



Assembly Hall Schematic Design

INTRODUCTION AND COST SUMMARY

DRAWINGS

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- G002 LIFE SAFETY PLANS, HISTORIC STANDARDS, AND ASSEMBLIES
- G003 CAMPUS PLANS

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- D002 ROOF LEVEL DEMOLITION FLOOR PLAN

ARCHITECTURAL - PROPOSED

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- A201 GROUND AND UPPER LEVEL FLOOR PLANS
- A202 ROOF PLAN
- A210 REFLECTED CEILING PLANS
- A301 STRUCTURAL SCOPE DIAGRAMS AT BUILDING ELEVATIONS
- A302 BUILDING ELEVATIONS
- A303 BUILDING ELEVATIONS
- A304 BUILDING SECTIONS
- A310 ILLUSTRATED NOTES AT WALLS AND TERRA COTTA
- A311 ILLUSTRATED WINDOW NOTES
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- A402 ROOF DETAILS

- A501 WEST STAIR PLANS SECTIONS AND DETAILS
- A502 ELEVATOR PLANS AND DETAILS

- A801 WINDOW AND DOOR TYPES AND SCHEDULES

STRUCTURAL DRAWINGS

- S1 FRP SYSTEM NOTES
- S2 UPPER LEVEL FLOOR PLAN
- S3 PLASTER STRENGTHENING
- S4 HOLLOW CLAY TILE WALL STRENGTHENING
- S5 WALL OPENING STRENGTHENING
- S6 SLAB OPENING STRENGTHENING

SUPPLEMENTAL DOCUMENTS

- HAZARDOUS MATERIAL SURVEY REPORT - PBS
- COST ESTIMATE - GTQ CONSULTING LLC

Sedro-Woolley Innovation For Tomorrow

SWIFT CENTER



Port of Skagit

August 2021

Assembly Hall (aka HUB Building)

The Assembly Hall is arguably the crown jewel of the entire SWIFT Center campus and the source of a great deal of community interest. It was constructed in 1916 and used for all manner of gatherings from church services, recreation activities and movie watching. Although the building exterior has fallen into some disrepair, the interior of the main gathering space on the upper level is remarkably intact and could easily function again as a community focal point and meeting venue.

Scope of Work

The primary task in the preservation of historical buildings include two principle concerns: secure the building envelope against water intrusion (which can quickly degrade a building) and protect the building from lateral forces due to a seismic event. Fortunately, the Assembly Hall roof has been well maintained, protecting the building from any significant damage. However, there have been no seismic improvements to the building. Introducing a lateral restraint system into the building is made more difficult due to the large open volume on the upper floor which does not accommodate the typical steel brace frames associated with seismic retrofits. Instead, a carbon fiber exoskeleton will be installed on the building exterior under a skim coat of plaster to provide a rigid shell over the unreinforced clay block structure. In addition, the clay tile roof will be removed, restored and replaced along with refurbishment of all exterior surfaces including the entry stairs.

Interior improvements on the lower level include reconstructed toilet facilities, addition of an elevator connecting the two levels of the building, and construction of several meeting rooms of various sizes. Renovation of the upper level includes refurbishment of wood finishes (floor and trim), addition of acoustic treatment on the ceiling, as well as upgrades to the ventilation system, new lighting, electrical, and AV systems so the space can function comfortably as a modern meeting facility.

Design Review

The proposed renovation of the Assembly Hall is intended to be in conformance with the Design Guidelines for the Center of Innovation and Technology as adopted in 2015. An architectural historian has received these documents on behalf of the Port of Skagit and has found the design to meet or exceed the design guidelines.

Cost Estimating Assumptions

Construction cost estimating has been divided into three categories:

- Exterior Improvements
- Interior Improvements – Ground Level
- Interior Improvements – Upper Level

RMC Architects had previously complied permit drawings for the building exterior, therefore the drawing detail available upon which to base the estimate is more complete, and a 10% estimating contingency has been applied.

However, the detail provided for both the upper and lower level improvements is at more of a conceptual level, and a 15% design contingency has been used. Prevailing wage labor rates have been used in the preparation of this estimate. Since the start of construction is to be determined, all costs are shown in current dollars as of August 2021.

Construction Cost Estimate Summary

Refer to the more detailed cost estimate at the back of the report for further information.

1) Exterior Improvements

Construction		946,621
General Requirements		75,375
General Conditions		201,859
Overhead + Profit	12%	146,863
	Subtotal	1,370,718
Contingency	10%	137,072
	Total Hard Cost	1,507,789

2) Interior Improvements - Ground Level

Construction		892,578
General Requirements		34,498
General Conditions		97,122
Overhead + Profit	12%	122,904
	Subtotal	1,147,102
Contingency	15%	172,065
	Total Hard Cost \$	1,319,167

3) Interior Improvements - Upper Level

Construction		436,213
General Requirements		27,828
General Conditions		66,219
Overhead + Profit	12%	63,631
	Subtotal	593,891
Contingency	15%	89,084
	Total Hard Cost \$	682,975

Subtotal Combined Hard Cost \$ 3,509,931

Soft Costs

Sales Tax	8.7%	305,364
Permits	1.0%	35,099
A/E Fees	9.0%	315,894
Escalation *		N/A
	Total Soft Cost \$	656,357

Combined Total Costs \$ 4,166,288

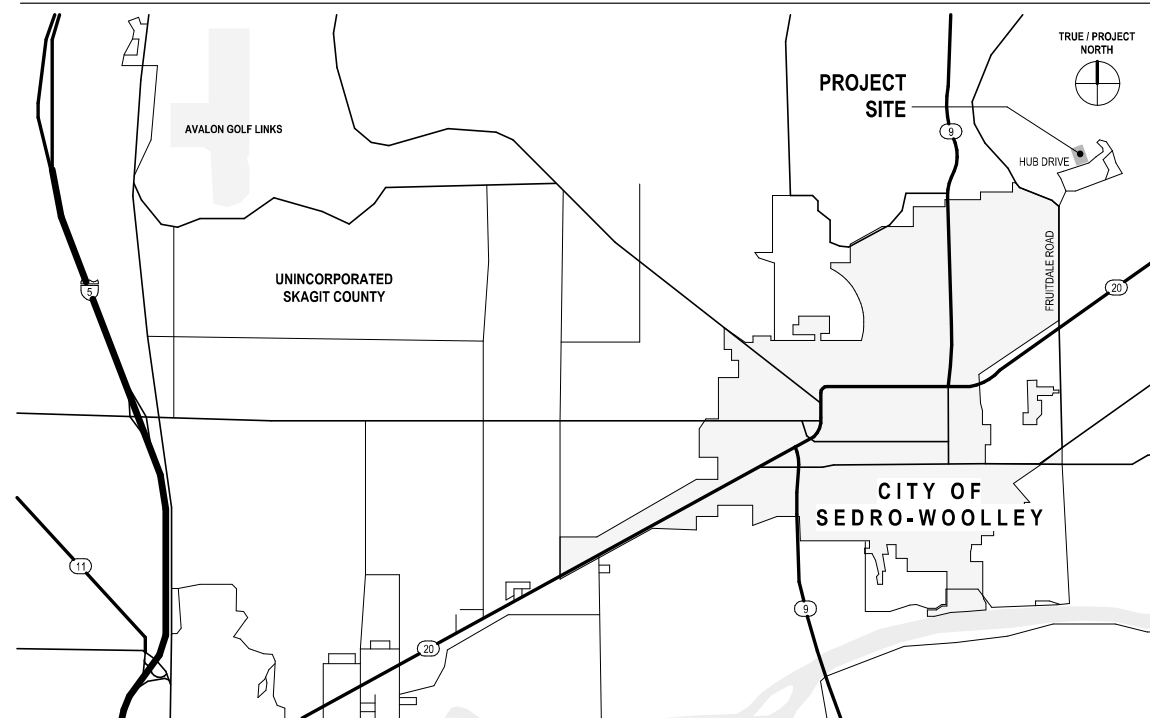
*Estimate presented in current dollars.

Port of Skagit - SWIFT Center Assembly Hall Envelope Restoration



Rendering of Existing Exterior NOTE: THIS RENDERING IS FOR ILLUSTRATIVE PURPOSES ONLY. IT IS NOT TO SCALE, AND NOT TO BE USED FOR DESIGN, PERMITTING, BIDDING, OR CONSTRUCTION.

Vicinity Map



Project Team

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Drawing Index

GENERAL

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ARCHITECTURAL

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S6 SLAB OPENING STRENGTHENING

Project Information

PROJECT DATA

SITE ADDRESS: 1890 HUB DRIVE, SEDRO-WOOLLEY, WA 98284

*NOTE: BUILDING ADDRESS PART OF THE SWIFT CENTER (SEDRO-WOOLLEY INNOVATION FOR TOMORROW), THE FORMER STATE-OWNED NORTHERN STATE HOSPITAL CAMPUS.

PARCEL NUMBER: SKAGIT COUNTY ID NO. P38607 (PARCEL A), P39356 (PARCEL B), P100646 (PARCEL C), P100632 (PARCEL D)

LEGAL DESCRIPTION: PARCELS (NOTED ABOVE) LEGAL DESCRIPTIONS ARE FULLY DESCRIBED IN TRANSFER AGREEMENT BETWEEN DEPARTMENT OF ENTERPRISE SERVICES FOR THE STATE OF WASHINGTON AND THE PORT OF SKAGIT COUNTY, AND CAN ALSO BE FOUND AT THE OFFICE OF THE SKAGIT COUNTY ASSESSOR

PROJECT DESCRIPTION: ENVELOPE RESTORATION OF EXISTING BUILDING ROOFING, PLASTER, WINDOWS, AND DECORATIVE ELEMENTS. ADDITIONAL SCOPE INCLUDES RECONSTRUCTION OF AN EXISTING UNSAFE CONCRETE STAIRWAY AND INSERTION OF AN ADA-COMPLIANT PLATFORM LIFT TO PROVIDE ACCESS TO THE AUDITORIUM.

DEFERRED PERMIT SUBMITTALS:

TBD

ZONING:

CITY OF SEDRO-WOOLLEY, PUBLIC (P) - REFER TO SWMC 17.32

BUILDING CODE REQUIREMENTS

CODES:

INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION
INTERNATIONAL EXISTING BUILDING CODE (IEBC), 2015 EDITION
INTERNATIONAL MECHANICAL CODE (IMC), 2015 EDITION
INTERNATIONAL FUEL GAS CODE (IFGC), 2015 EDITION
INTERNATIONAL FIRE CODE (IFC), 2015 EDITION
UNIFORM PLUMBING CODE (UPC), 2015 EDITION
WASHINGTON ADMINISTRATIVE CODE (WAC) CHAPTER 296-46B, NATIONAL ELECTRIC CODE (NEC), 2017
WASHINGTON STATE ENERGY CODE (WSEC), 2015 EDITION

*NOTE: ALL CODES ARE SUBSEQUENTLY MODIFIED BY WASHINGTON ADMINISTRATIVE CODE (WAC) AMENDMENTS

SELECTED CODE / APPROACH:

IEBC, PRESCRIPTIVE COMPLIANCE METHOD (IEBC 301.1.1)

OCCUPANCY CLASSIFICATION:

BUSINESS (B) AT GROUND FLOOR LEVEL AND ASSEMBLY (A-3) AT UPPER FLOOR LEVEL

CONSTRUCTION TYPE:

TYPE IIB

FIRE PROTECTION:

SPRINKLERS (AT GROUND FLOOR)
FIRE EXTINGUISHERS (AT UPPER LEVEL)

ALLOWABLE HEIGHT AND AREA:

MAXIMUM BUILDING HEIGHT (IBC TABLE 504.3): 55'
MAXIMUM NUMBER OF STORIES (IBC TABLE 504.4): 2
MAXIMUM BUILDING AREA (IBC TABLE 506.2): 9,500 SF (A-3 OCCUPANCY) 19,000 SF (B OCCUPANCY)
MIXED OCCUPANCY, MULTISTORY BUILDING (IBC 506.2.4, EQUATION 5-3)
GROUND FLOOR: 0.33 < 1.0 - COMPLIES
UPPER LEVEL: 0.82 < 1.0 - COMPLIES

AREA SUMMARY:

GROUND FLOOR EXISTING: 6,272 SF
UPPER LEVEL EXISTING: 5,891 SF

PARKING COUNT:

Plumbing Fixture Code Summary (NOTE 3)

SPACE	USE	LOAD	WATER CLOSETS			LAVATORIES			DRINKING FOUNTAINS (NOTE 1)	
			RATIO	M	RATIO	F	RATIO	M		RATIO
ASSEMBLY A-3 (UPPER FLOOR AT 1/7 SF)	442	1 PER 125	1.77	1 PER 65	3.4	1 PER 200	1.11	1 PER 200	1.11	1.58
SUBTOTALS	442		1.77		3.4		1.11		1.11	1.58
REQUIRED TOTALS			2 (NOTE 2)		4		2		2	2

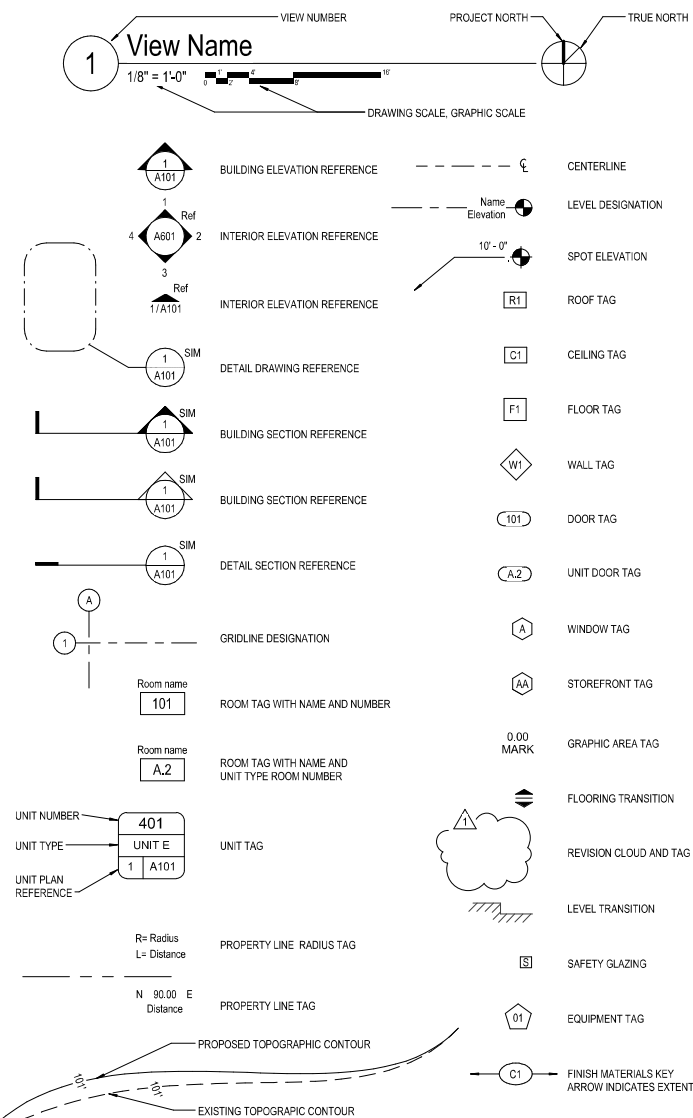
Plumbing Fixture Code Summary [Alternate] (NOTE 3)

SPACE	USE	LOAD	WATER CLOSETS			LAVATORIES			DRINKING FOUNTAINS (NOTE 1)	
			RATIO	M	RATIO	F	RATIO	M		RATIO
ASSEMBLY A-3 (UPPER FLOOR AT 1/15 SF)	364	1 PER 125	1.46	1 PER 65	2.8	1 PER 200	0.91	1 PER 200	0.91	1.42
SUBTOTALS	364		1.46		2.8		0.91		0.91	1.42
REQUIRED TOTALS			2 (NOTE 2)		3		1		1	2

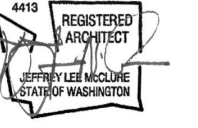
NOTES:

1. PER IBC SECTION 2902.5.1 (WASHINGTON STATE AMENDMENT), OCCUPANT LOADS OVER 30 SHALL HAVE ONE DRINKING FOUNTAIN FOR THE FIRST 150 OCCUPANTS, THEN ONE PER EACH ADDITIONAL 500 OCCUPANTS. PER IBC SECTION 2902.5.4.2 (WASHINGTON STATE AMENDMENT), IN ALL OCCUPANCIES THAT REQUIRE MORE THAN TWO DRINKING FOUNTAINS PER FLOOR OR SECURED AREA, BOTTLE FILLING STATIONS SHALL BE PERMITTED TO BE SUBSTITUTED FOR UP TO 50 PERCENT OF THE REQUIRED NUMBER OF DRINKING FOUNTAINS (PER IBC CHAPTER 11, DRINKING FOUNTAINS MUST BE ACCESSIBLE WHEN PROVIDED). PER IBC SECTION 2902.5.2 (WASHINGTON STATE AMENDMENT), DRINKING FOUNTAINS SHALL BE PROVIDED ON EACH FLOOR HAVING MORE THAN 30 OCCUPANTS IN SCHOOLS, DORMITORIES, AUDITORIUMS, THEATERS, OFFICES AND PUBLIC BUILDINGS.
2. PER UPC SECTION 419.2, IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.
3. INCLUDED WITHIN THIS PROJECT IS MINIMAL WORK TO PROVIDE ACCESS TO THE EXISTING TOILET ROOMS LOCATED AT THE GROUND FLOOR LEVEL. SHOULD THE PORT OF SKAGIT WISH TO RENOVATE THE GROUND FLOOR LEVEL FOR OCCUPANCY BEYOND ITS CURRENT STATE, A REVISED ANALYSIS OF THE TOILET FIXTURES REQUIRED WILL NEED TO BE PROVIDED. AT THE TIME OF THIS PROJECT AND PERMIT SUBMITTAL, IT IS ASSUMED THAT THE GROUND FLOOR LEVEL IS AN 'S-2' OCCUPANCY.

Architectural Symbols



PERMIT DRAWINGS 2019-05-17



Port of Skagit - SWIFT Center
Assembly Hall Envelope Restoration
1890 Hub Drive
Sedro-Woolley, WA 98284

Job No: 1857 Date: 2019-05-17
File No: 1857 Assembly Hall Renovation
Drawn By: PDS, AGC, JTW
Checked By: JMcClure
Issued for: REVIEW

COVER SHEET

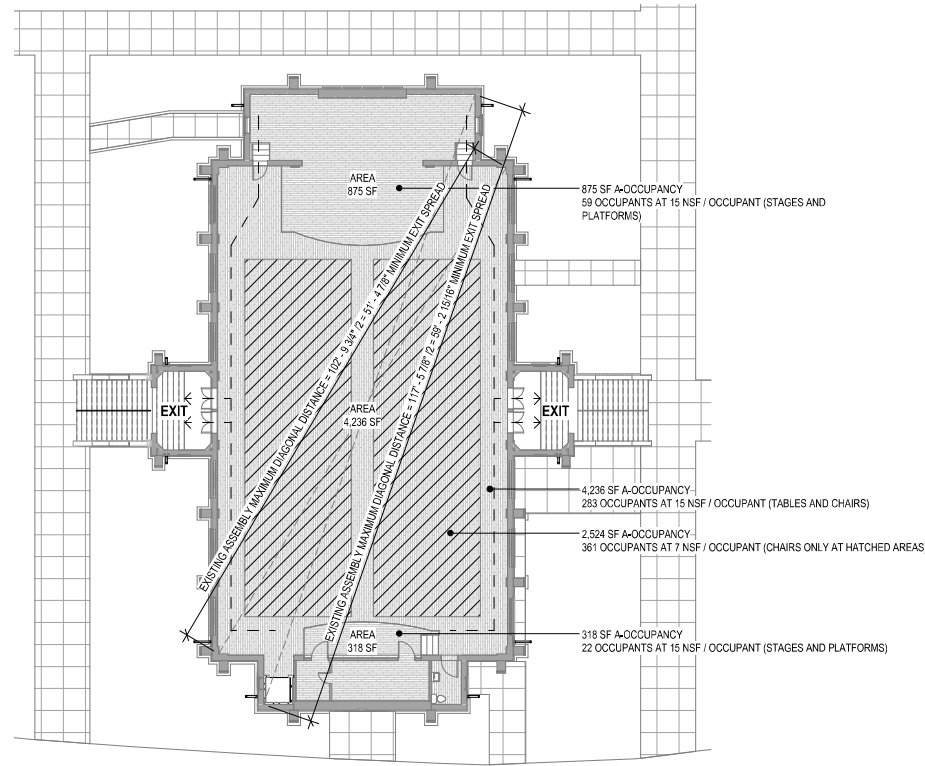
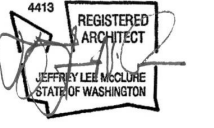
G001

RMC Architects, PLLC - 1223 Railroad Avenue - Bellingham, WA 98225
P: 360.676.7733 F: 360.750.0445 rmc@rmcarchitects.com

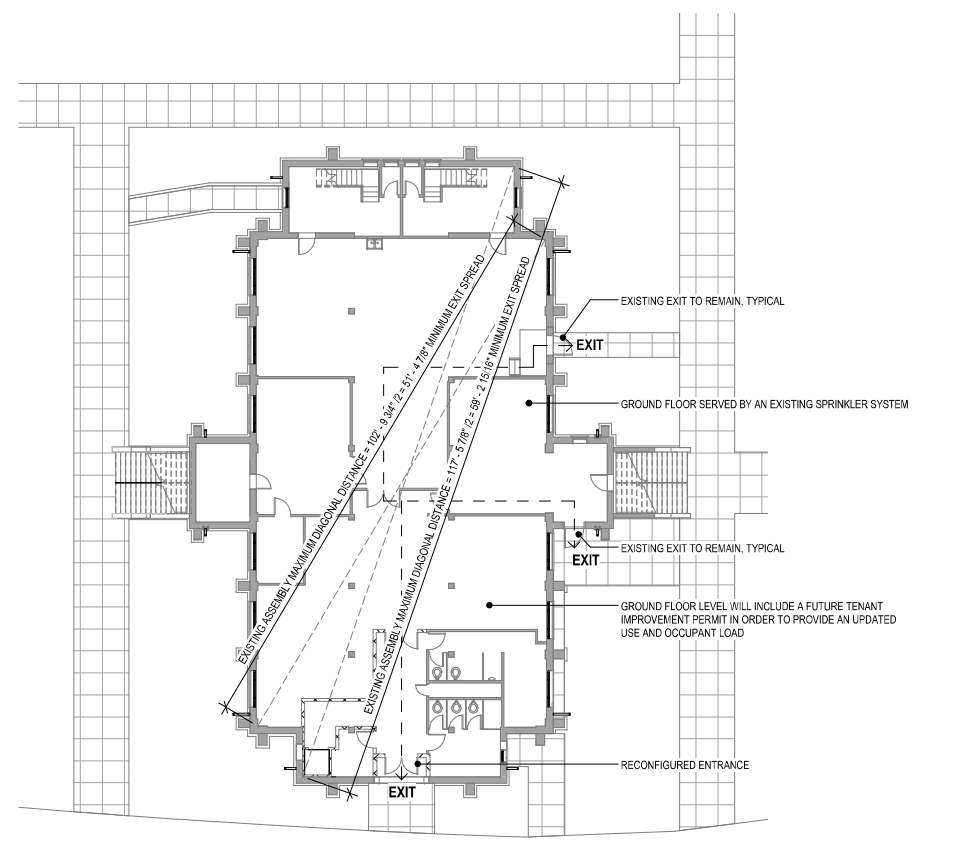
Secretary of the Interior Standards for the Treatment of Historic Properties

STANDARDS FOR REHABILITATION:

1. A PROPERTY WILL BE USED AS IT WAS HISTORICALLY OR BE GIVEN A NEW USE THAT REQUIRES MINIMAL CHANGE TO ITS DISTINCTIVE MATERIALS, FEATURES, SPACES AND SPATIAL RELATIONSHIPS.
2. THE HISTORIC CHARACTER OF A PROPERTY WILL BE RETAINED AND PRESERVED. THE REMOVAL OF DISTINCTIVE MATERIALS OR ALTERATION OF FEATURES, SPACES, SPATIAL RELATIONSHIPS THAT CHARACTERIZE A PROPERTY WILL BE AVOIDED.
3. EACH PROPERTY WILL BE RECOGNIZED AS A PHYSICAL RECORD OF ITS TIME, PLACE, AND USE. CHANGES THAT CREATE A FALSE SENSE OF HISTORICAL DEVELOPMENT, SUCH AS ADDING CONJECTURAL FEATURES OR ELEMENTS FROM OTHER HISTORIC PROPERTIES, WILL NOT BE UNDERTAKEN.
4. CHANGES TO A PROPERTY THAT HAVE ACQUIRED HISTORIC SIGNIFICANCE IN THEIR OWN RIGHT WILL BE RETAINED AND PRESERVED.
5. DISTINCTIVE MATERIALS, FEATURES, FINISHES, AND CONSTRUCTION TECHNIQUES OR EXAMPLES OF CRAFTSMANSHIP THAT CHARACTERIZED A PROPERTY WILL BE PRESERVED.
6. DETERIORATED HISTORIC FEATURES WILL BE REPAIRED RATHER THAN REPLACED. WHERE THE SEVERITY OF DETERIORATION REQUIRES REPLACEMENT OR A DISTINCTIVE FEATURE, THE NEW FEATURE WILL MATCH THE OLD IN DESIGN, COLOR, TEXTURE, AND, WHERE POSSIBLE, MATERIALS. REPLACEMENT OF MISSING FEATURES WILL BE SUBSTANTIATED BY DOCUMENTARY AND PHYSICAL EVIDENCE.
7. CHEMICAL OR PHYSICAL TREATMENTS, IF APPROPRIATE, WILL BE UNDERTAKEN USING THE GENTLEST MEANS POSSIBLE. TREATMENTS THAT CAUSE DAMAGE TO HISTORIC MATERIALS WILL NOT BE USED.
8. ARCHAEOLOGICAL RESOURCES WILL BE PROTECTED AND PRESERVED IN PLACE. IF SUCH RESOURCES MUST BE DISTURBED, MITIGATION MEASURES WILL BE UNDERTAKEN.
9. NEW ADDITIONS, EXTERIOR ALTERATIONS, OR RELATED NEW CONSTRUCTION WILL NOT DESTROY HISTORIC MATERIALS, FEATURES, AND SPATIAL RELATIONSHIPS THAT CHARACTERIZE THE PROPERTY. THE NEW WORK SHALL BE DIFFERENTIATED FROM THE OLD AND WILL BE COMPATIBLE WITH THE HISTORIC MATERIALS, FEATURES, SIZE, SCALE AND PROPORTION, AND MASSING TO PROTECT THE INTEGRITY OF THE PROPERTY AND ITS ENVIRONMENT.
10. NEW ADDITIONS AND ADJACENT OR RELATED NEW CONSTRUCTION WILL BE UNDERTAKEN IN SUCH A MANNER THAT, IF REMOVED IN THE FUTURE, THE ESSENTIAL FORM AND INTEGRITY OF THE HISTORIC PROPERTY AND ITS ENVIRONMENT WOULD NOT BE IMPAIRED.



2 Upper Level Life Safety Plan
1/16" = 1'-0"



1 Ground Level Life Safety Plan
1/16" = 1'-0"

Assemblies

GYPCRETE TOPPING SLAB

- 4" CONCRETE SLAB-ON-GRADE WITH #4 BARS AT 16" ON CENTER EACH WAY - EMBED A MINIMUM OF 3" INTO ADJACENT EXISTING SLAB EDGE
- STEGOWRAP (OR EQUAL) 15-MIL VAPOR BARRIER
- MINIMUM OF 2" GRAVEL FILL AS CAPILLARY BREAK
- EXISTING COMPACTED EARTH

F1 [TYPICAL SLAB-ON-GRADE]

2X4 WOOD STUD AND GYPSUM WALLBOARD FURRING

- (1) LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD
- 2X4 WOOD STUDS AT 16" ON CENTER - PROVIDE BLOCKING AS REQUIRED FOR PLATFORM LIFT INSTALLATION
- FULL DEPTH BATT INSULATION IN STUD CAVITY

W3 [TYPICAL WALL FURRING ASSEMBLY AT PLATFORM LIFT EXTERIOR WALLS]

2X4 WOOD STUD AND GYPSUM WALLBOARD - 1 HOUR RATED

- (1) LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD APPLIED AT RIGHT ANGLES TO EACH SIDE OF 2X4 WOOD STUDS WITH 2 1/4" TYPE 'S' OR 'W' DRYWALL SCREWS 12" ON CENTER
- 2X4 WOOD STUDS AT 16" ON CENTER
- FULL DEPTH MINERAL FIBER BATT INSULATION, NOMINAL 2.5 PCF. FRICTION FIT IN STUD CAVITY
- VERTICAL JOINTS STAGGERED 16" ON CENTER, HORIZONTAL JOINTS STAGGERED 24" ON CENTER, ON OPPOSITE SIDES

[GYPSUM ASSOCIATION ASSEMBLY NO. WP 3644]

W2 [TYPICAL ASSEMBLY AT PLATFORM LIFT SHAFT WALLS]

2X6 WOOD STUD AND GYPSUM WALLBOARD

- (1) LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD
- 2X6 WOOD STUDS AT 16" ON CENTER (REFER TO STRUCTURAL FOR GRADING AND SHEAR NAILING REQUIREMENTS)
- FULL DEPTH BATT INSULATION IN STUD CAVITY
- (1) LAYER 5/8" TYPE 'X' GYPSUM WALLBOARD

W1 [TYPICAL ASSEMBLY AT GROUND FLOOR INTERIOR WALLS]

STUCCO OVER CONCRETE STAIR WALL [EXISTING WEST STAIR]

- 3/4" CEMENTITIOUS STUCCO FINISH APPLIED TO BOTH SIDES OF EXISTING / NEW CONCRETE WALL
- EXISTING 10" CONCRETE WALL - REMOVE LOOSE / DAMAGED MATERIAL AND ADD REINFORCED CONCRETE AS NECESSARY TO PROVIDE A SUITABLE SUBSTRATE FOR STUCCO

E3 [WEST STAIR WALLS]

[CONCRETE MASONRY UNITS [OPTIONAL INFILL AND NEW CONSTRUCTION AT SOUTH ENTRANCE]]

- 3/4" CEMENTITIOUS STUCCO FINISH APPLIED TO EXTERIOR CONCRETE MASONRY UNITS
- NOMINAL 8" X 8" X 16" CONCRETE MASONRY UNITS
- GROUT ALL CORES SOLID AND PROVIDE REINFORCING AS NOTED
- INTERIOR PLASTER FINISH TO MATCH EXISTING

E2 [TYPICAL NEW WALL AT SOUTH ENTRANCE]

CONCRETE INFILL WALL [EXTERIOR AT FORMER OPENINGS]

- 3/4" CEMENTITIOUS STUCCO FINISH APPLIED TO EXTERIOR CONCRETE
- 14" CONCRETE WALL

E1 [GROUND LEVEL INFILL WALL]

Fire Department Additional Information

STRUCTURE WILL MEET EMERGENCY RESPONDER RADIO COVERAGE REQUIREMENTS OF THE INTERNATIONAL FIRE CODE (IFC) AND ANY AND ALL DEFICIENCIES WILL BE CORRECTED PRIOR TO CERTIFICATE OF OCCUPANCY BEING GRANTED

TEMPORARY STANDPIPES WILL BE PROVIDED PRIOR TO STARTING CONSTRUCTION AT OR ABOVE A 3RD FLOOR LEVEL - TEMPORARY STANDPIPE LOCATION AND ENGINEERING (IF REQUIRED) WILL BE PROVIDED AS PART OF THE BIDDER-DESIGNED FIRE SPRINKLER SYSTEM

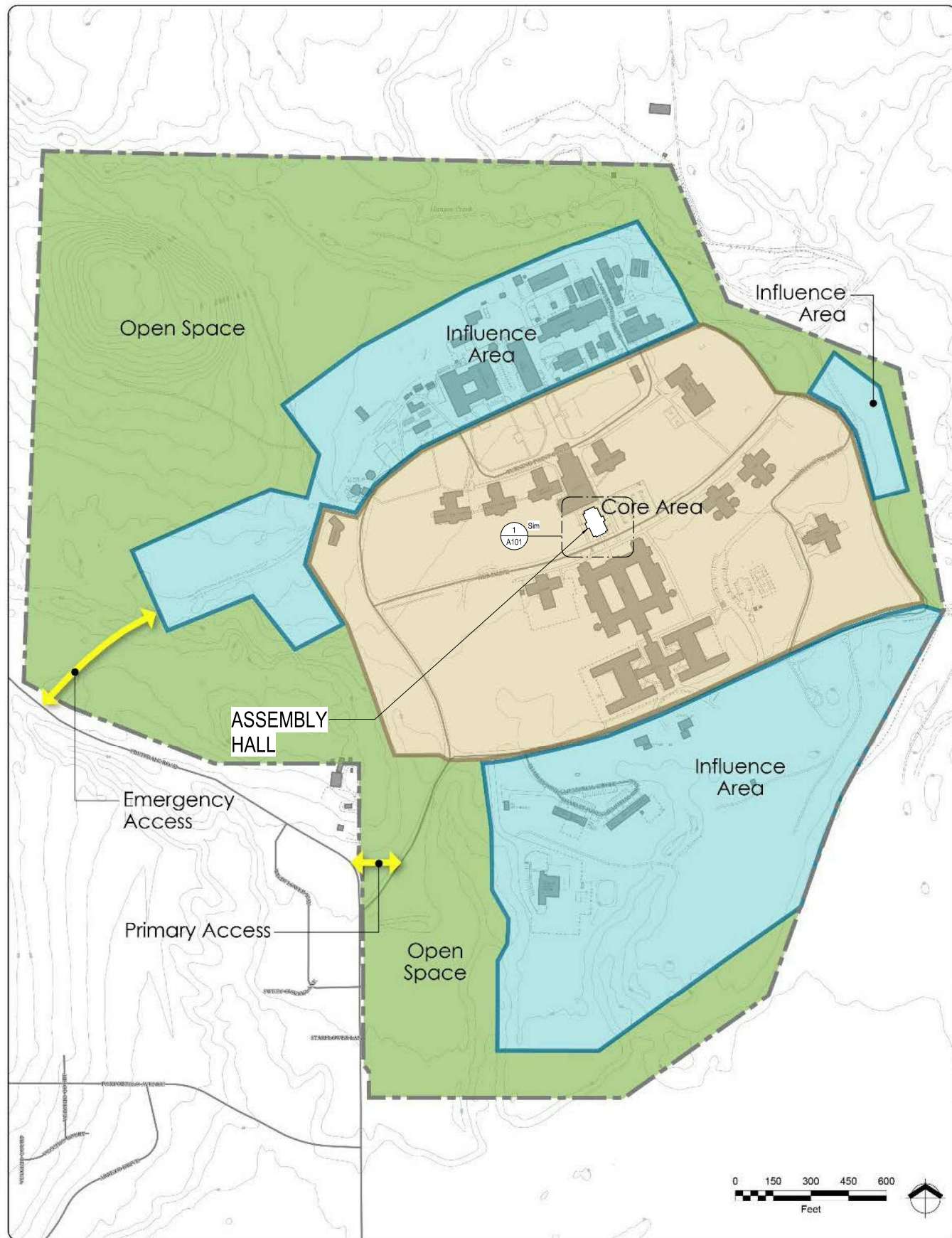
FIRE DEPARTMENT PERMIT CHECKLIST	
UNDERGROUND FIRE SERVICE MAIN	
FIRE SPRINKLERS/SIRE SERVICE MAIN	
FIRE ALARM SYSTEM	
FIRE STAND PIPE	
FIRE APPARATUS ACCESS ROAD	
EMERGENCY RESPONDER RADIO (IF REQUIRED)	

Port of Skagit - SWIFT Center
Assembly Hall Envelope Restoration
1890 Hub Drive
Sedro-Woolley, WA 98284

Job No:	1867	Date:	2019-05-17
File No:	1867	Assembly Hall Renovation	
Drawn By:	PDS, AGC, JTW		
Checked By:	JMcClure		
Issued for:	REVIEW		

LIFE SAFETY PLANS, HISTORIC STANDARDS, AND ASSEMBLIES

G002

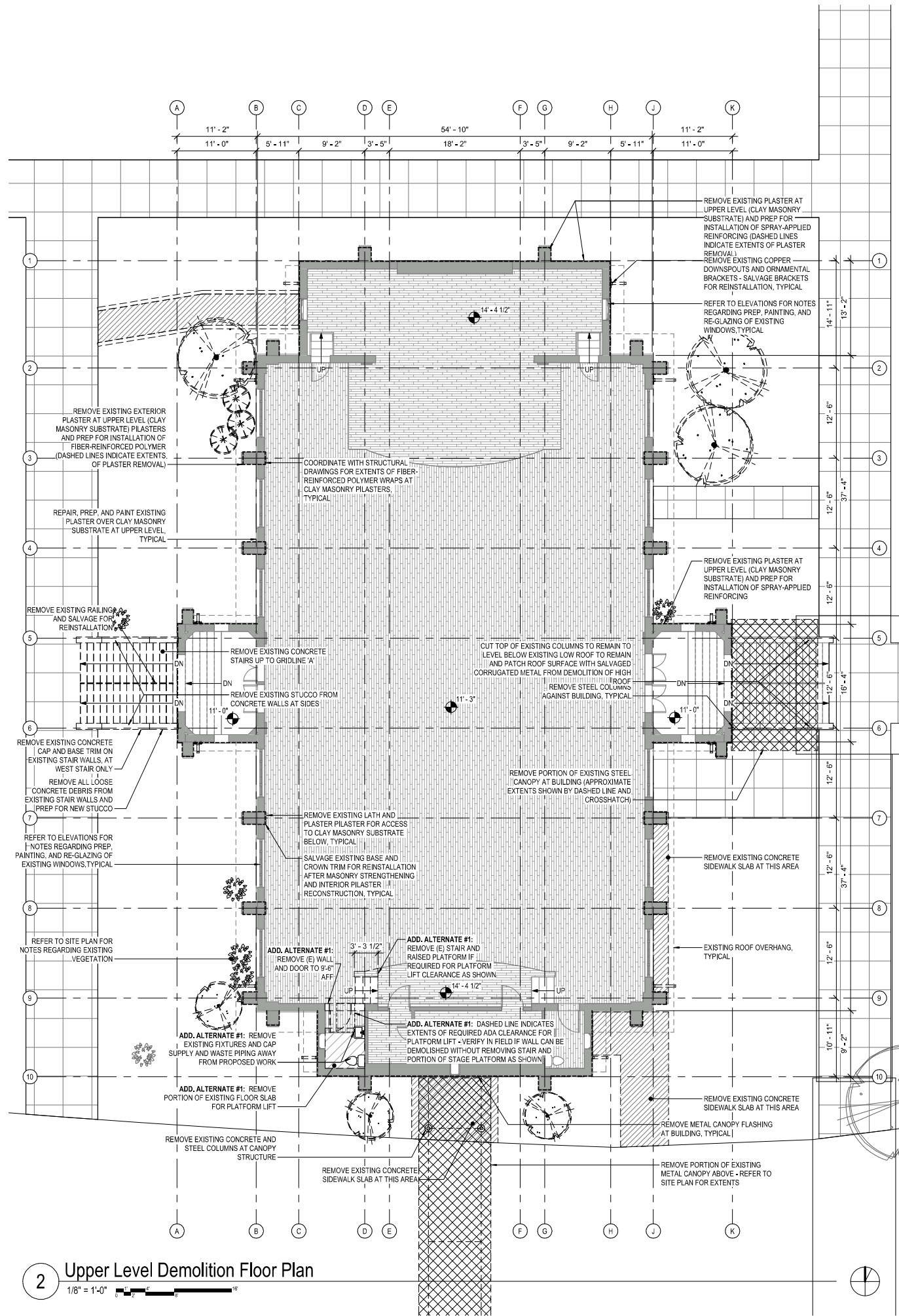


2 Existing Campus Plan

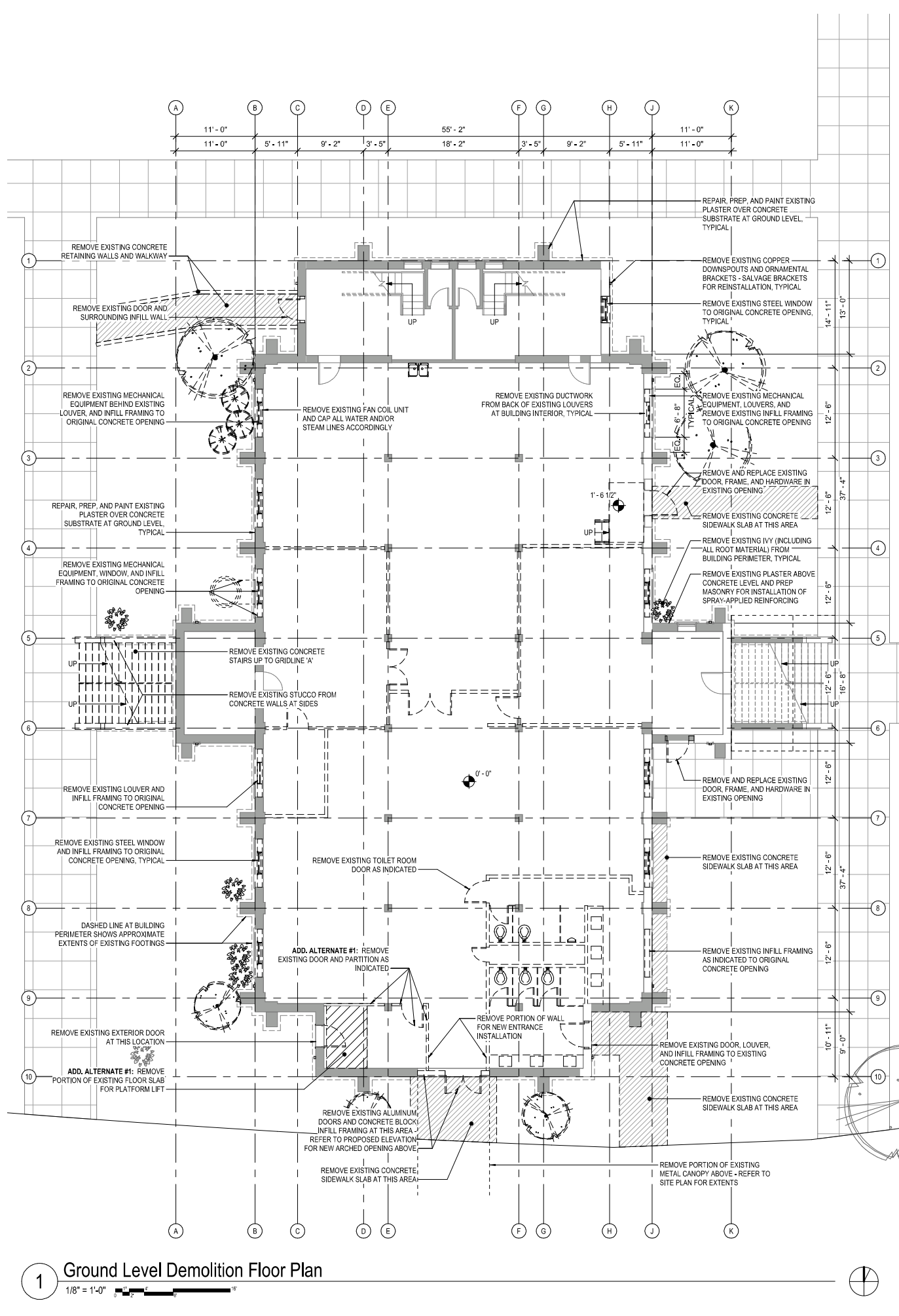


1 Proposed Campus Plan

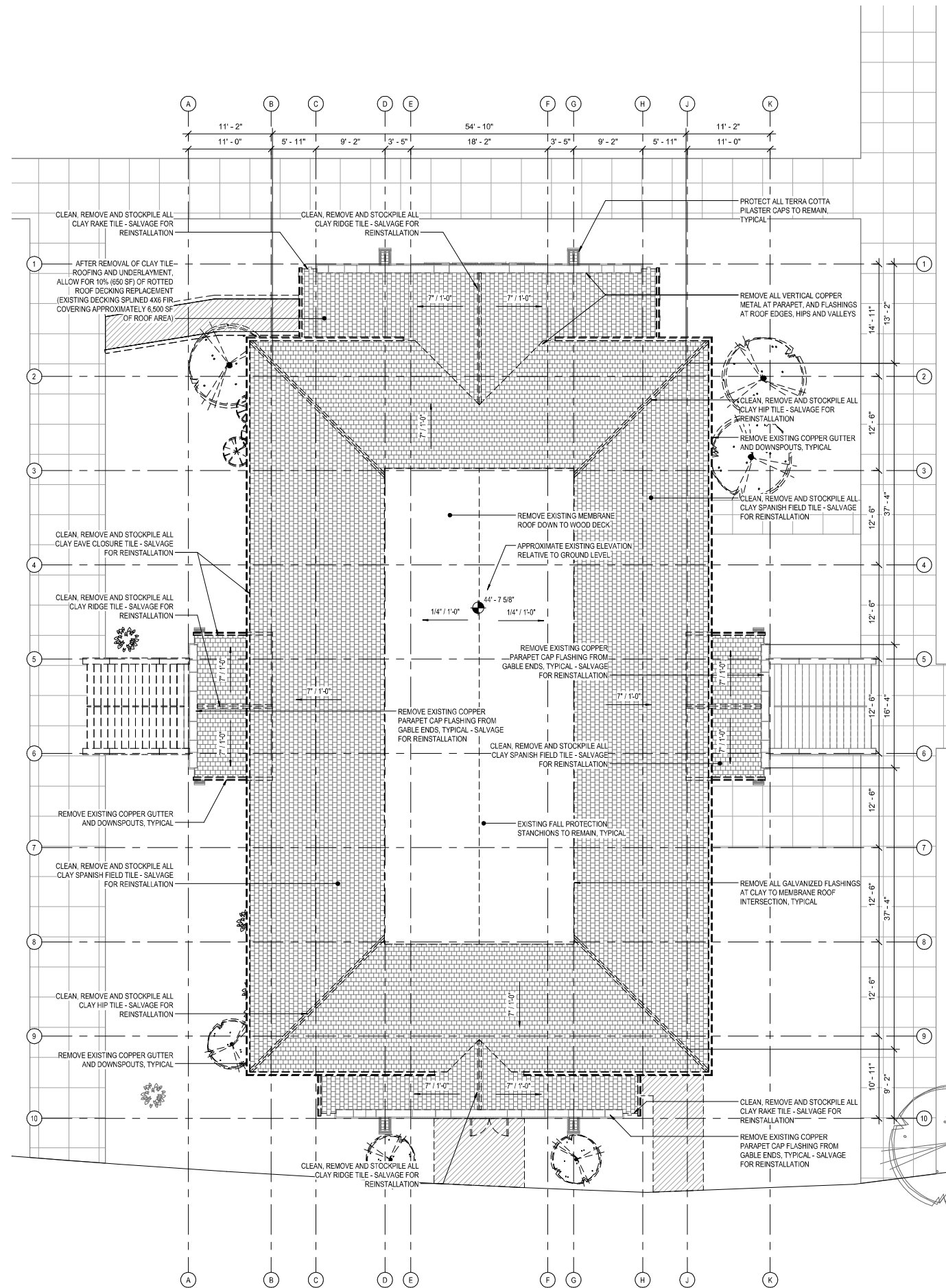
Job No:	1857657 A	Date:	09/24/22
File No:	Restoration		
Drawn By:	Author		
Checked By:	Checker		
Issued for:	REVIEW		



2 Upper Level Demolition Floor Plan
1/8" = 1'-0"



1 Ground Level Demolition Floor Plan
1/8" = 1'-0"

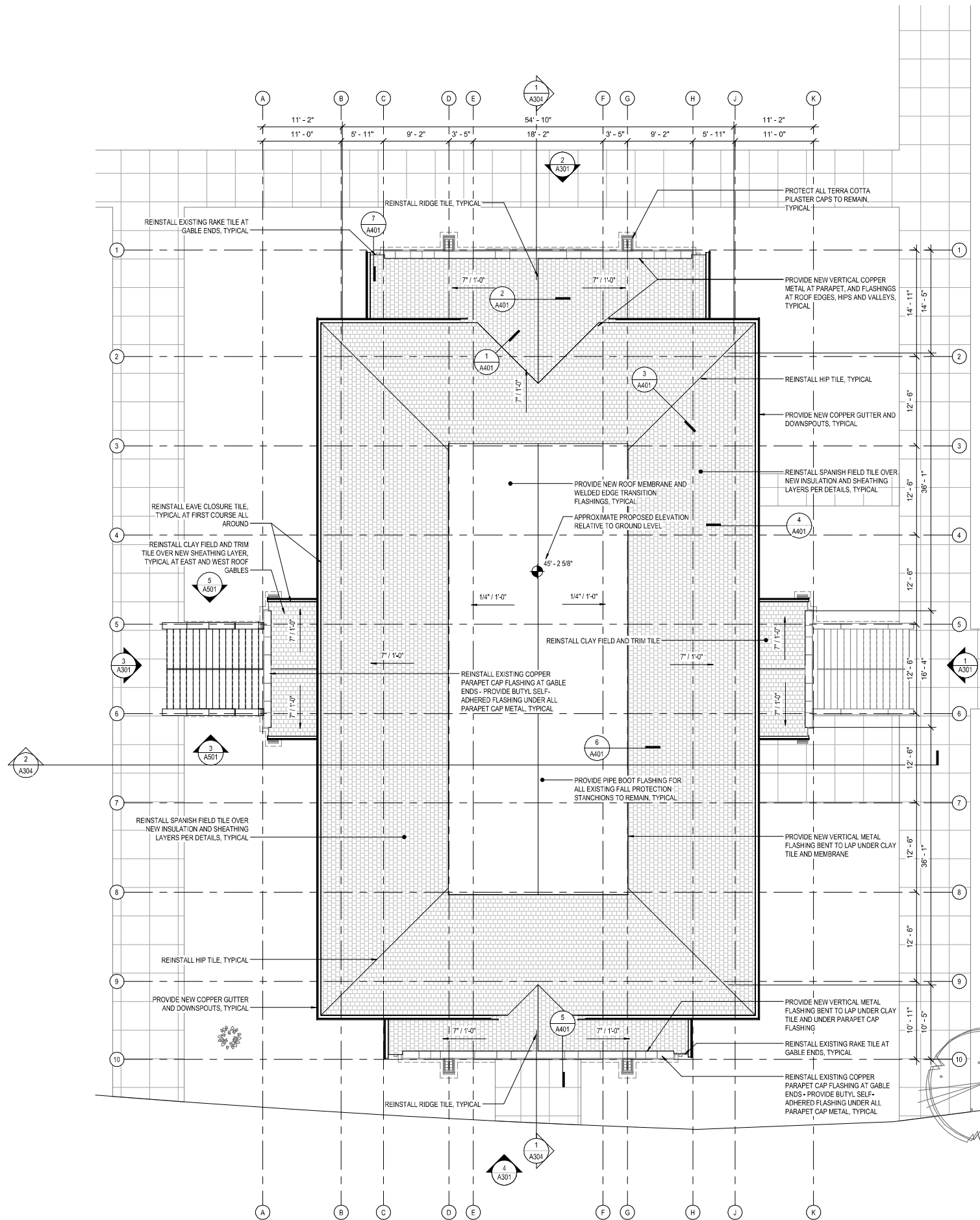


1 Roof Demolition Plan
1/8" = 1'-0"

Job No:	1867	Date:	2019-05-17
File No:	1867 Assembly Hall Renovation	Author:	
Drawn By:		Checked By:	Checker
Checked By:		Issued for:	REVIEW

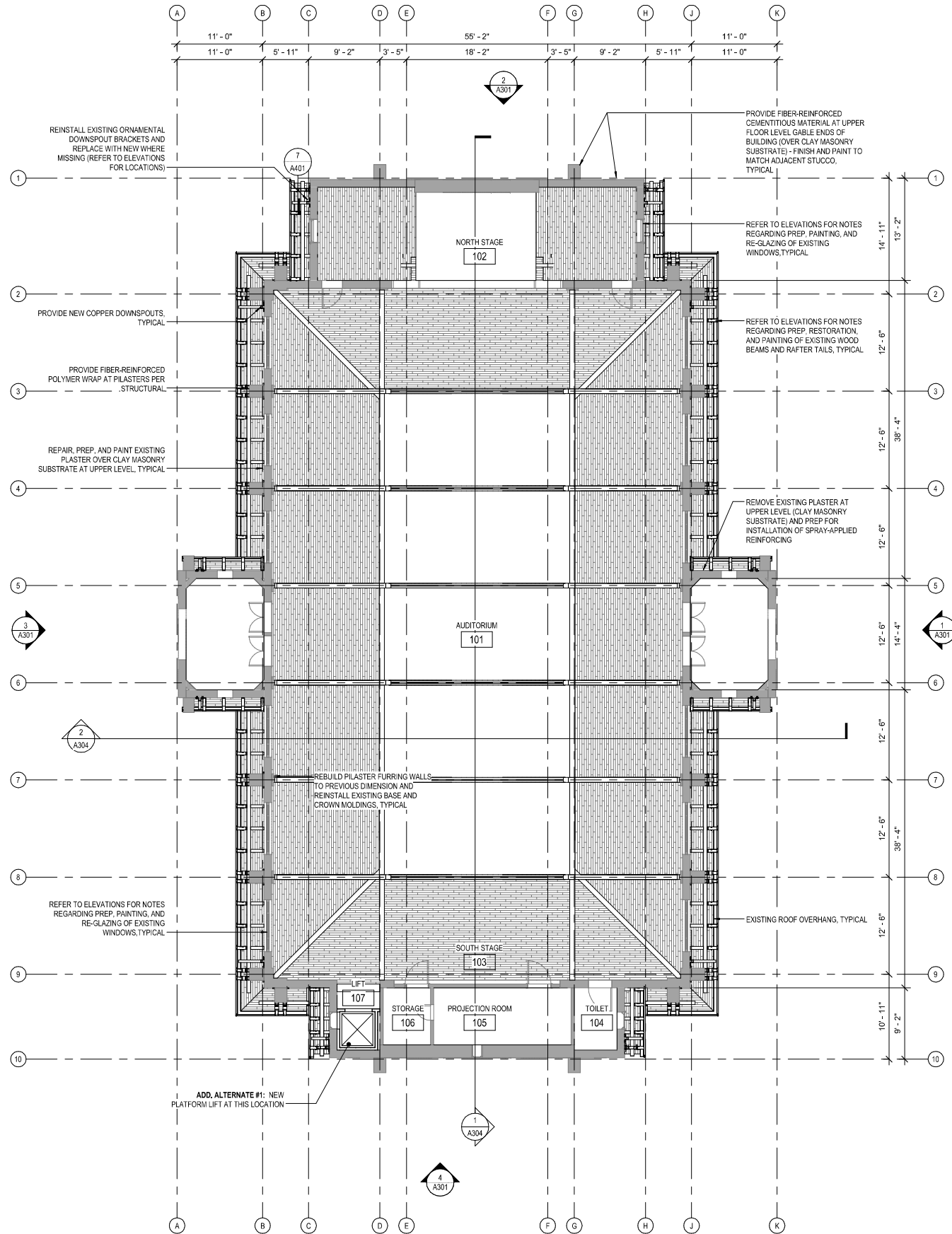
ROOF LEVEL
DEMOLITION
FLOOR PLAN

D202

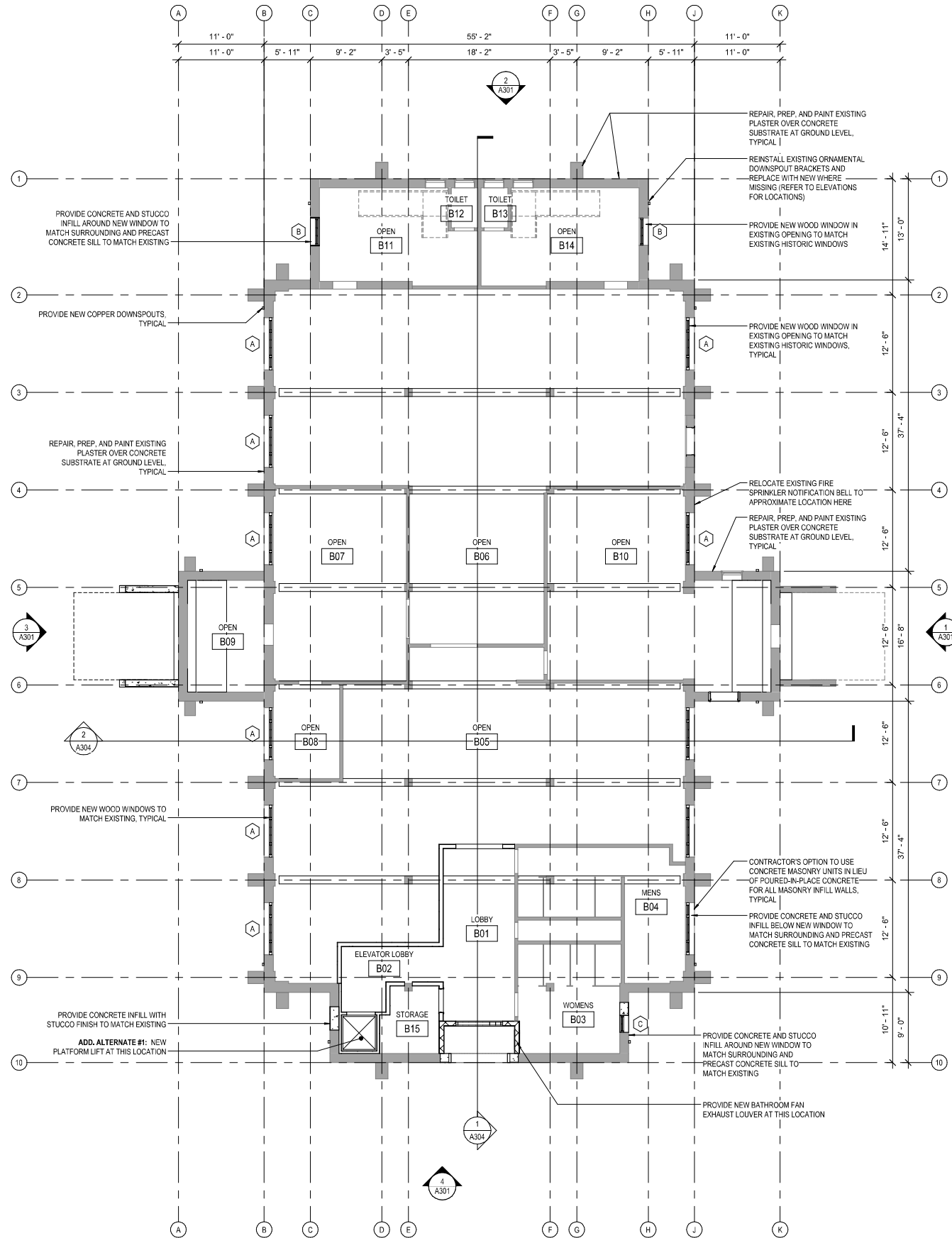


1 Roof Plan
1/8" = 1'-0"

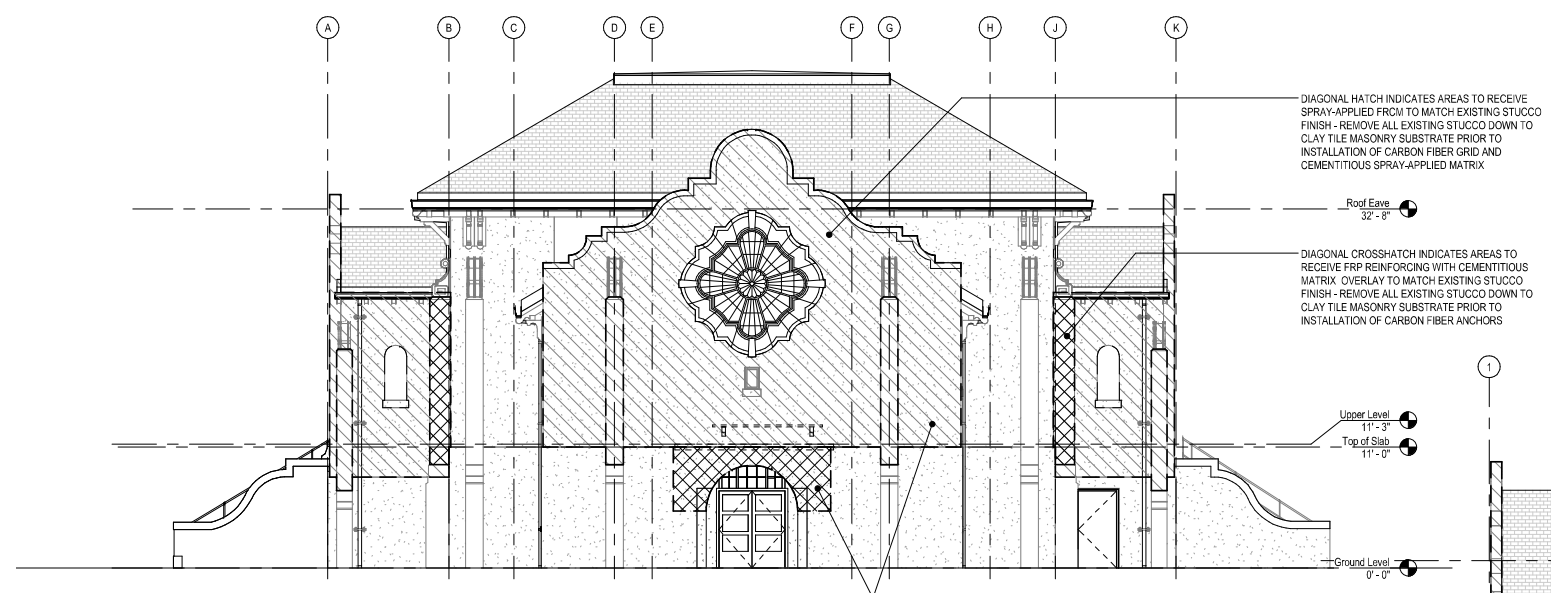
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File No:	1857 Assembly Hall Renovation		
Drawn By:	PDS, AGC, JTW		
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Issued for:	REVIEW		



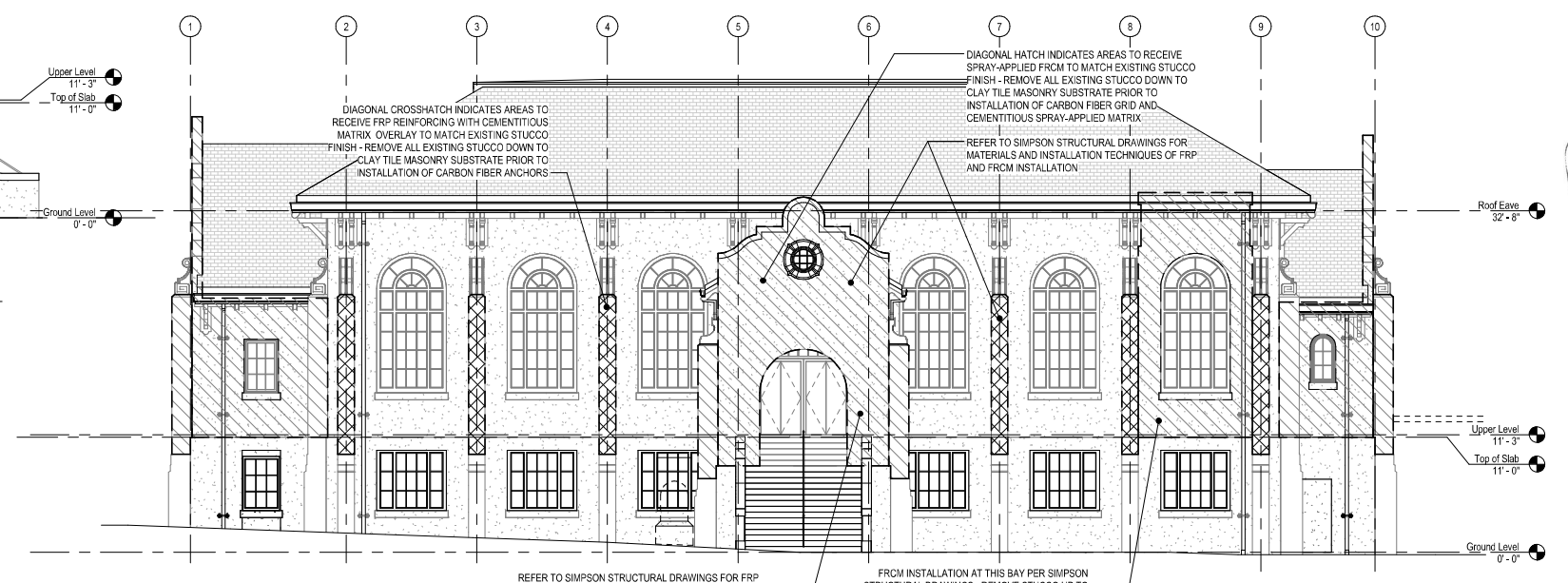
2 Upper Level Reflected Ceiling Plan
1/8" = 1'-0"



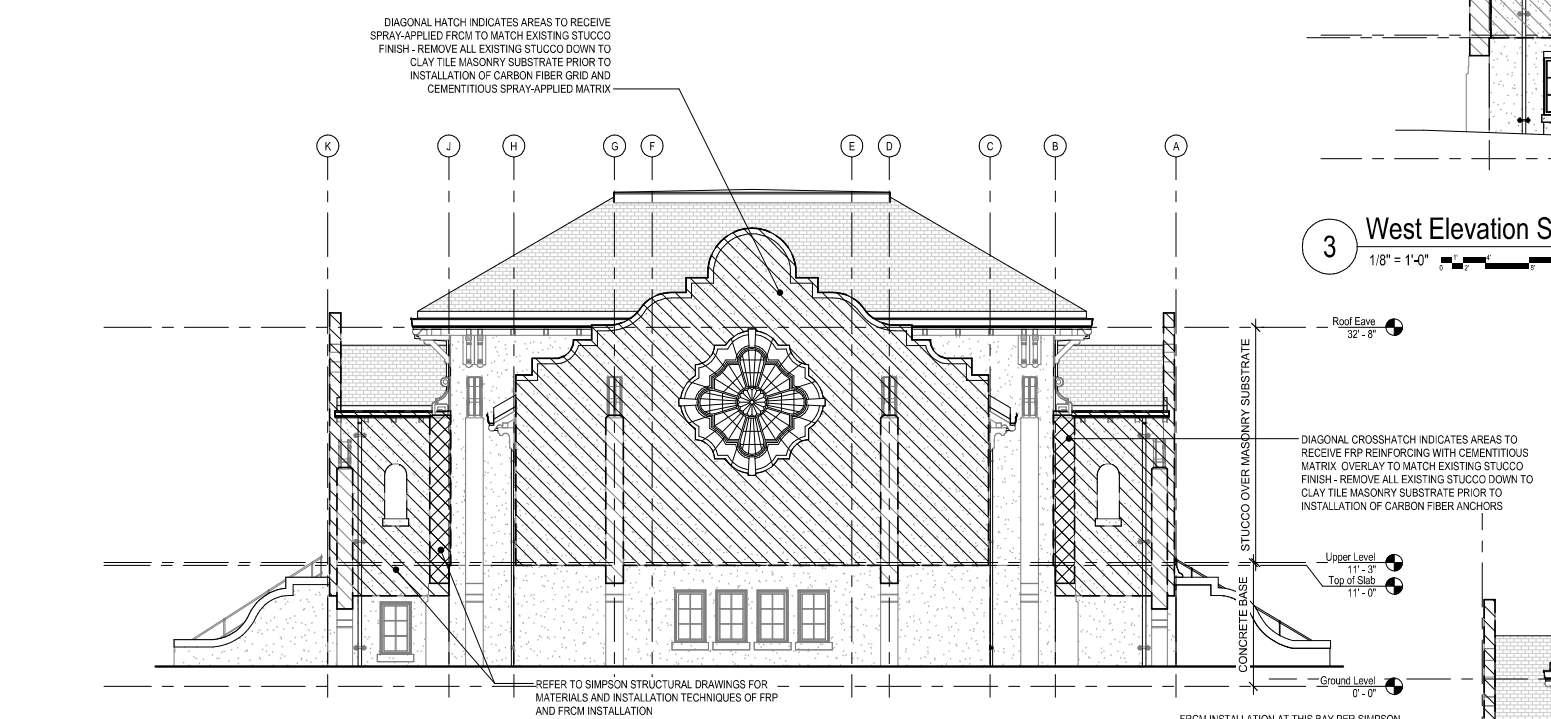
1 Ground Level Reflected Ceiling Plan
1/8" = 1'-0"



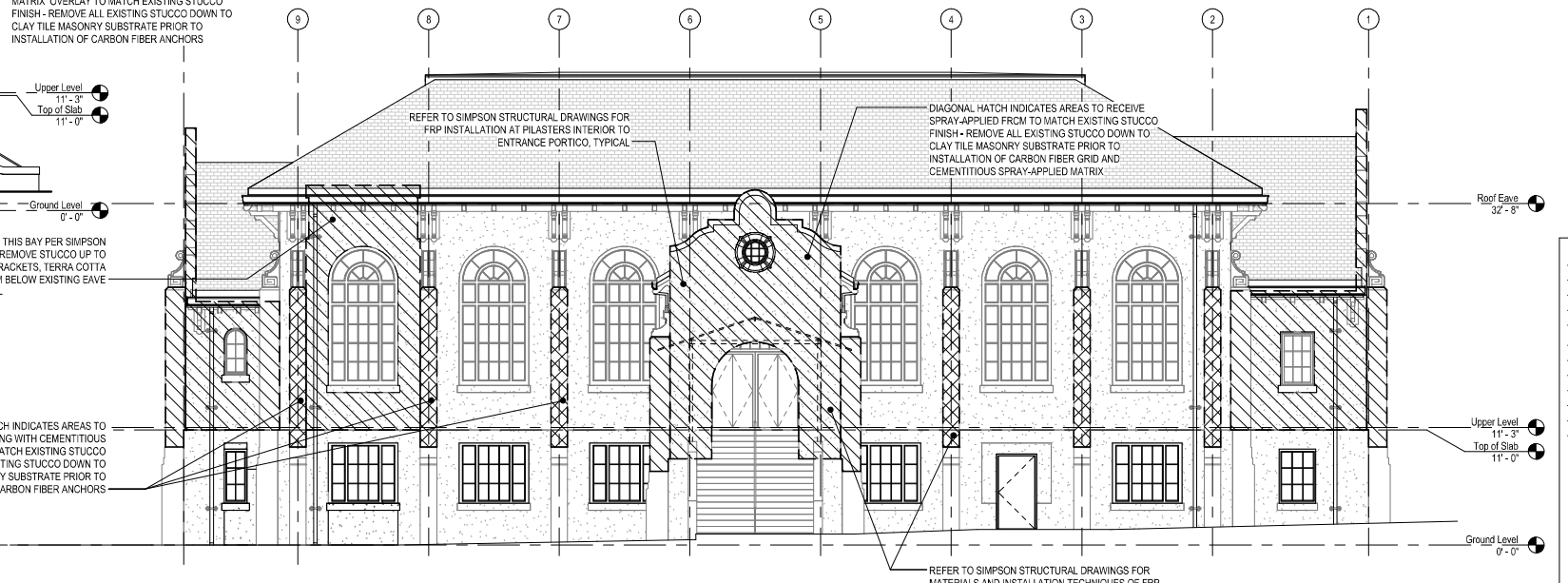
4 South Elevation Structural Scope Diagram
1/8" = 1'-0"



3 West Elevation Structural Scope Diagram
1/8" = 1'-0"



2 North Elevation Structural Scope Diagram
1/8" = 1'-0"



1 East Elevation Structural Scope Diagram
1/8" = 1'-0"

Reference Key Notes

CLAY TILE ROOFING, GUTTERS, DOWNSPOUTS AND FLASHING

- 1 REMOVE AND SALVAGE EXISTING ROOF TILE. CULL CRACKED / DAMAGED TILE. GENTLY REMOVE BIOLOGICAL GROWTH, LABEL, STOCKPILE, AND REINSTALL ACCORDING TO ROOF PLANS AND DETAILS FOLLOWING THE INSTALLATION OF NEW SHEATHING, INSULATION, WEATHER RESISTIVE BARRIER, AND FLASHINGS. INSPECT CONDITION OF EXISTING DECKING WHEN EXPOSED, AND REPLACE ROTTED SECTIONS AS NEEDED.
- 2 REMOVE AND SALVAGE PARAPET CAP FLASHING. GENTLY REMOVE EXISTING PAINT. CLEAN, BACK-SOLDER TO FILL CRACKS / DAMAGED METAL, AND REFORM TO PROVIDE ADEQUATE DRAINAGE SLOPE. REINSTALL PARAPET CAP ABOVE BUTYL, SELF-ADHERED FLASHING.
- 3 REMOVE AND REPLACE IN KIND ALL EXISTING ROOF FLASHINGS, VALLEYS, AND FASTENING CLIPS. REFER TO DETAILS.
- 4 PROVIDE NEW COPPER DRIP FLASHING AT GUTTER, REFER TO DETAILS.
- 5 PROVIDE NEW CAULKING COMPOUND AT JUNCTION OF METAL FLASHING AND STUCCO SIDING.
- 6 REMOVE ALL EXISTING GUTTERS AND HANGERS. REPLACE WITH NEW COPPER GUTTERS AND HANGERS OF COMPATIBLE MATERIAL TO FIT NEW ROOF ASSEMBLY.
- 7 REMOVE ALL EXISTING DOWNSPOUTS AND ORNAMENTAL ANCHOR STRAPS. REPLACE WITH NEW (CORRUGATED) COPPER DOWNSPOUTS AND ANCHORS TO MATCH EXISTING AS CLOSE AS POSSIBLE.
- 8 TIE NEW DOWNSPOUTS TO EXISTING DRAIN TILE AND ENSURE PROPER CONNECTION TO UNDERGROUND STORM SEWER SYSTEM ROUTED AWAY FROM BUILDING. INFILL WITH DRAINAGE ROCK AND COVER WITH SOIL SLOPING AWAY FROM THE BUILDING.

WOOD WINDOWS, EAVES, CORNICE BRACKETS, BEAMS AND RAFTER TAILS

- 10 GENTLY CLEAN AND REPAINT ALL EXISTING WOOD SOFFIT BEAMS, EAVE DECKING, RAFTER TAILS, FASCIAS, AND MOULDED TRIM FINISHES.
- 11 CUT OUT DETERIORATED WOOD AT EXPOSED RAFTER TAILS, SPLICE IN NEW WOOD, SHAPE AND PAINT TO MATCH EXISTING.
- 12 GENTLY CLEAN AND REPAINT WOOD CORNICE BRACKETS. CLEAN AND REPAINT TO MATCH EXISTING. ENSURE ALL EXISTING FASTENING IS SOUND, REPLACE ANY MISSING BOLTS AND PAINT TO MATCH, TYPICAL.
- 13 GENTLY CLEAN AND REPAINT EXTERIOR SIDE OF WOOD WINDOWS.
- 14 REFINISH EXISTING HARDWARE AND ENCOURAGE OPERABILITY TO ALLOW FOR NATURAL VENTILATION, PROVIDE NEW WEATHERSTIPPING, AS NEEDED.
- 15 WHERE WOOD HAS DETERIORATED BEYOND REPAIR, GENTLY REMOVE ROTTEN SECTION AND SPLICE OR REPLACE WITH REASONABLE FACSIMILE.
- 16 PROTECT EXISTING OPALESCENT GLASS AT ALL TIMES.
- 17 RELEAD EXISTING ROSE WINDOWS, AS NEEDED.
- 18 REPLACE BROKEN GLASS PANE, MATCH EXISTING.
- 19 REMOVE EXISTING WINDOW (OR MECHANICAL EQUIPMENT) AND REPLACE WITH NEW WOOD WINDOW AS SHOWN, PAINT.
- 20 INSTALL NEW WOOD WINDOW AS SHOWN, PAINT.

EXTERIOR PLASTER SIDING AND UNREINFORCED CLAY TILE MASONRY

- 21 REMOVE ALL EXTERIOR PLASTER SIDING DOWN TO CLAY TILE MASONRY SUBSTRATE. REPAIR OR REPLACE DAMAGED TILES AND MORTAR JOINTS, AS NEEDED. GENTLY CLEAN, APPLY NEW FIBER REINFORCED CEMENTITIOUS MATRIX (FRCM), TEXTURE AND PAINT TO VISUALLY MATCH EXISTING PLASTER SIDING TO THE GREATEST EXTENT POSSIBLE.
- 22 EXISTING PLASTER TO REMAIN. GENTLY CLEAN AND SEAL HAIRLINE CRACKS. PAINT. REMOVE AND PATCH AREAS OF SEVERE CRACKING, TEXTURE AND PAINT TO MATCH EXISTING.

CONCRETE AND CEMENT FORMED WINDOW SILLS

- 30 REMOVE BIOLOGICAL GROWTH AND STAINING TO THE GREATEST EXTENT USING GENTLY CLEANING METHODS. REPAINT TO MATCH EXISTING.
- 31 REPAIR CRACKS IN CONCRETE PER STRUCTURAL ENGINEER'S DIRECTION. ENSURE THE FINISHED APPEARANCE OF THE SEALANT MATCHES, TO THE GREATEST EXTENT POSSIBLE, THE EXISTING CONCRETE WALL, PAINT.
- 32 REMOVE LOOSE CONCRETE AND EXISTING SEALANT TO DETERMINE EXTENT OF CONCRETE DETERIORATION AND PERIMETER OF REPAIR AREA. HAND-CHIP OR SAW-CUT AND REMOVE AREA OF CRACKED AND DETERIORATED CONCRETE. CLEAN AREA OF REPAIR AND ANY EXPOSED STEEL REINFORCING. PRIME AND PAINT EXISTING REINFORCING WITH ANTI-CORROSION COATING. PROVIDE SUPPLEMENTAL REINFORCING, IF DETERMINED NECESSARY BY STRUCTURAL ENGINEER. PATCH AREA OF REPAIR WITH SPECIFIED CONCRETE MIX AND MECHANICALLY ATTACH TO ALL EXISTING CONCRETE. SEAL JOINTS AND MATCH, TO THE GREATEST EXTENT POSSIBLE, THE FINISHED APPEARANCE OF THE EXISTING CONCRETE WALL.
- 33 ENSURE ALL EXISTING FORMED CEMENT / TILE WINDOW SILLS ARE STRUCTURALLY SOUND, REPAIR OR REPLACE IN KIND, AS NEEDED, GENTLY REMOVE STAINING AND LOOSE PAINT, REPAINT TO MATCH EXISTING.
- 34 PROVIDE A NEW CEMENT WINDOW SILL AT NEW WOOD WINDOW, MATCH EXISTING CEMENT WINDOW SILLS IN APPEARANCE.
- 35 REMOVE EXISTING INFILL WALL BACK TO ORIGINAL CONCRETE OPENING TO ACCOMMODATE NEW WINDOW.

TERRA COTTA ORNAMENT

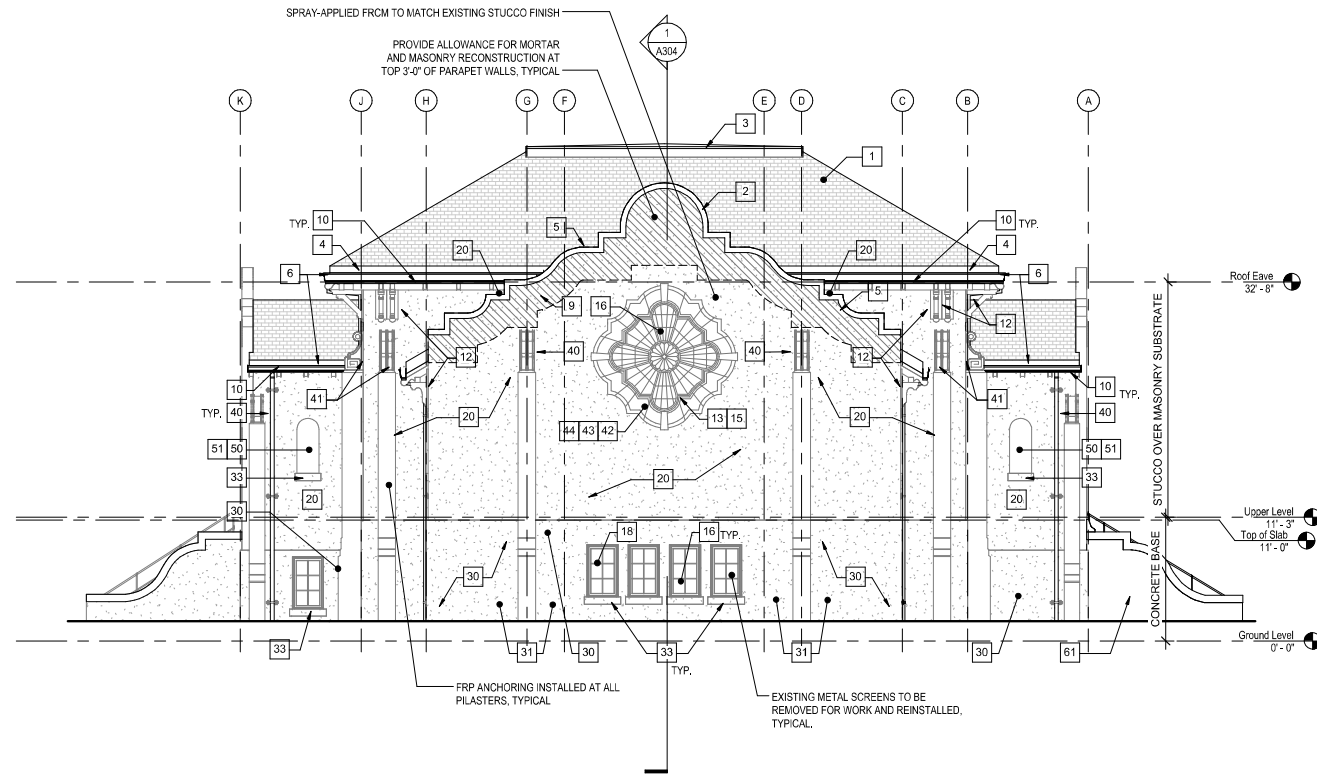
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- 43 REPOINT DETERIORATED MORTAR AT TERRA COTTA SECTION SEAMS, AS NEEDED.
- 44 PROVIDE NEW SEALANT AT ALL JUNCTIONS WHERE TERRA COTTA MEETS NEW EXTERIOR PAINTED PLASTER OR FRCM.

IRON WORK

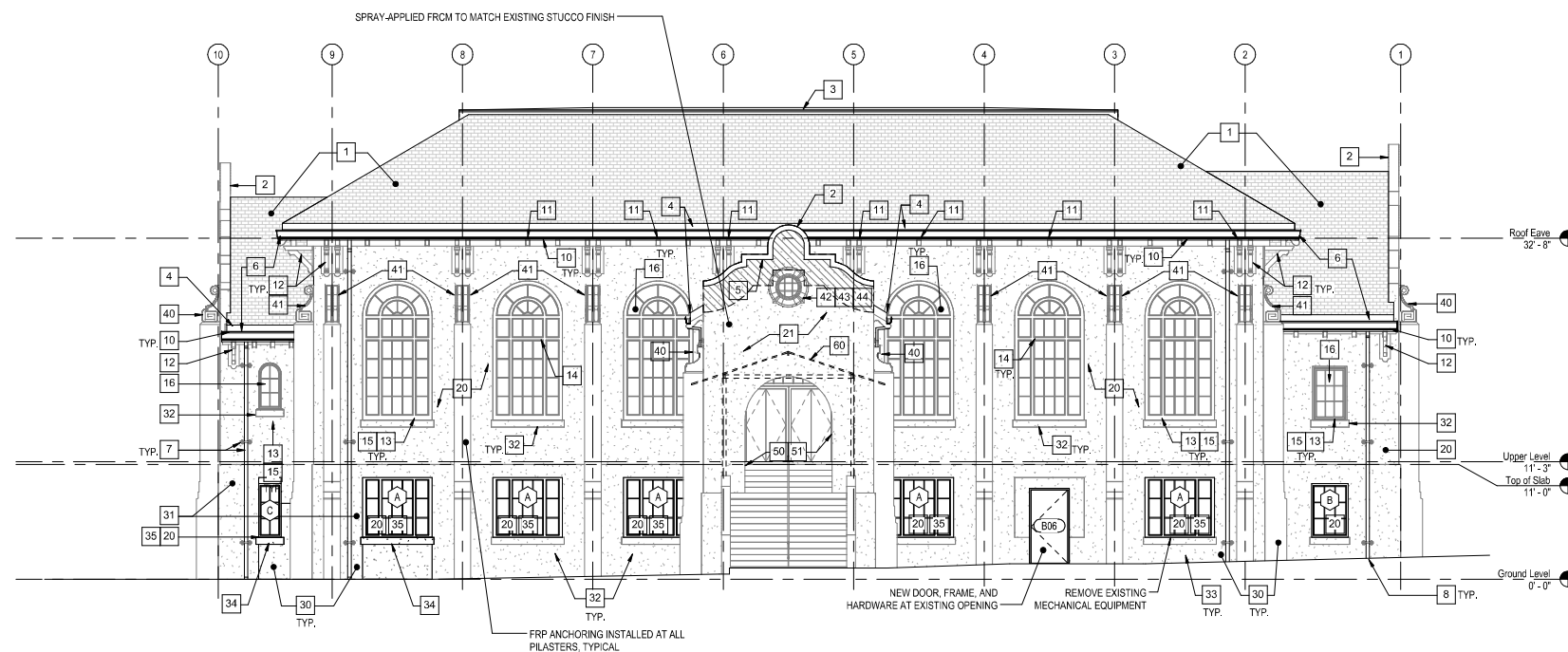
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- 60 REMOVE EXISTING METAL AWNINGS AND FLASHINGS AT THE SOUTH AND WEST ENTRIES
- 61 REMOVE AND RECONSTRUCT EXISTING CONCRETE STAIR TO MATCH EXISTING, REFER TO SHEET A301.
- 62 NEW 2" DIAMETER PAINTED STEEL PIPE RAIL TO MATCH EXISTING



2 North Elevation
1/8" = 1'-0"



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TERRA COTTA ORNAMENT

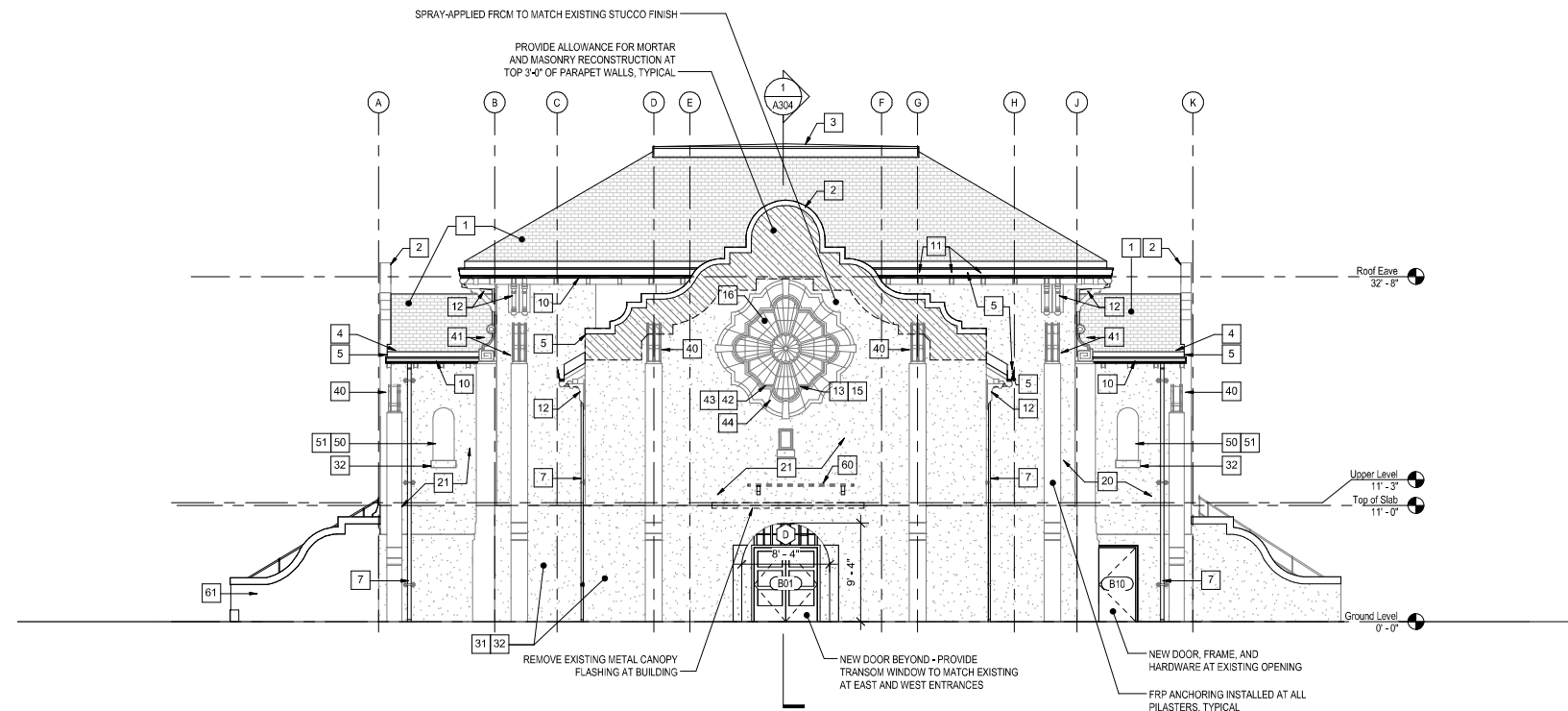
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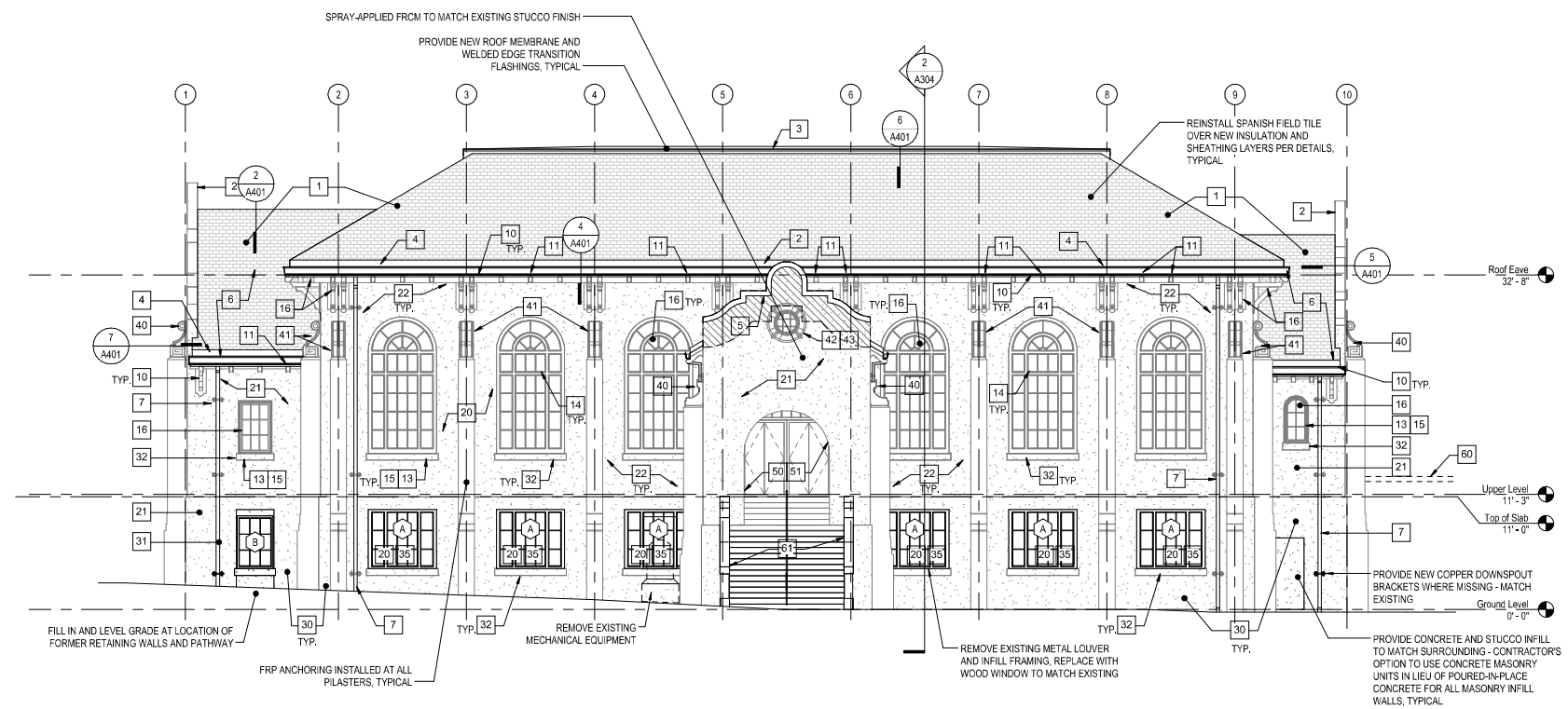
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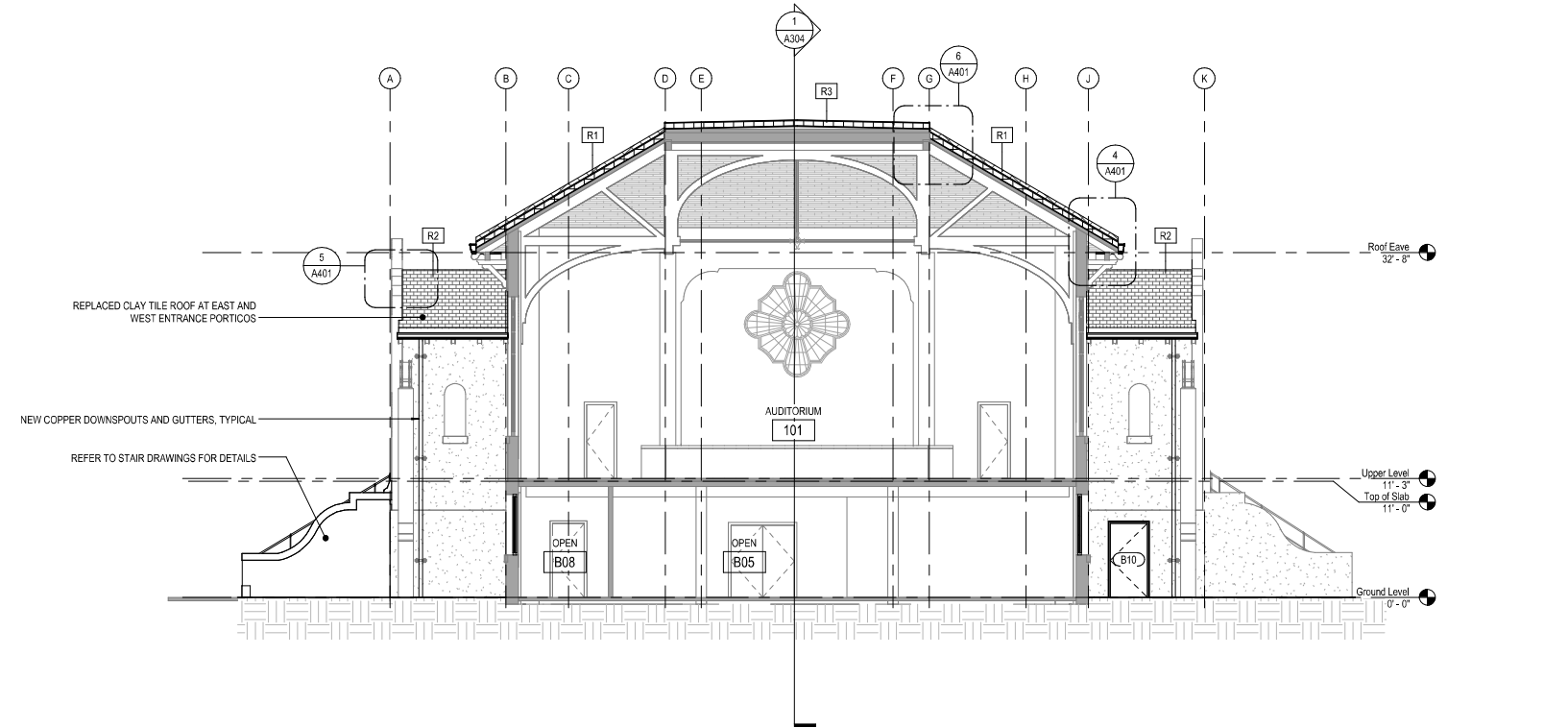
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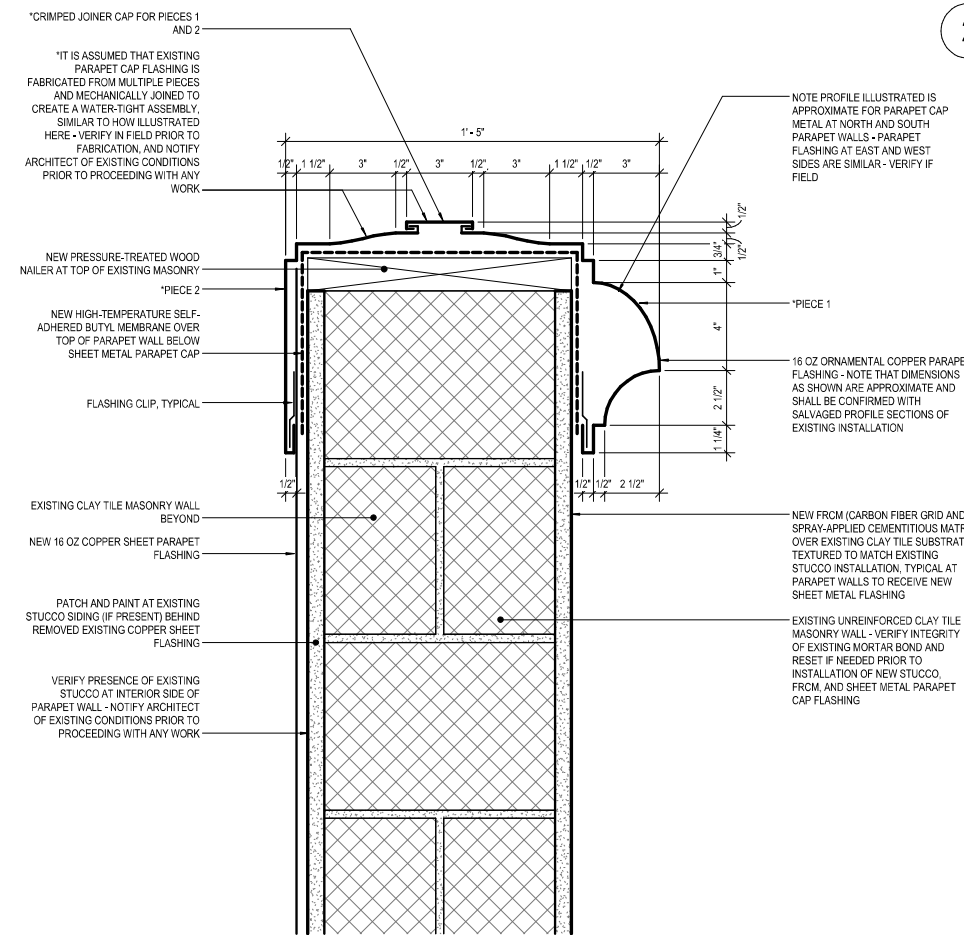
1 South Elevation
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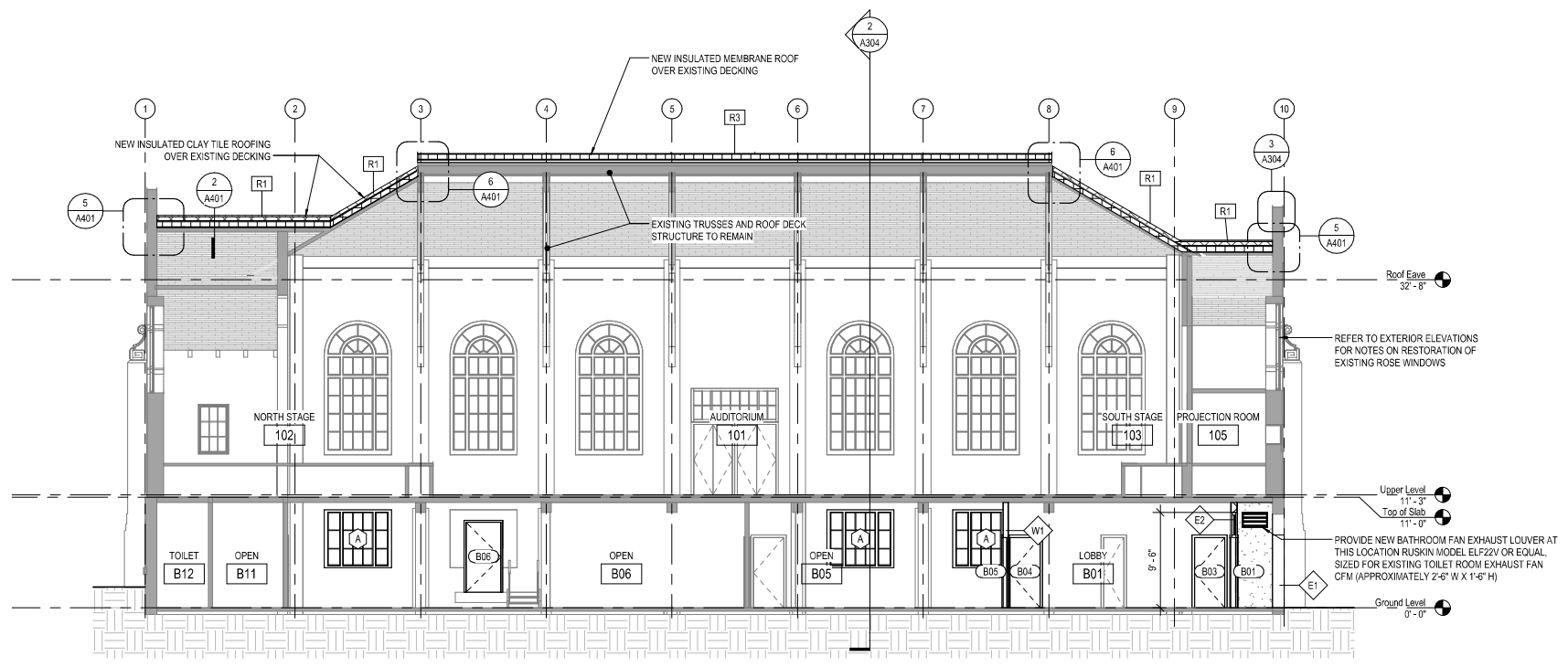
2 West Elevation
1/8" = 1'-0"



2 East-West Section Looking North
1/8" = 1'-0"



3 Roof Parapet Cap Metal Flashing Profile
3" = 1'-0"



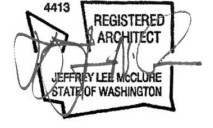
1 North-South Section Looking East
1/8" = 1'-0"

Port of Skagit - SWIFT Center
Assembly Hall Envelope Restoration
1890 Hub Drive
Sedro-Woolley, WA 98284

Job No: 1857 Date: 2019-05-17
File No: 1857 Assembly Hall Renovation
Drawn By: PDS, AGC, JTW
Checked By: JMcClure
Issued for: REVIEW

BUILDING SECTIONS

A304



Job No:	1857	Date:	2019-05-17
File No:	1857	Assembly Hall Renovation	
Drawn By:	PDS, AGC, JTW		
Checked By:	JMcClure		
Issued for:	REVIEW		

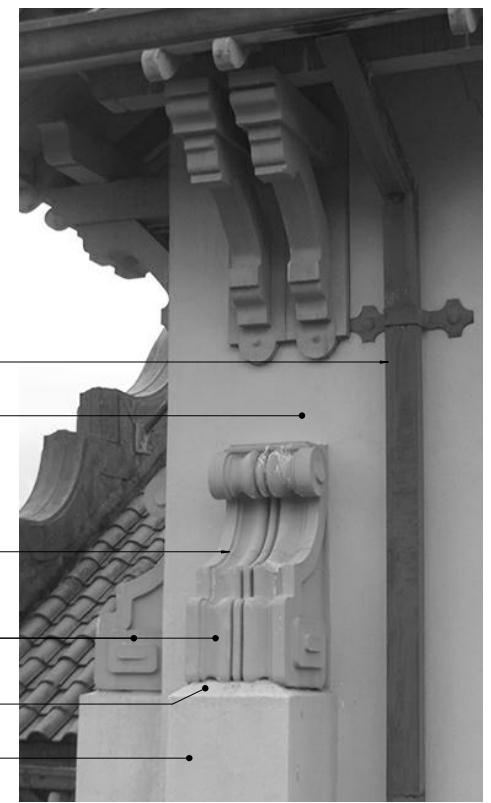
ILLUSTRATED
NOTES AT WALLS
AND TERRA
COTTA

A310



- **NOTE: CONDITION SHOWN APPLIES TO TERRA COTTA CAPITALS AT GABLE END WALLS, WHICH HAVE BEEN SUBJECTED TO EXTREME WEATHERING
- CAREFULLY UNINSTALL EXISTING TERRA COTTA PEDESTAL CAPITAL, AND GENTLY REMOVE ORGANIC STAINING - IN AREAS OF MINOR GLAZE SPALLING, REMOVE LOOSE MATERIAL AND SEAL WITH ACRYLIC-BASED PAINTO MATCH EXISTING GLAZE**
- IN NEW MORTAR BED, REINSTALL EXISTING TERRA COTTA CAPITAL IN MORTAR BED OVER NEW COPPER DAM FLASHING WITH LOW-PROFILE HEMMED DRIP EDGE OVER BEVELED REINFORCED STUCCO**
- REPAIR OR REPLACE DAMAGED HOLLOW CLAY TILE MASONRY SUBSTRATE AND MORTAR JOINTS
- REPAIR OR REPLACE DAMAGED HOLLOW CLAY TILE MASONRY SUBSTRATE AND MORTAR JOINTS
- APPLY NEW SPRAY-APPLIED FRCM TO EXISTING MASONRY SUBSTRATE AT GABLE ENDS, TEXTURE AND PAINT TO MATCH EXISTING PLASTER AS CLOSE AS POSSIBLE
- AT CRACKS IN EXISTING MASONRY SUBSTRATE, REPOINT WITH CEMENTITIOUS CRACK REPAIR MATERIAL, AND PREP FOR FRCM INSTALLATION
- REMOVE ALL EXISTING EXTERIOR STUCCO DOWN TO MASONRY SUBSTRATE AT PILASTERS AT GABLE ENDS TO PREP FOR FRCM INSTALLATION, TYPICAL
- REMOVE ALL EXISTING EXTERIOR PLASTER DOWN TO EXISTING MASONRY SUBSTRATE AT GABLE ENDS TO PREP FOR FRCM INSTALLATION, TYPICAL

5 Exposed** Terra Cotta Pedestal Capitals



- *NOTE: CONDITION SHOWN APPLIES TO TERRA COTTA CAPITALS UNDER BUILDING EAVE AT MAIN VOLUME OF STRUCTURE, WHICH HAVE BEEN FAIRLY WELL PROTECTED FROM WEATHERING
- REMOVE ALL EXISTING DOWNSPOUTS AND ORNAMENTAL STRAP ANCHORS, REPLACE WITH NEW COPPER GUTTERS AND ANCHORS TO MATCH EXISTING AS CLOSE AS POSSIBLE
- PREP AND PAINT EXISTING STUCCO WHERE NOT CRACKED, LOOSE, OR PEELING FROM EXISTING CLAY MASONRY SUBSTRATE, TYPICAL
- REPOINT MORTAR AT TERRA COTTA GROUT JOINTS, TYPICAL
- GENTLY REMOVE PAINT FROM EXISTING TERRA COTTA PILASTER CAPITALS, TYPICAL
- PROVIDE CHAMFER AT TOP OF NEW FRP / STUCCO INSTALLATION AT BUILDING PILASTERS, TYPICAL
- REMOVE ALL EXISTING EXTERIOR STUCCO DOWN TO MASONRY SUBSTRATE AT PILASTERS AT MAIN BUILDING VOLUME TO PREP FOR FRP INSTALLATION, TYPICAL

4 Protected* Terra Cotta Pedestal Capitals



- AT CRACKS IN EXISTING CONCRETE TO INFILL CONDITION, REMOVE LOOSE MATERIAL, REPOINT WITH CEMENTITIOUS CRACK REPAIR MATERIAL, AND PREP STUCCO FOR PAINT
- REMOVE EXISTING DOORS AS INDICATED ON PLANS AND ELEVATIONS - PREP ROUGH OPENING AND INSTALL NEW DOORS, FRAMES, AND HARDWARE AS INDICATED
- PREP AND PAINT EXISTING STUCCO OVER CONCRETE AT WALLS AND PILASTERS, TYPICAL AT LOWER LEVEL
- REMOVE AND REPLACE EXISTING CONCRETE SIDEWALK

3 Exterior Doors to be Replaced



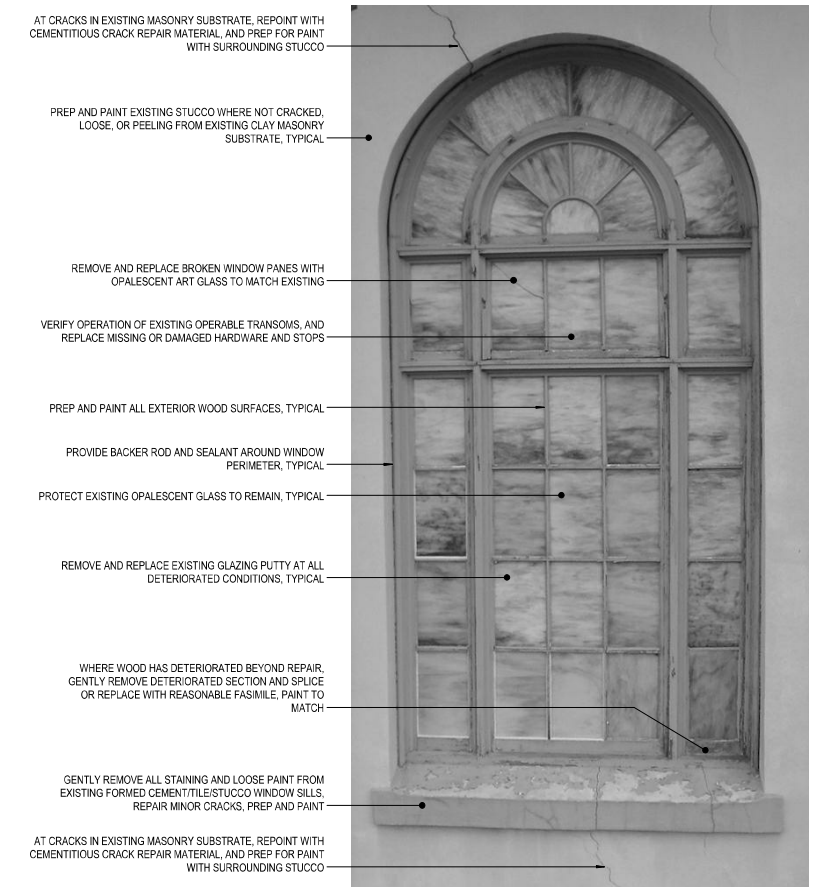
- REPAIR OR REPLACE DAMAGED HOLLOW CLAY TILE MASONRY SUBSTRATE AND MORTAR JOINTS
- PREP AND PAINT EXISTING STUCCO WHERE NOT CRACKED, LOOSE, OR PEELING FROM EXISTING CLAY MASONRY SUBSTRATE, TYPICAL
- APPLY NEW SPRAY-APPLIED FRCM TO EXISTING MASONRY SUBSTRATE AT GABLE ENDS, TEXTURE AND PAINT TO MATCH EXISTING PLASTER AS CLOSE AS POSSIBLE
- REMOVE ALL EXISTING DOWNSPOUTS AND ORNAMENTAL STRAP ANCHORS, REPLACE WITH NEW COPPER GUTTERS AND ANCHORS TO MATCH EXISTING AS CLOSE AS POSSIBLE
- REMOVE ALL EXISTING EXTERIOR STUCCO DOWN TO MASONRY SUBSTRATE AT PILASTERS AT MAIN BUILDING VOLUME TO PREP FOR FRP INSTALLATION, TYPICAL
- REMOVE ALL EXISTING EXTERIOR PLASTER DOWN TO EXISTING MASONRY SUBSTRATE AT GABLE ENDS TO PREP FOR FRCM INSTALLATION, TYPICAL
- REFER TO SITE PLAN AND BUILDING PLANS FOR EXTENTS OF EXISTING LANDSCAPING VEGETATION TO BE REMOVED AT BUILDING
- PROTECT ALL EXISTING EXTERIOR PIPES AND CONDUIT TO REMAIN, TYPICAL
- GENTLY REMOVE ORGANIC GROWTH AND SOILING ON CONCRETE FOUNDATION WALLS, PREP STUCCO AND PAINT, TYPICAL
- REMOVE PREVIOUS PATCH MATERIAL IF UNSOUND, PATCH WITH NEW CEMENTITIOUS CRACK FILLER, TYPICAL

2 Minor Concrete and Plaster Wall Repair



- REFER TO SITE PLAN AND BUILDING PLANS FOR EXTENTS OF EXISTING LANDSCAPING VEGETATION TO BE REMOVED AT BUILDING
- PREP AND PAINT EXISTING STUCCO WHERE NOT CRACKED, LOOSE, OR PEELING FROM EXISTING CLAY MASONRY SUBSTRATE, TYPICAL
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- REMOVE ALL EXISTING EXTERIOR PLASTER DOWN TO EXISTING MASONRY SUBSTRATE AT GABLE ENDS TO PREP FOR FRCM INSTALLATION, TYPICAL
- PREP AND PAINT EXISTING STUCCO OVER CONCRETE AT WALLS AND PILASTERS, TYPICAL AT LOWER LEVEL
- AT CRACKS IN EXISTING CONCRETE FOUNDATION GREATER THAN 1/4" WIDTH, CUT 1" x 1" V-GROOVE INTO EXISTING CONCRETE AND PATCH AREA WITH CEMENTITIOUS CRACK REPAIR MATERIAL, PREP, TEXTURE AND REPAINT STUCCO COVERING TO MATCH EXISTING
- REMOVE EXISTING DOOR, INFILL WITH NEW CONCRETE OR CONCRETE BLOCK, SEAL ALL JOINTS, TEXTURE AND REPAINT TO MATCH EXISTING AS CLOSELY AS POSSIBLE

1 Major Concrete and Plaster Wall Repair



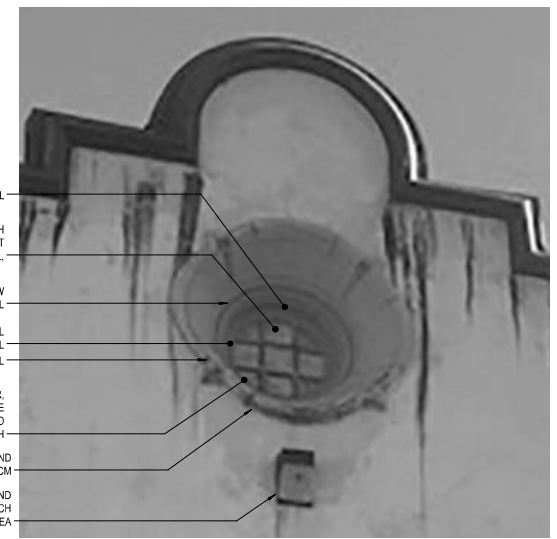
- AT CRACKS IN EXISTING MASONRY SUBSTRATE, REPOINT WITH CEMENTITIOUS CRACK REPAIR MATERIAL, AND PREP FOR PAINT WITH SURROUNDING STUCCO
- PREP AND PAINT EXISTING STUCCO WHERE NOT CRACKED, LOOSE, OR PEELING FROM EXISTING CLAY MASONRY SUBSTRATE, TYPICAL
- REMOVE AND REPLACE BROKEN WINDOW PANES WITH OPALESCENT ART GLASS TO MATCH EXISTING
- VERIFY OPERATION OF EXISTING OPERABLE TRANSOMS, AND REPLACE MISSING OR DAMAGED HARDWARE AND STOPS
- PREP AND PAINT ALL EXTERIOR WOOD SURFACES, TYPICAL
- PROVIDE BACKER ROD AND SEALANT AROUND WINDOW PERIMETER, TYPICAL
- PROTECT EXISTING OPALESCENT GLASS TO REMAIN, TYPICAL
- REMOVE AND REPLACE EXISTING GLAZING PUTTY AT ALL DETERIORATED CONDITIONS, TYPICAL
- WHERE WOOD HAS DETERIORATED BEYOND REPAIR, GENTLY REMOVE DETERIORATED SECTION AND SPLICE OR REPLACE WITH REASONABLE FASIMILE, PAINT TO MATCH
- GENTLY REMOVE ALL STAINING AND LOOSE PAINT FROM EXISTING FORMED CEMENT/TILE/STUCCO WINDOW SILLS, REPAIR MINOR CRACKS, PREP AND PAINT
- AT CRACKS IN EXISTING MASONRY SUBSTRATE, REPOINT WITH CEMENTITIOUS CRACK REPAIR MATERIAL, AND PREP FOR PAINT WITH SURROUNDING STUCCO

4 Large Upper Level Windows



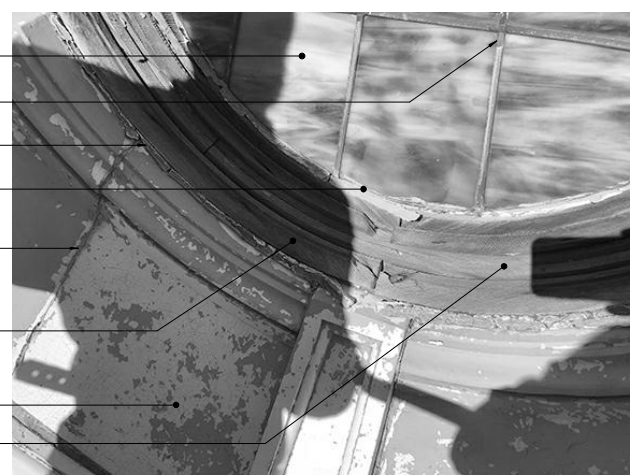
- GENTLY REMOVE EXISTING PAINT FROM TERRA COTTA WINDOW TRIM, AND GENTLY REMOVE ORGANIC STAINING - IN AREAS OF MINOR GLAZE SPALLING, REMOVE LOOSE MATERIAL AND SEAL WITH ACRYLIC-BASED PAINTO MATCH EXISTING GLAZE
- PREP AND PAINT ALL EXTERIOR WOOD SURFACES, TYPICAL
- REPLACE MISSING SECTIONS OF LEAD AT INTERMEDIATE ROSE WINDOW MUNTINS, TYPICAL
- REPOINT MORTAR AT ALL TERRA COTTA JOINTS, TYPICAL
- PROTECT EXISTING OPALESCENT GLASS TO REMAIN, TYPICAL
- REMOVE AND REPLACE EXISTING GLAZING PUTTY AT ALL DETERIORATED CONDITIONS, TYPICAL
- REMOVE AND REPLACE BROKEN WINDOW PANES WITH OPALESCENT ART GLASS TO MATCH EXISTING
- WHERE WOOD HAS DETERIORATED BEYOND REPAIR, GENTLY REMOVE DETERIORATED SECTION AND SPLICE OR REPLACE WITH REASONABLE FASIMILE, PAINT TO MATCH
- PROVIDE SEALANT AT ALL JUNCTIONS OF TERRA COTTA AND EXTERIOR STUCCO OR SPRAY-APPLIED FRGM

5 North Rose Window



- PREP AND PAINT ALL EXTERIOR WOOD SURFACES, TYPICAL
- REMOVE AND REPLACE BROKEN WINDOW PANES WITH OPALESCENT ART GLASS TO MATCH EXISTING, AND PROTECT EXISTING OPALESCENT GLASS TO REMAIN, TYPICAL
- PROVIDE BACKER ROD AND SEALANT AROUND WINDOW PERIMETER, TYPICAL
- REMOVE AND REPLACE EXISTING GLAZING PUTTY AT ALL DETERIORATED CONDITIONS, TYPICAL
- REPOINT MORTAR AT ALL TERRA COTTA JOINTS, TYPICAL
- WHERE WOOD HAS DETERIORATED BEYOND REPAIR, GENTLY REMOVE DETERIORATED SECTION AND SPLICE OR REPLACE WITH REASONABLE FASIMILE, PAINT TO MATCH
- PROVIDE SEALANT AT ALL JUNCTIONS OF TERRA COTTA AND EXTERIOR STUCCO OR SPRAY-APPLIED FRGM
- REMOVE EXISTING NON-ORIGINAL LIGHT FIXTURE, WIRING, AND JUNCTION BOX - PATCH AND REPAIR STUCCO TO MATCH SURROUNDING AREA

7 Round Windows at Entry Porches



- REMOVE AND REPLACE BROKEN WINDOW PANES WITH OPALESCENT ART GLASS TO MATCH EXISTING, AND PROTECT EXISTING OPALESCENT GLASS TO REMAIN, TYPICAL
- REPLACE MISSING SECTIONS OF LEAD AT INTERMEDIATE ROSE WINDOW MUNTINS, TYPICAL
- PROVIDE BACKER ROD AND SEALANT AROUND WINDOW PERIMETER, TYPICAL
- REMOVE AND REPLACE EXISTING GLAZING PUTTY AT ALL DETERIORATED CONDITIONS, TYPICAL
- REPOINT MORTAR AT ALL TERRA COTTA JOINTS, TYPICAL
- WHERE WOOD HAS DETERIORATED BEYOND REPAIR, GENTLY REMOVE DETERIORATED SECTION AND SPLICE OR REPLACE WITH REASONABLE FASIMILE, PAINT TO MATCH
- GENTLY REMOVE EXISTING PAINT FROM TERRA COTTA WINDOW TRIM, AND GENTLY REMOVE ORGANIC STAINING - IN AREAS OF MINOR GLAZE SPALLING, REMOVE LOOSE MATERIAL AND SEAL WITH ACRYLIC-BASED PAINTO MATCH EXISTING GLAZE
- PREP AND PAINT ALL EXTERIOR WOOD SURFACES, TYPICAL

6 Rose Window Frames and Terra Cotta



- REMOVE CONDUIT FROM FORMER LIGHT FIXTURE LOCATION - PATCH CONCRETE WITH CEMENTITIOUS CRACK REPAIR MATERIAL AND STUCCO TO MATCH SURROUNDING
- REMOVE ALL ORGANIC GROWTH FROM BUILDING EXTERIOR
- PREP AND PAINT EXISTING STUCCO OVER CONCRETE AT WALLS AND PILASTERS, TYPICAL AT LOWER LEVEL
- CLEAN ORGANIC DEBRIS AND LOOSE PAINT FROM EXISTING IRONWORK, PREP AND PAINT
- GENTLY REMOVE ALL STAINING AND LOOSE PAINT FROM EXISTING FORMED CEMENT/TILE/STUCCO WINDOW SILLS, REPAIR MINOR CRACKS, PREP AND PAINT
- REFER TO SITE PLAN AND BUILDING PLANS FOR EXTENTS OF EXISTING LANDSCAPING VEGETATION TO BE REMOVED AT BUILDING

1 Existing Ground Floor Ironwork



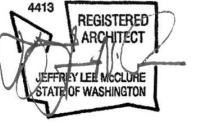
- REMOVE ALL ORGANIC SOILING ON BUILDING EXTERIOR, REPAINT
- PROTECT EXISTING OPALESCENT GLASS AT ALL TIMES, TYPICAL
- REMOVE EXISTING METAL SCREEN FOR WINDOW REPAIR WORK, REINSTALL
- REPLACE BROKEN WINDOW PANES, AS NEEDED, MATCH EXISTING
- GENTLY REMOVE ALL STAINING AND LOOSE PAINT FROM EXISTING FORMED CEMENT/TILE WINDOW SILLS, REPAINT TO MATCH EXISTING
- ENSURE ALL EXISTING FORMED CEMENT/TILE WINDOW SILLS ARE STRUCTURAL SOUND, REPAIR OR REPLACE IN KIND, AS NEEDED.
- REMOVE AND REPLACE ANY DETERIORATED CEMENT AT WINDOW SILLS, PROPERLY SLOPE AND PROVIDE A ROUNDED DRIP EDGE TO MATCH EXISTING.

2 Work at Existing Ground Floor Windows



- REMOVE STUCCO INFILL FROM ORIGINAL CONCRETE ROUGH OPENING - PREP FOR NEW WINDOW INSTALLATION
- GENTLY REMOVE ORGANIC GROWTH AND SOILING ON CONCRETE FOUNDATION WALLS, PREP STUCCO AND PAINT, TYPICAL
- REMOVE EXISTING MECHANICAL EQUIPMENT
- PROVIDE NEW PAINTED WOOD FRAMED WINDOW IN EXISTING CONCRETE ROUGH OPENING, REFER TO ELEVATIONS
- GENTLY REMOVE ALL STAINING AND LOOSE PAINT FROM EXISTING FORMED CEMENT/TILE/STUCCO WINDOW SILLS, REPAIR MINOR CRACKS, PREP AND PAINT

3 Demolition and Prep for New Windows

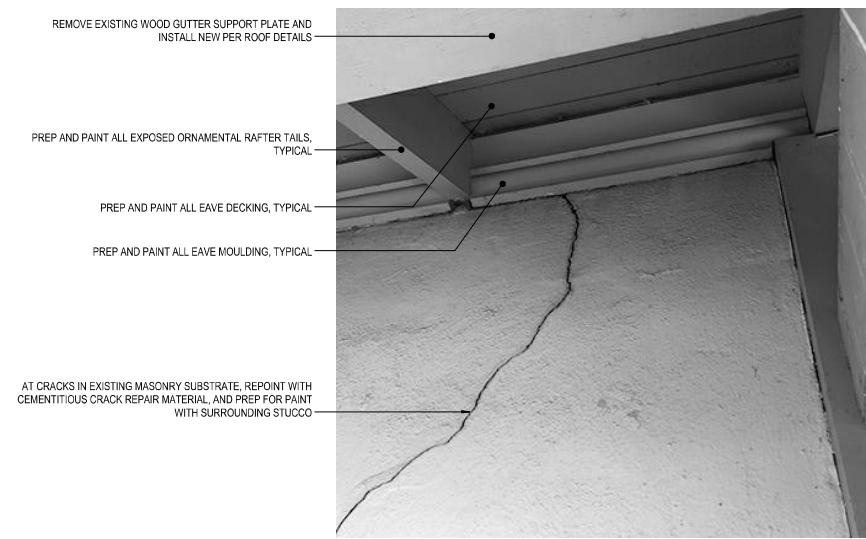


Port of Skagitj - SWIFT Center
Assembly Hall Envelope Restoration
1890 Hub Drive
Sedro-Woolley, WA 98284

Job No: 1857 Date: 2019-05-17
File No: 1857 Assembly Hall Renovation
Drawn By: PDS, AGC, JTW
Checked By: JMcClure
Issued for: REVIEW

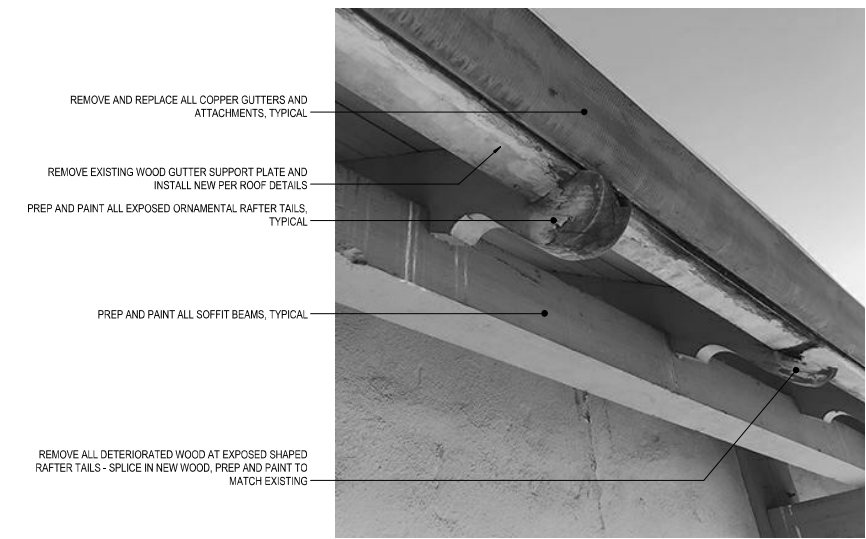
ILLUSTRATED
NOTES AT ROOF
AND
ASSOCIATED
FRAMING

A312



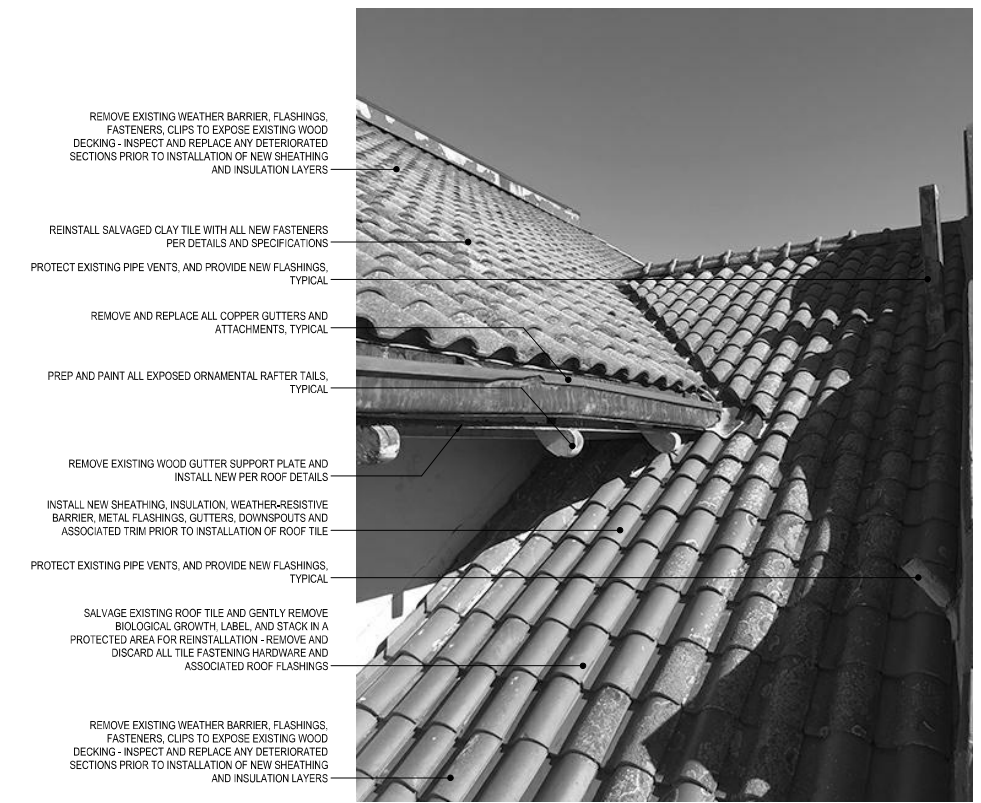
- REMOVE EXISTING WOOD GUTTER SUPPORT PLATE AND INSTALL NEW PER ROOF DETAILS
- PREP AND PAINT ALL EXPOSED ORNAMENTAL RAFTER TAILS, TYPICAL
- PREP AND PAINT ALL EAVE DECKING, TYPICAL
- PREP AND PAINT ALL EAVE MOULDING, TYPICAL
- AT CRACKS IN EXISTING MASONRY SUBSTRATE, REPOINT WITH CEMENTITIOUS CRACK REPAIR MATERIAL, AND PREP FOR PAINT WITH SURROUNDING STUCCO

6 Roof Mouldings & Rafter Tails



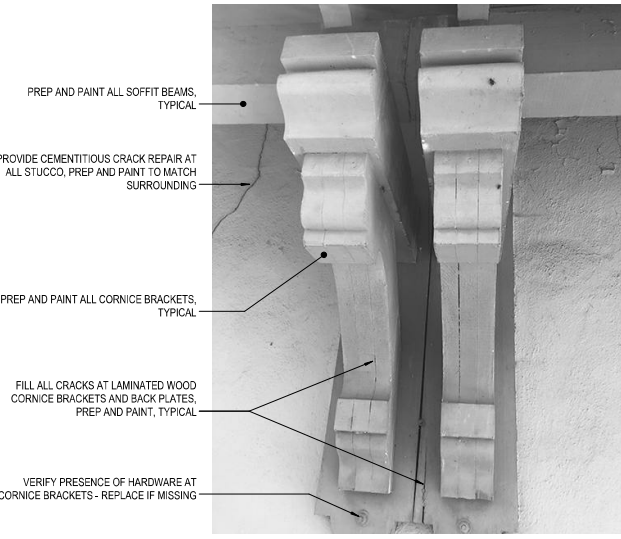
- REMOVE AND REPLACE ALL COPPER GUTTERS AND ATTACHMENTS, TYPICAL
- REMOVE EXISTING WOOD GUTTER SUPPORT PLATE AND INSTALL NEW PER ROOF DETAILS
- PREP AND PAINT ALL EXPOSED ORNAMENTAL RAFTER TAILS, TYPICAL
- PREP AND PAINT ALL SOFFIT BEAMS, TYPICAL
- REMOVE ALL DETERIORATED WOOD AT EXPOSED SHAPED RAFTER TAILS - SPLICE IN NEW WOOD, PREP AND PAINT TO MATCH EXISTING

5 Roof Beams, Rafter Tails, Fascia & Gutters



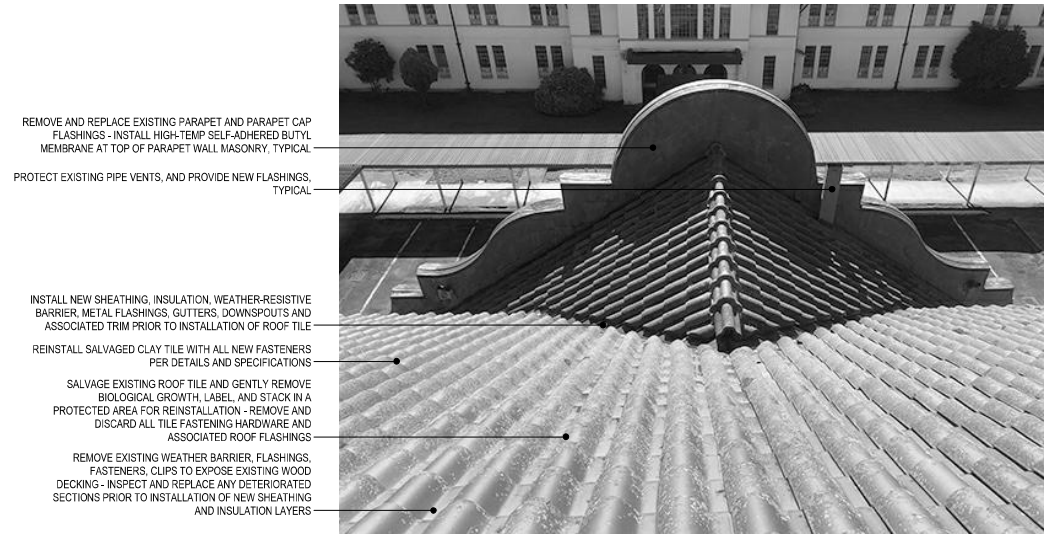
- REMOVE EXISTING WEATHER BARRIER, FLASHINGS, FASTENERS, CLIPS TO EXPOSE EXISTING WOOD DECKING - INSPECT AND REPLACE ANY DETERIORATED SECTIONS PRIOR TO INSTALLATION OF NEW SHEATHING AND INSULATION LAYERS
- REINSTALL SALVAGED CLAY TILE WITH ALL NEW FASTENERS PER DETAILS AND SPECIFICATIONS
- PROTECT EXISTING PIPE VENTS, AND PROVIDE NEW FLASHINGS, TYPICAL
- REMOVE AND REPLACE ALL COPPER GUTTERS AND ATTACHMENTS, TYPICAL
- PREP AND PAINT ALL EXPOSED ORNAMENTAL RAFTER TAILS, TYPICAL
- REMOVE EXISTING WOOD GUTTER SUPPORT PLATE AND INSTALL NEW PER ROOF DETAILS
- INSTALL NEW SHEATHING, INSULATION, WEATHER-RESISTIVE BARRIER, METAL FLASHINGS, GUTTERS, DOWNSPOUTS AND ASSOCIATED TRIM PRIOR TO INSTALLATION OF ROOF TILE
- PROTECT EXISTING PIPE VENTS, AND PROVIDE NEW FLASHINGS, TYPICAL
- SALVAGE EXISTING ROOF TILE AND GENTLY REMOVE BIOLOGICAL GROWTH, LABEL AND STACK IN A PROTECTED AREA FOR REINSTALLATION - REMOVE AND DISCARD ALL TILE FASTENING HARDWARE AND ASSOCIATED ROOF FLASHINGS
- REMOVE EXISTING WEATHER BARRIER, FLASHINGS, FASTENERS, CLIPS TO EXPOSE EXISTING WOOD DECKING - INSPECT AND REPLACE ANY DETERIORATED SECTIONS PRIOR TO INSTALLATION OF NEW SHEATHING AND INSULATION LAYERS

4 Clay Tile Roofing, Gutters, & Flashing



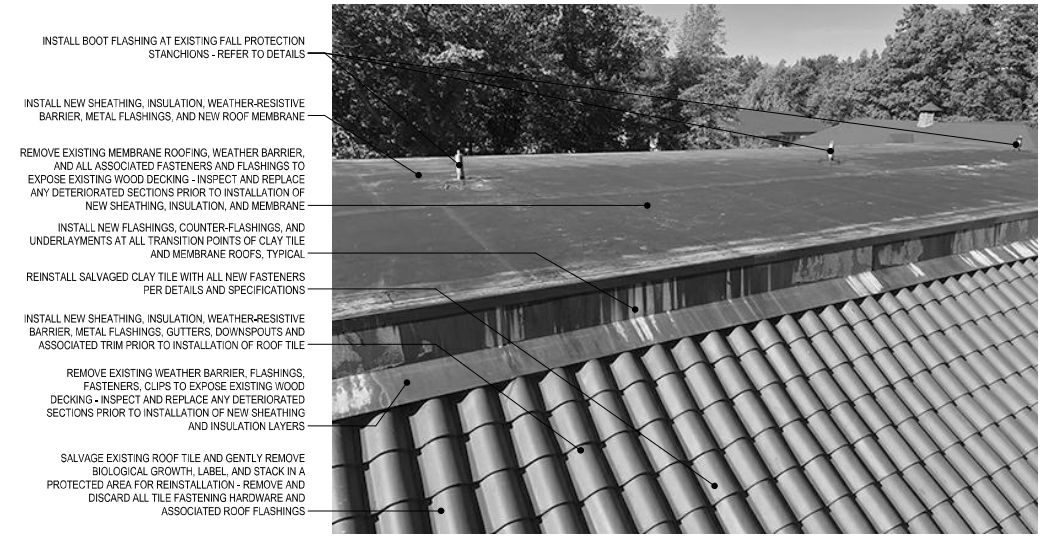
- PREP AND PAINT ALL SOFFIT BEAMS, TYPICAL
- PROVIDE CEMENTITIOUS CRACK REPAIR AT ALL STUCCO, PREP AND PAINT TO MATCH SURROUNDING
- PREP AND PAINT ALL CORNICE BRACKETS, TYPICAL
- FILL ALL CRACKS AT LAMINATED WOOD CORNICE BRACKETS AND BACK PLATES, PREP AND PAINT, TYPICAL
- VERIFY PRESENCE OF HARDWARE AT CORNICE BRACKETS - REPLACE IF MISSING

3 Cornice Brackets



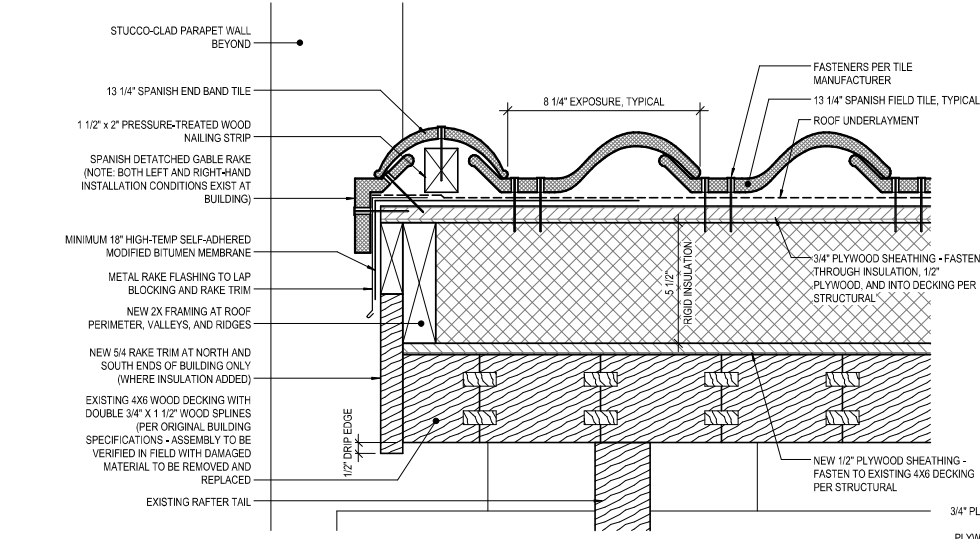
- REMOVE AND REPLACE EXISTING PARAPET AND PARAPET CAP FLASHINGS - INSTALL HIGH-TEMP SELF-ADHERED BUTYL MEMBRANE AT TOP OF PARAPET WALL MASONRY, TYPICAL
- PROTECT EXISTING PIPE VENTS, AND PROVIDE NEW FLASHINGS, TYPICAL
- INSTALL NEW SHEATHING, INSULATION, WEATHER-RESISTIVE BARRIER, METAL FLASHINGS, GUTTERS, DOWNSPOUTS AND ASSOCIATED TRIM PRIOR TO INSTALLATION OF ROOF TILE
- REINSTALL SALVAGED CLAY TILE WITH ALL NEW FASTENERS PER DETAILS AND SPECIFICATIONS
- SALVAGE EXISTING ROOF TILE AND GENTLY REMOVE BIOLOGICAL GROWTH, LABEL AND STACK IN A PROTECTED AREA FOR REINSTALLATION - REMOVE AND DISCARD ALL TILE FASTENING HARDWARE AND ASSOCIATED ROOF FLASHINGS
- REMOVE EXISTING WEATHER BARRIER, FLASHINGS, FASTENERS, CLIPS TO EXPOSE EXISTING WOOD DECKING - INSPECT AND REPLACE ANY DETERIORATED SECTIONS PRIOR TO INSTALLATION OF NEW SHEATHING AND INSULATION LAYERS

2 Clay Tile Roofing & Parapet Flashing

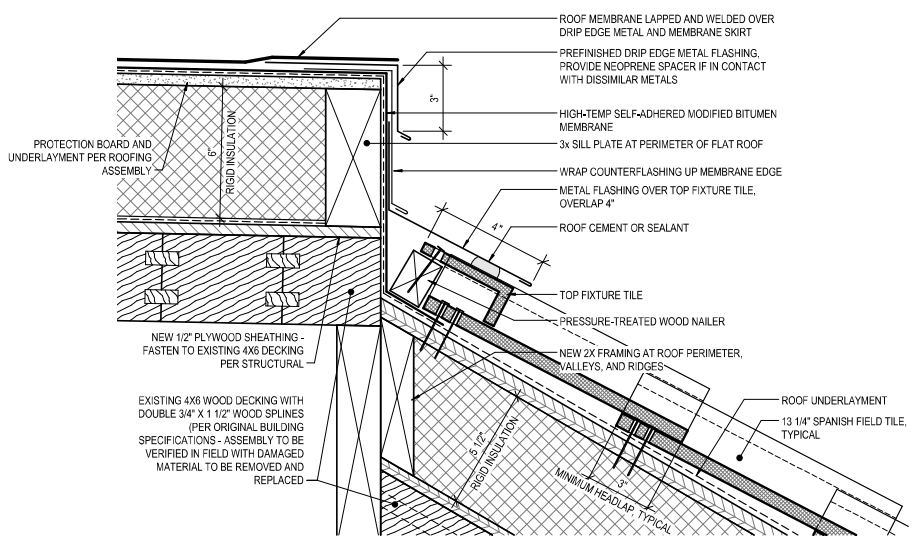


- INSTALL BOOT FLASHING AT EXISTING FALL PROTECTION STANCHIONS - REFER TO DETAILS
- INSTALL NEW SHEATHING, INSULATION, WEATHER-RESISTIVE BARRIER, METAL FLASHINGS, AND NEW ROOF MEMBRANE
- REMOVE EXISTING MEMBRANE ROOFING, WEATHER BARRIER, AND ALL ASSOCIATED FASTENERS AND FLASHINGS TO EXPOSE EXISTING WOOD DECKING - INSPECT AND REPLACE ANY DETERIORATED SECTIONS PRIOR TO INSTALLATION OF NEW SHEATHING, INSULATION, AND MEMBRANE
- INSTALL NEW FLASHINGS, COUNTER-FLASHINGS, AND UNDERLAYMENTS AT ALL TRANSITION POINTS OF CLAY TILE AND MEMBRANE ROOFS, TYPICAL
- REINSTALL SALVAGED CLAY TILE WITH ALL NEW FASTENERS PER DETAILS AND SPECIFICATIONS
- INSTALL NEW SHEATHING, INSULATION, WEATHER-RESISTIVE BARRIER, METAL FLASHINGS, GUTTERS, DOWNSPOUTS AND ASSOCIATED TRIM PRIOR TO INSTALLATION OF ROOF TILE
- REMOVE EXISTING WEATHER BARRIER, FLASHINGS, FASTENERS, CLIPS TO EXPOSE EXISTING WOOD DECKING - INSPECT AND REPLACE ANY DETERIORATED SECTIONS PRIOR TO INSTALLATION OF NEW SHEATHING AND INSULATION LAYERS
- SALVAGE EXISTING ROOF TILE AND GENTLY REMOVE BIOLOGICAL GROWTH, LABEL AND STACK IN A PROTECTED AREA FOR REINSTALLATION - REMOVE AND DISCARD ALL TILE FASTENING HARDWARE AND ASSOCIATED ROOF FLASHINGS

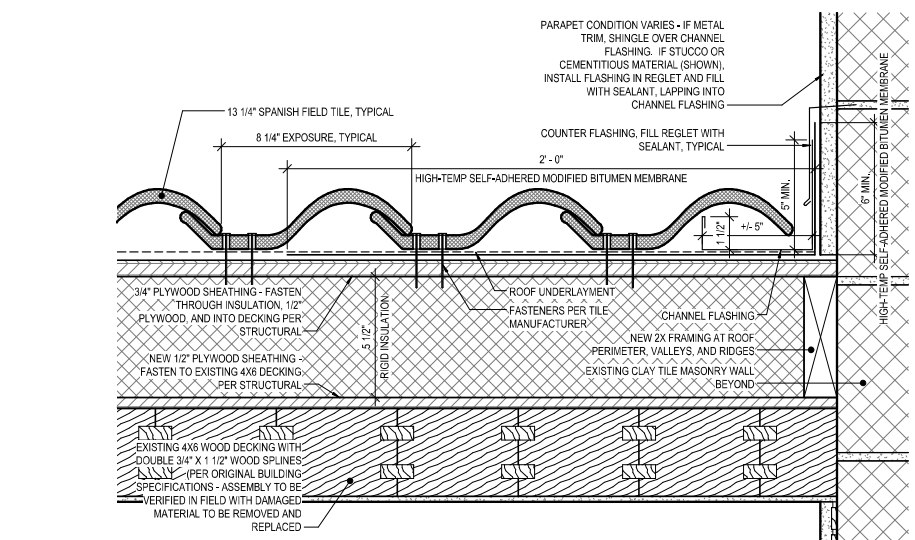
1 Clay Tile & Flat Roofing



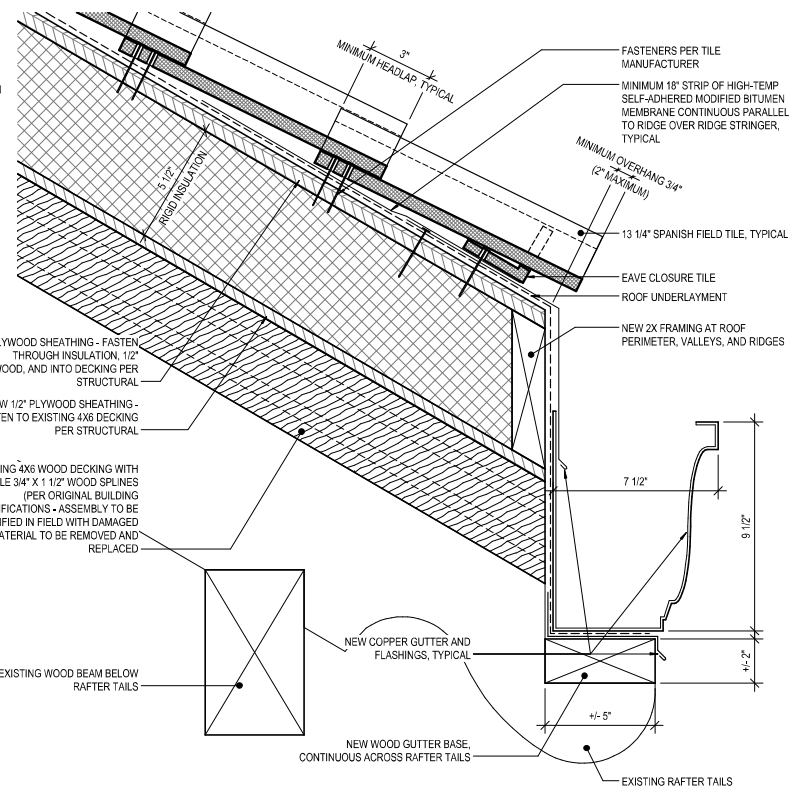
7 Rake Edge Detail
3" = 1'-0"



6 Head Wall Section Detail
3" = 1'-0"

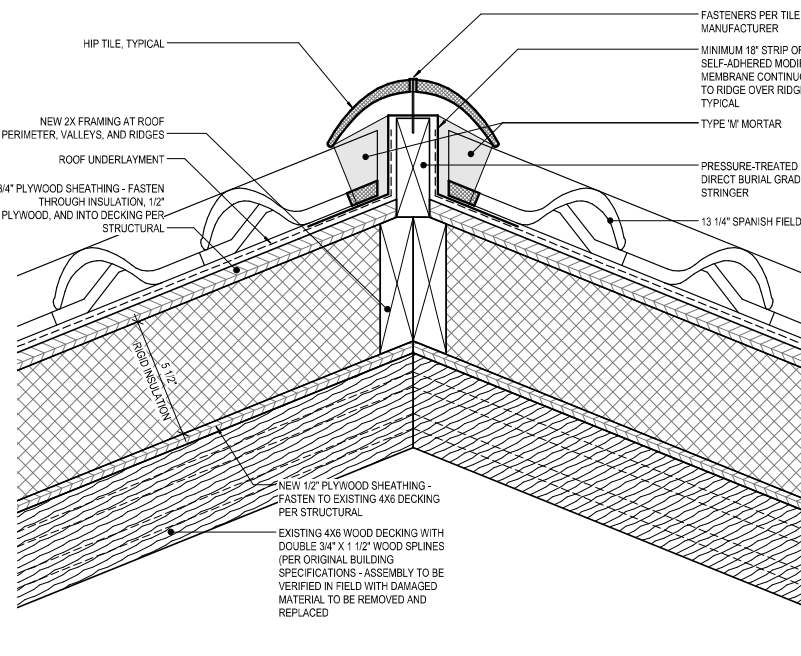


5 Parapet Wall Roof Edge Detail
3" = 1'-0"



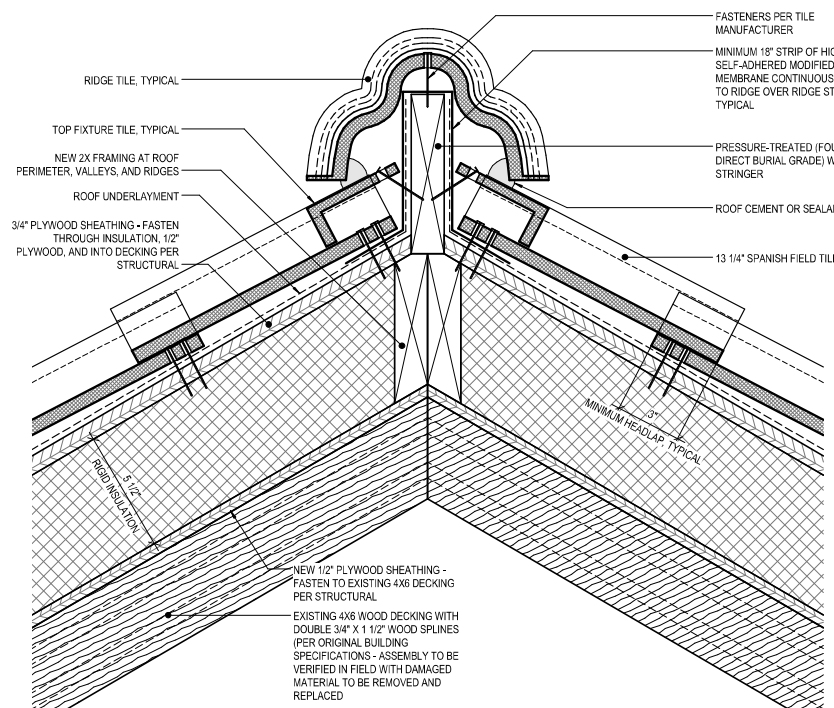
4 Eave Section Detail
3" = 1'-0"

NOTES:
1. INSTALL HIP TILE WITH 3" LAP, TYPICAL.
2. INSTALL A BEAD OF SEALANT BETWEEN THE LAP OF EACH HIP TILE.
3. COORDINATE PROPER STRINGER HEIGHT WITH MANUFACTURER INSTALLATION GUIDELINES.



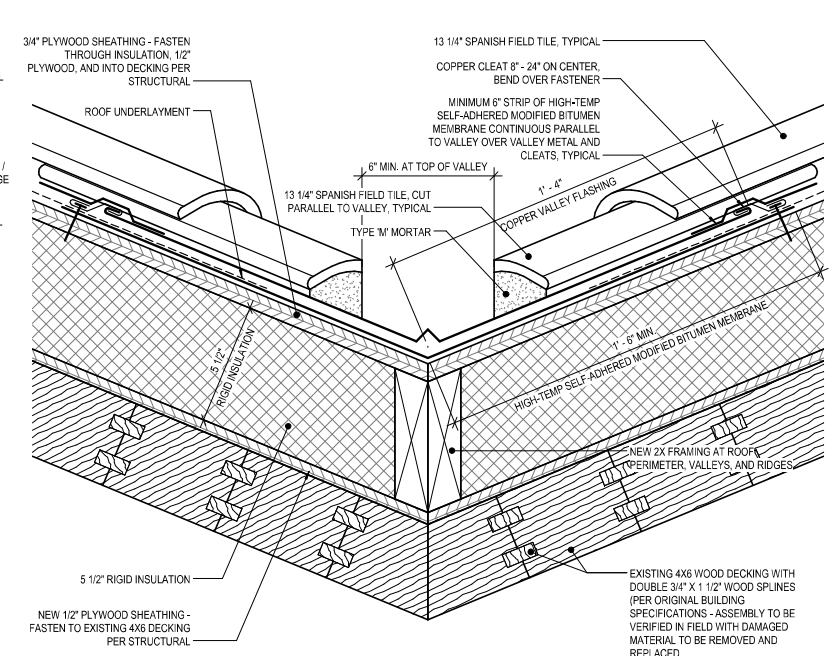
3 Hip Cover Detail
3" = 1'-0"

NOTES:
1. INSTALL RIDGE TILE WITH 1 3/4" LAP, TYPICAL.
2. INSTALL A BEAD OF SEALANT BETWEEN THE LAP OF EACH RIDGE TILE.
3. COORDINATE PROPER STRINGER HEIGHT WITH MANUFACTURER INSTALLATION GUIDELINES.

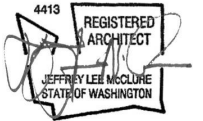


2 Ridge Tile Detail
3" = 1'-0"

NOTES:
1. DO NOT PENETRATE COPPER VALLEY FLASHING. ATTACH SMALL CUT VALLEY TILES WITH COPPER WIRE AND TIE OFF TO FASTENERS PLACED ABOVE COPPER VALLEY FLASHING.
2. CUT VALLEY TILE MUST PROVIDE A MINIMUM OF 4" OVERLAP OF COPPER VALLEY FLASHING.
3. INCREASE EXPOSURE OF COPPER VALLEY FLASHING 1" FOR EVERY 8"-0" OF VALLEY RUN TOWARDS EAVES.



1 Valley Flashing Detail
3" = 1'-0"

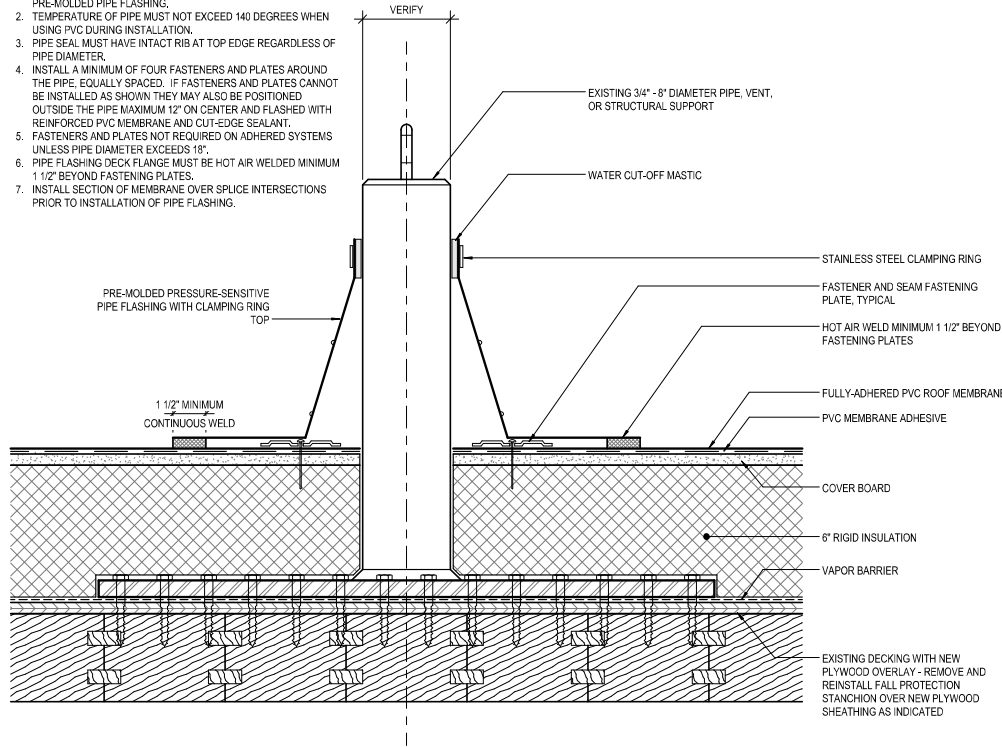


Job No: 1857 Date: 2019-05-17
File No: 1857 Assembly Hall Renovation
Drawn By: PDS, AGC, JTW
Checked By: JMcClure
Issued for: REVIEW

ROOF DETAILS

A402

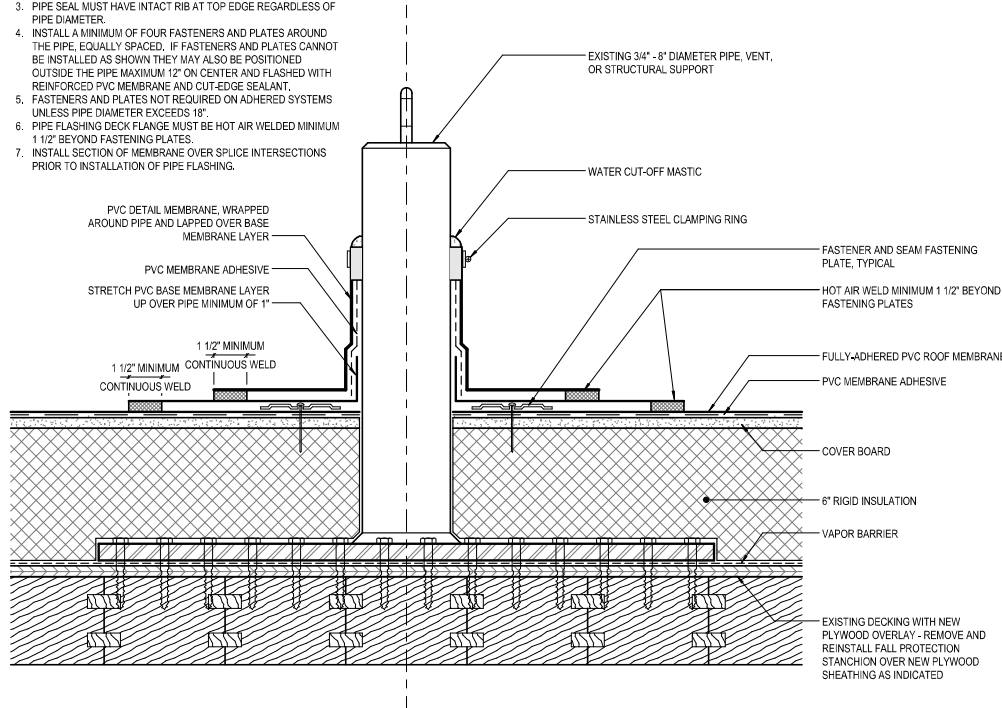
- DETAIL NOTES:**
1. REMOVE ALL EXISTING FLASHING MATERIAL BEFORE INSTALLING PRE-MOLDED PIPE FLASHING.
 2. TEMPERATURE OF PIPE MUST NOT EXCEED 140 DEGREES WHEN USING PVC DURING INSTALLATION.
 3. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE REGARDLESS OF PIPE DIAMETER.
 4. INSTALL A MINIMUM OF FOUR FASTENERS AND PLATES AROUND THE PIPE, EQUALLY SPACED. IF FASTENERS AND PLATES CANNOT BE INSTALLED AS SHOWN THEY MAY ALSO BE POSITIONED OUTSIDE THE PIPE MAXIMUM 12" ON CENTER AND FLASHED WITH REINFORCED PVC MEMBRANE AND CUT-EDGE SEALANT.
 5. FASTENERS AND PLATES NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18".
 6. PIPE FLASHING DECK FLANGE MUST BE HOT AIR WELDED MINIMUM 1 1/2" BEYOND FASTENING PLATES.
 7. INSTALL SECTION OF MEMBRANE OVER SPLICE INTERSECTIONS PRIOR TO INSTALLATION OF PIPE FLASHING.



5 Prefabricated Pipe or Vent Penetration - Alternate

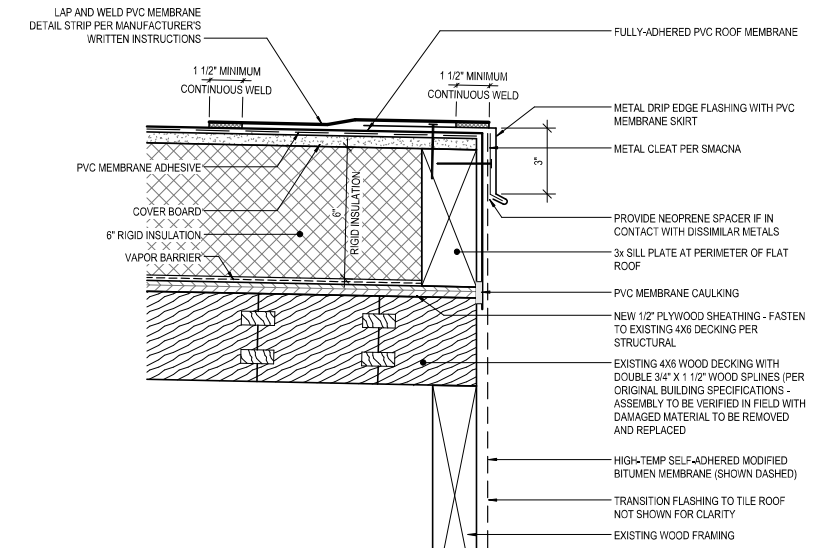
3" = 1'-0"

- DETAIL NOTES:**
1. REMOVE ALL EXISTING FLASHING MATERIAL BEFORE INSTALLING PRE-MOLDED PIPE FLASHING.
 2. TEMPERATURE OF PIPE MUST NOT EXCEED 140 DEGREES WHEN USING PVC DURING INSTALLATION.
 3. PIPE SEAL MUST HAVE INTACT RIB AT TOP EDGE REGARDLESS OF PIPE DIAMETER.
 4. INSTALL A MINIMUM OF FOUR FASTENERS AND PLATES AROUND THE PIPE, EQUALLY SPACED. IF FASTENERS AND PLATES CANNOT BE INSTALLED AS SHOWN THEY MAY ALSO BE POSITIONED OUTSIDE THE PIPE MAXIMUM 12" ON CENTER AND FLASHED WITH REINFORCED PVC MEMBRANE AND CUT-EDGE SEALANT.
 5. FASTENERS AND PLATES NOT REQUIRED ON ADHERED SYSTEMS UNLESS PIPE DIAMETER EXCEEDS 18".
 6. PIPE FLASHING DECK FLANGE MUST BE HOT AIR WELDED MINIMUM 1 1/2" BEYOND FASTENING PLATES.
 7. INSTALL SECTION OF MEMBRANE OVER SPLICE INTERSECTIONS PRIOR TO INSTALLATION OF PIPE FLASHING.



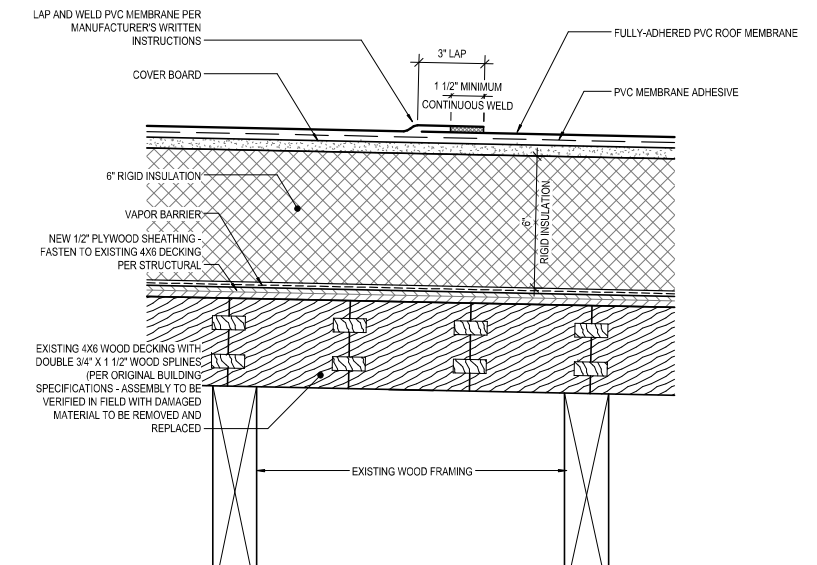
3 Field Fabricated Pipe or Vent Penetration

3" = 1'-0"



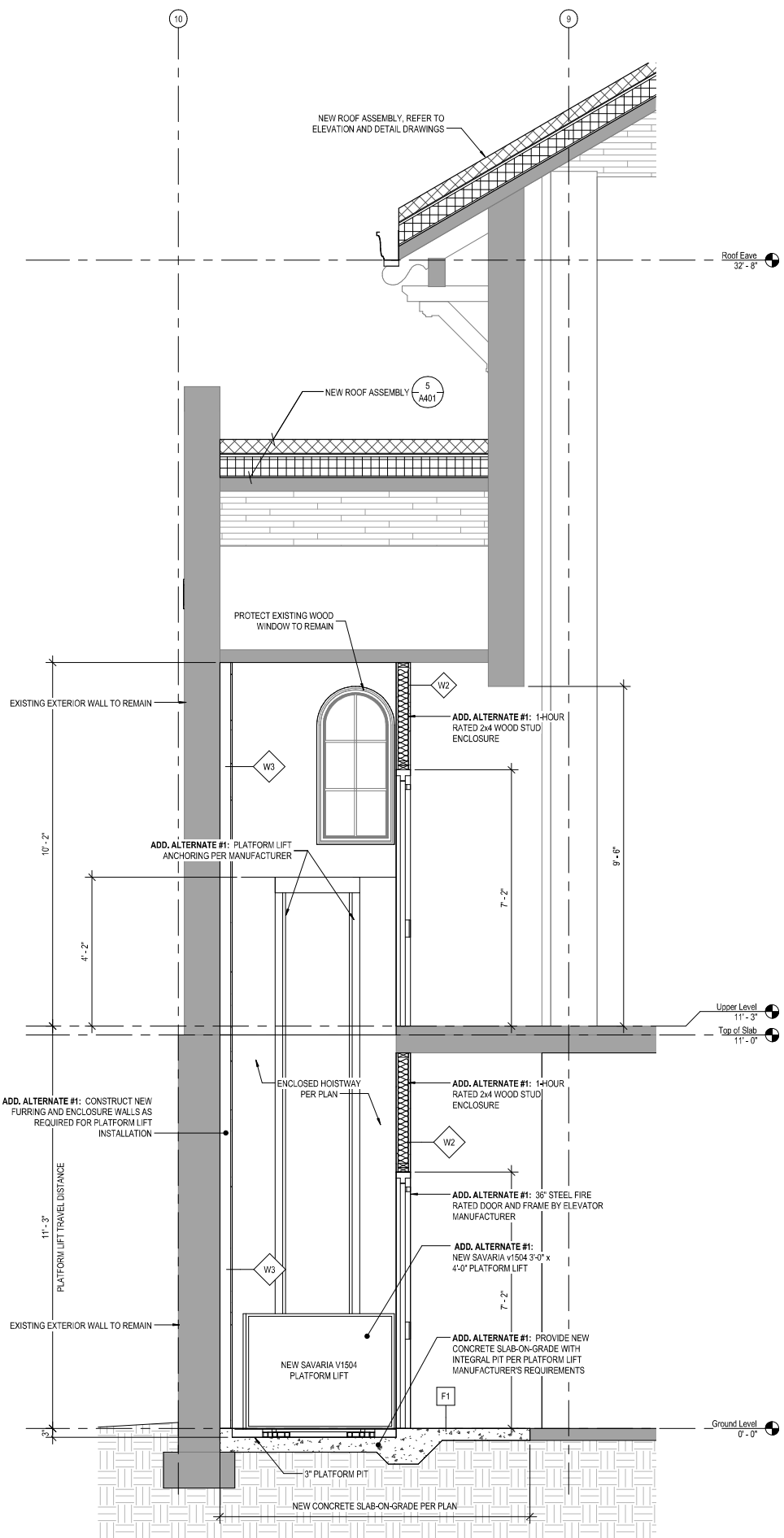
2 Drip Edge Flashing

3" = 1'-0"

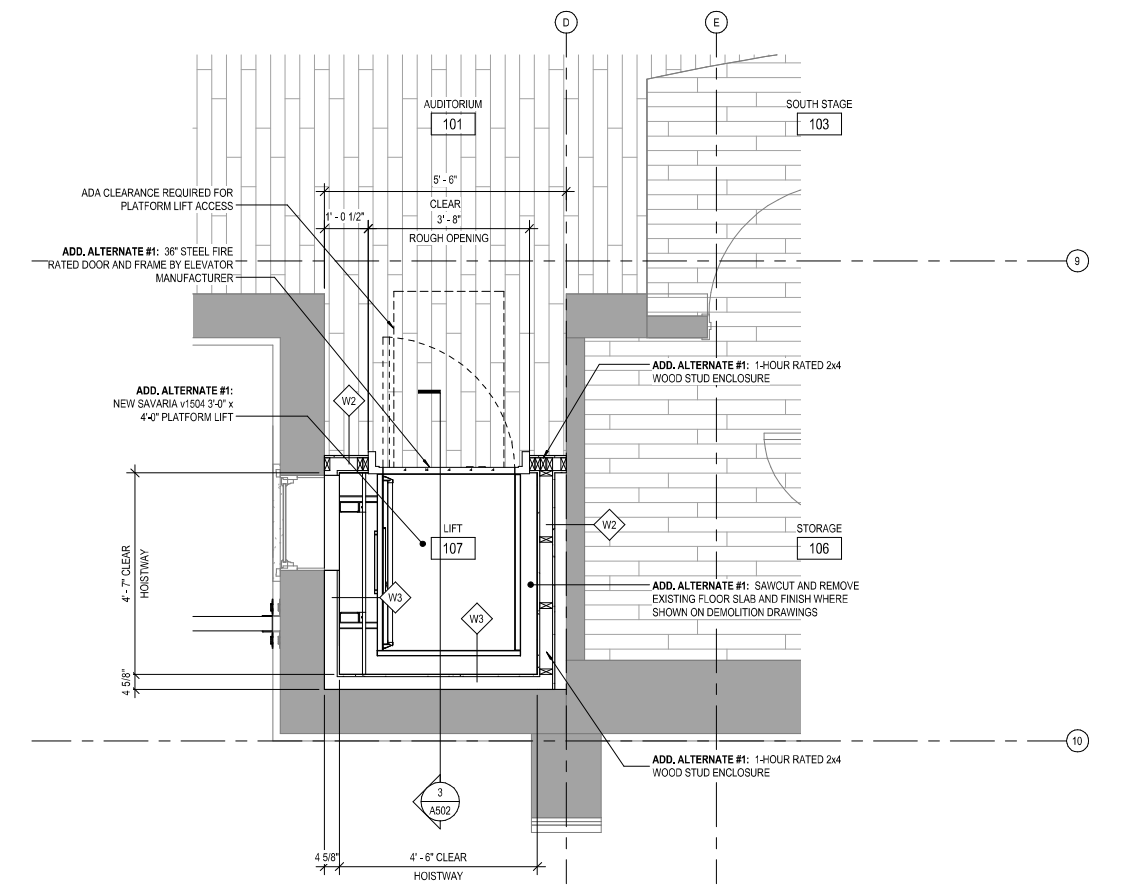


1 Typical Roof Lap Joints

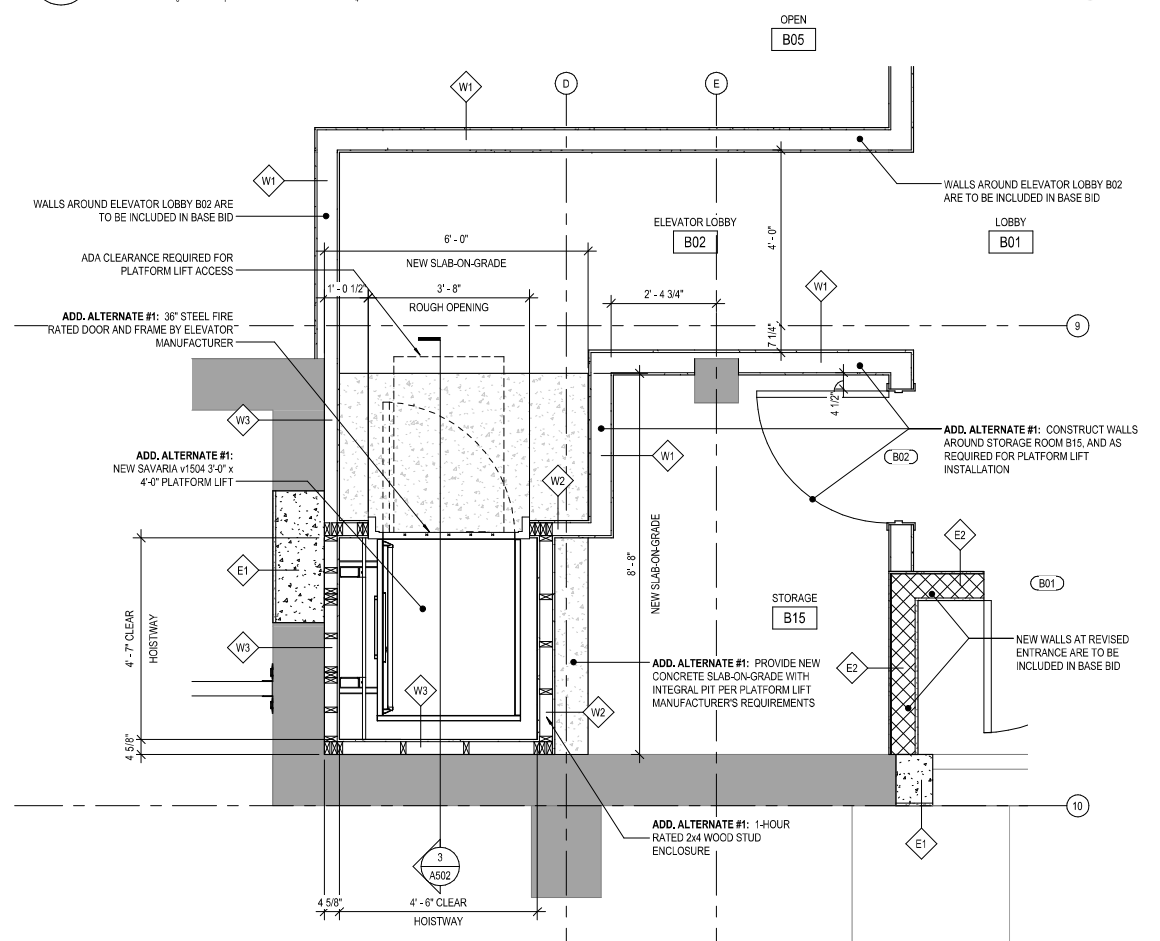
3" = 1'-0"



3 Section at Platform Lift
1/2" = 1'-0"



2 Enlarged Upper Level Floor Plan at Platform Lift
1/2" = 1'-0"

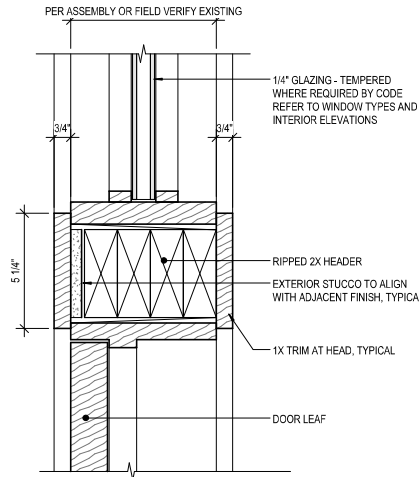


1 Enlarged Ground Level Floor Plan at Platform Lift
1/2" = 1'-0"

Door Schedule															
DOOR NUMBER	LEVEL	SIZE			DOOR			FRAME			FIRE RATING	GLAZING	HARDWARE GROUP	COMMENTS	DOOR NUMBER
		WIDTH	HEIGHT	THICKNESS	TYPE	FINISH	DESCRIPTION	DEPTH	TYPE	FINISH					
Ground Level															
B01	Ground Level	6' - 0"	7' - 0"	0' - 2"	A	STAINED, CLEAR			1	PAINTED		INSULATED	1	COORDINATE TRANSOM WITH DOOR WIDTH, AND JAMB THICKNESS WITH WALL TYPE	B01
B02	Ground Level	3' - 0"	7' - 0"	0' - 1 3/4"	C	STAINED, CLEAR		0' - 6 3/4"	2	PAINTED			2		B02
B03	Ground Level	3' - 0"	7' - 0"	0' - 1 3/4"	C	STAINED, CLEAR		0' - 5"	2	PAINTED			3		B03
B04	Ground Level	3' - 0"	7' - 0"	0' - 1 3/4"	C	STAINED, CLEAR		0' - 5"	2	PAINTED			3		B04
B05	Ground Level	6' - 0"	7' - 0"	0' - 2"	D	STAINED, CLEAR			3	PAINTED		PARTIAL	4	COORDINATE JAMB THICKNESS WITH WALL TYPE	B05
B06	Ground Level	3' - 6"	7' - 0"	0' - 1 3/4"	E	PAINTED		1' - 0"	2	PAINTED			5	VERIFY ROUGH OPENING SIZE IN FIELD	B06
B10	Ground Level	3' - 6"	7' - 0"	0' - 1 3/4"	E	PAINTED		1' - 2"	2	PAINTED			5	VERIFY ROUGH OPENING SIZE IN FIELD	B10

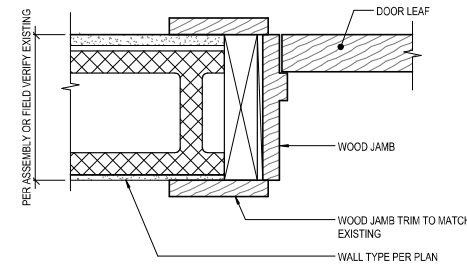
Door Hardware Groups

GROUP	HARDWARE
1	HINGES (STAINLESS STEEL), ENTRANCE FUNCTION CONCEALED VERTICAL ROD EXIT DEVICE, EXTERIOR PULL, CLOSER, GASKETING, SWEEP, THRESHOLD, KICK PLATE, FLOOR STOP
2	HINGES, STOREROOM FUNCTION LEVER SET, DOOR SILENCERS, KICK PLATE, WALL STOP
3	HINGES (STAINLESS STEEL), PUSH PLATE, HANDLE PULL, DEADBOLT, DOOR SILENCERS, KICK PLATE, MOP PLATE, WALL STOP
4	HINGES, PUSH PLATE, HANDLE PULL, DEADBOLT, FLUSH BOLTS (AT INACTIVE LEAF), DOOR SILENCERS, KICK PLATE, OVERHEAD STOP
5	HINGES (STAINLESS STEEL), ENTRANCE FUNCTION LEVER SET, GASKETING, SWEEP, THRESHOLD, KICK PLATE, FLOOR STOP



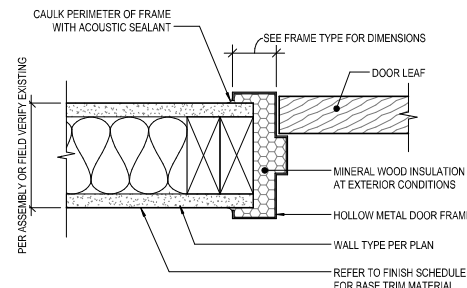
6 Wood Door and Relite Head Detail

3" = 1'-0"



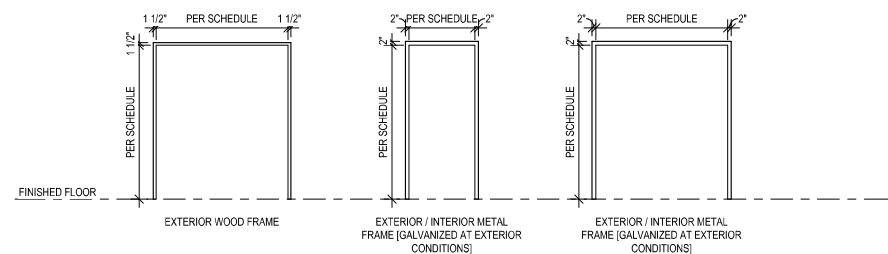
5 Wood Door Jamb Detail

3" = 1'-0"



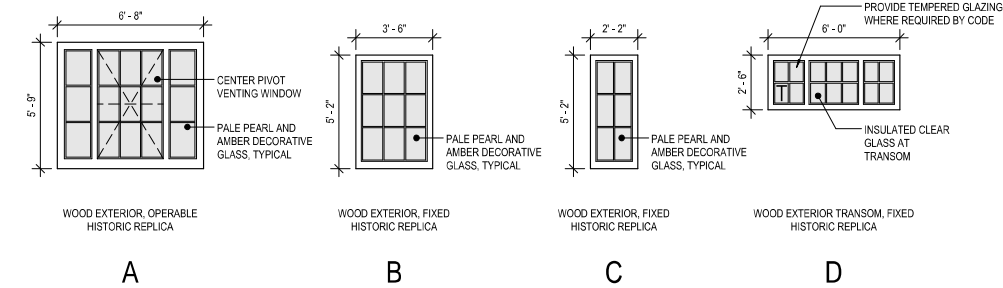
4 Hollow Metal Jamb Detail

3" = 1'-0"



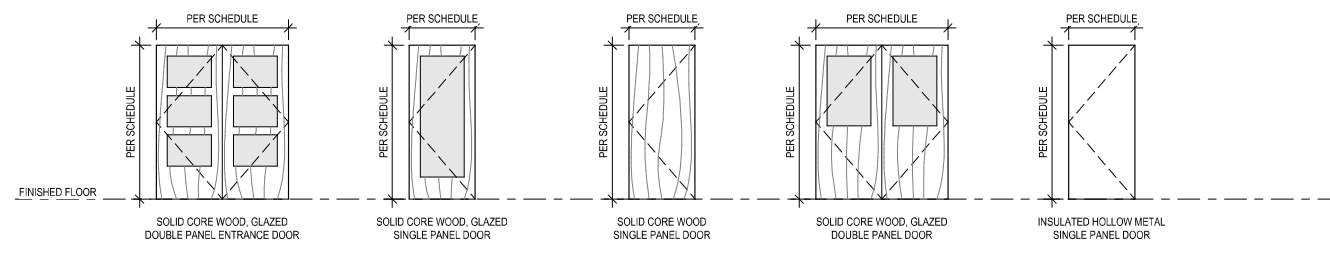
2 Door Frame Types

1/4" = 1'-0"



3 Window Types

1/4" = 1'-0"



1 Door Types

1/4" = 1'-0"

FRP SYSTEM NOTES

PART 1 GENERAL

1.01 DESCRIPTION

A. This specification section shall define the minimum requirements of the externally bonded composite strengthening system.

1.02 REFERENCES

A. General

- The latest reference edition available on the day of bid invite shall be used for all standards.
- American Concrete Institute (ACI)
 - ACI 440.2R, Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening of Concrete Structures
 - ACI 440.7R, Guide for the Design and Construction of Externally Bonded FRP Systems for Strengthening Unreinforced Masonry Structures
 - ACI 548.4R, Guide to Design and Construction of Externally Bonded Fabric-Reinforced Cementitious Matrix (FRCM) Systems for Repair and Strengthening Concrete and Masonry Structures
 - ACI 562, Code Requirements for Evaluation, Repair and Rehabilitation of Concrete Buildings
 - ACI Repair Application Procedures (RAP) No. 1 through No. 7

C. American Society for Testing and Materials (ASTM)

- ASTM D4263, Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method
- ASTM D4541, Standard Test Method for Pull-Off Strength for Coatings Using Portable Adhesion Testers
- ASTM D7522, Standard Test Method for Pull-Off Strength for FRP Bonded to Concrete Substrate
- ASTM C1583, Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-Off Method)
- ASTM E84, Standard Test Method for Surface Burning Characteristics of Building Materials

D. International Concrete Repair Institute (ICRI)

- ICRI Technical Guideline No. 310.1R, Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion
- ICRI Technical Guideline No. 310.2R, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays
- ICRI Technical Guideline No. 320.2R, Guide for Selecting and Specifying Materials for Repair of Concrete Surfaces
- ICRI Technical Guideline No. 210.3R, Guide for Using In-Situ Tensile Pulloff Tests to Evaluate Bond of Concrete Surface Materials
- ICRI Technical Guideline No. 210.1R, Guideline for Verifying Field Performance of Epoxy Injection of Concrete Cracks

E. ICC Evaluation Service (ICC-ES)

- AC125, Acceptance Criteria for Concrete and Reinforced and Unreinforced Masonry Strengthening using Externally Bonded Fiber-Reinforced Polymer (FRP) Composite Systems
- AC178, Acceptance Criteria for Inspection and Verification of Concrete and Reinforced and Unreinforced Masonry Strengthening using Fiber-Reinforced Polymer (FRP) Composite Systems
- AC434, Acceptance Criteria for Masonry and Concrete Strengthening using Fabric-Reinforced Cementitious Matrix (FRCM) Composite Systems

F. International Concrete Repair Institute (ICRI)

- ICRI Technical Guideline No. 310.2R, Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, and Polymer Overlays

1.03 MEASUREMENT AND PAYMENT

A. The composite strengthening system shall be bid as a lump sum and is to include all costs associated with the work defined in this specification section. This includes the furnishing of all submittals, materials, tools, equipment, labor, surface preparation, transportation, storage, and supervision required for the application of the FRP materials.

1.04 SUBMITTALS

A. Manufacturers' Product Data

- Current ICC Evaluation Service Report for the proposed FRP materials.
- Technical data sheets for materials to be used.
- Safety data sheets (SDS) for each material component.
- Installation instructions, including temperature restrictions, moisture limitations, surface preparation methods, curing times, and finish requirements.

B. Calculations and Drawings

- Design calculations and shop drawings for the composite system shall be compliant with ACI 440.2R, ACI 440.7R, ACI 548.4R and must be stamped and signed by Civil or Structural Engineer registered in the state that the project site resides in.
- Shop drawings, at a minimum, must detail the necessary surface preparation, composite system to be used, number of layers, locations, end details, primary fiber direction, and finish requirements.

C. Applicator Qualification

- Written documentation from the composite system manufacturer that the contractor has completed the manufacturer's training program and has been trained to install the proposed system.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- All products shall be delivered, stored, and handled according to the manufacturer's recommendations.
- Materials shall be clearly labeled and delivered in factory-sealed containers with manufacturing dates and shelf lives easily identifiable.
- Materials shall be stored in a protected area free of moisture and UV exposure, with temperatures between 45°F and 86°F.

PART 2 PRODUCTS

2.01 COMPOSITE STRENGTHENING SYSTEM

A. The FRP and FRCM composite strengthening system has been preapproved and shall be a Composite Strengthening System™ supplied by Simpson Strong-Tie®, Inc., 5956 W. Las Positas Boulevard, Pleasanton, CA 94588, Phone: 925.560.9000, Fax: 925.847.1605.

- FRP Fabric & FRP Anchor
 - CSS-CLCF22: Code listed, unidirectional carbon fabric.
 - CSS-CA: Carbon FRP anchor
- FRP Epoxy Adhesive
 - CSS-ES: Epoxy saturant and primer.
- FRP Epoxy Paste
 - CSS-EP: Epoxy paste and filler.
 - CSS-ES thickened with fumed silica: Epoxy paste and filler.
 - FX-702: Oven-Dried Rounded Silica Filler.
- FRCM Grid
 - CSS+BCG: Bidirectional carbon grid.

2.02 CONCRETE REPAIR PRODUCTS

- The concrete repair products have been preapproved and shall be supplied by Simpson Strong-Tie®, Inc., 5956 W. Las Positas Boulevard, Pleasanton, CA 94588, Phone: 925.560.9000, Fax: 925.847.1605.
 - Crack repair products. Cracked substrates with cracks wider than 0.01 inch must be pressure injected with epoxy prior to FRP installation. For concrete substrates, refer to ACI 224.1R. Smaller cracks exposed to aggressive environments may require resin injection or sealing to prevent corrosion of existing steel reinforcement. Crack-width criteria for various exposure conditions are given in ACI 224.1R. The crack repair system shall be epoxy based two-component high-solids formulation, meeting the mechanical strength requirements of ASTM C-881 type IV epoxy bonding systems. The crack repair

system shall be suitable for the condition at which it will be placed: dry, damp, wet, high or low temperature, horizontal or vertical. The crack repair system shall not be installed in an active leaking crack or an active moving crack. The crack repair system shall be able to be installed by crack injection or gravity fed as needed for the application. Pre-approved systems include:

- For hairline cracks up to 1/4" in width use: Simpson Strong-Tie ETI-SLV; meets the requirements of ASTM C-881 type I, and IV, grade 1
 - For fine cracks (greater than 1/84" up to 1/4" in width use: Simpson Strong-Tie ETI-LV; meets the requirements of ASTM C-881 type I, and IV, grade 1. Approved under NSF/ANSI standard 61 (22 in2/1000 gal)
 - For medium size cracks (greater than 3/32" up to 1/4" in width use: Simpson Strong-Tie ETI-GV; meets the requirements of ASTM C-881 type I, and IV, grade 3
- Reinforcement steel primer. Primer shall be used to protect steel reinforcing from corrosion and promote positive bond from existing steel reinforcing to new repair material. Pre-approved systems include: Simpson Strong-Tie FX-406 Zinc-Rich Primer
 - Bonding agent for bonding new repair material to existing concrete. Pre-approved systems include:
 - For applications 40°F (4.4°C) and above. Bonding agent shall meet the requirements of ASTM C881, type II, grade 2, class B: Simpson Strong-Tie FX-752 Epoxy Bonding Agent
 - For applications 60°F (15.5°C) and above or when extended working time is required, bonding agent shall meet the requirements of ASTM C881, type II, grade 2, class C: Simpson Strong-Tie FX-792 LPL Long Pot Life Epoxy Bonding Agent
 - High performance repair mortars. Repair material shall be used to repair areas of damaged concrete. Note: any repairs made using cementitious repair mortars must be fully cured prior to applying FRP. Allow 3-7 days for full cure or verify moisture content is less than 5% prior to applying FRP. Pre-approved systems include:
 - Simpson Strong-Tie FX-263 Rapid-Hardening Vertical/Overhead Repair Mortar
 - Simpson Strong-Tie FX-261S Form and Pour Repair Mortar
 - Simpson Strong-Tie FX-32GMF Repair Mortar with Fibers
 - Simpson Strong-Tie CSS-CM Cementitious Matrix.
 - Protective coatings for the Composite Strengthening System. Pre-approved systems include:
 - Simpson Strong-Tie FX-505 Water-Based Acrylic Coating
 - Simpson Strong-Tie FX-207 Slurry Seal
 - Simpson Strong-Tie FX-70-9 Epoxy Coating

PART 3 EXECUTION OF WORK

3.01 CONCRETE REPAIR PRIOR TO FRP INSTALLATION

- All problems associated with the condition of the original concrete substrate should be addressed before surface preparation begins. This section details approved concrete repair products and procedures.
- Before repairing the concrete, contractor shall remove all loose or deteriorated concrete by high-pressure water jetting or other mechanical means to reach sound concrete. If reinforcing steel is exposed, contractor shall remove all concrete behind the reinforcing steel following ICRI Technical Guideline 310.1R.
- Cracks in the areas where loose or deteriorated concrete have been removed or in areas where the FRP will be installed shall be repaired using a crack repair system for non-moving and load bearing cracks.
- Areas where loose or deteriorated concrete have been removed shall be filled with a repair system as necessary to restore the original shape of the element and prepare the surface profile for the composite strengthening system.
 - The repair system shall either consist of a:
 - Single component high performance mortar repair product, or
 - A combination of: steel reinforcing primer, bonding agent (if required by the engineer of record), and high performance mortar repair product as noted in the construction drawings depending on the size and condition of the void to be filled.
 - The contractor shall follow the manufacturer's printed surface preparation and installation instructions of each component of the repair system to be used.

3.02 MASONRY SURFACE PREPARATION

- Surfaces to be wrapped shall be clean, sound, and free of standing water at time of application. All dust, laitance, grease, curing compounds, and other foreign materials that may hinder the bond must be removed before installation.
- Cracked substrates with cracks wider than 0.01 inch must be pressure injected with epoxy prior to FRP installation.
- Existing concave and convex surfaces (including mortar joints) must be filled/transitioned with epoxy paste or a suitable repair mortar. To repair voids, CSS-EP or CSS-ES thickened with fumed silica may be extended with FX-702 at no more than a 1:1 ratio by volume.
- Any corners to be wrapped around shall be rounded to a 1/4 inch minimum radius using a grinder or epoxy paste.
- For lidded FRP anchors, drill hole into substrate per approved shop drawings. Clean hole and surrounding area of dust. For through FRP anchors, drill hole into substrate per approved shop drawings. If FRP anchor is to turn over edge of hole, that edge of hole must be rounded to a 1/4 inch minimum radius. Clean hole and surrounding area of dust.

3.03 FRCM SURFACE PREPARATION

- Surfaces to receive FRCM materials shall be clean, sound, and free of standing water at time of application. All dust, laitance, grease, curing compounds, and other foreign materials that may hinder the bond must be removed before installation.
- Cracked substrates with cracks wider than 0.012 inch must be pressure injected with epoxy prior to FRP installation. For concrete substrates, refer to ACI 224.1R. Smaller cracks exposed to aggressive environments may require resin injection or sealing to prevent corrosion of existing steel reinforcement. Crack-width criteria for various exposure conditions are given in ACI 224.1R.
- The concrete shall be abrasively prepared to achieve a minimum 1/4" amplitude (ICRI CSP 6-9 profile) by means of sand blasting, shot blasting, or water blasting.
- Wet the substrate to a saturated surface dry condition for at least 24 hours prior to FRCM application.

3.04 FRCM MIXING

- Start with 90% of the total mixing water recommendation depending on the desired consistency of the shot mortar. Consult the printed instructions on the product package for the maximum recommended amount of mixing water.
- Mix with a mechanical mixer at least 3 minutes adding the remaining 10% of the recommended total water if necessary until a homogeneous mixture with the desired consistency is formed. The mixture should rest 1 minute and then remix another 10 seconds before applying.
- Do not add additional water after the setting process is started.

3.05 FRCM APPLICATION

- FRCM installation shall only be performed by contractors and personnel that have properly been trained by manufacturer.
- Verify ambient and concrete surface temperatures are between 41°F and 86°F.
- CSS-CM matrix can be pumped and projected with traditional shotcrete equipment.
- If required, matrix may be used to patch voids and defects no deeper than 2".
- Immediately place a 1/4 - 1/2" layer of matrix, then immediately set FRCM grid into wet matrix layer.
- Where required for grid, provide the minimum overlap and minimum development length per approved shop drawings.
- Finish with a final layer of matrix at 1/4 - 1/2" thick and screed/trowel to desired finish.
- If a layer of matrix is allowed to cure with more layers to follow, the cured layer must be cleaned with water pressure before the next layer of matrix can be applied.
- Installation must be kept humid and protected against heat and wind for 3-5 days after application.

3.06 CONCRETE SURFACE PREPARATION

- Surfaces to receive FRP shall be clean and sound at time of application. All dust, laitance, grease, curing compounds, and other foreign materials that may hinder the bond must be removed before installation.
- All concrete surfaces shall be dry and free of surface moisture. If surface moisture is of concern, the surfaces shall be tested by the contractor to evaluate moisture transmission in accordance with ASTM D4263.
- Existing concave and convex surfaces must be filled/transitioned with epoxy paste. To repair voids, CSS-EP or CSS-ES thickened with fumed silica may be extended with FX-702 at no more than a 1:1 ratio by volume.
- The concrete shall be abrasively prepared to achieve an ICRI CSP 3 profile by means of grinding, sand blasting, shot blasting, or pressure washing.
- Any corners to be wrapped around shall be rounded to a 1/4 inch minimum radius using a grinder or epoxy paste.
- For lidded FRP anchors, drill hole into substrate per approved shop drawings. Clean hole and surrounding area of dust. For through FRP anchors, drill hole into substrate per approved shop drawings. If FRP anchor is to turn over edge of hole, that edge of hole must be rounded to a 1/4 inch minimum radius. Clean hole and surrounding area of dust.

3.07 SURFACE MOUNTED FRP APPLICATION

- Verify ambient and concrete surface temperatures are between 45°F and 95°F.
- Apply one coat of epoxy primer using a nap roller when using fabrics.
- Apply epoxy paste where minor surface defects are present.
- Allow the primer and/or paste to become tacky to the touch before applying the saturated fabric.
- When manually saturating fabric, precut sheets to required length using heavy duty shears before saturating with hand rollers. If mechanically saturating fabric with rollers, cut sheets using heavy duty shears either before or after they go through the epoxy bath. In both cases, ensure full fabric saturation is achieved.
- Apply the saturated fabric to the installation surface and remove entrapped air using hand pressure, rollers, or trowels.
- Apply additional layers as necessary to meet the project requirements, ensuring each layer is firmly adhered to the previous layer.
- Apply FRP anchors while the epoxy on the applied fabric is still tacky. If hole in substrate cannot be directly adjacent to applied fabric, provide a "ramp" of paste so FRP anchor is allowed to contact the applied fabric over a paste ramp slope of no greater than 1:3. Splay exposed end(s) of FRP anchor on the applied fabric per approved shop drawings. If FRP anchor cannot be applied to wet FRP sheet, lightly sand cured FRP fabric taking care not to damage fibers and clean area prior to FRP anchor installation.

- Feather all fabric seams/edges with epoxy paste.
- Confirm that intimate contact between composite system and substrate will be maintained throughout the curing process.
- Apply finish coating after full epoxy cure, lightly sanding epoxy surfaces before installation.
- When metal penetrations are made through carbon FRP or metal is to be placed against carbon FRP, a barrier of glass FRP, epoxy paste, or air shall be provided between the carbon FRP and metal to ensure no electrical connection between the two materials.

3.08 QUALITY CONTROL

A. Field Monitoring

- The work performed in the preceding sections of Part 3 of this specification will be field monitored by the Owner's Special Inspection Agency and will be paid for by the owner. The surface preparation shall be checked immediately before application of the composite system materials. Periodic inspection shall be provided during the application process.
- The special inspector shall create daily reports that document the following:
 - Date and time of installation.
 - Ambient temperature, relative humidity, and weather conditions.
 - Substrate surface temperature and dryness.
 - Surface preparation method and ICRI concrete surface profile.
 - Surface cleanliness description.
 - FRP fabric/FRCM grid batch numbers.
 - FRP epoxy/FRCM matrix batch numbers, mix ratios, and mixing times.
 - Application locations.
 - Conformance with installation procedures.
 - Location and size of any delaminations/voids identified or repaired.
- For fabric systems, the contractor shall create a minimum of two material sample sets daily. Each set will consist of two 12 in. by 12 in. panels made of two layers of saturated fabric and the sets shall be taken at different times during the working shift so that it is representative of maximum variances in material/site conditions. Prepare samples on a flat, level surface covered with heavy-duty vinyl (or similar). Prime vinyl with epoxy saturant, place saturated layers, and apply a top coat of epoxy saturant. Samples shall be cured at the site under the same environmental conditions as the production work they represent and must be marked with sample date, time, epoxy/fabric batch numbers, and installation locations.

B. Field Testing

- FRP Adhesion Tests
 - Pull-off tests shall be conducted in accordance with ASTM D7522 and/or ASTM D4541 and performed on flat surfaces. 3 tests shall be executed on each type of substrate or surface preparation method used, with a minimum of 3 tests per 1,000 square feet of surface area covered. Testing shall be done on an area adjacent to strengthening locations with substrate, surface preparation, and orientation (i.e. overhead, vertical, etc.) that are representative of that being strengthened. Before pull-off tests are performed, the composite system shall be allowed to reach full cure.
 - Adhesion strengths shall be in excess of 200 psi.
- FRCM Adhesion Tests
 - Pull-off tests shall be conducted in accordance with ASTM C1583 and performed on flat surfaces. 3 tests shall be executed on each type of substrate or surface preparation method used, with a minimum of 3 tests per 1,000 square feet of surface area covered. Testing shall be done on an area adjacent to strengthening locations with substrate, surface preparation, and orientation (i.e. overhead, vertical, etc.) that are representative of that being strengthened. Before pull-off tests are performed, the composite system shall be allowed to reach full cure.
 - When the mode of failure is in the substrate, adhesion strength shall be in excess of 200 psi. When the failure is at the interface of the grid/matrix, adhesion strength computed on the net matrix area should be in excess of 400 psi. The net matrix area is the total area under the disk minus the area covered by the grid.
 - Special Inspector shall use cured pull off specimens to determine if cured thickness is equal to or greater than the thickness specified on the approved shop drawings.
- Concrete Repair
 - The cured repair material shall be sounded for delaminations.
 - An in-situ direct tensile pull-off bond test of the cured repair material shall be performed per ICRI Technical Guideline No. 210.3R to evaluate the bond of the repair material to the substrate (if required by the engineer of record).
- Lab Testing
 - FRP Tension Tests
 - General
 - Lab tension tests are only required when structural performance criteria is specified.
 - Tension tests shall be performed to verify the tensile strength, strain, and modulus of the composite strengthening system based on the nominal layer thickness reported on the manufacturer's data sheet and used in the design calculations.
 - The composite tensile properties used in the design calculations must be lower than the average of the test results unless calculations are performed with the reported average tensile properties show that the strengthening requirements are satisfied.
 - Fabric Systems
 - One panel from a minimum of 15% of all sample sets shall be selected for tension testing performed in accordance with ASTM D7565 and/or ASTM D3039.

D. FRP Defects

- Small delaminations less than 2 square inches are acceptable so long as the delaminated area is less than 5% of the total laminate area and there are no more than 10 such delaminations per 10 square feet.
- Large delaminations greater than 25 square inches shall be locally cut away and a new material shall be applied with an equivalent number of layers and sufficient development length overlaps.
- Delaminations between 2 square inches and 25 square inches shall be injected with epoxy or replaced, depending on the size, number of delaminations, and locations.

E. FRCM Defects

- Acoustic sounding shall be utilized to determine if any delaminations exist between multiple layers or between the composite system and the substrate.

F. Remedial Measures

- If the composite tensile properties used in the design calculations are higher than the average of the laboratory test results, design calculations shall be resubmitted, showing that the target design performance has been achieved. If this is not the case, additional layers shall be applied until the target design performance is reached.

NO.	DATE	REVISIONS



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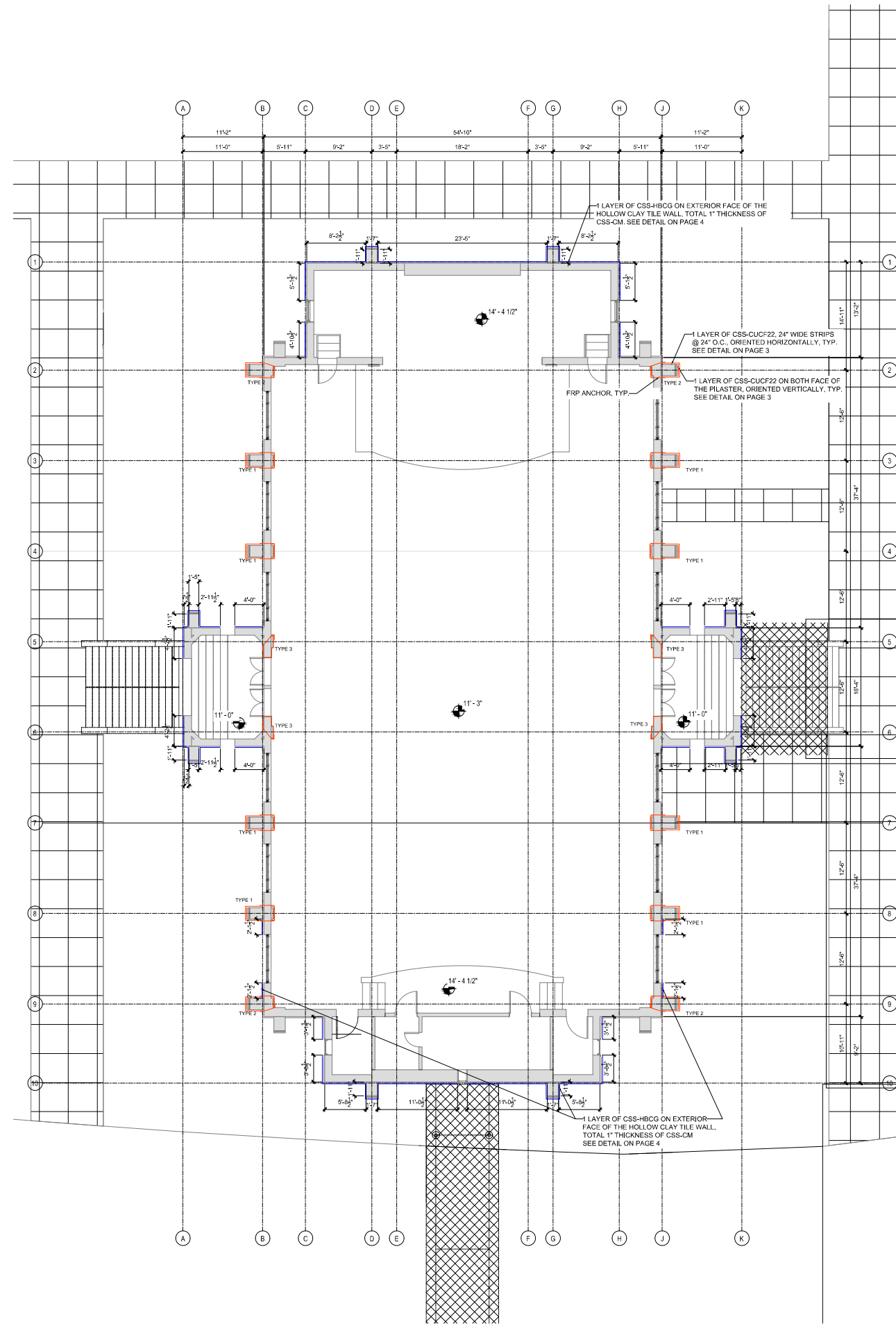
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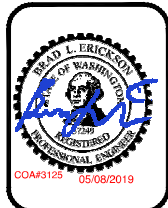
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UPPER LEVEL FLOOR PLAN

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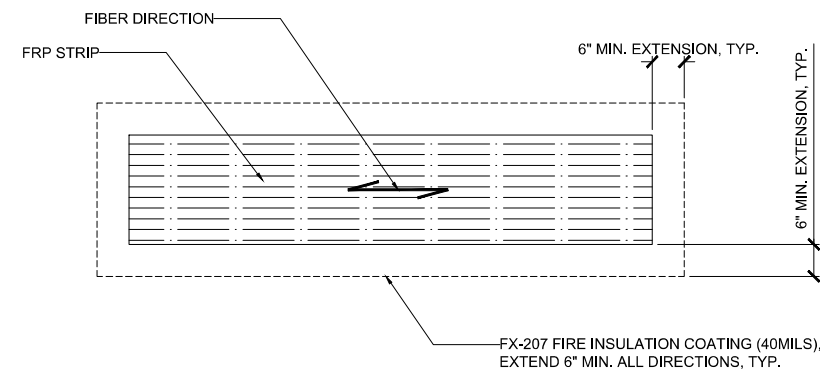
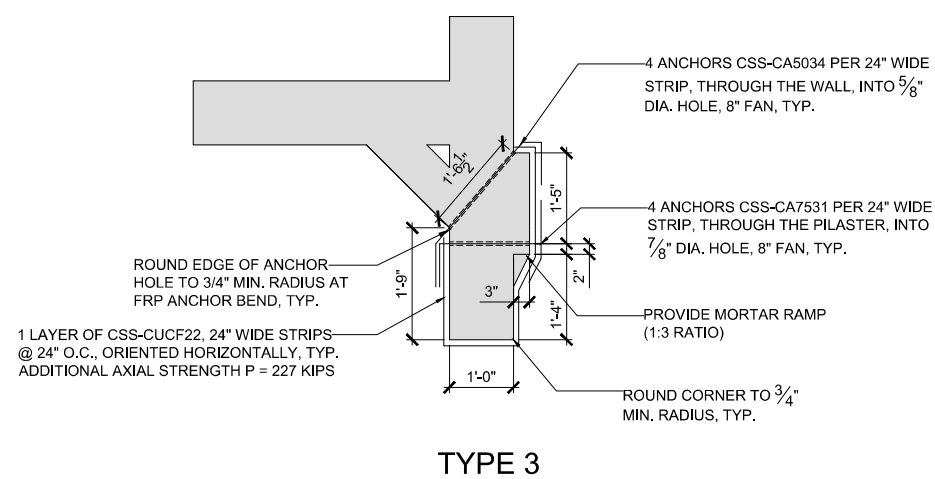
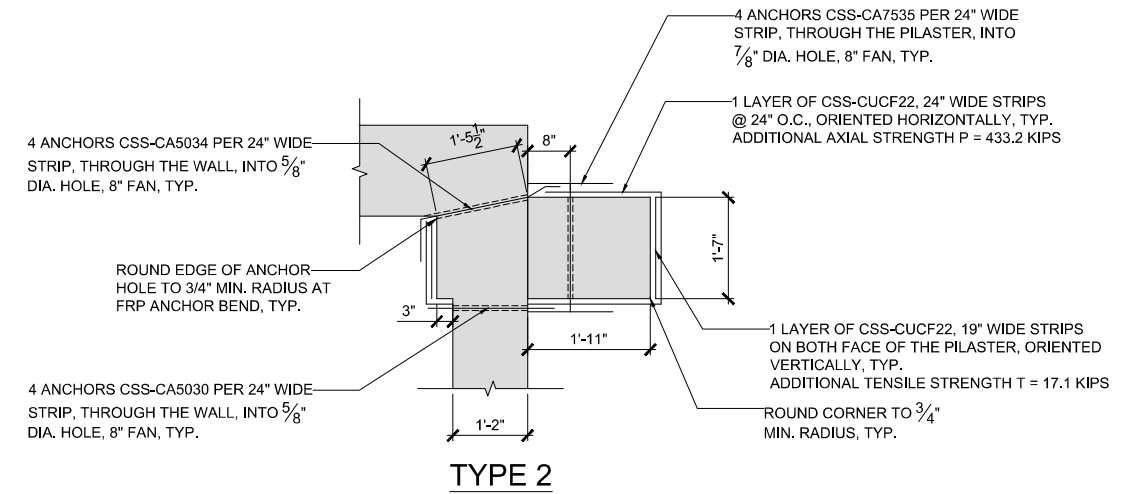
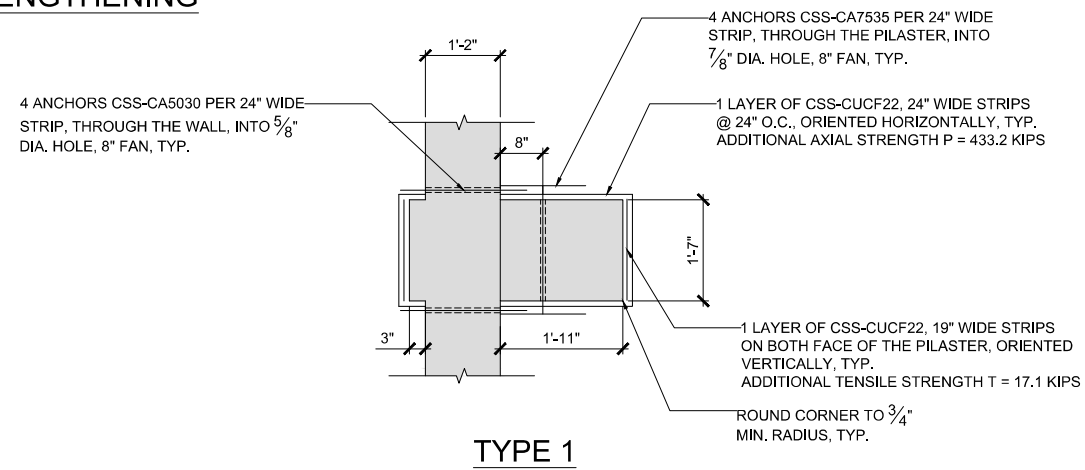
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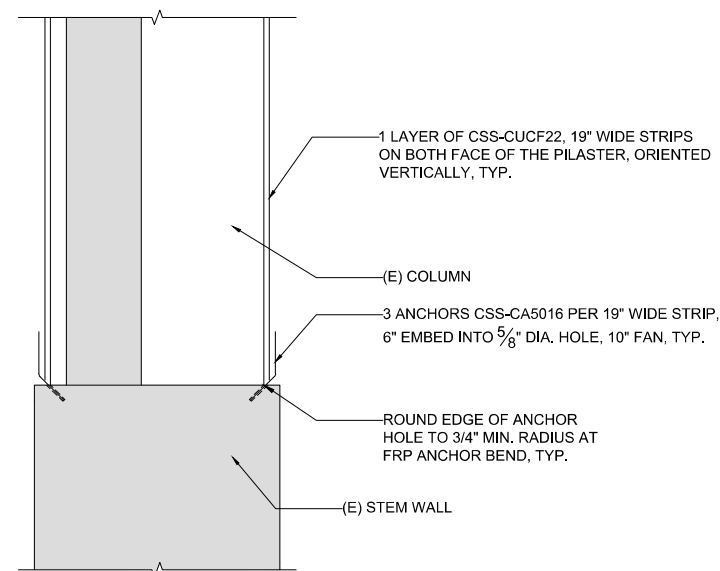
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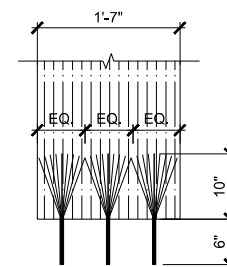
PILASTER STRENGTHENING



FX-207 COATING DETAIL



ANCHOR DETAIL AT BOTTOM OF VERTICAL STRIPS OF TYPE 1 AND 2



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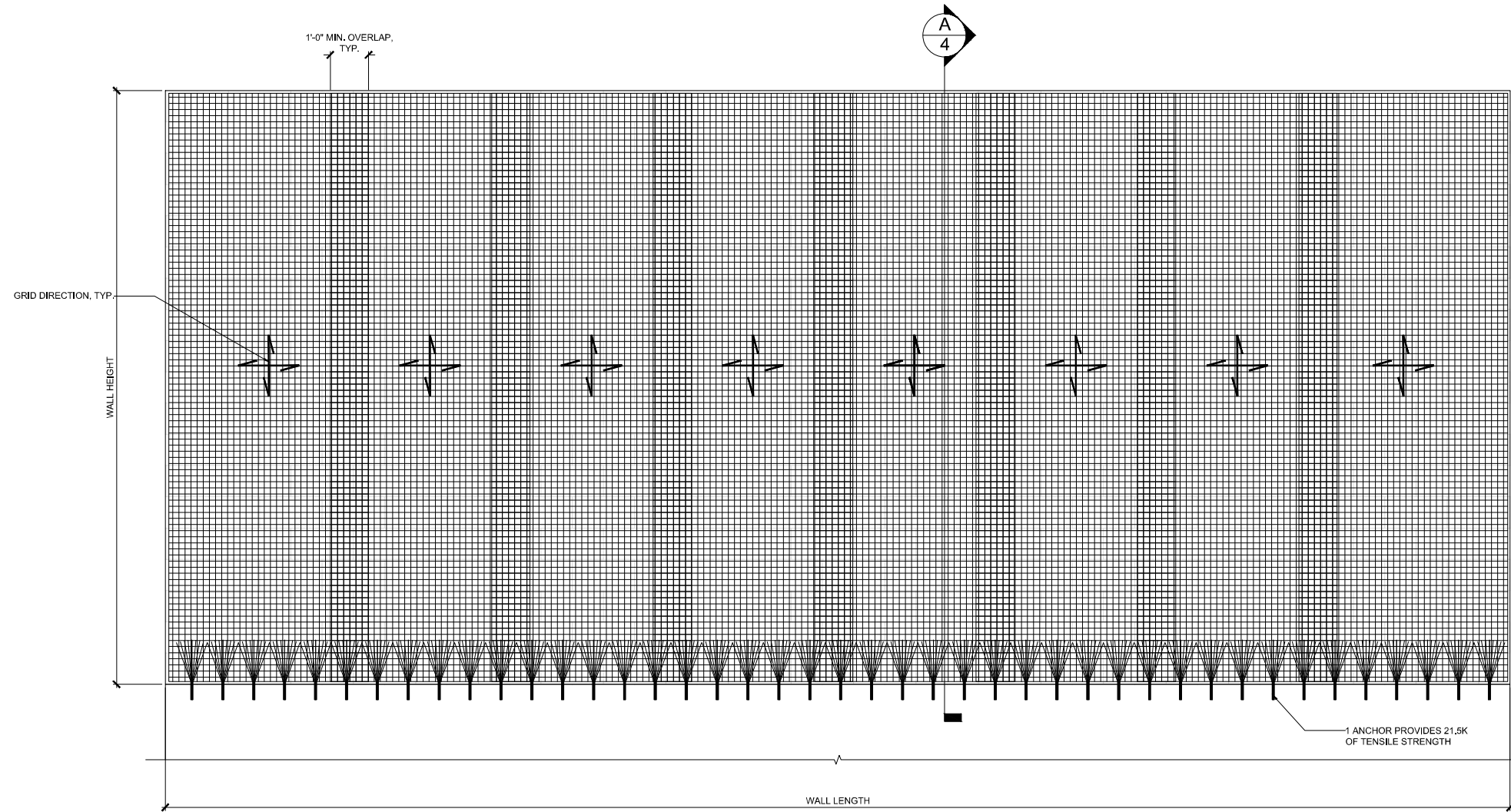
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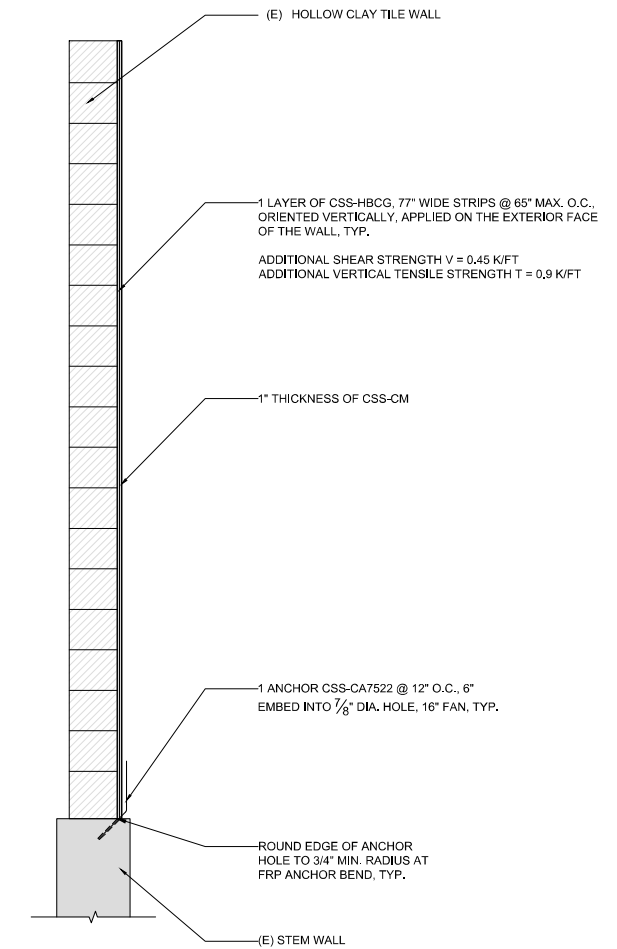
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HOLLOW CLAY TILE WALL STRENGTHENING

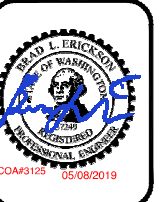


TYPICAL WALL ELEVATION



SECTION A

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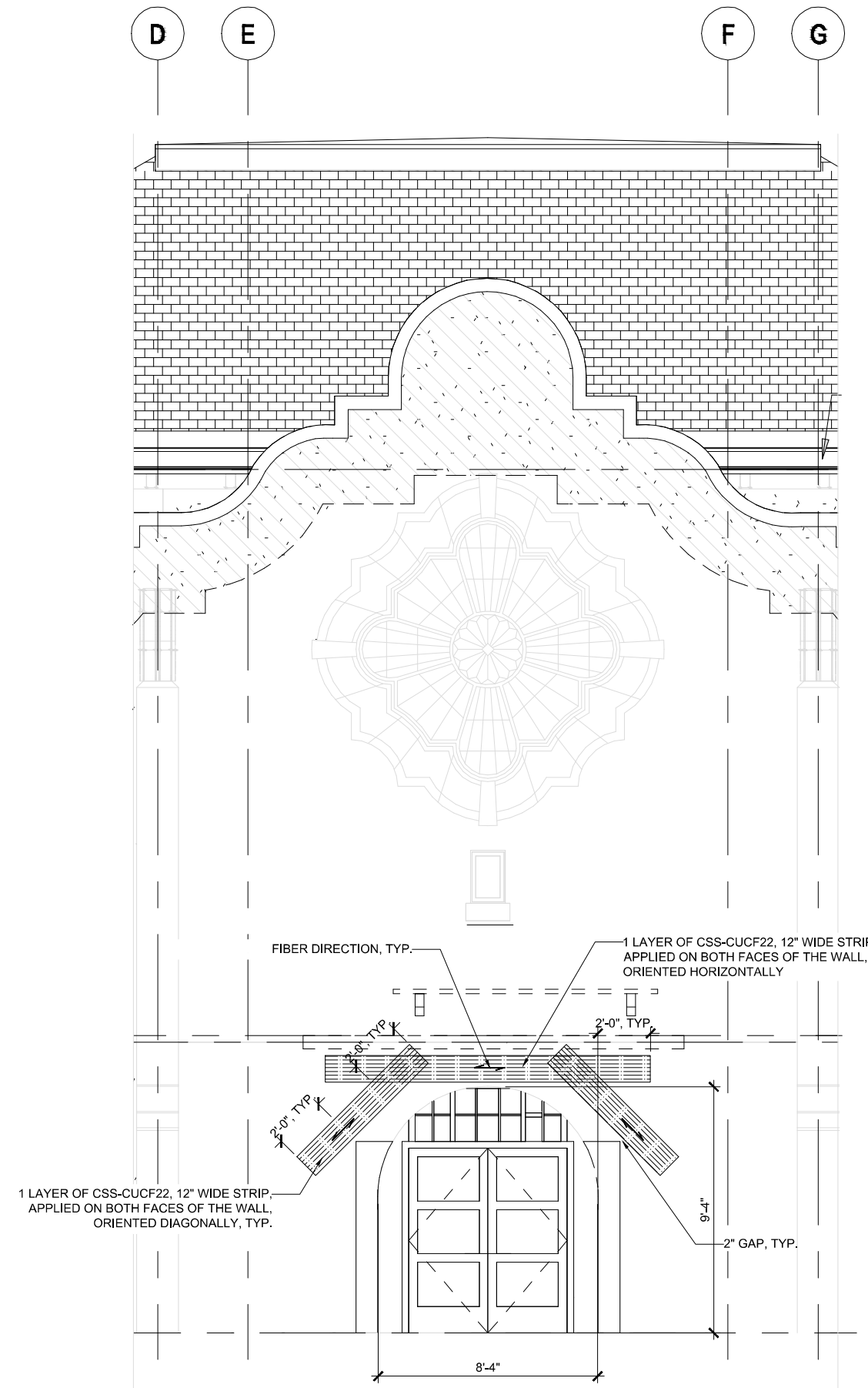
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WALL OPENING STRENGTHENING



SOUTH ELEVATION

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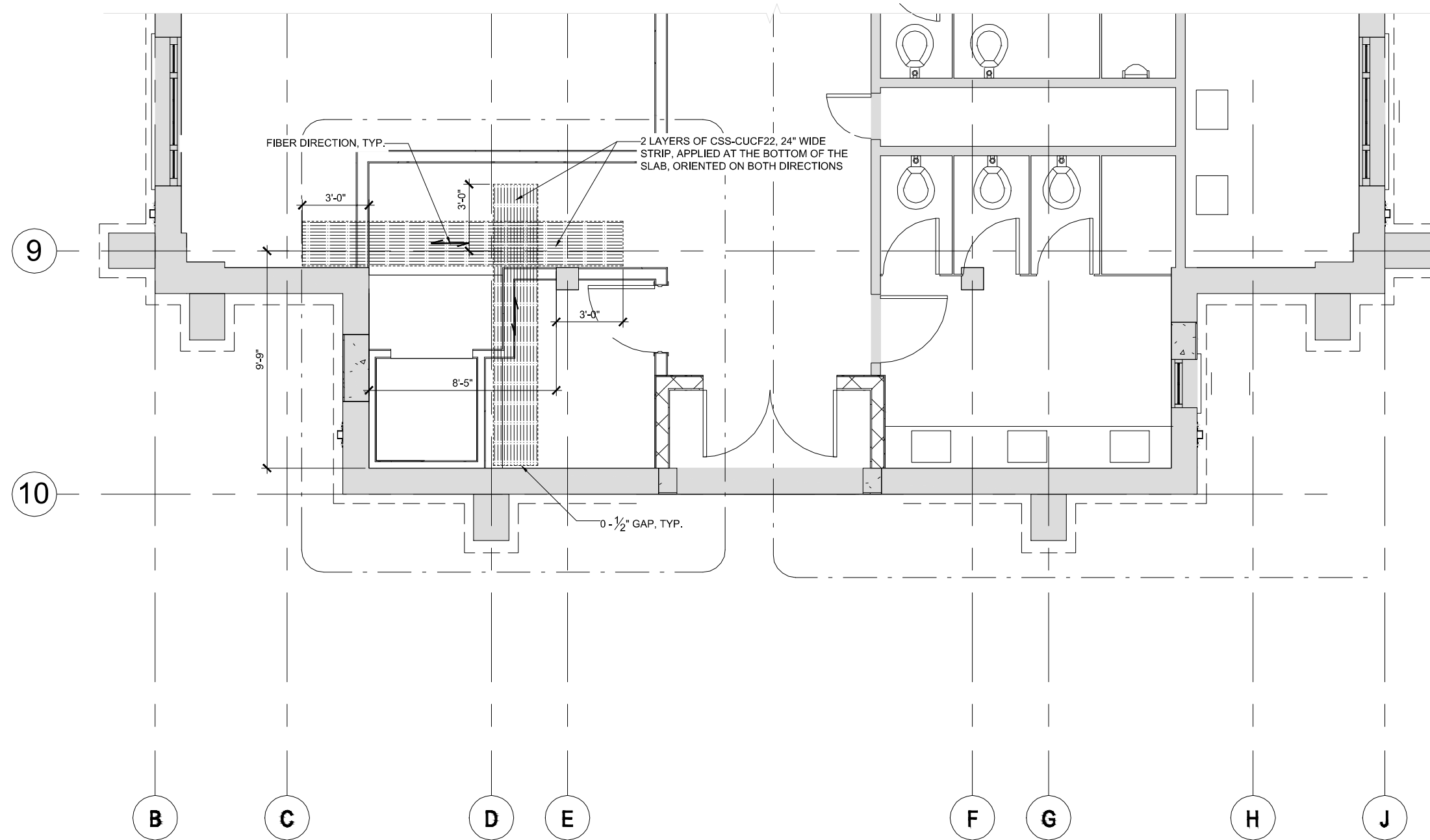
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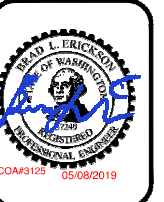
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SLAB OPENING STRENGTHENING



GROUND LEVEL FLOOR PLAN

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Hazardous Materials Survey Report

Port of Skagit SWIFT Center
Assembly Hall Envelope Restoration
1890 Hub Drive
Sedro-Woolley, Washington

Prepared for:
RMC Architects
1223 Railroad Avenue
Bellingham, WA 98225

May 7, 2019
PBS Project No. 41140.009

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APPENDICES

APPENDIX A: PLM Bulk Sampling Information

PLM Bulk Sample Inventory
PLM Bulk Sample Laboratory Data Sheets
PLM Bulk Sample Chain of Custody Documentation

APPENDIX B: AA Lead Paint Chip Sampling Information

AA Lead Paint Chip Sample Inventory
AA Lead Paint Chip Laboratory Data Sheets
AA Lead Paint Chip Chain of Custody Documentation

APPENDIX C: PBS Inspector Certifications



214 EAST GALER STREET
SUITE 300
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1 INTRODUCTION

1.1 Project Background

PBS Engineering and Environmental, Inc. (PBS) performed a hazardous materials survey of the Assembly Hall Building at Port of Skagit SWIFT Center in Sedro-Woolley, Washington in conjunction with the planned renovation and envelope restoration of the structure. The intent of this investigation is to ensure compliance with applicable regulatory requirements that a "good faith inspection" for ACMs be performed prior to renovation and restoration activities.

All accessible areas associated with the project were inspected for the presence of asbestos-containing materials (ACMs) and lead-containing paint (LCP). PBS based its survey on progress set drawings completed by RMC Architects and dated 3/07/2019.

1.2 Building Descriptions

The Assembly Hall Building consists of a two-story concrete masonry structure with a pitched clay tiled roof and central flat membrane roof totaling approximately 17,902 square feet built in 1916. Interior finishes consist of the following: Concrete and wood floors; plaster and CMU walls; plaster ceiling. Exterior walls are concrete and plaster, and windows are wood framed. Heating is provided by steam powered radiators. All pipe insulation observed throughout the building was fiberglass with soft fiberglass pipe fittings. No vermiculite insulation was observed in the CMU wall cavities that will be impacted on the ground floor.

1.3 Survey Process

Accessible areas included in the project scope were inspected by AHERA Certified Building Inspectors Ryan Hunter (Cert. No. IR-19-7254B Exp. 3/07/2020) and Claire Tsai (Cert. No. IN-19-7316B Exp. 3/13/2020) on April 18, 2019 and May 1, 2019. PBS endeavored to inspect all accessible areas of the scope of work. Inaccessible areas consist of those requiring selective demolition, fall protection, or confined space entry protocols to gain access.

When observed, suspect materials were sampled. All samples were assigned a unique identification number and transmitted for analysis to Seattle Asbestos Test (NVLAP #201057-0) under chain-of-custody protocols. Samples were analyzed according to EPA Method 600R-93/116 using Polarized Light Microscopy (PLM), which has a reliable limit of quantification of 1% asbestos by volume.

PBS endeavored to determine the presence and estimate the condition of suspect materials in all inaccessible areas included in the scope of work. While PBS has endeavored to identify the ACM that may be found in concealed locations, additional unidentified ACM may exist.

2 FINDINGS

2.1 Asbestos-Containing Materials (ACMs)

The following materials were determined to contain **greater than 1% asbestos** as part of this investigation:

- **Gray window glazing compound (between glass and wood frame)** – South and north rose windows (approximately 140 LF);
- **Gray window frame caulking (between wood frame and window opening)** – South and north rose windows (approximately 120 LF);
- **Red Caulking** – Beneath clay tile at roof hips (approximately 192 LF);
- **Black felt paper (below clay tile)** – Upper pitched roof (approximately 5,800 SF);
- **Built-up roofing** – Upper flat roof (approximately 1,600 SF).

The following materials were determined to contain **less than 1% asbestos** as part of this investigation:

- Swirl pattern plaster wall and ceiling texture – Lower level throughout.

The following materials sampled and found not to contain detectable concentrations of asbestos as part of this investigation:

- Joint compound and gypsum wallboard – Ground level by men's restroom;
- Smooth plaster ceiling and walls – Ground level storage and throughout upper level;
- Textured plaster wall – Upper level north wall;
- Black mastic and leveling compound – Ground level throughout;
- 4" ceramic tile and grout – Ground level throughout below black mastic;
- Gray flooring and mastic – Ground level south open area west side;
- Black mastic on wall – Ground level south open area southwest corner;
- Black cove base mastic – Ground level storage;
- Black vibration cloth – Ground level south open area west wall penetration;
- Cloth electrical wire – Upper level stage area by women's restroom;
- Smooth plaster exterior walls – Throughout exterior;
- Terra-cotta and mortar – Throughout exterior behind plaster walls;
- Texture on concrete – Throughout exterior;
- Door frame sealant – Exterior west elevation south storage room entrance;
- Gray caulking – Exterior south elevation infill seam;
- Crack sealant – Exterior south elevation;
- Sealant on exterior exhaust – West elevation north side;
- Concrete patch – Exterior west elevation on louver;
- Gray window glazing – Exterior upper and lower windows;
- White window glazing (patching) – Exterior upper and lower windows;
- Grout between concrete – North and south rose windows;
- Black felt paper (Below clay tile) – North and south lower roofs;
- Gray roof sealant – South elevation between concrete and clay roof tiles;
- Aggregate concrete sidewalk – Exterior throughout;
- Black expansion joint (crumbly) – Exterior under west walkway.

Refer to the attachments for an inventory of asbestos bulk samples collected and associated laboratory analysis.

2.2 Lead-Containing Components

Sixteen (16) representative painted coatings were sampled for lead content. The samples were assigned unique identification numbers and transmitted to EMSL Laboratories, Inc. (AIHA IH #101748) in San Leandro, California under chain-of-custody protocols for analysis using Flame Atomic Absorption.

Lead was detected in the following painted coatings.

- Black Paint on plaster wall along base of wall in ground floor front area – 0.014% lead
- Light Yellow paint on concrete wall in ground floor storage room - 0.41% lead
- Gray paint on concrete floor in ground floor front area west side – 0.15% lead
- White paint on wood door in ground floor storage room – 0.026% lead
- Off-white paint on plaster wall in upper level women's restroom – 3.4% lead
- Gray paint on concrete floor in upper level women's restroom – 0.85% lead

- Light beige paint on plaster wall in upper level main room east wall – 13% lead
- Beige paint on plaster windowsill at exterior ground level west elevation – 8.5% lead
- Tan paint on concrete stair trim at exterior east entrance – 1.3% lead
- Yellow paint on plaster wall at exterior south elevation – lead 3.3% lead
- Light yellow paint on metal beam at exterior covered walkway east side – 0.45% lead
- Red paint on metal roof at exterior covered walkway east side – 0.16% lead
- Red brown paint on metal down spot at exterior north elevation west corner – 1.9% lead

The following painted coatings were sampled and determined **not** to contain detectable lead.

- White paint on plaster wall in ground floor front area south wall
- Beige paint on plaster wall in upper level main room east wall
- Pinkish tan paint on iron gate at exterior east upper level entrance

Refer to the attachments for an inventory of paint samples collected and associated laboratory analysis.

3 RECOMMENDATIONS

3.1 Asbestos-Containing Materials (ACMs)

PBS recommends that all ACMs throughout the building be removed prior to renovation activities. A qualified Washington State licensed asbestos abatement contractor should be employed to remove all such ACM according to applicable local, state and federal regulations.

The possibility exists that additional suspect ACM may be present in concealed locations, including but not limited to, equipment, wall and ceiling cavities, and utility chases. These materials may include, but are not limited to, waterproofing membrane, internal gaskets, caulking and sealants of HVAC equipment and construction adhesives and wall mastics. In the event that suspect ACM is uncovered during construction, contractors should stop work immediately and inform the owner promptly for confirmation testing. All untested materials should be presumed asbestos-containing or tested for asbestos content prior to impact.

3.2 Lead-Containing Components

Representative interior and exterior painted coatings were found to contain lead. Impact of painted surfaces with detectable concentrations of lead requires construction activities to be performed according to Washington Labor and Industries regulations for Lead in Construction. Impact of painted surfaces with detectable concentrations of metals in building materials and products requires construction activities to be performed according to Washington Labor and Industries regulations for Lead in Construction (WAC 296-155-176).

Painted coatings may exist in inaccessible areas of the work area or in secondary coatings. Any previously unidentified painted coatings not sampled should be considered lead containing until sampled and proven otherwise. Dust control and housekeeping is crucial in preventing worker and occupant exposures.

Report prepared by:

Report reviewed by:

Ryan Hunter
AHERA Building Inspector
Cert. # IR-19-7254B, Exp. 3/07/2020

Mark Hiley
Senior Project Manager

ITEM	DESCRIPTION	CURRENT		UNIT		LABOR		LABOR	MATERIAL	MATERIAL	EQUIPMENT	EQUIPMENT	SUBCONTRACT	SUBCONTRACT	SUB	SUBCONTRACTOR	LINE	DIVISION
		QUANTITY	UNIT	LABOR	MANHOURS	RATE	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	SUBTOTAL COST	CONTING.	COST	TOTAL
DIVISION 2 - DEMOLITION & REMOVAL																		
	REMOVE VEGETATION	1.00	LS	SUB	SUB				SUB	SUB			1,000.00	1,000.00		1,000.00	1,000	67,320
	DEMOLITION - CONCRETE WALLS	56.00	LF	SUB	SUB				SUB	SUB			10.00	560.00		560.00	560	
	CONCRETE SIDEWALKS	560.00	SF	SUB	SUB				SUB	SUB			5.00	2,800.00		2,800.00	2,800	
	CONCRETE CANOPY FOOTINGS	8.00	EA	SUB	SUB				SUB	SUB			150.00	1,200.00		1,200.00	1,200	
	CONCRETE STAIRS - WEST STAIR	200.00	CF	SUB	SUB				SUB	SUB			25.00	5,000.00		5,000.00	5,000	
	METAL CANOPY	635.00	SF	SUB	SUB				SUB	SUB			2.00	1,270.00		1,270.00	1,270	
	CUT STEEL AT CANOPIES & PATCH ROOF	8.00	EA	2.000	16	80.00	1,280.00		-	BLW							1,280	
	MISC. MECHANICAL SYSTEMS @ OPENINGS	3.00	EA	3.000	9	80.00	720.00		-	BLW							720	
024160	DOORS & FRAMES	5.00	LVS	2.000	10	80.00	800.00		-	BLW							800	
024170	FRAMED PARTITIONS	245.00	SF	0.056	14	80.00	1,120.00		-	BLW							1,120	
	REMOVE - TERRA COTA CAPITALS	8.00	EA	3.000	24	80.00	1,920.00		-	BLW							1,920	
	PARAPET CAP FLASHING	200.00	LF	0.180	36	80.00	2,880.00		-	BLW							2,880	
	COPPER GUTTERS	375.00	LF	0.080	30	80.00	2,400.00		-	BLW							2,400	
	COPPER DOWNSPOUTS	800.00	LF	0.035	28	80.00	2,240.00		-	BLW							2,240	
	DEMOLITION - STUCCO (50% OF FRCM/FRP AREA)	4,350.00	SF	SUB	SUB				SUB	SUB			7.00	30,450.00		30,450.00	30,450	
	TEMPORARY WINDOW PROTECTION	16.00	EA	4.000	64	80.00	5,120.00	125.00	2,000.00								7,120	
	CONCRETE DISPOSAL	30.00	LCY	0.250	8	80.00	640.00		22.00	660.00							1,300	
	DEBRIS DISPOSAL	52.00	LCY	0.350	18	80.00	1,440.00		35.00	1,820.00							3,260	
026100	CONTAMINATED SOILS REMOVAL & DISPOSAL		NIC														NIC	NIC
028000	HAZARDOUS MATERIALS ABATEMENT		NIC														NIC	NIC
DIVISION 3 - CONCRETE																		
033000	SIDEWALKS	120.00	SF	SUB	SUB				SUB	SUB			10.50	1,260.00		1,260.00	1,260	28,652
	CONCRETE STAIRS ON GRADE - WEST STAIR	176.00	LF	SUB	SUB				SUB	SUB			42.00	7,392.00		7,392.00	7,392	
	STAIR MODIFICATIONS - EAST STAIR	1.00	ALLW	SUB	SUB				SUB	SUB			20,000.00	20,000.00		20,000.00	20,000	
DIVISION 4 - MASONRY																		
041000	STRUCTURAL BRICK PATCH	750.00	SF	SUB	SUB				SUB	SUB			10.00	7,500.00		7,500.00	7,500	7,500
DIVISION 5 - METALS																		
055200	METAL RAILINGS	16.00	LF	0.350	6	80.00	480.00	60.00	960.00								1,440	1,440
DIVISION 6 - WOOD & PLASTICS																		
061000	ROOF DECKING (4X6) - 10% ROT ALLOWANCE	650.00	SF	0.120	78	80.00	6,240.00	5.50	3,575.00								9,815	9,815
	SOFFIT/RAFTER TAIL REPAIR ALLOWANCE	850.00	SF	0.120	102	80.00	8,160.00	1.00	850.00								9,010	9,010
	TERRA COTA CAPITOLS REPAIR ALLOWANCE	16.00	EA	6.000	96	80.00	7,680.00	300.00	4,800.00								12,480	12,480
	CORNICE BACKET REPAIR ALLOWANCE	44.00	EA	2.000	88	80.00	7,040.00	75.00	3,300.00								10,340	10,340
DIVISION 7 - WEATHER PROTECTION																		
074200	EXTERIOR PLASTER - CLEAN & PATCH EXISTING	15,360.00	SF	SUB	SUB				SUB	SUB			3.00	46,080.00		46,080.00	46,080	46,080
	FRP STUCCO SYSTEM	15,360.00	SF	SUB	SUB				SUB	SUB			14.50	222,720.00		222,720.00	222,720	222,720
	SCAFFOLDING	12,000.00	SF								8.00	96,000.00					96,000	96,000
	EAGLE SCAFFOLDING COVER		NIC														NIC	NIC
	SILL REPAIR ALLOWANCE	37.00	EA	SUB	SUB				SUB	SUB			200.00	7,400.00		7,400.00	7,400	7,400
	CLAY TILE ROOF - SALAVAGE AND REINSTALL	4,700.00	SF	SUB	SUB				SUB	SUB			41.00	192,700.00		192,700.00	192,700	192,700
	UNDERLAYMENT	4,700.00	SF	0.015	71	80.00	5,680.00	1.15	5,405.00								11,085	11,085
075000	MEMBRANE ROOFING SYSTEM	1,800.00	SF	SUB	SUB				SUB	SUB			17.30	31,140.00		31,140.00	31,140	31,140
	UNDERLAYMENT	6,500.00	SF	0.015	98	80.00	7,840.00	1.15	7,475.00								15,315	15,315
076200	COPPER GUTTER	375.00	LF	SUB	SUB				SUB	SUB			65.00	24,375.00		24,375.00	24,375	24,375
	COPPER DOWNSPOUTS	500.00	LF	SUB	SUB				SUB	SUB			55.00	27,500.00		27,500.00	27,500	27,500
	COPPER PARAPET CAP FLASHING & WRB	200.00	LF	SUB	SUB				SUB	SUB			80.00	16,000.00		16,000.00	16,000	16,000
079000	JOINT SEALANTS	1.00	ALLW	40.000	40	77.00	3,080.00	1,000.00	1,000.00								4,080	4,080
DIVISION 8 - OPENINGS																		
081213	DOORS & HARDWARE	2.00	EA	7.000	14	80.00	1,120.00	1,000.00	2,000.00								3,120	3,120
085000	WINDOWS - REFURBISH LARGE ROSE WINDOWS	2.00	EA	40.000	80	80.00	6,400.00	5,000.00	10,000.00								16,400	16,400
	REFURBISH SMALL ROSE WINDOWS	2.00	EA	32.000	64	80.00	5,120.00	3,000.00	6,000.00									
	REFURBISH LARGE UPPER WINDOWS	12.00	EA	24.000	288	80.00	23,040.00	2,000.00	24,000.00									
DIVISION 9 - FINISHES																		
099113	PAINTING - EXTERIOR PLASTER	15,500.00	SF	SUB	SUB				SUB	SUB			2.30	35,650.00		35,650.00	35,650	35,650
	EXTERIOR CONCRETE		NIC														NIC	NIC
DIVISION - MECHANICAL																		
DIVISION - ELECTRICAL & SPECIAL SYSTEMS																		
26000	ELECTRICAL - MISC. DISCONNECT & RECONNECT	1.00	ALLW	SUB	SUB				SUB	SUB			500.00	500.00		500.00	500	500
DIVISION 32 - EXTERIOR IMPROVEMENTS																		
	LANDSCAPING & IRRIGATION ALLOWANCE	1.00	ALLW	SUB	SUB				SUB	SUB			50,000.00	50,000.00		50,000.00	50,000	50,000
GENERAL REQUIREMENTS																		
01.71.23.13	SITE SURVEY / LAYOUT		NIC														NIC	NIC
	UTILITY HOOK-UP FEES		NIC															

ITEM	DESCRIPTION	CURRENT		UNIT		LABOR		LABOR	MATERIAL	MATERIAL	EQUIPMENT	EQUIPMENT	SUBCONTRACT	SUBCONTRACT	SUB	SUBCONTRACTOR	LINE	DIVISION	
		QUANTITY	UNIT	LABOR	MANHOURS	RATE	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	SUBTOTAL COST	CONTING.	COST	TOTAL	TOTALS
01.51.13.10	CONSTRUCTION POWER	6.00	MON	10.000	60	60.00	3,600.00			BY OWNER							3,600		
01.51.36.20	TEMPORARY WATER	NIC															NIC	NIC	
01.51.29.30	TEMPORARY NATURAL-GAS	NIC															NIC	NIC	
01.51.26.35	TEMPORARY LIGHTING	NIC	MON	10.000	0	60.00	-	300.00	-								0		
01.51.23.20	TEMPORARY HEATING	NIC	MON	20.000	0	60.00	-	200.00	-			4,000.00					4,000		
01.52.19.15	TEMPORARY SANITARY FACILITIES (2 EA)	6.00	MON					320.00	1,920.00								1,920		
01.56.26.15	TEMPORARY CONSTRUCTION FENCING	600.00	LF		40							3,600.00					3,600		
	TEMPORARY STORM WATER POLLUTION CONTROL	NIC															NIC	NIC	
01.74.13.10	GENERAL CLEAN	6.00	MON	40.000	240	60.00	14,400.00										14,400		
01.74.19.20	GARBAGE DUMP	6.00	MON	8.000	48	60.00	2,880.00	800.00	4,800.00								7,680		
01.58.13.10	TEMPORARY SIGNAGE	1.00	ALLW	10.000	10	60.00	600.00	500.00	500.00								1,100		
	MATERIAL & EQUIPMENT HANDLING	6.00	MON	20.000	120	60.00	7,200.00					2,000.00					9,200		
	TRUCK - 1-TON FLATBED - JOB VEHICLE	NIC															NIC	NIC	
01.74.23.20	FINAL CLEAN	15,500.00	SF					0.25	3,875.00								3,875		
	EQUIP - FORKLIFT	6.00	MON							2500.00	15,000.00						15,000		
01.54.19.20	CRANE	NIC															NIC	NIC	
	MAN-LIFTS	2.00	MON							2400.00	4,800.00						4,800		
	EQUIPMENT - FUEL & MAINTENANCE	6.00	MON					700.00	4,200.00								4,200		
	CONSUMABLES	1.00	LS					2,000.00	2,000.00								2,000		
GENERAL CONDITIONS			--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	201,859	
	PLAN REPRODUCTION	1.00	LS					500.00	500.00								500		
01.78.33.20	BOND	1,510,000.00	DLR					0.0083	12,457.50								12,458		
01.78.32.10	INS - LIABILITY	1,510,000.00	DLR					0.0080	12,080.00								12,080		
01.78.32.20	INS - BLDRS RISK	1,510,000.00	DLR					0.0011	1,661.00								1,661		
	TAX - STATE BUSINESS	NIC															NIC	NIC	
	TAX - WA STATE SALES TAX	NIC															NIC	NIC	
	PERMITS	NIC															NIC	NIC	
01.45.23.10	TESTING LABORATORY SERVICES	NIC															--		
01.02.10.10	PROJECT MANAGER (6 MO x 60 MH/MO)	360.00	MH					125.00	45,000.00								45,000		
01.03.30.10	SUPERINTENDENT (6 MO x 174 MH/MO)	1,044.00	MH					90.00	93,960.00								93,960		
01.02.40.10	PROJECT ADMINISTRATOR (6 MO x 40 MH/MO)	240.00	MH					35.00	8,400.00								8,400		
01.04.88.10	YARD LABOR	120.00	MH					40.00	4,800.00								4,800		
01.07.48.10	TEMP IT/COMMUNICATION	6.00	MON					400.00	2,400.00								2,400		
01.52.13.15	TEMPORARY OFFICE	6.00	MON					425.00	2,550.00								2,550		
01.52.13.78	TEMPORARY OFFICE UTILITIES	6.00	MON					300.00	1,800.00								1,800		
01.07.55.55	OFFICE SETUP & CONSUMABLES	1.00	EA		20	60.00	1,200.00	400.00	400.00			1,200.00					2,800		
01.07.40.10	PICKUP TRUCK	6.00	MON							800.00	4,800.00						4,800		
01.04.49.10	SAFETY TOOLS & EQUIPMENT (FALL PROTECTION)	6.00	MON					400.00	2,400.00								2,400		
	POSTAGE & U.P.S.	6.00	MON					75.00	450.00								450		
01.77.01.10	CLOSEOUT PROCEDURES	1.00	LS	80.000	80	60.00	4,800.00	1,000.00	1,000.00								5,800		
TOTAL					1,900		137,120.00		280,998.50			131,400.00				732,497.00	1,223,856	1,223,856	
OH&P - 12%																	146,863	146,863	
CONSTRUCTION TOTAL					TOTAL MANHOURS	1,900											1,370,718	1,370,718	
CONTINGENCY 10%					TOTAL SF OF BUILDING	17,700											137,072	137,072	
TOTAL					MHRS PER SF	0.1073											1,507,790	1,507,790	

ITEM	DESCRIPTION	CURRENT QUANTITY	UNIT	UNIT LABOR	MANHOURS	LABOR RATE	LABOR COST	MATERIAL UNIT COST	MATERIAL COST	EQUIPMENT UNIT COST	EQUIPMENT COST	SUBCONTRACT UNIT COST	SUBCONTRACT SUBTOTAL COST	SUB CONTING.	SUBCONTRACTOR COST	LINE TOTAL	DIVISION TOTALS
DIVISION 2 - DEMOLITION & REMOVAL																	
024160	DEMOLITION - DOORS & FRAMES	10.00	LVS	0.500	5	80.00	400.00	-	BLW	--	--	--	--	--	--	400	49,183
024164	WINDOWS	SEE ENVELOPE															
024170	FRAMED PARTITIONS (LATH & PLASTER)	2,560.00	SF	0.056	143	80.00	11,440.00	-	BLW	--	--	--	--	--	--	11,440	
	CEILING DEMOLITION	1.00	ALLW	10.000	10	80.00	800.00	-	BLW	--	--	--	--	--	--	800	NIC
	ELEVATOR SHAFT SOFT DEMOLITION (UPPER FLOOR)	1.00	ALLW	20.000	20	80.00	1,600.00	-	BLW	--	--	--	--	--	--	1,600	
	EXTERIOR WALL APPURTENANCES	2,902.00	SF	0.008	23	80.00	1,840.00	-	BLW	--	--	--	--	--	--	1,840	
024184	FLOORING - TILE	544.00	SF	0.036	20	80.00	1,600.00	-	BLW	--	--	--	--	--	--	1,600	
	DEMOLITION DETAILING (MEP & MISC.)	1.00	ALLW	40.000	40	80.00	3,200.00	-	BLW	--	--	--	--	--	--	3,200	
024125	CONCRETE DEMOLITION - SLAB ON GRADE	9.00	CY	2.500	23	80.00	1,840.00	-	BLW	--	--	--	--	--	--	1,840	
	ELEVATED SLABS	3.00	CY	4.600	14	80.00	1,120.00	-	BLW	--	--	--	--	--	--	1,120	
	SHORING	1.00	ALLW	20.000	20	80.00	1,600.00	500.00	500.00	--	--	--	--	--	--	2,100	
	SAWCUTTING	2,592.00	IN-FT	SUB	SUB			SUB	SUB			1.50	3,888.00		3,888.00	3,888	
	MISC. REMOVE & REPLACE - DOORS & FRAMES	4.00	EA	2.000	8	80.00	640.00			--	--	--	--	--	--	640	
	CONCRETE DISPOSAL	15.00	LCY	1.400	21	80.00	1,680.00	22.00	330.00	--	--	--	--	--	--	2,010	
	DEBRIS DISPOSAL	107.00	LCY	0.350	37	80.00	2,960.00	35.00	3,745.00	--	--	--	--	--	--	6,705	
028000	HAZARDOUS MATERIALS ABATEMENT - FLOOR MASTIC	2,000.00	SF	SUB	SUB			SUB	SUB			3.25	6,500.00		6,500.00	6,500	
	LEAD PAINT	1.00	ALLW	SUB	SUB			SUB	SUB			2,500.00	2,500.00		2,500.00	2,500	
	SPOT ABATEMENT	1.00	ALLW	SUB	SUB			SUB	SUB			1,000.00	1,000.00		1,000.00	1,000	
DIVISION 3 - CONCRETE																	
033000	PLACING - WALLS	2.00	CY	1.200	2	80.00	160.00	80.00	160.00	--	--	--	--	--	--	320	9,000
	SLAB ON GRADE	10.00	CY	0.470	5	80.00	400.00	80.00	800.00	--	--	--	--	--	--	1,200	
031100	FORMING - WALLS	197.00	SFCA	0.080	16	80.00	1,280.00	1.50	296.00	--	--	--	--	--	--	1,576	
033500	FINISHING - WALLS	192.00	SF	0.008	2	80.00	160.00	0.10	19.00	--	--	--	--	--	--	179	
	SLAB ON GRADE	236.00	SF	0.015	4	80.00	320.00	0.10	24.00	--	--	--	--	--	--	344	
031300	FINE GRADE & SCREED - SLAB ON GRADE	236.00	SF	0.030	7	80.00	560.00	0.25	59.00	--	--	--	--	--	--	619	
031500	CONCRETE ACCESSORIES	11.00	CY				ABV	12.00	132.00	--	--	--	--	--	--	132	
031514	FOUNDATION INSULATION		NIC							--	--	--	--	--	--	NIC	NIC
031516	SLAB SEALER (SPECIALTY COATING)		NIC							--	--	--	--	--	--	NIC	NIC
032100	REINFORCING	0.50	TN	35.000	18	80.00	1,440.00	2,500.00	1,250.00	--	--	--	--	--	--	2,690	
033700	CONCRETE HANDLING	12.00	CY					75.00	900.00	--	--	--	--	--	--	900	
033700	UNDER SLAB/FOOTING MATERIAL	4.00	CY				ABV	30.00	120.00	--	--	--	--	--	--	120	
036300	DRILL & EPOXY	48.00	EA	0.200	10	80.00	800.00	2.50	120.00	--	--	--	--	--	--	920	
	CORE DRILLING		NIC							--	--	--	--	--	--	NIC	NIC
DIVISION 4 - MASONRY																	
041000	STRUCTURAL BRICK PATCH		NIC							--	--	--	--	--	--	NIC	NIC
DIVISION 5 - METALS																	
054000	STRUCTURAL METAL FRAMING (ELEVATOR SHAFT)	1,312.00	LF	0.040	52	80.00	4,160.00	3.60	4,723.00	--	--	--	--	--	--	8,883	25,783
055200	METAL RAILINGS (ADA RAMP)	40.00	LF	0.220	9	80.00	720.00	60.00	2,400.00	--	--	--	--	--	--	3,120	
055300	METAL GRATING		NIC							--	--	--	--	--	--	NIC	NIC
055000	ELEVATOR SUPPORT STEEL - COLUMNS	7.00	EA	3.000	21	80.00	1,680.00	1,100.00	7,700.00	--	--	--	--	--	--	9,380	
	BEAMS	8.00	EA	2.500	20	80.00	1,600.00	350.00	2,800.00	--	--	--	--	--	--	4,400	
DIVISION 6 - WOOD & PLASTICS																	
060600	FASTENERS, CONNECTORS	6,272.00	SF	-			BLW	0.60	3,763.00	--	--	--	--	--	--	3,763	13,989
061000	ROUGH CARPENTRY	975.00	BF	0.032	31	80.00	2,480.00	0.65	634.00	--	--	--	--	--	--	3,114	
062620	FRP PANELINGS		NIC							--	--	--	--	--	--	NIC	NIC
064000	ARCHITECTURAL WOODWORK (BATHROOM COUNTERS)	16.00	LF	0.700	11	80.00	880.00	80.00	1,280.00	--	--	--	--	--	--	2,160	
	DISPLAY CASES		NIC							--	--	--	--	--	--	NIC	NIC
064600	INTERIOR FINISH CARPENTRY - WINDOW SILLS	90.00	LF	0.060	5	80.00	400.00	4.50	405.00	--	--	--	--	--	--	805	
	WOOD WALL BASE	1,042.00	LF	0.030	31	80.00	2,480.00	1.60	1,667.00	--	--	--	--	--	--	4,147	
DIVISION 7 - WEATHER PROTECTION																	
070000	EXTERIOR WALL IN-FILLS (FULL ASSEMBLY)	SEE ENVELOPE															
071001	WATERPROOFING - ELEVATOR PIT	184.00	SF	SUB	SUB			SUB	SUB			12.00	2,208.00		2,208.00	2,208	
071900	WATER REPELLANTS		NIC							--	--	--	--	--	--	NIC	NIC
072100	INSULATION - BATT		NIC							--	--	--	--	--	--	NIC	NIC
	SOUND RIGID INSULATION	2,960.00	SF	SUB	SUB			SUB	SUB			1.40	4,144.00		4,144.00	4,144	
	FIRE STOPPING		NIC							--	--	--	--	--	--	NIC	NIC
072500	VAPOR RETARDERS		NIC							--	--	--	--	--	--	SEE MEP	
072600	JOINT SEALANTS	1.00	ALLW	10.000	10	77.00	770.00	250.00	250.00	--	--	--	--	--	--	1,020	
079000	FLOOR CAULKING		NIC							--	--	--	--	--	--	SEE 096001	
079202		SEE 096001															
DIVISION 8 - OPENINGS																	
081213	HOLLOW METAL FRAMES	10.00	EA	1.500	15	80.00	1,200.00	350.00	3,500.00	--	--	--	--	--	--	4,700	23,293
	HOLLOW METAL RELITES	1.00	ALLW		10	80.00	800.00		1,500.00	--	--	--	--	--	--	2,300	
081400	WOOD DOORS	12.00	LVS	0.500	6	80.00	480.00	400.00	4,800.00	--	--	--	--	--	--	5,280	
083100	ACCESS PANELS	7.00	EA	0.500	4	77.00	308.00	75.00	525.00	--	--	--	--	--	--	833	

ITEM	DESCRIPTION	CURRENT QUANTITY	UNIT	UNIT LABOR	MANHOURS	LABOR RATE	LABOR COST	MATERIAL UNIT COST	MATERIAL COST	EQUIPMENT UNIT COST	EQUIPMENT COST	SUBCONTRACT UNIT COST	SUBCONTRACT SUBTOTAL COST	SUB CONTING.	SUBCONTRACTOR COST	LINE TOTAL	DIVISION TOTALS
	DOOR HARDWARE - NEW DOORS	12.00	LVS	2.200	26	80.00	2,080.00	500.00	6,000.00							8,080	
	EXISTING DOORS	4.00	LVS	2.500	10	80.00	800.00	325.00	1,300.00							2,100	
DIVISION 9 - FINISHES																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	NIC	190,458
092216	NON-STRUCTURAL METAL FRAMING	4,648.00	LF	0.040	186	80.00	14,880.00	0.92	4,276.00							19,156	
092900	GWB (HANG & TAPE)	9,480.00	SF	0.016	152	80.00	12,160.00	0.90	8,532.00			1.90	18,012.00		18,012.00	38,704	
	EXISTING WALL PATCHING (INTERIOR)	2,902.00	SF	SUB	SUB			SUB	SUB			1.30	3,772.60		3,772.60	3,773	
093100	TILE - FLOOR & WALL	959.00	SF	SUB	SUB			SUB	SUB			18.00	17,262.00		17,262.00	17,262	
095100	ACOUSTICAL CEILINGS	4,798.00	SF	SUB	SUB			SUB	SUB			14.00	67,172.00		67,172.00	67,172	
096001	FLOOR PREP	5,134.00	SF	0.016	82	80.00	6,560.00	0.20	1,027.00							7,587	
096003	FLOOR PROTECTION	5,134.00	SF	0.003	15	80.00	1,200.00	0.12	616.00							1,816	
096500	RESILIENT FLOORING - VCT	132.00	SY	SUB	SUB			SUB	SUB			50.00	6,600.00		6,600.00	6,600	
096513	RESILIENT BASE & ACCESSORIES		NIC													NIC	NIC
096800	CARPETING	386.00	SY	SUB	SUB			SUB	SUB			45.00	17,370.00		17,370.00	17,370	
099123	PAINTING - INTERIOR NEW WALLS	6,280.00	SF	SUB	SUB			SUB	SUB			1.20	7,536.00		7,536.00	7,536	
	EXSITING WALLS	2,902.00	SF	SUB	SUB			SUB	SUB			1.20	3,482.40		3,482.40	3,482	
DIVISION 10 - SPECIALTIES																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	13,770
	VISUAL DISPLAY SURFACES	7.00	EA	0.500	4	80.00	320.00	200.00	1,400.00							1,720	
	DISPLAY CASES		NIC													NIC	NIC
10400	SIGNAGE	1.00	ALLW	5.000	5	80.00	400.00	1,000.00	1,000.00							1,400	
	TOILET COMPARTMENTS	5.00	EA	6.000	30	80.00	2,400.00	900.00	4,500.00							6,900	
	CORNER GUARDS	8.00	EA	0.200	2	80.00	160.00	25.00	200.00							360	
	TOILET & BATH ACCESSORIES	33.00	EA	0.350	12	80.00	960.00	50.00	1,650.00							2,610	
	FIRE EXTINGUISHERS AND CABINETS	4.00	EA	0.350	1	80.00	80.00	175.00	700.00							780	
DIVISION 11 - EQUIPMENT																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5,280
113100	RESIDENTIAL APPLIANCES		NIC													NIC	NIC
115213	PROJECTION SCREENS	5.00	EA	3.200	16	80.00	1,280.00	800.00	4,000.00							5,280	
DIVISION 12 - FURNISHINGS																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3,810
120000	ROOM FURNISHINGS		NIC													NIC	NIC
122100	WINDOW BLINDS	13.00	EA	0.500	7	80.00	560.00	250.00	3,250.00							3,810	
124800	ENTRANCE MATTS		NIC													NIC	NIC
DIVISION 13 - SPECIAL CONSTRUCTION																	
			NIC	--	--	--	--	--	--	--	--	--	--	--	--	NIC	NIC
DIVISION 14 - CONVEYANCE SYSTEMS																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	115,000
	ELEVATOR - 2 STOPS	1.00	EA	SUB	SUB			SUB	SUB			115,000.00	115,000.00		115,000.00	115,000	
DIVISION - MECHANICAL																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	209,936
210000	FIRE PROTECTION - RECONFIGURE EXISTING	6,272.00	SF	SUB	SUB			SUB	SUB			3.50	21,952.00		21,952.00	21,952	
220000	PLUMBING	1.00	LS	SUB	SUB			SUB	SUB			50,000.00	50,000.00		50,000.00	50,000	
240000	HVAC	6,272.00	SF	SUB	SUB			SUB	SUB			22.00	137,984.00		137,984.00	137,984	
DIVISION - ELECTRICAL & SPECIAL SYSTEMS																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	225,704
26000	ELECTRICAL	6,272.00	SF	SUB	SUB			SUB	SUB			32.00	200,704.00		200,704.00	200,704	
	NEW SERVICE ENTRANCE	1.00	EA	SUB	SUB			SUB	SUB			25,000.00	25,000.00		25,000.00	25,000	
DIVISION 31 - EARTHWORK																	
			NIC	--	--	--	--	--	--	--	--	--	--	--	--	NIC	NIC
GENERAL REQUIREMENTS																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	34,498
01.71.23.13	SITE SURVEY / LAYOUT		NIC													NIC	
	UTILITY HOOK-UP FEES		NIC													--	
01.51.13.10	CONSTRUCTION POWER	2.00	MON	10.000	20	60.00	1,200.00		BY OWNER							1,200	
01.51.36.20	TEMPORARY WATER		NIC													NIC	NIC
01.51.29.30	TEMPORARY NATURAL-GAS		NIC													NIC	NIC
01.51.26.35	TEMPORARY LIGHTING	2.00	MON	10.000	20	60.00	1,200.00	300.00	600.00							1,800	
01.51.23.20	TEMPORARY HEATING	1.00	MON	20.000	20	60.00	1,200.00	200.00	200.00		4,000.00					5,400	
01.52.19.15	TEMPORARY SANITARY FACILITIES (2 EA)	2.00	MON					160.00	320.00							320	
01.56.26.15	TEMPORARY CONSTRUCTION FENCING		NIC													NIC	NIC
	TEMPORARY STORM WATER POLLUTION CONTROL		NIC													NIC	NIC
01.74.13.10	GENERAL CLEAN	2.00	MON	60.000	120	60.00	7,200.00									7,200	
01.74.19.20	GARBAGE DUMP	2.00	MON	8.000	16	60.00	960.00	800.00	1,600.00							2,560	
01.58.13.10	TEMPORARY SIGNAGE	1.00	ALLW	5.000	5	60.00	300.00	250.00	250.00							550	
	MATERIAL & EQUIPMENT HANDLING	2.00	MON	20.000	40	60.00	2,400.00									4,400	
	TRUCK - 1-TON FLATBED - JOB VEHICLE	2.00	MON							950.00	2,000.00					1,900	
01.74.23.20	FINAL CLEAN	6,272.00	SF					0.25	1,568.00							1,568	
	EQUIP - FORKLIFT	2.00	MON							2500.00	5,000.00					5,000	
01.54.19.20	CRANE		NIC													NIC	NIC
	MAN-LIFTS		NIC													NIC	NIC
	EQUIPMENT - FUEL & MAINTENANCE	2.00	MON					700.00	1,400.00							1,400	
	CONSUMABLES	1.00	LS					1,200.00	1,200.00							1,200	
GENERAL CONDITIONS																	
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	97,122
	PLAN REPRODUCTION	1.00	LS					500.00	500.00							500	

ITEM	DESCRIPTION	CURRENT QUANTITY	UNIT	UNIT LABOR	MANHOURS	LABOR RATE	LABOR COST	MATERIAL UNIT COST	MATERIAL COST	EQUIPMENT UNIT COST	EQUIPMENT COST	SUBCONTRACT UNIT COST	SUBCONTRACT SUBTOTAL COST	SUB CONTING.	SUBCONTRACTOR COST	LINE TOTAL	DIVISION TOTALS
DIVISION 2 - DEMOLITION & REMOVAL																	
024160	DEMOLITION - ELECTRICAL DETAILING	1.00	ALLW	10.000	10	80.00	800.00	-	-	-	-	-	-	-	-	800	2,600
	ELEVATOR PENETRATION DETAILING	1.00	ALLW	10.000	10	80.00	800.00	-	-	-	-	-	-	-	-	800	
028000	HAZARDOUS MATERIALS ABATEMENT - LEAD PAINT	1.00	ALLW	SUB	SUB			SUB	SUB			1,000.00	1,000.00		1,000.00	1,000	
DIVISION 3 - CONCRETE																	
DIVISION 4 - MASONRY																	
DIVISION 5 - METALS																	
DIVISION 6 - WOOD & PLASTICS																	
060600	FASTENERS, CONNECTORS	5,250.00	SF	-			BLW	0.10	525.00							525	
061000	ROUGH CARPENTRY	718.00	BF	0.036	26	80.00	2,080.00	0.65	467.00							2,547	
	SHEATHING	192.00	LF	0.034	7	80.00	560.00	0.90	173.00							733	
064600	FINISH CARPENTRY REFINISHING - WALL BASE	230.00	LF	0.200	46	80.00	3,680.00	0.50	115.00							3,795	
	STAGE FACE PANELING	164.00	SF	0.260	43	80.00	3,440.00	0.25	41.00							3,481	
	STAIRS	9.00	EA	1.400	13	80.00	1,040.00	5.00	45.00							1,085	
	WALL PANELING	144.00	SF	0.210	30	80.00	2,400.00	0.25	36.00							2,436	
	WINDOW CASING	488.00	LF	0.300	146	80.00	11,680.00	0.50	244.00							11,924	
	DOORS	12.00	LVS	8.000	96	80.00	7,680.00	100.00	1,200.00							8,880	
	WINDOW MULLIONS - LARGE	480.00	LF	0.260	125	80.00	10,000.00	0.50	240.00							10,240	
	WINDOW MULLIONS - SMALL		NIC													NIC	NIC
	ROOF TRUSSES		NIC													NIC	NIC
	TOP OF WALL TRIM		NIC													NIC	NIC
	MISC. REFINISHING ALLOWANCE	1.00	ALLW	40.000	40	80.00	3,200.00	100.00	100.00							3,300	
	NEW FINISH TRIM	380.00	LF	0.030	11	80.00	880.00	4.25	1,615.00							2,495	
DIVISION 7 - WEATHER PROTECTION																	
070000	EXTERIOR WALL IN-FILLS (FULL ASSEMBLY)	SEE ENVELOPE														SEE ENVELOPE	1,020
072100	INSULATION		NIC													NIC	NIC
072500	FIRE STOPPING		SEE MEP													SEE MEP	
072600	VAPOR RETARDERS		NIC													NIC	NIC
079000	JOINT SEALANTS	1.00	ALLW	10.000	10	77.00	770.00	250.00	250.00							1,020	
DIVISION 8 - OPENINGS																	
	DOOR HARDWARE - EXISTING EXTERIOR	8.00	LVS	3.500	28	80.00	2,240.00	900.00	7,200.00							9,440	
	EXISTING INTERIOR - BATHROOM ONLY	1.00	LVS	2.000	2	80.00	160.00	300.00	300.00							460	
	DECORATIVE GLASS REPLACEMENT	SEE ENVELOPE														SEE ENVELOPE	
DIVISION 9 - FINISHES																	
092900	GWB (HANG & TAPE)	1,392.00	SF	0.016	22	80.00	1,760.00	0.90	1,253.00			1.90	2,644.80		2,644.80	5,658	125,037
	EXISTING WALL PATCHING	5,190.00	SF	SUB	SUB			SUB	SUB			1.10	5,709.00		5,709.00	5,709	
	EXISTING CEILING PATCHING	5,546.00	SF	SUB	SUB			SUB	SUB			1.30	7,209.80		7,209.80	7,210	
095113	ACOUSTICAL PANELS - CEILING 3X5	96.00	EA	SUB	SUB			SUB	SUB			400.00	38,400.00		38,400.00	38,400	
096400	WOOD FLOOR REFINISHING	4,986.00	SF	SUB	SUB			SUB	SUB			6.00	29,916.00		29,916.00	29,916	
	FILLER	4,986.00	SF	SUB	SUB			SUB	SUB			2.00	9,972.00		9,972.00	9,972	
	WATER DAMAGE REPLACEMENT ALLOWANCE	100.00	SF	SUB	SUB			SUB	SUB			40.00	4,000.00		4,000.00	4,000	
096500	RESILIENT FLOORING (STORAGE & PROJECTION)	18.00	SY	SUB	SUB			SUB	SUB			50.00	900.00		900.00	900	
	UNDERLAYMENT	161.00	SF	0.040	6	80.00	480.00	0.60	97.00							577	
099123	PAINTING - WALLS	5,546.00	SF	SUB	SUB			SUB	SUB			1.60	8,873.60		8,873.60	8,874	
	CEILING	6,582.00	SF	SUB	SUB			SUB	SUB			2.10	13,822.20		13,822.20	13,822	
DIVISION 10 - SPECIALTIES																	
	VISUAL DISPLAY SURFACES		NIC													NIC	NIC
104000	SIGNAGE	1.00	ALLW	5.000	5	80.00	400.00	500.00	500.00							900	
	TOILET & BATH ACCESSORIES	5.00	EA	0.350	2	80.00	160.00	50.00	250.00							410	
	FIRE EXTINGUISHERS AND CABINETS	2.00	EA	0.350	1	80.00	80.00	175.00	350.00							430	
DIVISION 11 - EQUIPMENT																	
115213	PROJECTION SCREENS - LARGE - ELECTRIC	1.00	EA	20.000	20	80.00	1,600.00	12,000.00	12,000.00							13,600	13,600
DIVISION 12 - FURNISHINGS																	
122100	WINDOW BLINDS		NIC													NIC	NIC
DIVISION 13 - SPECIAL CONSTRUCTION																	
DIVISION 14 - CONVEYANCE SYSTEMS																	
	ELEVATOR	SEE GROUND LEVEL														SEE GROUND LEVEL	
DIVISION - MECHANICAL																	
210000	FIRE PROTECTION - RECONFIGURE EXISTING		NIC													NIC	
220000	PLUMBING - RADIATOR UPGRADES	1.00	ALLW	SUB	SUB			SUB	SUB			30,000.00	30,000.00		30,000.00	30,000	
240000	HVAC - VENTILATION ONLY	5,250.00	SF	SUB	SUB			SUB	SUB			10.00	52,500.00		52,500.00	52,500	
DIVISION - ELECTRICAL & SPECIAL SYSTEMS																	
26000	ELECTRICAL - POWER DISTRIBUTION UPGRADE	5,250.00	SF	SUB	SUB			SUB	SUB			3.50	18,375.00		18,375.00	18,375	148,375
	PENDENT LIGHT REHABILITATION	6.00	EA	SUB	SUB			SUB	SUB			2,500.00	15,000.00		15,000.00	15,000	

ITEM	DESCRIPTION	CURRENT		UNIT	MANHOURS	LABOR	LABOR	MATERIAL	MATERIAL	EQUIPMENT	EQUIPMENT	SUBCONTRACT	SUBCONTRACT	SUB	SUBCONTRACTOR	LINE	DIVISION
		QUANTITY	UNIT	LABOR		RATE	COST	UNIT COST	COST	UNIT COST	COST	UNIT COST	SUBTOTAL COST	CONTING.	COST	TOTAL	TOTALS
	SUPPLEMENTAL LIGHTING	20.00	EA	SUB				SUB	SUB			2,000.00	40,000.00		40,000.00	40,000	
	A/V SYSTEM	1.00	ALLW	SUB				SUB	SUB			75,000.00	75,000.00		75,000.00	75,000	
DIVISION 31 - EARTHWORK																	
GENERAL REQUIREMENTS																	
		NIC	--	--	--	--	--	--	--	--	--	--	--	--	--	NIC	NIC
		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27,828
01.71.23.13	SITE SURVEY / LAYOUT	NIC														NIC	
	UTILITY HOOK-UP FEES	NIC														--	
01.51.13.10	CONSTRUCTION POWER	1.50	MON	10.000	15	60.00	900.00		BY OWNER							900	
01.51.36.20	TEMPORARY WATER	NIC														NIC	NIC
01.51.29.30	TEMPORARY NATURAL-GAS	NIC														NIC	NIC
01.51.26.35	TEMPORARY LIGHTING	1.50	MON	10.000	15	60.00	900.00	300.00	450.00							1,350	
01.51.23.20	TEMPORARY HEATING	1.50	MON	20.000	30	60.00	1,800.00	200.00	300.00	4,000.00						6,100	
01.52.19.15	TEMPORARY SANITARY FACILITIES (2 EA)	2.00	MON					160.00	320.00							320	
01.56.26.15	TEMPORARY CONSTRUCTION FENCING	NIC														NIC	NIC
	TEMPORARY STORM WATER POLLUTION CONTROL	NIC														NIC	NIC
01.74.13.10	GENERAL CLEAN	1.50	MON	60.000	90	60.00	5,400.00									5,400	
01.74.19.20	GARBAGE DUMP	1.50	MON	8.000	12	60.00	720.00	800.00	1,200.00							1,920	
01.58.13.10	TEMPORARY SIGNAGE	1.00	ALLW	5.000	5	60.00	300.00	250.00	250.00							550	
	MATERIAL & EQUIPMENT HANDLING	1.50	MON	20.000	30	60.00	1,800.00									3,800	
	TRUCK - 1-TON FLATBED - JOB VEHICLE	1.50	MON							950.00	1,425.00					1,425	
01.74.23.20	FINAL CLEAN	5,250.00	SF					0.25	1,313.00							1,313	
	EQUIP - FORKLIFT	1.00	MON							2,500.00	2,500.00					2,500	
01.54.19.20	CRANE	NIC														NIC	NIC
	MAN-LIFTS	NIC														NIC	NIC
	EQUIPMENT - FUEL & MAINTENANCE	1.50	MON					700.00	1,050.00							1,050	
	CONSUMABLES	1.00	LS					1,200.00	1,200.00							1,200	
GENERAL CONDITIONS																	
	PLAN REPRODUCTION	1.00	LS					500.00	500.00							500	
01.78.33.20	BOND	650,000.00	DLR					0.0083	5,362.50							5,363	
01.78.32.10	INS - LIABILITY	650,000.00	DLR					0.0080	5,200.00							5,200	
01.78.32.20	INS - BLDRS RISK	650,000.00	DLR					0.0011	715.00							715	
	TAX - STATE BUSINESS	NIC														NIC	NIC
	TAX - WA STATE SALES TAX	NIC														NIC	NIC
	PERMITS	NIC														NIC	NIC
01.45.23.10	TESTING LABORATORY SERVICES	NIC														--	
01.02.10.10	PROJECT MANAGER (1.5 MO x 80 MH/MO)	120.00	MH					125.00	15,000.00							15,000	
01.03.30.10	SUPERINTENDENT (1.5 MO x 174 MH/MO)	261.00	MH					90.00	23,490.00							23,490	
01.02.40.10	PROJECT ADMINISTRATOR (1.5 MO x 60 MH/MO)	90.00	MH					35.00	3,150.00							3,150	
01.04.88.10	YARD LABOR	40.00	MH					40.00	1,600.00							1,600	
01.07.48.10	TEMP IT/COMMUNICATION	1.50	MON					400.00	600.00							600	
01.52.13.15	TEMPORARY OFFICE	1.50	MON					425.00	638.00							638	
01.52.13.78	TEMPORARY OFFICE UTILITIES	1.50	MON					300.00	450.00							450	
01.07.55.55	OFFICE SETUP & CONSUMABLES	SEE GROUND FLOOR														SEE GROUND FLOOR	
01.07.40.10	PICKUP TRUCK	1.50	MON							800.00	1,200.00					1,200	
01.04.49.10	SAFETY TOOLS & EQUIPMENT (FALL PROTECTION)	1.50	MON					1,600.00	2,400.00							2,400	
	POSTAGE & U.P.S.	1.50	MON					75.00	113.00							113	
01.77.01.10	CLOSEOUT PROCEDURES	1.00	LS	80.000	80	60.00	4,800.00	1,000.00	1,000.00							5,800	
TOTAL																	
					976		72,510.00		93,302.50		11,125.00				353,322.40	530,260	530,260
	OH&P - 12%															63,631	63,631
	CONSTRUCTION TOTAL				TOTAL MANHOURS	976										593,891	593,891
					TOTAL SF OF BUILDING	5,250											
	CONTINGENCY OWNER 15%															89,084	89,084
					MHRS PER SF	0.1859											
	TOTAL															682,975	682,975

RMC ARCHITECTS

RMC ARCHITECTS, PLLC 1223 Railroad Avenue, Bellingham, WA 98225 360.676.7733