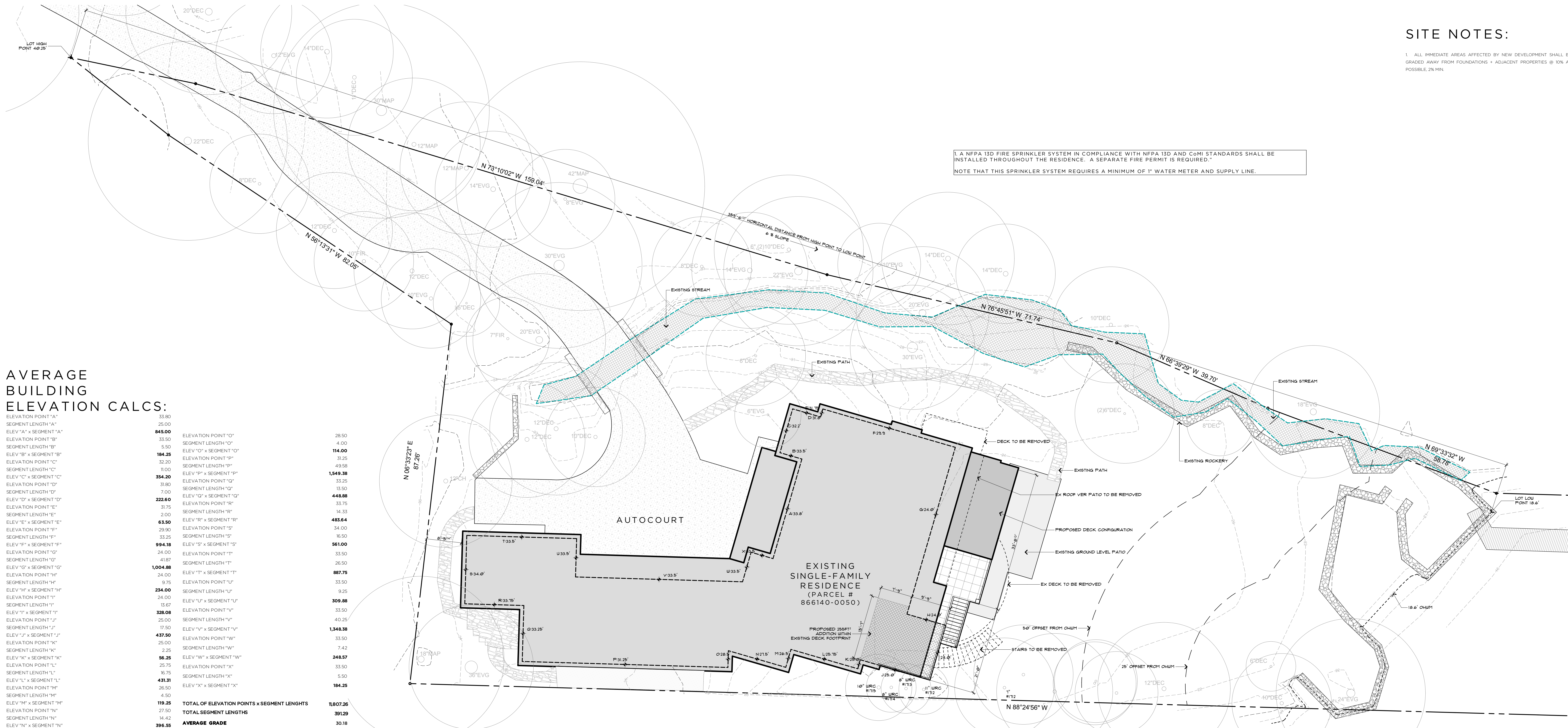


SITE NOTES:

- 1. ALL IMMEDIATE AREAS AFFECTED BY NEW DEVELOPMENT SHALL BE GRADED AWAY FROM FOUNDATIONS + ADJACENT PROPERTIES @ 10% AS POSSIBLE 2% MIN.

1. A NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED. NOTE THAT THIS SPRINKLER SYSTEM REQUIRES A MINIMUM OF 1" WATER METER AND SUPPLY LINE.



AVERAGE BUILDING ELEVATION CALCS:

Table with columns for elevation points (A through Y), segment lengths, and average grade. Includes a summary row for total elevations and average grade.

SITE PLAN

SCALE: 1" = 10'

ABBREVIATIONS:

Table of abbreviations and their corresponding symbols, including terms like ABOVE, BELOW, CENTERLINE, etc.

PLAN LEGEND:

Table of plan legend symbols and their descriptions, such as EXISTING WALL TO REMAIN, NEW FULL-HEIGHT WALL, etc.

DUTY OF COOPERATION:

RELEASE + ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, THE CONTRACTOR, + RIPPLE DESIGN STUDIO. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED BY THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO RIPPLE DESIGN STUDIO...

FLOOR AREAS:

Table of floor areas including lot area, maximum allowable gfa, and various floor area calculations (basement, first, second, garage).

LOT COVERAGE CALCS:

Table of lot coverage calculations showing lot area, maximum allowable lot coverage, and existing lot coverage.

HARDSCAPE CALCULATIONS:

Table of hardscape calculations including lot area, maximum allowable hardscape coverage, and total proposed hardscape area.

PROJECT TEAM:

Table listing project team members and their roles, including Client/Owner, Architect, Surveyor, Geotechnical Engineer, Environmental Consultant, and Structural Engineer.

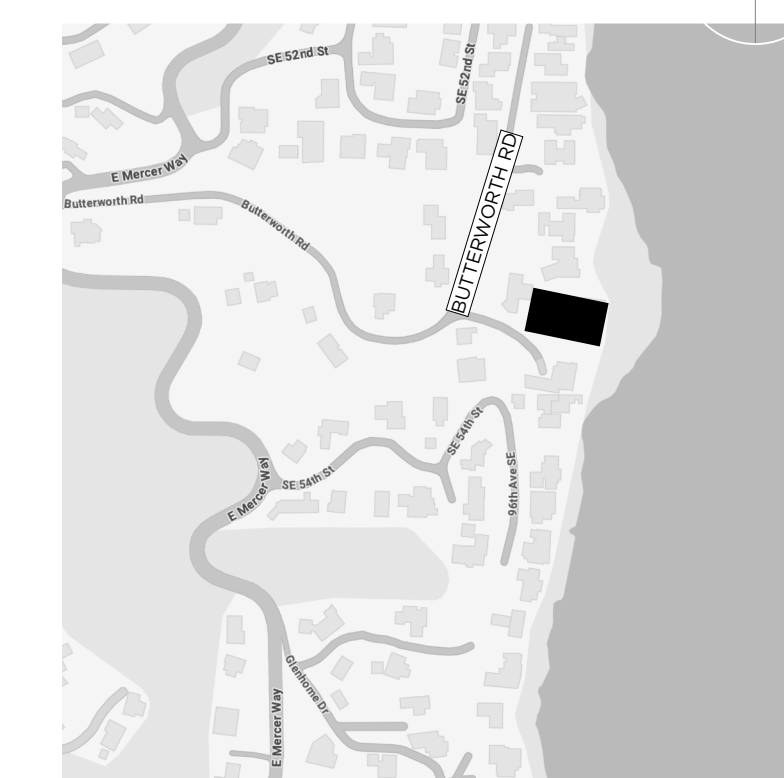
PROJECT INFO:

Table providing project details such as project address, scope of work, zone, legal description, and accessor's parcel number.

SHEET INDEX:

Table of sheet index listing sheet numbers and their corresponding titles, such as SITE PLAN, SURVEY 1, etc.

VICINITY MAP:



SITE PLAN

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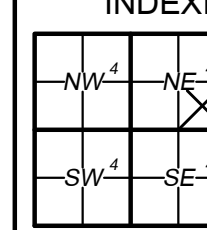
RELEASE 27 MARCH 2026

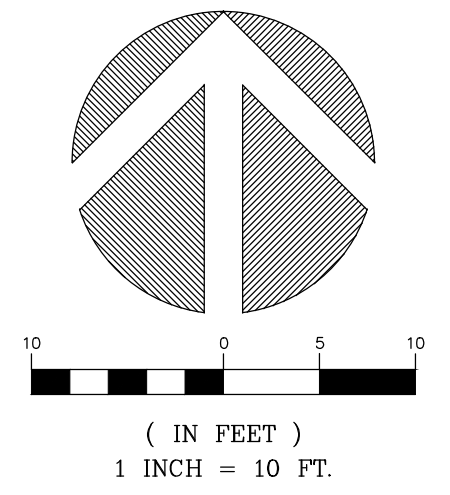




# TOPOGRAPHIC & BOUNDARY SURVEY

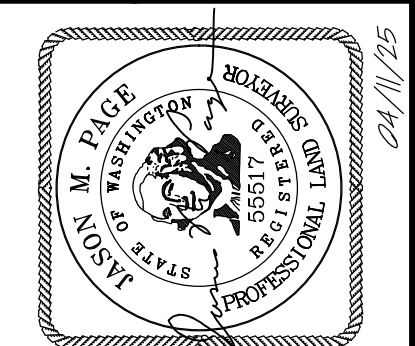
**STEEP SLOPE/BUFFER DISCLAIMER:**  
 THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.

INDEXING INFORMATION	
	SE 1/4 NE 1/4
	SECTION: 19
	TOWNSHIP: 24N
	RANGE: 05E, W.M.
	COUNTY: KING



TOPOGRAPHIC & BOUNDARY SURVEY  
 PARCEL NO. 8661400050

5336 BUTTERWORTH ROAD  
 5336 BUTTERWORTH ROAD  
 MERCER ISLAND, WA 98040



# TERRANE

11235 SE 6th St, Suite 130  
 Bellevue, WA 98004  
 p: 425-458-4488 | e: info@terrane.net

JOB NUMBER:	250533
DATE:	04/11/25
DRAFTED BY:	VGB
CHECKED BY:	JMP
SCALE:	1" = 10'

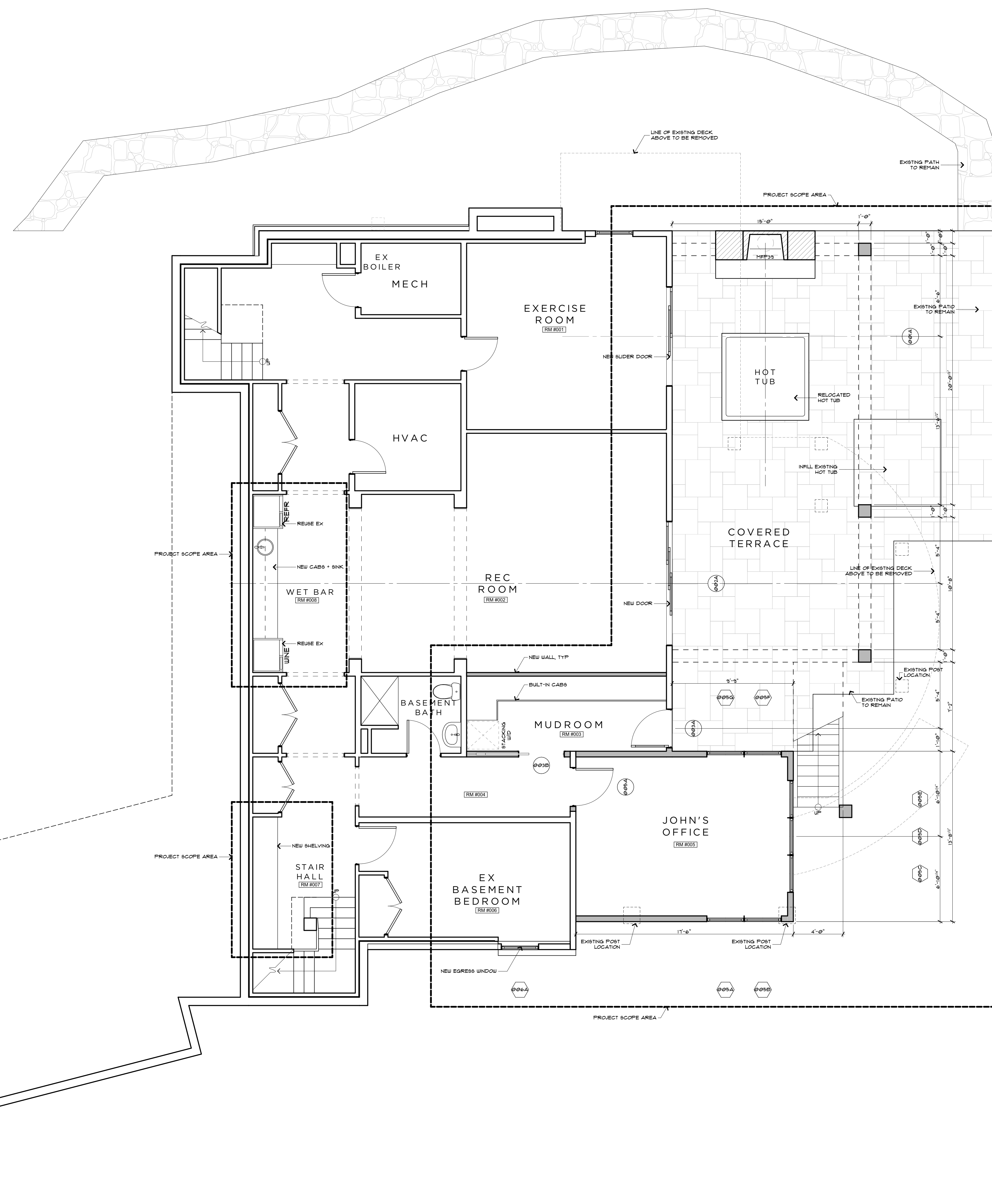
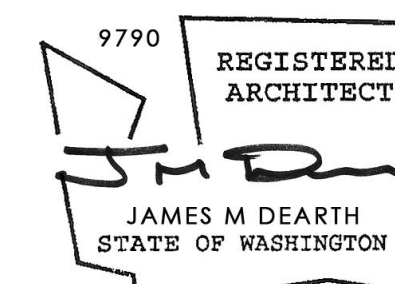
REVISION HISTORY	

SHEET NUMBER  
 2 OF 2

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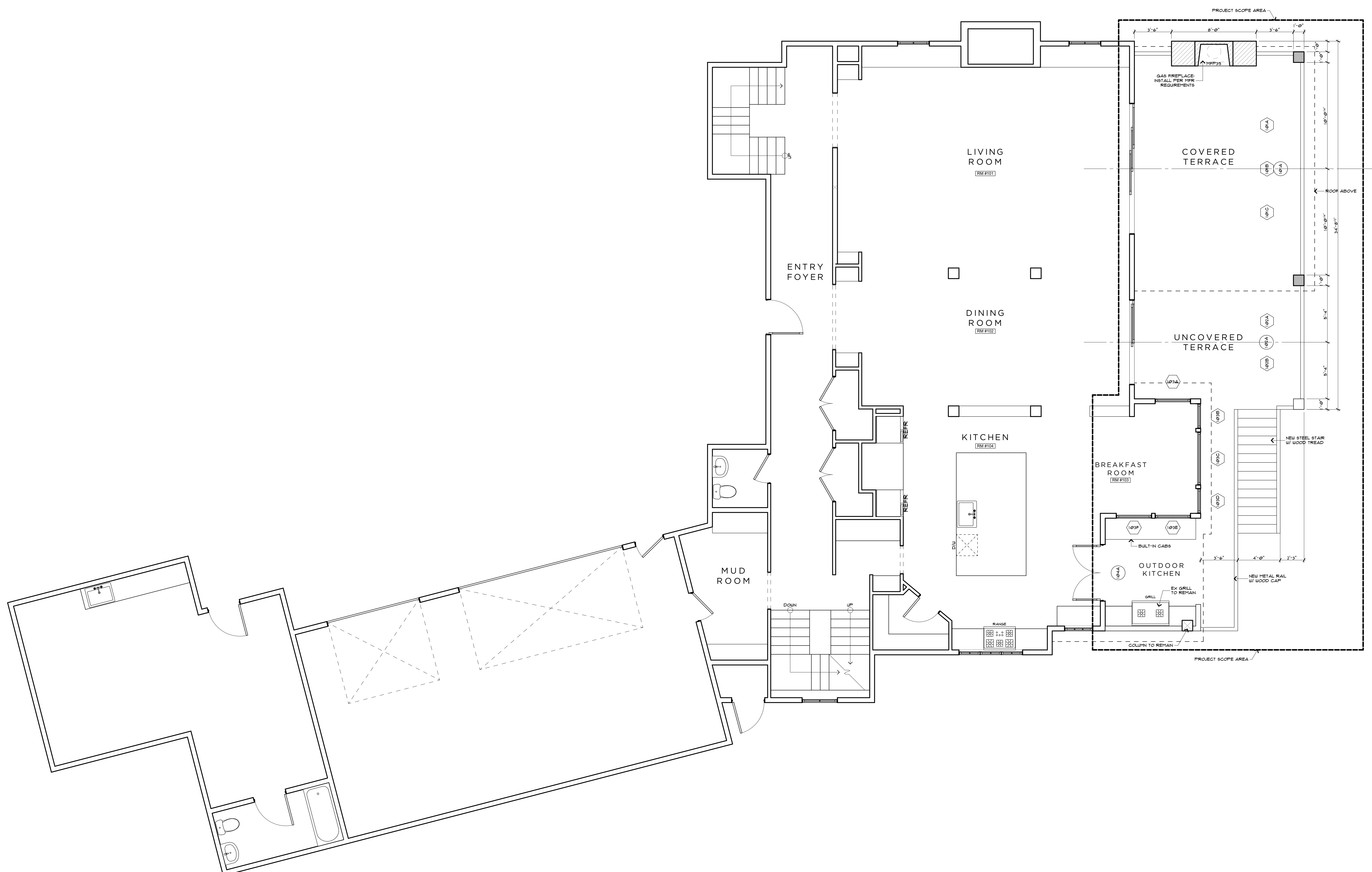
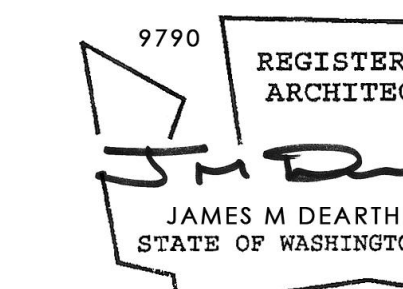




BASEMENT PLAN

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





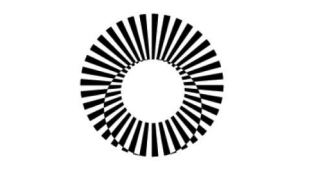
FIRST FLOOR PLAN

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

FIRST FLOOR PLAN

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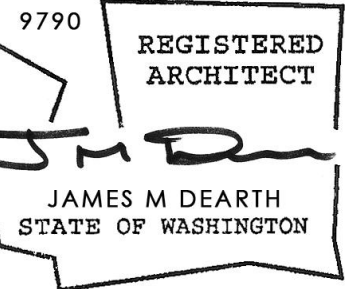
RELEASE  
27 MARCH 2026



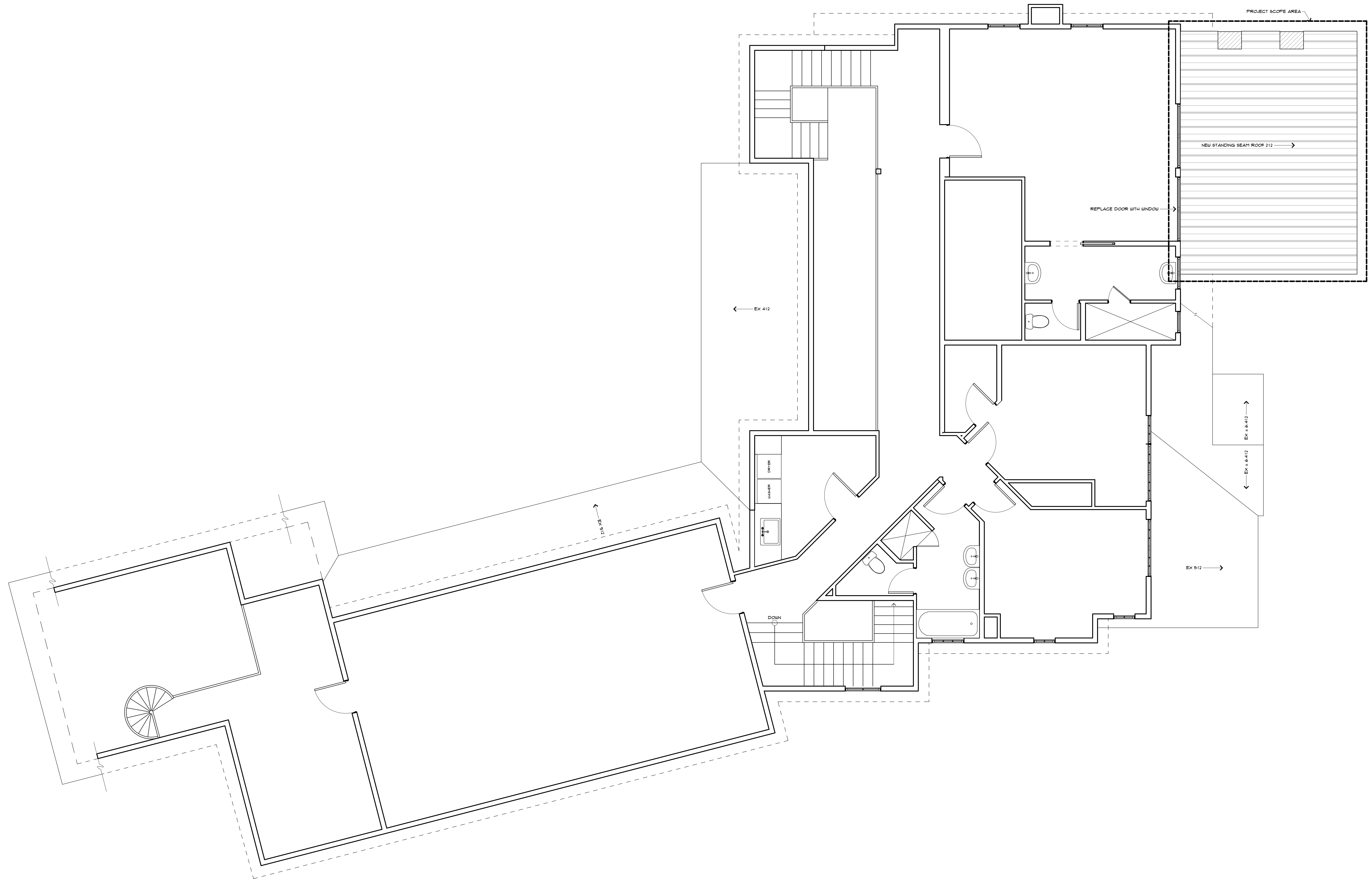
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DESIGN STUDIO

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SEATTLE, WA 98103



ANDERSON RESIDENCE  
5336 BUTTERWORTH RD MERCER ISLAND, WA 98040



SECOND FLOOR PLAN

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



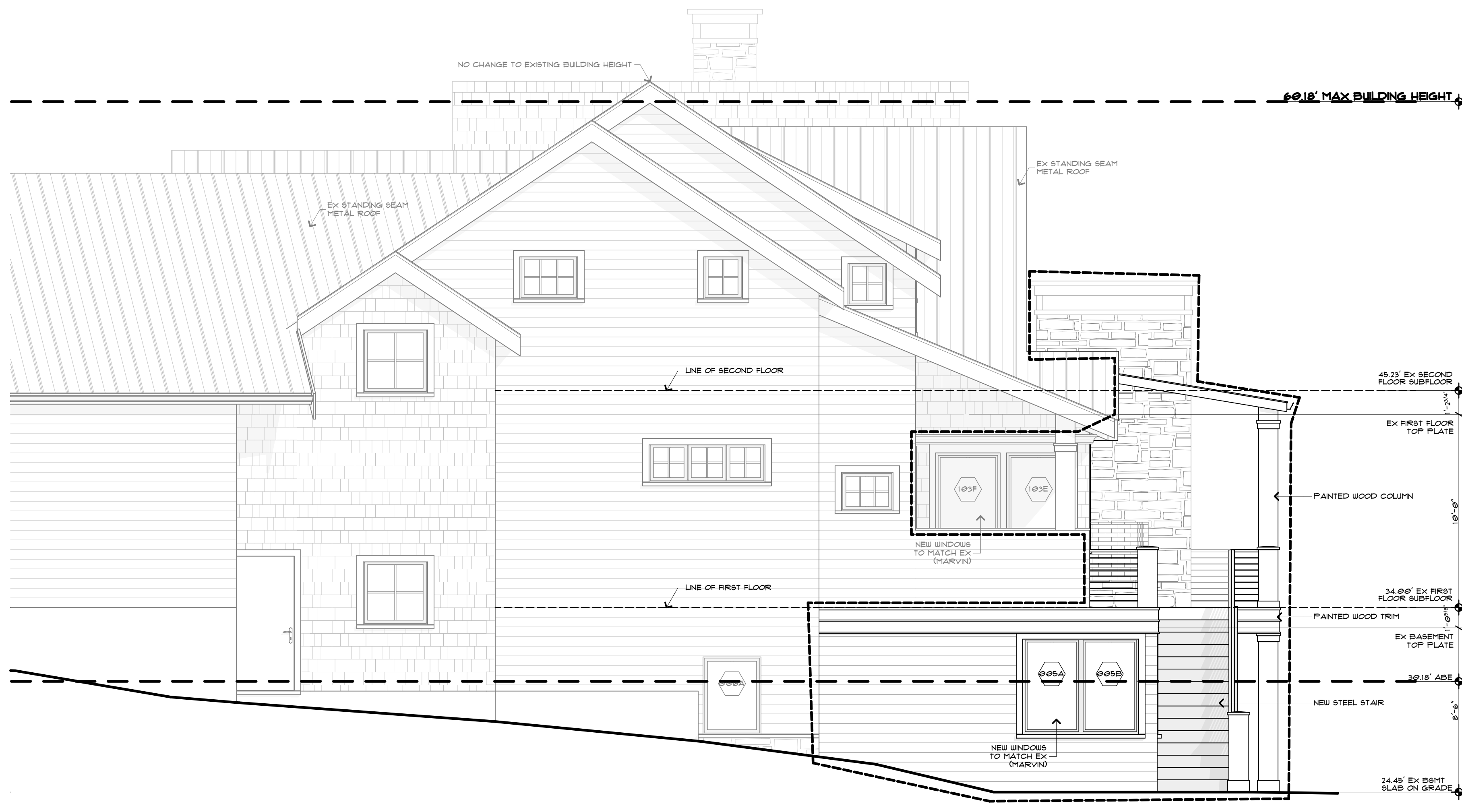
SECOND FLOOR PLAN

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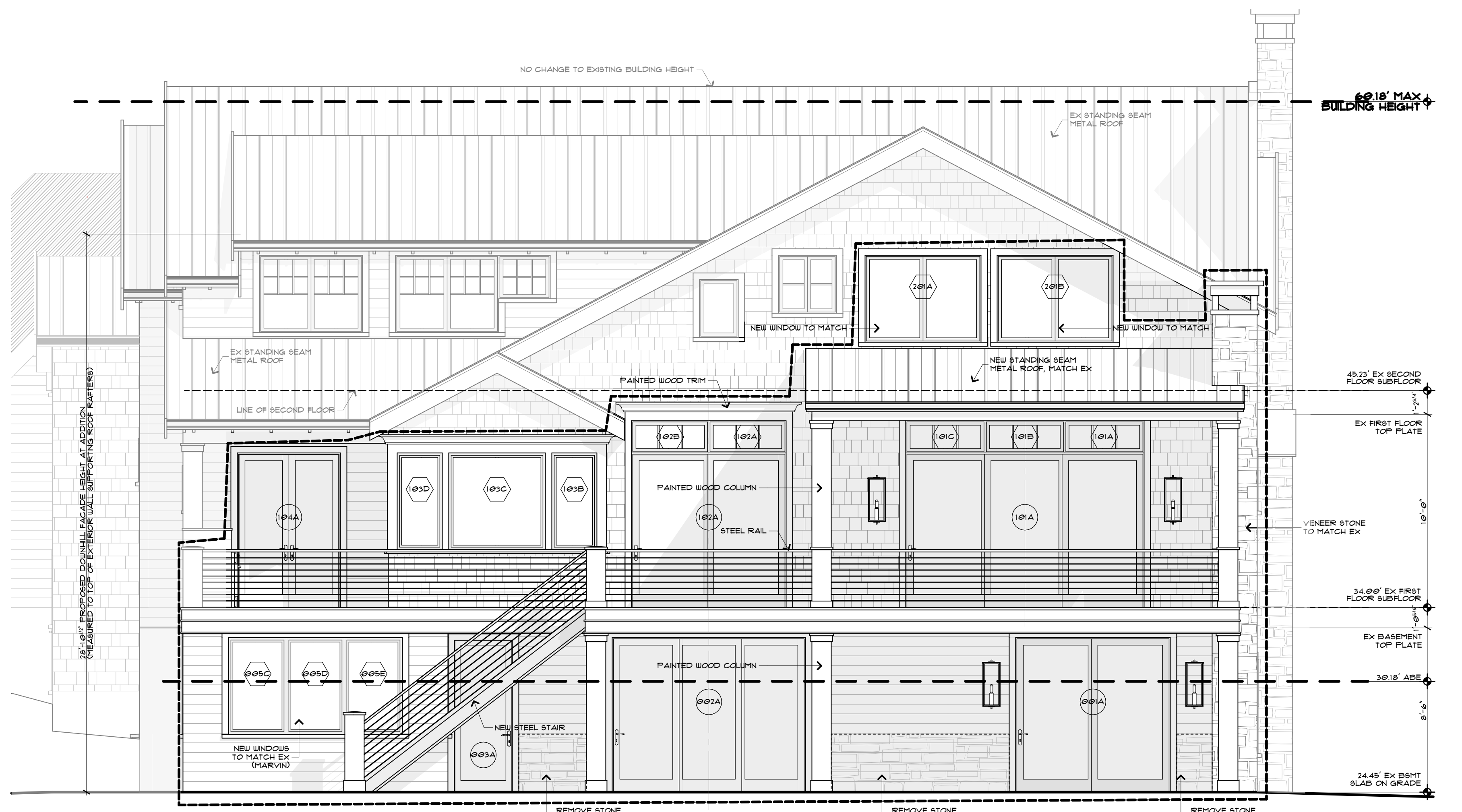
ANDERSON



**SOUTH ELEVATION**

01

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



**EAST ELEVATION**

04

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

**AVERAGE BUILDING ELEVATION CALCS:**

ELEVATION POINT "A"	33.80
SEGMENT LENGTH "A"	25.00
ELEVATION POINT "B"	845.00
SEGMENT LENGTH "B"	5.50
ELEVATION POINT "C"	184.25
SEGMENT LENGTH "C"	32.20
ELEVATION POINT "D"	354.20
SEGMENT LENGTH "D"	31.80
ELEVATION POINT "E"	222.60
SEGMENT LENGTH "E"	31.75
ELEVATION POINT "F"	2.00
SEGMENT LENGTH "F"	63.50
ELEVATION POINT "G"	29.90
SEGMENT LENGTH "G"	32.25
ELEVATION POINT "H"	994.18
SEGMENT LENGTH "H"	24.00
ELEVATION POINT "I"	4187
SEGMENT LENGTH "I"	1004.88
ELEVATION POINT "J"	28.00
SEGMENT LENGTH "J"	9.75
ELEVATION POINT "K"	254.00
SEGMENT LENGTH "K"	24.00
ELEVATION POINT "L"	16.67
SEGMENT LENGTH "L"	328.08
ELEVATION POINT "M"	25.00
SEGMENT LENGTH "M"	17.50
ELEVATION POINT "N"	437.50
SEGMENT LENGTH "N"	25.00
ELEVATION POINT "O"	2.25
SEGMENT LENGTH "O"	56.25
ELEVATION POINT "P"	25.75
SEGMENT LENGTH "P"	16.75
ELEVATION POINT "Q"	493.31
SEGMENT LENGTH "Q"	26.50
ELEVATION POINT "R"	4.50
SEGMENT LENGTH "R"	119.25
ELEVATION POINT "S"	27.50
SEGMENT LENGTH "S"	4.42
ELEVATION POINT "T"	396.55
SEGMENT LENGTH "T"	28.50
ELEVATION POINT "U"	4.00
SEGMENT LENGTH "U"	114.00
ELEVATION POINT "V"	31.25
SEGMENT LENGTH "V"	49.58
ELEVATION POINT "W"	1549.38
SEGMENT LENGTH "W"	33.25
ELEVATION POINT "X"	448.88
SEGMENT LENGTH "X"	13.50
ELEVATION POINT "Y"	23.75
SEGMENT LENGTH "Y"	14.33
ELEVATION POINT "Z"	483.64
SEGMENT LENGTH "Z"	34.00
ELEVATION POINT "AA"	16.50
SEGMENT LENGTH "AA"	561.00
ELEVATION POINT "AB"	33.50
SEGMENT LENGTH "AB"	26.50
ELEVATION POINT "AC"	887.75
SEGMENT LENGTH "AC"	33.50
ELEVATION POINT "AD"	9.25
SEGMENT LENGTH "AD"	309.88
ELEVATION POINT "AE"	33.50
SEGMENT LENGTH "AE"	40.25
ELEVATION POINT "AF"	1548.38
SEGMENT LENGTH "AF"	33.50
ELEVATION POINT "AG"	7.42
SEGMENT LENGTH "AG"	248.57
ELEVATION POINT "AH"	33.50
SEGMENT LENGTH "AH"	5.50
ELEVATION POINT "AI"	184.25
SEGMENT LENGTH "AI"	11807.26
TOTAL OF ELEVATION POINTS x SEGMENT LENGTHS	39129
TOTAL SEGMENT LENGTHS	30.18
AVERAGE GRADE	

**WINDOW SCHEDULE:**

ALL SCHEDULED DIMENSIONS ARE NOMINAL. RE: MFR DOCUMENTATION + HEAD HEIGHT DETAIL, THIS SHEET, FOR ACTUAL DIMENSIONS

WDW #	WIDTH	HEIGHT	HEADER	TYPE	FINISH	GLAZING	WDW COVERING	OPERATION	HARDWARE	NOTES
005A	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005B	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005C	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005D	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005E	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005F	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
005G	3'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
006A	3'-0"	4'-0"	7'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
101A	4'-11"	1'-8"	9'-8"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
101B	4'-11"	1'-8"	9'-8"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
101C	4'-11"	1'-8"	9'-8"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
102A	4'-0"	1'-8"	9'-8"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
102B	4'-0"	1'-8"	9'-8"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
103B	2'-4"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
103C	5'-0"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
103D	2'-4"	5'-0"	8'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
201A	6'-0"	4'-6"	7'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD
201B	6'-0"	4'-6"	7'-0"	CASEMENT	PAINTED	L6E2 272	---	---	---	TBD

**EXTERIOR DOOR SCHEDULE:**

ALL SCHEDULED DIMENSIONS ARE NOMINAL. RE: MFR DOCUMENTATION + HEAD HEIGHT DETAIL, THIS SHEET, FOR ACTUAL DIMENSIONS

DOOR #	WIDTH	HEIGHT	TYPE	DOOR LEAF	MATERIAL	FINISH	GLAZING	HARDWARE	NOTES
D02A	8'-0"	8'-0"	SLIDER	FULL LIGHT	CLAD WOOD	PAINTED	L6E2 272	TBD	
D03A	3'-0"	8'-0"	SWING	FULL LIGHT	CLAD WOOD	PAINTED	L6E2 272	TBD	
101A	12'-4"	8'-0"	MULTI-SLIDE	FULL LIGHT	CLAD WOOD	PAINTED	L6E2 272	TBD	
102A	8'-0"	8'-0"	SLIDER	FULL LIGHT	CLAD WOOD	PAINTED	L6E2 272	TBD	
104A	5'-4"	8'-0"	SWING	FULL LIGHT	CLAD WOOD	PAINTED	L6E2 272	TBD	



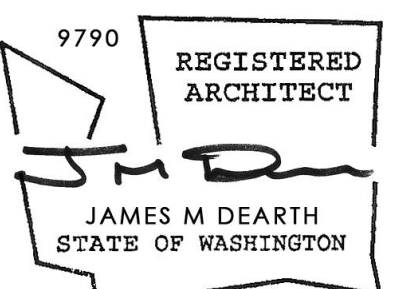
**NORTH ELEVATION**

03

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



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**BUILDING ELEVATIONS**  
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RELEASE  
27 MARCH 2026

A 3.1  
ANDERSON

## GENERAL STRUCTURAL NOTES

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

### DESIGN CRITERIA

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE (IBC) 2021 EDITION, AND LOCAL MODIFICATIONS TO THE IBC.
- DESIGN LOADING CRITERIA  
DECK LIVE LOAD 60 PSF  
SNOW 25 PSF  
WIND METHOD- DIRECTIONAL PROCEDURE  
Kzt=1.00, Gcfd=0.18, 100MPH (RISK CATEGORY II), EXPOSURE 'C'  
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE  
EARTHQUAKE LATERAL SYSTEM: LIGHT FRAMED SHEARWALLS  
SDC D, SITE CLASS D, Ie=1.0, Ss=1.438, S1=0.499, Sds=0.959, Sd1=null, Cs=0.147, R=6.5  
SEISMIC DESIGN BASE SHEAR Vsx=21.2 KIPS
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION."
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

### QUALITY ASSURANCE

- SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE IBC BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE STRUCTURAL ENGINEERS AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION SHALL BE PERFORMED.

PILE SUPPORTED FOUNDATIONS	PER SOILS REPORT, TABLE 1705.7, AND TABLE 1705.8
----------------------------	--

### GEOTECHNICAL

- SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER.

2" DIAMETER EXTRA-STRONG PIPE PILE CAPACITY	3 TONS
---	--------

SOILS REPORT REFERENCE:	GEOTECHNICAL REPORT, REPORT NUMBER: 26-005 BY: PANGEO INC, DATED FEBRUARY 2026
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- 2" DIAMETER EXTRA STRONG PIPE PILES SHALL BE DRIVEN TO REFUSAL. REFUSAL SHALL BE DEFINED AS LESS THAN 1" PENETRATION IN (6)SECONDS DURING CONTINUOUS DRIVING OF A 90-LB JACK HAMMER UNDER THE FULL EFFORT OF THE OPERATOR. PIPE PILES SHALL BE INSTALLED IN STRICT ACCORDANCE TO SDCI DIRECTOR'S RULE 10-2009. STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE A OR B, Fy = 35 KSI. PILES SHALL BE DRIVEN IN NOMINAL SECTIONS AND CONNECTED WITH COMPRESSION FITTED SLEEVE COUPLERS. PIPE JOINTS SHOULD NOT BE WELDED TOGETHER. PILES SHALL BE PLACED WITHIN 3" OF SPECIFIED LOCATION. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO DRIVING PILES.

### RENOVATION

- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION. THE CONTRACTOR SHALL BRING ALL CONFLICTS AND DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT AND STRUCTURAL ENGINEER.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE RETAINED UNDAMAGED WHERE NOTED ON THE PLANS. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 PSF. ALL NEW OPENINGS THROUGH EXISTING CONCRETE OR MASONRY WALLS, SLABS, AND BEAMS SHALL BE ACCOMPLISHED BY SAW CUTTING WHEREVER POSSIBLE.
- CONTRACTOR SHALL CHECK FOR DRYROT AT ALL AREAS OF NEW WORK. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE STRUCTURAL ENGINEER OR ARCHITECT.
- WHERE NEW EXCAVATIONS EXTEND BELOW AND UNDERMINE EXISTING FOOTINGS, THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- DEMOLITION AND REMOVAL OF THE EXISTING SLAB ON GRADE OR EXISTING FLOOR FRAMING WILL RESULT IN AN UNBRACED CONDITION AT THE EXISTING FOUNDATION WALLS. EXCAVATIONS MAY ALSO EXTEND BELOW AND UNDERMINE THE EXISTING FOOTINGS. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PROVIDE TEMPORARY SUPPORT TO THE STRUCTURE AND EXISTING FOUNDATION AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE TO INSTALL ALL TEMPORARY SUPPORT AS REQUIRED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.

### CONCRETE

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH ACI 318 AND ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF fc = 2500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5 ½ SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. STRUCTURAL DESIGN IS BASED ON A CONCRETE STRENGTH OF fc = 2500 PSI, THEREFORE NO CONCRETE STRENGTH TESTING REQUIRED. CONCRETE EXPOSURE CATEGORIES ARE F1, S0, W0, AND C1.

- THE MINIMUM AMOUNTS OF CEMENT MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL (2) WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER/CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318-14 SECTION 26.12. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

- REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, fy=60 KSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy=40 KSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 1064. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, fy=60 KSI.

- DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #6 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 48 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:  
FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"  
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) 2"  
FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER) 1-1/2"  
COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 1-1/2"  
SLABS AND WALLS (INT FACE) GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

### MASONRY

- ADHERED MASONRY VENEER, 2-5/8" MAXIMUM THICKNESS AND 15PSF MAXIMUM UNIT WEIGHT SHALL BE ADHERED TO BACKING WALLS PER SECTION 1405.10 OF THE IBC. ADHERED MASONRY SHALL BE ABLE TO DEVELOP A SHEAR STRENGTH OF 50 PSI MINIMUM BETWEEN THE BACKING AND THE UNIT IN ACCORDANCE WITH ASTM C82 OR SHALL BE ADHERED PER ARTICLE 3.3C OF ACI 530.1/ASCE 6/TMS 604.

### ANCHORAGE

- EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-3G" EPOXY ADHESIVE AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-4057. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A36, UNO.

- HEAVY DUTY THREADED CONCRETE ANCHORS SPECIFIED ON THE DRAWINGS SHALL BE "TITEN HD SCREW ANCHORS" AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2713 AND ESR-1056 INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES.

- EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "STRONG-BOLT 2" ANCHORS AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT CONFORMANCE TO ICC-ES REPORT ESR-3037 AND IAPMO-UES REPORT ER-240, INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED.

### WOOD

- ALL 2x LUMBER SHALL BE KILN DRIED OR MC-19, AND ALL LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WOLB STANDARD GRADING RULES FOR WEST COAST LUMBER NO 17. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2x AND 3x MEMBERS)	HEM-FIR NO 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fb = 900 PSI
BEAMS	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4x MEMBERS)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6x AND LARGER)	DOUGLAS FIR-LARCH NO 2 MINIMUM BASE VALUE, Fc = 600 PSI
STUDS, PLATES AND MISC FRAMING		HEM-FIR NO 2 OR SPRUCE-PINE-FIR NO 2

- GLULAM MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND ANSI/AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA-EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. ALL CANTILEVER GLULAM BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI, E = 1800 KSI, UNO. GLUED LAMINATED COLUMNS SHALL BE DOUGLAS FIR COMBINATION 3, L2D GRADE, Fc = 2300 PSI, Fb = 2000 PSI, E = 1900 KSI.

- MANUFACTURED LUMBER, PSL, LVL, AND LSL, SHALL BE MANUFACTURED UNDER A PROCESS APPROVED BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL PSL, LVL, AND LSL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH ICC-ES REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUE WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:

PSL (2.0E)	Fb = 2900 PSI	E = 2000 KSI	Fv = 290 PSI
LVL (2.0E)	Fb = 2600 PSI	E = 2000 KSI	Fv = 285 PSI
LSL (1.55E)	Fb = 2325 PSI	E = 1550 KSI	Fv = 310 PSI
PSL COLUMN (1.8E)	Fc = 2500 PSI	E = 1800 KSI	Fv = 190 PSI

DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND

APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEEDS THIS VALUE.

- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH DOC PS-1 OR PS-2. ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

WALL SHEATHING SHALL BE 7/16" or 1/2" (NOMINAL) WITH SPAN RATING 24/0

WATERPROOF DECK SHEATHING SHALL BE 3/4" T&G (NOMINAL) WITH SPAN RATING 48/24

ROOF SHEATHING SHALL BE 1/2" OR 7/16" (NOMINAL) WITH SPAN RATING 32/16 FOR ROOFS WITH A PITCH GREATER THAN 2:12

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING REQUIREMENTS.

- ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2)LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

- PRESSURE TREATED WOOD (INCLUDES PRESERVATIVE AND FIRE TREATED) SHALL BE TREATED PER AWPA STANDARDS. PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO RETENTION OF 0.25 PCF. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. SODIUM BORATE (SBB) TREATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS WITHOUT AMMONIA IN DIRECT CONTACT WITH ACQ-A TO A RETENTION LEVEL OF 0.40 PCF, CBA-A (UP TO A RETENTION LEVEL OF 0.41 PCF), CA-B (UP TO A RETENTION LEVEL OF 0.21 PCF), SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS WITH AMMONIA IN DIRECT CONTACT WITH ACQ-A (OVER A RETENTION LEVEL OF 0.40 PCF), CBA-A (OVER A RETENTION LEVEL OF 0.41 PCF), CA-B (OVER A RETENTION LEVEL OF 0.21 PCF), OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.

- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2x JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "JUS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIU" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT (2)MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

- WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	TYPE	LENGTH	DIAMETER
8d	COMMON	2-1/2"	0.131"
10d	GUN	3"	0.131"
12d	GUN	3-1/4"	0.131"
16d	GUN	3-1/2"	0.131"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.

- ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2015 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES/MEMBERS. BOLTS SHALL NOT BE FORCIBLY DRIVEN.

- SDS SERIES WOOD SCREWS CALLED OUT ON PLAN SHALL BE "SIMPSON STRONG-DRIVE" WOOD SCREWS BY SIMPSON COMPANY, AND INSTALLED IN STRICT ACCORDANCE TO ICC-ES REPORT ESR-2236. EQUIVALENT SCREWS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. LAG SCREWS ARE NOT AN EQUIVALENT SUBSTITUTION.

- WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS NOTED OTHERWISE ON THE PLANS:

A. ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC, THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING SHALL CONFORM TO TABLE 2304.10.1. OF THE IBC, UNO. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

B. WALL FRAMING: REFER TO ARCHITECTURAL DRAWINGS FOR THE SIZE OF ALL WALLS. ALL STUDS SHALL BE SPACED AT 16"oc, UNO. (2)STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS, AND AT BEAM OR HEADER BEARING LOCATIONS. (2)X8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS IN STRUCTURAL WALLS, UNO. NAIL MULTI-MEMBER HEADERS WITH (2)ROWS 10d AT 12"oc. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT.

ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE AND BOTTOM PLATE TO EACH STUD WITH (3)10d NAILS. FACE NAIL DOUBLE TOP PLATES WITH 10d AT 12"oc AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE (12)10d NAILS AT 4"oc EACH SIDE OF JOINT. AT TOP PLATE INTERSECTIONS PROVIDE (3)10d FACE NAILS.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH (2)ROWS OF 12d NAILS AT 16"oc, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 4"oc EMBEDDED 7" MINIMUM, UNO. THERE SHALL BE A MINIMUM OF (2)BOLTS PER PLATE SECTION WITH (1)BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4-1/2" FROM EACH END OF THE PLATE SECTION. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH (2)ROWS OF 10d AT 16"oc. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH #6 x 1-1/4" TYPE S OR W SCREWS AT 12"oc. UNLESS NOTED OTHERWISE, 7/16" or 1/2" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAILS AT 6"oc AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UN-SUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS AT 12"oc. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND PANEL ENDS.

- FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS, UNO. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL TIMBER JOISTS TO SUPPORTS WITH (3)10d NAILS AND NAIL TJI JOISTS TO SUPPORTS WITH (2)10d NAILS. ATTACH JOISTS TO BEAMS WITH SIMPSON JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH (2)ROWS 10d AT 12"oc. TOENAIL RIM JOIST TO TOP PLATE WITH 10d AT 6"oc. TOENAIL BLOCKING BETWEEN JOISTS TO TOP PLATE WITH (3)10d NAILS.

UNLESS NOTED OTHERWISE ON THE PLANS, PLYWOOD ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AT 6"oc WITH 8d NAILS TO FRAMED PANEL EDGES, STRUTS AND OVER STUD WALLS AS SHOWN ON PLANS AND AT 12"oc TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 10d AT 12"oc, UNO.

- NOTCHES AND HOLES IN WOOD FRAMING:

A. SAWN LUMBER JOISTS AND RAFTERS: NOTCHES AT THE ENDS OF JOISTS SHALL NOT EXCEED 1/4 THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH, BE LONGER THAN 1/3 THE JOIST DEPTH, OR BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. HOLES SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER SHALL NOT EXCEED 1/3 THE JOIST DEPTH. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL BE LOCATED AT THE SAME SECTION AS A NOTCH.

B. EXTERIOR AND BEARING WALLS: WOOD STUDS ARE PERMITTED TO BE NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED IN WOOD STUDS. HOLES SHALL NOT BE WITHIN 5/8" TO THE EDGE OF THE STUD. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2)TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL NOT BE LOCATED AT THE SAME SECTION AS A NOTCH.

C. CUTS, NOTCHES, AND HOLES IN MANUFACTURED LUMBER, PREFABRICATED PLYWOOD WEB JOISTS, AND PREFABRICATED TRUSSES ARE PROHIBITED EXCEPT WHERE NOTED ON STRUCTURAL PLANS OR PERMITTED BY MANUFACTURER'S RECOMMENDATIONS.

### STEEL

- WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, Fy= 50 KSI. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO ASTM A500, GRADE B, Fy=46 KSI (SQUARE AND RECTANGULAR). STRUCTURAL PIPE SHALL CONFORM TO ASTM A53, GRADE B, Fy = 35 KSI. OTHER ROLLED SHAPES INCLUDING PLATES AND RODS, SHALL CONFORM TO ASTM A36, Fy= 36 KSI. CONNECTION BOLTS SHALL CONFORM TO ASTM F1554 GRADE 325, UNO. COMMON BOLTS AT WOOD APPLICATIONS SHALL CONFORM TO ASTM A307.

- ARCHITECTURAL EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

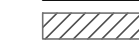
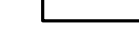
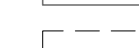
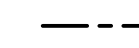

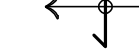

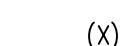
- ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED.

### ABBREVIATIONS

±	PLUS OR MINUS	HT	HEIGHT
↳	CENTRALINE	IBC	INTERNATIONAL BUILDING CODE
∅	DIAMETER	INT	INTERIOR
⋈	PLATE	JST	JOIST
AB	ANCHOR BOLT	k	KIP (1,000 pounds)
ADDL	ADDITIONAL	KP	KING POST
ALT	ALTERNATE	KSI	KIPS PER SQUARE INCH
ARCH	ARCHITECT	L	LENGTH
	ARCHITECTURAL	lb, #	POUNDS
BOT	BOTTOM	lf	LINEAL FOOT
BLK, BLKG	BLOCK, BLOCKING	LONG	LONGITUDINAL
BM	BEAM	LVL	LAMINATED STRUCTURAL LUMBER
BRG	BEARING	LVL	LAMINATED VENEER LUMBER
CIP	CAST-IN-PLACE	MIN	MINIMUM
CLR	CLEARANCE	MAX	MAXIMUM
CONT	CONTINUOUS	MB	MACHINE BOLT
CTR, CTRD	CENTER, CENTERED	MF	MOMENT FRAME
d	PENNY (NAILS)	MFR	MANUFACTURE, MANUFACTURER
∅	BAR DIAMETERS	MIN	MINIMUM
∅	DOUBLE	MIN	MINIMUM
DEMO	DEMOLISH, DEMOLITION	MISC	MISCELLANEOUS
DEPT	DEPARTMENT	NO, #	NUMBER
DET	DETAIL	NTS	NOT TO SCALE
DF	DOUG FIR	oc	ON CENTER
DIM	DIMENSION	OPP	OPPOSITE
DN	DOWN	OSB	ORIENTED STRAND BOARD
DS	DRAG STRUT	pcf	POUNDS PER CUBIC FOOT
DWG	DRAWING	PERP	PERPENDICULAR
(E)	EXISTING	plf	POUNDS PER LINEAL FOOT
EA	EACH	PLY	PLYWOOD
EF	EACH FACE	PREFAB	PREFABRICATED
EMBED	EMBEDMENT	psf	POUNDS PER SQUARE FOOT
ENGR	ENGINEER	PSI	POUNDS PER SQUARE INCH
EQ	EQUAL	PT	PRESSURE TREATED
EQUIV	EQUIVALENT	REINF	REINFORCING
ES	EACH SIDE	REQD	REQUIRED
EW	EACH WAY	SHTG	SHEATHING
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SOG	SLAB ON GRADE
FDN	FOUNDATION	SQ	SQUARE
FF	FAR FACE		



**LEGEND**

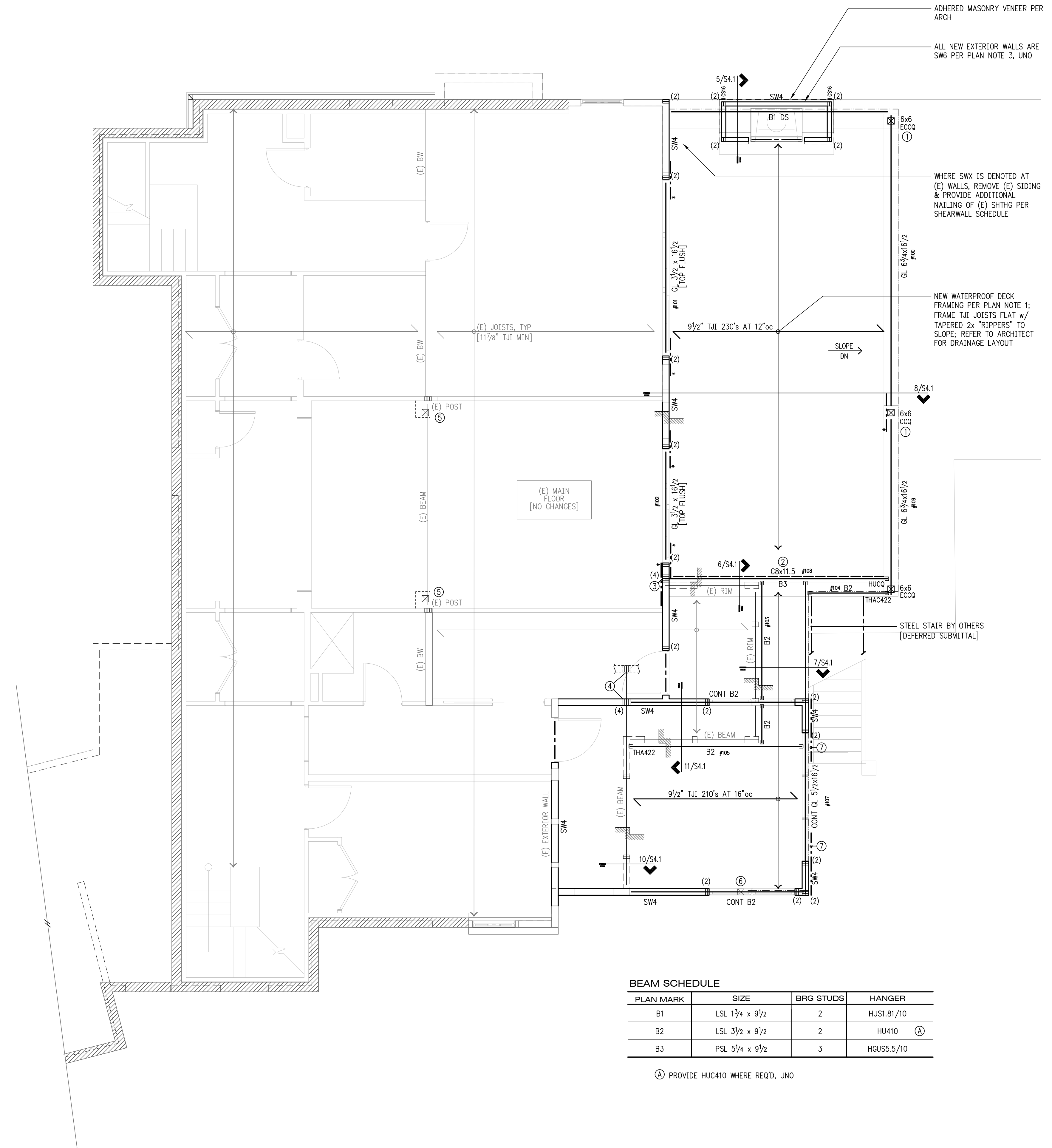
-  (E) FULL-HEIGHT CONCRETE
-  STRUCTURAL WALL BELOW
-  (E) STRUCTURAL WALL BELOW
-  STRUCTURAL WALL ABOVE
-  HEADER/BEAM BELOW FRAMING- TYP
-  (E) HEADER/BEAM BELOW FRAMING- TYP
-  SPAN AND EXTENTS
-  (E) SPAN AND EXTENTS
- (X) NUMBER OF BUILT UP STUDS
- BW BEARING WALL
- DECK BOUNDARY
- HORIZ CS16 x 3'-0" BEAM TO TOP PLATE OR BEAM TO RIM

**FOOTNOTES**

- ① AT POST ABOVE CONNECT WITH UPSIDE DOWN CCG/ECCQ COLUMN CAP
- ② SISTER CHANNEL TO WOOD BEAM w/ (2) 1/4"x3" SDS SCREWS AT 12"oc; w/(6) SCREWS AT EA END
- ③ NOTCH (E) RIM AND TOP PLATE TO LET IN NEW BEAM FOR BEARING ON BUILT-UP STUDS; PROVIDE HORIZ CS16 x 3'-0" WHERE BEAM INTERRUPTS TOP PLATE
- ④ DEMO (E) WALL AND MOVE BEAM SUPPORT TO NEW WALL; NOTIFY ENGINEER IF CONDITIONS VARY
- ⑤ PRIOR TO DEMOLISHING, VERIFY (E) PILASTER DOES NOT PROVIDE SUPPORT FOR (E) BEAM; NOTIFY ENGINEER IF CONDITIONS VARY
- ⑥ VERIFY EXISTING POST BEARS FIRMLY ON BEAM BELOW; AS REQ'D, PROVIDE NEW FULL-HEIGHT POST TO MATCH EXISTING AND CLIP TO BEAM w/ HGA10KT
- ⑦ PROVIDE HORIZ CS16 STRAP OVER WALL SHEATHING AT WINDOW SILL LEVEL; LAP 2'-0" AND NAIL TO DBL 2x6 SILL PLATE AT BOTTOM OF WINDOW AND EXTEND OVER FULL LENGTH OF ADJACENT SHEARWALL; NAIL TO FLAT 2x6 BLKG SNUG FIT BTWN STUDS

**PLAN NOTES**

1. TYPICAL WATERPROOF DECK FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING (SPAN RATING 48/24) OVER TAPERED 2x "RIPPERS" w/ MIN SLOPE OF 1/4" PER 1'-0" OVER TJI JOISTS PER PLAN, FRAMED FLAT.
2. NAIL AND GLUE DECK SHEATHING WITH 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND AT 12"oc IN FIELD, UNO.
3. "SW\_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 3/S4.0 FOR ADDITIONAL INFORMATION. ALL NEW EXTERIOR WALLS ARE SW6, UNO.
4. ALL NEW REQUIRED HEADERS ARE SHOWN ON PLAN AND SHALL BE (2)2x8's, UNO. REFER TO DETAIL 10/S4.0 FOR ADDITIONAL REQUIREMENTS.
5. PROVIDE (2)BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
6. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
7. TYPICAL NEW WALL FRAMING CONSISTS OF 2x6's AT 16"oc AT EXTERIOR WALLS AND 2x4's or 2x6's AT 16"oc AT INTERIOR WALLS PER ARCH DRAWINGS, UNO.
8. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
9. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL INFORMATION.
10. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.

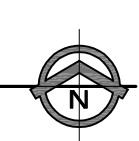


**BEAM SCHEDULE**

PLAN MARK	SIZE	BRG STUDS	HANGER
B1	LSL 1 3/4 x 9 1/2	2	HUS1.81/10
B2	LSL 3 1/2 x 9 1/2	2	HU410 (A)
B3	PSL 5 1/4 x 9 1/2	3	HGUSS.5/10

(A) PROVIDE HUC410 WHERE REQ'D, UNO

**(E) MAIN FLOOR & DECK FRAMING PLAN**  
 SCALE: 1/4" = 1'-0"





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Issue **Permit**  
 Date **3/11/2026**  
 Scale **As Noted**  
 Sheet Contents **(E) Upper Floor & Deck Roof Framing Plan**

Sheet Number **S2.2**

**LEGEND**

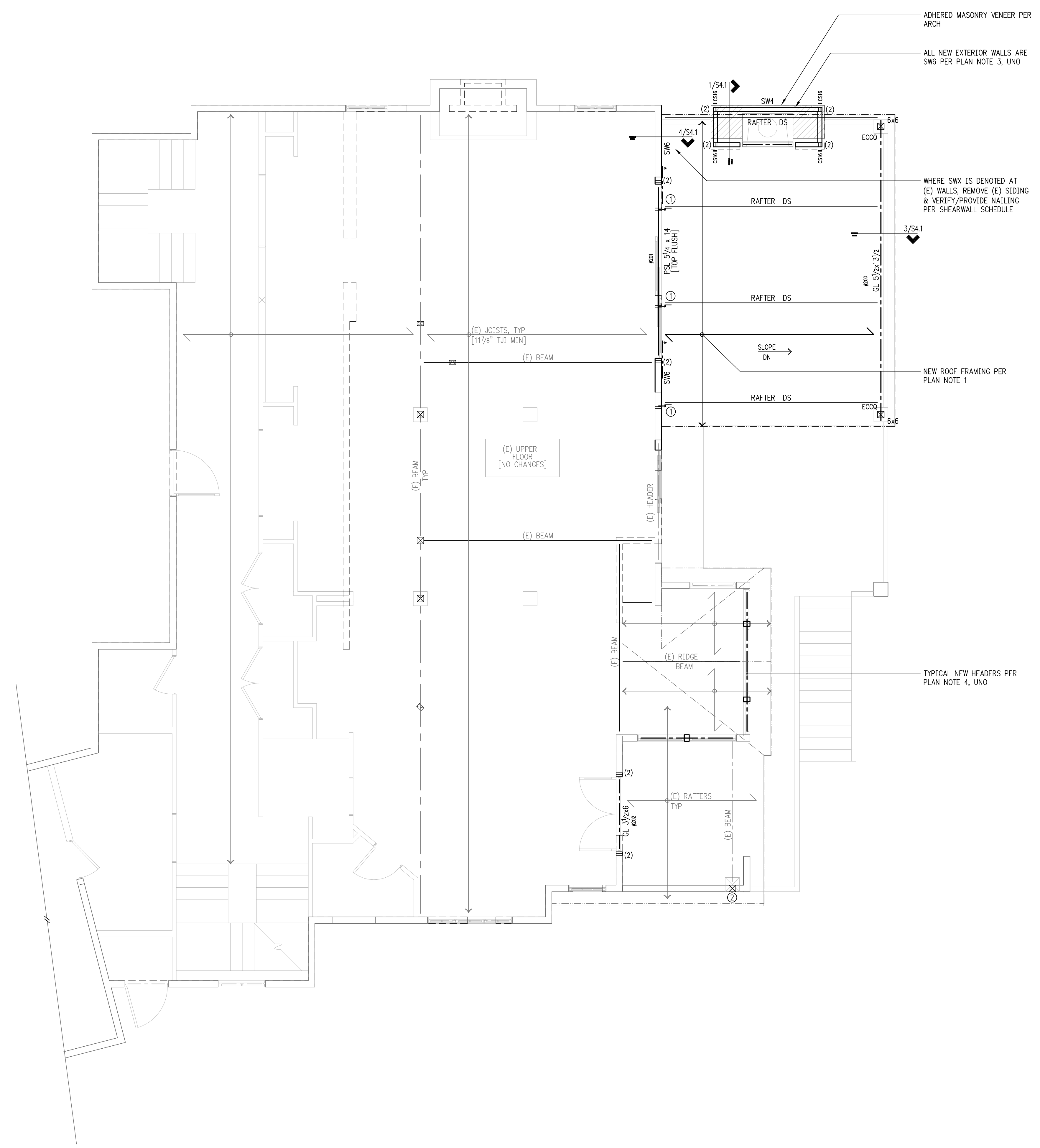
- STRUCTURAL WALL BELOW
- (E) STRUCTURAL WALL BELOW
- - - STRUCTURAL WALL ABOVE
- - - HEADER/BEAM BELOW FRAMING- TYP
- - - (E) HEADER/BEAM BELOW FRAMING- TYP
- ← → SPAN AND EXTENTS
- ← → (E) SPAN AND EXTENTS
- (X) NUMBER OF BUILT UP STUDS
- - - ROOF BOUNDARY
- - - (E) ROOF BOUNDARY
- ← SLOPE DN DIRECTION OF ROOF SLOPE
- DS DRAG STRUT- NAIL SHTHG w/ 8d AT 4'oc OVER FULL LENGTH OF MEMBER
- HORIZ CS16 x 3'-6" FLUSH BEAM TO (E) TOP PLATE

**FOOTNOTES**

- ① PROVIDE DTT12 w/ 3/8"x5" LAG SCREW INTO DBL STUD AT WINDOW FRAME
- ② VERIFY EXISTING POST BEARS FIRMLY ON BEAM BELOW; AS REQ'D, PROVIDE NEW FULL-HEIGHT POST TO MATCH EXISTING AND CLIP TO BEAM BELOW w/ HG10KT

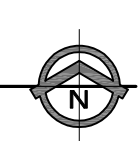
**PLAN NOTES**

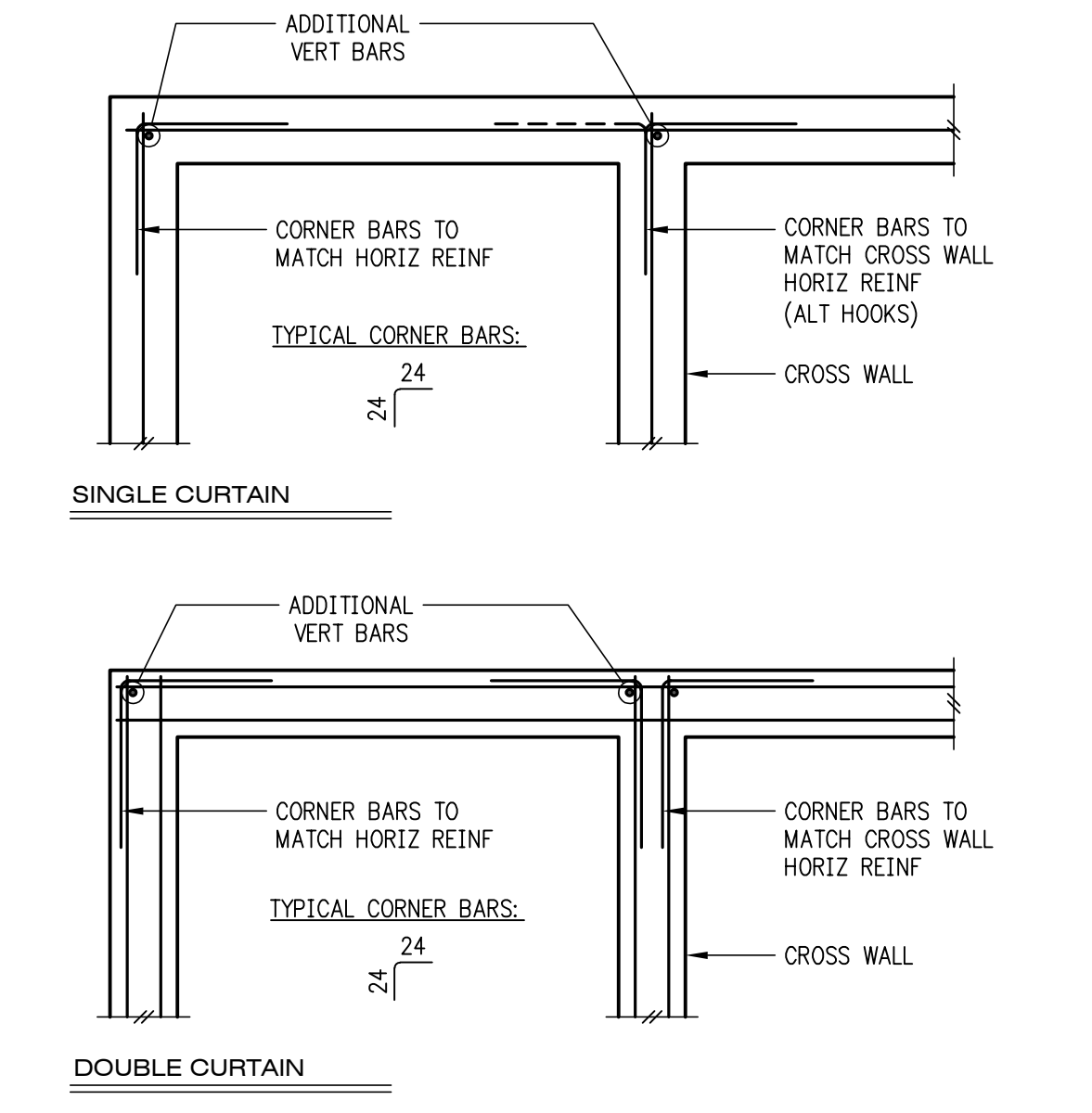
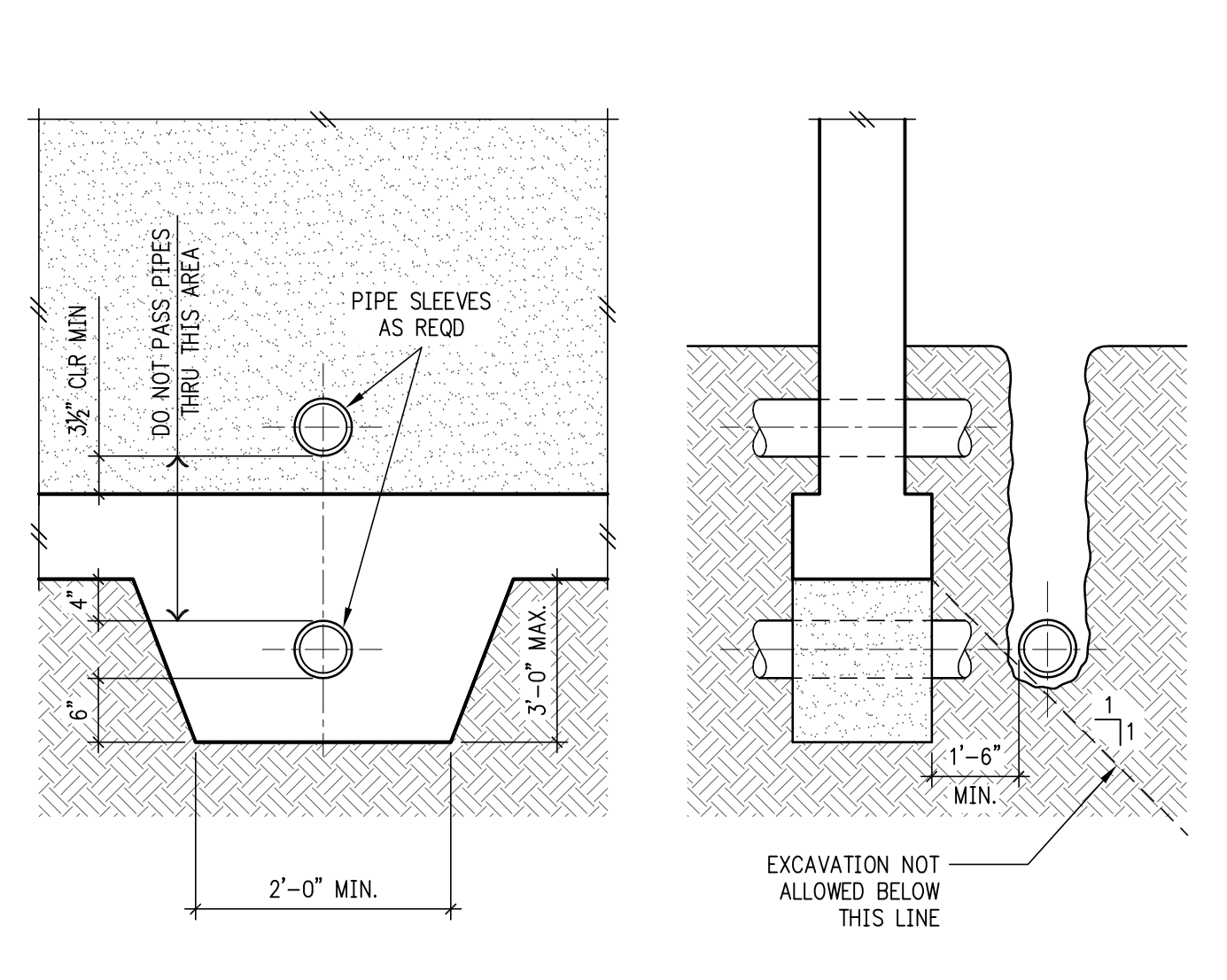
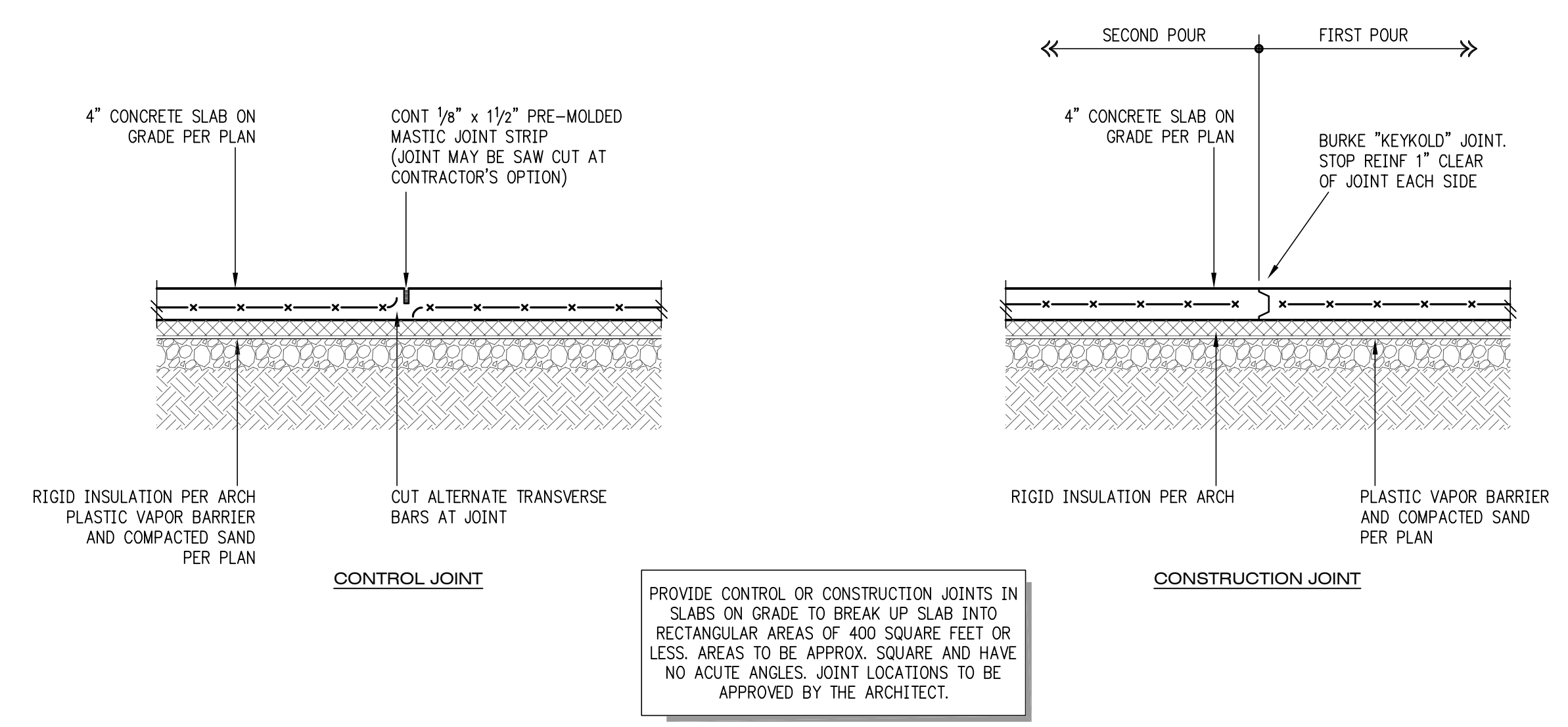
1. TYPICAL ROOF FRAMING CONSISTS OF 3/8" OR 1/2" T&G APA RATED SHEATHING (SPAN RATING 32/16) OVER 2x10's AT 16"oc. PROVIDE H2.5A CLIPS EACH END OF ALL RAFTERS, UNO.
2. NAIL ROOF SHEATHING WITH 8d AT 6"oc AT FRAMED PANEL EDGES AND OVER SHEARWALLS, AND WITH 8d AT 12"oc IN FIELD, UNO.
3. "SW\_" INDICATES SHEARWALL BELOW FRAMING SHOWN. REFER TO SHEARWALL SCHEDULE ON 3/S4.0 FOR ADDITIONAL INFORMATION. ALL NEW EXTERIOR WALLS ARE SW6, UNO.
4. ALL NEW REQUIRED HEADERS ARE SHOWN ON PLAN AND SHALL BE 4x6, UNO. REFER TO DETAIL 10/S4.0 FOR ADDITIONAL REQUIREMENTS.
5. PROVIDE (2) BEARING (TRIMMER) STUDS AT EACH END OF ALL HEADERS AND BEAMS 6'-0" IN LENGTH AND OVER, UNO.
6. WHERE POSTS OCCUR, PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, UNO.
7. TYPICAL NEW WALL FRAMING CONSISTS OF 2x4's or 2x6's AT 16"oc AT EXTERIOR AND INTERIOR WALLS PER ARCH DRAWINGS, UNO.
8. REFER TO SHEET S4.0 FOR TYPICAL WOOD FRAMING DETAILS.
9. REFER TO GENERAL STRUCTURAL NOTES SHEET S1.0 FOR ADDITIONAL INFORMATION.
10. DO NOT SCALE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS.



**(E) UPPER FLOOR & LOW ROOF FRAMING PLAN**

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

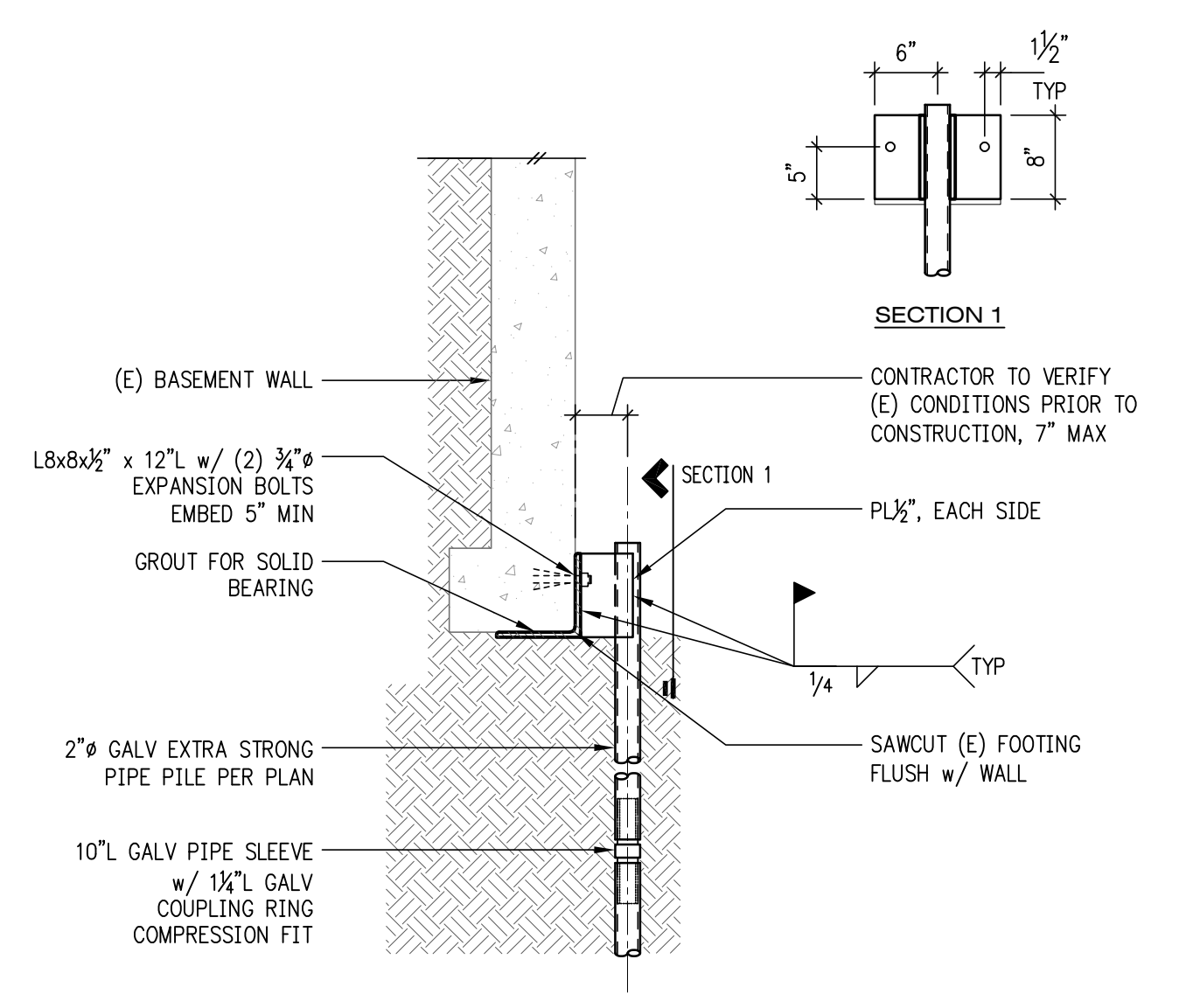




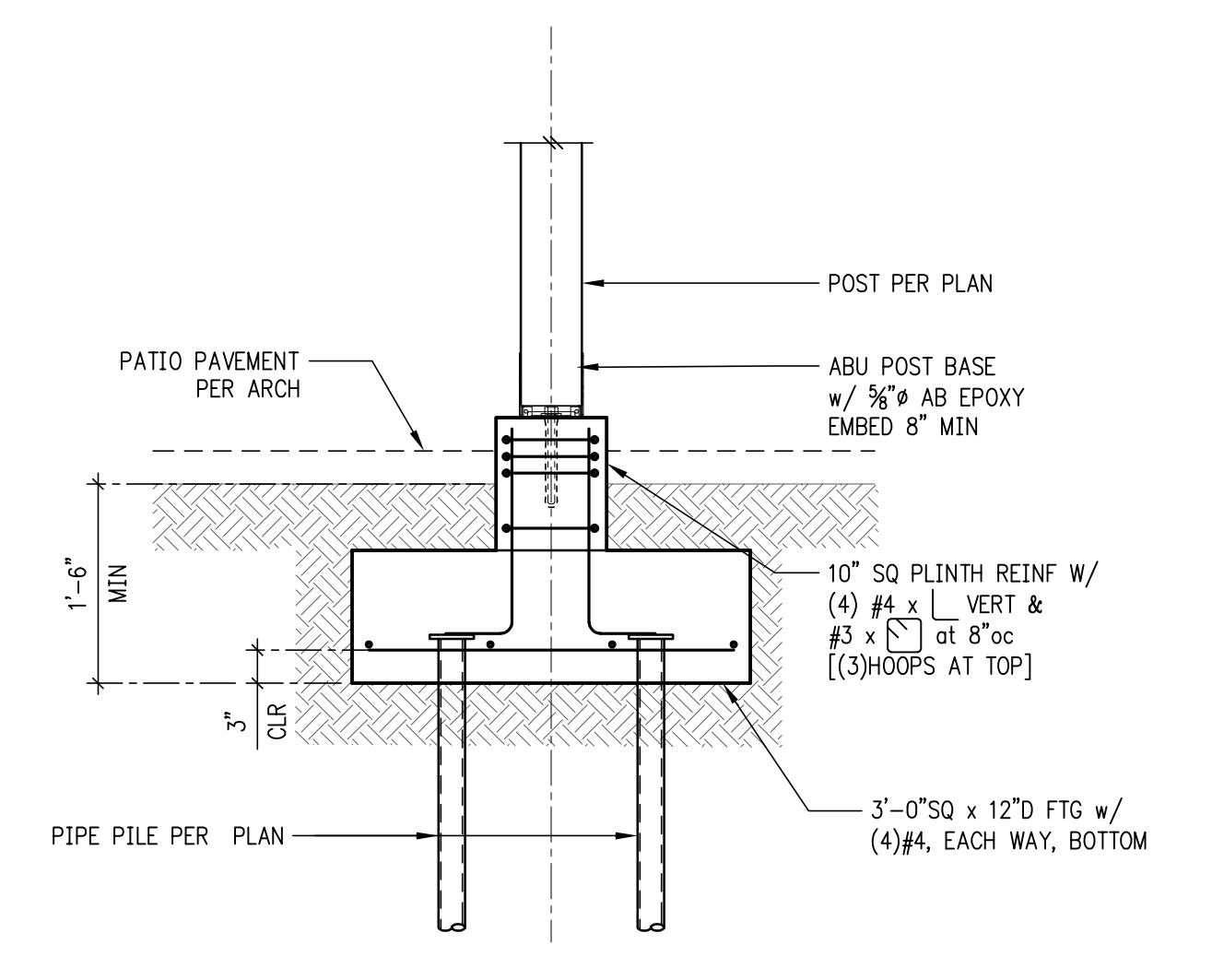
**1** Typical Slab Joints  
Scale: NTS

**3** Pipe and Trench Locations  
Scale: NTS

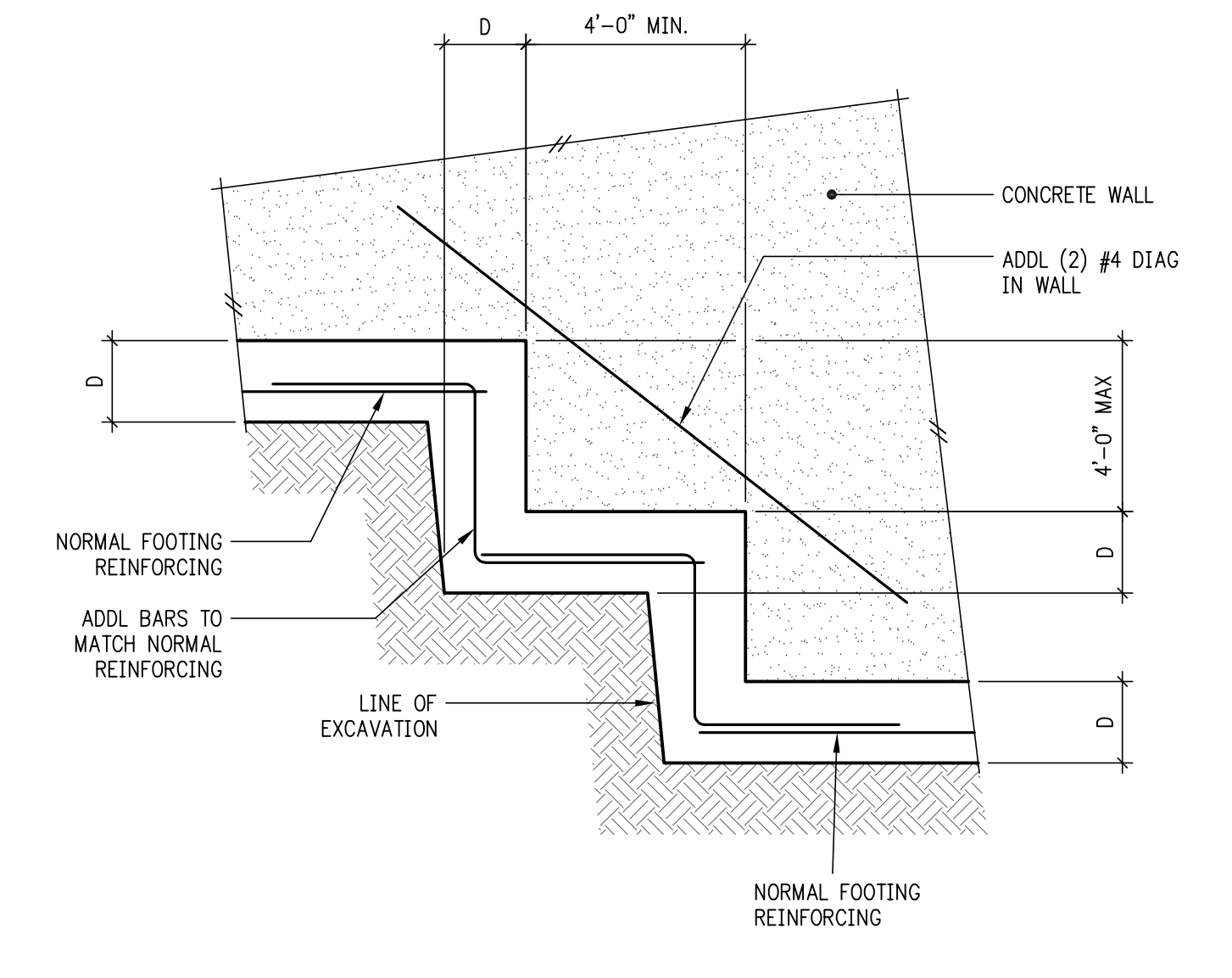
**4** Corner Bars at Concrete Walls & Footings  
Scale: NTS



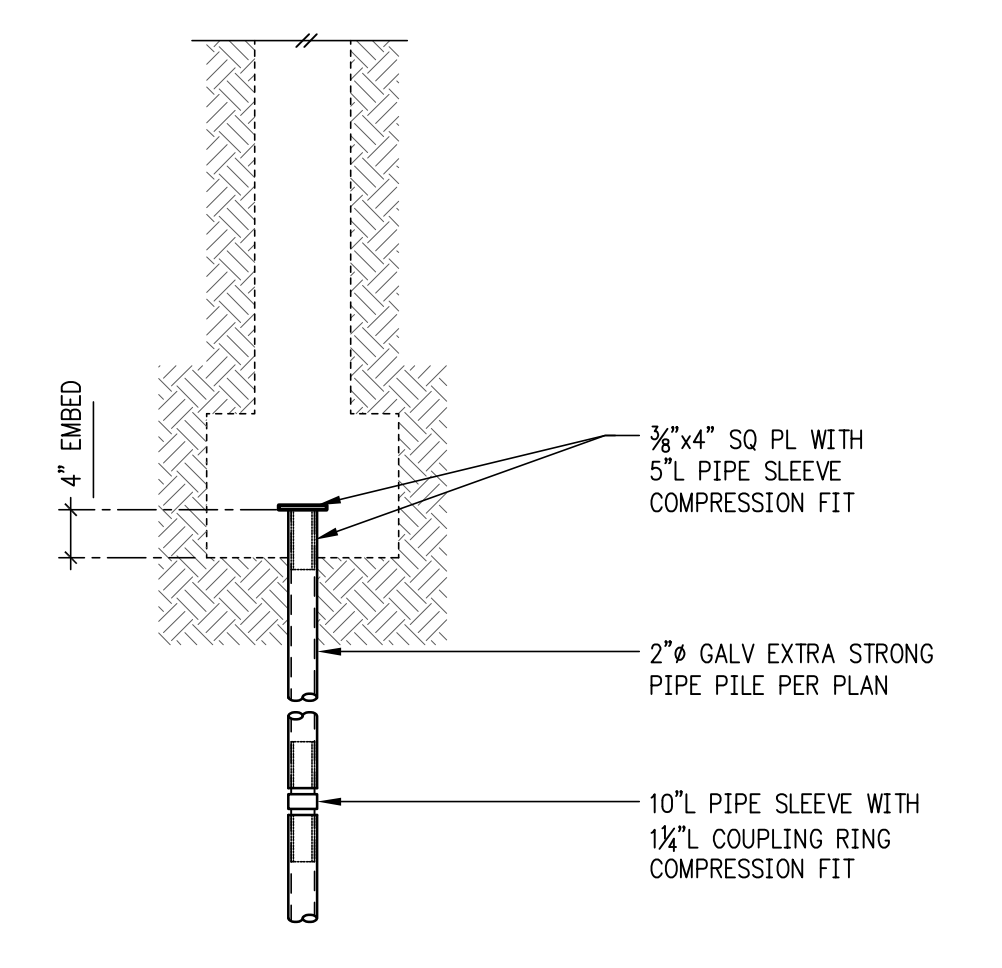
**5** Typical Bolt on Pile  
Scale: 3/4" = 1'-0"



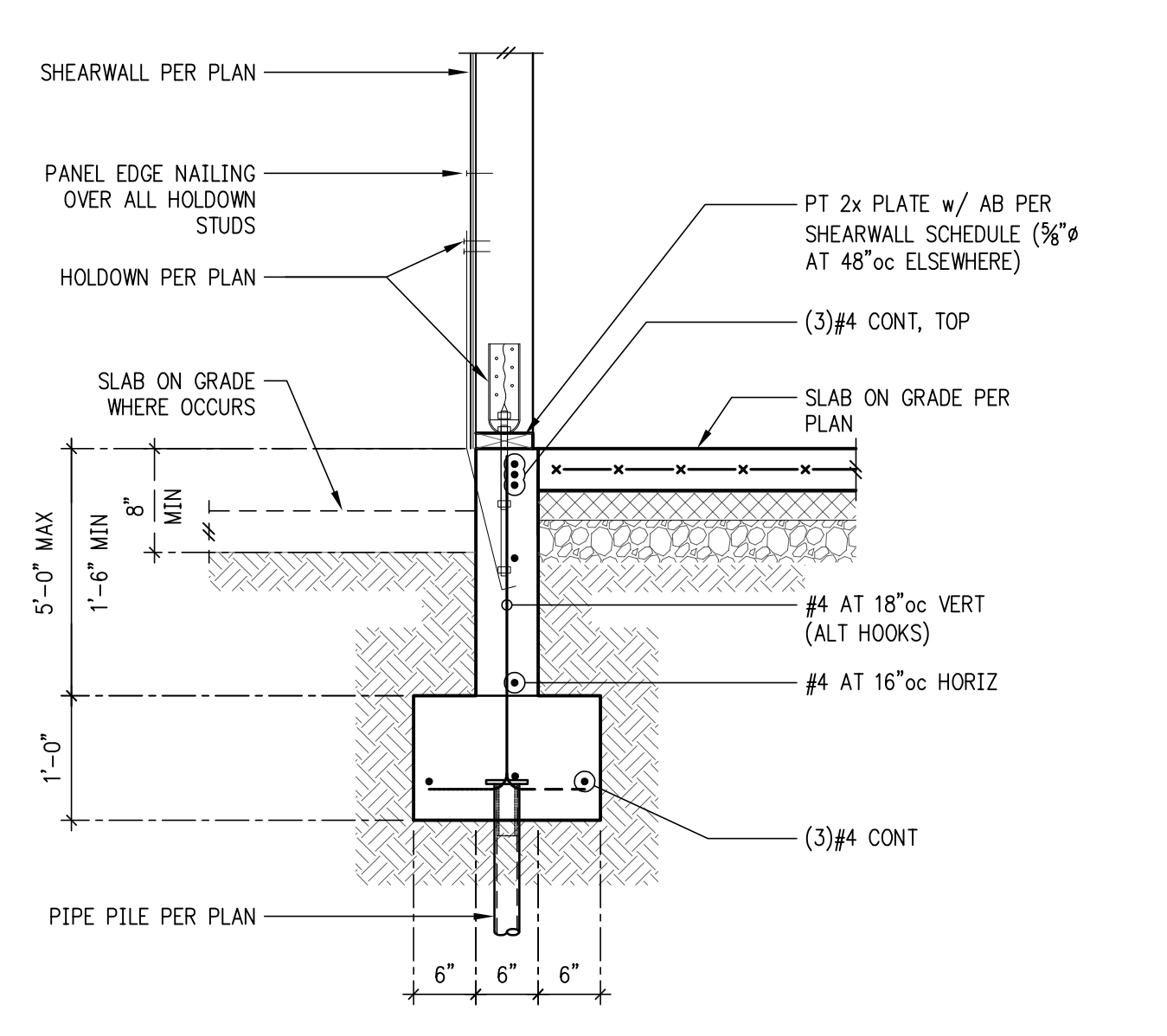
**7** Typical Deck Footing  
Scale: 3/4" = 1'-0"



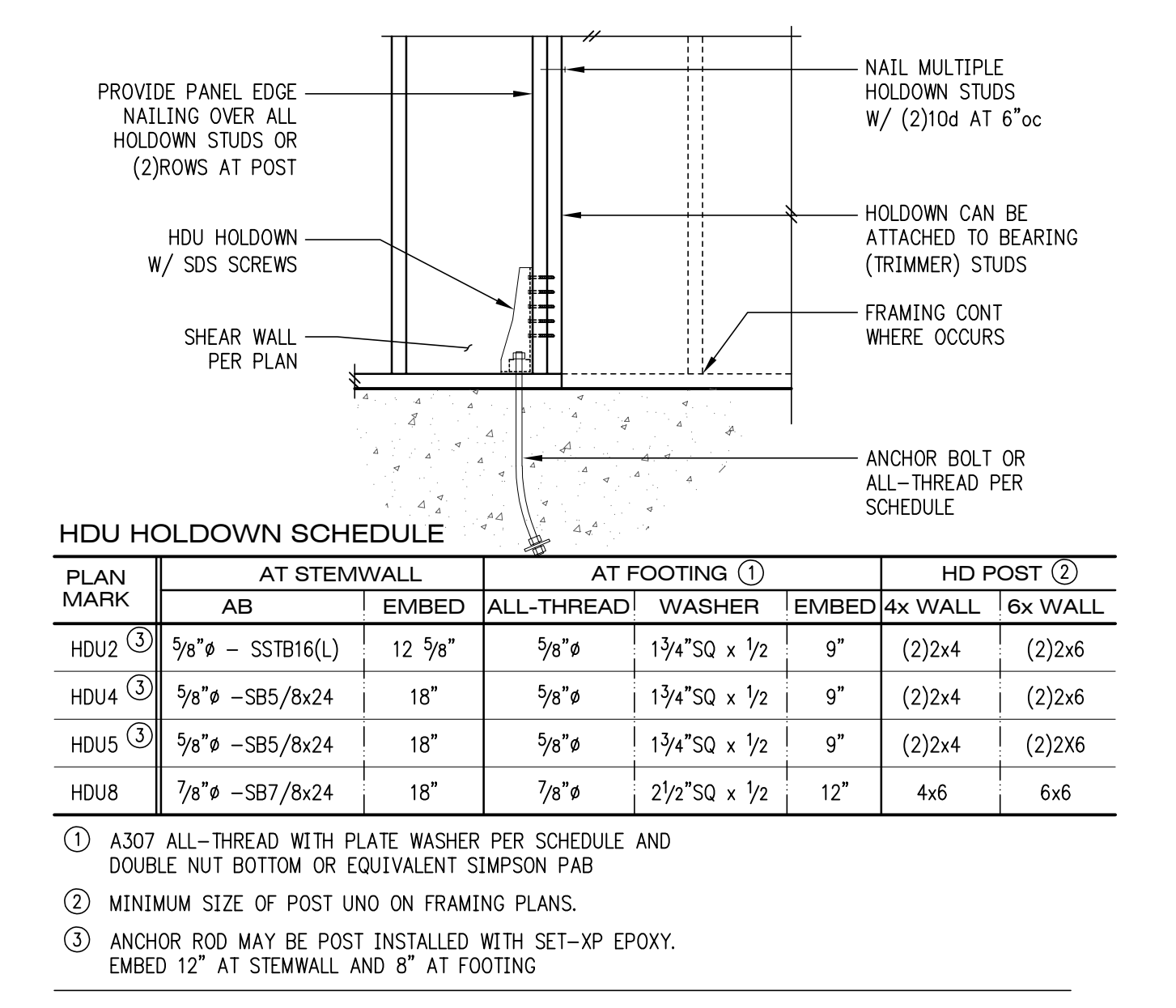
**8** Typical Stepped Footing  
Scale: NTS



**9** Typical Pipe Pile- 2" Diameter  
Scale: 3/4" = 1'-0"



**11** Exterior Wall w/ Slab on Grade  
Scale: 3/4" = 1'-0"



**12** Holdown Schedule  
Scale: NTS

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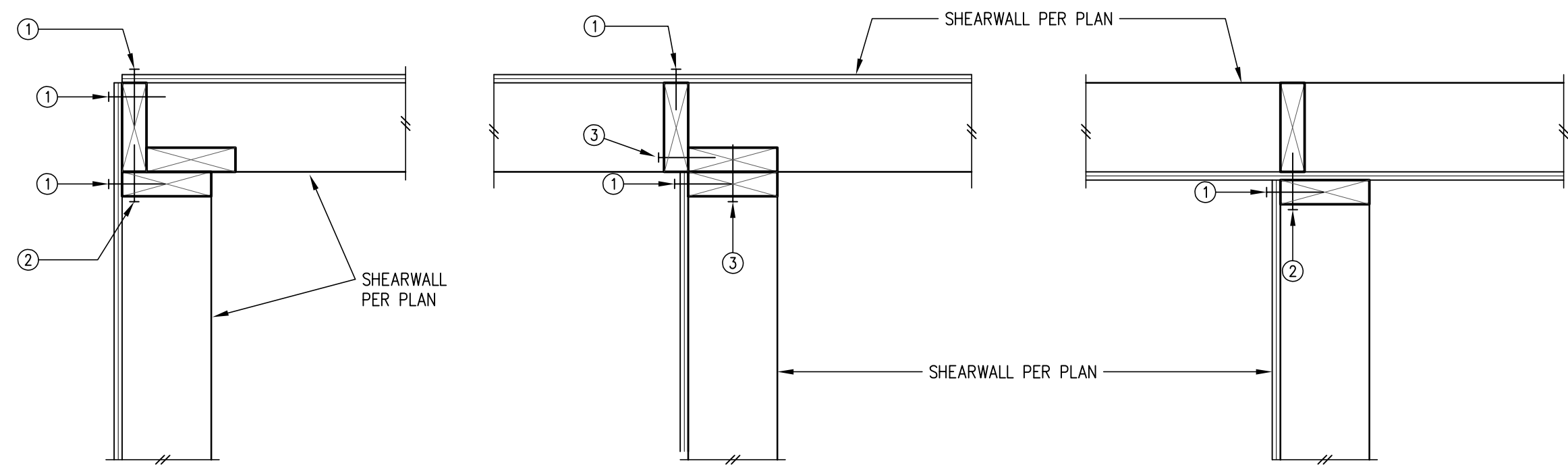
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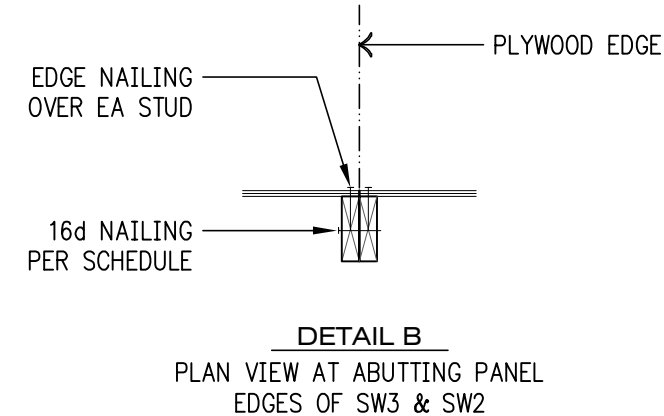
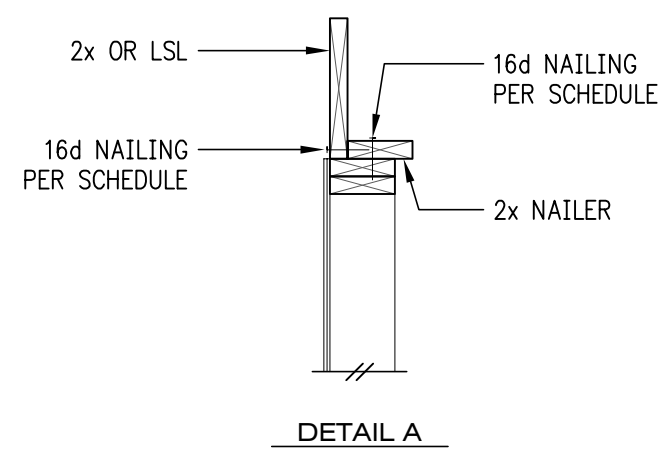
Date **3/11/2026**

Scale **As Noted**

Sheet Contents **Typical Concrete Details**



- ① PLYWOOD PANEL EDGE NAILING PER SHEARWALL SCHEDULE
- ② 10d NAILING PER SHEARWALL SCHEDULE
- ③ 10d NAILING PER SHEARWALL SCHEDULE OF HIGHER CAPACITY SHEARWALL or 10d AT 12"oc AT NON-SHEARWALLS



**SHEARWALL SCHEDULE** ① ② ③ ④ ⑤ ⑥ ⑦

MARK	SHEATHING	PANEL EDGE NAILING	TOP PLATE CONNECTION		BASE PLATE CONNECTION	
			TJI	RIM/BEAM ③	AT WOOD	AT CONCRETE
SW6	1/2" PLY or 7/16" OSB	8d AT 6"oc	10d AT 6"oc	A35 AT 30"oc ④	12d AT 6"oc	5/8" AB AT 48"oc
SW4	1/2" PLY or 7/16" OSB	8d AT 4"oc	10d AT 4"oc	A35 AT 18"oc ④	12d AT 4"oc	5/8" AB AT 42"oc
SW3 ④	1/2" PLY or 7/16" OSB	8d AT 3"oc	(2)ROWS 10d AT 6"oc	A35 AT 16"oc ④	(2)ROWS 12d AT 6"oc	5/8" AB AT 36"oc
SW2 ④	1/2" PLY or 7/16" OSB	8d AT 2"oc	(2)ROWS 10d AT 4"oc	A35 AT 12"oc ④	(2)ROWS 12d AT 4"oc	5/8" AB AT 24"oc

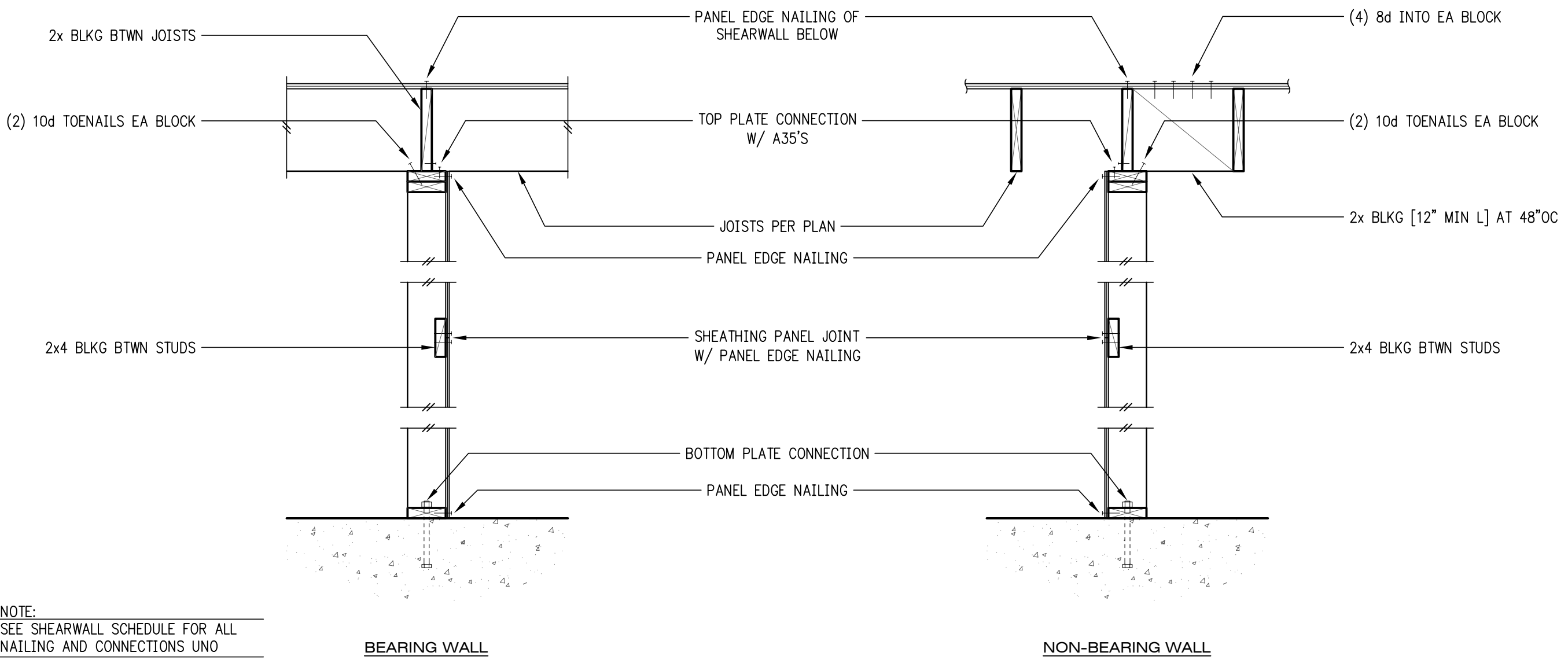
- ① BLOCK PANEL EDGES WITH 2x4 LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d AT 12"oc.
- ② 8d NAILS SHALL BE 0.131"φ x 2-1/2", 10d NAILS SHALL BE 0.131"φ x 3", AND 12d NAILS SHALL BE 0.131"φ x 3-1/4".
- ③ EMBED ANCHOR BOLTS AT LEAST 7". ALL BOLTS SHALL HAVE 3" x 3" x 0.229" PLATE WASHERS. THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) w/ SHEATHING.
- ④ 3x STUDS OR DBL STUDS NAILED TOGETHER w/ 10d OR 12d NAILING IS REQD AT ABUTTING PANEL EDGES OF SW3 & SW2. REFER TO DETAIL B. WHERE 3x STUDS ARE USED, STAGGER NAILS AT ADJOINING PANEL EDGES.
- ⑤ TWO STUDS MINIMUM OR POST PER PLAN ARE REQUIRED AT EACH END OF ALL SHEARWALLS AND ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING.
- ⑥ ALL EXTERIOR WALLS SHALL BE SW6, UNLESS NOTED OTHERWISE.
- ⑦ NAILS SHALL NOT BE SPACED LESS THAN 3/8" FROM EDGES OF SHEATHING. SHEATHING NAILS SHALL BE DRIVEN SO THEIR HEADS ARE FLUSH WITH SHEATHING (NOT COUNTERSUNK).
- ⑧ LTP4's INSTALLED OVER SHEATHING WITH 8d (0.131"φ x 2-1/2") NAILS MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ⑨ A 2x NAILER ATTACHED W/ BASEPLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- ⑩ SILL PLATE ANCHOR BOLTS MAY BE SUBSTITUTED WITH FRFP OR URFP FOUNDATION PLATES AT AB SPACING W/(2)2"x4" TITEN HD ANCHORS

**1 Plan View - Typical Shearwall Intersections**

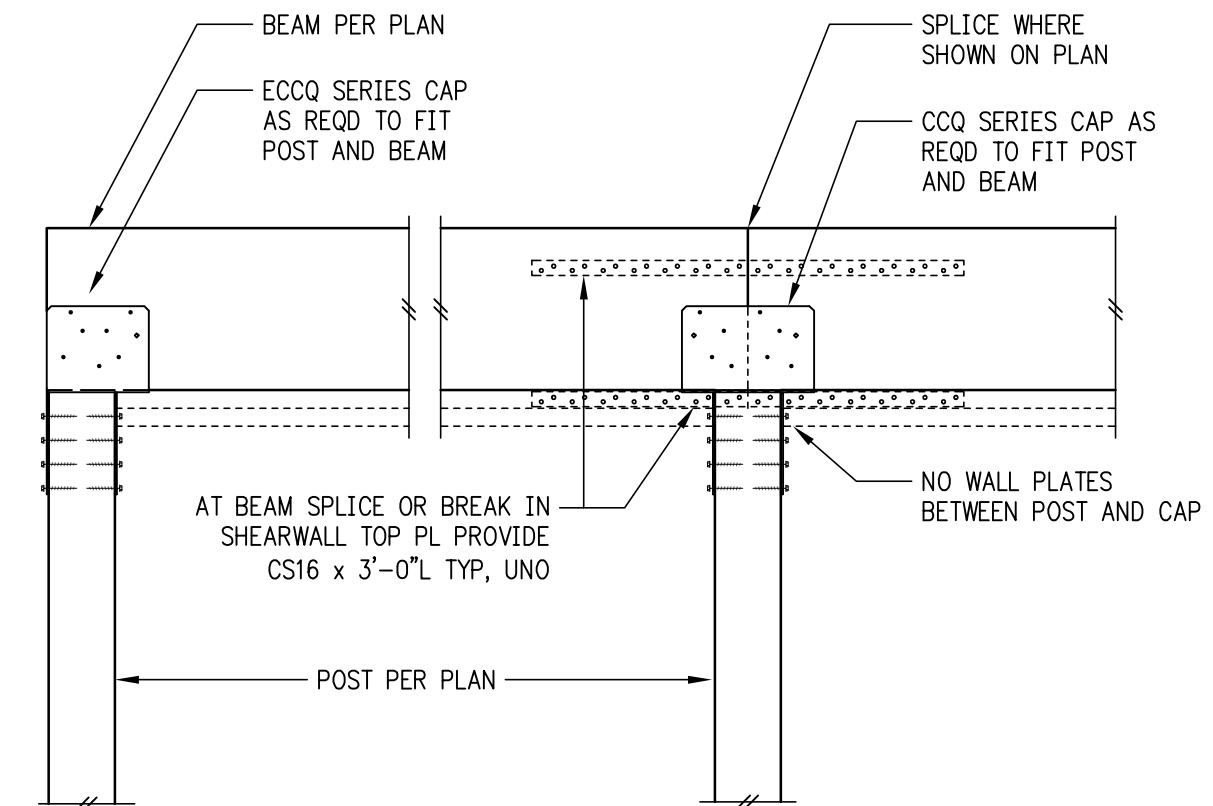
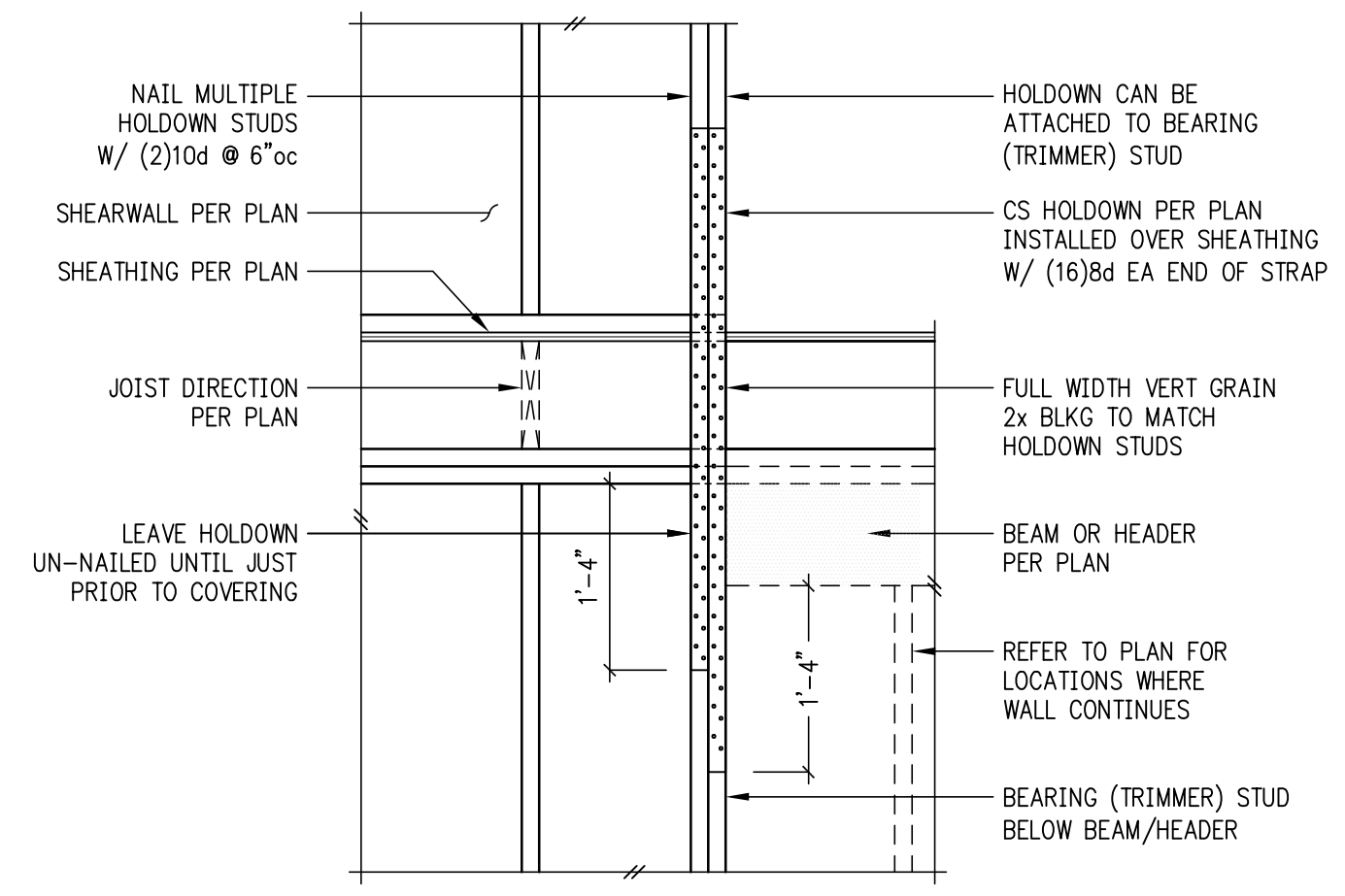
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**3 Shearwall Schedule**

Scale: NTS



NOTE:  
SEE SHEARWALL SCHEDULE FOR ALL NAILING AND CONNECTIONS UNO



**5 Typical Shearwall Construction**

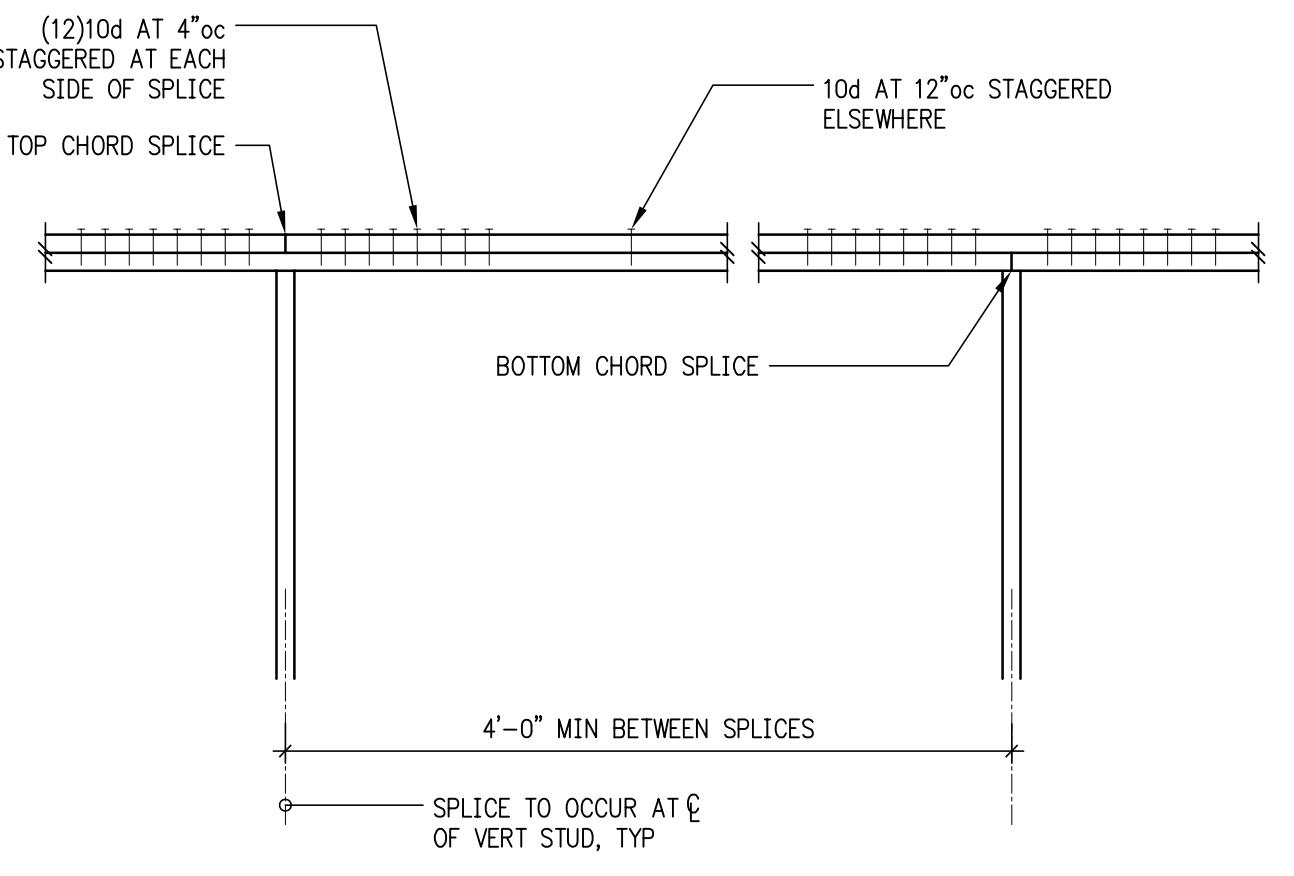
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**7 Typical CS16 Holdown**

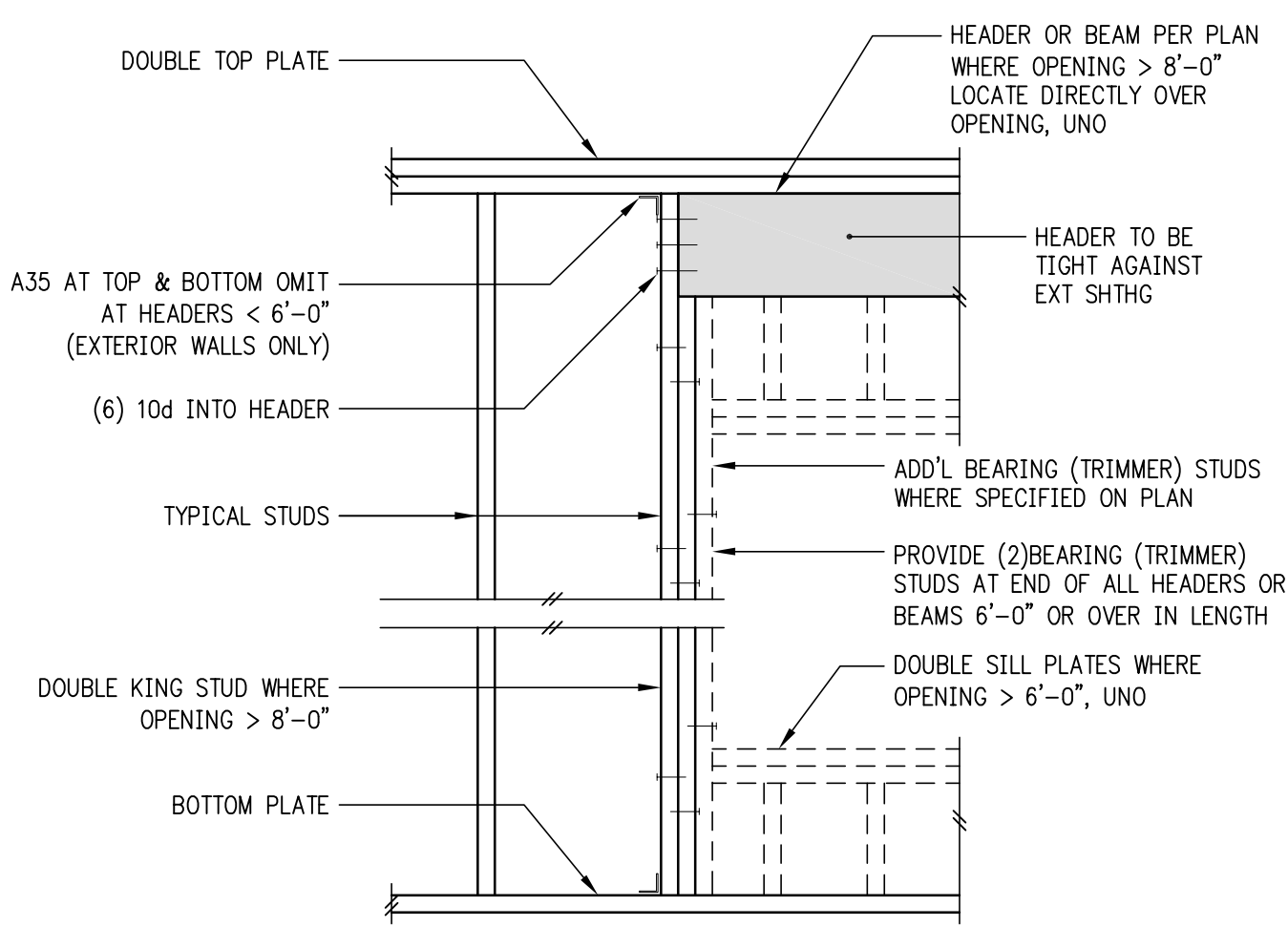
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**8 Typical Post Cap at Wood Post**

Scale: NTS



- NOTE:
- 1. NAILING AT TOP PLATE SPLICES MAY BE ELIMINATED w/ CS16 x 30"
  - 2. WHERE VERTICAL PENETRATIONS THRU PLATE EXCEED 1" FOR A 4x WALL OR 3" FOR A 6x WALL- PROVIDE CS16 x 30" AT TOP PLATE
  - 3. MINIMUM EDGE DISTANCE FOR VERTICAL PENETRATIONS THRU TOP PLATE IS 1 1/4"



**9 Typical Top Plate Splice**

Scale: NTS

**10 Typical Header Support**

Scale: NTS

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Sheet Number **S4.0**

