GENERAL NOTES:

PROJECT NARRATIVE:

STRUCTURE IS A NEW COMMUNITY CENTER AND RESTAURANT, WITH A SECOND FLOOR OFFICE AREA, THAT CONSISTS OF TYPICALLY FRAMED PREMANUFACTURED TRUSSES AND STUD WALL CONSTRUCTION, BECAUSE OF THE NATURE OF THE SOIL CONDITION BELOW THE PROPOSED SITE, A CONCRETE MAT FOUNDATION WITH GRADE BEAMS IS TO BE UTILIZED PER THE GEOTECHNICAL RECOMMENDATION, THE SITE WILL BE "UNLOADED" WITH 2'-6" OF GEOFOAM BELOW THE MAT FOUNDATION, AND THE MAT FOUNDATION WILL RISE 1'-0" MIN ABOYE GRADE TO ACCOMMODATE SETTLEMENTS.

GOVERNING DESIGN CODES:

A) OREGON STRUCTURAL SPECIALTY CODE 2014 EDITION (055C-14)

- B) NATIONAL DESIGN STANDARD FOR WOOD CONSTRUCTION 2012 EDITION (NDS-2012)
- C) AISC MANUAL OF STEEL CONSTRUCTION (14TH EDITION) D) BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-11)

TEMPORARY CONDITIONS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRUCTURAL STABILITY DURING CONSTRUCTION, THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER THE FINAL CONFIGURATION

DESIGN CRITERIA

DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE INTERNATIONAL BUILDING CODE, IN ADDITION COMPONENT SELF WEIGHT (DEAD LOAD), THE FOLLOWING LOADS WERE USED FOR DESIGN:

A) GRAVITY DESIGN CRITERIA:

ROOF SNOW LOAD	20 PSF LL
ROOF LOAD	20 P6F LL
COMMERCIAL FLOOR LOAD	50 PSF LL (2nd FLOOR OFFICE LOAD+15 PSF PARTITION)
CORRIDORS, STAIRS, & FIRST FLOOR	100 PSF LL

B) LATERAL DESIGN CRITERIA:

WIND SPEED	135 MPH
WIND EXPOSURE CATEGORY	
SEISMIC DESIGN CATEGORY	'D'
LATERAL FORCE RESISTING SYSTEM	PLYWOOD SHEARWALLS
RESPONSE MODIFICATION FACTOR	R = 6.5
SD1	1.073
SDS	0.190

C) SOIL DESIGN CRITERIA: (FROM GEOTECHNICAL REPORT BY CHINOOK GEOSERVICES DATED 9/18/06)

SUBGRADE MODULUS	43	KC
ALLOWABLE PASSIVE PRESSURE	233	PC

SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

SUBMITTALS:

- SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION REGARDING ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING: A) CONCRETE MIX DESIGNS,
- B) CONCRETE REINFORCING, C) PREMANUFACTURED TRUSS DESIGN
- 2. IF THE SHOP DRAWINGS DIFFER FROM, OR ADD TO THE DESIGN OF THE DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON, ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE ENGINEER, FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM, OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE

INSPECTION:

- SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR SHALL BE PERFORMED FOR THE FOLLOWING: D) SOILS COMPACTION
- 2. ALL SOIL-BEARING SURFACES SHALL BE INSPECTED BY THE SOILS ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL.

CONCRETE:

CONCRETE WORK SHALL CONFIRM TO ACI 318, CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, AND SHALL BE AS FOLLOWS:

OTHERWISE NOTES

	ABSOLUTE WATER-CEME	NT RATIO BY WEIGHT		
F' C (PSI)	NON AIR-ENTRAINED	AIR-ENTRAINED	<u>use</u>	MIN, CEMENT
4,000	.44	.35	ALL USES UNLESS	550 LB6/YD

HIGHER WATER/CEMENT RATIOS THAN SHOWN ABOVE MAY BE USED IF SUBSTANTIATED IN ACCORDANCE WITH ACI 318-11.

FLY-ASH CONFORMING TO IBC STANDARD NO. 26-9, TYPE F OR TYPE C, MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE. A WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494, USED IN STRICT ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATION, SHALL BE INCORPORATED IN CONCRETE DESIGN MIXES, A HIGH-RANGE WATER-REDUCING (HRWR) ADMIXTURE CONFORMING TO ASTM C494, TYPE F OR G, MAY BE USED IN CONCRETE MIXES, PROVIDING THAT THE SLUMP DOES NOT EXCEED 10". AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C250 SHALL BE USED IN CONCRETE MIXES FOR EXTERIOR HORIZONTAL SURFACES EXPOSED TO WEATHER, THE AMOUNT OF ENTRAINED AIR SHALL BE 5% + 1% BY YOLUME,

SLEEVES, OPENING, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING, CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER, PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.

REINFORCING STEEL:

- REINFORCING STEEL SHALL CONFORM TO ASTM AGIS, INCLUDING SI, GRADE GO, FOR DEFORMED BARS AND ASTM A185 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706.
- 2. BARS IN BEAMS AND SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF THE STAND PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315.
- 3. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS OF ALL BEAMS AND COLUMNS SHOWING BAR LOCATIONS. LAP ALL REINFORCING BARS PER DETAIL 1/63.1, WITH A MINIMUM LAP OF 18", EXCEPT AS NOTED. MECHANICAL SPLICES NOTED ON THE PLANS SHALL BE DAYTON BAR-GRIP SPLICES OR APPROVED WITH A CURRENT ICBO APPROYAL REPORT.

REINFORCING STEEL SHALL HAVE PROTECTION AS FOLLOWS:

<u>use</u>	COVER
FOOTING REINFORCING	3"
WALL REINFORCING	2"

STRUCTURAL STEEL:

- 1. STRUCTURAL STEEL GRADES SHALL BE AS FOLLOWS: A. ANGLES, CHANNELS AND PLATES......ASTM A36 OR ASTM572 GRADE 50 B. RECTANGULAR HSS SECTIONS......
- 2. WELDS SHALL BE MADE USING ETOXX ELECTRODES AND SHALL BE 3/16" MINIMUM UNLESS OTHERWISE NOTED, WELDING SHALL BE BY AWS CERTIFIED WELDERS, PREQUALIFIED WELDING PROCEDURES ARE TO BE USED, UNLESS AWS QUALIFICATION IS SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.

SAWN LUMBER:

1. SAWN LUMBER SHALL CONFORM TO WEST COAST LUMBER INSPECTION BUREAU OR WESTERN WOOD PRODUCTS ASSOCIATION GRADING RULES, LUMBER SHALL BE THE SPECIES AND GRADE NOTED BELOW:

USE	GRADE	FB(PSI) (BASE YALUE
DIMENSIONAL LUMBER (2" TO 4" THICK)	DOUGLAS FIR - LARCH NO. 2	875
BEAMS/STRINGERS	DOUGLAS FIR - LARCH NO. 1	1350
POSTS	DOUGLAS FIR - LARCH NO. 1	1200
T AND G DECKING	DOUGLAS FIR - LARCH COMMERCIAL DEX	1450

- 2. ALL LUMBER IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED UNLESS AN APPROVED BARRIER IS PROVIDED.
- 3. FRAMING ACCESSORIES AND STRUCTURAL FASTENERS SHALL BE MANUFACTURED BY SIMPSON COMPANY (OR APPROVED EQUAL) AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. HANGERS NOT SHOWN SHALL BE SIMPSON HU OF SIZE RECOMMENDED FOR MEMBER, ALL FRAMING NAILS SHALL BE COMMON NAILS AND SHALL BE OF THE SIZE AND NUMBER INDICATED ON THE DRAWINGS.
- 4. NAILING NOT SHOWN SHALL BE AS INDICATED ON IBC TABLE 2304.9.1. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1 - 1981. ALL BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS, CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO IBC 2308.9.10 AND 2308.9.11.

PLYWOOD:

- 1. PLYWOOD PANELS SHALL CONFORM TO THE REQUIREMENTS OF "U.S., PRODUCTS STANDARD PS I FOR CONSTRUCTION AND INDUSTRIAL PLYWOOD" OR APA PRP-108 PERFORMANCE STANDARDS, UNLESS NOTED, PANELS SHALL BE APA RATED SHEATHING, EXPOSURE 1, OF THE THICKNESS AND SPAN RATING SHOWN ON THE DRAWINGS.
- 2. PLYWOOD INSTALLATION SHALL BE IN CONFORMANCE WITH APA RECOMMENDATIONS, ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.
- 3. ALL ROOF SHEATHING AND SUB-FLOORING SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS, EXCEPT AS INDICATED ON THE DRAWINGS. ROOF SHEATHING SHALL EITHER BE BLOCKED, TONGUE-AND-GROOYE, OR HAVE EDGES SUPPORTED BY PLYCLIPS. SUB-FLOORING SHEATHING SHALL BE UNBLOCKED, EXCEPT AS INDICATED ON DRAWINGS. SHEAR WALL SHEATHINGS SHALL BE BLOCKED WITH 2X FRAMING AT ALL PANEL EDGES. NAILING NOT SHOWN SHALL BE AS INDICATED ON IBC TABLE 2306.2.1. ALL NAILS SHALL BE COMMON NAILS: HOWEVER, USE RING SHANK FOR ROOF SHEATHING.

GLUED LAMINATED MEMBERS:

GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH U.S. PRODUCT STANDARD PS 56, "STRUCTURAL GLUED LAMINATED TIMBER" AND AMERICAN INSTITUTE OF TIMBER CONSTRUCTION, AITC 117, EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK AND BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE, ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER SHOP OR FIELD, BEAMS SHALL BE VISUALLY GRADED WESTERN SPECIES ARCHITECTURAL GRADE, AND OF THE STRENGTH INDICATED BELOW:

SYMBOL	SPECIES	<u>use</u>
24F - V4	DE/DE	(SIMPLE SP.

2. ADHESIYE SHALL BE WET-USE EXTERIOR WATERPROOF GLUE.

PRE-MANUFACTURED ROOF TRUSSES:

PRE-MANUFACTURED ROOF TRUSSES SHALL BE DESIGNED FOR THE APPLICABLE DEAD LOADS AND THE FOLLOWING ADDITIONAL LOADS:

- 2. ROOF 20 PSF (CONSTRUCTION LIVE LOAD) - 25 PSF (SNOW LOAD)
- 3. CEILING 10 PSF
- 4. UPLIFT LOADING CORRESPONDING TO WIND FORCES FROM 135 MPH EXPOSURE CATEGORY "D"

TRUSS MANUFACTURER SHALL PROVIDE DRAWINGS AND CALCULATIONS STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON.

GEOFOAM BLOCK FILL:

GEOFOAM LIGHTWEIGHT FILL BLOCKS SHALL CONFORM TO ASTM D6817.

USE GEOFOAM BLOCKS OF THE FOLLOWING PROPERTIES FOR THIS PROJECT:

GEOFOAM PRODUCT:	EP546
DENSITY (PCF)	2.85
MIN, COMP, STRENGTH (PSI)	18.6
MIN, FLEXURAL STRENGTH (PSI)	75.0

HOLDOWN SYMBOL - REFERENCE SCHEDULE BELOW.

MARK	HOLDOWN	ATTACHMENT (EMBEDMENT)	CAPACITY
2	HDu2-9D92.5	9B ½"×24 (18")	3,015 LB
8	HDU8-SDS2.5	9B ½"×24 (18")	1,810 LB

1) INSTALL HOLDOWNS PER SIMPSONS RECOMMENDATIONS.

2) PROVIDE (2) 2x6 AT TYPE 2.

3) PROVIDE (3) 2x6 AT TYPE 8.

4) AT INTERSECTING SHEARWALLS ONLY (1) HOLDOWN IS REQUIRED, THE HIGHER CAPACITY HOLDOWN SHALL BE INSTALLED, REF, X/SX FOR FRAMING REQUIREMENTS,

SHEARWALL NAILING SCHEDULE



SHEARWALL SYMBOL - REFERENCE SCHEDULE BELOW.

	CHEARWALL OTTIBUL - R	ELEKTION OCHEDULE DELOW,			
MARK	PANEL TYPE	NAILING AT PANEL EDGES	NOMINAL STUD & BLKG SIZE AT ADJOINING PANEL EDGES	SILL PLATE CONNECTION	RIM CONNECTION
Á	15/32" PLYWOOD (1) FACE	8d (½"×0.131 COMMON) (½"×0.113 GALY, BOX) @ 6" O.C.	2×	5%" Ø @ 32" O.C. 16d @ 6" O.C.	A35 ⊕ 24" O.C.
B	15/32" PLYWOOD (1) FACE	8d (2½"×0.131 COMMON) (2½"×0.113 GALV, BOX) @ 4" O.C.	2×	5%" Ø @ 24" O.C. 16d @ 4" O.C.	A35 @ 16" O.C.
Ĉ	15/32" PLYWOOD (1) FACE	8d (2½"×0.131 COMMON) (2½"×0.113 GALY, BOX) @ 3" O.C.	2×	5/g" Ø @ 24" O.C. 16d @ 3" O.C.	A35 @ 12" O.C.

1. PROVIDE ANCHOR BOLTS WITH MINIMUM 8-INCHES EMBEDMENT FOR SILL ANCHOR CONNECTION. 2. NAIL INTERMEDIATE MEMBERS WITH 8d @ 12 INCHES O.C. PROVIDE BLOCKING AT ALL PANEL EDGES.

3. PROVIDE 3"x3"x1/4" PLATE WASHERS FOR SILL PLATE BOLT CONNECTIONS.

OREGON EXPIRES: 6/30/

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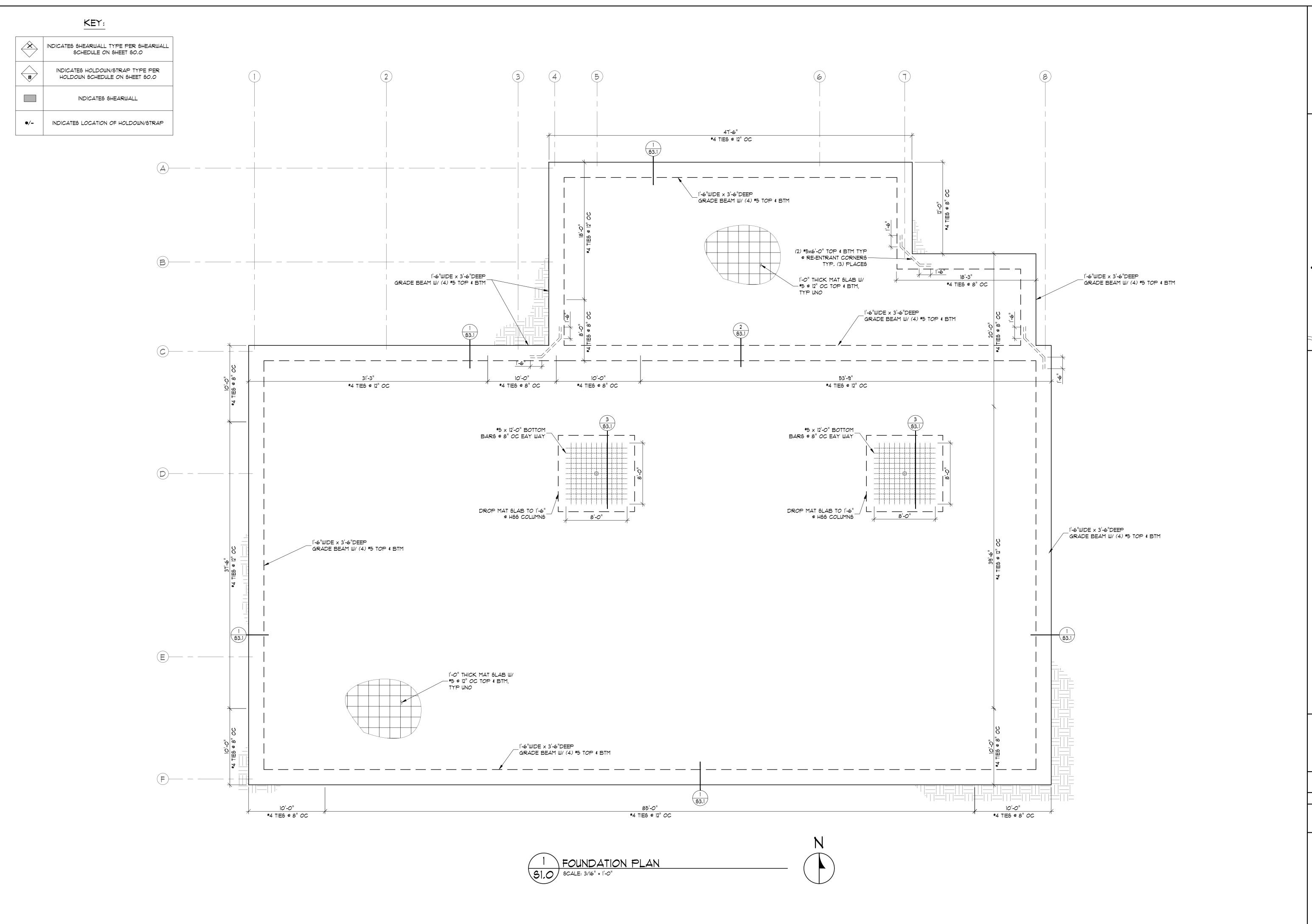
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PROJECT NUMBER: 218368

GENERAL NOTES

ENGINEER: SMO





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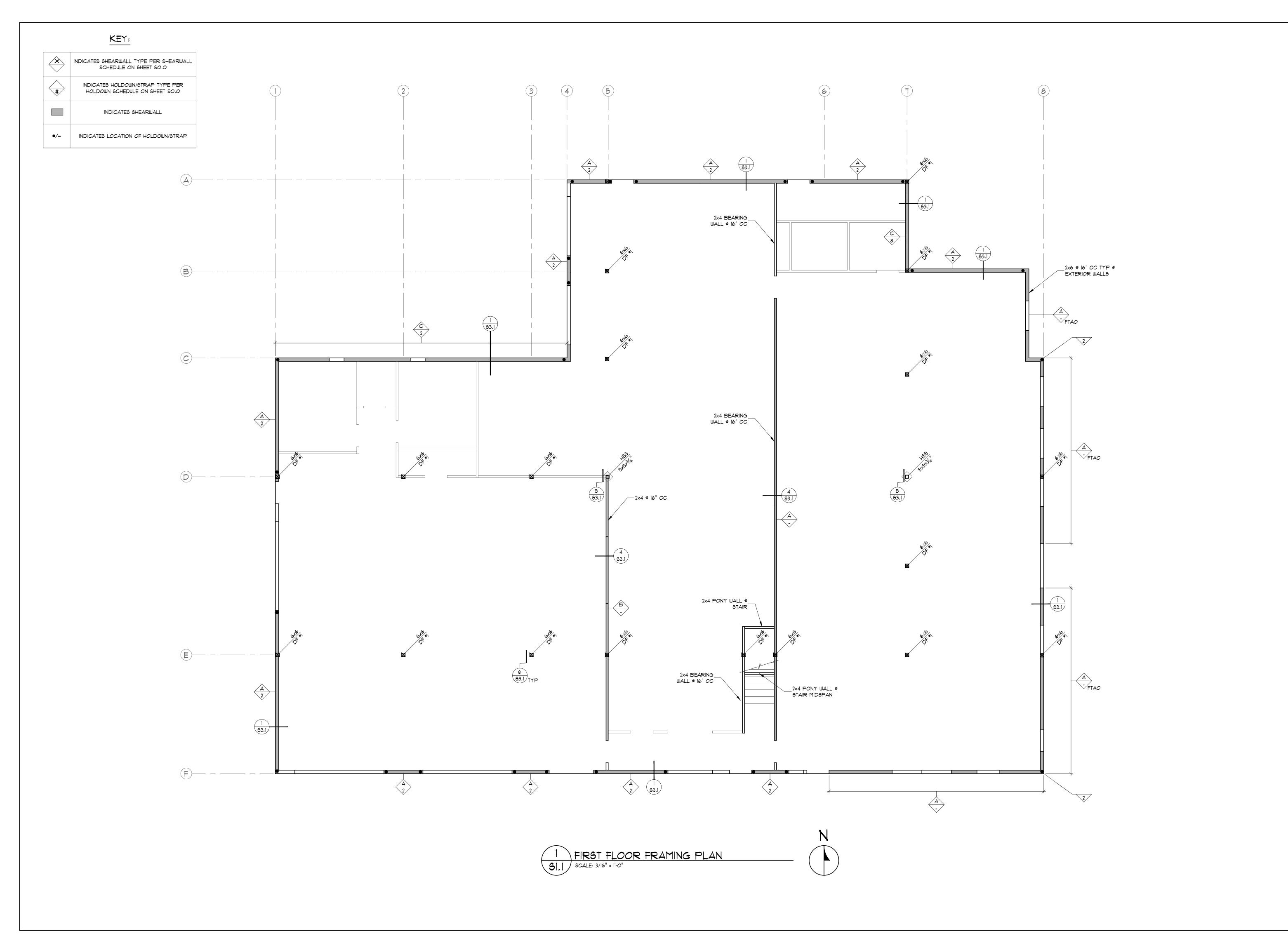
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PROJECT NUMBER: 218368 ENGINEER: SMO

FOUNDATION PLA

FOUNDATION PLAN

S1.0





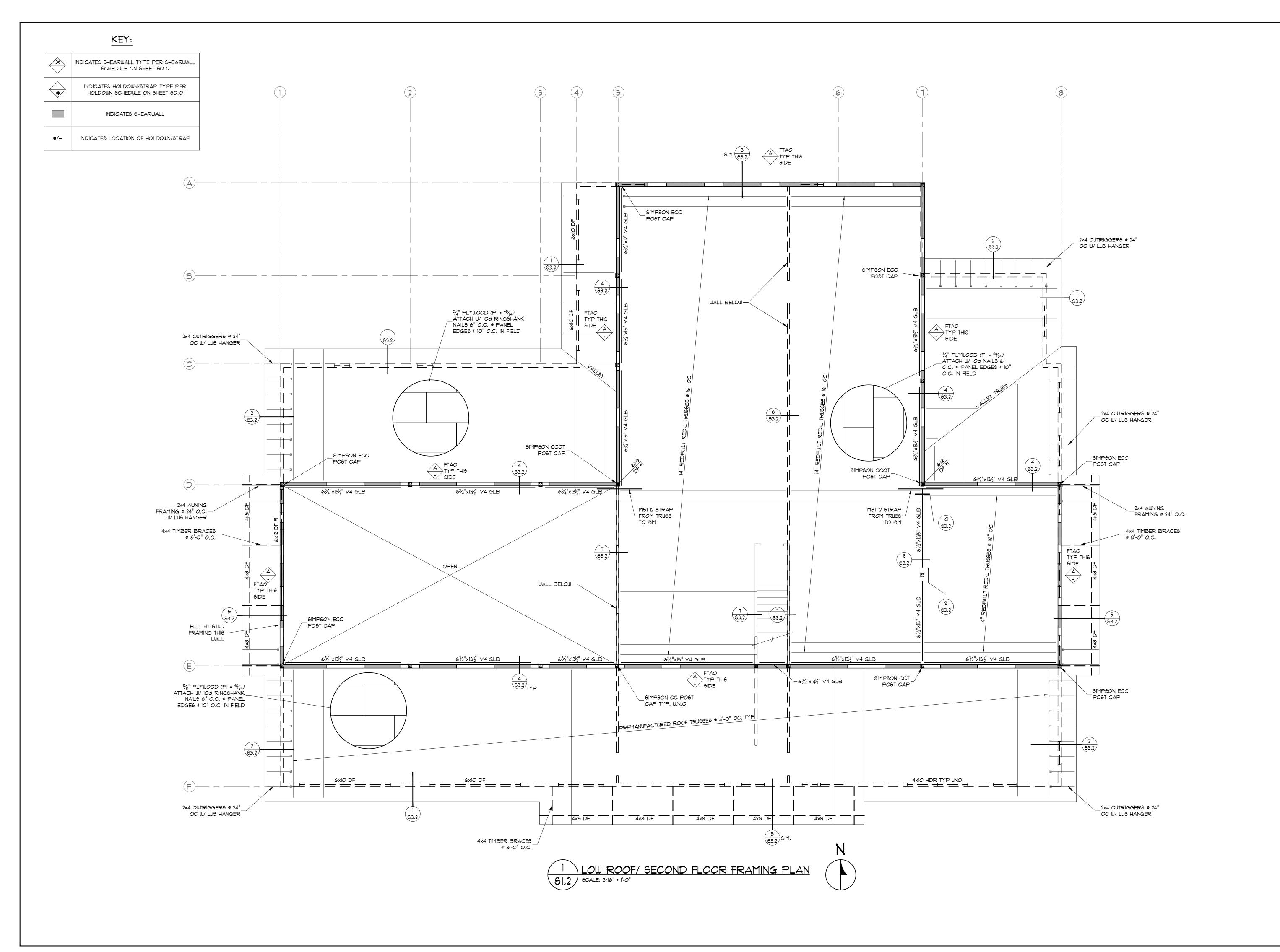
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PROJECT NUMBER: 218368 ENGINEER: SMO

FIRST FLOOR FRAMING PLAN





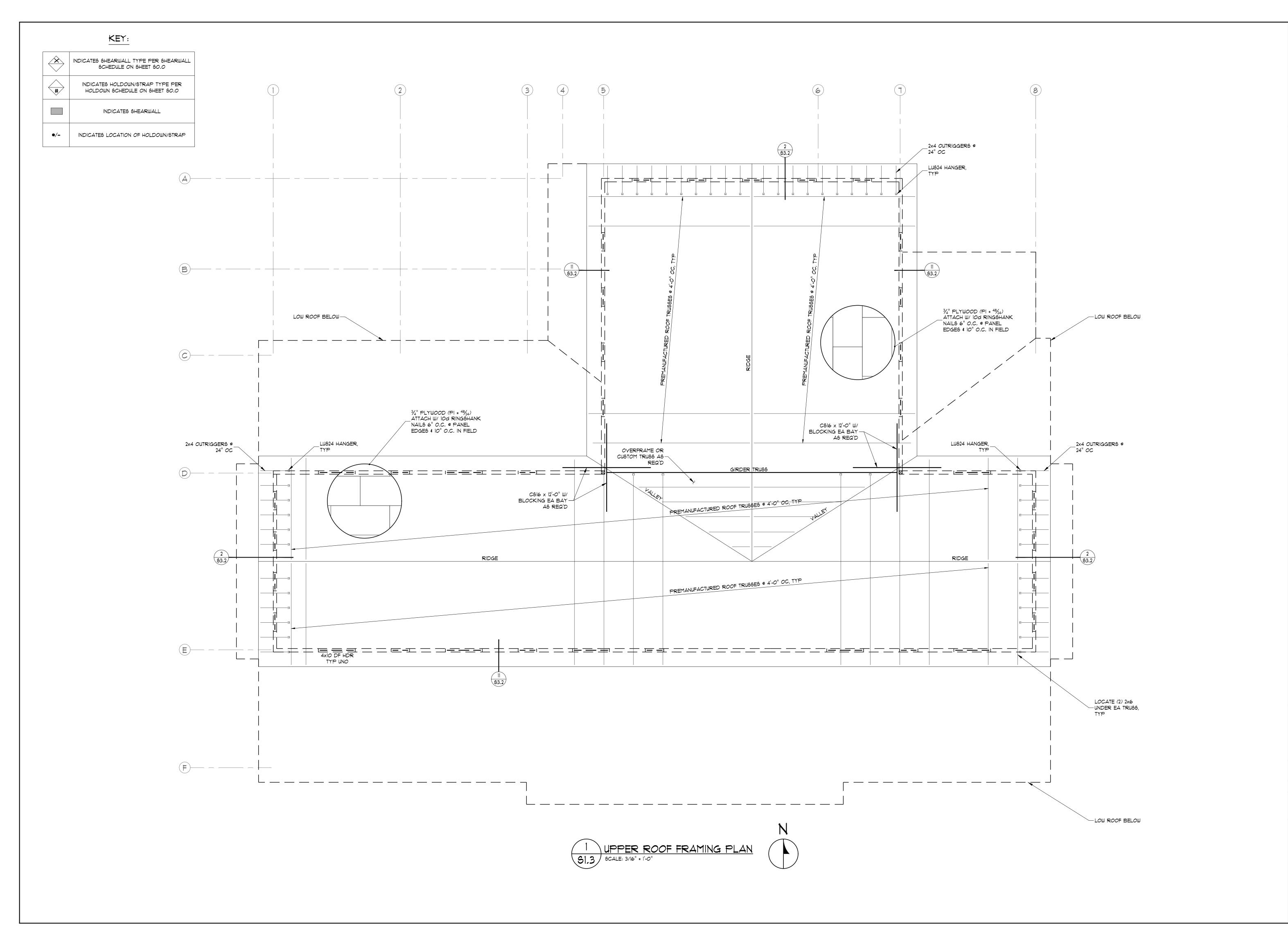
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PROJECT NUMBER: 218368

ENGINEER: SMO LOW ROOF/ SECOND FLOOR FRAMING PLAN





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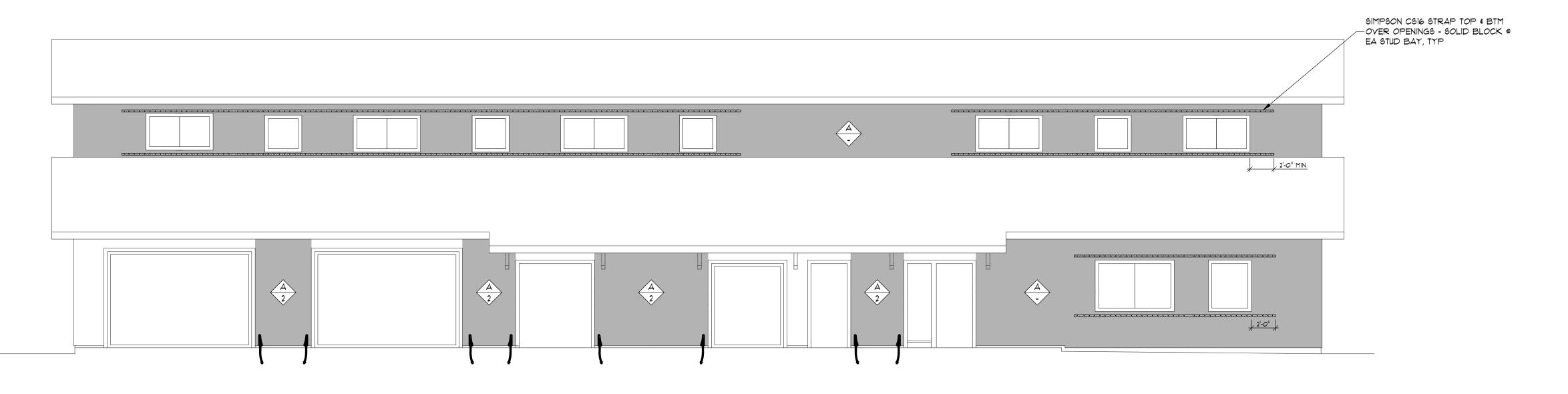
PROJECT NUMBER: 218368

ENGINEER: SMO

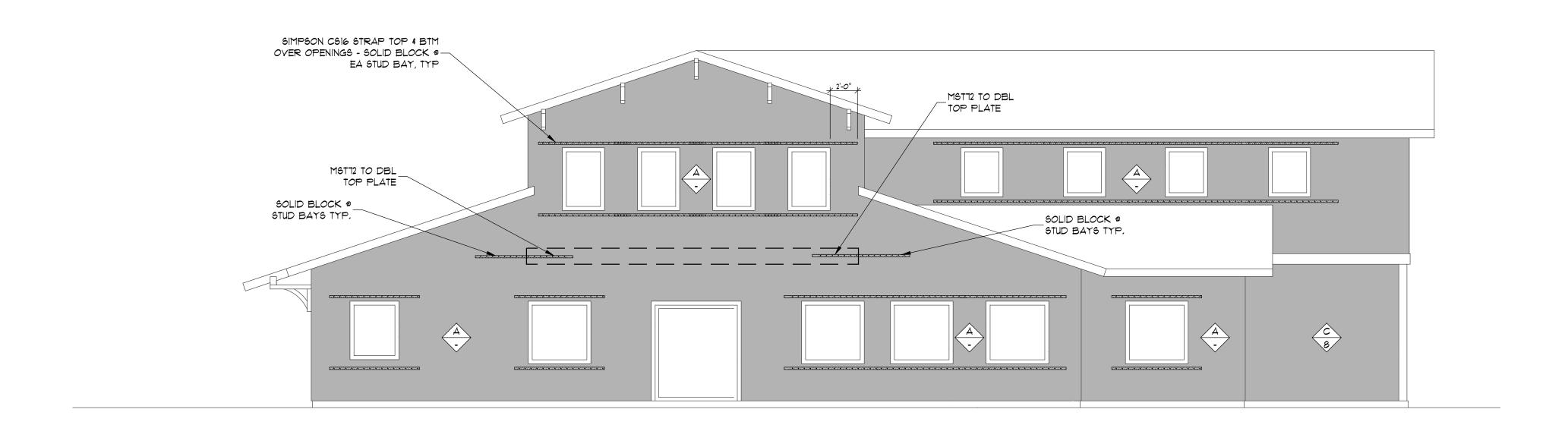
UPPER ROOF FRAMING PLAN

S1.3

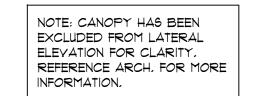
UPPER ROOF FRAMING PLAN



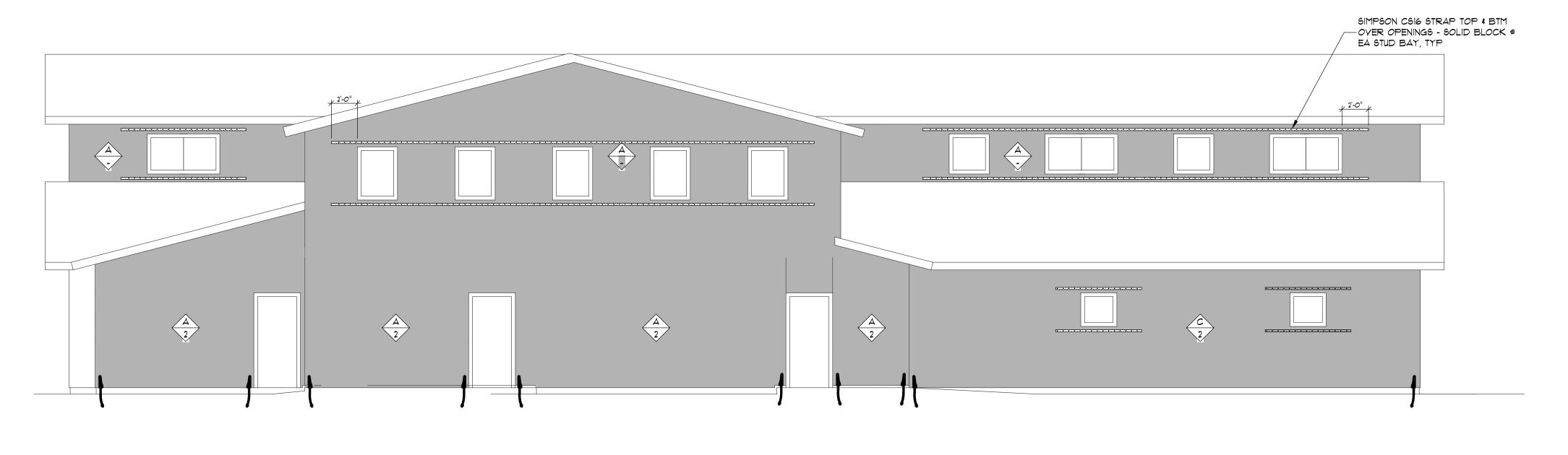
1 NORTH LATERAL ELEVATION S2.1 SCALE: 3/16" = 1'-0"

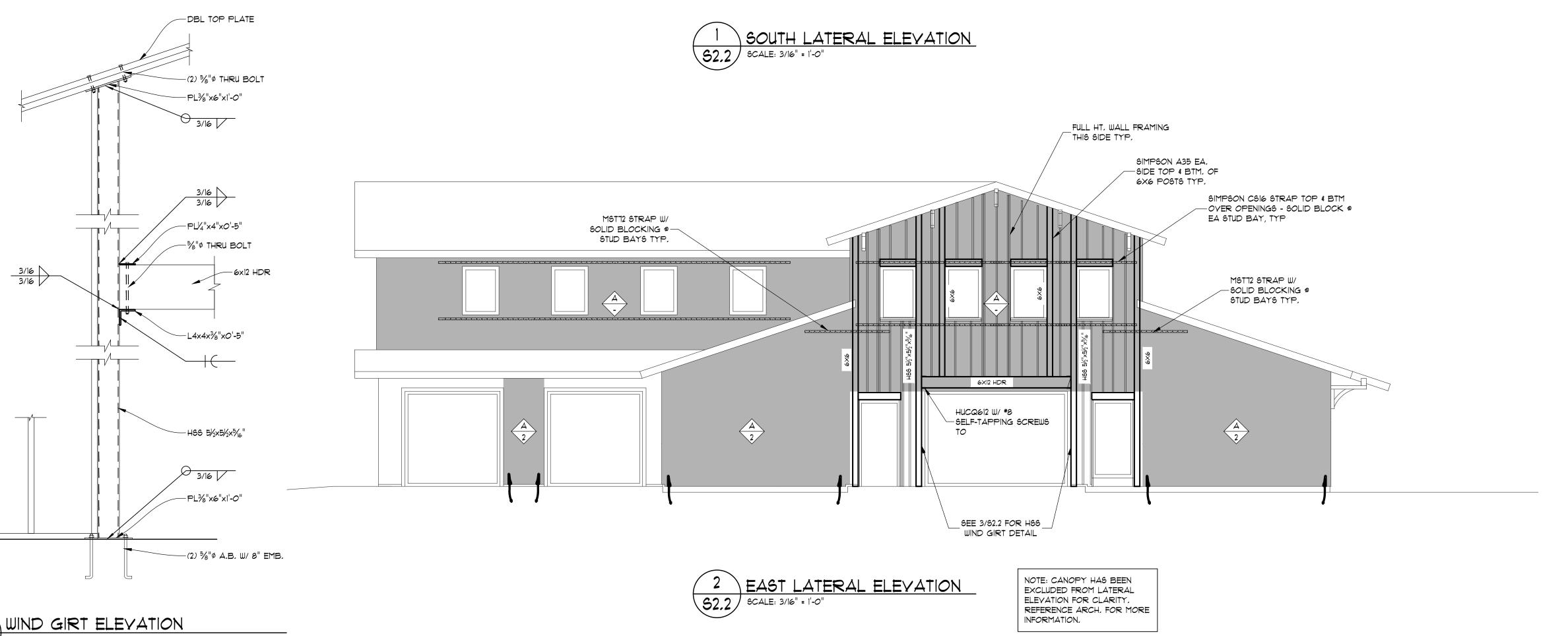




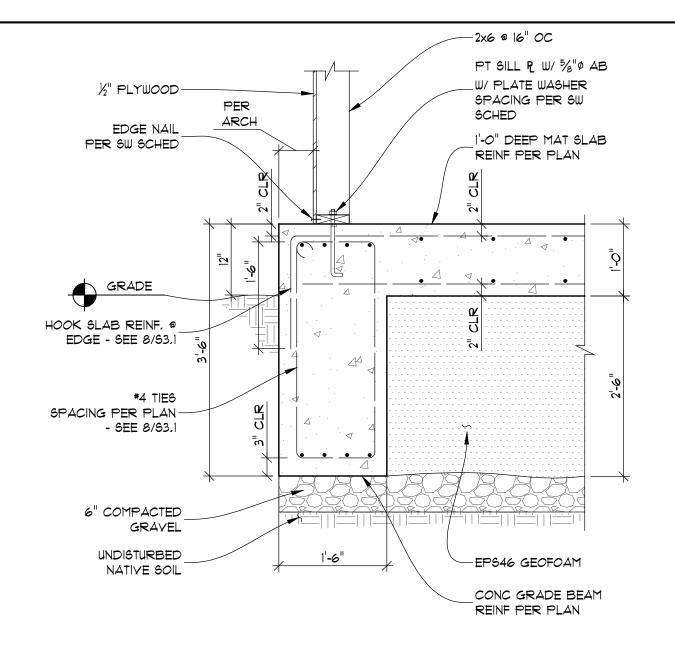


UPPER ROOF FRAMING PLAN

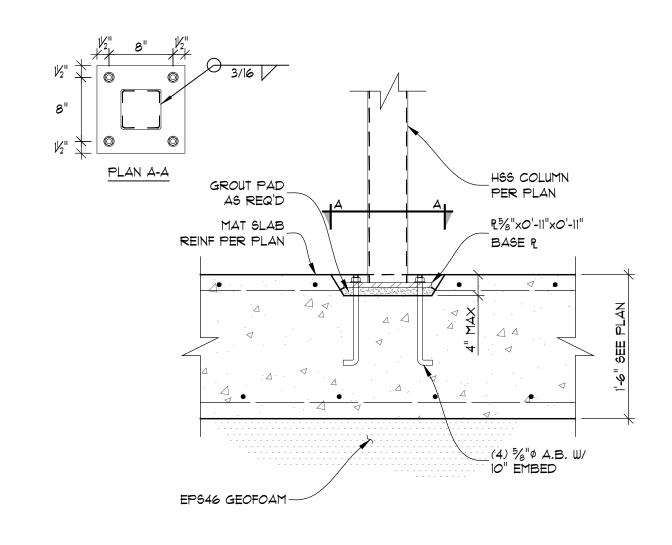




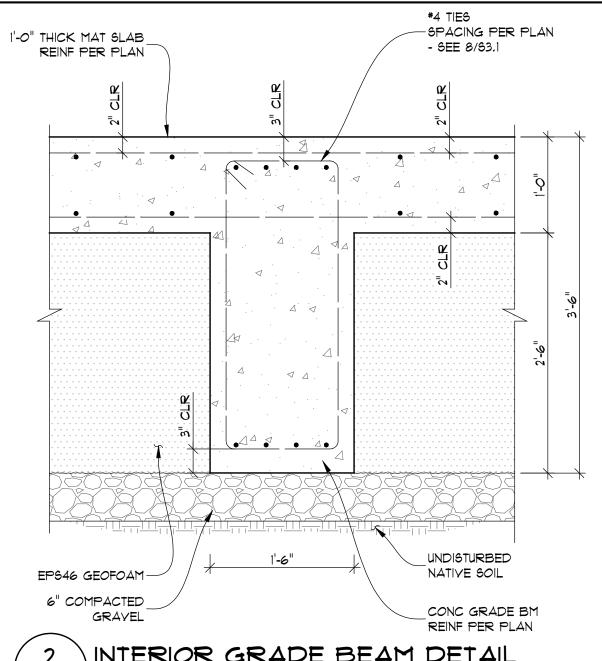
3 WIND GIRT ELEVATION 52.2 SCALE: 3/4" = 1'-0"



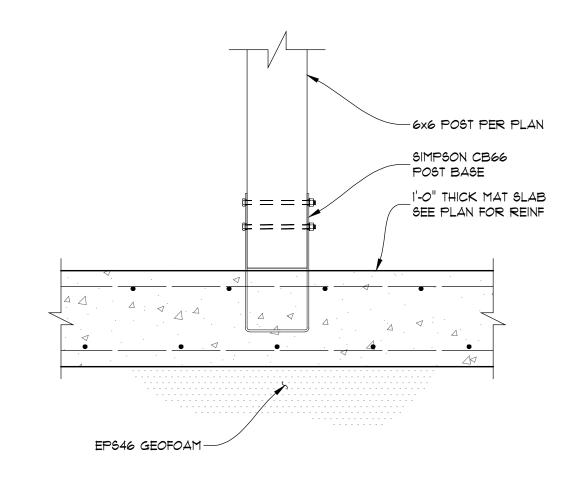




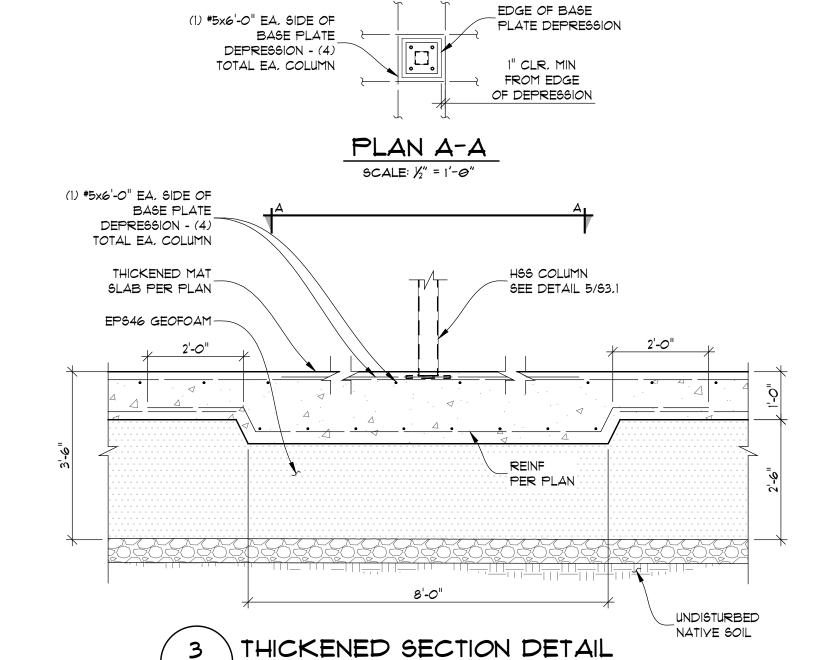
HSS CONNECTION DETAIL 5 HSS CONN 93.1 SCALE: 1" = 1'-@"



_	GRAYEL			REINF PER PLA
$\left(2\right)$	INTERIOR	GRADE	BEAM	DETAIL
S3.1	SCALE: 1" = 1'-0"			



POST CONNECTION DETAIL **63.1** SCALE: 1" = 1'-0"



(1) #5x6'-0" EA, SIDE OF

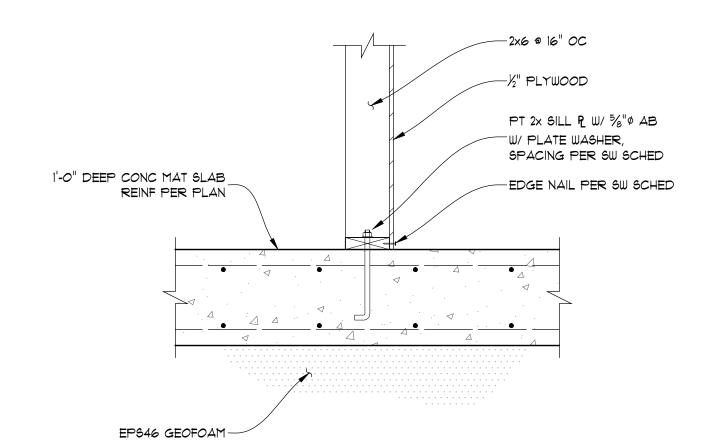
63.1 SCALE: 1/2" = 1'-0"

	υ Σ	ALL ALL	BARS (see note #2)
BAR		2	Class B Splice
	f'c = 400	Opsi	
	#5	31"	41"

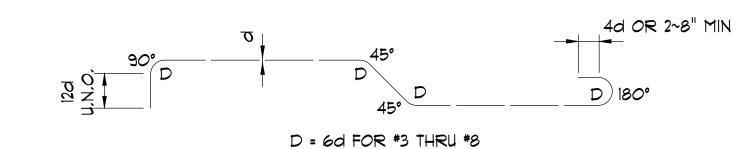
NOTES:

- 1. YALUES FOR UNCOATED REINFORCING AND NORMAL WEIGHT CONCRETE WITH CLEAR SPACING > db, CLEAR COVER > db AND MINIMUM STIRRUPS OR TIES THROUGHOUT Ld OR CLEAR SPACING > 2db AND CLEAR COVER > db.
- 2. ALL LAPS SHALL BE MINIMUM CLASS B OR CLASS B (TOP BARS), UNO.

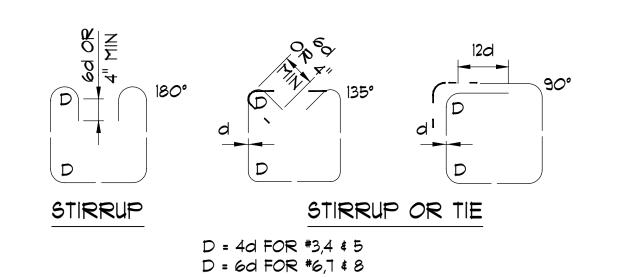




INTERIOR SHEARWALL DETAIL **63.1** SCALE: 1" = 1'-0"

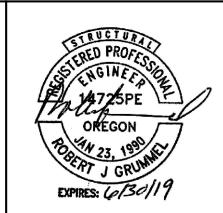


D = 8d FOR #9,10 \$ 11 ALL REINF EXCEPT COL TIES & BM STIRRUPS



BEAM STIRRUPS & COLUMN TIES d = BAR DIAMETER, D = BEND DIAMETER





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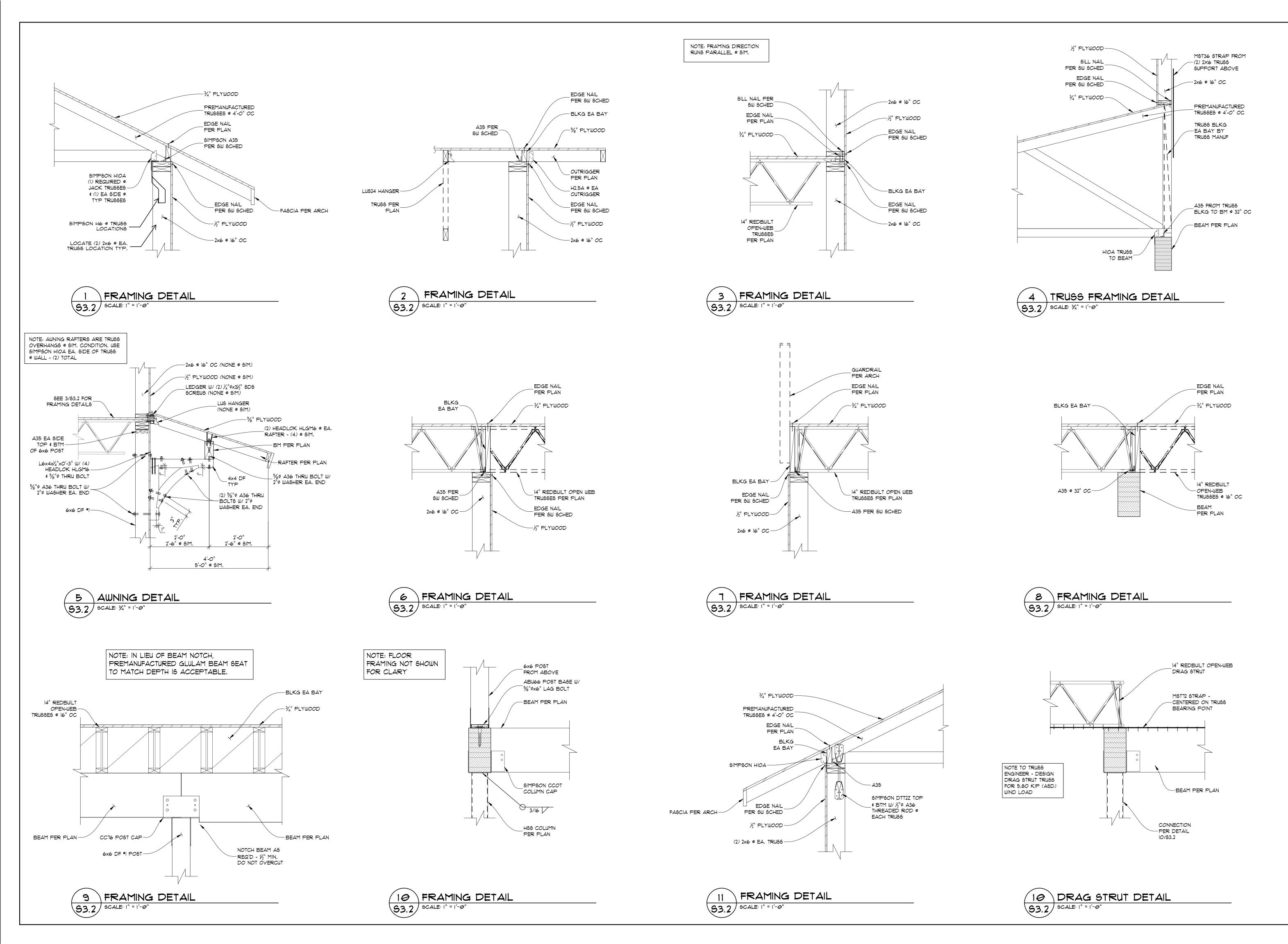
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11/29/2018

PROJECT NUMBER: 218368

ENGINEER: SMO STRUCTURAL **DETAILS**



OREGON
EXPIRES: 6/30/19

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11/29/2018

PROJECT NUMBER: 218368

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ENGINEER: SMO
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STRUCTURAL DETAILS

S3.2