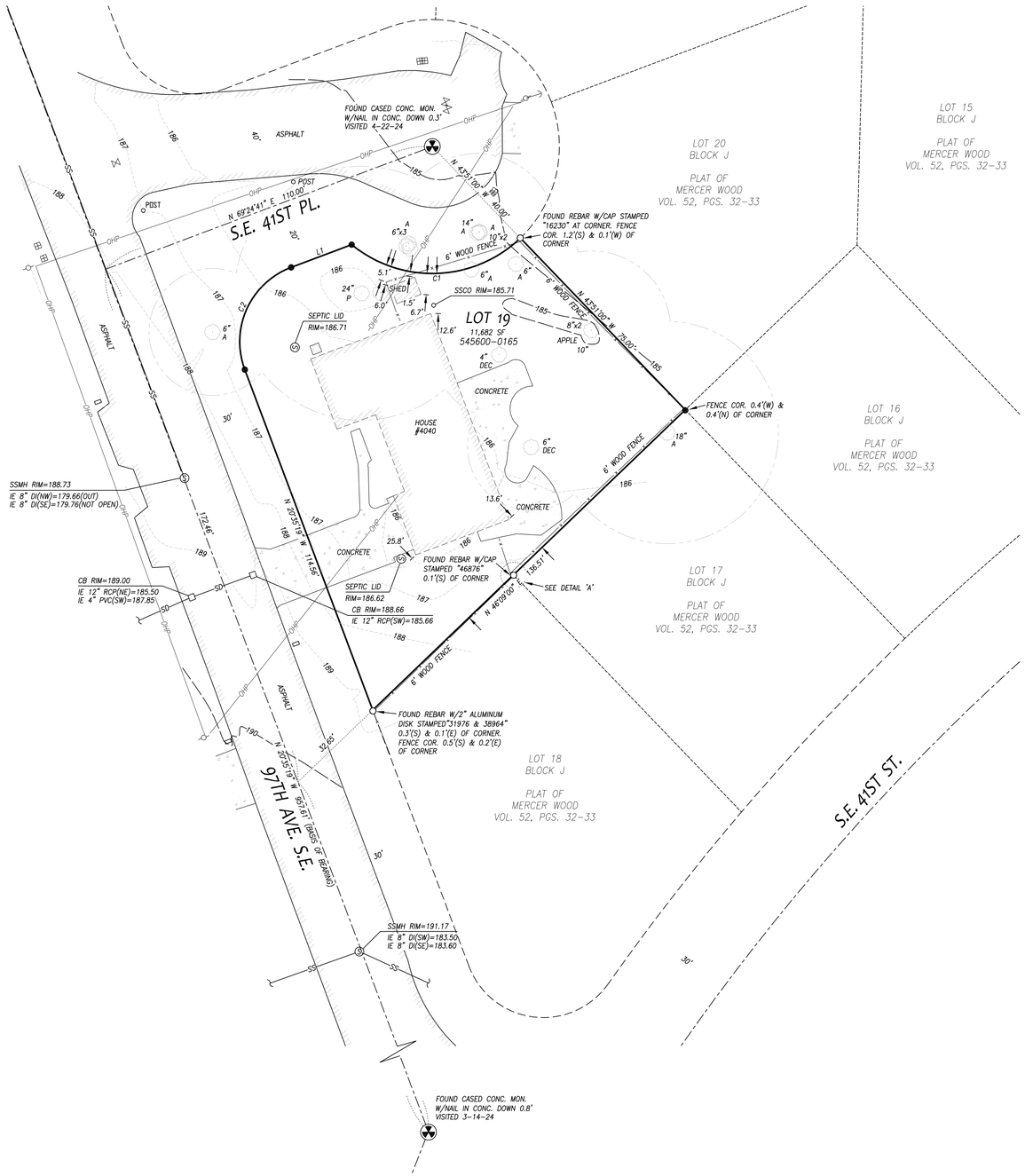
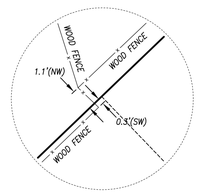




DETAIL 'A'

CURVE TABLE

CURVE	LENGTH	RADIUS	DELTA
C1	58.13	40.00	83°15'41"
C2	39.27	25.00	90°00'00"

LINE TABLE

LINE	LENGTH	BEARING
L1	20.36	N 69°24'41" E

EQUIPMENT & PROCEDURES

METHOD OF SURVEY:

SURVEY PERFORMED BY FIELD TRAVERSE AND REAL TIME KINEMATIC GPS POSITIONING UTILIZING THE HxGN SMARTNET NETWORK

INSTRUMENTATION:

LEICA TS16 ROBOTIC ELECTRONIC TOTAL STATION
LEICA VIVA GNSS GS08 RECEIVER
ALL EQUIPMENT HAS BEEN MAINTAINED IN ADJUSTMENT TO MANUFACTURER'S SPECIFICATIONS AS REQUIRED BY WAC 331-130-100

PRECISION:

MEETS OR EXCEEDS STATE STANDARDS SET BY WAC 332-130-080 THROUGH 332-130-110

BASIS OF BEARING:

PER THE PLAT OF MERCER WOOD RECORDED IN VOL. 52, PGS. 32-33 OF PLATS, THE MONUMENTED CENTERLINE OF 97TH AVE S.E. AS THE BEARING OF N 20°35'19" W, AS SHOWN HEREON.

LEGAL DESCRIPTION

LOT 19, BLOCK 1, MERCER WOOD, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 52 OF PLATS, PAGE(S) 32 AND 33, IN KING COUNTY, WASHINGTON.

SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

VERTICAL DATUM

NAVD 88 (NAVD88 -3.67'= NGVD29)

FOUND CASED CONC. MON. W/NAIL IN CONC. AT THE INTERSECTION OF 97TH AVE. S.E. & MERCERWOOD DR.
WGS SURVEY DATA WAREHOUSE I.D.#47348
ELEV. = 224.37'

SURVEY REFERENCES

(R1) PLAT OF MERCER WOOD - VOL. 52, PGS. 32-33

(R2) PLAT OF MERCER WOOD DIV. 2 - VOL. 57, PG. 81

(R3) RECORD OF SURVEY - A.F.#20170302900016

LEGEND

- SET 1/2" X 24" REBAR W/CAP "PCS 37536"
- EXISTING CORNER MONUMENT AS NOTED
- SET NAIL AND WASHER "PCS 37536"
- EXISTING NAIL AND WASHER AS NOTED
- FOUND MONUMENT AS NOTED
- RIGHT OF WAY CENTERLINE
- CATCH BASIN
- WATER VALVE
- FIRE HYDRANT
- WATER METER
- SANITARY SEWER MANHOLE
- SEPTIC LID
- MAILBOX
- UTILITY/ POLE
- GUY ANCHOR
- CONIFEROUS TREE
- DECIDUOUS TREE
- F FIR
- A ALDER
- P PINE
- (C) CALCULATED
- (M) MEASURED
- (D) DEED (SEE REF.)
- (P) PLAT (SEE REF.)

NOTES

1.) THIS SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE USE OF PARTIES WHOSE NAMES APPEAR HEREON ONLY, AND DOES NOT EXTEND TO ANY UNNAMED THIRD PARTIES WITHOUT EXPRESS RECERTIFICATION BY THE LAND SURVEYOR OF RECORD.

2.) BOUNDARY LINES SHOWN AND CORNERS SET REPRESENT DEED LOCATIONS; OWNERSHIP LINES MAY VARY. NO GUARANTEE OF OWNERSHIP IS EXPRESSED OR IMPLIED. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ALL EASEMENTS, RESTRICTIONS, RESERVATIONS, AND OCCUPATION WHICH MAY ENCUMBER TITLE OR USE OF SUBJECT PROPERTY.

SCALE: 1" = 20'
0 20 40
(US SURVEY FEET)

PACIFIC COAST SURVEYS INC
SCANNING | MAPPING | SURVEY
P 425.512.7099 | F 425.357.3577
www.PCSurveys.net
5131 Colby Ave. Everett, WA 98208

DOUGLAS KEITH ROUPE
STATE OF WASHINGTON
23015769
REGISTERED
PROFESSIONAL LAND SURVEYOR

BOUNDARY & TOPOGRAPHIC SURVEY FOR:

BO XIA & MIAO MENG

NE 1/4, NE 1/4, SEC.18, T.24N., R.05E., W.M.

DRAWING FILE #	ADDRESS OR TAX ID#	DRAWN	DATE	SCALE	JOB #
243317top.dwg	4040 97TH AVE. S.E., MERCER IS.	MAH	05.15.24	1" = 20'	24-3317

PROJECT INFORMATION

ZONING DTSTRICT	R-8.4
PROPERTY OWNER	XIA BO+MENG MIAO
PARCEL NUMBER	545600-0165
LOT AREA	11,682 S.F.
OCCUPANCY CLASSIFICATION	R-3 / U
CONSTRUCTION TYPE	V-B

LEGAL DESCRIPTION

MERCER WOOD ADD
PLat Block: I
Plat Lot: 19

STRUCTURAL LOT COVERAGE

MAX. LOT COVERAGE FOR SLOPE,15%	40% x 11682 = 4,672 SF
EXIST. LOT COVERAGE	1,861 SF
ADDED LOT COVERAGE	861 SF
TOTAL STRUCTURAL AREA	2,722 S.F.
STRUCTURAL LOT COVERAGE	23.3 % (OK!)

(SEE DIAGRAMS ON A1.1)

HARDSCAPE COVERAGE

MAX. HARDSCAPE AREA	49% X 11682 = 5,724 SF
EXIST. LOT COVERAGE + HARDSCAPE	2,617 SF
ADDED LOT COVERAGE + HARDSCAPE -REPLACED EXIST. HARDSCAPE	484 SF
IMPERVIOUS SURFACE AREA	3,101 SF
IMPERVIOUS SURFACE COVERAGE	26.5% (OK!)

(SEE DIAGRAMS ON A1.1)

FLOOR AREA SUMMARY

(E). LOWER FLOOR	1,925 SF
(E). GARGE	376 SF
(N). LOWER FLOOR	202 SF
(N). GARAGE ADDITION	378 SF
(N). UPPER FLOOR	1,502 SF
(N). SPACE ABOVE ENTRY >16 FT HEIGHT	90 SF
TOTAL FLOOR AREA	4,473 SF
FAR = 40% X 11682 = 4672 SF	4,473 SF(OK!)

(SEE DIAGRAMS ON A1.1)

BUILDING HEIGHT

AVERAGE GRADE	**186.3'**
MAX. STRUCTURE HT. ALLOWED (30')	**216.3'**
PROPOSED STRUCTURE HT. (26.1')	**212.4'**

(SEE DIAGRAMS ON A1.1)

ABBREVIATIONS

BLK'G	BLOCKING	HORIZ	HORIZONTAL
℄	CENTER LINE	MAX	MAXIMUM
CLR	CLEAR	MFR	MANUFACTURER
CONT	CONTINUOUS	MIN	MINIMUM
CS	CASEMENT WINDOW	o/	OVER
DBL	DOUBLE	O.C.	ON CENTER
DS	DOWNSPOUT	SD	SMOKE DETECTOR
EL	ELEVATION	SG	SAFETY GLASS
EQ	EQUAL	SF	SQUARE FEET
EXIST / (E)	EXISTING	SIM	SIMILAR
FTG	FOOTING	SLD	SLIDING WINDOW
FX	FIXED WINDOW	TYP	TYPICAL
HDR	HEADER	UNO	UNLESS NOTED OTHERWISE
HDWD	HARDWOOD	w/	WITH
HGR	HANGER		

TREE TABLE

NO TREE PROPOSED TO BE REMOVED

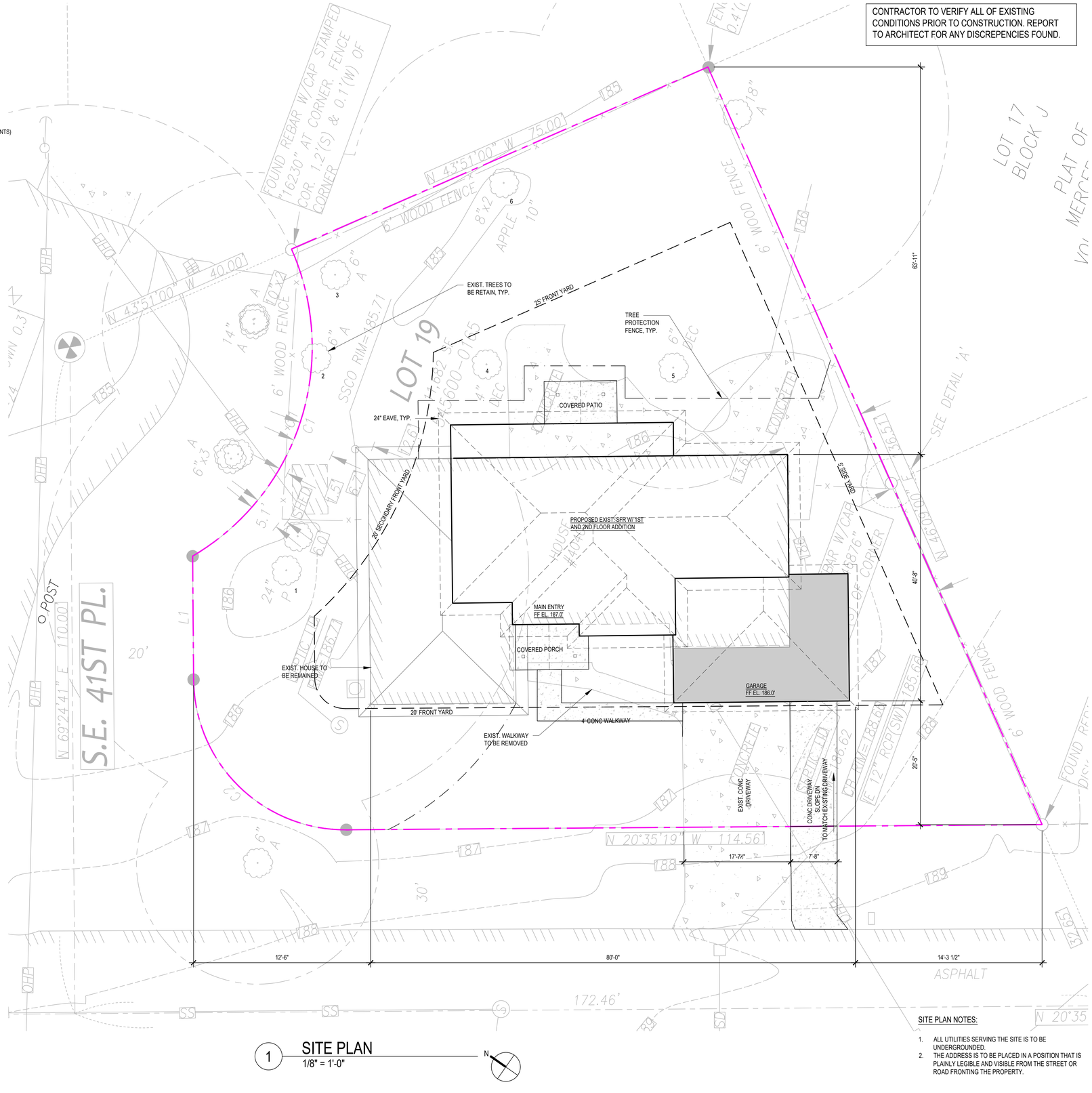
CODE COMPLIANCE

2021 INTERNATIONAL RESIDENTIAL CODE
2021 INTERNATIONAL MECHANICAL CODE
2021 UNIFORM PLUMBING CODE
2021 INTERNATIONAL FIRE CODE
2020 NATIONAL ELECTRICAL CODE
2021 WASHINGTON STATE ENERGY CODE

(ALL CODES ABOVE INCLUDE WASHINGTON STATEWIDE AMENDMENTS)

A NFPA 13D FIRE SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA 13D AND COMI STANDARDS SHALL BE INSTALLED THROUGHOUT THE RESIDENCE.
A SEPARATE FIRE PERMIT IS REQUIRED.

CONTRACTOR TO VERIFY ALL OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. REPORT TO ARCHITECT FOR ANY DISCREPENCIES FOUND.



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

SITE PLAN NOTES:

1. ALL UTILITIES SERVING THE SITE IS TO BE UNDERGROUNDED.
2. THE ADDRESS IS TO BE PLACED IN A POSITION THAT IS PLAINLY LEGIBLE AND VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

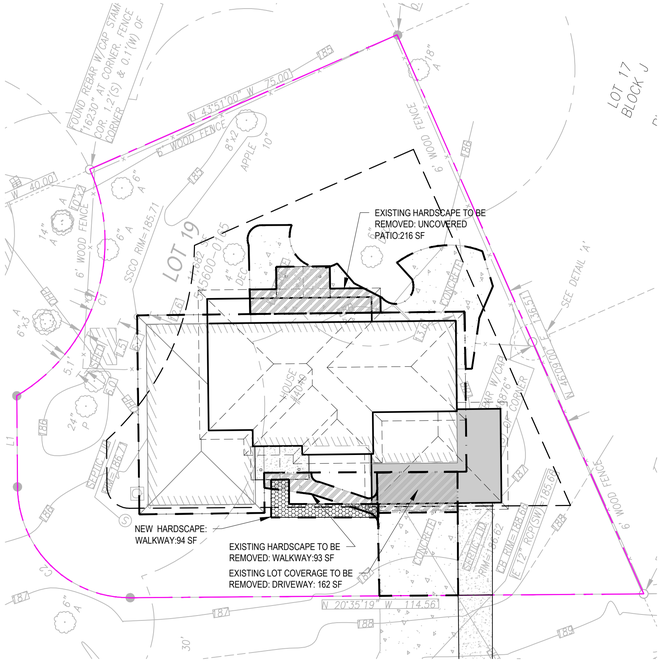
MJZ
DESIGN

425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

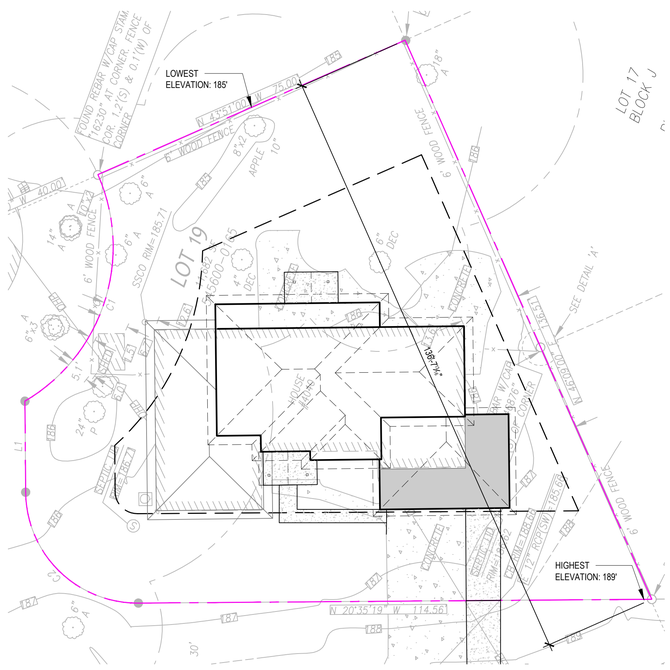
SITE PLAN

SHEET NUMBER A1.0



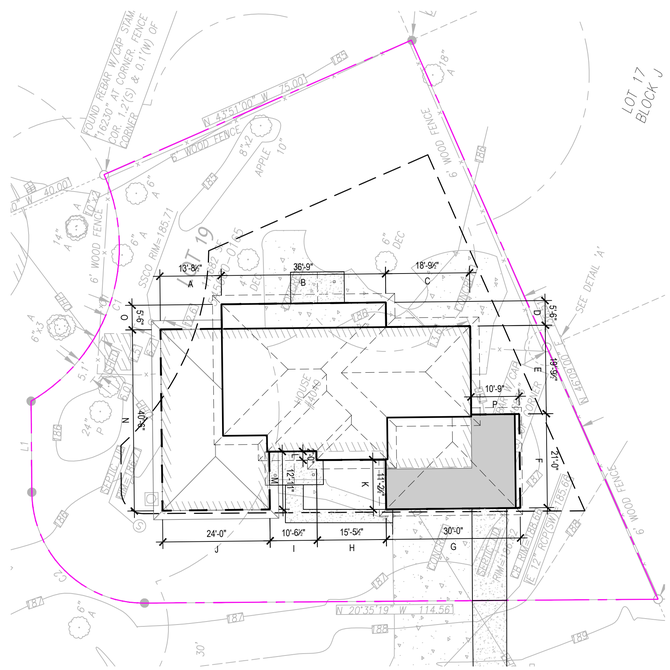
PROPOSED HARDSCAPE = 2617+16+60+147+638-216-162-93+94 = 3101 SF
= 3101/11682 = 26.5%

1 HARD SURFACE DIAGRAM
1/16" = 1'-0"



LOT SLOPE = ELEVATION DIFFERENCE / HORIZONTAL DISTANCE
= (189-185) / 135.5'
= 3%

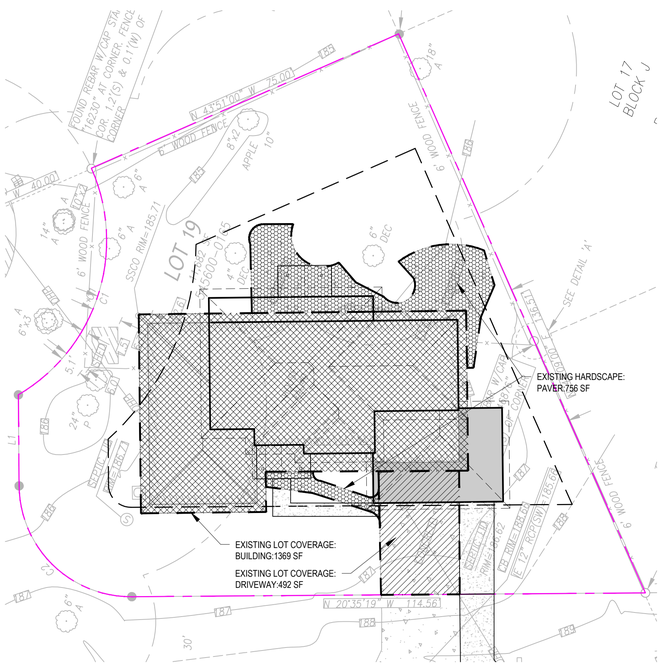
1 SITE SLOPE DIAGRAM
1/16" = 1'-0"



AVERAGE GRADE = 186.3'

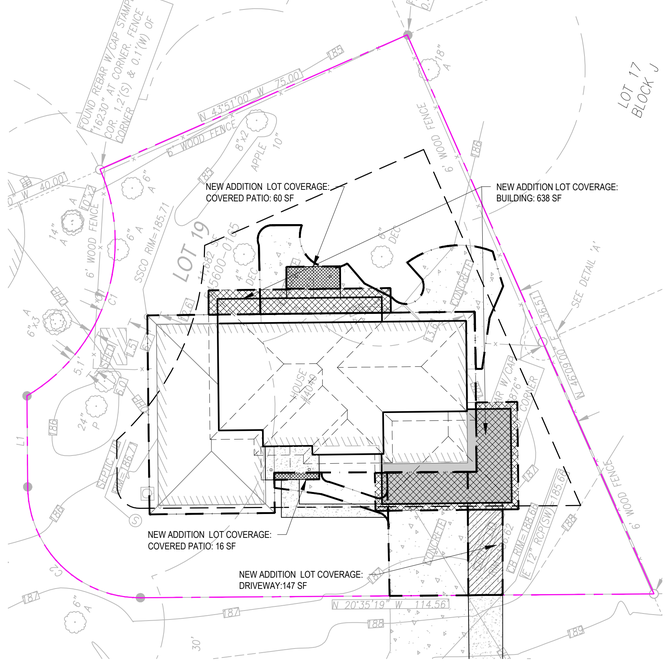
AVERAGE GRADE CALC					
MID POINT	ELEVATION	WALL SEGMENT	LENGTH		A*a=
A	185.5	a	13.7		2541.35
B	185.5	b	36.7		6807.85
C	186.2	c	18.8		3500.56
D	186	d	5.5		1023
E	186.5	e	19.8		3692.7
F	187	f	21		3927
G	186.8	g	30		5604
H	186.8	h	15.5		2895.4
I	186.3	i	10.5		1956.15
J	186.3	j	24		4471.2
K	186.8	k	11.2		2092.16
L	186.8	l	2		373.6
M	186.8	m	12.9		2409.72
N	186	n	40.5		7533
O	185.5	o	5.5		1020.25
P	186.5	p	10.7		1995.55
			278.3		51843.49
AVERAGE GRADE		=	186.3		

1 AVERAGE HEIGHT DIAGRAM
1/16" = 1'-0"



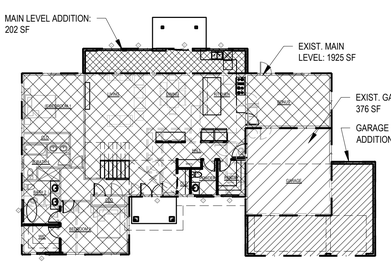
EXISTING LOT COVERAGE = 1369+492 = 1861 SF
= 1861/11682 = 15.9%
EXISTING HARDSCAPE = 1861 + 756 = 2617 SF
= 2617/11682 = 22.4%

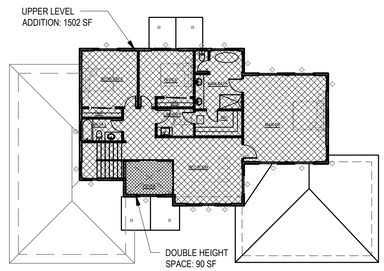
1 EXIST. LOT COVERAGE DIAGRAM
1/16" = 1'-0"



PROPOSED LOT COVERAGE = 1861+16+60+147+638 = 2722 SF
= 2722/11682 = 23.3%

1 PROPOSED LOT COVERAGE DIAGRAM
1/16" = 1'-0"





1 FAR DIAGRAM
1/16" = 1'-0"

GROSS FLOOR AREA	
UPPER LEVEL ADDITION	1502
DOUBLE HEIGHT SPACE	90
MAIN FLOOR ADDITION	202
MAIN FLOOR EXIST	1925
GARAGE ADDITION	378
GARAGE EXIST	376
TOTAL	4473
LOT AREA	11682
FAR ALLOWED	0.4
MAX ALLOWED	4672.8

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN

425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

LANDUSE DIAGRAM

SHEET NUMBER

A1.1

Simple Heating System Size: Washington State

This heating system sizing calculator is based on the Prescriptive Requirements of the 2018 and 2021 Washington State Energy Code (WSEC) . This tool will calculate heating loads only. ACCA procedures for sizing cooling systems should be used to determine cooling loads.

Please complete the green drop-downs and boxes that are applicable to your project. As you make selections in the drop-downs for each section, some values will be calculated for you. If you do not see the selection you need in the drop-down options, please contact the WSU Energy Program at energycode@energy.wsu.edu or (360) 956-2042 for assistance.

This tool is for the permitting purposes only. A Manual J calculation is required to meet the requirement of the Washington State Energy Code.

Project Information	*Contact Information*
4040 Addition	Mei Yang
4040 97TH AVE SE	meiyang173@gmail.com
MERCER ISLAND 98040	

Heating System Type: (●) All Other Systems ( ) Heat Pump

To see detailed instructions for each section, place your cursor on the word "Instructions"

Design Temperature
Instructions — Mercer Island
Deisgn Temperature: 25
Design Temperature Difference (ΔT): 45
ΔT = Indoor (70 degrees) - Outdoor Design Temp

Area of Building

Conditioned Floor Area
Instructions — Conditioned Floor Area (sq ft): 1,704

Average Ceiling Height
Instructions — Average Ceiling Height (ft): 9.0
Conditioned Volume: 15,336

Section	Selection	U-Factor	X	Area	=	UA
Glazing and Doors (Instructions)	U-0.25	0.250		657		164.25
Skylights (Instructions)		0.50				0.00
Insulation — Attic (Instructions)	R-49	0.026		1,592		41.39
Single Rafter or Joist Vaulted Ceilings (Instructions)	Select R-Value	No selection				--
Above Grade Walls *(see Figure 1)* (Instructions)	R-21 Intermediate	0.056		1,485		83.16
Floors (Instructions)	R-38	0.025		357		8.93

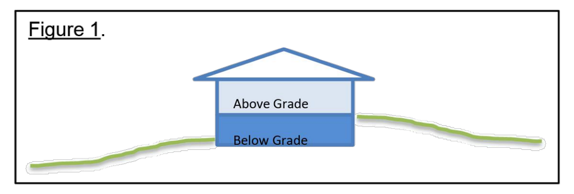
Below Grade Walls and Slabs *(see Figure 1)*
Instructions — Wall & Slab: Select Wall & Slab Insulation; Depth: Select nearest slab depth
Wall U-Factor X Area UA: No Selection — --
Slab F-Factor X Length UA: -- — --

Slab on Grade *(see Figure 1)*
Instructions — Select R-Value
F-Factor X Length UA: No selection — --

Location of Ducts
Instructions — Unconditioned Space
Duct Leakage Coefficient: 1.100

Sum of UA	297.73	
Envelope Heat Load *Sum of UA x ΔT*	13,398	Btu / Hour
Air Leakage Heat Load *Volume x 0.6 x ΔT x 0.018*	7,453	Btu / Hour
Building Design Heat Load *Air leakage + envelope heat loss*	20,851	Btu / Hour
Building and Duct Heat Load *Ducts in unconditioned space: sum of building heat loss x 1.10; Ducts in conditioned space: sum of building heat loss x 1*	22,936	Btu / Hour
Maximum Heat Equipment Output *Building and duct heat loss x 1.40 for forced air furnace; Building and duct heat loss x 1.25 for heat pump*	32,111	Btu / Hour

Figure 1.



(07/01/13)

Window, Skylight and Door Schedule

Project Information	*Contact Information*
4040 Addition	Mei Yang
4040 97th Ave SE	meiyang173@gmail.com
Mercer Island, WA	

	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
Exempt Swinging Door (24 sq. ft. max.)								0.0	0.00
Exempt Glazed Fenestration (15 sq. ft. max.)								0.0	0.00

Vertical Fenestration (Windows and doors)

Component Description	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
Window	A	0.25	4	6	0	7	0	168.0	42.00
Window	B	0.25	1	6	0	8	0	48.0	12.00
Window	C	0.25	1	6	0	4	0	24.0	6.00
Window	D	0.25	2	4	0	2	0	16.0	4.00
Window	E	0.25	1	6	0	2	0	12.0	3.00
Window	F	0.25	4	6	0	2	0	48.0	12.00
Window	G	0.25	5	3	0	5	0	75.0	18.75
Window	H	0.25	3	6	0	5	0	90.0	22.50
Window	I	0.25	1	2	0	2	0	4.0	1.00
Window	J	0.25	2	3	0	7	0	42.0	10.50
Window	K	0.25	1	4	0	5	0	20.0	5.00
Window	L	0.25	1	4	0	2	0	8.0	2.00
Window	M	0.25	1	2	0	5	0	10.0	2.50
Window	N	0.25	1	5	0	4	0	20.0	5.00
Entry Door		0.25	1	6	0	8	0	48.0	12.00
Door to Garage		0.25	1	3	0	8	0	24.0	6.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00

	Area	UA
Sum of Vertical Fenestration Area and UA	657.0	164.25
Vertical Fenestration Area Weighted U = UA/Area		0.25

Overhead Glazing (Skylights)

Component Description	Ref.	U-factor	Qt.	Width Feet	Inch	Height Feet	Inch	Area	UA
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00
								0.0	0.00

	Area	UA
Sum of Overhead Glazing Area and UA	0.0	0.00
Overhead Glazing Area Weighted U = UA/Area		0.00
***Total Sum of Fenestration Area and UA** (for heating system sizing calculations)*	657.0	164.25

WASHINGTON STATE UNIVERSITY Energy Program

Permit#			
Address or Lot & Block			
4040 97TH AVE SE, MERCER ISLAND 98040			
City		Zip	

These requirements apply to all the IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Instructions: This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

Authorized Representative Signature		*Date*	

All Climate Zones Table 402.1.3		
	R-Value [a]	U-Factor [a]
Fenestration U-Factor [b,j]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Ceiling [e]	60	n/a
Wood Frame Wall [g,i]	20+5 or 13+10	n/a
Floor	30	n/a
Below Grade Wall [c,h]	10/15/21 int + 5TB	n/a
Slab [d,f] R-Value & Depth	10, 4 ft	n/a

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 Section 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 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 insulation 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.

Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

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 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, #3 or #4.
3. Large Dwelling Unit: ....**9.0 credits**
   Dwelling units exceeding 5000 square feet of conditioned floor area.
4. Dwelling units serving Group R-2 occupancies: .... **6.5 credits**
   Section R401.1 and residential building Section R202 for Group R-2.
5. Additions 150 square feet to 500 square feet: .... **2.0 credits**

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Table R406.2 ENERGY EQUALIZATION CREDITS			
System Type	**Description of Primary Heating Source**	**Credits - select ONE system type**	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	○
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	1.5	○
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	○
4[c]	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0	◉
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	○

a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
c. Additional points for the HVAC system are included in Table R406.3.

Summary of Table R406.3				
Options	*Energy Credit Option Descriptions*	*Credits – limited to one energy option from each category [d]*		*Comments:*
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[a]	High Efficiency HVAC	1.0	○	
3.2[a]	High Efficiency HVAC	0.5	○	
3.3[a,c,d]	High Efficiency HVAC	0.5	○	
3.4[a,d]	High Efficiency HVAC	1.5	○	
3.5[d]	High Efficiency HVAC	1.5	○	
3.6[a]	High Efficiency HVAC	1.0	◉	
3.7[a,d,e]	High Efficiency HVAC	2.0	○	
3.8[a,d]	High Efficiency HVAC	1.0	○	
3.9[c]	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[d]	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[e]	Renewable Electric Energy (4.5 credits max)	0.5-4.5	0.0	
7.1	Appliance Package	0.5	☑	
		Total Credits	8.0	Calculate Total

a. An alternative heating source sized at a maximum of 0.5 Watts/ft2 (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a **1**-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
f Option 3.11 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

4040 ADDITION
4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ DESIGN
425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

ENERGY FORM

SHEET NUMBER
A1.2

PLAN NOTES:

PROVIDE COMBINED SMOKE/CO DETECTOR OUTSIDE EACH SLEEPING ROOM & ON EACH LEVEL - 110V W/ BATTERY BACKUP.

PROVIDE SMOKE DETECTOR @ EACH SLEEPING ROOM - 110V W/ BATTERY BACKUP.

ALL EXTERIOR DOORS TO BE EQUIPPED WITH DEAD BOLT OR DEAD LATCH WITH MIN. 1/2" THROW. ALL WINDOWS WITHIN 10' OF GRADE TO BE CAPABLE OF LOCKING. ALL DOORS MUST BE OPERABLE FROM INSIDE WITHOUT KEY OR SPECIAL KNOWLEDGE OR EFFORT. LEVER ACTION HANDLES ALL DOORS.

ALL TILE SHOWER/BATH WALLS TO BE SHEATHED W/ FULL HEIGHT (72" MIN.) 5/8" CONCRETE BACKER BOARD. ALL KITCHEN AND BATH GWB TO BE WATER RESISTANT TO CEILING.

STAIR SHALL COMPLY WITH SRC R311.7, WITH MAXIMUM RISER 7 3/4" RISER, MIN 10" TREAD. NOSING SHALL BE BETWEEN 3/4" TO 1 1/4" DEEP.

STAIR SHALL BE MINIMUM 36" WIDE CLEAR.

HANDRAIL SHALL BE MOUNTED ON AT LEAST ONE SIDE BETWEEN 34-38" ABOVE TREAD NOSING AND SHALL PROJECT NO MORE THAN 1-1/2" INTO STAIR. GRASP DIMENSION BETWEEN 1-1/4" - 2". PROVIDE CONTINUOUS HANDRAIL OR TERMINATE AT NEWEL POSTS OR SAFETY TERMINAL.

DIMENSIONS SHOWN AT DOOR AND WINDOW OPENINGS ARE ACTUAL SIZE. CONTRACTOR TO PROVIDE ROUGH OPENING AS REQUIRED.

ALL VENTS ON FACADE TO BE LOCATED MINIMUM 3'-0" FROM OPERABLE OPENINGS.

THE MINIMUM GUARDRAIL HEIGHT FOR DECKS AND STAIRS SHALL BE 36" A.F.F. (IRC R312.1.2) DESIGNED TO RESIST A 200 LB CONCENTRATED LOAD ON THE TOP RAIL AND 50 PSF ON ALL GUARDRAIL INFILL COMPONENTS.

IRC R312.1.3 REQUIRED GUARDS SHALL NOT HAVE OPENINGS FROM THE WALKING SURFACE TO THE REQUIRED GUARD HEIGHT WHICH ALLOW PASSAGE OF A SPHERE 4 INCHES IN DIAMETER

IRC R301.5.H
IF GLAZING IS USED IN HANDRAIL ASSEMBLIES IT SHALL MEET A SAFETY FACTOR OF 4.

* E DENOTES EGRESS WINDOW
* SG DENOTES SAFETY GLAZING

WHOLE HOUSE FAN VENTILATION CALCULATIONS:

WHOLE HOUSE VENTILATION SHALL BE ACCOMPLISHED USING EXHAUST SYSTEM PER M1505.4.1.2

PER IRC M1505.4.3 FOR CONTINUOUS WHOLE HOUSE FAN OPERATION:

PER TABLE M1505.4.3(1) VENTILATION AIRFLOW RATE REQUIREMENTS:
UNIT CONTAINS 5+ BEDROOMS & FLOOR AREA 3,501-4,000 SF = 85 CFM

M1505.4.3.1 VENTILATION QUALITY ADJUSTMENT
SYSTEM COEFFICIENT PER TABLE M1505.4.3(2):
SYSTEM TYPE IS NOT DISTRIBUTED & NOT BALANCED = 1.5

ADJUSTED AIRFLOW RATE
85 X 1.5 = 127.5 CFM

FOR SYSTEMS DESIGNED TO OPERATE AT LEAST TWO HOURS IN EACH 4-HOUR SEGMENT, VENTILATION RATE FACTOR OF 2, IRC M1505.4.3.2. AND TABLE M1505.4.3(3)

TOTAL AIR FLOW RATE:
5+ BEDROOMS - 127.5 X 2 = 255 CFM REQUIRED

TOTAL REQUIRED AIRFLOW RATE = 127.5 (OR 255) CFM

MIN. LOCAL EXHAUST RATES PER TABLE M1505.4.4(1):
KITCHEN FANS: 100 CFM INTERMITTENT / 30 CFM CONTINUOUS
BATHROOM / TOILET ROOMS: 50 CFM INTERMITTENT / 20 CFM CONTINUOUS

L1 BATH1 EXHAUST FAN = 50 CFM MIN.
L1 BATH2 EXHAUST FAN = 50 CFM MIN.
L1 POWDER ROOM EXHAUST FAN = 50 CFM MIN.
L1 KITCHEN EXHAUST FAN = 100 CFM MIN.

L2 LAUNDRY EXHAUST FAN = 50 CFM MIN.
L2 BATH3 EXHAUST FAN = 50 CFM MIN.
L2 MASTER BATHROOM EXHAUST FAN = 50 CFM MIN.
L2 MASTER TOILET ROOM EXHAUST FAN = 50 CFM MIN.

TOTAL PROVIDED = 450 CFM

PER SRC (OR IRC) M1505.4 - EACH DWELLING UNIT SHALL BE EQUIPPED WITH A VENTILATION SYSTEM. THE WHOLE HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH M1505.4.1 THROUGH M1505.4.4.

WHOLE HOUSE VENTILATION SYSTEMS SHALL BE CONFIGURED TO OPERATE CONTINUOUSLY EXCEPT WHERE
INTERMITTENT OFF CONTROLS AND SIZING ARE PROVIDED PER SECTION M1505.4.3.2.

WHOLE HOUSE VENTILATION FANS SHALL BE RATED FOR SOUND AT NO LESS THAN THE MIN. AIRFLOW RATE PER SECTION M1505.4.3.1 AT A MAXIMUM OF 1.0 SONE. REMOTE MOUNTED FANS ARE EXEMPT FROM SOUND REQUIREMENTS IF 1) MOUNTED OUTSIDE THE HABITABLE SPACES, BATHROOMS, TOILETS, AND HALLWAYS; 2) THERE MUST BE AT LEAST 4 FEET OF DUCTWORK BETWEEN THE FAN AND THE INTAKE GRILLE. (M1505.4.1.1)

DUCTS OUTSIDE THE BUILDING THERMAL ENVELOPE SHALL BE INSULATED TO A MINIMUM OF R-8 - WSEC (OR SEC) R403.3.1

DUCTS ARE TO BE LEAK TESTED IN ACCORDANCE WITH WSEC (OR SEC) R403.3.3 AND WSU RS-33. DUCT LEAKAGE TEST RESULTS SHALL BE PROVIDED TO THE BUILDING INSPECTOR AND HOMEOWNER PRIOR TO AN APPROVED FINAL INSPECTION

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

WSEC R401.3 PROVIDE A PERMANENT CERTIFICATE COMPLETED & LOCATED W/IN 3FT. OF THE ELEC. DISTRIBUTION PANEL TO BE DONE BY CONTRACTOR. DO NOT OBSTRUCT VISIBILITY OF DIRECTORY OR ANY LABELS. LIST ALL R/U-VALUES OF THERMAL BUILDING ENVELOPE, INCLUDING DOORS & WINDOWS, AS WELL AS HEATING SYSTEM AND EFFICIENCIES.

WSEC R402.4 ALL UNITS SHALL BE TESTED & VERIFIED FOR AIR LEAKAGE OF NO MORE THAN **5.0** AIR CHANGES PER HOUR BY A BLOWER DOOR TEST AT 0.2 IN. W.G. A REPORT SHALL BE PROVIDED TO THE CODE OFFICIAL. TESTING TO BE DONE BY THIRD PARTY IF REQUIRED BY CODE OFFICIAL.

WSEC R404.1 A MIN OF 90% OF PERMANENT LAMPS IN FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.

WSEC R403.1 AT LEAST ONE THERMOSTAT SHALL BE PROVIDED FOR EACH SEPARATE HEATING AND COOLING SYSTEM

WSEC R403.4.2 HOT WATER PIPES ARE REQUIRED TO BE INSULATED OF R-4

SREC TABLE 402.1.1 - ALL WINDOW AND DOOR HEADERS TO BE INSULATED WITH A MINIMUM OF R-10 INSULATION

8 ENERGY CRENERGY REQUIREMENTS (PERSPECTIVE):
EDITS AS SELECTED AND LISTED BELOW:

4. PRIMARY HEATING SOURCE : 3.0 CREDIT
FOR HEATING SYSTEM USING A HEAT PUMP THAT MEETS FEDERAL STANDARDS FOR THE EQUIPMENT LISTED IN TABLE C403.3.2(2) OR C403.3.2(9)
OR AIR TO WATER HEAT PUMP UNITS THAT ARE CONFIGURED TO PROVIDE BOTH HEATING AND COOLING AND ARE RATED IN ACCORDANCE WITH AHRI 550/590

1.2 EFFICIENT BUILDING ENVELOPE: 1.0 CREDIT
PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.3 WITH THE FOLLOWING MODIFICATIONS:
VERTICAL FENESTRATION U = 0.25
FLOORR-38
SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

3.6 HIGH EFFICIENCY HVAC EQUIPMENT: 1.0 CREDIT
AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF 2 OF 9.4 (HSPF OF 11.0).
A CENTRALLY DUCTED AIR SOURCE COLD CLIMATE VARIABLE CAPACITY HEAT PUMP (CC VCHP) FOUND ON THE NEEP CC VCHP QUALIFIED PRODUCT LIST WITH A MINIMUM OF 9 HSPF 2 (10 HSPF) MAY BE USED TO SATISFY THIS REQUIREMENT.

5.7 EFFICIENT WATER HEATING: 2.5 CREDIT
WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:
ELECTRIC HEAT PUMP WATER HEATER WITH A MINIMUM UEF OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4, REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE

7.1 APPLIANCE PACKAGE OPTION : 0.5 CREDIT
ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS:
1. DISHWASHER, STANDARD - ENERGY STAR RATED, MOST EFFICIENT 2021 OR DISHWASHER, COMPACT - ENERGY STAR RATED (VERSION 6.0)
2. REFRIGERATOR (IF PROVIDED) - ENERGY STAR RATED (VERSION 5.1)
3. WASHING MACHINE (RESIDENTIAL) - ENERGY STAR RATED (VERSION 8.1)
4. DRYER - ENERGY STAR RATED, MOST EFFICIENT 2022

WHOLE HOUSE VENTILATION SYSTEM CONTROLS:
THE WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM SHALL BE PROVIDED WITH CONTROLS THAT ENABLE MANUAL OVERRIDE. CONTROLS SHALL INCLUDE TEXT OR A SYMBOL INDICATING THEIR FUNCTION.. IRC M1505.4.2

FIREBLOCKING SHALL BE PROVIDED IN WOOD-FRAME CONSTRUCTION IN THE FOLLOWING LOCATIONS:

1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES AND PARALLEL ROWS OF STUDS OR STAGGERED STUDS, AS FOLLOWS:
1.1. VERTICALLY AT THE CEILING AND FLOOR LEVELS.
1.2. HORIZONTALLY AT INTERVALS NOT EXCEEDING 10 FEET (3048 MM).

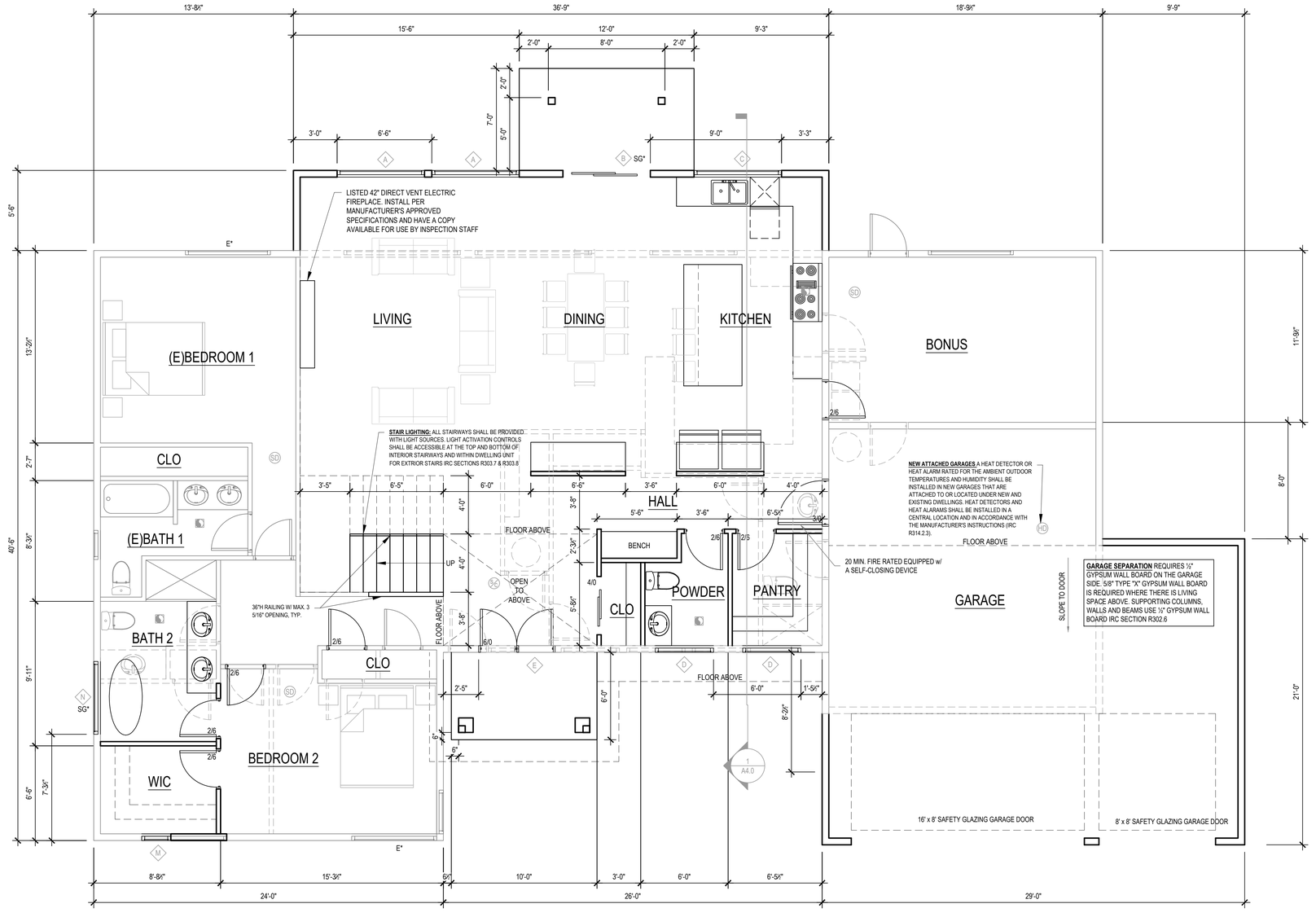
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.

3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN. ENCLOSED SPACES UNDER STAIRS SHALL COMPLY WITH SECTION R302.7.

4. AT OPENINGS AROUND VENTS, PIPES, DUCTS, CABLES AND WIRES AT CEILING AND FLOOR LEVEL, WITH AN *APPROVED* MATERIAL TO RESIST THE FREE PASSAGE OF FLAME AND PRODUCTS OF COMBUSTION. THE MATERIAL FILLING THIS ANNULAR SPACE SHALL NOT BE REQUIRED TO MEET THE ASTM E 136 REQUIREMENTS.

SYMBOL

- EXHAUST VENT
- SMOKE DETECTOR
- SMOKE/CO1 ALARM
- NEW WALL
- EXIST WALL
- DEMO WALL



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

N

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN
425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

MAIN FLOOR PLAN

SHEET NUMBER

A2.0

ROOF VENTILATION

ATTIC AREA = 1592 S.F.
REQUIRED VENTILATION = 1592 / 300 = 5.30 S.F. (763 IN²)

PROPOSED EAVE VENT ((3) ø1-3/4" HOLES ON EA. EAVE BLOCKING): 3.6 IN² / L.F. x 181' = 652 IN² (SEE SHEET A5 FOR EAVE BLOCKING)

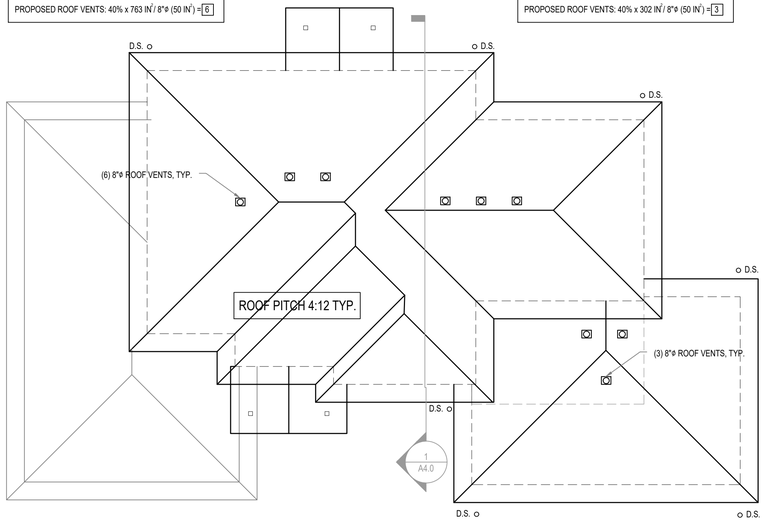
PROPOSED ROOF VENTS: 40% x 763 IN² / 8"ø (50 IN²) = 6

LOWER ROOF VENTILATION

ATTIC AREA = 630 S.F.
REQUIRED VENTILATION = 630 / 300 = 2.10 S.F. (302 IN²)

PROPOSED EAVE VENT ((3) ø1-3/4" HOLES ON EA. EAVE BLOCKING): 3.6 IN² / L.F. x 73' = 263 IN² (SEE SHEET A5 FOR EAVE BLOCKING)

PROPOSED ROOF VENTS: 40% x 302 IN² / 8"ø (50 IN²) = 3



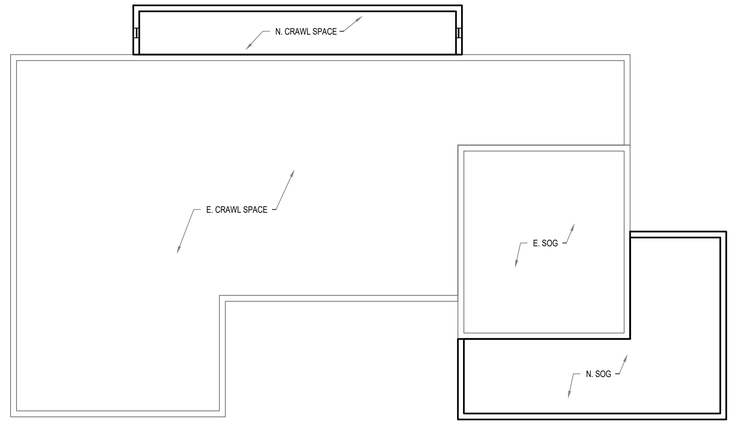
2 ROOF PLAN
1/8" = 1'-0"

CRAWL SPACE VENTILATION

TYPICAL SCREENED 14"x 8" C.S. VENT - MIN. w/ .58 SQ. FT. OF NET FREE AREA EACH

CRAWL SPACE = 202 S.F.
--> 202 / 150 = 1.34
--> 1.34 / 0 .58 = 2 VENTS REQUIRED

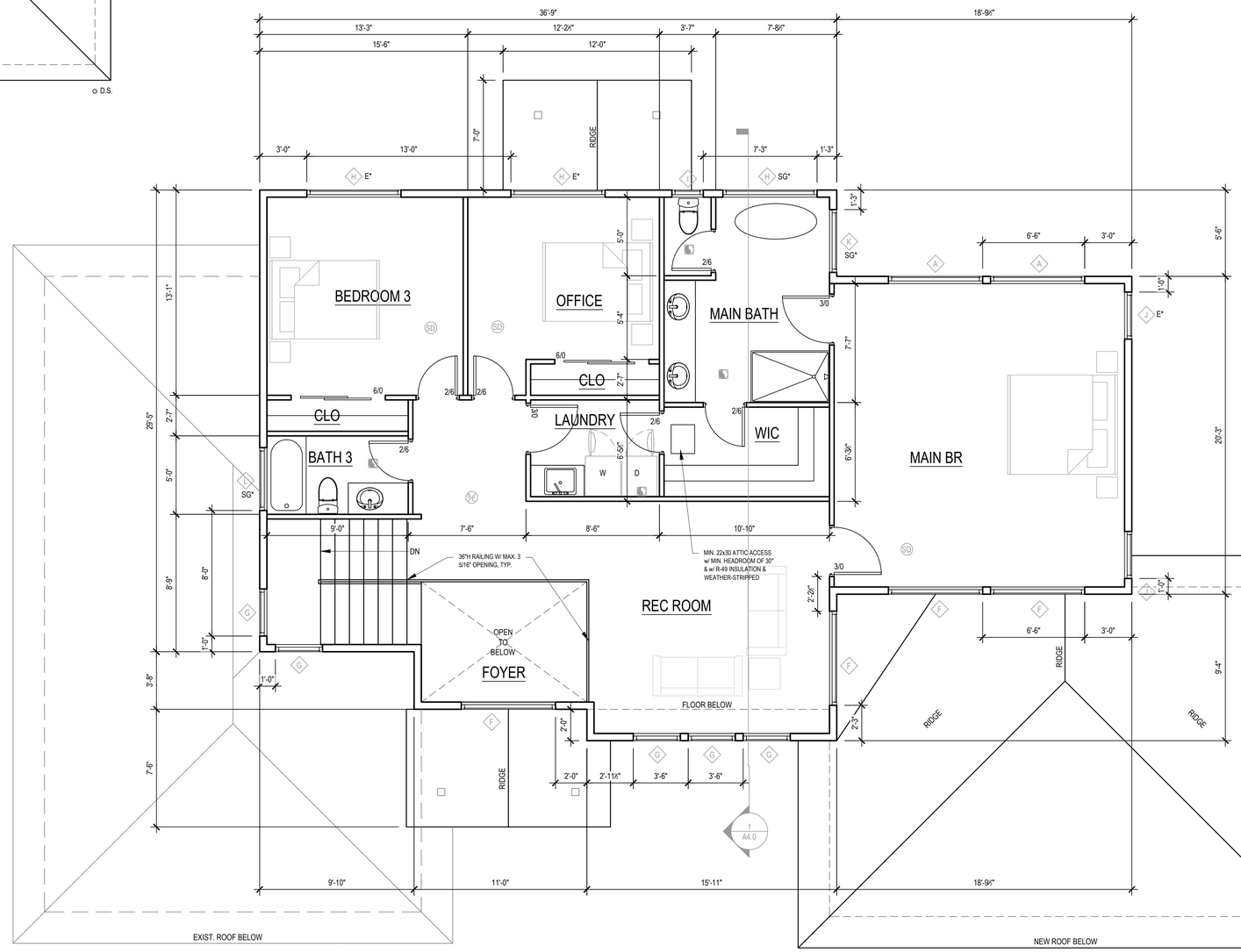
NOTE: LOCATE VENTS BETWEEN JOISTS AND AVOID CONFLICT W/ HOLDOWNS



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

SYMBOL

EXHAUST VENT
SMOKE DETECTOR
SMOKE/CO1 ALARM
NEW WALL
EXIST WALL
DEMO WALL



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

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN

425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

UPPER FLOOR PLAN
ROOF PLAN
CRAWL SPACE PLAN

SHEET NUMBER

A2.1

EXTERIOR FINISH SCHEDULE

1, FACSIA
2, COMPOSITE ROOFING
3, FIBER CEMENT SIDING
4, VINYL WINDOW
5, STONE VENEER
6, CONCRETE
7, EXISTING STRUCTURE

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

2 EAST ELEVATION
1/4" = 1'-0"

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN

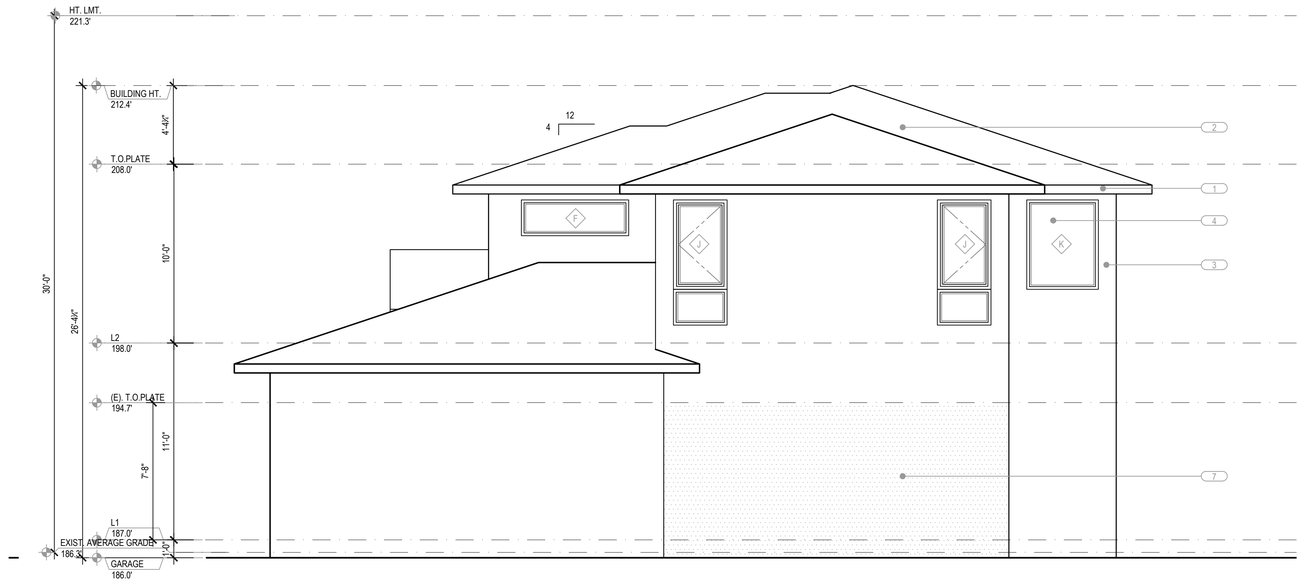
425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

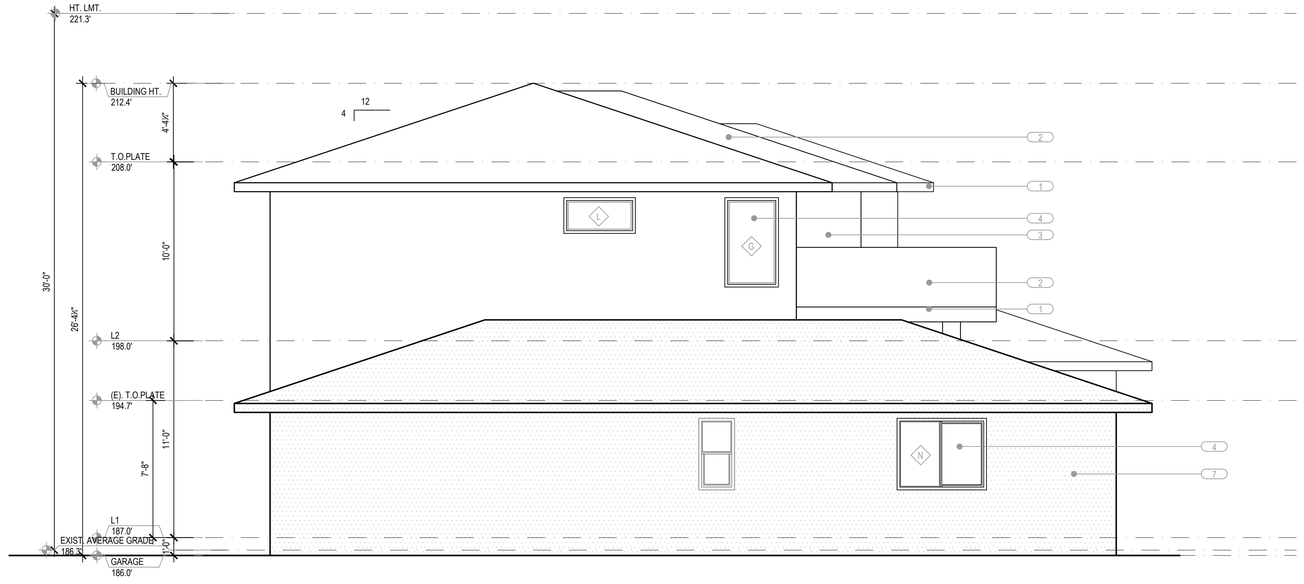
ELEVATIONS

SHEET NUMBER

A3.0



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



2 NORTH ELEVATION
1/4" = 1'-0"

EXTERIOR FINISH SCHEDULE
1, FACSIA
2, COMPOSITE ROOFING
3, FIBER CEMENT SIDING
4, VINYL WINDOW
5, STONE VENEER
6, CONCRETE
7, EXISTING STRUCTURE

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

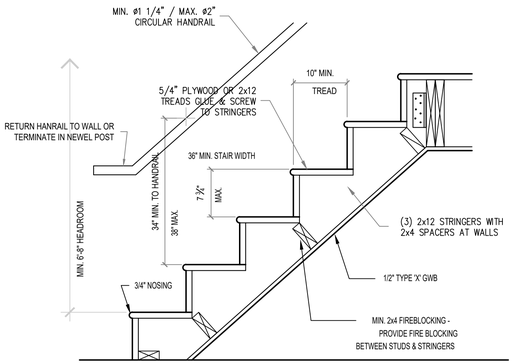
MJZ
DESIGN

425.922.5926
mjz.design.wa@gmail.com

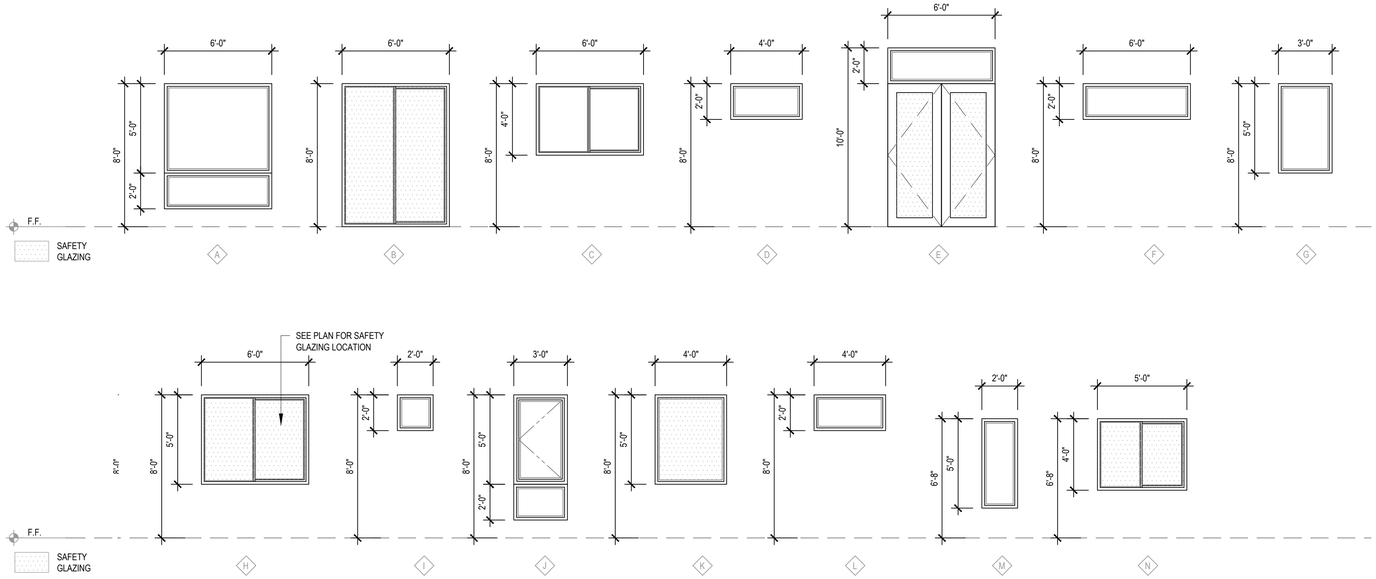
NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

ELEVATIONS

SHEET NUMBER
A3.1



4 TYP. STAIR DETAIL
1" = 1'-0"

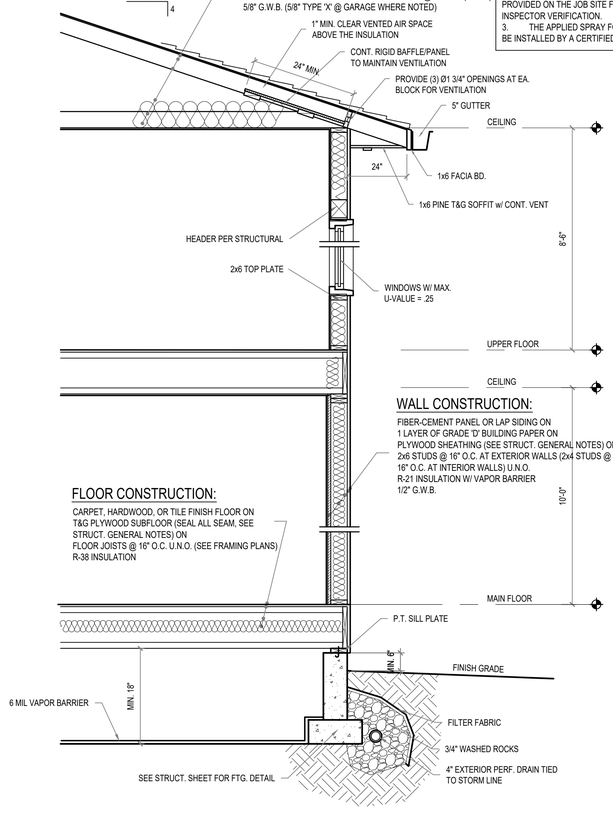


2 WINDOW TYPES
1/4" = 1'-0"

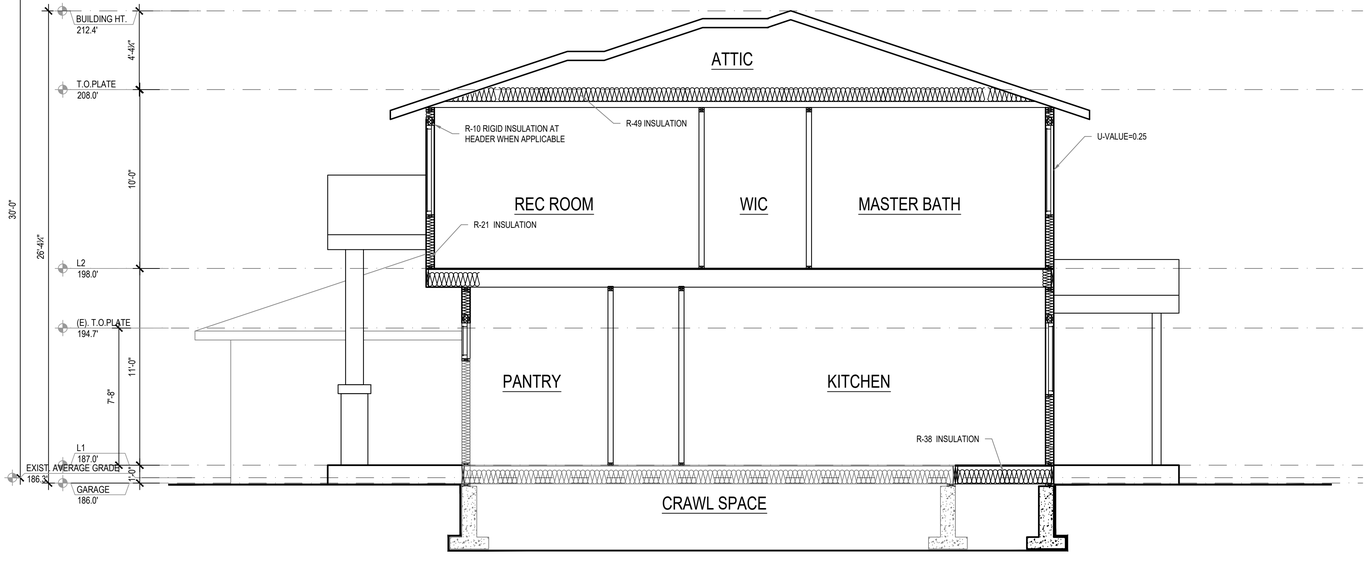
ROOF CONSTRUCTION:

30-YR COMPOSITION ROOFING ON
30# FELT ON
PLYWOOD ROOF SHEATHING ON
2x RAFTER OR TRUSS TOP CHORDS @ 24" O.C.
R-49 INSULATION W/ VAPOR BARRIER
2x CEILING JOISTS OR TRUSS BOTTOM CHORDS @ 24" O.C. (U.N.O.)
5/8" G.W.B. (5/8" TYPE 'X' @ GARAGE WHERE NOTED)

1. CLOSED-CELL SPRAY FOAM INSULATION DESIGN BASES IS BAYSEAL-- PER ICC-ES REPORT ESR 2072 PRODUCT MEETS CLASS II VAPOR RETARDER AND IS AIR-PERMEABLE
2. A COPY OF THE ICC ESR REPORT FOR THE PRODUCT USED MUST BE PROVIDED ON THE JOB SITE FOR FIELD INSPECTOR VERIFICATION.
3. THE APPLIED SPRAY FOAM MUST BE INSTALLED BY A CERTIFIED INSTALLER



3 TYP. WALL SECTION
1/2" = 1'-0"



1 SECTION
1/4" = 1'-0"

4040 ADDITION

4040 97TH AVE SE
MERCER ISLAND WA 98040

MJZ
DESIGN

425.922.5926
mjz.design.wa@gmail.com

NO.	DATE	DESCRIPTION OF REVISIONS
	06/10/2024	PERMIT SET

ELEVATIONS
SECTION
DETAILS

SHEET NUMBER

A4.0

GENERAL STRUCTURAL NOTES

(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS.)

A. GENERAL

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION, AS AMENDED BY LOCAL JURISDICTION.

2. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM HIS WORK. STRUCTURAL DESIGN OF THE BUILDING IS BASED ON RESISTANCE TO DEAD LOADS, CODE SPECIFIED LATERAL LOADS, AND MAXIMUM EXPECTED SERVICE LOADS. NO CONSIDERATION HAS BEEN GIVEN TO LOADS WHICH WILL BE INDUCED BY ERECTION PROCEDURES. THE CONTRACTOR SHALL VERIFY, TO THE SATISFACTION OF HIMSELF AND THE OWNER, THE ABILITY OF THE STRUCTURE TO RESIST ALL ERECTION LOADS WITHOUT EXCEEDING THE ALLOWABLE STRESSES OF THE MATERIALS USED. WHERE ERECTION LOADS WOULD OVERSTRESS THE STRUCTURE, THE CONTRACTOR SHALL SUBMIT DESIGN DOCUMENTS FOR TEMPORARY BRACING AND STRENGTHENING, INCLUDING FABRICATION AND ERECTION DRAWINGS, TO THE ARCHITECT FOR REVIEW. THESE DOCUMENTS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF WASHINGTON. THE CONTRACTOR SHALL PROVIDE, INSTALL AND IF NECESSARY, REMOVE SUCH TEMPORARY WORK AS REQUIRED.

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

5. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED, BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

6. 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.

7. INSPECTIONS: INSPECTIONS OF THE WOOD FRAMING, THE STEEL REBAR AND WOOD FORMS FOR CONCRETE FOOTINGS & FOUNDATIONS, AND CONCRETE SLABS ARE REQUIRED PER IBC SECTION 109.3.

8. PRE-MANUFACTURED, PRE-ENGINEERED STRUCTURAL COMPONENTS SHALL BE DESIGNED BASED ON THE CRITERIA PRESENTED IN THE CONTRACT DOCUMENTS. THE COMPONENT DESIGNER IS RESPONSIBLE FOR CODE CONFORMANCE, TEMPORARY AND PERMANENT BRACING AND ALL NECESSARY CONNECTIONS, INCLUDING CONNECTIONS TO THE PRIMARY STRUCTURE, NOT SPECIFICALLY CALLED OUT ON THE ARCHITECTURAL OR STRUCTURAL DRAWINGS. SHOP DRAWINGS SHALL INDICATE THE MAGNITUDE AND DIRECTION OF ALL LOADS IMPOSED ON THE PRIMARY STRUCTURE. SHOP DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED AS NOTED PREVIOUSLY.

B. DESIGN CRITERIA

1. DESIGN LOADS

- ROOF SNOW LOAD	25 PSF
- RESIDENTIAL FLOOR LIVE LOAD	40 PSF
- BEDROOM FLOOR LIVE LOAD	30 PSF
- EXTERIOR BALCONY & DECK LIVE LOAD	60 PSF
- WIND (IBC)	110 MPH (LRFD) EXPOSURE B, Kzt = 1.3
- EARTHQUAKE (ASCE7)	SITE CLASS D SEISMIC USE GROUP 1 (Ie = 1.0) SEISMIC DESIGN CATEGORY D Ss = 1.405 g, S1 = 0.489 g Sds = 1.124 g EQUIVALENT LATERAL FORCE PROCEDURE

- ALLOWABLE SOIL PRESSURE	1500 PSF AT 1'-6" DEPTH
- ALLOWABLE LATERAL PRESSURE	50 PCF / 35 PCF (RESTRAINED / UNRESTRAINED)
- ALLOWABLE PASSIVE PRESSURE	300 PCF (F.S. OF 1.5 INCLUDED)
- COEFFICIENT OF FRICTION	0.4 (F.S. OF 1.5 INLCUDED)
- TRAFFIC SURCHARGE PRESSURE	70 PSF (AS APPLICABLE)
- SEISMIC SURCHARGE PRESSURE	7H PSF (AS APPLICABLE)

FOUNDATION NOTES: ALLOWABLE SOIL PRESSURE AND LATERAL EARTH PRESSURE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY A QUALIFIED SOILS ENGINEER OR APPROVED BY THE BUILDING OFFICIAL. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED, NOTIFY THE E.O.R. FOR POSSIBLE FOUNDATION REDESIGN.

2. LATERAL FORCE RESISTANCE SYSTEM
LIGHT-FRAMED WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS, R = 6.5

C. FOUNDATION

1. FOUNDATION EXCAVATION, BACKFILL AND COMPACTION SHALL CONFORM TO SPECIFICATION REQUIREMENTS. THIS CONSTRUCTION WORK, INCLUDING DRAINAGE, SHORING AND SUCH OTHER RELATED WORK AS REQUIRED, SHALL BE CONDUCTED BY THE CONTRACTOR UNDER THE OBSERVATION AND DIRECTION OF THE GEOTECHNICAL ENGINEER.

2. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. MATERIAL TO BE COMPACTED TO 95% MINIMUM OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557.

3. FOOTINGS MAY BE POURED IN NEAT EXCAVATIONS PROVIDED SIZE IS INCREASED 3" AT EACH INTERFACE WITH SOIL.

4. ALL FOOTING EXCAVATIONS SHALL BE HAND CLEANED PRIOR TO PLACING CONCRETE.

5. ALL ABANDONED FOOTINGS, UTILITIES, ETC. THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

6. CONTRACTOR SHALL PROVIDE FOR DESIGN AND INSTALLATION OF ALL CRIBBING, SHEATHING, AND SHORING REQUIRED TO SAFELY RETAIN EXCAVATIONS.

7. BACKFILL BEHIND ALL WALLS WITH WELL DRAINING, GRANULAR FILL MATERIAL, AND PROVIDE PERFORATED PIPE DRAINS AS DESCRIBED IN THE SOILS REPORT. BACKFILL BEHIND WALLS SHALL NOT BE PLACED BEFORE THE WALL IS PROPERLY SUPPORTED BY THE FLOOR SLAB, OR TEMPORARY BRACING. ALL FOOTINGS SHALL BE CENTERED BELOW CENTERLINE OF COLUMNS OR WALLS ABOVE, UNLESS NOTED OTHERWISE.

D. CONCRETE

1. ULTIMATE STRENGTH DESIGN PER INTERNATIONAL BUILDING CODE AND ACI 318-14

2. CONCRETE FOR FOOTINGS AND SLABS-ON-GRADE SHALL CONFORM TO A 28- DAY STRENGTH OF f'c = 2500 PSI, SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD, AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. CONCRETE EXPOSED TO EARTH OR WEATHER SHALL HAVE A 28-DAY STRENGTH OF f'c = 3000 psi. THE MINIMUM AMOUNTS OF CEMENT AND MAXIMUM AMOUNTS OF WATER MAY BE CHANGED IF A CONCRETE DESIGN MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING OFFICIAL FOR APPROVAL TWO WEEKS PRIOR TO PLACEMENT OF CONCRETE. THE CONCRETE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATES, WATER AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318, SECTION 5.3. CONTRACTOR MAINTAINS RESPONSIBILITY FOR SPECIFIED PERFORMANCE OF CONCRETE PRODUCTS. ALL CONCRETE EXPOSED TO FREEZING TEMPERATURES WHILE CURING AND ALL CONCRETE PERMANENTLY EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO IBC SECTION 1904.2. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE INTERNATIONAL BUILDING CODE. NO ADMIXTURES, OTHER THAN FOR AIR-ENTRAINMENT AS NOTED ABOVE, SHALL BE USED WITHOUT PRIOR REVIEW BY THE STRUCTURAL ENGINEER. ALL CONCRETE IN ELEVATED STRUCTURAL SLABS AND BEAMS SHALL BE POURED MONOLITHICALLY UNLESS SHOWN OTHERWISE OR APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.

3. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY NOTED ON THE DRAWINGS AS GRADE 40, fy = 40,000 PSI. WELDED WIRE FABRIC: ASTM A82 AND ASTM A185, SPLICE WITH AT LEAST ONE FULL MESH. PLACE AT MID-DEPTH, OR SLIGHTLY ABOVE, OF SLAB. MATERIAL TO BE SUPPLIED IN FLAT SHEETS.

4. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315-18. LAP ALL CONTINUOUS REINFORCEMENT PER NOTE D.5. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS. LAP CORNER BARS PER NOTE D.5. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

5. REINFORCING STEEL LAPS AND EMBEDMENT SHALL BE AS NOTED BELOW, UNLESS NOTED OTHERWISE, ALL HOOKS SHALL BE "STANDARD" IN ACCORDANCE WITH ACI 318. REINFORCING SHALL NOT BE TACK WELDED:

- DEVELOPMENT LENGTH	48 BAR DIAM.
- DEVELOPMENT LENGTH, top bar*	64 BAR DIAM.
- LAP SPLICE LENGTH	64 BAR DIAM.
- LAP SPLICE LENGTH, top bar*	80 BAR DIAM.

*TOP BARS ARE HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

6. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

- FOOTING AND OTHER UNFORMED SURFACE, EARTH FACE	3"
- FORMED SURFACE EXPOSED TO EARTH (i.e. WALL BELOW GROUND) OR WEATHER	2"
- SLAB AND WALL (INTERIOR FACE)	1-1/2"
- CONCRETE NOT EXPOSED TO WEATHER OR EARTH	3/4"
- PRIMARY REINFORCEMENT, TIES, STIRRUP, SPIRALS	1-1/2"

7. CONCRETE WALL REINFORCING - PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

- 6" WALLS #4 @ 16" HORIZ. #4 @ 18" VERTICAL 1 CURTAIN @ CENTER
- 8" WALLS #5 @ 18" HORIZ. #5 @ 18" VERTICAL 1 CURTAIN @ CENTER

8. EPOXY GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH SIMPSON SET-XP ADHESIVE BY SIMPSON STRONG TIE, PER ESR-2508, FOLLOWING MANUFACTURER'S INSTALLATION INSTRUCTIONS.

E. CARPENTRY

1. GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI STANDARD A190.1. EACH MEMBER SHALL BEAR AN AITC OR APA EWS IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC OR APA EWS CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, Fb = 2,400 PSI, Fv = 240 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, Fb = 2400 PSI, Fv = 265 PSI. CAMBER ALL GLULAM BEAMS TO 2,000' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS.

2. FRAMING LUMBER SHALL BE GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER, LATEST EDITION. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

MEMBER	SIZE	SPECIES GRADE	MIN. BASIC DESIGN STRESS
- JOISTS AND RAFTERS	2x, 3x	DF#2	Fb = 875 PSI
- BEAMS AND STRINGERS	4x	DF#1	Fb = 1000 PSI
	6x/LARGER	DF#1	Fb = 1350 PSI
- POSTS AND TIMBERS	4x	DF#2	Fc = 1350 PSI
	6x/LARGER	DF#1	Fc = 1000 PSI
- TOP AND BOTTOM PLATE @ SHEAR AND BEARING WALLS	2x, 3x	DF#1	Fb = 1000 PSI
- STUDS, PLATES & MISC. LIGHT FRAMING	ALL SIZES	DF#2	Fb = 875 PSI

ALL LUMBER WITH A LEAST DIMENSION OF 2" (NOMINAL) SHALL BE STAMPED SURFACE-DRY AND SHALL HAVE A MOISTURE CONTENT WHEN SURFACED AND WHEN INSTALLED OF NOT MORE THAN 19 PERCENT. LUMBER WITH A LEAST DIMENSION OF 4" (NOMINAL) OR GREATER SHALL BE STAMPED SURFACE-GREEN AND AIR-DRIED TO A MOISTURE CONTENT OF NOT MORE THAN 19 PERCENT PRIOR TO ITS USE IN FRAMING THE STRUCTURE.

3. MANUFACTURED LUMBER SHALL BE AS MANUFACTURED BY TRUS JOIST MacMILLAN OR APPROVED EQUAL. REQUESTS FOR APPROVAL AS EQUAL WILL REQUIRE SUBMITTAL OF ICC-ES EVALUATION REPORT EQUIVALENT TO ESR-1387 FOR PARALLEL STRAND LUMBER (PSL), LAMINATED STRAND LUMBER (LSL), AND LAMINATED VENEER LUMBER (LVL). THE MINIMUM ALLOWABLE DESIGN VALUES ARE AS FOLLOWS:

- PSL BEAM (2.0E)	Fb = 2,900 PSI; Fv = 290 PSI; E = 2,200,000 PSI
- LVL BEAM (2.0E)	Fb = 2,600 PSI; Fv = 285 PSI; E = 2,000,000 PSI
- LSL BEAM (1.55E)	Fb = 2,325 PSI; Fv = 310 PSI; E = 1,550,000 PSI
- PSL COLUMN (1.8E)	Fc,perp = 545 PSI; Fc,para = 2,500 PSI; E = 1,800,000 PSI
- LSL COLUMN (1.3E)	Fc,perp = 710 PSI; Fc,para = 1,835 PSI; E = 1,300,000 PSI

4. SHEATHING SHALL BE APA PERFORMANCE RATED PANELS PER APA "PLYWOOD DESIGN SPECIFICATION", INCLUDING APPLICABLE SUPPLEMENTS, UNLESS NOTED OTHERWISE. PLYWOOD PANELS SHALL BE GRADE C-D AND ALSO CONFORM TO DOC PS-1 OR PS-2. ALL PANELS SHALL BE IDENTIFIED AS EXPOSURE 1 UNLESS NOTED OTHERWISE. PANEL RATING TO BE AS FOLLOWS UNLESS NOTED OTHERWISE:

- ROOF	19/32" THICK, 32/16, (OR 5/8" THICK), 32/16
- WALLS	15/32" THICK, 32/16, (OR 1/2" THICK), 24/0
- FLOORS	23/32" (OR 3/4") THICK, TONGUE & GROOVE, 48/24

UNLESS NOTED OTHERWISE ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED WITH 10d NAILS @ 6"oc TO FRAMED PANEL EDGES AND OVER STUD WALLS SHOWN ON PLANS AND @ 12"oc (10"oc AT FLOORS) TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED SHEATHING EDGE CLIPS @ 16"oc AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. TOENAIL BLOCKING TO SUPPORTS WITH 16d NAILS, UNLESS NOTED OTHERWISE.

UNLESS NOTED OTHERWISE ON THE PLANS, WALL SHEATHING MAY BE LAID UP HORIZONTALLY OR VERTICALLY, UNSUPPORTED EDGES SHALL BE BLOCKED AND ALL EDGES SHALL BE NAILED WITH 8d @ 6"oc, NAIL WITH 8d @ 12"oc AT INTERMEDIATE SUPPORTS. NAIL SHEAR WALL SHEATHING TO ALL HOLDOWN STUDS USING EDGE NAIL SPACING WHEN HOLDOWN STUD DOES NOT OCCUR AT PANEL EDGES.

SHEATHING NAILS SHALL BE DRIVEN FLUSH BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING.

5. ALL WOOD PLATES IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE TWO LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., AND CONCRETE OR MASONRY. ALL METAL CONNECTORS TO PRESSURE TREATED LUMBER SHALL BE HOT DIP GALVANIZED, INCLUDING WASHERS, NAILS, SCREWS, AND SIMPSON STRONG-TIE HANGERS, STRAPS, AND PLATES, AND BOLTS LESS THAN 1/2" DIAMETER. FIELD-CUT ENDS, NOTCHES AND DRILLED HOLES OF PRESERVATIVE-TREATED WOOD SHALL BE TREATED IN THE FIELD IN ACCORDANCE WITH AWPA M4.

6. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. WOOD FOR ABOVE GROUND USE EXPOSED TO ALL WEATHER CYCLES SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD EMBEDED IN PERMANENT CONCRETE FOUNDATION SHALL BE TREATED TO AWPA UC4B.

7. NOTATIONS ON DRAWINGS RELATING TO FRAMING CLIPS, JOIST HANGERS AND OTHER CONNECTING DEVICES REFER TO CATALOG NUMBERS OF CONNECTORS MANUFACTURED BY THE SIMPSON STRONG-TIE COMPANY, SAN LEANDRO, CALIFORNIA. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. SUBMIT MANUFACTURER'S CATALOG AND ICC REPORTS TO ARCHITECT AND ENGINEER FOR REVIEW WHEN REQUESTING SUBSTITUTIONS. ALL SPECIFIED FASTENERS MUST BE USED AND PROPER INSTALLATION PROCEDURES MUST BE OBSERVED IN ORDER TO OBTAIN ICC APPROVED LOAD CAPACITIES. VERIFY THAT THE DIMENSIONS OF THE SUPPORTING MEMBER ARE SUFFICIENT TO RECEIVE THE SPECIFIED FASTENERS.

8. STRUCTURAL CONNECTORS

ALL STRUCTURAL CONNECTORS TO BE BY SIMPSON STRONG TIE OR EQUAL. USE ZMAX/HDG HOT DIPPED GALVANIZED OR STAINLESS-STEEL CONNECTORS AS A MINIMUM. USE FASTENERS GALVANIZED PER ASTM A153. ALL PRESSURE TREATED LUMBER USED SHALL BE COMPATIBLE WITH ZMAX GALV. CONNECTORS, RE: SIMPSON STRONG-TIE CORROSION INFORMATION.

9. WOOD TRUSSES

TRUSSES ARE TO BE METAL PLATED CONNECTED WOOD TRUSSES FABRICATED IN ACCORDANCE WITH THE IBC. TRUSS FABRICATOR TO PROVIDE ALL REQUIRED BRIDGING AND BLOCKING, BOTH FOR ERECTION AND PERMANENT LOADING. SHOP DRAWINGS STAMPED BY A WASHINGTON STATE LICENSED PROFESSIONAL ENGINEER SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. DESIGN CRITERIA SHALL MEET OF EXCEED THE FOLLOWING:

- ROOF TRUSSES	TOP CHORD = 25 PSF LIVE LOAD, 10 PSF DEAD LOAD, 5 PSF WIND UPLIFT BOTTOM CHORD = 10 PSF LIVE LOAD, 5 PSF DEAD LOAD (BOTTOM CHORD LIVE LOAD DOES NOT ACT CONCURRENTLY WITH THE ROOF LIVE LOAD) TOTAL LOAD = 40 PSF
- DEFLECTION LIMIT	TOTAL LOAD L/240, LIVE LOAD L/360
- OTHER LOADS SPECIFIED ON DRAWINGS	

TRUSS SUPPLIERS NOTE: THE TRUSS CONFIGURATIONS, INCLUDING DEPTHS AND MEMBER SIZES, SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE LOAD REQUIREMENTS SPECIFIED WITH THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND TRUSS MANUFACTURER TO VERIFY THE WEIGHT AND LOCATIONS OF ALL MECHANICAL EQUIPMENT PRIOR TO SUBMITTING SHOP DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD FOR REVIEW. THE DESIGN LOADS LISTED ABOVE SHALL BE APPLIED SIMULTANEOUSLY.

10. WOOD FRAMING NOTES - THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:

ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.10.1 OF THE INTERNATIONAL BUILDING CODE. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2x4 STUDS @ 16"oc AT INTERIOR WALLS AND 2x6 STUDS @ 16"oc AT EXTERIOR WALLS. 2x6 STUDS @ 12"oc AT EXTERIOR BALLOON FRAMED WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS AND UNDER THE ENDS OF ALL BEAMS. UNLESS NOTED OTHERWISE A (2) 2x8 HEADER SHALL BE PROVIDED OVER ALL OPENINGS IN 2x4 STUD WALLS AND A (2) 2x10 HEADER OVER ALL OPENINGS IN 2x6 WALLS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORT BELOW. PROVIDE CONTINUOUS SOLID BLOCKING AT MID-HEIGHT OF ALL STUD WALLS OVER 8' IN HEIGHT. ALL STUD WALLS SHOWN ON STRUCTURAL DRAWINGS SHALL HAVE THEIR LOWER PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 12"oc STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS AT 4'-0"oc, EMBEDED 7", UNO REFER TO THE STRUCTURAL PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING.

FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE BRIDGING @ 8'-0"oc AND SOLID BLOCKING AT ALL BEARING POINTS. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. TOENAIL JOISTS TO BEARING SUPPORTS WITH 16d NAILS. UNLESS NOTED OTHERWISE.

JOIST, BEAM AND HEADER SHALL BE CONNECTED TO FLUSH MEMBER WITH THE FOLLOWING SIMPSON SERIES HANGER, U.N.O. ON PLAN, SKEW AND SLOPE ALL CONNECTORS AS REQUIRED:

- 2x JOIST, "LUS" SERIES; DOUBLE 2x JOIST/HEADER, "HU"/"HUS" SERIES
- TJI JOIST, "ITS" SERIES; DOUBLE TJI JOIST, "MIT" SERIES
- 4x MEMBER, "HU" SERIES; 6x MEMBER, "HWP"/"HWPH" SERIES
- 3-1/2"GLB, "HB" SERIES; 5-1/2"GLB, "HWPH" SERIES, 6-3/4"GLB, "HGLTV" SERIES
- 1-3/4"SCL, "IUS" SERIES; 3-1/2"SCL, "HB" SERIES, 5-1/4"SCL, "HWPH" SERIES, 7"SCL, "HGLTV" SERIES

*NOTIFY STRUCTURAL ENGINEER IMMEDIATELY SHOULD ANY BEAM, JOIST OR HEADER HANGER IS MISSING IN PLAN DRAWING AND REQUIRED FOR INSTALLATION.

FACE-NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d SPIKES @ 24"oc STAGGERED.

NAILS SHALL BE MANUFACTURED IN CANADA OR THE UNITED STATES IN SIZES AND TYPES AS FOLLOWS, UNLESS NOTED OTHERWISE:

PNEUMATIC NAILING - PLAIN SHANK, COATED OR GALVANIZED

- 8d 0.131" DIAMETER x 2-1/2" MINIMUM LENGTH
- 10d 0.148" DIAMETER x 3" MINIMUM LENGTH
- 12d 0.148" DIAMETER x 3-1/4" MINIMUM LENGTH
- 16d 0.135" DIAMETER x 3-1/2" MINIMUM LENGTH

F. SPECIAL CONDITIONS

CONTRACTOR TO COORDINATE ALL TRADES AND VERIFY DIMENSIONS IN THE FIELD. OBTAIN OWNERS APPROVAL PRIOR TO ALL FIELD CHANGES. SEE ARCHITECTURAL DRAWINGS FOR ALL FLOOR AND WALL OPENING DIMENSIONS AND LOCATIONS, FLOOR AND WALL FINISHES, ETC.

*DEFLECTION OF CANTILEVERS SHALL BE CLOSELY MONITORED BY THE CONTRACTOR DURING CONSTRUCTION. CONTRACTOR TO VERIFY AND CONFIRM ALL POST CAPS AND POST BEARING CONNECTIONS ARE INSTALLED IN STRICT CONFORMANCE TO THE STRUCTURAL DRAWING. CANTILEVERS IN WOOD FRAMING CAN DEFLECT UP TO 1/8" PER FOOT (I.E. 6' CANTILEVER MAY DEFLECT 3/4"). IF DEFLECTION EXCEEDS 1/8" PER FOOT NOTIFY STRUCTURAL ENGINEER IMMEDIATELY. BEFORE FINISHES ARE INSTALLED, FLOORS AT OR ABOVE CANTILEVERS MAY REQUIRE LEVELING COMPOUND AND SOFFITS FURRED TO MAKE THEM LEVEL.

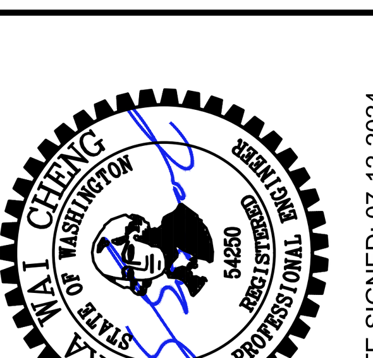
(THIS IS A COMPREHENSIVE LIST OF ABBREVIATIONS, SOME OF WHICH MAY NOT APPEAR ON THESE DRAWINGS.)

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISHED FLOOR
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE; APPROXIMATELY
ARCH	ARCHITECT; ARCHITECTURAL
ASSY	
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWS	AMERICAN WELDING SOCIETY
BD	
BLDG	BUILDING
BLKG	BLOCKING
BM	
BMU	BRICK MASONRY UNIT(S)
BOF	BOTTOM OF SLAB
BOS	
BOT	BOTTOM
BRG	BEARING
	BEAM
C	STANDARD CHANNEL
CG	CENTER OF GRAVITY
CGS	CENTER OF GRAVITY OF STRANDS
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT/CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION, CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CP	COMPLETE PENETRATION
CSK	COUNTERSINK; COUNTERSUNK
CTR	CENTER
CU FT	CUBIC FOOT
CU IN	CUBIC INCH
CY	CUBIC YARD
d	PENNY (NAILS)
DBL	DOUBLE
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER (SEE SYMBOLS)
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DICA	DRILLED-IN CONCRETE ANCHOR
DIM	DIMENSION
DN	DOWN
DO	DITTO
DWG	DRAWING
DWL	DOWELS
(E)	EXISTING
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMB	EMBED, EMBEDDED, EMBEDMENT
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EXP	EXPANSION; EXPOSED
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FD	FLOOR DRAIN
FDN	FOUNDATION
FF	FAR FACE, FINISHED FLOOR
FLR	FLOOR; FLOOR LINE
FLG	FLANGE
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FS	FULL SIZE; FAR SIDE
FT	FEET; FOOT
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GL	GLUE-LAMINATED
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HDR	HEADER
HNG	HANGER
HORIZ	HORIZONTAL
HP	HP SHAPE
HS	HIGH STRENGTH
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDE; INCLUDING; INCLUSIVE
INFO	INFORMATION
INT	INTERIOR
JT	JOINT
K	KIP = 1000 POUNDS
KO	KNOCK-OUT
KSI	KIPS PER SQUARE INCH
LAB	LABORATORY
LB	POUND
LF	LINEAL FOOT
LLBB	LONG LEGS BACK-TO-BACK
LLH	LONG LEGS HORIZONTAL
LLV	LONG LEGS VERTICAL
LOC	LOCATION
LONGIT	LONGITUDINAL
LSL	LONG SLOTTED HOLE
LVL	LAMINATED VENEER LUMBER
LWC	LIGHT WEIGHT CONCRETE
M	MISC SHAPE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM; MINUTE
MISC	MISCELLANEOUS
MO	MASONRY OPENING
(N)	NEW
N	NORTH
NF	NEAR FACE
NFPA	NATIONAL FOREST PRODUCTS ASSOC
NIC	NOT IN CONTRACT
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
oc	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
PAR	PARALLEL
PERP	PERPENDICULAR
PL	PLATE
PLWD	PLYWOOD
PREFAB	PREFABRICATED
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POST TENSION
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCE; REINFORCING
REQ'D	REQUIRED
RO	ROUGH OPENING
SCHED	SCHEDULE
SEC	SECTION
SHT	SHEET
SHTG	SHEATHING; SHEETING
SIM	SIMILAR
SPA	SPACING, SPACE, SPACES
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUCT	STRUCTURAL
SYM	SYMMETRICAL
T	TOP
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TEMP	TEMPERATURE
THK	THICKNESS
THRU	THROUGH
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE; TOP OF CURB
TOF	TOP OF FOOTING
TOL	TOP OF LEDGER
TOM	TOP OF MASONRY
TOS	TOP OF STEEL, TOP OF STRUCTURE
TOW	TOP OF WALL
TS	TUBING, STRUCTURAL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UL	UNDERWRITER'S LABORATORY, INC.
UNO	UNLESS NOTED OTHERWISE
URM	UNREINFORCED MASONRY
UT	ULTRA-SONIC TEST
VERT	VERTICAL
W	WIDE FLANGE
WP	WORK POINT
WWF	WELDED WIRE FABRIC

LEGEND

- CONCRETE WALL
- INTERIOR STUD WALL BELOW; EXTERIOR BEARING STUD WALL BELOW
- STUD WALL ABOVE
- COLUMN CONTINUOUS
- COLUMN BELOW FRAMING LEVEL
- COLUMN ABOVE FRAMING LEVEL
- XX / XX — COLUMN SIZE / SIMPSON CAP *NOTE, PROVIDE SIMPSON PC POST CAP, TYP. U.N.O.
- XX — SHEAR WALL HOLDOWN AT FRAMING LEVEL
- (DS) — DRAG STRUT- NAIL THRU SHEATHING w/ 8d @ 4"oc FOR ENTIRE LENGTH OF MEMBER
- (2) CS16 — (2) SIMPSON CS16 x 30" DRAG STRAP, U.N.O.
- HEADER, BEAM OR JOIST END HANGER
- PROVIDE 2x BLOCKING AT ALL PLYWOOD DIAPHRAGM EDGES w/ EDGE NAILING
- FLOOR STEP PER ARCH.
- WX — SHEAR WALL ABOVE FRAMING LEVEL

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

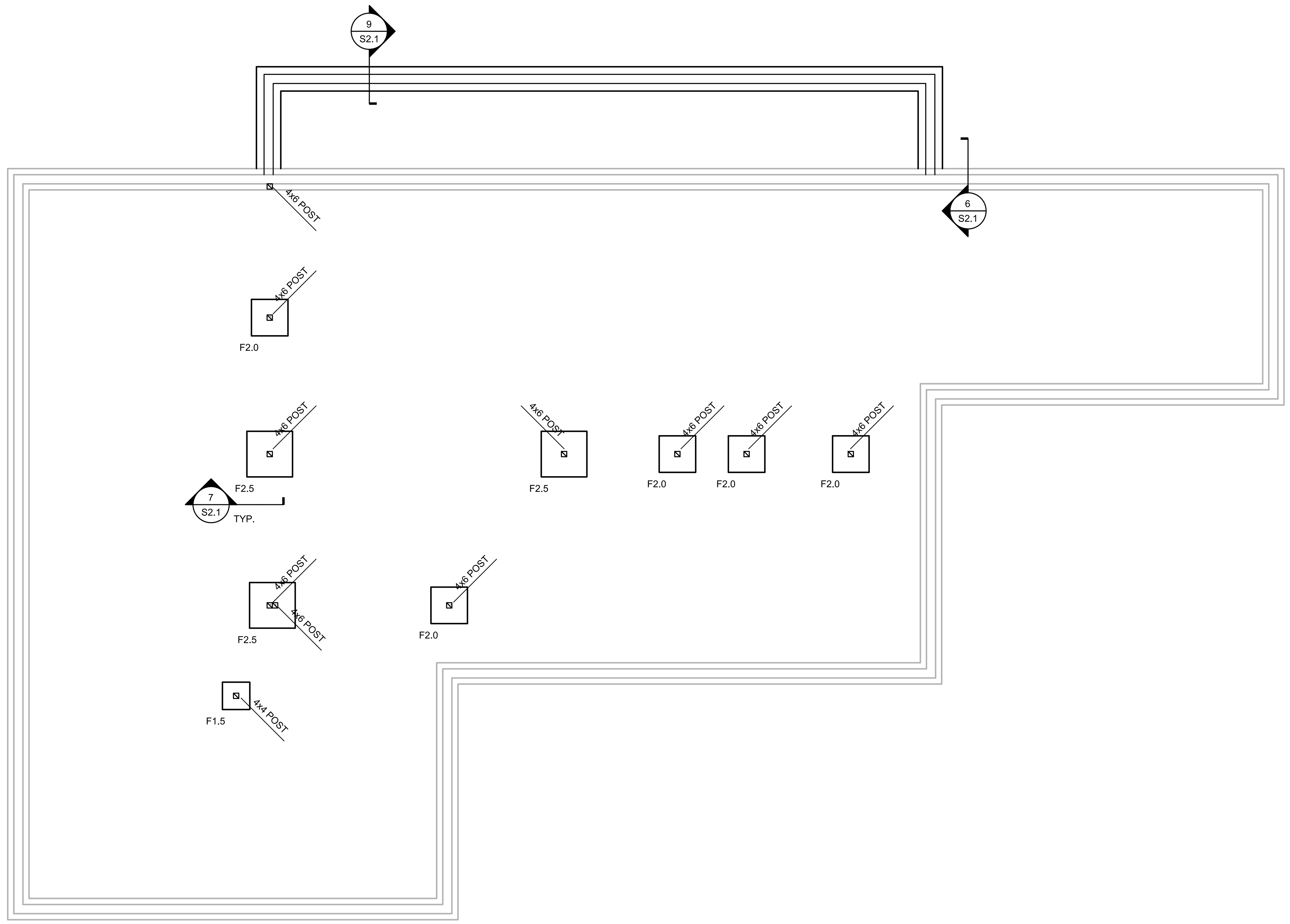


DATE SIGNED: 07-12-2024

SHEET CONTENTS: STRUCTURAL GENERAL NOTES

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024
SHEET NO: S0.1



FOOTING SCHEDULE

MARK	SIZE	REINFORCEMENT
F1.5	1'-6" x 1'-6" x 10"	3- #4 EA. WAY BOT.
F2.0	2'-0" x 2'-0" x 10"	3- #4 EA. WAY BOT.
F2.5	2'-6" x 2'-6" x 11"	4- #4 EA. WAY BOT.
F3.0	3'-0" x 3'-0" x 11"	5- #5 EA. WAY BOT.
F3.5	3'-6" x 3'-6" x 11"	6- #5 EA. WAY BOT.
F4.0	4'-0" x 4'-0" x 12"	7- #5 EA. WAY BOT.

NOTE:
1. SEE GENERAL NOTES FOR DESIGN BEARING CAPACITY
2. CENTER ALL FOOTING ON COLUMN OR WALL, TYP. U.N.O.
3. AT LOCATIONS WHERE (N) FOOTINGS ARE SHOWN SHARING A COMMON BEARING AREA, CAST MONOLITHICALLY WITH INDIVIDUAL REINFORCING PER SCHEDULE AND OVERLAP AS REQUIRED.
4. AT LOCATIONS WHERE (N) FOOTING ARE SHOWN SHARING A COMMON BEARING AREA WITH (E) FOOTING, DOWEL (N) FOOTING REINFORCEMENT INTO (E) FOOTING w/ SIMPSON SET-XP (EMBED 3 1/2" MIN.).
5. FOOTING SCHEDULE IS PROVIDED FOR GENERAL INFORMATION. NOT ALL OF THE FOOTING SIZE IS REQUIRED, SEE FOUNDATION PLAN FOR FOOTING SIZE CALL-OUT

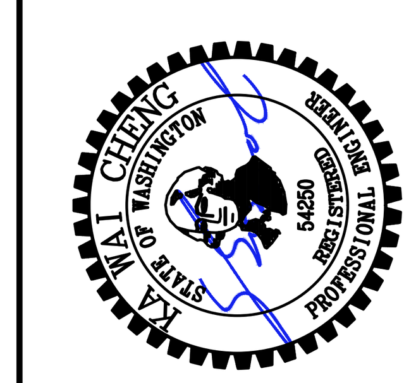
CONTRACTOR TO FIELD VERIFY ALL EXISTING FOUNDATION WALL AND FOOTING LOCATIONS ARE MATCHING WITH PLAN DRAWING. VERIFY EXISTING CRAWLSPACE FOUNDATION AND/OR SLAB-ON-GRADE CONDITION ARE MATCHING WITH PLAN DRAWING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

FOUNDATION PLAN

1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS.
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% MAXIMUM WET DENSITY PLACED IN MAX. 12" LIFTS.
4. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, U.N.O.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	



DATE SIGNED: 07-12-2024

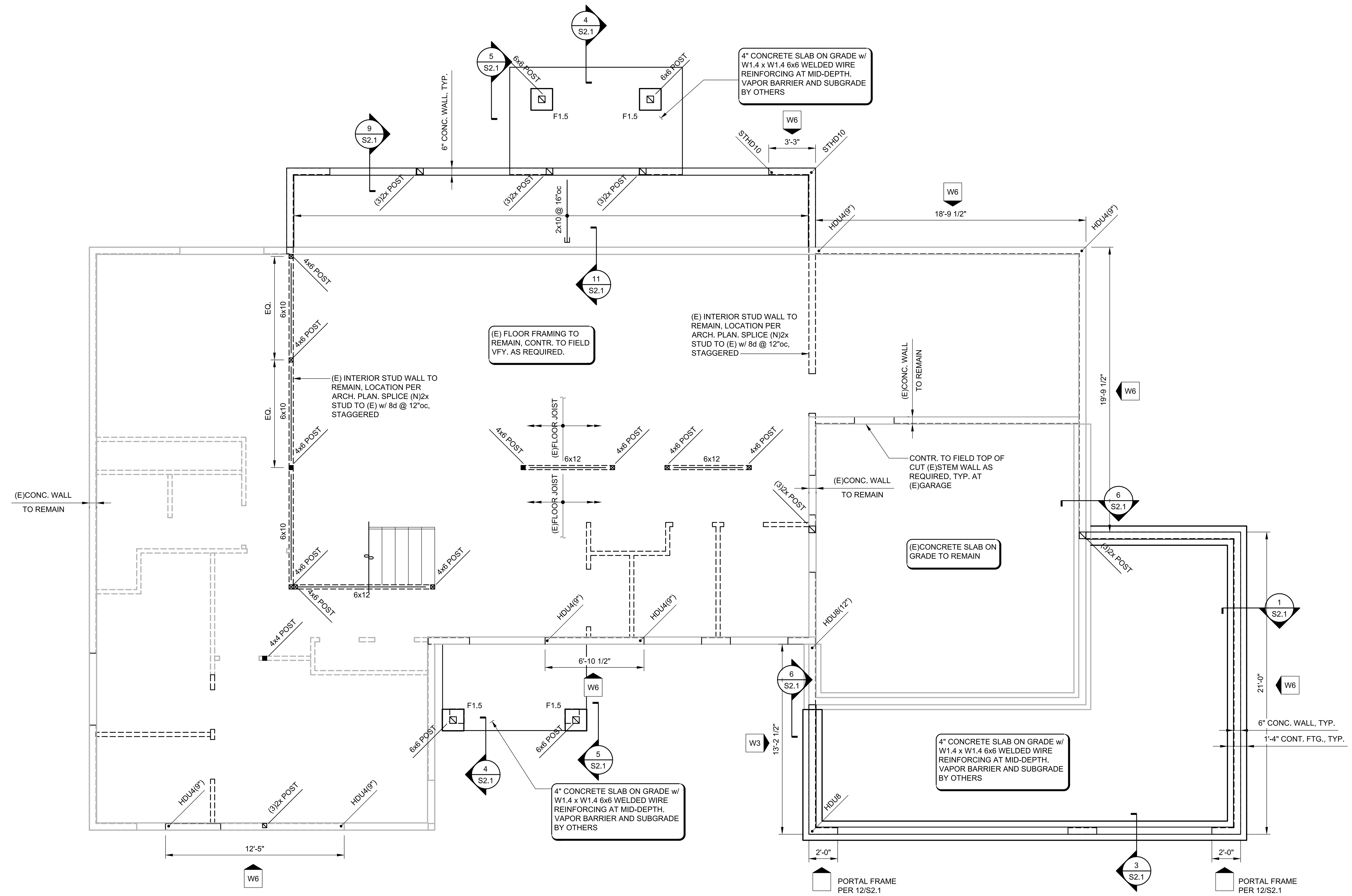
SHEET CONTENTS: FOUNDATION PLAN

EXISTING RESIDENCE ADDITION

4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024
SHEET NO:

S1.1



CONTRACTOR TO FIELD VERIFY ALL EXISTING FOUNDATION WALL AND FOOTING LOCATIONS ARE MATCHING WITH PLAN DRAWING. VERIFY EXISTING CRAWLSPACE FOUNDATION AND/OR SLAB-ON-GRADE CONDITION ARE MATCHING WITH PLAN DRAWING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

FOUNDATION AND MAIN FLOOR PLAN

1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS.
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G PLYWOOD SHEATHING ON FLOOR JOISTS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6"oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12"oc, PROVIDE BLOCKING FOR ALL EDGES.
4. TYPICAL FLOOR JOISTS SHALL BE 11 7/8" TJI 110 OR BETTER UNLESS OTHERWISE NOTED. REFER TO PLAN FOR JOIST SPACING (16"oc IF NOT NOTED). PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
5. TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16"oc, U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16"oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
6. SLAB ON GRADE SHALL BE 4" THICK, UNLESS OTHERWISE NOTED. SLAB SHALL BE REINFORCED WITH 6x6 W1.4xW1.4 WELDED WIRE MESH. PREPARE SUBGRADE BY PLACING AND COMPACTING A MINIMUM 4" OF CLEANED, CRUSHED ROCK AS A CAPILLARY BREAK. SUBGRADE BELOW SLAB SHALL BE UNDISTURBED NATIVE SOIL OR COMPACTED FILL.
7. FOOTINGS SHALL BE PLACED ON UNDISTURBED NATIVE SOIL OR STRUCTURAL FILL COMPACTED TO 95% MAXIMUM WET DENSITY PLACED IN MAX. 12" LIFTS.
8. BOTTOM OF ALL FOOTINGS SHALL BE 18" MINIMUM BELOW LOWEST ADJACENT GRADE, U.N.O.
9. ALL EXTERIOR WALL TO BE DETAILED AS SHEAR WALL TYPE W6 PER SHEAR WALL SCHEDULE, U.N.O.
10. SEE SHEAR WALL FOUNDATION HOLDOWN SCHEDULE FOR MINIMUM HOLDOWN EMBEDMENT DEPTH AND MINIMUM FOOTING SIZE AROUND HOLDOWN ANCHOR REQUIREMENTS IN ADDITION TO FOOTING SIZE SPECIFIED ON THIS PLAN.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

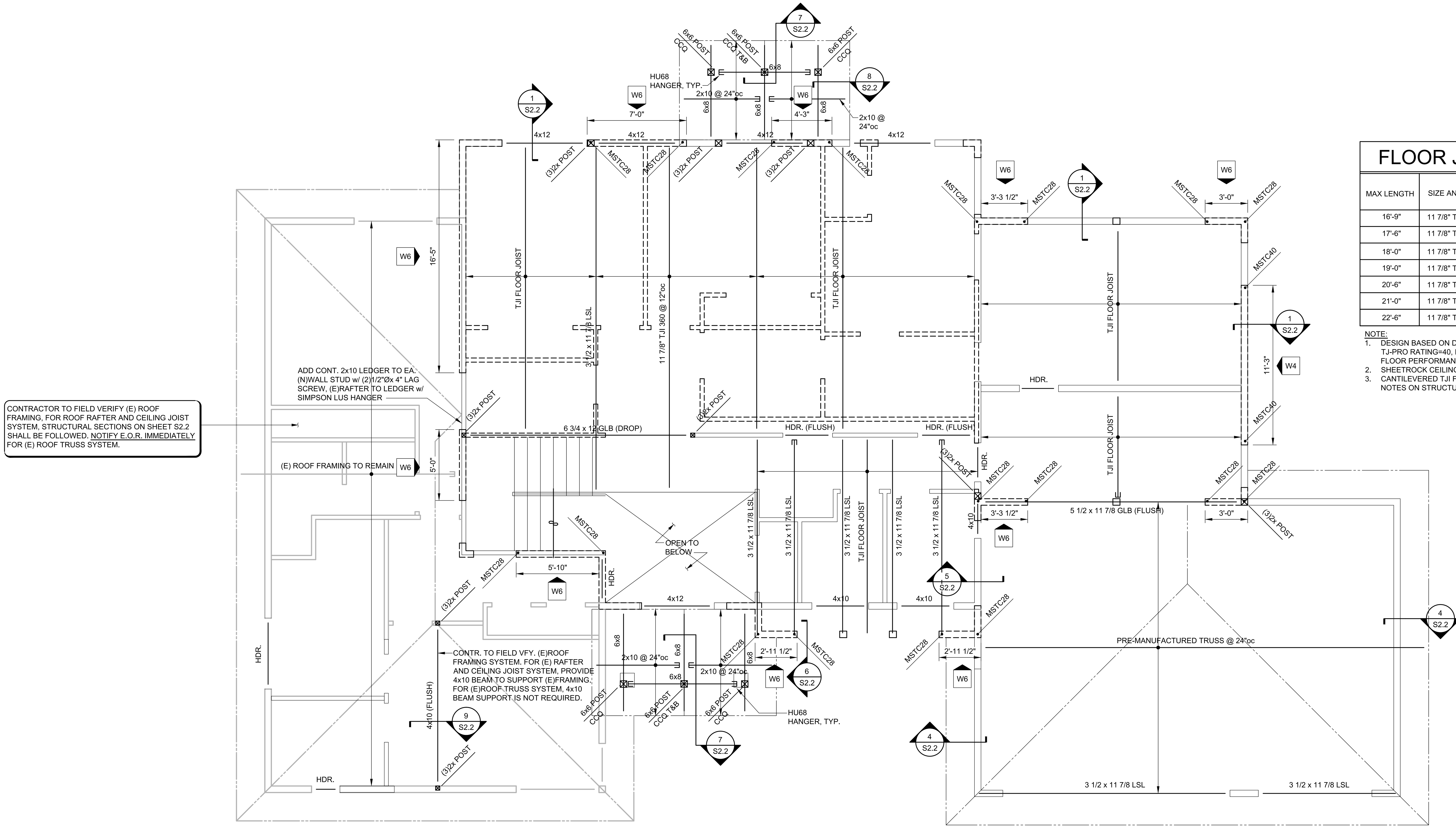
KA WAI CHENG, STATE OF WASHINGTON, 54250, REGISTERED PROFESSIONAL ENGINEER

DATE SIGNED: 07-12-2024

SHEET CONTENTS: FOUNDATION AND MAIN FLOOR PLAN

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024
SHEET NO:
S1.2



FLOOR JOIST SCHEDULE			
MAX LENGTH	SIZE AND SPACING	FACE MOUNT HANGER	TOP MOUNT HANGER
16'-9"	11 7/8" TJI 110 @ 16"oc	IUS 1.81/11.88	ITS 1.81/11.88
17'-6"	11 7/8" TJI 210 @ 16"oc	IUS 2.06/11.88	ITS 2.06/11.88
18'-0"	11 7/8" TJI 230 @ 16"oc	IUS 2.37/11.88	ITS 2.37/11.88
19'-0"	11 7/8" TJI 360 @ 16"oc	IUS 2.37/11.88	ITS 2.37/11.88
20'-6"	11 7/8" TJI 560 @ 16"oc	IUS 3.56/11.88	ITS 3.56/11.88
21'-0"	11 7/8" TJI 210 @ 12"oc	MIU 4.28/11	MIT 4.28/11.88
22'-6"	11 7/8" TJI 560 @ 12"oc	HU412-2	HWP7.12 H=11.875

NOTE:
1. DESIGN BASED ON DL=15PSF, LL=40PSF, LL DEFLECTION LIMITS= L/480, TJ-PRO RATING=40, NOTIFY E.O.R. IMMEDIATELY FOR ADDITIONAL FLOOR PERFORMANCE REQUIREMENT.
2. SHEETROCK CEILING APPLIED TO BOTTOM FACE OF FLOOR JOIST.
3. CANTILEVERED TJI FLOOR JOIST SIZE AND SPACING SHALL FOLLOW NOTES ON STRUCTURAL FRAMING PLAN.

NOTE TO ROOF TRUSS DESIGNER:
1. SEE STRUCTURAL GENERAL NOTES FOR REQUIRED ROOF TRUSS DESIGN LOADING.
2. SEE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION ON TRUSS CONFIGURATION SHOWN ON STRUCTURAL PLAN DRAWING.
3. TRUSS DESIGNER SHALL PROVIDE DESIGN FOR ALL REQUIRED TRUSS TO TRUSS HANGER CONNECTION.
4. ALL TRUSS DESIGN SHALL BE SIMPLE SPAN BETWEEN SUPPORTS, INCLUDING COLUMN POST, GIRDER TRUSS AND EXTERIOR WALL. ALL INTERIOR WALLS ARE NON-BEARING U.N.O. NOTIFY THE E.O.R. IMMEDIATELY IF ANY UNNOTED INTERIOR WALLS ARE REQUIRED TO BE USED FOR TRUSS BEARING.
5. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT AND NOTIFY THE E.O.R. IMMEDIATELY.

CONTRACTOR TO FIELD VERIFY ALL EXISTING FRAMING SHOWN ON THIS PLAN DRAWING, INCLUDING INFORMATION FOR ALL FRAMING MEMBER SIZE, SPAN LENGTH, SPAN ORIENTATION AND ON-CENTER SPACING. NOTIFY E.O.R. IMMEDIATELY FOR ANY DISCREPANCY.

UPPER FLOOR FRAMING PLAN

1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. TYPICAL FLOOR FRAMING CONSISTS OF 3/4" T&G PLYWOOD SHEATHING ON FLOOR JOISTS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6"oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12"oc, PROVIDE BLOCKING FOR ALL EDGES.
4. TYPICAL FLOOR JOISTS SHALL BE 11 7/8" TJI 110 OR BETTER UNLESS OTHERWISE NOTED. REFER TO PLAN FOR JOIST SPACING (16"oc IF NOT NOTED). PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH.
5. TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16"oc, U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16"oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
6. TYPICAL EXTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x10 DF#2, TYPICAL INTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2, U.N.O.
7. ALL EXTERIOR WALL TO BE DETAILED AS SHEAR WALL TYPE W6 PER SHEAR WALL SCHEDULE, U.N.O.

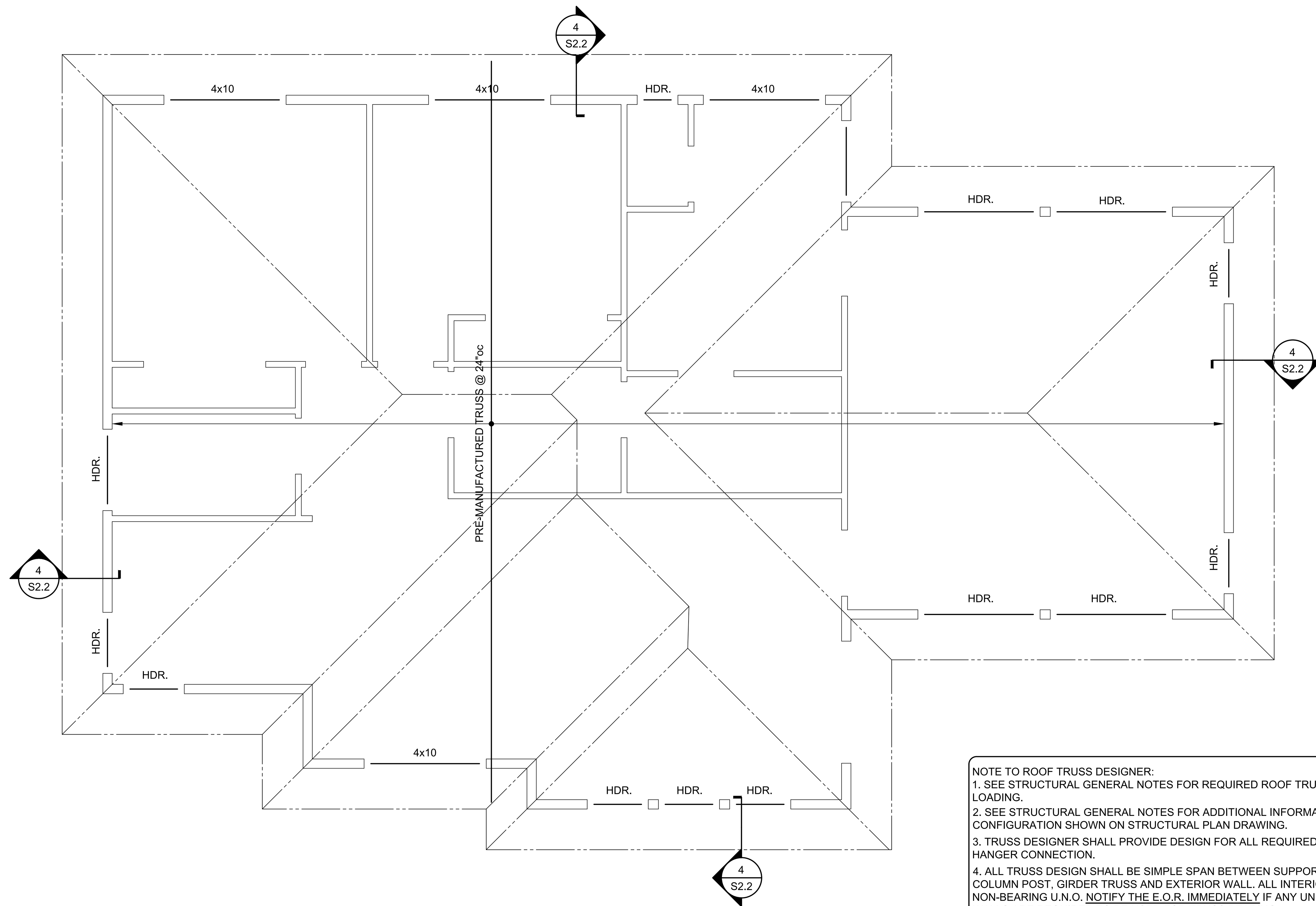
NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

DATE SIGNED: 07-12-2024

SHEET CONTENTS: UPPER FLOOR FRAMING PLAN

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE., MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024
SHEET NO: S1.3



NOTE TO ROOF TRUSS DESIGNER:
1. SEE STRUCTURAL GENERAL NOTES FOR REQUIRED ROOF TRUSS DESIGN LOADING.
2. SEE STRUCTURAL GENERAL NOTES FOR ADDITIONAL INFORMATION ON TRUSS CONFIGURATION SHOWN ON STRUCTURAL PLAN DRAWING.
3. TRUSS DESIGNER SHALL PROVIDE DESIGN FOR ALL REQUIRED TRUSS TO TRUSS HANGER CONNECTION.
4. ALL TRUSS DESIGN SHALL BE SIMPLE SPAN BETWEEN SUPPORTS, INCLUDING COLUMN POST, GIRDER TRUSS AND EXTERIOR WALL. ALL INTERIOR WALLS ARE NON-BEARING U.N.O. NOTIFY THE E.O.R. IMMEDIATELY IF ANY UNNOTED INTERIOR WALLS ARE REQUIRED TO BE USED FOR TRUSS BEARING.
5. THE TRUSS CONFIGURATIONS SHOWN ON THE DRAWINGS INDICATE THE DESIRED TRUSS CONFIGURATIONS AND ARE TO BE COMPLIED WITH WHERE POSSIBLE. IF A TRUSS MANUFACTURER IS UNABLE TO MEET THE TRUSS CONFIGURATION INDICATED, HE IS TO SUBMIT WRITTEN NOTICE TO THAT EFFECT TO THE ARCHITECT AND NOTIFY THE E.O.R. IMMEDIATELY.

ROOF FRAMING PLAN

1/4" = 1'-0"

1. DO NOT SCALE DRAWINGS
2. VERIFY ALL DIMENSIONS IN FIELD. REFER TO ARCHITECTURAL PLAN FOR WALL LAYOUT.
3. TYPICAL ROOF FRAMING CONSISTS OF 5/8" PLYWOOD ON ENGINEERED WOOD TRUSSES OR RAFTERS. NAIL ALL SUPPORTED PANEL EDGES WITH 10d NAILS @ 6"oc & ALL INTERMEDIATE SUPPORTS WITH 10d NAILS @ 12"oc
4. TYPICAL ROOF TRUSSES SHALL BE SPACED @ 24"oc, U.N.O. TRUSS SUPPLIER TO SUBMIT A PROPOSED LAYOUT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION. SEE GENERAL NOTES FOR MORE INFORMATION.
5. TYPICAL EXTERIOR WALL SHALL BE FRAMED WITH 2x6 DF STUDS @ 16"oc, U.N.O. TYPICAL INTERIOR WALL SHALL BE FRAMED WITH 2x4 DF STUDS @ 16"oc U.N.O. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION PERTAINING TO WALL THICKNESS.
6. TYPICAL EXTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x10 DF#2, TYPICAL INTERIOR WALL HEADERS SHALL BE FRAMED WITH (2) PILES OF 2x8 DF#2, U.N.O.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

KA WAI CHENG — STATE OF WASHINGTON — 54250 — PROFESSIONAL ENGINEER

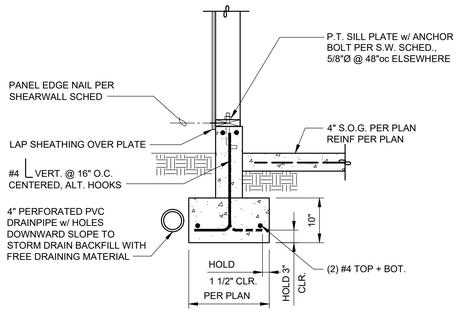
DATE SIGNED: 07-12-2024

SHEET CONTENTS: ROOF FRAMING PLAN

EXISTING RESIDENCE ADDITION

4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

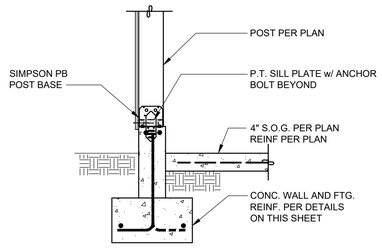
CHECKED: KWC
DATE: 06-30-2024
SHEET NO:
S1.4



TYPICAL S.W. FOOTING

1 SECTION

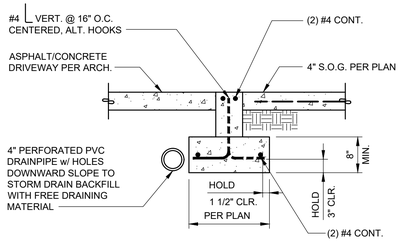
3/4" = 1'-0"



TYPICAL EXTERIOR WALL POST TO FTG.

2 SECTION

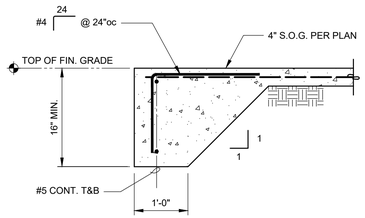
3/4" = 1'-0"



TYPICAL FOOTING AT DOORWAY/GARAGE (S.O.G.)

3 SECTION

3/4" = 1'-0"



TYPICAL HAUNCH FOOTING

4 SECTION

3/4" = 1'-0"

TYPICAL EXTERIOR COL. FOOTING

5 SECTION

3/4" = 1'-0"

NEW WALL FOOTING TIE TO (E) FOOTING

6 SECTION

3/4" = 1'-0"

7 SECTION

3/4" = 1'-0"

TYPICAL S.W. FOOTING (CRAWL SPACE)

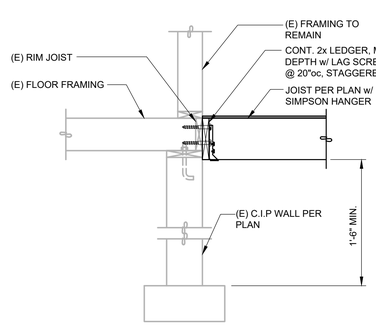
9 SECTION

3/4" = 1'-0"

8" CRAWLSPACE WALL SCHEDULE

DIMENSIONS		STEM WALL REINF.		FOOTING REINF.
H	W	VERT.	HORIZ	LONG.
2'-0"	1'-6"	#4 @ 16"oc	#4 @ 12"oc	(3)#4
3'-0"	2'-2"	#4 @ 16"oc	#4 @ 12"oc	(4)#4
4'-0"	3'-8"	#4 @ 16"oc	#4 @ 12"oc	(5)#4
5'-0"	5'-2"	#4 @ 16"oc	#4 @ 12"oc	(7)#4

NOTE:
1. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED PER SOILS ENGINEER RECOMMENDATIONS. MINIMUM 12" WIDE LAYER OF FREE DRAINING MATERIAL FROM COURSE TO MEDIUM (1 3/4" TO 3/8"). PROVIDE 4" PERFORATED PVC DRAINPIPE w/ HOLES DOWNWARD SLOPE TO STORM DRAIN DISCHARGE, SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON APPROVED DISCHARGE DESIGN.
2. RETAINING WALL SHALL BE IN STRENGTH, MINIMUM 14 DAYS CURING, PRIOR BACKFILLING BEHIND ALL RETAINING WALL. BACKFILL SHALL BE DONE IN 4'-0" LIFT MAXIMUM, DISTRIBUTED EVENLY ALONG WALL LINE.



11 SECTION

3/4" = 1'-0"

DTL. A

TYPICAL PORTAL FRAME w/ HOLDOWNS

12 SECTION

3/4" = 1'-0"

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

DATE SIGNED: 07-12-2024

SHEET CONTENTS: FOUNDATION SECTIONS

EXISTING RESIDENCE ADDITION

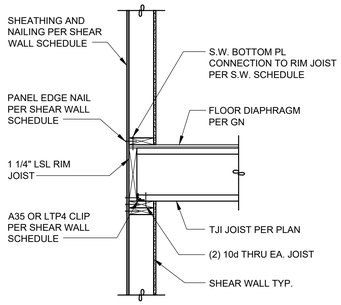
4040 97TH AVE SE,
MERCER ISLAND, WA 98040

CHECKED: KWC

DATE: 06-30-2024

SHEET NO:

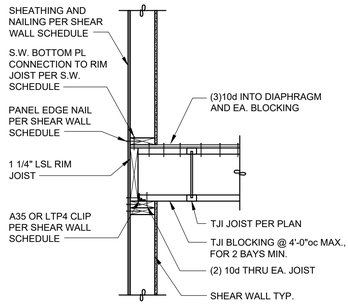
S2.1



TYPICAL S.W. PERPENDICULAR FRAMING

1 SECTION

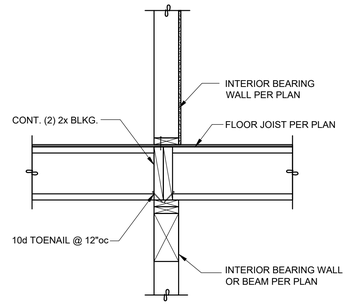
3/4" = 1'-0"



TYPICAL S.W. PARALLEL FRAMING

2 SECTION

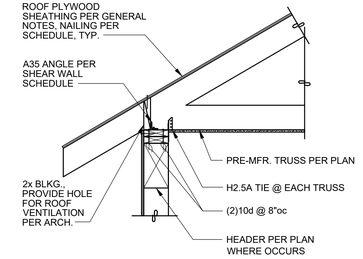
3/4" = 1'-0"



TYPICAL INTERIOR BEARING WALL SUPPORT

3 SECTION

3/4" = 1'-0"



TYPICAL TRUSS END CONNECTION

4 SECTION

3/4" = 1'-0"

5 SECTION

3/4" = 1'-0"

TYPICAL CANTILEVERED BEAM w/ SW

6 SECTION

3/4" = 1'-0"

TYPICAL RIDGE BEAM S.L. RAFTER CONNECTION

7 SECTION

3/4" = 1'-0"

8 SECTION

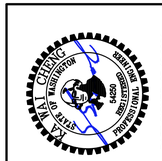
3/4" = 1'-0"

ROOF RAFTER DIAGONAL BRACE

9 SECTION

3/4" = 1'-0"

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	



DATE SIGNED: 07-12-2024

SHEET CONTENTS: FRAMING SECTIONS

EXISTING RESIDENCE ADDITION

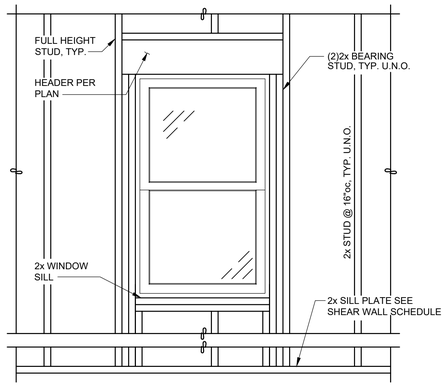
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC

DATE: 06-30-2024

SHEET NO:

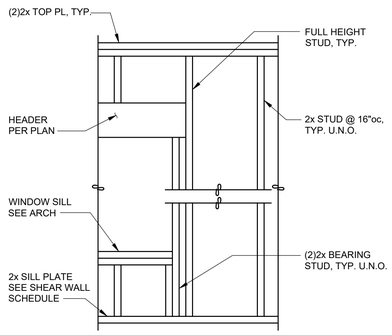
S2.2



TYPICAL STUD FRAMING DETAIL @ OPENING

1 SECTION

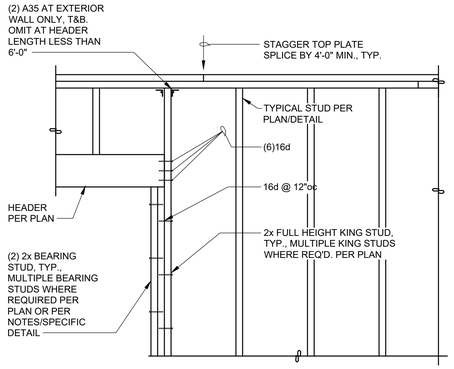
3/4" = 1'-0"



TYPICAL STUD FRAMING DETAIL

2 SECTION

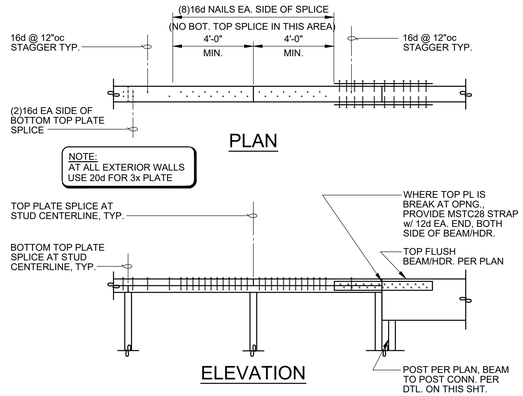
3/4" = 1'-0"



TYPICAL HEADER SUPPORT DETAIL

3 SECTION

3/4" = 1'-0"



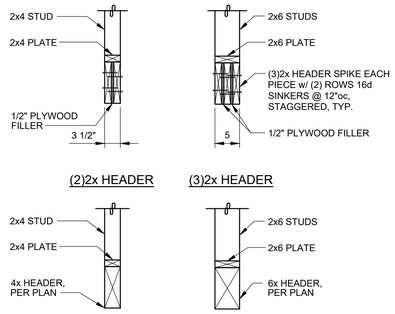
TYPICAL STUD WALL TOP PLATE SPLICE

4 SECTION

3/4" = 1'-0"

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

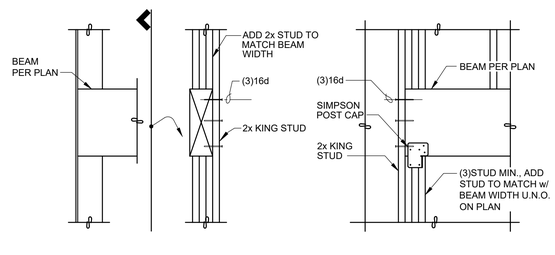
DATE SIGNED: 07-12-2024



TYPICAL HEADER DETAIL

5 SECTION

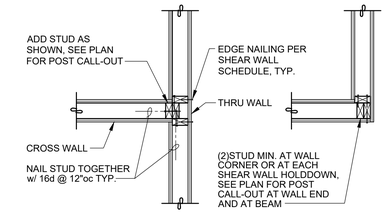
3/4" = 1'-0"



TYPICAL BEAM TO WALL POST CONNECTION

6 SECTION

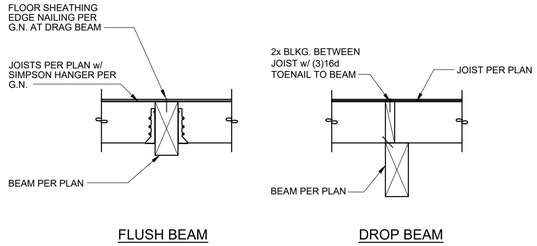
3/4" = 1'-0"



TYPICAL STUD WALL INTERSECTION

7 SECTION

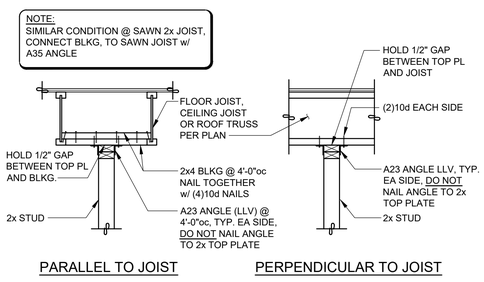
3/4" = 1'-0"



TYPICAL JOIST TO BEAM CONNECTION

8 SECTION

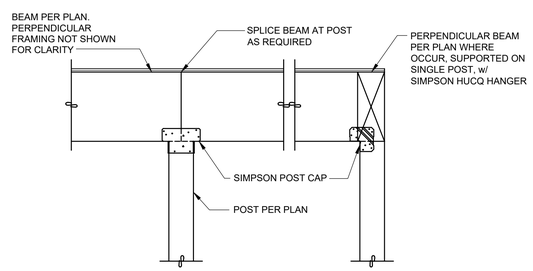
3/4" = 1'-0"



TYPICAL TOP OF NON-BEARING WALL ANCHORAGE

9 SECTION

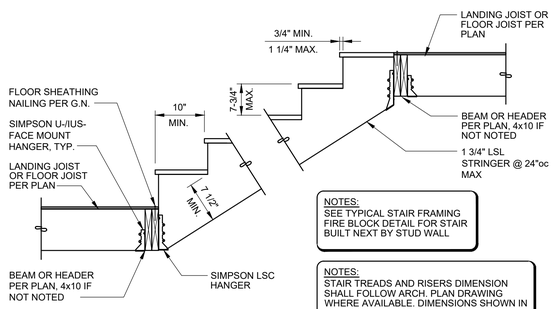
3/4" = 1'-0"



TYPICAL BEAM TO WOOD POST CONNECTION

10 SECTION

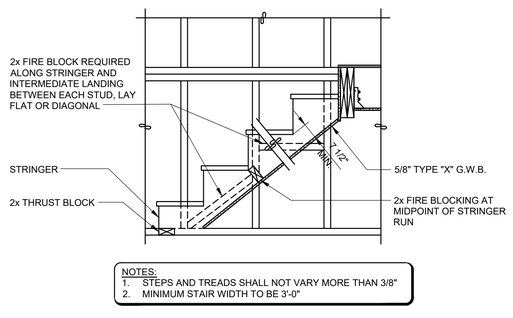
3/4" = 1'-0"



TYPICAL STAIR FRAMING

11 SECTION

3/4" = 1'-0"



TYPICAL STAIR FIRE BLOCK AT FULL HT. WALL

12 SECTION

3/4" = 1'-0"

SHEET CONTENTS: FRAMING SECTIONS

EXISTING RESIDENCE ADDITION

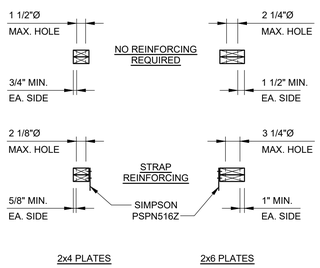
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC

DATE: 06-30-2024

SHEET NO:

S2.3

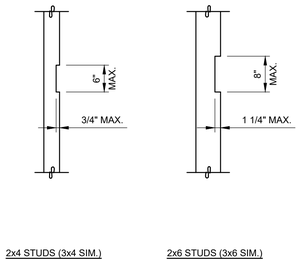


ALLOWABLE HOLES THROUGH TOP PLATES

1 SECTION

NOTE:
1) AT BOTTOM PLATES, FOLLOW GUIDELINES SHOWN, EXCEPT USE SIMPSON CS16 X 2'-0" STRAP

3/4" = 1'-0"

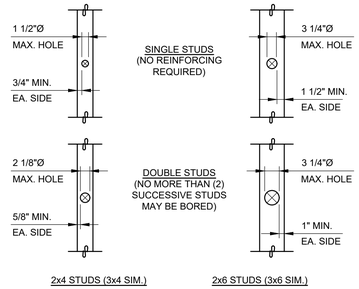


ALLOWABLE NOTCHES IN STUDS

2 SECTION

NOTE:
1) NOTCHES SHALL NOT OCCUR IN MORE THAN (2) SUCCESSIVE STUDS

3/4" = 1'-0"



ALLOWABLE HOLES THROUGH STUDS

3 SECTION

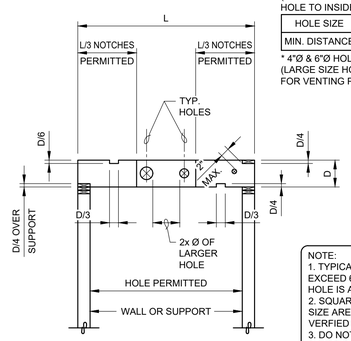
NOTE:
1) NOTCHES SHALL NOT OCCUR IN MORE THAN (2) SUCCESSIVE STUDS

3/4" = 1'-0"

(MIN. DISTANCE FROM EDGE OF HOLE TO INSIDE FACE OF SUPPORT)

HOLE SIZE	2"Ø	3"Ø	4"Ø*	6"Ø*
MIN. DISTANCE	1'-0"	2'-0"	4'-0"	6'-6"

* 4"Ø & 6"Ø HOLES FOR VENTING DUCTS (LARGE SIZE HOLES). REFER TO ARCH. FOR VENTING PLAN



NOTE:
1. TYPICAL HOLE SIZE SHALL NOT EXCEED 6"Ø. NO MORE THAN (1) 6"Ø HOLE IS ALLOWED IN EACH SPAN.
2. SQUARE OR RECTANGULAR HOLE SIZE ARE NOT PERMITTED UNLESS VERFIED BY E.O.R.
3. DO NOT CUT HOLE LARGER THAN 1-1/2"Ø IN CANTILEVER MEMBER

ALLOWABLE CUTTING IN LSL, LVL, PSL MEMBERS

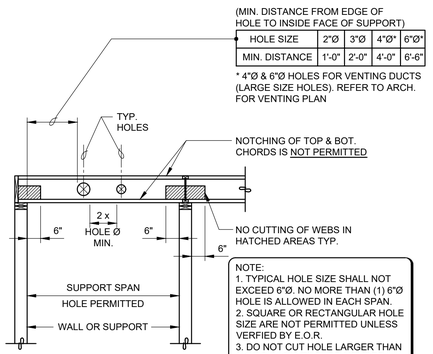
4 SECTION

3/4" = 1'-0"

(MIN. DISTANCE FROM EDGE OF HOLE TO INSIDE FACE OF SUPPORT)

HOLE SIZE	2"Ø	3"Ø	4"Ø*	6"Ø*
MIN. DISTANCE	1'-0"	2'-0"	4'-0"	6'-6"

* 4"Ø & 6"Ø HOLES FOR VENTING DUCTS (LARGE SIZE HOLES). REFER TO ARCH. FOR VENTING PLAN

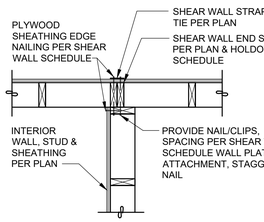


NOTE:
1. TYPICAL HOLE SIZE SHALL NOT EXCEED 6"Ø. NO MORE THAN (1) 6"Ø HOLE IS ALLOWED IN EACH SPAN.
2. SQUARE OR RECTANGULAR HOLE SIZE ARE NOT PERMITTED UNLESS VERFIED BY E.O.R.
3. DO NOT CUT HOLE LARGER THAN 1-1/2"Ø IN CANTILEVER MEMBER

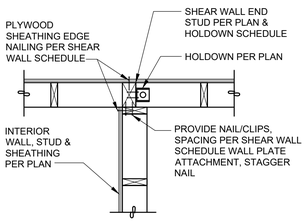
ALLOWABLE CUTTING IN WEB JOIST MEMBERS

5 SECTION

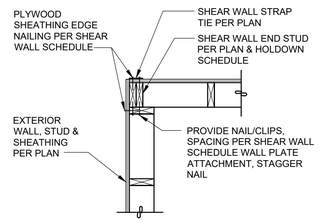
3/4" = 1'-0"



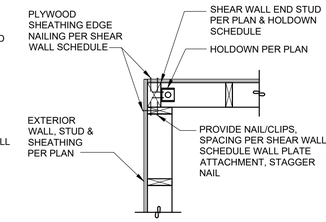
PLAN - SHEAR WALL w/ STRAP TIE AT WALL INTERSECTION



PLAN - SHEAR WALL w/ HOLDOWN AT WALL INTERSECTION



PLAN - SHEAR WALL w/ STRAP TIE AT WALL CORNER

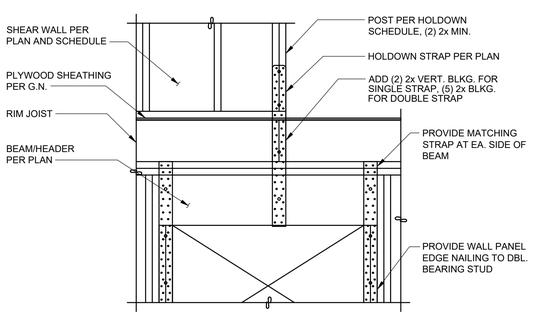


PLAN - SHEAR WALL w/ HOLDOWN AT WALL CORNER

TYPICAL SHEAR WALL END STUD AT WALL INTERSECTION & CORNER

6 SECTION

3/4" = 1'-0"



TYPICAL HOLDOWN AT BEAM/HEADER

7 SECTION

3/4" = 1'-0"

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	

DATE SIGNED: 07-12-2024

SHEET CONTENTS: FRAMING SECTIONS

EXISTING RESIDENCE ADDITION

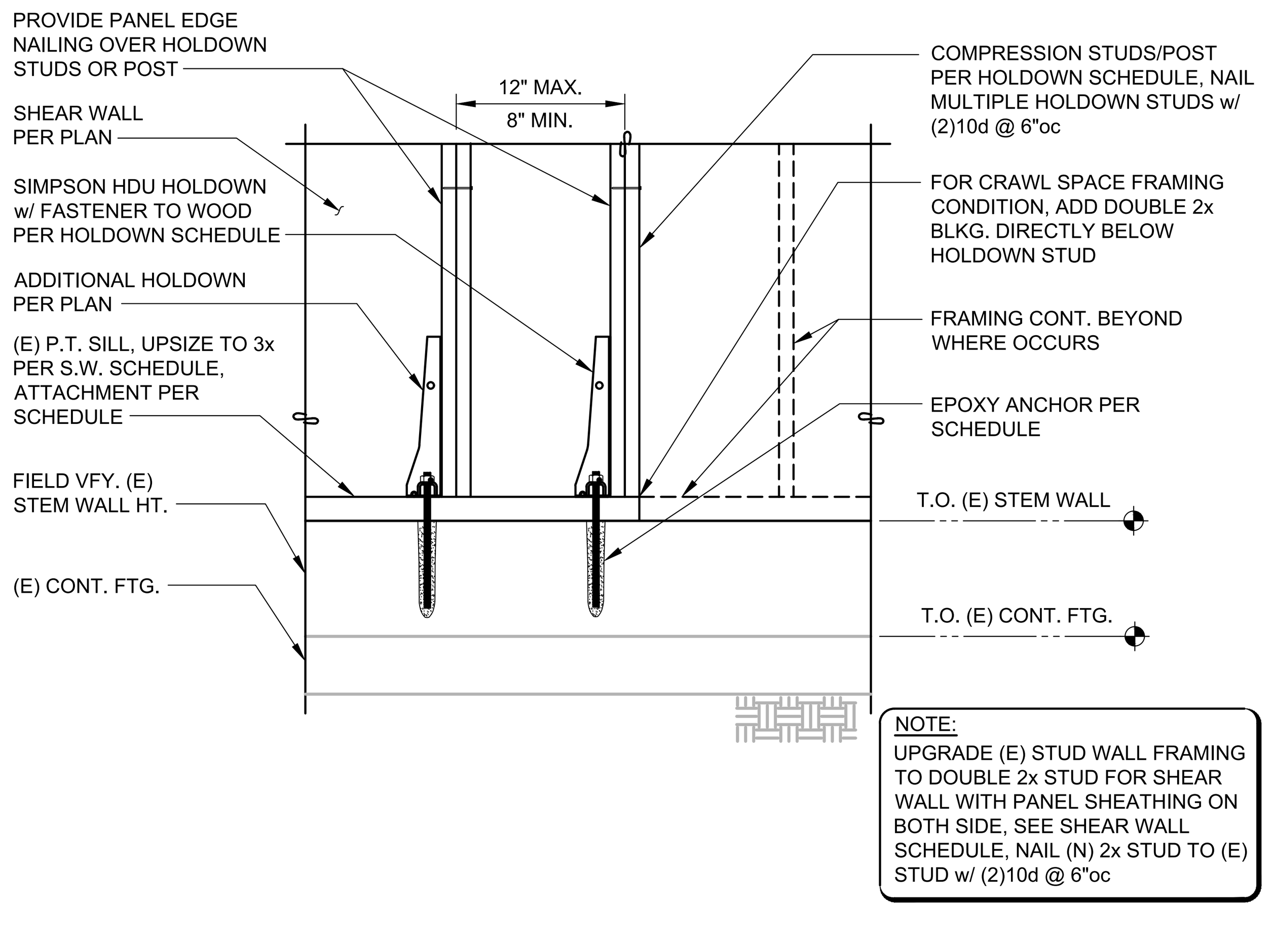
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC

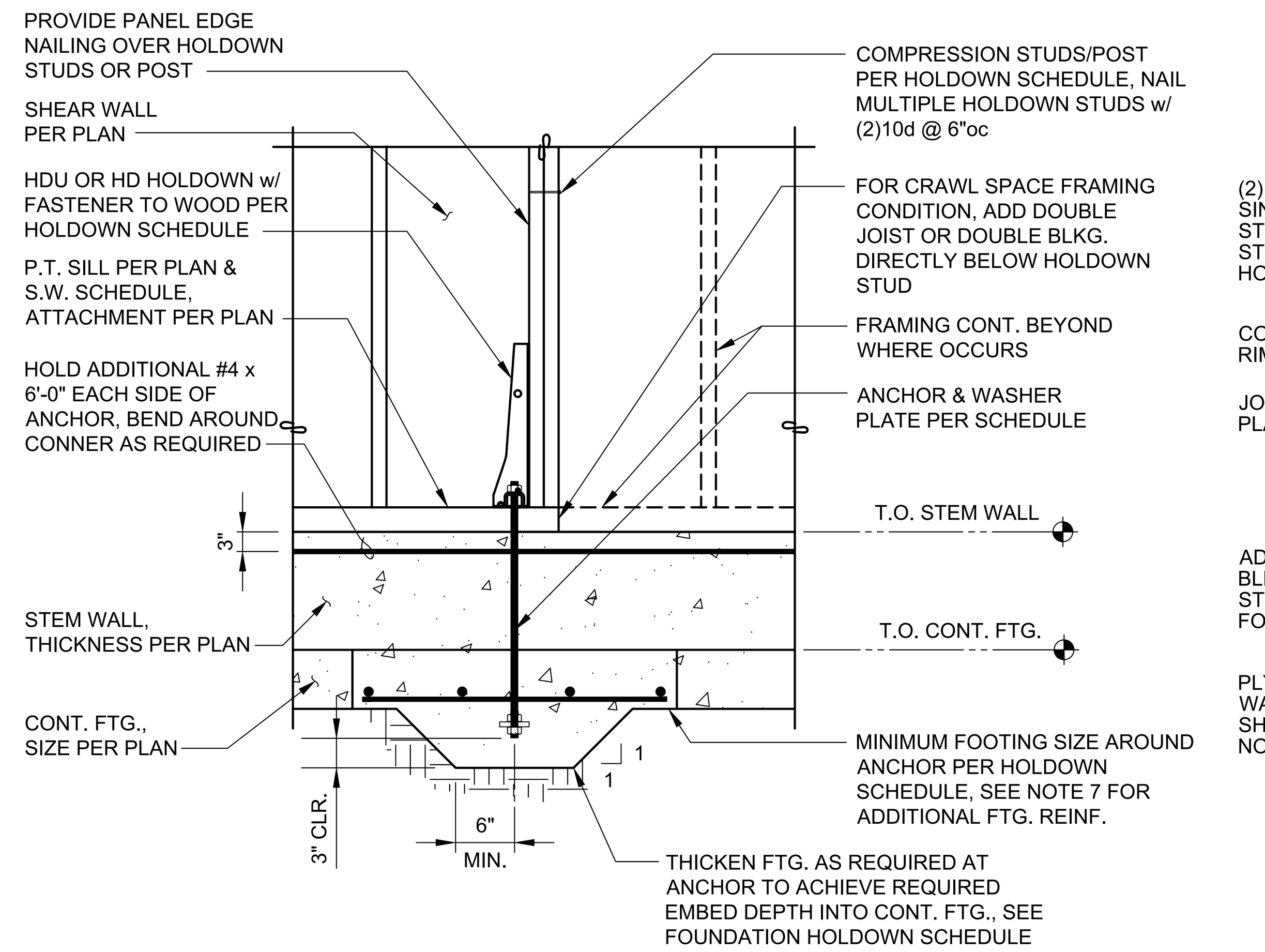
DATE: 06-30-2024

SHEET NO:

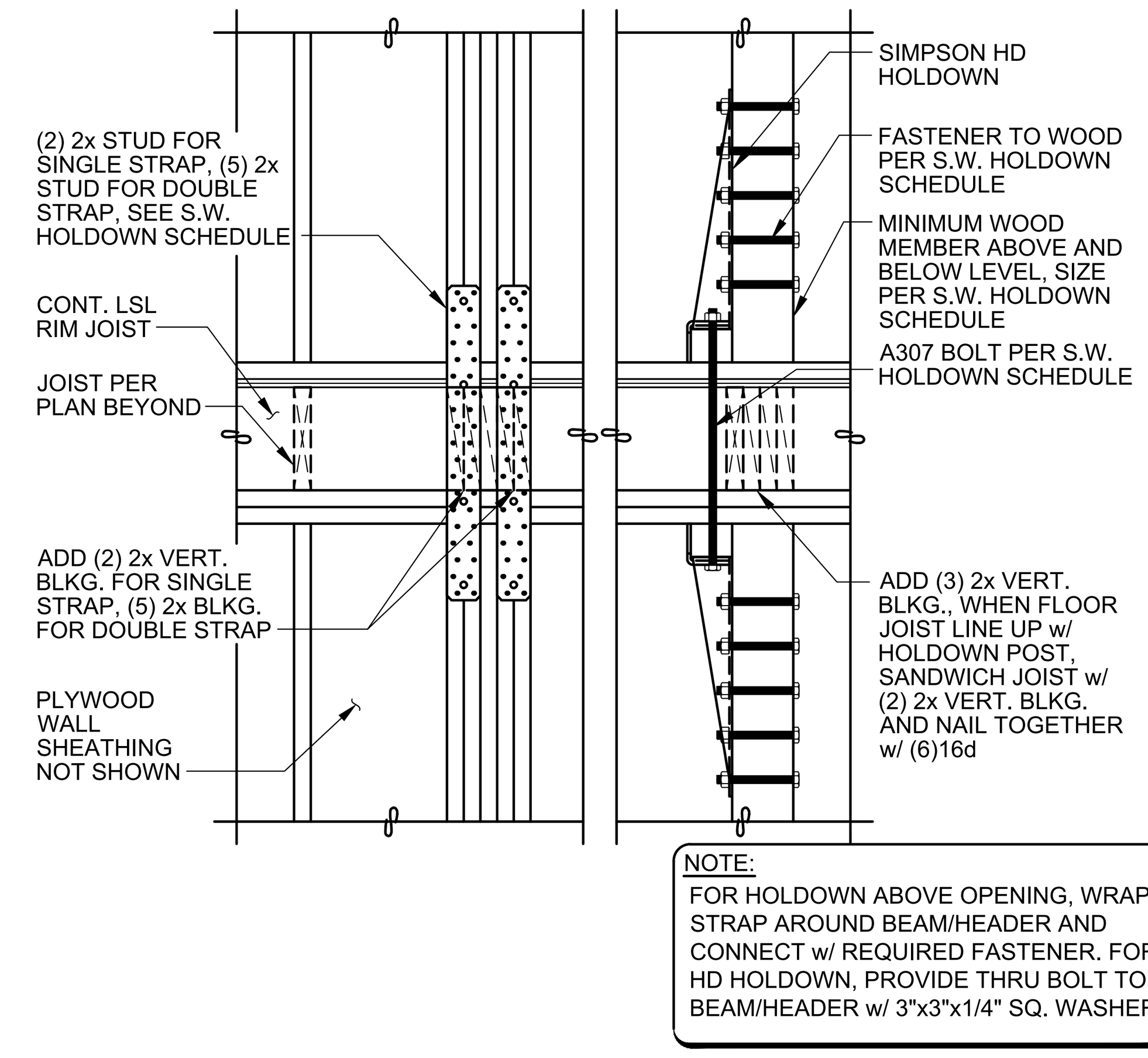
S2.4



SHEAR WALL (E) FOUNDATION HOLDOWN



SHEAR WALL FOUNDATION HOLDOWN



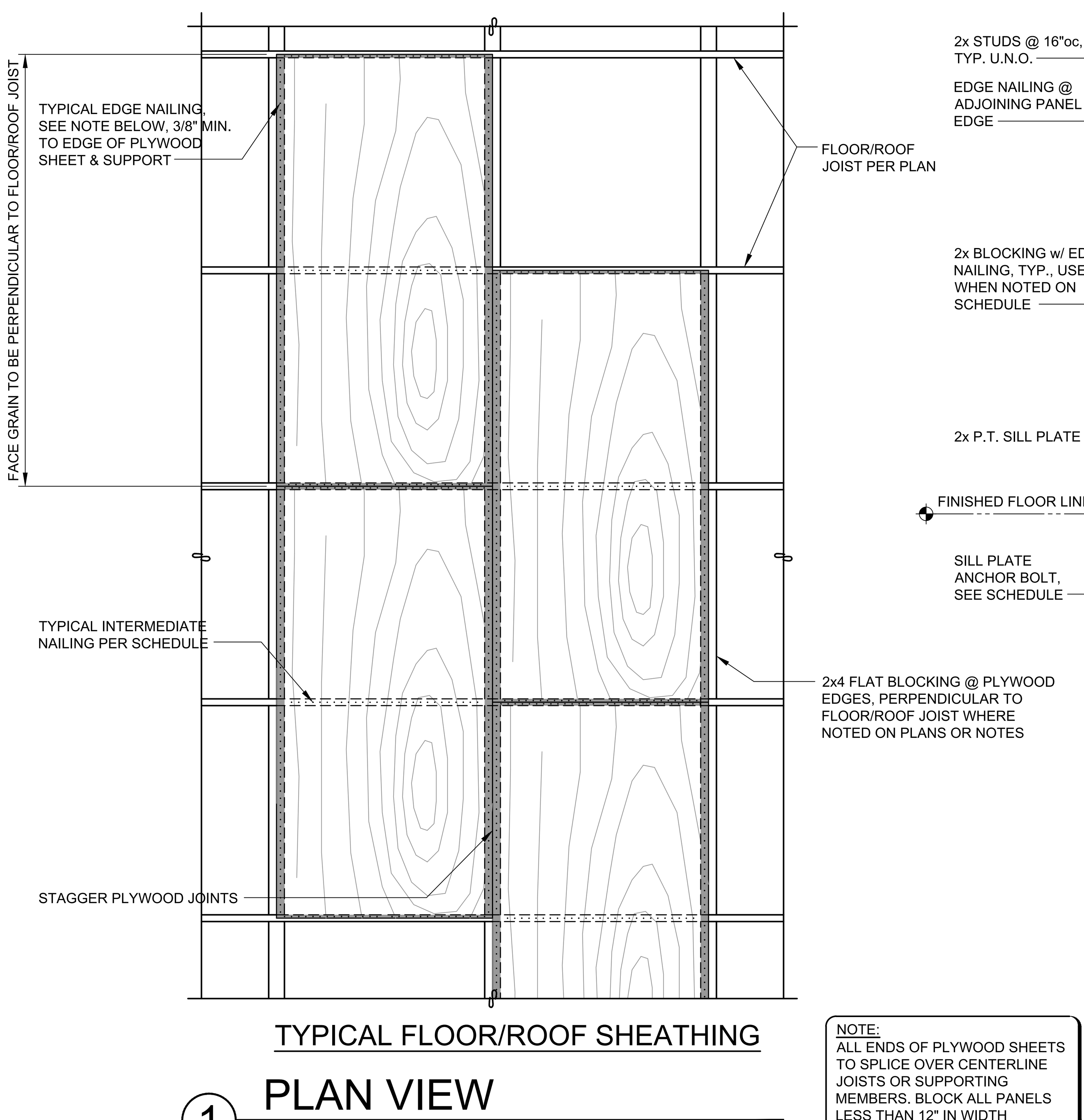
SHEAR WALL FRAMING HOLDOWN

SHEAR WALL FRAMING HOLDOWN SCHEDULE

MARK (NOTE 4)	FASTENERS TO WOOD (NOTE 1,3,5)		ANCHOR
	REQUIRED FASTENER TO WOOD	MINIMUM WOOD MEMBER SIZE	
MSTC28	(16) 16d SINKERS	(2)2x STUDS	-
MSTC40	(32) 16d SINKERS	(2)2x STUDS	-
MSTC52	(48) 16d SINKERS	(2)2x STUDS	-
MSTC66	(68) 16d SINKERS	(2)2x STUDS	-
MST72	(62) 16d	(2)2x STUDS	-
CMST12 x 84"	(74) 16d	(2)2x STUDS	-
HD12	(4) 1" DIA. A307 BOLTS	(3) 2x STUDS	1"ϕ A307 BOLT
HD12 (SPECL.)	(4) 1" DIA. A307 BOLTS	4x6 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1"ϕ A307 BOLT
HD19	(5) 1" DIA. A307 BOLTS	4x8 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1-1/8"ϕ A307 BOLT
HD19 (SPECL.)	(5) 1" DIA. A307 BOLTS	4x8 POST @ 2x4 WALL 6x6 POST @ 2x6 WALL	1-1/4"ϕ A307 BOLT

SHEAR WALL FRAMING HOLDOWN NOTE:

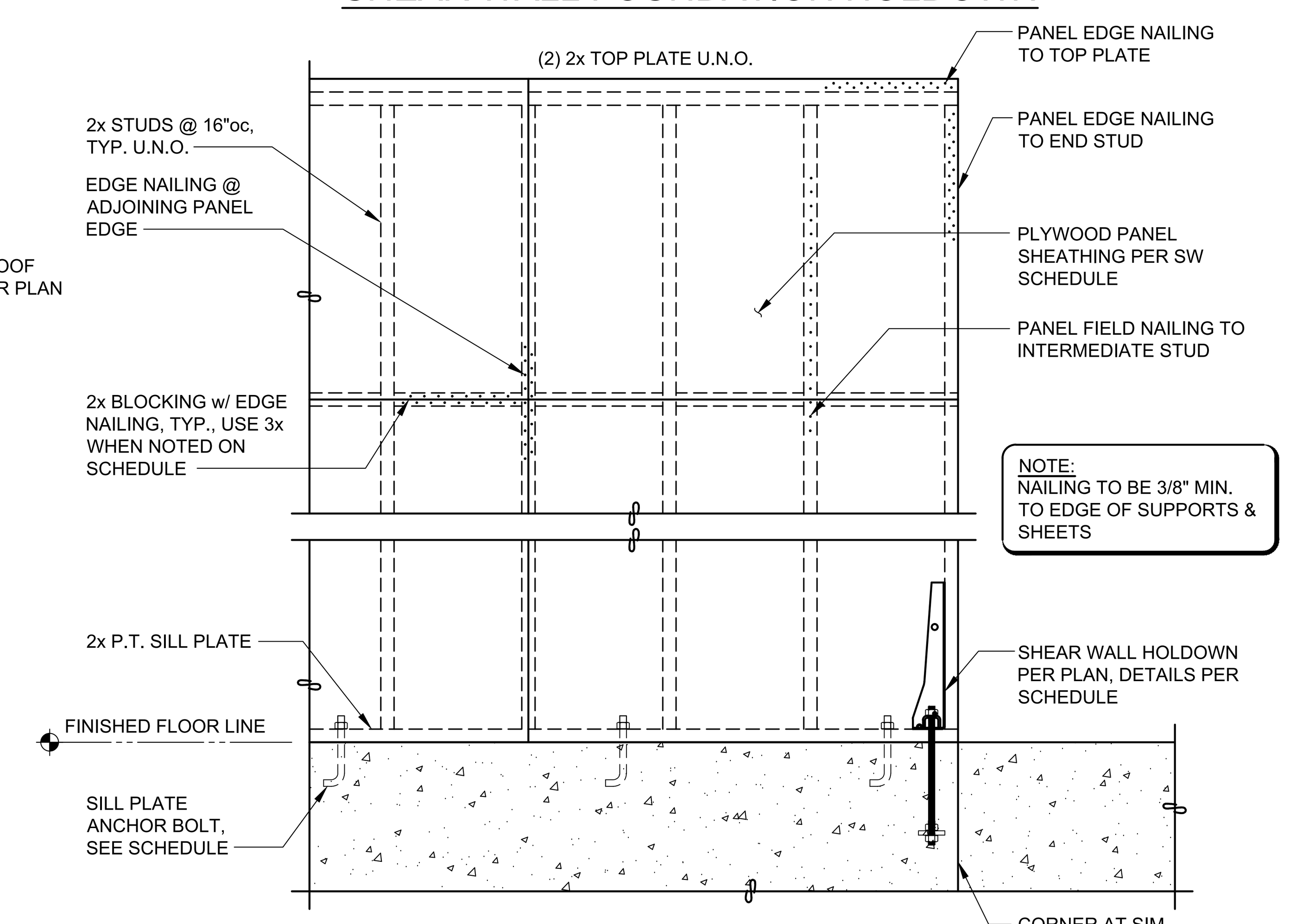
1. MINIMUM WOOD MEMBER SIZE ABOVE AND BELOW WHERE OCCURS AT FLOOR LEVEL. DO NOT USE LAG BOLTS TO FASTEN HOLDOWNS TO WOOD MEMBERS.
2. HOLDOWN SCHEDULE IS PROVIDED FOR GENERAL INSTALLATION INFORMATION. NOT ALL OF HARDWARE SCHEDULED IS REQUIRED, SEE PLANS FOR HOLDOWN CALL-OUTS AND LOCATIONS. CONSULT MANUFACTURER FOR ADDITIONAL INFORMATION.
3. QUANTITY OF NAILS FOR STRAPS ARE EVENLY DIVIDED BETWEEN ENDS OF STRAPS ABOVE AND BELOW THE DEPTH OF THE FLOOR SYSTEM. USE 16d COMMON NAILS, U.N.O.
4. FOR 2X STRAP CALL-OUT ON PLAN, USE DOUBLE STRAP TIES AND PROVIDE (5) 2x STUDS
5. IF SHEAR WALL REQUIRES 3x STUDS PER SHEAR WALL SCHEDULE, USE 3x INSTEAD OF 2x NOTED ON HOLDOWN SCHEDULE.



TYPICAL FLOOR/ROOF SHEATHING

1 PLAN VIEW

N.T.S.



TYPICAL WALL FRAMING

2 SECTION

N.T.S.

SHEAR WALL FOUNDATION HOLDOWN SCHEDULE

MARK REQUIRED HD.	ANCHOR TO CONCRETE				HOLDOWN TO WOOD POST (NOTE 2,4)		
	REQUIRED ANCHOR (NOTE 1)	A307 BOTTOM DBL. NUT PLATE WASHER	MINIMUM EMBEDMENT DEPTH (NOTE 5)	MINIMUM (N) FOOTING SIZE AROUND ANCHOR (NOTE 6,7)	FASTENER TO POST	POST (2x4 WALL)	POST (2x6 WALL)
STHD10	-	-	10" FROM T.O. STEM WALL	-	(18)16d	(2)2x4 STUDS	(2)2x6 STUDS
STHD14	-	-	14" FROM T.O. STEM WALL	-	(22)16d	(2)2x4 STUDS	(2)2x6 STUDS
HDU4	SB 5/8x24 OR 5/8"ϕ A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 9" FROM T.O. (E) STEM WALL*	-	(10)1/4"x2-1/2" SDS	(2)2x4 STUDS	(2)2x6 STUDS
HDU5	SB 5/8x24 OR 5/8"ϕ A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 10" FROM T.O. (E) STEM WALL*	-	(14)1/4"x2-1/2" SDS	(2)2x4 STUDS	(2)2x6 STUDS
HDU8	SB 7/8x24 OR 7/8"ϕ A307	1-3/4" SQ. x 1/2"	18" FROM T.O. STEM WALL / 12" FROM T.O. (E) STEM WALL*	-	(20)1/4"x2-1/2" SDS	4x4 POST	(3) 2x6 STUDS
HDU11	PAB8 OR 1"ϕ A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(30)1/4"x2-1/2" SDS	4x6 POST	6x6 POST
HDU14	PAB8 OR 1"ϕ A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(36)1/4"x2-1/2" SDS	4x6 POST	4x6 POST
HD12	PAB8 OR 1"ϕ A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(4) 1"DIA. A307 BOLTS	(3)2x4 STUDS	(3)2x6 STUDS
HDU14 (SPECL.)	PAB8 OR 1"ϕ A307	2-3/4" SQ. x 5/8"	11" FROM T.O. CONT. FTG.	33" x 33"	(36)1/4"x2-1/2" SDS	4x8 POST	6x6 POST
HD12 (SPECL.)	PAB9 OR 1-1/8"ϕ A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(4) 1"DIA. A307 BOLTS	4x8 POST	6x6 POST
HD19	PAB9 OR 1-1/8"ϕ A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(5) 1" DIA. A307 BOLTS	4x8 POST	6x6 POST
HD19 (SPECL.)	PAB9 OR 1-1/8"ϕ A307	3-1/4" SQ. x 5/8"	13" FROM T.O. CONT. FTG.	38" x 38"	(5) 1" DIA. A307 BOLTS	4x8 POST	6x6 POST

SHEAR WALL FOUNDATION HOLDOWN NOTE:

1. SIMPSON SB AND PAB CAN BE SUBSTITUTED WITH ASTM A307 HEADED ANCHOR BOLT w/ BOTTOM DOUBLE NUT AND PLATE WASHER PER SCHEDULE
2. MINIMUM WOOD MEMBER SIZE ABOVE AND BELOW WHERE OCCURS AT FLOOR LEVEL. ACCEPTABLE TO SUBSTITUTE 2x BUILT-UP POST THAT MATCHES REQUIRED POST DEPTH. DO NOT USE LAG BOLTS TO FASTEN HOLDOWNS TO WOOD MEMBERS.
3. HOLDOWN SCHEDULE IS PROVIDED FOR GENERAL INSTALLATION INFORMATION. NOT ALL OF HARDWARE SCHEDULED IS REQUIRED, SEE PLANS FOR HOLDOWN CALL-OUTS AND LOCATIONS. CONSULT MANUFACTURER FOR ADDITIONAL INFORMATION.
4. FOR SHEAR WALL REQUIRES 3x STUDS PER SHEAR WALL SCHEDULE, USE 3x INSTEAD OF 2x NOTED ON HOLDOWN SCHEDULE.
5. FOR ANCHORS CONNECTING TO EXISTING CONCRETE, DENOTED WITH MINIMUM EMBED DEPTH (*), (x") IN PLAN DRAWING, PROVIDE SIMPSON SET-XP EPOXY. EMBED DEPTH AND NUMBER OF REQUIRED HOLDOWN PER PLAN.
6. CAST ENLARGED FOOTING AROUND ANCHOR MONOLITHICALLY WITH CONT. FOOTING, MINIMUM FOOTING SIZE AROUND ANCHOR PER SCHEDULE, THICKEN FOOTING DEPTH TO ACHIEVE MINIMUM EMBEDMENT DEPTH PER SCHEDULE, SEE DETAIL ON THIS SHEET.
7. PROVIDE #4 @ 6"oc EA. WAY BOTTOM FOR FOOTING AROUND HOLDOWN ANCHOR.

SHEAR WALL SCHEDULE (DOUG FIR OR HEM FIR LUMBER PER GENERAL NOTES)

MARK	APA RATED SHEATHING (NOTE 1,2,4,12,13)		WALL STUD AND EDGE BLKG. (NOTE 3,6,14)	RIM JOIST OR BOARD CONNECTION TO WALL TOP PL OR SILL PL (NOTE 7,8)	WALL BOTTOM PLATE CONNECTION TO RIM BOARD, FLOOR BLKG. OR INTERIOR TRANSFER BEAM (NOTE 8,9)	SILL PLATE ATTACHMENT TO CONCRETE (PRESSURE-TREATED)		DOUG-FIR SHEAR CAPACITY (PLF)	HEM-FIR SHEAR CAPACITY (PLF)
	APPLICATION	PANEL EDGE 8d NAIL SPACING (NOTE 4,5)				5/8"ϕ x 7" ANCHOR BOLT SPACING (NOTE 10,15)	SILL PLATE SIZE (NOTE 11)		
W3	ONE SIDE	0.131" x 2 1/2" @ 3"oc	2x	CLIP @ 11"oc	0.148"x3 1/4" @ 3"oc	21"oc	2x	490	455
W4	ONE SIDE	0.131" x 2 1/2" @ 4"oc	2x	CLIP @ 14"oc	0.148"x3 1/4" @ 4"oc	28"oc	2x	380	353
W6	ONE SIDE	0.131" x 2 1/2" @ 6"oc	2x	CLIP @ 20"oc	0.148"x3 1/4" @ 6"oc	40"oc	2x	260	242
2W2	BOTH SIDE	0.131" x 2 1/2" @ 2"oc STAGGERED	3x	3- CLIPS @ 12"oc	3- CLIPS @ 12"oc	10"oc	3x	1280	1190
2W3	BOTH SIDE	0.131" x 2 1/2" @ 3"oc STAGGERED	3x	2- CLIPS @ 11"oc	2- CLIPS @ 11"oc	12"oc	3x	980	912
2W4	BOTH SIDE	0.131" x 2 1/2" @ 4"oc	3x	2- CLIPS @ 14"oc	2- CLIPS @ 14"oc	18"oc	3x	760	706
2W6	BOTH SIDE	0.131" x 2 1/2" @ 6"oc	3x	2- CLIPS @ 20"oc	2- CLIPS @ 20"oc	21"oc	3x	520	484

SHEAR WALL NOTES:

1. INSTALL PANELS EITHER HORIZONTALLY OR VERTICALLY FOR ENTIRE LENGTH SHOWN ON PLANS.
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 PANEL EDGES.
4. PROVIDE SHEAR WALL SHEATHING AND NAILING FOR THE ENTIRE LENGTH OF THE WALLS INDICATED ON THE PLANS. ENDS OF FULL HEIGHT WALLS ARE DESIGNATED BY EXTERIOR OF THE BUILDING, CORRIDORS, WINDOWS, OR DOORWAYS OR AS DESIGNATED ON THE PLANS. SEE PLANS FOR HOLDOWN REQUIREMENTS. ALTERNATE WALLS DESIGNATED AS PERFORATED SHEAR WALLS REQUIRE SHEATHING ABOVE AND BELOW ALL OPENINGS.
5. SHEATHING EDGE NAILING IS REQUIRED AT ALL HOLDOWN POSTS. EDGE NAILING MAY ALSO BE REQUIRED TO EACH STUD USED IN BUILT-UP HOLDOWN POSTS. REFER TO THE HOLDOWN DETAILS FOR ADDITIONAL INFORMATION.
6. INTERMEDIATE FRAMING TO BE WITH 2x MINIMUM MEMBERS. FIELD NAILING SHALL BE AT 12"oc MAX.
7. USE 0.131x1-1/2" LONG NAILS TO ATTACH FRAMING CLIPS DIRECTLY TO FRAMING. USE 0.131x2-1/2" NAILS WHEN CLIPS ARE INSTALLED OVER SHEATHING.
8. FRAMING CLIPS ARE EITHER A35 ANGLE OR LTP4 (AT EXTERIOR FACE OF WALL SHEATHING), OR APPROVED EQUIVALENT.
9. WHERE PLATE ATTACHMENT SPECIFIES 2- ROWS OF NAILS, PROVIDE DOUBLE JOIST, RIM, BLKG. OR EQUAL. ATTACH PER DETAILS
10. ANCHOR BOLTS SHALL BE PROVIDED WITH 3"x3"x1/4 PLATE WASHERS. FOR ANCHOR IN EXISTING FOUNDATION, EMBED ANCHOR BOLT 7" INTO CONCRETE WITH SIMPSON SET-XP EPOXY; EMBED ANCHOR BOLT 7" INTO CMU WITH SIMPSON SET EPOXY, FIELD VERIFY CMU CELLS ARE SOLID GROUTED.
11. PRESSURE PRESERVATIVE TREATED WOOD CAN CAUSE EXCESSIVE CORROSION AND DEGRADATION OF FASTENERS. PROVIDE HOT DIPPED GALVANIZED NAILS AND CONNECTOR PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESERVATIVE TREATED FRAMING MEMBERS.
12. DETAIL ALL EXTERIOR WALL TO BE W6 PER SCHEDULE, U.N.O. ON PLAN.

ALTERNATE NOTES:

13. 7/16" APA RATED SHEATHING (OSB) MAY BE USED IN LIEU OF 15/32" SHEATHING PROVIDED THAT ALL STUDS ARE SPACED 16"oc AND ENGINEER OF RECORD HAS BEEN NOTIFIED IN WRITING AND APPROVES.
14. WHERE WOOD SHEATHING IS APPLIED OVER GYPSUM WALL BOARD SHEATHING (GWB), CONTACT ENGINEER OF RECORD FOR APPROVAL AND ALTERNATE FASTENING REQUIREMENTS.
15. AT ADJOINING PANEL EDGES, (2) 2x STUDS NAILED TOGETHER MAY BE USED IN LIEU OF A SINGLE 3x STUD. DOUBLE 2X STUDS MAY BE CONNECTED TOGETHER WITH 3" NAILS OF THE SAME SPACING AND DIAMETER AS THE PLATE NAILING.
16. CONTACT ENGINEER OF RECORD FOR ADHESIVE OR EXPANSION BOLT ALTERNATIVES TO CAST-IN-PLACE ANCHOR BOLTS. TYPICALLY SET ADHESIVE WILL BE ALLOWED AS AN ALTERNATE.
17. ALL ANCHOR BOLTS SHALL HAVE PLATE WASHER 3"x3"x1/4". PLATE WASHERS TO BE SLOTTED SO WASHERS IS WITHIN 1/2" OF FACE OF SHEATHING.

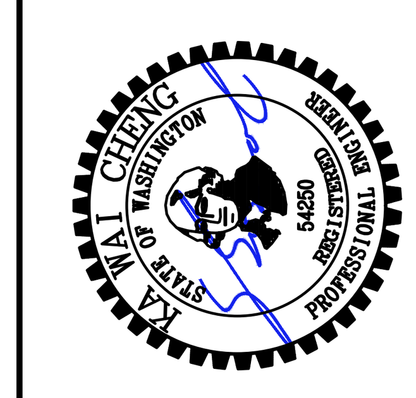
DIAPHRAGM NAILING SCHEDULE

ZONE	NAIL SPACING @ CONTINUOUS EDGES	NAIL SPACING @ INTERMEDIATE SUPPORT	STIFFENERS
1	0.148"Ø @ 6"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	SEE GENERAL NOTES
2	0.148"Ø @ 4"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	BLOCKED, w/ 2x FLAT BLOCKS AT UNSUPPORTED PANEL EDGES
3	0.148"Ø @ 2"oc AT SUPPORTED EDGES	0.131"Ø @ 12"oc	BLOCKED, w/ 2x FLAT BLOCKS AT UNSUPPORTED PANEL EDGES

ROOF AND FLOOR DIAPHRAGM NAILING NOTE:

1. ALL NAILS SHALL BE 10d COMMON (0.148"ϕ) w/ 1-1/2" MIN. PENETRATION INTO FRAMING.
2. ALL NAILS TO BE FLUSH DRIVEN & SHALL NOT FRACTURE PLYWOOD SURFACE.
3. PROVIDE 3/8" MIN. CLEARANCE BETWEEN NAIL CENTERLINE AND PANEL EDGE.
4. PROVIDE 2 ROWS 10d @ 4"oc EA. ROW AT EXTERIOR DIAPHRAGM BOUNDARIES, (BLDG. PERIMETER) TYP. (U.N.O.)
5. AT STEEL STRAP TIE LOCATIONS, NAIL ALL HOLES w/ 1-1/2" MIN. PENETRATION INTO SAWN LUMBER FRAMING. DO NOT USE 10d x 1-1/2" NAILS AS SPECIFIED IN SUPPLIER LITERATURE.
6. ZONE 1 APPLIES TO ALL ROOF AND FLOOR NAILING, U.N.O.. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED T&G JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING.

NO.	DRAWING SUBMITTALS / REVISIONS	DATE
	SUBMIT FOR PERMIT	07-24-2024
	SUBMIT FOR BID	
	SUBMIT FOR CONSTRUCTION	



DATE SIGNED: 07-12-2024

SHEET CONTENTS: FRAMING SECTIONS

EXISTING RESIDENCE ADDITION
4040 97TH AVE SE.,
MERCER ISLAND, WA 98040

CHECKED: KWC
DATE: 06-30-2024
SHEET NO:
S2.5