

TREE PLANTING PLAN

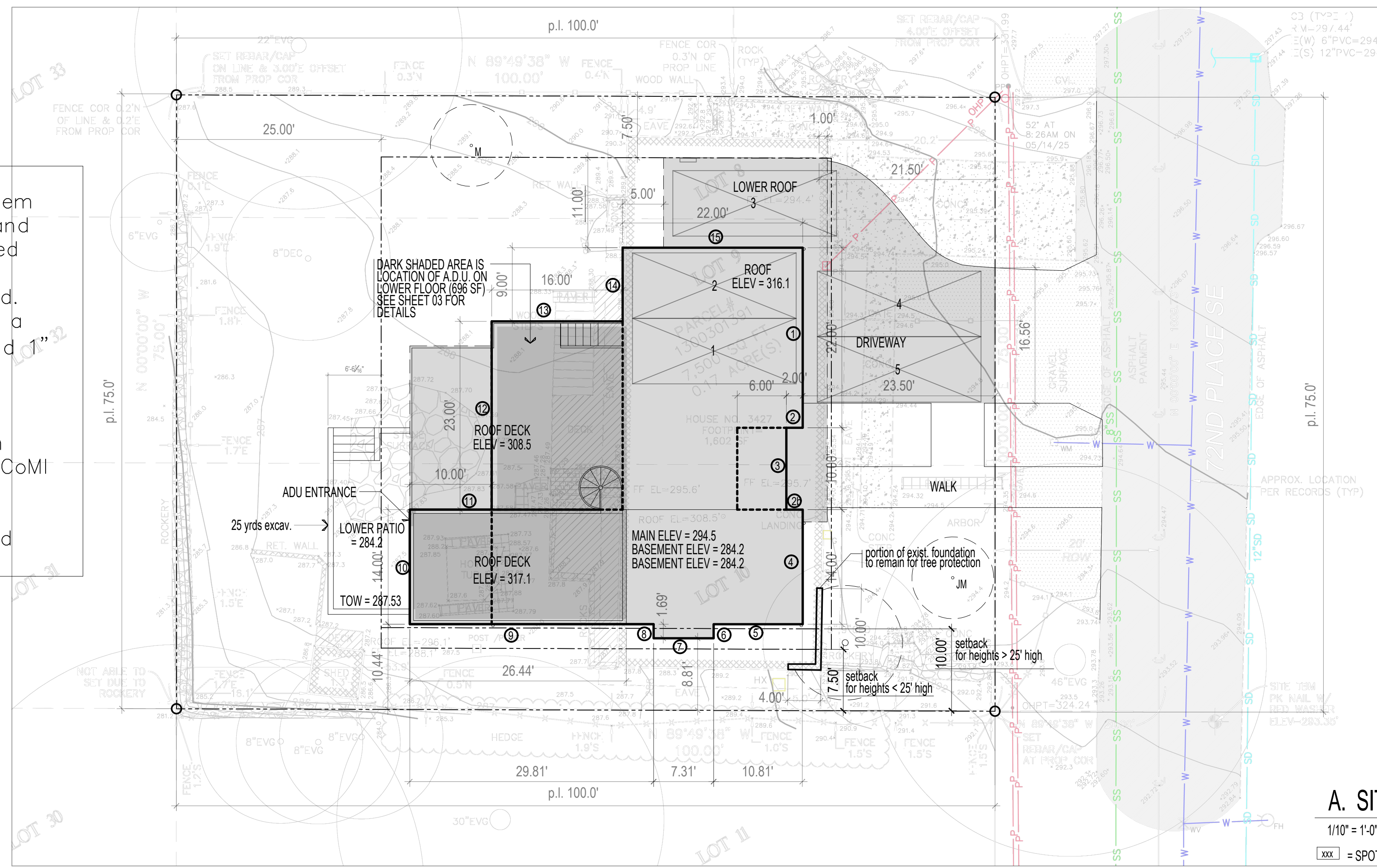
1. NEW TREES WILL BE AT LEAST 6 FEET TALL FOR CONIFERS AND 1.5 INCHES IN CALIPER FOR DECIDUOUS SPECIES
2. NEW TREES WILL BE PLANTED BETWEEN OCTOBER AND MARCH
3. MINIMUM SPACING BETWEEN TREES AND DISTANCES FROM BUILDINGS OR INFRASTRUCTURE WILL BE 10 FEET
4. EACH NEW TREE WILL BE WATERED FOR THE FIRST 2 YEARS ON THE FOLLOWING SCHEDULE:
 - MINIMUM OF 5 GALLONS OF WATER PER WEEK FOR THE FIRST 4 WEEKS AFTER PLANTING
 - EVERY 2 WEEKS WHEN WEEKLY DAYTIME MAXIMUM TEMPERATURES ARE BELOW 70°
 - ONCE A WEEK WHEN WEEKLY DAYTIME MAXIMUM TEMPERATURES ARE OVER 70° (E.G. MAY THROUGH SEPTEMBER)

DF = DOUGLAS FIR (*Pseudotsuga menziesii*)
 M = PACIFIC MADRONE (*Arbutus menziesii*)
 - NON-NATIVES
 JM = JAPANESE MAPLE (*Acer palmatum*)

FIRE SAFETY NOTES

A NFPA 13D Fire Sprinkler System in compliance with NFPA 13D and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required. Note that this system requires a minimum of 1" water meter and 1" water supply line.

NFA NFPA 72- Chapter 29 Monitored Fire Alarm System in compliance with NFPA 72 and CoMI standards shall be installed throughout the residence. A separate FIRE permit is required



LOT SLOPE
 HIGH POINT = 282'
 LOW POINT = 297'
 LOT SLOPE = 15/117' = 12.82%
 LOT COVERAGE = 40%
 7500 sf x .4 = 3000 sf total lot coverage allowed

F.A.R. CALCULATION
 Main Floor FA= 1156 sf (excluding gar.)
 Garage FA= 462 sf
 Basement FA = 1613 sf
 Upper Floor FA = 1156 sf
 4473 sf

SEE FLOOR PLANS ON SHEET 02+03 FOR SPECIFICS

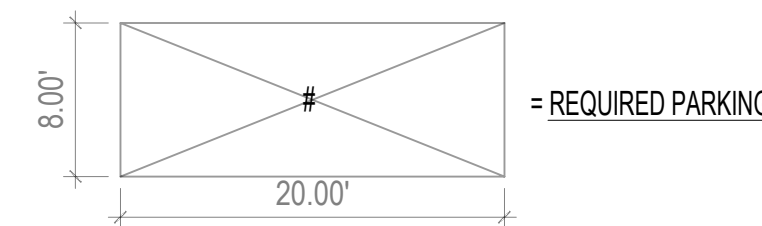
excepted FA = (1043 sf)
 stairs = (64 sf x 2 = 128 sf)

TOTAL chargeable FA = 3302 sf
 3302sf / 7500sf = 44.03% < 45%, ok
 w/adu FAR = lesser of 4500sf or 45% of lot area
 .45 x 7500 sf = FAR limit = 3375 sf

LOT COVERAGE (SHADED AREA)
 LOT COVERAGE ALLOWABLE = 7500 x .40 = 3000 sf
 MAIN STRUCTURE ROOF AREA = 2296 sf
 DRIVEWAY = 458.5 sf
 2754.5 sf = 36.7% < 40% ok

A. SITE PLAN

- 1/10" = 1'-0"
- xxx = SPOT ELEVATION, FINAL
- = EXTENT OF OVERHANG
- = EXTENT OF LIVING AREA @ upper floor
- = BUILDING FOOTPRINT (FOUNDATION EXTENTS)
- SHADE AREA = BLDG EXTENTS TO EAVE
- EXISTING HOUSE, DRIVEWAY AND ALL HARDSCAPE ON PROPERTY TO BE REMOVED
- = EXISTING TOPOGRAPHY
- = WALL SEGMENT TAG FOR HEIGHT CALCULATION
- SEE SHEET 03 FOR BASEMENT EXCEPTION CALC.
- ww = WINDOW WELL



HARDSCAPE

lower patio = 229 sf
 walks = 134 sf
 window well = 12 sf
 TOTAL = 375 sf
 PROPOSED = 375 sf / 7500sf = 5%
 allowable = 6237 sf x .09 = 675 sf = 9%
 5% < 9%, OK

ELEVATION CALC.

EL @ MIDPOINT	segment	lwd	sgmnt
294.00	22.00	6468.00	
294.00	2.00	588.00	
294.50	2.00	589.00	
294.50	10.00	2945.00	
293.90	14.00	4113.20	
289.70	10.81	3131.86	
289.20	1.69	488.75	
289.00	7.31	2112.59	
288.50	1.69	487.57	
288.00	29.81	8585.28	
284.50	14.00	3983.00	
284.50	10.00	2845.00	
287.60	23.00	6614.80	
288.20	16.00	4611.20	
288.20	9.00	2593.80	
294.00	22.00	6468.00	

195.31 56624.84
 AVG. EL = 289.92
 BOLD = NEW EL LOWER THAN EXIST

Code Data

- 2021 International Building Code (IBC) - struct.
- 2021 International Residential Code (IRC)
- 2021 International Mechanical Code (IMC)
- 2021 International Fuel Gas Code (IFGC)
- 2021 Uniform Plumbing Code (UPC)
- 2021 International Fire Code (IFC)
- 2021 International Existing Building Code
- 2021 International Swimming Pool and Spa Code
- 2921 Washington State Energy Code (WSEC)
- ICC/ANSI A117.1-09, Accessible and Usable Buildings and Facilities, with statewide and City amendments

All 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, shall be removed from the property.

development proposals for a new single-family home shall remove japanese knotweed (*polygonum cuspidatum*) and regulated class a, regulated class b, and regulated class c weeds identified on the king county noxious weed list, as amended, from required landscaping areas established pursuant to subsection 19.02.020(f)(3)(a). new landscaping associated with new single-family home shall not incorporate any weeds identified on the king county noxious weed list, as amended. provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

Civil Engineer

Duffy Ellis
 CES Civil Engineering
 701 N 36 Street #450 Seattle WA 98103
 206.930.0342

Structural Engineer

RB Engineers, Inc.
 13101 NE 50th ST Bellevue WA
 (425) - 890 - 9995

Contractor

Artoush Construction and Remodeling
 13101 NE 50th ST Bellevue WA
 (425) - 890 - 9995

Project Description

Demolish existing and build new single family residence.

Legal/Parcel #

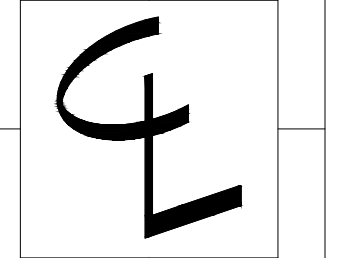
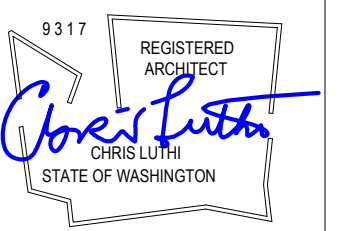
CALKINS C C 1ST TO EAST SEATTLE S 1/2 OF 8 & ALL OF 9-10

Zoning - R-8.4

Parcel Number : 1300301391

Owner

Artoush Fanaiyan
 Artoush Construction and Remodeling
 13101 NE 50th ST Bellevue WA
 (425) - 890 - 9995



CENTERLINE DESIGN
 4737 37th AVE SW
 SEATTLE
 206.935.4654

www.Centerline-Design.com

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CONTENTS

Site Plan

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DATE

9.29.25
 1.30.26
 3.9.26
 3.31.26

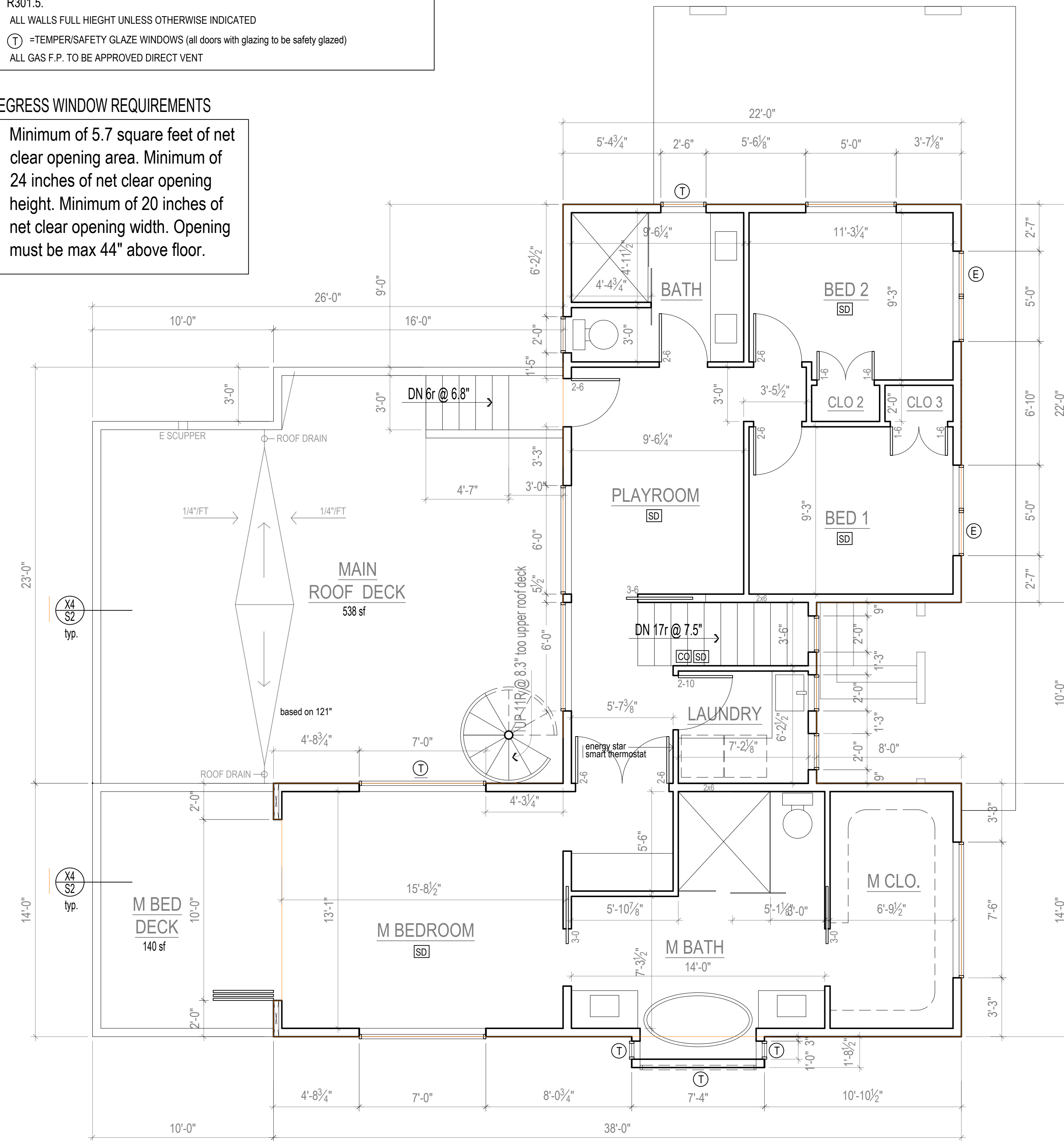
01

NOTES

- SD = SMOKE DETECTOR, HARDWIRE, INTERCONNECTED w/ BATTERY BACK-UP
- CO = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP
- HD = HEAT DETECTOR, HARDWIRE w/ BATTERY BACK-UP
- DOORS ARE 3-0 x 7-10 (r.o. = 3'-2" x 8'-0") unless otherwise indicated
- F = FAN, 50 CFM UNLESS OTHERWISE INDICATED
- FOR SHEAR WALL INFORMATION SEE STRUCTURAL PLANS
- ALL INTERIOR WALLS TO BE 2x4, EXTERIOR WALLS 2x6, EXCEPT AS INDICATED, OR EXISTING
- E = EGRESS WINDOWS
- Contractor shall verify to Inspector all guards and railings shall be capable of resisting 200 lb load on top rail acting in any direction as required by IRC Table R301.5.
- ALL WALLS FULL HEIGHT UNLESS OTHERWISE INDICATED
- T = TEMPER/SAFETY GLAZE WINDOWS (all doors with glazing to be safely glazed)
- ALL GAS F.P. TO BE APPROVED DIRECT VENT

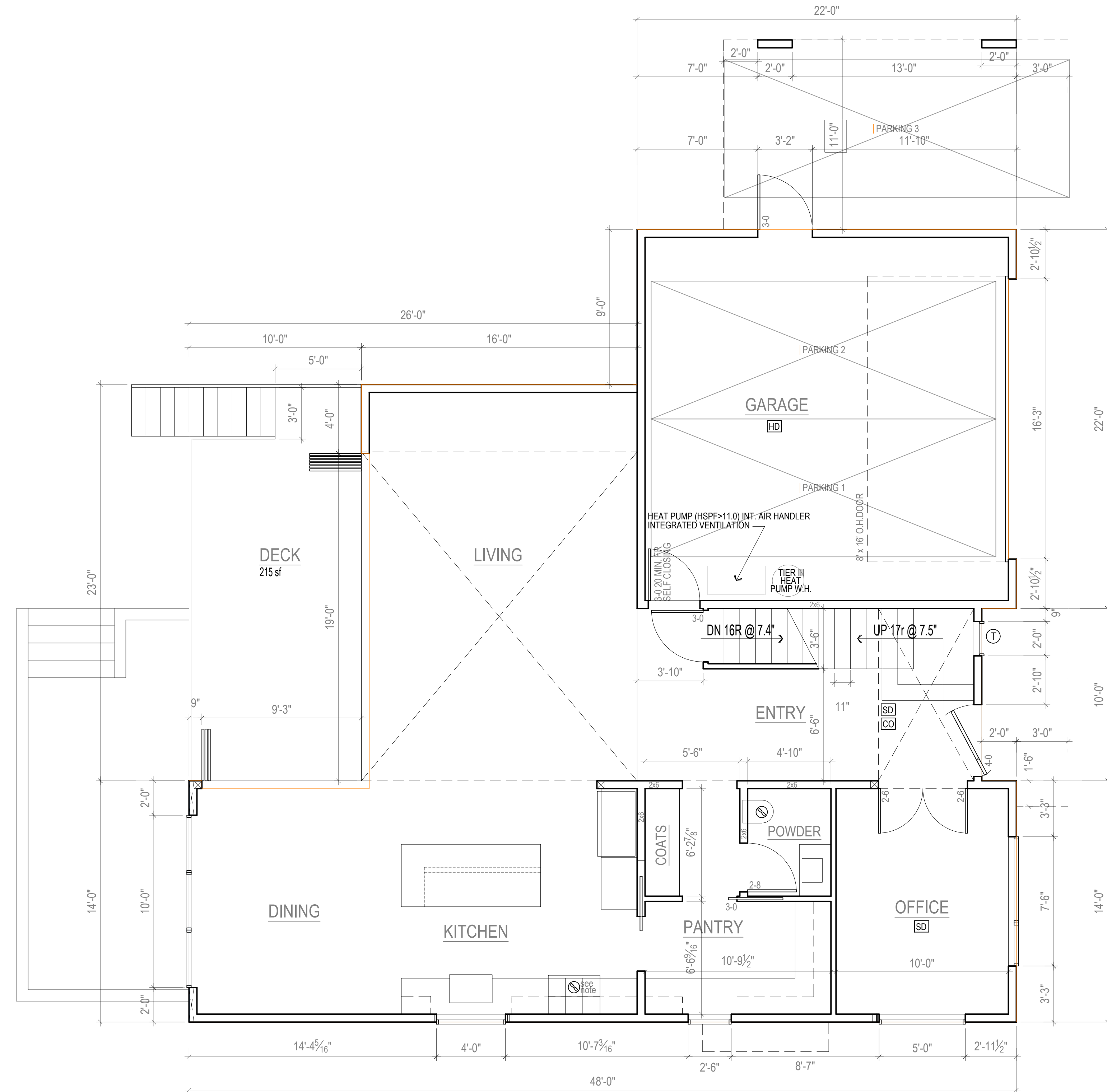
EGRESS WINDOW REQUIREMENTS

Minimum of 5.7 square feet of net clear opening area. Minimum of 24 inches of net clear opening height. Minimum of 20 inches of net clear opening width. Opening must be max 44" above floor.



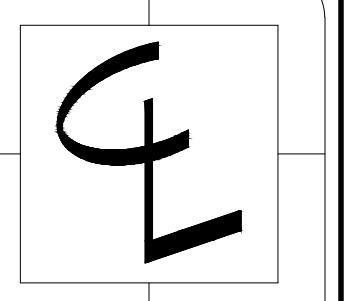
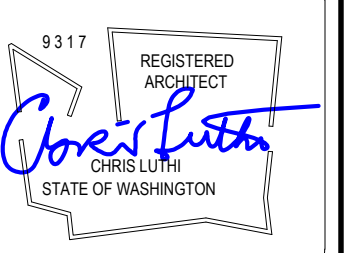
B. UPPER FLOOR PLAN
 1/4" = 1'-0"
 Floor Area = 1152 sf (red line)
 Conditioned Area = 1080 sf

Membrane used as a walking surface must be IBC ES approved or be tested to the AC39 standard



RANGE VENTING NOTE:
 160 Cfm intermittent electric range, 250 Cfm combustion range.

A. MAIN FLOOR PLAN
 1/4" = 1'-0"
 FLOOR AREA (INC. GARAGE) = 1704 SF (red line)
 GARAGE FLOOR AREA = 462 SF
 CONDITIONED AREA = 1171 SF



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CONTENTS
 Floor Plans

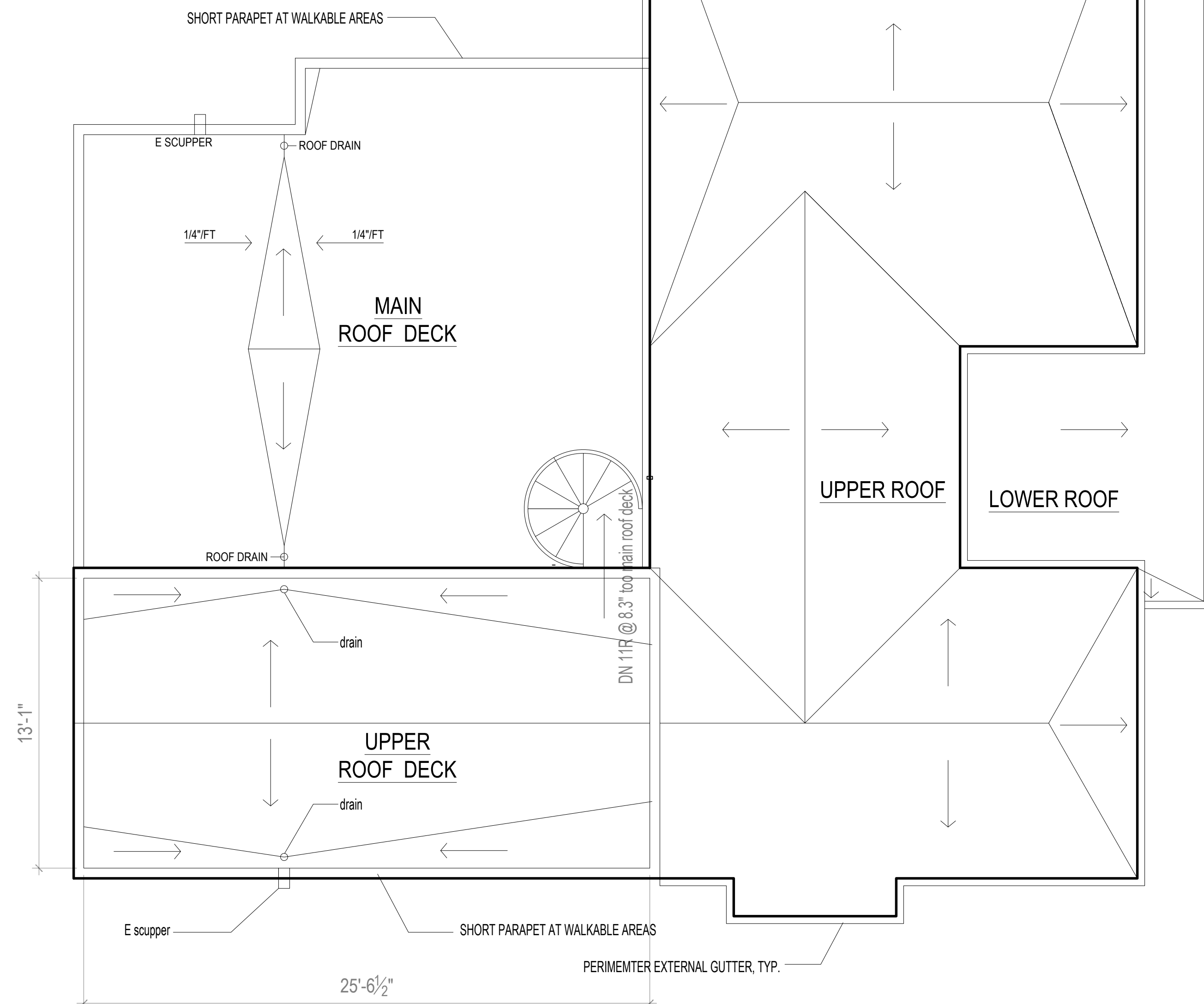
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NOTES

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- CO** = CARBON MONOXIDE DETECTOR, HARDWIRE w/ BATTERY BACK-UP
- HD** = HEAT DETECTOR, HARDWIRE w/ BATTERY BACK-UP
- DOORS ARE 3-0 x 6-8 (r.o. = 3'-2" x 6'-10") unless otherwise indicated
- F** = FAN, 50 CFM UNLESS OTHERWISE INDICATED
- FOR SHEAR WALL INFORMATION SEE STRUCTURAL PLANS
- ALL INTERIOR WALLS TO BE 2x4, EXTERIOR WALLS 2x6, EXCEPT AS INDICATED, OR EXISTING
- E** = EGRESS WINDOWS
- Contractor shall verify to Inspector all guards and railings shall be capable of resisting 200 lb load on top rail acting in any direction as required by IRC Table R301.5.
- ALL WALLS FULL HEIGHT UNLESS OTHERWISE INDICATED
- T** = TEMPER/SAFETY GLAZE WINDOWS (all doors with glazing to be safely glazed)
- ALL GAS F.P. TO BE APPROVED DIRECT VENT

EGRESS WINDOW REQUIREMENTS

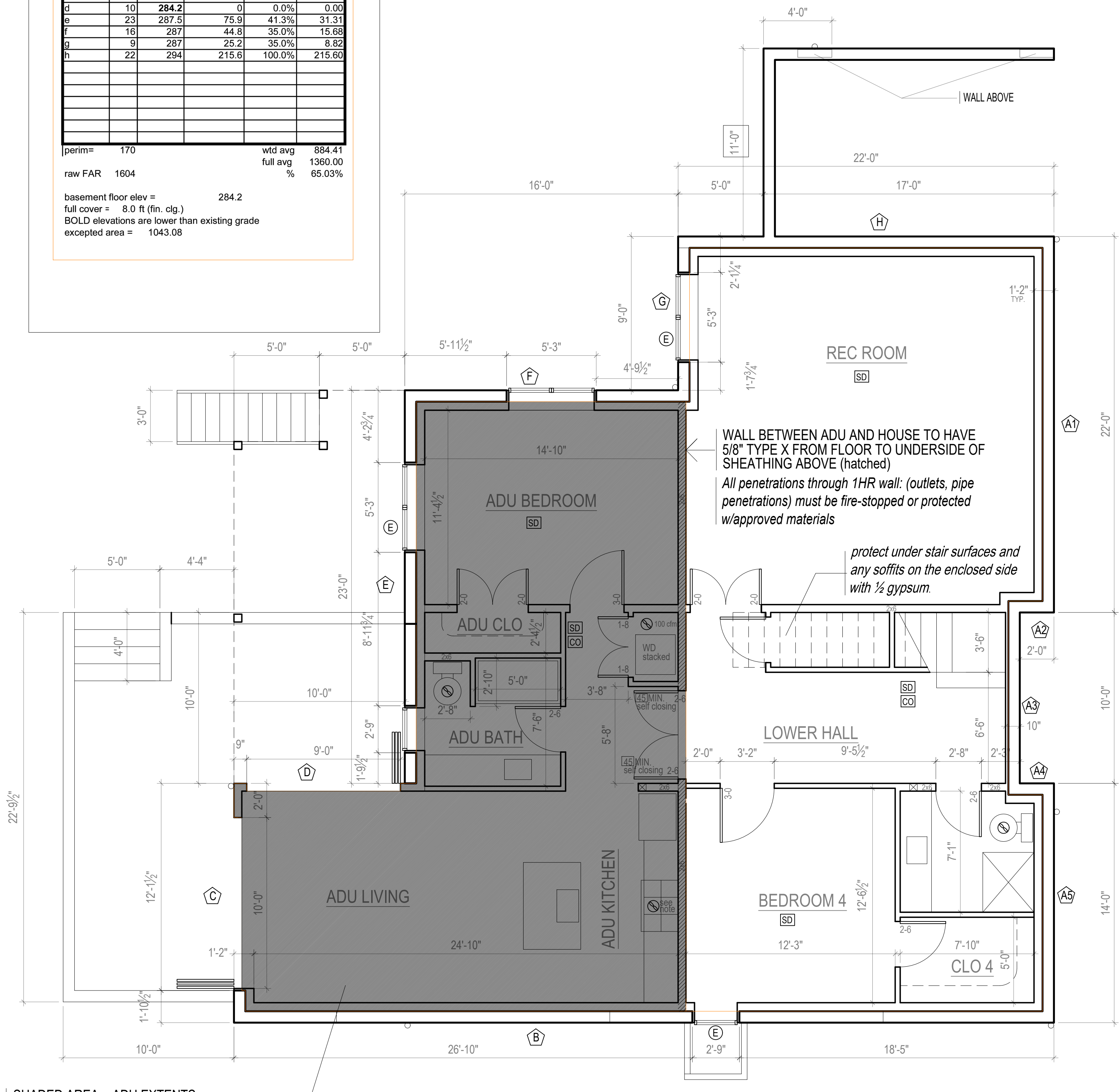
Minimum of 5.7 square feet of net clear opening area. Minimum of 24 inches of net clear opening height. Minimum of 20 inches of net clear opening width. Opening must be max 44" above floor.



B. ROOF PLAN
1/4" = 1'-0"
ALL ROOFS PITCH 1/4"/FT OR GREATER

BASEMENT EXCEPTION CALC.

segment	length	elevation at mid	covered area	%cover	wtd
a1	22	294.5	226.6	100.0%	226.60
a2	2	294.5	20.6	100.0%	20.60
a3	10	294.5	103	100.0%	103.00
a4	2	294.5	20.6	100.0%	20.60
a5	14	294.5	144.2	100.0%	144.20
b	48	287.7	168	68.3%	98.00
c	14	284.2	0	0.0%	0.00
d	10	284.2	0	0.0%	0.00
e	23	287.5	75.9	41.3%	31.31
f	16	287	44.8	35.0%	15.68
g	9	287	25.2	35.0%	8.82
h	22	294	215.6	100.0%	215.60
perim=	170				884.41
raw FAR	1604				1360.00
basement floor elev =		284.2			
full cover =		8.0 ft (fin. clg.)			
BOLD elevations are lower than existing grade					
excepted area =		1043.08			
wtd avg full avg					65.03%



SHADED AREA = ADU EXTENTS

type X throughout, including clgs. tight against the exterior wall, and wall assemblies shall extend from the foundation to the underside of the roof sheathing.

RANGE VENTING NOTE:
160 Cfm intermittent electric range. 250 Cfm combustion range.

A. BASEMENT FLOOR PLAN
1/4" = 1'-0"
FLOOR AREA = 1604 SF (red line)
ADU FLOOR AREA = 696 SF (shaded)
X = BASEMENT WALL SEGMENTS FOR BASEMENT EXCEPTION CALC.
CONDITIONED AREA PRIMARY = 868 SF
CONDITIONED AREA ADU = 646 SF

9317 REGISTERED ARCHITECT
Corey Latta
COREY LATA
STATE OF WASHINGTON

C

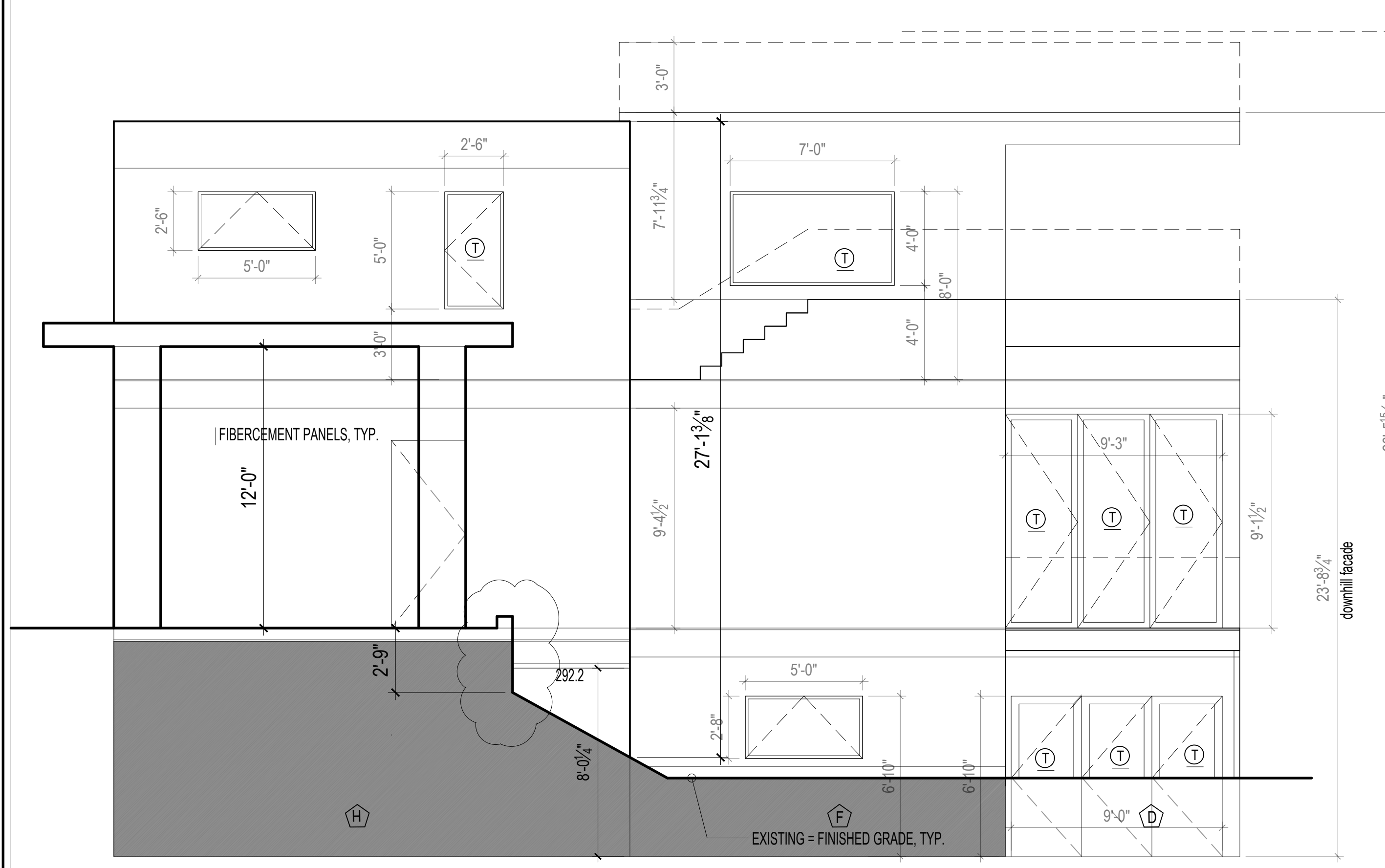
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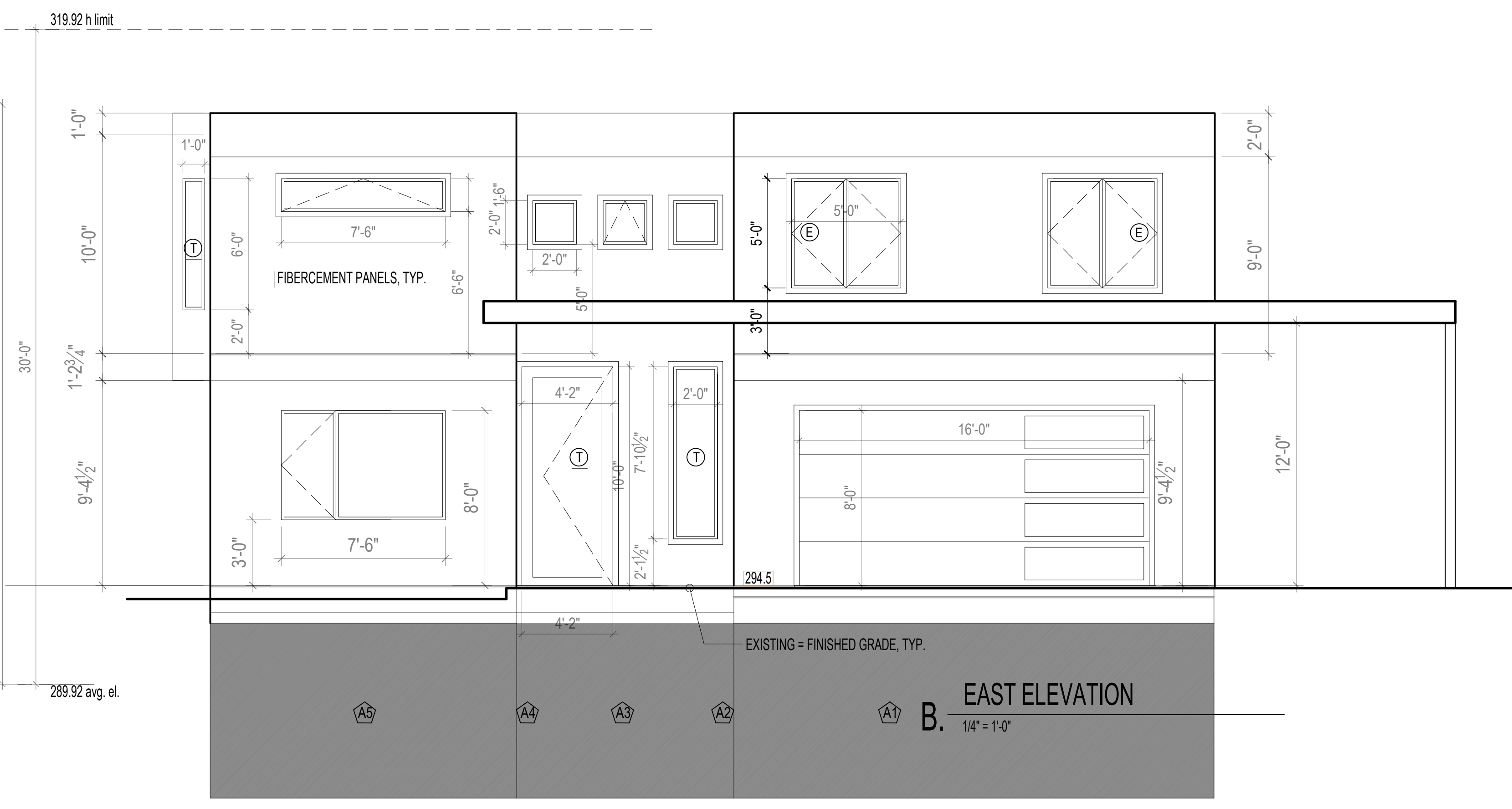
CONTENTS
Basement Plan

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3.31.26

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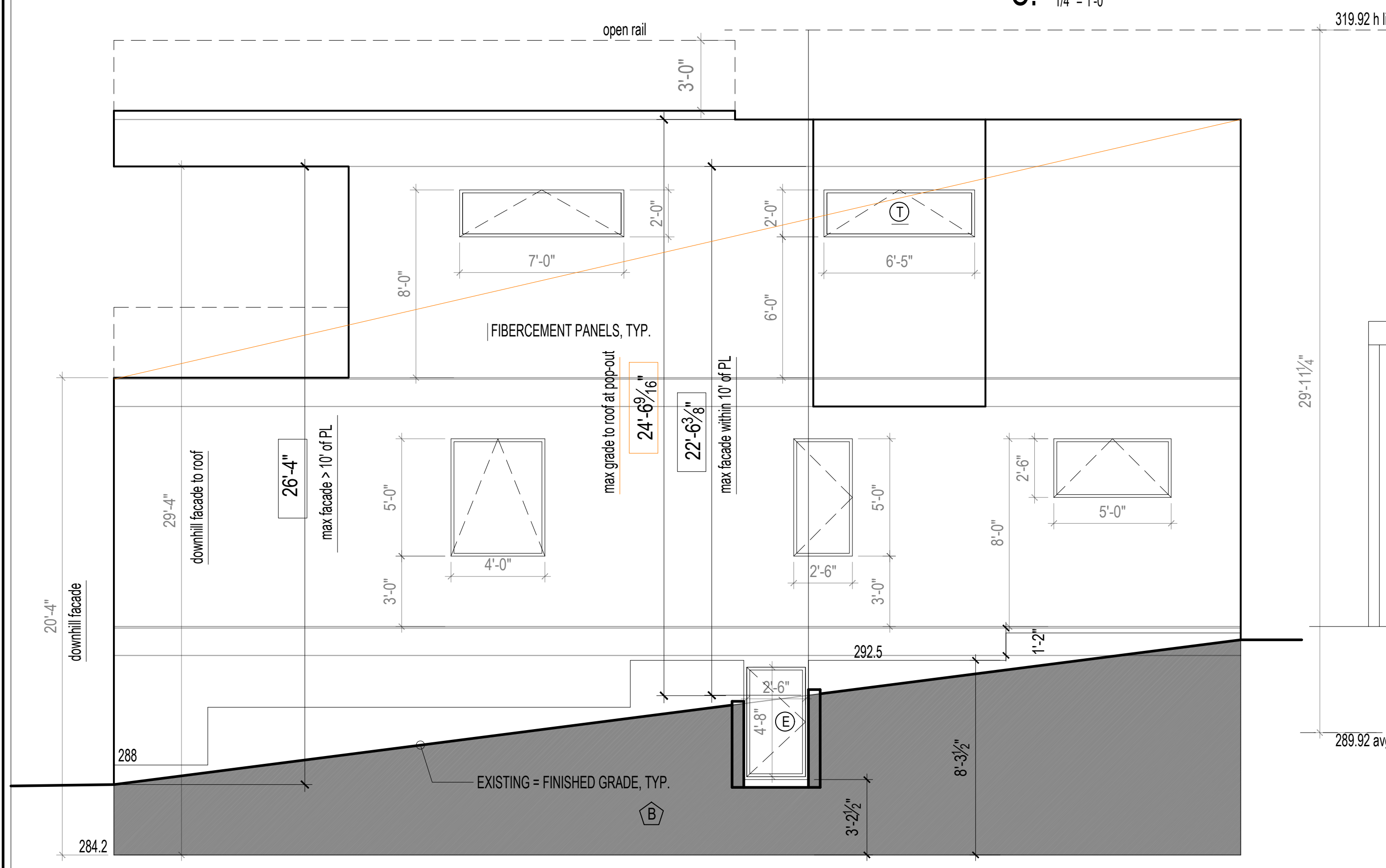


C. NORTH ELEVATION
 1/4" = 1'-0"

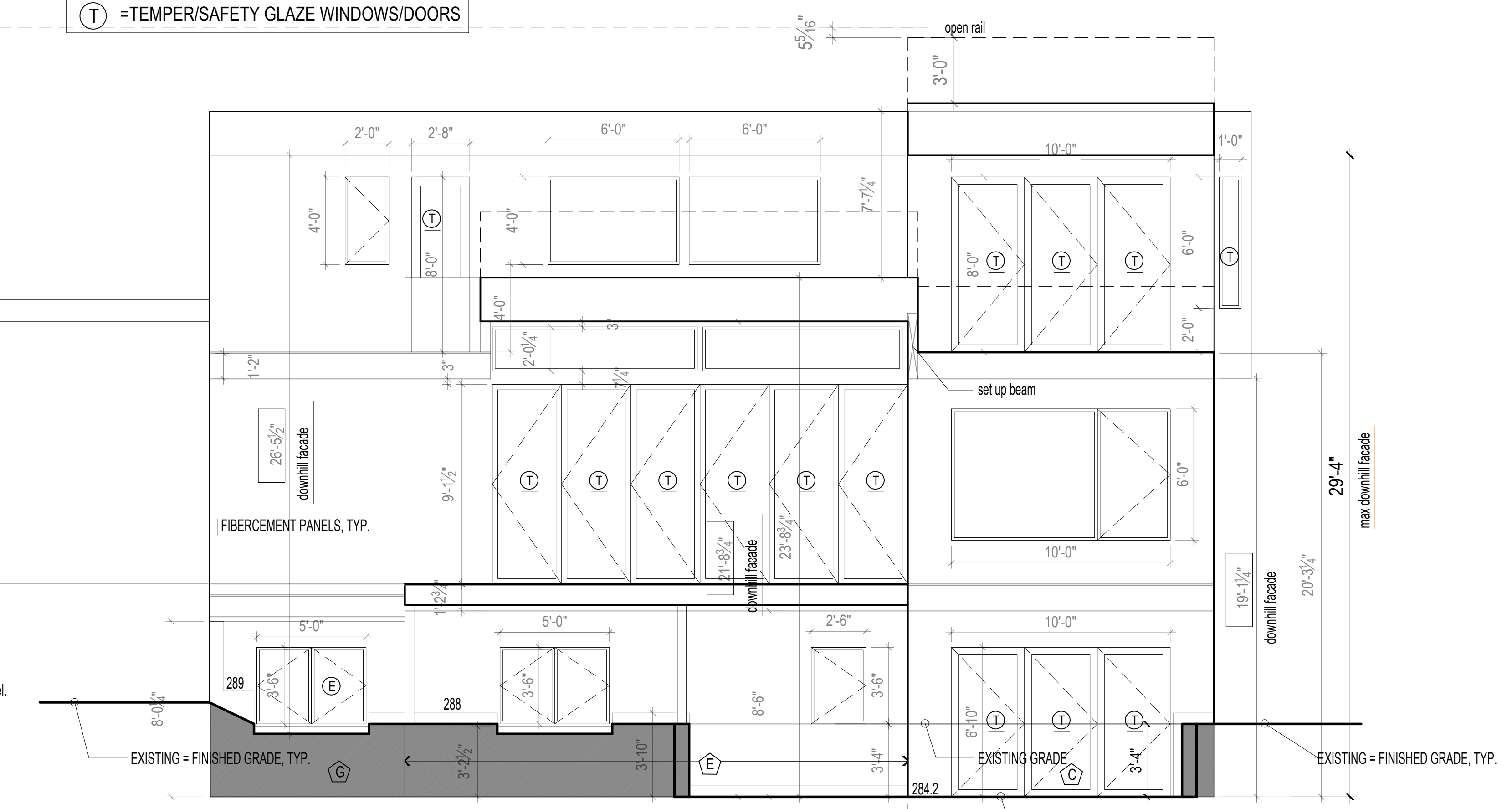


B. EAST ELEVATION
 1/4" = 1'-0"

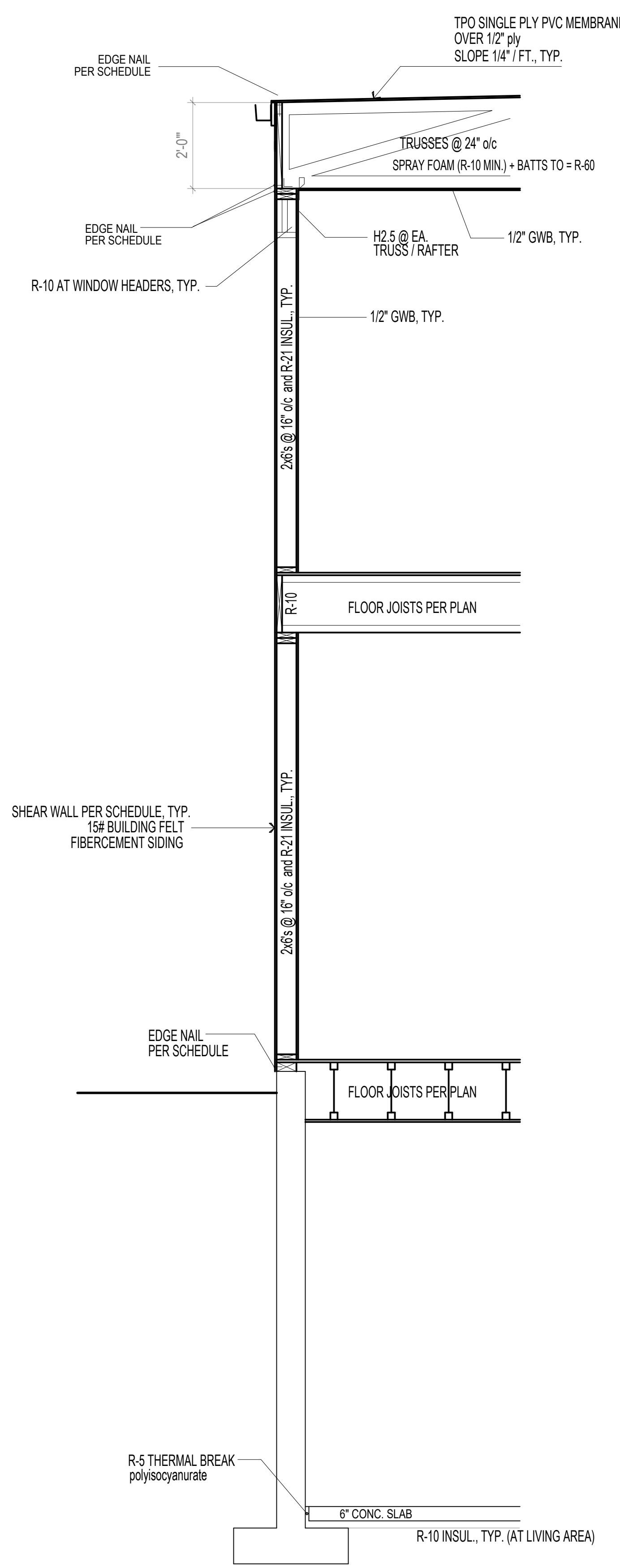
SHADED AREAS EXCLUDED FROM BASEMENT FAR CALC
 (T) = TEMPER/SAFETY GLAZE WINDOWS/DOORS



D. SOUTH ELEVATION
 1/4" = 1'-0"

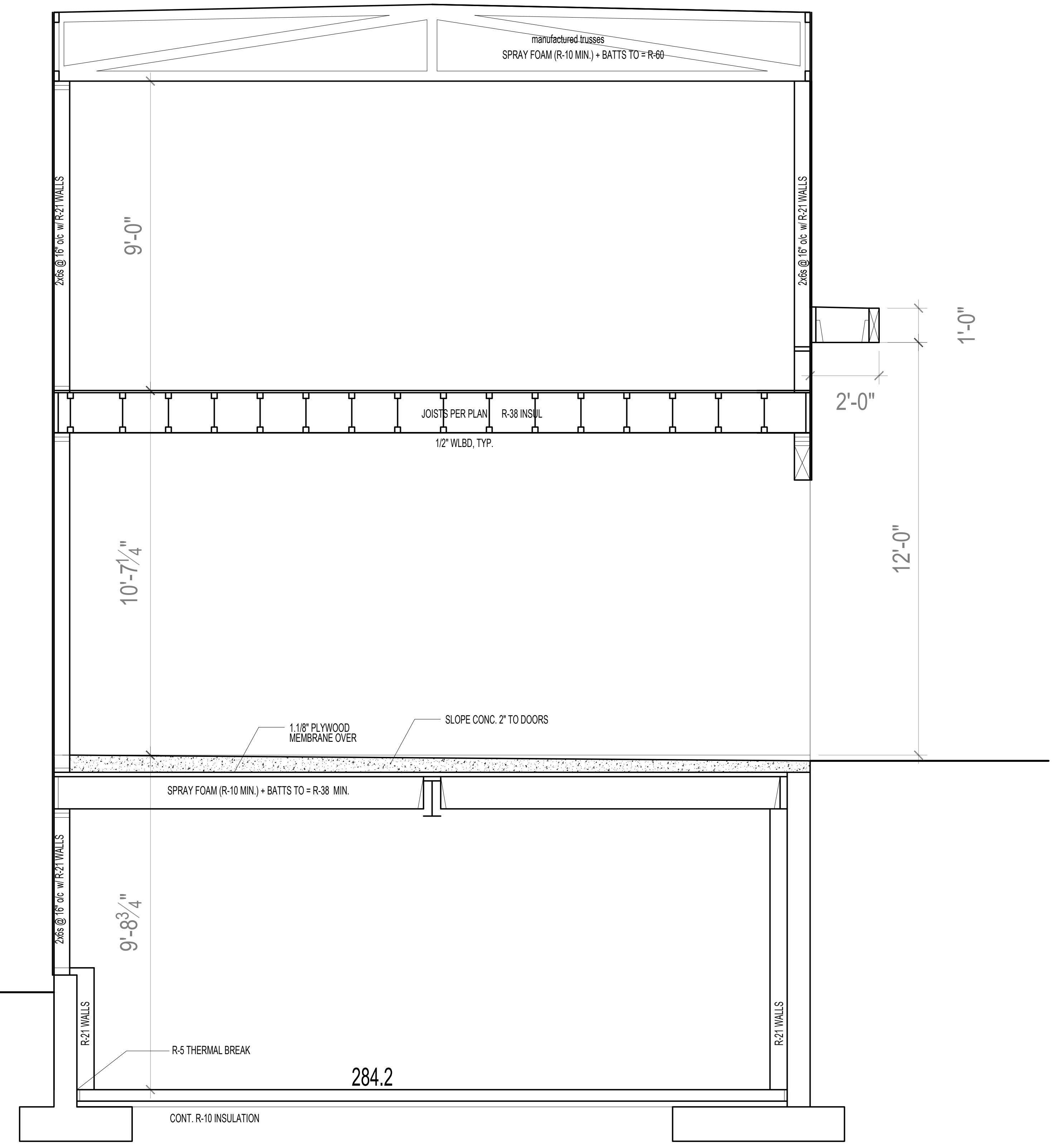


A. WEST ELEVATION
 1/4" = 1'-0"

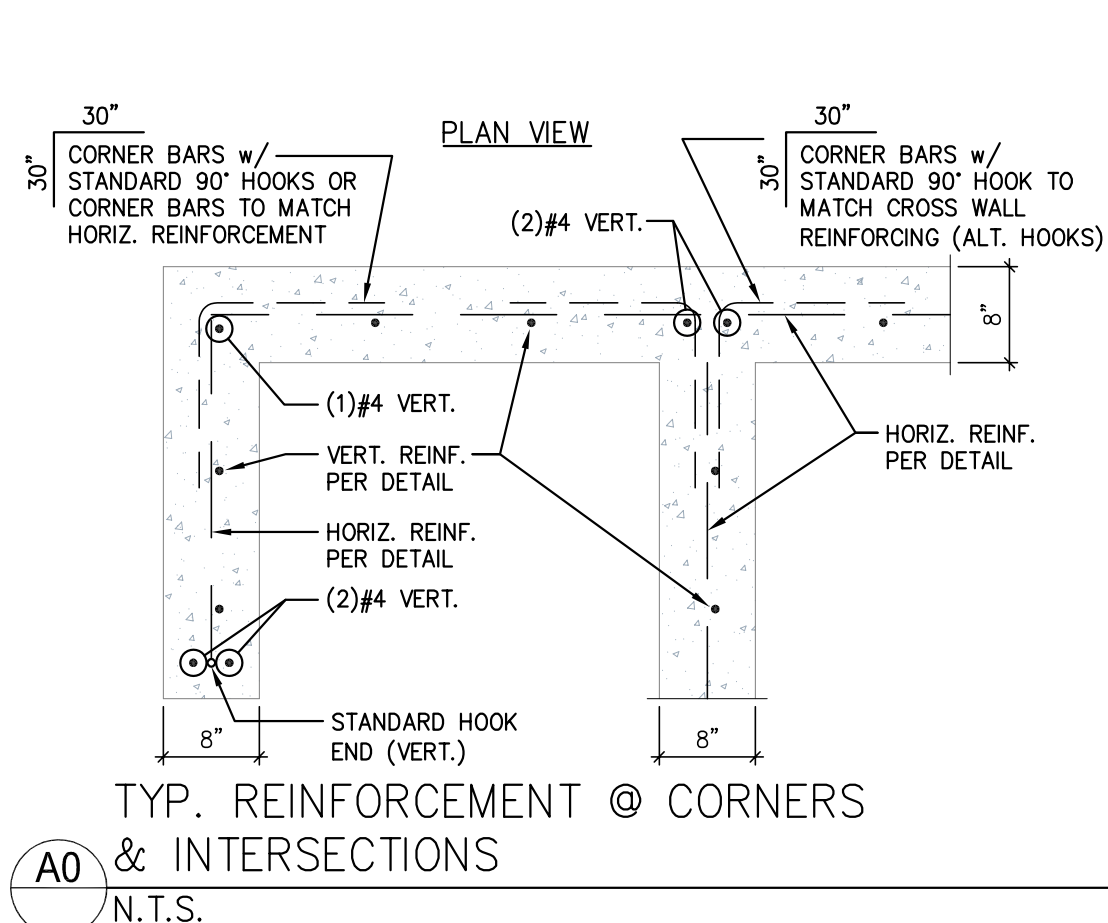


per R302.11, fire blocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space.

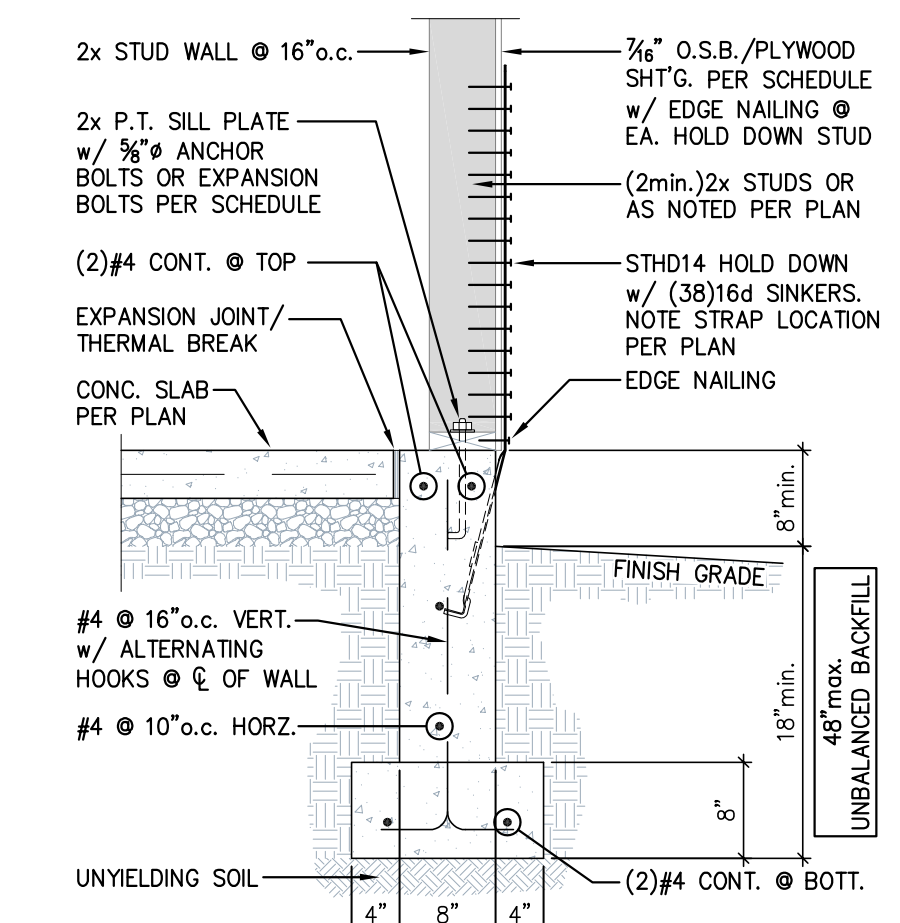
B. TYPICAL SECTION
 1/2" = 1'-0"



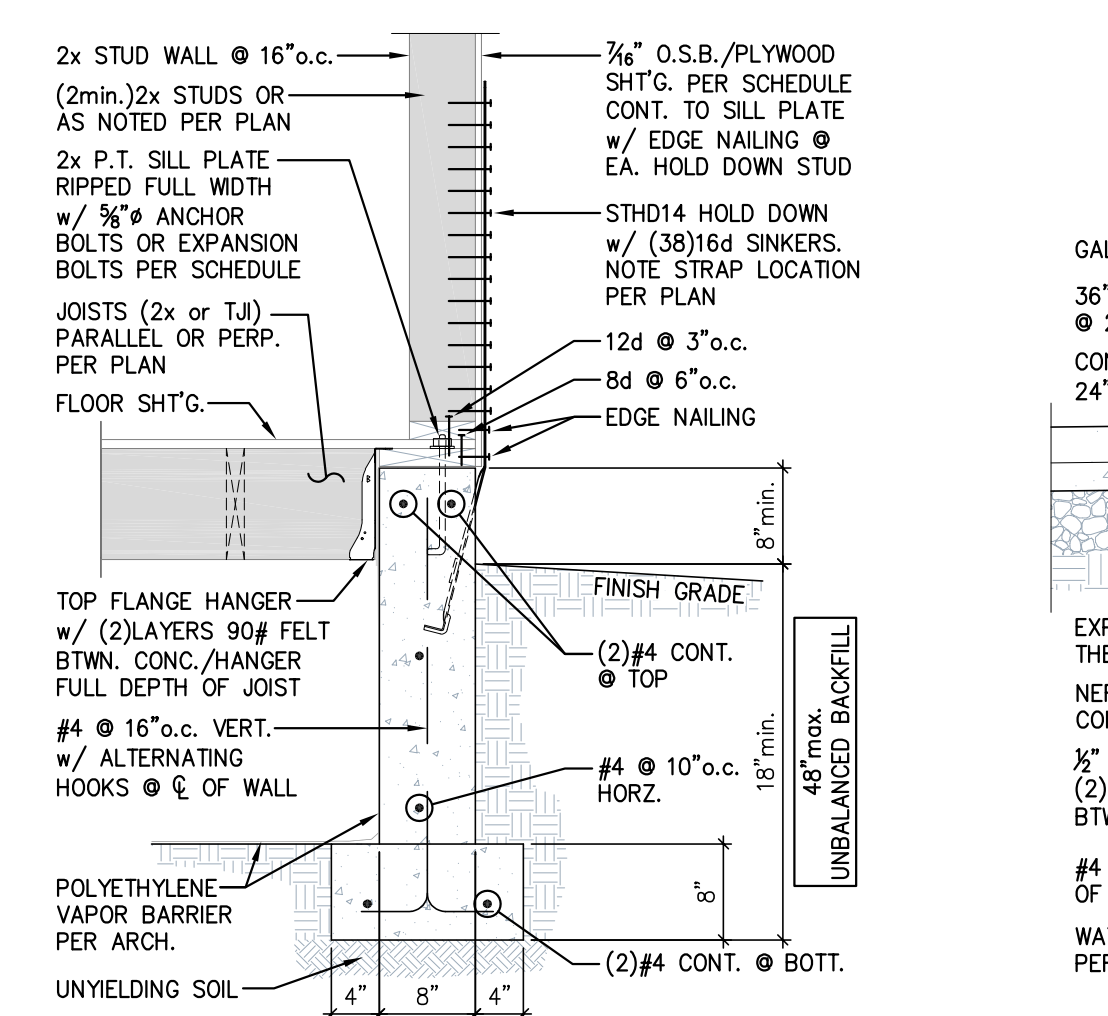
A. SECTION B.B THRU GARAGE
 1" = 1'-0"



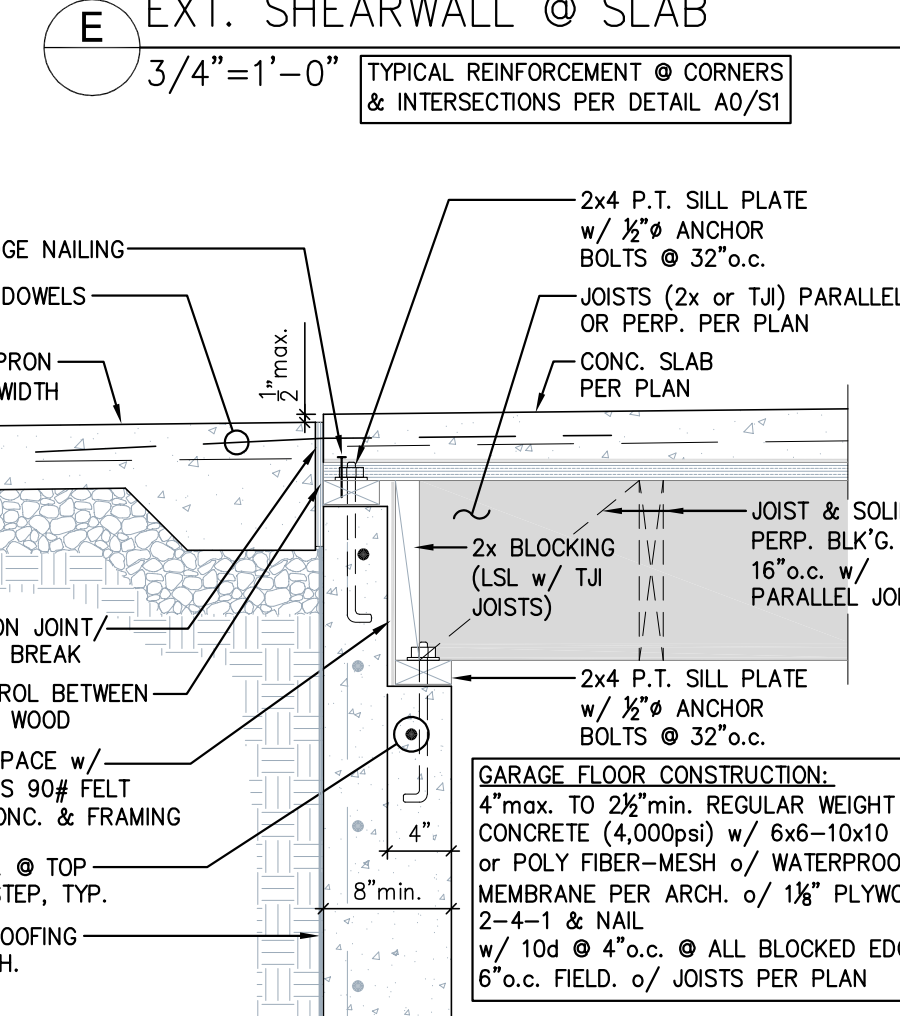
A0 TYP. REINFORCEMENT @ CORNERS & INTERSECTIONS N.T.S.



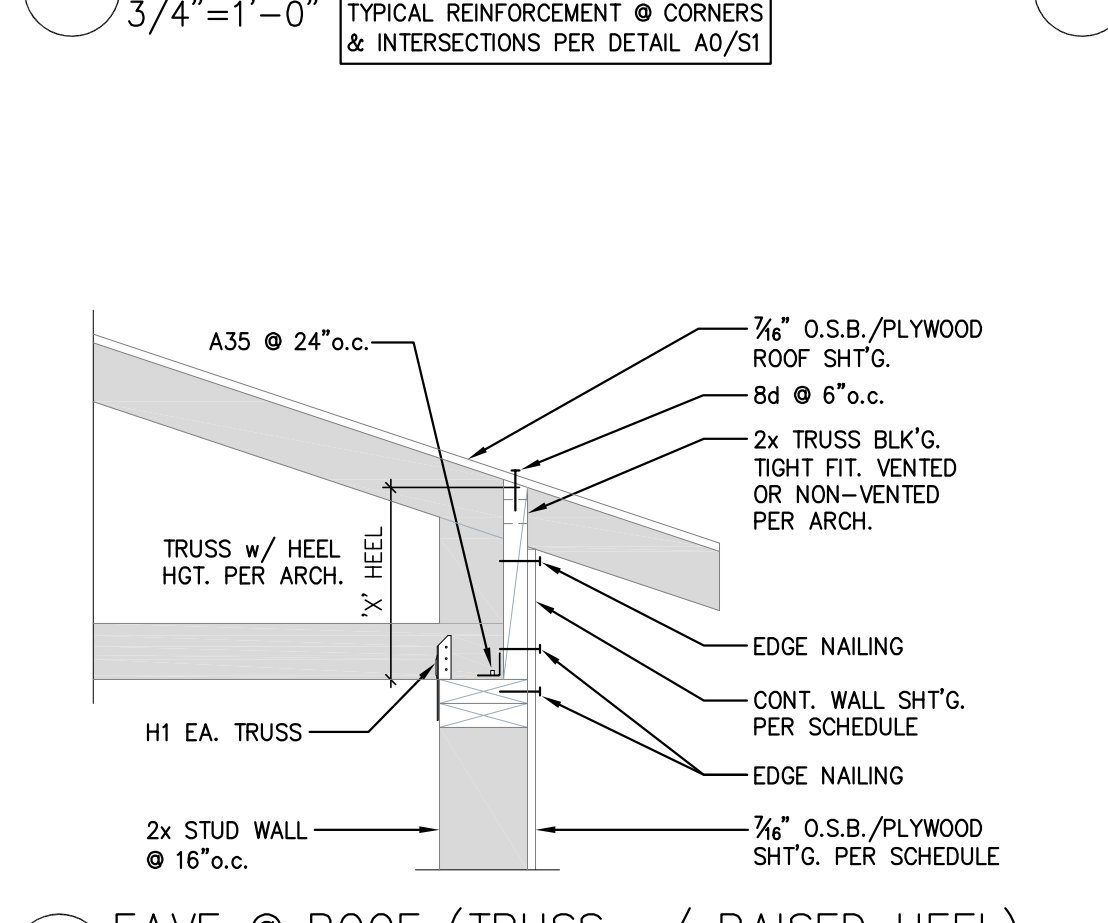
E EXT. SHEARWALL @ SLAB 3/4"=1'-0" TYPICAL REINFORCEMENT @ CORNERS & INTERSECTIONS PER DETAIL A0/S1



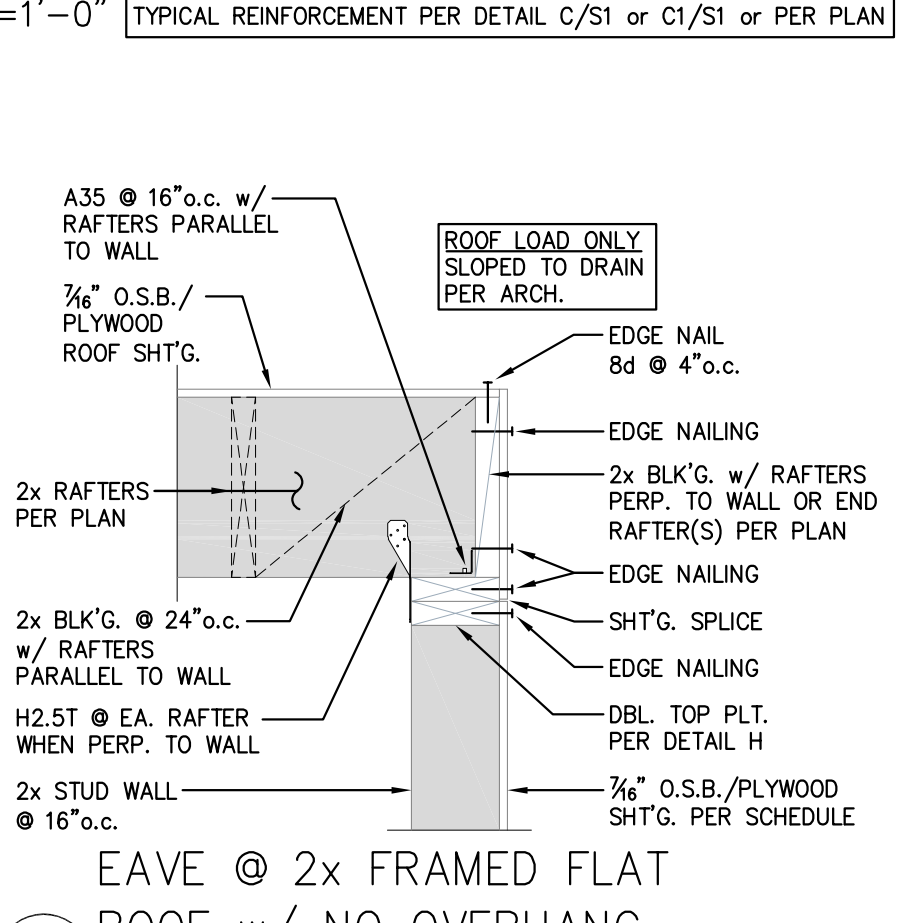
A1 EXT. SHEARWALL @ CRAWLSPACE 3/4"=1'-0" TYPICAL REINFORCEMENT @ CORNERS & INTERSECTIONS PER DETAIL A0/S1



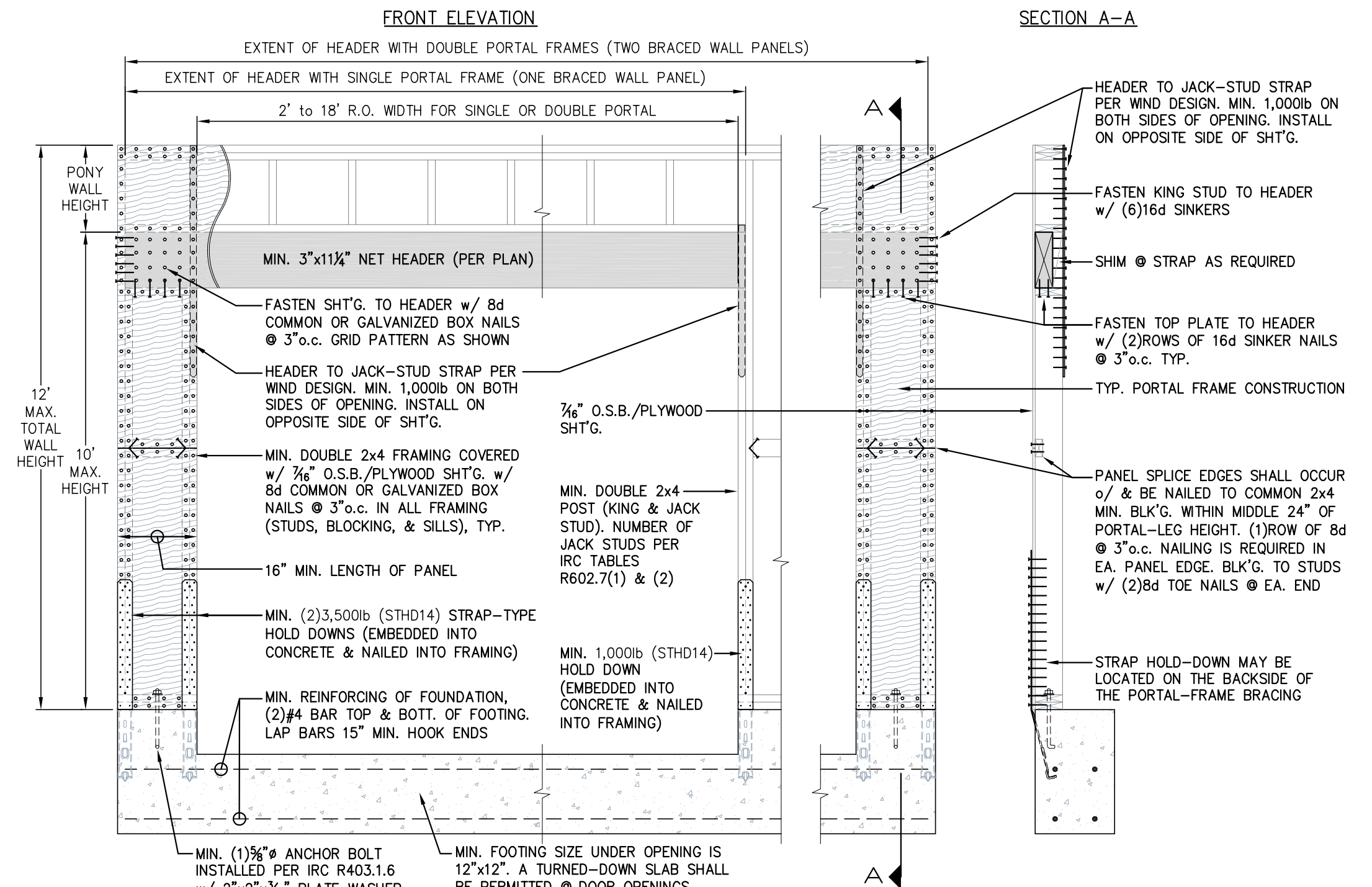
E2 CONC. SLAB o/ FRAMING @ GARAGE 1"=1'-0" TYPICAL REINFORCEMENT PER DETAIL C/S1 or C1/S1 or PER PLAN



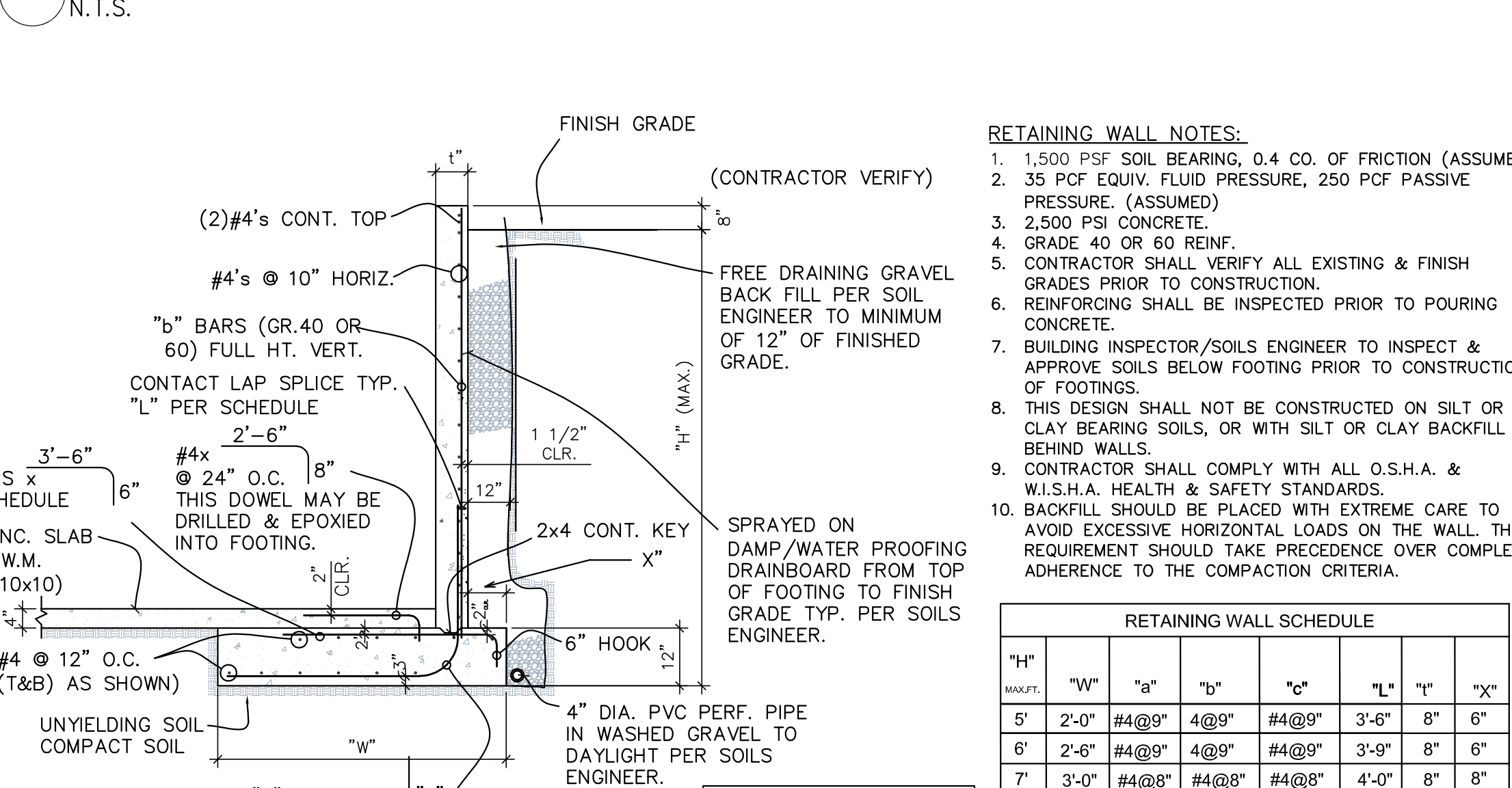
Fb EAVE @ ROOF (TRUSS w/ RAISED HEEL) 1"=1'-0"



F4 ROOF w/ NO OVERHANG 1"=1'-0"



D APA PORTAL-FRAME w/ HOLD DOWNS N.T.S.



C1 'L' SHAPED RETAINING WALL

RETAINING WALL SCHEDULE

"H"	"W"	"a"	"b"	"c"	"L"	"T"	"X"
5'	2'-0"	#4@9"	#4@9"	#4@9"	3'-6"	8"	6"
6'	2'-6"	#4@9"	#4@9"	#4@9"	3'-9"	8"	6"
7'	3'-0"	#4@8"	#4@8"	#4@8"	4'-0"	8"	8"
8'	3'-6"	#4@8"	#4@8"	#4@8"	4'-3"	8"	8"
9'	4'-0"	#5@12"	#5@12"	#5@12"	4'-6"	8"	8"
10'	4'-6"	#5@12"	#5@12"	#5@12"	4'-9"	8"	8"
11'	5'-0"	#5@10"	#5@10"	#5@10"	5'-0"	10"	10"
12'	5'-6"	#5@10"	#5@10"	#5@10"	5'-3"	10"	10"
13'	6'-0"	#5@6"	#5@6"	#5@6"	5'-3"	10"	10"

SHEARWALL SCHEDULE:

- SW-4** INDICATES SHEARWALL w/ SHEATHING ONE SIDE
 - SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., ONE SIDE, BLOCKED, NAIL w/ 8d @ 3'o.c. ALL EDGES & 6'o.c. FIELD.
 - BOLT SILL PLATE TO CONCRETE w/ 5/8" x 10" ANCHOR BOLTS @ 32" o.c.
 - NAIL BOTTOM PLATE TO FRAMING BELOW w/ 16d @ 3'o.c.
 - FASTEN DOUBLE TOP PLATE TO JOIST OR BLOCKING ABOVE PER DETAILS AS PROVIDED.
- SW-3** INDICATES SHEARWALL w/ SHEATHING ONE SIDE
 - SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., ONE SIDE, BLOCKED, NAIL w/ 8d @ 3'o.c. ALL EDGES & 6'o.c. FIELD.
 - BOLT (3) 2x SILL PLATE TO CONCRETE w/ 5/8" x 12" ANCHOR BOLTS @ 16" o.c. PER DETAIL D/S1
 - BOLT (2) 2x SILL PLATE TO CONCRETE w/ 5/8" x 12" ANCHOR BOLTS @ 16" o.c.
 - NAIL BOTTOM PLATE TO FRAMING BELOW w/ 16d @ 4" o.c.
 - FASTEN DOUBLE TOP PLATE TO JOIST OR BLOCKING ABOVE PER DETAILS AS PROVIDED.
 - USE 3x OR (2) 2x @ ALL FRAMING MEMBERS RECEIVING END NAILING FROM ABUTTING PANELS.
- (2)SW-3** INDICATES SHEARWALL w/ SHEATHING TWO SIDES
 - SHEATHING: 1/2" PLYWOOD or 7/16" O.S.B., TWO SIDES, BLOCKED, NAIL w/ 8d @ 3'o.c. ALL EDGES & 6'o.c. FIELD.
 - BOLT 3x SILL PLATE TO CONCRETE w/ 5/8" x 12" ANCHOR BOLTS @ 16" o.c.
 - FASTEN DOUBLE BOTTOM PLATE TO DOUBLE JOIST OR BLOCKING BELOW w/ 2-ROWS & 2-LAYERS 16d @ 4" o.c. OR 2-ROWS A35 CLIPS @ 16" o.c.
 - FASTEN DOUBLE TOP PLATE TO DOUBLE JOIST OR BLOCKING ABOVE w/ 2-ROWS & 2-LAYERS 16d TOE NAILS @ 4" o.c. & 2-ROWS A35 CLIPS @ 16" o.c. OR PER DETAILS AS PROVIDED.
 - USE 3x OR DBL. STUDS @ ALL FRAMING MEMBERS RECEIVING END NAILING FROM ABUTTING PANELS.

TYPICAL ROOF SHEATHING:

- 7/16" O.S.B., INDEX 40/20, UNBLOCKED, w/ FACE GRAIN PERPENDICULAR TO FRAMING BELOW. STAGGER END JOINTS, GLUE & NAIL AS FOLLOWS:
- DIAPHRAGM BOUNDARY, OVER EXTERIOR WALLS, SHEAR WALLS, & DRAG STRUTS: 8d @ 6" o.c.
 - ALL SUPPORTED EDGES: 8d @ 6" o.c.
 - FIELD: 8d @ 6" o.c.

TYPICAL FLOOR SHEATHING:

- 3/4" T&G O.S.B., INDEX 40/20, UNBLOCKED, LAID UP w/ FACE GRAIN PERPENDICULAR TO FRAMING BELOW. STAGGER END JOINTS, GLUE & NAIL AS FOLLOWS:
- DIAPHRAGM BOUNDARY, OVER EXTERIOR WALLS, SHEAR WALLS, & DRAG STRUTS: 8d @ 6" o.c.
 - ALL SUPPORTED EDGES: 8d @ 6" o.c.
 - FIELD: 8d @ 6" o.c.

NOTES:

- USE 3"x3"x1/4" PLATE WASHERS ON ALL ANCHOR BOLTS.
- THE PLATE WASHER SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE(S) w/ SHEATHING PER NDS 2021 EDITION (SDPWS) 4.3.6.4.3.
- 5/8" EXPANSION BOLTS MAY BE USED IN LIEU OF ANCHOR BOLTS w/ SAME SPACING & 4-1/2" MIN. EMBEDMENT.
- ALL POWDER DRIVEN NAILS SHALL BE 2 3/4" LONG (min.) x 0.156 SHANK Ø w/ MINIMUM 1-1/4" PENETRATION.
- USE 20d NAILS @ 3x FRAMING MEMBERS.
- 8d NAILS SHALL BE .131 x 2-1/2" LONG
 - 10d NAILS SHALL BE .148 x 3" LONG
 - 16d NAILS SHALL BE .162 x 3-1/2" LONG
 - 20d NAILS SHALL BE .192 x 4" LONG

HANGER SCHEDULE (U.O.S.)

BEAM	SIMPSON HANGER	BEAM	SIMPSON HANGER
3 1/2" x	HGUS	6 3/4" x	HGUG
5 1/4" x	HGUS	7" x	HGUS
5 1/2" x	HGUG		

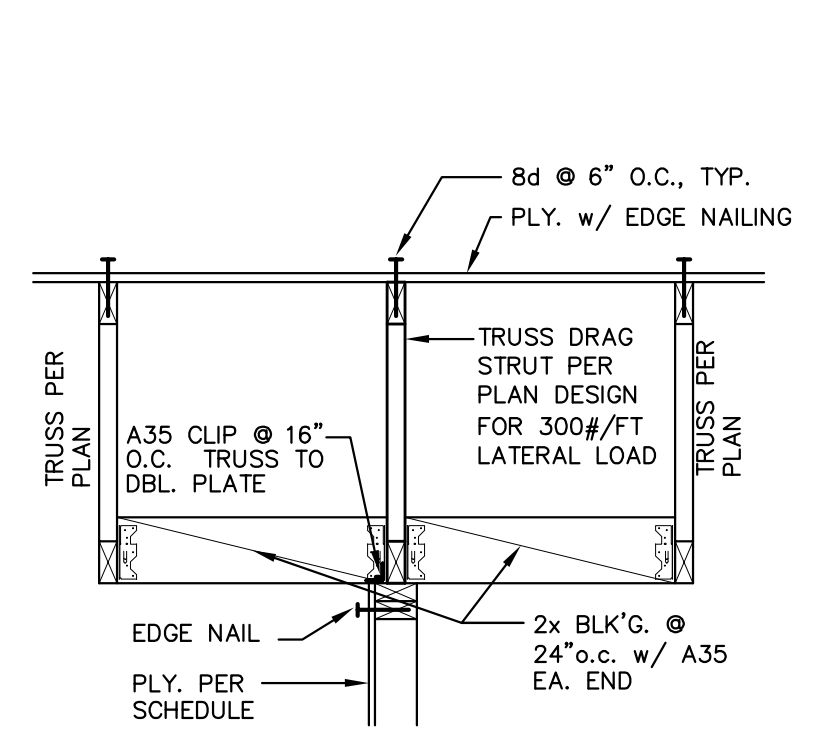
SPECIAL INSPECTION PROGRAM

ESTABLISHED PER CHAPTER 17 OF THE 2021 IBC, UNLESS NOTED OTHERWISE. ALL SPECIAL INSPECTIONS SHALL BE CONTINUOUS, UNLESS NOTED OTHERWISE.

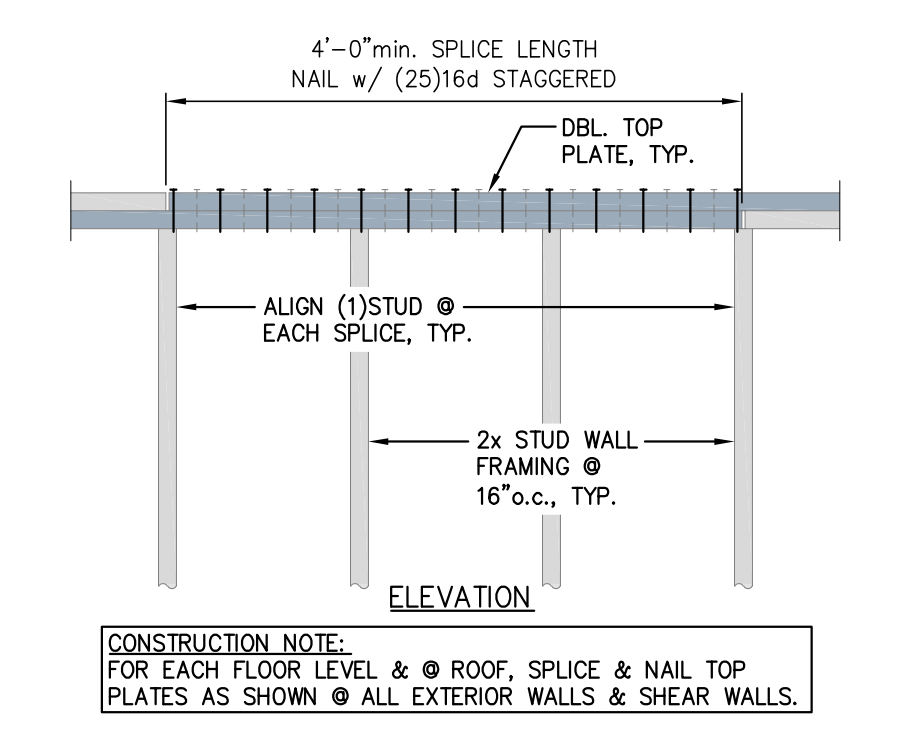
TYPES OF WORK	PERIODIC	CONTINUOUS	COMMENTS
SOILS: GRADING, EXCAVATION, & FILL DRILLED PIERS / PIN PILES			REF. PROJECT SPECIFICATIONS REF. PROJECT SPECIFICATIONS
CONCRETE: PLACEMENT OF REINFORCING STEEL BOLTS CAST IN CONCRETE PLACING OF CONCRETE > 2,500 psi			
SPECIAL CASES: SHEAR WALL NAILING WOOD DIAPHRAGMS ADHESIVE ANCHOR INSTALLATION EXPANSION BOLT INSTALLATION HOLD DOWNS & STRAPS		X	PER ICC-ES EVALUATION REPORT PER ICC-ES EVALUATION REPORT PER FOOTNOTE #5

SPECIAL INSPECTION PROGRAM FOOTNOTES:

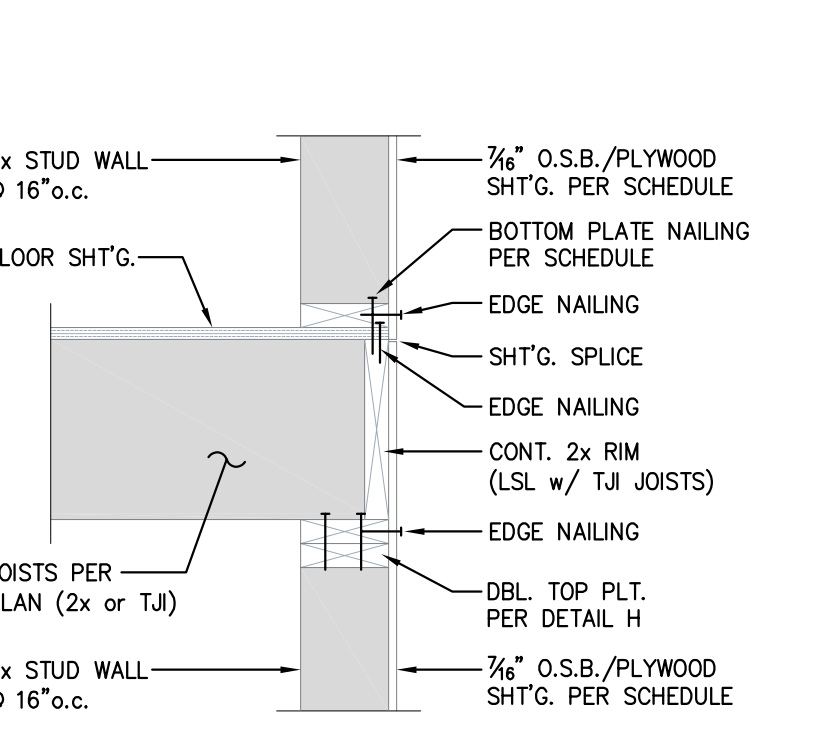
- THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
- SPECIAL INSPECTOR SHALL BE HIRED BY THE PROJECT OWNER.
- DUTIES OF THE SPECIAL INSPECTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - ACKNOWLEDGE THE SPECIAL INSPECTION PROGRAM & THE SPECIAL INSPECTION AND TESTING AGREEMENT, PROVIDED BY LOCAL JURISDICTION.
 - THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE WITH THE APPROVED PERMIT PLANS & SPECIFICATIONS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. THEN, IF UNCORRECTED, TO THE ENGINEER & TO THE BUILDING OFFICIAL.
 - FOR EACH INSPECTION, THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, ARCHITECT, ENGINEER, CONTRACTOR, & OTHER DESIGNATED PARTIES IN A TIMELY MANNER.
 - THE SPECIAL INSPECTOR SHALL FURNISH A FINAL REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED, & WHETHER SAID WORK WAS IN CONFORMANCE WITH THE APPROVED PERMIT PLANS & SPECIFICATIONS, & THE APPLICABLE WORKMANSHIP PROVISIONS OF THE STATE OF WASHINGTON.
- DUTIES OF THE CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO:
 - NOTIFY THE SPECIAL INSPECTOR AT LEAST 24 HOURS IN ADVANCE THAT THE WORK TO BE INSPECTED IS READY FOR SUCH INSPECTION.
 - ENSURE THAT ALL WORK REQUIRING SPECIAL INSPECTION REMAINS ACCESSIBLE & EXPOSED UNTIL IT HAS BEEN OBSERVED & INDICATED TO BE IN CONFORMANCE BY THE SPECIAL INSPECTOR, & APPROVED BY THE BUILDING OFFICIAL.
 - PROVIDE THE SPECIAL INSPECTOR WITH ACCESS TO APPROVED PERMIT PLANS & SPECIFICATIONS AT THE JOB SITE.
 - MAINTAIN AT THE JOB SITE COPIES OF ALL REPORTS SUBMITTED BY THE SPECIAL INSPECTOR.
- ALL SPECIAL REQUIREMENTS FOR SEISMIC & WIND RESISTING SYSTEMS AS REQUIRED BY IBC SECTION 1704.3.2 & 1704.3.3.



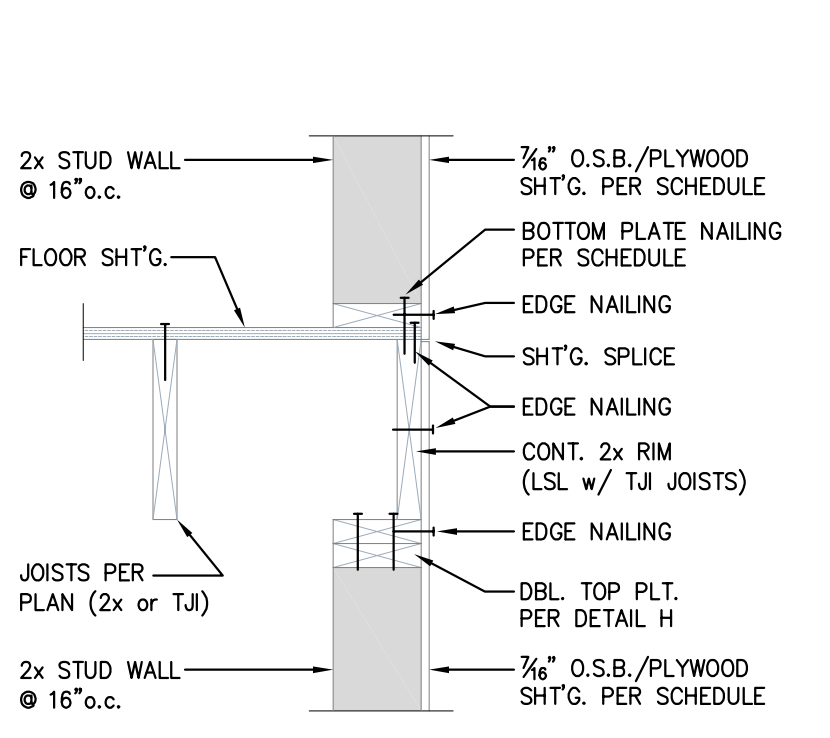
G DRAG STRUT TRUSS 3/4"=1'-0"



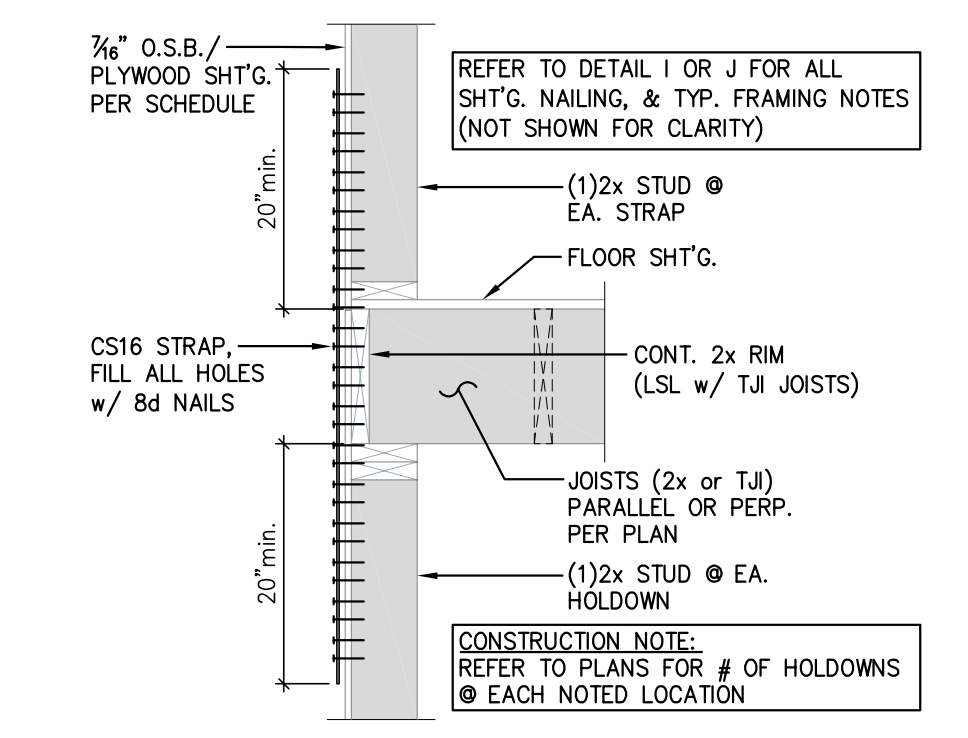
H DBL. TOP PLATE SPLICE 3/4"=1'-0"



I JOIST PERP. TO EXT. WALL 1"=1'-0"



J JOIST PARALLEL TO EXT. WALL 1"=1'-0"



K CS16 STRAP @ FLOOR 3/4"=1'-0"

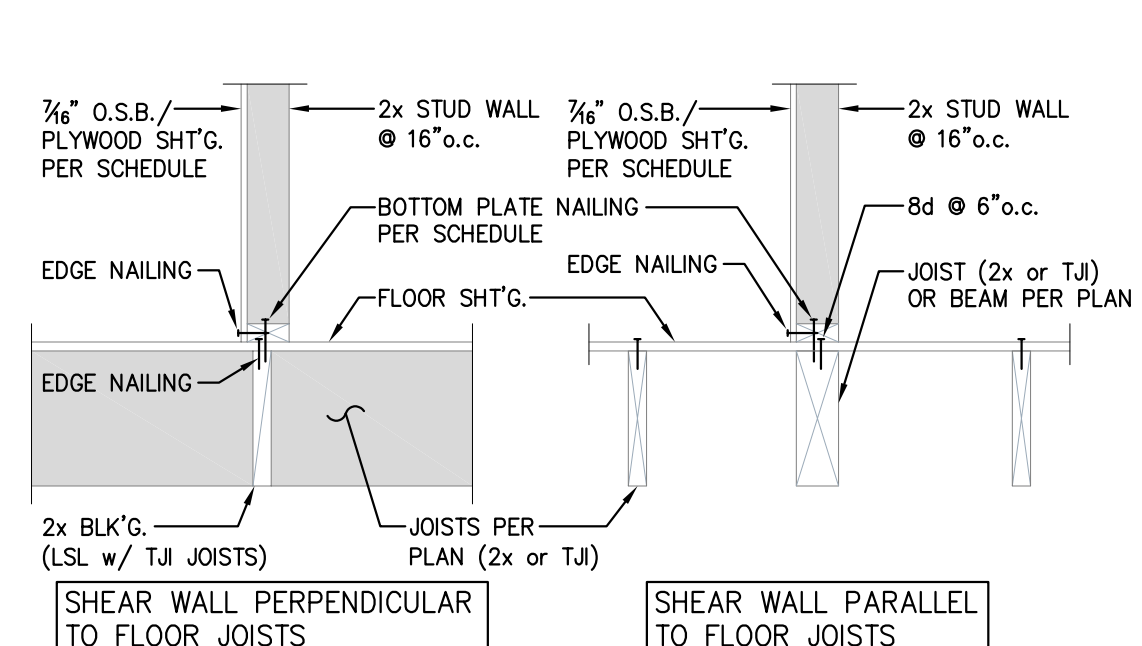
RB ENGINEERS, INC.
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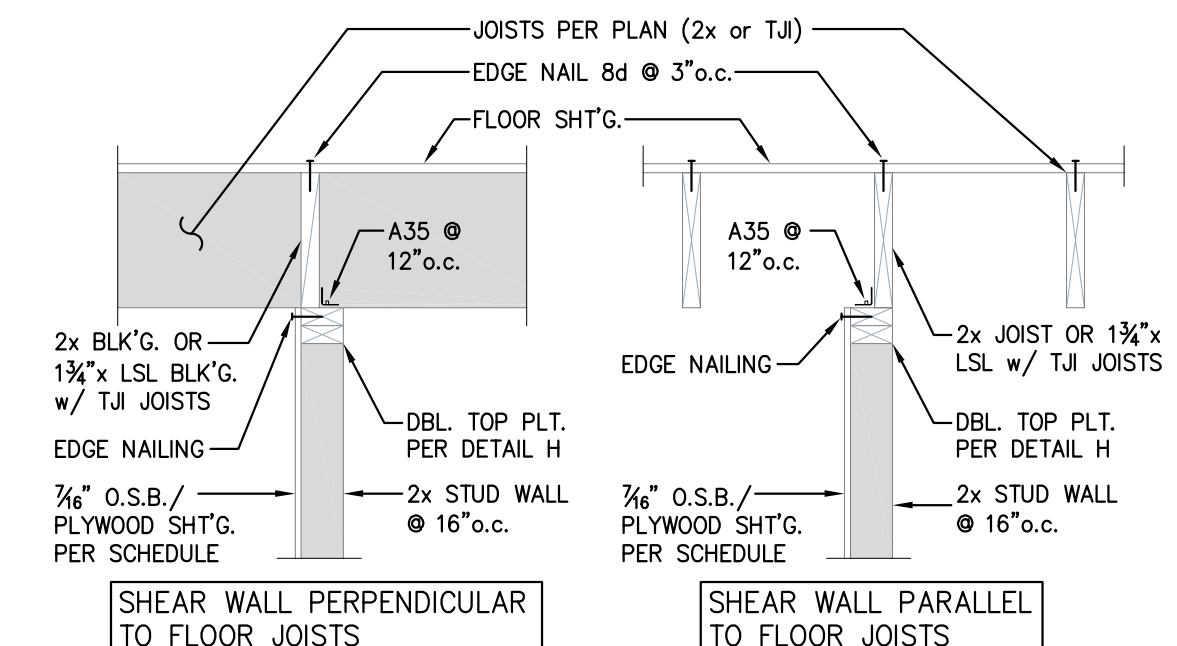
Expire Feb 2027

Project: 3427 72nd PI SE, Mercer Island, 98040
Project No.:
Drawn By:
Date: 9.19.2025
Rev.:

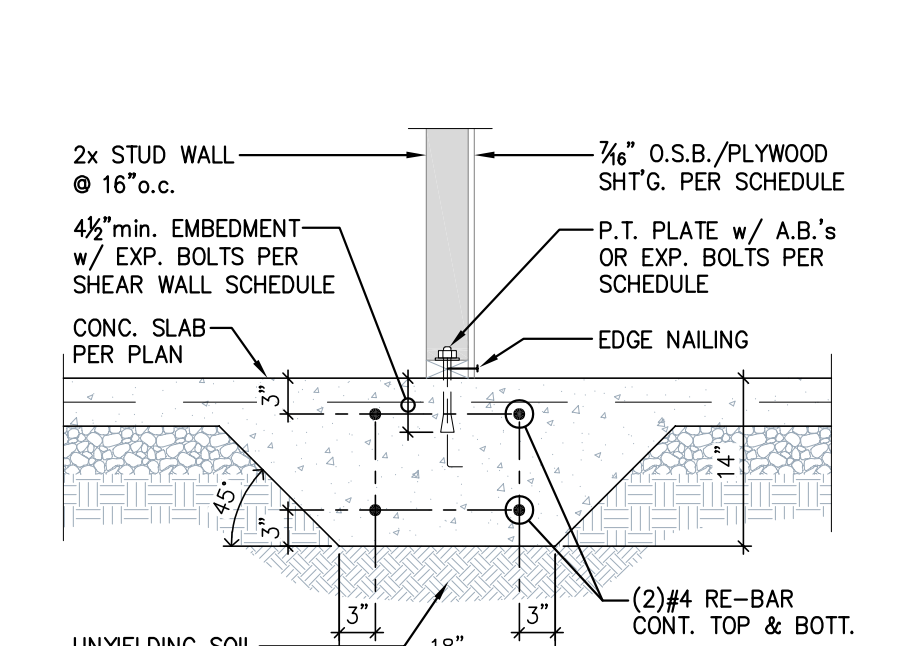
S1



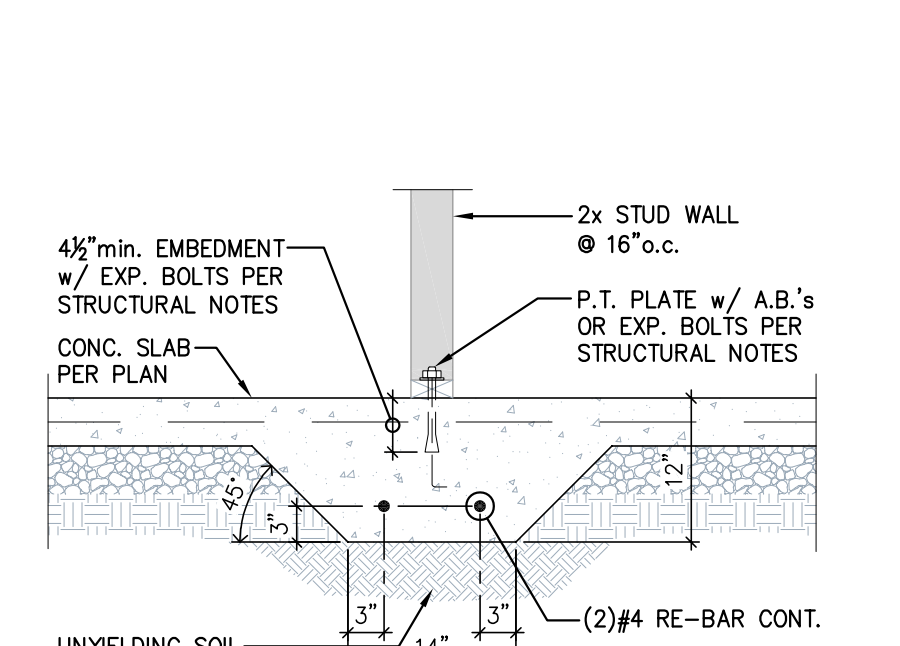
L INTERIOR SHEAR WALL TO FLOOR BELOW
3/4"=1'-0"



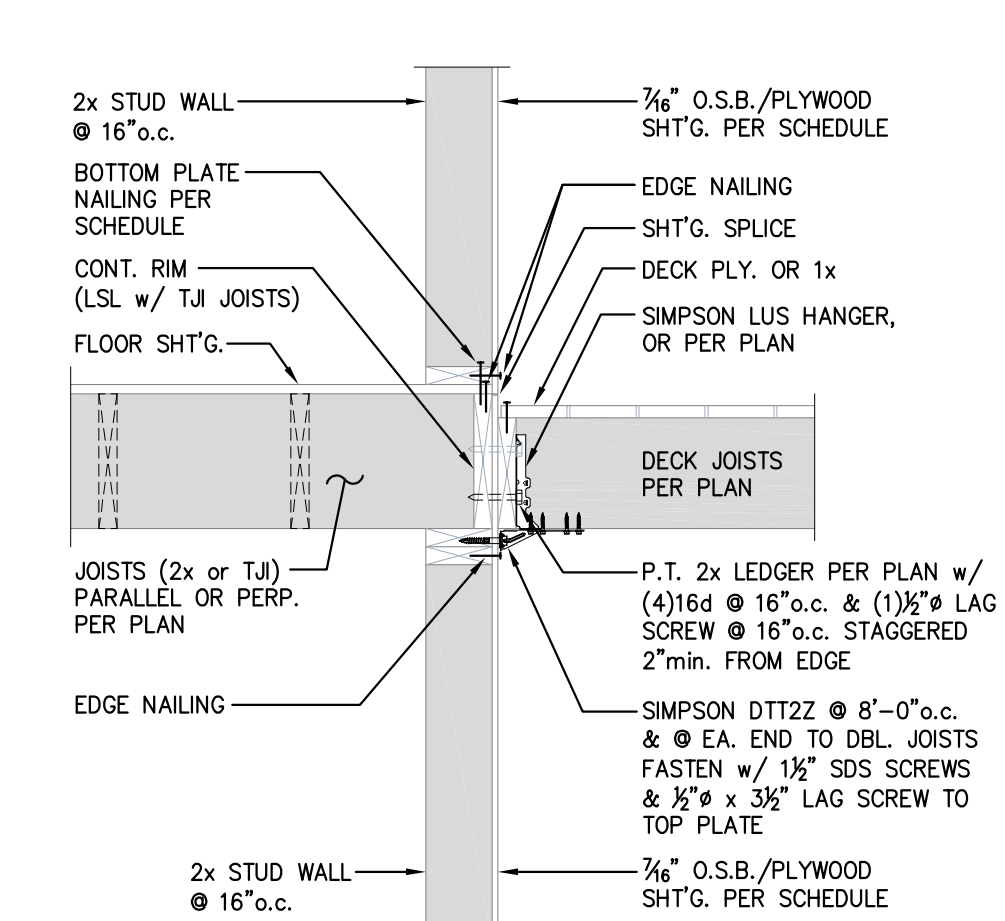
M INTERIOR SHEAR WALL TO FLOOR BELOW
3/4"=1'-0"



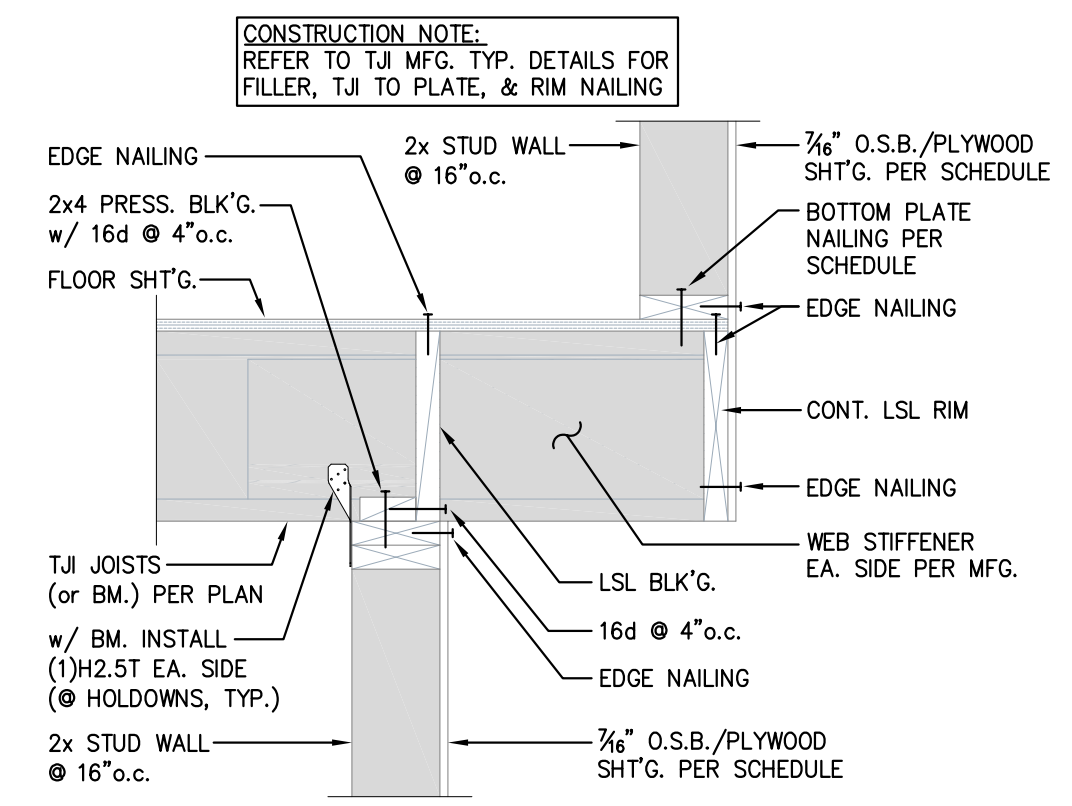
N THICKENED SLAB @ SHEAR WALL
3/4"=1'-0"



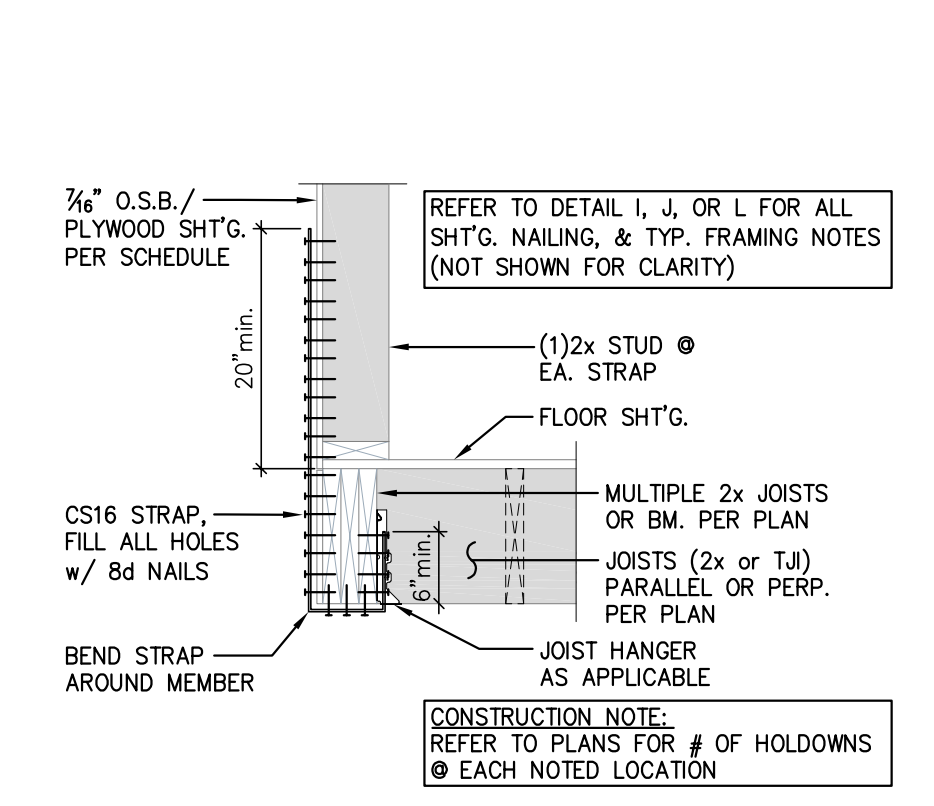
N1 THICKENED SLAB @ BEARING WALL
3/4"=1'-0"



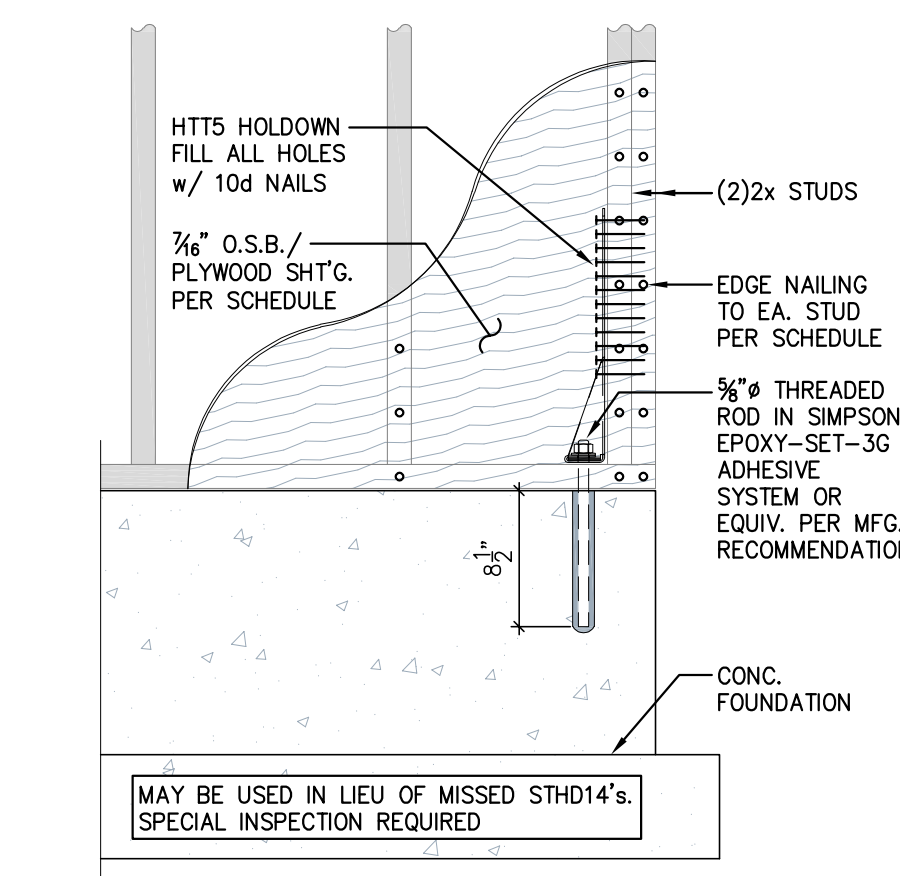
U DECK LEDGER
3/4"=1'-0"



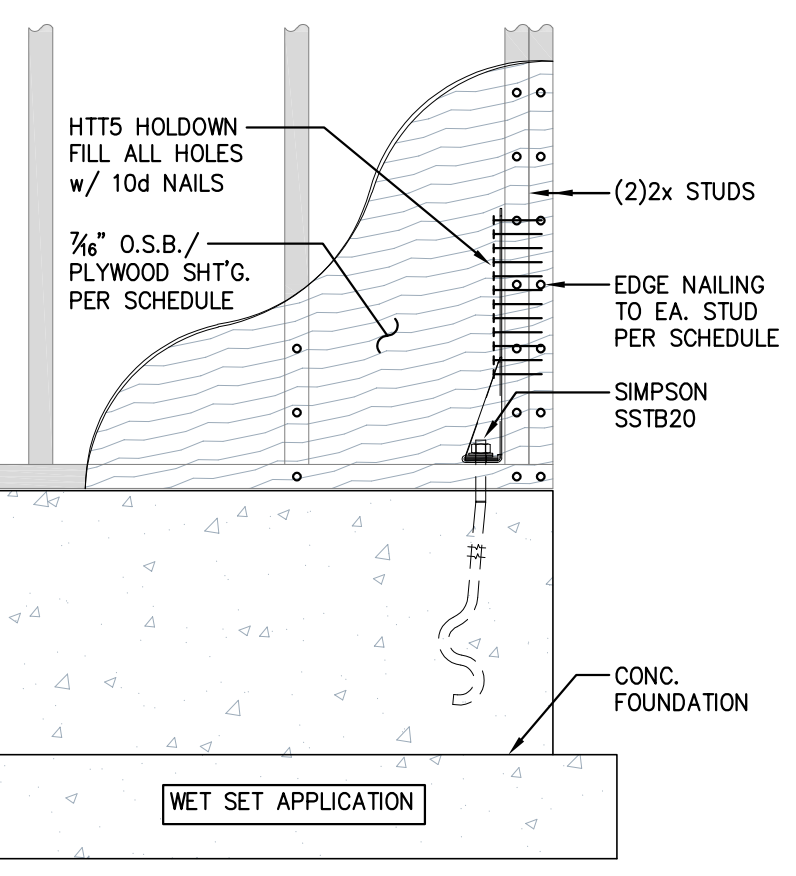
O1 CANTILEVERED TJI FRAMED FLOOR
1"=1'-0"



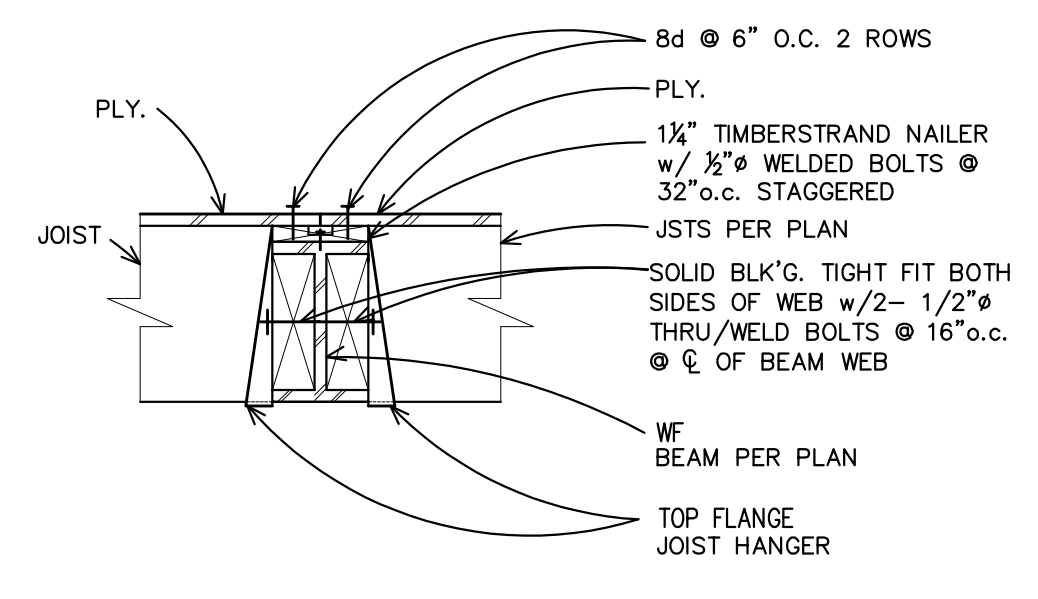
P CS16 STRAP @ HEADER OR BM.
3/4"=1'-0"



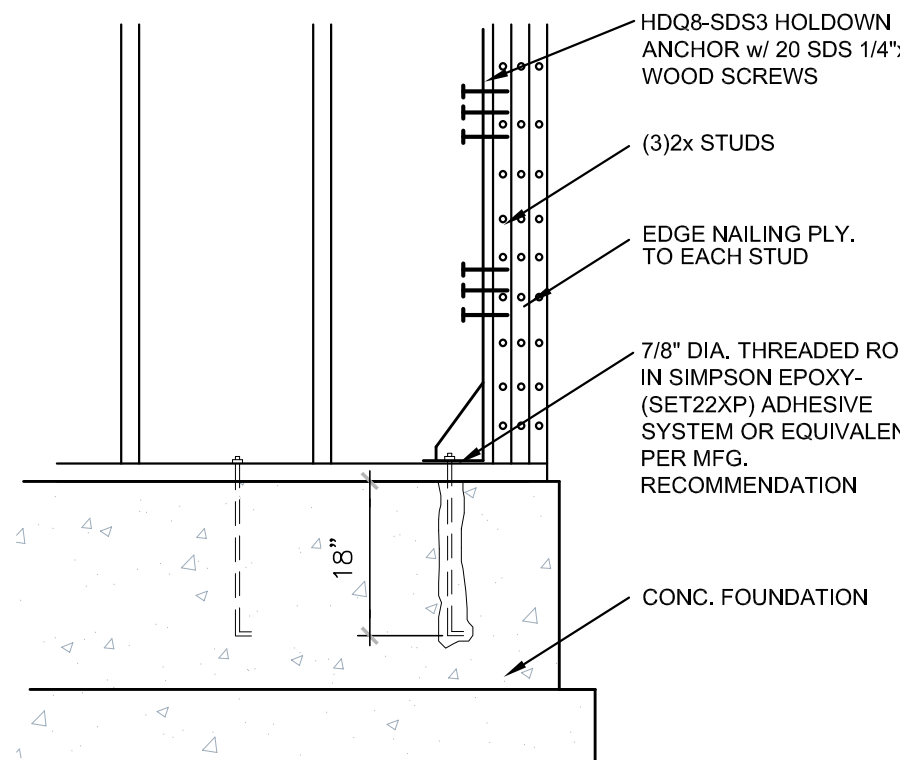
R TYP. HTT5 HOLDDOWN
1"=1'-0"



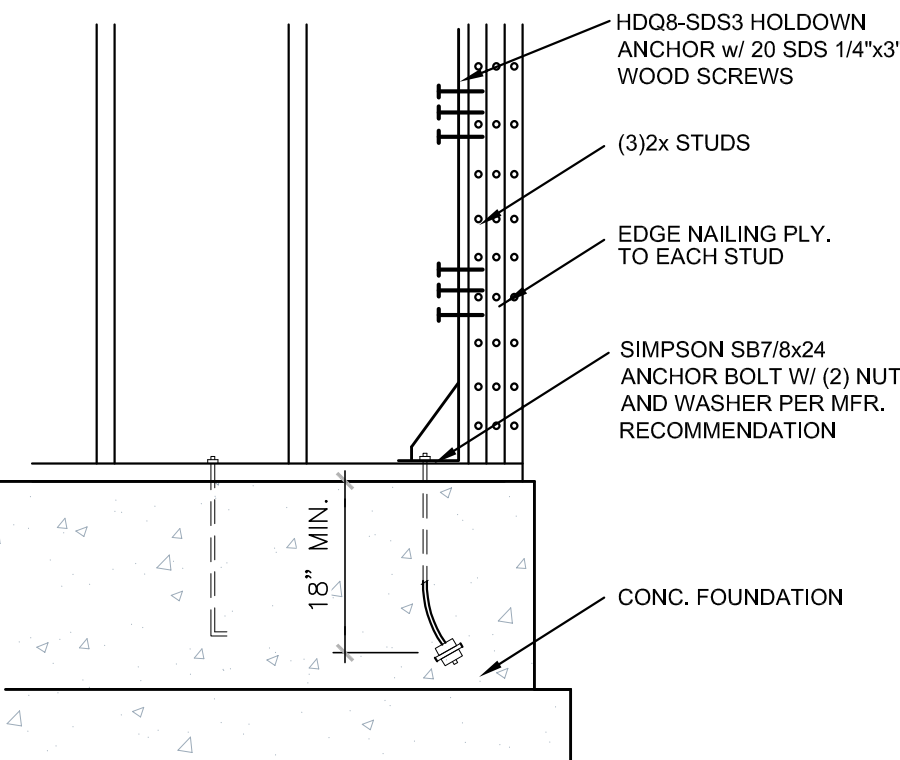
X1 STEEL BEAM TO T.F. JOIST
1"=1'-0"



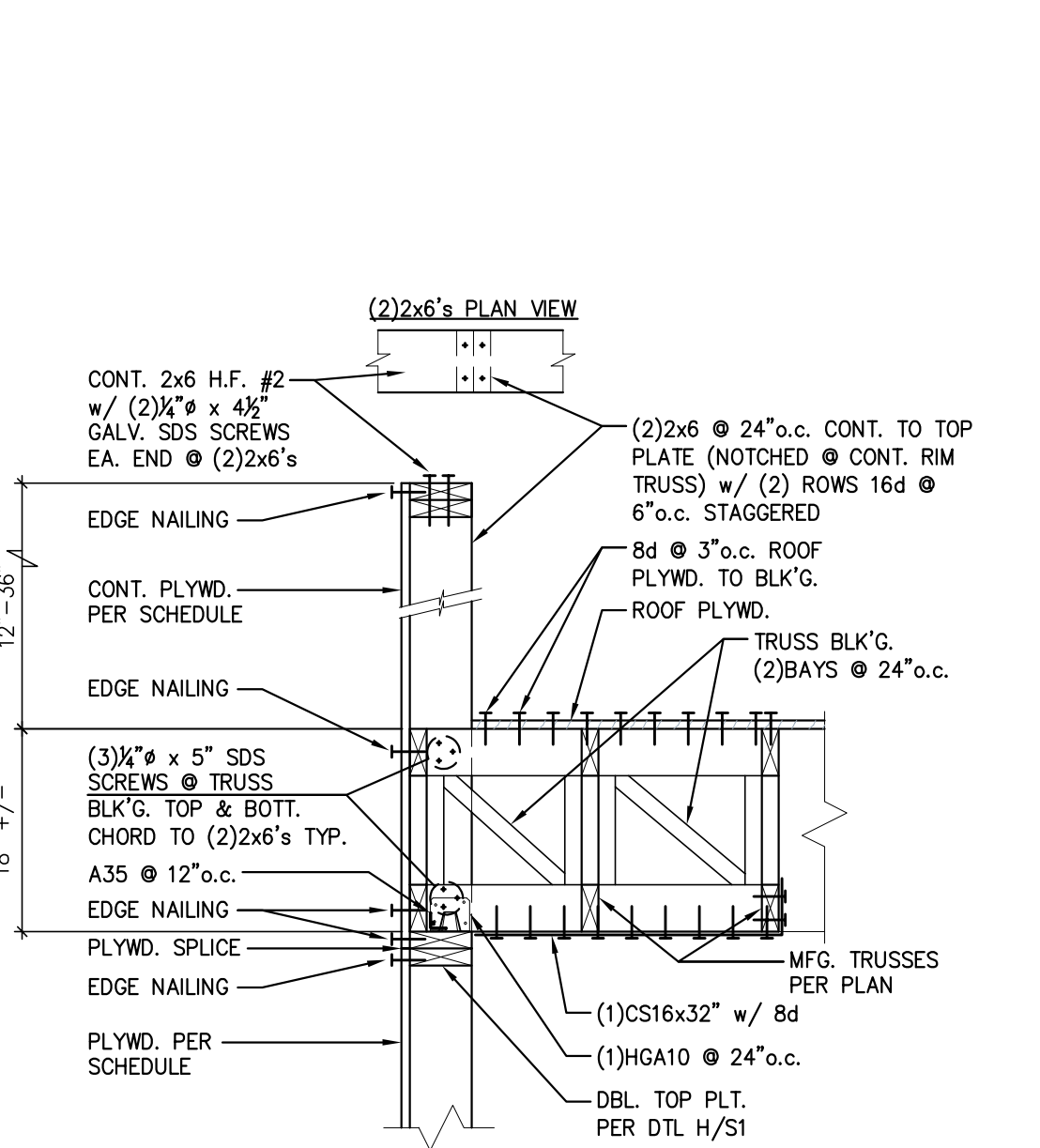
X2 STEEL BEAM DETAIL
1"=1'-0"



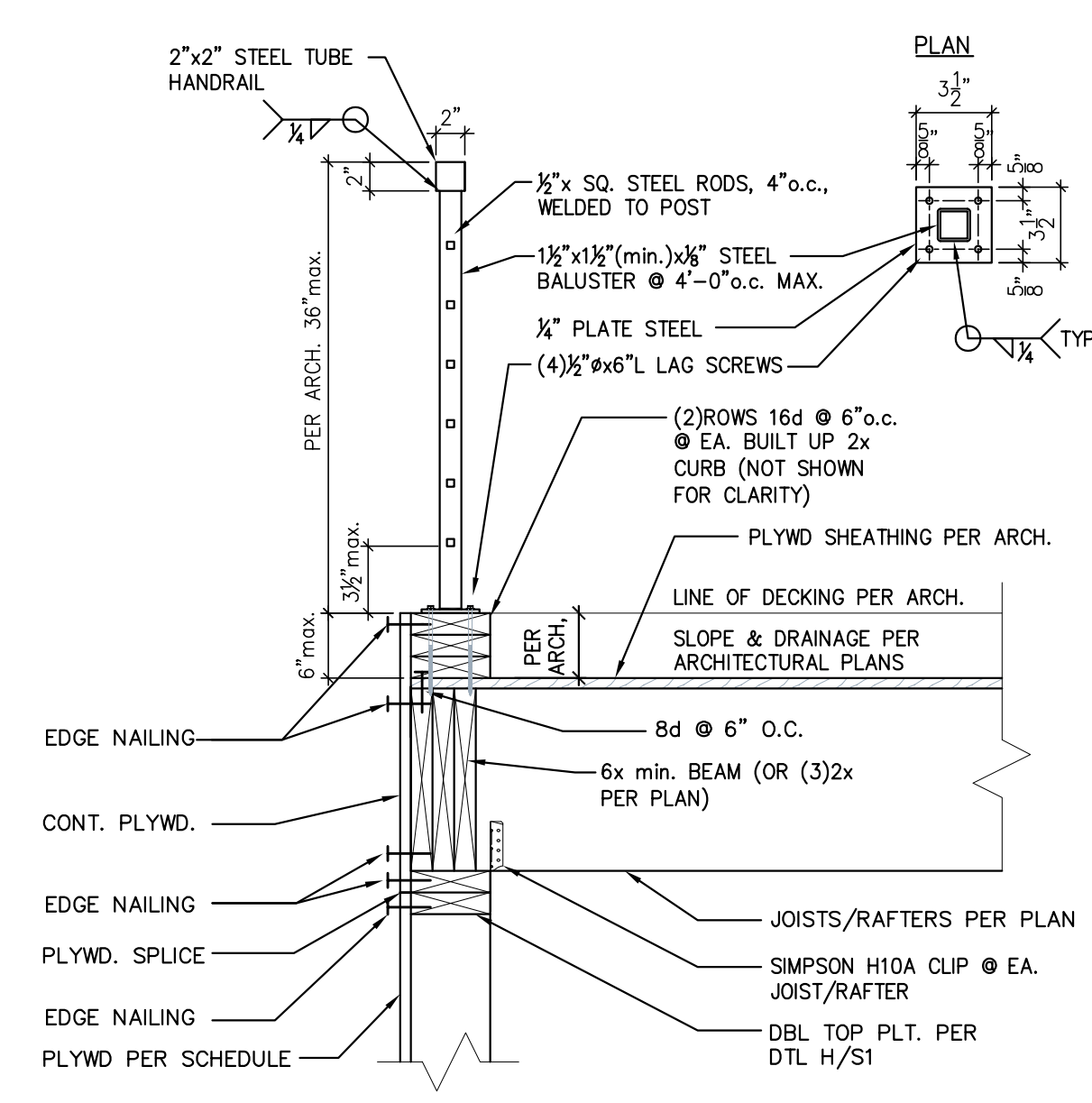
R1 TYP. HDQ8 HOLDDOWN
3/4"=1'-0"



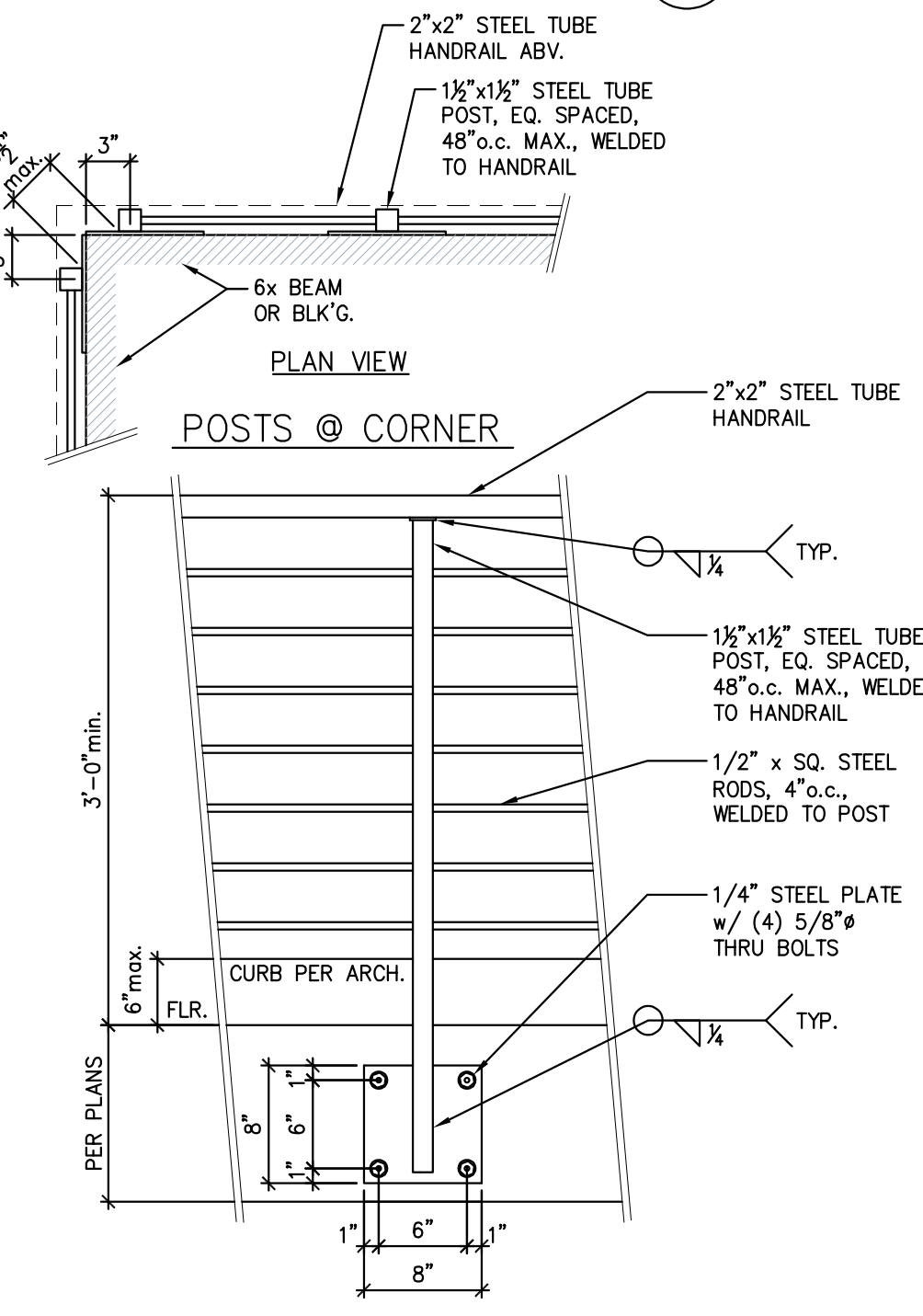
(WET-SET APPLICATION)



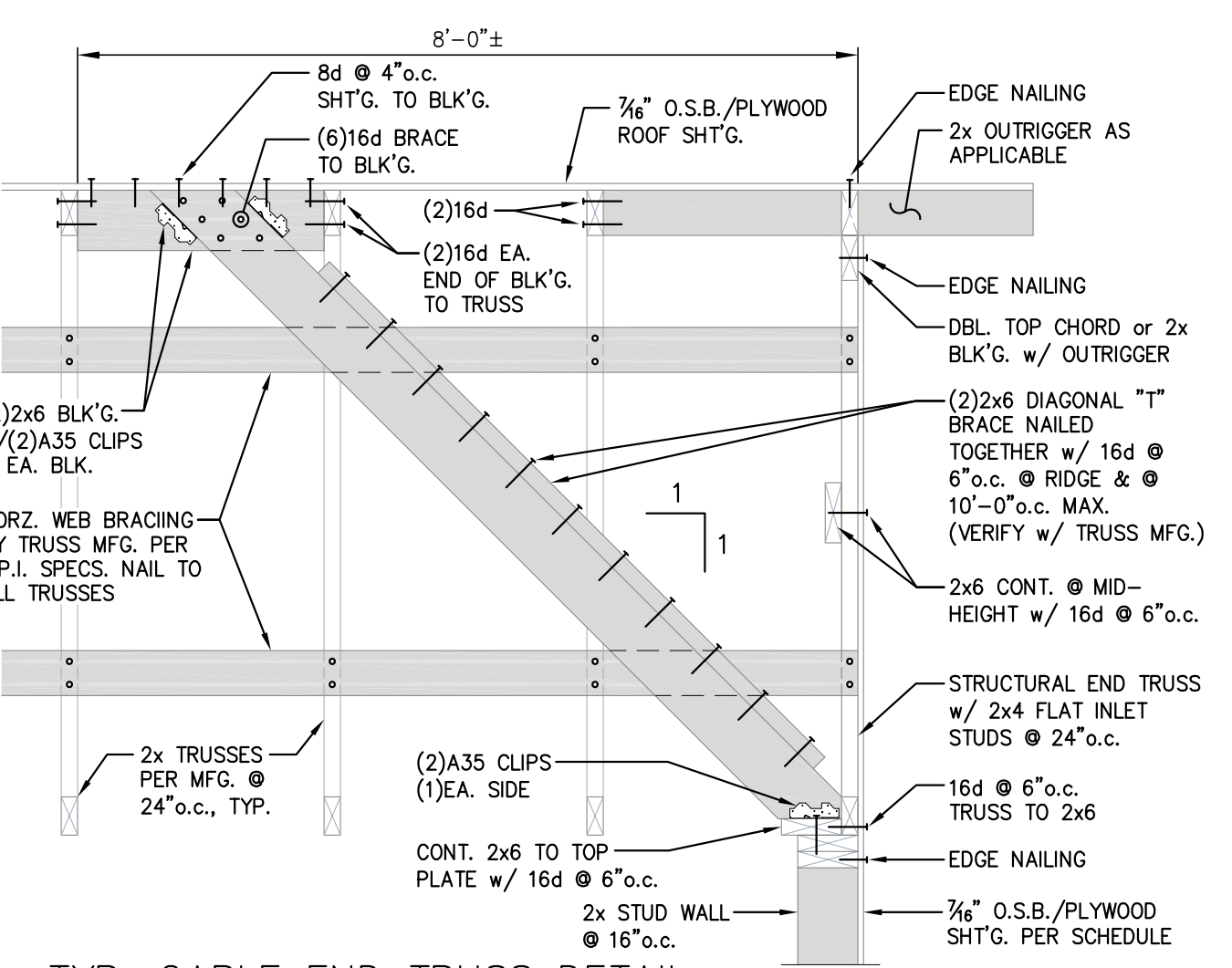
X3b PARAPET RAILING (TRUSSES PARALLEL)
3/4"=1'-0"



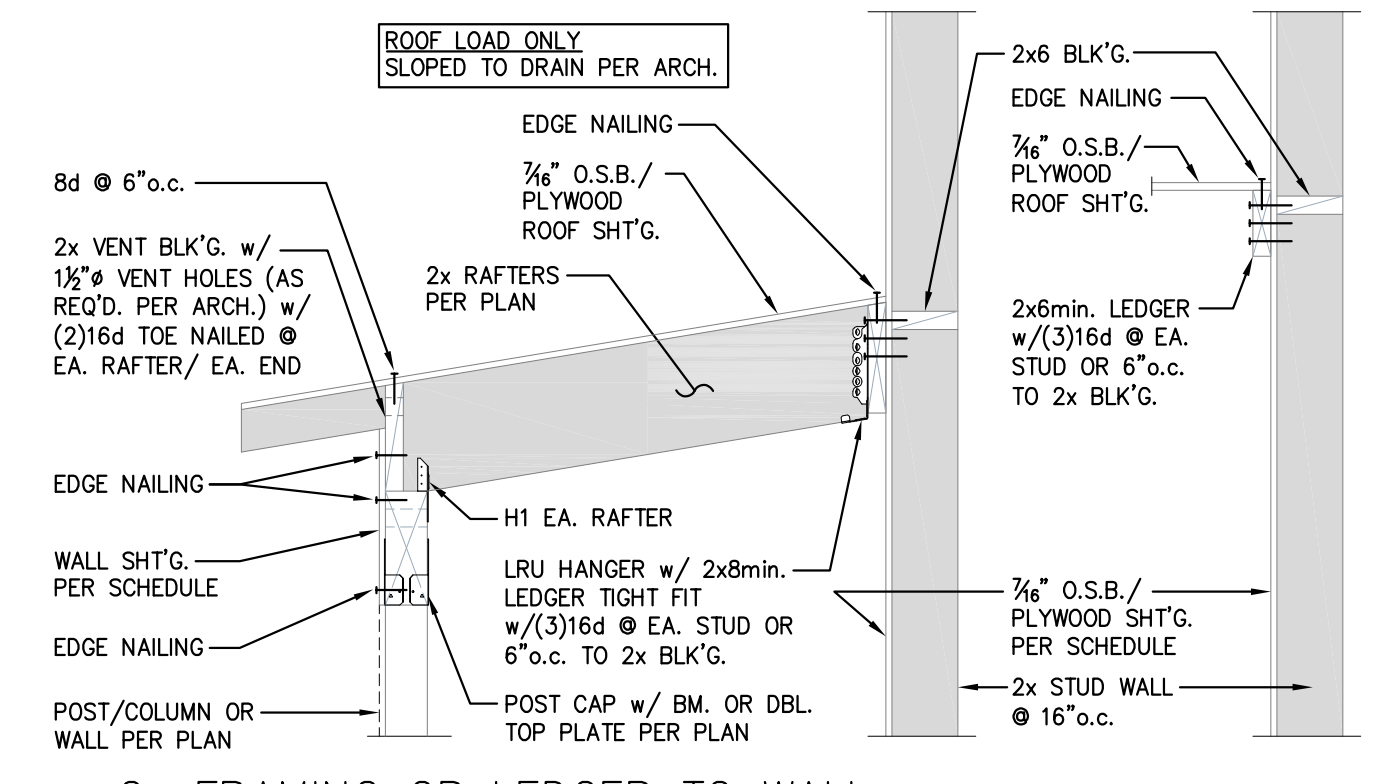
X4 TOP MOUNT RAILING @ 2x CURB
1"=1'-0"



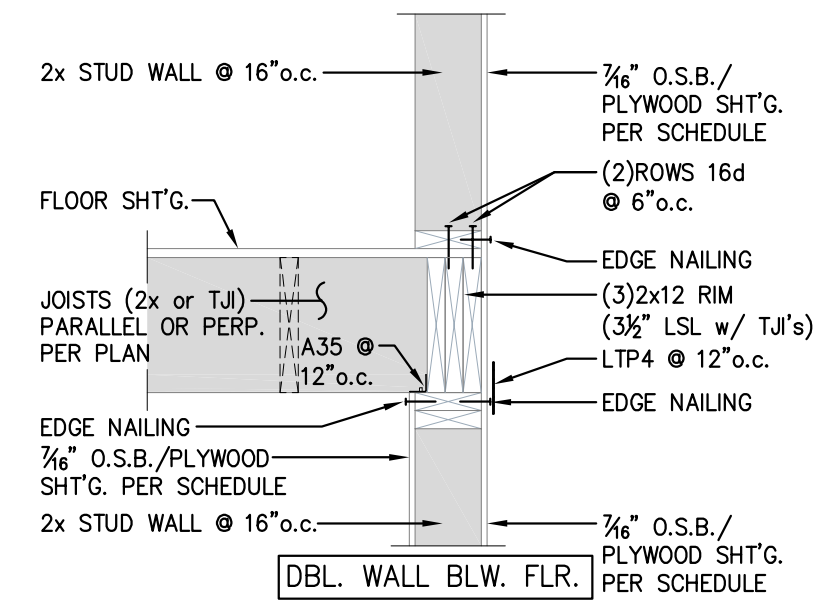
ALTERNATE POST CONSTRUCTION & CONNECTION



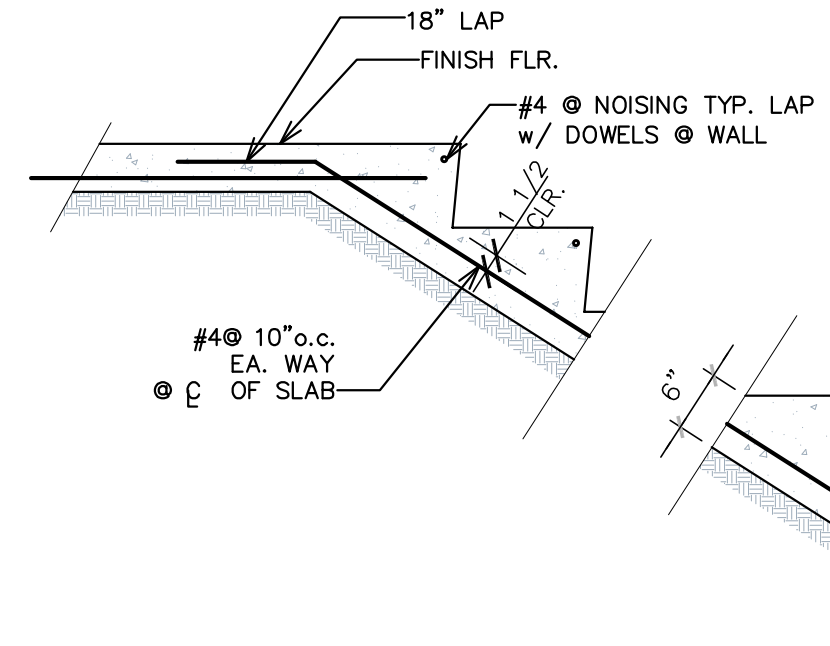
T TYP. GABLE END TRUSS DETAIL
3/4"=1'-0"



V1 2x FRAMING OR LEDGER TO WALL
3/4"=1'-0"



Z (2)SIDED SHEAR WALL FRAMING
3/4"=1'-0"



CS TYP. STAIRS ON GRADE
3/4"=1'-0"

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Structural Details
Artoush Co. & Remodeling LLC SFR
3427 72nd PI SE, Mercer Island, WA 98040

Project	3427 72nd PI SE, Mercer Island, 98040
Project No.	
Drawn By	
Date	9.19.2025
Rev.	

Sheet **S2**

GENERAL STRUCTURAL NOTES

(The following applies unless specifically indicated otherwise on the plans.)

- ALL MATERIALS & WORKMANSHIP, DESIGN, & CONSTRUCTION SHALL CONFIRM TO THE REQUIREMENTS OF THE DRAWING SPECIFICATIONS, THE INTERNATIONAL BUILDING CODE, 2021 EDITION.
- DESIGN CRITERIA**

ROOF LIVE LOAD (SNOW)	25 psf
PHOTOVOLTAIC PANEL SYSTEM	4 psf or 175 lb CONCENTRATED LOAD
SPRINKLERS	1.5 psf (IF APPLICABLE)
FLOOR LIVE LOAD (RESIDENTIAL)	40 psf
FLOOR LIVE LOAD (DECK)	60 psf (1.5x AREA SERVED)
HANDRAILS & GUARDS	RAIL LINE LOAD: 50 psf RAIL CONCENTRATE LOAD: 200#
STAIR & CORRIDOR LIVE LOAD	100 psf
MECHANICAL UNITS	WEIGHTS AS FURNISHED BY MFG.
WIND	100mph (BASIC WIND SPEED) EXPOSURE 'C' (RISK CATEGORY II) Kzt = 1.6
EARTHQUAKE	S _s =1.60 S ₁ =.57 (CLASS 'D') LIGHT FRAMED SHEAR WALL R=6.5
ALLOWABLE SOIL PRESSURE	1,500 psf. (NATURAL SOILS or COMPACTED)

SEE PLANS & COMPUTATIONS FOR ADDITIONAL LOADING CRITERIA PER I.B.C. SECTION 1605–1609.

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION w/ ARCHITECTURAL DRAWINGS FOR BIDDING CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS & CONDITIONS FOR COMPATIBILITY & SHALL NOTIFY THE ARCHITECT & STRUCTURAL ENGINEER, OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION TO ALLOW ARCHITECT & ENGINEER TO COMPLETE PROPER REVISIONS TO THE WORK.
- DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED & IN A MANNER SUITABLE TO THE WORK SEQUENCES. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. LIMIT CONSTRUCTION LOADING (INCLUDING DEMOLITION DEBRIS) ON EXISTING FLOOR SYSTEMS TO 40 psf.
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, & CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING (e) CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY & MUST BE FIELD VERIFIED.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING & SHORING FOR THE STRUCTURE & STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS & THE METHODS, TECHNIQUES, SEQUENCES & PROCEDURES REQUIRED TO PERFORM HIS WORK.
- CONTRACTOR–INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT & THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- DRAWINGS INDICATE GENERAL & TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW & APPROVAL BY THE ARCHITECT & STRUCTURAL ENGINEER.
- ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERRECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE & ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- SHOP DRAWINGS FOR STRUCTURAL STEEL, GLUED LAMINATED MEMBERS, OPEN WEB WOOD TRUSSES, & PLYWOOD WEB JOISTS SHALL BE SUBMITTED TO THE ARCHITECT & STRUCTURAL ENGINEER FOR REVIEW TWO WEEKS PRIOR TO FABRICATION OF THESE ITEMS.
- SHOP DRAWINGS REVIEW: DIMENSIONS & QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, & THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW & STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. SUBMISSIONS SHALL INCLUDE A REPRODUCIBLE & ONE COPY; REPRODUCIBLE WILL BE MARKED & RETURNED.

SHOP DRAWINGS SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, THAT HE DEMONSTRATES HIS UNDERSTANDING BY INDICATING WHICH MATERIAL HE INTENDS TO FURNISH & INSTALL & BY DETAILING THE FABRICATION & INSTALLATION METHODS HE INTENDS TO USE. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS & THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS & SPECIFICATIONS SHALL CONTROL & SHALL BE FOLLOWED.

GEOTECHNICAL

- FOUNDATION NOTES:**

SUB–GRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, & FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT AS APPLICABLE. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL or BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (or IN DETAILS) ARE MINIMUM & FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB & SOILS ENGINEER AS APPLICABLE. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL & PROVIDE FOR SUBSURFACE DRAINAGE.

STRUCTURAL FILL:
AS APPLICABLE PER SITE CONDITIONS OR AS DIRECTED BY THE SOILS ENGINEER. FOLLOW ALL RECOMMENDATIONS & SPECIFICATIONS AS GIVEN PER THE SOILS REPORT.

CONCRETE

- CONCRETE SHALL ATTAIN A 28 DAY STRENGTH OF $f'_c = 2,500$ psi & MIX SHALL CONTAIN NOT LESS THAN 5 1/2 SACKS OF CEMENT PER CUBIC YARD & NO MORE THAN 6 GALLONS OF WATER PER SACK OF CEMENT.

ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR–ENTRAINED WITH AN AIR–ENTRAINING AGENT CONFORMING TO I.B.C. THE AMOUNT SHALL BE 4% + 1% BY VOLUME. $f'_c = 3,000$ psi.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615, (INCLUDING SUPPLEMENT S1) GRADE 60, $f_y = 60,000$ psi. EXCEPTION: COLUMN TIES, BEAM STIRRUPS, BARS TO BE FIELD BENT, BARS TO BE WELDED & ANY OTHER BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, $f_y = 40,000$ psi REINFORCING COMPLYING WITH ASTM A706 (S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D1.4 ARE SUBMITTED. NO REINFORCING SHALL BE WET–SET UNLESS SPECIFICALLY SO DETAILED.

WELDED WIRE MESH SHALL CONFORM TO ASTM A–185.
- REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS & BENDS) IN ACCORDANCE WITH ACI 318–19. LAP ALL CONTINUOUS REINFORCEMENT 58 BAR DIAMETERS (2"–6" min.). PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS. LAP CORNER BARS 30 BAR DIAMETERS (2"–6" min.). LAP ADJACENT MATS OF WELDED WIRE FABRIC TWO SQUARES (min. OF 12") AT SIDES & ENDS.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.
- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

FOOTINGS & OTHER UNFORMED SURFACES, EARTH FACE	3"
FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER	
#6 BARS OR LARGER	2"
#5 BARS OR SMALLER	1 1/2"
COLUMN TIES OR SPIRAL & BEAM STIRRUPS	1 1/2"
SLABS & WALLS (INTERIOR FACE)	3/4"

CAST–IN–PLACE CONCRETE:
SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS & DIMENSIONS OF DOOR & WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE & LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, & OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST–IN–PLACE & PRECAST.
- NON–SHRINK GROUT (3,000psi MINIMUM STRENGTH) SHALL BE FURNISHED BY AN APPROVED MANUFACTURER & SHALL BE MIXED & PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURE'S PUBLISHED RECOMMENDATIONS.

STEEL

- REFERENCE SPECIFICATIONS

STRUCTURAL STEEL	AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
HIGH STRENGTH BOLTS	SPECIFICATIONS FOR STRUCTURAL JOINT USING HIGH–STRENGTH
WELDING	AWS D1.1 TYPICAL AWS D1.3 FOR STEEL DECK AND COLD–FORMED FRAMING AWS D1.8 SUPPLEMENTAL SEISMIC PROVISIONS
WELDER CERTIFICATION	AMERICAN WELDING SOCIETY (AWS) WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO)
STEEL DECKING	ANSI/SDI C "STANDARD FOR COMPOSITE STEEL FLOOR DECK SLAB". ANSI/ SDI RD "STANDARD FOR STEEL ROOF DECKS". AISI S100 WITH S2 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD–FORMED STEEL STRUCTURAL MEMBERS WITH SUPPLEMENT 2.
- STRUCTURAL WIDE FLANGE SHAPES & CHANNELS SHALL CONFORM TO OTHER STRUCTURAL STEEL INCLUDING PLATES & BARS SHALL CONFORM TO

ANGLES (L) SHALL CONFORM TO	ASTM A992, $F_y = 50$ ks
STRUCTURAL TUBES HSS SHALL CONFORM TO	ASTM A36, $F_y = 36$ ksi or ASTM A572 GR. 50
STEEL PIPE SHALL CONFORM TO	ASTM A572 GR. 50
STRUCTURAL TUBING SHALL CONFORM TO	ASTM A500 GR. C
STRUCTURAL BOLTS SHALL CONFORM TO	ASTM A53 GR. B
ANCHOR RODS SHALL CONFORM TO	ASTM A500, $F_y = 46$ ksm
THREADED RODS SHALL CONFORM TO	ASTM F3125 GR. A325
WELDING ELECTRODES ARE 70 KSI, LOW HYDROGEN FOR TYPICAL, AND 60 KSI, MINIMUM FOR STEEL DECKS	ASTM F1554 GR. 36 (U.N.O.)
	ASTM A36 (U.N.O.)

STEEL FABRICATION

GENERAL:
ALL WELDING IS REQUIRED TO BE DONE BY A WABO CERTIFIED WELDER & HAVE SPECIAL INSPECTIONS BY WABO CERTIFIED INSPECTION AGENCY, OR BE DONE IN A WABO CERTIFIED FABRICATION SHOP. HAVE EITHER THE SPECIAL INSPECTION REPORT OR WABO FABRICATION SHOP CERTIFICATION AVAILABLE ON SITE FOR THE BUILDING INSPECTOR.

- STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM TO THE REQUIREMENTS OF IBC CHAPTER 22. ALL MEMBERS ARE TO BE ERRECTED WITH NATURAL CAMBER OR INDUCED CAMBER UNLESS OTHERWISE NOTED ON THE PLANS. SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL BY THE ARCHITECT, DESIGNER, OR RECORD ENGINEER. A MINIMUM OF TWO BOLTS IS REQUIRED FOR ALL BEAM CONNECTIONS. ALTERNATIVE CONNECTIONS TO THOSE SHOWN ON THESE DRAWINGS WILL REQUIRE PRIOR APPROVAL BY THE ARCHITECT OR DESIGNER AND ENGINEER OF THE RECORD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS, INCLUDING, BUT NOT LIMITED TO, ERECTION ANGLES, LIFT HOLDS, AND OTHER AIDS; REQUIRED WELDING PROCEDURES, ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, SURFACES, ROUGHNESS VALUES, AND UNIQUE PARTS..
- FABRICATION:
 - CONFORM TO AISC 303, SECTION 6 & AISC 360 SECTION M2.
- VERIFICATION INSPECTION:
 - STRUCTURAL WELDING INSPECTIONS & QUALIFICATIONS SHALL CONFIRM TO THE AWS D1.1. SEE WELDING NOTES & SPECIAL INSPECTIONS FOR STRUCTURAL STEEL.
 - SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS & ADEQUACY RELATIVE TO THE CODE & THE WORK. FURTHER SHOP SPECIAL INSPECTIONS MAY BE WAIVED IF THE FABRICATOR IS "AISC CERTIFIED" OR OTHERWISE "APPROVED" BY THE AUTHORITY HAVING JURISDICTION PER IBC SECTION 1704.2.2 SEE SPECIAL INSPECTIONS FOR STRUCTURAL STEEL.
- ERECTION:

CONFIRM TO AISC 303, SECTION 7 "ERECTION", SECTION 8 "QUALITY ASSURANCE." & AISC 360, SECTION M4.
- BRACING & SAFETY PROTECTION:

THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACING & SAFETY PROTECTION REQUIRED BY AISC 360 SECTION M4.2 & AISC 303 SECTION 7010 & 7.11.
- PROTECTIVE COATING REQUIREMENTS:
 - SHOP PAINTING: CONFIRM TO AISC 360 SECTION M3 & AISC 303 SECTION 6.4 UNLESS A MULTI–COAT SYSTEM IS REQUIRED PER THE PROJECT SPECIFICATIONS.

WOOD

- FRAMING LUMBER SHALL BE KILN DRIED OR MC–15 (MC–192), & GRADED & MARKED IN CONFORMANCE WITH W.C.L.B. STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 16 (172), LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS (2x MEMBERS)	HEM–FIR #2
BEAMS & STRINGERS	DOUGLAS FIR #1
POSTS & TIMBERS	DOUGLAS FIR #1
STUDS, PLATES & MISC. LIGHT FRAMING	DOUGLAS FIR or HEM–FIR STAND. GRADE
TOP & BOTTOM PLATES @ BEARING & SHEAR WALLS	DOUGLAS FIR #2 or CONST. GRADE
BOLTED STUDS, LEDGERS & PLATES	HEM–FIR #2 or CONST. GRADE 2
2x6 STUDS	HEM–FIR #2 or HEM–FIR CONST. GRADE 2
- GLUE–LAMINATED MEMBERS SHALL BEAR AN AITC IDENTIFICATION MARK & SHALL BE ACCOMPANIED BY AN AITC CERTIFICATION OF CONFORMANCE.

ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F–V4, $F_b = 2,400$ psi, $F_v = 240$ psi.

ALL CONT. & CANTILEVER BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F–V8, $F_b = 2,400$ psi, $F_v = 240$ psi.
- LAMINATED VENEER LUMBER SHALL BE FABRICATED IN CONFORMANCE WITH ICC–ES ESR–1387. EACH MEMBER SHALL BEAR AN IDENTIFICATION MARK.

ALL BEAMS SHALL BE WESTERN SPECIES, GRADE 1.8E, $F_b = 2,600$ psi, $F_v = 285$ psi.
- LAMINATED STRAND LUMBER (TIMBERSTRAND LSL) SHALL BE FABRICATED IN CONFORMANCE WITH CODE EVALUATION ICC ES ESR–1387. EACH MEMBER SHALL BEAR AN IDENTIFICATION MARK.

ALL BEAMS SHALL BE WESTERN SPECIES, GRADE 1.55E, $F_b = 2,325$ psi, $F_v = 310$ psi.
- PARALLEL STRAND LUMBER SHALL BE FABRICATED IN CONFORMANCE WITH ICC–ES ESR–1387. EACH MEMBER SHALL BEAR AN IDENTIFICATION MARK.

ALL BEAMS SHALL BE DOUGLAS FIR, GRADE 2.0E, $F_b = 2,900$ psi, $F_v = 290$ psi
- [DEFERRED SUBMITTAL:] PREFABRICATED OPEN WEB WOOD TRUSSES (or COMBINATION WOOD & METAL) SHALL BE DESIGNED BY THE MANUFACTURER FOR THE SPANS & CONDITIONS SHOWN ON THE PLANS & SHALL BE FURNISHED & INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRACING, BRIDGING, BLOCKING, PRE–NOTCHED PLATES ETC., SHALL BE DETAILED & FURNISHED BY THE MANUFACTURER.

SUBMIT SHOP DRAWINGS & DESIGN CALCULATIONS (COMPLETE WITH STRESS DIAGRAMS) TO THE ARCHITECT & THE STRUCTURAL ENGINEER FOR REVIEW TWO WEEKS PRIOR TO FABRICATION.

DESIGN SUBMITTALS SHALL BEAR THE STAMP OF A REGISTERED PROFESSIONAL ENGINEER, STATE OF WASHINGTON.

PERMANENT & TEMPORARY BRIDGING & BRACING SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS.
- PLYWOOD SHEATHING SHALL BE GRADE C–D EXTERIOR GLUE or STRUCTURAL II, EXTERIOR GLUE ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE 1 RATING & PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX & NAILING REQUIREMENTS.

STRUCTURAL WOOD SHEATHING PANELS SHALL HAVE APA GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION.
- ALL WOOD PLATES & BLOCKING IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE–TREATED WITH AN A.W.P.A. APPROVED PRESERVATIVE.

PROVIDE 2–LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., & CONCRETE OR MASONRY.

- TIMBER CONNECTORS CALLED OUT BY LETTERS & NUMBERS SHALL BE BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL or GREATER LOAD CAPACITIES. PROVIDE NUMBER & SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

WHERE CONNECTORS STRAPS CONNECT TWO MEMBERS, PLACE HALF OF THE NAILS or BOLTS IN EACH MEMBER.

ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS & NUTS OF ALL BOLTS & LAG SCREWS BEARING ON WOOD UNLESS NOTED OTHERWISE.

ALL NAILS SHALL BE COMMON.

ALL SHIMS SHALL BE SEASONED & DRIED & THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

ALL JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES HANGERS.

ALL DOUBLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES HANGERS.

ALL TRIPLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "U" SERIES HANGERS.

TJI JOIST HANGERS PER MANUFACTURER TJI SHOP DRAWINGS (U.N.O.)
- PROTECTION OF CONNECTORS IN CONTACT WITH PRESSURE TREATED WOOD ALL BOLTS, NAILS, JOIST HANGERS & ANY OTHER CONNECTORS SHALL BE HOT DIPPED GALVANIZED FASTENERS RECOMMENDED TO CONFORM WITH ASTM STANDARD A–153 & HOT DIPPED GALVANIZED CONNECTORS SHOULD CONFORM TO ASTM A165, CLASS G–183. STAINLESS STEEL FASTENERS & CONNECTORS SHOULD BE TYPE 304 OF 316 SIMPSON PRODUCT FINISHES CORRESPONDING TO THESE REQUIREMENTS ARE ZMAX 9158 (HOT DIPPED GALVANIZED) & S5T3000 (STAINLESS STEEL).
- ALL WOOD FRAMING DETAILS – THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS.
 - MINIMUM NAILING REQUIREMENTS: UNLESS OTHERWISE NOTED, MINIMUM NAILING SHALL BE IN ACCORDANCE WITH TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE.
 - AT SAWN TIMBER JOIST AREAS: PROVIDE CROSS–BRIDGING @ 8'–0" o.c. max. SPACING & SOLID BLOCKING AT BEARING POINTS. PROVIDE DOUBLE JOISTS UNDER ALL PARTITIONS. PROVIDE DOUBLE JOISTS EACH SIDE OF OPENINGS UNLESS DETAILED OTHERWISE.
 - PROVIDE DOUBLE JOIST UNDER ALL PARALLEL PARTITIONS THAT EXTEND MORE THAN HALF THE JOIST LENGTH & DOUBLE JOIST HEADERS & DOUBLE JOISTS EACH SIDE OF ALL OPENINGS IN FLOORS & ROOFS UNLESS DETAILED OTHERWISE. COORDINATE SIZE & LOCATION OF ALL OPENINGS WITH ARCHITECTURAL & MECHANICAL DRAWINGS.
 - PROVIDE TWO 2x10 HEADERS OVER & DOUBLE STUDS EACH SIDE OF ALL OPENINGS IN STUD BEARING WALLS NOT DETAILED OTHERWISE.
 - PROVIDE SOLID BLOCKING FOR WOOD COLUMNS & MULTIPLE STUD POSTS THROUGH FLOORS TO SUPPORTS BELOW.
 - PROVIDE CONTINUOUS SOLID BLOCKING AT MID OF ALL STUDS OVER 10' IN HEIGHT.
 - TOENAIL JOISTS TO SUPPORTS WITH 2–16d NAILS. ATTACH ALL BEAMS AT THE ROOF EXCEEDING 8'–0" IN LENGTH TO SUPPORTS WITH ST22 STRAP EACH END.
 - ATTACH TIMBER JOISTS TO FLUSH HEADERS AND BEAMS WITH "U" SERIES METAL JOIST HANGERS TO SUIT THE JOIST SIZE.
 - WALL FRAMING ALL STUD WALL SHOWN & NOT OTHERWISE NOTED SHALL BE 2x4 STUDS @ 16" o.c. AT INTERIOR WALLS & 2x6 STUDS @ 16" o.c. AT EXTERIOR WALLS.
 - NOTATIONS ON DRAWINGS RELATING TO FRAMING CLIPS, JOIST HANGERS, & OTHER CONNECTING DEVICES REFER TO CATALOG NUMBERS OF CONNECTORS MANUFACTURED BY SIMPSON STRONG–TIE COMPANY OR EQUIVALENT DEVICES BY OTHER MANUFACTURES MAY BE SUBSTITUTED. PROVIDED THEY HAVE ICC–ES APPROVAL FOR EQUAL LOAD CAPACITIES.
 - INDIVIDUAL MEMBERS OF BUILT–UP POSTS & BEAMS SHALL EACH BE ATTACHED WITH 16d NAILS @ 6" o.c. STAGGERED.
 - ALL WOOD STUDS WALLS SHALL HAVE LOWER WOOD PLATE ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS @ 6" o.c. STAGGERED UNLESS SHOWN OTHERWISE.
 - ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE.
 - PLYWOOD ROOF SHEATHING & FLOOR SHEATHING UNLESS OTHERWISE NOTED ON PLANS SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS & NAILED WITH 8d NAILS @ 6" o.c. TO FRAMED PANEL EDGES & OVER STUD WALLS SHOWN ON PLANS & @ 12" o.c. (10" o.c. AT FLOORS TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED EDGE CLIPS @ 16" o.c. AT UNBLOCKED ROOF SHEATHING EDGES. PROVIDE SOLD BLOCKING AT LINES OF SUPPORT AT FLOORS. TOENAIL BLOCKING TO SUPPORTS WITH 16d NAILS @ 12" o.c. UNLESS OTHERWISE NOTED IN THE SHEAR WALL SCHEDULE.
 - PLYWOOD WALL SHEATHING SHALL HAVE SOLID BLOCKING AT ALL EDGES.
 - ALL WOOD STUD WALLS SHALL HAVE LOWER WOOD PLATE ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 6" o.c. STAGGERED or BOLTED TO CONCRETE WITH 5/8" DIA. ANCHOR BOLTS @ 4'–0" o.c. UNLESS SHOWN OTHERWISE.
 - PLYWOOD NAILING: (USE UNLESS GREATER NAILING IS DETAILED OR SPECIFIED)

8d @ 6" o.c.	AT SHEET EDGES
8d @ 6" o.c.	AT INTERMEDIATE BEARING POINTS
 - PROVIDE ABU POST BASE @ ISOLATED POSTS TO CONCRETE CONNECTION
 - PROVIDE (2)A35 CLIPS @ TOP & BOTTOM OF ALL POST TO OTHER FRAMING MEMBERS
 - PROVIDE AC or ACE POST CAP @ ISOLATED POSTS TO BEAM CONNECTIONS
 - PROVIDE MIN. (2)A35 CLIPS @ POST TO BEAM CONNECTION (U.N.O.)
 - PROVIDE (2)CS16 x 30" AT ALL CUT DOUBLE TOP PLATES, TYPICAL.
 - ANCHORAGE:

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 ICC–ES REPORT NO. ESR–2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50F. RODS SHALL BE ASTM A–36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDDED BAR TYPE & DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION & EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT & ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL & OVERHEAD INSTALLATIONS.

EPOXY–GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "AT–XP" AS MANUFACTURED BY SIMPSON STRONG–TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH IAMPO REPORT NO. ER–0281. MINIMUM BASE MATERIAL TEMPERATURE IS 14F. RODS SHALL BE ASTM A–36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDDED BAR TYPE & DIMENSIONS, LOCATIONS, ADHESIVE IDENTIFICATIONS & EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, & ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL & OVERHEAD INSTALLATIONS.

General Structural Notes

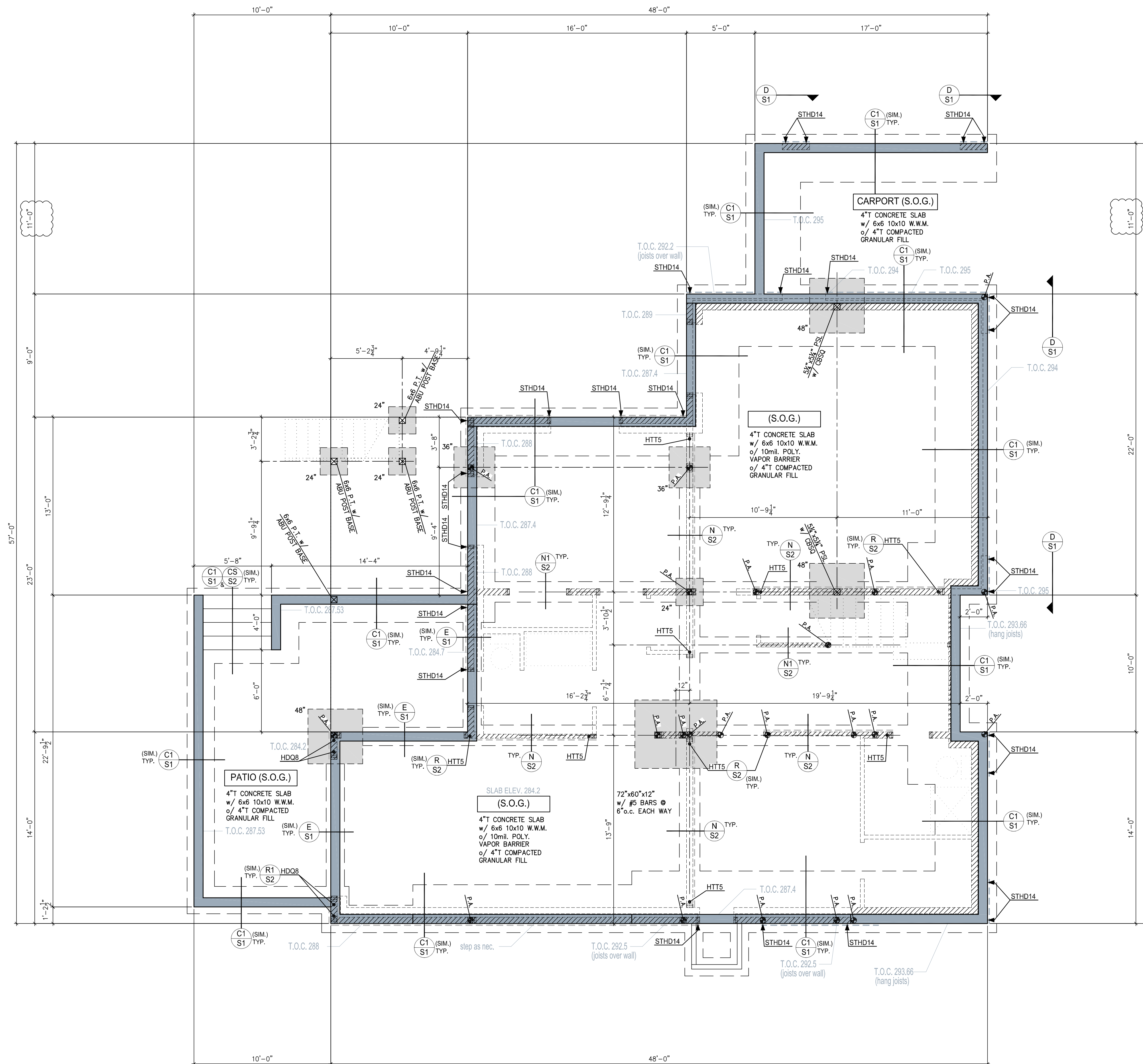
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3427 72nd PI SE, Mercer Island, WA 98040



EXPIRES FEB 2027

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IMPORTANT NOTES:
 SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS & VERIFY WITH STRUCTURAL PLANS
 SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

FOOTING SCHEDULE

	24" x 24" x 8" w/ (3) #4 BARS EACH WAY
	36" x 36" x 10" w/ (6) #5 BARS EACH WAY
	48" x 48" x 12" w/ (6) #4 BARS EACH WAY

- DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL ABV. (EXTERIOR BEARING WALLS ASSUMED)

FOUNDATION CONSTRUCTION NOTES:
 CONFIRM FOUNDATION TOP OF WALL STEPS & BOTTOM OF FOOTING STEPS PER ARCHITECTURAL (CONFIRM INDICATED NOTES)

PROVIDE CONTROL JOINTS @ ALL SLAB ON GRADE (S.O.G.) LOCATIONS. LAYOUT PER ARCHITECT or
 4" THICK CONCRETE = 10'-0"max. EACH WAY
 5" THICK CONCRETE = 15'-0"max. EACH WAY

ALL METAL HARDWARE USED IN CONJUNCTION w/ PRESS. TREATED WOOD SHALL BE SIMPSON Z-MAX OR HDG GRADE ZINC COATING.

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 Email: RBE1992@GMAIL.COM

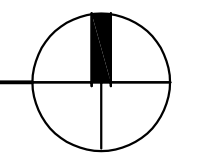
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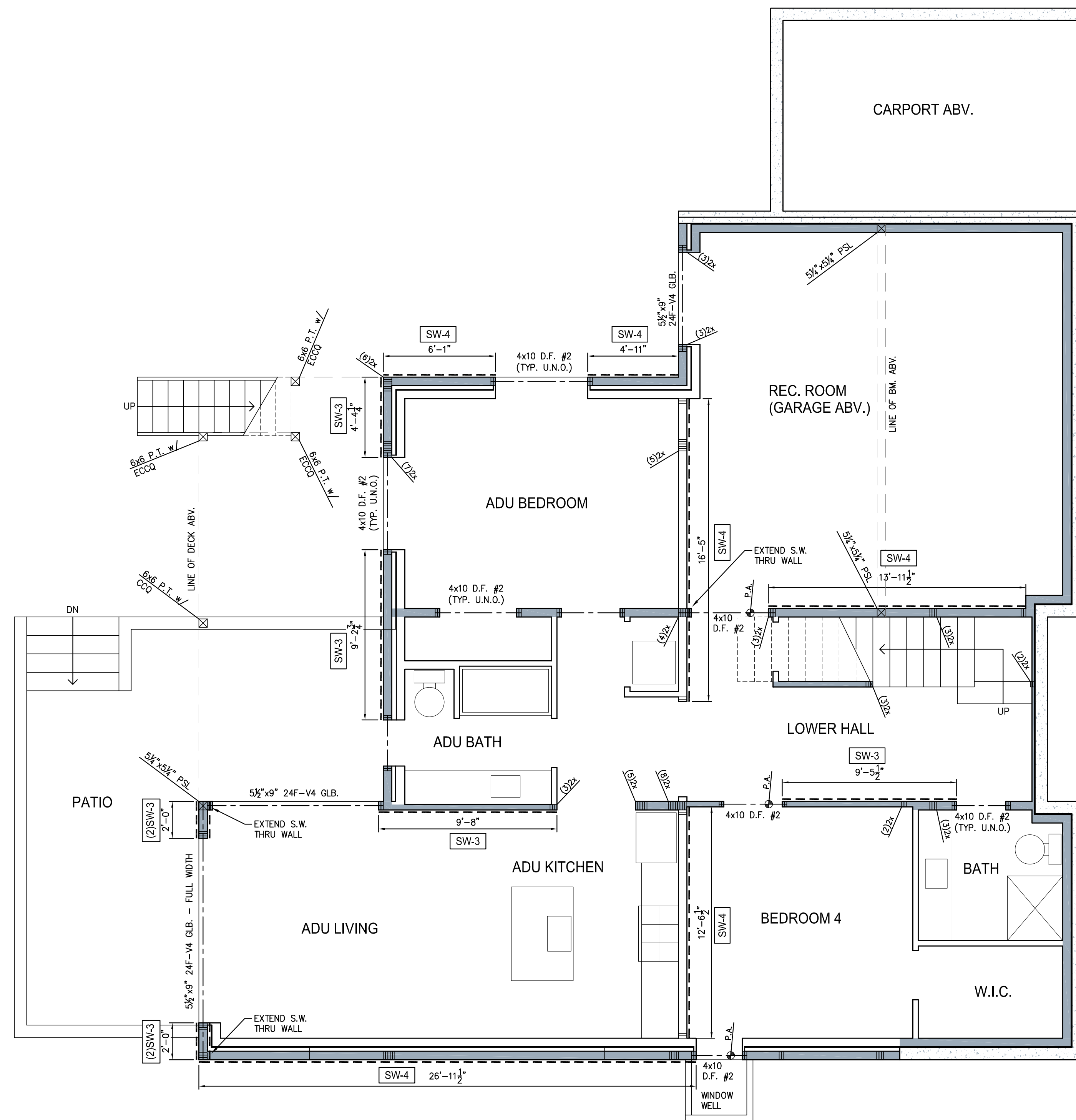


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foundation plan
 SCALE: 1/4" = 1'-0"





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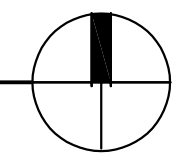


- DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

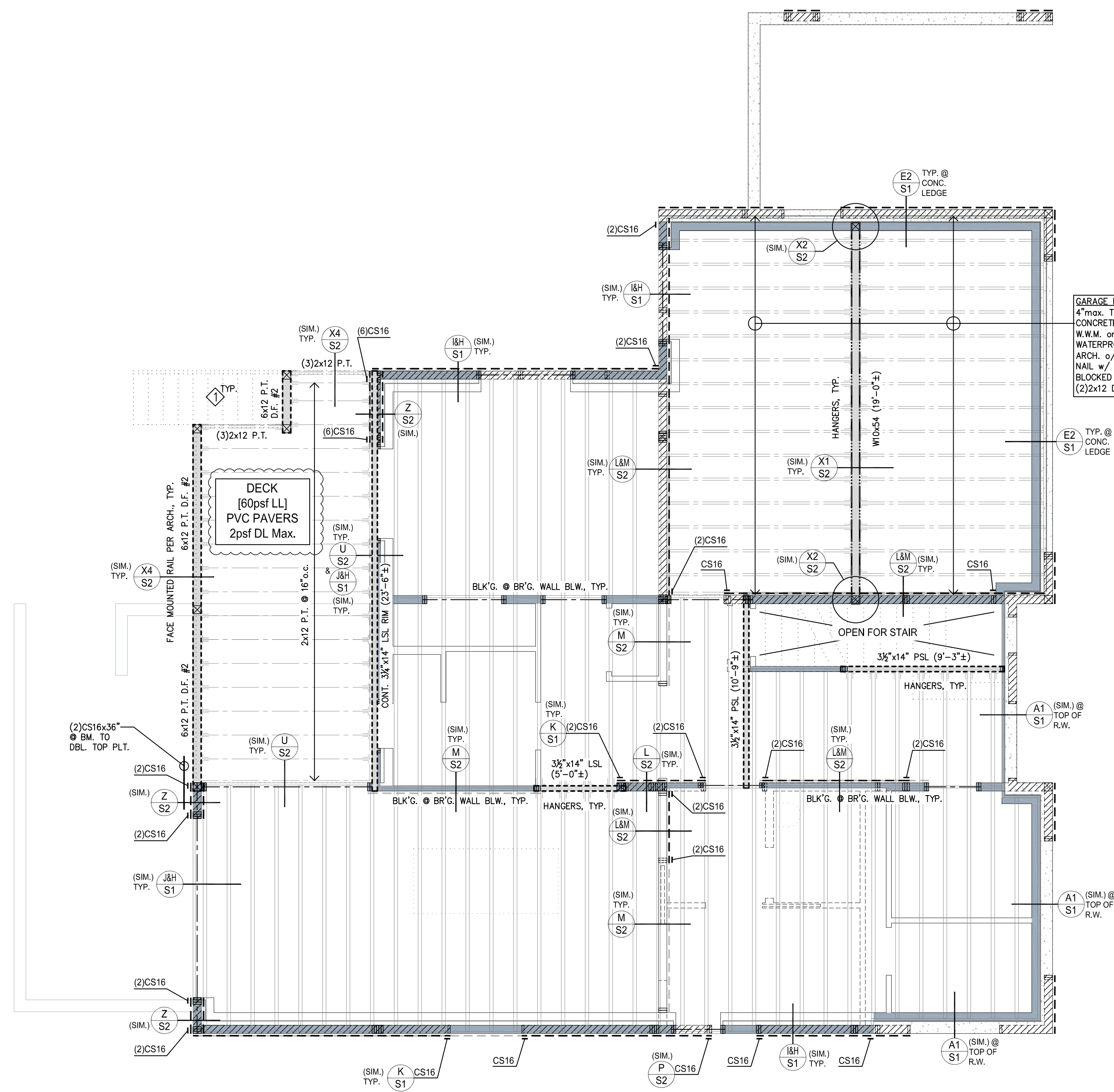
FLOOR PLAN CONSTRUCTION NOTES:
 ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.)
 USE (2)2x H.F. #2 TRIMMERS @ ALL HEADERS (U.N.O.)
 USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)
 SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE
 SEE ALSO ARCHITECTURAL PLANS

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basement floor plan
 SCALE: 1/4" = 1'-0"



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GARAGE FLOOR CONSTRUCTION:
 4" max. TO 2 1/2" min. REGULAR WEIGHT CONCRETE (4,000psi) w/ 6x6-10x10 W.W.M. or POLY FIBER-MESH o/ WATERPROOFING MEMBRANE PER ARCH. o/ 1 1/2" PLYWOOD 2-4-1 & NAIL w/ 10d @ 4"o.c. @ ALL BLOCKED EDGES & 6"o.c. FIELD. o/ (2)2x12 D.F. #1 JOISTS @ 16"o.c.

IMPORTANT NOTES:
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 SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

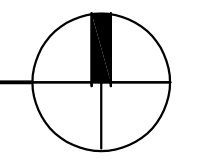
KEYNOTES
 2x12 H.F. #2 STRINGERS @ 12"o.c.

TYPICAL FLOOR DESIGN (BY MFG.) NOTE:
 LL=40psf w/ L/600 Deflection
 LL=60psf @ DECK w/ L/600 Deflection
 DL=15psf w/ L/480 Total Load Deflection

- DENOTES POINT LOAD FROM ABV.
- DENOTES FLUSH BEAM AS NOTED PER FLOOR FRAMING PLAN
- ▬ DENOTES FLUSH STEEL BEAM AS NOTED PER FLOOR FRAMING PLAN
- ▬ DENOTES BEARING WALL BLW. (EXTERIOR BEARING WALLS ASSUMED)
- ▬ DENOTES BEARING WALL ABV. (EXTERIOR BEARING WALLS ASSUMED)

FLOOR FRAMING CONSTRUCTION NOTES:
 14" 230 TJI's @ 16"o.c. TYPICAL FLOOR JOISTS (U.N.O.)
 ALL FLOOR JOISTS TO BE BLOCKED @ BEARING
 SEE FLOOR PLAN (BELOW) FOR HEADER SIZES (U.N.O.)
 USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)

main floor framing plan
 SCALE: 1/4" = 1'-0"



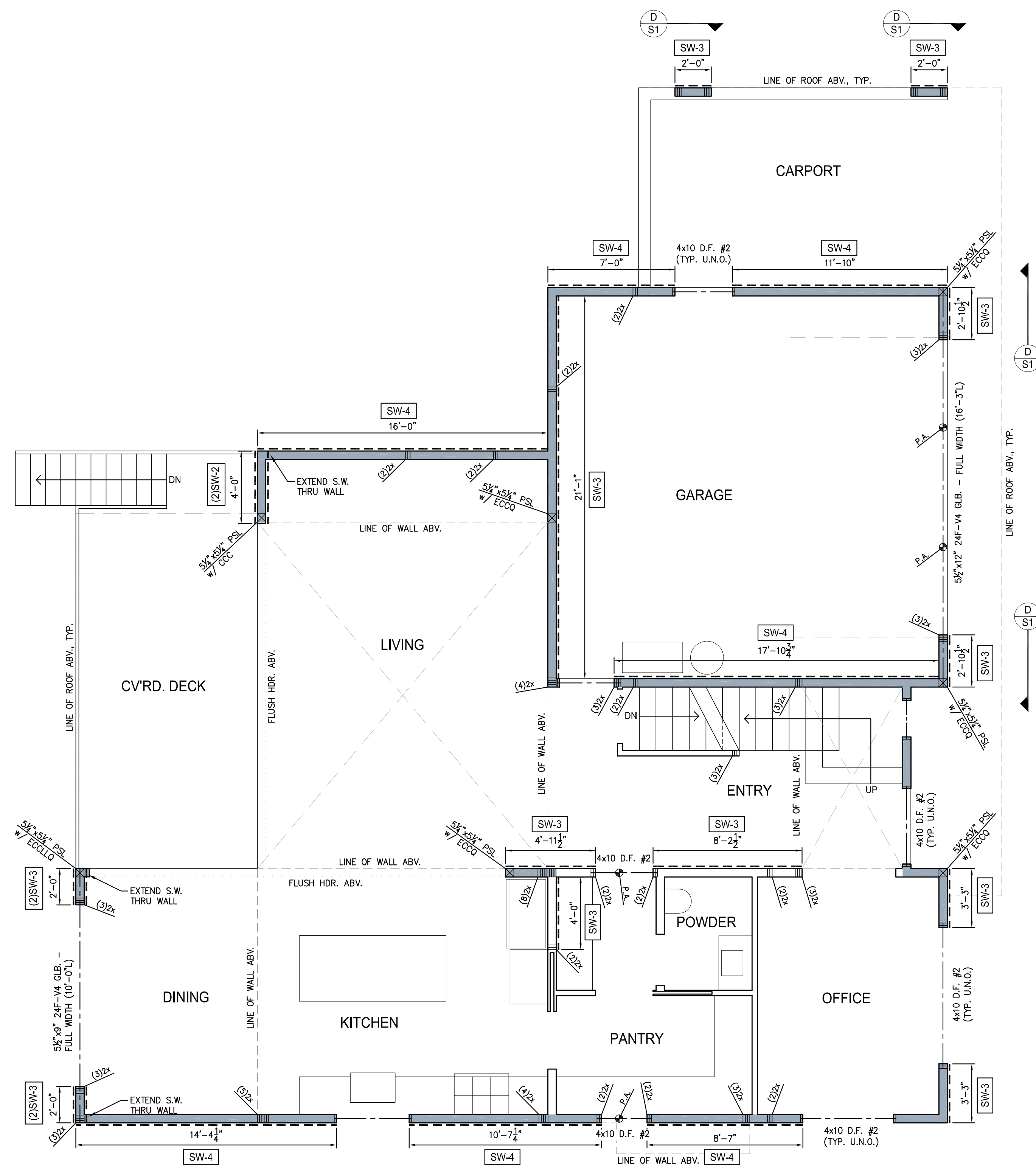
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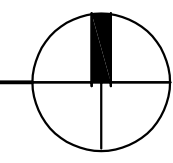


IMPORTANT NOTES:
 SEE ARCHITECTURAL PLANS FOR ALL DIMENSIONS & VERIFY WITH STRUCTURAL PLANS
 SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

- DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

FLOOR PLAN CONSTRUCTION NOTES:
 ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.)
 USE (2)2x H.F. #2 TRIMMERS @ ALL HEADERS (U.N.O.)
 USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)
 SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE
 SEE ALSO ARCHITECTURAL PLANS

main floor plan
 SCALE: 1/4" = 1'-0"

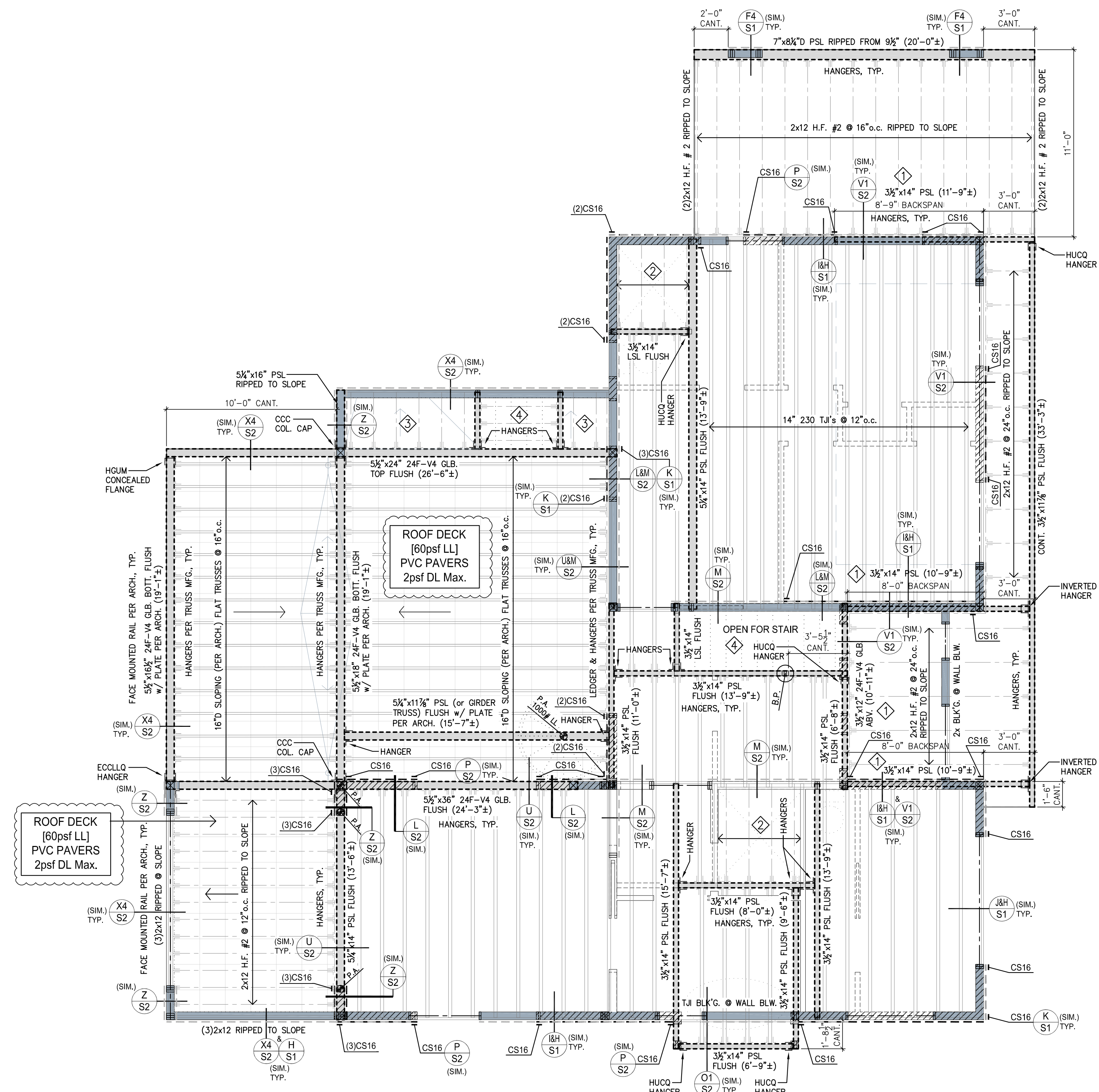


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IMPORTANT NOTES:
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 SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

HANGER SCHEDULE (U.N.O.)

BEAM	SIMPSON HANGER	BEAM	SIMPSON HANGER
3 1/2" x HGUS	6 3/4" x HHGU	5 1/4" x HGUS	7" x HGUS
5 1/2" x HHGU			

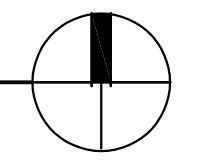
- KEYNOTES**
- 1 FULL SPAN BEAM ABOVE. FRAMED INTO STUD WALL FRAMING BOTTOM FLUSH w/ MAIN FLOOR ROOF FRAMING PER ARCH.
 - 2 2x8min. H.F. #2 @ 16" o.c. w/ HANGERS @ CURBLESS SHOWER
 - 3 2x12min. H.F. #2 @ 16" o.c. RIPPED TO SLOPE PER ARCH. w/ HANGERS
 - 4 2x12 H.F. #2 STRINGERS @ 12" o.c.

TYPICAL FLOOR DESIGN (BY MFG.) NOTE:
 LL=40psf w/ L/600 Deflection
 LL=60psf @ DECK w/ L/600 Deflection
 DL=15psf w/ L/480 Total Load Deflection

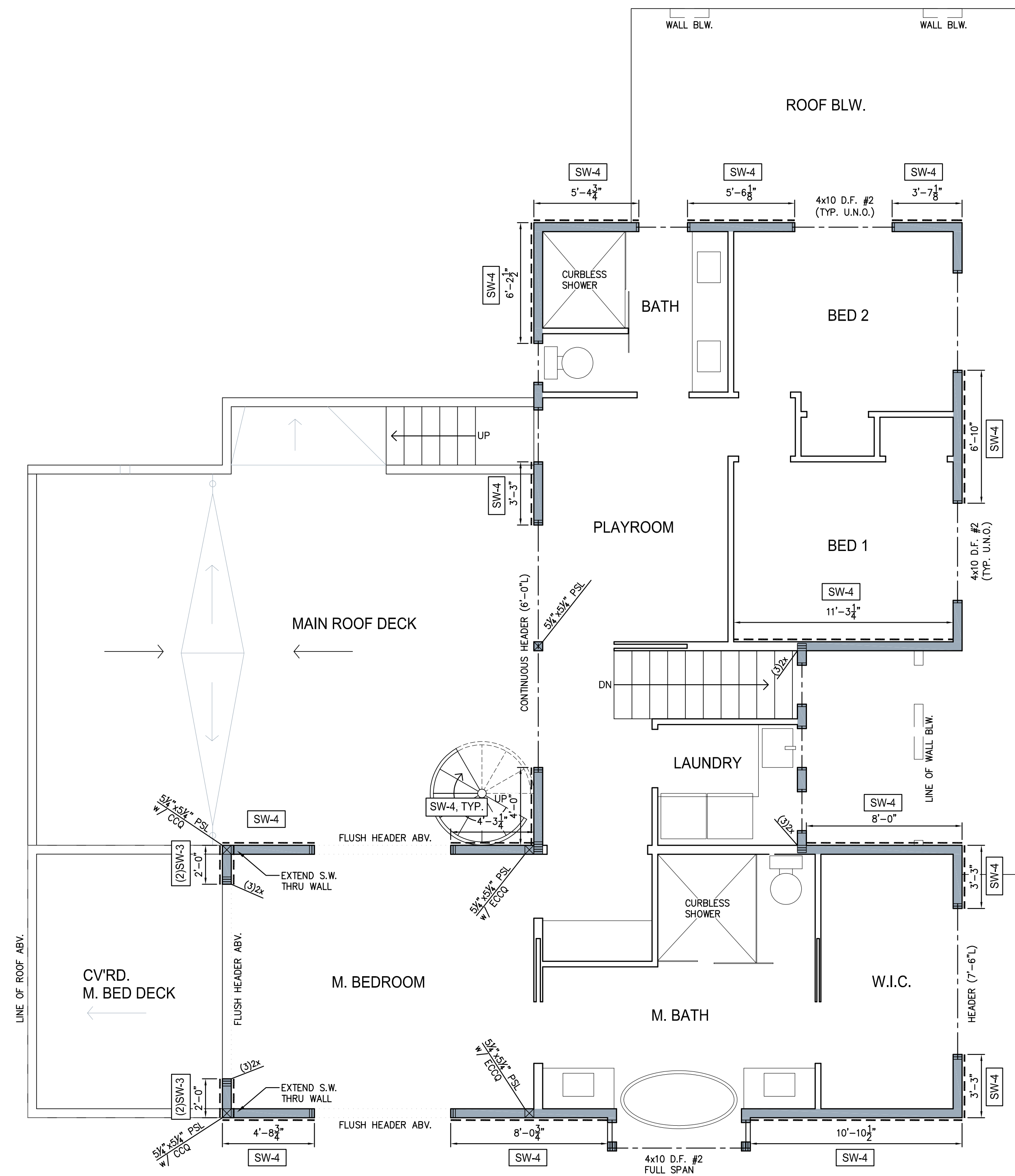
- DENOTES POINT LOAD FROM ABV.
- DENOTES FLUSH BEAM AS NOTED PER FLOOR FRAMING PLAN
- ▬ DENOTES BEARING WALL BLW. (EXTERIOR BEARING WALLS ASSUMED)
- ////// DENOTES BEARING WALL ABV. (EXTERIOR BEARING WALLS ASSUMED)

FLOOR FRAMING CONSTRUCTION NOTES:
 14" 230 TJI's @ 16" o.c. TYPICAL FLOOR JOISTS (U.N.O.)
 ALL FLOOR JOISTS TO BE BLOCKED @ BEARING
 SEE FLOOR PLAN (BELOW) FOR HEADER SIZES (U.N.O.)
 USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)



upper floor framing plan
 SCALE: 1/4" = 1'-0"



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 Drawn By: JTB
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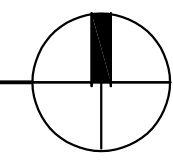


IMPORTANT NOTES:
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 SEE ARCHITECTURAL PLANS TO CONFIRM ALL ROOF SLOPES AND PLATE HEIGHTS.

 - DENOTES POINT LOAD FROM ABV.
 - DENOTES BEARING WALL (EXTERIOR BEARING WALLS ASSUMED)

FLOOR PLAN CONSTRUCTION NOTES:
 ALL HEADERS SHALL BE 4x10 D.F. #2 (U.N.O.)
 ALL HEADER SPANS 4'-0" OR LESS:
 USE (1)2x H.F. #2 TRIMMER EACH END (U.N.O.)
 ALL HEADER SPANS GREATER THAN 4'-0":
 USE (2)2x H.F. #2 TRIMMERS EACH END (U.N.O.)
 USE (2)2x H.F. #2 STUDS @ ALL BEAMS (U.N.O.)
 SEE ENGINEERING 'S' SHEETS FOR SHEARWALL SCHEDULE
 SEE ALSO ARCHITECTURAL PLANS

upper floor plan
 SCALE: 1/4" = 1'-0"



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TREE PROTECTION AREA (TPZ)

KEEP OUT!

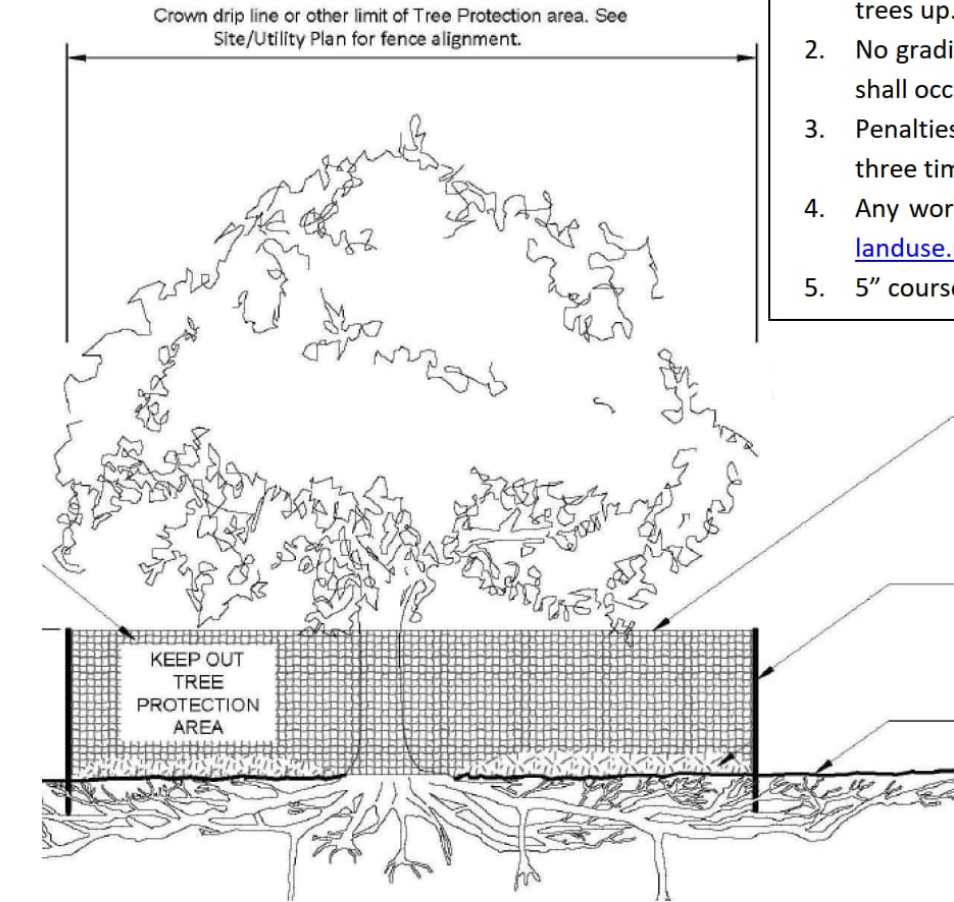
DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees/financial penalties
3. Arborist reports recommending mitigation

Notes

1. No pruning shall be performed unless under the direction of the Project Arborist. Including limbing trees up.
2. No grading, excavation, storage (materials, equipment, vehicles, etc.), or other unpermitted activity shall occur inside the protective fencing.
3. Penalties for damaging by root damage/compaction or removing a saved tree may be a fine up to three times the value of the tree plus restoration (MICC 19.10.160).
4. Any work in approved TPZ must be with the permission of the Land Use and Planning Division at landuse.planning@mercergov.org
5. 5" course woodchips within the tree protection zone, but not against the tree trunk.

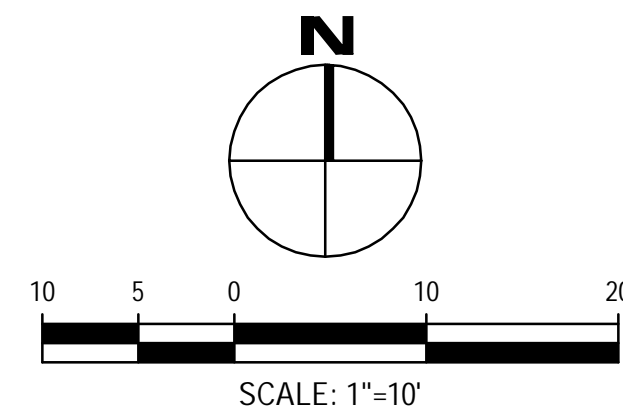


Tree protection fence: 4-6" chain link fence, solidly anchored into the ground, or if authorized High-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

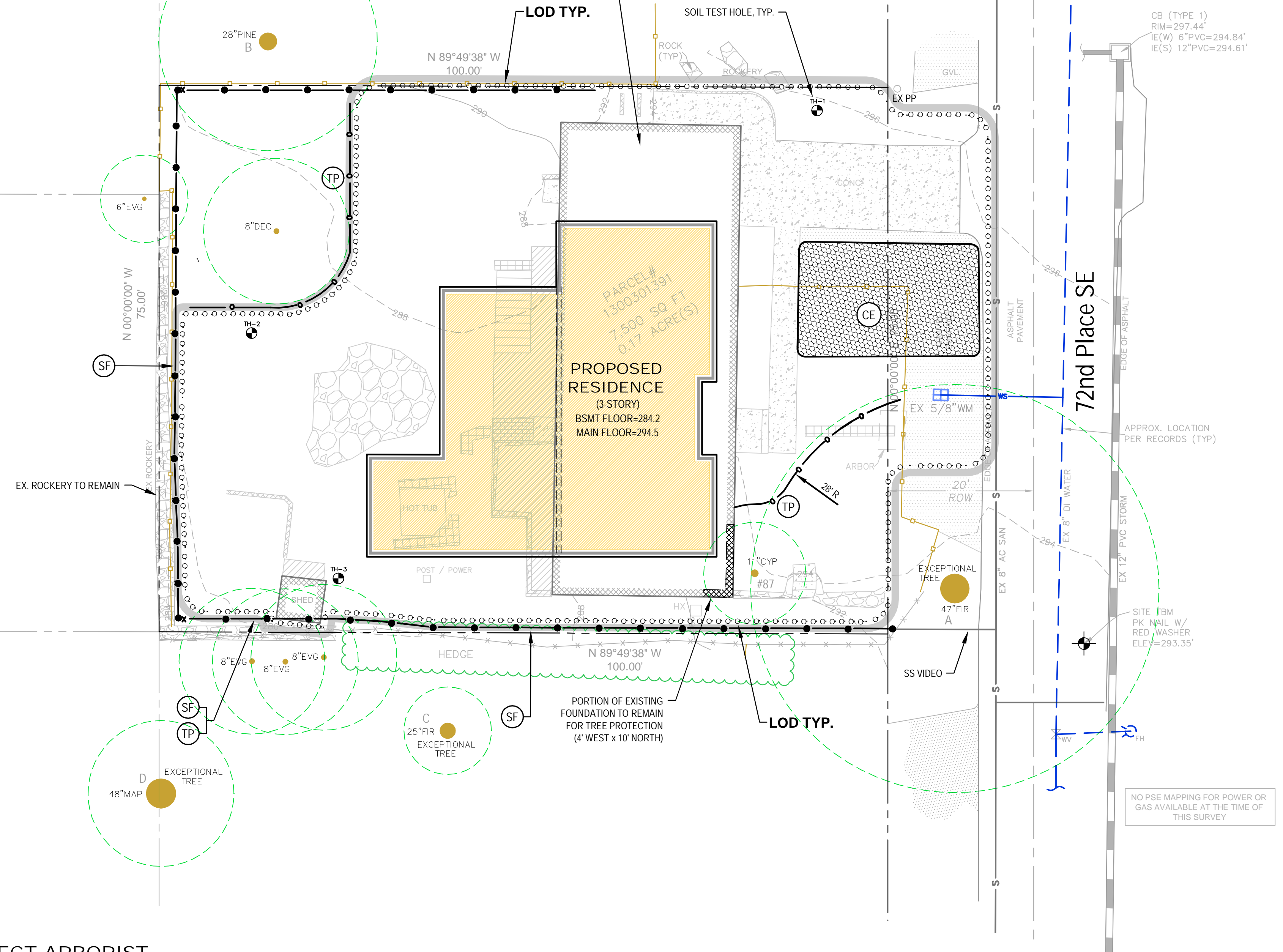
2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indication on the plans

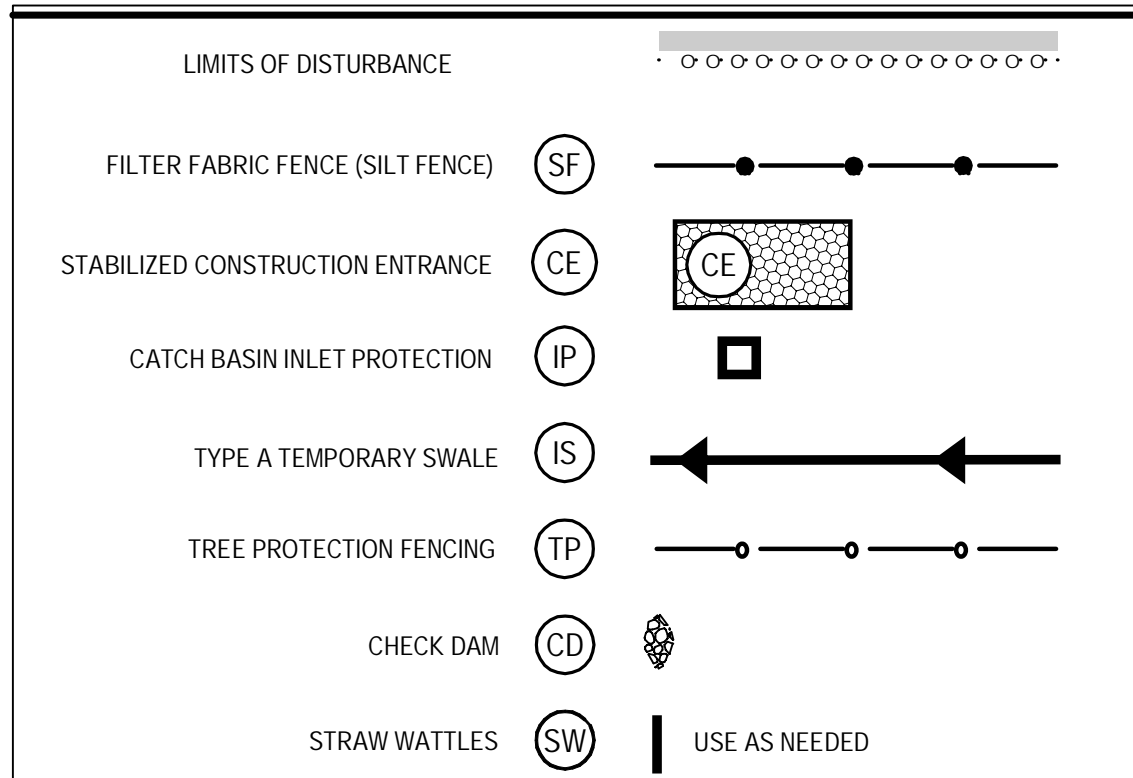
Any Work in the protected area must be with the permission of the Land Use and Planning Division at landuse.planning@mercergov.org



DEMO (E) HOUSE & APPURTANCES
SEPARATE PERMIT REQ. -



EROSION CONTROL LEGEND



SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

LEGAL DESCRIPTION

(PER PERSONAL REPRESENTATIVE'S DEED REC. NO. 20190510000378)

THE SOUTH HALF OF LOT 8, AND ALL OF LOTS 9 AND 10, BLOCK 5, C.C. CALKINS 1ST ADDITION TO EAST SEATTLE, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 4 OF PLATS, PAGE 88, IN KING COUNTY, WASHINGTON.

PROJECT ARBORIST TREE PROTECTION RECOMMENDATIONS

1. OBTAIN ALL NECESSARY PERMITS AND APPROVAL FROM THE CITY PRIOR TO COMMENCEMENT OF SITE WORK.
2. UPDATE SITE PLANS TO INCLUDE LIMITS OF DISTURBANCE.
3. TREE PROTECTION CONSISTING OF CHAIN-LINK FENCING SHOULD BE INSTALLED AT THE RLOD LISTED IN THE TABLE OF TREES (SEE ARBORIST REPORT).
4. ADD A 4" LAYER OF COARSE ARBORIST WOODCHIPS THROUGHOUT THE TREE PROTECTION AREA. KEEP WOODCHIPS ONE FOOT FROM THE TRUNK OF THE TREE.
5. ALL TREE RETENTION AND REMOVAL REGULATIONS MUST BE FOLLOWED. ANY PRUNING OF TREES ON PRIVATE PROPERTY MUST BE CONDUCTED BY AN ISA CERTIFIED ARBORIST TO THE STANDARDS OUTLINED IN THE ANSI A300 STANDARDS.
6. ENSURE TREE PROTECTION STANDARDS COMPLY WITH CITY CODE AND ISA BEST MANAGEMENT PRACTICES, MANAGING TREES DURING CONSTRUCTION.

ORGANIC SOIL REQUIREMENT

MINIMUM 10% ORGANIC MULCH & COMPOST SOIL REQUIRED

SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

PROJECT ARBORIST

Tree #	Common Name	Scientific Name	*DSH	**CRZ	N	E	S	W	Dripline Avg Radius	***RLOD (TPZ)	Condition	Comments	Proposal	Exceptional
87	Sawara cypress	<i>Chamaecyparis pisifera</i>	11.4	11	9	7	8	6	7	7	good	MS:7x9	retain	no
A	Douglas-fir	<i>Pseudotsuga menziesii</i>	47	47	25	27	27	24	28	28	good		n/a	yes
B	Ponderosa pine	<i>Pinus ponderosa</i>	28	28				15	15	15	good		n/a	no
C	Douglas-fir	<i>Pseudotsuga menziesii</i>	25	25	6				6	6	good		n/a	yes
D	Big leaf maple	<i>Acer macrophyllum</i>	48	48	10				10	10	good		n/a	yes

Tree ID is numerical if on-site and alphabetical if off-site.

*Diameter at Standard Height (inches).

**Critical Root Zone (from ISA BMP), radial feet.

***Recommended Limit of Disturbance, Tree Protection Zone or Average Dripline Radius (feet).

NO.	DATE	BY	REVISIONS

APPLICANT:
ARTOUSH FANIYAN
ARTOUSH CONSTRUCTION AND REMODELING
13101 NE 50th STREET
BELLEVUE, WA
(425) 890-9995

DATE: Mar 05, 2026
JOB#: 2126
DRAFTED: SS DESIGN: SS
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS

908 NW 51st STREET
206 930 0342

SEATTLE, WA 98107
DUFFY@CESOLUTIONS.WA

**TESC PLAN
TREE RETENTION PLAN**

PROPOSED RESIDENCE
3427 72nd PLACE SE, MERCER ISLAND, WA 98040

#2510-046

DRAWING NO:
C1.0

APN 130030-1391
2510-046

MINIMUM 10% ORGANIC - COMPOST & MULCH SOIL REQUIRED

SANITARY SEWER IMPROVEMENTS

- 1 -
- 2 - 6" SDR 35 PVC SANITARY SEWER(SS) @ MIN 1.0 %
- 3 -
- 4 -
- 7 - LOCATE AND VIDEO CONDITION OF EXISTING SANITARY SIDE SEWER. REPLACE LINE IF FOUND DEFECTIVE AS DETERMINED BY CITY INSPECTOR.

WATER IMPROVEMENTS

- 10 -
- 11 - 1.5" 250 PSI PRIVATE HDPE WATER (ASTM D2239) FROM METER TO HOUSE. RECOMMENDED DEPTH=36". COORDINATE HOUSE ENTRY WITH BUILDER/OWNER.
- 12 -
- 14 -

STORM DRAIN PIPE KEY NOTES

- 20 - 4" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE. USE HDPE DUAL WALL OR EQUIVALENT WHEN PIPE COVER <24" IN PAVED AREAS.
- 21 - 4" FOUNDATION DRAIN (3034 PVC) @ MIN 1 % GRADE
- 22 - 6" STORM DRAIN (3034 PVC) @ MIN 2 % GRADE. USE HDPE DUAL WALL OR EQUIVALENT WHEN PIPE COVER <24" IN PAVED AREAS.
- 23 -
- 24 -
- 25 - STORM DRAIN FORCE MAIN @ MIN. 30" DEPTH. SEE PLAN FOR DIAMETER. SUITABLE PIPE OPTIONS INCLUDE SIDR-7 PE 250 PSI OR EQUAL.

STORM STRUCTURE KEY NOTES

- 30 -
- 31 -
- 32 -
- 33 -
- 34 -
- 35 - PRIVATE 18" YARD DRAIN (OR EQUAL) WITH SOLID LID
- 36 - 6" WIDE NDS DURASLOPE CHANNEL DRAIN KIT OR EQUAL. CLASS B VEHICLE RATED GRATE.
- 37 - PRIVATE STORM CLEANOUT. PROVIDE PROTECTIVE COVER IF WARRANTED.
- 39 - SADDLE-TEE CONNECTION: ROMAC CB SEWER SADDLE (OR EQUAL)
- 40 - TYPE 40 PRIVATE CATCH BASIN OR EQUAL. PROVIDE RISOR WITH TURNED-DOWN ELBOW FOR IMPROVED WATER QUALITY FUNCTION.
- 41 -
- 43 - 30" ID DUPLEX STORM PUMP STRUCTURE. SOLID LID. SEE PROFILE C4.0 FOR DEPTH CALCULATION. SEE PUMP CYCLE. SEE PUMP SPECS ON SHEET C5.0
- 46 - PUMPS: DUPLEX 1/3 HP STORM PUMPS PLACED IN MINIMUM 30 INCH DIA PUMP BASIN. SEE 5.0 FOR PUMP CALCULATIONS & SPECIFICATIONS. COORDINATE PUMP PACKAGE, RAILS, HARDWARE, T22 CONTROLLER ETC WITH FOWLER PUMP OR EQUAL.
- 47 -
- 48 -

STORM BMP's

50 - COMPOST AMENDED SOIL TO ALL DISTURBED AREAS (SEE DETAIL SHEET C3.5). TILL 2-3" OF COMPOST INTO UPPER 8" OF SOIL. LOOSEN COMPACTED SUBSOIL. IF NEEDED BY RIPPING TO 12" DEPTH. MULCH LANDSCAPE BEDS AFTER PLANTING.

- 51 -
- 52 -
- 53 -
- 54 -
- 55 -
- 56 -
- 57 -
- 58 -

SOILS

SEE AUGUST 2025 REPORT BY GEOTECH CONSULTANTS, INC. SOIL IS GLACIAL TILL INFILTRATION AND DISPERSION ARE NOT RECOMMENDED

SURVEYOR

TOPOGRAPHIC SURVEY BY:
TERRANE
11235 SE 6th STREET, SUITE 130
BELLEVUE, WA 98004
PHONE 425-458-4488
info@terrane.net

VERTICAL DATUM

NAVD 88 PER WGS SURVEY DATA WAREHOUSE 6457
SEE SURVEY

LEGAL DESCRIPTION

SEE C1.0

SOIL AMENDMENT REQUIRED

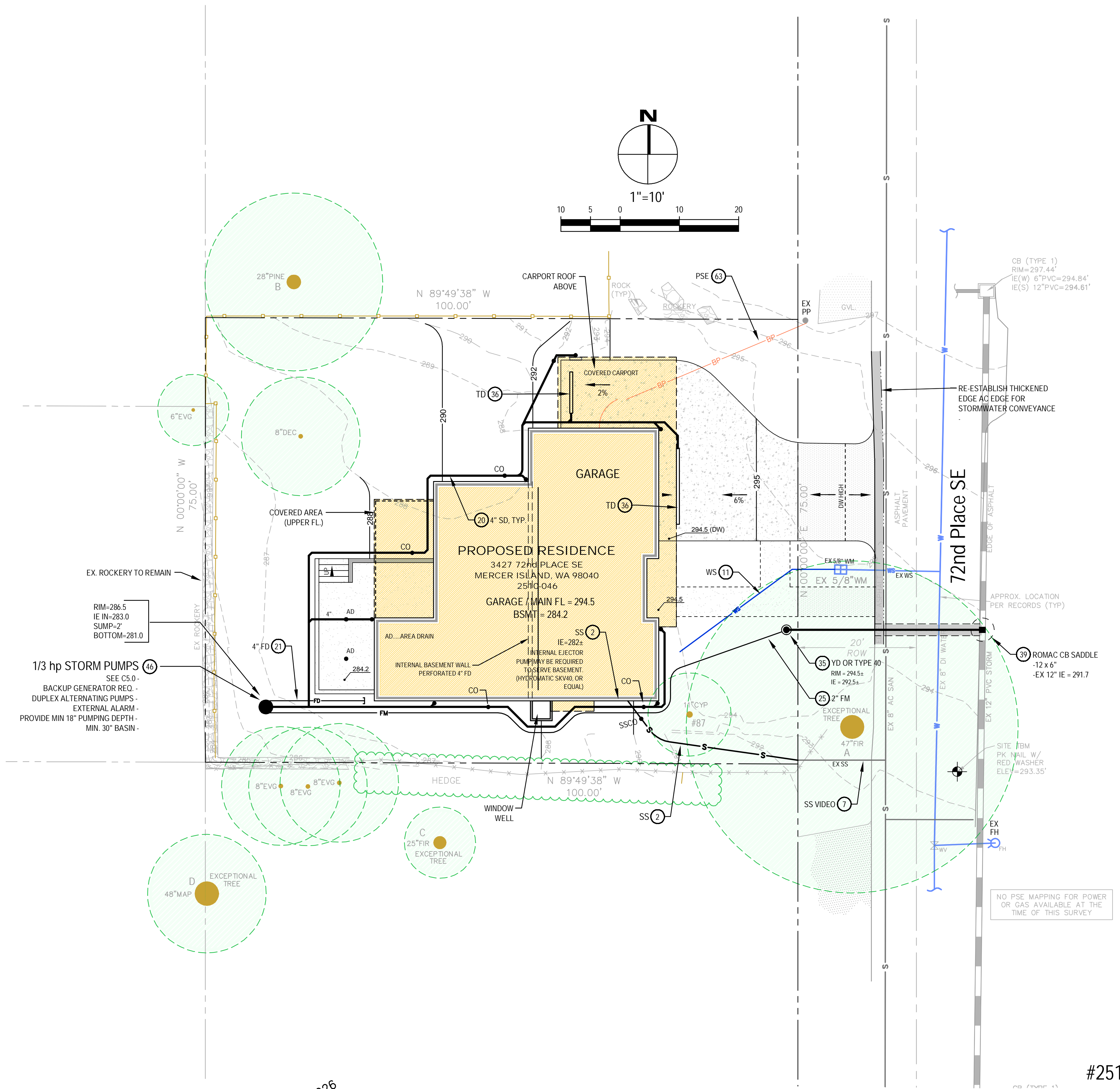
COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL ON C3.5.

SOIL CERTIFICATION REQUIRED

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL PERMIT & CERT. OF OCCUPANCY SIGN-OFF BY CITY.

CRITICAL AREA NOTE

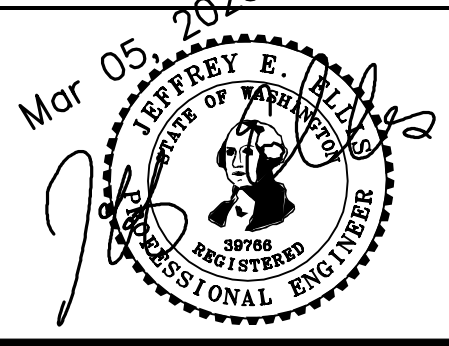
SITE HAS MAPPED LANDSLIDE AND EROSION HAZARD
SEE GEOTECH REPORT BY GEOTECH CONSULTANTS, INC. FOR DISCUSSION OF BOTH



NO.	DATE	BY	REVISIONS

APPLICANT:
ARTOUSH FANAIYAN
ARTOUSH CONSTRUCTION AND REMODELING
13101 NE 50th STREET
BELLEVUE, WA
(425) 890-9995

DATE: Mar 05, 2026
JOB#: 2126
DRAFTED: DE DESIGN: DE
DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
908 NW 51st STREET SEATTLE, WA 98107
206.930.0342 DUFFY@CESOLUTIONS.WA

DRAINAGE / CIVIL PLAN
PROPOSED RESIDENCE
3427 72nd PLACE SE, MERCER ISLAND, WA 98040

#2510-046
DRAWING NO:
C2.0
APN 130030-1391
2510-046

MINIMUM 10% ORGANIC - COMPOST SOIL REQUIRED

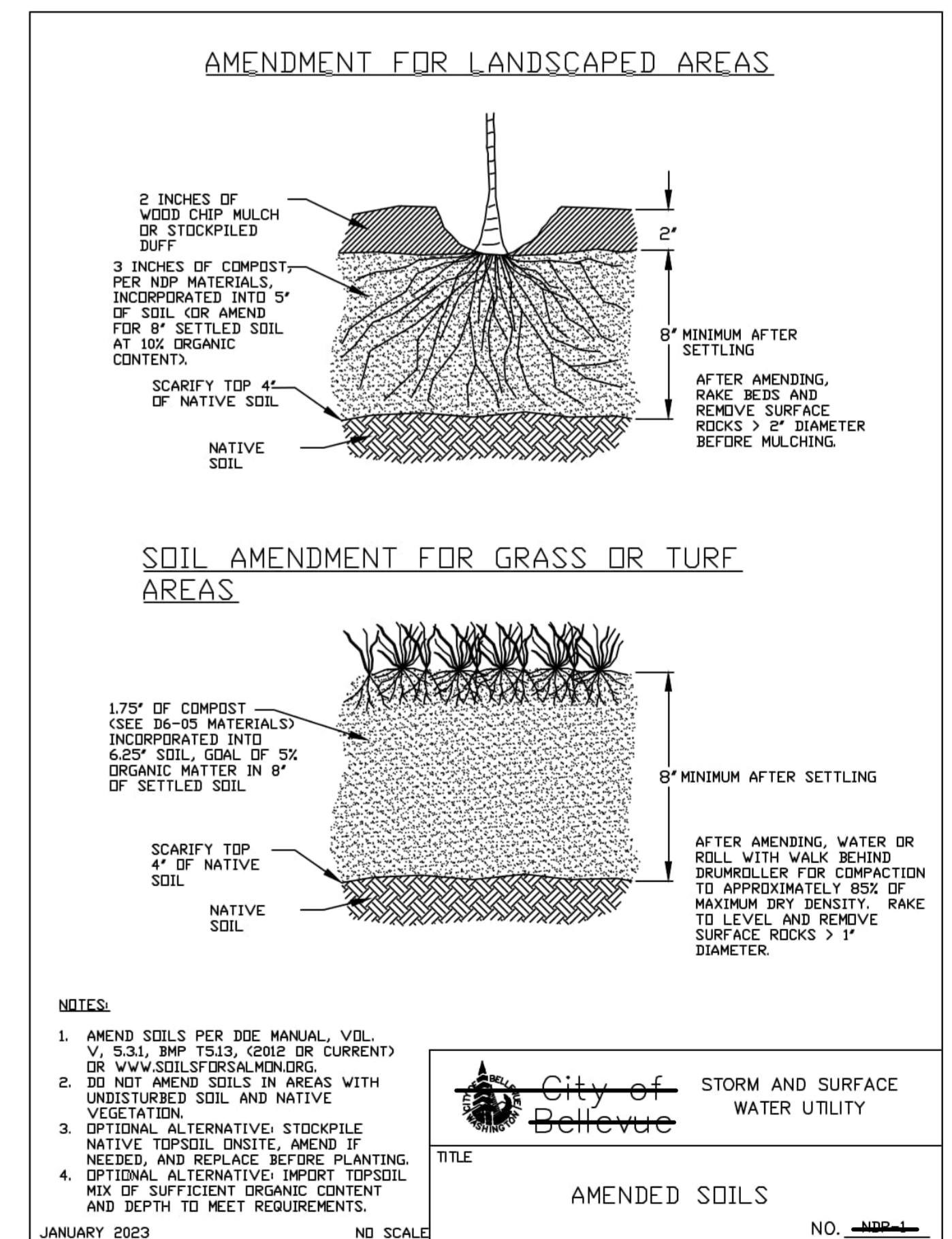
SOIL AMENDMENT REQUIRED

COMPOST AMENDED SOIL REQUIRED ON ALL LANDSCAPED AREAS AFTER CONSTRUCTION. SEE DETAIL BELOW.

SOIL INSPECTION REQUIRED BY ENGINEER

A POST CONSTRUCTION INSPECTION & CERTIFICATION OF AMENDED SOILS IS REQUIRED BY A LICENSED CIVIL ENGINEER. THIS IS REQUIRED BEFORE FINAL SIGN-OFF BY CITY.

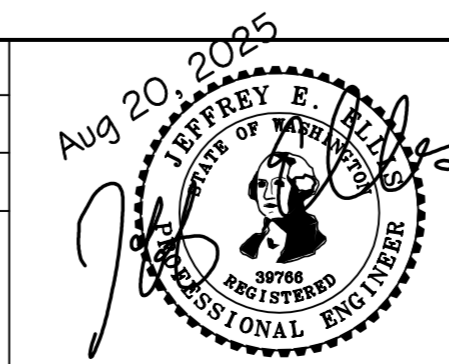
COMPOST AMENDED SOIL SPEC



NO.	DATE	BY	REVISIONS

APPLICANT:
 ARTOUSH FANAIYAN
 ARTOUSH CONSTRUCTION AND REMODELING
 13101 NE 50th STREET
 BELLEVUE, WA
 (425) 890-9995

DATE: Aug 20, 2025
 JOB# 2126
 DRAFTED: SS DESIGN: SS
 DIGITAL SIGNATURE



CIVIL ENGINEERING SOLUTIONS
 701 N 36TH STREET SEATTLE, WA 98103
 206.930.0342 DUFFY@CESOLUTIONS.WA

BMP DETAILS
 PROPOSED RESIDENCE
 3427 72nd PLACE SE, MERCER ISLAND, WA 98040

DRAWING NO:
C3.5
 APN 130030-1391

MODEL 122 CONTROL PANEL CUT SHEET (OR EQUAL)

MODEL 122 CONTROL PANEL

The Model 122 control panel is designed to alternately control two 120, 208, or 240 VAC single phase pumps in water and sewage installations. The controller is provided with a pump selector switch that can be set to alternate the pumps to equalize wear or to call either pump to activate first with the other pump to activate in lag condition. If an alarm occurs, the alarm activates the audible-visual system. The alarm conditions include: high water, float out-of-sequence, pump fail-to-run, seal failure (optional). Common applications include lift stations, pump chambers, and irrigation systems.

MODEL 122

ALARM PACKAGE
 0 = select options or no alarm package
 1 = alarm package (includes test/normal/silence switch, fuse, red light, 9 horn)

ENCLOSURE RATING
 I = indoor, NEMA 1 (metal)
 W = Weatherproof, NEMA 4X (engineered thermoplastic)

STARTING DEVICE
 1 = magnetic motor contactor 120/208/240V
 9 = magnetic motor contactor 120V only

PUMP FULL LOAD AMPS
 0 = 0.7 FLA
 1 = 7.5 FLA
 2 = 15.20 FLA
 3 = 20.30 FLA

PUMP DISCONNECTS
 0 = no pump disconnect
 4 = circuit breaker 120V (select STARTING DEVICE option 9 above)
 120/208/240V (select STARTING DEVICE option 1 above)

FLOAT SWITCH APPLICATION
 H or L = pump down or pump up (select 17 option)
 E = EZzone™ float switch system (select 34 or 35 option)
 X = no floats

OPTIONS Listed below

ENCLOSURE UPSIZE - If you selected one or more of the options.

CODE	DESCRIPTION	CODE	DESCRIPTION
1A	Red beacon only / no audio	16A	90' cord in lieu of 20' (per float)
1B	Non only / no audio	16B	90' cord in lieu of 20' (per float)
1C	Non only / no audio (must select 10' for alarm package)	16C	30' cord in lieu of 20' (per float)
1D	Non only / no audio (must select 10' for alarm package)	16D	40' cord in lieu of 20' (per float)
1E	Alarm Beacon (factory programmed)	17C	Sensor Float / externally weighted ▲ (per float)
1F	Manual alarm reset (factory programmed)	17D	Sensor Float / externally weighted ▲ (per float)
1G	Redundant off float	17E	Sensor Float / Min / pipe clamp ▲ (per float)
1H	Redundant off float (select Option 4D if floats included)	17F	Sensor Float / Min / externally weighted ▲ (per float)
1I	Redundant off float (for pumps w/thermal switch leads)	17G	S.E. MillAmpMaster™ pipe clamp ● (per float)
1J	Redundant off float (must select Option 4A)	17H	S.E. MillAmpMaster™ externally weighted ● (per float)
1K	Thermal cutout/heat sensor auto reset (for pumps w/thermal switch leads)	17I	Sensor Float / pipe clamp ▲ (per float)
1L	Shut failure circuit & red indicator (2' wire)	18B	Lead leg selector switch (included as standard)
1M	Auxiliary alarm contact, Form C (included as standard)	18C	Lead leg selector switch (included as standard)
1N	Elapsed time meter	18D	Fourth float to separate alarm function from lag
1O	Event cycle counter	18E	HDA (Hand/Off/Automatic) switches and pump run lights through door mounted
1P	Pump overheat (specify amperage after number 9 followed by letter "A". Example: 90A = 12 amp pump)	18F	Door mounted pump run indicators
1Q	0.25 FLA	18G	EZzone™ 4-Port, 25, w/70 floats (3) (pipe clamp, sealing plug) *
1R	20.30 FLA	18H	EZzone™ 4-Port, 25, w/70 floats (4) (pipe clamp, sealing plug) *
1S	Lockable latch - NEMA 4X (included as standard)	18I	EZzone™ 4-Port, 50, w/20' floats (3) (pipe clamp, sealing plug) *
1T	Lockable latch - NEMA 1	18J	EZzone™ 4-Port, 50, w/20' floats (4) (pipe clamp, sealing plug) *
1U	Lighting arrester (wired pump circuit breaker)	18K	EZzone™ 4-Port, 25, w/70 floats (4) (pipe clamp) *
1V	Anti-condensation heater	18L	EZzone™ 4-Port, 50, w/70 floats (4) (pipe clamp) *
1W	NEMA 1 alarm panel	18M	EZzone™ 4-Port, 25, w/70 floats (4) (pipe clamp) *
1X	NEMA 4X alarm panel	18N	EZzone™ 4-Port, 50, w/20' floats (4) (pipe clamp) *
1Y	Main disconnect (factory style, mounted through door, non-fused, padlockable in the OFF position, door interlock in the ON position) (must select circuit breaker)		
1Z	0.20 FLA (total of both pumps)		
2A	0.20 FLA (total of both pumps)		
2B	20.30 FLA (total of both pumps)		

● Mechanically activated ▲ Mercury activated
 * EZzone™ mechanically activated, narrow angle float switches with quick release connections.

8. B.10

STORM PUMP SPEC (LIBERTY FL31M OR EQUAL)

FL30-SERIES
Effluent Pumps

Liberty Pumps
A Family and Employee Owned Company

FL30-Series

Impeller
Vortex style high temperature polymer

Paint
Powder coat

Max Fluid Temperature
140°F (60°C)

Motor
Class A windings, oil-filled, thermally protected

Power Cord Type
SJTW, Quick-connect 10' standard length (25, 35, or 50' lengths optional)

Motor Housing
Class 25 cast iron

Volute
Class 25 cast iron

Dimensional Data
Weight: FL31M: 52 lbs
Height: 9.6"
Major Width: 9.8" (manual model)

Shaft
Stainless housing and Buna-N elastomers

Hardware
Stainless

Mechanical Shaft Seal
Unitized ceramic carbon

Bearings
Upper and lower ball bearings

Float Switch (automatic models)
Wide-angle float switch with piggyback plug

Performance Curve
60 Hz, 1725 RPM

MODEL	HP	VOLTS	PHASE	AMPS	DISCHARGE	AUTOMATIC	IMPELLER
FL31M	1/3	115	1	10.5	1-1/2" FNPT	No	Vortex
FL31A	1/3	115	1	10.5	1-1/2" FNPT	Yes	Vortex
FL32M	1/3	208-230	1	5.5	1-1/2" FNPT	No	Vortex
FL32A	1/3	208-230	1	5.5	1-1/2" FNPT	Yes	Vortex

10' cord standard on above models, 25, 35, and 50' cord lengths available (50' cord not available on automatic models). Add "2", "3", and "5" suffix to model number. Example: FL31A-2 for 25' cord.

Specifications subject to change without notice.
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Liberty Pumps - 7000 Apple Tree Avenue - Bergen, New York, 14416
 Phone 800-543-2550 - Fax 585-494-1839 - LibertyPumps.com

(BASED ON 30 INCH DIAMETER BASIN)
PUMPING DEPTH CYCLE CALC

Storm Pump-Float Depth / Pump Interval Calculator
7/18/2025

Value	Units	Comments
Input Pump Basin Diameter (feet)=	2.5 feet	recommended basin diameter for duplex pumps
Calculate pump basin radius=	1.3 feet	
Calculate cross section Area of basin=	4.91 sf	
Input a pump depth to achieve 2 min run time=	1.5 feet	Input pump depth here
Calculate volume of water per pump cycle=	7.4 cf	
Convert volume to gallons	55.1 gallons	convert to gallons pumped
Input pump rate based on pump curve and TDH	28 gpm	
Calculate time for pump to operate per cycle	2.0 minutes	ensure time is minimum 2 minutes

TOTAL DYNAMIC HEAD CALCULATOR

Pump Flow Rate	Pipe Diameter(ID)	Pipe Length	Differential Elevation	Pipe Material	Total Dynamic Head(TDH)
US GPM ▼	in. ▼	ft. ▼	ft. ▼	Plastic ▼	ft. ▼
18	2	90	14		14.637904463053985

Compute Total Dynamic Head(TDH) [] Reset []

BASED ON 2 INCH DIAMETER FORCE MAIN SIZE

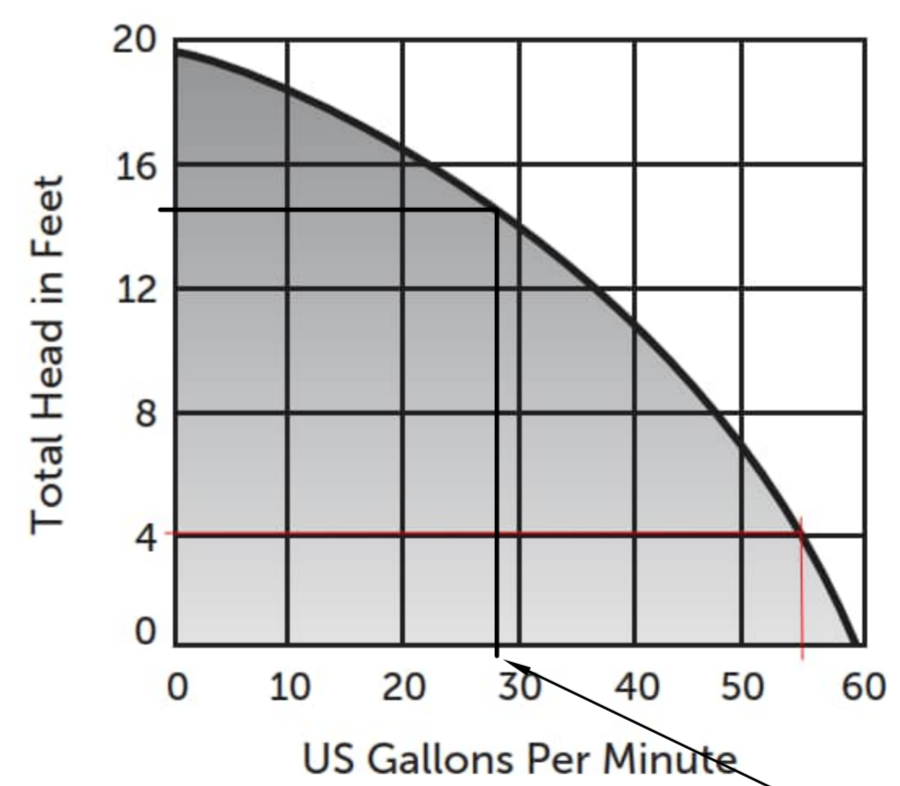
PUMP DESIGN HYDROLOGY

Peak Flow Rates in Puget Sound
100 year, 24 hour storm event
I=4.0 inches/24 hours per isopluvials

Impervious Area	Acres	SBUH		SBUH		WVHM		Average gpm
		(CFS)	(GPM)	(CFS)	(GPM)	(cfs)	gpm	
1,000	0.023	0.02	9	0.023	10	0.0178	7.9	9
2,000	0.046	0.041	18	0.045	20	0.0356	15.8	18
3,000	0.069	0.062	28	0.067	30	0.0534	23.8	27
4,000	0.092	0.082	36	0.09	40	0.0712	31.7	36
5,000	0.115	0.103	46	0.112	50	0.089	39.6	45
6,000	0.138	0.124	55	0.135	60	0.1068	47.5	54
7,000	0.161	0.143	64	0.156	69	0.1246	55.4	62

STORM PUMPS RECOMMENDATION:

- LIBERTY FL31M PUMPS, OR EQUAL
- 1/3 hp
- FORCE MAIN SIZE = 2.0"
- BASIN SIZE RECOMMENDATION = 30" - Ø
- DUPLEX PUMPS REQUIRED
- CONTACT FOWLER PUMP IN BELLEVUE FOR PUMP PACKAGE



USE 28 GPM AS ESTIMATED PUMP RATE PER PUMP. SET DEPTH SO PUMP ACHIEVES 2 MIN RUNTIME PER CYCLE.

SELECT INDIVIDUAL PUMP THAT CAN MEET OR EXCEED 1/3 OF 36, OR 18 GPM MIN RATE PER PUMP. AN UPPER FLOAT CAN ACTIVATE BOTH PUMPS DURING EXCESSIVE STORM EVENTS.

STORM PUMP & BASIN SCHEMATIC

