

GENERAL NOTES

1. CODE COMPLIANCE: ALL WORK SHALL COMPLY WITH THE 2018 IRC, 2018 IMC, 2018 IFGC, 2018 IFG, 2018 UPC, 2018 IMC, 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.
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, EMENT GASKETS AND ROUGH BACKS/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. REPEITIVE FEATURES: OFFEN 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.

PROJECT DATA

PROJECT ADDRESS: 4603 89TH AVE SE MERCER ISLAND 98040
PROPERTY TAX ID NUMBER: 019110-0645
SCOPE OF WORK: CONSTRUCTION OF NEW TWO-STORY SINGLE FAMILY RESIDENCE WITH ATTACHED GARAGE, DETACHED ADU
ZONING: R-9.6
CONSTRUCTION TYPE: TYPE V B
SEISMIC ZONE: 3
NUMBER OF STORIES: 2 STORIES
FIRE PROTECTION: NFPA 13R FIRE SPRINKLER SYSTEM
BUILDING HEIGHT: MAX. 30 FT ABOVE AVERAGE BUILDING ELEV.
GROSS FLOOR AREA: 40 % LOT AREA ADDITIONAL 5% LOT AREA FOR ADU
LOT AREA: 9525 SF
SETBACKS: FRONT: 20' SIDE: 15' TOTAL, MIN. 5' REAR: 25'

PROJECT TEAM

OWNER: ADAM KOCH
CONTRACTOR: BUILD MODERN HOMES CORP.
ARCHITECT: STURMAN ARCHITECTS, INC.

LEGAL DESCRIPTION

PER FIDUCIARY BARGAIN AND SALE DEED RECORDING #20090922000431
LOT 1, BLOCK 9, ALLVIEW HEIGHTS ADDITION TO SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 16 OF PLATS, PAGE 20, IN KING COUNTY, WA.

2018 WSEC CREDITS

Table with 3 columns: OPTION, CREDITS, DESCRIPTION. Lists energy efficiency measures like heat pump efficiency, insulation, and ductwork with associated credit values.

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).

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.

BUILDING AREA

Table showing building area breakdown: PROPOSED HOUSE (1387 SF), MAIN FLOOR (1788 SF), UPPER FLOOR (3175 SF), HEATED HOUSE SUB-TOTAL (608 SF), ATTACHED GARAGE (3783 SF), HOUSE GRAND TOTAL (455 SF), ATTACHED ADU (211 SF), UNCOVERED DECKS.

LOT COVERAGE & HARDSCAPE

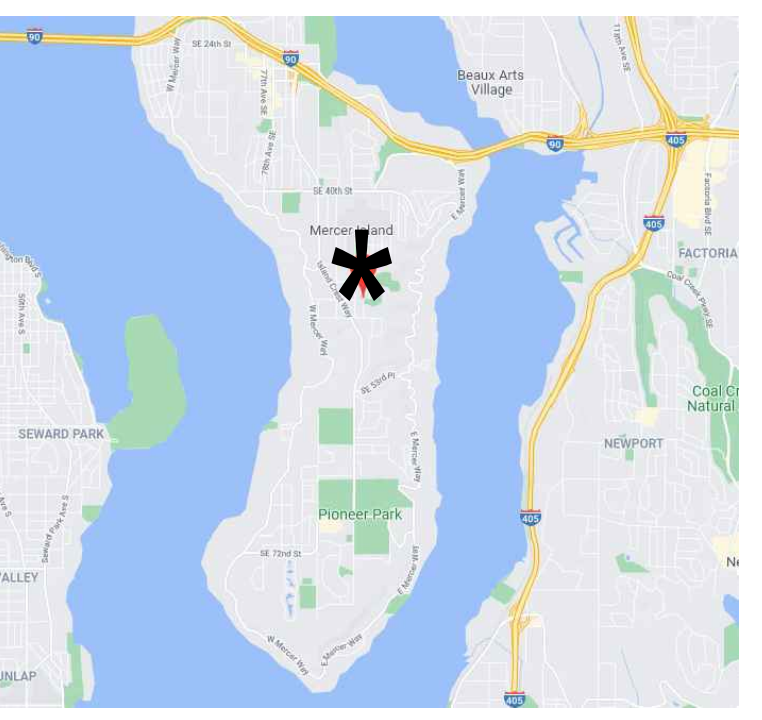
Table showing lot coverage and hardscape details: LOT COVERAGE (PROPOSED LOT COVERAGE 9525 SF, MAIN ROOF STRUCT 3129 SF, NOT USED 654 SF, DRIVES/PARKING 3783 SF, TOTAL LOT COVERAGE 39.7%, NET GAIN/LOSS LOT COVERAGE 40%, % ALLOWED LOT COVERAGE 3810 SF ALLOWABLE 40%).

Table showing hardscape details: PROPOSED HARDSCAPE (167 SF), NET GAIN/LOSS HARDSCAPE (+167 SF), % ALLOWED HARDSCAPE (8.5%).

GROSS FLOOR AREA

Table showing gross floor area breakdown: ADU (455 SF), MAIN FLOOR (1387 SF), UPPER FLOOR (1788 SF), GARAGE (608 SF), ROOF DECK (10.5 SF), GROSS FLOOR AREA (4248.5 SF).

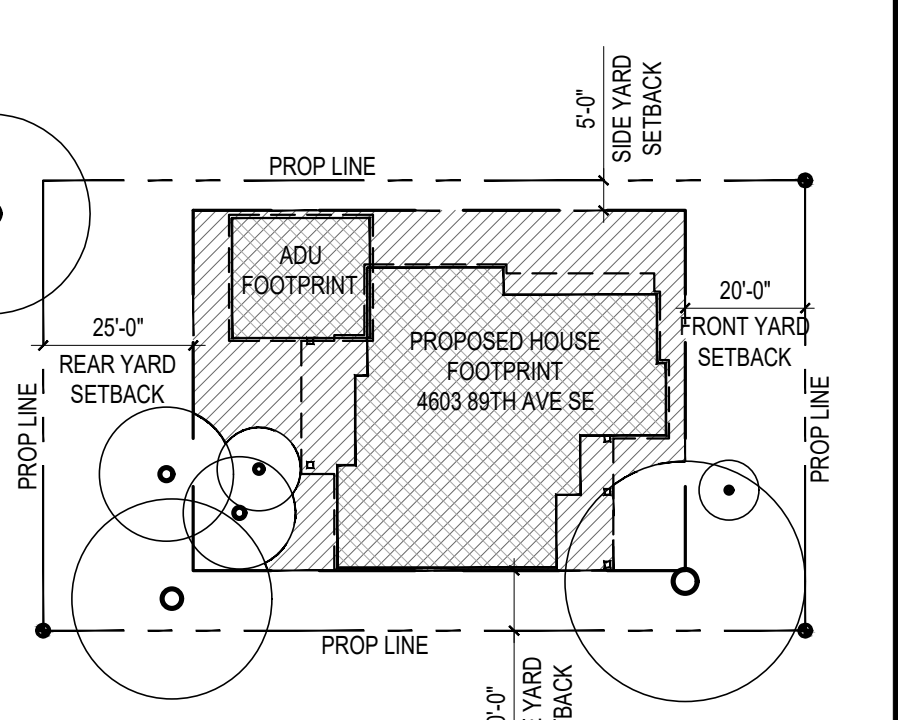
VICINITY MAP



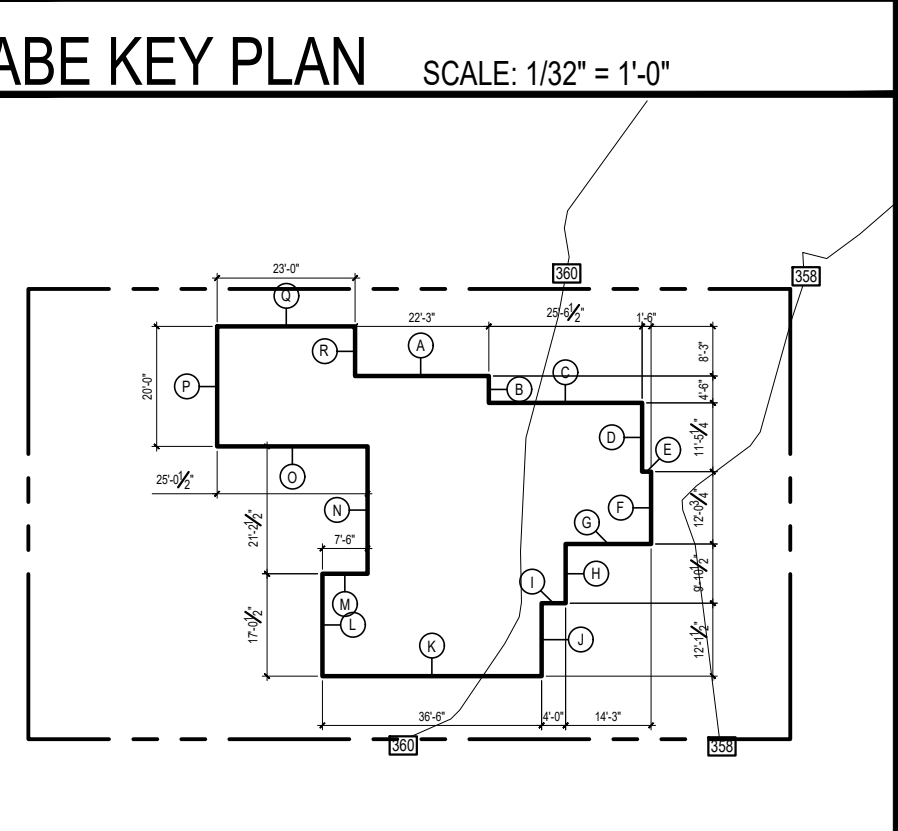
SHEET INDEX

- A1.0 COVER SHEET - GENERAL & ENERGY NOTES, LEGAL, PROJECT DATA, INDEX, SITE PLAN
A1.1 EXCAVATION PLAN
A1.2 REPLACEMENT TREE PLAN
SURVEY
C-1 TESC PLAN
C-2 DRAINAGE PLAN
C-3 CIVIL DETAILS
A2.0 MAIN FLOOR PLAN
A2.1 UPPER FLOOR
A2.2 ROOF PLAN
A3.0 EXTERIOR ELEVATIONS
A3.1 EXTERIOR ELEVATIONS
A3.2 EXTERIOR ELEVATIONS
A4.0 BUILDING SECTIONS
A4.1 BUILDING SECTIONS
A4.2 BUILDING SECTIONS
A5.0 WALL SECTIONS
A6.0 ARCHITECTURAL DETAILS

BUILDING PAD DIAGRAM SCALE: 1/32" = 1'-0"



ABE KEY PLAN SCALE: 1/32" = 1'-0"



AVERAGE BUILDING ELEV.

Table with 4 columns: HOUSE, Wall Length, Elevation Pt., Wall Length X Elev. Pt. Lists average building elevations for houses A through R, with a total average of 360.39.

TREE PROTECTION

A TREE PROTECTION INSPECTION IS REQUIRED BEFORE START OF WORK

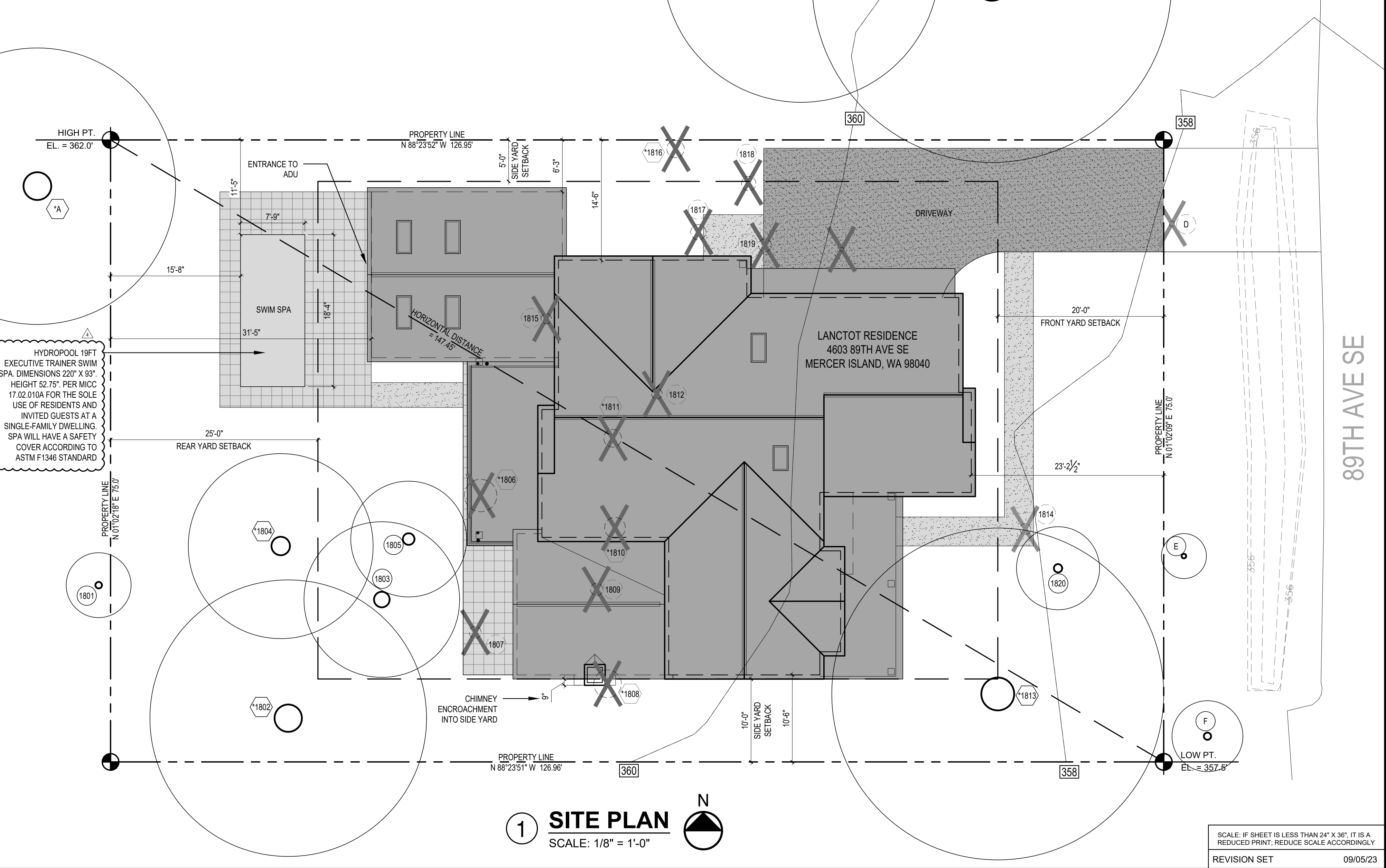
ENERGY NOTES

CLIMATIC ZONE: ZONE #4C - MARINE
THERMAL STANDARDS FOR OPENINGS: UNLIMITED OPTION
CODE: 2018 W.S.E.C. & 2018 IRC, WAC 51-11R
SPACE HEAT TYPE: NATURAL GAS, FORCED AIR SYSTEM
PER WSEC R401.3, A CERTIFICATE IS REQUIRED TO BE POSTED WITHIN 3 FT OF THE ELECTRICAL PANEL. IT MUST INCLUDE THE FOLLOW: PREDOMINANT R-VALUES, U-VALUES OF FENESTRATION, RESULTS FROM DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING, AND EFFICIENCIES OF HEATING/COOLING/WATER HEATING EQUIPMENT.

WHOLE HOUSE VENTILATION

a. WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY ERV/HRV W/ INTEGRAL FANS, PROVIDING MIN. 90 CFM RUNNING CONTINUOUSLY PER 2019 IRC TABLE M1505.4.2 (1)(2). FAN SHALL BE LESS THAN .35 WATT PER CFM AND RUN CONTINUOUSLY, AND HAVE A SONE RATING OF LESS THAN 1.0. VENTILATION SHALL BE ABLE TO OPERATE INDEPENDENTLY OF HEATING SYSTEM.
b. ADU WHOLE HOUSE VENTILATION SHALL BE PROVIDED BY LOCAL EXHAUST FAN, PROVIDING MIN. 90 CFM RUNNING INTERMITTENTLY ON A 24 HR TIMER, AT 30% OF A 4 HOUR PERIOD.
c. SYSTEM SHALL HAVE A 5/8" SMOOTH FRESH AIR DUCT W/ LOUVER & SCREEN CONNECTED TO THE RETURN AIR STREAM 4' UPSTREAM OF THE AIR HANDLER AND INSULATED W/ R-4 MIN IN HEATED AREAS. ALL SUPPLY DUCTS IN CONDITIONED SPACE SHALL BE INSULATED TO MIN. R-4.

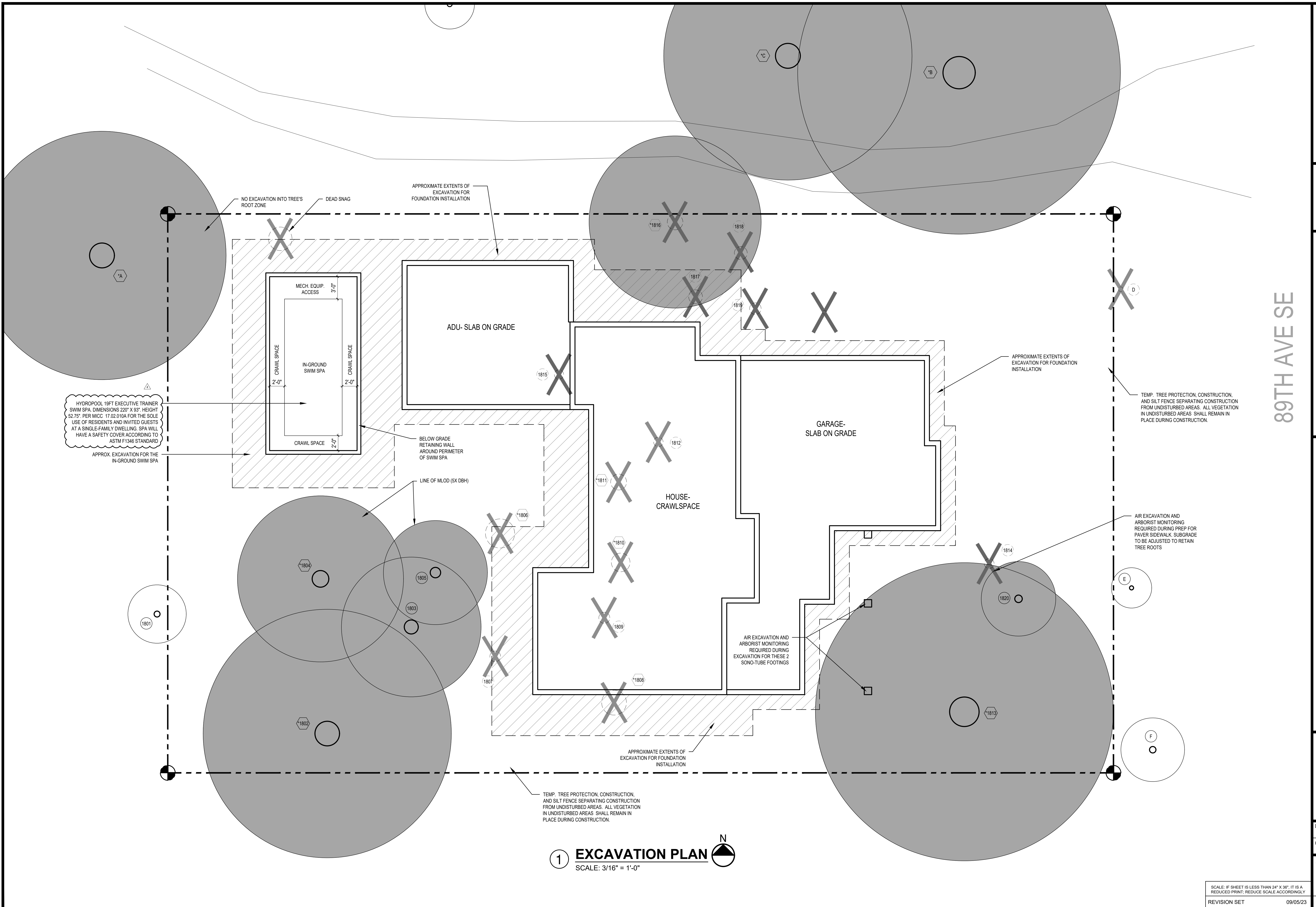
Table showing ventilation requirements for bedrooms and bathrooms: BEDROOMS (5), HEATED SQUARE FOOTAGE (3175 SF), AIRFLOW (CFM) (90 CFM).



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

SCALE: IF SHEET IS LESS THAN 24" X 36" IT IS A REDUCED PRINT, REDUCE SCALE ACCORDINGLY. REVISION SET 09/05/23 PLOT DATE: 9/5/2023

Vertical sidebar containing firm name 'STURMAN ARCHITECTS', project title 'Koch Residence Site Calcs General Notes Site Plan', and contact information for Bradley J. Sturman.



EXCAVATION PLAN

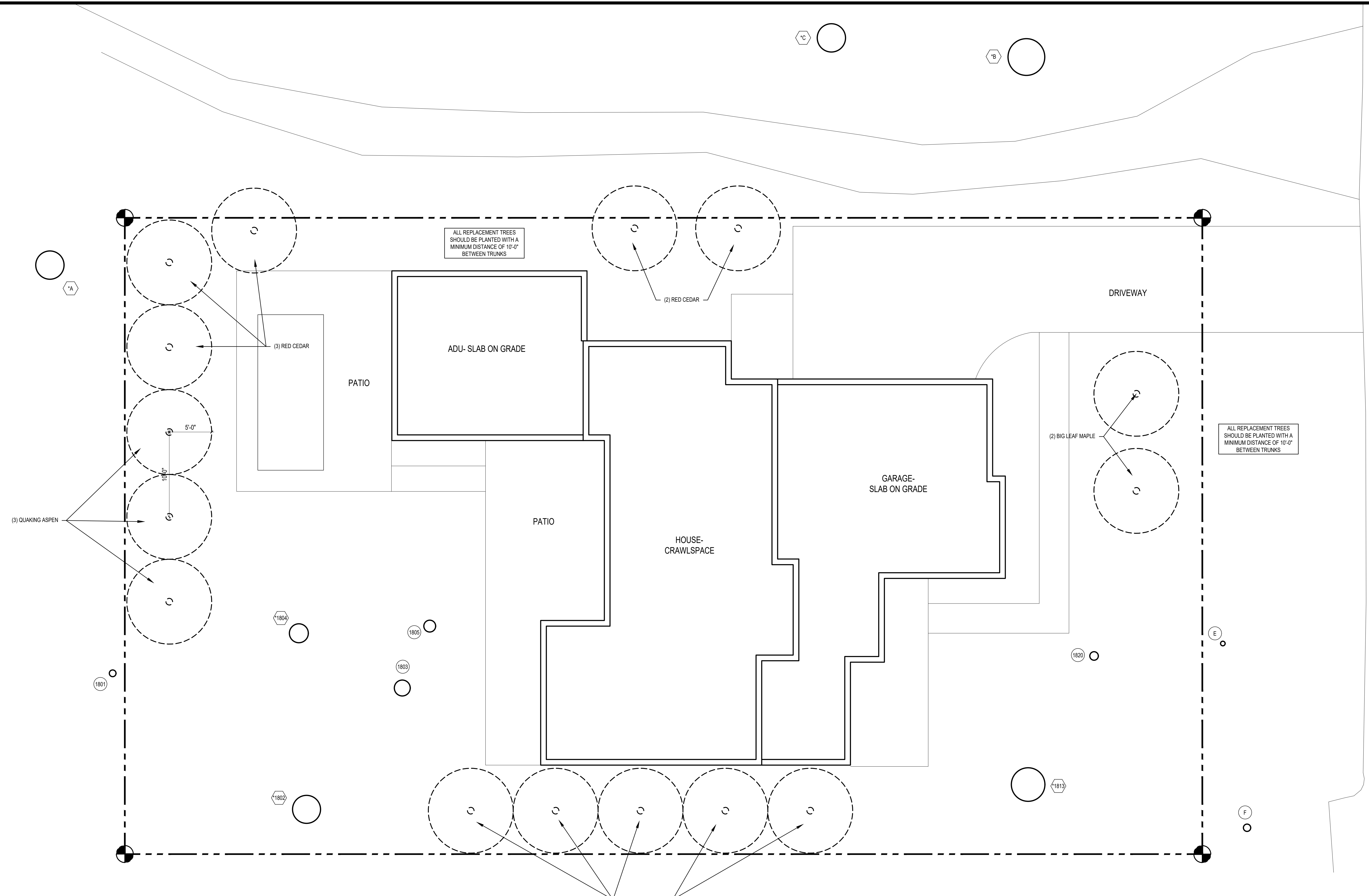
REVISIONS:

2022-11-29	Corrections #1
2023-02-16	Corrections #2
2023-08-22	Design Revisions
2023-09-06	Revision Corrections

DRAWN BY: KE
 CHECKED BY: BJS
 SHEET

A1.1

89TH AVE SE



ALL REPLACEMENT TREES SHOULD BE PLANTED WITH A MINIMUM DISTANCE OF 10'-0" BETWEEN TRUNKS

ALL REPLACEMENT TREES SHOULD BE PLANTED WITH A MINIMUM DISTANCE OF 10'-0" BETWEEN TRUNKS

REPLACEMENT TREES:

- QUAKING ASPEN = 8
- BIG LEAF MAPLE = 2
- RED CEDAR = 5
- TOTAL REPLACEMENT TREES = 15

REQUIRED REPLACEMENT TREES EQUALS 79
 A FEE IN LIEU OF IS BEING REQUESTED FOR THE REMAINING 64 REPLACEMENT TREES WHICH CANNOT FIT ON THIS SITE.

1 REPLANTING PLAN

SCALE: 3/16" = 1'-0"



TOPOGRAPHIC & BOUNDARY SURVEY

LEGAL DESCRIPTION

(PER FIDUCIARY BARGAIN AND SALE DEED RECORDING# 20090922000431)

LOT 1, BLOCK 9, ALLVIEW HEIGHTS ADDITION TO SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 16 OF PLATS, PAGE 20, IN KING COUNTY, WASHINGTON.

BASIS OF BEARINGS

N01°02'28"E BETWEEN SURVEY MONUMENT FOUND ON THE CENTERLINE OF 88TH AVE. S.E., PER GPS OBSERVATIONS, WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

REFERENCES

- R1 ALLVIEW HEIGHTS ADDITION TO SEATTLE, RECORDED IN VOLUME 16 OF PLATS, PAGE 20, RECORDS OF KING COUNTY, WASHINGTON.
- R2 RECORD OF SURVEY, RECORDED IN BOOK 165 OF SURVEYS, PAGE 162, RECORDS OF KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD88, PER GPS OBSERVATIONS.

SURVEYOR'S NOTES

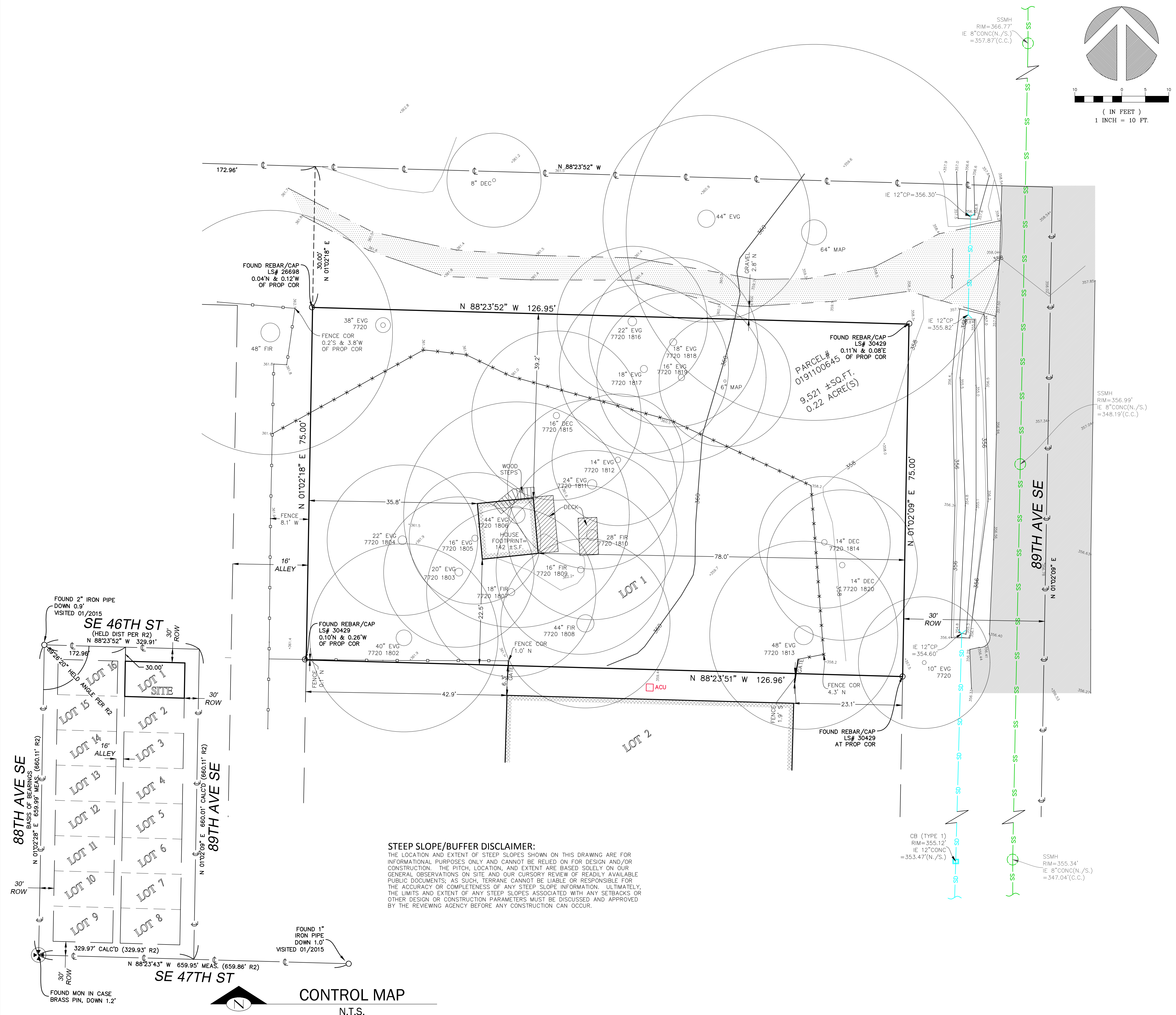
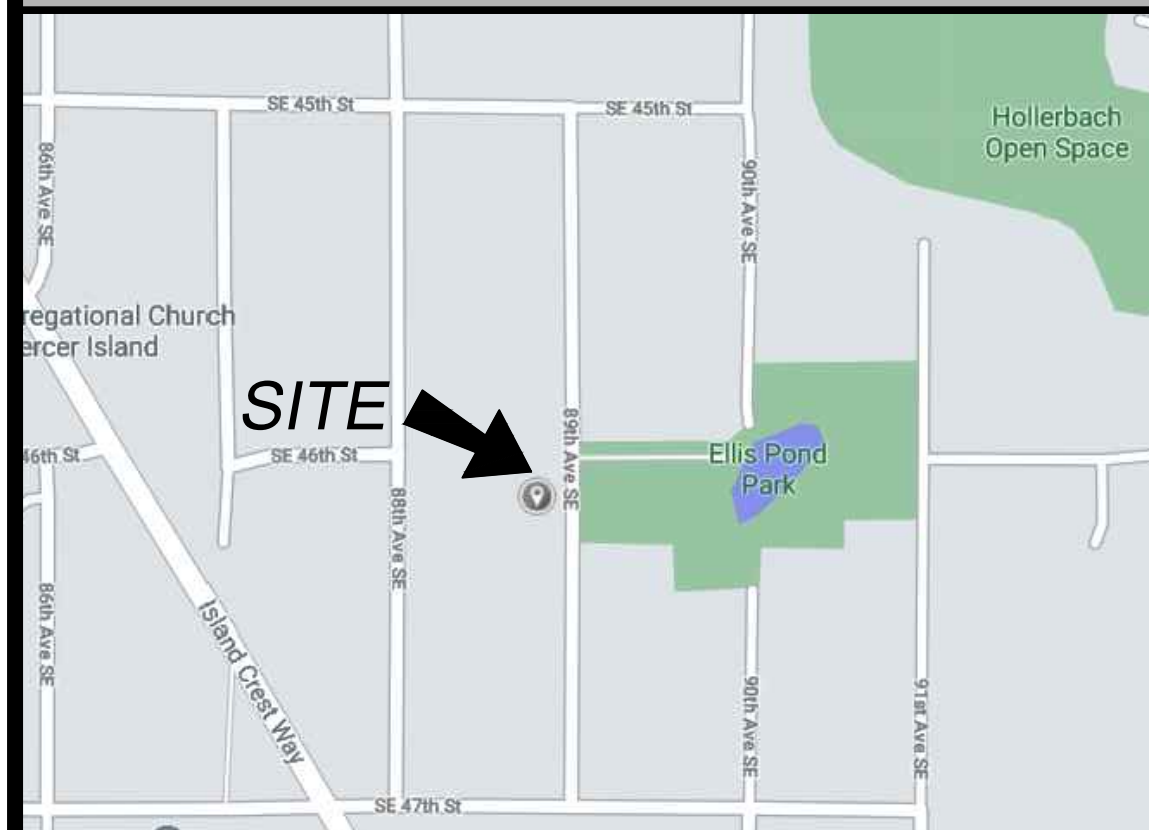
1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN SEPTEMBER OF 2020. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 019110-0645.
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 9,521 ±S.F. (0.22 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

LEGEND

- ACU □ AC UNIT
- ASPHALT SURFACE
- BUILDING
- CENTERLINE ROW
- CULVERT PIPE
- DECK
- FENCE LINE (CHAIN LINK)
- MONUMENT IN CASE (FOUND) SIZE TYPE
- MONUMENT (SURFACE, FOUND)
- FENCE LINE (WOOD)
- GRAVEL SURFACE
- INLET (TYPE 1)
- REBAR AS NOTED (FOUND)
- SEWER LINE
- SEWER MANHOLE
- STORM DRAIN LINE
- TREE (AS NOTED)

VICINITY MAP

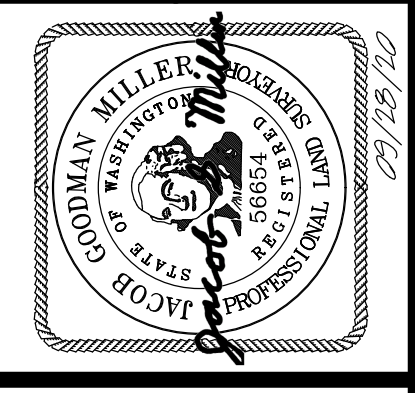
N.T.S.



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

measure success

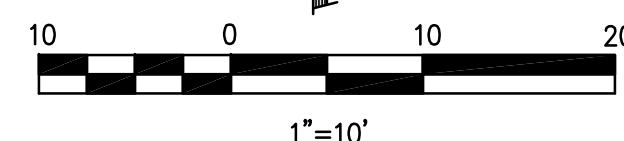
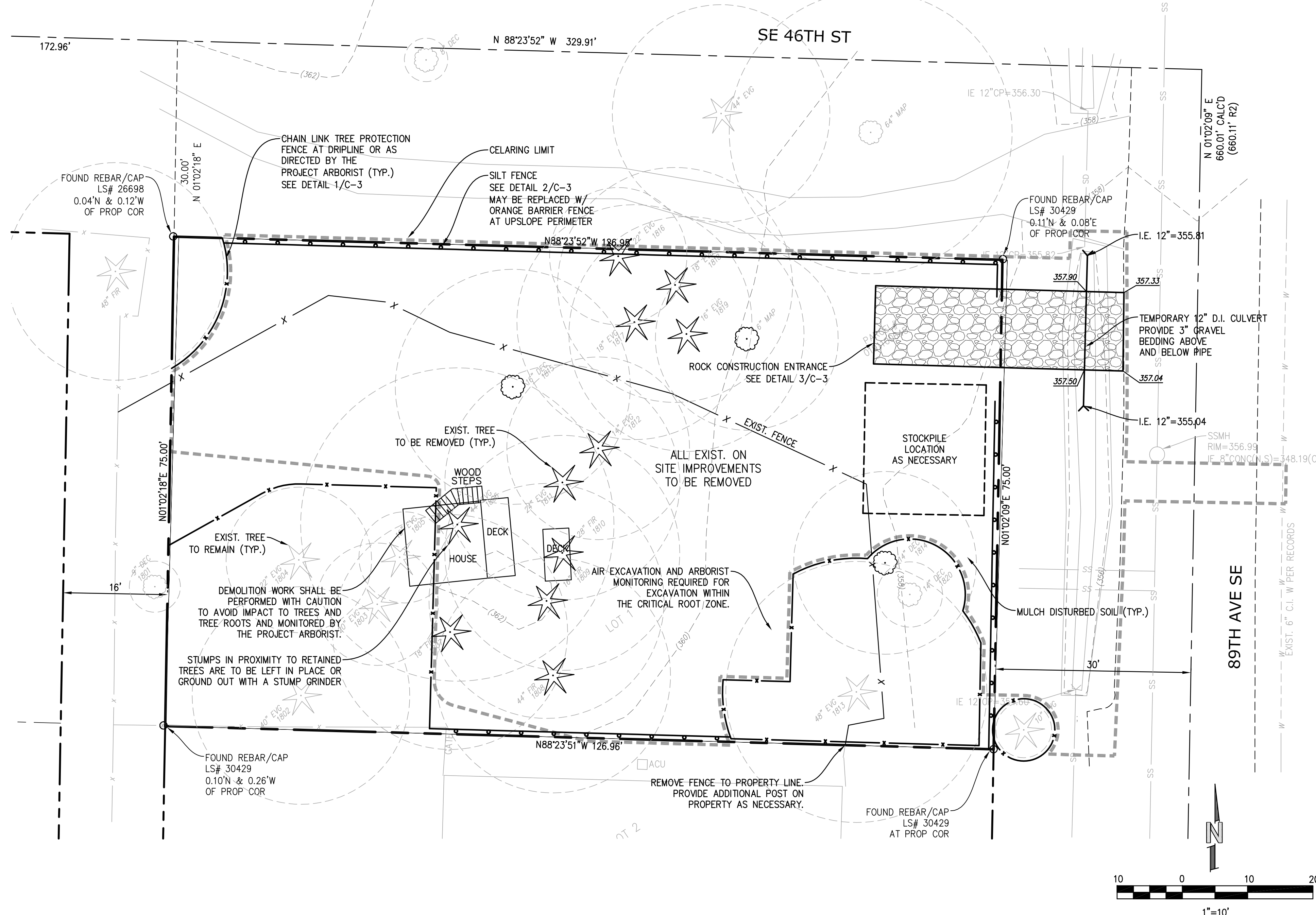
TOPOGRAPHIC & BOUNDARY SURVEY
 SE 1/4 OF SW 1/4 SEC 18, TWP. 24N., RGE 05E., W1M.
 PARCEL NO. 0191100645
JAYMARC HOMES
 4XXX 89TH AVE SE
 MERCER ISLAND, WA 98040



Terrane
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 www.terrane.net

JOB NUMBER:	201809
DATE:	09/28/20
DRAFTED BY:	IDV-GKD
CHECKED BY:	JGM
SCALE:	1" = 10'
REVISION HISTORY	
SHEET NUMBER	
1 OF 1	

SE 1/4 OF SW 1/4 SEC 18, TWP. 24N., RGE 05E., W.M.



EROSION AND SEDIMENT CONTROL NOTES

- APPROVAL OF THIS EROSION AND SEDIMENT CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY A CONTINUOUS LENGTH OF SURVEY TAPE (OR FENCING, IF REQUIRED) PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G., ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.).
- THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES DURING THE WET SEASON (OCT. 1 TO APRIL 30) AND OF MONTHLY REVIEWS DURING THE DRY SEASON (MAY 1 TO SEPT. 30).
- ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
- ANY AREA NEEDING ESC MEASURES NOT REQUIRING IMMEDIATE ATTENTION SHALL BE ADDRESSED WITHIN FIFTEEN (15) DAYS.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN FORTY-EIGHT (48) HOURS FOLLOWING A STORM EVENT.
- AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LOADED WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES AND ROADS SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT FLOW CONTROL FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
- WHERE STRAW MULCH FOR TEMPORARY EROSION CONTROL IS REQUIRED, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2 TO 3 INCHES.
- PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR. THE DDES INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.

POLLUTION PREVENTION AND SPILL CONTROL

- STORAGE AND HANDLING OF LIQUIDS**
- MINIMIZE AMOUNT OF LIQUIDS STORED ON SITE.
 - STORE AND CONTAIN LIQUID MATERIALS IN SUCH A MANNER THAT IF A VESSEL IS RUPTURED OR LEAKS, THE CONTENTS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATERS, OR GROUNDWATER. TYPICALLY THIS MEANS INSTALLING SECONDARY CONTAINMENT, SUCH AS A LINED EXCAVATION, LARGER CONTAINER, OR USING A DOUBLE-WALLED TANK OR SIMILAR COMMERCIALLY AVAILABLE CONTAINMENT FACILITY.
 - PLACE TIGHT-FITTING LIDS ON ALL CONTAINERS.
 - ENCLOSE OR COVER THE CONTAINERS WHERE THEY ARE STORED TO PROTECT FROM RAIN. THE LOCAL FIRE DISTRICT MUST BE CONSULTED FOR LIMITATIONS ON CLEARANCE OF ROOF COVERS OVER CONTAINERS USED TO STORE FLAMMABLE MATERIALS.
 - RAISE THE CONTAINERS OFF THE GROUND BY USING A SPILL CONTAINMENT PALLET OR SIMILAR METHOD THAT HAS PROVISIONS FOR SPILL CONTROL.
 - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH ALL MOUNTED CONTAINER TAPS, AND AT ALL POTENTIAL DRIP AND SPILL LOCATIONS DURING FILLING AND UNLOADING OF CONTAINERS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.
 - STORE AND MAINTAIN ABSORBENT PADS OR APPROPRIATE SPILL CLEANUP MATERIALS NEAR THE CONTAINER STORAGE AREA, IN A LOCATION KNOWN TO ALL. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH THE SITE'S SPILL PLAN AND/OR PROPER SPILL CLEANUP PROCEDURES.
 - CHECK CONTAINERS (AND ANY CONTAINMENT SUMPS) DAILY FOR LEAKS AND SPILLS. REPLACE CONTAINERS THAT ARE LEAKING, CORRODED, OR OTHERWISE DETERIORATING. IF THE LIQUID CHEMICALS ARE CORROSIVE, CONTAINERS MADE OF COMPATIBLE MATERIALS MUST BE USED INSTEAD OF METAL DRUMS. NEW OR SECONDARY CONTAINERS MUST BE LABELED WITH THE PRODUCT NAME AND HAZARDS.
 - PLACE DRIP PANS OR ABSORBENT MATERIALS BENEATH A CONTAINER THAT IS FOUND TO BE LEAKING. REMOVE THE DAMAGED CONTAINER AS SOON AS POSSIBLE. MOP UP THE SPILLED LIQUID WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

FUELING

- LOCATE THE FUELING OPERATION TO ENSURE LEAKS OR SPILLS WILL NOT DISCHARGE, FLOW, OR BE WASHED INTO THE STORM DRAINAGE SYSTEM, SURFACE WATER, OR GROUNDWATER.
- USE DRIP PANS OR ABSORBENT PADS TO CAPTURE DRIPS OR SPILLS DURING FUELING OPERATIONS.
- IF FUELING IS DONE DURING EVENING HOURS, LIGHTING MUST BE PROVIDED.
- STORE AND MAINTAIN APPROPRIATE SPILL CLEANUP MATERIALS IN THE MOBILE FUELING VEHICLE. ENSURE THAT EMPLOYEES ARE FAMILIAR WITH PROPER SPILL CONTROL AND CLEANUP PROCEDURES.
- IMMEDIATELY MOP UP ANY SPILLED FUEL WITH ABSORBENT PADS OR RAGS. ANY COLLECTED LIQUIDS OR SOILED ABSORBENT MATERIALS MUST BE REUSED, RECYCLED, OR PROPERLY DISPOSED OF.

CONCRETE SAW CUTTING, SLURRY, AND WASHWATER DISPOSAL

- SLURRY FROM SAW CUTTING THE SIDEWALK SHALL BE VACUUMED SO THAT IT DOES NOT ENTER NEARBY STORM DRAINS.
- CONCRETE TRUCK CHUTES, PUMPS, AND INTERNALS SHALL BE WASHED OUT ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE.
- UNUSED CONCRETE REMAINING IN THE TRUCK AND PUMP SHALL BE RETURNED TO THE ORIGINATING BATCH PLANT FOR RECYCLING.
- HAND TOOLS INCLUDING, BUT NOT LIMITED, SCREDS, SHOVELS, RAKES, FLOATS, AND TROWELS SHALL BE WASHED OFF ONLY INTO FORMED AREAS AWAITING INSTALLATION OF CONCRETE OR IMPERMEABLE ASPHALT.
- EQUIPMENT THAT CANNOT BE EASILY MOVED, SUCH AS CONCRETE PAVERS, SHALL ONLY BE WASHED IN AREAS THAT DO NOT DIRECTLY DRAIN TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
- WASHDOWN FROM AREAS SUCH AS CONCRETE AGGREGATE DRIVEWAY SHALL NOT DRAIN DIRECTLY TO NATURAL OR CONSTRUCTED STORMWATER CONVEYANCES.
- WHEN NO FORMED AREAS ARE AVAILABLE, WASHWATER AND LEFTOVER PRODUCT SHALL BE CONTAINED IN A LINED CONTAINER. CONTAINED CONCRETE SHALL BE DISPOSED OF IN A MANNER THAT DOES NOT VIOLATE GROUNDWATER OR SURFACE WATER QUALITY STANDARDS.
- CONTAINERS SHALL BE CHECKED FOR HOLES IN THE LINER DAILY DURING CONCRETE POURS AND REPLACED THE SAME DAY.

BASIS OF BEARINGS

N01°02'28"E BETWEEN SURVEY MONUMENT FOUND ON THE CENTERLINE OF 88TH AVE. S.E., PER GPS OBSERVATIONS, WASHINGTON STATE PLANE COORDINATE SYSTEM, NORTH ZONE.

LEGAL DESCRIPTION

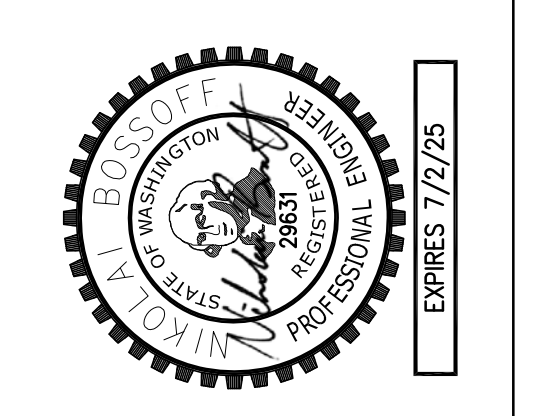
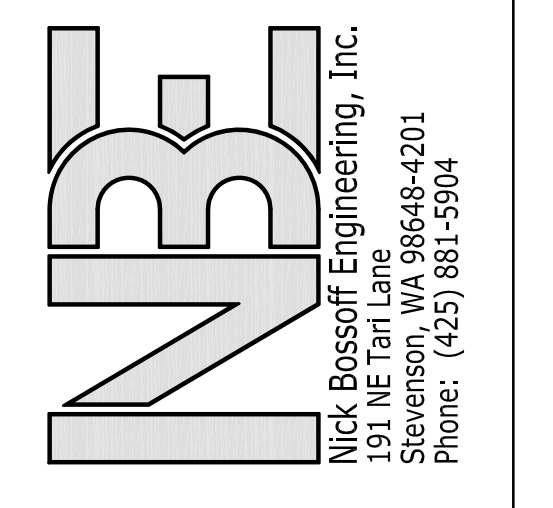
(PER FIDUCIARY BARGAIN AND SALE DEED RECORDING# 20090922000431)

LOT 1, BLOCK 9, ALLVIEW HEIGHTS ADDITION TO SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 16 OF PLATS, PAGE 20, IN KING COUNTY, WASHINGTON.

VERTICAL DATUM

NAVD88, PER GPS OBSERVATIONS.

CALL 48 HOURS BEFORE YOU DIG
1-800-424-5555



NO.	DATE	REVISION
1	06/08/22	PERMIT SUBMITTAL
2	11/28/22	CITY COMMENTS
3	02/06/23	CITY COMMENTS
4	08/22/23	POST PERMIT REVISION
5	08/25/23	CITY COMMENTS

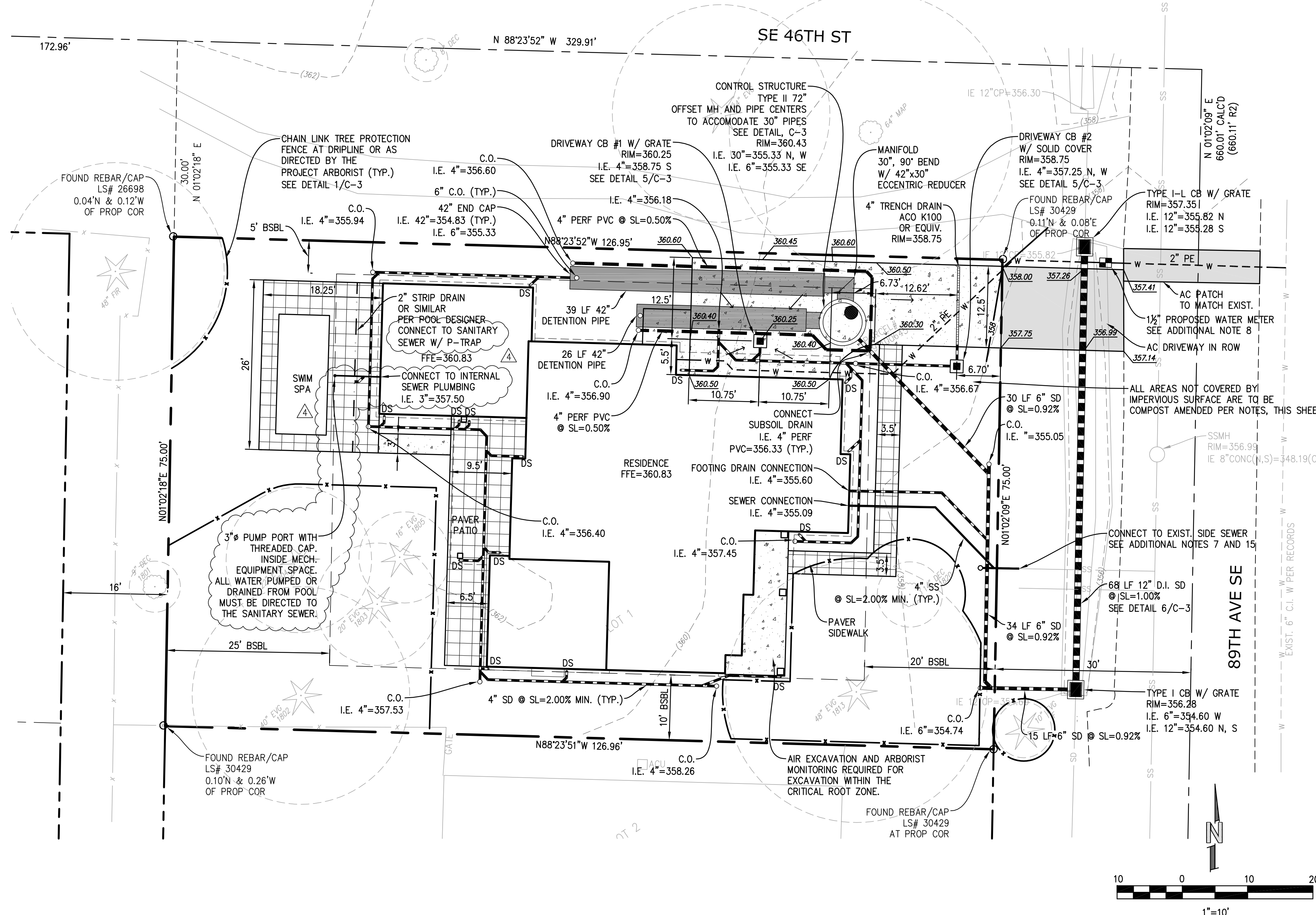
N. BOSSOFF, P.E.	PROJECT MANAGER
DESIGNED: NB	PROJECT MANAGER
DRAWN: TKB	PROJECT MANAGER
SARC-2202	PROJECT MANAGER
JOB NUMBER	PROJECT MANAGER
SARC-2202p1n.dwg	PROJECT MANAGER
FILE NAME	PROJECT MANAGER

LANCTOT RESIDENCE
4603 89TH AVE SE
WASHINGTON
MERCER ISLAND

TITLE:
T.E.S.C. PLAN

SHEET:
C-1

SE 1/4 OF SW 1/4 SEC 18, TWP. 24N., RGE 05E., W.M.

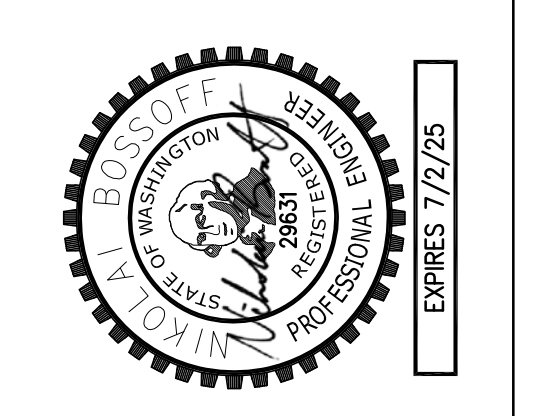
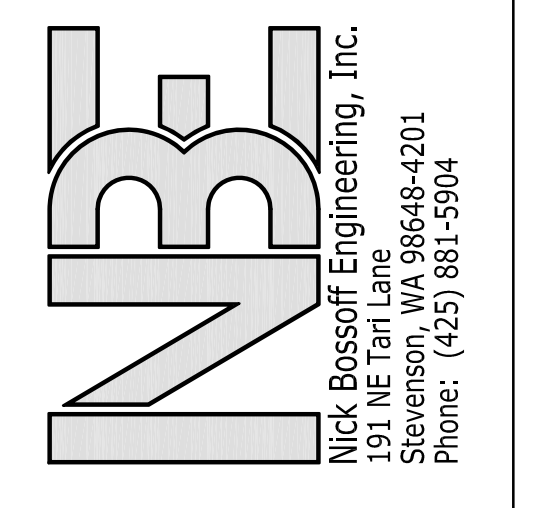


POST-CONSTRUCTION SOIL QUALITY AND DEPTH NOTES

- THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT GEOTECHNICAL 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.
- SOIL RETENTION. RETAIN, IN AN UNDISTURBED STATE, THE DUFF LAYER AND NATIVE TOPSOIL TO THE MAXIMUM EXTENT PRACTICABLE. IN ANY AREAS REQUIRING GRADING REMOVE AND STOCKPILE THE DUFF LAYER AND TOPSOIL ON SITE IN A DESIGNATED, CONTROLLED AREA, NOT ADJACENT TO PUBLIC RESOURCES AND CRITICAL AREAS, TO BE REAPPLIED TO OTHER PORTIONS OF THE SITE WHERE FEASIBLE.
 - SOIL QUALITY. ALL AREAS SUBJECT TO CLEARING AND GRADING THAT HAVE NOT BEEN COVERED BY IMPERVIOUS SURFACE, INCORPORATED INTO A DRAINAGE FACILITY OR ENGINEERED AS STRUCTURAL FILL OR SLOPE SHALL, AT PROJECT COMPLETION, DEMONSTRATE THE FOLLOWING:
 - 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.
 - MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL
 - USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
 - THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE DEFINITION OF "COMPOSTED MATERIALS" IN WAC 173-350-220, 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. THE CARBON TO NITROGEN RATIO MAY BE AS HIGH AS 35:1 FOR PLANTINGS COMPOSED ENTIRELY OF PLANTS NATIVE TO THE PUGET SOUND LOWLANDS REGION.
 - CALCULATED AMENDMENT RATES MAY BE MET THROUGH USE OF COMPOSTED MATERIAL MEETING (A.) ABOVE; OR OTHER ORGANIC MATERIALS AMENDED TO MEET THE CARBON TO NITROGEN RATIO REQUIREMENTS, AND NOT EXCEEDING THE CONTAMINANT LIMITS IDENTIFIED IN TABLE 220-B, TESTING PARAMETERS, IN WAC 173-350-220. THE RESULTING SOIL SHOULD BE CONDUCTIVE TO THE TYPE OF VEGETATION TO BE ESTABLISHED.
 - IMPLEMENTATION OPTIONS: THE SOIL QUALITY DESIGN GUIDELINES LISTED ABOVE CAN BE MET BY USING ONE OF THE METHODS LISTED BELOW:
 - LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
 - AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PRE-APPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
 - STOCKPILE EXISTING TOPSOIL DURING GRADING AND REPLACE IT PRIOR TO PLANTING. STOCKPILED TOPSOIL MUST ALSO BE AMENDED IF NEEDED TO MEET THE ORGANIC MATTER OR DEPTH REQUIREMENTS, EITHER AT A DEFAULT "PRE-APPROVED" RATE OR AT A CUSTOM CALCULATED RATE.
 - IMPORT TOPSOIL MIX OF SUFFICIENT ORGANIC CONTENT AND DEPTH TO MEET THE REQUIREMENTS. MORE THAN ONE METHOD MAY BE USED ON DIFFERENT PORTIONS OF THE SAME SITE. SOIL THAT ALREADY MEETS THE DEPTH AND ORGANIC MATTER QUALITY STANDARDS, AND IS NOT COMPACTED, DOES NOT NEED TO BE AMENDED.

ADDITIONAL NOTES:

- ALL CONSTRUCTION MATERIALS AND PRACTICE SHALL CONFORM TO THE CITY OF MERCER ISLAND STANDARDS AND THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARDS.
- EXISTING UTILITIES AS SHOWN ARE FROM CITY RECORDS AND ARE APPROXIMATE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IDENTIFY, LOCATE AND PROTECT ABOVE AND BELOW GRADE UTILITIES. CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION IF A CONFLICT EXISTS BETWEEN EXISTING UTILITIES AND THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROL AND SHALL MAINTAIN THE NECESSARY SAFEGUARDS AND MANAGE THE CONSTRUCTION SO AS TO PREVENT WATERBORNE SEDIMENTS FROM LEAVING THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR.
- ON-SITE PRIVATE STORM AND SEWER PIPE SHALL BE SOLVENT WELDED SCHEDULE 40 PVC OR PVC ASTM D3034 SDR35 UNLESS SHOWN OTHERWISE. PVC PIPE LAID AT A SLOPE IN EXCESS OF 20% SHALL BE SOLVENT WELDED SCHEDULE 40 PVC. STORM PIPE IN THE RIGHT-OF-WAY SHALL BE HIGH-DENSITY POLYETHYLENE DOUBLE-WALLED SMOOTH INTERIOR PIPE SUCH AS ADS N-12 OR EQUIVALENT.
- FOOTING DRAINS SHALL BE INSTALLED AROUND THE BASE OF ALL FOUNDATION FOOTINGS THAT ENCLOSE A CRAWL SPACE, CELLAR, BASEMENT, GARAGE OR OTHER BUILDING SPACE. FOOTING DRAINS SHALL BE PERFORATED 4-INCH DIAMETER PVC CONFORMING TO D2729, PERFORATIONS DOWN. GRANULAR BACKFILL SHALL BE PLACED AROUND AND ABOVE THE DRAIN TO A DEPTH OF 2/3 OF THE WALL HEIGHT. FILTER FABRIC (MIRAFI 140N OR EQUIVALENT) SHALL BE PLACED BETWEEN THE GRANULAR BACKFILL AND NATIVE SOILS. TIE THE FOOTING DRAIN INTO THE STORM LINE AT A LOCATION WHERE THE FOOTING DRAIN ELEVATION IS AT LEAST 12-INCHES ABOVE THE STORM LINE.
- EXISTING SIDE SEWER AND STORM DRAIN DEPTH AND LOCATION SHALL BE DETERMINED PRIOR TO ANY CONSTRUCTION, INCLUDING BUILDING CONSTRUCTION. REPORT CONFLICTS WITH PROPOSED CONSTRUCTION TO ENGINEER. NEW SIDE SEWER CONNECTION TO MAIN OR SEWER EJECTOR PUMP MAY BE NECESSARY FOR BASEMENT.
- PROPOSED METER LOCATION, IF SHOWN, IS APPROXIMATE. CONTRACTOR TO COORDINATE EXACT LOCATION OF NEW SERVICE/METER/ SUPPLY LINE WITH CITY WATER DEPARTMENT DURING CONSTRUCTION. SERVICE SIZE IS PRELIMINARY. VERIFY WITH PLUMBING AND SPRINKLER DESIGNER.
- EACH DOWNSPOUT SHALL CONNECT TO A RIGID NON-PERFORATED PIPE AT THE BUILDING PERIMETER. UNDER NO CIRCUMSTANCES SHALL DOWNSPOUTS CONNECT DIRECTLY TO THE PERFORATED FOOTING DRAIN.
- USE SAND COLLARS FOR PVC PIPE CONNECTIONS TO MANHOLES.
- VERTICAL BENDS ON THE STORM DRAINS MAY BE NECESSARY TO MAINTAIN MIN. 1.5" SOIL COVER OVER PIPE. MAX. PIPE BENDS TO BE 45'.
- DOWNSPOUT LOCATIONS SHOWN ARE PRELIMINARY. REFER TO ARCHITECTURAL PLANS FOR FINAL DOWNSPOUT LOCATIONS. EXISTING DOWNSPOUTS AND COLLECTOR PIPES SHALL BE PRESERVED AND NOT DISCONNECTED FROM THE SYSTEM. CONNECT EXISTING DOWNSPOUTS TO NEW STORM SYSTEM AS NECESSARY.
- AN UNDERSLAB DRAINAGE SYSTEM MAY BE NECESSARY DEPENDENT ON GEOTECHNICAL EVALUATION BY OTHERS.
- WINDOW WELLS SHALL BE DESIGNED FOR PROPER DRAINAGE BY CONNECTING TO THE BUILDING'S FOUNDATION DRAINAGE SYSTEM REQUIRED PER SECTION R310.2.3.2 OF THE INTERNATIONAL RESIDENTIAL CODE. A DRAINAGE SYSTEM FOR WINDOW WELLS IS NOT REQUIRED WHERE THE FOUNDATION IS ON WELL-DRAINED SOIL OR SAND-GRAVEL MIXTURE SOILS IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEM, GROUP 1 SOILS, AS DETAILED IN TABLE R405.1 OF THE IRC.
- THE TV INSPECTION OF THE EXISTING SIDE SEWER TO THE CITY SEWER MAIN ON 89TH AVE SE IS REQUIRED PRIOR TO ANY WORK RELATED TO THE SIDE SEWER. IF THE RESULT OF THE TV INSPECTION IS NOT IN SATISFACTORY CONDITION, AS DETERMINED BY THE CITY OF MERCER ISLAND INSPECTOR, THE REPLACEMENT OF THE EXISTING SIDE SEWER IS REQUIRED.



NO.	DATE	REVISION
1	06/08/22	PERMIT SUBMITTAL
2	11/28/22	CITY COMMENTS
3	02/06/23	CITY COMMENTS
4	08/22/23	POST PERMIT REVISION
5	08/25/23	CITY COMMENTS

N. BOSSOFF, P.E.	PROJECT MANAGER
NB	DESIGNED
TKB	DRAWN
SARC-2202	JOB NUMBER
SARC-2202pln.dwg	FILE NAME

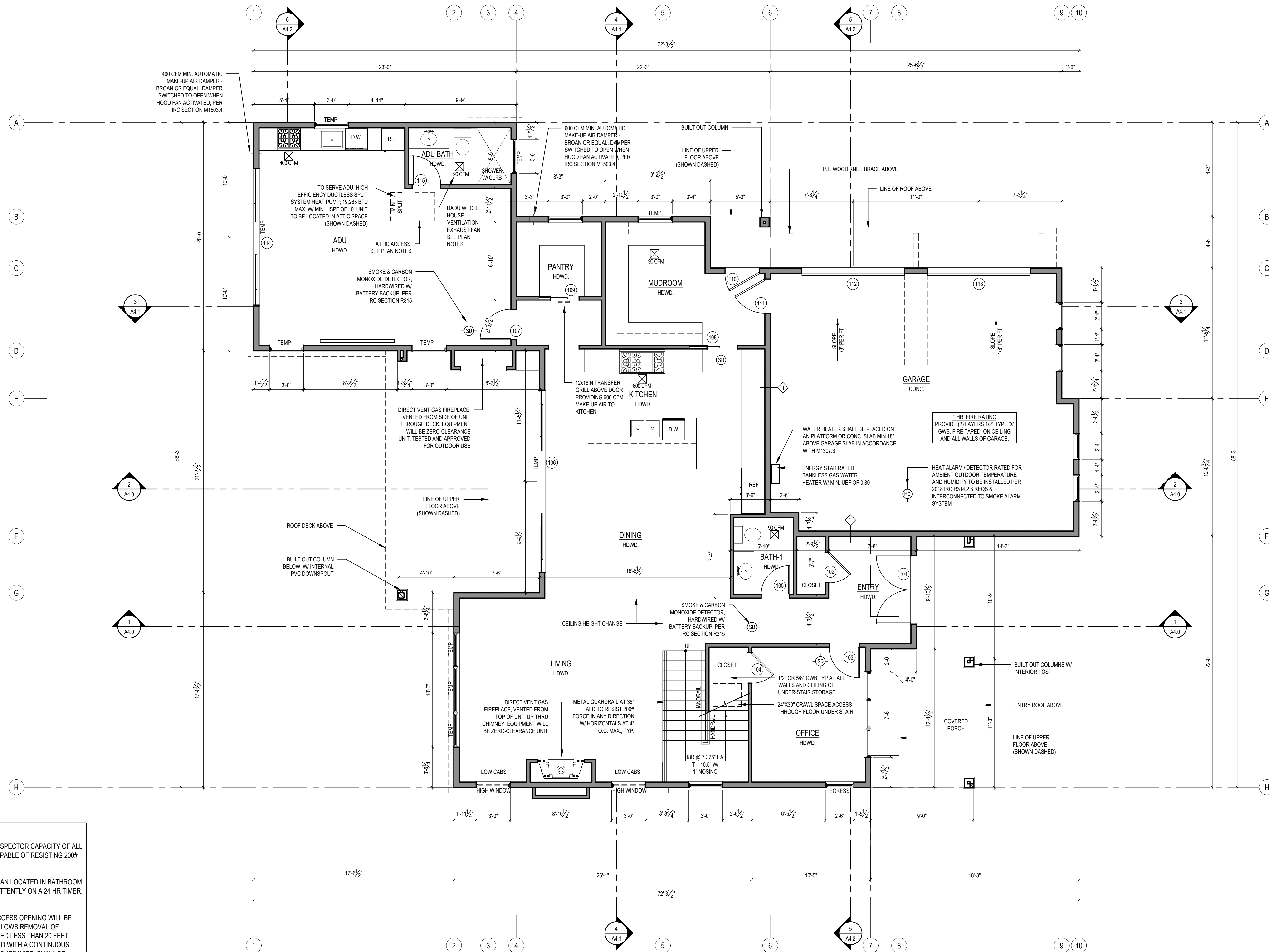
LANCTOT RESIDENCE
4603 89TH AVE SE

WASHINGTON

MERCER ISLAND

TITLE:
DRAINAGE PLAN

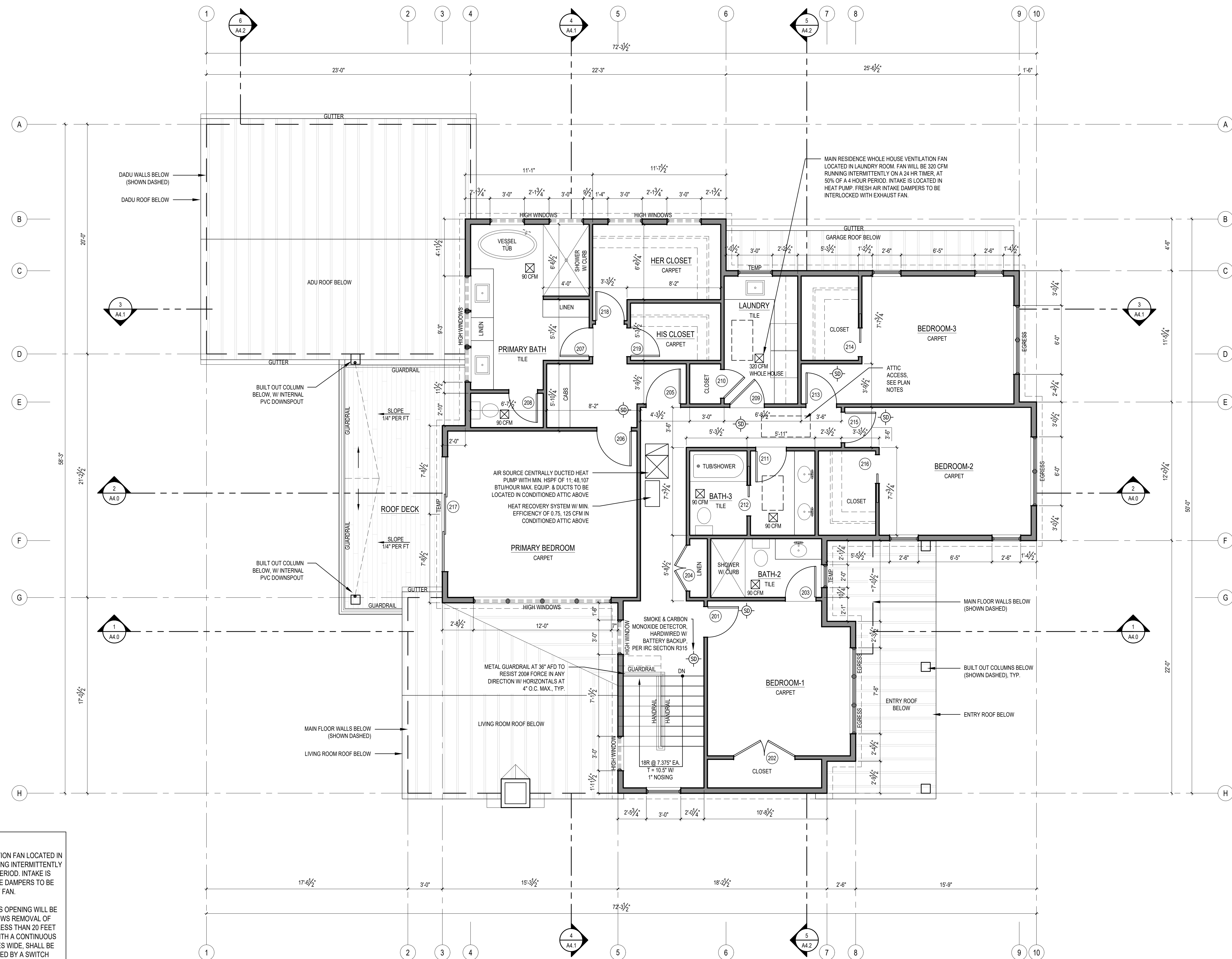
SHEET:
C-2



PLAN NOTES:

- CONTRACTOR SHALL CONFIRM TO INSPECTOR CAPACITY OF ALL GUARDS AND HANDRAILS SHALL BE CAPABLE OF RESISTING 200# FORCE IN ANY DIRECTION.
- DADU WHOLE HOUSE VENTILATION FAN LOCATED IN BATHROOM. FAN WILL BE 90 CFM RUNNING INTERMITTENTLY ON A 24 HR TIMER, AT 30% OF A 4 HOUR PERIOD.
- ATTIC ACCESS PER IRC R807. THE ACCESS OPENING WILL BE REQUIRED TO BE A MIN. SIZE WHICH ALLOWS REMOVAL OF LARGEST APPLIANCE. SHALL BE LOCATED LESS THAN 20 FEET FROM APPLIANCES. SHALL BE PROVIDED WITH A CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE. SHALL BE PROVIDED WITH A LUMINAIRE CONTROLLED BY A SWITCH LOCATED AT THE ACCESS OPENING. SHALL HAVE A RECEPTACLE OUTLET LOCATED AT OR NEAR THE APPLIANCES, PER IRC M1305.1.3 & M1305.1.3.1.

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



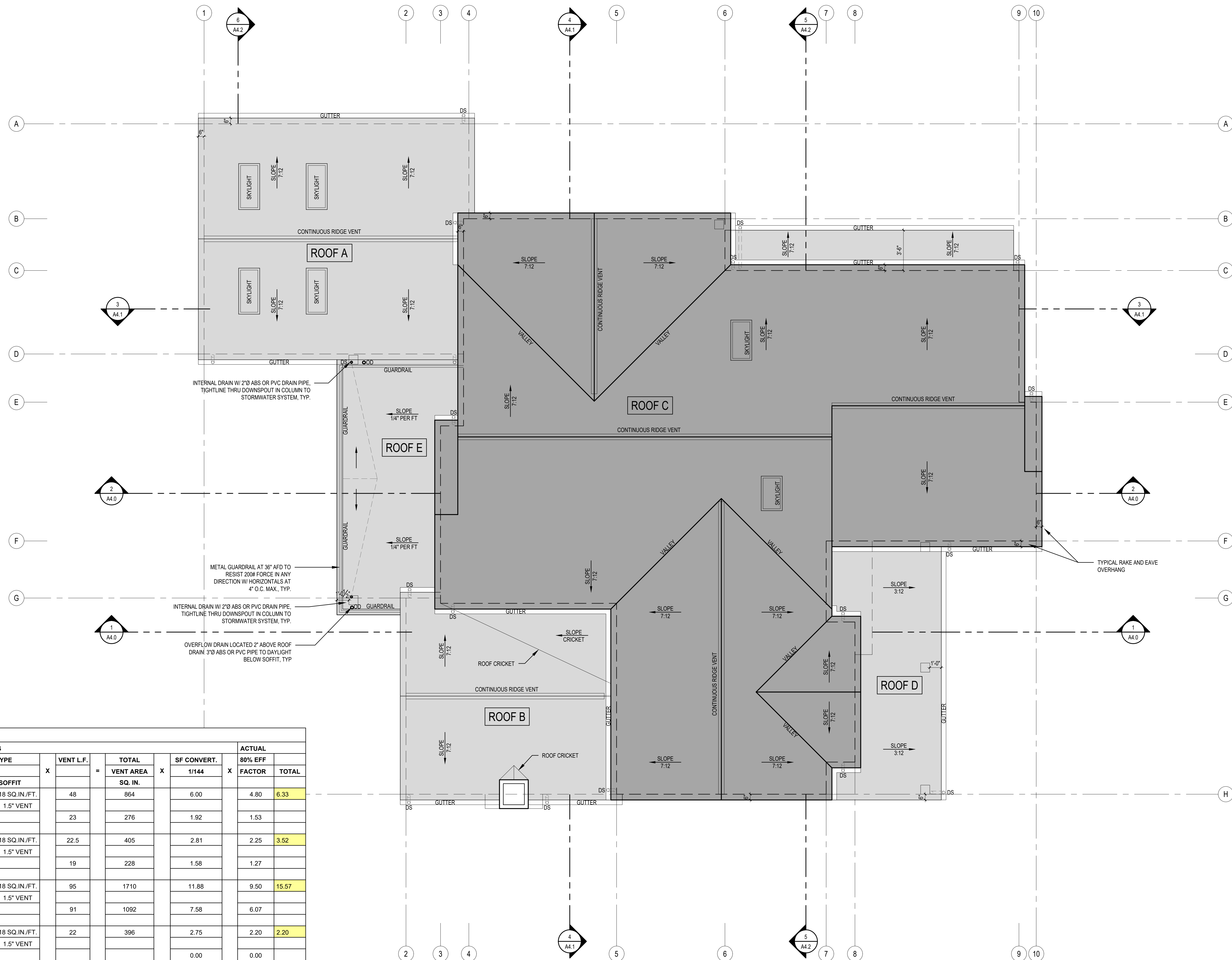
PLAN NOTES:

1. MAIN RESIDENCE WHOLE HOUSE VENTILATION FAN LOCATED IN LAUNDRY ROOM. FAN WILL BE 320 CFM RUNNING INTERMITTENTLY ON A 24 HR TIMER, AT 50% OF A 4 HOUR PERIOD. INTAKE IS LOCATED IN HEAT PUMP. FRESH AIR INTAKE DAMPERS TO BE INTERLOCKED WITH EXHAUST FAN.

3. ATTIC ACCESS PER IRC R807. THE ACCESS OPENING WILL BE REQUIRED TO BE A MIN. SIZE WHICH ALLOWS REMOVAL OF LARGEST APPLIANCE. SHALL BE LOCATED LESS THAN 20 FEET FROM APPLIANCES. SHALL BE PROVIDED WITH A CONTINUOUS SOLID FLOORING NOT LESS THAN 24 INCHES WIDE. SHALL BE PROVIDED WITH A LUMINAIRE CONTROLLED BY A SWITCH LOCATED AT THE ACCESS OPENING. SHALL HAVE A RECEPTACLE OUTLET LOCATED AT OR NEAR THE APPLIANCES, PER IRC M1305.1.3 & M1305.1.3.1.

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

SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.
 REVISION SET 09/05/23 PLOT DATE: 9/5/2023

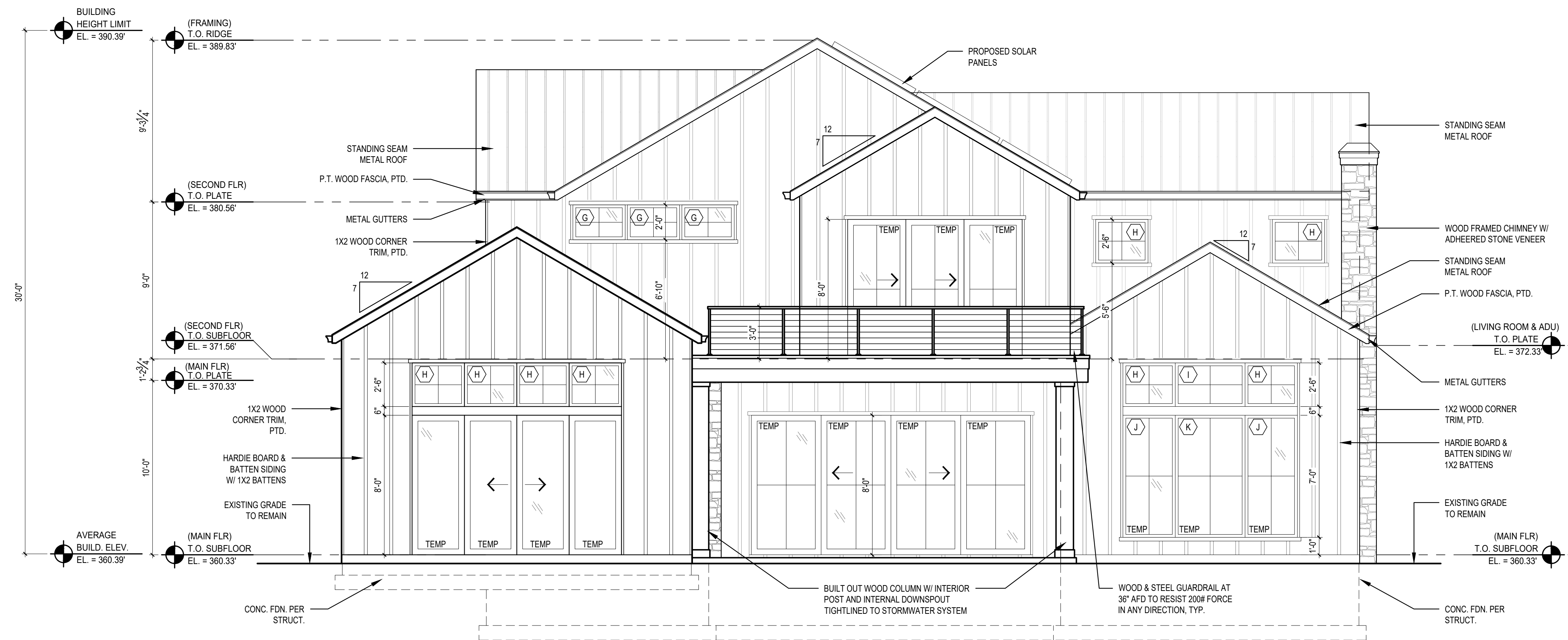


ROOF VENT CALCULATIONS										
DESCRIPTION	SF AREA	REQ. VENTING		CALCULATIONS					ACTUAL	
		PER SF AREA		VENT TYPE		VENT L.F.	TOTAL VENT AREA SQ. IN.	SF CONVERT. 1/144	80% EFF FACTOR TOTAL	
		150	300	RIDGE	SOFFIT				X	X
ROOF A	460	3.07		18 SQ. IN./FT.	1.5" VENT	48	864	6.00	4.80	6.33
				12 SQ. IN./FT.		23	276	1.92	1.53	
				CONTINUOUS						
ROOF B	305	2.03		18 SQ. IN./FT.	1.5" VENT	22.5	405	2.81	2.25	3.52
				12 SQ. IN./FT.		19	228	1.58	1.27	
				CONTINUOUS						
ROOF C	1,788	11.92		18 SQ. IN./FT.	1.5" VENT	95	1710	11.88	9.50	15.57
				12 SQ. IN./FT.		91	1092	7.58	6.07	
				CONTINUOUS						
ROOF D	158	1.05		18 SQ. IN./FT.	1.5" VENT	22	396	2.75	2.20	2.20
				12 SQ. IN./FT.				0.00	0.00	
				CONTINUOUS						
ROOF E	212	1.41		18 SQ. IN./FT.	1.5" VENT	33	594	4.13	3.30	3.30
				12 SQ. IN./FT.				0.00	0.00	
				CONTINUOUS						

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



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



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

REVISIONS:	2022-11-29	Corrections #1
	2023-02-15	Corrections #2
	2023-08-22	Design Revisions
	2023-09-05	Revision Corrections

DRAWN BY: KE

CHECKED BY: BJS

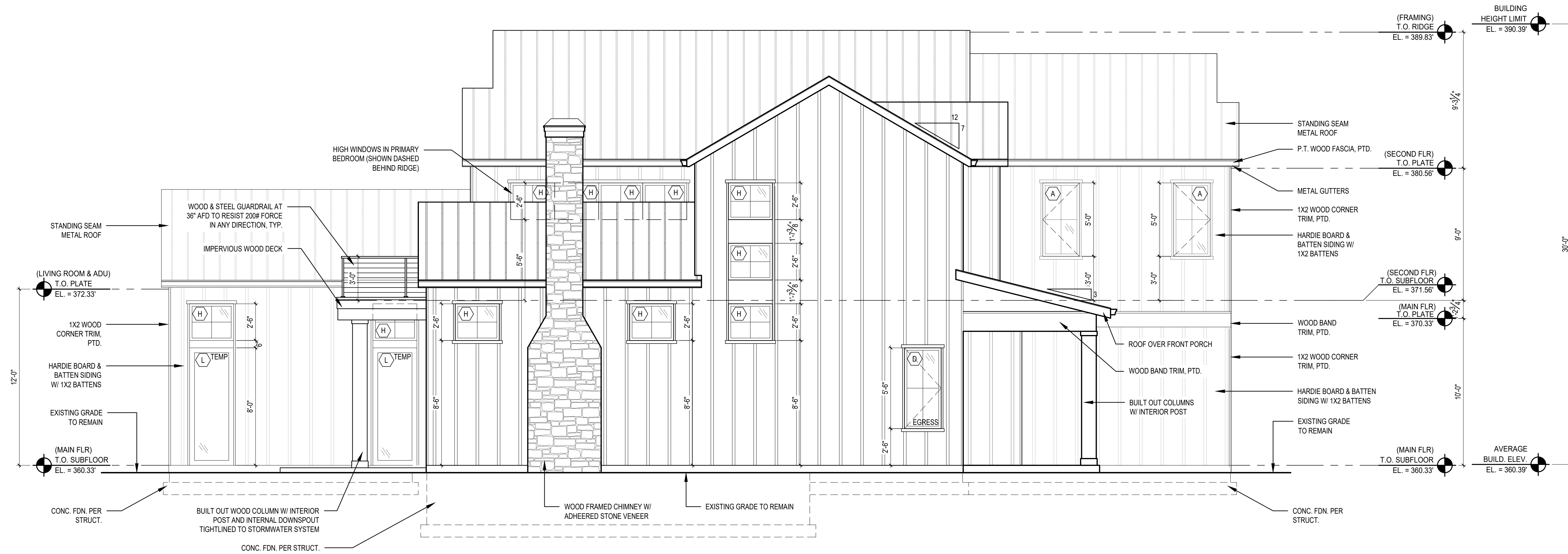
SHEET

A3.0

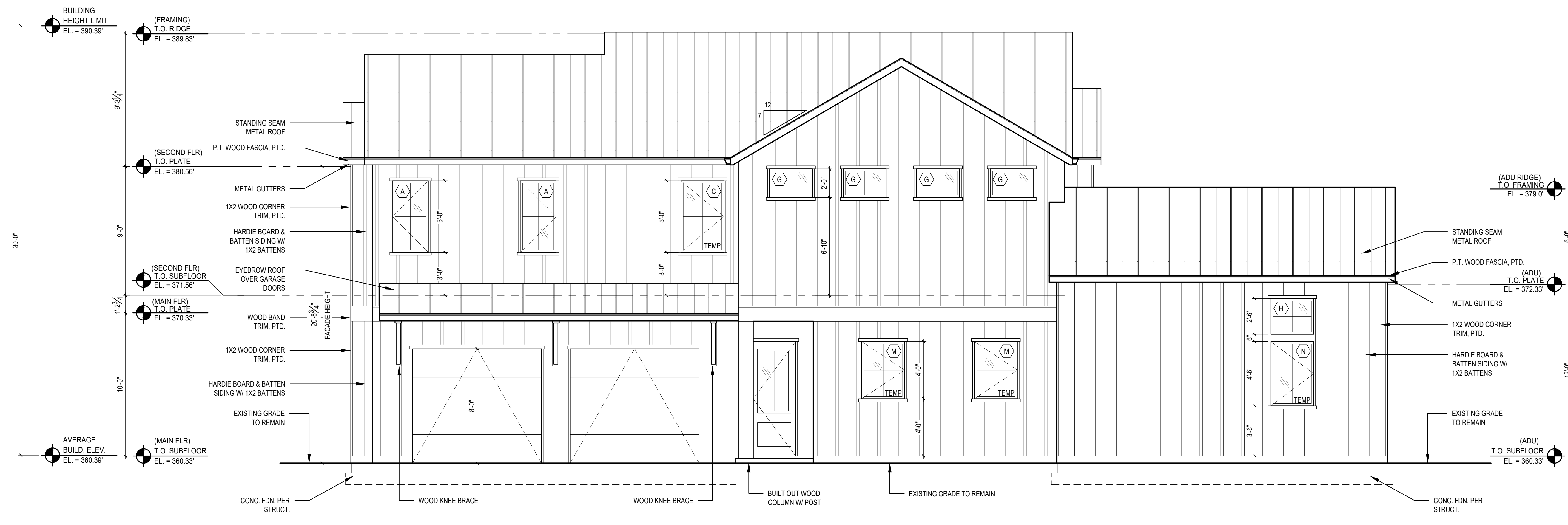
SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT; REDUCE SCALE ACCORDINGLY
REVISION SET

09/05/23

PLOT DATE: 9/5/2023



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



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

REVISIONS:

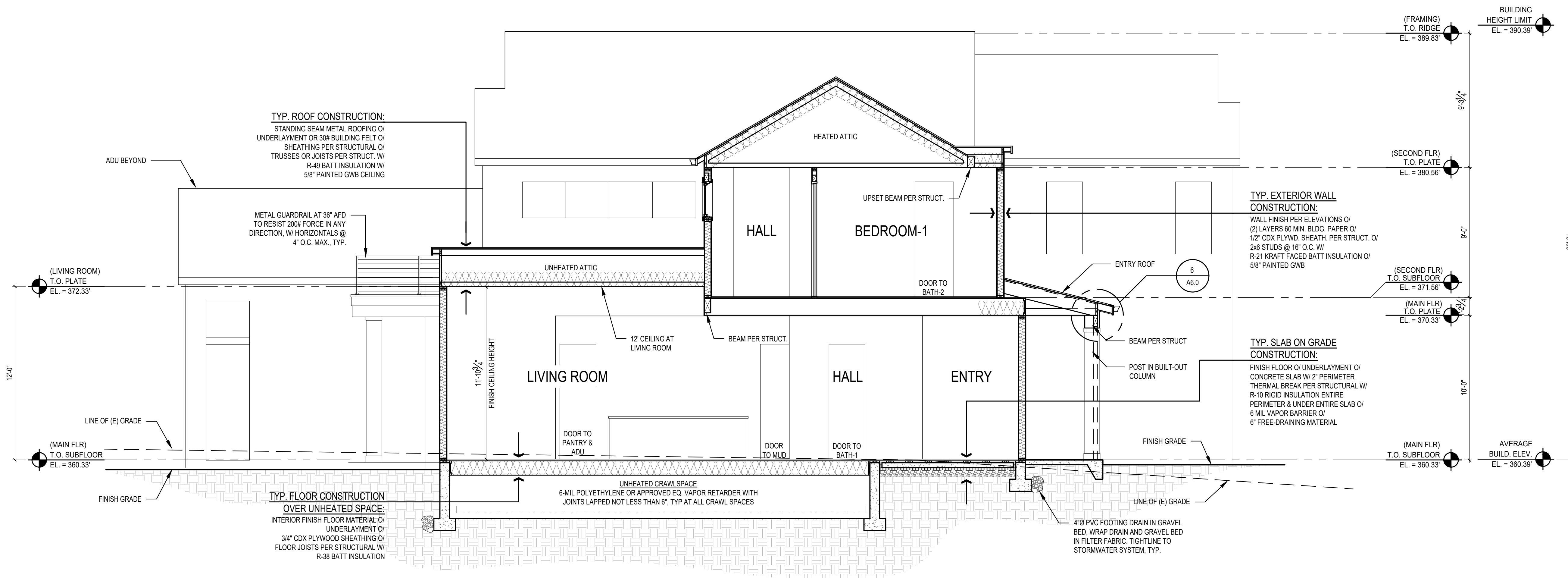
2022-11-29	Corrections #1
2023-02-15	Corrections #2
2023-03-22	Design Revisions
2023-04-05	Revision Corrections

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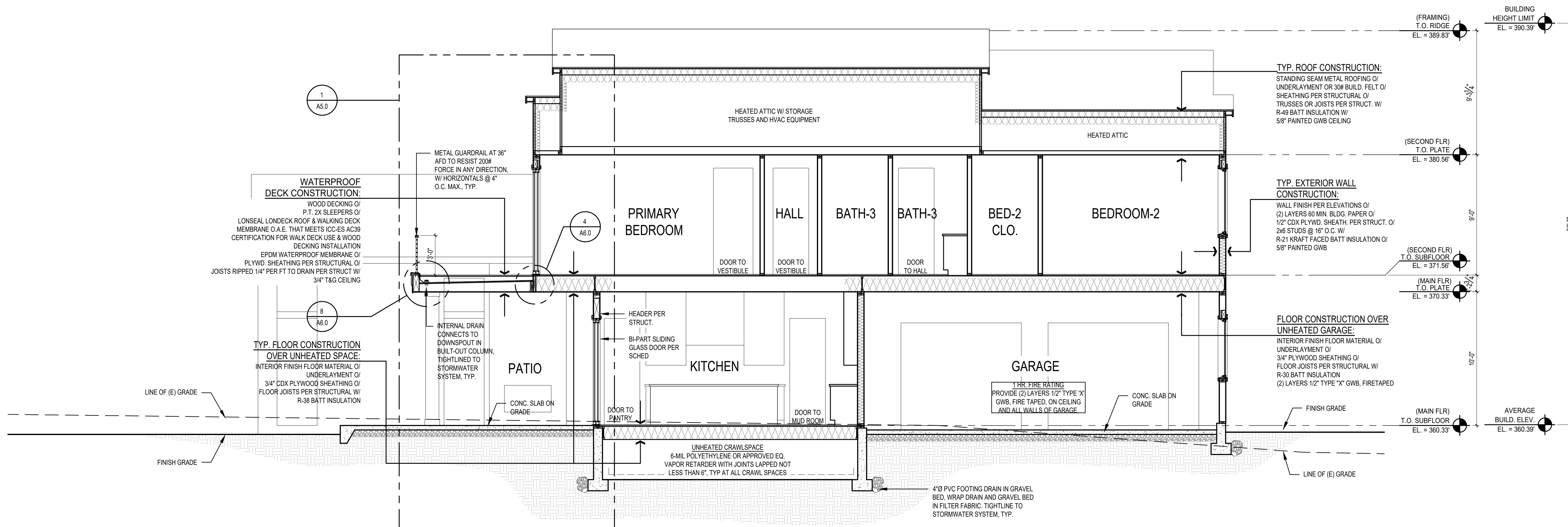
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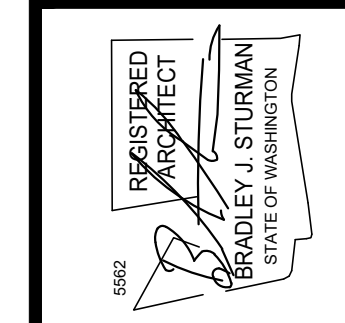
A3.1



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



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

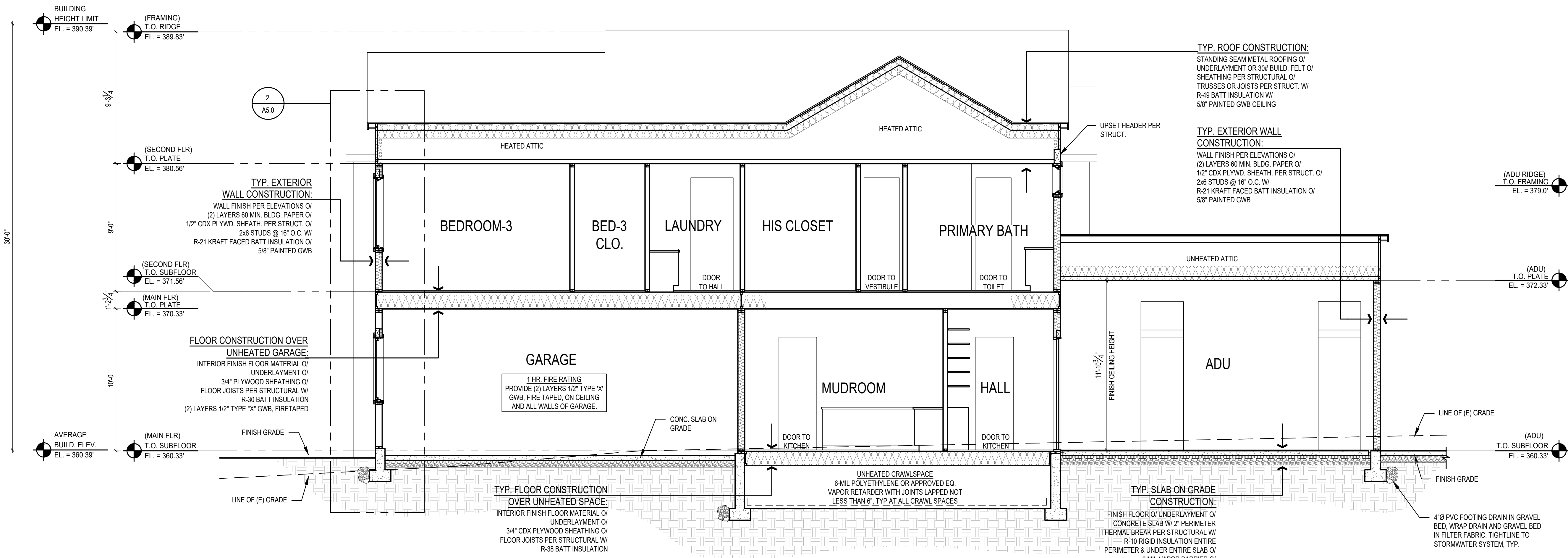


REVISIONS:

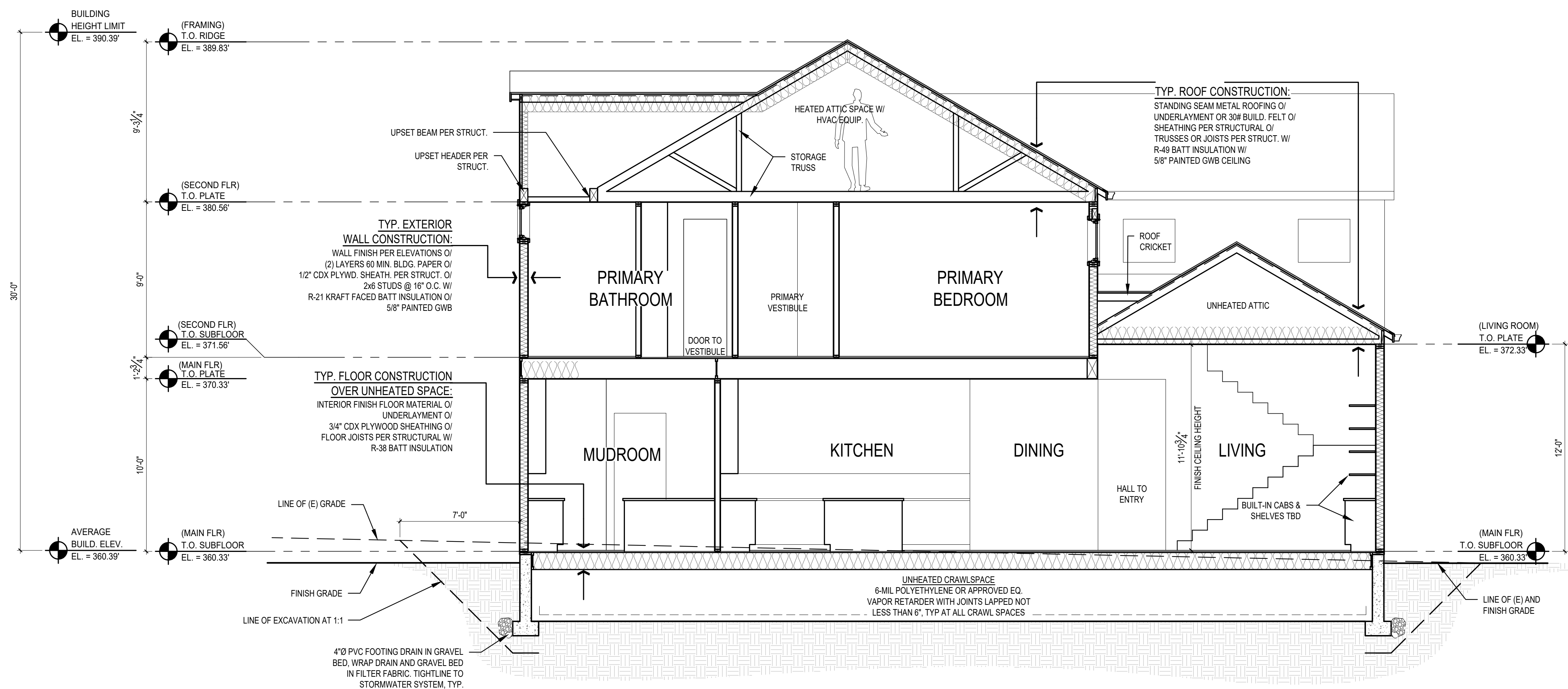
2022-11-29	Corrections #1
2023-02-15	Corrections #2
2023-08-22	Design Revisions
2023-09-05	Revision Corrections

DRAWN BY: KE
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SHEET

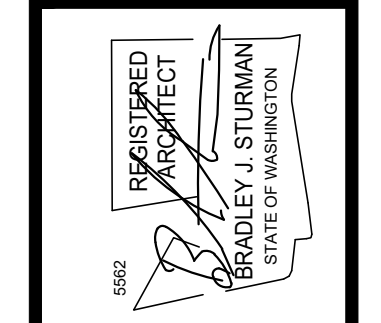
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3 BUILDING SECTION
SCALE: 1/4" = 1'-0"



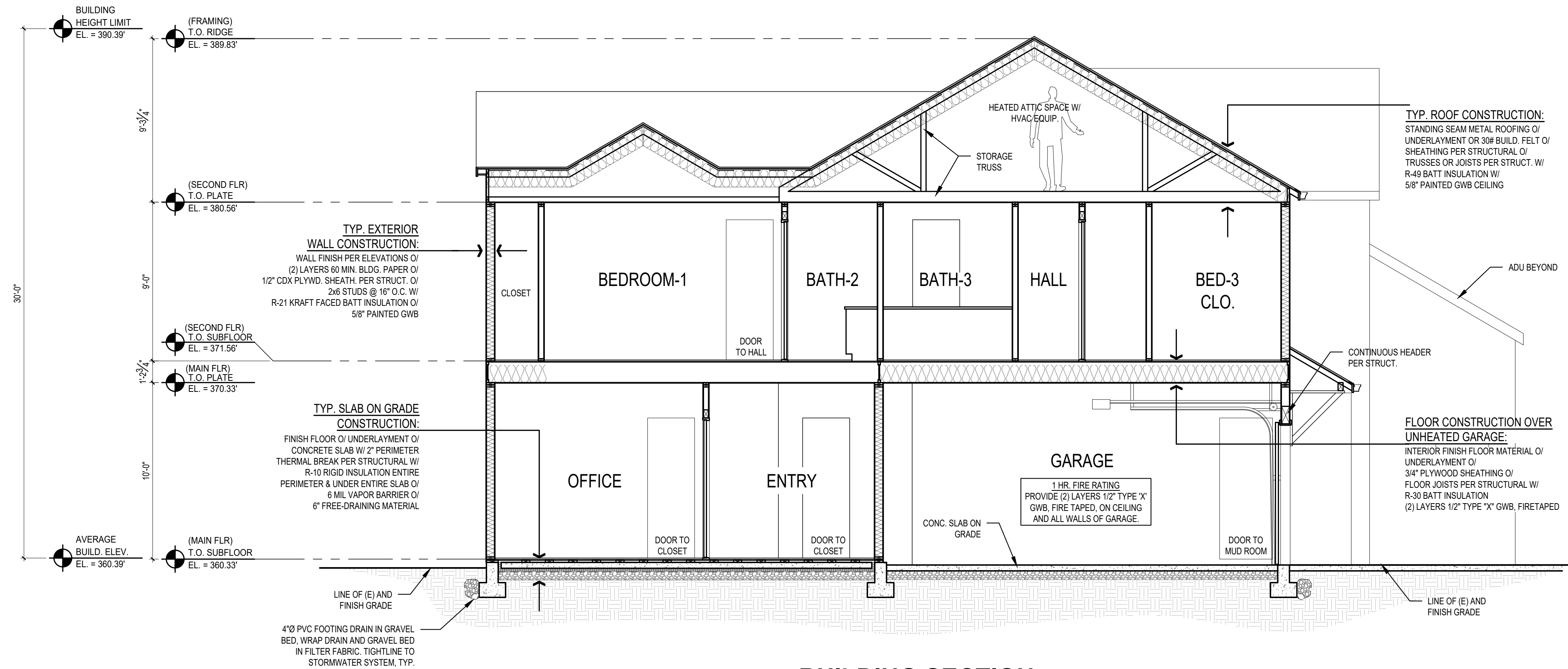
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SCALE: 1/4" = 1'-0"



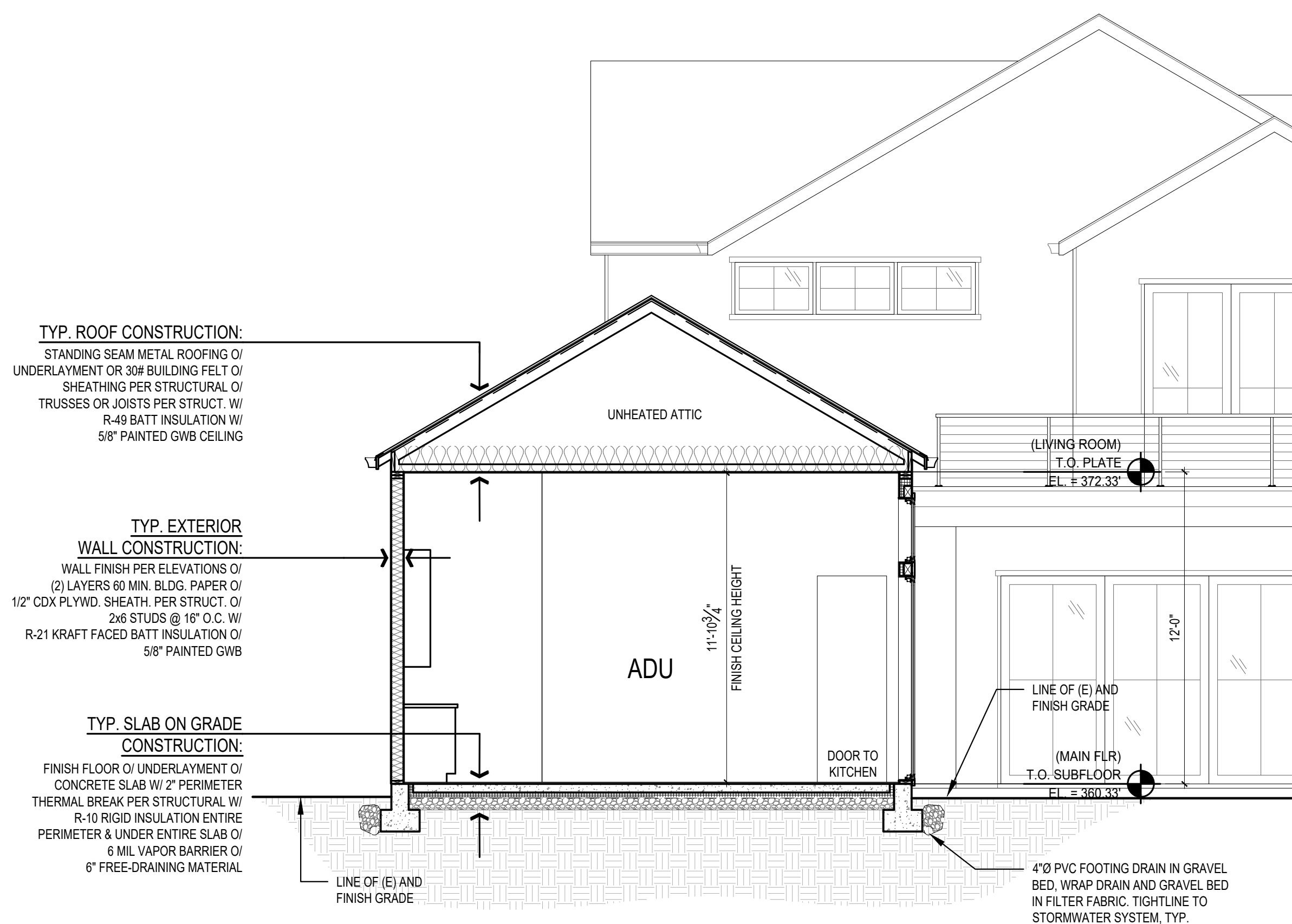
REVISIONS:

2022-11-29	Connections #1
2023-02-15	Connections #2
2023-08-22	Design Revisions
2023-09-05	Revision Corrections

DRAWN BY: KE
CHECKED BY: BJS
SHEET



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



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

DOOR SCHEDULE

DOOR NO.	LOCATION	SIZE WIDTH	SIZE HEIGHT	DOOR TYPE	TEMP GLASS	DOOR FIN.	DOOR THK.	U-VAL. (MIN.)	REMARKS
MAIN FLOOR									
101	ENTRY	PR 3'-0"	8'-0"	A	Y	-	1-3/4"	.28	TEMPERED GLASS
102	ENTRY CLOSET	2'-8"	8'-0"	B	-	-	1-3/4"	-	
103	OFFICE	2'-8"	8'-0"	B	-	-	1-3/4"	-	
104	OFFICE	2'-8"	8'-0"	B	-	-	1-3/4"	-	
105	BATH-1	2'-6"	8'-0"	C	-	-	1-3/4"	-	
106	KITCHEN	18'-0"	8'-0"	H	Y	-	1-3/4"	.28	TEMPERED GLASS
107	PANTRY	2'-6"	8'-0"	E	-	-	1-3/4"	-	POCKET
108	MUD ROOM	2'-8"	8'-0"	E	-	-	1-3/4"	-	POCKET
109	MECHANICAL	3'-0"	8'-0"	C	-	-	1-3/4"	-	GASKET
110	MUD ROOM	3'-0"	8'-0"	D	Y	-	1-3/4"	.28	TEMPERED GLASS
111	GARAGE	3'-0"	8'-0"	C	-	-	1-3/4"	-	20 MIN FIRE RATED SOLID CORE, SELF-CLOSING
112	GARAGE	9'-0"	8'-0"	F	-	-	1-3/4"	-	OVERHEAD DOOR
113	GARAGE	9'-0"	8'-0"	F	-	-	1-3/4"	-	OVERHEAD DOOR
114	ADU	3'-0"	8'-0"	D	Y	-	1-3/4"	.28	TEMPERED GLASS
115	ADU	12'-0"	8'-0"	H	Y	-	1-3/4"	.28	TEMPERED GLASS
116	ADU BATH	2'-6"	8'-0"	C	-	-	1-3/4"	-	
UPPER FLOOR									
201	BEDROOM-1	2'-8"	8'-0"	B	-	-	1-3/4"	-	
202	BEDROOM-1 CLOSET	PR 2'-8"	8'-0"	A	-	-	1-3/4"	-	
203	BEDROOM-1	2'-8"	8'-0"	B	-	-	1-3/4"	-	
204	LINEN CLOSET	PR 2'-0"	8'-0"	A	-	-	1-3/4"	-	
205	PRIMARY VESTIBULE	3'-0"	8'-0"	B	-	-	1-3/4"	-	
206	PRIMARY BEDROOM	3'-0"	8'-0"	C	-	-	1-3/4"	-	
207	PRIMARY BATH	2'-6"	8'-0"	B	-	-	1-3/4"	-	
208	PRIMARY BATH	2'-6"	8'-0"	C	-	-	1-3/4"	-	
209	LAUNDRY	3'-0"	8'-0"	C	-	-	1-3/4"	-	SOUND GASKET
210	LAUNDRY	2'-8"	8'-0"	B	-	-	1-3/4"	-	
211	BATH-3	2'-8"	8'-0"	B	-	-	1-3/4"	-	
212	BATH-3	2'-8"	8'-0"	E	-	-	1-3/4"	-	POCKET
213	BEDROOM-3	2'-8"	8'-0"	B	-	-	1-3/4"	-	
214	BEDROOM-3	2'-6"	8'-0"	E	-	-	1-3/4"	-	POCKET
215	BEDROOM-2	2'-8"	8'-0"	B	-	-	1-3/4"	-	
216	BEDROOM-2	2'-6"	8'-0"	E	-	-	1-3/4"	-	POCKET
217	PRIMARY BEDROOM	10'-0"	8'-0"	G	Y	-	1-3/4"	.28	TEMPERED GLASS
218	PRIMARY CLOSET	2'-6"	8'-0"	B	-	-	1-3/4"	-	
219	PRIMARY CLOSET	2'-6"	8'-0"	B	-	-	1-3/4"	-	

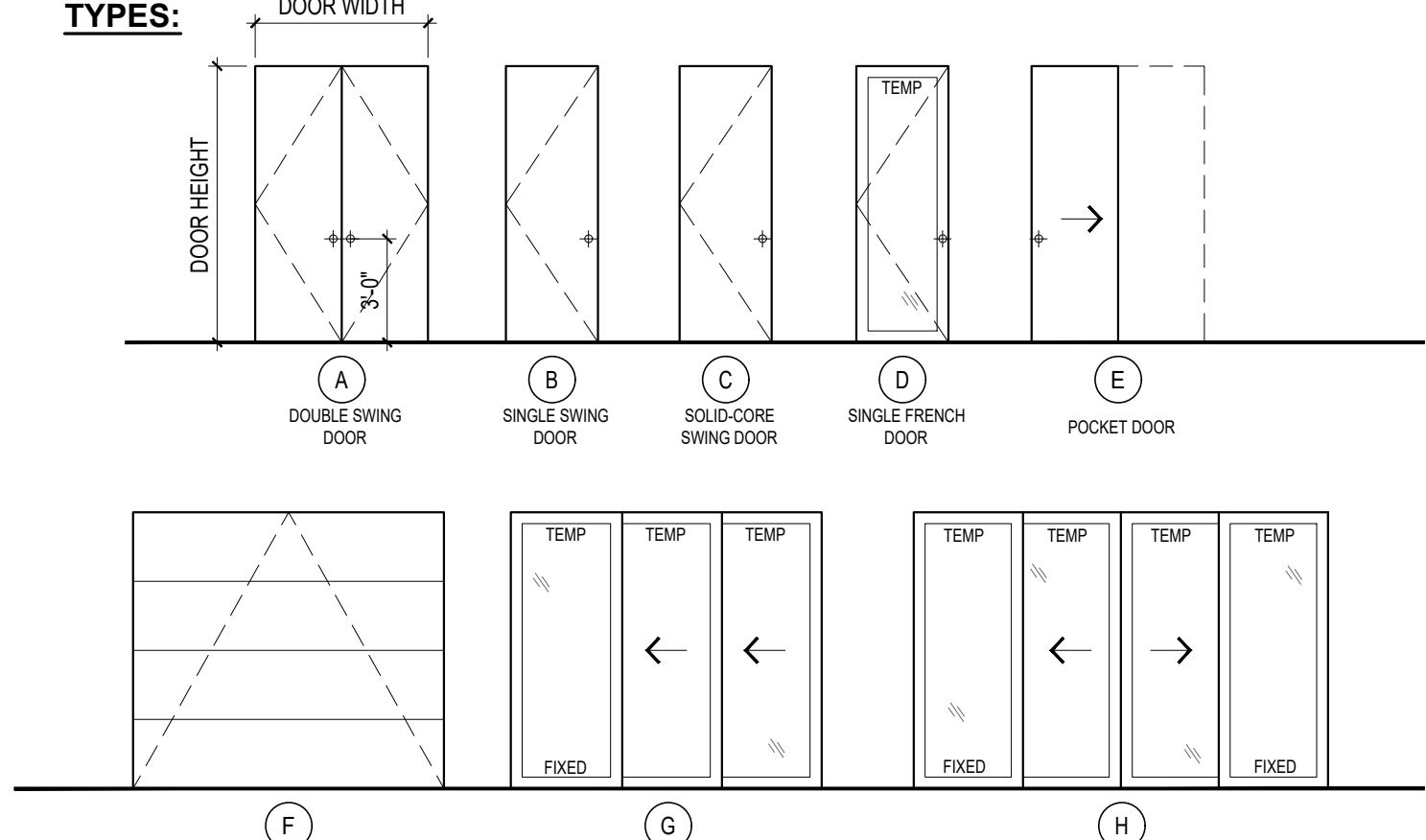
SCHEDULE NOTES:

- 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.
- ALL GLAZING TO BE "LOW E", INSULATED GLASS UNLESS NOTED OTHERWISE.
- ALL OPERABLE WINDOWS TO HAVE SCREENS.
- GLAZING INDOORS AND/OR WITHIN 24" OF A DOOR TO BE TEMPERED. SEE EXTERIOR ELEVATION FOR TEMP. GLASS LOCATION & EGRESS WINDOWS.
- 2018 WSEC & VIAQ RESIDENTIAL PRESCRIPTIVE OPTION 3 ADOPTED. GLAZING AREA INDICATED UNLIMITED. SEE ENERGY NOTE AT A1.0 SHEET FOR DETAILS.
- ALL SKYLIGHTS SHALL BE FULLY TEMPERED OVER LAMINATED GLASS

WINDOW SCHEDULE

WINDOW MARK	DESCRIPTION	R.O. SIZE WIDTH	R.O. SIZE HEIGHT	TEMP.	QTY.	TOTAL AREA (SF)	U-VALUE (MIN.)	NFRC CERT.	GLAZING	REMARKS & NOTES
A	CASEMENT	2'-6"	5'-0"	-	6	-	.28	Y	LOW E / CLEAR	EGRESS
A1	FIXED	2'-6"	5'-0"	-	1	-	.28	Y	LOW E / CLEAR	
B	CASEMENT	2'-0"	4'-0"	-	1	-	.28	Y	LOW E / CLEAR	
C	CASEMENT	3'-0"	5'-0"	-	5	-	.28	Y	LOW E / CLEAR	
D	CASEMENT	2'-6"	5'-6"	-	3	-	.28	Y	LOW E / CLEAR	
D1	FIXED	2'-6"	5'-6"	-	1	-	.28	Y	LOW E / CLEAR	
E	FIXED	2'-4"	4'-6"	-	4	-	.28	Y	LOW E / CLEAR	
F	FIXED	3'-0"	3'-0"	-	1	-	.28	Y	LOW E / CLEAR	
G	FIXED	3'-0"	2'-0"	-	7	-	.28	Y	LOW E / CLEAR	
H	FIXED	3'-0"	2'-6"	-	20	-	.28	Y	LOW E / CLEAR	
I	FIXED	4'-0"	2'-6"	-	1	-	.28	Y	LOW E / CLEAR	
J	FIXED	3'-0"	7'-0"	Y	2	-	.28	Y	LOW E / CLEAR	TEMPERED GLASS
K	FIXED	4'-0"	7'-0"	Y	1	-	.28	Y	LOW E / CLEAR	TEMPERED GLASS
L	FIXED	3'-0"	8'-0"	Y	1	-	.28	Y	LOW E / CLEAR	TEMPERED GLASS
M	CASEMENT	3'-0"	4'-0"	Y	2	-	.28	Y	LOW E / CLEAR	TEMPERED GLASS
N	CASEMENT	3'-0"	4'-6"	Y	1	-	.28	Y	LOW E / CLEAR	TEMPERED GLASS

DOOR TYPES:



SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY
REVISION SET 09/05/23

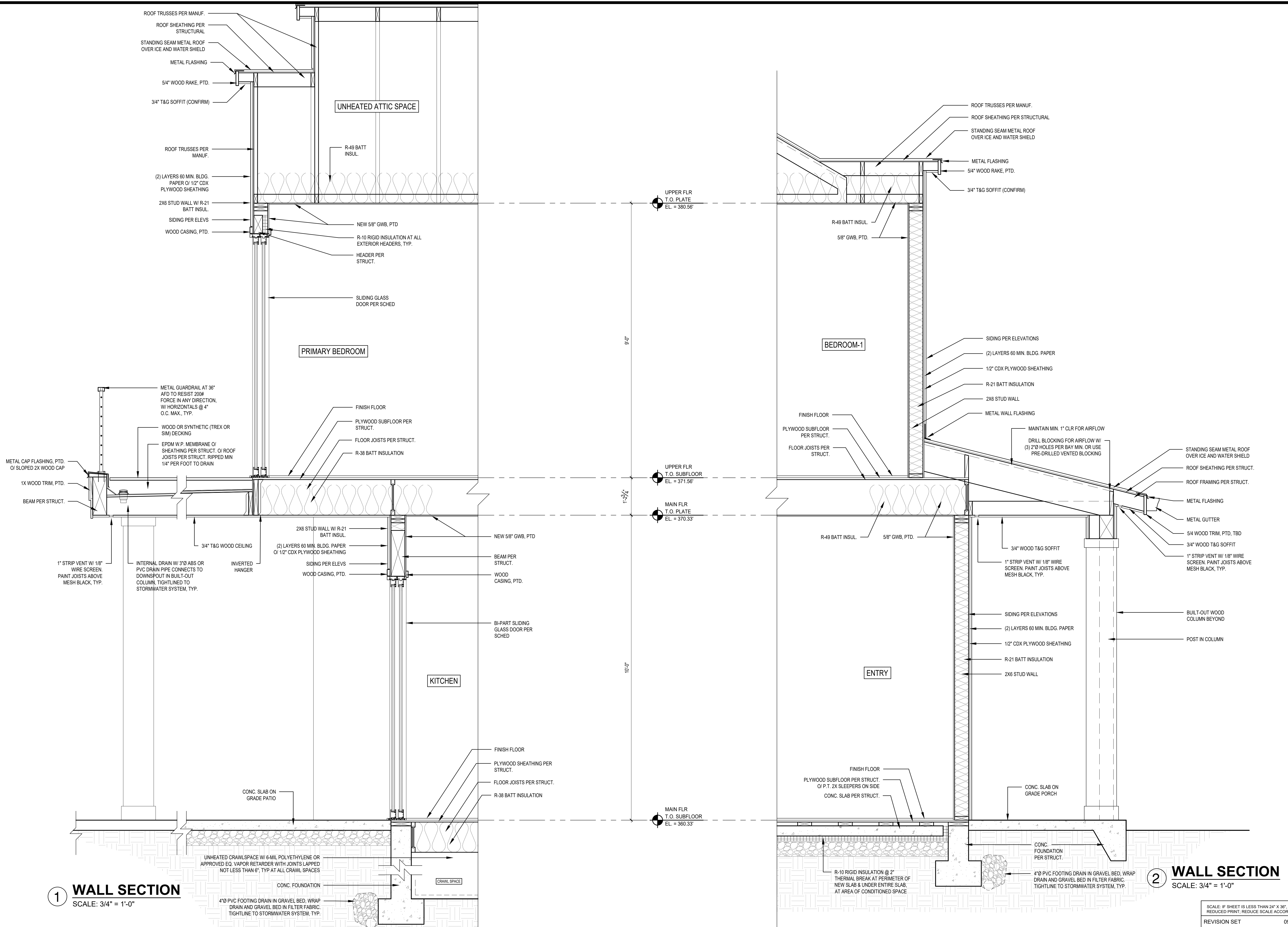
STURMAN ARCHITECTS
9-103rd Avenue NE Suite 203
Bellevue, WA 98004
TEL: 425-451-7003

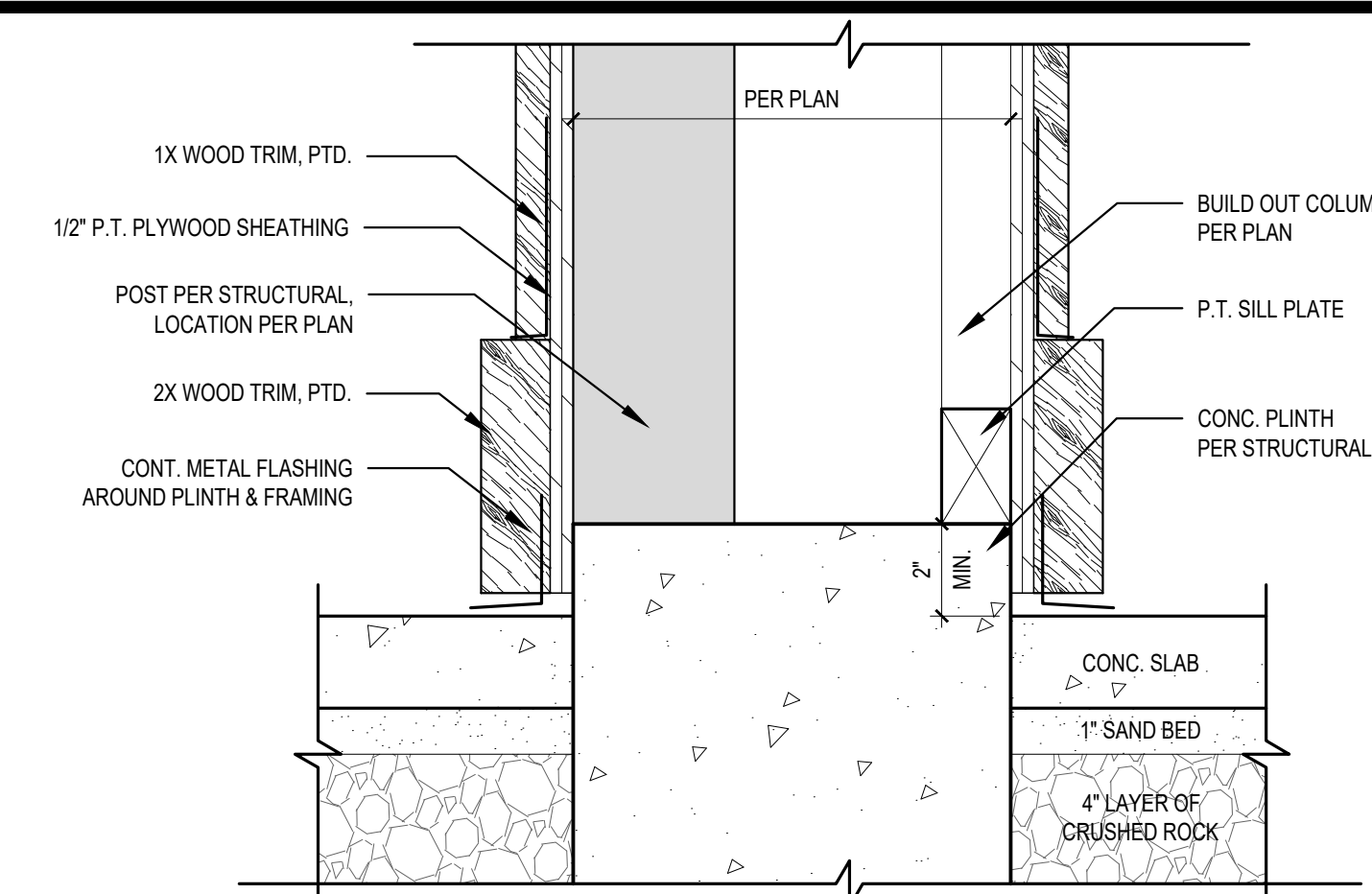
KOCH RESIDENCE PERMIT SET
4603 89TH AVE SE
MERCER ISLAND, WA 98040

BUILDING SECTIONS & WINDOW SCHEDULES

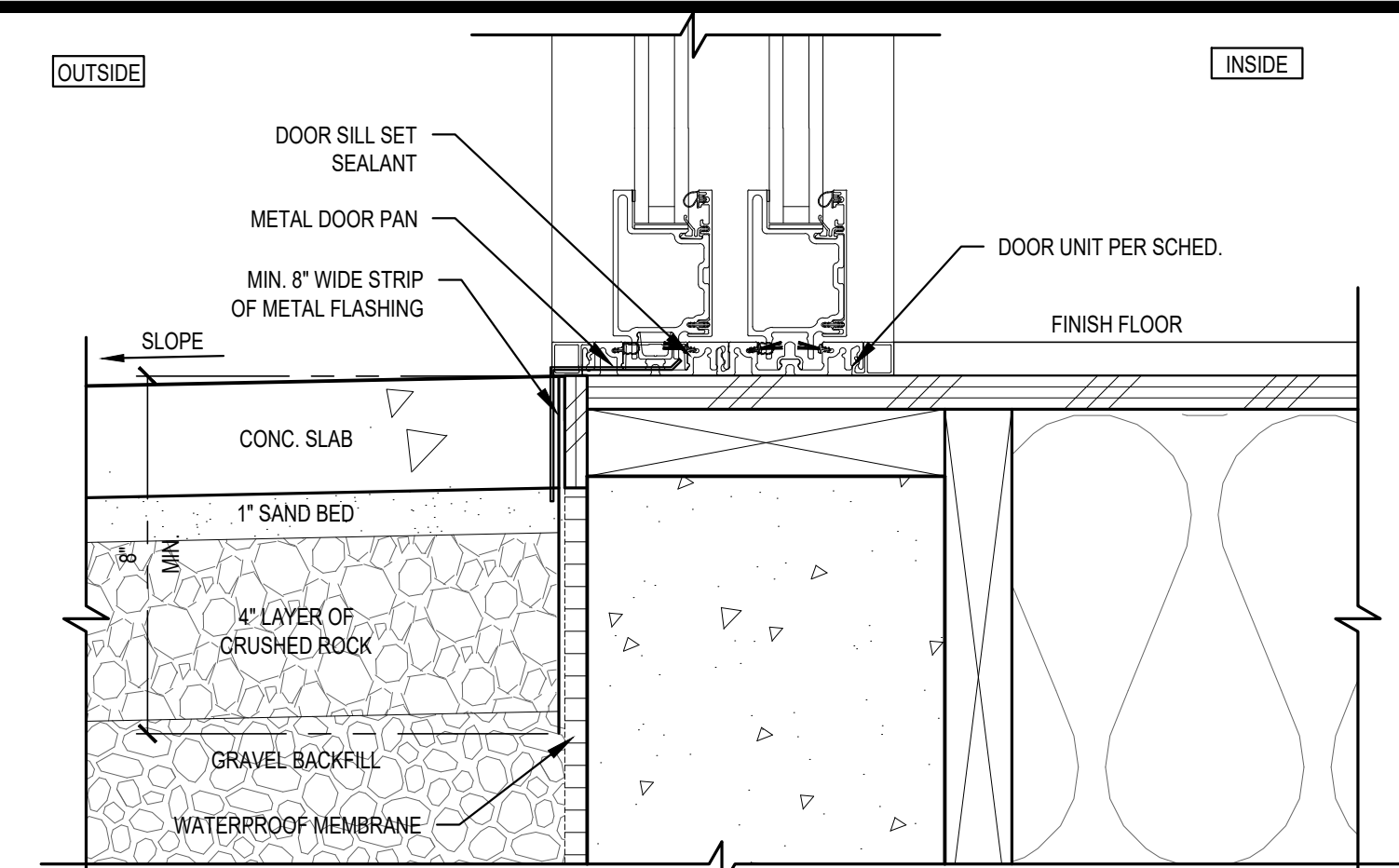
REVISIONS:
2022-11-29 Corrections #1
2023-2-15 Corrections #2
2023-8-22 Design Revisions
2023-9-05 Revision Corrections

DRAWN BY: KE
CHECKED BY: BUS
SHEET
A4.2
PLOT DATE: 9/5/2023

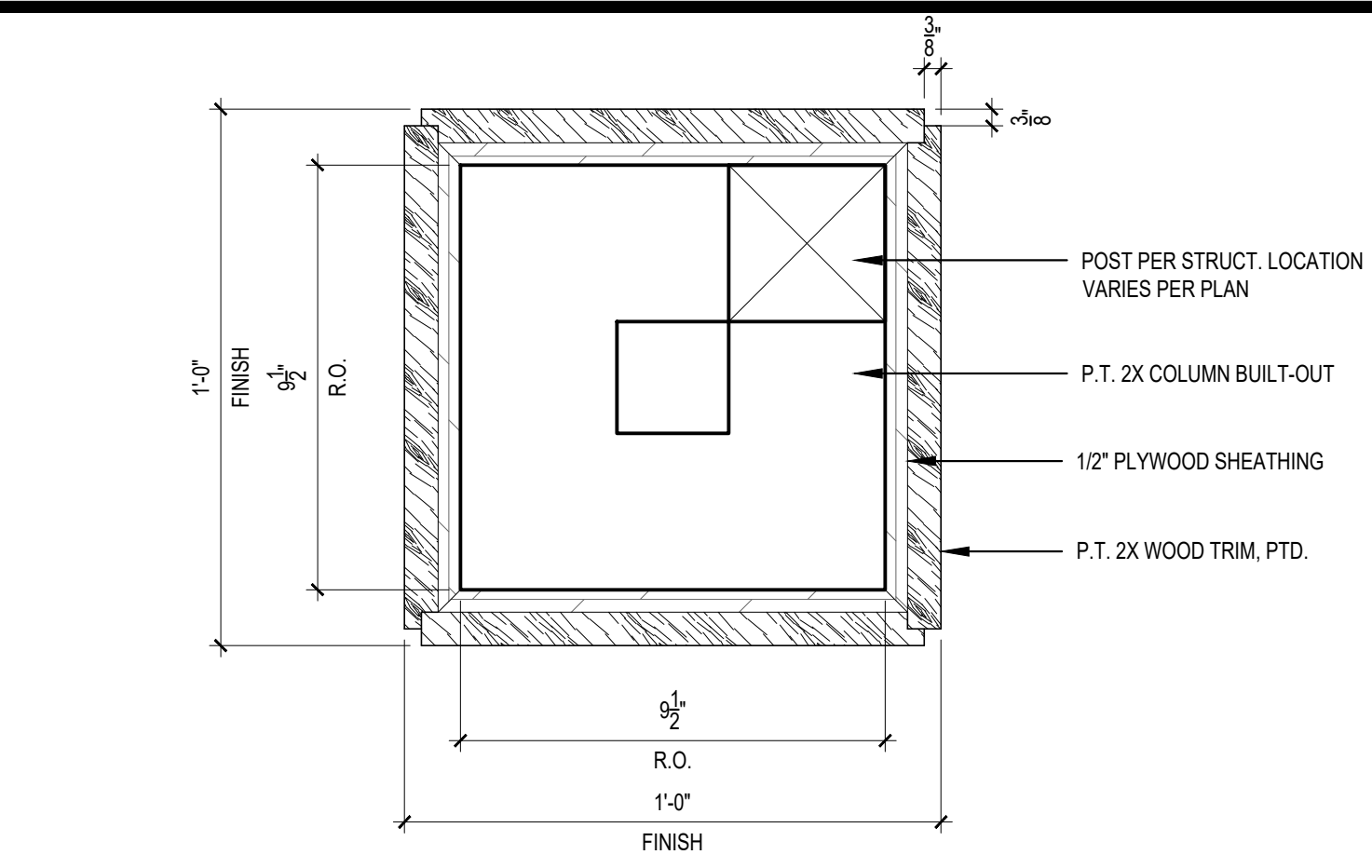




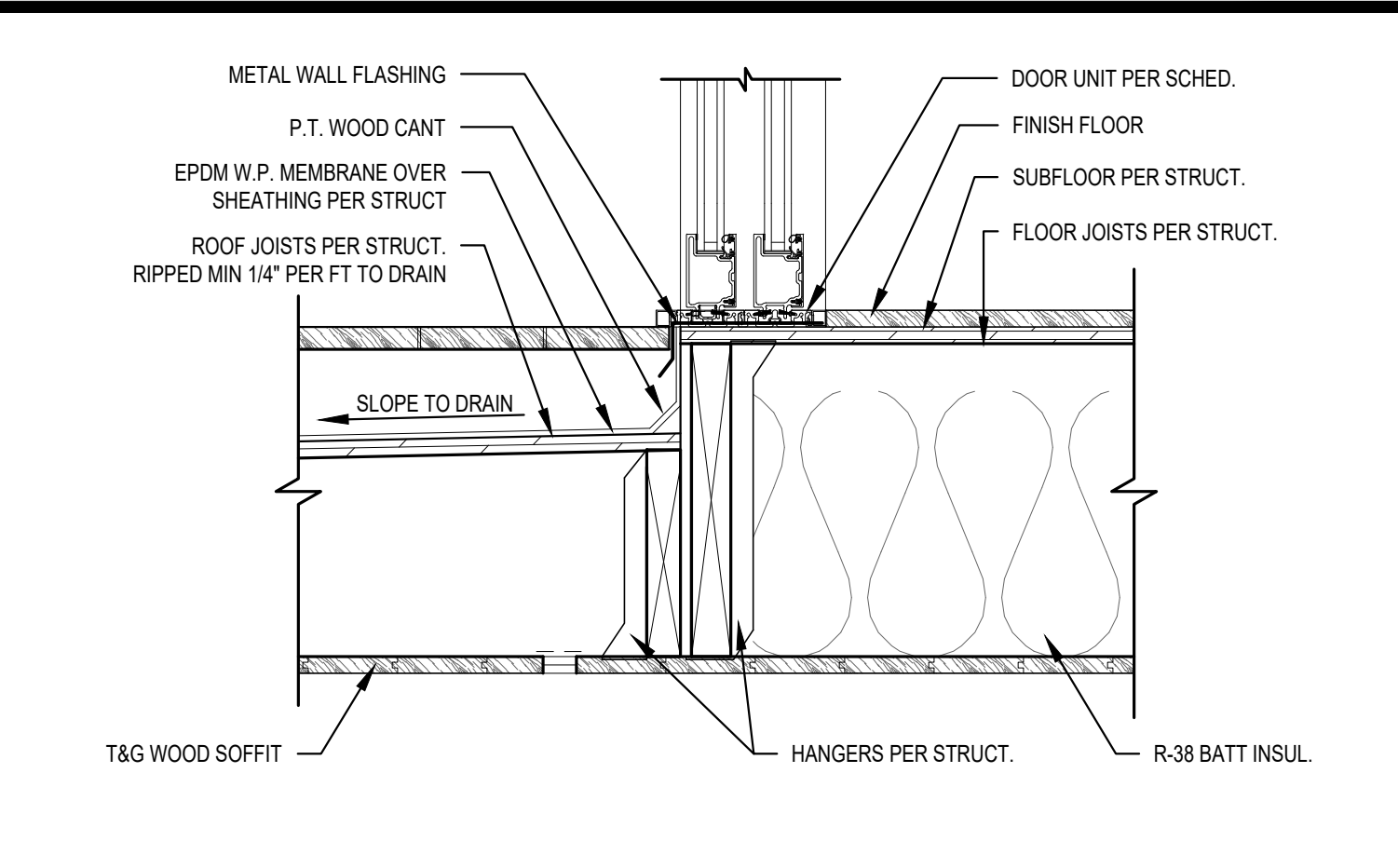
1 BUILT-OUT COLUMN CONC. PLINTH SECTION
SCALE: 3" = 1'-0"



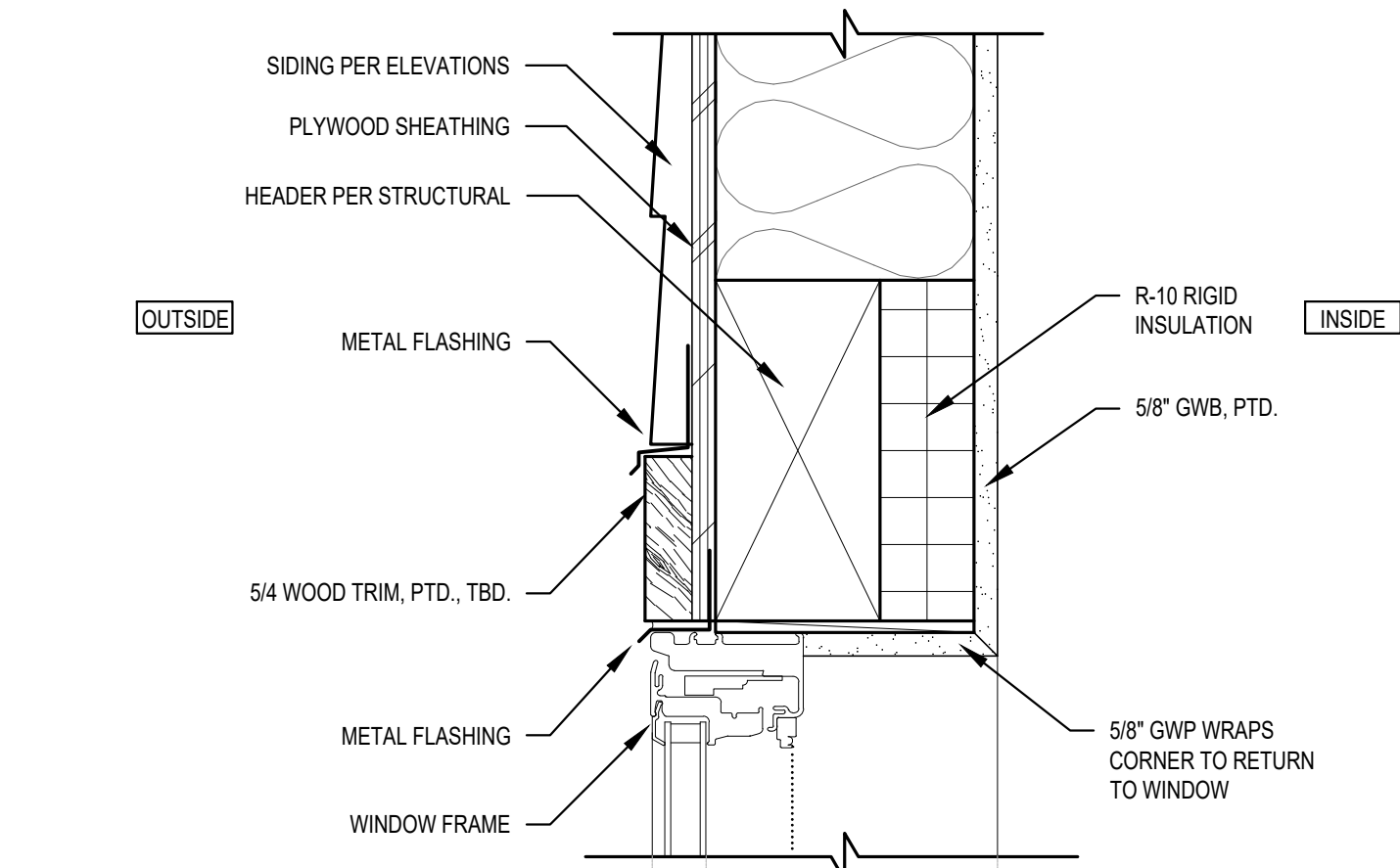
2 FLASHING DETAIL @ FLUSH THRESHOLD
SCALE: 3" = 1'-0"



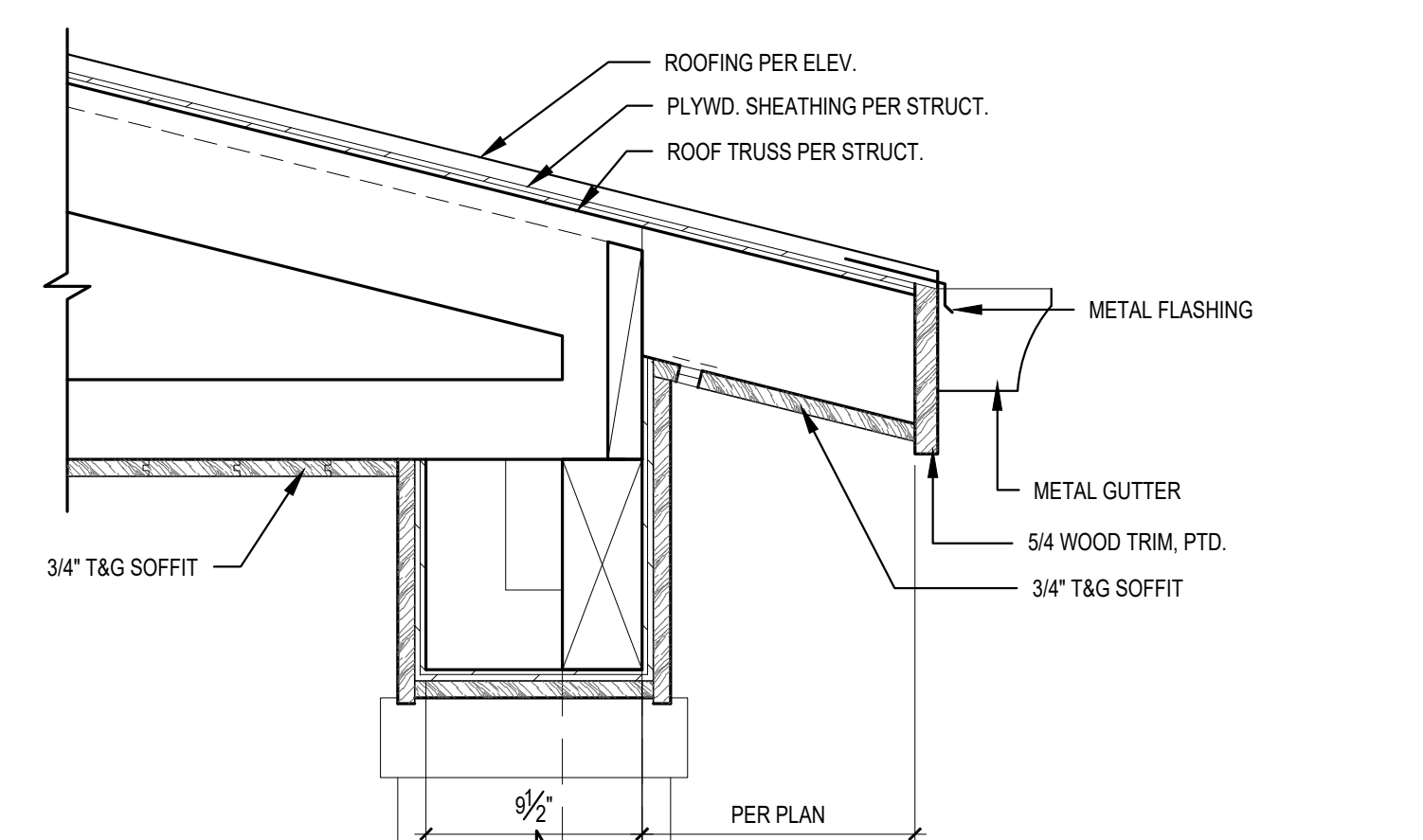
3 BUILT-OUT WOOD COLUMN PLAN
SCALE: 3" = 1'-0"



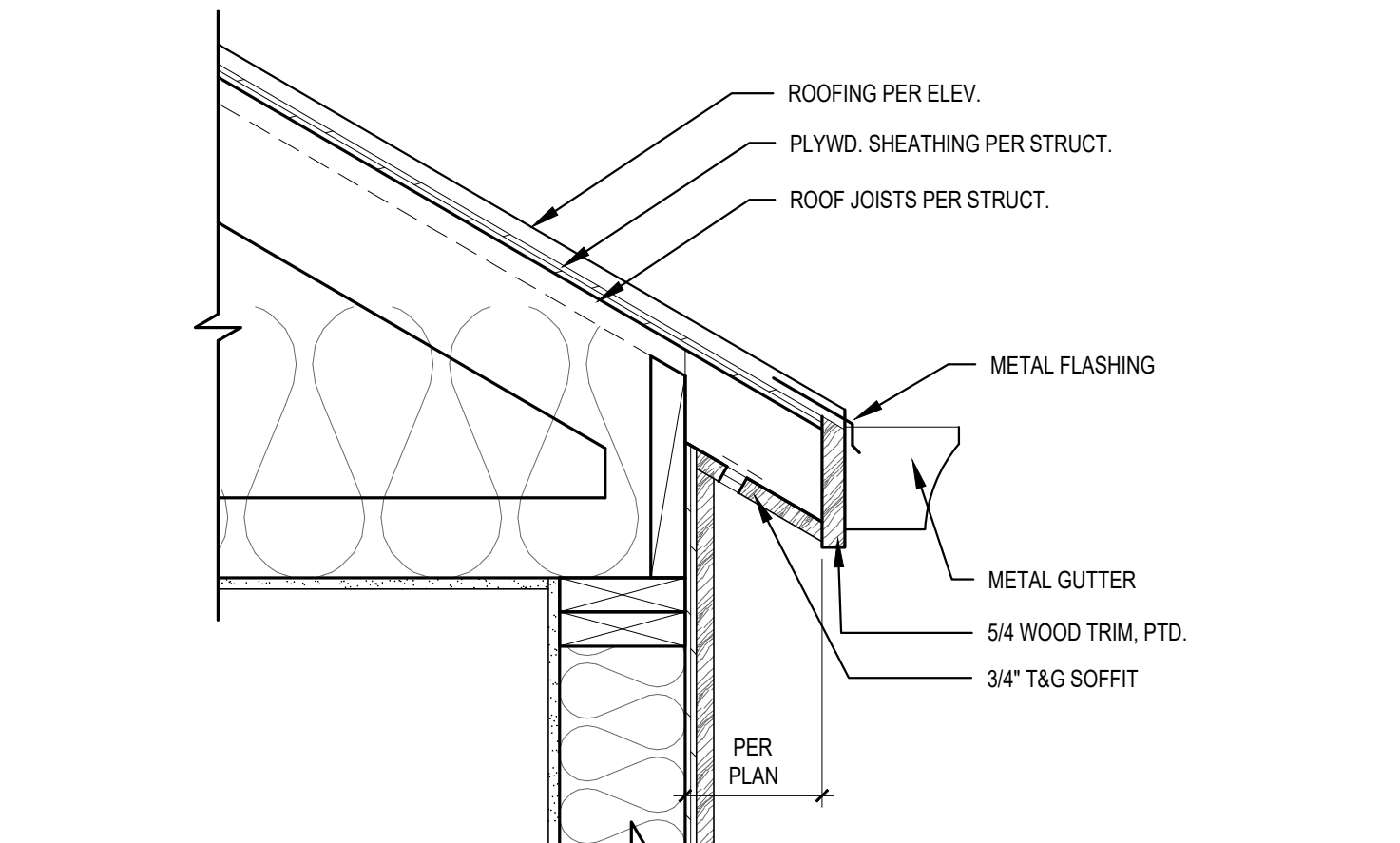
4 THRESHOLD @ DECK SECTION DETAIL
SCALE: 1-1/2" = 1'-0"



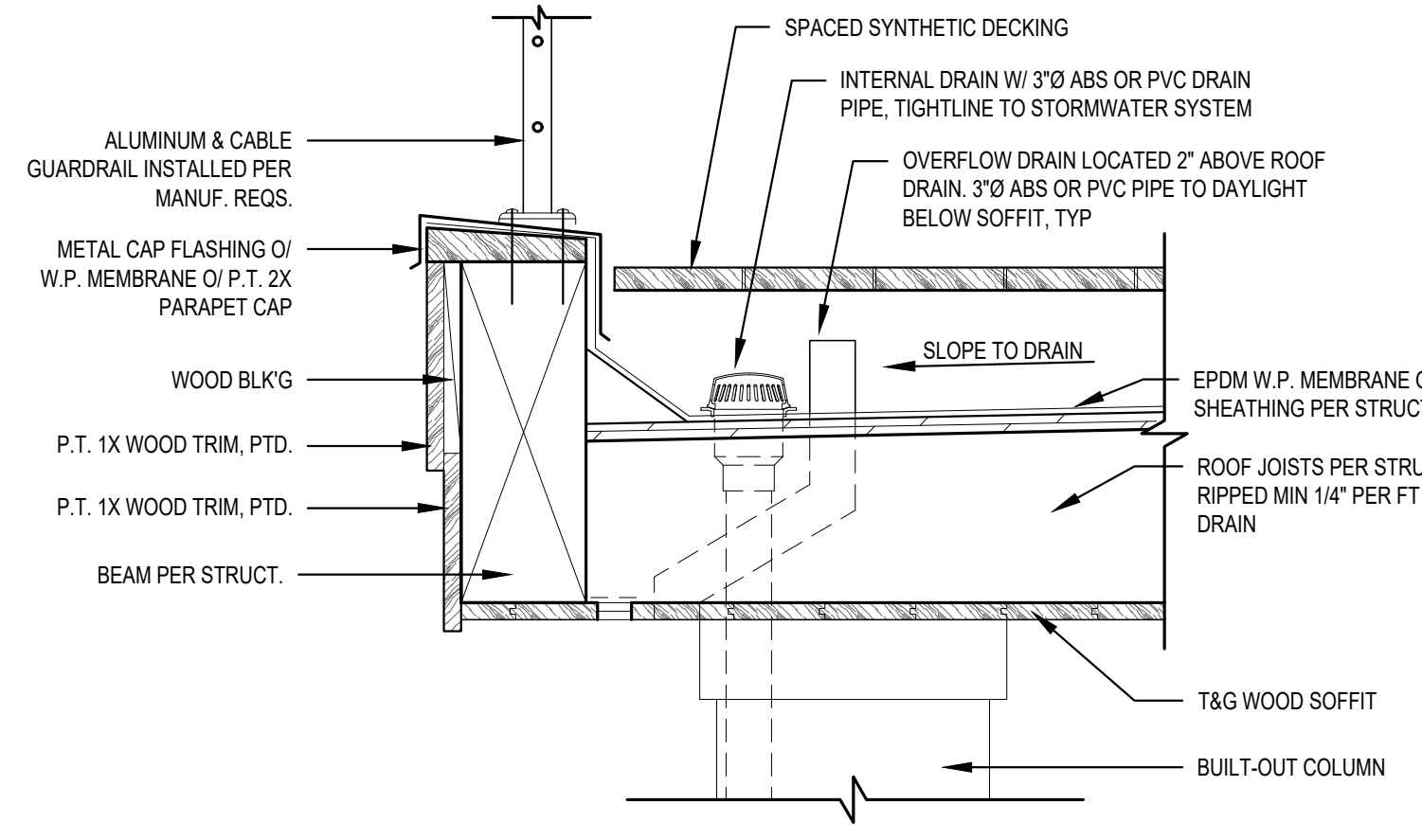
5 TYP. WINDOW HEAD DETAIL
SCALE: 3" = 1'-0"
SIM. AT WINDOW JAMB



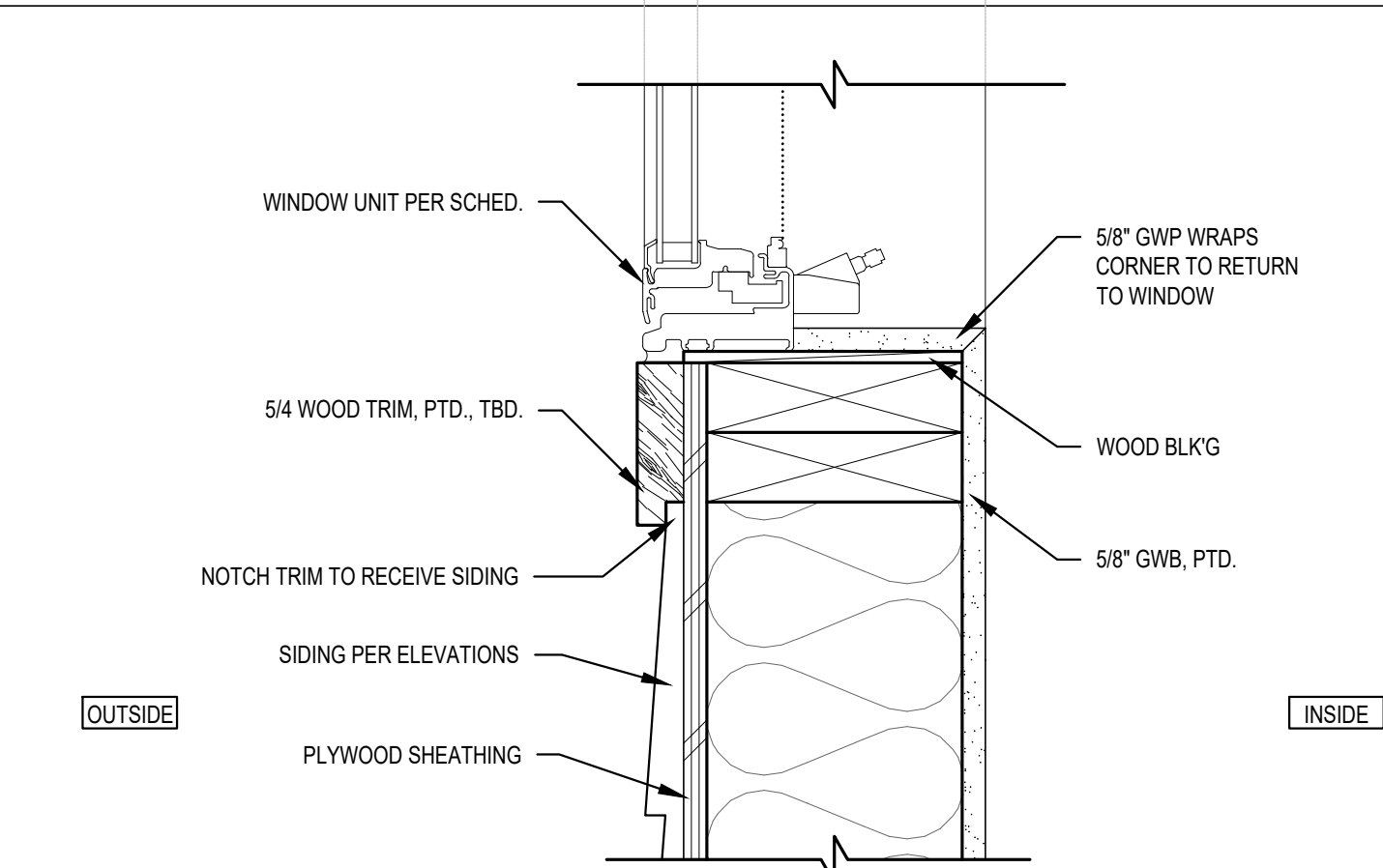
6 ENTRY ROOF EAVE DETAIL
SCALE: 1-1/2" = 1'-0"



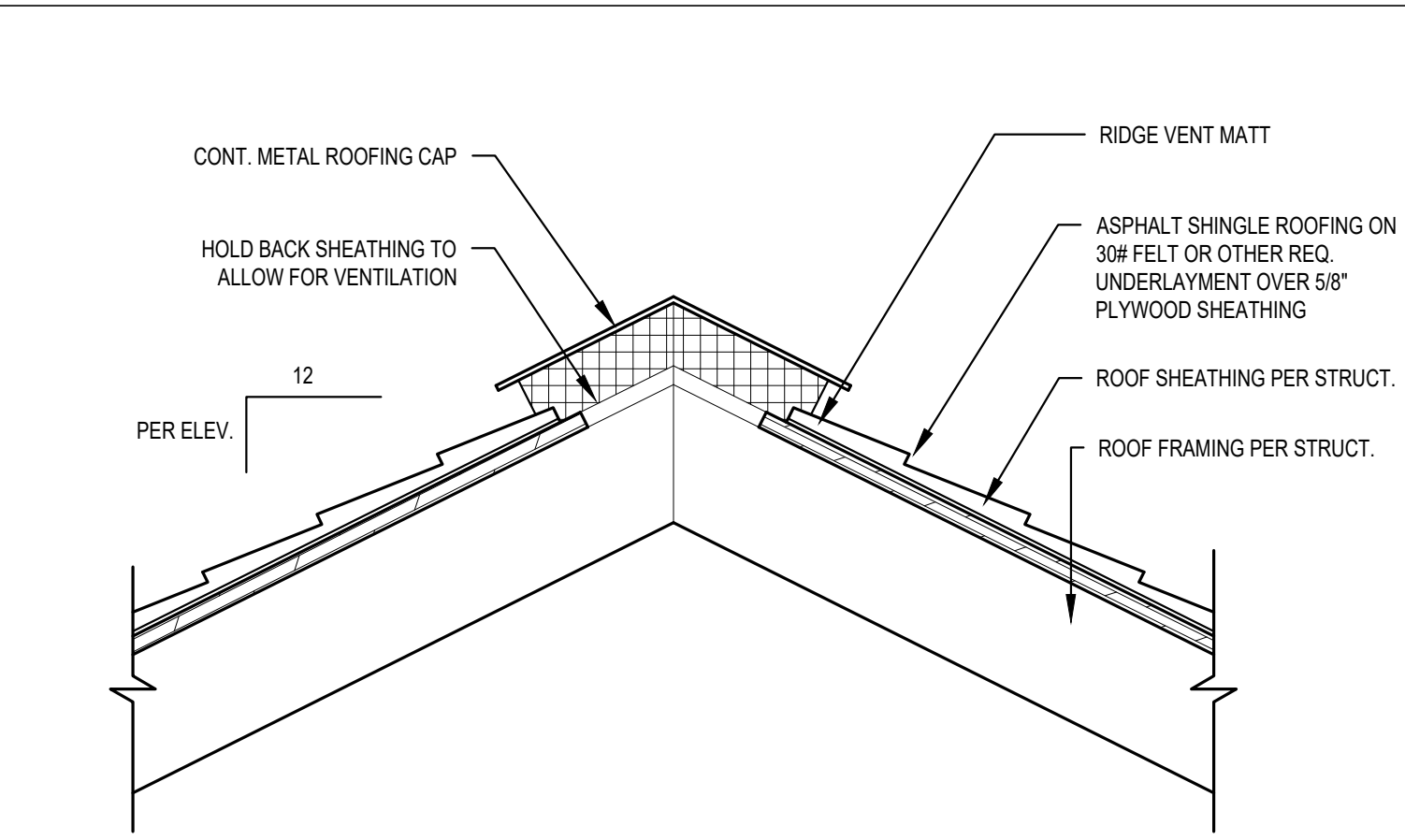
7 TYPICAL EAVE DETAIL
SCALE: 1-1/2" = 1'-0"



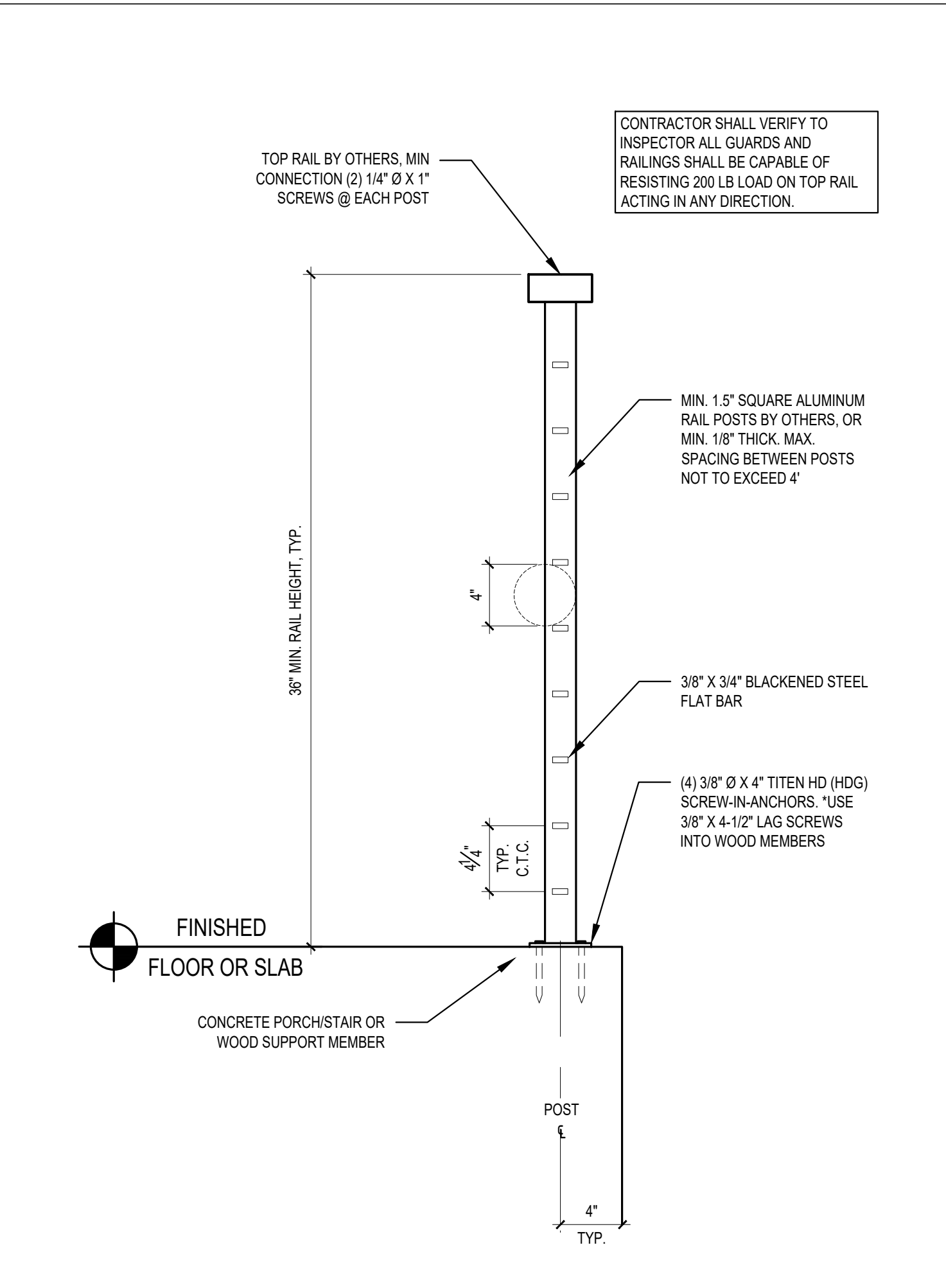
8 THRESHOLD @ DECK SECTION DETAIL
SCALE: 1-1/2" = 1'-0"



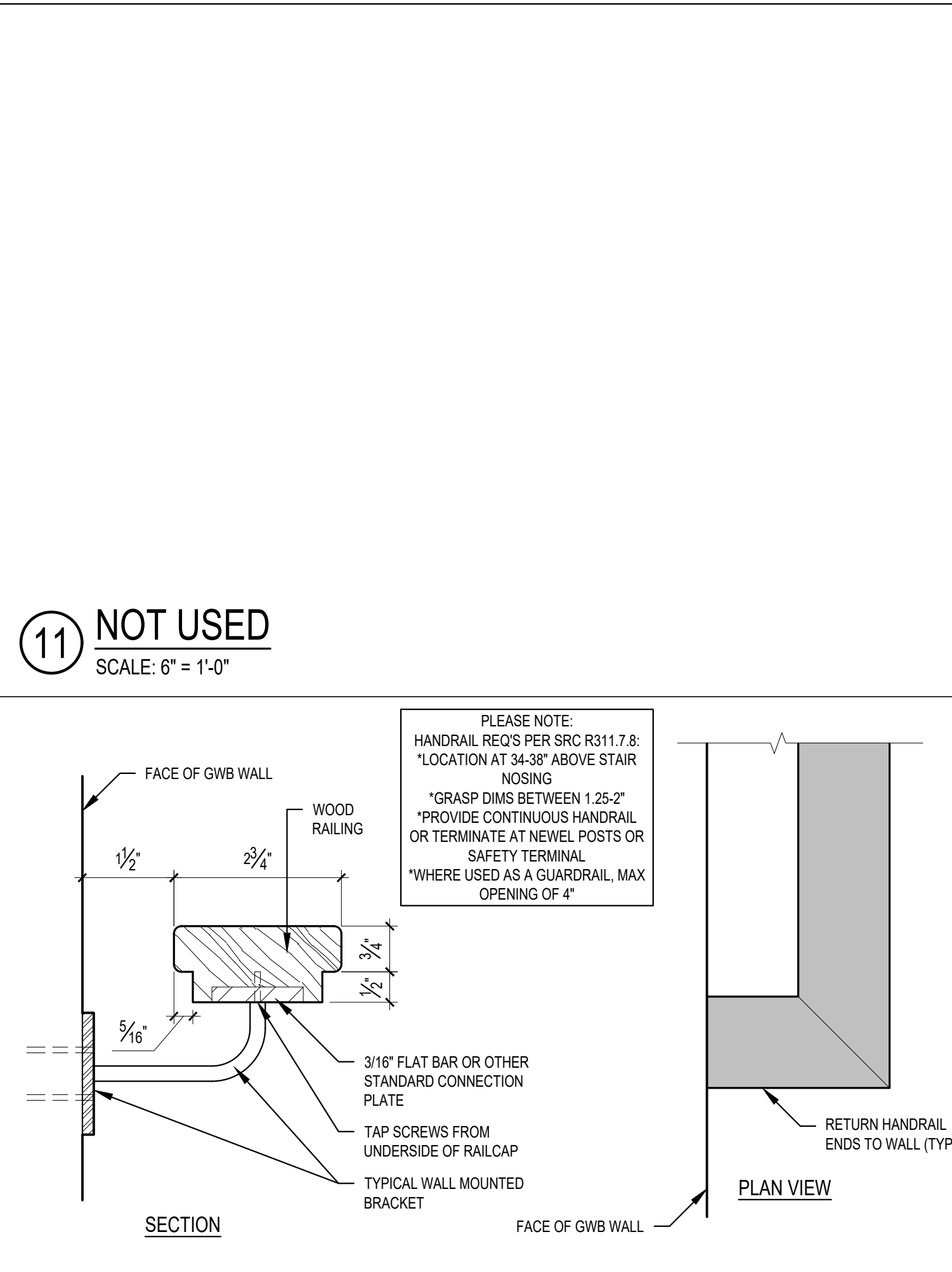
9 TYP. WINDOW SILL DETAIL
SCALE: 3" = 1'-0"



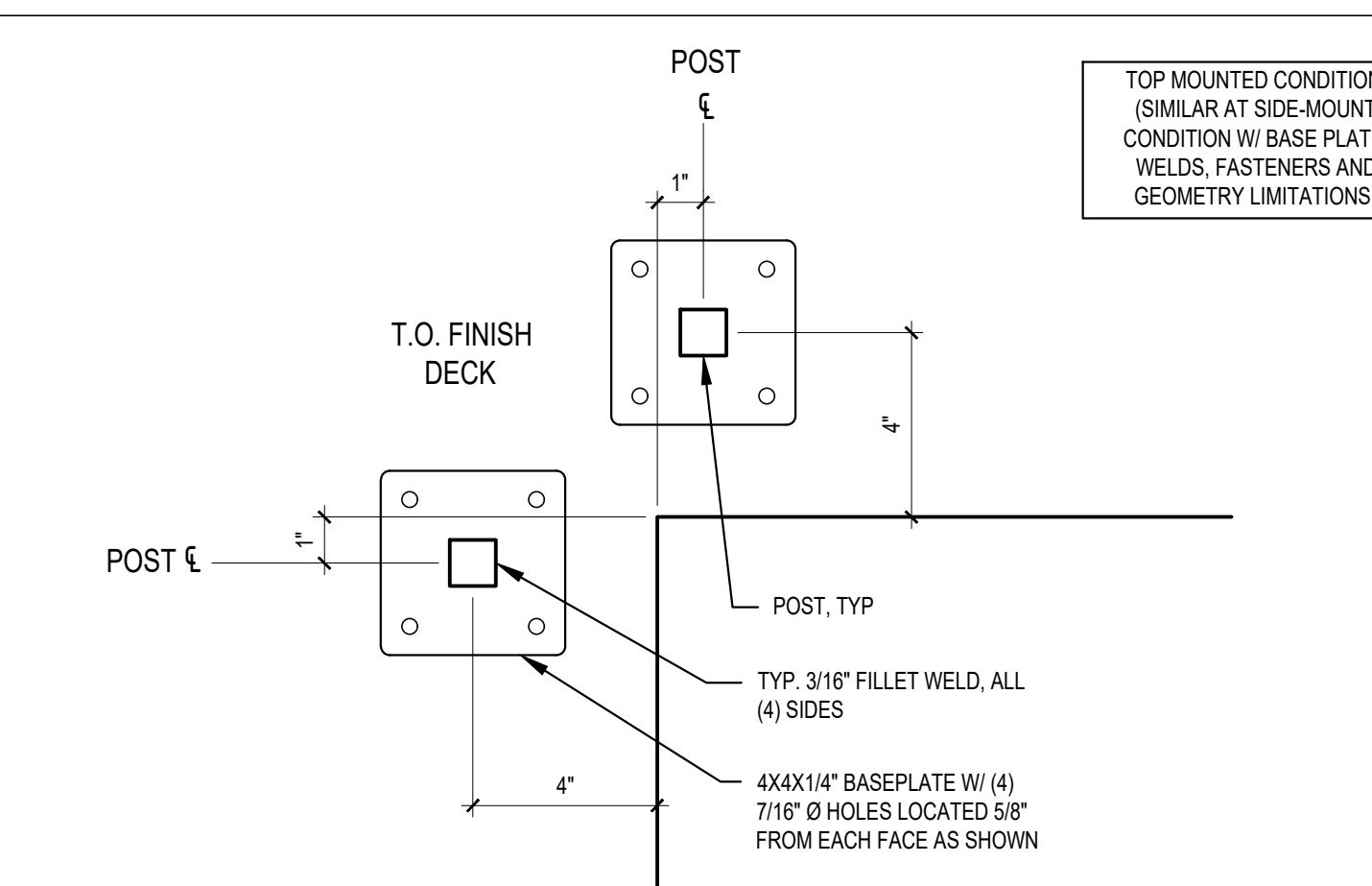
10 TYP. ROOF RIDGE VENT DETAIL
SCALE: 1 1/2" = 1'-0"



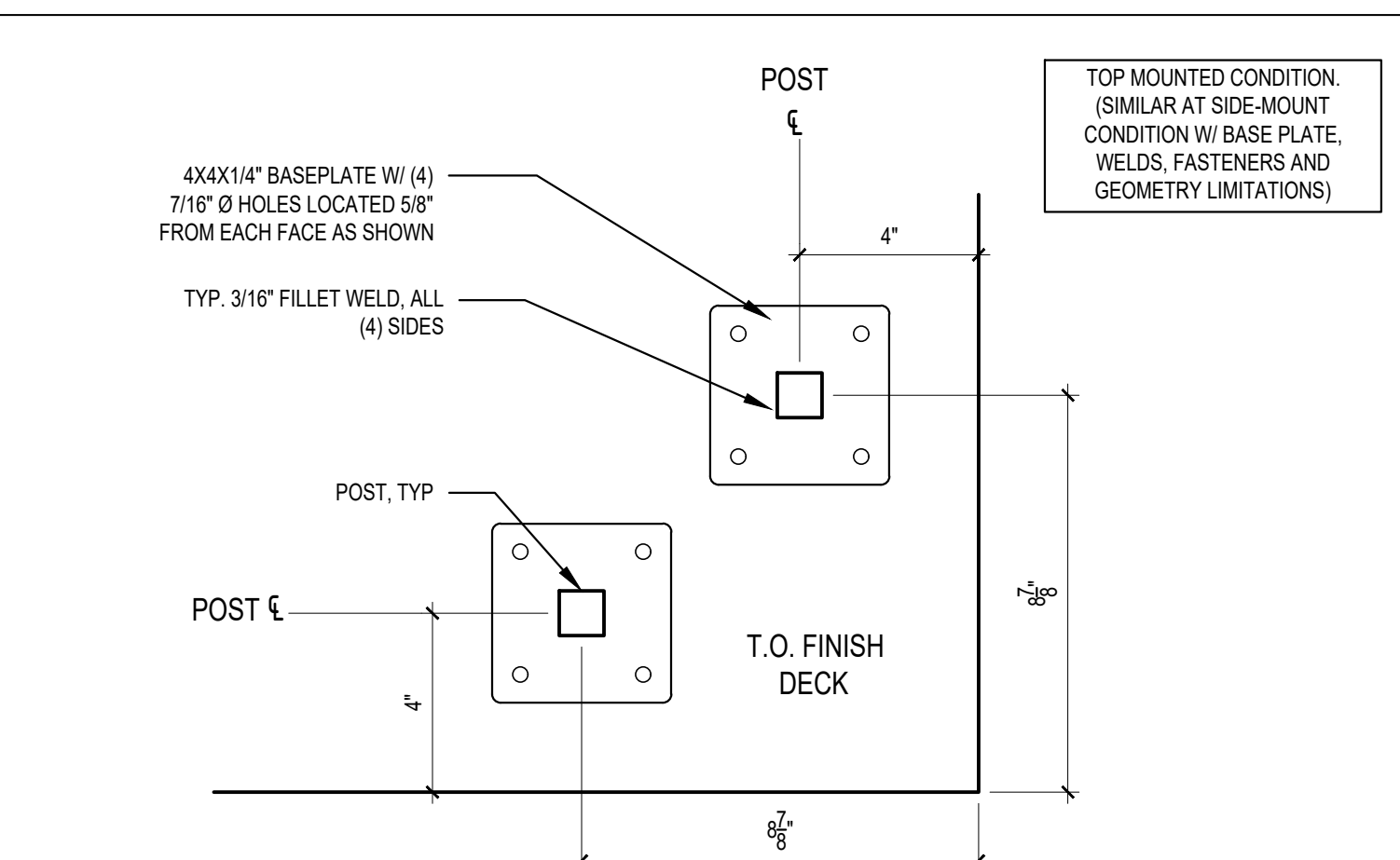
14 RAILING ATTACHMENT - TOP-MOUNTED
SCALE: 1-1/2" = 1'-0"



15 HANDRAIL DETAIL
SCALE: 6" = 1'-0"



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



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

General Requirements

All materials, workmanship, and construction shall conform to the 2018 International Building Code and local jurisdiction amendments.

Definitions: The following definitions are used throughout these structural notes:

IBC - Governing code including local amendments
SER - Structural Engineer of Record per these Contract Documents
UNO - Unless otherwise noted

Drawings indicate general and typical details of construction. Typical details and general notes shall apply even if not specifically denoted on plans, UNO. Where conditions are not specifically indicated similar details of construction shall be used, subject to review and approval by the Architect and the SER.

Reference to ASTM and other standards shall refer to the latest edition designated by IBC Chapter 35. Refer to the specifications for information in addition to that covered by these structural notes and drawings.

Warranty: The SER has used that degree of care and skill ordinarily exercised under similar circumstances by members of the profession in this locale and no other warranty, either expressed or implied, is made in connection with rendering professional services.

Design Criteria

BUILDING CATEGORY: Structural Occupancy Category II
Importance factors for snow, wind and seismic are listed with the loading criteria.

LIVE LOADS:

Roof; Snow load, Pf = 25 psf

Residential:

Uninhabitable attics without storage	10 psf
Uninhabitable attics with storage	20 psf
Uninhabitable attics portions over 4'-0" high	20 psf
Habitable attics and sleeping areas	30 psf
Residential floor	40 psf
Residential decks	60 psf

LATERAL LOADS-WIND: Per ASCE 7-16, Section 27.5

Iw = 1.0; Kzt = 1.60; V = 9.2 kips

Numbering below is per IBC Section 1603.1.4:

- Basic Wind Speed (3-second gust) = 110 mph
- Importance Factor = 1.0
- Exposure = B
- Internal pressure coefficient = +/- 0.18
- Components and Cladding: The following working loads may be used in lieu of calculations:
(Uplift at roof) Zone 1,2e,2r; 16.9 psf
100 sq. ft. Zone 2n,3r; 24.3 psf
Zone 3e; 19.4 psf
(Roof overhangs) Zone 1,2e,2r; 35.4 psf
20 sq. ft. Zone 2n,3r; 44.4 psf
Zone 3e; 51.6 psf
(Walls) Zone 4; 21.1 psf
20 sq. ft. Zone 5; 25.5 psf

LATERAL LOADS-EARTHQUAKE: Per ASCE 7-16, Chapter 11 & IBC 1613

Numbering below is per IBC Section 1603.1.5:

- Importance Factor = 1.0
- Mapped Spectral Response Accelerations, Ss = 1.430 g; S1 = 0.497 g
- Site Class = D; Fa = 1.000, Fv = 1.803
- Spectral Response Coefficients, Sds = 0.953 g, Sd1 = 0.597 g
- Seismic Design Category = D
- Basic Seismic Force Resisting System is:
Vertical Elements = Wood Structural Panel Shear Walls
Diaphragms = Wood Structural Panel Diaphragms
- Design Base Shear = 10.0 kips
- Seismic Response Coefficient Cs = 0.147
- Response Modification Factor R = 6.5
- Analysis Procedure = Equivalent Lateral Force Procedure

Additional Items:

Building Location 47.563 N, 122.220 W
Building Height = 28 feet

Redundancy Factors:

North/South Direction = 1.0 East/West Direction = 1.0

Contractor Execution Requirements

Contractor shall verify all dimensions and all conditions at the job site, including building and site conditions before commencing work, and be responsible for same. All discrepancies shall be reported to the Architect/SER before proceeding with work. Any errors, ambiguities and/or omissions in the contract documents shall be reported to the Architect/SER immediately, in writing. No work is to be started before correction is made.

Contractor shall coordinate all dimensioned openings and slab edges shown on the contract documents. Some dimensions, openings and embedded items are shown on the structural drawings, others may be required. Refer to architectural drawings for all dimensions, wall and floor openings, architectural treatment, embeds required for architectural items, etc. Refer to mechanical, plumbing, electrical, fire protection and civil drawings for size and location of all openings for ducts, piping, conduits, etc.

Do not scale drawings. Use only field verified dimensions. When electronic plan files are provided for the contractor's detailing convenience, it shall be noted that the electronic files are not guaranteed to be dimensionally accurate; the contractor uses them at their own risk. The published paper documents are the controlling Contract Documents. Electronic files of detail sheets and notes will not be provided.

Contract Documents and any materials used in preparation of them, including calculations, are the exclusive property of the SER and can be reproduced only with the permission of the SER.

Contractor initiated changes shall be submitted in writing to the Architect/SER for review and acceptance prior to fabrication/construction. Changes shown on shop drawings only will not satisfy this requirement.

The contractor shall provide temporary bracing as required until all permanent connections have been installed. The contractor is responsible for the strength and stability of all partially completed structures including but not limited to concrete or masonry walls, steel framing and erection aids. The contractor shall be responsible for all required safety standards, safety precautions and the methods, techniques, sequences or procedures required in performing his work. The contractor shall coordinate with the building department for all building department required inspections.

Inspection

The building official, upon notification, shall make structural inspections as required by local ordinance. The inspection by the building official per IBC Section 109 will be separate from and in addition to the special inspection and structural observation mentioned subsequently.

Shop Drawing & Submittal Review

The contractor shall review and stamp the shop drawings & submittals for review. SER will only review submittals for items shown on SER documents. Submittals for Deferred Structural Components will receive cursory review by SER for loads imposed on primary structure. SER will review shop drawings for general conformance with design concept of the project and general compliance with the information given in the Structural Contract Documents. Review of submittals does not constitute approval or acceptance of unauthorized deviation from Contract Documents.

Shop Drawing & Submittal Review (including Deferred Structural Components)

The contractor shall review and stamp the shop drawings & submittals for review. SER will only review submittals for items shown on SER documents. Submittals for Deferred Structural Components will receive cursory review by SER for loads imposed on primary structure. SER will review shop drawings for general conformance with design concept of the project and general compliance with the information given in the Structural Contract Documents. Review of submittals does not constitute approval or acceptance of unauthorized deviation from Contract Documents.

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications.

Contractor responsible for:

- Reviewing, approving, stamping and signing submittals prior to submittal to Architect and SER
- Timing submittals to allow 10 days of review time for the SER and time for corrections and resubmittal
- Conformance to requirements of the Contract Documents
- Dimensions and quantities
- Verifying information to be confirmed or coordinated
- Information solely for fabrication, safety, means, methods, techniques and sequences of construction
- Coordination of all trades

Resubmittals shall be clouded and dated for all changes to the submittal. Only clouded portions of resubmittal will be reviewed and SER's review stamp applies to only these areas.

Substitutions

Substitutions shall be submitted in writing prior to submittal of shop drawings. Shop drawings bearing substitutions will be rejected. Submit engineering data to substantiate the equivalence of the proposed items. The SER's basic services contract does not include review of substitutions that require re-engineering of the item or adjacent structure. Nor does the SER's contract cover excessive review of proposed substitutions. The fees for making these reviews and/or redesign shall be paid by the contractor. Reviews and approvals shall not be made until authorization is received.

Submittals

Shop drawings and material submittals shall be submitted to the Architect and SER prior to any fabrication or construction for the following structural items. Submittals shall include one reproducible and one copy; reproducible will be marked and returned. If deviations, discrepancies, or conflicts between shop drawings submittals and the contract documents are discovered either prior to or after shop drawing submittals are processed by the SER, the Contract Documents control and shall be followed.

- 1-joint and engineered wood beam floor framing layout & materials list
- Engineered wood beams (certificates to be on-site and available upon request)
- Deferred Structural Components (see below)

Deferred Structural Components

These elements have not been permitted under the base building application. The contractor will be required to submit the component system documents to the building official for approval. The documents shall be stamped and signed by an engineer licensed by the state where the project is located. The deferred structural components shall not be installed until the design and submittal documents have been approved by the building official.

Prior to building department submittal, the deferred structural components submittals shall receive cursory review by SER for loads imposed on primary structure and general conformance with design concept of the project and general compliance with the information given in the Structural Contract Documents. Review of submittals does not constitute approval or acceptance of unauthorized deviation from Contract Documents. Submittals of contractor-designed components shall include the designing professional engineer's stamp and signature, as noted above. The submittal shall be approved by the component vendor prior to review by the SER. The designing professional is responsible for code conformance and all necessary connections not specifically called out on architectural or structural contract documents.

Submittals shall include details of connections to primary structure that indicate magnitude and direction of all loads imposed at point of connection. Design criteria shall be provided with submittal and calculations shall be made available upon request.

The following list includes the items that are defined as Deferred Structural Components. Refer to other discipline's contract documents for additional deferred components that may require structural design and details. Connections of these elements shall not induce torsion on structural members. Deferred Structural Components shall be manufactured, delivered, handled, stored, and field erected in conformance with instructions prepared by the component vendor.

Deferred structural components:

Pre-manufactured wood trusses

Special Inspections

The owner shall retain a Special Inspector to perform the special inspection requirements required by the building official as outlined in IBC Section 1704. See the specifications for additional requirements for special inspection and testing. The architect, structural engineer, and building department shall be furnished with copies of all inspection reports and test results.

The following inspections are required and shall be performed per the building code:

- Epoxy installed anchor bolts and holdowns rods: Continuous per Section 1705.12.2 (as req'd)

Structural Observation

Structural observation is defined as the visual observation of the structural system for general conformance to the Contract Documents at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspection required by Section 109 or other sections of the IBC.

The owner shall employ a registered design professional to perform structural observation when required by IBC 1709. Observed deficiencies shall be reported in writing to the Architect, special inspector, and contractor. The contractor shall respond to these items in writing indicating how they have been resolved. At the end of the project, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved.

Construction observation by the SER is for general conformance with structural portions of the permit documents only and is not intended in any way to review the Contractor's construction procedures. The SER has no overall supervisory authority or actual/direct responsibility for the specific working conditions at the site and for any hazards resulting from the action of any trade contractor. The SER has no duty to inspect, supervise, note, correct, or report any health or safety deficiencies to the owner, contractors, or other entities or persons at the project site.

The contractor shall provide the SER adequate notice to schedule appropriate site visits for structural observation.

Geotechnical

Report & General Criteria

Criteria outlined in the report listed below was used for the design of the foundations:

"Foundation Design Criteria and Evaluation of Infiltration Feasibility", Proposed Lancot Residence, 4603 - 89th Ave SE, Mercer Island, WA", #JN 22040, dated January 28, 2022 & prepared by Geotech Consultants, Inc.

Contractor shall be familiar with recommendations in the above-mentioned report prior to start of construction. Allowable soil pressure & lateral earth pressure are assumed and therefore must be verified by a Geotechnical Inspector or the building official. If soils are found to be other than assumed, notify the structural engineer for possible foundation redesign. For wet weather work, see the Geotech Report.

All prepared soil-bearing surfaces shall be inspected by the Geotechnical Inspector (or building official) prior to placement of reinforcing steel and concrete. Inspections shall be made per IBC Table 1704.7.

Unless otherwise noted, footings shall be centered below columns or walls.

Bearing Values

Allowable soil pressure = 2,500 psf
Passive earth pressure = 300 pcf
Coefficient of friction = 0.40

All footings shall bear on undisturbed soil and shall be lowered to firm bearing if suitable soil is not found at elevations shown. Exterior footings shall bear a min. of 18" below the finished ground surface. Footing elevations shown on plans (or in details) are minimum depths and for guidance only; the actual elevations of footings must be established by the contractor in the field working with the Geotechnical Inspector.

Subgrade Preparation

Prepare subgrade per the Geotechnical Report, summarized as follows: All footings shall be cast on undisturbed firm natural soils that are free of organic materials. Footing excavation shall be free of loose soils, sloughs, debris and free of water at all times. If organic silt and/or fill material is encountered at subgrade elevations, over-excavate a minimum of 2'-0" below the design foundation subgrade elevation prior to placing footings. The over-excavated areas shall be backfilled with structural fill compacted to 95% proctor per ASTM D-1557 or a lean concrete mix.

Drainage

Drainage systems, including foundation, roof and surface drains, shall be installed as directed by the Geotechnical Report and IBC Section 1807. Vapor retarder placed below slab on grade shall conform to ASTM E 1643 and ASTM E 745.

Retaining Walls

Grade on either side of concrete walls shall not vary by more than 12", UNO. Slope of backfill shall not exceed 2H to 1V, UNO. Backfill behind all retaining walls with free draining, granular fill installed per the Geotechnical Report. Provide for subsurface drainage. Design pressures used for the design of retaining walls are based on drained conditions. Provide temporary shoring for tops of walls if backfill is placed prior to the floor framing and sheathing being completely installed and attached to perpendicular walls.

Existing Utilities

The contractor shall determine the location of all adjacent underground utilities prior to any excavation, shoring, pile driving, or pier drilling. Any utility information shown on the plans and details are approximate and not verified by the SER. Contractor is to provide protection of any utilities or underground structures during construction.

Concrete

Cast-in-Place Concrete

Concrete materials shall conform to the following:

Portland cement: Type I, ASTM C150
Fly ash (if used): ASTM C618 class F or C, quantity less than (by weight) 25% of cement content, and maximum loss on ignition = 1%
Lightweight aggregates: shall not be used without prior approval of SER and building department
Normal weight aggregates: ASTM C33
Sand equivalent: ASTM C33
Water: Potable per ASTM C94
Air entraining admixtures: ASTM C260
Chemical admixtures: ASTM C494
Flowable concrete admixtures: ASTM C1017

Durability requirements of concrete mixes shall conform to building code. These requirements include water-cementitious material ratios, minimum compressive strengths, air entrainment, type of cement, and maximum chloride ion content.

Concrete strength requirements: Strength at 28 days and normal weight concrete, UNO.

Location	Strength f'c (psi)	Max. Aggr. size (inch)	Max. W/C ratio or min cement *
Lean mix soil replacement under fdns	1,500	sand	1-1/2 sack cement
Foundations, grade beams, stem walls	3,000**	1"	per design
Slab on grade, topping slab, stair tread	3,000**	3/4"	0.42 (.45)

** Design strength shown is for weathering purposes only; 2,500 psi strength was used for purposes of structural design. Mixes shall be proportioned to accommodate placement. Slump, W/C ratio, admixtures and aggregate size will be determined by the contractor in accordance with ACI. Mixes will be approved by one of the following criteria.

Mix design is submitted in accordance with ACI 318 Section 5.3.

Mix design is submitted in accordance with ACI 318 Section 5.4.

Admixtures: all concrete, including slab on ground, shall contain an acceptable water-reducing admixture conforming to ASTM C494 and be used in strict accordance with the manufacturer's recommendations.

All concrete which is exposed to freezing and thawing or exposed to deicing chemicals shall contain an air entraining agent, conforming to ASTM C260. The amount of entrained air shall be 5% +/- 1% by volume. Air % is based on 3/4" coarse aggregate; adjust air % per ACI 318 for other coarse aggregate sizes. Air-entrainment shall not be used at slabs that will receive a smooth, dense, hard-troweled finish.

Trucks hauling plant-mixed concrete shall arrive on-site with a field ticket indicating the maximum gallons of water that can be added at the site not to exceed the total water content in the approved mix design.

Concrete shall be deposited as nearly as practicable in its final position to avoid segregation due to rehandling or flowing. Concrete shall be thoroughly consolidated by suitable means during placement and shall be thoroughly worked around reinforcement, embedded items, and into corners of forms.

Formwork and Accessories

Concrete construction shall conform to ACI 301 "Specifications for Structural Concrete" and the Building Code, including testing procedures. See architectural documents for formwork requirements. Installation shall adhere to ACI 301. Conduits and pipes of aluminum shall not be embedded in concrete construction.

See architectural drawings for exact locations and dimensions of door and window openings in all concrete walls and for all grooves, notches, chamfers, feature strips, color, texture, and other finish details at all exposed concrete surfaces. Concrete accessories and embedded items shall be coordinated with Architectural documents and all other suppliers' drawings before placing concrete. Anchor rods, reinforcing, hardware, etc. shall be firmly tied in place prior to concrete placement; wet-setting of these items are not permitted in concrete.

Construction Joints

Contractor shall submit the proposed locations of construction joints to the Architect for acceptance before starting construction. All construction joints in walls and footings shall be keyed with 1-1/2" thick x 6" long x 3-1/2" wide keys placed in alternate reinforcing spaces. All construction, control, and isolation joints for slabs on ground shall be in accordance with the typical slab on ground details.

Refer to Architectural documents for waterstops, dampproofing, and retaining wall drainage requirements at concrete and at concrete joints (construction joints, slab to wall joints, curb to slab joints, etc).

Curing and Finishes

Protect and cure freshly placed concrete per ACI 305 in hot conditions, ACI 306 in cold conditions, and ACI 308 "standard specification for curing concrete". All exposed edges and corners shall have 3/4" chamfer, UNO. Concrete flatwork shall be sloped to provide positive drainage. Coordinate finish with architectural contract documents.

At the time of application of finish materials or special treatment to concrete, moisture content of concrete shall conform to requirements in finish material specifications. Where vapor sensitive coverings are to be placed on slabs on grade, conform strictly to slab covering manufacturer's recommendations regarding vapor retarder and granular fill requirements below the slab.

Reinforcing in Cast-in-Place Walls

See Reinforcement General Notes for more information. Uppermost and lowermost horizontal reinforcing in walls shall be placed within 1/2 of specified spacing from the top and bottom of the wall.

Concrete wall reinforcing - typical UNO:

Wall thickness	horizontal bars	vertical bars	location
6" or less	#4 @ 16"oc	#4 @ 16"oc	@ cl of wall
8" or less	#4 @ 12"oc	#4 @ 12"oc	@ cl of wall

Concrete protection; provide edge cover as follows. When a thickness of cover required for fire protection is greater than that specified in this section, such greater thickness shall be used:

- Uniformed surfaces cast against and permanently exposed to earth = 3"
- Formed surfaces exposed to earth or weather: #6 bars or larger = 2"; #5 bars or smaller = 1-1/2"
- Clear spacing between 2 or more parallel layers = 1"

Concrete Crack Maintenance

Cracking occurs in concrete structures due to inherent shrinkage, creep, and the restraining effects of walls and other structural elements. Most cracking due to shrinkage and creep will likely occur over the first two years of the life of the structure; further concrete movement due to variations in temperature may persist. Cracks that result in water penetration will need to be repaired to protect reinforcing. Other cracking may be repaired at the owner's discretion for aesthetic reasons or performance of applied finishes. Prior to repairing cracks, a structural engineer should be consulted to provide direction on which cracks to repair and on whether observed cracks may affect the strength of the structure.

Reinforcement in Concrete

Materials

Reinforcing steel shall conform to ASTM A615 (including supplement S1), Grade 60, Fy = 60,000 psi, except any bars specifically so noted on the drawings shall be Grade 40, Fy = 40,000 psi.

Welded Wire Reinforcing (WWR) shall conform to ASTM A185. Lap splice adjacent mats of welded wire fabric a minimum of 8" at sides and ends. In equipment pads, use minimum WWR 6x6-W2.1xW2.1, UNO.

Procedures

Reinforcing steel shall be detailed (including hooks and bends) in accordance with ACI 315 "Details and Detailing of Concrete Reinforcement". Lap all reinforcement in accordance with "The Reinforcing Splice and Development Length Schedule" on these documents. If table is not provided, lap all reinforcing by 40 bar diameters. Provide corner bars at all wall and footing intersections.

Reinforcing steel shall be adequately supported to prevent displacement during concrete and grout placement. Bars shall be bent cold. Bars partially embedded in concrete shall not be field bent, unless specifically so detailed or approved by the SER.

Welding or tack welding of reinforcing bars to other bars or to plates, angles, etc, is prohibited, except where specifically approved by the SER.

Anchorage

Post installed anchors shall not be installed without prior approval of engineer of record unless otherwise noted on the plans.

Epoxy-Grouted Items

Epoxy-Grouted Items (threaded rods or reinforcing bar) specified on the drawings shall be installed using "SET-XP" high strength epoxy as manufactured by the Simpson Strong Tie Company. Install in strict accordance with I.C.C. Report No. ESR 2508. Special inspection of installation is required. Rods shall be ASTM A-307 unless otherwise noted.

Expansion Bolts

Expansion bolts into concrete and concrete masonry units shall be "Strong Bolt" as manufactured by the Simpson Strong Tie Company, installed in strict accordance with I.C.C. Report No. ESR-1771, including minimum embedment requirements. Bolts into concrete masonry or brick masonry units shall be into fully grouted cells. Substitutes proposed by contractor shall be submitted for review with ICC reports indicating equivalent or greater load capacities. Special inspection is required for all expansion bolt installation.

Wood

Material Criteria

Framing lumber shall be kiln dried or mc-19 (unless more stringent criteria are required in these notes or on the drawings) and graded and marked in conformance with the latest WCLIB standard grading rules for west coast lumber no. 17. Furnish to the following minimum standards:

4x beams & posts	DF #2
6x beams & posts	DF #1
4x treated beams & posts, 6x treated posts	HF kdat #2
2x joists, rafters, built-up beams, headers	HF #2
2x, 3x flatwise & edgewise blocking	HF standard
2x4, 2x6 studs	HF kd stud
2x4, 2x6 plates	HF kd15 standard
2x, 3x, 4x treated plates/ledgers	HF kdat #2

Moisture Content and Care of Material During Construction

All 2x studs and plates shall be kiln dried. The Contractor shall take measures to minimize exposure of sawn lumber and engineered wood products to moisture during construction.

Wood Structural Panels

Wood structural panels shall be APA rated sheathing. Plywood shall be grade C-D or Structural II, exterior glue, exposure 1 durability classification, in conformance with USDOC PS 1 or PS 2, ASTM D 5457 and IBC 2304.7 and table 2304.7(2). Oriented strand board (OSB) shall be in accordance with USDOC PS 2, and of equivalent thickness, exposure rating and span rating and may be used in lieu of plywood pending OSB substitution approval by Architect. See plans for thickness, panel identification index and nailing requirements. Unless otherwise noted on plans:

GENERAL STRUCTURAL NOTES (TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS)

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

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09/05/23

PLOT DATE: 9/5/2023

Roof sheathing shall be 23/32" with span rating 48/24
 Floor sheathing shall be 23/32" with span rating 48/24
 Wall sheathing shall be 15/32" with span rating 24/0

Glu Laminated Material

Glued laminated members shall be fabricated in conformance with AITC 117 and APA-EWS Y117, Stress Class 24F-1.8E. Each member shall bear an AITC identification mark and shall be accompanied by an AITC certificate of performance. All simple span beams shall be Douglas fir combination 24F-V4, fb = 2,400 psi, fv = 265 psi and all cantilevered beams and columns shall be Douglas fir combination 24F-V8, fb = 2,400 psi, fv = 265 psi unless otherwise noted. Camber all simple span glu laminated beams to 3,500' radius or zero camber, unless shown otherwise on the plans.

Structural Composite Lumber

Manufactured lumber, PSL, LVL, and LSL, shall be manufactured under a process approved by the national research board. Each piece shall bear a stamp or stamps noting the name and plant number of the manufacturer, the grade, the national research board number, and the quality control agency. All PSL, LVL and LSL lumber shall be manufactured in accordance ICC Report ESR-1387. LVL lumber shall be manufactured using veneer glued with a waterproof glue of the requirements of ASTM D2559 with all grain parallel with the length of the member. The members shall have the following minimum properties:

PSL (2.2E)	Beams	Fb = 2,900 psi,	E = 2,200 ksi,	Fv = 290 psi
LVL (2.0E)	Beams	Fb = 2,600 psi,	E = 2,000 ksi,	Fv = 285 psi
LSL (1.55E)	Beams	Fb = 2,325 psi,	E = 1,550 ksi,	Fv = 310 psi

Design shown on plans is based on ILevel/Trus-Joist products manufactured by the Weyerhaeuser Corporation. Alternate alternate joist hangers and other hardware may be substituted for items shown provided they have ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with members provided.

Plywood Web Joists

Prefabricated plywood web joist design shown on plans is based on ILevel/Trus-Joist products manufactured by the Weyerhaeuser Corporation. Alternate plywood web joist manufacturers may be used provided they conform with the ICC evaluation service reports ESR-1387 and ESR-1153 and are subject to review and approval by the Architect and Structural Engineer of Record. Alternate alternate joist hangers and other hardware may be substituted for items shown provided they have ICC approval for equal or greater load capacities. All joist hangers and other hardware shall be compatible in size with members provided.

Floor live load deflections shall be limited to span/480
 Roof total load deflections shall be limited to span/240.

Specified plywood web joists at floors have been designed for a minimum TJ-Pro rating of 40 in addition to the maximum allowable deflections noted above.

Treated Wood

All wood framing in direct contact with concrete or masonry, exposed to weather, or that rest on exterior foundation walls and are located within 8" of earth, shall be pressure-treated with an approved preservative per IBC section 2303.1.8. Cut or drilled sections of treated material shall be treated with an approved preservative per IBC section 2303.1.8. See IBC section 2304.11 for additional requirements.

Metal Products in Contact with Treated Lumber

Simpson hardware in contact with ACQ, CA, or CBA pressure-preservative treated wood shall have a Zmax finish (G185 HDG per ASTM A653) or shall be post hot-dip galvanized (per ASTM A123 for connectors and ASTM A153 for fasteners) unless otherwise noted. Exception: type 304 or 316 stainless steel connectors and fasteners are required for the following applications:

- ACQ, CA, or CBA treatments with ammonia where members are used in exterior applications.
- all ACZA treatments
- retention levels greater than 0.40 pcf for ACQ, 0.41 pcf for CBA-A, or 0.21 pcf for CA-B treatments.

Stainless steel connectors require matching stainless steel fasteners. Zmax and post hot-dip galvanized connectors require fasteners galvanized per ASTM A153. Thru-bolts and anchor rods used in dry conditions shall be permitted to be of mechanically deposited zinc coated steel with coating weights in accordance with ASTM B 695, class 55 minimum. See IBC section 2304.9.5 and "framing connectors" notes on this sheet for additional requirements.

Framing Connectors

Timber connectors called out by letters and numbers shall be "strong-tie" by Simpson company, as specified in their catalog number C-C-2021. Equivalent devices by other manufacturers may be substituted, provided they have ICBO approval for equal or greater load capacities. Connectors shall be installed in accordance with the manufacturer's recommendations. Where connector straps connect two members, place 1/2 of the nails or bolts in each member. UNO on the drawings use the following hangers:

2x or 2-2x member to flush wood beam/ledger	LUS (LUS z)
TJI member to sill plate or flush wood beam/ledger	IUS or ITS
2-TJI member to flush wood beam/ledger	MIU (HUS z)
2-TJI member to sill plate or steel/flush wood beam	MIT (LBY z)
4x, LSL/LVL/PSL beam to flush wood beam/ledger	MIU max (HUS z)
4x, LSL/LVL/PSL beam to sill plate or steel beam	HMU (HMU hdg)
Interior 4x or 6x post to concrete below	ABU w/ 5/8" dia. anchor rod w/ 7" embed
Treated 4x/6x post to concrete below	CBSQ-HDG
4x or 6x post to wood beam above	PC/EPC (PC/PCE zmax)
wood beam to wood beam that bears on post	HUCTF

Fasteners

Shall conform to the following requirements, UNO. Splitting shall be avoided at all wood fasteners:

Steel to wood or wood to wood connection bolts	ASTM A307
Anchor rods (w/ threaded ends and welded nut at end)	ASTM F1554 grade 36 (typical UNO)
Lag screws	NDS section 11.1.3
Wood screws	NDS section 11.1.4
Nails	NDS section 11.1.5

Nail sizes are specified as follows. If the contractor proposes the use of alternate nails, they shall submit nail specifications to the Structural Engineer of Record (prior to construction) for review and acceptance.

Simpson hardware	typical UNO	see catalog
MSTC holdown straps over shear wall sheathing to studs	0.148 x 2-1/4"	
hangers w/ 16d or 10d options	0.162 x 3-1/2"	
floor sheathing	typical	0.113 deformed shank x 2-1/2"
roof sheathing	typical	0.131 x 2-1/2"
stud wall APA sheathing	15/32 sheathing	0.131 x 2-1/4"
member to member face nailing	typical UNO	0.131 x 3"
bottom plate to framing below	typical UNO	0.131 x 3-1/4"
toe nailing	typical UNO	0.131 x 3"

Sheathing fasteners shall be driven so that head or crown is flush with sheathing surface. 3/8" min. edge distance shall be maintained on sheathing fasteners.

Spaced fasteners specified on the drawings shall begin at 1/2 specified spacing from the ends of the members, unless otherwise noted. Provide (2) fasteners minimum each member, typ. Anchor rods from sill plates to concrete shall begin a min. of 6" and a max. of 12" from each end of each piece of sill plate.

Thru-bolt and anchor rod holes shall be at least 1/32" but no more than 1/16" larger than bolt/rod diameter. Clearance holes for lag screw shanks shall have the same diameter as the lag shank and the same penetration depth as the length of the unthreaded shank. Lead holes for threaded portion of lag screws shall have a diameter of 55 to 60% of lag screw shank diameter and shall extend the length of the threaded portion of the lag screw.

GENERAL STRUCTURAL NOTES
 (TYPICAL UNLESS NOTED OTHERWISE ON DRAWINGS)

Stair and Stair Landing Framing Requirements
 4'-0" maximum width UNO

Landings: span 2x6 joists @ 16"oc in short direction of landing. At full height wood studs, provide 2x6 continuous ledger w/ (3) 0.131 x 3-1/4" nails to each stud. At concrete walls, provide treated 2x6 continuous ledger w/ 5/8" diameter anchor rods @ 16"oc. Embed 5". Where landing edge is not supported by beam, full height stud wall, or full height concrete wall, provide 2x4 @ 16" cripple wall from landing edge to slab on grade below.

Stringers 9'-0" in length or less: provide 2x12 stringers at center and sides of stair. Notch to 5-1/2" minimum depth and provide HUS26 hangers to supporting beams. At center stringer, sister 2x6 ea. side of stringer and at side stringers, sister 2x6 one side of stringer. End sitered 2x6's short of hangers.

Stringers 11'-6" to 14'-0" in length: provide 1-3/4 x 14 LVL 1.9E stringers at center and sides of stair. Notch to 8" min. depth and provide HU7 hangers to supporting beams. At center stringer, sister 2x8 ea. side of stringer and at side stringers, sister 2x8 one side of stringer. End sitered 2x8's short of hangers.

Where stringers bear on wood framing below, provide (2) L570 clip at btm. of stringer. Where stringers bear on concrete slab, provide 2x treated sill plate w/ 5/8" exp. bolt at each stringer (embed 3-1/8").

General Wood Framing Criteria (UNO in previous sections)

All wood framing details not shown otherwise shall be constructed to the minimum standards of section 2308 of the IBC. Minimum nailing, unless otherwise noted, shall conform to table 2304.9.1 of the IBC. Unless otherwise noted, all nails shall be common. Coordinate the size and location of all openings with Architectural drawings. Provide washers under the heads and nuts of all bolts, anchor rods, and lag screws bearing on wood, unless otherwise noted. Installation of lag screws shall conform to NDS section 11.1.3. Bolts, anchor rods, and lag screws shall be centered in members, uno.

All structural stud walls (bearing or shear walls) shown and not otherwise noted shall be 2x4 studs @ 24"oc at non-bearing interior walls and 2x6 @ 24"oc at exterior and bearing walls. See Architectural drawings for differing wall widths and for framing at nonstructural walls. Two studs minimum shall be provided at the end of all walls and at each side of all openings, and below beam bearing points. Solid blocking for 4x/6x wood posts and multi-stud posts shall be provided through intermediate levels to supports below. Provide continuous solid blocking at mid-height of all stud walls over 10'-0" in height.

All stud walls shall have their lower wood plates attached to wood framing below with 0.131 x 3-1/4" nails @ 8"oc or bolted to concrete with 5/8" diameter anchor rods @ 4'-0" for all other structures unless otherwise noted. Embed anchor rods 7" unless otherwise noted. Individual members of built-up posts shall be nailed to each other with 0.131 x 3" nails @ 8"oc staggered.

When not otherwise noted, provide gypsum wallboard on interior surfaces nailed to all studs, top and bottom plates and blocking with nails at 7" oc. Use #6 x 1-5/8" screws for 1/2" GWB and #6 x 1-7/8" screws for 5/8" GWB. Provide 15/32" APA rated sheathing on exterior surfaces nailed at all panel edges (block unsupported edges), top and bottom plates with 0.148 x 2-1/4" nails @ 6"oc and to all intermediate studs and blocking @ 12"oc. Allow 1/8" gap at all APA sheathing panel edges and ends. (see details where larger gap is required).

At exterior walls, provide flat wise 2x6 at all door heads and window sills and heads, unless otherwise noted. (provide flat wise 2-2x6 where opening width is greater than 6'-0" and less than 9'-6", unless otherwise noted). Provide (3) 0.131 x 3" toenails each end of each 2x6 member.

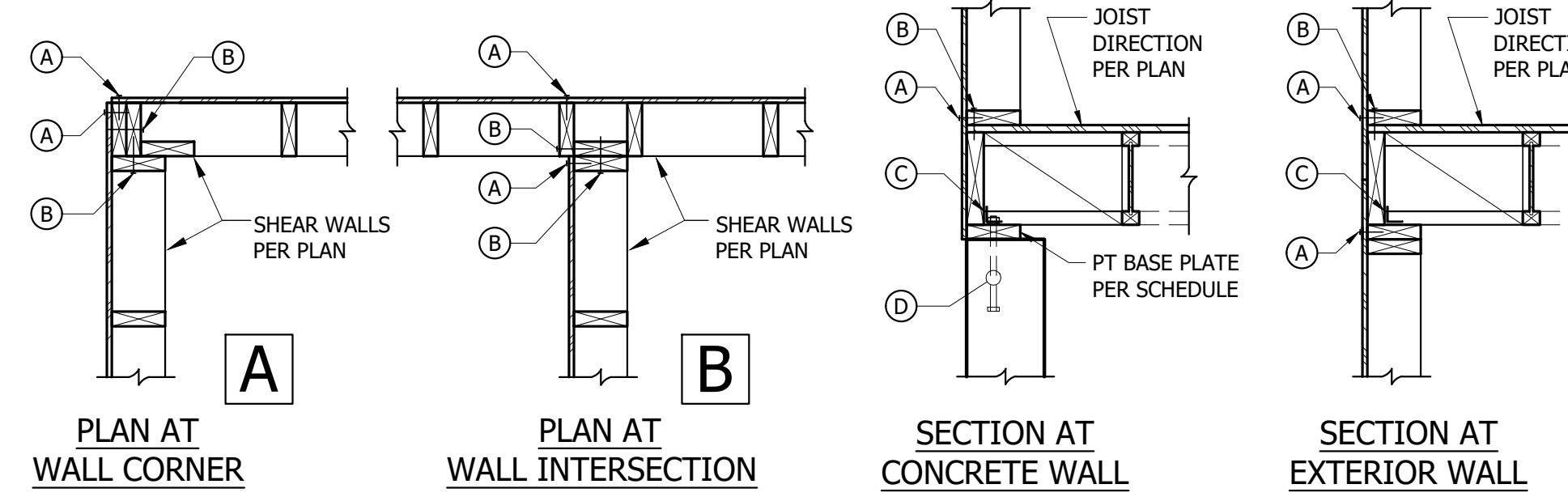
Provide double joists under all parallel partitions that extend over more than half the joist length and around all openings in floors or roofs unless otherwise noted. Provide solid blocking at all bearing points.

Toenail joists to supports with (3) 0.131 x 3" nails. Attach timber joists to flush headers or beams with Simpson metal joist hangers in accordance with notes above. Individual members of multi-joist beams shall be nailed to each other with (2) rows of 0.131 x 3" nails @ 12"oc.

Unless otherwise noted on the plans, APA sub-flooring and roof sheathing shall be laid up with grain (strength axis) perpendicular to supports (joists, trusses, etc.) and in a staggered pattern. Nails shall be @ 6"oc to framed panel edges, @ 4"oc over shear walls and @ 12"oc to intermediate supports. All sub-flooring edges shall have approved T&G joints or shall be supported with solid blocking/framing. Plywood clips are recommended at all roof sheathing edges (solid blk'g/framing is not required at panel edges unless specifically noted in the structural drawings or required by the roofing manufacturer). Glue sub-flooring to all supports with adhesive in accordance with the manufacturer's recommendations. Allow 1/8" gap at all panel edges and ends of floor and roof sheathing. Where blocked floor & roof diaphragms are indicated, provide flat 2x blocking at all unframed panel edges and nail with edge nailing specified.

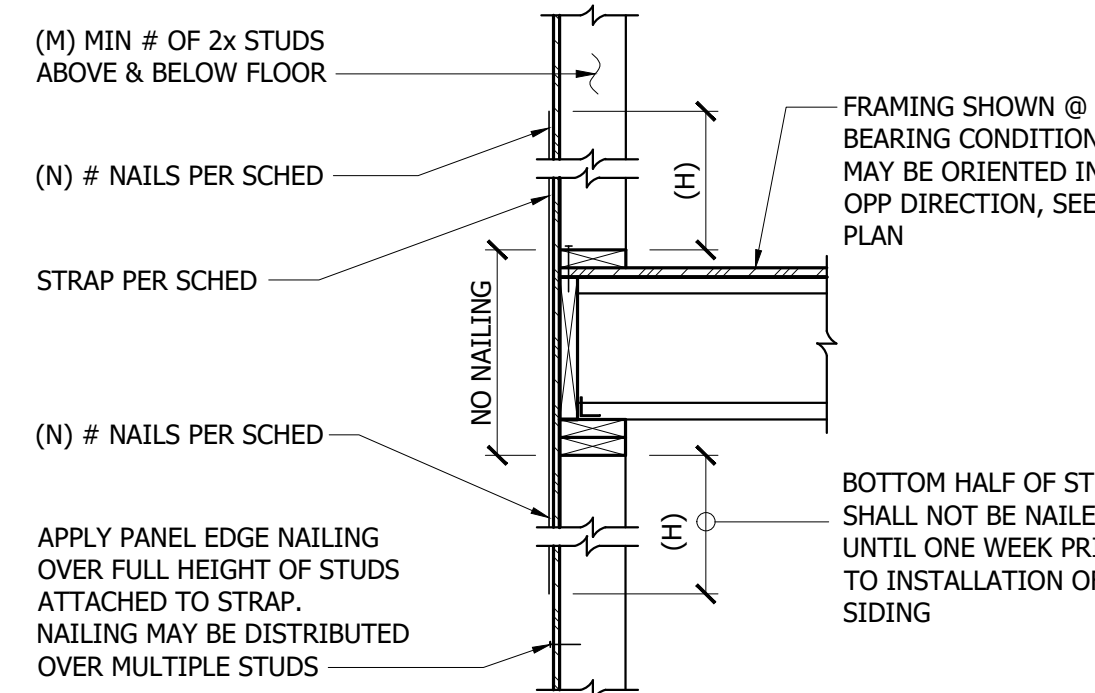
SHEAR WALL SCHEDULE								
MARK	SHEATHING	PANEL EDGE NAILING (A)	TOP PLATE NAILING (B)	A35 CLIPS (C)	MUDSILL TO CONCRETE (D)		CAPACITY (PLF)	
					2x6 P.T.	3x6 P.T.	SEISMIC	WIND
SW6	1/2" PLYWOOD	0.131" @ 6"oc	0.131" @ 6"oc	A35 @ 24"oc	3/4" AB @ 48"oc	3/4" AB @ 64"oc	260	270
SW4	1/2" PLYWOOD	0.131" @ 4"oc	0.131" @ 4"oc	A35 @ 16"oc	3/4" AB @ 32"oc	3/4" AB @ 48"oc	350	400
SW3	1/2" PLYWOOD	0.131" @ 3"oc	0.131" @ 3"oc	A35 @ 12"oc	3/4" AB @ 16"oc	3/4" AB @ 32"oc	512	540
SW2 ⁵	1/2" PLYWOOD	0.131" @ 2"oc	(2) ROWS 0.131" @ 3-1/2"oc	A35 @ 8"oc	3/4" AB @ 12"oc	3/4" AB @ 16"oc	600	860

- NOTES:
- ALL EXTERIOR WALLS SHALL BE SW6 (TYP, UNO). WALL FRAMING SHALL BE 2x HF (UNO) STUDS @ 16"oc BLOCK ALL PANEL EDGES WITH 2x LAID FLAT. ALL STUDS ATTACHED TO STRAPS OR HOLD-DOWNS SHALL BE PANEL-EDGE NAILED. NAIL TO ALL INTERMEDIATE SUPPORTS WITH 0.113" @ 12"oc SHEATHING SHALL BE 1/2" STRUCT-1 OR 1/4" OSB.
 - 0.113" NAILS SHALL BE A MINIMUM OF 2 1/2" IN LENGTH. 0.131" NAILS SHALL BE A MINIMUM OF 3" IN LENGTH.
 - LTP4 OR L550 CLIPS MAY BE SUBSTITUTED FOR A35 CLIPS.
 - EMBED ANCHOR BOLTS 7" MIN. ALL BOLTS SHALL HAVE 3x3x1/4" PLATE WASHERS (EDGE OF WASHER SHALL BE WITHIN 1/2" OF SHEATHING). EACH MUDSILL SHALL HAVE A MINIMUM OF (2) ANCHOR BOLTS WITH (1) BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4 1/2" TO EACH END. SIMPSON TITEN HD SCREWS, SIMPSON STRONG-BOLT OR HILTI KWIK-BOLT TZ EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS w/ 3-1/2" MIN EMBED.
 - FOR SW2:
AT (2) ROWS NAILING/CLIPS: USE DOUBLE RIM JOIST OR BLOCKING. FRAMING AT ABUTTING PANEL EDGES SHALL BE 3x MINIMUM OR (2) 2x STITCHED TOGETHER w/ PLATE NAILING PER APA FORM #T1-076. ALL PANEL EDGE NAILING TO BE STAGGERED.

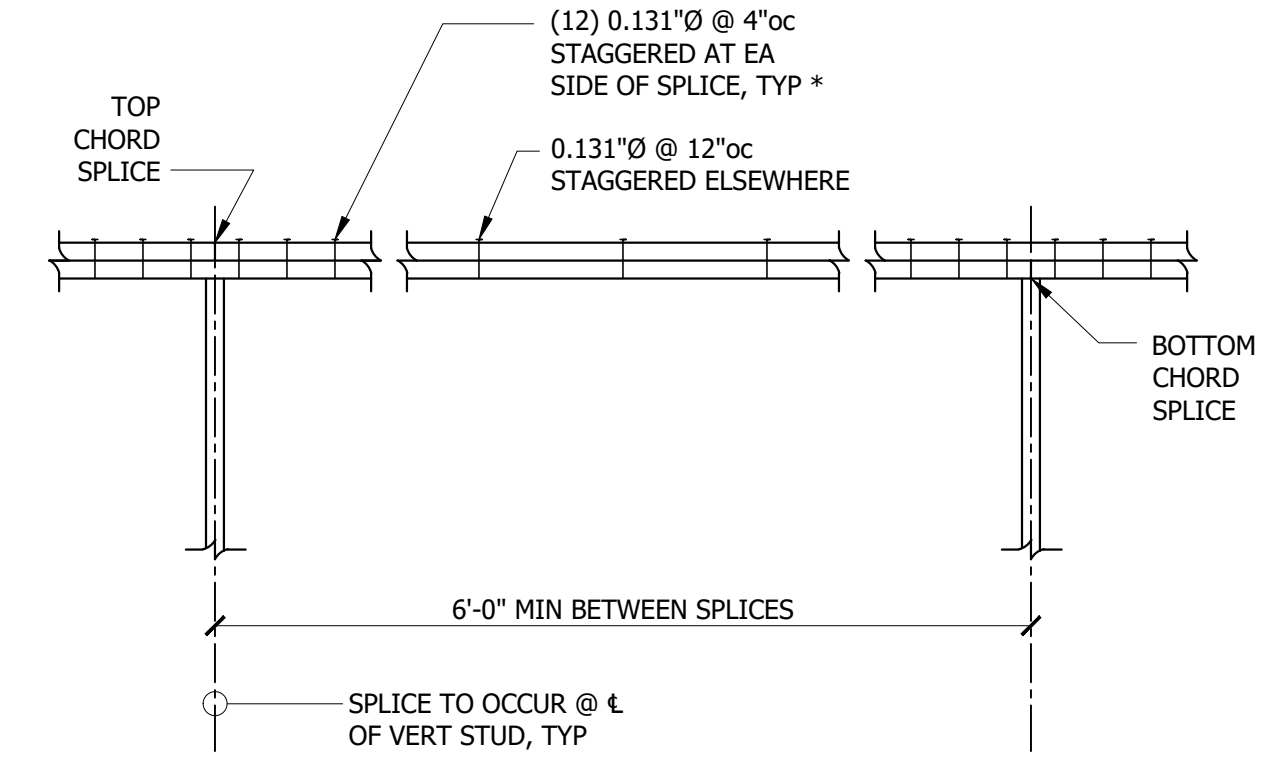


1 Shear Wall Schedule
 3/4" = 1'-0"

STRAP SCHEDULE				
MARK	H	N	M	HF CAPACITY
CS16	14"	(13) 0.131"	1	1,705#
MSTC40	12"	(14) 0.148"	2	2,325#
MSTC52	17"	(22) 0.148"	2	3,650#



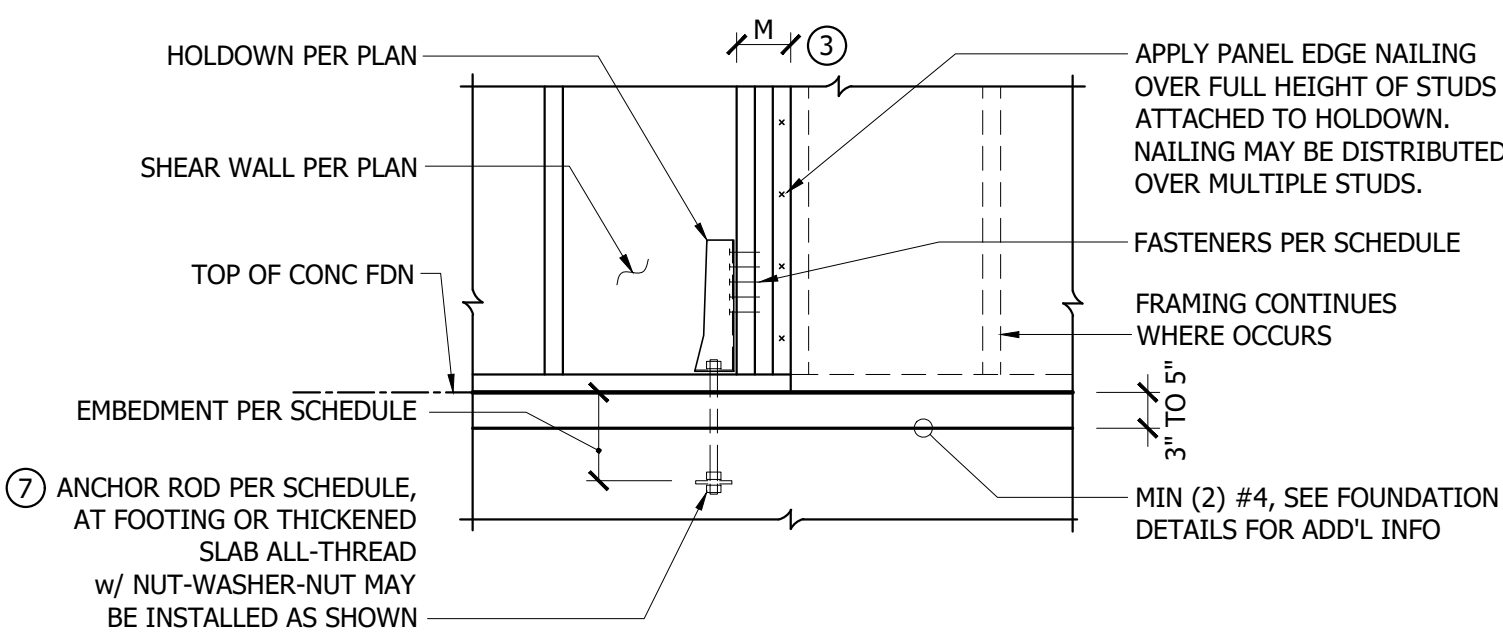
2 Strap Schedule
 3/4" = 1'-0"



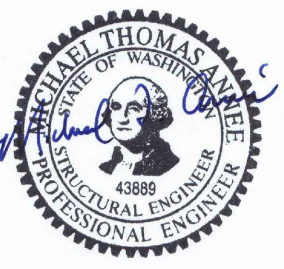
3 Top Plate Splice, Typ.
 3/4" = 1'-0"

HOLDOWN SCHEDULE ① ②											
MARK	FASTENERS	M ③	FOOTING / STRUCTURAL SLAB				TOP OF STEM WALL ④				
			ANCHOR ROD	EMBEDMENT	EDGE DISTANCE	CAPACITY	ANCHOR ROD ⑦	EMBEDMENT ⑦	CAPACITY (SEISMIC / WIND)		
									CONTINUOUS ⑤	CORNER ⑤	END ⑥
HDU2	(6) SDS/4"x2 1/2"	3"	3/8"Ø	7"	9"	2,645#	SB5/8"x24	18"	2,645#		
HDU5	(14) SDS/4"x2 1/2"	3"	3/8"Ø	7"	9"	4,855#	SB5/8"x24	18"	4,855#		
HDU8	(20) SDS/4"x2 1/2"	4-1/2" DF	7/8"Ø	8"	11"	7,870#	SB5/8"x24	18"	7,870#	7,855# / 7,870#	5,730# / 6,820#

- PLACEMENT OF ANCHOR ROD IS BASED ON CAST-IN-PLACE INSTALLATION.
- INSTALL ALL HOLD-DOWNS PER MANUFACTURER'S INSTRUCTIONS.
- DEPTH OF WOOD FRAMING MEMBER ATTACHED TO HOLD-DOWN. MEMBERS SHALL BE HEM-FIR UNLESS NOTED OTHERWISE NOTED.
- MIN 6" CONCRETE WALL THICKNESS REQ'D, MIN EDGE DISTANCE OF 1 1/4".
- BASED ON MIN 27" DISTANCE FROM END/CORNER OF WALL.
- BASED ON MIN 4 1/4" DISTANCE FROM END OF WALL.
- AT RETROFIT CONDITIONS USE 3/8" THREADED ROD w/ EPOXY PER GENERAL STRUCTURAL NOTES, MIN. 12" EMBED.



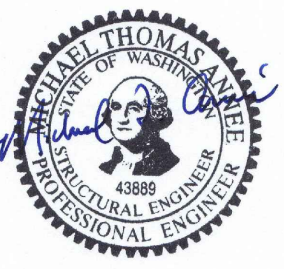
4 Holddown Schedule
 3/4" = 1'-0"



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REVISIONS:	DATE	DESCRIPTION
1	2022-11-29	Connections #1
2	2023-02-15	Connections #2
3	2023-02-22	Design Revisions
4	2023-04-05	Revision Corrections

DRAWN BY: KE
 CHECKED BY: BJS
 SHEET



REVISIONS:

2022-11-29	Corrections #1
2023-02-15	Corrections #2
2023-03-22	Design Revisions
2023-04-05	Revision Corrections

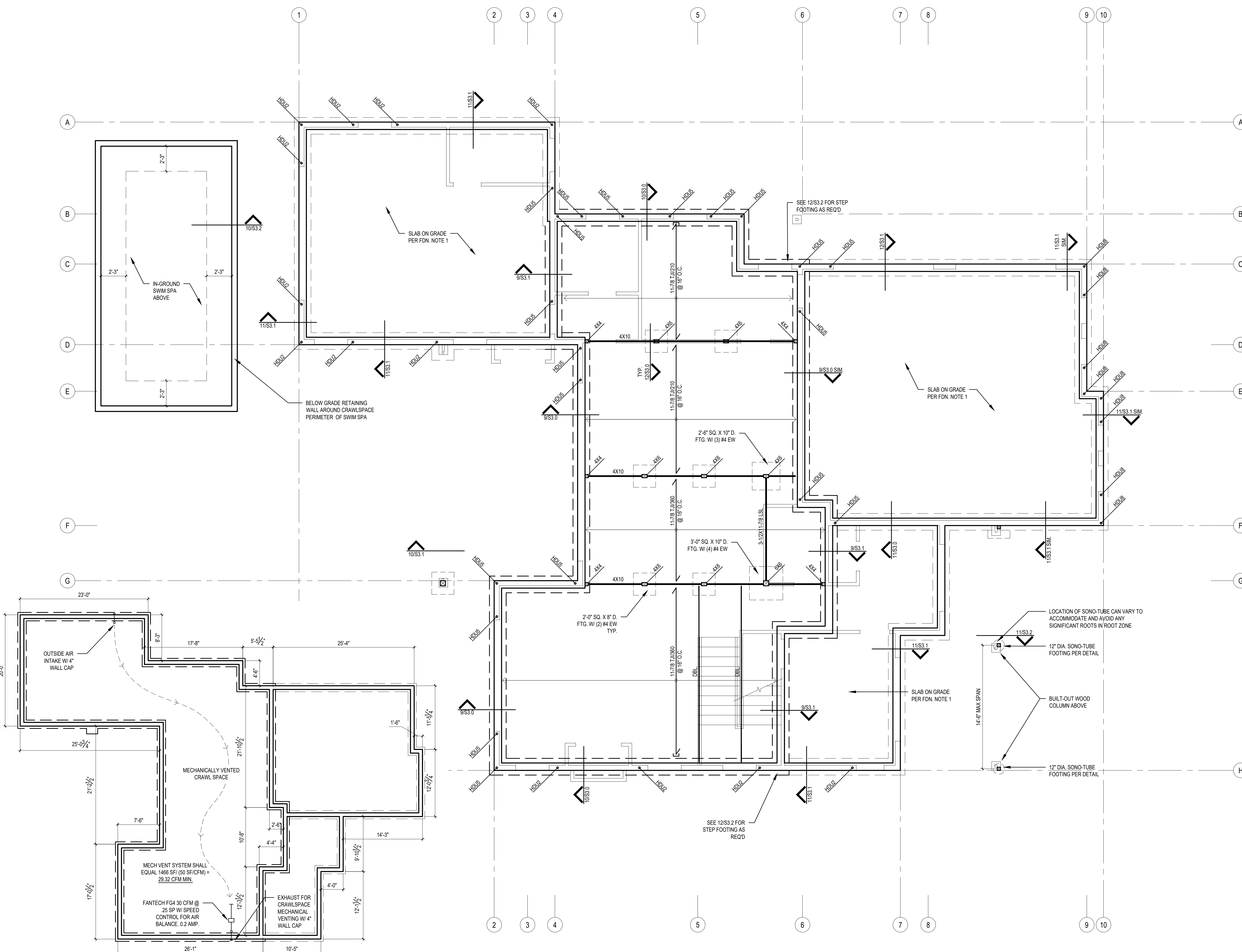
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S2.0

REVISION SET 09/05/23 PLOT DATE: 9/5/2023



- GENERAL FRAMING NOTES:**
- ALL BEAMS SHALL BE FLUSH AND ALL HEADERS DROPPED, UNO. TYPICAL POST-TO-BEAM CONNECTIONS SHALL BE AC/BC/PC POST CAP AND/OR POST BASE. SEE 3/S3.2.
 - TYPICAL HEADERS SHALL BE 4x6 DF#2, UNO. SEE 4/S3.2 FOR TYPICAL INSTALLATION.
 - PROVIDE (2) BEARING STUDS UNDER EACH END OF ALL BEAMS AND (1) 2x TRIMMER (BEARING) STUD AND (1) 2x KING (FULL-HEIGHT) STUD AT EACH END OF ALL HEADERS, UNO. NAIL STUDS TOGETHER PER GENERAL STRUCTURAL NOTES.
 - PROVIDE SOLID BEARING BELOW ALL POINT LOADS ABOVE.
 - STUD WALLS SHALL BE 2x HF STUDS @ 16"oc, UNO. SEE SHEAR WALL, HOLDOWN AND STRAP SCHEDULES ON S1.1 FOR ADDITIONAL REQUIREMENTS AT SHEAR WALL FRAMING.
 - AT BREAKS IN DOUBLE TOP PLATE OF ALL EXTERIOR WALLS AND ALL SHEAR WALLS SEE DETAIL 3/S1.1.
 - SW-X INDICATES SHEAR WALL PER SCHEDULE 1/S1.1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL NEW, EXTERIOR WALLS SHALL BE SHEATHED PER SW6, UNO.
 - REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
 - REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

- FOUNDATION NOTES:**
- TYPICAL SLAB ON GRADE AT INTERIOR SHALL BE 4" THICK. REINFORCE ALL SLABS w/ WWF6x6-W2.9xW2.9 AT CENTERLINE.
 - INDICATES HOLDOWN LOCATED AT END OF SHEAR WALL ABOVE. SEE HOLDOWN SCHEDULES ON 4/S1.1.

- MAIN FLOOR FRAMING NOTES:**
- FLOOR SHEATHING SHALL BE MIN 7/8" APA RATED SHEATHING (48/24). NAIL @ ALL PANEL EDGES AND OVER ALL SHEAR WALLS w/ 0.113" @ 6"oc AND 12"oc TO ALL INTERMEDIATE FRAMING. PLACE LONG DIRECTION OF PLYWOOD PERPENDICULAR TO JOISTS DIRECTION, STAGGER PANEL JOINTS.
 - TYPICAL FLOOR FRAMING SHALL BE 11-7/8" TJI210 @ 16"oc, DIRECTION PER PLAN. JOIST TO SPAN CONTINUOUS AS INDICATED ON PLAN.
 - LSL - INDICATES FLUSH-FRAMED 1-3/8"x11-7/8" LSL BEAM. ALL JOISTS AND 11-7/8" DEEP BEAMS SHALL BE FLUSH-FRAMED & ALL 4x HEADERS/GLULAM BEAMS SHALL BE DROPPED UNO.
 - DS - INDICATES FLUSH-FRAMED 1-3/8"x11-7/8" LSL DRAG STRUT. NAIL SHEATHING OVER ENTIRE LENGTH w/ 0.131" @ 4"oc.
 - INDICATES HOLDOWN LOCATED AT END OF SHEAR WALL ABOVE. SEE SCHEDULE ON 4/S1.1.

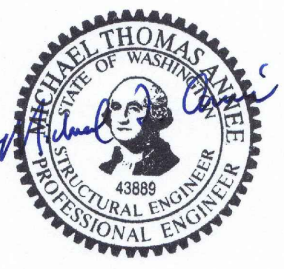
HANGER SCHEDULE

MEMBER	HANGER
2x JOISTS	LUS
14" TJI230	IUS/ITS2.37/14
14" TJI560	IUS/ITS3.56/14
1-3/8"x14 LSL/LVL	HUS1.81/10
3-3/8"x14 LSL/PSL	HHUS410
5-3/8"x14 PSL	HGUS5.510
11-7/8" TJI210	IUS/ITS2.06/11.88
3-3/8"x11-7/8 LSL/PSL	HHUS410

2 CRAWL SPACE VENTING PLAN
 SCALE: 1/8" = 1'-0"

1 FOUNDATION & MAIN FLOOR FRAMING PLAN
 SCALE: 1/4" = 1'-0"

SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT. REDUCE SCALE ACCORDINGLY.
 REVISION SET 09/05/23 PLOT DATE: 9/5/2023



REVISIONS:

2022-11-29	Corrections #1
2023-02-15	Corrections #2
2023-08-22	Design Revisions
2023-09-05	Revision Corrections

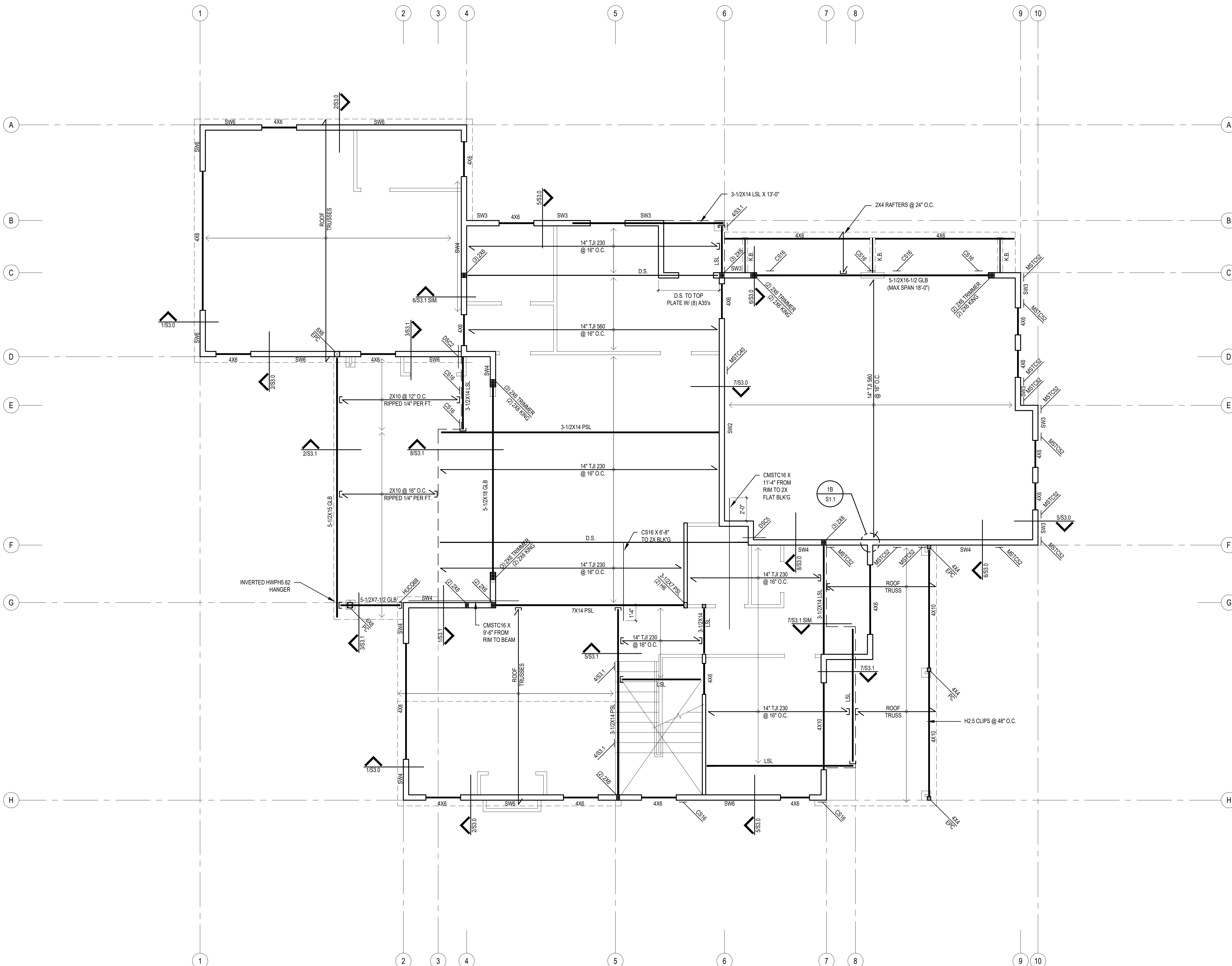
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PLOT DATE: 9/5/2023



GENERAL FRAMING NOTES:

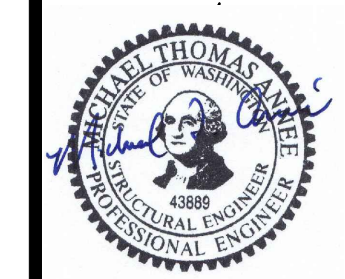
- ALL BEAMS SHALL BE FLUSH AND ALL HEADERS DROPPED. UNO. TYPICAL POST-TO-BEAM CONNECTIONS SHALL BE AC/BC/PC POST CAP AND/OR POST BASE, SEE 3/S3.2.
- TYPICAL HEADERS SHALL BE 4x6 DF#2, UNO. SEE 4/S3.2 FOR TYPICAL INSTALLATION.
- PROVIDE (2) BEARING STUDS UNDER EACH END OF ALL BEAMS AND (1) 2x TRIMMER (BEARING) STUD AND (1) 2x KING (FULL-HEIGHT) STUD AT EACH END OF ALL HEADERS, UNO. NAIL STUDS TOGETHER PER GENERAL STRUCTURAL NOTES.
- PROVIDE SOLID BEARING BELOW ALL POINT LOADS ABOVE.
- STUD WALLS SHALL BE 2x HF STUDS @ 16"oc, UNO. SEE SHEAR WALL, HOLDOWN AND STRAP SCHEDULES ON S1.1 FOR ADDITIONAL REQUIREMENTS AT SHEAR WALL FRAMING.
- AT BREAKS IN DOUBLE TOP PLATE OF ALL EXTERIOR WALLS AND ALL SHEAR WALLS SEE DETAIL 3/S1.1.
- SW-X INDICATES SHEAR WALL PER SCHEDULE 1/S1.1. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL NEW, EXTERIOR WALLS SHALL BE SHEATHED PER SW6, UNO.
- REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN.
- REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

UPPER FLOOR FRAMING NOTES:

- FLOOR SHEATHING SHALL BE MIN. 3/8" APA RATED SHEATHING (48/24). NAIL @ ALL PANEL EDGES AND OVER ALL SHEAR WALLS w/0.113" @ 6"oc AND 12"oc TO ALL INTERMEDIATE FRAMING. PLACE LONG DIRECTION OF PLYWOOD PERPENDICULAR TO JOISTS DIRECTION, STAGGER PANEL JOINTS.
- TYPICAL FLOOR FRAMING SHALL BE 14" TJI/230 @ 16"oc, DIRECTION PER PLAN. JOIST TO SPAN CONTINUOUS AS INDICATED ON PLAN.
- LSL - INDICATES FLUSH-FRAMED 1-3/4"x14 LSL BEAM. ALL JOISTS AND 14" DEEP BEAMS SHALL BE FLUSH-FRAMED & ALL 4x HEADERS/GLULAM BEAMS SHALL BE DROPPED UNO.
- DS - INDICATES FLUSH-FRAMED 1-3/4"x14 LSL DRAG STRUT. NAIL SHEATHING OVER ENTIRE LENGTH w/ 0.131" @ NAILS @ 4"oc.
- STRAP - INDICATES STRAP AT END OF SHEAR WALL ABOVE, SEE SCHEDULE ON 2/S1.1.

HANGER SCHEDULE	
MEMBER	HANGER
2x JOISTS	LUS
14" TJI/230	IUS/ITS2.37/14
14" TJI/560	IUS/ITS3.56/14
1-3/4"x14 LSL/LVL	HUS1.81/10
3-3/4"x14 LSL/PSL	HHUS410
5-3/4"x14 PSL	HGUS5.510
11-3/4" TJI/210	IUS/ITS2.06/11.88
3-3/4"x11-3/4" LSL/PSL	HHUS410

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

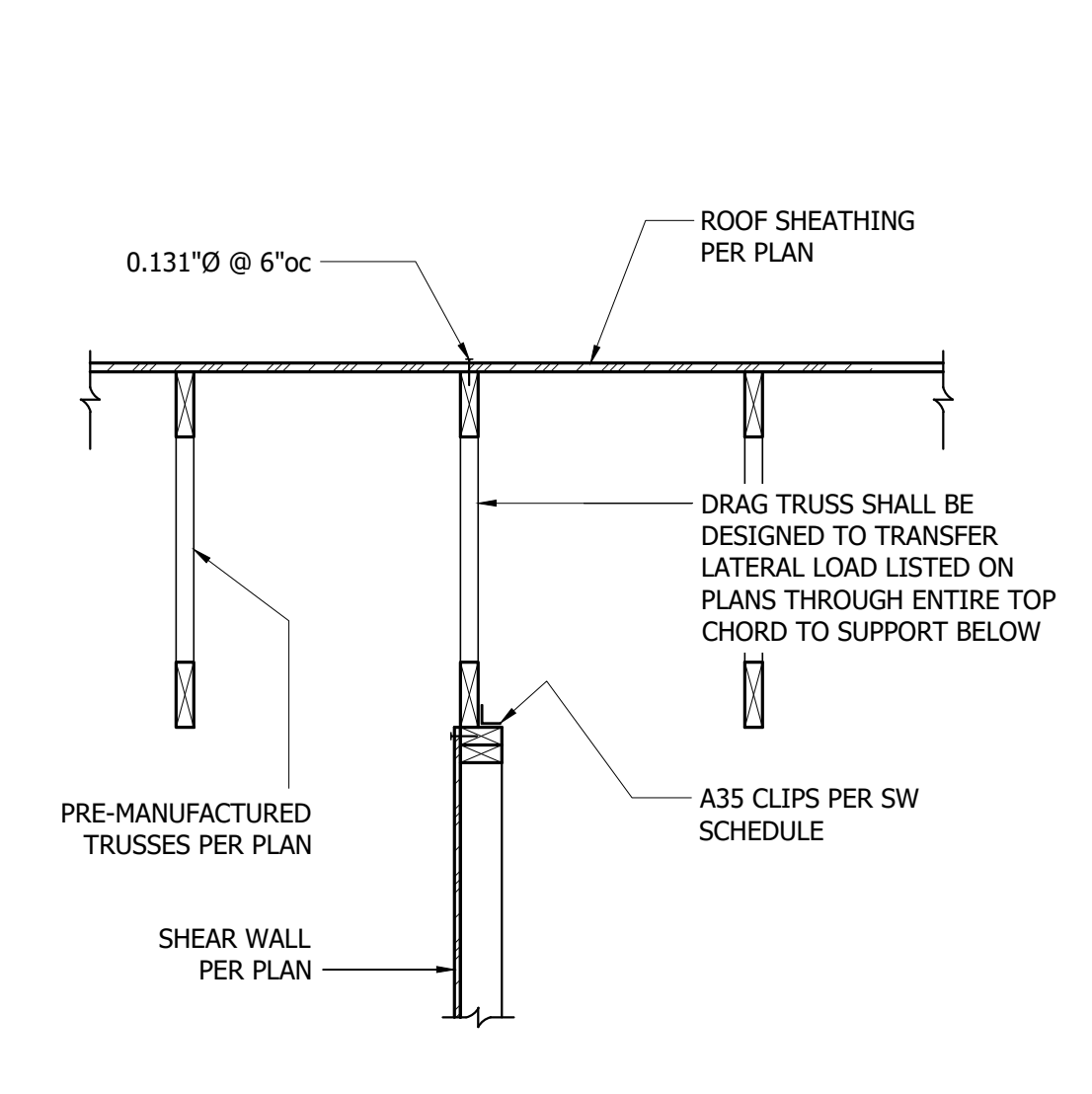


REVISIONS:	2022-11-29	Connections #1
	2023-02-15	Connections #2
	2023-08-22	Design Revisions
	2023-09-05	Revision Corrections

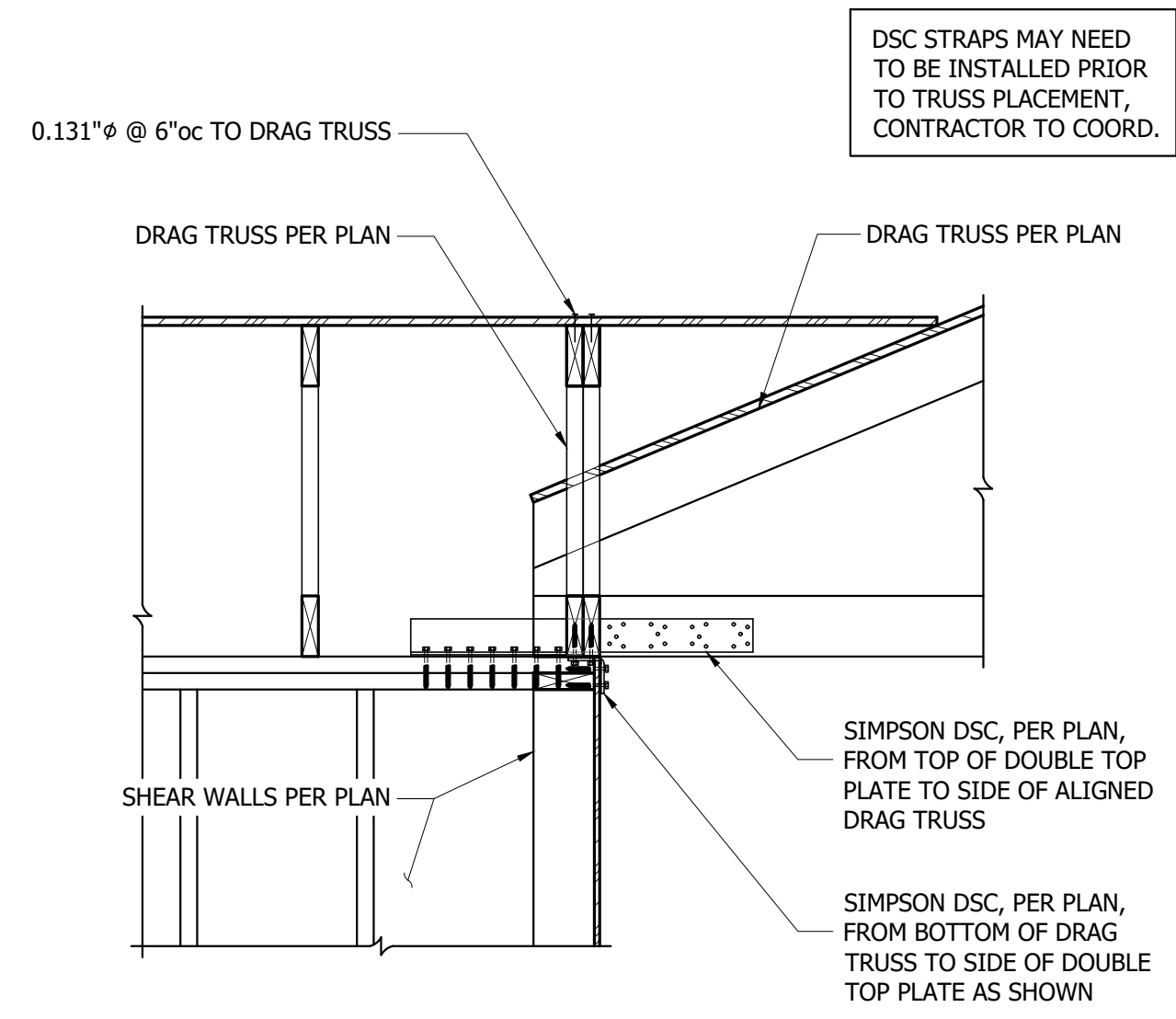
DRAWN BY: KE
 CHECKED BY: BJS
 SHEET

S3.0
 PLOT DATE: 9/5/2023

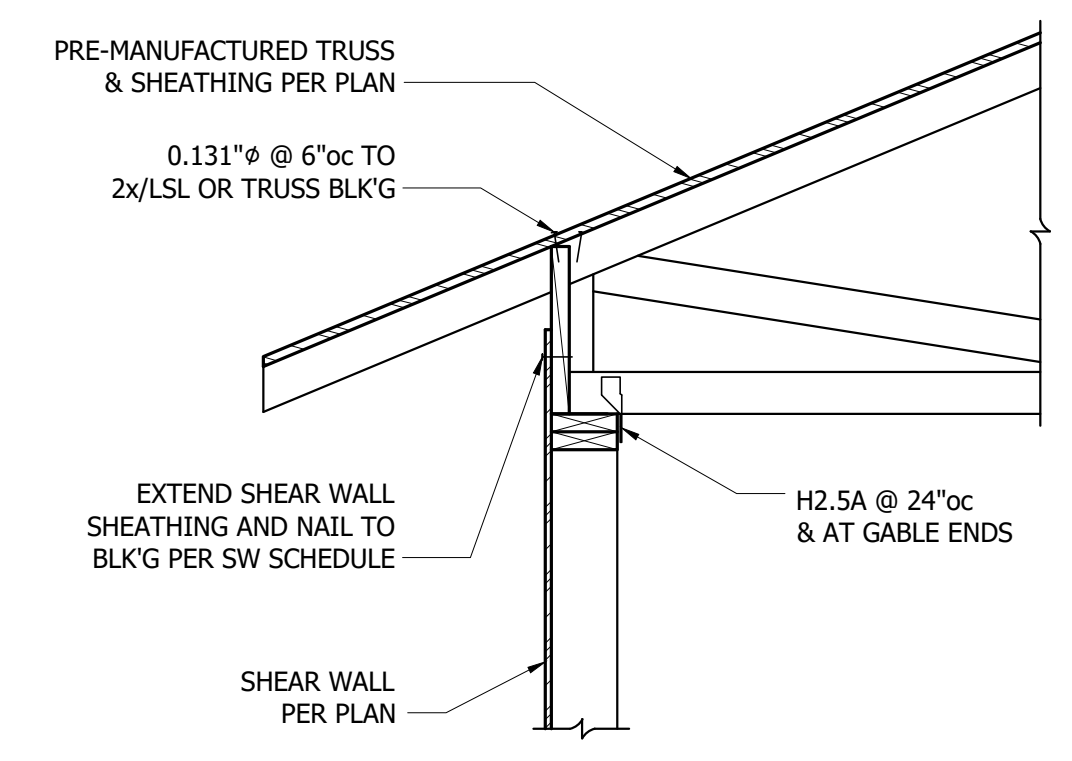
SCALE: IF SHEET IS LESS THAN 24" X 36", IT IS A REDUCED PRINT; REDUCE SCALE ACCORDINGLY
 REVISION SET 09/05/23



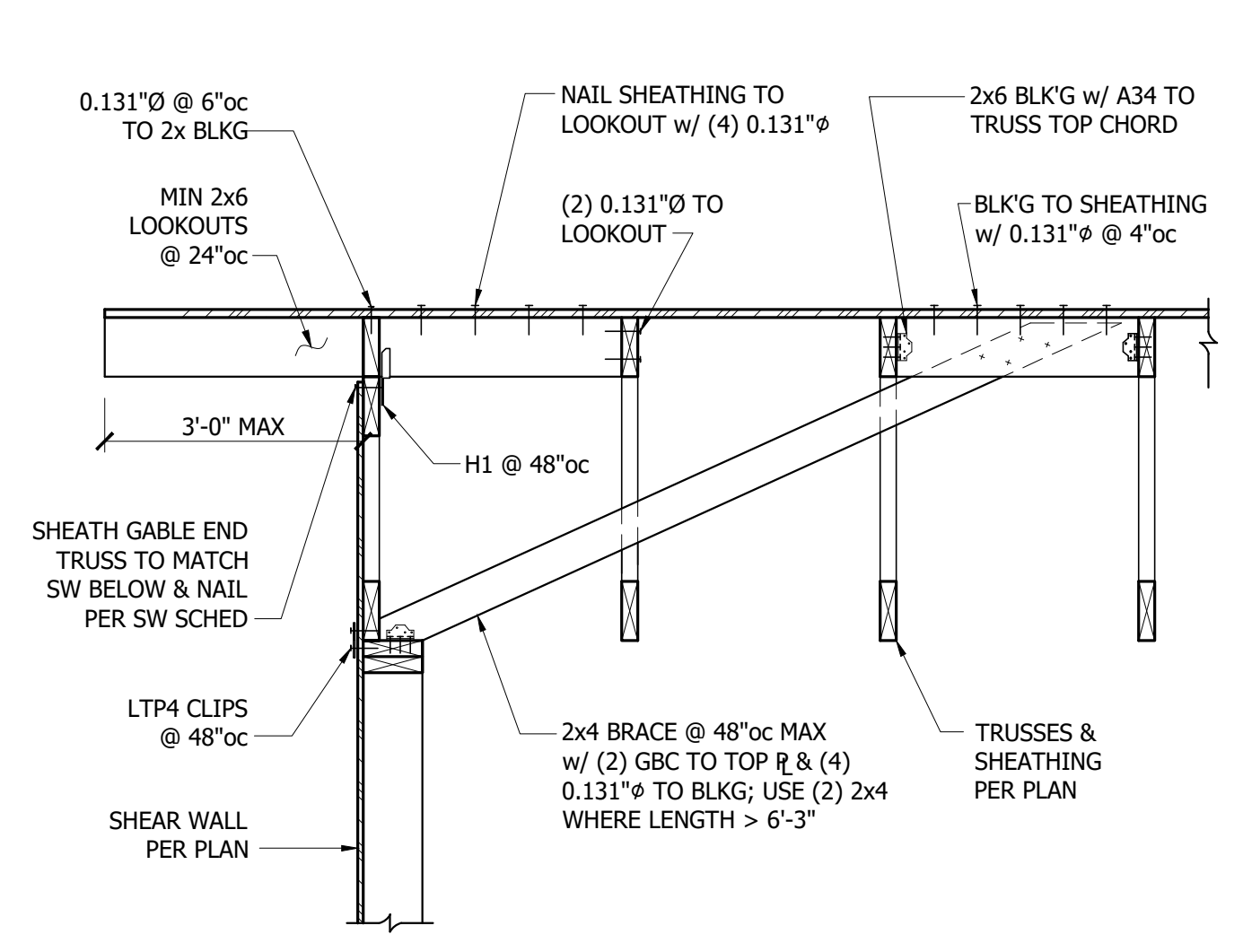
4 Drag Truss Parallel to Interior SW
 3/4" = 1'-0"



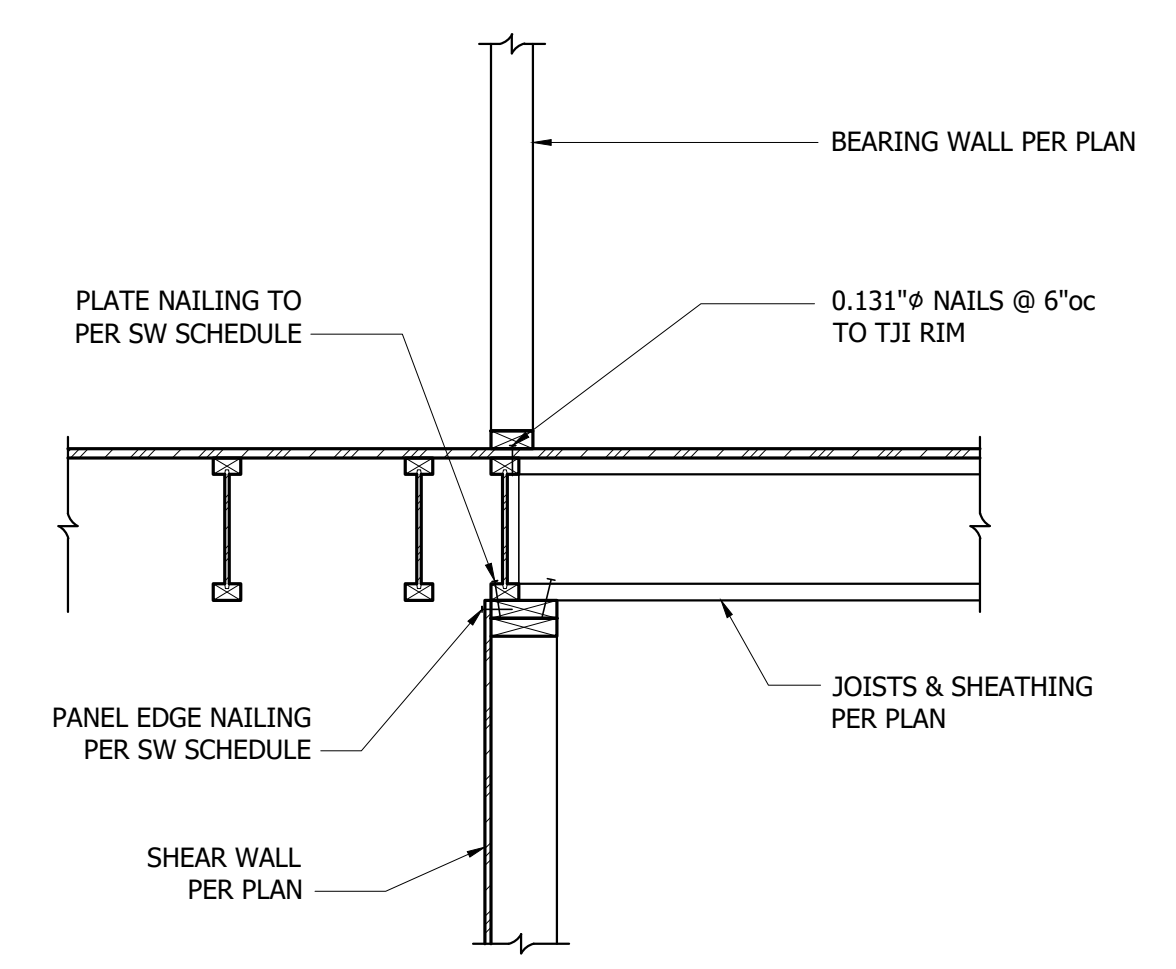
3 Perp. Drag Struts to Shear Walls
 3/4" = 1'-0"



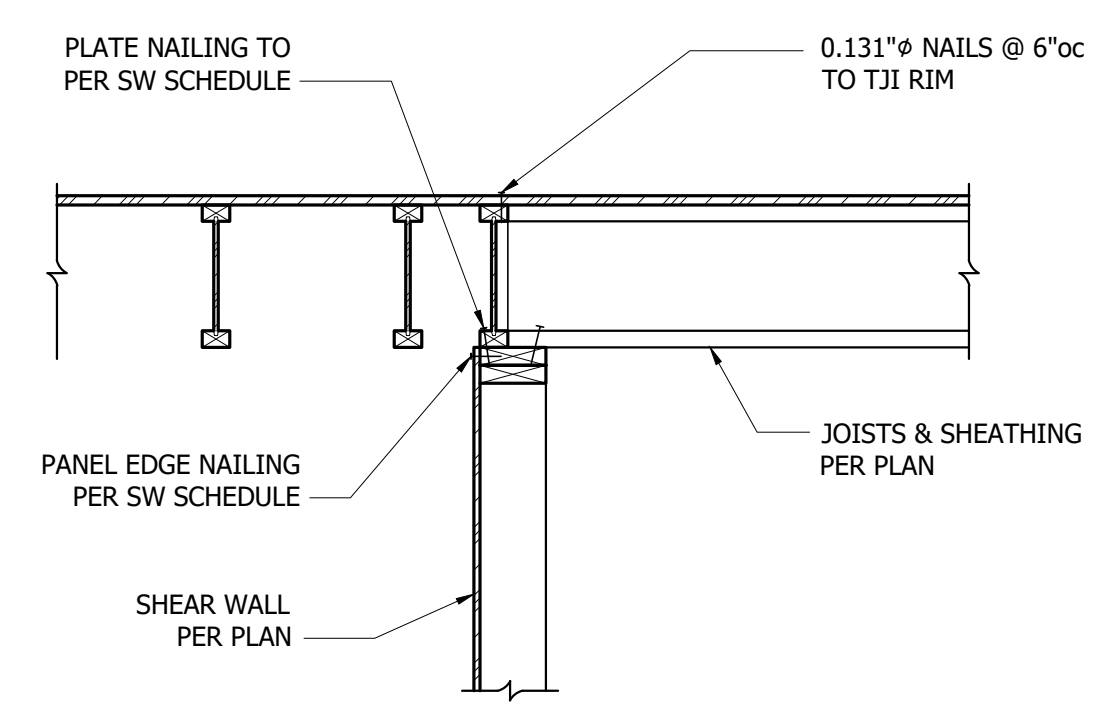
2 Trusses Perpendicular to Exterior Wall
 3/4" = 1'-0"



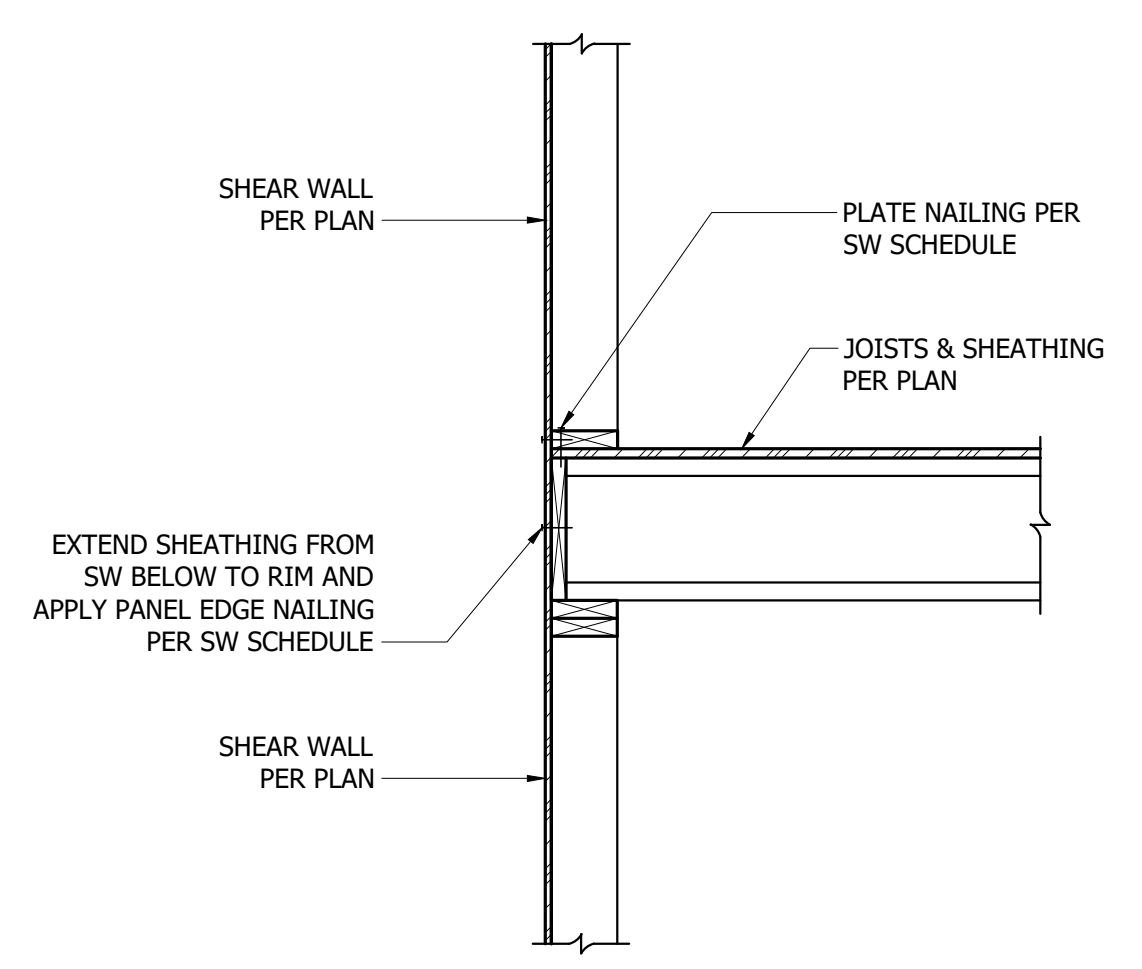
1 Trusses Parallel to Exterior Wall
 3/4" = 1'-0"



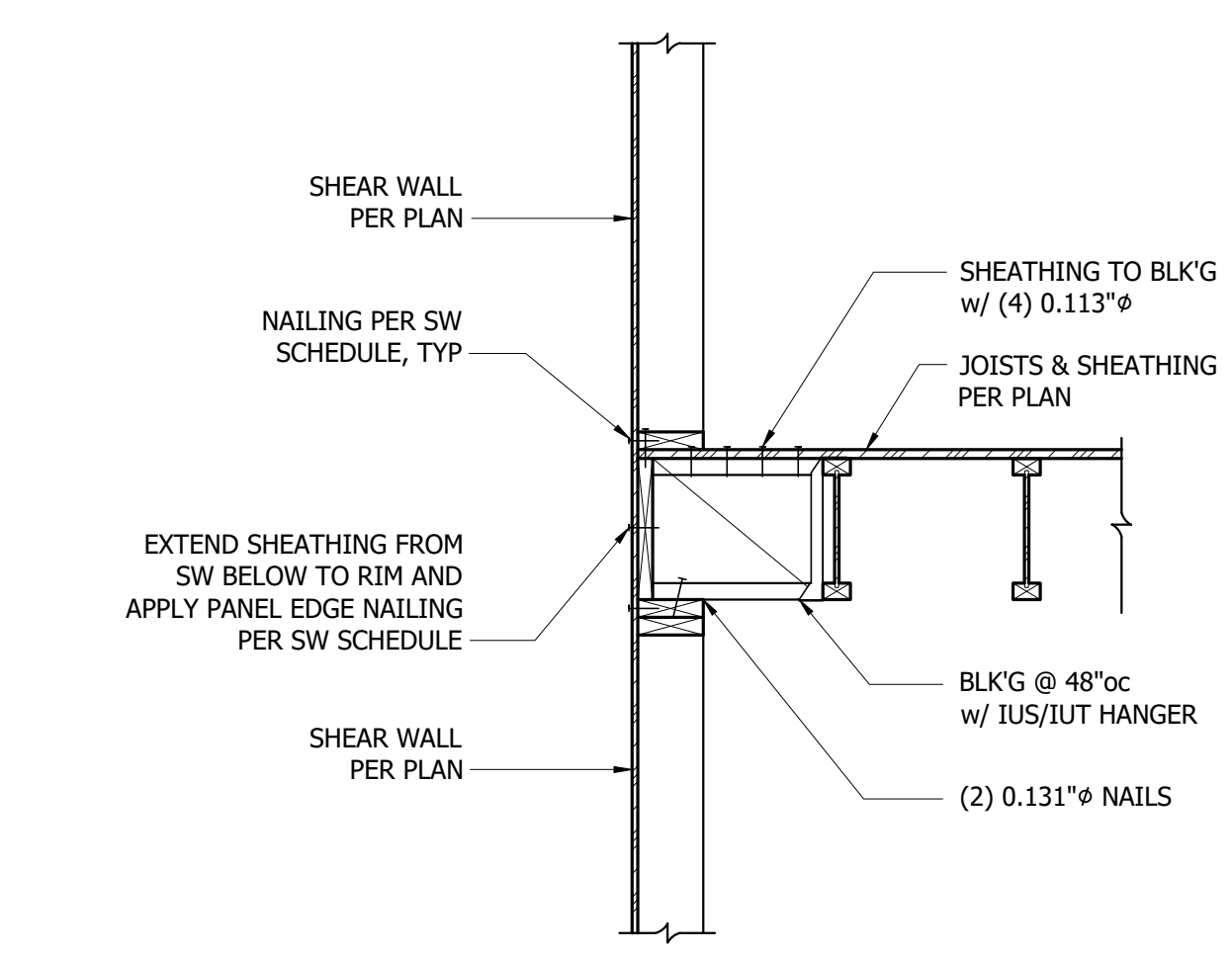
8 TJI Joists Parallel to Interior Shear Wall
 3/4" = 1'-0"



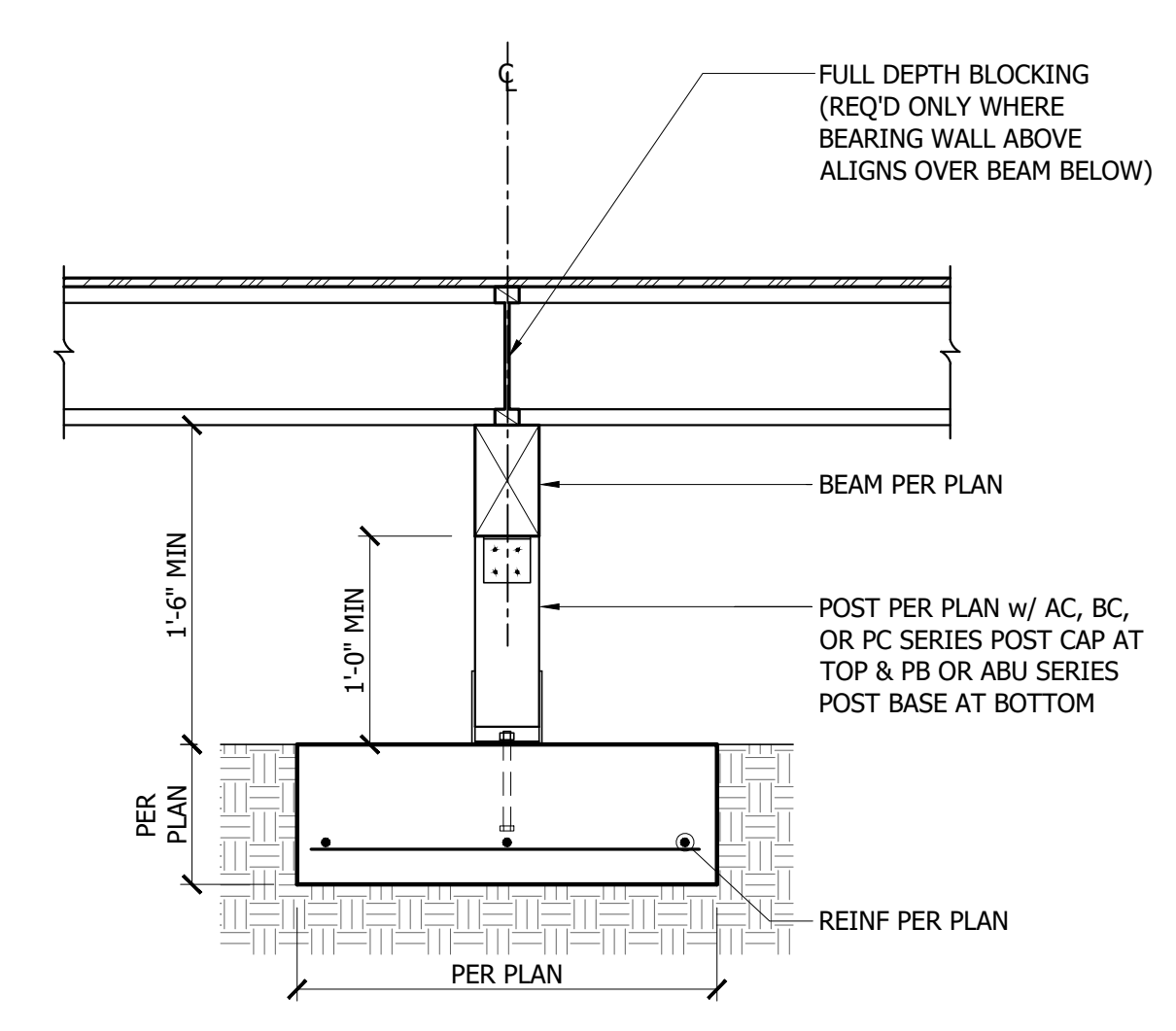
7 TJI Joists Parallel to Interior Shear Wall
 3/4" = 1'-0"



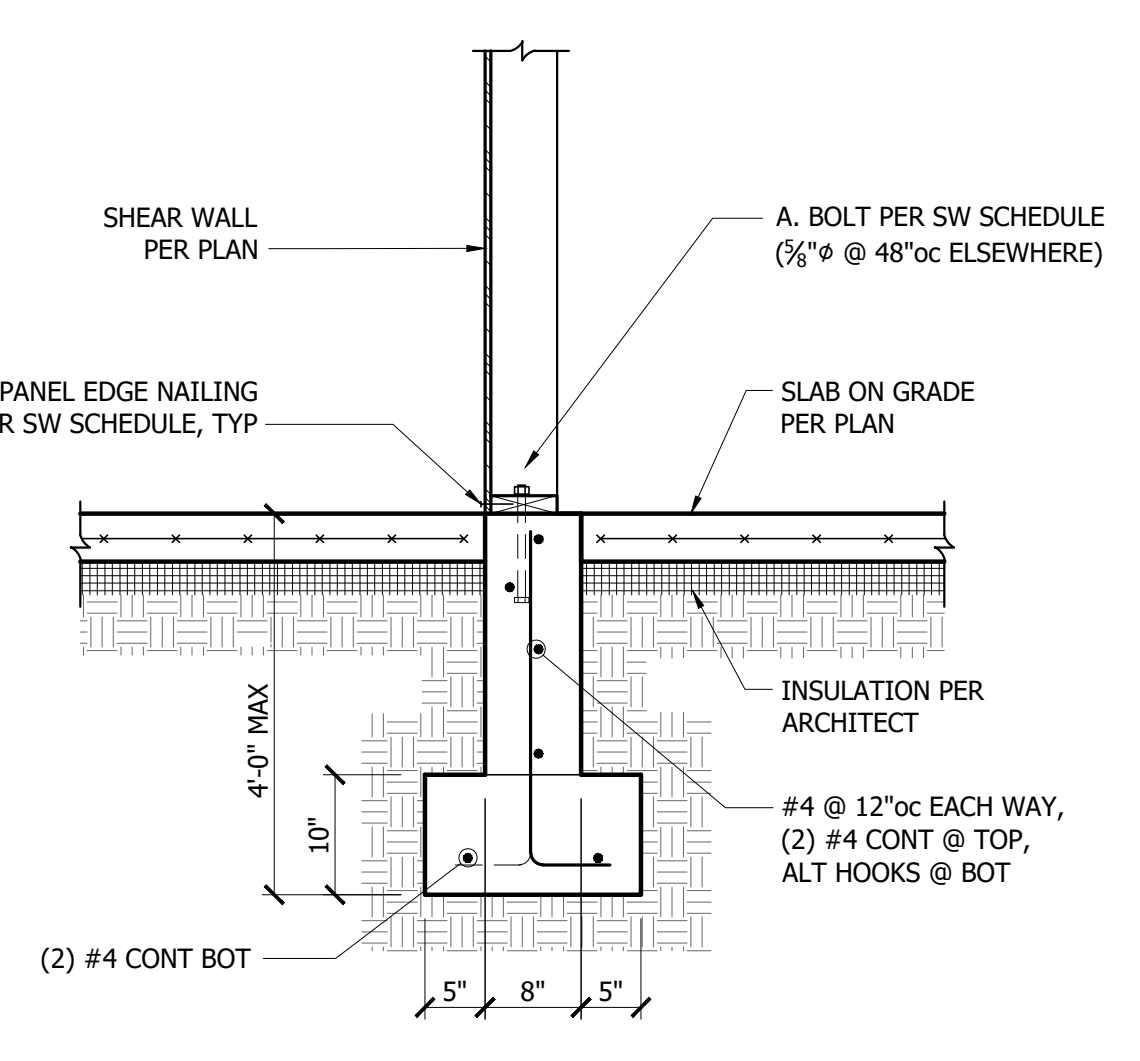
6 TJI Joists Perpendicular to Exterior Wall
 3/4" = 1'-0"



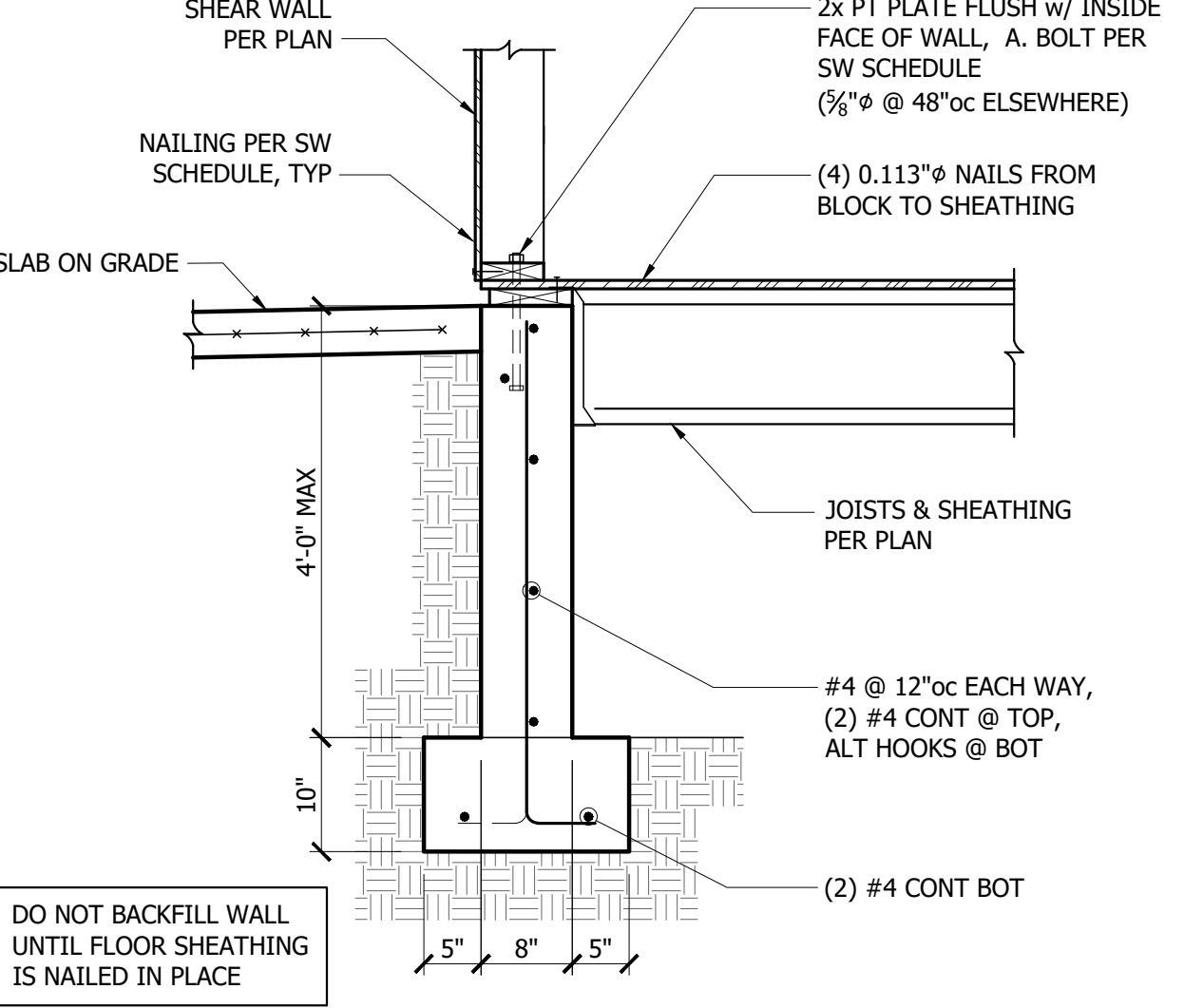
5 TJI Joists Parallel to Exterior Wall
 3/4" = 1'-0"



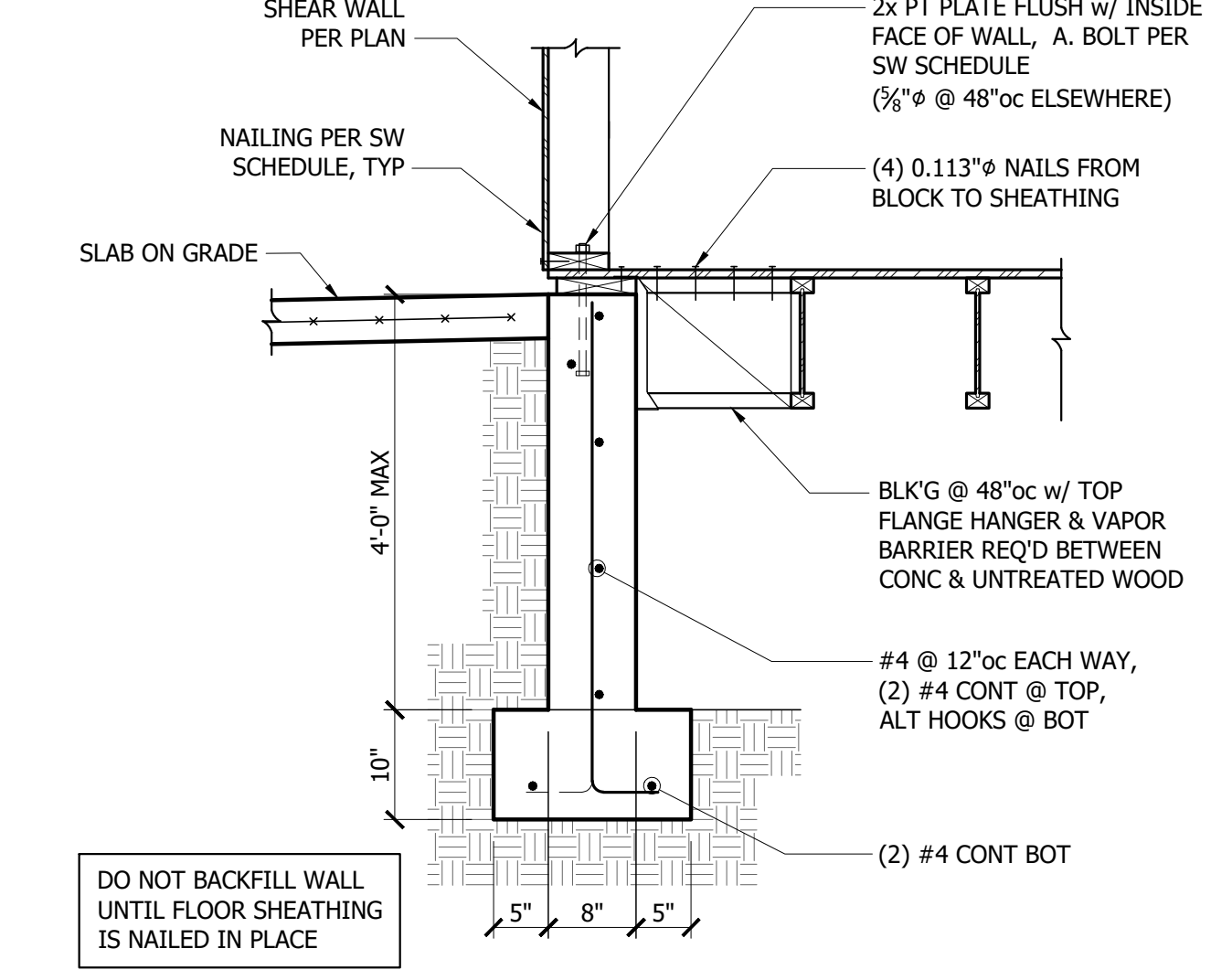
12 Crawlspace Beam, Post & Footing
 3/4" = 1'-0"



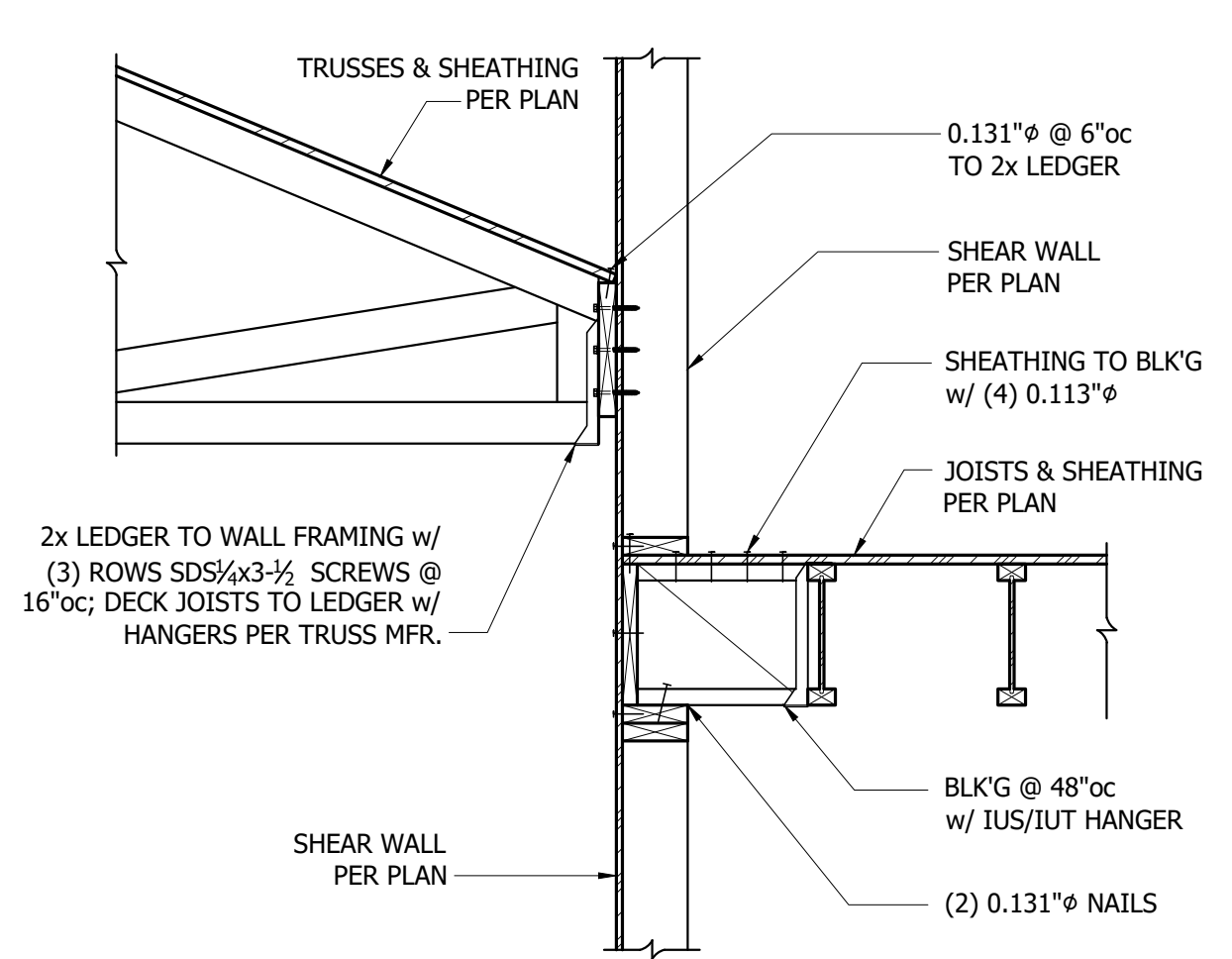
11 Stem Wall/Footing @ Interior Partition Wall
 3/4" = 1'-0"



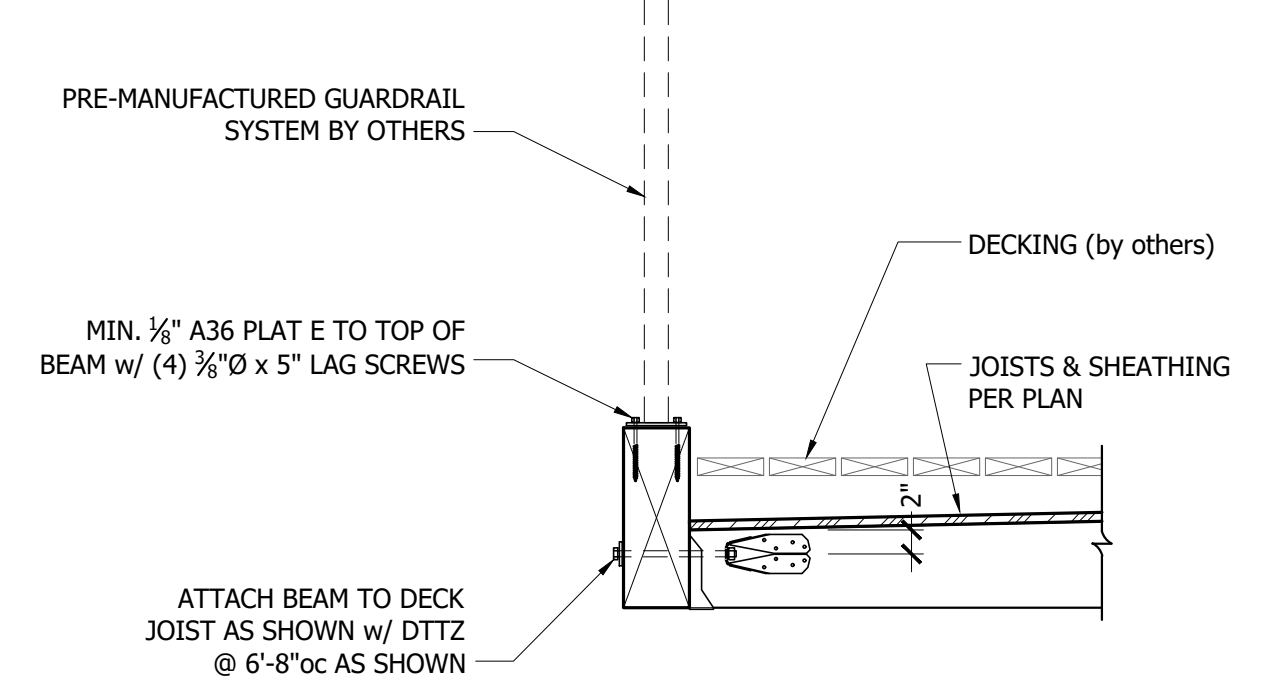
10 TJI Parallel to Crawlspace Stem Wall
 3/4" = 1'-0"



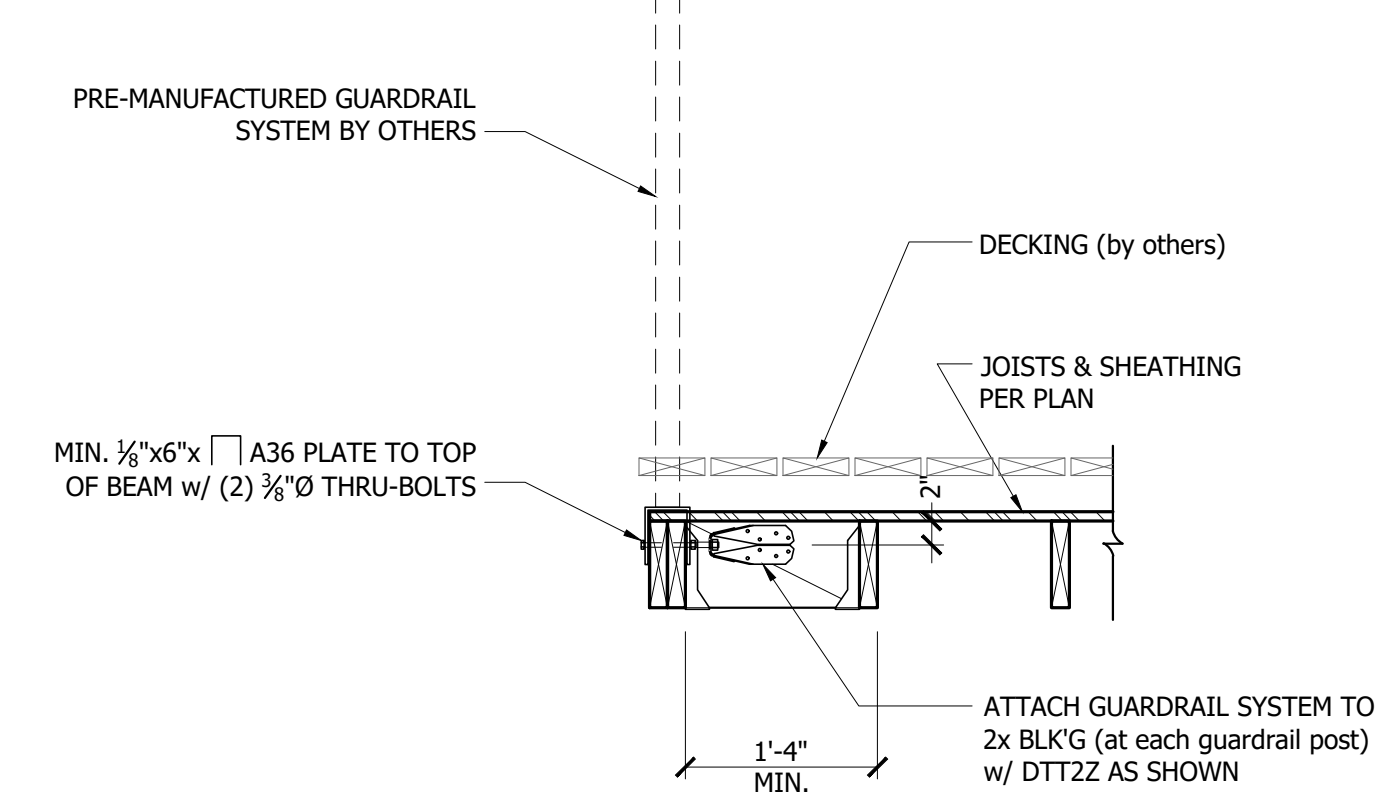
9 TJI Parallel to Crawlspace Stem Wall
 3/4" = 1'-0"



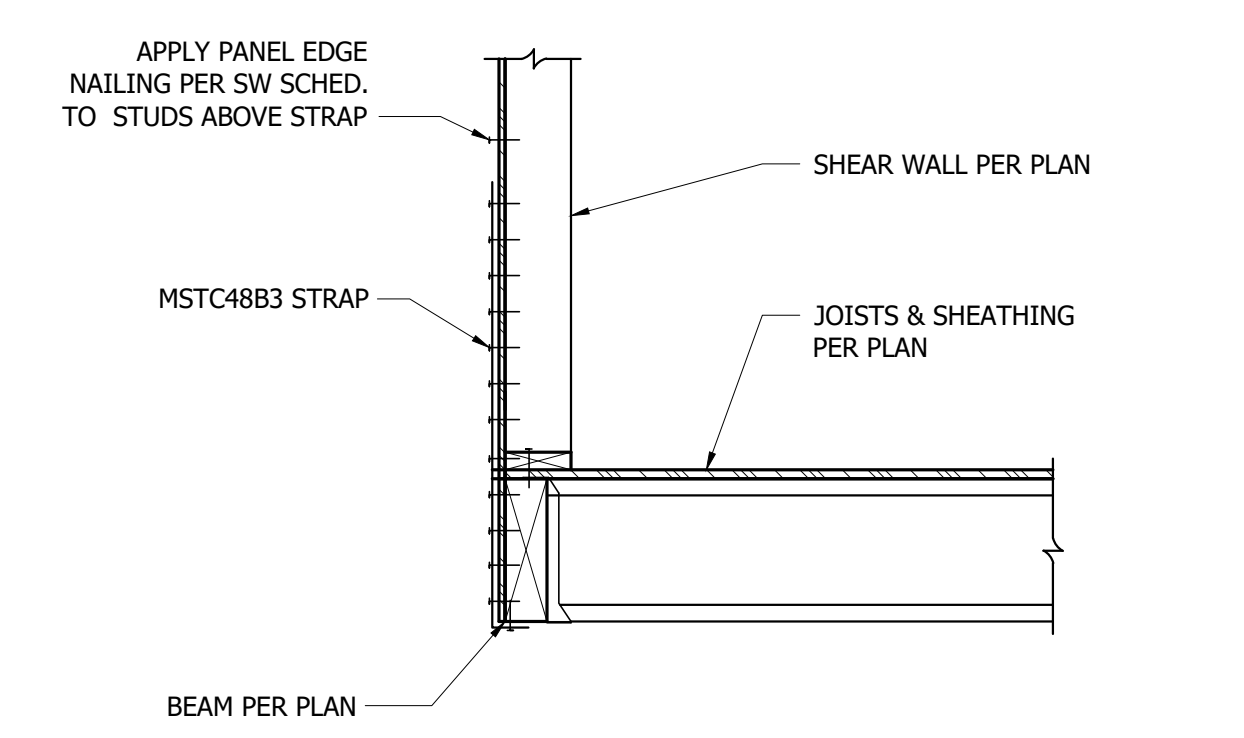
1 Low Roof Perp. to Exterior Wall
3/4" = 1'-0"



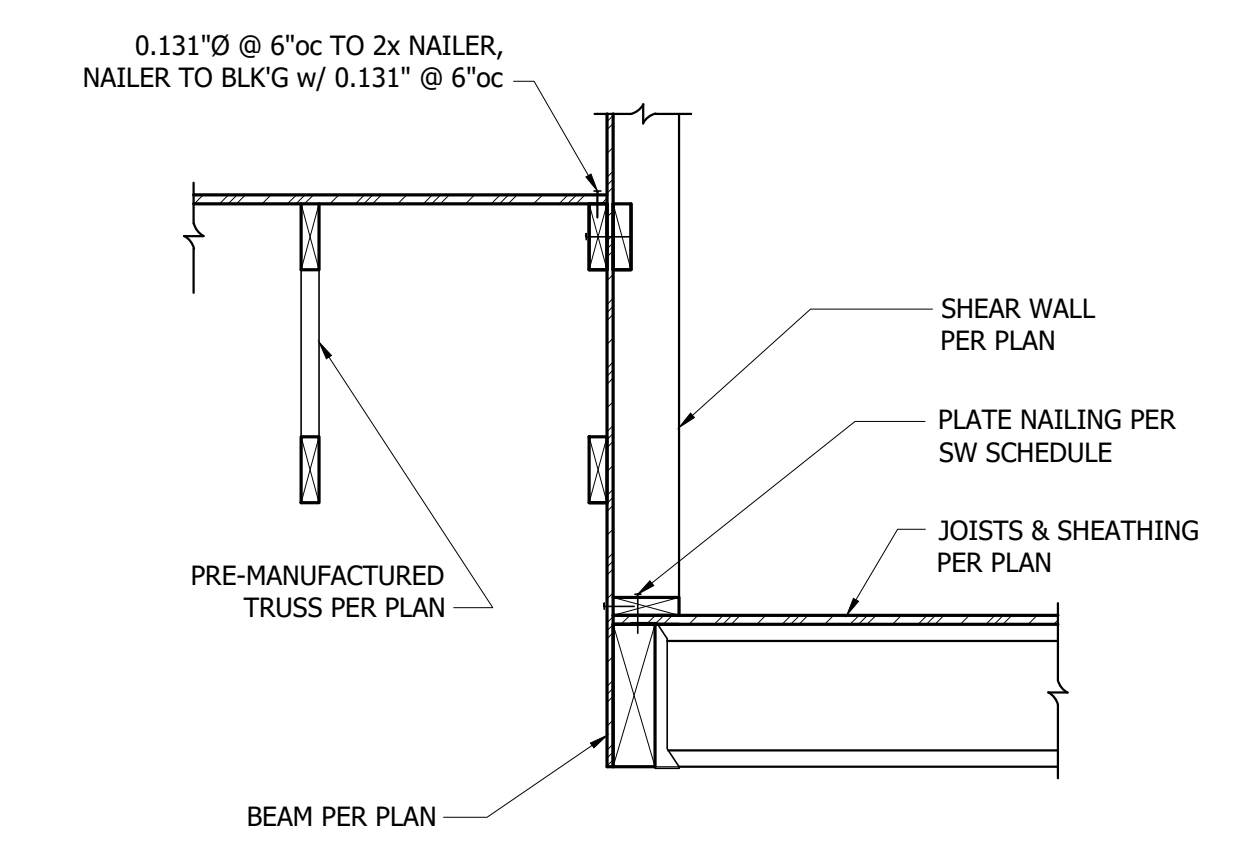
2 Guardrail Support at Deck Beam
3/4" = 1'-0"



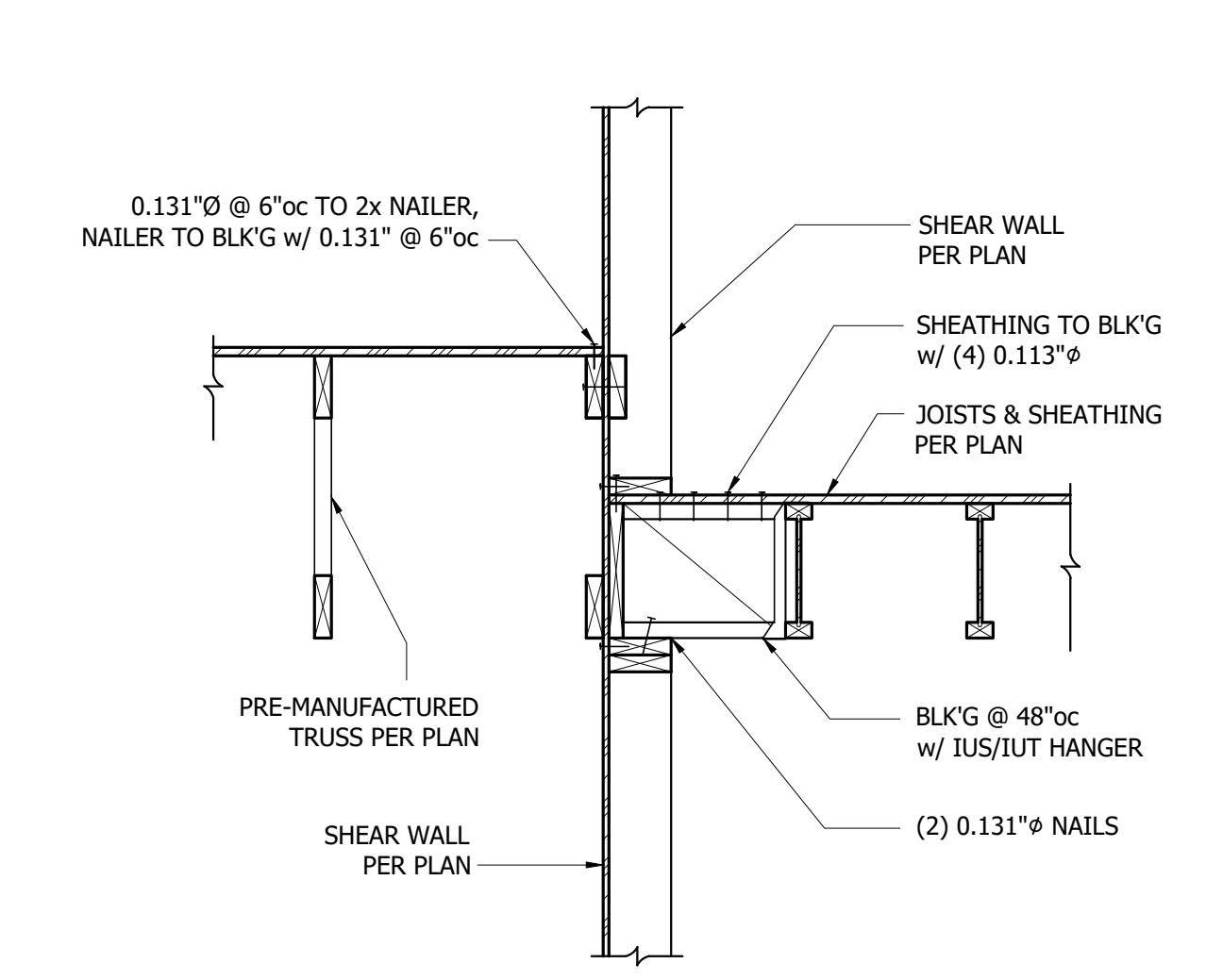
3 Guardrail Support at Parallel Deck Joists
3/4" = 1'-0"



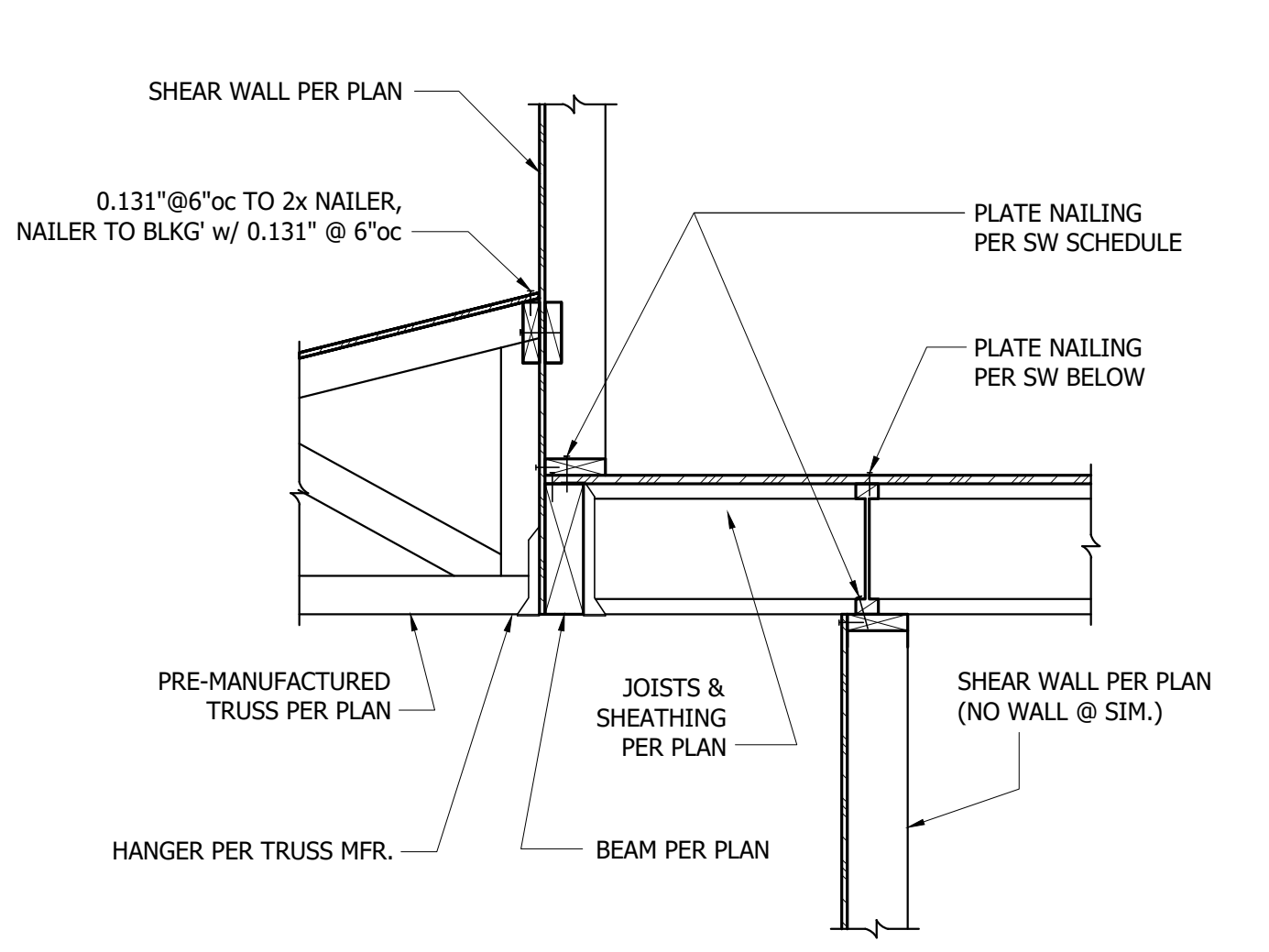
4 Strap to Beam Below
3/4" = 1'-0"



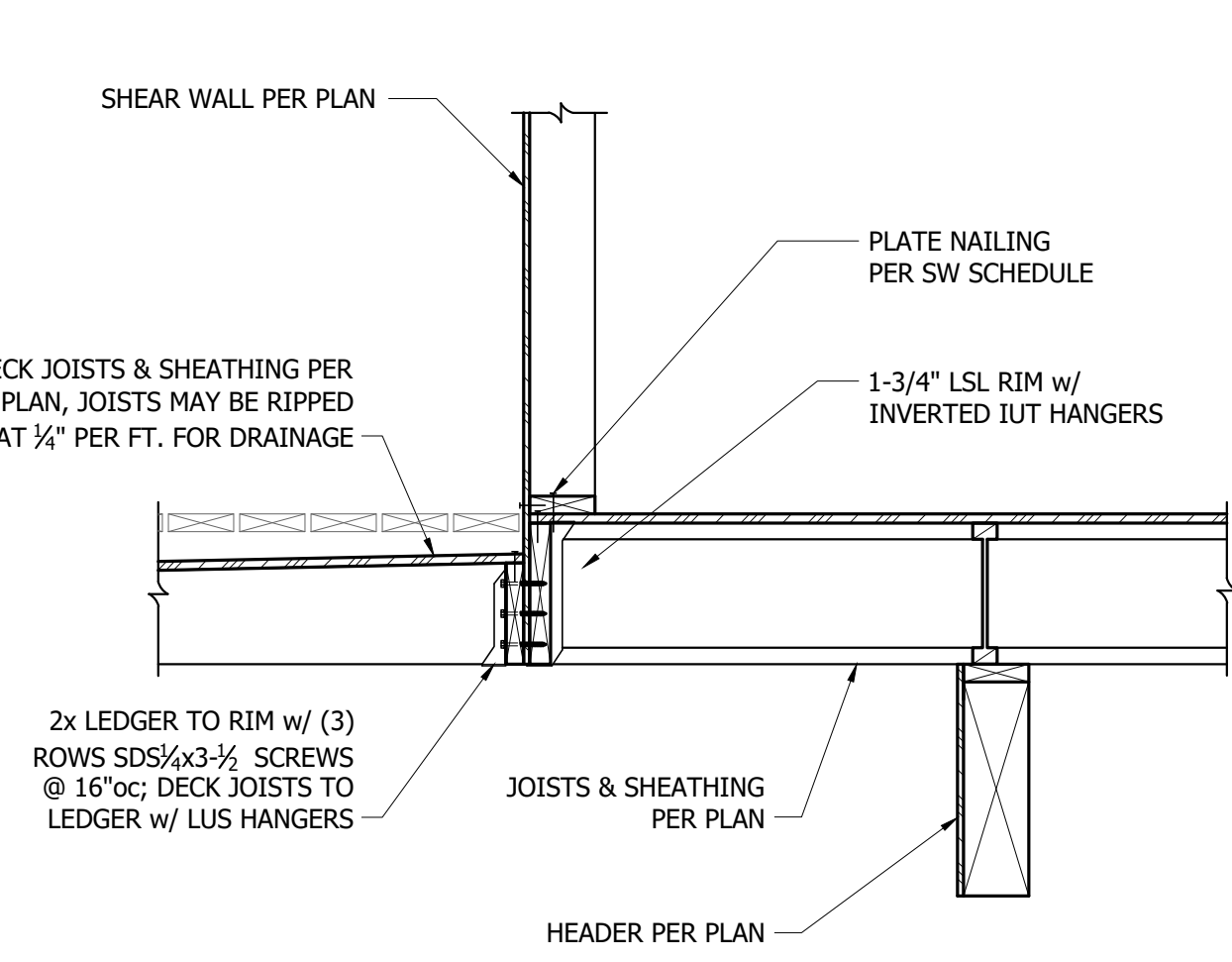
5 Low Roof Parallel to Exterior Wall
3/4" = 1'-0"



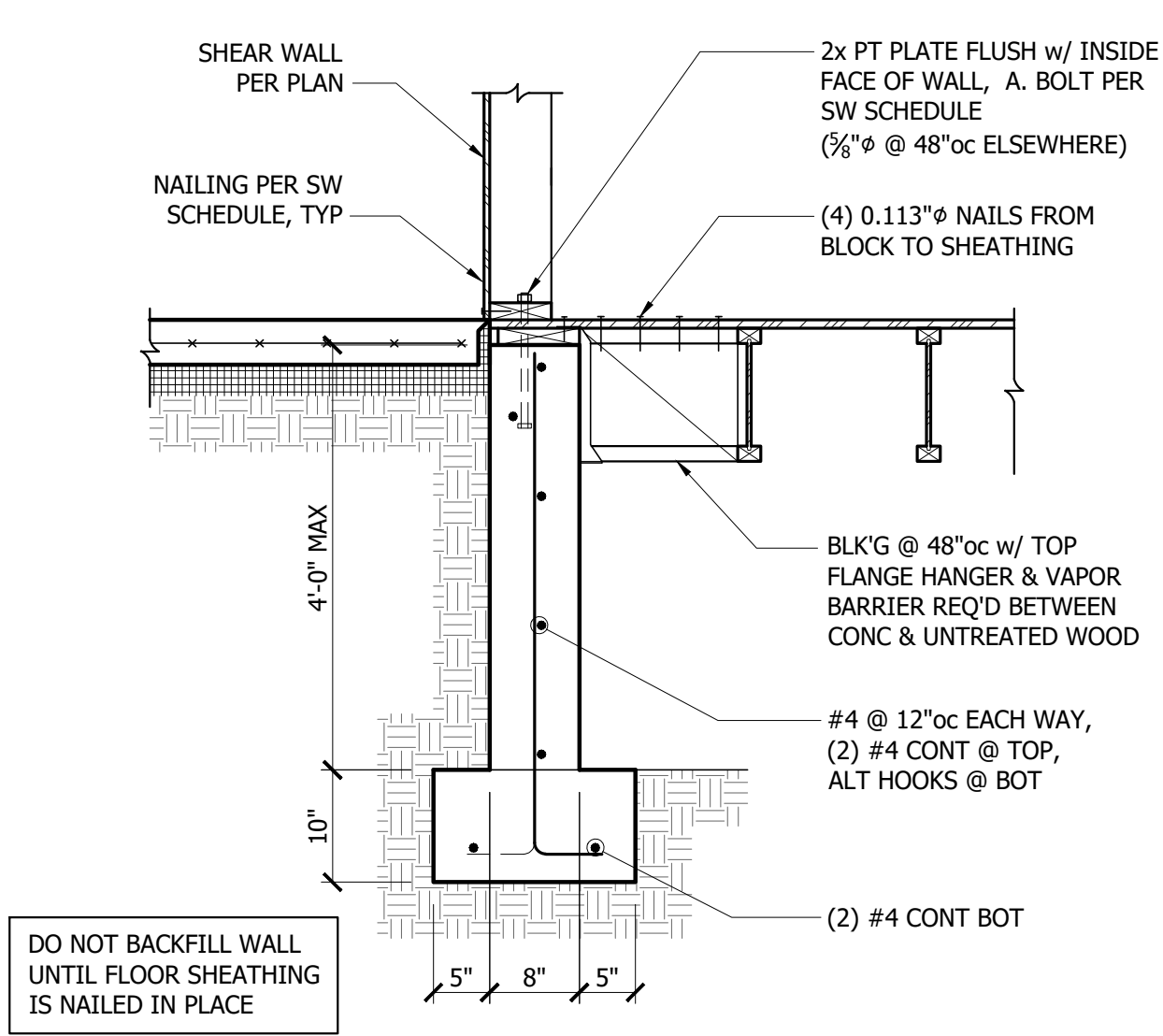
6 Low Roof Parallel to Floor Framing
3/4" = 1'-0"



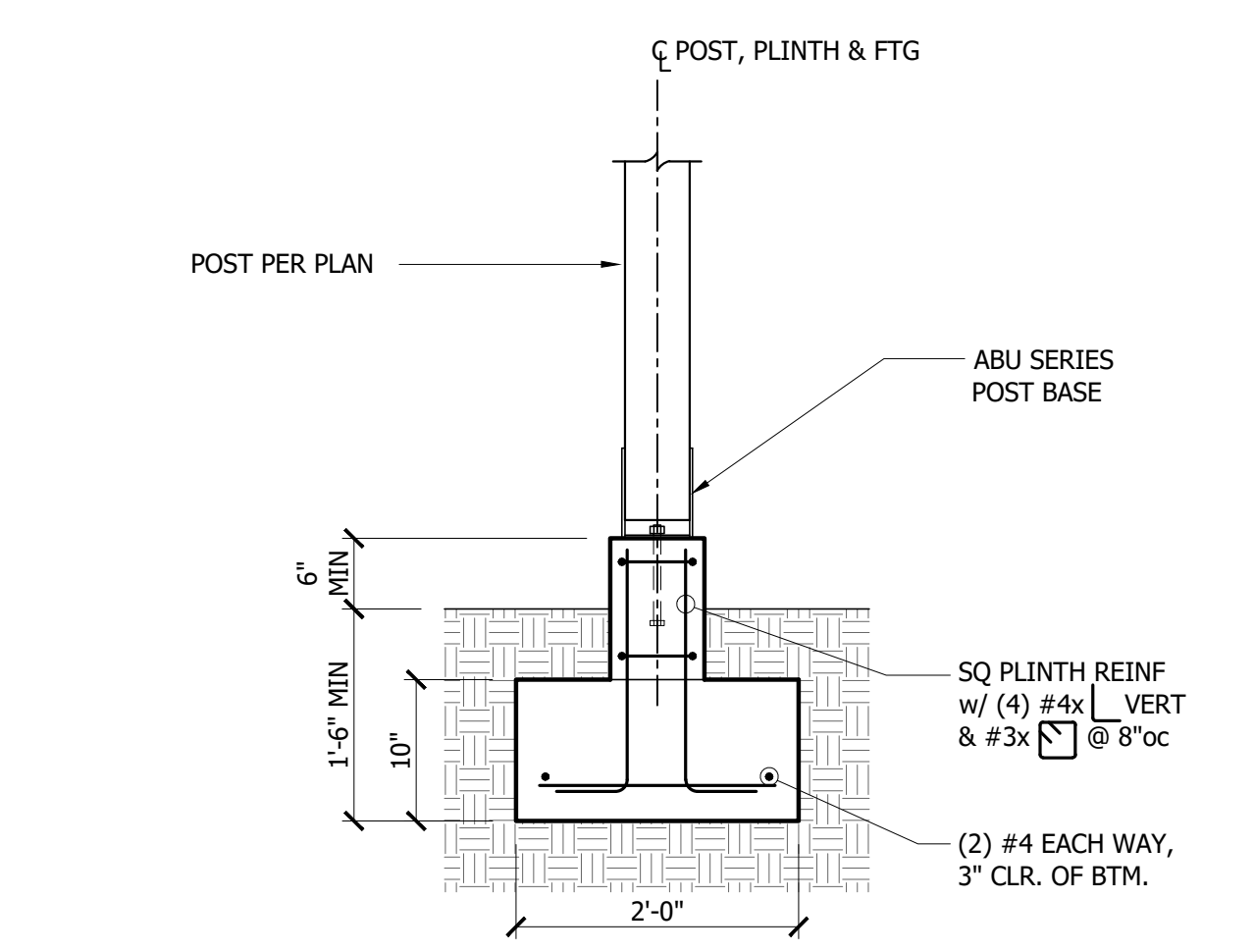
7 Trusses at Cantilevered Floor Framing
3/4" = 1'-0"



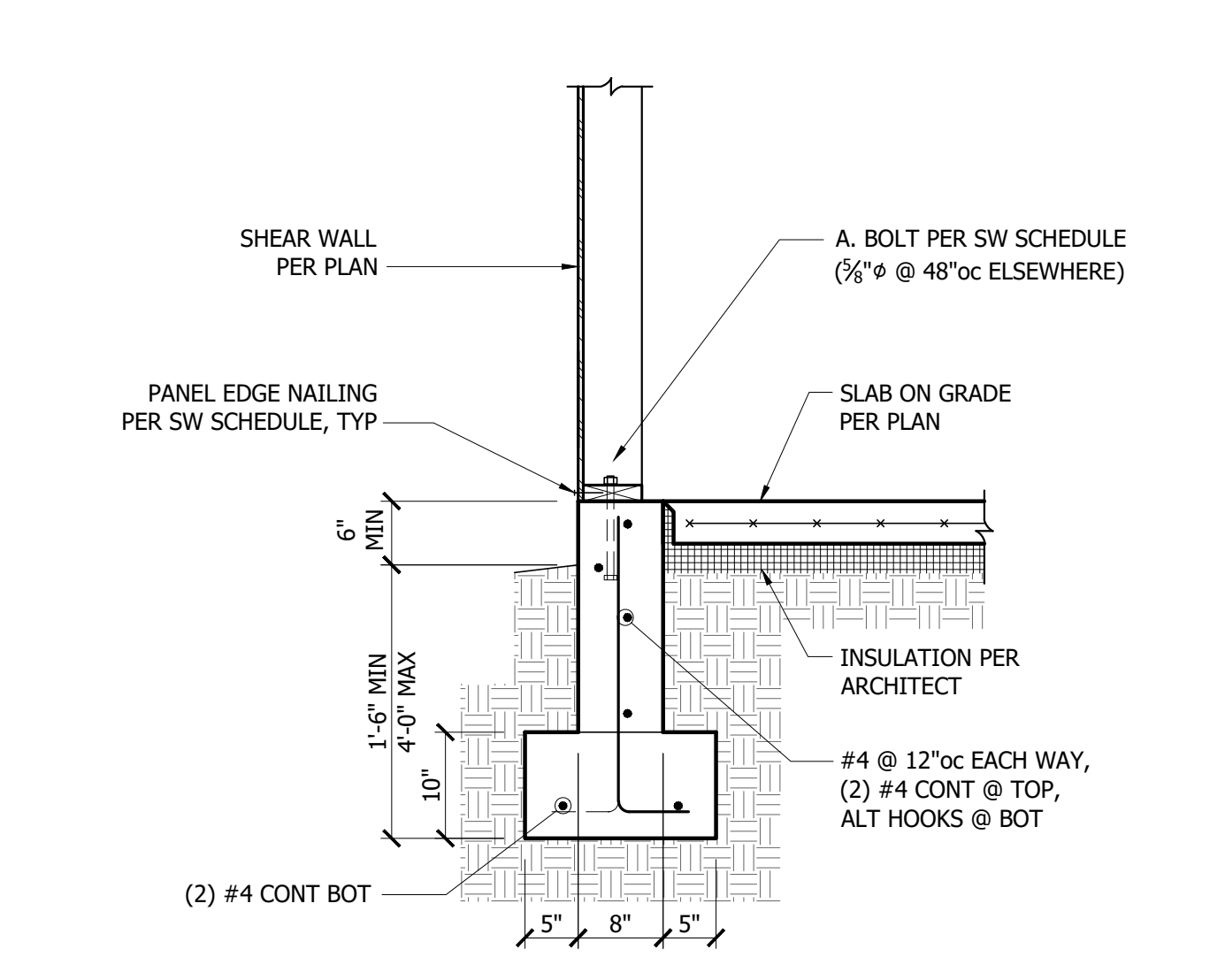
8 Deck Joists at Cantilevered Floor Framing
3/4" = 1'-0"



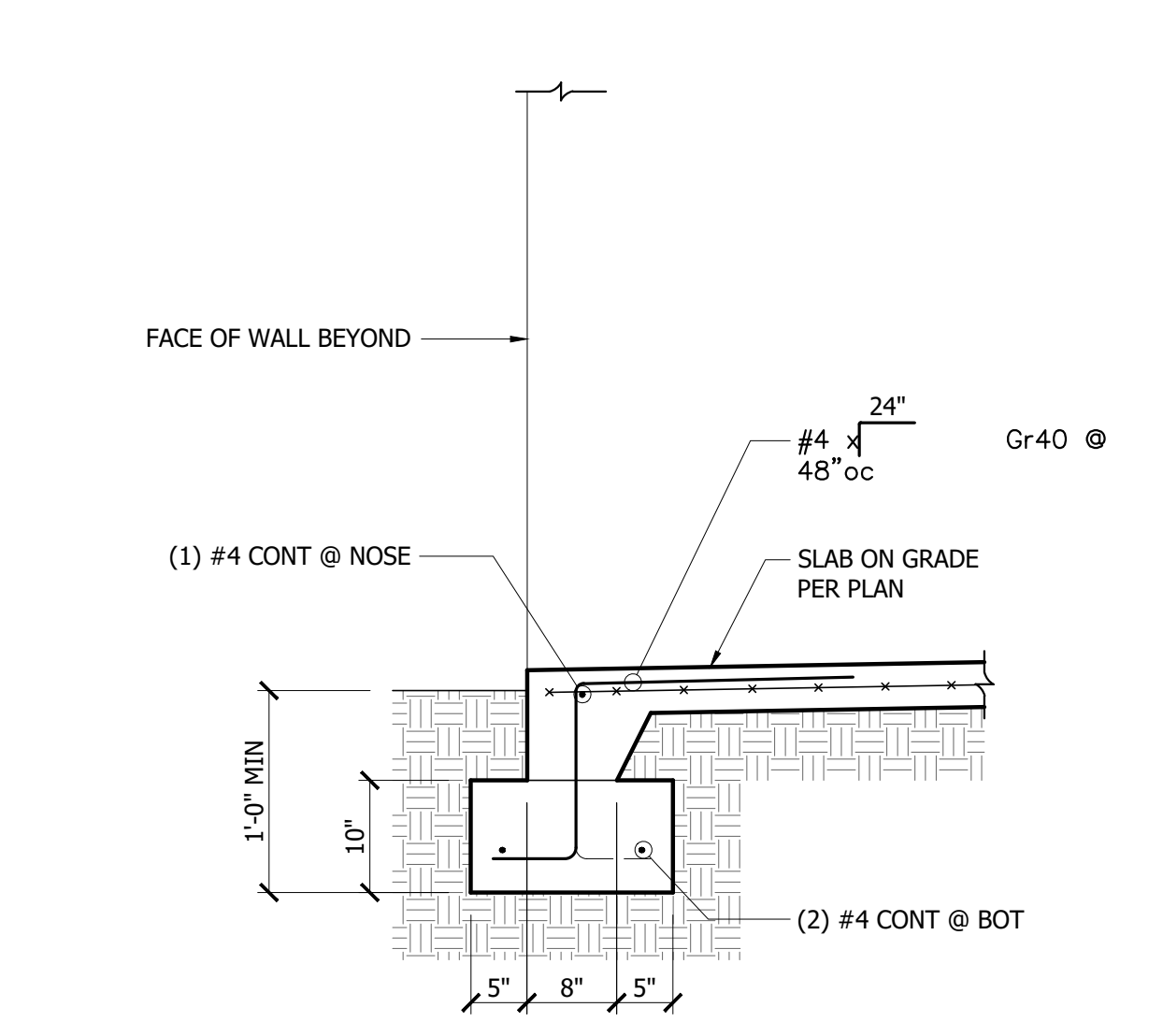
9 Transition at Crawlspace to Slab on Grade
3/4" = 1'-0"



10 Isolated Post Footing
3/4" = 1'-0"

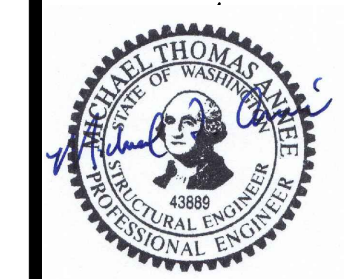


11 Stem Wall/Footing @ Exterior Wall
3/4" = 1'-0"



12 Footing @ Garage Opening
3/4" = 1'-0"

DO NOT BACKFILL WALL UNTIL FLOOR SHEATHING IS NAILED IN PLACE

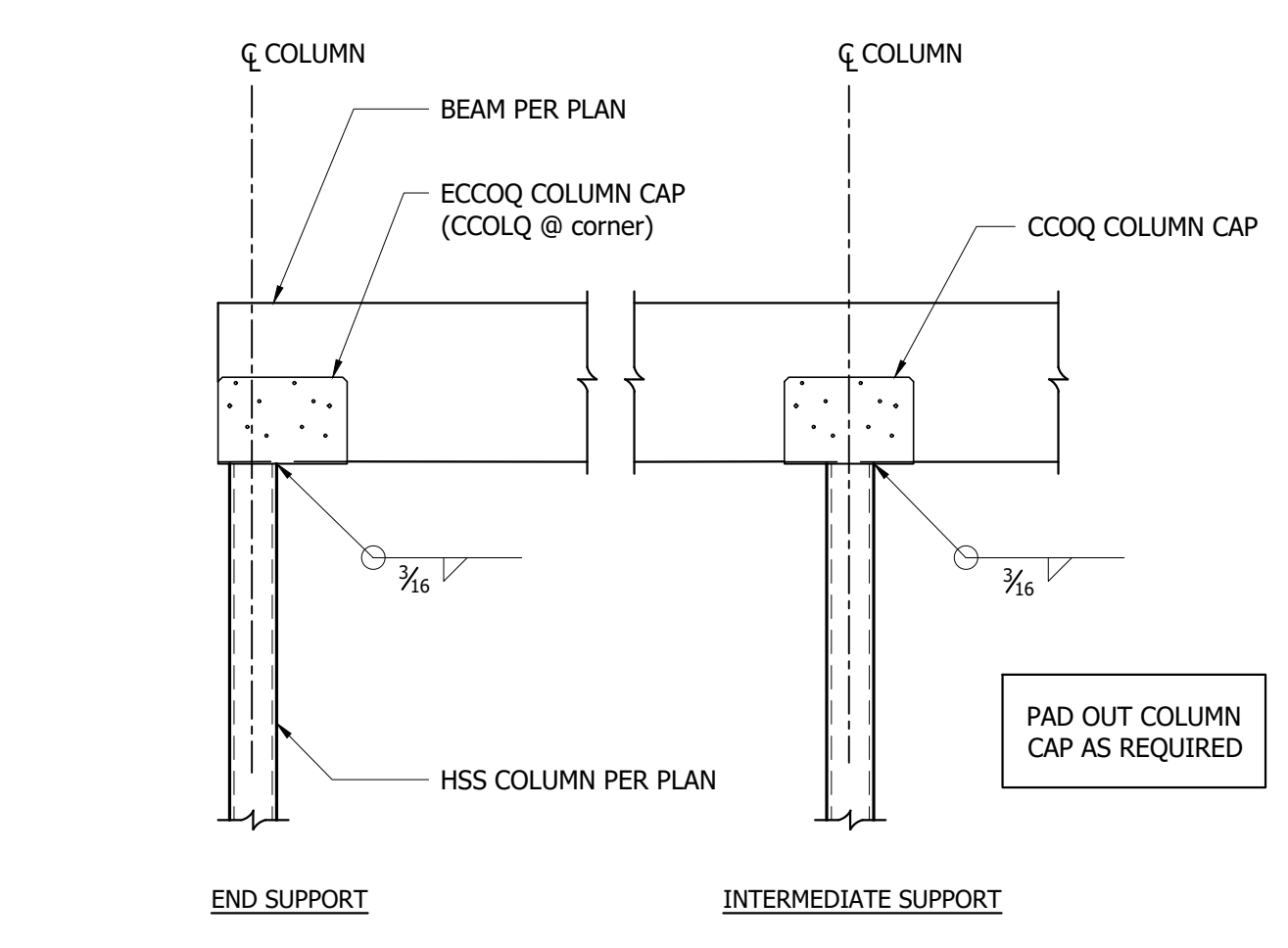


STRUCTURAL DETAILS

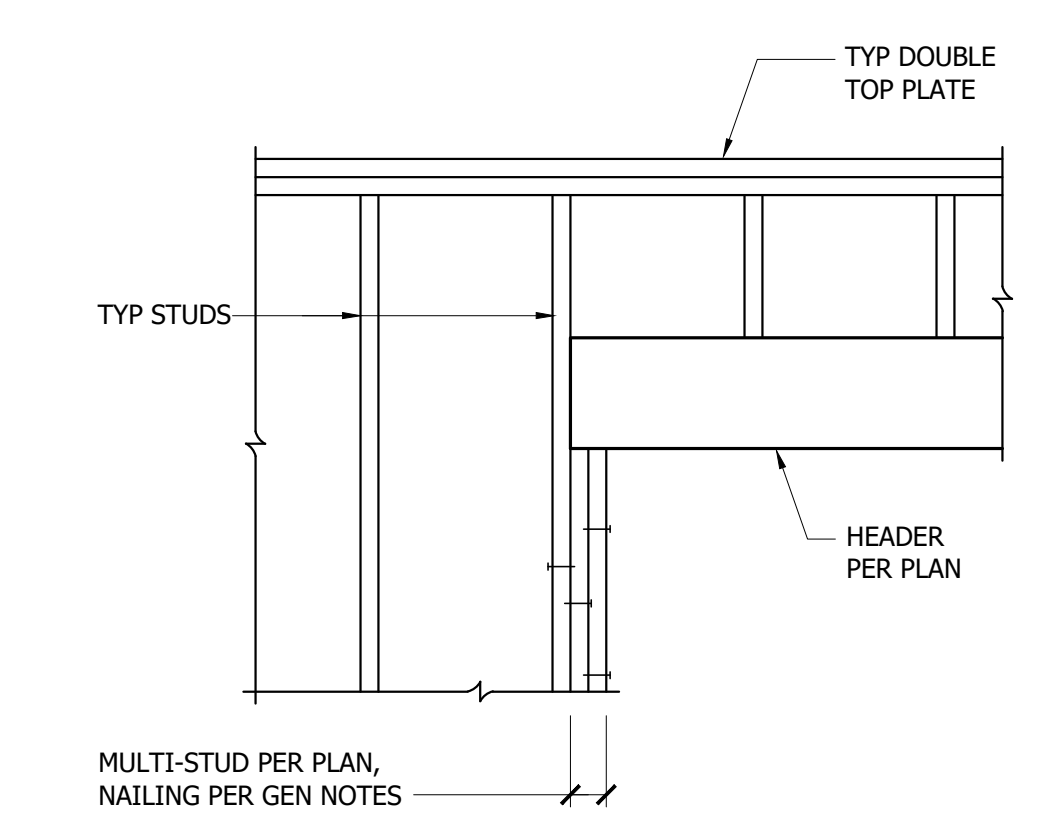
REVISIONS:	2022-11-29	Corrections #1
	2023-02-15	Corrections #2
	2023-08-22	Design Revisions
	2023-09-05	Revision Corrections

DRAWN BY: KE
 CHECKED BY: BJS

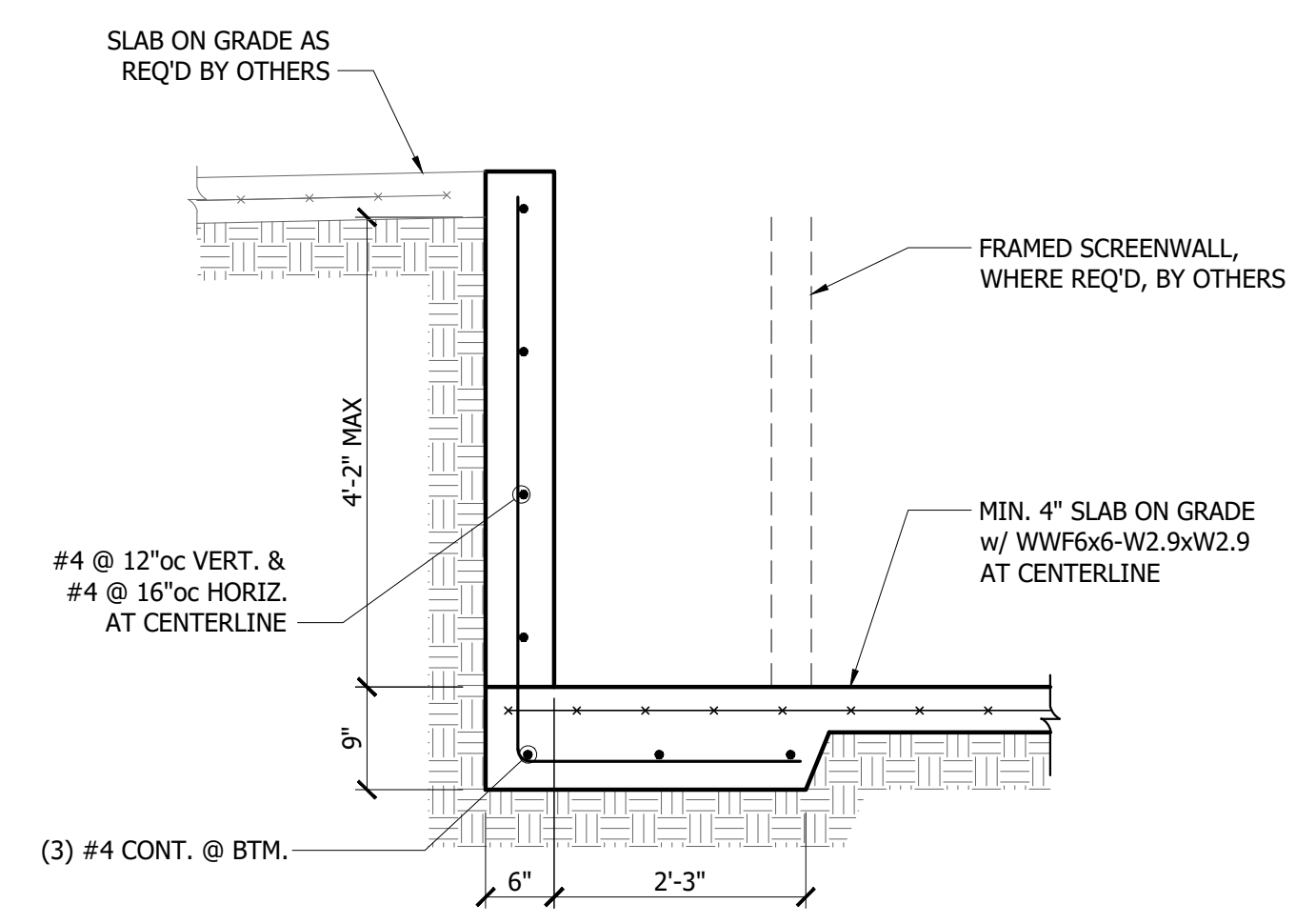
SHEET
S3.2
 REVISION SET 09/05/23 PLOT DATE: 9/5/2023



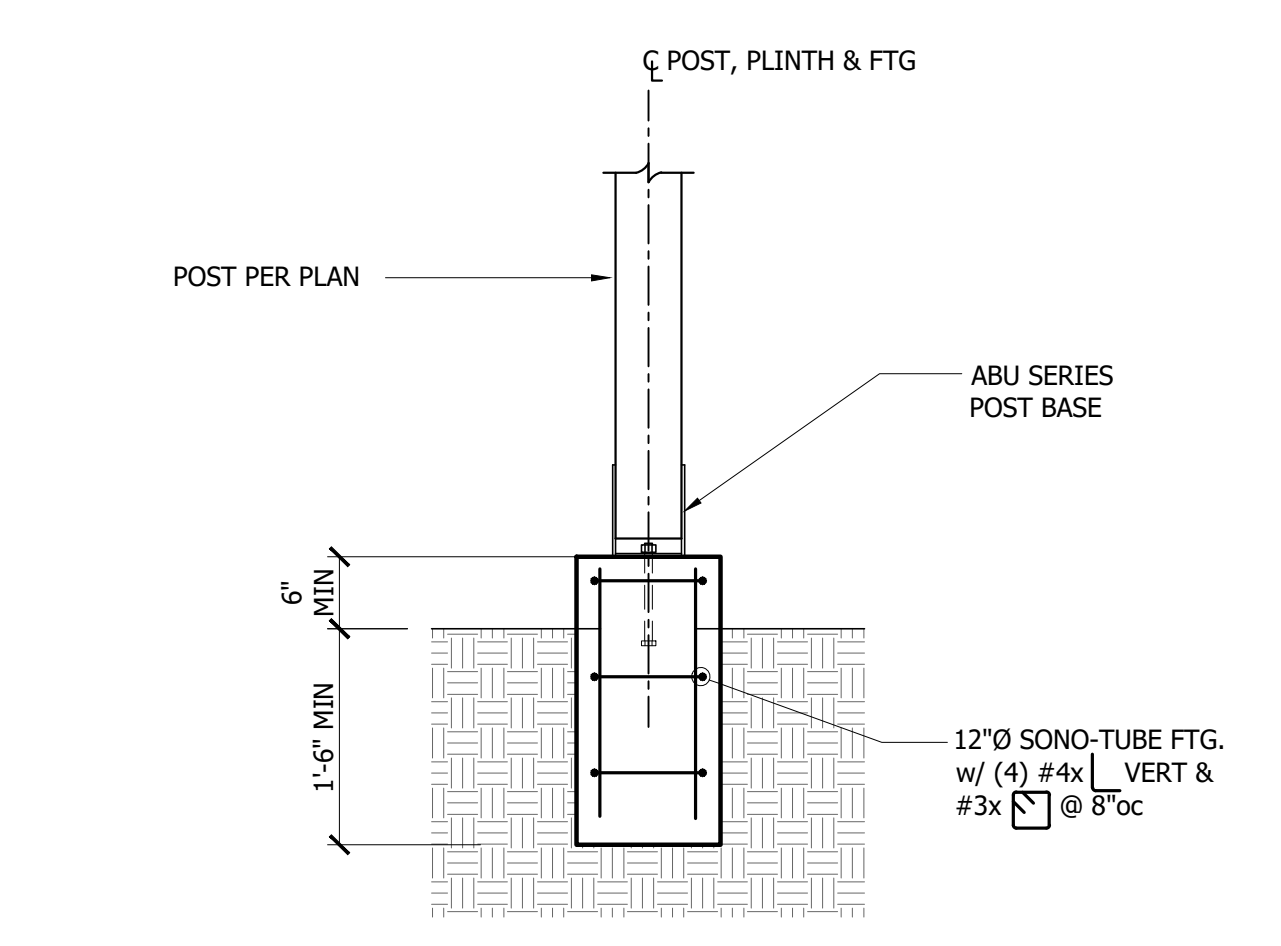
3 Wood Beam to HSS Column, Typ.
 3/4" = 1'-0"



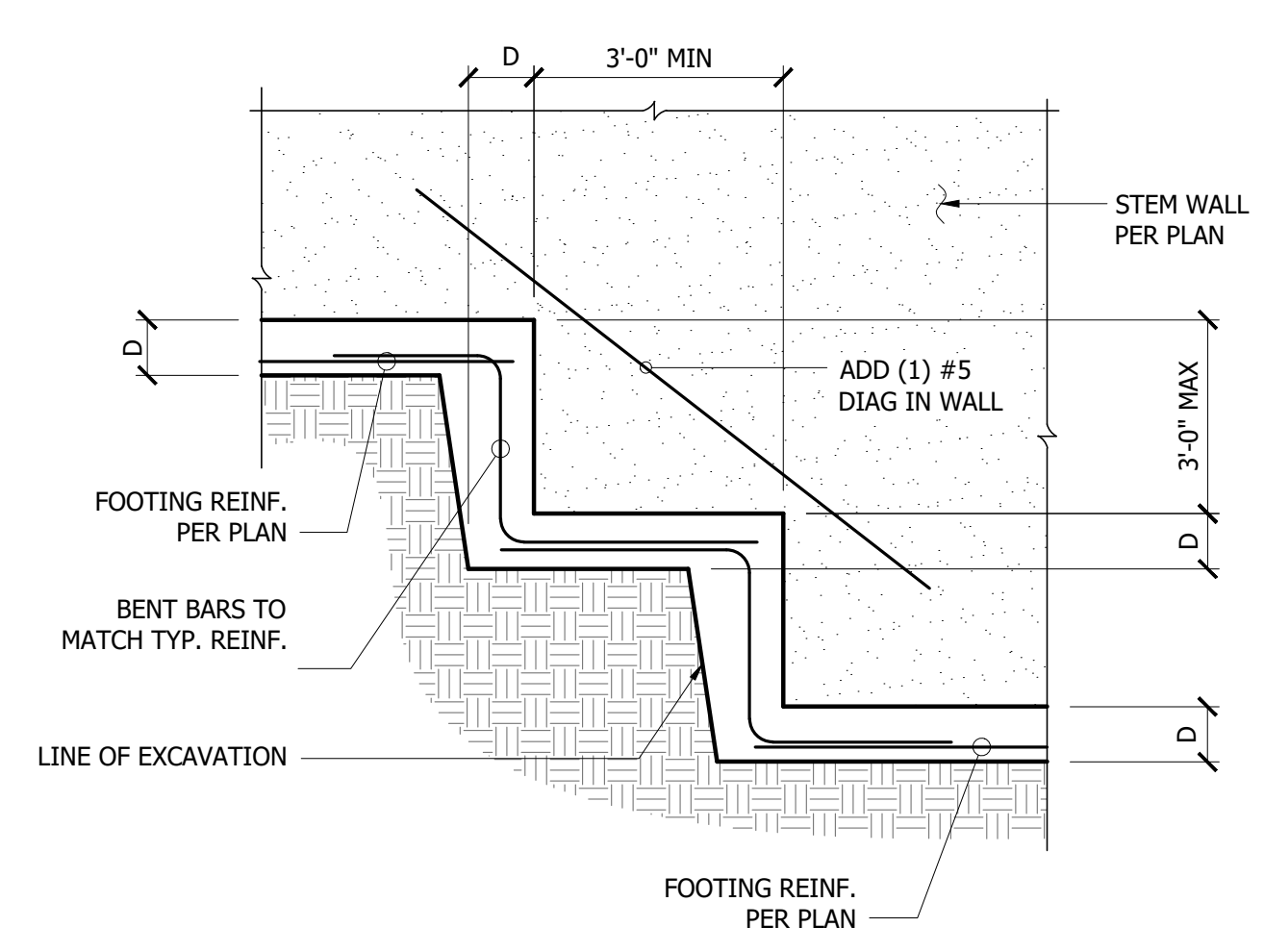
4 Header Support, Typ.
 3/4" = 1'-0"



10 Undermining of Existing Foundation Wall
 3/4" = 1'-0"



11 Sono Tube Post Footing
 3/4" = 1'-0"



12 Stepped Footing, Typ.
 3/4" = 1'-0"