GENERAL NOTES

1. CODE COMPLIANCE:
ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 IFC, 2018 UPC, 2018 IPMC, 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. NEW INTERMEDIATE FRAMING AT EXTERIOR WOOD WALLS REQUIRES HEADERS INSULATED WITH A MIN. R-10 INSULATION.

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.

23. FIREBLOCKING: FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAMED CONSTRUCTION PER 2015 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 STAIR STRINGERS AT T.O. & B.O. RUN, 4) AT OPENINGS AROUND VENTS, PIPES, ETC. AT CEILING AND FLOOR LEVEL.

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

INSULATION VALUES:	WALLS:	R-21
PRESCRIPTIVE METHOD	FLAT ATTICS/CEILINGS:	R-49
	VAULTED CEILINGS:	R-38
	FLOORS (OVER UNHEATED SPACES):	R-38
	SLAB-ON-GRADE:	R-10

PER WSEC R401.3, A CERTIFICATE IS REQUIRED TO BE POSTED WITHIN 3 FT OF THE ELECTRICAL PANEL; IT MUST INCLUDE THE FOLLOW: PREDOMINATE 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 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 POLYETHELENE

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 FARENHEIT 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 IC 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.

WHOLE HOUSE VENTILATION: WHOLE HOUSE VENTILATION SYSTEM:
a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY EXHAUST FAN PROVIDING 320 CFM RUNNING INTERMITTENTLY PER 2015 IRC TABLES M1507.3.3 (1&2). FAN SHALL BE LESS THAN .35 WATT PER CFM AND CONNECTED TO A 24 HOUR CLOCK TIMER 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"Ø 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.
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 EXHAUST FAN SHALL BE PROVIDED BY UNDERCUTTING INTERIOR DOORS 1/2" ABOVE FINISHED FLOOR, TYP.

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

PROJECT DATA

PROJECT ADDRESS:	5208 FOREST AVE SE MERCER ISLAND 98040
PROPERTY TAX ID NUMBER:	141030-0061
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:	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:	16,538 SF
SETBACKS:	FRONT: 20' SIDE: 15' TOTAL, MIN. 5' REAR: 10' FROM 60' NGPA BUFFER

PROJECT TEAM

OWNER:	CONTRACTOR:
SEASCAPE HOMES, LLC PO BOX 40568 BELLEVUE, WA 98015 PHONE: 206.972.9950 CONTACT: JON TELLEFSON	SEASCAPE HOMES, LLC PO BOX 40568 BELLEVUE, WA 98015 PHONE: 206.972.9950 CONTACT: JON TELLEFSON
ARCHITECT:	**STRUCTURAL:**
STURMAN ARCHITECTS, INC. 9 - 103RD AVE NE SUITE 203 BELLEVUE, WA 98004 PHONE: 425.451.7003 CONTACT: BRAD STURMAN	LONGITUDE120 ENGINEERING - - PHONE: 206.790.9502 CONTACT: MANS THURFJELL

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 AS HEAT SOURCE
1.3	0.5	-VERTICAL FENESTRATION U = .28, FLOOR=R-38
2.3	1.5	-REDUCE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAX. AT 50 PASCALS
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
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 RATING OF 5.2
TOTAL CREDITS	7	

TREE PROTECTION

A TREE PROTECTION INSPECTION IS REQUIRED BEFORE START OF WORK

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.

GROSS FLOOR AREA

	BASEMENT EXCLUSION	NEW FLOOR AREA
LOWER FLOOR	1238 SF	1404 SF
MAIN FLOOR		2048 SF
SECOND FLOOR		2437 SF
GARAGE		803 SF
GROSS FLOOR AREA		6692 SF

NET LOT AREA	16,538 SF
ALLOWED MAX. % GFA COVERAGE	40.0 %
ALLOWED GROSS FLOOR AREA	6,615.2 SF
PROPOSED GROSS FLOOR AREA	6692 SF
STAIR ALLOWANCE X 1	-132 SF
BASEMENT EXCLUSION	-1238 SF
AREA OF 2-STORY SPACE	+340 SF
12'+ CEILING OF DEN	+66 SF
12'+ CEILING OF MASTER	+140 SF
TOTAL GFA COVERAGE	5868 SF
PROPOSED % GFA COVERAGE	35.5 %

LEGAL DESCRIPTION

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

CARRS LAKE SIDE ADD "LOT 4" MERCER ISLAND SHORT PLAT NO SUB07-003 REC NO 20071210900010 SD SHORT PLAT DAF - LOTS 12, 13, 14, 15, 16, 17 AND 18 OF CARR'S LAKE SIDE ADDITION PLAT LESS THE EAST 72.00 FT OF LOTS 12, 13, 14, AND 15 & ALSO LESS POR LY 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
PLAT LOT: 12 THRU 18

SHEET INDEX

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.

LOT COVERAGE (IMPERVIOUS AREA)

	GROSS LOT S.F.	MAIN ROOF STRUCT	DRIVES/ PARKING	TOTAL LOT COVERAGE	% LOT COVERAGE
EXISTING IMPERVIOUS AREA	16,538 SF	0 SF	0 SF	0 SF	0 %
PROPOSED IMPERVIOUS AREA		3979 SF	765 SF	4744 SF	28.7 %
NET GAIN/LOSS IMPERVIOUS AREA		+3979 SF	+765 SF	+4744 SF	+28.7 %
% ALLOWED IMPERVIOUS AREA				5788.3 SF ALLOWABLE	35 %

TRASH PAD	FRONT WALK	RETAINING WALLS	TOTAL HARDSCAPE	% HARDSCAPE
0 SF	0 SF	0 SF	0 SF	0 %
202 SF	66 SF	93 SF	361 SF	2.2 %
+202 SF	+66 SF	+93 SF	+361 SF	+2.2 %
			1488.42 SF ALLOWABLE	9 %

HIGHEST EL: 136.0'
LOWEST EL: 102.0'
ELEVATION DIFFERENCE= 34.0'
34.0' DIVIDED BY 186.35' (HORIZ. DIST. BTWN. HIGHEST & LOWEST ELEV.) = .182

LOT SLOPE IS 18.2%,
WHICH IS GREATER THAN 15%
SO LOT COVERAGE ALLOWED IS 35%.

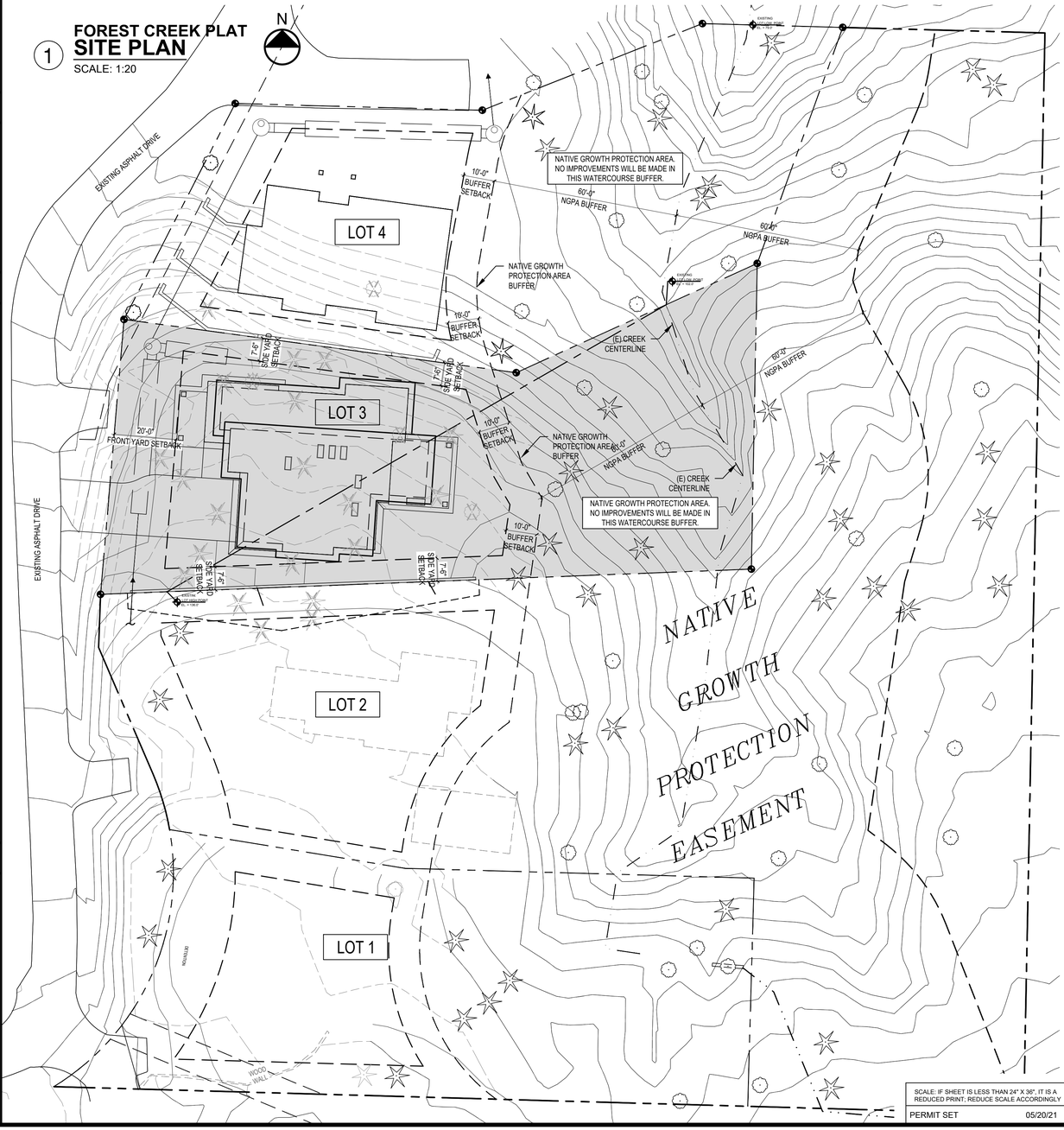
ADDITIONAL 9% OF LOT SIZE WILL DETERMINE ALLOWABLE HARDSCAPE SURFACE

BUILDING AREA

	LOWER FLOOR	MAIN FLOOR	UPPER FLOOR		HEATED SUB-TOTAL	GARAGE/ WORKSHOP	GRAND TOTAL	UNHEATED DECKS
PROPOSED HOUSE:	1404 SF	2048 SF	2777 SF		6229 SF	803 SF	7032 SF	390 SF

VICINITY MAP

1 FOREST CREEK PLAT SITE PLAN
SCALE: 1:20



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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9 - 103rd Avenue NE Suite 203
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REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
9962

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

LOT 3 SITE PLAN GENERAL NOTES

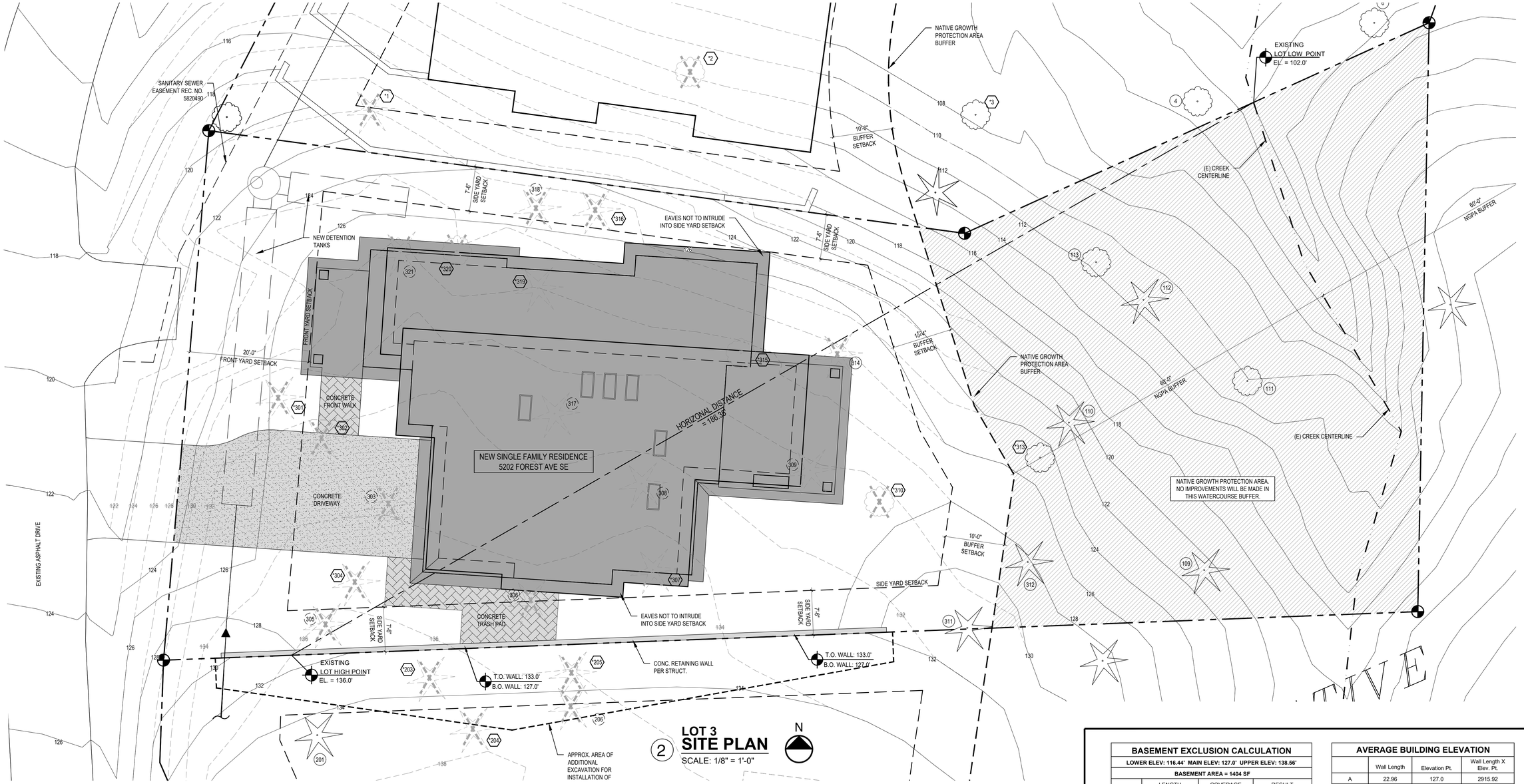
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET
A1.0

PLOT DATE: 5/20/2021



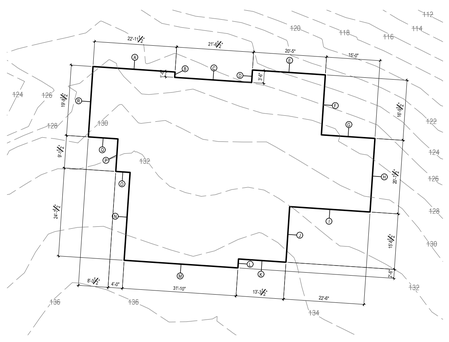
2 **LOT 3 SITE PLAN**
SCALE: 1/8" = 1'-0"

N

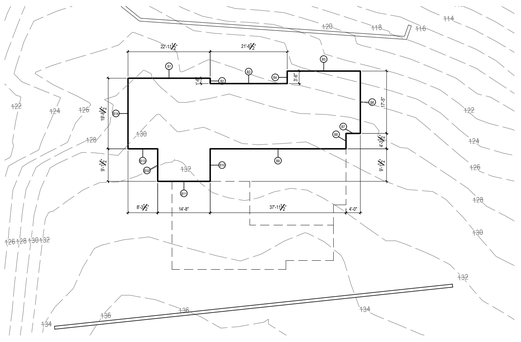
LEGEND:

- FINISH CONTOUR LINES
- DEMO CONTOUR LINES
- SILT FENCE
- TREE PROTECTION FENCING
- P — POWER LINE
- GAS — GAS LINE
- T — TELEPHONE
- W — WATER LINE
- SS — SANITARY SEWER LINE
- SD — STORM DRAIN LINE
- AREA OF LOT COVERAGE
- AREA OF HARDSCAPE
- AREA OF NGPA

ABE KEY PLAN
SCALE: 1" = 20'



BASEMENT EXCLU. KEY PLAN
SCALE: 1" = 20'



BASEMENT EXCLUSION CALCULATION

LOWER ELEV: 116.44' MAIN ELEV: 127.0' UPPER ELEV: 138.56'

BASEMENT AREA = 1404 SF

	LENGTH	COVERAGE	RESULT
B1	22.96	1	22.96
B2	1.5	1	1.5
B3	21.54	1	21.54
B4	3.5	1	3.5
B5	20.42	0.85	17.357
B6	17.42	0.96	16.7232
B7	4	1	4
B8	4.29	1	4.29
B9	37.96	0.67	25.4332
B10	9.125	0.67	6.11375
B11	14.67	0.75	11.0025
B12	9.125	1	9.125
B13	8.29	1	8.29
B14	19.71	1	19.71
	194.51		**171.54465**

Portion of excluded Basement Floor Area = X SF

1,404.00	X	171.54	
		194.51	
1,404.00	X	0.882	
1238 SF EXCLUDED			
BASEMENT AREA = 166 SF			

AVERAGE BUILDING ELEVATION

	Wall Length	Elevation Pt.	Wall Length X Elev. Pt.
A	22.96	127.0	2915.92
B	1.5	127.5	191.25
C	21.54	127.0	2735.58
D	3.5	126.0	441
E	20.42	124.3	2537.185
F	16.79	126.3	2119.7375
G	15	127.5	1912.5
H	21.125	129.0	2725.125
I	22.5	131.3	2953.125
J	15.54	133.0	2066.82
K	13.29	134.5	1787.505
L	2.5	134.8	336.875
M	31.83	134.5	4281.135
N	25.125	133.5	3354.1875
O	4	13.8	55
P	9.125	132.3	1206.78125
Q	8.29	131.0	1085.99
R	19.71	129.3	2547.5175
	274.745	**2222.3**	**35253.23**
35253.23			
274.745	**128.31**	**Average Building Elevation**	

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SITE PLAN
AVE. BUILDING ELEV
BASEMENT EXCLUSION

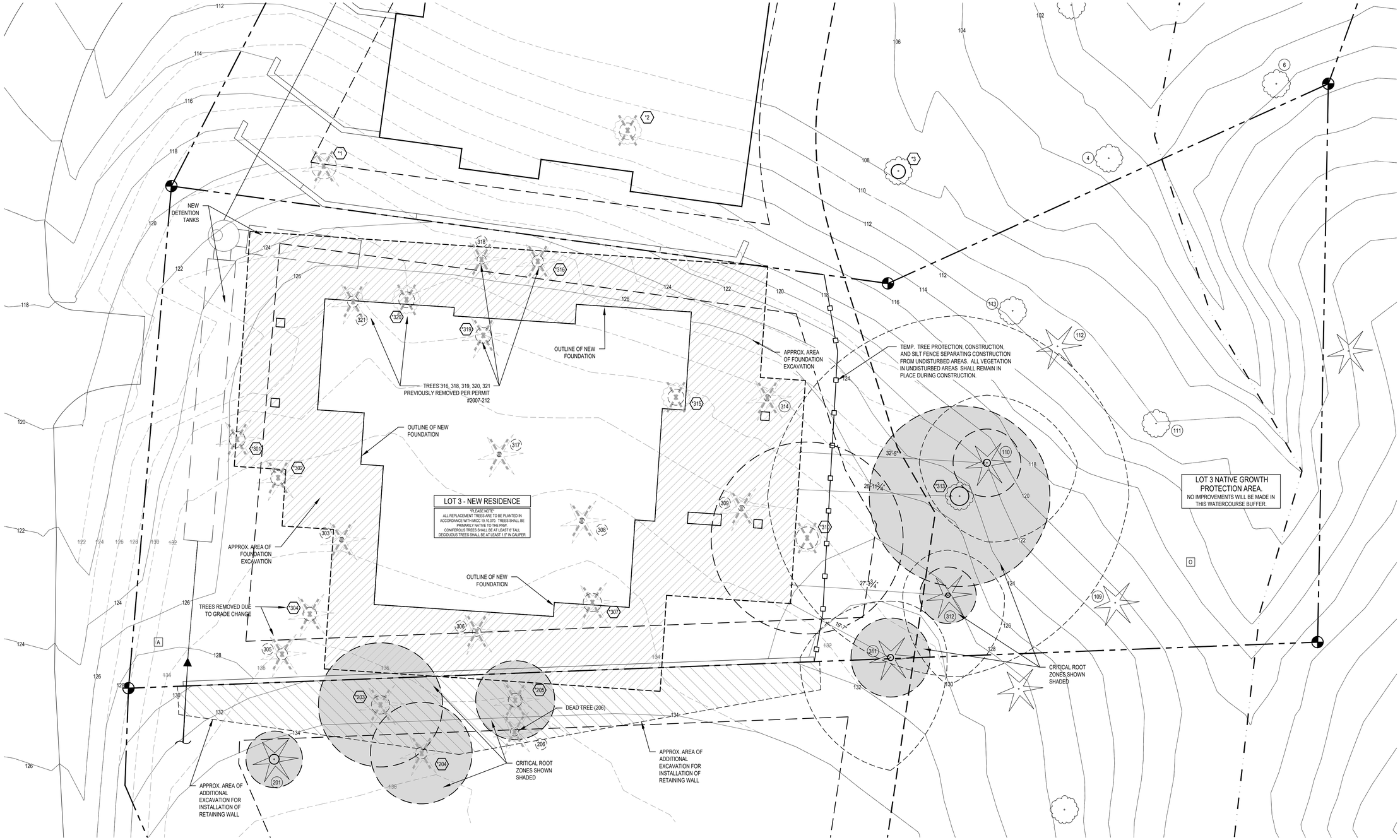
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET **A1.1**

PLOT DATE: 5/20/2021



3 LOT 3 TREE PLAN

SCALE: 1/8" = 1'-0"

N

PLEASE NOTE
FOR THE DEVELOPMENT OF PARCEL 141030-0063 ("LOT 4"), ANY TREES REMOVED FROM ADJOINING PARCEL 141030-0061 ("LOT 3") WILL NOT BE INCLUDED IN ANY TREE DENSITY CALCULATIONS FOR "LOT 4." ALL REQUIRED REPLACEMENT TREES FOR TREES REMOVED FROM "LOT 3" WILL BE NOT BE INCLUDED WITH REQUIRED REPLACEMENT TREES FOR "LOT 4." ALL "LOT 3" REPLACEMENT TREES WILL BE SHOWN ON THE PLAN SET FOR "LOT 3."

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PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

LOT 3 TREE PLAN

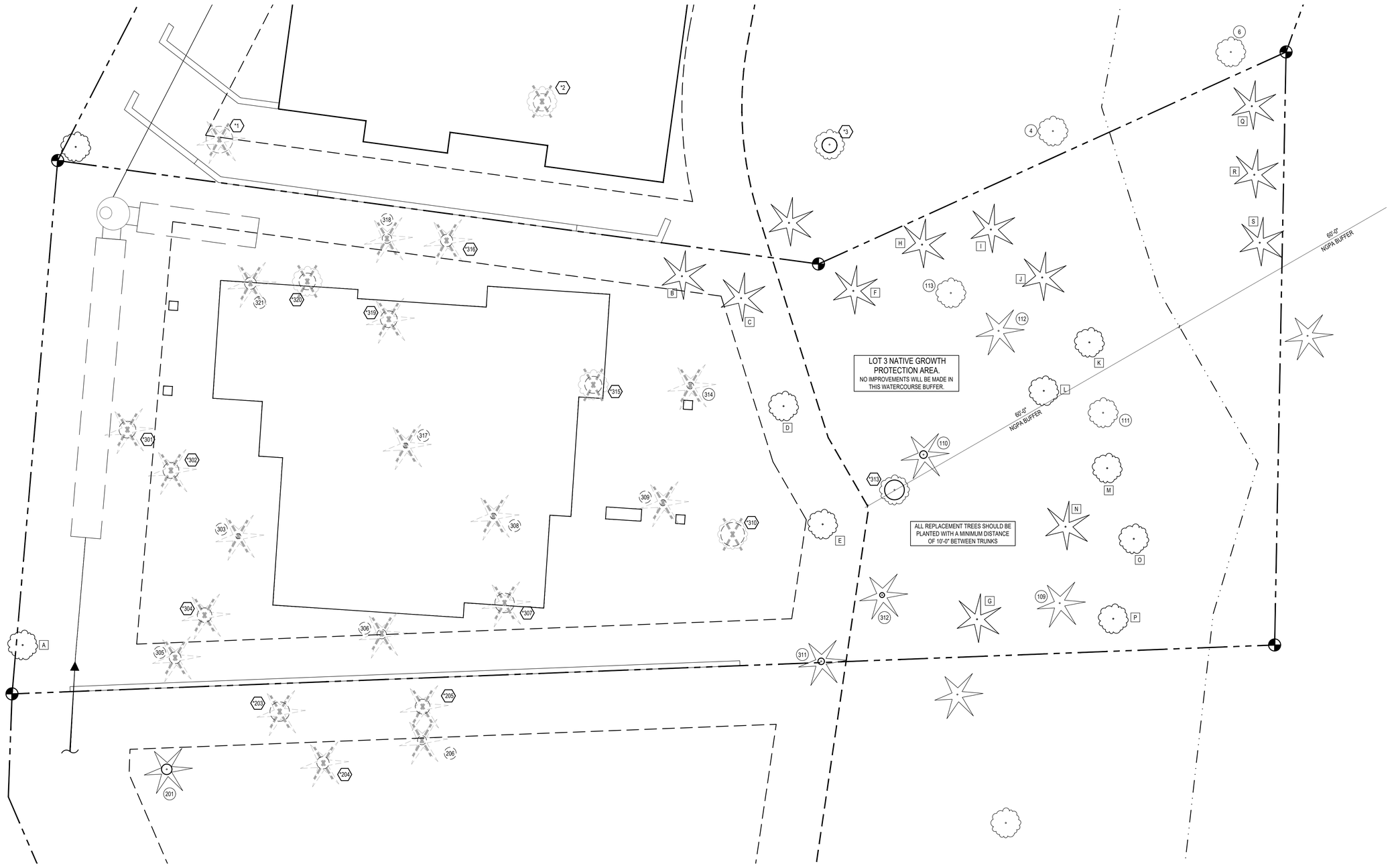
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET A1.2

PLOT DATE: 5/20/2021



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

N

PLEASE NOTE
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9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.451.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

LOT 3
REPLANTING PLAN

REVISIONS:

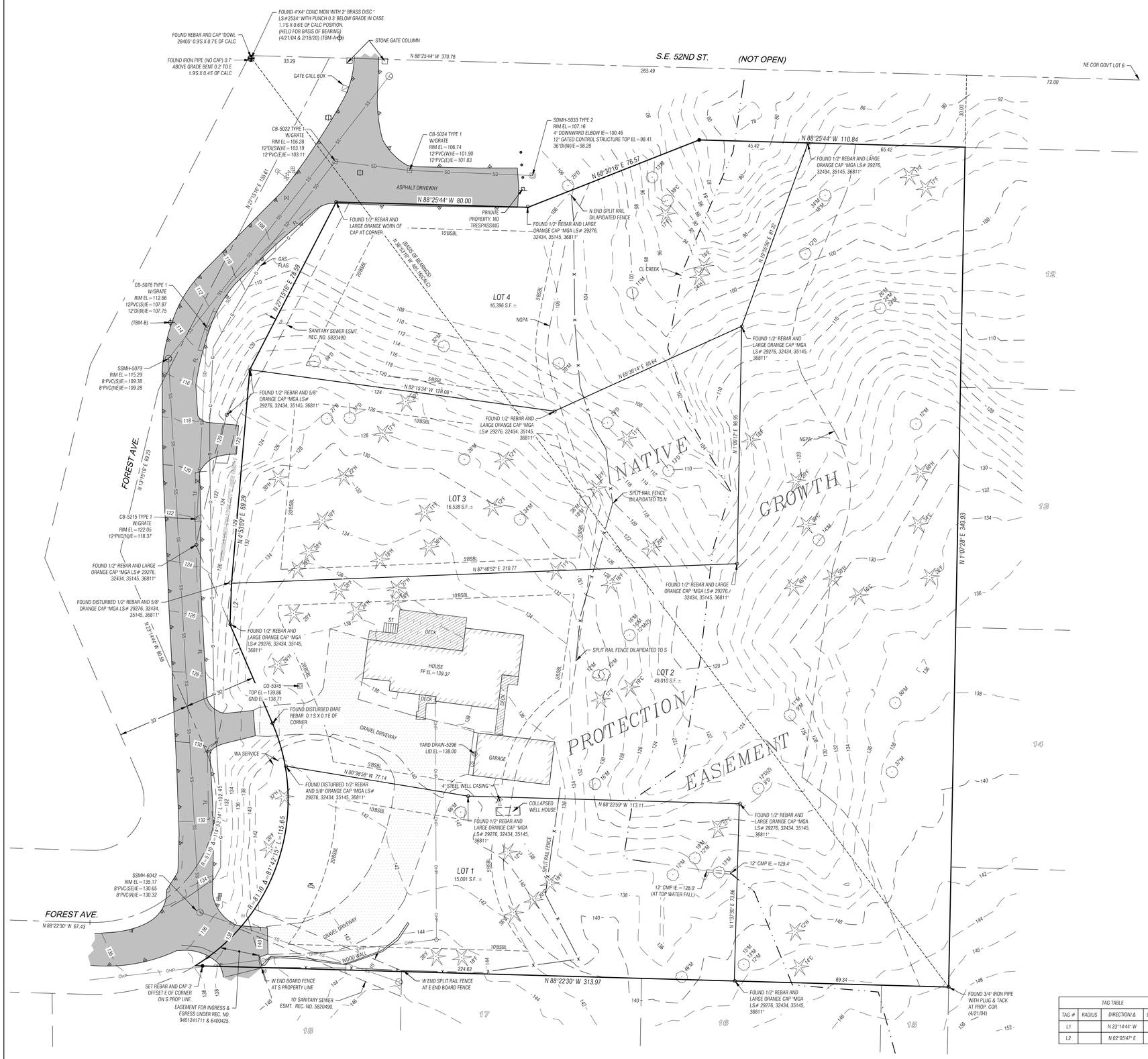
DRAWN BY: KE

CHECKED BY: BJS

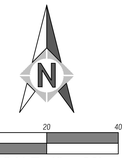
SHEET
A1.3

PLOT DATE: 5/20/2021

SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.



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



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 " LS#2534" WITH PUNCH 0.3' BELOW 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 , 0.5'W OF WEST EDGE ASPHALT PAVEMENT AND 15.5'W OF CB-5078 .
ELEV. = 113.94'

NOTES

1. *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.*
2. *THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT.*
3. *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.*
4. *UNDERGROUND UTILITIES WERE LOCATED BASED ON SURFACE EVIDENCE (I.E. PAINT MARKS, SAW CUTS IN PAVEMENT, COVERS, LIDS, ETC.). THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION, ELEVATION, AND SIZE OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.*
5. *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.*
6. *THIS MAP DOES NOT TO INTEND SHOW ALL EASEMENTS OF RECORD.*
7. *CONTOUR INFORMATION EAST OF WEST LINE OF NGPA BUFFER AND FENCE RUNNING NORTH-SOUTH AND ALSO SOUTH OF SOUTH PROPERTY LINE WAS DELIVERED FROM KING COUNTY LIDAR*

LEGAL DESCRIPTION

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

REFERENCES

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

LEGEND

- *SET 1/2" X 24" REBAR WITH YELLOW PLASTIC CAP STAMPED "MGA 35145 48383"*
- *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*
- *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*

#	REVISION	DATE

CHRISTOPHER SHANE GILMAN
STATE OF WASHINGTON
35145
REGISTERED PROFESSIONAL LAND SURVEYOR

3/11/20

MEAD GILMAN
LAND SURVEYORS
P.O. BOX 289, WOODINVILLE, WA 98072 | PHONE (425) 486-1252 | WWW.MEADGILMAN.COM

FOREST AVE LOTS
BOUNDARY & TOPOGRAPHIC SURVEY

SEASCAPE HOMES
PO BOX 40568
BELLEVUE WA 98015

DRAWN BY: LSD
REVIEWED BY: CSB
DATE: 03-11-2020
JOB NO. 20011
SHEET 1 OF 1

FOREST CREEK ESTATES LOT 3

SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.

PROJECT TEAM

OWNER:
SEASCAPE HOMES LLC
JON TELLEFSON
PO BOX 40568
BELLEVUE, WA 98015
PH: 206.972.9950
EMAIL: JMT1231@GMAIL.COM

ARCHITECT:
STURMAN ARCHITECTS
BRAD STURMAN
9 – 103RD AVENUE NE SUITE 203
BELLEVUE, WA 98004
PH. 425.451.7003
EMAIL: BRADS@STURMANARCHITECTS.COM

PROJECT ENGINEER:
PATRICK HARRON & ASSOCIATES, LLC
SCHWIN CHAOSILAPAKUL, PE
14900 INTERURBAN AVENUE S #279
SEATTLE, WA 98168
PH: 206.674.4659
EMAIL: SCHWIN@PATRICKHARRON.COM

PROJECT SURVEYOR:
MEAD GILMAN LAND SURVEYORS
P.O. BOX 289
WOODINVILLE, WA 98072
PH. 425.486.1252
EMAIL: WWW.MEADGILMAN.COM

GEOTECH:
GEOTECH CONSULTANTS INC
JIM STRANGE, P.E.
2401 10TH AVE E, SEATTLE, WA 98102
PH: 425.747.5618
EMAIL: JAMESS@GEOTECHNW.COM

ARBORIST:
ARBOR INFO, LLC
THOMAS M. HANSON, CF, RCA
2406 N CASTLE WAY
BRIER, WA 98036
PH: 206.300.9711
EMAIL: TOM.HANSON@ARBORINFO.COM

PROJECT INFORMATION

DEVELOPMENT DATA:

SITE AREA	16,538 SF (0.380 AC)
SITE ADDRESS	5208 FOREST AVE SE MERCER ISLAND, WA 98040
PARCEL NUMBER	141030–0063

LEGAL DESCRIPTION

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

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 " LS#2534" WITH PUNCH 0.3' BELOW 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 , 0.5'W OF WEST EDGE ASPHALT PAVEMENT AND 15.5'W OF CB–5078 .
ELEV. = 113.94'

BASIS OF BEARINGS

NONE

(#) CRITICAL AREAS AND EASEMENT CALLOUTS:

1. NATIVE GROWTH PROTECTION AREA (NGPA) BUFFER. ALL UTILITIES MUST REMAIN OUTSIDE OF NGPA BUFFER. OVER EXCAVATION FOR DETENTION PIPES SHALL NOT ENCROACH INTO AREA.
2. EXISTING NGPA SPLIT–RAIL FENCE WITH SIGNAGE. FENCE TO BE REPAIRED IF REQUIRED.
3. SANITARY SEWER EASEMENT REC.NO. 5820490.
4. PROPOSED PRIVATE STORM EASEMENT IN BENEFIT OF LOTS 1 AND 2.

(#) SITE CALLOUTS:

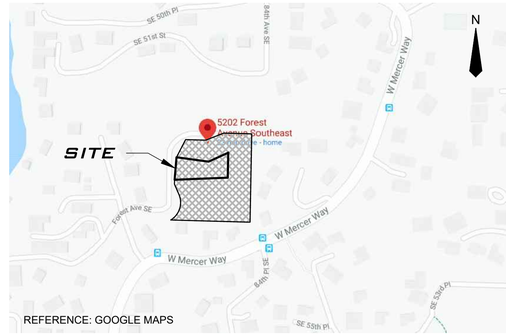
1. BUILDING FOOTPRINT.
2. ROOF LINE.
2A. ROOF DOWNSPOUT (TYP).
3. CONCRETE DRIVEWAY.
4. CONCRETE HARDSCAPE.
5. CAST IN PLACE RETAINING WALL, REFER TO STRUCTURAL PLANS FOR CONSTRUCTION AND DETAILS (TYP).
6. BUILDING SETBACK LINE (TYP).
7. CONNECT NEW 6" SEWER LINE WITH CLEANOUT TO EX. 6" SEWER STUB (APPROX. IE 121.0±). PROVIDE MINIMUM OF 2% SLOPE AND CONNECT TO RESIDENCE AT APPROX. IE 121.3± PER CITY OF MERCER ISLAND DETAILS. COORDINATE WITH PUBLIC WORKS INSPECTOR FOR SCOPE AND RE–USE OF EXISTING LINE.
8. FIELD LOCATE EX WATER STUB AND INSTALL NEW WATER METER. SIZE OF METER AND LINE TO BE VERIFIED FOR DOMESTIC AND FIRE SERVICE DEMANDS. MINIMUM 1" WATER METER AND 1.5" SUPPLY LINE (FROM METER TO HOUSE) FOR DOMESTIC AND FIRE SYSTEM. DOUBLE DETECTOR CHECK VALVE ASSEMBLY TO BE PROVIDED AS REQUIRED. INSTALLATION AND LOCATION OF NEW WATER METER SHALL COMPLY WITH CITY OF MERCER ISLAND STANDARD DETAIL W–13 (SEE DETAILS 2 AND 3 SHEET C1.2). 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 STANDARDS (SEE DETAIL 1 SHEET C1.2).

(#) STORM CALLOUTS:

1. CONNECT TO EXISTING LOT 4 STORM SYSTEM VIA EXISTING CLEANOUT AT PROPERTY LINE, IE=114.2.
2. PERIMETER DRAIN – 4" PERF. PVC SD @ 0.0%, 4" IE 114.5. CONNECT TO SDCB#1.
3. 4" FOOTING DRAIN SYSTEM TO EXTEND AROUND BUILDING PERIMETER. CONNECT TO CB#3 PER PLAN @ 2% MIN. REFER TO STRUCTURAL PLANS FOR FOOTING DRAIN DETAILS.
4. 4" WALL FOOTING DRAIN SYSTEM TO CONNECT TO 8" STORM SYSTEM AT APPROXIMATE LOCATION SHOWN. REFER TO STRUCTURAL PLANS FOR WALL FOOTING DRAIN DETAILS.
5. 15" DIA. D.I. OR C900 SLEEVE TO EXTEND AT 2' BEYOND FOOTING (MIN).
6. 8" DIA. STORM SYSTEM TO PROVIDE FUTURE CONNECTION FOR LOT 2 (SOUTH) STORM SYSTEM. PROVIDE 1.5' MIN. COVER OVER SLEEVE BENEATH RETAINING WALLS.
7. CAP 8" DIA. STORM LINE AND PROVIDE CLEANOUT AT 5' SOUTH OF LOT 3/LOT 2 PROPERTY LINE FOR FUTURE CONNECTION TO LOT 2 STORM SYSTEM.

ABBREVIATIONS:

APPRX	APPROXIMATELY	IE	PIPE INVERT
AVE	AVENUE	LP	LOW POINT
BC	BOTTOM OF CURB	M	MAPLE
BOT	BOTTOM	MIN	MINIMUM
BSBL	BUILDING SETBACK	N	NORTH
C	CEDAR	TYP	TYPICAL
CB	CATCH BASIN	NTS	NOT TO SCALE
CS	CONC SLAB	RD	ROOF DRAIN
D	DECIDUOUS	RY	REAR YARD
DF	DRAINFIELD	S	SOUTH
DTE	DOWN–TURNED ELBOW	SDCO	STORM DRAIN CLEANOUT
E	ELM / EAST	SDMH	STORM DRAIN MANHOLE
EG	EXISTING GRADE	SLL	SOLID LOCKING LID
EL	ELEVATION	SS	SANITARY SEWER
EX	EXISTING	SSCO	SANITARY SEWER CLEANOUT
FD	FOOTING DRAIN	SSMH	SANITARY SEWER MANHOLE
FF	FINISH FLOOR	ST	STAIRS
FG	FINISH GRADE	SY	SIDE YARD
FL	FLOW LINE	TD	TRENCH DRAIN
FY	FRONT YARD	UTE	UP–TURNED ELBOW
H	HEMLOCK	W	WEST
HP	HIGH POINT	WA	WATER



REFERENCE: GOOGLE MAPS

IMPERVIOUS AREA INVENTORY

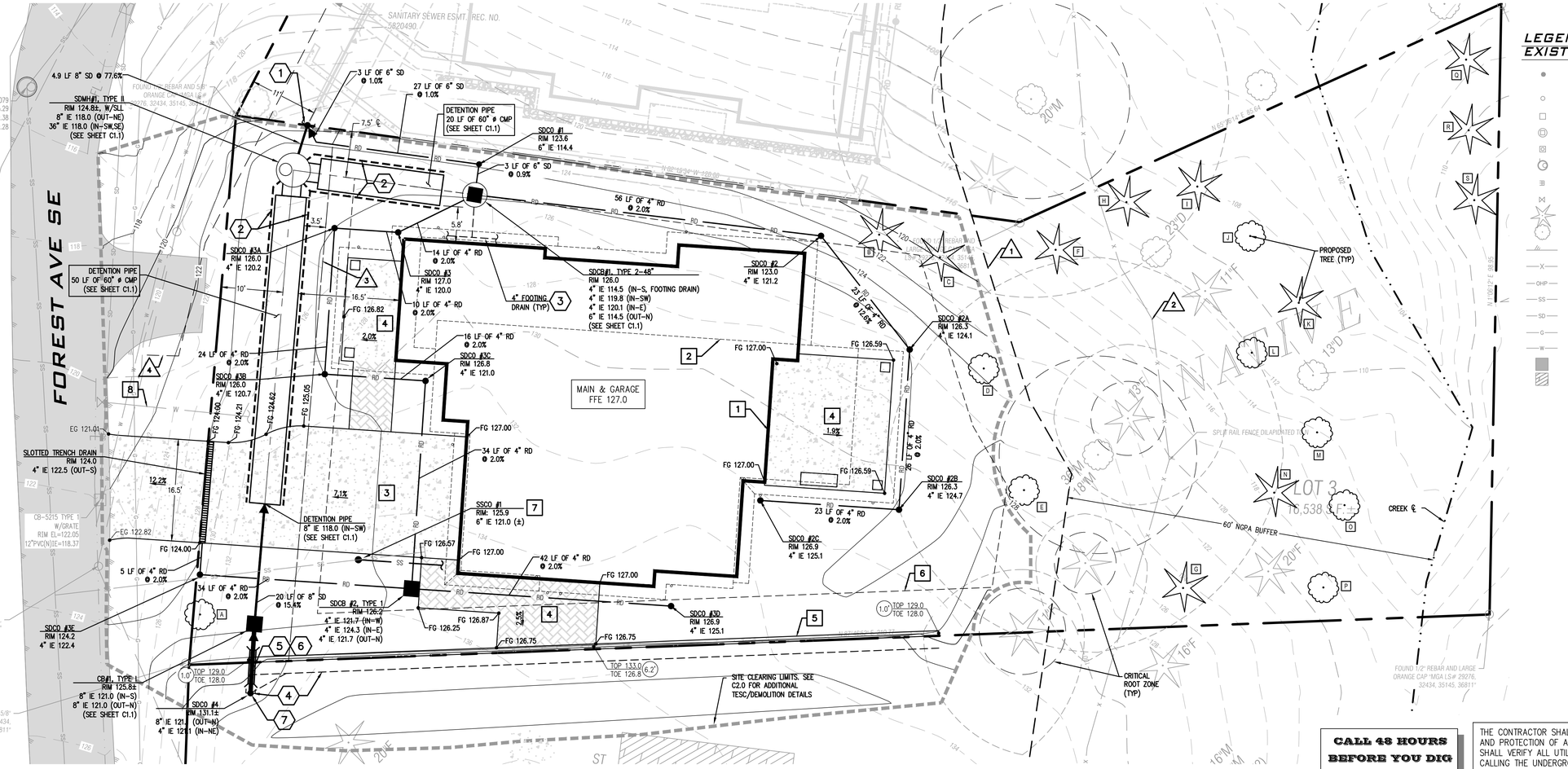
DESCRIPTION	IMPERVIOUS AREA INVENTORY (SF)			
	ROOF, DRIVE AND HS	WALLS	OFFSITE	TOTAL
LOT 4	3,866	141	0	4007
LOT 3	5,007	93	253	5353
LOT 2*	5,725	326	485	6536
LOT 1*	4,761	139	0	4900
TOTAL	19359	699	738	20796

* DETENTION PIPE SYSTEM ON LOT 3 IS SIZED TO ACCOMMODATE FUTURE IMPROVEMENTS FOR LOTS 1 & 2.

VICINITY MAP

NST

SHEET LIST



LEGEND EXISTING SITE FEATURES

- SET 1/2" X 24" REBAR WITH YELLOW PLASTIC CAP STAMPED "MGA 35145 48383"
- FOUND CORNER
- CATCH BASIN – TYPE I
- CATCH BASIN – TYPE II
- STORM CLEANOUT
- SEWER MANHOLE
- WATER METER
- WATER VALVE
- CONIFEROUS TREE
- DECIDUOUS TREE
- ASPHALT
- FENCE LINE
- OVERHEAD POWER LINES
- SANITARY SEWER LINE
- STORM DRAIN LINE
- GAS LINE
- WATER MAIN
- ASPHALT HATCH
- EXISTING RESIDENCE

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.

SITE STORM DRAINAGE AND UTILITY PLAN LOT 3
SCALE: 1"=10'

R#	DATE	DESCRIPTION	BY

BUILDING PERMIT

SITE STORM DRAINAGE AND UTILITY PLAN LOT 3

PATRICK HARRON & ASSOCIATES, LLC
Civil Engineering & Planning
14900 Interurban Ave. S. Suite 279, Seattle, WA 98168
Phone: 206.674.4659
Web: patrickharron.com

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

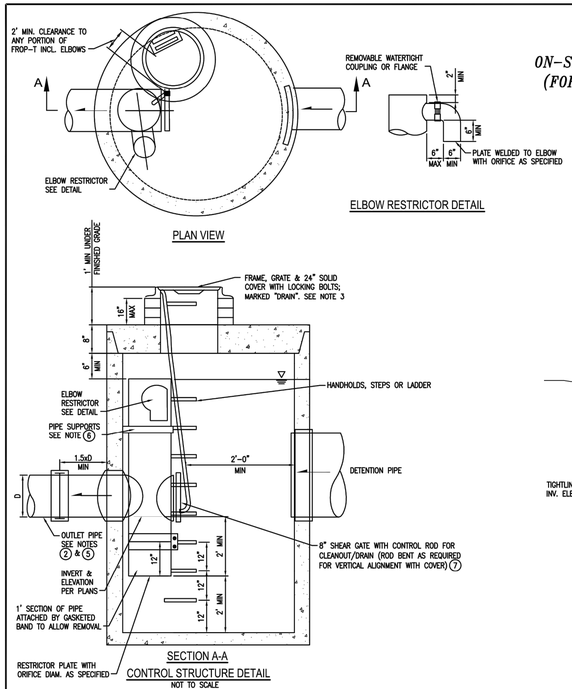
FOREST CREEK ESTATES
LOT 3
5202 FOREST AVE SE, MERCER ISLAND, WA 98040

DATE:	05/19/2021
SCALE:	AS NOTED
DRAWING NO.	C1.0
	1 OF 5

May 19, 2021 2:25:52PM – User: Chris Cole
P:\2020\20113_Forest Avenue Building Permits – Mercer Island\Drawing\Working\Sheets\20113–C1.0 SITE STORM DRAINAGE AND UTILITY PLAN_LOT3.dwg

FOREST CREEK ESTATES LOT 3

SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.



PLAN VIEW

ELBOW RESTRICTOR DETAIL

SECTION A-A

CONTROL STRUCTURE DETAIL

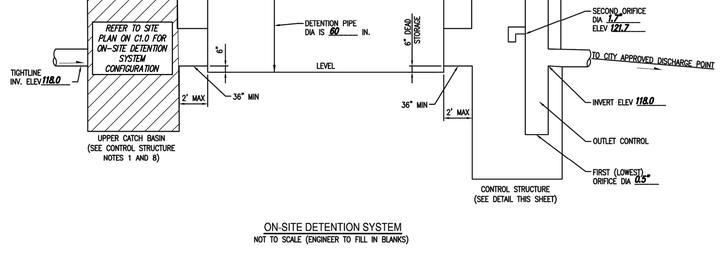
NOT TO SCALE

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: *3906 W MERCER WAY*
MERCER ISLAND, WA 98040
PREPARED BY: *SCHWIN CHAOSILAPAKUL, PE*
PERMIT #: *TBD*
PHONE: *206.384.7539*
DATE: *8/12/20*

NEW PLUS REPLACED IMPERVIOUS SURFACE AREA (SF): *11,436 SF**
SOIL TYPE: *C*
DETENTION PIPE DIA (INCH): *60"*
PIPE MATERIAL: *CMP*
DETENTION PIPE LENGTH (FT): *70 LF**
ORIFICE #1 DIA *0.5"* INCH, ELEV *122.5*
ORIFICE #2 DIA *1.7"* INCH, ELEV *121.7*

** DETENTION PIPE SYSTEM ON LOT 3 IS SIZED TO ACCOMMODATE FUTURE IMPROVEMENTS FOR LOTS 1 & 2. REFER TO DETENTION SYSTEM SIZING TABLE ON THIS SHEET.*



ON-SITE DETENTION SYSTEM

NOT TO SCALE (ENGINEER TO FILL IN BLANKS)

CONTROL STRUCTURE NOTES:

1. USE A MINIMUM OF A 54 IN. DIAM. TYPE 2 CATCH BASIN. THE ACTUAL SIZE IS DEPENDENT ON CONNECTING PIPE MATERIAL AND DIAMETER.
2. OUTLET PIPE: MIN. 6 INCH.
3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZED PIPE PARTS TO HAVE ASPHALT TREATMENT 1.
4. 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.
5. 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.
6. 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).
7. THE SHEAR GATE SHALL BE MADE OF ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT 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.
8. THE UPPER CATCH BASIN IS REQUIRED IF THE LENGTH OF THE DETENTION PIPE IS GREATER THAN 50 FT.

ON-SITE DETENTION SYSTEM NOTES:

1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE 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.
3. 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 (LCPE), 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.
4. FOOTING DRAINS SHALL NOT BE CONNECTED TO THE DETENTION SYSTEM.

CITY OF MERCER ISLAND ON-SITE DETENTION SYSTEM WORKSHEET

SCALE: NTS

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)[3]		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[1]	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[1]	164	0.5	0.5	NA[1]	2.2	NA[1]	1.9
	48"	NA[1]	89	0.5	0.5	NA[1]	2.9	NA[1]	1.9
	60"	NA[1]	55	0.5	0.5	NA[1]	3.6	NA[1]	1.7
9,001 to 9,500 sf[2] **	36"	NA[1]	174	0.5	0.5	NA[1]	2.2	NA[1]	2.1
	48"	NA[1]	94	0.5	0.5	NA[1]	2.9	NA[1]	2.0
	60"	NA[1]	58 **	0.5	0.5	NA[1]	3.7	NA[1]	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.

(1) On Type B soils, new plus replaced impervious surface areas exceeding 8,500 sf trigger Minimum Requirement #7 (Flow Control)

(2) On Type C soils, new plus replaced impervious surface areas exceeding 9,500 sf trigger Minimum Requirement #7 (Flow Control)

(3) Minimum orifice diameter = 0.5 inches

in = inch

ft = feet

sf = square feet

Basis of Sizing Assumptions:

Sized per MR#5 in the Stormwater Management Manual for Puget Sound Basin (1992 Ecology Manual)

SBUH, Type 1A, 24-hour hydrograph

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%

Last updated 1-26-18

2

*** DETENTION PIPE SYSTEM ON LOT 3 IS SIZED TO ACCOMMODATE FUTURE IMPROVEMENTS FOR LOTS 1 & 2. THE FOLLOWING PARAMETERS WERE USED IN SIZING THE DETENTION PIPE:*

- *IMPERVIOUS AREA OF FUTURE LOT 1 & 2 = 4,900 SF + 5,536 SF (INCLUDES OFFSITE) = 11,436 SF.*
- *SIZING PER STANDARD TABLE 1 (ABOVE) FOR 60" DIA. 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 = 11,436 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.

R#	DATE	DESCRIPTION	BY

SCHWIN CHAOSILAPAKUL — 98168 — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 05/19/2021

BUILDING PERMIT

STORM DRAINAGE DETAILS LOT 3

PATRICK HARRON & ASSOCIATES, LLC
Civil Engineering & Planning
14900 Interurban Ave. S, Suite 279, Seattle, WA 98168
Phone: 206.244.4653
Web: patrickharron.com

PROJ. NO. 20113 | DSN. BY: SC | DWN. BY: CWA | CHK. BY: SC

FOREST CREEK ESTATES LOT 3

5202 FOREST AVE SE, MERCER ISLAND, WA 98040

DATE: 05/19/2021

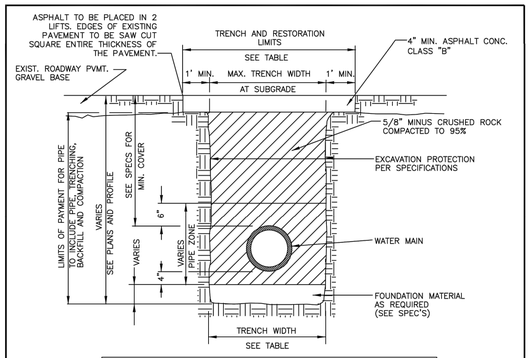
SCALE: AS NOTED

DRAWING NO: C1.1

2 OF 5

FOREST CREEK ESTATES LOT 3

SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.



TRENCH WIDTH			
PIPE SIZE	PIPE ZONE MAX. TRENCH WIDTH	MAX. TRENCH 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

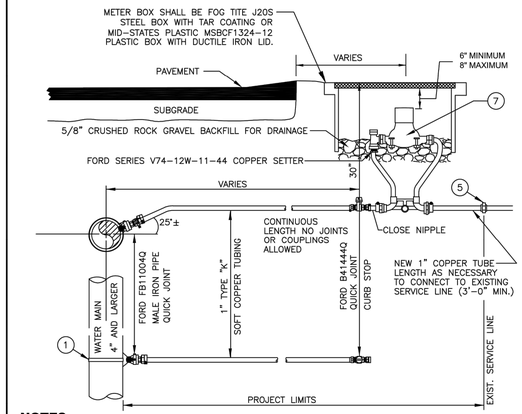
1. CALL TWO BUSINESS DAYS BEFORE YOU DIG. (1–800–424–5555)
2. ALL TRENCH BACKFILL MATERIAL SHALL BE 100% 5/8" MINUS CRUSHED ROCK PER WSDOT 9–03.9(3) UNLESS DIRECTED OTHERWISE BY CITY ENGINEER.

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
TRENCH SECTION

REV	DATE						APPROVED

12–23–2013 | NO SCALE | **W-3**

1 C1.0 *STANDARD DETAIL - W-3*
SCALE: NTS



NOTES

1. ON EXISTING WATER MAINS USE NYLON COATED D.I. SADDLE WITH STAINLESS STEEL SINGLE STRAP, ROMAC 101NS, OR APPROVED EQUAL. ON NEW DUCTILE IRON WATER MAIN 6" DIA. OR LARGER, THE SERVICE MAY BE DIRECTLY TAPPED.
2. MINIMUM DISTANCE BETWEEN CORP STOPS SHALL BE 18". MINIMUM DISTANCE BETWEEN TAPS, BETWEEN CORP STOP AND PIPE ENDS SHALL BE 24", ALL HORIZONALLY STAGGERED.
3. PLASTIC METER BOXES SHALL NOT BE INSTALLED WITHIN ROADWAY, SIDEWALK, OR DRIVEWAYS.
4. WHEN METER BOXES ARE INSTALLED IN PORTLAND CEMENT CONCRETE PAVEMENT OR SIDEWALK, CONTINUOUS FELT EXPANSION MATERIAL SURROUNDING THE PERIMETER OF THE METER BOX SHALL BE PROVIDED.
5. WHEN CONNECTING TO EXISTING SERVICE LINE CONTAINING FERROUS METAL, PROVIDE INSULATING COUPLING (DB SERIES WITH C21 SERIES ADAPTERS) AND PROVIDE REDUCER AS NECESSARY TO MATCH EXISTING SERVICE LINE DIAMETER.
6. 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.
7. WATER METER SUPPLIED BY CITY.
8. ALL FITTINGS TO BE BRASS COMPRESSION TYPE, FORD QUICK JOINT OR EQUAL.
9. NO SERVICE CONNECTIONS BETWEEN BLOW–OFF AND END OF MAIN.

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
1" WATER METER INSTALLATION

REV	DATE						APPROVED

10–16–2013 | NO SCALE | **W-13**

2 C1.0 *STANDARD DETAIL - W-13*
SCALE: NTS

GENERAL NOTES

A. SEE W–19B FOR MATERIAL LIST.

B. VALVE ASSEMBLY TO BE CENTERED IN VAULT.

C. TEE AND GATE VALVE REQUIRED ON MAIN.

D. WHEN DOUBLE CHECK VALVE ASSEMBLY IS USED IN SAME LINE WITH DOMESTIC BUILDING METER, METERED DETECTOR BYPASS SHALL BE OMITTED.

E. ASSEMBLY TO BE MAINTAINED BY OWNER AND ANNUAL CERTIFICATION IS REQUIRED.

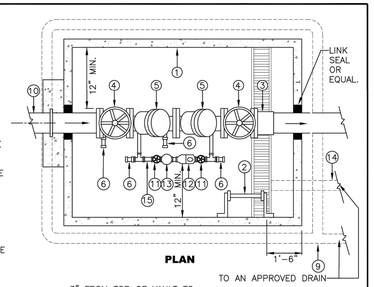
F. THE CITY OF MERCER ISLAND MUST TEST AND CERTIFY THE FIRE LINE BEFORE CONNECTION TO THE CITY SYSTEM IS ALLOWED.

G. FIRELINE SHALL NOT BE PUT INTO SERVICE UNTIL THE DOUBLE CHECK VALVE ASSEMBLY IS APPROVED BY THE CITY.

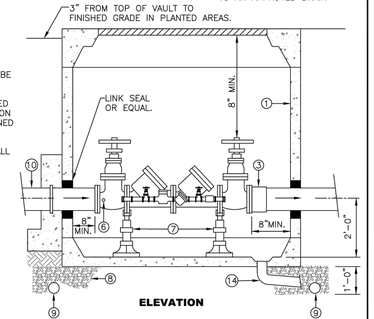
H. VAULT PENETRATIONS SHALL BE BE CORE DRILLED.

I. A THRUST RING OR APPROVED EQUAL SHALL BE INSTALLED ON INLET SIDE OF PIPE RESTRAINED JOINT.

J. MATERIALS FOR BY PASS SHALL BE ALL BRASS AND COPPER WITH SWIVEL COUPLINGS BETWEEN SHUT–OFF VALVES FOR REPLACEMENT.



PLAN



ELEVATION

CITY OF MERCER ISLAND
STANDARD DETAILS
WATER
DOUBLE DETECTOR CHECK VALVE ASSEMBLY

REV	DATE						APPROVED

7–01–2014 | NO SCALE | **W-19A**

3 C1.0 *STANDARD DETAIL - W-19A*
SCALE: NTS

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.

R#	DATE	DESCRIPTION	BY

05/19/2021

BUILDING PERMIT

WATER DETAILS
LOT 3

PATRICK HARRON & ASSOCIATES, LLC
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Phone: 206.674.4659
Web: patrickharron.com

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

FOREST CREEK ESTATES
LOT 3
5202 FOREST AVE SE, MERCER ISLAND, WA 98040

DATE: 05/19/2021
SCALE: AS NOTED
DRAWING NO. C1.2
3 OF 5

FOREST CREEK ESTATES LOT 3

SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.

TESC LEGEND

- CATCH BASIN INLET PROTECTION
- TREE REMOVAL
- CLEARING LIMITS ENTIRE PROPERTY OUTSIDE OF TREE PROTECTION AREA
- SILT FENCE
- TREE & VEGETATION PROTECTIVE FENCE
- STABILIZED CONSTRUCTION ENTRANCE

CRITICAL AREAS:

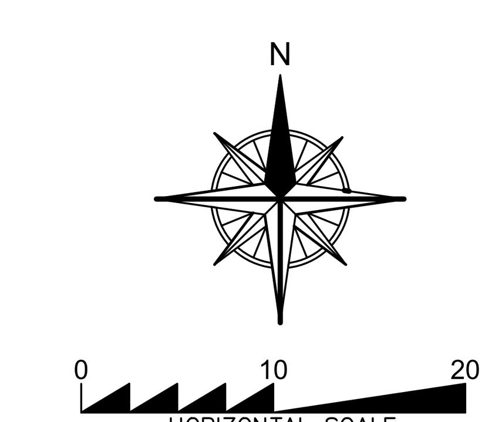
1. NATIVE GROWTH PROTECTION AREA (NGPA) BUFFER. ALL UTILITIES MUST REMAIN OUTSIDE OF NGPA BUFFER. OVER EXCAVATION FOR DETENTION PIPES SHALL NOT ENCROACH INTO AREA.
2. EXISTING NGPA SPLIT-RAIL FENCE WITH SIGNAGE. FENCE TO BE REPAIRED IF REQUIRED.

TESC NOTES:

1. CLEARING LIMITS SHOWN ARE APPROXIMATE AND REPRESENT THE MINIMUM REQUIRED TO INSTALL PROPOSED IMPROVEMENTS. CLEARING LIMITS MAY BE ADJUSTED TO FIT FIELD CONDITIONS BUT SHALL NOT ENCROACH WITHIN CRITICAL ROOT ZONES OF TREES TO BE RETAINED; COORDINATE WITH PROJECT ARBORIST TO DETERMINE CRITICAL ROOT ZONES FOR DISTURBANCE WITHIN TREE DRIP LINES.
2. SILT FENCING TO BE INSTALLED ALONG DOWN-SLOPE OF AREAS TO BE DISTRUBED WITHIN THE PROPERTY. ADJUST AS REQUIRED WITH CHANGES TO CLEARING LIMITS.
3. THIS TESC PLAN IS PROVIDED TO SHOW THE MINIMUM MEASURES REQUIRED TO CONTROL EROSION AND SEDIMENT TRANSPORT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING APPROPRIATE MEASURES FOR CHANGING SITE CONDITIONS.
4. REFER TO ARCHITECTURAL TREE PLANS FOR ADDITIONAL TREE REMOVAL AND REPLACEMENT DETAILS.
5. REFER TO GEOTECH REPORT FOR RECOMMENDATIONS ON EXCAVATION AND SLOPES.

TESC PLAN

SCALE: 1"=10'



CALL 48 HOURS BEFORE YOU DIG 811

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R#	DATE	DESCRIPTION	BY

05/19/2021

BUILDING PERMIT

TESC PLAN LOT 3

PATRICK HARRON & ASSOCIATES, LLC
Civil Engineering & Planning
14900 Interurban Ave. S., Suite 279, Seattle, WA 98168
Phone : 206.674.4659
Web : patrickharron.com

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

FOREST CREEK ESTATES LOT 3

5202 FOREST AVE SE, MERCER ISLAND, WA 98040

DATE: 05/19/2021

SCALE: AS NOTED

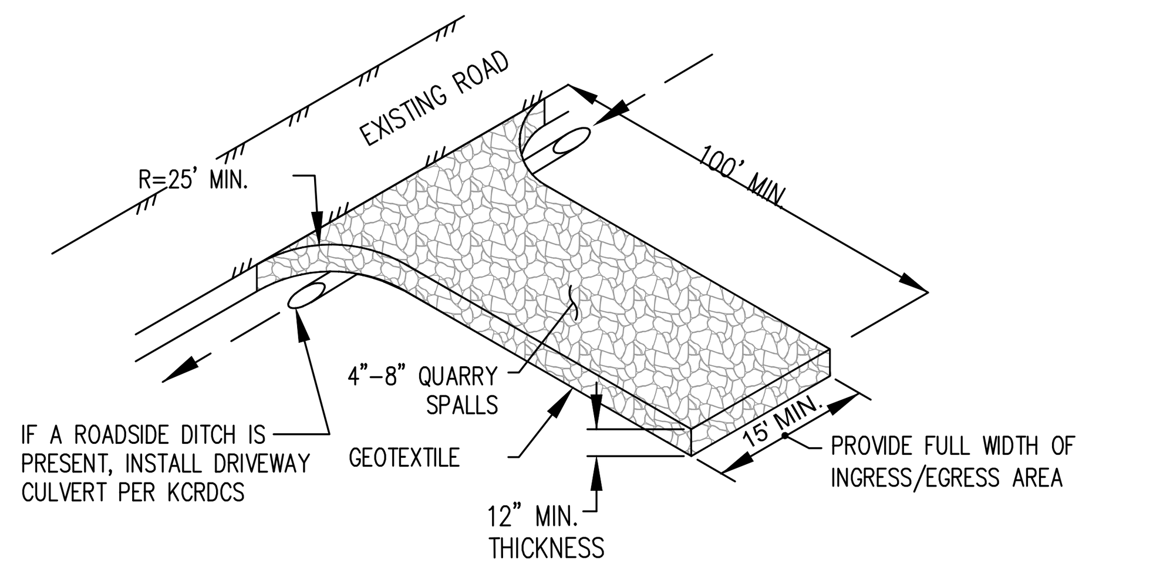
DRAWING NO: C2.0

4 OF 5

May 19, 2021 2:26:13PM – User Chris Cole
P:\2020\20113_Forest Avenue Building Permits – Mercer Island\Drawing\Working\Sheets\20113-C2.0 TESC PLAN.dwg

FOREST CREEK ESTATES LOT 3

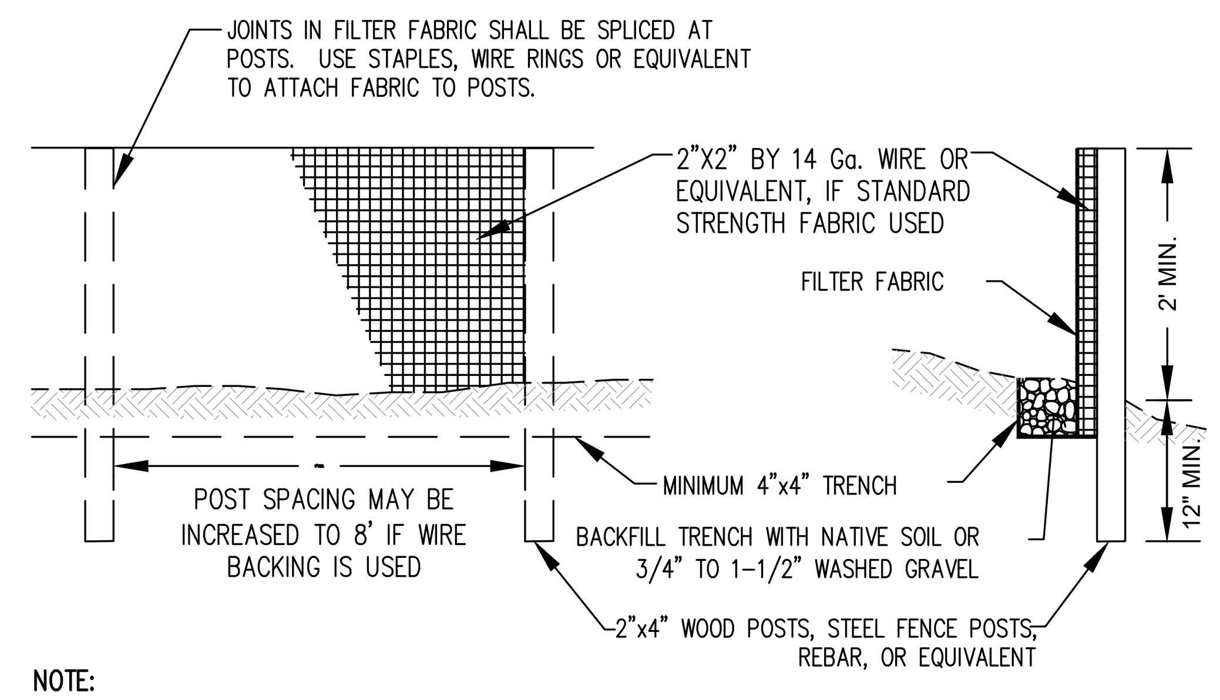
SE1/4, NE1/4, SEC. 24, TWP. 24 N., RGE. 4 E., W.M.



NOTES:

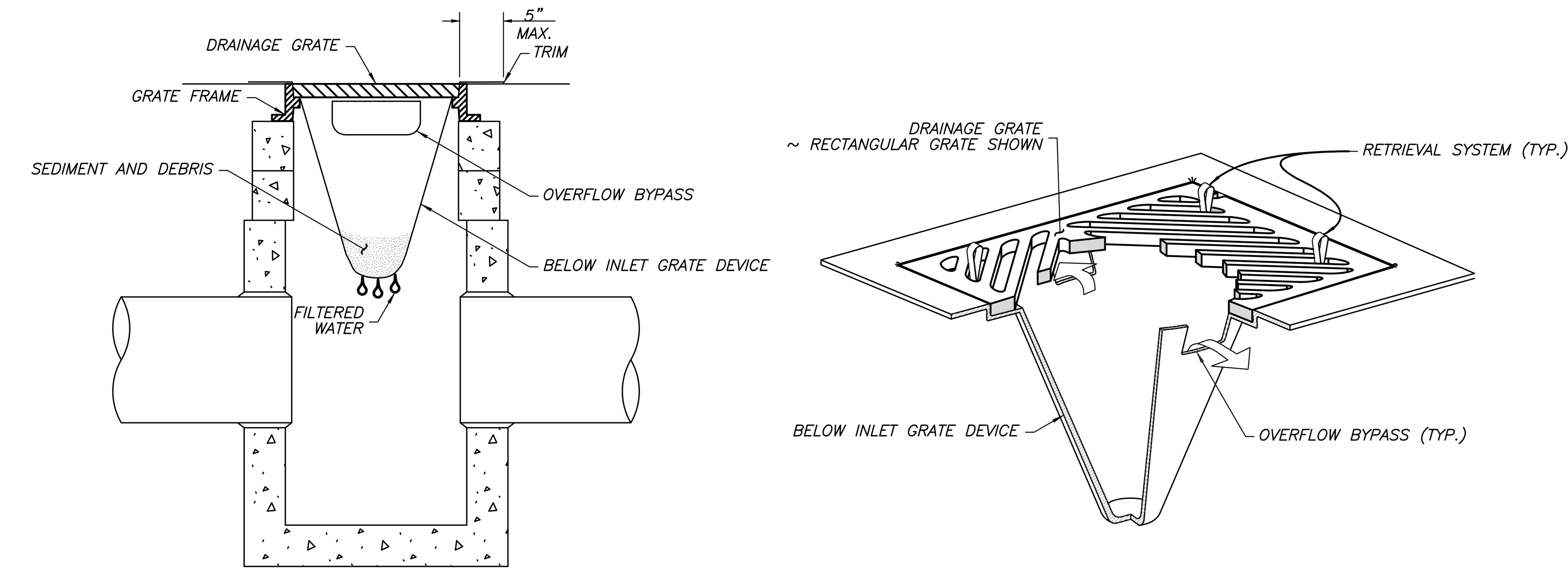
1. PER KING COUNTY ROAD DESIGN AND CONSTRUCTION STANDARDS (KCRDCS), DRIVEWAYS SHALL BE PAVED TO EDGE OF R-O-W PRIOR TO INSTALLATION OF THE CONSTRUCTION ENTRANCE TO AVOID DAMAGING OF THE ROADWAY.
2. IT IS RECOMMENDED THAT THE ENTRANCE BE CROWNED SO THAT RUNOFF DRAINS OFF THE PAD.

1 / C2.0 **STABILIZED CONSTRUCTION ENTRANCE**
SCALE: NTS



NOTE:
SILT FILTER FABRIC FENCES SHALL BE INSTALLED ALONG CONTOURS WHENEVER POSSIBLE

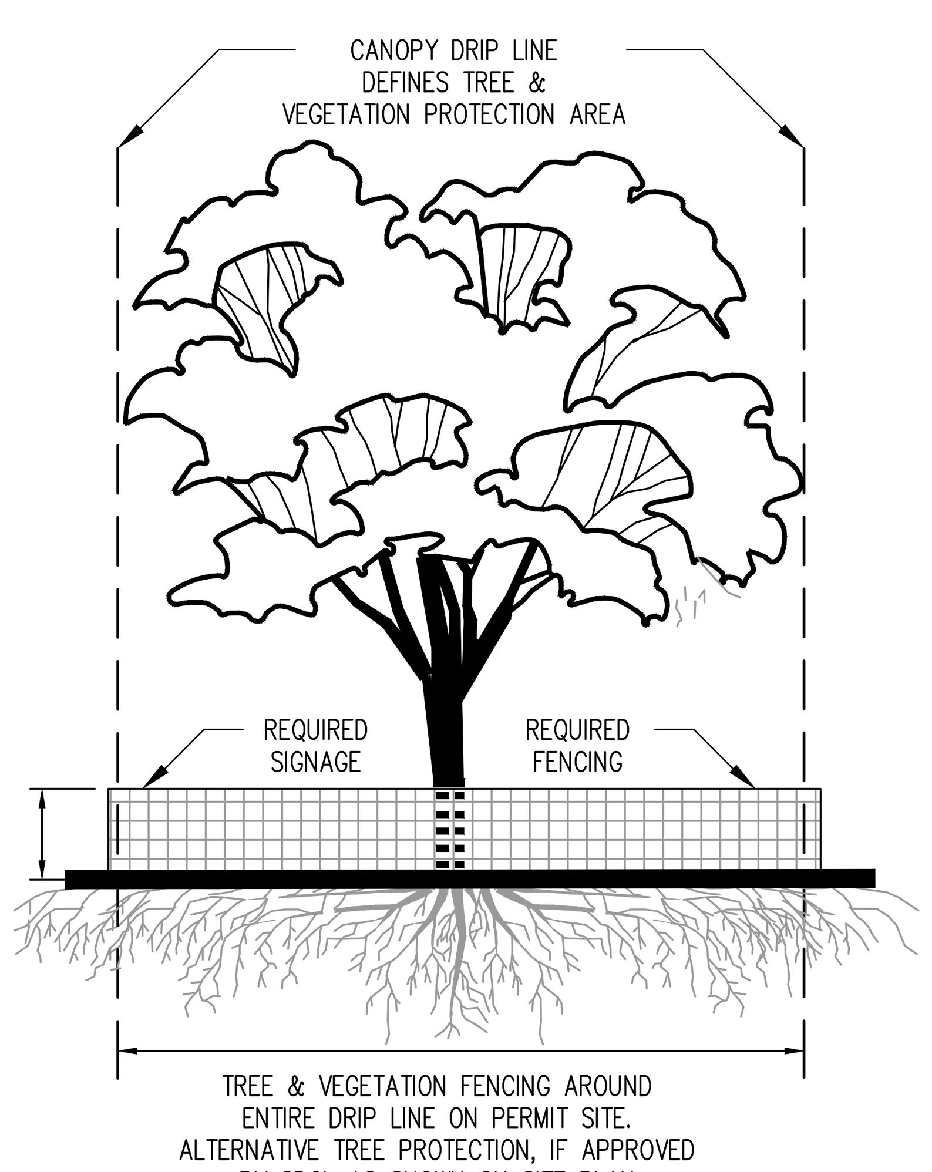
2 / C2.0 **SILT FENCE**
SCALE: NTS



NOTES:

1. SIZE THE BELOW INLET GRATE DEVICE (BIGD) FOR THE STORM WATER STRUCTURE IT WILL SERVICE.
2. THE BIGD SHALL HAVE A BUILT-IN HIGH-FLOW RELIEF SYSTEM (OVERFLOW BYPASS).
3. THE RETRIEVAL SYSTEM MUST ALLOW REMOVAL OF THE BIGD WITHOUT SPILLING THE COLLECTED MATERIAL.
4. PERFORM MAINTENANCE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION 8-01.3(15).

3 / C2.0 **CATCH BASIN INLET PROTECTION**
SCALE: NTS



TREE PROTECTION FENCING AND SIGN

1. CHAIN LINK, WIRE MESH, OR SIMILAR OPEN RIGID MATERIAL (NO PLYWOOD)
2. MUST BE INSTALLED PRIOR TO DEMOLITION OR GROUND DISTURBANCE
3. KEPT IN PLACE FOR THE DURATION OF CONSTRUCTION
4. NO SOIL DISTURBANCE OR ACTIVITY ALLOWED WITHIN FENCED AREA: MATERIAL STORAGE/STOCKPILING, PARKING, EXCAVATION, DUMPING, OR WASHING
5. MODIFICATIONS OF THESE REQUIREMENTS BY APPROVAL OF SDCI PLANNER ONLY
6. IF ROOTS GREATER THAN 2 INCH FOUND OUTSIDE OF FENCING, PROTECT BY HAND EXCAVATION AND, IF NECESSARY, CUT CLEANLY AND KEEP MOIST
7. USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS

VEGETATION PROTECTION

1. ORANGE MESH OR SIMILAR OPEN MATERIAL
2. MINIMIZE CONSTRUCTION ZONE
3. PROTECT VEGETATION OUTSIDE CONSTRUCTION ZONE WITH FENCING AS SHOWN
4. USE 3 INCHES OR DEEPER WOOD CHIP MULCH OUTSIDE FENCED AREAS TO PROTECT FEEDER ROOTS

4 / C2.0 **TREE AND VEGETATION PROTECTIVE FENCE**
SCALE: NTS

CALL 48 HOURS BEFORE YOU DIG 811

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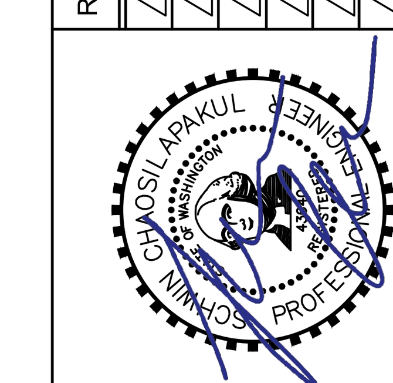
R#	DATE	DESCRIPTION	BY



BUILDING PERMIT

TESC DETAILS LOT 3

PATRICK HARRON & ASSOCIATES, LLC
Civil Engineering & Planning
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Phone : 206.674.4659
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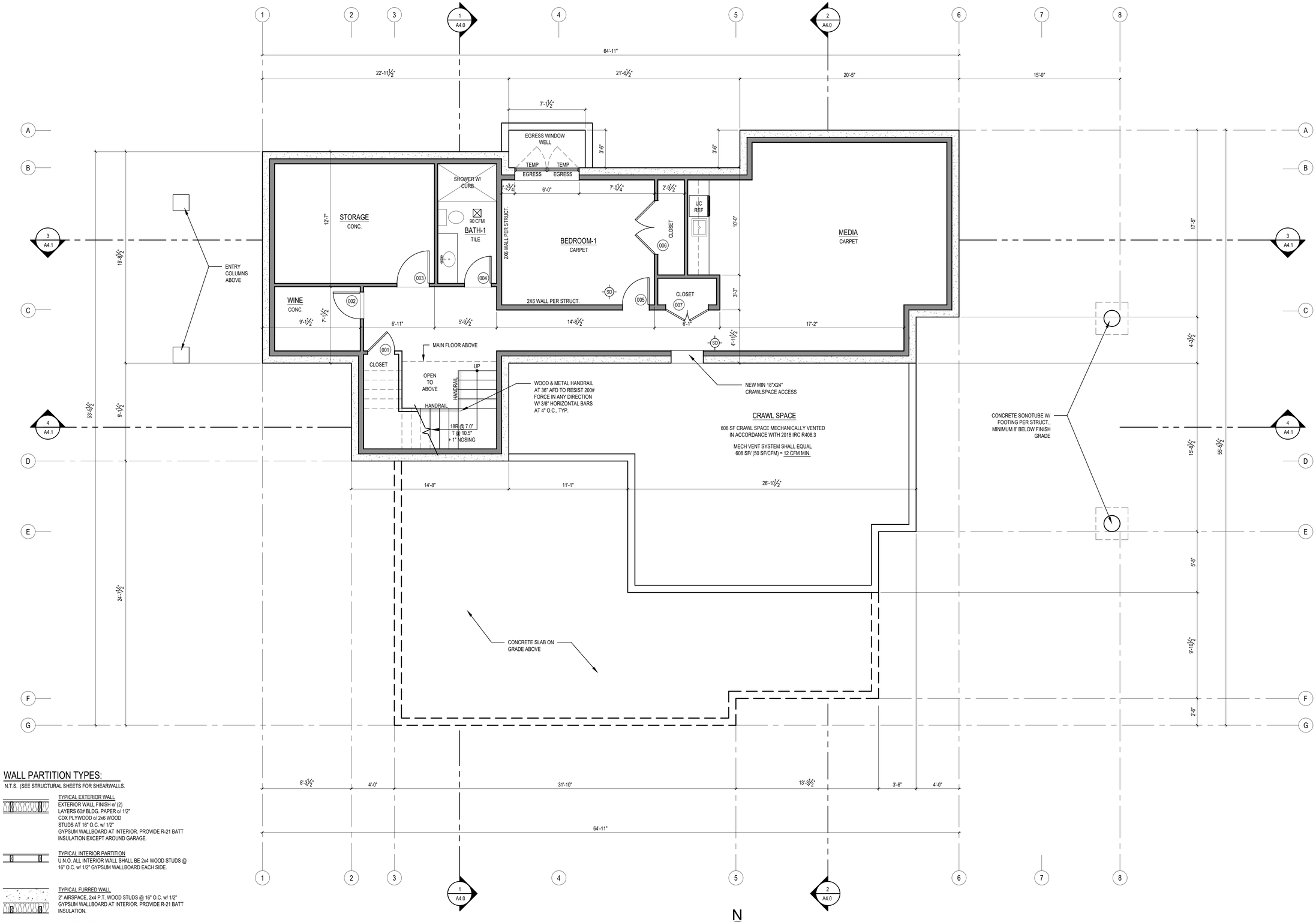
PROJ. NO. 20113	DSN. BY: SC
DWN. BY: CWA	CHK. BY: SC

FOREST CREEK ESTATES LOT 3

5202 FOREST AVE SE, MERCER ISLAND, WA 98040

DATE:	05/19/2021
SCALE:	AS NOTED
DRAWING NO.	C2.1 — 5 OF 5



WALL PARTITION TYPES:

N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.

TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH o/ (2) LAYERS 60# BLDG. PAPER o/ 1/2" CDX PLYWOOD o/ 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' 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

1 LOWER FLOOR PLAN

SCALE: 1/14" = 1'-0"

N

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.451.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5662

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

LOWER FLOOR PLAN

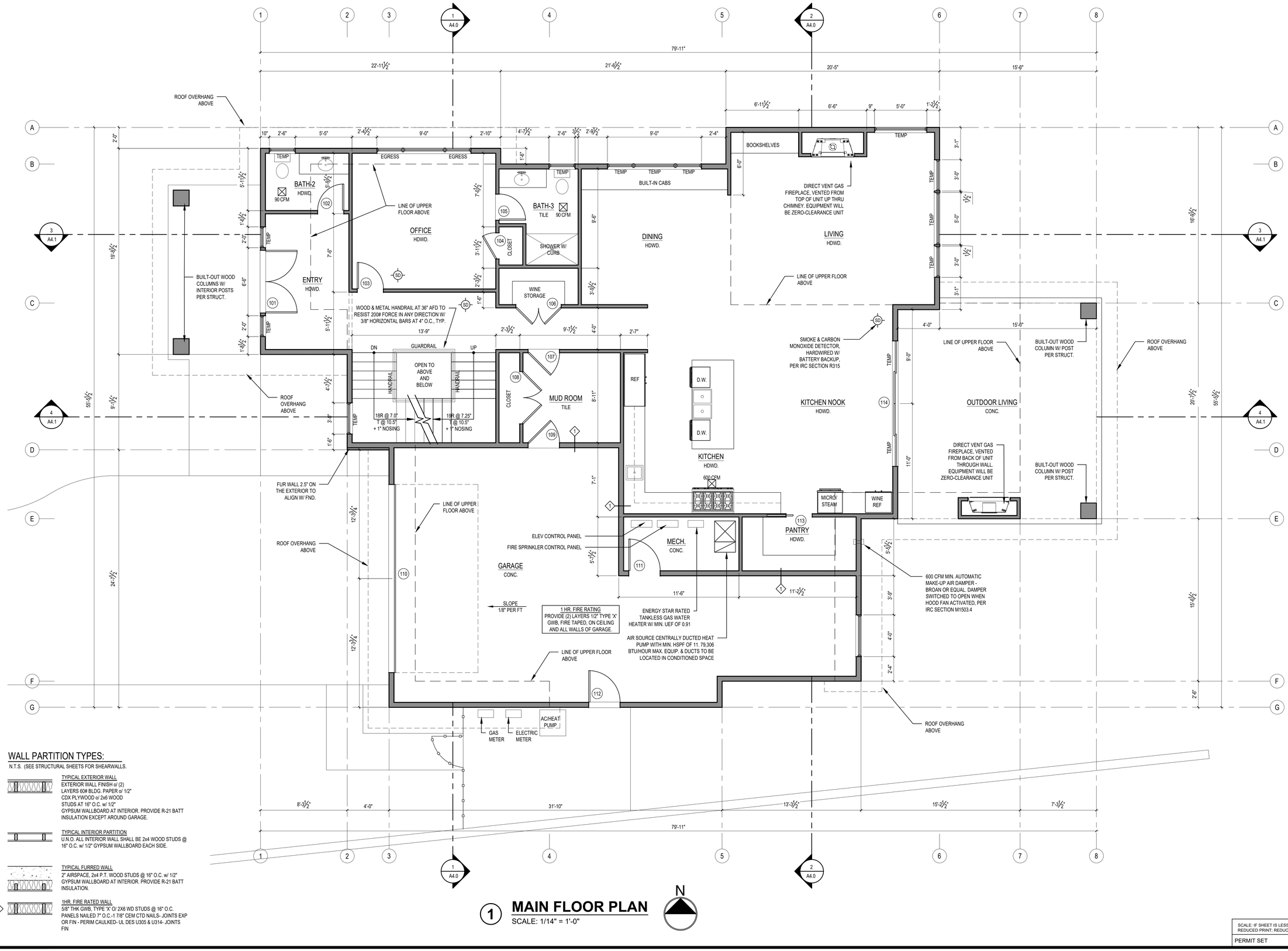
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET A2.0

PLOT DATE: 5/20/2021



WALL PARTITION TYPES:

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TYPICAL EXTERIOR WALL
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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' 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

1 MAIN FLOOR PLAN

SCALE: 1/14" = 1'-0"

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE-Suite 203
Bellevue, WA 98004
TEL: 425.457.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5982

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

MAIN FLOOR PLAN

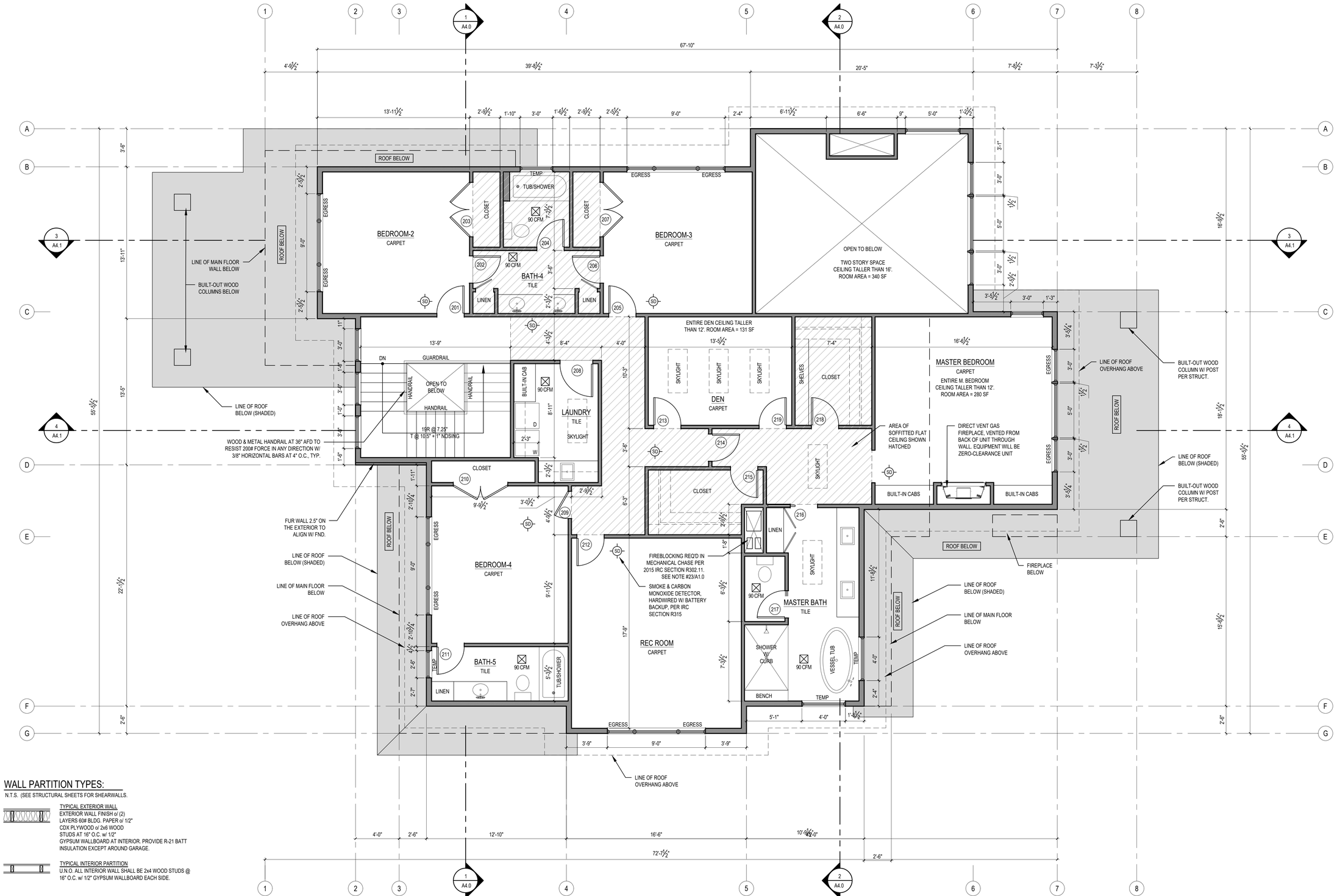
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET A2.1

PLOT DATE: 5/20/2021



WALL PARTITION TYPES:

N.T.S. (SEE STRUCTURAL SHEETS FOR SHEARWALLS.

TYPICAL EXTERIOR WALL
EXTERIOR WALL FINISH o/ (2) LAYERS 60# BLDG. PAPER o/ 1/2" CDX PLYWOOD o/ 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' 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

③ SECOND FLOOR PLAN

SCALE: 1/14" = 1'-0"

N

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.457.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

SECOND FLOOR PLAN

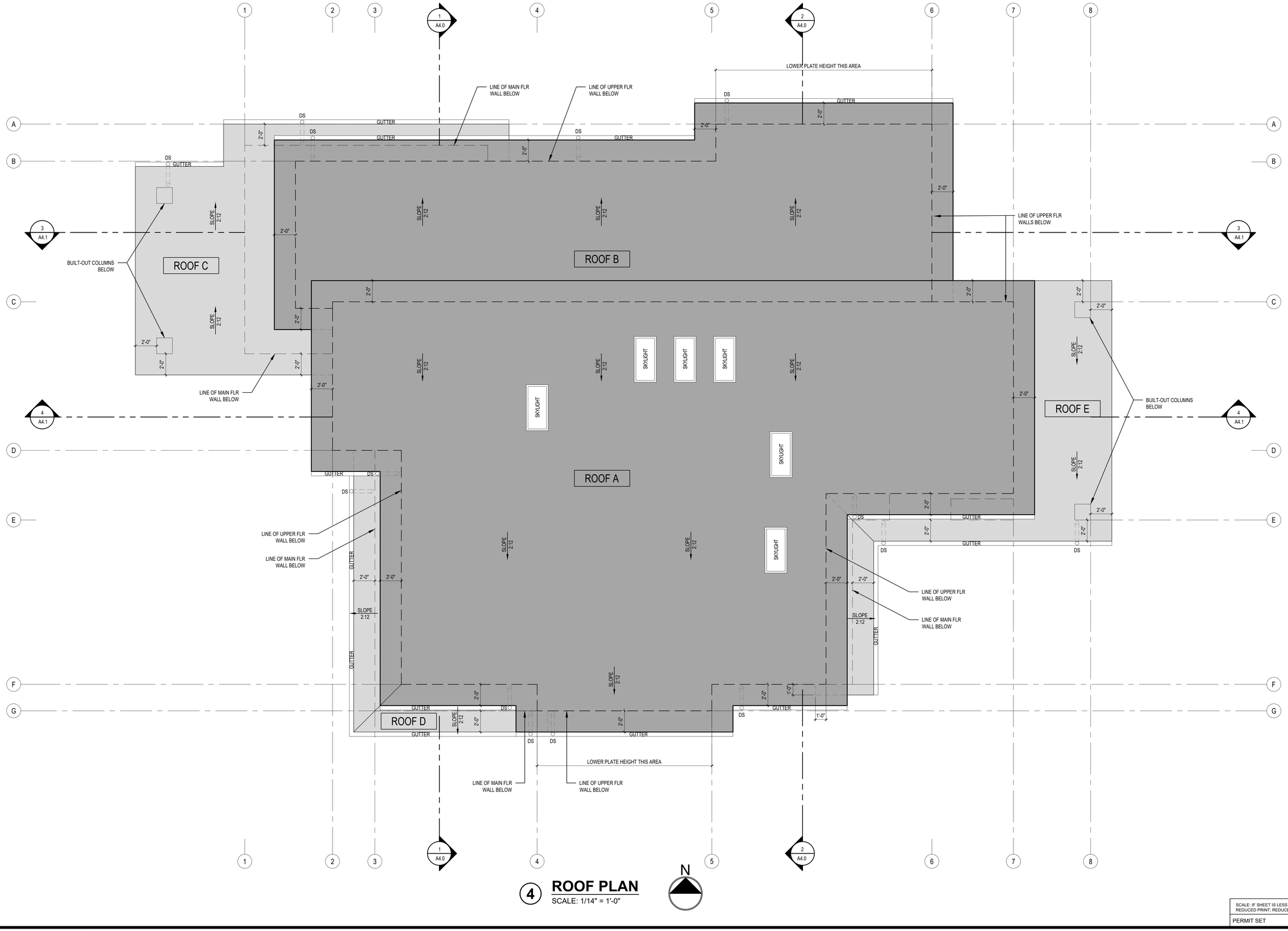
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET A2.2

PLOT DATE: 5/20/2021



4 ROOF PLAN

SCALE: 1/14" = 1'-0"

N

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9-103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.457.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

ROOF PLAN

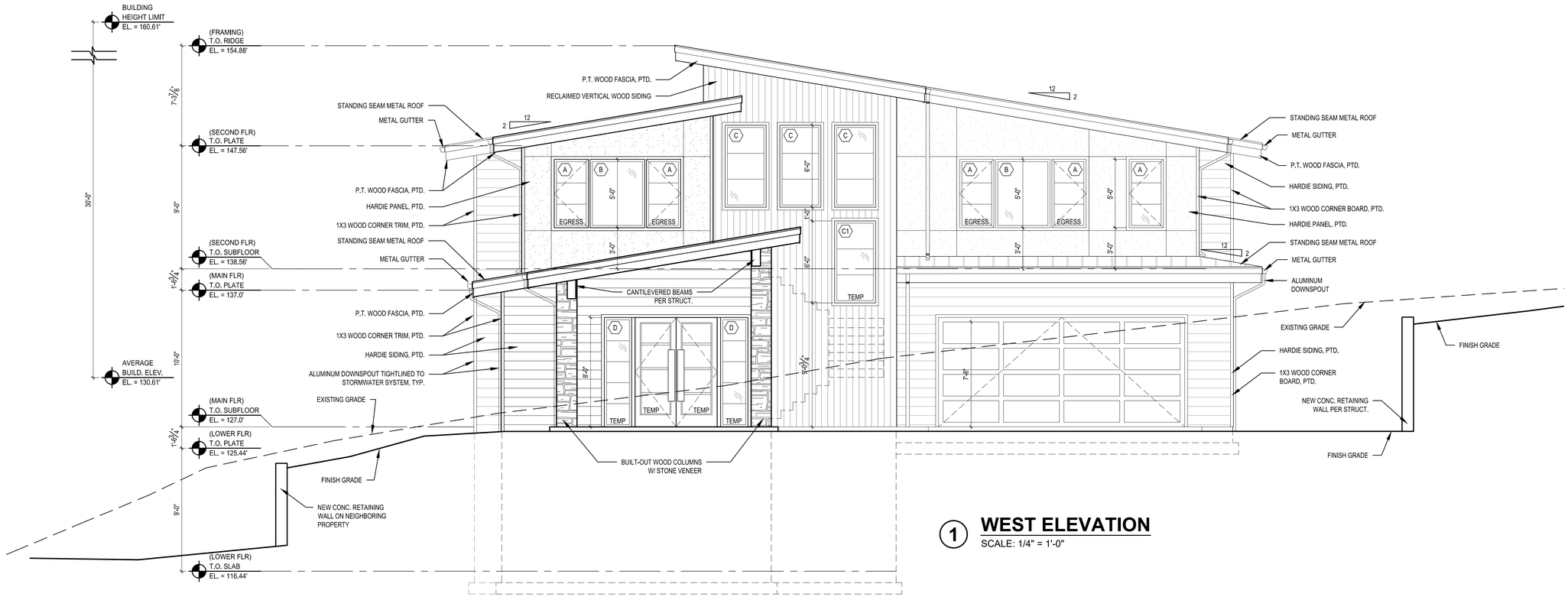
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

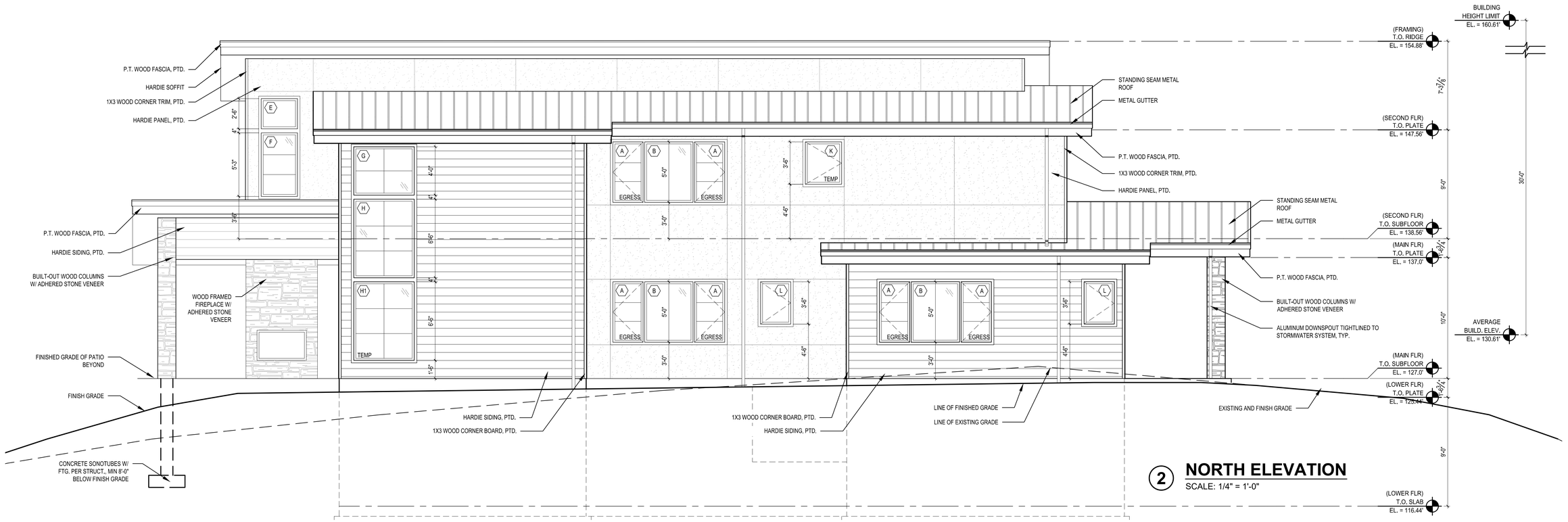
SHEET **A2.3**

PLOT DATE: 5/20/2021



1 WEST ELEVATION

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



2 NORTH ELEVATION

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

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.451.7003

REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

www.sturmanarchitects.com

FOREST CREEK ESTATES LOT 3

PERMIT SET

5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

EXTERIOR ELEVATIONS

REVISIONS:

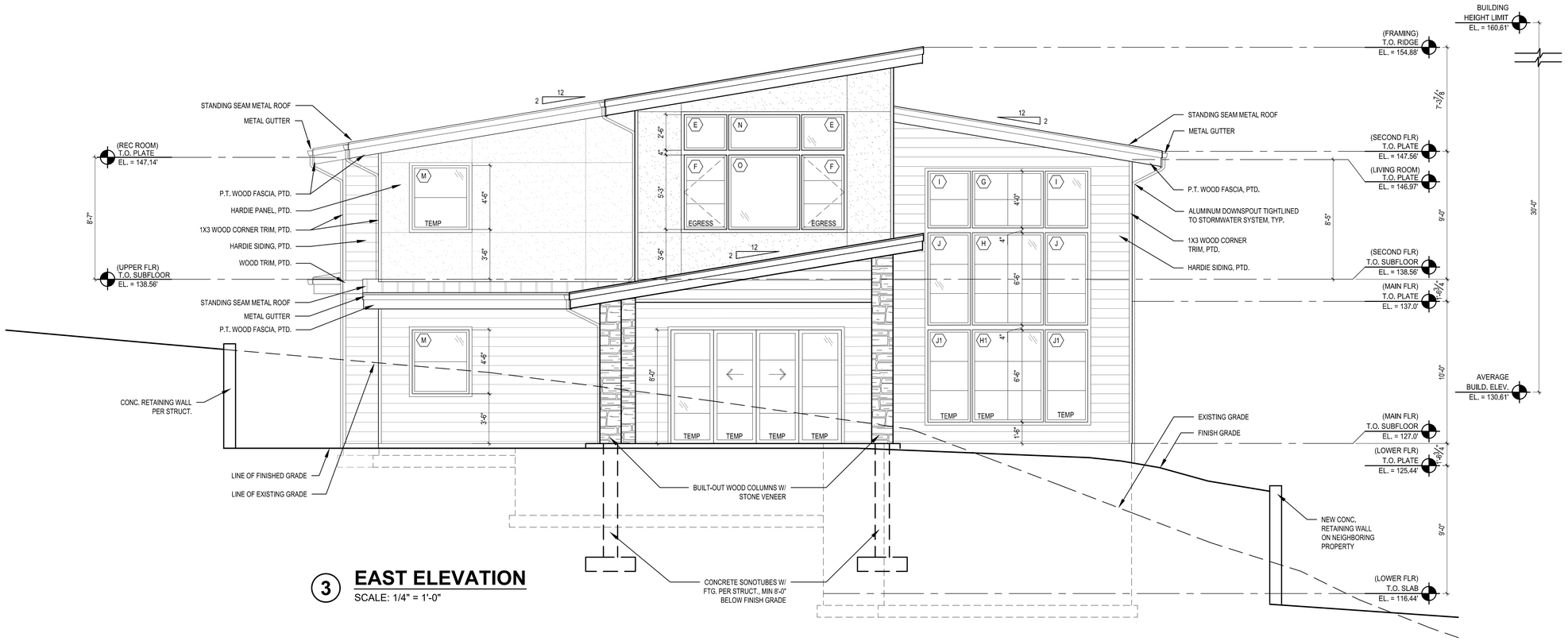
DRAWN BY: KE

CHECKED BY: BJS

SHEET

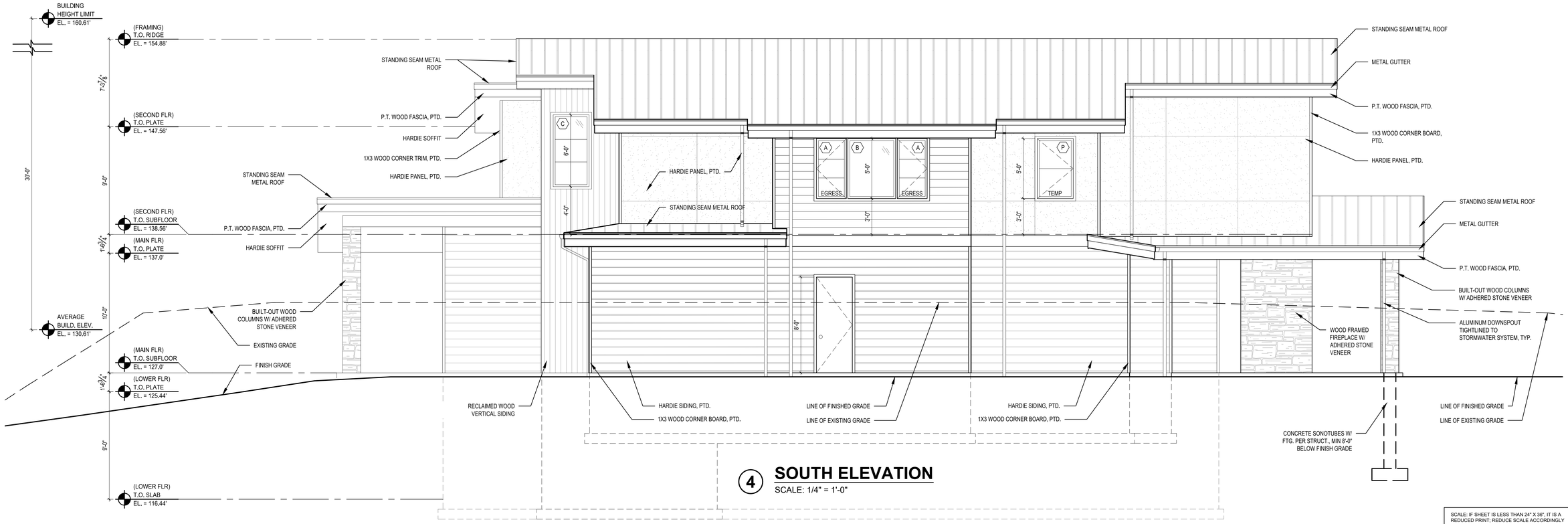
A3.0

PLOT DATE: 5/20/2021



3 EAST ELEVATION

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



4 SOUTH ELEVATION

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

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425.457.7003

REGISTERED ARCHITECT BRADLEY J. STURMAN STATE OF WASHINGTON 5962

FOREST CREEK ESTATES LOT 3

PERMIT SET

5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

EXTERIOR ELEVATIONS

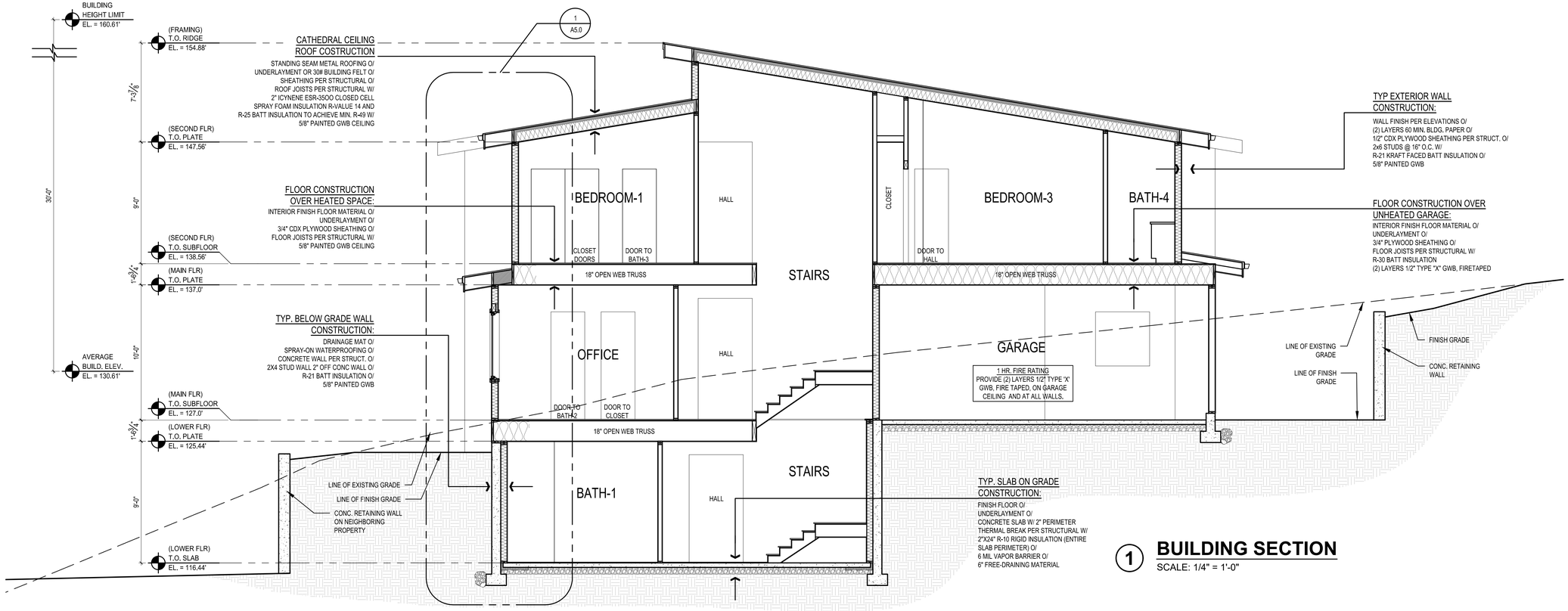
REVISIONS:

DRAWN BY: KE

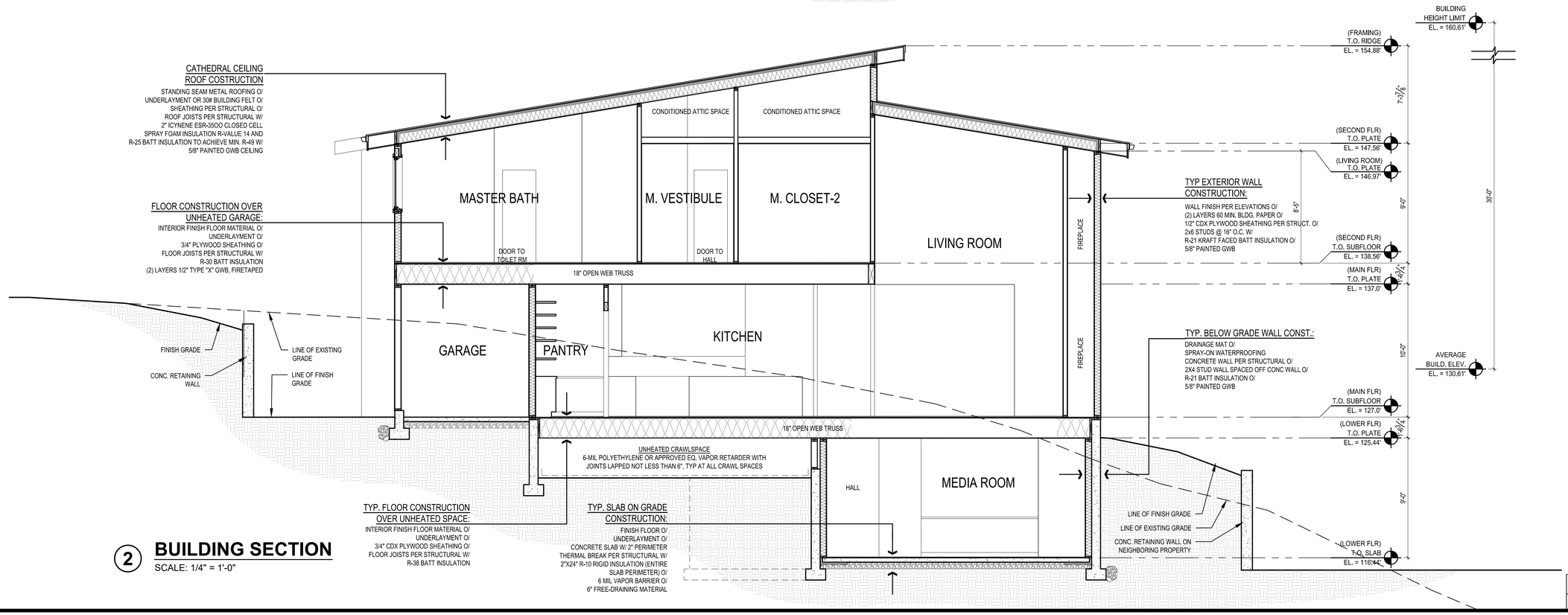
CHECKED BY: BJS

SHEET A3.1

PLOT DATE: 5/20/2021



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



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

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

PERMIT SET 05/20/21

STURMAN ARCHITECTS
9- 103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL. 425.457.7003

REGISTERED ARCHITECT BRADLEY J. STURMAN STATE OF WASHINGTON 5952

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

BUILDING SECTIONS

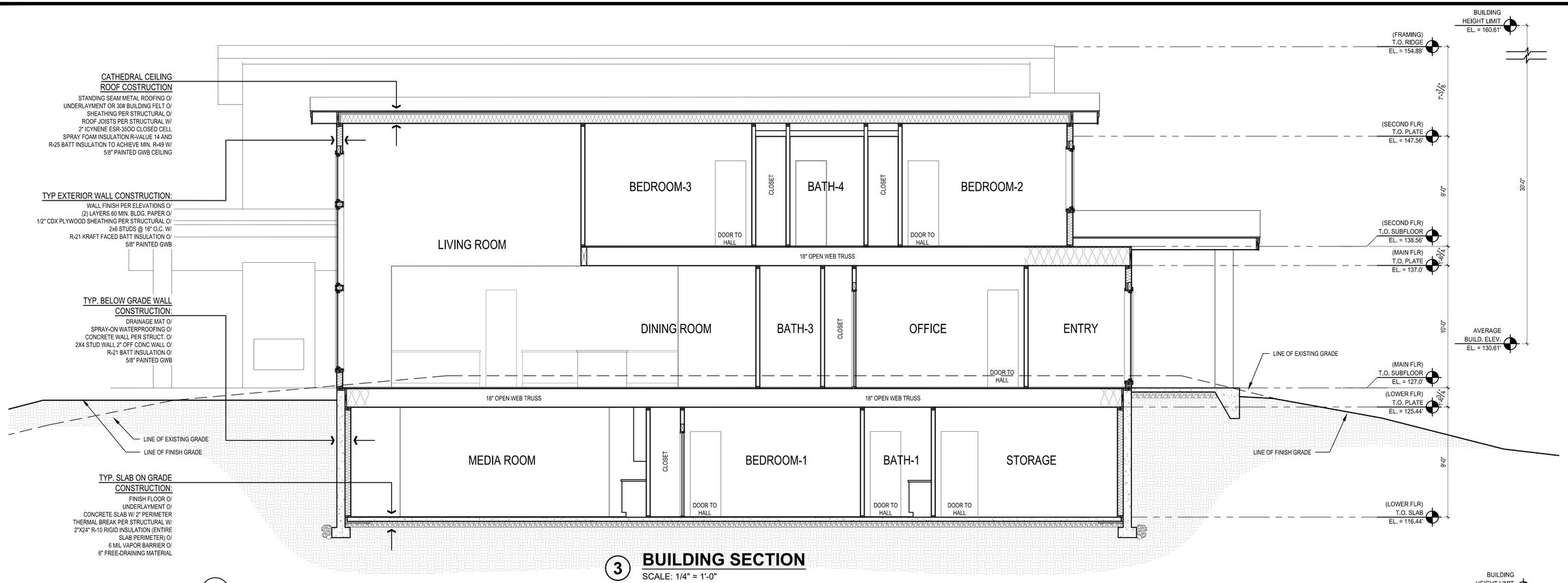
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

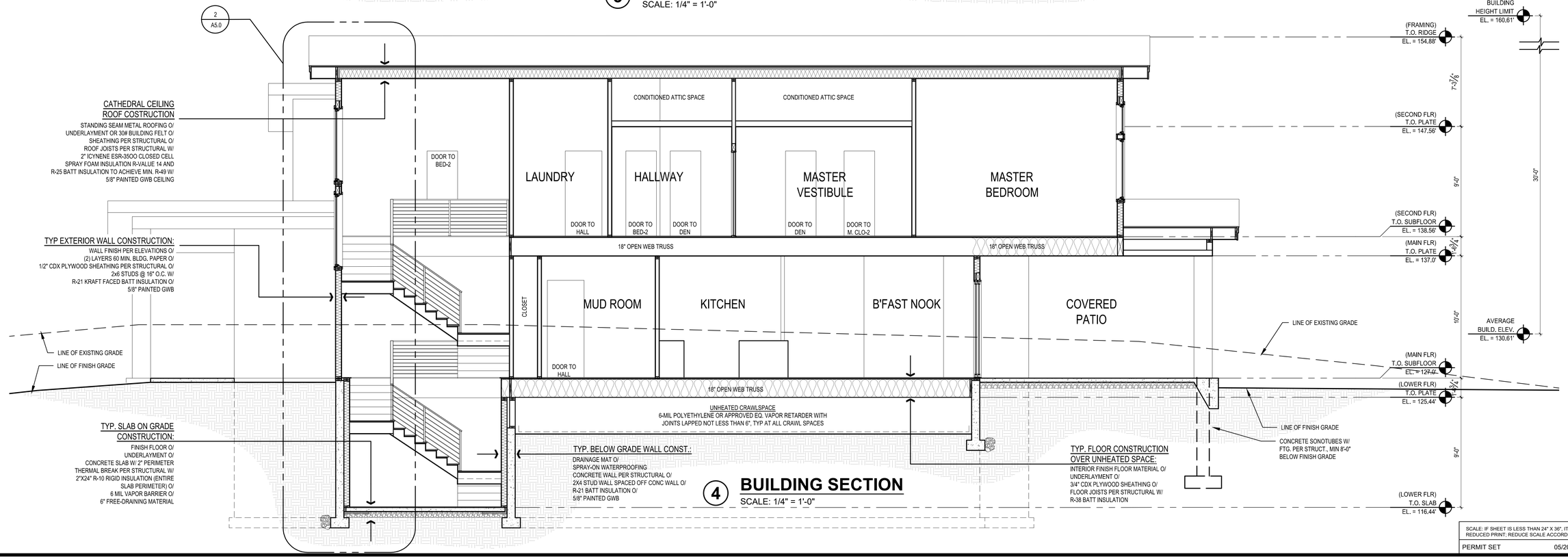
SHEET A4.0

PLOT DATE: 5/20/2021



3 BUILDING SECTION

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



4 BUILDING SECTION

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

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PERMIT SET 05/20/21

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REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

FOREST CREEK ESTATES LOT 3

PERMIT SET

5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

BUILDING SECTIONS

REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET

A4.1

PLOT DATE: 5/20/2021

WINDOW SCHEDULE

TAG	DESCRIPTION	R.O. SIZE WIDTH	R.O. SIZE HEIGHT	TEMP.	QTY.	AREA (SF)	U-VAL (MIN.)	GLAZING	REMARKS & NOTES
A	CASEMENT	2'-6"	5'-0"	-	13		.28	LOW E / CLEAR	EGRESS
B	FIXED	4'-0"	5'-0"	-	6		.28	LOW E / CLEAR	
C	FIXED	3'-0"	6'-0"	-	4		.28	LOW E / CLEAR	
C1	FIXED	3'-0"	6'-0"	Y	1		.28	LOW E / CLEAR	TEMPERED GLASS
D	FIXED	2'-0"	8'-0"	Y	2		.28	LOW E / CLEAR	TEMPERED GLASS, SIDELIGHT
E	FIXED	3'-0"	2'-6"	-	3		.28	LOW E / CLEAR	TRANSOM
F	FIXED	3'-0"	5'-3"	-	3		.28	LOW E / CLEAR	
G	FIXED	5'-0"	4'-0"	-	2		.28	LOW E / CLEAR	TRANSOM
H	FIXED	5'-0"	6'-6"	-	2		.28	LOW E / CLEAR	
H1	FIXED	5'-0"	6'-6"	Y	2		.28	LOW E / CLEAR	TEMPERED GLASS
I	FIXED	3'-0"	4'-0"	-	2		.28	LOW E / CLEAR	TRANSOM
J	FIXED	3'-0"	6'-6"	-	2		.28	LOW E / CLEAR	
J1	FIXED	3'-0"	6'-6"	Y	2		.28	LOW E / CLEAR	TEMPERED GLASS
K	CASEMENT	3'-0"	3'-6"	Y	1		.28	LOW E / CLEAR	TEMPERED GLASS
L	CASEMENT	2'-6"	3'-6"	Y	2		.28	LOW E / CLEAR	TEMPERED GLASS
M	FIXED	4'-0"	4'-6"	Y	2		.28	LOW E / CLEAR	TEMPERED GLASS
N	FIXED	5'-0"	2'-6"	-	1		.28	LOW E / CLEAR	TRANSOM
O	FIXED	5'-0"	5'-3"	-	1		.28	LOW E / CLEAR	
P	CASEMENT	3'-0"	5'-0"	Y	1		.28	LOW E / CLEAR	TEMPERED GLASS

DOOR SCHEDULE

DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP. GLASS	DOOR THK.	U-VAL. (MIN.)	REMARKS
LOWER FLOOR								
001	UNDER-STAIR STORAGE	2'-6"	7'-0"	A	-	1-3/4"	-	
002	WINE STORAGE	2'-6"	7'-0"	A		1-3/4"		GASKET
003	STORAGE	3'-0"	7'-0"	A		1-3/4"		
004	BATH-1	2'-6"	7'-0"	A		1-3/4"		
005	BEDROOM-1	2'-6"	7'-0"	A		1-3/4"		
006	BEDROOM-1	PR 2'-6"	7'-0"	B		1-3/4"		
007	CLOSET	PR 2'-0"	7'-0"	B		1-3/4"		

DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP. GLASS	DOOR THK.	U-VAL. (MIN.)	REMARKS
MAIN FLOOR								
101	ENTRY	PR 3'-0"	8'-0"	B	Y	1-3/4"	.30	TEMPERED GLASS
102	BATH-2	2'-6"	8'-0"	A		1-3/4"		
103	OFFICE	2'-6"	8'-0"	A		1-3/4"		
104	OFFICE	2'-6"	8'-0"	A		1-3/4"		
105	BATH-3	2'-6"	8'-0"	A		1-3/4"		
106	WINE STORAGE	PR 2'-0"	8'-0"	B		1-3/4"		GASKET
107	MUD ROOM	5'-0"	8'-0"	A		1-3/4"		
108	MUD ROOM	PR 2'-6"	8'-0"	B		1-3/4"		
109	MUD ROOM	3'-0"	8'-0"	A		1-3/4"		20 MIN FIRE RATED, SELF-CLOSING
110	GARAGE	18'-0"	8'-0"	D		1-3/4"		OVERHEAD DOOR
111	MECH ROOM	3'-0"	8'-0"	A		1-3/4"		20 MIN FIRE RATED, SELF-CLOSING
112	GARAGE	3'-0"	8'-0"	A		1-3/4"		
113	PANTRY	2'-6"	8'-0"	C		1-3/4"		POCKET DOOR
114	KITCHEN	12'-0"	8'-0"	E	Y	1-3/4"	.30	TEMPERED GLASS

DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP. GLASS	DOOR THK.	U-VAL. (MIN.)	REMARKS
UPPER FLOOR								
201	BEDROOM-2	2'-6"	8'-0"	A	-	1-3/4"	-	
202	BATH-4	2'-6"	8'-0"	A		1-3/4"		
203	BEDROOM-2	PR 2'-6"	8'-0"	B		1-3/4"		
204	BATH-4	2'-6"	8'-0"	A		1-3/4"		
205	BEDROOM-3	2'-6"	8'-0"	A		1-3/4"		
206	BATH-4	2'-6"	8'-0"	A		1-3/4"		
207	BEDROOM-3	PR 2'-6"	8'-0"	B		1-3/4"		
208	LAUNDRY	3'-0"	8'-0"	A		1-3/4"		SOUND GASKET
209	BEDROOM-4	2'-6"	8'-0"	A		1-3/4"		
210	BEDROOM-4	PR 2'-6"	8'-0"	B		1-3/4"		
211	BATH-5	2'-6"	8'-0"	A		1-3/4"		
212	REC ROOM	2'-6"	8'-0"	A		1-3/4"		
213	DEN	2'-6"	8'-0"	A		1-3/4"		
214	M. VESTIBULE	2'-6"	8'-0"	A		1-3/4"		
215	M. CLOSET	2'-6"	8'-0"	A		1-3/4"		
216	M. BATH	2'-6"	8'-0"	C		1-3/4"		POCKET DOOR
217	M. BATH	2'-6"	8'-0"	A		1-3/4"		
218	M. CLOSET	2'-6"	8'-0"	A		1-3/4"		
219	DEN	2'-6"	8'-0"	A		1-3/4"		

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.

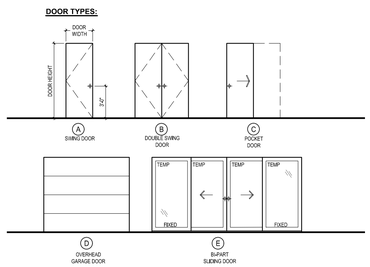
3.) ALL OPERABLE WINDOWS TO HAVE SCREENS.

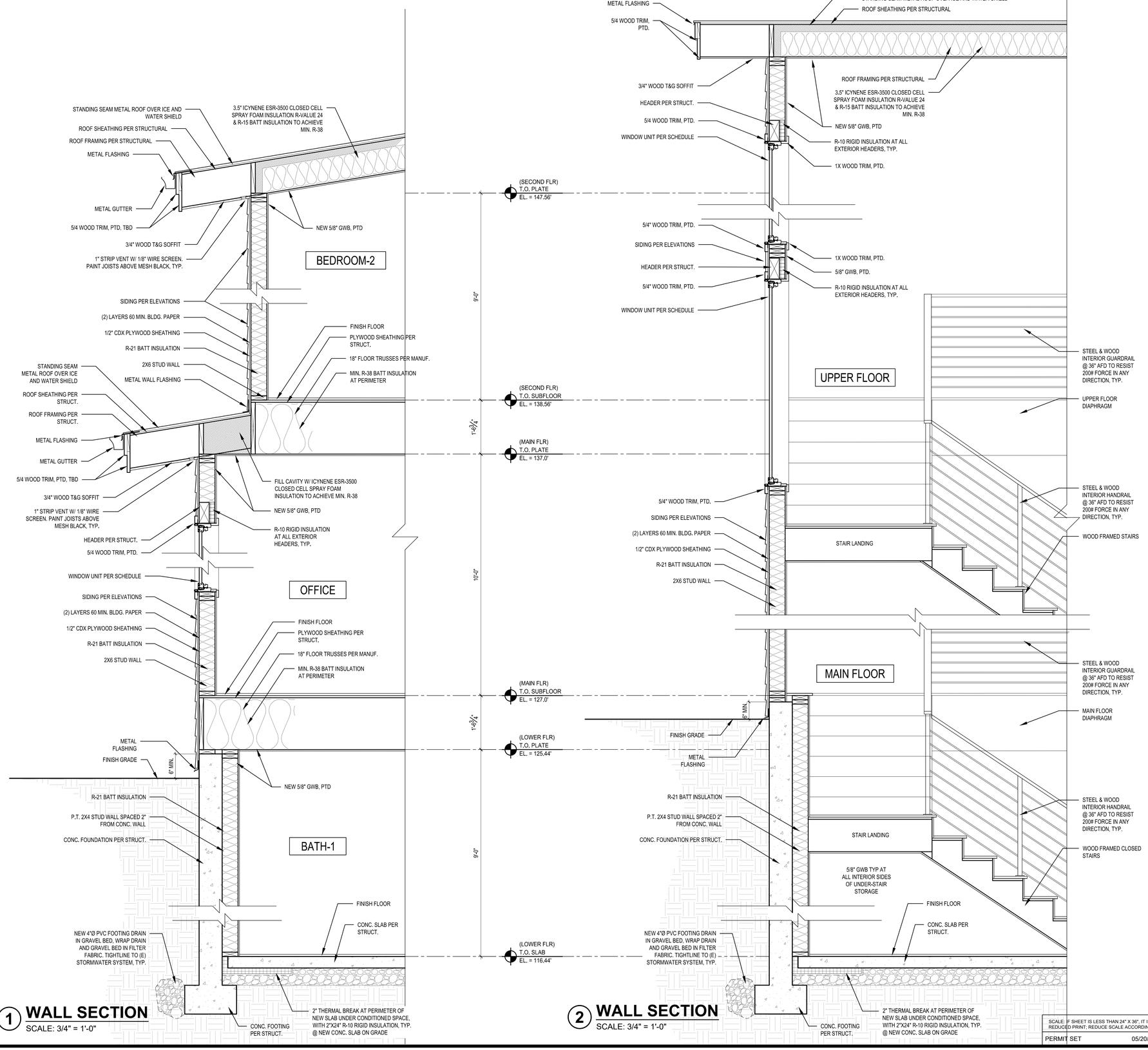
4.) GLAZING INDOORS AND/OR WITHIN 24" OF A DOOR TO BE TEMPERED. SEE EXTERIOR ELEVATION FOR TEMP. GLASS LOCATION & EGRESS WINDOWS.

5.) 2015 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.

DOOR TYPES:





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

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

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

PERMIT SET 05/20/21

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REGISTERED ARCHITECT
BRADLEY J. STURMAN
STATE OF WASHINGTON
5952

FOREST CREEK ESTATES LOT 3
PERMIT SET
5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

WALL SECTIONS

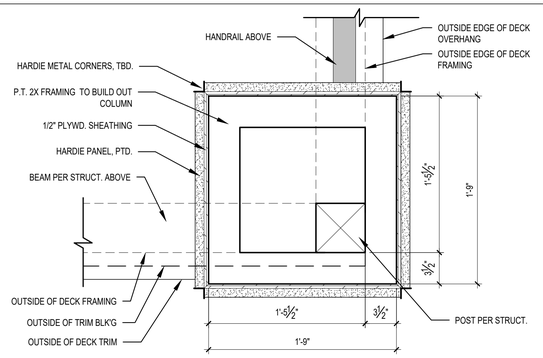
REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

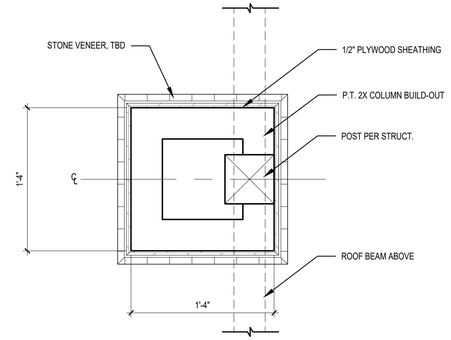
SHEET **A5.0**

PLOT DATE: 5/20/2021



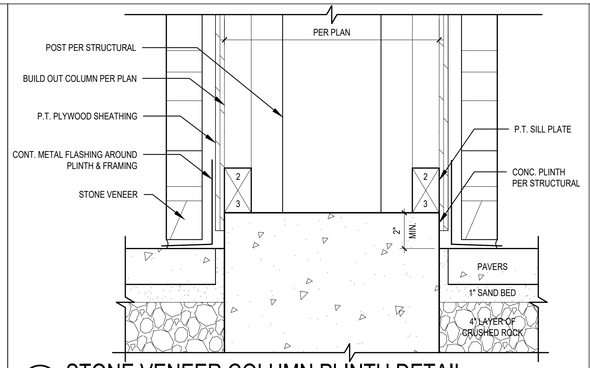
1 BUILT-OUT WOOD COLUMN PLAN DETAIL

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



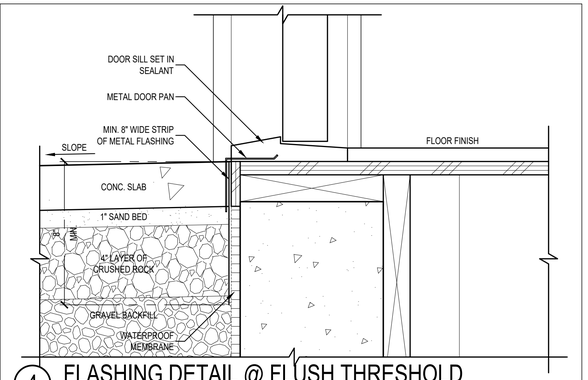
2 BUILT-OUT WOOD COLUMN PLAN DETAIL

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



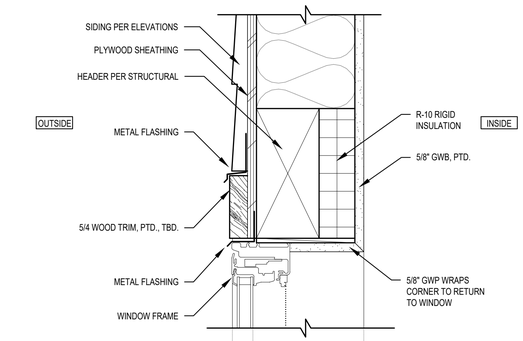
3 STONE VENEER COLUMN PLINTH DETAIL

SCALE: 3" = 1'-0"



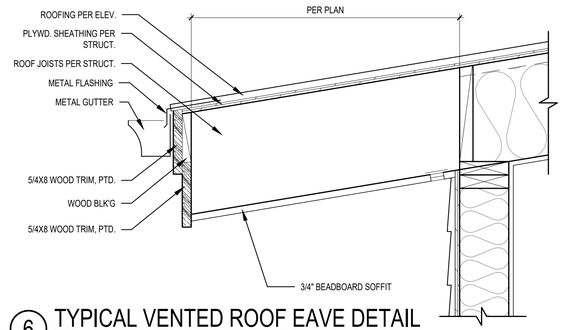
4 FLASHING DETAIL @ FLUSH THRESHOLD

SCALE: 3" = 1'-0"



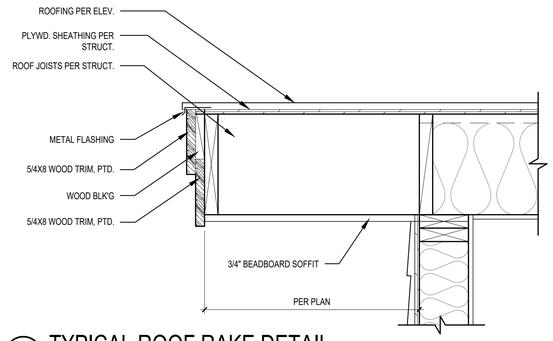
5 TYPICAL WINDOW HEAD DETAIL

SCALE: 3" = 1'-0" SIM. AT WINDOW JAMB



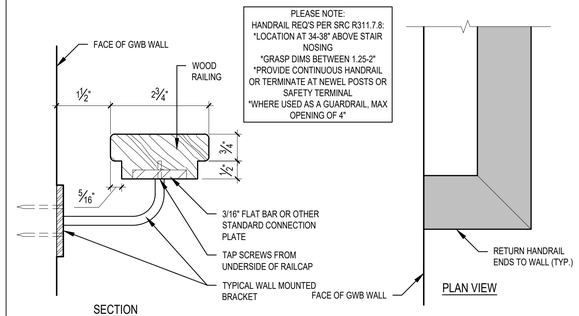
6 TYPICAL VENTED ROOF EAVE DETAIL

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



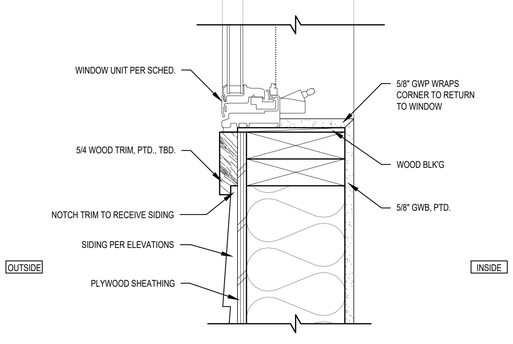
7 TYPICAL ROOF RAKE DETAIL

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



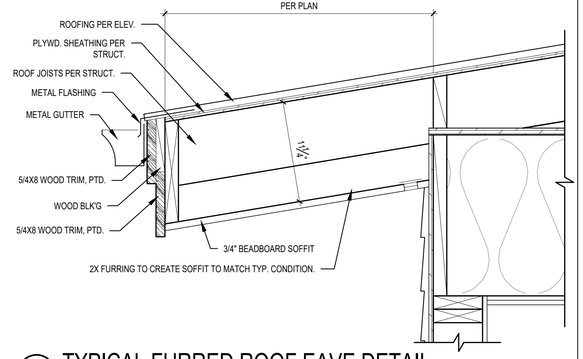
8 TYPICAL HANDRAIL DETAIL

SCALE: 6" = 1'-0"



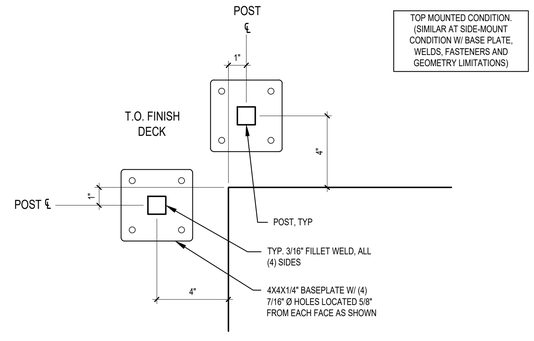
9 TYPICAL WINDOW SILL DETAIL

SCALE: 3" = 1'-0"



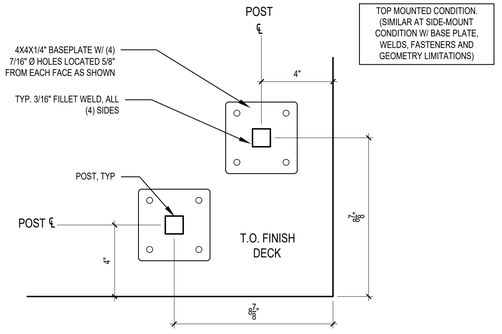
10 TYPICAL FURRED ROOF EAVE DETAIL

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



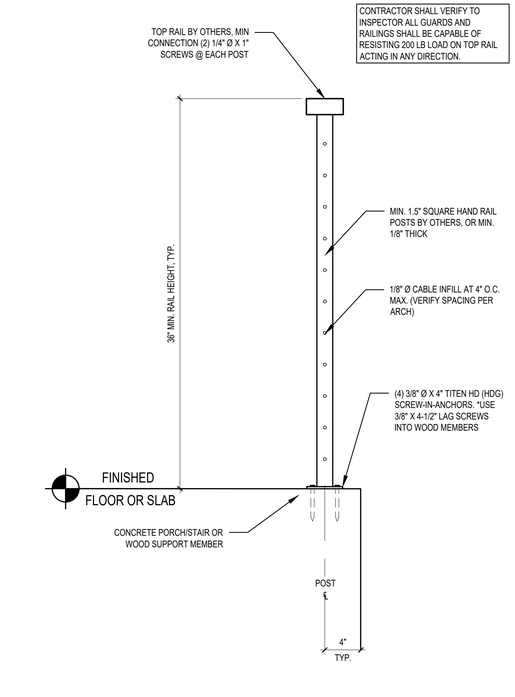
11 GUARDRAIL PLATE ATTACHMENT

SCALE: 3" = 1'-0" SIM. AT SIDE-MOUNTED



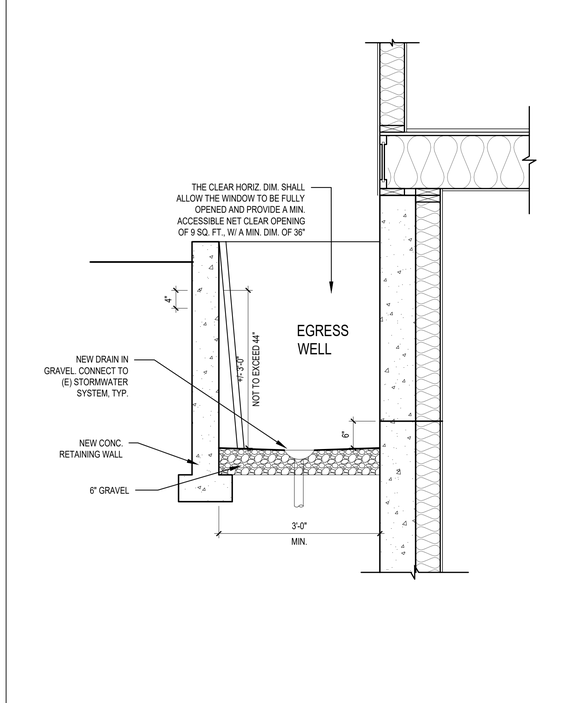
12 GUARDRAIL PLATE ATTACHMENT

SCALE: 3" = 1'-0" SIM. AT SIDE-MOUNTED



13 RAILING ATTACHMENT - TOP-MOUNTED

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



14 EGRESS WELL SECTION DETAIL

SCALE: 3/4" = 1'-0"

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

PERMIT SET 05/20/21

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BRADLEY J. STURMAN
STATE OF WASHINGTON
5982

FOREST CREEK ESTATES LOT 3

PERMIT SET

5208 FOREST AVE S.E.
MERCER ISLAND, WA 98040

ARCH DETAILS

REVISIONS:

DRAWN BY: KE

CHECKED BY: BJS

SHEET

A6.0

PLOT DATE: 5/20/2021

FOREST AVE LOT 3

S201120

PROJECT INFORMATION

CLIENT
JON TELLEFSON
PO BOX 40568,
BELLEVUE, WA 98015

PROJECT ADDRESS
5208 FOREST AVE SE,
MERCER ISLAND, WA 98040

ARCHITECT
STURMAN ARCHITECTS
9 103RD AVE NE
SUITE 203
BELLEVUE, WA 98004
PHONE: (425) 451-7003

STRUCTURAL ENGINEER
L120 ENGINEERING & DESIGN
13150 91st PL NE
KIRKLAND WA, 98034
PHONE: (206) 790-9502
CONTACT: MANS THURFJELL, PE

CODES

ENGINEERED PER:
2015 (SRC) SEATTLE RESIDENTIAL CODE
2015 (SBC) SEATTLE BUILDING CODE

SHEET INDEX

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

CHECKED BY - AP

SHEET DATE - 05/12/2021

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

DESCRIPTION
COVER SHEET

SHEET
S-0

GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

CODE: 2015 SBC/SRC & AMENDMENTS AS ADOPTED BY THE REVIEWING AGENCY/COUNTY.

ROOF ....25 PSF SNOW (GROUND)

FLOORS

RESIDENTIAL.....................40 PSF

BALCONY/DECK................60 PSF

BASIC WIND SPEED ....110 MPH, EXPOSURE B

SEISMIC

MAPPED SPECTRAL ACCELERATION, Ss..................... 1.444

MAPPED SPECTRAL ACCELERATION, S1..................... 0.554

SOIL SITE CLASS..D

GENERAL CONDITIONS

1. THE CONTRACTOR SHALL EXAMINE THE STRUCTURAL DRAWINGS AND SHALL NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES HE MAY FIND BEFORE PROCEEDING WITH THE WORK.
2. 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.
3. 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.
4. IN CASE OF CONFLICT, NOTES AND DETAILS OF THESE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE "GENERAL NOTES" AND/OR "STANDARD DETAILS".
5. IF A SPECIFIC DETAIL IS NOT SHOWN FOR ANY PART OF THE WORK, THE CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK.
6. WORKING DIMENSIONS SHALL NOT BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THESE DRAWINGS.
7. 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.
8. 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.
9. 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.
10. 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.
11. REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE STRUCTURAL DRAWINGS.
12. NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.
13. DISCREPANCIES FOUND BETWEEN STRUCTURAL DRAWINGS AND OTHER DOCUMENTS ARE TO BE NOTED IN WRITING TO THE ENGINEER PRIOR TO CONSTRUCTION.
14. 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

1. FOUNDATION DESIGN PARAMETERS ASSUMED PER IRC/IBC VALUES:
   FOOTING BEARING PRESSURE: 1500 PSF
   LATERAL EARTH PRESSURE:
   ACTIVE: 35 PCF (FREE) 50 PCF (RESTRAINED)
   PASSIVE: 350 PCF
   COEFFICIENT OF BASE FRICTION: 0.35
2. SUBGRADE PREPARATION, DRAINAGE PROVISIONS, AND OTHER RELEVANT SOIL CONSIDERATIONS ARE TO BE IN ACCORDANCE WITH THE JURISDICTIONAL REQUIREMENTS.
3. 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

1. REFERENCE STANDARDS: ACI-301, ACI-318, IBC.
   MINIMUM CONCRETE STRENGTH (28 DAYS):
   FOOTINGS AND STEM WALLS.......3,000 PSI - 5 SACK MIX
   BASEMENT FOUNDATION RETAINING WALLS.......3,000 PSI - 5 SACK MIX
   SLAB-ON-GRADE.............2,500 PSI - 5 SACK MIX
   SLAB-ON-GRADE.............EXPOSED WEATHERING SURFACES.........3,000 PSI
   AIR-ENTRAINMENT 2.5% TO 5.5% FOR EXPOSED CONCRETE.
2. 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
3. PLACING: COMPLY WITH ACI-301. PROVIDE A 3/4 INCH CHAMFER ALL EXPOSED CONCRETE EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS.
4. 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.
5. CURING: COMPLY WITH ACI-301. KEEP CONCRETE MOIST FOR SEVEN DAYS MINIMUM.
6. JOINTING: PROVIDE ADEQUATE JOINTING TO MINIMIZE EFFECTS OF VOLUME CHANGE. JOINTS SHOWN MAY BE ADJUSTED AT CONTRACTOR'S OPTION, WITH PRIOR APPROVAL FROM ENGINEER.
7. WEATHER EXTREMES: COMPLY WITH ACI 305R FOR HOT WEATHER. COMPLY WITH ACI 306R FOR COLD WEATHER.
8. WATER/CEMENT RATIO SHALL NOT EXCEED 0.50 (BY WEIGHT), TYPICAL.

REINFORCING STEEL

1. REFERENCE STANDARDS: ACI "DETAILING MANUAL" (SP-66); CRSI MANUAL OF STANDARD PRACTICE (MSP-1)
2. MATERIALS:
   REINFORCING STEEL: ASTM A615, GRADE 60
3. SPLICES:
   LAP CONTINUOUS REINFORCING BARS 48 BAR DIAMETERS, UNLESS OTHERWISE NOTED. PROVIDE CORNER BARS FOR ALL HORIZONTAL REINFORCEMENT.
4. COVER:
   FOOTINGS ....3 INCHES
   SLABS...................2 INCHES
5. 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

1. 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".
2. 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

1. 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 DONW 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

1. MEET REQUIREMENTS OF PS 20-70 AND NATIONAL GRADING RULES FOR SOFTWOOD DIMENSIONAL LUMBER. BEAR STAMP OF WWPA.
2. MINIMUM DIMENSIONAL LUMBER GRADES TO BE:
   WALL STUDS: 2x, HF STUD GRADE, 3x HF #2
   WALL PLATES: 2x HF STANDARD GRADE
   2x, 3x PRESSURE TREATED HF STANDARD GRADE AT FOUNDATION
   JOISTS: 2x6 HF STUD GRADE
   2x8 AND UP HF #2
   BEAMS, HEADERS: 6x DF#2; 4x DF#2, WWPA GRADING.
   POSTS: 4x, 6x, DF #2
   LUMBER NOT NOTED TO BE HF #2.
3. PROVIDE STANDARD CUT WASHERS FOR NUTS BEARING AGAINST WOOD, AND 1/4"x3" HOT-DIPPED GALVANIZED SQUARE PLATE WASHERS FOR ALL ANCHOR BOLTS.
4. 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.
5. 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.
6. BOLTS IN WOOD BEAMS SHALL NOT BE LESS THAN 7 DIAMETERS FROM THE END AND 4 DIAMETERS FROM THE EDGE OF THE MEMBER.
7. 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.
8. 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)	WALL STUD 2X4 & 2X61	½"
(1.5E)	WALL STUD > 2X6	1 ½"
MICROLLAM LVL (1.9E)	HEADER, BEAM	1 ¾"
PARALLAM PSL (2.0E)	HEADER, BEAM	3 ½", 5 ¼", 7"
PARALLAM PSL (1.8E)	COLUMN	3 ½", 5 ¼", 7"

WOOD STRUCTURAL CONNECTIONS

1. 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

1. D/A 2135 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT WOOD STUD WALL.
2. D/A 5213 SEISMIC VENEER ANCHORS BY DUR-O-WAL OR APPROVED EQUAL AT CONCRETE WALL.
3. 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.
4. AT ALL OPENINGS LARGER THAN 16" IN EITHER DIRECTION, ANCHORS TO BE SPACED WITHIN 12" OF THE OPENING AT ALL SIDES.
5. USE TYPE N MORTAR COMPLYING WITH C270

GLU-LAMINATED TIMBER

1. 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.
2. MANUFACTURER'S CERTIFICATE SHALL BE PRESENTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION.

WOOD SHEATHING

1. 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.
2. 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.
3. 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.
4. 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

1. 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
2. SUBMIT 3 COPIES FOR REVIEW PRIOR TO FABRICATION FOR:
   A) CONCRETE DESIGN MIX
   B) CONCRETE INSERTS
   C) EPOXY ADHESIVES

INSPECTIONS

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

ALTERNATES:

1. 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:

1. 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:

1. 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		

MANS R. THURFJELL · STATE OF WASHINGTON · REGISTERED PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY° ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

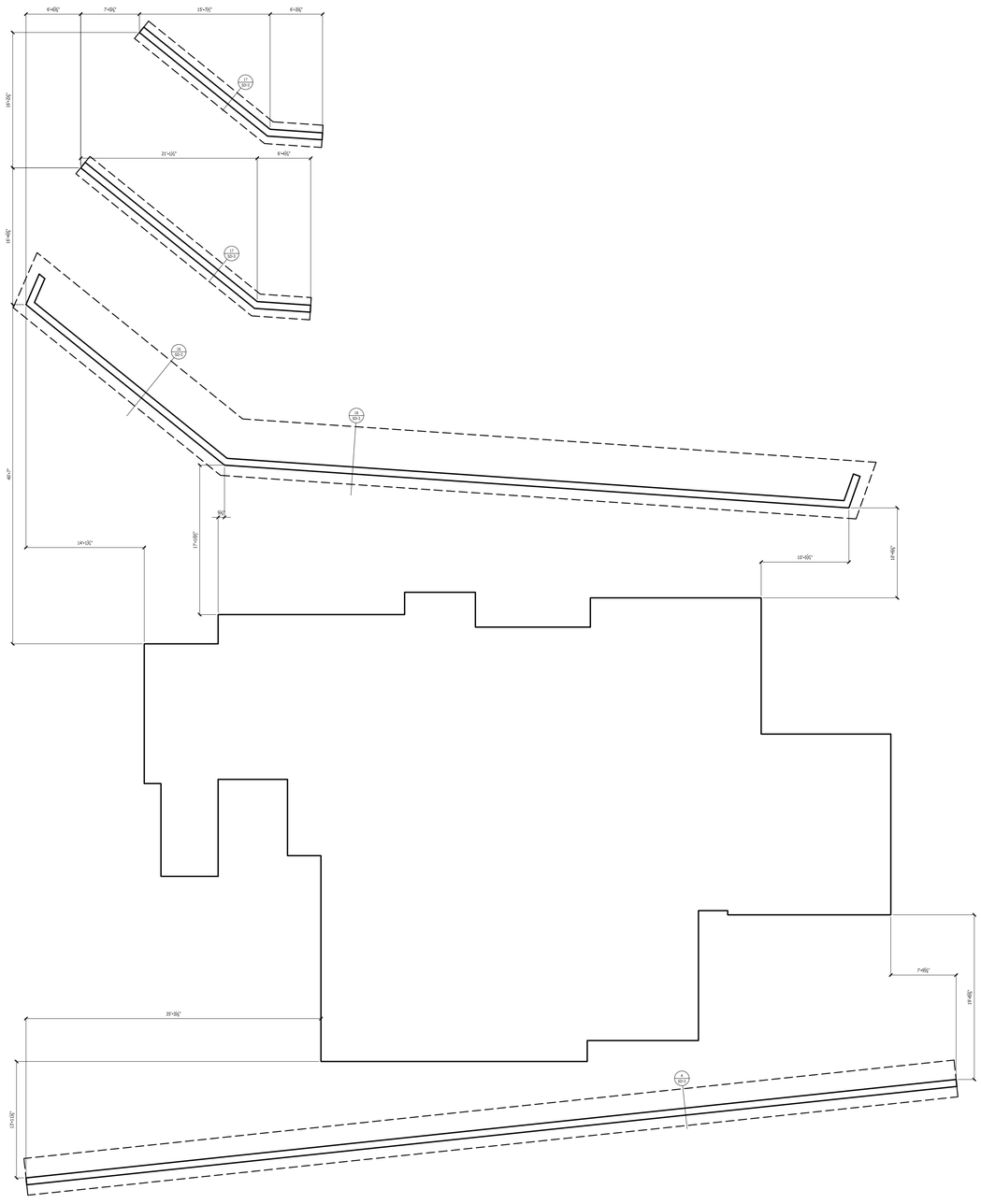
CHECKED BY - AP

SHEET DATE - 05/12/2021

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

DESCRIPTION
STRUCTURAL GENERAL NOTES

SHEET
S-1



SITE RETAINING WALL PLAN

FOUNDATION NOTES

1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH. PROVIDED DIMENSIONS ARE TO FACE OF CONCRETE STEM WALL OR CENTER OF INDIVIDUAL FOOTING. OUTSIDE FACE OF STEM WALL ALIGNS WITH OUTSIDE FACE OF STUD WALL UNO. STHD HOLDOWNS ARE DIMENSIONED TO CENTER OF STRAP. HDU/HD/HTT HOLDOWNS ARE DIMENSIONED TO CENTER OF ANCHOR BOLT.
3. VERIFY ALL T/CONC ELEVATIONS ON ALL CONCRETE INCLUDING PARTIAL HEIGHT RETAINING WALLS. CONCRETE TO EXTEND MIN 8" ABOVE FINISHED GRADE. PROVIDE 1" RECESS AT DOUBLE SIDED SHEARWALLS TO ACCOMODATE 3X SILL PLATE.
4. FOOTINGS ARE TO BEAR ON COMPETENT NATIVE SOIL OR STRUCTURAL FILL CAPABLE OF SUPPORTING THE ASSUMED BEARING PRESSURE PER GENERAL NOTES. REFERENCE GEOTECHNICAL REPORT (IF AVAILABLE) FOR SUBGRADE PREPARATION, FILL REQUIREMENTS, FOOTING DRAINS, AND OTHER REQUIREMENTS. REFERENCE ARCH SET (OR OTHERS IF APPLICABLE) FOR FOOTING DRAINS AROUND PERIMETER OF BUILDING.
5. PRIOR TO POURING CONCRETE CONTRACTOR SHALL LOCATE AND VERIFY LOCATIONS OF ALL FOUNDATION OPENINGS, PENETRATIONS, AND SLOPES.
6. 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).
7. 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.
8. HOLDOWNS BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER SPECIFICATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. HOLDOWN THREADED RODS SHALL BE ASTM F1554 (36KSI) HDG UNO. EMBEDDED END OF THREADED ROD TO HAVE 3"X3"X1/4" HDG PLATE WASHER BETWEEN TWO HAND-TIGHTENED HDG STANDARD NUTS.
9. CJ INDICATES CONTROL JOINT.
10. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
11. EXTERIOR STAIRS AND STEEL-FRAMED STAIRS BY OTHERS.
12. TYPICAL DETAILS:
    - 1/SD-1 TYP STEMWALL
    - 2/SD-1 TYP INTERIOR FOOTING
    - 3/SD-1 TYP CRAWLSPACE VENT
    - 4/SD-1 TYP FOOTING STEP
    - 5/SD-1 TYP CORNER BARS REQ'T
    - 7/SD-1 TYP CONSTRUCTION JOINT
    - 8/SD-1 TYP BAR BEND AND HOOK DETAIL
    - 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

HOLDOWN SCHEDULE			
MODEL	ANCHOR	EMBEDMENT	MIN END POST
CS16/CS14	-	-	1-2X EA
MST#	-	-	2-2X OR 3X
STHD14/STHD14RJ	-	-	2-2X OR 3X
HDU2	5/8" TR	12"	2-2X OR 3X
HDU5	5/8" TR	12"	2-2X
HDU8	7/8" TR	12"	3-2X
HDU11	1" TR	12"	6X6
HDU14	1" TR	15"	6X6
HD19	1 1/4" TR	15"	6X6

FOUNDATION LEGEND

- INDICATES STEP AT T/FOUNDATION
- INDICATES STEP AT B/FOUNDATION
- TANK WALL (TOP OF WALL NOT TO STEP WITHIN HATCHED REGION)
- HOLDOWN BY SIMPSON (STHD/HDU/HD/HTT, TYP) — STHD14 (EXAMPLE)
- FOOTING CENTERED ON POST (L X W X T) — 24 X 24 X 10 (EXAMPLE)

HANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

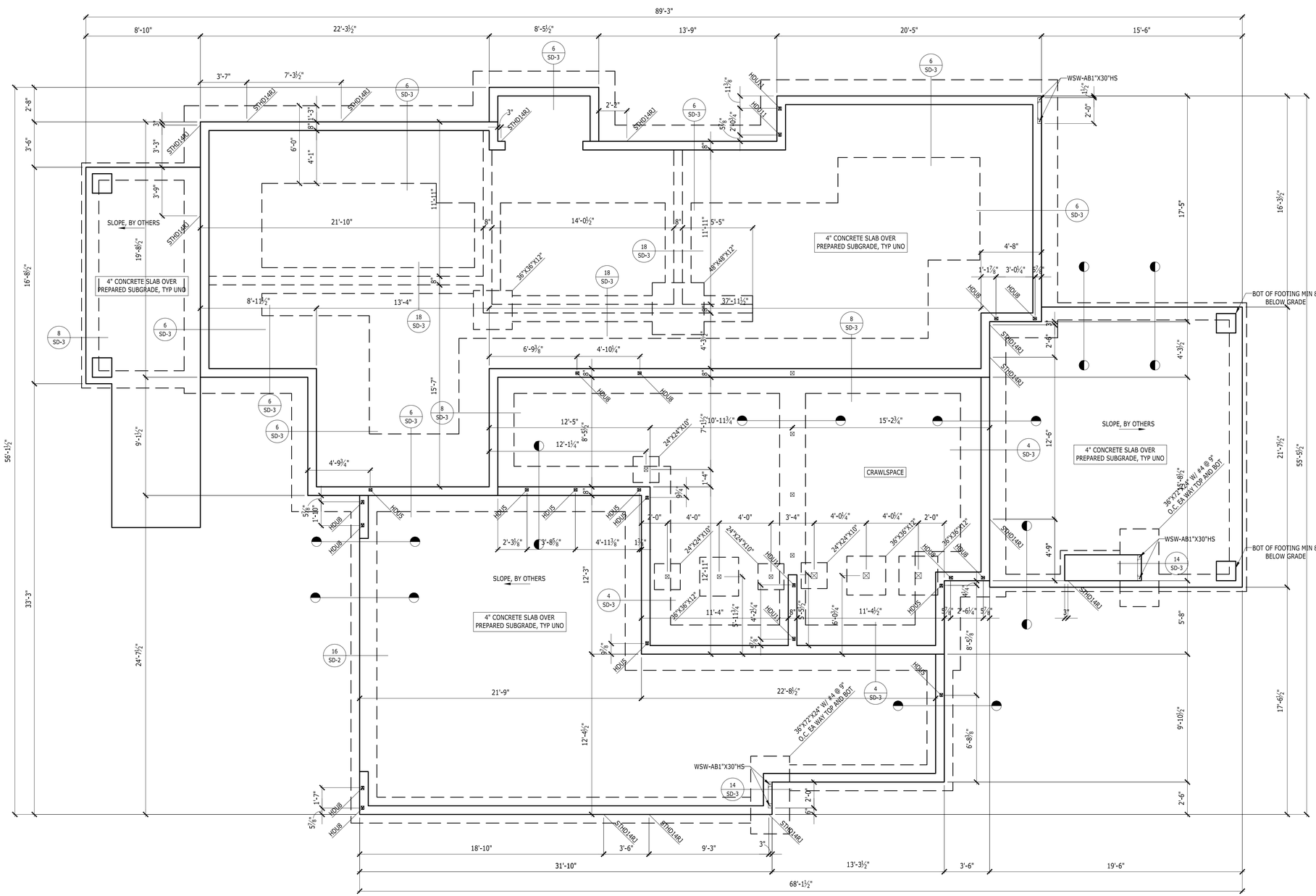
CHECKED BY - AP

SHEET DATE - 05/12/2021

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

DESCRIPTION
SITE RETAINING WALL PLAN

SHEET
S-2.0



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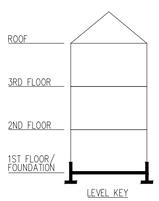
1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH. PROVIDED DIMENSIONS ARE TO FACE OF CONCRETE STEM WALL OR CENTER OF INDIVIDUAL FOOTING. OUTSIDE FACE OF STEM WALL ALIGNS WITH OUTSIDE FACE OF STUD WALL UNO. STHD HOLDOWNS ARE DIMENSIONED TO CENTER OF STRAP. HDU/HD/HTT HOLDOWNS ARE DIMENSIONED TO CENTER OF ANCHOR BOLT.
3. VERIFY ALL T/CONC ELEVATIONS ON ALL CONCRETE INCLUDING PARTIAL HEIGHT RETAINING WALLS. CONCRETE TO EXTEND MIN 8" ABOVE FINISHED GRADE. PROVIDE 1" RECESS AT DOUBLE SIDED SHEARWALLS TO ACCOMODATE 3X SILL PLATE.
4. FOOTINGS ARE TO BEAR ON COMPETENT NATIVE SOIL OR STRUCTURAL FILL CAPABLE OF SUPPORTING THE ASSUMED BEARING PRESSURE PER GENERAL NOTES. REFERENCE GEOTECHNICAL REPORT (IF AVAILABLE) FOR SUBGRADE PREPARATION, FILL REQUIREMENTS, FOOTING DRAINS, AND OTHER REQUIREMENTS. REFERENCE ARCH SET (OR OTHERS IF APPLICABLE) FOR FOOTING DRAINS AROUND PERIMETER OF BUILDING.
5. PRIOR TO POURING CONCRETE CONTRACTOR SHALL LOCATE AND VERIFY LOCATIONS OF ALL FOUNDATION OPENINGS, PENETRATIONS, AND SLOPES.
6. 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).
7. 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.
8. HOLDOWNS BY SIMPSON STRONG-TIE. INSTALLATION PER MANUFACTURER SPECIFICATIONS. ALTERNATIVE SOLUTIONS SHALL BE SUBMITTED TO EOR FOR APPROVAL PRIOR TO INSTALLATION. HOLDOWN THREADED RODS SHALL BE ASTM F1554 (36KSI) HDG UNO. EMBEDDED END OF THREADED ROD TO HAVE 3"X3"X1/4" HDG PLATE WASHER BETWEEN TWO HAND-TIGHTENED HDG STANDARD NUTS.
9. CJ INDICATES CONTROL JOINT.
10. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
11. EXTERIOR STAIRS AND STEEL-FRAMED STAIRS BY OTHERS.
12. TYPICAL DETAILS:
    - 1/SD-1 TYP STEMWALL
    - 2/SD-1 TYP INTERIOR FOOTING
    - 3/SD-1 TYP CRAWLSPACE VENT
    - 4/SD-1 TYP FOOTING STEP
    - 5/SD-1 TYP CORNER BARS REQ'T
    - 7/SD-1 TYP CONSTRUCTION JOINT
    - 8/SD-1 TYP BAR BEND AND HOOK DETAIL
    - 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

HOLDOWN SCHEDULE			
MODEL	ANCHOR	EMBEDMENT	MIN END POST
CS16/CS14	-	-	1-2X EA
MST#	-	-	2-2X OR 3X
STHD14/STHD14RJ	-	-	2-2X OR 3X
HDU2	5/8" TR	12"	2-2X OR 3X
HDU5	5/8" TR	12"	2-2X
HDU8	7/8" TR	12"	3-2X
HDU11	1" TR	12"	6X6
HDU14	1" TR	15"	6X6
HD19	1 1/4" TR	15"	6X6

FOUNDATION LEGEND

- INDICATES STEP AT T/FOUNDATION
- INDICATES STEP AT B/FOUNDATION
- TANK WALL (TOP OF WALL NOT TO STEP WITHIN HATCHED REGION)
- STHD14 (EXAMPLE) - HOLDOWN BY SIMPSON (STHD/HDU/HD/HTT, TYP)
- 24 X 24 X 10 (EXAMPLE) - FOOTING CENTERED ON POST (L X W X T)



FOUNDATION PLAN

HANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

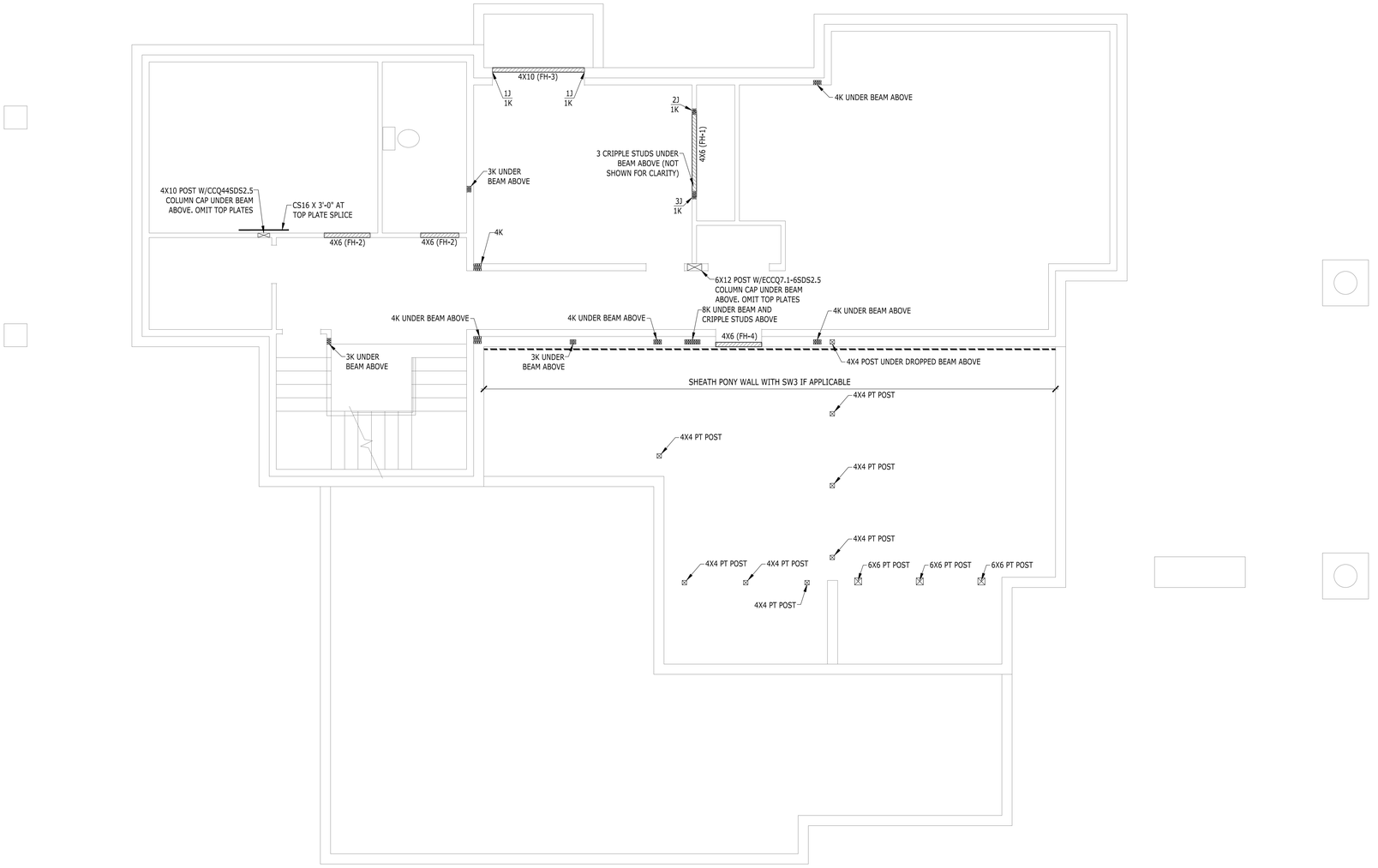
CHECKED BY - AP

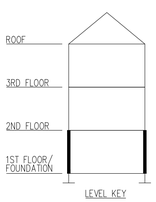
SHEET DATE - 05/12/2021

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

DESCRIPTION
FOUNDATION PLAN

SHEET
S-2.1





FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN

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 (.131Ø X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148X 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

STHD14 (EXAMPLE) - HOLDOWN BY SIMPSON (STHD/MST/HDU/HD, TYP)

#K / #J - INDICATES THE NUMBER OF KING AND JACK STUDS

- - - - INDICATES SHEARWALL LOCATION (SW# - SHEAR WALL MARK)

CS16 - HORIZONTAL STRAP (EXAMPLE)

——— - HEADER

SW6 (A.1) - SHEAR WALL CALLOUT
- REFERENCE TO WALL DESIGNATION IN THE CALCULATION PACKAGE
- REFERENCE TO SHEAR WALL TYPE PER SHEAR WALL SCHEDULE

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

SHEAR WALL SCHEDULE

WALL	SHEATHING	PANEL EDGE NAILING (COMMON OR GALV BOX 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 .148Ø 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.

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER
LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

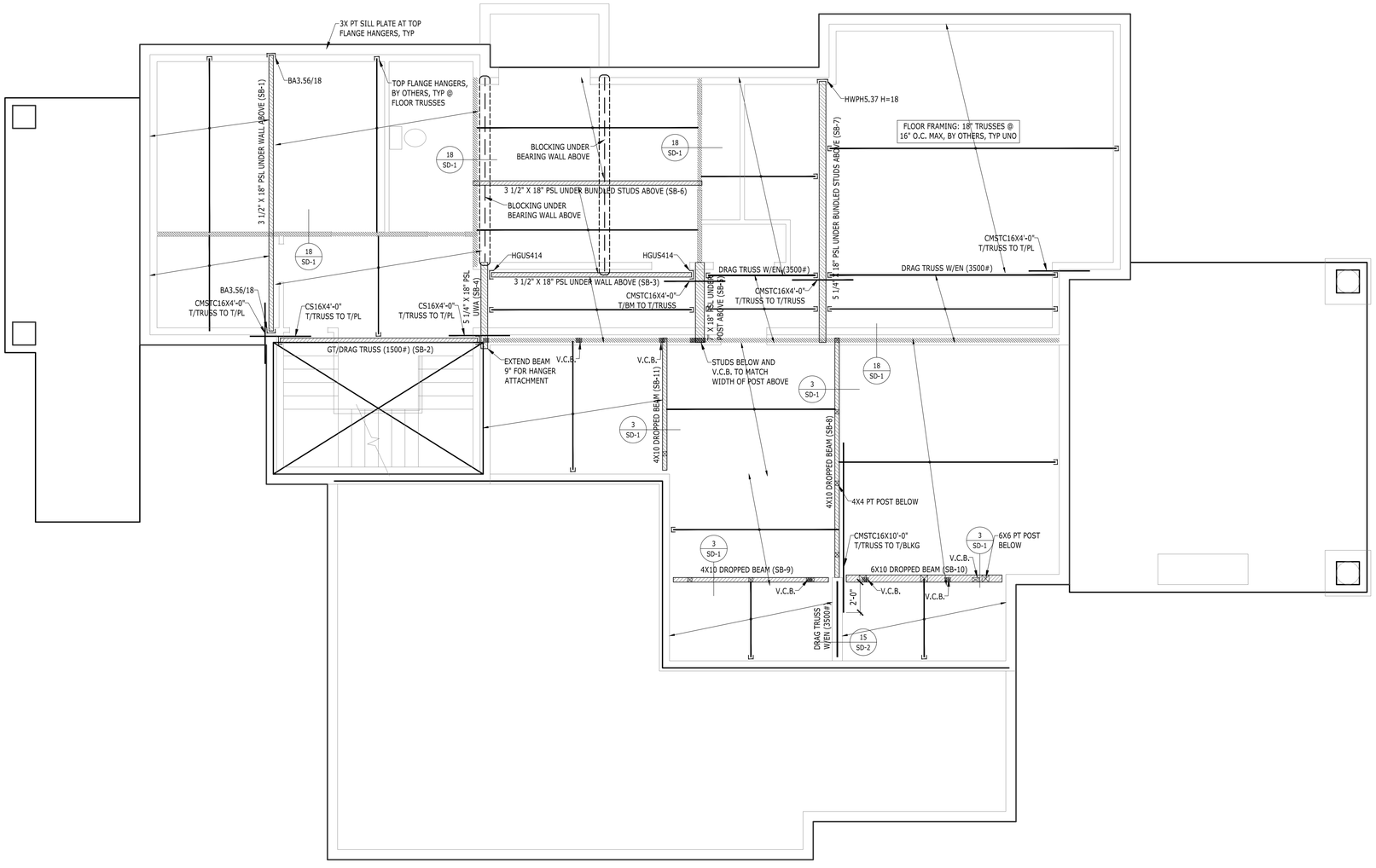
CHECKED BY - AP

SHEET DATE - 05/12/2021

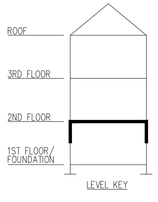
SCALE
24X36 SHEET:1/4"=1'-0"

DESCRIPTION
FIRST FLOOR WALL FRAMING AND SHEAR WALL PLAN

SHEET
S-3



SECOND FLOOR FRAMING PLAN

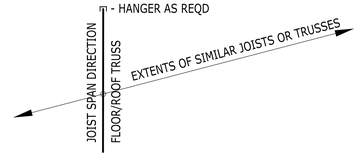


FLOOR FRAMING NOTES

1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
3. 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).
4. LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH FLOOR FRAMING. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
5. 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).
6. 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/BEAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/BEAM EQUAL T/JOISTS AND B/BEAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BEAM EQUAL B/JOISTS AND T/BEAM EXTENDING ABOVE T/JOISTS.
7. ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
8. STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
9. 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.
10. HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN.
11. 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.
12. ENGINEERED FLOOR JOISTS AND FLOOR TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
13. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
14. 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

- BLOCKED FLOOR DIAPHRAGM
- W10X15 - STEEL BEAM (EXAMPLE)
- GT - GIRDER TRUSS
- FLOOR BEAM
- INTERIOR BEARING WALL
- STRAP
- LOW ROOF
- 3 1/8" X 9" GLB (FH-5) - BEAM/HEADER CALL OUT (EXAMPLE)
  - REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE
  - BEAM OR TRUSS MEMBER
- HANGER AS REQD



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

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY° ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

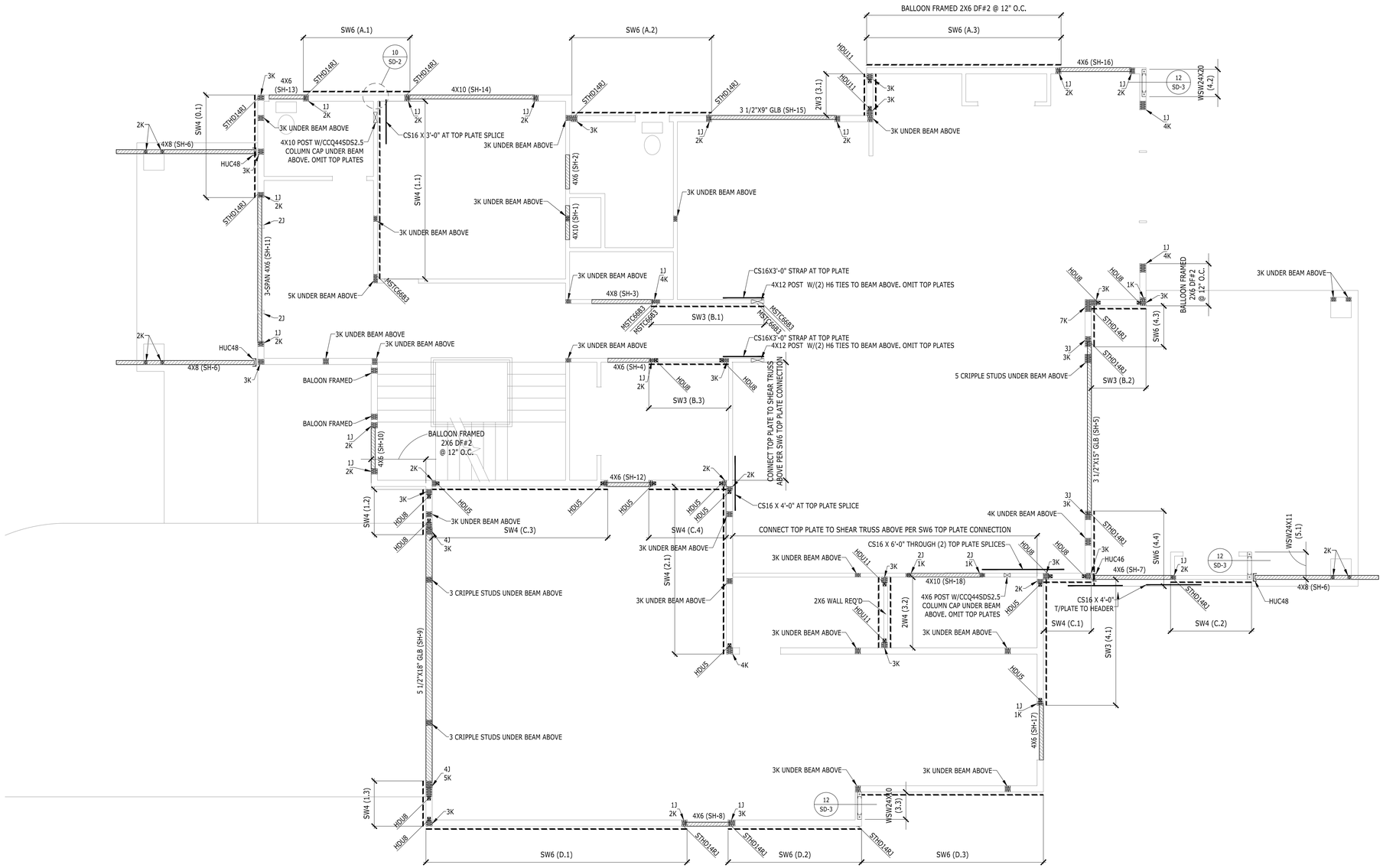
CHECKED BY - AP

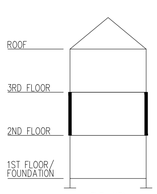
SHEET DATE - 05/12/2021

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

DESCRIPTION
SECOND FLOOR FRAMING PLAN

S-4
SHEET





SECOND FLOOR WALL FRAMING AND SHEAR WALL PLAN

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 (.131Ø X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148X 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

- STHD14 (EXAMPLE) - HOLDOWN BY SIMPSON (STHD/MST/HDU/HD, TYP)
- #K / #J - INDICATES THE NUMBER OF KING AND JACK STUDS
- - INDICATES SHEARWALL LOCATION (SW# - SHEAR WALL MARK)
- CS16 - HORIZONTAL STRAP (EXAMPLE)
- - HEADER
- SW6 (A.1) - SHEAR WALL CALLOUT
  - REFERENCE TO WALL DESIGNATION IN THE CALCULATION PACKAGE
  - REFERENCE TO SHEAR WALL TYPE PER SHEAR WALL SCHEDULE
- 3 1/8" X 9" GLB (FH-5) - EXAMPLE
  - REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE
  - BEAM OR TRUSS MEMBER

SHEAR WALL SCHEDULE

WALL	SHEATHING	PANEL EDGE NAILING (COMMON OR GALV BOX 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 .148Ø 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.

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

CHECKED BY - AP

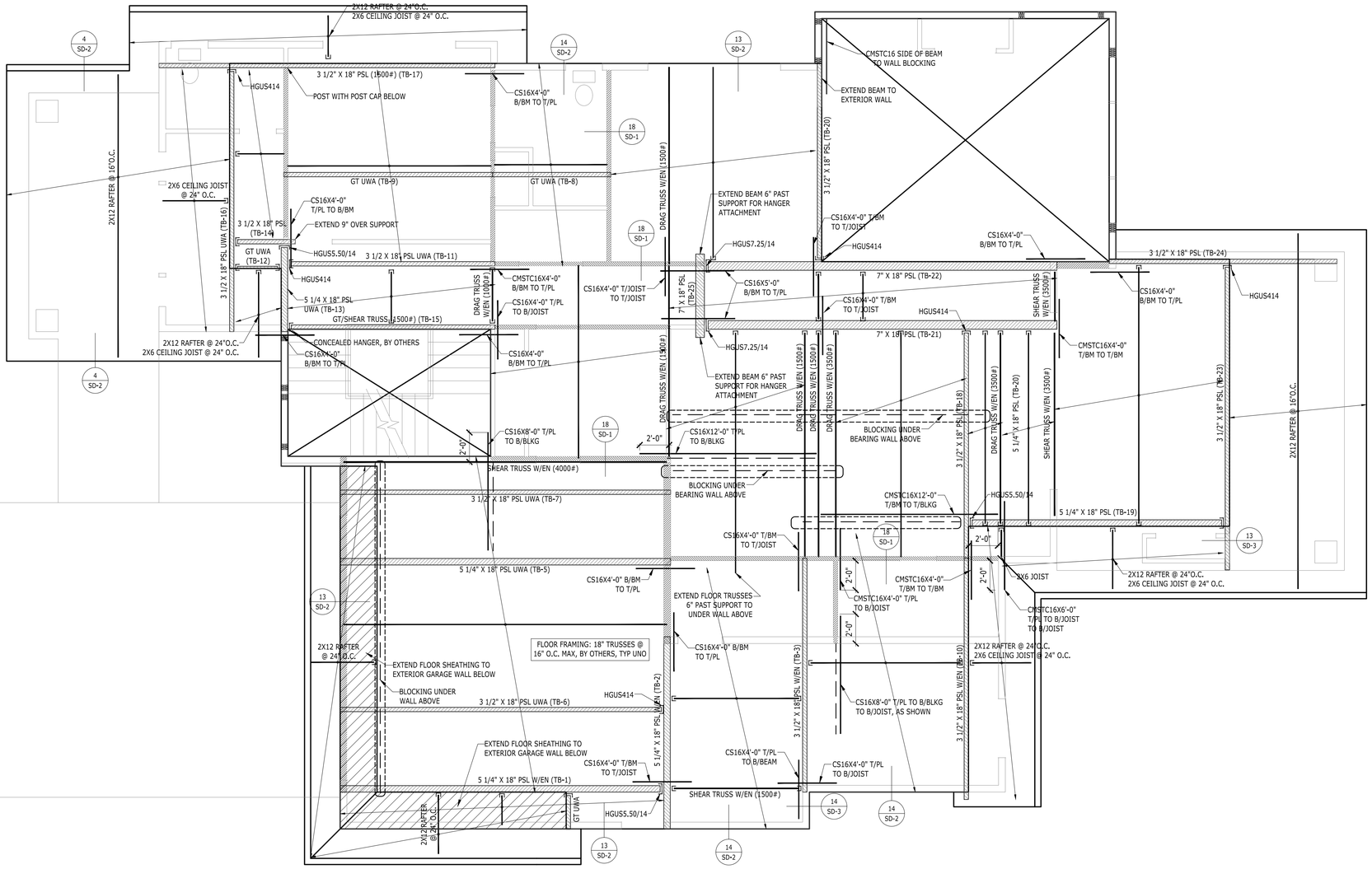
SHEET DATE - 05/12/2021

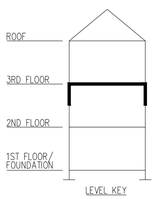
SCALE
24X36 SHEET:1/4"=1'-0"

DESCRIPTION
SECOND FLOOR WALL FRAMING AND SHEAR WALL PLAN

S-5

SHEET





THIRD FLOOR FRAMING PLAN

FLOOR FRAMING NOTES

1. GENERAL STRUCTURAL NOTES AND ABBREVIATIONS PER SHEET S-1.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH ARCH.
3. 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).
4. LOCATE ALL OPENINGS AND PENETRATIONS AND VERIFY NO CONFLICT WITH FLOOR FRAMING. MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS BY OTHERS.
5. 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).
6. 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/BEAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/BEAM EQUAL T/JOISTS AND B/BEAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BEAM EQUAL B/JOISTS AND T/BEAM EXTENDING ABOVE T/JOISTS.
7. ALL NON-BEARING WALLS TO BE FRAMED MIN 0.25" UNDER FLOOR SYSTEM.
8. STUD QUANTITIES, POST SIZE, HOLDOWN, AND SHEARWALL REQUIREMENTS PER WALL FRAMING AND SHEARWALL PLAN BELOW.
9. 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.
10. HORIZONTAL STRAPS INDICATED ON FRAMING PLANS SHALL BE CENTERED OVER THE TOP PLATE, BEAM, OR BLOCKING. STRAP LENGTH PER PLAN.
11. 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.
12. ENGINEERED FLOOR JOISTS AND FLOOR TRUSSES TO BE DESIGNED BY OTHERS. REFER TO STRUCTURAL GENERAL NOTES FOR SUBMITTAL INFORMATION, AND DESIGN CRITERIA.
13. FIRE-PROOFING AND MOISTURE-PROOFING REQUIREMENTS BY OTHERS.
14. 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

- BLOCKED FLOOR DIAPHRAGM
- W10X15 - STEEL BEAM (EXAMPLE)
- GT - GIRDER TRUSS
- FLOOR BEAM
- INTERIOR BEARING WALL
- STRAP
- LOW ROOF
- 3 1/8" X 9" GLB (FH-5) - BEAM/HEADER CALL OUT (EXAMPLE)
  - REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE
  - BEAM OR TRUSS MEMBER
- HANGER AS REQD
- JOIST SPAN DIRECTION
- FLOOR/ROOF TRUSS
- EXTENTS OF SIMILAR JOISTS OR TRUSSES

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

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

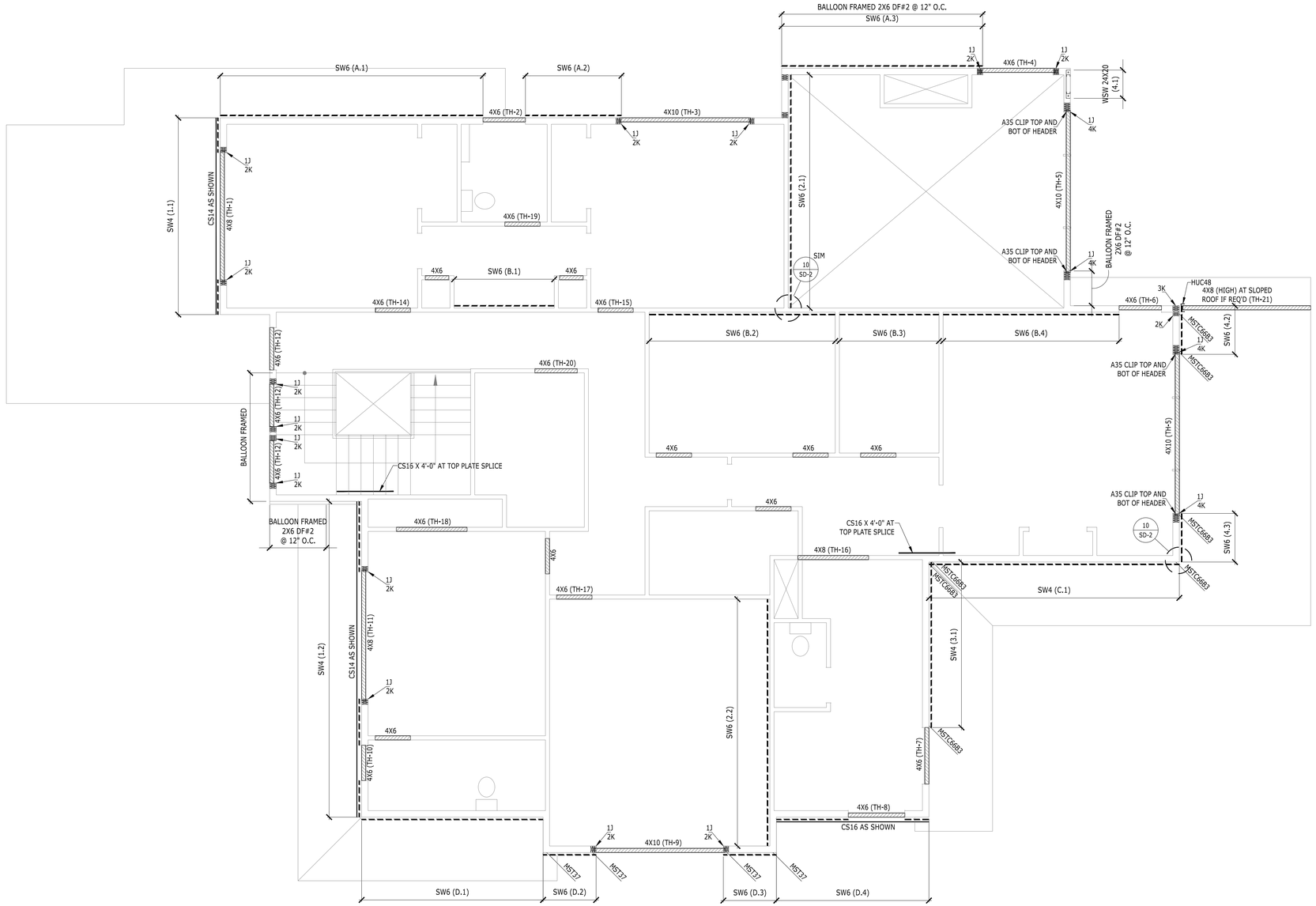
PROJECT NUMBER
S201120

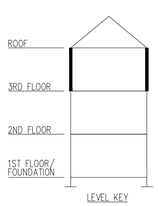
CHECKED BY - AP

SHEET DATE - 05/12/2021

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

DESCRIPTION
THIRD FLOOR FRAMING PLAN
SHEET
S-6





THIRD FLOOR WALL FRAMING AND SHEAR WALL PLAN

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 (.131Ø X 2.5") LTP4 INSTALLED DIRECTLY AGAINST FRAMING MAY USE 8d SHORT (.131X 1.5") RBC INSTALLED DIRECTLY AGAINST FRAMING USE 10d SHORT (.148X 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

- STHD14 (EXAMPLE) - HOLDOWN BY SIMPSON (STHD/MST/HDU/HD, TYP)
- #K / #J - INDICATES THE NUMBER OF KING AND JACK STUDS
- - - - - - INDICATES SHEARWALL LOCATION (SW# - SHEAR WALL MARK)
- CS16 - HORIZONTAL STRAP (EXAMPLE)
- ——— - HEADER
- SW6 (A.1) - SHEAR WALL CALLOUT
  - REFERENCE TO WALL DESIGNATION IN THE CALCULATION PACKAGE
  - REFERENCE TO SHEAR WALL TYPE PER SHEAR WALL SCHEDULE
- 3 1/8" X 9" GLB (FH-5) - EXAMPLE
  - REFERENCE TO BEAM OR TRUSS CALCULATION IN CALCULATION PACKAGE
  - BEAM OR TRUSS MEMBER

SHEAR WALL SCHEDULE

WALL	SHEATHING	PANEL EDGE NAILING (COMMON OR GALV BOX 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 .148Ø 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.

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER
LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

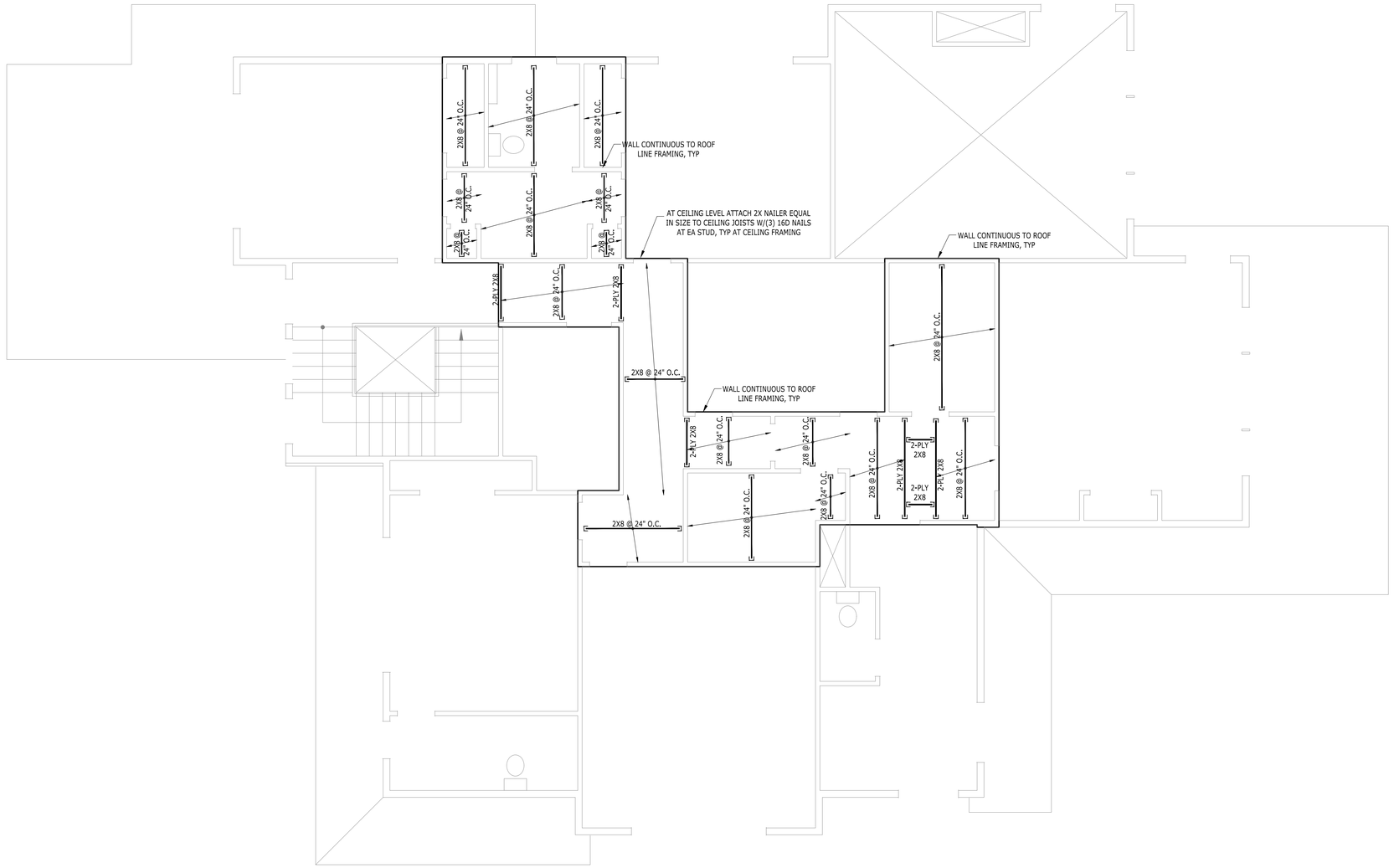
CHECKED BY - AP

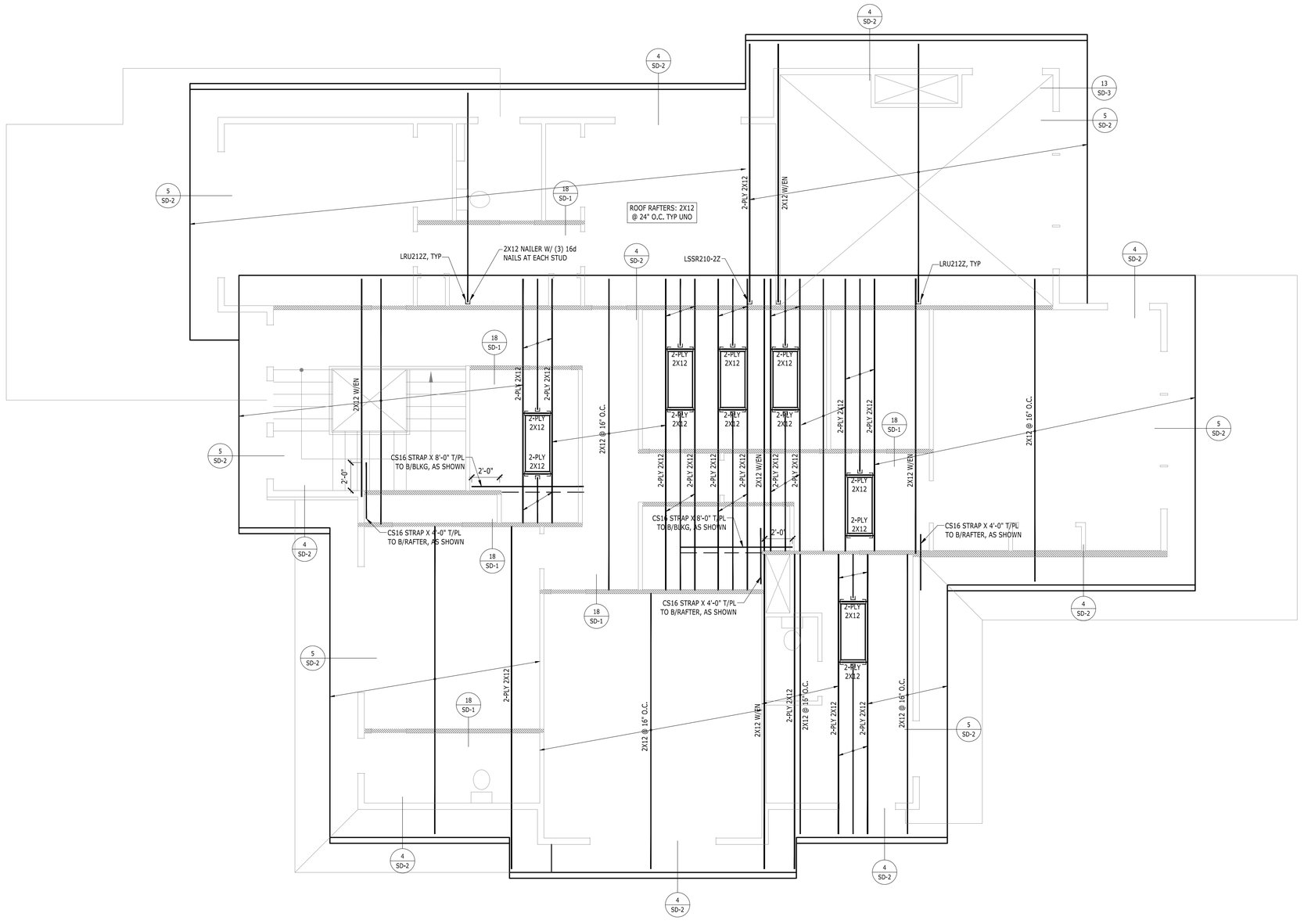
SHEET DATE - 05/12/2021

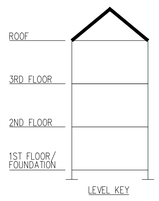
SCALE
24X36 SHEET:1/4"=1'-0"

DESCRIPTION
THIRD FLOOR WALL FRAMING AND SHEAR WALL PLAN

SHEET
S-7


2X8 @ 24" O.C.
WALL CONTINUOUS TO ROOF LINE FRAMING, TYP
AT CEILING LEVEL ATTACH 2X NAILER EQUAL IN SIZE TO CEILING JOISTS W/(3) 16D NAILS AT EA STUD, TYP AT CEILING FRAMING
2-PLY 2X8
2-PLY 2X8
2X8 @ 24" O.C.
WALL CONTINUOUS TO ROOF LINE FRAMING, TYP
2X8 @ 24" O.C.
WALL CONTINUOUS TO ROOF LINE FRAMING, TYP
2-PLY 2X8
2-PLY 2X8
2-PLY 2X8
2-PLY 2X8
2-PLY 2X8
2X8 @ 24" O.C.
2X8 @ 24" O.C.
2X8 @ 24" 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/BEAM EQUAL B/JOISTS. "TOP FLUSH" OR "TF" INDICATES T/BEAM EQUAL T/JOISTS AND B/BEAM EXTENDING BELOW B/JOISTS. "BOTTOM FLUSH" OR "BF" INDICATES B/BEAM EQUAL B/JOISTS AND T/BEAM 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
- HANGER AS REQD
- FLOOR/ROOF TRUSS OR JOIST SPAN DIRECTION
- EXTENTS OF SIMILAR JOISTS OR TRUSSES

MANS R. THURFJELL
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

LONGITUDE ONE TWENTY°
ENGINEERING & DESIGN

REVISIONS

△	DESCRIPTION	DATE	BY
-			

PROJECT NAME
FOREST AVE LOT 3

PROJECT NUMBER
S201120

CHECKED BY - AP

SHEET DATE - 05/12/2021

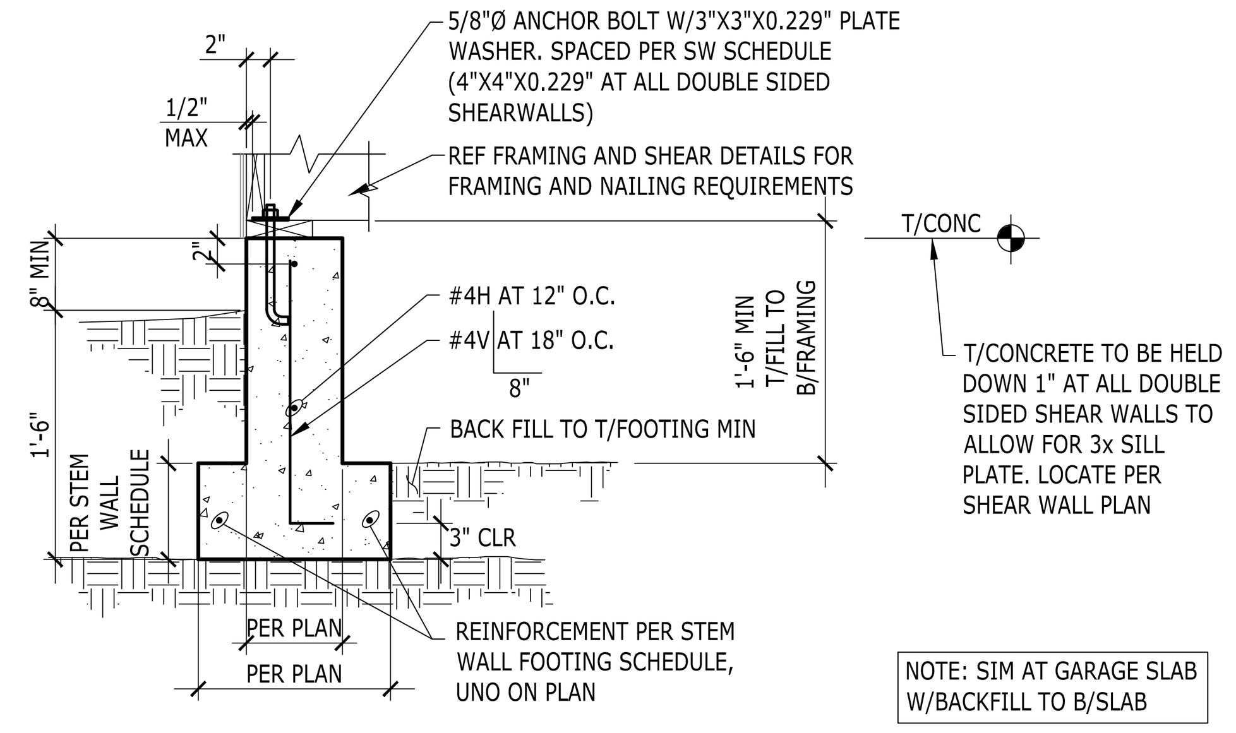
SCALE
24X36 SHEET:1/4"=1'-0"

DESCRIPTION
ROOF FRAMING PLAN

SHEET
S-9

STEM WALL FOOTING SCHEDULE

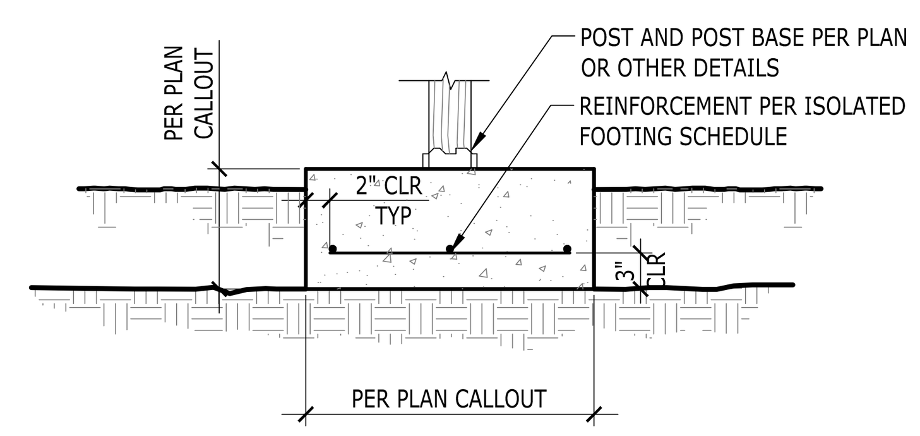
FOOTING WIDTH PER PLAN	FOOTING DEPTH	REINFORCEMENT	
		LONGITUDINAL	TRANSVERSE
1'-4"	8"	(2)#4, CONT	N/A
2'-0"	8"	(3)#4, CONT	N/A
2'-6"	10"	(3)#4, CONT	#4@12"O.C



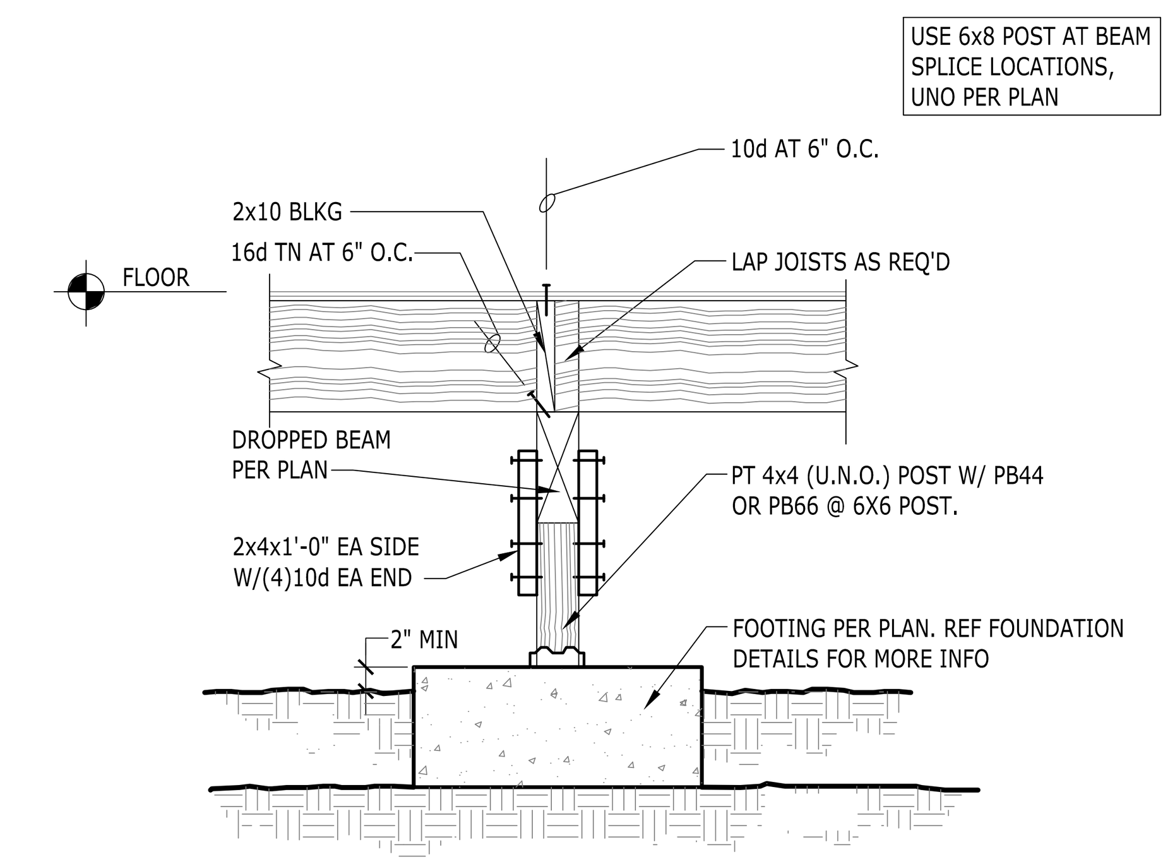
1 STEM WALL AT EXTERIOR

ISOLATED FOOTING SCHEDULE

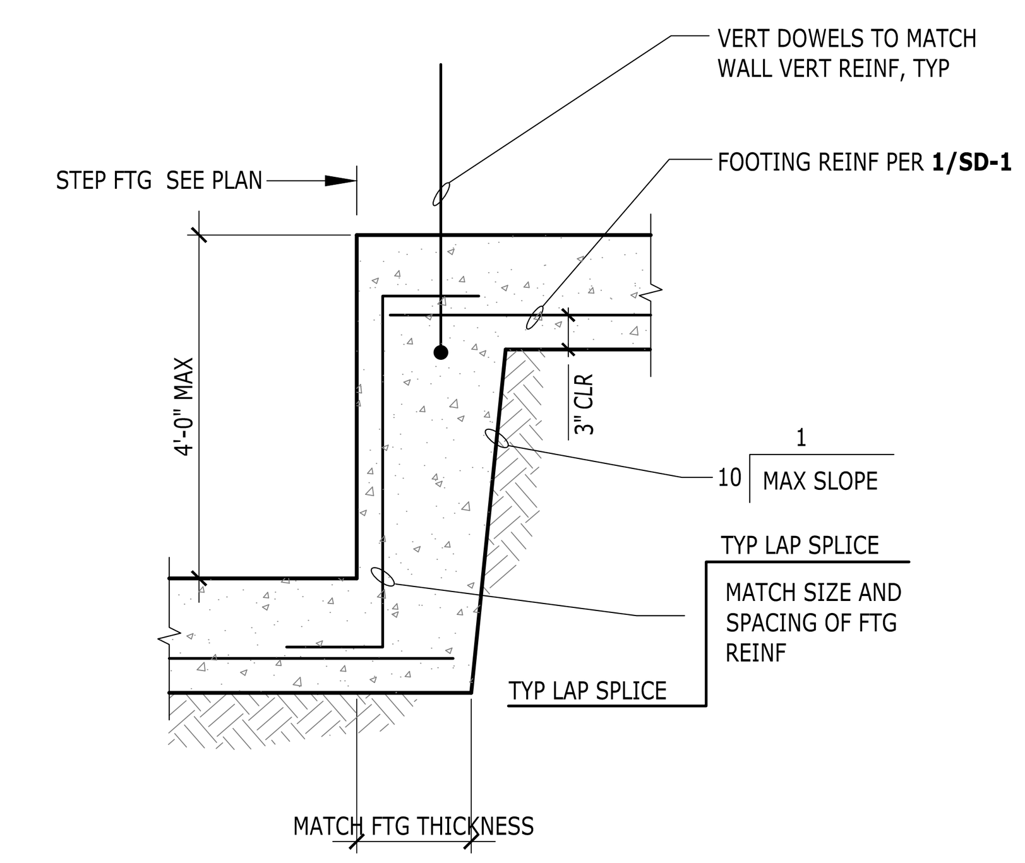
FOOTING SIZE PER PLAN	REINFORCEMENT
24" X 24" X 10"	(3)#4, EA WAY, BTM
30" X 30" X 10"	(3)#4, EA WAY, BTM
36" X 36" X 12"	(4)#4, EA WAY, BTM
42" X 42" X 12"	(5)#4, EA WAY, BTM
48" X 48" X 12"	(6)#4, EA WAY, BTM



2 ISOLATED INTERIOR FOOTING



3 DROPPED BEAM AND POST AT CRAWL SPACE

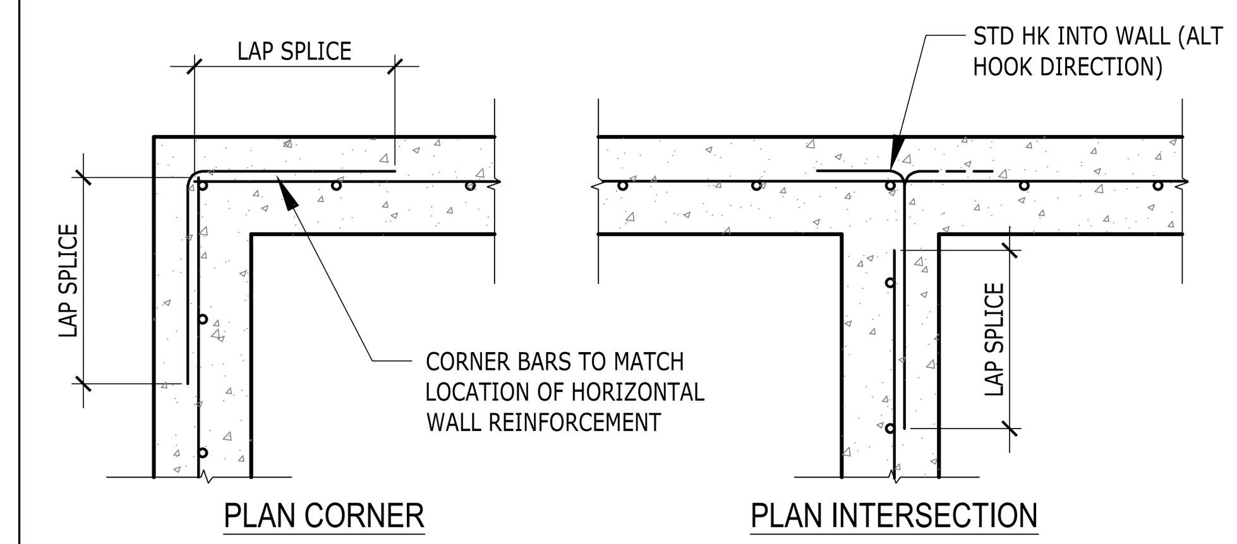


4 STEP AT WALL FOOTING

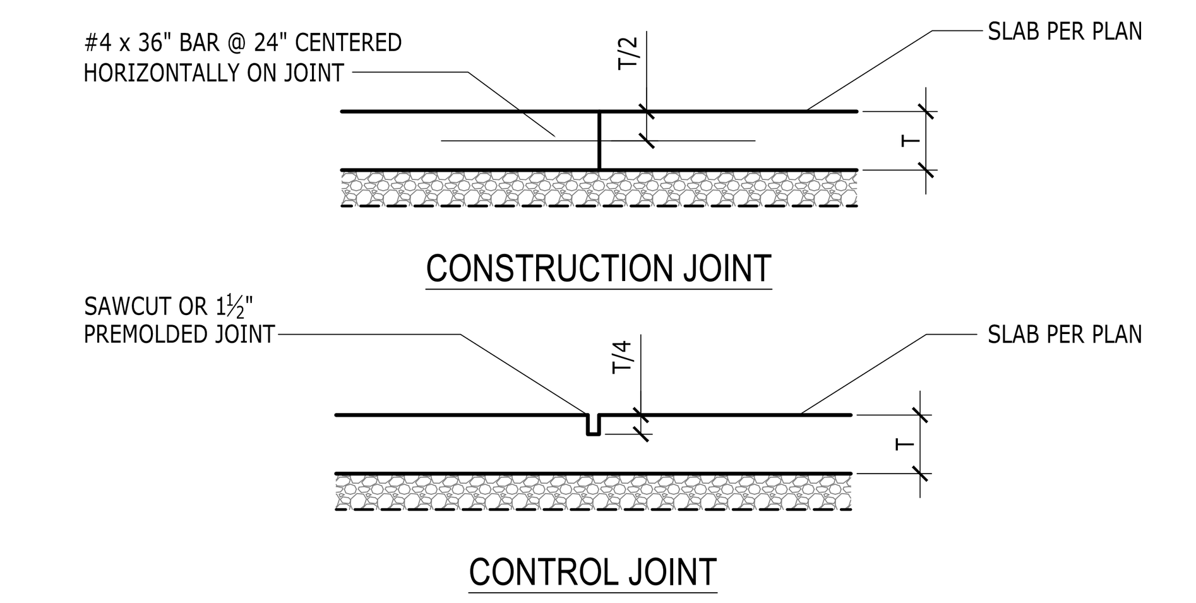
LAP SPLICE AND STANDARD HOOK LENGTH FOR CORNER BARS

BAR SIZE PER WALL	LAP SPLICE LENGTH	STD HOOK LENGTH
#4	2'-6"	0'-8"
#5	3'-0"	0'-10"
#6	3'-8"	1'-0"
#8	5'-0"	1'-3"

IF INTERSECTING WALLS HAVE DIFFERENT SIZE OF HORIZONTAL REINFORCEMENT, CORNER BARS MATCHING LARGER REINFORCEMENT SIZE AND SPACING TO BE USED



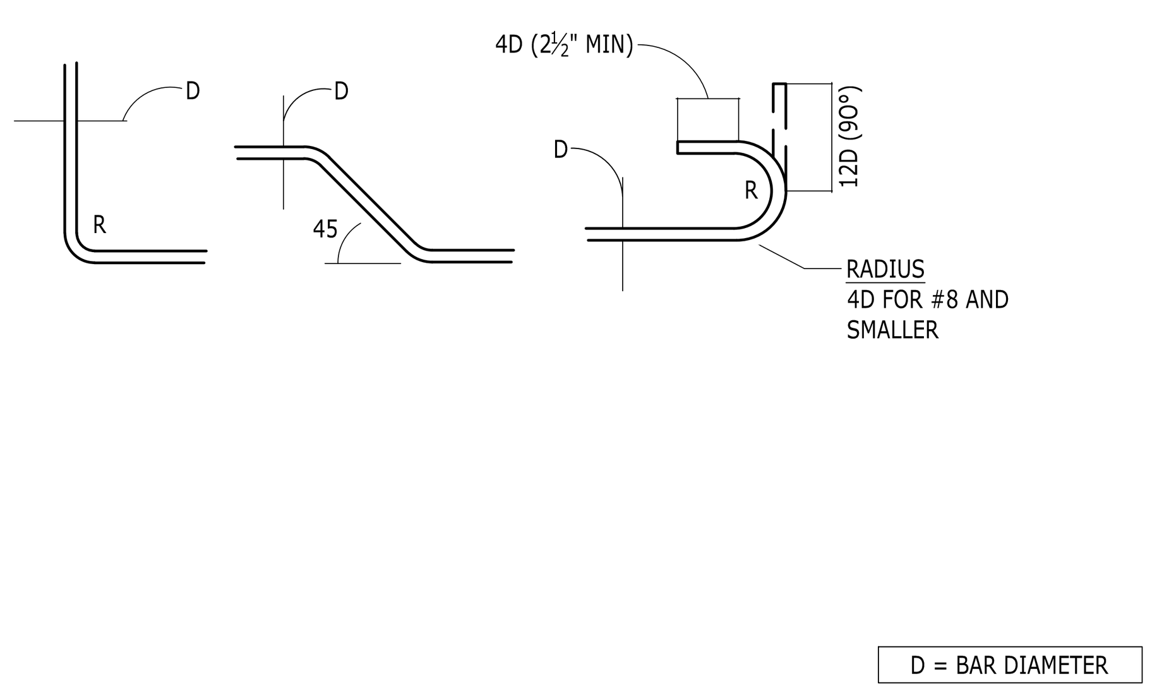
5 CORNER BARS AT CONCRETE WALLS



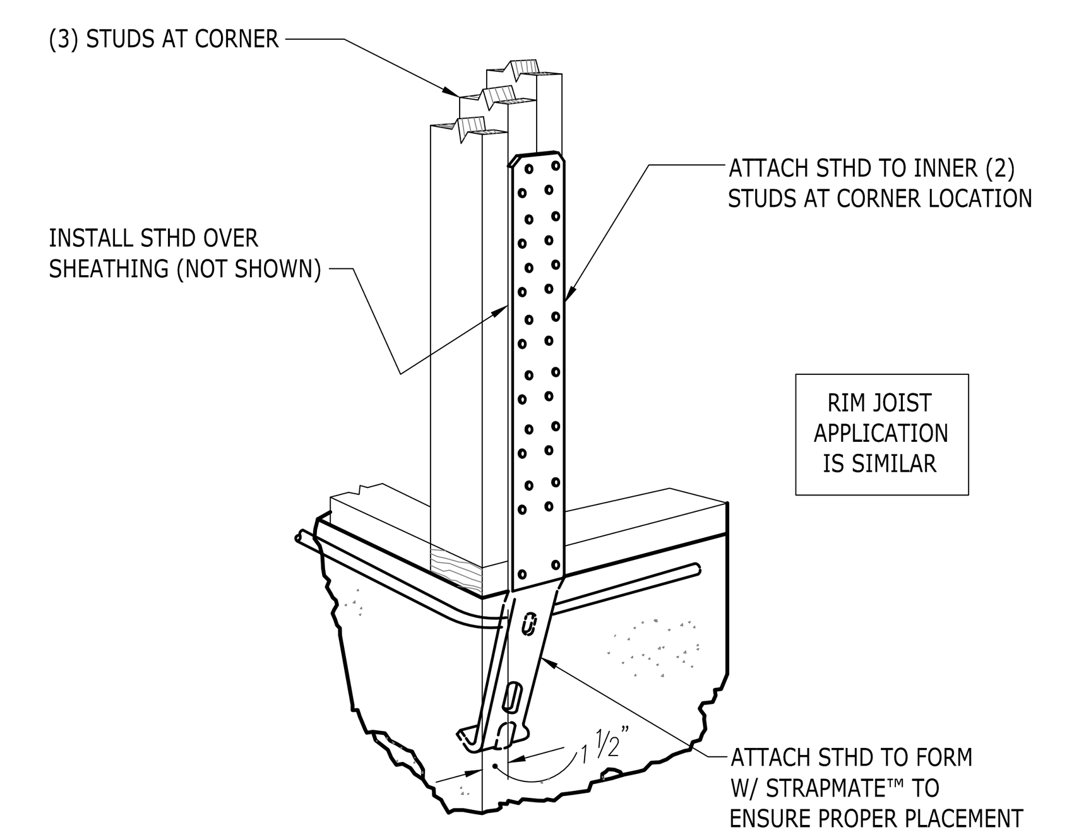
NOTES:

1. PROVIDE CONSTRUCTION / CONTROL JOINT TO ENCLOSE APPROXIMATE SQUARE AREAS OF 225 SF MAX, WITH A MAXIMUM PANEL RATIO OF 1.3 TO 1.0.
2. USE EARLY-ENTRY DRY-CUT SAW AS SOON AS PRACTICAL. SAWCUT ALONG SHORT DIRECTION OF POUR FIRST.

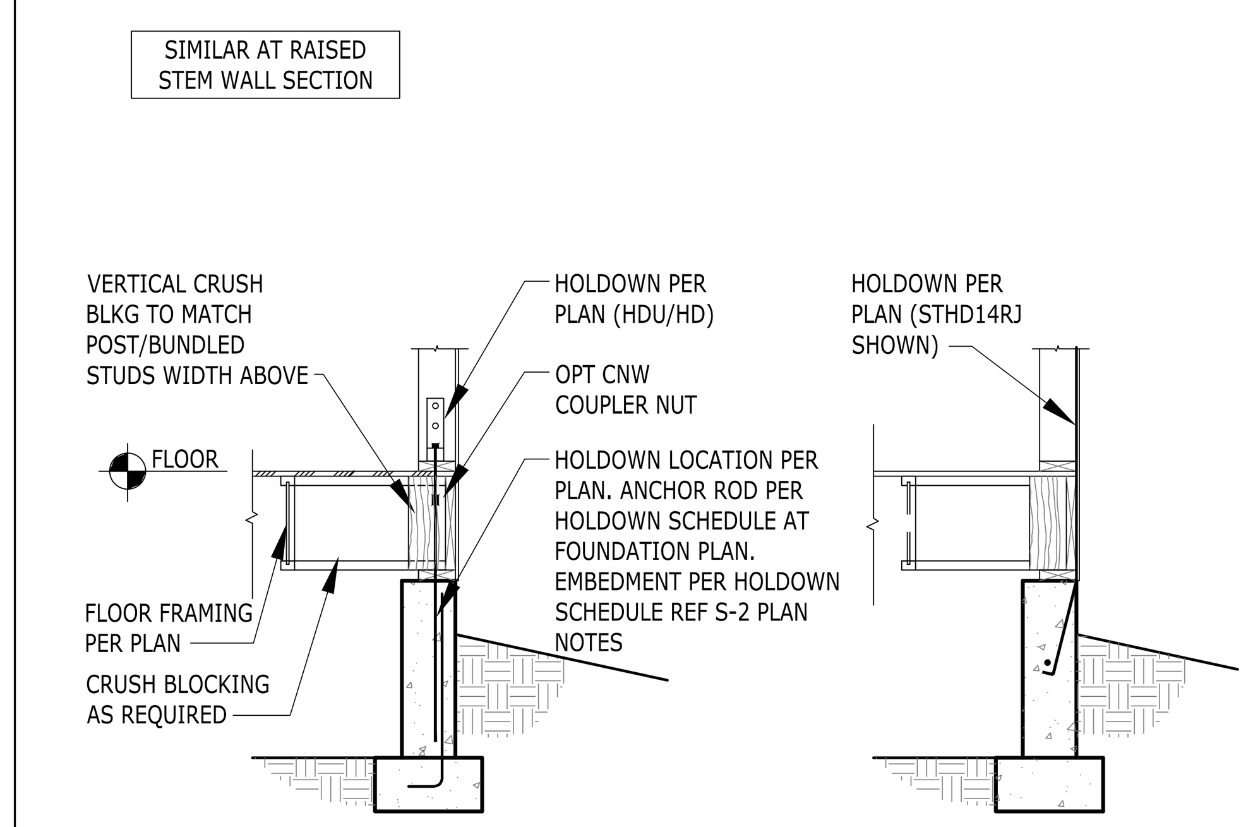
7 CONSTRUCTION/CONTROL JOINT DETAILS



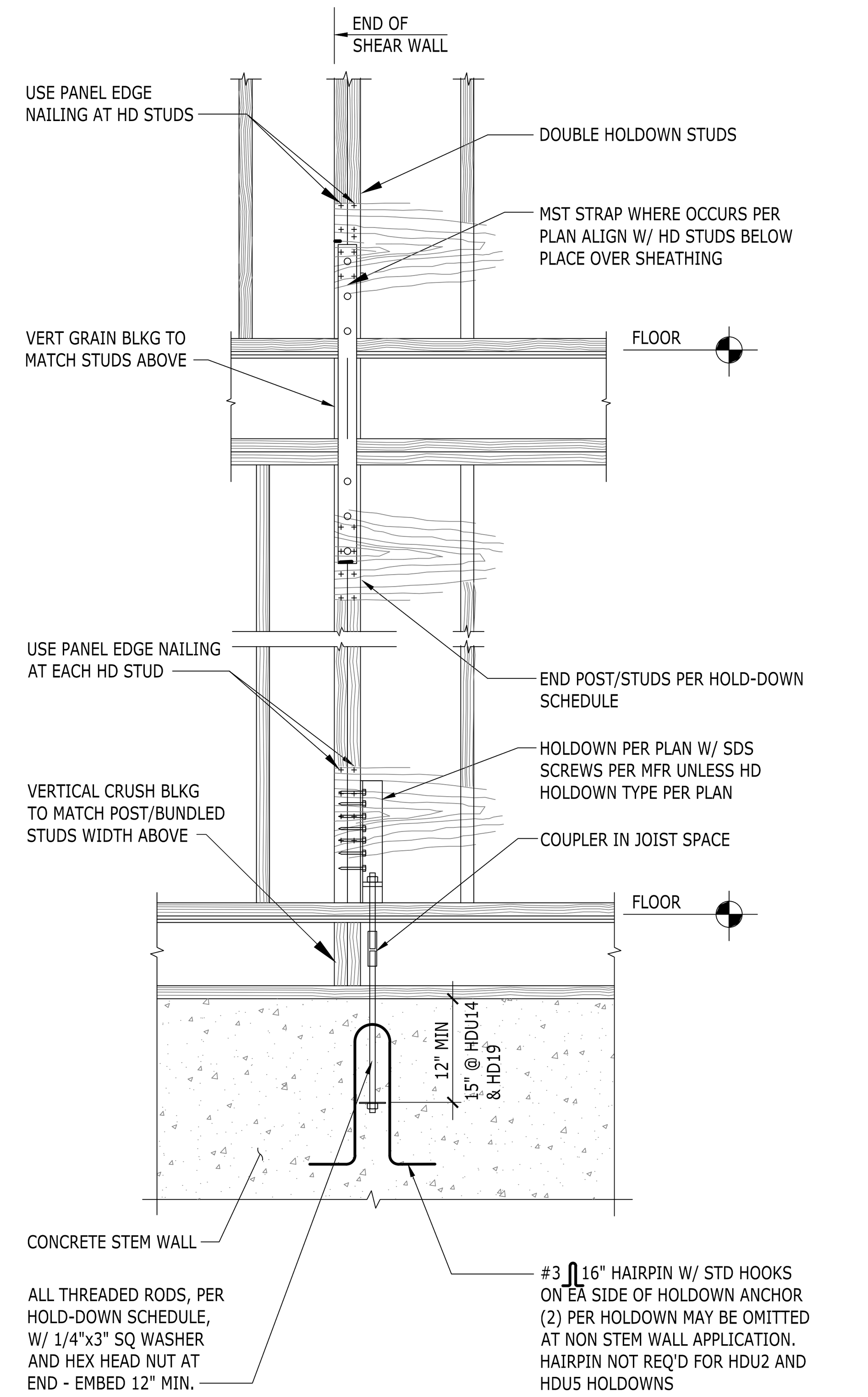
8 BAR BEND AND HOOK DETAILS



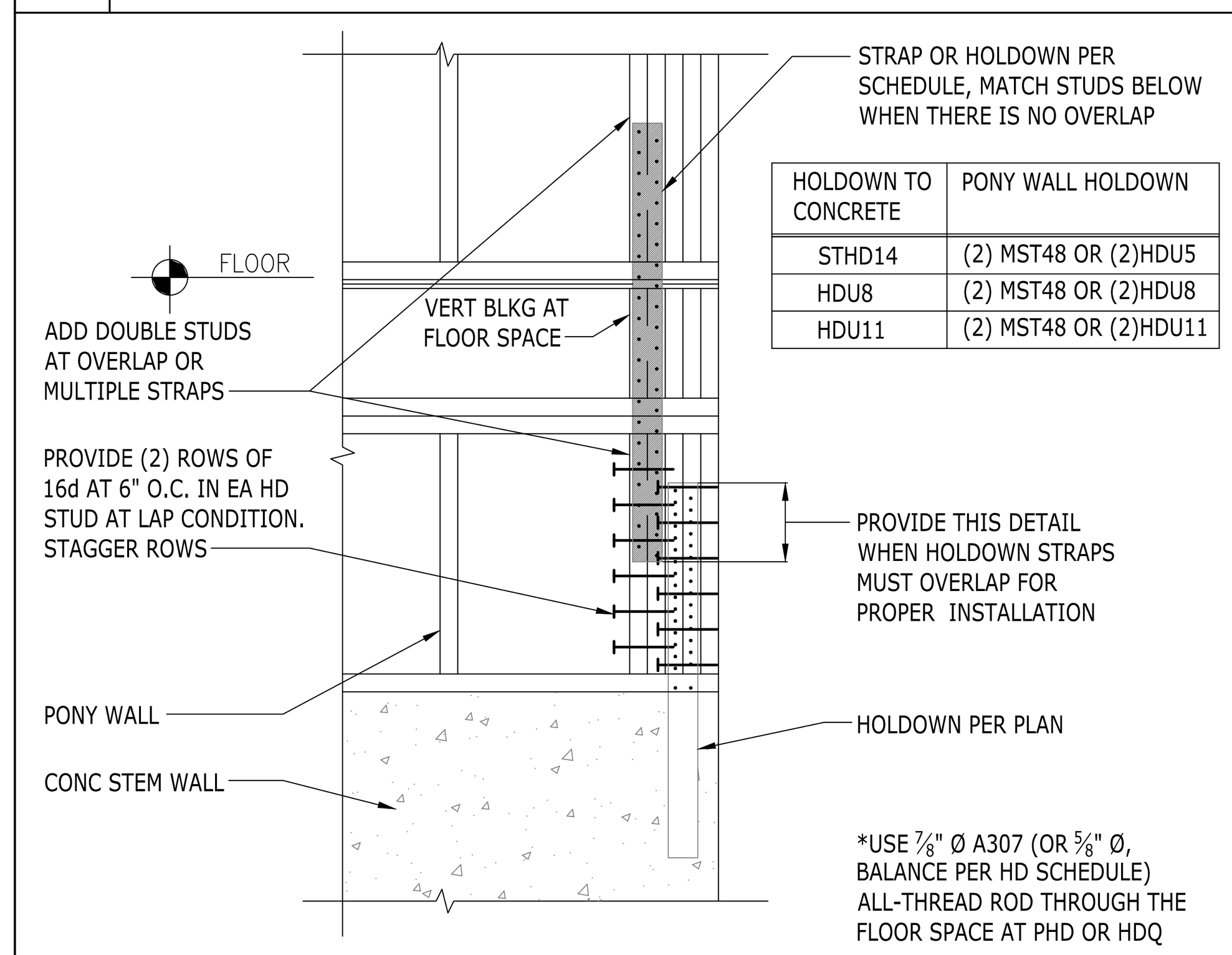
9 STHD HOLDOWN INSTALLATION



10 FOUNDATION SECTION AT HOLDOWN

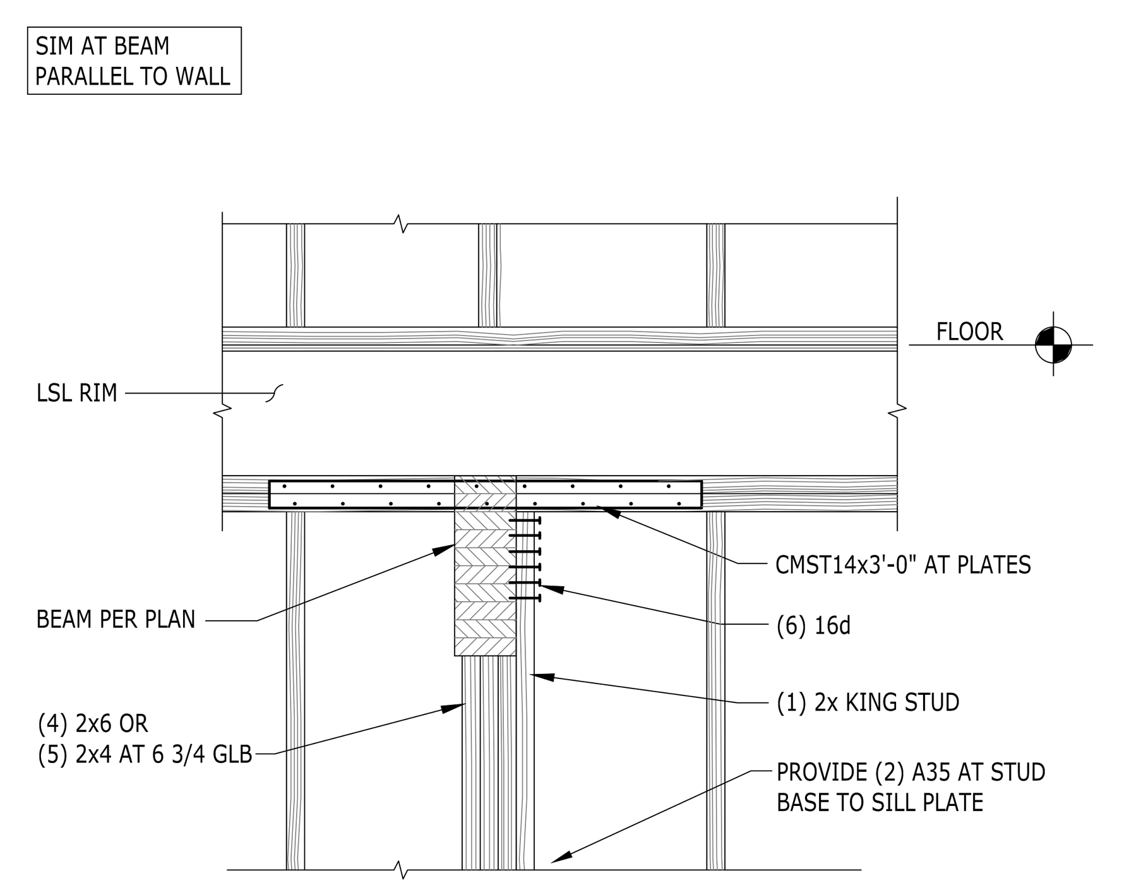


11 HOLDOWN DETAIL

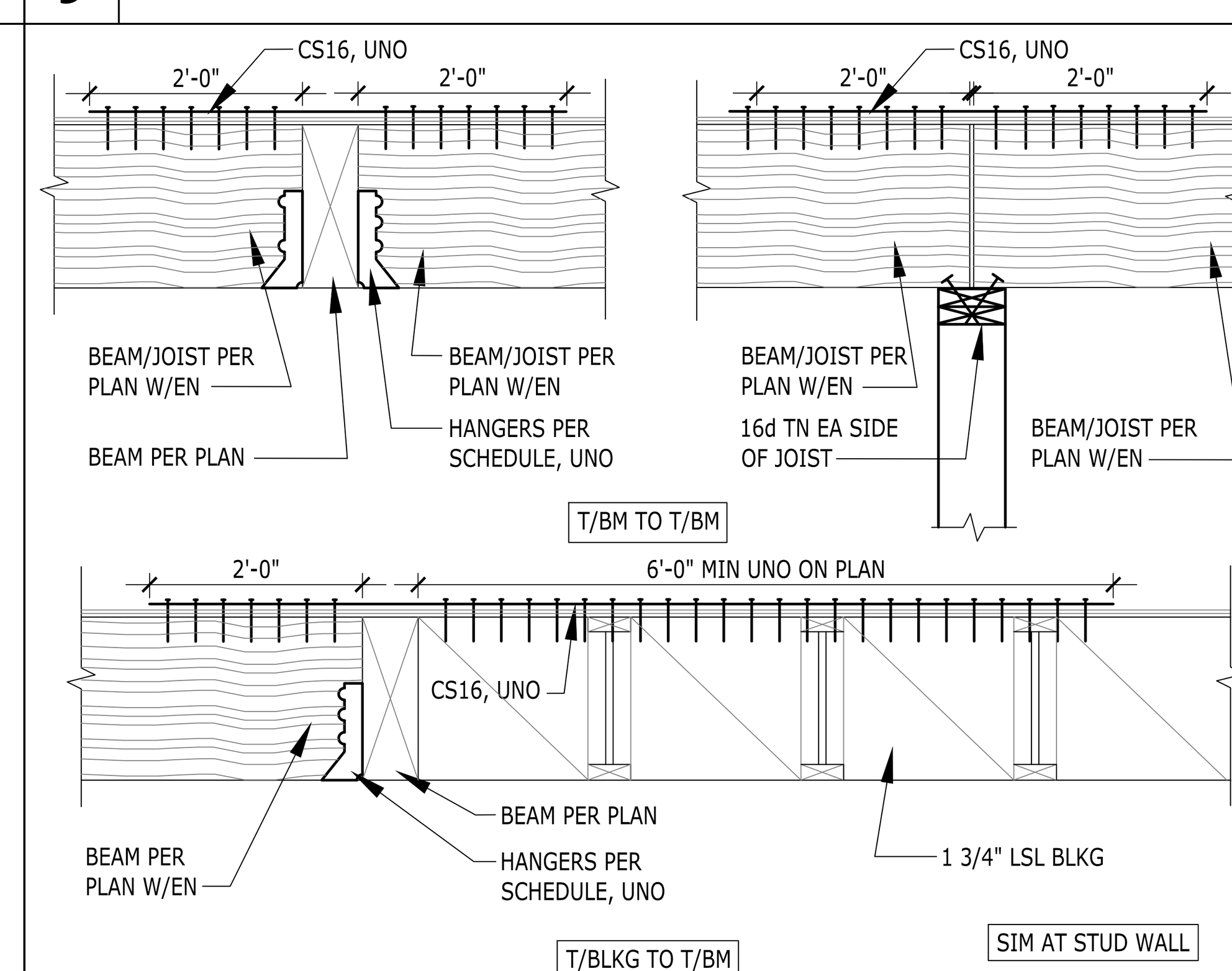


HOLDOWN TO CONCRETE	PONY WALL HOLDOWN
STHD14	(2) MST48 OR (2)HDU5
HDU8	(2) MST48 OR (2)HDU8
HDU11	(2) MST48 OR (2)HDU11

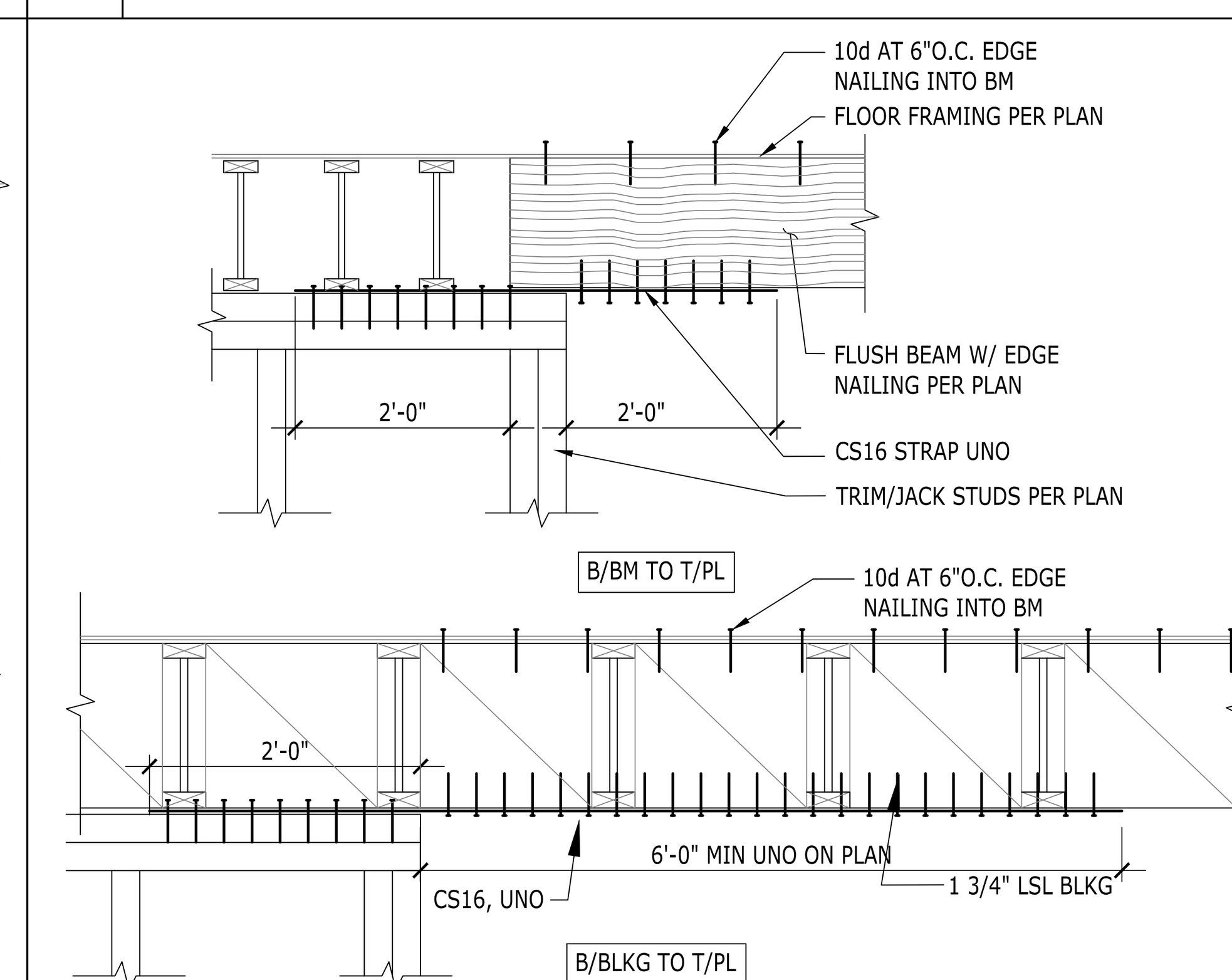
12 OVERLAP STRAP AT PONY WALL



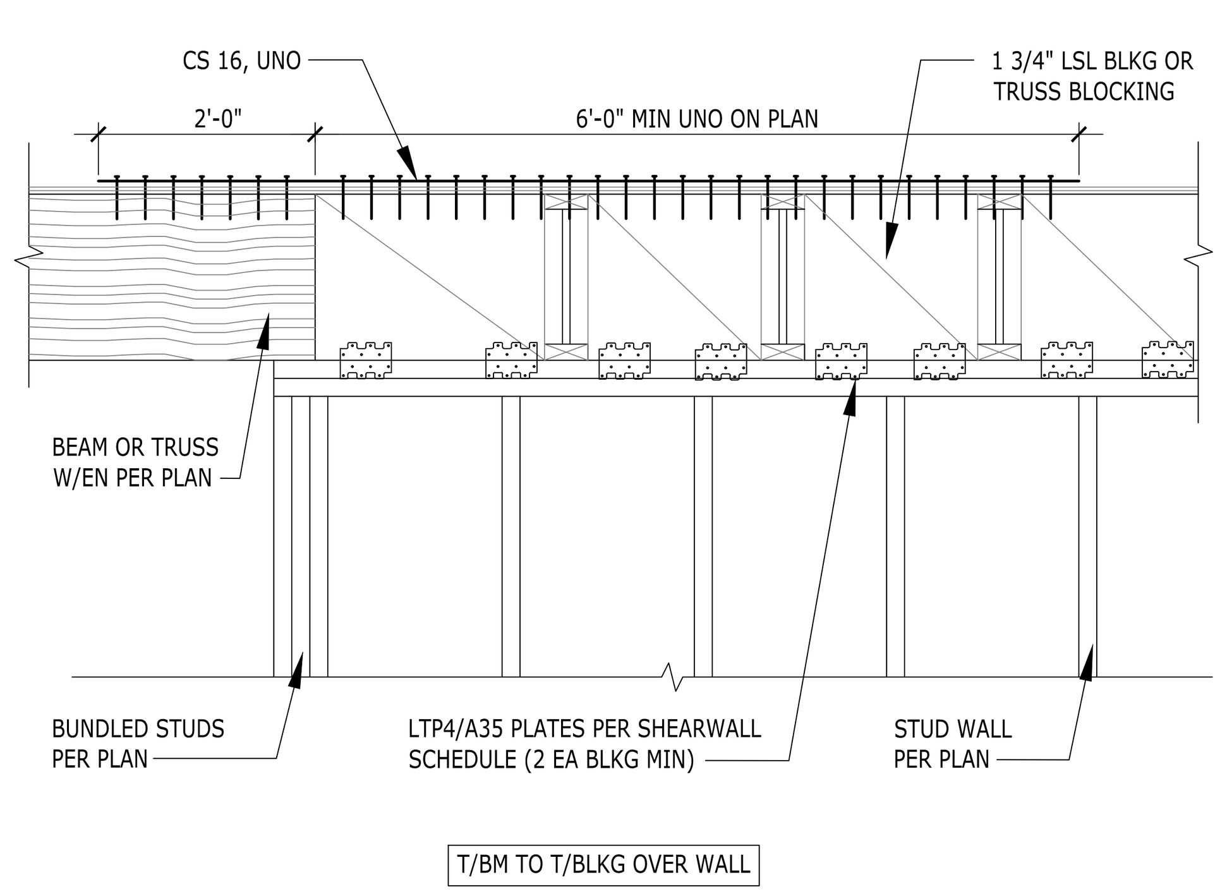
13 BEAM AT DISCONTINUOUS TOP PLATES



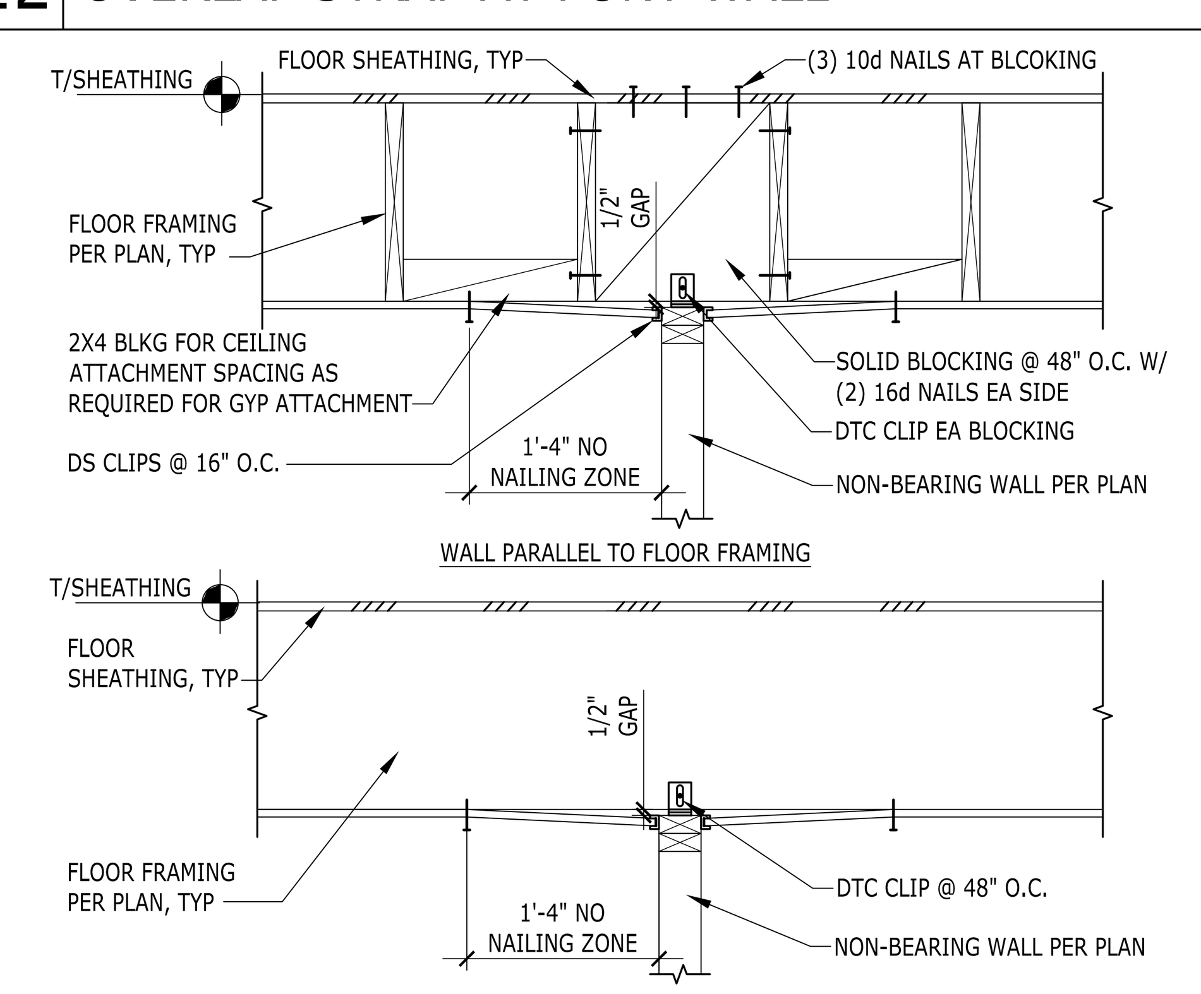
14 TENSION TIE AT FLOOR FRAMING



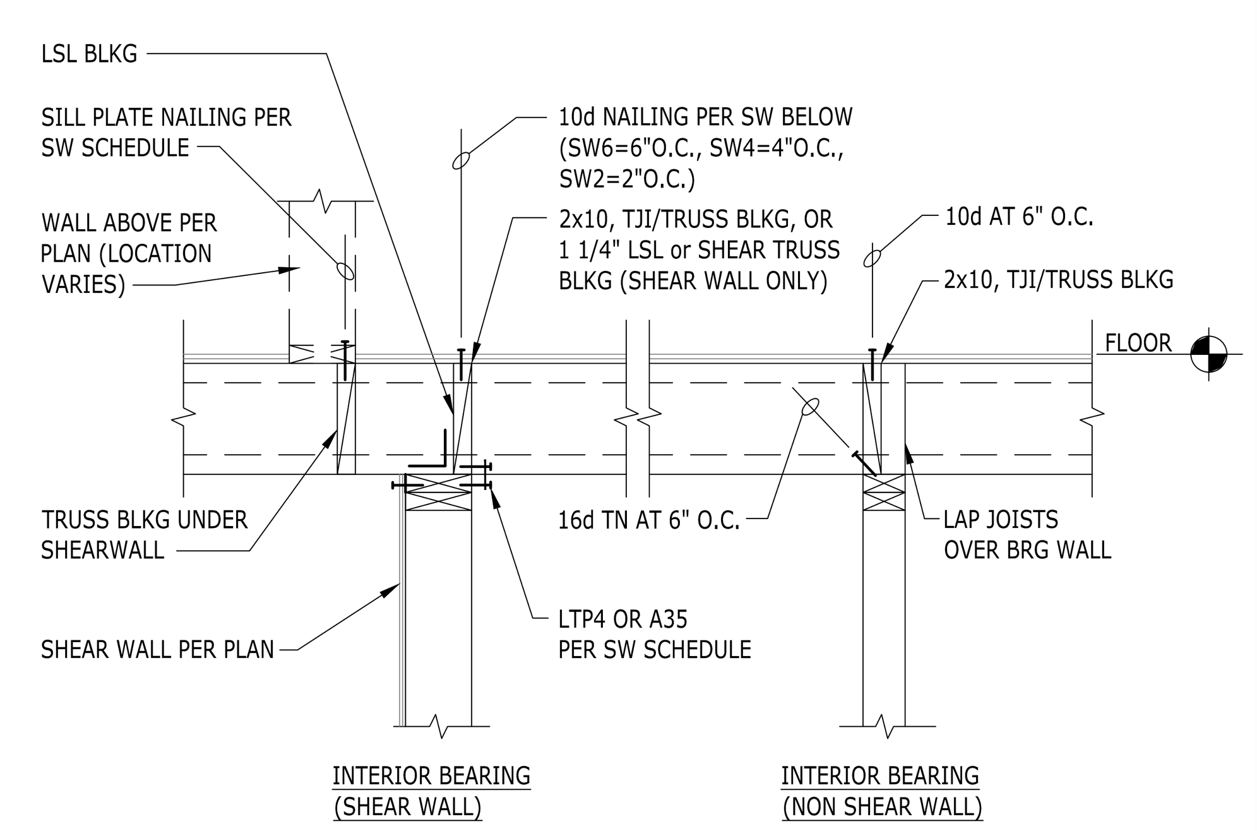
15 TENSION TIE AT FLOOR FRAMING



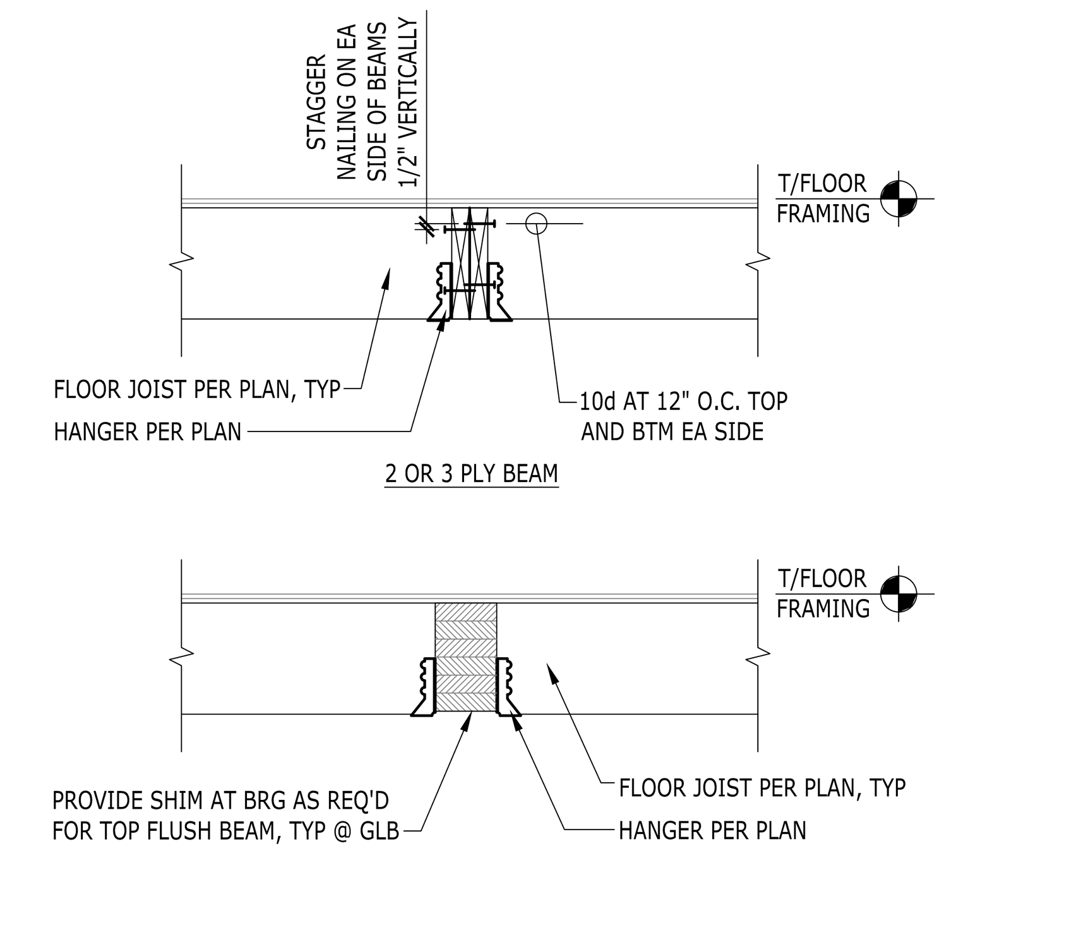
16 TENSION TIE T/BEAM TO T/BLKG



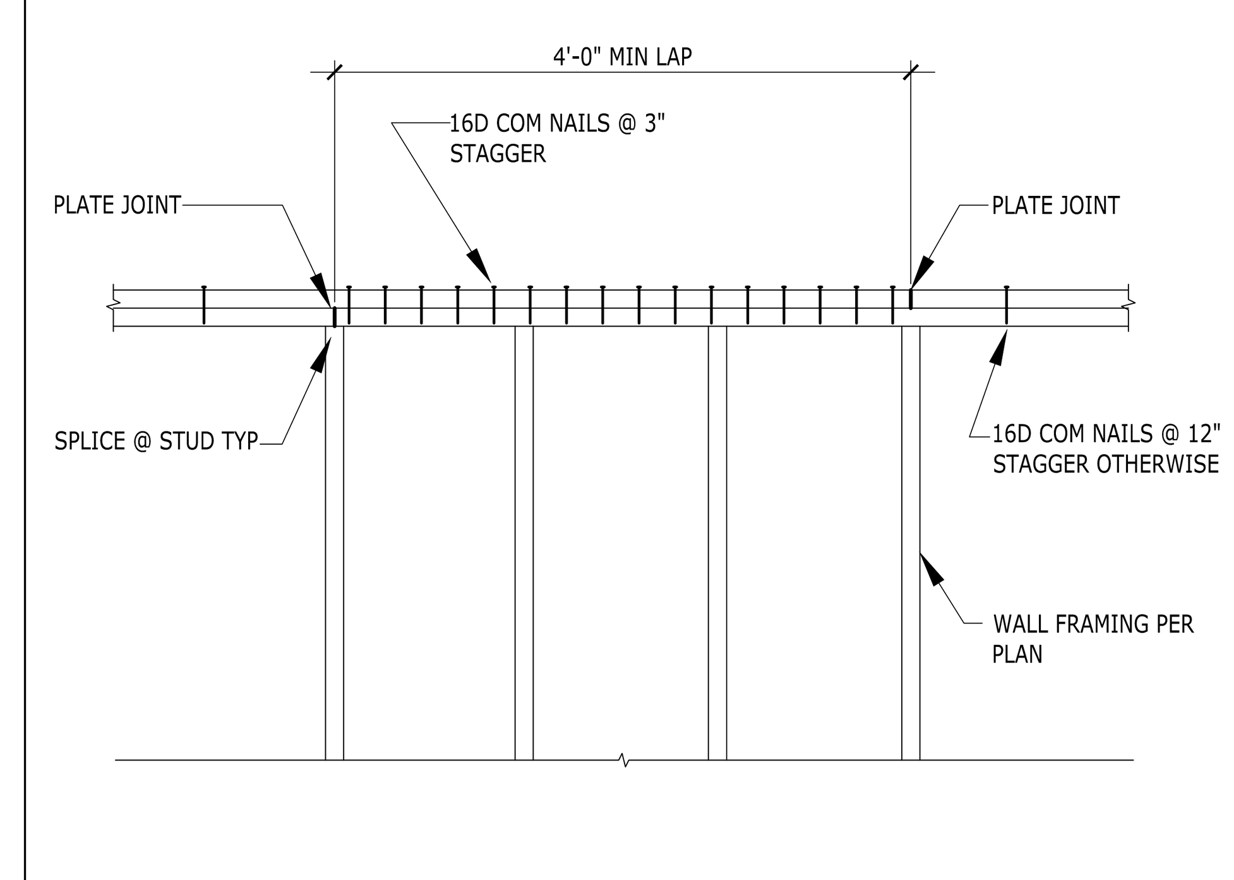
17 CEILING FRAMING AT NON-BEARING WALL



18 FLOOR FRAMING AT INTERIOR BEARING WALL



19 JOISTS TO FLUSH BEAM CONNECTION



20 ELEVATION TOP PLATE SPLICE

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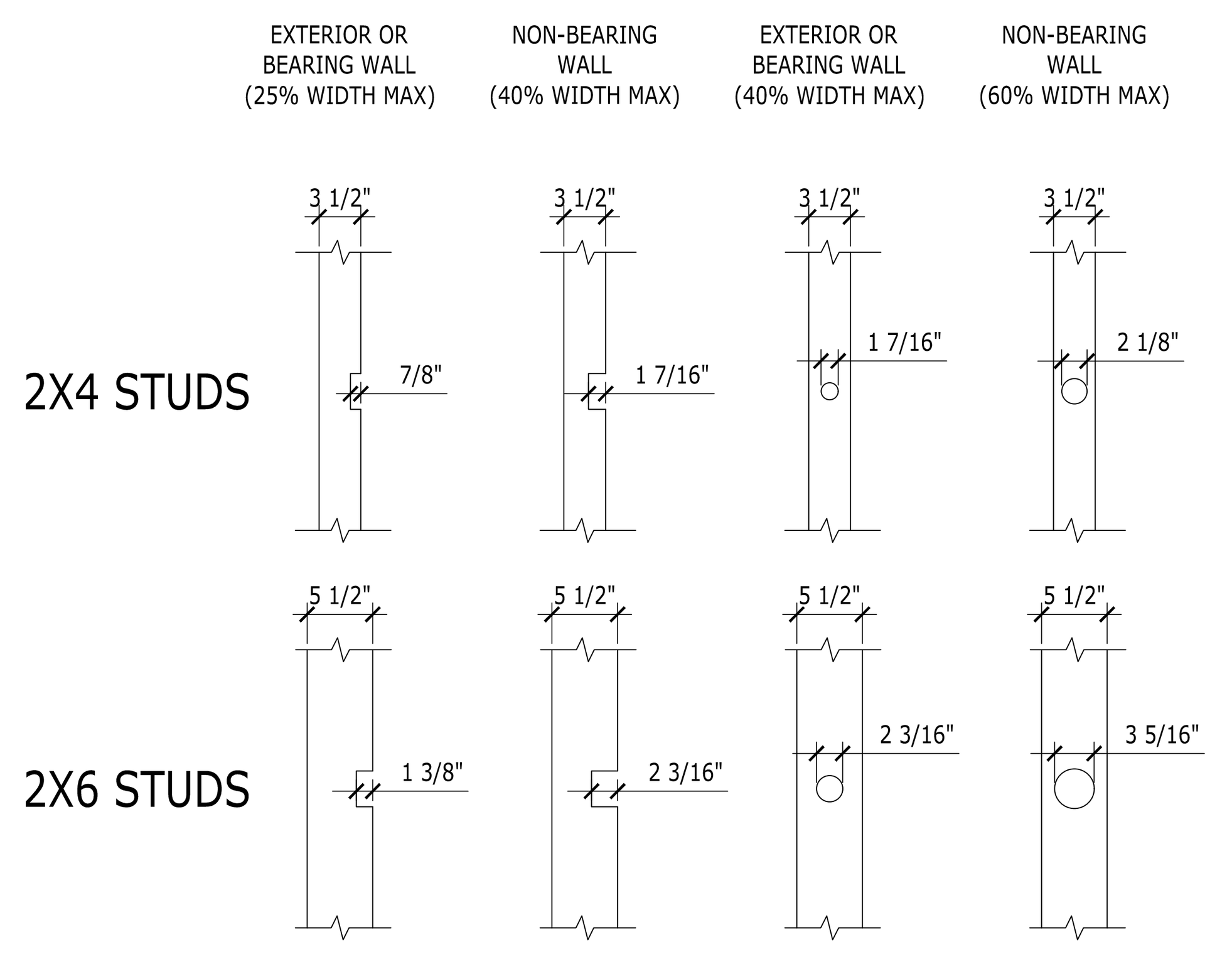
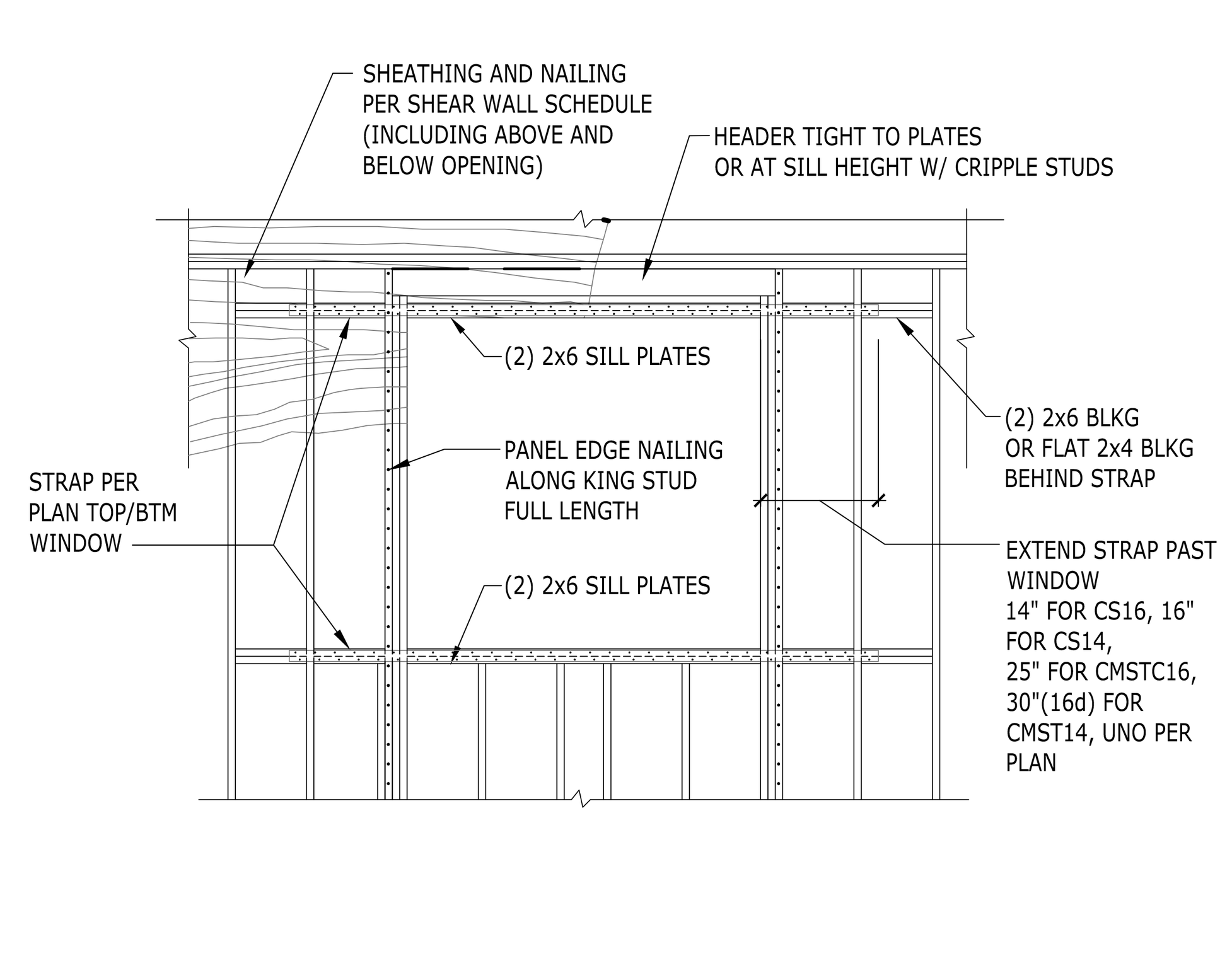
24X36 SHEET:1/4"=1'-0"

DESCRIPTION
STRUCTURAL DETAILS

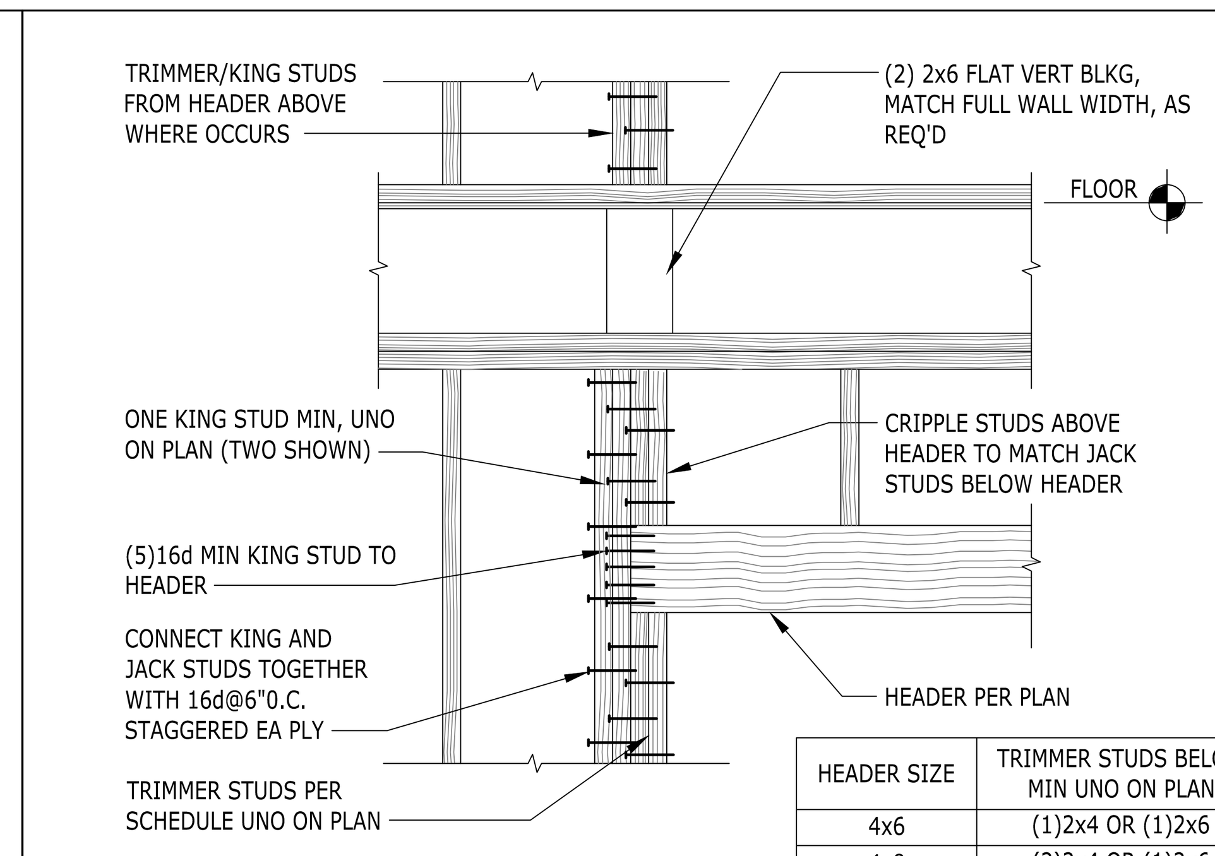
SHEET
SD-1



1 ALLOWABLE STUD NOTCHING AND BORING

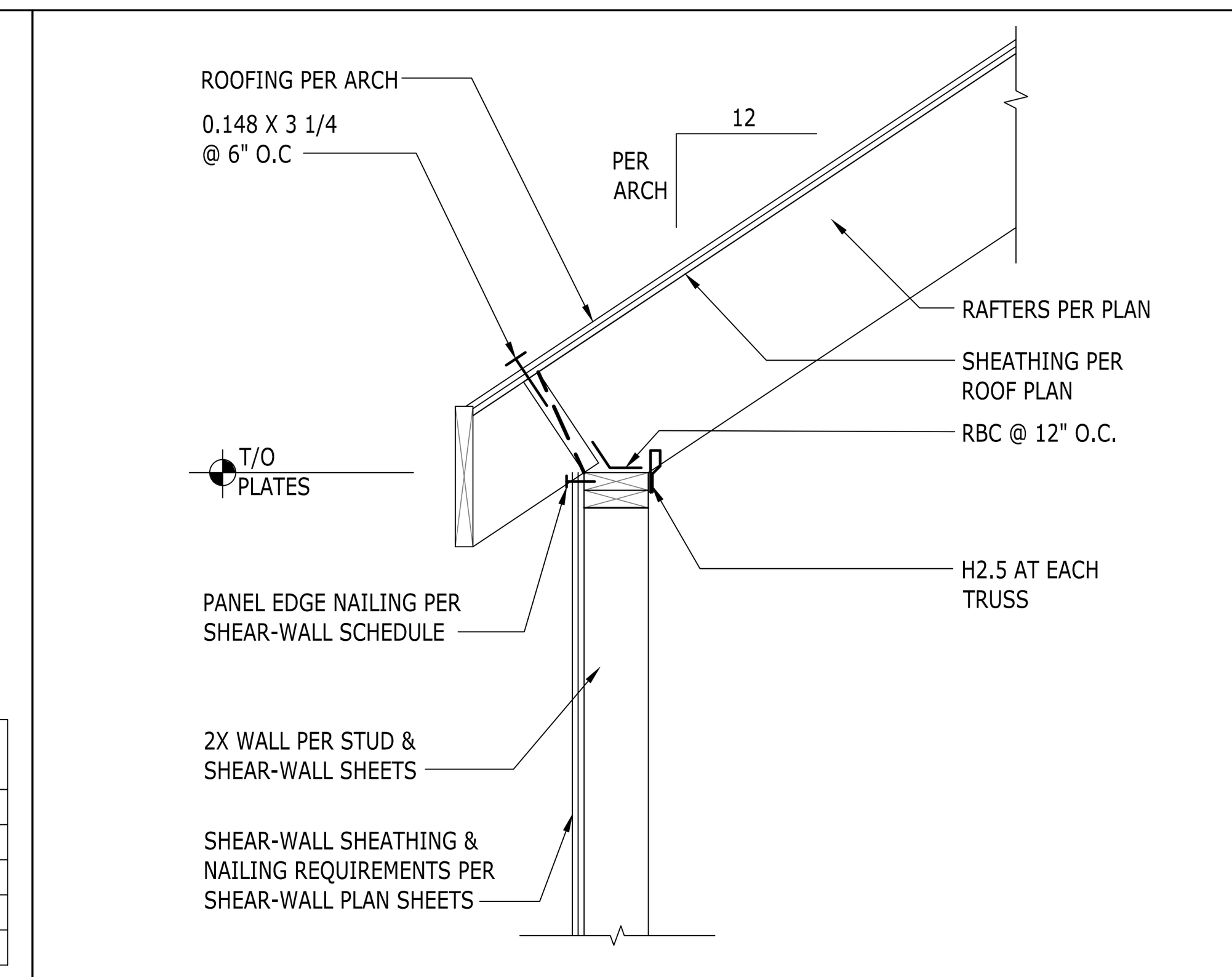


2 STRAPS AROUND WINDOWS

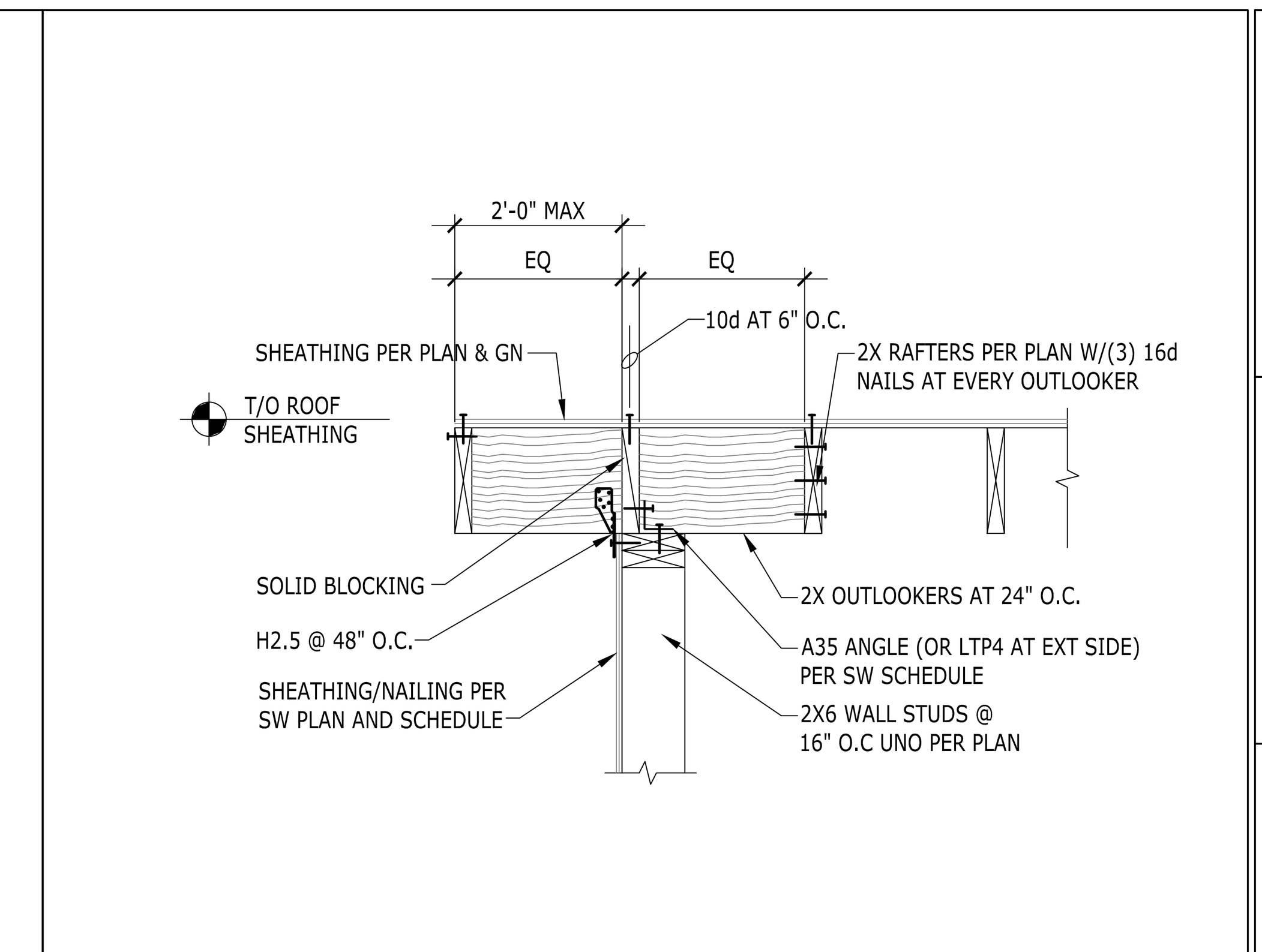


HEADER SIZE	TRIMMER STUDS BELOW MIN UNO ON PLAN
4x6	(1)2x4 OR (1)2x6
4x8	(2)2x4 OR (1)2x6
4x10	(3)2x4 OR (2)2x6
3 1/8 GLB	(3)2x4 OR (2)2x6
5 1/8 GLB	(3)2x6

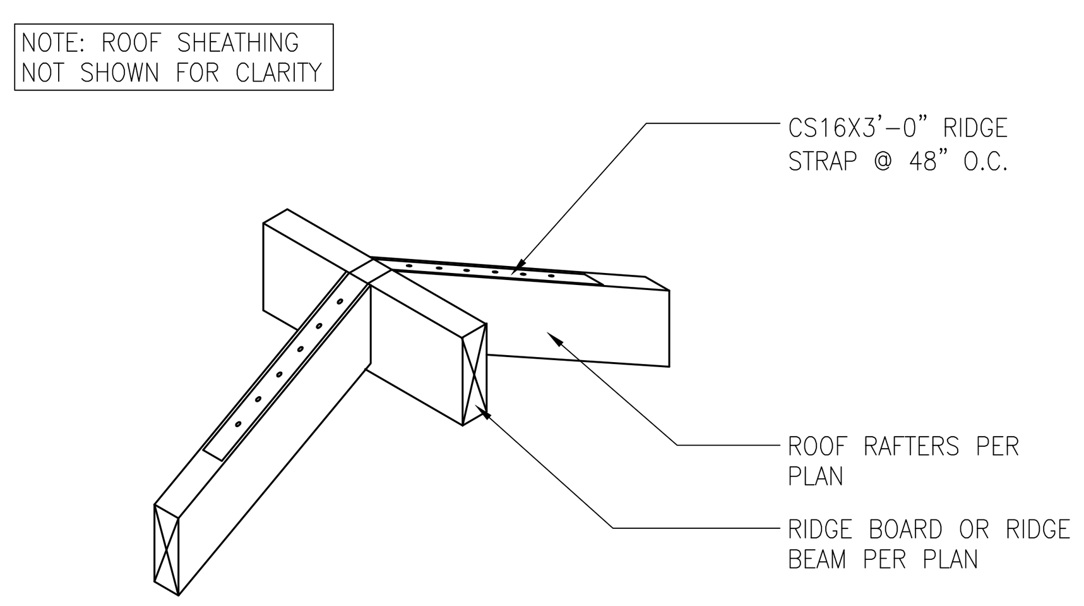
3 TYPICAL HEADER FRAMING



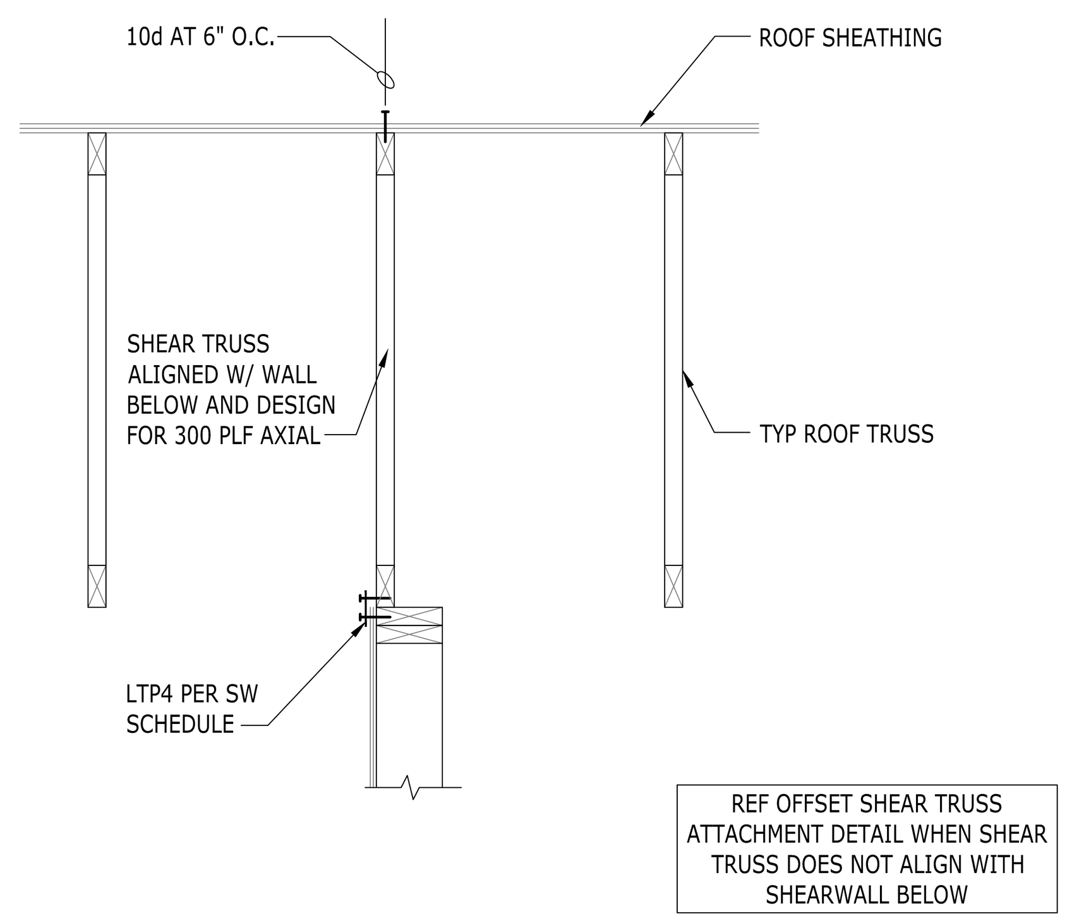
4 HIP ROOF FRAMING



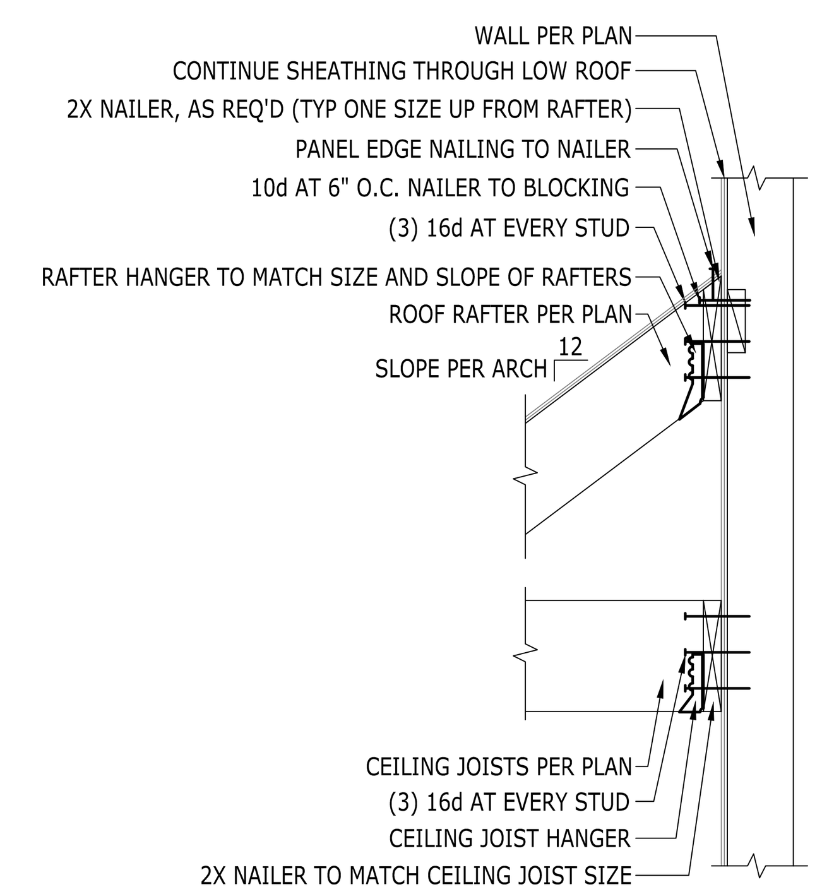
5 GABLE END FRAMING



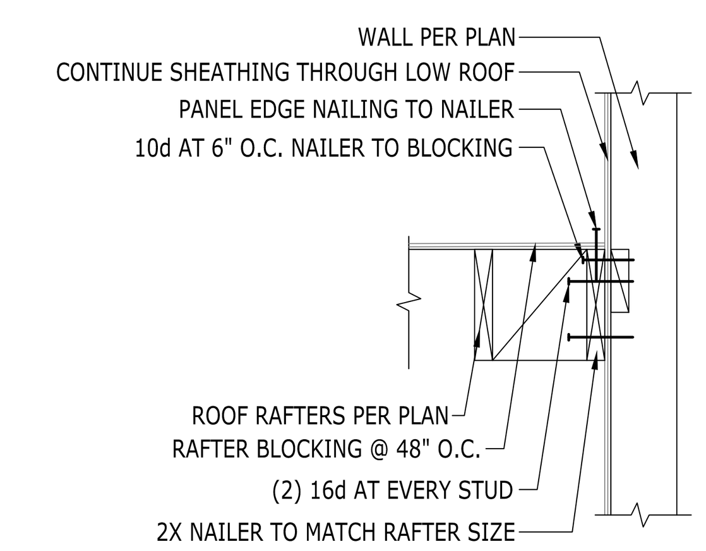
6 RIDGE STRAP



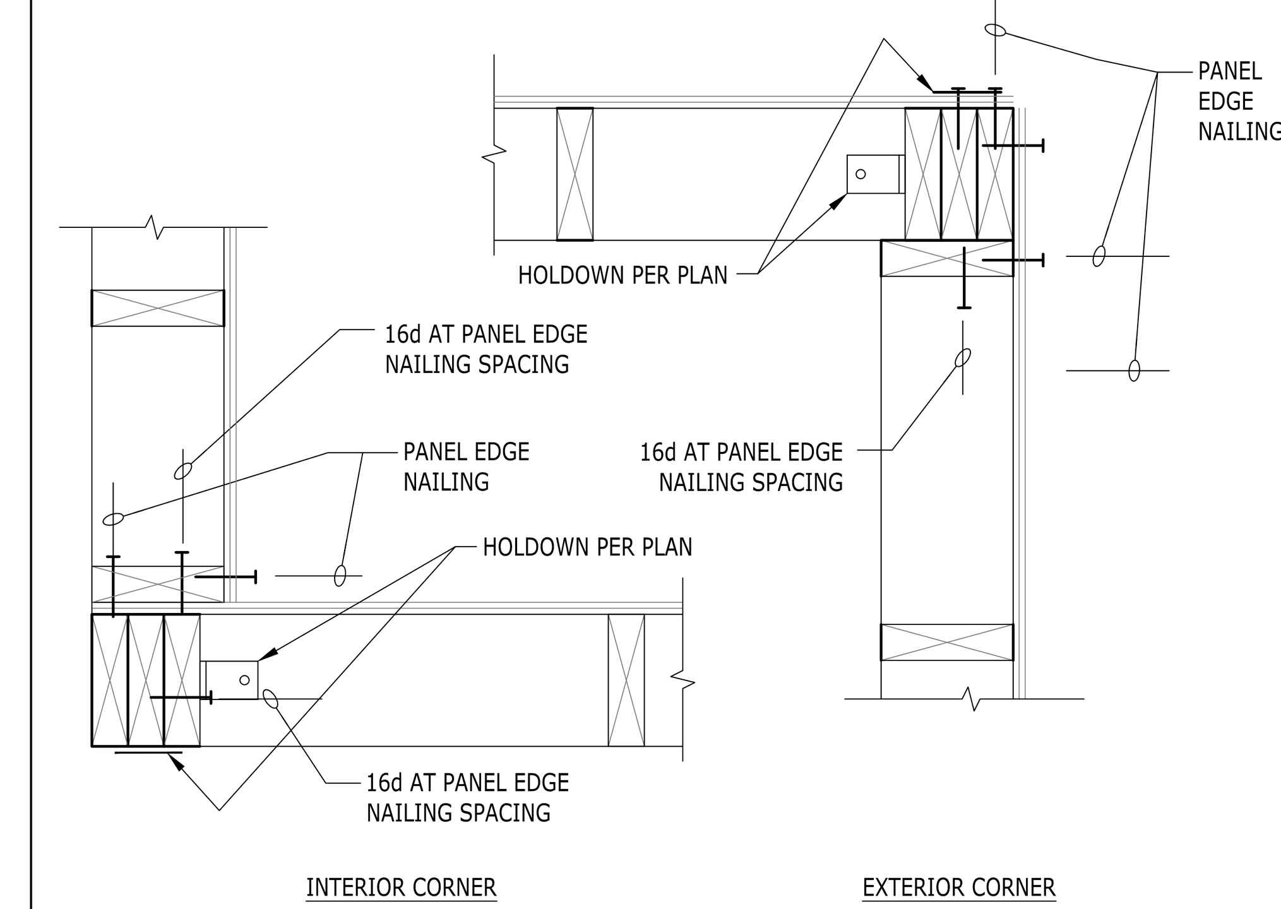
7 PARALLEL TRUSS AT SHEAR WALL



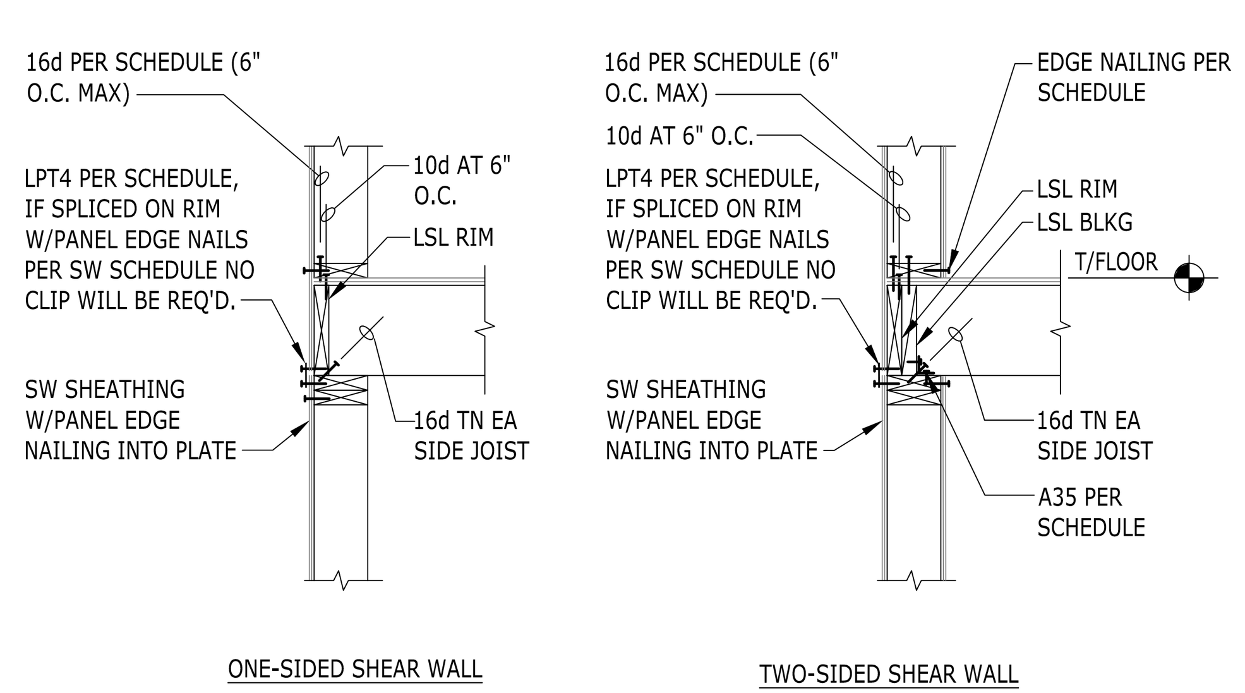
8 LOW ROOF SECTION AT CONTINUOUS WALLS



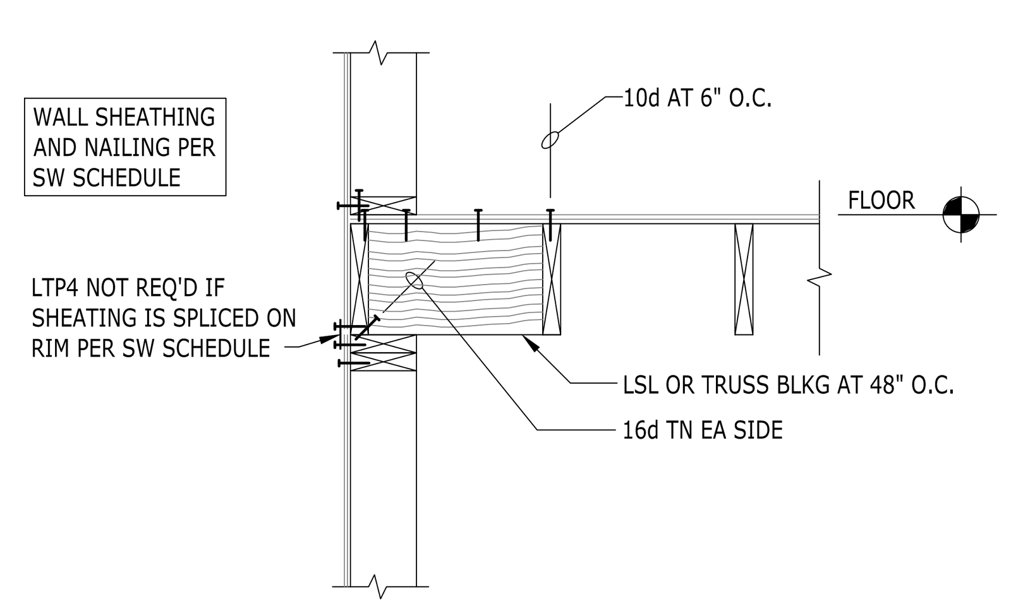
9 LOW ROOF SECTION AT CONTINUOUS WALLS



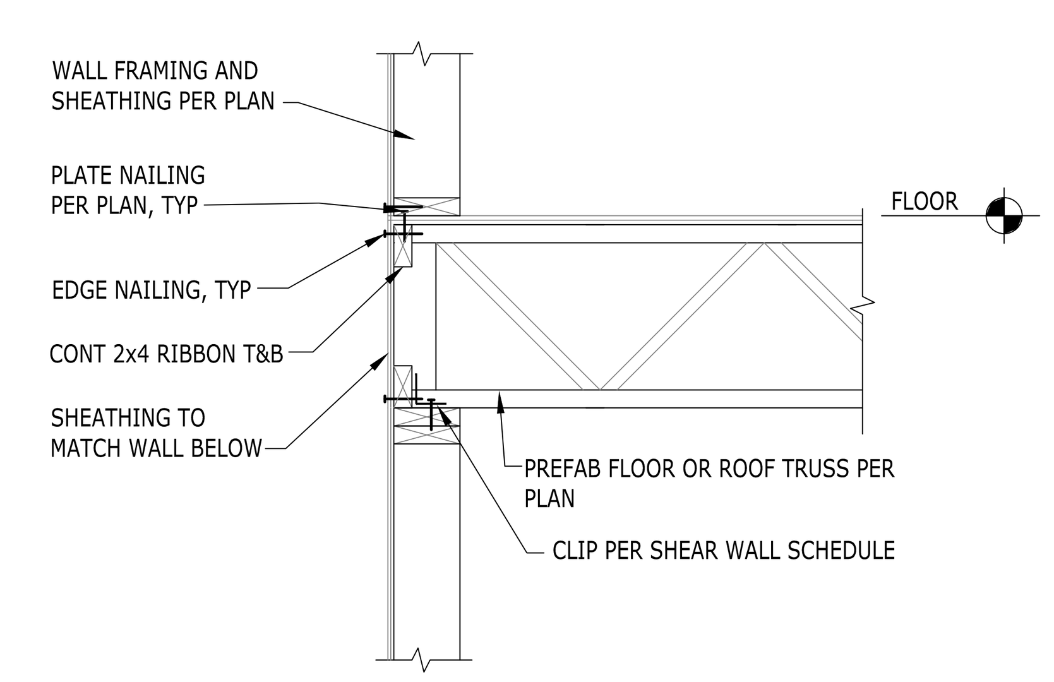
10 CORNER FRAMING



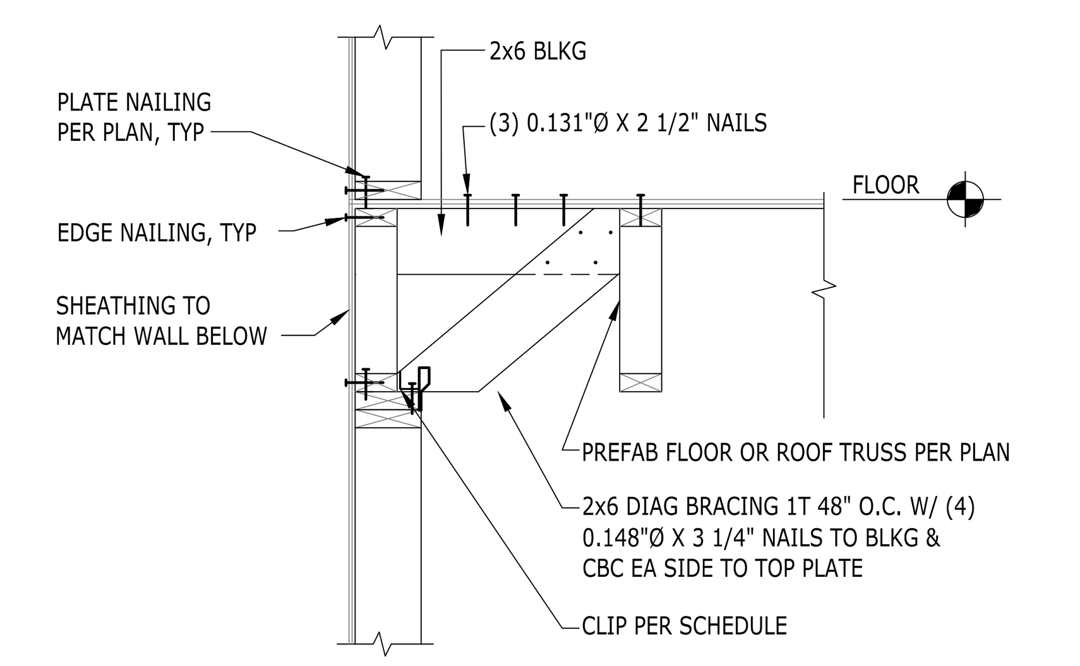
11 SHEAR TRANSFER AT EXTERIOR WALL



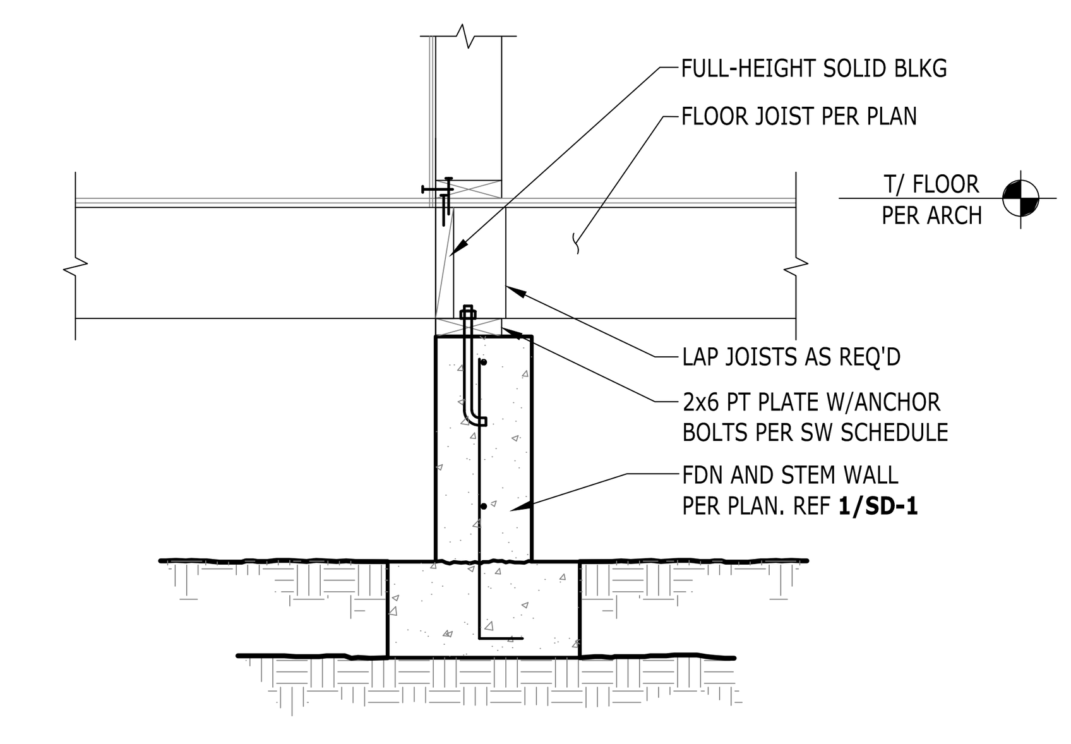
12 SHEAR TRANSFER AT EXTERIOR WALL



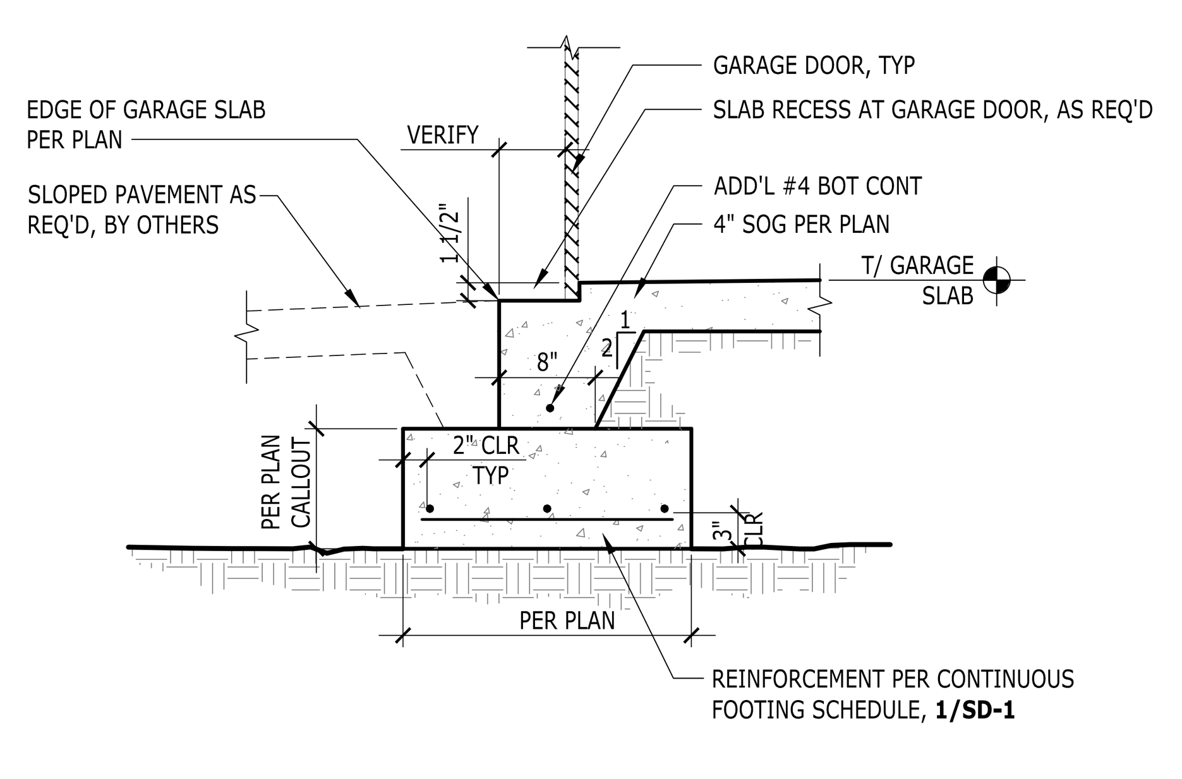
13 SHEAR TRANSFER AT EXTERIOR WALL



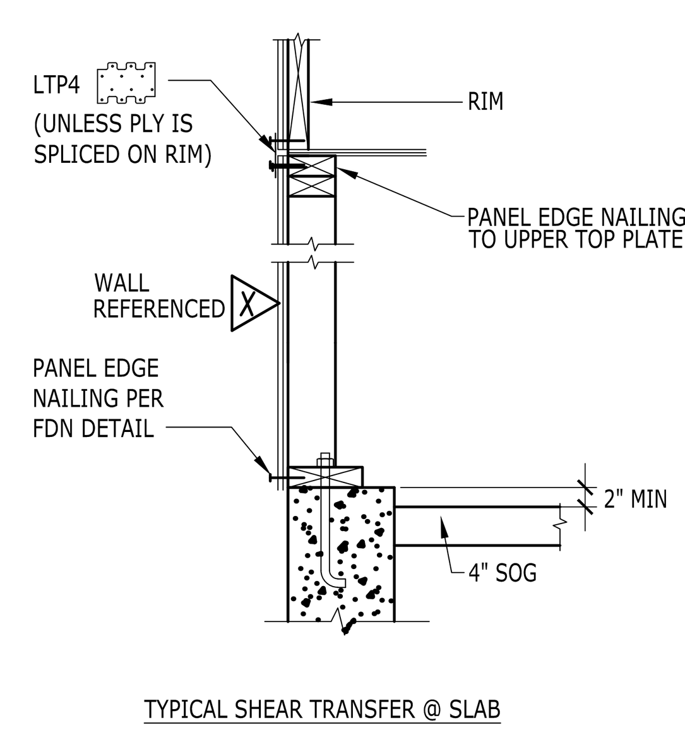
14 SHEAR TRANSFER AT EXTERIOR WALL



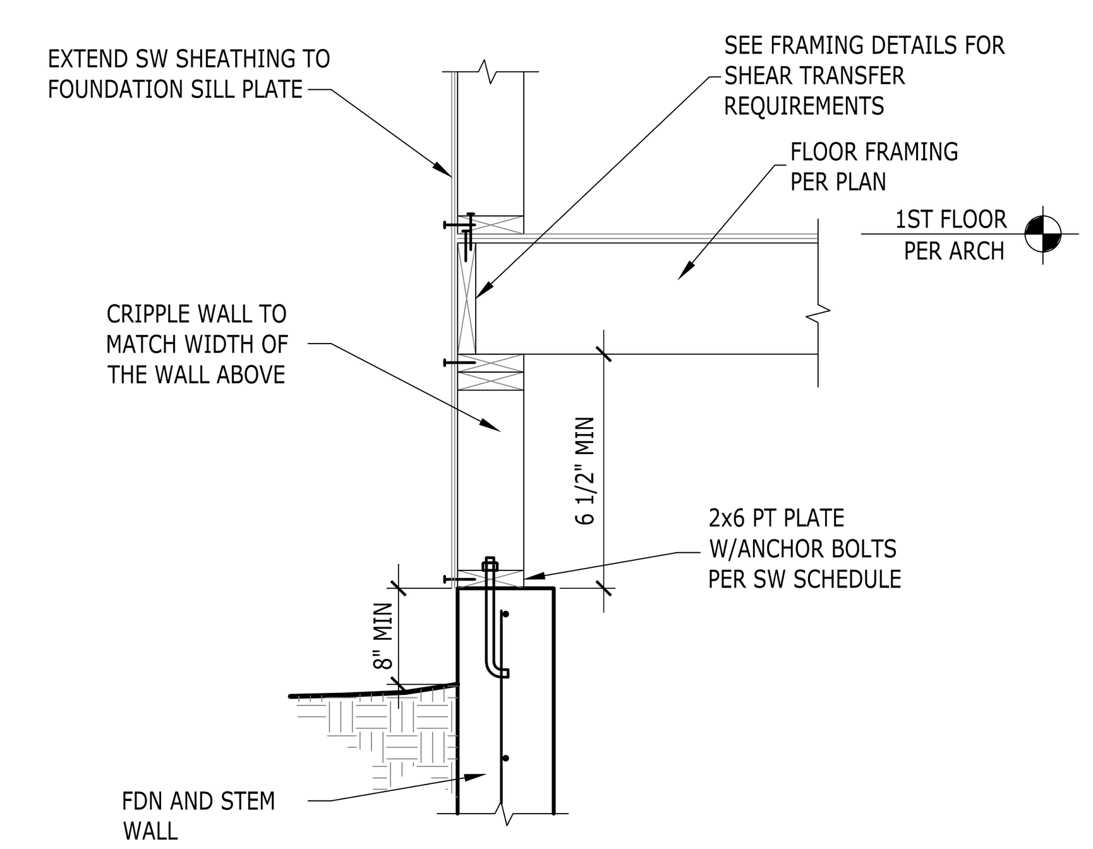
15 INTERIOR STEM WALL AT CRAWLSPACE



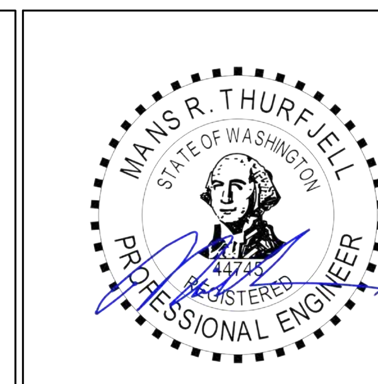
16 FOUNDATION AT GARAGE ENTRANCE



17 WALL FRAMING AT GARAGE CURB



18 PONY WALL



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

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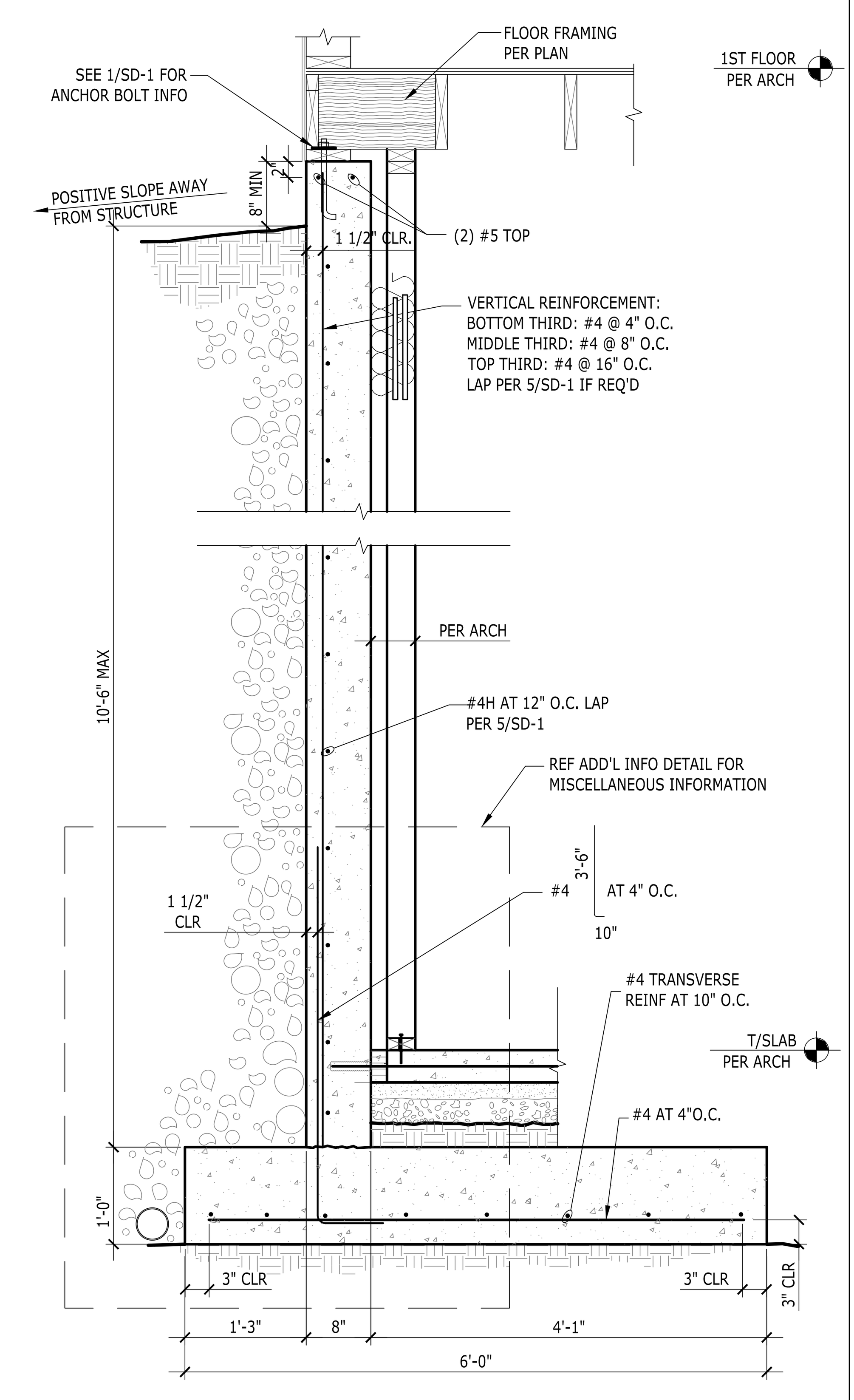
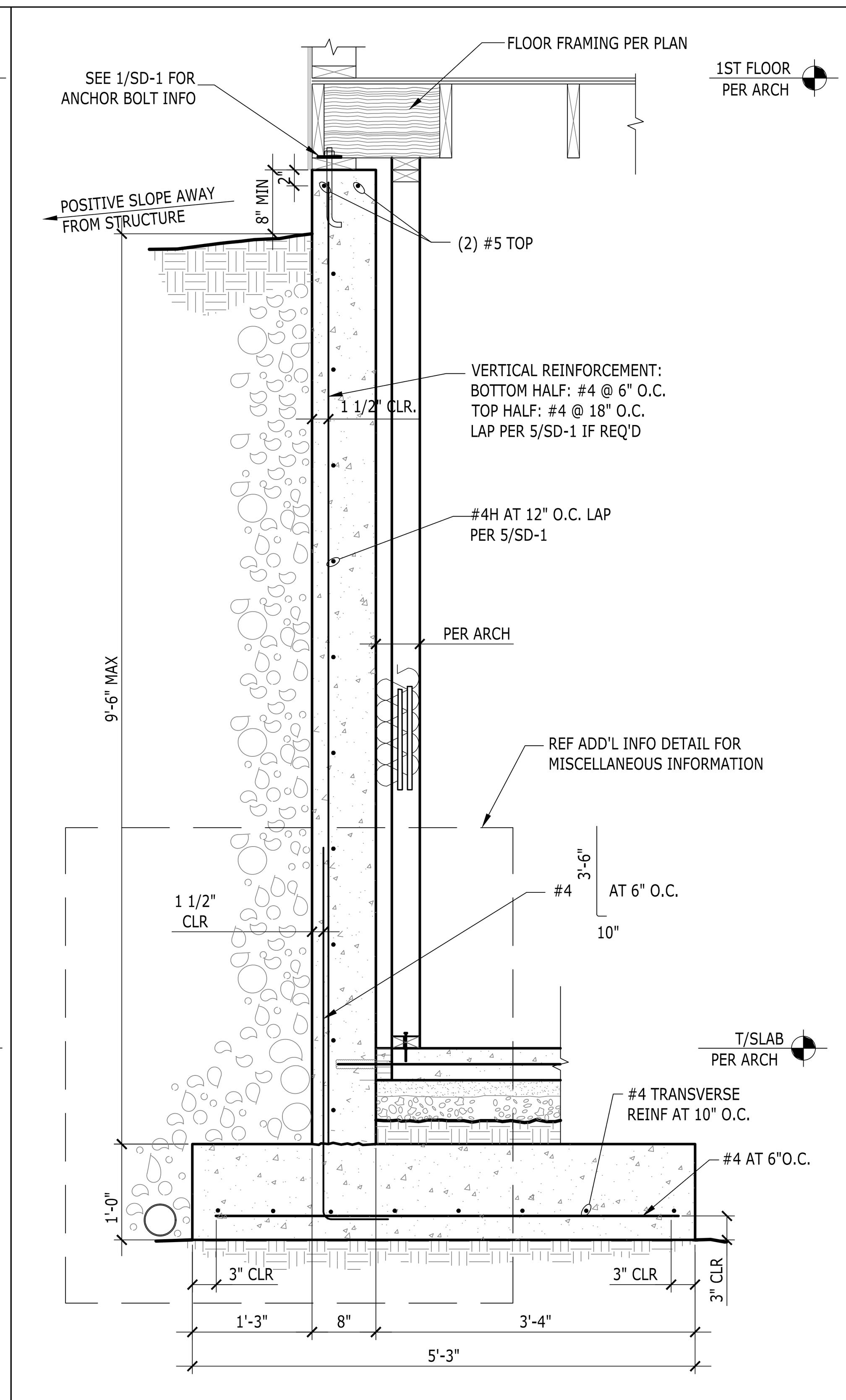
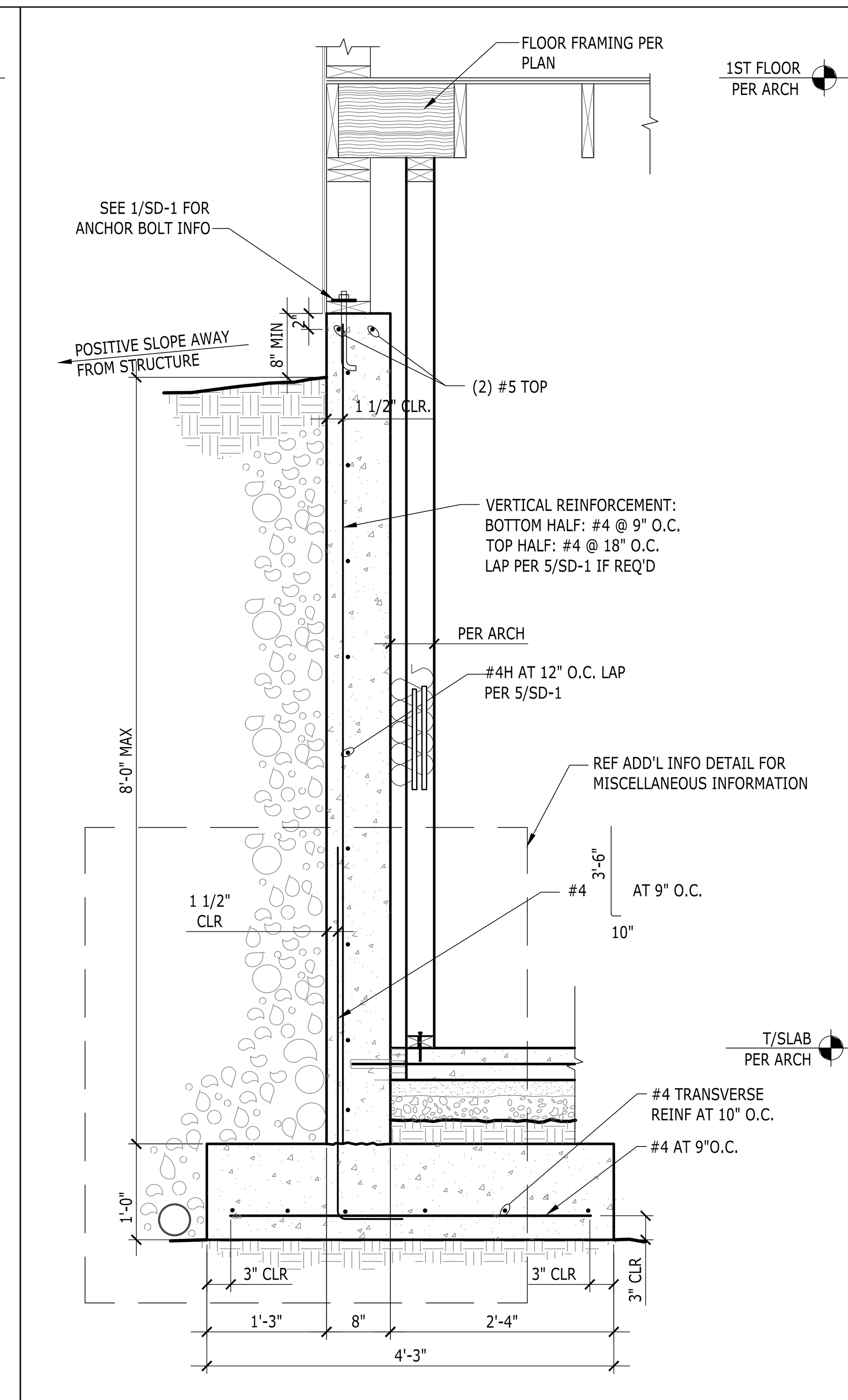
SHEET
SD-2



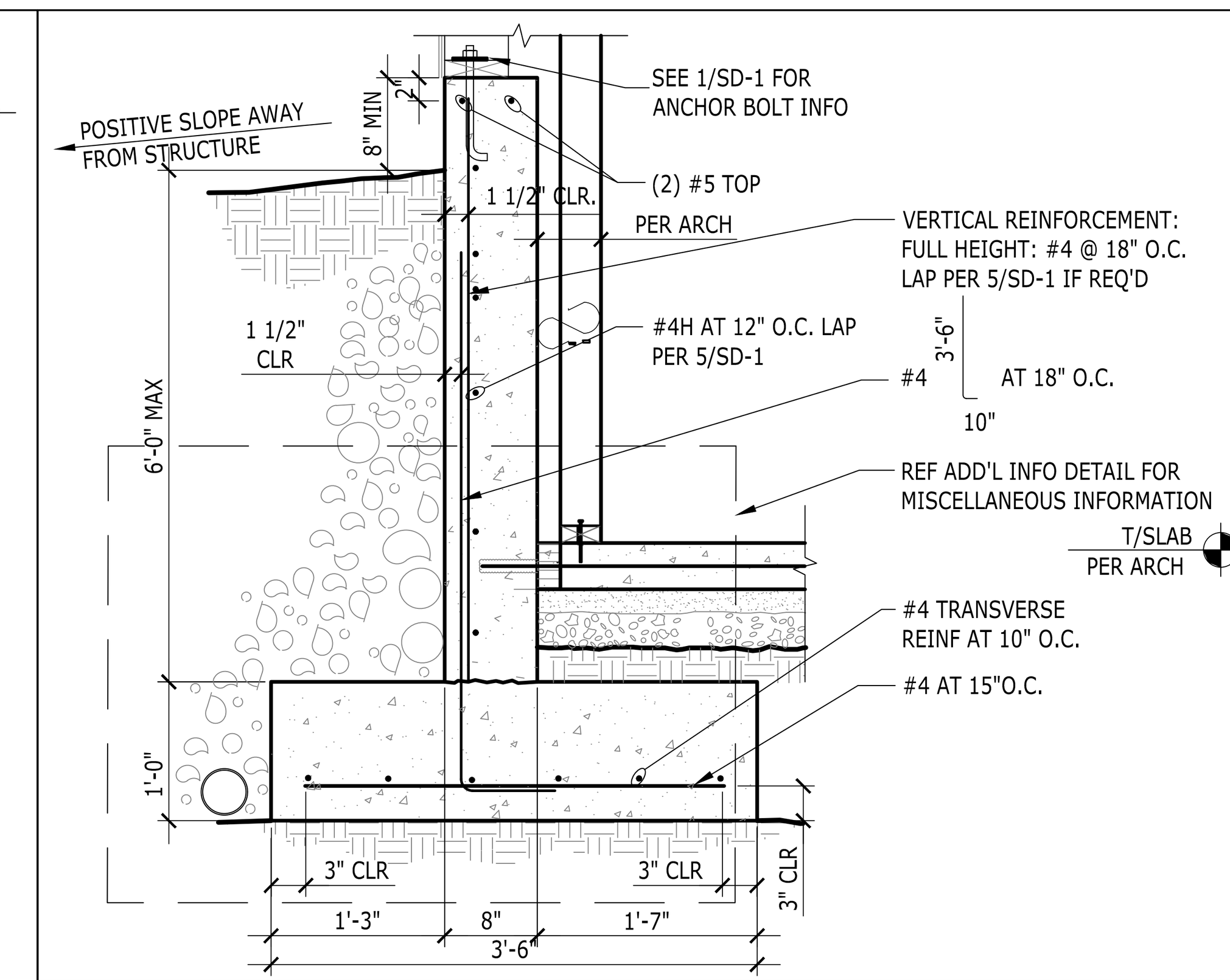
6 RETAINING WALL (10'-6" MAX BACKFILL)



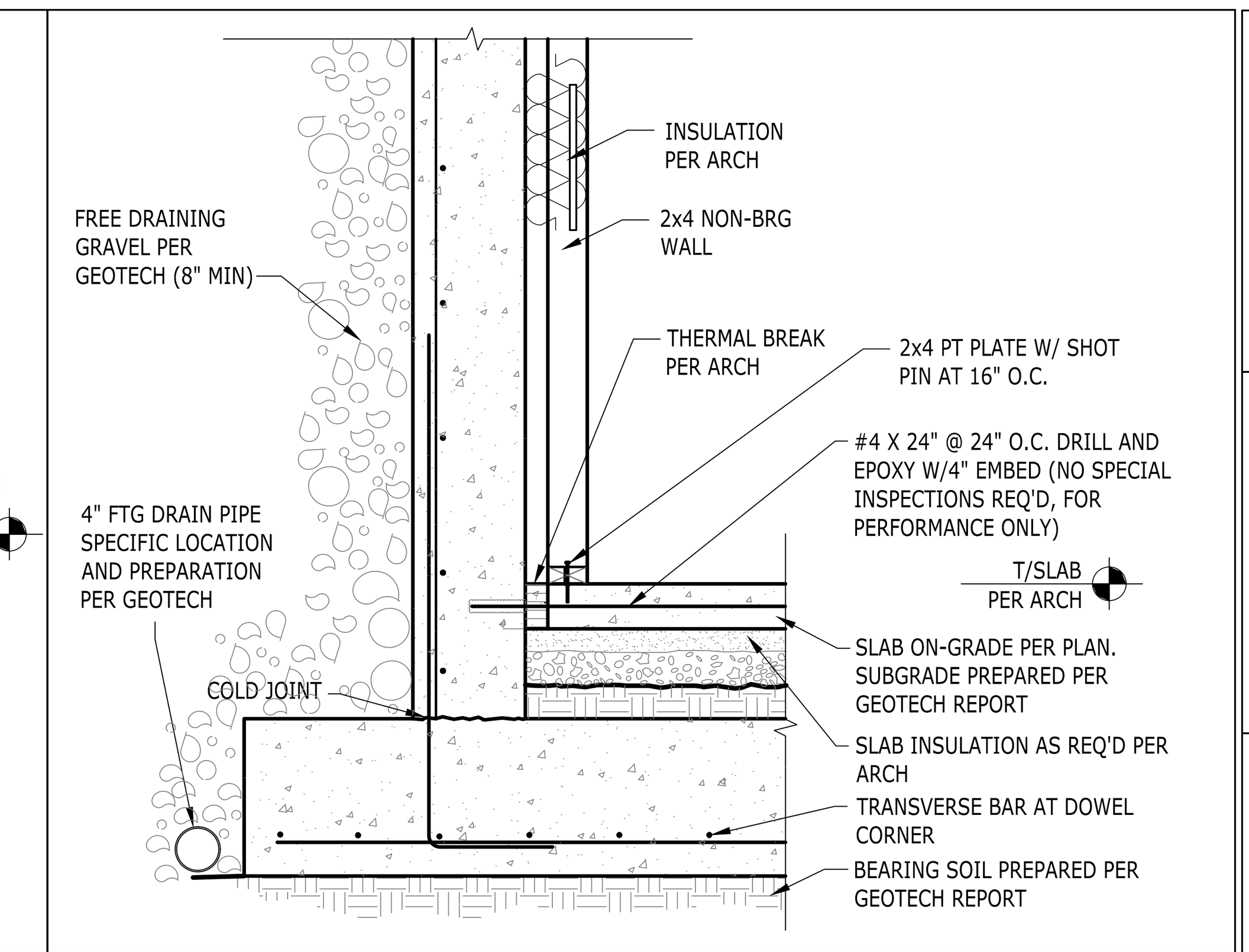
7 RETAINING WALL (9'-6" MAX BACKFILL)



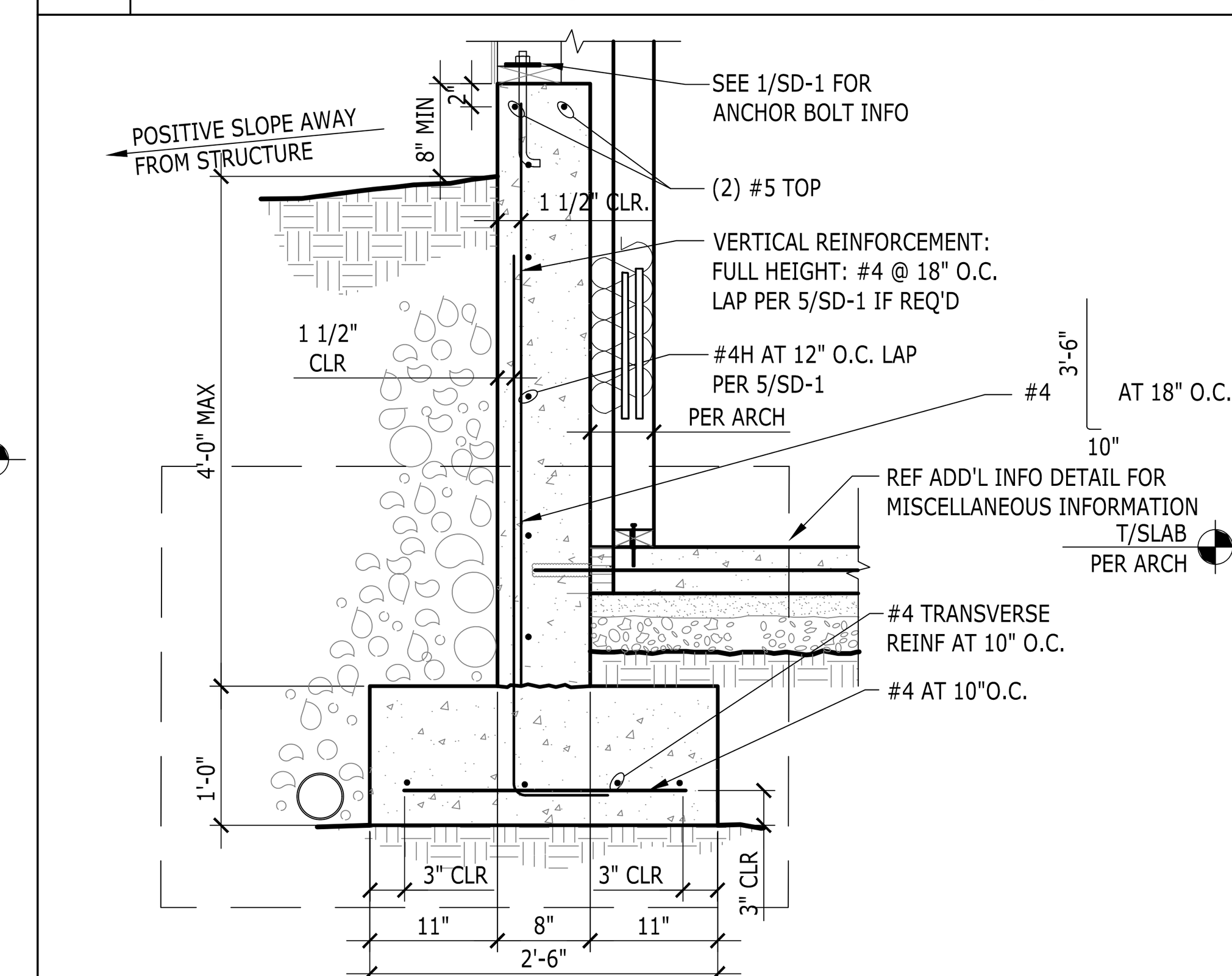
8 RETAINING WALL (8'-0" MAX BACKFILL)



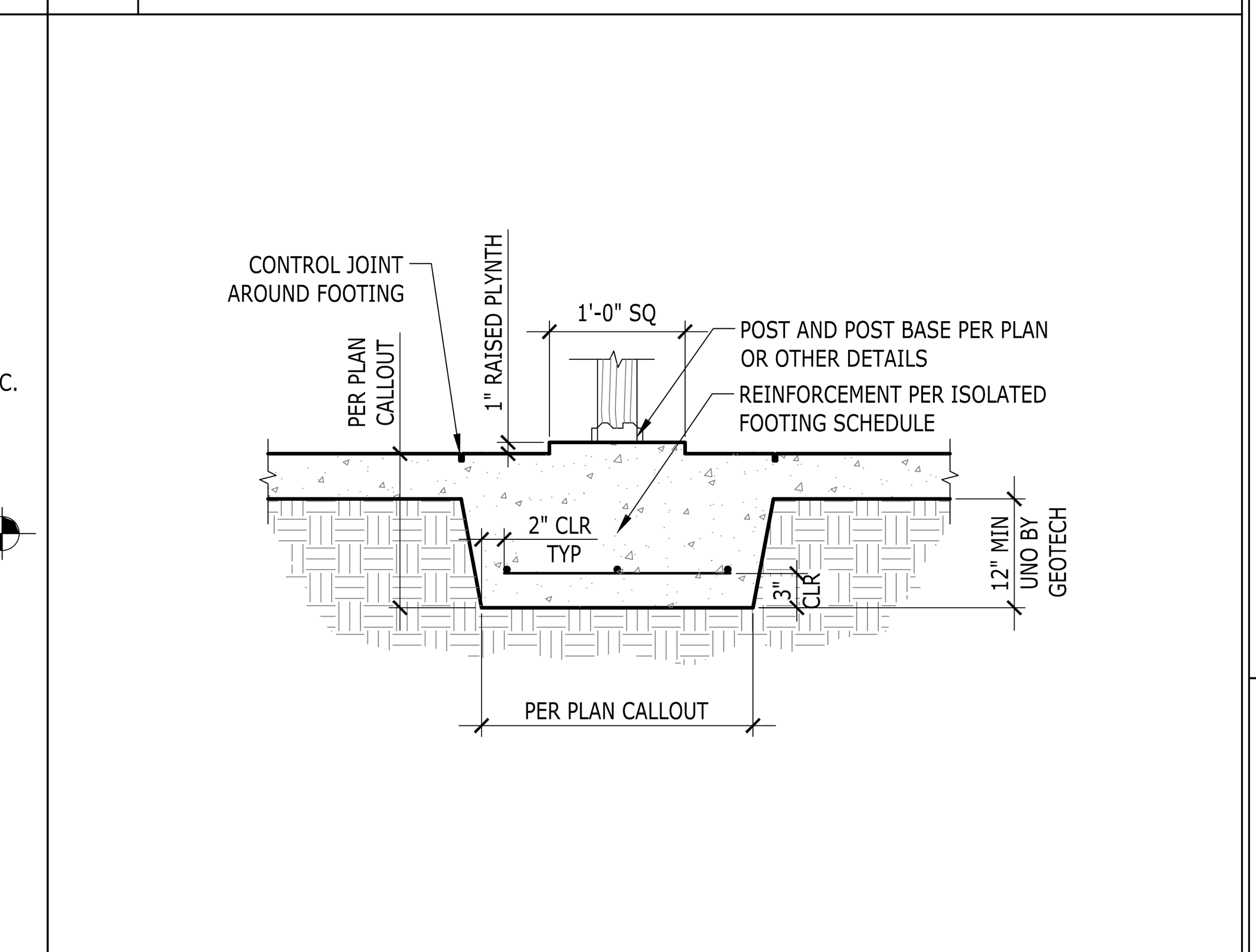
4 RETAINING WALL (6'-0" MAX BACKFILL)



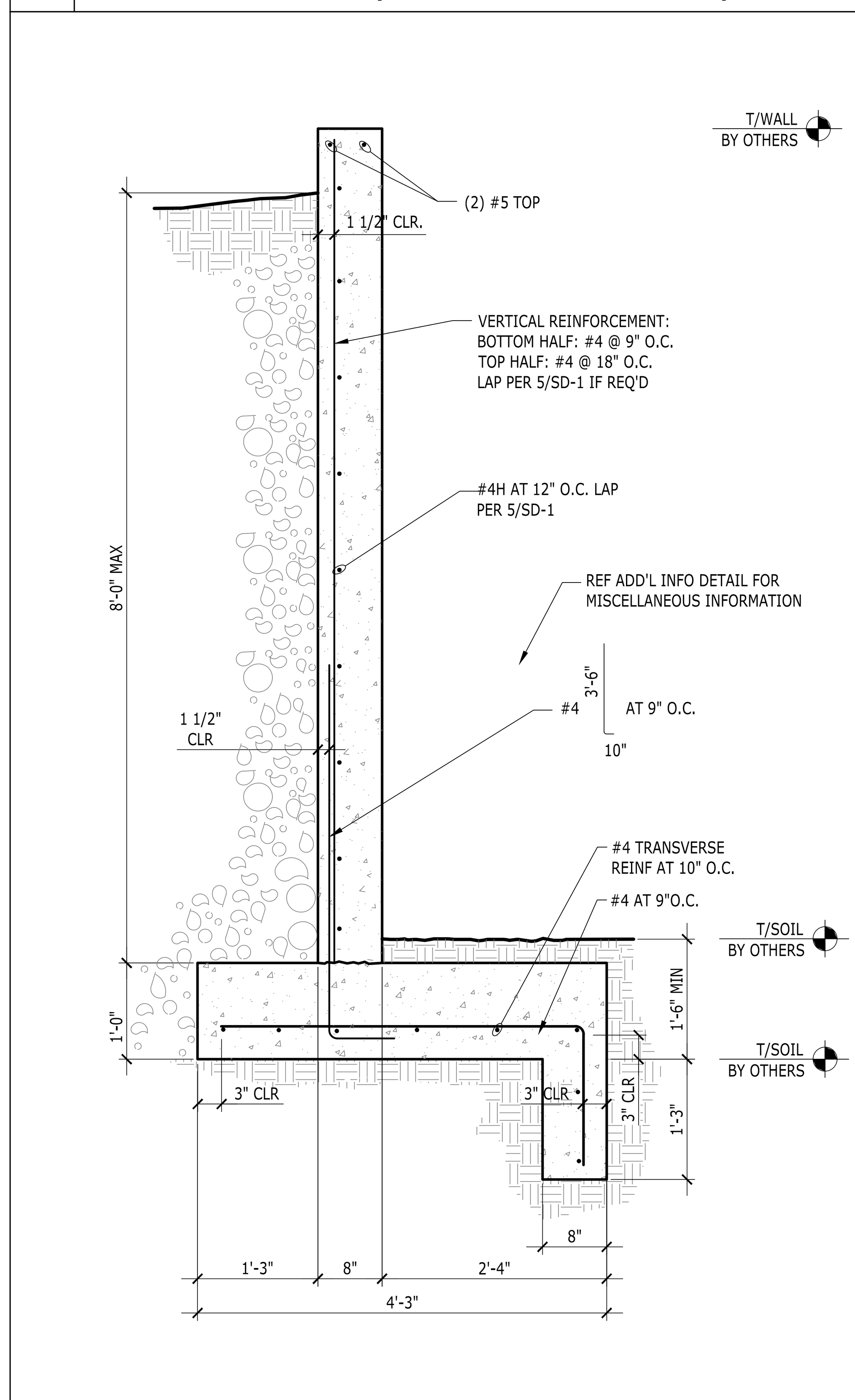
5 RETAINING WALL ADD'L INFO



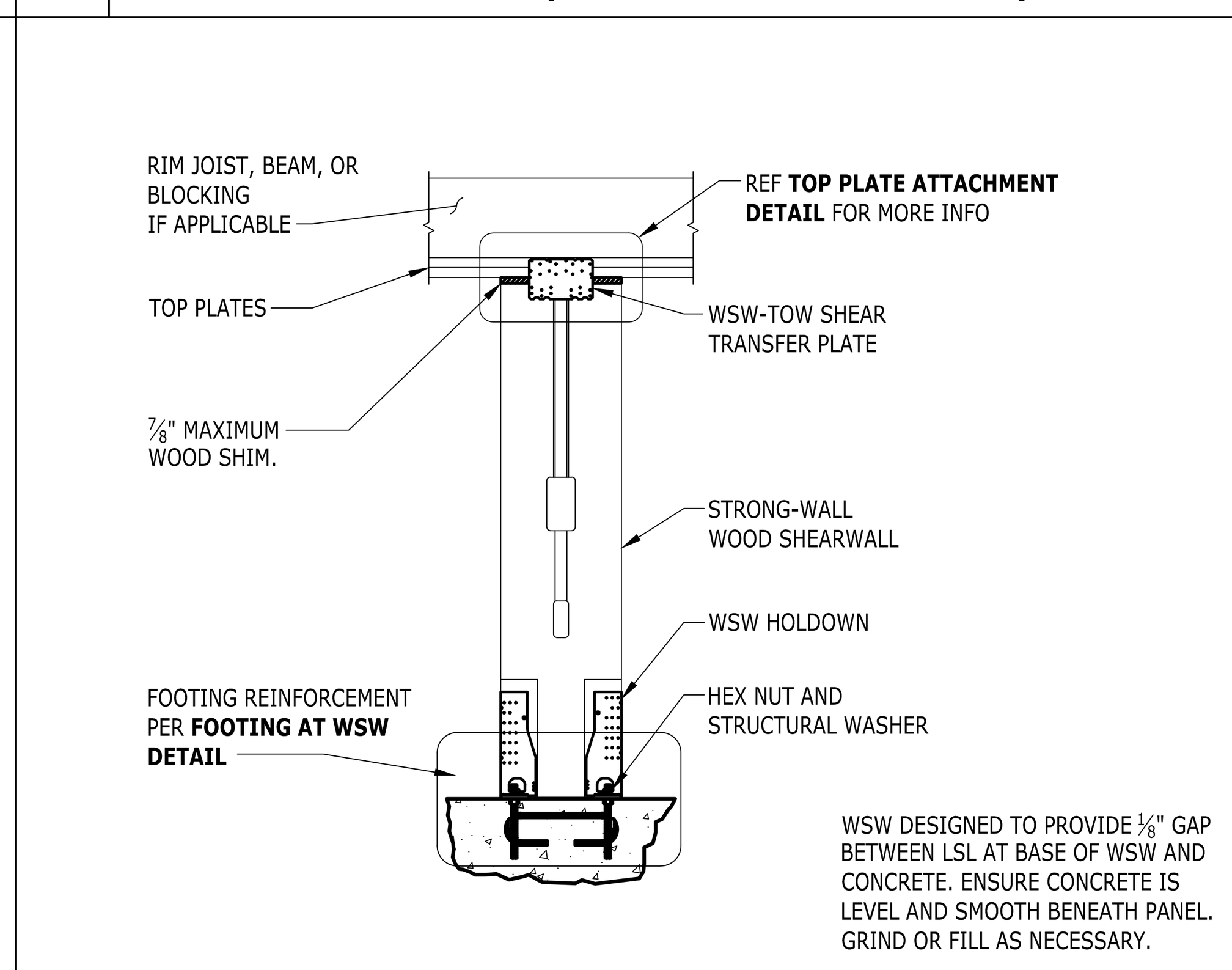
9 RETAINING WALL (4'-0" MAX BACKFILL)



10 ISOLATED INTERIOR FOOTING



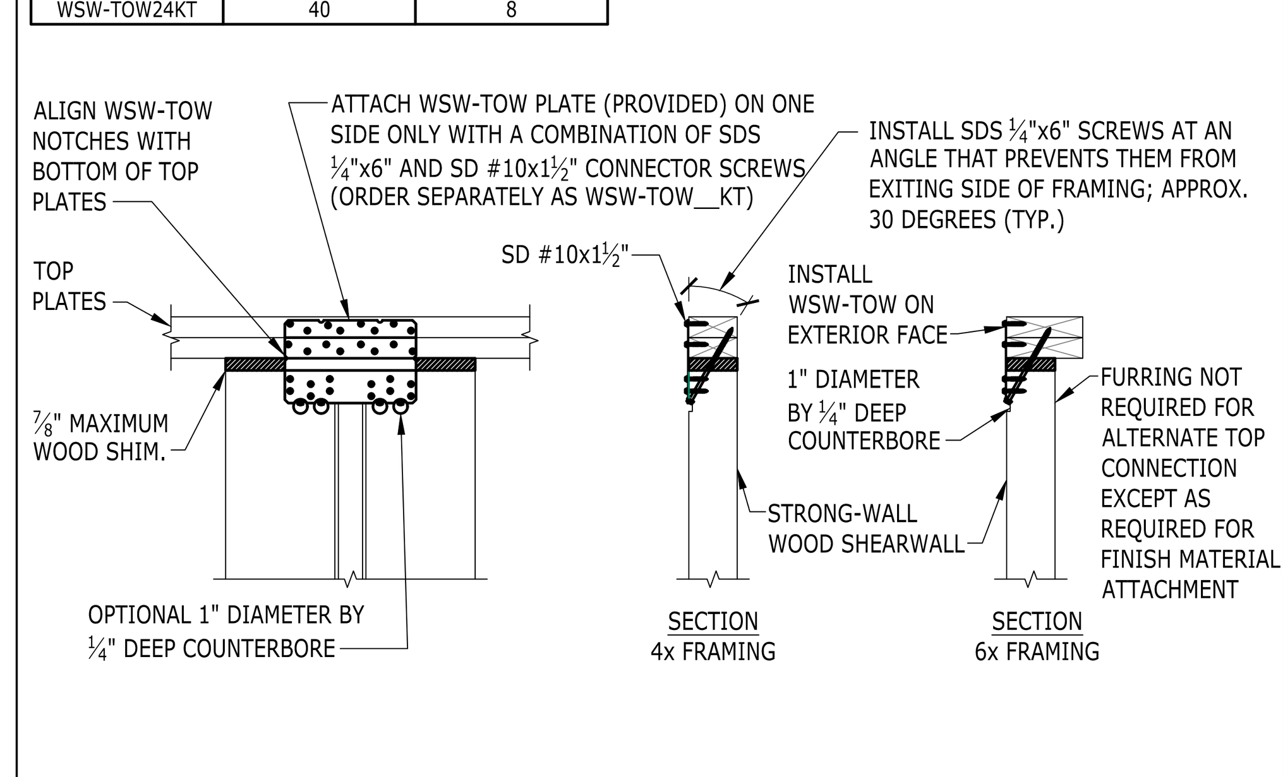
16 RETAINING WALL (8'-0" MAX BACKFILL)



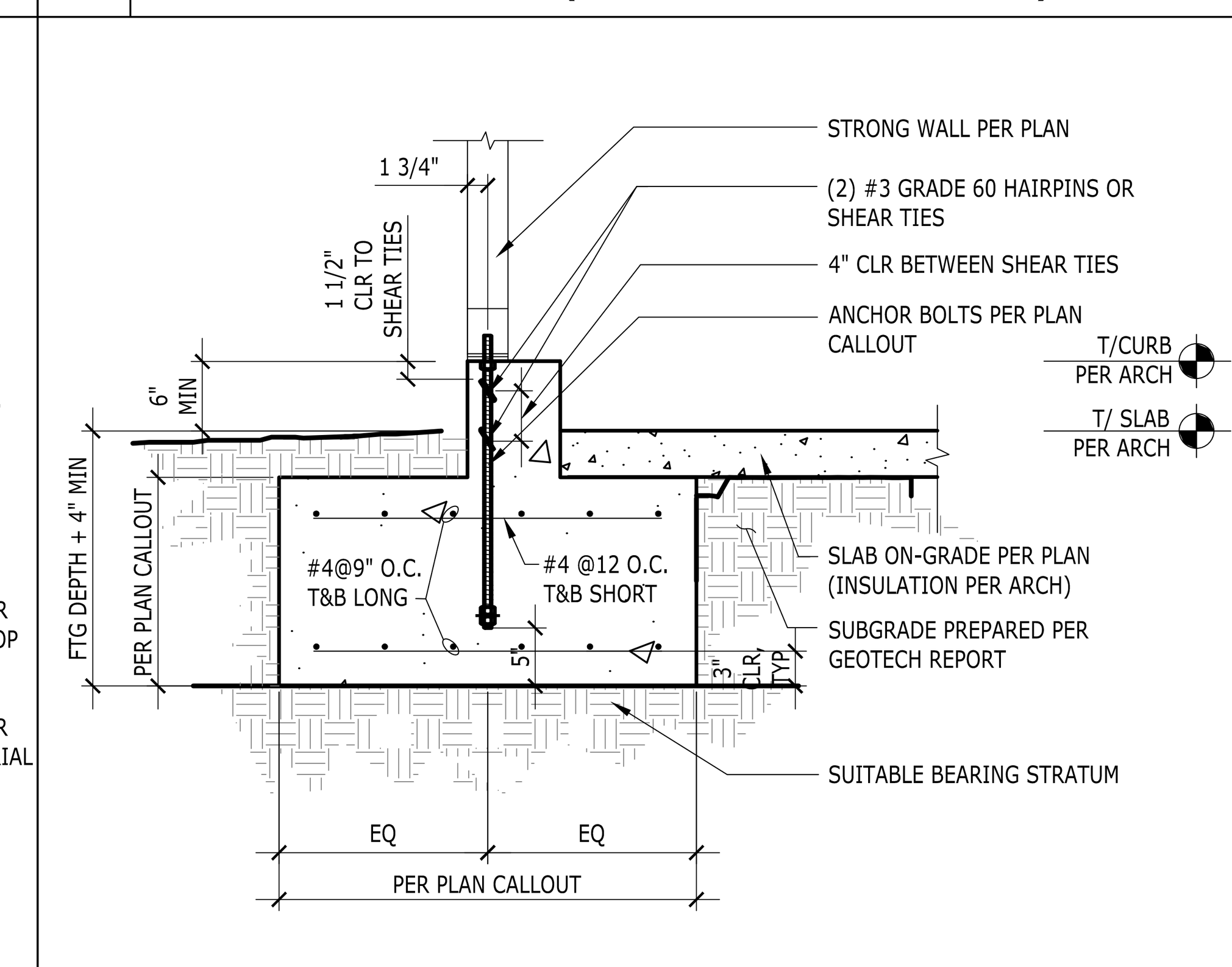
12 WSW SIMPSON STRONG WALL

WSW-TOW ALTERNATE CONNECTION KIT

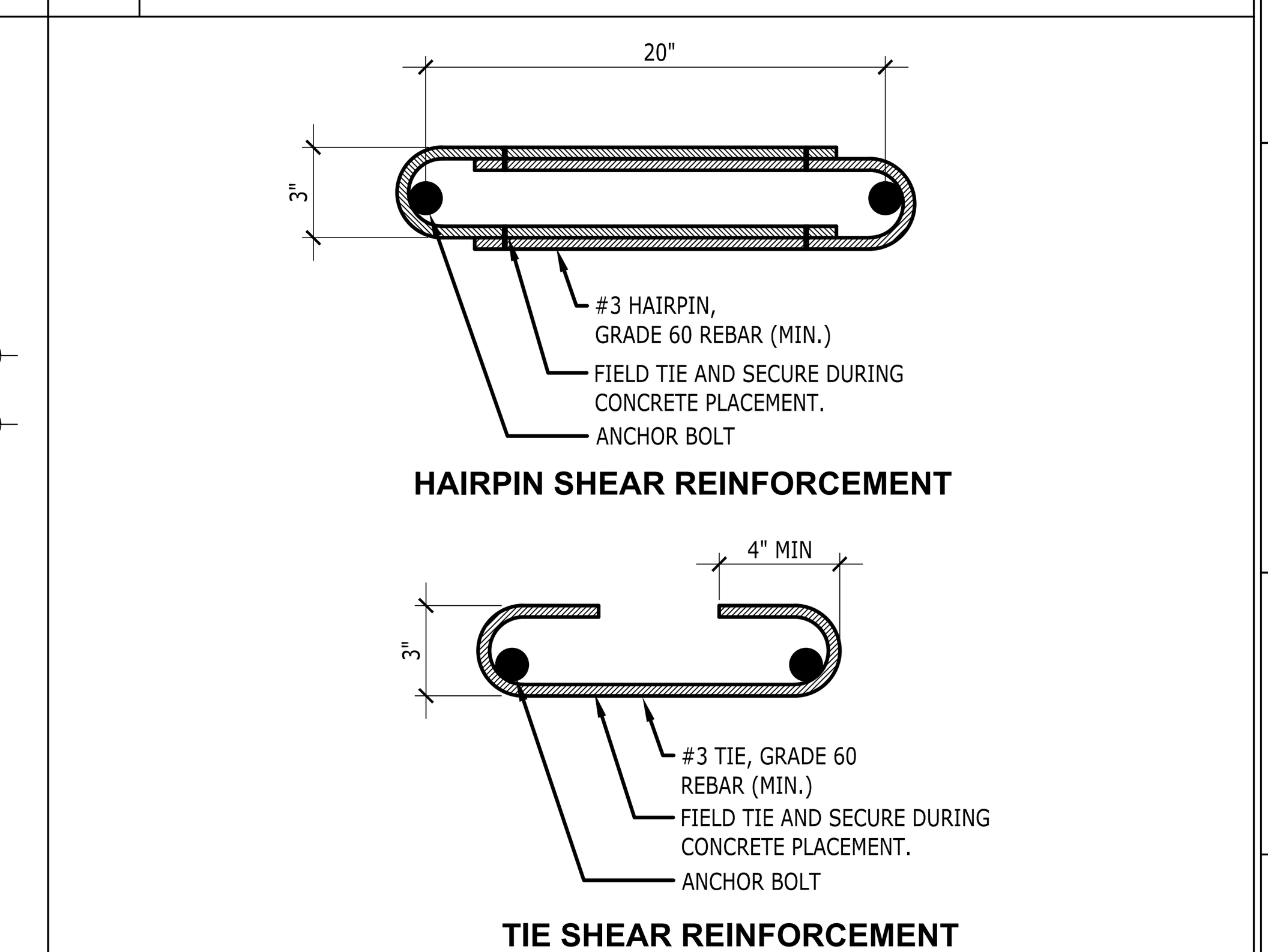
MODEL NO.	FASTENER QUANTITY	
	SD #10x1½"	SDS ¼"x6"
WSW-TOW12KT	20	2
WSW-TOW18KT	28	4
WSW-TOW24KT	40	8



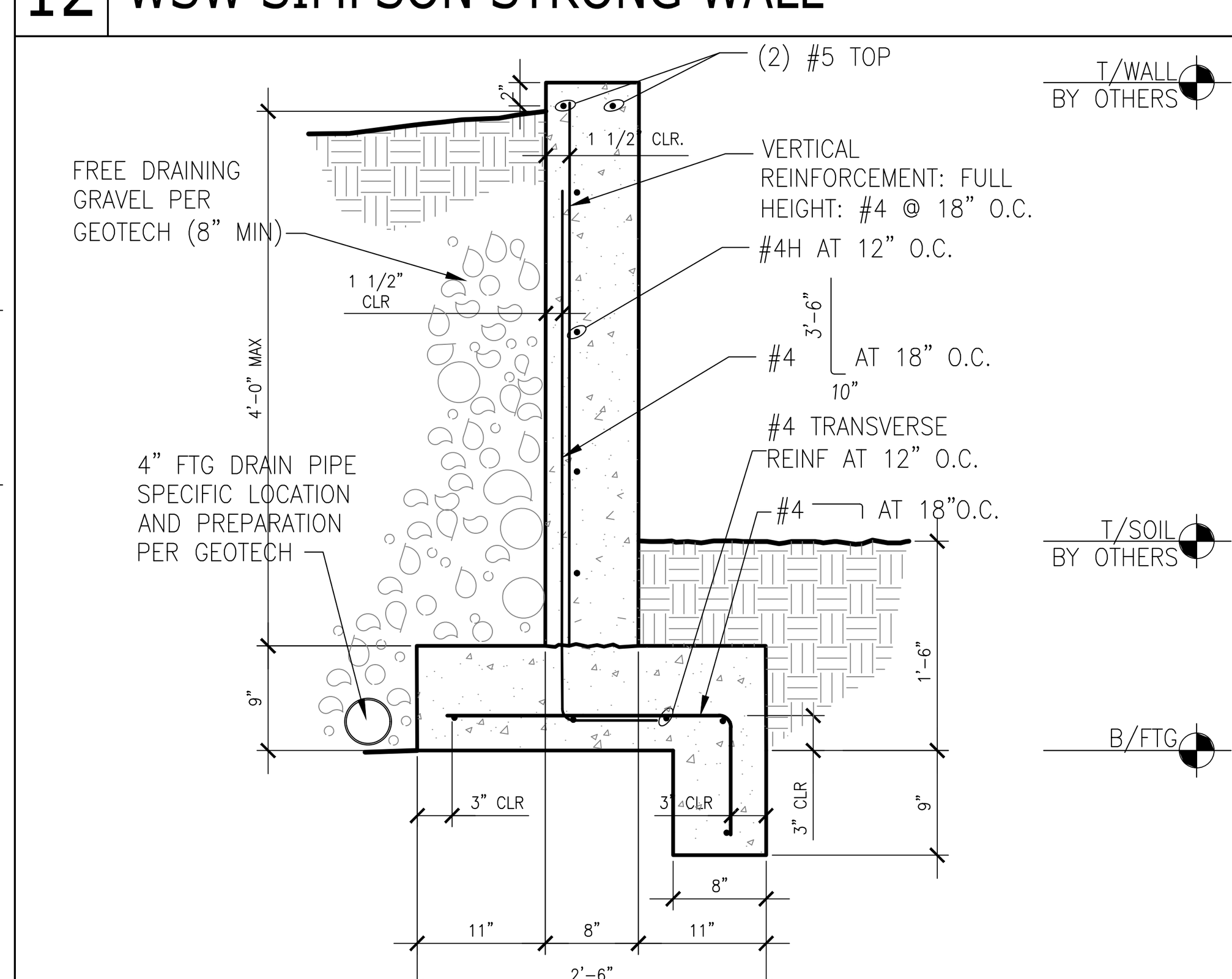
13 WSW TOP PLATE ATTACHMENT



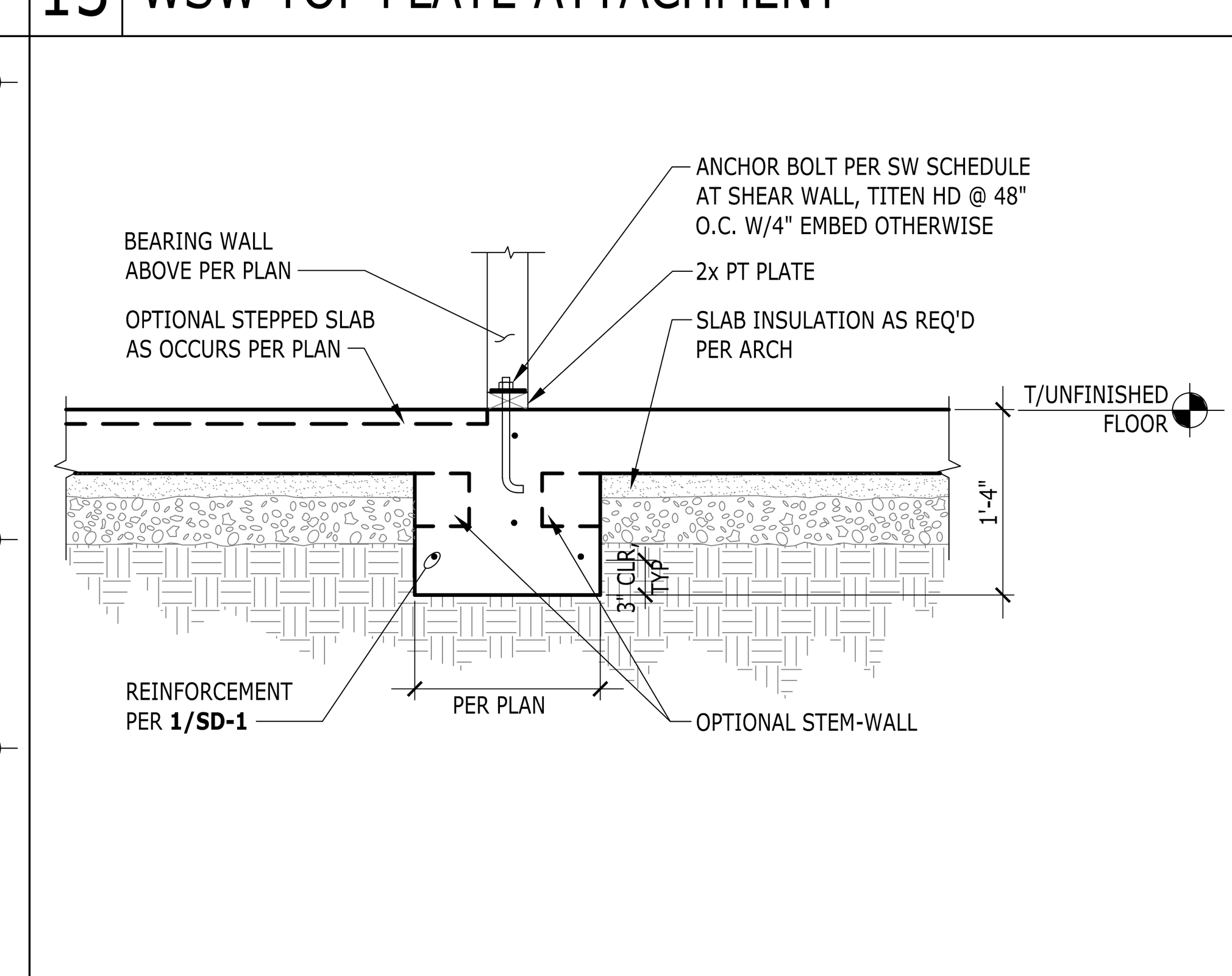
14 FOOTING AT WSW WALL



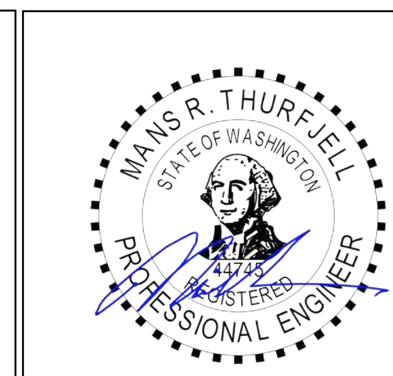
15 SHEAR REINFORCEMENT AT WSW WALL



17 RETAINING WALL NO SLAB (4'-0" MAX BACKFILL)



18 THICKENED SLAB UNDER BEARING WALL



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