

**GENERAL NOTES**

**1. CODE COMPLIANCE:**  
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 IFC, 2018 UPC, 2018 IMPC, 2008 NEC, 2018 INTERNATIONAL ENERGY CONSERVATION CODE WITH WASHINGTON STATE AMENDMENTS, 2009 ICC A117.1, AND WITH ALL LOCAL CODES AND ORDINANCES.

**2. DIMENSIONS:**  
DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF DISCREPANCIES. IF WORK IS STARTED PRIOR TO NOTIFICATION, THE GENERAL AND SUBCONTRACTOR PROCEED AT THEIR OWN RISK. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO FACE OF STUDS OR FACE OF CONCRETE WALLS. FACE OF STONE VENEER LIES 6" +/- OUTSIDE THE FACE OF FRAMING. INTERIOR PLAN DIMENSIONS ARE TO FACE OF STUDS UNLESS OTHERWISE NOTED. VERIFY ALL ROUGH-IN DIMENSIONS FOR WINDOWS, DOORS, PLUMBING, ELECTRICAL FIXTURES AND APPLIANCES PRIOR TO COMMITMENT OF WORK. NOTIFY ARCHITECT OF ANY DISCREPANCIES OF DIMENSIONAL TOLERANCES REQUIRED.

**3. DOCUMENT REVIEW/VERIFICATION:**  
CONSULT WITH ARCHITECT REGARDING ANY SUSPECTED ERRORS, OMISSIONS, OR CHANGES ON PLANS BEFORE PROCEEDING WITH THE WORK.

**4. ROUGH OPENINGS/BACKING:**  
VERIFY SIZE AND LOCATION AS WELL AS PROVIDE ALL OPENINGS THROUGH FLOORS AND WALLS, FURRING, CURBS, ANCHORS, INSERTS, EQUIPMENT BASES AND ROUGH BUCKS/BACKING FOR SURFACE MOUNTED ITEMS.

**5. FURRING:**  
PROVIDE FURRING AS REQUIRED TO CONCEAL MECHANICAL AND/OR ELECTRICAL EQUIPMENT IN FINISHED AREAS. FURRING NOT SHOWN ON PLANS SHALL BE APPROVED BY ARCHITECT PRIOR TO CONSTRUCTION.

**6. GRADES:**  
VERIFY ALL GRADES AND THEIR RELATIONSHIP TO THE BUILDING(S).

**7. FLOOR LINES:**  
FLOOR LINE REFERS TO TOP OF CONCRETE SLAB OR TOP OF WOOD SUBFLOOR.

**8. REPETITIVE FEATURES:**  
OFTEN DRAWN ONLY ONCE AND SHALL BE PROVIDED AS IF FULLY DRAWN.

**9. DOORS:**  
DOORS NOT DIMENSIONALLY LOCATED SHALL BE 6" FROM STUD FACE TO EDGE OF DOOR, ROUGH OPENING OR CENTERED BETWEEN WALLS AS SHOWN.

**10. WOOD MEMBERS IN CONTACT WITH CONCRETE, AND/OR EXPOSED TO WEATHER:**  
TO BE PRESSURE TREATED, TYPICAL. PROVIDE PRESSURE TREATED SILL PLATE IF FINISH GRADE IS WITHIN 8", TYPICAL.

**11. FRAMING:**  
ALL NEW INTERIOR FRAME PARTITIONS TO BE 2X4 @ 16" O.C. & ALL NEW EXTERIOR FRAME PARTITIONS TO BE 2X6 @ 16" O.C. UNLESS OTHERWISE NOTED. VERIFY W/ STRUCTURAL DRAWINGS EXISTING EXTERIOR WALLS ARE 2X4 STUDS @ 16" O.C. AND ARE TO REMAIN.

**12. VENTILATION:**  
VENT ALL BATHROOM FANS, LAUNDRY FANS, RANGE HOODS AND DRYERS TO OUTSIDE ATMOSPHERE. BATHROOM/UTILITY ROOM FANS SHALL BE CAPABLE OF 5 AIR CHANGES PER HOUR AND SHALL BE VENTED DIRECTLY TO THE OUTSIDE THROUGH SMOOTH, RIGID, NON-CORROSIVE METAL 24 GA. DUCTWORK. FLEX DUCTING IS NOT ALLOWED. WSEC R402.4.1.2 REQUIRES THE DWELLING UNIT TO BE TESTED AND VERIFIED AS HAVING AN AIR LEAKAGE RATE NOT EXCEEDING 5 AIR CHANGES PER HOUR. TESTING MUST BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2. NEW CONSTRUCTION MAY BE ISOLATED FROM EXISTING STRUCTURE FOR TESTING.

**13. FLUES:**  
FLUES TO BE LOCATED MINIMUM 2" FROM ALL COMBUSTIBLE MATERIALS.

**14. DOWNSPOUTS:**  
LOCATE NEW DOWNSPOUTS AS SHOWN ON ROOF PLAN, FLOOR PLANS & ELEVATIONS.

**15. OTHER DOCUMENTATION:**  
REFER TO STRUCTURAL, MECHANICAL, ELECTRICAL, AND/OR LANDSCAPE DRAWINGS FOR ADDITIONAL DRAWINGS, NOTES, SCHEDULES, AND SYMBOLS.

**16. PROTECTION:**  
PROTECT ALL EXISTING FINISHES AND SURFACES. ANY DAMAGE WILL BE REPAIRED WITHOUT ADDITIONAL COST TO OWNER.

**17. PERMITS:**  
SEPARATE ELECTRICAL, MECHANICAL, AND PLUMBING PERMITS ARE REQUIRED IN ADDITION TO THE BASIC BUILDING PERMIT

**18. ROOFING:**  
PROVIDE NEW ROOFING TO MATCH EXISTING.

**19. EXHAUST DUCTS:**  
PROVIDE BACKDRAFT DAMPERS AT ALL EXHAUST DUCTS. PROVIDE COMBUSTION AIR OPENINGS INTO FURNACE ROOM PER UMC 703.

**20. APPLIANCES:**  
CLEARANCES OF UL LISTED APPLIANCES FROM COMBUSTIBLE MATERIALS SHALL BE AS SPECIFIED IN UL LISTING.

**21. WATER FLOW:**  
SHOWER SHALL BE EQUIPPED WITH FLOW CONTROL DEVICE TO LIMIT WATER FLOW TO 2.5 GALLONS PER MINUTE.

**22. SMOKE DETECTORS:**  
SMOKE & CARBON MONOXIDE THROUGHOUT NEW CONSTRUCTION. TO BE MONITORED PER FIRE DEPARTMENT REQUIREMENTS. NFPA 72 CHAPTER 29 MONITORED FIRE ALARM SYSTEM PER CMI STANDARDS.

**23. FIREBLOCKING:**  
FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION PER 2018 IRC SECTION R302.11, SPECIFICALLY: 1) IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, 2) AT INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES, 3) IN CONCEALED SPACES BETWEEN STAR STRINGERS AT T.O. & B.O. RUN, 4) AT OPENINGS AROUND VENTS, PIPES, ETC. AT CEILING AND FLOOR LEVEL.

**PROJECT DATA**

PROJECT ADDRESS: 5214 FOREST AVE SE  
MERCER ISLAND 98040

PROPERTY TAX ID NUMBER: 141030-0059

SCOPE OF WORK: CONSTRUCTION OF NEW TWO-STORY SINGLE FAMILY RESIDENCE WITH ATTACHED GARAGE

ZONING: R-15

CONSTRUCTION TYPE: TYPE V B

SEISMIC ZONE: 3

NUMBER OF STORIES: 2 STORIES + BASEMENT

FIRE PROTECTION: NFPA 13R FIRE SPRINKLERS

BUILDING HEIGHT: MAX. 30 FT ABOVE AVERAGE BUILDING ELEV.

GROSS FLOOR AREA: 12,000 SF OR 40 % LOT AREA, WHICHEVER IS LESS

LOT AREA: 49,010 SF

SETBACKS: FRONT: 20'  
SIDE: 15' TOTAL, MIN. 5'  
REAR: 10' FROM 60' NGPA BUFFER

**PROJECT TEAM**

OWNER: SEASCAPE HOMES, LLC  
PO BOX 40568  
BELLEVUE, WA 98015  
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CONTACT: JON TELLEFSON

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CONTACT: SCHWIN CHAOSLAPAKUL

STRUCTURAL ENGINEER: LONGITUDE120 ENGINEERING  
PHONE: 206.790.9502  
CONTACT: MANS THURFJELL

**AVERAGE BUILDING ELEV.**

AVERAGE BUILDING ELEVATION			
	Wall Length	Elevation Pt.	Wall Length X Elev. Pt.
A	20.71	137.0	2837.27
B	3	137.0	411
C	12.54	137.0	1717.98
D	3	137.0	411
E	12.96	136.5	1769.04
F	4	136.0	544
G	20.42	135.0	2756.7
H	17.96	135.0	2424.6
I	7.5	136.0	1020
J	22.25	136.0	3026
K	10.04	138.0	1385.52
L	24.96	138.0	3444.48
M	39.5	139.5	5510.25
N	24.96	139.0	3469.44
O	5.5	138.5	761.75
P	5.5	138.5	761.75
Q	21.58	139.0	2999.62
R	23.46	138.5	3249.21
S	5.5	137.5	756.25
T	7.25	137.5	996.875
	<b>292.59</b>	<b>2746.5</b>	<b>40252.74</b>
	<b>40252.74</b>	<b>137.57</b>	<b>Average Building Elevation</b>
	<b>292.59</b>		

**SHEET INDEX**

- A1.0 COVER SHEET - GENERAL & ENERGY NOTES, LEGAL, PROJECT DATA, CUT-FILL CALC., INDEX, SITE PLAN
- A1.1 FULL SITE PLAN
- A1.2 TREE PLAN
- SURVEY
- C1.0 COVER SHEET AND SITE PLAN
- C2.0 DEMO & TESS PLAN
- C2.1 TESS DETAILS
- C3.0 GRADING, STORM, DRAINAGE & UTILITY PLAN
- C3.1 STORM DRAINAGE DETAILS
- C3.2 UTILITY DETAILS
- A2.0 LOWER FLOOR PLAN
- A2.1 MAIN FLOOR PLAN
- A2.2 UPPER FLOOR
- A2.3 ROOF PLAN
- A3.0 EXTERIOR ELEVATIONS
- A3.1 EXTERIOR ELEVATIONS
- A4.0 BUILDING SECTIONS
- A4.1 BUILDING SECTIONS
- A4.2 BUILDING SECTIONS
- A5.0 WALL SECTIONS
- A6.0 ARCHITECTURAL DETAILS
- S0 COVER SHEET
- S-1 STRUCTURAL GENERAL NOTES
- S-2 FOUNDATION PLAN
- S-3 BASEMENT WALL FRAMING & SHEAR WALL PLAN
- S-4 FIRST FLOOR FRAMING PLAN
- S-5 FIRST FLOOR WALL FRAMING & SHEAR WALL PLAN
- S-6 SECOND FLOOR FRAMING PLAN
- S-7 SECOND FLOOR WALL FRAMING & SHEAR WALL PLAN
- S-8 ROOF FRAMING PLAN
- SD-1 STRUCTURAL DETAILS
- SD-2 STRUCTURAL DETAILS
- SD-3 STRUCTURAL DETAILS

**2018 WSEC CREDITS**

PROJECT IS A NEW RESIDENCE GREATER THAN 5,000 SQ FT CONDITIONED AREA, AND SO IS A LARGE DWELLING UNIT REQUIRING 7.0 CREDITS

OPTION	CREDITS	DESCRIPTION
2	1.0	-HEAT PUMP EFFICIENCY (AIR COOLED) 14.0 SEER, 11 HSPF
1.3	0.5	-VERTICAL FENESTRATION U = .28, FLOOR-R-38, R-10 RIGID INSULATION ENTIRE PERIMETER AND UNDER ENTIRE SLAB
2.3	1.5	-REDUCE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAX. AT 50 PASCALS -WHOLE HOUSE VENTILATION RES NET W/ HEAT RECOVERY SYSTEM W/ MIN. EFFICIENCY OF 0.75, 125 CFM
3.5	1.5	-AIR SOURCE, CENTRALLY DUCTED HEAT PUMP W/ MIN. HSPF OF 11.0
4.2	1.0	-HVAC EQUIP. & AND ITS DUCT SYSTEM INSTALLATION SHALL COMPLY W/ R403.3.7. ALL EQUIP. & DUCTS SHALL BE IN CONDITIONED SPACE, W/ CONTINUOUS AIR BARRIER & BUILDING THERMAL ENVELOPE.
5.3	1.0	-ENERGY STAR RATED GAS OR PROPANE WATER HEATER W/ A MIN. UEF OF 0.91
7.1	0.5	-ENERGY STAR RATED REFRIGERATOR, DISHWASHER, WASHING MACHINE, DRYER, VENTLESS DRYER W/ MIN. CEF RATINGS OF 5.2
<b>TOTAL CREDITS</b>		
7		

\*PLEASE NOTE: ALL APPLIANCES SHALL BE INSTALLED WITH SUPPORTING DOCUMENTATION ON SITE PRIOR TO FINAL INSPECTION. NO DRYER DUCTS OR DRYER VENT CAPS SHALL NOT BE INSTALLED

**LEGEND**

- FINISH CONTOUR LINES
- DEMO CONTOUR LINES
- SILT FENCE
- TREE PROTECTION FENCING
- POWER LINE
- GAS LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE
- AREA OF LOT COVERAGE
- AREA OF HARDSCAPE
- AREA OF NGPA

**LEGAL DESCRIPTION**

LOTS 1-4, KNUTSON SHORT PLAT, MERCER ISLAND SHORT PLAT NO SUB07-003 AS RECORDED UNDER REC. NO. 2007121090010.

CARRS LAKE SIDE ADD "LOT 2" MERCER ISLAND SHORT PLAT NO SUB07-003 REC NO 2007121090010 SD SHORT PLAT DAF - LOTS 12,13,14,15,16,17 AND 18 OF CARRS LAKE SIDE ADDITION PLAT LESS THE EAST 72.00 FT OF LOTS 12,13,14 AND 15 & ALSO LESS PORLY SOUTH OF A LN DRWN PLW AND 50.00 FT SOUTH OF WHEN MEAS AT R/A TO NORTH LN OF LOTS 15-16-17 AND 18

**TREE PROTECTION**

A TREE PROTECTION INSPECTION IS REQUIRED BEFORE START OF WORK

**DUTY OF COOPERATION**

RELEASE AND ACCEPTANCE OF THESE DOCUMENTS INDICATES COOPERATION AMONG THE OWNER, CONTRACTOR, AND STURMAN ARCHITECTS. ANY ERRORS, OMISSIONS, OR DISCREPANCIES DISCOVERED IN THE USE OF THESE DOCUMENTS SHALL BE REPORTED IMMEDIATELY TO STURMAN ARCHITECTS. FAILURE TO DO SO WILL RELIEVE STURMAN ARCHITECTS FROM ANY RESPONSIBILITY FOR THE CONSEQUENCES.

ANY DEVIATION FROM THESE DOCUMENTS WITHOUT THE CONSENT OF STURMAN ARCHITECTS IS UNAUTHORIZED. FAILURE TO OBSERVE THESE PROCEDURES SHALL RELIEVE STURMAN ARCHITECTS OF RESPONSIBILITY FOR ALL CONSEQUENCES ARISING FROM SUCH ACTIONS.

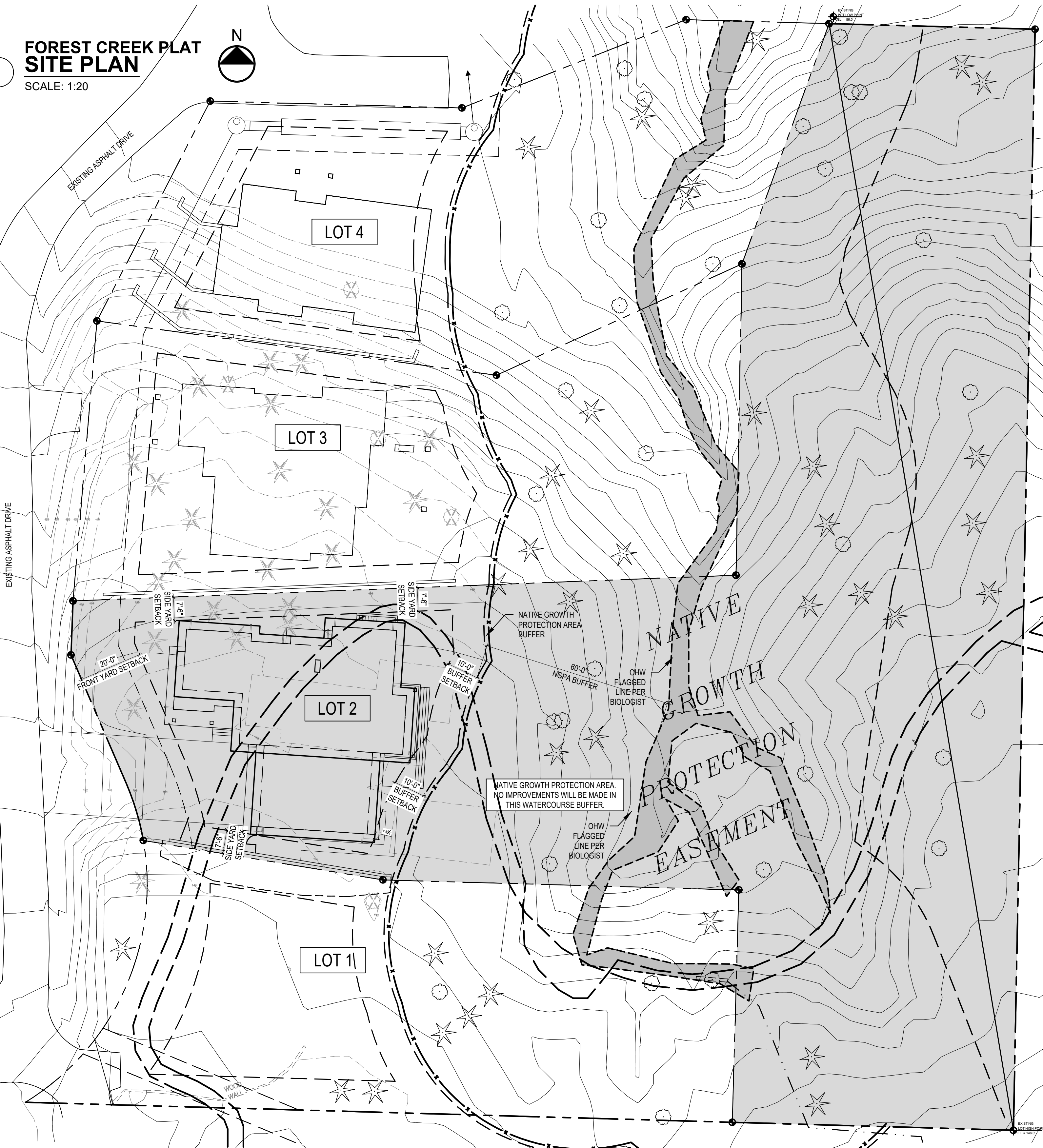
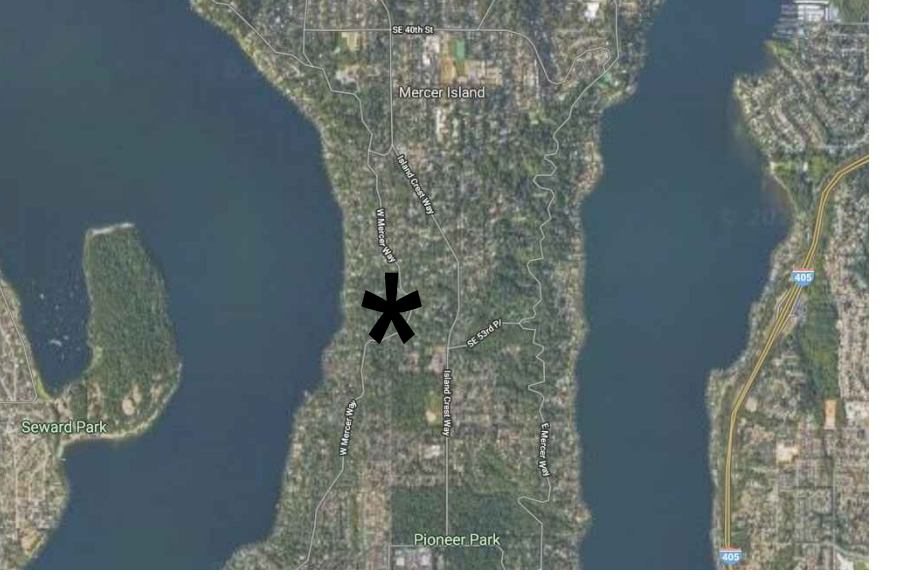
**GEOTECH ENGINEER**

GEOTECHNICAL ENGINEER REQUIRED TO BE PRESENT ON SITE DURING EXCAVATION AND AT REGULAR INTERVALS DURING CONSTRUCTION TO MONITOR THE STABILITY OF THE TEMPORARY OPEN CUT EXCAVATIONS PROPOSED FOR SITE RETAINING WALLS AND RESIDENTIAL STRUCTURE EXCAVATIONS.

**NOXIOUS WEEDS**

DEVELOPMENT PROPOSALS FOR A NEW SINGLE-FAMILY HOME SHALL REMOVE JAPANESE KNOTWEED (POLYGONUM CUSPIDATUM) AND REGULATED CLASS A, REGULATED CLASS B, AND REGULATED CLASS C WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED, FROM REQUIRED LANDSCAPING AREAS ESTABLISHED PURSUANT TO SUBSECTION 19.02.020(F)(3)(A), NEW LANDSCAPING ASSOCIATED WITH NEW SINGLE-FAMILY HOME SHALL NOT INCORPORATE ANY WEEDS IDENTIFIED ON THE KING COUNTY NOXIOUS WEED LIST, AS AMENDED. PROVIDED, THAT REMOVAL SHALL NOT BE REQUIRED IF THE REMOVAL WILL RESULT IN INCREASED SLOPE INSTABILITY OR RISK OF LANDSLIDE OR EROSION.

**VICINITY MAP**



**ENERGY NOTES**

CLIMATIC ZONE: ZONE #4C -MARINE

THERMAL STANDARDS FOR OPENINGS: UNLIMITED OPTION

CODE: 2018 W.S.E.C. & 2018 IRC, WAC 51-11R

SPACE HEAT TYPE: NATURAL GAS, FORCED AIR SYSTEM

PER WSEC R401.3, A CERTIFICATE IS REQUIRED TO BE POSTED WITHIN 3 FT OF THE ELECTRICAL PANEL, IT MUST INCLUDE THE FOLLOWING: PRECONDUIT R-VALUES, U-VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, AND EFFICIENCIES OF HEATING/COOLING/WATER HEATING EQUIPMENT.

AIR INFILTRATION: MANUFACTURED DOORS/WINDOWS, CONFORM TO SECTION R402.4.3 OF THE WASHINGTON STATE ENERGY CODE

EXTERIOR JOINTS/OPENINGS: SEAL, CAULK, GASKET OR WEATHERSTRIP TO LIMIT AIR LEAKAGE AT EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATION, BETWEEN WALLS AND ROOF, OPENINGS AT PENETRATIONS OF UTILITY SERVICES AND ALL OTHER SUCH OPENINGS IN THE BUILDING ENVELOPE

MOISTURE CONTROL: WALLS: VAPOR RETARDER BONDED TO BATT INSULATION; INSTALL WITH STAPLES NOT MORE THAN 8 INCHES ON CENTER AND WITH A GAP BETWEEN AND OVER FRAMING NOT GREATER THAN 1/16 OF AN INCH. OR VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE)

ATTICS/CEILINGS: VAPOR RETARDER OF ONE PERM CUP RATING (4 MIL POLYETHYLENE), INSTALL CONTINUOUSLY

CRAWL SPACE: 6 MIL POLYETHYLENE

VENTILATION: ATTICS WITH LOOSE FILL: N/A. BAFFLE VENT OPENINGS TO DEFLECT AIR ABOVE INSULATION SURFACE ENCLOSED JOIST OR RAFTER SPACES. PROVIDE MINIMUM OF ONE INCH CLEAR VENTED AIR SPACE ABOVE INSULATION. TAPER OR COMPRESS INSULATION AT PERIMETER TO INSURE PROPER VENTILATION, MAINTAINING MINIMUM OF R-38.

HEATING & COOLING: GAS FURNACE & AIR SOURCE HEAT PUMP

TEMP. CONTROL: FOR HEATING AND COOLING, THERMOSTAT SHALL BE CAPABLE OF BEING SET FROM 55-85 DEGREES FAHRENHEIT AND OF OPERATING

THE HEATING/COOLING SYSTEM IN SEQUENCE. THERMOSTAT TO BE AUTOMATIC DAY/NIGHT SETBACK TYPE.

DUCT INSULATION: THERMALLY INSULATE ALL PLENUMS, DUCTS AND ENCLOSURES IN ACCORDANCE WITH SECTION R403.3.1 OF THE WASHINGTON STATE ENERGY CODE.

a. ALL HEATING DUCTS IN UNCONDITIONED SPACES SHALL BE INSULATED WITH A MIN. OF R-8. ALL SEAM JOINTS SHALL BE TAPED, SEALED AND FASTENED WITH THE MINIMUM OF FASTENERS PER WSEC.

b. DUCTS WITHIN A CONCRETE SLAB OR IN THE GROUND SHALL BE INSULATED TO R-10, WITH INSULATION DESIGNED TO BE USED BELOW GRADE.

LIGHTING: RECESSED LIGHTING FIXTURES INSTALLED IN BUILDING ENVELOPE SHALL COMPLY WITH WSEC PROVISIONS AND SHALL BE CL1 LISTED. A MIN. OF 75% OF PERMANENTLY INSTALLED LAMPS IN INTERIOR AND EXTERIOR LIGHTING FIXTURES MUST BE HIGH-EFFICACY LAMPS, PER WSEC R404.1.

PIPE INSULATION: ALL HOT WATER PIPES, AND NON-RECIRCULATING COLD WATER PIPES LOCATED IN UNCONDITIONED SPACE, SHALL BE INSULATED TO R-3 MIN. PLUMBING OR MECHANICAL CANNOT DISPLACE THE REQUIRED INSULATION.

PLUMBING FIXTURES: ALL PLUMBING FIXTURES SHALL CONFORM TO RCW 19.27.170 ALL TOILETS 1.6 GPM MAX URINALS 1.0 GPM MAX SHOWERHEADS <1.75 GPM KITCHEN FAUCETS <1.75 GPM LAVATORIES <1.0 GPM

**WHOLE HOUSE VENTILATION**

a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY ERV/HVIRV W/ INTEGRAL FANS, PROVIDING MIN. 124 CFM RUNNING CONTINUOUSLY PER 2018 IRC TABLES M1505.4.2 (1&2). FAN SHALL BE LESS THAN .35 WATT PER CFM AND RUN CONTINUOUSLY, AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.

b. SYSTEM SHALL HAVE A 5'0" SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS. ALL SUPPLY DUCTS IN CONDITIONED SPACE SHALL BE INSULATED TO MIN. R-4 PER IRC M1507.3.5.2.

c. SHALL HAVE A FILTER WITH A MERV OF AT LEAST 6 INSTALLED IN AN EASILY ACCESSIBLE LOCATION.

d. FRESH AIR VENT SHALL BE LOCATED AWAY FROM SOURCES OF ODORS OR FUMES, MIN 10' FROM PLUMBING OR APPLIANCE VENTS, AWAY FROM ROOMS W/ FUEL BURNING APPLIANCES, AND OUT OF ATTICS, CRAWL SPACES, AND GARAGES.

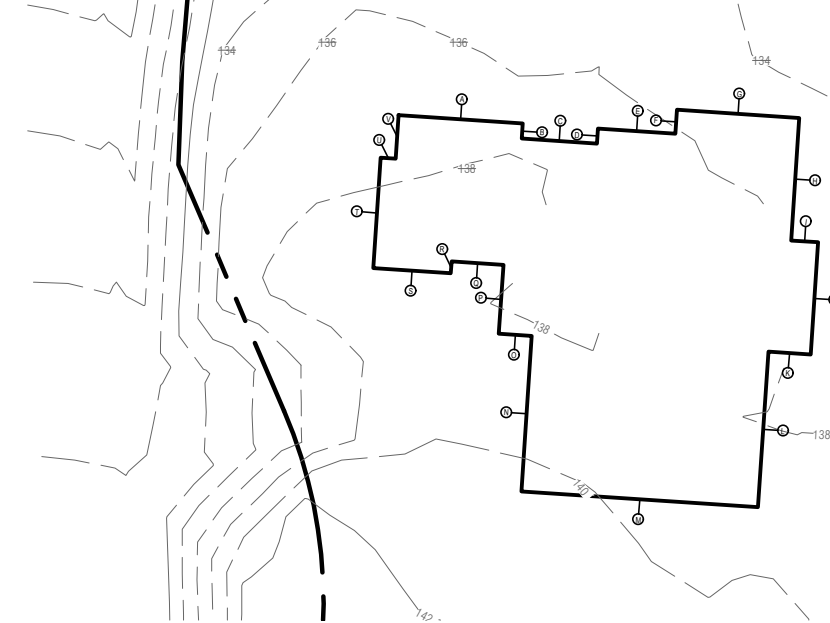
e. AIRFLOW FOR WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

f. WHOLE HOUSE VENTILATION SHALL BE TESTED, BALANCED AND VERIFIED AND A WRITTEN REPORT SHALL BE POSTED AND PROVIDED THE BUILDING OFFICIAL AND CERTIFICATION COMPLETED PER WSEC SECTIONS M1505.4.1.6 AND M1505.4.1.7.

g. AN EXHAUST FAN WHOLE HOUSE VENTILATION IS NOT ALLOWED WITH AN ERV SYSTEM.

BEDROOMS	6
HEATED SQUARE FOOTAGE	7106 SF
AIRFLOW (CFM)	124 CFM MIN.

**ABE KEY PLAN**



**STURMAN ARCHITECTS**

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REGISTERED ARCHITECT  
BRADLEY J. STURMAN  
STATE OF WASHINGTON

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**FOREST CREEK ESTATES LOT 2**  
PERMIT SET  
5214 FOREST AVE S.E.  
MERCER ISLAND, WA 98040

**LOT 2**  
SITE PLAN  
GENERAL NOTES

REVISIONS:

1	DATE	DESCRIPTION

DRAWN BY: KE

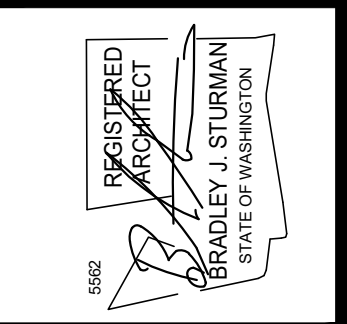
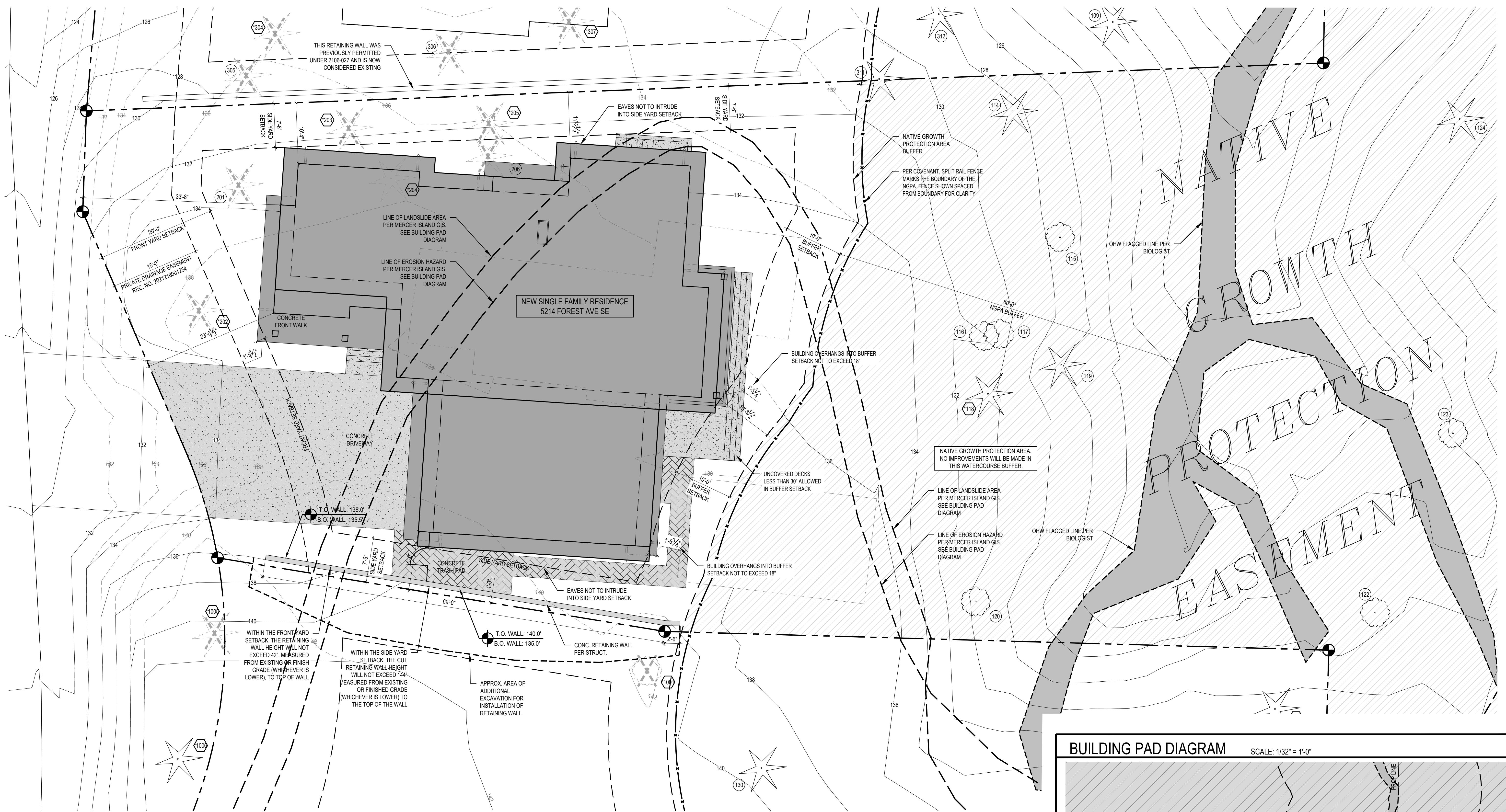
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SHEET

**A1.0**

PERMIT SET 01/30/23 PLOT DATE: 1/30/2023

SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY



**LEGEND:**

- FINISH CONTOUR LINES
- DEMO CONTOUR LINES
- SILT FENCE
- TREE PROTECTION FENCING
- POWER LINE
- GAS LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM DRAIN LINE
- AREA OF LOT COVERAGE
- AREA OF HARDSCAPE
- AREA OF NGPA

**BUILDING AREA**

	LOWER FLOOR	MAIN FLOOR	UPPER FLOOR	HEATED SUB-TOTAL	GARAGE/WORKSHOP	GRAND TOTAL	UNHEATED PATIO	UNHEATED DECK
PROPOSED HOUSE:	2038 SF	2022 SF	3046 SF	7106 SF	1043 SF	8149 SF	524 SF	117 SF

**LOT COVERAGE AND HARDSCAPE**

	GROSS LOT S.F.	MAIN ROOF STRUCT	DRIVES/PARKING	TOTAL LOT COVERAGE	% LOT COVERAGE	FRONT WALK	TRASH SIDEWALK	PATIO	CONC STAIRS	RETAINING WALLS	TOTAL HARDSCAPE	% HARDSCAPE
EXISTING LOT COVERAGE AREA	48,010 SF	0 SF	0 SF	0 SF	0%	0 SF	0 SF	0 SF	0 SF	0 SF	0 SF	0%
PROPOSED LOT COVERAGE AREA		4163 SF	1002 SF	5165 SF	10.5%	28 SF	319 SF	178 SF	28 SF	60 SF	613 SF	1.3%
NET GAIN/LOSS IMPERVIOUS AREA		+4163 SF	+1002 SF	+5165 SF	+10.5%	+28 SF	+319 SF	+178 SF	+28 SF	+60 SF	+613 SF	+1.3%
% ALLOWED IMPERVIOUS AREA				17,153.5 SF ALLOWABLE	35%						4410.9 SF ALLOWABLE	9%

HIGHEST EL: 146.0'  
LOWEST EL: 86.0'  
ELEVATION DIFFERENCE= 60.0'  
60.0' DIVIDED BY 356.5' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .168

LOT SLOPE IS 16.8%, WHICH IS GREATER THAN 15% SO LOT COVERAGE ALLOWED IS 35%.

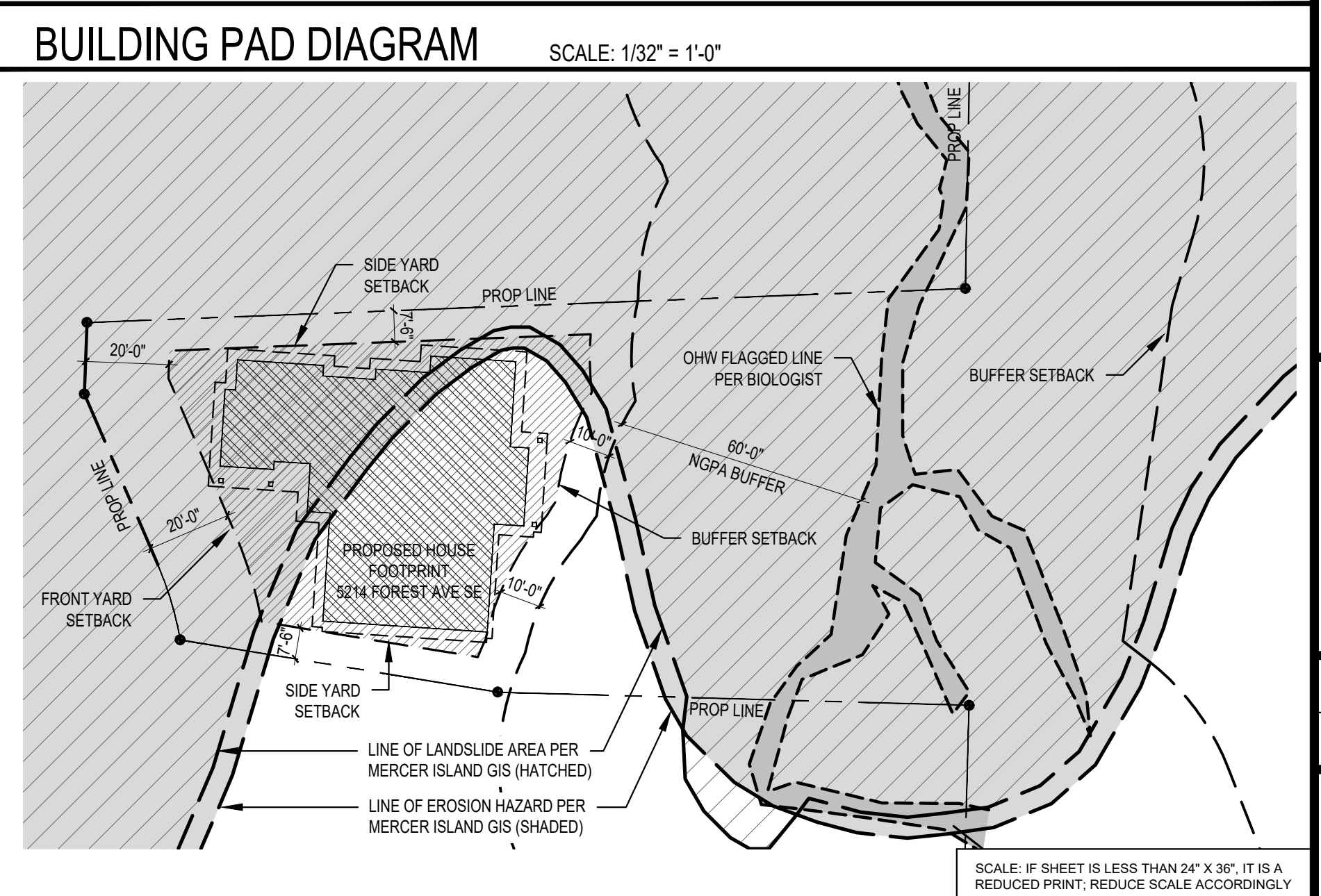
ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE

**LOT 2 SITE PLAN**  
SCALE: 1/8" = 1'-0"

**GROSS FLOOR AREA**

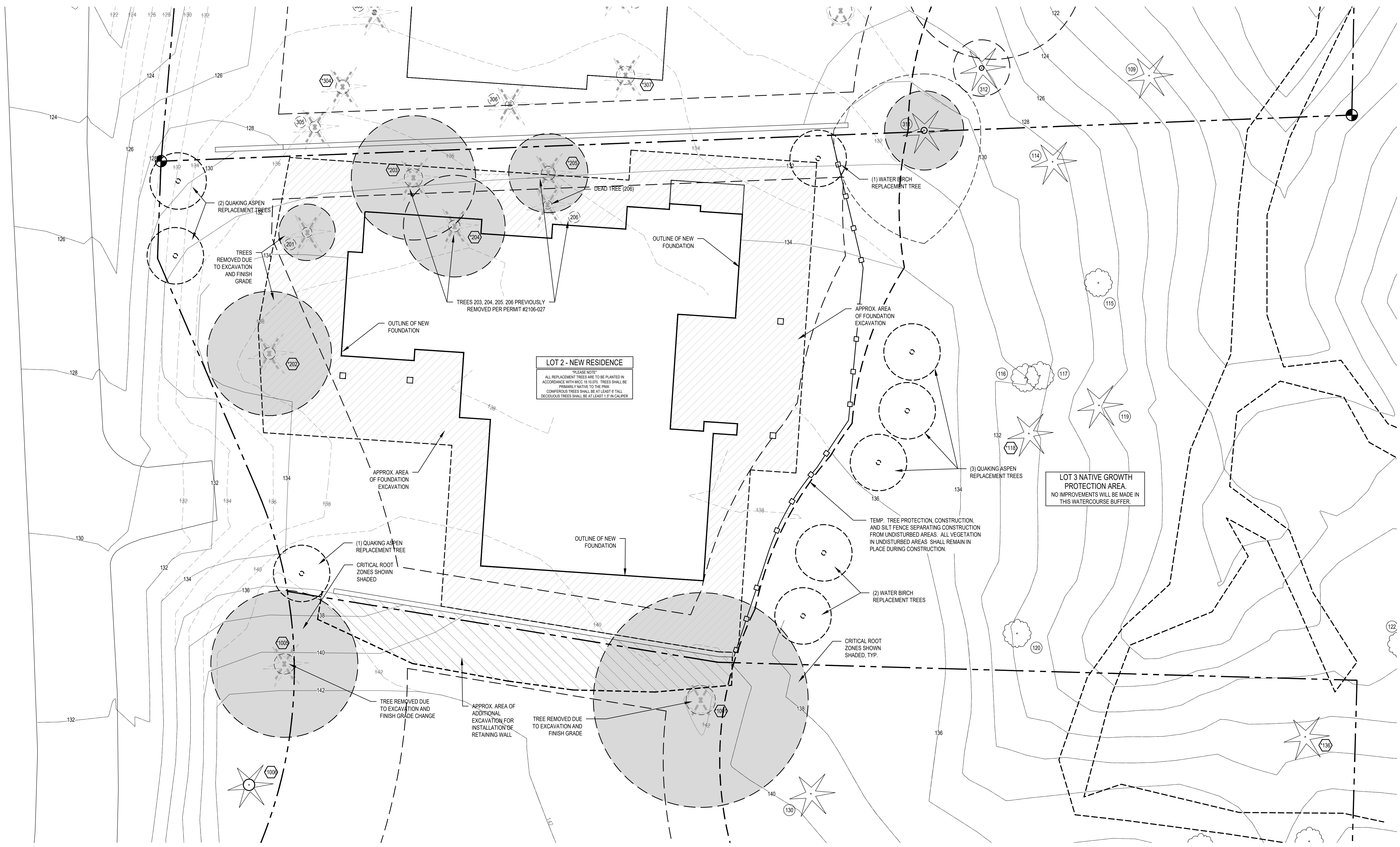
	BASEMENT EXCLUSION	NEW FLOOR AREA
LOWER FLOOR		2038 SF
MAIN FLOOR		2022 SF
SECOND FLOOR		3046 SF
GARAGE		1043 SF
GROSS FLOOR AREA		8149 SF

NET LOT AREA: 49,010 SF  
ALLOWED MAX. % GFA COVERAGE: 40.0% OR 12,000 SF  
ALLOWED GROSS FLOOR AREA: 12,000 SF  
PROPOSED GROSS FLOOR AREA: 8149 SF  
COVERED UPPER DECK: +84 SF  
12" CEILING OF BATHS: +68 SF  
12" CEILING OF REC ROOM: +141.5 SF  
12" CEILING OF PRIMARY: +211.5 SF  
TOTAL GFA COVERAGE: 8574 SF  
PROPOSED % GFA COVERAGE: 17.6%

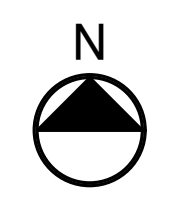


REVISIONS:


DRAWN BY: KE  
CHECKED BY: BJS  
SHEET: **A1.1**  
PERMIT SET 01/30/23 PLOT DATE: 1/30/2023

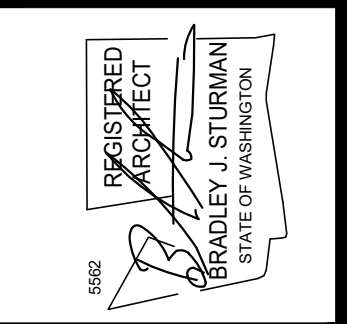


**3 LOT 2 TREE PLAN**  
SCALE: 1/8" = 1'-0"



**REPLACEMENT TREES:**  
WATER BIRCH = 3  
QUAKING ASPEN = 6  
TOTAL REPLACEMENT TREES = 9

**\*PLEASE NOTE\***  
FOR THE DEVELOPMENT OF PARCEL 1410300059 ("LOT 2"), ANY TREES REMOVED FROM ADJOINING PARCEL 1410300057 ("LOT 1") WILL NOT BE INCLUDED IN ANY TREE DENSITY CALCULATIONS FOR "LOT 2." ALL REQUIRED REPLACEMENT TREES FOR TREES REMOVED FROM "LOT 1" WILL BE NOT BE INCLUDED WITH REQUIRED REPLACEMENT TREES FOR "LOT 2." ALL "LOT 1" REPLACEMENT TREES WILL BE SHOWN ON THE PLAN SET FOR "LOT 1."



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**FOREST CREEK ESTATES LOT 2 PERMIT SET**  
5214 FOREST AVE S.E.  
MERCER ISLAND, WA 98040

**LOT 2 REPLACEMENT TREE PLAN**

REVISIONS:	
DRAWN BY:	KE
CHECKED BY:	BJS
SHEET	

**A1.2**



SCALE: 1" = 20'

**MERIDIAN**

STATE PLANE COORDINATE SYSTEM - NORTH ZONE NAD83 (2011)  
BASED ON RAPID STATIC GPS MEASUREMENTS WITH OPUS SOLUTION.

**VERTICAL DATUM**

NAVD 88 (GEOID 18)  
BASED ON RAPID STATIC GPS MEASUREMENTS WITH OPUS SOLUTION.

**BENCHMARKS**

TBM-A  
FOUND 4"x4" CONC MON WITH 2" BRASS DISC 1" LS#25341 WITH PUNCH 0.3 BELOW GRADE IN CASE GRADE IN CASE 69.6' NW OF NW PROP CORNER.  
ELEV. = 104.53'

TBM-B  
FOUND 1/2" REBAR AND MGA CONTROL CAP AT W SIDE FOREST DRIVE, 0.5W OF WEST EDGE ASPHALT PAVEMENT AND 15.5W OF CB-5078.  
ELEV. = 113.94'

**NOTES**

- A 5" ELECTRONIC TOTAL STATION WAS USED FOR THIS FIELD TRAVERSE SURVEY. ALL EQUIPMENT HAS BEEN MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES. ACCURACY MEETS OR EXCEEDS W.A.C. 332-130-090.
- THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.
- THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF A SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITION EXISTING AT THAT TIME. ALL CONTROL INDICATED AS "FOUND" WAS RECOVERED FOR THIS PROJECT IN FEBRUARY 18, 2020, UNLESS OTHERWISE NOTED.
- UNDERGROUND UTILITIES WERE LOCATED BASED ON SURFACE EVIDENCE (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, ETC.). THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION, AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- TREE SIZES AND SPECIES WERE DETERMINED TO THE BEST OF OUR ABILITY. MEAD GILMAN AND ASSOCIATES DOES NOT WARRANT THE ACCURACY OF THE SIZE AND SPECIES OF ANY TREES SHOWN HEREON. ALL TREE SIZES SHOULD BE VERIFIED BY A TRAINED ARBORIST.
- THIS MAP DOES NOT INTEND TO SHOW ALL EASEMENTS OF RECORD.
- ALL CONTOUR INFORMATION EAST OF THE NATIVE PROTECTION AREA BOUNDARY WAS GENERATED FROM PUBLIC LIDAR DATA.
- FLAGS AT OHW ARE SET BY ALTMANN OLIVER ASSOCIATES, LLC IN JANUARY OF 2023.
- THIS UPDATE TO THE TOPOGRAPHIC SURVEY IS INTENDED TO JUST SHOW THE NEW BUFFER AND ORDINARY HIGH WATER FLAGS. NO ATTEMPT TO UPDATE ANY OTHER ASPECT OF THE MAP HAS BEEN DONE.

**LEGAL DESCRIPTION**

LOTS 1-4, KNUTSON SHORT PLAT, MERCER ISLAND SHORT PLAT NO SUB07-003 AS RECORDED UNDER REC. NO. 20071210900010.

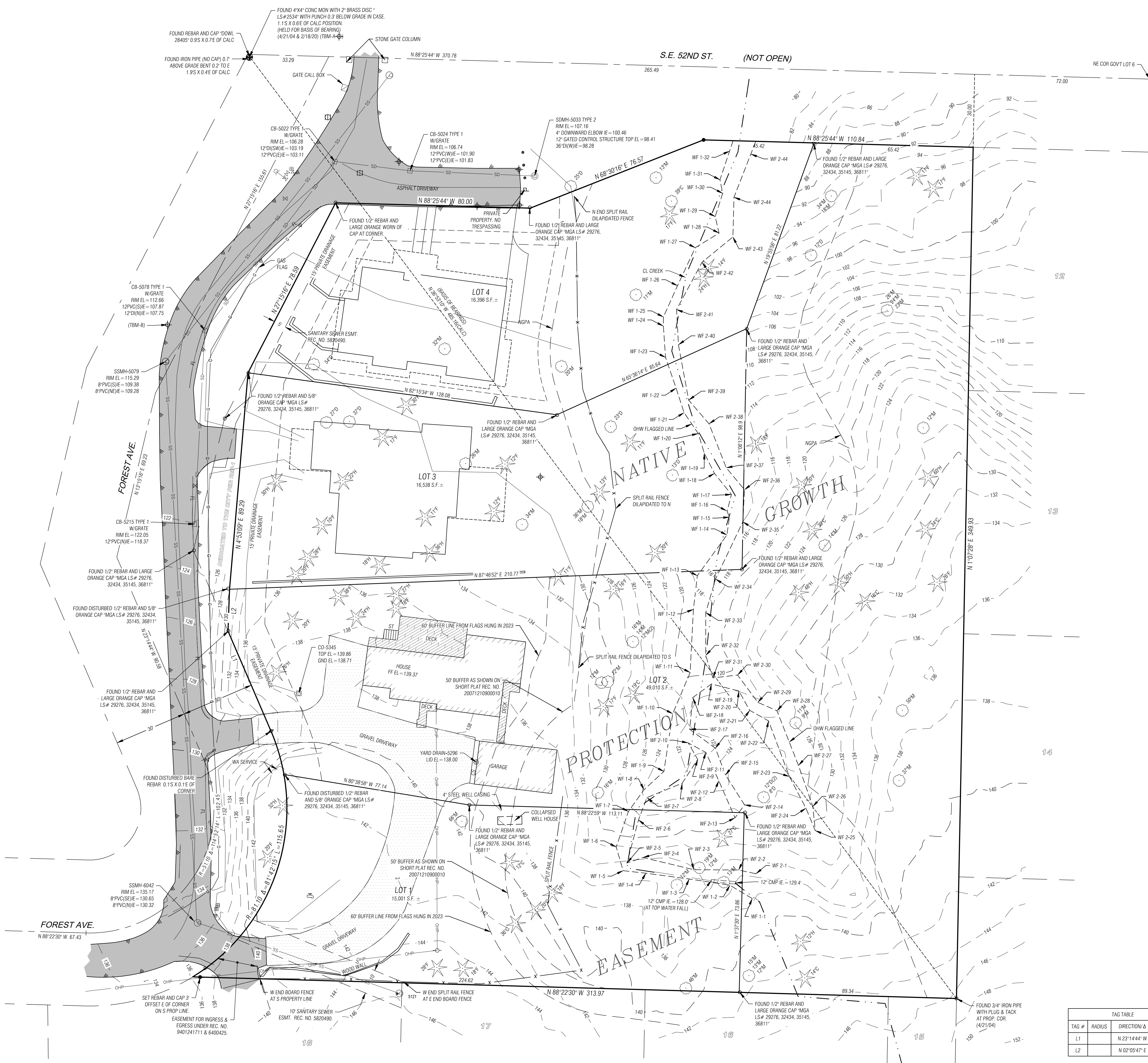
**REFERENCES**

- ROS REC. NO. 20071210001864, VOL. 236, PG. 232.
- MERCER ISLAND SHORT PLAT NO SUB07-003, REC. NO. 2007121090001.

**LEGEND**

- SET 1/2" X 24" REBAR WITH YELLOW PLASTIC CAP STAMPED "MGA 35145 49383"
- FOUND CORNER
- ⊕ FOUND MONUMENT
- ⊕ TEMPORARY BENCHMARK
- ⊕ GAS VALVE
- ⊕ ELECTRICAL JUNCTION BOX
- ⊕ UTILITY POLE
- ⊕ CATCH BASIN - TYPE I
- ⊕ CATCH BASIN - TYPE II
- ⊕ STORM CLEANOUT
- ⊕ YARD DRAIN
- ⊕ SEWER MANHOLE
- ⊕ FIRE HYDRANT
- ⊕ HOSE BIB
- ⊕ WATER METER
- ⊕ WATER VALVE
- ⊕ BOLLARD
- ⊕ SIGN
- ⊕ SOIL TEST PIT
- ⊕ CONIFEROUS TREE
- ⊕ DECIDUOUS TREE
- ASPHALT
- ASPHALT HATCH
- FENCE LINE
- OVERHEAD POWER LINES
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- WATER MAIN
- ASPHALT HATCH
- CONCRETE HATCH
- DECK HATCH
- GRAVEL HATCH
- C CEDAR
- D DECIDUOUS
- E ELM
- H HEMLOCK
- M MAPLE
- CS CONC. SLAB
- FF FINISH FLOOR
- FL FLOW LINE/ ASPH THICKENED EDGE
- ST STAIRS
- WF# WETLAND FLAG NUMBER
- OHW FLAGGED OVERHEAD WATER LINE

TAG TABLE			
TAG #	RADIUS	DIRECTION/Δ	LENGTH
L1		N 23°14'44" W	44.63
L2		N 02°05'47" E	17.18



DATE		REVISION							
#									
1/12/23									
<b>FOREST AVE LOTS</b> BOUNDARY & TOPOGRAPHIC SURVEY <b>SEASCAPE HOMES</b> PO BOX 40568 BELLEVUE WA 98015									
DRAWN BY: <b>LSD</b>									
REVIEWED BY: <b>CSB</b>									
DATE: <b>03-11-2020</b>									
JOB NO. <b>20011</b>									
SHEET <b>1 OF 1</b>									

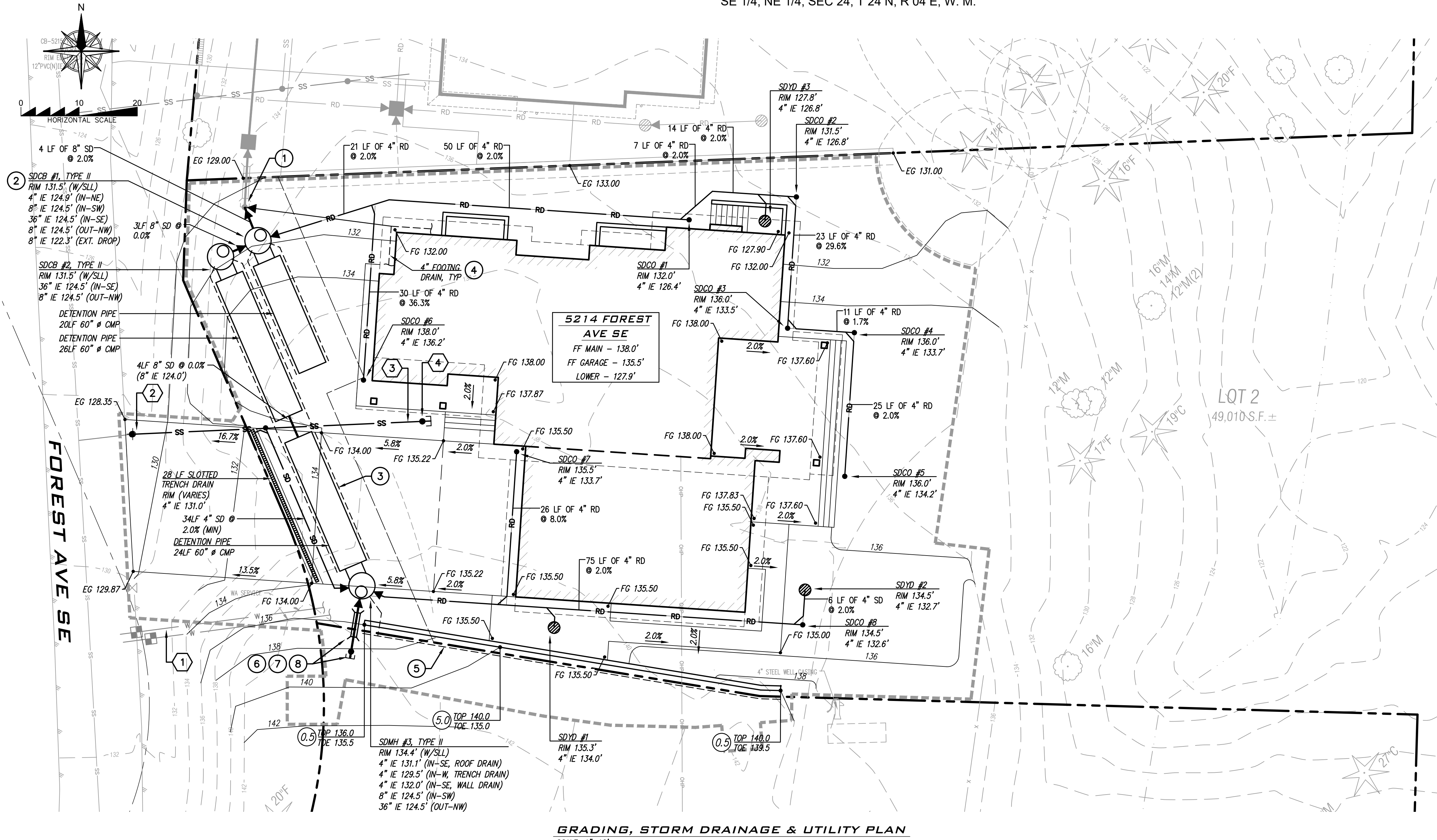






# FOREST CREEK ESTATES - LOT 2

SE 1/4, NE 1/4, SEC 24, T 24 N, R 04 E, W. M.

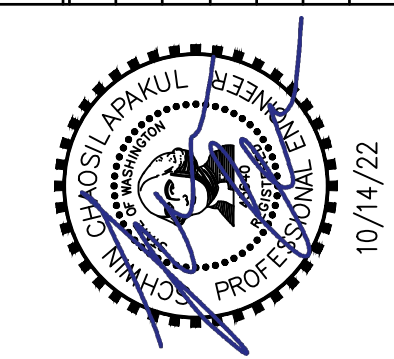


**GRADING, STORM DRAINAGE & UTILITY PLAN**  
SCALE: 1"=10'

- STORM CALLOUTS:**
- CONNECT TO EXISTING LOT 3 STORM SYSTEM, VIA EXISTING CLEANOUT AT PROPERTY LINE (8" IE 122.2').
  - INSTALL STORM DRAINAGE DETENTION SYSTEM. CONTROL STRUCTURE IN SDCB #1 (SEE SHEET C3.1).
  - INSTALL 4" PERFORATED PERIMETER DRAIN @ 0.0% SLOPE, TYP (4" IE 124.5'). CONNECT TO SDCB #1 AND #2.
  - 4" FOOTING DRAIN SYSTEM TO EXTEND AROUND BUILDING PERIMETER. CONNECT TO SDCB #1 (PER PLAN) @ 2.0% (MIN) (4" IE 124.7'). INSTALL CLEANOUTS AT BUILDING CORNERS, TYP. REFER TO STRUCTURAL PLANS FOR FOOTING DRAIN DETAILS.
  - 4" WALL FOOTING DRAIN SYSTEM TO CONNECT TO 8" STORM SYSTEM AT APPROXIMATE LOCATION SHOWN. REFER TO STRUCTURAL PLANS FOR WALL FOOTING DRAIN DETAILS.
  - 15" DIA. D.I. OR C900 SLEEVE TO EXTEND AT 2' BEYOND FOOTING (MIN).
  - 8" DIA. STORM SYSTEM TO PROVIDE FUTURE CONNECTION FOR LOT 1 (SOUTH) STORM SYSTEM. PROVIDE 1.5' MIN. COVER OVER SLEEVE BENEATH RETAINING WALLS.
  - CAP 8" DIA. STORM LINE AND PROVIDE CLEANOUT AT 5' SOUTH OF LOT 2/LOT 1 PROPERTY LINE FOR FUTURE CONNECTION TO LOT 1 STORM SYSTEM (8" IE 124.7').

- UTILITY CALLOUTS:**
- FIELD LOCATE EX WATER STUB AND INSTALL NEW 2" WATER METER FOR DOMESTIC AND FIRE SYSTEM, PER CITY OF MERCER ISLAND STD. PLAN NO. W-14A (SEE DETAIL 2, SHEET C3.2). IF NEW SERVICE CONNECTION TO THE MAIN IS REQUIRED, NEAT LINE SAW-CUT FOR WATER LINE TRENCHING AND RESTORE PAVEMENT, PER CITY OF MERCER ISLAND STD. PLAN NO. W-3 (SEE DETAIL 1, SHEET C3.2).
  - CONNECT NEW 6" SEWER LINE WITH CLEANOUT TO EX. 6" SEWER STUB (APPROX. IE 125.5±). PROVIDE MINIMUM OF 2.0% SLOPE AND CONNECT TO RESIDENCE AT APPROX. IE 124.4±, PER CITY OF MERCER ISLAND STD. PLANS. COORDINATE WITH PUBLIC WORKS INSPECTOR FOR SCOPE AND RE-USE OF EXISTING LINE. THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN MUST BE VIDEO INSPECTED AND REPAIR/REPLACE AS NEEDED.
  - INSTALL 51L 6" PVC SANITARY SEWER SERVICE @ 2.0% (MIN), PER CITY OF MERCER ISLAND STD. PLAN NO. S-3 AND S-18 (SEE DETAILS 3 AND 4, SHEET C3.2).
  - INSTALL SANITARY SEWER CLEANOUT, PER CITY OF MERCER ISLAND STD. PLAN NO. S-19, TYP (SEE DETAIL 5, SHEET C3.2).

BY	DESCRIPTION
R#	DATE



BUILDING PERMIT  
**GRADING, STORM DRAINAGE & UTILITY PLAN**

**PATRICK HARRON & ASSOCIATES, LLC**  
Civil Engineering & Planning  
14900 Interurban Ave. S, Suite 279, Seattle, WA 98148  
Phone: 206.674.4659  
Web: patrickharron.com

PROJ. NO. 20113	DSN. BY: CC
DWN. BY: CC	CHK. BY: SC

FOREST CREEK ESTATES  
LOT 2

DATE: 10/14/22
SCALE: AS SHOWN
DRAWING NO. C3.0
4 OF 6

**CALL 48 HOURS BEFORE YOU DIG 811**

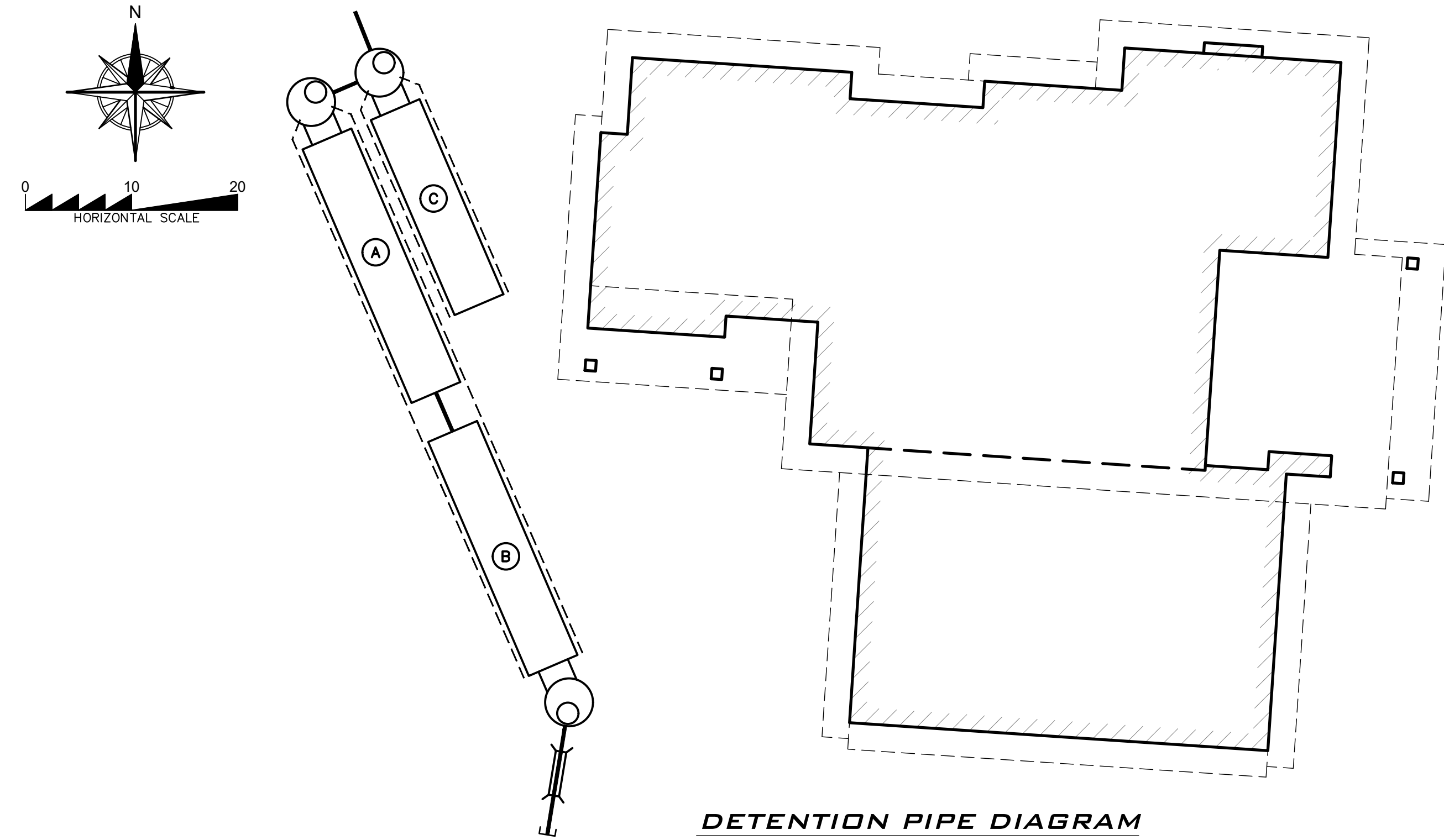
THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 OR 811 (CELL) A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

Oct 14, 2022 4:05:48PM - User Chris Cole  
P:\2020\20113\_Forest Avenue Building Permits - Mercer Island\Drawing\Working\Sheets\Lot 2\20113\_C3.0-GRADING, STORM DRAINAGE AND UTILITY PLAN.dwg



# FOREST CREEK ESTATES - LOT 2

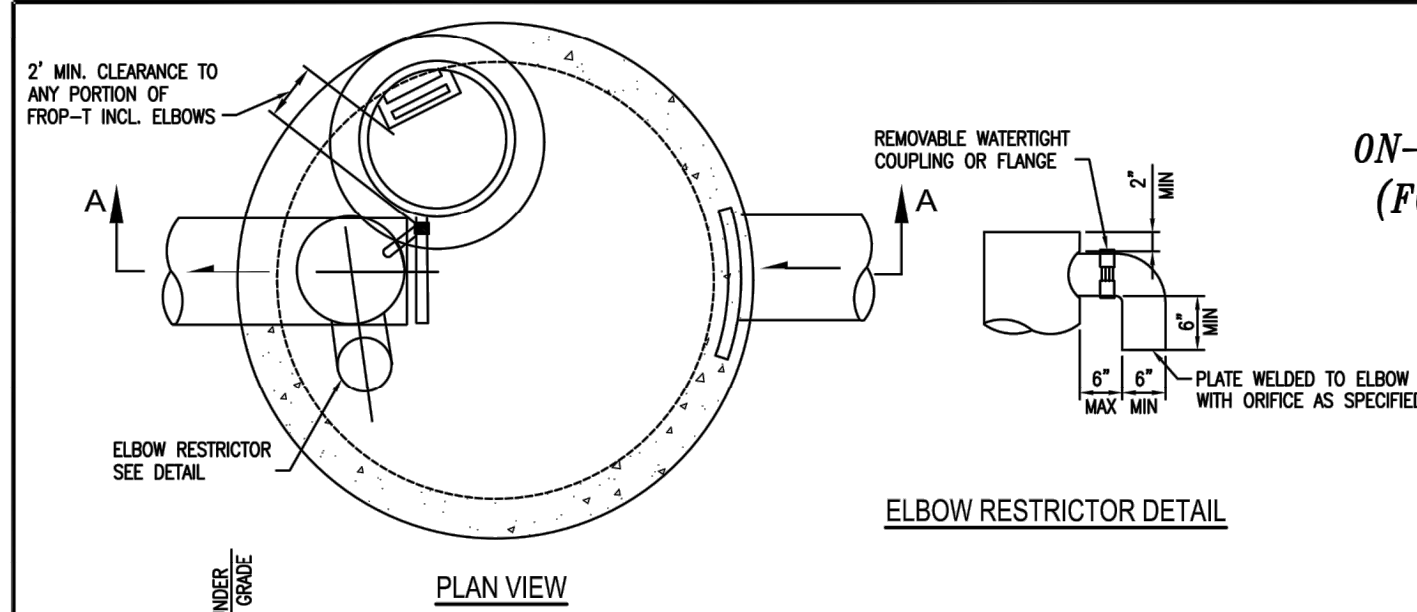
SE 1/4, NE 1/4, SEC 24, T 24 N, R 04 E, W. M.



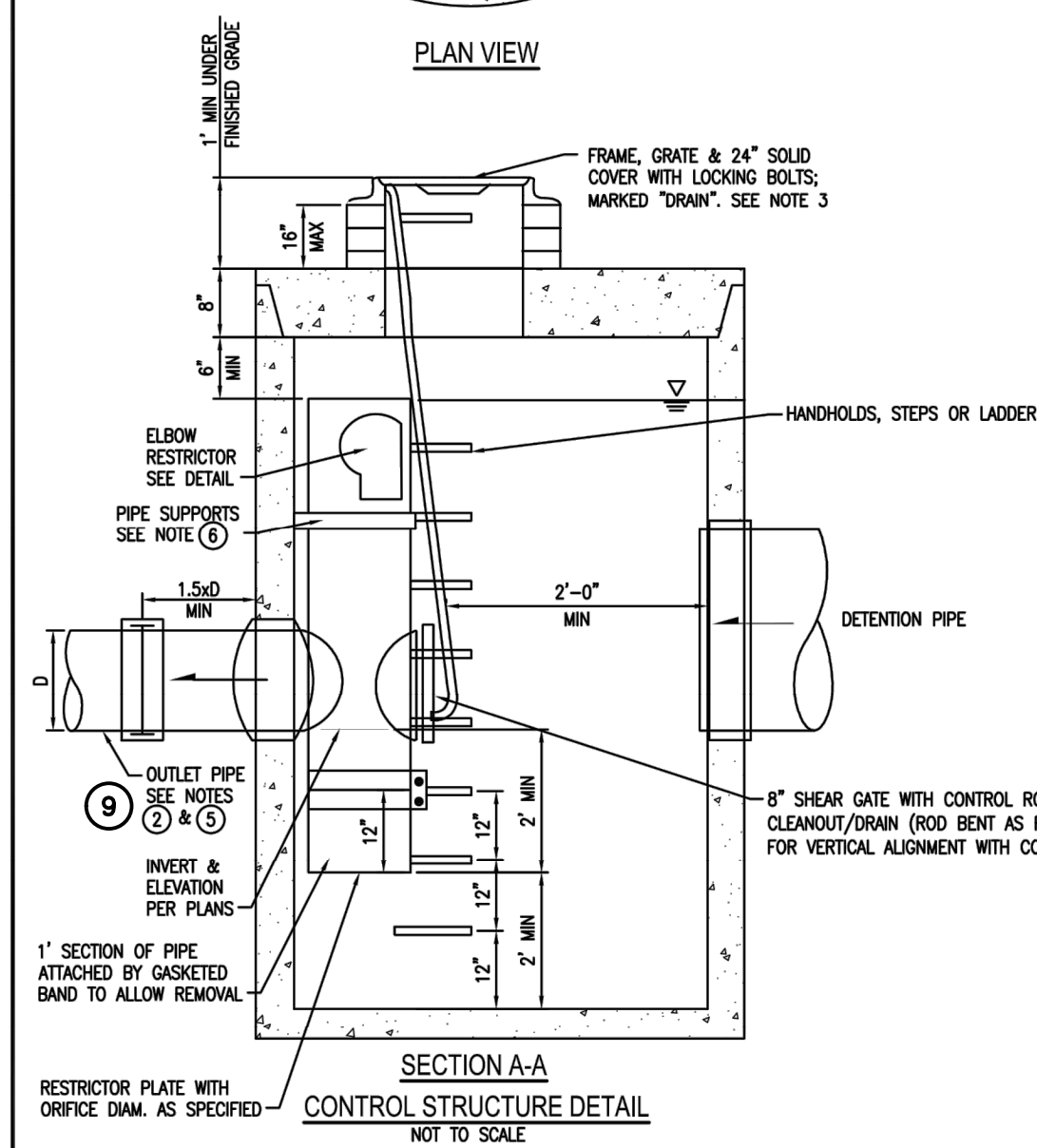
**DETENTION PIPE DIAGRAM**  
SCALE: 1"=10'

## ATTACHMENT 1 CITY OF MERCER ISLAND ON-SITE DETENTION SYSTEM WORKSHEET (FOR NEW PLUS REPLACED IMPERVIOUS AREA OF 9,500 SF OR LESS)

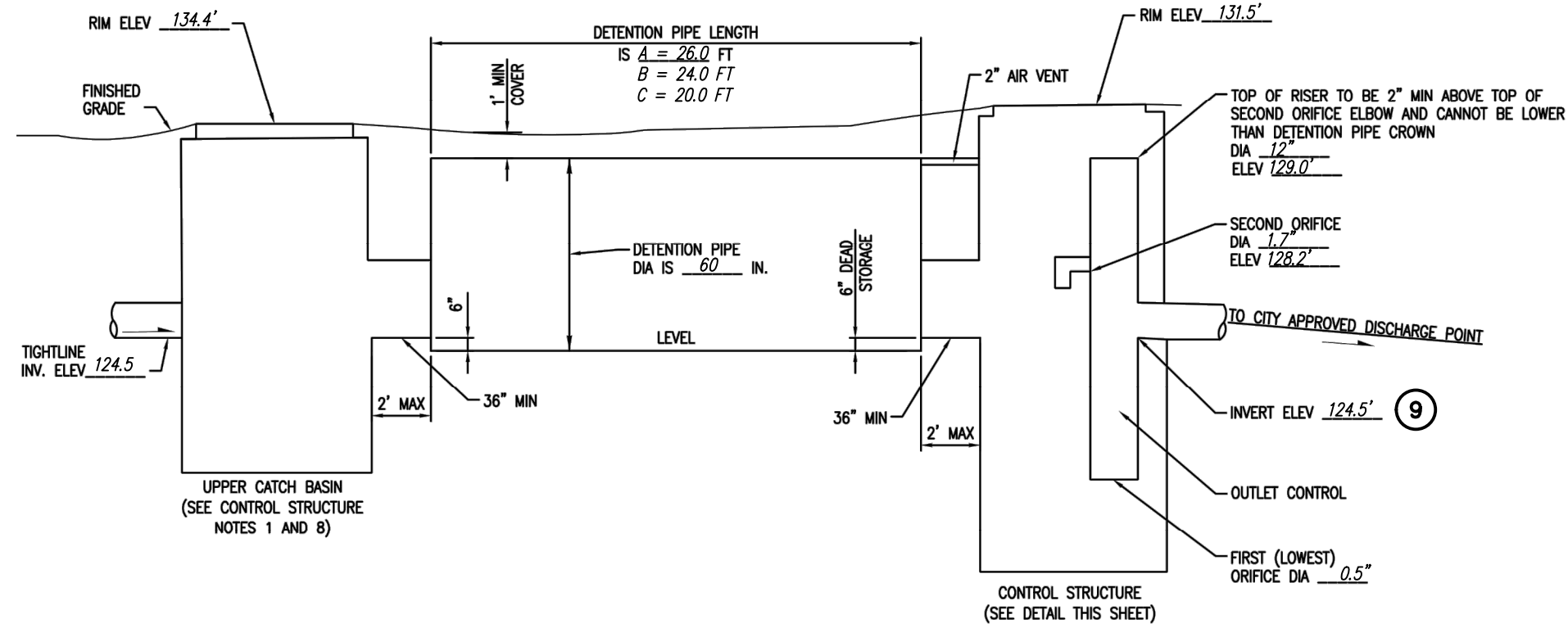
OWNER: JON TELLEFSON ADDRESS: 5214 FOREST AVE SE PREPARED BY: SCHMIN CHAOSLAPAKUL, PE  
 PERMIT #: TBD MERCER ISLAND, WA 98040 PHONE: 206.384.7539  
 DATE: 10/14/22  
 NEW PLUS REPLACED IMPERVIOUS SURFACE AREA (SF): 11,399 SF DETENTION PIPE DIA (INCH): 60 DETENTION PIPE LENGTH (FT): A=26.0 ORIFICE #1 DIA 0.5" INCH, ELEV 122.5'  
 SOIL TYPE: C PIPE MATERIAL: CMP B=24.0 C=20.0 ORIFICE #2 DIA 1.7" INCH, ELEV 128.2'  
 TOTAL=70.0



**ELBOW RESTRICTOR DETAIL**



**SECTION A-A  
CONTROL STRUCTURE DETAIL  
NOT TO SCALE**



**ON-SITE DETENTION SYSTEM  
NOT TO SCALE (ENGINEER TO FILL IN BLANKS)**

**NOTE:  
CONTROL STRUCTURE  
IN SDCB #1 ONLY**

**CONTROL STRUCTURE NOTES**

- USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.
- OUTLET PIPE: MIN. 6 INCH.
- METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
- FRAME AND LADDER OR STEPS OFFSET SO:
  - A. CLEANOUT GATE IS VISIBLE FROM TOP.
  - B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
  - C. FRAME IS CLEAR OF CURB.
- IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS 1/4 IN.
- PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH 5/8 IN. STAINLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WALL (MAXIMUM 3'-0" VERTICAL SPACING).
- THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275. DESIGNATION Z532K OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 3502. THE LEFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANGE AND THE GATE FLANGE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.
- THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.
- INSTALL EXTERNAL DROP CONNECTION AT 8" OUTLET FROM THE CONTROL STRUCTURE (SDCB #1 ONLY).

**ON-SITE DETENTION SYSTEM NOTES:**

- CALL DEVELOPMENT SERVICES (206-275-7805) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
- RESPONSIBILITY FOR OPERATION AND MAINTENANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS RESPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
- PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING: LINED CORRUGATED POLYETHYLENE PIPE (LCOPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.
- FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

**Table 1**  
ON-SITE DETENTION DESIGN FOR PROJECTS BETWEEN 500 SF AND 9,500 SF NEW PLUS REPLACED IMPERVIOUS SURFACE AREA

New and Replaced Impervious Surface Area (sf)	Detention Pipe Diameter (in)	Detention Pipe Length (ft)		Lowest Orifice Diameter (in) <sup>(1)</sup>		Distance from Outlet Invert to Second Orifice (ft)		Second Orifice Diameter (in)	
		B soils	C soils	B soils	C soils	B soils	C soils	B soils	C soils
500 to 1,000 sf	36"	30	22	0.5	0.5	2.2	2.0	0.5	0.8
	48"	18	11	0.5	0.5	3.3	3.2	0.9	0.8
	60"	11	7	0.5	0.5	4.2	3.4	0.5	0.6
1,001 to 2,000 sf	36"	66	43	0.5	0.5	2.2	2.3	0.9	1.4
	48"	34	23	0.5	0.5	3.2	3.3	0.9	1.2
	60"	22	14	0.5	0.5	4.3	3.6	0.9	0.9
2,001 to 3,000 sf	36"	90	66	0.5	0.5	2.2	2.4	0.9	1.9
	48"	48	36	0.5	0.5	3.1	2.8	0.9	1.5
	60"	30	20	0.5	0.5	4.2	3.7	0.9	1.1
3,001 to 4,000 sf	36"	120	78	0.5	0.5	2.4	2.2	1.4	1.6
	48"	62	42	0.5	0.5	2.8	2.9	0.8	1.3
	60"	42	26	0.5	0.5	3.8	3.9	0.9	1.3
4,001 to 5,000 sf	36"	134	91	0.5	0.5	2.8	2.2	1.7	1.5
	48"	73	49	0.5	0.5	3.6	2.9	1.6	1.5
	60"	46	31	0.5	0.5	4.6	3.5	1.6	1.3
5,001 to 6,000 sf	36"	162	109	0.5	0.5	2.7	2.2	1.8	1.6
	48"	90	59	0.5	0.5	3.5	2.9	1.7	1.5
	60"	54	37	0.5	0.5	4.6	3.6	1.6	1.4
6,001 to 7,000 sf	36"	192	128	0.5	0.5	2.7	2.2	1.9	1.8
	48"	102	68	0.5	0.5	3.7	2.9	1.9	1.6
	60"	64	43	0.5	0.5	4.6	3.6	1.8	1.5
7,001 to 8,000 sf	36"	216	146	0.5	0.5	2.8	2.2	2.0	1.9
	48"	119	79	0.5	0.5	3.8	2.9	2.2	1.7
	60"	73	49	0.5	0.5	4.5	3.6	2.0	1.6
8,001 to 8,500 sf <sup>(1)</sup>	36"	228	155	0.5	0.5	2.8	2.2	2.1	1.9
	48"	124	84	0.5	0.5	3.7	2.9	1.9	1.8
	60"	77	53	0.5	0.5	4.6	3.6	2.0	1.6
8,501 to 9,000 sf	36"	NA <sup>(1)</sup>	164	0.5	0.5	NA <sup>(1)</sup>	2.2	NA <sup>(1)</sup>	1.9
	48"	NA <sup>(1)</sup>	89	0.5	0.5	NA <sup>(1)</sup>	2.9	NA <sup>(1)</sup>	1.9
	60"	NA <sup>(1)</sup>	55	0.5	0.5	NA <sup>(1)</sup>	3.6	NA <sup>(1)</sup>	1.7
9,001 to 9,500 sf <sup>(2)##</sup>	36"	NA <sup>(1)</sup>	174	0.5	0.5	NA <sup>(1)</sup>	2.2	NA <sup>(1)</sup>	2.1
	48"	NA <sup>(1)</sup>	94	0.5	0.5	NA <sup>(1)</sup>	2.9	NA <sup>(1)</sup>	2.0
	60"	NA <sup>(1)</sup>	58	0.5	0.5	NA <sup>(1)</sup>	3.7	NA <sup>(1)</sup>	1.7

**Notes:**

- Minimum Requirement #7 (Flow Control) is required when the 100-year flow frequency causes a 0.15 cubic feet per second increase (when modeled in WWHM with a 15-minute timestep). Breakpoints shown in this table are based on a flat slope (0-5%). The 100-year flow frequency will need to be evaluated on a site-specific basis for projects on moderate (5-15%) or steep (> 15%) slopes.
- Soil type to be determined by geotechnical analysis or soil map.
- Sizing includes a Volume Correction Factor of 120%.
- Upper bound contributing area used for sizing.
- On Type B soils, new plus replaced impervious surface areas exceeding 8,500 sf trigger Minimum Requirement #7 (Flow Control) 2-year, 24-hour storm = 2 in; 10-year, 24-hour storm = 3 in; 100-year, 24-hour storm = 4 in
- On Type C soils, new plus replaced impervious surface areas exceeding 9,500 sf trigger Minimum Requirement #7 (Flow Control) 2-year, 24-hour storm = 2 in; 10-year, 24-hour storm = 3 in; 100-year, 24-hour storm = 4 in
- Predeveloped = second growth forest (CN = 72 for Type B soils, CN = 81 for Type C soils)
- Developed = Impervious (CN = 98)
- 0.5 foot of sediment storage in detention pipe
- Overland slope = 5%

**\*\* THE PROPOSED DETENTION PIPE SYSTEM ON LOT 2 IS SIZED TO ACCOMMODATE FUTURE IMPROVEMENTS FOR LOTS 1 & 2. THE FOLLOWING PARAMETERS WERE USED IN SIZING THE PROPOSED DETENTION PIPE:**

- IMPERVIOUS AREA OF FUTURE LOT 1 & LOT 2 - 4,900 SF + 6,500 SF (INCLUDES OFFSITE) = 11,400 SF.
- SIZING PER STANDARD TABLE 1 (THIS SHEET) FOR 60" DIAM. PIPE WITH IMPERVIOUS AREAS BETWEEN 9,001 SF - 9,500 SF ==> 9,500 SF / 58 LF = 164 SF / 1 LF.
- LOTS 1 & 2 REQUIRED DETENTION PIPE LENGTH = 11,400 SF / 164 SF/LF = 70 LF.

**CALL 48 HOURS  
BEFORE YOU DIG  
811**

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 OR 811 (CELL) A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

Oct 14, 2022 4:05:57PM - User Chris Cole  
 P:\2020\20113\_Forest Avenue Building Permits - Mercer Island\Drawing\Working\Sheets\Lot 2\20113\_C3.1-STORM DRAINAGE DETAILS.dwg

BY		DESCRIPTION		DATE		R#	
<b>BUILDING PERMIT</b> <b>STORM DRAINAGE</b> <b>DETAILS</b>							
Civil Engineering & Planning 14800 Interurban Ave. S, Suite 279, Seattle, WA 98168 Phone: 206.674.4659 Web: patrickharron.com							
PROJ. NO.	20113	DES. BY:	CC				
OWN. BY:	CC	CHK. BY:	SC				
<b>FOREST CREEK ESTATES</b> <b>LOT 2</b>							
5214 FOREST AVE SE MERCER ISLAND, WA 98040							
DATE:	10/14/22						
SCALE:	AS SHOWN						
DRAWING NO.:	C3.1						
	5 OF 6						

# FOREST CREEK ESTATES - LOT 2

SE 1/4, NE 1/4, SEC 24, T 24 N, R 04 E, W. M.

PIPE SIZE	PIPE ZONE MAX. TRENCH WIDTH	MAX. RESTORATION WIDTH AT SUBGRADE	MAX. RESTORATION WIDTH AT SURFACE
WATER SERVICES	2'-0"	2'-0"	4'-0"
4" OR 6"	2'-2"	3'-0"	5'-0"
8"	2'-4"	4'-0"	6'-0"
10"	2'-6"	4'-0"	6'-0"
12"	2'-8"	4'-6"	6'-6"
16"	3'-0"	5'-0"	7'-0"

**NOTES**

- CALL TWO BUSINESS DAYS BEFORE YOU DIG. (1-800-424-5555)
- ALL TRENCH BACKFILL MATERIAL SHALL BE 100% 5/8" MINUS CRUSHED ROCK PER WSDOT 9-03.9(3) UNLESS DIRECTED OTHERWISE BY CITY ENGINEER.

**CITY OF MERCER ISLAND STANDARD DETAILS WATER TRENCH SECTION**

12-23-2013 NO SCALE **W-3**

1 W-3  
C3.0 SCALE: NTS

**NOTES**

- WATER SERVICES SHALL COMPLY WITH THE REDUCTION OF LEAD IN DRINKING WATER ACT DATED 01/04/2014.
- MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18" MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24", ALL HORIZONTALLY STAGGERED.
- PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
- UPON CITY ENGINEER'S APPROVAL, METER BOXES ARE ALLOWED TO BE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK.
- WHEN CONNECTING TO EXISTING PRIVATE SUPPLY LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING PRIVATE SUPPLY LINE DIAMETER.
- SERVICE LINE SHALL BE PERPENDICULAR TO THE WATER MAIN AND STRAIGHT TO WATER METER, UNLESS OTHERWISE APPROVED BY CITY ENGINEER. PROVIDE WINDING SLACK IN THE SERVICE LINE BETWEEN THE MAIN AND WATER METER.
- WATER METER SUPPLIED BY CITY.
- ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
- NO SERVICE CONNECTIONS BETWEEN BLOW-OFF AND END OF MAIN.

**CITY OF MERCER ISLAND STANDARD DETAILS WATER 2" WATER METER INSTALLATION**

02-05-2021 NO SCALE **W-14A**

2 W-14A  
C3.0 SCALE: NTS

PIPE SIZE	PIPE ZONE MAX. TRENCH WIDTH	MAX. RESTORATION WIDTH AT SUBGRADE	MAX. RESTORATION WIDTH AT SURFACE
SIDE SEWER	2'-0"	2'-0"	6'-0"
4" OR 6"	2'-2"	3'-0"	8'-0"
8"	2'-4"	4'-0"	8'-0"
10"	2'-6"	4'-0"	8'-0"
12"	2'-8"	4'-6"	8'-6"

**NOTES**

- ALL TRENCH BACKFILL IN PUBLIC RIGHT-OF-WAY OR ROADWAY AREAS SHALL BE CRUSHED SURFACING PER WSDOT 9-09.9(3) OR BANK RUN GRAVEL PER WSDOT 9-03.19, COMPACTED IN 6" LIFTS.
- COF FOR BACKFILL MAY BE REQUIRED BY CITY ENGINEER WHEN PROPER COMPACTION AROUND EXISTING UTILITIES MAY NOT BE POSSIBLE. COF SHALL BE PER WSDOT 7-09.3(1)E.
- SEE S-4 FOR PIPE BEDDING DETAILS.

**CITY OF MERCER ISLAND STANDARD DETAILS SEWER SEWER TRENCH DETAIL**

6-5-2009 NO SCALE **S-3**

3 S-3  
C3.0 SCALE: NTS

**NOTES**

- ELBOWS SHALL NOT BE GREATER THAN 45 DEGREES.
- CLEAN OUT IS REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND FOR EACH 90° ACCUMULATED ELBOW/100'.
- ALL HOUSE PLUMBING OUTLETS MUST BE CONNECTED TO THE SEWER. NO DOWN SPOUTS OR STORM DRAINAGE MAY BE CONNECTED TO THE SEWER SYSTEM.
- 18" MINIMUM COVERAGE OVER PIPE.
- LAY PIPE IN STRAIGHT LINE BETWEEN BENDS. MAKE ALL CHANGES IN GRADE OR LINE WITH 1/8" BEND OR WYE. 90° CHANGE WITH 1/8" BEND AND WYE.
- 4" SEWER PIPE MINIMUM SIZE ON PROPERTY. 2% MINIMUM GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT SEWER ORDINANCES.
- ALL CONSTRUCTION REQUIRES A PLAN SHOWING PROPERTY AND DIMENSIONS AND COMPLETION OF SIDE SEWER APPLICATION AND MAINTENANCE AGREEMENT, AS NEEDED.
- BACK WATER VALVE (CHECK VALVE) IS REQUIRED:
  - A. IF CONNECTED TO A SHARED SIDE SEWER.
  - B. IF CONNECTION AT HOUSE IS LOWER THAN BOTH UPSTREAM AND DOWNSTREAM MANHOLE.
  - C. SEE S-23 & S-24 FOR LAKE LINE REQUIREMENTS.
- AS-BUILT DRAWING SHOWING LOCATION OF SIDE SEWER & ALL BENDS, C.O. ETC., IN RELATION TO THE HOUSE IS REQUIRED AFTER INSPECTION & INSTALLATION. SEE STANDARD DETAIL S-38 FOR A TYPICAL "AS BUILT".
- THE MINIMUM PIPE SIZE FOR SIDE SEWERS SHALL BE:
  - 6" - WITHIN THE PUBLIC RIGHT-OF-WAY.
  - 4" - SINGLE FAMILY RESIDENCES.
  - 6" - 2 TO 6 SINGLE FAMILY RESIDENCES.
  - 8" - BUILDINGS OTHER THAN SINGLE FAMILY RESIDENCES.
- UTILITY PIPE TRACER TAPE SHALL BE DETECTABLE BELOW GROUND SURFACE, COLOR CODED, WITH UTILITY NAME PRINTED ON TAPE. CONDUCTIVE WARNING TAPE REQUIRED OVER ALL WATER PIPE. TAPE SHALL BE MANUFACTURER'S STANDARD PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED PLASTIC TAPE, ALUMINUM BACKED, INTENDED FOR DIRECT-BURIAL SERVICE. TAPE SHALL BE NOT LESS THAN 6" WIDE X 4 MILS THICK.

**CITY OF MERCER ISLAND STANDARD DETAILS SEWER HOUSE SEWER CONNECTION**

6-5-2009 NO SCALE **S-18**

4 S-18  
C3.0 SCALE: NTS

**NOTES**

- SEE S-27 FOR INSTALLATION DETAILS.

**CITY OF MERCER ISLAND STANDARD DETAILS SEWER CLEAN OUT DETAIL**

6-5-2009 NO SCALE **S-19**

5 S-19  
C3.0 SCALE: NTS

BY	DESCRIPTION



10/14/22

BUILDING PERMIT

UTILITY DETAILS

**PATRICK HARRON & ASSOCIATES, LLC**

Civil Engineering & Planning

14900 Interurban Ave. S, Suite 278, Seattle, WA 98148  
Phone: 206.674.4659  
Web: patrickharron.com

PROJ. NO:	20113	DSN. BY:	CC
OWN. BY:	CC	CHK. BY:	SC

FOREST CREEK ESTATES  
LOT 2

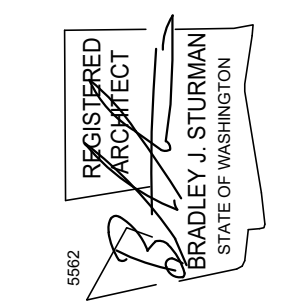
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

DATE:	10/14/22
SCALE:	AS SHOWN
DRAWING NO.:	C3.2 6 OF 6

**CALL 48 HOURS BEFORE YOU DIG 811**

THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION BY CALLING THE UNDERGROUND LOCATE LINE AT 1-800-424-5555 OR 811 (CELL) A MINIMUM OF 48 HOURS PRIOR TO ANY EXCAVATION.

Oct 14, 2022 4:06:04PM - User Chris Cole  
P: \\2020\20113\_Forest Avenue Building Permits - Mercer Island\Drawing\Working\Sheets\Lot 2\20113\_C3.2-UTILITY DETAILS.dwg

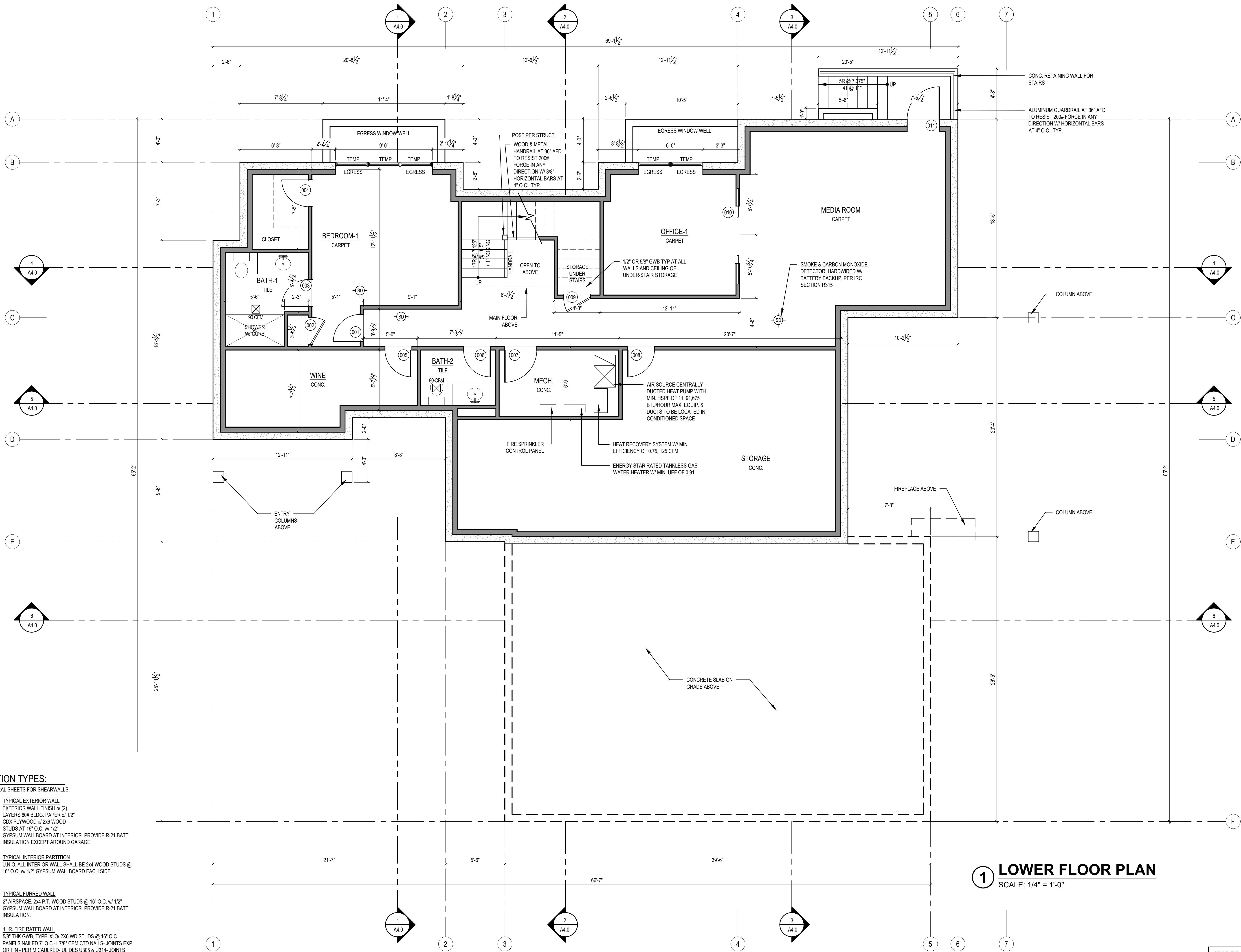


**LOWER FLOOR PLAN**

REVISIONS:

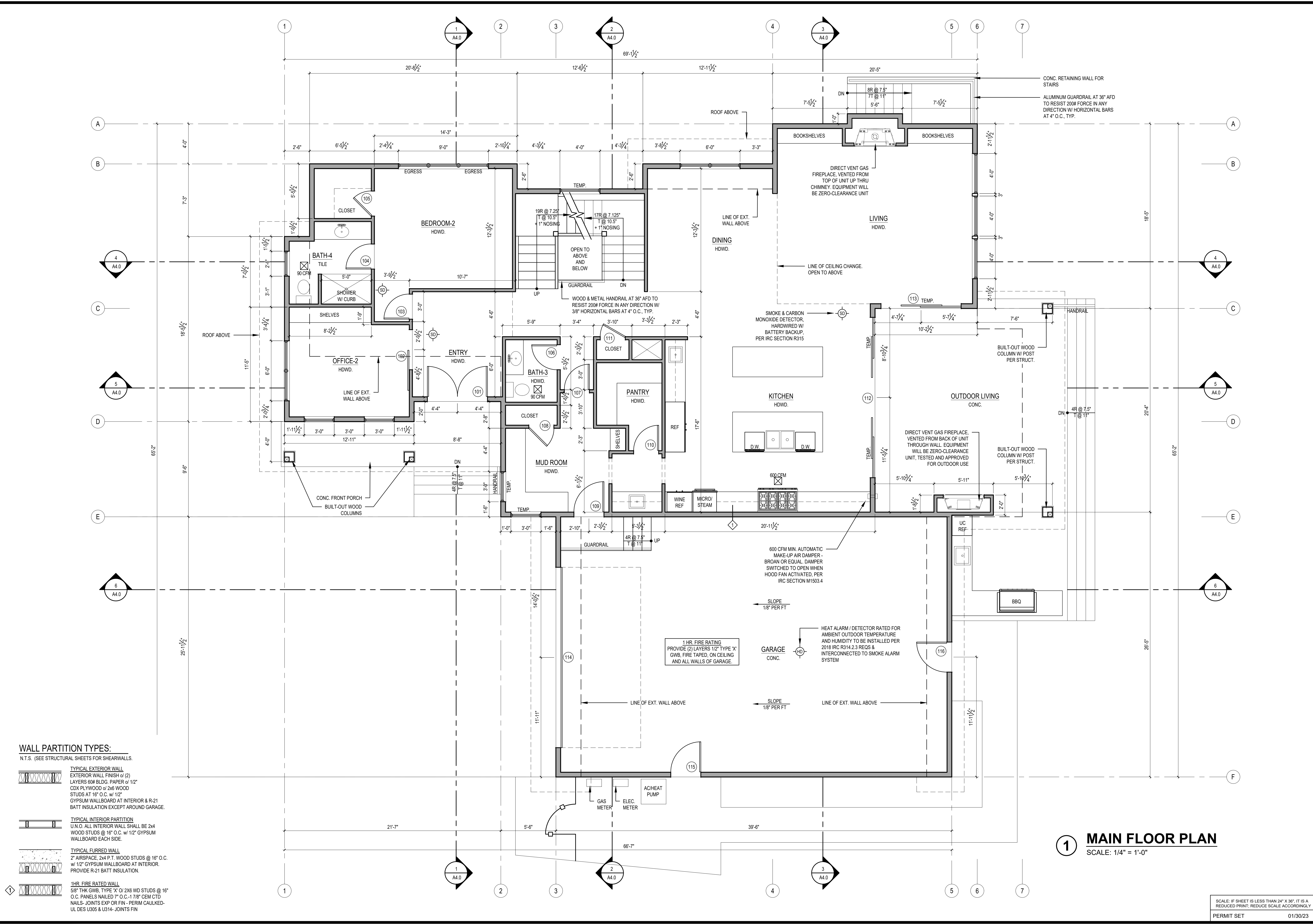
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DRAWN BY: KE  
 CHECKED BY: BJS



- WALL PARTITION TYPES:**  
 N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)
- TYPICAL EXTERIOR WALL**  
 EXTERIOR WALL FINISH OF (2) LAYERS #0# BLDG. PAPER OF 1/2" CDX PLYWOOD OF 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION EXCEPT AROUND GARAGE.
  - TYPICAL INTERIOR PARTITION**  
 U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
  - TYPICAL FURRED WALL**  
 2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
  - 1HR. FIRE RATED WALL**  
 5/8" THK GWB, TYPE 'X' QI 2X6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C.-1 7/8" CEM CTD NAILS- JOINTS EXP OR FIN - PERIM CAULKED-UL DES U305 & U314- JOINTS FIN

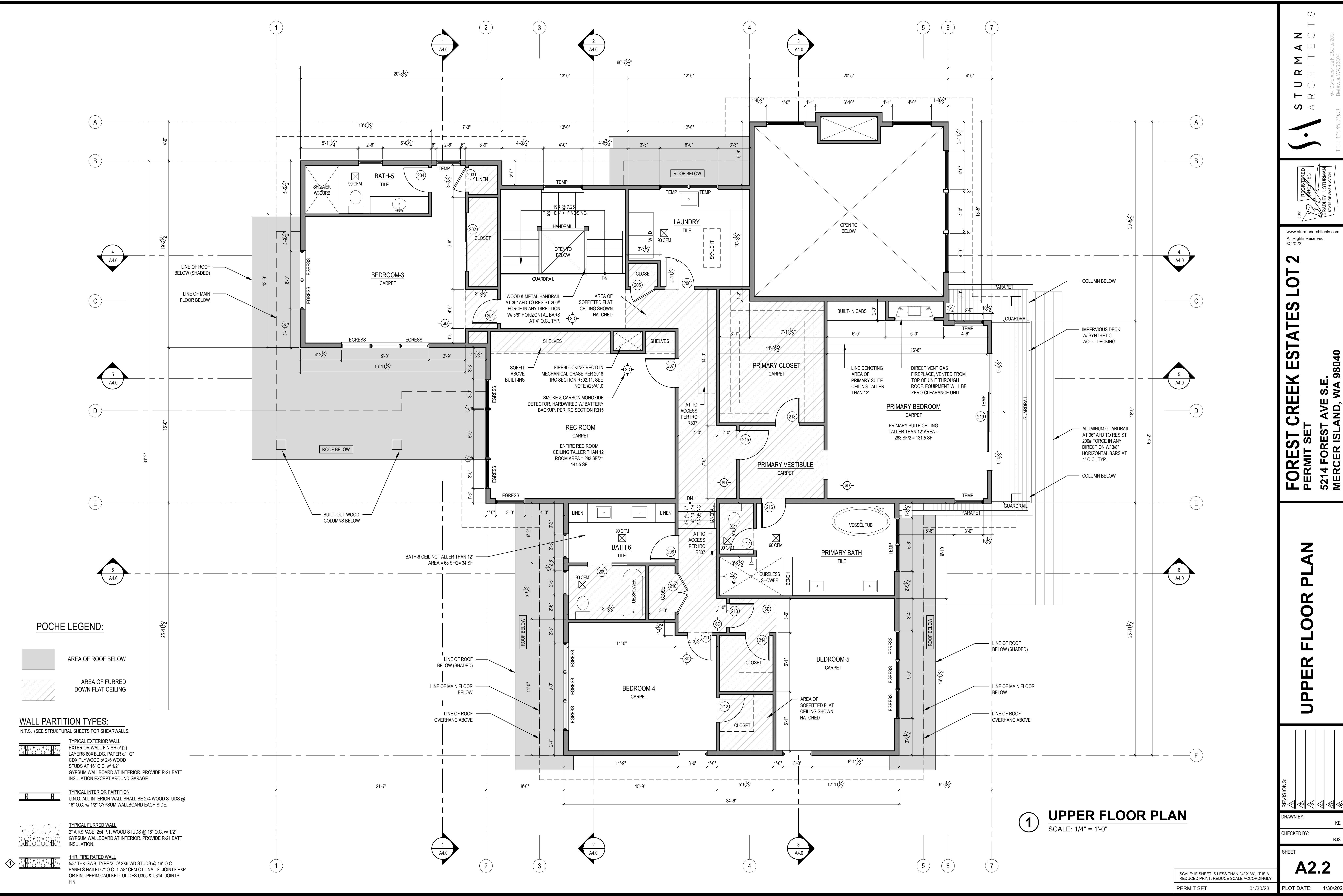
**1 LOWER FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"



- WALL PARTITION TYPES:**  
 N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)
- TYPICAL EXTERIOR WALL  
 EXTERIOR WALL FINISH @ (2) LAYERS 60# BLDG. PAPER @ 1/2" CDX PLYWOOD @ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR & R-21 BATT INSULATION EXCEPT AROUND GARAGE.
  - TYPICAL INTERIOR PARTITION  
 U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
  - TYPICAL FURRED WALL  
 2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
  - 1HR. FIRE RATED WALL  
 5/8" THK. GWB, TYPE 'X' @ 2x6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C. - 1 7/8" CEM CTD NAILS - JOINTS EXP OR FIN - PERIM CALKED - UL DES U305 & U314 - JOINTS FIN

**1 MAIN FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"

**1 UPPER FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"

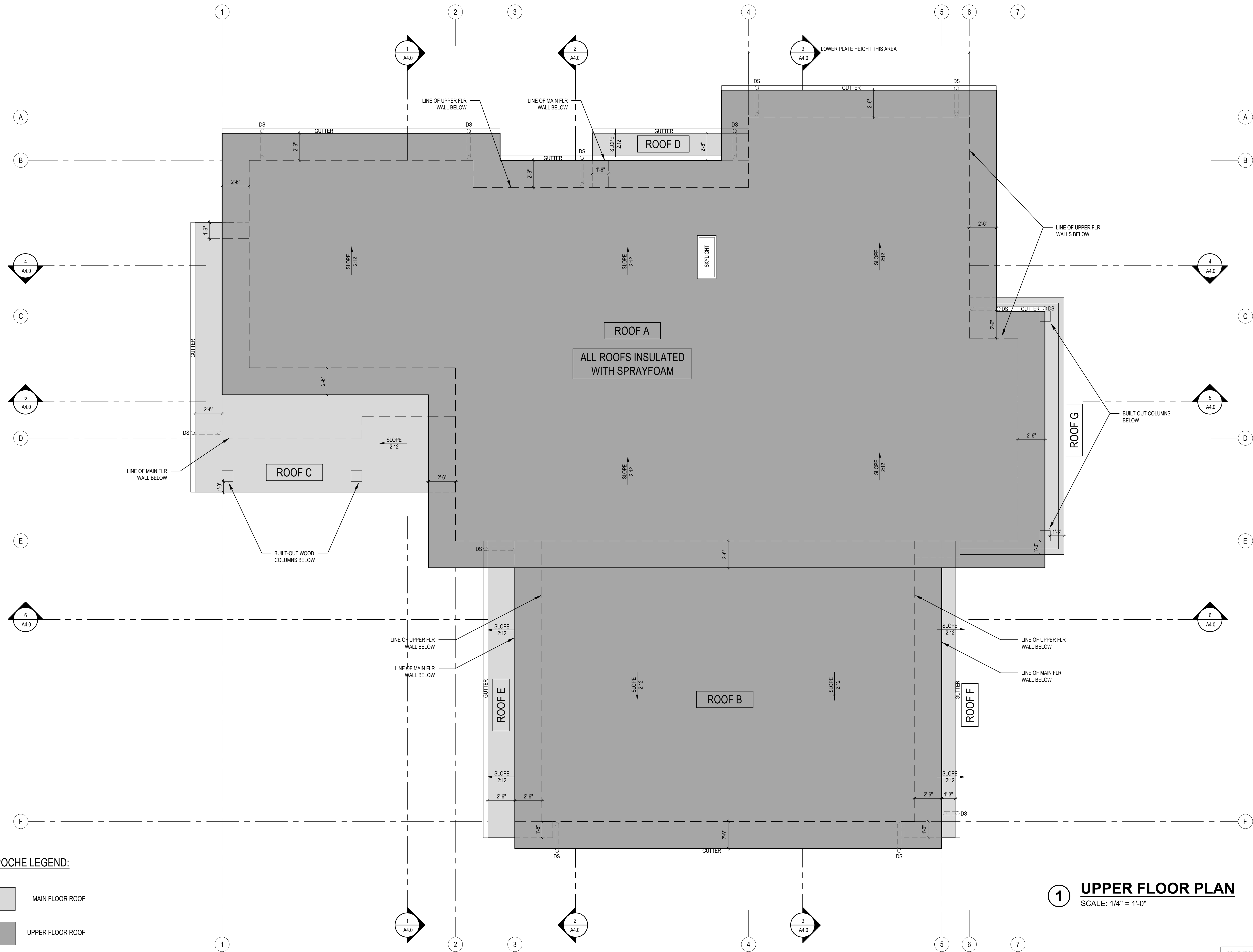


**POCHE LEGEND:**

- AREA OF ROOF BELOW
- AREA OF FURRED DOWN FLAT CEILING

**WALL PARTITION TYPES:**

- N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.)
- TYPICAL EXTERIOR WALL  
 EXTERIOR WALL FINISH (2) LAYERS 5/8" BLDG. PAPER @ 1/2" CDX PLYWOOD @ 2x6 WOOD STUDS AT 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION EXCEPT AROUND GARAGE.
  - TYPICAL INTERIOR PARTITION  
 U.N.O. ALL INTERIOR WALL SHALL BE 2x4 WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD EACH SIDE.
  - TYPICAL FURRED WALL  
 2" AIRSPACE, 2x4 P.T. WOOD STUDS @ 16" O.C. w/ 1/2" GYPSUM WALLBOARD AT INTERIOR. PROVIDE R-21 BATT INSULATION.
  - 1HR. FIRE RATED WALL  
 5/8" THK GNB, TYPE 'X' O 2X6 WD STUDS @ 16" O.C. PANELS NAILED 7" O.C. - 1-7/8" CEM CTD NAILS - JOINTS EXP OR FIN - PERIM CAULKED - UL DES U305 & U314 - JOINTS FIN

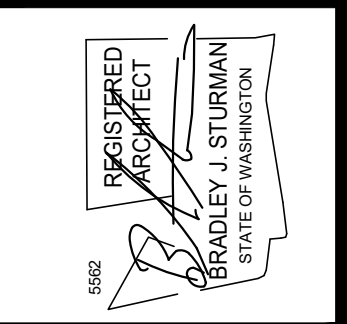


ROOF A  
ALL ROOFS INSULATED WITH SPRAYFOAM

**1 UPPER FLOOR PLAN**  
SCALE: 1/4" = 1'-0"

**POCHE LEGEND:**

- MAIN FLOOR ROOF
- UPPER FLOOR ROOF



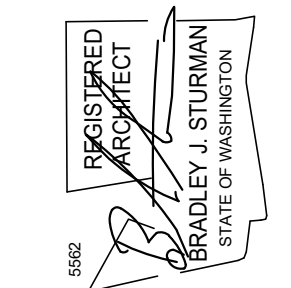
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**FOREST CREEK ESTATES LOT 2**  
PERMIT SET  
5214 FOREST AVE S.E.  
MERCER ISLAND, WA 98040

**ROOF PLAN**

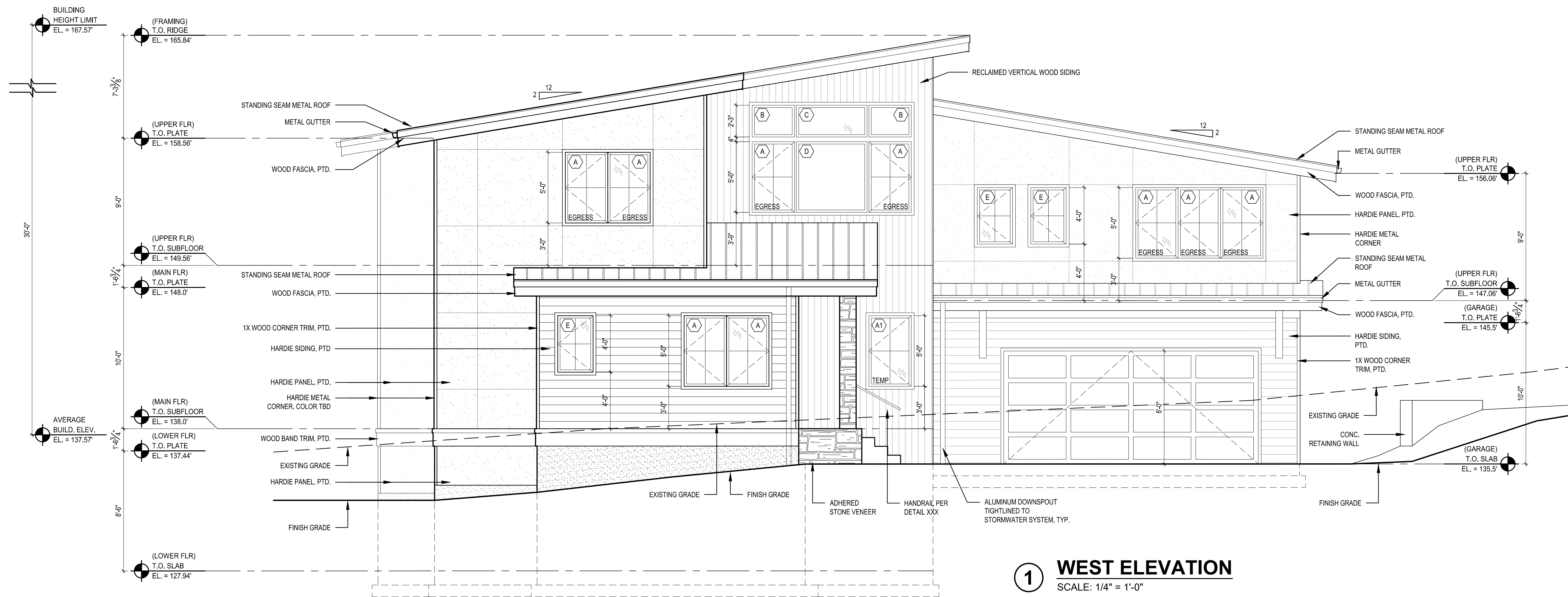
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	KE	BJS

SHEET  
**A2.3**

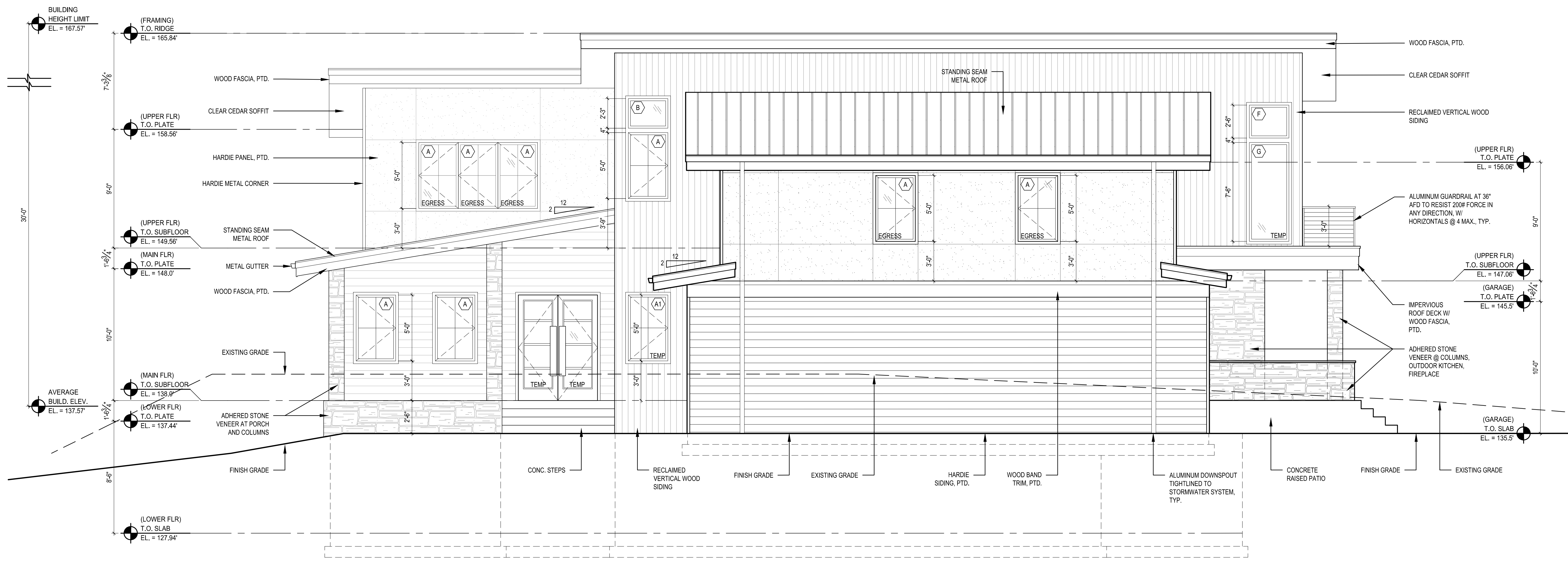


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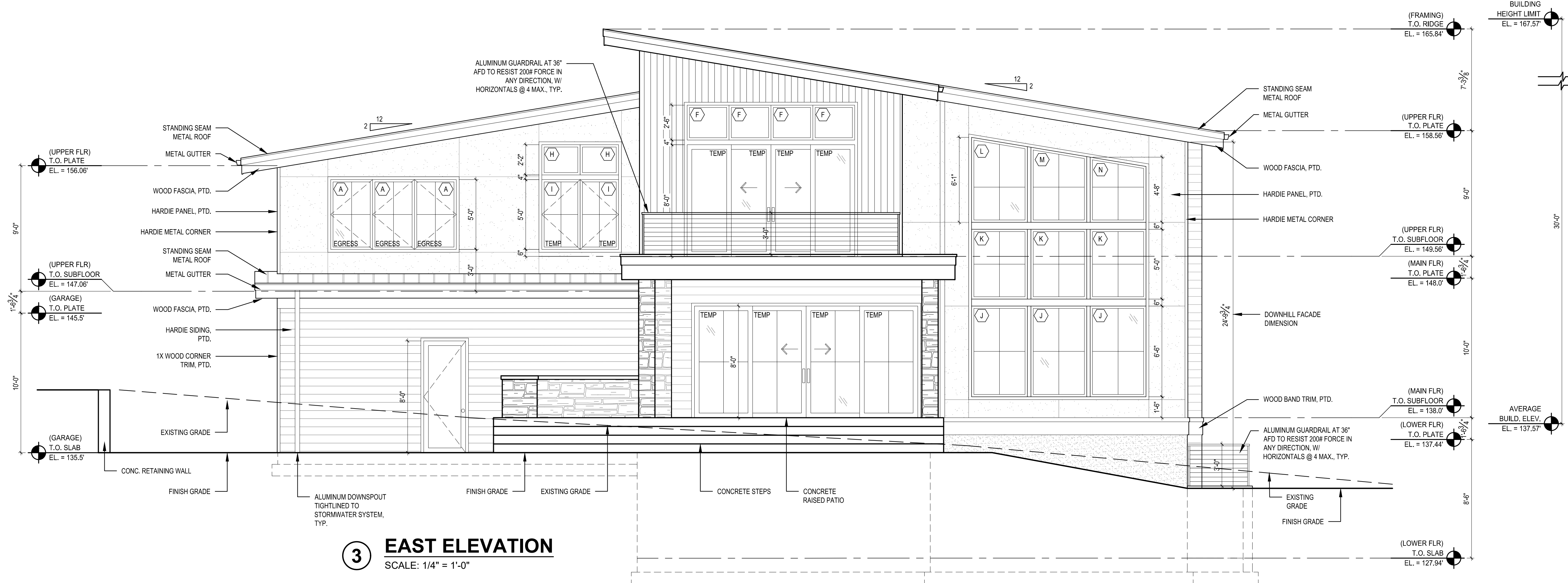

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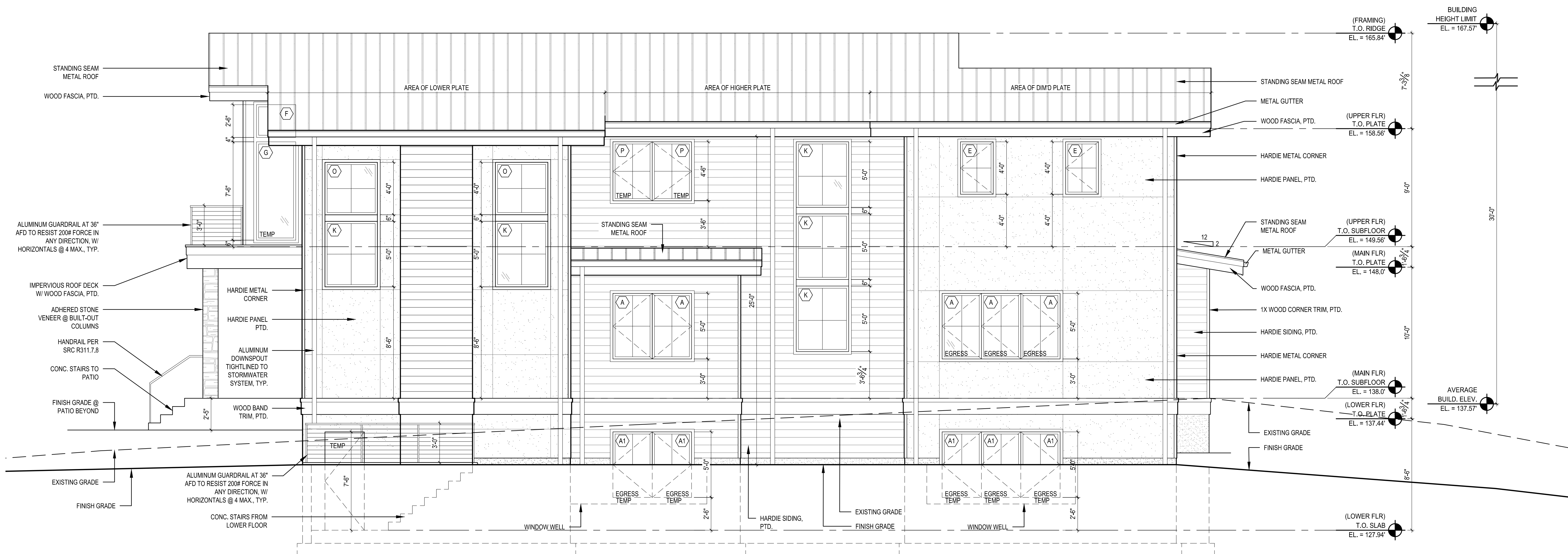
**1 WEST ELEVATION**  
 SCALE: 1/4" = 1'-0"



**2 SOUTH ELEVATION**  
 SCALE: 1/4" = 1'-0"

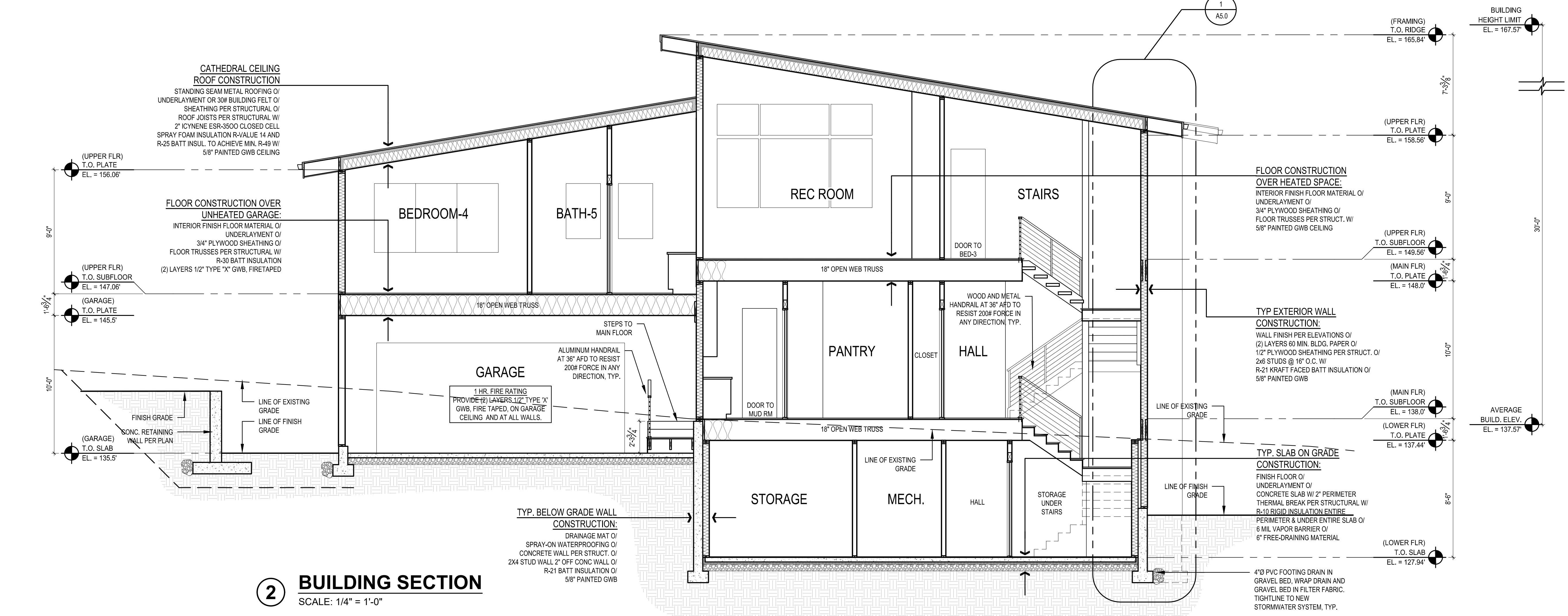
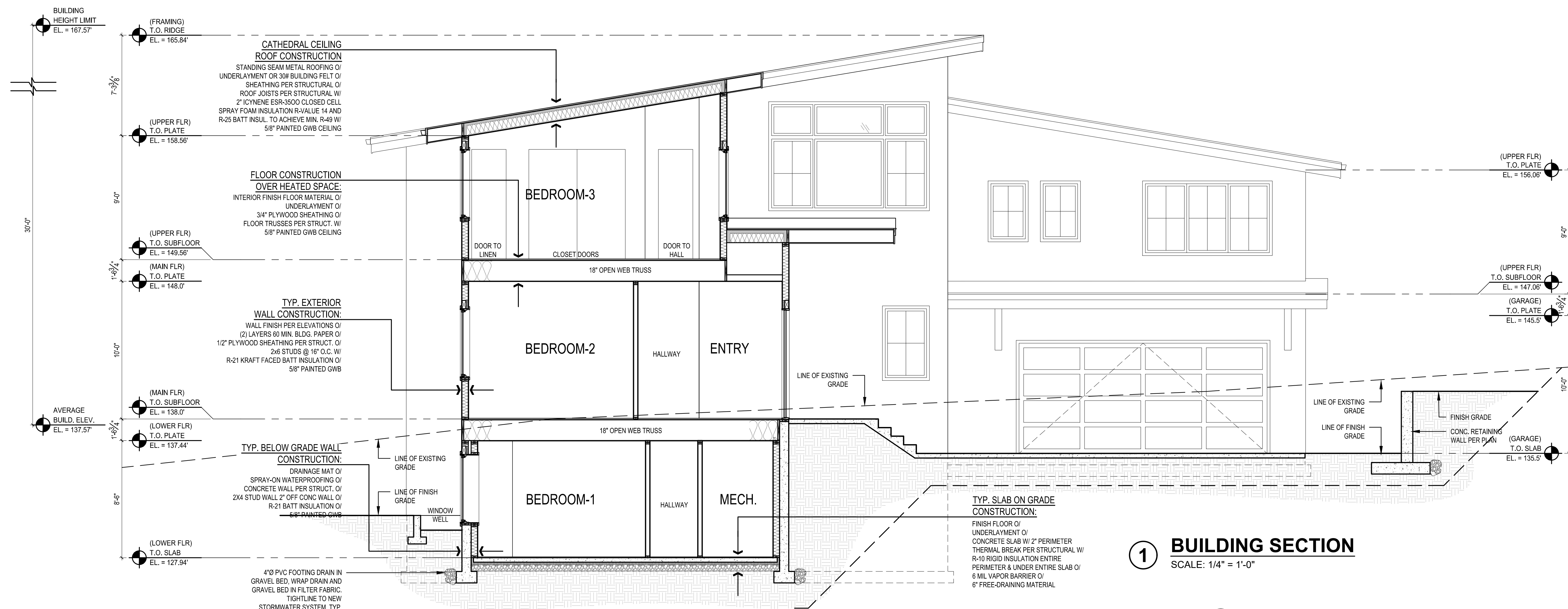


**3 EAST ELEVATION**  
 SCALE: 1/4" = 1'-0"

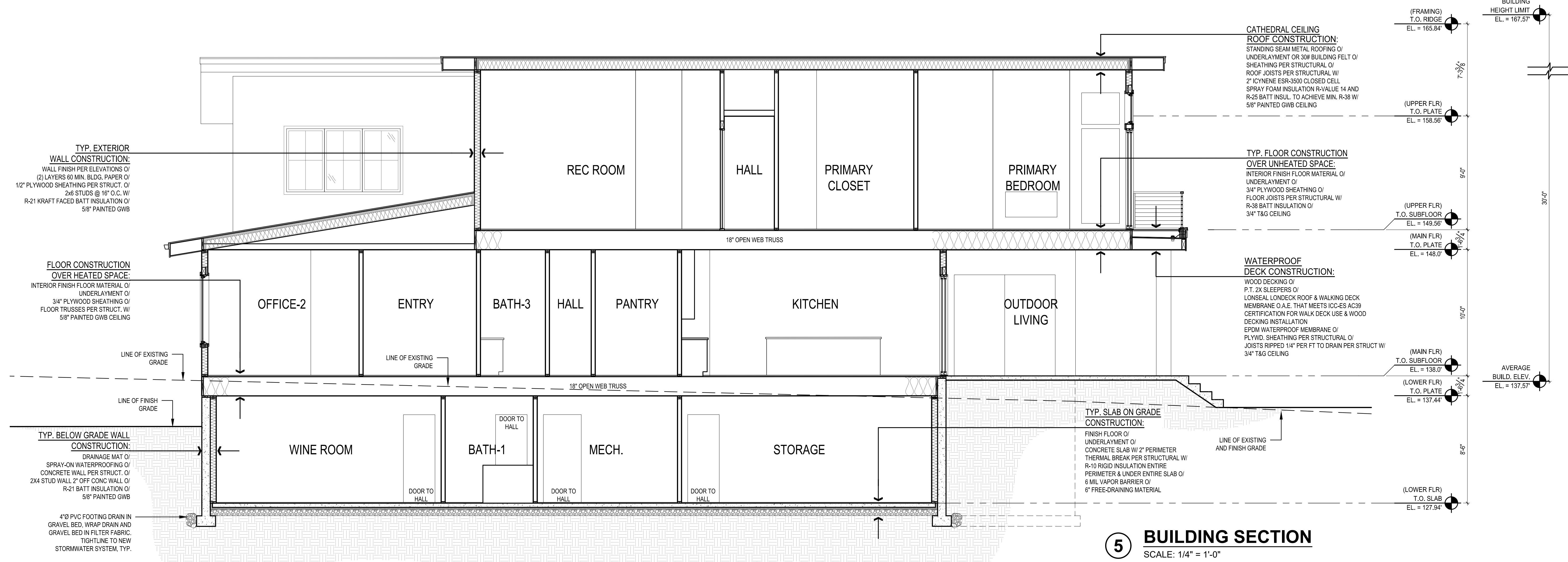


**4 NORTH ELEVATION**  
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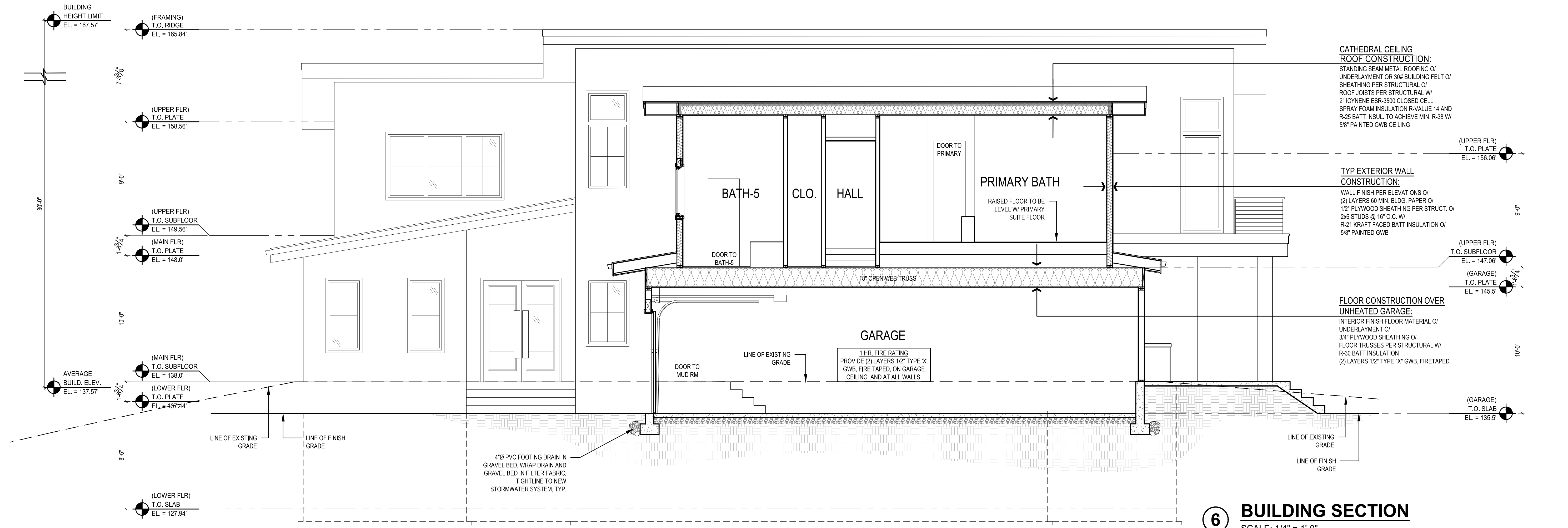




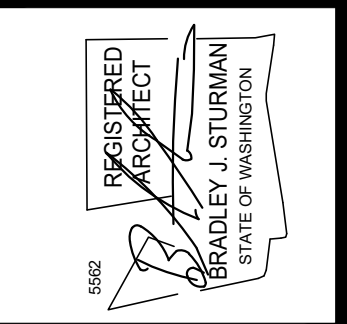




**5 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"



**6 BUILDING SECTION**  
SCALE: 1/4" = 1'-0"

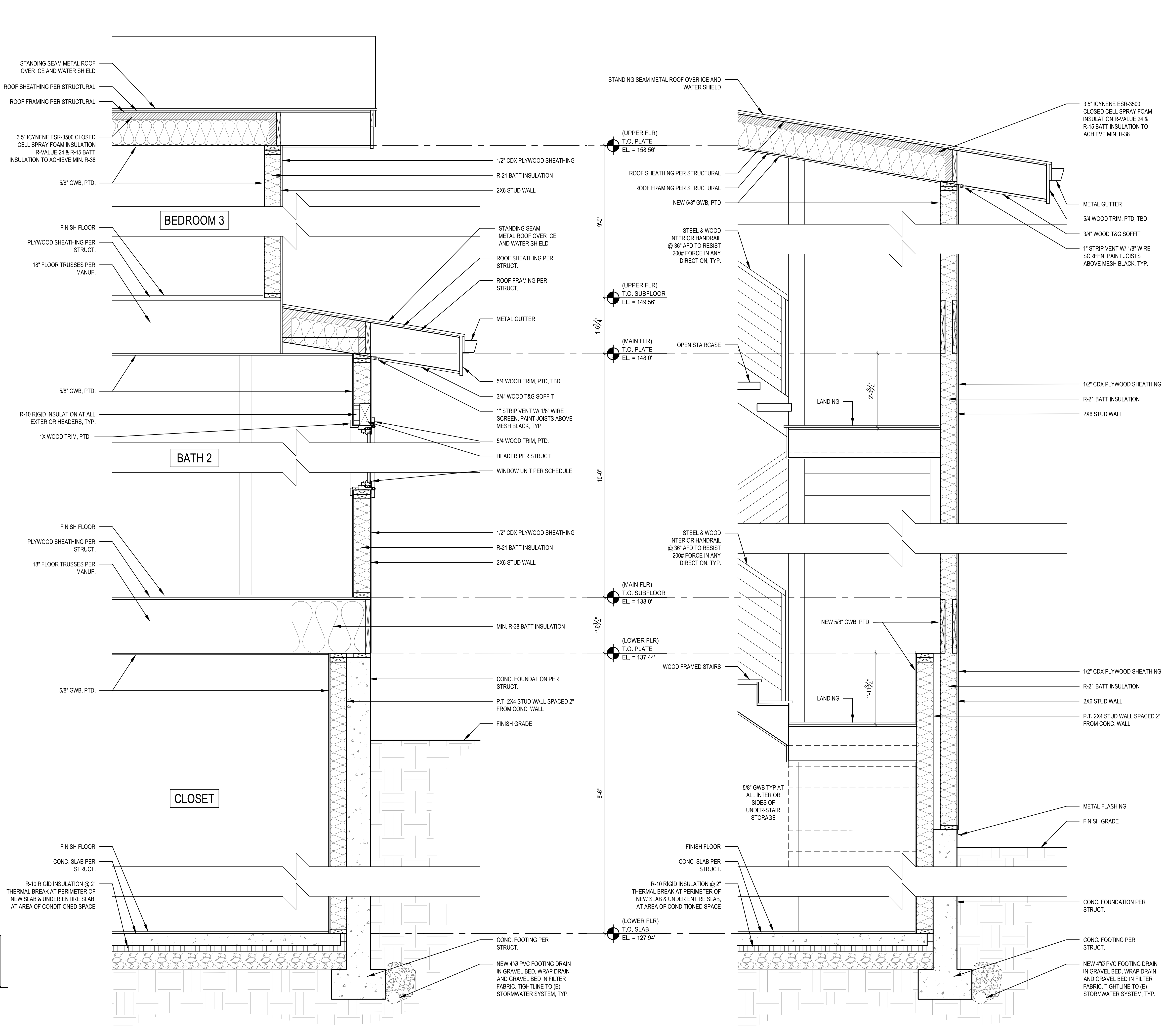
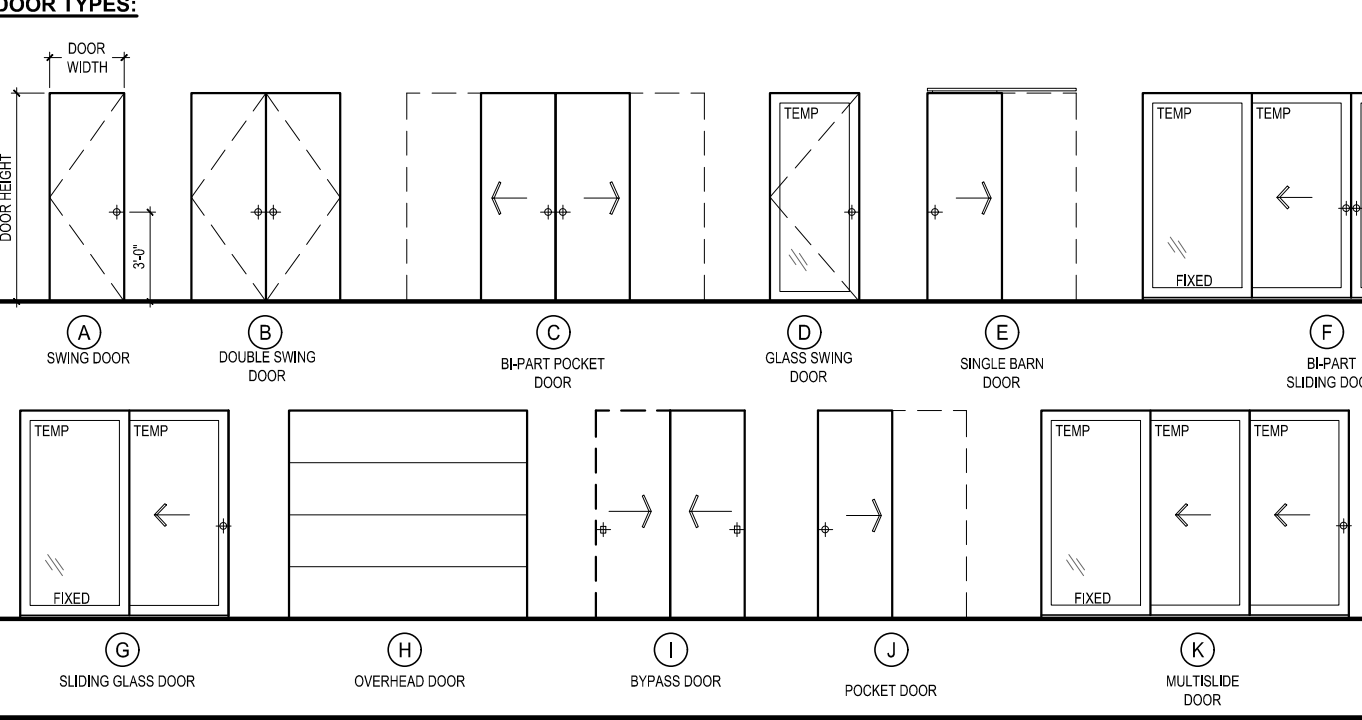


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WINDOW SCHEDULE LOT 2									
TAG.	DESCRIPTION	R.O. SIZE		TEMP.	QTY.	AREA (SF)	U-VAL (MIN.)	GLAZING	REMARKS & NOTES
		WIDTH	HEIGHT						
A	CASEMENT	3'-0"	5'-0"		25	375	0.28	LOW E / CLEAR	
A1	CASEMENT	3'-0"	5'-0"	Y	7	90	0.28	LOW E / CLEAR	TEMPERED GLASS
B	FIXED	3'-0"	2'-3"		3	20.25	0.28	LOW E / CLEAR	
C	FIXED	5'-0"	2'-6"		1	11.25	0.28	LOW E / CLEAR	
D	FIXED	5'-0"	5'-0"		1	25	0.28	LOW E / CLEAR	
E	CASEMENT	2'-6"	4'-0"		5	50	0.28	LOW E / CLEAR	
F	FIXED	3'-0"	2'-6"		6	45	0.28	LOW E / CLEAR	
G	FIXED	3'-0"	7'-6"	Y	2	45	0.28	LOW E / CLEAR	TEMPERED GLASS
H	FIXED	2'-9"	2'-2"		2	12	0.28	LOW E / CLEAR	
I	CASEMENT	2'-9"	5'-0"	Y	2	27	0.28	LOW E / CLEAR	TEMPERED GLASS
J	FIXED	4'-0"	6'-6"		3	78	0.28	LOW E / CLEAR	
K	FIXED	4'-0"	5'-0"		8	160	0.28	LOW E / CLEAR	
L	FIXED	4'-0"	6'-1"		1	23	0.28	LOW E / CLEAR	SLANTED TOP
M	FIXED	4'-0"	5'-4 1/2"		1	21	0.28	LOW E / CLEAR	SLANTED TOP
N	FIXED	4'-0"	4'-0"		1	18	0.28	LOW E / CLEAR	SLANTED TOP
O	FIXED	4'-0"	4'-0"		2	32	0.28	LOW E / CLEAR	
P	CASEMENT	3'-0"	4'-6"	Y	2	27	0.28	LOW E / CLEAR	TEMPERED GLASS

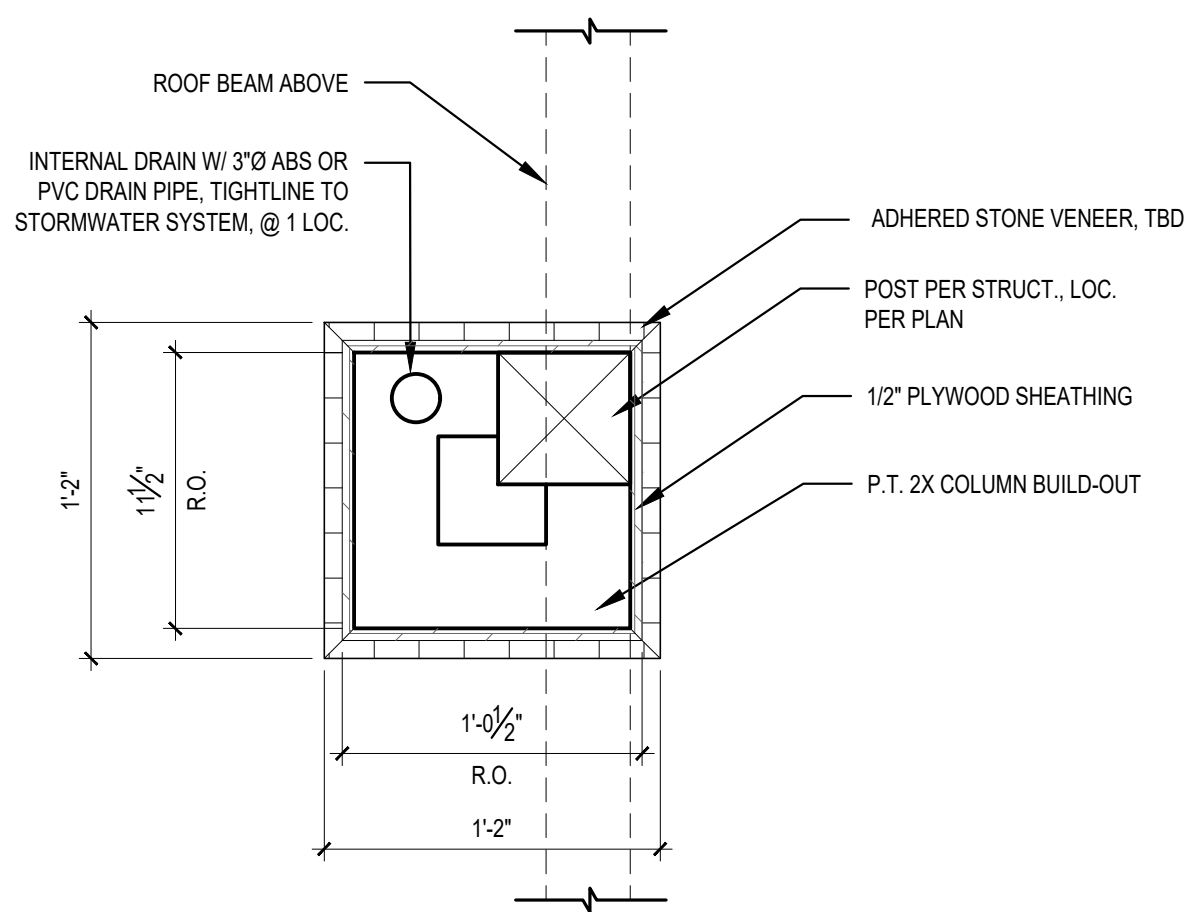
DOOR SCHEDULE LOT 2									
DOOR NO.	LOCATION	SIZE		DOOR TYPE	TEMP. GLASS	DOOR THK.	U-VAL (MIN.)	REMARKS	
		WIDTH	HEIGHT						
<b>LOWER FLOOR</b>									
001	BEDROOM 1	2'-6"	7'-0"	A		1-3/4"			
002	LINEN	2'-6"	7'-0"	A		1-3/4"			
003	BATH 1	2'-6"	7'-0"	A		1-3/4"			
004	CLOSET	2'-6"	7'-0"	A		1-3/4"			
005	WINE	2'-6"	7'-0"	A		1-3/4"			
006	BATH 2	2'-6"	7'-0"	A		1-3/4"			
007	MECHANICAL	3'-0"	7'-0"	A		1-3/4"		SOUND GASKET	
008	STORAGE	2'-6"	7'-0"	A		1-3/4"			
009	STORAGE UNDER STAIRS	2'-6"	7'-0"	A		1-3/4"			
010	OFFICE - 1	5'-4"	7'-0"	C		1-3/4"		BI-PART POCKET	
011	MEDIA ROOM	3'-0"	7'-0"	D		1-3/4"	0.28	TEMPERED GLASS	
<b>MAIN FLOOR</b>									
101	ENTRY	PR 3'-0"	8'-0"	B	Y	1-3/4"	0.28	TEMPERED GLASS	
102	OFFICE - 2	4'-0"	8'-0"	E		1-3/4"		BARN DOOR	
103	BEDROOM - 2	2'-6"	8'-0"	A		1-3/4"			
104	BATH - 4	2'-6"	8'-0"	A		1-3/4"			
105	CLOSET	2'-6"	8'-0"	A		1-3/4"			
106	BATH - 3	2'-6"	8'-0"	A		1-3/4"			
107	MUD ROOM	2'-6"	8'-0"	A		1-3/4"			
108	CLOSET	2'-6"	8'-0"	A		1-3/4"			
109	MUD ROOM	3'-0"	8'-0"	A		1-3/4"		20 MIN FIRE-RATED, SELF-CLOSING	
110	PANTRY	2'-6"	8'-0"	A		1-3/4"			
111	CLOSET	2'-6"	8'-0"	A		1-3/4"			
112	OUTDOOR LIVING	18'-0"	8'-0"	F	Y	1-3/4"	0.28	TEMPERED SLIDING DOOR	
113	OUTDOOR LIVING	8'-0"	8'-0"	G	Y	1-3/4"	0.28	TEMPERED SLIDING DOOR	
114	GARAGE	18'-0"	8'-0"	H		1-3/4"		OVERHEAD DOOR	
115	GARAGE	3'-0"	8'-0"	A		1-3/4"			
116	GARAGE	3'-0"	8'-0"	A		1-3/4"			
<b>UPPER FLOOR</b>									
201	BEDROOM - 3	2'-6"	8'-0"	A		1-3/4"			
202	CLOSET	6'-0"	8'-0"	I		1-3/4"		BYPASS CLOSET DOOR	
203	LINEN	2'-6"	8'-0"	A		1-3/4"			
204	BATH - 5	2'-6"	8'-0"	A		1-3/4"			
205	CLOSET	2'-6"	8'-0"	A		1-3/4"			
206	LAUNDRY	3'-0"	8'-0"	A		1-3/4"		SOUND GASKET	
207	REC ROOM	3'-0"	8'-0"	A		1-3/4"			
208	BATH - 6	2'-6"	8'-0"	A		1-3/4"			
209	BATH - 6	2'-6"	8'-0"	J		1-3/4"		POCKET DOOR	
210	CLOSET	PR 2'-0"	8'-0"	B		1-3/4"			
211	BEDROOM - 4	2'-6"	8'-0"	A		1-3/4"			
212	CLOSET	2'-6"	8'-0"	A		1-3/4"			
213	BEDROOM - 5	2'-6"	8'-0"	A		1-3/4"			
214	CLOSET	2'-6"	8'-0"	A		1-3/4"			
215	PRIMARY VESTIBULE	3'-0"	8'-0"	A		1-3/4"			
216	PRIMARY BATH	2'-6"	8'-0"	A		1-3/4"			
217	PRIMARY BATH SHOWER	2'-4"	8'-0"	A		1-3/4"			
218	PRIMARY CLOSET	2'-6"	8'-0"	A		1-3/4"			
219	PRIMARY BEDROOM	12'-0"	8'-0"	K	Y	1-3/4"	0.28	TEMPERED GLASS	

- WINDOW & DOOR SCHEDULE NOTES:**
- 1) CONTRACTOR TO VERIFY ALL GLAZING SIZING, AND DOOR DIMENSIONS IN FIELD PRIOR TO ROUGH FRAMING & ORDERING OF GLAZING/WINDOW/DOOR MATERIALS. REVIEW SIZES AND ANY DISCREPANCIES W/ ARCHITECT.
  - 2) ALL GLAZING TO BE "LOW E", INSULATED GLASS UNLESS NOTED OTHERWISE.
  - 3) ALL OPERABLE WINDOWS TO HAVE SCREENS.
  - 4) GLAZING INDOORS AND/OR WITHIN 24" OF A DOOR TO BE TEMPERED. SEE EXTERIOR ELEVATION FOR TEMP. GLASS LOCATION & EGRESS WINDOWS.
  - 5) 2018 WSEC & VIAQ RESIDENTIAL PRESCRIPTIVE OPTION 3 ADOPTED. GLAZING AREA INDICATED UNLIMITED. SEE ENERGY NOTE AT A1.0 SHEET FOR DETAILS.
  - 6) ALL WINDOWS AND DOORS WITHOUT A BUG ARE EXISTING TO REMAIN.

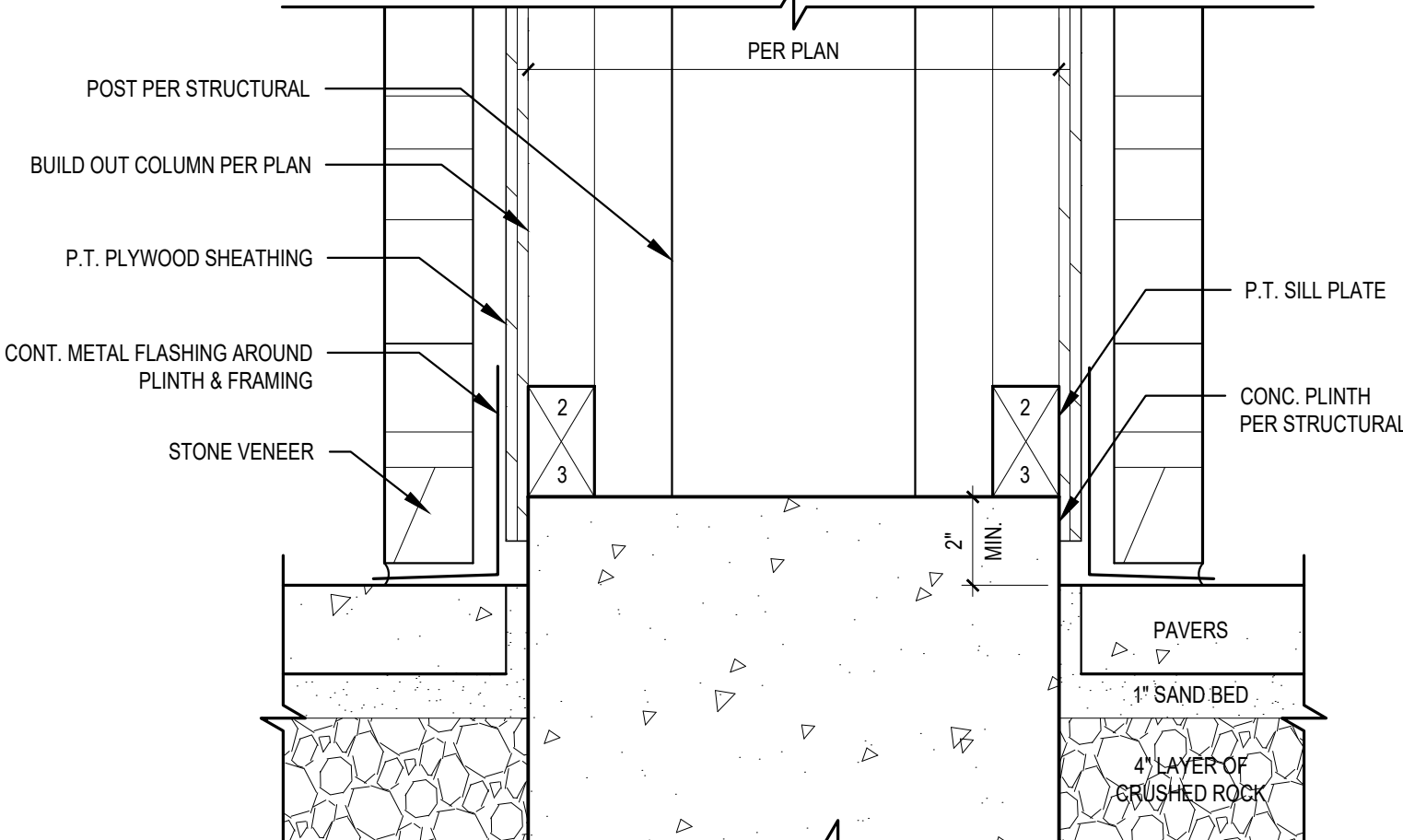


**1 WALL SECTION**  
SCALE: 3/4" = 1'-0"

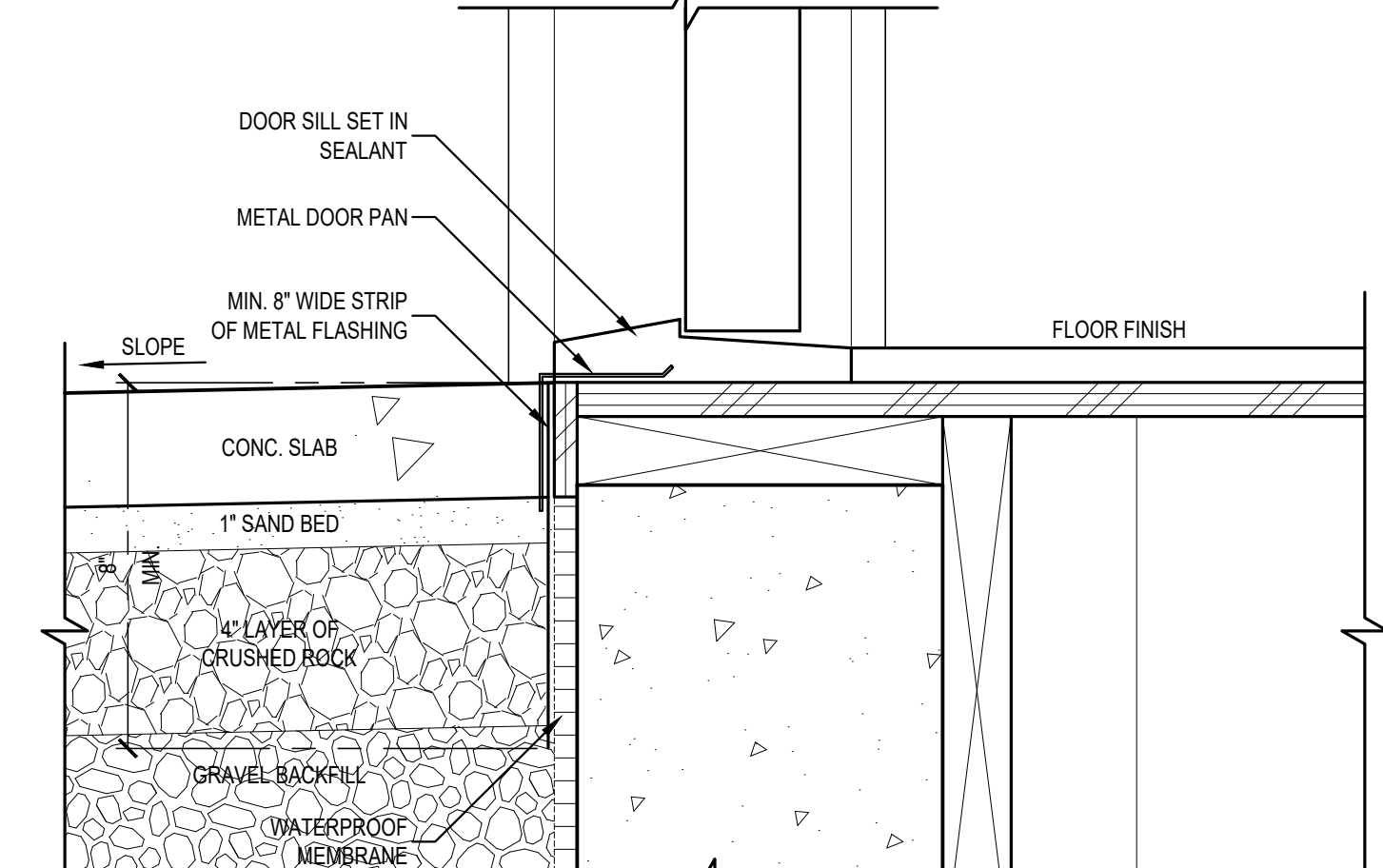
**2 WALL SECTION**  
SCALE: 3/4" = 1'-0"



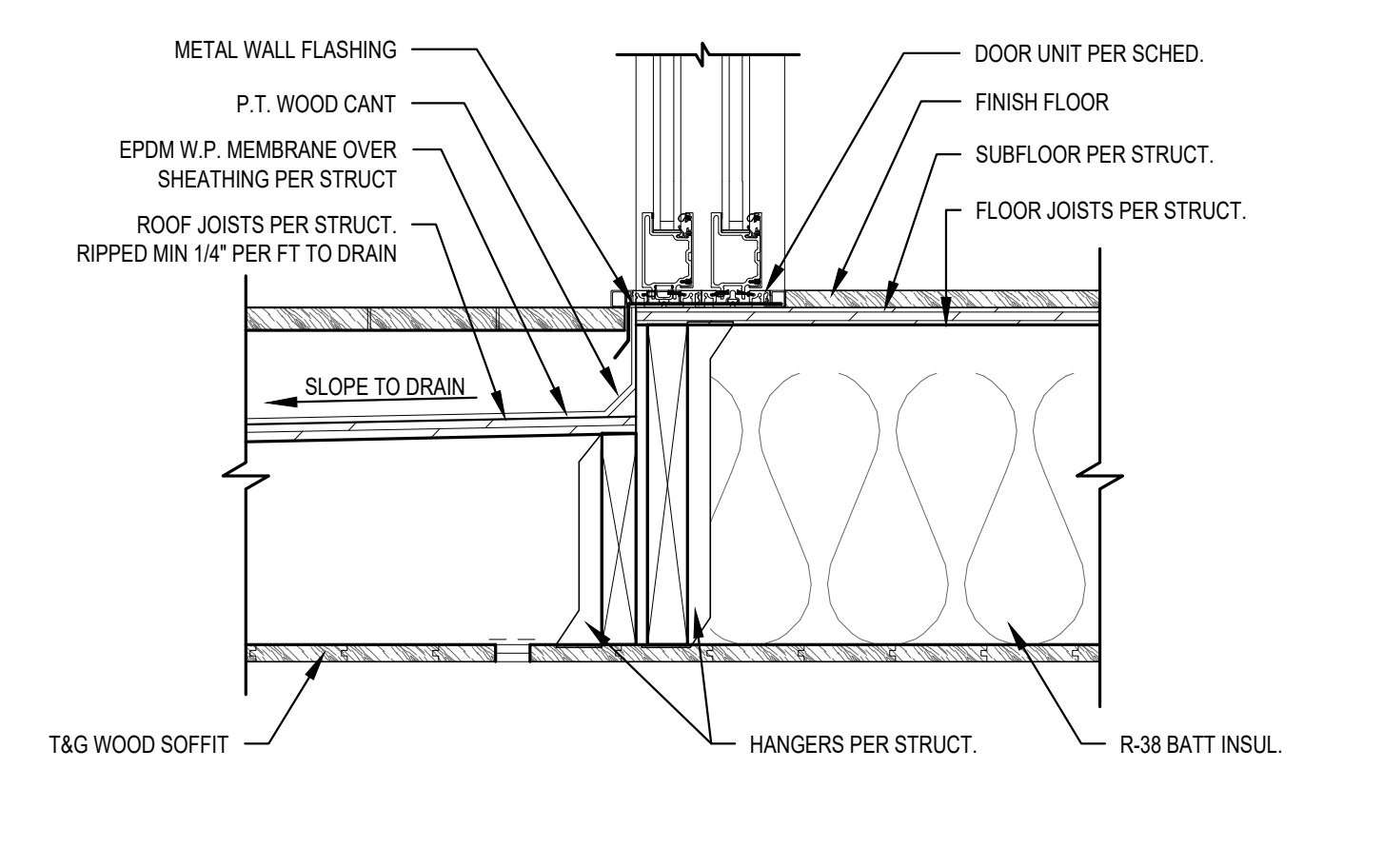
**1 BUILT-OUT WOOD COLUMN PLAN DETAIL**  
SCALE: 1-1/2" = 1'-0"



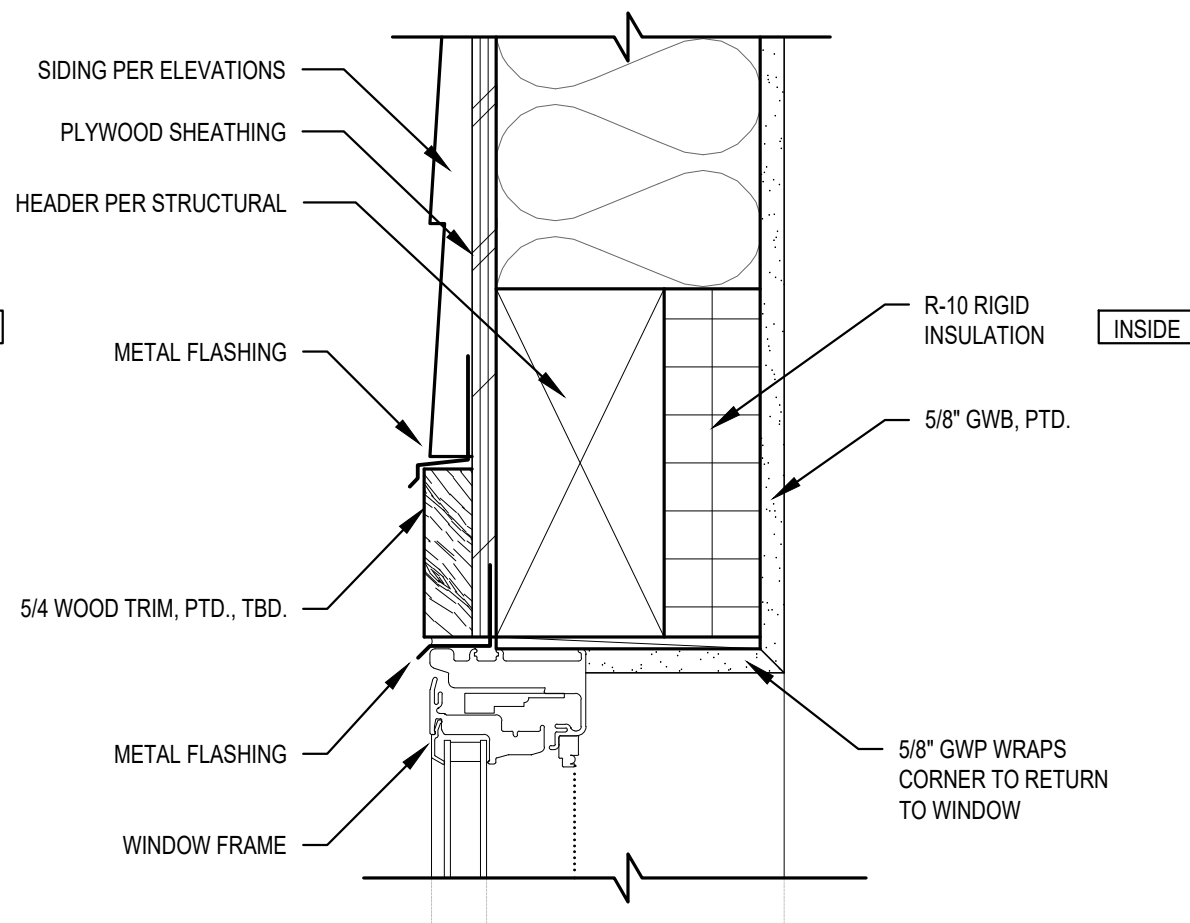
**2 STONE VENEER COLUMN PLINTH DETAIL**  
SCALE: 3" = 1'-0"



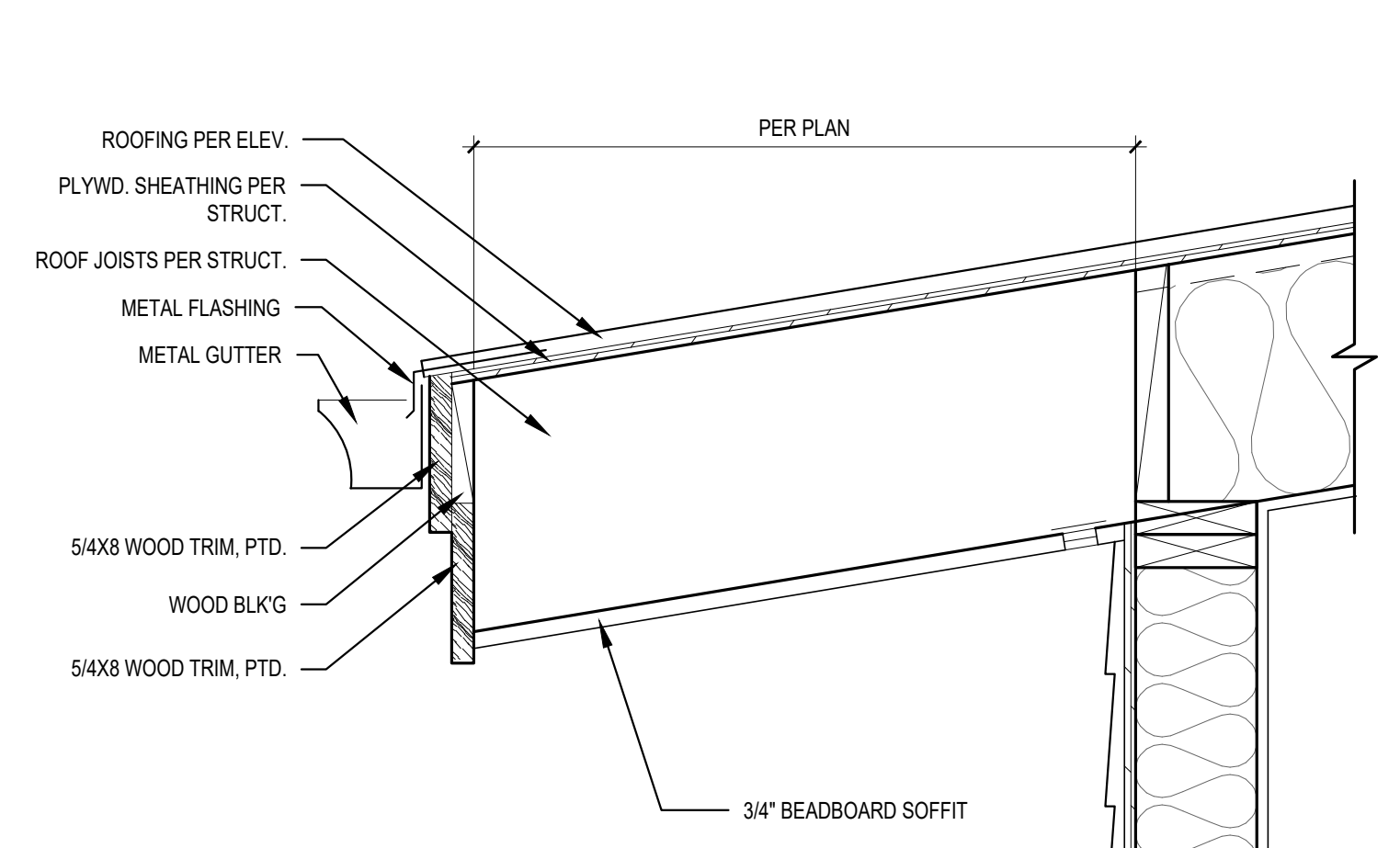
**3 FLASHING DETAIL @ FLUSH THRESHOLD**  
SCALE: 3" = 1'-0"



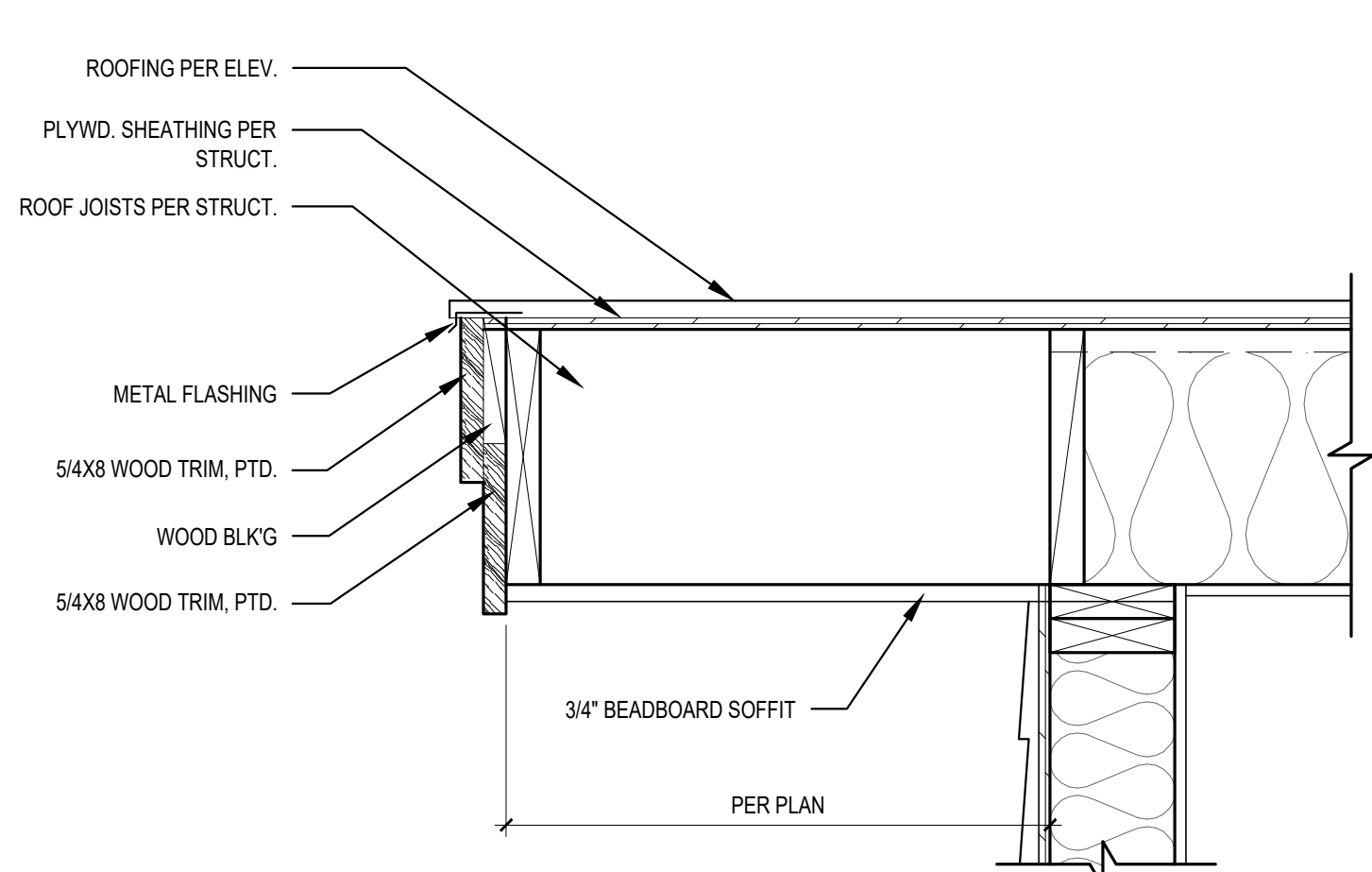
**4 THRESHOLD @ DECK SECTION DETAIL**  
SCALE: 1-1/2" = 1'-0"



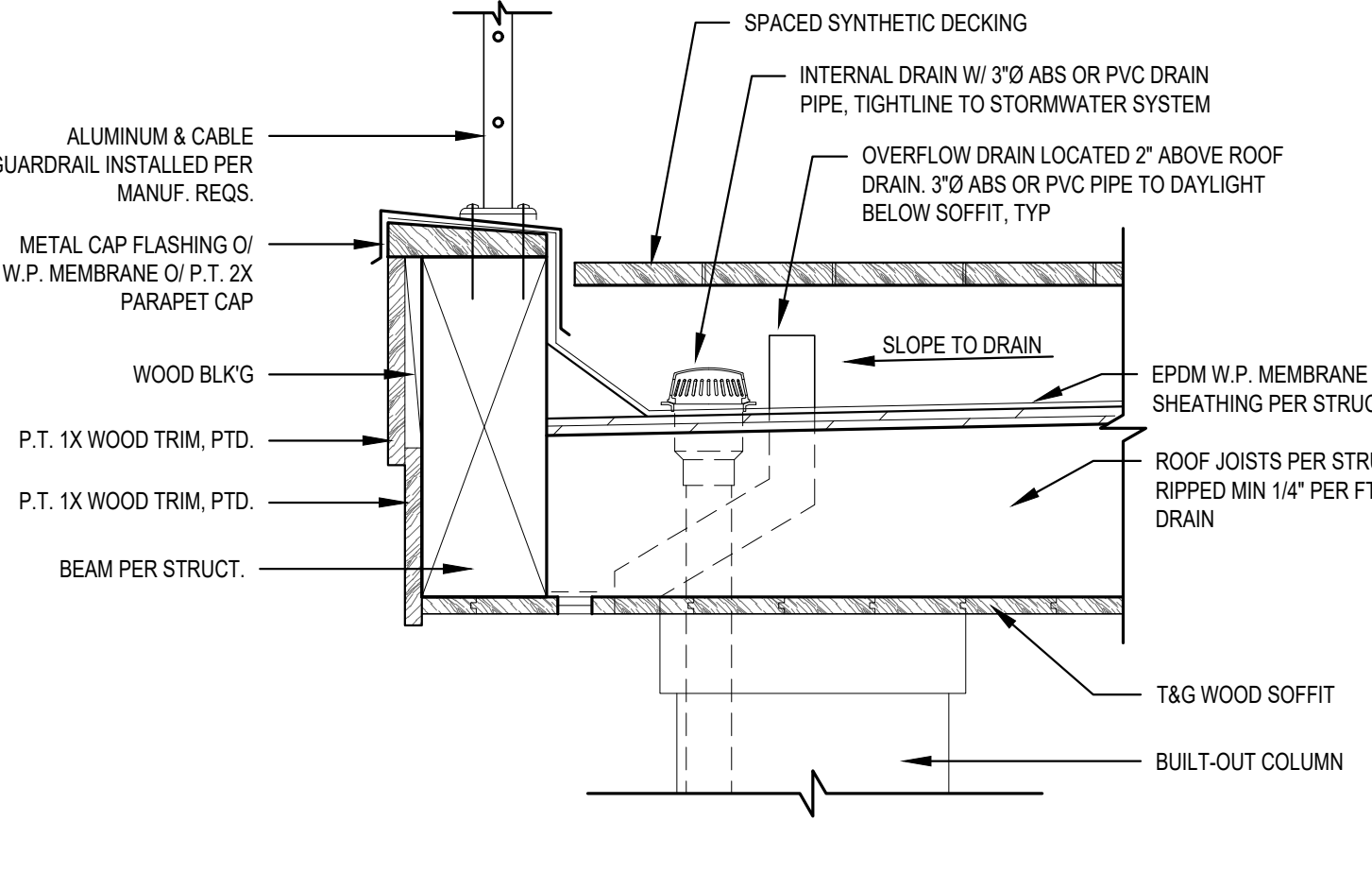
**5 TYPICAL WINDOW HEAD DETAIL**  
SCALE: 3" = 1'-0"  
SIM. AT WINDOW JAMB



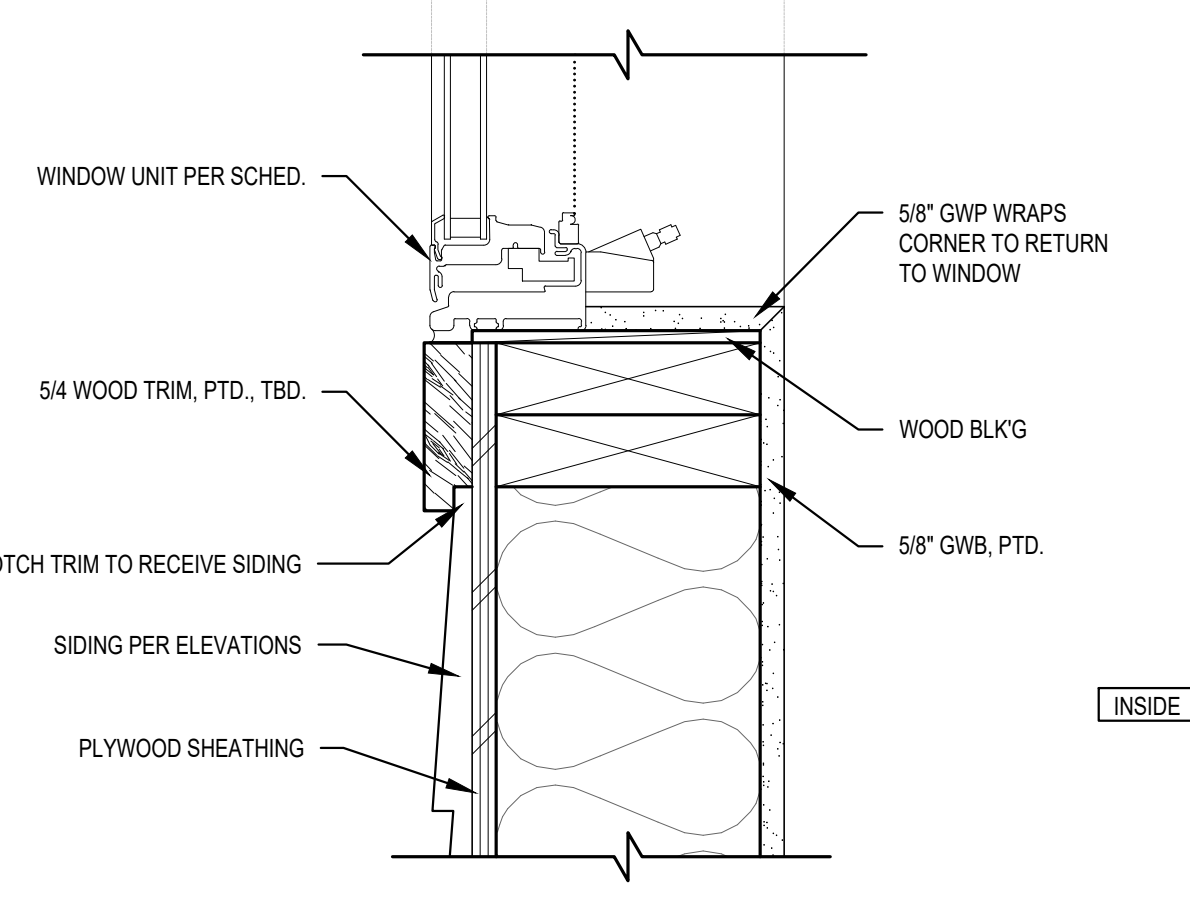
**6 TYPICAL VENTED ROOF EAVE DETAIL**  
SCALE: 1-1/2" = 1'-0"



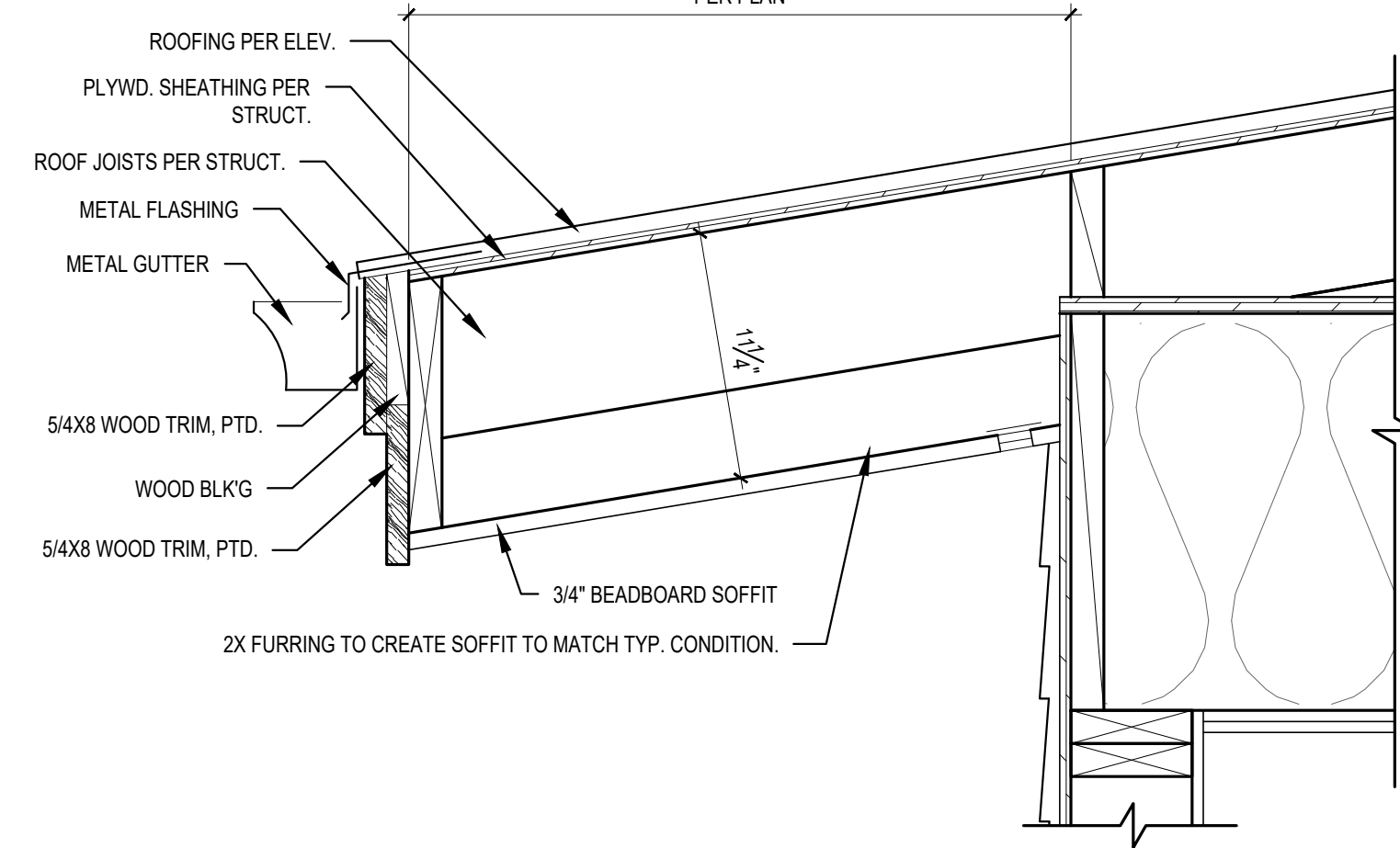
**7 TYPICAL ROOF RAKE DETAIL**  
SCALE: 1-1/2" = 1'-0"



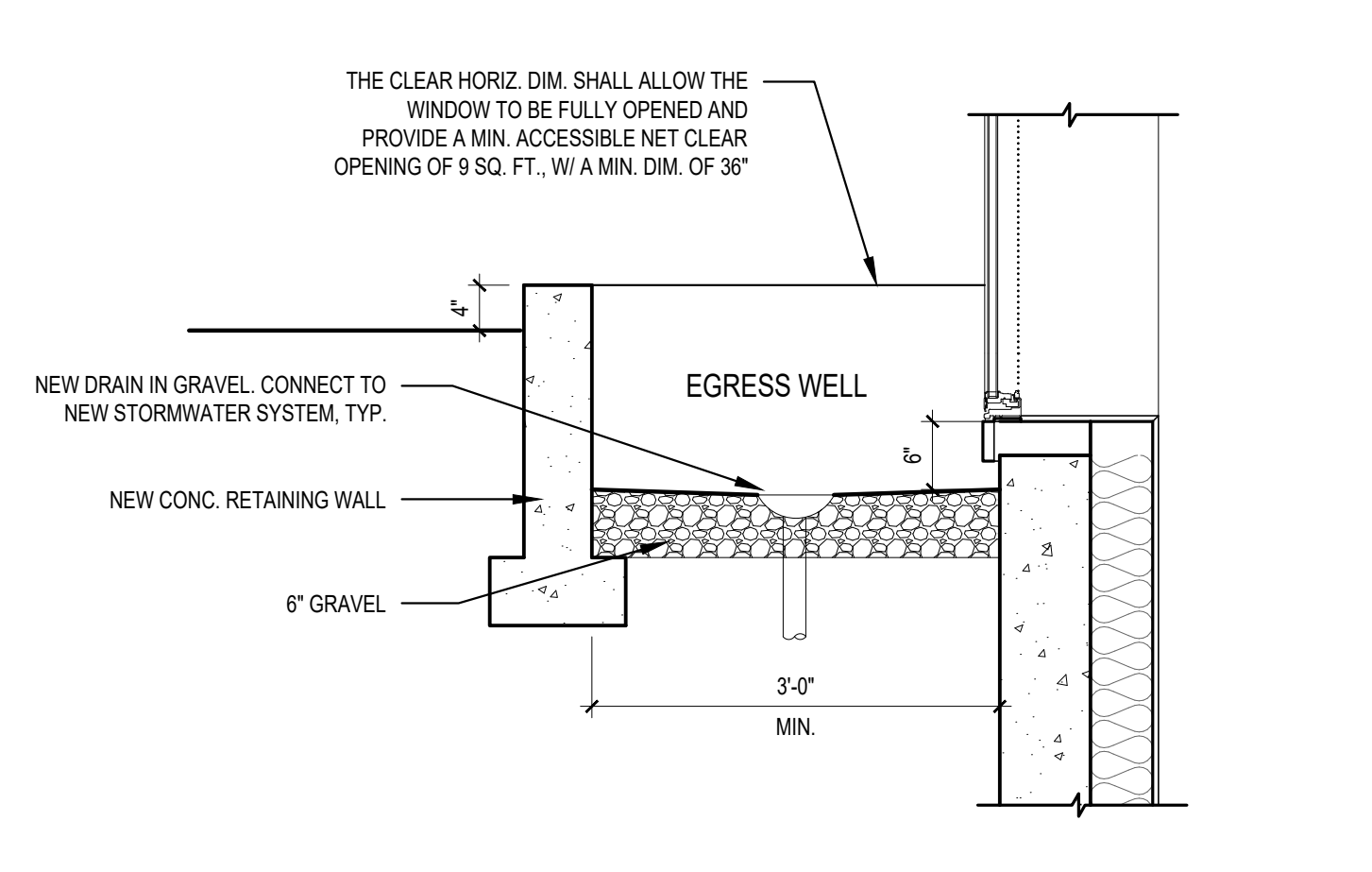
**8 THRESHOLD @ DECK SECTION DETAIL**  
SCALE: 1-1/2" = 1'-0"



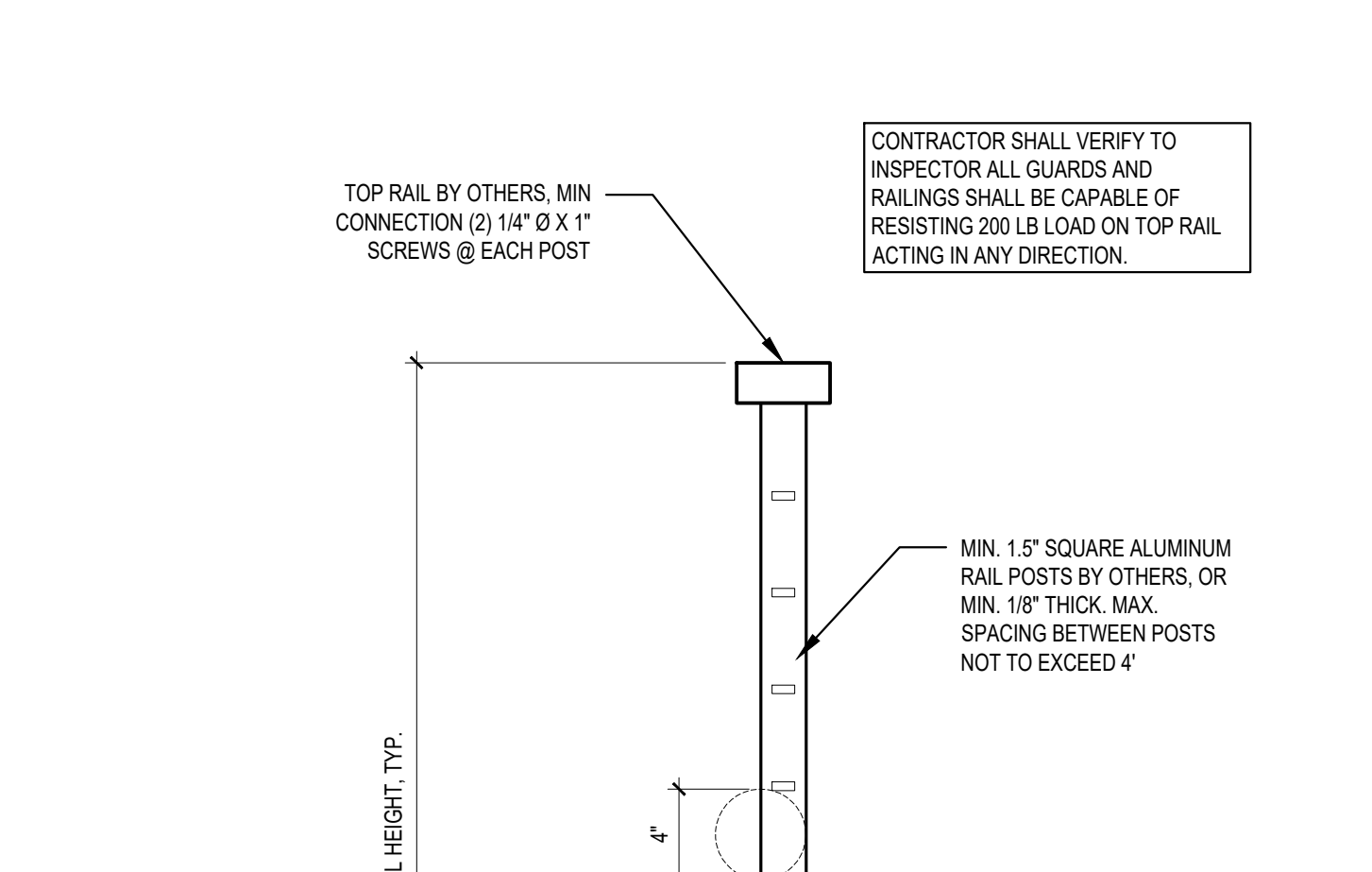
**9 TYPICAL WINDOW SILL DETAIL**  
SCALE: 3" = 1'-0"



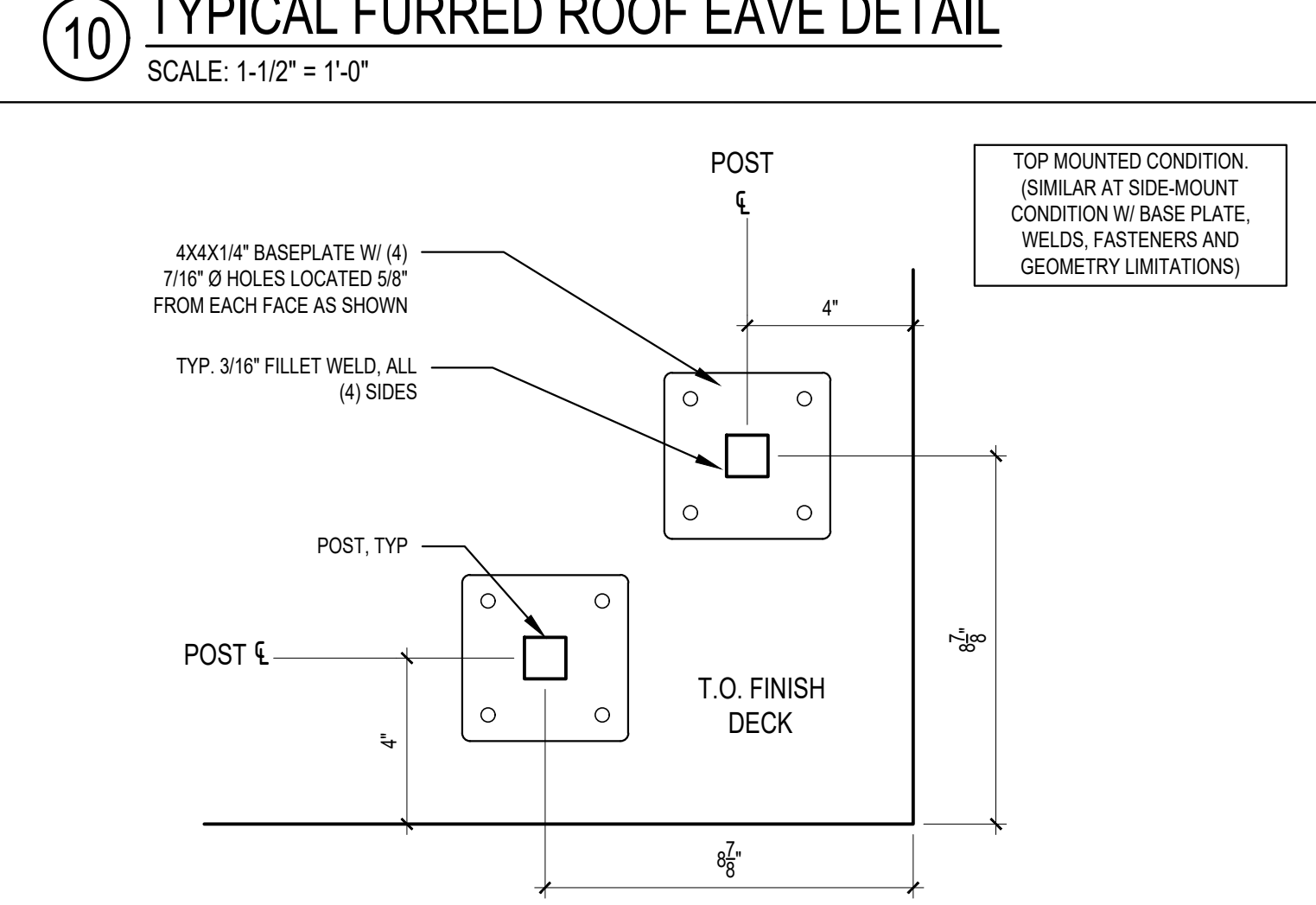
**10 TYPICAL FURRED ROOF EAVE DETAIL**  
SCALE: 1-1/2" = 1'-0"



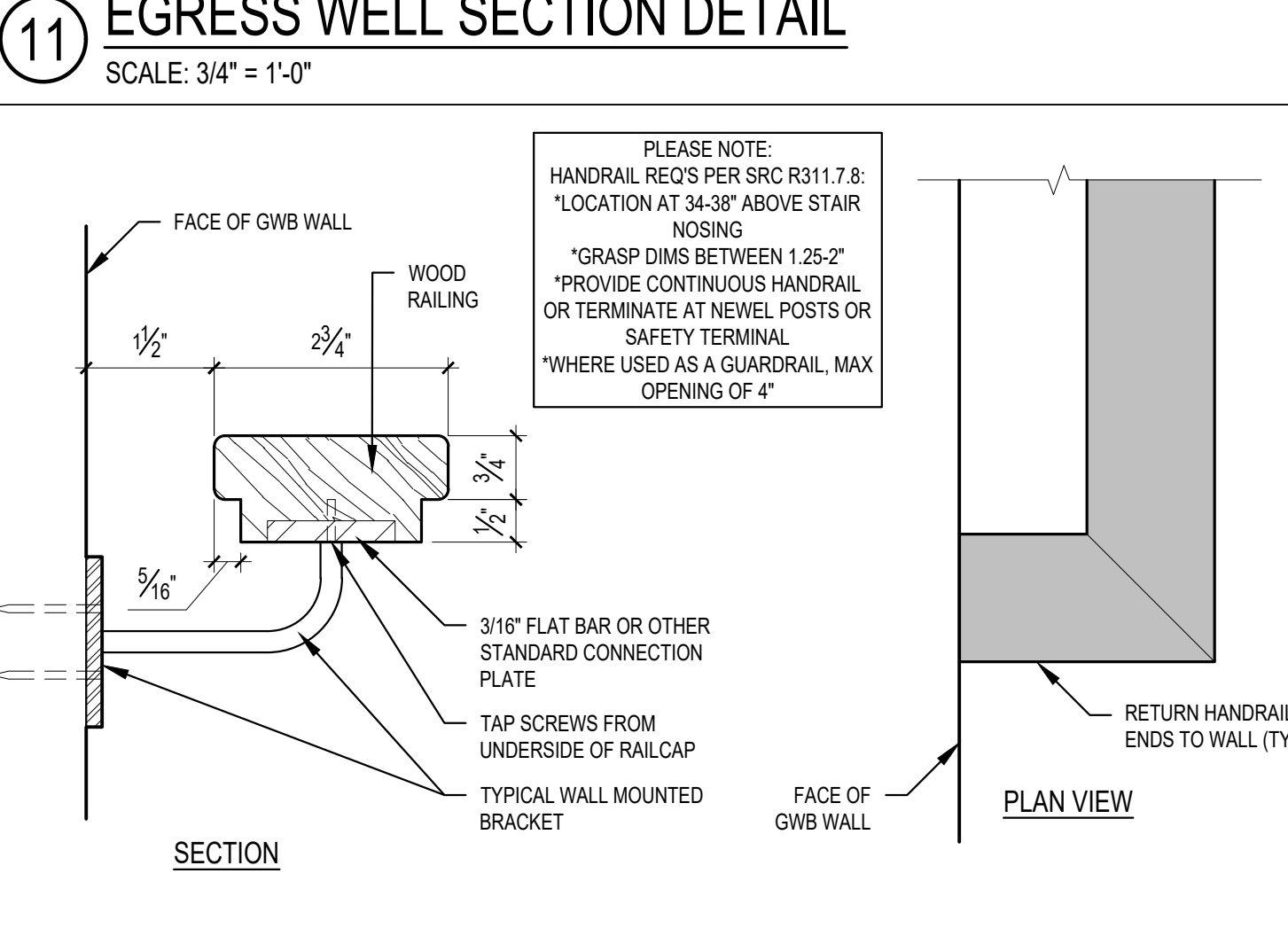
**11 EGRESS WELL SECTION DETAIL**  
SCALE: 3/4" = 1'-0"



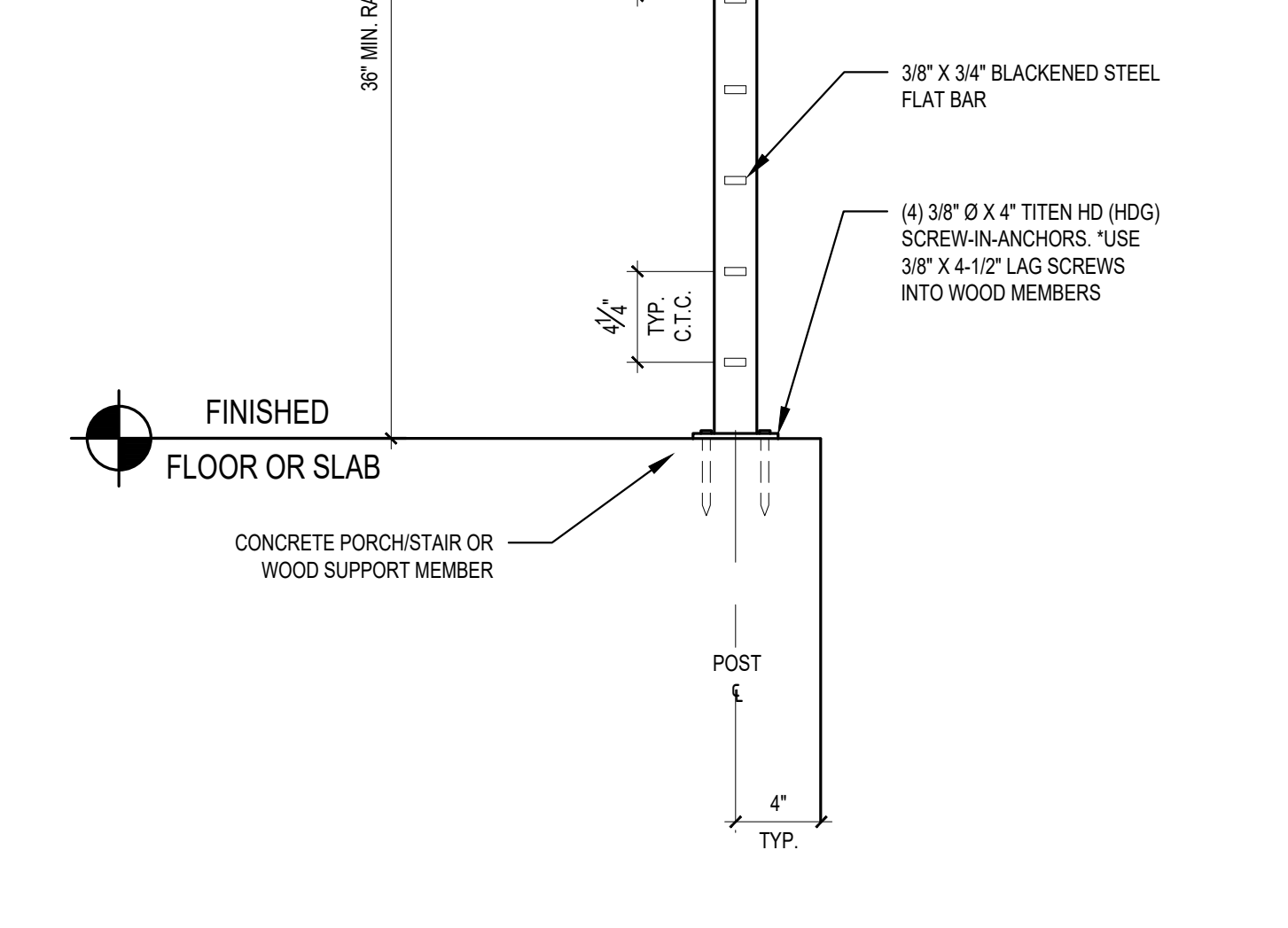
**12 GUARDRAIL PLATE ATTACHMENT**  
SCALE: 3" = 1'-0"  
SIM. AT SIDE-MOUNTED



**13 GUARDRAIL PLATE ATTACHMENT**  
SCALE: 3" = 1'-0"  
SIM. AT SIDE-MOUNTED



**14 TYPICAL HANDRAIL DETAIL**  
SCALE: 6" = 1'-0"



**15 RAILING ATTACHMENT -TOP-MOUNT**  
SCALE: 1-1/2" = 1'-0"

# FOREST CREEK ESTATES LOT 2

S22201

## PROJECT INFORMATION

CLIENT  
JON TELLEFSON  
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BELLEVUE, WA 98015

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PHONE: (425) 636-3313  
EMAIL: MTHURFJELL@L120ENGINEERING.COM  
CONTACT: MANS THURFJELL, PE

## CODES

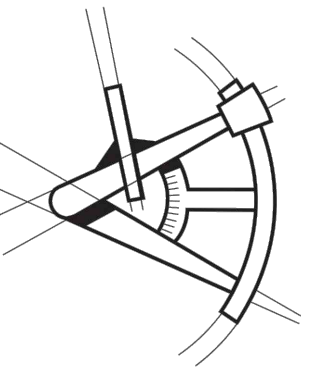
ENGINEERED PER:  
2018 (IRC) INTERNATIONAL RESIDENTIAL CODE  
2018 (IBC) INTERNATIONAL BUILDING CODE

## SHEET INDEX

COVER SHEET...S-0  
STRUCTURAL GENERAL NOTES...S-1  
FOUNDATION PLAN...S-2  
BASEMENT WALL FRAMING AND SHEAR WALL PLAN...S-3  
FIRST FLOOR FRAMING PLAN...S-4  
FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN...S-5  
SECOND FLOOR FRAMING PLAN...S-6  
SECOND FLOOR WALL FRAMING AND SHEAR WALL PLAN...S-7  
ROOF FRAMING PLAN...S-8  
  
STRUCTURAL DETAILS...SD-1  
STRUCTURAL DETAILS...SD-2  
STRUCTURAL DETAILS...SD-3



LONGITUDE  
ONE TWENTY  
ENGINEERING & DESIGN



### REVISIONS

△	DESCRIPTION	DATE	BY
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### PROJECT NAME

FOREST CREEK  
ESTATES LOT 2  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

### PROJECT NUMBER

S22201

CHECKED BY - AP

SHEET DATE - 11/01/2022

### SCALE

24X36 SHEET: 1/4" = 1'-0"

DESCRIPTION

COVER SHEET

SHEET  
S-0

# GENERAL STRUCTURAL NOTES

## DESIGN CRITERIA

CODE: 2018 IBC/IRC & AMENDMENTS AS ADOPTED BY THE REVIEWING AGENCY/COUNTY.

ROOF .....25 PSF SNOW (GROUND)

## FLOORS

RESIDENTIAL.....40 PSF  
BALCONY/DECK.....60 PSF

BASIC WIND SPEED .....100 MPH, EXPOSURE B

## SEISMIC

MAPPED SPECTRAL ACCELERATION, S<sub>s</sub>..... 1.297  
MAPPED SPECTRAL ACCELERATION, S<sub>1</sub>..... 0.497  
SOIL SITE CLASS.....D

## GENERAL CONDITIONS

- THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS BEFORE STARTING WORK. THE ARCHITECT/ENGINEER SHALL IMMEDIATELY BE NOTIFIED IN WRITING OF ANY DISCREPANCIES.
- ALL OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH ANY WORK SO INVOLVED.
- IN CASE OF CONFLICT, NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND/OR "STANDARD DETAILS".
- IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.
- WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND THE STRUCTURAL ENGINEER OF ANY CONDITION WHICH IN HIS OPINION MIGHT ENDANGER THE STABILITY OF THE STRUCTURE OR CAUSE DISTRESS TO THE STRUCTURE.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT HIS WORK AND HE SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
- ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE, AND ALL OTHER REGULATING AGENCIES EXERCISING AUTHORITY OVER ANY PORTION OF THE WORK.
- SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE THE NOTES, DRAWINGS, AND/OR SPECIFICATIONS DIFFER, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL DRAWINGS.
- NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.
- DISCREPANCIES FOUND BETWEEN STRUCTURAL DRAWINGS AND OTHER DOCUMENTS ARE TO BE NOTED IN WRITING TO THE ENGINEER PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION SHALL BE DONE WITH MATERIALS, METHODS, AND WORKMANSHIP ACCEPTED AS GOOD PRACTICE BY THE CONSTRUCTION INDUSTRY IN CONFORMANCE TO THE PROVISIONS OF THE "INTERNATIONAL BUILDING CODE" (IBC), AND STANDARDS REFERENCED THEREIN.

## FOUNDATION

- FOUNDATION DESIGN PARAMETERS PER GEOTECH CONSULTANTS INC.  
FOOTING BEARING PRESSURE: 2000 PSF  
LATERAL EARTH PRESSURE:  
ACTIVE: 35 PCF (FREE) 50 PCF (RESTRAINED)  
PASSIVE: 300 PCF  
COEFFICIENT OF BASE FRICTION: 0.45
- SUBGRADE PREPARATION, DRAINAGE PROVISIONS, AND OTHER RELEVANT SOIL CONSIDERATIONS ARE TO BE IN ACCORDANCE WITH THE JURISDICTIONAL REQUIREMENTS.
- ALL FOUNDATIONS ARE TO BEAR ON COMPETENT NATIVE SOILS OR STRUCTURAL FILL. STRUCTURAL FILL IS TO BE COMPACTED TO 95% DENSITY PER ASTM D-1557.

## CONCRETE

- REFERENCE STANDARDS: ACI-301, ACI-318, IBC.  
MINIMUM CONCRETE STRENGTH (28 DAYS):  
FOOTINGS AND STEM WALLS.....2,500 PSI - 5 SACK MIX  
BASEMENT FOUNDATION RETAINING WALLS.....2,500 PSI - 5.5 SACK MIX  
SLAB-ON-GRADE.....2,500 PSI - 5 SACK MIX  
SLAB-ON-GRADE.....EXPOSED WEATHERING SURFACES.....3,000 PSI - 5.5 SACK MIX  
AIR-ENTRAINMENT 2.5% TO 5.5% FOR EXPOSED CONCRETE.
- MIXING: COMPLY WITH ACI-301. DO NOT EXCEED THE AMOUNT OF WATER SPECIFIED IN THE APPROVED MIX. PROPORTIONS OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER
- PLACING: COMPLY WITH ACI-301. PROVIDE A 3/4 INCH CHAMFER ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS.
- SLUMP: 4" PLUS OR MINUS ONE INCH. DO NOT ADD WATER TO MIX TO INCREASE SLUMP. GREATER SLUMP, ACCELERATED SET, OR HIGH EARLY STRENGTH MAY BE ACHIEVED BY USING APPROVED ADMIXTURES.
- CURING: COMPLY WITH ACI-301. KEEP CONCRETE MOIST FOR SEVEN DAYS MINIMUM.
- JOINTING: PROVIDE ADEQUATE JOINTING TO MINIMIZE EFFECTS OF VOLUME CHANGE. JOINTS SHOWN MAY BE ADJUSTED AT CONTRACTOR'S OPTION, WITH PRIOR APPROVAL FROM ENGINEER.
- WEATHER EXTREMES: COMPLY WITH ACI 305R FOR HOT WEATHER. COMPLY WITH ACI 306R FOR COLD WEATHER.
- WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 (BY WEIGHT), TYPICAL.

## REINFORCING STEEL

- REFERENCE STANDARDS: ACI "DETAILING MANUAL" (SP-66); CRSI MANUAL OF STANDARD PRACTICE (MSP-1)
- MATERIALS:  
REINFORCING STEEL: ASTM A615, GRADE 60
- SPLICES:  
LAP CONTINUOUS REINFORCING BARS 48 BAR DIAMETERS, UNLESS OTHERWISE NOTED. PROVIDE CORNER BARS FOR ALL HORIZONTAL REINFORCEMENT.
- COVER:  
FOOTINGS .....3 INCHES  
SLABS.....2 INCHES
- FORMED SURFACES:  
WEATHER FACE ...1-1/2 INCHES, #5 BARS AND SMALLER 2 INCHES, # 6 BARS AND LARGER INTERIOR FACE ...3/4 INCH FOR SLABS AND WALLS 1-1/2 INCHES FOR BEAMS AND COLUMNS

## STRUCTURAL AND MISC. STEEL

- REFERENCE STANDARDS: DESIGN, FABRICATION AND ERECTION ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
- MATERIALS:  
BOLTS - ASTM A307, UNLESS OTHERWISE NOTED  
WF BEAMS - ASTM A572-50 (Fy = 50,000 PSI)  
HSS ROUND COLUMNS - ASTM A500 Gr. B (Fy = 42,000 PSI)  
HSS RECTANGULAR COLUMNS - ASTM A500 Gr. B (Fy = 46,000 PSI)  
ALL OTHER STEEL - ASTM A36 (Fy = 36,000 PSI)

## STRUCTURAL STEEL WELDING

- CONFORM TO THE AWS CODES D1.1 AND D1.3. ALL WELDING TO BE DONE ONLY BY WABO CERTIFIED WELDERS AND HAVE SPECIAL INSPECTION BY WABO CERTIFIED INSPECTION AGENCY OR BE DONE BY WABO CERTIFIED FABRICATION SHOP. EITHER SPECIAL INSPECTION REPORT OR WABO FABRICATION SHOP CERTIFICATION SHOULD BE AVAILABLE ON SITE FOR THE BUILDING INSPECTOR. WELDS NOT SPECIFIED ARE TO BE 1/4" CONTINUOUS FILLET MINIMUM. USE DRY E70 ELECTRODES.

## DIMENSIONAL LUMBER

- MEET REQUIREMENTS OF PS 20-70 AND NATIONAL GRADING RULES FOR SOFTWOOD DIMENSIONAL LUMBER. BEAR STAMP OF WWPFA.  
WALL STUDS: 2x, HF STUD GRADE, 3x HF #2  
WALL PLATES: 2x HF STANDARD GRADE  
2x, 3x PRESSURE TREATED HF STANDARD GRADE AT FOUNDATION
- MINIMUM DIMENSIONAL LUMBER GRADES TO BE:  
JOISTS: 2x6 HF STUD GRADE  
2x8 AND UP HF #2  
BEAMS, HEADERS: 6x DF#2; 4x DF#2, WWPFA GRADING.  
POSTS: 4x, 6x, DF #2  
LUMBER NOT NOTED TO BE HF #2.
- PROVIDE STANDARD CUT WASHERS FOR NUTS BEARING AGAINST WOOD, AND 1/4"x3" HOT-DIPPED GALVANIZED SQUARE PLATE WASHERS FOR ALL ANCHOR BOLTS.
- ALL SILLS OR PLATES RESTING ON CONCRETE OR MASONRY, WHICH IS IN CONTACT WITH OR RESTING ON FOUNDATIONS, SHALL BE PRESSURE TREATED HEM FIR OR BETTER. ALL BEARING WALL PLATES SHALL HAVE 5/8"Ø ANCHOR BOLTS PLACED A MAXIMUM 9" FROM THE END OF A PLATE AND SPACED AT INTERVALS SHOWN ON THE SHEARWALL SCHEDULE (MAXIMUM 4'-0" O.C. SPACING). ALL TREATED PRESSURE TREATED WOOD MEMBERS SHALL COMPLY WITH AWP4 U1 AND AWP4 M4 STANDARDS.
- CAST-IN-PLACE ANCHOR BOLTS SHALL HAVE A MINIMUM 7" EMBEDMENT. ALTERNATE 5/8"Ø EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT II ANCHORS EMBED 7", OR APPROVED ALTERNATE.
- BOLTS IN WOOD BEAMS SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.
- NAILS: NAILING IN ACCORDANCE WITH IBC TABLE 2304.10.1. 16D NAILS MAY BE 16D SINKERS (0.148 x 3-1/4") UNLESS NOTED OTHERWISE.
- PRESURE TREATED WOOD: ALL NAILS INTO PT WOOD SHALL BE HOT DIPPED GALVANIZED PER ASTM A153 OR STAINLESS STEEL. ALL METAL CONNECTORS IN CONTACT WITH PT WOOD SHALL BE HOT DIPPED GALVANIZED AND MEET ASTM A653 CLASS G185 (1.85 oz OF ZINC PER SQ FT MINIMUM) OR TYPE 304 / 316 STAINLESS STEEL. SIMPSON Z-MAX CONNECTORS MEET THIS REQUIREMENT. FASTENERS AND CONNECTORS USED TOGETHER SHALL BE OF THE SAME TYPE (E.G. HOT DIPPED NAILS WITH HOT DIPPED HANGERS)

## MANUFACTURED TIMBER

PRODUCT	APPLICATION	WIDTHS
LSL RIMBOARD (1.3E)	RIMBOARD OR STAIR STRINGER	1 ¼"
TIMBERSTRAND LSL (1.3E)	HEADER, BEAM, OR COLUMN < 9" DEPTH	3 ½"
TIMBERSTRAND LSL (1.55E)	RIMBOARD, HEADER, OR < 9" DEPTH BEAM	1 ¾", 3 ½"
TIMBERSTRAND LSL (1.3E) (1.5E)	WALL STUD 2X4 & 2X6 WALL STUD > 2X6	½" 1 ½"
MICROLLAM LVL (1.9E)	HEADER, BEAM	1 ¾"
PARALLAM PSL (2.2E)	HEADER, BEAM	3 ½", 5 ¼", 7"
PARALLAM PSL (1.8E)	COLUMN	3 ½", 5 ¼", 7"

## WOOD STRUCTURAL CONNECTIONS

- ALL FRAMING ANCHORS, POST CAPS, BASES, HANGERS, STRAPS, ETC., SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR ENGINEER APPROVED EQUAL.

## BRICK VENEER ANCHORAGE

- D/A 2135 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT WOOD STUD WALL.
- D/A 5213 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT CONCRETE WALL.
- PLACE ANCHORS AT 16" O.C. VERTICAL AND 16" HORIZONTAL. PROVIDE #9 GA HORIZONTAL JOINT REINFORCING WIRE . ATTACH TO WOOD STUDS WITH #8 CORROSION RESISTANT SCREWS AND TO CONCRETE WITH 1/4"Ø EXPANSION ANCHORS.
- AT ALL OPENINGS LARGER THAN 16" IN EITHER DIRECTION, ANCHORS TO BE SPACED WITHIN 12" OF THE OPENING AT ALL SIDES.
- USE TYPE N MORTAR COMPLYING WITH ASTM C270

## GLU-LAMINATED TIMBER

- GLU-LAMINATED WOOD BEAMS, DOUGLAS FIR COAST REGION, KILN DRIED, AITC SPECIFICATION 24F-V4 FOR SIMPLE SPANS (TYPICAL), AND 24F-V8 FOR CANTILEVER-SPANS (WHERE SPECIFIED). PROVIDE AITC STAMP ON TIMBER AND SUBMIT CERTIFICATE TO ARCHITECT AND ENGINEER. MATERIALS MUST BE OBTAINED FROM AN AITC APPROVED FABRICATOR. ALL GLU-LAM BEAMS SHALL FIT SNUG AND TIGHT IN THEIR CONNECTIONS AND DEVELOP FULL BEARING AS INDICATED. NO SUBSTITUTION OF OTHER SPECIES. GLU-LAM ADHESIVE TO BE "WET- USE" TYPE. PROVIDE 2000 FT RADIUS CAMBER, U.N.O.
- MANUFACTURER'S CERTIFICATE SHALL BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION.

## WOOD SHEATHING

- ROOF SHEATHING: 7/16" MINIMUM THICKNESS APA RATED PRP-108 PERFORMANCE STANDARD, EDGE SEALED PANELS DESIGNED TO SPAN 24 INCHES EITHER PARALLEL OR PERPENDICULAR TO LONG AXIS OF PANEL WITH 35 PSF LIVE LOAD. LAY UP WITH MINIMUM 1/8" CLEAR BETWEEN PANELS TO ALLOW FOR EXPANSION. NAIL 6 INCHES ON CENTER ALONG EDGES, AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. USE 10D COMMON NAILS, U.N.O. PROVIDE EXP-1 RATING.
- FLOOR SHEATHING: 3/4" NOMINAL APA RATED PANELS, PRP-108 PERFORMANCE STANDARD, NAILED AND GLUED. CONFORM TO IBC IDENTIFICATION INDEX 40/20 FOR SUPPORTS TO 20 INCHES ON CENTER. ADHESIVES ARE TO CONFORM TO APA SPECIFICATION AFG-01. PROVIDE T&G EDGES AT LONG PANEL EDGES. LAY UP WITH MINIMUM 1/8" CLEAR BETWEEN PANELS TO ALLOW FOR EXPANSION. NAIL 6 INCHES ON CENTER AT END SUPPORTS AND 10 INCHES ON CENTER AT INTERMEDIATE SUPPORTS. USE 10D COMMON NAILS. PROVIDE EXP-1 RATING.
- WOOD SHEARWALL SHEATHING: PLYWOOD OR OSB APA RATED PRP-108 PERFORMANCE STANDARD PER IBC STD 23-2 OR 23-3 TYPE C-C OR C-D. USE EXTERIOR ADHESIVES. USE 8d COMMON NAILS. PROVIDE EXP-1 RATING. ALL VERTICAL JOINTS OF PANEL SHEATHING SHALL OCCUR OVER STUDS. HORIZONTAL JOINTS SHALL OCCUR OVER BLOCKING EQUAL IN SIZE TO THE STUDDING. REFER TO SHEAR WALL SCHEDULE FOR PANEL THICKNESS.
- NAILING SPECIFICATIONS: CONFORM TO IBC SECTION 2304.10 "CONNECTIONS AND FASTENERS." UNO ON PLANS, NAILING PER TABLE 2304.10.1, AND FOR ROOF/FLOOR DIAPHRAGMS AND SHEARWALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING. ALTERNATE NAILS MAY BE USED BUT ARE SUBJECT TO REVIEW AND APPROVAL BY THE STRUCTURAL ENGINEER. SUBSTITUTION OF STAPLES FOR THE NAILING OF RATED SHEATHING IS SUBJECT TO REVIEW BY THE STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION.

## SHOP DRAWINGS AND SUBMITTALS

- SUBMIT 2 SETS OF PRINTS AND 1 SET OF REPRODUCIBLES FOR REVIEW FOR:  
A) REINFORCING STEEL C) GLU-LAMINATED BEAMS  
B) MISCELLANEOUS STEEL D) PRE-MANUFACTURED WOOD TRUSSES
- SUBMIT 3 COPIES FOR REVIEW PRIOR TO FABRICATION FOR:  
A) CONCRETE DESIGN MIX  
B) CONCRETE INSERTS  
C) EPOXY ADHESIVES

## INSPECTIONS

- REFERENCE STANDARDS: IBC 110.  
INSPECTIONS ARE TO BE PERFORMED BY THE BUILDING OFFICIAL. INSPECTIONS REQUIRED ARE AS FOLLOWS:  
SOIL: VERIFY SUBGRADE IS DRY DENSE AND DOES NOT HAVE STANDING WATER PRIOR TO POURING FOOTINGS.
- CONCRETE: INSPECTIONS REQUIRED ONLY FOR DESIGN MIXES SPECIFIED GREATER THAN 2500 PSI.  
TAKE CONCRETE CYLINDERS AS REQUIRED. VERIFY SLUMP AND STRENGTH.
- REINFORCING: VERIFY ALL REINFORCING IS PLACED IN ACCORDANCE WITH APPROVED PLANS. CHECK FOR REQUIRED COVER, SIZE AND GRADE.
- WOOD: DIAPHRAGM NAILING, BLOCKING AND HOLD-DOWN CONNECTIONS.

## ALTERNATES:

- ALTERNATE ASSEMBLIES AND MATERIALS WILL BE CONSIDERED FOR REVIEW. ENGINEER MAY REQUEST PAYMENT FOR REVIEW; CONTRACTOR WILL BEAR BURDEN FOR ADDITIONAL PAYMENT AT NO ADDITIONAL COST TO OWNER.

## SETTLEMENT SHRINKAGE:

- DUE TO CROSS GRAIN WOOD SHRINKAGE, THIS BUILDING IS EXPECTED TO SETTLE APPROXIMATELY 3/8 INCH PER STORY. ALL PLUMBING AND MECHANICAL DUCTS SHALL BE DESIGNED WITH FLEXIBLE JOINTS OR OTHERS MEANS TO APPROPRIATELY ACCOMMODATE THIS NORMAL SETTLEMENT. ALL INTERIOR AND EXTERIOR SHEATHING AND FINISHES SHALL BE INSTALLED SUCH THAT NO DAMAGE WILL OCCUR. SHRINKAGE IS EXPECTED IN THE DEPTH OF THE FLOOR PLATES AND NOT IN THE LENGTH OF THE WALL STUDS.

## JOBSITE SAFETY:

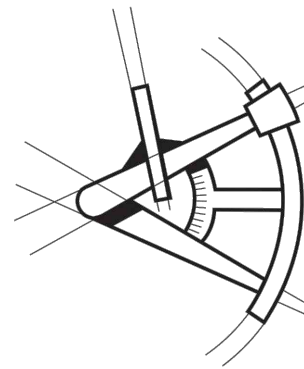
- THE ENGINEER AND/OR ARCHITECT HAVE NOT BEEN RETAINED OR COMPENSATED TO PROVIDE DESIGN AND/OR CONSTRUCTION REVIEW SERVICES RELATED TO THE CONTRACTOR'S SAFETY PRECAUTIONS OR TO MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES FOR THE CONTRACTOR TO PERFORM HIS WORK. THE UNDERTAKING OF PERIODIC SITE VISITS BY THE ENGINEER AND/OR ARCHITECT SHALL NOT BE CONSTRUED AS SUPERVISION OF ACTUAL CONSTRUCTION NOR MAKE HIM RESPONSIBLE FOR PROVIDING A SAFE PLACE FOR THE PERFORMANCE OF WORK BY THE CONTRACTOR, SUBCONTRACTORS, SUPPLIERS OR THEIR EMPLOYEES, OR FOR ACCESS, VISITS, USE, WORK, TRAVEL, OR OCCUPANCY BY ANY PERSON.

# ABBREVIATIONS

AB	ANCHOR BOLT	GLB	GLULAM BEAM
ABV	ABOVE	GR	GRADE
AFF	ABOVE FINISH FLOOR	GYP	GYPSUM WALL BOARD
ALT	ALTERNATE	HDG	HOT-DIPPED GALVANIZED
ALUM	ALUMINUM	HDR	HEADER
APPROX	APPROXIMATE	HF	HEM FIR
AYC	ALASKAN YELLOW CEDAR	HGT	HEIGHT
BB	BOX BEAM	HT	HEIGHT
BF	BOTTOM FLUSH	IN	INCH
BLDG	BUILDING	JT	JOINT
BLKG	BLOCKING	MAX	MAXIMUM
BM	BEAM	MIN	MINIMUM
BOT	BOTTOM	MISC	MISCELLANEOUS
BP	BOTTOM PLATE	NB	NON-BEARING
BRG	BEARING	NO	NUMBER
BTWN	BETWEEN	OC	ON CENTER
BSMT	BASEMENT	PL	PLATE
B/W	BOTTOM OF WALL	PSF	POUNDS PER SQUARE FOOT
CANT	CANTILEVER	PSI	POUNDS PER SQUARE INCH
CJ	CONTROL JOINT	PT	PRESSURE TREATED
CLG.	CEILING	RAF	RAFTER
CLJ	CEILING JOIST	REF	REFERENCE
CLR	CLEAR	REINF	REINFORCEMENT
CMU	CONCRETE MASONRY UNIT	REQD	REQUIRED
COL	COLUMN	REQS	REQUIREMENTS
CONC	CONCRETE	SF	SQUARE FOOT
CONN	CONNECTION	SHTG	SHEATHING
CONST	CONSTRUCTION	SIM	SIMILAR
CONT	CONTINUOUS	SPF	SPRUCE PINE FIR
CTR	CENTER	STD	STANDARD
DET	DETAIL	SYP	SOUTHERN YELLOW PINE
DF	DOUGLAS FIR (SOUTH)	T/	TOP OF
DFL	DOUGLAS FIR LARCH	T/BM	TOP OF BEAM
DIM	DIMENSION	T/CONC	TOP OF CONCRETE
DJ	DOUBLE JOIST	T/PL	TOP OF PLATE
DIA	DIAMETER	T/SLAB	TOP OF SLAB
DN	DOWN	T/ST	TOP OF STEEL
DS	DOWN SPOUT	T/W	TOP OF WALL
EA	EACH	TF	TOP FLUSH
EF	EACH FACE	TJ	TRIPLE JOIST
EJ	EXPANSION JOINT	TP	TOP PLATE
ELEV	ELEVATION	TR	THREADED ROD
EN	EDGE NAILING (PANEL)	TYP	TYPICAL
EOR	ENGINEER OF RECORD	UNO	UNLESS NOTED OTHERWISE
EQ	EQUAL	UPA	UNDER POST ABOVE
ES	EACH SIDE	UWA	UNDER WALL ABOVE
EW	EACH WAY	VCB (V.C.B.)	VERTICAL CRUSH BLOCKING
FB	FLUSH BEAM	VERT	VERTICAL
FIN	FINISH	VIF	VERIFY IN FIELD
FL	FLOOR	W/	WITH
FLSHG	FLASHING	WC	WESTERN CEDAR
FND	FOUNDATION	WP	WATERPROOF
FP	FIREPLACE	WWF	WELDED WIRE FABRIC
FT	FOOT		
FTG	FOOTING		
GA	GAUGE		
GALV	GALVANIZED		



**LONGITUDE**  
**ONE TWENTY**  
ENGINEERING & DESIGN



## REVISIONS

DESCRIPTION DATE BY

REVISIONS
Δ

## PROJECT NAME

**FOREST CREEK**  
**ESTATES LOT 2**  
**5214 FOREST AVE SE**  
**MERCER ISLAND, WA 98040**

## PROJECT NUMBER

**S22201**

CHECKED BY - AP

SHEET DATE - 11/01/2022

## SCALE

**24X36 SHEET:1/4"=1'-0"**

DESCRIPTION

**STRUCTURAL GENERAL NOTES**

SHEET **S-1**

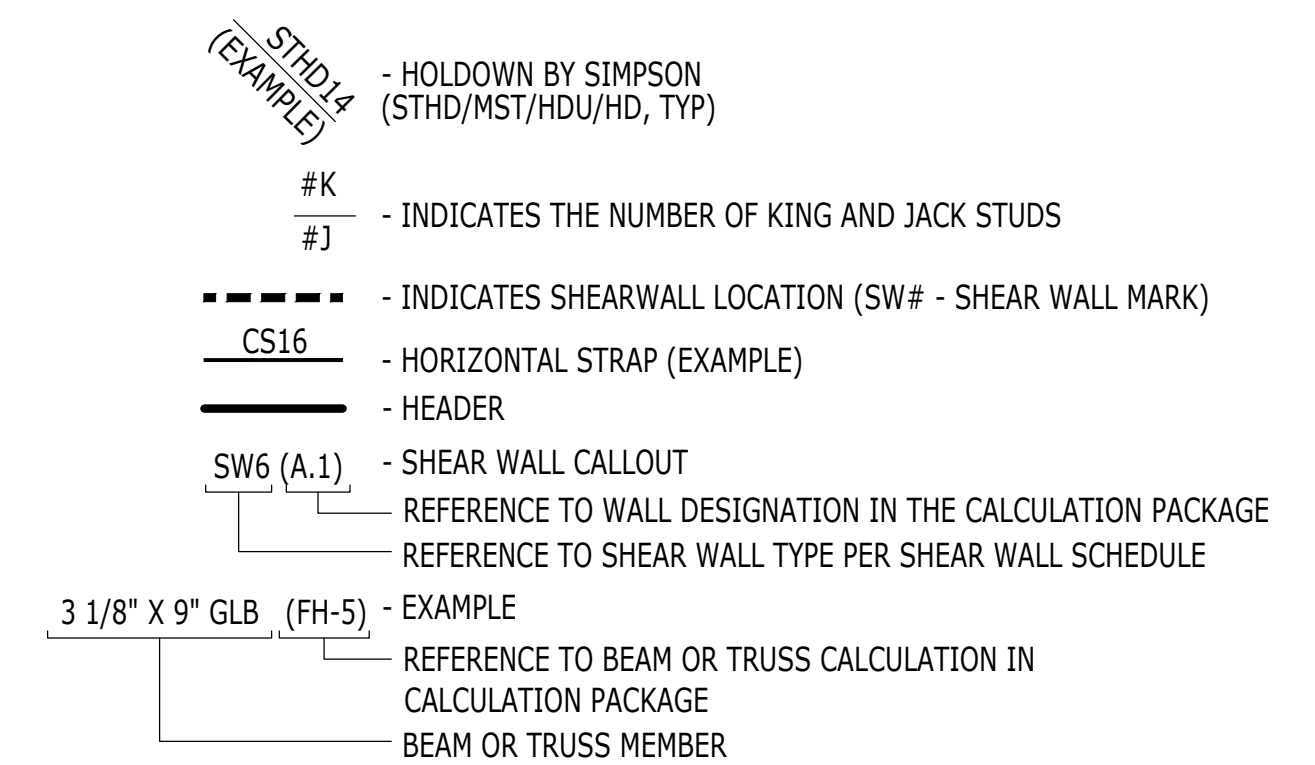




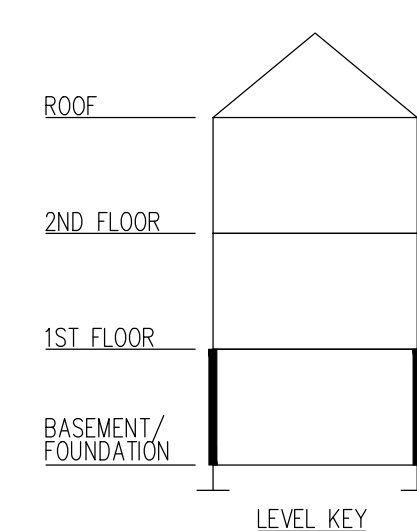
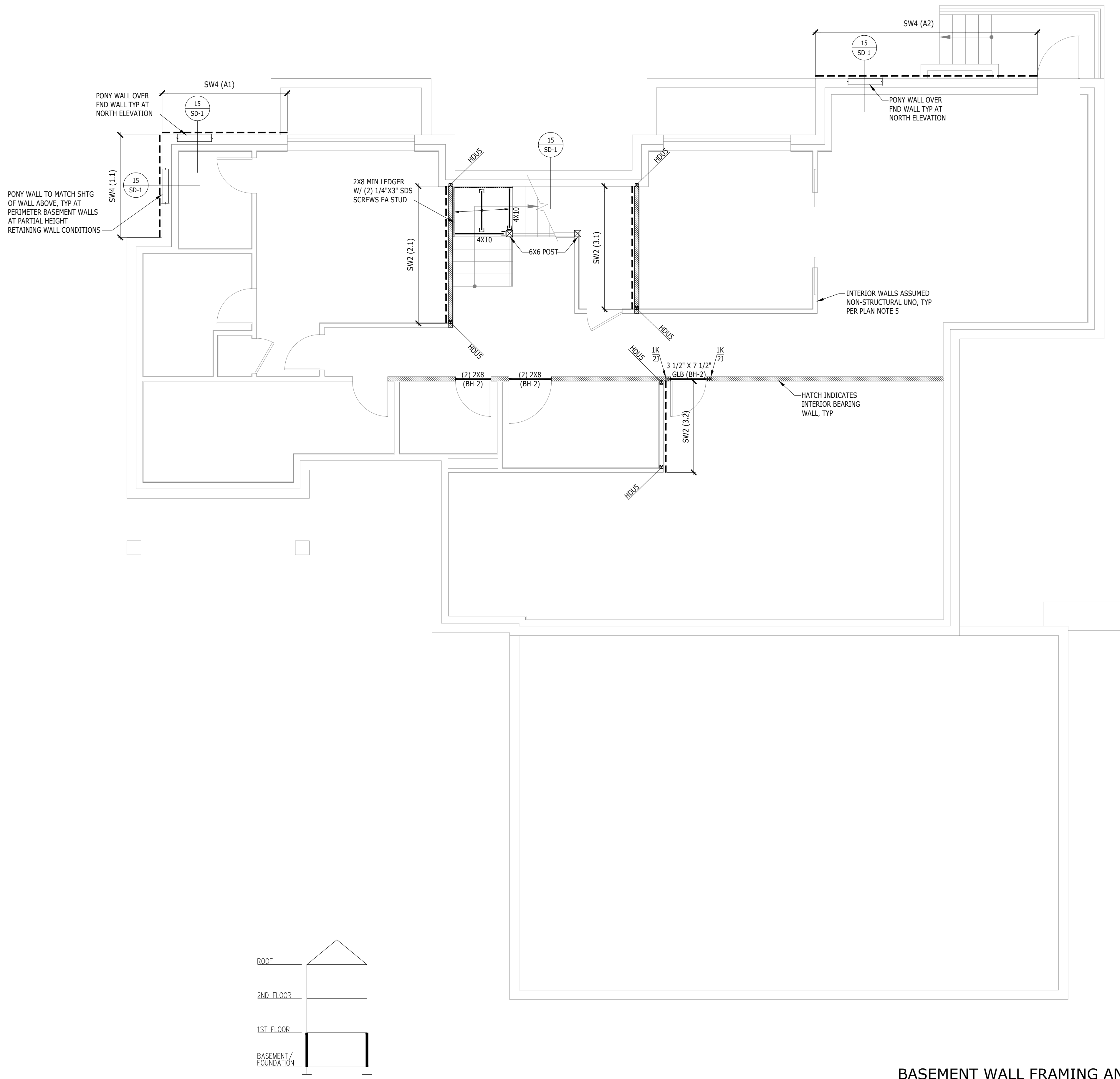
# WALL FRAMING AND SHEAR WALL NOTES

1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
3. LUMBER GRADE PER GENERAL STRUCTURAL NOTES.
4. ALL BUNDLED STUDS SPECIFIED PER PLAN SHALL BE CONNECTED TOGETHER WITH 16d @ 6" O.C.
5. EXTERIOR WALL STUDS SHALL BE 2X6 @ 16" O.C. (≤10'), 2X6 @ 12" O.C. (>10') UNO. INTERIOR WALL STUDS SHALL BE 2X4 @ 16" O.C. UNO. REFER TO ARCH SET FOR WALL THICKNESS REQUIREMENTS AT PLUMBING STACKS. ALL INTERIOR NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
6. PROVIDE ONE KING STUD AND ONE JACK STUD MINIMUM AT EVERY HEADER UNO. JACK STUDS SHOULD BE CONTINUOUS TO THE FOUNDATION AND SHALL HAVE VERTICAL CRUSH BLOCKING WITHIN THE FLOOR FRAMING DEPTH MATCHING THE WIDTH OF JACK STUDS.
7. SHEARWALL SHEATHING AND NAILING REQUIREMENTS PER SHEARWALL SCHEDULE. ALL EXTERIOR WALLS SHALL BE TYPE SW6 UNO.
8. ALL SHEATHING PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING. PANEL EDGE NAILING PER SHEARWALL SCHEDULE, FIELD NAILING AT 12" O.C. UNO.
9. PROVIDE MIN TWO 2X STUDS AT EACH END OF SHEARWALL UNO. PROVIDE PANEL EDGE NAILING INTO EACH STUD AT END OF WALL.
10. SHEARWALL PANEL EDGE STUDS INDICATE THE MINIMUM STUD WIDTH AT ABUTTING PANEL EDGES. TWO 2X STUDS ARE AN ACCEPTABLE ALTERNATE FOR 3X STUDS. TWO 2X STUDS ARE TO BE NAILED TOGETHER WITH TWO ROWS 10d NAILS AT 6" O.C. (4" O.C. @ SW2 AND 2W2). AT DOUBLE SIDED SHEARWALLS VERTICAL PANEL EDGES TO BE STAGGERED ON OPPOSITE SIDES OF THE WALL EXCEPT END OF SHEARWALL.
11. LTP4 INSTALLED OVER PLYWOOD SHALL USE 8d COMMON NAILS (.1310 X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131 X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148 X 1.5").
12. WINDOW STRAP INDICATES THAT A WINDOW IS INCORPORATED WITHIN THE SHEAR WALL. REFER TO FORCE-TRANSFER AROUND OPENING DETAIL FOR FRAMING REQUIREMENTS.
13. STHD HOLDOWNS ARE DIMENSIONED TO CENTER OF STRAP. HDU/HD HOLDOWNS ARE DIMENSIONED TO CENTER OF ANCHOR BOLT.
14. SILL ANCHOR BOLTS (J-BOLTS) SHALL BE ASTM F1554 (36KSI) HDG, ASTM A307 (36KSI) HDG OR SIM. ANCHOR BOLTS TO BE 5/8"Ø X 7" MIN EMBEDMENT. SPACING PER SHEARWALL SCHEDULE (72" O.C. MAX). EACH ANCHOR BOLT TO HAVE STANDARD HDG NUT AND WASHER INSTALLED OVER 3"X3"X1/4" HDG PLATE WASHER WITH AND EDGE OF THE PLATE WASHER LOCATED WITHIN 1/2" OF SHEATHED FACE OF WALL. FOR TWO-SIDED SHEARWALLS W/ 2X6 WALL FRAMING USE 4X4X1/4" PLATE WASHERS OR STAGGER ANCHOR BOLTS SO THAT EVERY OTHER PLATE WASHER IS LOCATED WITHIN 1/2" OF EACH FACE OF THE WALL.
15. ALL HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
16. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
17. TYPICAL DETAILS:
  - 9/SD-1 TYP STHD HOLDOWN INSTALLATION
  - 10/SD-1 TYP STHD HOLDOWN SECTION
  - 11/SD-1 TYP HOLDOWN INSTALLATION
  - 12/SD-1 TYP PONY WALL DETAIL
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-BEARING WALL FRAMING
  - 20/SD-1 TYP TOP PLATE SPLICE
  - 1/SD-2 TYP NOTCHES AND HOLES IN WOOD STUDS
  - 2/SD-2 FORCE-TRANSFER AROUND WINDOWS DETAIL
  - 3/SD-2 TYP HEADER FRAMING

## FRAMING AND SHEATHING LEGEND



## BASEMENT WALL FRAMING AND SHEAR WALL PLAN



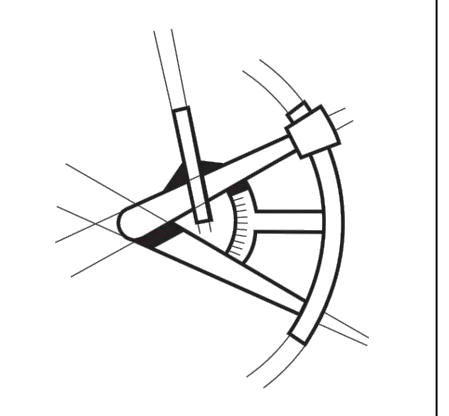
### SHEAR WALL SCHEDULE

WALL	SHEATHING	PANEL EDGE NAILING (COMMON (GALV) NAILS)	PANEL EDGE STUDS	ANCHOR BOLTS 5/8"Ø EMBED 7"	RIM CONNECTION		
					AT MUD SILL/ PLATE	AT ROOF EAVE TOP PLATE	AT SILL PLATE (SINKER NAIL .1480 X 3 1/4")
SW6	7/16" APA PLY ONE SIDE	8d AT 6" O.C.	2x	48" O.C. IN 2x PLATE	LTP4 AT 24" O.C.	RBC AT 16" O.C.	16d AT 6" O.C.
SW4	7/16" APA PLY ONE SIDE	8d AT 4" O.C.	2x	32" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 12" O.C.	16d AT 4" O.C.
SW3	7/16" APA PLY ONE SIDE	8d AT 3" O.C.	3x	16" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 8" O.C.	16d AT 3" O.C.
SW2	7/16" APA PLY ONE SIDE	8d AT 2" O.C.	3x	12" O.C. IN 2x PLATE	LTP4 AT 12" O.C.	RBC AT 8" O.C.	16d AT 2" O.C.
2W4	7/16" APA PLY TWO SIDES	8d AT 4" O.C. EA SIDE	3x	24" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 4" O.C.
2W3	7/16" APA PLY TWO SIDES	8d AT 3" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 3" O.C.
2W2	7/16" APA PLY TWO SIDES	8d AT 2" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 12" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 2" O.C.

NOTES: 1) FOR NON-SHEAR WALL, PROVIDE ANCHOR BOLTS @ 72" O.C.



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ONE TWENTY<sup>®</sup>  
ENGINEERING & DESIGN



REVISIONS	DESCRIPTION	DATE	BY

PROJECT NAME  
**FOREST CREEK ESTATES LOT 2**  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

PROJECT NUMBER  
**S22201**

CHECKED BY - AP

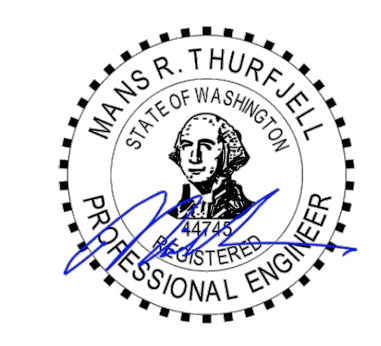
SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

DESCRIPTION

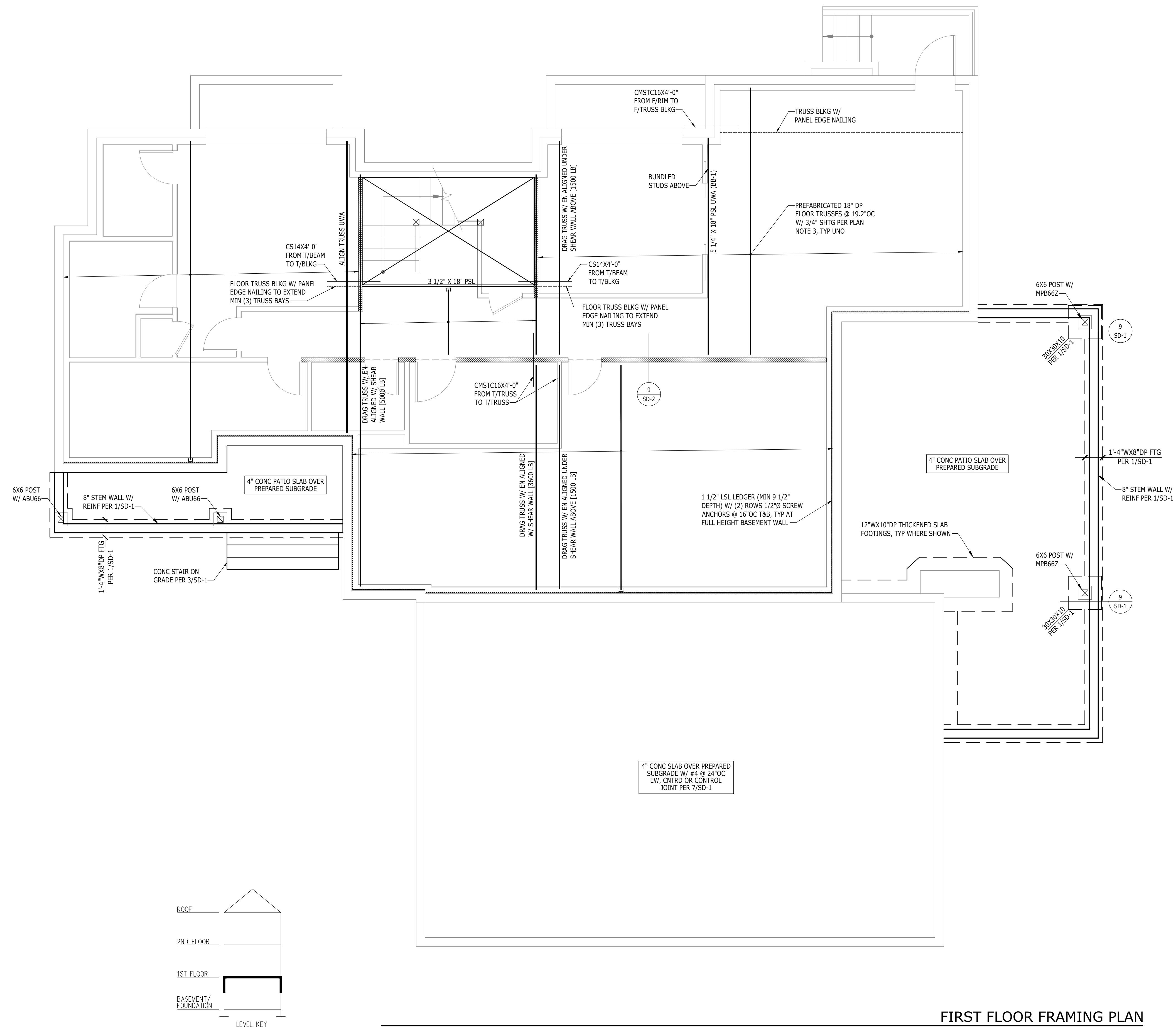
**BASEMENT WALL FRAMING AND SHEAR WALL PLAN**

SHEET **S-3**



# FLOOR FRAMING NOTES

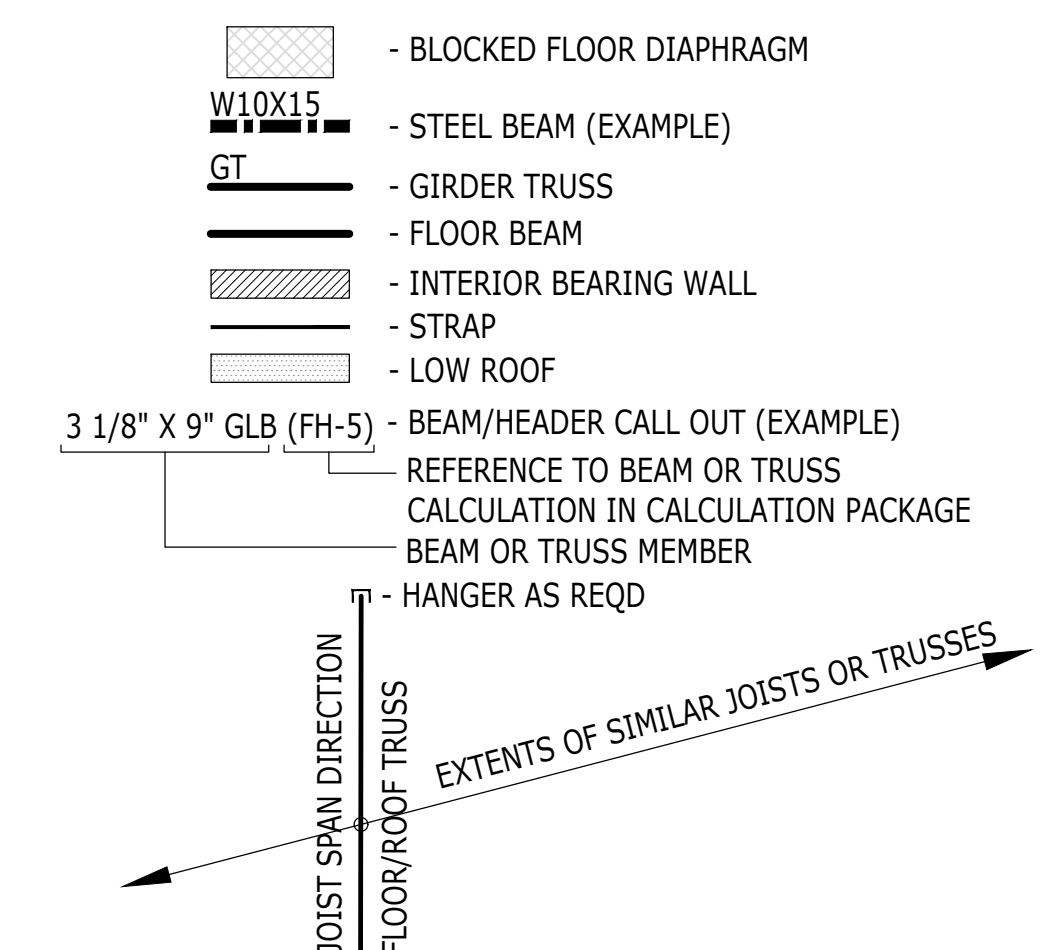
- GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
- FLOOR SHEATHING PER GENERAL NOTES. ALL SHEATHING TO BE GLED AND NAILED TO FRAMING PER MANUFACTURER RECOMMENDATIONS. USE 8d COMMON NAILS (0.131" X 2 1/2") @ 6" O.C. AT PANEL EDGES AND AT ALL FRAMING DESIGNATED "WITH EDGE NAILING" OR "W/EN", AND 12" O.C. IN THE FIELD. UNO. PANEL EDGE JOINTS TO BE STAGGERED BETWEEN ADJACENT PANELS OF SHEATHING. PROVIDE GAP BETWEEN PANELS TO ALLOW FOR NATURAL EXPANSION/CONTRACTION (1/8" GAP TYP).
- LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH FLOOR FRAMING, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
- ALL WOOD LOCATED WITHIN 8" OF FINISHED GRADE, EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. ALL FASTENERS IN CONTACT WITH FIRE-RETARDANT OR PRESSURE-TREATED WOOD SHALL BE COVERED IN PROTECTIVE COATING (I.E. HDG OR SIM).
- ALL BEAMS SHALL BE SUPPORTED BY MIN TWO STUDS BELOW EACH END, UNLESS NOTED OTHERWISE ON PLAN. ALL BEAMS SHALL BE FRAMED FLUSH WITH JOISTS UNO. "DROPPED BEAM" OR "DB" INDICATES T/B/EAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/B/EAM EQUAL T/JOISTS AND B/BEAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BEAM EQUAL B/JOISTS AND T/B/EAM EXTENDING ABOVE T/JOISTS.
- ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
- STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
- ALL POSTS ABOVE THE FLOOR FRAMING SHALL BE BLOCKED WITHIN THE FLOOR DEPTH ("VERTICAL GRAIN BLKG", "VERTICAL CRUSH BLKG", OR "VCB"). BLOCKING WIDTH SHALL MATCH WIDTH OF POST OR BUNDLED STUDS ABOVE AND EXTEND FULL FLOOR DEPTH.
- HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN.
- ALL TIES AND HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
- ENGINEERED FLOOR JOISTS AND FLOOR TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
  - STANDARD DEAD AND LIVE LOADS SHALL BE USED FOR TRUSS DESIGN. REFERENCE STRUCTURAL GENERAL NOTES FOR MORE INFORMATION.
  - CHANGES TO LAYOUT MUST BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW AND APPROVAL.
  - TRUSS SUBMITTAL PACKAGE TO BE PROVIDED TO EOR FOR REVIEW. REFERENCE STRUCTURAL GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.
  - (XXX LBS SHEAR/DAG) INDICATES SHEAR TRANSFER LOAD. SHEAR TRUSS SHALL BE DESIGNED TO BE ABLE TO TRANSFER SPECIFIED LATERAL LOAD APPLIED AT THE TOP CHORD TO THE BOTTOM CHORD AND INTO SHEAR WALL BELOW.
- FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
- TYPICAL DETAILS:
  - 13/SD-1 TYP DROPPED BEAM AT CUT PLATES
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-LOAD BEARING WALL FRAMING
  - 18/SD-1 TYP FRAMING AT INTERIOR BEARING WALL
  - 19/SD-1 TYP FRAMING AT INTERIOR FLUSH BEAM



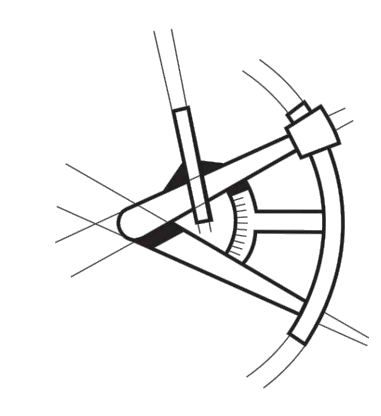
FIRST FLOOR FRAMING PLAN

TYPICAL JOIST HANGER SCHEDULE				
TJI210				
11 7/8"	2-PLY 11 7/8"	14"	2-PLY 14"	
IUS2.06/11.88	MIU4.28/11	IUS2.06/14	MIU4.28/14	
2X10				
1-PLY		2-PLY		
LUS210	LUS210-2			
TYPICAL BEAM HANGER SCHEDULE				
LVL / LSL / PSL				
	1 3/4"	3 1/2"	5 1/4"	7"
11 7/8"	HUS1.81/10	HHUS410	HGUS5.50/12	HGUS7.25/12
14"	HUS1.81/10	HHUS410	HGUS5.50/14	HGUS7.25/14

### FRAMING LEGEND



LONGITUDE ONE TWENTY ENGINEERING & DESIGN



REVISIONS

DESCRIPTION	DATE	BY

PROJECT NAME  
FOREST CREEK ESTATES LOT 2  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

PROJECT NUMBER  
S22201

CHECKED BY - AP

SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

DESCRIPTION

FIRST FLOOR FRAMING PLAN

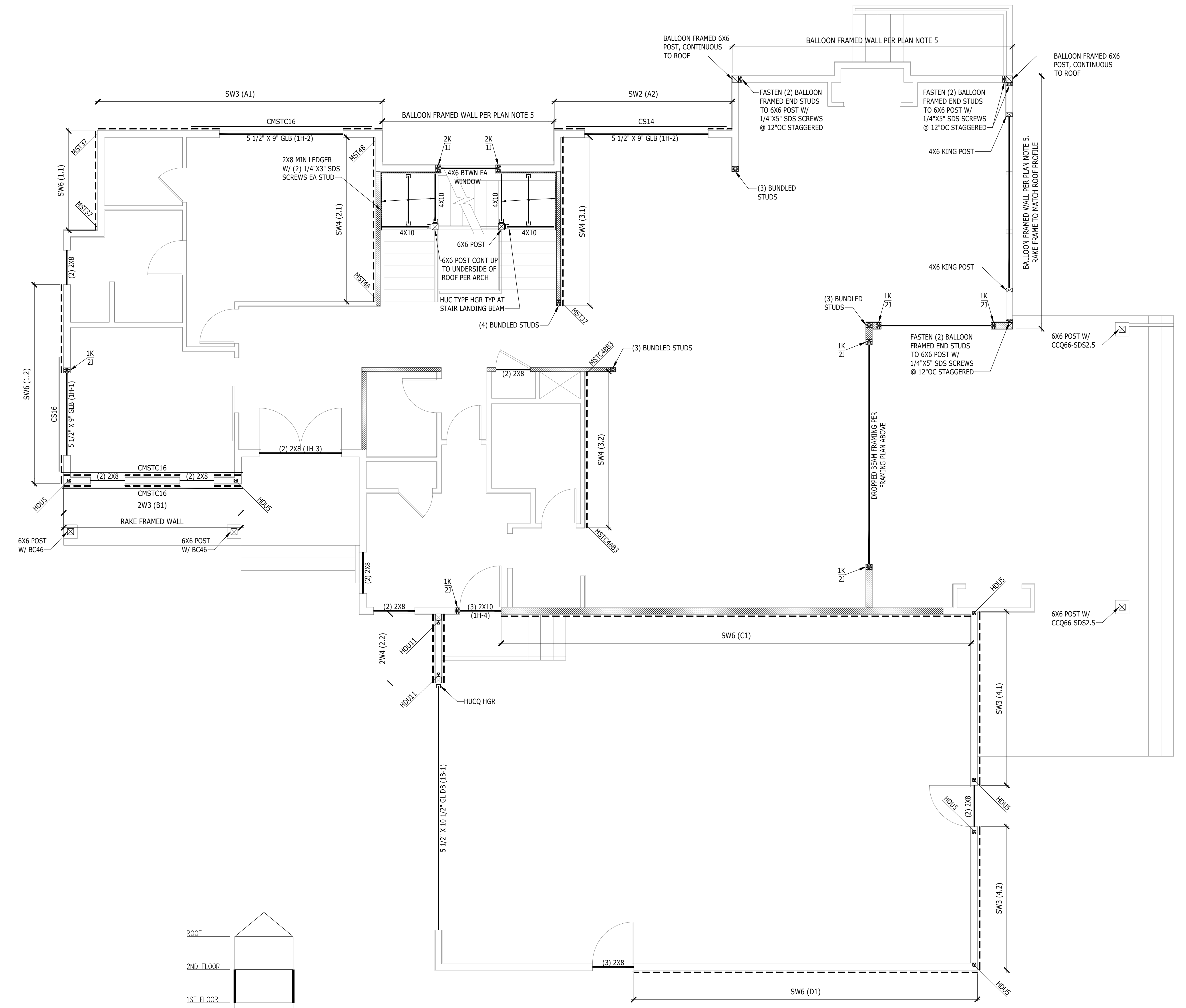
SHEET S-4

# WALL FRAMING AND SHEAR WALL NOTES

- GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
- LUMBER GRADE PER GENERAL STRUCTURAL NOTES.
- ALL BUNDLED STUDS SPECIFIED PER PLAN SHALL BE CONNECTED TOGETHER WITH 16d @ 6" O.C.
- EXTERIOR WALL STUDS SHALL BE 2X6 @ 16" O.C. ( $\leq 10'$ ), 2X6 @ 12" O.C. ( $> 10'$ ) UNO. INTERIOR WALL STUDS SHALL BE 2X4 @ 16" O.C. UNO. REFER TO ARCH SET FOR WALL THICKNESS REQUIREMENTS AT PLUMBING STACKS. ALL INTERIOR NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
- PROVIDE ONE KING STUD AND ONE JACK STUD MINIMUM AT EVERY HEADER UNO. JACK STUDS SHOULD BE CONTINUOUS TO THE FOUNDATION AND SHALL HAVE VERTICAL CRUSH BLOCKING WITHIN THE FLOOR FRAMING DEPTH MATCHING THE WIDTH OF JACK STUDS.
- SHEARWALL SHEATHING AND NAILING REQUIREMENTS PER SHEARWALL SCHEDULE. ALL EXTERIOR WALLS SHALL BE TYPE SW6 UNO.
- ALL SHEATHING PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING. PANEL EDGE NAILING PER SHEARWALL SCHEDULE, FIELD NAILING AT 12" O.C. UNO.
- PROVIDE MIN TWO 2X STUDS AT EACH END OF SHEARWALL UNO. PROVIDE PANEL EDGE NAILING INTO EACH STUD AT END OF WALL.
- SHEARWALL PANEL EDGE STUDS INDICATE THE MINIMUM STUD WIDTH AT ABUTTING PANEL EDGES. TWO 2X STUDS ARE AN ACCEPTABLE ALTERNATE FOR 3X STUDS. TWO 2X STUDS ARE TO BE NAILED TOGETHER WITH TWO ROWS 10d NAILS AT 6" O.C. (4" O.C. @ SW2 AND SW2). AT DOUBLE SIDED SHEARWALLS VERTICAL PANEL EDGES TO BE STAGGERED ON OPPOSITE SIDES OF THE WALL EXCEPT END OF SHEARWALL.
- LTP4 INSTALLED OVER PLYWOOD SHALL USE 8d COMMON NAILS (.1310 X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131 X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148 X 1.5").
- WINDOW STRAP INDICATES THAT A WINDOW IS INCORPORATED WITHIN THE SHEAR WALL. REFER TO FORCE-TRANSFER AROUND OPENING DETAIL FOR FRAMING REQUIREMENTS.
- STHD HOLDOWNS ARE DIMENSIONED TO CENTER OF STRAP. HDU/HD HOLDOWNS ARE DIMENSIONED TO CENTER OF ANCHOR BOLT.
- SILL ANCHOR BOLTS (J-BOLTS) SHALL BE ASTM F1554 (36KSI) HDG, ASTM A307 (36KSI) HDG OR SIM. ANCHOR BOLTS TO BE 5/8"  $\emptyset$  X 7" MIN EMBEDMENT. SPACING PER SHEARWALL SCHEDULE (72" O.C. MAX). EACH ANCHOR BOLT TO HAVE STANDARD HDG NUT AND WASHER INSTALLED OVER 3" X 3" X 1/4" HDG PLATE WASHER WITH AND EDGE OF THE PLATE WASHER LOCATED WITHIN 1/2" OF SHEATHED FACE OF WALL. FOR TWO-SIDED SHEARWALLS W/ 2X6 WALL FRAMING USE 4X4X1/4" PLATE WASHERS OR STAGGER ANCHOR BOLTS SO THAT EVERY OTHER PLATE WASHER IS LOCATED WITHIN 1/2" OF EACH FACE OF THE WALL.
- ALL HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
- FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
- TYPICAL DETAILS:
  - 9/SD-1 TYP STHD HOLDOWN INSTALLATION
  - 10/SD-1 TYP STHD HOLDOWN SECTION
  - 11/SD-1 TYP HOLDOWN INSTALLATION
  - 12/SD-1 TYP PONY WALL DETAIL
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-BEARING WALL FRAMING
  - 20/SD-1 TYP TOP PLATE SPLICE
  - 1/SD-2 TYP NOTCHES AND HOLES IN WOOD STUDS
  - 2/SD-2 FORCE-TRANSFER AROUND WINDOWS DETAIL
  - 3/SD-2 TYP HEADER FRAMING

## FRAMING AND SHEATHING LEGEND

- HOLDOWN BY SIMPSON (STHD/MST/HDU/HD, TYP)
- INDICATES THE NUMBER OF KING AND JACK STUDS
- INDICATES SHEARWALL LOCATION (SW# - SHEAR WALL MARK)
- HORIZONTAL STRAP (EXAMPLE)
- HEADER
- SHEAR WALL CALLOUT
- REFERENCE TO WALL DESIGNATION IN THE CALCULATION PACKAGE
- REFERENCE TO SHEAR WALL TYPE PER SHEAR WALL SCHEDULE
- EXAMPLE
- REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE
- BEAM OR TRUSS MEMBER



FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN

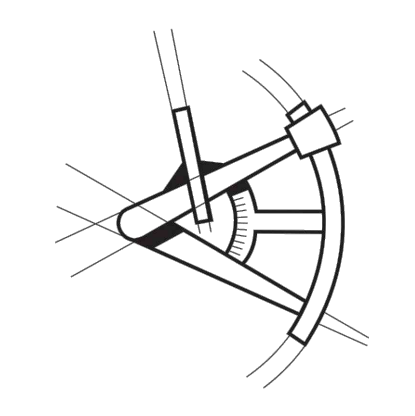
SHEAR WALL SCHEDULE

WALL	SHEATHING	PANEL EDGE NAILING (COMMON (GALV) NAILS)	PANEL EDGE STUDS	ANCHOR BOLTS 5/8" $\emptyset$ EMBED 7"	RIM CONNECTION		
					AT MUD SILL/ PLATE	AT ROOF EAVE TOP PLATE	AT SILL PLATE (SINKER NAIL .1480 X 3 1/4")
SW6	7/16" APA PLY ONE SIDE	8d AT 6" O.C.	2x	48" O.C. IN 2x PLATE	LTP4 AT 24" O.C.	RBC AT 16" O.C.	16d AT 6" O.C.
SW4	7/16" APA PLY ONE SIDE	8d AT 4" O.C.	2x	32" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 12" O.C.	16d AT 4" O.C.
SW3	7/16" APA PLY ONE SIDE	8d AT 3" O.C.	3x	16" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 8" O.C.	16d AT 3" O.C.
SW2	7/16" APA PLY ONE SIDE	8d AT 2" O.C.	3x	12" O.C. IN 2x PLATE	LTP4 AT 12" O.C.	RBC AT 8" O.C.	16d AT 2" O.C.
2W4	7/16" APA PLY TWO SIDES	8d AT 4" O.C. EA SIDE	3x	24" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 4" O.C.
2W3	7/16" APA PLY TWO SIDES	8d AT 3" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 3" O.C.
2W2	7/16" APA PLY TWO SIDES	8d AT 2" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 12" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 2" O.C.

NOTES: 1) FOR NON-SHEAR WALL, PROVIDE ANCHOR BOLTS @ 72" O.C.



**LONGITUDE**  
ONE TWENTY<sup>®</sup>  
ENGINEERING & DESIGN



REVISIONS			
DESCRIPTION	DATE	BY	

PROJECT NAME  
FOREST CREEK  
ESTATES LOT 2  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

PROJECT NUMBER  
S22201

CHECKED BY - AP

SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

DESCRIPTION

FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN

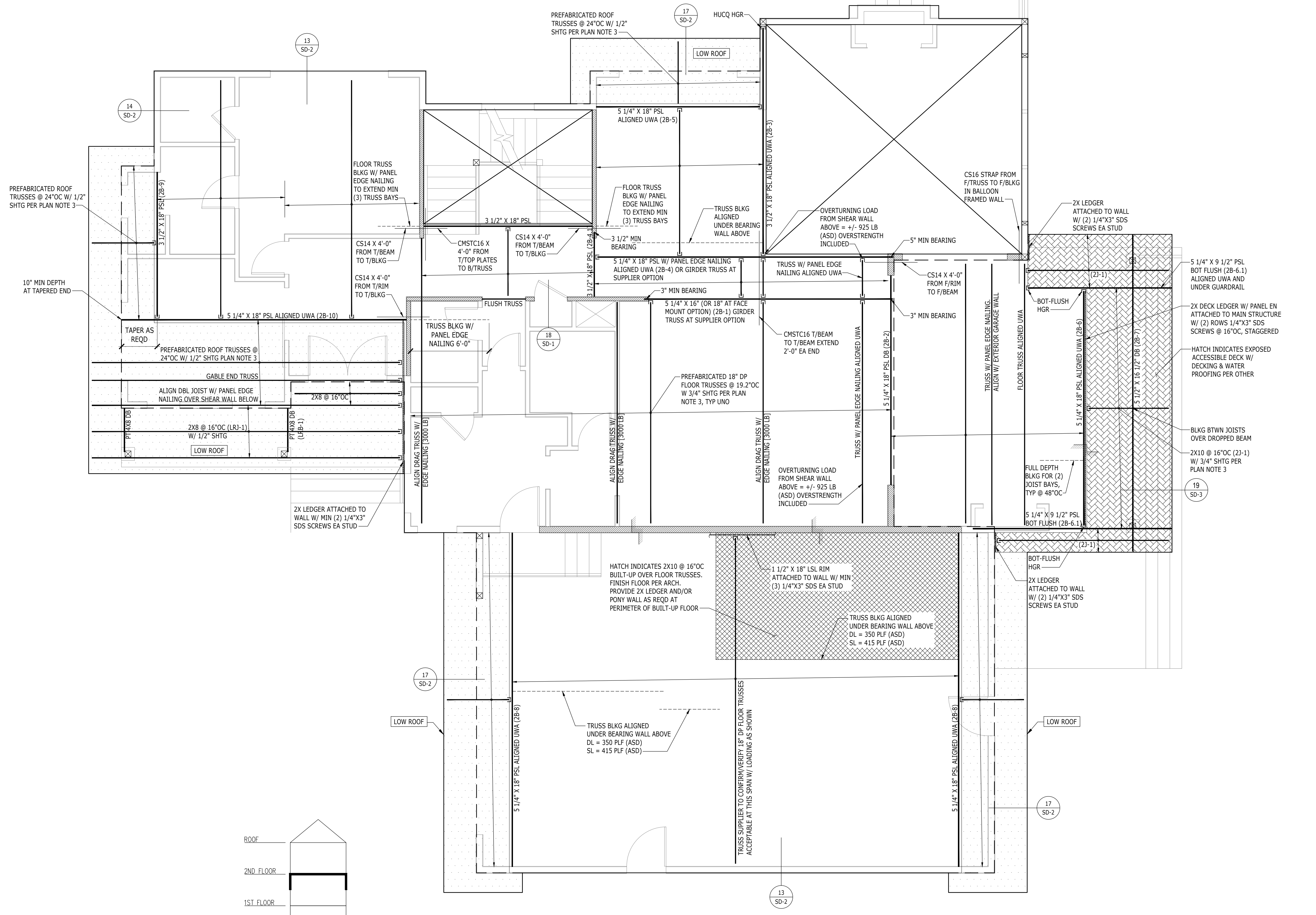
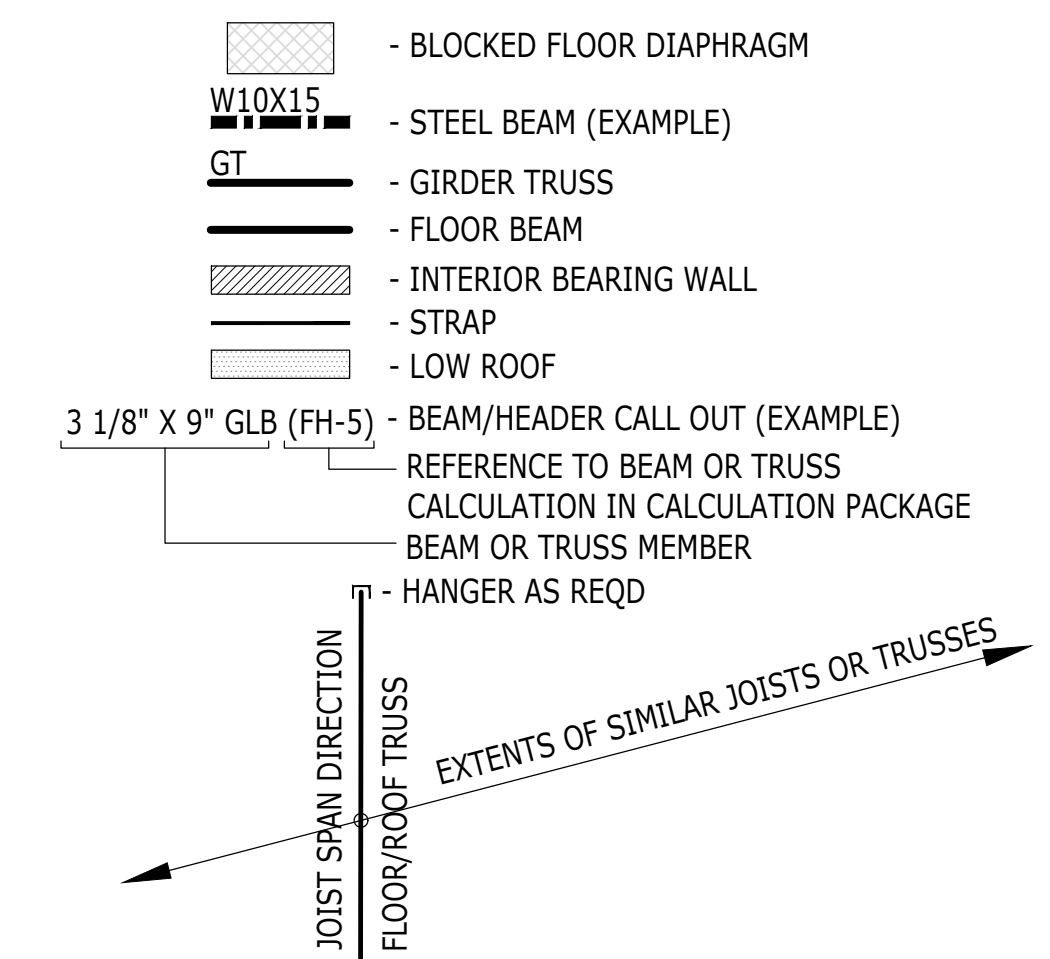
SHEET S-5



# FLOOR FRAMING NOTES

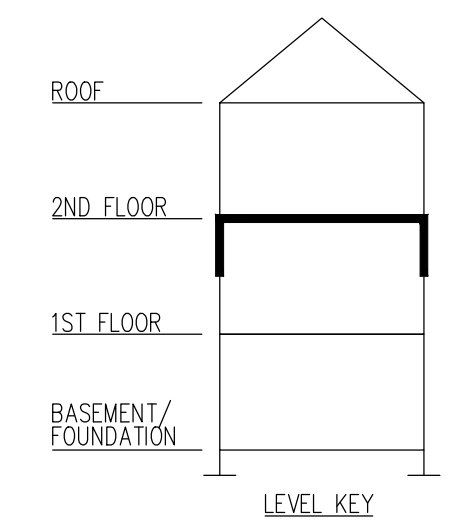
- GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
- FLOOR SHEATHING PER GENERAL NOTES. ALL SHEATHING TO BE GLUED AND NAILED TO FRAMING PER MANUFACTURER RECOMMENDATIONS. USE 8d COMMON NAILS (0.131" X 2 1/2") @ 6" O.C. AT PANEL EDGES AND AT ALL FRAMING DESIGNATED "WITH EDGE NAILING" OR "W/EN", AND 12" O.C. IN THE FIELD. UNO. PANEL EDGE JOINTS TO BE STAGGERED BETWEEN ADJACENT PANELS OF SHEATHING. PROVIDE GAP BETWEEN PANELS TO ALLOW FOR NATURAL EXPANSION/CONTRACTION (1/8" GAP TYP).
- LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH FLOOR FRAMING. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
- ALL WOOD LOCATED WITHIN 8" OF FINISHED GRADE, EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED. ALL FASTENERS IN CONTACT WITH FIRE-RETARDANT OR PRESSURE-TREATED WOOD SHALL BE COVERED IN PROTECTIVE COATING (I.E. HDG OR SIM).
- ALL BEAMS SHALL BE SUPPORTED BY MIN TWO STUDS BELOW EACH END, UNLESS NOTED OTHERWISE ON PLAN. ALL BEAMS SHALL BE FRAMED FLUSH WITH JOISTS UNO. "DROPPED BEAM" OR "DB" INDICATES T/B/EAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/B/EAM EQUAL T/JOISTS AND B/EAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/EAM EQUAL B/JOISTS AND T/B/EAM EXTENDING ABOVE T/JOISTS.
- ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
- STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
- ALL POSTS ABOVE THE FLOOR FRAMING SHALL BE BLOCKED WITHIN THE FLOOR DEPTH ("VERTICAL GRAIN BLKG", "VERTICAL CRUSH BLKG", OR "VCB"). BLOCKING WIDTH SHALL MATCH WIDTH OF POST OR BUNDLED STUDS ABOVE AND EXTEND FULL FLOOR DEPTH.
- HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN.
- ALL TIES AND HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
- ENGINEERED FLOOR JOISTS AND FLOOR TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
  - STANDARD DEAD AND LIVE LOADS SHALL BE USED FOR TRUSS DESIGN. REFERENCE STRUCTURAL GENERAL NOTES FOR MORE INFORMATION.
  - CHANGES TO LAYOUT MUST BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW AND APPROVAL.
  - TRUSS SUBMITTAL PACKAGE TO BE PROVIDED TO EOR FOR REVIEW. REFERENCE STRUCTURAL GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.
  - (XXX LBS SHEAR/DAG) INDICATES SHEAR TRANSFER LOAD. SHEAR TRUSS SHALL BE DESIGNED TO BE ABLE TO TRANSFER SPECIFIED LATERAL LOAD APPLIED AT THE TOP CHORD TO THE BOTTOM CHORD AND INTO SHEAR WALL BELOW.
- FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
- TYPICAL DETAILS:
  - 13/SD-1 TYP DROPPED BEAM AT CUT PLATES
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-LOAD BEARING WALL FRAMING
  - 18/SD-1 TYP FRAMING AT INTERIOR BEARING WALL
  - 19/SD-1 TYP FRAMING AT INTERIOR FLUSH BEAM

## FRAMING LEGEND

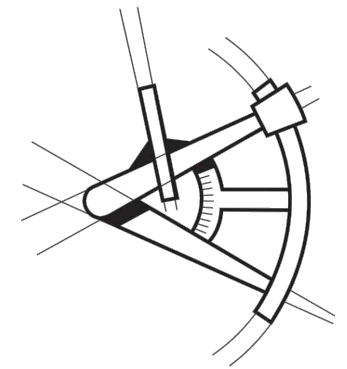


SECOND FLOOR FRAMING PLAN

TYPICAL JOIST HANGER SCHEDULE			
TJI210			
11 7/8"	2-PLY 11 7/8"	14"	2-PLY 14"
IUS2.06/11.88	MIU4.28/11	IUS2.06/14	MIU4.28/14
2X10			
1-PLY		2-PLY	
LUS210		LUS210-2	
TYPICAL BEAM HANGER SCHEDULE			
LVL / LSL / PSL			
1 3/4"	3 1/2"	5 1/4"	7"
11 7/8"	HUS1.81/10	HHUS410	HGUS5.50/12
14"	HUS1.81/10	HHUS410	HGUS5.50/14



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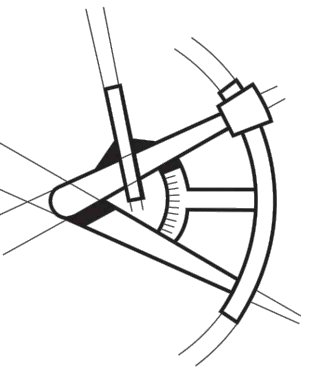
REVISIONS  
DESCRIPTION DATE BY

PROJECT NAME  
FOREST CREEK  
ESTATES LOT 2  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040  
PROJECT NUMBER  
S22201

CHECKED BY - AP  
SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

SECOND FLOOR FRAMING PLAN  
SHEET S-6



REVISIONS			
△	DESCRIPTION	DATE	BY

PROJECT NAME	FOREST CREEK ESTATES LOT 2
PROJECT ADDRESS	5214 FOREST AVE SE MERCER ISLAND, WA 98040
PROJECT NUMBER	S22201

CHECKED BY - AP

SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

SECOND FLOOR WALL FRAMING  
AND SHEAR WALL PLAN

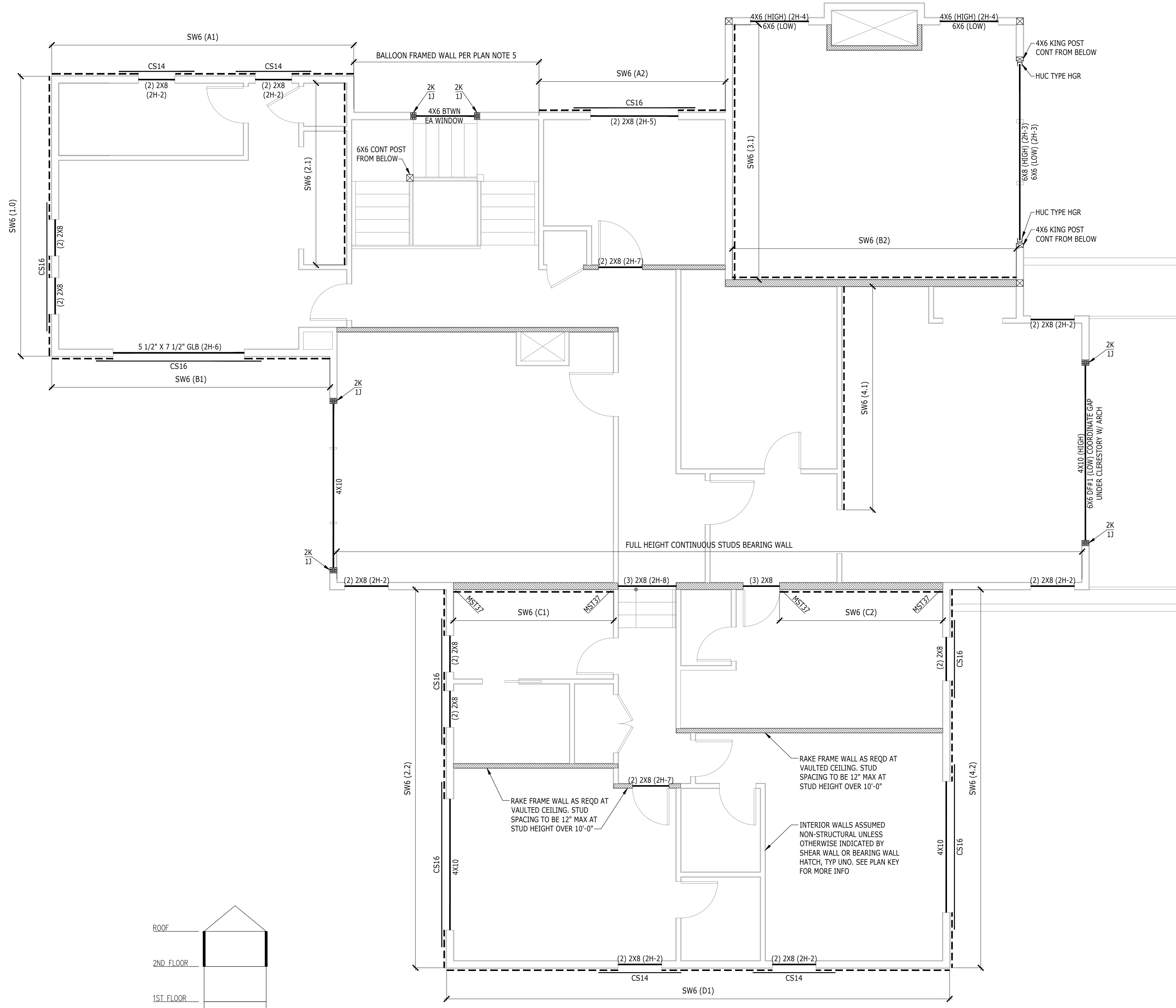
SHEET  
S-7

**WALL FRAMING AND SHEAR WALL NOTES**

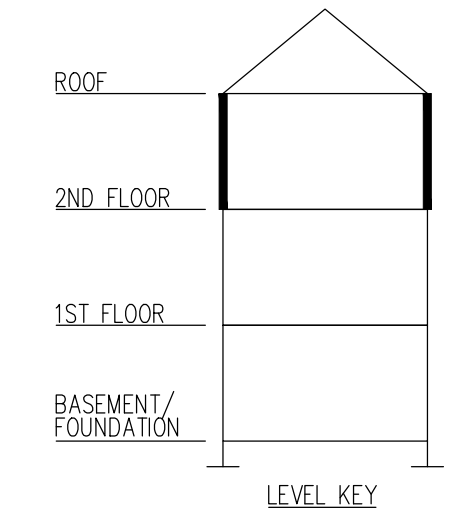
- GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
- VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
- LUMBER GRADE PER GENERAL STRUCTURAL NOTES.
- ALL BUNDLED STUDS SPECIFIED PER PLAN SHALL BE CONNECTED TOGETHER WITH 16d @ 6" O.C.
- EXTERIOR WALL STUDS SHALL BE 2X6 @ 16" O.C. (≤10'), 2X6 @ 12" O.C. (>10') UNO. INTERIOR WALL STUDS SHALL BE 2X4 @ 16" O.C. UNO. REFER TO ARCH SET FOR WALL THICKNESS REQUIREMENTS AT PLUMBING STACKS. ALL INTERIOR NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
- PROVIDE ONE KING STUD MINIMUM AT EVERY HEADER UNO. JACK STUDS SHOULD BE CONTINUOUS TO THE FOUNDATION AND SHALL HAVE VERTICAL CRUSH BLOCKING WITHIN THE FLOOR FRAMING DEPTH MATCHING THE WIDTH OF JACK STUDS.
- SHEARWALL SHEATHING AND NAILING REQUIREMENTS PER SHEARWALL SCHEDULE. ALL EXTERIOR WALLS SHALL BE TYPE SW6 UNO.
- ALL SHEATHING PANEL EDGES TO OCCUR OVER STUDS, PLATES, RIMS OR HORIZONTAL BLOCKING. PANEL EDGE NAILING PER SHEARWALL SCHEDULE, FIELD NAILING AT 12" O.C. UNO.
- PROVIDE MIN TWO 2X STUDS AT EACH END OF SHEARWALL UNO. PROVIDE PANEL EDGE NAILING INTO EACH STUD AT END OF WALL.
- SHEARWALL PANEL EDGE STUDS INDICATE THE MINIMUM STUD WIDTH AT ABUTTING PANEL EDGES. TWO 2X STUDS ARE AN ACCEPTABLE ALTERNATE FOR 3X STUDS. TWO 2X STUDS ARE TO BE NAILED TOGETHER WITH TWO ROWS 10d NAILS AT 6" O.C. @ SW2 AND 2W2). AT DOUBLE SIDED SHEARWALLS VERTICAL PANEL EDGES TO BE STAGGERED ON OPPOSITE SIDES OF THE WALL EXCEPT END OF SHEARWALL.
- LTP4 INSTALLED OVER PLYWOOD SHALL USE 8d COMMON NAILS (.1310 X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131 X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148 X 1.5").
- WINDOW STRAP INDICATES THAT A WINDOW IS INCORPORATED WITHIN THE SHEAR WALL. REFER TO FORCE-TURNER AROUND OPENING DETAIL FOR FRAMING REQUIREMENTS.
- STHD HOLDOWNS ARE DIMENSIONED TO CENTER OF STRAP. HDU/HD HOLDOWNS ARE DIMENSIONED TO CENTER OF ANCHOR BOLT.
- SILL ANCHOR BOLTS (J-BOLTS) SHALL BE ASTM F1554 (36KSI) HDG, ASTM A307 (36KSI) HDG OR SIM. ANCHOR BOLTS TO BE 5/8"Ø X 7" MIN EMBEDMENT. SPACING PER SHEARWALL SCHEDULE (72" O.C. MAX). EACH ANCHOR BOLT TO HAVE STANDARD HDG NUT AND WASHER INSTALLED OVER 3"X3"X1/4" HDG PLATE WASHER WITH AND EDGE OF THE PLATE WASHER LOCATED WITHIN 1/2" OF SHEATHED FACE OF WALL. FOR TWO-SIDED SHEARWALLS W/ 2X6 WALL FRAMING USE 4X4X1/4" PLATE WASHERS OR STAGGER ANCHOR BOLTS SO THAT EVERY OTHER PLATE WASHER IS LOCATED WITHIN 1/2" OF EACH FACE OF THE WALL.
- ALL HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS.
- FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
- TYPICAL DETAILS:
  - 9/SD-1 TYP STHD HOLDOWN INSTALLATION
  - 10/SD-1 TYP STHD HOLDOWN SECTION
  - 11/SD-1 TYP HOLDOWN INSTALLATION
  - 12/SD-1 TYP PONY WALL DETAIL
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-BEARING WALL FRAMING
  - 20/SD-1 TYP TOP PLATE SPLICE
  - 1/SD-2 TYP NOTCHES AND HOLES IN WOOD STUDS
  - 2/SD-2 FORCE-TURNER AROUND WINDOWS DETAIL
  - 3/SD-2 TYP HEADER FRAMING

**FRAMING AND SHEATHING LEGEND**

- HOLDOWN BY SIMPSON (STHD/MST/HDU/HD, TYP)
- INDICATES THE NUMBER OF KING AND JACK STUDS
- INDICATES SHEARWALL LOCATION (SW# - SHEAR WALL MARK)
- HORIZONTAL STRAP (EXAMPLE)
- HEADER
- SHEAR WALL CALLOUT  
REFERENCE TO WALL DESIGNATION IN THE CALCULATION PACKAGE  
REFERENCE TO SHEAR WALL TYPE PER SHEAR WALL SCHEDULE
- EXAMPLE  
REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE  
BEAM OR TRUSS MEMBER



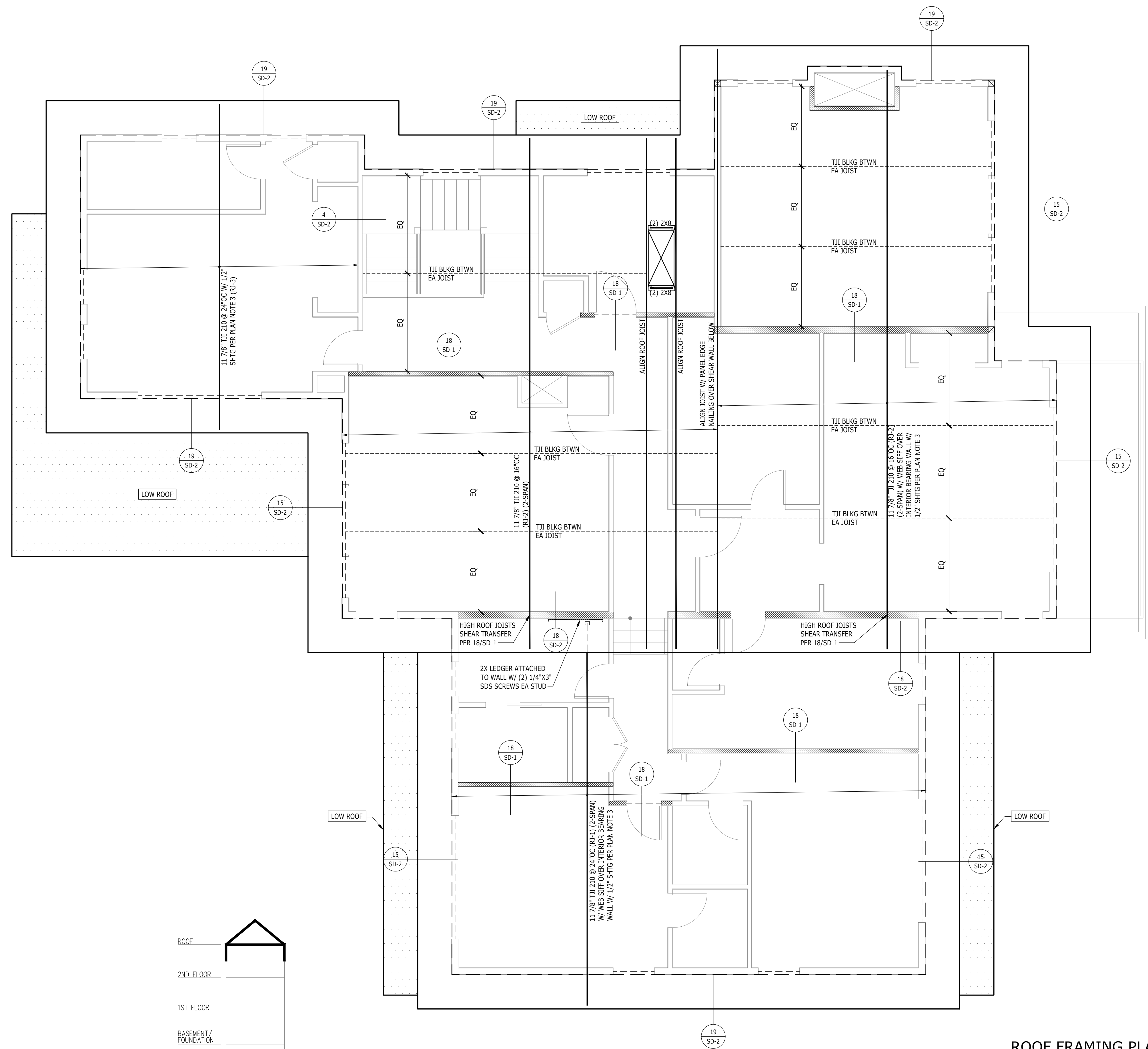
**SECOND FLOOR WALL FRAMING AND SHEAR WALL PLAN**



**SHEAR WALL SCHEDULE**

WALL	SHEATHING	PANEL EDGE NAILING (COMMON (GALV) NAILS)	PANEL EDGE STUDS	ANCHOR BOLTS 5/8"Ø EMBED 7"	RIM CONNECTION		
					AT MUD SILL/ PLATE	AT ROOF EAVE TOP PLATE	AT SILL PLATE (SINKER NAIL .1480 x 3 1/4")
SW6	7/16" APA PLY ONE SIDE	8d AT 6" O.C.	2x	48" O.C. IN 2x PLATE	LTP4 AT 24" O.C.	RBC AT 16" O.C.	16d AT 6" O.C.
SW4	7/16" APA PLY ONE SIDE	8d AT 4" O.C.	2x	32" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 12" O.C.	16d AT 4" O.C.
SW3	7/16" APA PLY ONE SIDE	8d AT 3" O.C.	3x	16" O.C. IN 2x PLATE	LTP4 AT 16" O.C.	RBC AT 8" O.C.	16d AT 3" O.C.
SW2	7/16" APA PLY ONE SIDE	8d AT 2" O.C.	3x	12" O.C. IN 2x PLATE	LTP4 AT 12" O.C.	RBC AT 8" O.C.	16d AT 2" O.C.
2W4	7/16" APA PLY TWO SIDES	8d AT 4" O.C. EA SIDE	3x	24" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 4" O.C.
2W3	7/16" APA PLY TWO SIDES	8d AT 3" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 16" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 3" O.C.
2W2	7/16" APA PLY TWO SIDES	8d AT 2" O.C. EA SIDE	3x	16" O.C. IN 3x PLATE	LTP4+A35 @ 12" O.C. EA SIDE	N.A. AT ROOF EAVE	(2) ROWS 16d AT 2" O.C.

NOTES: 1) FOR NON-SHEAR WALL, PROVIDE ANCHOR BOLTS @ 72" O.C.



ROOF FRAMING PLAN

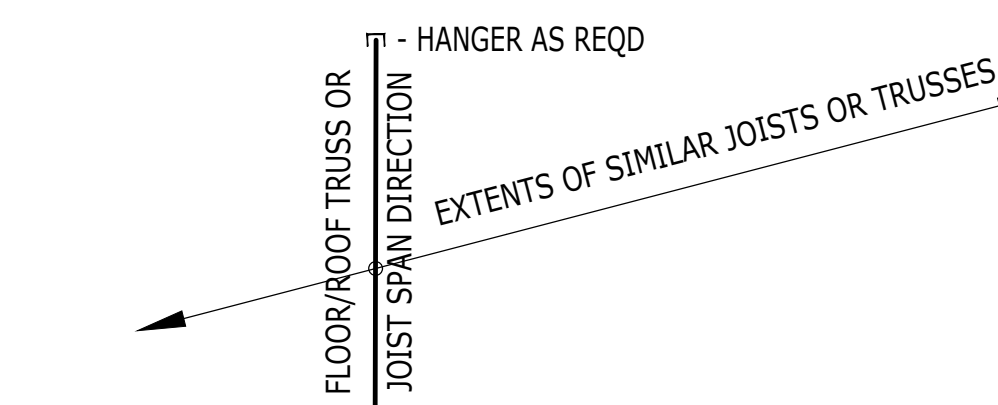
**ROOF FRAMING NOTES**

1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
3. ROOF SHEATHING PER GENERAL NOTES. ALL SHEATHING TO BE GLUED AND NAILED TO FRAMING PER MANUFACTURER RECOMMENDATIONS. USE 8d COMMON NAILS (0.131" X 2 1/2") @ 6" O.C. AT PANEL EDGES AND AT ALL FRAMING DESIGNATED "WITH EDGE NAILING" OR "W/EN", AND 12" O.C. IN THE FIELD, UNO. PANEL EDGE JOINTS TO BE STAGGERED BETWEEN ADJACENT PANELS OF SHEATHING. PROVIDE GAP BETWEEN PANELS TO ALLOW FOR NATURAL EXPANSION/CONTRACTION (1/8" GAP TYP).
4. ALL ROOF TRUSSES SHALL BE SPACED NO FURTHER APART THAN 24" O.C. AND SHALL BE CONNECTED TO TOP PLATE WITH H2.5 TIE UNO.
5. ALL GIRDER TRUSSES SHALL BE CONNECTED TO TOP PLATE WITH TWO H6 TIES UNO.
6. LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH ROOF FRAMING. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
7. ALL BEAMS AND GIRDER TRUSSES SHALL BE SUPPORTED BY MIN TWO STUDS BELOW EACH END, UNLESS NOTED OTHERWISE ON PLAN. ALL BEAMS SHALL BE FRAMED FLUSH WITH JOISTS UNO. "DROPPED BEAM" OR "DB" INDICATES T/B/EAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/B/EAM EQUAL T/JOISTS AND B/BEAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BEAM EQUAL B/JOISTS AND T/B/EAM EXTENDING ABOVE T/JOISTS.
8. ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
9. STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
10. HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN UNO.
11. ALL HANGERS TO BE MANUFACTURED BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. REFER TO TYPICAL HANGER SCHEDULE FOR HANGER SIZE UNO ON PLAN OR DETAILS. HANGERS FOR ROOF TRUSSES BY OTHERS.
12. ENGINEERED ROOF JOISTS AND ROOF TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
  - 12.1. STANDARD DEAD AND LIVE LOADS SHALL BE USED FOR TRUSS DESIGN. REFERENCE STRUCTURAL GENERAL NOTES FOR MORE INFORMATION.
  - 12.2. CHANGES TO LAYOUT MUST BE SUBMITTED TO THE ARCHITECT AND EOR FOR REVIEW AND APPROVAL.
  - 12.3. TRUSS SUBMITTAL PACKAGE TO BE PROVIDED TO EOR FOR REVIEW. REFERENCE STRUCTURAL GENERAL NOTES FOR SUBMITTAL REQUIREMENTS.
  - 12.4. (XXX LBS SHEAR/DRAG) INDICATES SHEAR TRANSFER LOAD. SHEAR TRUSS SHALL BE DESIGNED TO BE ABLE TO TRANSFER SPECIFIED LATERAL LOAD APPLIED AT THE TOP CHORD TO THE BOTTOM CHORD AND INTO SHEARWALL BELOW.
  - 12.5. ROOF TRUSSES SHOULD BE DESIGNED FOR ADDITIONAL LOADS WHERE APPLICABLE AS SPECIFIED BY THE ARCHITECT (I.E. MECHANICAL UNITS, ROOF DECKS AND PATIOS, GREEN ROOFS, SOLAR UNITS AND ETC).
  - 12.6. TRUSS DESIGN FOR BEARING AT TOP PLATES TO BE DESIGNED FOR COMPRESSION PERPENDICULAR TO GRAIN.
13. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
14. ROOF COVERINGS AND ROOFING MATERIAL BY OTHERS.
15. ROOF DRAINAGE BY OTHERS.
16. ATTIC VENTILATION BY OTHERS.
17. FOR TYPICAL INSTALLATION DETAILS REFERENCE TO:
  - 13/SD-1 TYP DROPPED BEAM AT CUT PLATES
  - 14/SD-1 TYP BEAM-TO-BEAM AND BEAM-TO-BLKG DRAG CONNECTION
  - 15/SD-1 TYP BEAM-TO-T/PL DRAG CONNECTION
  - 16/SD-1 TYP BEAM-TO-BLKG-TO-T/PL CONNECTION
  - 17/SD-1 TYP NON-LOAD BEARING WALL FRAMING
  - 4/SD-2 TYP HIP ROOF FRAMING
  - 5/SD-2 TYP GABLE END ROOF FRAMING
  - 6/SD-2 TYP ROOF OVERFRAMING
  - 7/SD-2 TYP INTERIOR SHEAR TRUSS
  - 8/SD-2 TYP INTERIOR OFFSET SHEAR TRUSS
  - 9/SD-2 TYP TRUSS BLOCKING

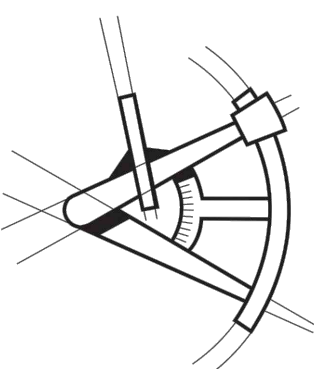
**FRAMING LEGEND**

- GIRDER OR GABLE END TRUSS
- INTERIOR BEARING WALL
- ROOF OVERFRAMING

3 1/8" X 9" GLB (FH-5) - EXAMPLE REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE BEAM OR TRUSS MEMBER



**LONGITUDE**  
ONE TWENTY<sup>®</sup>  
ENGINEERING & DESIGN



REVISIONS		
Δ	DESCRIPTION	DATE BY

PROJECT NAME  
**FOREST CREEK ESTATES LOT 2**  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

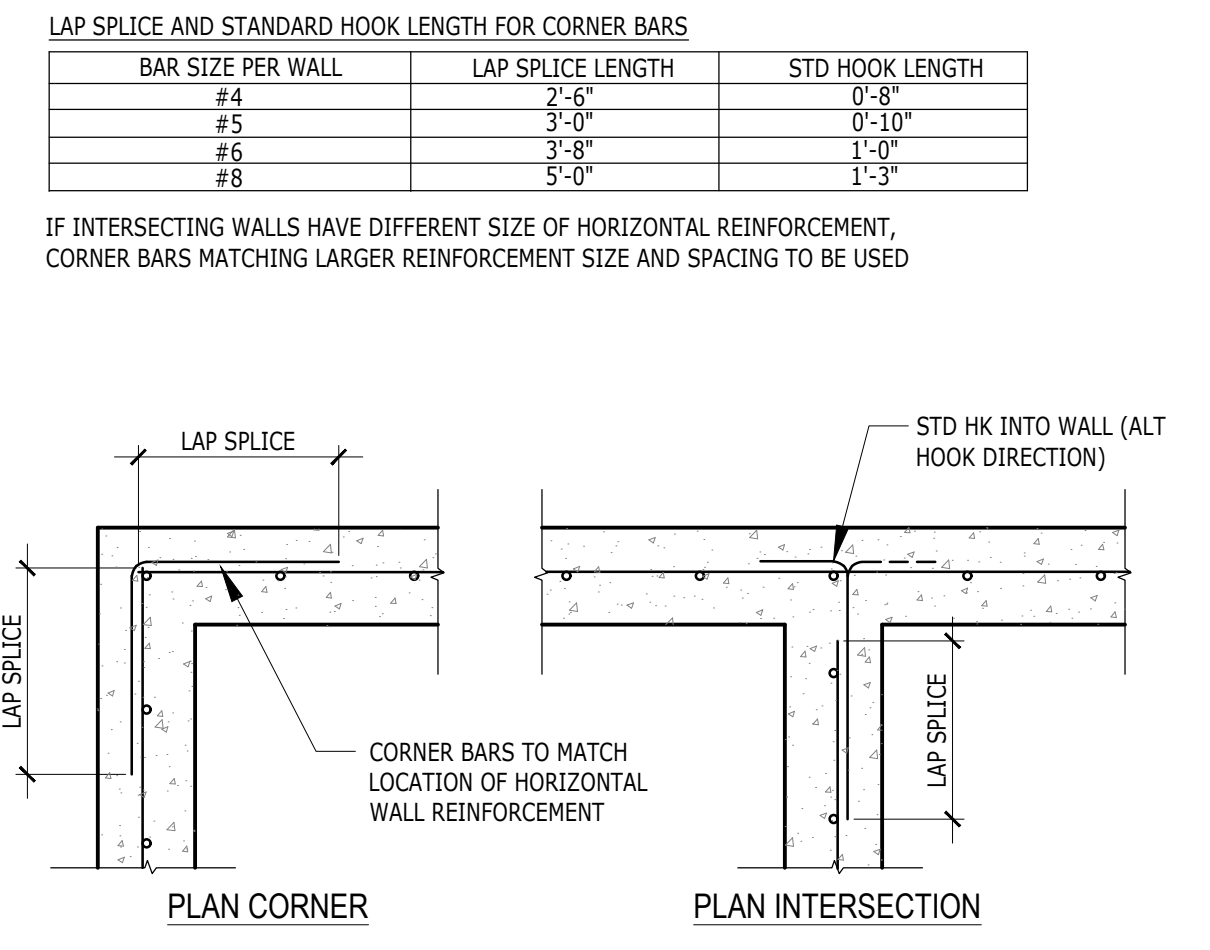
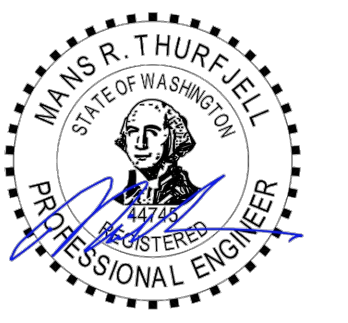
PROJECT NUMBER  
**S22201**

CHECKED BY - AP

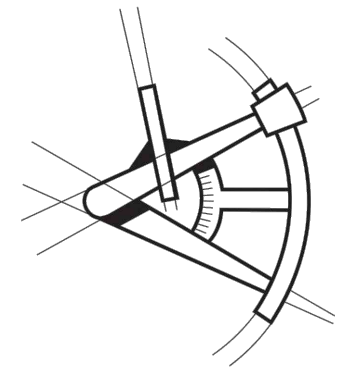
SHEET DATE - 11/01/2022

SCALE  
24X36 SHEET: 1/4" = 1'-0"

DESCRIPTION  
**ROOF FRAMING PLAN**  
SHEET **S-8**



**LONGITUDE**  
ONE TWENTY<sup>®</sup>  
ENGINEERING & DESIGN



REVISIONS

DESCRIPTION	DATE	BY

PROJECT NAME  
**FOREST CREEK ESTATES LOT 2**  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040

PROJECT NUMBER  
**S22201**

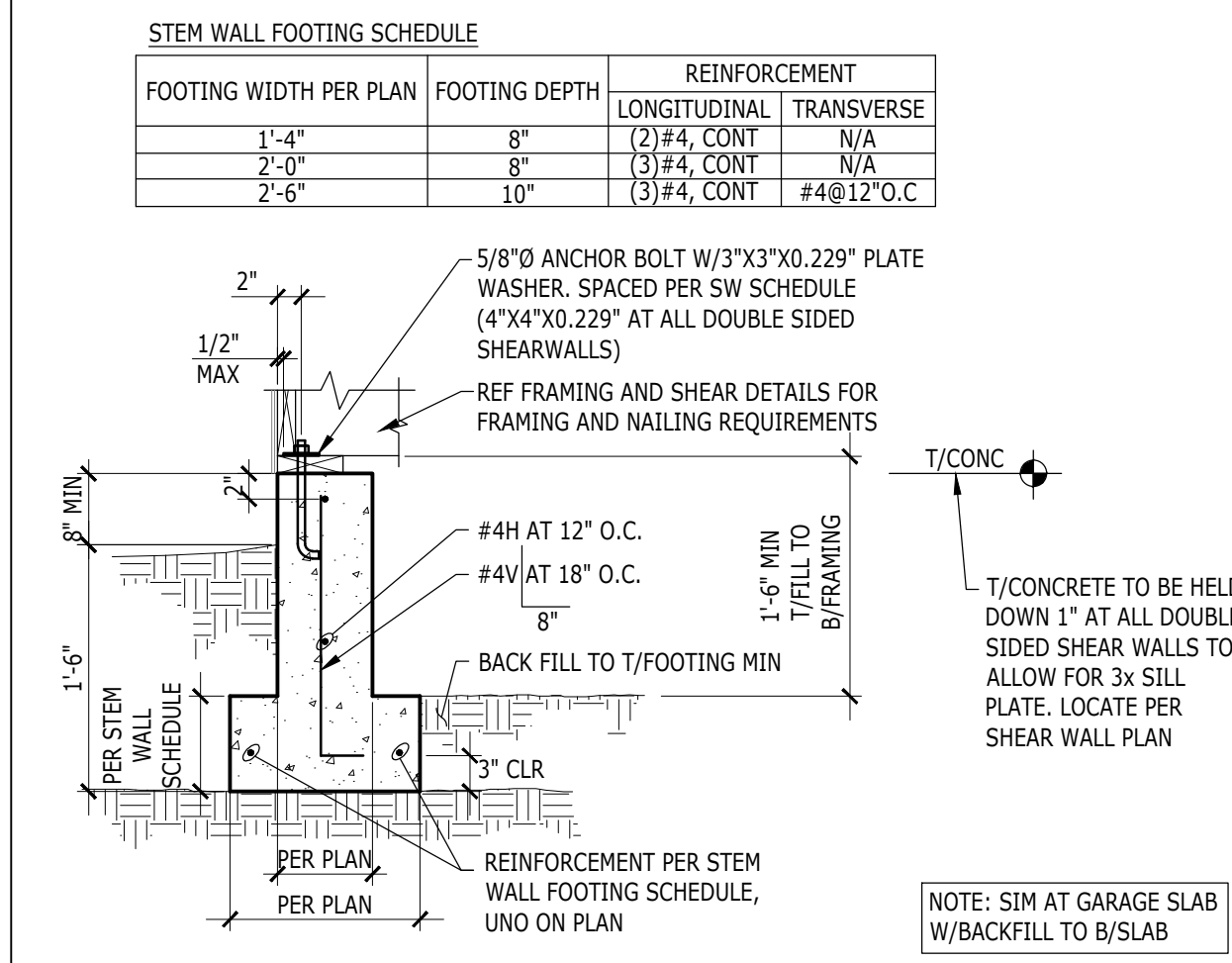
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SHEET DATE - 11/01/2022

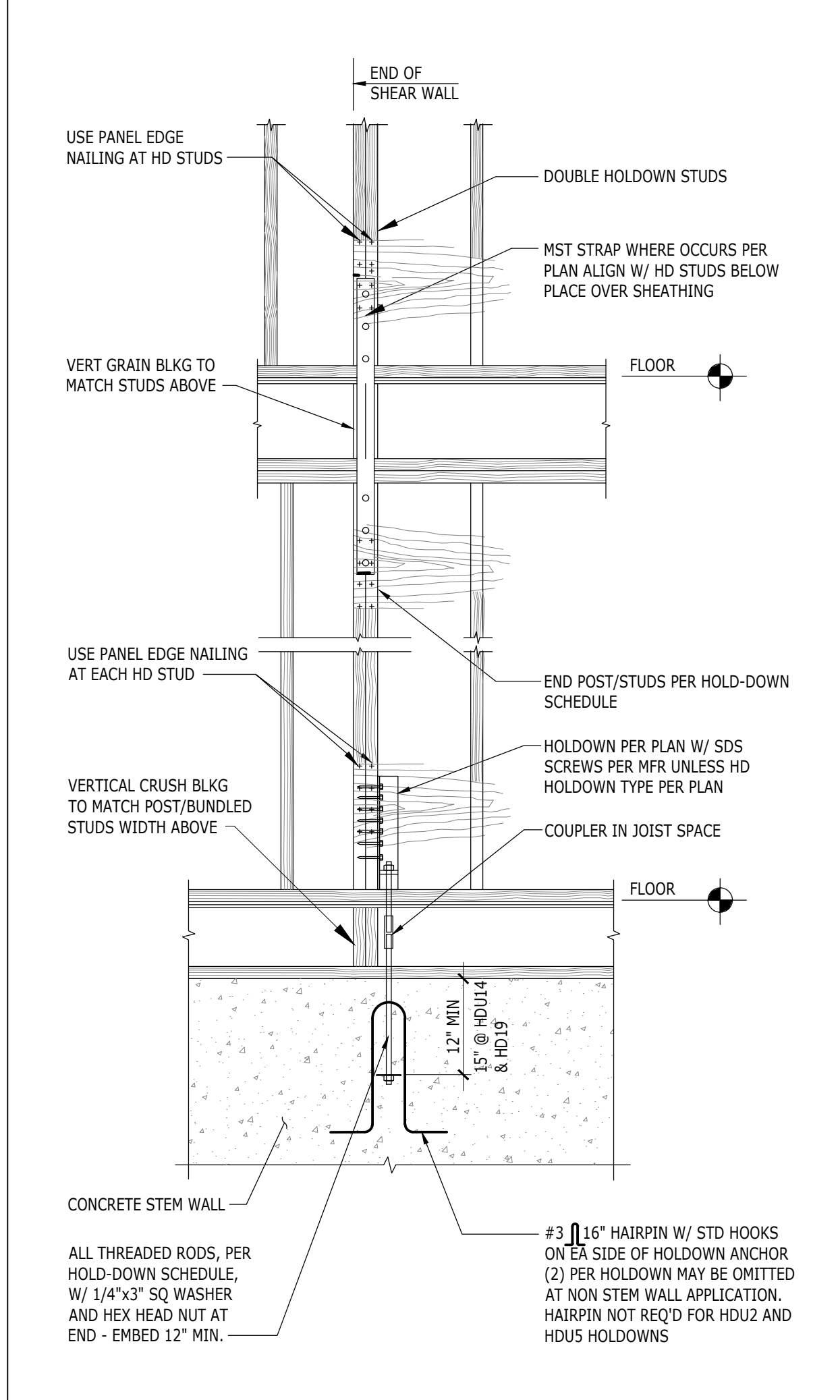
SCALE  
24X36 SHEET: 1/4" = 1'-0"

STRUCTURAL DETAILS

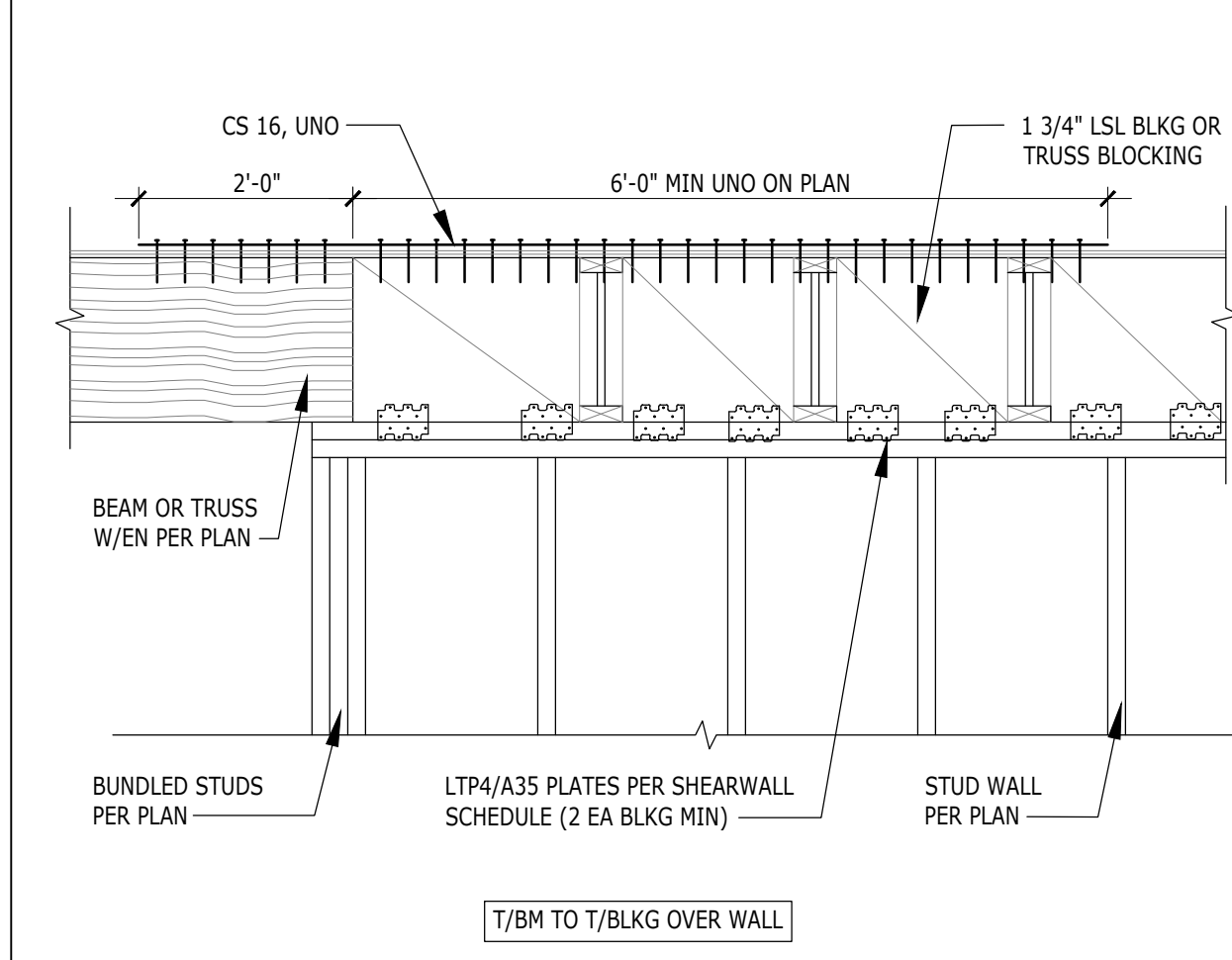
SHEET SD-1



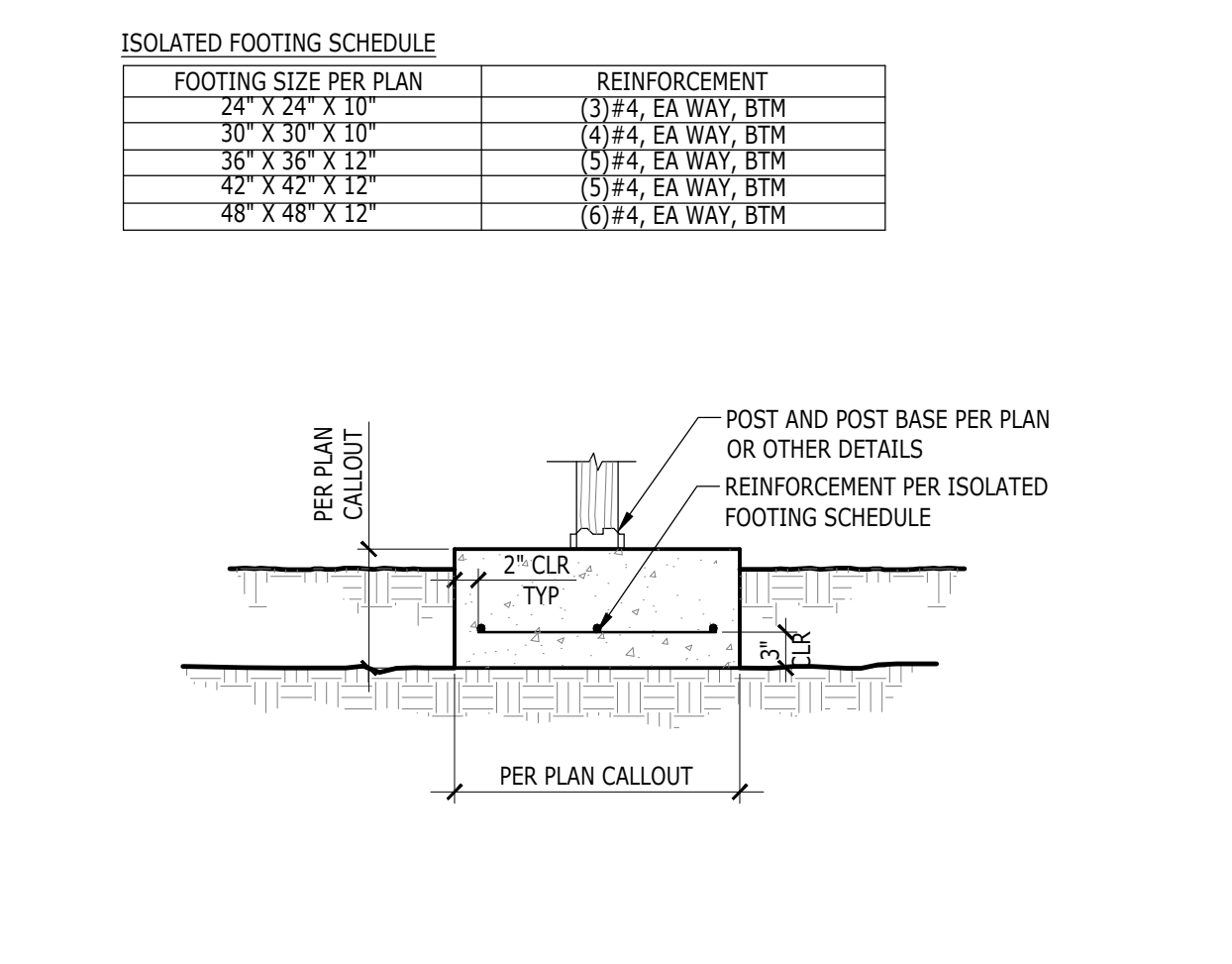
1 STEM WALL AT EXTERIOR



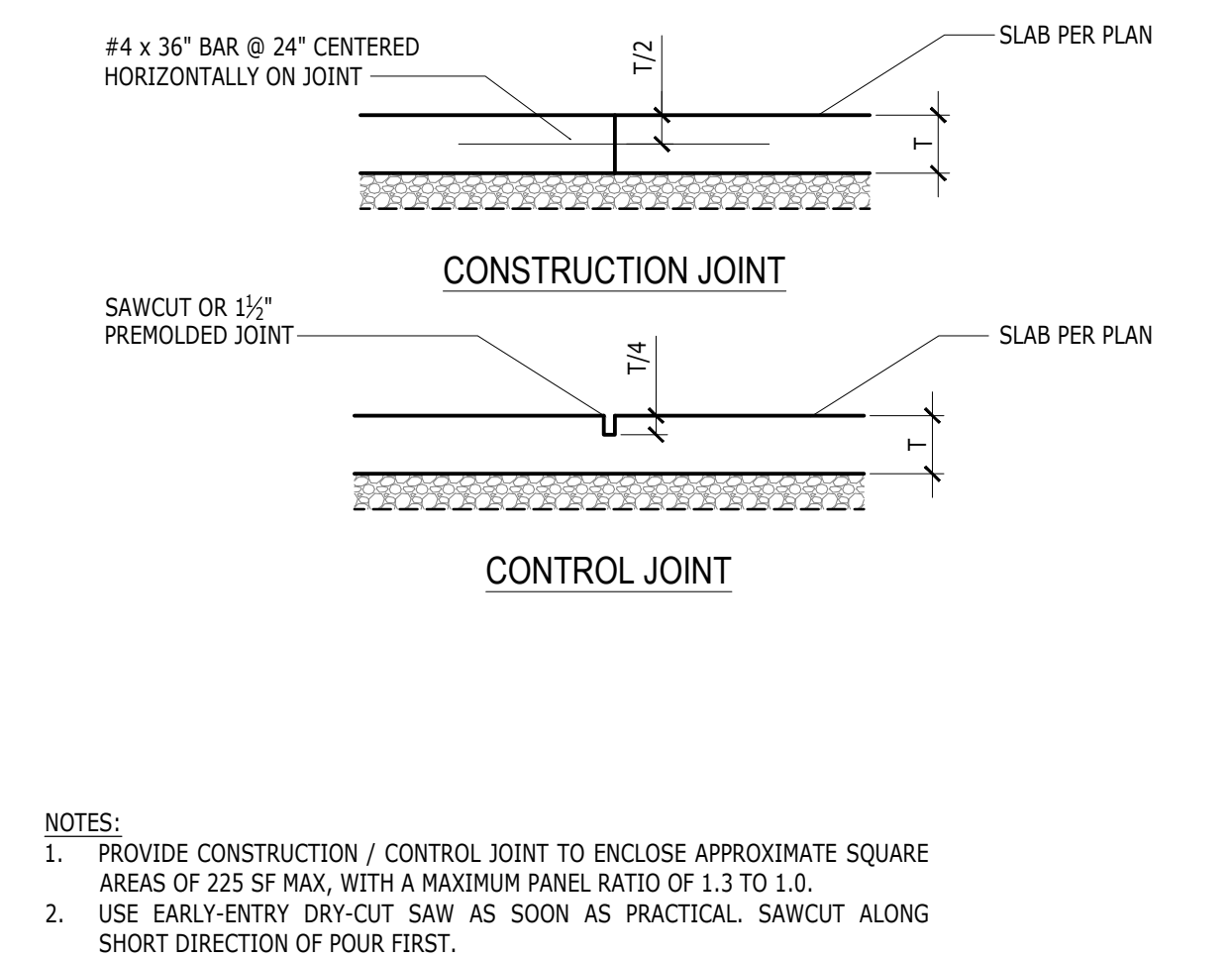
11 HOLD-DOWN DETAIL



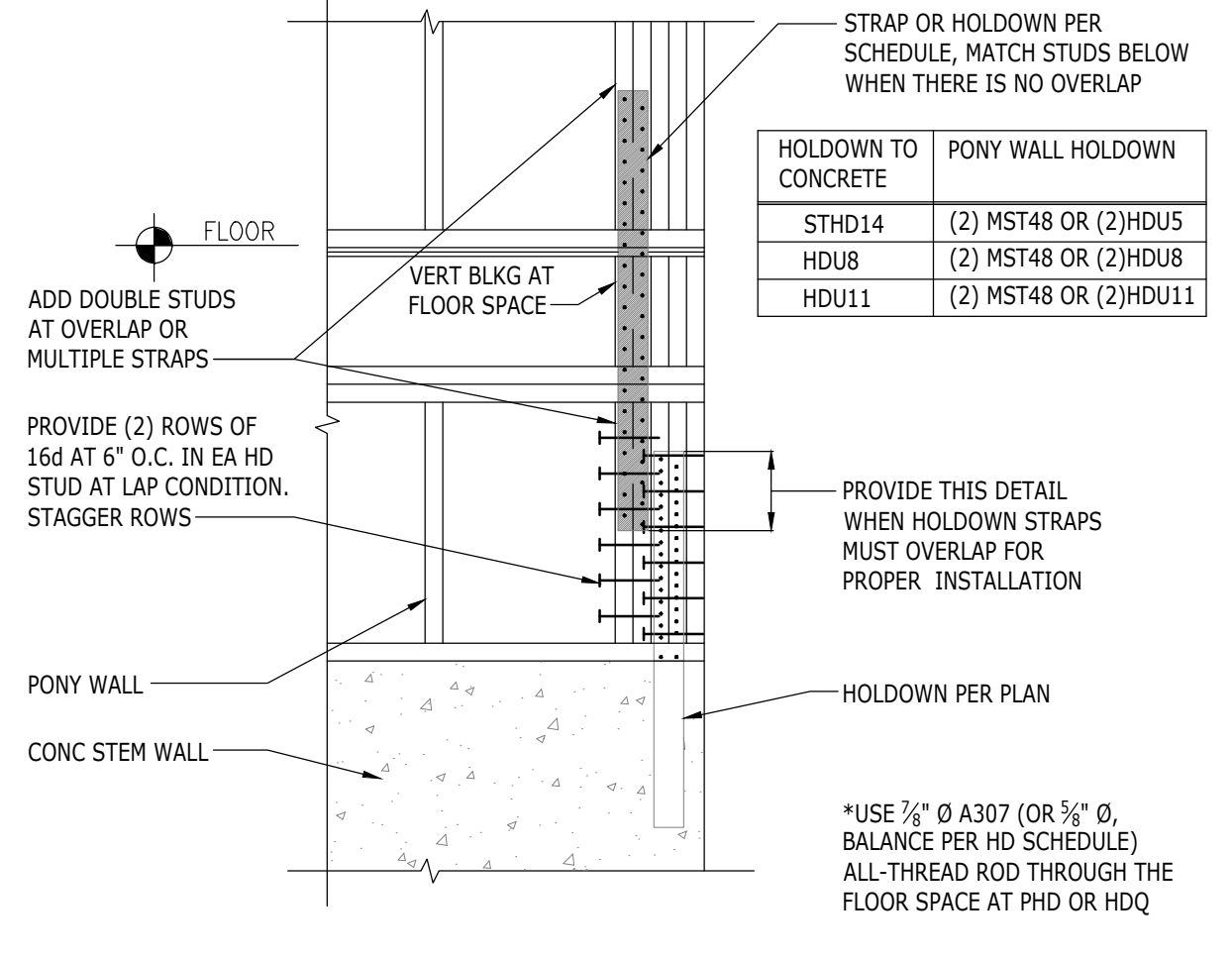
16 TENSION TIE T/BEAM TO T/BLKG



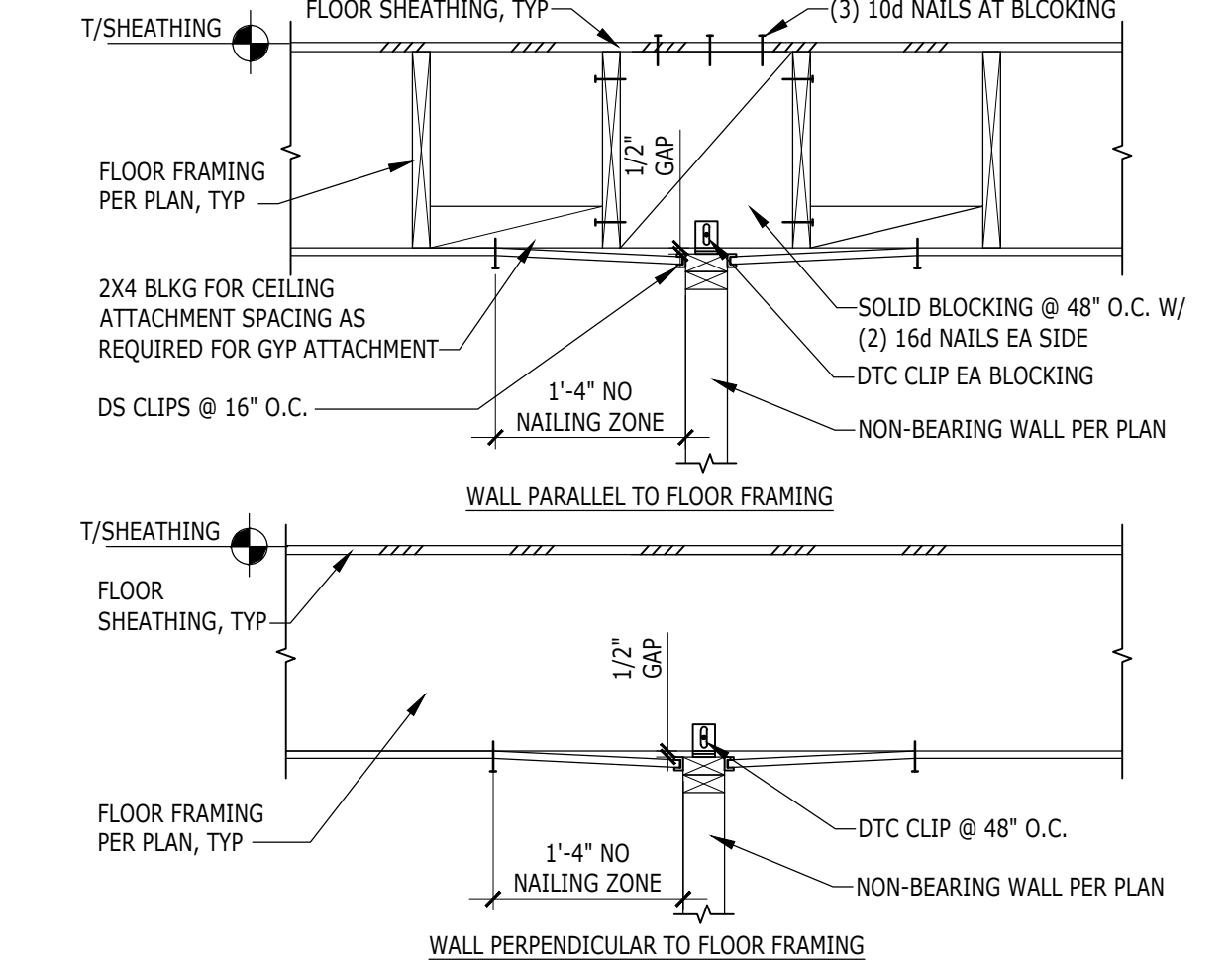
2 ISOLATED INTERIOR FOOTING



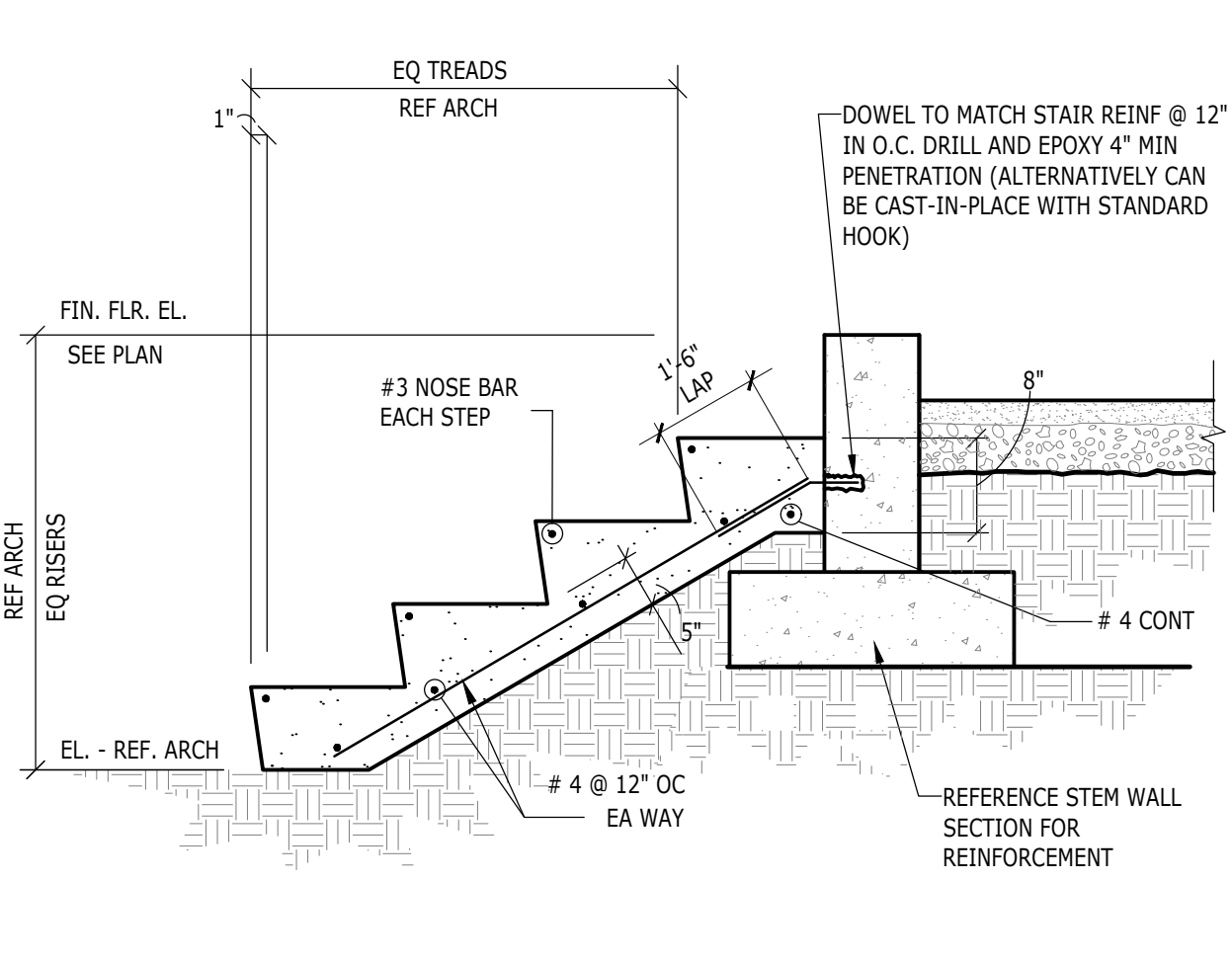
7 CONSTRUCTION/CONTROL JOINT DETAILS



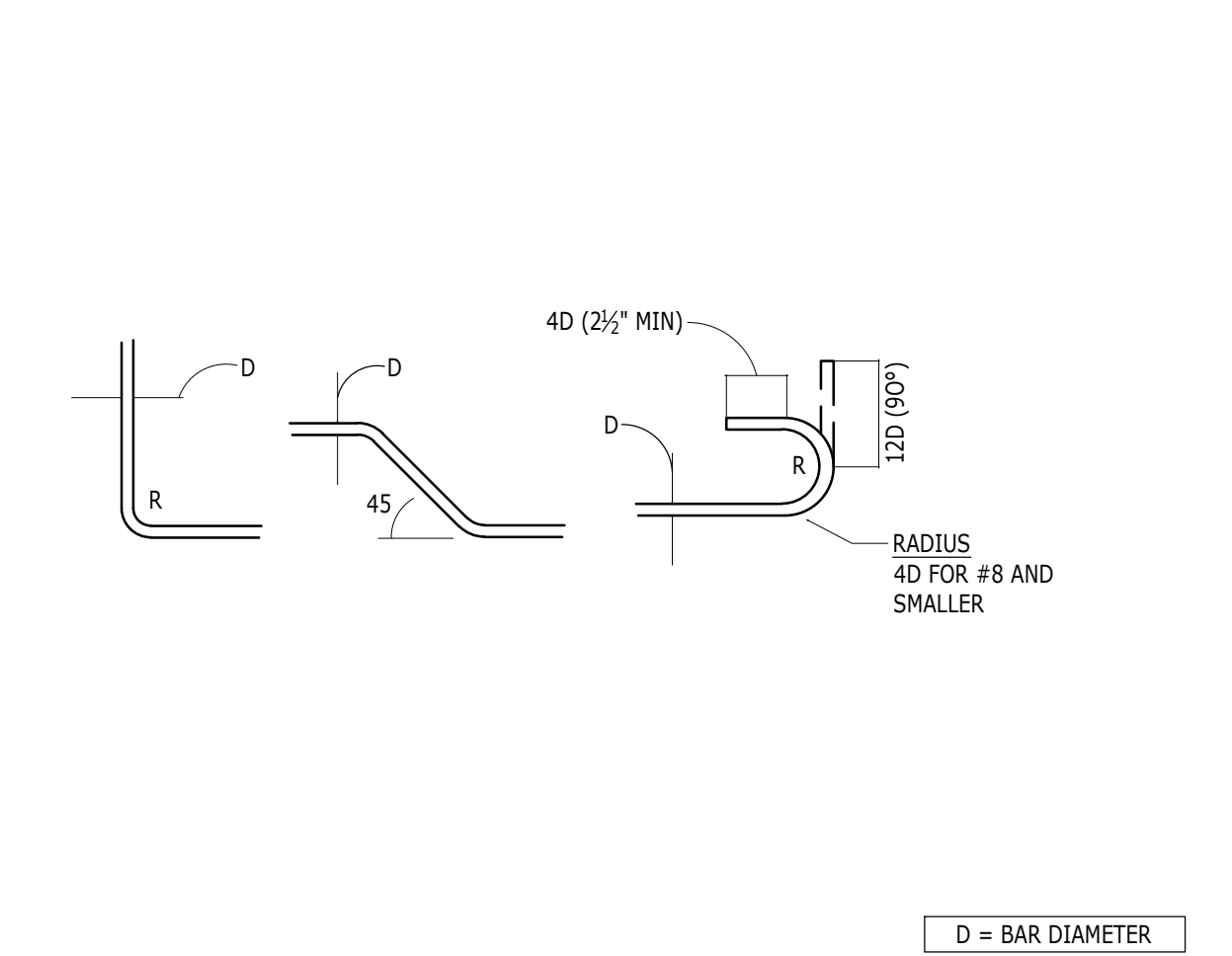
12 OVERLAP STRAP AT PONY WALL



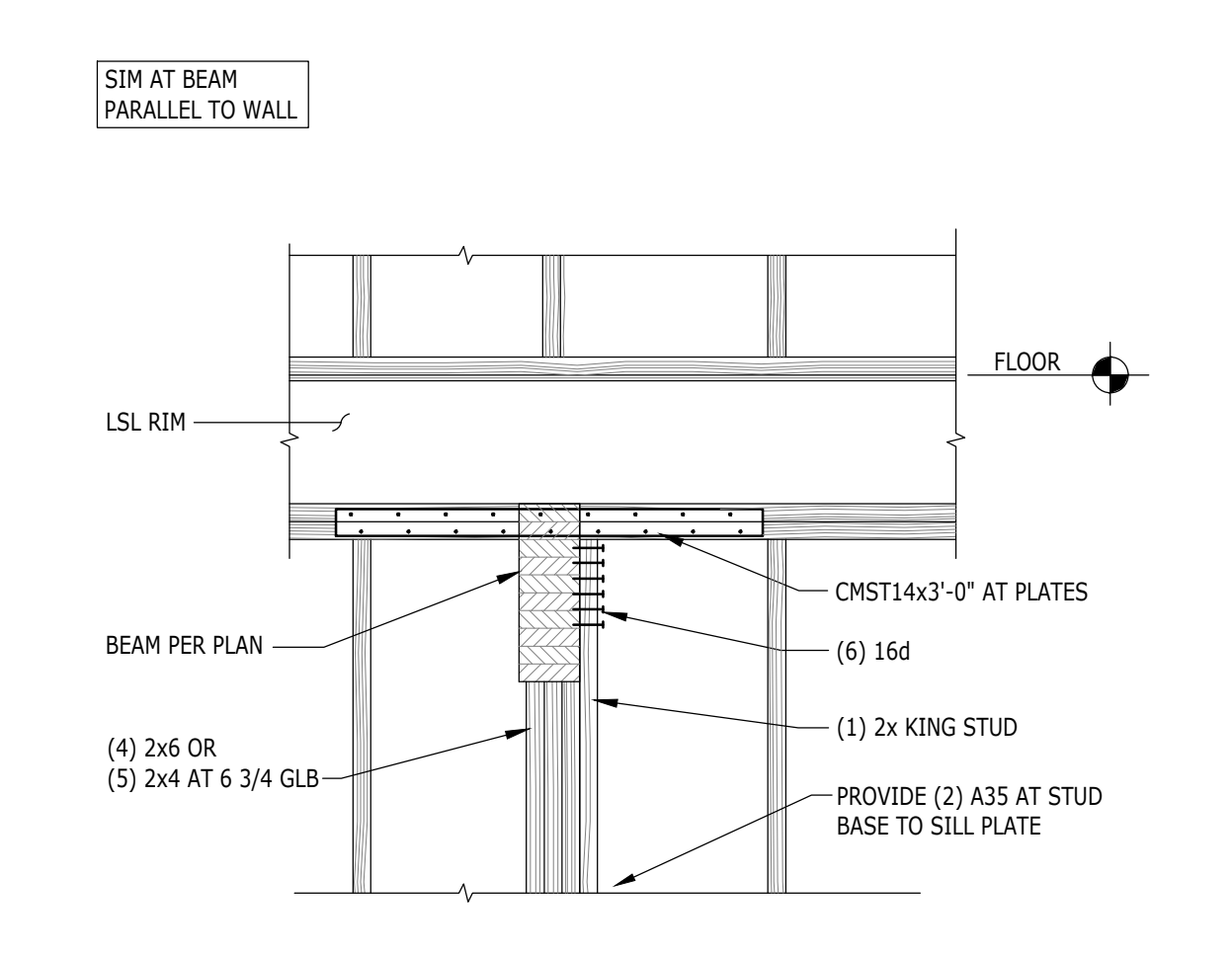
17 CEILING FRAMING AT NON-BEARING WALL



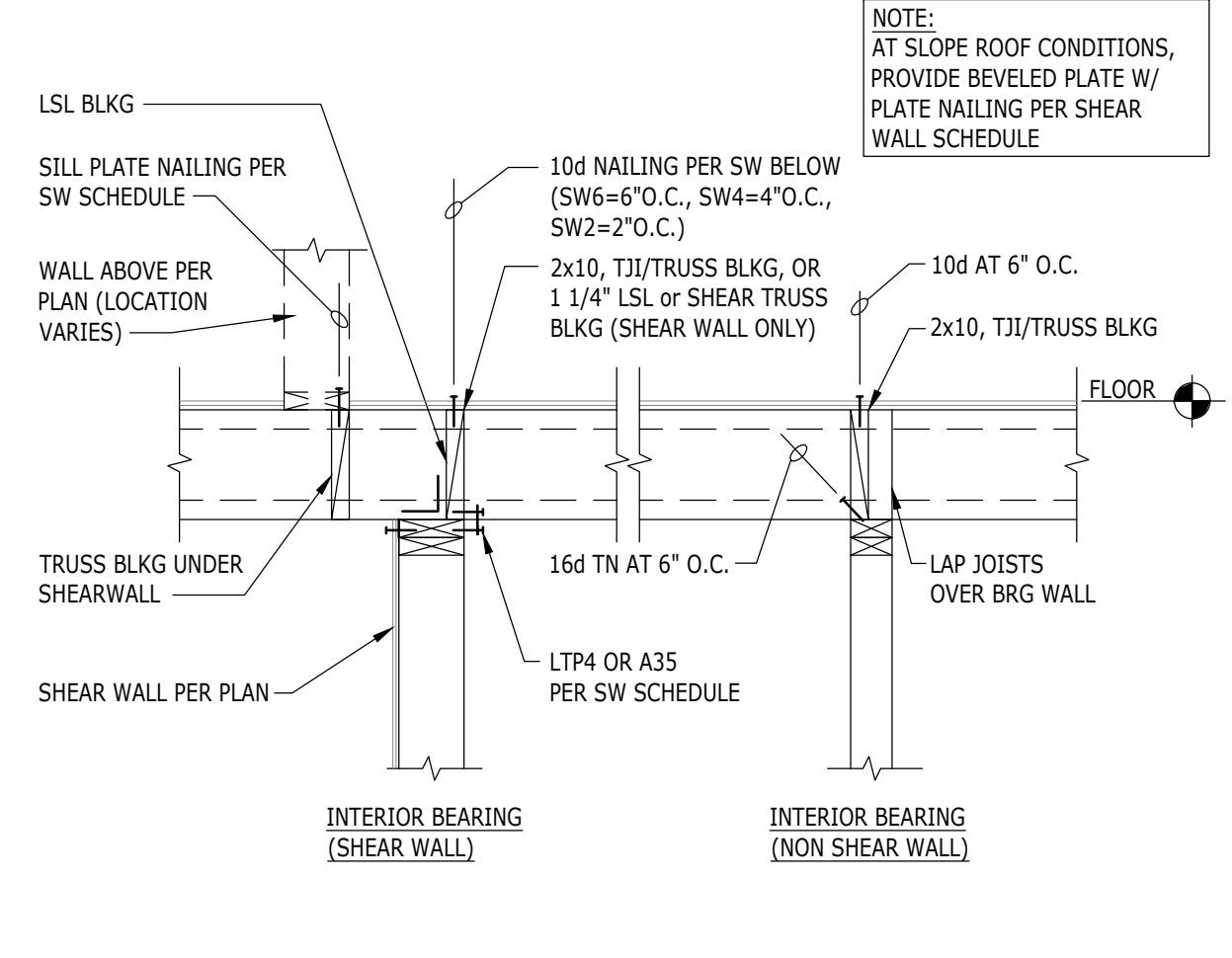
3 CONCRETE STAIR



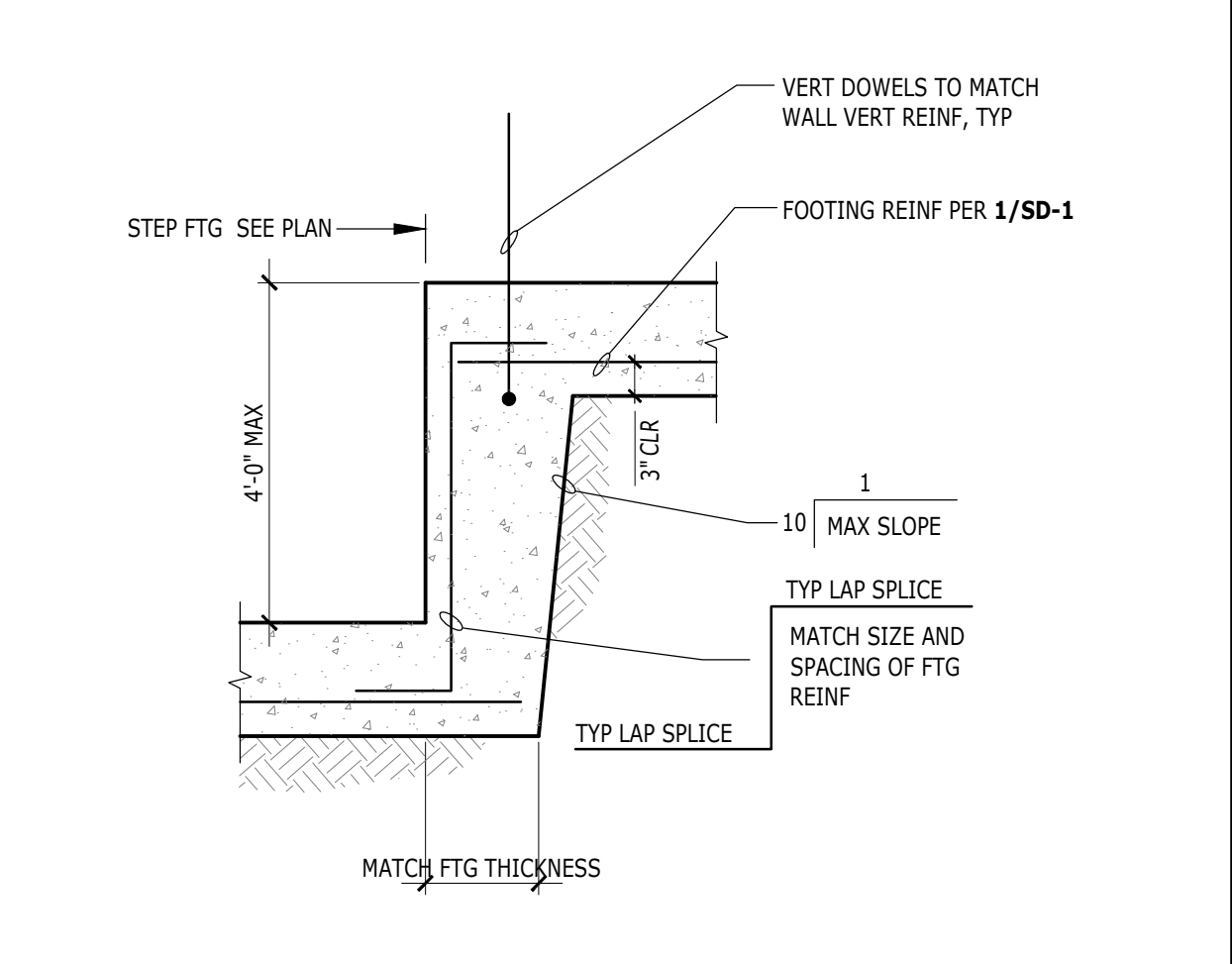
8 BAR BEND AND HOOK DETAILS



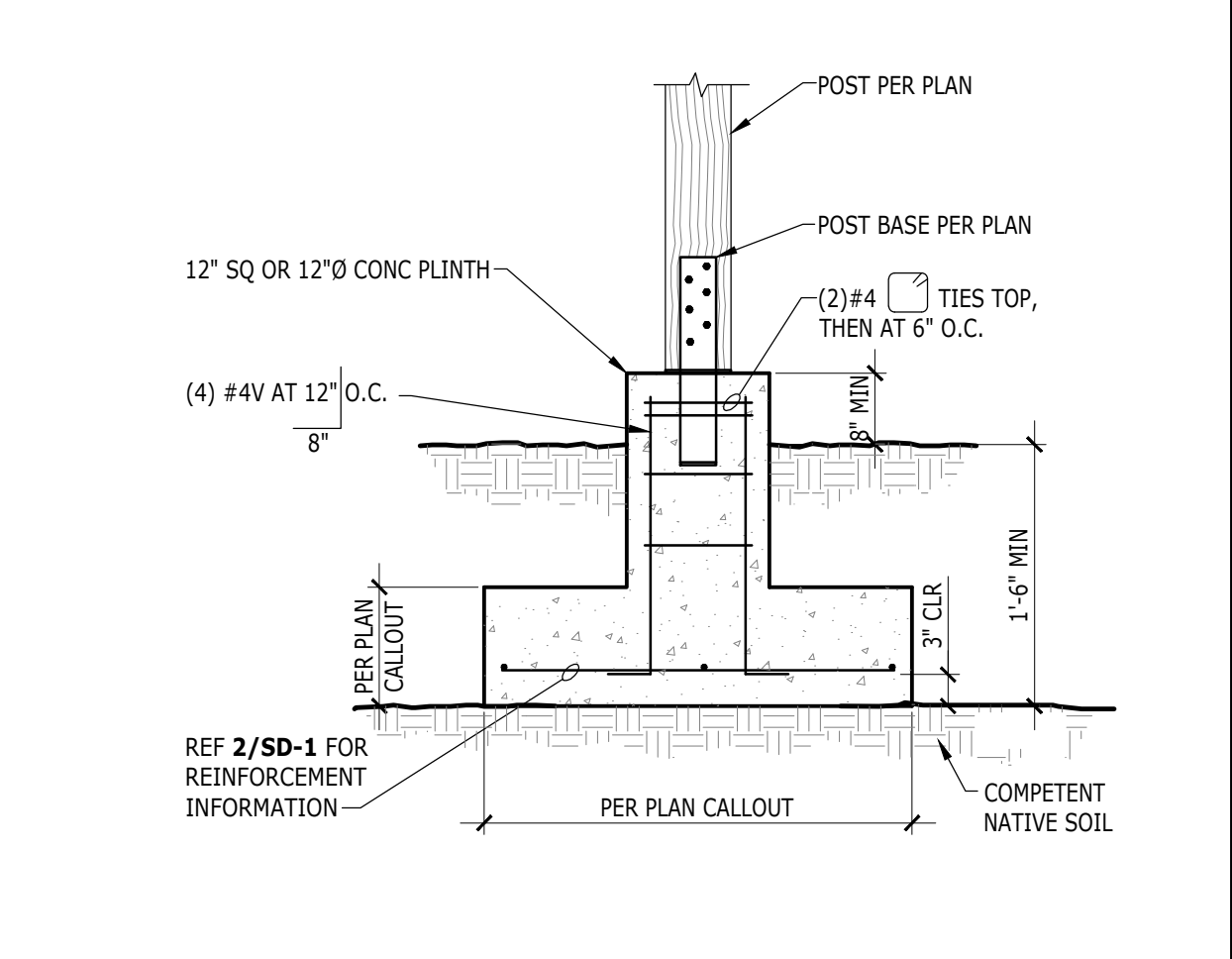
13 BEAM AT DISCONTINUOUS TOP PLATES



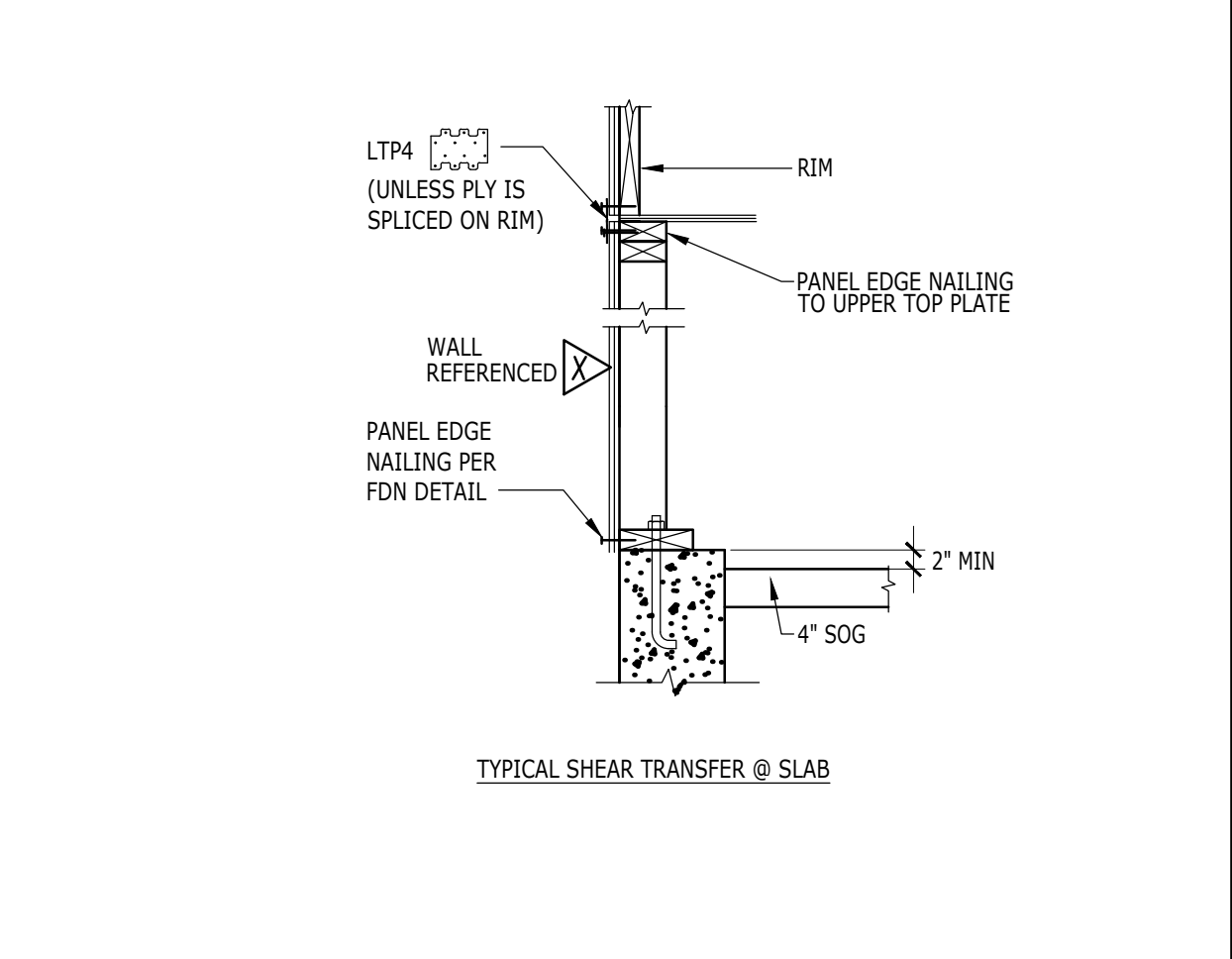
18 FLOOR FRAMING AT INTERIOR BEARING WALL



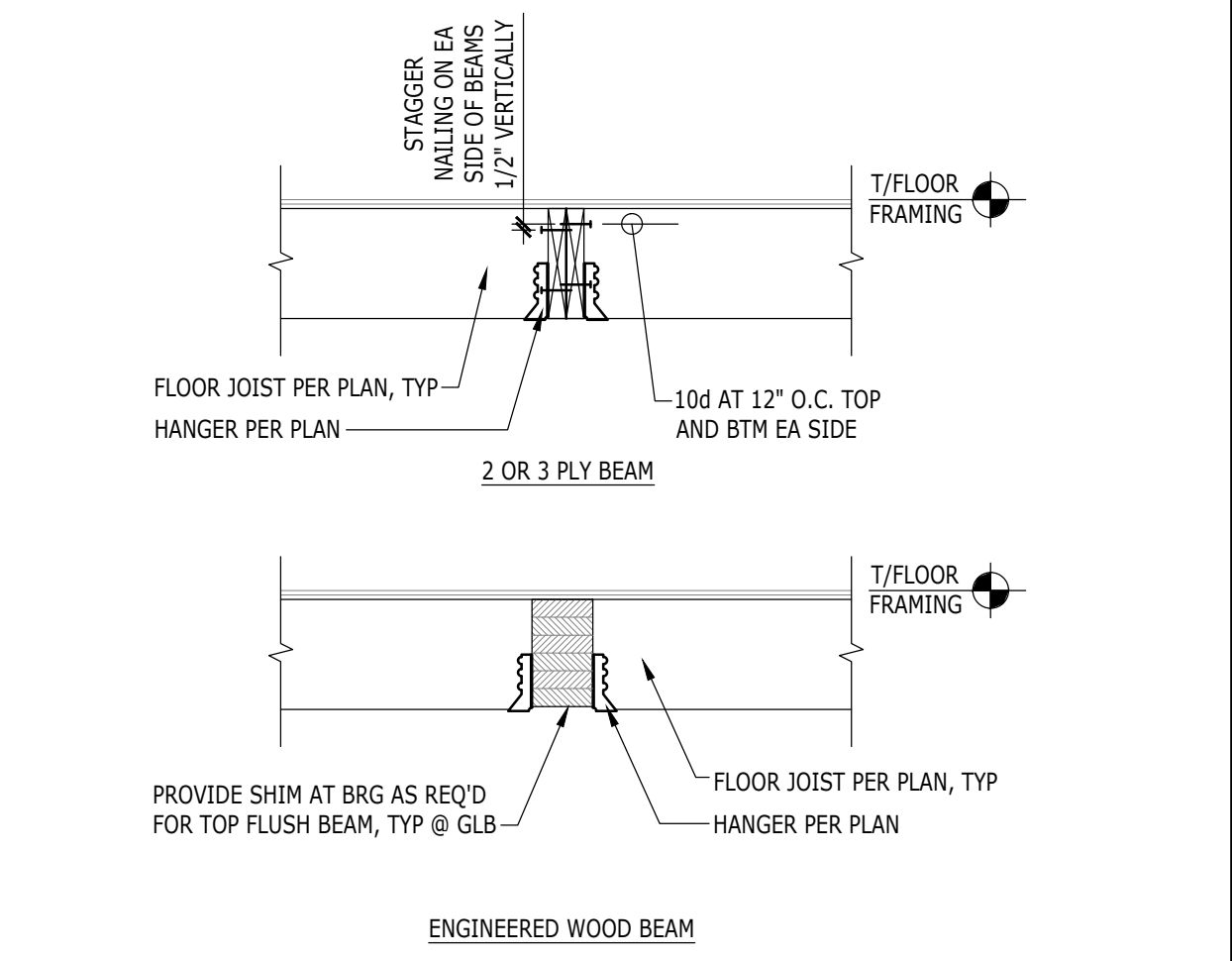
4 STEP AT WALL FOOTING



9 ISOLATED EXTERIOR FOOTING

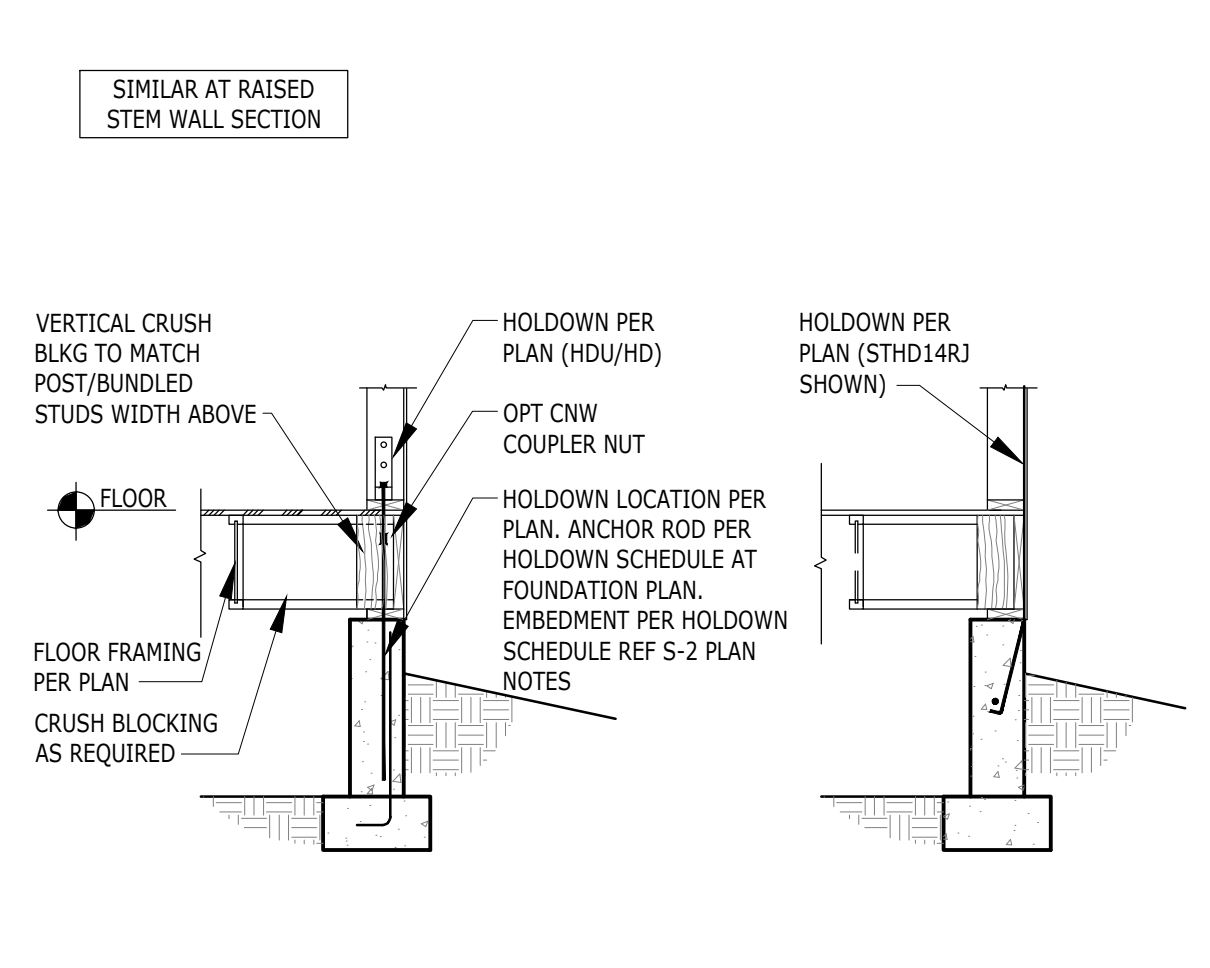


14 WALL FRAMING AT GARAGE CURB

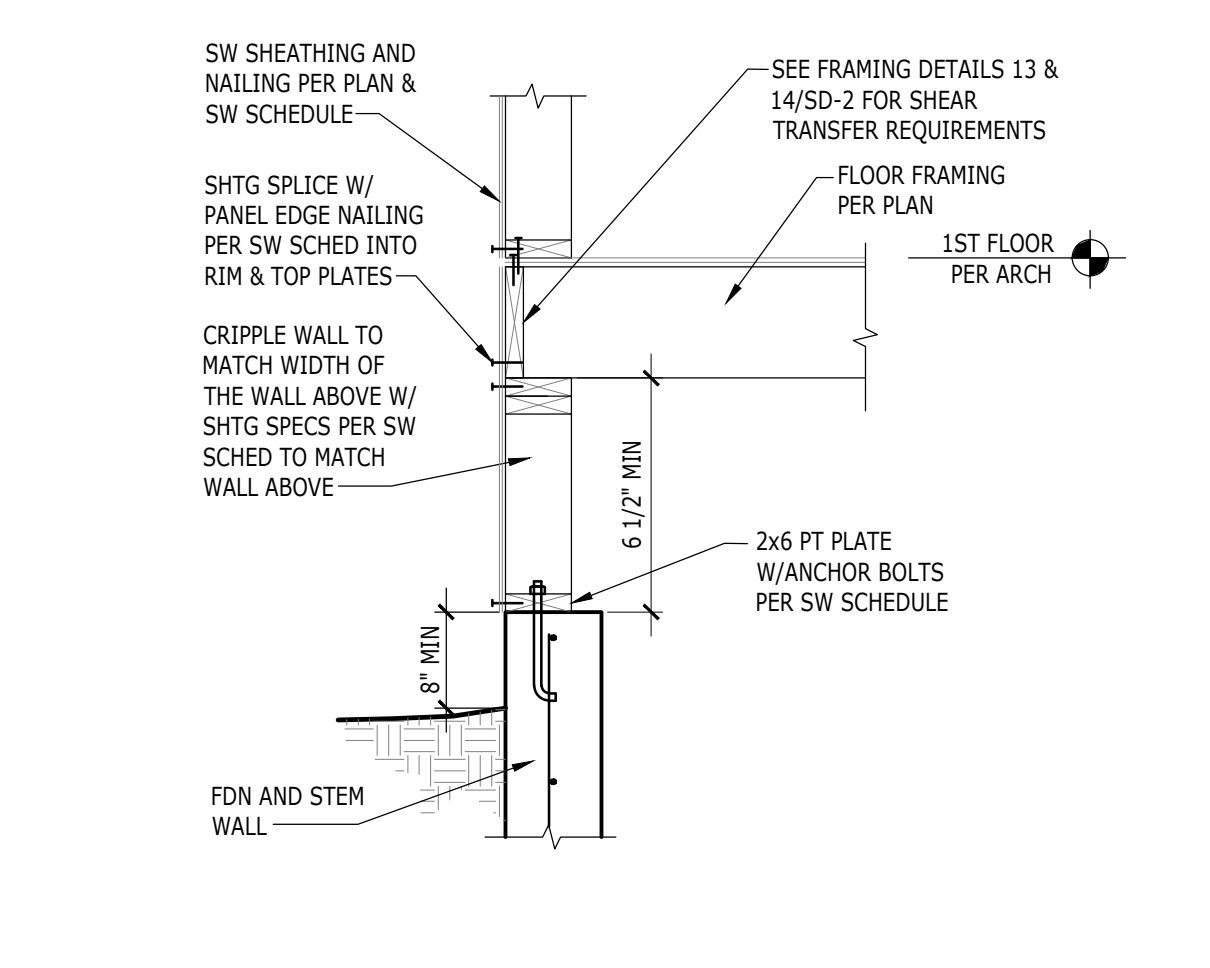


19 JOISTS TO FLUSH BEAM CONNECTION

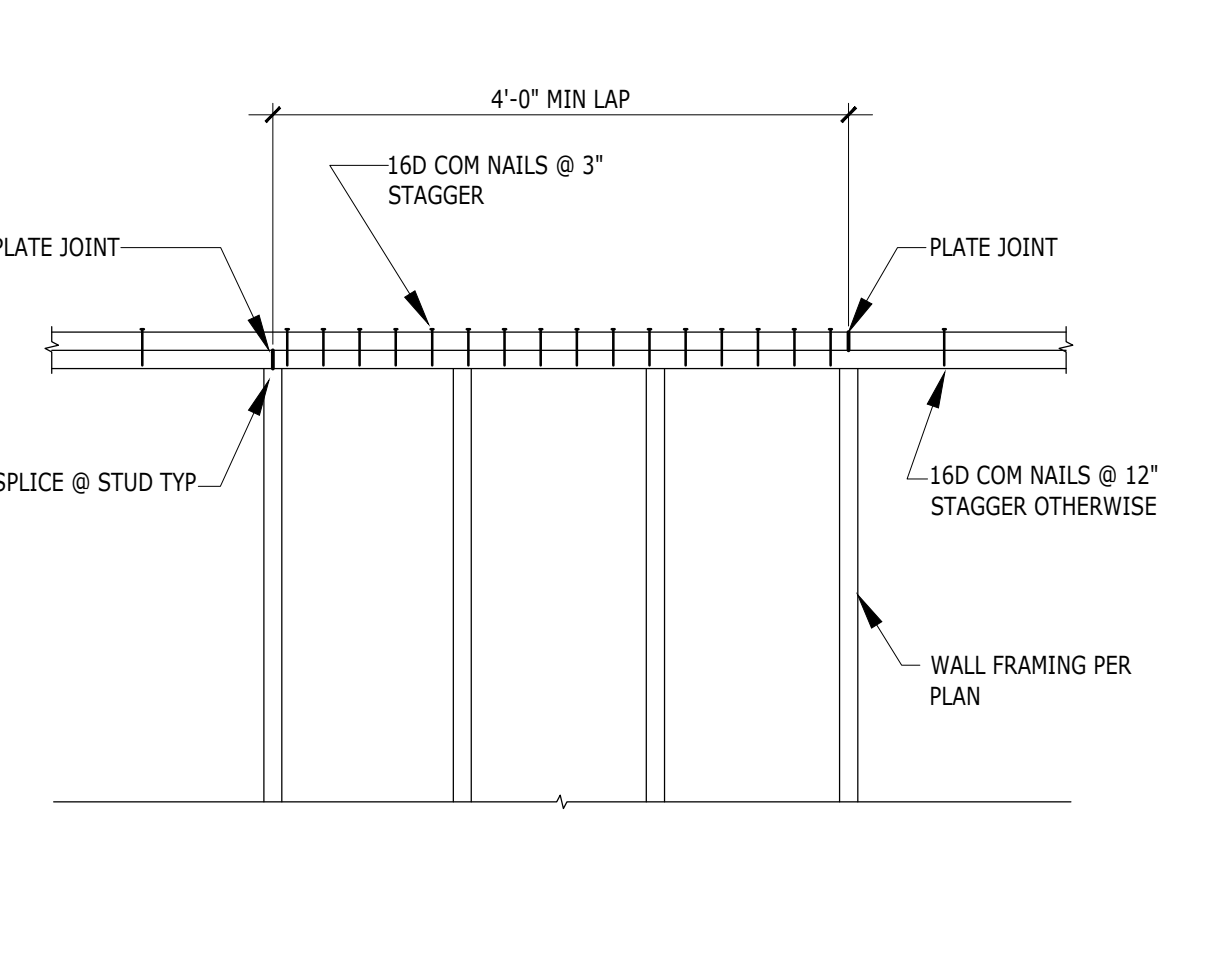
5 CORNER BARS AT CONCRETE WALLS



10 FOUNDATION SECTION AT HOLD-DOWN



15 PONY WALL

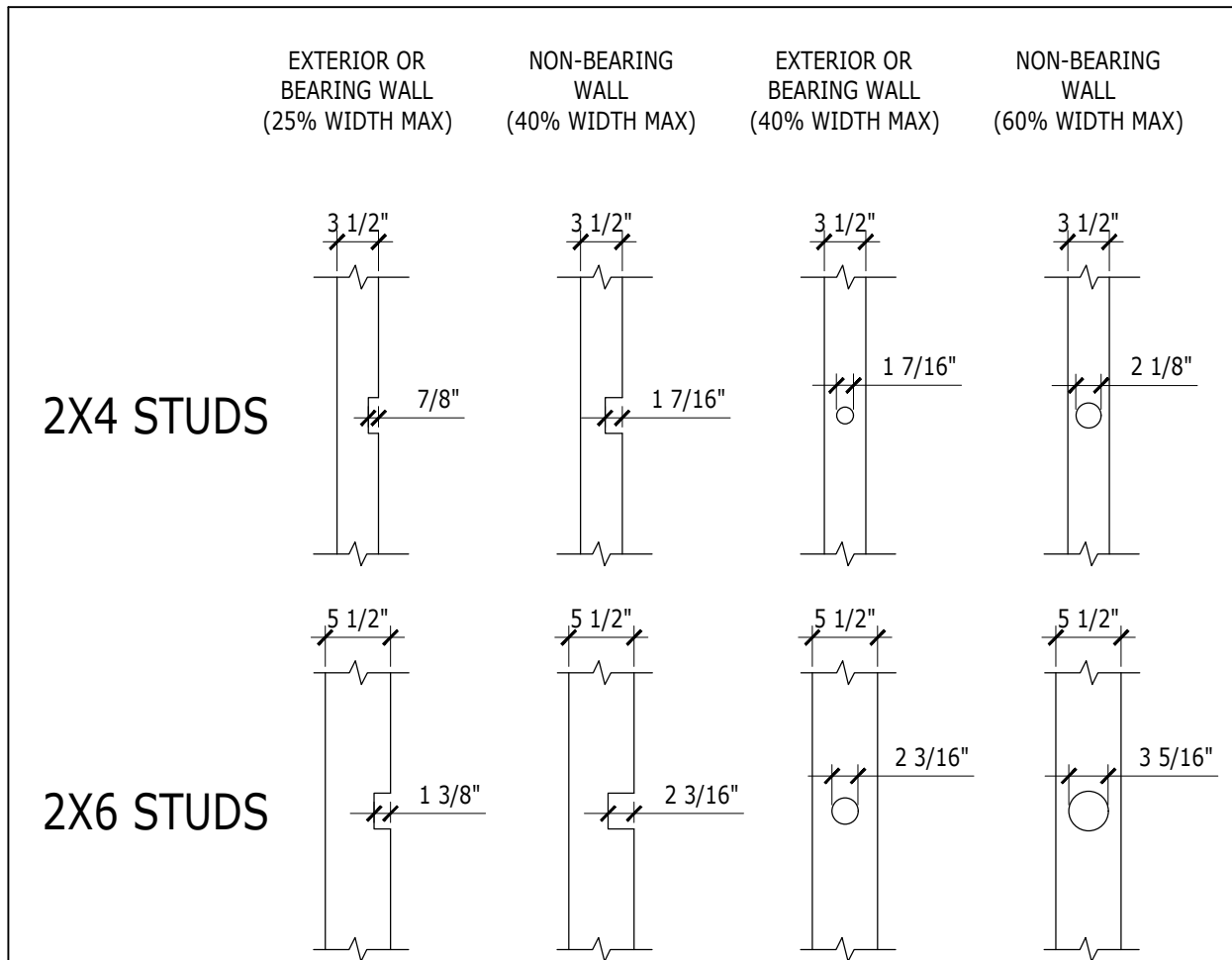


20 ELEVATION TOP PLATE SPLICE

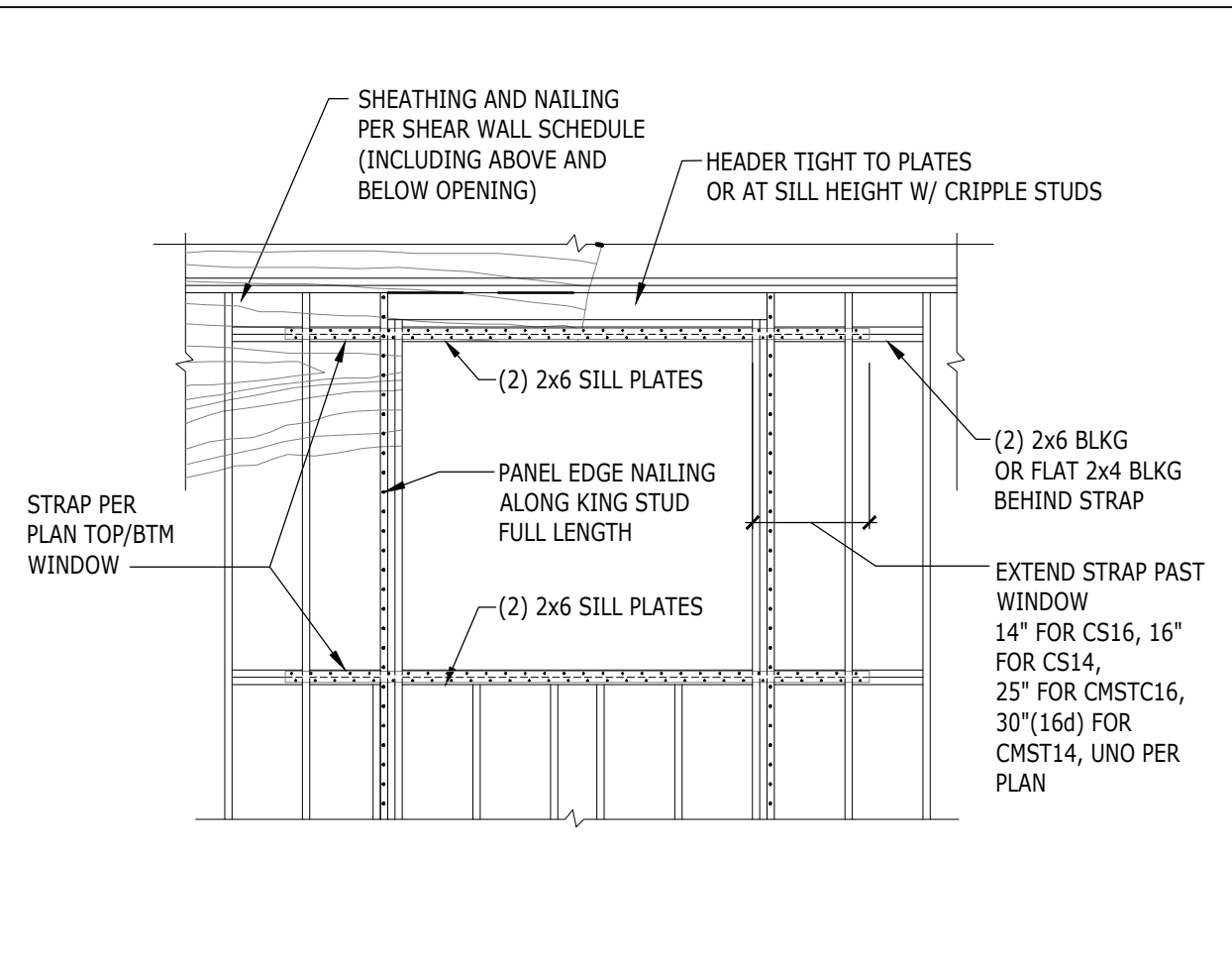
DESCRIPTION

STRUCTURAL DETAILS

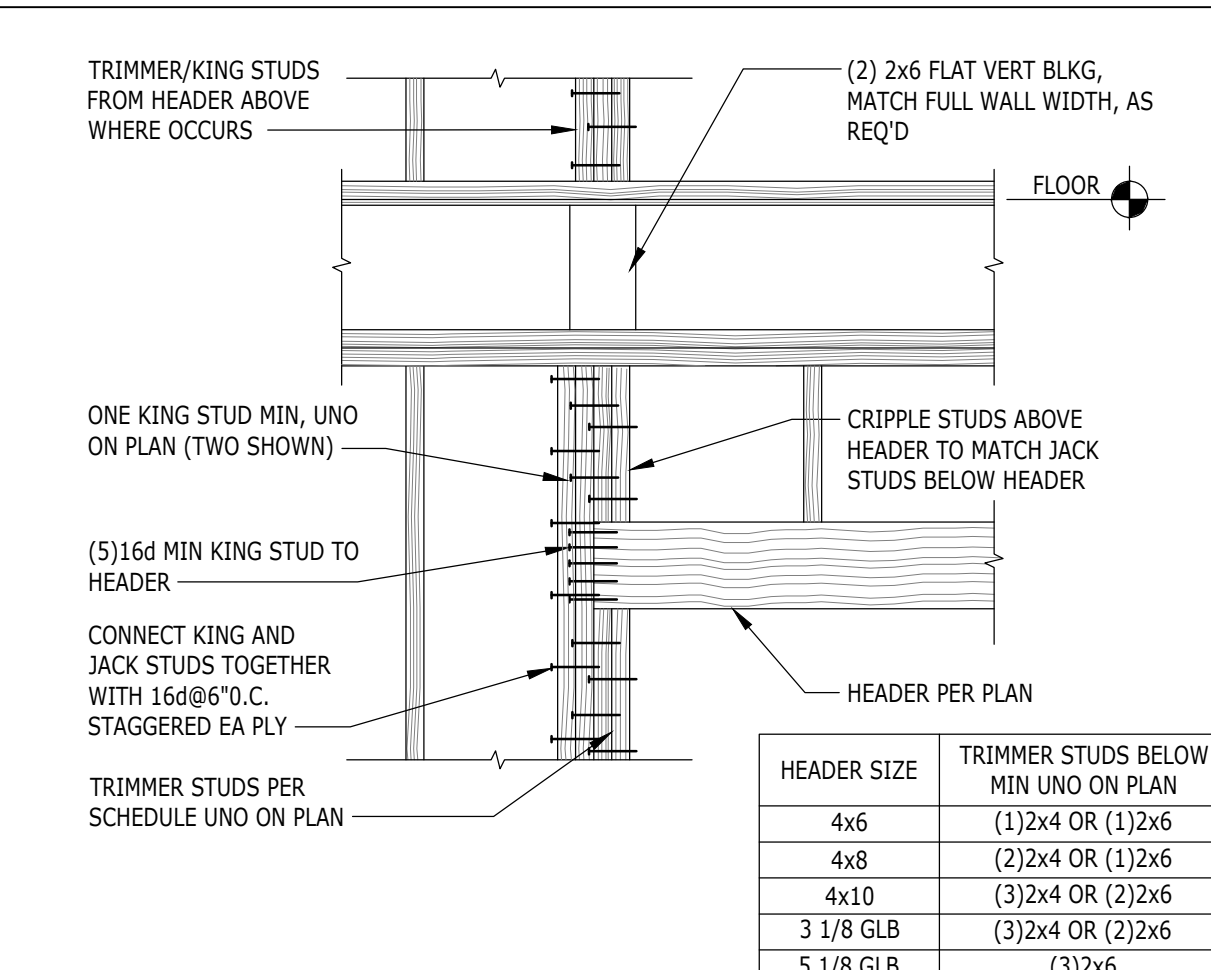
SHEET SD-1



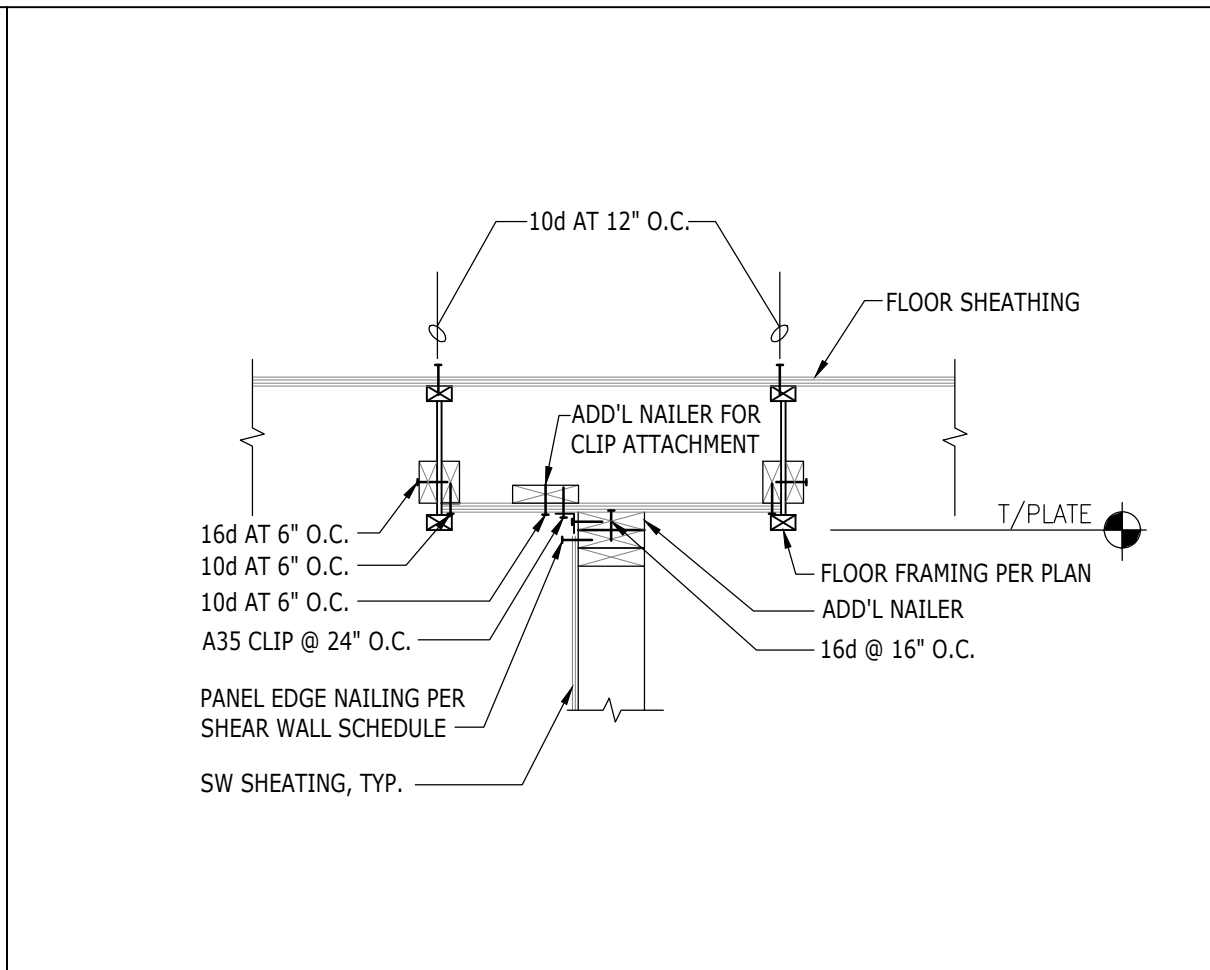
**1** ALLOWABLE STUD NOTCHING AND BORING



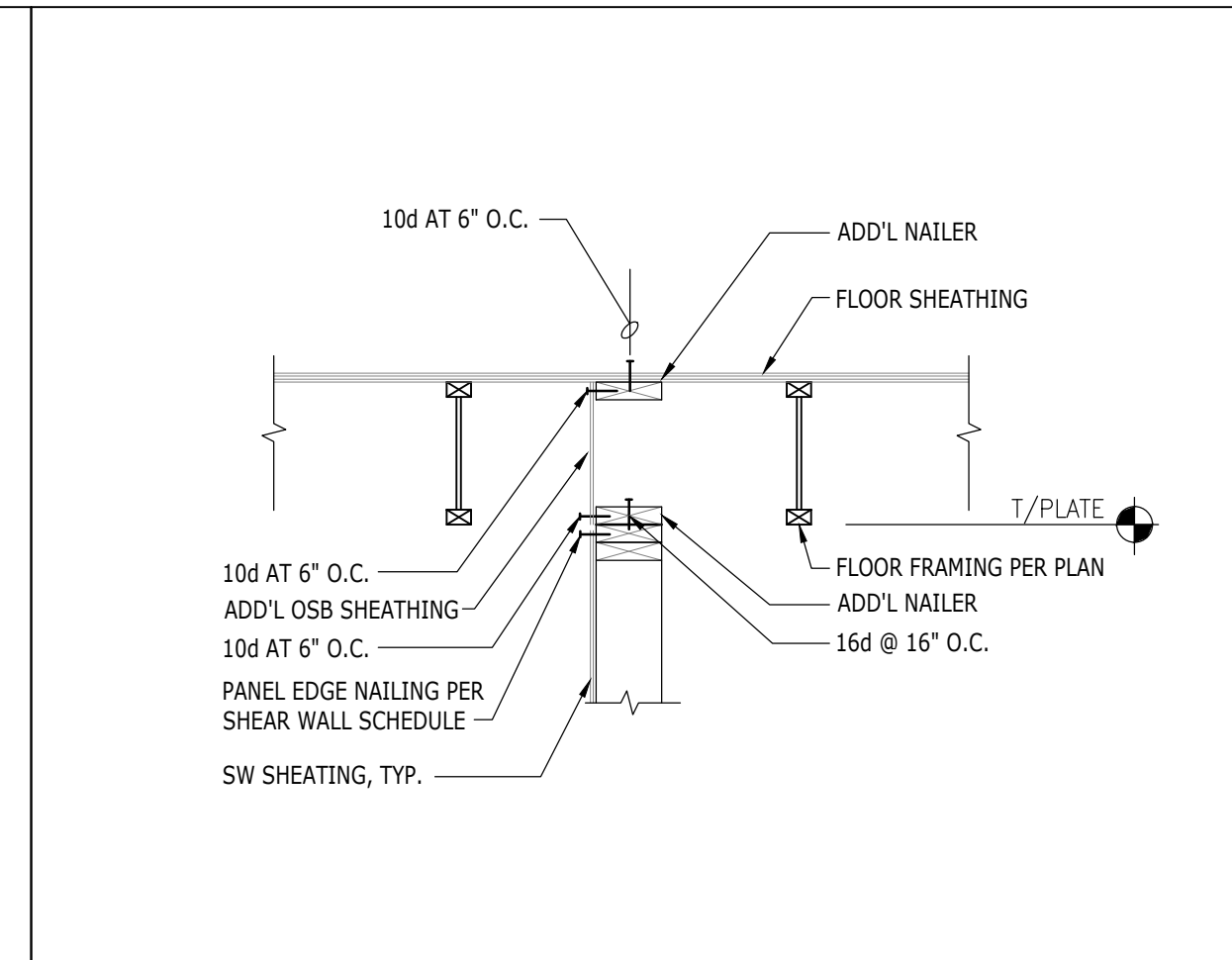
**2** STRAPS AROUND WINDOWS



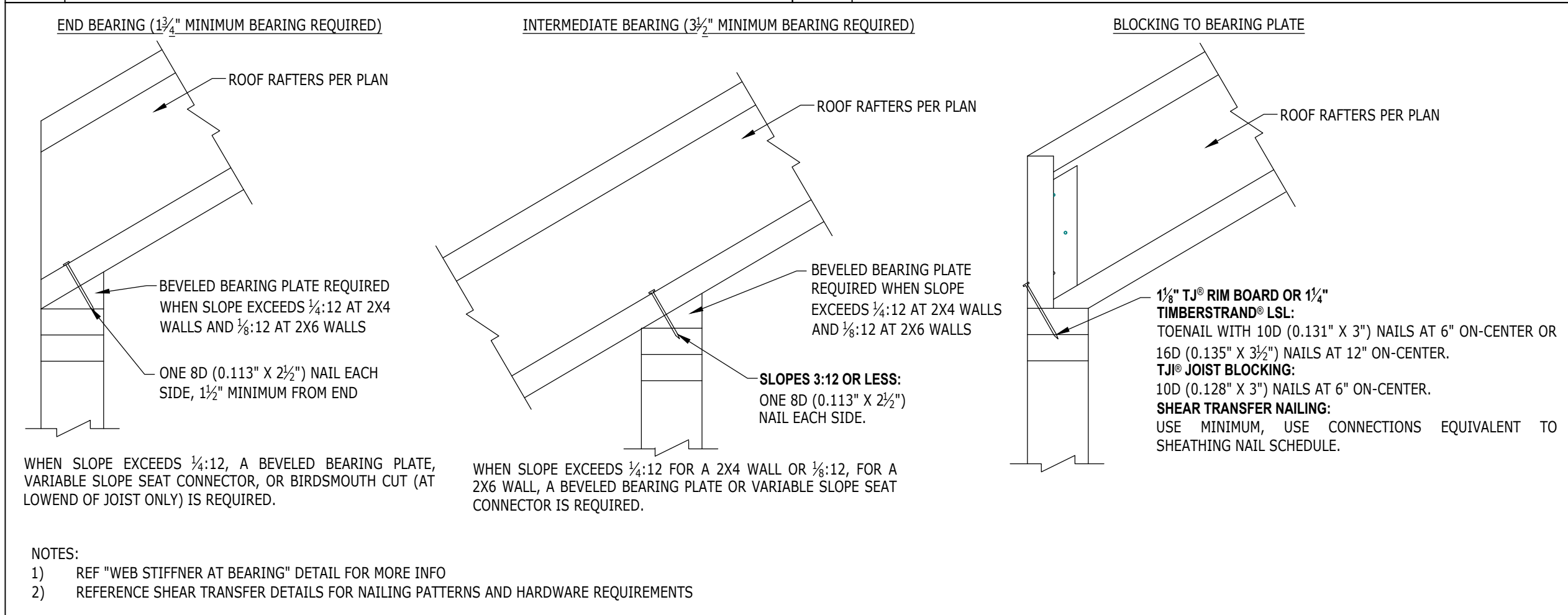
**3** TYPICAL HEADER FRAMING



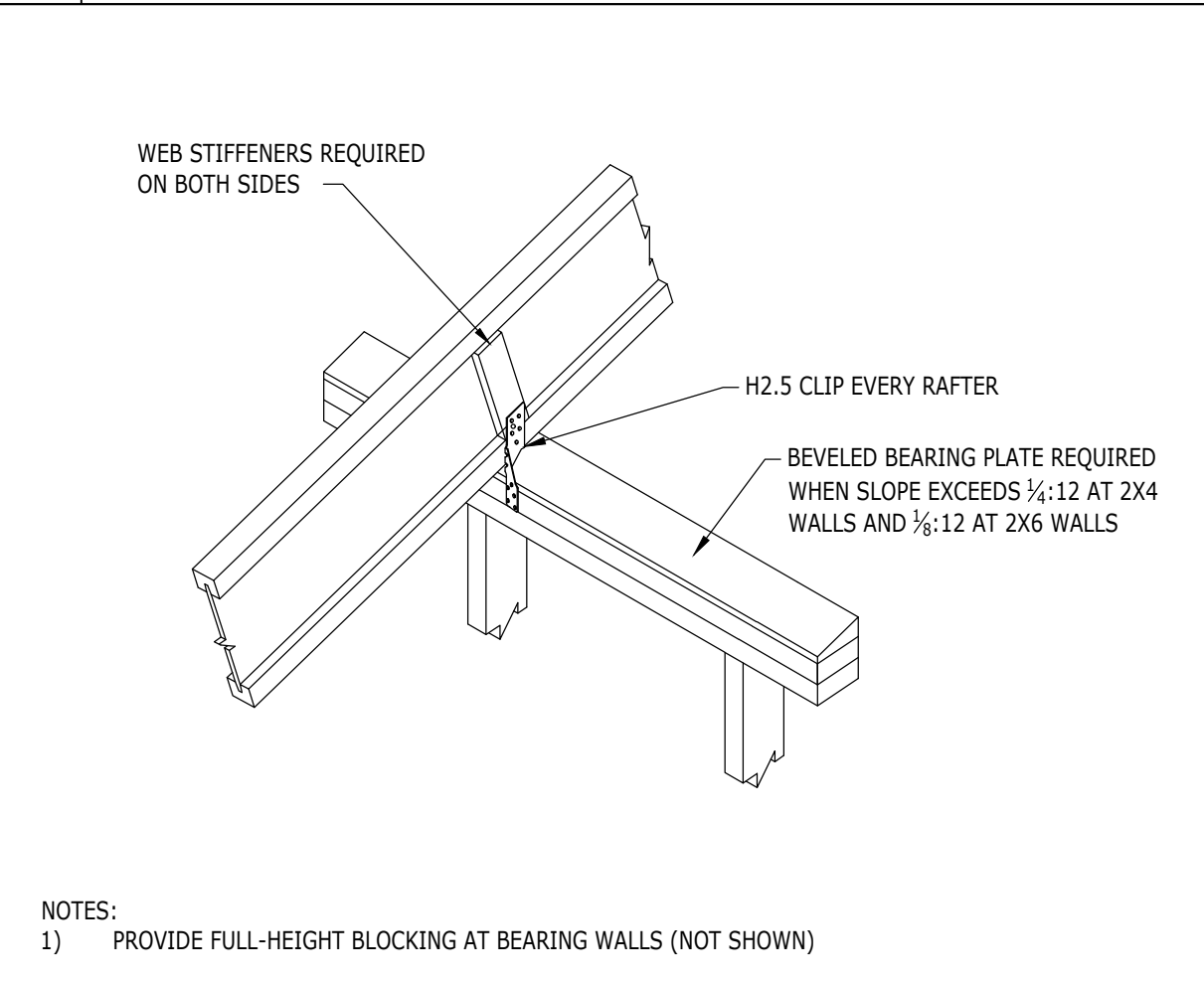
**4** OFFSET SHEAR ATTACHMENT



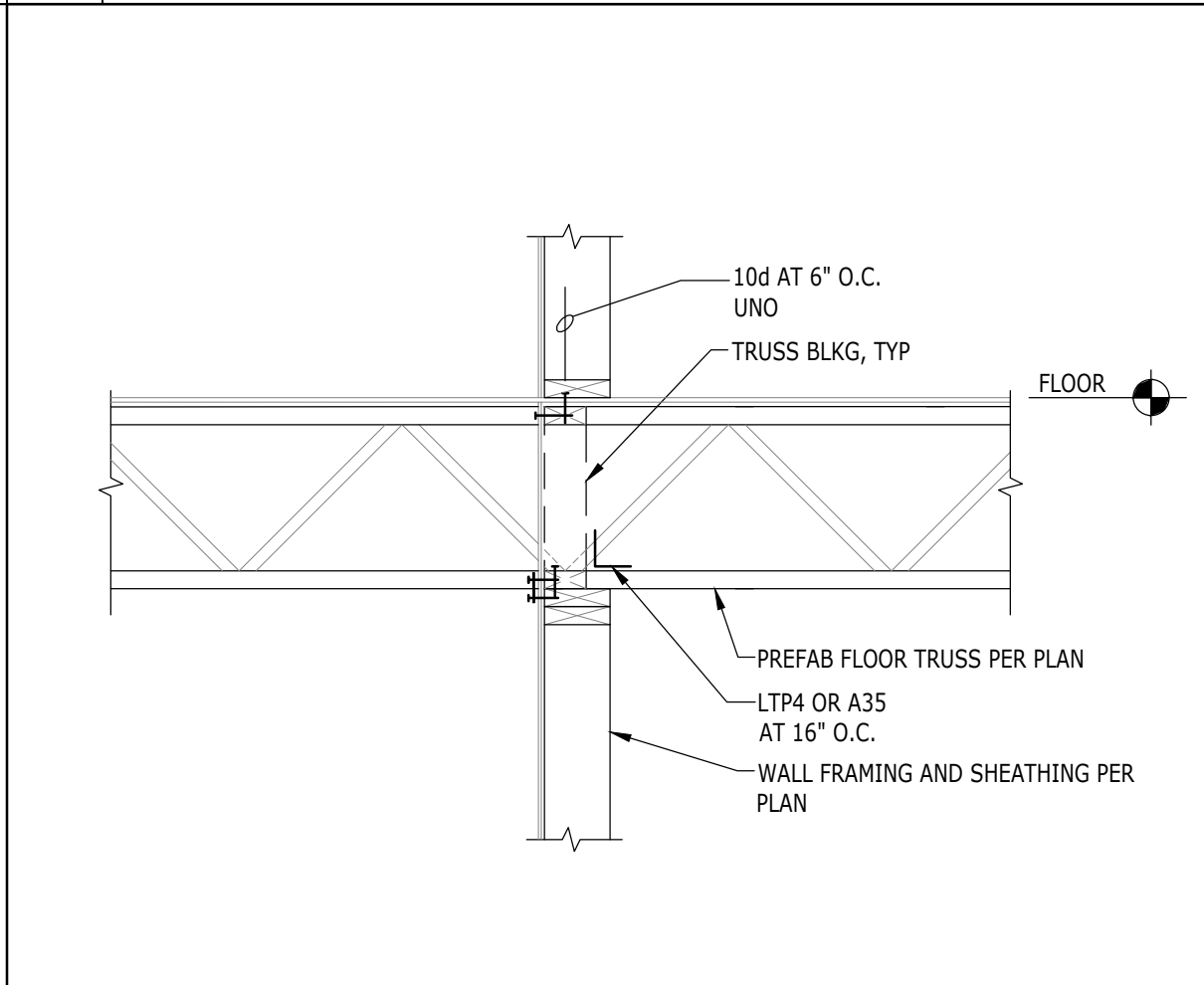
**5** POST-INSTALLED SHEAR ATTACHMENT



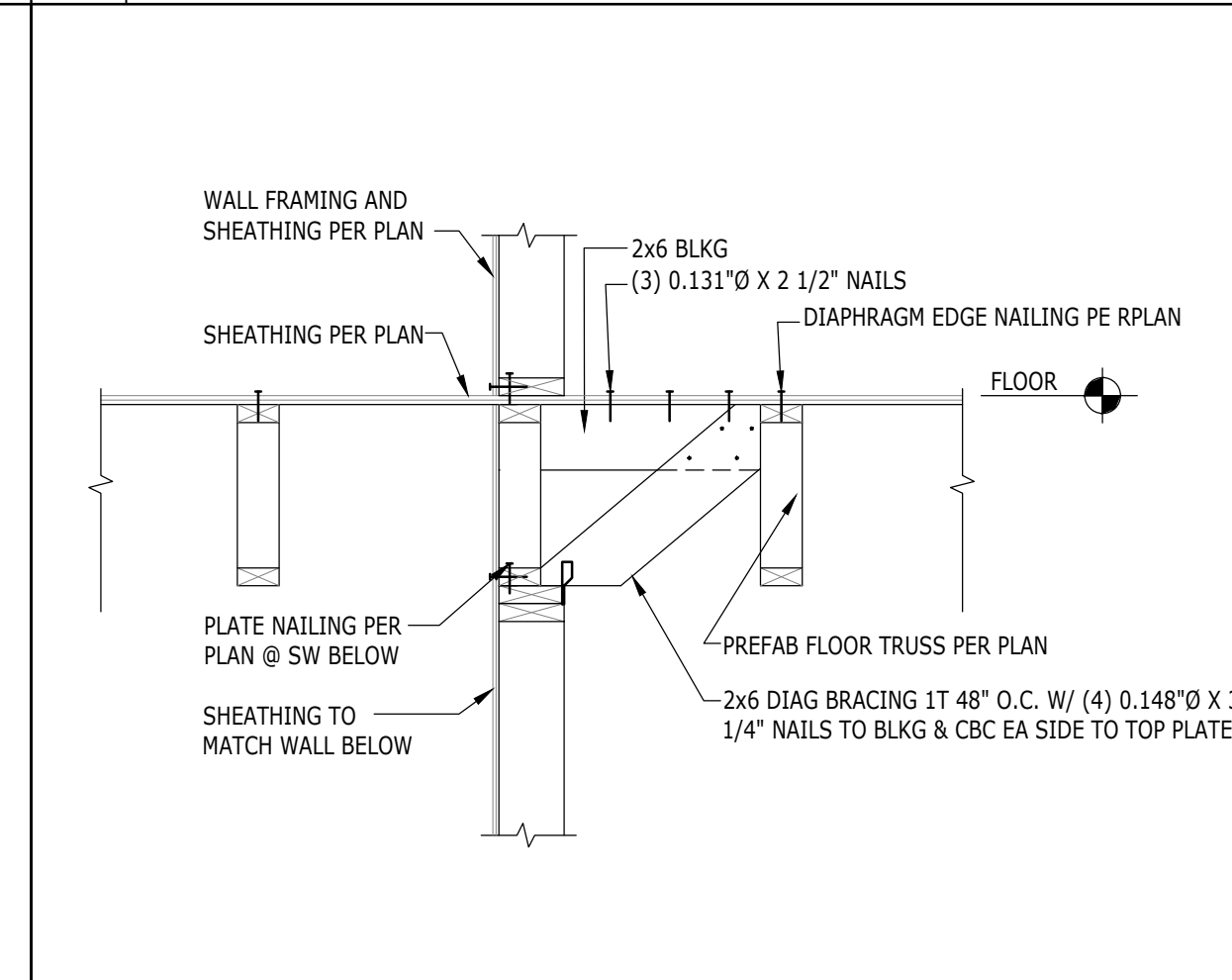
**6** NAILING AT BEARING POINT OF TJI SLOPED ROOF



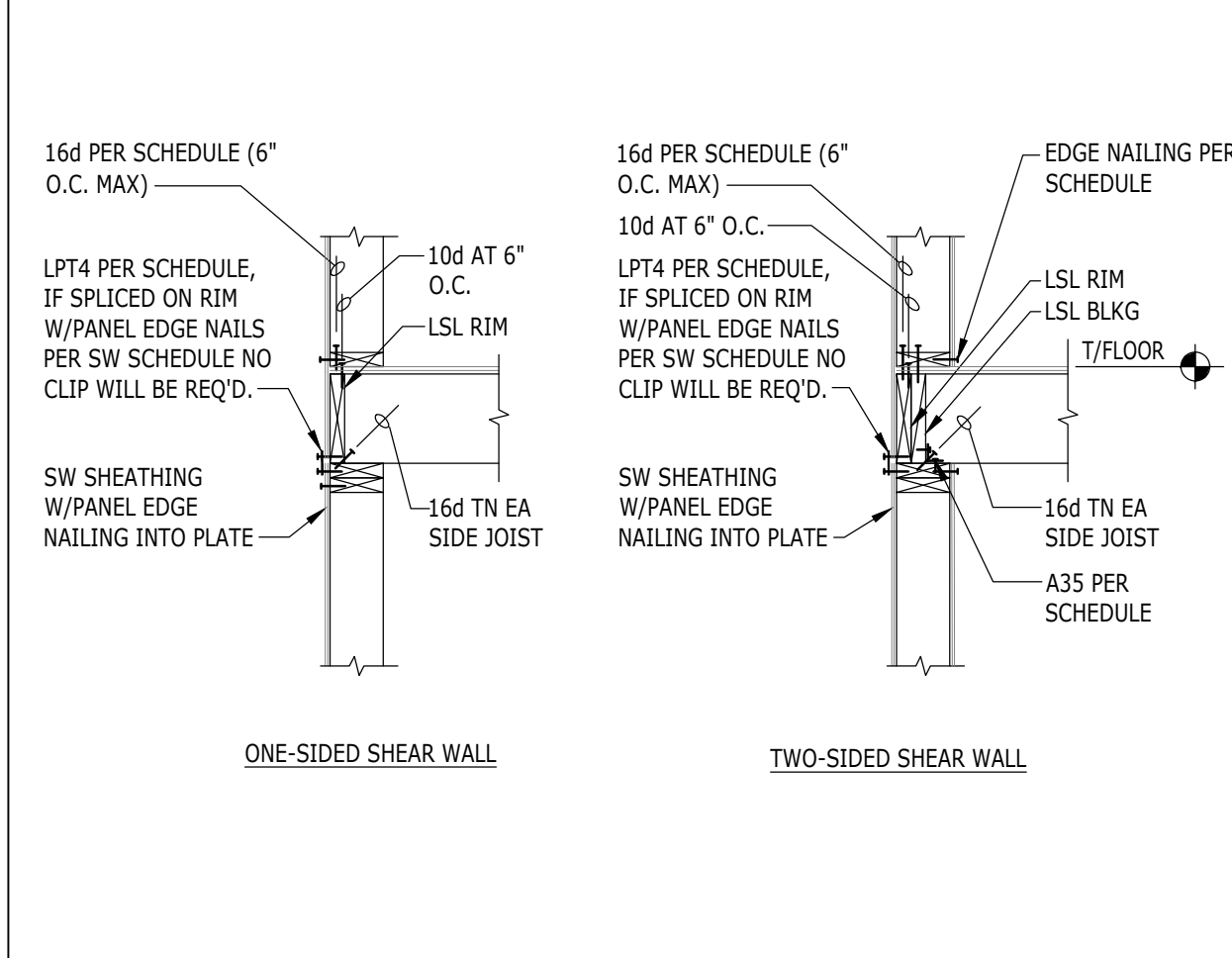
**8** WEB STIFFENER AT TJI ROOF BEARING



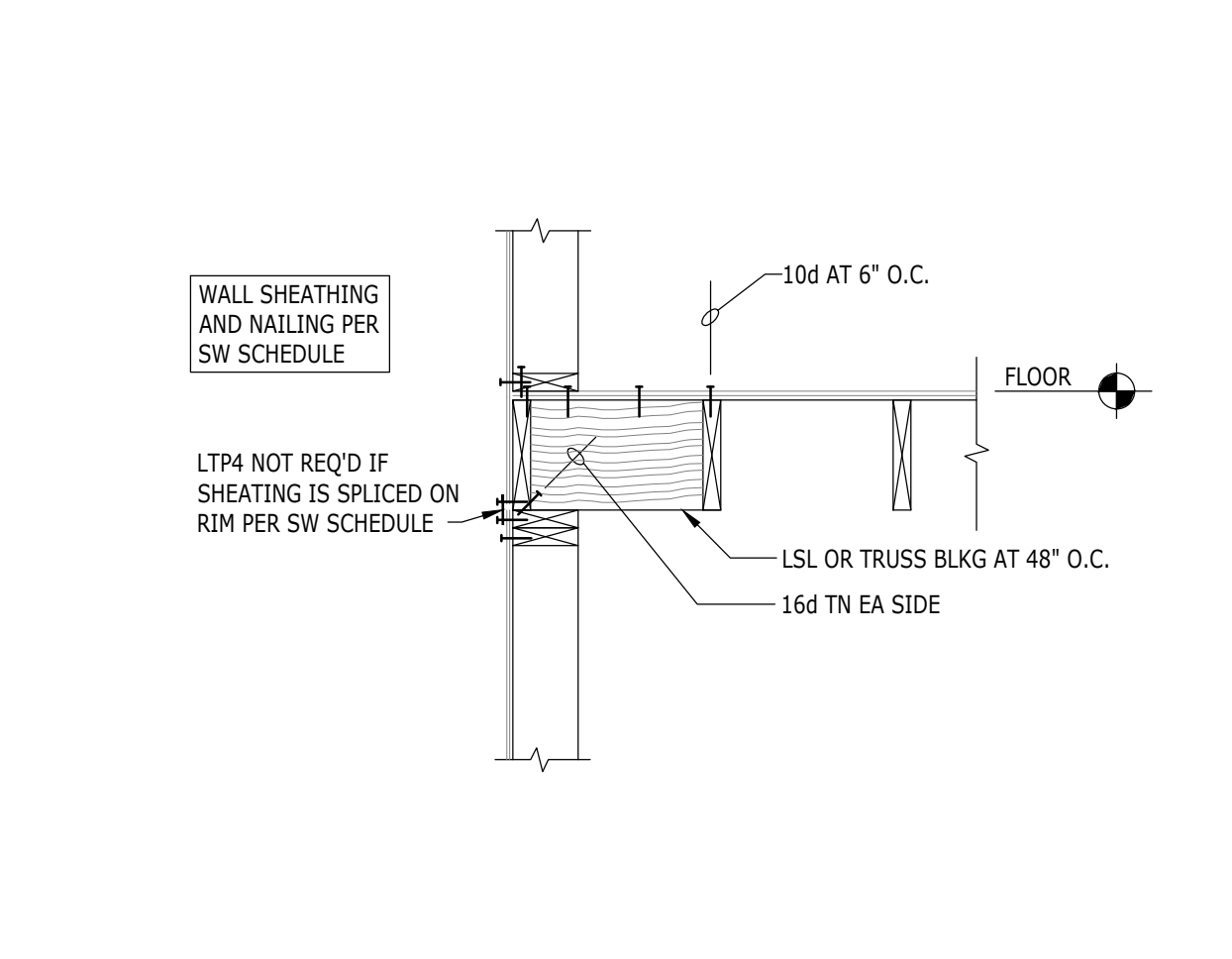
**9** INTERIOR SHEAR WALL CONNECTION



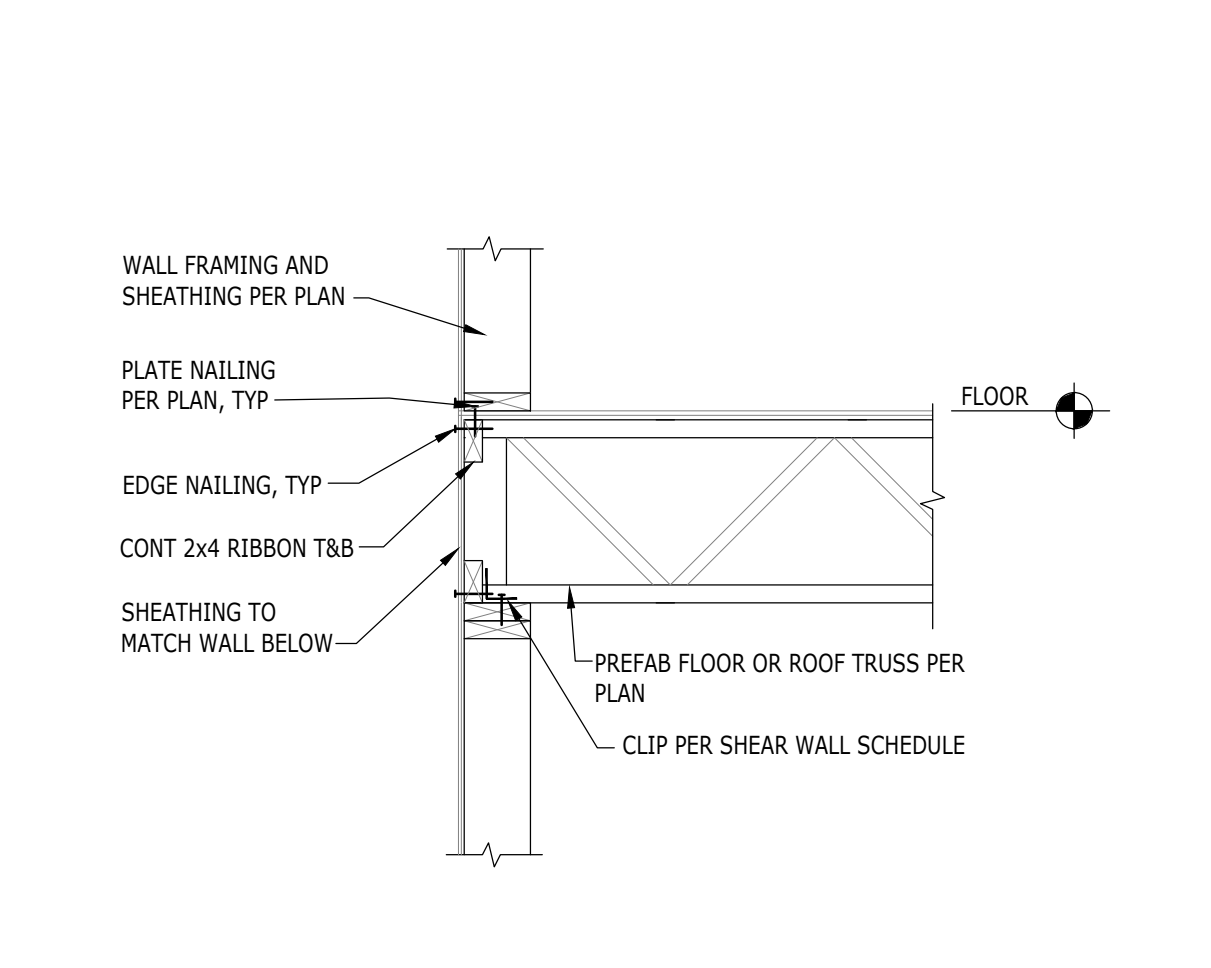
**10** INTERIOR SHEAR WALL CONNECTION



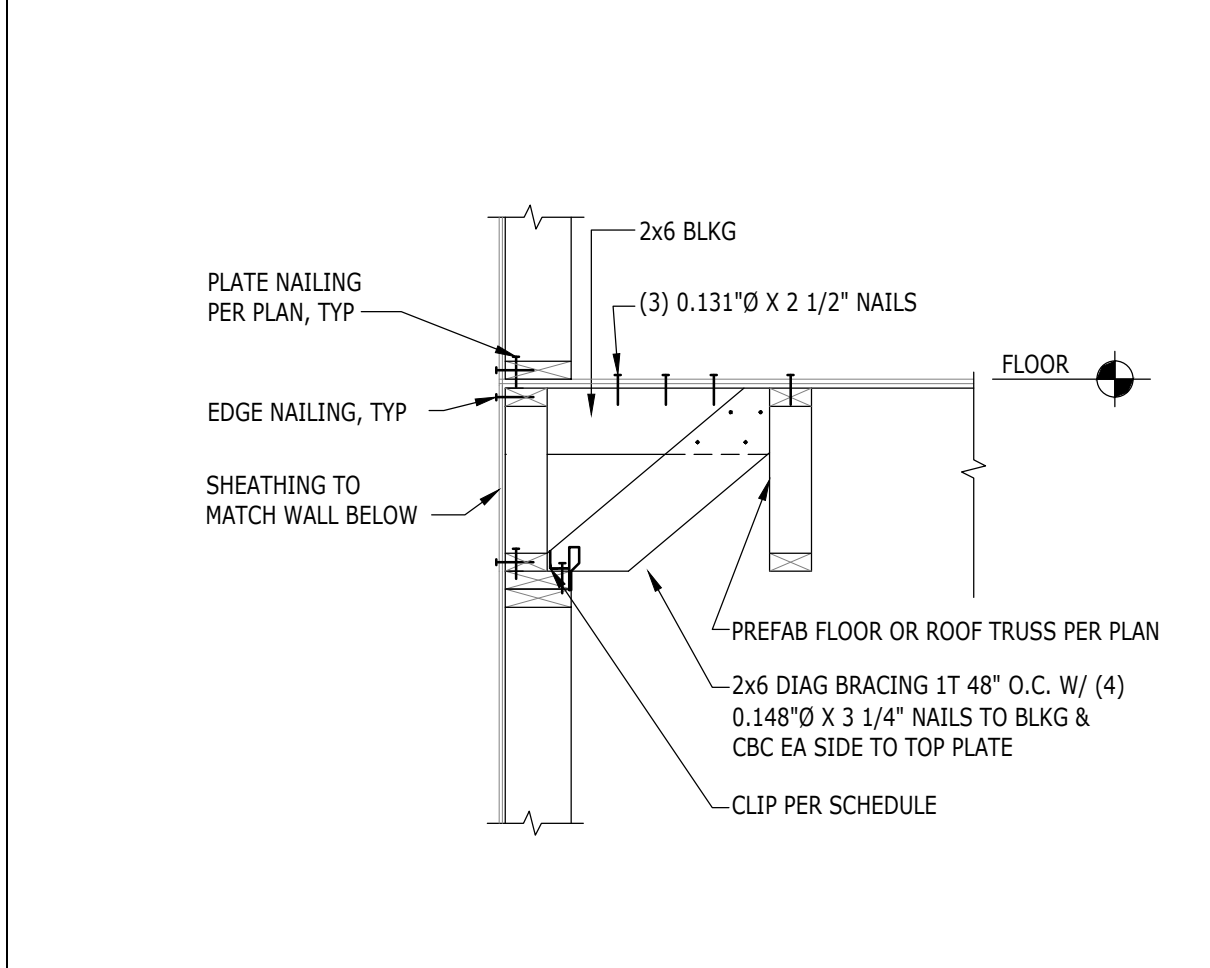
**11** SHEAR TRANSFER AT EXTERIOR WALL



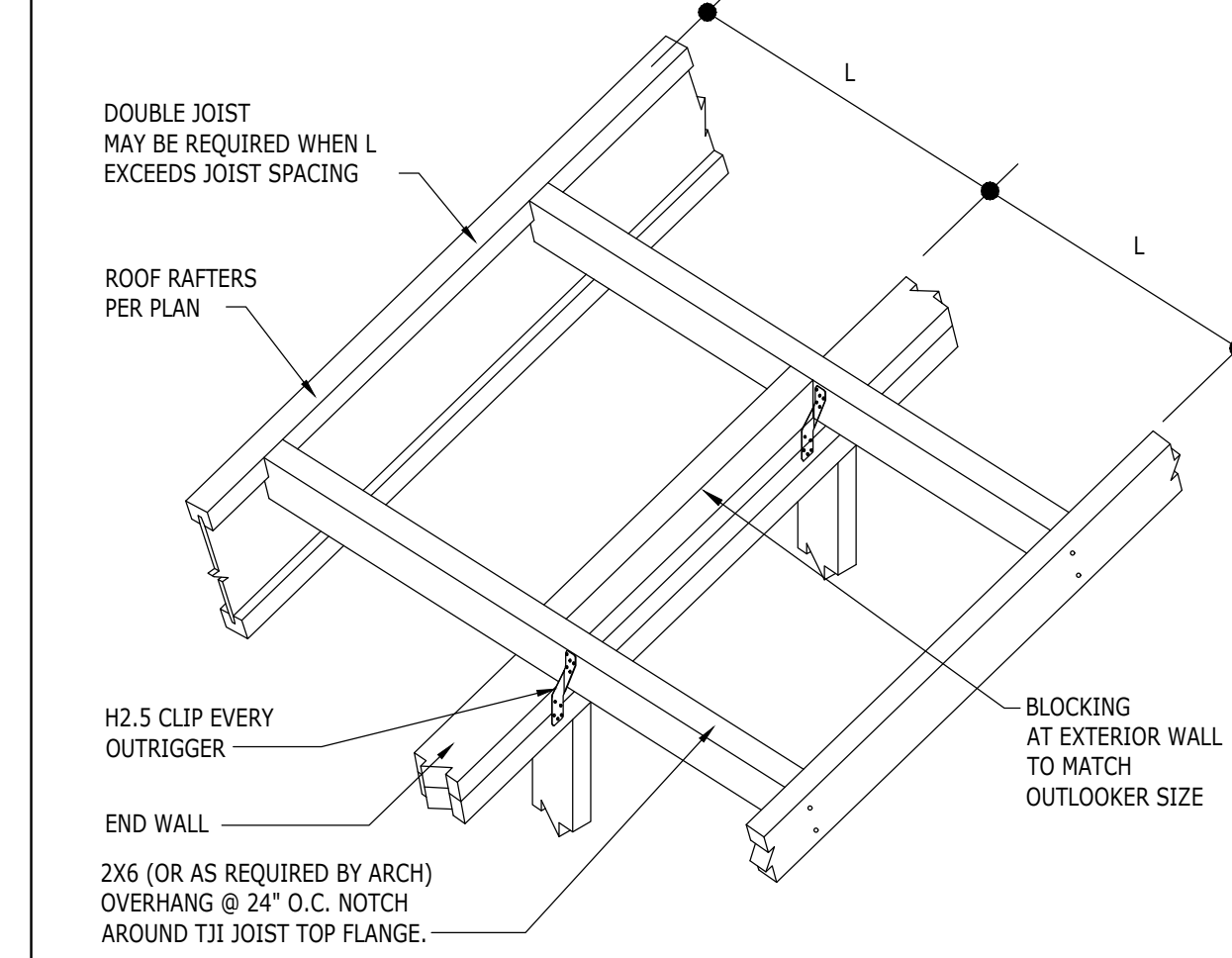
**12** SHEAR TRANSFER AT EXTERIOR WALL



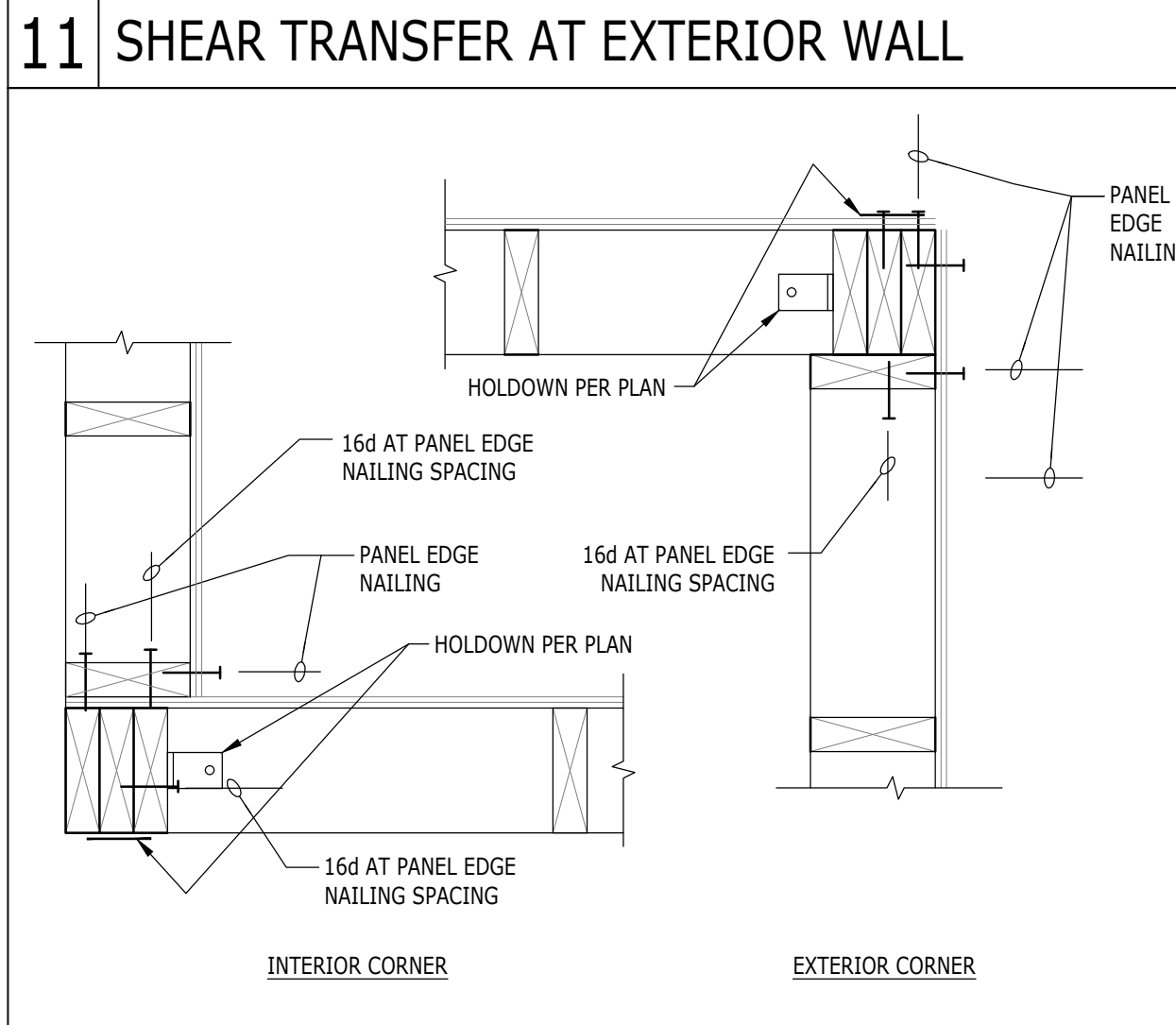
**13** SHEAR TRANSFER AT EXTERIOR WALL



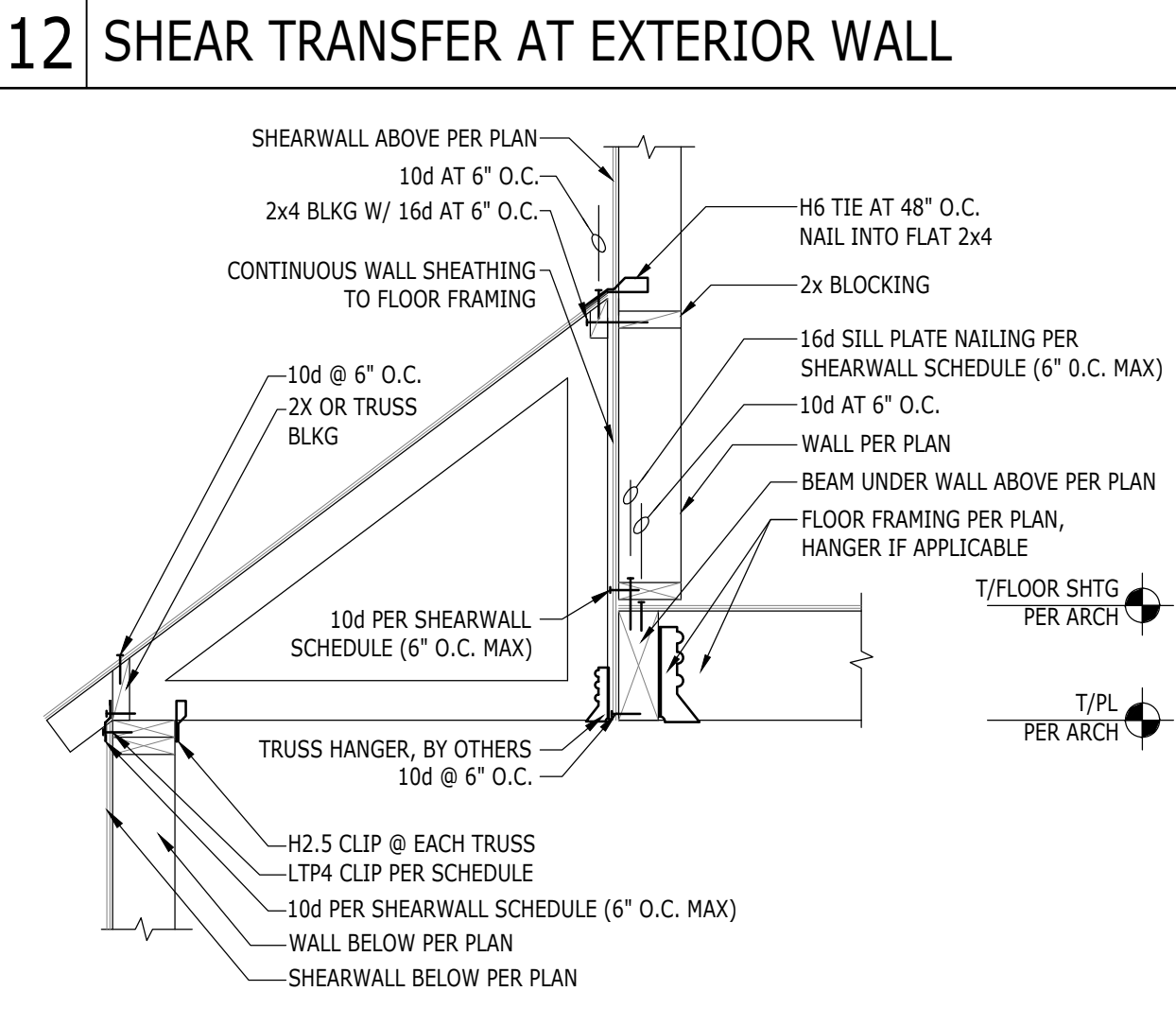
**14** SHEAR TRANSFER AT EXTERIOR WALL



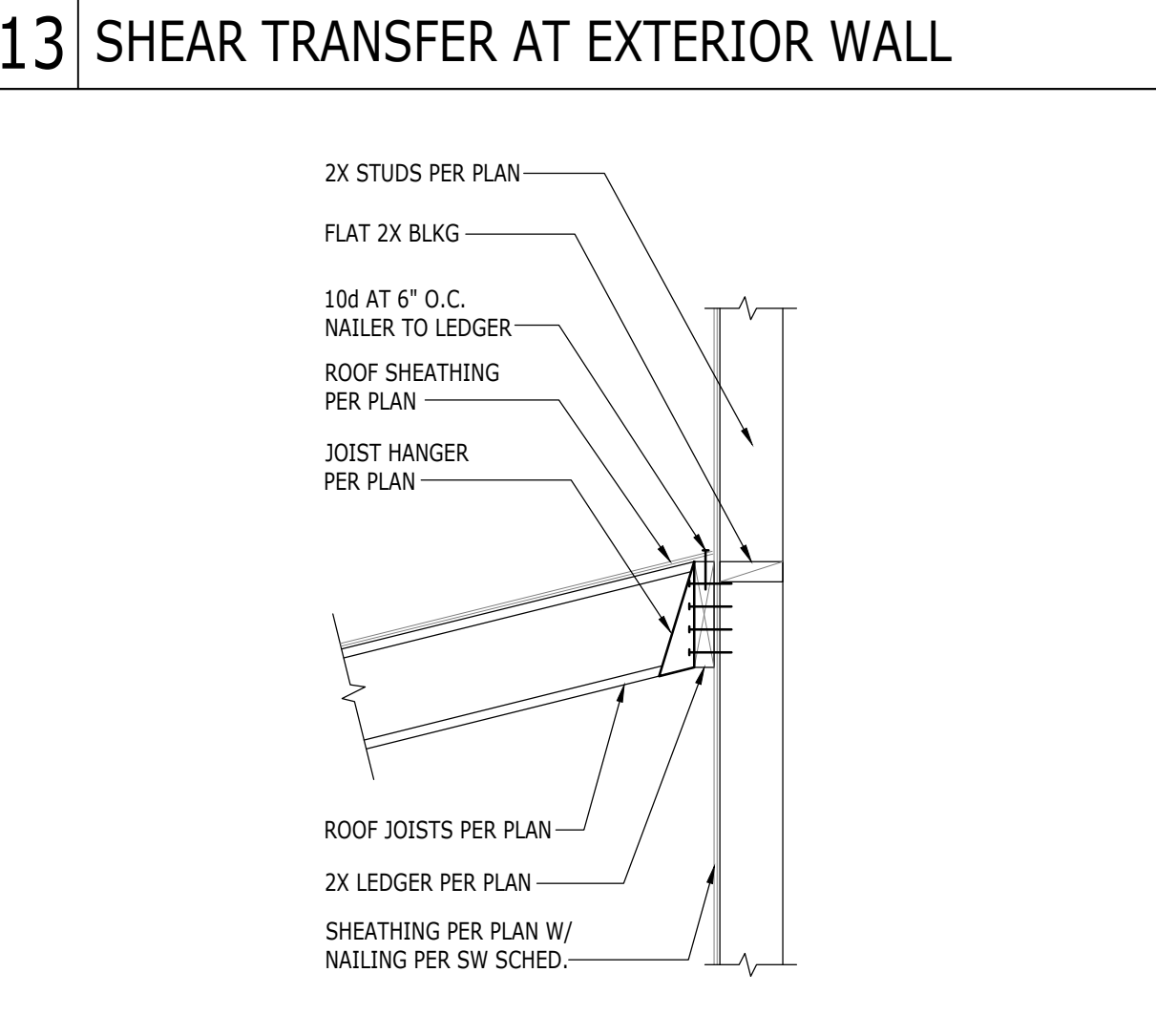
**15** ROOF OVERHANG AT TJI ROOF GABLE END



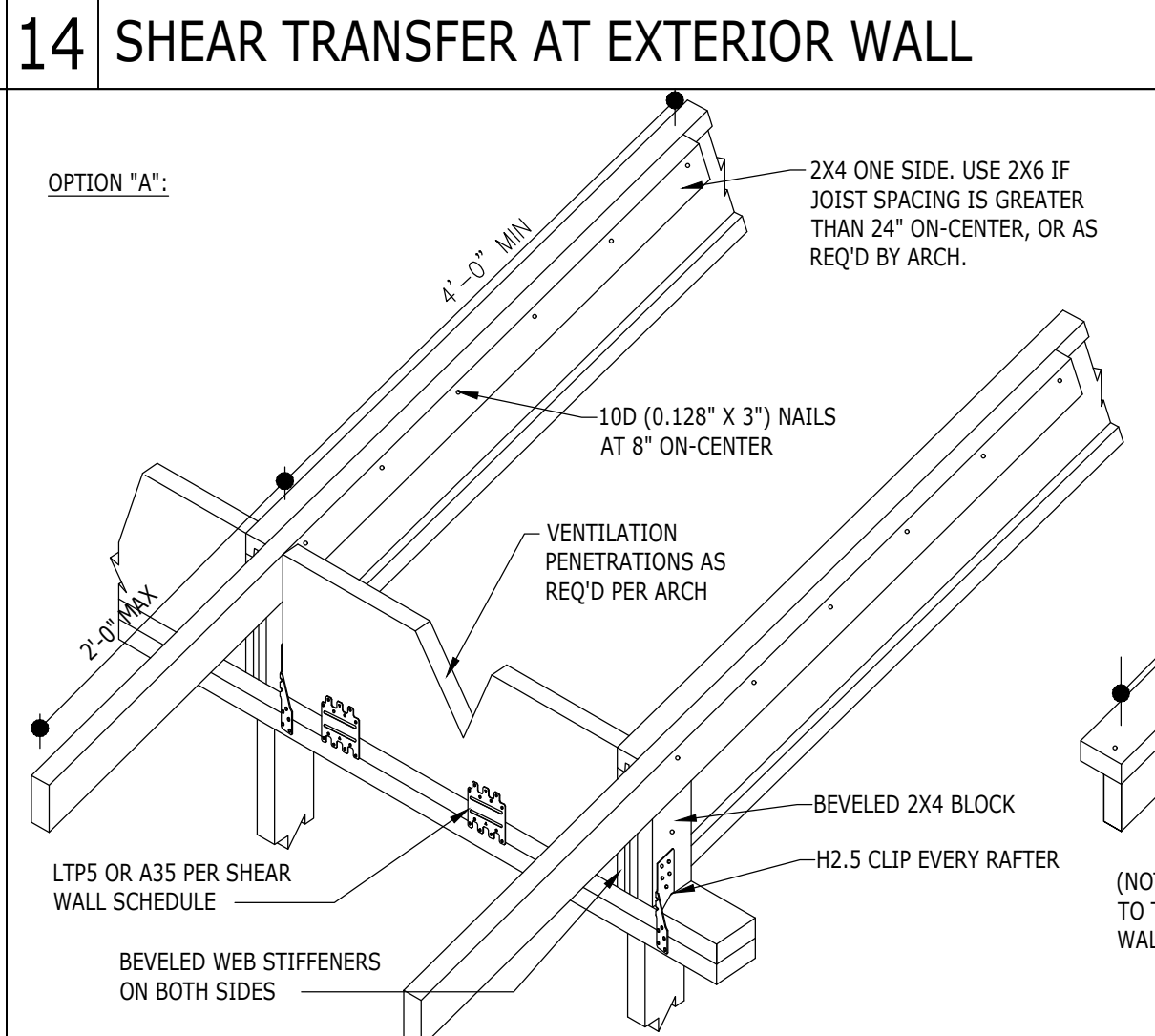
**16** CORNER FRAMING



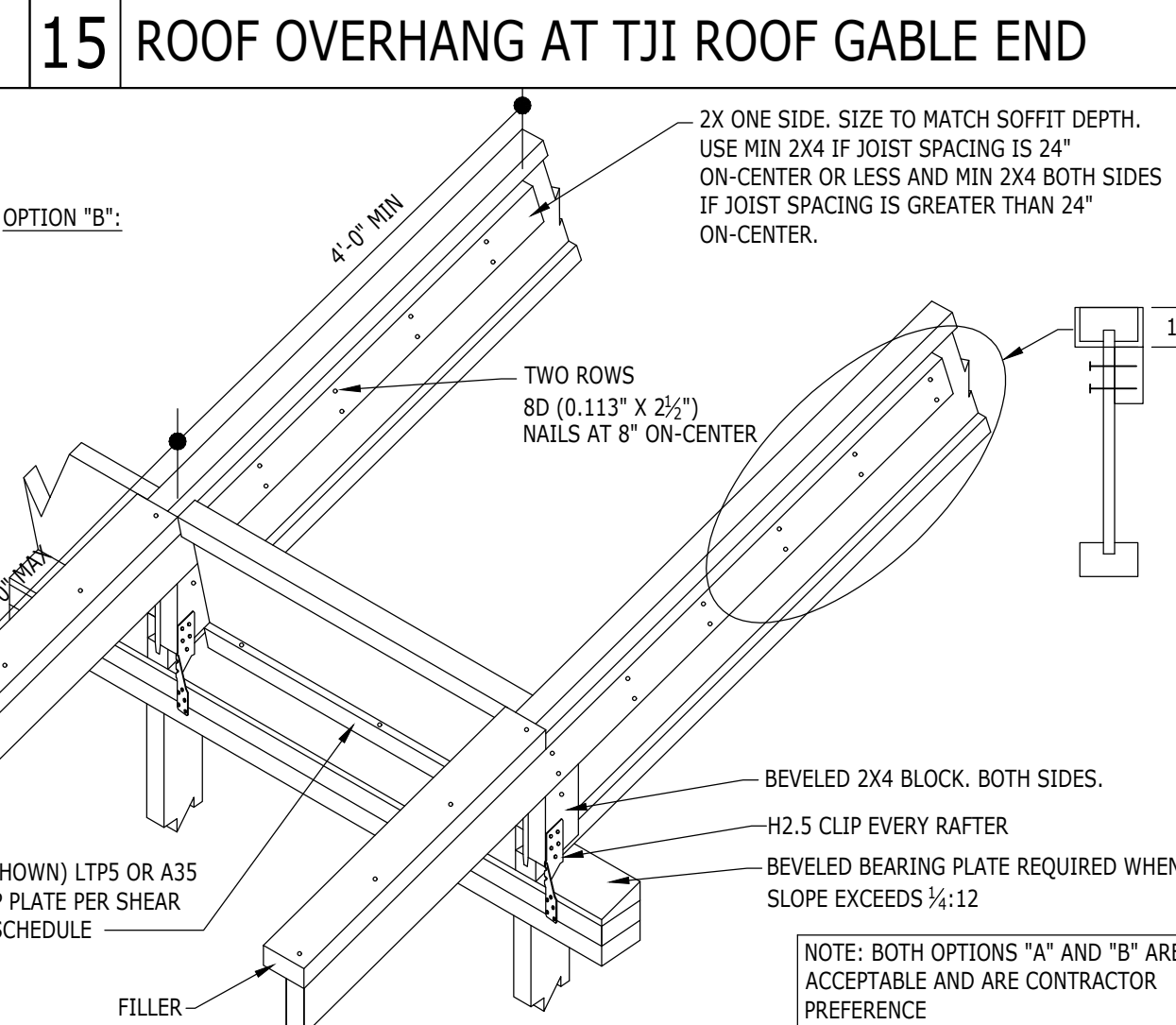
**17** LOW ROOF SECTION AT OFFSET WALLS



**18** LOW ROOF FRAMING (PERP)



**19** 2X OVERHANG AT TJI ROOF



**15** ROOF OVERHANG AT TJI ROOF GABLE END

MAINS R. THURFILL  
STATE OF WASHINGTON  
REGISTERED  
PROFESSIONAL ENGINEER

**LONGITUDE**  
ONE TWENTY  
ENGINEERING & DESIGN

REVISIONS  
DESCRIPTION DATE BY

PROJECT NAME  
FOREST CREEK  
ESTATES LOT 2  
5214 FOREST AVE SE  
MERCER ISLAND, WA 98040  
PROJECT NUMBER  
S22201

CHECKED BY - AP  
SHEET DATE - 11/01/2022  
SCALE  
24X36 SHEET: 1/4" = 1'-0"

STRUCTURAL DETAILS  
DESCRIPTION

SHEET SD-2



