GENERAL NOTES

THESE DRAWINGS ARE THE PROPERTY OF THE ARCHITECT AND MAY BE REPRODUCED ONLY WITH THE WRITTEN PERMISSION OF THE ARCHITECT. AUTHORIZED REPRODUCTIONS MUST BEAR THE NAME OF THE ARCHITECT. THESE DRAWINGS ARE FULLY PROTECTED BY FEDERAL AND STATE COPYRIGHT LAWS. ANY INFRINGEMENT WILL BE VIGOROUSLY PROSECUTED.

ALL CONSTRUCTION SHALL CONFORM TO THE 2018 INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY THE STATE OF WASHINGTON AND BE IN ACCORDANCE WITH WASHINGTON STATE LAWS, REGULATIONS AND VARIOUS CODES IMPOSED BY LOCAL

DO NOT SCALE DRAWINGS OR DETAILS - USE GIVEN DIMENSIONS. CHECK DETAILS FOR LOCATION OF ALL ITEMS NOT

DOOR AND CASED OPENINGS WITHOUT DIMENSIONS ARE TO BE 4" FROM FACE OF ADJACENT WALL OR CENTERED BETWEEN

WALLS, UNLESS NOTED OTHERWISE. VERIFY FIELD CONDITIONS PRIOR TO COMMENCEMENT OF EACH PORTION OF THE WORK.

THE CONTRACTOR SHALL COORDINATE ALL PORTIONS OF THE WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS. NOTIFY THE ARCHITECT FOR RESOLUTION OF ALL DISCREPANCIES PRIOR TO CONSTRUCTION.

CONTRACTORS RESPONSIBILITY:

CONTRACTOR TO VERIFY ALL DIMENSIONS AND STRUCTURAL MEMBER SIZES PRIOR TO CONSTRUCTION. CONTRACTOR TO INFORM ARCHITECT OF ANY DISCREPANCIES IN THE DRAWINGS OR FROM THE CODES.

CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE OWNER / ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

ALL STRUCTURAL SYSTEMS SUCH AS WOOD TRUSSES WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN

ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER. CONTRACTOR TO COORDINATE FRAMING LAYOUT WITH ELECTRICAL AND MECHANICAL PLAN.

UNLESS A SOILS REPORT BY A SOILS ENGINEER IS PROVIDED AND ATTACHED THIS OFFICE ASSUMES NO RESPONSIBILITY AS TO THE PHYSICAL CHARACTERISTICS OF THE SOIL, FOUNDATION DESIGN IS BASED ON AN ASSUMED AVERAGE SOIL BEARING OF 2.000 PSF. ALL FOOTINGS SHALL BE CAST ON UNDISTURBED FIRM NATURAL SOIL OR COMPACTED SOIL OF 2,000 PSF BEARING CAPACITY AT LEAST 1'-6" BELOW LOWEST ADJACENT GRADE, FREE OF ORGANIC MATERIALS. FOOTING EXCAVATION SHALL BE FREE OF LOOSE SOILS, DEBRIS, AND FREE OF WATER AT ALL TIMES. THIS OFFICE TAKES NO RESPONSIBILITY IN VERIFYING THE ACCURACY OF ENGINEERING DATA SUPPLIED BY OTHERS.

CLEARING AND GRADING (T.E.S.C. MEASURES):

CRAWL SPACE, UNOBSTRUCTED ACCESS, MINIMUM 18" x 24". Ref IRC R408.4

ALL CLEARING AND GRADING MUST BE IN ACCORDANCE WITH LOCAL JURISDICTION CLEARING AND GRADING EROSION CONTROL STANDARDS, DEVELOPMENT STANDARDS, LAND USE CODE, INTERNATIONAL RESIDENTIAL CODE, PERMIT CONDITIONS, AND ALL DTHER APPLICABLE CODES, ORDINANCES AND STANDARDS. THE DESIGN ELEMENTS WITH THESE PLANS HAVE BEEN REVIEWED TO THESE REQUIREMENTS. ANY VARIANCE FROM THE ADOPTED EROSION CONTROL STANDARDS IS NOT ALLOWED UNLESS SPECIFICALLY APPROVED BY THE LOCAL JURISDICTION PRIOR TO CONSTRUCTION.

A COPY OF THE APPROVED PLANS MUST BE ON-SITE WHENEVER CONSTRUCTION IS IN PROGRESS. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ANY OTHER REQUIRED OR RELATED PERMITS PRIOR TO BEGINNING CONSTRUCTION.

ALL LOCATIONS OF EXISTING UTILITIES HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD, THEREFORE, BE CONSIDERED ONLY APPROXIMATE AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS AND TO DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN WHICH MAY BE EFFECTED BY THE WORK.

FINAL SITE DRAINAGE MUST DIRECT DRAINAGE AWAY FROM ALL BUILDING STRUCTURES AT A MINIMUM OF 6" WITHIN THE FIRST 10'.

CRAWL SPACE:

UNDER-FLOOR AREAS SHALL BE VENTED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS IN EXTERIOR FOUNDATION WALLS. SUCH OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF UNDER-FLOOR AREA. ONE OPENING SHALL BE WITHIN 3' OF EACH CORNER OF THE BUILDING. Ref IRC R408.2

PROVIDE 18" MINIMUM CRAWL SPACE UNDER WOOD JOIST AND 12" MINIMUM CRAWL SPACE UNDER WOOD GIRDERS. Ref IRC

A GROUND COVER VAPOR BARRIER OF MIN. 6 MIL. (0.006") POLYETHYLENE (0R EQUIVALENT) SHALL BE INSTALLED IN ALL CRAWL SPACES, JOINTS LAPPED 12", EXTEND UP FOUNDATION WALL AND SECURE TO SILL PLATE WHEREVER PRACTICAL.

ALL WOOD IN CONTACT WITH CONCRETE, CMU OR WITHIN 8" OF SOILS SHALL BE PRESSURE TREATED WOOD. Ref IRC R317.1

OPENINGS FROM A PRIVATE GARAGE DIRECTLY INTO A ROOM USED FOR SLEEPING PURPOSES SHALL NOT BE PERMITTED. DOORS BETWEEN GARAGE AND DWELLING SHALL BE SOLID WOOD DOORS; MINIMUM 1 3/8" THICK WITH SELF CLOSING DEVICE. Ref

SEPARATION FROM DWELLING TO GARAGE. SHOP OR SIMILAR AREAS SHALL BE SEPARATED FROM RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE X GYPSUM BOARD OR EQUIVALENT. WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY, THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2" GYPSUM BOARD OR EQUIVALENT. Ref IRC R302.6 & TABLE 302.6

HEATING AND/OR COOLING EQUIPMENT LOCATED IN GARAGE SHALL BE INSTALLED WITH PILOTS AND BURNERS OR HEATING ELEMENTS AND SWITCHES AT LEAST 18" ABOVE THE FLOOR LEVEL. Ref IRC G2408.2

FACTORY-BUILTFIREPLACES SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING. FACTORY-BUILTFIREPLACES SHALL BE TESTED IN ACCORDANCE WITH UL 127. Ref IRC R1004.1

MASONRY FIREPLACES, BARBECUES, SMOKE CHAMBERS AND FIREPLACE CHIMNEYS SHALL BE CONSTRUCTED OF MASONRY OR REINFORCED CONCRETE. FOUNDATIONS SHALL BE MIN. 12" THICK AND EXTEND MIN. 6" BEYOND MASONRY. FIREBOX WALLS MIN 10" THICK EXCEPT MIN. 8" THICK WHERE A FIREBRICK LINING IS USED. COMBUSTIBLE MATERIALS SHALL NOT BE PLACED WITHIN 2 INCHES OF FIREPLACE, SMOKE CHAMBER OR CHIMNEY WALLS. COMBUSTIBLE MATERIAL SHALL NOT BE PLACED WITHIN 6" OF THE FIREPLACE OPENING. MIN. 4" THICK NON-COMBUSTIBLE HEARTH EXTENDING 16" IN FRONT AND 8" TO THE SIDE OF THE FIREPLACE OPENING. COMBUSTIBLE MATERIAL WITHIN 12" OF THE FIREPLACE OPENING SHALL NOT PROJECT MORE THAN 1/8" FOR EACH 1" DISTANCE FROM SUCH OPENING. Ref IRC R1001 - R1003

CEILING HEIGHTS:

HABITABLE SPACE SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7'-0". NOT MORE THAN 50% OF REQUIRED FLOOR AREA OF A SPACE IS PERMITTED TO HAVE A SLOPED CEILING LESS THAN 7'-0" IN HEIGHT WITH NO PORTION LOWER THAN 5'-0". BATHROOM SHALL HAVE A MIN CEILING HEIGHT OF 6'-8" OVER THE FIXTURE AND ITS FRONT CLEARANCE AREA. Ref IRC R305

APPLY ROOFING IN ACCORDANCE WITH IRC R905.

BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4" PER 12" (2% SLOPE) FOR DRAINAGE.

PROVIDE ATTIC VENTILATION AS INDICATED ON ROOF FRAMING PLANS. THE MINIMUM NET FREE VENTILATING AREA SHALL BE 1/150 OF THE AREA OF THE VENTED SPACE. EXCEPTION: THE MINIMUM NET FREE VENTILATION AREA SHALL BE 1/300 OF THE VENTED SPACE PROVIDED NOT LESS THAN 40 PERCENT AND NOT MORE THAN 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, WITH THE BALANCE OF THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. Ref IRC R806.2

ATTIC ACCESS SHALL HAVE A ROUGH FRAMED OPENING NOT LESS THAN 22 INCHES BY 30 INCHES LOCATED IN A READILY ACCESSIBLE LOCATION. THE MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE 30 INCHES MEASURED VERTICALLY FROM THE BOTTOM OF THE CEILING FRAMING MEMBERS. Ref IRC R807. FOR ACCESS REQUIREMENTS WHERE

TO BE IN COMPLIANCE WITH IRC R308 AND WASHINGTON STATE SAFETY GLASS LAW.

GLAZING IN HAZARDOUS LOCATIONS SUCH AS GLASS ON DOORS, GLAZING WITHIN 24" ON EITHER SIDE OF A DOOR OPENING, AREAS WITHIN 60" VERTICAL AND 36" HORIZONTAL OF THE BOTTOM LANDING OF A STAIRWAY, STORM DOORS, RAILINGS, SHOWER DOORS. SLIDING GLASS DOORS, AND TUB ENCLOSURES SHALL BE SAFETY GLAZING MATERIAL. Ref IRC R308.4

ALL EXTERIOR WALL GLAZING SHALL COMPLY WITH THE 2018 EDITION OF THE WASHINGTON STATE ENERGY CODE.

EGRESS IN EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE EMERGENCY EXIT WITH A MINIMUM NET CLEAR OPENING OF 5.7 SQ. FT. THE MINIMUM NET CLEAR OPENING HEIGHT DIMENSION SHALL BE 24" MINIMUM NET CLEAR OPENING WIDTH DIMENSION OF 20" AND A FINISHED SILL HEIGHT NOT MORE THAN 44" ABOVE THE FLOOR. IRC R310.1.

ONE EXIT DOOR CONFORMING TO IRC R311.2 IS REQUIRED.

FIRE & CARBON MONOXIDE PROTECTION: SMOKE & CARBON MONOXIDE DETECTOR POWER SOURCES TO BE INSTALLED IN ACCORDANCE WITH NFPA 72, IRC R314 & IRC

R315. ALL ALARM DEVICES SHALL BE INTERCONNECTED PER IRC R314.1 FIREBLOCKING PER IRC R1003.19, R1001.12, R302.11 & R602.8. DRAFTSTOPPING PER IRC R302.12 & R502.12.

VENTILATION & LIGHTING:

HABITABLE ROOMS NOT PROVIDED WITH AN OPENABLE EXTERIOR OPENING OF AT LEAST 4% OF THE FLOOR AREA, A MECHANICAL VENTILATION SYSTEM MUST BE PROVIDED THAT PROVIDES MIN. .35 AIR CHANGES PER HOUR. IRC R303.1. DRYER & BATH FANS TO BE 50 CFM, AND RANGE/OVEN FANS TO BE 100 CFM MIN, VENT TO THE OUTSIDE. IRC303 AND 2006 WA

NATURAL LIGHTING TO BE NOT LESS THAN 8% OF THE FLOOR AREA OR ALL HABITABLE SPACES. IRC R303.

MINIMUM HEADROOM OF 6'-8" MEASURED VERTICALLY FROM A SLOPED PLANE ADJOINING THE TREAD NOSING OR FROM THE FLOOR SURFACE OR PLATFORM, IRC R311.7.2 MINIMUM WIDTH 36". IRC 311.7.1

MINIMUM TREAD 10", MAXIMUM RISER 7 3/4", HANDRAIL MINIMUM 34" AND MAXIMUM 38" ABOVE STAIR NOSING. HANDRAIL TO BE 1 1/4" TO 2" CROSS SECTION AND 1 1/2" AWAY FROM WALL. IRC R311.7.5 & 311.7.8. INSTALL FIRE BLOCKING AT MID STRINGER SPAN AND AT WALL ALONG STRINGER. COVER WALLS AND SOFFITS OF USABLE SPACE UNDER STAIR WITH 1/2" GYPSUM BOARD. IRC

GUARDRAILS: ANY WALKING SURFACE 30" OR MORE ABOVE GRADE OR ADJACENT SURFACE SHALL HAVE MIN. 36" HIGH

BATHROOMS:

IRC G2404.4

ALL TUB AND SHOWER STALLS SHALL HAVE FIREBLOCKING BETWEEN STUDS

ALL GLAZING USED FOR DOORS OR ENCLOSURES IN BATHROOMS SHALL BE SAFETY GLAZING. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING A SHOWER OR BATHTUB WHERE THE BOTTOM EXPOSED EDGE IS LESS THAN 60 INCHES ABOVE THE STANDING SURFACE AND DRAIN INLET SHALL BE SAFETY GLAZING. IRC R308.4

BATH TUB & SHOWER STALL NON-ABSORBENT WAINSCOTS SHALL BE A MINIMUM OF 72 INCHES ABOVE THE FLOOR. IRC R307.2. WATERCLOSETS SHALL HAVE MIN. 15" TO SIDE WALLS FROM CENTER OF FIXTURE, AND MIN. 21" FRONT CLEARANCE. IRC R307.1 APPLIANCES IN A FIXED POSITION SHALL BE SECURELY FASTENED IN PLACE TO STRUCTURAL MEMBERS WITH STRAP ANCHORS OR SIMILAR ANCHORING METHOD.

WANG & YANG ADU

6450 E MERCER WAY MERCER ISLAND, WA 98040



PROJECT DIRECTORY

GENERAL CONTRACTOR

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Project Information Wang & Yang ADU Siyao Wang Siyao Wang Instructions: This single-family project will use the requirements of the Prescriptive Path below and

incorporate the minimum values listed. Based on the size of the structure, the appropriate number of Provide all information from the following tables as building permit drawings: Table R402.1 - Insulation and Authorized Representative Siyao Wang Digitally signed by Siyao Wang Date: 2024.02.18 16:55:44-0800' Date 02/18/2024

		R-Value a	U-Factor ^a			
Fen	estration U-Factor ^b	n/a	0.28			
Sky	light U-Factor ^b	n/a	0.50			
Gla	zed Fenestration SHGC b,e	n/a	n/a			
Cei	ling ^e	49	0.026			
Wo	od Frame Wall ^{g,h}	21 int	0.056			
Flo	or	38	0.029			
Bel	ow Grade Wall ^{c,h}	10/15/21 int + TB	0.042			
Slal	o ^{d,f} R-Value & Depth	10, 2 ft	n/a			
	R-values are minimums. U-fact	tors and SHGC are maximums. When insu	lation is installed in a cavity that is les			
а	than the label or design thickn	ess of the insulation, the compressed R-v	alue 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 colu	mn excludes skylights.				
	"10/15/21 +5TB" means R-10 (continuous insulation on the exterior of the	ne wall, or R-15 continuous insulation			
	the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wa					
С	the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation of					
	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 betw	veen floor slab and basement wall.				
d	R-10 continuous insulation is r	equired under heated slab on grade floor	s. See Section R402.2.9.1.			
e	For single rafter- or joist-vaulte	ed ceilings, the insulation may be reduced	I to R-38 if the full insulation depth			
_	extends over the top plate of t	he exterior wall.				
	R-7.5 continuous insulation ins	stalled over an existing slab is deemed to	be equivalent to the required perime			
f		o existing slabs complying with Section R5	03.1.1. If foam plastic is used, it shall			
		meet the requirements for thermal barriers protecting foam plastics.				
	For log structures developed in	n compliance with Standard ICC 400, log v	valls shall meet the requirements for			

Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard

h framing 16 inches on center, 78% of the wall cavity insulated and headers insulated with a minimum of R-10

	Common of Tal	I- D400 0 d	400.2	
ting	Summary of Tak Fuel Normalization Descriptions	Credits - s	elect ONE	User Notes
ons	•	heating	option	
<u> </u>	Combustion heating minimum NAECA ^b	0.0		
2	Heat pump ^c	1.0	<u> </u>	
3	Electric resistance heat only - furnace or zonal	-1.0		
1	DHP with zonal electric resistance per option 3.4	0.5		
5	All other heating systems	-1.0	de la contra	
rgy ions	Energy Credit Option Descriptions	Credits - s energy optic categ	n from each	
1	Efficient Building Envelope	0.5		
2	Efficient Building Envelope	1.0		
3	Efficient Building Envelope	0.5	•	
4	Efficient Building Envelope	1.0		
5	Efficient Building Envelope	2.0		
6	Efficient Building Envelope	3.0		
7	Efficient Building Envelope	0.5		
1	Air Leakage Control and Efficient Ventilation	0.5	•	
2	Air Leakage Control and Efficient Ventilation	1.0		
3	Air Leakage Control and Efficient Ventilation	1.5		
4	Air Leakage Control and Efficient Ventilation	2.0		
.1ª	High Efficiency HVAC	1.0		
2	High Efficiency HVAC	1.0		
.3ª	High Efficiency HVAC	1.5		
4	High Efficiency HVAC	1.5		
5.1	High Efficiency HVAC	1.5		
5.2	High Efficiency HVAC	1.5		
6ª	High Efficiency HVAC	2.0		
1	High Efficiency HVAC Distribution System	0.5	•	
.2	High Efficiency HVAC Distribution System	1.0		
	Summary of Table	R406.2 (cont. Credits - sele		
rgy ions	Energy Credit Option Descriptions (cont.)	energy option	n from	User Notes

5.3 Efficient Water Heating

5.4 Efficient Water Heating 5.5 Efficient Water Heating

5.6 Efficient Water Heating

6.1e Renewable Electric Energy (3 credits max

VICINITY MAP



DRAWING INDEX

PROJECT ADDRESS

MERCER ISLAND, WA 98040

LEGAL DESCRIPTION & TAX PARCEL NUMBER

POR OF GL 1 IN NE 1/4 BEG ON S LN OF N 498 FT OF SD GL 1646.58 FT E OF W LN SD NE

above grade plane are allowed per IBC Table 504.4 when structural design is in accordance with

R-3 (SINGLE FAMILY RESIDENCE)

FULL COVERAGE NFPA 13D

(DEFERRED SUBMITTAL)

(DEFERRED SUBMITTAL)

4. SOLID CORE DOORS

REQUIRED

3 STORIES ABOVE GRADE PLANE (4 Stories

1. UPGRADED FULL COVERAGE NFPA 13D

2. MONITORED FIRE ALARM SYSTEM

3. 1-HR RATED GYPSUM IN ALL AREAS

* SEE FIRE CODE ALTERNATE REQUEST

89.64 FT TH N 88-35-33 W 171.49 FT TH N 38-38-53 W 117.36 FT TO SD N 498 FT TH S

6450 E MERCER WAY

1/4 TH S 01-25-38 W

88-35-15 E 251.89 FT TO

TAX PARCEL NUMBER: 302405-9004

ZONING CLASSIFICATION

BUILDING CLASSIFICATION

ALLOWABLE FLOOR AREA (IBC Table 506.2)

ALLOWABLE NO. OF STORIES (IRC R101.2)

ALLOWABLE BLDG HT IN FEET (IBC Table 504.3) 60'

BUILDING AREA CALCULATIONS

BUILDING HEIGHT CALCULATIONS

REFER TO SHEET A1.02 FOR HEIGHT CALCULATIONS

REFER TO SHEET A1.05 FOR GROSS FLOOR AREA CALCS

OCCUPANCY (IBC Chapter 3 & 4)

FIRE PROTECTION SYSTEM

ALTERNATIVE FIRE PROTECTIONS

SPRINKLERS

CONSTRUCTION TYPE (IBC 602.5)

ARCHITECTURAL

COVER SHEET

SURVEY

ARCHITECTURAL DEMO SITE PLAN

ARCHITECTURAL PROPOSED SITE PLAN

LOT COVERAGE DIAGRAMS

HARDSCAPE DIAGRAM **GROSS FLOOR AREA & IMPERVIOUS**

MAIN FLOOR PLAN

UPPER FLOOR PLAN ROOF PLAN

EXTERIOR ELEVATIONS

BUILDING SECTIONS

WALL SECTIONS DOOR AND WINDOW SCHEDULES

STRUCTURAL

GENERAL STRUCTURAL NOTES/SHEET INDEX

GENERAL STRUCTURAL NOTES

FOUNDATION PLAN

UPPER FLOOR FRAMING PLAN S2.2 ROOF FRAMING PLAN

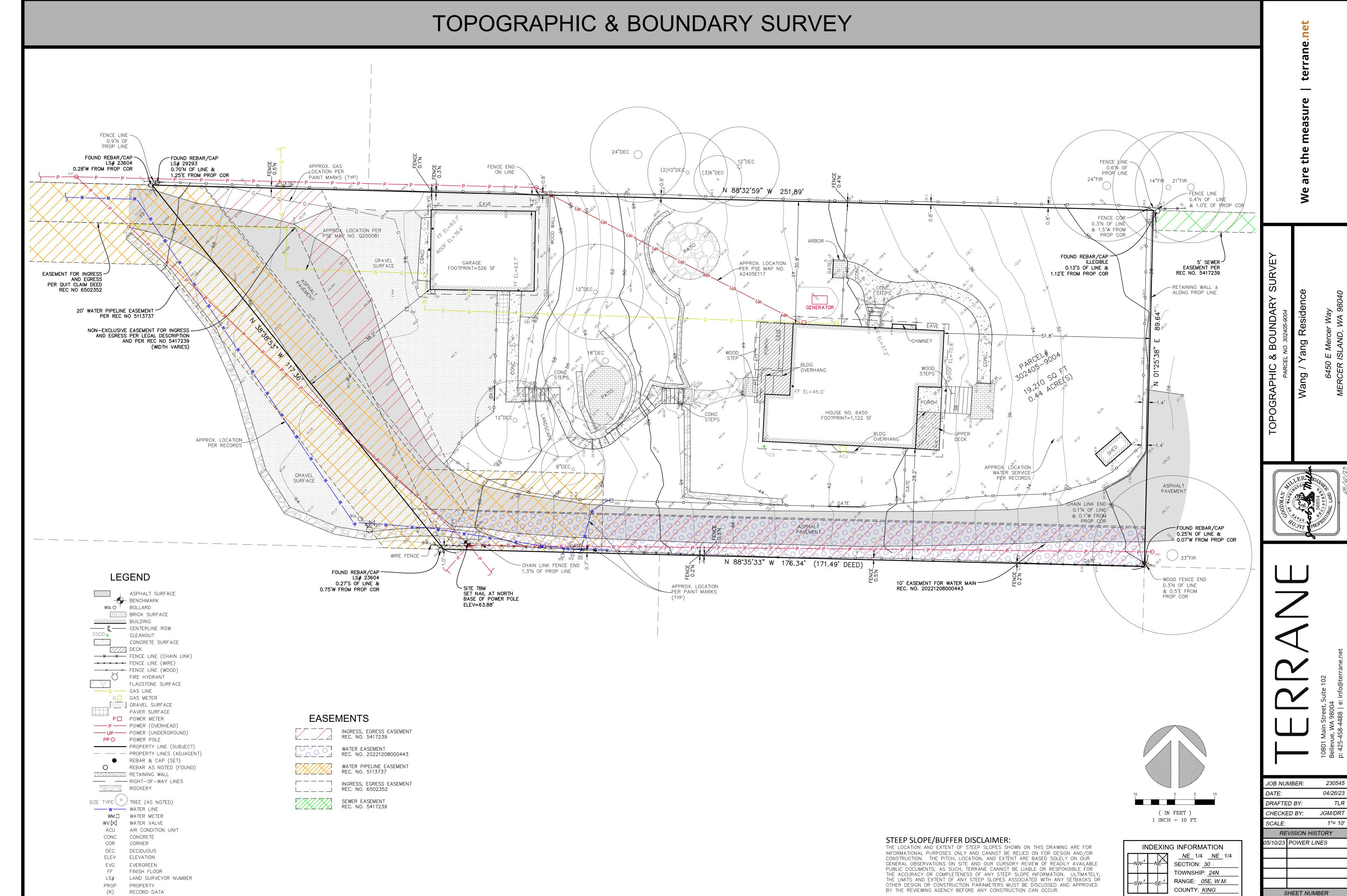
FOUNDATION DETAILS

FRAMING SCHEDULES WOOD FRAMING DETAILS

FLOOR FRAMING DETAILS ROOF FRAMING DETAILS

Project Manager: 2/25/2024 DATE REVISION 10/17/2023 STRUCTURAL 12/01/2023 STRUCTURAL REV 1 12/07/2023 PRICING 12/16/2023 PRE-APP MEETING #2 02/25/2024 BUILDING PERMIT

COVER SHEET



2 OF 2

BOLO T BOLLARD

BUILDING

SSCO CLEANOUT

_____DECK

— GAS LINE

REBAR & CAP (SET) O REBAR AS NOTED (FOUND)

RETAINING WALL ---- RIGHT-OF-WAY LINES

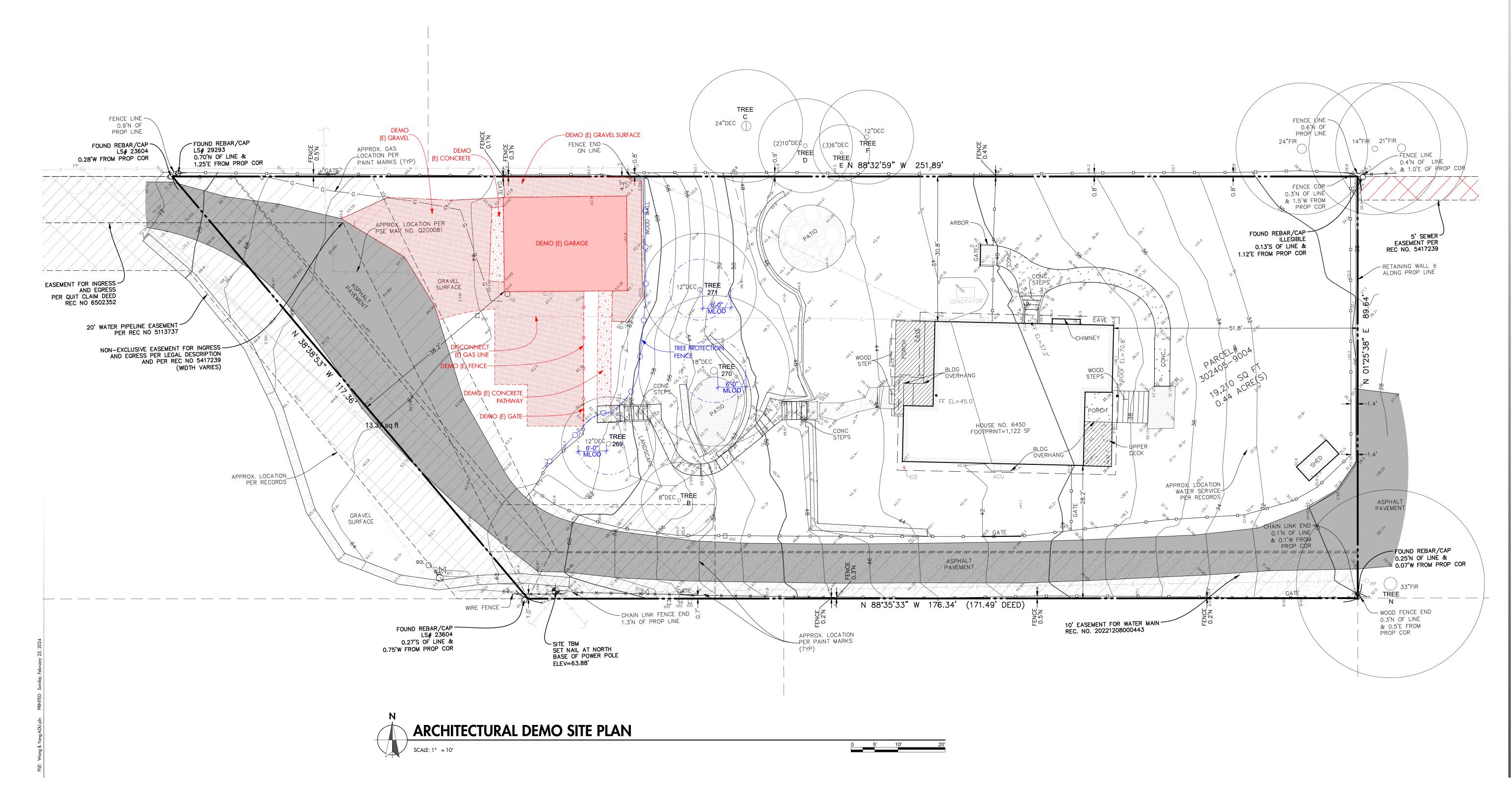
ROCKERY

G ☐ GAS METER

12/01/2023 STRUCTURAL REV 1 12/07/2023 PRICING

12/16/2023 PRE-APP MEETING #2 02/25/2024 BUILDING PERMIT

ARCHITECTURAL DEMO SITE PLAN

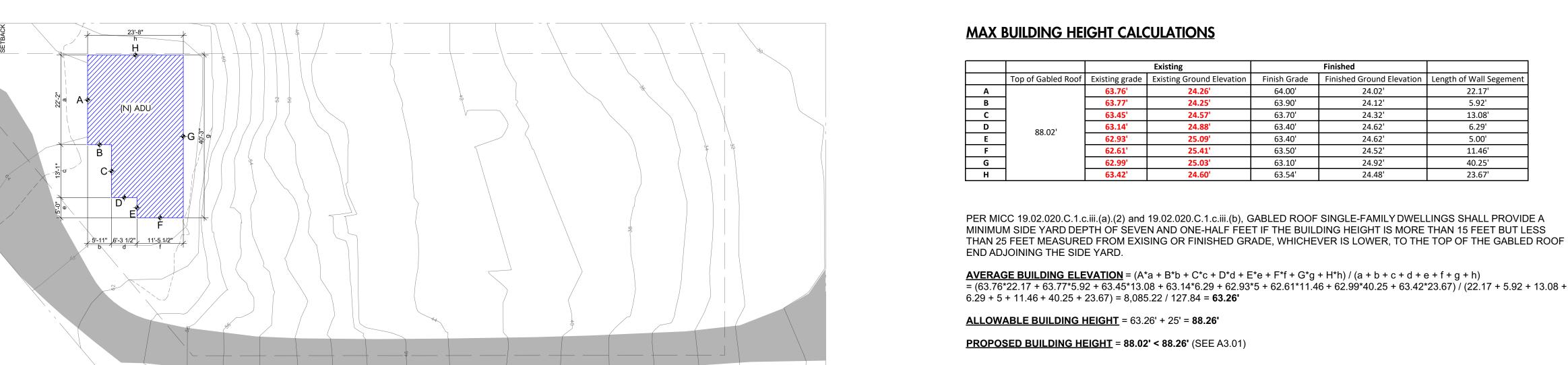


12/16/2023 PRE-APP MEETING #2

02/25/2024 BUILDING PERMIT

ARCHITECTURAL

PROPOSED SITE PLAN



AVERAGE BUILDING ELEVATION = $(A^*a + B^*b + C^*c + D^*d + E^*e + F^*f + G^*g + H^*h) / (a + b + c + d + e + f + g + h)$ = (63.76*22.17 + 63.77*5.92 + 63.45*13.08 + 63.14*6.29 + 62.93*5 + 62.61*11.46 + 62.99*40.25 + 63.42*23.67) / (22.17 + 5.92 + 13.08 + 63.45*6.29 + 5 + 11.46 + 40.25 + 23.67 = 8,085.22 / 127.84 = 63.26

24.26'

24.25'

24.88'

25.09'

25.41'

25.03'

24.60'

Finished

64.00'

63.90'

63.70'

63.40'

63.40'

63.50'

63.10'

63.54'

Finished Ground Elevation

24.02'

24.12'

24.32'

24.62'

24.62'

24.52'

24.92'

24.48'

Length of Wall Segemen

22.17'

5.92'

13.08'

6.29'

5.00'

11.46'

40.25'

23.67'

ALLOWABLE BUILDING HEIGHT = 63.26' + 25' = **88.26'**

PROPOSED BUILDING HEIGHT = **88.02' < 88.26'** (SEE A3.01)

63.76'

63.77'

63.45'

63.14'

62.93'

62.61'

63.42'

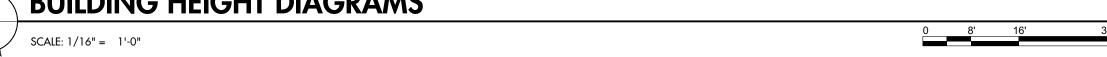
BUILDING HEIGHT DIAGRAMS

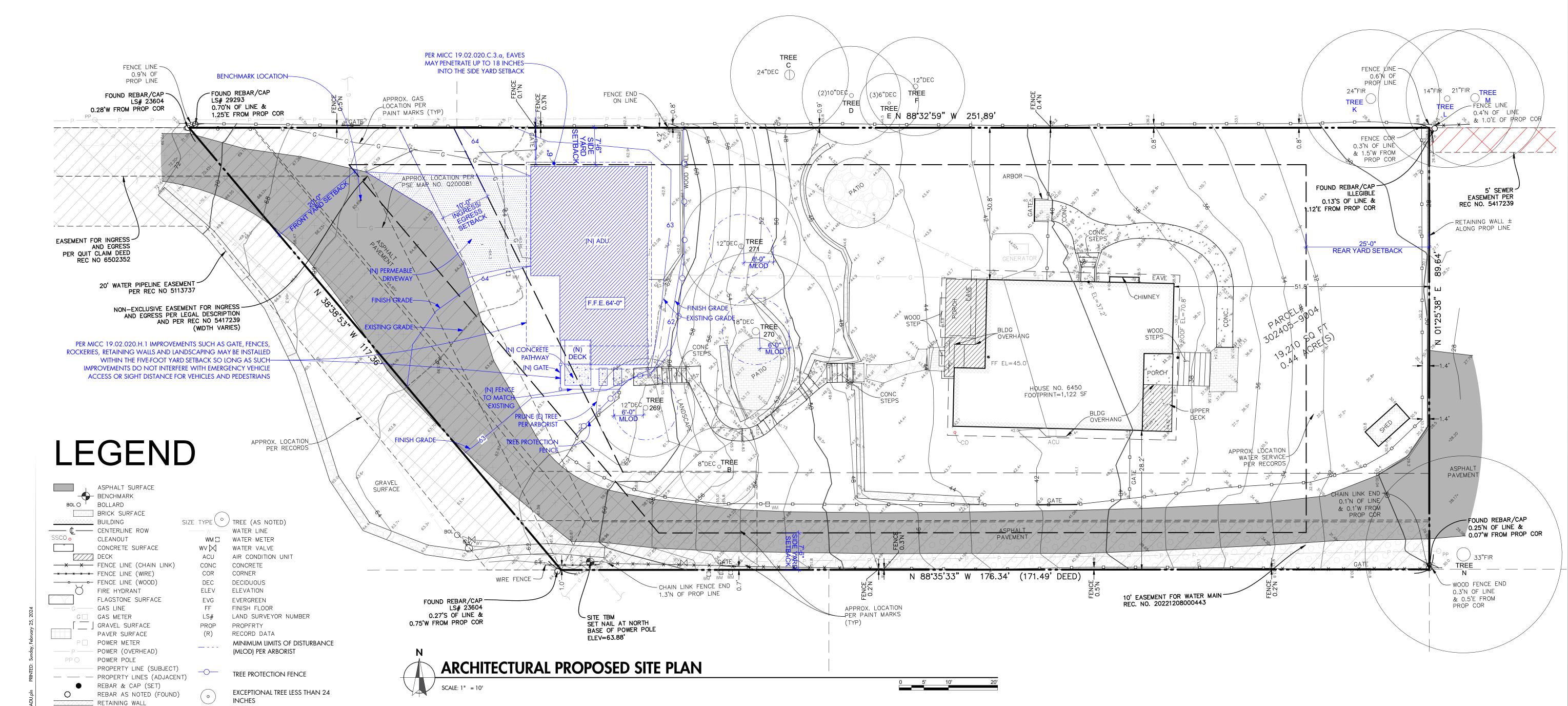
----- RIGHT-OF-WAY LINES

ROCKERY

EXCEPTIONAL TREE GREATER THAN

24 INCHES





LOT COVERAGE CALCULATIONS

(D) GARAGE

LOT COVERAGE DEMO

(D) GARAGE 621

LOT COVERAGE NEW

(N) ADU 1,004 (N) DRIVING SURFACE 376 1,380 ft²

Lot Slope	Maximum Lot Coverage (house, driving surfaces, and accessory buildings)	Required Landscaping Area
Less than 15%	40%	60%
15% to less than 30%	35%	65%
30% to 50%	30%	70%
Greater than 50% slope	20%	80%

MAX. LOT COVERAGE ALLOWED	35%
	17,438.53 * 35% = 6,103.49 SF

LOT COVERAGE CALCULATIONS

HIGHEST ELEVATION OF THE PROPERTY

LOWEST ELEVATION OF THE PROPERTY

LOT SLOPE CALCULATIONS

LOT SLOPE	
NET LOT AREA CALCULATIONS	
ACCESS EASEMENT AREA THAT DOES NOT PROVID	DE ACCESS TO HOME ON THE SUBJECT LOT
NET LOT AREA	

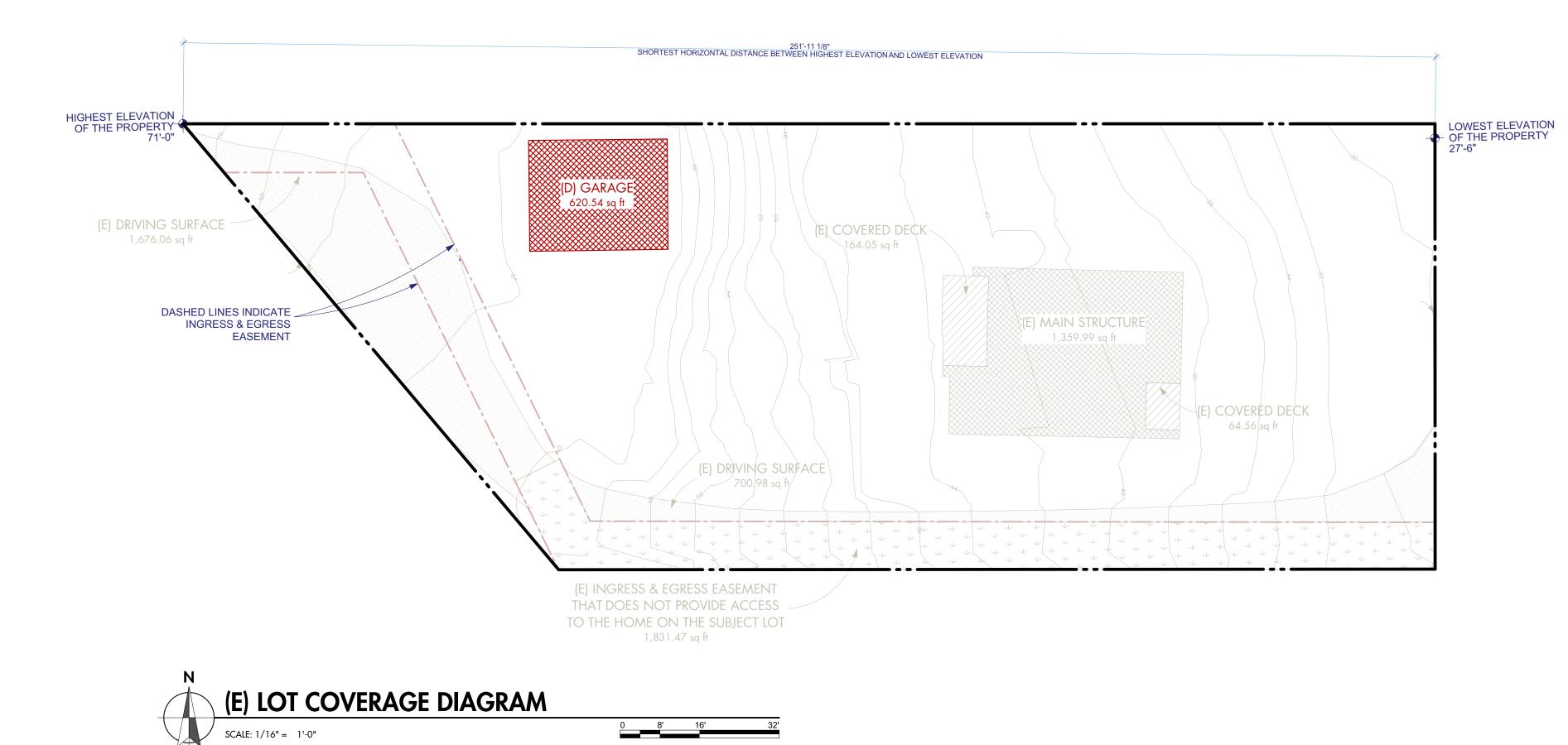
LOT COVERAGE EXISTING

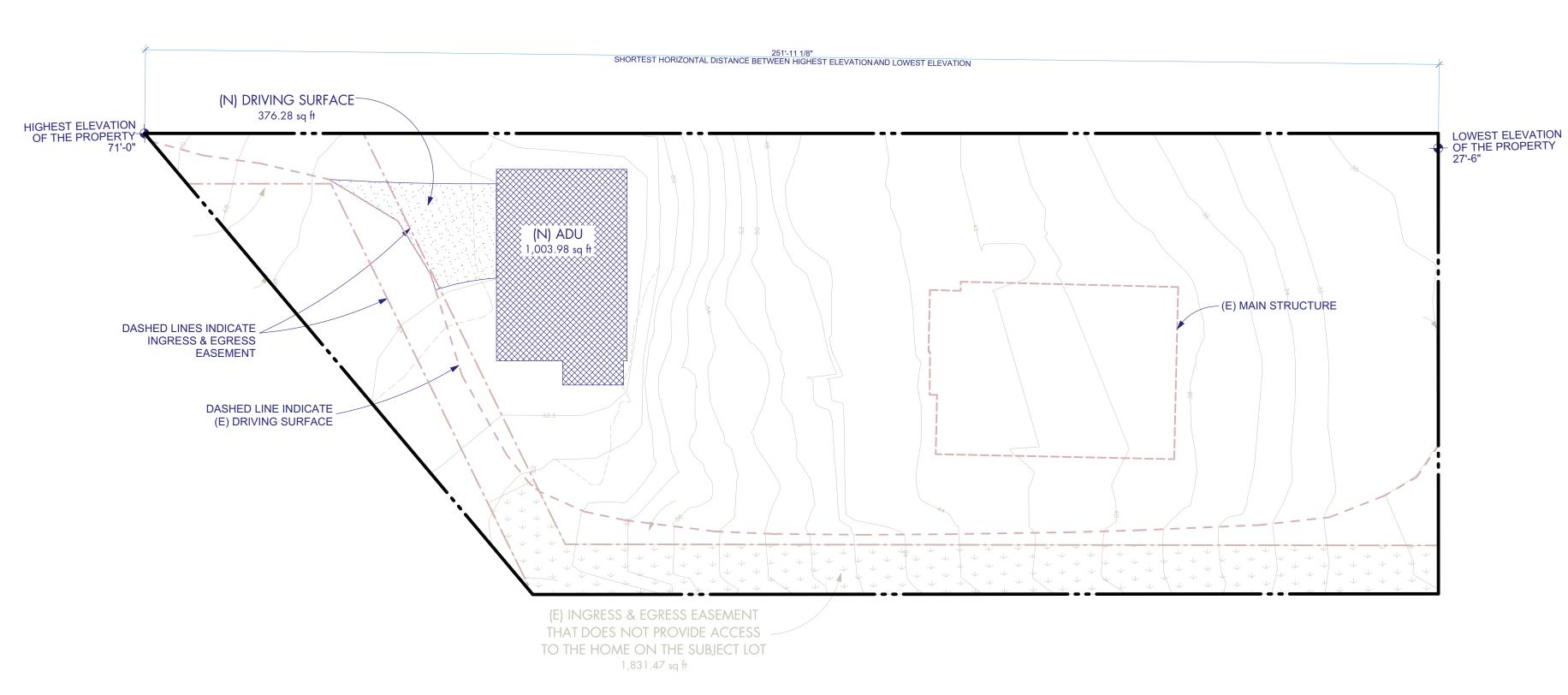
	4,586 ft ²
(E) MAIN STRUCTURE	1,360
(E) DRIVING SURFACE	2,377
(E) COVERED DECK	229
(D) GARAGE	621

621 ft²

Project Manager: 2/25/2024 NO. DATE 10/17/2023 STRUCTURAL 12/01/2023 STRUCTURAL REV 1 12/07/2023 PRICING 12/16/2023 PRE-APP MEETING #2 02/25/2024 BUILDING PERMIT

> LOT COVERAGE **DIAGRAMS**





(N) LOT COVERAGE DIAGRAM



(N) HARDSCAPE DIAGRAM

DASHED LINES INDICATE INCRESS & ECRESS DASHED LINE NDICATE (E) DRIVING SURFACE (N) UNCOVERED DECK 18.77 sq.ll (6) INGRESS & ECRESS EASEMENT THAT DOES NOT PROVIDE ACCESS TO THE HOME ON THE SUBJECT LOT 1,31.47 sq.ll

HARDCAPE CALCULATIONS

HARDSCAPE COVERAGE EXIST	<u> </u>
(D) CONCRETE	45
(D) GRAVEL SURFACE	1,206
(D) WALKWAY	71
(E) GRAVEL SURFACE	408
(E) PATIO	274
(E) RETAINING WALL	27
(E) ROCKERY	198
(E) WALKWAY	561
(E) WOOD WALL	17
	2,808 ft
HARDSCAPE COVERAGE DEMO	<u>0</u>
(D) CONCRETE	45
(D) GRAVEL SURFACE	1,206
(D) WALKWAY	71
	1,322 ft
HARDSCAPE COVERAGE NEW	, -
(N) UNCOVERED DECK	19

NET LOT AREA CALCULATIONS

HARDSCAPE PROVIDED ..

(N) WALKWAY

LOT AREA	
LOT AREAACCESS EASEMENT AREA THAT DOES NOT PROVIDE ACCESS TO HOME ON	THE SUBJECT LOT 1,831.47 SF
NET LOT AREA	19,270 - 1,831.47 = 17,438.53 SF
PER MICC 19.02.020.F.3.b.i, A MAXIMUM OF NINE PERCENT OF THE NET LOT A IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, WALKWAYS, DECKS, ETC	
MAX. HARDSCAPE ALLOWED	9%
MAX. HARDSCAPE AREA ALLOWED	17,438.53 * 9% = 1,569.47 SF
HARDSCAPE AREA PROVIDED	2,808 - 1,322 + 52 = 1,538 SF < 1,569.47 SF

52 ft²

STUDIO STUDIO

ANG & YANG AD

. 1,538 / 17438.53 = 8.82% < 9%

 Job No.
 2303

 Project Manager:
 SW

 Issue Date:
 2/25/2024

 NO.
 DATE
 REVISION

 1
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 STRUCTURAL

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 12/07/2023
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 4
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HARDSCAPE DIAGRAM

A1.04

FILE: Wang & Yang ADU.pln PRINTED: Sunday, February 25,



ADU SQUAREGFOOTAGE CALCULATIONS

PER MICC 19.02.030.B.4, THE SQUARE FOOTAGE OF THE ACCESSORY DWELLING UNIT SHALL BE A MINIMUM OF 220 SF AND A MAXIMUM OF 900 SF, EXLUDING ANY GARAGE AREA; PROVIDED, THE SQUARE FOOTAGE OF THE ACCESSORY DWELLING UNIT SHALL NOT EXCEED 80% OF THE TOTAL SQUARE FOOTAGE OF THE PRIMARY DWELLING UNIT, EXCLUDING THE GARAGE AREA.

ADU SQUARE FOOTAGE

MAIN FLOOR	171 SF
UPPER FLOOR	591 SF
STAIRS (2-STORY)	50 SF
200% GFA MODIFIER FOR CEILING HEIGHT MORE THAN 16 FT	
FOYER	38 SF
TOTAL SQUARE FOOTAGE	'1 + 591 + 50 + 38*2 = 888 SF < 900 SF

GROSS FLOOR AREA CALCULATIONS

GROSS FLOOR AREA - EXISTING

1,070 SF 1,130 SF
1,130 SF
1,150 SF
527 SF
3.942 SF
3,942 SF
527 SF
527 SF
171 SF
591 SF
591 SF 50 SF
591 SF
591 SF 50 SF 513 SF
591 SF 50 SF 513 SF 38 SF
591 SF 50 SF 513 SF
591 SF 50 SF 513 SF 38 SF

IMPERVIOUS COVERAGE CALCULATIONS

IMPERIATE CONTRACT EVICTIME

IMPERVIOUS COVERAGE EX	<u>ISTING</u>
(E) DRIVING SURFACE	3,436
(E) GRAVEL SURFACE	532
(E) HOUSE	1,589
(E) PATIO	274
(E) RETAINING WALL	27
(E) ROCKERY	220
(E) SHED	34
(E) WALKWAY	561
(E) WOOD WALL	17
	6,690 ft ²
IMPERVIOUS SURFACE REPLA	<u>ACE</u>
(R) CONCRETE	42
(R) GARAGE	409
(R) GRAVEL SURFACE	805
(R) WALKWAY	71
	1,327 ft ²
IMPERVIOUS COVERAGE DE	MO
(D) CONCRETE	3
(D) GARAGE	118
(D) GRAVEL SURFACE	261
	382 ft ²
IMPERVIOUS COVERAGE NE	<u>:W</u>
(N) ADU	86
(N) WALKWAY	2
	88 ft²

IMPERVIOUS COVERAGE INCREASE.

(N) NEW IMPERVIOUS SURFACE

PREVIOUS IMPERVIOUS COVERAGE ... PROPOSED IMPERVIOUS COVERAGE 6,690 + 1,327 + 382 = 8,399 SF 6,690 + 1,327 + 88 = 8,105 SF ... 8,105 - 8,399 = **-294 SF** < 500 SF

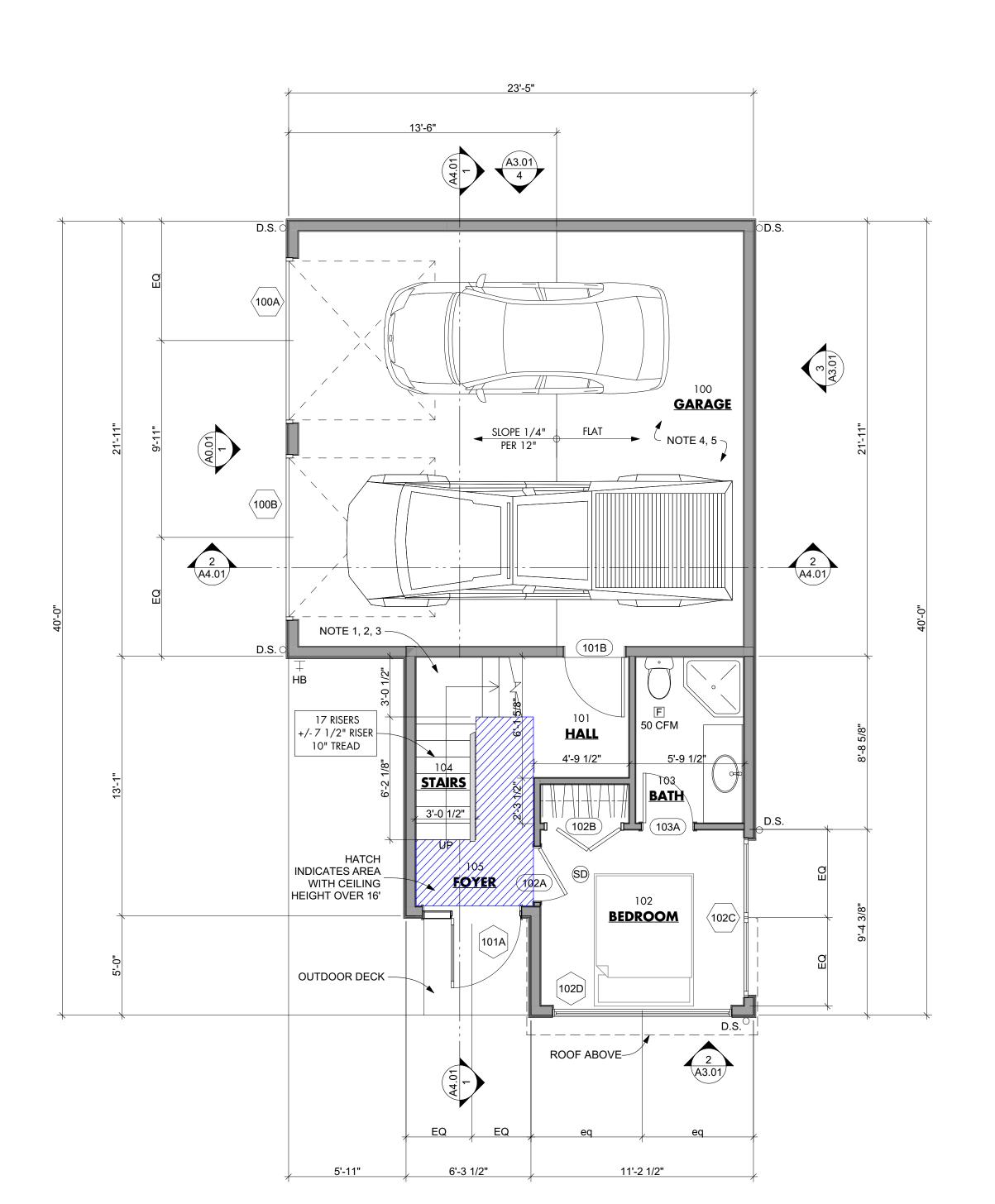
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GROSS FLOOR AREA & IMPERVIOUS

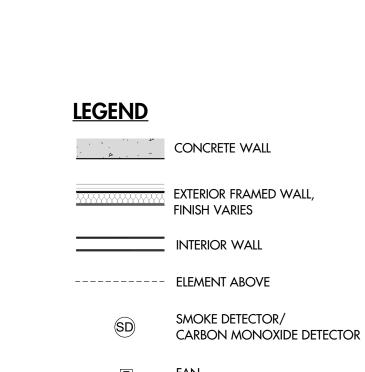
02/25/2024 BUILDING PERMIT

MAIN FLOOR PLAN



MAIN FLOOR PLAN

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



PLAN NOTES

PER IRC, SECTION R303.7.

OR MORE THAN 2" IN DIAMETER PER IRC, SECTION R311& R312

SPHERE CANNOT PASS THROUGH PER IRC, SECTIONS R312.1.2 & R312.1.3

1/2" GYPSUM WALL BOARD PER IRC, SECTION 302.6

PER IRC, SECTIONO R302.5.1

1) INTERIOR STAIRWAYS SHALL BE ILLUMINATED

2) ALL HANDRAILS TO BE 34"-38" ABOVE TREAD NOSING, 1 1/2" FROM WALL, NOT LESS THAN 1 1/4"

3) ALL GUARD RAILS SHALL BE MIN 36" HIGH AND HAVE A MAXIMUM OPENING SUCH THAT A 4"

4) THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE WITH A MIN 1/2" GYPSUM BOARD OR EQUIV. APPLIED TO THE GARAGE SIDE. 5/8" TYPE 'X' GYPSUM BOARD IS REQUIRED WHERE THERE ARE

SUPPORTING COLUMNS, WALLS AND BEAMS USE

RESIDENCE SHALL HAVE A SOLID WOOD, SOLID OR HONEYCOMB-CORE STEEL DOORS NOT LESS THAN 1 3/8" IN THICKNESS OR 20-MIN FIRE-RATED DOORS. ALL DOORS SHALL BE EQUIPPED WITH A SELF CLOSING OR AUTOMATIC CLOSING DEVICE.

HABITABLE ROOMS ABOVE THE GARAGE.

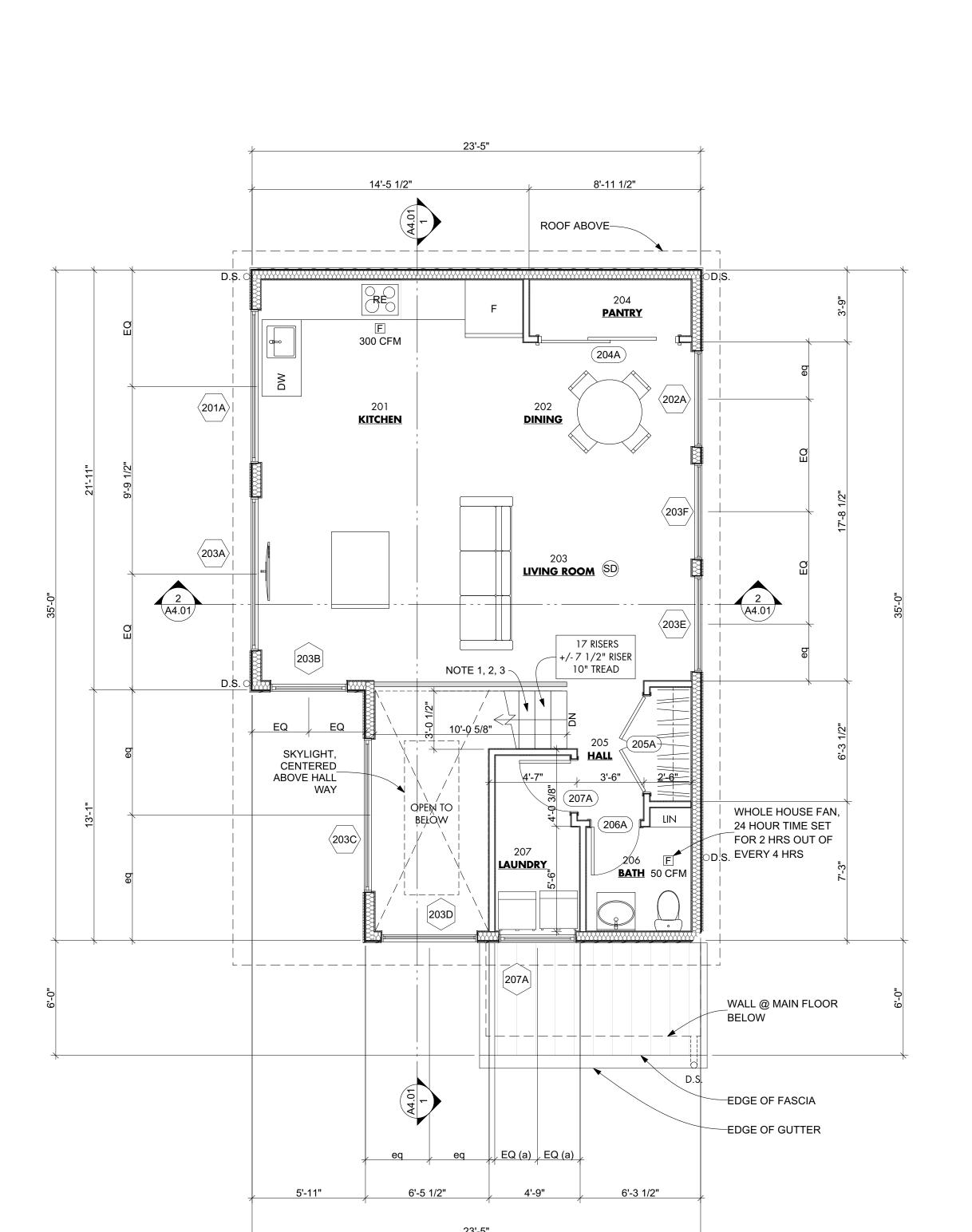
5) OPENINGS BETWEEN THE GARAGE AND

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UPPER FLOOR PLAN



UPPER FLOOR PLAN

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

<u>LEGEND</u> CONCRETE WALL EXTERIOR FRAMED WALL, FINISH VARIES INTERIOR WALL ----- ELEMENT ABOVE SMOKE DETECTOR/ CARBON MONOXIDE DETECTOR

PLAN NOTES

PER IRC, SECTION R303.7.

OR MORE THAN 2" IN DIAMETER PER IRC, SECTION R311& R312

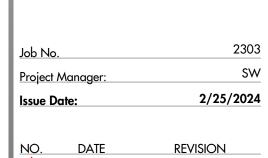
SPHERE CANNOT PASS THROUGH PER IRC, SECTIONS R312.1.2 & R312.1.3

1) INTERIOR STAIRWAYS SHALL BE ILLUMINATED

2) ALL HANDRAILS TO BE 34"-38" ABOVE TREAD NOSING, 1 1/2" FROM WALL, NOT LESS THAN 1 1/4"

3) ALL GUARD RAILS SHALL BE MIN 36" HIGH AND HAVE A MAXIMUM OPENING SUCH THAT A 4"

UPPER FLOOR SQUARE FOOTAGES DINING HALL 39 KITCHEN 132 LAUNDRY 42 LIVING ROOM 259 PANTRY 29 591 ft²

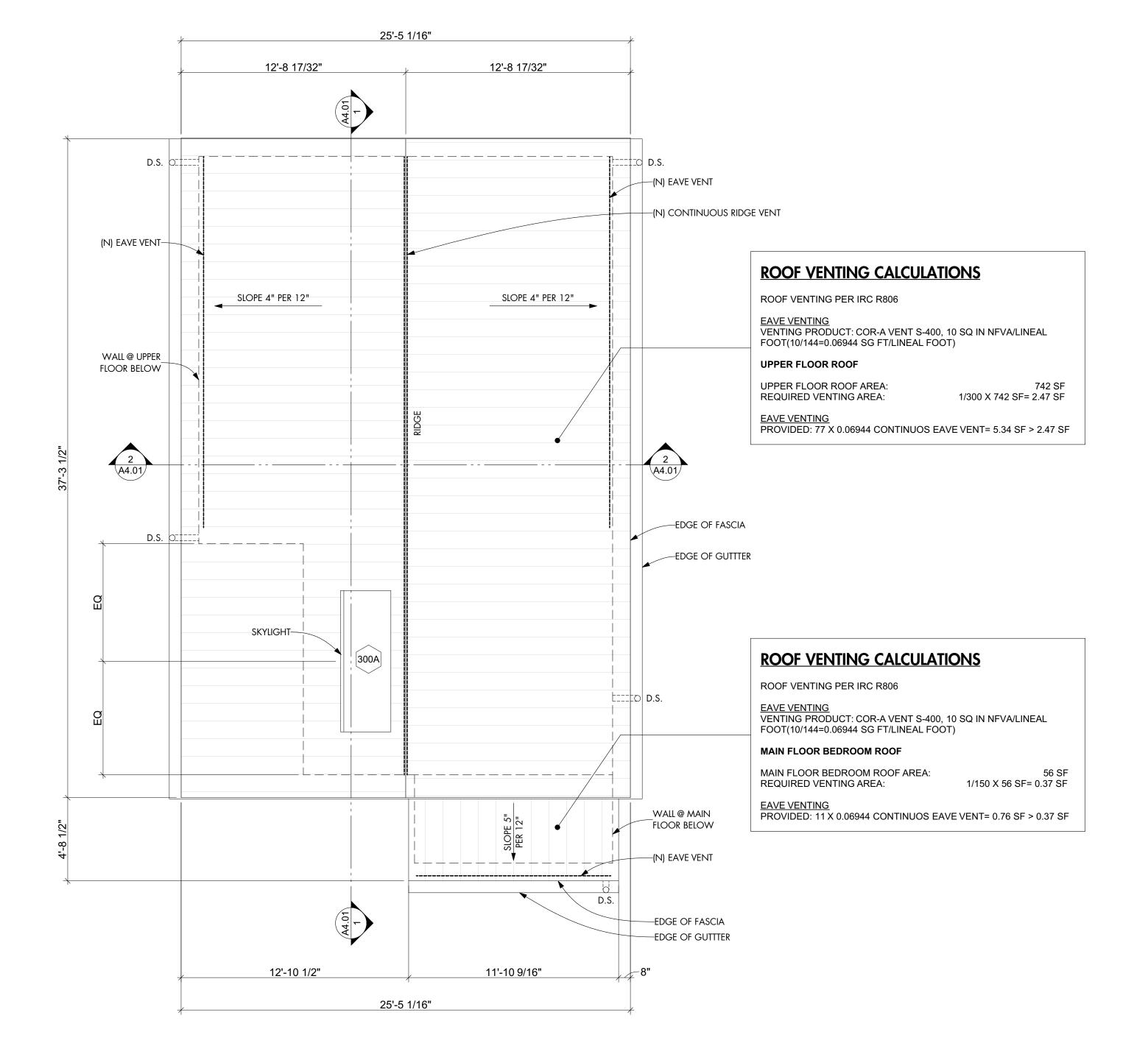


1 10/17/2023 STRUCTURAL 2 12/01/2023 STRUCTURAL REV 1 12/07/2023 PRICING

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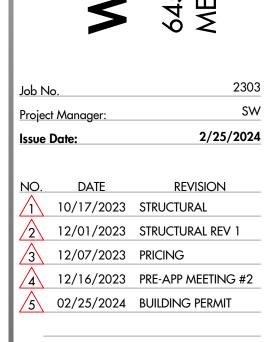
5 02/25/2024 BUILDING PERMIT

ROOF PLAN



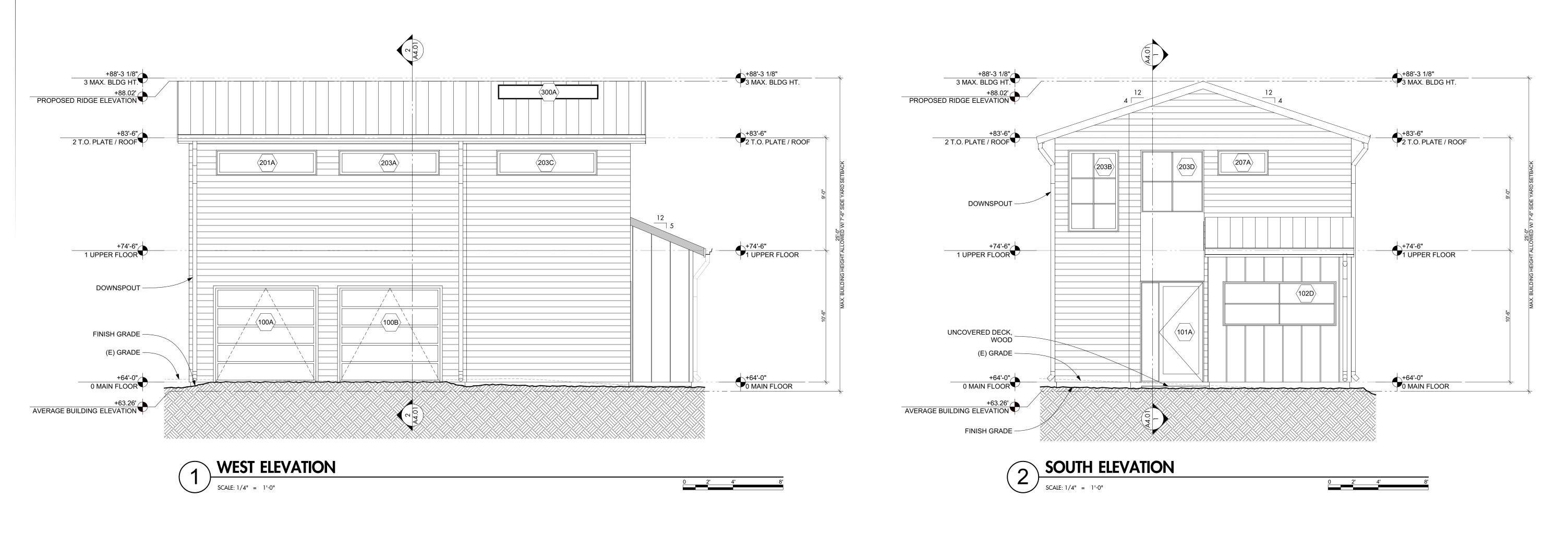
ROOF PLAN

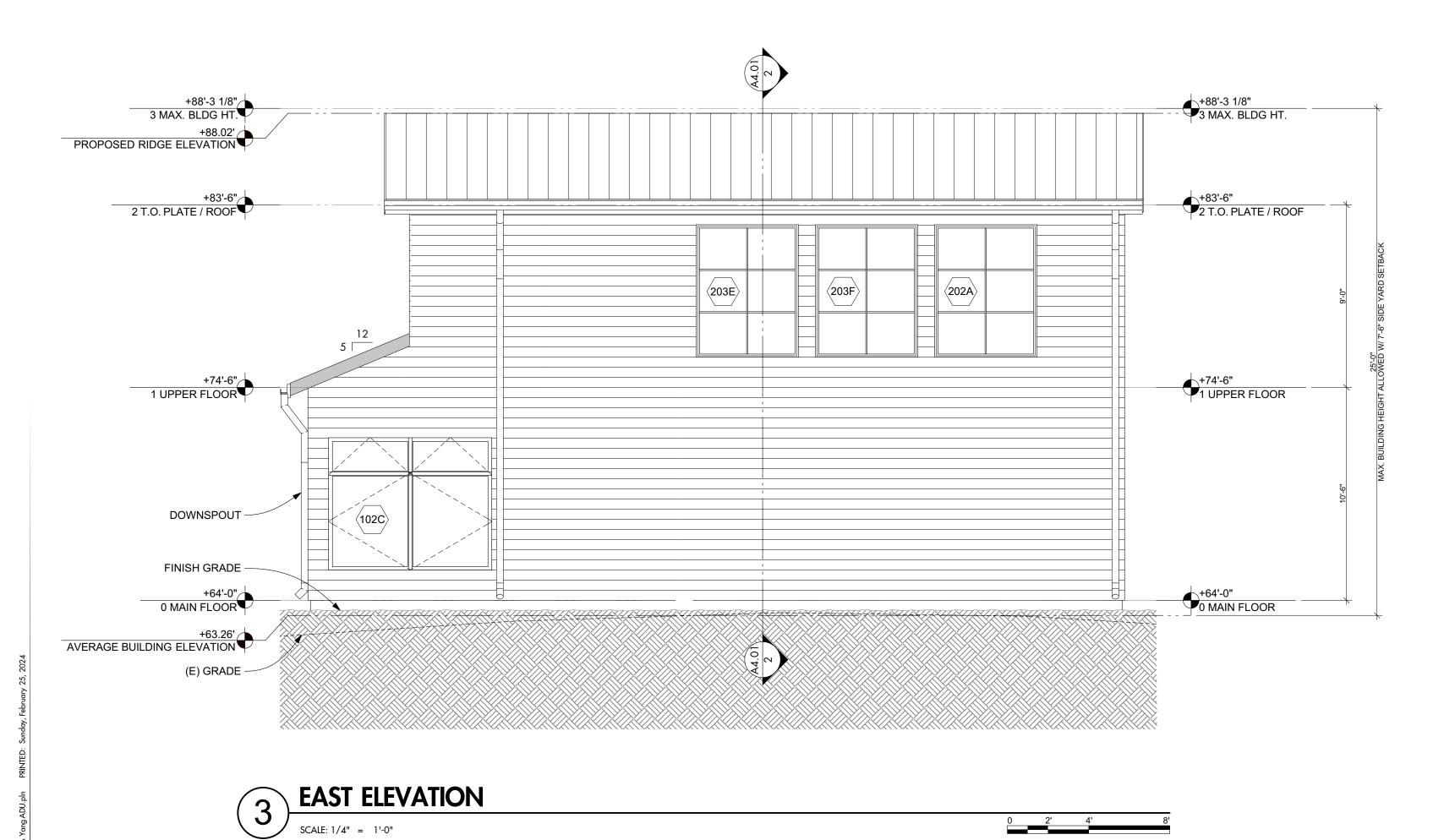
SCALE: 1/4" = 1'-0"

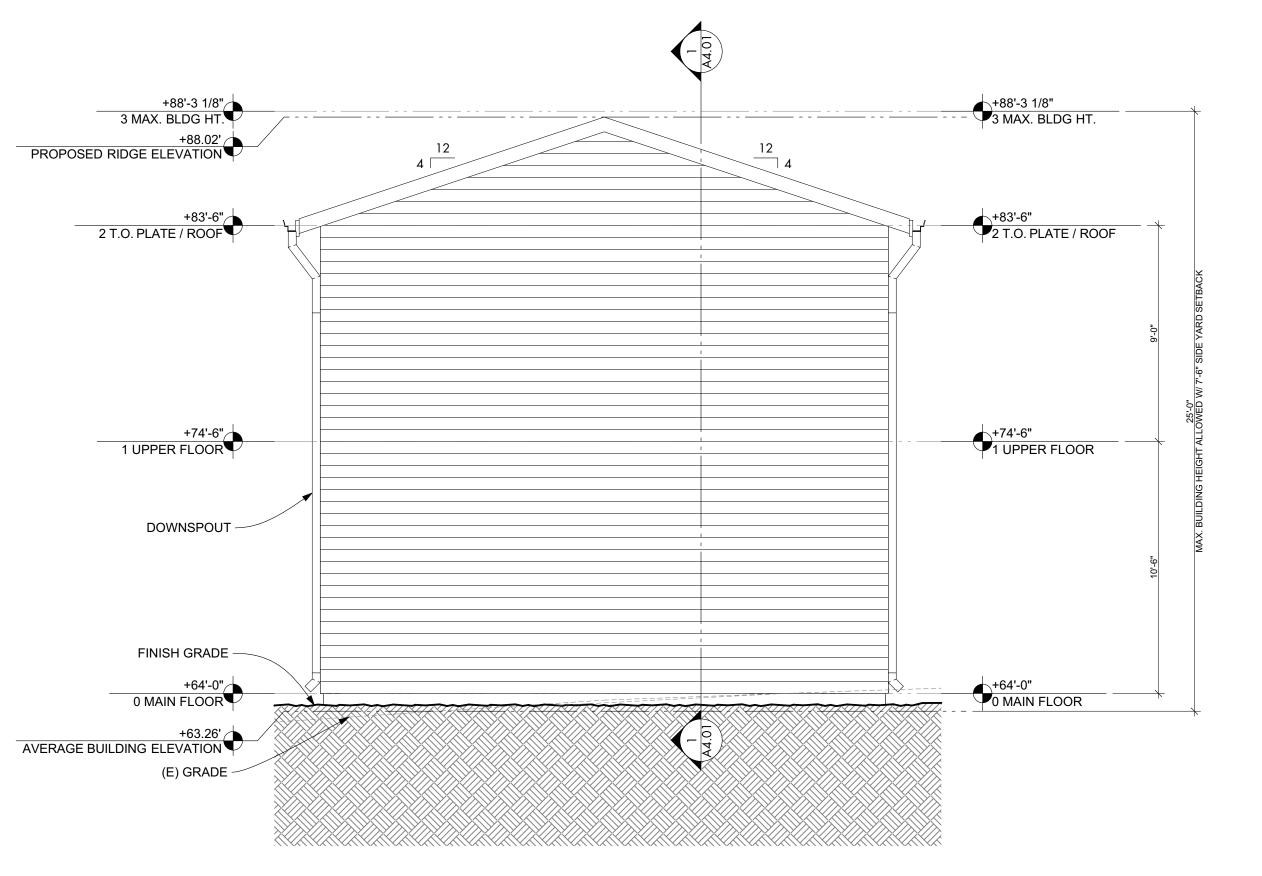


EXTERIOR ELEVATIONS

A3.0







NORTH ELEVATION

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

CONSTRUCTION ASSEMBLIES

FLOOR ASSEMBLY 1

* FINISHED FLOORING * PLYWOOD SUBFLOOR PER STRUCT. * FLOOR FRAMING PER STRUCT. * R-38 BATT INSULATION

* 5/8" TYPE 'X' GYPSUM BOARD

FLOOR ASSEMBLY 2 * FINISH FLOORING

* 4" CONCRETE SLAB * 6 mil VAPOR BARRIER * R-10 RIGID INSULATION UNDER ENTIRE SLAB * 4" MIN. GRANULAR FILL

WALL ASSEMBLY 1 * FINISH: SIDING PER ELEVATIONS

* DRAIN MAT * BUILDING WRAP * PLYWOOD SHEATHING PER STRUCT. * STUD WALL PER STRUCT.

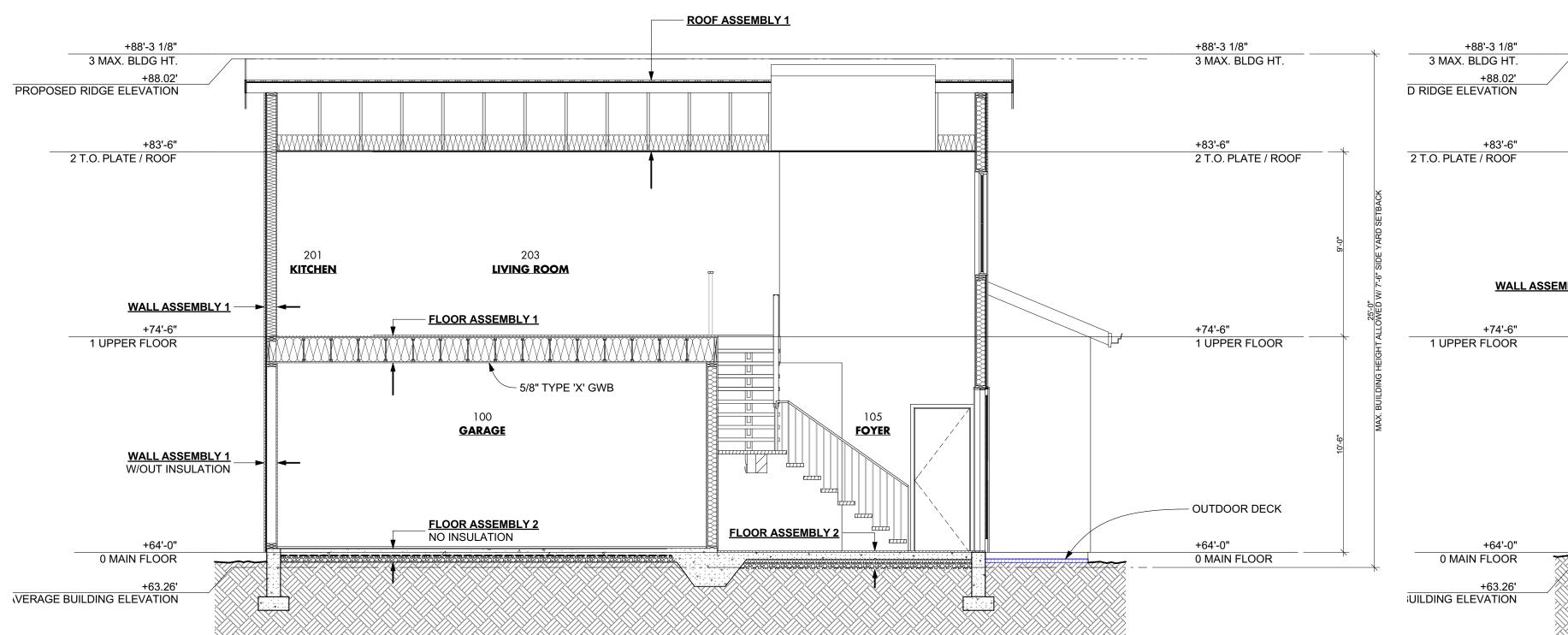
* MIN. R-21 BATT INSULATION * 5/8" TYPE 'X' GYPSUM BOARD FINISH

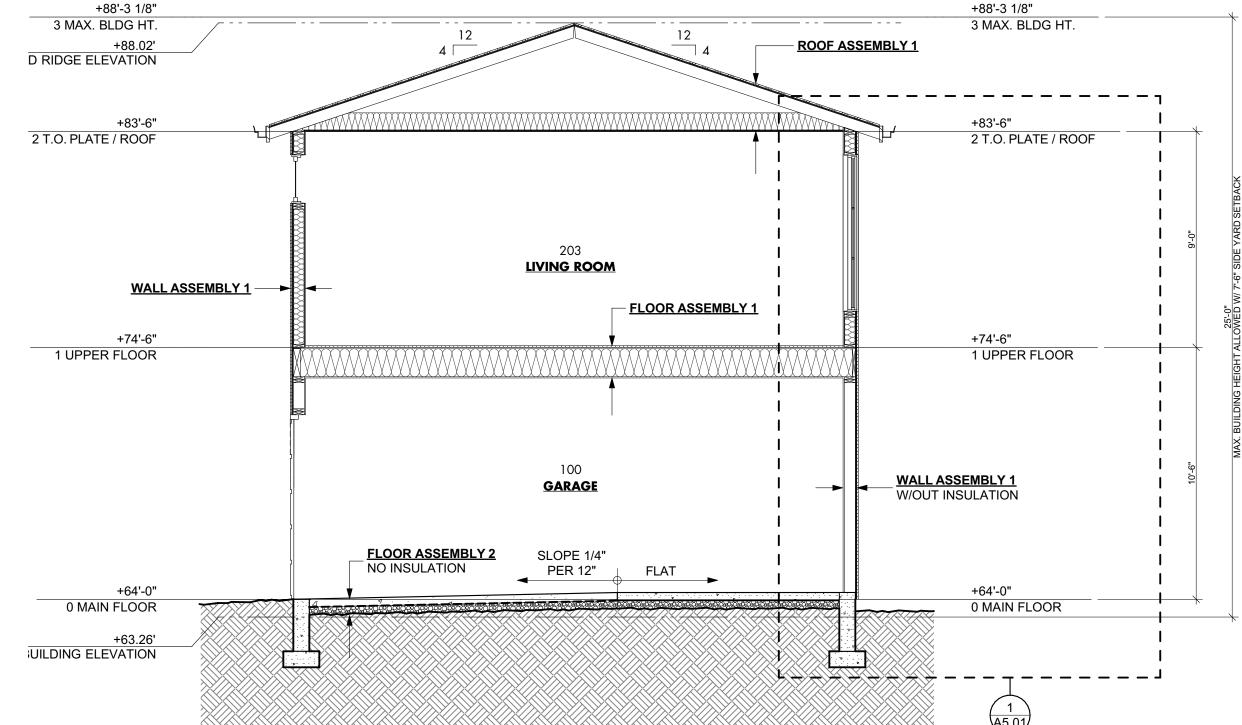
ROOF ASSEMBLY 1

* COMPOSITE SHINGLE METAL ROOF PER ELEVATIONS * ROOFING FELTS * PLYWOOD SHEATHING PER STRUCT.

* TRUSS PER STRUCT.

* R-38 INSULATION + MIN. 1" AIR SPACE TO VENT * 5/8" TYPE 'X' GWB CEILING

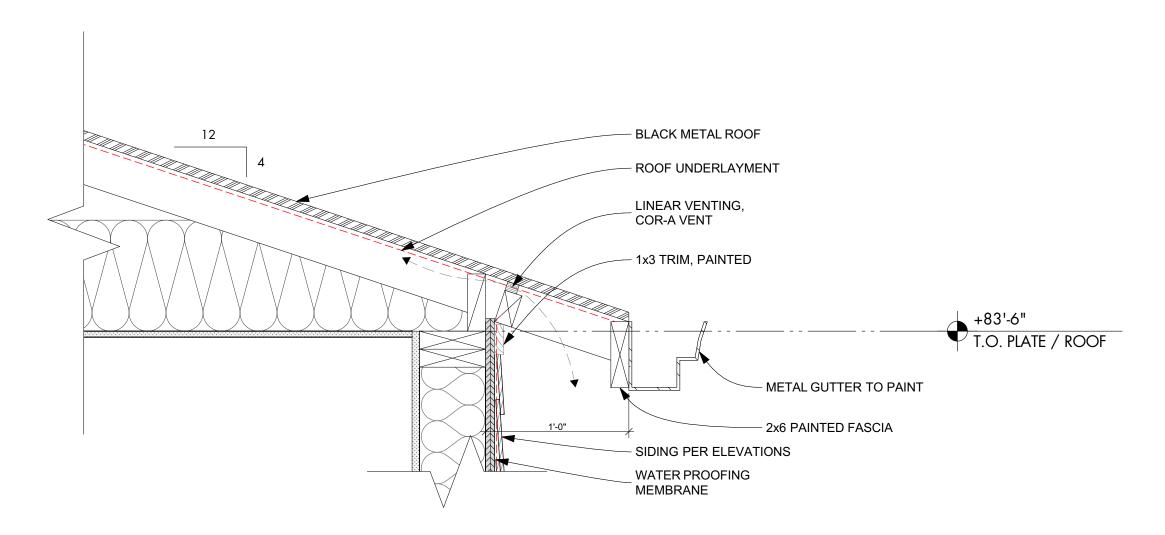


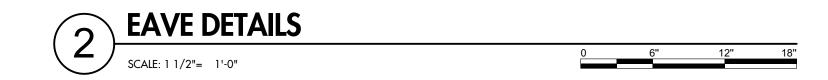


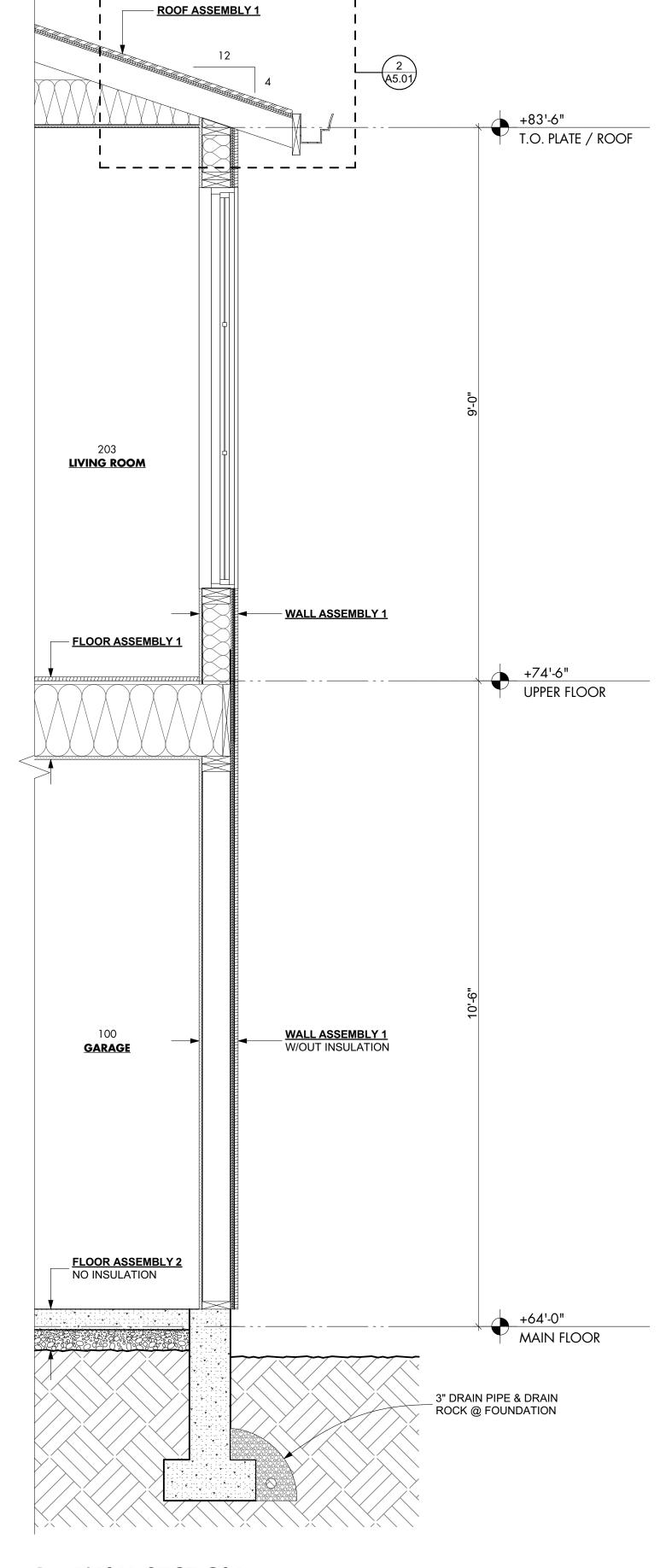
BUILDING SECTION A

BUILDING SECTION B

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







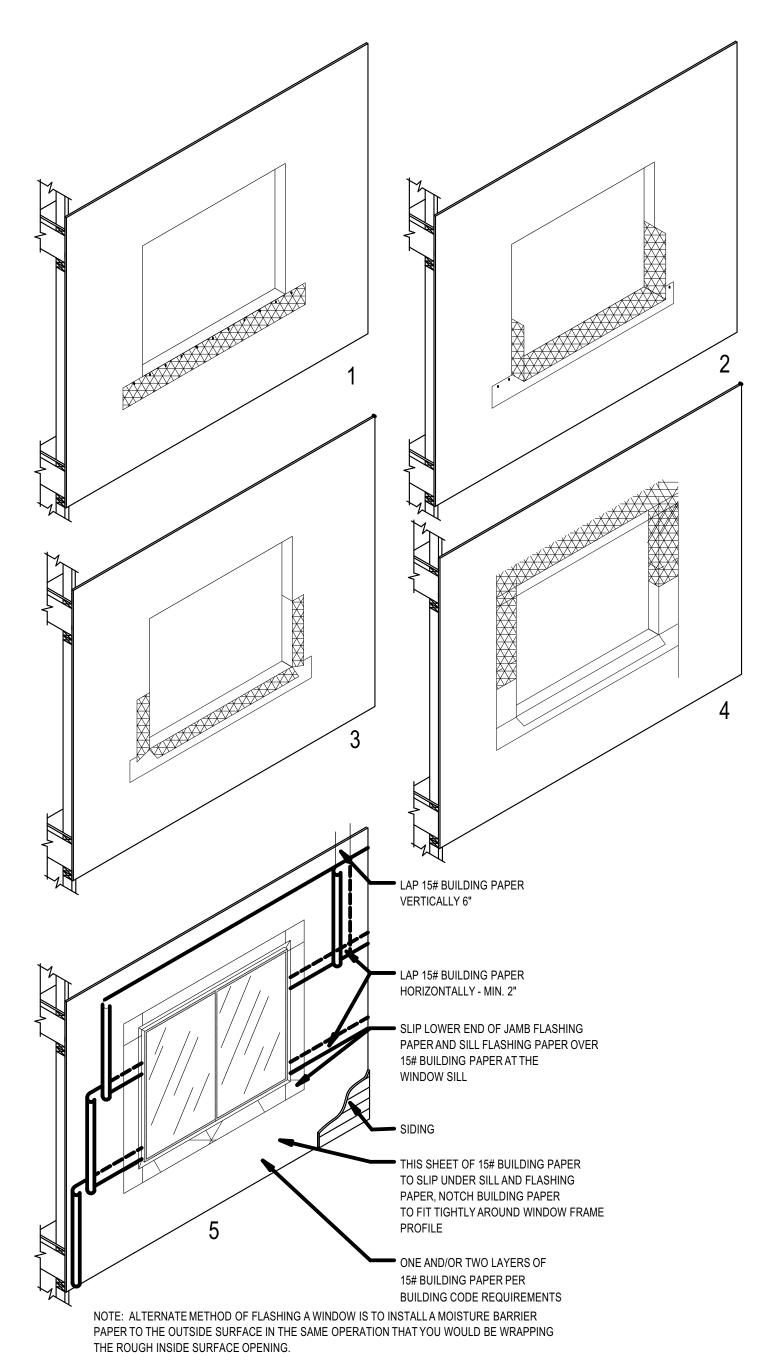
1 WALL SECTION

6450 E MERCER W MERCER ISLAND, V WANG

98040

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WALL SECTIONS



THE NAIL ON WINDOW WOULD BE INSTALLED OVER THE FLASHING SYSTEM

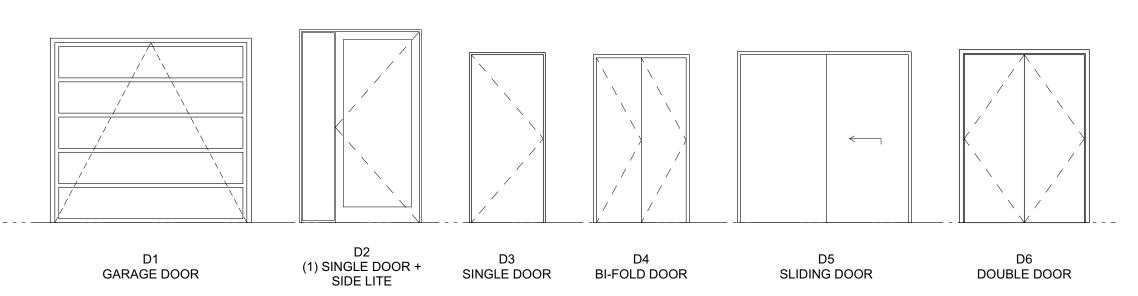
INTERIOR DOOR SCHEDULE							
LOCATION	NO.	UNIT DIMENS	IENSIONS	MECD	TYPE	SAFETY GLASS	NOTES
LOCATION		WIDTH	HEIGHT	MFGR			
MAIN FLOOR						•	
	101B	3'-0"	7'-0"	PER CONTRACTOR	D3	NO	
	102A	2'-8"	7'-0"	PER CONTRACTOR	D3	NO	
	102B	4'-0"	7'-0"	PER CONTRACTOR	D4	NO	
	103A	2'-6"	7'-0"	PER CONTRACTOR	D3	NO	
UPPER FLOOR			1	1			
	204A	7'-0"	7'-0"	PER CONTRACTOR	D5	NO	
	205A	5'-0"	7'-0"	PER CONTRACTOR	D6	NO	
	206A	2'-6"	7'-0"	PER CONTRACTOR	D3	NO	
	207A	2'-8"	7'-0"	PER CONTRACTOR	D3	NO	

NOTE: ALL DOORS TO BE SOLID CORE.

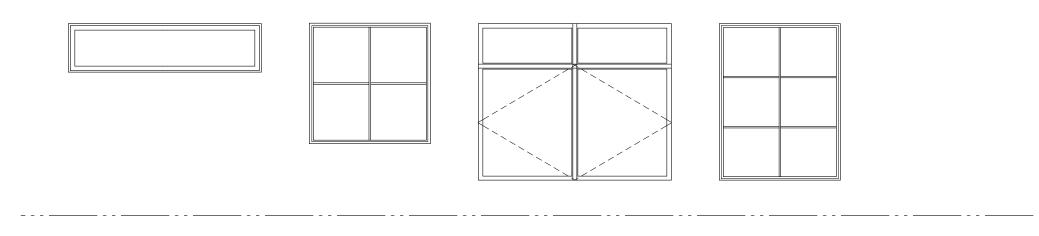
VINDOW SCHEDULE											
UNIT DIMENSIONS			ONS					CAFFTV			
LOCATION	NO.	WIDTH	HEIGHT	HEAD HEIGHT	OPERATION	MFGR	TYPE	EGRESS	SAFETY GLASS	U-VALUE	NOTES:
MAIN FLOOR											
	102C	8'-0"	6'-6"	8'-0"	CSMT	PER CONTRACTOR	W3	YES	NO	0.28	
	102D	9'-0"	3'-6"	8'-0"	FIXED	PER CONTRACTOR	W2		NO	0.28	
UPPER FLOOR					•			•			
	201A	8'-0"	2'-0"	8'-0"	FIXED	PER CONTRACTOR	W1		NO	0.28	
	202A	5'-0"	6'-6"	8'-0"	FIXED	PER CONTRACTOR	W4		NO	0.28	
	203A	8'-0"	2'-0"	8'-0"	FIXED	PER CONTRACTOR	W1		NO	0.28	
	203B	4'-0"	6'-6"	8'-0"	FIXED	PER CONTRACTOR	W4		NO	0.28	
	203C	8'-0"	2'-0"	8'-0"	FIXED	PER CONTRACTOR	W1		NO	0.28	
	203D	5'-0"	5'-0"	18'-6"	FIXED	PER CONTRACTOR	W2		NO	0.28	
	203E	5'-0"	6'-6"	8'-0"	FIXED	PER CONTRACTOR	W4		NO	0.28	
	203F	5'-0"	6'-6"	8'-0"	FIXED	PER CONTRACTOR	W4		NO	0.28	
	207A	4'-0"	2'-0"	8'-0"	FIXED	PER CONTRACTOR	W1		NO	0.28	

EXTERIOR DOOR SCHEDULE								
		UNIT DIMENSIONS				SAFETY		
LOCATION	NO.	WIDTH	HEIGHT	TYPE	MFGR	GLASS	U-VALUE	REMARKS
MAIN FLOOR								
	100A	8'-0"	7'-6"	D1	AMARR	NO		GARAGE DOOR, AMARR LINCOLN
	100B	8'-0"	7'-6"	D1	AMARR	NO		GARAGE DOOR, AMARR LINCOLN
	101A	5'-0"	8'-0"	D2	PER CONTRACTOR	YES		CUSTOM ENTRY DOOR WITH SIDE LITE

SKYLIGHT SCHEDULE									
LOCATION	NO.	UNIT DIM WIDTH	ENSIONS HEIGHT	MFGR	TYPE	OPERATION	SAFETY GLASS	U-VALUE	NOTES:
T.O. PLATE / ROOF									
	300A	8'-0"	3'-0"	PER CONTRACTOR	SK1	FIXED	NO		



DOOR TYPES



W1 W2 W3 (2) CASEMENT + W4 FIXED WINDOW (2) FIXED

WINDOW TYPES



SK1 FIXED SKYLIGHT

SKYLIGHT TYPES

SIYAC

ANG & YANG ADL

 Job No.
 2303

 Project Manager:
 SW

 Issue Date:
 2/25/2024

NO. DATE REVISION

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DOOR AND WINDOW SCHEDULES

A6.01

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

<u>CRITERIA</u>

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC)

2. DESIGN LOADING CRITERIA

ROOF SNOW LOAD	25 PSF
FLOOR LIVE LOAD (RESIDENTIAL)	40 PSF

SNOW ROOF SNOW LOAD = 25 PSF GROUND SNOW LOAD = 20 PSF

EXPOSURE Ce = 1.00 IMPORTANCE FACTOR Is = 1.00 THERMAL FACTOR Ct = 1.00

WIND: ANALYSIS PROCEDURE: ASCE 7-16 CHAPTER 27 "PART 1 - BUILDINGS OF ALL HEIGHTS"

RISK CATEGORY II 98 MPH EXPOSURE "B"

TOPOGRAPHIC FACTOR Kzt = 1.0

35 PSF CLADDING / WINDOW DESIGN PRESSURE (MAX.) ROOFING DESIGN PRESSURE NOT AT A CORNER (MAX.) 44 PSF 67 PSF ROOFING DESIGN PRESSURE AT CORNER (MAX.)

THE DESIGN WIND PRESSURES LISTED ABOVE ARE INWARD OR OUTWARD AND ARE BASED ON AN EFFECTIVE WIND AREA OF 10 SQUARE FEET NEAR A BUILDING CORNER, U.O.N. CORNER AND OTHER ZONES ARE DEFINED BY FIGURE 30.3-1, 30.3-2A TO 2I AND 30.3-5A TO 5B IN ASCE 7-16. REDUCED DESIGN PRESSURES MAY BE CALCULATED USING ASCE 7. NOTE THAT THE DESIGN WIND PRESSURES NOTED ABOVE ARE ULTIMATE VALUES PER THE 2018 IBC AND SHALL BE MULTIPLIED BY 0.6 FOR ALLOWABLE STRESS DESIGN.

EARTHQUAKE ANALYSIS PROCEDURE: IBC "EQUIVALENT LATERAL FORCE PROCEDURE"

SEISMIC DESIGN CATEGORY (SDC) = D

RISK CATEGORY = II

SEISMIC SITE CLASS = D

IMPORTANCE FACTOR le = 1.0

MAPPED MCE Ss = 1.61; $S_1 = 0.62$

DESIGN ACCELERATION Sds = 1.14; Sd₁ = 0.86

SEISMIC RESISTING SYSTEM: WOOD PANEL BEARING SHEAR WALL, R = 6.5

- 3. LATERAL LOADS ARE TRANSFERRED BY THE ROOF AND FLOOR DIAPHRAGMS TO THE SHEAR WALLS. FORCES ARE BASED ON THE TRIBUTARY AREA FOR EACH SHEAR WALL AND ARE CARRIED BY THE SHEAR WALLS TO THE FOUNDATION.
- 4. 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.
- 5. CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED.
- 6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- 7. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THEIR WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT. SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- 8. 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.
- 9. 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. WHERE INFORMATION ON THE DRAWINGS IS IN CONFLICT WITH THE SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. DO NOT SCALE THE DRAWINGS.
- 10. ALL STRUCTURAL SYSTEMS WHICH ARE COMPOSED OF FIELD ERECTED COMPONENTS SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.
- 11. SHOP DRAWINGS FOR CONNECTOR PLATE WOOD ROOF TRUSSES AND PLYWOOD WEB JOISTS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.
- 12. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. A MINIMUM OF TWO WEEKS SHALL BE ALLOWED FOR REVIEW.
- 13. SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER. THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

GEOTECHNICAL

14. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE GEOTECHNICAL REPORT OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COMPACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND GEOTECHNICAL ENGINEER. UNLESS OTHERWISE NOTED. FOOTINGS SHALL BE CENTERED UNDER COLUMNS OR WALLS ABOVE.

BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE GEOTECHNICAL REPORT.

THE STRUCTURAL DESIGN IS BASED ON THE FOLLOWING VALUES FROM THE REFERENCED GEOTECHNICAL REPORT ALLOWABLE SOIL BEARING PRESSURE 2,500 PSF

GEOTECHNICAL REPORT REFERENCE:PROJECT # 2EH03221024 DATED OCT.5^{1H}, 2023 PREPARED BY MERIT ENGINEERING, INC.

CONCRETE

15. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONSTRUCTION TOLERANCES SHALL NOT EXCEED THOSE LISTED IN ACI 117. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS:

TYPE OF CONSTRUCTION	28 DAY STRENGTH (fc)	MAXIMUM <u>SLUMP</u>	MIN. CEMENT CONTENT PER CUBIC YARD	MAX. AGGREGATE SIZE
A. FOOTINGS, SLABS-ON-GRADE,	2,500 PSI	5"	5-1/2 SACKS	1 1/4"

STEM WALLS

(#5 BARS OR SMALLER)

MIXES SHALL BE PROPORTIONED SO AS NOT TO EXCEED THE MAXIMUM SLUMPS INDICATED (BEFORE THE ADDITION OF ADMIXTURES). THE WATER/CEMENT RATIO SHALL NOT EXCEED 0.55 FOR FOOTINGS AND 0.45 FOR ALL SLABS AND EXPOSED CONCRETE.

THE MINIMUM AMOUNT OF CEMENT AND THE MAXIMUM SLUMP MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. (THE W/C RATIO LIMITS STILL APPLY). THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, CEMENTITIOUS MATERIAL, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER/CEMENT RATIO. SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 301. CHEMICAL ADMIXTURES AND FLY ASH SHALL CONFORM TO ASTM C494 AND C618 RESPECTIVELY. FLY ASH PERCENTAGE OF TOTAL CEMENTITIOUS MATERIAL SHALL NOT EXCEED 20%. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY TO CONTRACT DOCUMENTS. CONTRACTOR MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

16. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy = 60,000 PSI. GRADE 60 REINFORCING STEEL INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL COMPLYING WITH ASTM A615 (S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D1.4 ARE SUBMITTED.

LONGITUDINAL REINFORCING STEEL IN DUCTILE FRAME MEMBERS AND IN SHEAR WALL BOUNDARY MEMBERS SHALL COMPLY WITH ASTM A706. ASTM A615 GRADE 60 REINFORCING STEEL IS ALLOWED IN THESE MEMBERS IF (A) THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED THE SPECIFIED YIELD STRENGTH BY MORE THAN 18,000 PSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3,000 PSI) AND (B) THE RATIO OF THE ACTUAL ULTIMATE TENSILE STRESS TO THE ACTUAL TENSILE YIELD STRENGTH IS NOT LESS THAN 1,25.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy = 60,000 PSI.

17. REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 60 BAR DIAMETERS, 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 60 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS. PROVIDE (2) #5 MIN. U.N.O. TRIM BARS AROUND ALL OPENINGS IN CONCRETE WALLS OR SLABS EXTENDING 2'-6" PAST CORNERS, TYPICAL.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. NO REINFORCING BARS SHALL BE "WET-SET" INTO THE CONCRETE, PROVIDE A 20' LONG REBAR GROUND (UFER GROUND) PER ELECTRICIAN.

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

FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST EARTH FORMED SURFACES EXPOSED TO EARTH (i.e. WALLS BELOW GROUND) OR WEATHER

SLABS AND WALLS (INTERIOR FACE) GREATER OF (BAR DIAMETER PLUS 1/8") OR 3/4"

- 19. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.
- 20. POLYSTYRENE (RIGID INSULATION) LIGHTWEIGHT STRUCTURAL FILL PLACED BELOW CONCRETE SLABS SHALL BE RIGID CELLULAR POLYSTYRENE CONFORMING TO ASTM D6817 OR ASTM C578, WITH A MINIMUM COMPRESSIVE RESISTANCE OF 5 PSI @ 1% DEFORMATION AND A MINIMUM COMPRESSIVE RESISTANCE OF 15 PSI @ 10 % DEFORMATION, U.O.N. MAXIMUM DENSITY SHALL BE 2.0 PCF. OFFSET BLOCK JOINTS BETWEEN ADJACENT LAYERS AND ATTACH BLOCKS PER THE MANUFACTURER'S RECOMMENDATIONS.

ANCHORAGE

21. SCREW ANCHORS INTO CONCRETE SHALL BE "TITEN HD", AS MANUFACTURED BY SIMPSON STRONG-TIE ANCHOR SYSTEMS. INSTALL IN STRICT ACCORDANCE WITH I.C.C. REPORT NO. ESR-2713 INCLUDING STANDARD EMBEDMENT REQUIREMENTS U.O.N. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED FOR REVIEW WITH I.C.C. OR IAPMO UES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. SPECIAL INSPECTION IS REQUIRED FOR ALL SCREW ANCHOR INSTALLATION.

<u>WOOD</u>

22. FRAMING LUMBER: SHALL BE KILN DRIED OR MC-19 (MOISTURE CONTENT LESS THAN 19%), AND GRADED AND MARKED IN CONFORMANCE WITH W.C.L.I.B. STANDARD NO. 17 GRADING RULES FOR WEST COAST LUMBER. FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

DOUGLAS FIR OR HEM-FIR NO. 2 JOISTS (2X AND 4X MEMBERS)

BEAMS AND STRINGERS (INCLUDING 6 X AND LARGER MEMBERS) DOUGLAS FIR NO. 1

POSTS AND TIMBERS DOUGLAS FIR NO. 1

DOUGLAS FIR OR HEM-FIR NO. 2 STUDS, PLATES & MISCELLANEOUS LIGHT FRAMING (AS NOTED ON PLANS / DETAILS)

HEM-FIR COMMERCIAL DEX 2X, 3X AND 4X TONGUE AND GROOVE DECKING

- 23. WOOD SETTLEMENT SHRINKAGE: DUE TO CROSS GRAIN WOOD SHRINKAGE, THIS BUILDING IS EXPECTED TO SETTLE APPROXIMATELY 1/8 TO 1/4 INCH PER STORY. ALL UTILITIES SHALL BE DESIGNED WITH FLEXIBLE JOINTS OR OTHER MEANS TO APPROPRIATELY ACCOMMODATE THIS NORMAL SETTLEMENT. ALL INTERIOR AND EXTERIOR SHEATHING AND FINISHES SHALL BE INSTALLED SUCH THAT NO DAMAGE WILL OCCUR. SHRINKAGE IS EXPECTED IN THE THICKNESS OF THE WALL PLATES AND NOT IN THE LENGTH OF THE WALL STUDS.
- 24. LAMINATED VENEER LUMBER (LVL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED VENEER LUMBER SHALL BE MANUFACTURED USING DOUGLAS FIR VENEER GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

Fb = 2600 PSI, E = 2.0×10^6 PSI, Fv = 285 PSI

DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

25. LAMINATED STRAND LUMBER (LSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL LAMINATED STRAND LUMBER SHALL BE MANUFACTURED USING A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:

RIM JOISTS AND BLOCKING (1-1/4" MINIMUM THICKNESS AT NON-SHEAR WALLS; SEE SCHEDULE FOR MINIMUM THICKNESS AT SHEAR WALLS):

Fb = 1700 PSI, E = 1.3×10^6 PSI, Fv = 400 PSI

BEAMS AND HEADERS: Fb = 2325 PSI, E = 1.55×10^6 PSI, Fv = 310 PSI

Fb = 1700 PSI, E = 1.3×10^6 PSI, Fv = 400 PSI Fb = 2425 PSI, E = 1.6×10^6 PSI, Fv = 400 PSI

COLUMNS:

1-1/2"

Fb = 1700 PSI, E = 1.3×10^6 PSI, Fv = 400 PSI

DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

- 26. PARALLEL STRAND LUMBER (PSL) SHALL BE DESIGNED AND MANUFACTURED PER ASTM D5456. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, AND THE INDEPENDENT INSPECTION AGENCY'S LOGO. ALL PARALLEL STRAND LUMBER SHALL BE MANUFACTURED USING DOUGLAS FIR STRANDS GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER. MINIMUM STRUCTURAL PROPERTIES ARE AS FOLLOWS:
 - Fb = 2900 PSI, E = 2.2×10^6 PSI, Fv = 290 PSI
 - Fb = 2400 PSI, E = 1.8×10^6 PSI, F'c = 2500 PSI (COMMERCIAL COLUMNS)

DESIGN SHOWN ON PLANS IS BASED ON MATERIALS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER.

SHEET INDEX S1.0 GENERAL STRUCTURAL NOTES/SHEET INDEX S1.1 GENERAL STRUCTURAL NOTES S2.0 FOUNDATION PLAN S2.1 UPPER FLOOR FRAMING PLAN ROOF FRAMING PLAN S3.0 FOUNDATION DETAILS FRAMING SCHEDULES S4.0 FRAMING DETAILS S4.2 FLOOR FRAMING DETAILS S4.3 ROOF FRAMING DETAILS



CONSULTANT STAMP: APPROVED 11/17/2023

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6450 E MERCER WAY MERCER ISLAND, WA **REVISIONS:** DATE NO. DESCRIPTION

PROJECT NUMBER **ISSUE DATE** 11.17.2023 **CURRENT REVISION**

SHEET NAME:

GENERAL STRUCTURAL NOTES/SHEET INDEX

SHEET NUMBER:

S1.0

GENERAL STRUCTURAL NOTES

(The following apply unless shown otherwise on the plans)

27. WOOD I-JOISTS SHALL BE DESIGNED BY THE MANUFACTURER FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. DESIGN SUBMITTALS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. PERMANENT AND TEMPORARY BRIDGING SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S SPECIFICATIONS. GLUE FLOOR JOISTS TO SHEATHING AS REQUIRED BY THE JOIST MANUFACTURER.

DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAEUSER CORPORATION. ALTERNATE WOOD I-JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

28. PREFABRICATED CONNECTOR PLATE WOOD ROOF TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER IN ACCORDANCE WITH IBC SECTION 2303.4 AND ANSI/TPI 1-2014 "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" FOR THE SPANS AND CONDITIONS SHOWN ON THE PLANS. TRUSSES SHALL BE HANDLED, INSTALLED, AND BRACED PER "HIB 91" PER THE TRUSS PLATE INSTITUTE. LOADING SHALL BE AS FOLLOWS:

TOP CHORD SNOW LOAD

TOP CHORD DL ALLOWANCE FOR PV PANELS

TOP CHORD DEAD LOAD

5 PSF

BOTTOM CHORD LIVE LOAD

BOTTOM CHORD DEAD LOAD

TOTAL LOAD

NET WIND UPLIFT (TOP CHORD)

25 PSF

5 PSF

10 PSF

40 PSF

THE LOADS ABOVE SHALL BE INCREASED TO THE FOLLOWING IF THE TRUSSES MEET THE DESCRIPTION OF AN "UNINHABITABLE ATTIC WITH LIMITED STORAGE" AS DEFINED IN FOOTNOTE; OF IBC TABLE 1607.1:

BOTTOM CHORD LIVE LOAD

20 PSF - INCLUDE IN TOTAL
BOTTOM CHORD DEAD LOAD

10 PSF

SNOW LOAD DUE TO DRIFTING AND UNBALANCED LOADS SHALL BE INCLUDED PER THE IBC. TOP CHORDS SHALL BE DF LUMBER. UTILIZE A MINIMUM CREEP FACTOR OF 2.0 FOR DEAD AND SUSTAINED LIVE LOADS IN DETERMINING THE TRUSS DEFLECTIONS. MAXIMUM TOTAL DEFLECTION SHALL BE LESS THAN OR EQUAL TO L/240 OF THE TOTAL SPAN AND MAXIMUM LIVE LOAD DEFLECTION SHALL BE LESS THAN OR EQUAL TO L/360 OF THE TOTAL SPAN. PROVIDE ADEQUATE PLIES AND/OR METAL BRACKETS TO ADEQUATELY DISTRIBUTE THE BEARING PRESSURE AT THE ENDS OF THE GIRDER TRUSSES TO THE TOP PLATES OF THE BEARING WALLS SUCH THAT THE BEARING PRESSURE DOES NOT EXCEED 405 PSI. PROVIDE ADDITIONAL TRUSSES (AS REQUIRED) TO CARRY ALL CONCENTRATED LOADS AND MECHANICAL UNITS.

WOOD TRUSSES SHALL UTILIZE I.C.C. OR IAPMO UES APPROVED CONNECTOR PLATES. SUBMIT SHOP DRAWINGS AND DESIGN CALCULATIONS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. SUBMITTED DOCUMENTS SHALL BEAR THE STAMP AND SIGNATURE OF A STATE OF WASHINGTON REGISTERED PROFESSIONAL ENGINEER. PROVIDE FOR SHAPES, BEARING POINTS, INTERSECTIONS, HIPS, VALLEYS, ETC., SHOWN ON THE DRAWINGS. EXACT COMPOSITION OF SPECIAL HIP, VALLEY, AND INTERSECTION AREAS (USE OF GIRDER TRUSSES, JACK TRUSSES, STEP-DOWN TRUSSES, ETC.) SHALL BE DETERMINED BY THE MANUFACTURER UNLESS SPECIFICALLY INDICATED ON THE PLANS. PROVIDE ALL TRUSS TO TRUSS AND TRUSS TO GIRDER TRUSS CONNECTION DETAILS AND REQUIRED CONNECTION MATERIALS. PROVIDE FOR ALL TEMPORARY AND PERMANENT TRUSS BRACING AND BRIDGING.

29. WOOD SHEATHING SHALL BE APA RATED, EXTERIOR GLUE; EXPOSURE 1, IN CONFORMANCE WITH THE REQUIREMENTS FOR THEIR TYPE IN DOC PS-1 OR PS-2. SEE PLANS FOR THICKNESS, PANEL IDENTIFICATION INDEX AND NAILING REQUIREMENTS.

UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH (2) 10d-F NAILS AT EACH END, UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPACED PER PLANS.

- 30. ALL WOOD EXPOSED TO WEATHER, OR BEARING ON UNPROTECTED CONCRETE BELOW GRADE, OR BEARING ON UNPROTECTED CONCRETE LESS THAN 8" FROM EXPOSED EARTH SHALL BE PRESSURE-TREATED, U.O.N. PRESSURE TREATMENT SHALL BE WITH AN APPROVED PRESERVATIVE AND BRANDED WITH A QUALITY CONTROL AGENCY MARK BY THE AMERICAN WOOD PRESERVERS BUREAU OR EQUAL. ALL METAL HARDWARE IN CONTACT WITH TREATED WOOD SHALL BE PROTECTED WITH A G185 GALVANIZED COATING (ZMAX) OR BETTER. ALL NAILS IN TREATED WOOD SHALL BE HOT-DIP GALVANIZED OR BETTER. PROVIDE 2 LAYERS OF 30# ASPHALT IMPREGNATED BUILDING PAPER BETWEEN NON-PRESSURE-TREATED LEDGERS, BLOCKING, ETC., AND CONCRETE.
- 31. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NO. C-C-2019. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE I.C.C. OR IAPMO UES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. ALL BOLTS TIGHTENED TO SNUG TIGHT.
- 32. WOOD FASTENERS:

A. <u>NAIL SIZES</u> SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

DRAWING ID	NAIL NAME	NAIL DIAMETER	NAIL LENGTH
"6d"	6d Common	0.113"	2"
"8d Box"	8d Box	0.113"	2-1/2"
"8d"	8d Common	0.131"	2-1/2"
"10d-F"	10d Framer	0.131"	3"
"10d"	10d Shear	0.148"	2-1/4"
"16d"	16d Sinker	0.148"	3-1/4"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

- B. <u>NAILS</u> SHEATHING FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED.
- C. <u>SCREWS</u> SHALL BE WOOD SCREWS OF THE DIAMETER AND LENGTH NOTED ON THE DRAWINGS. SDS FASTENERS ARE SIMPSON STRONG DRIVE SCREWS.
- D. <u>HOT_DIPPED_GALVANIZED_NAILS, BOLTS_AND_METAL_PLATES</u> ALL NAILS, BOLTS_AND_METAL_PLATES IN CONTACT_WITH PRESSURE TREATED (INCLUDING FIRE-RETARDANT TREATED) LUMBER SHALL BE HOT DIPPED GALVANIZED.
- 33. WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN ON THE PLANS:
- A. ALL <u>WOOD FRAMING DETAILS</u> NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO IBC TABLE 2304.10.1. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. TIGHTEN BOLTS AND LAG SCREWS SNUGLY AGAINST WOOD FRAMING AFTER WOOD HAS REACHED SPECIFIED MOISTURE CONTENT.
- B. <u>WALL FRAMING</u>: ALL BEARING AND SHEAR WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2 x 4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2 x 6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL BEARING AND SHEAR WALLS AND AT EACH SIDE OF ALL OPENINGS. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW.

ALL BEARING STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 8" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS WITH 3"x3"x1/4" PLATE WASHERS @ 4'-0" O.C., UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH 10d-F NAILS @ 8" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES AND GYPSUM SHEATHING ON EXTERIOR SURFACES ATTACHED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH SCREWS AT 8" O.C. USE 1-1/4 " W #6 SCREWS FOR 1/2" GWB AND 5/8" GWB WHERE OCCURS. USE 1-1/4" W #6 GALVANIZED SCREWS FOR 1/2" GWB AND 5/8" EXTERIOR GYPSUM SHEATHING, WHERE OCCURS. VERIFY THE FIRE ASSEMBLY REQUIREMENTS WHERE APPLICABLE WITH THE ARCHITECT.

- C. <u>FLOOR AND ROOF FRAMING</u>: PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 10d-F NAILS @ 8" O.C. STAGGERED UNLESS OTHERWISE NOTED.
- D. <u>POSITIVE CONNECTIONS</u>: PROVIDE THE FOLLOWING SIMPSON CONNECTORS AT TYPICAL FRAMING UNLESS OTHERWISE NOTED ON PLAN OR DETAIL. PROVIDE CCQ/ECCQ CAPS AND PBS BASES AT POSTS. PROVIDE BC BASE WHERE POST BEARS ON WOOD FRAMING BELOW. PROVIDE LUS SERIES HANGERS FOR 2X FLOOR AND ROOF JOISTS. CONNECTORS SHALL BE SIZED TO MATCH THE SIZE OF THE FRAMING MEMBERS BEING CONNECTED.
- 34. TONGUE AND GROOVE STRUCTURAL ROOF AND FLOOR DECKING SHALL BE INSTALLED AS A RANDOM LENGTH CONTINUOUS LAY-UP SYSTEM. INSTALL DECKING IN RANDOM LENGTHS OVER 3 OR MORE SPANS WITH EACH LENGTH OF DECKING OVER AT LEAST ONE FRAMING SUPPORT MEMBER. LAY WITH TONGUES FACING UPWARD ON SLOPED DECKING. FOR 2X AND 3X DECKING THE MAXIMUM MOISTURE CONTENT SHALL BE 15%. FOR 4X DECKING THE MAXIMUM MOISTURE CONTENT SHALL BE 19%.
- END JOINTS: DISPERSE END JOINTS AS RANDOMLY AS POSSIBLE TO MAKE EVEN SEPARATION PATTERN.
- A. AT LEAST 24-INCH APART AT ADJACENT PLANKS.
- B. MORE THAN 1-FOOT APART AT ALTERNATE PLANKS SEPARATED BY ONE ROW.
- C. NO END JOINTS IN 1/3 OF END SPAN COURSE BETWEEN FRAMING MEMBERS.
- D. END MATCH EACH JOINT.

THE MINIMUM LENGTHS SHALL BE BASED ON THE FOLLOWING:

2X DECKING

· NOT LESS THAN 40% TO BE 14 FEET AND LONGER.

NOT OVER 10% TO BE LESS THAN 10 FEET.

NOT OVER 1% TO BE 4 TO 5 FEET.

DECKING SHALL BE INSTALLED AS FOLLOWS:

2X DECKING SHALL BE TOENAILED THROUGH THE TONGUE AND FACENAILED WITH ONE 16d COMMON NAIL PER PIECE PER SUPPORT. COURSES SHALL BE ATTACHED TO EACH OTHER WITH 6d COMMON TOENAILS @ 30" O.C. MAXIMUM.

Anç	L	At	1
Pou	LB.	Penny (Nails))
Live Lo	LL	Diameter	
Long Leg Horizon	LLH	Degrees Pounds	.#
Long Leg Verti	LLV		.#
Longitudir Lightweiç	LONGIT. LT. WT.	Number	
Lightwork	Z1. VV1.	Above	٨)
Maximu	MAX.	Anchor Bolt	.B.
Mechani	MECH.	Additional	DD'L
Mezzani	MEZZ.	Alternate	LT.
Moment Fran	MF	Approximate	PPROX.
Manufactu	MFR.	Architect	RCH.
Minimu	MIN.		
Miscellaneo	MISC.	Below	3)
Ma	MK.	Bottom of	ĺ
		Braced Frame	F
Ne	(N)	Blocking	LKG.
No	N.	Building	LDG.
Near Si	N.S.	Beam	M.
Nomir	NOM.	Bottom	OT.
Not to Sca	NTS	Bearing	RG.
		Between	TWN.
On Cen	O.C.		
Outside Diame	O.D.	Centerline	
Outside Fa	O.F.	Camber	
Overha	O.H.	Cast In Place	IP
Openi	OPNG.	Construction Joint or Control Joint	 .J.
Oppos	OPP.	Complete Joint Penetration	JP
Oppos	V 111	Complete John Ferietration Ceiling	LG.
Powder Actuated Faster	PAF	Clear	LG. LR.
Powder Actuated Faster Preca	PC PC	Concrete Masonry Unit	MU
			OL.
Permane	PERM.	Column	OL. ONC.
Perpendicu	PERP.	Concrete	
Partial Joint Penetrati	PJP	Connections	ONN.
Pla Davinda nar linaar Fr	PLor PL	Construction	ONST.
Pounds per linear Fo	PLF	Continuous	ONT.
Plywo	PLYWD	Countersink	SK.
Prefabricat	PREFAB.	_ ,	
Pounds per Square Fo	PSF	Deformed Bar Anchor	BA
Pounds per Square In	PSI	Double	BL.
Post-Tensioni	P.T. or PT	Degree	EG.
Pressure-Treat	P/T	Doug Fir-Larch	F
		Diameter	IA.
Radi	RAD.	Diagonal	IAG.
Referen	REF.	Diaphragm	IAPH.
Reinforce or Reinforceme	REINF.	Dimension	IM.
Requir	REQD.	Down	N.
Revi	REV.	Ditto	0
Rough Openi	R.O.	Detail	TL.
		Drawing	WG.
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Schedu	SCH. or SCHED.	Existing	Ξ)
Secti	SECT.	East	
O.L.	SHT.	Each	A.
She	SIM.	Each Face	.F.
Simi	SOG	Elevation	L.
Simi Slab On Gra		Elevator	LEV.
Simi	SPEC.	Embedment Length	MDED
Simi Slab On Gra			IVIDED.
Simi Slab On Gra Specificati	SPEC.	Engineer	
Simi Slab On Gra Specificati Squa	SPEC. SQ.	Engineer Equal	NGR.
Simi Slab On Gra Specificati Squa Square Fe	SPEC. SQ. SQ. FT.		NGR. Q.
Simi Slab On Gra Specificati Squa Square Fe Square Inch(e	SPEC. SQ. SQ. FT. SQ. IN.	Equal	NGR. Q. W.
Simi Slab On Gra Specificati Squa Square Fe Square Inch(e Spruce-Pine-	SPEC. SQ. SQ. FT. SQ. IN. SPF	Equal Each Way	NGR. Q. W. XP.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S.	Equal Each Way Expansion	NGR. Q. W. XP.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF.	Equal Each Way Expansion	NGR. Q. .W. XP. XT.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD.	Equal Each Way Expansion Exterior	NGR. Q. .W. XP. XT.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR.	Equal Each Way Expansion Exterior Foundation Finish	NGR. Q. W. XP. XT. DN. N.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB.	Equal Each Way Expansion Exterior Foundation Finish Floor	NGR. Q. W. XP. XT. DN. N. _R.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR.	Equal Each Way Expansion Exterior Foundation Finish	NGR. Q. W. XP. XT. ON. N. LR. RP
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer	NGR. Q. W. XP. XT. DN. DN. LR. RP S.
Simi Slab On Gra Specificati Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet	NGR. Q. W. XP. XT. DN. N. LR. RP S.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side	NGR. Q. W. XP. XT. DN. N. LR. RP S.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing	NGR. Q. W. XP. XT. ON. N. -R. RP S. F.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groo	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge	NGR. Q. W. XP. XT. ON. N. -R. RP S. F.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groo Tempora Throu	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized	NGR. Q. W. XP. XT. ON. N. -R. RP S. T. TG.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated	NGR. Q. W. XP. XT. ON. N. -R. RP S. T. TG. ALV. L
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized	NGR. Q. W. XP. XT. ON. N. -R. RP S. T. TG. ALV. L
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board	NGR. Q. W. XP. XT. ON. R. RP S. T. TG. ALV. L
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized	NGR. Q. W. XP. XT. DN. N. -R. RP S. T. G. ALV. L WB
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir	NGR. Q. W. XP. XT. ON. N. LR. RP S. T. TG. ALV. L WB
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger	NGR. Q. W. XP. XT. DN. N. -R. RP S. T. GG. ALV. L WB DG F GR.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal	NGR. Q. W. KP. KT. DN. NR. F.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section	NGR. Q. W. XP. XT. ON. R. RP S. T. G. ALV. L WB DG F GR. ORIZ. SS
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal	NGR. Q. W. XP. XT. ON. R. RP S. T. G. ALV. L WB DG F GR. ORIZ. SS
Simi Slab On Gra Specificati Square Square Fe Square Inche Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height	NGR. Q. W. XP. XT. ON. R. RP S. T. A. ALV. L WB DG F GR. ORIZ. SS T.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter	NGR. Q. W. XP. XT. DN. IN. LR. TG. A. ALV. L WB DG F GR. ORIZ. SS T.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Note Vertic	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face	NGR. Q. W. XP. XT. ON. R. RP S. T. A. ALV. L WB DG F GRIZ. SS T. O. E.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch	NGR. Q. W. XP. XT. DN. R. RP S. T. A. ALV. L WB DG F GR. ORIZ. SS T. D. E.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information	NGR. Q. W. XP. XT. DN. R. RP S. T. G. ALV. L WB DG F GR. ORIZ. SS T. D. E. I. IFO.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botte Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch	NGR. Q. W. XP. XT. DN. R. RP S. T. G. ALV. L WB DG F GRIZ. SS T. D. I.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie We Welded Headed Ste Withou	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior	NGR. Q. W. XP. XT. DN. R. RP. S. T. G. ALV. L WB DG GRIZ. SS T. D. E. I.
Simi Slab On Gra Specificati Square Square Fe Square Inche Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Note Vertic Verify in Fiel We W Welded Headed Ste Withol	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O WP	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information	NGR. Q. W. XP. XT. DN. R. RP S. T. G. ALV. L WB DG F GR. ORIZ. SS T. D. E. I.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie We Welded Headed Ste Withou	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior	NGR. Q. W. XP. XT. DN. R. RP S. T. G. ALV. L WB DG F GR. ORIZ. SS T. D. E. I.
Simi Slab On Gra Specificati Square Square Fe Square Inche Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Note Vertic Verify in Fiel We W Welded Headed Ste Withol	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O WP	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior	NGR. Q. W. XP. XT. DN. IR. RP. S. T. G. ALV. L WB DG F GR. ORIZ. SS T. D. E. I.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertify in Fie We Welded Headed Ste Withou Work Po Welded Threaded Ste Welded Threaded Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O WP W.T.S.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior Joint	NGR. Q. W. XP. XT. DN. R. RP. S. T. G. ALV. WB DG F GRIZ. SS T. D. E. I.
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botto Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertify in Fie We Welded Headed Ste Withou Work Po Welded Threaded Ste Welded Threaded Ste	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O WP W.T.S.	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior Joint Kips	MBED. NGR. QW. XP. XT. DN. LR. ST. GR. ALV. LWB DG FGR. SS T. D. I. I. SF SI
Simi Slab On Gra Specificati Square Square Fe Square Inch(e Spruce-Pine- Stainless Ste Standa Stiffer Ste Structu Substitu Symmetric Top Top and Botte Tongue & Groot Tempora Throu Top of Concre Top of Ste Top of W Transver Tube Ste Typic Unless Otherwise Not Vertic Verify in Fie We W Welded Headed St Witho Work Po Welded Threaded St Welded Wire Fab	SPEC. SQ. SQ. FT. SQ. IN. SPF S.S. STD. STIFF. STL. STR. SUB. SYM. T/ T&B T&G TEMP. THRU T.O.C. T.O.S. T.O.W. TRANS. TS TYP. U.O.N. VERT. VIF W. W/ or w/ W.H.S. W/O WP W.T.S. WWF	Equal Each Way Expansion Exterior Foundation Finish Floor Fiber Reinforced Polymer Far Side Foot or Feet Footing Gauge Galvanized Glue Laminated Gypsum Wall Board Hot Dipped Galvanized Hem Fir Hanger Horizontal Hollow Structural Section Height Inside Diameter Inside Face Inch Information Interior Joint Kips Kips per Square Foot	NGR. QW. XP. XT. DN. LR. ST. TG. A. ALV. L WB DG F GRIZ. SS T. D. I. I. I. SF



DRAWN
BY:
TA
CHECKED
BY
MJH
APPROVED
BY:
11/17/2023

PROJECT INFORMATION:

WANG & YANG ADU

PROJECT ADDRESS:

6450 E MERCER WAY

MERCER ISLAND, WA 98040

SHEET NAME:

GENERAL

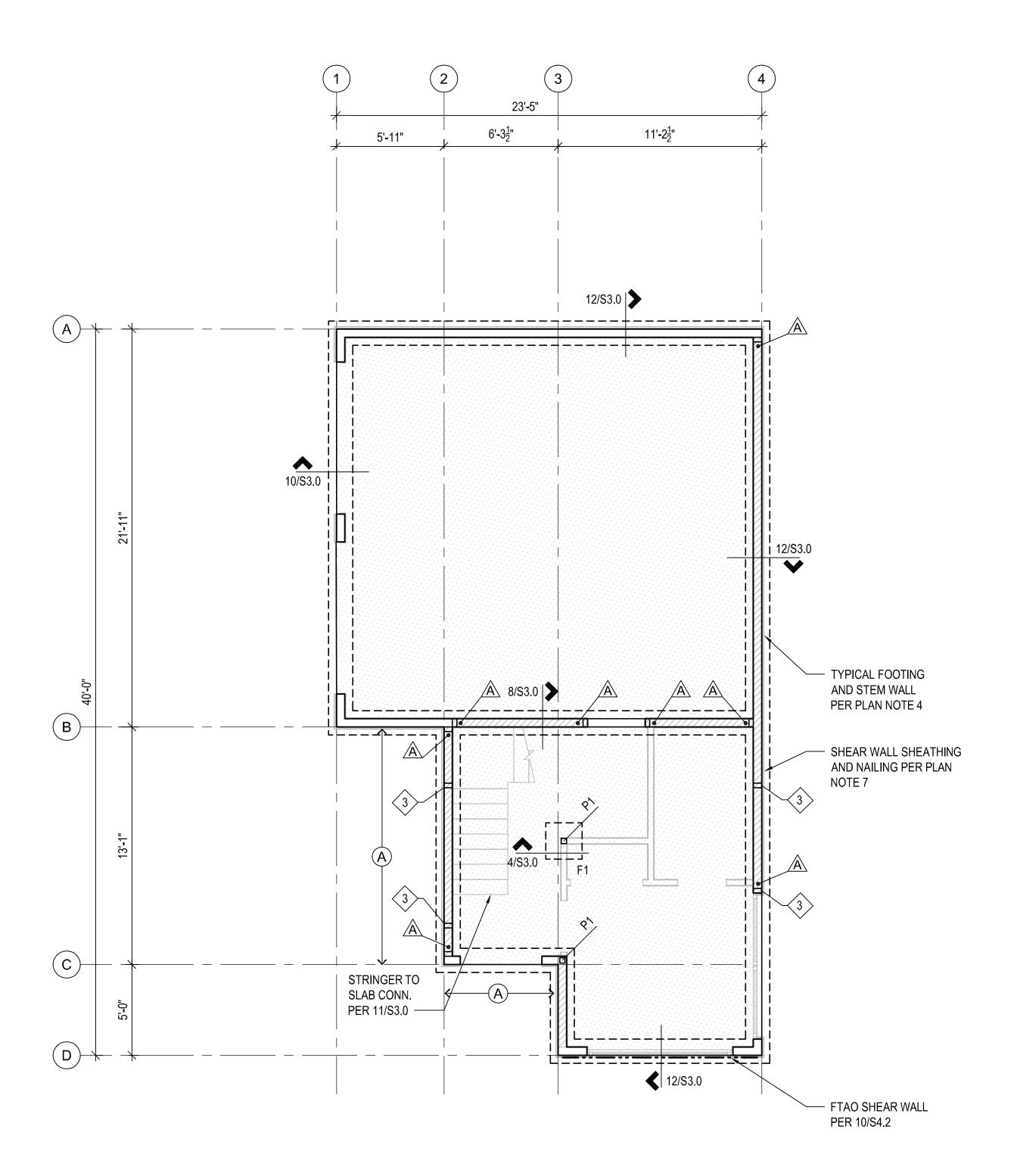
STRUCTURAL

NOTES

CURRENT REVISION

SHEET NUMBER:

S1.1





STUD WALL TYPE SCHEDULE A | 1¾ x5½ LSL (1.55E) STUDS @ 12" O.C.

FOOTING SCHEDULE					
MARK	SIZE				
F1	24" SQ. x 12" DEEP FOOTING w/ (3) #4 E.W. BOTTOM, TYP.				

POST SCHEDULE					
MARK	SIZE				
P1	P/T 4x4				

SEISMIC FORCE RESISTING SYSTEM LEGEND

SHEAR WALL TYPE 'X' PER SCHEDULE 8/S4.0 HOLDOWN TYPE 'X' PER SCHEDULE 12/S4.0

LEGEND

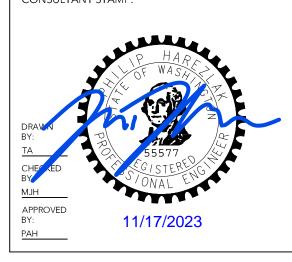
4" SLAB-ON-GRADE PER PLAN NOTE 5

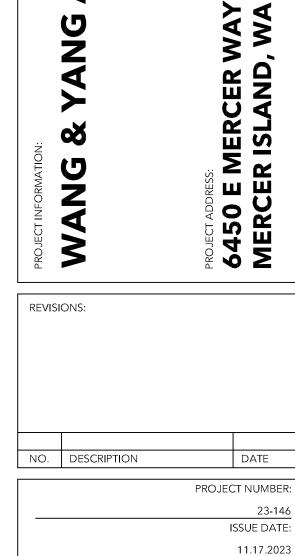
FOUNDATION & MAIN FLOOR FRAMING PLAN NOTES:

- 1. TOPS OF ALL EXTERIOR FOOTINGS ON THIS PLAN SHALL BE BURIED BELOW DENSE NATIVE MATERIAL, OR PREPARED AS SPECIFIED IN THE GEOTECHNICAL REPORT.
- 2. FINAL SITE GRADES TO BE DETERMINED BY THE CONTRACTOR. CONTRACTOR SHALL COORDINATE UNDERSLAB PIPING REQUIREMENTS AS SHOWN IN 7/S3.0.
- 3. POSTS AND STUD PACKS SHALL BE CONTINUOUS TO FOUNDATION. TYPICAL STUD WALLS SHALL BE FRAMED USING HEM-FIR #2 2x STUDS @ 16" O.C., U.O.N. POST LOADS FROM ABOVE TO BE BLOCKED PER 7/S4.1.
- 4. TYPICAL FOOTING TO BE 18"W x 8" DP. CONC. STRIP FTG. w/ (2) #4 CONT. BOTTOM AND #4 @ 16" O.C. TRANS. TYP. STEM WALL TO BE 8" STEM WALL w/ #4 @ 12" O.C. HORIZ. AND 16" O.C. VERT.
- 5. SLAB-ON-GRADE SHALL BE 4" THICK w/ WWF 6x6-W2.1xW2.1 MID-DEPTH OR #4 @ 16" O.C. E.W. MID-DEPTH, U.O.N. PROVIDE VAPOR BARRIER BELOW SLAB AS REQUIRED AND PER 2/S3.0. INSTALL CONSTRUCTION AND CONTROL JOINTS PER 2/S3.0.
- 6. ALL CONNECTIONS AND CONNECTORS IN CONTACT WITH PRESSURE-TREATED LUMBER TO BE HOT DIPPED GALVANIZED OR STAINLESS STEEL, PER GENERAL STRUCTURAL NOTES.
- 7. ALL EXTERIOR WALLS TO BE SHEATHED AND NAILED PER SW-6, U.O.N.



E: phil@harezlakengineering.com CONSULTANT STAMP:





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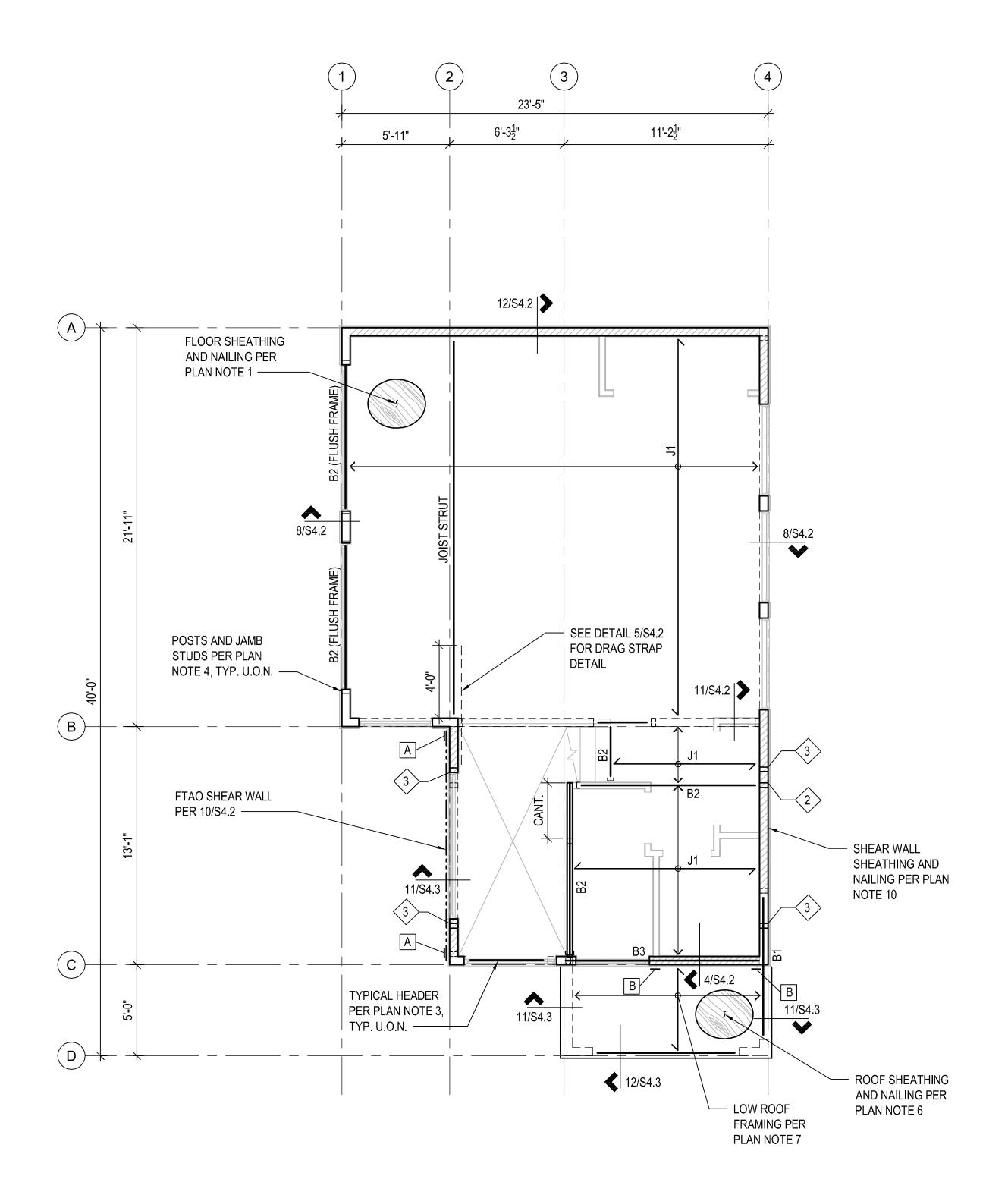
SHEET NAME:

FOUNDATION PLAN

CURRENT REVISION:

SHEET NUMBER:

S2.0





	JOIST & BEAM SCHEDULE						
MARK	SIZE	HANGER					
J1	14" TJI 110 @ 16" O.C.	PER MFR.					
B1	3½ x 9⅓ LVL	N/A					
B2	3½ x 14 LVL	HUS412					
В3	51/4 x 14 LVL	N/A					

SEISMIC FORCE RESISTING SYSTEM LEGEND

SHEAR WALL TYPE 'X' PER SCHEDULE 8/S4.0

FRAMING MEMBER NAILED AS STRUT PER PLAN NOTE 1

STRAP TYPE HOLDOWN PER SCHEDULE 10/S4.0

EXTENT OF SHEAR WALL SHEATHING

LEGEND

STRUT

SPAN DIRECTION OF FRAMING MEMBERS

(SEE PLAN NOTE 2)

STRUCTURAL WALL BELOW

POST BELOW

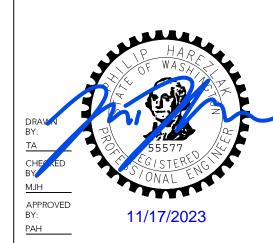
NUMBER OF BUILT-UP STUDS

FLOOR FRAMING PLAN NOTES:

- 1. FLOOR SYSTEM SHALL CONSIST OF ²³/₃₂" PERFORMANCE CATEGORY, APA RATED SHEATHING, ⁴⁸/₂₄, EXPOSURE 1, NOMINAL 4'x8' (T&G OR SQUARE EDGE) PERMANENT OUTDOOR SHEATHING GRADE SHALL BE "EXTERIOR". NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, BLOCKING AND EXTERIOR SHEAR WALLS BELOW WITH 10d @ 6" O.C. PROVIDE $\frac{1}{8}$ " GAP AT ALL PANEL EDGE. FASTENER EDGE DISTANCE TO PANEL EDGE OF 3/8" MINIMUM. NAIL SHEATHING IN PANEL FIELD TO ALL STRUTS, STRUT BLOCKING, AND INTERIOR SHEAR WALLS BELOW WITH 10d @ 3" O.C. STAGGERED. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS WITH 10d @ 12" O.C. GLUE SHEATHING AT ALL SUPPORTS WITH ADHESIVE CONFORMING TO ASTM SPECIFICATION D3498.
- 2. FLOOR JOISTS TO BE 14" TJI 110 @ 16" O.C. PROVIDE HANGERS PER MFR. AS REQUIRED. ALLOWABLE HOLES IN JOISTS PER JOIST SUPPLIER SPECIFICATIONS.
- 3. BEAMS OVER INTERIOR AND EXTERIOR OPENINGS SHALL BE 4x8 AND DROPPED BELOW STUD WALL TOP PLATES PER 10/S4.1, U.O.N.
- 4. POSTS OR JAMB STUDS AT END OF SUPPORTING BEAMS, GIRDER TRUSSES, OR BELOW POSTS SHALL BE (3) STUDS AT A MINIMUM. TYPICAL HEADER STUDS WILL BE (2) CRIPPLE STUDS AND (1) KING STUD.
- 5. OTHER TYPICAL FRAMING DETAILS SHOWN ON SHEET S4.1.
- 6. ROOF SYSTEM SHALL CONSIST OF $\frac{19}{32}$ " PERFORMANCE CATEGORY, APA RATED SHEATHING, ³²/₁₆, EXPOSURE 1, NOMINAL 4'x8' (T&G OR SQUARE EDGE). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, STRUTS, BLOCKING, AND SHEAR WALLS BELOW w/ 10d @ 6" O.C. PROVIDE $\frac{1}{8}$ " GAP AT ALL PANEL EDGE. FASTENER EDGE DISTANCE TO PANEL EDGE OF 3/8" MINIMUM. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS WITH 10d @ 12" O.C. U.O.N. INSTALL PANEL EDGE CLIPS PER GENERAL STRUCTURAL NOTES AT ALL UNFRAMED, UNBLOCKED PANEL EDGES
- ROOF FRAMING SHALL BE CONNECTOR PLATE TRUSSES @ 24" O.C. TRUSS MANUFACTURER SHALL INSTALL ALL TEMPORARY AND PERMANENT TRUSS BOTTOM CHORD BRACING AND BRIDGING, RELATED CONNECTIONS, AND ATTACHMENT DETAILS. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS & ARCHITECTURAL DRAWINGS FOR HEIGHTS AND CONFIGURATIONS. TRUSSES SHALL BE DESIGNED FOR TYPICAL TRUSS LOADING AS SHOWN IN THE GENERAL STRUCTURAL NOTES.
- 8. DO NOT SCALE DRAWINGS. REFER TO ARCH. DRAWINGS FOR ALL DIMENSIONS.
- 9. FOR ALL DUCTS, CHASES, AND PIPES, REFERENCE MECHANICAL, ELECTRICAL, AND PLUMBING
- 10. ALL EXTERIOR WALLS TO BE SHEATHED AND NAILED PER SW-6, U.O.N.



CONSULTANT STAMP:



Ko WANG

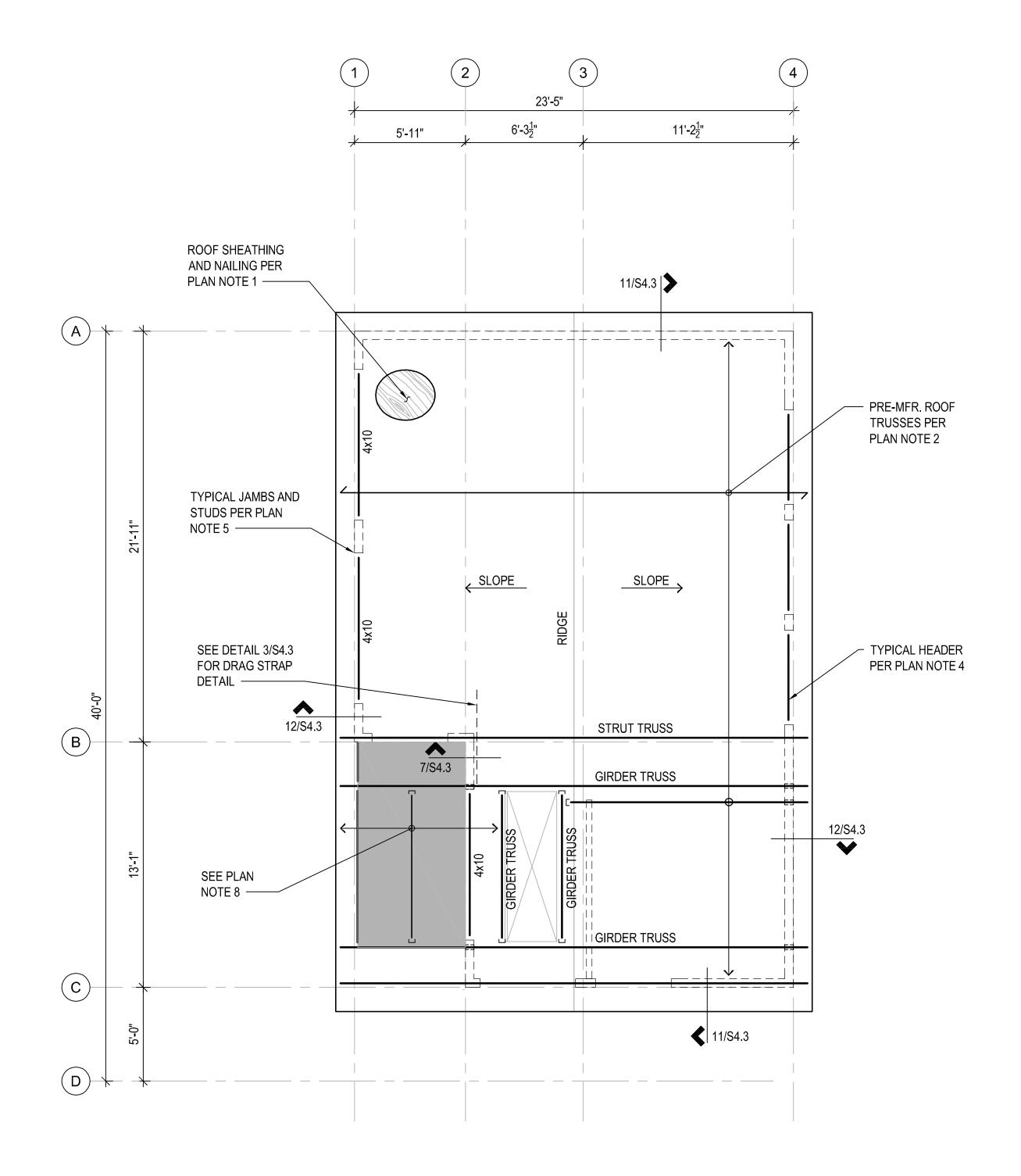


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SHEET NAME: **UPPER FLOOR** FRAMING PLAN

SHEET NUMBER:

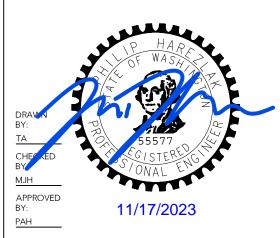
S2.1







CONSULTANT STAMP:



SEISMIC FORCE RESISTING SYSTEM LEGEND

STRUT FRAMING MEMBER NAILED AS STRUT PER PLAN NOTE 1

LEGEND

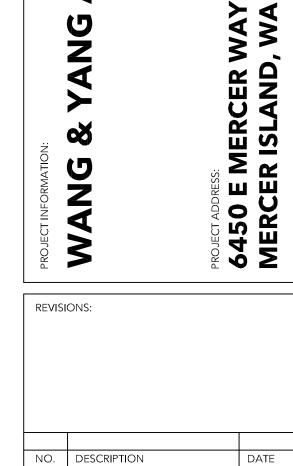
□□□□ STRUCTURAL WALL BELOW

SPAN DIRECTION OF FRAMING MEMBERS (SEE PLAN NOTE 2)

SEE PLAN NOTE 9

ROOF FRAMING PLAN NOTES:

- ROOF SYSTEM SHALL CONSIST OF 19/32" PERFORMANCE CATEGORY, APA RATED SHEATHING, 32/16, EXPOSURE 1, NOMINAL 4'x8' (T&G OR SQUARE EDGE). NAIL SHEATHING AT ALL FRAMED PANEL EDGES, DIAPHRAGM BOUNDARIES, STRUTS, BLOCKING, AND SHEAR WALLS BELOW w/ 10d @ 6" O.C. PROVIDE $\frac{1}{8}$ " GAP AT ALL PANEL EDGE. FASTENER EDGE DISTANCE TO PANEL EDGE OF $rac{3}{8}$ " MINIMUM. NAIL SHEATHING AT ALL INTERMEDIATE SUPPORTS WITH 10d @ 12" O.C. U.O.N. INSTALL PANEL EDGE CLIPS PER GENERAL STRUCTURAL NOTES AT ALL UNFRAMED, UNBLOCKED PANEL EDGES
- 2. ROOF FRAMING SHALL BE CONNECTOR PLATE TRUSSES @ 24" O.C. TRUSS MANUFACTURER SHALL INSTALL ALL TEMPORARY AND PERMANENT TRUSS BOTTOM CHORD BRACING AND BRIDGING, RELATED CONNECTIONS, AND ATTACHMENT DETAILS. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS & ARCHITECTURAL DRAWINGS FOR HEIGHTS AND CONFIGURATIONS. TRUSSES SHALL BE DESIGNED FOR TYPICAL TRUSS LOADING AS SHOWN IN THE GENERAL STRUCTURAL NOTES.
- 3. CONNECTOR PLATE TRUSS SHOP DRAWINGS TO BE APPROVED BY HAREZLAK ENGINEERING PRIOR TO MANUFACTURING AND INSTALLATION.
- 4. ALL EXT. HEADERS TO BE 4x8 HF#2 UNLESS OTHERWISE NOTED, SEE 10/S4.1.
- 5. POST OR JAMB STUDS AT END OF SUPPORTING BEAMS, GIRDER TRUSSES, OR BELOW POSTS SHALL BE (3) STUDS AT A MINIMUM. TYPICAL HEADER STUDS WILL BE (2) CRIPPLE STUDS AND (1) KING STUD.
- 6. FLAT BLOCKING IS REQUIRED AT ALL UNFRAMED RIDGES, HIPS, AND VALLEYS, FOR SHEATHING CONNECTION.
- 7. NON-STRUCTURAL WALL CONNECTION TO TRUSS PER 4/S4.3.
- 8. 2x6 RAFTERS BETWEEN GIRDER TRUSSES @ 24" O.C. INSTALL RAFTERS TO TRUSS TOP CHORD w/ LUS26 HANGER. AT LOW END OF TRUSS PROFILE, INSTALL 2x6 CEILING JOISTS @ 24" O.C. w/ LUS HANGER TO TRUSS BOTTOM CHORD. TRUSS MFR. TO DESIGN FOR 2x6 TOP AND BOTTOM CHORD FOR GIRDER TRUSSES NOTED.
- 9. INSTALL 2x T&G DECKING OR $1\frac{9}{32}$ " PLYWOOD SHEATHING PER PLAN NOTE 1 TO UNDERSIDE OF TRUSS/2x FRAMING AT OVERHANG AS NOTED PER PLAN. COORDINATE WITH ARCH. ON FINAL ASSEMBLY.



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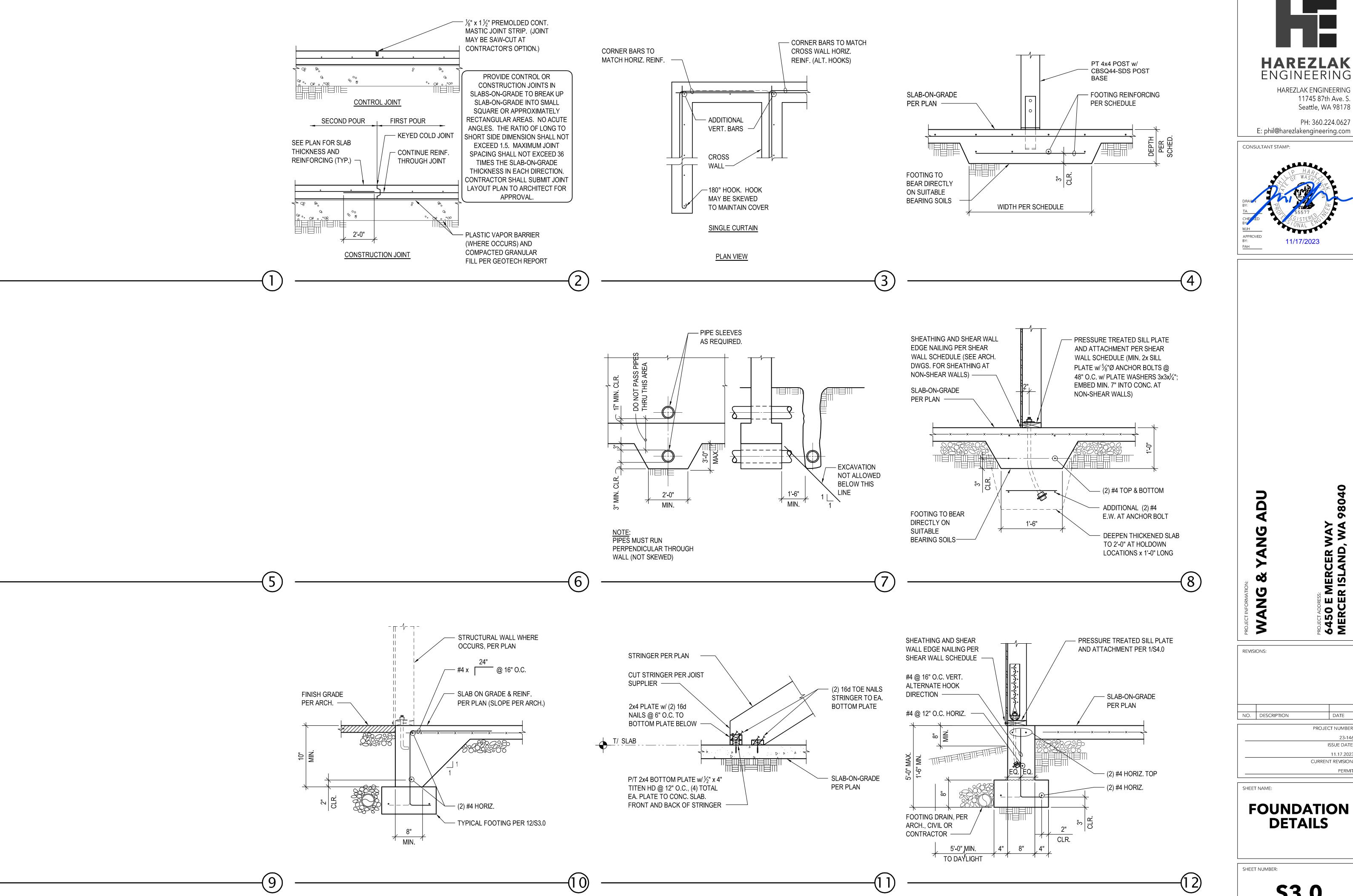
NO.	DESCRIPTION		DATE
		PROJEC	CT NUMBER:
			23-146
		l	SSUE DATE:
l			11.17.2023
		CURREN	T REVISION:
			PERMIT

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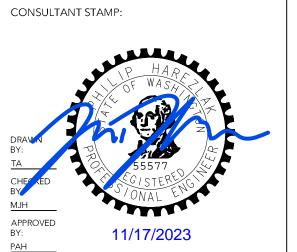
ROOF FRAMING PLAN

SHEET NUMBER:

S2.2





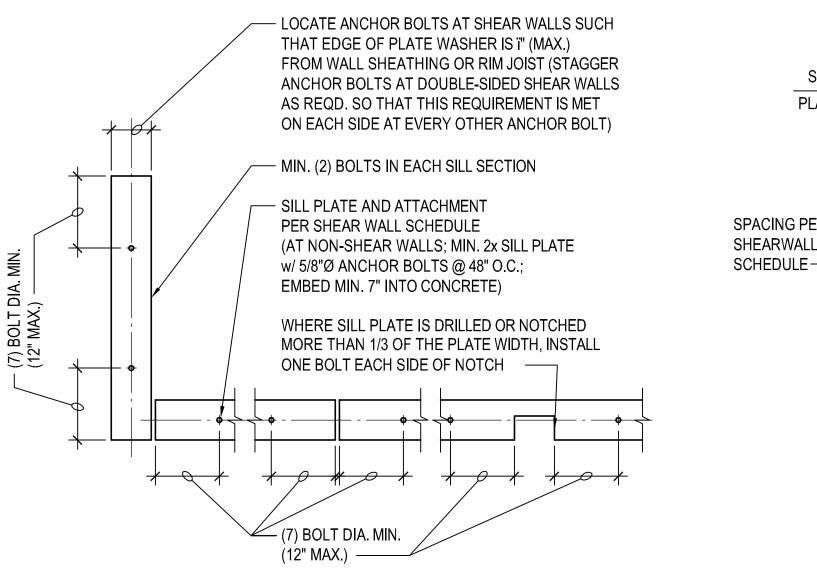


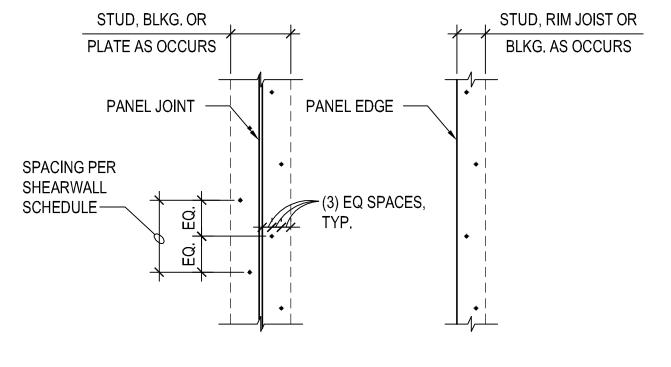
6450 E MERCER WAY
MERCER ISLAND, WA 98040 NO. DESCRIPTION DATE PROJECT NUMBER: ISSUE DATE: 11.17.2023 CURRENT REVISION:

FOUNDATION DETAILS

SHEET NUMBER:

S3.0





PANEL JOINT

NOTE: STAGGER EA. LINE OF NAILING (AT ALL PANEL EDGES) AS INDICATED

PANEL EDGE

PANEL EDGE NAILING PER PLAN SHEATHING	2'-0" MIN. PANEL DIMENSION CONTINUOUS PANEL ED	<u></u>	PANEL EDGE NAILING PER PLAN, SEE 2/S4.0 2x4 FLAT BLKG. DETAIL A DETAIL A DETAIL A
FIELD NAILING AT INTERMEDIATE FRAMING MEMBERS PER PLAN SHEATHING JOINT, PANEL EDGE NAILING PER PLAN, TYP. WHERE FULLY BLOCKED DIAPHRAGMS ARE SPECIFIED ON THE PLANS, PROVIDE 2x4 FLAT BLKG. AT SHEATHING JOINTS, SEE DETAIL A		2'-0" MIN. PANEL TO PANEL LAP	PANEL EDGE NAILING PER PLAN 2x4 NAILER w/ 10d-F NAILS @ 6" O.C. JOIST BEYOND AT JOIST SPLICE WHERE OCCURS DETAIL B PANEL EDGE NAILING AT JOIST SPLICE NOTES: RUN LONG DIMENSION OF SHEATHING PANELS PERPENDICULAR TO FRAMING.

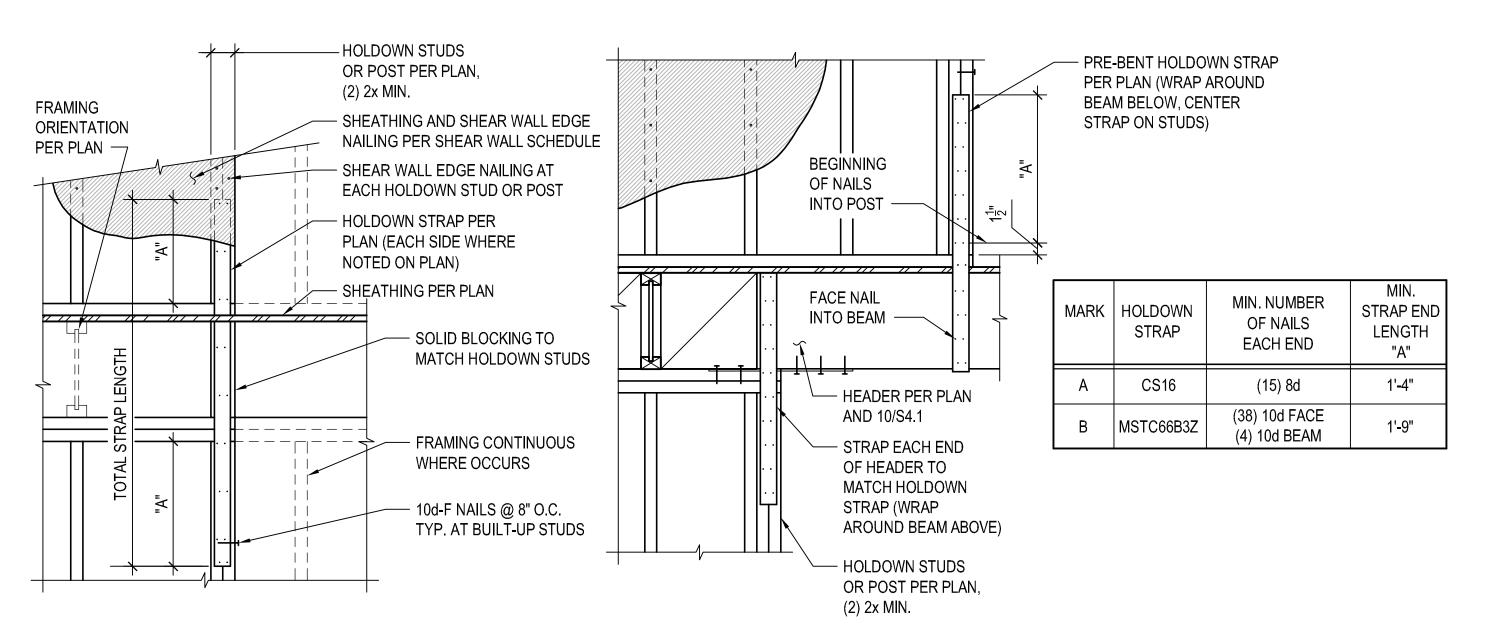
	SHEAR WALL SCHEDULE (HEM-FIR, 10d NAILING)									
				BOTTOM PLA	TE ATTACHMENT		TOP PLATE	E ATTACHMENT		
SHEAR WALL TYPE	SHEAR WALL SHEATHING	PANEL EDGE FRAMING	PANEL EDGE NAILING	2x BOTTOM PLATE CONNECTION TO RIM JOIST OR BLOCKING BELOW	OF SILL F	BOLTING PLATE TO TE BELOW 45	CONNECTIC	OR BLOCKING ON TO TOP PLATE	ALLOWABLE S CAPACIT	
		27		BELOW	3x PLATE	2x PLATE	INTERIOR WALL	EXTERIOR WALL	SEISMIC	WIND
SW-6	15/32" APA ONE-SIDE SHTG.	2x	0.148"Øx2½" @ 6" O.C.	0.148"Øx3½" @ 6" O.C.	½"Ø @ 48" O.C.	½"Ø @ 48" O.C.	A35 @ 16" O.C.	LTP4 @ 16" O.C.	288	405

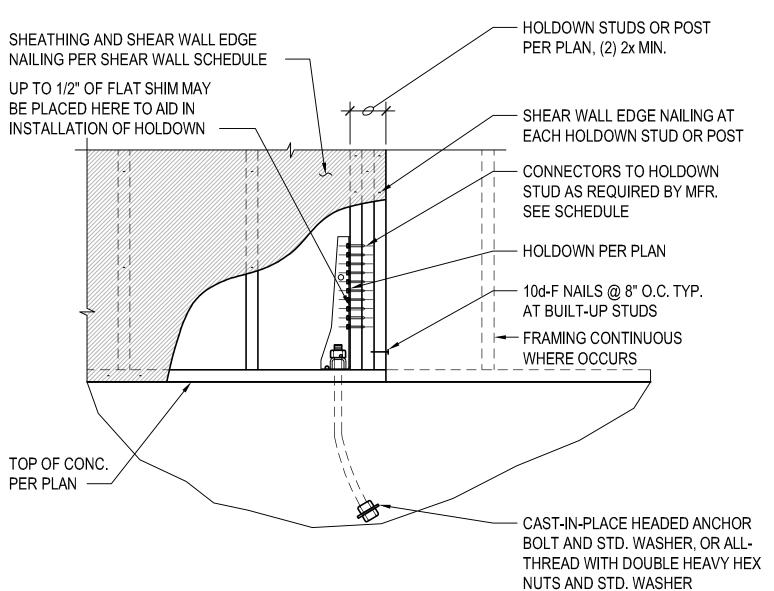
NOTES:

- 1 INSTALL PANEL SHEATHING EITHER HORIZONTALLY OR VERTICALLY FOR THE ENTIRE LENGTH OF THE WALL PER PLAN.
- 2 ALL INTERMEDIATE WALL STUDS SHALL BE PER PLAN. PROVIDE BACKING FRAMING AT ALL PANEL EDGES INCLUDING HORIZONTAL BLOCKING PER THE SCHEDULE.
- PROVIDE NAILING TO ALL PANEL EDGES, TOP & BOTTOM PLATES AND HORIZONTAL BLOCKING. PROVIDE THE SAME NAILING PATTERN TO EACH MULTIPLE STUD OF THE BUILT-UP HOLD DOWN POST. NAIL PANEL TO INTERMEDIATE FRAMING MEMBERS w/ 0.131" @ 12" 0.C.
- EMBED CAST-IN-PLACE 5/8"Ø ANCHOR BOLTS 7" MIN. (OR EMBED ADHESIVE ANCHOR BOLTS 5 1/2" IN (E) CONCRETE; SEE STRUCTURAL NOTES). PROVIDE PLATE WASHER 3" x 3" x 1/4" AT EACH ANCHOR BOLT. SILL PLATES SHALL BE TREATED PER GENERAL NOTES, AND SHALL BE 2x OR 3x PER THE SCHEDULE. SEE DETAIL 1/S4.0 FOR OTHER REQUIREMENTS.
- (5) PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS, OR METAL PLATES FOR ALL CONNECTORS IN CONTACT WITH PRESSURE TREATED MEMBERS.
- PROVIDE 0.131"Ø x 1-1/2" LONG NAILS FOR CLIPS DIRECTLY ATTACHED TO FRAMING MEMBERS; PROVIDE 0.131"Ø x 2-1/2" LONG NAILS FOR CLIPS INSTALLED OVER FLOOR OR WALL SHEATHING ON FRAMING MEMBERS. SEE 6/S4.1 FOR TOP PLATE SPLICE.
- 7 ALTERNATIVE TO 3x STUDS AND 3x HORIZ. BLOCKING IS (2) 2x STUDS/BLKG. NAILED TOGETHER WITH 0.148"Ø x 3" LONG NAILS WITH THE SAME SPACING AS THE PANEL EDGE NAILING PER THE SCHEDULE (STAGGER).
- 8 STAGGER NAILS PER 2/S4.0.

6

9 RIM JOIST/BLOCKING MINIMUM WIDTH OF 1 $\frac{3}{4}$ ". STAGGER NAILS PER 2/S4.0 WHERE SPACING IS LESS THAN 6" O.C.





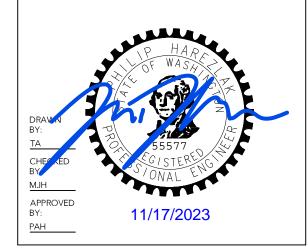
MARK	HOLDOWN	ANCHOR BOLT *	CONNECTORS TO HOLDOWN STUDS	END STUDS / POST
Α	HDU5	SB 5/8 x 24"	(14) SDS 1/4"x2 1/2" SCREWS	(2) 2x

NOTE:
PROVIDE HOT DIPPED GALVANIZED NAILS, BOLTS,
OR METAL PLATES FOR ALL CONNECTORS IN
CONTACT WITH PRESSURE TREATED MEMBERS.

* CONTRACTOR OPTION TO PROVIDE THREADED ROD IN LIEU OF ANCHOR IN SCHEDULE. DIAMETER TO BE AS INDICATED, CONTACT HAREZLAK ENGINEERING FOR PROJECT SPECIFIC EMBED REQUIREMENTS.



E: phil@harezlakengineering.c



VANG & YANG ADU

REVISIONS:

NO. DESCRIPTION DATE

PROJECT NUMBER:

23-146
ISSUE DATE:
11.17.2023

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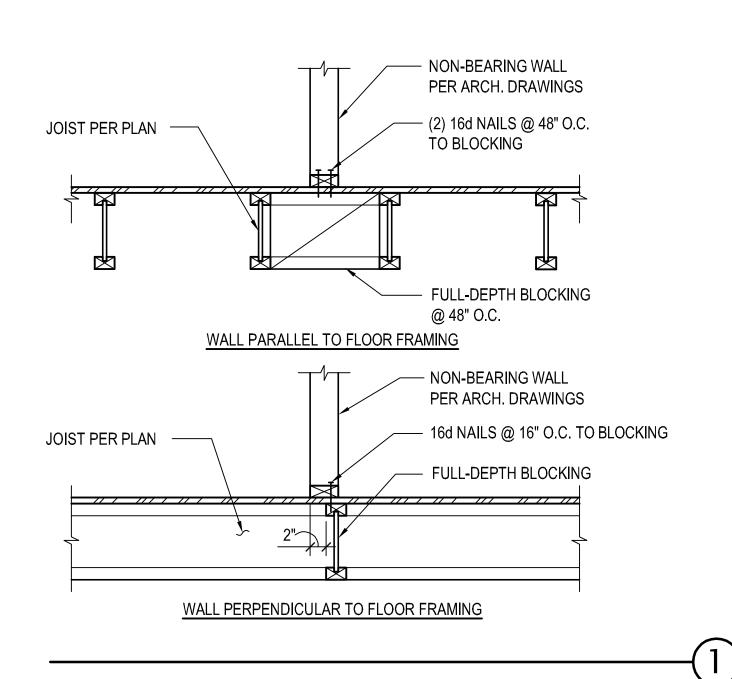
6450 E MERCER WAY MERCER ISLAND, WA

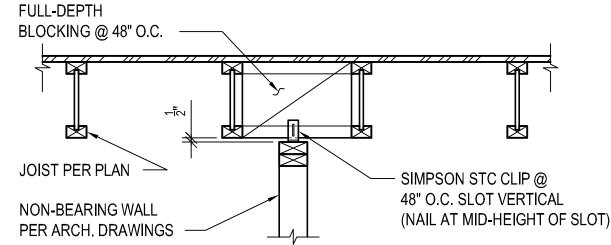
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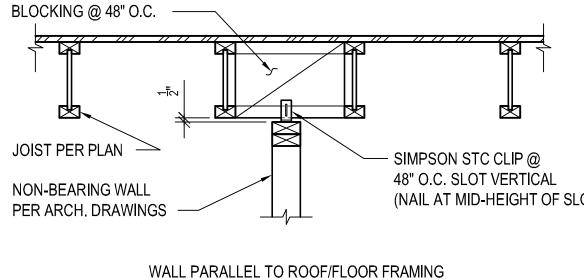
FRAMING SCHEDULES

SHEET NUMBER:

S4.0







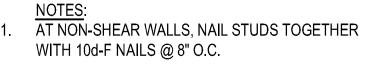
WALL PERPENDICULAR TO ROOF/FLOOR FRAMING

MSTA24 STRAP CENTERED ON BREAK IN TOP PLATE — (NAIL AT MID-HEIGHT OF SLOT)

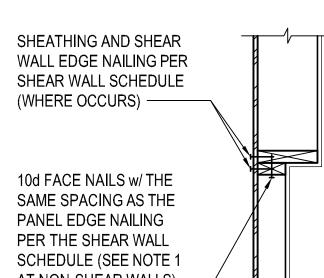
SIMPSON STC CLIP @

48" O.C. SLOT VERTICAL

(NAIL AT MID-HEIGHT OF SLOT)



2. ADDITIONAL STUDS REQUIRED AS NAILERS, ETC. ARE NOT SHOWN.



(12) 10d-F NAILS

BEAM PER PLAN

2x BUILT-UP POST BELOW w/ KING

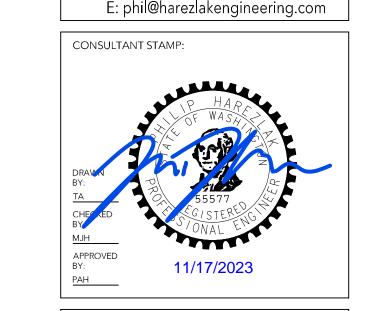
STUD EA. SIDE

10d-F NAILS @

12" O.C., TYP.

EA. SIDE

AT NON-SHEAR WALLS)



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ENGINEERING

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DATE

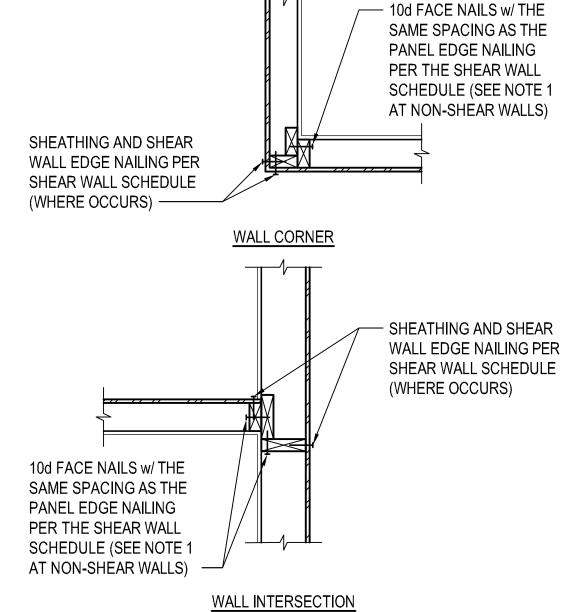
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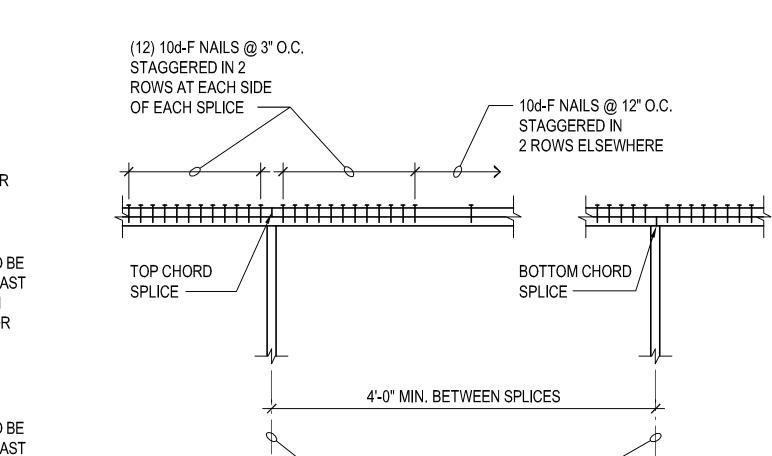
11.17.2023

PROJECT NUMBER:

CURRENT REVISION:

VARYING WALL SIZE

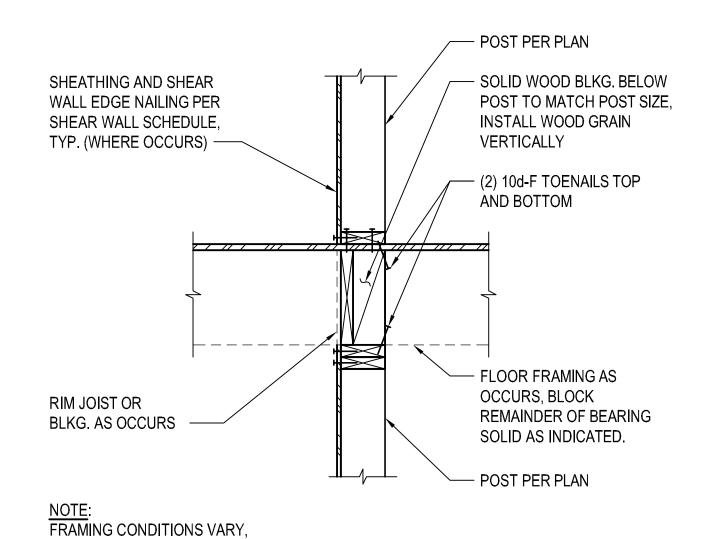




JOIST PER PLAN

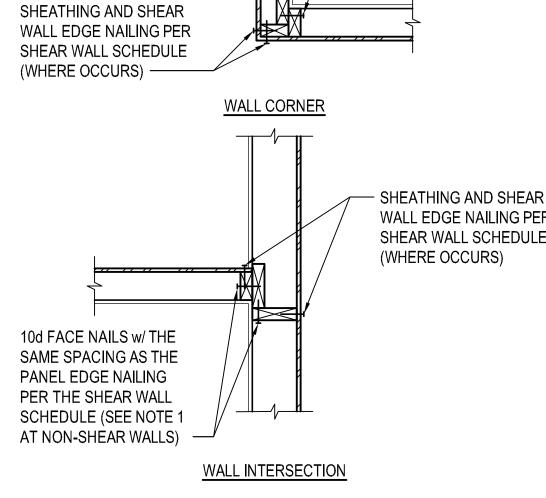
NON-BEARING WALL

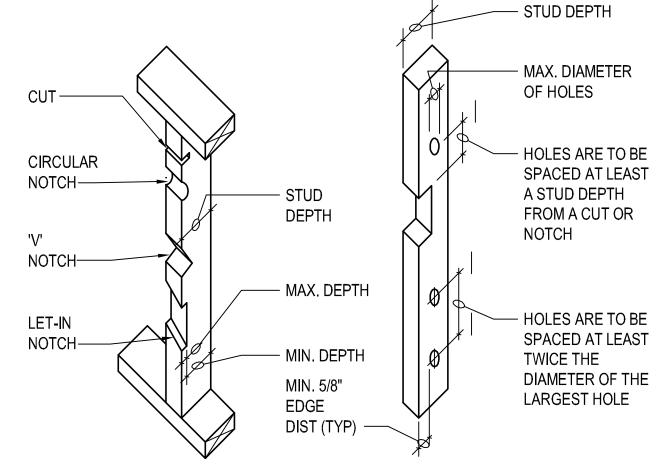
PER ARCH. DRAWINGS



FOR INFORMATION NOT

NOTED SEE PLAN & APPROPRIATE DETAILS







DEADING	14/411	OTUDO.
BEARING	WALL	21002

STUD	MAX. DEPTH OF	MIN. DEPTH REMAINING
<u>SIZE</u>	SAW CUT OR NOTCH	AFTER CUT OR NOTCH
2x4	7/8"	2-3/8"
2x6	1-3/8"	4-1/8"
2x8	1-7/8"	5-3/8"
ON BEADING	O MALL OTUBO	

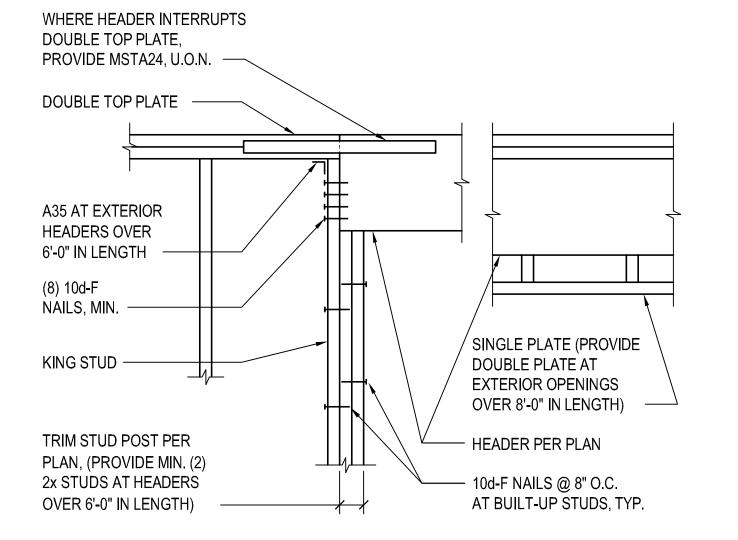
NO	N-BEARING	WALL STUDS:	
	STUD	MAX. DEPTH OF	MIN. DEPTH REMAINING
	SIZE	SAW CUT OR NOTCH	AFTER CUT OR NOTCH
	2x4	1-1/2"	2"
	2x6	2-3/8"	3-1/8"
	2x8	3"	4-1/4"

B. HOLES IN WOOD STUDS BEARING WALL

SIZE OF HOLE 2x4 1-1/2" 2x6 2-3/8"	WINTO WITCH.	
2x6 2-3/8"		MAX. DIAMETER OF HOLE
2X8 3	=/:	

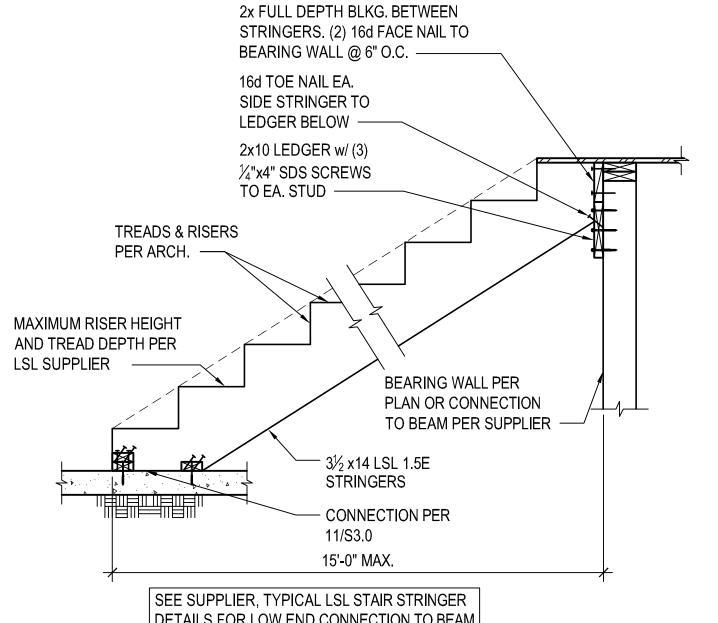
NON-BEARING WALL:

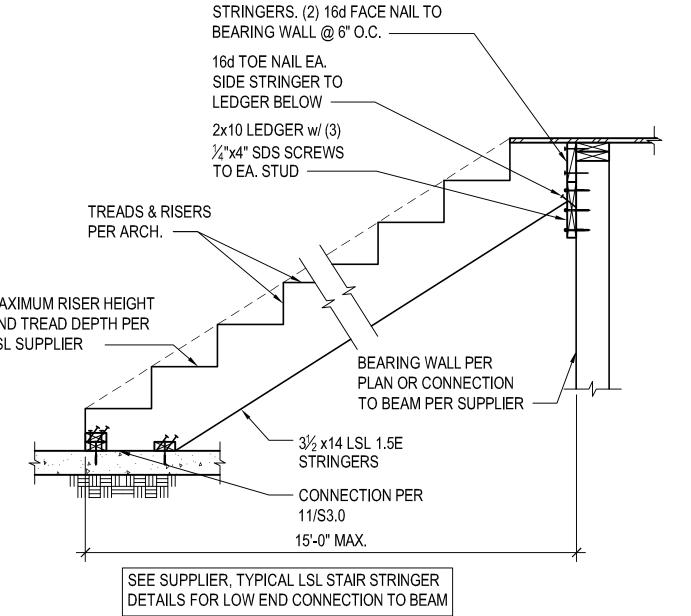
STUD SIZE	MAX. DIAMETE OF HOLE
2x4	2-1/4"
2x6	3-3/8"
2x8	4-1/2"



SPLICE TO OCCUR AT I

OF STUD (TYP.) —





WOOD **FRAMING DETAILS**

SHEET NUMBER:

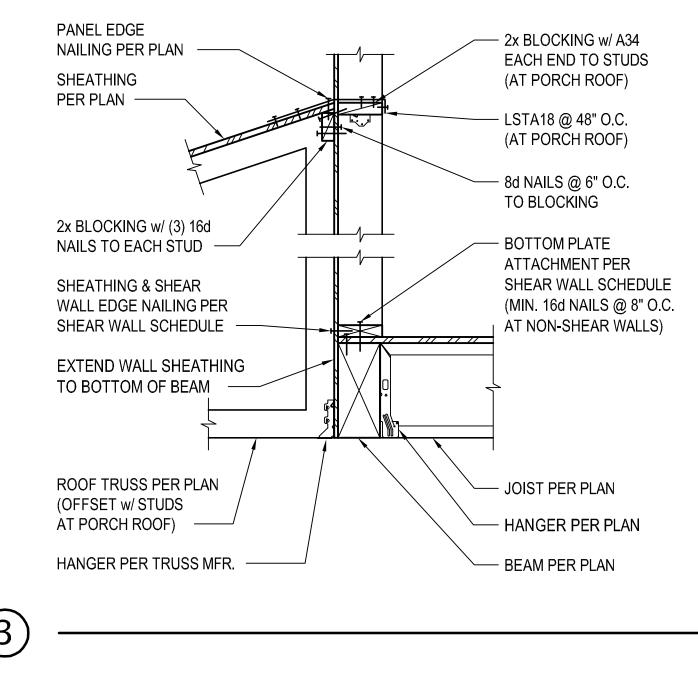
WANG

REVISIONS:

NO. DESCRIPTION

SHEET NAME:

S4.1



BOTTOM PLATE ATTACHMENT

PER SHEAR WALL SCHEDULE.

(MIN. 16d NAILS @ 8" O.C.

AT NON-SHEAR WALLS)

- PANEL EDGE NAILING

- SHEATHING PER PLAN

JOIST PER PLAN

JOIST TO PLATE

- (2) 8d BOX NAILS EA.

PER PLAN

PANEL EDGE

NAILING PER PLAN

SHEAR WALL EDGE

NAILING PER SHEAR

WALL SCHEDULE, TYP. —

LSL RIM JOIST w/ (1) 10d-F

CONNECTION TO TOP PLATE

NAIL TO TOP AND BOT.

CHORD OF EACH JOIST.

BELOW PER SHEAR WALL

SCHEDULE (MIN. 10d-F

TOENAILS @ 8" O.C. AT NON-SHEAR WALLS -

SHEATHING AND



(4)

(8)

- BOTTOM PLATE

ATTACHMENT PER

SHEAR WALL SCHEDULE

(MIN. 16d NAILS @ 8" O.C.

AT NON-SHEAR WALLS)

PANEL EDGE NAILING PER

PLAN TO BLKG., TYP.

— SHEATHING PER PLAN

✓ JOIST PER PLAN

— 4'-0" MIN. LENGTH OF LSL

- CS20 STRAP w/ (4) 10d

NAILS TO EACH BLKG.

- A34, BLKG. TO PLATE

BOTTOM PLATE

ATTACHMENT PER

SHEAR WALL SCHEDULE

(MIN. 16d NAILS @ 8" O.C.

AT NON-SHEAR WALLS)

— SHEATHING PER PLAN

- JOIST PER PLAN

- (2) 8d BOX NAILS

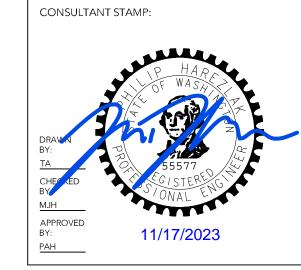
- HEADER PER PLAN WHERE OCCURS.

HEADER DETAIL(S)

SEE TYPICAL

EACH JOIST TO PLATE

BLKG. @ 48" O.C.



HAREZLAK

ENGINEERING

HAREZLAK ENGINEERING

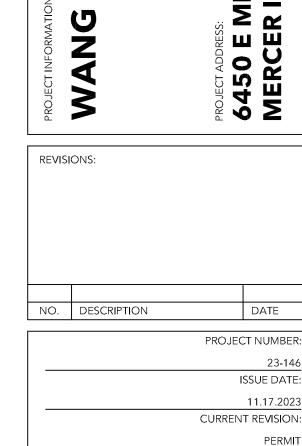
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PH: 360.224.0627

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6450 E MERCER WAY
MERCER ISLAND, WA

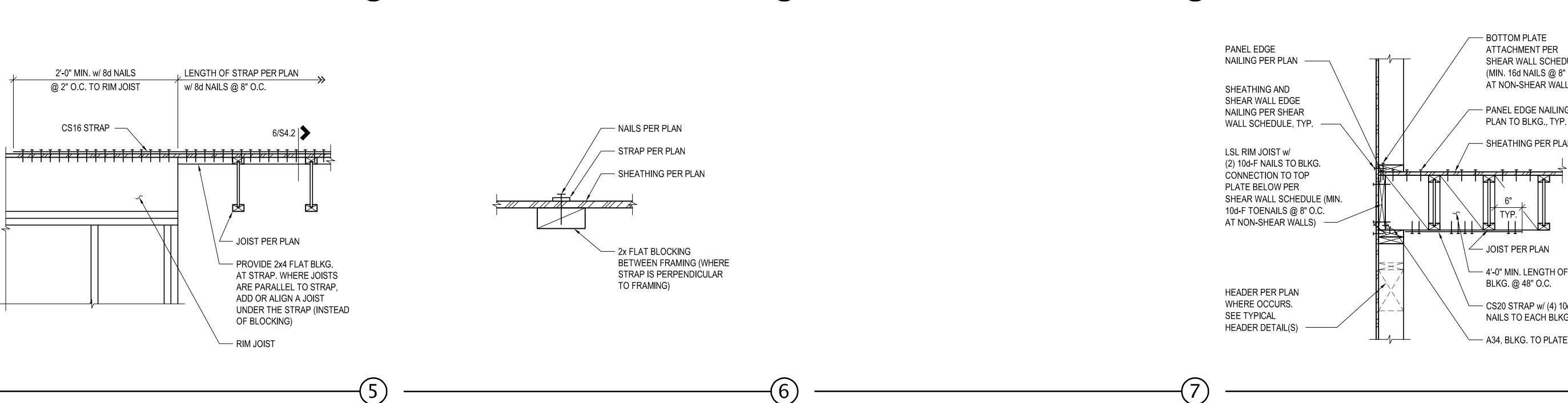
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SHEET NAME: **FLOOR FRAMING DETAILS**

SHEET NUMBER:

S4.2



CS16 STRAP AT TOP & BOTTOM OF

PROVIDE 8d NAILS @ 2" O.C.

NEXT TO OPENING

WALL OPENING

2x FLAT BLKG. AT

STRAP., TYP.

- CONT. DBL. STUD JAMBS.

NAIL SHTG. TO EACH STUD

w/ SHEAR WALL EDGE NAILING

OPENING (OVER SHEATHING). FILL ALL NAIL HOLES AT BLKG. AND

— HEADER

6/S4.2

TO END OF SHEAR

WALL EXTENT

PER PLAN

PER PLAN

NO WALL ABOVE AT SIM.

10d-F NAIL TO TOP AND

BOTTOM CHORD OF EACH

PLATE BELOW PER SHEAR

TOENAILS @ 8" O.C. AT

NON-SHEAR WALLS) -

SHEATHING AND SHEAR

WALL EDGE NAILING PER

SHEAR WALL SCHEDULE,

TYP. (WHERE OCCURS) ——

JOIST. CONNECTION TO TOP

WALL SCHEDULE (MIN. 10d-F

LSL RIM JOIST w/ (1)

SHEATHING AND SHEAR

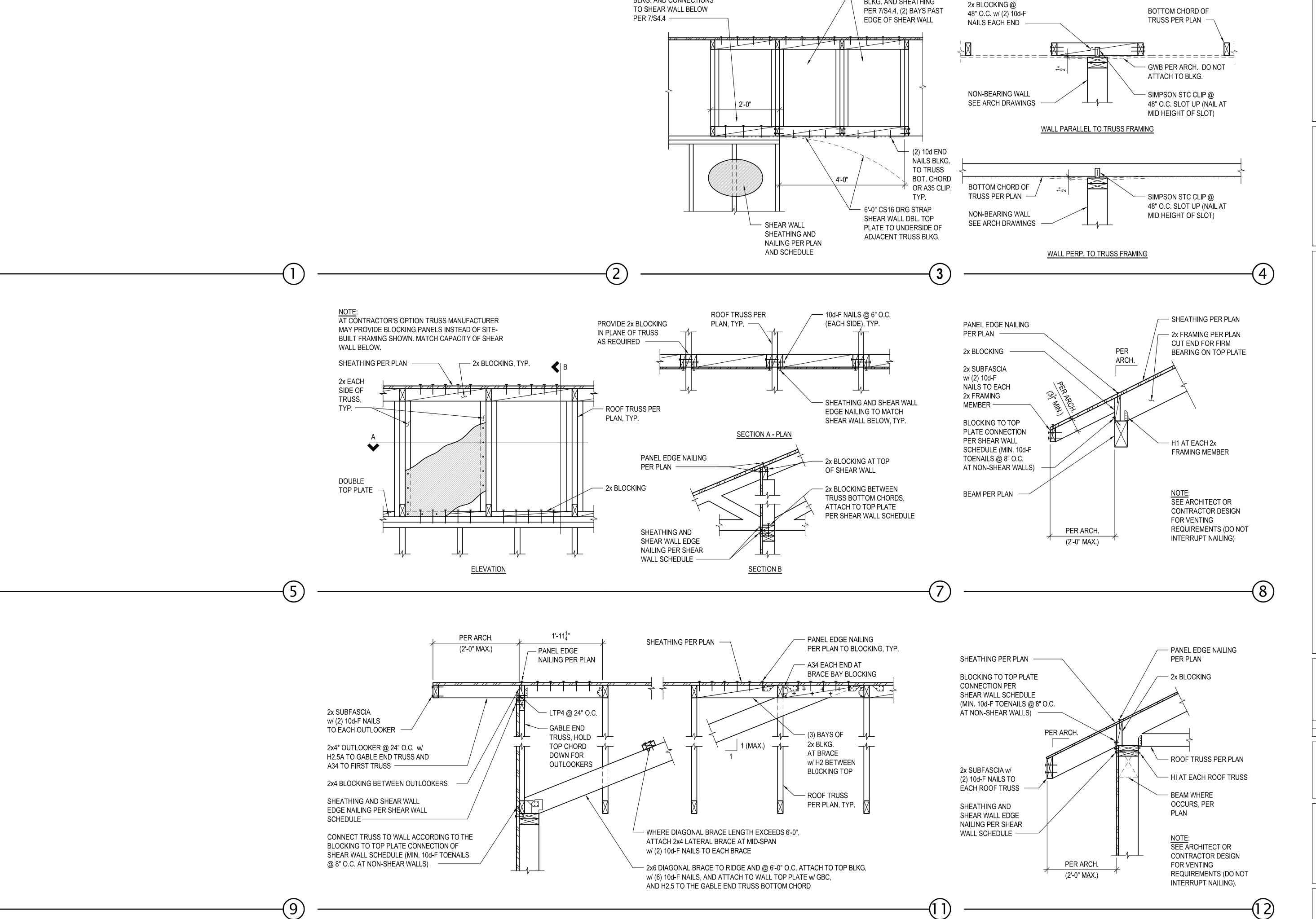
WALL EDGE NAILING PER

SHEAR WALL SCHEDULE

TO END OF SHEAR

WALL EXTENT

PER PLAN



BLKG. AND CONNECTIONS

ADDITIONAL 2x OR TRUSS

BLKG. AND SHEATHING



CONSULTANT STAMP: APPROVED BY: 11/17/2023

Ko WANG

98040

6450 E MERCER WAY MERCER ISLAND, WA **REVISIONS:** NO. DESCRIPTION DATE PROJECT NUMBER: ISSUE DATE: 11.17.2023 **CURRENT REVISION:**

> SHEET NAME: **ROOF FRAMING DETAILS**

SHEET NUMBER:

S4.3