Fisher Heck
ARCHITECTS

**ADDENDUM NO. 3**

1.28.25

DATE: January 28, 2025

RE: Architect's Project #: 2301 A1

Project: **Bandera County Visitor Center**
**Phase 2 – Historic Stabilization**

FROM: Fisher Heck, Inc., Architects 915 South St. Mary's Street
San Antonio, Texas 78205
(210) 299-1500

TO: All Plan Holders

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated 11.01.2024, as noted below. Acknowledge receipt of this Addendum in the space provided on the Proposal Form. Failure to do so may subject Bidder to disqualification.

This Addendum consists of X Page(s).

**CHANGES TO PROPOSAL REQUIREMENTS/CONTRACT FORMS AND CONDITIONS OF THE CONTRACT:**

**GENERAL COMMENTS**

1. **RFIs** - Answers to remaining RFI questions.
2. **Sheet D100 –** The following changes have been made to the sheet:
    a. Stud walls around the stairs to remain with only any remaining wood paneling to be removed.
    b. Remove hardware on select doors and prep them to be protected.
3. **Sheet A100** – The following changes have been made to the sheet:
    a. Existing stud walls shown to remain.
    b. Removed note for dehumidifier.
    c. Keynote 09 has been modified to call for installation of horizontal 2x at 42" at stair.
    d. Keynote 12 has been modified to call for satin paint.
    e. Keynote 13 has been added to clarify foundation work on east wall.
    f. Keynote 14 has been added to leave earth against east wall undisturbed.
4. **Sheet A101** – The following changes have been made to the sheet:
    a. Added Wood Framing Notes
    b. Added Nailing Schedule

c. Added solar powered roof vent to details 1 and 4
d. Clarified sistering note on detail 4
e. Clarified thru wall flashing note and added images to detail 5.

5. **Sheet A110** – The following changes have been made to the sheet:
    a. Keynote 11 has been added to clarify foundation work to be done in jail holding area.
    b. Keynote 12 has been added to secure opening at jail holding area.
    c. Detail 4 has been added to clarify scupper work.
6. **Sheet A200** – The following changes have been made to the sheet:
    a. Added solar powered roof vent to east elevation.
    b. Removed note for tree limbs.
    c. Added note for door protection on west elevation.
7. **Sheet A201** – Added solar powered roof vent to elevations.
8. **Sheet A210** – Added note for door protection on north elevation.
9. **Sheet A211 –** Reworked scupper note to anchor at mortar.
10. **Sheet A400 –** Added note to reinforce door and window openings with steel lintel.
11. **Sheet A611-** Removed Door Hardware Set
12. **Project Manual –** The following changes have been made to the project manual:
    a. RFCSP Submission Form edited to include Alternate #1 for complete window replacement, and Allowance of $20,000 for roof framing work.
    b. Specification Section 028333-13 Lead Based Paint Removal has been added to the specifications.
    c. Specification Section 040000 Masonry Repointing has been edited to clarify mortar requirements.
    d. Specification Section 076100 Sheet Metal Roofing edited to include underlayment manufacturer.
    e. Specification Section 077200 Roof Accessories has been added to the specifications.
    f. Specification Section 099113 Exterior Painting edited to include paint manufacturers.

**END OF ADDENDUM**

Fisher Heck
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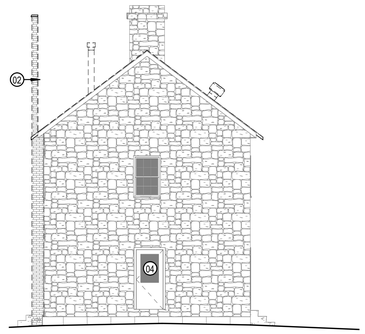
## RFIs

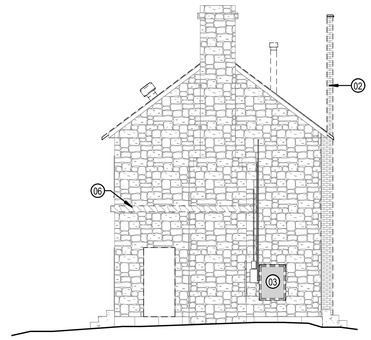
1. Currently there is insufficient information to be able to quantify and price any roof wood framing repairs until it is exposed to view. We would suggest that to provide an equal basis for all an allowance be provided for all GC's to use, otherwise we will have to exclude all wood framing repairs.
   Contractors are to provide unit prices for individual sistering of joists and replacement of individual rafters. Refer to RFCSP Submission Form for inclusion of $20,000 allowance for roof framing repairs.
2. For the Replacement or sistering rafters. Is there a specific material are required or can it be industry standard today.
   Match existing species or use Douglas fir as a substitute.
3. For the rafter replacement or sistering is there a spec or engineered requirement?
   Refer to Wood Framing Notes on Sheet A-101 for details.
4. Detail 2/A-101 indicates to install ¾" plywood decking directly to the existing wood rafters. What grade of plywood is required?
   Refer to Wood Framing Notes on Sheet A-101 for details.
5. Detail 2/A-101 indicates to install ¾" plywood decking directly to the existing wood rafters. It is assumed this decking must transfer diaphragm lateral loads to the rafters and resist uplift loads, however, no fasteners are specified. Will the client please provide the required fasteners to resist wind lateral and uplift loads?
   Refer to Wood Framing Notes on Sheet A-101 for details.
6. The drawings do not include any details for fastening the existing rafters to the existing masonry walls to transfer wind lateral and uplift forces. Please confirm the contractor is not required to install any new fasteners or connections at the rafter-to-wall intersections.
   Refer to Wood Framing Notes and Nailing Schedule on Sheet A-101 for details.
7. The roof plan calls for ice and water shield. Is this to be a high temperature product and is there a spec?
   Refer to Specification 076100 Sheet Metal Roofing for product information.
8. The plan calls for a R-vent to be installed between ice/water shield and roof panel. If this is done it will likely create a indention/dent in the roof material as it will compress when screws are installed and tightened. This will cause an oil can affect.
   We have never experienced this problem in previous projects. The selected contractor will provide mock-up.
9. Please advise if R-Vent Roof Ventilation Mat by Advanced Building Products would be acceptable.
   No
10. Can you please advise if the vent membrane may be removed from the scope due to the crimple ridge – or if there is a different method intended to vent the roof. The crimped ridge will not allow for the venting membrane to function as intended.
    The vent membrane must remain. Please refer to detail 4/A-101.
11. Re: 5/A-101: Please provide more detail at top of chimney. If this chimney is to be functional, there is a concern over wood being exposed to the smoke/heat as shown. Framing is not clear as to provide for ventilation. Flashing details are also not clear (re: extent of waterproofing, through wall flashing).

Chimney will not be functional. Refer to detail 5/A-101 for clarification on flashing detail.

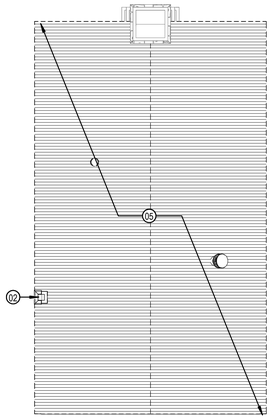
12. Is the through wall flashing at chimney, indicated by blue dashed lines, existing? If required to be new, is the through wall portion to be at roof side only? If required, is there a specified level or distance (above roof, below cap or stone course) that through wall is to be achieved? Is material to match galvalume metal specified at roof flashing?
    The blue dashed line indicates new through wall flashing that is to be applied only to the roof side of the wall, refer to detail 5/A-101 for clarification on how to install. Flashing to match galvalume metal specified at roof.
13. D-100 Keynote 01 Is there a spec for a temporary railing where stud wall is being removed?
    Leave all vertical wall framing at first and second level stair in place and add horizontal rail at 42" around for protection. Refer to sheet D-100 for this change in the drawings.
14. Exterior materials on the courthouse and jail appear to be at a stage of damage that replacement would be the best option unless a Bondo material is utilized. Is the intent to do all windows and doors throughout or where is the line to be drawn on what should or should not be done. This will likely be a big variance in bids where someone says it is not required and someone else thinks it does. Can a base % or number be specified in order to level bids?
    Provide base bid to be 100% rehabilitation assume 50% replacement of wood in-kind elements for each window. Provide Alternate (Alternate #1) for full replacement of windows in-kind in RFCSP Submission Form.
15. What spec paint is to be used?
    Refer to Spec 09 9113 Exterior Painting section 2.01 Manufactuers under section B for Sherwin-Williams Company as preferred manufacturer.
16. There is no roof work being done on the jail other than replacement of the scupper and downspout, is that correct? If so, what is the roof material type and brand existing so we know how the tie-in will need to be done?
    Correct, refer to detail 4/A-110 for information on the tie-in of scupper to existing roof.
17. Specification 040000 paragraph 2.05.A indicates that the contractor must perform and submit laboratory testing of the existing Jail exterior mortar to determine required matching for composition and color of new mortar. Please define required ASTM testing method to use.
    This is no longer required see specification 040000 Masonry Repointing for updated requirements.
18. Specification 040000 paragraph 2.05.A indicates that the contractor must perform and submit laboratory testing of the existing Jail exterior mortar to determine required matching for composition and color of new mortar. It is very difficult to obtain an exact combination of sand materials to match color of existing mortars. Will the owner accept color match additives or a match-as-close-as-possible approach as defined in paragraph 2.03?
    This is no longer required see specification 040000 Masonry Repointing for updated requirements.
19. If the contractor is required to perform a hazardous material survey, please confirm that any potential abatement required will be paid for by the owner outside of this bid?
    Asbestos abatement has already taken place. The contractor is responsible for lead paint removal and is to coordinate removals efforts with the rehabilitation of the windows. Spec section 02 8333.13 Lead-Based Paint Removal and Disposal has been added.



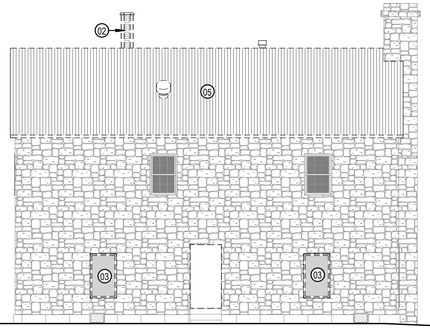

7 1877 COURTHOUSE-DEMOLITION-SOUTH ELEVATION
1/8" = 1'-0"




6 1877 COURTHOUSE-DEMOLITION-NORTH ELEVATION
1/8" = 1'-0"




3 1877 COURTHOUSE-DEMOLITION-ROOF
1/8" = 1'-0"




5 1877 COURTHOUSE-DEMOLITION-EAST ELEVATION
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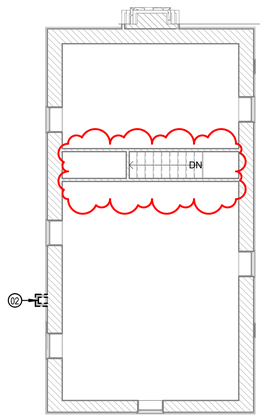
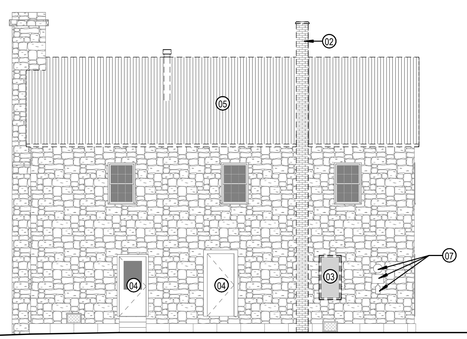
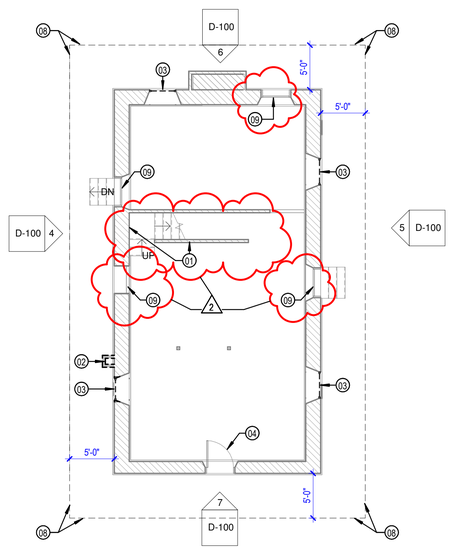



2 1877 COURTHOUSE-DEMOLITION-SECOND FLOOR
1/8" = 1'-0"




4 1877 COURTHOUSE-DEMOLITION-WEST ELEVATION
1/8" = 1'-0"




1 1877 COURTHOUSE-DEMOLITION-FIRST FLOOR
1/8" = 1'-0"

## GENERAL NOTES

1. IMMEDIATELY ON DISCOVERY OF THE NEED FOR CLARIFICATION OF THE CONTRACT DOCUMENTS, SUBMIT A REQUEST FOR INFORMATION TO ARCHITECT.
2. THESE DOCUMENTS SHOULD NO BE CONSIDERED AS A SURVEY OF EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS BETWEEN DOCUMENTS AND FIELD CONDITIONS BEFORE COMMENCING ANY WORK AND REQUEST CLARIFICATION.
3. ELEMENTS NOTED WITHIN KEYNOTES ARE BASED UPON VISUAL OBSERVATIONS AT THE TIME OF SURVEY. CONTRACTOR TO VERIFY ANY ADDITIONAL DETERIORATION.
4. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, & CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL DIMENSIONS ARE TO FACE OF MATERIAL UNLESS NOTED OTHERWISE.
6. ALL DOOR AND WINDOWS THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
7. DO NOT REMOVE BASE BOARDS OR OTHER WOODEN TRIM; EXCEPT DURING REPOINTING AND REPLASTERING WHERE NEEDED, PROTECT DURING CONSTRUCTION.

## KEYNOTES

| | |
|---|---|
| 01 | REMOVE WOOD PANELING, STUD WALLS TO REMAIN IN PLACE. |
| 02 | CAREFULLY DECONSTRUCT NON-ORIGINAL BRICK MASONRY CHIMNEY. VOID WITHIN WALL THAT RESULTS FROM THE REMOVAL OF THE CHIMNEY, SHALL BE FILLED WITH MATCHING STONE WITH A LIME-BASED MORTAR |
| 03 | DEMO NON-HISTORIC METAL FRAMED WINDOW. PREP OPEINIG TO RECIEVE REPLICA WOOD WINDOW. |
| 04 | PROTECT DOOR DURING CONSTRUCTION |
| 05 | DEMO METAL ROOF, WOOD UNDERLAYMENT AND INSULATION; WOOD RAFTERS IN GOOD CONDITION MAY REMAIN, DETERIORATED RAFTERS MAY REQUIRE REPLACEMENT OR SISTERING. CONTRACTOR TO DETERMINE IN THE FIELD. |
| 06 | CAREFULLY DEMO REMAINING SHED ROOF AND PREP STONE WALL FOR REPAIR |
| 07 | CAREFULLY REMOVE HISTORIC PLAQUES AND MARK DOWN EXACT LOCATION FOR RE-PLACEMENT AFTER REHABILITATION WORK IS COMPLETED |
| 08 | REMOVE ALL VEGETATION WITHIN DESIGNATED AREA AROUND THE BUILDING ENSURE THAT IT WILL NOT REGROW |
| 09 | REMOVE HARDWARE, PREP DOOR TO BE PROTECTED. |

2

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REGISTERED ARCHITECT MARK B. NAVARRO 25325 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

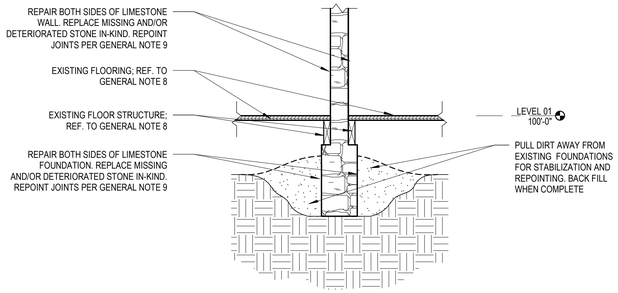
SHEET TITLE: DEMOLITION PLANS - 1877 COURTHOUSE

PROJECT NO: 2301 A1

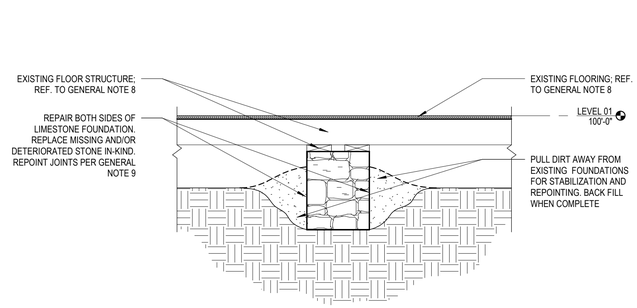
| | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: D-100

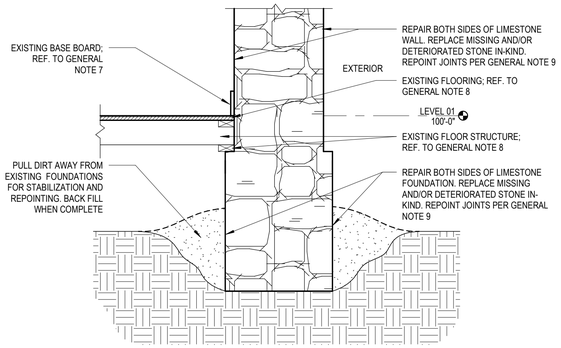
1/28/2025 2:58:16 PM




6 SECTION DETAIL
3/4" = 1'-0"




5 SECTION DETAIL
3/4" = 1'-0"




4 SECTION DETAIL
3/4" = 1'-0"

## GENERAL NOTES

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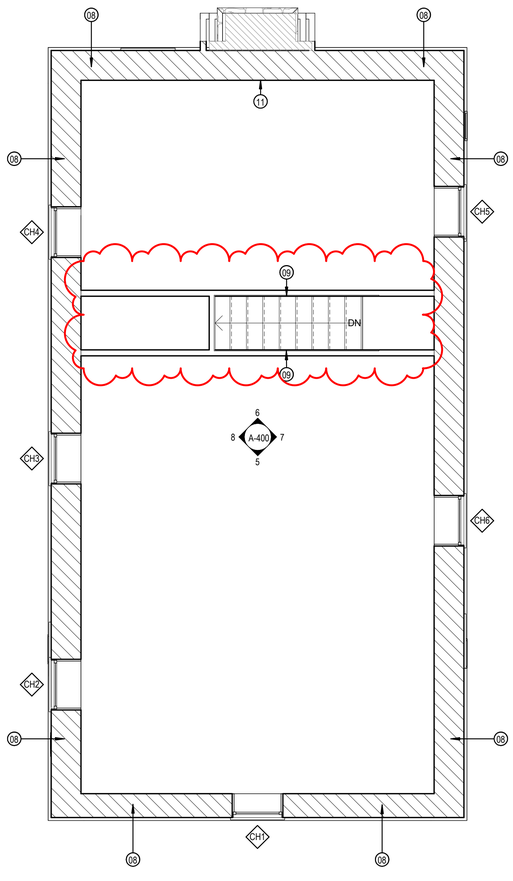
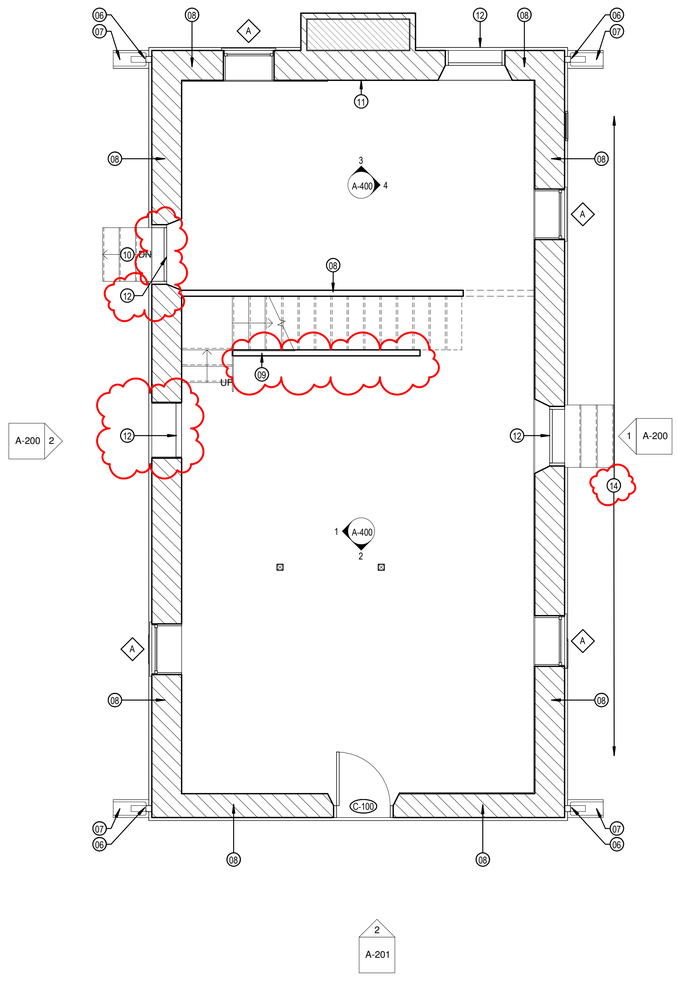
3. ELEMENTS NOTED WITHIN KEYNOTES ARE BASED UPON VISUAL OBSERVATIONS AT THE TIME OF SURVEY. CONTRACTOR TO VERIFY ANY ADDITIONAL SUBSEQUENT DAMAGE THAT MAY HAVE OCCURED.
4. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, & CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL DIMENSIONS ARE TO FACE OF MATERIAL UNLESS NOTED OTHERWISE.
6. ALL DOOR AND WINDOWS THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
7. DO NOT REMOVE BASE BOARDS OR OTHER WOODEN TRIM; EXCEPT DURING REPOINTING AND REPLASTERING WHERE NEEDED, PROTECT DURING CONSTRUCTION.
8. SELECT AREAS OF FLOORING AND FLOOR STRUCTURE MAY NEED TO BE REMOVED DURING REPOINTING AND STABILIZATION OF FOUNDATION WALLS. CONTRACTOR WILL DETERMINE THE EXTENT OF REMOVALS NECESSARY UNDER MEANS AND METHODS. ANY FLOOR STRUCTURE REMOVED WILL BE DONE WITH SENSITIVITY SO IT HAS THE POTENTIAL FOR REUSE. REMOVED MATERIALS WILL BE LABELED AND CAREFULLY STORED WITHIN THE BUILDING
9. REPOINT 100% OF EXTERIOR AND INTERIOR STONE WALLS. CAREFULLY REMOVE EXISTING MORTAR A MINIMUM OF 2 INCHES FROM FACE OF STONE.
10. REPOINTING MORTAR TO CONSIST OF 4 PARTS BUFF COLORED RIVER SAND, 1 PART LIME, 1/4 PART PORTLAND CEMENT.
11. SOME PORTIONS OF WALL MAY NEED TO BE DISASEMBLED, SHORED, AND REASSEMBLED USING SAME OR LIKE STONE. ELEVATION SHEETS INDICATE SOME OF THESE AREAS. CONTRACTOR WILL DETERMINE IF ADDITIONAL ARE NEEDED.
12. PROVIDE A TEMPORARY POWER IN EACH BUILDING.
13. NOT USED
14. ALL VISIBLE EXPOSED WOOD SURFACES MUST BE PAINTED TO MATCH EXISTING SURFACE COLOR; PROVIDE SAMPLES TO ARCHITECT FOR APPROVAL, REFER TO SPECS FOR MORE INFO.

## KEYNOTES

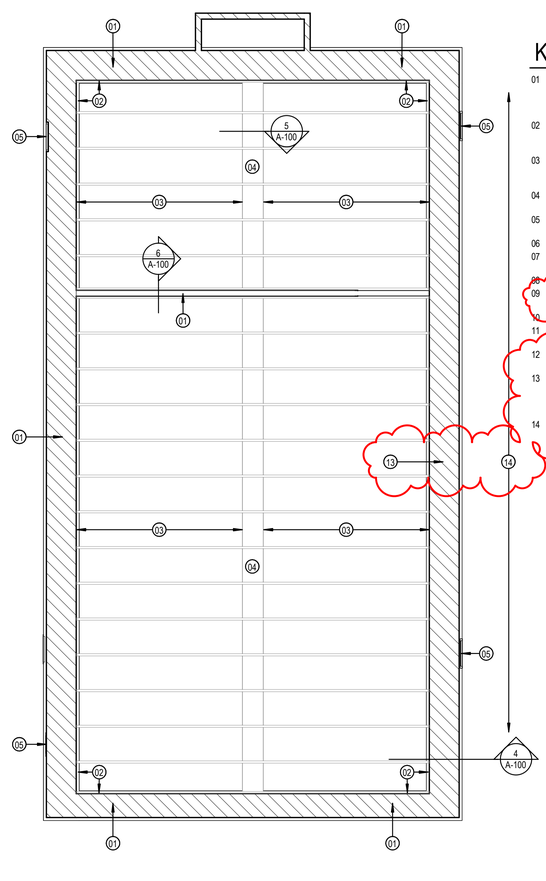
01 REPAIR AND REPOINT BOTH SIDES OF EXISTING LIMESTONE FOUNDATION TO BOTTOM OF FOUNDATION OR 3'-0" MAX. BELOW GRADE. REPONTING SHOULD BE DONE IN NO MORE OF 5'-0" SECTIONS AT A TIME.
02 CAREFULLY REMOVE ALL WOOD FRAMING; SALVAGE ALL ORIGINAL WOOD THAT REMAINS IN GOOD CONDITION AND STORE FOR REUSE.
03 REMOVE DEBRIS FROM CRAWL SPACE. REMOVE SOIL TO EXPOSE SIDES OF LIMESTONE FOOTINGS, AND REPOINT FACES OF FOOTINGS.
04 EXISTING STONE FOOTING; REPAIR AND REPOINT TO BOTTOM OF FOUNDATION OF 4'-0" MAX.
05 REPAIR AND REFINISH METAL GRILLE; REPLACE IN-KIND WHERE NEEDED
06 GALVALUME 6" DOWNSPOUT TO MATCH GUTTER
07 TYP. PRECAST CONCRETE SPLASH BLOCK 24"Lx10"Wx3"H AT BASE OF DOWNSPOUT
08 REPOINT WALL, REFER TO GENERAL NOTES 9,10,11
09 INSTALL HORIZONTAL 2X AT 42" HIGH SURROUNDING ENTIRE STAIR
10 PATCH / REPAIR CONCRETE STAIR AS NEEDED
11 REPOINT STONE CHIMNEY'S FIRE BOX AND HEARTH; REFER TO GENERAL NOTES 9,10,11
12 SECURE OPENING WITH 3/4" PRESSURE TREATED PLYWOOD PRIME AND PAINT EXTERIOR FACE WITH SATIN PAINT
13 REPAIR AND REPOINT ONLY THE INSIDE PORTION OF THE EXISTING LIMESTONE FOUNDATION TO BOTTOM OF FOUNDATION OR 3'-0" MAX. BELOW GRADE. REPONTING SHOULD BE DONE IN NO MORE OF 5'-0" SECTIONS AT A TIME.
14 LEAVE THE EARTH AGAINST THE BUILDING UNDISTURBED DURING REPAIR AND REPOINTING OF BUILDING




3 1877 COURTHOUSE-REHABILITATION-SECOND FLOOR
1/4" = 1'-0"




2 1877 COURTHOUSE-REHABILITATION-FIRST FLOOR
1/4" = 1'-0"




1 1877 COURTHOUSE-REHABILITATION-FOUNDATION PLAN
1/4" = 1'-0"

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REGISTERED ARCHITECT MARK B. NAVARRO 25325 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

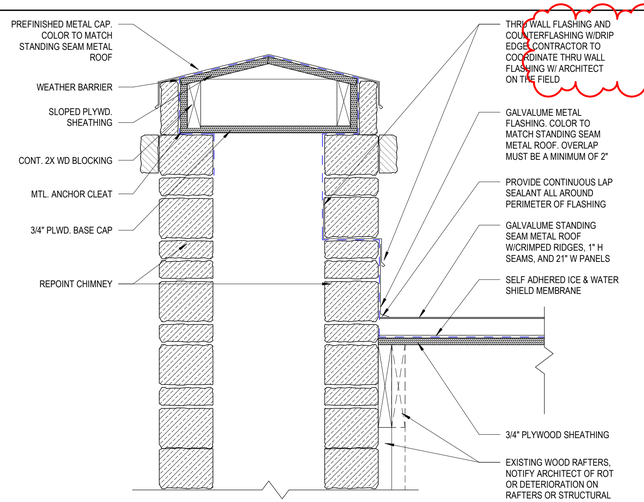
SHEET TITLE: REHABILITATION PLANS - 1877 COURTHOUSE

PROJECT NO: 2301 A1

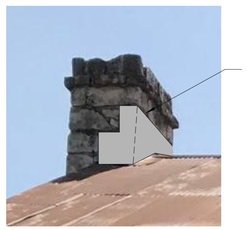
| | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-100

1/28/2025 2:58:03 PM

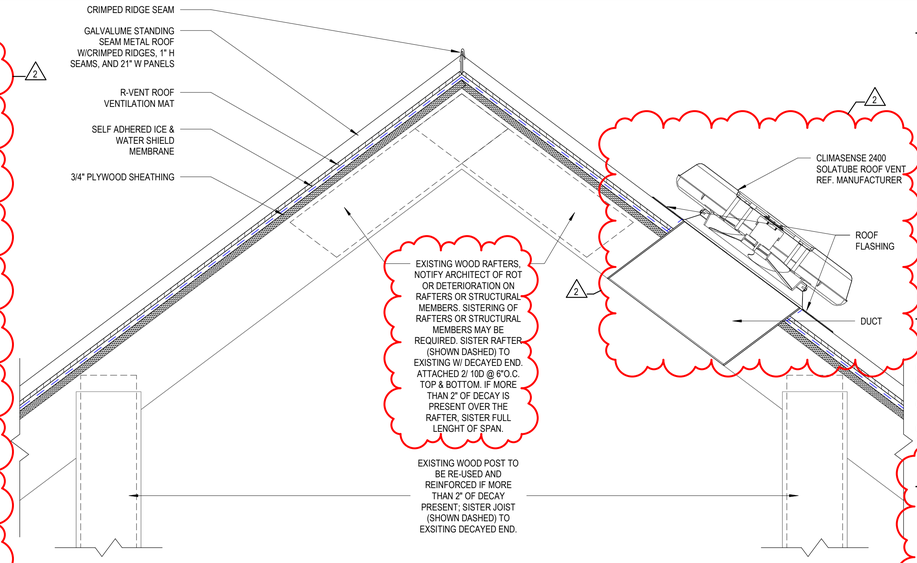



5 SECTION DETAIL
1 1/2" = 1'-0"




WEST VIEW


EAST VIEW




4 SECTION DETAIL
1 1/2" = 1'-0"

## GENERAL NOTES

1. IMMEDIATELY ON DISCOVERY OF THE NEED FOR CLARIFICATION OF THE CONTRACT DOCUMENTS, SUBMIT A REQUEST FOR INFORMATION TO ARCHITECT.
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3. ELEMENTS NOTED WITHIN KEYNOTES ARE BASED UPON VISUAL OBSERVATIONS AT THE TIME OF SURVEY, CONTRACTOR TO VERIFY ANY ADDITIONAL SUBSEQUENT DAMAGE THAT MAY HAVE OCCURED.
4. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, & CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL DIMENSIONS ARE TO FACE OF MATERIAL UNLESS NOTED OTHERWISE.
6. ALL ROOF FLASHING TO BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
7. ALL ROOF GUTTERS SHALL HAVE A CONTINUOUS SLOPE OF AT LEAST 1/4" PER 10 FT GUTTER LENGTH
8. NEW ROOF SHALL BE A GAVALUME STANDING SEAM METAL ROOF W/CRIMPED RIDGES, 1" H SEAMS, AND 21" W PANELS

## KEYNOTES

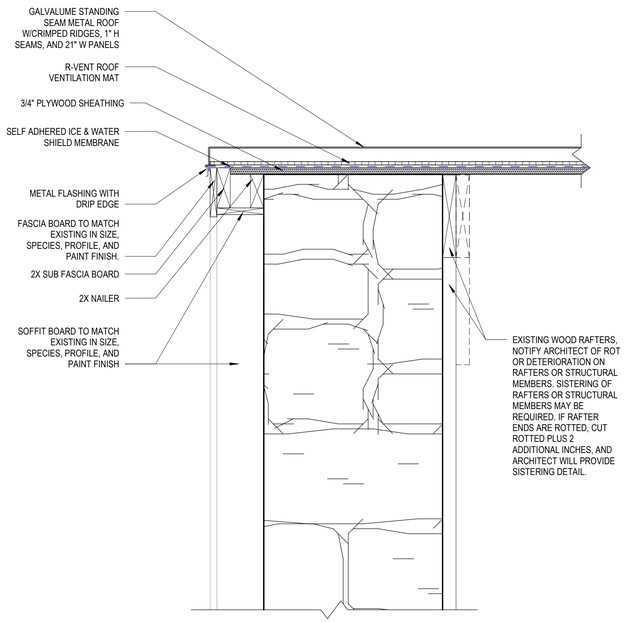
| | |
|---|---|
| 01 | GALVALUME STANDING SEAM METAL ROOF W/CRIMPED RIDGES, 1" H SEAMS, AND 21" W PANELS |
| 02 | 6" GALVALUME METAL GUTTER |
| 03 | 6" GALVALUME METAL DOWNSPOUT TO MATCH GUTTER FINISH |
| 04 | STRIP, REPAIR, AND REFINISH ALL EXTERIOR WOOD FASCIA AND SOFFIT |
| 05 | EXISTING CHIMNEY TO REMAIN; REPLACE ANY DAMAGED STONE IN-KIND AS REQUIRED. REPLACE METAL FLASHING |
| 07 | TOP OF STONE WALL; REPAIR AS REQUIRED |
| 08 | EXISTING WOOD RAFTERS |

## WOOD FRAMING NOTES

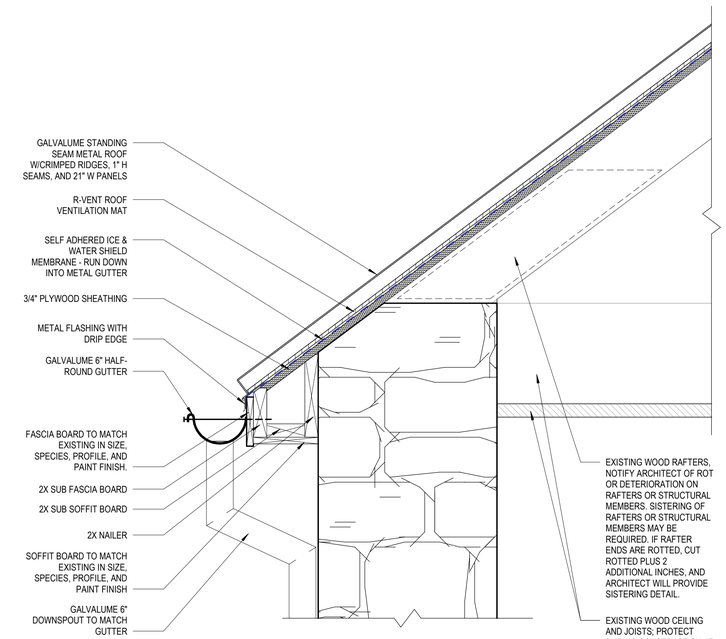
**WF-1** LUMBER SHALL CONSIST OF DOUGLAS FIR, KILN DRIED WITH A MOISTURE CONTENT OF 19% MAXIMUM AT THE TIME OF INSTALLATION, UNLESS NOTED OTHERWISE.
**WF-2** ROOF SHEATHING SHALL BE 5/8" EXTERIOR PLYWOOD OR OSB OVER WOOD JOISTS. PROVIDE ADEQUATE BLOCKING, TONGUE AND GROOVE EDGES OR PLYCLIPS (2 FOR 48" SPAN). USE 10d NAILS (1/2" PENETATION) AT 6" O.C. AT END JOINTS.
**WF-3** PLACE PLYWOOD PANELS WITH LONG DIMENSION RUNNING PERPENDICULAR TO JOISTS WITH END JOINTS STAGGERED 1/2 PANEL. USE 10d NAILS SPACED AT 6"O.C. AT END JOINTS OF PANELS AND AT WALL CONNECTIONS. FIELD NAILING OF INTERMEDIATE SUPPORTS SHALL BE AT 12"O.C. FOR ROOF.
**WF-4** UNLESS OTHERWISE INDICATED, USE WOOD CONNECTORS AS MANUFACTURED BY THE SIMPSON-TIE COMPANY OR APPROVED EQUIVALENT. CONNECTOR TYPE APPLICATION AND INSTALLED WITH MANUFACTURER RECOMMENDED FASTENERS TO DEVELOP THE FULL CAPACITY OF THE CONNECTOR. CONNECTORS EXPOSED TO MOISTURE AND OTHER CORROVE ELEMENTS SHALL BE HOT DIPPED GALVANIZED OR Z-MAX WITH HOT DIPPED GALVANIZED FASTENERS.

**NAILING SCHEDULE**

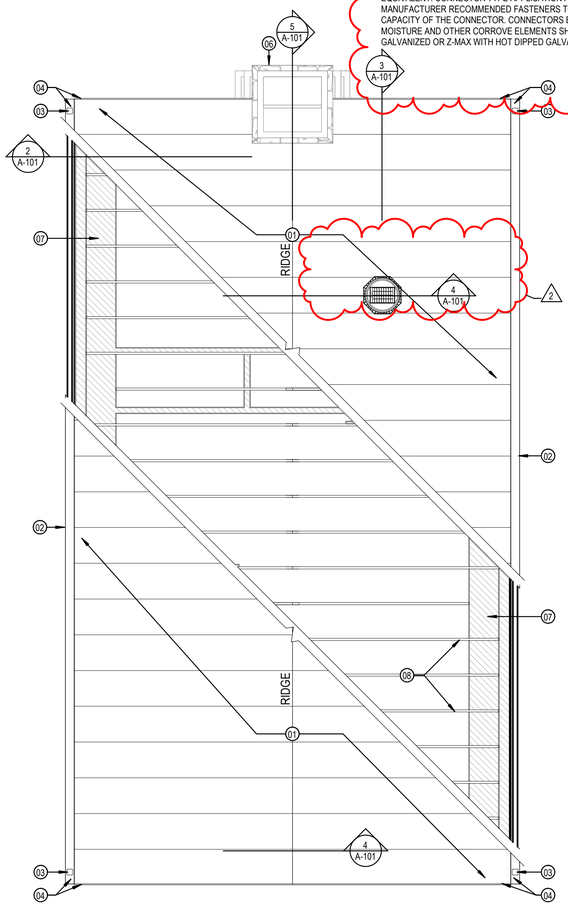
| CONNECTION | NAILING | LOCATION |
|---|---|---|
| 1. CEILING JOIST TO PLATE | (3) 8d COMMON | TOENAIL |
| 2. CEILING JOIST, LAPS OVER PARTITIONS | (3) 16d COMMON | FACENAIL |
| 3. CEILING JOIST, TO PARALLEL RAFTERS | (3) 16d COMMON | FACENAIL |
| 4. RAFTER TO PLATE | (3) 8d COMMON | TOENAIL |
| 5. COLLAR TIE TO RAFTER | (3) 10d COMMON | FACENAIL |
| 6. ROOF RAFTER TO 2x RIDGE BEAM | (2) 16d COMMON | TOENAIL |
| | (2) 16d COMMON | FACENAIL |




3 SECTION DETAIL
1 1/2" = 1'-0"




2 SECTION DETAIL
1 1/2" = 1'-0"




1 1877 COURTHOUSE-REHABILITATION-ROOF
1/4" = 1'-0"

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11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

SHEET TITLE: REHABILITATION ROOF PLAN -1877 COURTHOUSE

PROJECT NO: 2301 A1

| | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

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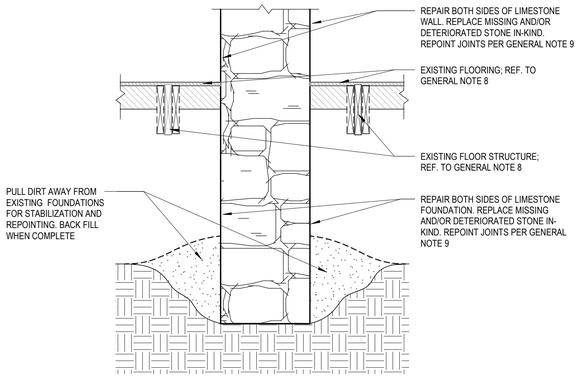
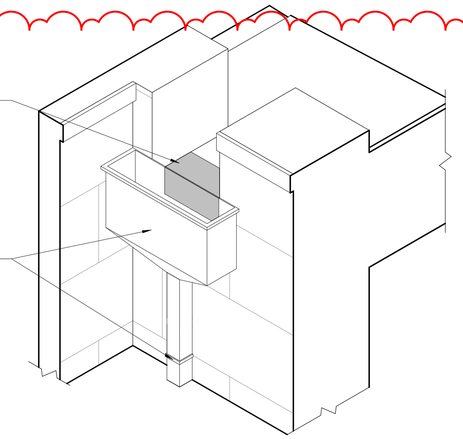


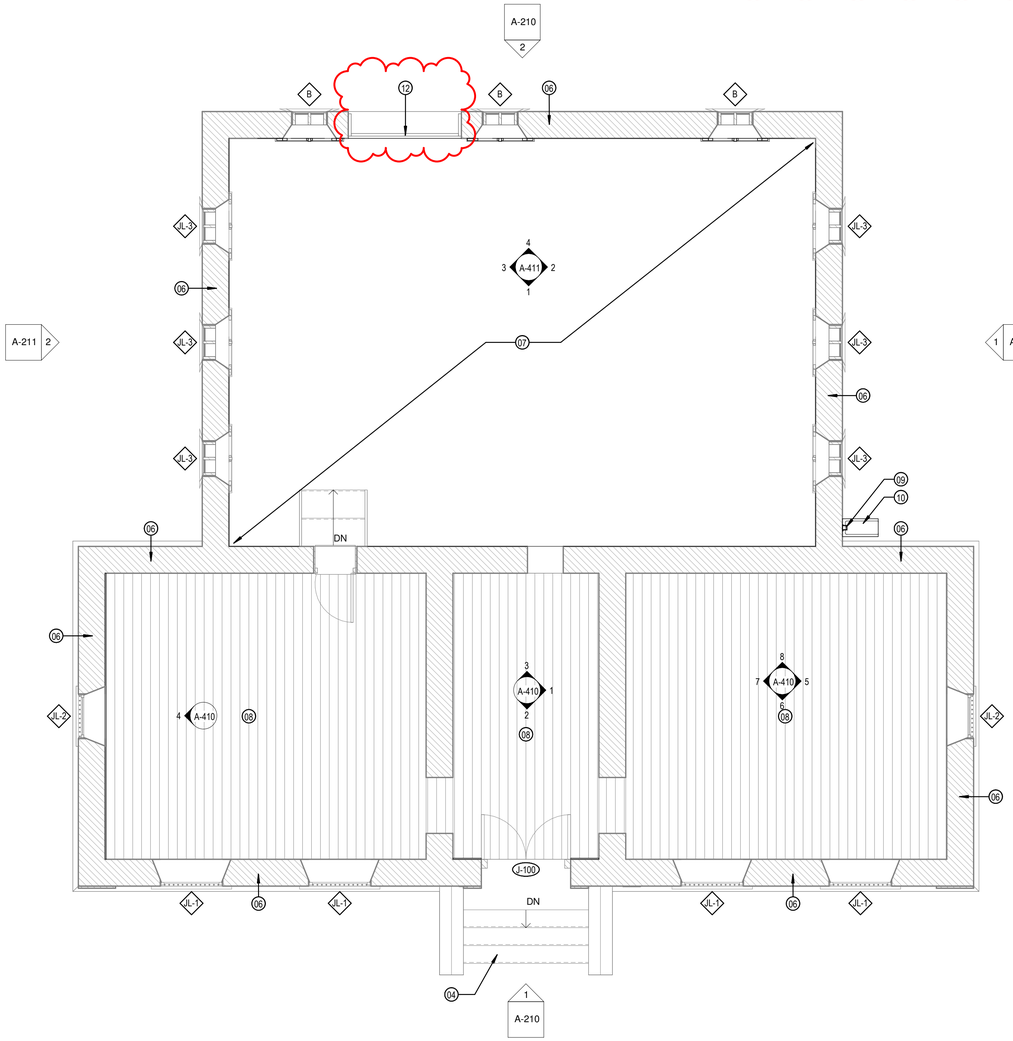

3 SECTION DETAIL

3/4" = 1'-0"



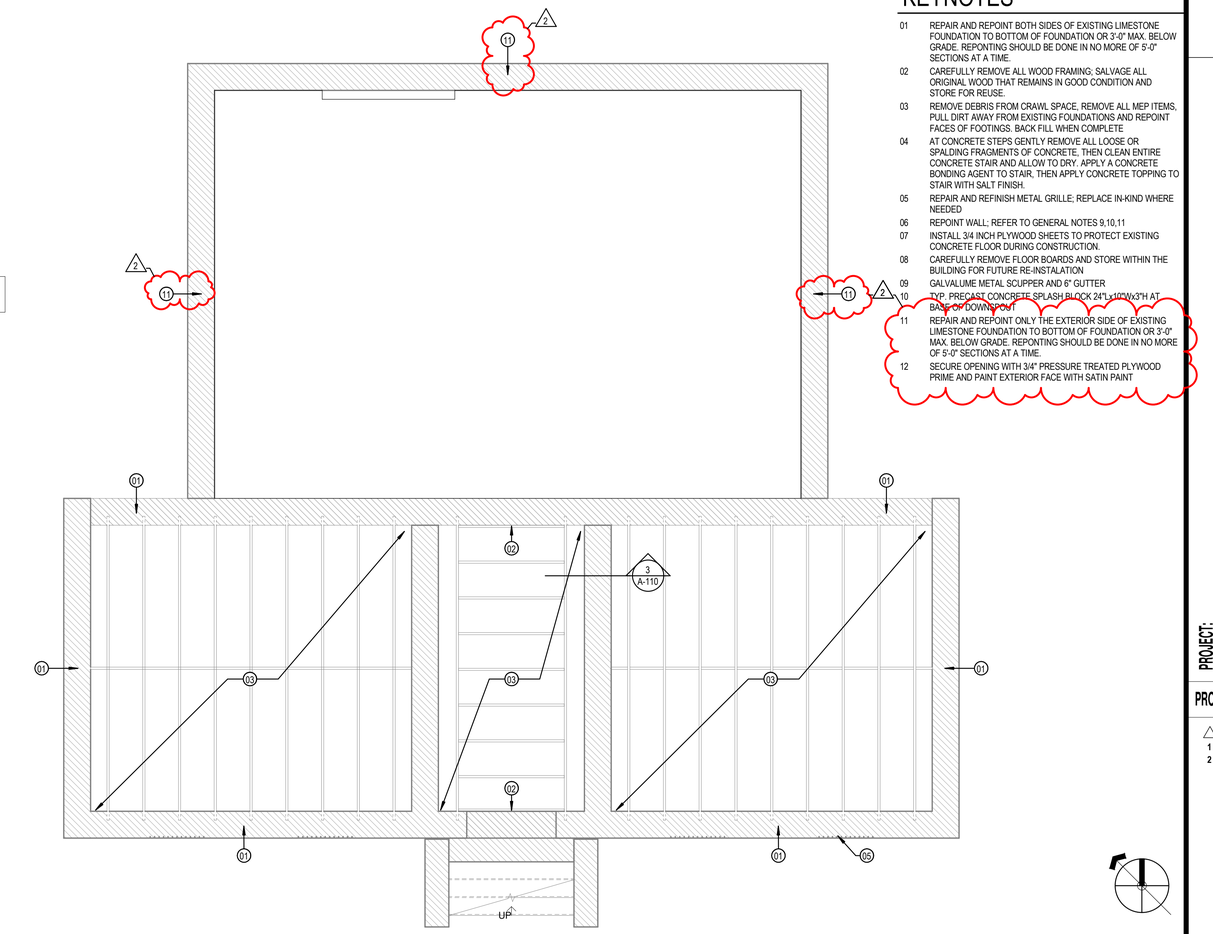

4 SCUPPER DETAIL

1" = 1'-0"




2 1881 JAIL-REHABILITATION-FIRST FLOOR

1/4" = 1'-0"




1 1881 JAIL-REHABILITATION-FOUNDATION PLAN

1/4" = 1'-0"

## GENERAL NOTES

1. IMMEDIATELY ON DISCOVERY OF THE NEED FOR CLARIFICATION OF THE CONTRACT DOCUMENTS, SUBMIT A REQUEST FOR INFORMATION TO ARCHITECT.
2. THESE DOCUMENTS SHOULD NO BE CONSIDERED AS A SURVEY OF EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS BETWEEN DOCUMENTS AND FIELD CONDITIONS BEFORE COMMENCING ANY WORK AND REQUEST CLARIFICATION.
3. ELEMENTS NOTED WITHIN KEYNOTES ARE BASED UPON VISUAL OBSERVATIONS AT THE TIME OF SURVEY. CONTRACTOR TO VERIFY ANY ADDITIONAL SUBSEQUENT DAMAGE THAT MAY HAVE OCCURED.
4. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, & CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL DIMENSIONS ARE TO FACE OF MATERIAL UNLESS NOTED OTHERWISE.
6. ALL DOOR AND WINDOWS THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
7. DO NOT REMOVE BASE BOARDS OR OTHER WOODEN TRIM; EXCEPT DURING REPOINTING AND REPLASTERING WHERE NEEDED, PROTECT DURING CONSTRUCTION.
8. SELECT AREAS OF FLOORING AND FLOOR STRUCTURE MAY NEED TO BE REMOVED DURING REPOINTING AND STABILIZATION OF FOUNDATION WALLS. CONTRACTOR WILL DETERMINE THE EXTENT OF REMOVALS NECESSARY UNDER MEANS AND METHODS. ANY FLOOR STRUCTURE REMOVED WILL BE DONE WITH SENSITIVITY SO IT HAS THE POTENTIAL FOR REUSE. REMOVED MATERIALS WILL BE LABELED AND CAREFULLY STORED WITHIN THE BUILDING
9. REPOINT 100% OF EXTERIOR AND INTERIOR STONE WALLS. CAREFULLY REMOVE EXISTING MORTAR A MINIMUM OF 2 INCHES FROM FACE OF STONE.
10. REPOINTING MORTAR TO CONSIST OF 4 PARTS BUFF COLORED RIVER SAND, 1 PART LIME, 1/4 PART PORTLAND CEMENT.
11. SOME PORTIONS OF WALL MAY NEED TO BE DISASEMBLED, SHORED, AND REASSEMBLED USING SAME OR LIKE STONE. ELEVATION SHEETS INDICATE SOME OF THESE AREAS. CONTRACTOR WILL DETERMINE IF ADDITIONAL ARE NEEDED.
12. PROVIDE A TEMPORARY POWER IN EACH BUILDING.
13. NOT USED
14. ALL VISIBLE EXPOSED WOOD SURFACES MUST BE PAINTED TO MATCH EXISTING SURFACE COLOR; PROVIDE SAMPLES TO ARCHITECT FOR APPROVAL, REFER TO SPECS FOR MORE INFO.

## KEYNOTES

01 REPAIR AND REPOINT BOTH SIDES OF EXISTING LIMESTONE FOUNDATION TO BOTTOM OF FOUNDATION OR 3'-0" MAX. BELOW GRADE. REPONTING SHOULD BE DONE IN NO MORE OF 5'-0" SECTIONS AT A TIME.

02 CAREFULLY REMOVE ALL WOOD FRAMING; SALVAGE ALL ORIGINAL WOOD THAT REMAINS IN GOOD CONDITION AND STORE FOR REUSE.

03 REMOVE DEBRIS FROM CRAWL SPACE, REMOVE ALL MEP ITEMS, PULL DIRT AWAY FROM EXISTING FOUNDATIONS AND REPOINT FACES OF FOOTINGS. BACK FILL WHEN COMPLETE

04 AT CONCRETE STEPS GENTLY REMOVE ALL LOOSE OR SPALDING FRAGMENTS OF CONCRETE, THEN CLEAN ENTIRE CONCRETE STAIR AND ALLOW TO DRY. APPLY A CONCRETE BONDING AGENT TO STAIR, THEN APPLY CONCRETE TOPPING TO STAIR WITH SALT FINISH.

05 REPAIR AND REFINISH METAL GRILLE; REPLACE IN-KIND WHERE NEEDED

06 REPOINT WALL; REFER TO GENERAL NOTES 9,10,11

07 INSTALL 3/4 INCH PLYWOOD SHEETS TO PROTECT EXISTING CONCRETE FLOOR DURING CONSTRUCTION.

08 CAREFULLY REMOVE FLOOR BOARDS AND STORE WITHIN THE BUILDING FOR FUTURE RE-INSTALATION

09 GALVALUME METAL SCUPPER AND 6" GUTTER

10 TYP. PRECAST CONCRETE SPLASH BLOCK 24"Lx10"Wx3"H AT BASE OF DOWNSPOUT

11 REPAIR AND REPOINT ONLY THE EXTERIOR SIDE OF EXISTING LIMESTONE FOUNDATION TO BOTTOM OF FOUNDATION OR 3'-0" MAX. BELOW GRADE. REPONTING SHOULD BE DONE IN NO MORE OF 5'-0" SECTIONS AT A TIME.

12 SECURE OPENING WITH 3/4" PRESSURE TREATED PLYWOOD PRIME AND PAINT EXTERIOR FACE WITH SATIN PAINT

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REGISTERED ARCHITECT MARK B. NAVARRO 25326 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

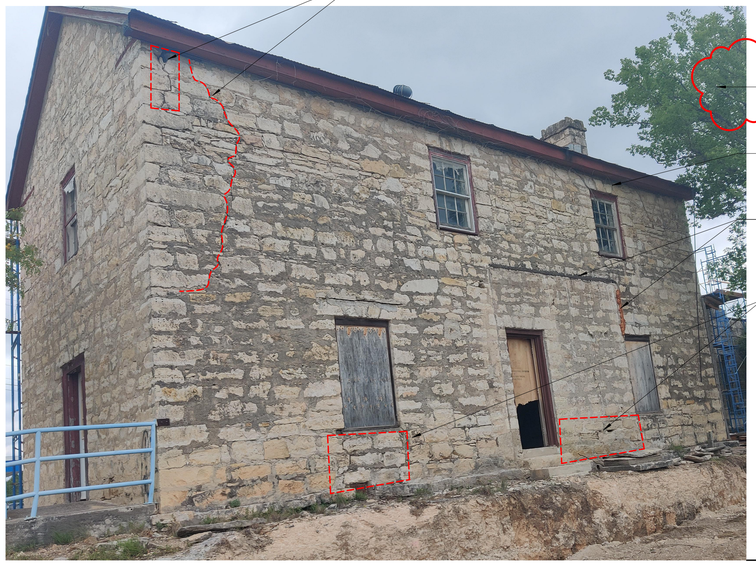
SHEET TITLE: REHABILITATION PLANS - 1881 JAIL

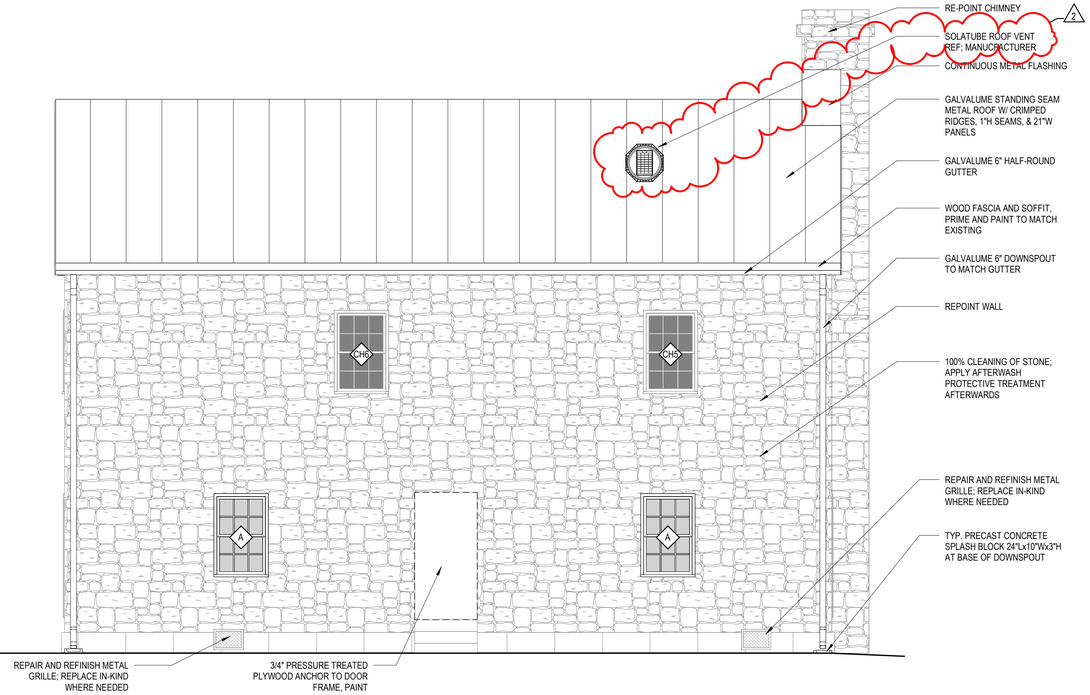
PROJECT NO: 2301 A1

| | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-110

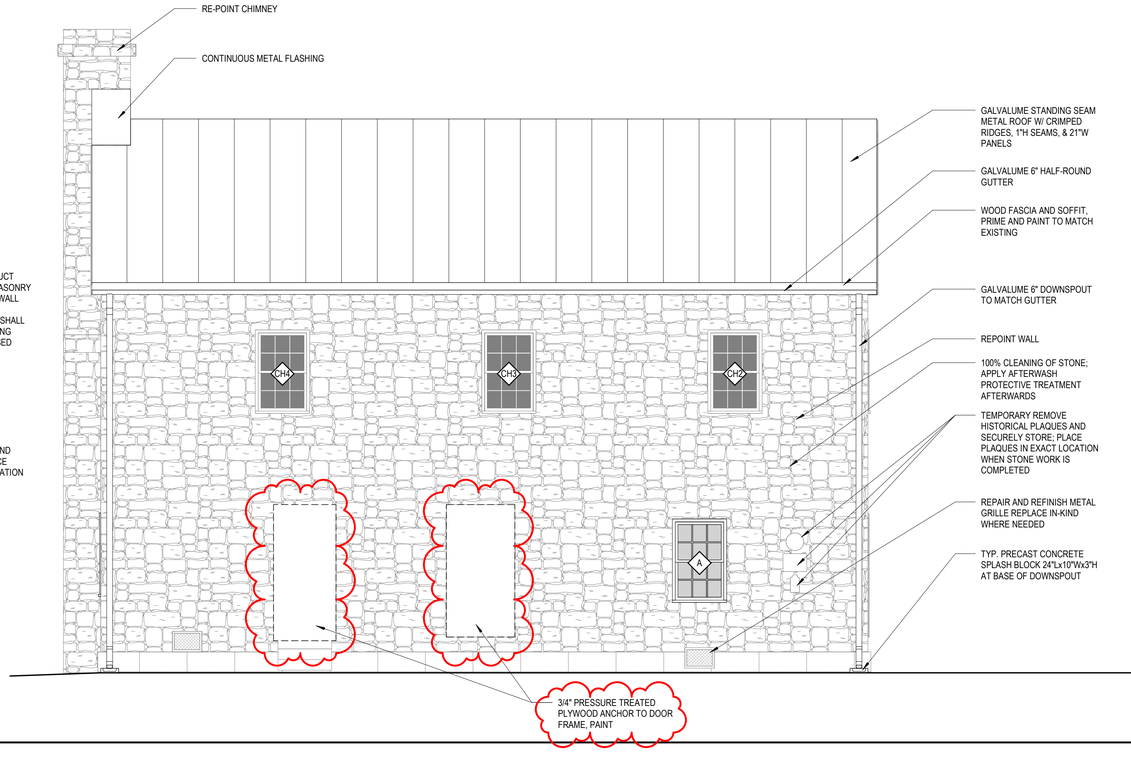
1/28/2025 2:58:04 PM




1 1877 COURTHOUSE-REHABILITATION-EAST ELEVATION

1/4" = 1'-0"


2 1877 COURTHOUSE-REHABILITATION-WEST ELEVATION

1/4" = 1'-0"

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REGISTERED ARCHITECT MARY B. NAVARRO 25326 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

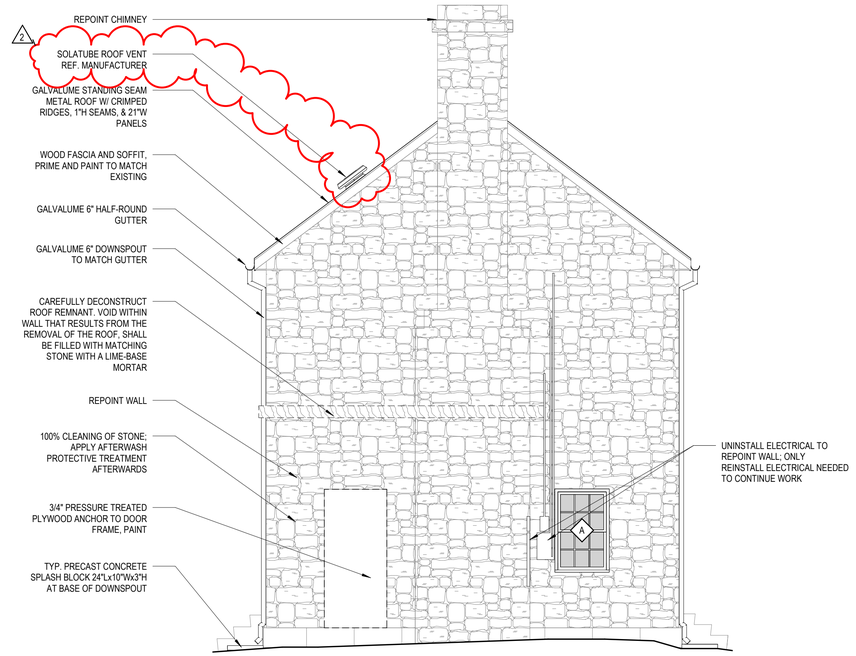
SHEET TITLE: EXTERIOR ELEVATIONS

PROJECT NO: 2301 A1

| △ | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

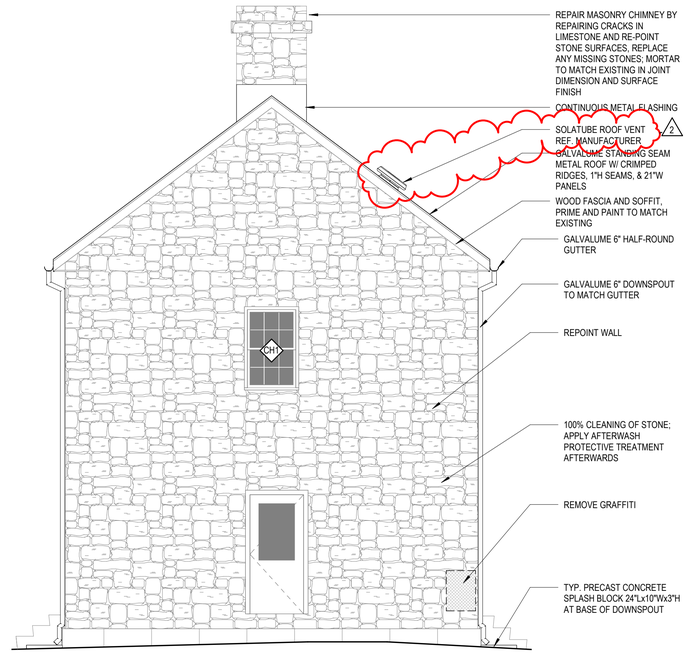
SHEET NO: A-200

1/28/2025 2:58:05 PM


1 1877 COURTHOUSE-REHABILITATION-NORTH ELEVATION

1/4" = 1'-0"


2 1877 COURTHOUSE-REHABILITATION-SOUTH ELEVATION

1/4" = 1'-0"

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REGISTERED ARCHITECT MARY B. NAVARRO 25325 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

SHEET TITLE: EXTERIOR ELEVATIONS

PROJECT NO: 2301 A1

| △ | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-201

1/28/2025 2:58:05 PM

CAREFULLY DECONSTRUCT ROOF REMNANT. VOID WITHIN WALL THAT RESULTS FROM THE REMOVAL OF THE ROOF, SHALL BE FILLED WITH MATCHING STONE WITH A LIME-BASE MORTAR

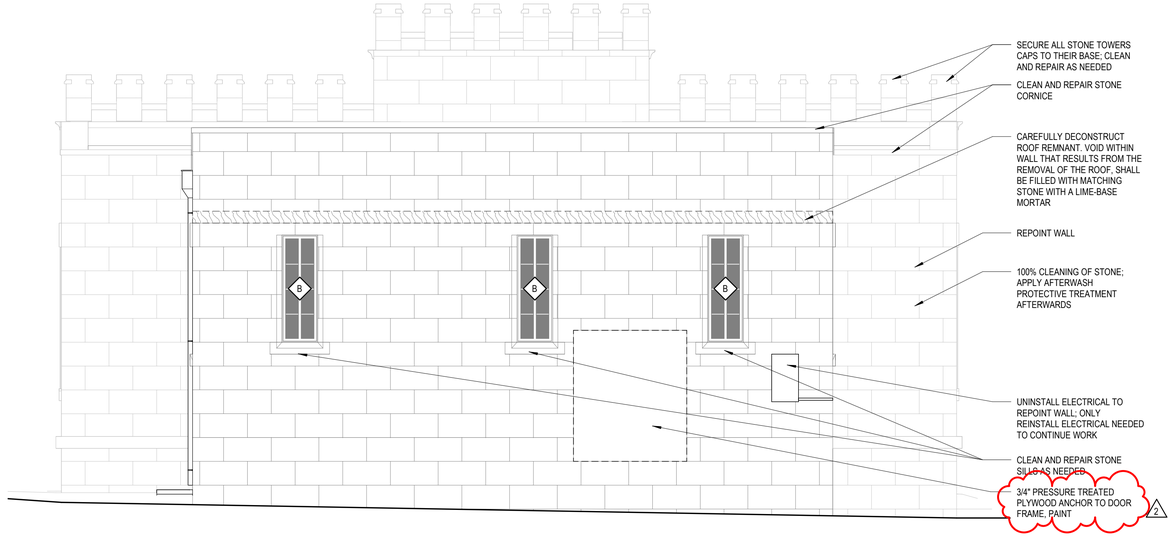
100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS

REMOVE PLYWOOD AND DUCT WORK AND PREP OPENING TO RECEIVE NEW WINDOW

UNINSTALL ELECTRICAL TO REPOINT WALL; ONLY REINSTALL ELECTRICAL NEEDED TO CONTINUE WORK

REPOINT WALL

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS




SECURE ALL STONE TOWERS CAPS TO THEIR BASE; CLEAN AND REPAIR AS NEEDED

CLEAN AND REPAIR STONE CORNICE

CAREFULLY DECONSTRUCT ROOF REMNANT. VOID WITHIN WALL THAT RESULTS FROM THE REMOVAL OF THE ROOF, SHALL BE FILLED WITH MATCHING STONE WITH A LIME-BASE MORTAR

REPOINT WALL

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS

UNINSTALL ELECTRICAL TO REPOINT WALL; ONLY REINSTALL ELECTRICAL NEEDED TO CONTINUE WORK

CLEAN AND REPAIR STONE SILLS AS NEEDED

3/4" PRESSURE TREATED PLYWOOD ANCHOR TO DOOR FRAME, PAINT 2

2 1881 JAIL-REHABILITATION-NORTH ELEVATION

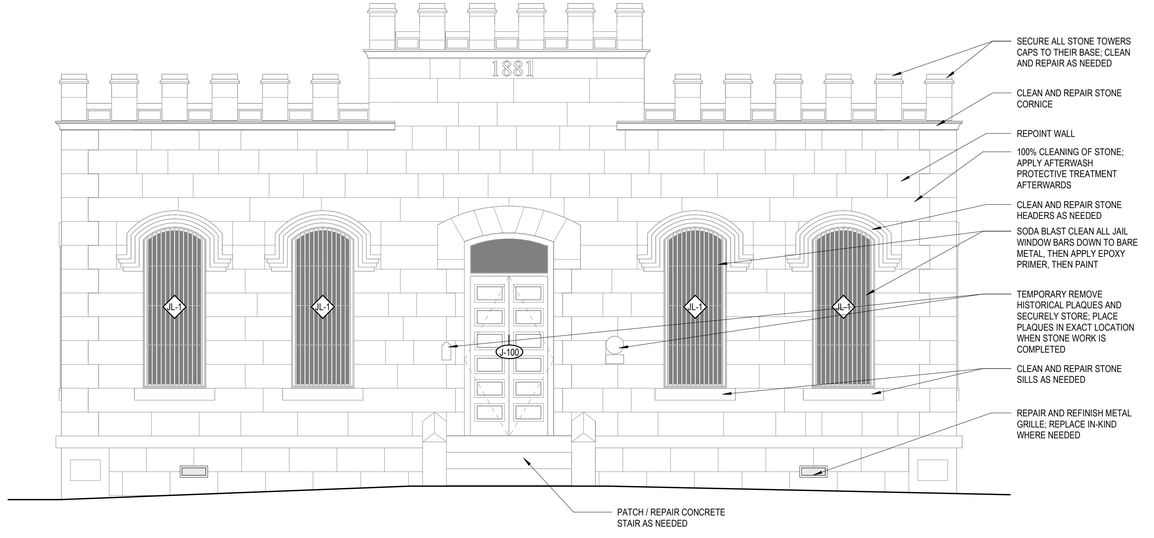
1/4" = 1'-0"


REPOINT WALL

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS

TEMPORARY REMOVE HISTORICAL PLAQUES AND SECURELY STORE; PLACE PLAQUES IN EXACT LOCATION WHEN STONE WORK IS COMPLETED

POSSIBLE AREA OF REASSEMBLY




SECURE ALL STONE TOWERS CAPS TO THEIR BASE; CLEAN AND REPAIR AS NEEDED

CLEAN AND REPAIR STONE CORNICE

REPOINT WALL

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS

CLEAN AND REPAIR STONE HEADERS AS NEEDED

SODA BLAST CLEAN ALL JAIL WINDOW BARS DOWN TO BARE METAL, THEN APPLY EPOXY PRIMER, THEN PAINT

TEMPORARY REMOVE HISTORICAL PLAQUES AND SECURELY STORE; PLACE PLAQUES IN EXACT LOCATION WHEN STONE WORK IS COMPLETED

CLEAN AND REPAIR STONE SILLS AS NEEDED

REPAIR AND REFINISH METAL GRILLE; REPLACE IN-KIND WHERE NEEDED

PATCH / REPAIR CONCRETE STAIR AS NEEDED

1 1881 JAIL-REHABILITATION-SOUTH ELEVATION

1/4" = 1'-0"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REGISTERED ARCHITECT MARY B. NAVARRO 25325 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

SHEET TITLE: EXTERIOR ELEVATIONS

PROJECT NO: 2301 A1

| △ | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

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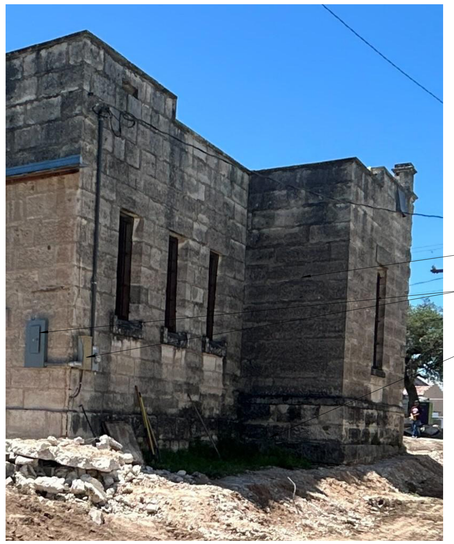
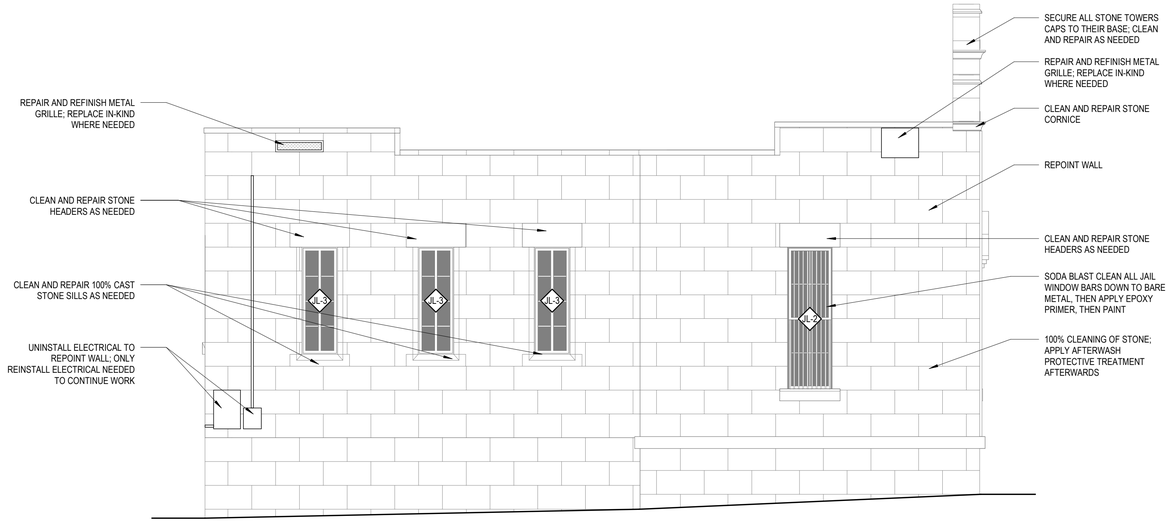


REPOINT WALL

UNINSTALL ELECTRICAL TO REPOINT WALL; ONLY REINSTALL ELECTRICAL NEEDED TO CONTINUE WORK

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS

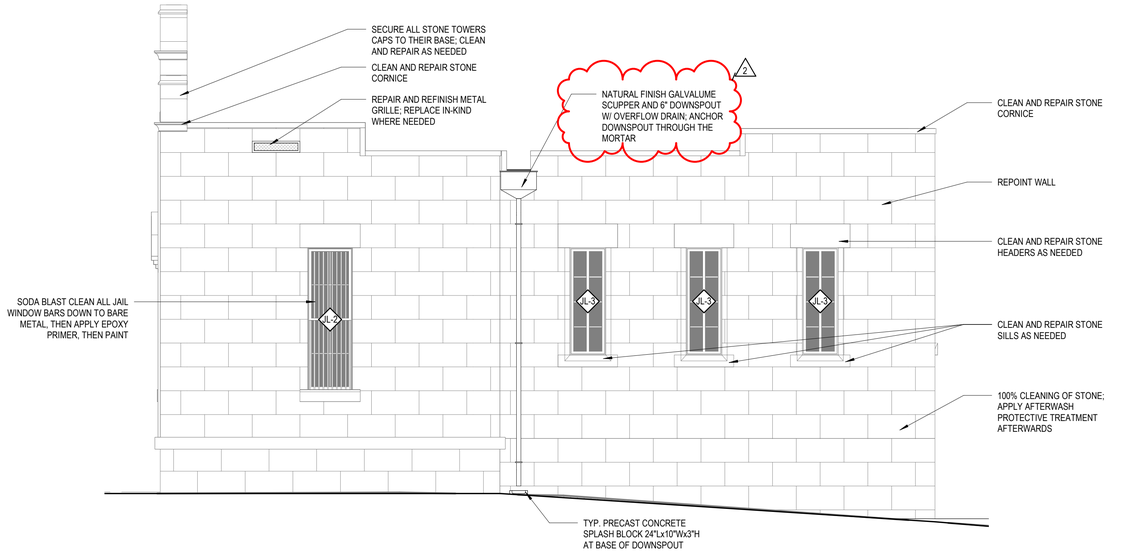



2 1881 JAIL-REHABILITATION-WEST ELEVATION

1/4" = 1'-0"

REPOINT WALL

100% CLEANING OF STONE; APPLY AFTERWASH PROTECTIVE TREATMENT AFTERWARDS




1 1881 JAIL-REHABILITATION-EAST ELEVATION

1/4" = 1'-0"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11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

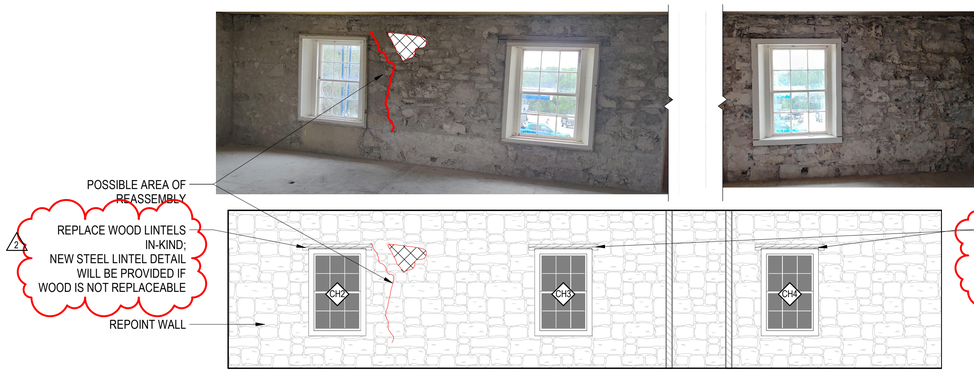
SHEET TITLE: EXTERIOR ELEVATIONS

PROJECT NO: 2301 A1

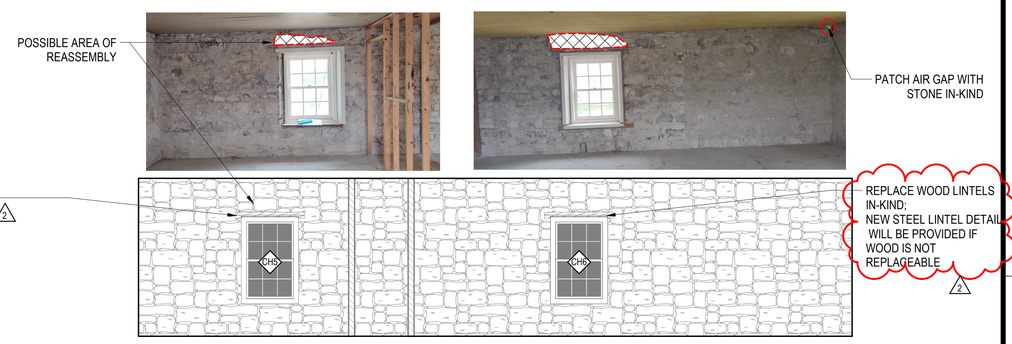
| | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-211

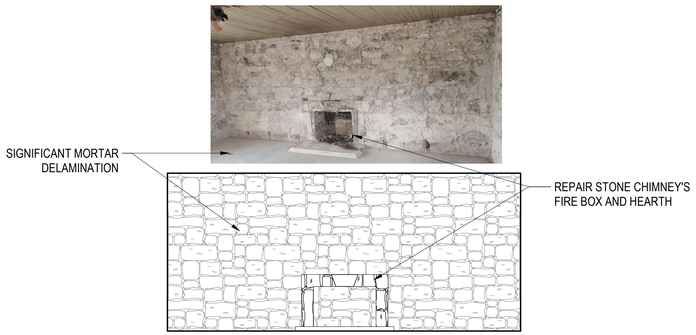
1/28/2025 2:58:07 PM




8 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"

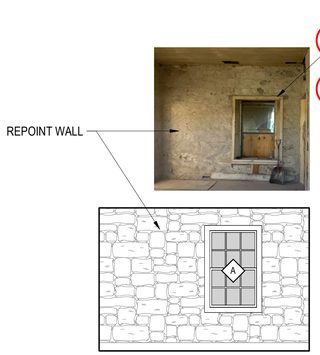



7 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"

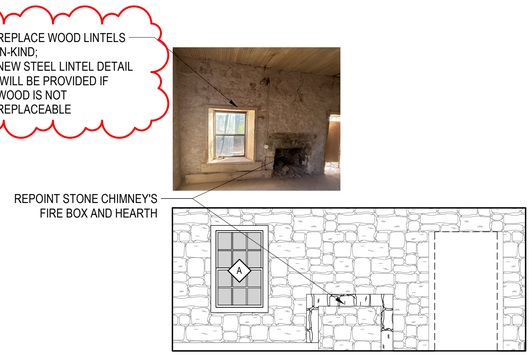



6 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"

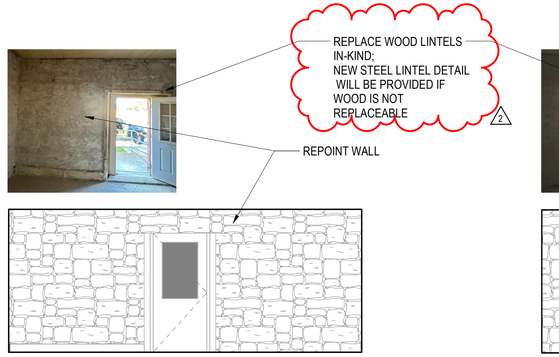

5 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"



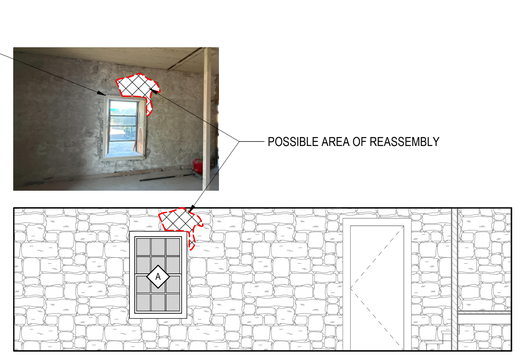

4 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"




3 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"




2 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"




1 1877 COURTHOUSE - INTERIOR ELEVATION
1/4" = 1'-0"

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REGISTERED ARCHITECT MARY B. NAVARRO 25326 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

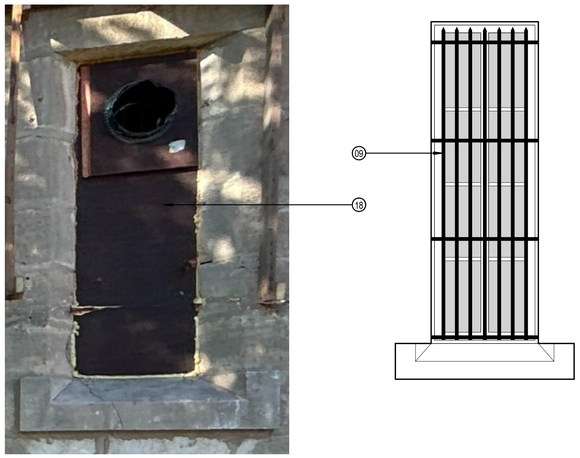
SHEET TITLE: ENLARGED ELEVATIONS

PROJECT NO: 2301 A1

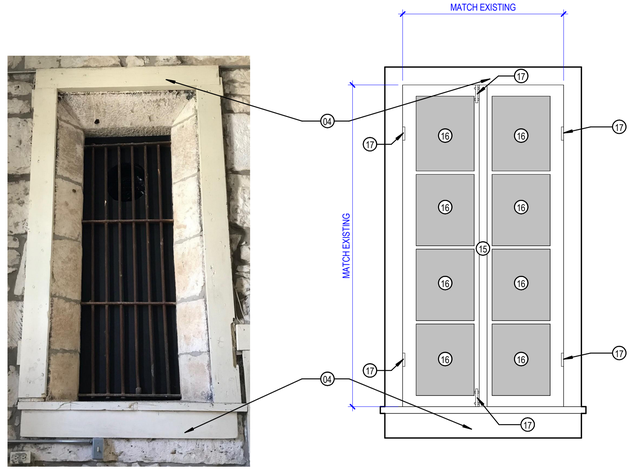
| △ | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-400

1/28/2025 2:58:08 PM



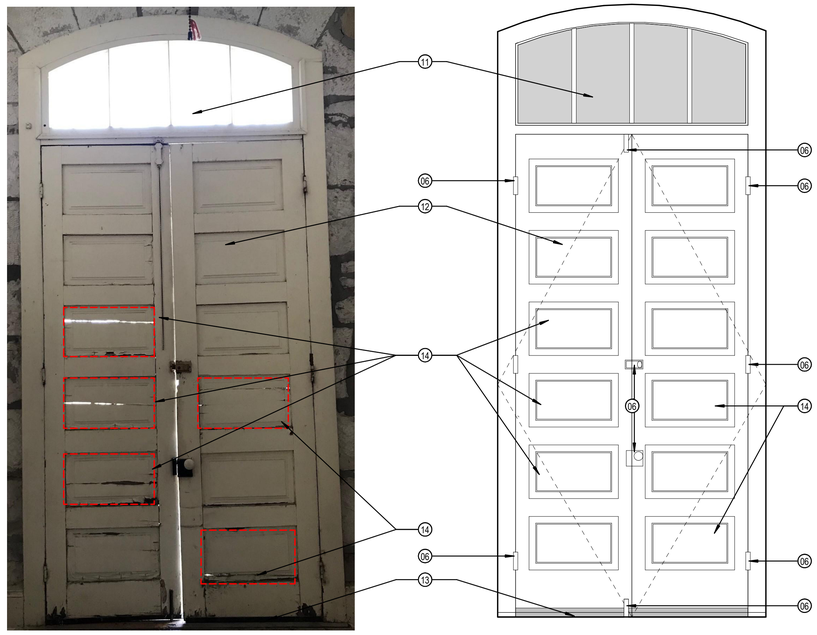

1 TYPE B EXTERIOR
3/4" = 1'-0"




2 TYPE B INTERIOR
3/4" = 1'-0"

DOOR HARDWARE SET ALTERNATE 2


3 DOOR J100 - EXTERIOR ELEVATION
3/4" = 1'-0"




4 DOOR J100 - INTERIOR ELEVATION
3/4" = 1'-0"

## GENERAL NOTES

1. IMMEDIATELY ON DISCOVERY OF THE NEED FOR CLARIFICATION OF THE CONTRACT DOCUMENTS, SUBMIT A REQUEST FOR INFORMATION TO ARCHITECT.
2. THESE DOCUMENTS SHOULD NO BE CONSIDERED AS A SURVEY OF EXISTING CONDITIONS. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR OMISSIONS BETWEEN DOCUMENTS AND FIELD CONDITIONS BEFORE COMMENCING ANY WORK AND REQUEST CLARIFICATION.
3. ELEMENTS NOTED WITHIN KEYNOTES ARE BASED UPON VISUAL OBSERVATIONS AT THE TIME OF SURVEY. CONTRACTOR TO VERIFY ANY ADDITIONAL SUBSEQUENT DAMAGE THAT MAY HAVE OCCURED. CONTRACTOR TO ASSUME 30% REPLACEMENT OF ELEMENTS IN-KIND FOR EACH WINDOW FOR PURPOSES OF BID AND VERIFY ON-SITE ANY ELEMENTS THAT ARE ROTTED, BROKEN, SPLIT OR MISSING SHALL BE REPLACED IN-KIND.
4. FIELD VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, & CONDITIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL DIMENSIONS ARE TO FACE OF MATERIAL UNLESS NOTED OTHERWISE.
6. CHIPS OR GAPS IN WOOD UNDER ONE-INCH MAY BE REPAIRED WITH WOOD FILLER. SAND, PREP & PAINT TO MATCH.
7. ANY BROKEN PANES OF GLASS TO BE REPLACED & REGLAZED IN-KIND.
8. APPLY A CONTINUOUS BEAD OF CLEAR SEALANT AROUND PERIMETER OF EACH WINDOW FRAME.
9. TYPE A WINDOWS TO RECEIVE HARDWARE MATCHING HISTORIC SECOND FLOOR WINDOWS IN-KIND. SCREW FRAMES SHUT FROM INTERIOR SIDE AFTERWARDS.

## KEYNOTES

01 REPLACE ROTTED COMPONANTS WITHIN FRAME AS NEEDED WITH WOOD, IN-KIND, MATCHING SIZE, SPECIES, AND PROFILE. SAND, PREP, AND PAINT ALL WOOD SURFACES.

02 STRIP AND PREPARE STILES, MULLIONS, AND RAILS TO RECEIVE NEW COAT OF PAINT. PATCH/REPAIR CRACKS AND HOLES WITH PUTTY. ANY ROTTED COMPONENTS TO BE REPLACED WITH WOOD, IN-KIND, MATCHING SPECIES.

03 STRIP AND PREPARE CASING, STOOL, AND APRON TO RECEIVE NEW COAT OF PAINT TO MATCH EXISTING. PATCH/REPAIR CRACKS AND HOLES WITH PUTTY. ANY ROTTED COMPONENTS TO BE REPLACED WITH WOOD, IN-KIND, MATCHING SIZE AND SPECIES.

04 STRIP AND PREPARE WINDOW FRAMES, SILLS, SASHES, AND TRIM TO RECEIVE NEW PAINT. PATCH/REPAIR CRACKS AND HOLES WITH PUTTY. ANY ROTTED COMPONENTS TO BE REPLACED WITH WOOD, IN-KIND, MATCHING SIZE AND SPECIES.

05 REPAIR DAMAGED STILES.

06 STRIP AND RECONDITION HARDWARE FOR REUSE.

07 REPLACE MISSING CASING WITH WOOD, IN-KIND, MATCHING SIZE AND SPECIES.

08 REPLACE BROKEN GLASS, REPLACE WITH NEW TEMPERED GLASS IN-KIND.

09 SODA BLAST CLEAN ALL JAIL WINDOW BARS DOWN TO BARE METAL, THEN APPLY EPOXY PRIMER, THEN PAINT

10 STRIP AND PREPARE INTERIOR WINDOW SCREEN TO RECEIVE NEW PAINT. PATCH/REPAIR CRACKS AND HOLES WITH PUTTY. ANY ROTTED COMPONENTS TO BE REPLACED WITH WOOD, IN-KIND, MATCHING SIZE AND SPECIES. REPLACE GLASS PANES IN-KIND.

11 REPAIR EXISTING TRANSOM FRAME / GLASS; REMOVE EXISTING PANES, REPLACE WITH NEW TEMPERED GLASS, IN-KIND. REPLACE DAMAGED WOOD COMPONANTS, IN-KIND, AS NEEDED. SAND, PREP, AND PAINT ALL WOOD SURFACES.

12 REPAIR / REPLACE DAMAGED DOOR COMPONENTS AS NEEDED WITH WOOD, IN-KIND, MATCHING SIZE AND SPECIES. SAND, PREP, AND PAINT ALL WOOD SURFACES.

13 REPLACE DAMAGED, DETERIORATED, OR MISSING WEATHERSTRIPPING AND INSTALL ADA METAL THRESHOLD.

14 DAMAGED RECESSED PANELS TO BE REPLACED IN-KIND TO MATCH EXISTING IN SIZE AND SPECIES; SAND, PREP, AND PAINT NEW WOOD SURFACES TO MATCH EXISTING WOOD SURFACES.

15 CONSTRUCT REPLICA WINDOW MATCH ADJACENT WOOD WINDOWS INKIND, SIZE AND SPECIES.

16 NEW TEMPERED GLASS, MATCH EXISTING IN-KIND.

17 NEW HARDWARE, MATCH EXISTING IN-KIND.

18 DEMO PLYWOOD AND DUCT WORK TO REVEAL JAIL BARS; CAREFULLY REMOVE ALL EXPOSED SPRAY FOAM AND MASTIC FROM MASONRY

Fisher Heck ARCHITECTS
915 SOUTH ST MARY'S STREET
SAN ANTONIO, TEXAS
FISHERHECK.COM
210-299-1500

REGISTERED ARCHITECT MARY B. NAVARRO 25325 STATE OF TEXAS

11/01/24

PROJECT: BANDERA COUNTY VISITOR CENTER

SHEET TITLE: DOOR REHABILITATION DETAILS - 1881 JAIL

PROJECT NO: 2301 A1

| △ | REVISIONS | DATE |
|---|---|---|
| 1 | RE-ISSUE | 11/1/2024 |
| 2 | ADDENDUM 3 | 1/27/2025 |

SHEET NO: A-611

1/28/2025 2:58:14 PM

## ***Historic Stabilization of 1881 Jail and 1877 Courthouse***

# RFCSP Submission Form

**~~RFCSP # 24-1114-9~~**
**RFCSP Due Date: 2/03/2025**

Submit to: Office of the County Judge
County of Bandera
500 Main Street
PO Box 877
Bandera, Texas 78003

Sealed proposals must be submitted on this form only. **Proposers are required to submit one original RFCSP submission form.**

The RFCSP Submission Form MUST be signed by an authorized representative. Original signature required.

**********

Proposal for complete historic stabilization 1881 Jail and 1877 Courthouse. 200 12th Street, Bandera, Texas and to return property to a suitable site ready for future development.

| | | |
|---|---|---|
| Base bid | $_____ | Calendar days _____ |
| Alternate #1 | $_____ | Calendar days _____ |
| (Window Replacement) | | |
| Allowance | $__20,000_____ | |
| (Roof Framing) | | |

Proposer acknowledges receipt of the following addenda:

| **Addendum #:** | **Addendum date:** |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

As outlined in the Evaluation Criteria of this RFCSP, please be sure to attach evidence of the following:

- Qualifications and experience of Proposer
- Qualifications and experience of Masonry subcontractor
- References
- Non Collusion Certificate

**SECTION 02 8333.13**

**LEAD-BASED PAINT REMOVAL AND DISPOSAL**

## PART 1 - GENERAL

### 1.01 DESCRIPTION

A. This section specifies abatement and disposal of lead-based paint (LBP) and controls needed to limit occupational and environmental exposure to lead hazards.

### 1.02 RELATED WORK

A. Section 01 3100 - Available Project Information: Lead Based Paint Surveys.

B. Section 02 4100 - Demolition.

B. Section 09 9000 - Painting and Coating.

### 1.03 APPLICABLE PUBLICATIONS

A. National Fire Protection Association (NFPA): NFPA 701-2004 - Methods of Fire Test for Flame-Resistant Textiles and Films.

B. National Institute for Occupational Safety And Health (NIOSH) NIOSH OSHA Booklet 3142 Lead in Construction.

C. Underwriters Laboratories (UL) UL 586-1996 (Rev 2009) High-Efficiency, Particulate, Air Filter Units.

### 1.04 DEFINITIONS

A. Action Level: Employee exposure, without regard to use of respirations, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, ”30 micrograms per cubic meter of air" refers to the action level.

B. Area Monitoring: Sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations which may reach the breathing zone of personnel potentially exposed to lead.

C. Physical Boundary: Area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" shall mean the same as "outside lead control area."

D. Certified Industrial Hygienist: As used in this section, refers to an Industrial Hygienist employed by the Contractor and is certified by the American Board of Industrial Hygiene in comprehensive practice.

F. Competent Person: A person capable of identifying lead hazards in the work area and is authorized by the contractor to take corrective action.

G. Decontamination Room: Room for removal of contaminated personal protective equipment (PPE).

H. Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.

I. High Efficiency Particulate Air (HEPA) Filter Equipment: HEPA filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining lead-contaminated paint dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron size particles.

J. Lead: Metallic lead, inorganic lead compounds, and organic lead soaps. Excluded from this definition are other organic lead compounds.

K. Lead Control Area: An enclosed area or structure with full containment to prevent the spread of lead dust, paint chips, or debris of lead-based paint removal operations. The lead control area is isolated by physical boundaries to prevent unauthorized entry of personnel.

L. Lead Permissible Exposure Limit (PEL): Fifty micrograms per cubic meter of air as an 8-hour time weighted average. If an employee is exposed for more than 8 hours in a work day, the PEL shall be determined by the following formula. PEL (micrograms/cubic meter of air) = 400/No. of hrs worked per day

M. Personnel Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere, forward of the shoulders, with a radius of 150 mm to 225 mm (6 to 9 inches) and the center at the nose or mouth of an employee.

**1.05 QUALITY ASSURANCE**

A. The Contractor shall employ a Certified Industrial Hygienist who will be responsible for the following:
   1. Certify Training.
   2. Review and approve lead-based paint removal plan for conformance to the applicable referenced standards.
   3. Inspect lead-based paint removal work for conformance with the approved plan.
   4. Direct monitoring.
   5. Ensure work is performed in strict accordance with specifications at all times.
   6. Ensure hazardous exposure to personnel and to the environment are adequately controlled at all times.

B. Training: Train each employee performing paint removal, disposal, and air sampling operations prior to the time of initial job assignment.

C. Training Certification: Submit certificates signed and dated by the Certified Industrial Hygienist and by each employee stating that the employee has received training.

D. Respiratory Protection Program:
   1. Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit test at the time of initial fitting and at least every 6 months thereafter.

2. Establish and implement a respiratory protection program as required by.

E. Hazard Communication Program: Establish and implement a Hazard Communication Program.

F. Hazardous Waste Management: The Hazardous Waste Management plan shall comply with applicable requirements of Federal, State, and local hazardous waste regulations and address:
   1. Identification of hazardous wastes associated with the work.
   2. Estimated quantities of wastes to be generated and disposed of.
   3. Names and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and a 24-hour point of contact. Furnish two copies of EPA, state, and local hazardous waste permit applications, permits, and EPA Identification numbers.
   4. Spill prevention, containment, and cleanup contingency measures to be implemented.
   5. Work plan and schedule for waste containment, removal and disposal. Wastes shall be cleaned up and containerized daily.
   6. Cost for hazardous waste disposal according to this plan.

G. Safety and Health Compliance:
   1. In addition to the detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of federal, state, and local authorities regarding removing, handling, storing, transporting, and disposing of lead waste materials.
   2. Where specification requirements and the referenced documents vary, the most stringent requirements shall apply.

H. Pre-Construction Conference: Along with the, meet with the Certified Industrial Hygienist to discuss in detail the lead-based paint removal work plan, including work procedures and precautions for the work plan.

**1.06 SUBMITTALS**

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

B. Manufacturer's Catalog Data:
   1. Vacuum filters.
   2. Respirators.

C. Instructions: Paint removal materials. Include applicable material safety data sheets.

D. Statements Certifications and Statements:
   1. Qualifications of certified industrial hygienist : Submit name, address, and telephone number of the selected to perform the specified responsibilities. Provide previous experience. Submit proper documentation that the Industrial Hygienist is certified by the American Board of Industrial Hygiene in comprehensive practice, including certification number and date of certification/recertification.
   2. Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected to perform the monitoring, testing, and reporting of airborne

concentrations of lead. Provide proper documentation that persons performing the analysis have been judged proficient by successful participation within the last year in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) Program. The laboratory shall be accredited by the American Industrial Hygiene Association (AIHA). Provide AIHA documentation along with date of accreditation/reaccreditation.

3. Lead Based Paint Removal Plan:
    a. Submit a detailed job-specific plan of the work procedures to be used in the removal of lead-based paint. The plan shall include a sketch showing the location, size, and details of lead control areas, location and details of decontamination rooms, change rooms, shower facilities, and mechanical ventilation system.
    b. Include in the plan, eating, drinking, smoking and restroom procedures, interface of trades, sequencing of lead related work, collected wastewater and paint debris disposal plan, air sampling plan, respirators, protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air are not exceeded outside of the lead control area.
    c. Include air sampling, training and strategy, sampling methodology, frequency, duration of sampling, and qualifications of air monitoring personnel in the air sampling portion on the plan.
4. Field Test Reports: Monitoring Results: Submit monitoring results to the Owner and Architect within 3 working days, signed by the testing laboratory employee performing the air monitoring, the employee that analyzed the sample, and the Certified Industrial Hygienist.
5. Records:
    a. Completed and signed hazardous waste manifest from treatment or disposal facility.
    b. Employee training certification.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

A. Paint Removal Products: Submit applicable Material Safety Data Sheets for paint removal products used in paint removal work. Use the least toxic product, suitable for the job and acceptable to the Industrial Hygienist.

**PART 3 EXECUTION**

**3.01 PROTECTION**

A. Notification: Notify the Owner 20 days prior to the start of any paint removal work.
B. Lead Control Area Requirements.
    1. Establish a lead control area by completely enclosing with containment screens the area or structure where lead-based paint removal operations will be performed.
    2. Contain removal operations by the use of a negative pressure full containment system with at least one change room and with HEPA filtered exhaust.

C. Protection of Existing Work to Remain: Perform paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition.

D. Boundary Requirements: Provide physical boundaries around the lead control area by roping off the area or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.

E. Heating, Ventilating and Air Conditioning (HVAC) Systems: Shut down, lock out, and isolate HVAC systems that supply, exhaust, or pass through the lead control areas. Seal intake and exhaust vents in the lead control area with 6-mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area.

F. Mechanical Ventilation System:

1. Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.57.
2. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters or other collection systems, approved by the industrial hygienist. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.
3. If air from exhaust ventilation is recirculated into the work place, the system shall have a high efficiency filter with reliable back-up filter and controls to monitor the concentration of lead in the return air and to bypass the recirculation system automatically if it fails. Air may be recirculated only where exhaust to the outside is not feasible.

G. Personnel Protection: Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been given appropriate training and protective equipment.

H. Warning Signs: Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area.

**3.02 WORK PROCEDURES**

A. Perform removal of lead-based paint in accordance with approved removal plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-based paint is removed, except as specified herein. Dispose of removed paint chips and associated waste in compliance with Environmental Protection Agency (EPA), federal, state, and local requirements.

B. Personnel Exiting Procedures:

1. Whenever personnel exist the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn during the work day:
    a. Vacuum themselves off.
    b. Remove protective clothing in the decontamination room, and place them in an approved impermeable disposal bag.
    c. Shower.
    d. Change to clean clothes prior to leaving the physical boundary designated around the lead-contaminated job site.

C. Monitoring: Monitoring of airborne concentrations of lead shall be as specified herein. Air monitoring, testing, and reporting shall be performed by a certified industrial hygienist or an Industrial Hygiene Technician who is under the direction of the Certified Industrial Hygienist:
    1. The Certified Industrial Hygienist or the Industrial Hygiene Technician under the direction of the Certified Industrial Hygienist shall be on the job site directing the monitoring, and inspecting the lead-based paint removal work to ensure that the requirements of the Contract have been satisfied during the entire lead-based paint removal operation.
    2. Take personal air monitoring samples on employees who are anticipated to have the greatest risk of exposure as determined by the Certified Industrial Hygienist. In addition, take air monitoring samples on at least 25 percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.
    3. Submit results of air monitoring samples, signed by the Certified Industrial Hygienist, within 24 hours after the air samples are taken. Notify the Architect immediately of exposure to lead at or in excess of the action level of 30 micrograms per cubic meter of air outside of the lead control area.

D. Monitoring During Paint Removal Work:
    1. Perform personal and area monitoring during the entire paint removal operation. Sufficient area monitoring shall be conducted at the physical boundary to ensure unprotected personnel are not exposed above 30 micrograms per cubic meter of air at all times. If the outside boundary lead levels are at or exceed 30 micrograms per cubic meter of air, work shall be stopped and the Certified Industrial Hygienist shall immediately correct the condition(s) causing the increased levels and notify the Architect immediately.
    2. The certified industrial hygienist shall review the sampling data collected on that day to determine if condition(s) requires any further change in work methods. Removal work shall resume when approval is given by the Certified Industrial Hygienist. The Contractor shall control the lead level outside of the work boundary to less than 30 micrograms per cubic meter of air at all times. As a minimum, conduct area monitoring daily on each shift in which

lead paint removal operations are performed in areas immediately adjacent to the lead control area.

3. For outdoor operations, at least one sample on each shift shall be taken on the downwind side of the lead control area. If adjacent areas are contaminated, clean and visually inspect contaminated areas. The Certified Industrial Hygienist shall certify that the area has been cleaned of lead contamination.

**3.03 LEAD-BASED PAINT REMOVAL**

A. Remove paint within the areas designated on the drawings in order to completely expose the substrate. Take whatever precautions are necessary to minimize damage to the underlying substrate.

B. Indoor Lead Paint Removal: Select paint removal processes to minimize contamination of work areas with lead-contaminated dust or other lead-contaminated debris/waste. This paint removal process should be described in the lead-based paint removal plan. Perform manual sanding and scraping to the maximum extent feasible.

C. Mechanical Paint Removal and Blast Cleaning: Perform mechanical paint removal and blast cleaning in lead control areas using negative pressure full containments with HEPA filtered exhaust. Collect paint residue and spent grit (used abrasive) from blasting operations for disposal in accordance with EPA, state and local requirements.

D. Outside Lead Paint Removal: Select removal processes to minimize contamination of work areas with lead-contaminated dust or other lead-contaminated debris/waste. This paint removal process should be described in the lead-based paint removal plan. Perform manual sanding and scraping to the maximum extent feasible.

**3.04 SURFACE PREPARATIONS**

Avoid flash rusting or other deterioration of the substrate. Provide surface preparations for painting in accordance with Section 09 9000 Painting and Coating.

**3.05 CLEANUP AND DISPOSAL**

A. Cleanup: Maintain surfaces of the lead control area free of accumulations of paint chips and dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner and wet mopping the area.

B. Certification: The Certified Industrial Hygienist shall certify in writing that the inside and outside the lead control area air monitoring samples are less than 30 micrograms per cubic meter of air, the respiratory protection for the employees was adequate, the work procedures were performed in accordance with the most stringent jurisdictional guidelines and requirements, and that there were no visible accumulations of lead-contaminated paint and dust on the worksite. Do not

remove the lead control area or roped-off boundary and warning signs prior to the issuance of the Certified Industrial Hygienist's certification. Reclean areas showing dust or residual paint chips.

C. Testing of Lead-Based Paint Residue and Used Abrasive: Where indicated test lead-based paint residue and used abrasive for hazardous waste.

D. Disposal:
   1. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing which may produce airborne concentrations of lead particles and label the containers. Dispose of lead-contaminated waste material at a EPA or state approved hazardous waste treatment, storage, or disposal facility off Government property.
   2. Store waste materials in U.S. Department of Transportation approved 55-gallon drums. Properly label each drum to identify the type of waste and the date the drum was filled.
   3. Handle, store, transport, and dispose lead or lead-contaminated waste in accordance with jurisdictional regulations.

E. Disposal Documentation Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and state or local regulatory agencies.

**END OF SECTION**

**SECTION 040000**
**MASONRY REPOINTING**

**PART 1**

**GENERAL 1.01 SECTION INCLUDES**

A. Repointing of deteriorated mortar joints at below-grade and above grade of masonry walls, as needed.
   1. NHL-based mortar mix, to match historic 20th century lime mortars, as approved by the THC.
   2. Need for repointing below-grade will be determined by Architect once below-grade walls are exposed after removal of previously excavated soils.

B. Work in this section will be performed by the General Contractor and Masonry Subcontractor, in coordination with the Architect and the Owner.

**1.02 REFERENCE STANDARDS**

A. NPS Technical Preservation Services Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings; 1998.

B. ASTM C1713 - Standard Specification for Mortars for the Repair of Historic Masonry; 2013.

C. Hot and Cold Weather Masonry Construction; Masonry Industry Council; 1999.

**1.03 COORDINATION**

A. Coordinate work in this section with structural repairs.

**1.04 MEETINGS**

A. Convene two weeks before starting work of this section and work of related sections affecting work of this section.

B. Require attendance of parties directly affecting work of this section: Contractor, Mason(s), Architect, and those requested to attend.

C. Review conditions of installation, installation procedures, and coordination with related work. Review manufacturer's requirements, product, and execution.

**1.05 PERFORMANCE REQUIREMENTS**

A. All work shall comply with the United States Secretary of the Interior's Standards for the Treatment of Historic Properties, unless stated otherwise.

B. Repointing basic reference standard shall be the NPS Preservation Brief 2: Repointing Mortar Joints in Historic Masonry Buildings, by Robert C. Mack, FAIA and John P. Speweik.

**1.06 SUBMITTALS**

A. Certificates: Certify that mason experience and training meets or exceeds specified requirements below.

B. Product Data: Provide data on mortar design components.

**1.07 QUALITY ASSURANCE**

A. Restorer: Masonry contractor with documented expertise in masonry restoration with minimum ten years of experience and which employs technicians with documented training and experience in the required masonry restoration procedures. Work must be performed by specialists with documented prior experience working with Hydraulic Lime Mortars on historic masonry buildings. Specialists employed by contractor shall be identified in submittal along with a list of prior projects. Masonry contractor shall maintain a steady work crew consisting of skilled craftsmen who are experienced with the materials and methods specified. The foreman shall be present daily on the site. In acceptance or rejection of this work, no account shall be taken for incompetence on the part of the workmen.

B. Modification: In the event that the masonry contractor wants to modify any of the specified materials or methods, the proposed changes shall be submitted in writing to the Architect and shall include all pertinent information requested for the specified products and techniques. No modifications shall take place without written approval.

C. Source of materials: Obtain materials for repointing from a single source for each type of material required to ensure a match in quality, color and texture.

D. Do not modify intended aesthetic effects, and ensure the mortar meets all performance requirements. Where modifications are proposed, submit comprehensive explanatory data to the Architects and the Conservator for review.

E. Comply with all applicable Municipal, State, and Federal regulations.

**1.08 MOCK-UP**

A. Submit the following mock ups for approval prior to starting the work. Please note that each mockup must be performed by each mason working on that task. These mockups include: Raking out of joints and repointing.

B. For each mason who will work on a particular task, provide the following:
   1. Mortar removal mock-up for existing joints - sized minimum of 24 in x 24 in.
   2. Repointing - sized minimum of 24 inch x 24 inch.
   3. Repointing with chinking stone inserted in joints - sized minimum of 24 inch x 24 inch.
   4. Incorporate representative sample of repair mortar joint adjacent to existing sound mortar.

C. Mortar color, texture and tooling: Match color, texture and tooling of designated historic mortars.

D. Approved Mortar Sample: Protect and maintain approved mortar sample until all pointing work is complete and accepted.

E. Locate where directed.
   1. Acceptable panel and procedures employed shall become the standard for work of this section.
   2. Mock-up may remain as part of the Work.

**1.09 DELIVERY, STORAGE, AND PROTECTION**

A. Storage and Handling: Store masonry materials in a clean, dry location. Secure materials in location where unauthorized individuals cannot reach them.

**1.10 PROJECT CONDITIONS**

A. Take whatever precautions are necessary to protect the existing building from damage resulting from work under this section.

B. Prevent mortar and patching compounds used in repointing and repair work from staining face of surrounding masonry and other surfaces. Remove immediately mortar and patching compounds in contact with exposed masonry and other surfaces.

**1.11 ENVIRONMENTAL REQUIREMENTS**

A. No repointing shall be undertaken when either the air or masonry surface temperature is below 45 degrees F, unless adequate, approved means are provided for maintaining 55 degree F temperature of the air and stone for 72 hours after application.

**PART 2**

**PRODUCTS 2.01 MANUFACTURERS OF RESTORATION PRODUCTS**

A. Acceptable Manufacturer of Hydraulic Lime, Masonry Repair and Stabilization Products: Lime Works US. PO Box 151, Milford Square, PA, 18935. Phone: (215) 536 - 6706. Website: www.limeworks.us

B. Reference in the specifications to materials by trade name is to establish a standard of quality. It is not intended to exclude other manufacturers whose materials that, in the judgment of the Architects, are equivalent to those named.

**2.02 MATERIALS COURTHOUSE AND JAIL INTERIOR**

A. Lime: Should conform to ASTM C207, Type S, high plasticity, Hydrated Lime for Masonry Purposes.
   1. Lime which meets this standard will "work" well, resists drying during curing, and is sufficiently strong for the purpose of repointing and repairing.
   2. Lime expands as it hydrates, making high lime mortars more resistant to crack formation.

B. Cement: Should conform to ASTM C150, Type I, White. It should not have more than 0.60% alkali nor more than 0.15% water soluble alkali. Use gray portland cement ONLY if a dark mortar is to be matched.
   1. Cement meeting this standard should increase the workability of the mortar, accelerate the setting time and slightly increase the strength of the mortar.
   2. The low alkali content will prevent efflorescence.

C. Sand: Free of impurities and conforming to ASTM C144.
   1. Sand color, size, and texture should match the original as closely as possible. Provide a sample of the sand for comparison to the original, and have it approved by the RHPO before beginning repointing work.
   2. When possible, use bar sand or beach sand rather than crushed sand for the repointing mortar. Bar sand or beach sand should be washed to remove the salts before using.
      i Crushed sand has sharp edges, which makes it more "sticky" and difficult to work into the joints.
      ii Bar sand, on the other hand, has rounded edges and flows easily during the mortar application.
      iii The working characteristics of mortar made with crushed sand may be improved by adding a slight amount of portland cement. The amount of cement should not exceed 20% of the total lime/cement binder. 20% or less of cement has minimal effect on the hardness of the mortar. Cement content above 20% will make the mortar too hard.

D. Clean, potable water: If the water must be transported or stored in a container, the container must not impart any chemicals to the water.

E. Stone dust finely ground from the same stone as that to be repointed.

F. Additives: No antifreeze compounds or other admixture shall be used. Do not use anti-freeze compounds. These compounds are designed for use with cement mortars, and their effectiveness with high lime mortars is questionable. Furthermore, the compounds contain salts which can lead to serious problems in the masonry at a later time.

G. Air entraining agents are not recommended. These agents are designed for use with cement rather than lime, and they result in decreased bonding of the mortar and the masonry. Air entraining is not necessary with high lime mortars because of the natural ability of these mortars to flex with temperature changes.

**2.03 MORTAR MIXES COURTHOUSE**

A. Final mortar mix will be determined by Architect after observing Contractor mock ups.

B. Mortar Mix #1: Lime Mortar
   1. 4 parts buff colored River Sand
   2. 1 part Lime
   3. 1/4 parts Portland Cement

C. Measurement and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
   1. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that shall retain its form when pressed into a ball. Maintain mortar in this dampened condition for 1 to 2 hours. Add remaining water in small portions until reaching mortar of the desired consistency. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material.

D. Do not use admixtures of any kind in mortar, unless otherwise indicated.

**2.04 MATERIAL – JAIL EXTERIOR**

A. Water: Potable

B. Not used.

C. Test and analyze existing original historic mortar before repointing in order to provide a match with the new repointing mortar.

D. Historic mortars are usually softer than newer mortars, often using lime as a binder rather than cement. Lime for repointing mortar shall conform to ASTM C 207, Type S, unless otherwise specified.

E. Not used.

**2.05 MOTAR MIXES – JAIL EXTERIOR**

A. Mortar Material Testing: Provide laboratory testing of original mortar to determine required matching for composition and color of new mortar.

B. Basis for Standard of Care: U.S. Department of the Interior – National Park Service – Standards and Guidelines.

C. No masonry or mortar shall be used in the work until the samples and the represented mixture have been approved.

D. Measurement and Mixing: Measure cementitious and aggregate material in a dry condition by volume or equivalent weight. Do not measure by shovel; use known measure. Mix materials in a clean, mechanical batch mixer.
   1. Mixing Pointing Mortar: Thoroughly mix cementitious and aggregate materials together before adding any water. Then mix again adding only enough water to produce a damp, unworkable mix that shall retain its form when pressed into a ball. Maintain mortar in this dampened condition for 1 to 2 hours. Add remaining water in small portions until reaching mortar of the desired consistency. Use mortar within 30 minutes of final mixing; do not retemper or use partially hardened material.

E. Do not use admixtures of any kind in mortar, unless otherwise indicated.

## PART 3 EXECUTION

### 3.01 PREPARATION FOR REPAIR

A. Verify that surfaces to be repaired are ready for work in this section.

B. Protect elements surrounding the work of this section from damage and disfigurement.

C. Immediately remove stains, efflorescence, or other excess resulting from the work of this section.

D. Provide waterproof dams to divert flowing water to exterior. Collect and remove all water from site, as required by Owner.

### 3.02 MORTAR REMOVAL - RAKING OUT OF MORTAR JOINTS

A. The objective of mortar removal is to remove failed, incongruous and detrimental materials without damaging the stone. Emphasis should be placed on preserving the edges of the stone units.

B. Remove all defective mortar material plus all cement based mortars from joints using a combination of hand tools and hand held grinders or specially designed mortar removal pneumatic tools. The use of hand held grinders or pneumatic tools will be allowed where, in the case of stone joints; joint widths can accommodate a single pass of the blade without touching either edge of the stone and, where mortar can be mechanically cut without damaging the stone. Each mechanic must demonstrate proficiency in the use of hand held grinders or pneumatic tools. Electric or pneumatic demolition hammers, chipping guns or the equivalent will not be allowed for removing mortar from joints.

C. Rake out joints as follows:

1. Rake out mortar joints to minimum depth of 2 inch.
2. Remove and retain all chinking and filler stones for reinsertion into wall as necessary for repair.
3. Remove mortar to provide reveals with square backs and to expose masonry for contact with pointing mortar. Remove dirt, dust and debris by washing with very low pressure water delivered from a garden hose.
4. Moisten joints with clean water and stiff natural bristle brush before application of mortar to sufficient degree to avoid absorption of water from the mortar.

### 3.03 MORTAR MIXING

A. Thoroughly mix ingredients in quantities needed for immediate use. Mix dry ingredients mechanically until uniformly distributed. Add water to achieve workable consistency that is suitable for the very absorbent limestone walls. Discard lumpy, caked, frozen and hardened mixes and mixes not used within 2 hours after initial mixing.

B. Do not use antifreeze compounds to lower freezing temperature of mortar.

### 3.04 REPOINTING - MORTAR APPLICATION

A. Use hand tools only. Do not use power tools.

B. Do not damage masonry units.

C. First layer to create a uniform depth for later applications and to be thoroughly compacted into cavities: apply mortar to a maximum thickness of 1/2”.

D. After joints have been filled to a uniform depth, apply remaining mortar in successive 1/2” thick layers: fully compact each layer and allow to dry to thumbprint hardness before applying next layer.

E. Insert chinking stones were required to support stone units and maintain the historic appearance of mortar joints. Some chinking stones will be buried in the joint and others will be visible at the surface of the joint.

F. When final layer is thumbprint hard, tool to match approved sample joint. Joint profile shall be slightly recessed from the edges of the stone units with small shim stones protruding from the mortar joints. A raised ribbon mortar joint profile and/or covering the faces of the stone units is not part of this contract.

G. Avoid feather-edging of mortar joint. Slightly recess the mortar from face of stone to expose edges of each stone unit.

H. Immediately after repointing, remove excess mortar by light brushing with a natural bristle brush. Do not leave encrusted matter.

I. Keep mortar damp by wetting and covering completed work for 48 hours after pointing to permit proper hardening of mortar. The following cures are permissible:
    1. Cover masonry temporarily with burlap, which is moistened periodically.
        a. Burlap to be fastened to walls through mortar joints only. Patch and repair holes as necessary following removal of burlap.
    2. Cover wall with plastic sheets temporarily to prevent evaporation.

**3.05 MASONRY REPLACEMENT**

A. Replace masonry with salvaged stone from existing building, or approved sources.

B. If a few isolated masonry units are to be replaced, remove each without disturbing the surrounding masonry. Deteriorated masonry units and mortar requiring replacement shall be removed by hand chiseling.

C. Adjoining masonry units shall not be damaged during the removal of deteriorated units and mortar.

D. Test the new element for fitting into its space without mortar. If wedges are used to support and align the new unit, they shall be covered with at least 1-1/2 inches of mortar when pointing is complete.

E. Cover the four sides and back of the space with sufficient mortar to ensure that there will be no air spaces when the new unit is set. The new unit shall be lined up and set by tapping it into place with a wooden or rubber mallet.

F. Align face of new unit with that of existing masonry.

G. Joints shall be repointed to match the rest of the wall after new units have been properly installed and adjusted.

H. Clean replacement areas with a non-metallic brush and water to remove excess mortar.

**3.06 CLEANING**

A. The face of all stonework shall be appropriately cleaned after completion of pointing and other work liable to soil the stone. Do not use water cleaning unless directed by Architect.
    1. Remove any mortar splashes or smears carefully from the surface with scrapers. Do not damage masonry units.
    2. Interior stonework shall be cleaned with dry brushes ONLY. Carefully vaccum debris as needed.

**3.07 PROTECTION**

A. Protect installed Work from subsequent construction operations.

**END OF SECTION**

**SECTION 076100**
**SHEET METAL ROOFING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Sheet metal roofing, associated flashings, and underlayment.

B. Gutters.

C. Downspouts.

D. Integral fascias.

E. Sealants for joints within sheet metal fabrications.

### 1.02 REFERENCE STANDARDS

A. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels (with Coil Coating Appendix); 2022.

B. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or ZincIron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

C. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2018.

D. ASTM D1970/D1970M - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection; 2021. E. ICC-ES AC188 - Acceptance Criteria for Roof Underlayments; 2023.

F. SMACNA (ASMM) - Architectural Sheet Metal Manual; 2012.

### 1.03 ADMINISTRATIVE REQUIREMENTS

### 1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Provide data on metal types, finishes, characteristics, and gauge.

C. Shop Drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashings, terminations, and installation details.

D. Installation Samples: Submit two samples 24 by 24 inches in size illustrating metal roofing mounted on plywood backing illustrating typical seam.

E. Color Samples: Submit two samples 24 by 24 inches in size illustrating metal finish color.

### 1.05 QUALITY ASSURANCE

A. Perform work in accordance with SMACNA (ASMM) requirements and standard details, except as otherwise noted.
   1. Maintain one copy on project site.

B. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.

### 1.06 DELIVERY, STORAGE, AND HANDLING

A. Stack material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

B. Prevent contact with materials that could cause discoloration or staining.

### 1.07 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

B. Correct defective work within a 5-year period after Date of Substantial Completion. Defective work includes degradation of metal finish.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Sheet Metal Roofing Manufacturers:
   1. Berridge Manufacturing Company; Galvalume: www.berridge.com
   2. Construction Metal Products, Inc; Galvalume: www.cmpmetalsystems.com/#sle.
   3. Petersen Aluminum Corporation; Galvalume: www.pac-clad.com/#sle.
   4. Taylor Metal Products; Galvalume: www.taylormetal.com/#sle.
   5. Substitutions: See Section 016000 - Product Requirements.

B. Sheet Metal Roofing Underlayment Manufacturers:
   1. SharkSkin Ultra SA; www. Sharkskinroof.com

### 2.02 SHEET MATERIALS

A. Galvalume Standing Seam Sheet: Crimped Ridge 1” Seams and 21” Width panels. Gauge 0.0239-inch minimum metal thickness, shop precoated with Acrylic-Coated Galvalume – Natural Metal Finish.

### 2.03 FABRICATION

A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

B. Fabricate cleats of same material as sheet, thickness to match roofing sheet, and at least ___ inch wide, interlockable with sheet.

C. Fabricate starter strips, interlockable with sheet.

D. Form pieces in longest practical lengths.

E. Hem exposed edges on underside 1/2 inch; miter and seam corners.

F. Form material with standing seams, except where otherwise indicated. At moving joints, use sealed lapped, bayonet-type or interlocking hooked seams.

### 2.04 FINISHES

A. Acrylic-Coated Galvalume – Natural Metal Finish, to be Pre-Fab to top and bottom side of sheet.

### 2.05 ACCESSORIES

A. Fasteners: Galvanized steel, with soft neoprene washers.

B. Underlayment: Synthetic non-asphaltic sheet, intended by manufacturer for self adhered fastened roofing underlayment.
   1. Minimum Requirements: Comply with requirements of ICC-ES AC188 for non-selfadhesive sheet.
   2. Self Sealability: Passing nail sealability test specified in ASTM D1970/D1970M.
   3. Ultraviolet Resistance and Weatherability: Approved in writing by manufacturer for exposure to weather for minimum of 12 months.
   4. Low Temperature Flexibility: Passing test specified in ASTM D1970/D1970M.
   5. Fasteners: As specified by manufacturer and building code qualification report or approval, if any.

C. Concealed Sealants: Non-curing butyl sealant or butyl tape.

D. Exposed Sealants: ASTM C920 elastomeric sealant, with minimum movement capability as recommended by manufacturer for sealed substrates; color to match adjacent material.

## PART 3 EXECUTION

### 3.01 EXAMINATION

A. Inspect roof deck to verify deck is clean and smooth, free of depressions, waves, or projections, properly sloped to drains.

B. Verify deck is dry and free of snow or ice. Verify joints in wood deck are solidly supported and fastened.

C. Verify correct placement of wood nailers and insulation positioning between nailers.

D. Verify roof openings, curbs, pipes, sleeves, ducts, or vents through roof are solidly set, reglets are in place, and nailing strips located.

E. Verify roofing termination and base flashings are in place, sealed, and secure.

### 3.02 PREPARATION

A. Install starter and edge strips, and cleats before starting installation.

B. Back paint concealed metal surfaces and surfaces in contact with dissimilar metals with protective backing paint to a minimum dry film thickness of 15 mil, 0.015 inch.

C. Place eave edge metal flashings tight with fascia boards. Weather lap joints 2 inches and seal with roof cement. Secure flange with nails spaced as recommended by manufacture. inches on center.

### 3.03 INSTALLATION

A. Roofing:
   1. Apply underlayment over entire roof area, as follows:
   2. Apply slip sheet in one layer, laid loose.
   3. Cleat and seam sheet metal roofing joints.
   4. Use butyl tape to seal concealed joints between metal roofing surfaces.

### 3.04 MOCK UP

A. Submit the following mock ups for approval prior to starting the work. These mockups include: A 24x24 in. mock up showing full roof system on top of rafters.
   1. Acceptable panel and procedures employed shall become the standard for work of this section.
   2. Mock-up may remain as part of the Work.

### 3.05 PROTECTION

A. Do not permit traffic over unprotected roof surface.

**END OF SECTION**

# SECTION 077200
# ROOF ACCESSORIES

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Attic vents.

### 1.02 RELATED REQUIREMENTS

A. Section 077100 - Roof Specialties: Other manufactured roof specialty items.

### 1.03 REFERENCE STANDARDS 1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Product Data: Manufacturer's data sheets on each product to be used.
   1. Preparation instructions and recommendations.
   2. Storage and handling requirements and recommendations.
   3. Installation methods.
   4. Maintenance requirements.

C. Shop Drawings: Submit detailed layout developed for this project and provide dimensioned location and number for each type of roof accessory.

D. Warranty Documentation:
   1. Submit manufacturer warranty.
   2. Ensure that forms have been completed in Owner's name and registered with manufacturer.
   3. Submit documentation that roof accessories are acceptable to roofing manufacturer, and do not limit the roofing warranty.

### 1.05 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Store products under cover and elevated above grade.

### 1.06 WARRANTY

A. See Section 017800 - Closeout Submittals for additional warranty requirements.

## PART 2 PRODUCTS

### 2.01 ROOF HATCHES AND VENTS

A. Attic Vents: Round type; aluminum, formatted to permit installation with metal sheet roofing and to shed water. Fabricated as specified on product specifications.
   1. Mounting: Low profile roof mount.
   2. Diameter: 14” Solar Star Assembly.
   3. Finish: Per Manufacturer
   4. Products:
      a. Solatube; ClimaSense Roof Mount 2400: www.solatube.com
      b. Substitutions: See Section 016000 - Product Requirements.

## PART 3 EXECUTION

### 3.01 EXAMINATION

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

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

### 3.02 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Prepare surfaces using methods recommended by manufacturer for achieving acceptable results for applicable substrate under project conditions.

### 3.03 INSTALLATION

A. Install in accordance with manufacturer's instructions, in manner that maintains roofing system weather-tight integrity.

### 3.04 PROTECTION

A. Protect installed products until completion of project.

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

**END OF SECTION**

**SECTION 099113**
**EXTERIOR PAINTING**

## PART 1 GENERAL

### 1.01 SECTION INCLUDES

A. Surface preparation.

B. Field application of paints.

C. Scope: Finish exterior surfaces exposed to view, unless fully factory-finished and unless otherwise indicated, including the following:

D. Do Not Paint or Finish the Following Items:
   1. Items factory-finished unless otherwise indicated; materials and products having factoryapplied primers are not considered factory finished.
   2. Items indicated to receive other finishes.
   3. Items indicated to remain unfinished.
   4. Fire rating labels, equipment serial number and capacity labels, and operating parts of equipment.
   5. Floors, unless specifically indicated.
   6. Glass.

### 1.02 REFERENCE STANDARDS

A. ASTM D4442 - Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials; 2020.

B. MPI (APSM) - Master Painters Institute Architectural Painting Specification Manual; Current Edition.

### 1.03 QUALITY ASSURANCE 1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to site in sealed and labeled containers; inspect to verify acceptability.

B. Container Label: Include manufacturer's name, type of paint, brand name, lot number, brand code, coverage, surface preparation, drying time, cleanup requirements, color designation, and instructions for mixing and reducing.

C. Paint Materials: Store at minimum ambient temperature of 45 degrees F and a maximum of 90 degrees F, in ventilated area, and as required by manufacturer's instructions.

### 1.05 FIELD CONDITIONS

A. Do not apply materials when surface and ambient temperatures are outside the paint product manufacturer's temperature ranges.

B. Follow manufacturer's recommended procedures for producing best results, including testing of substrates, moisture in substrates, and humidity and temperature limitations.

C. Provide lighting level of 80 ft candles measured mid-height at substrate surface.

## PART 2 PRODUCTS

### 2.01 MANUFACTURERS

A. Provide paints and finishes used in any individual system from the same manufacturer; no exceptions.

B. Provide paints and finishes from the same manufacturer to the greatest extent possible.

C. Paints
   a Sherwin-Williams Company:www.sherwin-williams.com
   b Benjamin Moore Company:benjaminmoore.com

D. Primer Sealers: same manufacturer as top coasts.

**2.02 PAINTS AND FINISHES - GENERAL**

A. Paints and Finishes: All exterior woof finished to be Acrylic ready-mixed, unless required to be a field-catalyzed paint.

1. Provide paints and finishes of a soft paste consistency, capable of being readily and uniformly dispersed to a homogeneous coating, with good flow and brushing properties, and capable of drying or curing free of streaks or sags.

2. Supply each paint material in quantity required to complete entire project's work from a single production run.
3. Do not reduce, thin, or dilute paint or finishes or add materials unless such procedure is described explicitly in manufacturer's product instructions.
4. Provide color and finish sample for approval to Architect.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

A. Verify that surfaces are ready to receive work as instructed by the product manufacturer.

B. Examine surfaces scheduled to be finished prior to commencement of work. Report any condition that may potentially affect proper application.

C. Test shop-applied primer for compatibility with subsequent cover materials.

D. Measure moisture content of surfaces using an electronic moisture meter. Do not apply finishes unless moisture content of surfaces are below the following maximums:

1. Exterior Wood: 15 percent, measured in accordance with ASTM D4442.

**3.02 PREPARATION**

A. Clean surfaces thoroughly and correct defects prior to application.

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

C. Remove or mask surface appurtenances, including electrical plates, hardware, light fixture trim, escutcheons, and fittings, prior to preparing surfaces for finishing.

D. Seal surfaces that might cause bleed through or staining of topcoat.

E. Remove mildew from impervious surfaces by scrubbing with solution of tetra-sodium phosphate and bleach. Rinse with clean water and allow surface to dry.

**3.03 APPLICATION**

A. Exterior Wood to Receive Opaque Finish: If final painting must be delayed more than 2 weeks after installation of woodwork, apply primer within 2 weeks and final coating within 4 weeks.

B. Apply products in accordance with manufacturer's written instructions and recommendations in "MPI Architectural Painting Specification Manual".

C. Do not apply finishes to surfaces that are not dry. Allow applied coats to dry before next coat is applied.

D. Apply each coat to uniform appearance.

E. Sand wood and metal surfaces lightly between coats to achieve required finish.

F. Vacuum clean surfaces of loose particles. Use tack cloth to remove dust and particles just prior to applying next coat.

G. Reinstall electrical cover plates, hardware, light fixture trim, escutcheons, and fittings removed prior to finishing.

**3.04 CLEANING**

A. Collect waste material that could constitute a fire hazard, place in closed metal containers, and remove daily from site.

**3.05 PROTECTION**

A. Protect finishes until completion of project.

B. Touch-up damaged finishes after Substantial Completion.

**END OF SECTION**