L) measured by the Toxicity Characteristic Leaching Procedure (TCLP).

A summary of applicable lead regulations is provided in Appendix E.

5.0 Limitations/General Comments

The State should understand the limitations associated with this inspection. This assessment was conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The results, findings, conclusions, and recommendations expressed in this report are based on conditions observed during the services conducted at the site. The information contained in this report is relevant to the date on which this inspection was conducted and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of and exclusively for use by the State for specific application to their project as discussed. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. Terracon does not warrant the work of regulatory agencies, laboratories, or other third parties supplying information that may have been used in the preparation of this report. No warranty, express or implied, is made.

Appendix A Tables

TABLE 1 – ASBESTOS SAMPLE SUMMARY

HA #	Sample ID	Material Description	Material Location	Sample Location	Total Asbestos Percentage and Type
01	1-PL5-1	Gray plaster	Basement	North end of basement	None Detected (ND)
	1-PL5-2			West end of basement	ND
	1-PL5-3			Entry of basement	ND
02	2-MA1-4	Red brick	Basement	Fireplace in basement	ND
	2-MA1-5			North foundation wall	ND
	2-MA1-6			West foundation wall	ND
03	3-MA3-7	Gray mortar	Basement	Fireplace in basement	ND
	3-MA3-8			North foundation wall	ND
	3-MA3-9			West foundation wall	ND
04	4-MS5-10	Multi-colored wallpaper	Dining room	North wall dining room	ND
	4-MS5-11			West wall dining room	ND
	4-MS5-12			South wall dining room	ND
05	5-PL5-13	Plaster	Kitchen parlor	North ceiling kitchen	ND
	5-PL5-14			South corner ceiling parlor	ND
	5-PL5-15			South corner ceiling parlor	ND
06	6-FC1-16	Multi-colored vinyl flooring	Dining room	Dining room floor north	ND
	6-FC1-17			West	ND
	6-FC1-18			Corber northwest	ND

HA #	Sample ID	Material Description	Material Location	Sample Location	Total Asbestos Percentage and Type
07	7-FC1-19	Multi-colored vinyl flooring	Kitchen	North end	ND
	7-FC1-20			South end	ND
	7-FC1-21			West side	ND
08	8-SC1-22	White window glazing	Kitchen windows inside door	Kitchen door	ND
	8-SC1-23				ND
	8-SC1-24				ND
09	9-FC1-25	Checkered vinyl floor (top layer)	Storage	Storage	ND
	9-FC1-26				ND
	9-FC1-27				ND
10	10-FC1-28	Black vinyl flooring (bottom layer)	Storage	Storage	ND
	10-FC1-29				ND
	10-FC1-30				ND
11	11-PL5-31	Plaster	Kitchen parlor storage	Kitchen wall north	ND
	11-PL5-32			Parlor wall south	ND
	11-PL5-33			Storage room west wall	ND
12	12-FC1-34	Multi-colored vinyl flooring	Parlor	East edge parlor floor	ND
	12-FC1-35			West edge parlor floor	ND
	12-FC1-36			South edge parlor floor	ND

HA #	Sample ID	Material Description	Material Location	Sample Location	Total Asbestos Percentage and Type
13	13-SC1-37	White window glazing	House windows	East porch window	ND
	13-SC1-38			Southwest house window	ND
	13-SC1-39			West window	ND

TABLE 2: LEAD PAINT CHIP SAMPLE SUMMARY

Results bolded indicate a paint or coating that contains lead.

Sample #	Test Location	Substrate	Color	Lead Content (% by weight)
PC 1	Front porch post	Wood	White	11
PC 2	Front porch floor	Wood	Blue	0.021
PC 3	House siding	Wood	White	7.0
PC 4	Front porch soffit	Wood	Blue	0.040
PC 5	Front door and side door	Wood	Yellow	3.4
PC 6	Outside basement door	Wood	White	0.030
PC 7	Kitchen ceiling	Plaster	Green	6.2
PC 8	Pantry	Wood	Cream	0.37
PC 9	Dining room	Wood	Brown	3.1
PC 10	Kitchen wall	Plaster	Teal	6.3
PC 11	Parlor floor	Wood	Tan	1.9

Appendix B Exhibits

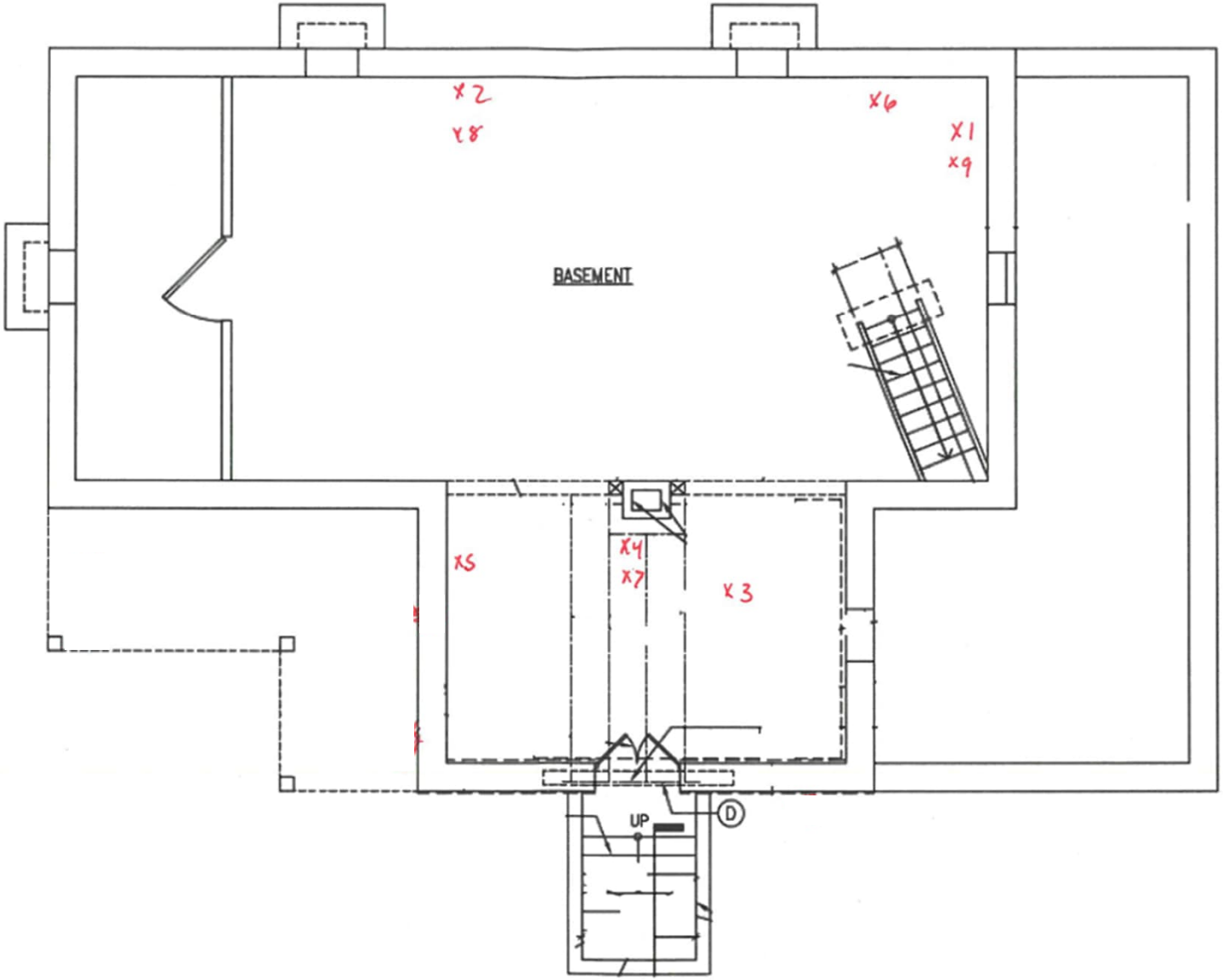

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: AJP	Project Number: 08257180
Drawn by: AJP	Scale: Not to Scale
Checked by: MV	File Name: Exhibits
Approved by: MV	Date: June 2025

Terracon
600 SW 7th Street Des Moines, Iowa 50309
PH. (515)-557-3831

Basement Asbestos Sample Location Map

Limited Asbestos and Lead-Containing Paint Inspection Report
Matt Edel Blacksmith Shop Historic Site – Former Residential House
100 3rd Avenue
Haverhill, Iowa 50120

Exhibit 1

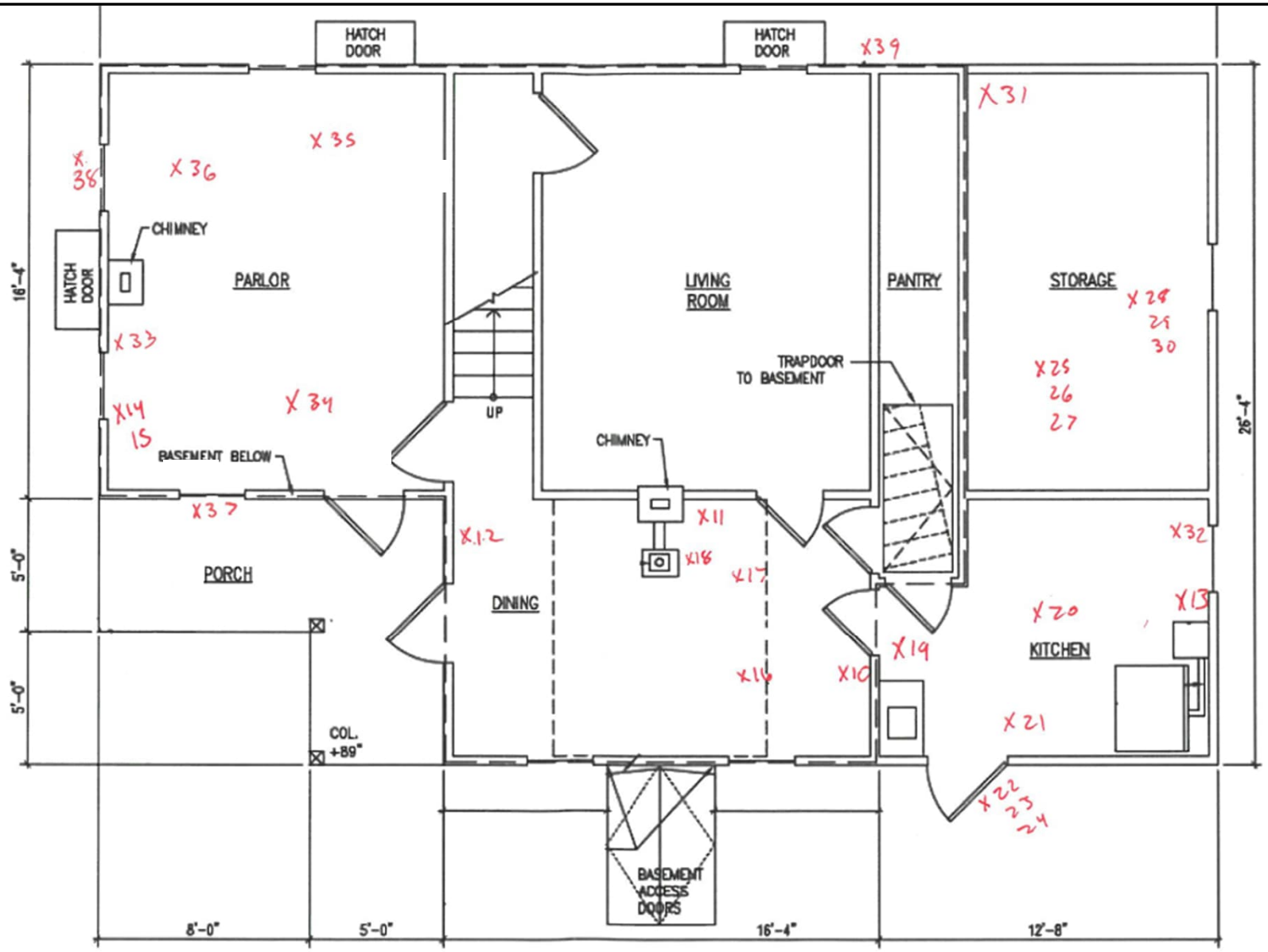

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	AJP
Drawn by:	AJP
Checked by:	MV
Approved by:	MV

Project Number:	08257180
Scale:	Not to Scale
File Name:	Exhibits
Date:	June 2025

Terracon
600 SW 7th Street Des Moines, Iowa 50309
PH. (515)-557-3831

1st Floor Asbestos Sample Location Map

Limited Asbestos and Lead-Containing Paint Inspection Report
Matt Edel Blacksmith Shop Historic Site – Former Residential House
100 3rd Avenue
Haverhill, Iowa 50120

Exhibit

2

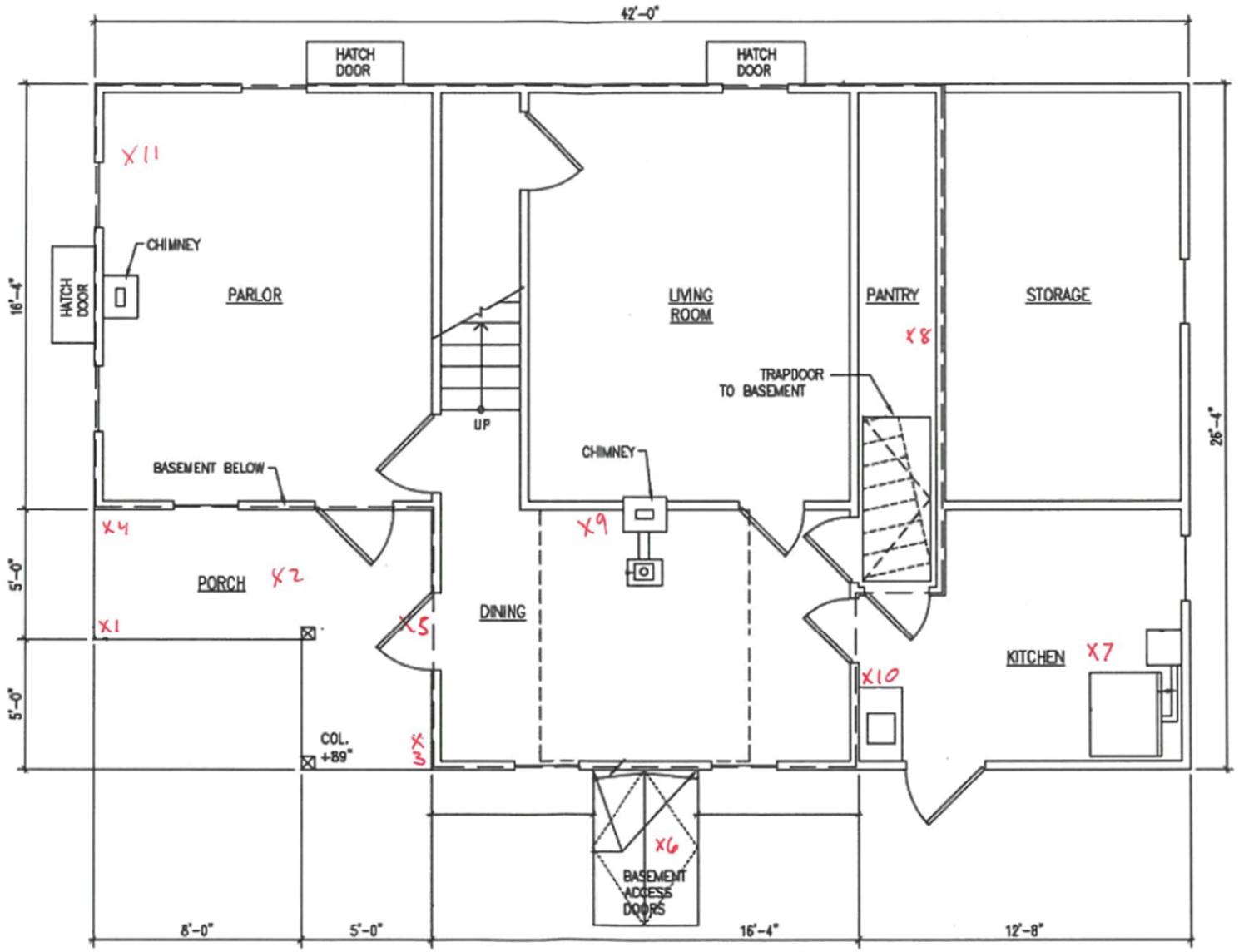

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	AJP
Drawn by:	AJP
Checked by:	MV
Approved by:	MV

Project Number:	08257180
Scale:	Not to Scale
File Name:	Exhibits
Date:	June 2025

Terracon
600 SW 7th Street Des Moines, Iowa 50309
PH. (515)-557-3831

1st Floor Lead-Containing Paint Chip Sample Location Map

Limited Asbestos and Lead-Containing Paint Inspection Report
Matt Edel Blacksmith Shop Historic Site – Former Residential House
100 3rd Avenue
Haverhill, Iowa 50120

Exhibit

3

Appendix C Laboratory Analytical Reports and COCs

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:	412506379
Customer ID:	TCON21
Customer PO:	08257180
Project ID:	

Attention:	Austin Potthoff	**Phone:**	(515) 783-8592
	Terracon Consultants, Inc.	**Fax:**	(515) 244-5249
	600 SW 7th Street	**Received Date:**	06/20/2025 10:05 AM
	Des Moines, IA 50309	**Analysis Date:**	06/21/2025 - 06/23/2025
		Collected Date:	

Project: Matt Edel Blacksmith/214 1st Street Haverhill,IA/08257180

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
1-PL5-1 *412506379-0001*	North End of Basement - Gray Plaster	Gray/Tan Non-Fibrous Homogeneous	<1% Synthetic	40% Quartz 60% Non-fibrous (Other)	None Detected
1-PL5-2 *412506379-0002*	West End of Basement - Gray Plaster	Gray/Tan Non-Fibrous Homogeneous	<1% Synthetic	40% Quartz 60% Non-fibrous (Other)	None Detected
1-PL5-3 *412506379-0003*	Entry of Basement - Gray Plaster	Tan Non-Fibrous Homogeneous	<1% Cellulose	40% Quartz 60% Non-fibrous (Other)	None Detected
2-MA1-4 *412506379-0004*	Fire Place in Basement - Red Brick	Red Non-Fibrous Homogeneous		10% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
2-MA1-5 *412506379-0005*	North Foundation Wall - Red Brick	Red Non-Fibrous Homogeneous		10% Quartz 10% Ca Carbonate 80% Non-fibrous (Other)	None Detected
2-MA1-6 *412506379-0006*	West Foundation Wall - Red Brick	Red Non-Fibrous Homogeneous	<1% Cellulose	10% Quartz 90% Non-fibrous (Other)	None Detected
3-MA3-7 *412506379-0007*	Fire Place in Basement - Gray Mortar	Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 10% Ca Carbonate 60% Non-fibrous (Other)	None Detected
3-MA3-8 *412506379-0008*	North Foundation Wall - Gray Mortar	Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 10% Ca Carbonate 60% Non-fibrous (Other)	None Detected
3-MA3-9 *412506379-0009*	West Foundation Wall - Gray Mortar	Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	30% Quartz 5% Ca Carbonate 65% Non-fibrous (Other)	None Detected
4-MS5-10 *412506379-0010*	North Wall Dining Room - Mulitcolored Wallpaper	Brown/Tan/Various Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4-MS5-11 *412506379-0011*	West Wall Dining Room - Mulitcolored Wallpaper	Brown/Tan/Various Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
4-MS5-12 *412506379-0012*	South Wall Dining Room - Mulitcolored Wallpaper	Brown/Tan Fibrous Homogeneous	95% Cellulose	5% Non-fibrous (Other)	None Detected
5-PL5-13 *412506379-0013*	North Ceiling Kitchen - Plaster	Gray Non-Fibrous Homogeneous		40% Quartz 10% Ca Carbonate 50% Non-fibrous (Other)	None Detected
5-PL5-14 *412506379-0014*	South Corner Ceiling Parlor - Plaster	Gray Non-Fibrous Homogeneous		40% Quartz 10% Ca Carbonate 50% Non-fibrous (Other)	None Detected
5-PL5-15 *412506379-0015*	South Corner Ceiling Parlor - Plaster	Gray Non-Fibrous Homogeneous		40% Quartz 5% Ca Carbonate 55% Non-fibrous (Other)	None Detected
6-FC1-16 *412506379-0016*	Dining Room Floor North - Vinyl Floor Multicolor	Gray/Red/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	10% Ca Carbonate 25% Non-fibrous (Other)	None Detected

Initial report from: 06/23/2025 17:17:22

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:	412506379
Customer ID:	TCON21
Customer PO:	08257180
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
6-FC1-17 *412506379-0017*	West - Vinyl Floor Multicolor	Gray/Red/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	5% Ca Carbonate 30% Non-fibrous (Other)	None Detected
6-FC1-18 *412506379-0018*	Corber North West - Vinyl Floor Multicolor	Brown/Red/Black Fibrous Homogeneous	70% Cellulose 5% Synthetic	3% Ca Carbonate 22% Non-fibrous (Other)	None Detected
7-FC1-19 *412506379-0019*	North End - Vinyl Floor Multicolor	Brown/Gray Fibrous Homogeneous	50% Cellulose	15% Ca Carbonate 35% Non-fibrous (Other)	None Detected
7-FC1-20 *412506379-0020*	South End - Vinyl Floor Multicolor	Brown/Gray Fibrous Homogeneous	50% Cellulose	10% Ca Carbonate 40% Non-fibrous (Other)	None Detected
7-FC1-21 *412506379-0021*	West Side - Vinyl Floor Multicolor	Brown/Tan/Red Fibrous Homogeneous	60% Cellulose	10% Ca Carbonate 30% Non-fibrous (Other)	None Detected
8-SC1-22 *412506379-0022*	Kitchen Door - White Window Glaze	Gray/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
8-SC1-23 *412506379-0023*	Kitchen Door - White Window Glaze	Gray/Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
8-SC1-24 *412506379-0024*	Kitchen Door - White Window Glaze	Gray/Tan/Black Non-Fibrous Heterogeneous		70% Ca Carbonate 30% Non-fibrous (Other)	None Detected
9-FC1-25 *412506379-0025*	Storage - Checkered Vinyl Floor Top Layer	Gray/Red/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	10% Ca Carbonate 25% Non-fibrous (Other)	None Detected
9-FC1-26 *412506379-0026*	Storage - Checkered Vinyl Floor Top Layer	Gray/Red/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	10% Ca Carbonate 25% Non-fibrous (Other)	None Detected
9-FC1-27 *412506379-0027*	Storage - Checkered Vinyl Floor Top Layer	Red/Black/Blue Fibrous Homogeneous	60% Cellulose 3% Synthetic	5% Ca Carbonate 32% Non-fibrous (Other)	None Detected
10-FC1-28 *412506379-0028*	Storage - Vinyl Floor Black Bottom Layer	Brown/Red/Black Fibrous Homogeneous	50% Cellulose	10% Ca Carbonate 40% Non-fibrous (Other)	None Detected
10-FC1-29 *412506379-0029*	Storage - Vinyl Floor Black Bottom Layer	Brown/Red/Black Fibrous Homogeneous	50% Cellulose	10% Ca Carbonate 40% Non-fibrous (Other)	None Detected
10-FC1-30 *412506379-0030*	Storage - Vinyl Floor Black Bottom Layer	Brown/Red/Black Fibrous Homogeneous	40% Cellulose	10% Ca Carbonate 50% Non-fibrous (Other)	None Detected
11-PL5-31 *412506379-0031*	Kitchen Wall North - Plaster	Gray/Tan Non-Fibrous Homogeneous	5% Synthetic	40% Quartz 10% Ca Carbonate 45% Non-fibrous (Other)	None Detected
11-PL5-32 *412506379-0032*	Parlor Wall South - Plaster	Gray/Tan Non-Fibrous Homogeneous	5% Synthetic	40% Quartz 55% Non-fibrous (Other)	None Detected
11-PL5-33 *412506379-0033*	Storage Room West Wall - Plaster	Gray/Tan Non-Fibrous Homogeneous	<1% Cellulose	40% Quartz 60% Non-fibrous (Other)	None Detected
12-FC1-34 *412506379-0034*	East Edge Parlor Floor - Vinyl Floor Multicolor	Gray/Tan/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	10% Ca Carbonate 25% Non-fibrous (Other)	None Detected
12-FC1-35 *412506379-0035*	West Edge Parlor Floor - Vinyl Floor Multicolor	Gray/Tan/Black Fibrous Homogeneous	60% Cellulose 5% Synthetic	10% Ca Carbonate 25% Non-fibrous (Other)	None Detected

Initial report from: 06/23/2025 17:17:22

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:	412506379
Customer ID:	TCON21
Customer PO:	08257180
Project ID:	

Test Report: Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
12-FC1-36 *412506379-0036*	South Edge Parlor Floor - Vinyl Floor Multicolor	Brown/Tan/Black Fibrous Homogeneous	60% Cellulose	10% Ca Carbonate 30% Non-fibrous (Other)	None Detected
13-SC1-37 *412506379-0037*	East Porch Window - White Window Glaze	White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-SC1-38 *412506379-0038*	South West House Window - White Window Glaze	Tan/White Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
13-SC1-39 *412506379-0039*	West Window - White Window Glaze	Gray/Tan Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected

Analyst(s)

David Zalewski (13)
Maggie Pasour (26)

Lee Plumley, Laboratory Manager
or Other Approved Signatory

Initial report from: 06/23/2025 17:17:22

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 412506379

Select a Laboratory:

Des Moines: 600 SW 7th St., Ste. M, Des Moines, IA 50309 (515) 244 3184

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:	Matt Edel Blacksmith	Project Number:	08257180	Project Manager:	Austin Potthoff
Project Address:	214 1st Street Haverhill, IA	City/State / Zip:	Haverhill, Iowa 50120	Email Results To:	austin.potthoff@terracon.com
Site/Building:					

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
1 - PLS - 1	North end of basement	basement	Gray Plaster	800 sf	F C1 C2 RACM	G D (SD)
- - 2	West end of basement					
- - 3	entry of basement					
2 - MA1 - 4	Fire Place in basement	Basement	Red Brick	500sf	F C1 (C2)	G D (SD)
- - 5	North foundation wall					
- - 6	west foundation wall					
3 - MA3 - 7	Fire Place in basement	Basement	gray mortar	100 sf	F C1 (C2)	G D (SD)
- - 8	North foundation wall					
- - 9	west foundation wall					
4 - MSS - 10	North wall Dining Room	Dining Room	Multi colored wall paper	400 sf	F C1 (C2)	G D (SD)
- - 11	West wall Dining Room					
- - 12	South wall Dining Room					
5 - PLS - 13	north ceiling Kitchen	Kitchen Parlor	Plaster	1500 sf	F C1 C2 RACM	G (D) SD
- - 14	south corner ceiling Parlor					
- - 15	South corner CeilingParlor					

Sampling Date: 6-19-2025 Collected by (print): Aaron S. Heuss Inspector's Signature:

Relinquished by: Aaron S. Heuss Date/Time: 6-19-2025 / 3:00 Received by: CG Date/Time: 6/20/25 1005

Analysis: PLM EPA 600/R-93/116 ☒ PLM 400 Point Count ☐ TEM ☐ Other _____ Instructions:

Turnaround Time (circle): 6 Hrs 24 Hrs 2 Days (3 Days) 5 Days Other _____ Terracon ARMS: ☐ Stop Positive: ☐ Number of samples: 39

EFX 7918 1191 4931 (2/3)

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

[2] G = Good (<1%); D = Damaged (<10% distributed or >25% localized); or SD = Significantly Damaged (>10% distributed or localized)

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 412506379

Select a Laboratory:

Des Moines: 600 SW 7th St., Ste. M, Des Moines, IA 50309 (515) 244 3184

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:		Project Number:		Project Manager:	
Project Address:		City/State / Zip:		Email Results To:	
Site/Building:					

Sample Identification HA - BS Code - Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
6 - FC1 - 16	Dining Room Floor North	Dining Room	vinyl Floor multi color	200 sf	F C1 C2 RACM	G (D) SD
- - 17	west					
- - 18	corner North west					
7 - FC1 - 19	North end	Kitchen	vinyl Floor multi color	200 sf	F C1 C2 RACM	G (D) SD
- - 20	South end					
- - 21	west side					
8 - SC1 - 22	Kitchen door	Kitchen windows inside door	White Window Glaze	each 10 Lf 3 doors	F C1 (C2)	G (D) SD
- - 23	Kitchen door					
- - 24	Kitchen door					
9 - FC1 - 25	Storage	Storage	checkered vinyl Floor top layer	50 sf	F C1 C2 RACM	G (D) SD
- - 26	Storage					
- - 27	storage					
10 - FC1 - 28	Storage	Storage	vinyl Floor black bottom layer	100 sf	F C1 C2 RACM	G (D) SD
- - 29	Storage					
- - 30	storage					

Sampling Date: Collected by (print): Inspector's Signature:

Relinquished by: Date/Time: Received by: Date/Time:

Analysis: PLM EPA 600/R-93/116 ☐ PLM 400 Point Count ☐ TEM ☐ Other _____

Turnaround Time (circle): 6 Hrs 24 Hrs 2 Days 3 Days 5 Days Other _____

Instructions:

Terracon ARMS: ☐ Stop Positive: ☐ Number of samples: _____

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

[2] G = Good (<1%); D = Damaged (<10% distributed or >25% localized); or SD = Significantly Damaged (>10% distributed or

1857

Terracon

Asbestos Bulk Sample and Chain of Custody Form

Lab Order ID: 4125060379

Select a Laboratory:

Des Moines: 600 SW 7th St., Ste. M, Des Moines, IA 50309 (515) 244 3184

Lab Location: HQ - Cinnaminson, NJ 101048-0

Project Name:		Project Number:		Project Manager:	
Project Address:		City/State / Zip:		Email Results To:	
Site/Building:					

Sample Identification HA – BS Code – Sample #	Sample Location Description	HA General Location	Material Description (Type; Color/Texture)	Quantity (SF, LF, Cubic Ft, Units)	NESHAP Classification[1]	Notes/Physical Condition[2]
11 - PLS - 31	Kitchen wall north	Kitchen	Plaster	1500	F C1 C2 RACM	G (D) SD
- - 32	Parlor wall South	Parlor				
- - 33	Storage Room west wall	Storage				
12 - FCI - 34	East edge Parlor Floor	Parlor	vinyl Floor multi color	200 sf	F C1 C2 RACM	G (D) SD
- - 35	west edge Parlor Floor					
- - 36	South edge Parlor Floor					
13 - SCI - 37	East Porch window	House windows	white window glaze	14 windows	F C1 (C2)	(G) D SD
- - 38	South west house window					
- - 39	west window					
- -					F C1 C2	G D SD
- -						
- -						
- -					F C1 C2	G D SD
- -						
- -						

Sampling Date: Collected by (print): Inspector's Signature:

Relinquished by: Date/Time: Received by: Date/Time:

Analysis: PLM EPA 600/R-93/116 ☐ PLM 400 Point Count ☐ TEM ☐ Other _____

Turnaround Time (circle): 6 Hrs 24 Hrs 2 Days 3 Days 5 Days Other _____

Instructions:

Terracon ARMS: ☐ Stop Positive: ☐ Number of samples: _____

[1] F = Friable; C1 = Category I: packings, gaskets, asphaltic roofing products, resilient flooring; C2 = Category II Non-Friable: any materials other than Cat. I containing >1% asbestos

[2] G = Good (<1%); D = Damaged (<10% distributed or >25% localized); or SD = Significantly Damaged (>10% distributed or >25% localized)

EMSL Analytical, Inc.

10801 Southern Loop Blvd, Pineville, NC, 28134
Telephone: (704) 525-2205 Fax:(704) 525-2382
emsl.com

EMSL Order ID: 412550711
LIMS Reference ID: LD50711
EMSL Customer ID: TCON21

Attention: Austin Potthoff
Terracon Consultants, Inc. [TCON21]
600 SW 7th StreetSte. M
Des Moines, IA 50309
(515) 783-8592
austin.potthoff@terracon.com

Project Name: 08257180

Customer PO: 08257180
EMSL Sales Rep: Jason McDonald
Received: 06/20/2025 10:05
Reported: 06/25/2025 09:02

Analytical Results

Analyte	Results	RL	Weight(g)	Prep Date & Tech	Prep Method	Analysis Date & Analyst	Analytical Method	Q	DF
Client Sample ID: P.C. 1/Front Porch Post									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-01**
Lead	11 % wt	0.92 % wt	0.2606	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	150
Sample Comments:									
Client Sample ID: P.C. 2/Front Porch Floor									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-02**
Lead	0.021 % wt	0.0064 % wt	0.2527	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B		1
Sample Comments:									
Client Sample ID: P.C. 3/House Siding									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-03**
Lead	7.0 % wt	0.61 % wt	0.2617	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	100
Sample Comments:									
Client Sample ID: P.C. 4/Front Porch Soffit									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-04**
Lead	0.040 % wt	0.0080 % wt	0.2004	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B		1
Sample Comments:									
Client Sample ID: P.C. 5/Front Door & Side Door									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-05**
Lead	3.4 % wt	0.25 % wt	0.2511	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	40
Sample Comments:									
Client Sample ID: P.C. 6/Outside Basement Door									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-06**
Lead	0.030 % wt	0.0064 % wt	0.267	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B		1
Sample Comments:									
Client Sample ID: P.C. 7/Kitchen Ceiling									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-07**
Lead	6.2 % wt	0.47 % wt	0.2752	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	80
Sample Comments:									
Client Sample ID: P.C. 8/Pantry									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-08**
Lead	0.37 % wt	0.012 % wt	0.2763	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	2
Sample Comments:									
Client Sample ID: P.C. 9/Dining Room									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-09**
Lead	3.1 % wt	0.24 % wt	0.265	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	40
Sample Comments:									

EMSL Analytical, Inc.

10801 Southern Loop Blvd, Pineville, NC, 28134
Telephone: (704) 525-2205 Fax:(704) 525-2382
emsl.com

EMSL Order ID: 412550711
LIMS Reference ID: LD50711
EMSL Customer ID: TCON21

Attention: Austin Potthoff
Terracon Consultants, Inc. [TCON21]
600 SW 7th StreetSte. M
Des Moines, IA 50309
(515) 783-8592
austin.potthoff@terracon.com

Project Name: 08257180

Customer PO: 08257180
EMSL Sales Rep: Jason McDonald
Received: 06/20/2025 10:05
Reported: 06/25/2025 09:02

Analytical Results (Continued)

Analyte	Results	RL	Weight(g)	Prep Date & Tech	Prep Method	Analysis Date & Analyst	Analytical Method	Q	DF
Client Sample ID: P.C. 10/Kitchen Wall									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-10**
Lead	6.3 % wt	0.50 % wt	0.2561	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	80
Sample Comments:									
Client Sample ID: P.C. 11/Parlor Floor									**Date Sampled: 06/19/25**
Matrix: Chips									**LIMS Reference ID: LD50711-11**
Lead	1.9 % wt	0.60 % wt	0.2652	06/24/25 MSX	SW-846 3050B	06/24/25 MTS	SW 846-7000B	D	100
Sample Comments:									

EMSL Analytical, Inc.

10801 Southern Loop Blvd, Pineville, NC, 28134
Telephone: (704) 525-2205 Fax:(704) 525-2382
emsl.com

EMSL Order ID: 412550711
LIMS Reference ID: LD50711
EMSL Customer ID: TCON21

Attention: Austin Potthoff
Terracon Consultants, Inc. [TCON21]
600 SW 7th StreetSte. M
Des Moines, IA 50309
(515) 783-8592
austin.potthoff@terracon.com

Project Name: 08257180

Customer PO: 08257180
EMSL Sales Rep: Jason McDonald
Received: 06/20/2025 10:05
Reported: 06/25/2025 09:02

Certified Analyses included in this Report

Analyte	Certifications
SW 846-7000B in Chips	
Lead	41-AIHA ELLAP

List of Certifications

Code	Description	Number	Expires
41-AIHA ELLAP	American Industrial Hygiene Association (AIHA LAP, LLC) - ELLAP	192283	12/01/2026
41-AIHA EMLAP	American Industrial Hygiene Association (AIHA LAP, LLC) - EMLAP	192283	12/01/2026
41-AIHA IHLAP	American Industrial Hygiene Association (AIHA LAP, LLC) - IHLAP	192283	12/01/2026

Please see the specific Field of Testing (FOT) on www.emsl.com <http://www.emsl.com> for a complete listing of parameters for which EMSL is certified.

Notes and Definitions

Item	Definition
D	Analyte was reported from a dilution run.
(Dig)	For metals analysis, sample was digested.
[2C]	Reported from the second channel in dual column analysis.
DA	Direct Analysis
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
NR	Spike/Surrogate showed no recovery.
Q	Qualifier
RCS	Respirable Crystalline Silica
RL	Reporting Limit
Wet	Sample is not dry weight corrected.

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

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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. QC sample results are within quality control criteria and met method specifications unless otherwise noted. All results for soil samples are reported on a dry weight basis, unless otherwise noted.

Analysis following EMSL SOP for the Determination of Environmental Lead by FLAA. The laboratory has a reporting limit of 0.0064% by wt., based upon a minimum sample weight of 0.25g submitted to the lab, and is not responsible for any result or reporting limit provided in mg/cm2 since it is dependent upon an area value provided by non-lab personnel. A "<" (less than) result signifies that the analyte was not detected at or above the reporting limit. Measurement of uncertainty and definitions of modifications are available upon request. Results in this report are not blank corrected unless specified.

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Lead Chain of Custody

EMSL Order Number / Lab Use Only

LD50711

EMSL Analytical, Inc.
10801 Southern Loop Blvd
Pineville, North Carolina 28134

PHONE: (704) 525-2205
EMAIL: charlottelab@emsl.com

Customer Information		Billing Information	
Customer ID:		Billing ID:	Same as left column
Company Name:	Terracon Consultants, Inc.	Company Name:	
Contact Name:	Austin Potthoff	Billing Contact:	
Street Address:	600 SW 7th Street, Suite M	Street Address:	
City, State, Zip:	Des Moines, Iowa 50309	Country: US	City, State, Zip: / Country:
Phone:	515-783-8592	Phone:	
Email(s) for Report:	Austin.Potthoff@terracon.com	Email(s) for Invoice:	

Project Information

Project Name/No:	082577180	Purchase Order:	
EMSL LIMS Project ID: (If applicable, EMSL will provide)		US State where samples collected:	IA
State of Connecticut (CT) must select project location:	☐ Commercial (Taxable) ☐ Residential (Non-Taxable)		
Sampled By Name:	Aaron S. Heuss	Sampled By Signature:	
No. of Samples in Shipment	11		

Turn-Around-Time (TAT)

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 32 Hour ☐ 48 Hour ☒ 72 Hour ☐ 96 Hour ☑ 1 Week ☐ 2 Week

Please call ahead for large projects and/or turnaround times 8 Hours or Less. *32 Hour TAT available for select tests only; samples must be submitted by 11:30am.

MATRIX	METHOD	INSTRUMENT	REPORTING LIMIT	SELECTION
CHIPS ☒ % by wt. ☐ ppm (mg/kg) ☐ mg/cm² *Reporting Limit based on a minimum 0.25g sample weight. **Not appropriate for Ceramic Tiles - XRF is recommended	SW 846-7000B	Flame Atomic Absorption	0.008% (80ppm)	☒
	SW 846-6010D*	ICP-OES	0.0004% (4ppm)	☐
AIR	NIOSH 7082	Flame Atomic Absorption	4µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-OES	0.5µg/filter	☐
	NIOSH 7300M / NIOSH 7303M	ICP-MS	0.05µg/filter	☐
WIPE ☐ ASTM ☐ NON-ASTM *If no box is checked, non-ASTM Wipe is assumed	SW 846-7000B	Flame Atomic Absorption	10µg/wipe	☐
	SW 846-6010D*	ICP-OES	1.0µg/wipe	☐
TCLP	SW 846-1311 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1311 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
SPLP	SW 846-1312 / 7000B / SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	SW 846-1312 / SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
TTLC	22 CCR App. II, 7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
STLC	22 CCR App. II, 7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
	22 CCR App. II, SW 846-6010D*	ICP-OES	0.1 mg/L (ppm)	☐
Soil	SW 846-7000B	Flame Atomic Absorption	40mg/kg (ppm)	☐
	SW 846-6010D*	ICP-OES	2mg/kg (ppm)	☐
Wastewater	SM 3111B / SW 846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.7	ICP-OES	0.020 mg/L (ppm)	☐
Drinking Water	EPA 200.5	ICP-OES	0.003 mg/L (ppm)	☐
Unpreserved ☐ / Preserved with HNO3 ☐ PH<2	EPA 200.8	ICP-MS	0.001 mg/L (ppm)	☐
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter	☐
Other:				☐

Sample Number	Sample Location	Color ~~Volume/Area~~ Substrate	Date / Time Sampled
P.C. 1	Front Porch Post	White - Wood	6/19/25 9:30 AM
P.C. 2	Front Porch Floor	Blue - Wood	
P.C. 3	House siding	White - Wood	
P.C. 4	Front Porch Soffit	Blue - Wood	
P.C. 5	Front door & side door	Yellow - Wood	

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by: Aaron S. Heuss	Date/Time: 6-19-2025 / 3:00	Received by: CG	Date/Time: 6/20/25 1005
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-25 Lead R17 05/09/2022

*6010C Available Upon Request

EFX 7918 1191 4931 (113)

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

EMSL ANALYTICAL, INC.
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EMSL Analytical, Inc.
10801 Southern Loop Blvd
Pineville, North Carolina 28134

PHONE: (704) 525-2205
EMAIL: charlottelab@emsl.com

Lead Chain of Custody

EMSL Order Number / Lab Use Only

LD50711

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.)

Sample Number	Sample Location	Color	Volume / Area	Substrate	Date / Time Sampled
6	outside basement door	White		Wood	6/9/25, 9:30 AM
7	Kitchen Ceiling	Green		Plaster	
8	Pantry	Cream		Wood	
9	Dining Room	Brown		Wood	
10	Kitchen Wall	Teal		Plaster	
11	Parlor Floor	Tan		Wood	

Method of Shipment:		Sample Condition Upon Receipt:	
Relinquished by:	Date/Time:	Received by:	Date/Time
Relinquished by:	Date/Time:	Received by:	Date/Time

Controlled Document - COC-25 Lead R17 05/09/2022

☐ AGREE TO ELECTRONIC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.)

Appendix D Photographic Documentation

PHOTOGRAPHIC DOCUMENTATION
Limited Asbestos and Lead-Containing Paint Inspection Report
Matt Edel Blacksmith Shop Historical Site, Haverhill, Iowa

Photo 1: View of the exterior of the site.

Photo 2: View of the interior of the site.

Photo 3: View of the interior of the site.

Photo 4: View of the interior of the site.

Photo 5: View of the interior of the site.

Photo 6: View of the exterior of the site.

Photo 7: PC 1: Confirmed lead-containing white paint on an exterior wood post.

Photo 8: PC 2: Confirmed lead-containing blue paint on the front porch floor.

Photo 9: PC 3: Confirmed lead-containing white paint on the house siding.

Photo 10: PC 4: Confirmed lead-containing blue paint on the front porch soffit.

Photo 11: PC 5: Confirmed lead-containing yellow paint on the front and side door of the house.

Photo 12: PC 6: Confirmed lead-containing white paint on the wood basement cellar door.

Photo 13: PC 7: Confirmed lead-containing green paint on the plaster kitchen ceiling.

Photo 14: PC 8: Confirmed lead-containing cream paint in the pantry.

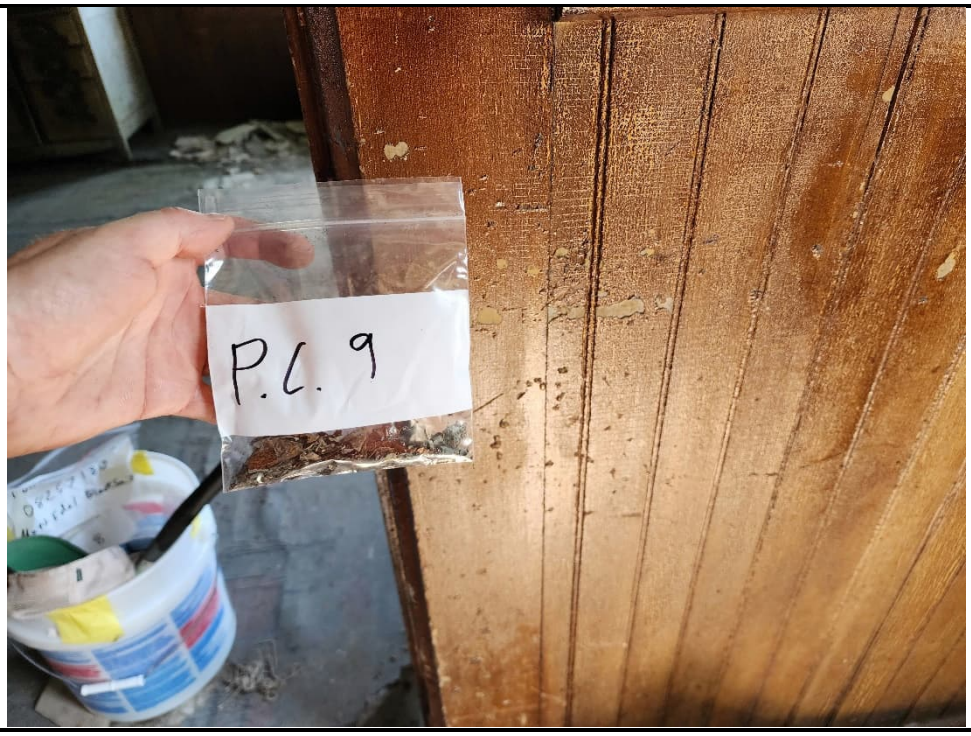

Photo 15: PC 9: Confirmed lead-containing brown paint in the dining room.

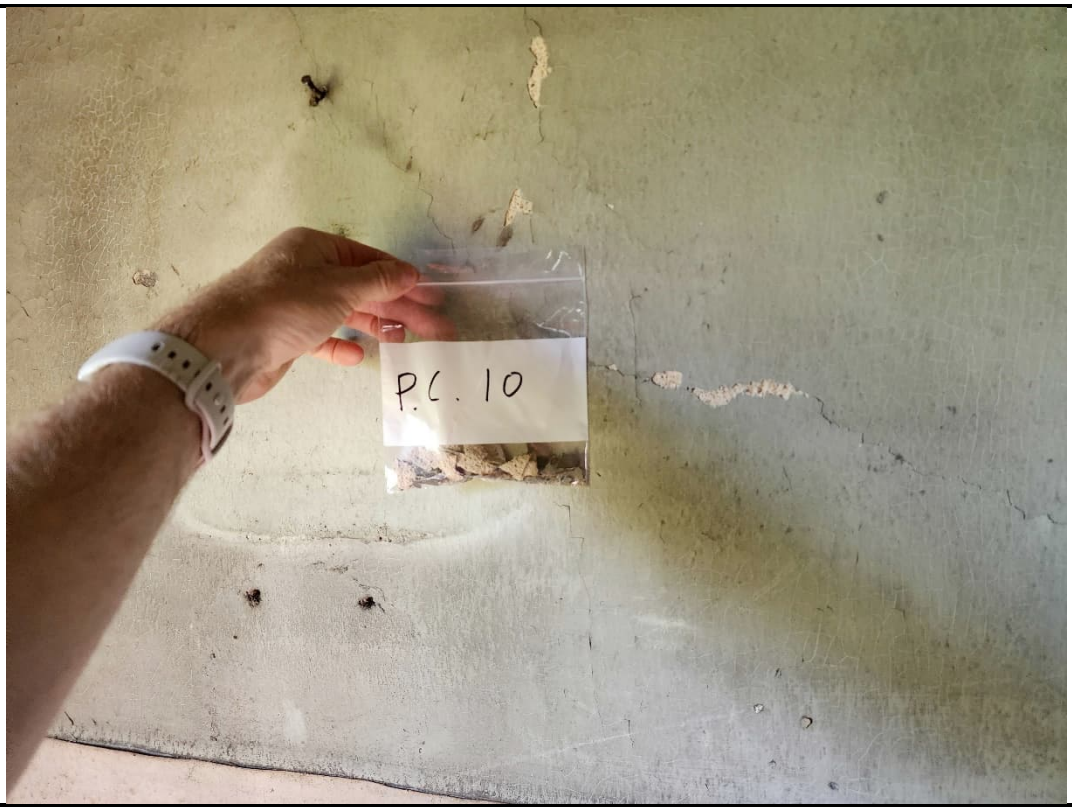

Photo 16: PC 10: Confirmed lead-containing teal paint on the plaster kitchen wall.

Photo 17: PC 11: Confirmed lead-containing tan paint on the parlor floor.

Appendix E: Regulatory Overview

Asbestos Regulations

In Iowa, asbestos activities are regulated by the Iowa Department of Natural Resources (IDNR) and Iowa Workforce Development (IWD), Division of Labor. IDNR regulates asbestos fiber emissions under Iowa Administrative Code 567 Chapter 23 (IAC 567–23) and asbestos-containing waste disposal under IAC 567–109. IWD regulates occupational exposure to asbestos under IAC 875–10 and asbestos removal and encapsulation activities under IAC 875–155.

IAC 567–23.1(3) adopts the United States Environmental Protection Agency's (USEPA) asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP; 40 Code of Federal Regulations (CFR) CFR Part 61, Subpart M) by reference. Subpart M regulates asbestos fiber emissions and asbestos waste disposal practices. It also requires the identification and classification of existing building materials prior to demolition or renovation activity. Under NESHAP, asbestos-containing building materials are classified as friable, Category I nonfriable, or Category II nonfriable ACM. Friable materials are those that, when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. Category I nonfriable ACM includes packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos. Category II nonfriable ACM are any materials other than Category I materials that contain more than 1% asbestos.

Regulated ACM (RACM) must be removed before renovation or demolition activities that will disturb the materials. RACM includes:

- Friable ACM;
- Category I nonfriable ACM that has become friable or will be subjected to drilling, sanding, grinding, cutting, or abrading; and
- Category II nonfriable ACM that could be crumbled, pulverized, or reduced to powder during renovation or demolition activities.

The owner or operator must provide the IDNR and IWD with written notification of planned removal activities at least 10 working days prior to the commencement of asbestos abatement activities. Removal of RACM must be conducted by an Iowa-permitted asbestos abatement contractor.

IAC 875–155 Asbestos Removal and Encapsulation requires that any asbestos-related activity conducted in a public building be performed by personnel licensed or permitted by the IWD. Inspections for ACM must be conducted by IWD-licensed inspectors. Asbestos abatement must be performed by IWD-permitted asbestos abatement contractors. Management plans developed for the in-place management of asbestos-containing materials must be developed by an IWD-licensed management planner. When an abatement project design is prepared, it must be prepared by an IWD-licensed project designer.

IAC 875–10 adopts the Occupational Safety and Health Administration (OSHA) Asbestos standard for construction (29 CFR 1926.1101) by reference. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below the permissible exposure limits (PEL) of 0.1 asbestos fiber per cubic centimeter of air (0.1 f/cc) as an 8-hour time-weighted average and 1.0 f/cc as a 30-minute excursion. The OSHA standard classifies construction and maintenance activities that could disturb ACM and specifies work practices and precautions that employers must follow when engaging in each class of regulated work.

OSHA Standard Interpretation – Compliance requirements for renovation work involving material containing 1% or less asbestos
https://www.osha.gov/laws-regs/standardinterpretations/2003-11-24-0

Compliance requirements for renovation work involving material containing 1% or less asbestos general summary:

The OSHA asbestos standard contains numerous work practice requirements and prohibitions which apply, regardless of the exposure levels. However, only two of the requirements and three of the prohibitions must be observed in the case of work activities involving installed construction materials that do not contain >1% asbestos. Those work practice requirements and prohibitions that must be observed regardless of the exposure levels and of the percentage of asbestos in the installed construction materials are:

- 29 CFR 1926.1101(g)(1)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii)[2] of this section;
- 29 CFR 1926.1101(g)(1)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)[3] of this section apply;
- 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air; and
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos.

There are also other provisions that apply to work activities involving installed construction materials even where the material does not contain >1% asbestos. However, if neither asbestos PEL is exceeded, only the following few provisions apply:

- 29 CFR 1926.1101(f)(2)(i), the provision for establishing that neither asbestos PEL is exceeded: Each employer who has a workplace or work operation covered by this standard shall ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment," and to provide information necessary to assure that all control systems planned are appropriate for that operation and will work properly.

- 29 CFR 1926.1101(f)(6)(i), a provision covering the observation of monitoring: The employer shall provide affected employees and their designated representatives an opportunity to observe any monitoring of employee exposure to asbestos conducted in accordance with this section;
- 29 CFR 1926.1101(f)(5)(i), a provision covering employee notification of monitoring results: The employer shall notify affected employees of the monitoring results that represent that employee's exposure as soon as possible following receipt of monitoring results;
- 29 CFR 1926.1101(f)(5)(ii), another provision covering employee notification of monitoring results: The employer shall notify affected employees of the results of monitoring representing the employee's exposure in writing either individually or by posting at a centrally located place that is accessible to affected employees; and
- 29 CFR 1926.1101(n)(2)(i)-(iii), a set of provisions covering recordkeeping for measurements of exposures to airborne asbestos.

There are numerous additional provisions of the standard that apply to work activities involving installed construction materials even where the material does not contain >1% asbestos if at least one of the asbestos PELs is exceeded.

Lead-Containing Paint (LCP) Regulations

LCP waste from renovation or demolition activities, such as debris, paint chips, dust, and sludges, that exhibit the toxicity characteristic must be managed and disposed as a hazardous waste under RCRA, with the exception of whole-building demolition debris. Whole-building demolition debris is considered a non-hazardous waste with regard to lead. Therefore, no sampling/analysis of painted components for lead is required for disposal as non-hazardous waste. If it is not a whole-building demolition debris, a composite representative sample of the demolition debris must be tested to determine if it is regulated as hazardous waste under 40 CFR 261 Identification and Listing of Hazardous Waste.

IAC 875-10 adopts the OSHA lead standard for construction (29 CFR 1926.62) by reference. For the purpose of the standard, lead includes metallic lead, all inorganic lead compounds, and organic lead soaps. The OSHA standard does not define the amount of lead in paint that constitutes LCP, and it applies to all construction work where an employee may be occupationally exposed to lead. All work related to construction, alteration, or repair (including painting and decorating) is included. The standard applies to any detectable concentration of lead in paint, as even small concentrations of lead can result in unacceptable employee exposures depending upon the method of removal and other workplace conditions. Under this standard, construction includes, but is not limited to, the following:

- Demolition or salvage of structures where lead or materials containing lead are present
- Removal or encapsulation of materials containing lead
- New construction, alteration, repair, or renovation of structures, substrates, or portions containing lead, or materials containing lead
- Installation of products containing lead
- Lead contamination/emergency clean-up
- Transportation, disposal, storage, or containment of lead or materials containing lead on the site or location at which construction activities are performed

- Maintenance operations associated with construction activities described above

Employers must ensure that no employee will be exposed to lead at concentrations greater than the PEL of 50 μg/m^3 averaged over an eight-hour period without adequate protection. The OSHA standard also establishes an AL of 30 μg/m^3, which if exceeded, triggers certain requirements, including periodic exposure monitoring and medical monitoring.

Appendix F Inspector License

AARON HEUSS

DOB: 06-25-1982

Issued: 01-27-2025

This person is licensed to perform asbestos work in the State of Iowa. ID card is intended for official use only and must be present on jobsite.

License Type	Number	Expires
INSPECTOR	25-12871	12-13-2025
SUPERVISOR	25-12873	12-23-2025
MANAGEMENT PLANNER	25-12872	12-12-2025

IOWA

Asbestos

Larry Johnson, Jr.
Labor Commissioner