

LOT 4 7420 - 78th AVENUE SE • MERCER ISLAND • WASHINGTON • 98040

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO APPLICABLE CODES, INCLUDING BUT NOT LIMITED TO THE 2021 INTERNATIONAL BUILDING CODE, INTERNATIONAL RESIDENTIAL CODE, THE CURRENT WASHINGTON STATE ENERGY CODE, THE WASHINGTON STATE BUILDING CODES, THE AMERICANS WITH DISABILITIES ACT, AND ALL RULES, REGULATIONS AND ORDINANCES OF THE GOVERNING AUTHORITY.
2. ENGINEERED DESIGN IN ACCORDANCE WITH THE IBC IS PERMITTED.
3. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, AND SITE CONDITIONS, AND SHALL NOTIFY THE ARCHITECT IMMEDIATELY IN WRITING OF ANY DISCREPANCIES, ERRORS, OR OMISSIONS PRIOR TO PROCEEDING WITH THE WORK.
4. DO NOT SCALE THE DRAWINGS FOR CRITICAL DIMENSIONS. DIMENSIONS ARE SHOWN TO FACE OF STUDS, POSTS AND CONCRETE UNLESS INDICATED OTHERWISE.
5. THE PROJECT SHALL BE SCHEDULED AND INSTALLATION OF ELEMENTS COORDINATED AS NECESSARY BY THE CONTRACTOR TO PERMIT WORK BETWEEN DIFFERENT TRADES TO PROCEED WITHOUT UPSETTING PROPER CONSTRUCTION SEQUENCES OR DELAYING THE PROJECT SCHEDULE.
6. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL VERIFY ALL DOOR AND WINDOW ROUGH-OPENING DIMENSIONS WITH THE DOOR AND WINDOW MANUFACTURERS.
8. PLUMBING, ELECTRICAL AND MECHANICAL CONTRACTORS SHALL VERIFY ALL REQUIREMENTS FOR THIS PROJECT AND COMPLY WITH ALL LOCAL CODES, SUBMIT PLANS FOR APPROVAL AND OBTAIN PERMIT BEFORE STARTING WORK.
9. SHOWN ONLY ONCE, TYPICAL DETAILS ARE NOT REFERENCED AT ALL LOCATIONS; THE INTENT IS THAT THEY APPLY THROUGHOUT THE PROJECT UNLESS OTHERWISE NOTED.
10. ALL REQUIRED SHOP DRAWINGS AND SUBMITTALS SHALL BE REVIEWED BY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
11. ALL SHOP DRAWING DIMENSIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BY THE CONTRACTOR.
12. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY DAMAGE CAUSED BY HIMSELF OR OTHER TRADES.
13. INSPECTIONS ARE TO BE PER IRC SECTION R109.
14. ADDRESS MUST BE POSTED AND VISIBLE AT CONSTRUCTION SITE PER IRC SEC R319; BUILDINGS SHALL HAVE APPROVED ADDRESS NUMBERS, BUILDING NUMBERS OR APPROVED BUILDING IDENTIFICATION PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.
15. ANY DEVIATION IN CONSTRUCTION FROM APPROVED PLANS REQUIRES PRIOR REVIEW AND APPROVAL FROM THE CITY OF MERCER ISLAND, PLANNING AND BUILDING DEPARTMENT.

TABLE R301.2(1) CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

ROOF SNOW LOAD:	25 PSF
WIND SPEED:	98 MPH
SEISMIC DESIGN CATEGORY:	D2
WEATHERING:	MODERATE
FROST LINE DEPTH:	12 INCHES
TERMITES:	SLIGHT TO MODERATE
DECAY:	SLIGHT TO FAHRENHEIT
WINTER DESIGN TEMP:	24 DEGREES FAHRENHEIT
ICE SHIELD UNDERLAYMENT REQUIRED:	NO
FLOOD HAZARDS:	NA
AIR FREEZING INDEX:	113
MEAN ANNUAL TEMP:	53 DEGREES FAHRENHEIT
ASSUMED SOIL BEARING:	3000 PSF STATIC (PER SOILS REPORT DATED 4/17/24)

AUTOMATIC FIRE SPRINKLER SYSTEMS

FIRE SPRINKLERS ☒ ARE ☐ ARE NOT ☐ REQUIRED FOR THIS PROJECT. AUTOMATIC RESIDENTIAL FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. NFPA 72 (CHAPTER 29) - MONITORED HOUSEHOLD FIRE ALARM FIRE ALARM SYSTEM IN COMPLIANCE WITH NFPA 72 AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE. A SEPARATE FIRE PERMIT IS REQUIRED.

SECTION M1501 EXHAUST SYSTEMS

M1501.1 OUTDOOR DISCHARGE
THE AIR REMOVED BY EVERY MECHANICAL EXHAUST SYSTEM SHALL BE DISCHARGED TO THE OUTDOORS IN ACCORDANCE WITH SECTION M1504.3. AIR SHALL NOT BE EXHAUSTED INTO AN ATTIC, SOFFIT, RIDGE VENT OR CRAWL SPACE.

M1502 CLOTHES DRYER EXHAUST
M1502.1 GENERAL
CLOTHES DRYERS SHALL BE EXHAUSTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

M1502.2 INDEPENDENT EXHAUST SYSTEMS
DRYER EXHAUST SYSTEMS SHALL BE INDEPENDENT OF ALL OTHER SYSTEMS AND SHALL CONVEY THE MOISTURE TO THE OUTDOORS.
EXCEPTION: THIS SECTION SHALL NOT APPLY TO LISTED AND LABELED CONDENSING (DUCTLESS) CLOTHES DRYERS.

M1502.3 DUCT TERMINATION
EXHAUST DUCTS SHALL TERMINATE ON THE OUTSIDE OF THE BUILDING. EXHAUST DUCT TERMINATIONS SHALL BE IN ACCORDANCE WITH THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS. IF THE MANUFACTURER'S INSTRUCTIONS DO NOT SPECIFY A TERMINATION LOCATION, THE EXHAUST DUCT SHALL TERMINATE NOT LESS THAN 3 FEET IN ANY DIRECTION FROM OPENINGS INTO BUILDINGS, INCLUDING OPENINGS IN VENTILATED SOFFITS. EXHAUST DUCT TERMINATIONS SHALL BE EQUIPPED WITH A BACKDRAFT DAMPER. SCREENS SHALL NOT BE INSTALLED AT THE DUCT TERMINATION.

M1502.4 DRYER EXHAUST DUCTS
DRYER EXHAUST DUCTS SHALL CONFORM TO THE REQUIREMENTS OF SECTIONS M1502.4.1 THROUGH M1502.4.8.

M1502.4.1 MATERIAL AND SIZE
EXHAUST DUCTS SHALL HAVE A SMOOTH INTERIOR FINISH AND SHALL BE CONSTRUCTED OF METAL NOT LESS THAN 0.0157 INCH IN THICKNESS (NO. 28 GAGE). THE DUCT SHALL BE 4 INCHES NOMINAL IN DIAMETER.

M1502.4.2 DUCT INSTALLATION
EXHAUST DUCTS SHALL BE SUPPORTED AT INTERVALS NOT TO EXCEED 12 FEET AND SHALL BE SECURED IN PLACE. THE INSERT END OF THE DUCT SHALL EXTEND INTO THE ADJOINING DUCT OR FITTING IN THE DIRECTION OF AIRFLOW. EXHAUST DUCT JOINTS SHALL BE SEALED IN ACCORDANCE WITH SECTION M1601.4.1 AND SHALL BE MECHANICALLY FASTENED. DUCTS SHALL NOT BE JOINED WITH SCREWS OR SIMILAR FASTENERS THAT PROTRUDE MORE THAN 1/8 INCH INTO THE INSIDE OF THE DUCT. WHERE DRYER EXHAUST DUCTS ARE ENCLOSED IN WALL OR CEILING CAVITIES, SUCH CAVITIES SHALL ALLOW THE INSTALLATION OF THE DUCT WITHOUT DEFORMATION.

M1502.4.3 TRANSITION DUCT
TRANSITION DUCTS USED TO CONNECT THE DRYER TO THE EXHAUST DUCT SYSTEM SHALL BE A SINGLE LENGTH THAT IS LISTED AND LABELED IN ACCORDANCE WITH UL 2158A. TRANSITION DUCTS SHALL BE NOT GREATER THAN 6 FEET IN LENGTH. TRANSITION DUCTS SHALL NOT BE CONCEALED WITHIN CONSTRUCTION.

M1502.4.4 DRYER EXHAUST DUCT POWER VENTILATORS
DOMESTIC DRYER EXHAUST DUCT POWER VENTILATORS SHALL CONFORM TO UL 705 FOR USE IN DRYER EXHAUST DUCT SYSTEMS. THE DRYER EXHAUST DUCT POWER VENTILATOR SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

M1502.4.6 DUCT LENGTH
THE MAXIMUM ALLOWABLE EXHAUST DUCT LENGTH SHALL BE DETERMINED BY ONE OF THE METHODS SPECIFIED IN SECTIONS M1502.4.6.1 THROUGH M1502.4.6.3.

M1502.4.6.1 SPECIFIED LENGTH
THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE 35 FEET FROM THE CONNECTION TO THE TRANSITION DUCT FROM THE DRYER TO THE OUTLET TERMINAL. WHERE FITTINGS ARE USED, THE MAXIMUM LENGTH OF THE EXHAUST DUCT SHALL BE REDUCED IN ACCORDANCE WITH TABLE M1502.4.6.1. THE MAXIMUM LENGTH OF THE EXHAUST DUCT DOES NOT INCLUDE THE TRANSITION DUCT.

DRYER EXHAUST DUCT FITTING TYPE	EQUIVALENT LENGTH
4-INCH RADIUS MITERED 45-DEGREE ELBOW	2 FEET 6 INCHES
4-INCH RADIUS MITERED 90-DEGREE ELBOW	5 FEET
6-INCH RADIUS MITERED 45-DEGREE ELBOW	1 FOOT
6-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 9 INCHES
8-INCH RADIUS MITERED 45-DEGREE ELBOW	1 FOOT
8-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 7 INCHES

10-INCH RADIUS MITERED 45-DEGREE ELBOW	9 INCHES
10-INCH RADIUS MITERED 90-DEGREE ELBOW	1 FOOT 6 INCHES

M1503 DOMESTIC COOKING EXHAUST EQUIPMENT
M1503.2 DOMESTIC COOKING EXHAUST
WHERE DOMESTIC COOKING EXHAUST EQUIPMENT IS PROVIDED, IT SHALL COMPLY WITH ONE OF THE FOLLOWING:
1. THE FAN FOR OVERHEAD RANGE HOODS AND DOWNDRAFT EXHAUST EQUIPMENT NOT INTEGRAL WITH THE COOKING APPLIANCE SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 507.
2. OVERHEAD RANGE HOODS AND DOWNDRAFT EXHAUST EQUIPMENT WITH INTEGRAL FANS SHALL COMPLY WITH UL 507.
3. DOMESTIC COOKING APPLIANCES WITH INTEGRAL DOWNDRAFT EXHAUST EQUIPMENT SHALL BE LISTED AND LABELED IN ACCORDANCE WITH ANSI Z21.1 OR UL 858.
4. MICROWAVE OVENS WITH INTEGRAL EXHAUST FOR INSTALLATION OVER THE COOKING SURFACE SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 923.

M1503.6 MAKEUP AIR REQUIRED
WHERE ONE OR MORE GAS, LIQUID OR SOLID FUEL-BURNING APPLIANCE THAT IS NEITHER DIRECT-VENT NOR USES A MECHANICAL DRAFT VENTING SYSTEM IS LOCATED WITHIN A DWELLING UNIT'S AIR BARRIER, EACH EXHAUST SYSTEM CAPABLE OF EXHAUSTING IN EXCESS OF 400 CUBIC FEET PER MINUTE SHALL BE MECHANICALLY OR PASSIVELY PROVIDED WITH MAKEUP AIR AT A RATE APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE. SUCH MAKEUP AIR SYSTEMS SHALL BE EQUIPPED WITH NOT FEWER THAN ONE DAMPER COMPLYING WITH SECTION M1503.6.2.
EXCEPTION: MAKEUP AIR IS NOT REQUIRED FOR EXHAUST SYSTEMS INSTALLED FOR THE EXCLUSIVE PURPOSE OF SPACE COOLING AND INTENDED TO BE OPERATED ONLY WHEN WINDOWS OR OTHER AIR INLETS ARE OPEN.
M1503.6.1 LOCATION
KITCHEN EXHAUST MAKEUP AIR SHALL BE DISCHARGED INTO THE SAME ROOM IN WHICH THE EXHAUST SYSTEM IS LOCATED OR INTO ROOMS OR DUCT SYSTEMS THAT COMMUNICATE THROUGH ONE OR MORE PERMANENT OPENINGS WITH THE ROOM IN WHICH SUCH EXHAUST SYSTEM IS LOCATED. SUCH PERMANENT OPENINGS SHALL HAVE A NET CROSS-SECTIONAL AREA NOT LESS THAN THE REQUIRED AREA OF THE MAKEUP AIR SUPPLY OPENINGS.
M1503.6.2 MAKEUP AIR DAMPERS
WHERE MAKEUP AIR IS REQUIRED BY SECTION M1503.6, MAKEUP AIR DAMPERS SHALL COMPLY WITH THIS SECTION. EACH DAMPER SHALL BE A GRAVITY DAMPER OR AN ELECTRICALLY OPERATED DAMPER THAT AUTOMATICALLY OPENS WHEN THE EXHAUST SYSTEM OPERATES. DAMPERS SHALL BE LOCATED TO ALLOW ACCESS FOR INSPECTION, SERVICE, REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION OR ANY OTHER DUCTS NOT CONNECTED TO THE DAMPER BEING INSPECTED, SERVICED, REPAIRED OR REPLACED. GRAVITY OR BAROMETRIC DAMPERS SHALL NOT BE USED IN PASSIVE MAKEUP AIR SYSTEMS EXCEPT WHERE THE DAMPERS ARE RATED TO PROVIDE THE DESIGN MAKEUP AIRFLOW AT A PRESSURE DIFFERENTIAL OF 0.01 IN. W.C. OR LESS.

M1504 EXHAUST DUCTS AND EXHAUST OPENINGS
M1504.2 DUCT LENGTH
THE LENGTH OF EXHAUST AND SUPPLY DUCTS USED WITH VENTILATING EQUIPMENT SHALL NOT EXCEED THE LENGTHS DETERMINED IN ACCORDANCE WITH TABLE M1504.2.
EXCEPTION: DUCT LENGTH SHALL NOT BE LIMITED WHERE THE DUCT SYSTEM COMPLIES WITH THE MANUFACTURER'S DESIGN CRITERIA OR WHERE THE FLOW RATE OF THE INSTALLED VENTILATING EQUIPMENT IS VERIFIED BY THE INSTALLER OR APPROVED THIRD PARTY USING A FLOW HOOD, FLOW GRID OR OTHER AIRFLOW MEASURING DEVICE.

TABLE M1504.2 DUCT LENGTH									SMOOTH-WALL DUCT								
DUCT TYPE	FLEX DUCT								DUCT TYPE								
FAN AIRFLOW RATING	50	80	100	125	150	200	250	300	50	80	100	125	150	200	250	300	
DIAMETER ² (INCHES)	MAXIMUM LENGTH ^{1,2,3} (FEET)																
3	X	X	X	X	X	X	X	X	5	X	X	X	X	X	X	X	
4	56	4	X	X	X	X	X	X	114	31	10	X	X	X	X	X	
5	NL	81	42	16	2	X	X	X	NL	152	91	51	28	4	X	X	
6	NL	NL	158	91	55	18	1	X	NL	NL	NL	168	112	53	25	9	
7	NL	NL	NL	NL	161	78	40	19	NL	NL	NL	NL	NL	148	88	54	
8 AND ABOVE	NL	NL	NL	NL	NL	189	111	69	NL	NL	NL	NL	NL	NL	198	133	

- A. FAN AIRFLOW RATING SHALL BE IN ACCORDANCE WITH ANSI/AMCA 210-ANSI/ASHRAE 51.
- B. FOR NONCIRCULAR DUCTS, CALCULATE THE DIAMETER AS FOUR TIMES THE CROSS-SECTIONAL AREA DIVIDED BY THE PERIMETER.
- C. THIS TABLE ASSUMES THAT ELBOWS ARE NOT USED. FIFTEEN FEET OF ALLOWABLE DUCT LENGTH SHALL BE DEDUCTED FOR EACH ELBOW INSTALLED IN THE DUCT RUN.
- D. NL = NO LIMIT ON DUCT LENGTH OF THIS SIZE.
- E. X = NOT ALLOWED, ANY LENGTH OF DUCT OF THIS SIZE WITH ASSUMED TURNS AND FITTINGS WILL EXCEED THE RATED PRESSURE DROP.

M1504.3 EXHAUST OPENINGS
AIR EXHAUST OPENINGS SHALL TERMINATE AS FOLLOWS:
1. NOT LESS THAN 3 FEET FROM PROPERTY LINES.
2. NOT LESS THAN 3 FEET FROM GRAVITY AIR INTAKE OPENINGS, OPERABLE WINDOWS AND DOORS.
3. NOT LESS THAN 10 FEET FROM MECHANICAL AIR INTAKE OPENINGS EXCEPT WHERE EITHER OF THE FOLLOWING APPLY:
3.1 THE EXHAUST OPENING IS LOCATED NOT LESS THAN 3 FEET ABOVE THE AIR INTAKE OPENING.
3.2 THE EXHAUST OPENING IS PART OF A FACTORY-BUILT INTAKE/ EXHAUST COMBINATION TERMINATION FITTING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, AND THE EXHAUST AIR IS DRAWN FROM A LIVING SPACE.
4. OPENINGS SHALL COMPLY WITH SECTIONS R303.5.2 AND R303.6.

M1505 MECHANICAL VENTILATION

M1505.4 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM
M1505.4.1 SYSTEM DESIGN
THE WHOLE-HOUSE VENTILATION SYSTEM SHALL CONSIST OF ONE OR MORE SUPPLY FANS, ONE OR MORE EXHAUST FANS, OR AN ERV/HRV WITH INTEGRAL FANS, ASSOCIATED DUCTS AND CONTROLS. WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM WITH SUPPLY AND EXHAUST FANS PER SECTIONS M1505.4.1.2, M1505.4.1.3, M1505.4.1.4, AND M1505.4.1.5. LOCAL EXHAUST FANS ARE PERMITTED TO SERVE AS PART OF THE WHOLE-HOUSE VENTILATION SYSTEM WHEN PROVIDED WITH THE PROPER CONTROLS PER SECTION M1505.4.2. THE SYSTEMS SHALL BE DESIGNED AND INSTALLED TO EXHAUST AND/OR SUPPLY THE MINIMUM OUTDOOR AIRFLOW RATES PER SECTION M1505.4.3 AS MODIFIED BY THE WHOLE-HOUSE VENTILATION SYSTEM COEFFICIENTS IN SECTION M1504.5.3.1 WHERE APPLICABLE. THE WHOLE-HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY AT THE MINIMUM VENTILATION RATE DETERMINED PER SECTION M1505.4.2 UNLESS CONFIGURED WITH INTERMITTENT OFF CONTROLS PER SECTION M1505.4.3.2.

M1505.4.1.1 WHOLE-HOUSE SYSTEM COMPONENT REQUIREMENTS
WHOLE-HOUSE VENTILATION SUPPLY AND EXHAUST FANS SPECIFIED IN THIS SECTION SHALL HAVE A MINIMUM EFFICIACY AS PRESCRIBED IN THE WASHINGTON STATE ENERGY CODE. DESIGN AND INSTALLATION OF THE SYSTEM OR EQUIPMENT SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURERS' INSTALLATION INSTRUCTIONS. WHOLE-HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MINIMUM AIRFLOW RATE REQUIRED BY SECTION M1505.4.3.1. VENTILATION FANS SHALL BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT 1/3 OCTAVE BANDS (A) STATIC PRESSURE IN ACCORDANCE WITH HVI PROCEDURES SPECIFIED IN SECTIONS M1505.4.1.2 AND M1505.4.1.3.
EXCEPTION: HVAC AIR HANDLERS, ERV/HRV UNITS, AND REMOTE-MOUNTED FANS NEED NOT MEET THE SOUND REQUIREMENTS. TO BE CONSIDERED FOR THIS EXCEPTION, A REMOTE-MOUNTED FAN MUST BE MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS, AND THERE MUST BE AT LEAST 4 FEET (1219 MM) OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE.
THE WHOLE-HOUSE SUPPLY FAN SHALL PROVIDE DUCTED OUTDOOR VENTILATION AIR TO EACH HABITABLE SPACE WITHIN THE RESIDENTIAL UNIT.
EXCEPTION: INTERIOR JOINING SPACES PROVIDED WITH A 30 CFM (0.0141 M3/S) WHOLE-HOUSE TRANSFER FAN OR A PERMANENT OPENING WITH AN AREA OF NOT LESS THAN 8 PERCENT OF THE FLOOR AREA OF THE INTERIOR ADJOINING SPACE BUT NOT LESS THAN 25 SQUARE FEET (2.3 M2) DO NOT REQUIRE DUCTED OUTDOOR VENTILATION AIR TO BE SUPPLIED DIRECTLY TO THE SPACE. WHOLE-HOUSE TRANSFER FANS SHALL MEET THE SONE RATING OF SECTION M1505.4.1.1 AND SHALL HAVE WHOLE-HOUSE VENTILATION CONTROLS THAT COMPLY WITH SECTION M1505.4.2.

M1505.4.1.2 EXHAUST FANS
EXHAUST FANS REQUIRED SHALL BE DUCTED DIRECTLY TO THE OUTSIDE. EXHAUST AIR OUTLETS SHALL BE DESIGNED TO LIMIT THE PRESSURE DIFFERENCE TO THE OUTSIDE AND EQUIPPED WITH BACKDRAFT DAMPERS OR MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. EXHAUST FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE (HVI 915, HVI LOUDNESS TESTING AND RATING PROCEDURE; HVI 916, HVI AIRFLOW TEST PROCEDURE, AND HVI 920, HVI PRODUCT PERFORMANCE CERTIFICATION PROCEDURE, AS APPLICABLE). EXHAUST FANS REQUIRED IN THIS SECTION MAY BE USED TO PROVIDE LOCAL VENTILATION. BATHROOM EXHAUST FANS THAT ARE DESIGNED FOR INTERMITTENT EXHAUST AIRFLOW RATES HIGHER THAN THE CONTINUOUS EXHAUST AIRFLOW RATES IN TABLE R1505.4.3(3) SHALL BE PROVIDED WITH OCCUPANCY SENSORS OR HUMIDITY SENSORS TO AUTOMATICALLY OVERRIDE THE FAN TO THE HIGH SPEED AIRFLOW RATE. THE EXHAUST FANS SHALL BE TESTED AND THE TESTING RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.6.

M1505.4.1.3 SUPPLY FANS
SUPPLY FANS USED IN MEETING THE REQUIREMENTS OF THIS SECTION SHALL SUPPLY OUTDOOR AIR FROM INTAKE OPENINGS IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE SECTIONS 401.4 AND 401.5. WHEN DESIGNED FOR INTERMITTENT OFF OPERATION, SUPPLY SYSTEMS SHALL BE EQUIPPED WITH MOTORIZED DAMPERS IN ACCORDANCE WITH THE WASHINGTON STATE ENERGY CODE. SUPPLY FANS SHALL BE TESTED AND RATED IN ACCORDANCE WITH THE AIRFLOW AND SOUND RATING PROCEDURES OF THE HOME VENTILATING INSTITUTE (HVI 915, HVI LOUDNESS TESTING AND RATING PROCEDURE; HVI 916, HVI AIRFLOW TEST PROCEDURE, AND HVI 920, HVI PRODUCT PERFORMANCE CERTIFICATION PROCEDURE, AS APPLICABLE). WHERE OUTDOOR AIR IS PROVIDED TO EACH HABITABLE DWELLING UNIT OR SLEEPING UNIT BY SUPPLY FAN SYSTEMS, THE OUTDOOR AIR SHALL BE FILTERED. THE FILTER SHALL BE ACCESSIBLE FOR REGULAR MAINTENANCE AND REPLACEMENT. THE FILTER SHALL HAVE A MINIMUM EFFICIENCY RATING VALUE (MERV) OF AT LEAST 9.

M1505.4.1.4 BALANCED WHOLE-HOUSE VENTILATION SYSTEM
A BALANCED WHOLE-HOUSE VENTILATION SYSTEM SHALL INCLUDE BOTH SUPPLY AND EXHAUST FANS. THE SUPPLY AND EXHAUST FANS SHALL HAVE AIRFLOW THAT IS WITHIN 10% OF EACH OTHER, THE TESTED AND BALANCED TOTAL MECHANICAL EXHAUST AIRFLOW RATE IS WITHIN 10% OR 5 CFM, WHICHEVER IS GREATER, OF THE TOTAL MECHANICAL SUPPLY AIRFLOW RATE. THE FLOW RATE TEST RESULTS SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.7. THE EXHAUST FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.1.2. THE SUPPLY FAN SHALL MEET THE REQUIREMENTS OF SECTION M1505.4.1.3. BALANCED VENTILATION SYSTEMS WITH BOTH SUPPLY AND EXHAUST FANS IN A PACKAGED PRODUCT, SUCH AS AN ERV/HRV, SHALL MEET THE REQUIREMENTS OF HVI 920, AS APPLICABLE. INTERMITTENT DRYER EXHAUST, INTERMITTENT RANGE HOOD EXHAUST, AND INTERMITTENT TOILET ROOM EXHAUST AIRFLOW RATES ABOVE THE RESIDENTIAL DWELLING OR SLEEPING UNIT MINIMUM VENTILATION RATE ARE EXEMPT FROM THE BALANCED AIRFLOW CALCULATION.

M1505.4.1.5 FURNACE INTEGRATED SUPPLY
SYSTEMS USING SPACE HEATING AND/OR COOLING AIR HANDLER FANS FOR OUTDOOR AIR SUPPLY DISTRIBUTION ARE NOT PERMITTED.
EXCEPTION: AIR HANDLER FANS SHALL HAVE MULTI-SPEED OR VARIABLE SPEED SUPPLY AIRFLOW CONTROL CAPABILITY WITH A LOW SPEED OPERATION NOT GREATER THAN 25% OF THE RATED SUPPLY AIRFLOW CAPACITY DURING VENTILATION ONLY OPERATION. OUTDOOR AIR INTAKE OPENINGS MUST MEET THE PROVISIONS OF SECTIONS R303.5 AND R303.6 AND MUST INCLUDE A MOTORIZED DAMPER THAT IS ACTIVATED BY THE WHOLE-HOUSE VENTILATION SYSTEM CONTROLLER. THE MOTORIZED DAMPER MUST BE CONTROLLED TO MAINTAIN THE OUTDOOR AIRFLOW INTAKE AIRFLOW WITHIN 10% OF THE WHOLE-HOUSE MECHANICAL EXHAUST AIRFLOW RATE. THE FLOW RATE FOR THE OUTDOOR AIR INTAKE MUST BE TESTED AND VERIFIED AT THE MINIMUM VENTILATION FAN SPEED AND THE MAXIMUM HEATING OR COOLING FAN SPEED. THE RESULTS OF THE TEST SHALL BE SUBMITTED AND POSTED IN ACCORDANCE WITH SECTION M1505.4.1.7.

M1505.4.1.6 TESTING
WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE TESTED, BALANCED AND VERIFIED TO PROVIDE A FLOW RATE NOT LESS THAN THE MINIMUM REQUIREMENTS OF SECTIONS M1505.4.3 AND M1505.4.4. TESTING SHALL BE PERFORMED ACCORDING TO THE VENTILATION EQUIPMENT MANUFACTURER'S INSTRUCTIONS, OR BY USING A FLOW HOOD, FLOW GRID, OR OTHER AIRFLOW MEASURING DEVICE AT THE MECHANICAL VENTILATION FANS INLET TERMINALS, OUTLET TERMINALS OR GRILLES OR IN THE CONNECTED VENTILATION DUCTS, WHERE REQUIRED BY THE BUILDING OFFICIAL. TESTING SHALL BE CONDUCTED BY AN APPROVED THIRD PARTY. A WRITTEN REPORT OF THE RESULTS OF THE TEST SHALL BE SIGNED BY THE PARTY CONDUCTING THE TEST AND PROVIDED TO THE BUILDING OFFICIAL AND BE POSTED IN THE DWELLING UNIT PER SECTION M1505.4.1.7.

M1505.4.1.7 CERTIFICATE
A PERMANENT CERTIFICATE SHALL BE COMPLETED BY THE MECHANICAL CONTRACTOR, TEST AND BALANCE CONTRACTOR OR OTHER APPROVED PARTY AND POSTED ON A WALL IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM, OR AN APPROVED LOCATION INSIDE THE BUILDING. WHEN LOCATED ON AN ELECTRICAL PANEL, THE CERTIFICATE SHALL NOT COVER OR OBSTRUCT THE VISIBILITY OF THE CIRCUIT DIRECTORY LABEL, SERVICE DISCONNECT LABEL, OR OTHER REQUIRED LABELS. THE CERTIFICATE SHALL LIST THE FLOW RATE DETERMINED FROM THE DELIVERED AIRFLOW OF THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AS INSTALLED AND THE TYPE OF MECHANICAL WHOLE-HOUSE VENTILATION SYSTEM USED TO COMPLY WITH SECTION M1505.4.3.1.

M1505.4.2 SYSTEM CONTROLS
THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT COMPLY WITH THE FOLLOWING:
THE WHOLE-HOUSE VENTILATION SYSTEM SHALL BE CONTROLLED WITH MANUAL SWITCHES, TIMERS OR OTHER MEANS THAT PROVIDE FOR AUTOMATIC OPERATION OF THE VENTILATION SYSTEM THAT ARE READILY ACCESSIBLE BY THE OCCUPANT.

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE OFF OF THE SYSTEM BY THE OCCUPANT DURING PERIODS OF POOR OUTDOOR AIR QUALITY. CONTROLS SHALL INCLUDE PERMANENT TEXT OR A SYMBOL INDICATING THEIR FUNCTION. RECOMMENDED CONTROL PERMANENT LABELING TO INCLUDE TEXT SIMILAR TO THE FOLLOWING: "LEAVE ON UNLESS OUTDOOR AIR QUALITY IS VERY POOR;" MANUAL CONTROLS SHALL BE READILY ACCESSIBLE BY THE OCCUPANT.
WHOLE-HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED PER SECTION M1505.4.3.2.

TABLE M1505.4.3(1) CONTINUOUS WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM AIRFLOW RATE REQUIREMENTS		NUMBER OF BEDROOMS				
DWELLING UNIT FLOOR AREA		0-1	2-3	4-5	6-7	>7
		AIRFLOW IN CFM				
< 1,500	30	45	60	75	90	
1,501 — 3,000	45	60	75	90	105	
3,001 — 4,500	60	75	90	105	120	
4,501 — 6,000	75	90	105	120	135	
6,001 — 7,500	90	105	120	135	150	
> 7,500	105	120	135	150	165	

TABLE M1505.4.3(2) INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS ^{a,b}	RUN-TIME PERCENTAGE IN EACH 4-HOUR SEGMENT					
FACTOR (a)	25%	33%	50%	66%	75%	100%
	4	3	2	1.5	1.3	1.0

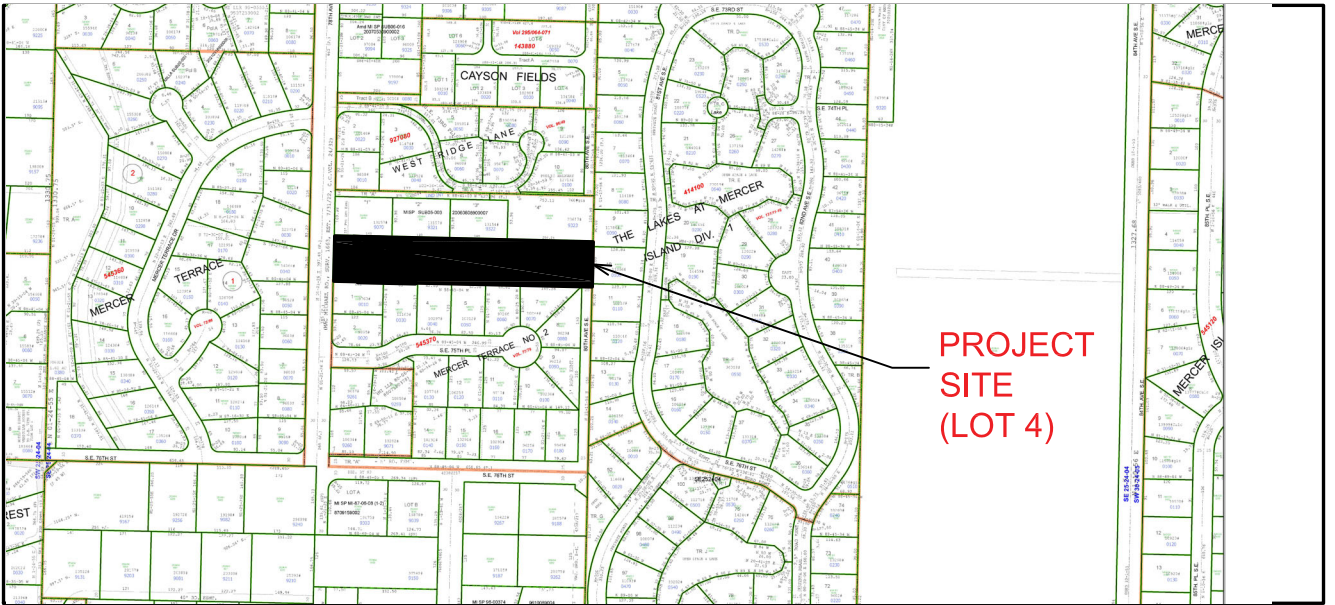
- a. FOR VENTILATION SYSTEM RUN TIME VALUES BETWEEN THOSE GIVEN, THE FACTORS ARE PERMITTED TO BE DETERMINED BY INTERPOLATION.
- b. EXTRAPOLATION BEYOND THE TABLE IS PROHIBITED.

WHOLE HOUSE VENTILATION OPTIONS (CHOOSE ONE):
☒ 1. WHOLE HOUSE VENTILATION USING EXHAUST FANS
☐ 2. WHOLE HOUSE VENTILATION INTEGRATED WITH A FORCED-AIR SYSTEM
☐ 3. WHOLE HOUSE VENTILATION USING A SUPPLY FAN
☐ 4. WHOLE-HOUSE VENTILATION USING A HEAT RECOVERY VENTILATION SYSTEM.

TABLE M1505.4.4 MIN. REQUIRED LOCAL EXHAUST RATES FOR ONE- AND TWO-FAMILY DWELLINGS	AREA TO BE EXHAUSTED	EXHAUST RATES
KITCHENS		100 CFM INTERMITTENT OR 25 CFM CONTINUOUS
BATHROOMS-TOILET ROOMS		MECH. EXHAUST CAPACITY OF 50 CFM INTERMITTENT OR 20 CFM CONTINUOUS

VICINITY MAP

N.T.S.



ASSOCIATED LAND USE APPLICATIONS:
SUBDIVISIONS/PLATTING APPLICATION #20231129

DRAWING INDEX:

ARCHITECTURAL

- A0.1 COVER SHEET
- A0.2 WSEC - BUILDING THERMAL ENVELOPE
- A1.0 SITE PLAN
- A1.1 SITE CALCULATIONS
- A2.1 FDN. & MISC. DETAILS
- A2.2 ROOF & FLOOR DETAILS
- A2.3 STAIR DETAILS
- A3 FOUNDATION PLAN
- A4 MAIN FLOOR FRAMING PLAN
- A5 MAIN FLOOR PLAN
- A6 UPPER FLOOR FRAMING PLAN
- A7 UPPER FLOOR PLAN
- A8 ROOF FRAMING PLAN
- A9 EXTERIOR ELEVATIONS
- A10 EXTERIOR ELEVATIONS
- A11 BUILDING SECTIONS

STRUCTURAL

- S-0.0 STRUCTURAL NOTES
- SD-1 STRUCTURAL DETAILS
- SD-2 STRUCTURAL DETAILS
- SD-3 STRUCTURAL DETAILS
- SD.01 FOUNDATION DETAILS

CIVIL

- C4.3 LOT 4 GRADING AND DRAINAGE PLAN
- C8.0 OVERALL SITE PLAN

PROJECT TEAM

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ARBORIST
CREATIVE LANDSCAPE SOLUTIONS
—
SULTAN, WA 98294
SUSAN PRINCE
info@creativelandscapewa.com
425.870.5403

BUILDING AREA SUMMARY:

HEATED LIVING AREA MAIN LEVEL:	2,285 SF
HEATED LIVING AREA UPPER LEVEL:	2,505 SF
TOTAL HEATED LIVING AREA:	4,790 SF
GARAGE AREA:	654 S.F.

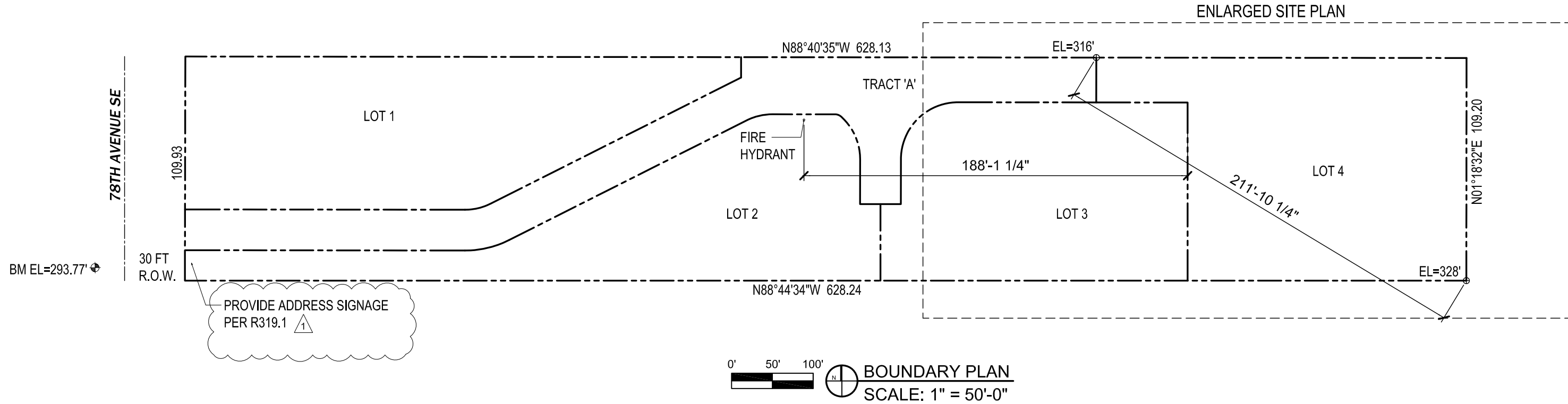
PROJECT NARRATIVE

WE PROPOSE TO DEVELOP A TWO STORY SINGLE FAMILY RESIDENCE WITH ATTACHED THREE CAR GARAGE. 4,786 S.F. OF HEATED FLOOR AREA, 654 S.F. GARAGE, AND 384 S.F. OF COVERED PORCH AND PATIOS. SITE TO BE DEVELOPED WITH WALKWAY AND DRIVEWAY, AND RETAINING WALLS.

McCULLOUGH
ARCHITECTS

SITE PLAN KEY

PROPERTY LINE	---
SETBACK / BUFFER	- - - -
EXISTING TOPO. (MJR.)	990
EXISTING TOPO. (MNR.)	992
PROPOSED TOPO.	990
SILT FENCE	X-X-X-X-X
TREE PROTECTION	○-○-○-○-○-○
STRUCTURE (DEMO)	- - - -
EDGE OF PAVING	=====
LINE OF STRUCTURE	=====
LINE OF ROOF O.H.	- - - -
CRITICAL AREA	+ + + + +
CONCRETE PAVING	
CONCRETE PAVERS	□ □ □ □ □



MICC 19.02.020(F)(3)(d) 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 (F)(3)(A) OF THIS SECTION. 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.

DRAINAGE STRUCTURES
(PER CIVIL PLANS)

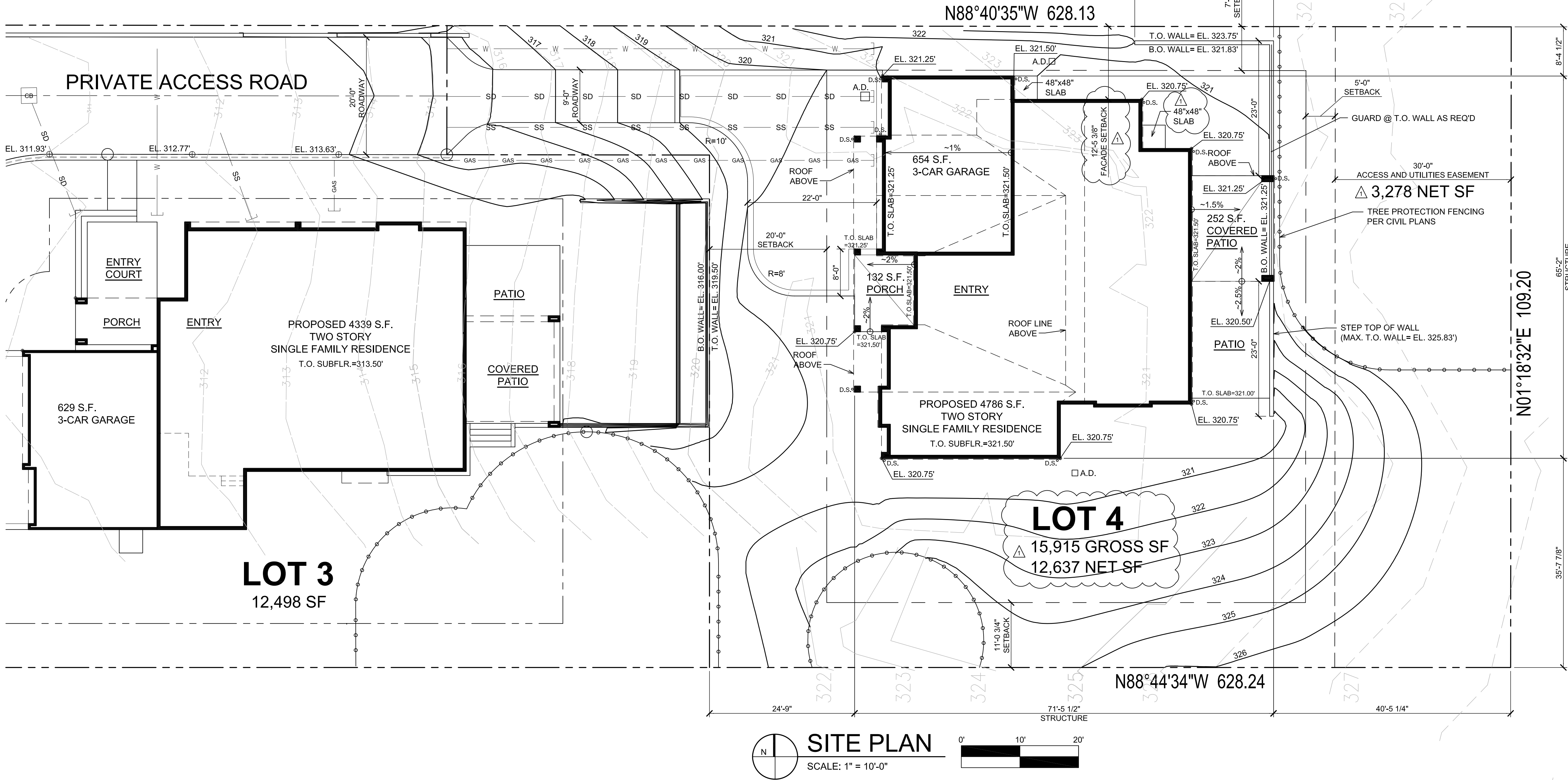
A.D.	AREA DRAIN
C.B.	CATCHBASIN
C.O.	CLEANOUT
D.S.	DOWNSPOUT
Y.D.	YARD DRAIN

GEODETIC DATUM

MAX. PROPOSED ROOF HEIGHT= EL. 350.72'
UPPER UPFR. SUBFLOOR LEVEL= EL. 334.06'
MAIN FLR. SUBFLOOR LEVEL= EL. 321.50'
GARAGE SLAB (FRONT)= EL. 321.25'

SITE DATA : 7420 - 78th AVE. SE , MERCER ISLAND WA 98040			
TPN	252404-9075		
QSTR	SE-25-24N-4E		
ZONING	R-9.6		
19.02.020.A.	LOT AREA - MIN. 9,600 S.F.	GROSS	15,915± S.F.
	(ACCESS/UTILITY EASEMENT)	NET	12,637± S.F.
19.02.020.B.	STREET FRONTAGE PER STREET STANDARDS		
19.02.020.C.	FRONT SETBACK	20'	
	SIDE SETBACK (17% LOT WIDTH)	6.1' (18.56' TOTAL)	
	REAR SETBACK	25'	
19.02.020.D.	GROSS FLOOR AREA ALLOWED	6,370 S.F. (40%)	
	CALCULATED G.F.A.	5,610 S.F. (35%)	
19.02.020.E.	MAX. BUILDING HEIGHT	30 ft. above A.B.E.	
	CALCULATED A.B.E.=	EL. 321.09'	
	MAX. ALLOWED BLDG. HT.=	EL. 351.09'	
	MAX. PROPOSED BLDG. HT.=	EL. 350.72'	
19.02.020.F.	LOT SLOPE = 5.66% < 15%		
	LOT COVERAGE ALLOWED (40%)	5,055 S.F.	
	LOT COVERAGE PROPOSED (37.69%)	4,764 S.F.	
19.02.020.F.3	MIN. LANDSCAPE AREA (60%)	7,582 S.F.	
	LANDSCAPE AREA PROPOSED (60.07%)	7,591 S.F.	
19.02.020.G.	PARKING - SFR +3000 S.F.	3 SPACES	

LEGAL DESCRIPTION:
LOT 4
E 1/2 OF NW 1/4 OF SE 1/4 LESS N 769.98 FT & LESS S 450 FT LESS CO RD



McCULLOUGH
ARCHITECTS

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Comment
PLAN REVIEW
RESPONSE

Revisions
02/26/2026

12.05.2025
24-006

Dates:
Job No:
Project No:
Drawn:
Approved:

Owner
SAINTFIELD2 LLC

7420 - 78TH AVE. SE

Lot 4
Mercer Island
Washington
98040

PERMIT SUBMITTAL

Site Plan

A1.0

Sears Lot 4 Average Building Elevation Calculation						
Point	Length	Height	LxH			
A	1	321.25	321.25			
B	22.42	321.25	7202.425			
C	21.83	320.75	7001.9725			
D	8.5	320.75	2726.375			
E	14	321.5	4501			
F	4	321.5	1286			
G	8.38	320.75	2687.885			
H	4.63	320.75	1485.0725			
I	18	321.5	5787			
J	20.92	321.5	6725.78			
K	9.25	320.75	2966.9375			
L	14	321.5	4501			
M	22	320.75	7056.5			
N	30.83	320.75	9888.7225			
O	5.42	321.5	1742.53			
P	6.25	320.75	2004.6875			
Q	22.58	320.75	7242.535			
R	12.08	321.5	3883.72			
S	20.25	321.25	6505.3125			
T	10.25	321.25	3292.8125			
U			0			
totals	276.59		88809.5175			

ABE:	321.087232
Max Ht:	351.087232

MICC 19.02.020(C)(3)(B): HARDSCAPE AND DRIVEWAYS NOT MORE THAN 30 INCHES ABOVE EXISTING GRADE OR FINISHED GRADE, WHICHEVER IS LOWER, MAY BE LOCATED IN ANY REQUIRED YARD; PROVIDED, THAT DRIVEWAYS MAY EXCEED THE 30-INCH LIMIT WHEN A PERMIT APPLICANT DEMONSTRATES THE PROPOSED HEIGHT IS THE MINIMUM FEASIBLE TO MEET THE STANDARDS IN MICC 19.09.040.

LOT SLOPE:

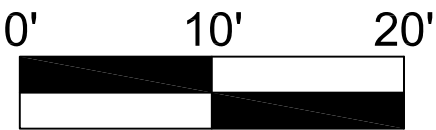
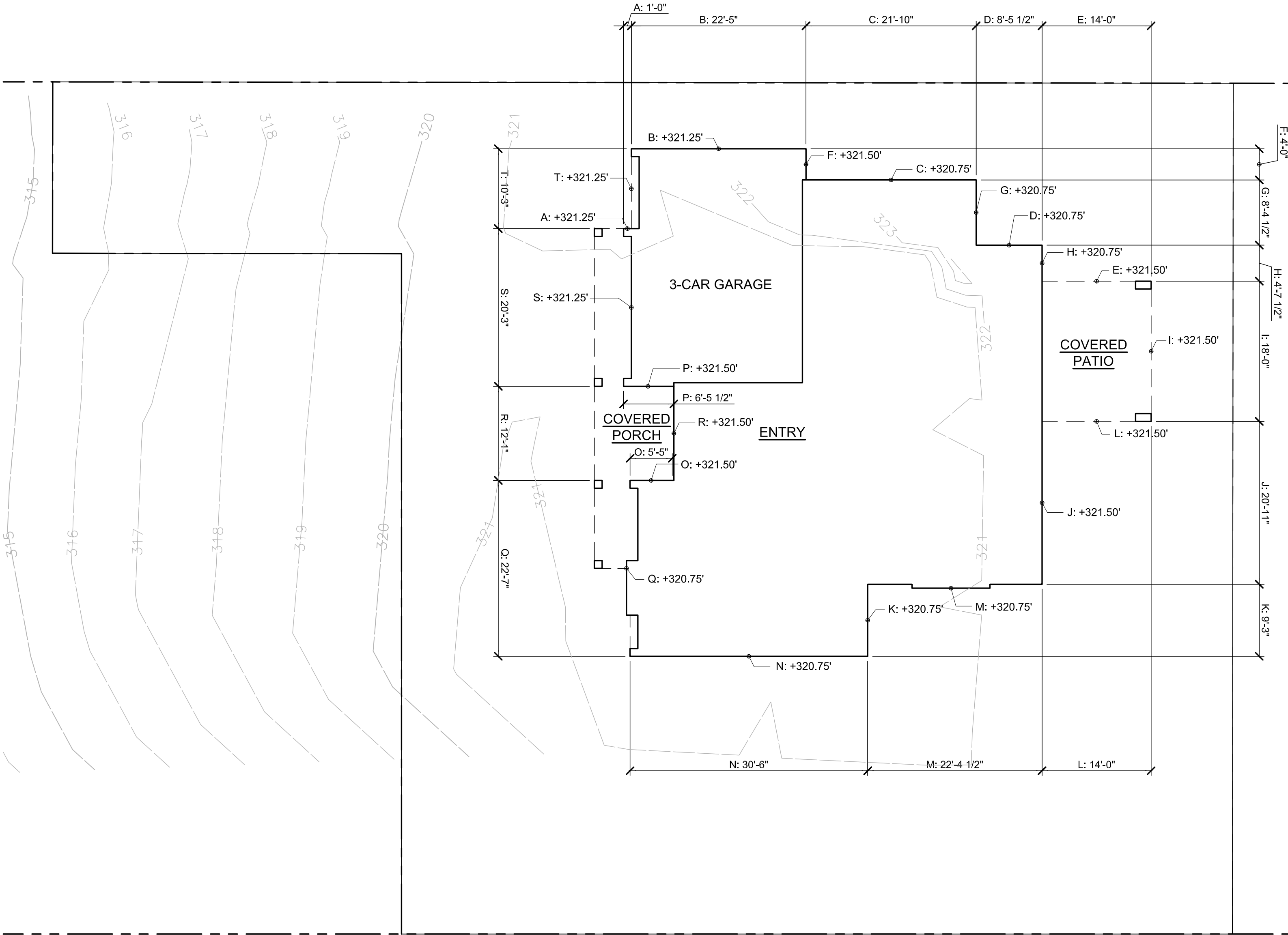
HIGHEST ELEVATION POINT: 328.0'
LOWEST ELEVATION POINT: 316.0'
ELEVATION DIFFERENCE: 12.0'
HORIZONTAL DISTANCE: 211.8'
LOT SLOPE= 5.66%

(SEE BOUNDARY PLAN ON SHT A1.0 FOR DATA POINTS)

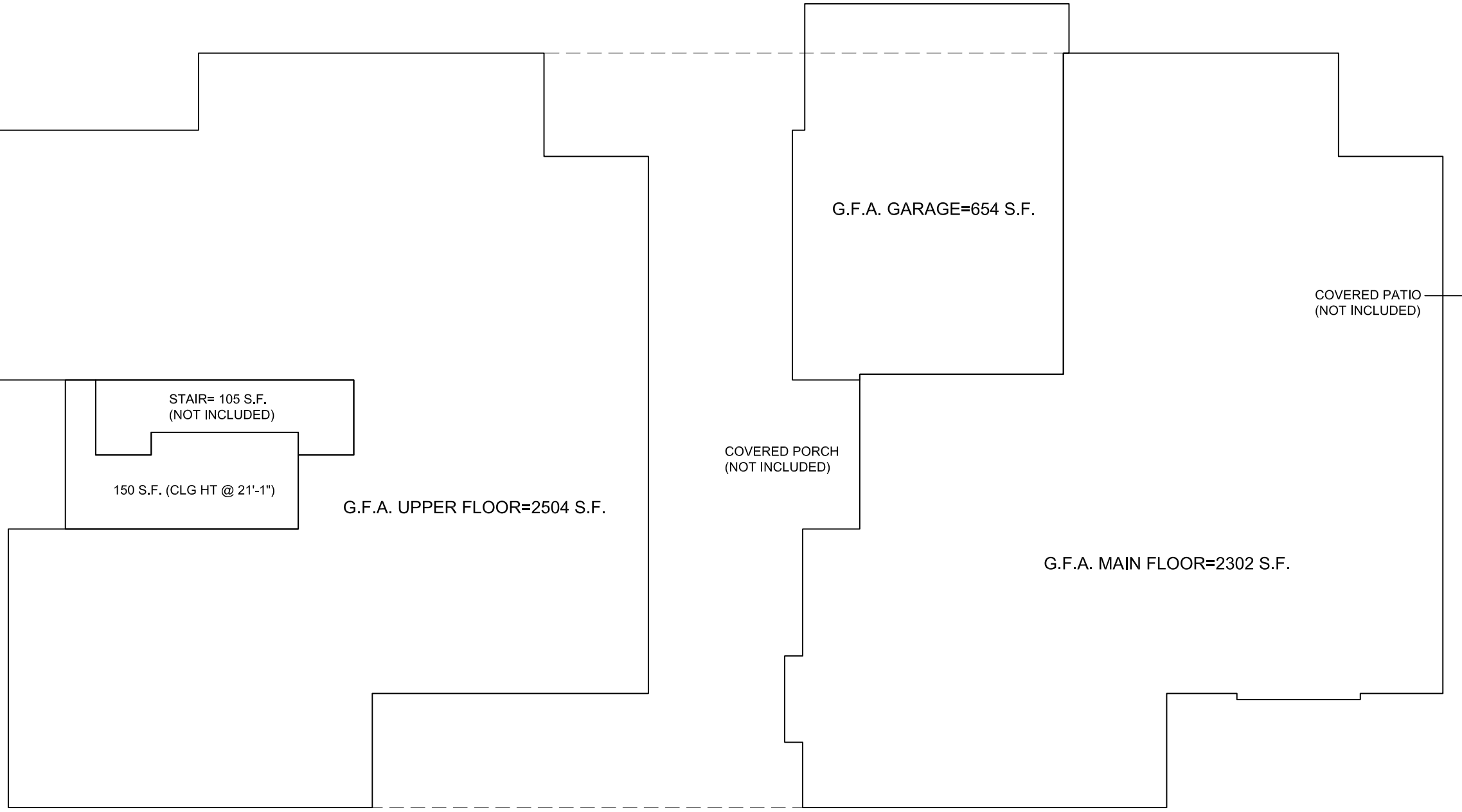
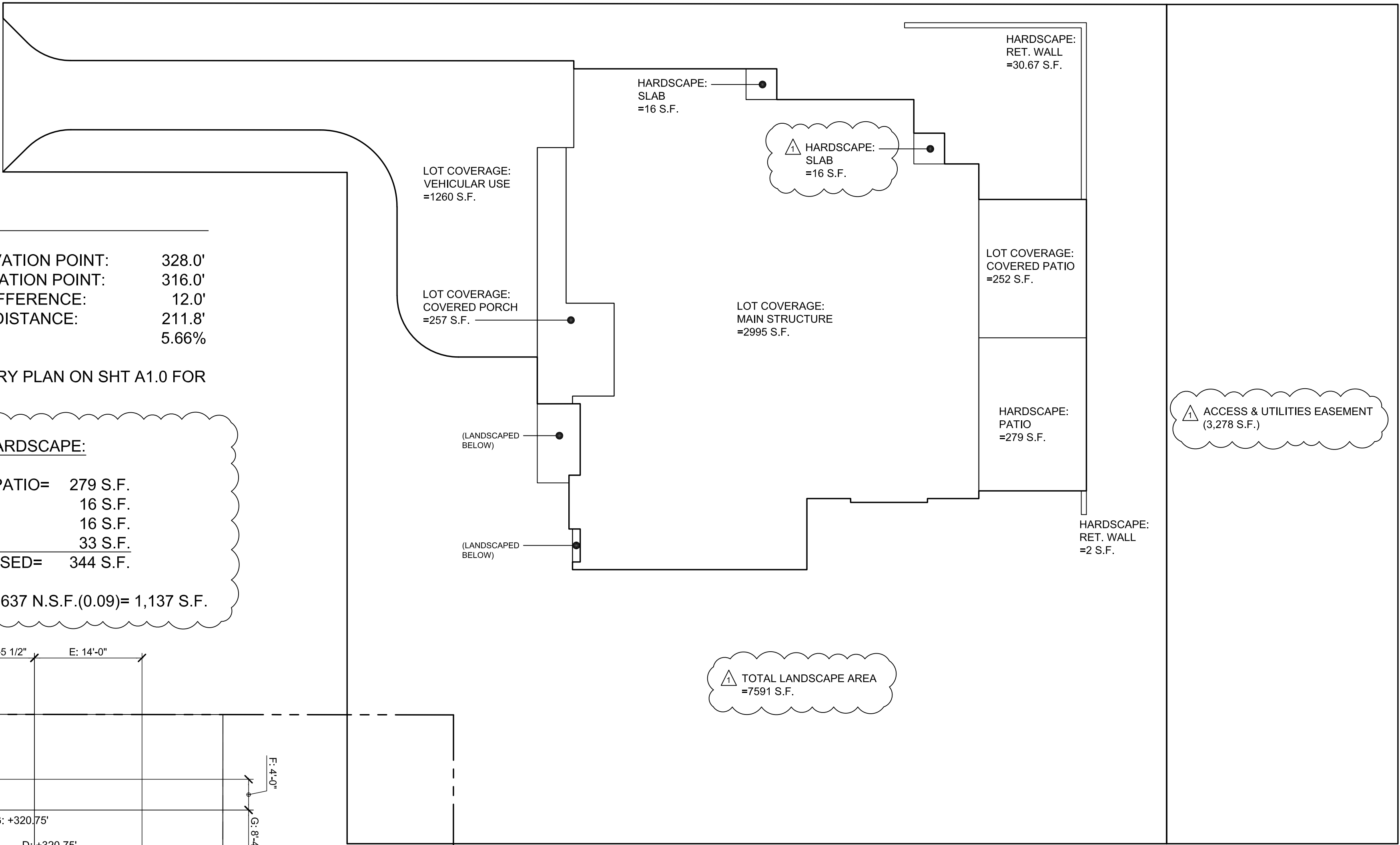
PROPOSED HARDSCAPE:

UNCOVERED PATIO= 279 S.F.
SLAB= 16 S.F.
SLAB= 16 S.F.
RET. WALL= 33 S.F.
TOTAL PROPOSED= 344 S.F.

ALLOWED= 12,637 N.S.F.(0.09)= 1,137 S.F.



A.B.E. / G.F.A. / LOT COVERAGE
SCALE: 1" = 10'-0"



GROSS FLOOR AREA

UPPER LEVEL: 2,504 S.F.
MAIN LEVEL: 2,302 S.F.
GARAGE: 654 S.F.
CLG HT +16' 150 S.F.

TOTAL PROPOSED : 5,610 S.F.

TOTAL ALLOWED: 15,924 G.S.F. (0.40)= 6,370 S.F.

LOT COVERAGE

MAIN STRUCTURE ROOF AREA= 2,995 S.F.
ACCESSORY STRUCTURE ROOF AREA= 0 S.F.
VEHICULAR USE= 1,260 S.F.
COVERED PATIOS AND DECKS= 509 S.F.

TOTAL NEW LOT COVERAGE AREA 4,764 S.F.

ALLOWED= 12,637 N.S.F. (0.40)= 5,055 S.F.

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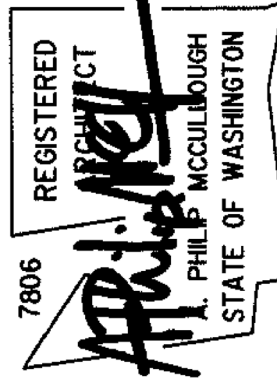
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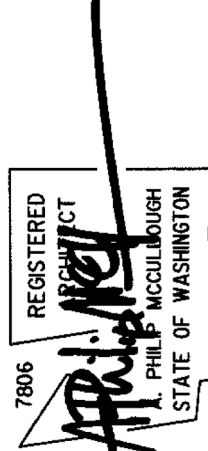
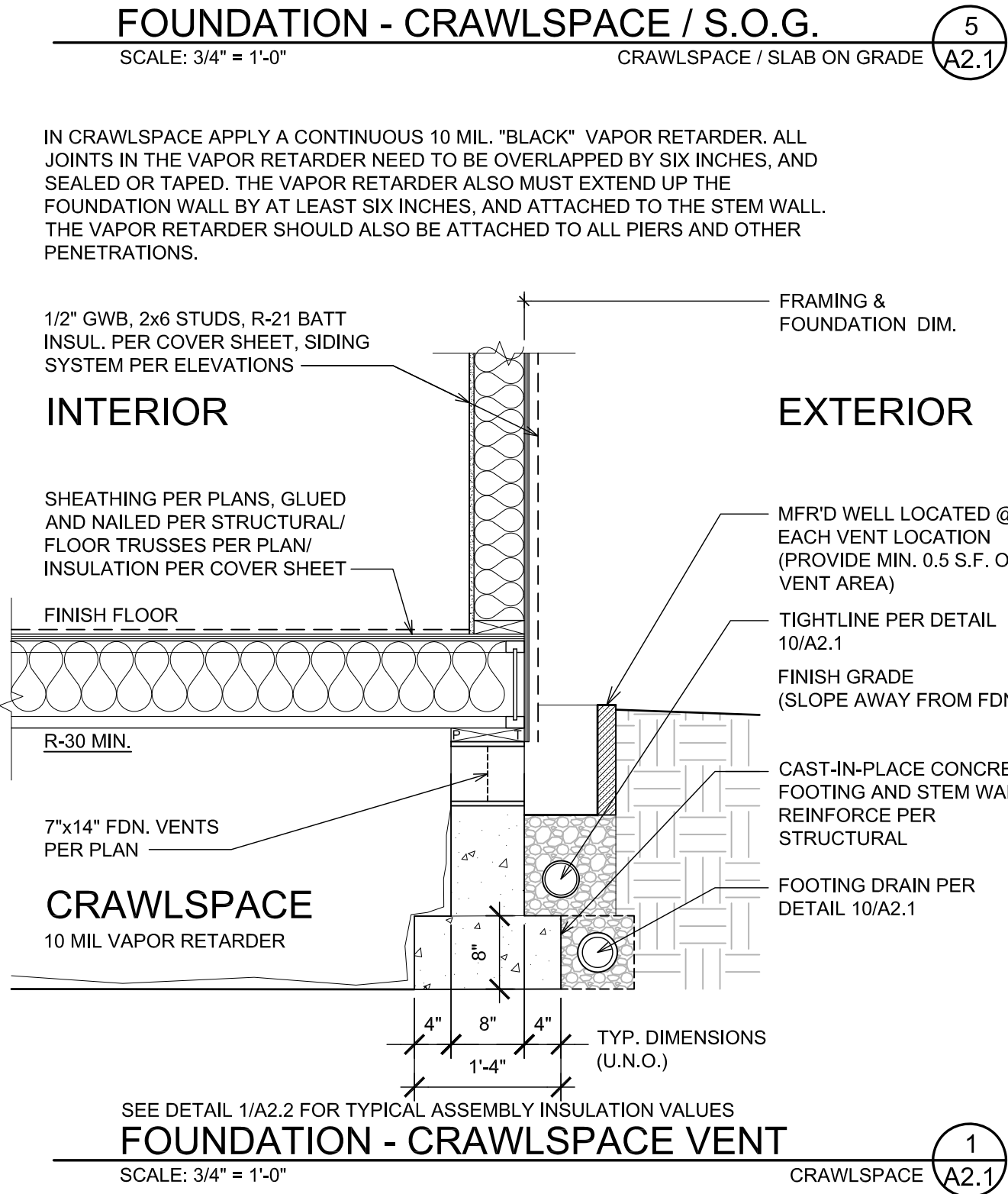
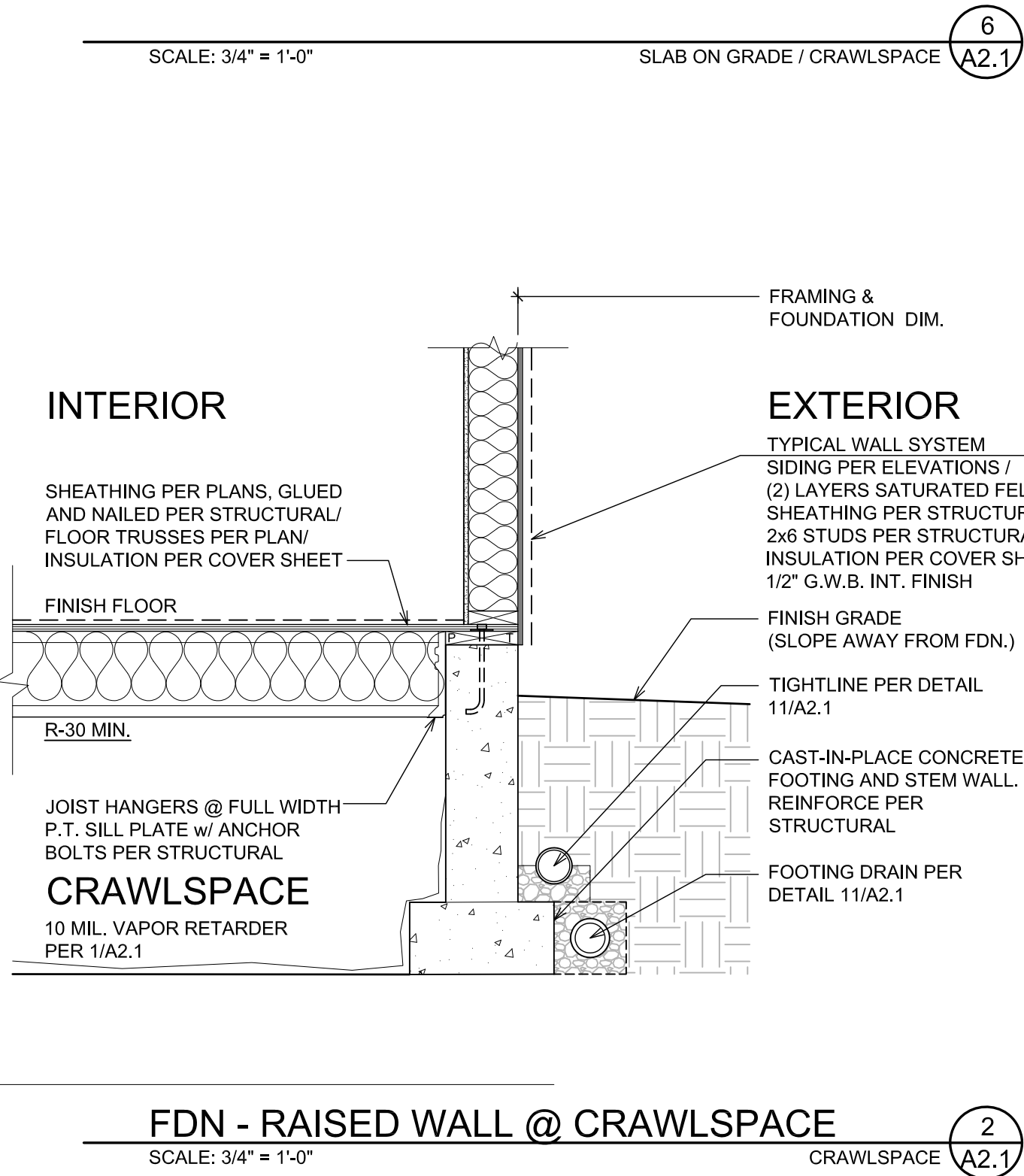
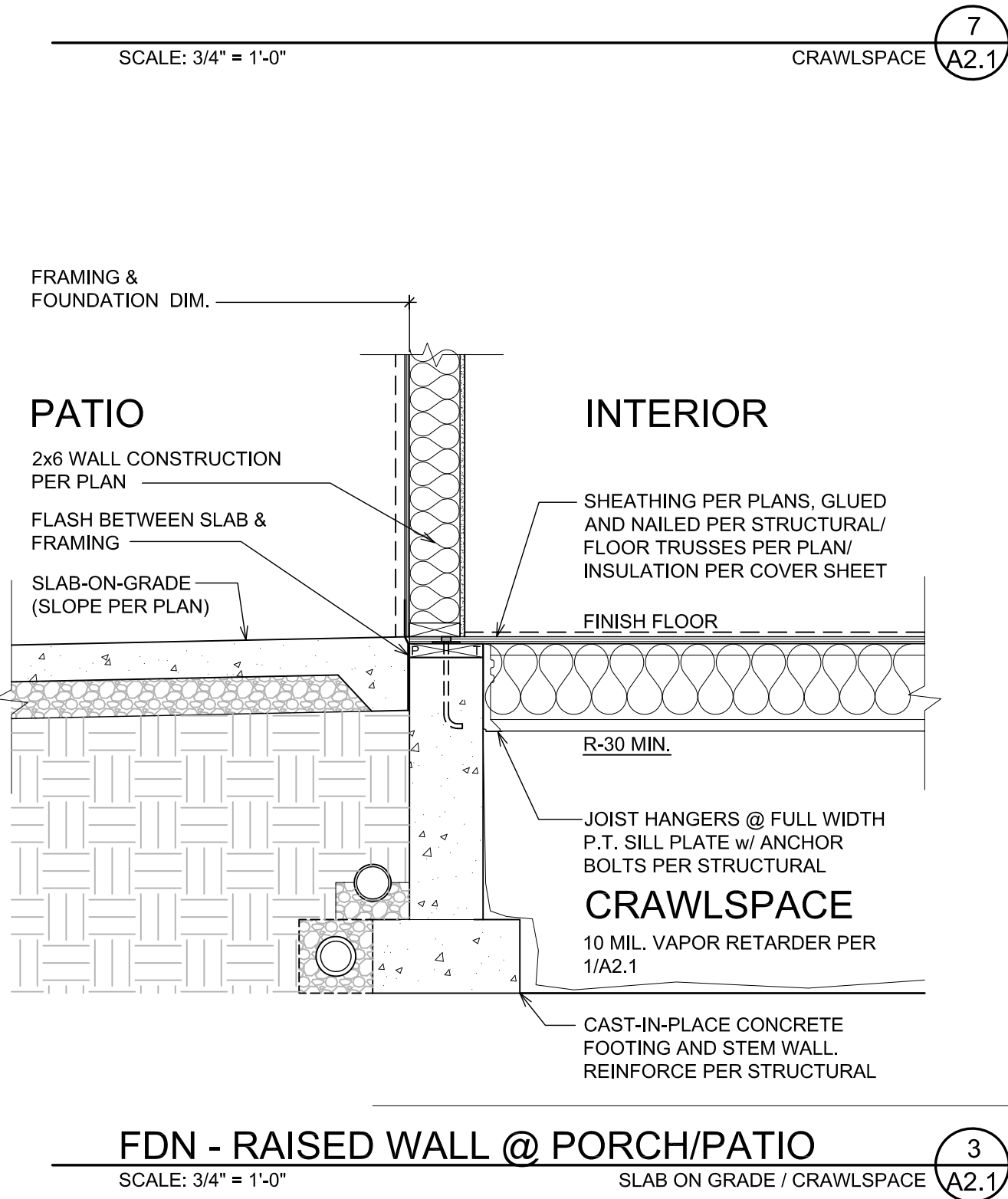
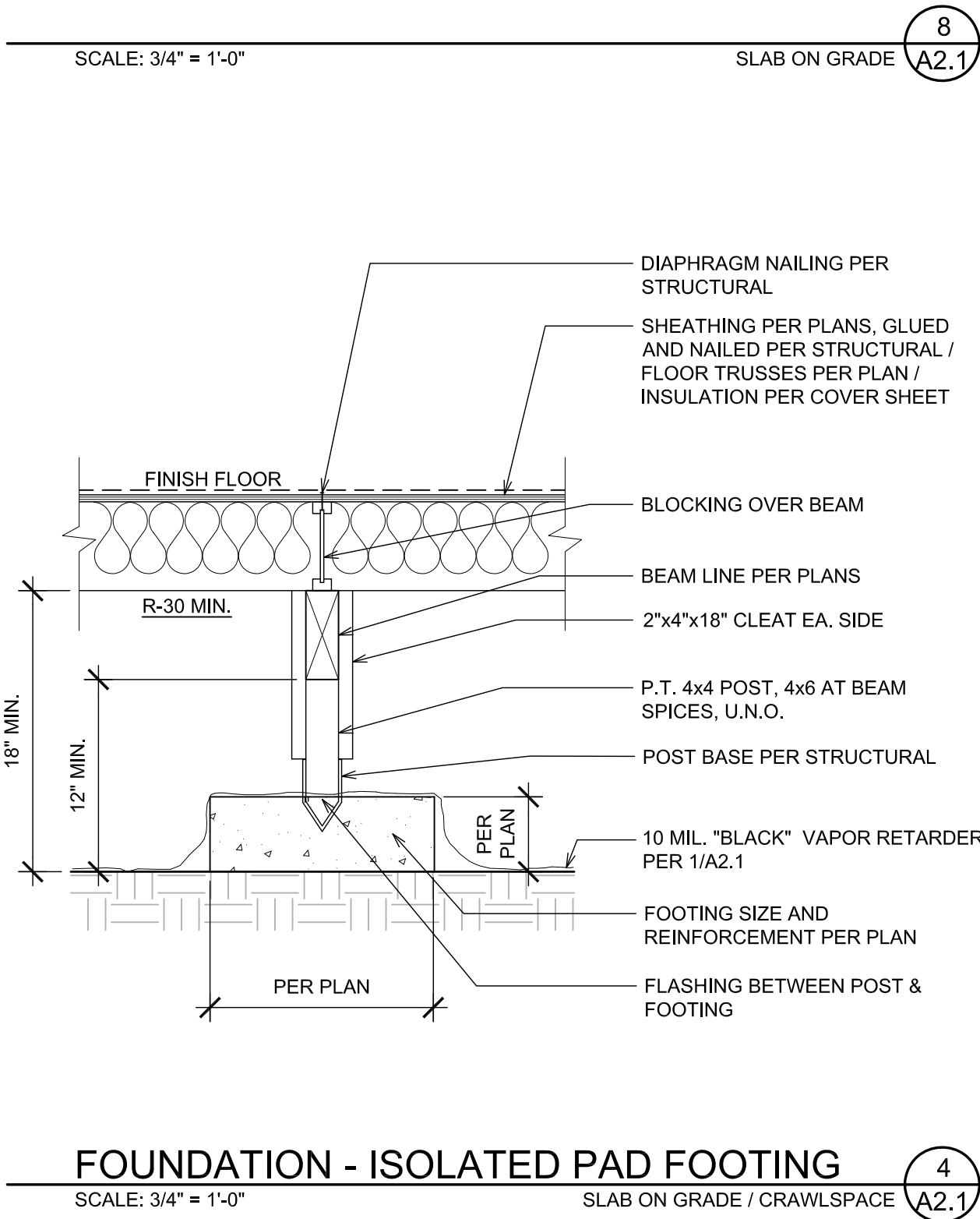
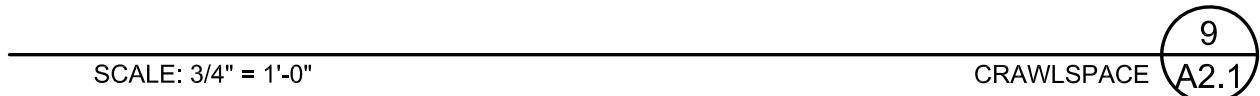
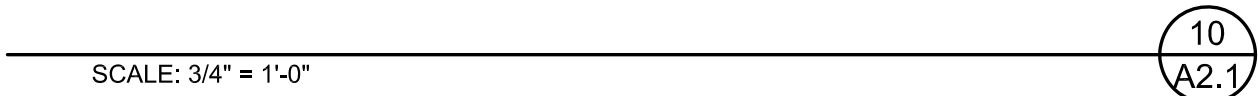
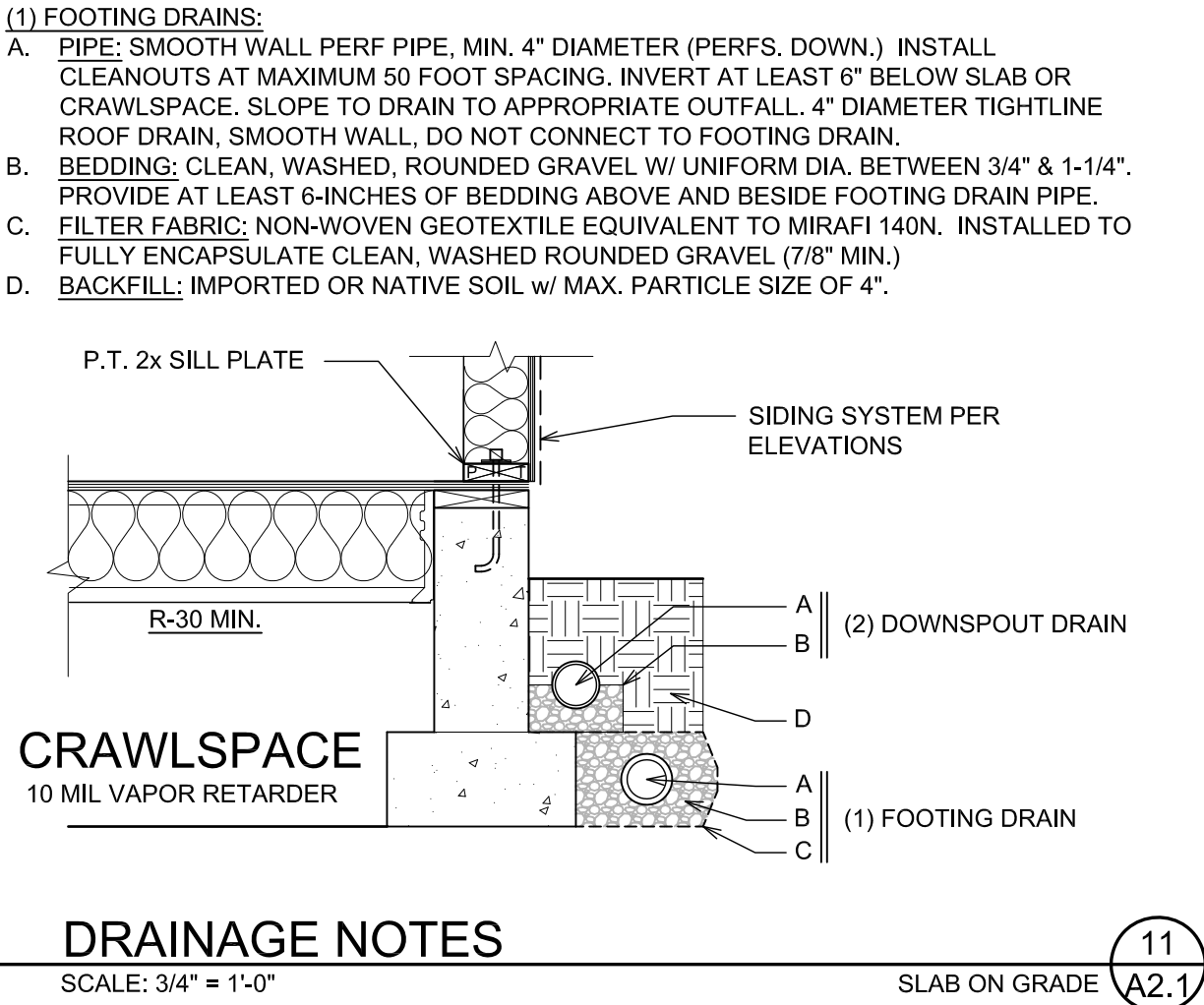
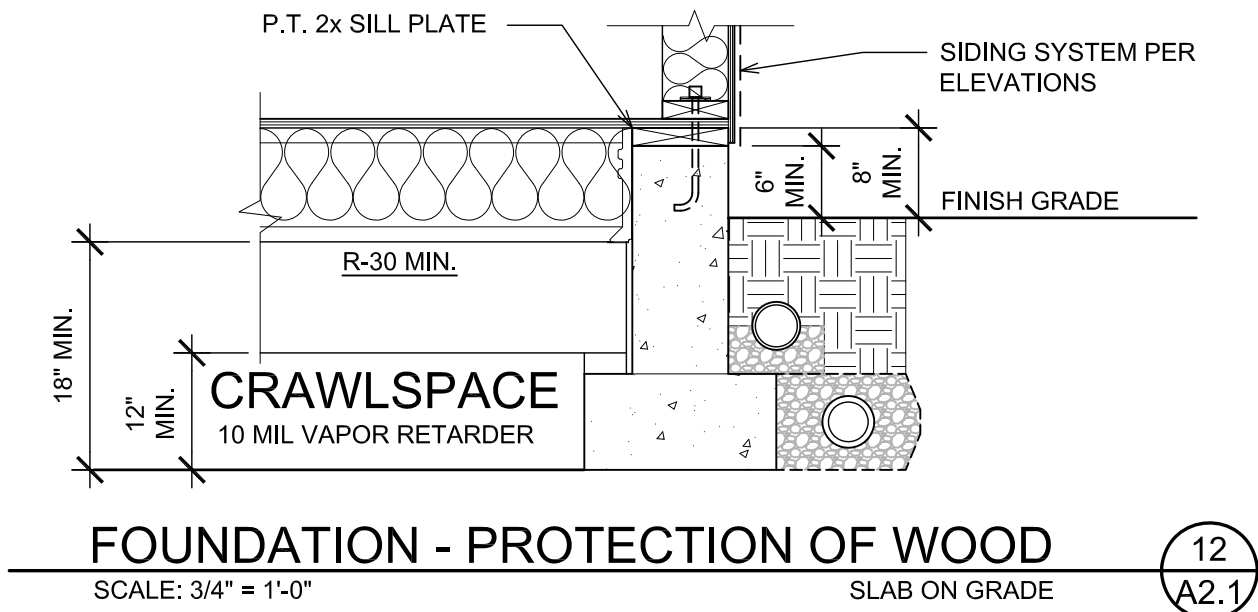
PERMIT SUBMITTAL

Site
Calculations

A1.1

SECTION R317 PROTECTION OF WOOD AND WOOD-BASED PRODUCTS AGAINST DECAY
Protection of wood and wood-based products from decay shall be provided in the following locations by the use of naturally durable wood or wood that is preservative-treated in accordance with AWPAC U1.

1. Wood joists or the bottom of a wood structural floor where closer than 18 inches or wood girders where closer than 12 inches to the exposed ground in crawl spaces or unexcavated area located within the periphery of the building foundation.
2. Wood framing members that rest on concrete or masonry exterior foundation walls and are less than 8 inches from the exposed ground.
3. Sills and sleepers on a concrete or masonry slab that is in direct contact with the ground unless separated from such slab by an impervious moisture barrier.
4. The ends of wood girders entering exterior masonry or concrete walls having clearances of less than 1/2 inch on tops, sides and ends.
5. Wood siding, sheathing and wall framing on the exterior of a building having a clearance of less than 6 inches from the ground or less than 2 inches measured vertically from concrete steps, porch slabs, patio slabs and similar horizontal surfaces exposed to the weather.
6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an impervious moisture barrier.
7. Wood furring strips or other wood framing members attached directly to the interior of exterior masonry walls or concrete walls below grade except where an approved vapor retarder is applied between the wall and the furring strips or framing members.
8. Portions of wood structural members that form the structural supports of buildings, balconies, porches or similar permanent building appurtenances where those members are exposed to the weather without adequate protection from a roof, eave, overhang or other covering that would prevent moisture or water accumulation on the surface or at joints between members.
9. Wood columns in contact with basement floor slabs unless supported by concrete piers or metal pedestals projecting not less than 1 inch above the concrete floor and separated from the concrete pier by an impervious moisture barrier.



PROVIDE HANDRAILS PER I.R.C. SEC. R311.7.8. TOP OF HANDRAIL SHALL BE NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE TREAD NOSINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE FLIGHT. HANDRAIL GRIPS: 1 1/4" MIN., 2" MAX. DIA., 4" MIN., 6 1/4" MAX. CIRCUM. HANDRAIL MUST BE CONTINUOUS FOR FULL LENGTH OF STAIR BUT MAY TERMINATE AT NEWEL POST OVER THE LOWEST TREAD. ENDS OF HANDRAIL SHALL RETURN TO WALL OR NEWEL POST. HANDRAIL MUST RESIST 200 LB. POINT LOAD IN ANY DIRECTION. OPEN HANDRAIL MEMBERS SPACED TO NOT ALLOW PASSAGE OF 4" DIA. SPHERE EXCEPT TRIANGULAR OPENING BETWEEN BOTTOM MEMBER AND STAIR TREAD MUST NOT ALLOW PASSAGE OF 6" DIA. SPHERE.

GUARDS R301.5 LIVE LOADS CONCENTRATED LOAD=200 LBS GLAZING USED IN HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED WITH A LOAD ADJUSTMENT FACTOR OF 4. THE LOAD ADJUSTMENT FACTOR SHALL BE APPLIED TO EACH OF THE CONCENTRATED LOADS APPLIED TO THE TOP OF THE RAIL, AND TO THE LOAD ON THE IN-FILL COMPONENTS. THESE LOADS SHALL BE DETERMINED INDEPENDENT OF ONE ANOTHER, AND LOADS ARE ASSUMED NOT TO OCCUR WITH ANY OTHER LIVE LOAD. WHERE THE TOP OF A GUARD SYSTEM IS NOT REQUIRED TO SERVE AS A HANDRAIL, THE SINGLE CONCENTRATED LOAD SHALL BE APPLIED AT ANY POINT ALONG THE TOP, IN THE VERTICAL DOWNWARD DIRECTION AND IN THE HORIZONTAL DIRECTION AWAY FROM THE WALKING SURFACE. WHERE THE TOP OF A GUARD IS ALSO SERVING AS THE HANDRAIL, A SINGLE CONCENTRATED LOAD SHALL BE APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP. CONCENTRATED LOADS SHALL NOT BE APPLIED CONCURRENTLY.

FRAMELESS GLASS GUARD DETAIL
SCALE: 3/4" = 1'-0"

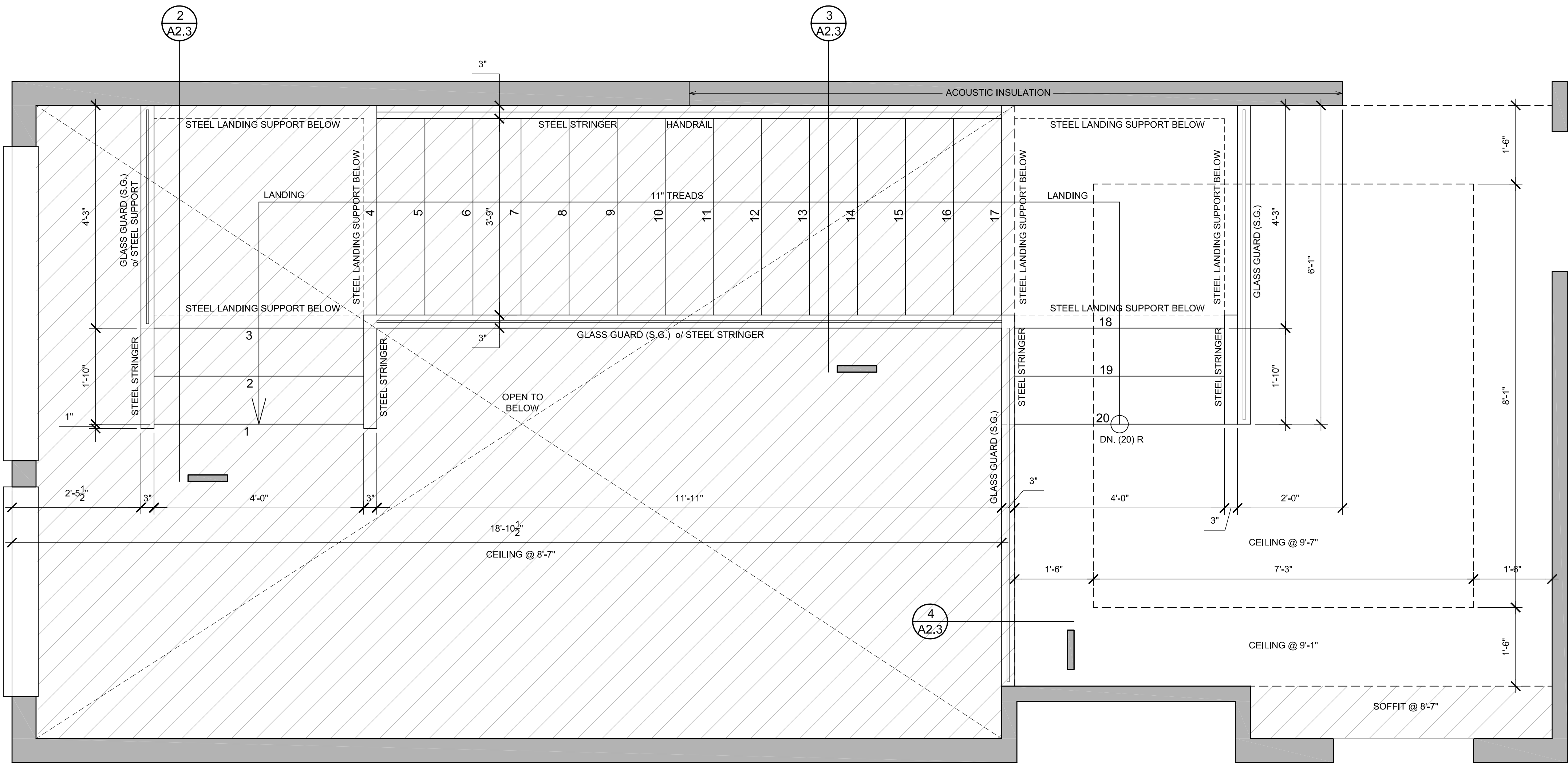
4
A2.3

STAIR STRINGER DETAIL
SCALE: 3/4" = 1'-0"

3
A2.3

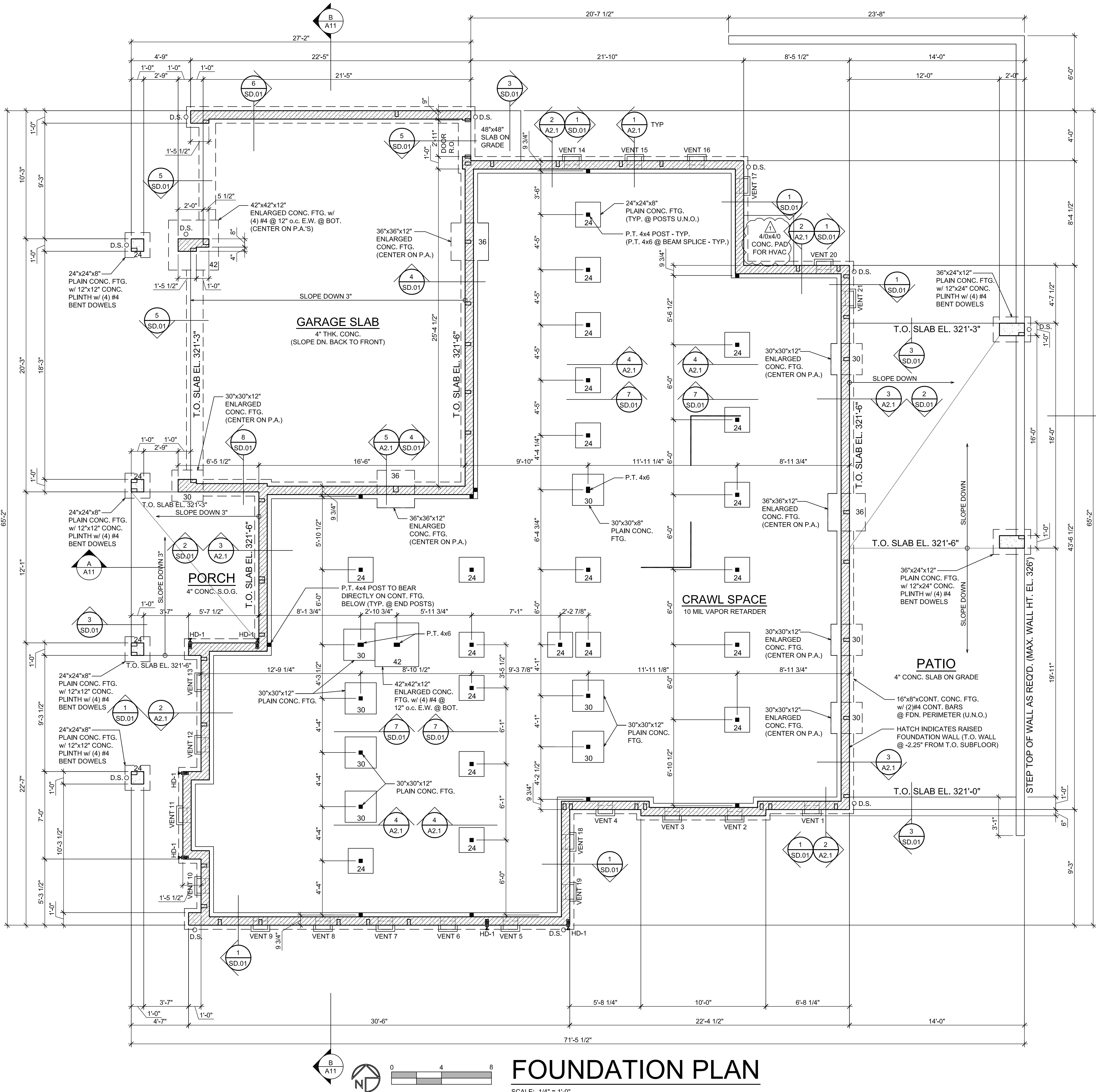
STAIR LANDING DETAIL
SCALE: 1-1/2" = 1'-0"

2
A2.3



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

1
A2.3

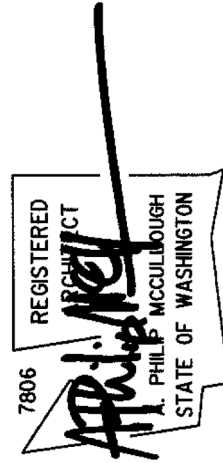


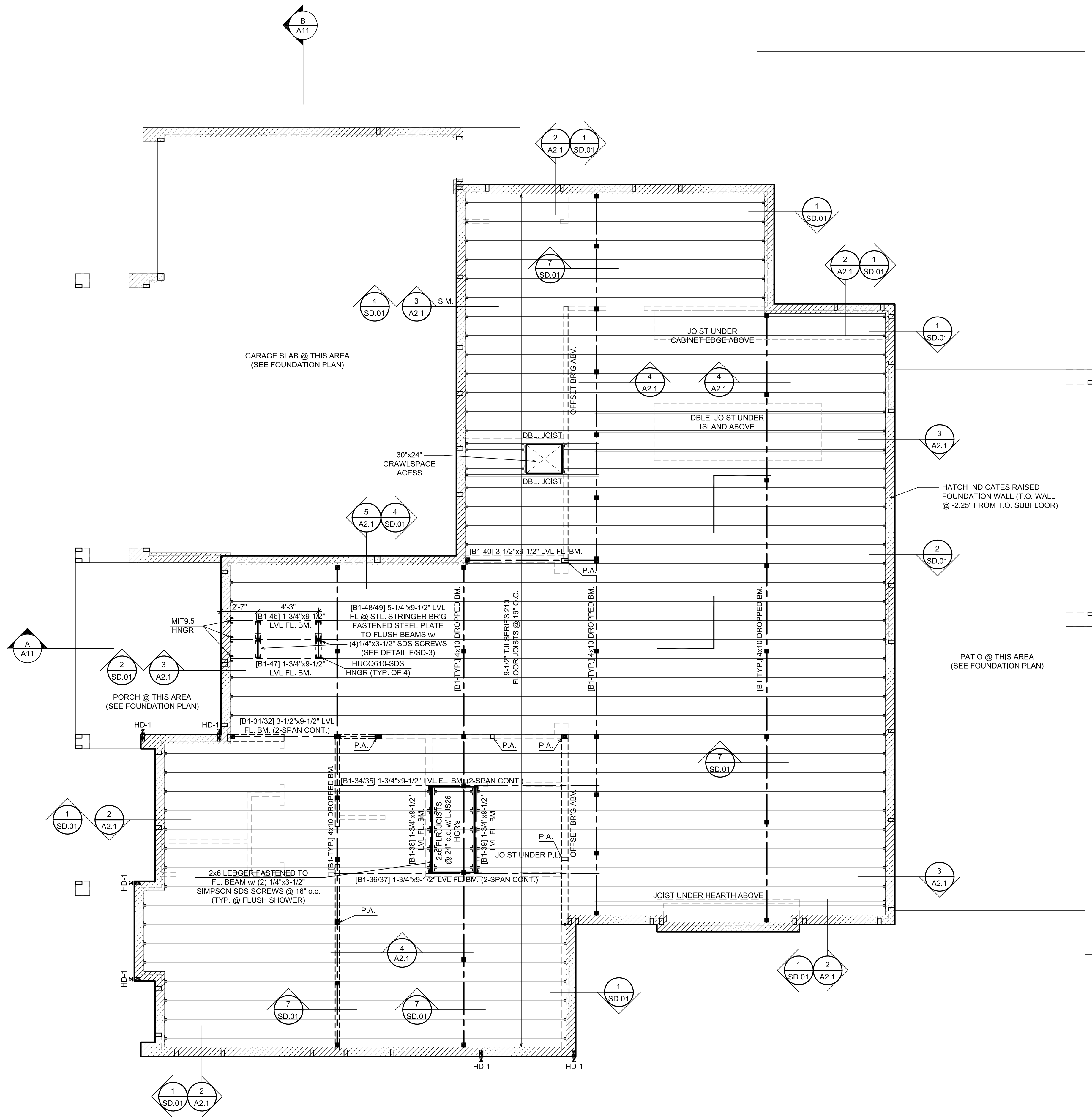
- GENERAL NOTES:
- 8" MIN. CLEARANCE BETWEEN EXTERIOR GRADE & UNPROTECTED WOOD.
 - ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
 - WOOD JOISTS OR THE BOTTOM OF A WOOD STRUCTURAL FLOOR WHEN CLOSER THAN 18" OR WOOD GIRDERS WHEN CLOSER THAN 12" TO THE EXPOSED GROUND IN CRAWL SPACES SHALL BE PROTECTED AGAINST DECAY WITH A PRESERVATIVE-TREATMENT IN ACCORDANCE WITH AWPA U1 AND THE IRC R317.1.
 - THE UNDER-FLOOR GRADE SHALL BE CLEANED OF ALL ORGANIC MATERIAL, AND CONSTRUCTION MATERIAL BEFORE THE BUILDING IS OCCUPIED.
 - ALL DIMENSION LINES ARE TO FACE OF FRAMING OR CONCRETE, U.N.O.
 - PROVIDE MIN. 6 MIL VAPOR BARRIER @ CRAWLSPACE & SLAB ON GRADE.
 - SEE SHEARWALL SCHEDULE FOR LOCATION & SPACING OF ANCHOR BOLTS.
 - INSTALL ALL HOLDDOWNS AND HARDWARE PRIOR TO BACKFILLING.
 - FOUNDATION DESIGN IS BASED ON AN AVERAGE BEARING CAPACITY OF 2500 PSF PER SOILS REPORT DATED 12/15/22. EXTERIOR FOOTINGS TO BEAR ON FIRM UNDISTURBED SOIL BELOW ORGANIC SURFACE SOIL, A MINIMUM 1'-6" BELOW FINISH GRADE.

CRAWLSPACE AREA = 2151 S.F.
2151 / 150 = 14.34 S.F. OF VENT AREA REQUIRED.
7"x14" VENTS = 0.68 S.F. OF VENTILATION (E.A.)
14.34 S.F. / 0.68 = 21.01 (21 VENTS REQ'D.)

PLAN KEY:

- INDICATES LOC. OF POINT LOAD FROM ABOVE (TYP.)
- INDICATES LOC. OF DOWNSPOUT
- TYPICAL CONC. FDN. WALL
- RAISED STEM CONC. FDN. WALL
- BELOW SLAB RIGID INSULATION
- INDICATES LOC. OF 14"x7" FOUNDATION VENT w/ AREA WELL (PROVIDE MIN. 0.5 S.F. OF VENTILATION PER VENT)

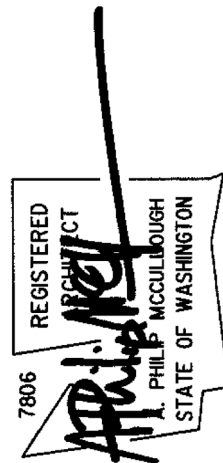


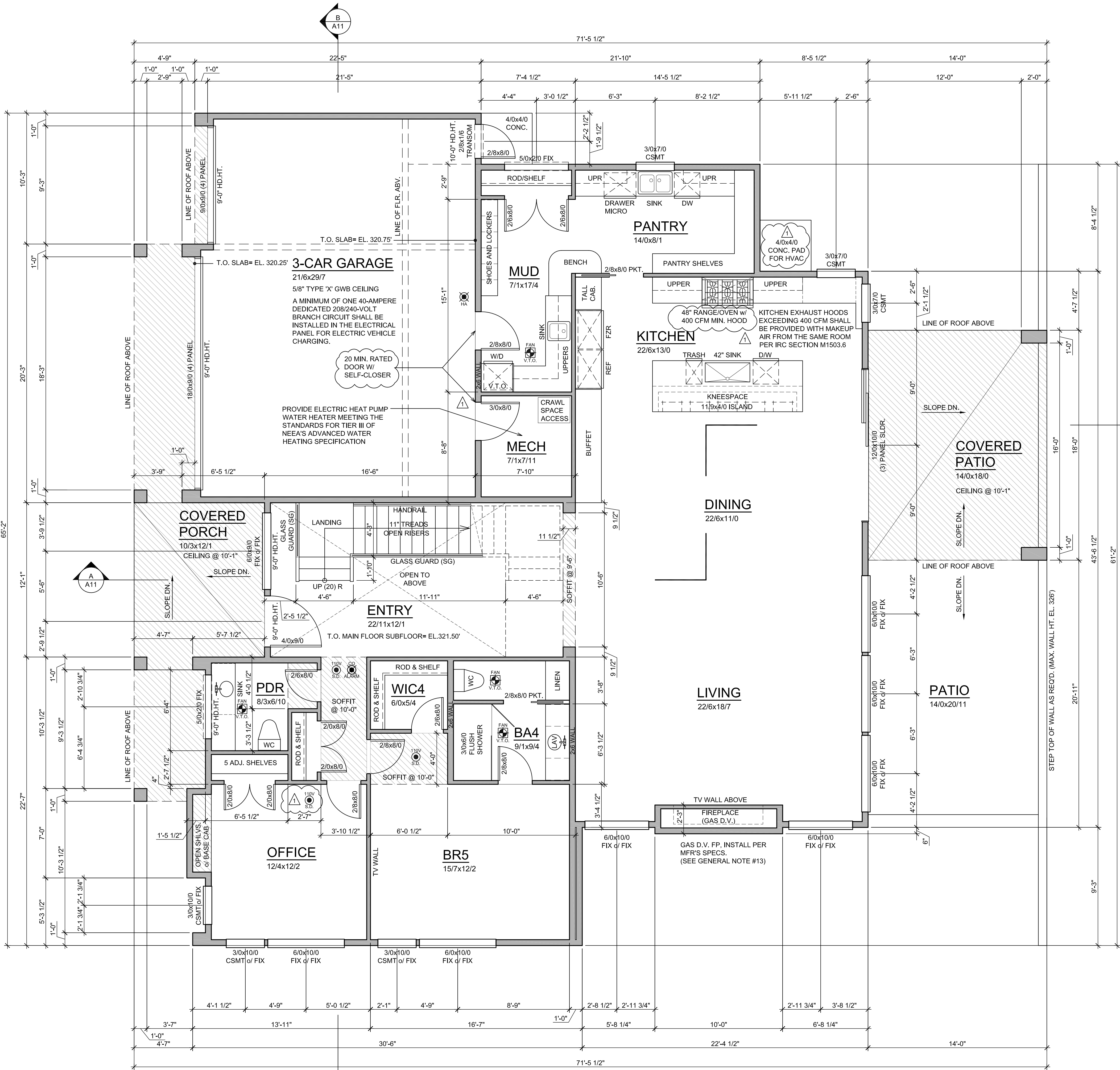


- GENERAL NOTES:
1. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G APA RATED SHEATHING OVER 9-1/2" TJI SERIES 210 FLOOR JOISTS AT 16" o.c. U.N.O. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
 2. GLUE AND NAIL FLOOR SHEATHING w/ 8d AT 6" o.c. AT FRAMED PANEL EDGES AND AT 12" o.c. IN THE FIELD. UNO.
 3. REFER TO SHEET SD.01 FOR TYPICAL FOUNDATION AND CONCRETE DETAILS.
 4. REFER TO GENERAL STRUCTURAL NOTES SHEET S-0.0 FOR ADDITIONAL REQUIREMENTS.
 5. DO NOT SCALE DRAWINGS. REFER TO LISTED DIMENSIONS.

PLAN KEY:

- INDICATES LOC. OF POINT LOAD FROM ABOVE (TYP.)
- INDICATES LOC. OF SOLID SUPPORT (2) STUDS LAMPD W/ 16d @ 16" O.C., (2) 16d EA. END TYP. UNLESS NOTED OTHERWISE
- P.A. POST ABOVE
- TYPICAL FLOOR TRUSS HANGER
- TYPICAL BEAM HANGER
- TYPICAL WALL ABOVE
- TYPICAL BR'G WALL ABOVE
- TYPICAL WALL BELOW
- TYPICAL BR'G WALL BELOW
- INDICATES LOC. OF HOLD-DOWN





GENERAL NOTES:

1. PLATE HEIGHT @ MAIN FLOOR IS 11'-0", U.N.O.
2. DIMENSION LINES ARE TO FACE OF STUD U.N.O.
3. WINDOW SIZES & ROUGH OPENINGS TO BE VERIFIED BY CONTRACTOR.
4. WINDOW HEAD HEIGHT AT MAIN FLOOR IS 10'-0" ABOVE SUBFLOOR, U.N.O. IF NOMINAL DOOR AND WINDOW HEIGHTS ARE SIMILAR, COORDINATE WITH DOOR AND WINDOW SPEC'S TO LOCATE FINAL ELEVATION OF THE HEAD HEIGHTS SO THAT ALL DOOR AND WINDOW TRIM ALIGN.
5. WINDOW AND DOOR SIZES ARE DIMENSIONED IN FEET AND INCHES (E.G. 2/8x2/8= 2'-8"W x 2'-8"H)
6. EXTERIOR WALLS TO BE 2x6 STUDS AT 16" o.c., INTERIOR WALLS TO BE 2x4 STUDS AT 16" o.c., U.N.O.
7. PROVIDE FIREBLOCKING PER I.R.C. SEC. R302.11. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE.
8. SAFETY GLAZING PER I.R.C. SEC. R308.4.
9. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED PER I.R.C. SEC. R317.1.
10. PER I.R.C. SEC R311.7.5. MAX. RISER HEIGHT SHALL BE 7-3/4". MIN. TREAD DEPTH SHALL BE 10". STAIR NOSINGS: 3/4" MIN., 1-1/4" MAX. RADIUS @ LEADING EDGE OF TREAD: 9/16" MAX.
11. PROVIDE HANDRAILS PER I.R.C. SEC. R311.7.8. TOP OF HANDRAIL SHALL BE NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE TREAD NOSINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE FLIGHT PER R311.7.8.2. THE HANDRAIL GRIP-SIZE SHALL BE PROVIDED PER R311.7.8.3.
12. PROVIDE GUARDS (MIN. 36" HEIGHT) IN LOCATIONS PER I.R.C. SEC. R312.
13. FACTORY BUILT FIREPLACES & CHIMNEYS SHALL BE LISTED & LABELED AND SHALL BE INSTALLED & TERMINATED IN ACCORDANCE TO THE CONDITIONS OF THE LISTINGS. PROVIDE EXTERIOR AIR SUPPLY TO ANY FACTORY-BUILT FIREPLACE PER I.R.C. SEC R1006.
14. PROVIDE (1) LAYER OF 1/2" G.W.B. AT THE GARAGE SIDE OF ALL WALLS SEPARATING THE GARAGE FROM THE RESIDENCE, ALL WALLS SUPPORTING A FLOOR CEILING ASSEMBLY BETWEEN THE GARAGE AND RESIDENCE, AND BETWEEN THE GARAGE AND ITS ATTIC. PROVIDE (1) LAYER 5/8" TYPE 'X' G.W.B. TO GARAGE CEILING IF BELOW HABITABLE ROOMS.
15. HEAT ALARMS SHALL BE INSTALLED IN NEW GARAGES THAT ARE ATTACHED TO OR LOCATED UNDER NEW AND EXISTING DWELLINGS. HEAT ALARMS SHALL BE CONNECTED TO AN ALARM OR A SMOKE ALARM THAT IS INSTALLED IN THE DWELLING PER 2018 WASHINGTON STATE ADMENDMENTS IRC R314.2.3

PLAN KEY:

- | | | | |
|--|--|--------|---|
| | INDICATES 110V SMOKE DET. PER I.R.C. 313.4. INTERCONNECTED W/ EMERGENCY BATTERY BACKUP | S.G. | INDICATES SAFETY GLAZING REQUIRED PER IRC SEC. R308.4 |
| | INDICATES CARBON MONOXIDE ALARM PER I.R.C. R315.1 | FIX | INDICATES FIXED FRAME WINDOW |
| | INDICATES EXHAUST VENTILATION FAN PER COVER SHEET. | CSMT | INDICATES CASEMENT WINDOW |
| | INDICATES HEAT ALARM ALARM PER IRC R314.2.3 | AWN | INDICATES AWNING WINDOW |
| | | V.T.O. | INDICATES "VENT TO OUTSIDE" |

BUILDING AREA SUMMARY

HEATED MAIN LEVEL:	2,282 SF
HEATED UPPER LEVEL:	2,504 SF
TOTAL HEATED FLOOR AREA:	4,786 SF
GARAGE AREA:	654 S.F.

GROSS FLOOR AREA

UPPER LEVEL:	2,504 S.F.
MAIN LEVEL:	2,302 S.F.
GARAGE:	654 S.F.
CLG HT +16'	150 S.F.
TOTAL PROPOSED :	5,610 S.F.
TOTAL ALLOWED: 15,924 G.S.F. (0.40)=	6,370 S.F.

7420 - 78TH AVE. SE

Mercer Island
Washington
98040

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Main Floor
Plan

A5

Comment
PLAN REVIEW
RESPONSE

Revisions
02/26/2026

12-05-2025
24-008

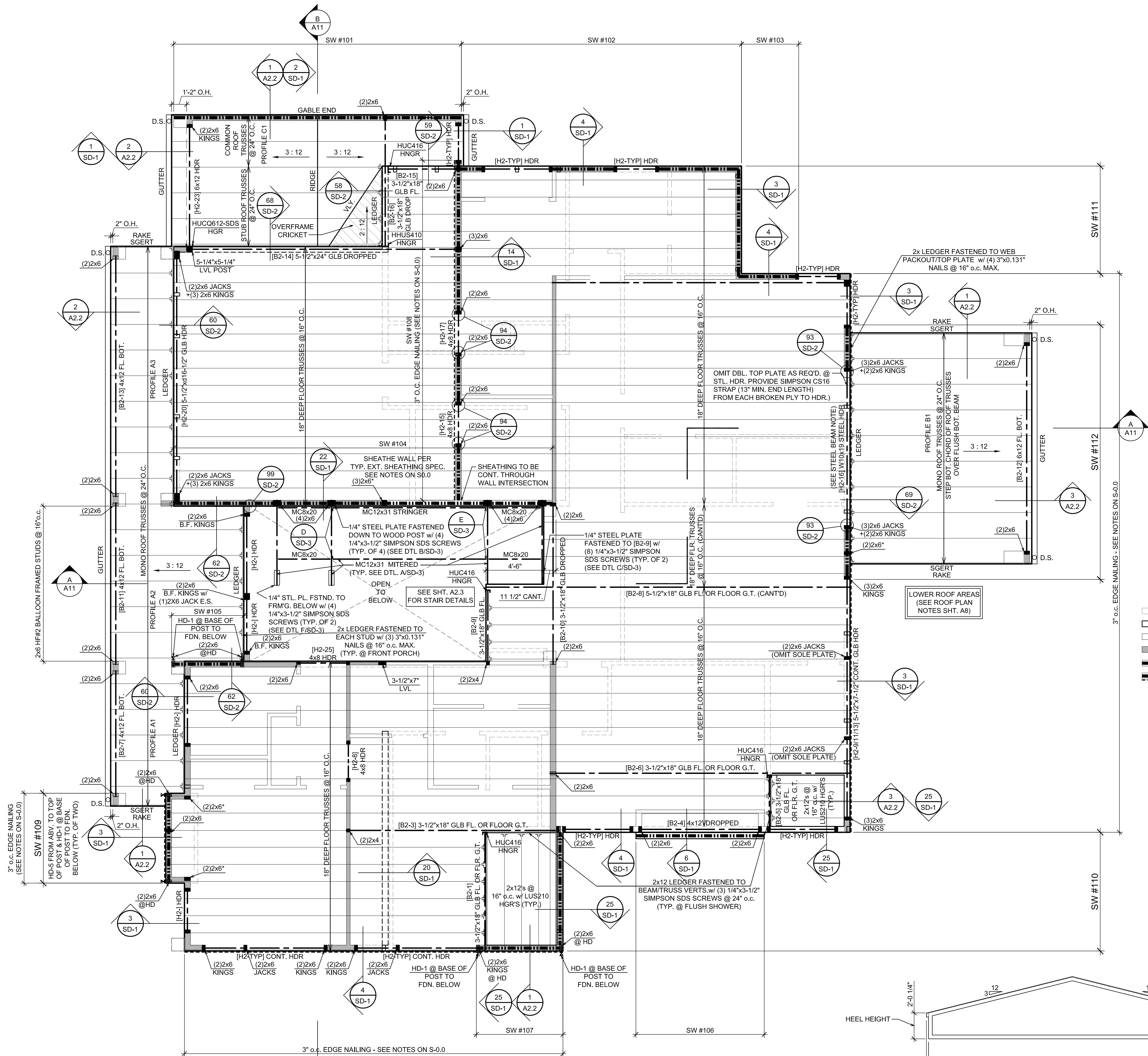
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Owner
SAINTFIELD2 LLC

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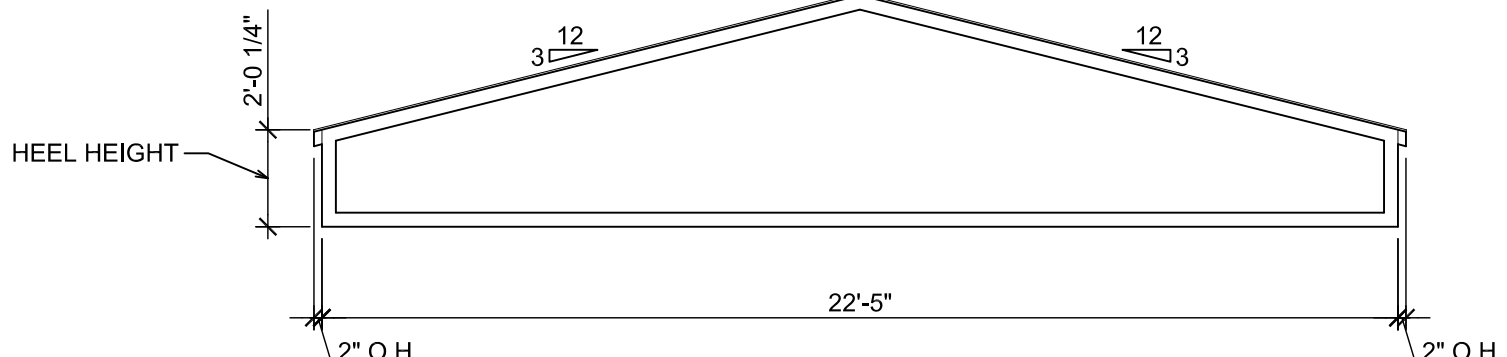
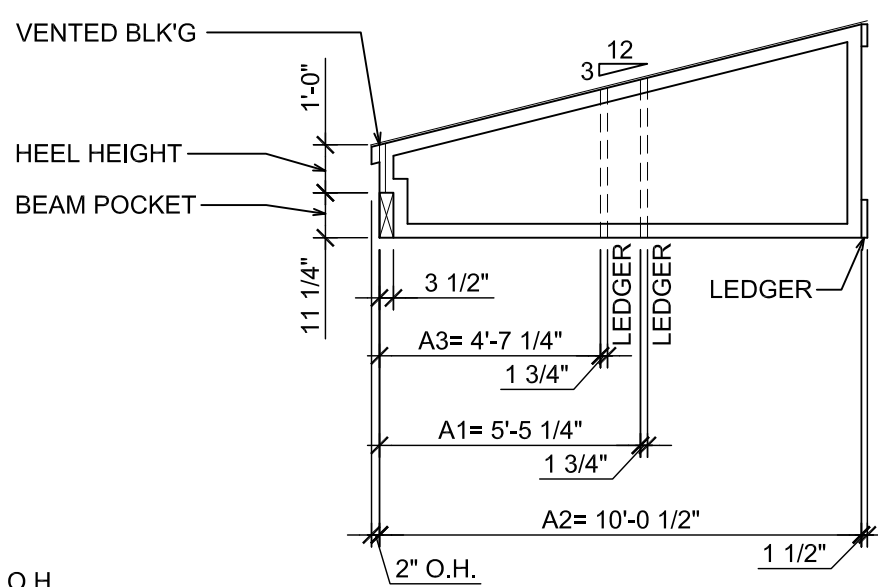
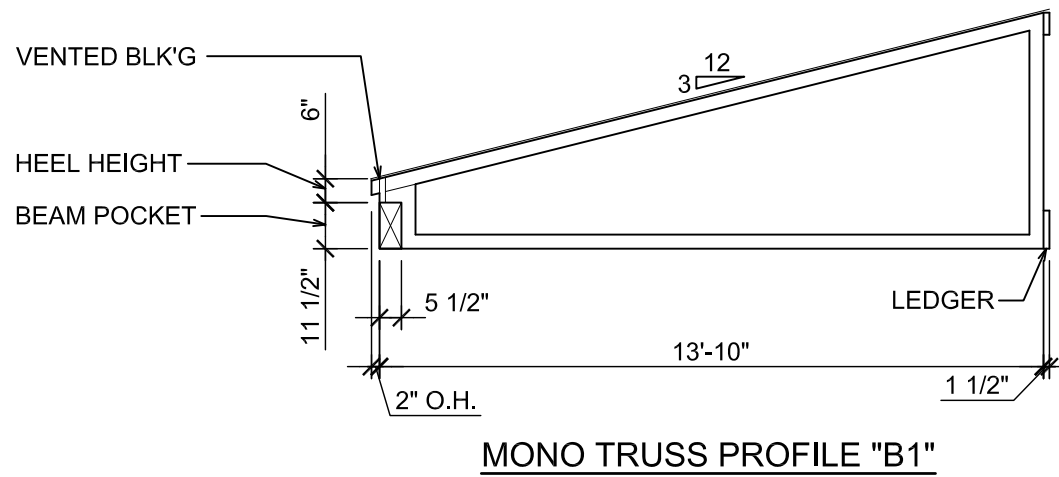
GENERAL NOTES

- 1. MAIN FLOOR FRAMING TO BE 18" DEEP FLOOR TRUSSES @ 16" O.C. WITH 3/4" OSB SUBFLOOR, GLUED AND NAILED, U.N.O. ADHESIVES SHALL CONFORM TO APA SPEC. AFG 01. PROVIDE T&G EDGES AT LONG PANEL EDGES. STAGGER SUBFLOOR END JOINTS.
- 2. EXTERIOR HEADERS SHALL BE 4x8 DF#2 [H2-TYP.] U.N.O. PROVIDE (1) 2x TRIMMER @ ALL HEADERS U.N.O. FILL HEADER CAVITY WITH R-10 INSULATION.
- 3. DESIGN GIRDER TRUSSES FOR POINT LOAD DUE TO REACTION OF SHEARWALL ABOVE.
- 4. WHERE POSTS OCCUR PROVIDE SOLID VERTICAL GRAIN BLOCKING THRU FLOOR TO MATCHING SUPPORTS BELOW, U.N.O. ALL MARKED POSTS ARE BELOW THE FRAMING SHOWN ON THIS PLAN.
- 5. PROVIDE SOLID BLOCKING IN FLOOR AT ALL WALLS AND POINT LOADS FROM ABOVE.
- 6. BEARING WALLS ARE SHADED.
- 7. ALL TRUSSES SHALL CARRY MANUFACTURER'S STAMP. SHALL BE INSTALLED AND BRACED TO MANUFACTURER'S SPECIFICATIONS. SHALL HAVE DESIGN DETAILS AND DRAWINGS ON SITE FOR FRAMING INSPECTION, AND WILL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEER'S CALCULATIONS.
- 8. TRUSS MANUFACTURER TO SUPPLY ALL BLOCKING AND HANGERS REQUIRED AT MANUFACTURED TRUSSES.
- 9. TRUSS LAYOUT TO BE REVIEWED AND APPROVED BY TRUSS MANUFACTURER PRIOR TO CONSTRUCTION. ALL CHANGES TO BE SUBMITTED AND APPROVED BY ARCHITECT PRIOR TO FABRICATION.
- 10. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS (SEE S-0.0)
- 11. DO NOT SCALE DRAWINGS. REFER TO LISTED DIMENSIONS.

STEEL BEAM NOTE: PROVIDE 2x TOP PLATE FASTENED w/ P.A.F.'s (HILTI X-U PINS OR EQUAL) @ 16" o.c. OR 1/2" DIA. BOLTS @ 48" o.c. STAGGERED. ALSO PROVIDE WEB PACKOUT AS REQ'D. FASTENED w/ 1/2" DIA. BOLTS @ 24" o.c.

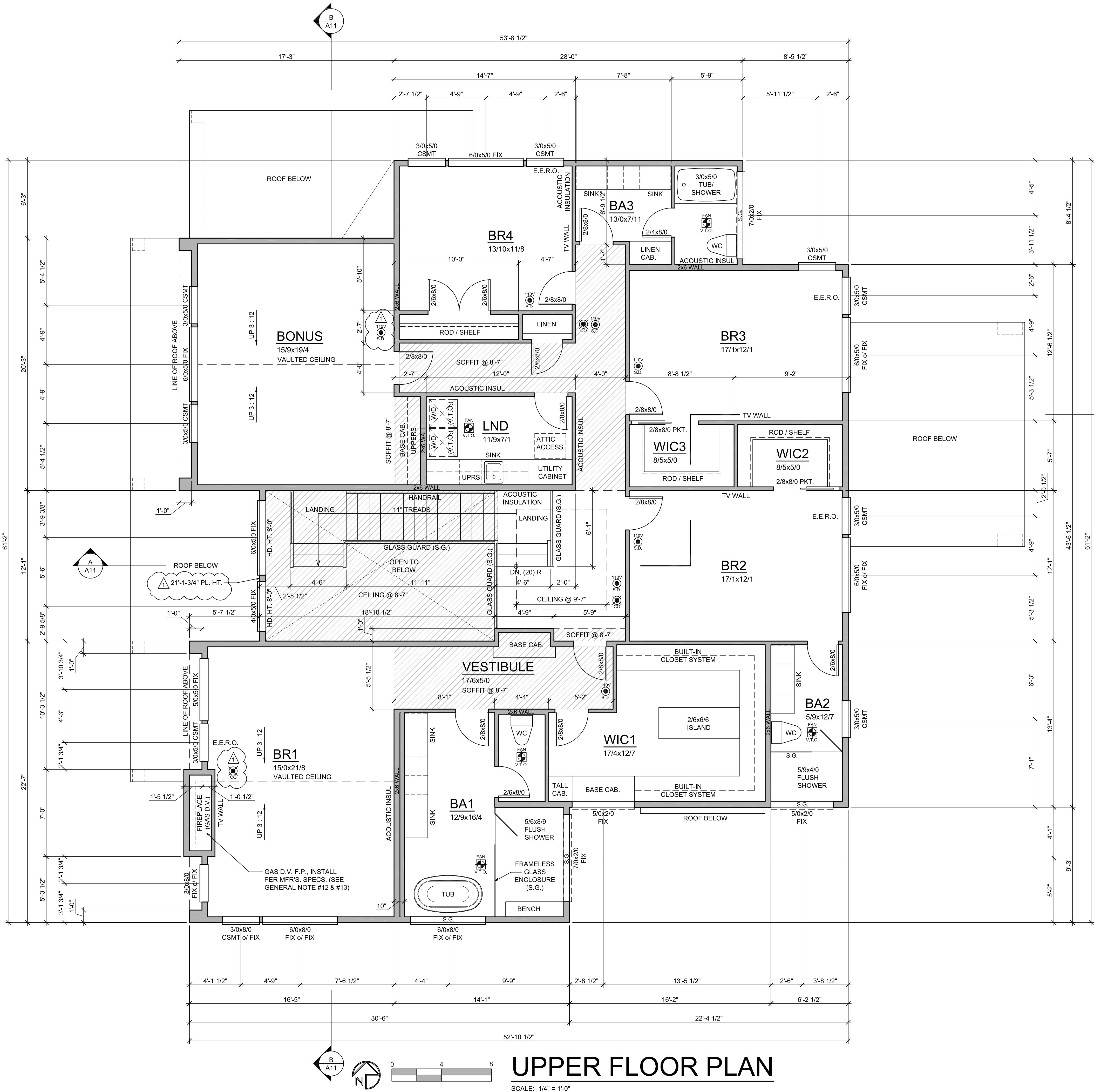
PLAN KEY:

- INDICATES LOC. OF POINT LOAD FROM ABOVE (TYP.)
- INDICATES LOC. OF SOLID SUPPORT (2) STUDS LAM'D W/ 10d @ 16" O.C., (2) 10d EA. END TYP. UNLESS NOTED OTHERWISE
- P.A. POST ABOVE, PROVIDE SOLID BLK'G (TYP.)
- T TYPICAL JOIST HANGER (SIMPSON)
- TYPICAL BEAM HANGER (SIMPSON)
- D.S.O. DOWNSPOUT (TYP.)
- ▬ TYPICAL WALL ABOVE
- ▬ TYPICAL BR'G WALL ABOVE
- ▬ TYPICAL WALL BELOW
- ▬ TYPICAL BR'G WALL BELOW
- ▬ TYPICAL SHEAR WALL
- ▬ SHEAR WALL w/ 3" EDGE NAILING
- INDICATES LOC. OF HOLD-DOWN



UPPER FLOOR FRAMING PLAN

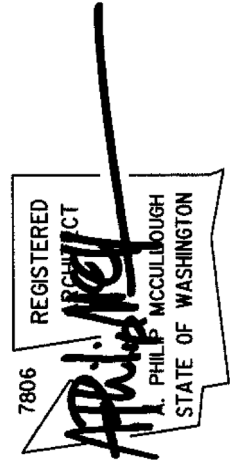
SCALE: 1/4" = 1'-0"

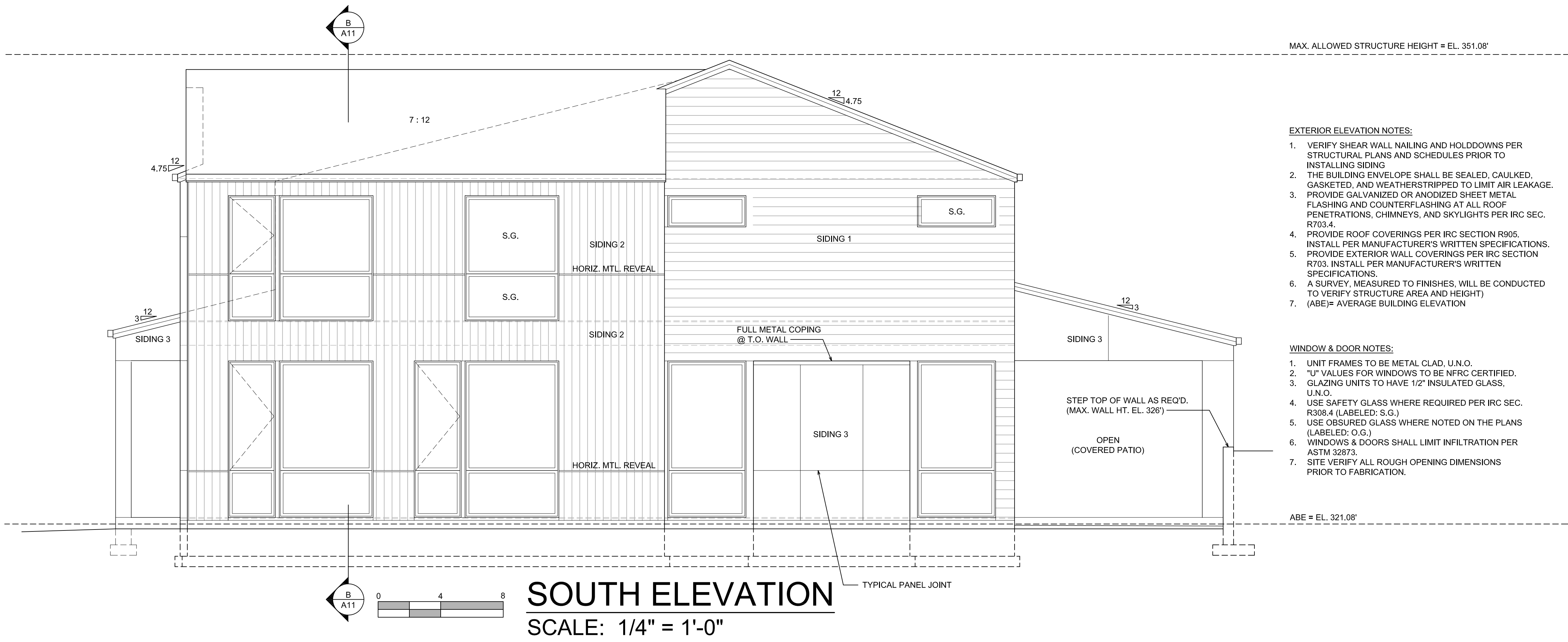


- GENERAL NOTES:
1. PLATE HEIGHT @ UPPER FLOOR IS 9'-1", U.N.O.
 2. DIMENSION LINES ARE TO FACE OF STUD U.N.O.
 3. WINDOW SIZES & ROUGH OPENINGS TO BE VERIFIED BY CONTRACTOR.
 4. WINDOW HEAD HEIGHT AT UPPER FLOOR IS 8'-0" ABOVE SUBFLOOR, U.N.O. IF NOMINAL DOOR AND WINDOW HEIGHTS ARE SIMILAR, COORDINATE WITH DOOR AND WINDOW SPEC'S TO LOCATE FINAL ELEVATION OF THE HEAD HEIGHTS SO THAT ALL DOOR AND WINDOW TRIM ALIGN.
 5. WINDOW AND DOOR SIZES ARE DIMENSIONED IN FEET AND INCHES (E.G. 2/8-2/8= 2'-8"W x 2'-8"H).
 6. EXTERIOR WALLS TO BE 2x6 STUDS AT 16" o.c., INTERIOR WALLS TO BE 2x4 STUDS AT 16" o.c., U.N.O.
 7. PROVIDE FIREBLOCKING PER I.R.C. SEC. R302.11. FIRE BLOCKING SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND TO FORM AN EFFECTIVE FIRE BARRIER BETWEEN STORIES, AND BETWEEN A TOP STORY AND THE ROOF SPACE. PROVIDE SAFETY GLAZING AT HAZARDOUS LOCATIONS PER I.R.C. SEC. R308.4.
 8. PER I.R.C. SEC R311.7.5. MAX. RISER HEIGHT SHALL BE 7'-3/4". MIN. TREAD DEPTH SHALL BE 10". STAIR NOSINGS: 3/4" MIN., 1-1/4" MAX. RADIUS @ LEADING EDGE OF TREAD: 9/16" MAX.
 9. PROVIDE HANDRAILS PER I.R.C. SEC. R311.7.8. TOP OF HANDRAIL SHALL BE NOT LESS THAN 34" OR MORE THAN 38" ABOVE THE TREAD NOSINGS. HANDRAILS SHALL BE CONTINUOUS THE FULL LENGTH OF THE FLIGHT PER R311.7.8.2. THE HANDRAIL GRIP-SIZE SHALL BE PROVIDED PER R311.7.8.3.
 10. PROVIDE GUARDS (MIN. 36" HEIGHT) IN LOCATIONS PER I.R.C. SEC. R312.
 11. FACTORY BUILT FIREPLACES & CHIMNEYS SHALL BE LISTED & LABELED AND SHALL BE INSTALLED & TERMINATED IN ACCORDANCE TO THE CONDITIONS OF THE LISTINGS.
 12. PROVIDE EXTERIOR AIR SUPPLY TO ANY FACTORY-BUILT FIREPLACE PER I.R.C. SEC R1006.

PLAN KEY:

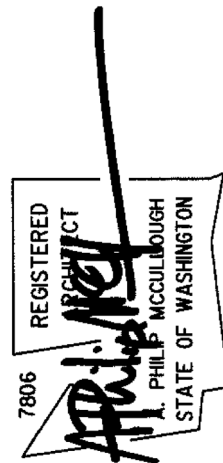
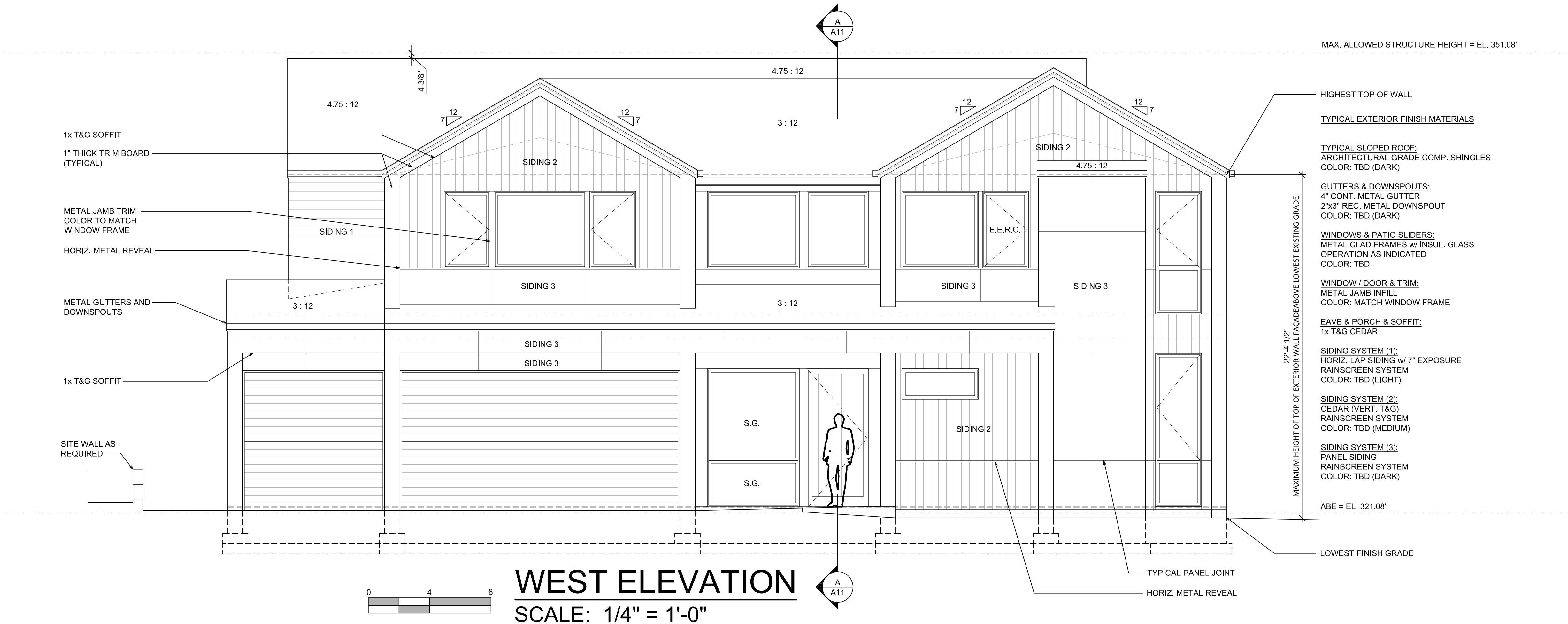
	INDICATES 110V SMOKE DET. PER I.R.C. 313.4. INTERCONNECTED W/ EMERGENCY BATTERY BACKUP		INDICATES SAFETY GLAZING REQUIRED PER IRC SEC. R308.4
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			INDICATES AWNING WINDOW
			INDICATES "VENT TO OUTSIDE"

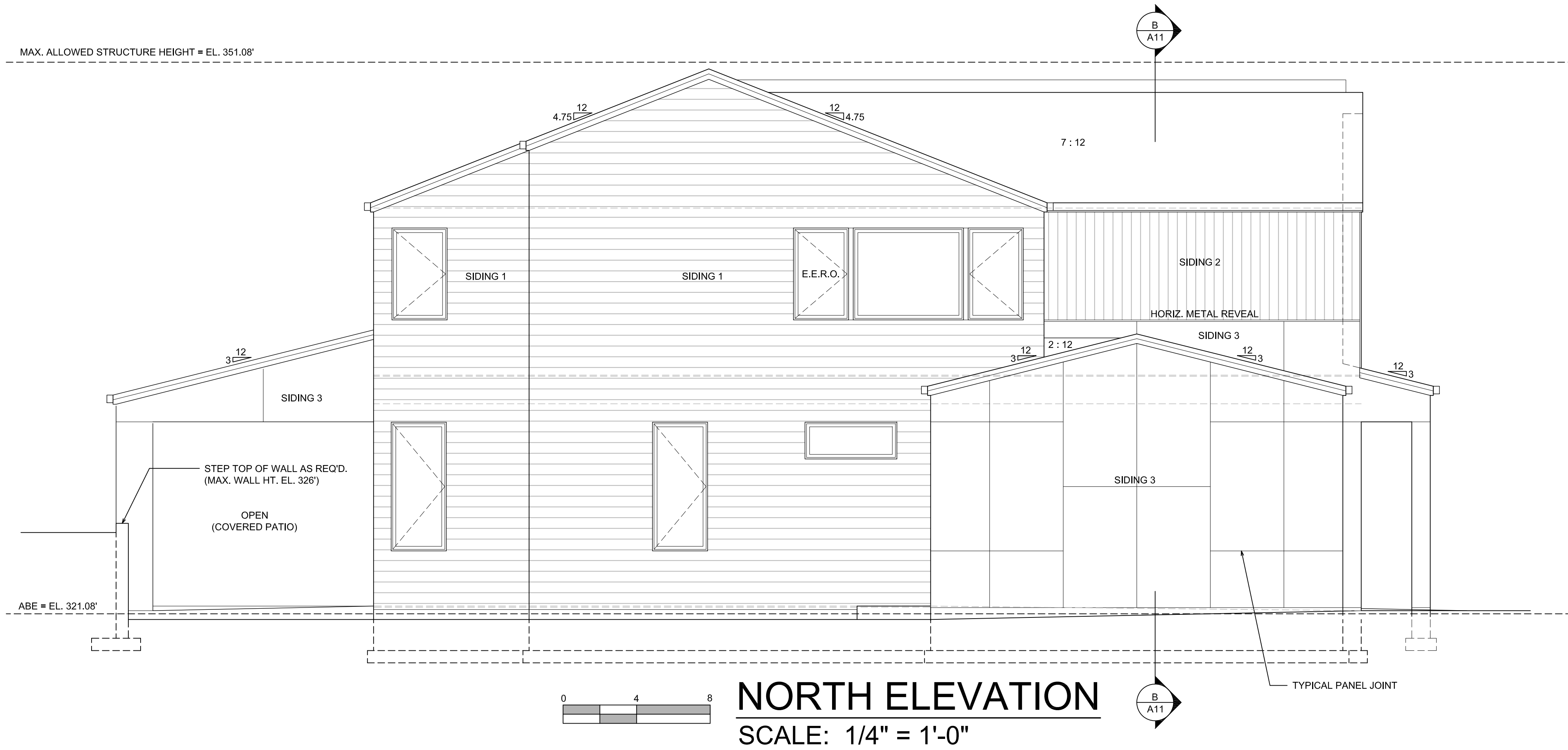




- EXTERIOR ELEVATION NOTES:**
1. VERIFY SHEAR WALL NAILING AND HOLDDOWNS PER STRUCTURAL PLANS AND SCHEDULES PRIOR TO INSTALLING SIDING
 2. THE BUILDING ENVELOPE SHALL BE SEALED, CAULKED, GASKETED, AND WEATHERSTRIPPED TO LIMIT AIR LEAKAGE.
 3. PROVIDE GALVANIZED OR ANODIZED SHEET METAL FLASHING AND COUNTERFLASHING AT ALL ROOF PENETRATIONS, CHIMNEYS, AND SKYLIGHTS PER IRC SEC. R703.4.
 4. PROVIDE ROOF COVERINGS PER IRC SECTION R905. INSTALL PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
 5. PROVIDE EXTERIOR WALL COVERINGS PER IRC SECTION R703. INSTALL PER MANUFACTURER'S WRITTEN SPECIFICATIONS.
 6. A SURVEY, MEASURED TO FINISHES, WILL BE CONDUCTED TO VERIFY STRUCTURE AREA AND HEIGHT)
 7. (ABE)= AVERAGE BUILDING ELEVATION

- WINDOW & DOOR NOTES:**
1. UNIT FRAMES TO BE METAL CLAD, U.N.O.
 2. "U" VALUES FOR WINDOWS TO BE NFRC CERTIFIED.
 3. GLAZING UNITS TO HAVE 1/2" INSULATED GLASS, U.N.O.
 4. USE SAFETY GLASS WHERE REQUIRED PER IRC SEC. R308.4 (LABELED: S.G.)
 5. USE OBSURED GLASS WHERE NOTED ON THE PLANS (LABELED: O.G.)
 6. WINDOWS & DOORS SHALL LIMIT INFILTRATION PER ASTM 32873.
 7. SITE VERIFY ALL ROUGH OPENING DIMENSIONS PRIOR TO FABRICATION.





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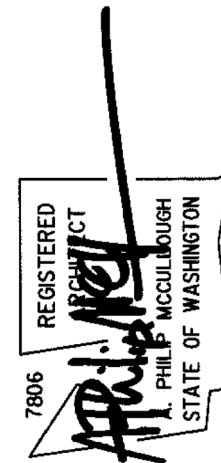
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Elevations

A10

(W1) TYPICAL ABOVE GRADE EXTERIOR WALL:
-SIDING SYSTEM PER ELEVATIONS
-NO. 15 ASPHALT SATURATED FELT (WRB)
-1/2" SHEATHING PER STRUCTURAL
-2x6 STUDS PER STRUCTURAL
-R-21 BATT INSULATION PER COVER SHEET
-1/2" G.W.B. INTERIOR FINISH
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(W2) TYPICAL INTERIOR WALL:
-1/2" G.W.B. INTERIOR FINISH
-2x4 STUDS PER STRUCTURAL (2x6 WHERE NOTED ON PLANS)
-1/2" G.W.B. INTERIOR FINISH

(W3) TYPICAL HOUSE/GARAGE WALL:
-1/2" G.W.B. INTERIOR FINISH
-2x6 STUDS PER STRUCTURAL
-R-21 BATT INSULATION PER COVER SHEET
-1/2" SHEATHING PER STRUCTURAL
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(W4) TYPICAL GARAGE EXTERIOR WALL:
-SIDING SYSTEM PER ELEVATIONS
-NO. 15 ASPHALT SATURATED FELT (WRB)
-2x6 STUDS PER STRUCTURAL
-1/2" G.W.B. INTERIOR FINISH
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(S1) TYPICAL SLAB-ON-GRADE (INTERIOR):
-FINISH FLOOR PER PLAN
-4" CAST-IN-PLACE CONCRETE
-10 MIL VAPOR RETARDER
-R-10 RIGID INSULATION PER COVER SHEET
-4" GRANULAR FILL

(S2) GARAGE SLAB-ON-GRADE (GARAGE):
-4" CAST-IN-PLACE CONCRETE
(SLOPE PER PLAN)
-10 MIL VAPOR RETARDER
-4" GRANULAR FILL

(S3) PATIO SLAB-ON-GRADE:
-4" CAST-IN-PLACE CONCRETE
(SLOPE PER PLAN)
-4" GRANULAR FILL

(F1) TYPICAL FLOOR *o/* HEATED SPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL
(GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-5/8" G.W.B. CEILING (TYPE 'X' WHERE INDICATED)
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(F2) TYPICAL FLOOR *o/* GARAGE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL
(GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-5/8" G.W.B. CEILING (TYPE 'X' WHERE INDICATED)
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

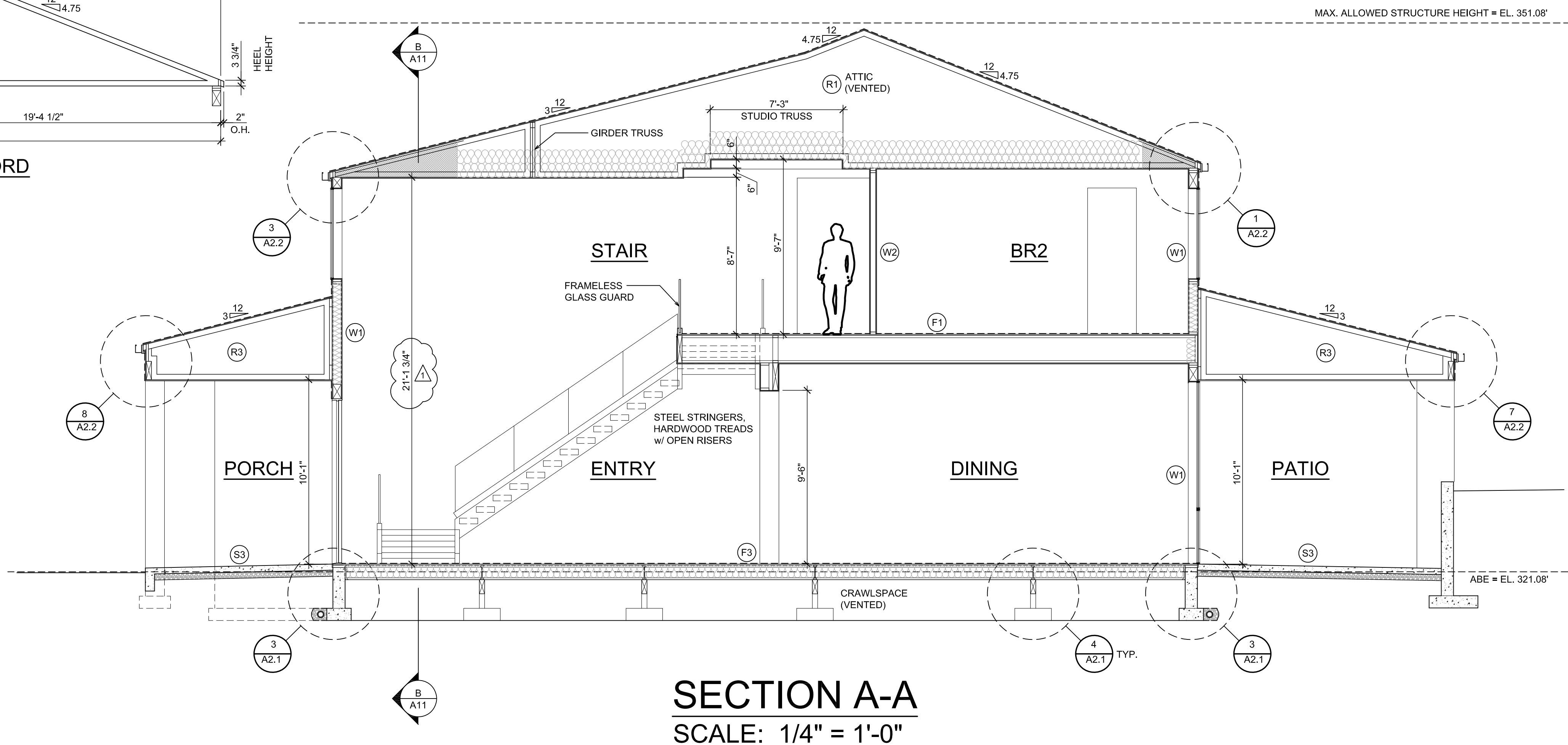
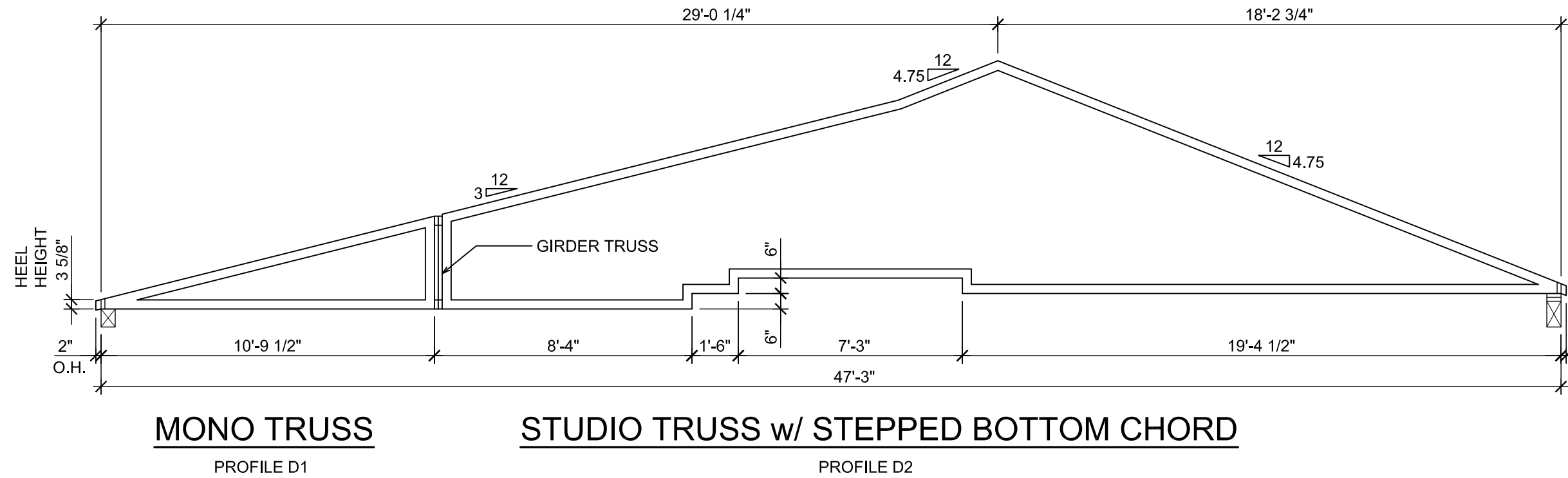
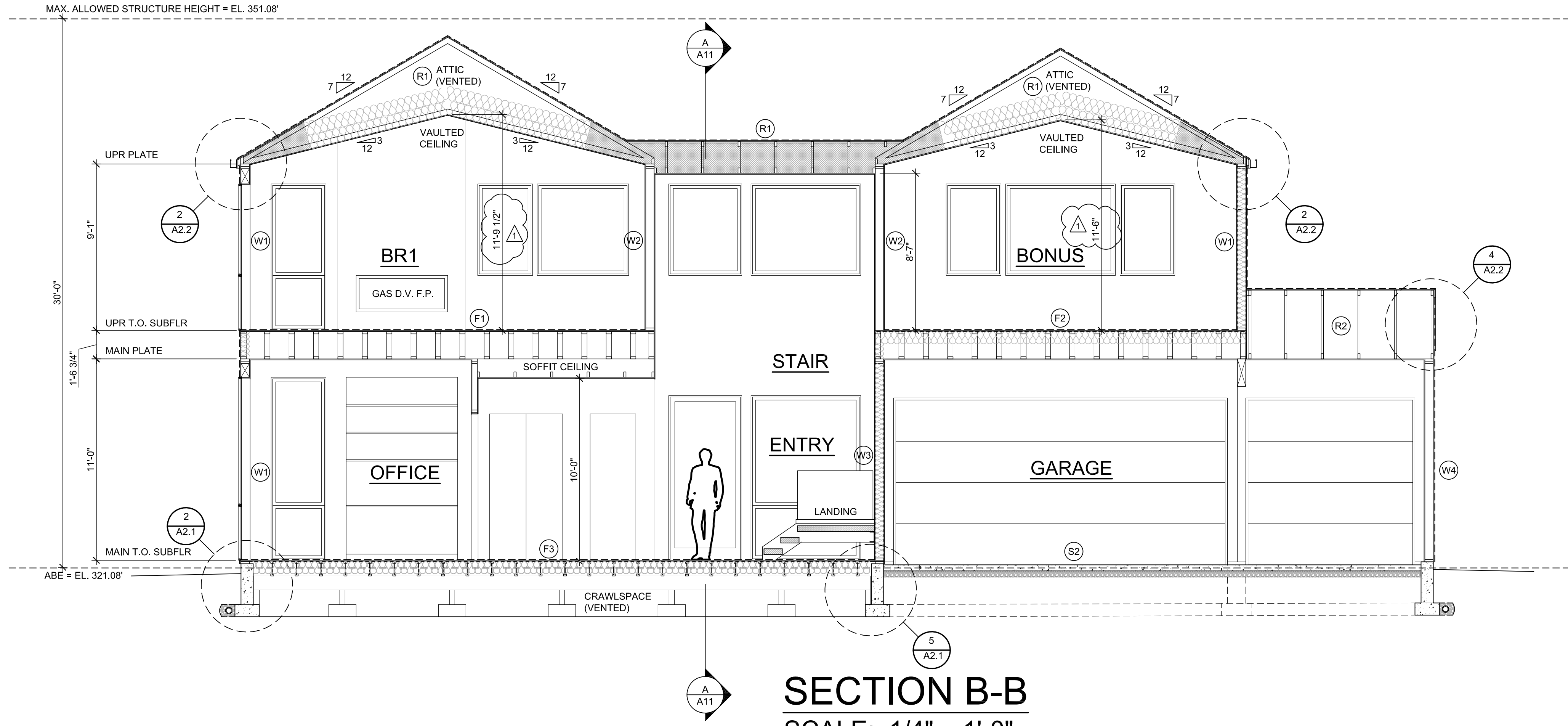
(F3) TYPICAL FLOOR *o/* CRAWLSPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL
(GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-VENTED 1x T&G CEDAR
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(F4) TYPICAL FLOOR *o/* EXTERIOR SPACE:
-FINISH FLOOR PER PLAN
-3/4" T&G SHEATHING PER STRUCTURAL
(GLUE & NAIL TO JOISTS)
-FLOOR JOISTS OR TRUSSES PER FRAMING PLAN
-R-30 BATT INSULATION PER COVER
-VENTED 1x T&G CEDAR
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(R1) TYPICAL ROOF CONSTRUCTION *o/* HEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES
(SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-R-60 BATT INSULATION PER COVER
-5/8" G.W.B. CEILING
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(R2) TYPICAL ROOF CONSTRUCTION *o/* UNHEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES
(SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-5/8" TYPE 'X' G.W.B. CEILING
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL

(R3) TYPICAL ROOF CONSTRUCTION *o/* UNHEATED (VENTED):
-ARCHITECTURAL GRADE COMPOSITION ROOF SHINGLES
(SLOPE TO GUTTER)
-1/2" SHEATHING PER STRUCTURAL
-ROOF TRUSSES PER FRAMING PLAN
-1x T&G SOFFIT
-AIR BARRIER PER COVER SHEET: MOISTURE CONTROL



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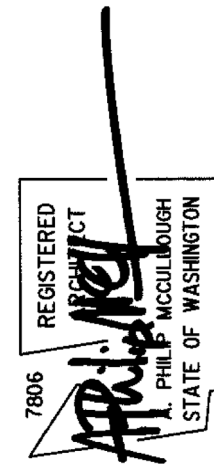
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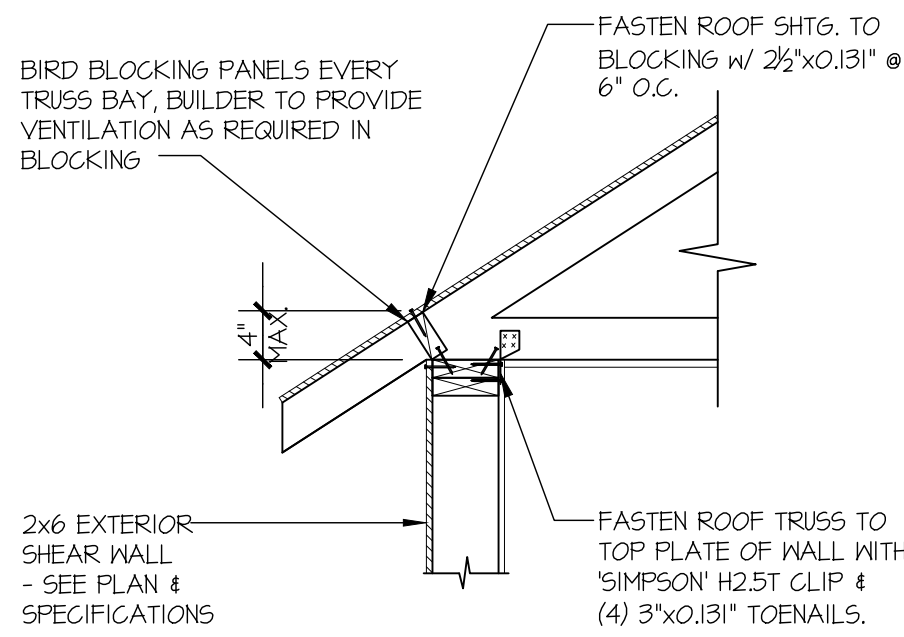
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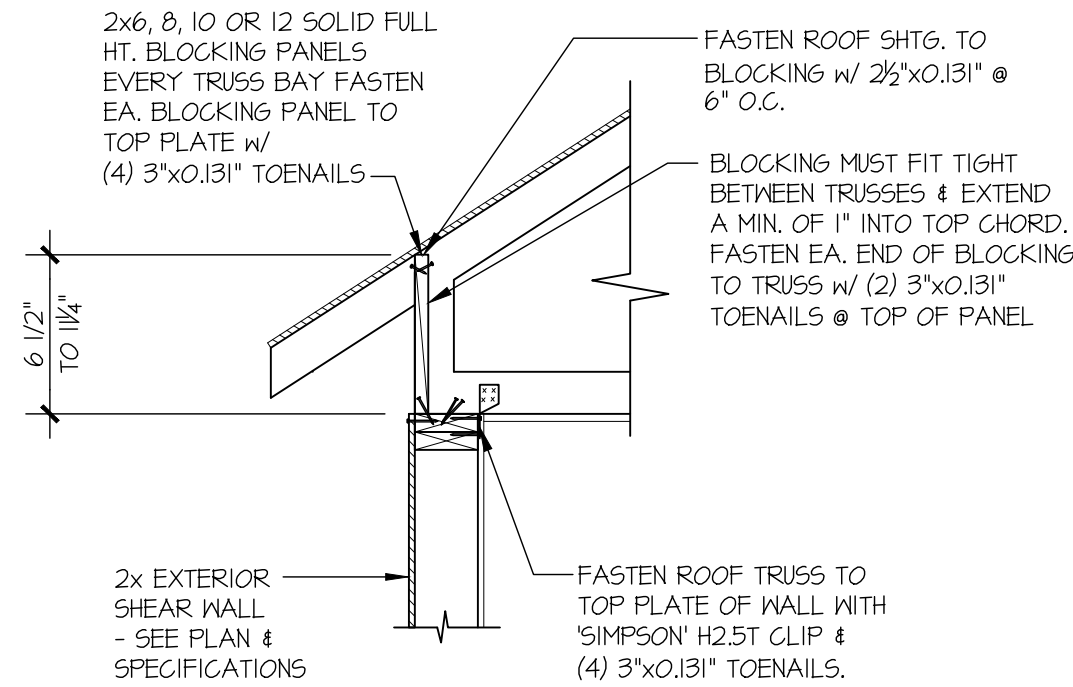
Sections

A11



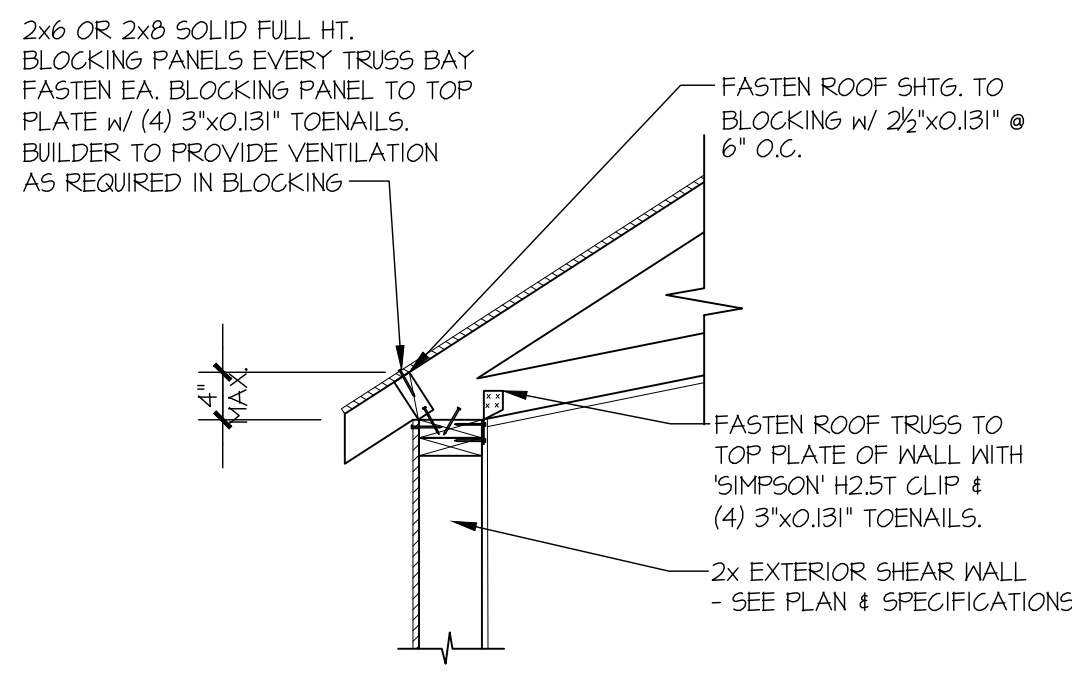
**TYPICAL SHEAR
TRANSFER DETAIL @ ROOF**

SCALE: 3/4"=1'-0" HEEL HEIGHT LESS THAN 6 1/2"



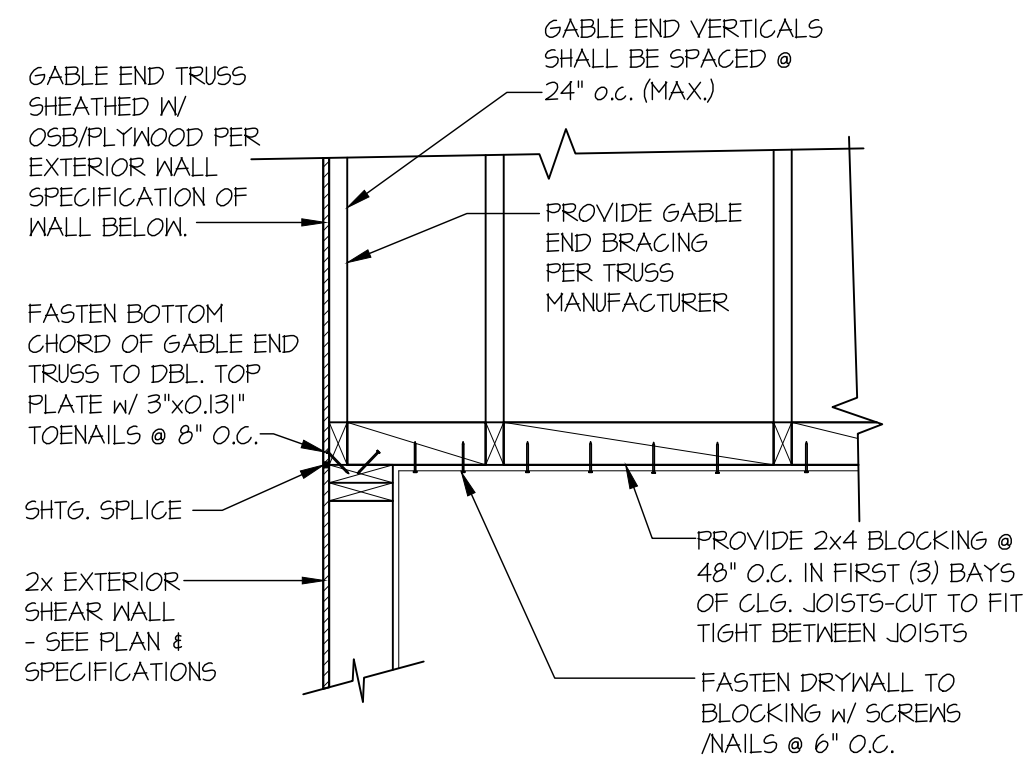
**TYPICAL SHEAR
TRANSFER DETAIL @ ROOF**

SCALE: 3/4"=1'-0" HEEL HEIGHT BETWEEN 6 1/2" - 11 1/4"



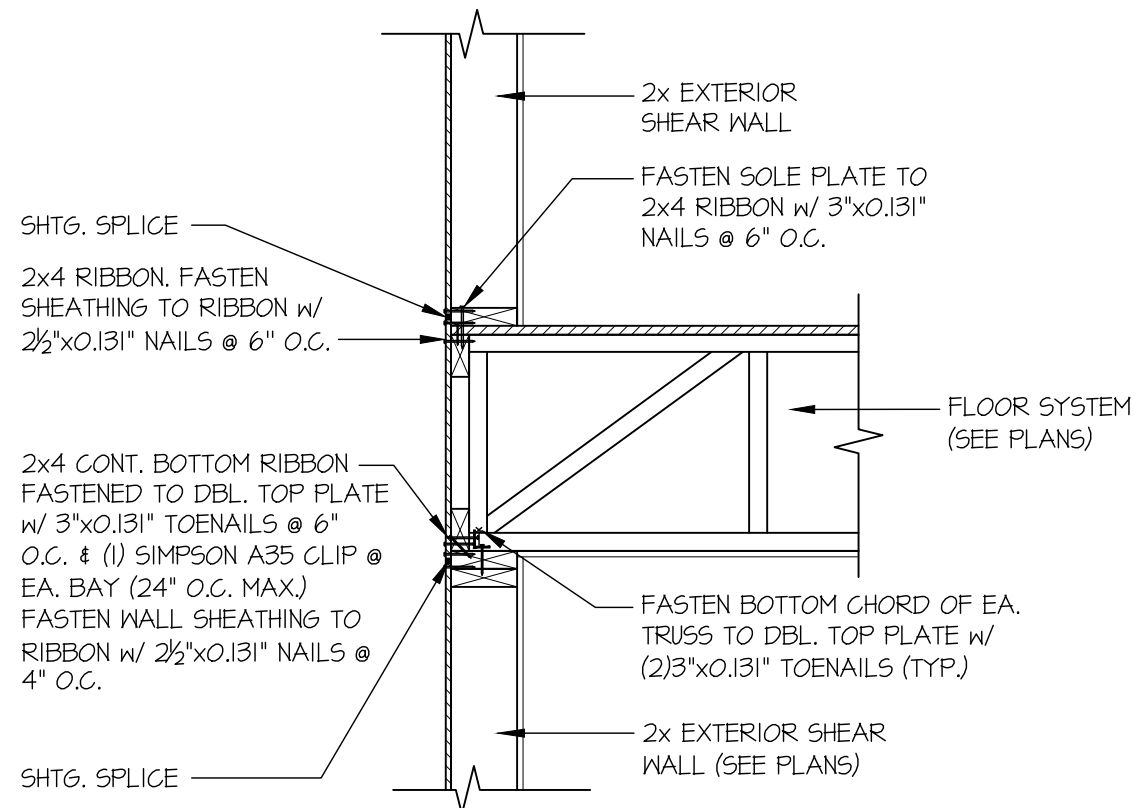
**TYPICAL SHEAR TRANSFER
DETAIL @ VAULTED CEILING**

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



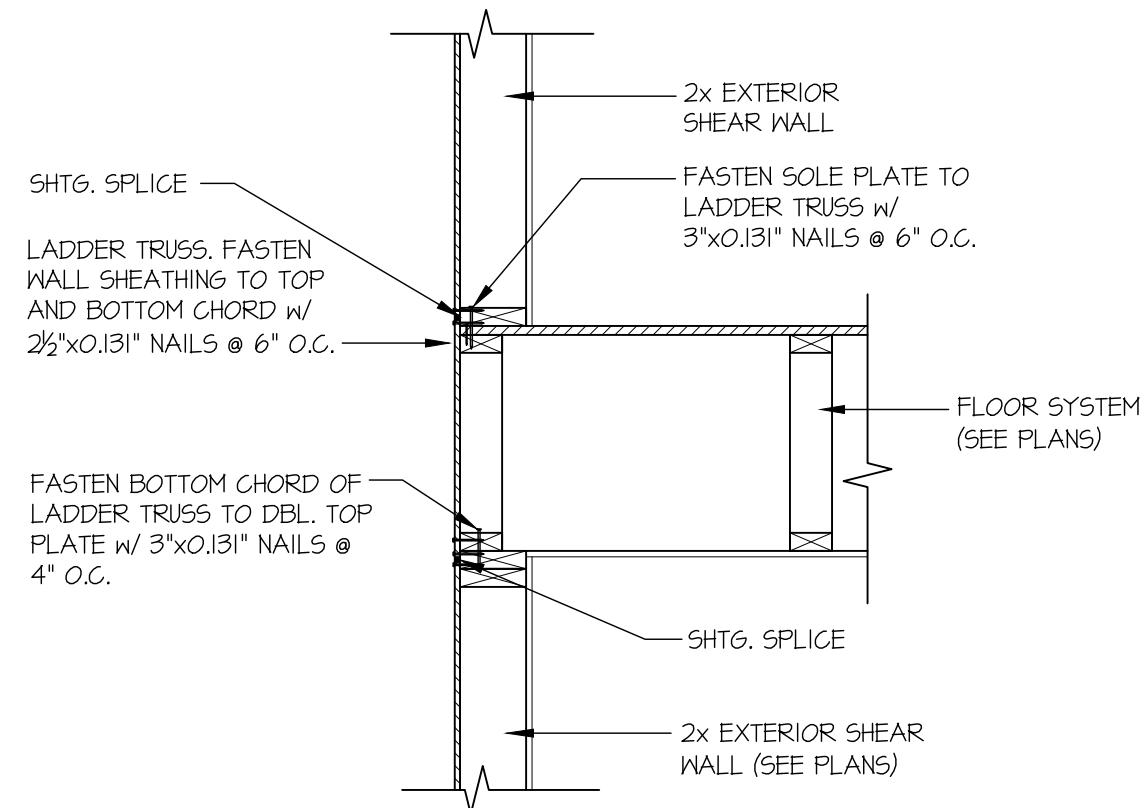
TYPICAL GABLE END DETAIL

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



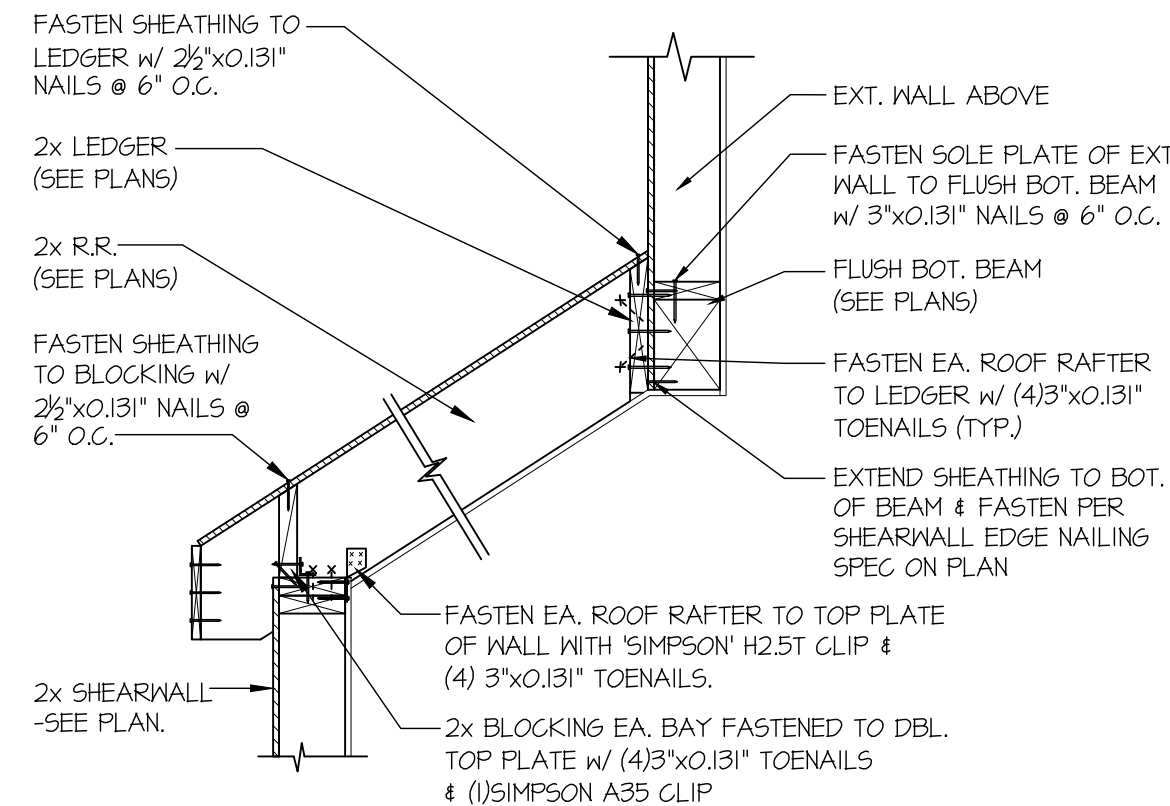
**TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL**

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



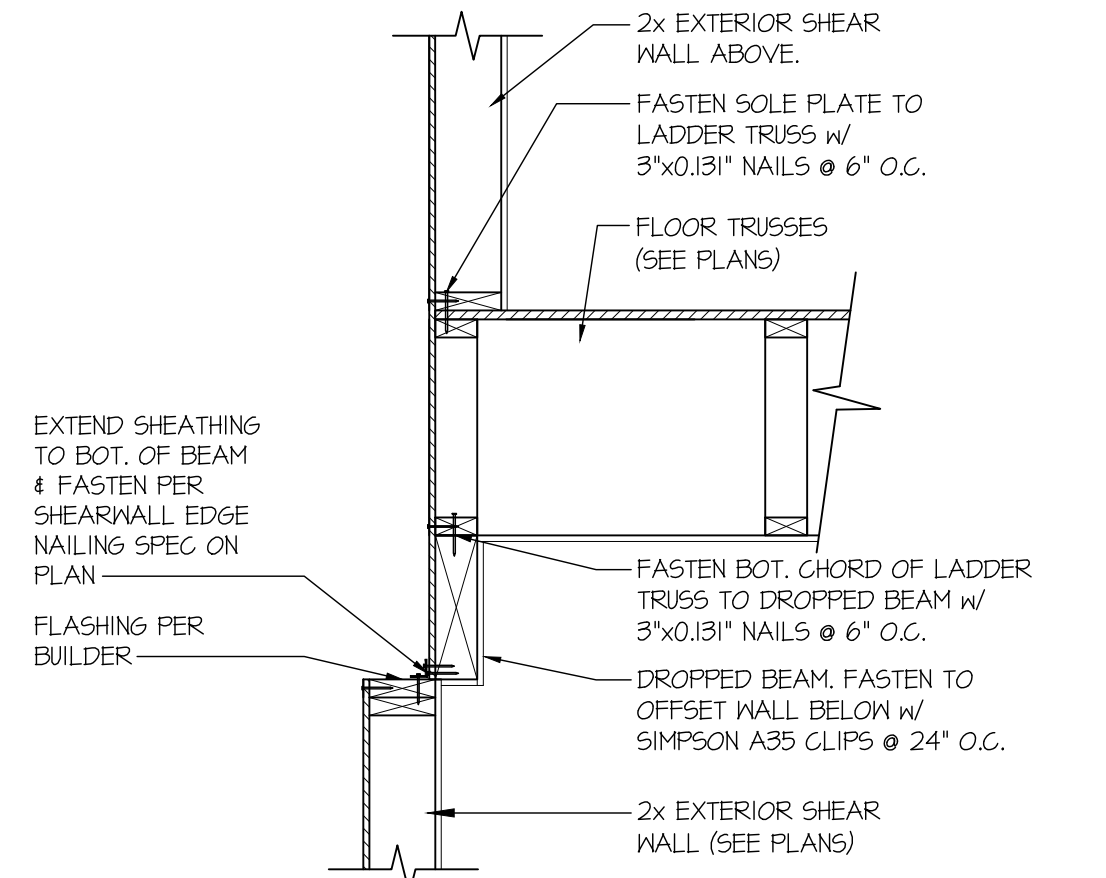
**TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL**

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



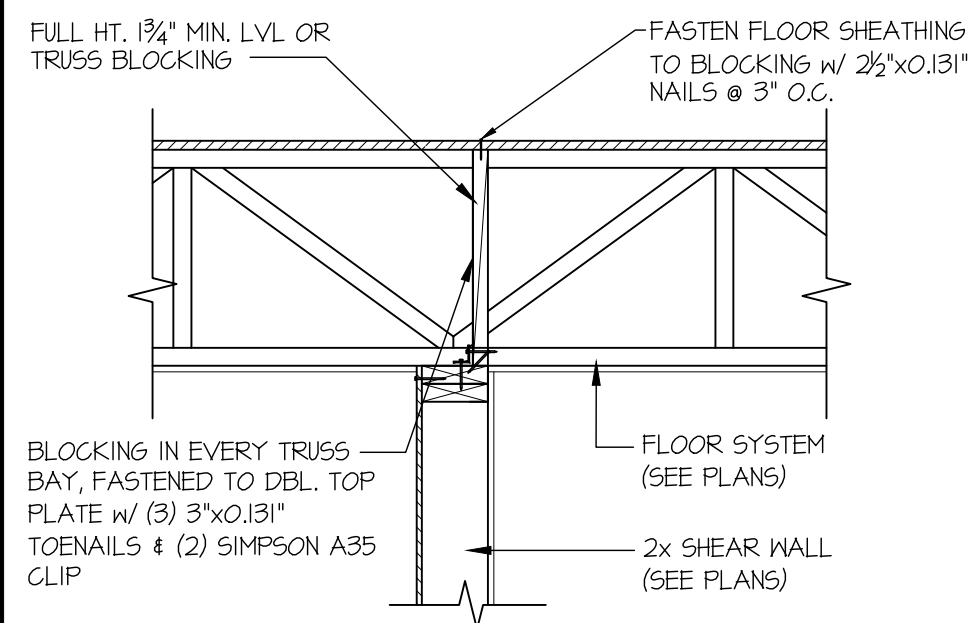
**SHEAR TRANSFER DETAIL
@ CHIMNEY ROOF**

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



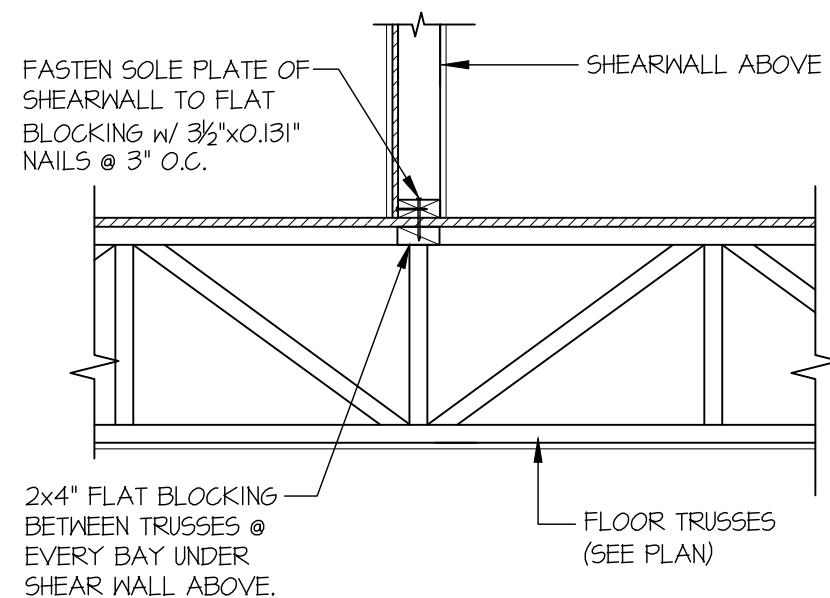
**SHEAR TRANSFER DETAIL @ SHEARNALL
ABOVE & OFFSET SHEARNALL BELOW**

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



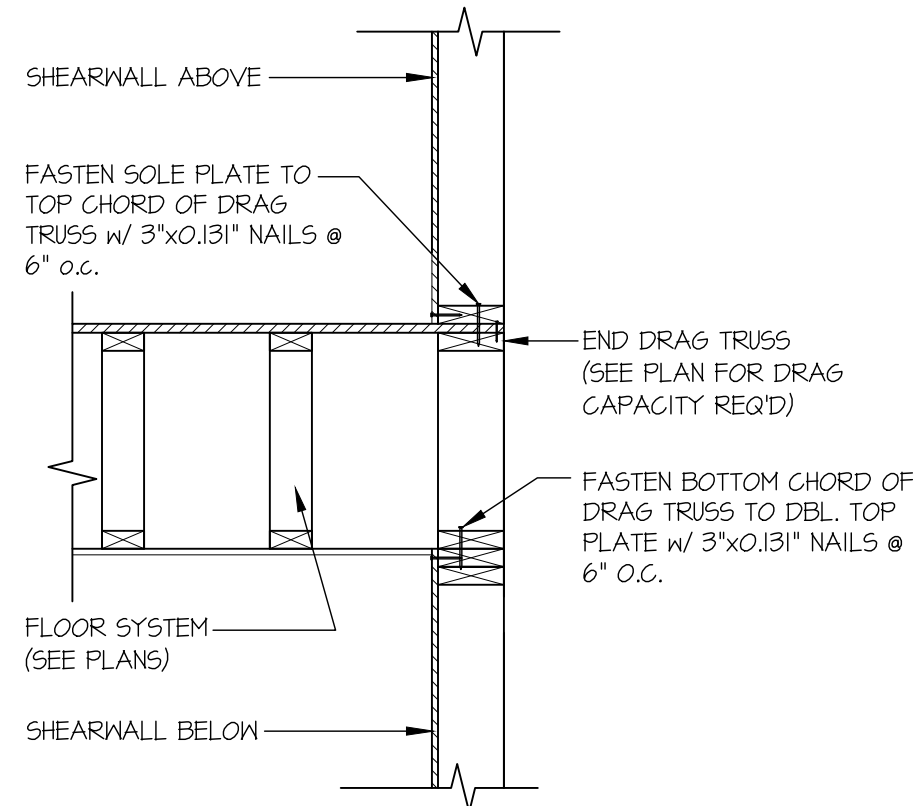
**SHEAR TRANSFER DETAIL
@ SHEAR WALL BELOW**

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



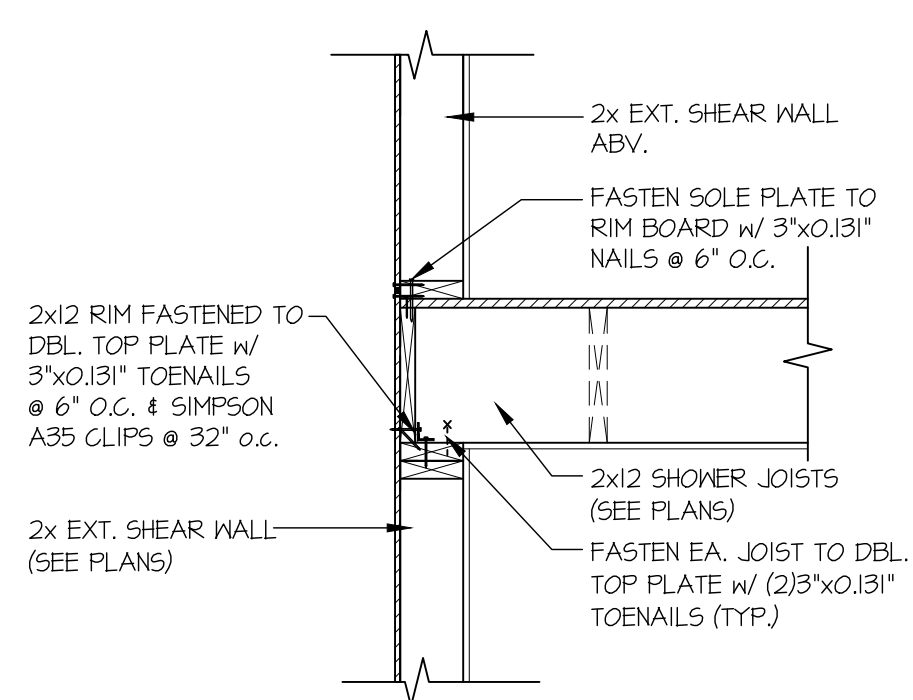
**SHEAR TRANSFER DETAIL
@ INTERIOR SHEAR WALL**

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



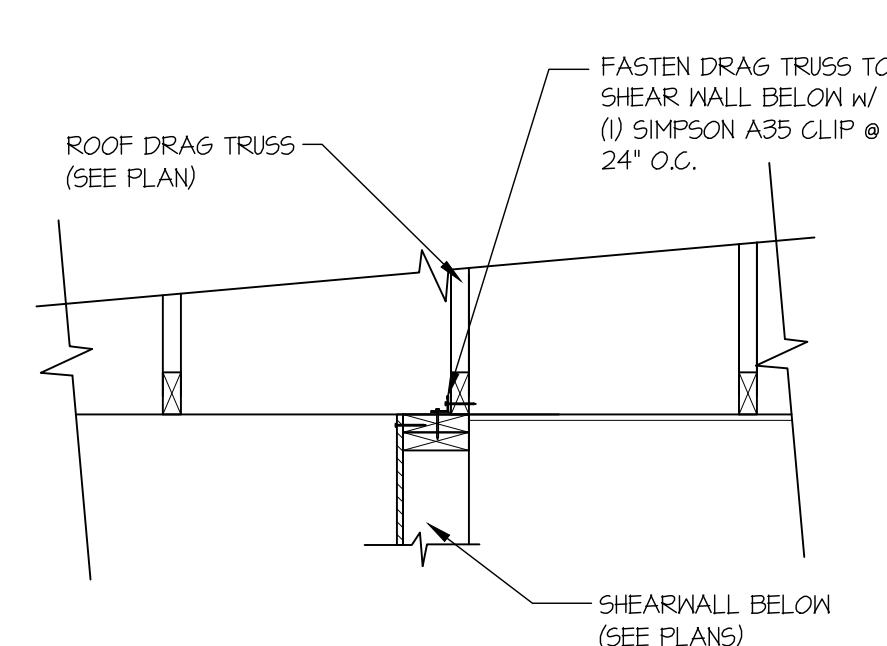
**TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ EXTERIOR WALL**

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



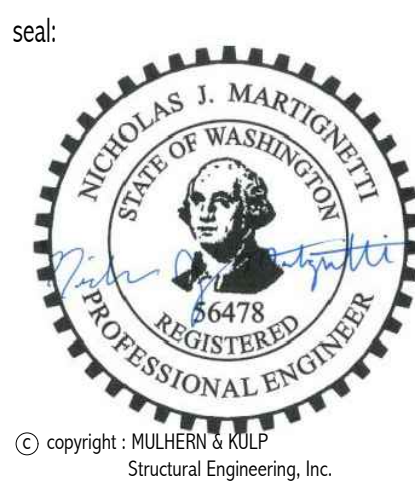
**TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ FLUSH SHOWER**

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

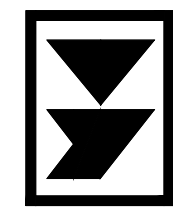


**SHEAR TRANSFER DETAIL @
INTERIOR SHEARWALL BELOW**

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



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M&K project number:
244-25022

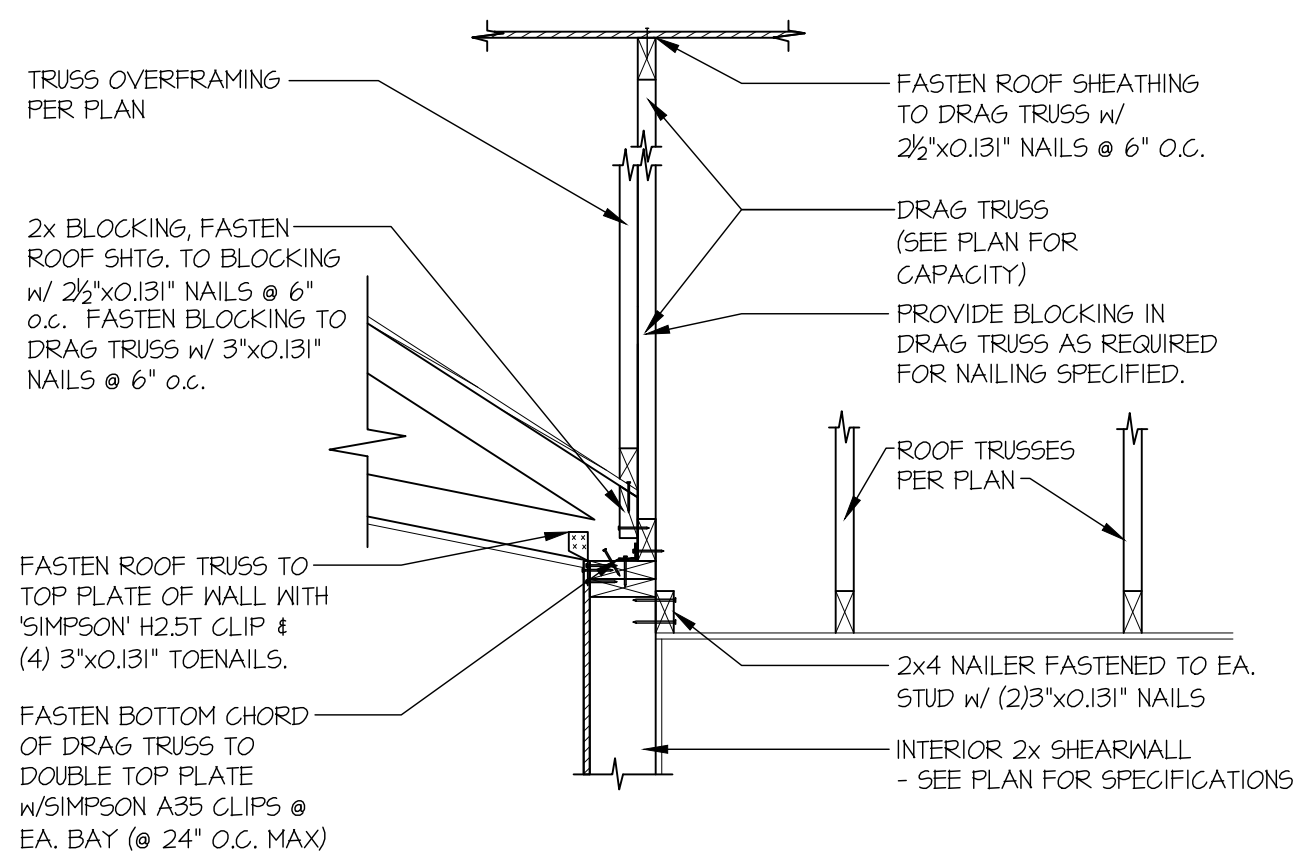
project mgr: NJM
drawn by: AJC
issue date: 12-01-25

REVISIONS:
date: initial:

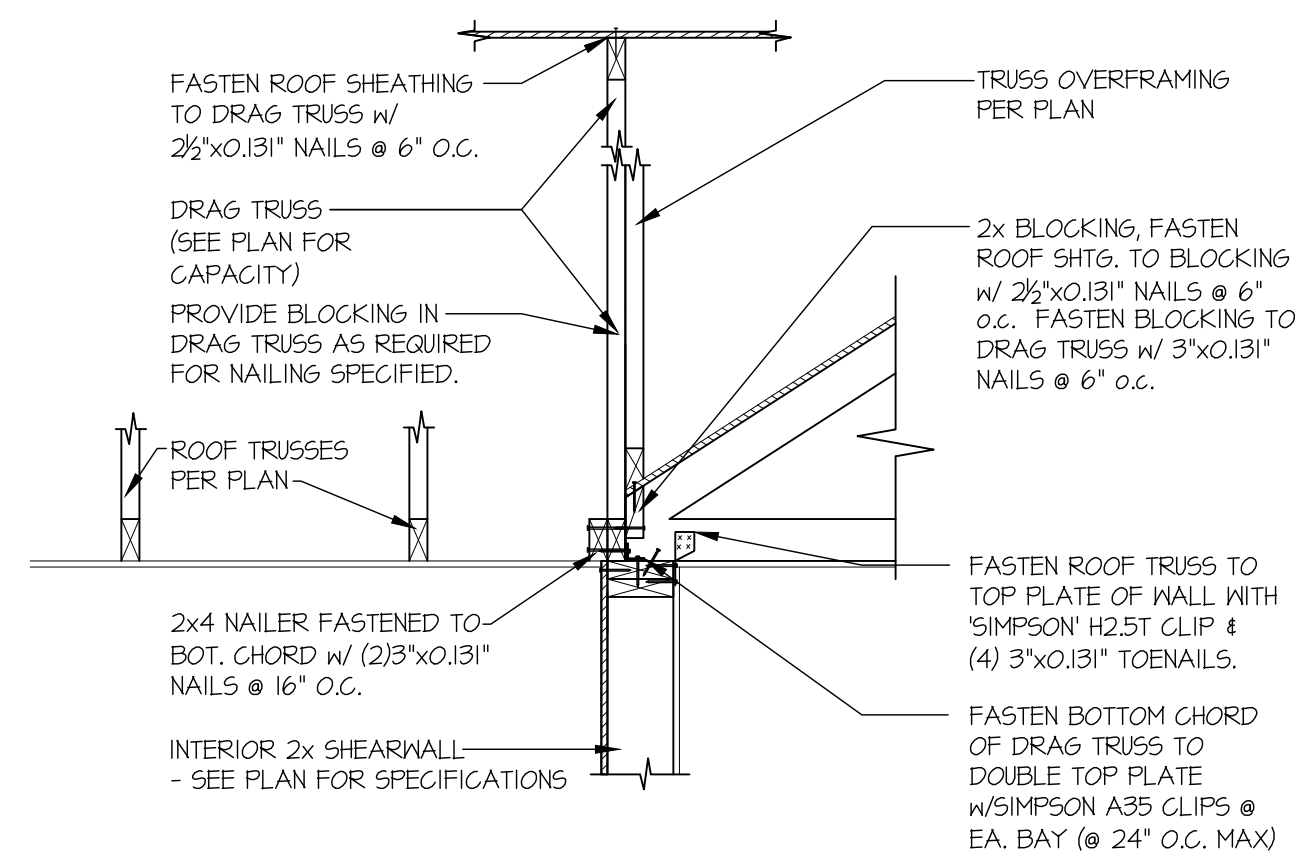
McCULLOUGH
ARCHITECTS
5801 6th Ave South, Suite 371
Seattle, WA 98106
206-463-1118
mccullougharchitects.com

STRUCTURAL DETAILS
SEARS PLAT - LOT 4
7414 - 78TH AVE SE
MERCER ISLAND, WASHINGTON

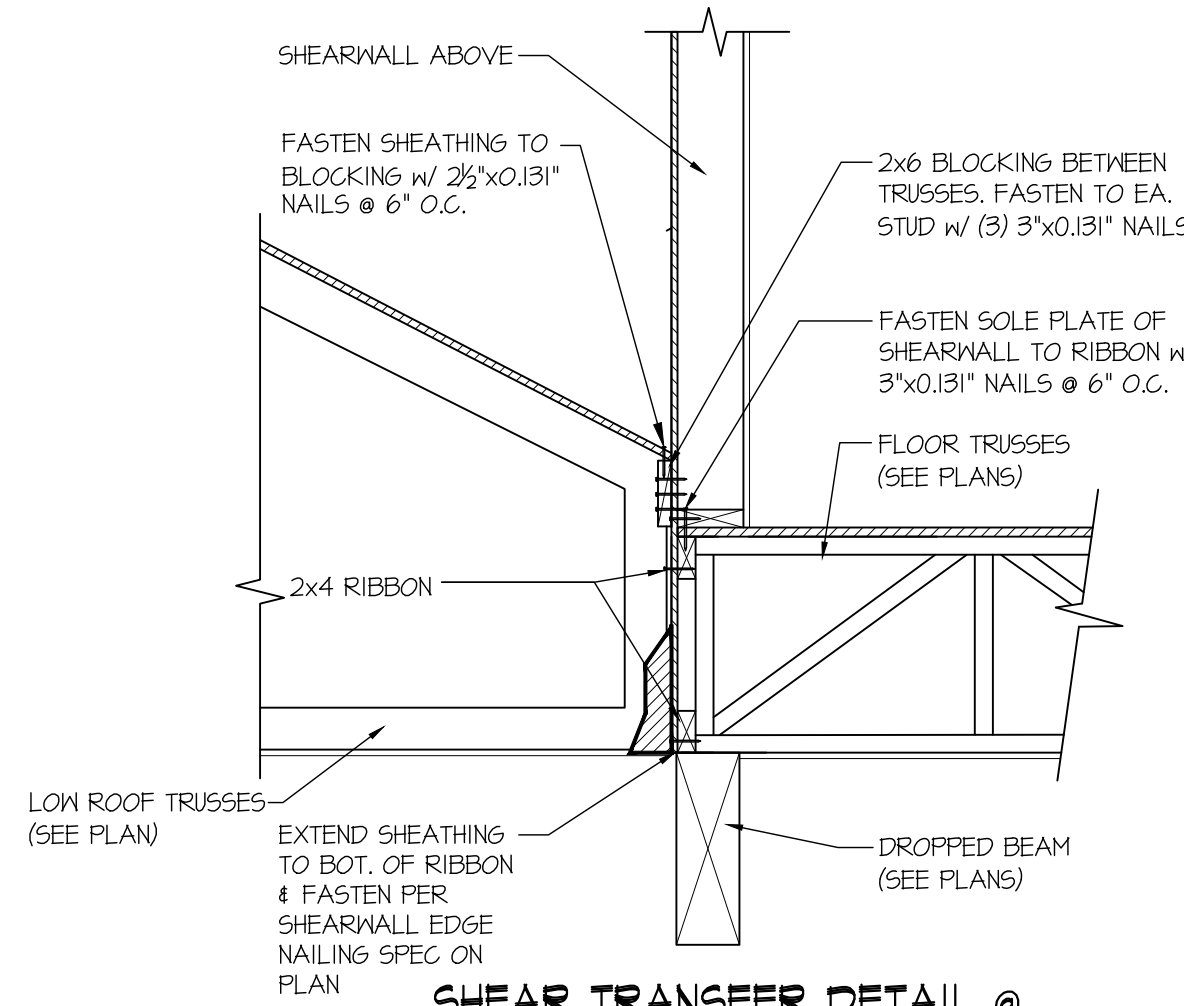
sheet:
SD-1



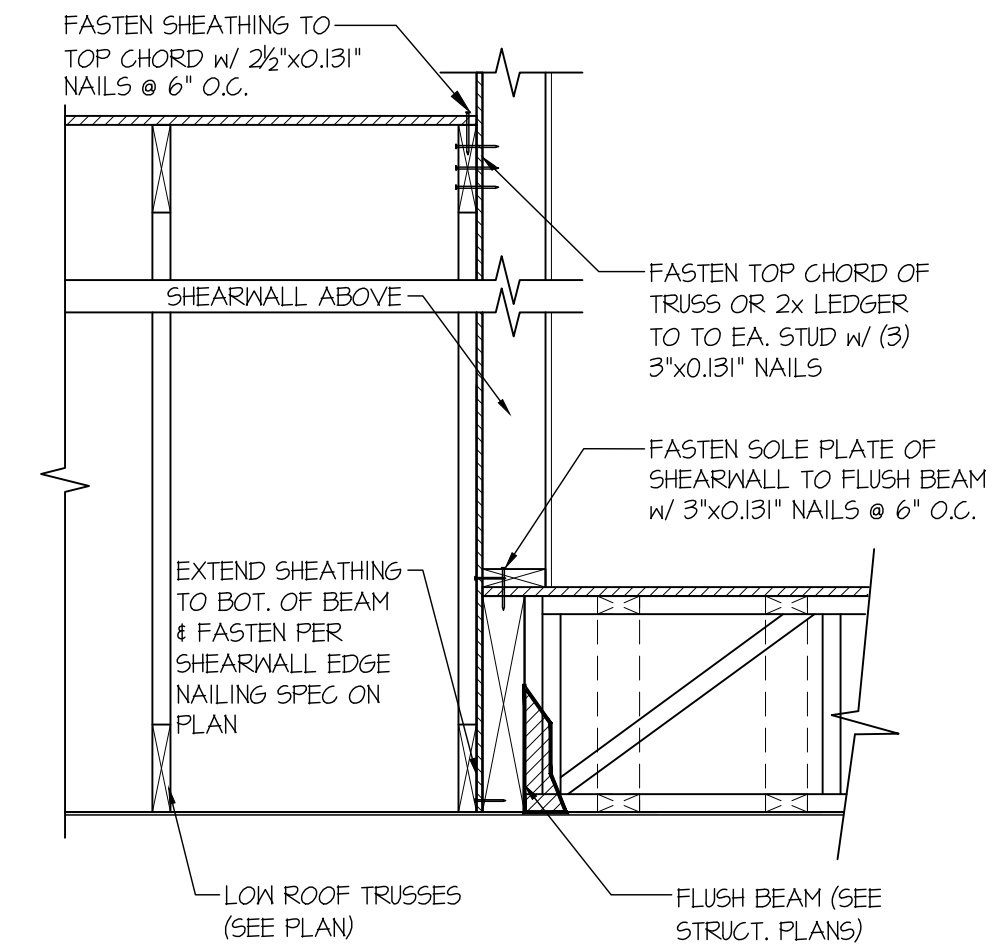
54 SHEAR TRANSFER DETAIL
AT INTERIOR SHEARWALL BELOW
SCALE: 3/4"=1'-0"



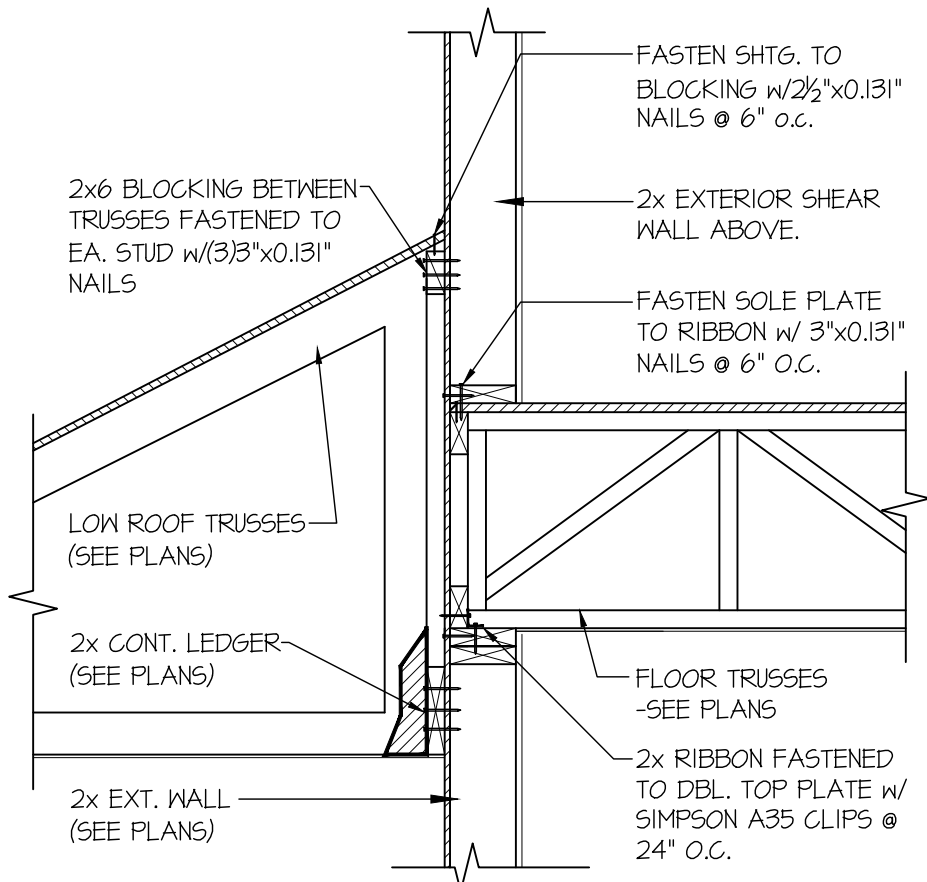
55 SHEAR TRANSFER DETAIL
AT INTERIOR SHEARWALL BELOW
SCALE: 3/4"=1'-0"



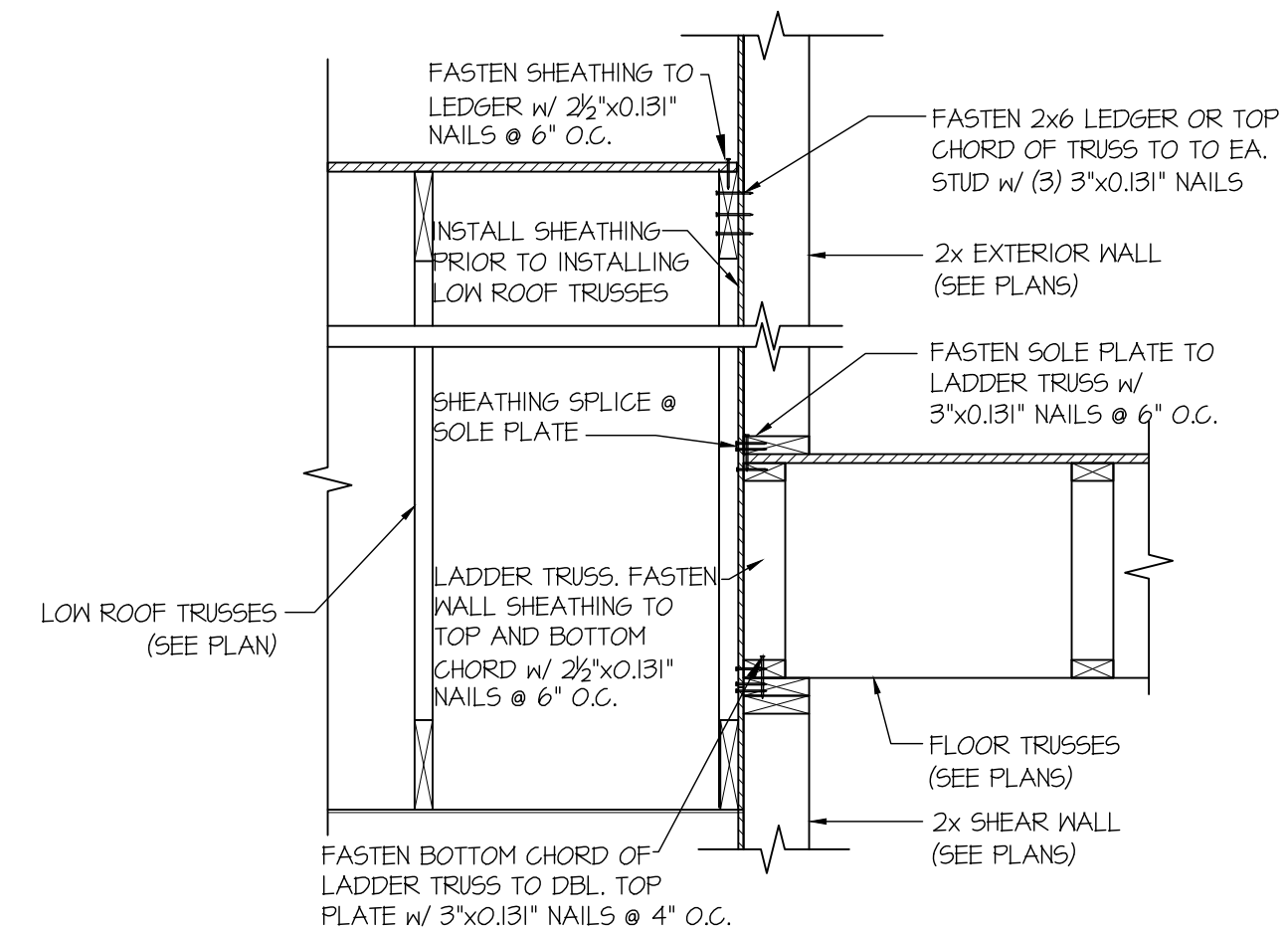
58 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



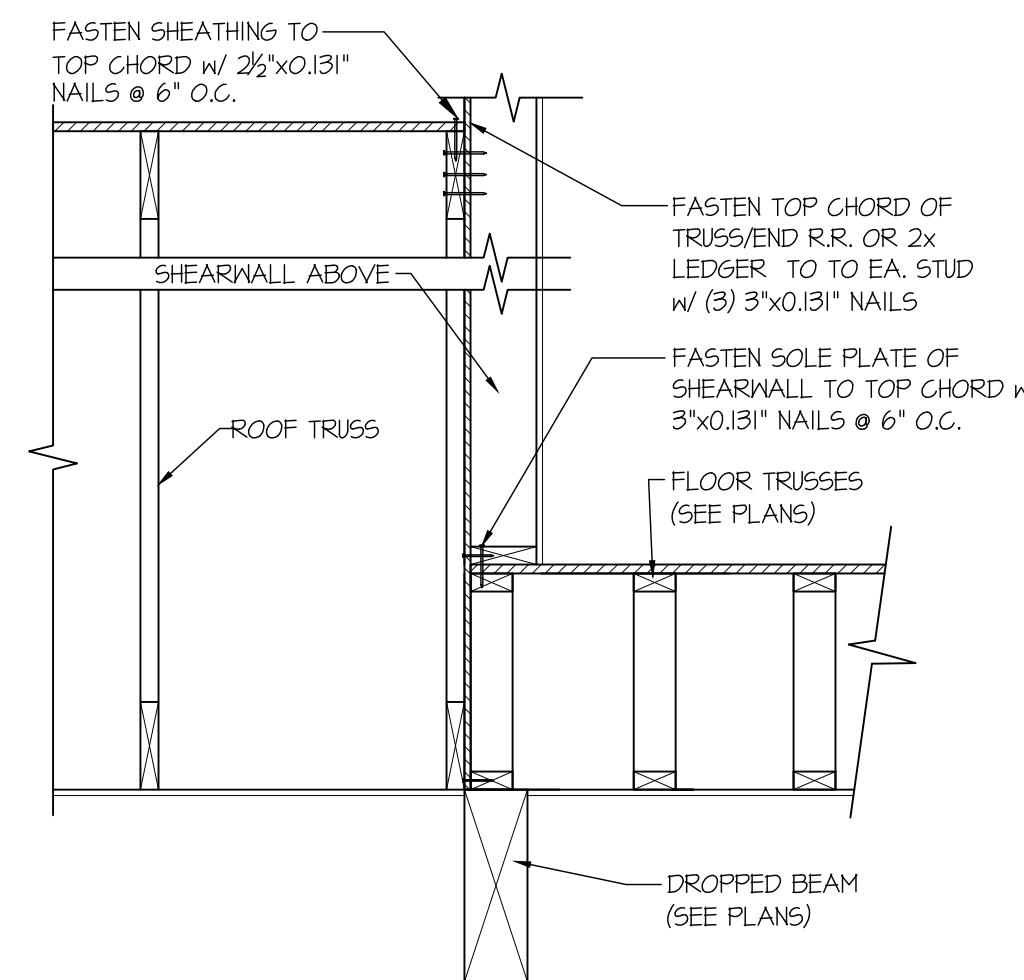
59 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"



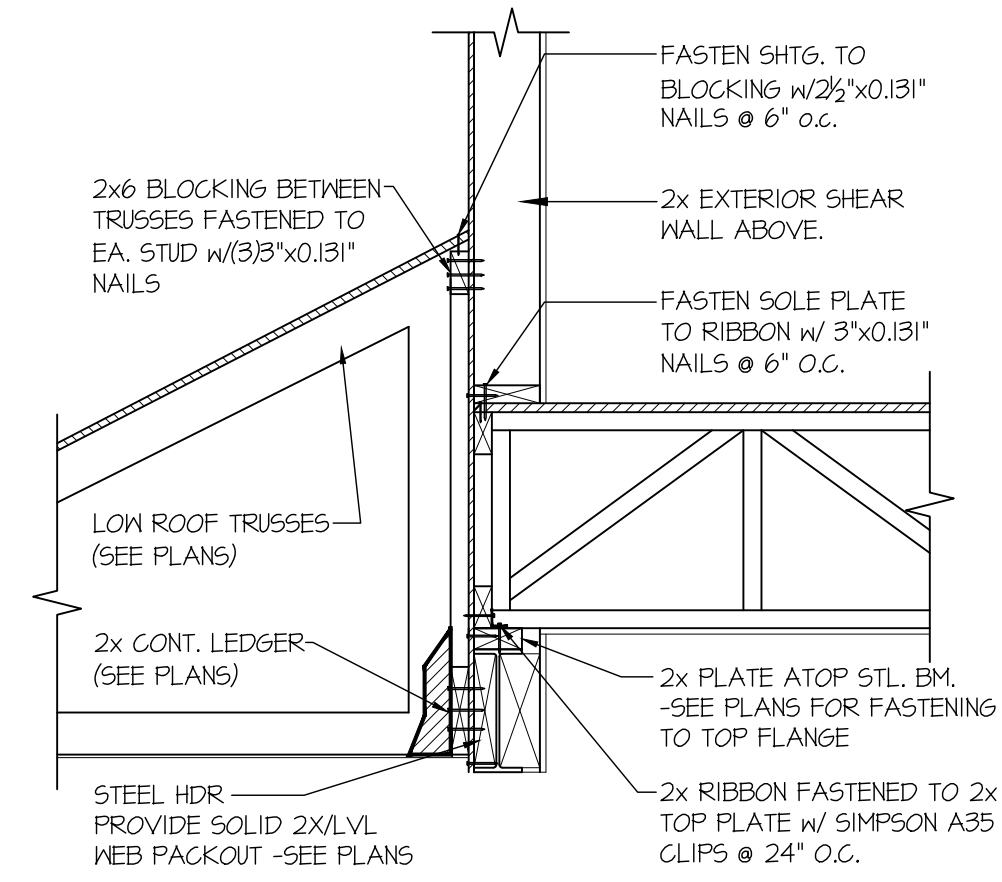
60 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



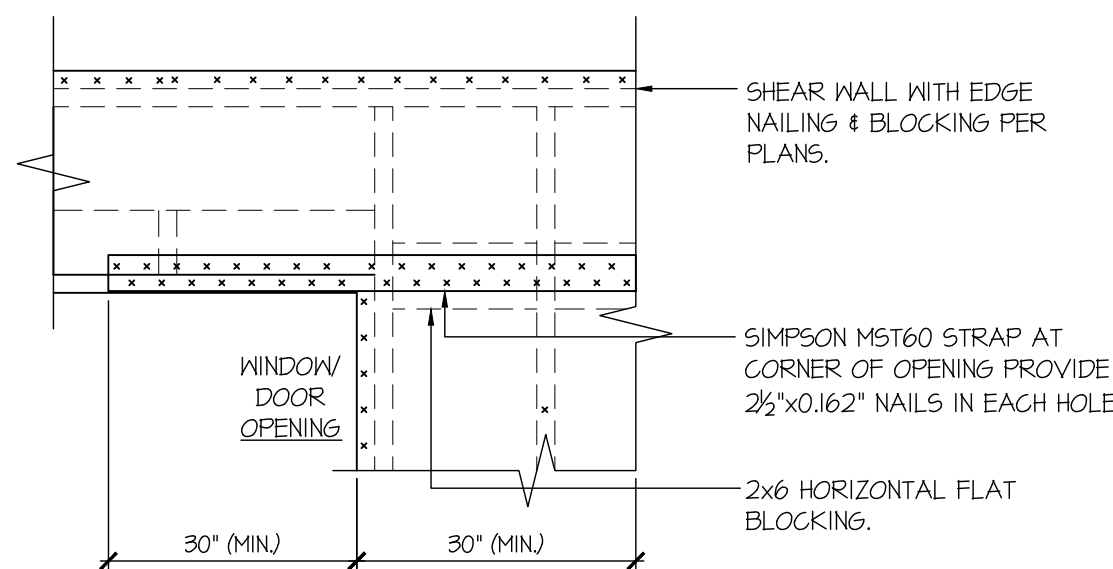
62 TYPICAL SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ INTERIOR WALL
SCALE: 3/4"=1'-0"



68 SHEAR TRANSFER DETAIL @
EXTERIOR SHEARWALL ABOVE
SCALE: 3/4"=1'-0"

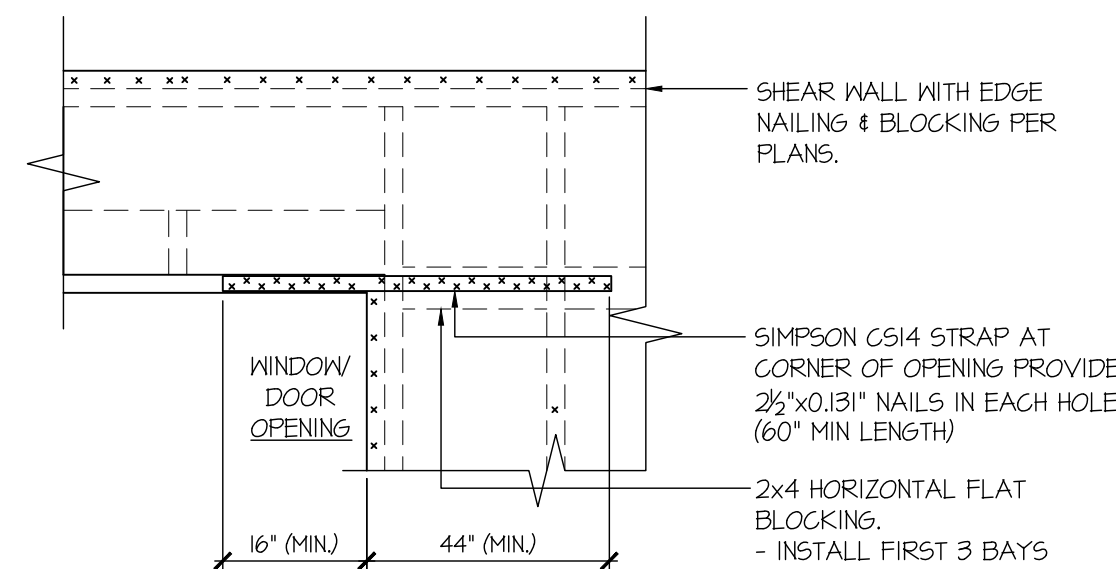


69 SHEAR TRANSFER DETAIL
BETWEEN FLOORS @ STEEL HDR
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



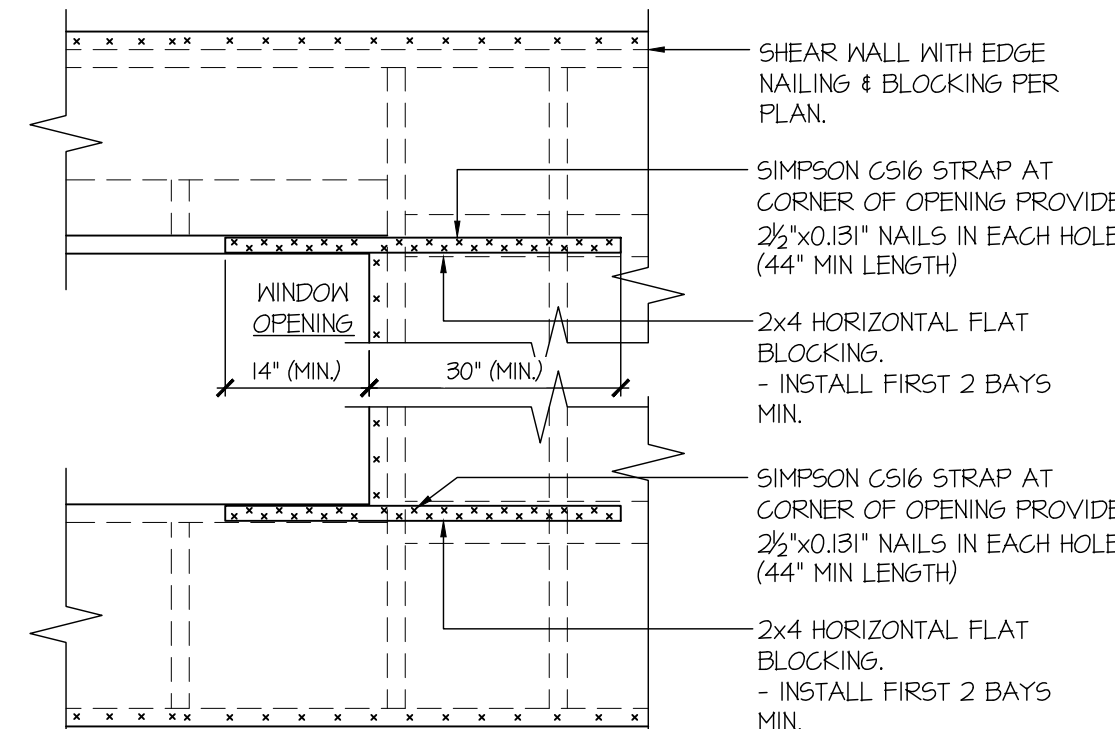
- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS

92 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS



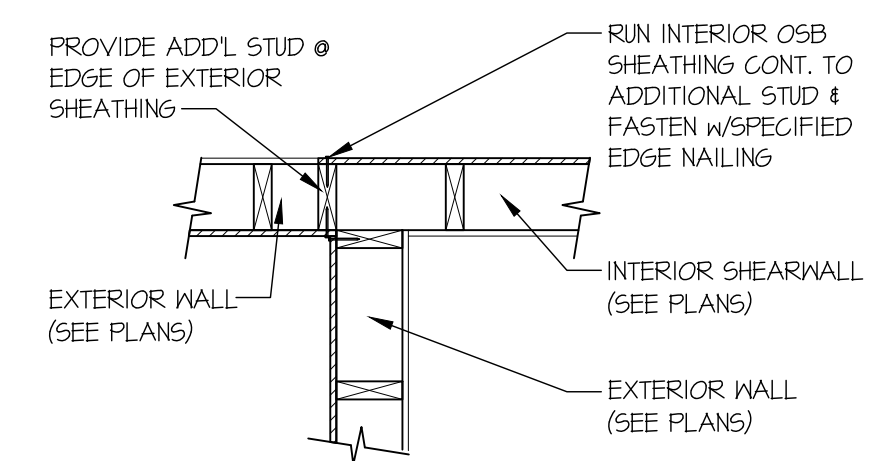
- DETAIL SIMILAR AT BOTTOM CORNERS OF WINDOWS.
- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

93 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS



- ONLY REQUIRED WHERE SPECIFIED ON STRUCTURAL PLANS
- IF MIN LENGTH IS NOT PROVIDED RUN STRAP TO END OF WALL

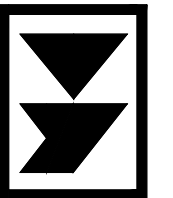
94 EXT. WALL & INT. SHEARWALL
OPENING ELEVATION
SCALE: NTS



99 SHEAR TRANSFER DETAIL @
INTERSECTING INT. SHEARWALL
SCALE: 3/4"=1'-0" SHTG. OPPOSITE FACES



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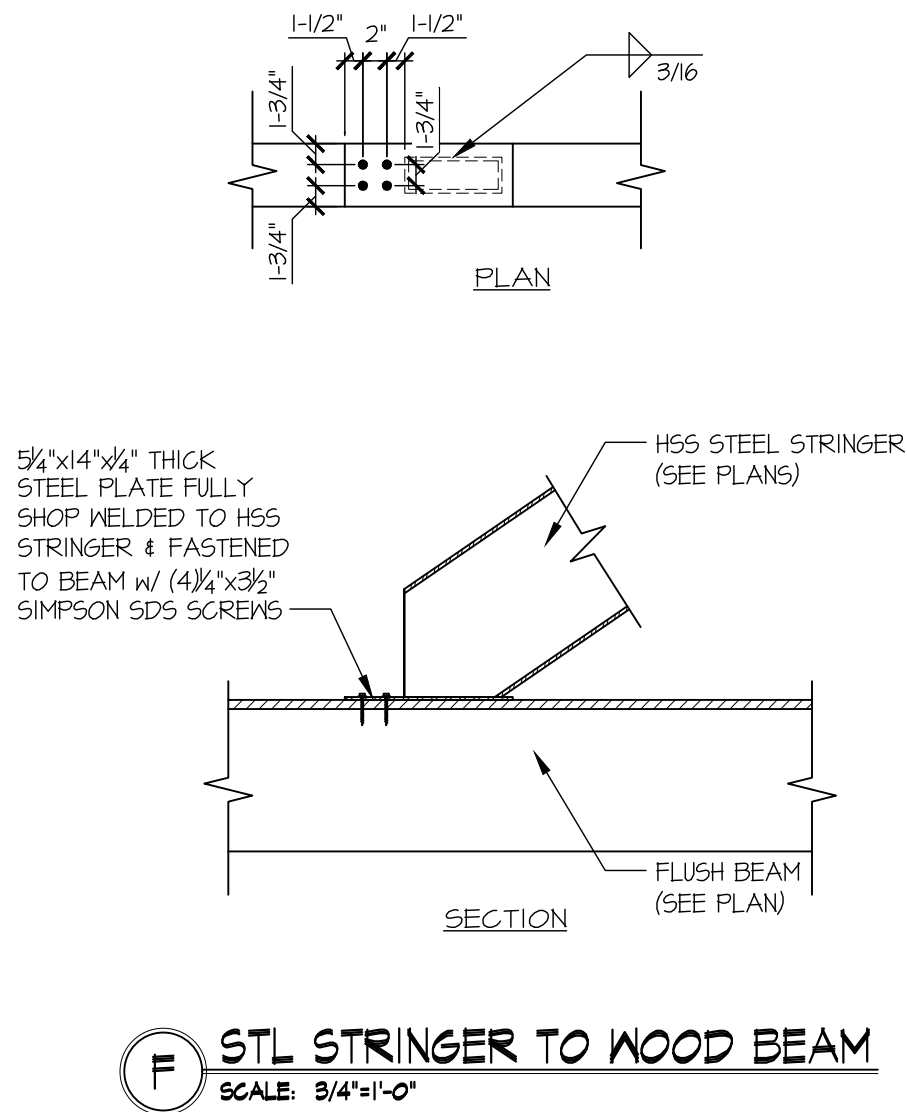
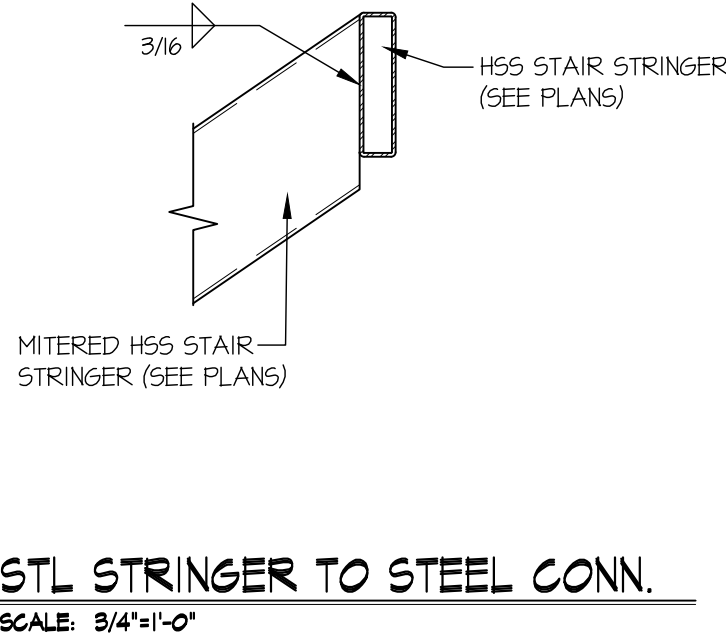
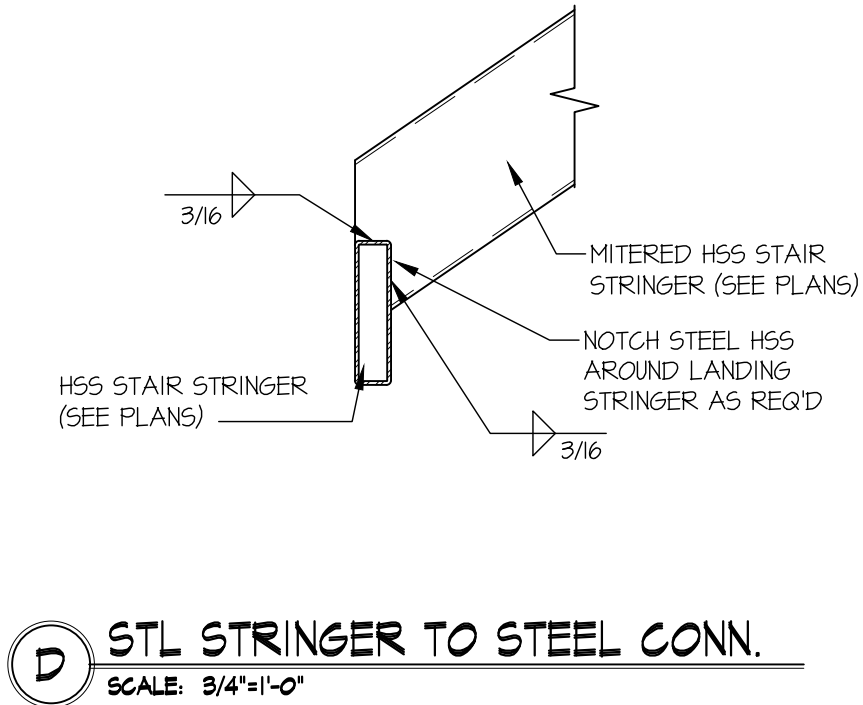
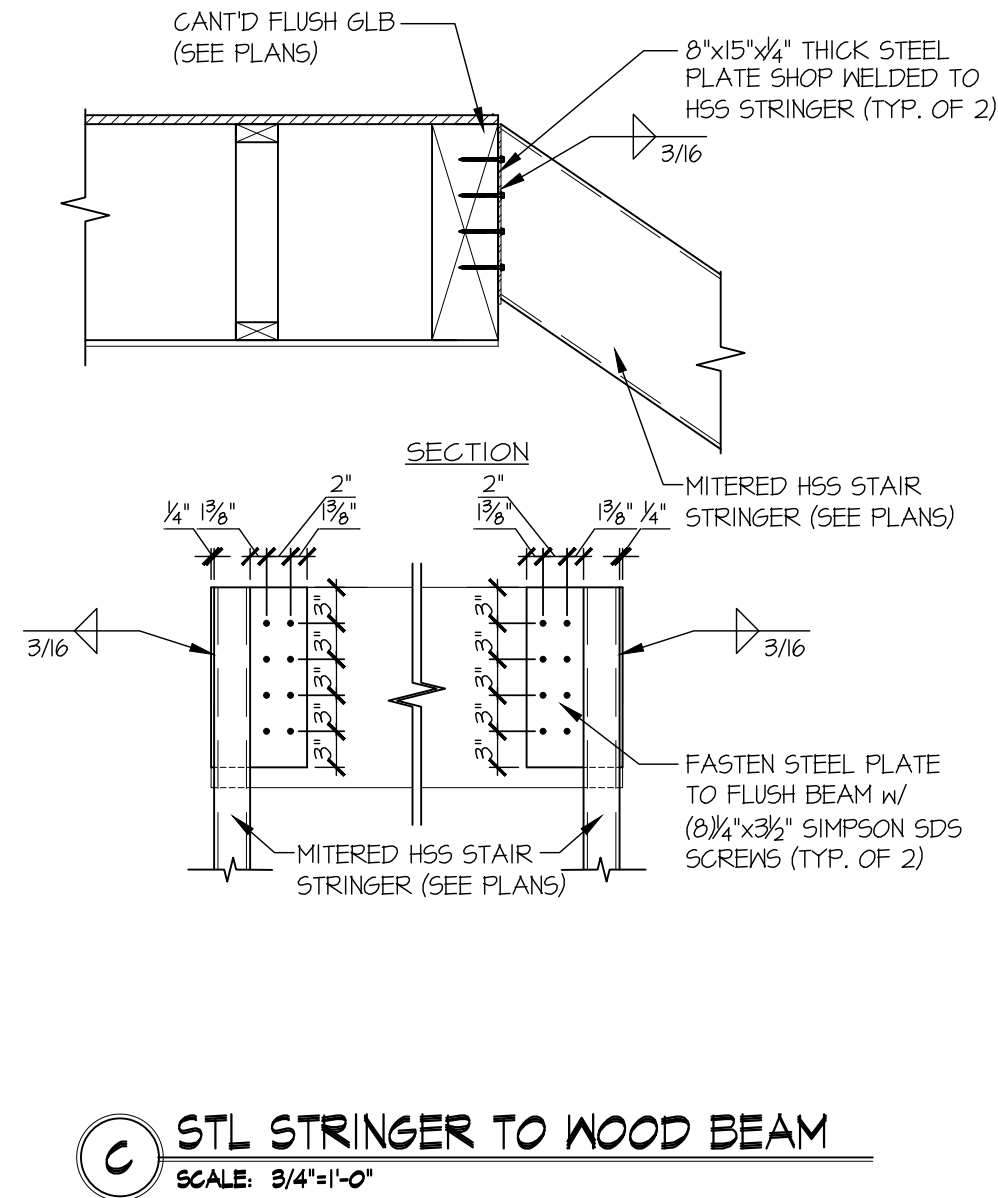
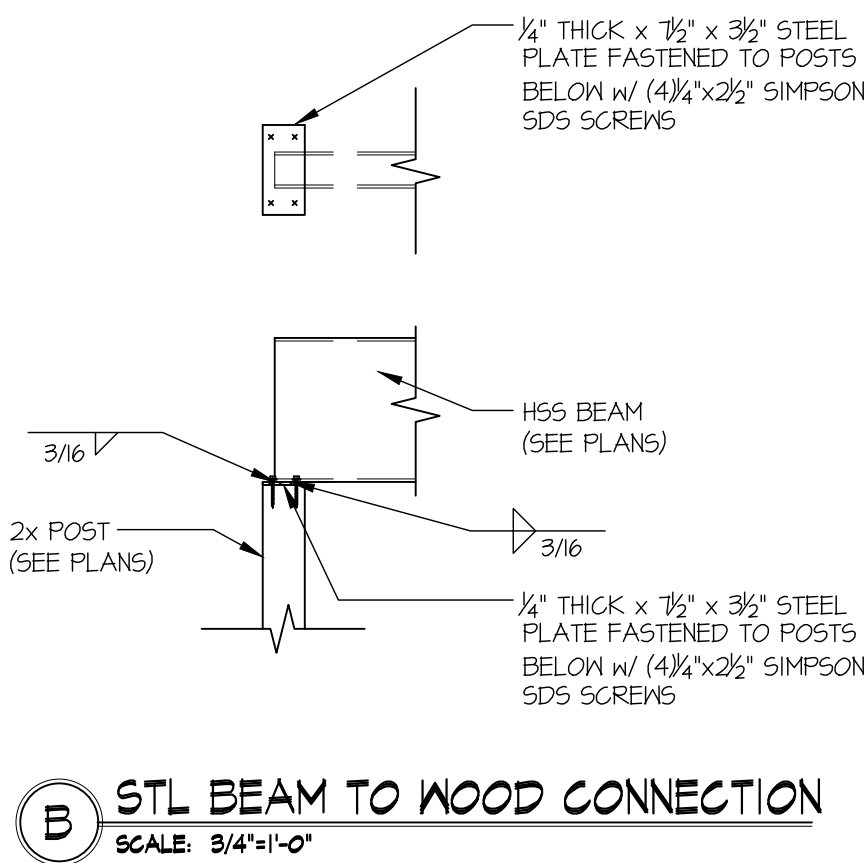
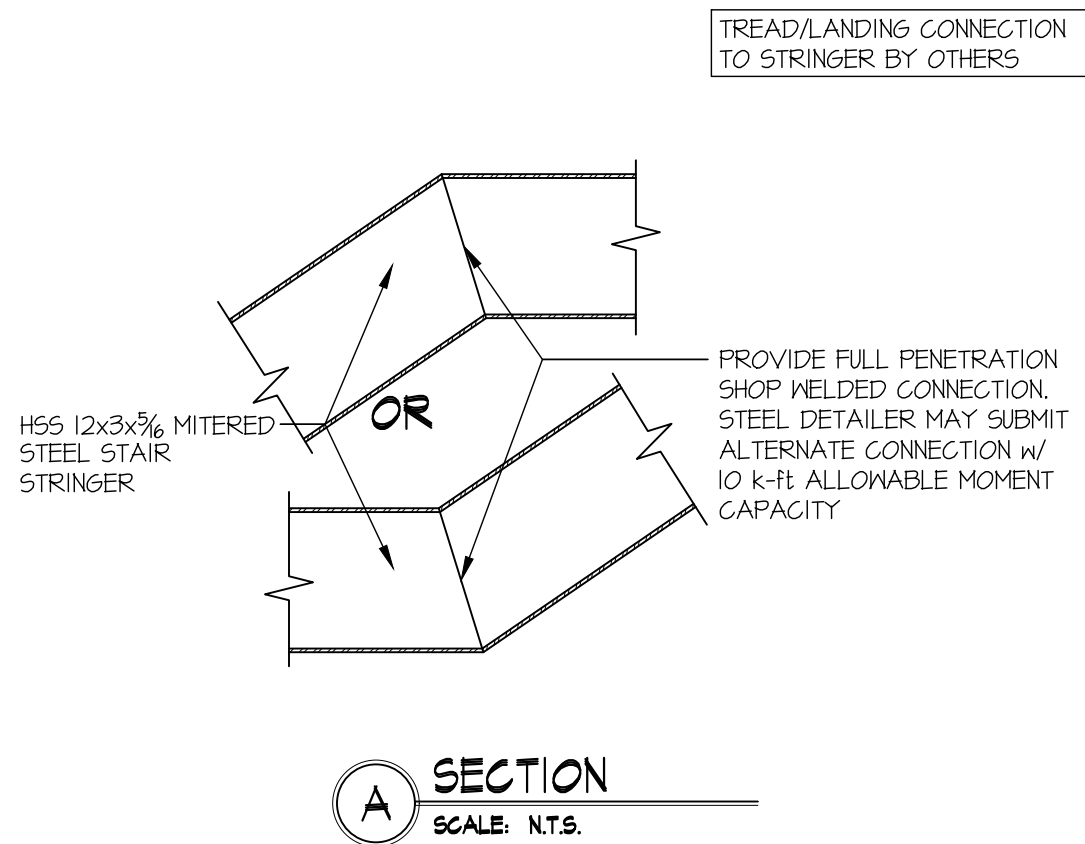
project mgr: NJM
drawn by: AJC
issue date: 12-01-25

REVISIONS:
date: initial:

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STRUCTURAL DETAILS
SEARS PLAT - LOT 4
7414 - 78TH AVE SE
MERCER ISLAND, WASHINGTON

sheet:
SD-2



M&K project number:
244-25022

project mgr: NJM
drawn by: AJC
issue date: 12-01-25

REVISIONS:

date:	initial:



STRUCTURAL DETAILS

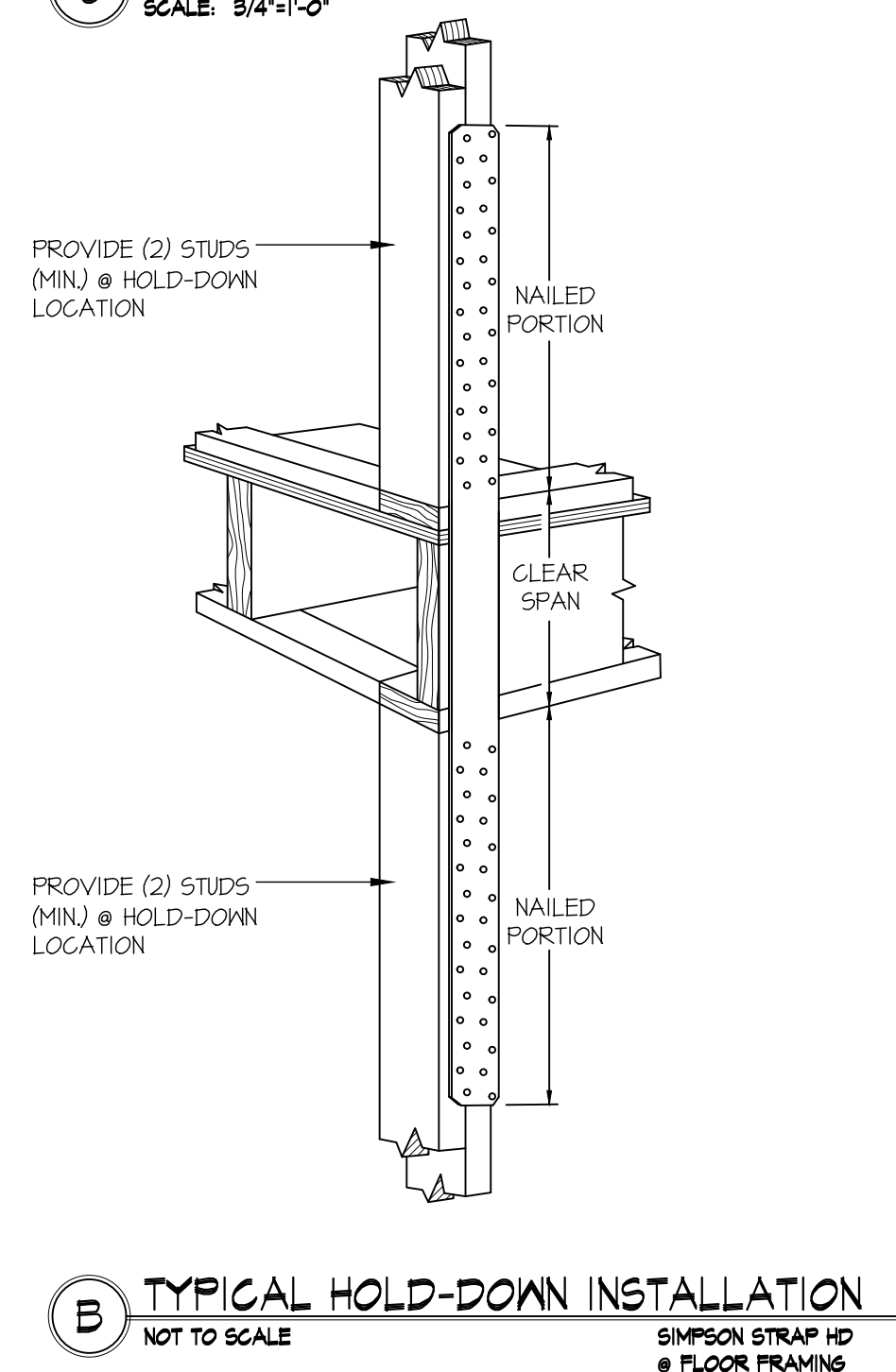
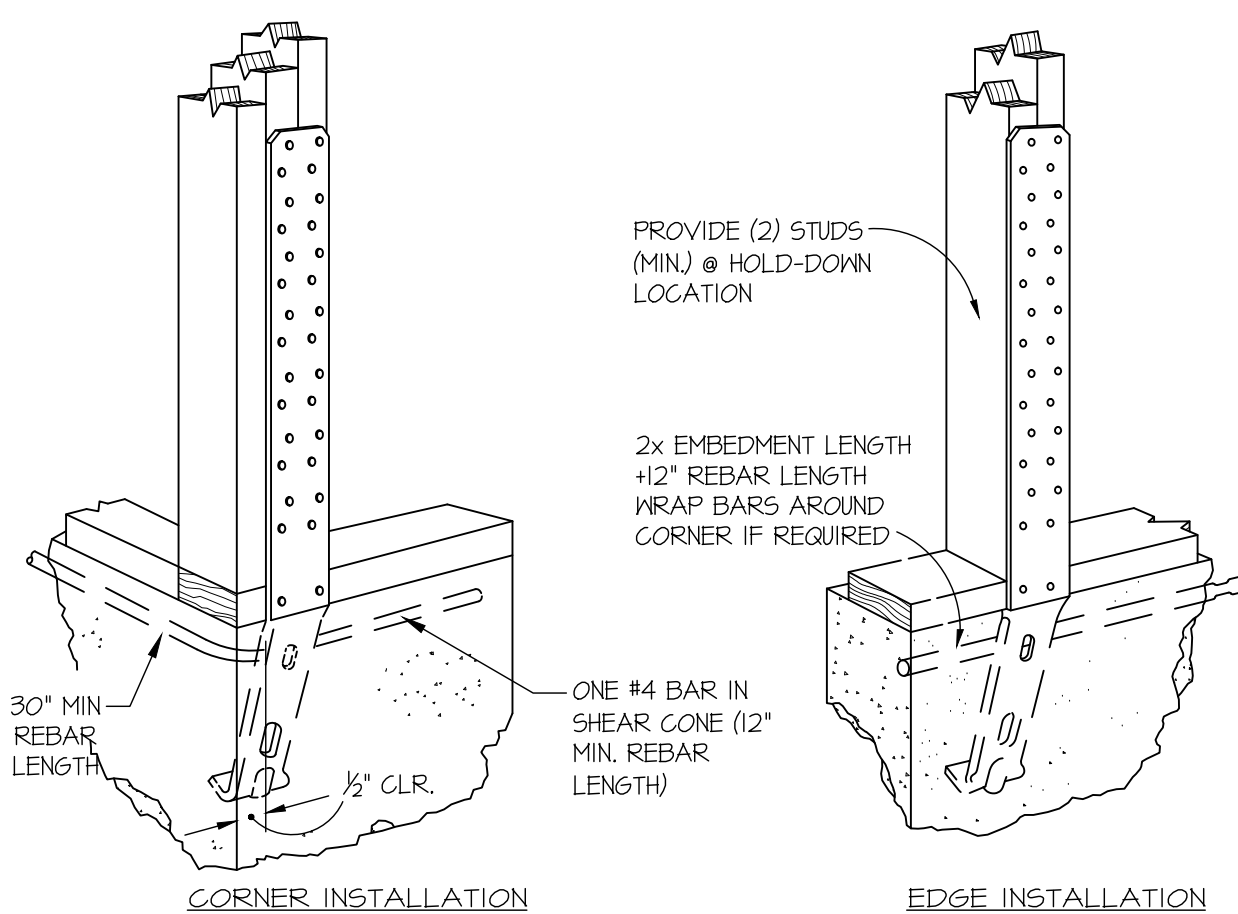
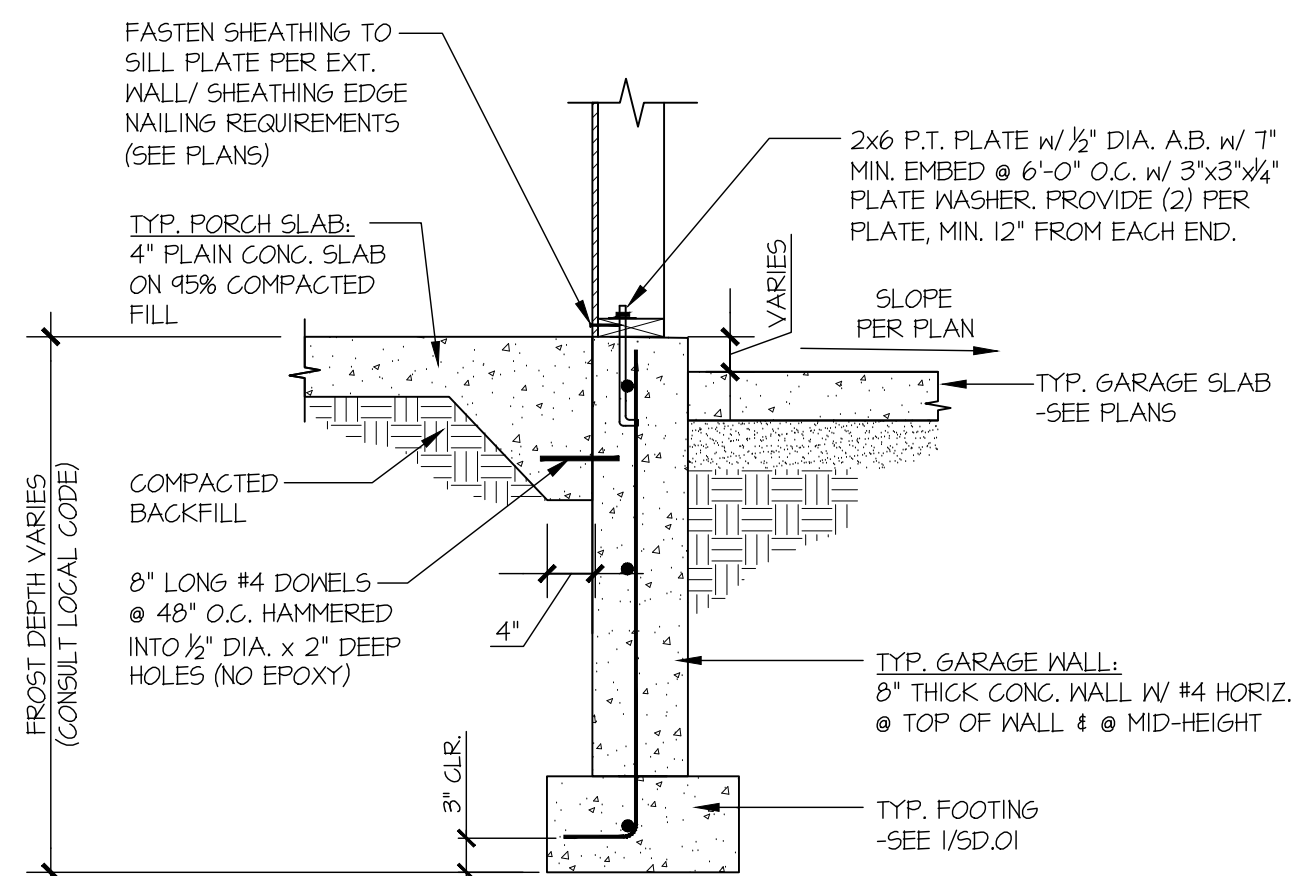
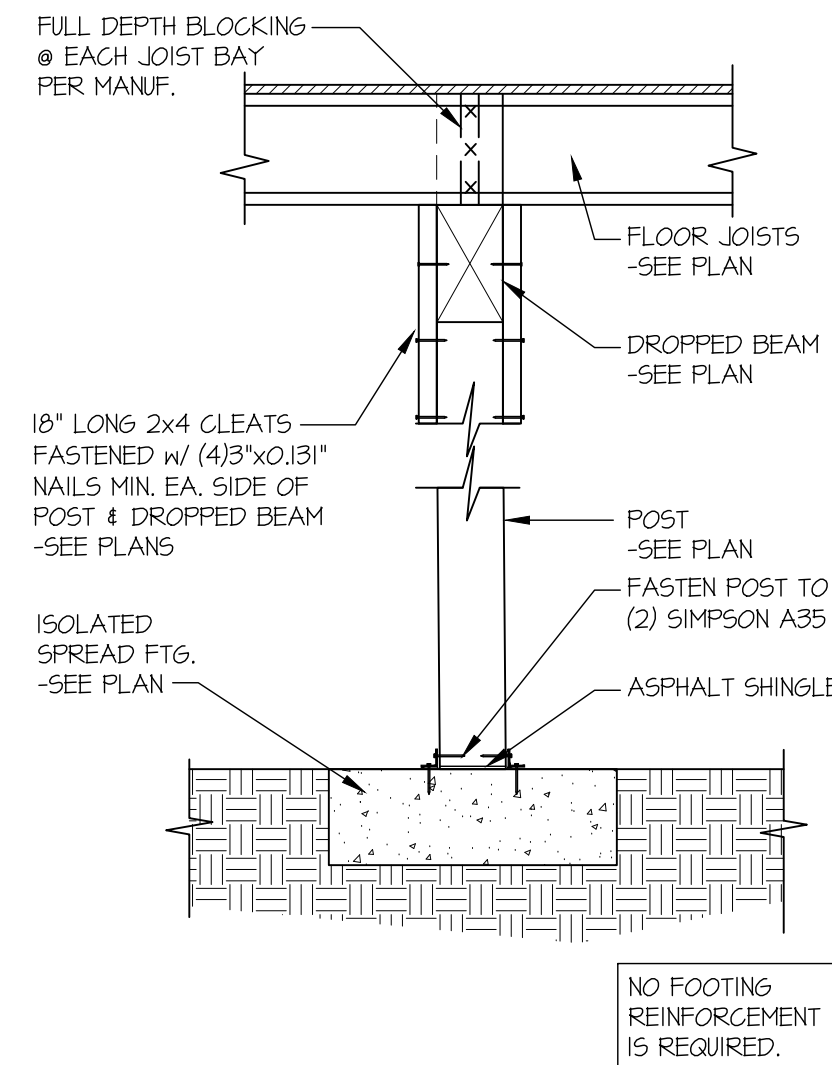
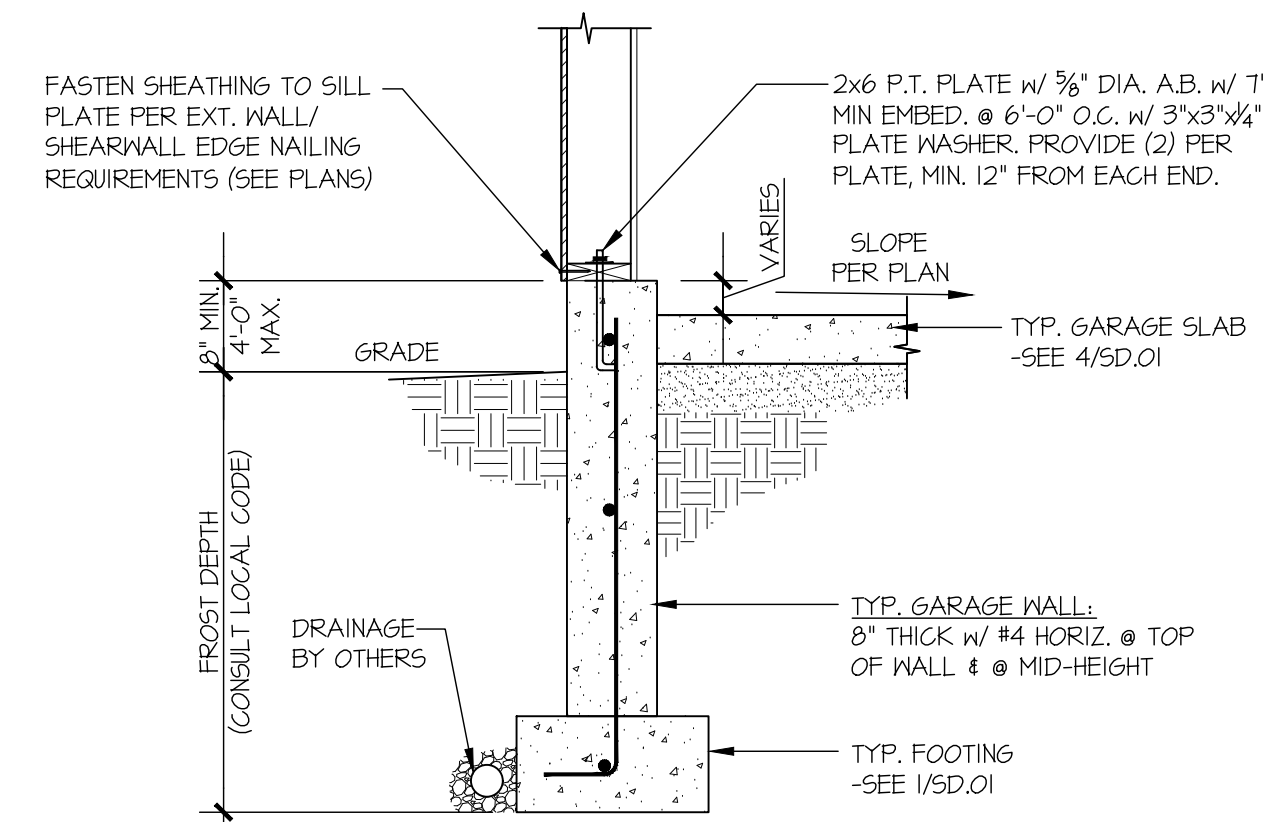
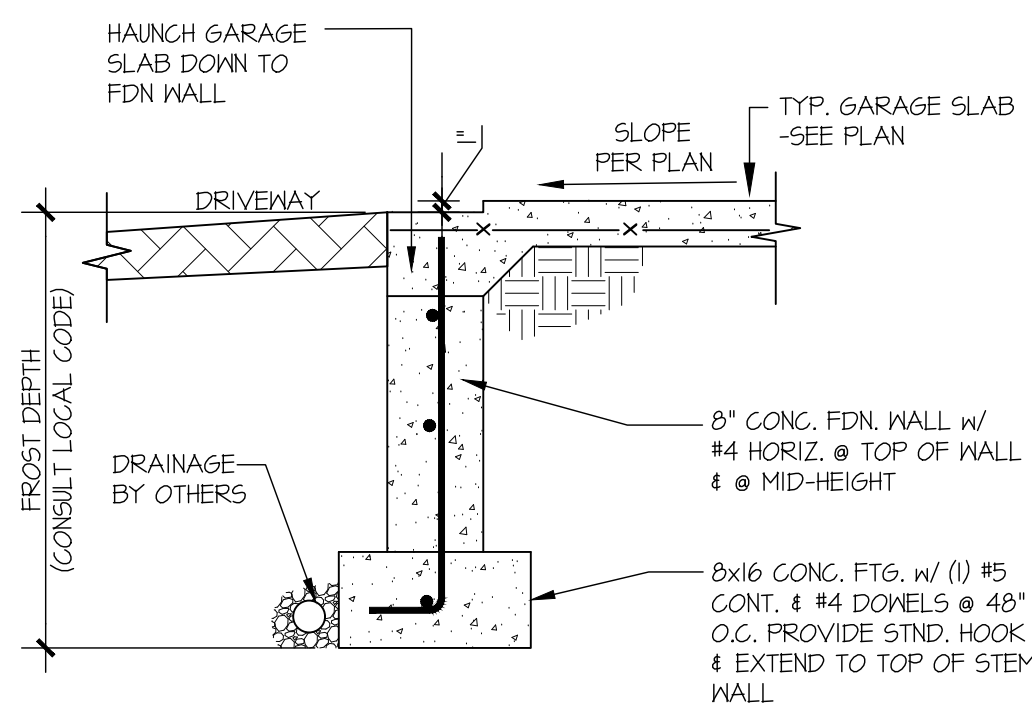
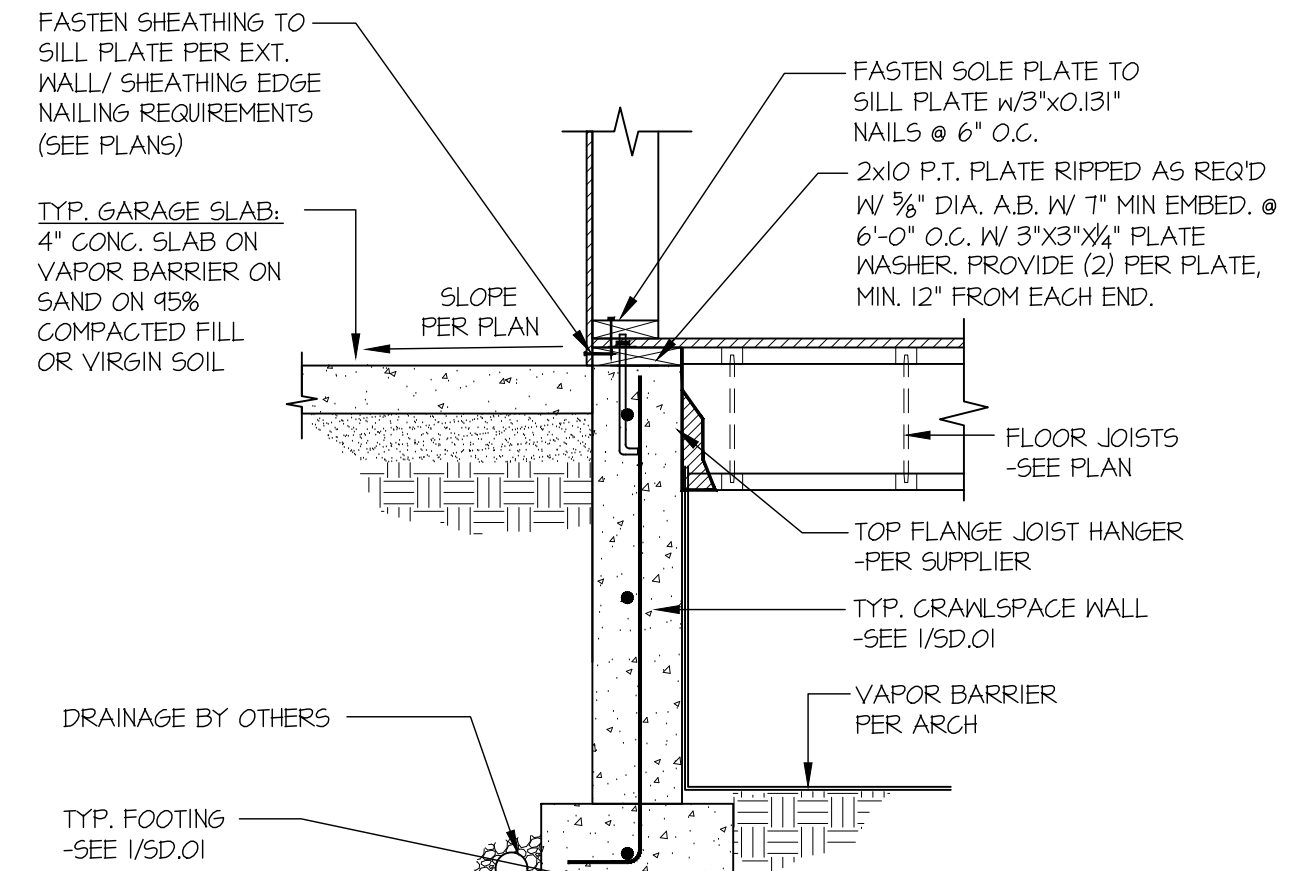
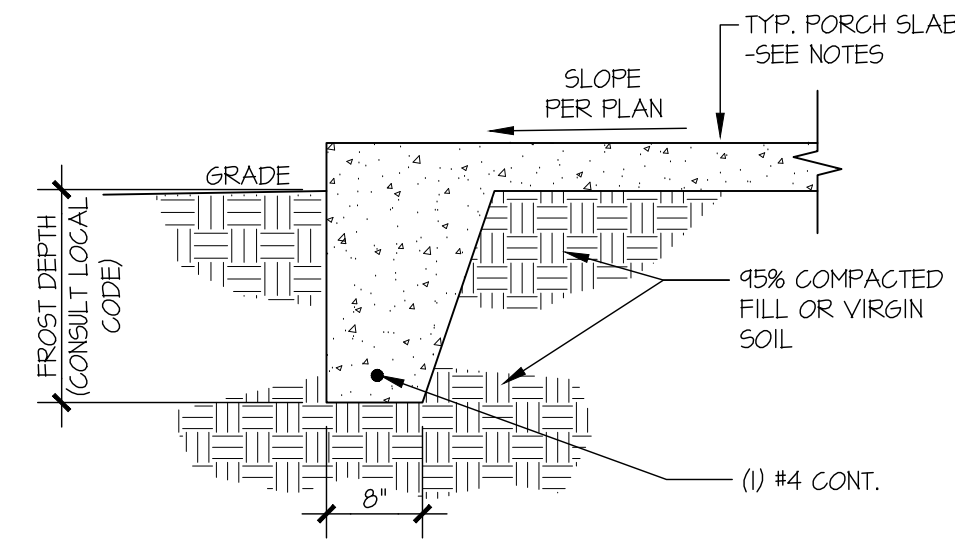
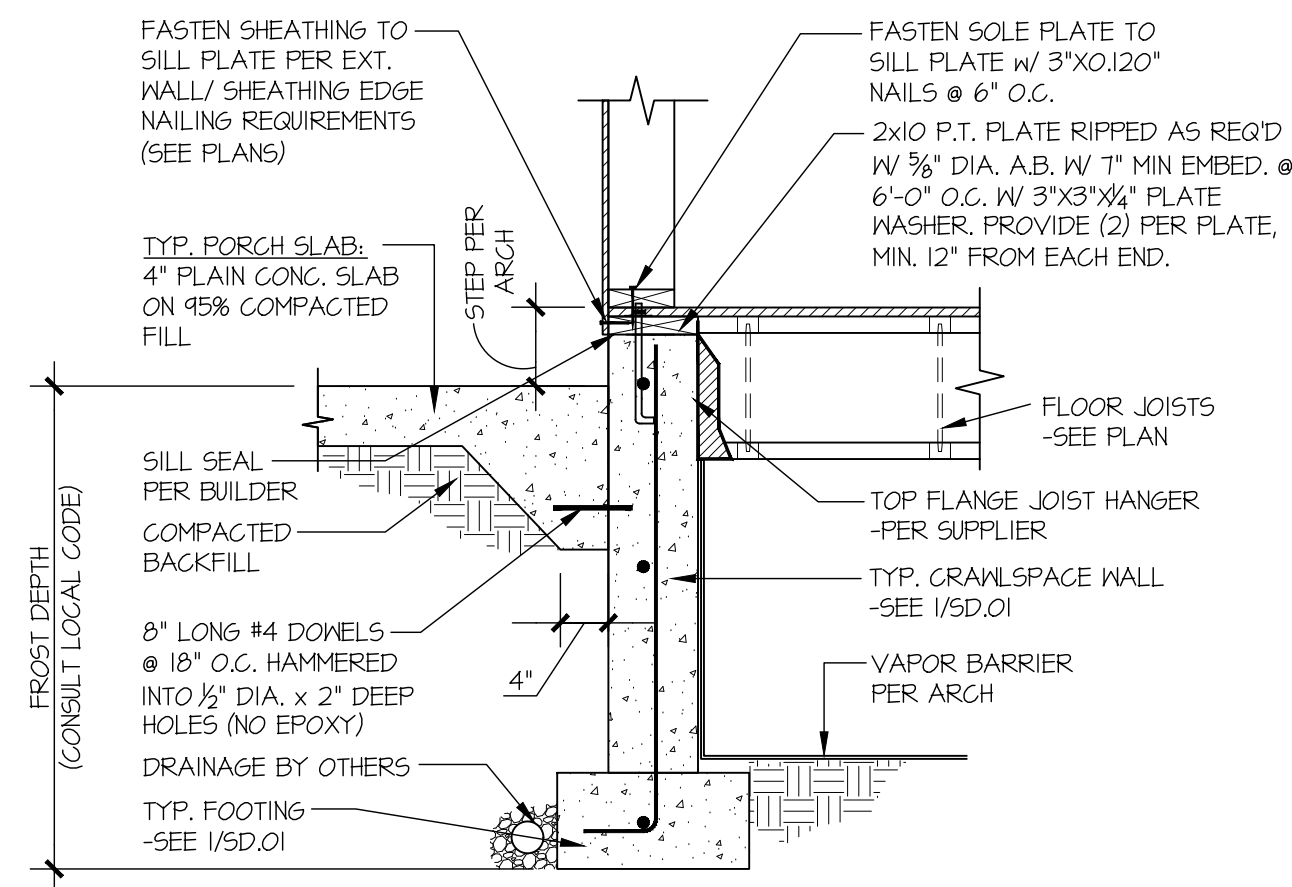
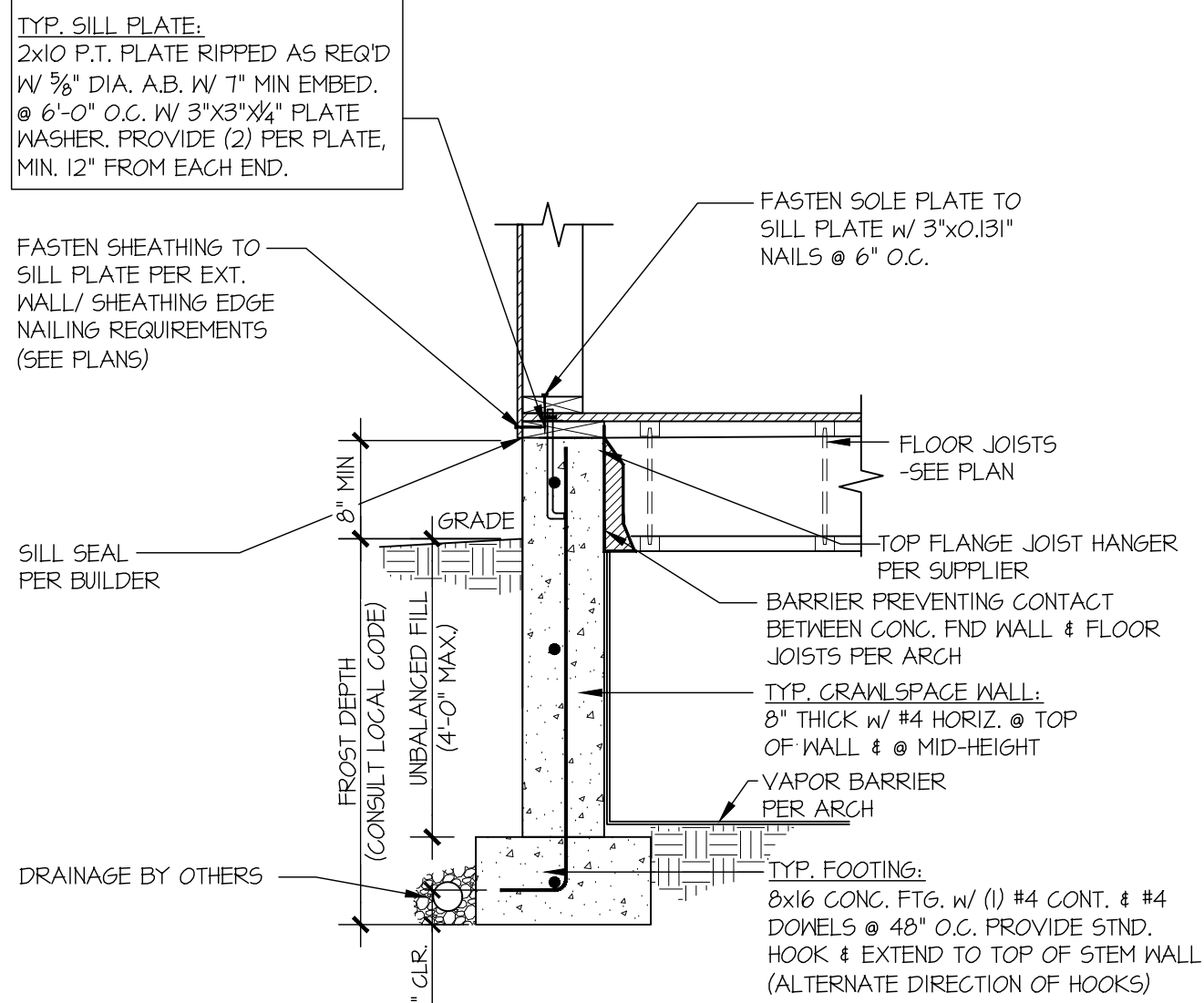
SEARS PLAT - LOT 4

7414 - 78TH AVE SE

MERCER ISLAND, WASHINGTON

sheet:

SD-3



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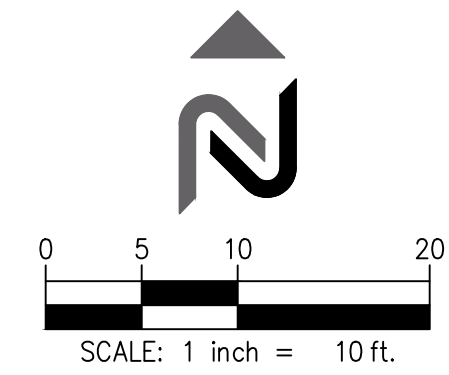
project mgr: NJM
drawn by: AJC
issue date: 12-01-25

REVISIONS:
date: initial:

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mccullougharchitects.com

FOUNDATION DETAILS
SEARS PLAT - LOT 4
7414 - 78TH AVE SE
MERCER ISLAND, WASHINGTON

sheet:
SD.01



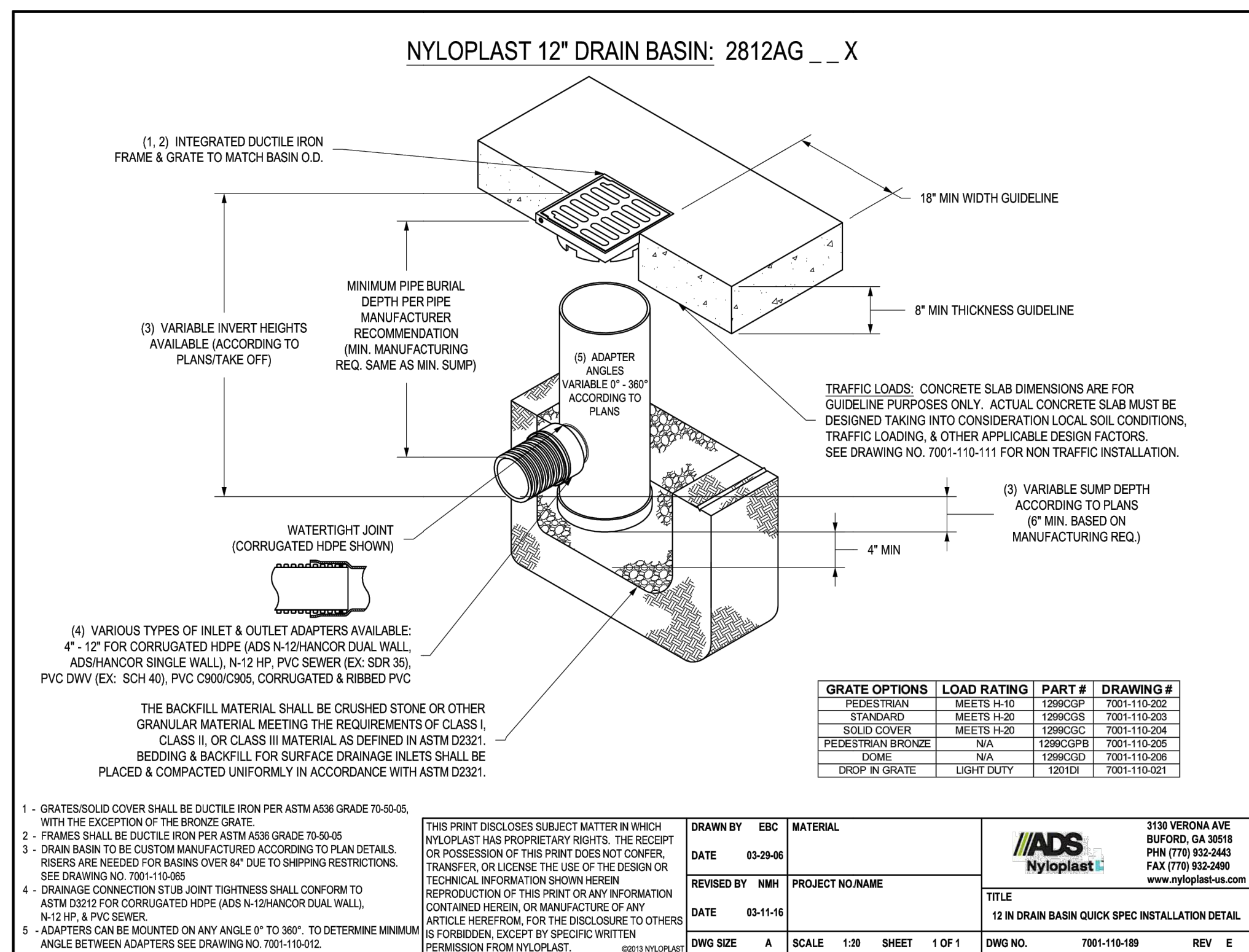
	PROPERTY LINE
	BUILDING LINE
401	MINOR CONTOUR
400	MAJOR CONTOUR
---	RIDGE LINE
	SPOT ELEVATION
	SLOPE ARROWS
	ROCKERY
	CIP CONCRETE WALL
	ASPHALT
	CONCRETE DRIVEWAY
	LANDSCAPE
	4" PERF PVC FOUNDATION DRAIN LINE
	6" PVC ROOF STORM DRAIN LINE
	FOUNDATION DRAIN
	STORM CLEANOUT
	NYOPLAST DRAIN PER DETAIL 1 THIS SHEET

LOT INFORMATION				
		LOT COVERAGE CALCULATIONS		
LOT#	LOT AREA (SF)	GROSS MAX LOT COVERAGE ALLOWED (% / SF)		GROSS MAX LOT COVERAGE PROVIDED (% / SF)
4	12,637	40%	5,055	38% 4,780

1. MONITORING OF EROSION CONTROL.
2. OBSERVATION AND MONITORING OF EXCAVATION
3. SUBSURFACE DRAINAGE INSTALLATION.

3. THE SPOT ELEVATIONS INDICATED ON THIS PLAN REPRESENT THE DESIGN TOP OF PAVEMENT OR SURFACE, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
3. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS IN ACCORDANCE WITH LOCAL SPECIFICATION.
4. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDING FOR ALL NATURAL AND PAVED AREAS AND SHALL GRADE ALL AREAS TO PRECLUDE PONDING OF WATER.
6. ALL POLLUTANTS OTHER THAN SEDIMENT ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
7. PROPERTIES AND WATERWAYS DOWNSTREAM OF THE SITE SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM PROJECT SITE.
8. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
9. CONTRACTOR TO REMOVE UNSUITABLE SOILS LOCATED WITHIN THE BUILDINGS FOOTING AREA.
10. FOR BOUNDARY AND TOPOGRAPHIC INFORMATION REFER TO PROJECT SURVEY AND FINAL ENGINEERING PLANS.
11. ALL GRADING, SITE PREPARATION, AND EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL ENGINEERING REPORT, PREPARED BY TERRA ASSOCIATES, INC, DATE SEPTEMBER 5, 2024.
12. ALL FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT AND COMPACTION.
13. IF NEW FILL IS PLACED OVER EXISTING SLOPES OF 20% OR GREATER, THE STRUCTURAL FILL SHOULD BE KEYED AND BENCHED INTO COMPETENT NATIVE SOILS. SEE FIGURE 4 ON SHEET C-2.6.
14. ALL EXISTING TREES THAT CAN FEASIBLY BE RETAINED WILL BE PRESERVED. CONTRACTOR WILL WORK WITH CITY ARBORIST AND OTHER STAFF TO MAXIMIZE TREE RETENTION.
15. THE TOTAL IMPERVIOUS SURFACE ON LOT WILL NOT EXCEED THE NET MAXIMUM LOT COVERAGE AREA.

1. THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP 15.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.
2. POST CONSTRUCTION SOIL AMENDMENT IS REQUIRED ON ALL AREAS NOT COVERED BY HARD SURFACE WHERE SOIL IS DISTURBED DURING CONSTRUCTION.
3. SOIL AMENDMENT MUST PASS A 12 INCH MINIMUM PROBE TEST.
4. IMPORT TOPSOIL, IF USED, MUST MEET THE REQUIREMENTS OF THE 2012 DEPARTMENT OF ECOLOGY STORMWATER, VOLUME 5.
5. A TOPSOIL LAYER WITH A MINIMUM ORGANIC MATTER CONTENT OF 10% DRY WEIGHT IN PLANTING BEDS, AND 5% ORGANIC MATTER CONTENT IN TURF AREAS, AND A PH FROM 6.0 TO 8.0 OR MATCHING THE PH OF THE UNDISTURBED SOIL, THE TOPSOIL LAYER SHALL HAVE A MINIMUM DEPTH OF EIGHT INCHES EXCEPT WHERE TREE ROOTS LIMIT THE DEPTH OF INCORPORATION OF AMENDMENTS NEEDED TO MEET THE CRITERIA. SUBSOILS BELOW THE TOPSOIL LAYER SHOULD BE SCARIFIED AT LEAST 4 INCHES WITH SOME INCORPORATION OF THE UPPER MATERIAL TO AVOID STRATIFIED LAYERS, WHERE FEASIBLE.
6. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL.
7. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BMP 17.30: BIOTRENTION, WITH THE EXCEPTION THAT THE COMPOST MAY HAVE UP TO 35% BIOSOLIDS OR MANURE. THE COMPOST MUST ALSO HAVE AN ORGANIC MATTER CONTENT OF 40% TO 65%, AND A CARBON TO NITROGEN RATIO BELOW 25:1.



N.T.S.

1



CLIENT/OWNER

PROJECT NAME

NAVIX PROJECT NUMBER: 50-215-004

PROJECT ADDRESS

7414 78TH AVE SE
MERCER ISLAND, WA 98040

[illegible]

SECTION, TOWNSHIP, RANGE:
SECTION 25, TOWNSHIP 24 NORTH,
RANGE 4 EAST, W.M.

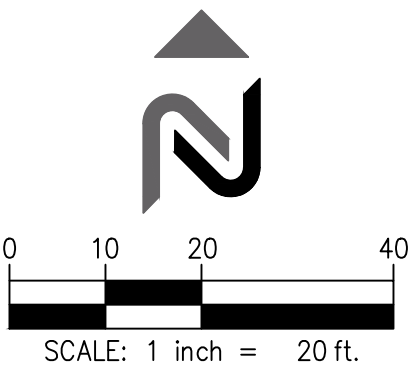
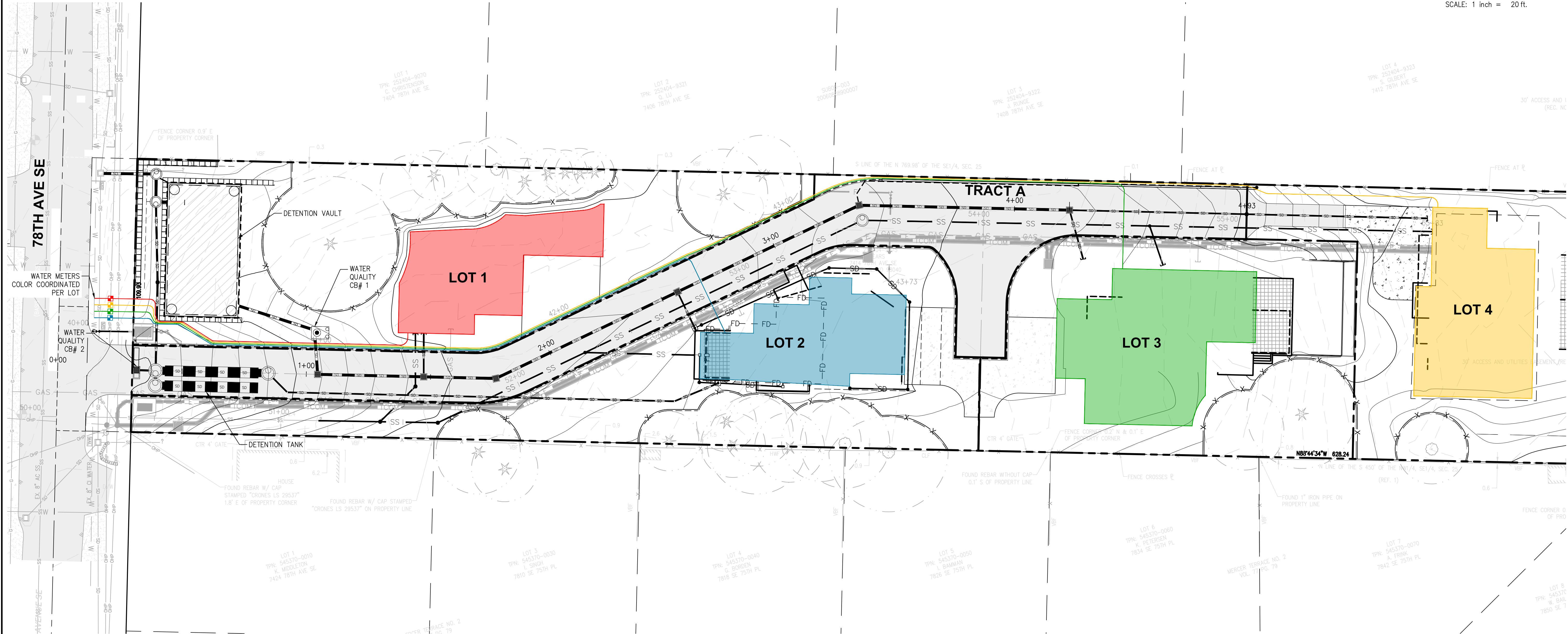
PROJECT TEAM

REVIEWED BY: J. TAFLIN
DESIGNED BY: B. MCMURTRY

SHEET NAME

SHEET NUMBER

C4.3



LEGEND:

— — — — —	LIMIT OF DISTURBANCE
— X — X —	TREE PROTECTION FENCE
— SS —	SANITARY PIPE
— SS —	6" PVC SANITARY LOT STUB
— SD —	STORM DRAIN PIPE
— SD —	6" PVC STORM LOT STUB
— — — — —	ZURN Z886 TRENCH DRAIN OR APPROVED EQUAL, WITH SLOTTED HEEL-PROOF GRATE
— — — — —	4" FOUNDATION DRAINAGE
•	CLEANOUT
■	CATCH BASIN, TYPE 1
⊙	MH/CATCH BASIN, TYPE 2
⊙	WATER QUALITY VAULT
⊙	WATER QUALITY CATCH BASIN
▨	STORM DRAINAGE VAULT



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CLIENT/OWNER

SAINTFIELD2 LLC

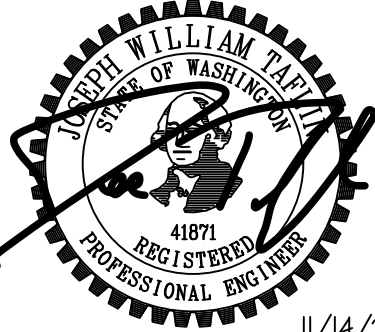
PROJECT NAME

SEARS

NAVIX PROJECT NUMBER: 50-215-004
PROJECT ADDRESS

7414 78TH AVE SE
MERCER ISLAND, WA 98004

STAMP



REVISIONS

REV	ISSUED FOR:	DATE
	LOT 4 BP SUBMITTAL	11/14/25



SECTION, TOWNSHIP, RANGE:
SECTION 25, TOWNSHIP 24 NORTH,
RANGE 4 EAST, W.M.

PROJECT TEAM

REVIEWED BY: J. TAFLIN
DESIGNED BY: B. MCMURTRY

SHEET NAME

LOT
OVERALL
PLAN

SHEET NUMBER

C8.0