TITLE SCHEDULE B EXCEPTIONS:

RELEVANT EXCEPTIONS PER TITLE REPORT (SEE NOTE 6):

(1.) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

PURPOSE: RIGHT OF WAY
RECORDING NO.: 2731421
AFFECTS: THE EAST 30 FEET

SAID EASEMENT INCLUDES THE RIGHT TO CUT AND REMOVE BRUSH, TREES AND OTHER OBSTRUCTIONS WHICH IN THE OPINION OF THE GRANTEE, INTERFERE WITH THE USE OF THE RIGHT OF WAY.

(2.) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

PURPOSE: RIGHT OF WAY
RECORDING NO.: 4080045
AFFECTS: THE EAST 30 FEET

(3.) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:

IN FAVOR OF: MERCER ISLAND SEWER DISTRICT
PURPOSE: SEWER PIPE LINES WITH NECESSARY APPURTENANCES
RECORDING DATE: SEPTEMBER 30, 1964
RECORDING NO.: 5792913
AFFECTS: THE EAST 6 FEET

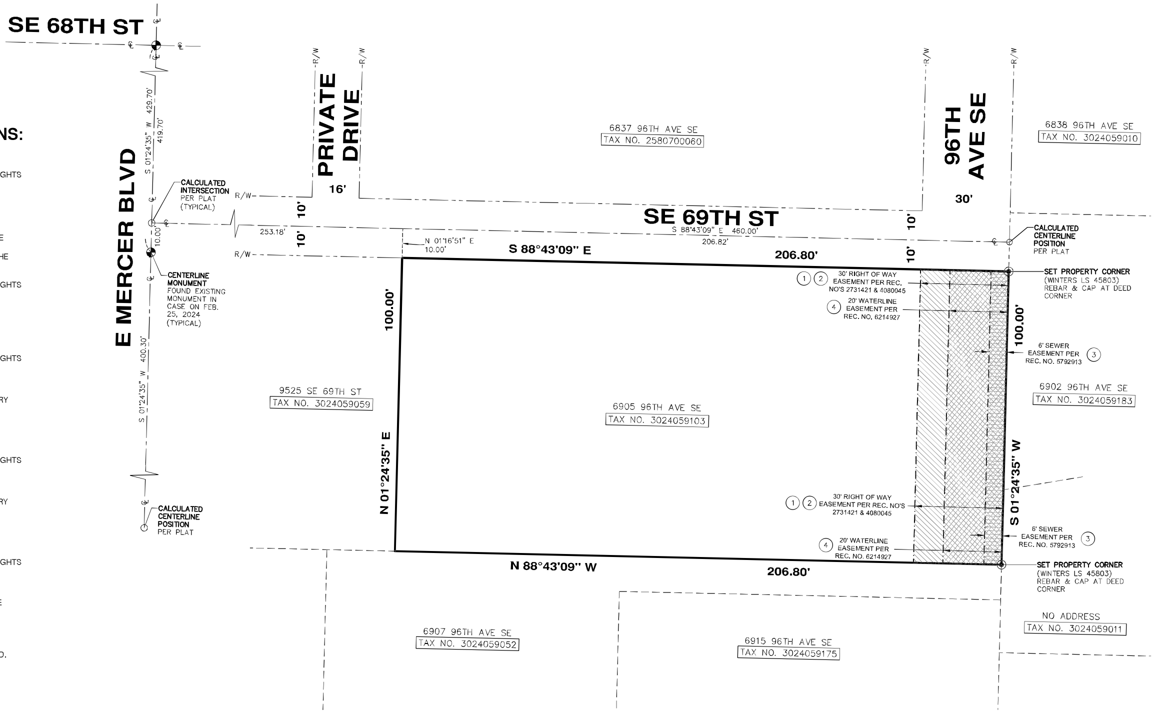
(4.) EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO AS SET FORTH IN A DOCUMENT:

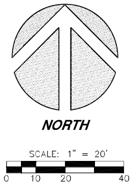
IN FAVOR OF: CITY OF MERCER ISLAND
PURPOSE: WATER PIPE LINES WITH NECESSARY APPURTENANCES
RECORDING DATE: AUGUST 7, 1967
RECORDING NO.: 6214927
AFFECTS: THE EAST 20 FEET

5. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:

PURPOSE: INSTALLING, MAINTAINING AND REPLACING AS NEEDED DRAINAGE IMPROVEMENTS
RECORDING NO.: 20000330000820
AFFECTS: PORTION OF SAID PREMISES

SURVEYORS NOTE: NOT PLOTABLE, NO FOOTPRINT DEFINED.


SE 68TH ST
E MERCER BLVD
S 01°24'35" W 429.70'
419.70'
10.00'
S 01°24'35" W 400.30'
CALCULATED INTERSECTION PER PLAT (TYPICAL)
CENTERLINE MONUMENT FOUND EXISTING MONUMENT IN CASE ON FEB. 25, 2024 (TYPICAL)
CALCULATED CENTERLINE POSITION PER PLAT
R/W
PRIVATE DRIVE
16'
10'
10'
253.18'
SE 69TH ST
S 88°43'09" E 460.00'
206.82'
N 01°16'51" E 10.00'
S 88°43'09" E
206.80'
96TH AVE SE
30'
10'
10'
CALCULATED CENTERLINE POSITION PER PLAT
6837 96TH AVE SE
TAX NO. 2580700060
6838 96TH AVE SE
TAX NO. 3024059010
SET PROPERTY CORNER (WINTERS LS 45803) REBAR & CAP AT DEED CORNER
① ② 30' RIGHT OF WAY EASEMENT PER REC. NO'S 2731421 & 4080045
④ 20' WATERLINE EASEMENT PER REC. NO. 6214927
6' SEWER EASEMENT PER REC. NO. 5792913 ③
100.00'
100.00'
N 01°24'35" E
S 01°24'35" W
9525 SE 69TH ST
TAX NO. 3024059059
6905 96TH AVE SE
TAX NO. 3024059103
6902 96TH AVE SE
TAX NO. 3024059183
N 88°43'09" W
206.80'
SET PROPERTY CORNER (WINTERS LS 45803) REBAR & CAP AT DEED CORNER
6907 96TH AVE SE
TAX NO. 3024059052
6915 96TH AVE SE
TAX NO. 3024059175
NO ADDRESS
TAX NO. 3024059011


NORTH
SCALE: 1" = 20'
0
10
20
40

NOTES:

1. THIS SURVEY WAS PERFORMED BY FIELD TRAVERSE USING A 10 SECOND "TOTAL STATION". THIS SURVEY MEETS OR EXCEEDS THE STANDARDS FOR LAND BOUNDARY SURVEYS AS SET FORTH IN WAC CHAPTER 332-130-090.
2. CONTOUR INTERVAL = 1 FT.
3. VERTICAL DATUM = NAVD'88, AS PER DIRECT OBSERVATIONS USING GPS EQUIPMENT ON FEBRUARY 23RD, 2023.
4. HORIZONTAL DATUM = NAD 83/11 (EPOCH 2010).
5. PARCEL AREA = 20,680 FT^2.
6. THIS SURVEY IS RELIANT UPON THE INFORMATION CONTAINED WITHIN CHICAGO TITLE COMPANY OF WASHINGTON, TITLE REPORT NO. 0251005-ETU, DATED DECEMBER 1, 2023.
7. TREES AS SHOW HEREON HAVE BEEN MAPPED TO THE BEST OF OUR ABILITY DURING THE COURSE OF THIS SURVEY. HOWEVER, ALL ONSITE TREES THAT COULD AFFECT PROJECT DEVELOPMENT MAY NOT BE SHOWN. THEREFORE, PRIOR TO DESIGN A CERTIFIED ARBORIST SHOULD BE CONSULTED TO VERIFY THE SPECIFIC GENUS, TRUNK DIAMETER, DRIP LINE, LOCATION AND NUMBER OF QUALIFYING TREES UPON THIS SITE.

DEED DESCRIPTION:

TAX PARCEL NUMBER: 3024059103

THE EAST 200 FEET OF THE SOUTH 100 FEET OF THE NORTH 530 FEET OF THE EAST 430 FEET OF GOVERNMENT LOT 3, SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

TOGETHER WITH THE EAST 6.80 FEET OF THE EAST 100 FEET OF THE WEST 230 FEET OF THE EAST 430 FEET OF THE SOUTH 100 FEET OF THE NORTH 530 FEET OF GOVERNMENT LOT 3, SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., KING COUNTY, WASHINGTON.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

CONTROL DIAGRAM

SHEET 1 OF 2

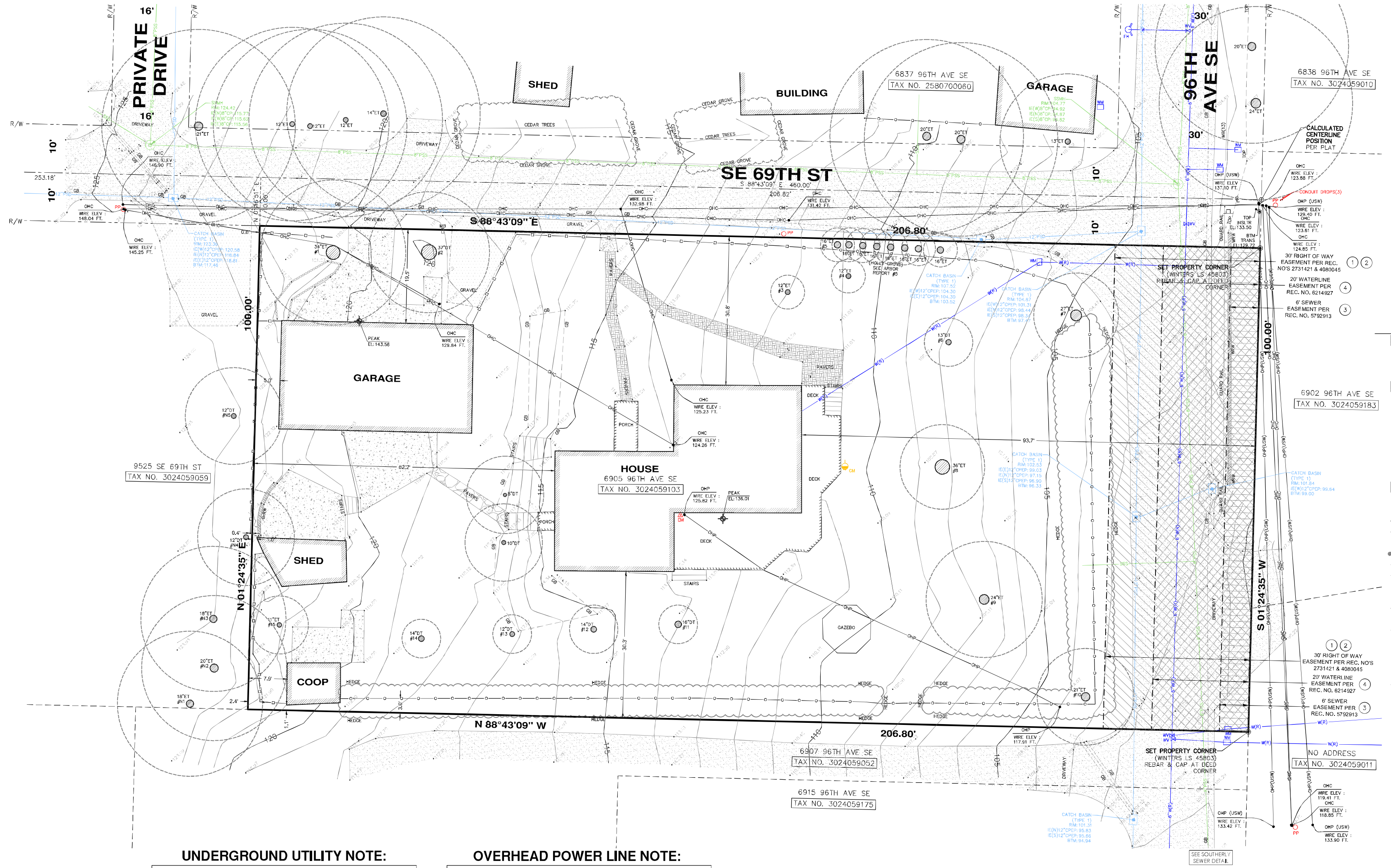
BRANDON E. WINTERS
45803

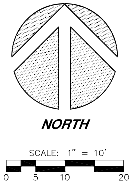
DATE: 9/4/2024

TOPOGRAPHIC SURVEY
6905 96TH AVE SOUTHEAST
MERCER ISLAND, WASHINGTON

CHADWICK & WINTERS
LAND SURVEYING AND MAPPING
1422 N.W. 85TH ST., SEATTLE, WA 98117
PHONE: 206.297.0996
FAX: 206.297.0997
WEB: WWW.CHADWICKWINTERS.COM

PROJECT #: 24-8081
DRAWING: 24-8081 TOPO
CLIENT: TERRY LONG
DATE: 9/04/2024
DRAWN BY: TTB

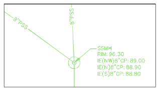

PRIVATE DRIVE
16'
R/W
10'
253.18'
SE 69TH ST
S 88°43'09" E 460.00'
S 88°43'09" E
206.80'
96TH AVE SE
30'
CALCULATED CENTERLINE POSITION PER PLAT
SHED
BUILDING
GARAGE
CEDAR TREES
CEDAR GROVE
DRIVEWAY
GRAVEL
6837 96TH AVE SE
TAX NO. 2580700080
6838 96TH AVE SE
TAX NO. 3024059010
GARAGE
HOUSE
6905 96TH AVE SE
TAX NO. 3024059103
SHED
COOP
GAZEBO
DECK
PORCH
STAIRS
PAVERS
HEDGE
N 01°24'35" E
100.00'
S 01°24'35" W
100.00'
N 88°43'09" W
206.80'
9525 SE 69TH ST
TAX NO. 3024059059
6902 96TH AVE SE
TAX NO. 3024059183
6907 96TH AVE SE
TAX NO. 3024059052
6915 96TH AVE SE
TAX NO. 3024059175
NO ADDRESS
TAX NO. 3024059011
SET PROPERTY CORNER (WINTERS LS 45803) REBAR & CAP AT DEED CORNER
30' RIGHT OF WAY EASEMENT PER REC. NO'S 2731421 & 4080045 ① ②
20' WATERLINE EASEMENT PER REC. NO. 6214927 ④
6' SEWER EASEMENT PER REC. NO. 5792913 ③
CONDUIT DROPS(3)
SEE SOUTHERLY SEWER DETAIL


NORTH
SCALE: 1" = 10'
0
5
10
20

LEGEND:

▨	ASPHALT SURFACE
BrRW	BRICK RETAINING WALL
℄	CENTER LINE
—○—○—○—	CHAIN LINK FENCE (CLF)
▨	CONCRETE SURFACE
CP	CONCRETE PIPE
CPEP	CORRUGATED PLASTIC PIPE
X" DT	DECIDUOUS TREE
X" ET	EVERGREEN TREE
△	ELECTRIC METER (EM)
FH	FIRE HYDRANT
◒	GAS METER (GM)
GB	GRADE BREAK
▨	GRAVEL SURFACE
IE	INVERT ELEVATION
▯	MAIL BOX (MB) (PRIVATE)
—OHC—	OVERHEAD COMMUNICATION
—OHP—	OVERHEAD POWER
PP	POWER POLE
●—●—●	PAINTED UTILITY LINE LOCATION
—PSD—	STORM DRAIN LINE
—PSS—	SANITARY SEWER
R/W	RIGHT OF WAY
(R)	RECORD INFORMATION
○○○○○○○	ROCKERY
◎	SSMH (SEWER MANHOLE)
—SSS—	SANITARY SIDE SEWER (RECORD)
⊓	SIGN (STREET SIGN)
TOP	TOP OF SLOPE
USW	UN-SHIELDED WIRE (OHP)
—□—□—□—	WOOD FENCE (WF)
—W—	WATER LINE
WM	WATER METER
⋈	WATER VALVE
WRW	WOOD RETAINING WALL

NEXT SOUTHERLY SEWER DETAIL


SSMH
RIM: 96.30
IE(NW)8"CP: 89.00
IE(N)8"CP: 88.90
IE(S)8"CP: 88.80

UNDERGROUND UTILITY NOTE:

UNDERGROUND UTILITY INFORMATION AS SHOWN HEREON IS APPROXIMATE ONLY AND IS BASED UPON OBSERVED GROUND EVIDENCE, THE CITY OF MERCER ISLAND GIS DATABASE AND ALSO AS PER TIES TO ABOVE GROUND STRUCTURES. CHADWICK AND WINTERS ASSUMES NO LIABILITY FOR THE ACCURACY OF THOSE RECORDS & LOCATIONS OR ACCEPTS RESPONSIBILITY FOR UNDERGROUND UTILITIES NOT DISCLOSED IN SAID RECORDS. THE FINAL LOCATION OF EXISTING UNDERGROUND UTILITIES IN AREAS CRITICAL TO DESIGN SHOULD BE ESTABLISHED BY CONTACTING THE UTILITY OWNER OR AGENCY. 1-800-424-5555 SHOULD ALWAYS BE CALLED PRIOR TO CONSTRUCTION.

OVERHEAD POWER LINE NOTE:

WE HAVE DETERMINED TO THE BEST OF OUR ABILITY THE OVERHEAD HIGH VOLTAGE POWER LINE WHICH IS CLOSEST TO THE PROJECT SITE AND HAVE DISPLAYED ITS HORIZONTAL AND VERTICAL LOCATION HEREON. HOWEVER, ADDITIONAL OVERHEAD SERVICE LINES MAY EXIST WHICH ARE NOT OBVIOUS TO US BY FIELD OBSERVATION AND POTENTIALLY IMPACT PROJECT DESIGN. THEREFORE, PRIOR TO DESIGN AND CONSTRUCTION WE RECOMMEND THAT SEATTLE CITY LIGHT BE CONSULTED REGARDING THE POSSIBLE EXISTENCE OF ADDITIONAL SERVICE LINES NOT DISPLAYED HEREON WHICH SHOULD BE CONSIDERED FOR PROJECT DESIGN.

EXISTING CONDITIONS

SHEET 2 OF 2

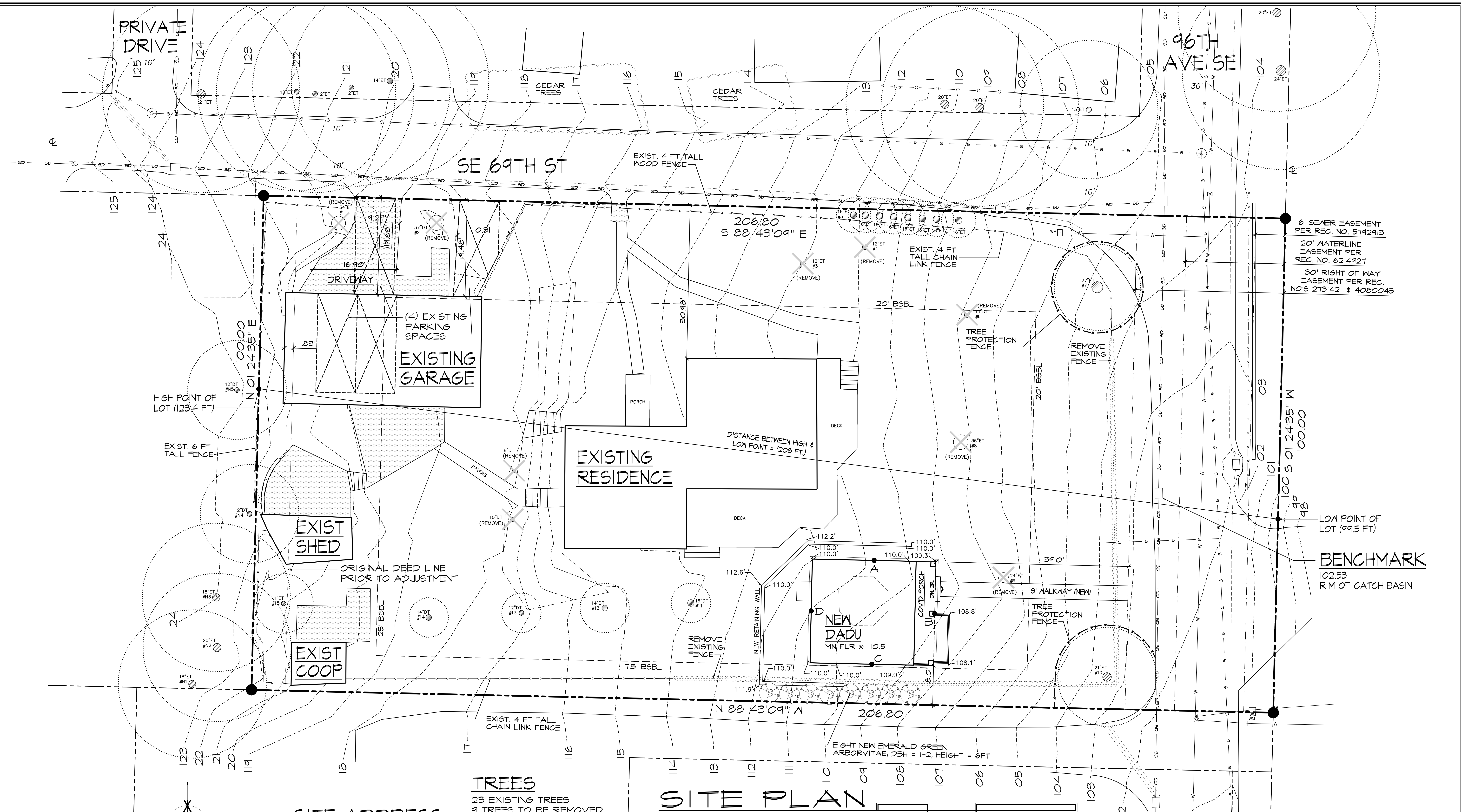
BRANDON E. WINTERS
45803
DATE: 9/4/2024

TOPOGRAPHIC SURVEY
6905 96TH AVE SOUTHEAST
MERCER ISLAND, WASHINGTON

CHADWICK & WINTERS
LAND SURVEYING AND MAPPING
1422 N.W. 85TH ST., SEATTLE, WA 98117
PHONE: 206.297.0996
FAX: 206.297.0997
WEB: WWW.CHADWICKWINTERS.COM

PROJECT #: 24-8081
DRAWING: 24-8081 TOPO
CLIENT: TERRY LONG
DATE: 9/04/2024
DRAWN BY: TTB

Your Family Architect


PRIVATE DRIVE
SE 69TH ST
96TH AVE SE
CEDAR TREES
CEDAR TREES
EXIST. 4 FT TALL WOOD FENCE
206.80
S 88°43'09" E
N 88°43'09" W
206.80
N 01°24'35" E 100.00
100.00 S 01°24'35" W
(REMOVE)
DRIVEWAY
(4) EXISTING PARKING SPACES
EXISTING GARAGE
HIGH POINT OF LOT (123.4 FT)
EXIST. 6 FT TALL FENCE
EXISTING RESIDENCE
PORCH
DECK
DECK
PAVERS
DISTANCE BETWEEN HIGH & LOW POINT = (208 FT.)
EXIST SHED
EXIST COOP
ORIGINAL DEED LINE PRIOR TO ADJUSTMENT
25' BSBL
20' BSBL
20' BSBL
7.5' BSBL
NEW DADU
MN FLR @ 110.5
COV'D PORCH
NEW RETAINING WALL
REMOVE EXISTING FENCE
EXIST. 4 FT TALL CHAIN LINK FENCE
TREE PROTECTION FENCE
REMOVE EXISTING FENCE
13' WALKWAY (NEW)
EIGHT NEW EMERALD GREEN ARBORVITAE; DBH = 1-2, HEIGHT = 6FT
6' SEWER EASEMENT PER REC. NO. 5792913
20' WATERLINE EASEMENT PER REC. NO. 6214927
30' RIGHT OF WAY EASEMENT PER REC. NO'S 2731421 & 4080045
LOW POINT OF LOT (99.5 FT)
BENCHMARK
102.53 RIM OF CATCH BASIN
30.98'
39.0'
1.83'
16.90'
9.27'
19.68'
19.48'
10.31'

SITE PLAN

SCALE : 1" = 10'-0"

0 10 20 40

SITE ADDRESS

6905 96TH AVE SE
MERCER ISLAND, WA 98040

TREES

23 EXISTING TREES
9 TREES TO BE REMOVED
60% OF TREES RETAINED

SEE ARBORIST REPORT
FOR MORE INFORMATION

HEIGHT CALCULATION

MIDPOINT ELEVATION	WALL SEGMENT LENGTH
A = 110.0	a = 25 ft
B = 109.1	b = 21 ft
C = 109.5	c = 25 ft
D = 110.0	d = 21 ft

ABE CALCULATION

$$\frac{(110.0)(25)+(109.1)(21)+(109.5)(25)+(110.0)(21)}{25 + 21 + 25 + 21}$$

$$\frac{10{,}088.6}{92}$$ = 109.66 AVERAGE BUILDING ELEVATION (ABE)

+30.00
139.66 (MAX. HT. ALLOWED)
133.08 (ACTUAL HEIGHT)
6.58 (BELOW MAX. HT.)

NOTE:
REFER TO ELEVATIONS ON SHEET A7 IN ARCHITECURAL PLANS FOR HEIGHT CALC. DIMENSIONS

LOT COVERAGE

20,680 S.F.	GROSS LOT AREA
17,680 S.F.	NET LOT AREA
7,072 S.F.	ALLOWED LOT COVERAGE AREA
40%	ALLOWED LOT COVERAGE %

EXISTING LOT COVERAGE

1,306 S.F.	HOUSE
892 S.F.	GARAGE
149 S.F.	SHED
93 S.F.	COOP
322 S.F.	DRIVE
2,762 S.F.	

NEW LOT COVERAGE

583 S.F.	DADU
3,345 S.F.	TOTAL PROJECT LOT COV'G AREA
18.9%	PROPOSED % LOT COVERAGE AREA

HARDSCAPE CALCULATIONS

20,680 S.F.	GROSS LOT AREA
17,680 S.F.	NET LOT AREA
3,727 S.F.	AREA BORROWED FROM LOT COVERAGE
5,318 S.F.	ALLOWED HARDSCAPE AREA (9% OF LOT AREA + BORROWED) (30%)
1,579 S.F.	EXISTING HARDSCAPE AREA

NEW HARDSCAPE AREA

25 S.F.	PATIO
10 S.F.	BACK SLAB
119 S.F.	WALK
47 S.F.	RETAINING WALL
201 S.F.	TOTAL NEW HARDSCAPE AREA
1,780 S.F.	TOTAL PROJECT HARDSCAPE AREA (10% OF LOT)

GROSS FLOOR AREA

EXISTING RESIDENCE

1,100 S.F.	MAIN FLOOR
290 S.F.	UPPER FLOOR
1,390 S.F.	TOTAL

EXISTING GARAGE

400 S.F.	MAIN LIVING
680 S.F.	UPPER LIVING
460 S.F.	GARAGE
1,540 S.F.	TOTAL

EXISTING SHED

149 S.F.

EXISTING COOP

93 S.F.	
3,172 S.F.	TOTAL EXISTING

NEW DADU

441 S.F.	MAIN FLOOR
471 S.F.	UPPER FLOOR
912 S.F.	TOTAL
4,084 S.F.	TOTAL EXISTING + NEW

LEGAL DESCRIPTION

TAX PARCEL NUMBER: 3024059103

THE EAST 200 FEET OF THE SOUTH 100 FEET OF THE NORTH 530 FEET OF THE EAST 430 FEET OF GOVERNMENT LOT 3, SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., IN KING COUNTY, WASHINGTON.

TOGETHER WITH THE EAST 6.80 FEET OF THE EAST 100 FEET OF THE WEST 230 FEET OF THE EAST 430 FEET OF THE SOUTH 100 FEET OF THE NORTH 530 FEET OF GOVERNMENT LOT 3, SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., KING COUNTY, WASHINGTON

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

CUT

13 CU. YDS.

LOT SLOPE

23.9 FT / 208 FT = 11.49% SLOPE

LOT SIZE

20,680 S.F.

ZONING

R8.4

ARCHITECTS NORTHWEST

REGISTERED ARCHITECT
5046
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU

PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25
PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25
LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

A0
A7

ANW JOB NUMBER:
250052

Your Family Architect
ARCHITECTS NORTHWEST

ENERGY CODE

2021 WASHINGTON STATE ENERGY CODE/ IECC (WSEC)

ALL CLIMATE ZONES - TABLE R402.1.3
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT [A]

	PRESCRIPTIVE	EFFICIENT BUILDING ENVELOPE OPTION 1.2
FENESTRATION U-FACTOR [B]	0.30	0.25
SKYLIGHT [B] U-FACTOR	0.50	0.50
CEILING R-VALUE [E]	60	60
WOOD FRAME WALL [G,I] R-VALUE	20+5 OR 13+10	20+5 OR 13+10
FLOOR R-VALUE	30	38
BELOW GRADE WALL [C,H] R-VALUE	10/15/21 INT + 5TB	10/15/21 INT + 10TB
SLAB [D,F] R-VALUE & DEPTH	10, 4 FT.	10, ENTIRE SLAB

TABLE R402.1.1 FOOTNOTES
FOR SI: 1 FOOT = 304.8 MM, CI = CONTINUOUS INSULATION, INT. = INTERMEDIATE FRAMING.

[A] R-VALUES ARE MINIMUMS. U-FACTORS AND SHGC ARE MAXIMUMS. WHEN INSULATION IS INSTALLED IN A CAVITY WHICH IS LESS THAN THE LABEL OR DESIGN THICKNESS OF THE INSULATION, THE COMPRESSED R-VALUE OF THE INSULATION FROM APPENDIX TABLE A101.4 SHALL NOT BE LESS THAN THE R-VALUE SPECIFIED IN THE TABLE.

[B] THE FENESTRATION U-FACTOR COLUMN EXCLUDES SKYLIGHTS.

[C] "10/15/21 +5TB" MEANS R-10 CONTINUOUS INSULATION ON THE EXTERIOR OF THE WALL, OR R-15 CONTINUOUS INSULATION ON THE INTERIOR OF THE WALL, OR R-21 CAVITY INSULATION PLUS A THERMAL BREAK BETWEEN THE SLAB AND THE BASEMENT WALL AT THE INTERIOR OF THE BASEMENT WALL. "10/15/21 +5TB" SHALL BE PERMITTED TO BE MET WITH R-13 CAVITY INSULATION ON THE INTERIOR OF THE BASEMENT WALL PLUS R-5 CONTINUOUS INSULATION ON THE INTERIOR OR EXTERIOR OF THE WALL. "5TB" MEANS R-5 THERMAL BREAK BETWEEN FLOOR SLAB AND BASEMENT WALL.

[D] R-10 CONTINUOUS INSULATION IS REQUIRED UNDER HEATED SLAB ON GRADE FLOORS. SEE R402.2.9.1.

[E] FOR SINGLE RAFTER- OR JOIST- VAULTED CEILINGS, THE INSULATION MAY BE REDUCED TO R-38 IF THE FULL INSULATION DEPTH EXTENDS OVER THE TOP PLATE OF THE EXTERIOR WALL.

[F] R-7.5 CONTINUOUS INSULATION INSTALLED OVER AN EXISTING SLAB IS DEEMED TO BE EQUIVALENT TO THE REQUIRED PERIMETER SLAB INSULATION WHEN APPLIED TO EXISTING SLABS COMPLYING WITH SECTION R503.1.1. IF FOAM PLASTIC IS USED, IT SHALL MEET THE REQUIREMENTS FOR THE THERMAL BARRIERS PROTECTING FOAM PLASTICS.

[G] FOR LOG STRUCTURES DEVELOPED IN COMPLIANCE WITH STANDARD ICC 400, LOG WALLS SHALL MEET THE REQUIREMENTS FOR CLIMATE ZONE 5 OF ICC 400.

[H] INT. (INTERMEDIATE FRAMING) DENOTES FRAMING AND INSULATION AS DESCRIBED IN SECTION A103.2.2 INCLUDING STANDARD FRAMING 16 INCHES ON CENTER, 78 PERCENT OF THE WALL CAVITY INSULATED AND HEADERS INSULATED WITH A MINIMUM OF R-10 INSULATION.

[I] THE FIRST VALUE IS CAVITY INSULATION, THE SECOND VALUE IS CONTINUOUS INSULATION. THEREFORE, AS AN EXAMPLE, "R13+10" MEANS R-13 CAVITY INSLATION PLUS R-10 CONTINUOUS INSULATION.

[J] A MAXIMUM U-FACTOR OF 0.32 SHALL APPLY TO VERTICAL FENESTRATION PRODUCTS INSTALLED IN BUILDINGS LOCATED ABOVE 4000 FEET IN ELEVATION ABOVE SEA LEVEL, OR IN WINDBORNE DEBRIS REGIONS WHERE PROTECTION OF OPENINGS IS REQUIRED UNDER SECTION R301.2.1.2 OF THE INTERNATIONAL RESIDENTIAL CODE.

1. A CERTIFICATE COMPLYING WITH 2021 WSEC R401.3 IS REQUIRED TO BE COMPLETED BY THE BUILDER OR APPROVED PARTY AND PERMANENTLY POSTED.
2. AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM.
3. ALL PERMANENTLY INSTALLED LIGHTING FIXTURES, EXCLUDING KITCHEN APPLIANCES, SHALL CONTAIN ONLY HIGH-EFFICACY LIGHTING SOURCES.

WHOLE HOUSE VENTILATION

WHOLE HOUSE VENTILATION SYSTEM TO BE DESIGNED PER WSBC AMENDMENTS TO 2021 IRC SECTION M1505.4.4.

SEE "WHOLE HOUSE VENTILATION" ON THE SCHEDULE SHEET FOR SELECTED OPTION.

WHOLE-HOUSE MECHANICAL VENTILATION AIRFLOW RATE PER EQUATION 15-1 (M1505.4.3)

VENTILATION QUALITY ADJUSTMENT PER EQUATION 15-2 (M1505.4.3.1)

IRC TABLE M1505.4.3(2)

INTERMITTENT WHOLE-HOUSE MECHANICAL VENTILATION RATE FACTORS [A,B]

RUN TIME PERCENTAGE IN EACH 4-HOUR SEGMENT	50%	66%	75%	100%
FACTOR	2	1.5	1.3	1.0

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

MECHANICAL

GENERAL

SOLID FUEL BURNING APPLIANCES INCLUDE AIRTIGHT STOVES, FIREPLACE STOVES, ROOM HEATERS, FACTORY BUILT FIREPLACES AND FIREPLACE INSERTS. ALL SOLID FUEL BURNING APPLIANCES SHALL COMPLY WITH THE PROVISIONS OF I.R.C. R1006.6

HEATING

EACH DWELLING UNIT SHALL BE PROVIDED WITH HEATING FACILITIES CAPABLE OF MAINTAINING A TEMPERATURE OF 68 DEGREES FAHRENHEIT AT A HEIGHT OF 3'-0" ABOVE THE FLOOR AND TWO FEET FROM EXTERIOR WALLS IN ALL HABITABLE ROOMS WHEN THE OUTSIDE TEMPERATURE IS AS SET FORTH IN THE 2021 W.S.E.C.

DEFINITION OF BUILDING THERMAL ENVELOPE FROM THE 2021 WASHINGTON STATE ENERGY CODE:

> THE BELOW-GRADE WALLS, ABOVE-GRADE WALLS, FLOORS, CEILINGS, ROOF, AND ANY OTHER BUILDING ELEMENT ASSEMBLIES THAT ENCLOSE CONDITIONED SPACE OR PROVIDES A BOUNDARY BETWEEN CONDITIONED SPACE AND EXEMPT OR UNCONDITIONED SPACE.

1. FUEL BURNING APPLIANCES LOCATED WITHIN THE BUILDING ENVELOPE SHALL OBTAIN AIR FROM OUTDOORS, MEETING THE PROVISIONS OF IRC G2407
2. FUEL BURNING APPLIANCES LOCATED OUTSIDE THE BUILDING ENVELOPE SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2021 IRC.
3. DUCTWORK LOCATION SHALL MEET THE PROVISIONS OF CHAPTER 24 OF THE 2021 IRC.
4. COMBUSTION AIR TO MEET THE REQUIREMENTS OF I.R.C. M1701.1

ALL WARM AIR FURNACES SHALL BE LISTED AND LABELED BY AN APPROVED AGENCY PER CHAPTER M1302 OF THE 2021 IRC.

NO WARM AIR FURNACE SHALL BE INSTALLED IN A ROOM USED OR DESIGNED TO BE USED AS A BEDROOM, BATHROOM, CLOSET OR IN ANY ENCLOSED SPACE WITH ACCESS ONLY THROUGH SUCH ROOM OR SPACE, EXCEPT PER EXCEPTIONS IN IRC G2406.2

LIQUEFIED PETROLEUM GAS BURNING APPLIANCES SHALL NOT BE INSTALLED IN A PIT, BASEMENT OR SIMILAR LOCATION WHERE HEAVIER THAN AIR GASES MIGHT COLLECT. APPLIANCES SO FUELED SHALL NOT BE INSTALLED IN AN ABOVE GRADE UNDER FLOOR SPACE OR BASEMENT UNLESS SUCH LOCATION IS PROVIDED WITH AN APPROVED MEANS FOR REMOVAL OF UNBURNED GAS.

HEATING AND COOLING APPLIANCES LOCATED IN A GARAGE AND WHICH GENERATE A GLOW, SPARK OR FLAME CAPABLE OF IGNITING FLAMMABLE VAPORS SHALL BE INSTALLED WITH THE PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR SURFACE.

FIRE DAMPERS NEED NOT BE INSTALLED IN AIR DUCTS PASSING THROUGH THE WALL, FLOOR OR CEILING SEPARATING A RESIDENCE (R-3 OCCUPANCY) FROM A GARAGE, PROVIDED SUCH DUCTS WITHIN THE GARAGE ARE CONSTRUCTED OF STEEL HAVING A THICKNESS NOT LESS THAN 0.019" (NO. 26 GALVANIZED SHEET GAUGE) AND HAVE NO OPENINGS INTO THE GARAGE

EVERY APPLIANCE DESIGNED TO BE VENTED SHALL BE CONNECTED TO A VENTING SYSTEM COMPLYING WITH CHAPTER 18 OF THE 2021 IRC.

EVERY FACTORY BUILT CHIMNEY, TYPE L VENT, TYPE B GAS VENT OR TYPE BW GAS VENT SHALL BE INSTALLED IN ACCORDANCE WITH THE TERMS OF ITS LISTING, MANUFACTURERS INSTALLATION INSTRUCTIONS AND THE REQUIREMENTS PER CHAPTER 24 OF THE 2021 IRC.

A TYPE B OR BW GAS VENT SHALL TERMINATE PER CHAPTER 24 OF THE 2021 IRC.

VENT CONNECTORS SHALL BE INSTALLED WITHIN THE SPACE OR AREA IN WHICH THE APPLIANCE IS LOCATED AND SHALL BE CONNECTED TO A CHIMNEY OR VENT IN SUCH A MANNER AS TO MAINTAIN THE CLEARANCE TO COMBUSTIBLES PER SECTION M1803 OF THE 2021 IRC.

HEATING EQUIPMENT

ALL HEATING EQUIPMENT SHALL MEET THE REQUIREMENTS OF THE NATIONAL APPLIANCE ENERGY CONSERVATION ACT (NAECA) AND BE SO LABELED. EQUIPMENT SHALL ALSO COMPLY WITH SECTION M1411 OF THE 2021 IRC

DUCTWORK

1. DUCT SYSTEMS OR FACTORY BUILT AIR DUCTS SHALL BE OF METAL AS SET FORTH BY TABLE 1601.1.1 OF THE 2021 IRC.
2. RECTANGULAR, FLAT, OVAL AND ROUND DUCT JOINTS AND SEAMS SHALL BE AIRTIGHT PER SECTION M1601.4.1 OF THE 2021 IRC.
3. INSTALLATION OF DUCTS SHALL COMPLY WITH SECTION M1601.4 OF THE 2021 IRC.
4. DUCT INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH SECTION M1601.3 OF THE 2021 IRC.
5. FINAL DUCT LEAKAGE AFFIDAVIT IS TO BE PROVIDED TO THE BUILDING INSPECTOR PRIOR TO FINAL INSPECTION. DUCT LEAKAGE AND SEALING REQUIREMENTS IN 2021 W.S.E.C. SECTION R403.3.4 THRU R403.3.6 TO BE MET.
6. DUCTS INSULATED TO A MINIMUM R-8 INSULATION IN UNCONDITIONED SPACES PER W.S.E.C. SECTION R403.3.1

CARPENTRY

GENERAL

ALL FRAMING SHALL COMPLY WITH THE APPLICABLE SECTION(S) OF THE 2021 IBC/IRC.
PRESSURE TREATED WOOD REQUIRED IN LOCATIONS LISTED IN IRC R317.1

2" MINIMUM VERTICAL CLEARANCE BETWEEN WOOD & CONCRETE STEPS, PORCH SLABS, PATIO SLABS & OTHER SIMILAR HORIZONTAL SURFACES EXPOSED TO THE WEATHER.
6" MINIMUM CLEARANCE BETWEEN WOOD AND EARTH.
8" MINIMUM CLEARANCE BETWEEN UNTREATED MUDSILLS AND EARTH.
12" MINIMUM CLEARANCE BETWEEN FLOOR BEAMS AND EARTH.
18" MINIMUM CLEARANCE BETWEEN FLOOR JOISTS AND EARTH.

LOADING

ROOF	15 PSF DEAD LOAD	+	25 PSF LIVE LOAD	=	40 PSF
ROOF w/ SOLAR PANELS	20 PSF DEAD LOAD	+	25 PSF LIVE LOAD	=	40 PSF
FLOOR TRUSSES	15 PSF DEAD LOAD	+	40 PSF LIVE LOAD	=	55 PSF
FLOOR	10 PSF DEAD LOAD	+	40 PSF LIVE LOAD	=	50 PSF
CEILING	5 PSF DEAD LOAD	+	10 PSF LIVE LOAD	=	15 PSF
DECK	10 PSF DEAD LOAD	+	60 PSF LIVE LOAD	=	70 PSF
INTERIOR PARTITION				=	7 PSF
EXTERIOR PARTITION				=	10 PSF

WOOD BEARING ON OR INSTALLED WITHIN ½" OF MASONRY OR CONCRETE TO BE TREATED WITH AN APPROVED PRESERVATIVE. SOLID BLOCKING OF NOT LESS THAN 2x THICKNESS SHALL BE PROVIDED AT ENDS AND AT ALL SUPPORT OF JOISTS AND RAFTERS. ANCHOR BOLTS TO BE PER SHEAR WALL SCHEDULE AND FOUNDATION PLAN. 7" MINIMUM EMBEDMENT. ALL METAL FRAMING ANCHORS AND HANGERS SHOWN ON DRAWINGS SHALL BE STRONG TIE CONNECTORS AS MANUFACTURED BY SIMPSON COMPANY.

PROVIDE FIREBLOCKING IN CONCEALED SPACES OF STUD WALLS & PARTITIONS, INCLUDING FURRED SPACES & PARALLEL ROWS OF STUDS OR STAGGERED STUDS AS FOLLOWS:

1. VERTICALLY AT THE CEILING & FLOOR LEVELS.
2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET.

PROVIDE FIREBLOCKING AT OTHER LOCATIONS PER 2021 IRC R302.11.

INSULATION & MOISTURE PROTECTION

GENERAL

UNLESS NOTED OTHERWISE, INSULATION SHALL CONFORM TO THE WASHINGTON STATE ENERGY CODES. INSULATION BAFFLES TO MAINTAIN 1" CLEAR SPACE ABOVE INSULATION. BAFFLES TO EXTEND 6" ABOVE BATT INSULATION & 12" ABOVE LOOSE FILL INSULATION. INSULATE BEHIND BATHTUBS, SHOWERS, PARTITIONS AND CORNERS. PROVIDE FACE STAPLED BATTS OR FRICTION FIT FACED BATTS. PROVIDE 4 MIL (0.004") POLYETHYLENE VAPOR BARRIER AT WALLS OR USE CLASS II PRIMER. PROVIDE R-10 INSULATION UNDER ELECTRIC WATER HEATERS.

INFILTRATION CONTROL

1. EXTERIOR JOINTS AROUND WINDOWS AND DOOR FRAMES, OPENINGS BETWEEN WALLS AND FOUNDATIONS, BETWEEN WALLS AND ROOF AND BETWEEN WALL PANELS, OPENINGS AT PENETRATIONS OF UTILITY SERVICES THROUGH WALLS, FLOORS, AND ROOF, AND ALL OTHERS SUCH OPENINGS IN THE BUILDING ENVELOPE, INCLUDING ACCESS PANELS INTO UNHEATED SPACES, SHALL BE SEALED, CAULKED, GASKETED OR WEATHER-STRIPPED TO LIMIT AIR INFILTRATION.
2. ALL EXTERIOR DOORS, OTHER THAN FIRE-RATED DOORS, SHALL BE DESIGNED TO LIMIT AIR INFILTRATION AROUND THEIR PERIMETER WHEN IN A CLOSED POSITION. DOORS BETWEEN RESIDENCE AND GARAGE ARE NOT CONSIDERED "FIRE-RATED" AND MUST MEET THE ABOVE REQUIREMENT.
3. ALL EXTERIOR WINDOWS SHALL BE DESIGNED TO ADMIT AIR INFILTRATION INTO OR FROM THE BUILDING ENVELOPE WHICH SHALL BE SUBSTANTIATED BY TESTING TO STANDARD ASTM E 283.73. SITE BUILT AND MILLWORK SHOP MADE WOODEN SASH ARE EXEMPT FROM TESTING BUT SHALL BE WEATHER-STRIPPED, CAULKED AND MORE TIGHTLY FITTING.
4. RECESSED LIGHT FIXTURES TO LIMIT AIR LEAKAGE PER W.S.E.C.

PIPING FOR HOT WATER / STEAM SYSTEMS OF PIPING FOR CONTINUOUSLY CIRCULATING HOT WATER SERVICE IS REQUIRED TO BE INSULATED PER THE W.S.E.C. HOT WATER PIPING SHALL BE INSULATED TO A MINIMUM OF R-3 PER W.S.E.C. R403.5.3. MECHANICAL SYSTEM PIPING SHALL BE INSULATED TO A MINIMUM R-6 PER W.S.E.C. R403.4

VAPOR BARRIERS / GROUND COVERS

AN APPROVED VAPOR BARRIER SHALL BE PROPERLY INSTALLED IN ROOF DECKS, IN ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF RAFTERS, AND AT EXTERIOR WALLS. INSET STAPLED BATTS WITH A PERM RATING LESS THAN ONE MAY BE INSTALLED IF THE VAPOR BARRIER IS TO THE WARM SIDE, STAPLES SHALL BE PLACED NOT MORE THAN 8" O.C. AND GAPS BETWEEN THE FACING AND THE FRAMING SHALL NOT EXCEED 1/16"

VAPOR RETARDERS AT WALLS PER IRC R702.7

A GROUND COVER OF 6 MIL (0.006") BLACK POLYETHYLENE OR EQUIVALENT SHALL BE LAID OVER THE GROUND IN ALL CRAWL SPACES. THE GROUND COVER SHALL BE OVERLAPPED ONE FOOT AT EACH JOINT AND SHALL EXTEND TO THE FOUNDATION WALL.

DOORS, WINDOWS AND SKYLIGHTS

GENERAL

THE REQUIRED EGRESS DOOR MAY HAVE A MAXIMUM 7 ¾" STEP ON THE EXTERIOR SIDE FROM TOP OF THE THRESHOLD TO A MINIMUM 36" DEEP LANDING ON THE EXTERIOR SIDE OF THE DOOR. PROVIDED THE DOOR DOES NOT SWING OVER THE LANDING, PER R311.3.1 OTHER EXTERIOR DOORS MAY HAVE A MAXIMUM (2) 7 ¾" STEPS TO A MIN. 36" DEEP LANDING. ALL GLAZING SHALL MEET THE REQUIREMENTS OF THE 2021 W.S.E.C. TABLE R402.1.3 UNLESS NOTED OTHERWISE. ALL SKYLIGHTS AND SKYWALLS SHALL HAVE LAMINATED GLASS UNLESS NOTED OTHERWISE. ALL BEDROOM EMERGENCY EGRESS WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5.7 SQUARE FEET. MINIMUM NET CLEAR OPERABLE WIDTH OF 20" AND A MINIMUM NET CLEAR OPENING HEIGHT OF 24", MAXIMUM HEIGHT FROM FLOOR OF 44" MEASURED FROM THE FINISHED FLOOR TO THE BOTTOM OF THE CLEAR OPENING. OPERABLE WINDOWS WITH A SILL OF MORE THAN 72" ABOVE FINISHED THE GRADE OR SURFACE BELOW, TO BE A MINIMUM OF 24" ABOVE ADJACENT FINISHED FLOOR.

SAFETY GLAZING LOCATIONS PER 2021 IRC SECTION R308.4

R308.4.1 GLAZING IN ALL FIXED AND OPERABLE PANELS OF SWINGING, SLIDING AND BI-FOLD DOORS.

R308.4.2 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL ADJACENT TO A DOOR WHERE THE BOTTOM EDGE IS LESS THAN 60 INCHES ABOVE THE FLOOR & THE GLAZING IS EITHER WITHIN 24 INCHES OF EITHER SIDE OF THE DOOR IN THE PLANE OF THE DOOR IN A CLOSED POSITION OR ON A WALL LESS THAN 180 DEGREES FROM THE PLANE OF THE DOOR IN A CLOSED POSITION & WITHIN 24 INCHES OF THE HINGE SIDE OF AN IN-SWINGING DOOR.

R308.4.3 GLAZING IN AN INDIVIDUAL FIXED OR OPERABLE PANEL THAT MEETS ALL OF THE FOLLOWING CONDITIONS:
1. THE EXPOSED AREA OF AN INDIVIDUAL PANEL IS LARGER THAN 9 SQUARE FEET;
2. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 18" ABOVE THE FLOOR;
3. THE TOP EDGE OF THE GLAZING IS MORE THAN 36" ABOVE THE FLOOR; AND
4. ONE OR MORE WALKING SURFACES ARE WITHIN 36" MEASURED HORIZONTALLY AND IN A STRAIGHT LINE, OF THE GLAZING.

R308.4.4 GLAZING IN GUARDS AND RAILINGS, INCLUDING STRUCTURAL BALUSTER PANELS AND NONSTRUCTURAL IN-FILL PANELS, REGARDLESS OF AREA OR HEIGHT ABOVE A WALKING SURFACE.

R308.4.5 GLAZING IN WALLS, ENCLOSURES OR FENCES CONTAINING OR ADJACENT TO HOT TUBS, SPAS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS, SHOWERS AND INDOOR OR OUTDOOR SWIMMING POOLS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES MEASURED VERTICALLY ABOVE ANY STANDING OR WALKING SURFACE.

R308.4.6 GLAZING WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THAN 36 INCHES (914 MM) ABOVE THE PLANE OF THE ADJACENT WALKING SURFACE OF STAIRWAYS, LANDINGS BETWEEN FLIGHTS OF STAIRS AND RAMPS.

R08.4.7 GLAZING ADJACENT TO THE LANDING AT THE BOTTOM OF A STAIRWAY WHERE THE GLAZING IS LESS THAN 36 INCHES ABOVE THE LANDING AND WITHIN A 60" HORIZONTAL ARC LESS THAN 180 DEGREES FROM THE BOTTOM TREAD NOSING.

FOR EXCEPTIONS SEE IRC SECTION R308.4

GENERAL

PLANS COMPLY WITH THE 2021 INTERNATIONAL RESIDENTIAL CODE.

CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AS REQUIRED UNTIL ALL PERMANENT CONNECTIONS HAVE BEEN MADE. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY ALL DISCREPANCIES TO THE ARCHITECT AT THE TIME THEY ARE NOTED. DIMENSIONS TAKE PRECEDENCE OVER SCALED DRAWINGS.

CODES:

ALL APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION SHALL BE FOLLOWED
1. 2021 INTERNATIONAL RESIDENTIAL CODE (IRC) WITH WASHINGTON STATE AMENDMENTS (WSA) EXCEPT CHAPTERS 11 AND 25 THROUGH 42 ARE NOT ADOPTED. APPENDICES F,Q, & U ARE ADOPTED.
2. 2021 INTERNATIONAL BUILDING CODE (IBC) WITH WASHINGTON STATE AMENDMENTS (WSA)
3. 2021 INTERNATIONAL MECHANICAL CODE (IMC) WITH WASHINGTON STATE AMENDMENTS (WSA)
4. 2021 UNIFORM PLUMBING CODE (UPC) WITH WASHINGTON STATE AMENDMENTS.
5. 2021 INTERNATIONAL FIRE CODE WITH WASHINGTON STATE AMENDMENTS.
6. 2021 WASHINGTON STATE ENERGY CODE, RESIDENTIAL PROVISIONS (WSEC).

LOCAL JURISDICTION REQUIRES DWELLING UNIT FIRE SPRINKLER SYSTEM PER IRC APPENDIX U
☒ YES
☐ NO
NFPA 13D PLUS (FULL COVERAGE) FIRE SPRINKLER SYSTEM IN COMPLIANCE NFPA

SITE WORK

GENERAL

ALL FOOTINGS TO BEAR ON FIRM, UNDISTURBED EARTH BELOW ORGANIC SURFACE SOILS. ALL BACK FILL MATERIAL SHALL BE THOROUGHLY COMPACTED. FOUNDATION VENTS SHALL NOT INTERFERE WITH THE DIRECT LOAD PATH OF COLUMNS.

CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD	WIND DESIGN				SEISMIC DESIGN CATEGORY	SUBJECT TO DAMAGE FROM			WINTER DESIGN TEMP	ICE BARRIER UNDER-LAYMENT REQUIRED	FLOOD HAZARDS	AIR FREEZING INDEX	MEAN ANNUAL TEMP
	SPEED (MPH)	TOPO-GRAPHIC EFFECTS	SPECIAL WIND REGION	WIND-BORNE DEBRIS ZONE		WEATHERING	FROST LINE DEPTH	TERMITE					
25	110	YES	NO	NO	D2	MODERATE	12"	SLIGHT TO MODERATE	24°	NO	N/A	113	53
EQUIVALENT FLUID PRESSURE = 35 P.C.F. (UNRESTRAINED WALLS) 50 P.C.F. (RESTRAINED WALLS)													

SHEET INDEX

SHEET #	DESCRIPTION
	SITE
A0	SITE PLAN
	ARCHITECTURAL
A1	COVERSHEET
A2	SCHEDULE SHEET
A3	DETAIL SHEET
A4	FOUNDATION PLAN & MAIN FLOOR PLAN
A5	UPPER FLOOR FRAMING PLAN & UPPER FLOOR PLAN
A6	ROOF FRAMING PLAN + BUILDING SECTIONS
A7	EXTERIOR ELEVATIONS
	STRUCTURAL
S1	LATERAL - GENERAL STRUCTURAL NOTES & SCHEDULES
S2	LATERAL - NOTES, SCHEDULES & DETAILS
S3	LATERAL - CONCRETE DETAILS
S4	LATERAL - WOOD DETAILS
S5	LATERAL - SHEAR WALLS & HARDWARE

5046
REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS
NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

A1
A7

ANW JOB NUMBER:
250052

Your Family Architect

CLIENT: LONG DADU
6905 96TH AVE SE
MERCER ISLAND, WA 98040

© ARCHITECTS NORTHWEST 1-888-272-4100

Project Information
Long DADU 6905 96th AVE SE Mercer Island, WA 98040
Contact Information

Messages / Comments * RESULT= PASS

UA Reduction = 2.45, Proposed UA is better than baseline by 1.2%

Window area is 20% of floor area

-

--

--

* Results assume your inputs are complete and correct. Results do not constitute an approval. Analysis should be reviewed by your AHJ.

ANALYSIS SET UP

What code compliance pathway are you using?	U-Factor Compliance Path
Project Building Type?	New Construction
Occupancy Type?	R3 Single family dwellings and townhouses
Code Version?	WSEC 2021
Classification:	Small Dwelling Unit -- 912 sq. ft.
Baseline Description:	Code Baseline - Baseline and proposed window areas are equal.
About Your Selection:	Up to 15 sf exempt window and 24 sf exempt door allowable
	-

RESULTS - Comparison of Baseline and Proposed Design **

Component Performance, R occupancies	Baseline U *	Baseline Area	Baseline UA	Proposed Design U	Proposed Design Area	Proposed Design UA
Doors U =	0.300	0	0.0		0	0.0
Overhead Glazing U =	0.500	0	0.0		0	0.0
Vertical Glazing U =	0.300	179	53.7	0.300	179	53.7
Flat/Vaulted Ceilings U =	0.024	525	12.6	0.026	525	13.5
Wall (above grade) U =	0.056	1,671	93.6	0.054	1,671	90.2
Floors over Crawlspace U =	0.029	84	2.4	0.029	84	2.4
Slab on Grade F =	0.540	79	42.5	0.540	79	42.5
Below Grade Wall U =	N/A	0			0	0.0
Below Grade Slab F =	N/A	0			0	0.0

* Values from Table R402.1.2 (Oct 2023)

Baseline UA Total	204.8	Proposed UA Total	202.3
Required Credits	5.0	Proposed Credits	5.0 from Tables 406.2 and 406.3
		UA Percent Reduction	1%
		UA Reduction	2.5

If the Proposed UA ≤ the Target UA, and the Proposed Credits from Table 406 are ≥ those required in Section R406, then the home meets the WSEC.

** Results assume your inputs are complete and correct. Results do not constitute an approval. Analysis should be reviewed by your AHJ.

SIMPLE HEATING SYSTEM SIZE

This heating system sizing is based on the Prescriptive Requirements of the 2021 Washington State Energy Code. This is for heating only. ACCA procedures for sizing cooling systems should be used to determing cooling.

Indoor Design Temperature			70		
Outdoor Design Temperature			24		
Design Temperature Difference					
Indoor - Outdoor Design Temp			46		
Conditioned Floor Area			912		
Conditioned Volume			8211		
Glazing					
Sum of UA from Glazing Schedule					53.7
Attic	**U-Factor**	**X**	**Area**	**=**	**UA**
R-60 STD	0.025		161		4.03
Other: R-49 ADV	0.020				
Single Rafter or Joist Vaulted Ceilings	**U-Factor**	**X**	**Area**	**=**	**UA**
R-38	0.026		364		9.46
Other:					
Above Grade Walls	**U-Factor**	**X**	**Area**	**=**	**UA**
R-21 INT + R0 (LAP)	0.054		1671		90.23
Other: R-21 INT + R-5ci	0.043				
Floors	**U-Factor**	**X**	**Area**	**=**	**UA**
R-30	0.029		84		2.44
Other: R-38	0.025				
Below Grade Walls	**U-Factor**	**X**	**Area**	**=**	**UA**
R-21 Interior	0.035				
R-10 Continuous exterior	0.064				
Other:					
Slab Below Grade	**F-factor**	**X**	**Length**	**=**	**UA**
R-10 Thermal break	0.5				
Other: R-5 Thermal break	0.57				
Slab on Grade	**F-factor**	**X**	**Length**	**=**	**UA**
R-10 4' perimeter	0.54		78.67		42.48
R-10 Fully insulated	0.36				
Other:					
Sum of UA					202.35
Envelope Heat Load					9308 Btu / Hour
Sum of UA X Design Temperature Difference					
Air Leakage Heat Load					4079 Btu / Hour
((Volume X 0.6) X Design Outdoor Temp) X .018))					
Building Design Heat Load					13387 Btu / Hour
Air Leakage + Envelope Heat Loss					
Building and Duct Heat Load			1		13387 Btu / Hour
Use 1.1 if ducts are located in unconditioned space: Sum of Building Heat Loss X 1.1					
Use 1 if ducts are located in conditioned space: Sum of Building Heat Loss X 1					
Maximum Heat Equipment Output			1.25		16734 Btu / Hour
Use 1.4 for forced air furnace: Building & Duct Heat Loss x 1.4					
Use 1.25 for heat pump: Building & Duct Heat Loss x 1.25					

WINDOW, SKYLIGHT & DOOR SCHEDULE

CONDITIONED FLOOR AREA: 912 SUM OF UA FOR HEATING SYSTEM SIZING: 53.7

SUM OF ALL GLAZING AREAS FROM BELOW: 179

EXEMPT DOOR AND WINDOW

ROOM		U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
	EXEMPT SWING DR (24 S.F. MAX.)					0.00	0.00
	EXEMPT WINDOW (15 S.F. MAX.)					0.00	0.00
					SUM OF AREA AND UA FOR HEATING SYSTEM SIZE ONLY:	**0.0**	**0.0**

EXTERIOR DOORS (OPAQUE)

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
	DOOR		0.30				0.00	0.00
						SUM OF AREA AND UA:	**0.0**	**0.0**
						AREA WEIGHTED U = UA/AREA:		**0.00**

VERTICAL GLAZING

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
FOYER	FR DOOR	SAFETY GLASS	0.30	1	3.00	6.67	20.01	6.00
LIVING	SLIDER		0.30	1	8.00	5.00	40.00	12.00
LIVING	PICTURE		0.30	2	2.00	2.00	8.00	2.40
KITCHEN	PICTURE		0.30	1	5.00	1.00	5.00	1.50
KITCHEN	FR DOOR	SAFETY GLASS	0.30	1	3.00	6.67	20.01	6.00
STAIRS	S.HUNG		0.30	1	2.00	4.00	8.00	2.40
BEDRM 3	SLIDER	EGRESS	0.30	1	5.00	4.00	20.00	6.00
BEDRM 2	SLIDER	EGRESS	0.30	1	5.00	4.00	20.00	6.00
BEDRM 1	PICTURE		0.30	2	1.25	4.00	10.00	3.00
BEDRM 1	SLIDER	EGRESS	0.30	1	5.00	4.00	20.00	6.00
BA1	D.HUNG	SAFETY GLASS	0.30	1	2.00	4.00	8.00	2.40
							0.00	0.00
						SUM OF AREA AND UA:	**179.02**	**53.71**
						AREA WEIGHTED U = UA/AREA:		**0.30**

OVERHEAD GLAZING

ROOM	TYPE		U-VAL	QTY	WIDTH	HEIGHT	AREA	UA
	SKYLIGHT		0.50				0.00	0.00
						SUM OF AREA AND UA:	**0.00**	**0.00**
						AREA WEIGHTED U = UA/AREA:		**0.00**

VERTICAL GLAZING IN UNHEATED SPACES

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA
							0.00
						SUM OF VERTICAL GLAZING IN UNHEATED SPACES:	**0.00**

(not included in sum of all glazing above)

OVERHEAD GLAZING IN UNHEATED SPACES

ROOM	TYPE	DESCRIPTION	U-VAL	QTY	WIDTH	HEIGHT	AREA
	SKYLIGHT						0.00
						SUM OF OVERHEAD GLAZING IN UNHEATED SPACES:	**0.00**

(not included in sum of all glazing above)

PRESCRIPTIVE ENERGY CODE COMPLIANCE

This project will use the requirements of the Prescriptive Path below and incorporate the minimum values listed. In addition, based on the size of the structure, the appropriate number of additional credits are checked.

ALL CLIMATE ZONES - TABLE R402.1.3

	Prescriptive	U-Factor Path	E.B.E. Option 1.2
Fenestration U-Factor^{b}	0.30	0.30	0.25
Skylight U-Factor^{b}	0.50	0.50	0.50
Ceiling R-Value^{e}	60	0.024	60
Wood Frame Wall R-Value^{g,i}	20+5 or 13+10	0.056	20+5 or 13+10
Floor R-Value	30	0.029	38
Below Grade Wall R-Value^{c,h}	10/15/21 int + 5TB	0.035	10/15/21 int + 5TB
Slab^{d,f} R-Value & Depth	10, 4 ft	0.540	10, entire slab

See Table R402.1.2 for U-Factor path footnotes.

See Table R402.1.3 footnotes included on Sheet A1.

Each dwelling unit in a residential building shall comply with sufficient options from Table R406.2 & R406.3 so as to achieve the following minimum number of credits:

☑ **1. Small Dwelling Unit: 5.0 credits**
Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building that are greater than 500 square feet of heated floor area but less than 1500 square feet.

☐ **2. Medium Dwelling Unit: 8.0 credits**
All dwelling units that are not included in #1 or #3.

☐ **3. Large Dwelling Unit: 9.0 credits**
Dwelling units exceeding 5000 square feet of conditioned floor area.

☐ **4. Additions 150 square feet to 500 square feet: 2.0 credits**

ENERGY CREDIT SUMMARY TABLES

Heating Options	Fuel Normalization Descriptions	Credits	
1	Combustion heating, equipment per Table C403.3.2(5) or (6)	0.0	☐
2	Heat pump with supplemental heating	1.5	☐
3	Electric resistance heat only - forced air or zonal	0.5	☐
4	Heat pump without supplemental heating	3.0	☑
5	Electric resistance w/ mini-split heat pump or 2kw max capacity	2.0	☐

Energy Options	Energy Credit Option Descriptions	Credits	
1.1	Efficient Building Envelope	0.5	☐
1.2	Efficient Building Envelope	1.0	☐
1.3	Efficient Building Envelope	1.5	☐
1.4	Efficient Building Envelope	2.5	☐
2.1	Air Leakage Control and Efficient Ventilation	1.0	☐
2.2	Air Leakage Control and Efficient Ventilation	1.5	☐
2.3	Air Leakage Control and Efficient Ventilation	2.0	☐
3.1	High Efficiency HVAC	1.0	☐
3.2	High Efficiency HVAC	0.5	☐
3.3	High Efficiency HVAC	0.5	☐
3.4	High Efficiency HVAC	1.5	☐
3.5	High Efficiency HVAC	1.5	☐
3.6	High Efficiency HVAC	1.0	☐
3.7	High Efficiency HVAC	2.0	☑
3.8	High Efficiency HVAC	1.0	☐
3.9	High Efficiency HVAC	1.5	☐
3.10	High Efficiency HVAC	2.5	☐
3.11	High Efficiency HVAC	0.5	☐
4.1	High Efficiency HVAC Distribution System	0.5	☐
5.1	Efficient Water Heating	0.5	☐
5.2	Efficient Water Heating	0.5	☐
5.3	Efficient Water Heating	0.5	☐
5.4	Efficient Water Heating	1.0	☐
5.5	Efficient Water Heating	1.5	☐
5.6	Efficient Water Heating	2.0	☐
5.7	Efficient Water Heating	2.5	☐
5.8	Efficient Water Heating	2.5	☐
6.1	Renewable Electric Energy (0.5 credits per 600kwh, 4.5 max)	0.0	☐
7.1	Appliance Package	0.5	☐
Total Credits		**5.0**	

AIR LEAKAGE

Components of the building thermal envelope as listed in TABLE R402.4.1.1 shall be installed per manufacturer's specifications to limit air leakage rate to not exceed 4 air changes per hour (ACH)

AIR LEAKAGE CALCULATION (maximum blower test CFM)		$CFM_{50\text{-}calc}$		ACTUAL Blower test result	
maximum ACH	$CFM_{50\text{-}calc}$ = BLDG VOL (ft^3) X 4 ACH / 60 min =	547	cfm		cfm

ROOF VENTILATION

Standard Truss / Scissor Truss Roof Framing Assembly:		**UPPER ROOF**
Roof Area :	**525** s.f.	
Ventilation Required:	525 s.f. x 144 / 300 =	252 s.i. Req'd
Provide between 40% & 50% of the total required ventilation no more than 3 ft below the ridge or the highest point of the space. Remainder to be installed at eave vents.		
Upper Roof Ventilation:		
AF50 Roof Jack (10" x 7") =		50.00 s.i. each.
Upper Ventilation MINIMUM =	252 s.i. x 0.4 / s.i. of each vent =	3 vents
Upper Ventilation MAXIMUM =	252 s.i. x 0.5 / s.i. of each vent =	3 vents
Provide:	3 -10"x7" roof jacks. Ventilation =	150.00 s.i.
Ventilation area remainder for eave vents =	102.00 s.i.	(Req'd vent-Upper vent)
Eave Ventilation:		
Birdblocking: (3)2.25" dia holes per bay =	5.96 s.i. per l.f. - 25% reduction =	4.47 s.i. per l.f.
Eave Ventilation Required =	102.00 s.i. / 4.47 s.i. per l.f. =	22.82 l.f.
Provide Minimum :	23 l.f. birdblocking. Ventilation =	102.81 s.i.
Minimum Ventilation Provided =	**252.81 s.i. IS GREATER THAN :**	**252 s.i. Req'd**

VAPOR RETARDER

FLOOR	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	PLYWOOD W/ EXT. GLUE
WALL	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	CLASS II PRIMER
RIM JOIST	☐	4 MIL POLY	☒	FOIL-FACE STAPLED BACKED BATTS	☐	CLASS II PRIMER
CEILING	☐	4 MIL POLY	☐	FACE STAPLED BACKED BATTS	☒	CLASS II PRIMER

NOTE: CLASS II DEFINED AS PERM RATING GREATER THAN 0.1 AND LESS THAN OR EQUAL TO 1.0

WHOLE-HOUSE MECHANICAL VENTILATION (PRESCRIPTIVE)

WHOLE-HOUSE MECHANICAL VENTILATION SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH SECTIONS M1505.4.1 THROUGH M1505.4.4 (WASHINGTON STATE AMENDMENTS)

- ☑ WHOLE-HOUSE VENTILATION USING EXHAUST FANS (M1505.4.1.2)
- ☐ WHOLE-HOUSE VENTILATION USING SUPPLY FANS (M1505.4.1.3)
- ☐ WHOLE-HOUSE VENTILATION SYSTEM, BALANCED (M1505.4.1.4)
- ☐ WHOLE-HOUSE VENTILATION USING AIR HANDLER INTEGRATED SUPPLY (M1505.4.1.5)

MECHANICAL VENTILATION AIRFLOW RATE PER EQUATION 15-1 (M1505.4.3) 39.12 CFM (CONTINUOUS)

VENTILATION QUALITY ADJUSTMENT PER EQUATION 15-2 (M1505.4.3.1)

- ☐ BALANCED & DISTRIBUTED (1.0 COEFFICIENT)
- ☐ BALANCED & NOT DISTRIBUTED (1.25 COEFFICIENT)
- ☐ NOT BALANCED & DISTRIBUTED (1.25 COEFFICIENT
- ☑ NOT BALANCED & NOT DISTRIBUTED (1.5 COEFFICIENT)

ADJUSTED MECHANICAL VENTILATION AIRFLOW RATE 58.68 CFM (CONTINUOUS)

INTERMITTENT OFF OPERATION (M1505.4.3.2)

RUN-TIME % IN EACH 4-HOUR SEGMENT

- ☐ 50 PERCENT
- ☐ 66 PERCEINT
- ☑ 75 PERCENT
- ☐ 100 PERCENT

INTERMITTENT FLOW RATE 76.284 CFM

EXHAUST RATES

WSBC AMENDMENTS TO 2021 IRC SECTION M1505

SYMBOL	LOCATION	MINIMUM FAN REQUIREMENTS
A	Bath, Powder	Minimum 50 cfm Intermittent, 20 cfm Continuous (IRC TABLE M1505.4.4(1))
B	Kitchen	INTERMITTENT-OPEN OR ENCLOSED KITCHEN Hood over electric range 65% CE or 160 CFM. Hood over combustion range 80% CE or 250 CFM. CONTINUOUS-ENCLOSED KITCHENS 5 ACH based on kitchen volume.
C	Whole House Fan	Flow rate per WHOLE-HOUSE MECHANICAL VENTILATION schedule

All fans to vent to outside. All other requirements of the 2021 WSEC and the WSBC amendments to the 2021 IRC section M1505 must be met.

ALARM SCHEDULE

2021 IRC SECTIONS R314 & R315

SYMBOL	DESCRIPTION	REQUIREMENTS
SA	Smoke Alarm	*110 V interconnected w/ battery backup. *Installed on each floor, in each sleeping room, and outside each separate sleeping area. Installed not less than 3 ft from the door of a bath which contains a tub or shower unless this prevents placement in a required location. *Listed in accordance with UL 217 and to comply with NFPA 72.
SA CM	Combination Smoke Alarm & Carbon Monoxide Alarm	*Installed on each floor, outside of each separate sleeping area in the immediate vicinity of the bedrooms, and in a bedroom that contains a gas fireplace in the bedroom or adjacent bathroom. *Smoke alarm requirements per above. *Combination smoke & carbon monoxide alarms listed in accordance with UL 217 & UL 2034.
HD	Heat Detector	*A heat detector or heat alarm to be installed in a central location in the garage and per the manufacturer's instructions. * Heat detector shall be interconnected to an alarm installed in the dwelling unit.

REGISTERED ARCHITECT
5046
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911AO-O

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

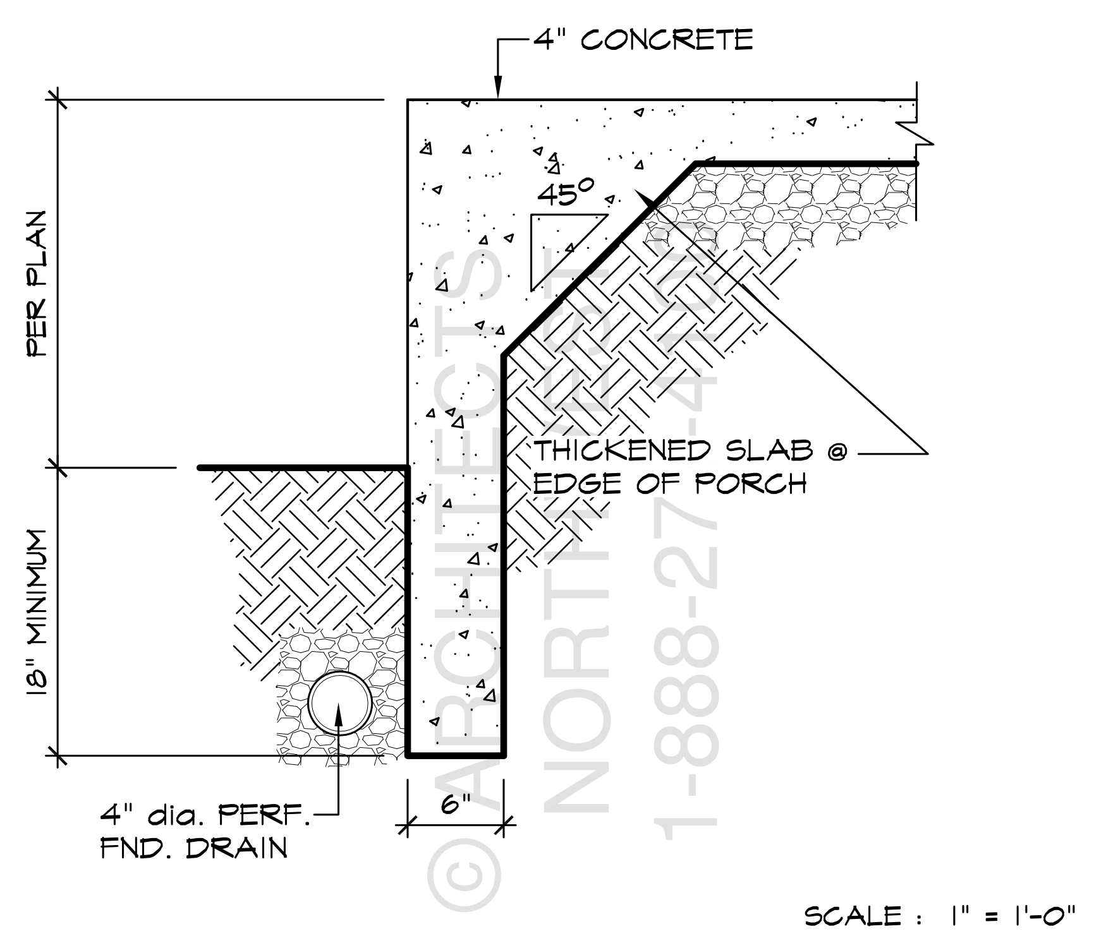
A2 / A7

ANW JOB NUMBER: 250052

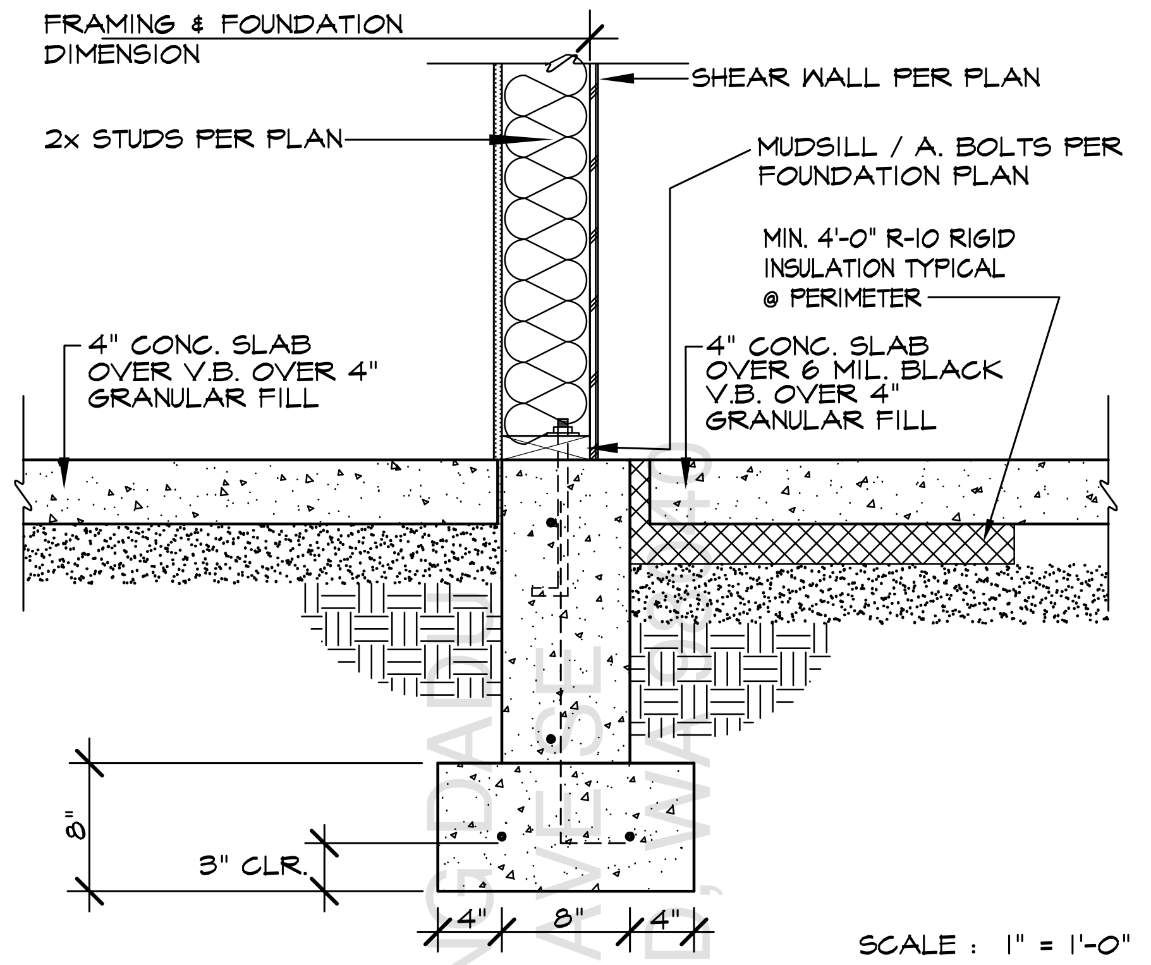
Your Family Architect

ARCHITECTS NORTHWEST

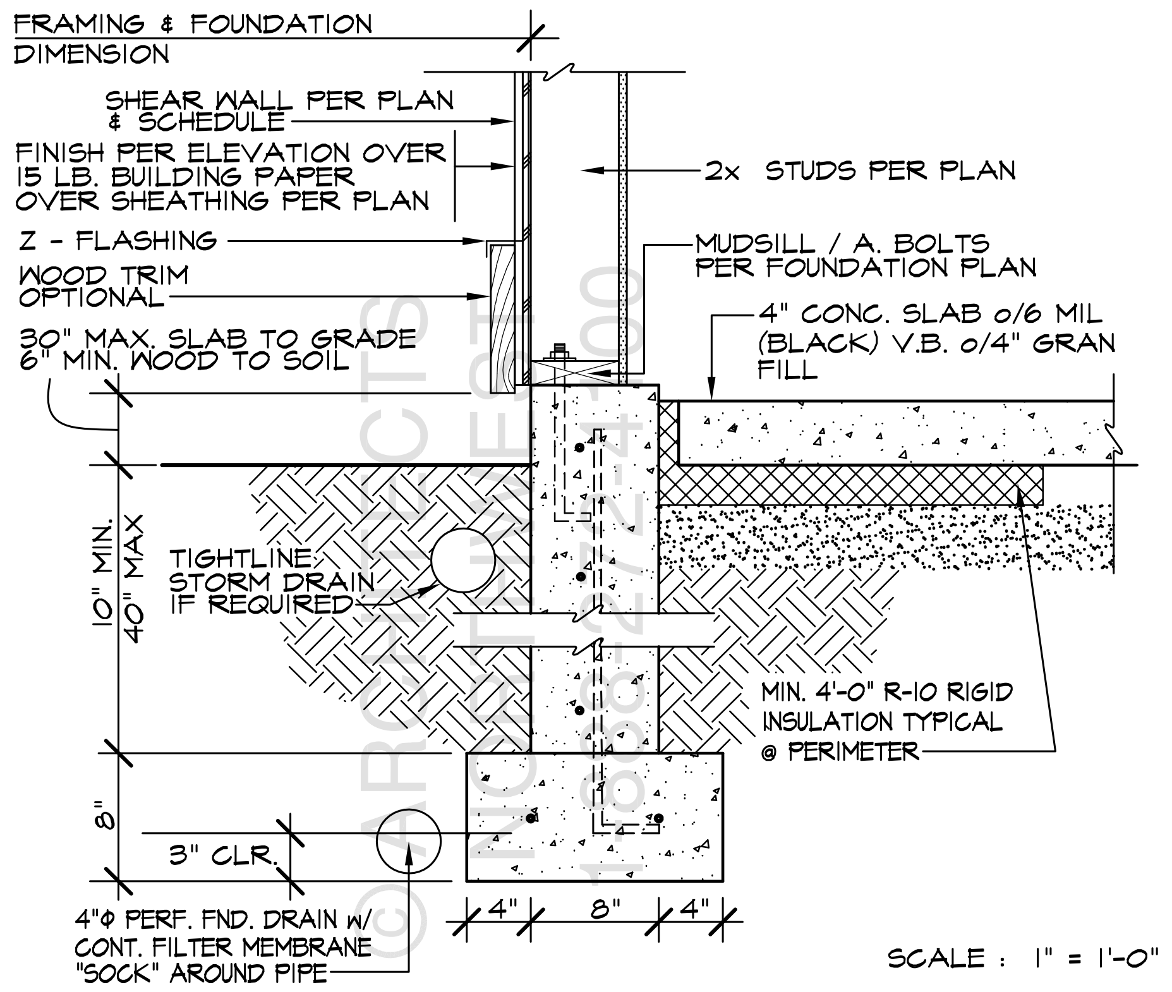
① NOT USED


4" CONCRETE
45°
PER PLAN
18" MINIMUM
THICKENED SLAB @ EDGE OF PORCH
4" dia. PERF. FND. DRAIN
6"
SCALE : 1" = 1'-0"

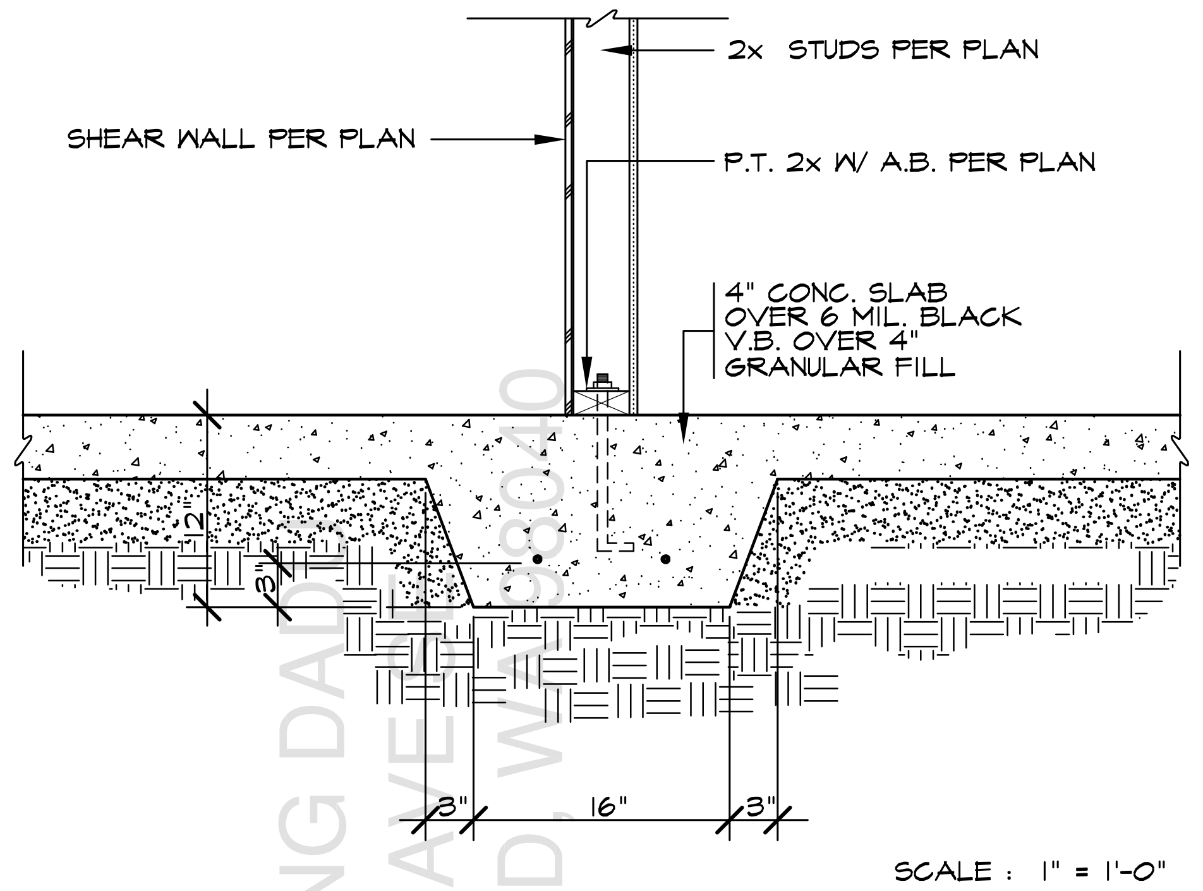
② FND. WALL PORCH


FRAMING & FOUNDATION DIMENSION
SHEAR WALL PER PLAN
2x STUDS PER PLAN
MUDSILL / A. BOLTS PER FOUNDATION PLAN
MIN. 4'-0" R-10 RIGID INSULATION TYPICAL @ PERIMETER
4" CONC. SLAB OVER V.B. OVER 4" GRANULAR FILL
4" CONC. SLAB OVER 6 MIL. BLACK V.B. OVER 4" GRANULAR FILL
8"
3" CLR.
4"
8"
4"
SCALE : 1" = 1'-0"

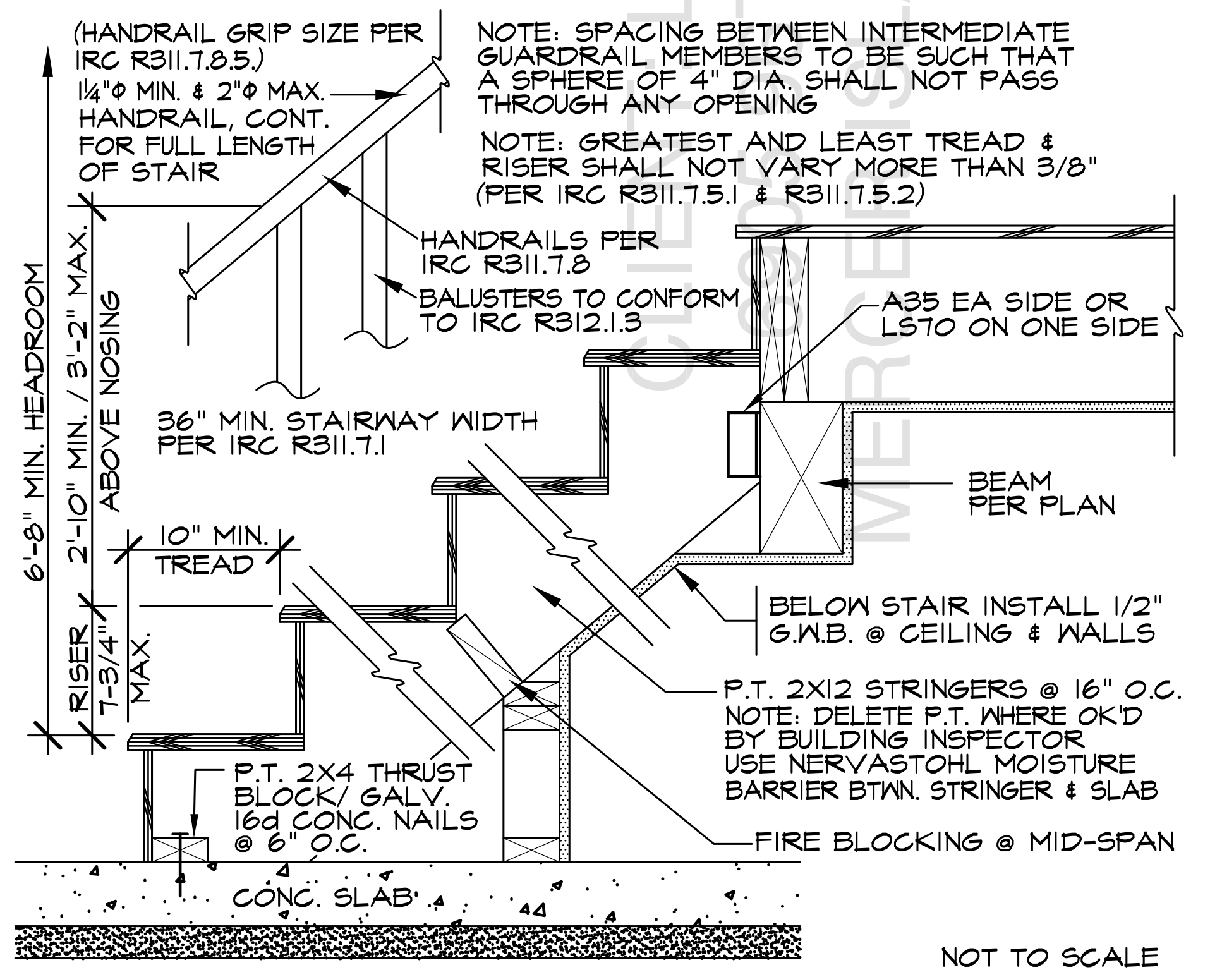
③ 8" STEM WALL W/ SLAB


FRAMING & FOUNDATION DIMENSION
SHEAR WALL PER PLAN & SCHEDULE
FINISH PER ELEVATION OVER 15 LB. BUILDING PAPER OVER SHEATHING PER PLAN
Z - FLASHING
WOOD TRIM OPTIONAL
30" MAX. SLAB TO GRADE 6" MIN. WOOD TO SOIL
2x STUDS PER PLAN
MUDSILL / A. BOLTS PER FOUNDATION PLAN
4" CONC. SLAB o/6 MIL (BLACK) V.B. o/4" GRAN FILL
10" MIN. 40" MAX
TIGHTLINE STORM DRAIN IF REQUIRED
MIN. 4'-0" R-10 RIGID INSULATION TYPICAL @ PERIMETER
8"
3" CLR.
4"Φ PERF. FND. DRAIN w/ CONT. FILTER MEMBRANE "SOCK" AROUND PIPE
4"
8"
4"
SCALE : 1" = 1'-0"

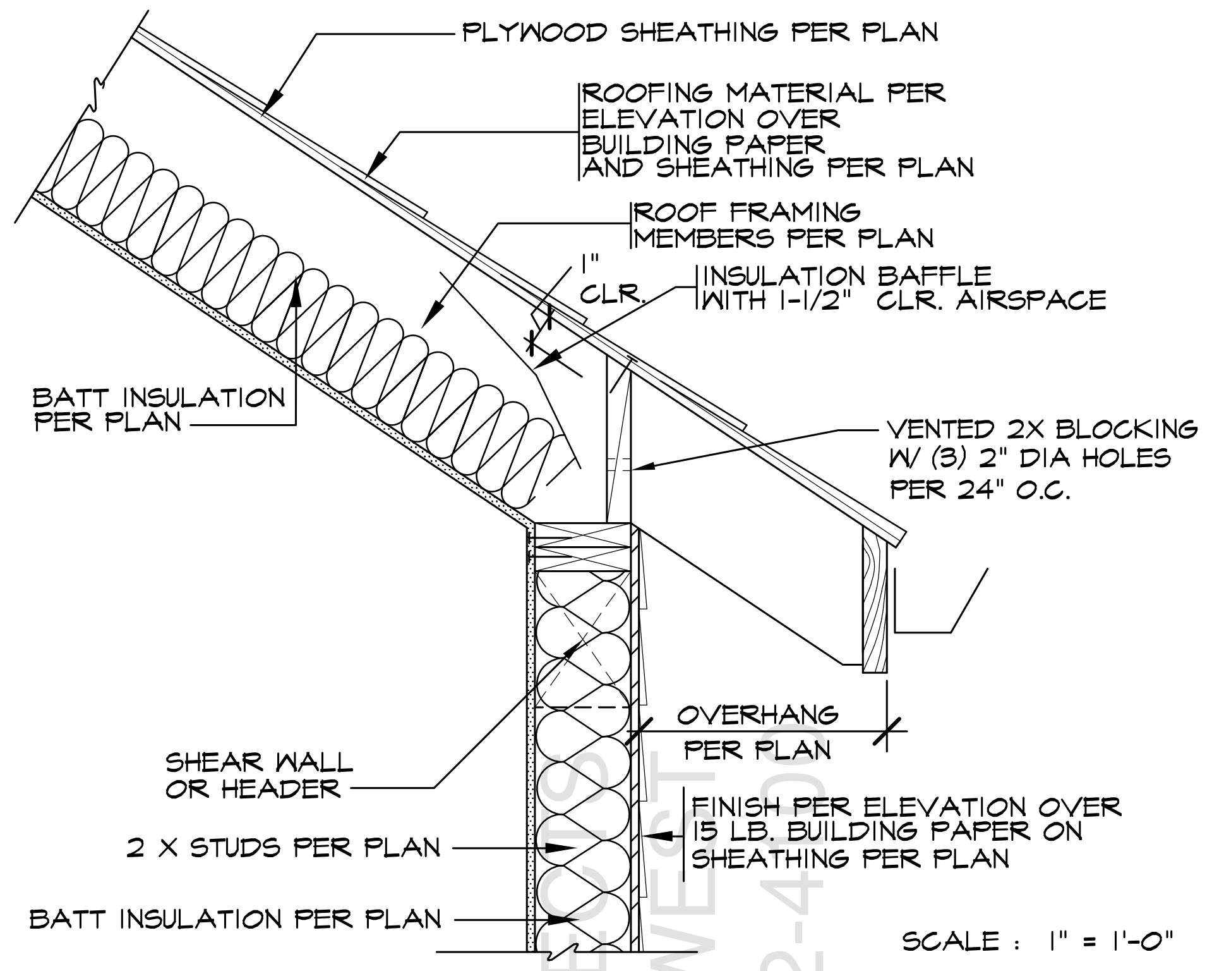
④ 8" FND. WALL


2x STUDS PER PLAN
SHEAR WALL PER PLAN
P.T. 2x W/ A.B. PER PLAN
4" CONC. SLAB OVER 6 MIL. BLACK V.B. OVER 4" GRANULAR FILL
12"
3"
3"
16"
3"
SCALE : 1" = 1'-0"

⑤ THICKENED SLAB


(HANDRAIL GRIP SIZE PER IRC R311.7.8.5.)
1¼"Φ MIN. & 2"Φ MAX. HANDRAIL, CONT. FOR FULL LENGTH OF STAIR
NOTE: SPACING BETWEEN INTERMEDIATE GUARDRAIL MEMBERS TO BE SUCH THAT A SPHERE OF 4" DIA. SHALL NOT PASS THROUGH ANY OPENING
NOTE: GREATEST AND LEAST TREAD & RISER SHALL NOT VARY MORE THAN 3/8" (PER IRC R311.7.5.1 & R311.7.5.2)
HANDRAILS PER IRC R311.7.8
BALUSTERS TO CONFORM TO IRC R312.1.3
A35 EA SIDE OR LS70 ON ONE SIDE
6'-8" MIN. HEADROOM
2'-10" MIN. / 3'-2" MAX. ABOVE NOSING
36" MIN. STAIRWAY WIDTH PER IRC R311.7.1
BEAM PER PLAN
10" MIN. TREAD
RISER 7-3/4" MAX.
BELOW STAIR INSTALL 1/2" G.W.B. @ CEILING & WALLS
P.T. 2X12 STRINGERS @ 16" O.C. NOTE: DELETE P.T. WHERE OK'D BY BUILDING INSPECTOR USE NERVASTOHL MOISTURE BARRIER BTWN. STRINGER & SLAB
P.T. 2X4 THRUST BLOCK/ GALV. 16d CONC. NAILS @ 6" O.C.
FIRE BLOCKING @ MID-SPAN
CONC. SLAB
NOT TO SCALE

⑥ INTERIOR STAIR W/ SLAB


PLYWOOD SHEATHING PER PLAN
ROOFING MATERIAL PER ELEVATION OVER BUILDING PAPER AND SHEATHING PER PLAN
ROOF FRAMING MEMBERS PER PLAN
1" CLR.
INSULATION BAFFLE WITH 1-1/2" CLR. AIRSPACE
BATT INSULATION PER PLAN
VENTED 2X BLOCKING W/ (3) 2" DIA HOLES PER 24" O.C.
OVERHANG PER PLAN
SHEAR WALL OR HEADER
FINISH PER ELEVATION OVER 15 LB. BUILDING PAPER ON SHEATHING PER PLAN
2 X STUDS PER PLAN
BATT INSULATION PER PLAN
SCALE : 1" = 1'-0"

⑦ VAULTED CEILING & EAVE

⑧ NOT USED

⑨ NOT USED

⑩ NOT USED

⑪ NOT USED

⑫ NOT USED

⑬ NOT USED

⑭ NOT USED

⑮ NOT USED

⑯ NOT USED

⑰ NOT USED

⑱ NOT USED

⑲ NOT USED

⑳ NOT USED

CLIENT: LONG DADU
6905 96TH AVE SE
MERCER ISLAND, WA 98040

© ARCHITECTS
NORTHWEST
1-888-272-4100

REGISTERED ARCHITECT
5046
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU

PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

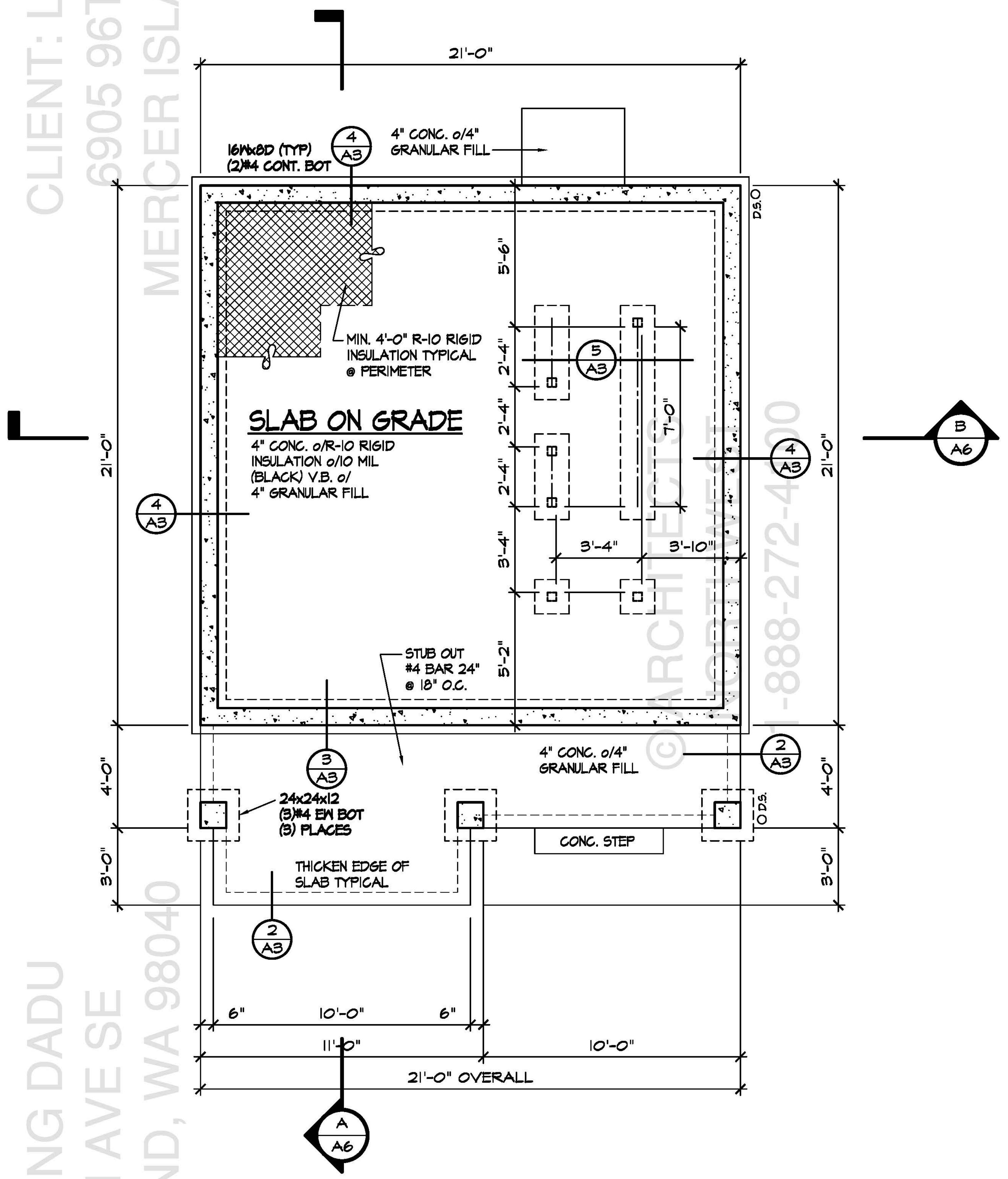
A3
A7

ANW JOB NUMBER: 250052

Your Family Architect
ARCHITECTS NORTHWEST

CLIENT: LONG DADU
6905 96TH AVE SE
MERCER ISLAND, WA 98040

© ARCHITECTS
NORTHWEST
1-888-272-4100


21'-0"
16Wx8D (TYP)
(2)#4 CONT. BOT
4" CONC. o/4"
GRANULAR FILL
MIN. 4'-0" R-10 RIGID
INSULATION TYPICAL
@ PERIMETER
D.S.O
SLAB ON GRADE
4" CONC. o/R-10 RIGID
INSULATION o/10 MIL
(BLACK) V.B. o/
4" GRANULAR FILL
5'-6"
2'-4"
2'-4"
2'-4"
7'-0"
3'-4"
3'-4"
3'-10"
5'-2"
STUB OUT
#4 BAR 24"
@ 18" O.C.
4" CONC. o/4"
GRANULAR FILL
24x24x12
(3)#4 EW BOT
(3) PLACES
CONC. STEP
O.D.S.
THICKEN EDGE OF
SLAB TYPICAL
21'-0"
4'-0"
3'-0"
6"
10'-0"
6"
11'-0"
10'-0"
21'-0" OVERALL
4
A3
5
A3
3
A3
2
A3
B
A6
A
A6

FOUNDATION PLAN

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

GABRIELA SILA
52184
8/8/2025
Structural
Content
Only

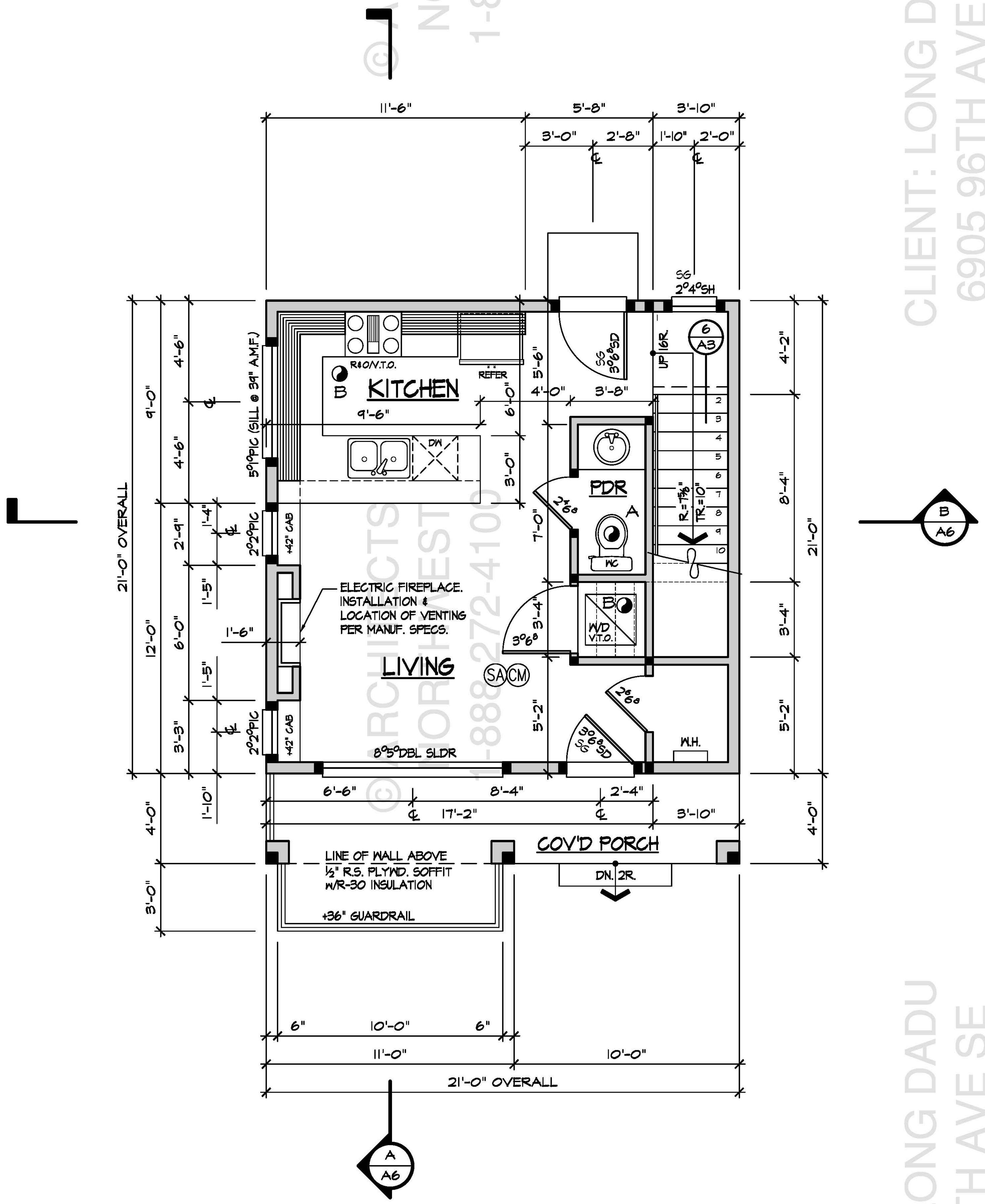
GEOTECHNICAL REPORT
TO BE REVIEWED PRIOR
TO COMMENCING ANY
SITE ACTIVITIES

FOUNDATION NOTES:

1. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL FOOTINGS TO REST ON UNDISTURBED SOIL.
3. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
4. SOFFIT & INSULATE CANTILEVERED AREAS.
5. STEP FOUNDATION PER SITE CONDITIONS.
6. 1,500 P.S.F. ASSUMED SOIL BEARING CAPACITY SHALL BE VERIFIED IN FIELD.
7. SEE SHEET A1 FOR ADDITIONAL NOTES.
8. SEE SHEET A2 FOR FOUNDATION VENTILATION CALCULATION.

NOTE: SEE 'S' SHEETS FOR
LATERAL INFORMATION
& ENGINEERING DETAILS

PROVIDE BITUMINOUS DAMPROOFING FROM
TOP OF FTG. TO FIN. GRADE AT BASEMENT
WALLS AND CRAWL SPACE WALLS.


11'-6"
5'-8"
3'-10"
3'-0"
2'-8"
1'-10"
2'-0"
SG
2⁰4⁰SH
KITCHEN
R&O/V.T.O.
B
REFER
9'-6"
DW
5⁰0⁰PIC (SILL @ 39" A.M.F.)
SG
3⁰6⁸SD
UP 16R.
6
A3
5'-6"
6'-0"
4'-0"
3'-8"
3'-0"
PDR
2⁴6⁸
A
WC
R.=7⅝"
TR.=10"
7'-0"
B
W/D
V.T.O.
3⁰6⁸
3'-4"
2⁰2⁰PIC
+42" CAB
ELECTRIC FIREPLACE.
INSTALLATION &
LOCATION OF VENTING
PER MANUF. SPECS.
LIVING
SA
CM
2⁶6⁸
SG
3⁰6⁸SD
W.H.
8⁰5⁰DBL SLDR
5'-2"
6'-6"
8'-4"
2'-4"
17'-2"
3'-10"
COV'D PORCH
LINE OF WALL ABOVE
½" R.S. PLYWD. SOFFIT
w/R-30 INSULATION
+36" GUARDRAIL
DN. 2R.
21'-0" OVERALL
9'-0"
4'-6"
4'-6"
12'-0"
2'-9"
1'-4"
1'-5"
6'-0"
1'-6"
1'-5"
3'-3"
1'-10"
4'-0"
3'-0"
4'-2"
8'-4"
3'-4"
5'-2"
21'-0"
4'-0"
6"
10'-0"
6"
11'-0"
10'-0"
21'-0" OVERALL
B
A6
A
A6

MAIN FLOOR PLAN

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

FLOOR PLAN NOTES:

1. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. WINDOWS & DOORS ARE SHOWN & NOTED AS NOMINAL SIZES.
3. EXTERIOR WALLS TO BE 2x6 STUDS @ 16" O.C. U.N.O.
4. ■ INDICATES POINT LOAD SUPPORTED BY (2) STUDS, U.N.O.
5. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.7 & R303.8
6. SEE SHEET A1 FOR ADDITIONAL NOTES.
7. SEE SHEET A2 FOR VENTILATION SCHEDULE.
8. SEE SHEET A2 FOR ALARM SCHEDULE.

NOTE: SEE 'S' SHEETS FOR
LATERAL INFORMATION
& ENGINEERING DETAILS

AREA SUMMARY

MAIN FLOOR:	441 S.F.
UPPER FLOOR:	471 S.F.
TOTAL HEATED AREA:	**912 S.F.**
GARAGE:	N/A
COVERED AREA:	84 S.F.
UNFINISHED AREA:	N/A

5046
REGISTERED
ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS
NORTHWEST
18915-142ND AVENUE NE SUITE 100 WOODINVILLE, WA 98072
OFFICE: (425) 485-4900 FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100 WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

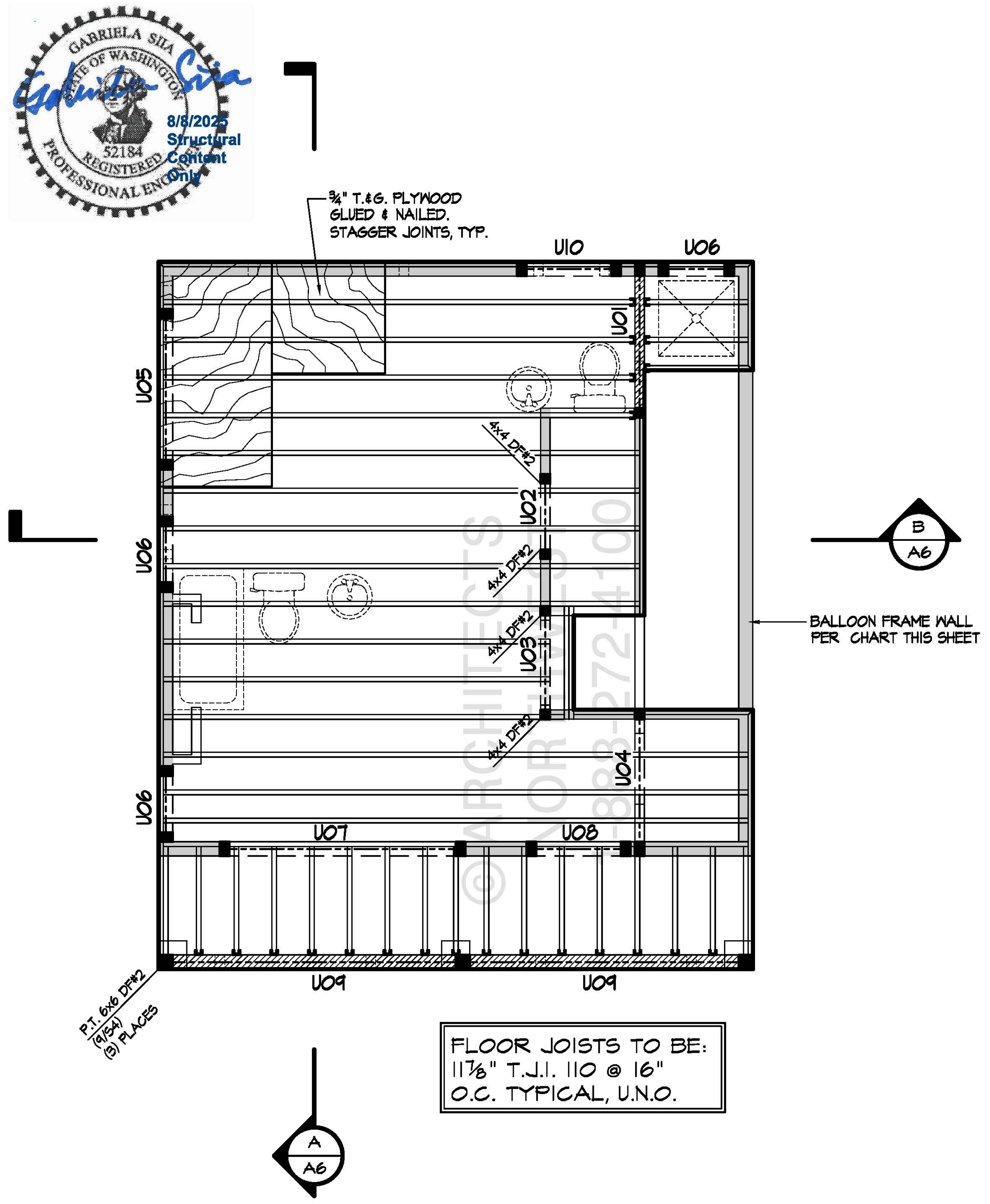
LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

A4
A7

ANW JOB NUMBER:
250052

UPPER FLOOR BEAM SCHEDULE				
MEMBER	BM SIZE	SPECIES	CONNECTION	COMMENTS
U01	4x10	DF#2	-	BEAM
U02	4x10	DF#2	-	HEADER
U03	4x10	DF#2	-	HEADER
U04	4x10	DF#2	-	HEADER
U05	4x10	DF#2	-	HEADER
U06	4x10	DF#2	-	HEADER
U07	4x10	DF#2	-	HEADER
U08	4x10	DF#2	-	HEADER
U09	6 x 12	DF#2	-	BEAM
U10	4x10	DF#2	-	HEADER

GABRIELA SILA
52184
8/8/2025
Structural Content Only


¾" T.&G. PLYWOOD
GLUED & NAILED.
STAGGER JOINTS, TYP.
U10
U06
U01
U05
U02
U06
U03
U04
U06
4x4 DF#2
4x4 DF#2
4x4 DF#2
4x4 DF#2
U07
U08
U09
U09
BALLOON FRAME WALL
PER CHART THIS SHEET
P.T. 6x6 DF#2
(9/S4)
(3) PLACES
B
A6
A
A6

FLOOR JOISTS TO BE:
11⅞" T.J.I. 110 @ 16"
O.C. TYPICAL, U.N.O.

UPPER FLOOR FRAMING PLAN

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

FLOOR FRAMING NOTES:

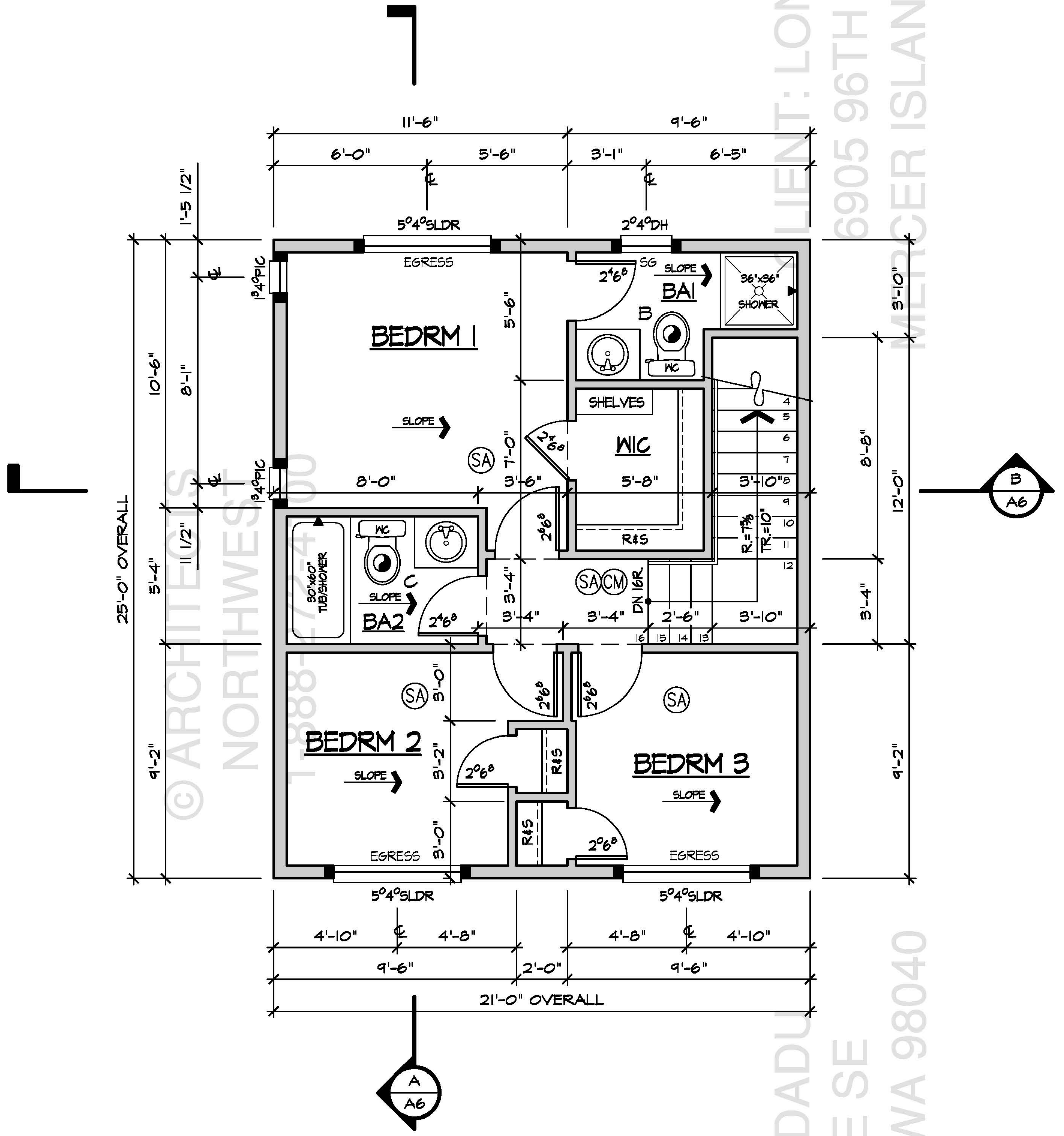
1. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL FLOOR JOISTS TO BE 11⅞" T.J.I. 110 @ 16" ON CENTER UNLESS NOTED OTHERWISE (U.N.O.)
3. ALL HEADERS TO BE 4x10 DF#2 W/R-10 RIGID INSULATION @ EXTERIOR WARM WALLS, U.N.O.
4. PROVIDE SOLID BLOCKING OVER SUPPORTS.
5. PROVIDE FIRE BLOCKING @ ALL PLUMBING PENETRATIONS.
6. WINDOW HEADERS @ 6'-8" ABOVE FINISHED FLOOR @ MAIN FLOOR U.N.O.
7. BEARING WALLS ARE SHADED.
8. PLUMBING AND MECHANICAL FIXTURES ARE DASHED.
9. ■ INDICATES POINT LOAD SUPPORTED BY (2) STUDS, U.N.O.
10. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED.
11. SEE SHEET A1 FOR ADDITIONAL NOTES.

NOTE: SEE 'S' SHEETS FOR LATERAL INFORMATION & ENGINEERING DETAILS

NOTE: USE FULL LENGTH STUDS (BALLOON FRAME) PER THIS TABLE

WALL HEIGHT	FRAMING	BLOCKING
10'-0" OR LESS	2x6 @ 16" O.C.	N/A
10'-1" - 12'-6"	2x6 @ 12" O.C.	1/2 POINTS
12'-7" - 15'-0"	(2)2x6 @ 16" O.C.	1/2 POINTS
15'-1" - 17'-6"	(2)2x6 @ 12" O.C.	1/3 POINTS
17'-6" - 20'-2"	1¾"x5½" LVL @ 12" O.C.	1/3 POINTS

BEAM SCHEDULE	
PLAN VIEW	DESCRIPTION
- - - - -	DROPPED BEAM DESIGNATED ON FLOOR PLANS
—-—-—	DROPPED BEAM DESIGNATED ON FRAMING PLANS
▨	FLUSH AND TOP FLUSH BEAM DESIGNATED ON FRAMING PLANS
▨	UPSET BEAM DESIGNATED ON FRAMING PLANS


11'-6"
9'-6"
6'-0"
5'-6"
3'-1"
6'-5"
5⁰4⁰SLDR
2⁰4⁰DH
EGRESS
SG
SLOPE
BA1
36"x36" SHOWER
B
WC
BEDRM 1
SLOPE
SA
1³4⁰PIC
1³4⁰PIC
2⁴6⁸
5'-6"
7'-0"
SHELVES
WIC
2⁴6⁸
8'-0"
3'-6"
5'-8"
3'-10"
R&S
R.=7⅝
TR.=10"
4 5 6 7 8 9 10 11 12
30"x60" TUB/SHOWER
WC
C
SLOPE
BA2
2⁴6⁸
2⁶6⁸
3'-4"
SA CM
DN 16R.
3'-4"
3'-4"
2'-6"
3'-10"
16 15 14 13
SA
3'-0"
2⁶6⁸
2⁶6⁸
SA
BEDRM 2
SLOPE
3'-2"
2⁰6⁸
R&S
BEDRM 3
SLOPE
R&S
2⁰6⁸
3'-0"
EGRESS
EGRESS
5⁰4⁰SLDR
5⁰4⁰SLDR
4'-10"
4'-8"
4'-8"
4'-10"
9'-6"
2'-0"
9'-6"
21'-0" OVERALL
25'-0" OVERALL
10'-6"
8'-1"
1'-5 1/2"
11 1/2"
5'-4"
9'-2"
3'-10"
8'-8"
12'-0"
3'-4"
9'-2"
B
A6
A
A6

UPPER FLOOR PLAN

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

FLOOR PLAN NOTES:

1. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. WINDOWS & DOORS ARE SHOWN & NOTED AS NOMINAL SIZES.
3. EXTERIOR WALLS TO BE 2x6 STUDS @ 16" O.C. U.N.O.
4. ■ INDICATES POINT LOAD SUPPORTED BY (2) STUDS, U.N.O.
5. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.7 & R303.8
6. SEE SHEET A1 FOR ADDITIONAL NOTES.
7. SEE SHEET A2 FOR VENTILATION SCHEDULE.
8. SEE SHEET A2 FOR ALARM SCHEDULE.

NOTE: SEE 'S' SHEETS FOR LATERAL INFORMATION & ENGINEERING DETAILS

CLIENT: LONG DADU
6905 96TH AVE SE
MERCER ISLAND, WA 98040

© ARCHITECTS
NORTHWEST
1-888-272-4100

Your Family Architect

5046
REGISTERED ARCHITECT
JEFFREY P. deGROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100 WOODINVILLE, WA 98072
OFFICE: (425) 485-4900 FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100 WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

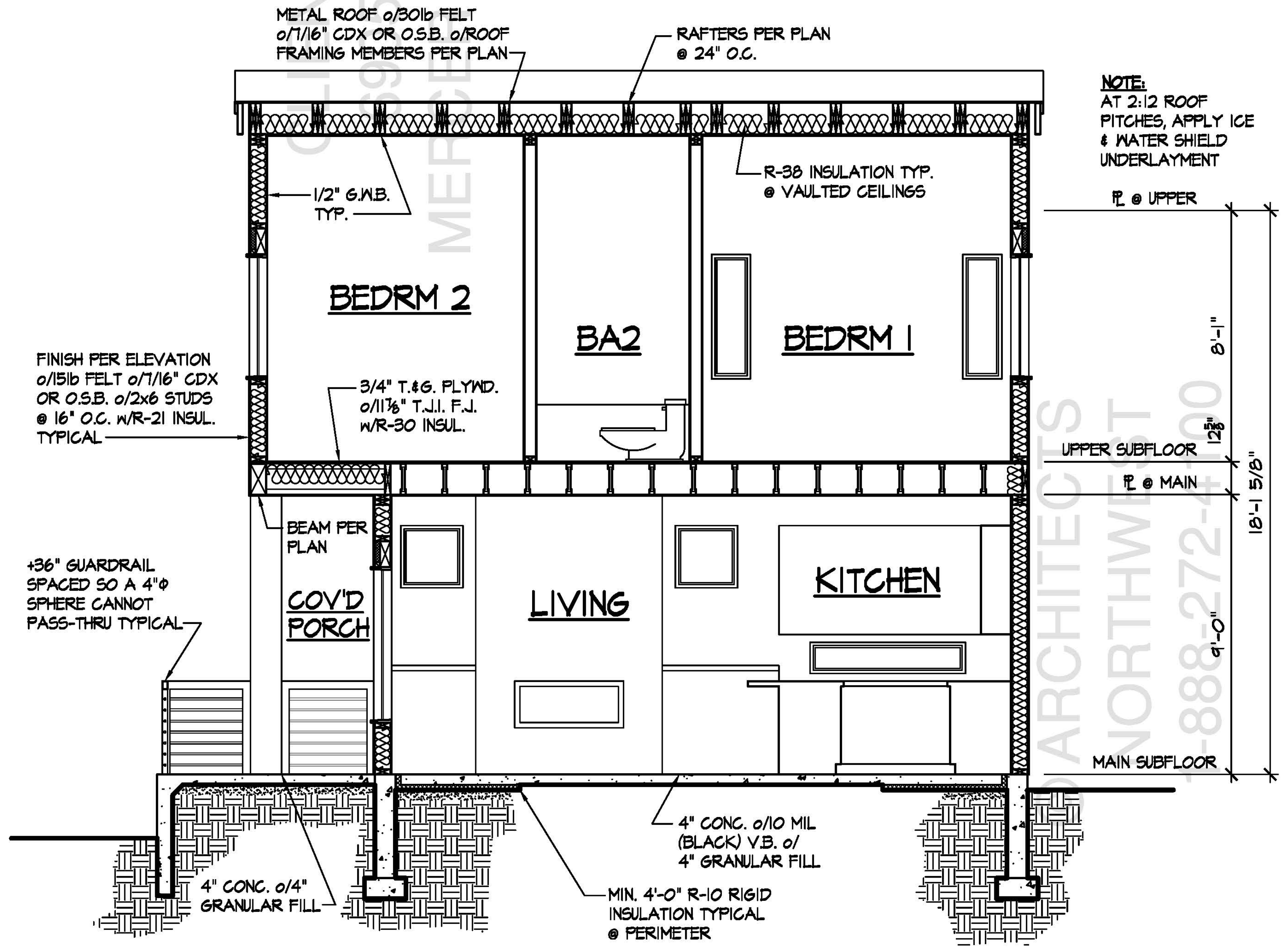
A5
A7

ANW JOB NUMBER: 250052

CLIENT: LONG DADU
6905 96TH AVE SE
MERCER ISLAND, WA 98040

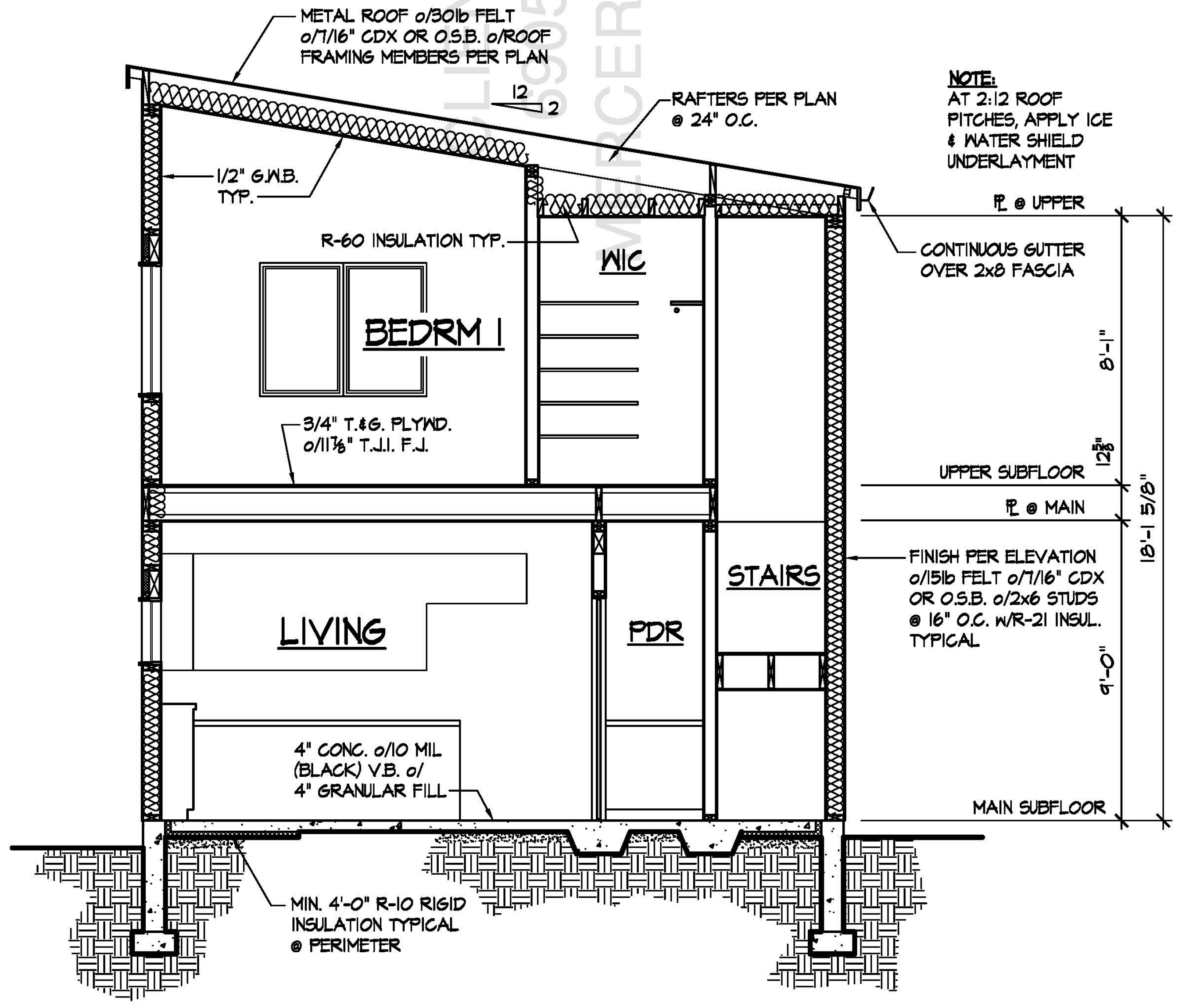
© ARCHITECTS
NORTHWEST
1-888-272-4100

ROOF UNDERLAYMENT NOTE:
ROOFS WITH PITCHES BETWEEN 2:12 AND 4:12 ARE REQUIRED TO HAVE A DOUBLE UNDERLAYMENT PER IRC 905.2.2.


METAL ROOF o/30lb FELT o/7/16" CDX OR O.S.B. o/ROOF FRAMING MEMBERS PER PLAN
RAFTERS PER PLAN @ 24" O.C.
NOTE: AT 2:12 ROOF PITCHES, APPLY ICE & WATER SHIELD UNDERLAYMENT
1/2" G.W.B. TYP.
R-38 INSULATION TYP. @ VAULTED CEILINGS
PL @ UPPER
BEDRM 2
BA2
BEDRM 1
8'-1"
FINISH PER ELEVATION o/15lb FELT o/7/16" CDX OR O.S.B. o/2x6 STUDS @ 16" O.C. w/R-21 INSUL. TYPICAL
3/4" T.&G. PLYWD. o/11⅞" T.J.I. F.J. w/R-30 INSUL.
12⅝"
UPPER SUBFLOOR
PL @ MAIN
18'-1 5/8"
BEAM PER PLAN
+36" GUARDRAIL SPACED SO A 4"φ SPHERE CANNOT PASS-THRU TYPICAL
COV'D PORCH
LIVING
KITCHEN
9'-0"
MAIN SUBFLOOR
4" CONC. o/10 MIL (BLACK) V.B. o/ 4" GRANULAR FILL
4" CONC. o/4" GRANULAR FILL
MIN. 4'-0" R-10 RIGID INSULATION TYPICAL @ PERIMETER

BUILDING SECTION 'A'

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


METAL ROOF o/30lb FELT o/7/16" CDX OR O.S.B. o/ROOF FRAMING MEMBERS PER PLAN
12
2
RAFTERS PER PLAN @ 24" O.C.
NOTE: AT 2:12 ROOF PITCHES, APPLY ICE & WATER SHIELD UNDERLAYMENT
1/2" G.W.B. TYP.
PL @ UPPER
R-60 INSULATION TYP.
CONTINUOUS GUTTER OVER 2x8 FASCIA
WIC
BEDRM 1
8'-1"
3/4" T.&G. PLYWD. o/11⅞" T.J.I. F.J.
12⅝"
UPPER SUBFLOOR
PL @ MAIN
18'-1 5/8"
STAIRS
FINISH PER ELEVATION o/15lb FELT o/7/16" CDX OR O.S.B. o/2x6 STUDS @ 16" O.C. w/R-21 INSUL. TYPICAL
LIVING
PDR
9'-0"
4" CONC. o/10 MIL (BLACK) V.B. o/ 4" GRANULAR FILL
MAIN SUBFLOOR
MIN. 4'-0" R-10 RIGID INSULATION TYPICAL @ PERIMETER

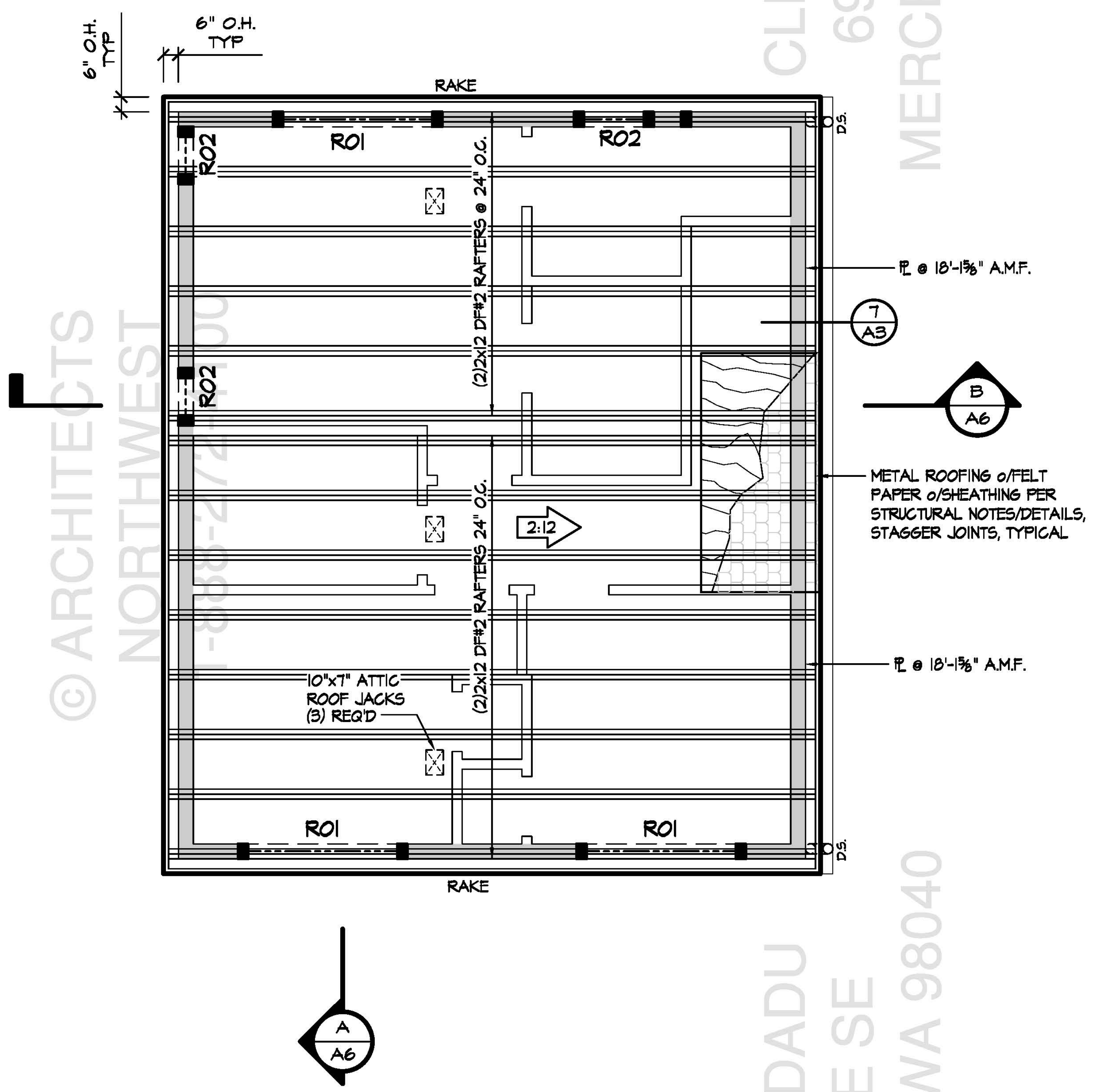
BUILDING SECTION 'B'

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

ROOF BEAM SCHEDULE

MEMBER	BM SIZE	SPECIES	CONNECTION	COMMENTS
R01	4 x 10	DF#2	-	HEADER
R02	4 x 10	DF#2	-	HEADER

GABRIELA SIIA
52184
8/8/2025
Structural Content Only


6" O.H. TYP
6" O.H. TYP
RAKE
R01
R02
R02
R02
D.S.
PL @ 18'-1⅝" A.M.F.
7
A3
(2)2x12 DF#2 RAFTERS @ 24" O.C.
B
A6
2:12
METAL ROOFING o/FELT PAPER o/SHEATHING PER STRUCTURAL NOTES/DETAILS, STAGGER JOINTS, TYPICAL
(2)2x12 DF#2 RAFTERS 24" O.C.
PL @ 18'-1⅝" A.M.F.
10"x7" ATTIC ROOF JACKS (3) REQ'D
R01
R01
D.S.
RAKE
A
A6

ROOF FRAMING PLAN

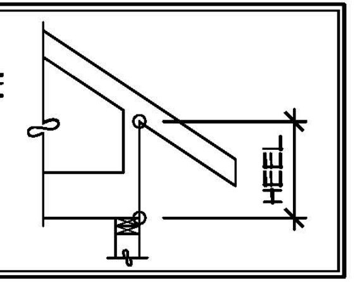
SCALE: 1/4" = 1'-0"

ROOF FRAMING NOTES:

1. CONTRACTOR SHALL VERIFY ALL NOTES, DIMENSIONS & CONDITIONS PRIOR TO CONSTRUCTION.
2. ALL HEADERS TO BE 4x10 DF#2 w/ R-10 RIGID INSULATION @ EXTERIOR WARM WALLS, U.N.O.
3. PROVIDE VENTED BLOCKING OVER SUPPORTS.
4. BEARING WALLS ARE SHADED.
5. WINDOW HEADERS @ 6'-8" ABOVE FINISHED FLOOR @ MAIN FLOOR U.N.O. WINDOW HEADERS @ 6'-8" ABOVE FINISHED FLOOR @ UPPER FLOOR U.N.O.
6. ALL TRUSSES:
   - * SHALL CARRY MANUFACTURER'S STAMP.
   - * SHALL BE INSTALLED & BRACED TO MANUFACTURERS SPECIFICATIONS.
   - * SHALL HAVE DESIGN DETAILS & DRAWINGS ON SITE FOR FRAMING INSPECTION.
   - * SHALL NOT BE FIELD ALTERED WITHOUT PRIOR BUILDING DEPARTMENT APPROVAL OF ENGINEERS CALCULATIONS.
   - * TRUSS HANGERS SHALL BE SPECIFIED BY THE TRUSS ENGINEER.
7. ■ INDICATES POINT LOAD SUPPORTED BY (2) STUDS, U.N.O.
8. INSTALL SHEAR WALLS &/OR BLOCKING IN ROOF STRUCTURE BEFORE INSTALLING FINISH ROOFING.
9. SEE SHEET A1 FOR ADDITIONAL NOTES.
10. SEE SHEET A2 FOR ROOF VENTILATION CALCULATION(S).

ROOF UNDERLAYMENT NOTE:
ROOFS WITH PITCHES BETWEEN 2:12 AND 4:12 ARE REQUIRED TO HAVE A DOUBLE UNDERLAYMENT PER IRC 905.2.2.

NOTE:
TRUSS HEEL IS THE VERT. DISTANCE BETWEEN THE PLATE AND WHERE THE BOTTOM OF THE TOP CHORD OF THE TRUSS INTERSECTS THE EXTERIOR SIDE OF THE BEARING



NOTE: SEE 'S' SHEETS FOR LATERAL INFORMATION & ENGINEERING DETAILS

BEAM SCHEDULE

PLAN VIEW	DESCRIPTION
– – – – –	DROPPED BEAM DESIGNATED ON FLOOR PLANS.
—-—-—	DROPPED BEAM DESIGNATED ON FRAMING PLANS.
▨	FLUSH AND TOP FLUSH BEAM DESIGNATED ON FRAMING PLANS.
▨	UPSET BEAM DESIGNATED ON FRAMING PLANS.

5046
REGISTERED ARCHITECT
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

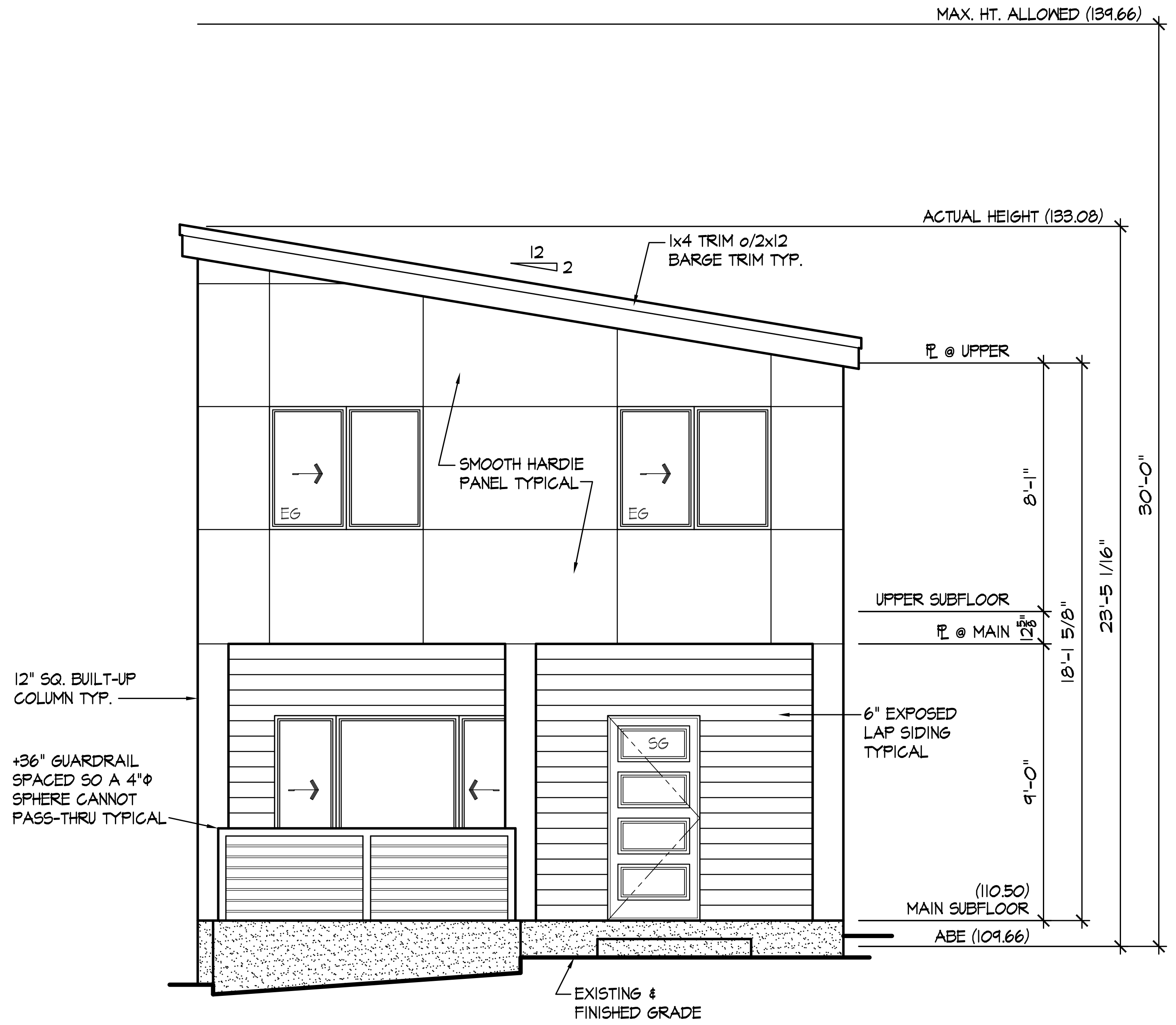
ARCHITECTS NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25
PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25
LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

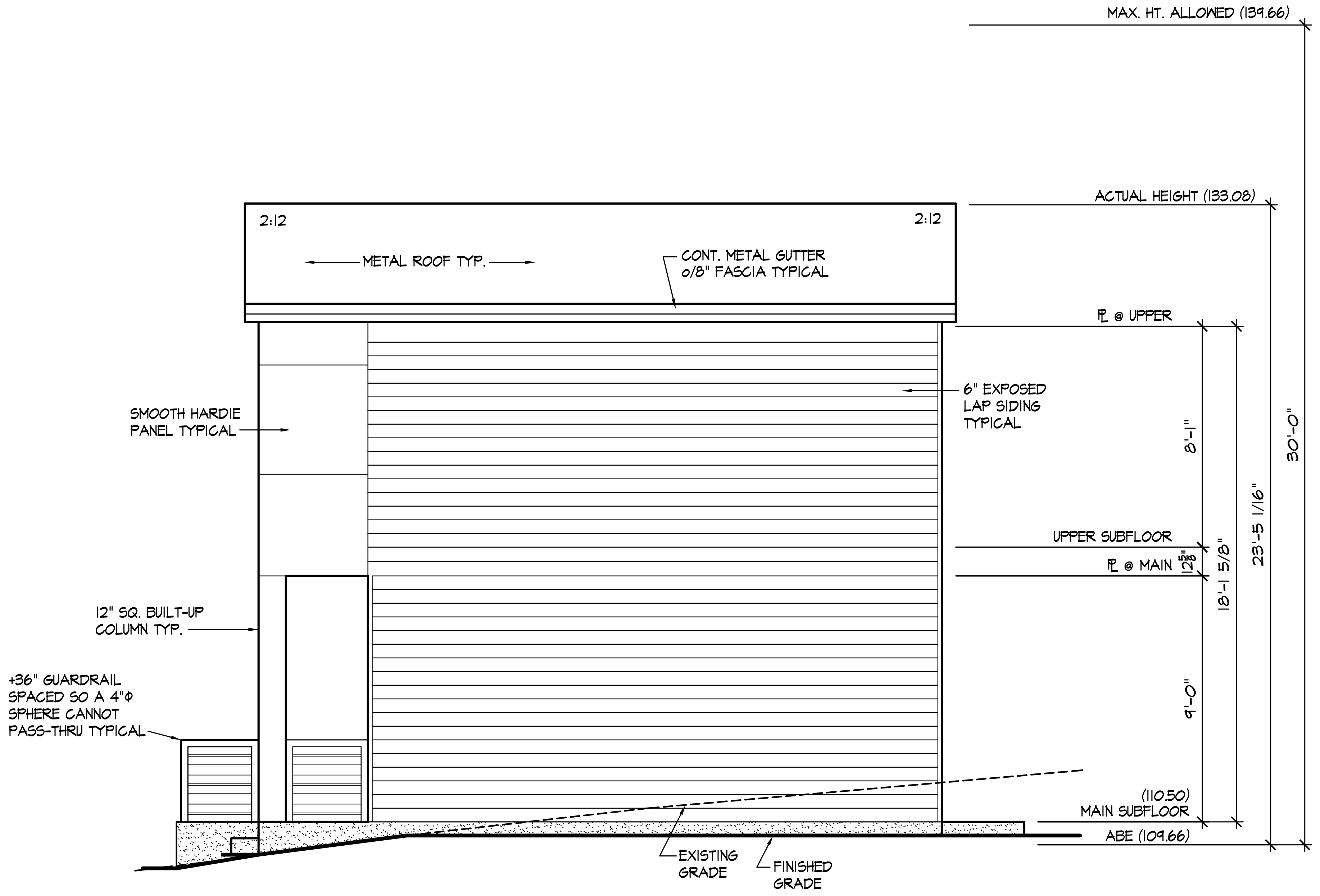
ANW JOB NUMBER: 250052

Your Family Architect
ARCHITECTS NORTHWEST


MAX. HT. ALLOWED (139.66)
ACTUAL HEIGHT (133.08)
12
2
1x4 TRIM o/2x12
BARGE TRIM TYP.
℄ @ UPPER
SMOOTH HARDIE
PANEL TYPICAL
EG
EG
8'-1"
30'-0"
23'-5 1/16"
UPPER SUBFLOOR
℄ @ MAIN
12 5/8"
18'-1 5/8"
12" SQ. BUILT-UP
COLUMN TYP.
6" EXPOSED
LAP SIDING
TYPICAL
SG
+36" GUARDRAIL
SPACED SO A 4"Φ
SPHERE CANNOT
PASS-THRU TYPICAL
9'-0"
(110.50)
MAIN SUBFLOOR
ABE (109.66)
EXISTING &
FINISHED GRADE

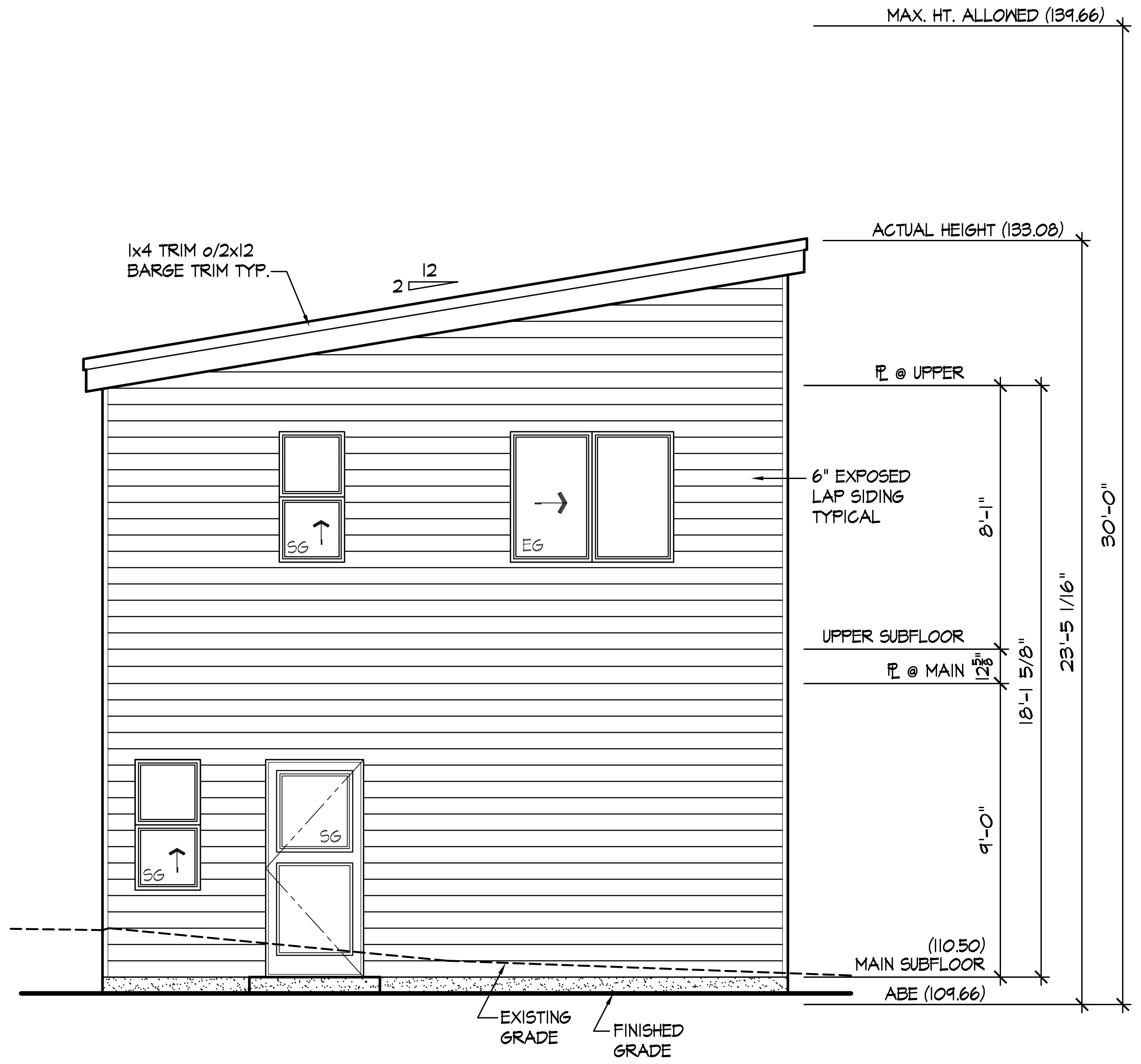
FRONT ELEVATION

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


MAX. HT. ALLOWED (139.66)
ACTUAL HEIGHT (133.08)
2:12
2:12
METAL ROOF TYP.
CONT. METAL GUTTER
o/8" FASCIA TYPICAL
℄ @ UPPER
SMOOTH HARDIE
PANEL TYPICAL
6" EXPOSED
LAP SIDING
TYPICAL
8'-1"
30'-0"
23'-5 1/16"
UPPER SUBFLOOR
℄ @ MAIN
12 5/8"
18'-1 5/8"
12" SQ. BUILT-UP
COLUMN TYP.
+36" GUARDRAIL
SPACED SO A 4"Φ
SPHERE CANNOT
PASS-THRU TYPICAL
9'-0"
(110.50)
MAIN SUBFLOOR
ABE (109.66)
EXISTING
GRADE
FINISHED
GRADE

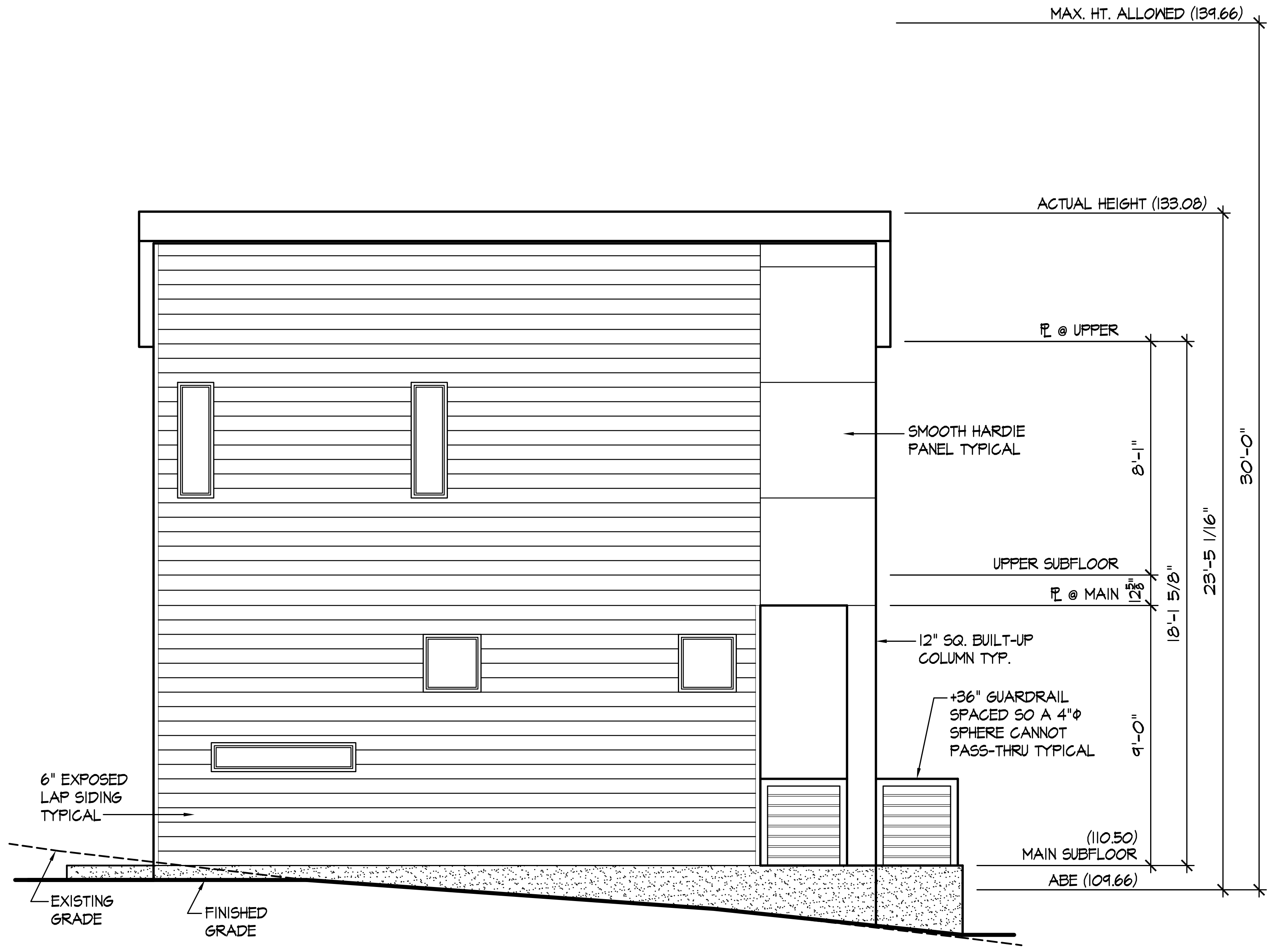
RIGHT ELEVATION

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


MAX. HT. ALLOWED (139.66)
ACTUAL HEIGHT (133.08)
1x4 TRIM o/2x12
BARGE TRIM TYP.
12
2
℄ @ UPPER
SG
EG
6" EXPOSED
LAP SIDING
TYPICAL
8'-1"
30'-0"
23'-5 1/16"
UPPER SUBFLOOR
℄ @ MAIN
12 5/8"
18'-1 5/8"
SG
SG
9'-0"
(110.50)
MAIN SUBFLOOR
ABE (109.66)
EXISTING
GRADE
FINISHED
GRADE

REAR ELEVATION

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


MAX. HT. ALLOWED (139.66)
ACTUAL HEIGHT (133.08)
℄ @ UPPER
SMOOTH HARDIE
PANEL TYPICAL
8'-1"
30'-0"
23'-5 1/16"
UPPER SUBFLOOR
℄ @ MAIN
12 5/8"
18'-1 5/8"
12" SQ. BUILT-UP
COLUMN TYP.
+36" GUARDRAIL
SPACED SO A 4"Φ
SPHERE CANNOT
PASS-THRU TYPICAL
9'-0"
6" EXPOSED
LAP SIDING
TYPICAL
(110.50)
MAIN SUBFLOOR
ABE (109.66)
EXISTING
GRADE
FINISHED
GRADE

LEFT ELEVATION

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

ELEVATION NOTES:

1. VERIFY SHEAR WALL NAILING & HOLDOWNS PER PLAN PRIOR TO INSTALLING SIDING.
2. MASONRY & WOOD FRAME CHIMNEYS ARE TO BE CONSTRUCTED PER I.R.C. CHAPTER 10.
3. CAULK ALL EXTERIOR JOINTS & PENETRATIONS.
4. PROVIDE APPROVED CORROSION RESISTANT FLASHING AT EXTERIOR WALL ENVELOPE PER I.R.C. R703.4
5. PROVIDE FLASHING AT ROOF PENETRATIONS PER I.R.C. R903.2 & R903.2.1
6. PROVIDE WEATHER STRIPPING AT ALL EXTERIOR & GARAGE-INTERIOR DOORS.
7. PROVIDE CONTINUOUS GUTTERS & DOWNSPOUTS @ ALL EAVES, TYP.
8. ADDRESS OR HOUSE NUMBER TO BE POSTED AND PLAINLY VISIBLE FROM THE STREET FRONTAGE. NUMBERS TO BE MIN. 4" HIGH WITH 1/2" WIDE STROKE & CONTRASTING BACKGROUND.
9. PROVIDE STAIRWAY ILLUMINATION PER I.R.C. R303.7 & R303.8
10. SEE SHEET A1 FOR ADDITIONAL NOTES.

REGISTERED ARCHITECT
5046
JEFFREY P. deROULET
STATE OF WASHINGTON
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS
NORTHWEST
18915-142ND AVENUE NE SUITE 100
WOODINVILLE, WA 98072
OFFICE: (425) 485-4900
FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100
WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

A7
A7

ANW JOB NUMBER:
250052

GENERAL STRUCTURAL NOTES (GSN):

GOVERNING CODE: THE "INTERNATIONAL BUILDING CODE" (IBC) 2021 EDITION, AS ADOPTED AND MODIFIED BY THE CITY OF MERCER ISLAND GOVERNS THE DESIGN, CONSTRUCTION, AND ALL MATERIALS WORKMANSHIP OF THIS PROJECT.
THE ENGINEERING SCOPE OF WORK IS LIMITED TO STRUCTURAL GRAVITY AND LATERAL AND FOUNDATION SYSTEM OF A SINGLE FAMILY NEW RESIDENCE AS SHOWN HEREIN. THESE DRAWINGS ARE VALID SOLELY FOR THE ADDRESS LISTED IN THE TITLEBLOCK. AND SHALL NOT BE USED FOR ANY OTHER PROJECTS AT ANY OTHER LOCATION.

REFERENCE STANDARDS: WHERE OTHER STANDARDS ARE NOTED IN THE DRAWINGS, THE LATEST EDITION OF THE MATERIALS REFERENCE STANDARDS SHALL BE USED.THE CONTRACTOR SHALL CONFORM WITH THE SECTIONS REFERRED TO THE IBC AND WITH THE ENTIRE MATERIALS REFERENCE STANDARDS NOTED BELOW.

ARCHITECTURAL DRAWINGS: REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION INCLUDING, BUT NOT LIMITED TO: DIMENSIONS, ELEVATIONS, SLOPES, DOOR AND WINDOW OPENINGS, NON-BEARING WALLS, STAIRS, ELEVATORS, CURBS, DRAINS, DEPRESSIONS, RAILINGS, WATERPROOFING, FINISHES AND OTHER NONSTRUCTURAL ITEMS. FOR EXACT SIZE, NUMBER AND LOCATION OF OPENINGS, SEE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL STRUCTURAL DETAILS. VERIFY ALL SIZES, WEIGHTS AND LOCATIONS OF MECHANICAL AND ELECTRICAL EQUIPMENT, DUCTS, ETC. WITH MECHANICAL AND ELECTRICAL ENGINEERS THROUGH ARCHITECT.

STRUCTURAL DETAILS: THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF THE WORK. USE ALL DETAIL SHEETS AND ALL SPECIFIC DETAILS REFERENCED IN THE PLAN AS "TYPICAL" WHEREVER THEY APPLY.

NOTE PRIORITIES: NOTES ON THE INDIVIDUAL DRAWINGS SHALL GOVERN OVER THESE GENERAL NOTES.

INSPECTIONS: THE CONTRACTOR IS RESPONSIBLE TO COORDINATE ALL INSPECTIONS REQUIRED. NOTIFY BUILDING DEPARTMENT FOR INSPECTIONS REQUIRED BY LOCAL JURISDICTION AND IN ACCORDANCE WITH CHAPTER 17 PER IBC.

DISCREPANCIES: ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, SITE CONDITIONS, AND PLANS SHALL BE REPORTED TO THE ARCHITECT AND ENGINEER WHO SHALL CORRECT THE DISCREPANCY IN WRITING. ANY WORK COMPLETED AFTER DISCOVERY OF THE DISCREPANCY SHALL BE DONE AT THE CONTRACTOR'S RISK.
CONTRACTOR/DESIGNER/OWNER IS RESPONSIBLE FOR PROVIDING CORRECT SITE INFORMATION. ALL UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO EXCAVATION OR DRILLING.

SITE VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR CONSTRUCTION. CONFLICTS BETWEEN THE DRAWINGS AND ACTUAL SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK. ALL UNDERGROUND UTILITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO EXCAVATION OR DRILLING.

CONSTRUCTION LOADS: LOADS ON THE STRUCTURE DURING CONSTRUCTION SHALL NOT EXCEED THE DESIGN LOADS OR THE CAPACITY OF THE PARTIALLY COMPLETED CONSTRUCTION. ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS CONFORM TO ASCE 37-02 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".

ALL STRUCTURAL SYSTEMS WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE, AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

DESIGN CRITERIA:

ROOF LOADS:	DEAD LOADS	15 PSF
	LIVE LOADS	25 PSF
FLOOR LOADS:	DEAD LOADS	12 PSF
	LIVE LOADS	40 PSF
SNOW LOAD:	GROUND SNOW LOAD Ps = 25 PSF; SNOW EXPOSURE FACTOR Ce = 1.0; SNOW IMPORTANCE FACTOR Is = 1.0; THERMAL FACTOR Ct = 1.0.	
WIND DESIGN:	BASIC WIND SPEED (3-SECOND GUST), V = 110 MPH; WIND IMPORTANCE FACTOR, Iw = 1.0; OCCUPANCY CATEGORY = II; EXPOSURE CATEGORY = C; WIND SPEED-UP FACTOR Kzt=1.0;	
SEISMIC DESIGN:	SEISMIC IMPORTANCE FACTOR Ie = 1.0; OCCUPANCY CATEGORY = II; Ss = 1.451g; S1 = 0.502g; SEISMIC DESIGN CATEGORY = D; Sds = 0.967g; SEISMIC DESIGN CATEGORY = D; BASIC SEISMIC FORCE RESISTING SYSTEM (BEARING WALL SYSTEMS) LIGHT-FRAMED WALLS WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE AND FLEXIBLE DIAPHRAGMS; Cs =0.149; R =6.5; Cd=4; OMEGA=2.5; SEISMIC BASE SHEAR = 4.9 KIPS. ANALYSIS PROCEDURE=EQUIVALENT LATERAL FORCE PROCEDURE PER ASCE 7, SEC 12.8	
DEFLECTIONS:	TOTAL LOAD DEFLECTION LIMIT:	L/240
	LIVE LOAD DEFLECTION LIMIT:	L/360

SUBMITTALS: SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND PLACE A SHOP DRAWINGS STAMP ON THE SUBMITTAL BEFORE FORWARDING TO THE ENGINEER. SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A MINIMUM OF ONE WEEK FOR REVIEW BY THE ENGINEER. IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN.

ALTERNATIVES: PRODUCT OR MANUFACTURER COMPONENTS SPECIFIED IN THESE DRAWINGS ARE USED AS THE BASIS OF DESIGN FOR THIS PROJECT. ALTERNATES FOR SPECIFIED ITEMS MAY BE SUBMITTED TO THE ENGINEER FOR REVIEW. HOWEVER, CONTRACTOR SHALL SUBMIT A CURRENT ICC-ESR/IAPMO-ER REPORT IDENTIFYING THAT ALTERNATIVE COMPONENT HAS THE SAME OR GREATER LOAD CAPACITY THAN THE SPECIFIED ITEM.

DEFERRED SUBMITTALS (DESIGN-BY-OTHERS): SUBMIT PRODUCT DATA AND PROOF OF ICC APPROVAL FOR FRAMING MEMBERS AND FASTENERS THAT HAVE BEEN PREPARED BY THE SPECIALTY STRUCTURAL ENGINEER (SSE), TRUSS ENGINEER IN THE STATE OF WASHINGTON FOR ALL MEMBERS AND CONNECTIONS ALONG WITH SHOP DRAWINGS. DESIGN SHALL BE SUBMITTED TO THE ARCHITECT/DESIGNER AND STRUCTURAL ENGINEER OF RECORD (SER) FOR REVIEW PRIOR TO SUBMISSION TO THE JURISDICTION FOR APPROVAL. THE SSE SHALL SUBMIT TO THE ENGINEER FOR REVIEW CALCULATIONS AND SHOP DRAWINGS THAT ARE STAMPED AND SIGNED BY THE SSE. REVIEW OF THE SSE'S SHOP DRAWINGS IS FOR GENERAL COMPLIANCE WITH DESIGN CRITERIA AND COMPATIBILITY WITH THE DESIGN OF THE PRIMARY STRUCTURE AND DOES NOT RELIEVE THE SSE OF RESPONSIBILITY FOR THAT DESIGN.

ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, WEB STIFFENERS, AND ADDITIONALTRUSSES/JOISTS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT AND SHALL BE DETAILED AND FURNISHED BY THE SUPPLIER. PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED FOR A MOVING CONCENTRATED LOAD OF 100 LBS TO ACCOUNT FOR SOLAR PANEL ATTACHMENT LOADS. ADDITIONAL TRUSSES/JOISTS SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT TEMPORARY AND PERMANENT BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS. DEFLECTION LIMITS SHALL BE AS NOTED UNDER DESIGN LOADS SECTION. THESE ELEMENTS INCLUDE BUT ARE NOT LIMITED TO:

-HANDRAILS & GUARDRAILS
-ENGINEERED WOOD BEAMS
-PREFABRICATED WOOD COMPONENETS-SHEAR WALLS/WOOD PANELS
-TEMPORARY SHORING SYSTEMS
-ARCHED BEAMS/HEADERS, FRAMED BEAMS/HEADERS
-METAL PLATE CONNECTED ROOF TRUSSES (PREFABRICATED ROOF TRUSSES): SHOP DRAWINGS SHALL PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, AND VALLEYS SHOWN ON THE DRAWINGS. THE MANUFACTURER SHALL PROVIDE SPECIAL HIP, VALLEY AND INTERSECTION AREAS (STEP DOWN TRUSSES, JACK TRUSSES AND GIRDER TRUSSES) UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS-TO-TRUSS AND TRUSS-TO-SUPPORT CONNECTION DETAILS, HANGERS, AND REQUIRED CONNECTION MATERIALS. SPECIFY TEMPORARY AND PERMANENT BRACING AND CONNECTIONS ON THE SHOP DRAWINGS. PROVIDE ALL TRUSS REACTIONS OVER 1000# ON SHOP DRAWINGS. NO STORAGE ON THE TRUSSES IS ALLOWED. ALTERATION OF THE TRUSS LAYOUT INDICATED ON THE PLANS MAY REQUIRE SUPPORTING STRUCTURAL AND FOUNDATION CHANGES, THEREFORE PRIOR APPROVAL BY THE ARCHITECT/DESIGNER AND STRUCTURAL ENGINEER IS REQUIRED.

SOILS AND FOUNDATIONS - PER GEOTECHNICAL EVALUATION BY COBALT SCIENCES DATED OCTOBER 11, 2024.

REFERENCE STANDARDS: CONFORM TO IBC CHAPTER 18 "SOILS AND FOUNDATIONS."
SITE PREPARATION, EXCAVATIONS AND TEMPORARY EXCAVATIONS, COMPACTION, BACKFILLING, STRUCTURAL FILL, STORMWATER MANAGEMENT FEASIBILITY, EROSION AND SEDIMENT CONTROL, AND UTILITIES SHALL BE AS STATED IN THE GEOTECHNICAL REPORT ATTACHED TO THE PROJECT.

FOUNDATIONS: UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER, EXTEND FOOTINGS TO FIRM AND UNYIELDING NATIVE SOIL OR STRUCTURAL FILL WITH AN ALLOWABLE SOIL BEARING CAPACITY OF 2500 PSF. BOTTOM OF EXTERIOR FOOTINGS SHALL BE 1'-6" MIN BELOW OUTSIDE FINISHED GRADE, UNLESS SPECIFIED BY THE GEOTECH ENGINEER. MAINTAIN A MINIMUM 6" SEPARATION BETWEEN FINISH GRADE & UNTREATED WOOD FRAMING.

EXTERIOR PERIMETER FOOTINGS SHALL BEAR NOT LESS THAN 16 INCHES BELOW ADJACENT FINISHED GRADE, OR SPECIFIED BY THE BUILDING OFFICIAL. INTERIOR FOOTINGS SHALL BEAR NOT LESS THAN 12 INCHES BELOW FINISH FLOOR OR ADJACENT EXTERIOR GRADE, WHICHEVER IS LOWER. FOOTINGS SHALL BE CENTERED BELOW COLUMNS OR WALLS ABOVE, U.N.O.

FOUNDATION STEM WALLS: UNLESS OTHERWISE SPECIFIED BY A GEOTECHNICAL ENGINEER, THE HEIGHT OF THE STEM WALL SHALL BE AS NOTED ON THE DRAWINGS TO FIT THE HOLDOWN REQUIREMENTS. MAINTAIN A MINIMUM 6" SEPARATION BETWEEN FINISH GRADE & UNTREATED WOOD FRAMING.

SLAB-ON-GRADE: SEE GEOTECH REPORT.
EXCAVATIONS: SEE GEOTECH REPORT.
BACKFILLING: SEE GEOTECH REPORT.
STRUCTURAL FILL: SEE GEOTECH REPORT.
COMPACTION: SEE GEOTECH REPORT.

GEOTECHNICAL

ALLOWABLE BEARING CAPACITY-STRUCTURAL FILL 2500 PSF (PER GEOTECHNICAL REPORT - BY COBALT GEOSCIENCES)

CONSTRUCTION FIELD REVIEW:

AS STATED IN THE GEOTECHNICAL REPORT, COBALT GEOSCIENCES SHOULD BE RETAINED TO PROVIDE FIELD REVIEW DURING CONSTRUCTION IN ORDER TO VERIFY THAT THE SOIL CONDITIONS ENCOUNTERED ARE CONSISTENT WITH DESIGN ASSUMPTIONS AND RECOMMENDATIONS AS FOLLOWS:

-MONITOR AND TEST STRUCTURAL PLACEMENT AND SOIL COMPACTION
-OBSERVE BEARING CAPACITY AT FOUNDATION LOCATIONS
-OBSERVE SLAB-ON-GRADE PREPARATION
-MONITOR FOUNDATION DRAINAGE PLACEMENT
-OBSERVE EXCAVATION STABILITY

CAST-IN-PLACE CONCRETE

REFERENCE STANDARDS: CONFORM TO:
(1) ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND COMMENTARY".
(2) IBC CHAPTER 19, CONCRETE.

FIELD REFERENCE: THE CONTRACTOR SHALL KEEP A COPY OF ACI FIELD REFERENCE MANUAL, SP-15, "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301) WITH SELECTED ACI AND ASTM REFERENCES."

CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c=3000 PSI AND MIX SHALL CONTAIN NOT LESS THAN 6 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ASTM C666.

CONCRETE COVER: CONFORM TO THE FOLLOWING COVER REQUIREMENTS FROM ACI 301, TABLE 3.3.2.3:

CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO EARTH OR WEATHER (#5 & SMALLER)	1-1/2"
CONCRETE EXPOSED TO EARTH OR WEATHER (#6 & LARGER)	2"
BARS IN SLABS AND STEM WALLS	3/4"

CONCRETE REINFORCEMENT

REFERENCE STANDARDS: CONFORM TO:
(1) ACI 301 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE", SEC 3 "REINFORCEMENT AND REINFORCEMENT SUPPORTS."
(2) ACI SP-66 "ACI DETAILING MANUAL" ANSI/AWS D1.4 "STRUCTURAL WELDING CODE - REINFORCING STEEL."
(3) IBC CHAPTER 19, CONCRETE.
ACI 318 AND ACI 318R.

MATERIALS:

REINFORCING BARS	ASTM A615, GRADE 60, DEFORMED BARS, fy=60000 PSI.
SMOOTH WELDED WIRE FABRIC	ASTM A185

EXCEPTIONS ARE ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS. REINFORCING SHALL BE GRADE 40, fy=40000 PSI AND GRADE 60, fy=60000 PSI.

FORMWORK: CONFORM TO ACI 301 SEC 2 "FORMWORK AND FORM ACCESSORIES." REMOVAL OF FORMS SHALL CONFORM TO SEC 2.3.2 EXCEPT STRENGTH INDICATED IN SEC 2.3.2.5 SHALL BE 0.75 f'c.

MEASURING, MIXING, AND DELIVERY: CONFORM TO ACI 301 SEC 4.3.

HANDLING, PLACING, CONSTRUCTING AND CURING: CONFORM TO ACI 301 SEC 5 AND SEC 3.3.2 "PLACEMENT." PLACING TOLERANCES SHALL CONFORM TO SEC 3.3.2.1 "TOLERANCES."

EMBEDDED ITEMS: POSITION AND SECURE IN PLACE EXPANSION JOINT MATERIAL, ANCHORS AND OTHER STRUCTURAL AND NON-STRUCTURAL EMBEDDED ITEMS BEFORE PLACING CONCRETE. CONTRACTOR SHALL REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND ARCHITECTURAL DRAWINGS AND COORDINATE ALL OTHER EMBEDDED ITEMS.

FABRICATION: CONFORM TO ACI 301, SEC 3.2.2 "FABRICATION", AND ACI SP-66 "ACI DETAILING MANUAL."

WELDING: CONFORM TO AWS D1.4/D1.4M. WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH (AWS AND WABO) REQUIREMENTS. USE E70 ELECTRODES OF TYPE REQUIRED FOR MATERIALS TO BE WELDED.

SPLICES: CONFORM TO ACI 301, SEC 3.3.2.7. REFER TO "LAP SPLICE SCHEDULE" OR PLANS FOR TYPICAL SPLICES. THE SPLICES INDICATED ON INDIVIDUAL SHEETS CONTROL OVER THE SCHEDULE. USE CLASS B SPLICES UNLESS OTHERWISE NOTED. MECHANICAL CONNECTIONS MAY BE USED WHEN APPROVED BY THE ENGINEER.

FIELD BENDING: CONFORM TO ACI 301 SEC 3.3.2.8. "FIELD BENDING OR STRAIGHTENING." BAR SIZES #3 THROUGH #5 MAY BE FIELD BENT COLD THE FIRST TIME , PROVIDED REINFORCING BAR TEMPERATURE IS ABOVE 32°F. FOR OTHER BARS SIZES REQUIRE PREHEATING BEFORE FIELD BENDING. DO NOT TWIST BARS.
NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT.

CORNERS BARS: PROVIDE MATCHING-SIZED "L" CORNER BARS FOR ALL HORIZONTAL WALL AND FOOTING BARS WITH THE APPROPRIATE SPLICE LENGTH, UNO.

ANCHORAGE

-EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-3G" EPOXY ADHESIVE AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ESREPORT ESR-2508. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION OF INSTALLATION IS REQUIRED. RODS SHALL BE ASTM A36, UNO.

-HEAVY DUTY THREADED CONCRETE ANCHORS SPECIFIED ON THE DRAWINGS SHALL BE "TITAN HD SCREW ANCHOR" AS MANUFACTURED SY THE SIMPSON STRONG TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2713. INCLUDING MINIMUM EMBEDMENT AND EDGE DISTANCE REQUIREMENTS. SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH CURRENT ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES.

-DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE LOW VELOCITY TYPE (PDPWL- 300MG. 0.145' DIAMETER. UNO) AS MANUFACTURED BY THE SIMPSON STRONG TIE COMPANY OR AN APPROVED EQUIVALENT IN STRENGTH AND EMBEDMENT. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT ESR-2138. MINIMUM EMBEDMENT IN CONCRETE SHALL BE 1", UNO. MAINTAIN AT LEAST 3" TO NEAREST CONCRETE EDGE.

WOOD FRAMING

REFERENCE STANDARDS: CONFORM TO:
(1) IBC CHAPTER 23 "WOOD",
(2) NDS AND NDS SUPPLEMENT - "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION",

IDENTIFICATION: ALL SAWN LUMBER AND PRE-MANUFACTURED WOOD PRODUCTS SHALL BE IDENTIFIED BY THE GRADE MARK OR A CERTIFICATE OF INSPECTION ISSUED BY THE CERTIFYING AGENCY.

MATERIALS:

SAWN LUMBER: ALL LUMBER SHALL BE KILN-DRIED OR MC-19 AND CONFORM TO GRADING RULES OF WWPA, WCLIB OR NLGA. FINGER JOINTED STUDS ACCEPTABLE AT INTERIOR WALLS ONLY.

MEMBER USE	SIZE	SPECIES	GRADE	MINIMUM BASE VALUE
STUDS, PLATES, MISC	2X, 3X (U.N.O)	HEM-FIR (U.N.O)	NO. 2	Fc=575 PSI
JOISTS 2X, 3X	2X6 - 2X12	HEM-FIR	NO. 2	Fb=850 PSI
BEAMS	4X8 - 4X12	DOUG-FIR	NO. 2	Fb=900 PSI
BEAMS	6X8 - 6X12	DOUG-FIR	NO. 2	Fb=875 PSI
POSTS	4X	DOUG-FIR	NO. 2	Fc=700 PSI
POSTS	6X, 8X	DOUG-FIR	NO. 1	Fc=1000 PSI

GLUED LAMINATED TIMBER: 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 NO 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 WITH ICC-ESS REPORT ESR-1387 USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. THE MEMBERS SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
GLUED LAMINATED MEMBER BEAMS SHALL NOT BE CAMBERED, UNLESS SHOWN OTHERWISE ON THE PLANS OR SPECIFICATIONS.
MANUFACTURED LUMBER PRODUCTS SHALL BE INSTALLED WITH A MOISTURE CONTENT OF 12% OR LESS. THE CONTRACTOR SHALL MAKE PROVISIONS DURING CONSTRUCTION TO PREVENT THE MOISTURE CONTENT OF INSTALLED BEAMS FROM EXCEEDING 12%. EXCESSIVE DEFLECTIONS MAY OCCUR IF MOISTURE CONTENT EXCEED THIS VALUE.

MEMBER USE	SIZES	SPECIES	STRESS CLASS	USES	Fb(PSI)	Fv(PSI)
GLB	ALL	DF/DF	24F-1.8E 24F-V4	SIMPLE SPANS	2400	265
	ALL	DF/DF	24F-1.8E 24F-V8	CANTILEVER SPANS	2400	265
PSL (2.2E)		Fb=2900 PSI,	Fv=290 PSI			
LVL (2.0E)		Fb=2600 PSI,	Fv=285 PSI			
LSL (1.55E)		Fb=2325 PSI,	Fv=310 PSI			
PSL COLUMN (1.8E)		Fc=2900 PSI,				

PLYWOOD SHEATHING SHALL BE APA-RATED STRUCTURAL SHEATHING GRADE C-D EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA). ORIENTED STRAND BOARD OF EQUIVALENT THICKNESS, EXPOSURE RATING AND PANEL INDEX MAY BE USED IN LIEU OF PLYWOOD.

MINIMUM APA RATING

LOCATION	THICKNESS	SPAN RATING	PLYWOOD GRADE	EXPOSURE
ROOF	15/32"	32/16	C-D	1
FLOOR	23/32"	24 OC	STURD-I-FLOOR	1
WALLS	15/32"	32/16	C-D	1

PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE TRUS-JOIST CORPORATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURED BY THE TRUSS-JOIST CORPORATION, ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. JOIST HANGERS AND CONNECTORS SHALL BE "SIMPSON STRONG-TIE" CATALOG C-C-2024-25. 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 PLYWOOD WEB JOIST PROVIDED. ALL 2x JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOIST SHALL BE CONNECTED TO FLUSH BEAMS WITH "IUS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIU" SERIES JOIST HANGERS.WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE 1/2 OF THE NAILS OR BOLTS IN EACH MEMBER. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE FULL LENGTH COMMON. NAIL STRAPS TO WOOD FRAMING AS LATE AS POSSIBLE IN THE FRAMING PROCESS TO ALLOW THE WOOD TO SHRINK AND THE BUILDING TO SETTLE. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED.

NAILS: CONFORM TO IBC SEC 2303.6 UNLESS NOTED ON PLANS, NAIL PER IBC TABLE 2304.10.2. UNLESS NOTED OTHERWISE ALL NAILS SHALL BE COMMON. NAIL SIZES SPECIFIED ON THE DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
8d	2-1/2"	0.131"
10d	3"	0.148"
16d	3-1/2"	0.162"
16d SINKER	3-1/4"	0.148"

NAILING REQUIREMENTS: PROVIDE MINIMUM NAILING IN ACCORDANCE WITH IBC TABLE 2304.10.2 "FASTENING SCHEDULE" EXCEPT AS NOTED ON THE DRAWINGS. NAILING FOR ROOF/FLOOR DIAPHRAGMS/SHEAR WALLS SHALL BE PER DRAWINGS. NAILS SHALL BE DRIVEN FLUSH AND SHALL NOT FRACTURE THE SURFACE OF SHEATHING.
IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

LAG BOLTS/BOLTS: CONFORM TO ASTM A307.
ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION (2021 EDITION) WITH A LEAD BORE HOLE OF 60-70% OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS. BOLT HOLES SHALL BE A MINIMUM OF 1/32" TO A MAXIMUM OF 1/16" LARGER THAN THE BOLT DIAMETER. HOLES SHALL BE ACCURATELY ALIGNED IN MAIN MEMBERS AND SIDE PLATES/ MEMBERS. BOLTS SHALL NOT BE OVERDRIVEN.

SDS SERIES: WOOD SCREWS CALLED OUT ON PLAN SHALL BE "SIMPSON STRONG-DRIVE" WOOD SCREWS BY SIMPSON COMPANY, AND INSTALLED IN STRICT ACCORDANCE TO ICC-ES REPORT ESR-2236. EQUIVALENT SCREWS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. LAG SCREWS ARE NOT AN EQUIVALENT SUBSTITUTION.

WOOD HOLDOWNS: HOLDOWNS SPECIFIED ARE AS MANUFACTURED BY SIMPSON ANCHOR TIE-DOWN CO., INC. ADDITIONAL FRAMING MEMBERS SHALL BE PROVIDED PER THE SYSTEM REQUIREMENTS. ACCEPTABLE EQUIVALENT PRODUCT SUBSTITUTIONS ARE AVAILABLE FROM OTHER MANUFACTURERS WITH ENGINEER APPROVAL.

ENGINEERED WOOD PRODUCTS (I-LEVEL): THE FOLLOWING MATERIALS ARE BASED ON LUMBER MANUFACTURED BY I-LEVEL AND WERE USED FOR THE DESIGN AS SHOWN ON THE PLANS. ALTERNATE PRODUCTS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED PROVIDED THEY HAVE CURRENT ICC APPROVAL FOR EQUIVALENT OR GREATER LOAD AND STIFFNESS PROPERTIES AND ARE REVIEWED AND APPROVED BY THE ENGINEER.
A) LAMINATED VENEER LUMBER (LVL): ICC ES REPORT NO. ER-4979
B) PARALLEL STRAND LUMBER (PSL): ICC ES REPORT NO. ER-4979
C) LAMINATED STRAND LUMBER (LSL): ICC ES REPORT NO. ER-4979
D) I-JOISTS: ICC ES REPORT NO. ER-4979, ESR-1153.
PRODUCTS SHALL BE TESTED AND EVALUATED IN ACCORDANCE WITH ASTM D5055. THE MANUFACTURER SHALL DESIGN THE JOISTS FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. JOISTS SHALL HAVE WOOD CHORDS AND SOLID WOOD WEBS.

STANDARD LIGHT-FRAME CONSTRUCTION: UNLESS NOTED ON THE PLANS, CONSTRUCTION SHALL CONFORM TO IBC 2021 SEC 2308 "CONVENTIONAL LIGHT-FRAME CONSTRUCTION" AND SEC 2304 "GENERAL CONSTRUCTION REQUIREMENTS", THE AITC "TIMBER CONSTRUCTION MANUAL", AND THE AF&PA "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION". MINIMUM NAILING, UNLESS NOTED OTHERWISE SHALL CONFORM TO TABLE 2304.10.1. OF THE IBC. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.

WALL FRAMING: UNLESS OTHERWISE NOTED, ALL INTERIOR WALLS SHALL BE 2X4 @ 16"OC AND ALL EXTERIOR WALLS SHALL BE 2X6 @ 16"OC. PROVIDE (2)BUNDLED STUDS MIN AT WALL ENDS AND EACH SIDE OF ALL OPENINGS. UNO, ALL SOLID SAWN LUMBER HEADERS SHALL BE SUPPORTED BY A MINIMUM OF (1)TRIM AND (1)KING STUD AND ALL GLULAM OR ENGINEERED WOOD HEADERS BY (2)TRIM AND (2)KING STUDS. AT FRAMED WALLS, UNO ALL SOLID SAWN LUMBER BEAMS SHALL BE SUPPORTED ON A MINIMUM OF (2) BUNDLED 2X STUDS AND ALL GLULAM OR ENGINEERED WOOD BEAMS ON A MINIMUM OF (3) BUNDLED 2X STUDS. STITCH-NAIL BUNDLED STUDS WITH (2)10D @ 12"OC. UNO, ALL INTERIOR AND EXTERIOR HEADERS SHALL BE 4X10 DF#2. PROVIDE SOLID BLOCKING THRU FLOORS TO SUPPORTS BELOW FOR BEARING WALLS AND POSTS. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 10'-0" IN HEIGHT. ALL WALLS SHALL HAVE A SINGLE BOTTOM PLATE. END NAIL TOP PLATE AND BOTTOM PLATE TO EACH STUD WITH THREE 10d NAILS. FACE NAIL DOUBLE TOP PLATES WITH 10d AT 12"OC AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE TWELVE 10d NAILS AT 4"OC EACH SIDE OF JOINT. AT TOP PLATE INTERSECTIONS PROVIDE THREE 10d FACE NAILS.
ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH TWO ROWS OF 10d NAILS AT 16"OC, OR ATTACHED TO CONCRETE BELOW WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"OC EMBEDDED 7" MINIMUM, UNO. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PLATE SECTION WITH ONE BOLT LOCATED NOT MORE THAN 12" OR LESS THAN 4 ½" FROM EACH END OF THE PLATE SECTION. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH TWO ROWS OF 10d AT 16"OC. UNLESS NOTED OTHERWISE, GYPSUM WALLBOARD SHALL BE FASTENED TO THE INTERIOR SURFACE OF ALL STUDS AND PLATES WITH #6 x 1-1/4" TYPE S OR W SCREWS AT 8"OC. UNLESS NOTED OTHERWISE, ½" (NOMINAL) APA RATED SHEATHING (SPAN RATING 24/0) SHALL BE NAILED TO ALL EXTERIOR SURFACES WITH 8d NAIL AT 6"OC AT PANEL EDGES AND TOP AND BOTTOM PLATES (BLOCK UNSUPPORTED EDGES) AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8d NAILS AT 12"OC. ALLOW 1/8" SPACING AT ALL PANEL ENDS.

ROOF/FLOOR FRAMING: UNLESS OTHERWISE NOTED, PROVIDE DOUBLE JOISTS/RAFTERS UNDER ALL PARALLEL BEARING PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND SOLID BLOCKING AT ALL BEARING POINTS. PROVIDE DOUBLE JOISTS AROUND ALL ROOF/FLOOR OPENINGS.TOENAIL JOISTS TO SUPPORTS WITH THREE 10d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES PER PLAN. UNO, MULTI-JOISTS/RAFTERS SHALL BE STITCH-NAILED TOGETHER WITH (2)10d @ 12"OC. TOENAIL RIM JOIST TO TOP PLATE WITH 10d AT 6"OC. PROVIDE ROOF SHEATHING EDGE WITH APPROVED CLIPS CENTERED BETWEEN FRAMING AT UNBLOCKED PLYWOOD EDGES. ALL FLOOR SHEATHING SHALL HAVE TONGUE AND GROOVE JOINTS OR BE SUPPORTED BY SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ROOF/FLOOR SHEATHING. ROOF/FLOOR SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING MEMBERS AND NAILED AT 6"OC WITH 8d NAILS TO FRAMED PANEL EDGES, DRUG-STRUTS, AND OVER STUD WALLS AS PER PLAN AND AT 6"OC TO INTERMEDIATE SUPPORTS.

MOISTURE CONTENT: WOOD MATERIAL USED FOR THIS PROJECT SHALL HAVE MAXIMUM MOISTURE CONTENT OF 19% EXCEPT FOR THE PRESSURE-TREATED WOOD SILL PLATE.TRUSSES SHALL BE DESIGNED TO NOT ALLOW LIMITED STORAGE PER IBC TABLE 1607.1. WEBS SHALL CONFIGURED SO THAT ALL OPENINGS ARE SMALLER THAN 24" WIDE X 42" HIGH.

PRESERVATIVE TREATMENT/METAL CONNECTORS: WOOD MATERIALS ARE REQUIRED TO BE "TREATED WOOD" UNDER CERTAIN CONDITIONS IN ACCORDANCE WITH IBC SEC 2304.10.5 "FASTENERS AND CONNECTORS IN CONTACT WITH PRESERVATIVE -TREATED AND FIRE-RETARDANT-TREATED WOOD". CONFORM TO THE APPROPRIATE STANDARDS OF THE AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) FOR SAWN LUMBER, GLUED LAMINATED TIMBER, ROUND POLES, WOOD PILES AND MARINE PILES. FOLLOW AMERICAN LUMBER STANDARDS COMMITTEE (ALSC) QUALITY ASSURANCE PROCEDURES. PRODUCTS SHALL BEAR THE APPROPRIATE MARK.PRESSURE TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO RETENTION OF 0.25 PCF. WOOD IN CONTINOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO A RETENTION OF 0.40 PCF. SODIUM BORATE (SBX) TRATED WOOD SHALL NOT BE USED WHERE EXPOSED TO WEATHER. FASTENERS AND TIMBER CONNECTORS WITHOUT AMMONIA IN DIRECT CONTACT WITH ACQ-A (UP TO A RETENTION LEVEL OF 0.40 PCF), CBA-A (UP TO A RETENTION LEVEL OF 0.41 PCF), CA-B (UP TO A RETENTION LEVEL OF 0.21 PCF), SHALL BE G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653. FASTENERS AND TIMBER CONNECTORS WITH AMMONIA IN DIRECT CONTACT WITH ACQ-A (OVER A RETENTION LEVEL OF 0.40 PCF), CBA-A (OVER A RETENTION LEVEL OF 0.41 PCF), CA-B (OVER A RETENTION LEVEL OF 0.21 PCF), OR WITH ACZA TREATED WOOD SHALL BE TYPE 304 OR 316 STAINLESS STEEL.
HOT-DIPPED GALVANIZED METAL HARDWARE AND FASTENERS HAVE A MINIMUM ZINC CONTENT OF AT LEAST 1.85 OZ/SF AND ITS USE IS COORDINATED BY THE CONTRACTOR AND WOOD SUPPLIER FOR THE EXPECTED ENVIRONMENT AND MOISTURE EXPOSURE FOR APPROPRIATE USE BASED ON THE METHOD OF PRESERVATIVE TREATMENT OF THE WOOD.
CONTRACTOR INITIATED STRUCTURAL CHANGES SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND CONSTRUCTION.

NOTCHES AND HOLES IN WOOD FRAMING:

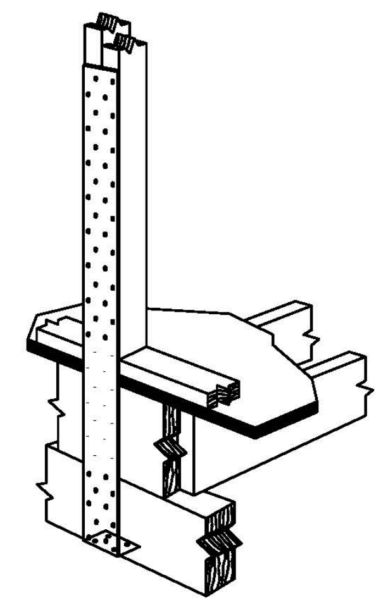
SAWN LUMBER JOISTS AND RAFTERS: NOTCHES ATTHE ENDS OF JOISTS SHALL NOT EXCEED 1/4 THE JOIST DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED 1/6 THE JOIST DEPTH BE LONGER THAN 1/3 THE JOIST DEPTH, OR BE LOCATED IN THE MIDDLE 1/3 OF THE SPAN. HOLES SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST AND THE DIAMETER SHALL NOT EXCEED 1/3 THE JOIST DEPTH. SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2) TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL BE LOCATED A MINIMUM OF 2" FROM ANY NOTCH.

EXTERIOR AND BEARING WALLS: WOOD STUDS ARE PERMITTED TO BE NOTCHED TO A DEPTH NOT EXCEEDING 1/4 OF ITS WIDTH. A HOLE NOT GREATER IN DIAMETER THAN 40% OF THE STUD WIDTH IS PERMITTED IN WOOD STUDS. HOLES SHALL NOT BE WITHIN 5/8" TO THE EDGE OF THE STUD.
SPACING BETWEEN HOLES SHALL BE A MINIMUM OF (2) TIMES THE DIAMETER OF THE LARGEST HOLE OR 2" AND SHALL NOT BE LOCATED AT THE SAME SECTION AS A NOTCH.
CUTS, NOTCHES, AND HOLES IN MANUFACTURED LUMBER, PREFABRICATED PLYWOOD WEB JOIST AND PREFABRICATED TRUSSES ARE PROHIBITED EXCEPT WHERE NOTED ON STRUCTURAL PLANS OR PERMITTED BY MANUFACTURER'S RECOMMENDATIONS.THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCY TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

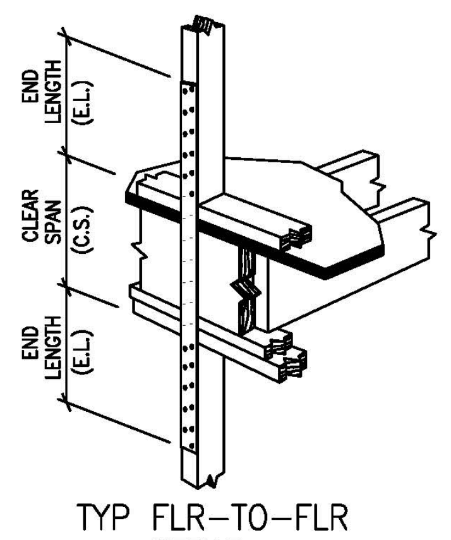
INSTRUCTIONS TO BIDDERS: UNDER NO CIRCUMSTANCES SHALL THESE DRAWINGS BE "FINAL BID" UNTIL THE PROJECT IS FULLY PERMITTED. ALL PRELIMINARY PRICING EFFORTS MUST BE CONSIDERED TO BE ESTIMATES ONLY AND MUST INCLUDE THE NECESSARY CONTINGENCIES, ALLOWANCES, ALTERNATIVES, ETC. AS APPROPRIATE TO ACCOUNT FOR MODIFICATIONS AND ADDITIONS THAT WILL OCCUR TO THE DRAWINGS DURING FINALIZATION OF THE DESIGN AND PERMITTING INCLUDING CLARIFICATIONS FOR ANY MODIFICATIONS, ADDITIONS, OR DELETIONS THAT MAY ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT.

THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND ALL JOB RELATED SAFETY STANDARDS AND SILICA-DUST PROTECTION PER OSHA AND WSHA. THE CONTRACTOR IS RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING CONSTRUCTION AND SHALL PROVIDE TEMPORARY SHORING, BRACING AND OTHER ELEMENTS REQUIRED TO MAINTAIN STABILITY UNTIL THE STRUCTURE IS COMPLETED. THE CONTRACTOR IS RESPONSIBLE TO BE FAMILIAR WITH THE WORK REQUIRED IN THE CONSTRUCTION DOCUMENTS AND THE REQUIREMENTS FOR EXECUTING IT PROPERLY.

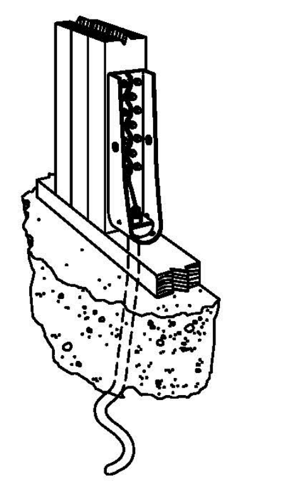
CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT/DESIGNER AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.



DETAIL D
NO RIM AT
FLUSH HEADER



TYP FLR-TO-FLR
STRAP



TYP HDUx

SHEAR WALL HOLDOWN SCHEDULE

MODEL #	ANCHORAGE TYPE	FASTENERS	END STUD REQUIRED	CAPACITY (LBS)
CS16	FLR-TO-FLR STRAP, CS=14"	(26) 8d COMMON	(2)2x STUDS HF#2	1,705
MSTC40	FLR-TO-FLR STRAP, CS=18"	(28) 16d SINKERS	(2)2x STUDS HF#2	2,320
MSTC48B3	FLR-TO-FLR STRAP, CS=18"	(38) 10d SINKERS	(2)2x STUDS HF#2	3,420
MSTC52	FLR-TO-FLR STRAP, CS=18"	(44) 16d SINKERS	(2)2x STUDS HF#2	3,645
MSTC66	FLR-TO-FLR STRAP, CS=18"	(64) 16d SINKERS	(2)2x STUDS HF#2	5,495
MSTC66B3	FLR-TO-FLR STRAP, CS=18"	(38) 10d SINKERS	(2)2x STUDS HF#2	3,875
HDU5	5/8"ø SSTB20 EMBED 21" MIN	(14) 1/4"øx2 1/2" SDS WOOD SCREWS	(2)2x STUDS HF#2	4,065

NOTES:
1. HOLDOWNS SPECIFIED ARE AS MANUFACTURED BY SIMPSON STRONG-TIE CO. INC.; ACCEPTABLE EQUIVALENT PRODUCT SUBSTITUTIONS ARE AVAILABLE FROM OTHER MANUFACTURERS WITH THE ENGINEER APPROVAL.
2. LOCATE ALL HOLDOWNS AT ENDS OF ALL SHEAR WALLS & FASTEN TO BUNDLED HEM-FIR END STUDS.
3. BUNDLED END STUDS SHOULD BE STITCH-NAILED TOGETHER USING MINIMUM (2) 16d @ 10"OC, UNO.
4. LOCATE "HDU#" & "HD#" HOLDOWNS AT CONCRETE FOUNDATION LEVEL.
LOCATE "CMST#" & "MSTC#" STRAPS AT FLOOR-TO-FLOOR CONNECTIONS.
5. ALL HOLDOWN ANCHOR BOLTS SHALL BE MIN 4" FROM CONCRETE WALL ENDS.
6. USE "SSTB" FOR 2x SILL PLATES & "SSTBL" FOR 3x OR (2)2x SILL PLATES.
7. ADDITIONAL END STUD REQUIRED TO MEET MINIMUM 1 1/2" EDGE DISTANCE FROM CONCRETE CORNER TO "STHD" STRAP. USE "RJ" STYLE WITH "STHD" WHERE RIM JOIST IS PRESENT.
8. INSTALL ALL HOLDOWN HARDWARE PER MANUFACTURER'S INSTRUCTIONS & RECOMMENDATIONS.
9. STEM WALL HEIGHT TO BE COORDINATED WITH HOLDOWN REQUIREMENTS (21" MINIMUM) AND SILL PLATE SIZE.

WOOD-FRAMED DIAPHRAGM NAILING SCHEDULE

FOR HEM-FIR FRAMING MEMBER

LEVEL	DIA TYPE	SHEATHING APA-RATED	NAIL SIZE & SPACING @ PANEL EDGES AND FIELD	DIAPHRAGM BOUNDARY PANEL		SHEAR LOAD CAPACITY (PLF) (SEISMIC/WIND)
				NAILING PATTERN	FRAMING MEMBER AT ABUTTING PANEL EDGES	
ROOF	DIA-1	23/32" CD-EXT OR OSB	0.131"ø x 2 1/2" 8d @ 6"OC EDGE 8d @ 12"OC FIELD	-	2x	239 / 332
	DIA-1B	23/32" CD-EXT OR OSB	0.131"ø x 2 1/2" 8d @ 6"OC EDGE 8d @ 12"OC FIELD	0.131"ø x 2 1/2" 8d @ 6"OC	2x	251 / 377
FLOOR	DIA-2	23/32" CD-EXT OR OSB	0.148"ø x 3" 10d @ 6"OC EDGE 10d @ 12"OC FIELD	-	2x	265 / 298
	DIA-2B	23/32" CD-EXT OR OSB	0.148"ø x 3" 10d @ 6"OC EDGE 10d @ 12"OC FIELD STAGGERED	0.148"ø x 3" 10d @ 6"OC	2x	298 / 416

NOTES:
1. BLOCKED DIAPHRAGM SHALL APPLY TO UNSUPPORTED PANEL EDGES WHERE SHADED PER PLAN. "B" MEANS BLOCKED
2. T & G (TONGUE & GROOVE) SHEATHING EDGES IS NOT A SUBSTITUTE FOR THE FLAT BLOCKING.
3. H1A OR H2.5A EACH TRUSS AND RAFTER.

STRUCTURAL NOTES

PROJECT #:
25-120

ENGINEERED BY: GS

DATE:
6/25/25

ZVELT
ENGINEERING DESIGN PLLC
STRUCTURAL ENGINEERING
721 4th AVE #794
KIRKLAND, WA 98033
Zvelt.Eng@outlook.com

GABRIELA SIIA
52184
8/8/2025

PROJECT NAME:
Long - DADU
6905 96th Ave SE
Mercer Island, WA 98040

IBC 2021

GENERAL STRUCTURAL NOTES SCHEDULES AND DETAILS

ANW 250052
LATERAL DETAILS

SHEET NUMBER:
S 1

LAP SPLICE fc'=3000 PSI fy=40000 PSI

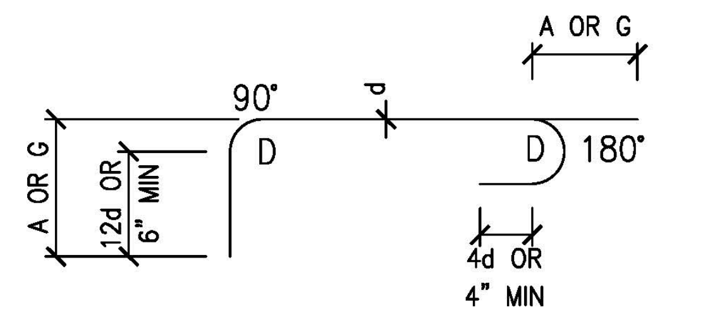
BAR SIZE	MISCELLANEOUS BARS		TOP BARS	
	Ld	LAP SPLICE	Ld	LAP SPLICE
#3	12"	16"	16"	21"
#4	15"	20"	20"	26"
#5	20"	26"	26"	34"
#6	24"	31"	31"	41"

LAP SPLICE fc'=3000 PSI fy=60000 PSI

BAR SIZE	MISCELLANEOUS BARS		TOP BARS	
	Ld	LAP SPLICE	Ld	LAP SPLICE
#3	16"	21"	21"	28"
#4	22"	28"	28"	37"
#5	27"	36"	36"	46"
#6	33"	43"	43"	56"

HOOK BARS

BAR SIZE	DIA	STANDARD 180 DEGREE HOOK			STANDARD 90 DEGREE HOOK	
		D	A OR G	J	D	A OR G
#3	6db	2 ¼"	5"	3"	2 ¼""	6"
#4	6db	3"	6"	4"	3"	8"
#5	6db	3 ¾"	7"	5"	3 ¾"	10"


A OR G
90°
d
D
D
180°
A OR G
12d OR 6" MIN
4d OR
4" MIN

NOTES:
1. VALUES FOR UNCOATED REINFORCING AND NORMAL WEIGHT CONCRETE WITH CLEAR SPACING > db, CLEAR COVER > db AND MINIMUM STIRRUPS OR TIES THROUGHOUT Ld OR CLEAR SPACING > 2db AND CLEAR COVER > db.
2. DEVELOP ALL REINFORCING IN STRUCTURAL SLABS WITH MINIMUM DEVELOPMENT LENGTH Ld.
3. TOP BAR = HORIZONTAL BAR WITH MORE THAN 12" OF FRESH CONCRETE BELOW OR AS NOTED ON DOCUMENTS AS "TOP BAR".
4. UNO, ALL LAPS SHALL BE MINIMUM CLASS B OR CLASS B (TOP BARS).
5. ALL TABULATED VALUES ARE IN INCHES.

HOLDOWN AT HEADERS

MSTC48B3	FLR–TO–HDR STRAP (HDR $9^1/_4$" MIN DEPTH)	(54) 10d COMMON: (12) @ FACE OF HDR, (4) @ BOTT OF HDR, (38) @ STUDS	(2)2x STUDS	3,930	3,380
MSTC66B3	FLR–TO–HDR STRAP (HDR $11^1/_4$" MIN DEPTH)	(56) 10d COMMON: (14) @ FACE OF HDR, (4) @ BOTT OF HDR, (38) @ STUDS	(2)2x STUDS	4,440	3,820

SHEATHING PROPERTIES

LOCATION	THICKNESS	SPAN RATING	PLYWOOD GRADE	EXPOSURE
ROOF	15/32	32/16	C–D	1
FLOOR	23/32 T&G	24 OC	STURD–I FLOOR	1
WALLS	15/32	32/16	C–D	1

COMMON WIRE NAILS PROPERTIES

PENNY WEIGHT	8d	10d	12d	16d	20d
DIAMETER (IN)	0.131	0.148	0.148	0.162	0.192
LENGHT (IN)	2 ½	3	3 ¼	3 ½	4

NOTES:
ALL COMMON WIRE AND BOX NAILS SHALL CONFORM TO NOMINAL SIZES SPECIFIED IN ASTM F1667.

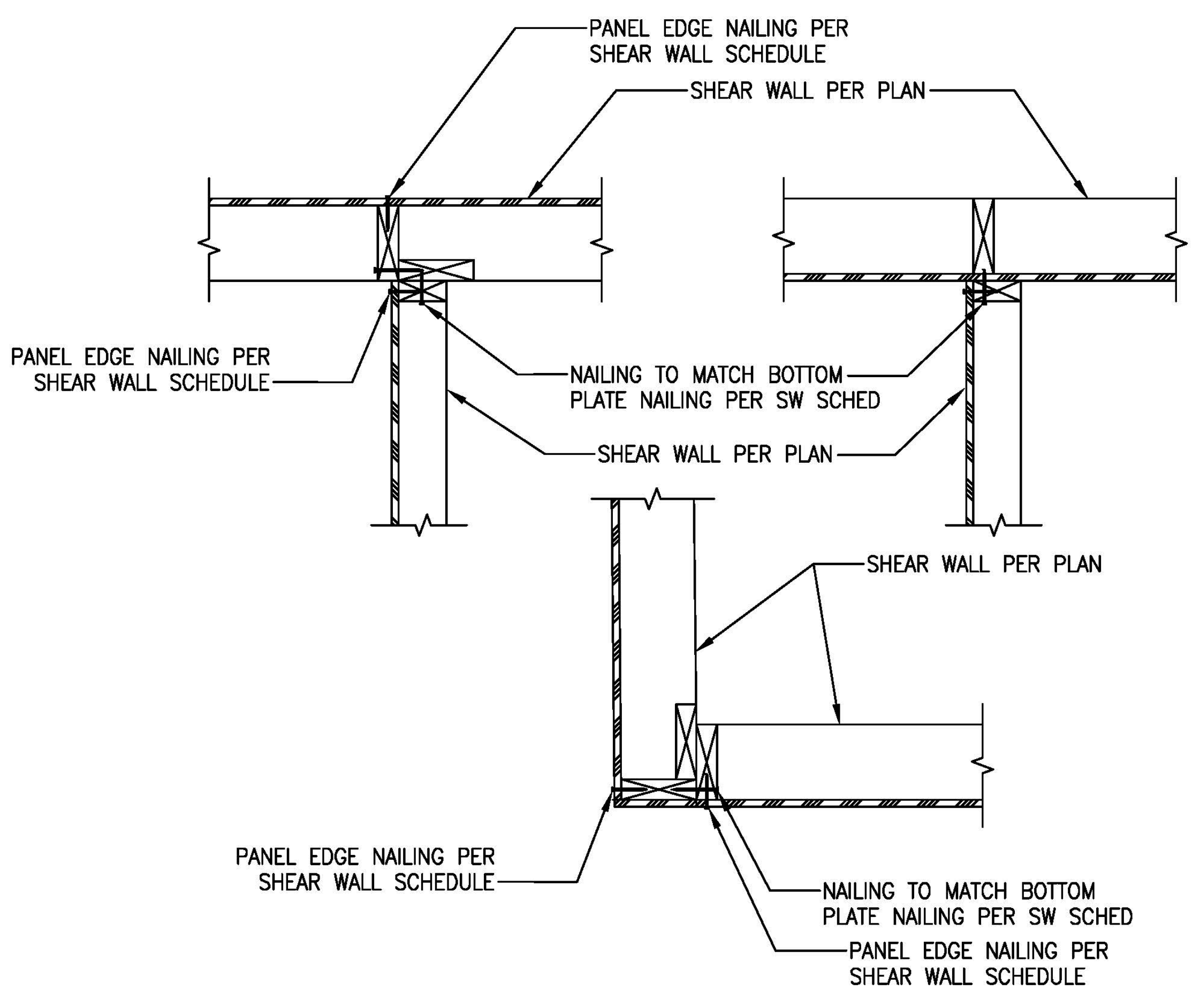
SOLID LUMBER PROPERTIES

MEMBER SIZE	SIZE	SPECIES	GRADE
WALL STUD, BLOCKING	2X4, 3X4, 2X6, 3X6	HEMLOCK–FIR SPURCE–PINE–FIR	NR 2
SILL PLATE	2X4, 3X4, 2X6, 3X6	P.T. HEMLOCK–FIR	NR 2
TOP PLATES	2X4, 3X4, 2X6, 3X6	HEMLOCK–FIR SPURCE–PINE–FIR	NR 2
POST	4X4, 4X6, 4X8	DOUGLAS FIR–LARCH	NR 2
FLOOR JOIST OR ROOF RAFTER	2X8 THROUGH 2X12	HEMLOCK–FIR SPURCE–PINE–FIR	NR 2
BEAM	4X6 THROUGH 4X12	DOUGLAS FIR–LARCH	NR 2
BEAM	6X6 THROUGH 6X12	DOUGLAS FIR–LARCH	NR 1
POST OR TIMBER	6X6, 6X8	DOUGLAS FIR–LARCH	NR 1
LEDGER	2X AND 3X	DOUGLAS FIR–LARCH	NR 2
LEDGER	4X	DOUGLAS FIR–LARCH	NR 1

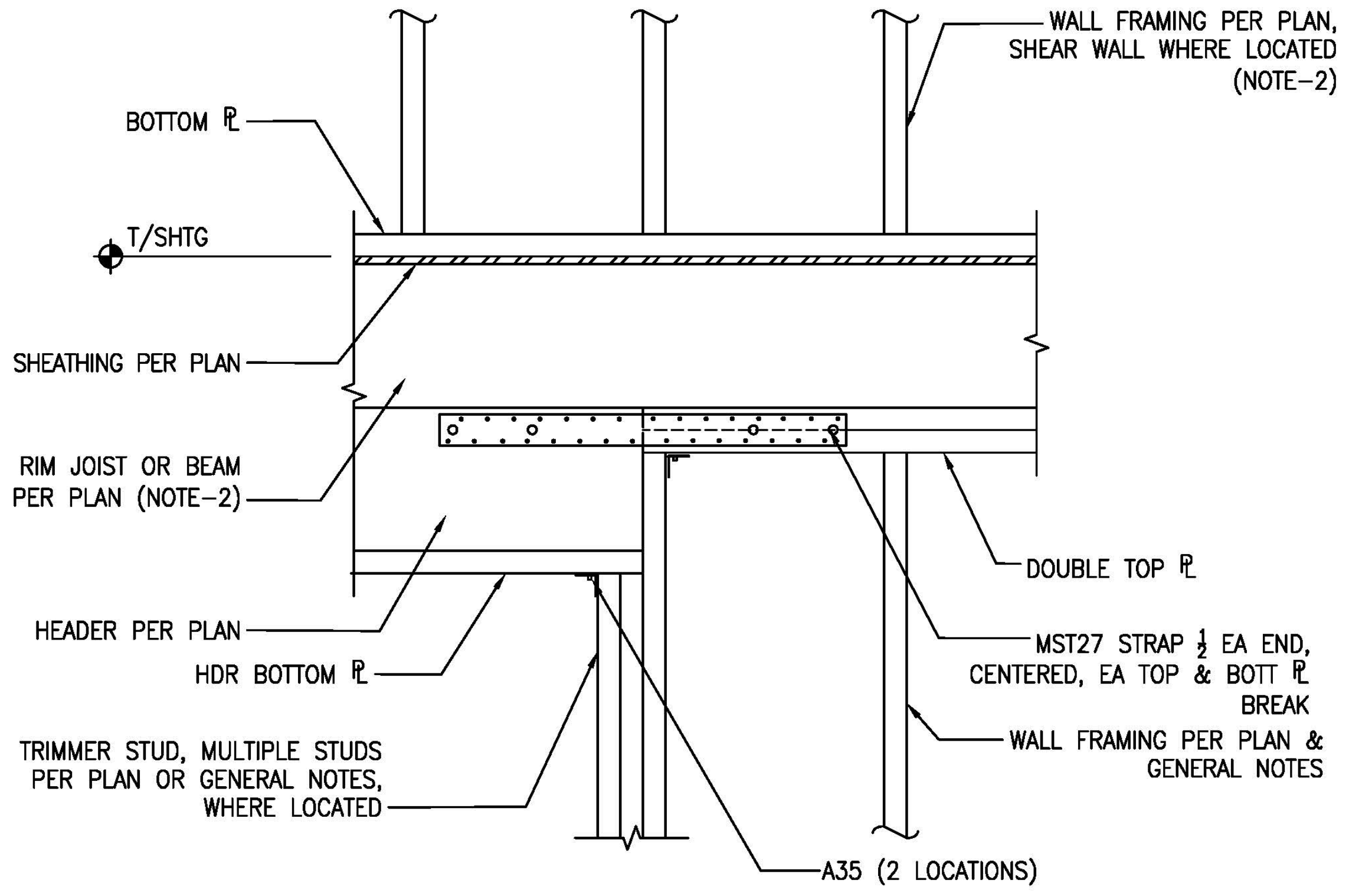
GLUELAM TIMBER PROPERTIES

MEMBER	SIZE	SPECIES	COMB	USES
BEAMS	ALL	DF/DF	24F–V4	SIMPLE SUPPORT
BEAMS	ALL	DF/DF	24F–V8	CONTINUOUS OR WITH CANTILEVER END
COLUMNS	ALL	DF	C–D	POST OR TIMBER MEMBER

NOTES:
1. USE MINIMUM THICKNESS AND MINIMUM APA RATING.
2. ALL WEATHER EXPOSED MEMBERS TO BE PRESSURE TREATED
3. PRESSURE TREATED WOOD INCLUDES PRESERVATIVE AND FIRE TREATED

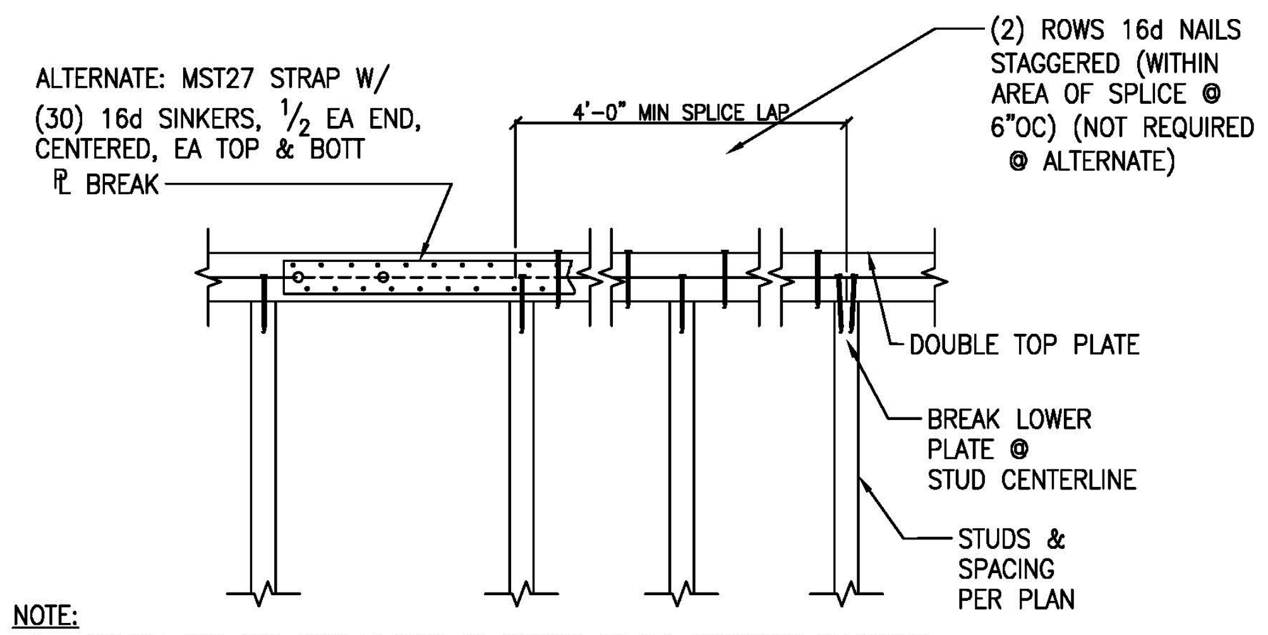

PANEL EDGE NAILING PER SHEAR WALL SCHEDULE
SHEAR WALL PER PLAN
PANEL EDGE NAILING PER SHEAR WALL SCHEDULE
NAILING TO MATCH BOTTOM PLATE NAILING PER SW SCHED
SHEAR WALL PER PLAN
SHEAR WALL PER PLAN
PANEL EDGE NAILING PER SHEAR WALL SCHEDULE
NAILING TO MATCH BOTTOM PLATE NAILING PER SW SCHED
PANEL EDGE NAILING PER SHEAR WALL SCHEDULE

1 TYPICAL SHEAR WALL INTERSECTIONS


WALL FRAMING PER PLAN, SHEAR WALL WHERE LOCATED (NOTE–2)
BOTTOM ℞
T/SHTG
SHEATHING PER PLAN
RIM JOIST OR BEAM PER PLAN (NOTE–2)
DOUBLE TOP ℞
HEADER PER PLAN
HDR BOTTOM ℞
MST27 STRAP ½ EA END, CENTERED, EA TOP & BOTT ℞ BREAK
WALL FRAMING PER PLAN & GENERAL NOTES
TRIMMER STUD, MULTIPLE STUDS PER PLAN OR GENERAL NOTES, WHERE LOCATED
A35 (2 LOCATIONS)

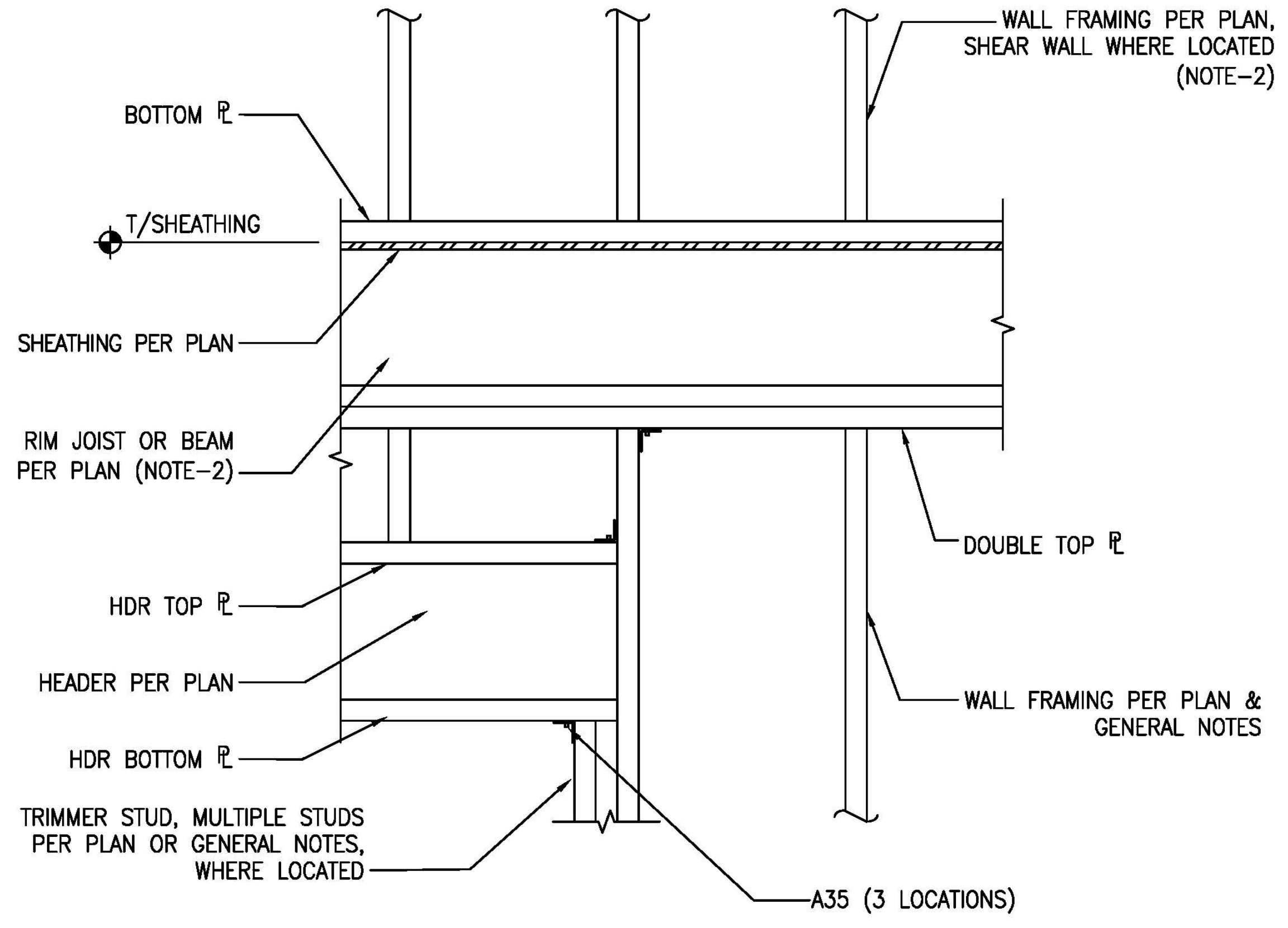
NOTES:
1. WALL SHEATHING NOT SHOWN FOR CLARITY
2. WHERE ROOF ABOVE. RAFTERS OR PRE–MANUFACTURED TRUSSES PER PLAN REPLACES RIM JOIST

2 TYPICAL HEADER FRAMING FLUSH WITH BOTTOM OF JOIST


ALTERNATE: MST27 STRAP W/ (30) 16d SINKERS, ½ EA END, CENTERED, EA TOP & BOTT ℞ BREAK
4'–0" MIN SPLICE LAP
(2) ROWS 16d NAILS STAGGERED (WITHIN AREA OF SPLICE @ 6"OC) (NOT REQUIRED @ ALTERNATE)
DOUBLE TOP PLATE
BREAK LOWER PLATE @ STUD CENTERLINE
STUDS & SPACING PER PLAN

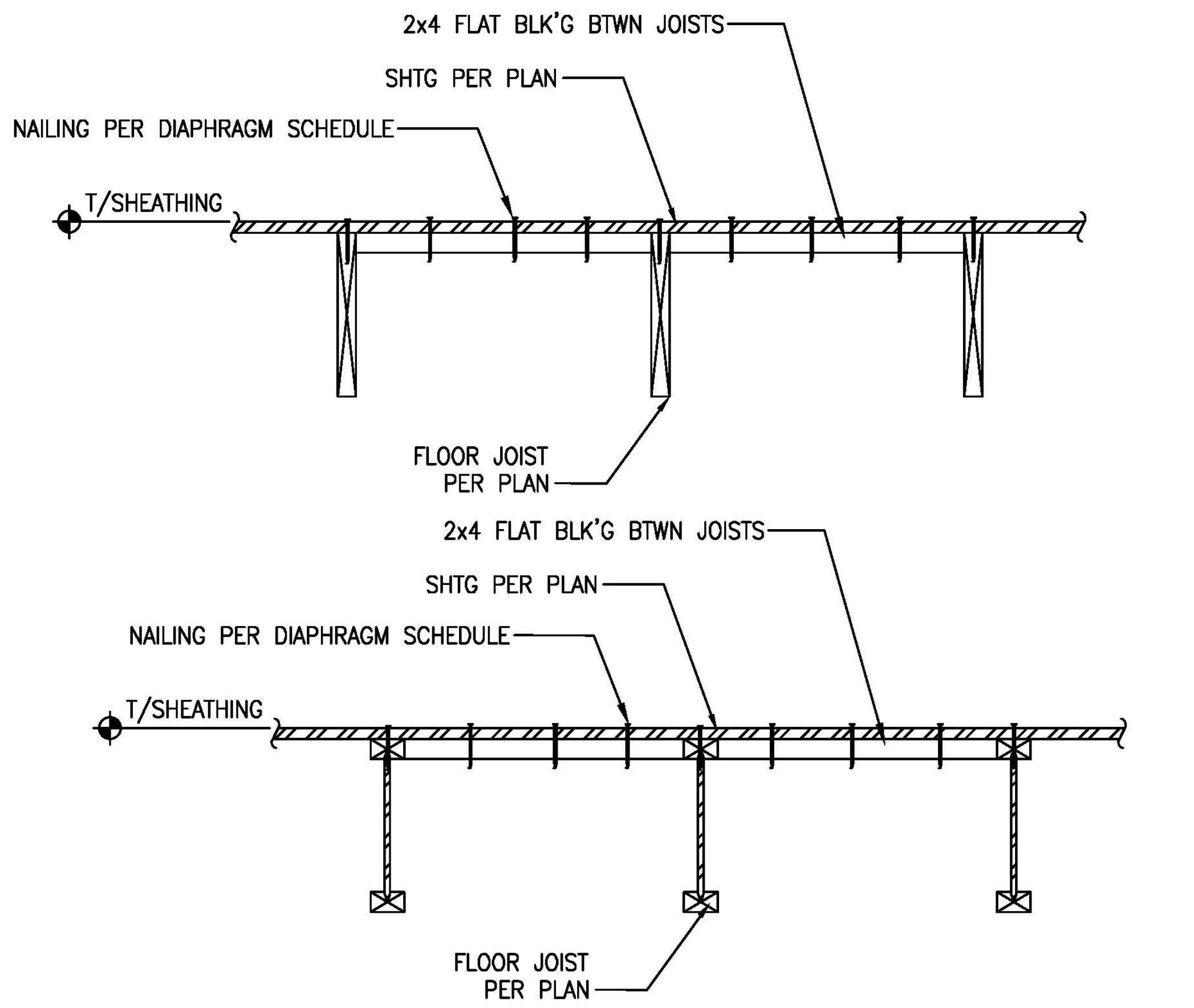
NOTE:
1. SPLICE AND NAIL TOP PLATES AS SHOWN AT ALL EXTERIOR PLUMBING, PARTY AND SHEAR WALLS AT EACH FLOOR LEVEL AND AT ROOF.
2. PROVIDE (2) LSTA 36 STRAP W/(26) 10d NAIL ONE EACH SIDE WHERE DRILLED HOLES EXCEED THE FOLLOWING 1" FOR 2x4, 3" FOR 2x6 WALL PLATES. CENTER ALL WHOLES MINIMUM EDGE DISTANCE=1 ¼".

3 TYPICAL PLATE SPLICE DETAIL


WALL FRAMING PER PLAN, SHEAR WALL WHERE LOCATED (NOTE–2)
BOTTOM ℞
T/SHEATHING
SHEATHING PER PLAN
RIM JOIST OR BEAM PER PLAN (NOTE–2)
DOUBLE TOP ℞
HDR TOP ℞
HEADER PER PLAN
WALL FRAMING PER PLAN & GENERAL NOTES
HDR BOTTOM ℞
TRIMMER STUD, MULTIPLE STUDS PER PLAN OR GENERAL NOTES, WHERE LOCATED
A35 (3 LOCATIONS)

NOTES:
1. WALL SHEATHING NOT SHOWN FOR CLARITY
2. WHERE ROOF ABOVE. RAFTERS OR PRE–MANUFACTURED TRUSSES PER PLAN REPLACES RIM JOIST

4 TYPICAL HEADER DETAIL


2x4 FLAT BLK'G BTWN JOISTS
SHTG PER PLAN
NAILING PER DIAPHRAGM SCHEDULE
T/SHEATHING
FLOOR JOIST PER PLAN
2x4 FLAT BLK'G BTWN JOISTS
SHTG PER PLAN
NAILING PER DIAPHRAGM SCHEDULE
T/SHEATHING
FLOOR JOIST PER PLAN

5 TYPICAL BLOCKING BETWEEN FLOOR JOISTS/ROOF TRUSSES

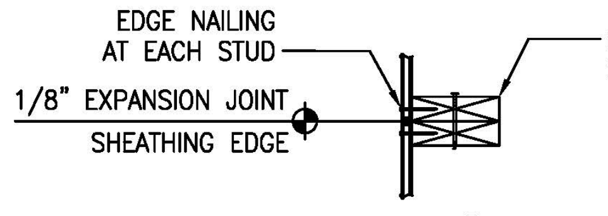
NOTES:
1. 15/32" A.P.A. RATED PLYWOOD OR O.S.B. PANELS SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY.
2. WHERE SHEATHING IS APPLIED ON BOTH SIDES OF WALL, PANEL EDGE JOINTS ON 2x FRAMING SHALL BE STAGGERED SO THAT JOINTS ON OPPOSITE SIDES ARE NOT LOCATED ON THE SAME STUDS.
3. BLOCKING IS REQUIRED AT ALL UNSUPPORTED PANEL EDGES.
4. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY WINDOWS, OR DOORWAYS OR AS DESIGNATED ON PLANS. HOLDOWN REQUIREMENTS PER PLANS.
5. MINIMUM RIM BOARD OR BLOCKING WIDTH BELOW WALL SHALL BE 1–1/4" TIMBERSTRAND LSL FOR (1) SIDE WALL SHEATHING AND 3–1/2" TIMBERSTRAND LSL FOR (2) SIDES WALL SHEATHING.
6. SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLDOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT–UP HOLDOWN POSTS. ADDITIONAL INFORMATION PER HOLDOWN SCHEDULE & DETAILS.
7. INTERMEDIATE FRAMING TO BE 2x MINIMUM MEMBERS. ATTACH SHEATHING TO INTERMEDIATE FRAMING WITH 0.131"øx2½" NAILS AT 12"OC WHERE STUDS ARE SPACED AT 16"OC AND 0.131"øx2½" NAILS AT 6"OC WHERE STUDS ARE SPACED AT 24"OC. NAILS SHALL BE LOCATED 3/8" MINIMUM FROM PANEL EDGES.
8. "LTP5" SHALL BE ORIENTED LENGTHWISE (HORIZONTAL) AT PLATE TO RIM.
9. BASED ON 0.131"øx1½" NAILS USED TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING, USE 0.131"øx2½" NAILS WHERE INSTALLED OVER SHEATHING.
10. SIMPSON "A35" MAY BE USED IN LIEU OF "LTP5".
11. WHERE JOISTS ARE HUNG FROM MUD SILL, USE P.T. 3x RIPPED TO STEM WALL WIDTH W/COUNTER–SUNK ANCHOR BOLTS PER SHEAR WALL SCHEDULE.
12. WHERE 3x FRAMING AND BLOCKING IS REQUIRED PER THE SHEAR WALL SCHEDULE, (2) 2x FRAMING AND BLOCKING MAY BE USED IN LIEU OF 3x NOTED IN THE SCHEDULE.
13. ANCHOR BOLTS SHALL BE PROVIDED WITH HOT–DIPPED GALVANIZED STEEL PLATE WASHERS 3"x3"x0.229"(MIN). THE HOLE IN THE PLATE WASHER MAY BE DIAGONALLY SLOTTED $^{13}/_{16}$"x1¾" PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND NUT. PLATE WASHER TO EXTEND TO WITHIN ½" OF THE EDGE OF THE SILL PLATE ON THE SIDE(S) WITH SHEATHING. WHERE SHEAR WALLS ARE SHEATHED ON BOTH SIDES OF 2x6 WALL FRAMING, USE 4.5"x3"x0.229"(MIN) PLATE WASHERS. EMBED ANCHOR BOLTS 7" MINIMUM INTO THE CONCRETE.
14. PRESSURE TREATED MATERIAL CAN CAUSE EXCESSIVE CORROSION IN THE FASTENERS. PROVIDE HOT–DIPPED GALVANIZED (ELECTRO–PLATING IS NOT ACCEPTABLE) NAILS AND CONNECTOR PLATES (FRAMING ANGLES, ETC.) FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED FRAMING MEMBERS. ADDITIONAL INFORMATION PER STRUCTURAL NOTES.
15. AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN PLACE OF SINGLE 3x STUD. DOUBLE 2x STUDS SHALL BE CONNECTED TOGETHER BY NAILING THE STUDS TOGETHER WITH 3" LONG NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING.
16. WHERE ABUTTING PANELS OR SILL PLATES REQUIRE 3x MINIMUM, NAIL STUDS TO 3x BOTTOM/SILL PLATES WITH (3) 0.148"øx$3^1/_4$" TOENAILS.

WOOD-FRAMED SHEAR WALL SCHEDULE

FOR HEM-FIR FRAMING W/ 8d COMMON NAILS (2021 IBC) & SIMPSON CATALOG 2024-2025

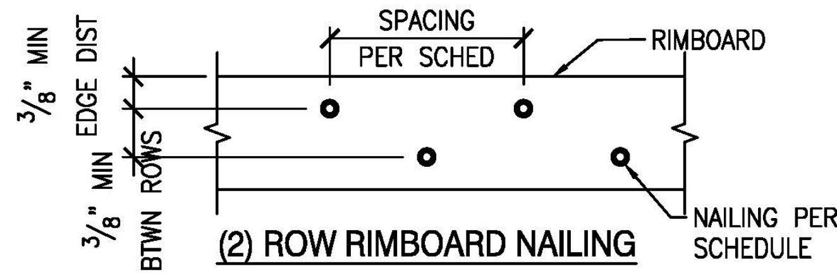
	SW TYPE	WALL SHEATHING APA-RATED	EDGE NAILING	BASE PLATE NAILING	RIM BOARD OR BLOCKING TO WALL BELOW	MINIMUM RIM BOARD THICKNESS	FRAMING AT PANEL EDGES	BLOCKING AT PANEL EDGES	ANCHOR BOLT TO CONCRETE FOUNDATION	SILL PLATE AT FOUNDATION	SHEAR WALL CAPACITY (PLF) (SEISMIC)	SHEAR WALL CAPACITY (PLF) (WIND)
SINGLE-SIDED	SW–1	$^{15}/_{32}$"	0.131"ø x 2½" @ 6"OC	0.162"ø x $3^1/_2$" @ 5"OC	LTP5 @ 14"OC	1 1/4"	2x	2x	⅝"ø @ 40"OC	P.T. 2x	261	365
									⅝"ø @ 44"OC	P.T. 3x		
	SW–2	$^{15}/_{32}$"	0.131"ø x 2½" @ 4"OC	0.162"ø x $3^1/_2$" @ 4"OC	LTP5 @ 12"OC	1 1/4"	2x	3x or FLAT 2x	⅝"ø @ 28"OC	P.T. 2x	380	533
									⅝"ø @ 48"OC	P.T. 3x		
	SW–3	$^{15}/_{32}$"	0.131"ø x 2½" @ 3"OC, STAGGERED	0.162"ø x $3^1/_2$" @ 3"OC	LTP5 @ 8"OC	1 1/4"	3x	3x or FLAT 2x	⅝"ø @ 20"OC	P.T. 2x	489	685
									⅝"ø @ 32"OC	P.T. 3x		

NOTE:
READ NOTES FOR SHEAR WALL INFORMATION.

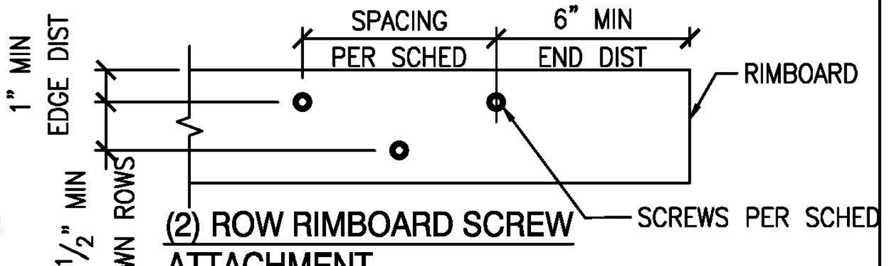

EDGE NAILING AT EACH STUD
1/8" EXPANSION JOINT
SHEATHING EDGE
NAILING PER SW SCHEDULE

PLAN VIEW - ABUTTING PANEL EDGES AT SW3 & SW4

NOTE ON RIM BOARD LIMITS:
–TO MINIMIZE SPLITTING, MAINTAIN EDGE DISTANCE AND ROW SPACING OF 2–1/2"x NAIL DIAMETER OR 3/8" WHICHEVER IS GREATER.
–MINIMUM NAIL PENETRATION, 1–3/8" FOR 8d AND 1–1/2" FOR 10d.


3/8" MIN EDGE DIST
3/8" MIN BTWN ROWS
SPACING PER SCHED
RIMBOARD
NAILING PER SCHEDULE

(2) ROW RIMBOARD NAILING


1" MIN EDGE DIST
$1^1/_2$" MIN BTWN ROWS
SPACING PER SCHED
6" MIN END DIST
RIMBOARD
SCREWS PER SCHED

(2) ROW RIMBOARD SCREW ATTACHMENT

PROJECT #:
25-120
ENGINEERED BY: GS
DATE:
6/25/25

ZVELT
ENGINEERING DESIGN PLLC
STRUCTURAL ENGINEERING
721 4th AVE #794
KIRKLAND, WA 98033
Zvelt.Eng@outlook.com

GABRIELA SIIA
52184
8/8/2025

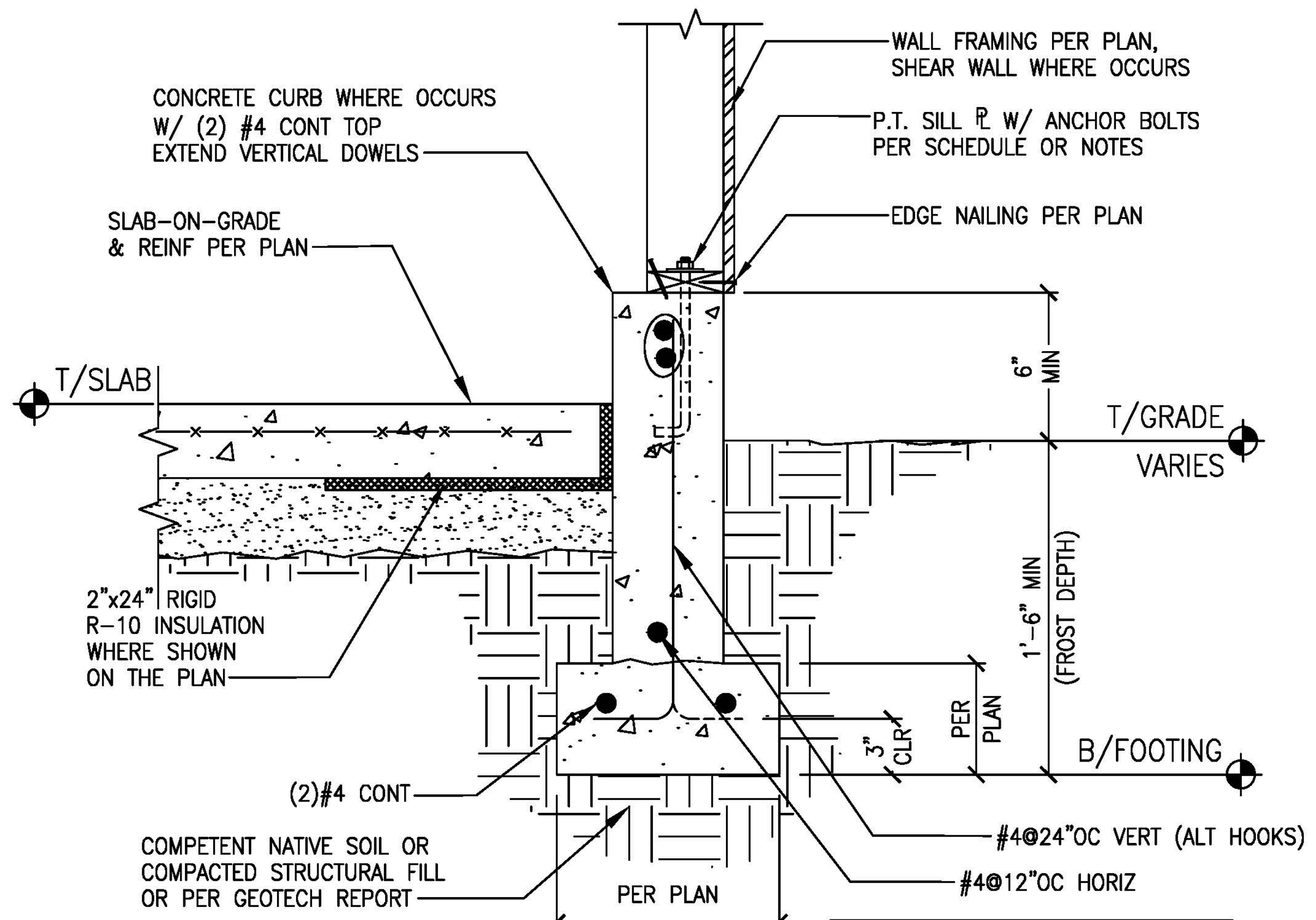
PROJECT NAME:
Long - DADU
6905 96th Ave SE
Mercer Island, WA 98040

IBC 2021

NOTES SCHEDULES AND DETAILS

ANW 250052
LATERAL DETAILS

SHEET NUMBER:
S 2

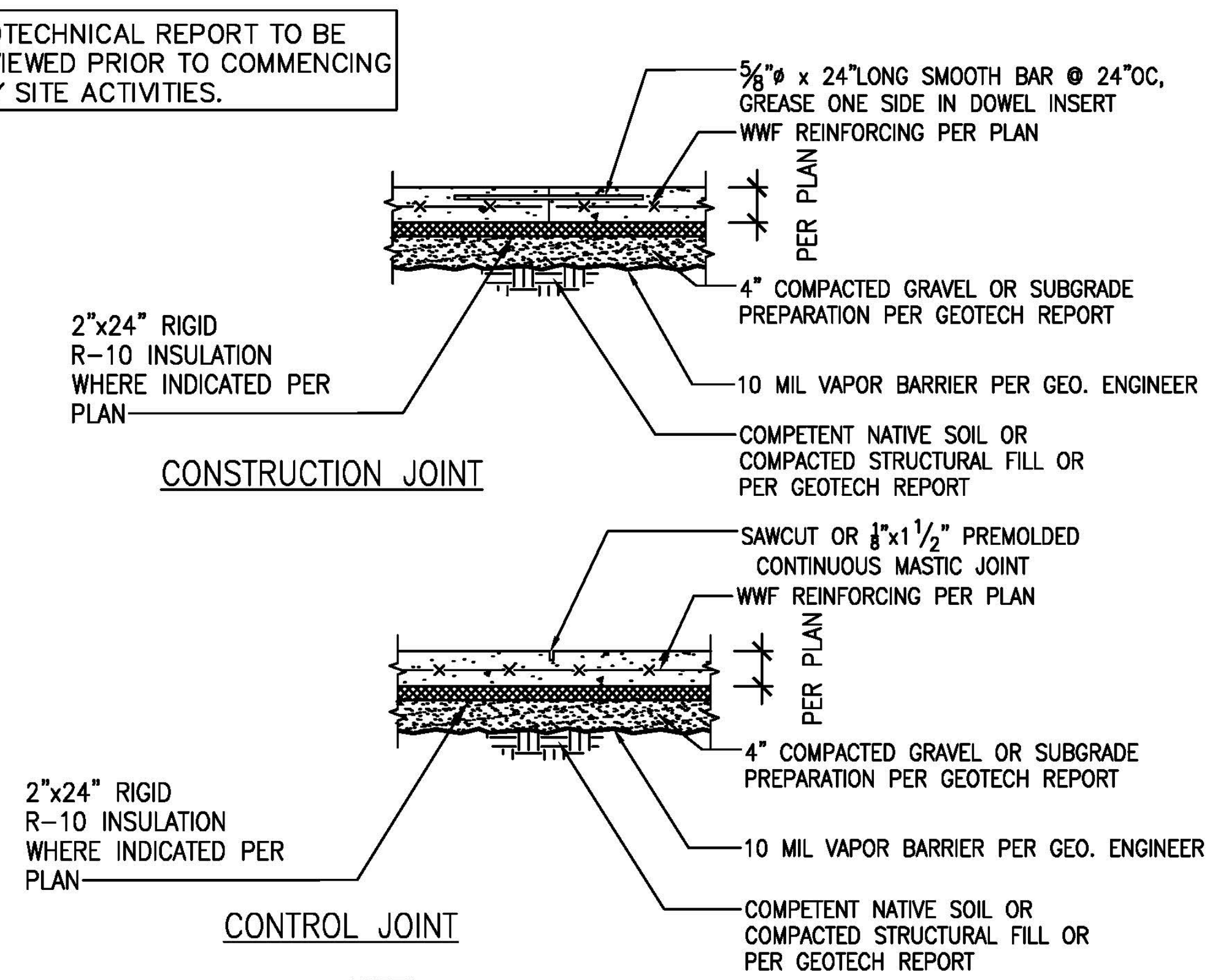

WALL FRAMING PER PLAN, SHEAR WALL WHERE OCCURS
CONCRETE CURB WHERE OCCURS W/ (2) #4 CONT TOP EXTEND VERTICAL DOWELS
P.T. SILL ℄ W/ ANCHOR BOLTS PER SCHEDULE OR NOTES
SLAB-ON-GRADE & REINF PER PLAN
EDGE NAILING PER PLAN
T/SLAB
6" MIN
T/GRADE
VARIES
2"x24" RIGID R-10 INSULATION WHERE SHOWN ON THE PLAN
1'-6" MIN (FROST DEPTH)
PER PLAN
3" CLR
B/FOOTING
(2)#4 CONT
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT
#4@24"OC VERT (ALT HOOKS)
#4@12"OC HORIZ
PER PLAN

GEOTECHNICAL REPORT TO BE REVIEWED PRIOR TO COMMENCING ANY SITE ACTIVITIES.

NOTE:
1.FOUNDATION PLAN PER A-SHEETS BY ANW.
2.TOP OF WALL ELEVATION REFERENCE ELEVATIONS, SECTIONS & DETAILS PER ARCHITECTURAL.
3.FOOTING SHALL BE MINIMUM 18" FROST DEPTH, BELOW GRADE LEVEL
4.STEM WALL HEIGHT SHALL BE COORDINATED WITH HOLDOWN REQUIREMENTS (21" MINIMUM) AND SILL PLATE SIZE.
5.SILL PLATE SIZE PER SHEAR WALL SCHEDULE AND HOLDOWN REQUIREMENTS PER HOLDOWNS SCHEDULE.

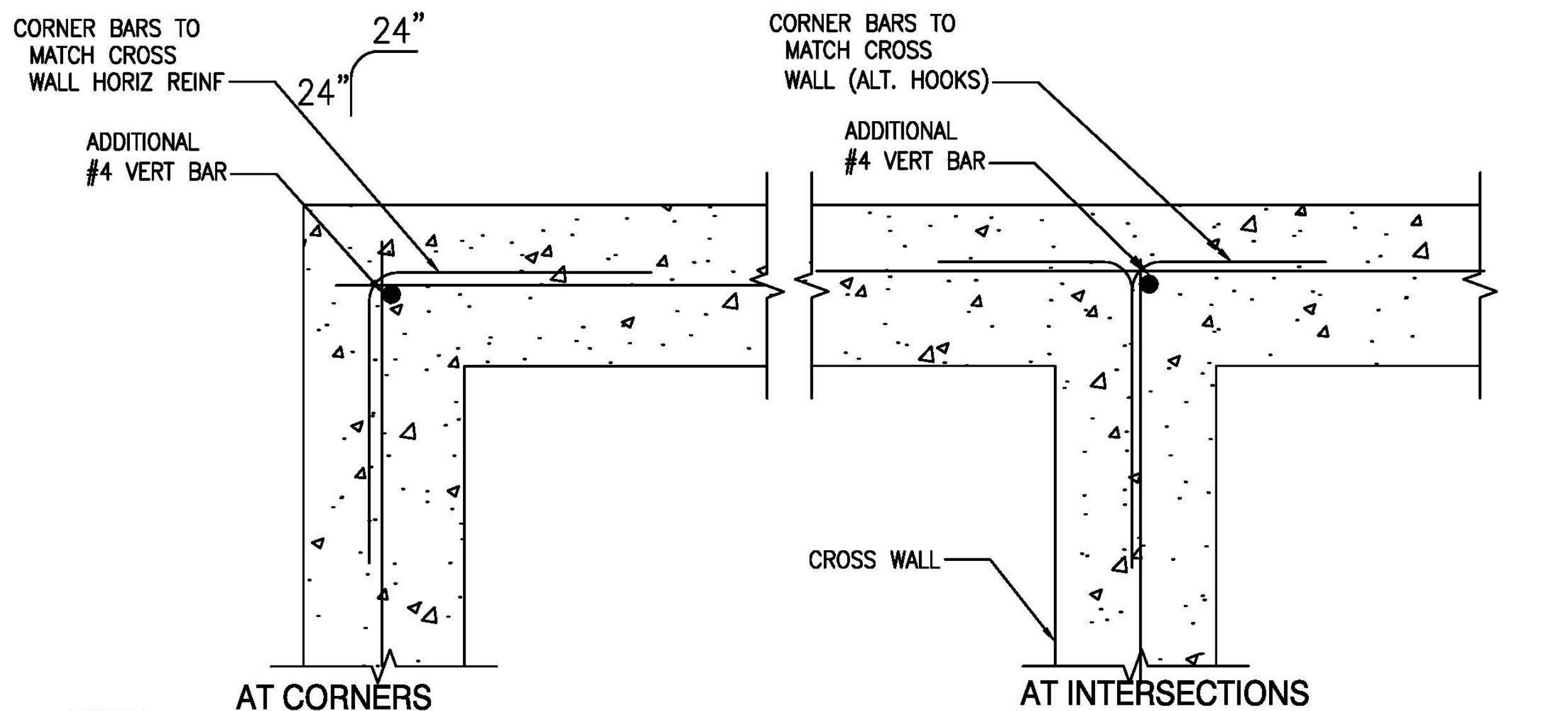
1 TYPICAL EXTERIOR SHEAR WALL WITH SLAB ON GRADE

GEOTECHNICAL REPORT TO BE REVIEWED PRIOR TO COMMENCING ANY SITE ACTIVITIES.

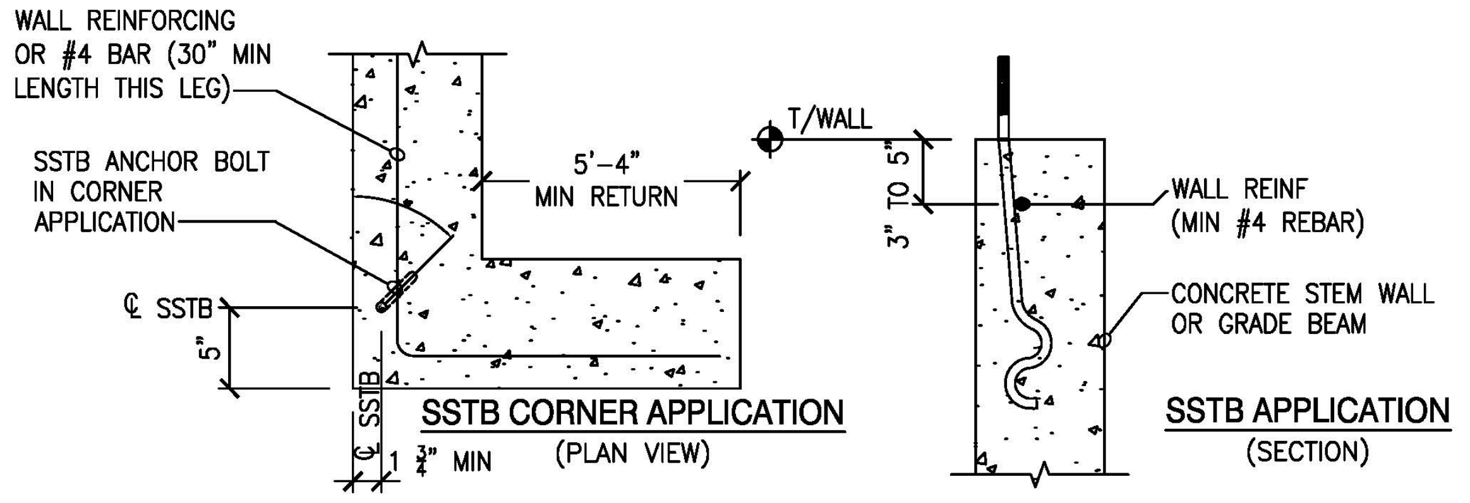

5/8"ø x 24"LONG SMOOTH BAR @ 24"OC, GREASE ONE SIDE IN DOWEL INSERT
WWF REINFORCING PER PLAN
PER PLAN
4" COMPACTED GRAVEL OR SUBGRADE PREPARATION PER GEOTECH REPORT
2"x24" RIGID R-10 INSULATION WHERE INDICATED PER PLAN
10 MIL VAPOR BARRIER PER GEO. ENGINEER
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT
CONSTRUCTION JOINT
SAWCUT OR 1/8"x1 1/2" PREMOLDED CONTINUOUS MASTIC JOINT
WWF REINFORCING PER PLAN
PER PLAN
4" COMPACTED GRAVEL OR SUBGRADE PREPARATION PER GEOTECH REPORT
2"x24" RIGID R-10 INSULATION WHERE INDICATED PER PLAN
10 MIL VAPOR BARRIER PER GEO. ENGINEER
CONTROL JOINT
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT

NOTES:
1. PROVIDE CONTROL/CONSTRUCTION JOINTS IN SLABS-ON-GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS WITH NO ACUTE ANGLES.
2. USE "SOFTCUT SAW" AS SOON AS POSSIBLE WITHOUT CAUSING RAVELING OF CONCRETE EDGES. SAWCUT ALONG SHORT DIRECTION OF POUR FIRST.
3. PROVIDE CONSTRUCTION/CONTROL JOINT TO ENCLOSE APPROXIMATE SQUARE AREAS OF 225 SF MAX.

2 TYPICAL SLAB ON GRADE DETAILS


CORNER BARS TO MATCH CROSS WALL HORIZ REINF
24"
24"
ADDITIONAL #4 VERT BAR
CORNER BARS TO MATCH CROSS WALL (ALT. HOOKS)
ADDITIONAL #4 VERT BAR
CROSS WALL
AT CORNERS
AT INTERSECTIONS

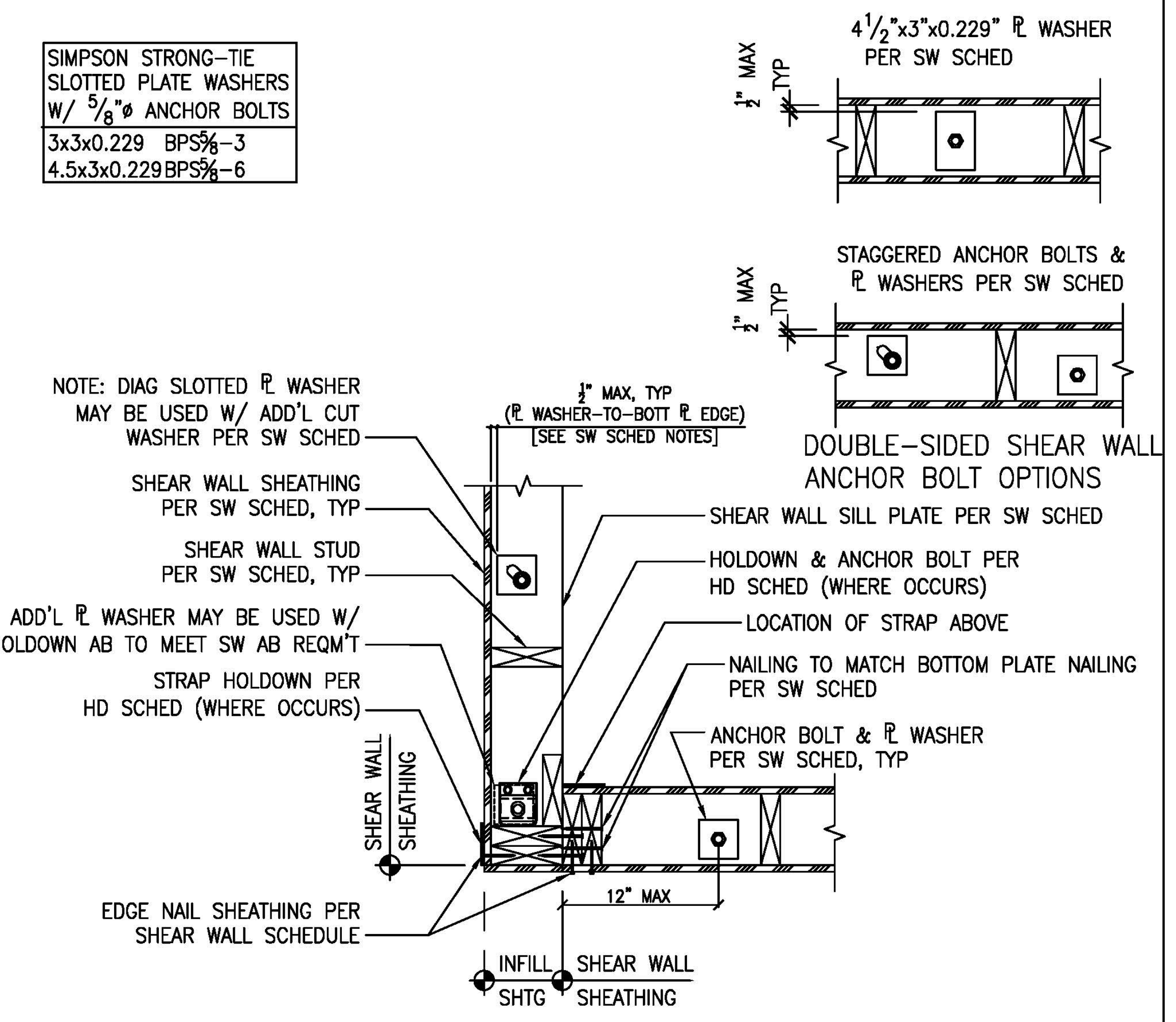
NOTES:
1. FOR SPLICE LENGTHS REFERENCE BAR LAP/SPLICE SCHEDULE.
2. FOR WALL SIZE & REINFORCING REFERENCE ELEVATIONS, SECTIONS & DETAILS.
3. AT FOOTING & STEM WALLS, CORNER BARS TO MATCH FOOTING & STEM WALL HORIZONTAL BARS.


WALL REINFORCING OR #4 BAR (30" MIN LENGTH THIS LEG)
SSTB ANCHOR BOLT IN CORNER APPLICATION
℄ SSTB
5"
5'-4" MIN RETURN
℄ SSTB
1 3/4" MIN
SSTB CORNER APPLICATION
(PLAN VIEW)
T/WALL
3" TO 5"
WALL REINF (MIN #4 REBAR)
CONCRETE STEM WALL OR GRADE BEAM
SSTB APPLICATION
(SECTION)

3 TYPICAL CORNERS BARS AT CONCRETE STEM WALLS & FTGs

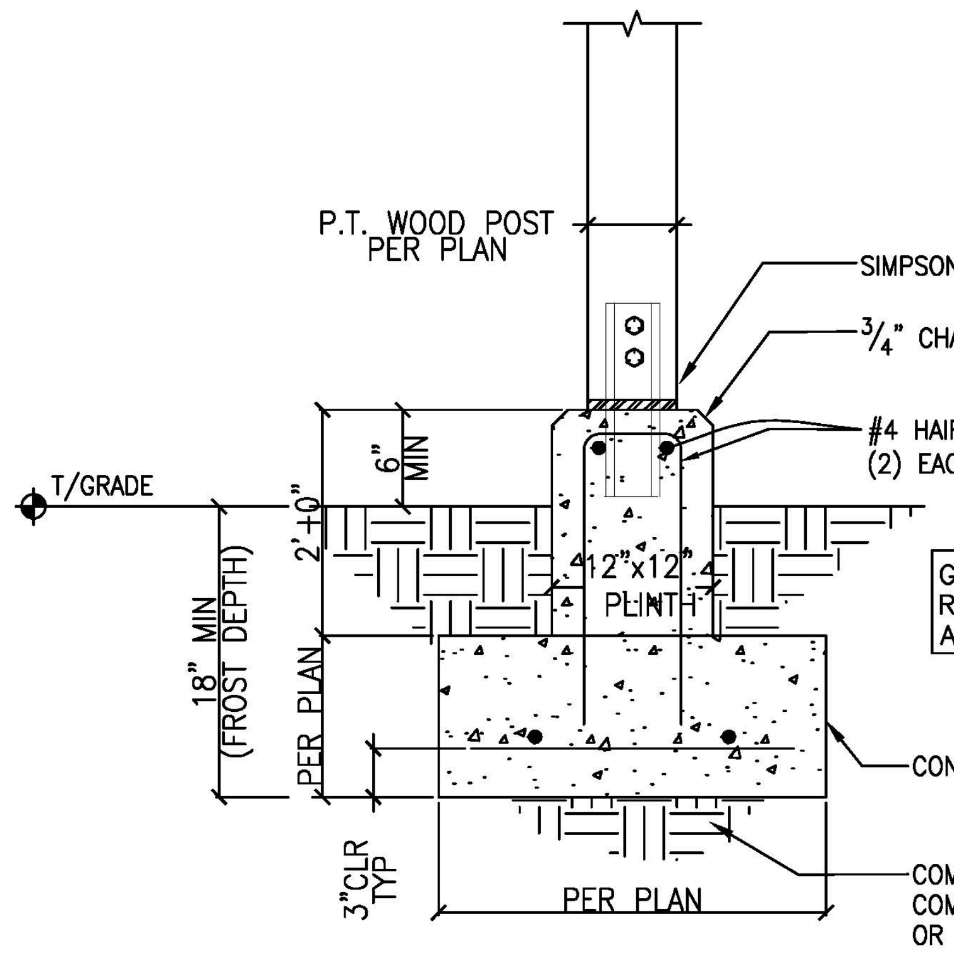
SIMPSON STRONG-TIE SLOTTED PLATE WASHERS W/ 5/8"ø ANCHOR BOLTS

3x3x0.229	BPS5/8-3
4.5x3x0.229	BPS5/8-6


4 1/2"x3"x0.229" ℄ WASHER PER SW SCHED
1/2" MAX
TYP
STAGGERED ANCHOR BOLTS & ℄ WASHERS PER SW SCHED
1/2" MAX
TYP
DOUBLE-SIDED SHEAR WALL ANCHOR BOLT OPTIONS
NOTE: DIAG SLOTTED ℄ WASHER MAY BE USED W/ ADD'L CUT WASHER PER SW SCHED
1/2" MAX, TYP (℄ WASHER-TO-BOTT ℄ EDGE) [SEE SW SCHED NOTES]
SHEAR WALL SHEATHING PER SW SCHED, TYP
SHEAR WALL STUD PER SW SCHED, TYP
ADD'L ℄ WASHER MAY BE USED W/ HOLDOWN AB TO MEET SW AB REQM'T
STRAP HOLDOWN PER HD SCHED (WHERE OCCURS)
SHEAR WALL SILL PLATE PER SW SCHED
HOLDOWN & ANCHOR BOLT PER HD SCHED (WHERE OCCURS)
LOCATION OF STRAP ABOVE
NAILING TO MATCH BOTTOM PLATE NAILING PER SW SCHED
ANCHOR BOLT & ℄ WASHER PER SW SCHED, TYP
SHEAR WALL SHEATHING
EDGE NAIL SHEATHING PER SHEAR WALL SCHEDULE
12" MAX
INFILL SHTG
SHEAR WALL SHEATHING

4 TYPICAL PLAN VIEW-CORNER FRAMING AT SHARED HOLDOWN

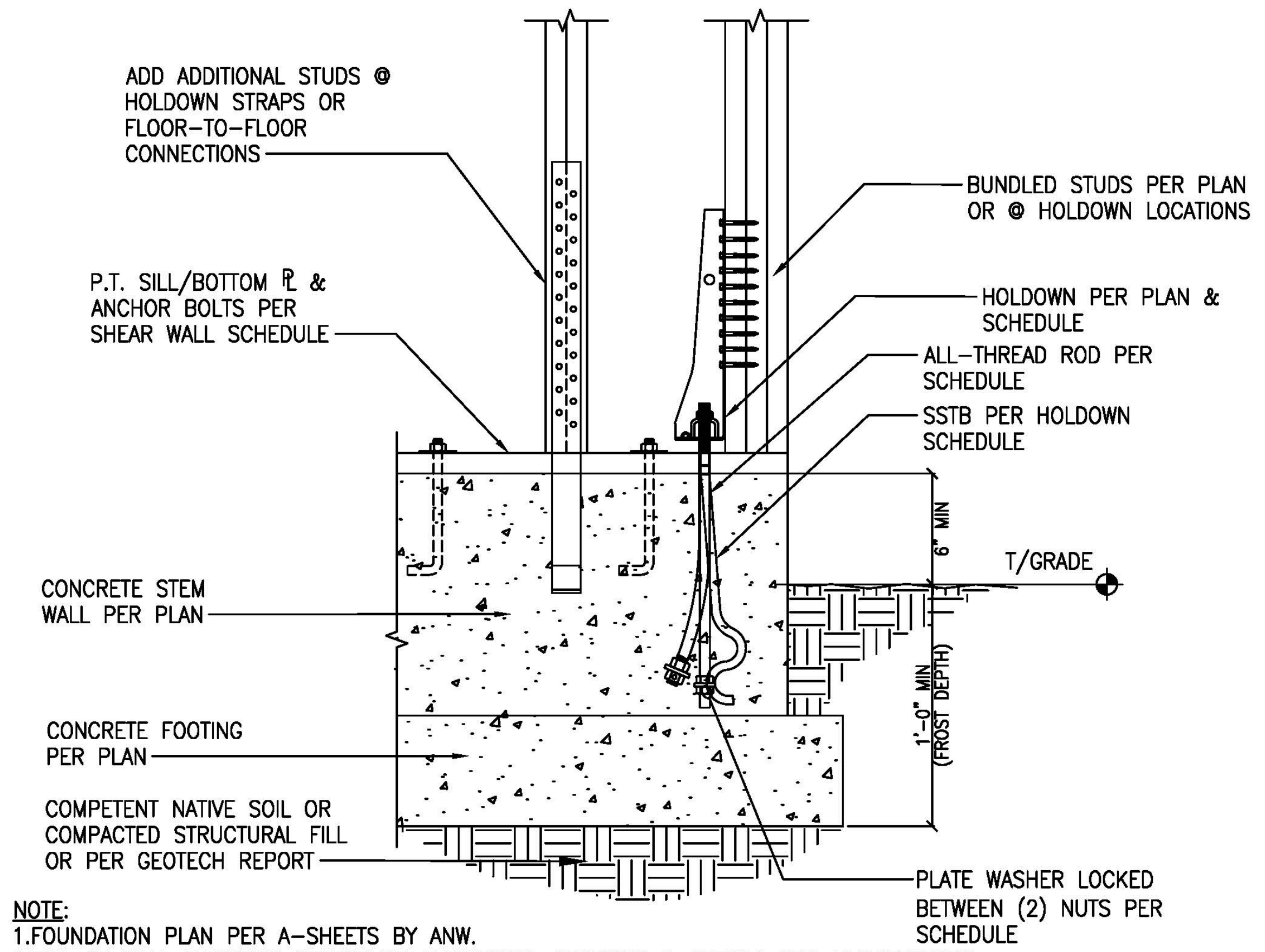
NOTE:
FASTEN ALL SIMPSON HARDWARE PER MFR SPECIFICATIONS.


P.T. WOOD POST PER PLAN
SIMPSON "CBSQ66Z" POST BASE
3/4" CHAMFER PLINTH EDGES
#4 HAIRPINS x 30" (2) EACH WAY
9"
T/GRADE
6" MIN
2'-0"
12"x12" PLINTH
18" MIN (FROST DEPTH)
PER PLAN
CONC FTG & REINF PER PLAN
3"CLR TYP
PER PLAN
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT

GEOTECHNICAL REPORT TO BE REVIEWED PRIOR TO COMMENCING ANY SITE ACTIVITIES.

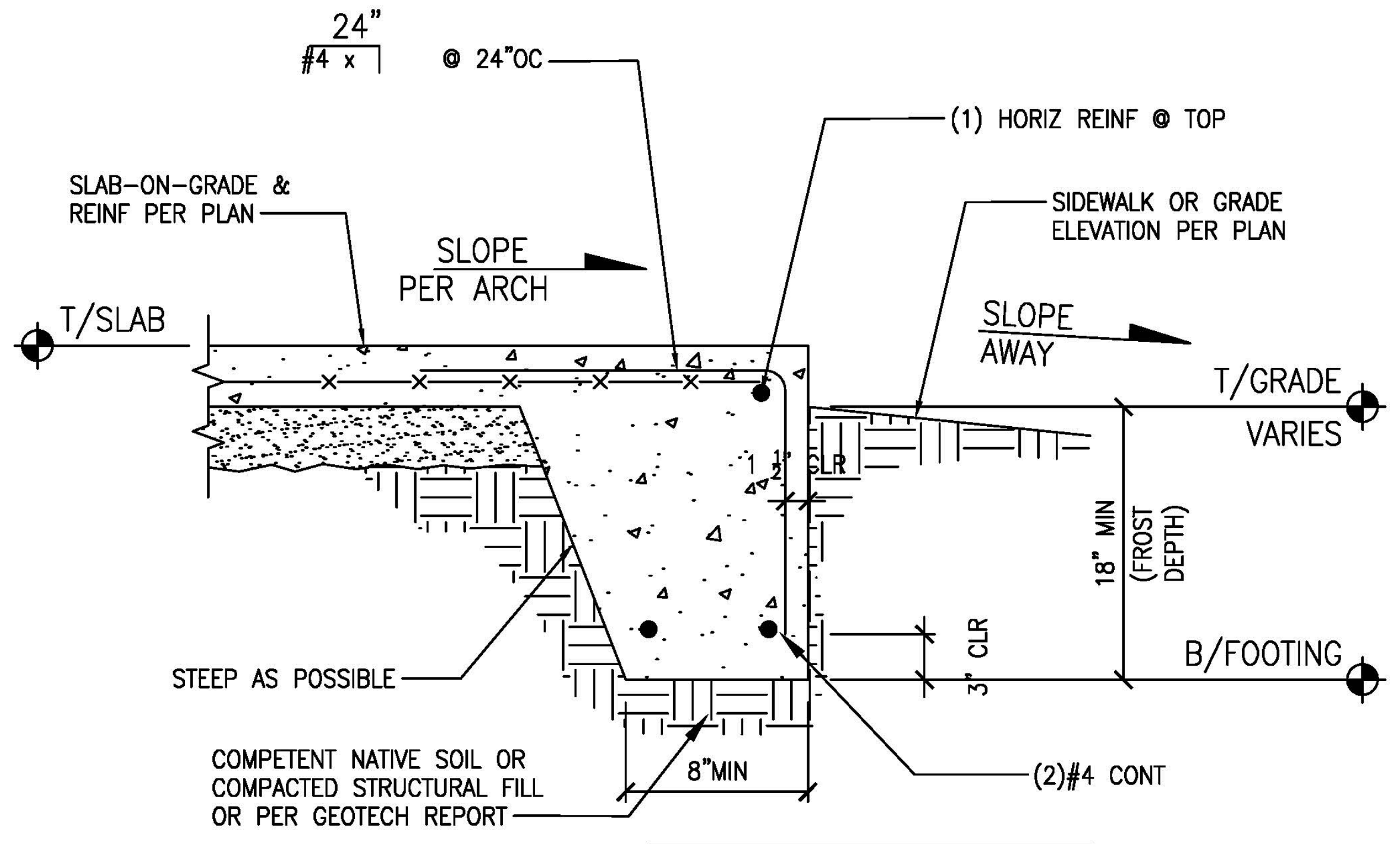
NOTE:
1.FOUNDATION PLAN PER A-SHEETS BY ANW.
2.TOP OF WALL ELEVATION REFERENCE ELEVATIONS, SECTIONS & DETAILS PER ARCHITECTURAL.
3.FOOTING SHALL BE MINIMUM 18" FROST DEPTH, BELOW GRADE LEVEL

5 TYPICAL POST FOOTING WITH PLINTH


ADD ADDITIONAL STUDS @ HOLDOWN STRAPS OR FLOOR-TO-FLOOR CONNECTIONS
BUNDLED STUDS PER PLAN OR @ HOLDOWN LOCATIONS
P.T. SILL/BOTTOM ℄ & ANCHOR BOLTS PER SHEAR WALL SCHEDULE
HOLDOWN PER PLAN & SCHEDULE
ALL-THREAD ROD PER SCHEDULE
SSTB PER HOLDOWN SCHEDULE
6" MIN
T/GRADE
CONCRETE STEM WALL PER PLAN
1'-0" MIN (FROST DEPTH)
CONCRETE FOOTING PER PLAN
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT
PLATE WASHER LOCKED BETWEEN (2) NUTS PER SCHEDULE

NOTE:
1.FOUNDATION PLAN PER A-SHEETS BY ANW.
2.TOP OF WALL ELEVATION REFERENCE ELEVATIONS, SECTIONS & DETAILS PER ARCHITECTURAL.
3.FOOTING SHALL BE MINIMUM 18" FROST DEPTH, BELOW GRADE LEVEL
4.STEM WALL HEIGHT SHALL BE COORDINATED WITH HOLDOWN REQUIREMENTS (21" MINIMUM) AND SILL PLATE SIZE.
5.SILL PLATE SIZE PER SHEAR WALL SCHEDULE AND HOLDOWN REQUIREMENTS PER HOLDOWNS SCHEDULE.

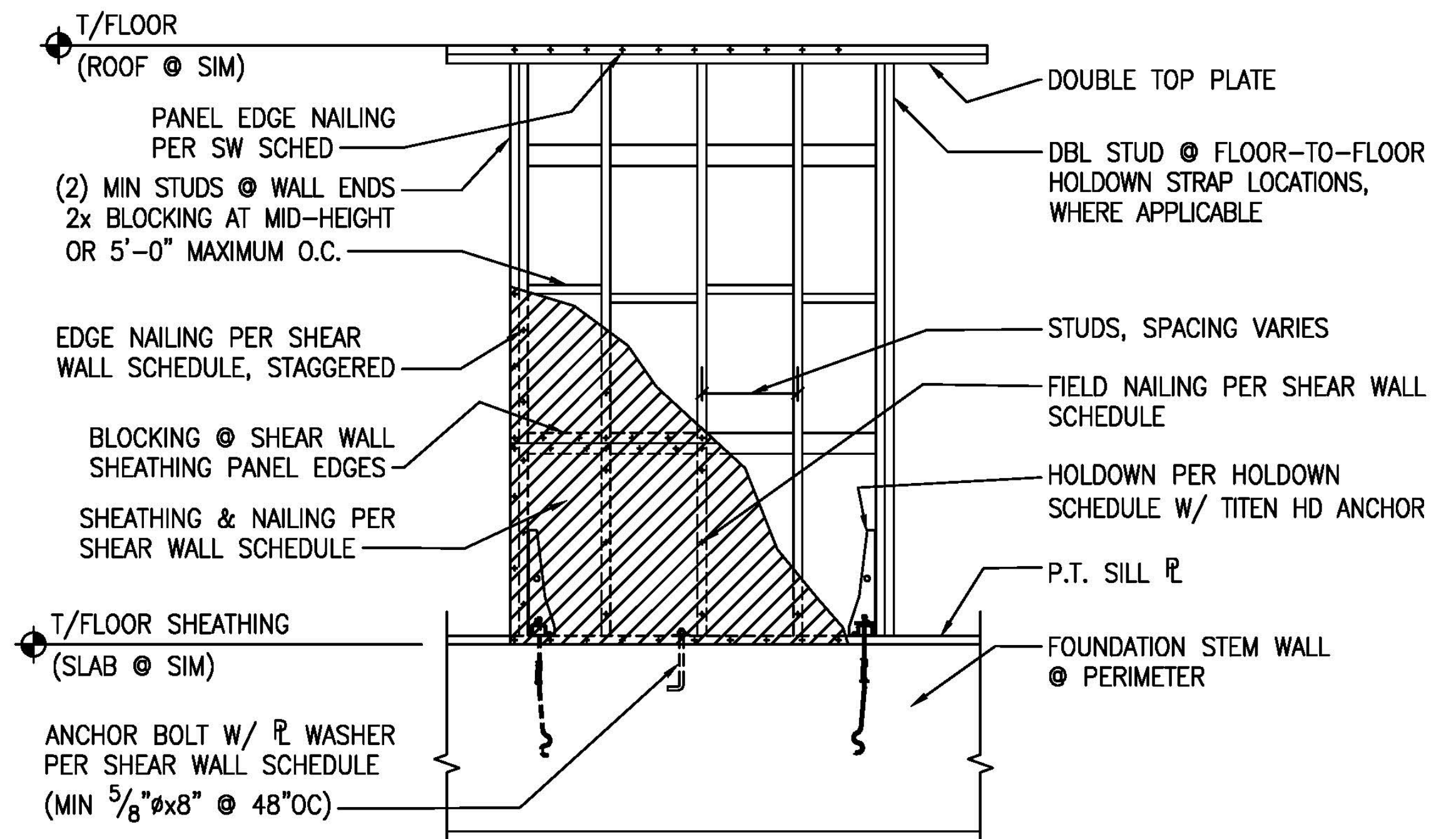
6 TYPICAL SHEAR WALL HOLDOWN CONNECTION


24"
#4 x
@ 24"OC
(1) HORIZ REINF @ TOP
SLAB-ON-GRADE & REINF PER PLAN
SIDEWALK OR GRADE ELEVATION PER PLAN
SLOPE PER ARCH
SLOPE AWAY
T/SLAB
T/GRADE
VARIES
1 1/2" CLR
18" MIN (FROST DEPTH)
B/FOOTING
3" CLR
STEEP AS POSSIBLE
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT
8"MIN
(2)#4 CONT

GEOTECHNICAL REPORT TO BE REVIEWED PRIOR TO COMMENCING ANY SITE ACTIVITIES.

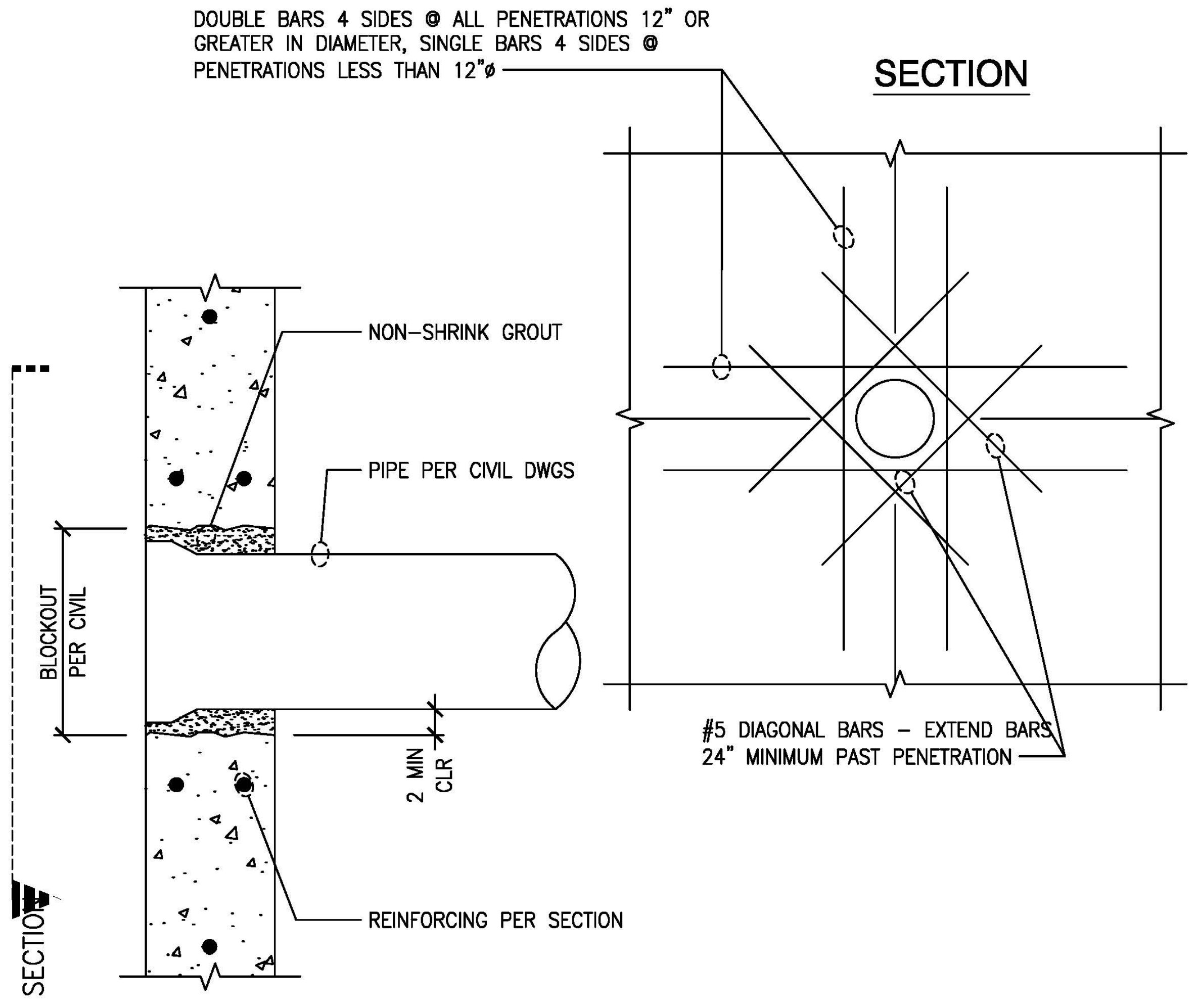
NOTE:
1.FOUNDATION PLAN PER A-SHEETS BY ANW.
2.TOP OF WALL ELEVATION REFERENCE ELEVATIONS, SECTIONS & DETAILS PER ARCHITECTURAL.
3.FOOTING SHALL BE MINIMUM 18" FROST DEPTH, BELOW GRADE LEVEL

7 TYPICAL THICKENED SLAB EDGE FOOTING AT PATIO

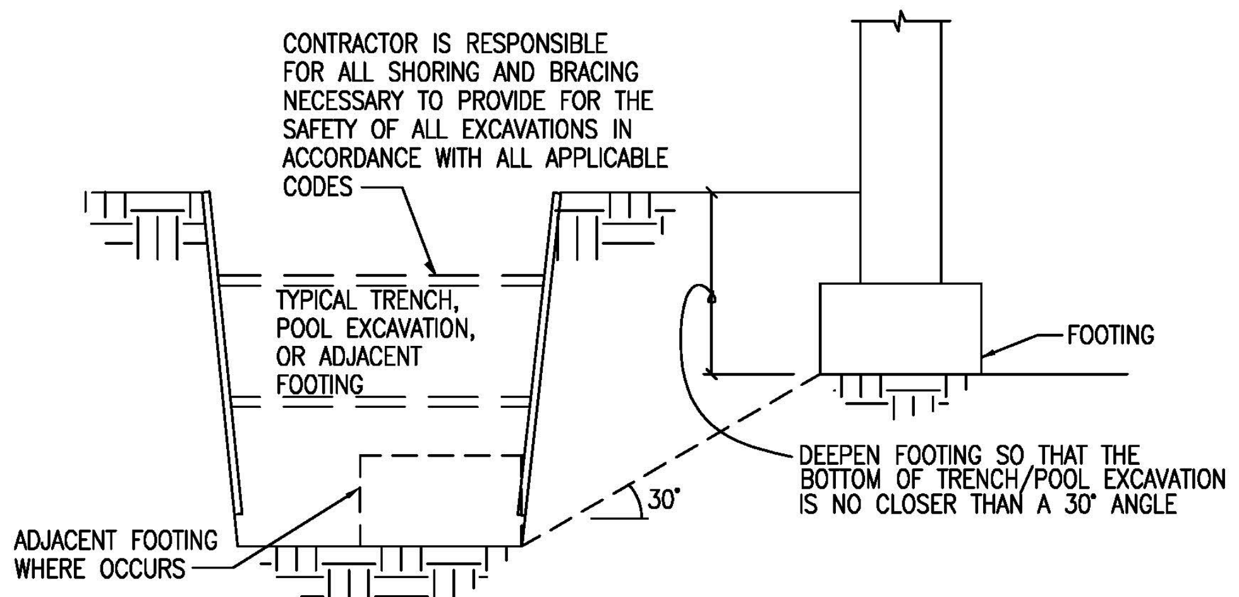

T/FLOOR (ROOF @ SIM)
DOUBLE TOP PLATE
PANEL EDGE NAILING PER SW SCHED
(2) MIN STUDS @ WALL ENDS
2x BLOCKING AT MID-HEIGHT OR 5'-0" MAXIMUM O.C.
DBL STUD @ FLOOR-TO-FLOOR HOLDOWN STRAP LOCATIONS, WHERE APPLICABLE
STUDS, SPACING VARIES
EDGE NAILING PER SHEAR WALL SCHEDULE, STAGGERED
FIELD NAILING PER SHEAR WALL SCHEDULE
BLOCKING @ SHEAR WALL SHEATHING PANEL EDGES
HOLDOWN PER HOLDOWN SCHEDULE W/ TITEN HD ANCHOR
SHEATHING & NAILING PER SHEAR WALL SCHEDULE
P.T. SILL ℄
T/FLOOR SHEATHING (SLAB @ SIM)
FOUNDATION STEM WALL @ PERIMETER
ANCHOR BOLT W/ ℄ WASHER PER SHEAR WALL SCHEDULE (MIN 5/8"øx8" @ 48"OC)
FOOTING @ PERIMETER PER PLAN

NOTE:
CONTRACTOR OPTION – INSTALL SHEATHING VERTICAL.
ELIMINATES INTERMEDIATE BLOCKING ROW.

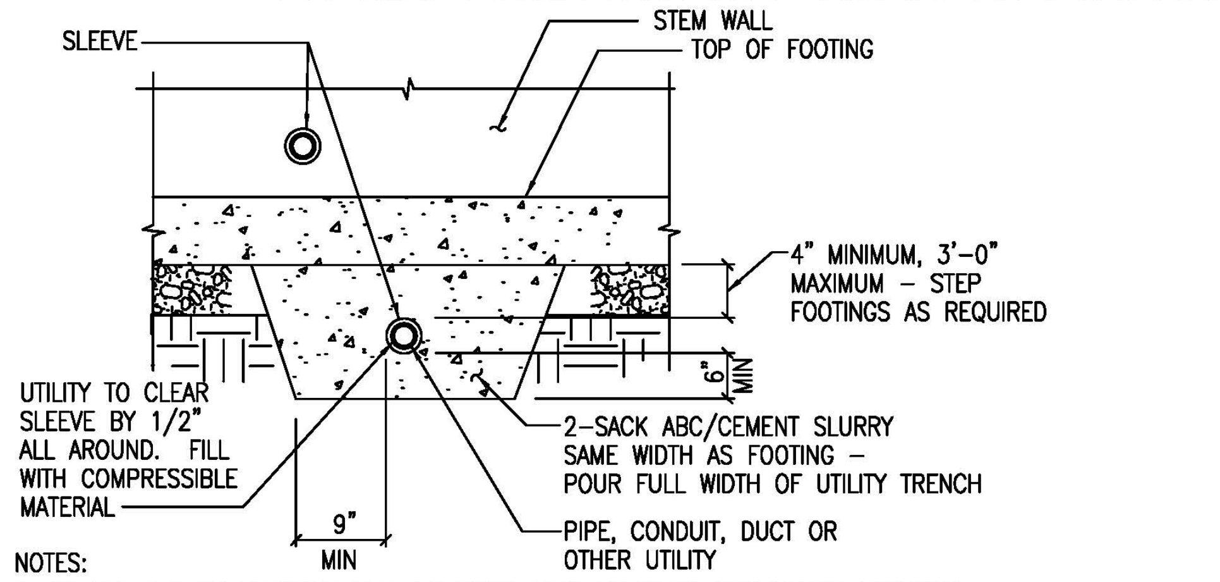
8 TYPICAL SHEAR WALL


DOUBLE BARS 4 SIDES @ ALL PENETRATIONS 12" OR GREATER IN DIAMETER, SINGLE BARS 4 SIDES @ PENETRATIONS LESS THAN 12"ø
SECTION
NON-SHRINK GROUT
PIPE PER CIVIL DWGS
BLOCKOUT PER CIVIL
2 MIN CLR
#5 DIAGONAL BARS – EXTEND BARS 24" MINIMUM PAST PENETRATION
REINFORCING PER SECTION
SECTION

9 TYPICAL REINFORCEMENT AT WALL PENETRATIONS


CONTRACTOR IS RESPONSIBLE FOR ALL SHORING AND BRACING NECESSARY TO PROVIDE FOR THE SAFETY OF ALL EXCAVATIONS IN ACCORDANCE WITH ALL APPLICABLE CODES
TYPICAL TRENCH, POOL EXCAVATION, OR ADJACENT FOOTING
FOOTING
DEEPEN FOOTING SO THAT THE BOTTOM OF TRENCH/POOL EXCAVATION IS NO CLOSER THAN A 30° ANGLE
30°
ADJACENT FOOTING WHERE OCCURS

TYPICAL EXCAVATION / ADJACENT FOOTING DETAIL

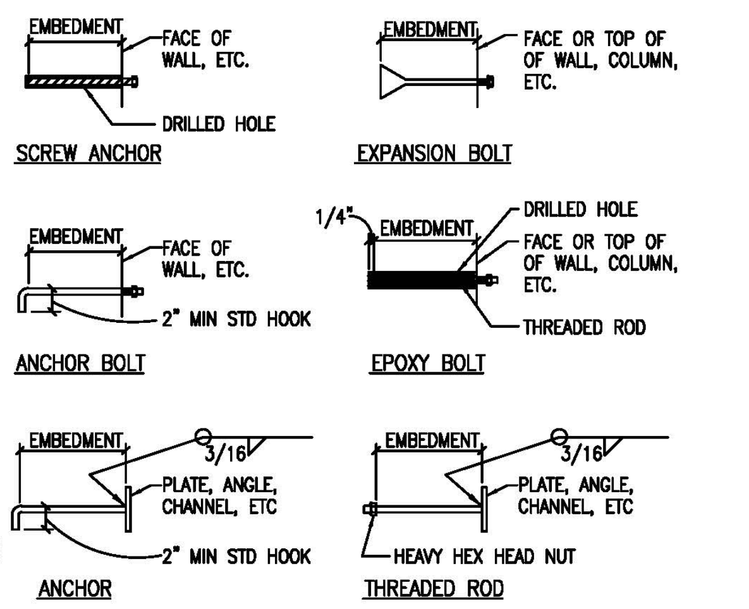

SLEEVE
STEM WALL
TOP OF FOOTING
4" MINIMUM, 3'-0" MAXIMUM – STEP FOOTINGS AS REQUIRED
6" MIN
UTILITY TO CLEAR SLEEVE BY 1/2" ALL AROUND. FILL WITH COMPRESSIBLE MATERIAL
2-SACK ABC/CEMENT SLURRY SAME WIDTH AS FOOTING – POUR FULL WIDTH OF UTILITY TRENCH
9" MIN
PIPE, CONDUIT, DUCT OR OTHER UTILITY

NOTES:
1. NO UTILITIES OR DRAINAGE SLEEVES SHALL PASS THROUGH CONTINUOUS FOOTINGS.
2. NO UTILITIES OR DRAINAGE SLEEVES SHALL PASS THROUGH OR UNDER COLUMN FOOTINGS.
3. PROVIDE 4" MINIMUM SPACING BETWEEN MULTIPLE PIPES OR CONDUIT.

10 TYPICAL UTILITIES THOUGH STEM / UNDER FOOTING

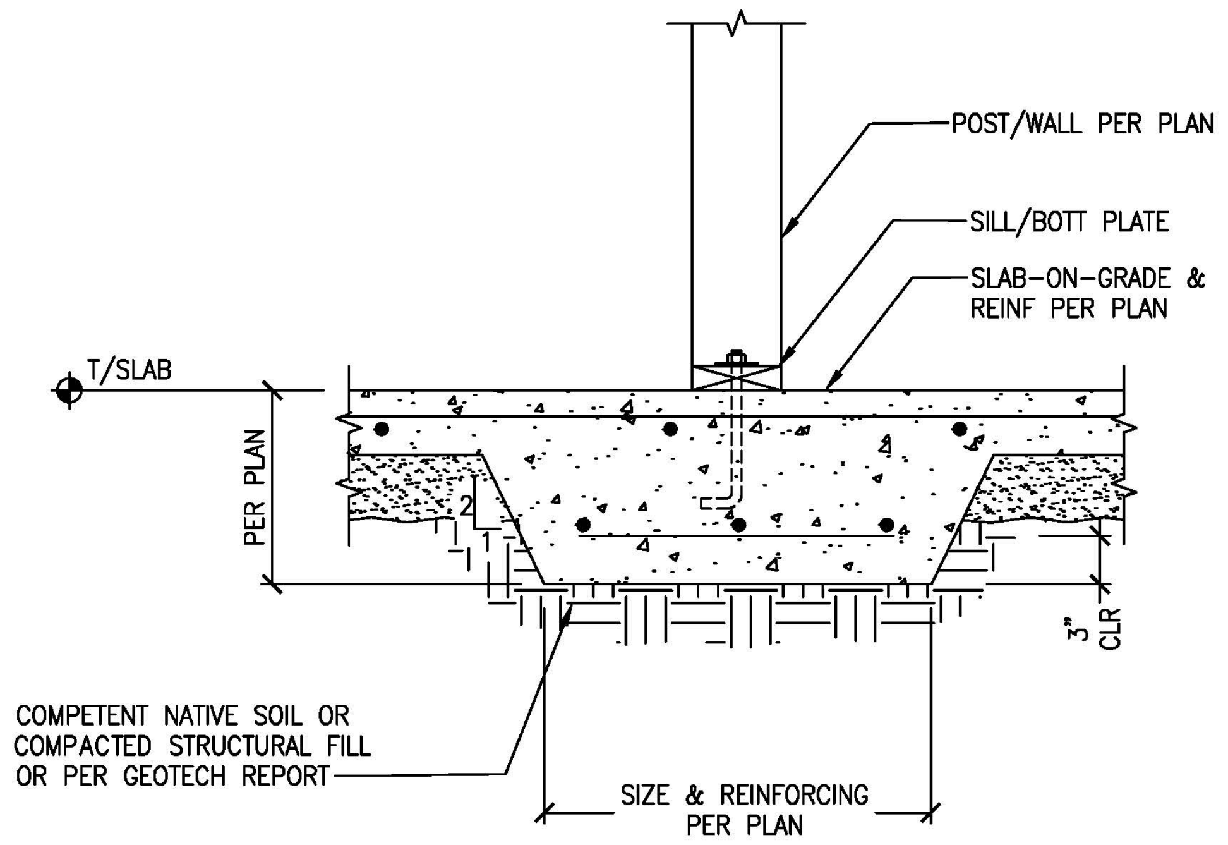
PROVIDE ANCHORS PER THIS SCHEDULE IN CONCRETE OR MASONRY UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. EXPANSION BOLTS SHALL NOT BE USED IN MASONRY.

NOTES:
1. SCREW ANCHORS, EXPANSION BOLTS AND EPOXY BOLTS SHALL BE USED ONLY WHERE SPECIFICALLY SHOWN ON THE DRAWINGS OR WHEN APPLICATION IS APPROVED IN WRITING BY THE STRUCTURAL ENGINEER.
2. CONTRACTOR MAY REQUEST IN WRITING TO SUBSTITUTE SCREW ANCHORS, EXPANSION BOLTS, OR EPOXY BOLTS OF EQUAL VALUE TO THE SPECIFIED MATERIAL WITH A CURRENT ICC REPORT FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD. A COPY OF THE ICC REPORT SHALL BE FORWARDED TO THE DEVELOPMENT SERVICES DEPARTMENT FOR PLAN REVIEW AFTER THE ENGINEER OF RECORD HAS REVIEWED AND APPROVED THE ITEM AND PRIOR TO ERECTION OF THE ITEM.
3. 3/4" ø BOLTS MAY HAVE 5" EMBEDMENT IN 8" CMU WALLS. 5 1/2" MINIMUM FOR SCREW ANCHORS.
4. PROVIDE A 3" ø MINIMUM OPENING IN THE FACE SHELL AT ALL ANCHORS EMBEDDED IN SIDE OF CMU WALLS. (NOT APPLICABLE TO SCREW ANCHORS OR EPOXY BOLTS)


EMBEDMENT
FACE OF WALL, ETC.
DRILLED HOLE
SCREW ANCHOR
EMBEDMENT
FACE OR TOP OF OF WALL, COLUMN, ETC.
EXPANSION BOLT
EMBEDMENT
FACE OF WALL, ETC.
2" MIN STD HOOK
ANCHOR BOLT
1/4"
EMBEDMENT
DRILLED HOLE
FACE OR TOP OF OF WALL, COLUMN, ETC.
THREADED ROD
EPOXY BOLT
EMBEDMENT
3/16
PLATE, ANGLE, CHANNEL, ETC
2" MIN STD HOOK
ANCHOR
EMBEDMENT
3/16
PLATE, ANGLE, CHANNEL, ETC
HEAVY HEX HEAD NUT
THREADED ROD

BOLT DIAMETER	VERT BOLT EMBEDMENT LENGTH	HORIZ BOLT EMBEDMENT LENGTH
1/2"	7"	5"
5/8"	7"	5"
3/4"	8"	6" – SEE NOTE 3
7/8"	8"	6"
1"	9"	7"

11 CONCRETE-IN-PLACE & POST-INSTALLED ANCHOR SCHEDULE


POST/WALL PER PLAN
SILL/BOTT PLATE
SLAB-ON-GRADE & REINF PER PLAN
T/SLAB
PER PLAN
2
1
3" CLR
COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL OR PER GEOTECH REPORT
SIZE & REINFORCING PER PLAN

GEOTECHNICAL REPORT TO BE REVIEWED PRIOR TO COMMENCING ANY SITE ACTIVITIES.

12 TYPICAL INTERIOR THICKENED SLAB FOOTING

PROJECT #:
25-120

ENGINEERED BY: GS

DATE:
6/25/25

ZVELT
ENGINEERING DESIGN PLLC

STRUCTURAL ENGINEERING

721 4th AVE #794
KIRKLAND, WA 98033

Zvelt.Eng@outlook.com

GABRIELA SIA
52184
8/8/2025

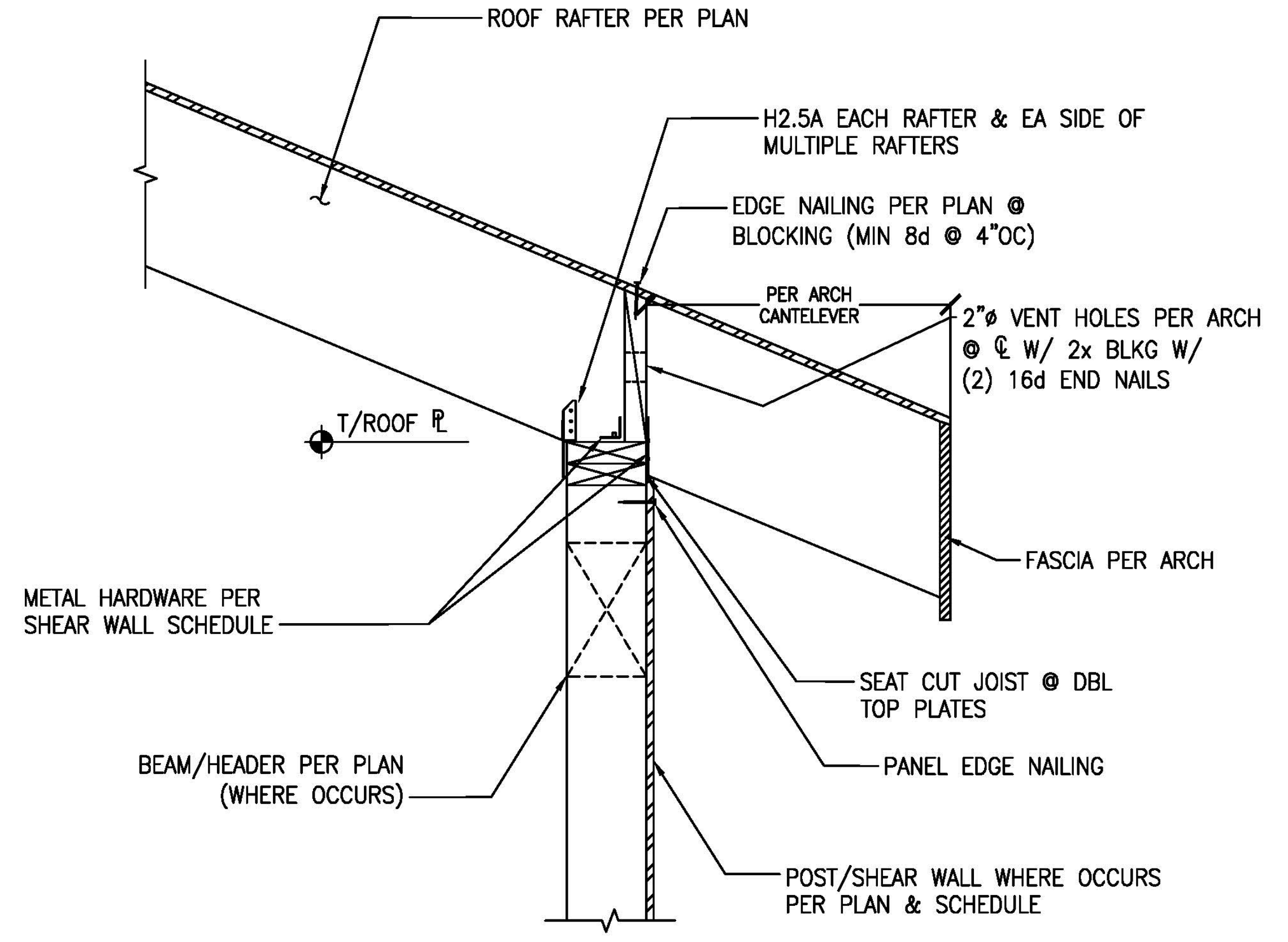
PROJECT NAME:
Long - DADU
6905 96th Ave SE
Mercer Island, WA 98040

IBC 2021

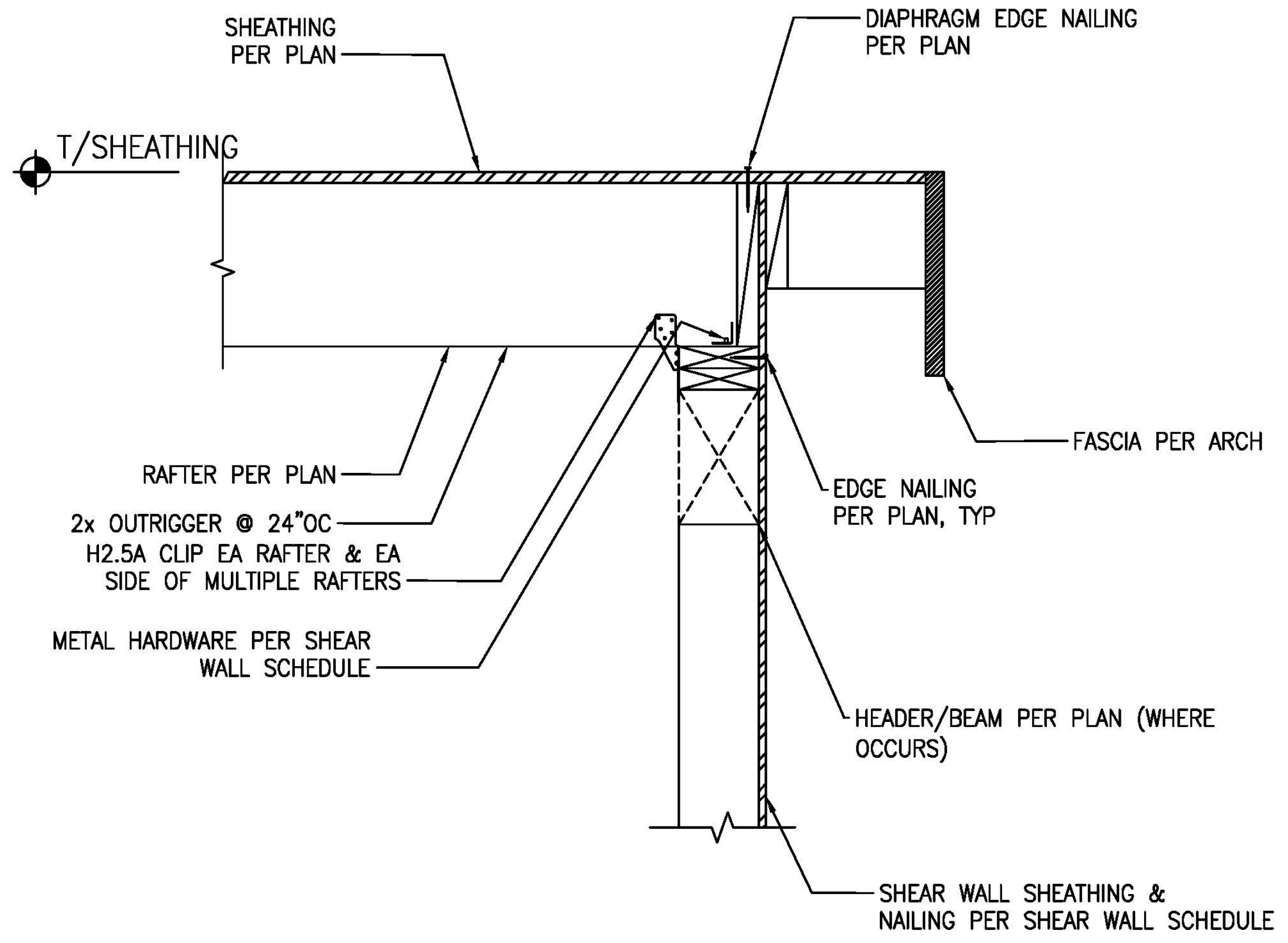
LATERAL
DETAILS

ANW 250052
LATERAL DETAILS

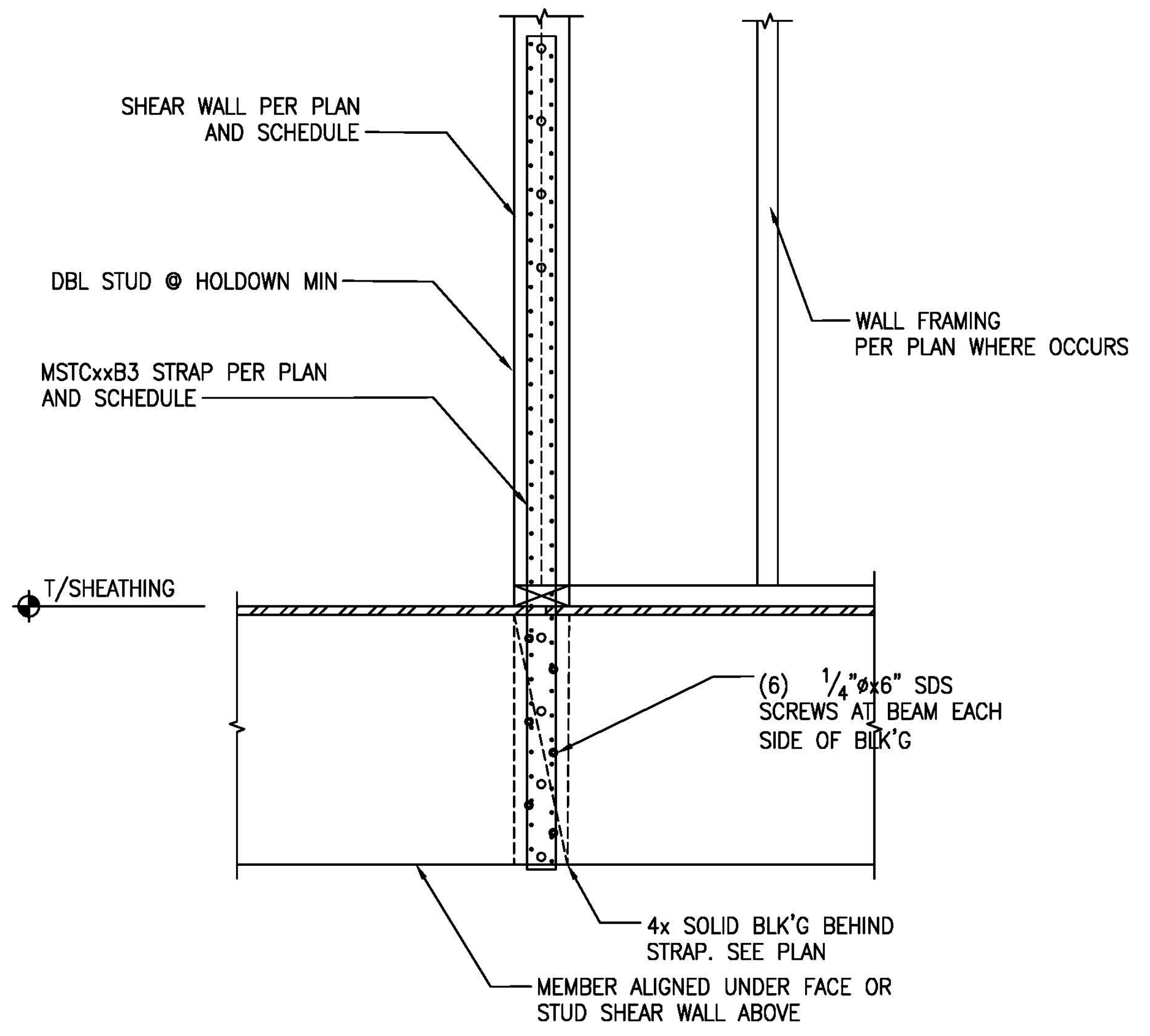
SHEET NUMBER:
S 3


ROOF RAFTER PER PLAN
H2.5A EACH RAFTER & EA SIDE OF MULTIPLE RAFTERS
EDGE NAILING PER PLAN @ BLOCKING (MIN 8d @ 4"OC)
PER ARCH CANTELEVER
2"ø VENT HOLES PER ARCH @ ℄ W/ 2x BLKG W/ (2) 16d END NAILS
T/ROOF ℄
FASCIA PER ARCH
METAL HARDWARE PER SHEAR WALL SCHEDULE
SEAT CUT JOIST @ DBL TOP PLATES
BEAM/HEADER PER PLAN (WHERE OCCURS)
PANEL EDGE NAILING
POST/SHEAR WALL WHERE OCCURS PER PLAN & SCHEDULE

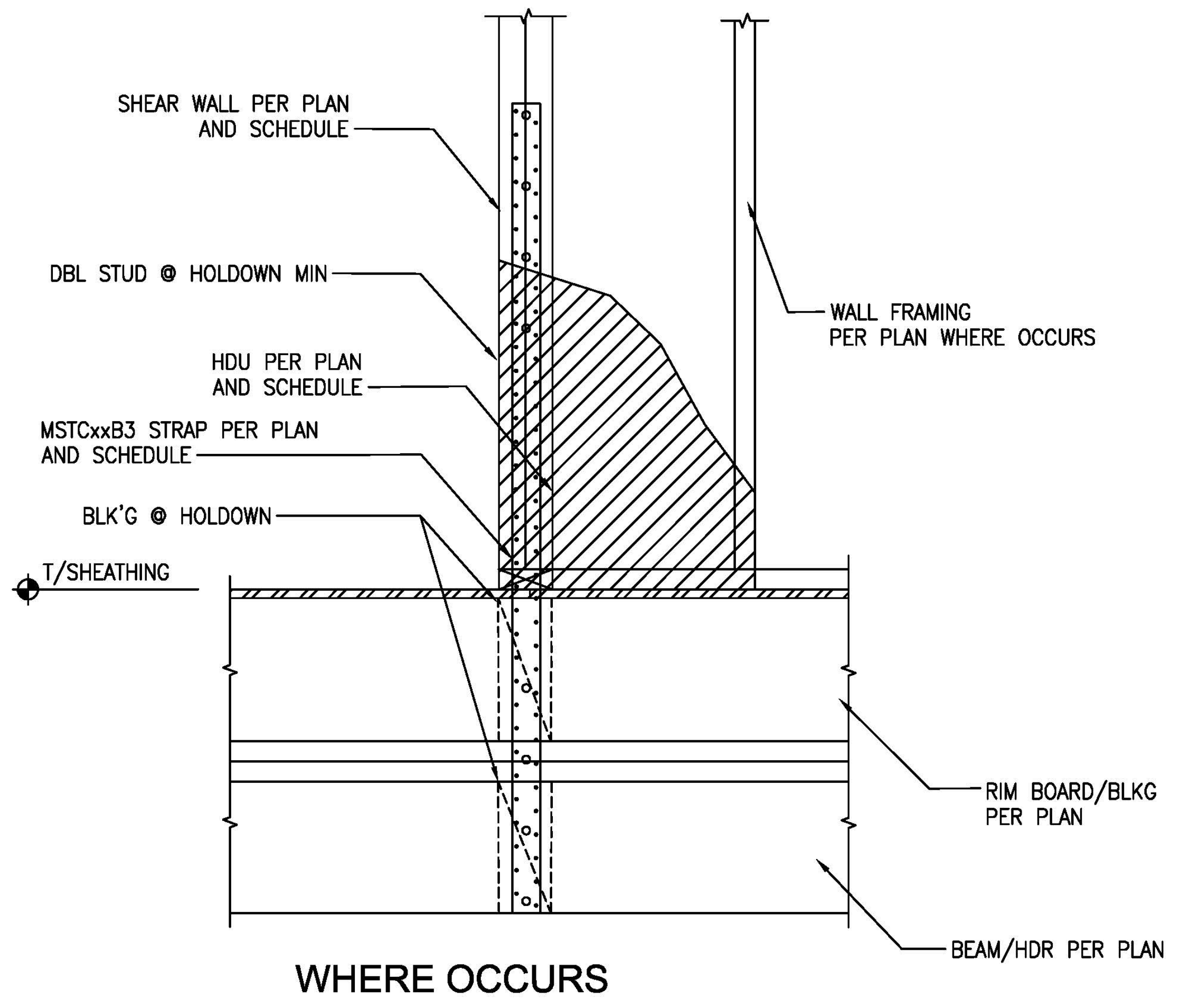
1 TYPICAL RAFTER CONNECTION DETAIL


SHEATHING PER PLAN
DIAPHRAGM EDGE NAILING PER PLAN
T/SHEATHING
FASCIA PER ARCH
RAFTER PER PLAN
2x OUTRIGGER @ 24"OC
H2.5A CLIP EA RAFTER & EA SIDE OF MULTIPLE RAFTERS
EDGE NAILING PER PLAN, TYP
METAL HARDWARE PER SHEAR WALL SCHEDULE
HEADER/BEAM PER PLAN (WHERE OCCURS)
SHEAR WALL SHEATHING & NAILING PER SHEAR WALL SCHEDULE

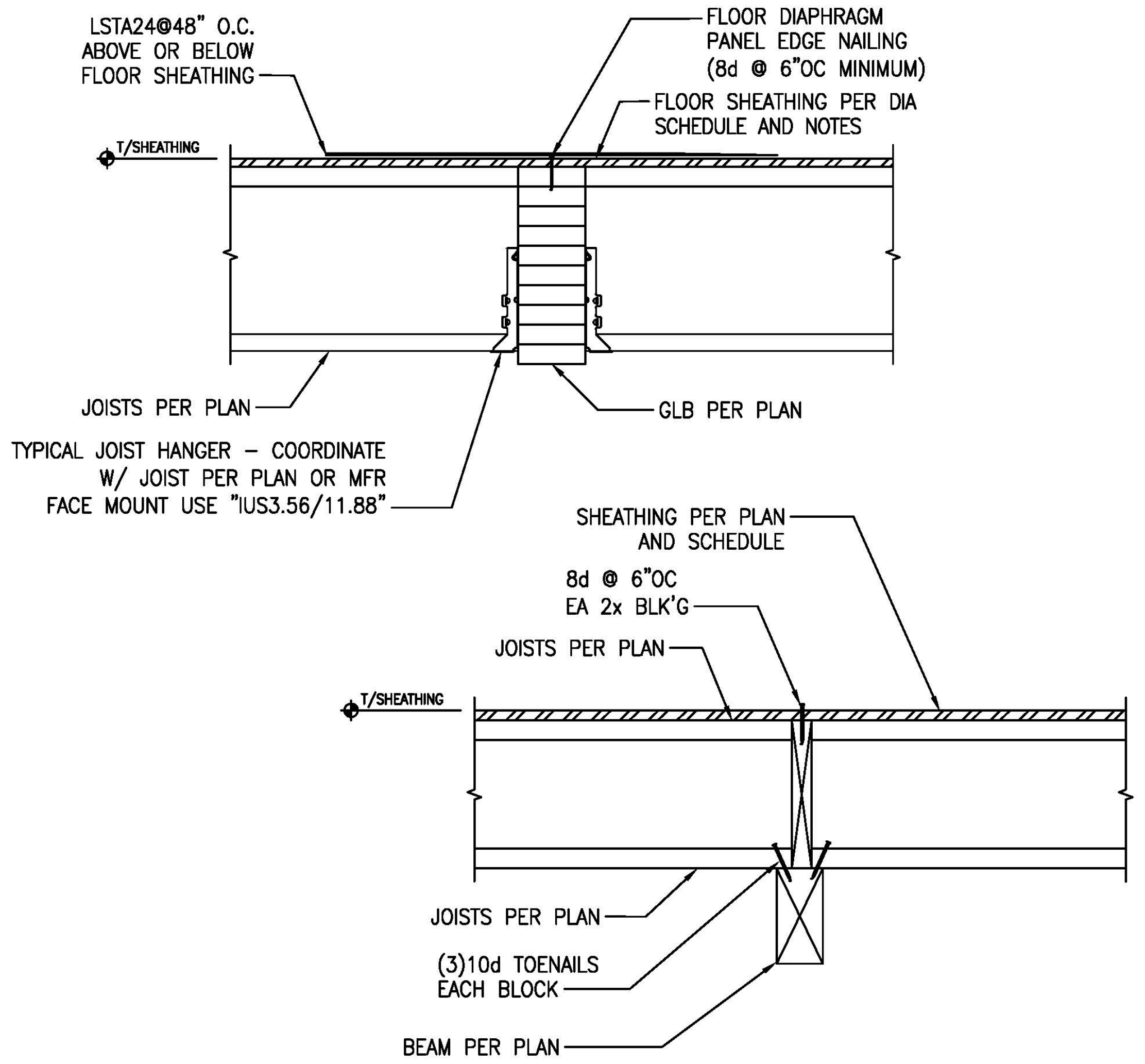
2 TYPICAL EXT SHEAR WALL PERPENDICULAR TO RAFTERS


SHEAR WALL PER PLAN AND SCHEDULE
DBL STUD @ HOLDOWN MIN
WALL FRAMING PER PLAN WHERE OCCURS
MSTCxxB3 STRAP PER PLAN AND SCHEDULE
T/SHEATHING
(6) 1/4"ø x 6" SDS SCREWS AT BEAM EACH SIDE OF BLK'G
4x SOLID BLK'G BEHIND STRAP. SEE PLAN
MEMBER ALIGNED UNDER FACE OR STUD SHEAR WALL ABOVE

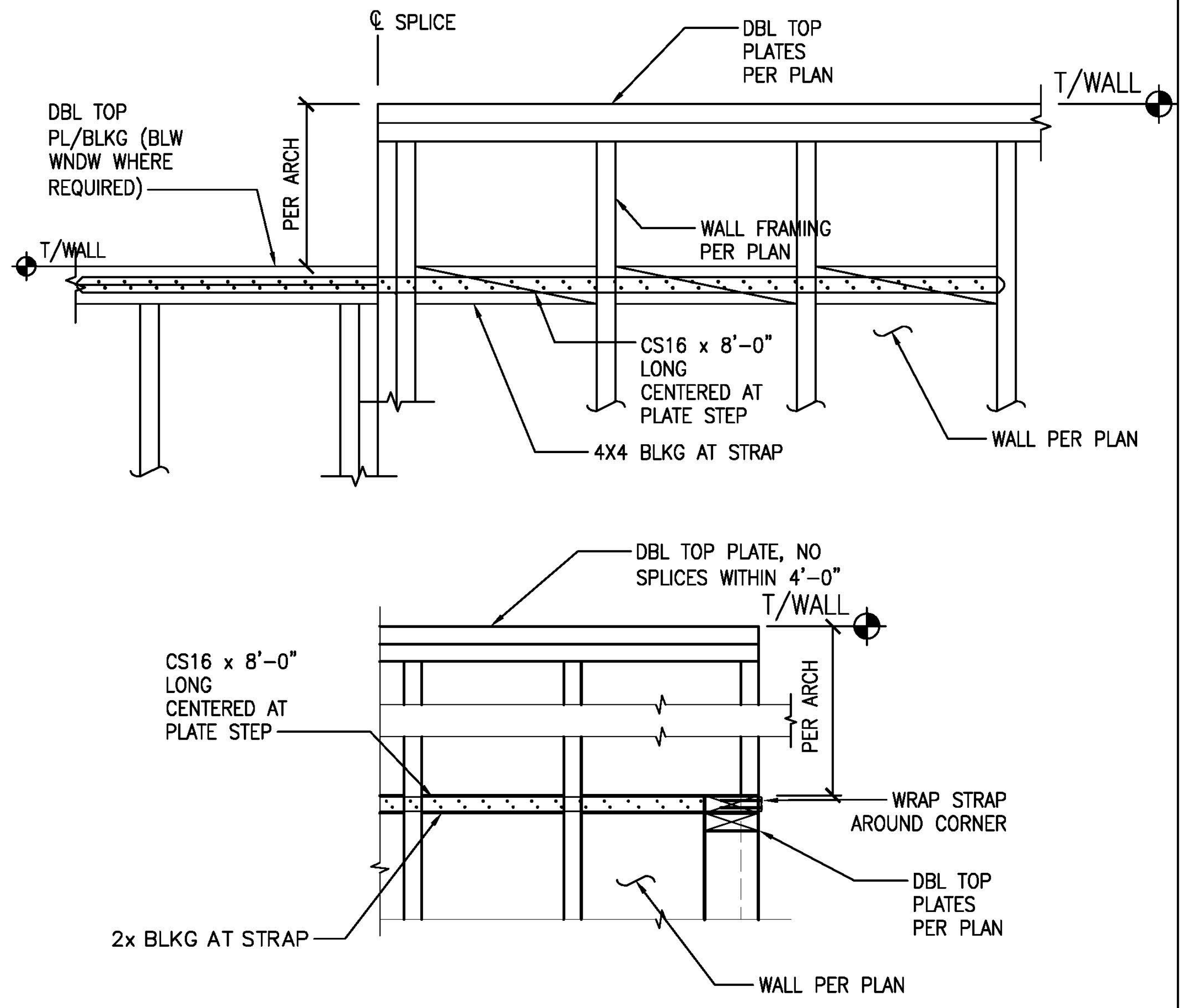
3 TYPICAL SHEAR WALL HOLDOWN AT FLOOR MEMBER


SHEAR WALL PER PLAN AND SCHEDULE
DBL STUD @ HOLDOWN MIN
WALL FRAMING PER PLAN WHERE OCCURS
HDU PER PLAN AND SCHEDULE
MSTCxxB3 STRAP PER PLAN AND SCHEDULE
BLK'G @ HOLDOWN
T/SHEATHING
RIM BOARD/BLKG PER PLAN
BEAM/HDR PER PLAN
WHERE OCCURS

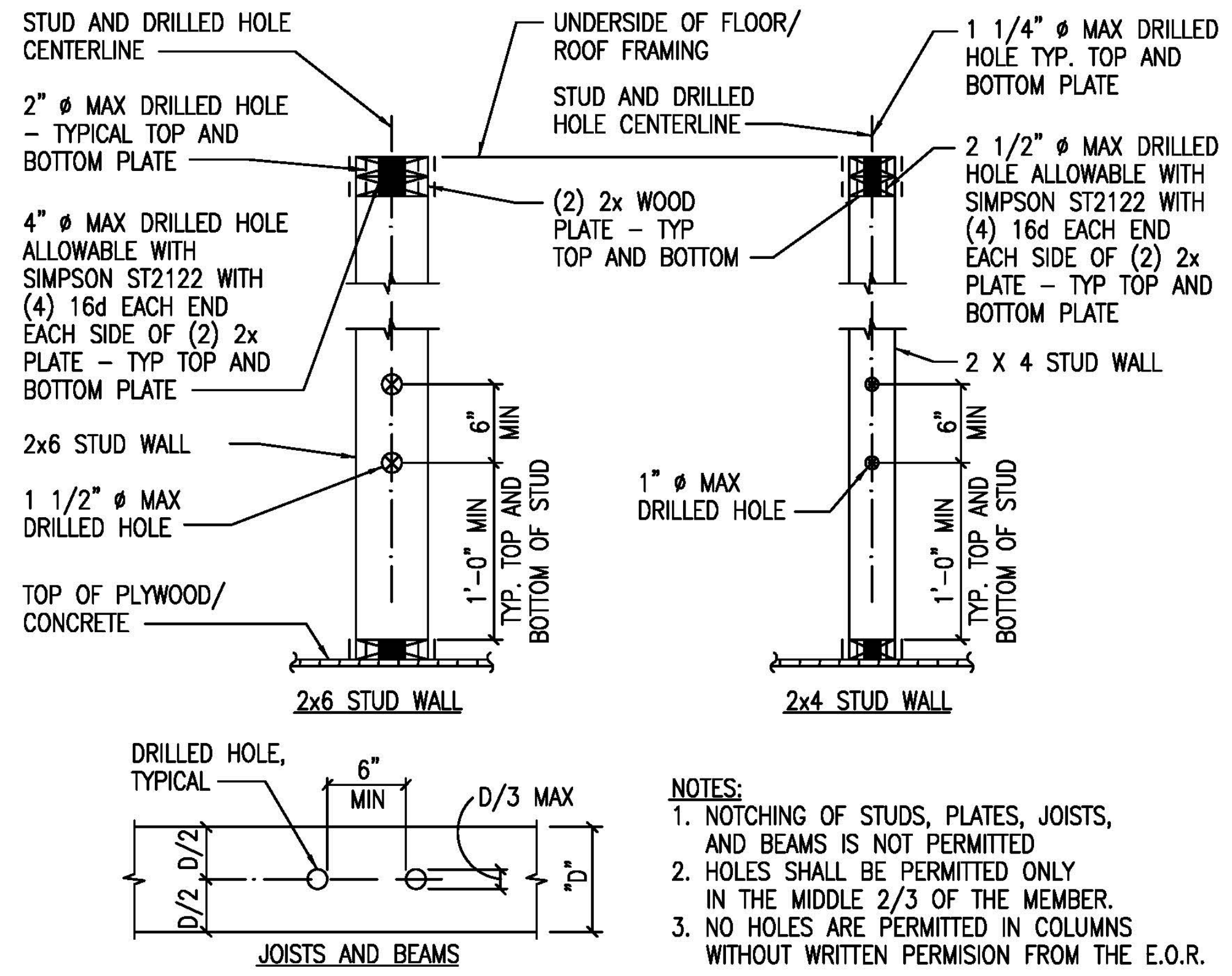
4 TYPICAL SHEAR WALL HOLDOWN AT FLOOR MEMBER


LSTA24@48" O.C. ABOVE OR BELOW FLOOR SHEATHING
FLOOR DIAPHRAGM PANEL EDGE NAILING (8d @ 6"OC MINIMUM)
FLOOR SHEATHING PER DIA SCHEDULE AND NOTES
T/SHEATHING
JOISTS PER PLAN
GLB PER PLAN
TYPICAL JOIST HANGER - COORDINATE W/ JOIST PER PLAN OR MFR FACE MOUNT USE "IUS3.56/11.88"
SHEATHING PER PLAN AND SCHEDULE
8d @ 6"OC EA 2x BLK'G
JOISTS PER PLAN
T/SHEATHING
JOISTS PER PLAN
(3)10d TOENAILS EACH BLOCK
BEAM PER PLAN

5 TYPICAL FLUSH AND DROPPED BEAM

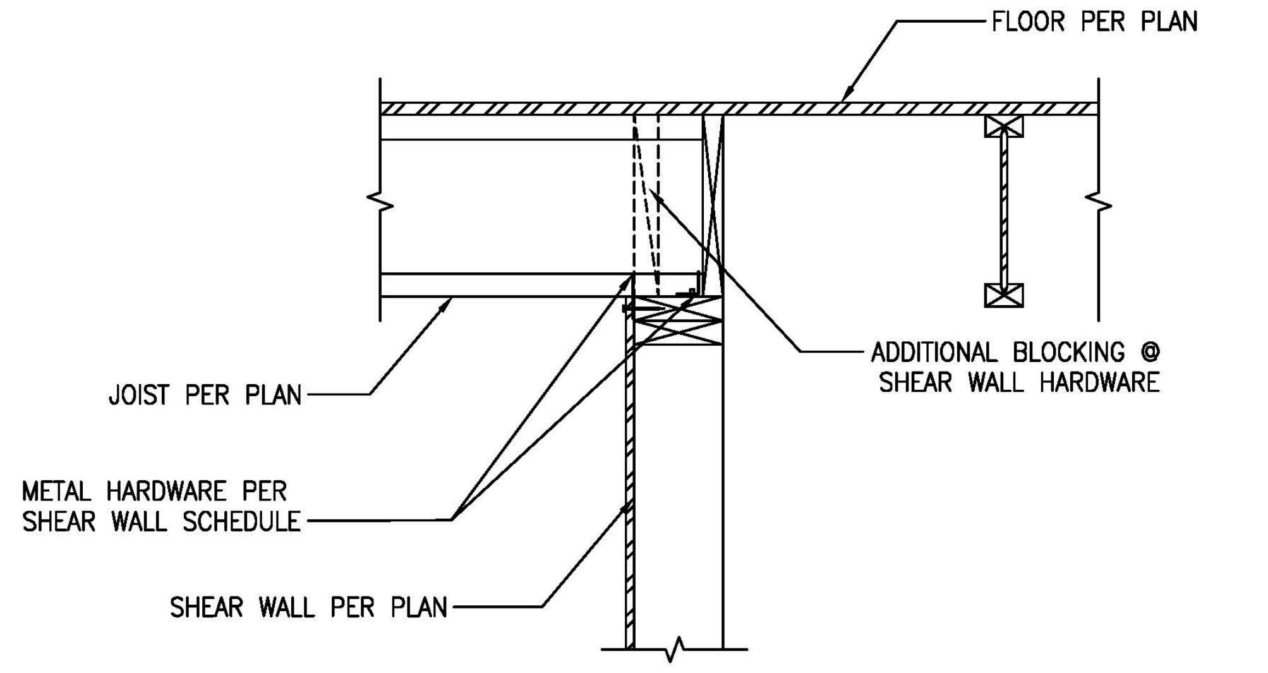

℄ SPLICE
DBL TOP PLATES PER PLAN
T/WALL
DBL TOP PL/BLKG (BLW WNDW WHERE REQUIRED)
PER ARCH
T/WALL
WALL FRAMING PER PLAN
CS16 x 8'-0" LONG CENTERED AT PLATE STEP
4X4 BLKG AT STRAP
WALL PER PLAN
DBL TOP PLATE, NO SPLICES WITHIN 4'-0"
T/WALL
CS16 x 8'-0" LONG CENTERED AT PLATE STEP
PER ARCH
WRAP STRAP AROUND CORNER
DBL TOP PLATES PER PLAN
2x BLKG AT STRAP
WALL PER PLAN

6 TYPICAL STRAPPING AT DISCONTINUOUS PLATES

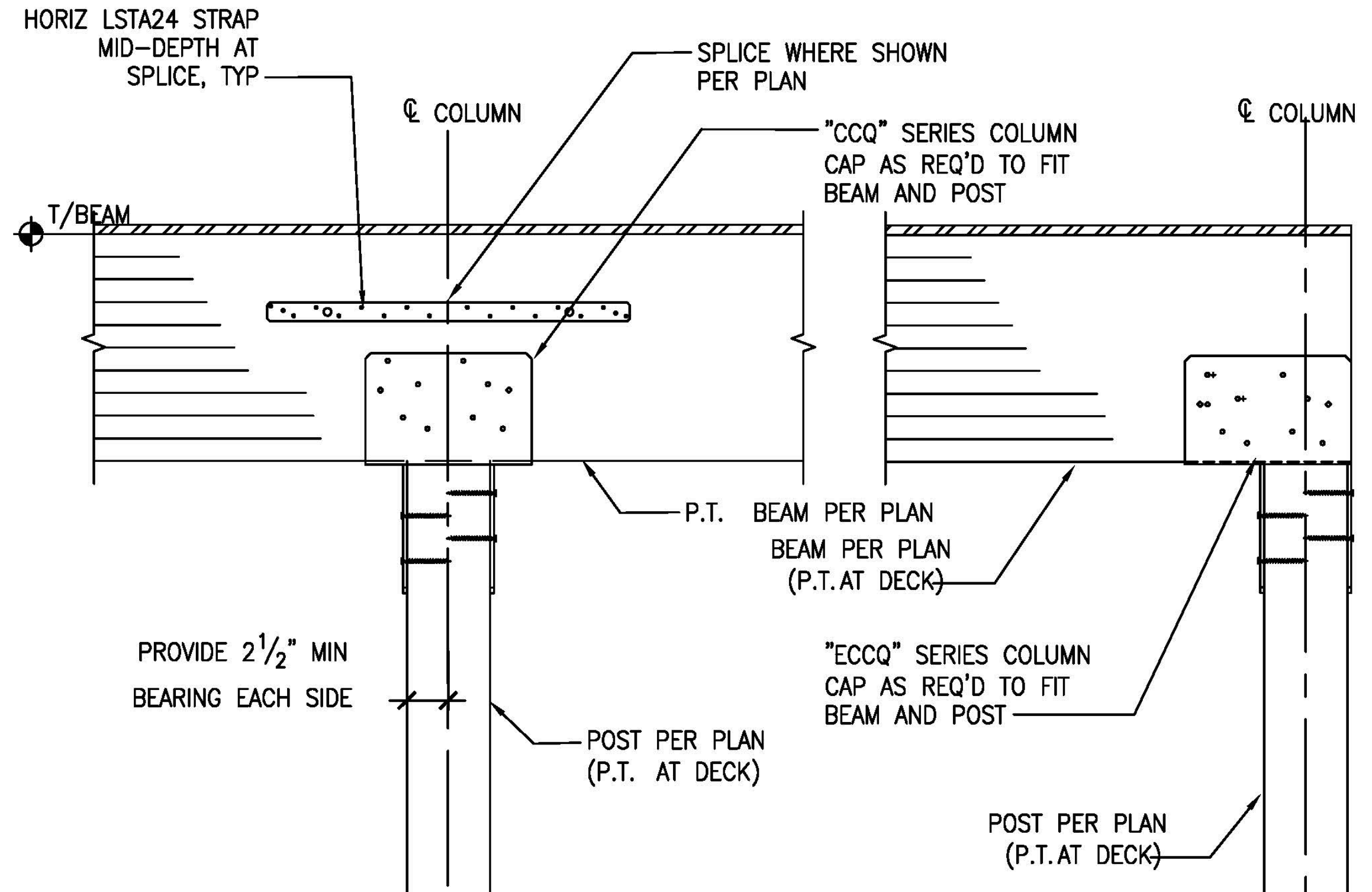

STUD AND DRILLED HOLE CENTERLINE
UNDERSIDE OF FLOOR/ ROOF FRAMING
1 1/4" ø MAX DRILLED HOLE TYP. TOP AND BOTTOM PLATE
STUD AND DRILLED HOLE CENTERLINE
2" ø MAX DRILLED HOLE - TYPICAL TOP AND BOTTOM PLATE
(2) 2x WOOD PLATE - TYP TOP AND BOTTOM
2 1/2" ø MAX DRILLED HOLE ALLOWABLE WITH SIMPSON ST2122 WITH (4) 16d EACH END EACH SIDE OF (2) 2x PLATE - TYP TOP AND BOTTOM PLATE
4" ø MAX DRILLED HOLE ALLOWABLE WITH SIMPSON ST2122 WITH (4) 16d EACH END EACH SIDE OF (2) 2x PLATE - TYP TOP AND BOTTOM PLATE
2 X 4 STUD WALL
2x6 STUD WALL
6" MIN
1 1/2" ø MAX DRILLED HOLE
1" ø MAX DRILLED HOLE
1'-0" MIN TYP. TOP AND BOTTOM OF STUD
TOP OF PLYWOOD/ CONCRETE
2x6 STUD WALL
2x4 STUD WALL
DRILLED HOLE, TYPICAL
6" MIN
D/3 MAX
D/2
D/2
"D"
JOISTS AND BEAMS

NOTES:
1. NOTCHING OF STUDS, PLATES, JOISTS, AND BEAMS IS NOT PERMITTED
2. HOLES SHALL BE PERMITTED ONLY IN THE MIDDLE 2/3 OF THE MEMBER.
3. NO HOLES ARE PERMITTED IN COLUMNS WITHOUT WRITTEN PERMISION FROM THE E.O.R.

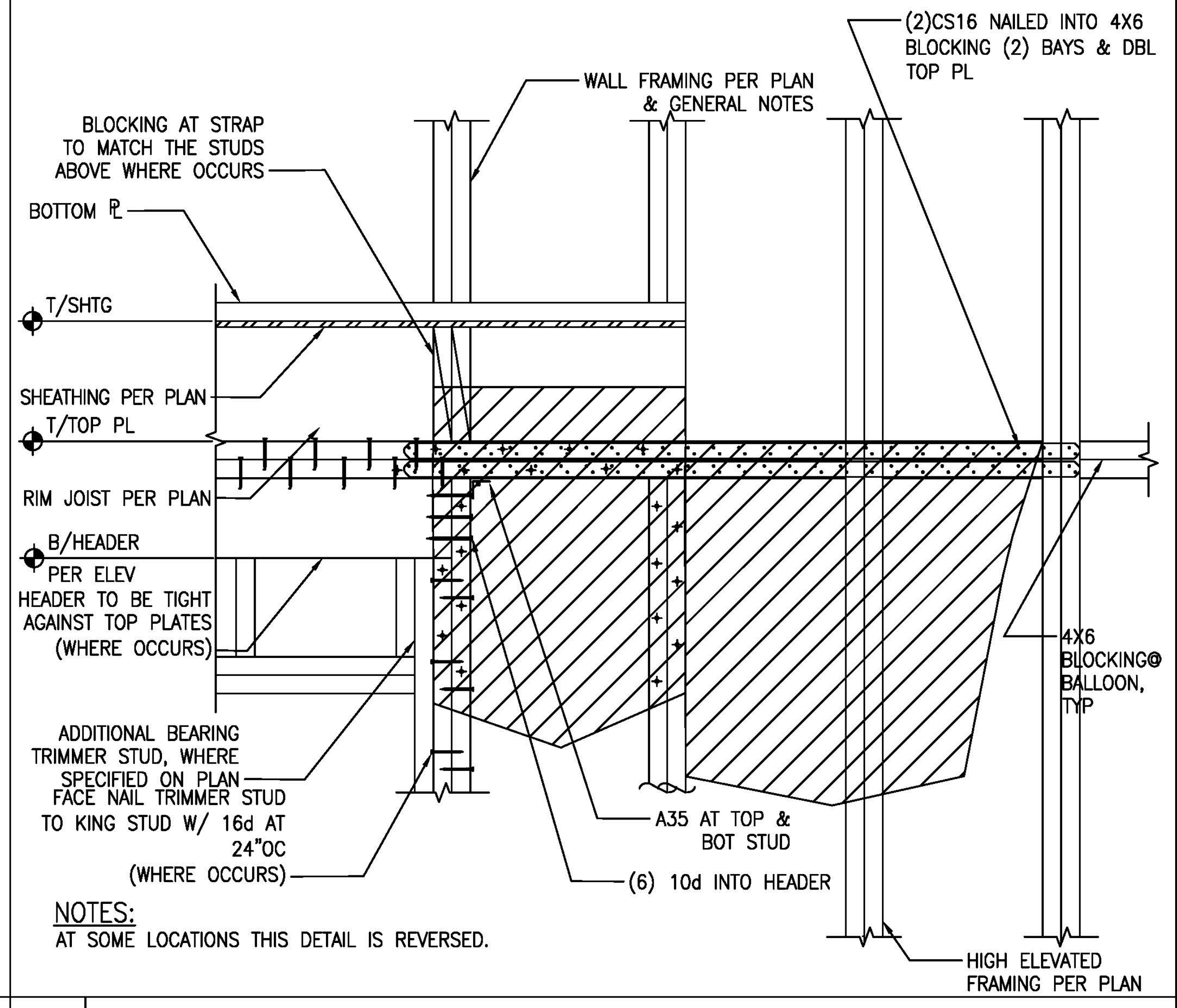
7 TYPICAL HOLES IN STUDS - PLATES - JOISTS - BEAMS


FLOOR PER PLAN
ADDITIONAL BLOCKING @ SHEAR WALL HARDWARE
JOIST PER PLAN
METAL HARDWARE PER SHEAR WALL SCHEDULE
SHEAR WALL PER PLAN

8 TYPICAL EXT. SHEAR WALL PERPENDICULAR TO FLOOR JOISTS

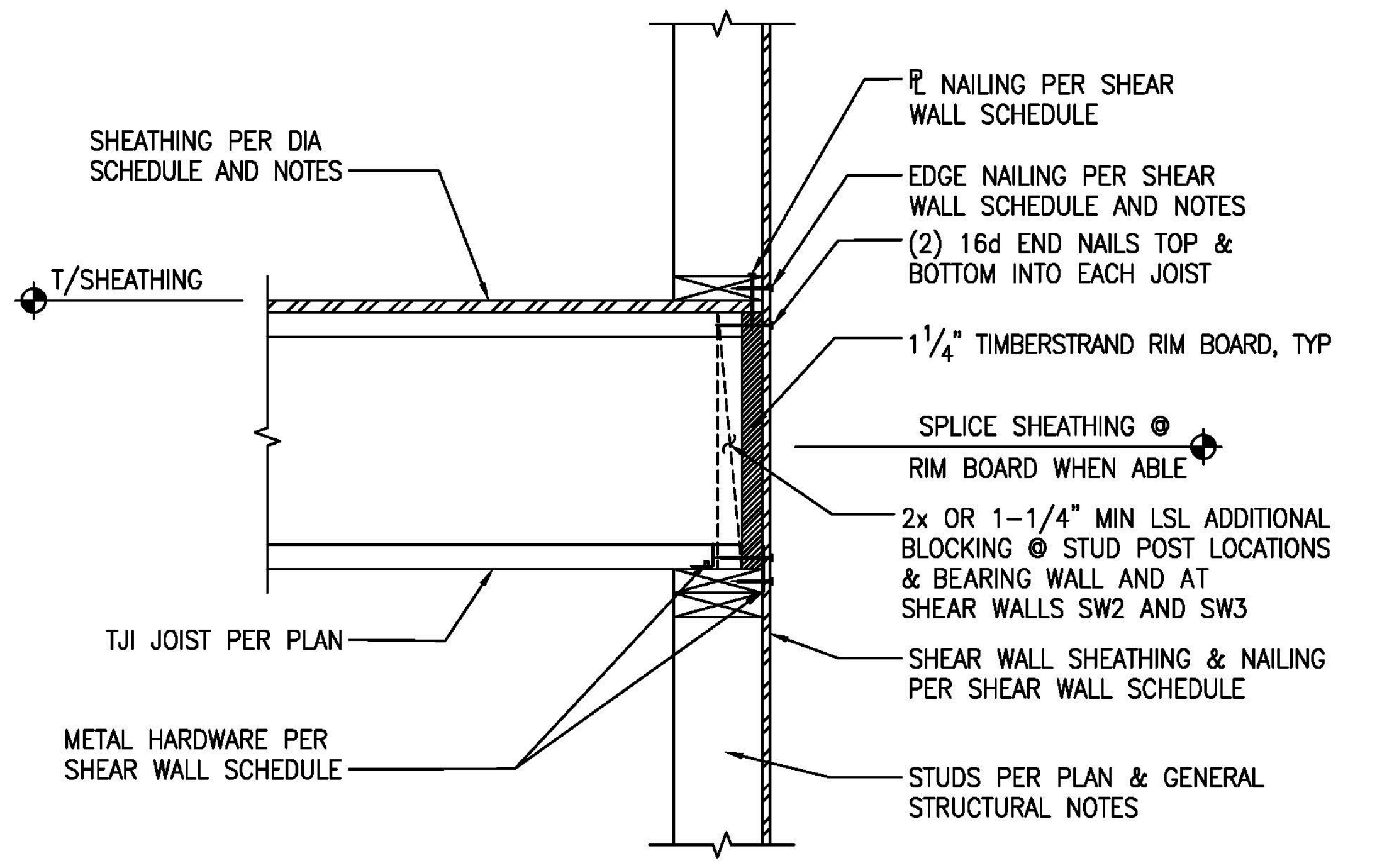

HORIZ LSTA24 STRAP MID-DEPTH AT SPLICE, TYP
SPLICE WHERE SHOWN PER PLAN
℄ COLUMN
"CCQ" SERIES COLUMN CAP AS REQ'D TO FIT BEAM AND POST
℄ COLUMN
T/BEAM
P.T. BEAM PER PLAN
BEAM PER PLAN (P.T. AT DECK)
PROVIDE 2 1/2" MIN BEARING EACH SIDE
"ECCQ" SERIES COLUMN CAP AS REQ'D TO FIT BEAM AND POST
POST PER PLAN (P.T. AT DECK)
POST PER PLAN (P.T.AT DECK)

9 TYPICAL COLUMN TO BEAM DETAIL

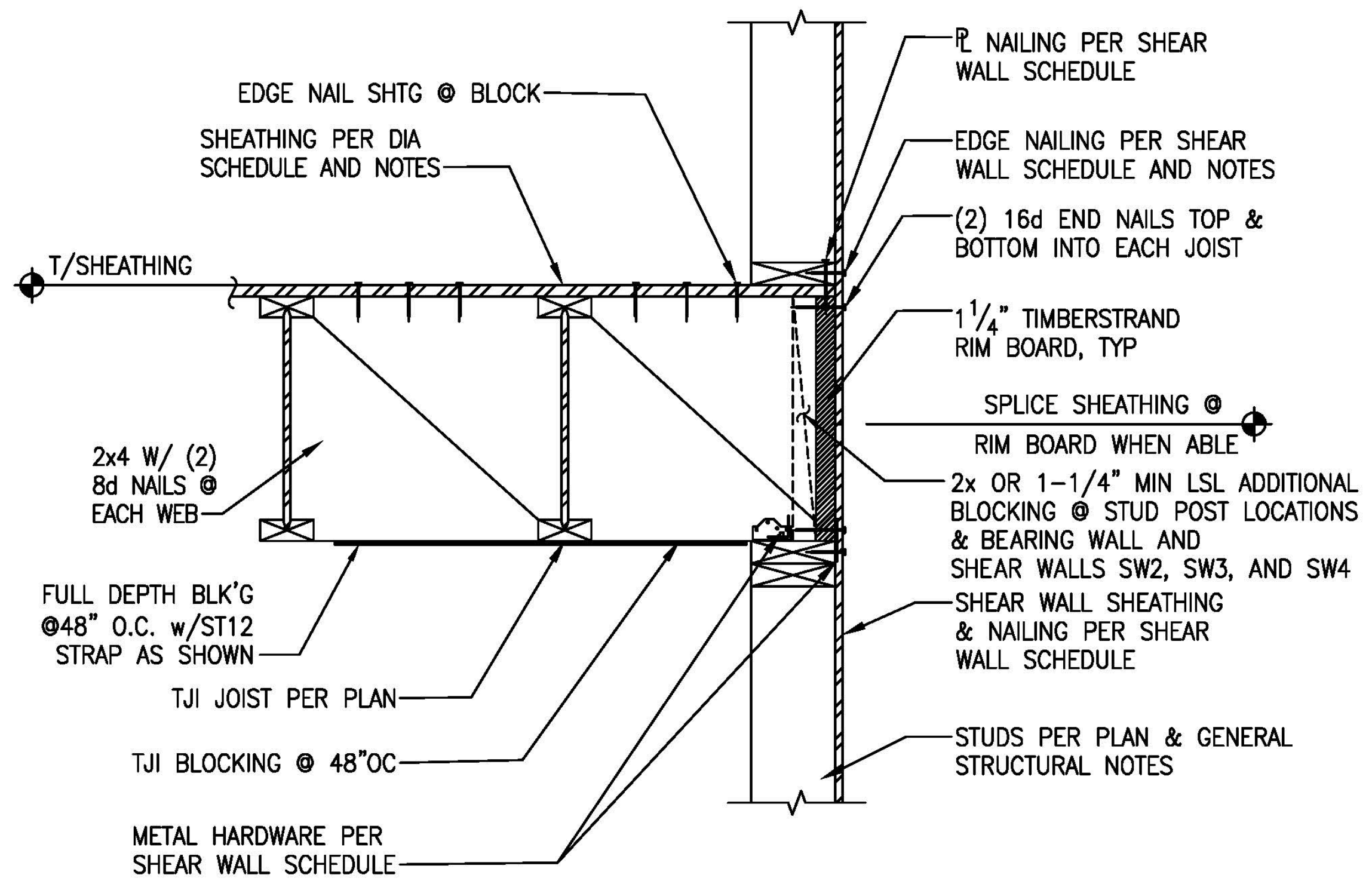

(2)CS16 NAILED INTO 4X6 BLOCKING (2) BAYS & DBL TOP PL
WALL FRAMING PER PLAN & GENERAL NOTES
BLOCKING AT STRAP TO MATCH THE STUDS ABOVE WHERE OCCURS
BOTTOM ℄
T/SHTG
SHEATHING PER PLAN
T/TOP PL
RIM JOIST PER PLAN
B/HEADER PER ELEV
HEADER TO BE TIGHT AGAINST TOP PLATES (WHERE OCCURS)
4X6 BLOCKING@ BALLOON, TYP
ADDITIONAL BEARING TRIMMER STUD, WHERE SPECIFIED ON PLAN
FACE NAIL TRIMMER STUD TO KING STUD W/ 16d AT 24"OC (WHERE OCCURS)
A35 AT TOP & BOT STUD
(6) 10d INTO HEADER
HIGH ELEVATED FRAMING PER PLAN

NOTES:
AT SOME LOCATIONS THIS DETAIL IS REVERSED.

10 TYP WALL BLK'G/STRAPPING AT TOP PLATE DISCONTINUITY


℄ NAILING PER SHEAR WALL SCHEDULE
SHEATHING PER DIA SCHEDULE AND NOTES
EDGE NAILING PER SHEAR WALL SCHEDULE AND NOTES
T/SHEATHING
(2) 16d END NAILS TOP & BOTTOM INTO EACH JOIST
1 1/4" TIMBERSTRAND RIM BOARD, TYP
SPLICE SHEATHING @ RIM BOARD WHEN ABLE
2x OR 1-1/4" MIN LSL ADDITIONAL BLOCKING @ STUD POST LOCATIONS & BEARING WALL AND AT SHEAR WALLS SW2 AND SW3
TJI JOIST PER PLAN
SHEAR WALL SHEATHING & NAILING PER SHEAR WALL SCHEDULE
METAL HARDWARE PER SHEAR WALL SCHEDULE
STUDS PER PLAN & GENERAL STRUCTURAL NOTES

11 TYPICAL EXTERIOR WALL PERPENDICULAR TO JOISTS


℄ NAILING PER SHEAR WALL SCHEDULE
EDGE NAIL SHTG @ BLOCK
SHEATHING PER DIA SCHEDULE AND NOTES
EDGE NAILING PER SHEAR WALL SCHEDULE AND NOTES
(2) 16d END NAILS TOP & BOTTOM INTO EACH JOIST
T/SHEATHING
1 1/4" TIMBERSTRAND RIM BOARD, TYP
SPLICE SHEATHING @ RIM BOARD WHEN ABLE
2x4 W/ (2) 8d NAILS @ EACH WEB
2x OR 1-1/4" MIN LSL ADDITIONAL BLOCKING @ STUD POST LOCATIONS & BEARING WALL AND SHEAR WALLS SW2, SW3, AND SW4
FULL DEPTH BLK'G @48" O.C. w/ST12 STRAP AS SHOWN
SHEAR WALL SHEATHING & NAILING PER SHEAR WALL SCHEDULE
TJI JOIST PER PLAN
TJI BLOCKING @ 48"OC
STUDS PER PLAN & GENERAL STRUCTURAL NOTES
METAL HARDWARE PER SHEAR WALL SCHEDULE

12 TYPICAL EXTERIOR WALL PARALLEL TO TJI JOISTS

PROJECT #:
25-120

ENGINEERED BY: GS

DATE:
6/25/25

ZVELT
ENGINEERING DESIGN PLLC

STRUCTURAL ENGINEERING

721 4th AVE #794
KIRKLAND, WA 98033

Zvelt.Eng@outlook.com

GABRIELA SIIA
52184
8/8/2025

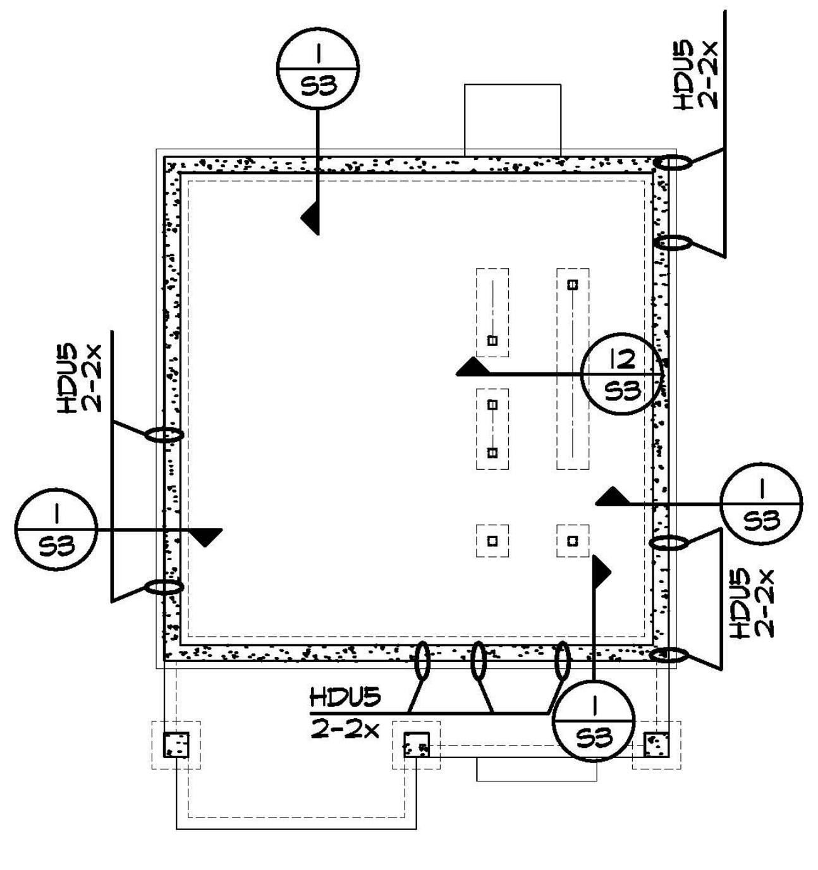
PROJECT NAME:
Long - DADU
6905 96th Ave SE
Mercer Island, WA 98040

IBC 2021

WOOD
LATERAL
DETAILS

ANW 250052
LATERAL DETAILS

SHEET NUMBER:
S 4

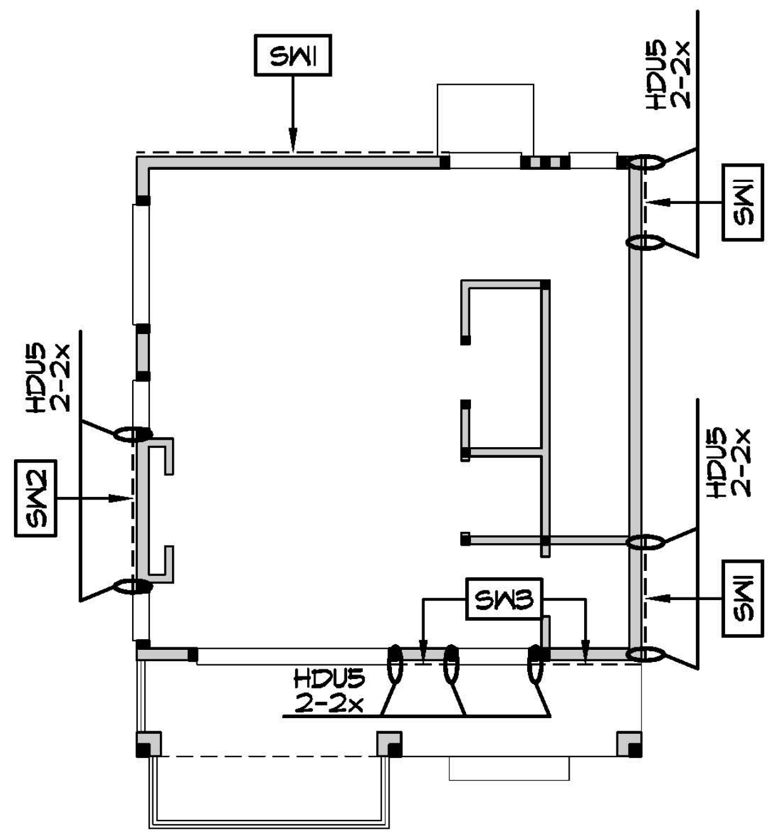


① FOUNDATION (HARDWARE)

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

FOUNDATION NOTES:

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION & CONSTRUCTION.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. BOTTOM OF ALL NEW FOOTINGS SHALL BE 18" MIN BELOW LOWEST ADJACENT GRADE UNLESS NOTED OTHERWISE.
4. CENTER INTERIOR FOOTINGS ON WALLS OR COLUMNS.
5. TYPICAL SLAB-ON-GRADE SHALL BE 4" THICK CONCRETE f'c=2500 PSI MINIMUM, WITH WWF 6x6-W2.1xW2.1.
6. PROVIDE CONSTRUCTION/CONTROL JOINTS IN 4" THICK SLAB-ON-GRADE TO DIVIDE SLAB INTO RECTANGULAR AREA OF 225 SQUARE FEET OR LESS. AREAS SHALL HAVE MINIMUM ASPECT RATIO OF 2.5:1 AND HAVE NO ACUTE RE-ENTRANT ANGLES.
7. ALL WOOD IN CONTACT WITH WEATHER -EXPOSED CONCRETE OR WITHIN 6" OF FINISHED GRADE SHALL BE PRESSURE TREATED.
8. SEE FOOTING SCHEDULE ON SHEET S2.
9. SOIL GEOTECHNICAL EVALUATION WAS PREPARED BY COBALT GEOSCIENCES. SITE PREPARATION, EXCAVATIONS AND TEMPORARY EXCAVATIONS, COMPACTION, BACKFILLING, STRUCTURAL FILL, STORMWATER MANAGEMENT FEASIBILITY, EROSION AND SEDIMENT CONTROL, AND UTILITIES SHALL BE AS STATED IN THE GEOTECHNICAL REPORT ATTACHED TO THE PROJECT.



② MAIN FLOOR SHEAR WALLS & HARDWARE

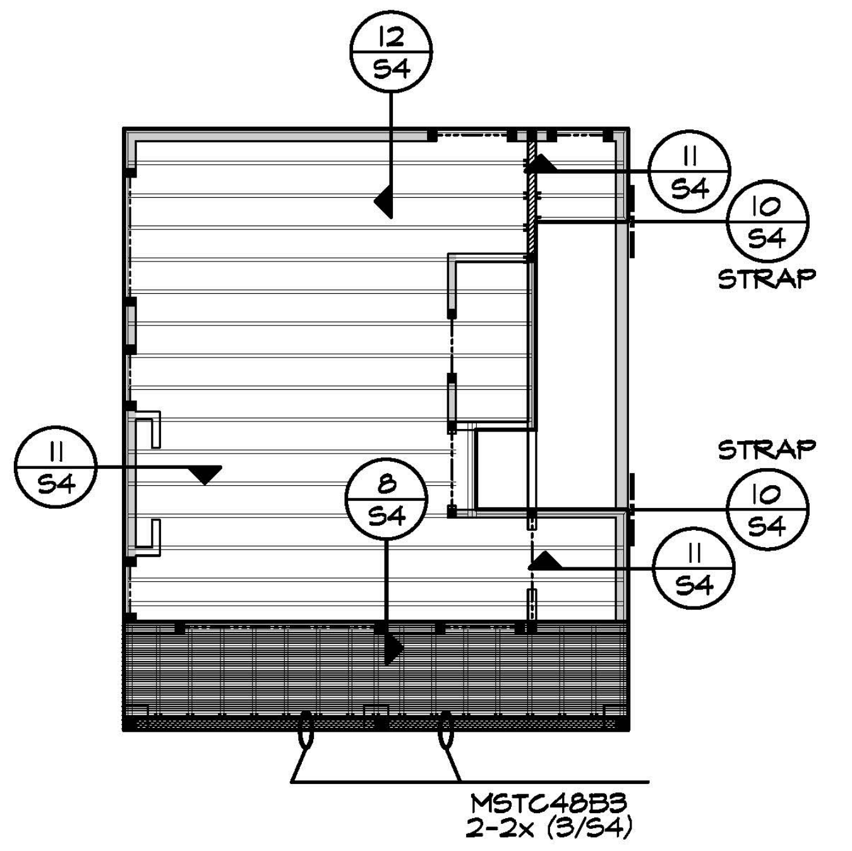
SCALE: 1/8" = 1'-0"

FLOOR PLAN NOTES:

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION & CONSTRUCTION.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. HD_INDICATES A HOLDOWN. REFERENCE THE HOLDOWN SCHEDULE PLAN S1 FOR HOLDOWN REQUIREMENTS AND MINIMUM STUDS/POST. SEE PLAN FOR OTHER STUDS/POST REQUIREMENTS.
4. SW_INDICATES A SHEAR WALL. REFERENCE THE SHEAR WALL SCHEDULE PLAN S2 FOR SHEAR WALL REQUIREMENTS. ALL SHEAR WALLS TO BE CONTINUOUS BETWEEN ROOF SHEATHING AND TOP OF FOUNDATION WALL. SOME SHEAR WALLS REQUIRE 3x FRAMING AT PANEL EDGES. SEE SHEAR WALL SCHEDULE ON STRUCTURAL DETAILS.
5. SHEAR WALL TO BE CONTINUOUS THROUGH INTERSECTION. SEE DET. 1/S2.
6. ALL EXTERIOR SHEAR WALLS SHALL BE SW-1, UNLESS NOTED ON THE PLAN.

GABRIELA SILA
52184
8/8/2025

ZVELT ENGINEERING DESIGN, PLLC
Lateral Review
This review is for general conformance to the structural design criteria, red lined mark-ups, concept and contract documents.
By GS Job#: A05/25-120 Date 8/8/2025



③ UPPER FLOOR FRAMING

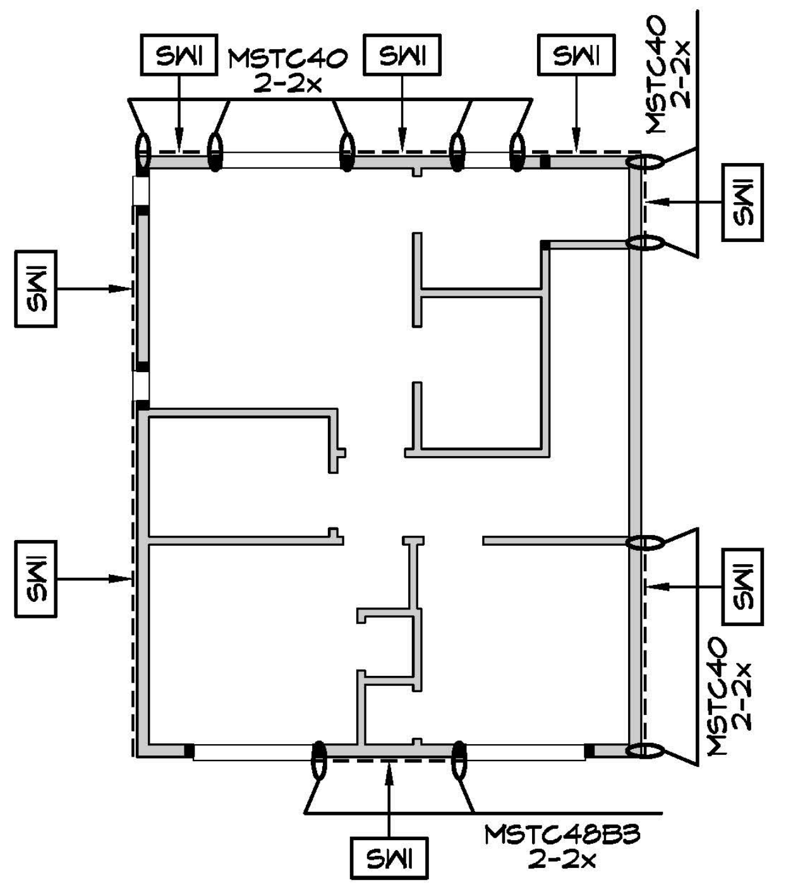
SCALE: 1/8" = 1'-0"

BLOCKED DIAPHRAGM ▤ (DET 5/S2)

FLOOR BLOCKED DIAPHRAGM w/ 3/4" SHTG
0.148"Φ x 3" NAILING
10d @ 6" O.C. EDGE
10d @ 12" O.C. FIELD STAGGERED

FLOOR FRAMING NOTES:

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION & CONSTRUCTION.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. FLOOR SHEATHING THICKNESS AND NAILING SHALL BE $\frac{3}{4}$" w/10d @ 12" O.C. ALL FIELD SUPPORTS, 10d @ 6" O.C. ALL PANEL EDGES, AND 10d @ 6" O.C. AT BOUNDARIES WHERE SHADED PER PLAN. SEE DIAPHRGM SCHEDULE, PLAN S1.
4. SEE GENERAL STRUCTURAL NOTES FOR FLOOR LOADING CONDITIONS.
5. PROVIDE SOLID BLOCKING AT THE LOCATIONS INDICATED PER PLAN.
6. PROVIDE ADDITIONAL L JOIST IN LINE WITH SHEAR WALL WHERE NOTED ON PLAN.
7. ALL POST-BEAM & BM-BM INTERSECTIONS SHALL CONTAIN POSITIVE CONNECTIONS TO RESIST AGAINST UPLIFT AND/OR LATERAL DISPLACEMENT.

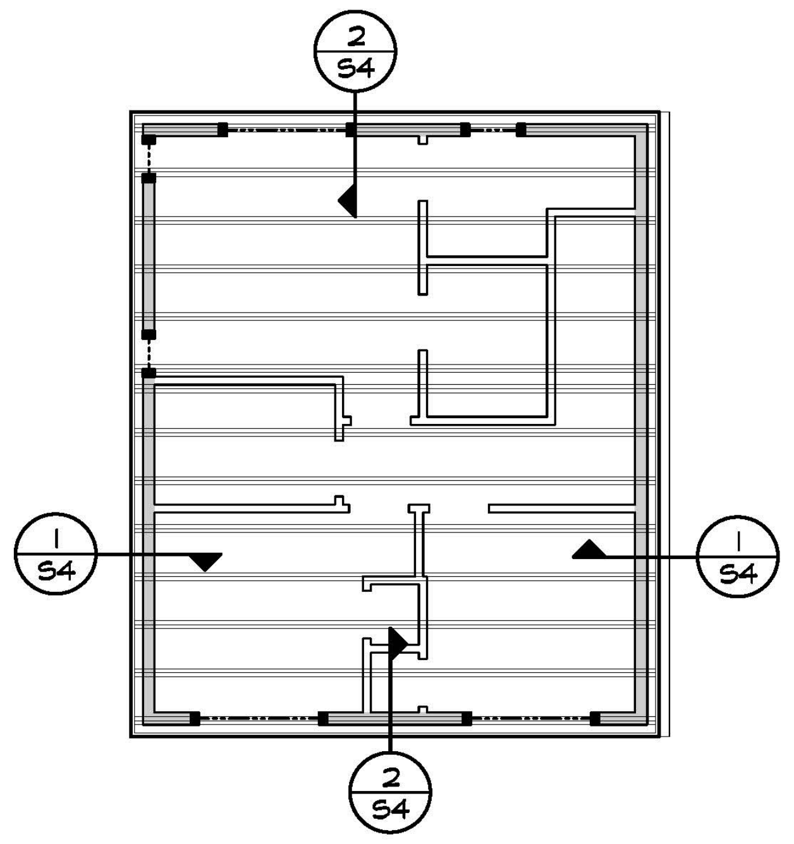


④ UPPER FLOOR SHEAR WALLS & HARDWARE

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

FLOOR PLAN NOTES:

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION & CONSTRUCTION.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. HD_INDICATES A HOLDOWN. REFERENCE THE HOLDOWN SCHEDULE PLAN S1 FOR HOLDOWN REQUIREMENTS AND MINIMUM STUDS/POST. SEE PLAN FOR OTHER STUDS/POST REQUIREMENTS.
4. SW_INDICATES A SHEAR WALL. REFERENCE THE SHEAR WALL SCHEDULE PLAN S2 FOR SHEAR WALL REQUIREMENTS. ALL SHEAR WALLS TO BE CONTINUOUS BETWEEN ROOF SHEATHING AND TOP OF FOUNDATION WALL. SOME SHEAR WALLS REQUIRE 3x FRAMING AT PANEL EDGES. SEE SHEAR WALL SCHEDULE ON STRUCTURAL DETAILS.
5. SHEAR WALL TO BE CONTINUOUS THROUGH INTERSECTION. SEE DET. 1/S2.
6. ALL EXTERIOR SHEAR WALLS SHALL BE SW-1, UNLESS NOTED ON THE PLAN.



⑤ ROOF FRAMING

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

ROOF FRAMING NOTES:

1. VERIFY ALL EXISTING CONDITIONS PRIOR TO FABRICATION & CONSTRUCTION.
2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS.
3. ROOF FRAMING SHALL BE MANUFACTURED TRUSSES @ 24" O.C. AS PER PLAN. HANGERS INDICATED ARE PER MANUFACTURER.
4. ROOF SHEATHING THICKNESS AND NAILING SHALL BE $\frac{1}{2}$" NOMINAL w/8d @ 6" O.C. ALL FIELD SUPPORTS AND 8d @ 6" O.C. ALL PANEL EDGES, AND 8d @ 6" O.C. @ BOUNDARIES WHERE SHADED ON THE PLAN. SEE DIAPHRAGM SCHEDULE, SHEET S1.
5. SEE GENERAL STRUCTURAL NOTES FOR FLOOR LOADING CONDITIONS.

ROOF DIAPHRAGM w/ 1/2" SHTG
0.131"Φ x 2-1/2" NAILING
8d @ 6" O.C. EDGE
8d @ 6" O.C. FIELD STAGGERED

5046
8/15/25

PAYMENT OF USE FEE IS DUE TO ARCHITECTS NORTHWEST, INC. PRIOR TO CONSTRUCTION FOR EACH STRUCTURE BUILT FROM THESE PLANS. THESE PLANS ARE COPYRIGHTED IN ACCORDANCE WITH FEDERAL STATUTES. REPRODUCTION BY ANY METHOD OF ALL OR PORTIONS OF THESE PLANS OR VARIATIONS THEREOF WITHOUT WRITTEN PERMISSION FROM ARCHITECTS NORTHWEST, INC. IS STRICTLY PROHIBITED. THESE DRAWINGS AND PLANS SET FORTH ON THIS SHEET AS INSTRUMENTS OF SERVICE ARE, AND SHALL REMAIN, THE PROPERTY OF ARCHITECTS NORTHWEST, INC.

ARCHITECTS
NORTHWEST
18915-142ND AVENUE NE SUITE 100 WOODINVILLE, WA 98072
OFFICE: (425) 485-4900 FAX: (425) 487-6585
TOLL FREE: 1-888-272-4100 WWW.ARCHITECTSNW.COM

LONG DADU
PLAN A911A0-0

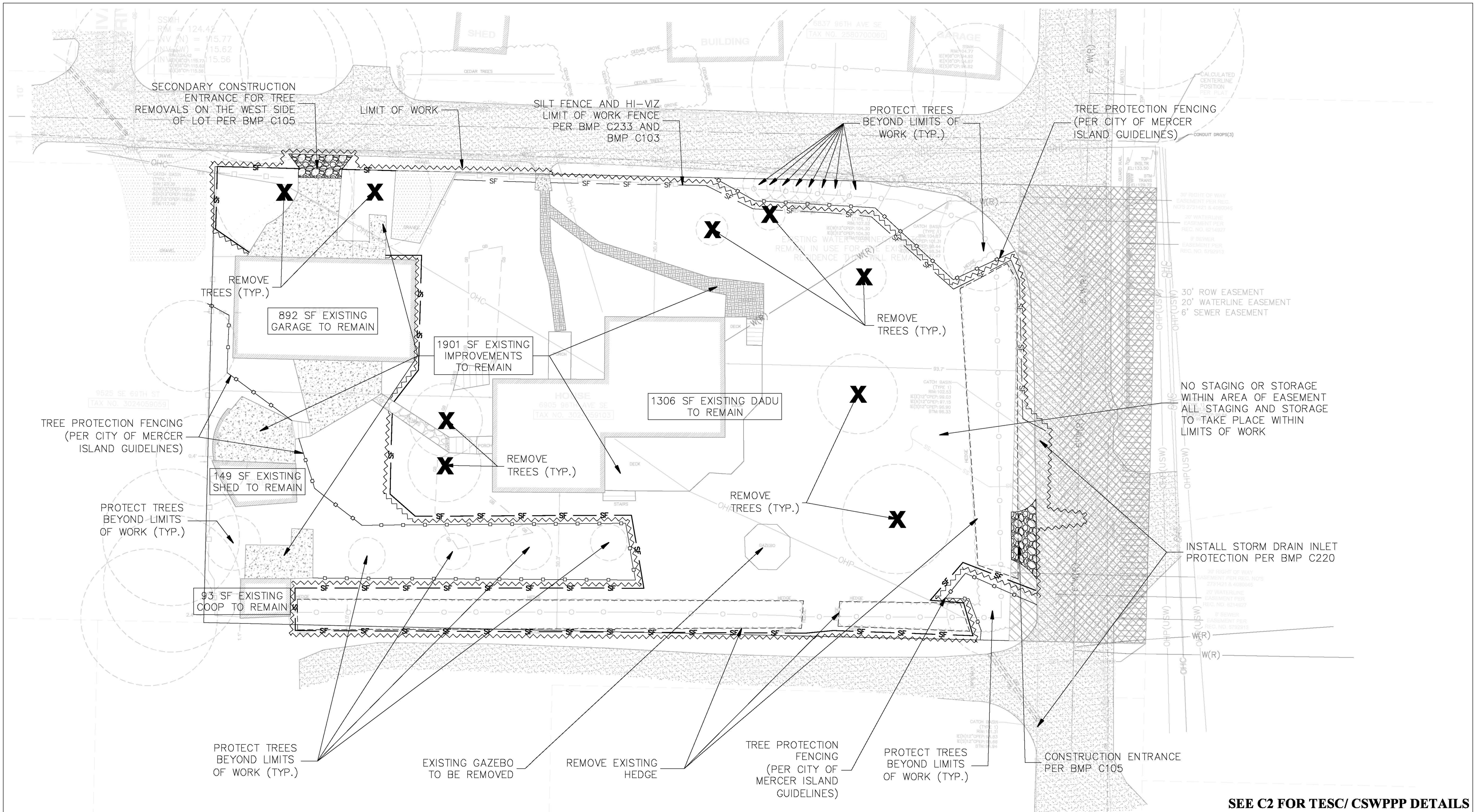
DESIGNED BY: MBJ DATE: 05/2025
DRAWN BY: BPS DATE: 7/29/25

PROJECT MANAGER: MARCUS JENKINS
REVISED BY: BPS DATE: 8/15/25

LATERAL BY: ZVELT DATE: 6/25/25
LATERAL JOB NUMBER: 25-120

S5
S5

ANW JOB NUMBER:
250052


SECONDARY CONSTRUCTION ENTRANCE FOR TREE REMOVALS ON THE WEST SIDE OF LOT PER BMP C105
LIMIT OF WORK
SILT FENCE AND HI-VIZ LIMIT OF WORK FENCE PER BMP C233 AND BMP C103
PROTECT TREES BEYOND LIMITS OF WORK (TYP.)
TREE PROTECTION FENCING (PER CITY OF MERCER ISLAND GUIDELINES)
REMOVE TREES (TYP.)
892 SF EXISTING GARAGE TO REMAIN
1901 SF EXISTING IMPROVEMENTS TO REMAIN
REMOVE TREES (TYP.)
30' ROW EASEMENT
20' WATERLINE EASEMENT
6' SEWER EASEMENT
1306 SF EXISTING DADU TO REMAIN
NO STAGING OR STORAGE WITHIN AREA OF EASEMENT ALL STAGING AND STORAGE TO TAKE PLACE WITHIN LIMITS OF WORK
TREE PROTECTION FENCING (PER CITY OF MERCER ISLAND GUIDELINES)
REMOVE TREES (TYP.)
149 SF EXISTING SHED TO REMAIN
REMOVE TREES (TYP.)
PROTECT TREES BEYOND LIMITS OF WORK (TYP.)
INSTALL STORM DRAIN INLET PROTECTION PER BMP C220
93 SF EXISTING COOP TO REMAIN
PROTECT TREES BEYOND LIMITS OF WORK (TYP.)
EXISTING GAZEBO TO BE REMOVED
REMOVE EXISTING HEDGE
TREE PROTECTION FENCING (PER CITY OF MERCER ISLAND GUIDELINES)
PROTECT TREES BEYOND LIMITS OF WORK (TYP.)
CONSTRUCTION ENTRANCE PER BMP C105
SF
HOUSE
GARAGE
SHED
BUILDING
GAZEBO
HEDGE
DECK
STAIRS
W(R)
OHP(USW)
OHC
N
0
10
20
Feet

SEE C2 FOR TESC/ CSWPPP DETAILS
SEE C3 FOR DRAINAGE SITE PLAN

Long DADU
Site Address: 6905 96th Ave SE
Jurisdiction: Mercer Island
Parcel No.: 302405-9103
Applicant: Boreth Long
Permit No.:
Interlaken Project No.: SEA-25-127

Interlaken Engineering and Design, PLLC
Seattle, WA | (206) 470-9572
www.interlakenengineering.com

MATTHEW JACOB HARINGA
55763

Revisions:

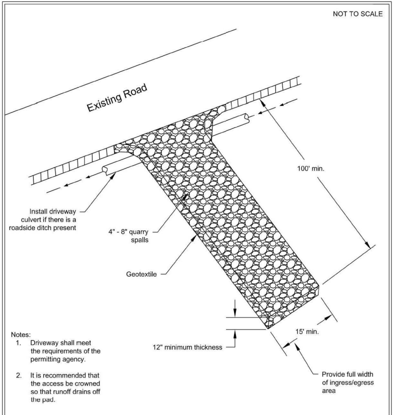
C1

TESC/ Demo/ CSWPPP

Scale: 1" = 10'

Figure II-4.1: Stabilized Construction Access

NOT TO SCALE


Existing Road
100' min.
Install driveway culvert if there is a roadside ditch present
4" - 8" quarry spalls
Geotextile
12" minimum thickness
15' min.
Provide full width of ingress/egress area

Notes:
1. Driveway shall meet the requirements of the permitting agency.
2. It is recommended that the access be crowned so that runoff drains off the pad.

DEPARTMENT OF ECOLOGY State of Washington

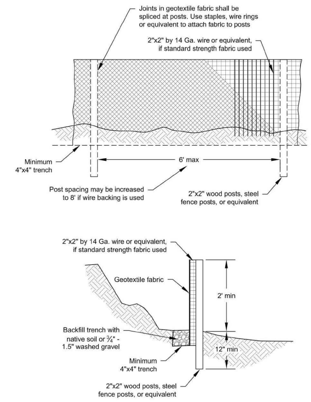
Stabilized Construction Access

Revised June 2018

2024 Stormwater Management Manual for Western Washington

Volume II - Chapter 4 - Page 320

Figure II-4.22: Silt Fence


Joints in geotextile fabric shall be spliced at posts. Use staples, wire rings or equivalent to attach fabric to posts
2"x2" by 14 Ga. wire or equivalent, if standard strength fabric used
Minimum 4"x4" trench
6' max
Post spacing may be increased to 8' if wire backing is used
2"x2" wood posts, steel fence posts, or equivalent
2"x2" by 14 Ga. wire or equivalent, if standard strength fabric used
Geotextile fabric
2' min
Backfill trench with native soil or ¾" - 1.5" washed gravel
12" min
Minimum 4"x4" trench
2"x2" wood posts, steel fence posts, or equivalent

NOT TO SCALE

DEPARTMENT OF ECOLOGY State of Washington

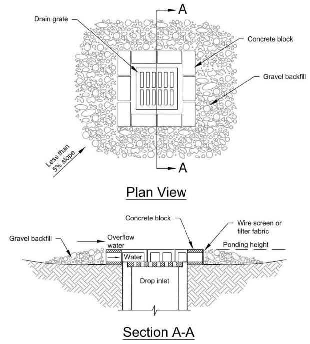
Silt Fence

Revised July 2017

2024 Stormwater Management Manual for Western Washington

Volume II - Chapter 4 - Page 415

Figure II-4.17: Block and Gravel Filter


A
Drain grate
Concrete block
Gravel backfill
Less than 5% slope
A
Plan View
Concrete block
Wire screen or filter fabric
Gravel backfill
Overflow water
Ponding height
Water
Drop inlet
Section A-A

Notes:
1. Drop inlet sediment barriers are to be used for small, nearly level drainage areas. (less than 5%)
2. Excavate a basin of sufficient size adjacent to the drop inlet.
3. The top of the structure (ponding height) must be well below the ground elevation downslope to prevent runoff from bypassing the inlet. A temporary dike may be necessary on the downslope side of the structure.

NOT TO SCALE

DEPARTMENT OF ECOLOGY State of Washington

Block and Gravel Filter

Revised June 2016

2024 Stormwater Management Manual for Western Washington

Volume II - Chapter 4 - Page 403

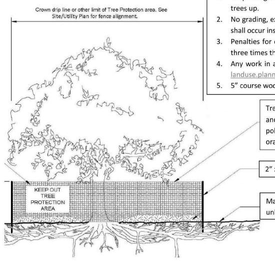
TREE PROTECTION AREA (TPZ)

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.

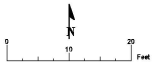

Crown drip line or other limit of Tree Protection area. See Site/Utility Plan for fence alignment.
KEEP OUT TREE PROTECTION AREA

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


N
0
10
20
Feet

SEE C1 FOR TESC/ DEMO/ CSWPPP

Long DADU
Site Address: 6905 96th Ave SE
Jurisdiction: Mercer Island
Parcel No.: 302405-9103
Applicant: Boreth Long
Permit No.:
Interlaken Project No.: SEA-25-127

Interlaken Engineering and Design, PLLC
Seattle, WA | (206) 470-9572
www.interlakenengineering.com

MATTHEW JACOB HARINGA
STATE OF WASHINGTON
55763
REGISTERED PROFESSIONAL ENGINEER

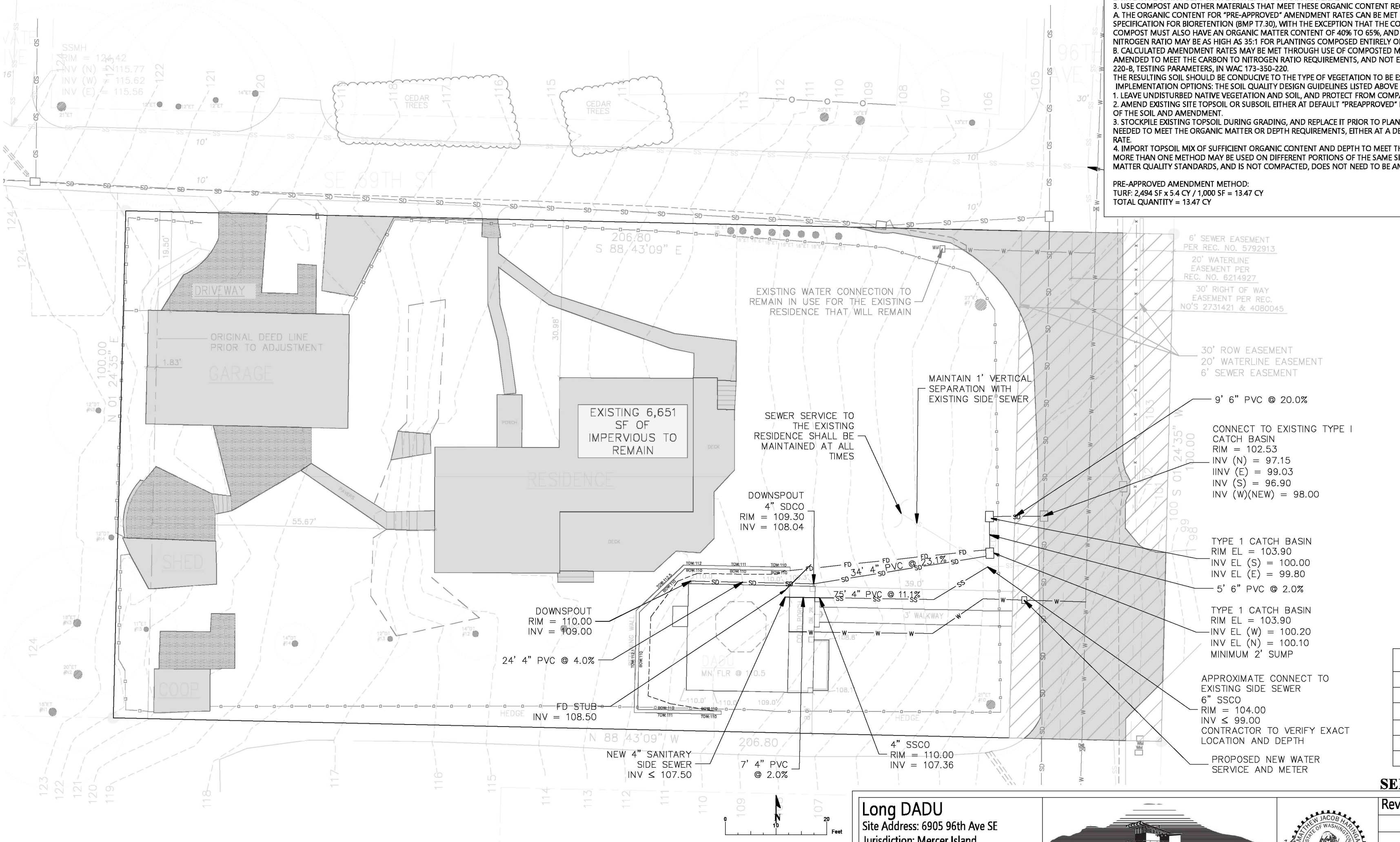
Revisions:

C2
TESC/ CSWPPP Details
Scale: As Noted

THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION ON THE PROJECT.

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:
1. 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.
2. MULCH PLANTING BEDS WITH 2 INCHES OF ORGANIC MATERIAL
3. USE COMPOST AND OTHER MATERIALS THAT MEET THESE ORGANIC CONTENT REQUIREMENTS:
A. THE ORGANIC CONTENT FOR "PRE-APPROVED" AMENDMENT RATES CAN BE MET ONLY USING COMPOST MEETING THE COMPOST SPECIFICATION FOR BIORETENTION (BMP T7.30), 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.
B. 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 CONDUCIVE 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:
1. LEAVE UNDISTURBED NATIVE VEGETATION AND SOIL, AND PROTECT FROM COMPACTION DURING CONSTRUCTION.
2. AMEND EXISTING SITE TOPSOIL OR SUBSOIL EITHER AT DEFAULT "PREAPPROVED" RATES, OR AT CUSTOM CALCULATED RATES BASED ON TESTS OF THE SOIL AND AMENDMENT.
3. 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.
4. 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.

PRE-APPROVED AMENDMENT METHOD:
TURF: 2,494 SF x 5.4 CY / 1,000 SF = 13.47 CY
TOTAL QUANTITY = 13.47 CY


SSMH
RIM = 124.42
INV (N) = 115.77
INV (W) = 115.62
INV (E) = 115.56
CEDAR TREES
CEDAR TREES
SE 69TH ST
96TH AVE SE
206.80
S 88°43'09" E
DRIVEWAY
ORIGINAL DEED LINE PRIOR TO ADJUSTMENT
GARAGE
1.83'
19.50'
30.98'
N 01°24'35" E
100.00
PORCH
EXISTING 6,651 SF OF IMPERVIOUS TO REMAIN
RESIDENCE
DECK
DECK
55.67'
SHED
COOP
HEDGE
HEDGE
EXISTING WATER CONNECTION TO REMAIN IN USE FOR THE EXISTING RESIDENCE THAT WILL REMAIN
6' SEWER EASEMENT PER REC. NO. 5792913
20' WATERLINE EASEMENT PER REC. NO. 6214927
30' RIGHT OF WAY EASEMENT PER REC. NO'S 2731421 & 4080045
30' ROW EASEMENT
20' WATERLINE EASEMENT
6' SEWER EASEMENT
MAINTAIN 1' VERTICAL SEPARATION WITH EXISTING SIDE SEWER
SEWER SERVICE TO THE EXISTING RESIDENCE SHALL BE MAINTAINED AT ALL TIMES
9' 6" PVC @ 20.0%
CONNECT TO EXISTING TYPE I CATCH BASIN
RIM = 102.53
INV (N) = 97.15
IINV (E) = 99.03
INV (S) = 96.90
INV (W)(NEW) = 98.00
S 01°24'35" W
100.00
DOWNSPOUT
4" SDCO
RIM = 109.30
INV = 108.04
34' 4" PVC @ 23.1%
TYPE 1 CATCH BASIN
RIM EL = 103.90
INV EL (S) = 100.00
INV EL (E) = 99.80
5' 6" PVC @ 2.0%
75' 4" PVC @ 11.1%
39.0'
3' WALKWAY
TYPE 1 CATCH BASIN
RIM EL = 103.90
INV EL (W) = 100.20
INV EL (N) = 100.10
MINIMUM 2' SUMP
DOWNSPOUT
RIM = 110.00
INV = 109.00
24' 4" PVC @ 4.0%
RETAINING WALL
DADU
MN FLR @ 110.5
COV'D PORCH
APPROXIMATE CONNECT TO EXISTING SIDE SEWER
6" SSCO
RIM = 104.00
INV ≤ 99.00
CONTRACTOR TO VERIFY EXACT LOCATION AND DEPTH
FD STUB
INV = 108.50
N 88°43'09" W
206.80
NEW 4" SANITARY SIDE SEWER
INV ≤ 107.50
7' 4" PVC @ 2.0%
4" SSCO
RIM = 110.00
INV = 107.36
PROPOSED NEW WATER SERVICE AND METER
0
10
20
Feet
N

Hard Surface Data	
Lot Size	20,680 sf
Replaced Hard Surface	81 sf
New Hard Surface	605 sf
Unchanged Hard Surface	6,570 sf
Total Proposed Hard Surface	7,256 sf
Proposed Vegetation	13,424 sf

SEE C1 FOR TESC/ DEMO CSWPPP

Long DADU
Site Address: 6905 96th Ave SE
Jurisdiction: Mercer Island
Parcel No.: 302405-9103
Applicant: Boreth Long
Permit No.:
Interlaken Project No.: SEA-25-127

Interlaken Engineering and Design, PLLC
Seattle, WA | (206) 470-9572
www.interlakenengineering.com

MATTHEW JACOB HARINGA
55763

Revisions:

C3
Utility Site Plan
Scale: 1" = 10'

LEGAL DESCRIPTION

PORTION OF THE NORTHEAST ¼ OF SECTION 30, TOWNSHIP 24 NORTH, RANGE 5 EAST, W.M., RECORDS OF KING COUNTY