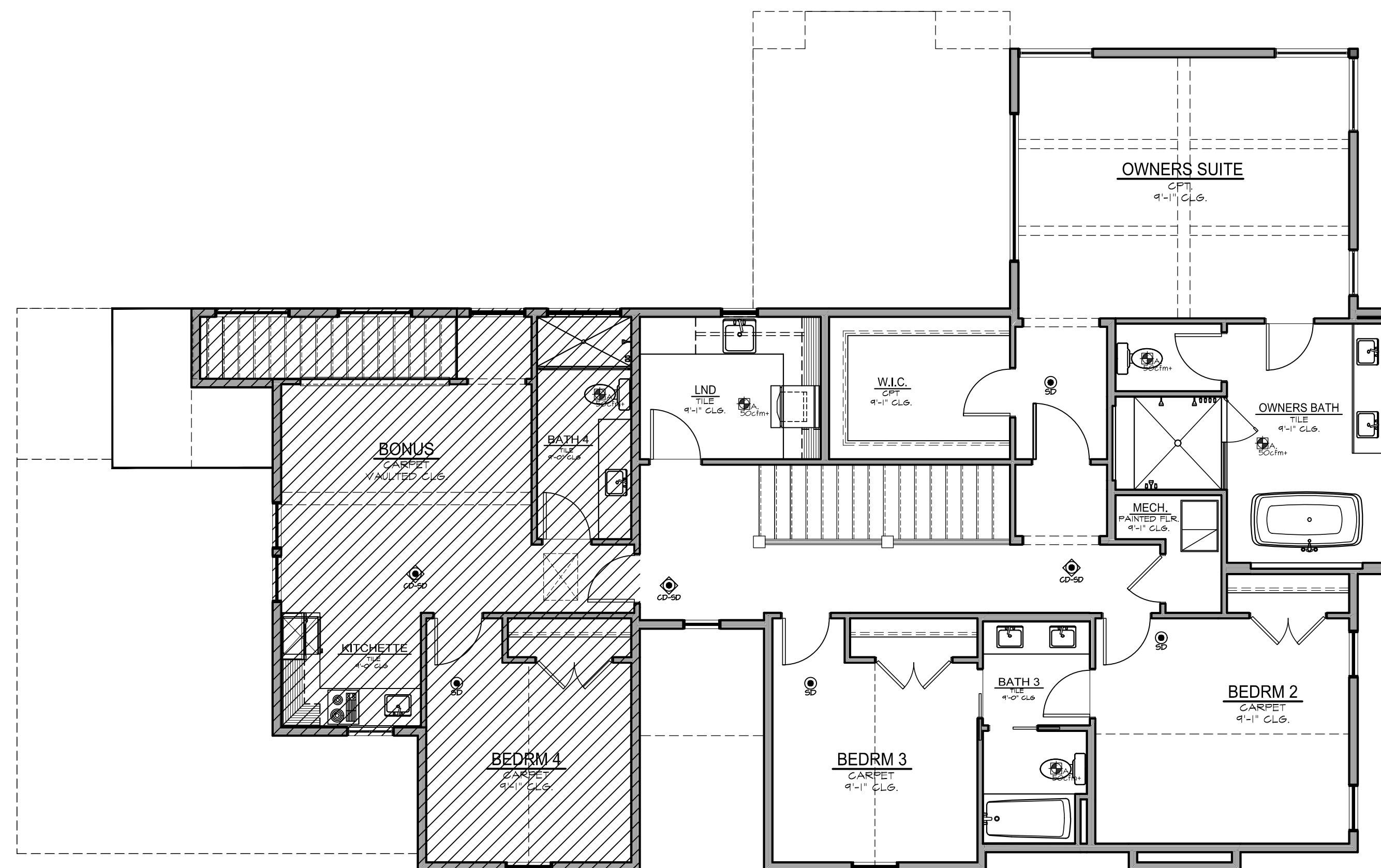


HATCH REPRESENTS  
A.D.U. UNIT AND  
LOCATION TO  
BUILDING ENVELOPE

**MAIN FLOOR PLAN**

1/4" = 1'-0"



HATCH REPRESENTS  
A.D.U. UNIT AND  
LOCATION TO  
BUILDING ENVELOPE

**UPPER FLOOR PLAN**

1/4" = 1'-0"

## A.D.U. DETAILS

MAIN FLOOR - A.D.U. FOYER = 111 SQ. FT.  
UPPER FLOOR - A.D.U. = 557 SQ. FT.  
MINUS STAIRS @ A.D.U. = 53 SQ. FT.

TOTAL A.D.U. AREA = 615 SQ. FT.



7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

Issue	Issue Date	By	Description
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△			
△			

6515 SE 30th St.  
Mercer Island, WA.  
Job Number: -

plan name: -  
marketing name: -  
plan number: -  
mark sys. number: -

Conditions not specifically represented graphically or in writing or which conflict with the current International Residential Code (IRC) or those of the local municipality then the current standards and requirements of each respectively shall govern.

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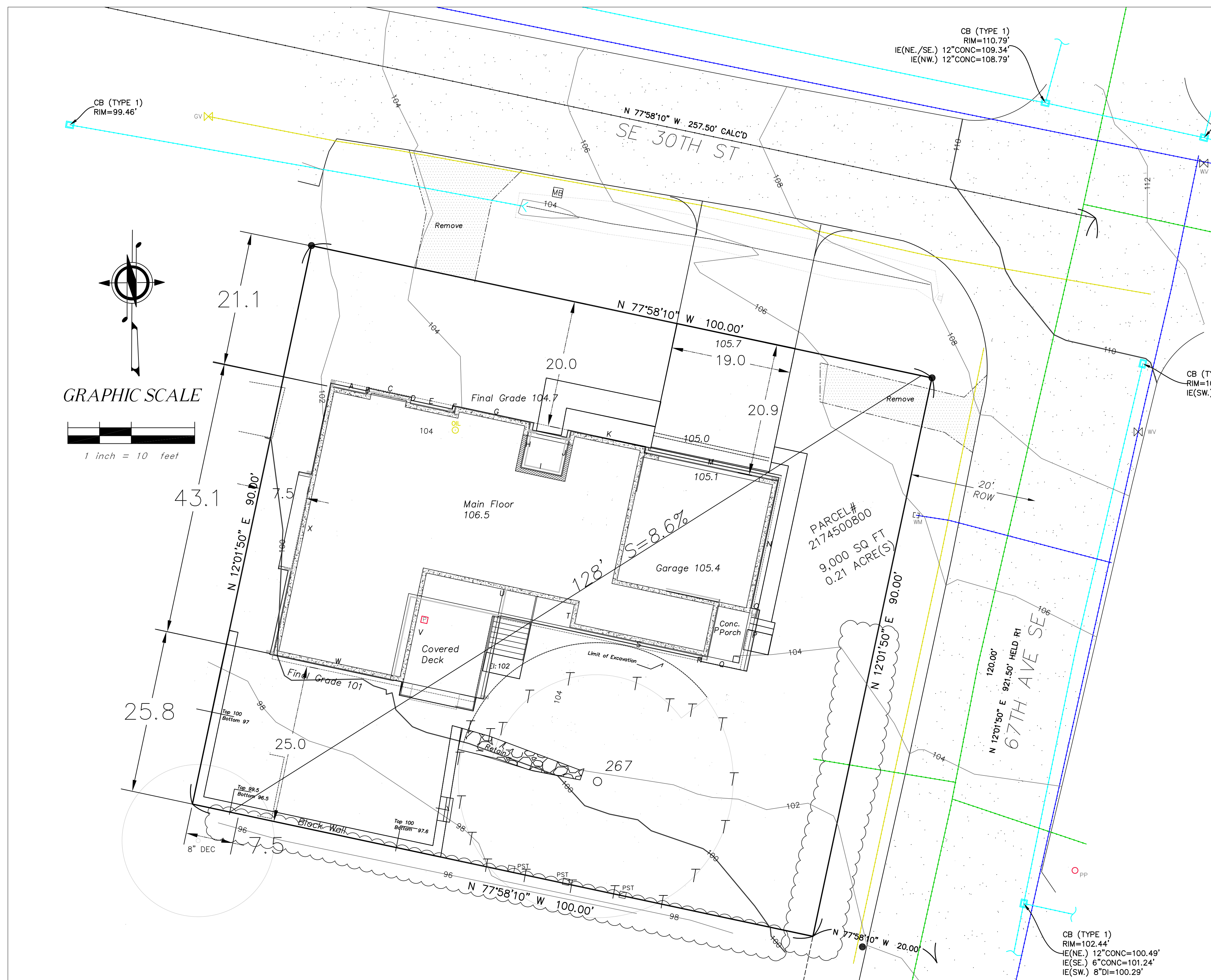
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R.R./ S.K.  
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**SE 30th**

Segment	Wall	Elevation	Length	Product
A	102.2	6	613.2	
B	103.4	1	103.4	
C	103.8	7	726.6	
D	103.8	1	103.8	
E	104	7	728.0	
F	104	1	104.0	
G	104.1	12	1,249.2	
H	104.4	7	730.8	
I	104.8	6.5	681.2	
J	105	7	735.0	
K	104.3	12	1,251.6	
L	104.4	1	104.4	
M	104.4	21.5	2,244.6	
N	104.2	21	2,188.2	
O	104.2	1	104.2	
P	104.2	10	1,042.0	
Q	103.7	7	725.9	
R	103.7	1	103.7	
S	103.7	21.5	2,229.6	
T	105.2	3.5	368.2	
U	105.1	24	2,522.4	
V	103.5	17.5	1,811.3	
W	100.3	21	2,106.3	
X	101	44	4,444.0	
Sub Totals		261.5	27,021.5	
ABE			103.3	
Max Height			30.0	
Max Elevation			133.3	

**Lot Slope Calculations**

High Point	107.5 ft
Low Point	96.5 ft
Elevation Difference	11 ft
Distance	128 ft
Slope%	8.60%

**GENERAL INFORMATION**

**PROPERTY OWNER**  
Jaymarc Emerald, LLC

**STREET ADDRESS**  
6515 SE 30th St

**PARCEL #**  
2174500800

**LEGAL DESCRIPTION**  
Lots 31, 32 and 33, Block 5, East Seattle, Volume 3, PP 22 and 23.

**ZONE:** R-8.4

**SETBACKS:**  
Front Yard - 20'  
Rear Yard - 25'  
Sides Yard on Street Side - 20'  
Remaining side yard 5'

**HEIGHT LIMIT:** 30' above ABE to roof peak  
**MAXIMUM LOT COVERAGE:** 40%  
**MAXIMUM HARDSCAPE:** 9%  
**MAXIMUM FAR:** 40%  
**PARKING SPACES PROVIDED:** 2 GARAGE 2 DRIVEWAY  
**NO CRITICAL AREAS IMPACTED**  
**NO ONSITE EASEMENTS**

**LOT COVERAGE**

Lot Area	9,000
Allowed	40%
Allowed sf	3,600

**New**

Main Structure Roof Area	2,739
Driveway	373
Cov'd Patio or Deck - Included above	-
New sf	3,112

**Existing**

Existing	2,073
Existing Removed	(2,073)
Net Existing	-

**Total**

Total New and Existing	3,112
	% 34.6%

**Hardscape**

EXISTING	
Uncovered Patio	373
Walkways	99
Stairs	70
Rockery/Retaining Walls	200
<b>Total Existing</b>	<b>742</b>
Existing Removed	689
<b>Net Existing Retained</b>	<b>53</b>
NEW	
Walkways	181
Stairs	36
Retaining Walls	127
<b>Total New</b>	<b>344</b>
<b>Total New and Existing</b>	<b>397</b>
<b>Total Hardscape</b>	<b>4.4%</b>

**Gross Floor Area**

Main Floor Inc. Garage	2,253
Second Floor	1,903
Less Two Stairs	(107)
<b>Total</b>	<b>4,049</b>
<b>Max Allowed: 40% + 5% ADU</b>	<b>4,050</b>
<b>Proposed</b>	<b>44.99%</b>

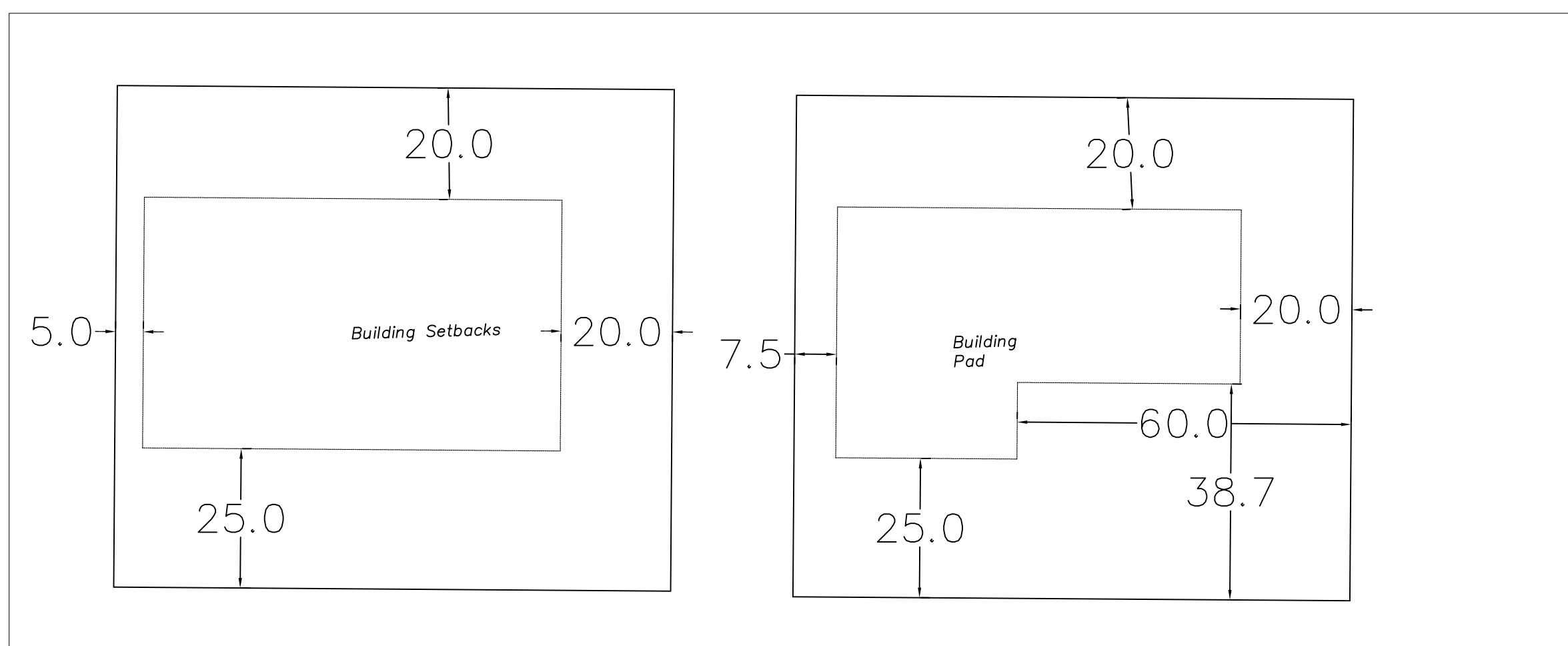
**Tree Table**

ID	Species	DSHS	Drip	Saved	Exceptional
267	Western Red Cedar	36.4	N-20	Yes	Yes

**DEMOLITION**  
Remove all existing buildings and hardscape  
Except a portion of rockery as shown

**PARKING**

Covered	2 ea
Driveway	2 ea.



JayMarc Homes, LLC  
7525 SE 24th St, #487  
Mercer Island, WA 98040  
425 281 2706

Site Plan  
6515 SE 30th Street

Drawn by  
Gary Upper

5-10-21

425-281-2706

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7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

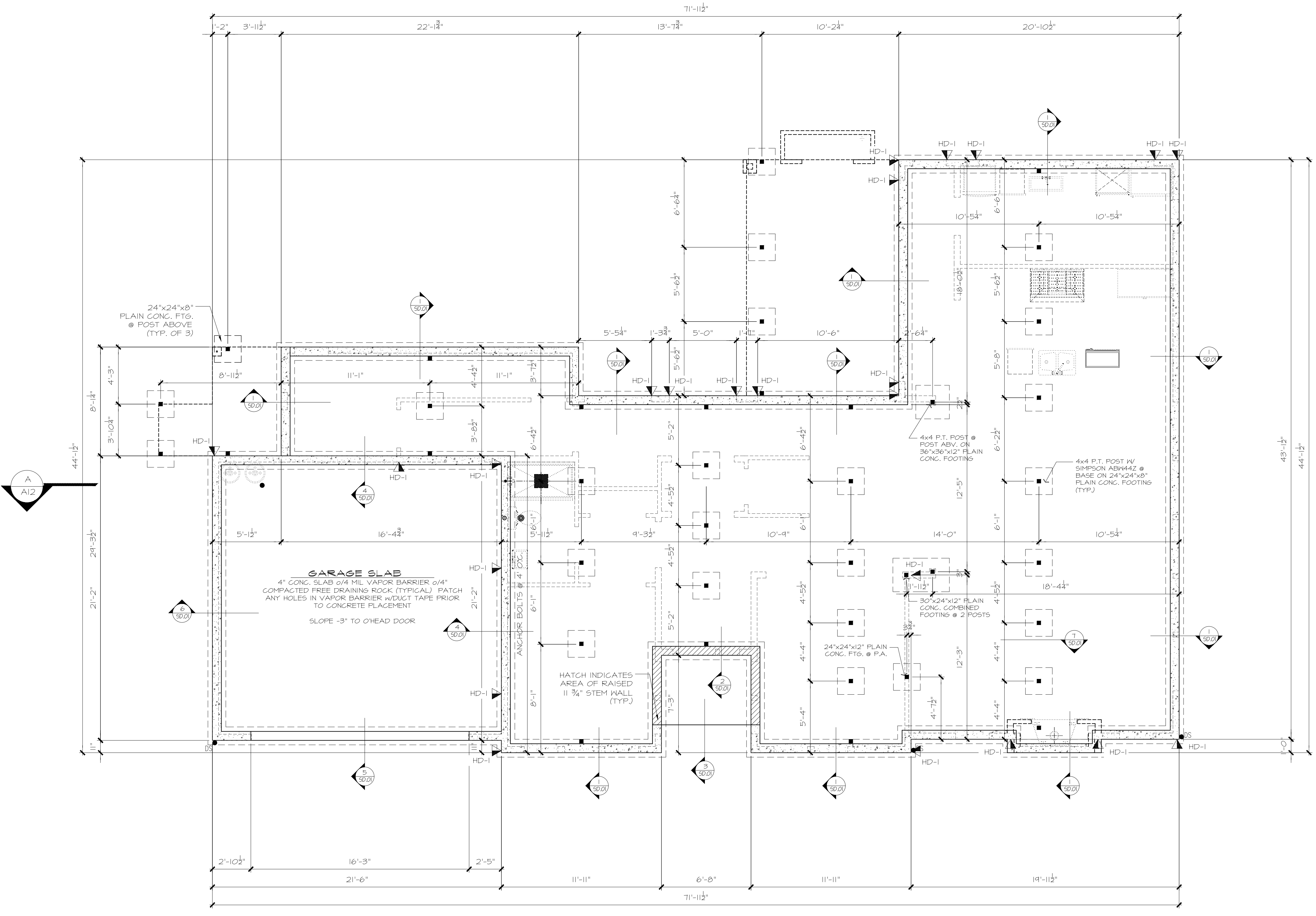
HOLD-DOWN SCHEDULE	
SYMBOL	NOTES / SPECIFICATION
HD-1	SIMPSON 5THD14 (R.J) HOLD-DOWN
HD-5	SIMPSON C516 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (12" END LENGTH)
HD-7	SIMPSON MSTC66 STRAP TIE (24" END LENGTH)

LEGEND	
	INTERIOR BEARING WALL
	EXTERIOR WALL ABOVE
	JL METAL HANGER
	INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	INDICATES HOLD-DOWN.

**4x10 DROPPED CONT. BEAM (TYP. U.N.O.) w/ 4x4 P.T. POSTS ON 24"x24"x8" PLAIN CONC. FTG. (U.N.O.)**

**TYP. CRAWLSPACE POSTS:**  
4x4 P.T. POST w/ 2x4 CLEATS EA. SIDE + SIMPSON ABN44Z BASE @ BASE OF POST w/ 0.131"x1-1/2" LONG REDHEAD NAILS (4'-0" MAX. POST HEIGHT) ON ASPHALT SHINGLE ON 24"x24"x8" PLAIN CONC. FTG. (TYP. U.N.O.)

**REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES**



**FOUNDATION PLAN**  
1/4" = 1'-0"

Issue	Issue Date	By	Description

**6515 SE 30th St.**  
**Mercer Island, WA.**  
Job Number: --

plan name: ---  
marketing name: ---  
plan number: ---  
mark sys. number: ---

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Sheet Title/Description

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
HD-1	SIMPSON STHD14 (R.J.) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (12" END LENGTH)
HD-7	SIMPSON MSTC66 STRAP TIE (24" END LENGTH)

LEGEND	
	J.L. METAL HANGER
	* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	▲ INDICATES HOLD-DOWN.

INDICATES 11-7/8" TJI FLOOR JOISTS @ 16" O.C. (TYP. U.N.O.)

REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

4x10 DROPPED CONT. BEAM (TYP. U.N.O.) B10 & B20

FOUNDATION VENTILATION			
Crawlspace Area:	1800 s.f.		
Ventilation Required:	1800 s.f. / 300 =	864 s.i. Req'd	
Use:	14" x 7" Foundation Vents		
Vent Area =	98 s.i. - 25% reduct., 1/4" mesh =	73.5 s.i.	
Vents Required =	864 s.i. / Vent Area =	11.76 s.i.	
Provide:	12 14" x 7" Vents, Area =	882 s.i.	
Ventilation Provided =	882.00 s.i. is Greater than	864 s.i. Req'd	
Use:	12 14" x 7" Foundation Vents		
* FOUNDATION VENTS SHALL NOT INTERFERE WITH DIRECT LOAD PATH OF COLUMNS			
* INSTALL 6 MIL BLACK POLYETHYLENE VAPOR RETARDER GROUND COVER			
* LOCATE ONE VENT WITHIN 3 FEET OF EACH CORNER OF THE BUILDING, EXCEPT ONE SIDE OF THE BUILDING SHALL BE PERMITTED TO HAVE NO VENTS.			

Issue Description	Issue Date	By

6515 SE 30th St.  
Mercer Island, WA.  
Job Number: -

plan name: -  
marketing name: -  
plan number: -  
mark sys. number: -

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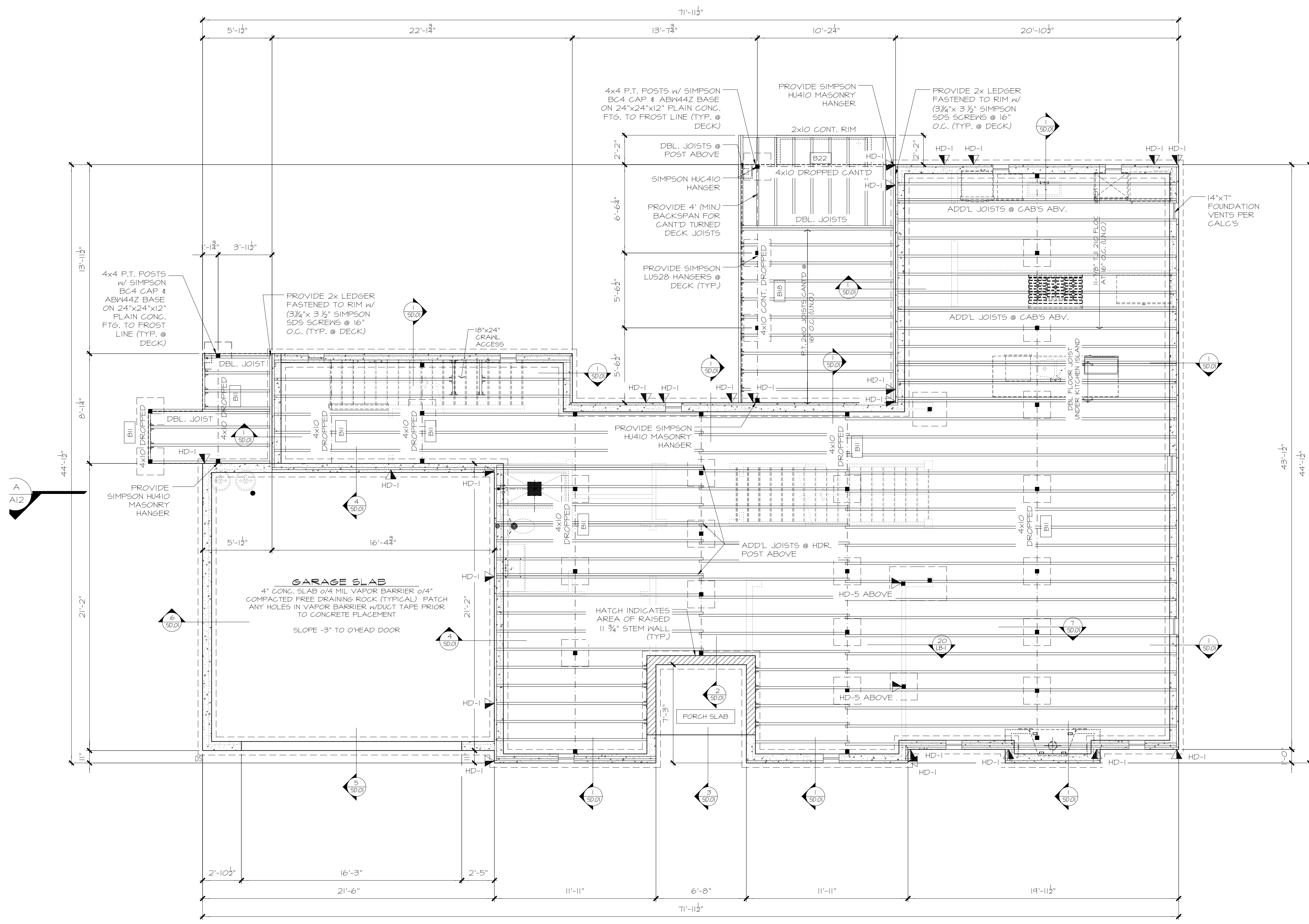
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Sheet Title/Description



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



7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

Issue	Issue Date	By	Description
△			
△			

6515 SE 30th St.  
Mercer Island, WA  
Job Number: --

plan name: \_\_\_\_\_  
marketing name: \_\_\_\_\_  
plan number: \_\_\_\_\_  
mark sys. number: \_\_\_\_\_

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# MAIN FLOOR PLAN NOTES

## PLAN SPECIFIC 2018 WSEC SECTION R406

R406.2 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS (MANDATORY). THIS RESIDENTIAL DWELLING SHALL COMPLY W/SUFFICIENT OPTIONS FROM TABLE R406.2 TO ACHIEVE THE FOLLOWING MIN. NUMBER OF CREDITS: 6 FOR A 1501sf to 4,999sf HOME AS FOLLOWS:  
CREDITS PROVIDED IN THIS HOME AS FOLLOWS:

**EFFICIENT BUILDING ENVELOPE OPT. 1.3: 0.5 CREDITS**  
PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1 WITH FOLLOWING MODIFICATIONS:  
VERTICAL FENESTRATION U = 0.28 WINDOWS  
FLOORS TO BE R-38 and SLAB ON GRADE TO BE R-10 PERIMETER and UNDER ENTIRE SLAB BELOW GRADE.

**AIRLEAKAGE & EFFICIENT VENTILATION OPT. 2.1: 0.5 CREDITS**  
REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAXIMUM @ 50 PASCALS AND ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M507.3 OF THE IRC, OR SECTION 404.8 OF THE IMC SHALL BE MET WITH A HIGH EFFICIENCY FAN(S) (MAXIMUM OF 0.35 WATTS/CFM) NOT INTERLOCKED WITH THE FURNACE FAN (IF PRESENT). VENTILATION SYSTEMS USING A FURNACE INCLUDING AN EMC MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN THE VENTILATION ONLY MODE.

**HIGH EFFICIENCY HVAC EQUIPMENT OPT. 3.5a: 1.5 CREDITS**  
HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R403.3.1. LOCATING SYSTEM COMPONENTS IN CONDITIONED CRAWL SPACE IS NOT PERMITTED UNDER THIS OPTION. ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION.

**HIGH EFFICIENCY HVAC DISTRIBUTION OPT. 4.2: 1.0 CREDITS**  
HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) SHALL COMPLY WITH THE REQUIREMENTS OF SECT R403.3.1. LOCATING SYSTEM COMPONENTS IN UNCONDITIONED CRAWL SPACES IS NOT PERMITTED UNDER THIS OPTION. ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION.

**EFFICIENT WATER HEATING 5.5: 2.0 CREDITS**  
WATER HEATING SYSTEMS SHALL INCLUDE ONE OF THE FOLLOWING:  
ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL OF WATER SUPPLY AND RE-CIRCULATION PIPING SHALL BE INSULATED WITH R-8 MINIMUM PIPE INSULATION.

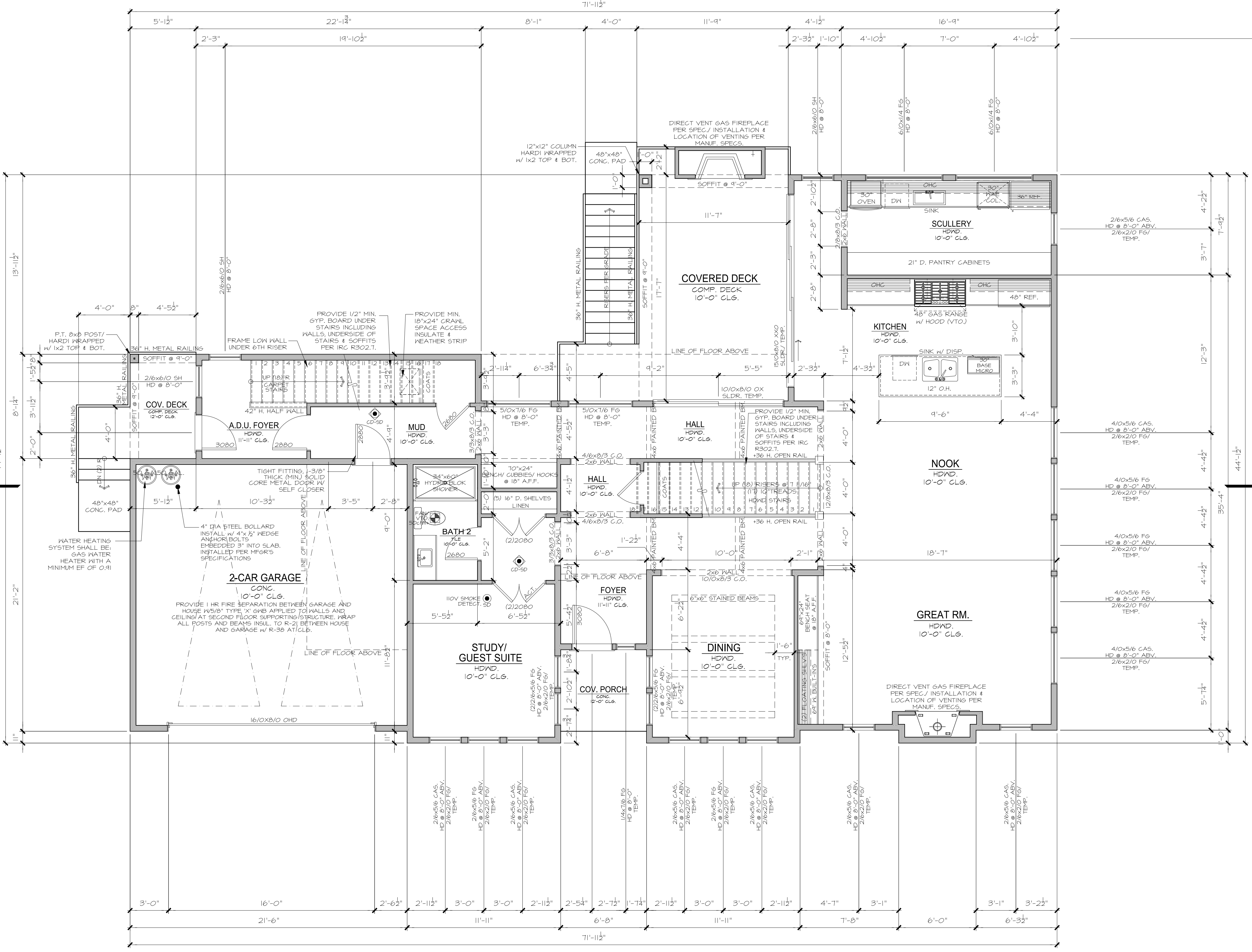
**EFFICIENT WATER HEATING 5.6: 2.5 CREDITS**  
WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING:  
ELECTRIC HEAT PUMP WATER HEATER WITH A MIN. OF 2.9 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4.1 REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE.

**WHOLE HOUSE VENTILATION**  
PROVIDE WHOLE HOUSE VENTILATION per 2015 IRC, M507 and IMC R403.8 USING A MAKE UP AIR SYSTEM INTEGRATED INTO FORCED AIR SYSTEM (FAU) PROVIDE OUTDOOR FRESH AIR W/DIRTS CONNECTED TO THE RETURN SIDE OF THE AIR HANDLER.

SYMBOL	LOCATION	MIN. FAN REQUIREMENTS (ALL FANS VENT TO OUTSIDE)
Ⓜ	BATH & POWDER	Min. 100cfm, INTERMITTENT at .025mg per TBL, M507.4
Ⓜ	KITCHEN	Min. 100cfm, INTERMITTENT at .025mg per TBL, M507.4
Ⓜ	LAUNDRY ROOM	MIN.420cfm, INTERMITTENT at .025mg TO FUNCTION AS WHOLE HOUSE FAN (HWF)

MECHANICAL CONTRACTOR TO PROVIDE 420cfm HWF, FAN and SET OPERATING TIMER per TABLE M507.3.8(1) FOR A 4501-6200sf, DWELLING w/6-7 BEDRMS. TO OPERATE INTERMITTENTLY and CONTINUOUSLY per TABLE M507.3.8(2)  
PROVIDE CONTROLS FOR HWF, per M507.3.2 AFFIX LABEL TO CONTROLS THAT READS "WHOLE HOUSE VENTILATION - SEE OPERATING INSTRUCTIONS"

WHOLE HOUSE FAN RUN TIME PERCENTAGE IN EACH 4 HR. SEGMENT TO BE 25% WITH A FACTOR OF 4.



# MAIN FLOOR PLAN

1/4" = 1'-0"

## SQUARE FOOTAGE SUMMARY

MAIN FLOOR AREA + GARAGE (805 + 448) =	2,253 S.F.
UPPER FLOOR AREA - MINUS A.D.U.	1,903 S.F.
TOTAL AREA LESS 2 STAIRWELLS	4,156 S.F.
NET FLOOR AREA	4044 S.F.
MAX. FLOOR AREA 3600 + 450 A.D.U.	4050 S.F.
OVERALL WIDTH	71'-11 1/2"
OVERALL DEPTH	44'-1 1/2"
Updated:	03/04/2018

Sheet Title/Description

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
HD-1	SIMPSON 5THD14 (R.) HOLD-DOWN
HD-5	SIMPSON CS16 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (12" END LENGTH)
HD-7	SIMPSON MSTC66 STRAP TIE (24" END LENGTH)

LEGEND	
	INTERIOR BEARING WALL
	BEAM / HEADER
	18" FLOOR TRUSS @ 24" O.C. (U.N.O.)
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
	J.L. METAL HANGER
	* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	◀ INDICATES HOLD-DOWN.

REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

4x10 HDR @ ALL EXT. [B5]  
WINDOWS/DOORS (TYP. U.N.O.)

NOTE #1:  
PROVIDE 3/8" OSB/PLYWOOD SHTG. + FASTEN PER TYP. WALL SHTG. SPECS. (SEE NOTES)

NOTE #2:  
PROVIDE SIMPSON CS16 STRAP FROM TOP OF FLUSH BEAM/ BLOCKING (13" END LENGTH TO TOP OF BLKG. PROVIDE BLKG BETWEEN TRUSSES FOR STRAP FASTENING AS SHOWN (3' BAY MIN.) FASTEN FLOOR SHTG. TO BLOCKING w/ 3"x 0.131" NAILS @ 6" O.C. @ SHTG. EDGES.

NOTE #3:  
PROVIDE SIMPSON CS16 STRAP FROM TOP OF DBL. TOP PLATE (13" END LENGTH) TO UNDERSIDE OF FULL HT. SOLID BLOCKING. PROVIDE BLOCKING BETWEEN TRUSSES FOR STRAP FASTENING AS SHOWN (3-BAY MIN.) FASTEN FLOOR SHTG. TO BLOCKING w/ 3"x 0.131" NAILS @ 6" O.C. @ SHTG. EDGES.

NOTE #4:  
PROVIDE SIMPSON CS16 STRAP FROM TOP OF DOUBLE TOP PLATE (13" END LENGTH) TO UNDERSIDE OF FLOOR DRAG TRUSS. FASTEN FLOOR SHTG. TO DRAG TRUSS w/ 3"x 0.131" NAILS @ 6" O.C. @ SHTG. EDGES.

plan name: ---  
marketing name: ---  
plan number: ---  
mark sys. number: ---

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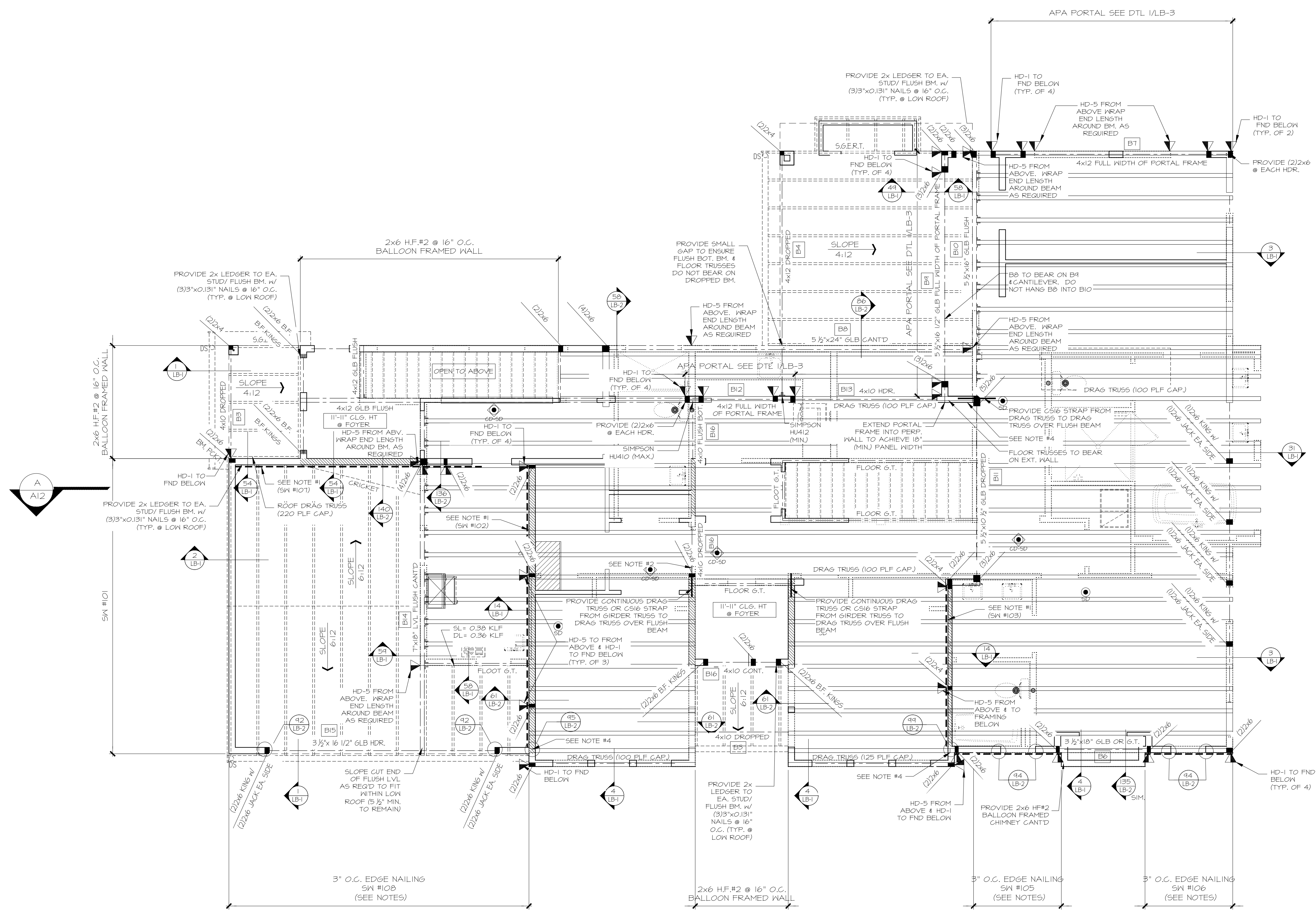
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Primary Scale

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of .



UPPER FLOOR & LOWER ROOF FRAMING PLAN  
1/4" = 1'-0"

Sheet Title/Description

# UPPER FLOOR PLAN NOTES:

## PLAN SPECIFIC 2018 WSEC SECTION R06

R406.2 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS (MANDATORY). THIS RESIDENTIAL DWELLING SHALL COMPLY WITH EFFICIENT OPTIONS FROM TABLE R406.2 TO ACHIEVE THE FOLLOWING MIN. NUMBER OF CREDITS: 6 FOR A 1501sf to 4,999sf HOME.

CREDITS PROVIDED IN THIS HOME AS FOLLOWS:

EFFICIENT BUILDING ENVELOPE OPT. 1.3: 0.5 CREDITS

PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.11 WITH FOLLOWING MODIFICATIONS:

VERTICAL PENETRATION U = 0.28 WINDOWS

FLOORS TO BE R-38 and SLAB ON GRADE TO BE R-10 PERIMETER and UNDER ENTIRE SLAB BELOW GRADE.

AIRLEAKAGE & EFFICIENT VENTILATION OPT. 2.1: 0.5 CREDITS

REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAXIMUM @ 50 Pascals and ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M507.3 OF THE IRC, OR SECTION 404.8 OF THE IMC SHALL BE MET WITH A HIGH EFFICIENCY FAN(S) (MAXIMUM OF 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN (IF PRESENT). VENTILATION SYSTEMS USING A FURNACE INCLUDING AN EMC MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN THE VENTILATION ONLY MODE.

HIGH EFFICIENCY HVAC EQUIPMENT OPT. 3.5a: 1.5 CREDITS

HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF SECTION R403.3.1. LOCATING SYSTEM COMPONENTS IN CONDITIONED CRAWL SPACE IS NOT PERMITTED UNDER THIS OPTION. ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION.

FULL NORMALIZATION CREDIT (MUST USE OPT. 3.5a): 1.0 CREDITS

HIGH EFFICIENCY HVAC DISTRIBUTION OPT. 4.2: 1.0 CREDITS

HVAC EQUIPMENT AND ASSOCIATED DUCT SYSTEM(S) SHALL COMPLY WITH THE REQUIREMENTS OF SECT R403.3.1. LOCATING SYSTEM COMPONENTS IN UNCONDITIONED CRAWL SPACES IS NOT PERMITTED UNDER THIS OPTION. ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 80% IS NOT PERMITTED UNDER THIS OPTION.

EFFICIENT WATER HEATING 5.5: 2.0 CREDITS

WATER HEATING SYSTEMS SHALL INCLUDE ONE OF THE FOLLOWING: ELECTRIC HEAT PUMP WATER HEATER MEETING THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION. IF ONE WATER HEATER IS SERVING MORE THAN ONE DWELLING UNIT, ALL OF WATER SUPPLY AND RE-CIRCULATION PIPING SHALL BE INSULATED WITH R-8 MINIMUM PIPE INSULATION.

EFFICIENT WATER HEATING 5.6: 2.5 CREDITS

WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: ELECTRIC HEAT PUMP WATER HEATER WITH A MIN. OF 2.8 AND UTILIZING A SPLIT SYSTEM CONFIGURATION WITH THE AIR-TO-REFRIGERANT HEAT EXCHANGER LOCATED OUTDOORS. EQUIPMENT SHALL MEET SECTION 4. REQUIREMENTS FOR ALL UNITS, OF THE NEEA STANDARD ADVANCED WATER HEATING SPECIFICATION WITH THE UEF NOTED ABOVE.

## WHOLE HOUSE VENTILATION

PROVIDE WHOLE HOUSE VENTILATION per 2015 IRC, M507 and IMC R403.8 USING A MAKE UP AIR SYSTEM INTEGRATED INTO FORCED AIR SYSTEM (FAU) PROVIDE OUTDOOR FRESH AIR W/DUCTS CONNECTED TO THE RETURN SIDE OF THE AIR HANDLER.

SYMBOL LOCATION MIN. FAN REQUIREMENTS (ALL FANS VENT TO OUTSIDE)

100cfm BATH #1 Min. 50cfm, INTERMITTENT at .025wg per TABLE M507.4

100cfm KITCHEN Min. 100cfm, INTERMITTENT at .025wg per TBL. M507.4

100cfm RANGE Hood or DOWN DRAFT EXHAUST FAN RATED at min. 100cfm, at 0.20wg MAY BE USED FOR EXHAUST FAN REQMT. EXHAUST HOODS IN EXCESS OF 400cfm SHALL BE INTERLOCKED AND PROVIDE MAKE UP AIR per M503.4

120cfm LAUNDRY ROOM Min. 420cfm, INTERMITTENT at .025wg TO FUNCTION AS WHOLE HOUSE FAN (WHF)

MECHANICAL CONTRACTOR TO PROVIDE 420cfm WHF, FAN and SET OPERATING TIMES per TABLE M507.3(3) FOR A 4501-6,000sf DWELLING w/8-11 BEDRMS. TO OPERATE INTERMITTENTLY and CONTINUOUSLY per TABLE M507.3(2)

PROVIDE CONTROLS FOR WHF, per M507.3.2 AFFIX LABEL TO CONTROLS THAT READS "WHOLE HOUSE VENTILATION - SEE OPERATING INSTRUCTIONS"

WHOLE HOUSE FAN RUN TIME PERCENTAGE IN EACH 4 HR. SEGMENT TO BE 25% WITH A FACTOR OF 4.

plan name: - - -

marketing name: - - -

plan number: - - -

mark sys. number: - - -



7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

Issue Issue Date By  
Description

6515 SE 30th St.  
Mercer Island, WA.  
Job Number: - - -

plan name: - - -  
marketing name: - - -  
plan number: - - -  
mark sys. number: - - -

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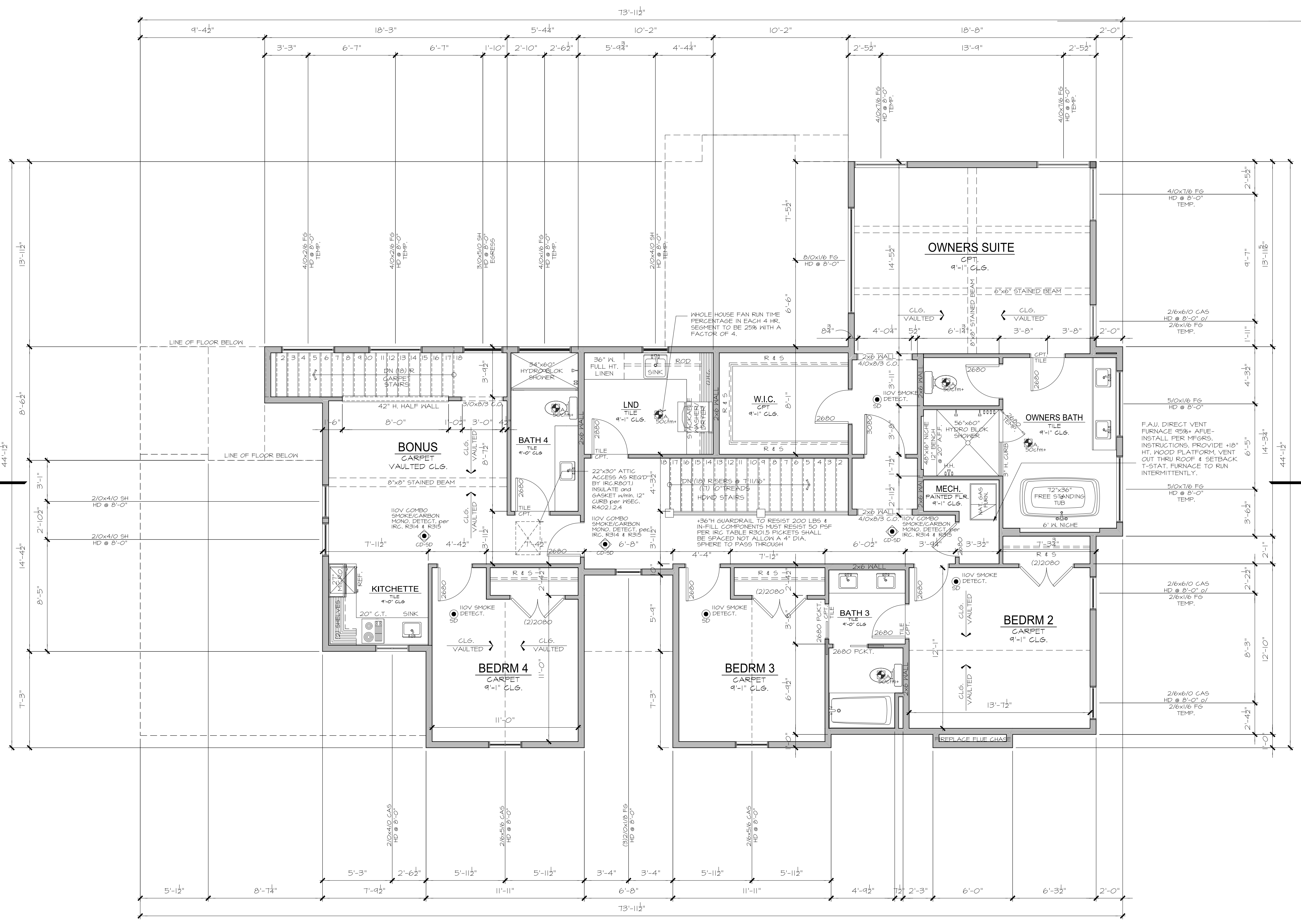
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Design Firm

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Drawn by:

R.R./S.K.  
Checked by:

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# UPPER FLOOR PLAN

1/4" = 1'-0"

## SQUARE FOOTAGE SUMMARY

MAIN FLOOR AREA + GARAGE 1805 + 448 =	2,253 S.F.
UPPER FLOOR AREA - MINUS A.D.U.	1,903 S.F.
TOTAL AREA LESS 2 STAIRWELLS	4,156 S.F.
NET FLOOR AREA	4048 S.F.
MAX. FLOOR AREA 3600 + 450 A.D.U.	4050 S.F.
OVERALL WIDTH	71'-11 1/2"
OVERALL DEPTH	44'-1 1/2"
Updated : 03/04/2018	

Sheet Title/Description





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Mercer Island, WA  
98040  
425.266.9100

Issue	Issue Date	By	Description
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Job Number: -

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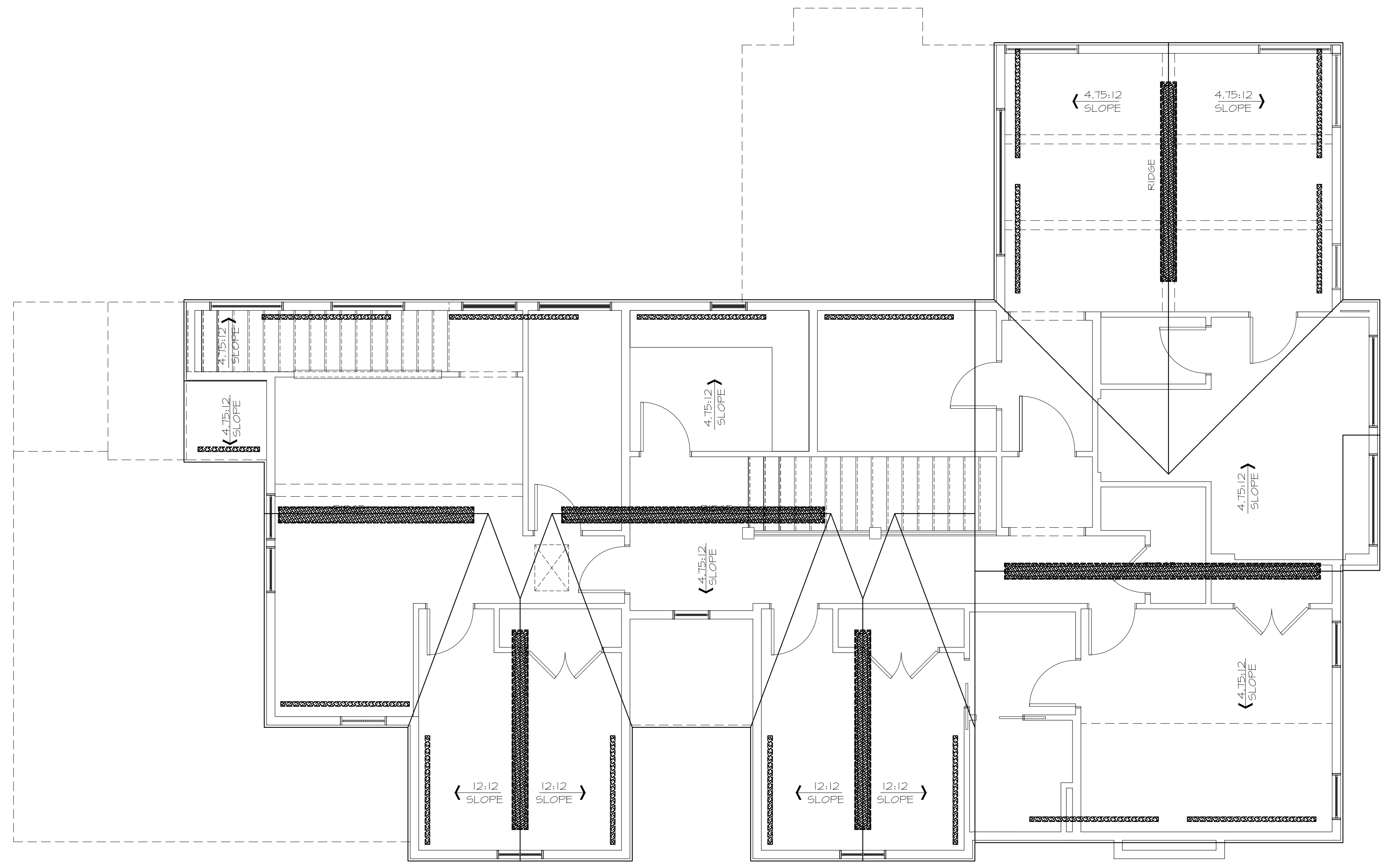
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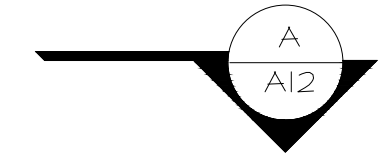
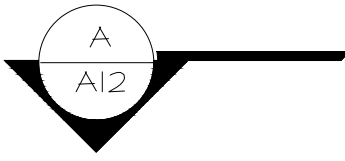
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ROOF VENTILATION		ZONE 1
Standard Truss / Scissor Truss Roof Framing Assembly:		
Roof Area :	1794 s.f.	
Ventilation Required:	1794 s.f. x 144 s.i. / s.f. / 300 =	861.12 s.i. Req'd
Provide between 40% & 50% of the total required ventilation no more than 3 ft below the ridge or the highest point of the space. Remainder to be installed at eave vents.		
Ridge Ventilation: 50% of ventilation		430.56
Continuous Ridge Vent =		18.00 s.i. per l.f.
Upper Ventilation MIN. Req'd =	430.56 s.i. x 0.4 / s.i. per linear foot =	20 l.f.
Upper Ventilation MAX. Req'd =	430.56 s.i. x 0.5 / s.i. per linear foot =	23 l.f.
Provide:	50 l.f. ridge vent. Ventilation =	900.00 s.i.
Ventilation area remainder for AF50 vents =	(469)	
Upper Roof Ventilation: as needed to achieve 50% of ventilation		
AF50 Roof Jack (10" x 7") =		50.00 s.i. each.
Upper Ventilation Req'd TO GET 50%=	(469.44) s.i. / s.i. of each vent =	-10 vent
Provide:	0 -10"x7" roof jacks. Ventilation =	0.00 s.i.
Eave Ventilation:		
Birdblocking: (3/2" dia holes per bay =	4.71 s.i. / l.f. - 25% reduction =	3.53 s.i. / l.f.
Eave Ventilation Req'd =	430.56 s.i. / s.i. per l.f. =	-469.44 l.f.
Provide Minimum:	133 l.f. birdblocking. Ventilation =	469.82 s.i.
Minimum Ventilation Provided =	1369.82 s.i. IS GREATER THAN :	861.12 s.i. Req'd



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



Sheet Title/Description

Issue	Issue Date	By	Description

6515 SE 30th St.  
Mercer Island, WA  
Job Number: --

plan name: --  
marketing name: --  
plan number: --  
mark sys. number: --

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**LEGEND**

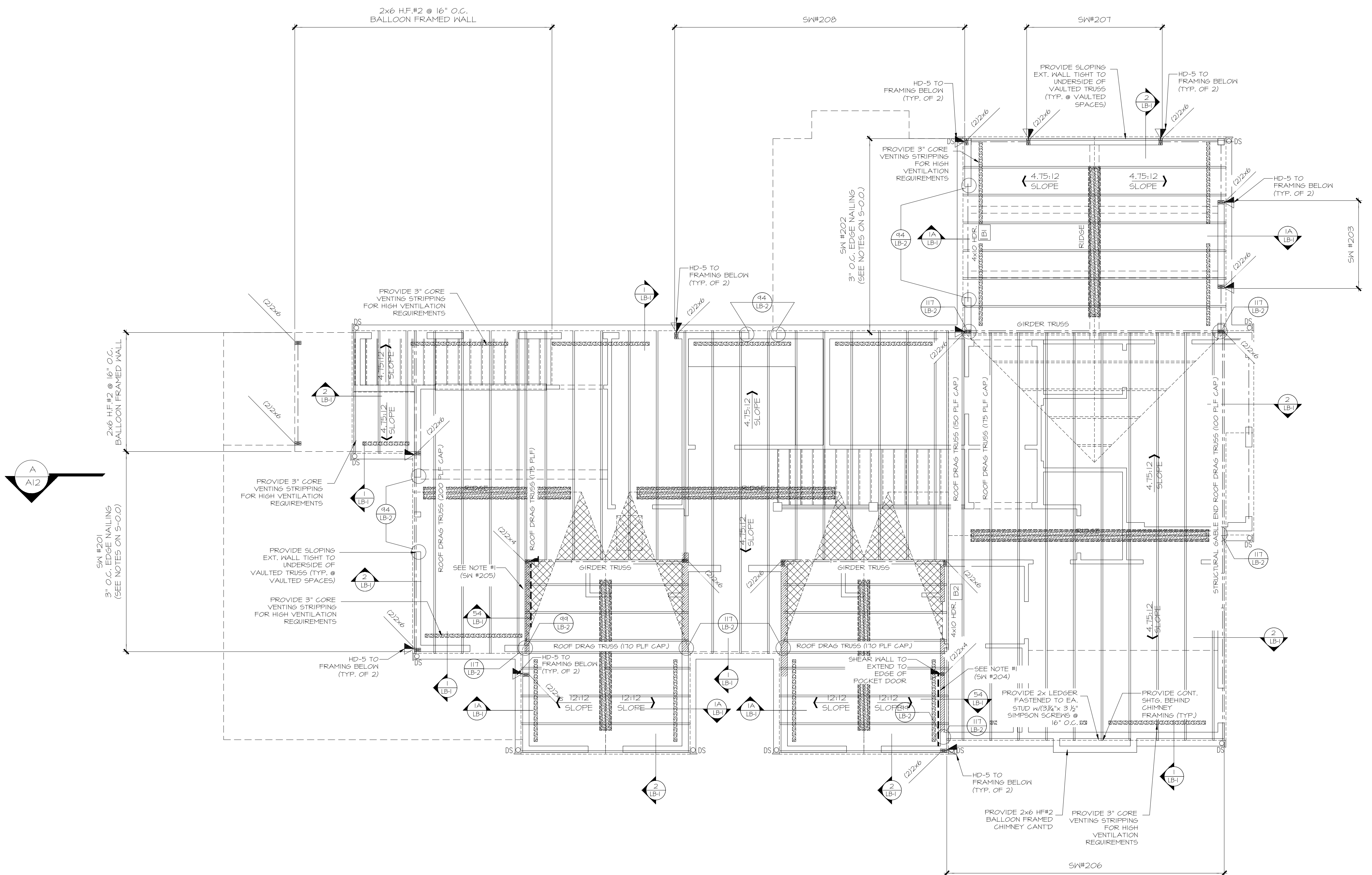
- INTERIOR BEARING WALL
- BEAM / HEADER
- ROOF TRUSS @ 24" O.C. (W.N.O.)
- GIRDER TRUSS
- INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
- JL METAL HANGER
- INDICATES OVER FRAMED TRUSS AREA

REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

4x10 HDR @ ALL EXT. [LB-1]  
WINDOWS/DOORS (TYP. U.N.O.)

PROVIDE CONT. EXT. SHEATHING BEHIND LOW TRUSSES DOWN TO SECOND FLOOR SOLE PLATE (TYP. @ LOW ROOF)

NOTE #1:  
PROVIDE 3/8" OSB/ PLYWOOD SHTG. & FASTEN PER TYP. WALL SHTG. SPEC. (SEE NOTES)



**ROOF FRAMING PLAN**

1/4" = 1'-0"

ROOF VENTILATION	
Standard Truss / Scissor Truss Roof Framing Assembly:	ZONE 1
Roof Area =	1794 s.f.
Ventilation Required:	1794 s.f. x 144 s.i. / s.f. / 300 = 861.12 s.i. Req'd
Provide between 40% & 50% of the total required ventilation no more than 3 ft below the ridge or the highest point of the space. Remainder to be installed at eave vents.	
Ridge Ventilation: 50% of ventilation	430.56
Continuous Ridge Vent =	18.00 s.i. per l.f.
Upper Ventilation MIN. Req'd =	430.56 s.i. x 0.4 / s.i. per linear foot = 20 l.f.
Upper Ventilation MAX. Req'd =	430.56 s.i. x 0.5 / s.i. per linear foot = 23 l.f.
Provide:	50 l.f. ridge vent. Ventilation = 900.00 s.i.
Ventilation area remainder for AF50 vents =	(469)
Upper Roof Ventilation: as needed to achieve 50% of ventilation	
AF50 Roof Jack (10" x 7") =	50.00 s.i. each.
Upper Ventilation Req'd TO GET 50% =	(469.44) s.i. / s.i. of each vent = -10 vent
Provide:	0 -10"x7" roof jacks. Ventilation = 0.00 s.i.
Eave Ventilation:	
Birdblocking: (3/2" dia holes per bay =	4.71 s.i. / l.f. - 25% reduction = 3.53 s.i. / l.f.
Eave Ventilation Req'd =	430.56 s.i. / s.i. per l.f. = -469.44 l.f.
Provide Minimum:	133 l.f. birdblocking. Ventilation = 469.82 s.i.
Minimum Ventilation Provided =	1369.82 s.i. IS GREATER THAN : 861.12 s.i. Req'd

Sheet Title/Description



**FRONT ELEVATION**  
 1/4" = 1'-0"



**LEFT ELEVATION**  
 1/4" = 1'-0"

Issue	Issue Date	By	Description

6515 SE 30th St.  
 Mercer Island, WA.  
 Job Number: --

plan name: --  
 marketing name: --  
 plan number: --  
 mark sys. number: --

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R.R./S.K.  
 Checked by:

Primary Scale

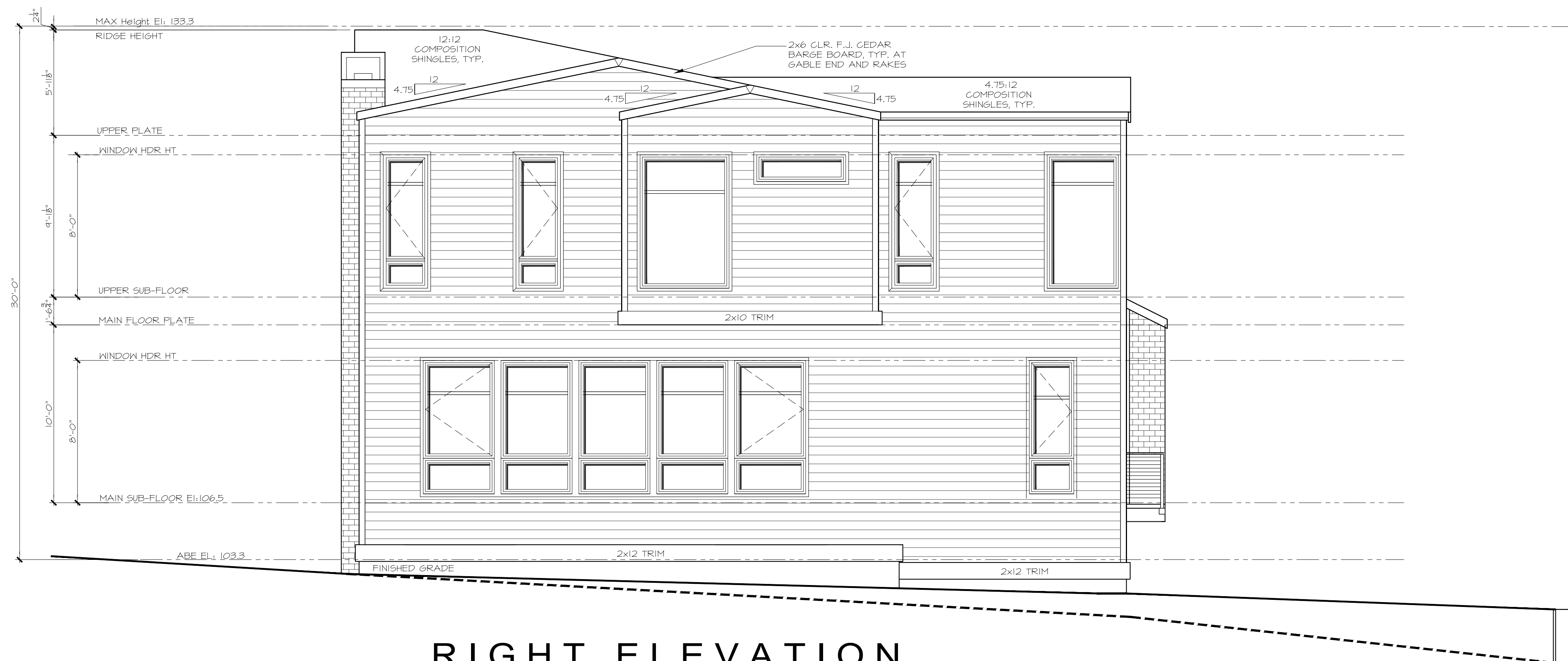
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**REAR ELEVATION**

1/4" = 1'-0"



**RIGHT ELEVATION**

1/4" = 1'-0"

Issue	Issue Date	By	Description
△			
△			

6515 SE 30th St.  
 Mercer Island, WA.  
 Job Number: --

plan name: ---  
 marketing name: ---  
 plan number: ---  
 mark sys. number: ---

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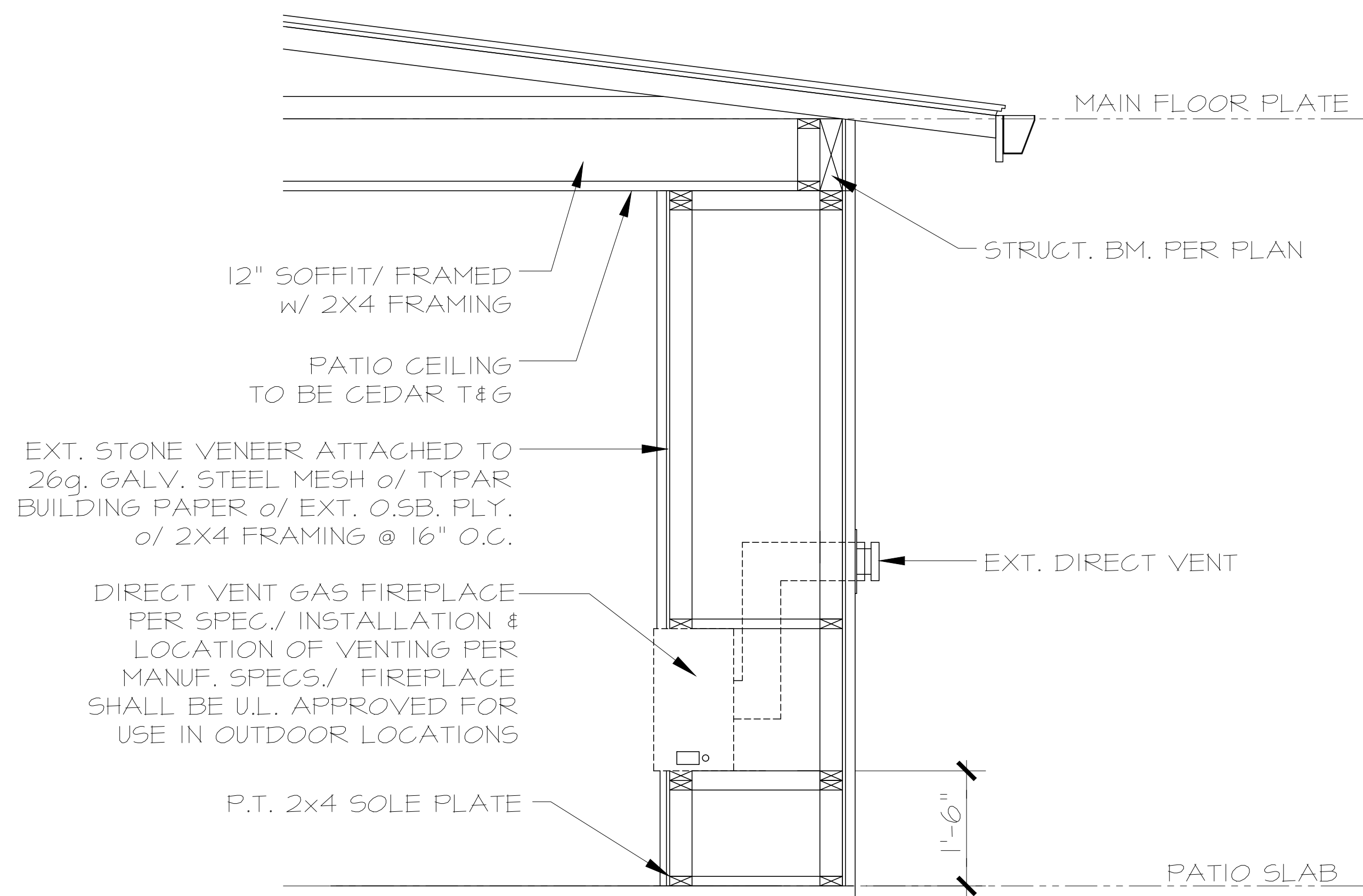
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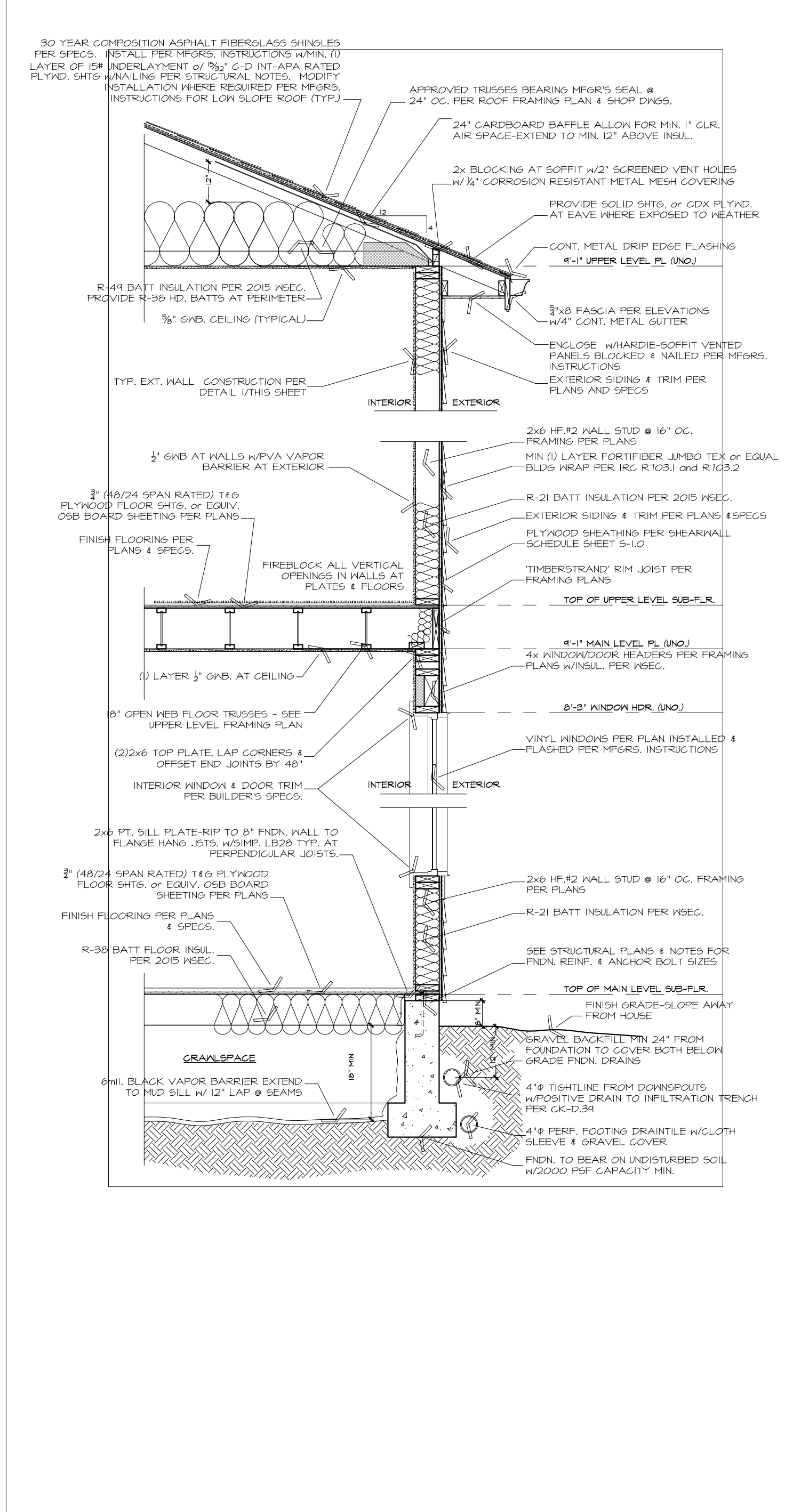
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**A BUILDING SECTION**  
1/4" = 1'-0"



**B OUTDOOR FIREPLACE DETAIL**  
1/2" = 1'-0"



**5 TYPICAL EXTERIOR WALL SECTION**  
SCALE: 1" = 1'-0"

**JM**  
**JAYMARC**  
HOMES

7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

Issue	Issue Date	By

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<b>BASEMENT SLAB</b>
4" CONC. SLAB ON 6 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL
<b>GARAGE SLAB</b>
4" CONC. SLAB ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL
<b>PORCH SLAB</b>
4" CONC. SLAB ON GRADE ON 6 MIL VAPOR BARRIER ON 4" MIN. GRANULAR FILL ON 95% COMPACTED FILL/VIRGIN SOIL

GENERAL STRUCTURAL NOTES	
FOUNDATION	
<ul style="list-style-type: none"> <li>DESIGN IS BASED ON 2018 INTERNATIONAL RESIDENTIAL CODE &amp; 2018 INTERNATIONAL BUILDING CODE</li> <li>DESIGN LOADS: <ul style="list-style-type: none"> <li>SOIL: 2,000 PSF ALLOWABLE BEARING PRESSURE</li> </ul> </li> <li>CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM COMPRESSIVE STRENGTHS IN 28 DAYS, UNO: <ul style="list-style-type: none"> <li>F<sub>c</sub> = 2500 psi: FOUNDATION WALLS*</li> <li>2500 psi: FOOTINGS*</li> <li>2500 psi: INTERIOR SLABS ON GRADE</li> <li>3500 psi: GARAGE &amp; EXT. SLABS ON GRADE</li> <li>f<sub>y</sub> = 60,000 psi</li> </ul> </li> <li>* UTILIZE 95% SACK 2500 PSI CONCRETE MIXES THAT ARE EQUIVALENT TO 3,000 PSI CONCRETE FOR WEATHERING POTENTIAL</li> <li>ALL CONCRETE EXPOSED TO THE WEATHER SHALL NOT HAVE LESS THAN 5% OR MORE THAN 7% AIR ENTRAINMENT.</li> <li>FOUNDATION WALL DESIGN IS BASED ON BACKFILL SOIL CLASSIFICATIONS OF SG, ML-C, OR CL (60 pcf) SOIL.</li> <li>TYPICAL REINFORCEMENT DETAILS: LAP ALL REBAR 24" MIN; BEND BARS AND LAP AT CORNERS; PROVIDE 6" HOOK INTO SUPPORTING FOOTINGS WHEN FOOTINGS INTERSECT; PROVIDE 3" MINIMUM COVER AT THE BOTTOM BARS AND 1 1/2" COVER AT THE SIDES.</li> <li>FOUNDATION WALLS SHALL BE BRACED, PRIOR TO BACKFILLING, BY EITHER ADEQUATE TEMPORARY BRACING OR INSTALLATION OF FIRST FLOOR DECK.</li> <li>ALL FOOTINGS SHALL BEAR BELOW FROST LINE. CONSULT SOILS REPORT/ LOCAL MUNICIPALITY FOR MINIMUM DEPTH BELOW GRADE.</li> <li>FOOTINGS AND SLABS ON GRADE SHALL BEAR ON VIRGIN SOIL OR 95% COMPACTED FILL.</li> <li>PROVIDE CONTROL JOINTS AT ALL INSIDE CORNERS OF SLAB EDGES, AND OTHER LOCATIONS WHERE SLAB CRACKS ARE LIKELY TO DEVELOP. (5'-0" O.C.)</li> <li>FASTEN SILL PLATES TO FOUNDATION WALLS WITH 3/8" DIA. ANCHOR BOLTS W/ MIN. 3"x3"x1/2" PLATE WASHERS (EDGE OF WASHER TO BE LOCATED WITHIN 1/2" OF EXTERIOR EDGE OF SILL PLATE) &amp; NUTS @ 6'-0" O.C. @ 2-STORY &amp; 4'-0" O.C. @ 3-STORY CONDITIONS W/ 7" MIN. EMBEDMENT INTO CONC. PROVIDE A MINIMUM OF 2 ANCHORS PER PLATE, 12" MAXIMUM FROM PLATE ENDS, UNO. (SEE FIG. DETAILS).</li> <li>ALL LUMBER EXPOSED TO WEATHER OR IN CONTACT W/ CONCRETE OR MASONRY FOUNDATION SHALL BE PRESERVATIVE TREATED HEM FIR #2.</li> <li>BUILDER TO VERIFY CORROSION-RESISTANCE COMPATIBILITY OF HARDWARE &amp; FASTENERS IN CONTACT W/ PRESERVATIVE-TREATED WOOD. CONTACT LUMBER &amp; HARDWARE SUPPLIERS TO COORDINATE.</li> <li>ARCH/BUILDER TO VERIFY ALL DIMENSIONS</li> </ul>	

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
	SIMPSON 5THD4 (RJ) HOLD-DOWN
	SIMPSON C616 STRAP TIE (14" END LENGTH)
	SIMPSON MSTC40 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.)
	SIMPSON MSTC66 STRAP TIE (CENTER STRAP ON FLOOR SYSTEM UNO.)

MEANS & METHODS NOTES	
<p>THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS FINISHED AND ALL PLAN, DETAIL, AND NOTE SPECIFICATIONS HAVE BEEN COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURES AND SEQUENCE TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, AND TIE-DOWNS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO STABILIZE AND PROTECT EXISTING AND ADJACENT STRUCTURES AND SYSTEMS DURING COURSE OF DEMOLITION AND CONSTRUCTION OF THE PROJECT.</p> <p>STRUCTURAL DESIGN AND SPECIFICATIONS ASSUME THAT ALL SUPPORTING AND NON-SUPPORTING ELEMENTS IN CONTACT WITH FLOOR FRAMING ARE LEVEL, INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, SLABS ON GRADE, BEAMS, WALLS, AND NON-BEARING ELEMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LEVELNESS AND MAKE ADJUSTMENTS AS NECESSARY, INCLUDING CONSIDERATION OF THOSE AREAS THAT MAY BE WITHIN CONTRACTUAL, INDUSTRY, OR WARRANTY TOLERANCES.</p>	

ADDITIONAL NOTES FOR TRUSS & I-JOIST MANUFACTURER	
<p>ROOF TRUSSES, FLOOR TRUSSES AND ENGINEERED JOISTS SHALL BE DESIGNED TO MEET THE DIFFERENTIAL DEFLECTION CRITERIA BELOW UNLESS NOTED OTHERWISE ON PLAN. MULHERN &amp; KULP CANNOT BE HELD RESPONSIBLE FOR ANY STRUCTURAL ISSUES RELATED TO ANY BUILDING COMPONENT IF COMPONENT SHOP DRAWINGS ARE NOT SUBMITTED TO MKK FOR REVIEW PRIOR TO FABRICATION, DELIVERY, OR INSTALLATION.</p> <p>TRUSSES SHALL BE DESIGNED SO THAT DIFFERENTIAL DEFLECTION BETWEEN ADJACENT PARALLEL TRUSSES OR GIRDER TRUSSES DOES NOT EXCEED THE FOLLOWING:</p> <p>A. ROOF TRUSSES: 1/4" DEAD LOAD</p> <p>B. FLOOR TRUSSES, ATTIC TRUSSES, &amp; I-JOISTS: 1/8" DEAD LOAD</p> <p>C. FLOOR TRUSSES &amp; ATTIC TRUSSES ADJACENT TO FLOOR FRAMING BY OTHERS: LIMIT ABSOLUTE TRUSS DEFLECTION TO 3/16" DEAD LOAD, (NOT DIFFERENTIAL DEFLECTION)</p>	

LOADING AND DESIGN PARAMETERS	
GRAVITY DESIGN LOADS:	
DEAD LOAD (PSF):	
ROOF TRUSS TOP CHORD :	10
ROOF TRUSS BOTTOM CHORD :	7
FLOOR (TRUSSES) :	15
FLOOR (I-JOISTS) :	10
TILE FLOORS :	10
LIVE LOAD (PSF):	
ROOF :	20
RESIDENTIAL LIVING AREAS :	40
RESIDENTIAL SLEEPING AREAS :	30*
RESIDENTIAL WOOD DECKS :	60
GARAGE :	50
SNOW LOAD:	
GROUND SNOW LOAD (P <sub>g</sub> ) (PSF) :	25
FLAT ROOF SNOW LOAD (P <sub>f</sub> ) (PSF) :	25
SNOW EXPOSURE FACTOR (C <sub>e</sub> ) :	0.9
SNOW LOAD IMPORTANCE FACTOR (I <sub>s</sub> ) :	1.0
THERMAL FACTOR (C <sub>t</sub> ) :	1.2
LATERAL DESIGN LOADS:	
WIND LOAD: (IBC 1609)	
SPEED (V <sub>w</sub> ) (MPH) :	100
WIND RISK CATEGORY :	II
IMPORTANCE FACTOR (I <sub>w</sub> ) :	1.0
EXPOSURE CATEGORY :	C
INTERNAL PRESSURE COEFF. (GC <sub>pi</sub> ) :	+0.18
TOPOGRAPHIC FACTOR (K <sub>z</sub> ) :	1.0
SEISMIC LOAD: (IBC 1601)	
SEISMIC RISK CATEGORY :	II
SEISMIC IMPORTANCE FACTOR (I <sub>s</sub> ) :	1.0
MAPPED SPECTRAL RESPONSE:	
S <sub>e</sub> 1.025	S <sub>e</sub> 0.484
SITE CLASS :	D
SPECTRAL RESPONSE COEFF. :	
S <sub>w</sub> 1.124	S <sub>w</sub> 0.590
SEISMIC DESIGN CATEGORY:	D
BASIC SEISMIC FORCE-RESISTING SYS :	
LIGHT FRAMED WALLS	
W/ WOOD STRUCTURAL PANELS	
ULTIMATE BASE SHEAR:	
TRANS: 16 K	LONG: 16 K
SEISMIC RESPONSE COEFF. (C <sub>d</sub> ) :	
TRANS: 0.173	LONG: 0.173
RESPONSE MODIFICATION FACTOR (R) :	
TRANS: 6.5	LONG: 6.5
ANALYSIS PROCEDURE USED:	
EQUIVALENT LATERAL FORCE	

**LATERAL BRACING NOTES**

THIS HOME HAS BEEN ENGINEERED TO RESIST LATERAL FORCES RESULTING FROM:  
100 MPH WIND SPEED, EXP. C  
(ASCE 7-16 WIND MAP, PER IRC R301.2.1.1)  
RISK CAT. 2 & SEISMIC CAT. D2.

**110 MPH WIND IN 2018 IRC MAP**

ENGINEERED DESIGN WAS COMPLETED PER 2018 IBC (SECTION 1609 & 1613) & ASCE 7-16, AS PERMITTED BY R301.3 OF THE 2018 IRC. ACCORDINGLY, THIS MODEL, AS DOCUMENTED AND DETAILED HEREWITHIN, IS ADEQUATE TO RESIST THE CODE REQUIRED LATERAL FORCES, AND DOES NOT NEED TO CONFORM TO THE PRESCRIPTIVE PROVISIONS OF R602.10.

**STANDARD EXTERIOR WALL SHEATHING SPECIFICATIONS**  
(INTERIOR WALL SPECIFICATION WHERE NOTED ON PLANS)

- 1/8" OSB OR 1/2" PLYWOOD:

FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 6" O.C. AT ALL SUPPORTED PANEL EDGES AND 12" O.C. IN THE PANEL FIELD. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE. ALL EXTERIOR WALLS SHALL BE CONSTRUCTED PER THIS SPECIFICATION UNO. ON PLANS.

**3" O.C. EDGE NAILING**  
(WHERE NOTED ON PLANS)

- 1/8" OSB OR 1/2" PLYWOOD:

ONLY AT LOCATIONS INDICATED ON PLANS - SHEATH WALL SHOWN WITH 1/8" OSB. FASTEN SHEATHING W/ 2 1/2"x0.131" NAILS @ 3" O.C. AT EDGES AND 12" O.C. AT CENTER. ALL SHEATHING SHEET PANEL EDGES SHALL OCCUR OVER WALL FRAMING MEMBERS OR 2x HORIZONTAL BLOCKING SHALL BE PROVIDED TO SUPPORT PANEL EDGE AND 3" O.C. FASTENING.

- NOTES:**
- LATERAL ANALYSIS ASSUMES STUD SPACING @ 16" O.C.
  - ALL SHEAR WALLS SHALL HAVE DOUBLE TOP PLATES FASTENED TOGETHER W/ 3"x0.131" NAILS @ 8" O.C. USE (12/28"x0.135" NAILS AT EACH LAP SPlice. (6) EACH SIDE OF JOINT (TYP. UNO.)
  - ALL EXTERIOR WALLS ARE CONTINUOUSLY SHEATHED.
  - ALL INTERIOR SHEAR WALLS AND EXTERIOR WALLS ARE SHEATHED ABOVE AND BELOW OPENINGS.

LEGEND	
	INTERIOR BEARING WALL
	BEARING WALL ABOVE (B.W.A.) OR SHEARWALL ABOVE (S.W.A.)
	BEAM / HEADER
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL W/ 3" O.C. EDGE NAILING
	AREA OF OVERFRAMING
	JL METAL HANGER
	* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.
	▶ INDICATES HOLD-DOWN.



GENERAL STRUCTURAL NOTES	
DESIGN PARAMETERS	
<ul style="list-style-type: none"> <li>DESIGN IS BASED ON 2018 INTERNATIONAL RESIDENTIAL CODE &amp; 2018 INTERNATIONAL BUILDING CODE</li> <li>WOOD FRAME ENGINEERING IS BASED ON NDS, NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION - LATEST EDITION.</li> </ul>	
GENERAL FRAMING	

- EXTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (w/ DOUBLE TOP PLATE) HEM FIR (HF) #2 STUD GRADE LUMBER, OR BETTER, UNO.
- INTERIOR BEARING WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) @ 16" O.C. (w/ DOUBLE TOP PLATE) HEM FIR (HF) #2 STUD GRADE LUMBER, OR BETTER, UNO.
- ALL NON-BEARING INTERIOR STUD WALLS SHALL BE CONSTRUCTED WITH 2x STUD GRADE MEMBERS SPACED @ 24" O.C. (MAX.)
- ALL WALLS TALLER THAN TYP. PLATE HEIGHT SHALL BE CONSIDERED BALLOON FRAMED & SHALL BE CONSTRUCTED FROM FLOOR TO UNDERSIDE OF FRAMING AT NEXT LEVEL. BF. WALLS SHALL BE 2x4 OR 2x6 (AS SHOWN ON PLANS) HEM FIR (HF) #2 GRADE LUMBER, OR BETTER.
- ALL HEADERS SHALL BE SUPPORTED BY (1) 2x JACK STUD & (1) 2x KING STUD, MINIMUM. THE NUMBER OF STUDS SPECIFIED AT A SUPPORT INDICATES THE NUMBER OF JACK STUDS REQUIRED, UNO.
- ALL 2x6 AND LARGER SOLID SAWN BEAMS/HEADERS SHALL BE HEM FIR #2 (HF #2) OR BETTER. ALL 4x6 AND LARGER SOLID SAWN LUMBER SHALL BE DOUG FIR #2 (DF #2) OR BETTER.
- ALL FRAMING LUMBER SHALL BE KILN DRIED TO 15% MC (KD-15).
- ALL TYP. NAIL FASTENER REQUIREMENTS ARE NOTED IN GENERAL NOTES, IN DETAILS, OR ON PLANS. ALL NAILS SPECIFIED ARE MIN DIAMETER AND LENGTH REQUIRED FOR CONNECTION. ALL HANGER NAILS SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR MAX. ALLOWED CAPACITY. NOTE: HANGERS USE COMMON NAIL DIAMETERS NOT TYPICAL FRAMING SIZE NAILS.
- FASTEN ALL BEAMS TO COLUMNS W/ (4) 3"x0.131" TOENAILS (MIN.) TYP. UNO.
- PROVIDE SOLID BLOCKING IN FLOOR SYSTEM UNDER ALL POSTS & HOLD-DOWNS CONTINUOUS TO FOUNDATION/BEARING. BLOCKING TO MATCH POST ABOVE.
- ENGINEERED LUMBER TO MEET OR EXCEED THE FOLLOWING:
  - LVL MEMBERS - Fb=2325 PSI; Fv=310 PSI; E=1.55x10<sup>6</sup> PSI
  - LVL MEMBERS - Fb=2600 PSI; Fv=285 PSI; E=2.0x10<sup>6</sup> PSI
  - GLB MEMBERS - Fb=2400 PSI; Fv=1850 PSI; Fv=265 PSI; E=1.8x10<sup>6</sup> PSI; DF#2; 24F-V4 (UNO.)
- ENGINEERED LUMBER POSTS TO MEET OR EXCEED THE FOLLOWING:
  - LVL MEMBERS - Fb=2400 PSI; Fc=11250 PSI; E=1.8x10<sup>6</sup> PSI
- FACE NAIL MULTI-PLY 2x BEAMS & HEADERS W/ 3-ROWS OF 3"x0.131" NAILS (MIN) @ 12" O.C. STAGGERED. APPLY NAILING FROM BOTH FACES @ 3-PLY OR MORE CONDITIONS. UTILIZE 2 ROWS OF NAILS FOR 2x6 & 2x8 MEMBERS.
- ALL MEMBERS SPECIFIED AS MULTI-PLY 1 1/2" SHALL BE FASTENED TOGETHER PER MANUFACTURER. EQUIVALENT WIDTH SOLID MATERIAL MAY BE USED AS EQUAL.
- FASTEN 2x WOOD PLATES TO TOP FLANGE OF STEEL BEAMS W/ PAFs (MULTI X) PINS OR EQUAL (0.151" DIA. x 2" LONG MIN) @ 16" O.C. STAGGERED, OR 1/2" DIA. BOLTS @ 48" O.C. STAGGERED.
- REFER TO IRC FASTENING SCHEDULE TABLE R602.3(1) FOR ALL CONNECTIONS, TYP. UNO.

- FLOOR FRAMING**
- I-JOISTS/TRUSSES SHALL BE DESIGNED BY MANUF. TO MEET OR EXCEED L/480 LIVE LOAD DEFLECTION CRITERIA AND SHALL RUN CONTINUOUS OVER SUPPORTS WHEREVER POSSIBLE. ALL LOADS SHOWN ON PLAN FOR MANUF. DESIGNS ARE ADD LEVEL LOADS, UNO. (EXCLUDES STONE/MARBLE OR NET BED CONSTRUCTED FLOORS - CONTACT MKK FOR EXCLUDED DESIGNS).
  - ALL METAL I-JOIST/TRUSS HANGERS SHALL BE SPECIFIED BY I-JOIST/TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
  - I-JOIST/TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
  - 2x FLOOR JOISTS HAVE BEEN DESIGNER TO MEET OR EXCEED L/360 LIVE LOAD DEFLECTION CRITERIA.
  - TYPICAL 2x JOIST HANGERS (UNO. ON PLANS):  
SINGLE PLY: SIMPSON LUS210  
DOUBLES: SIMPSON LUS210-2
  - FLOOR SHEATHING SHALL BE 23/32" A.P.A. RATED 5/16" FLOOR 24" O.C. EXPOSURE 1 (OR APPROVED EQUAL) WITH TONGUE AND GROOVE EDGES. FASTEN TO FRAMING MEMBERS W/ GULIE AND 2 1/2" x 0.131" NAILS @ 6" O.C. @ PANEL EDGES & @ 12" O.C. FIELD.
  - ALL FLUSH CONNECTIONS SHALL BE CONNECTED WITH HANGER APPROPRIATE FOR MEMBER SIZE, UNO.
  - FASTEN HANGERS TO SINGLE PLY FLUSH BEAMS W/ 1/2" LONG NAILS.

- ROOF FRAMING**
- FASTEN EACH ROOF TRUSS TO TOP PLATE W/ (4) 3"x0.131" TOENAILS (MIN) & (1) SIMPSON SDNCS600 SCREWS @ ALL BEARING POINTS. PROVIDE (2) SIMPSON SDNCS600 SCREWS AT 2-PLY GIRDER TRUSSES, (3) SIMPSON SDNCS600 SCREWS AT 3-PLY GIRDER TRUSSES AT ALL BEARING POINTS.
  - FASTEN EACH ROOF RAFTER TO TOP PLATE WITH (1) SIMPSON SDNCS600 SCREWS. PROVIDE (2) SIMPSON SDNCS600 SCREWS AT FLUSH BEAMS IN THE ROOF - AT ALL BEARING POINTS.
  - ROOF SHEATHING SHALL BE 7/8" A.P.A. RATED SHEATHING 24/16 EXPOSURE 1 (OR APPROVED EQUAL). FASTEN TO FRAMING MEMBERS W/ 2 1/2" x 0.131" NAILS @ 6" O.C. AT PANEL EDGES & @ 12" O.C. AT INTERMEDIATE SUPPORTS. ROOF SHEATHING SHALL EXTEND BELOW ALL INSTANCES OF OVERFRAMING. BLOCKING SHALL BE INSTALLED AS REQUIRED TO LIMIT ROOF SHEATHING SPANS TO 24" MAX.
  - WITHIN 48" OF ALL ROOF EDGES, RIDGES, & HIPs FASTEN ROOF SHEATHING FIELDS PER EDGE NAILING SPEC.
  - ALL METAL HANGERS SHALL BE SPECIFIED BY THE TRUSS MANUFACTURER, UNLESS OTHERWISE NOTED.
  - ROOF TRUSS SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT AND ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY.
  - ROOF TRUSS SHOP DRAWINGS & CALCULATIONS SHALL BE PREPARED BY A WASHINGTON STATE LICENSED ENGINEER AND SHALL BE DESIGNED FOR UNBALANCED SNOW LOADING PER ASCE7-10, SECTION 7.6.
  - ERECT AND INSTALL ROOF TRUSSES PER NTCA & TPIS BCSI 1-08 GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES.
  - FASTEN OVER-FRAMED TRUSS SETS TO TRUSSES BELOW W/ (2) 3"x0.131" TOENAILS AT EA. TRUSS.
  - SUPPORT PORCH & SHORT SPAN ROOF TRUSSES (UP TO 6' TRIB.) W/ 2x6 LEDGER FASTENED TO FRAMING W/ (3) 3"x0.131" NAILS @ 16" O.C.
  - FASTEN ALL INTERIOR NON-BEARING PARTITION WALLS TO TRUSS BOTTOM CHORD ABOVE WITH SIMPSON STC CLIPS AT 24" O.C. MAX. PROVIDE BLOCKING BETWEEN THE TRUSS BOTTOM CHORDS AS REQUIRED FOR THE PARALLEL CONDITIONS.

seal:

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M&K project number:

154-21007

project mgr: R.JZ

drawn by: RJD

issue date: 04-12-21

REVISIONS:

date: \_\_\_\_\_ initial: \_\_\_\_\_

**JAYMARC HOMES**

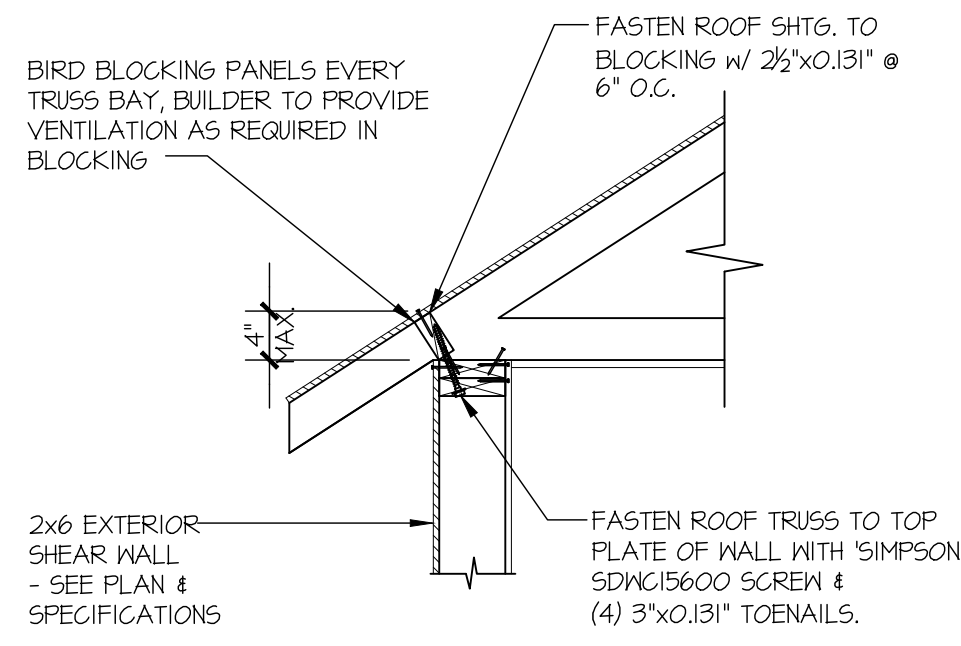
**STRUCTURAL NOTES**

**6515 SE 30TH ST**

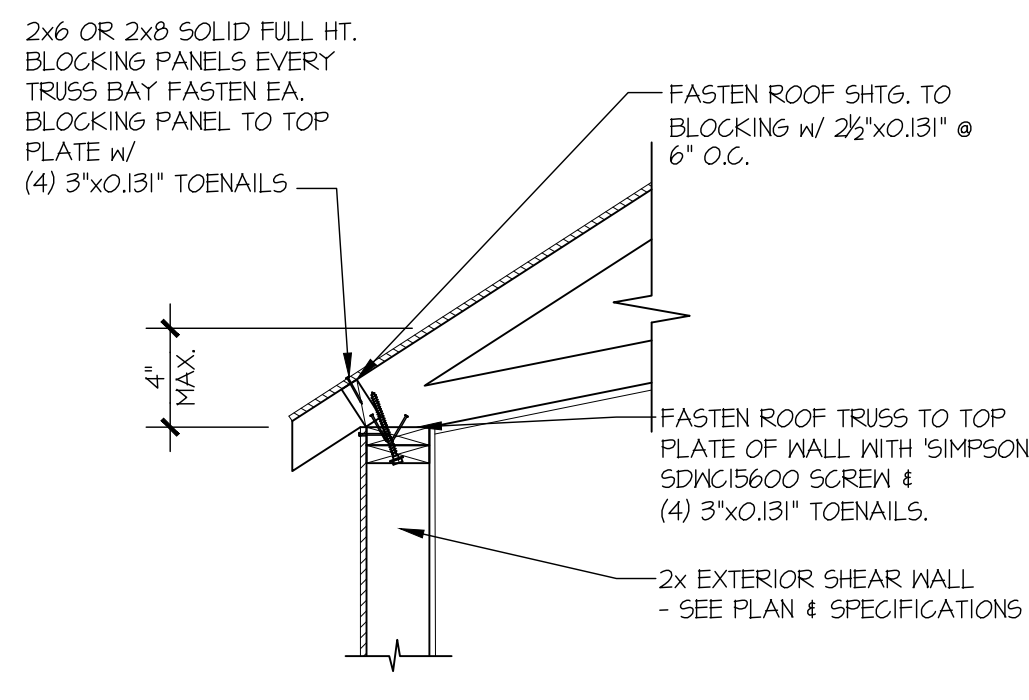
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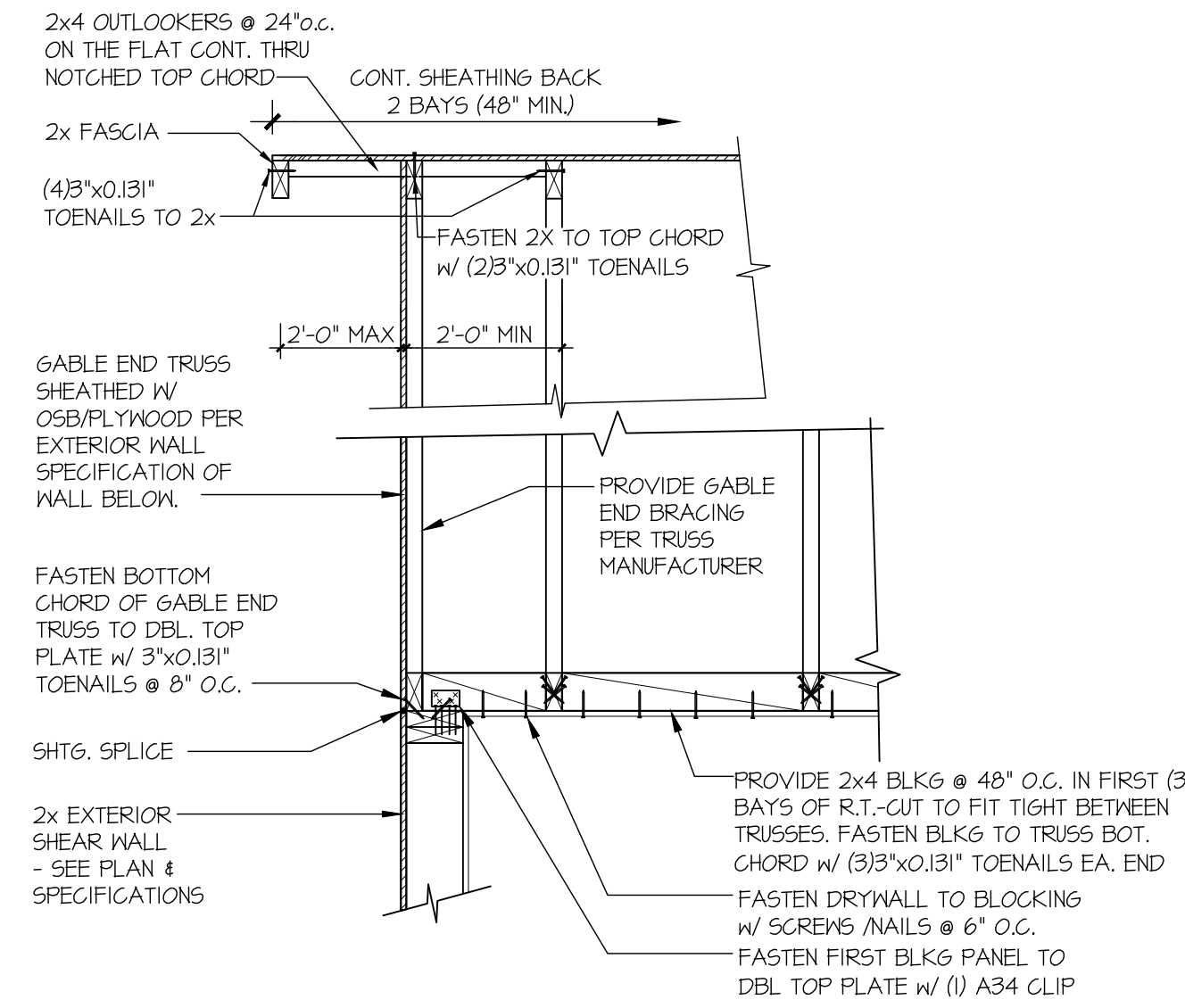
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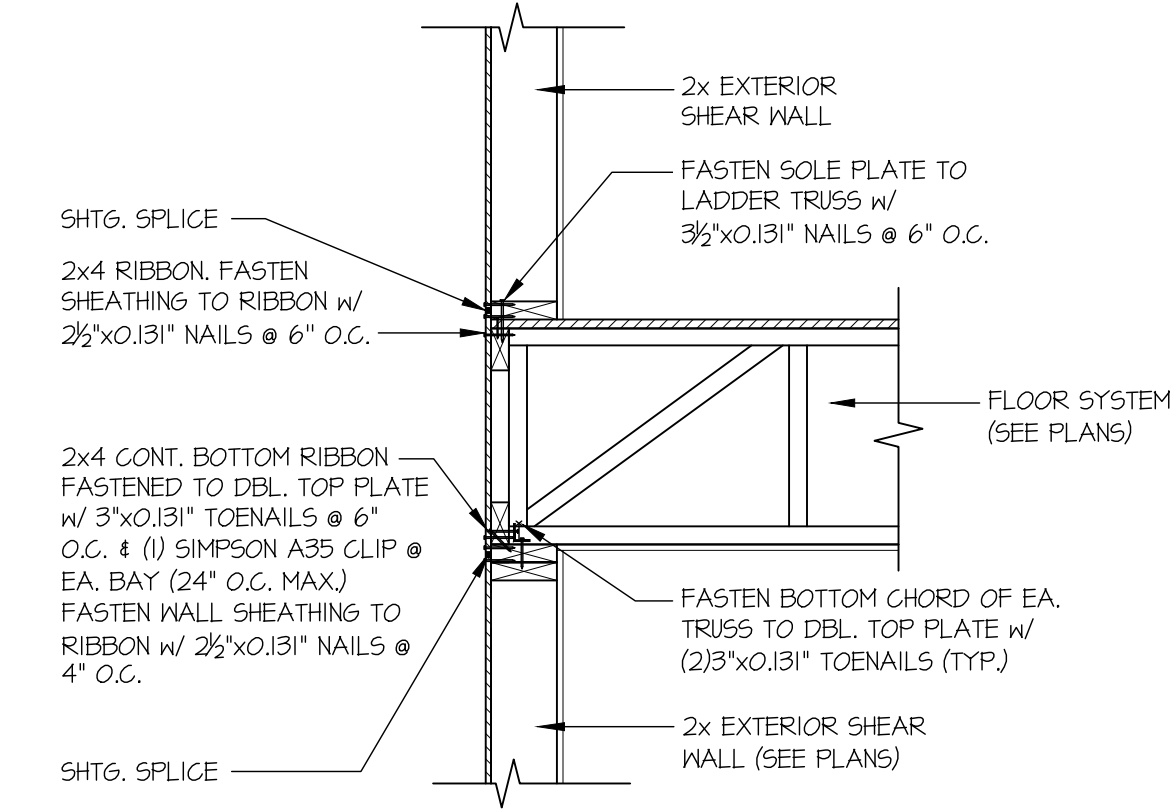
**1** TYPICAL SHEAR TRANSFER DETAIL @ ROOF  
SCALE: 3/4"=1'-0" HEEL HEIGHT LESS THAN 4"



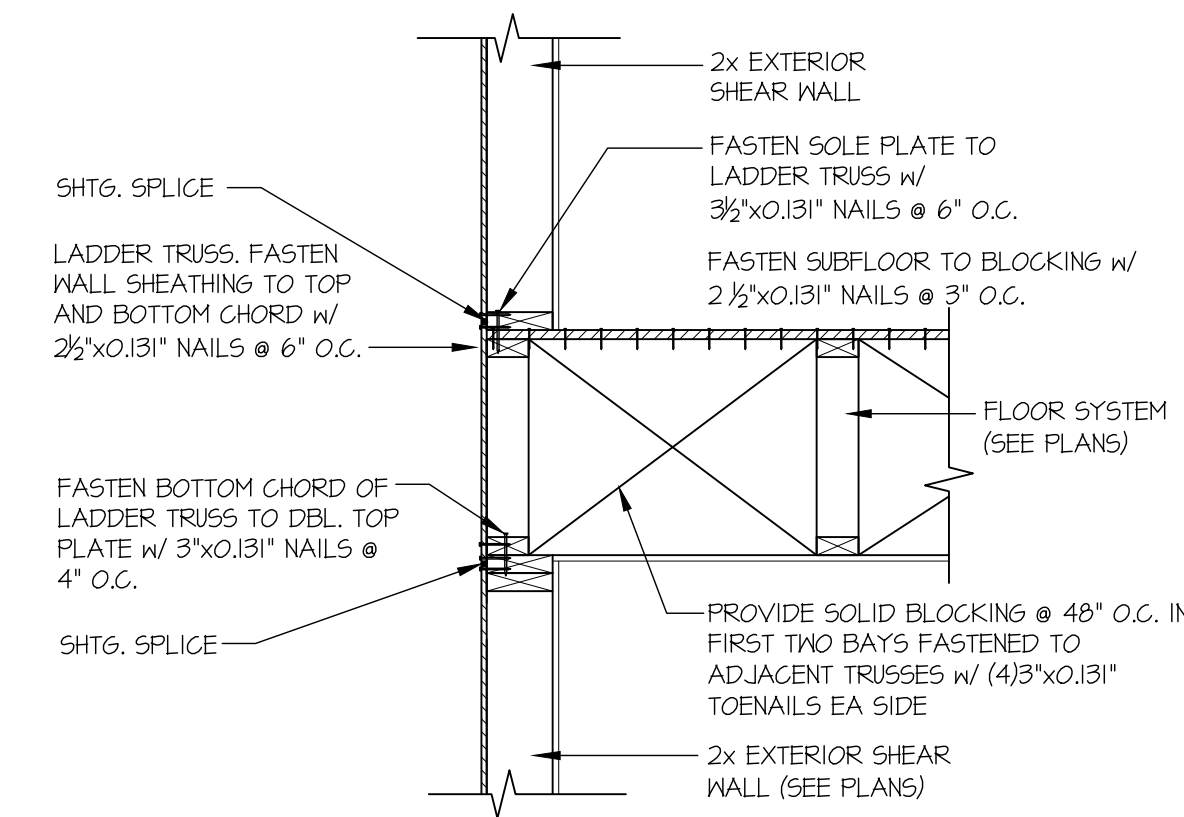
**1A** TYPICAL SHEAR TRANSFER DETAIL @ VAULTED CEILING  
SCALE: 3/4"=1'-0"



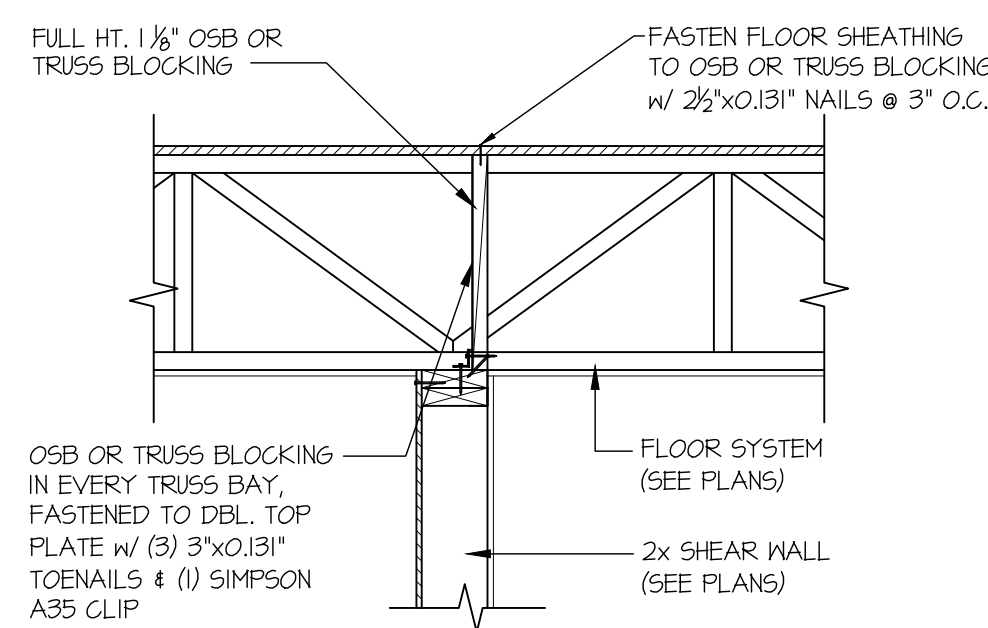
**2** TYPICAL GABLE END DETAIL  
SCALE: 3/4"=1'-0"



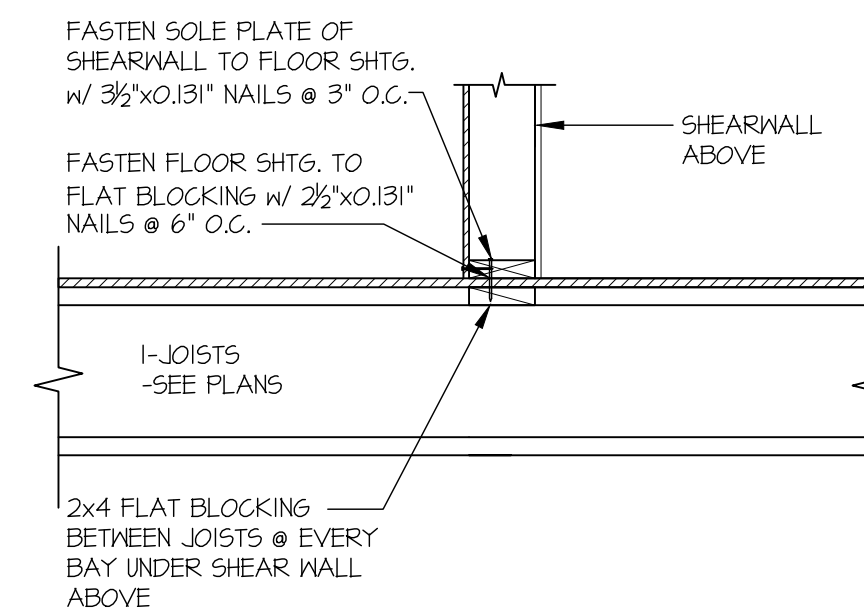
**3** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL  
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



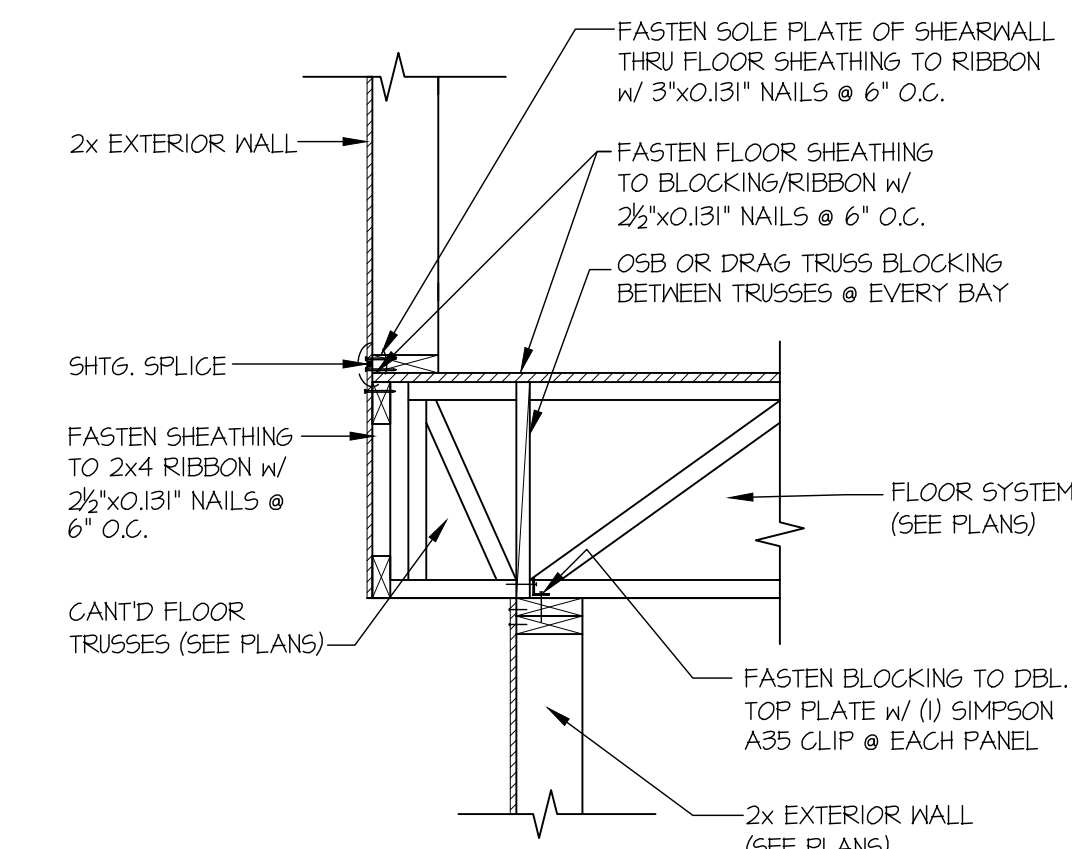
**4** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL  
SCALE: 3/4"=1'-0" PARALLEL FRAMING



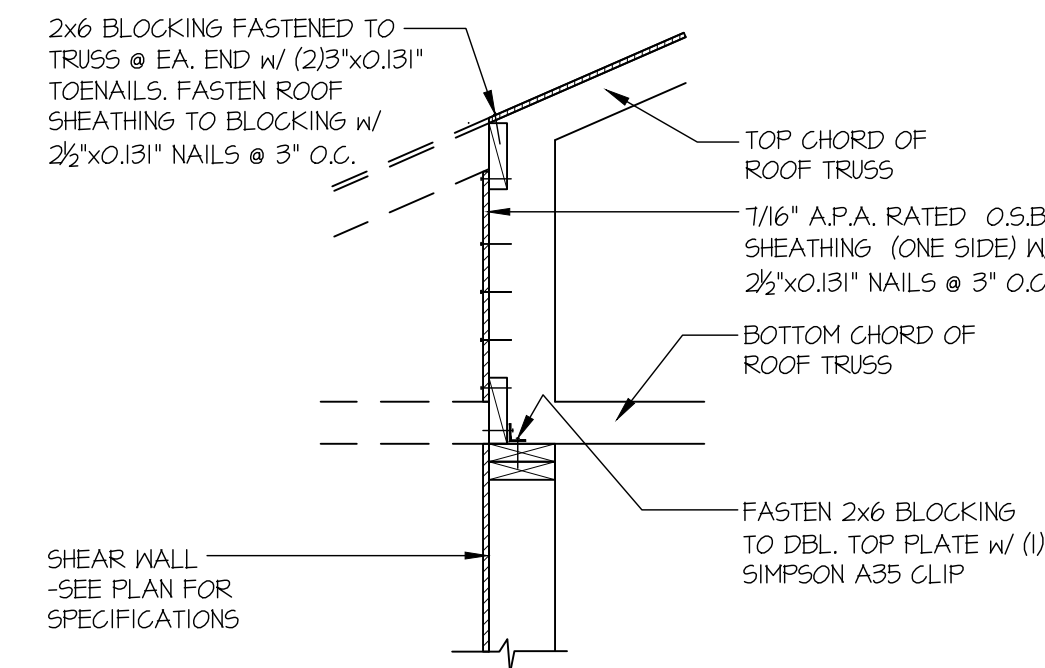
**14** SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW  
SCALE: 3/4"=1'-0"



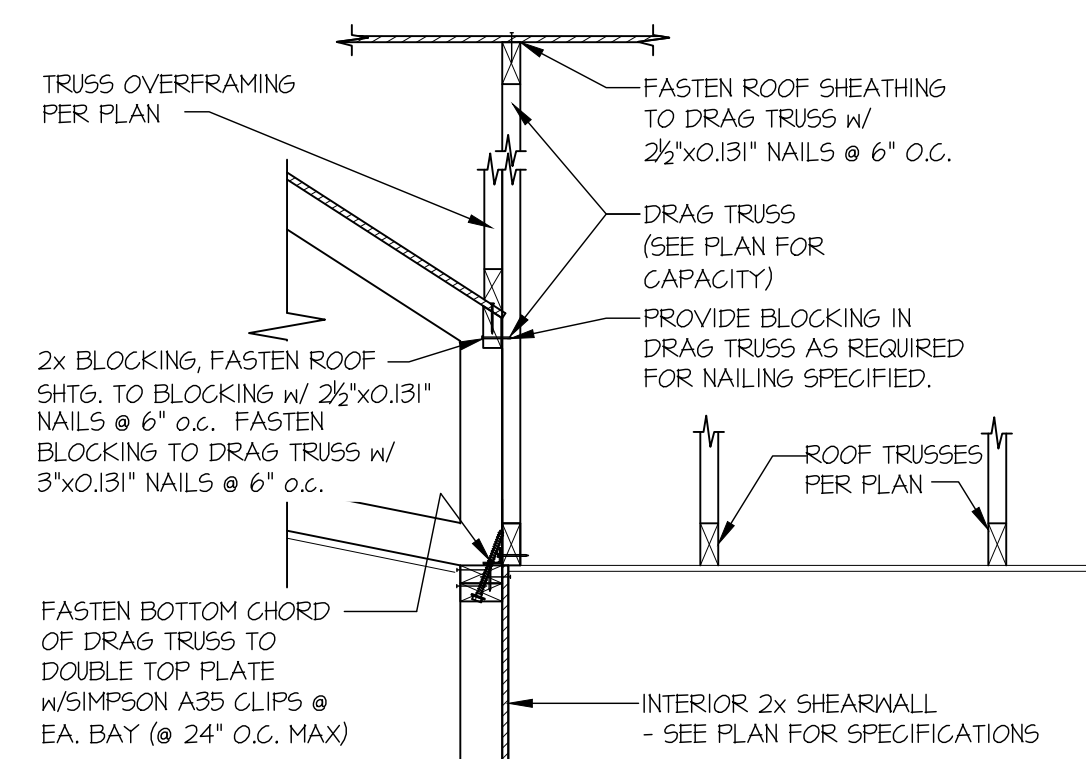
**20** SHEAR TRANSFER DETAIL @ INT. SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



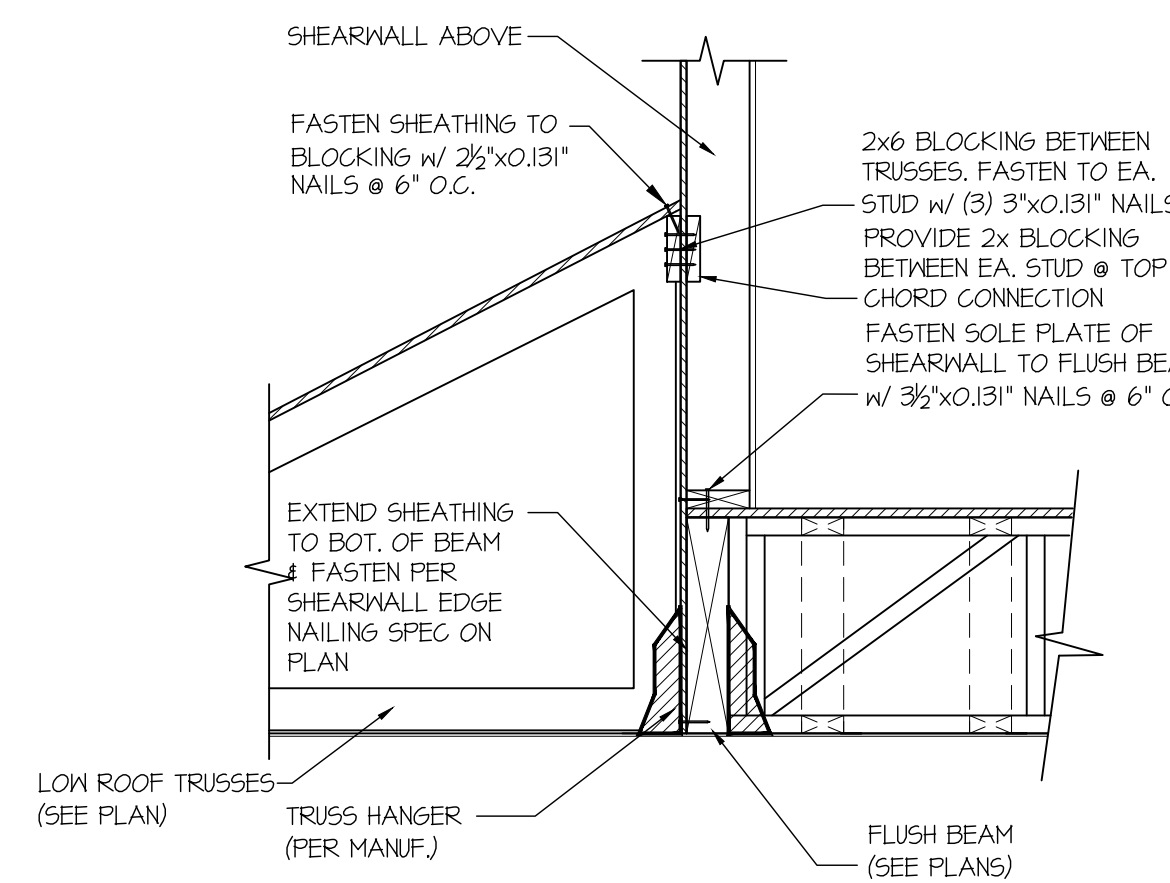
**31** SHEAR TRANSFER DETAIL BETWEEN FLOORS @ CANT'D EXT. WALL  
SCALE: 3/4"=1'-0"



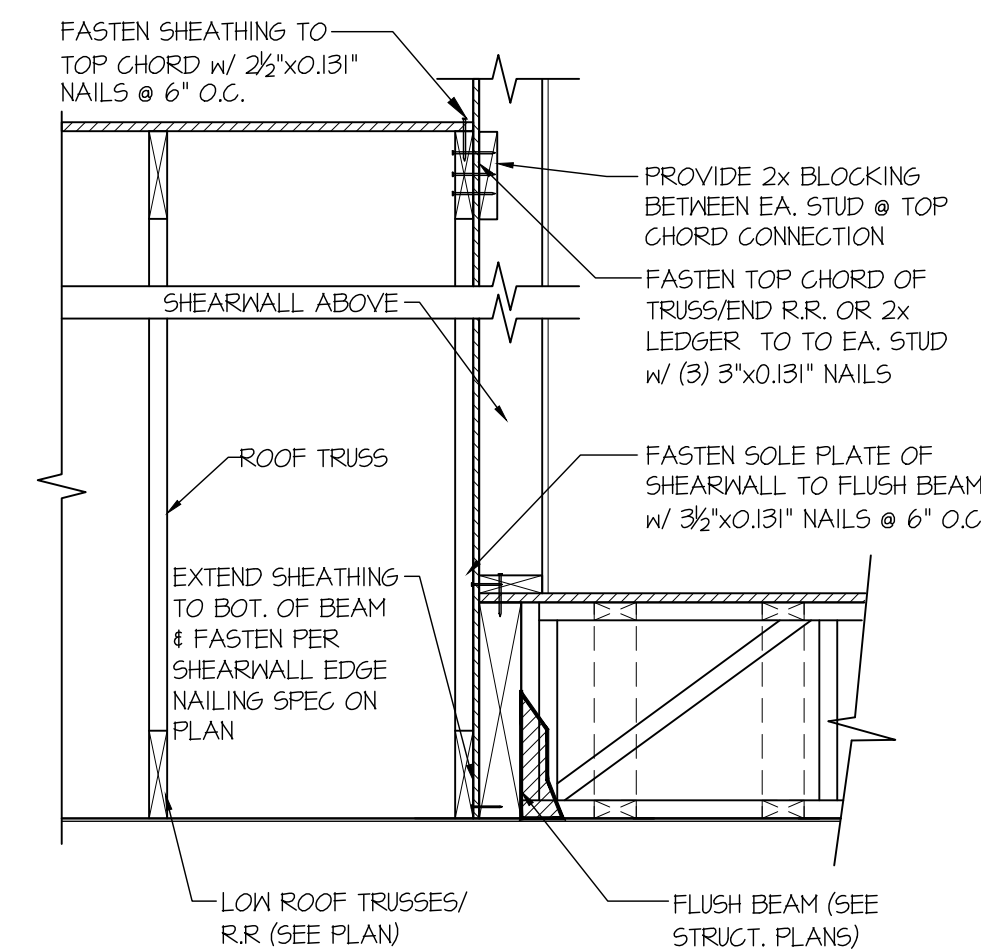
**49** SHEAR TRANSFER DETAIL @ SHEARWALL BELOW  
SCALE: 3/4"=1'-0"



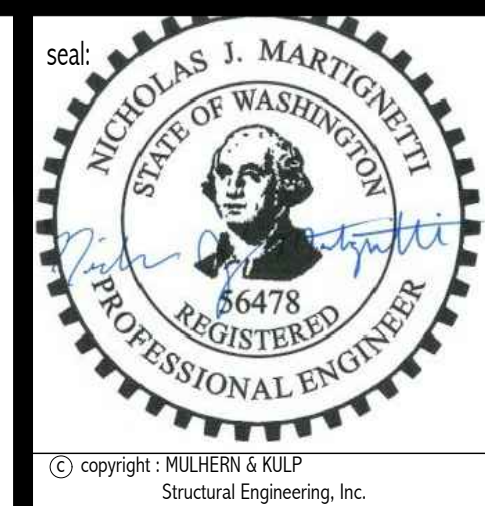
**54** SHEAR TRANSFER DETAIL AT INTERIOR SHEARWALL BELOW  
SCALE: 3/4"=1'-0"



**58** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



**59** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



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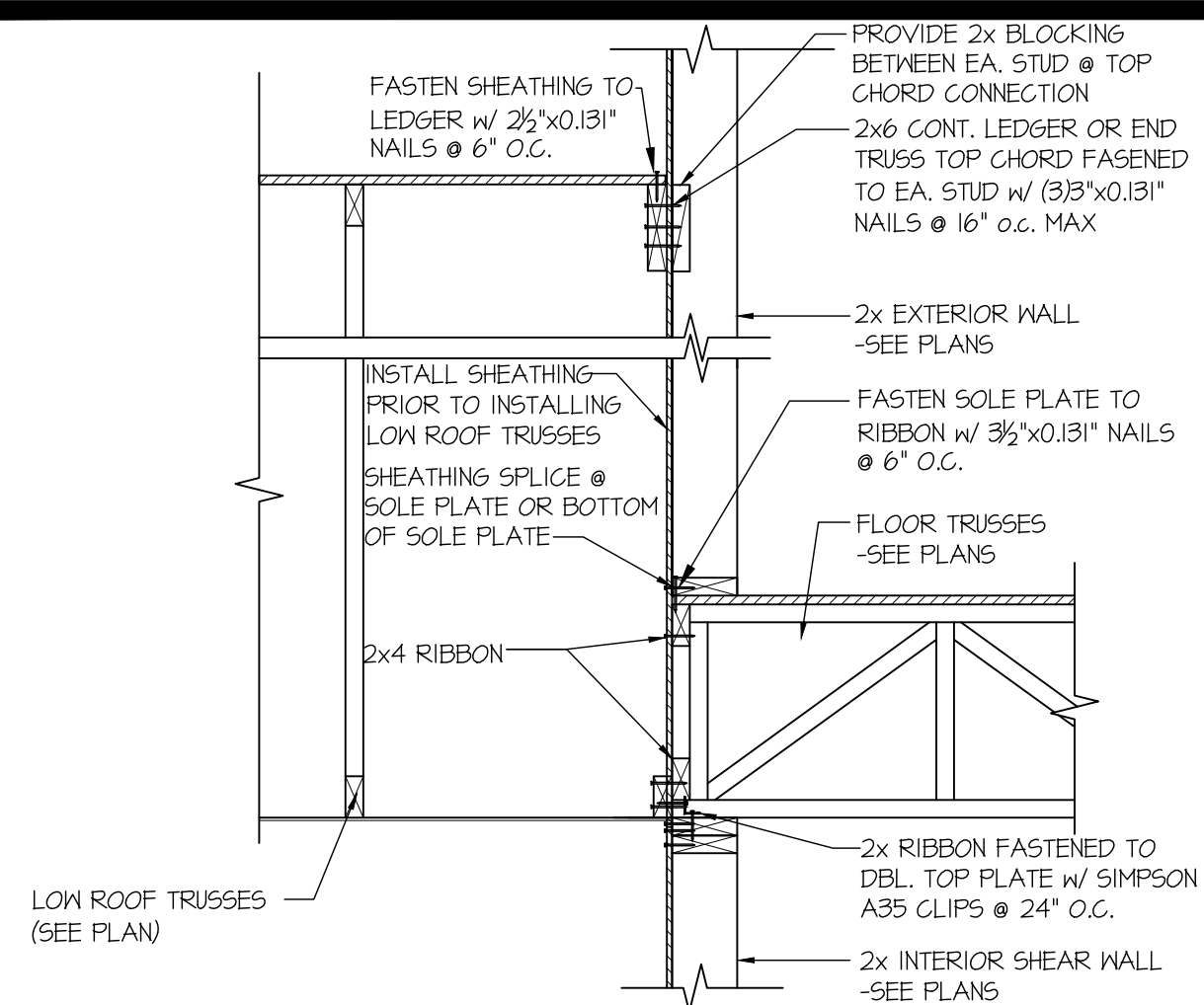
M&K project number: 154-21007

project mgr: RJJ  
drawn by: RJD  
issue date: 04-12-21

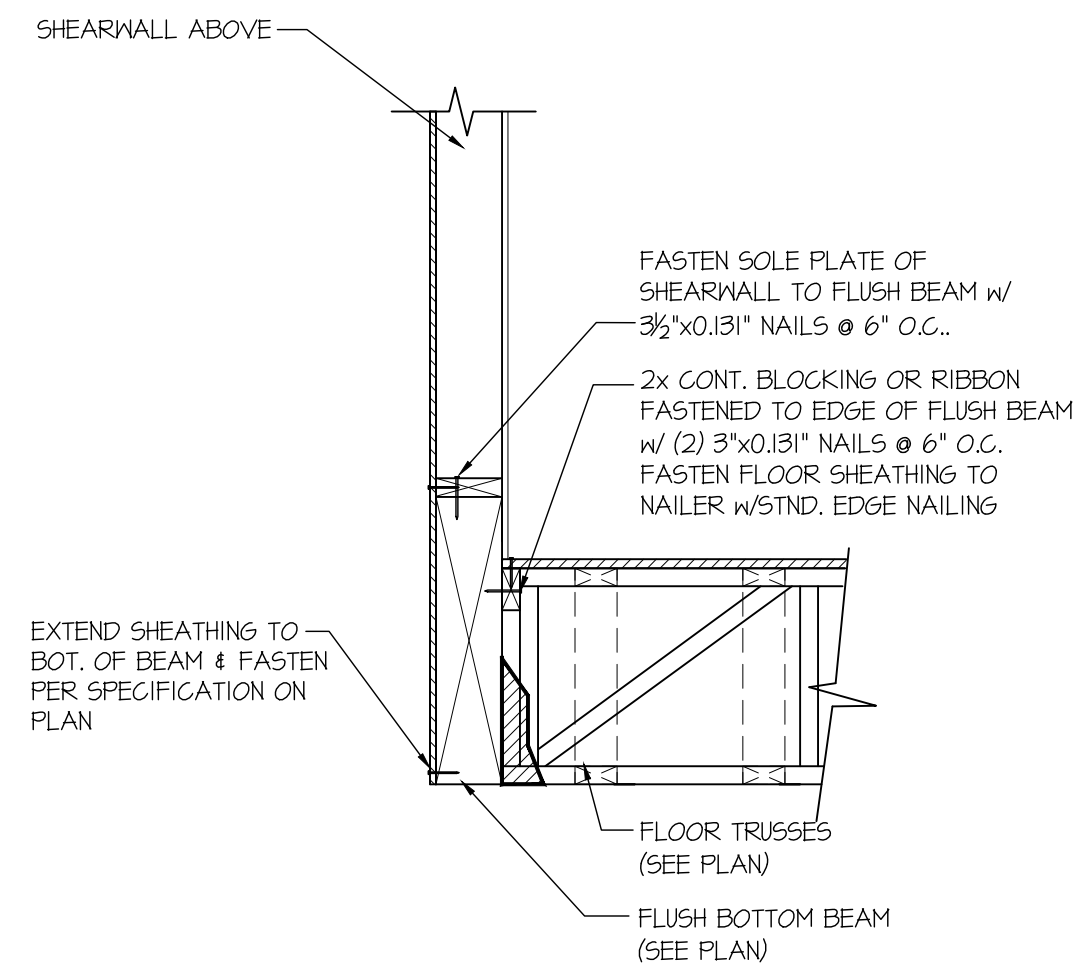
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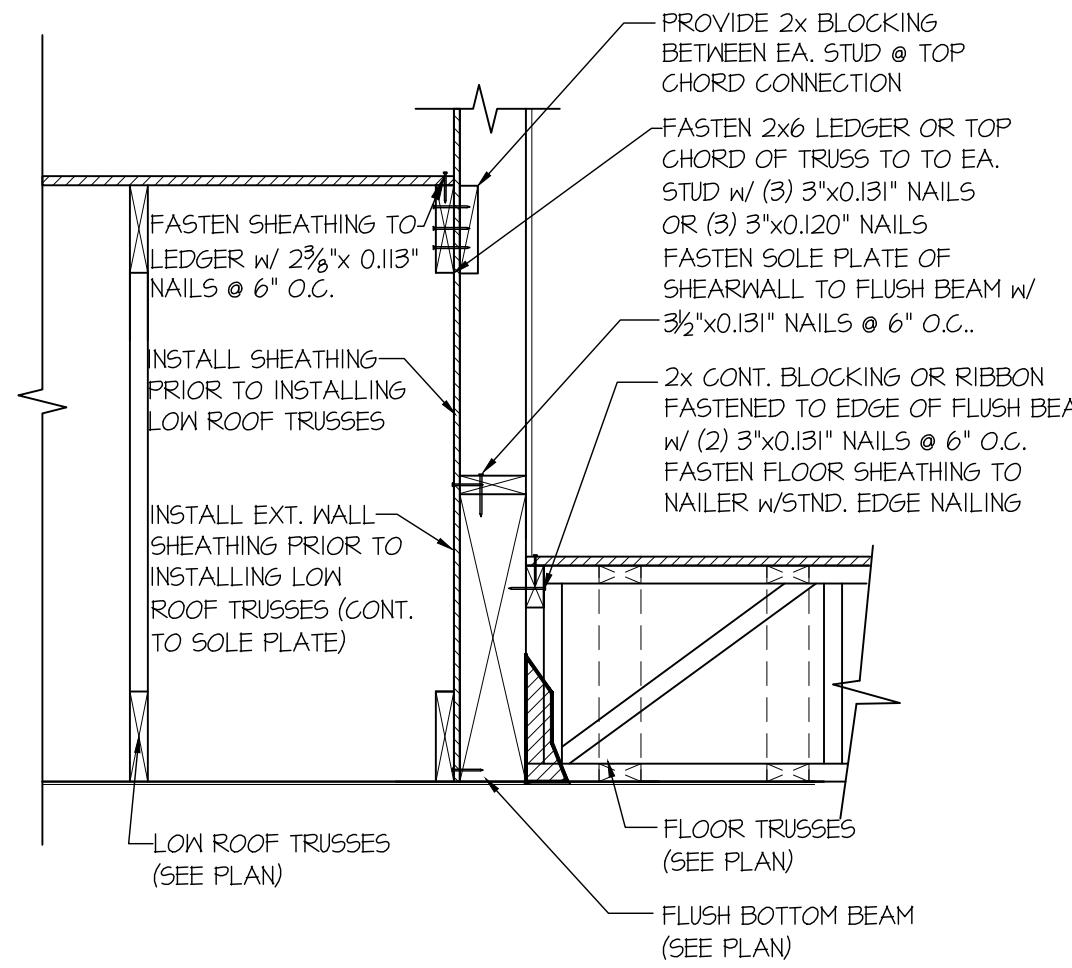
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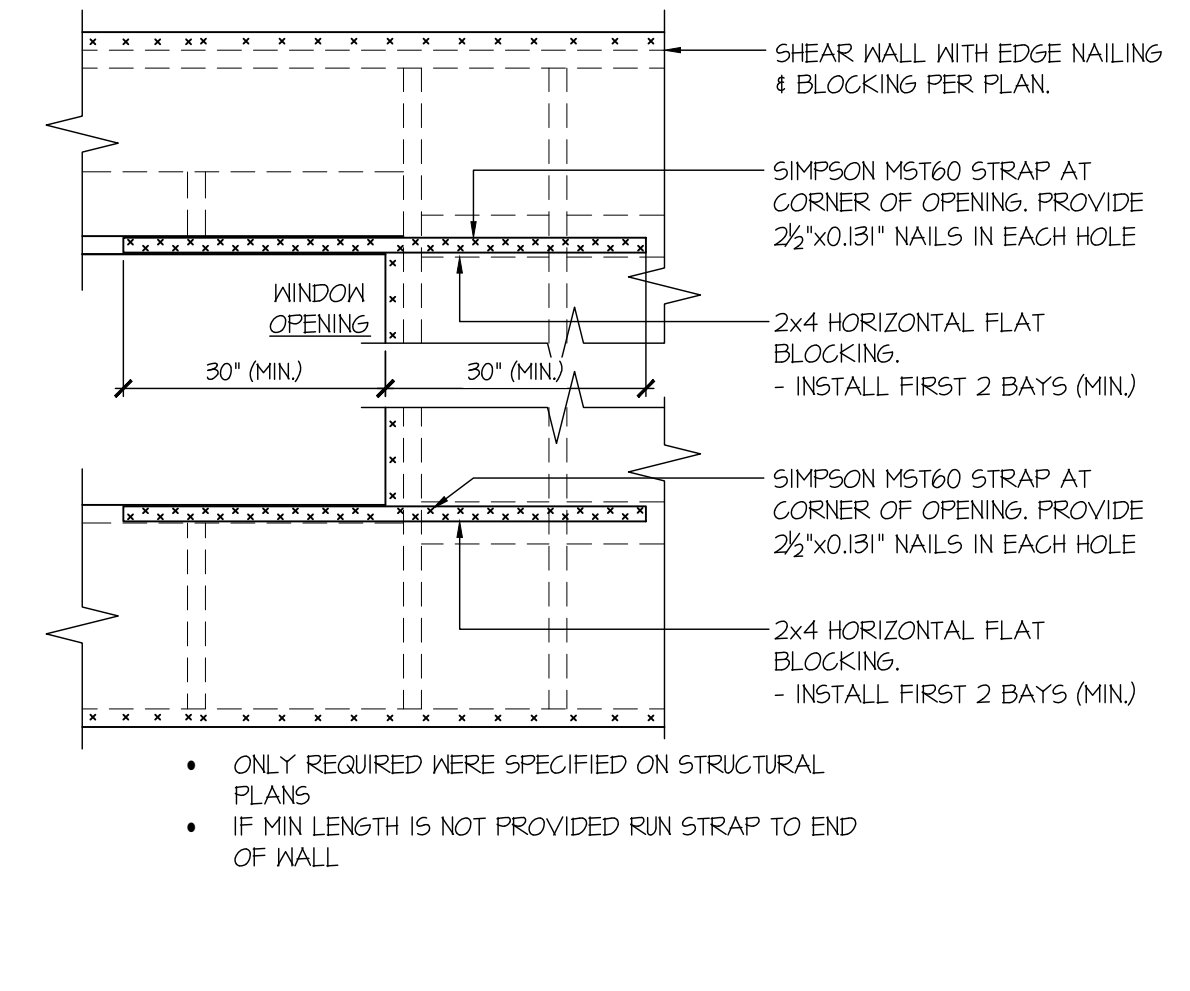
**61** TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ INTERIOR WALL  
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



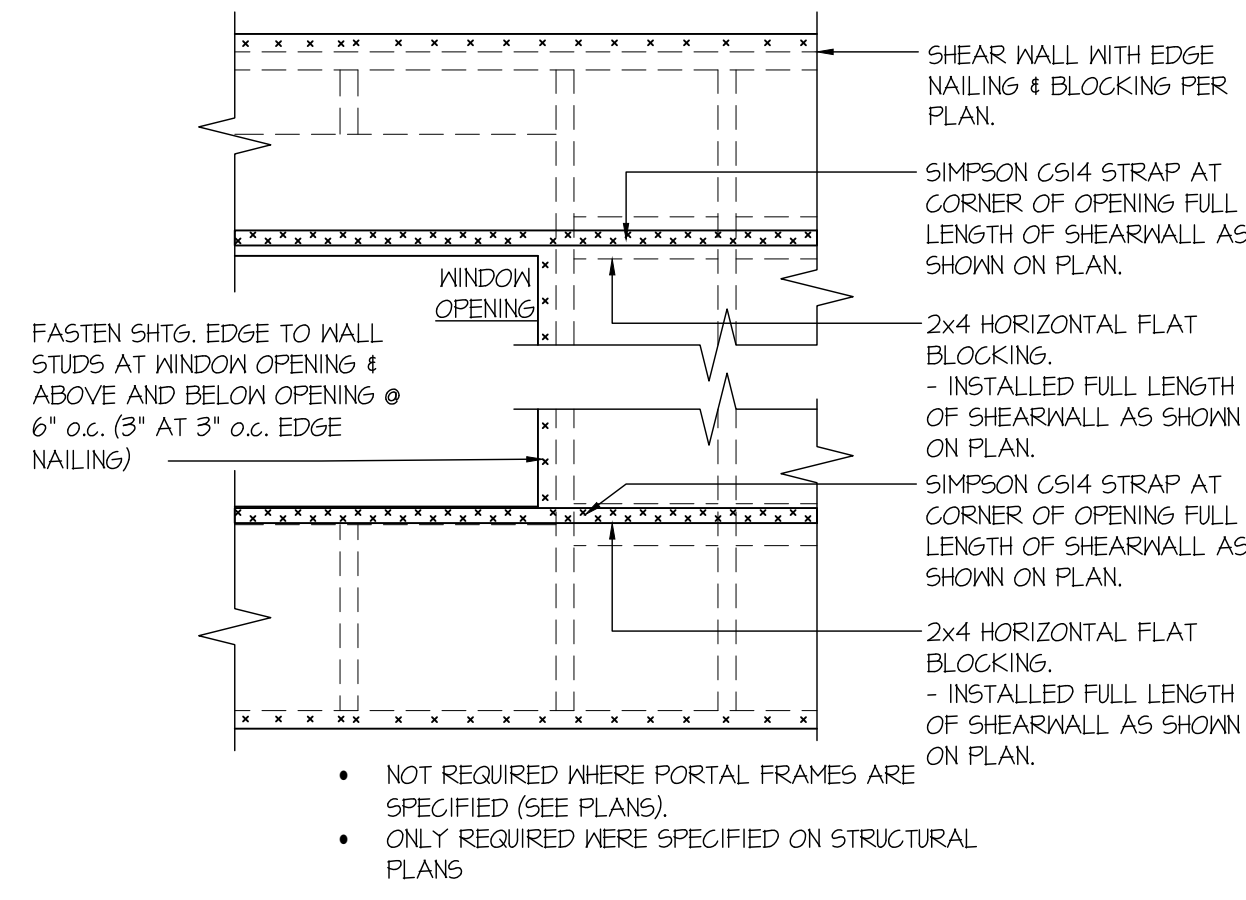
**85** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



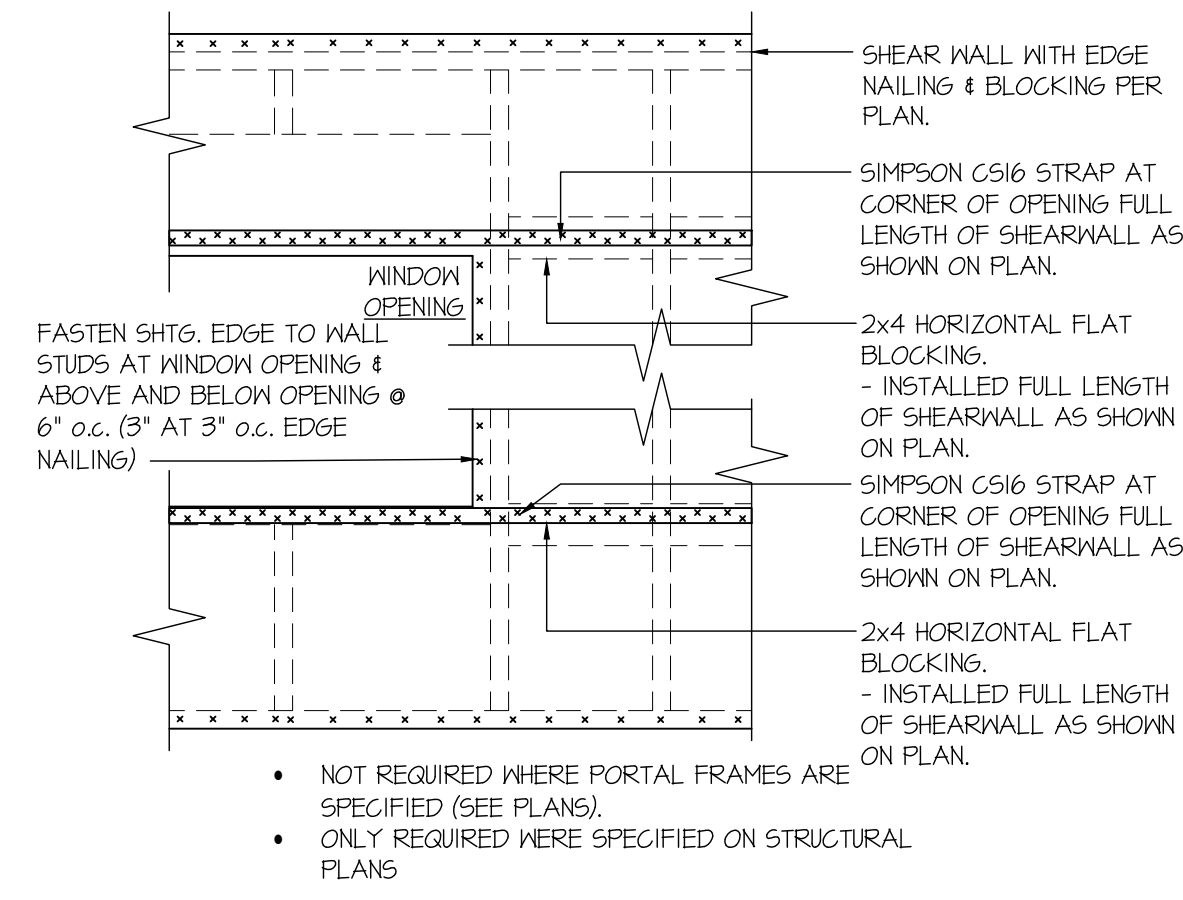
**86** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



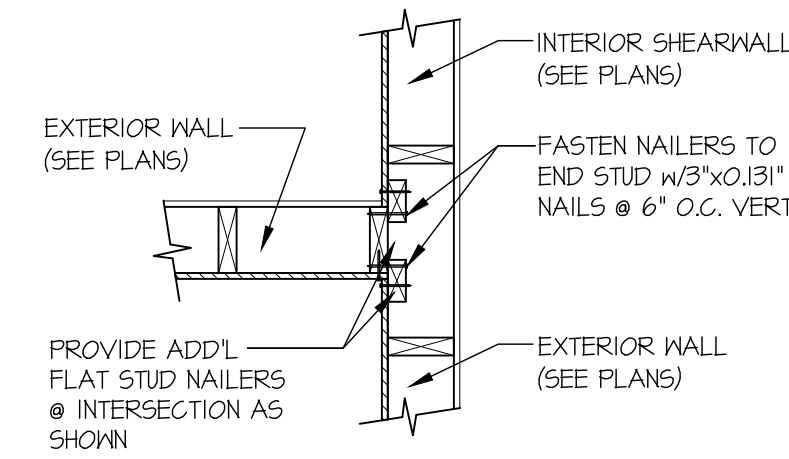
**92** EXT. WALL & INT. SHEARWALL OPENING ELEVATION  
SCALE: NTS



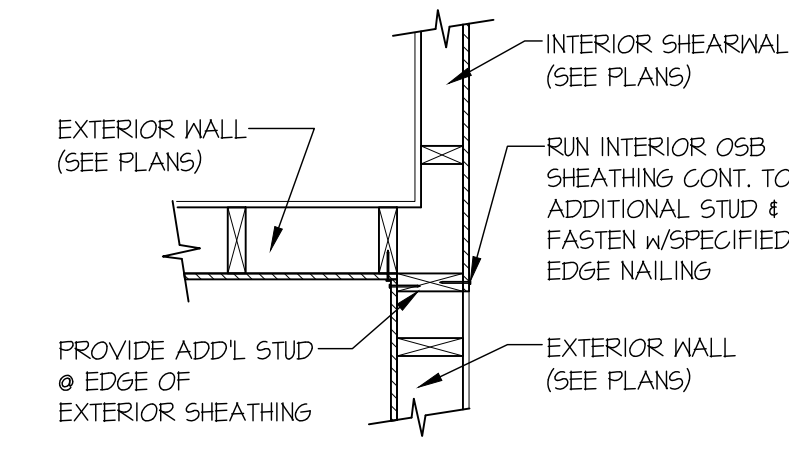
**93** EXT. WALL & INT. SHEARWALL OPENING ELEVATION  
SCALE: NTS



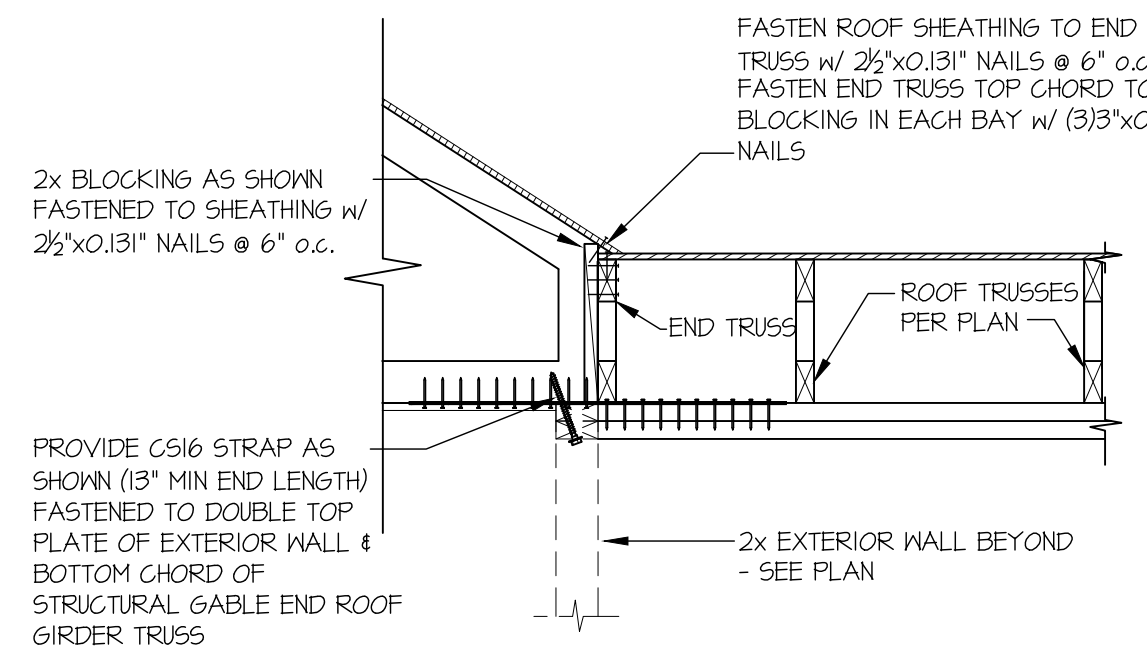
**94** EXT. WALL & INT. SHEARWALL OPENING ELEVATION  
SCALE: NTS



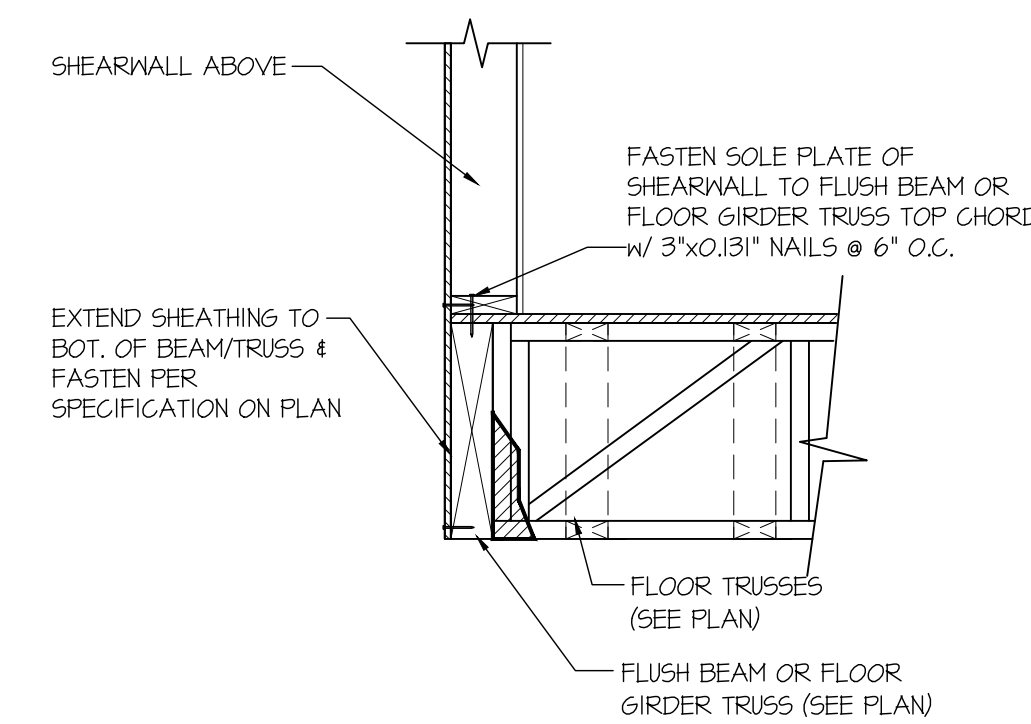
**95** SHEAR TRANSFER DETAIL @ INTERSECTING INT. SHEARWALL  
SCALE: 3/4"=1'-0" SHTS. ON SAME FACE



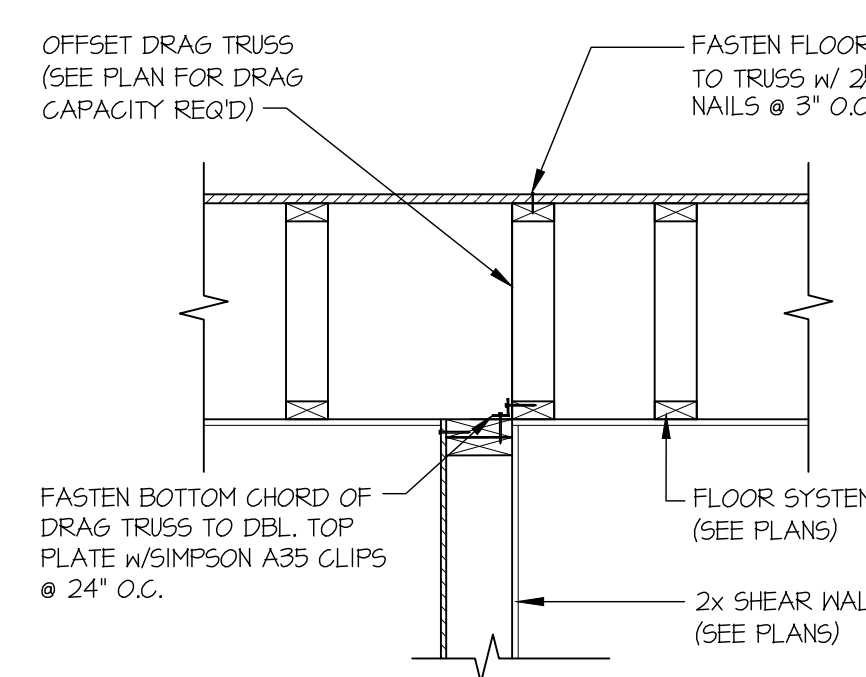
**99** SHEAR TRANSFER DETAIL @ INTERSECTING INT. SHEARWALL  
SCALE: 3/4"=1'-0" SHTS. OPPOSITE FACES



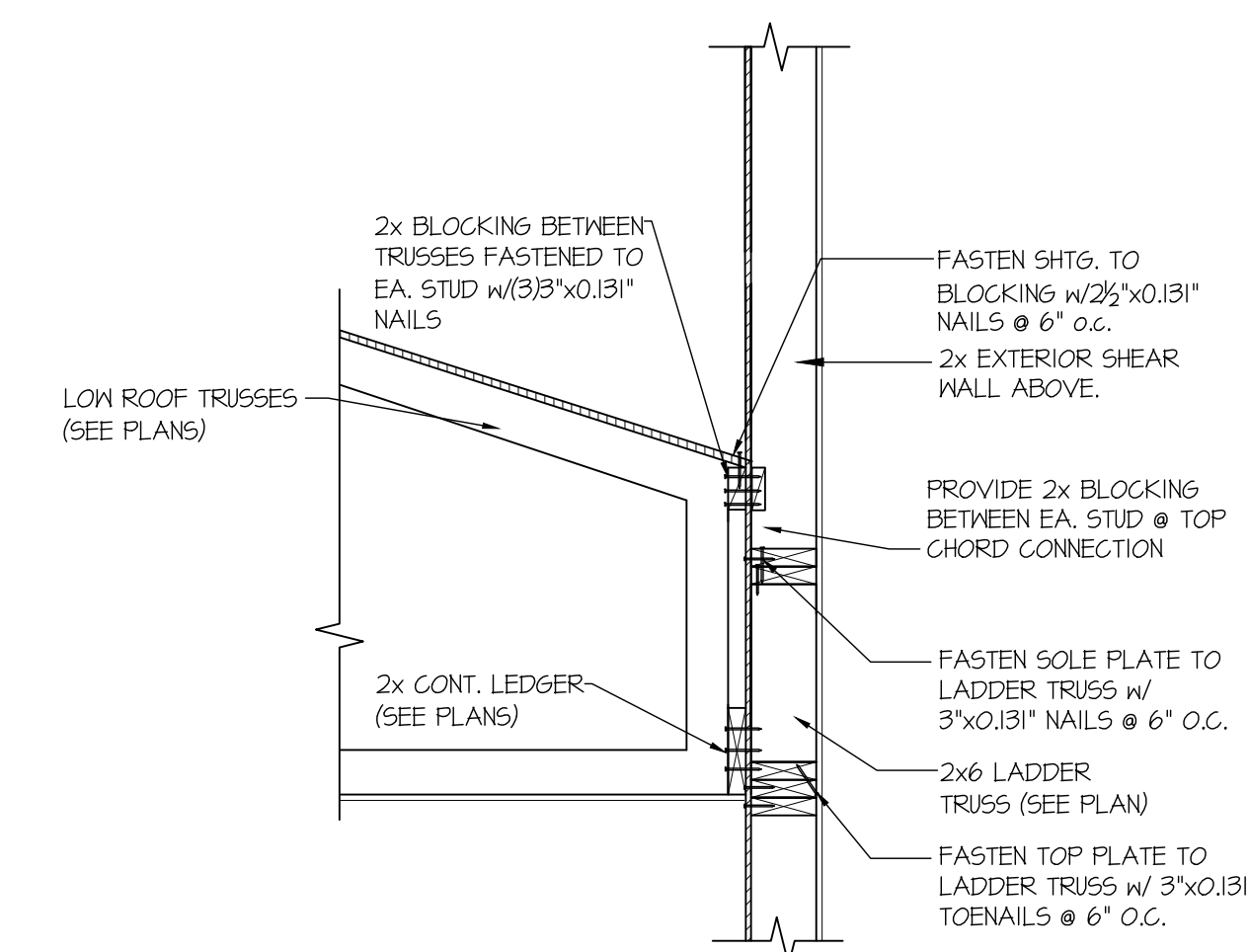
**117** STRAP DETAIL  
SCALE: 3/4"=1'-0"



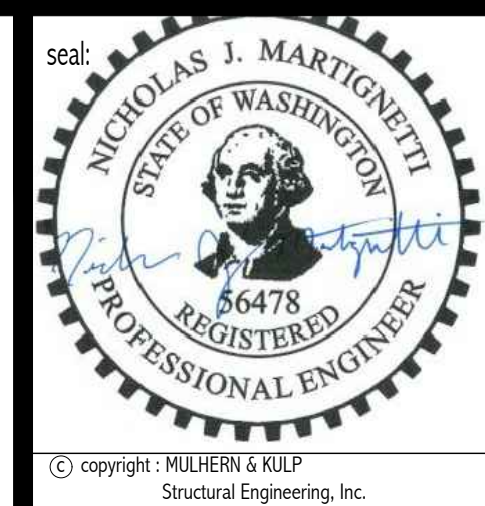
**135** SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE  
SCALE: 3/4"=1'-0"



**136** SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW  
SCALE: 3/4"=1'-0"



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



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M&K project number: 154-21007

project mgr: RJJ  
drawn by: RJD  
issue date: 04-12-21

REVISIONS:

date:	initial:

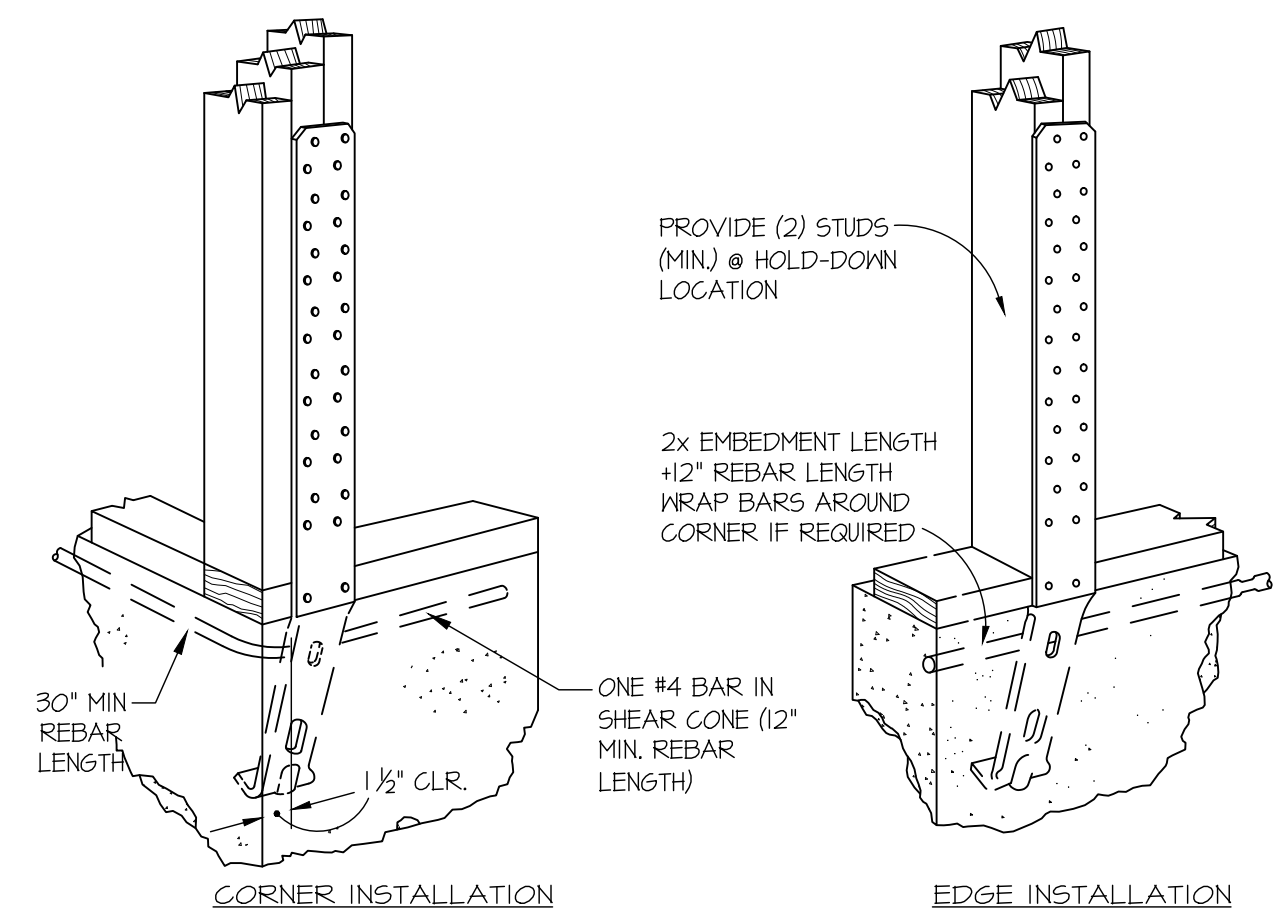
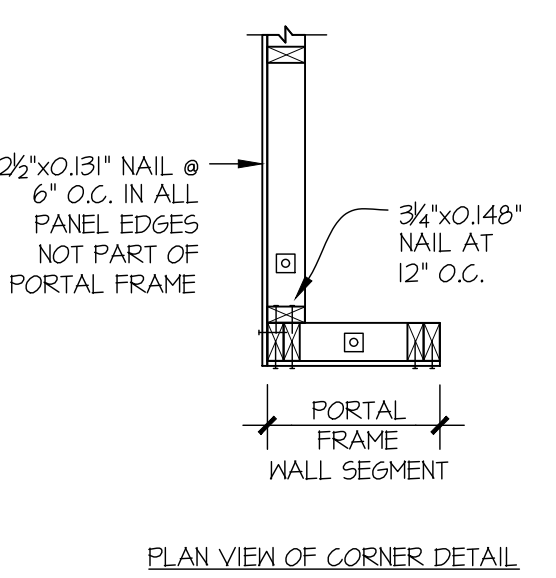
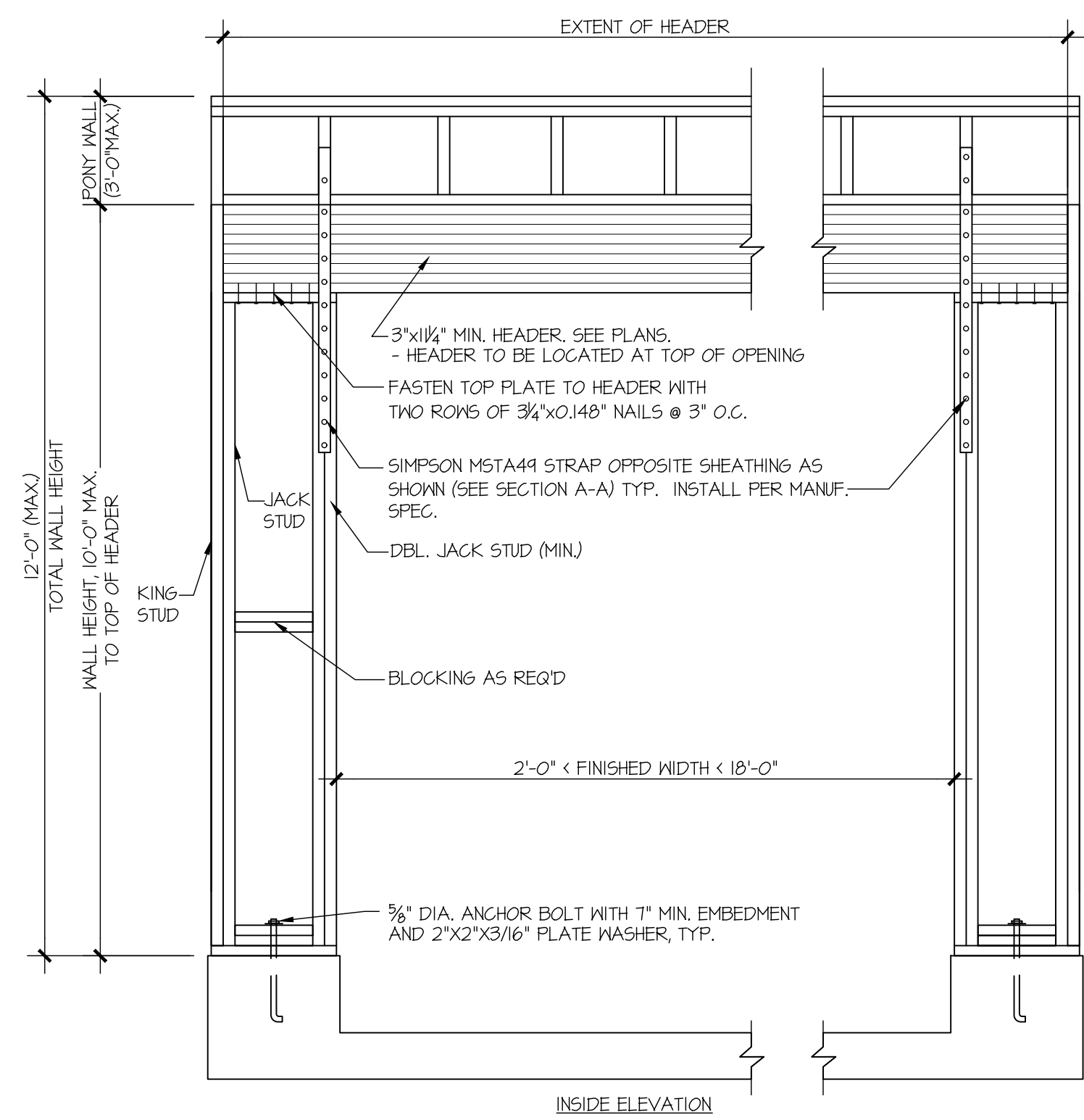
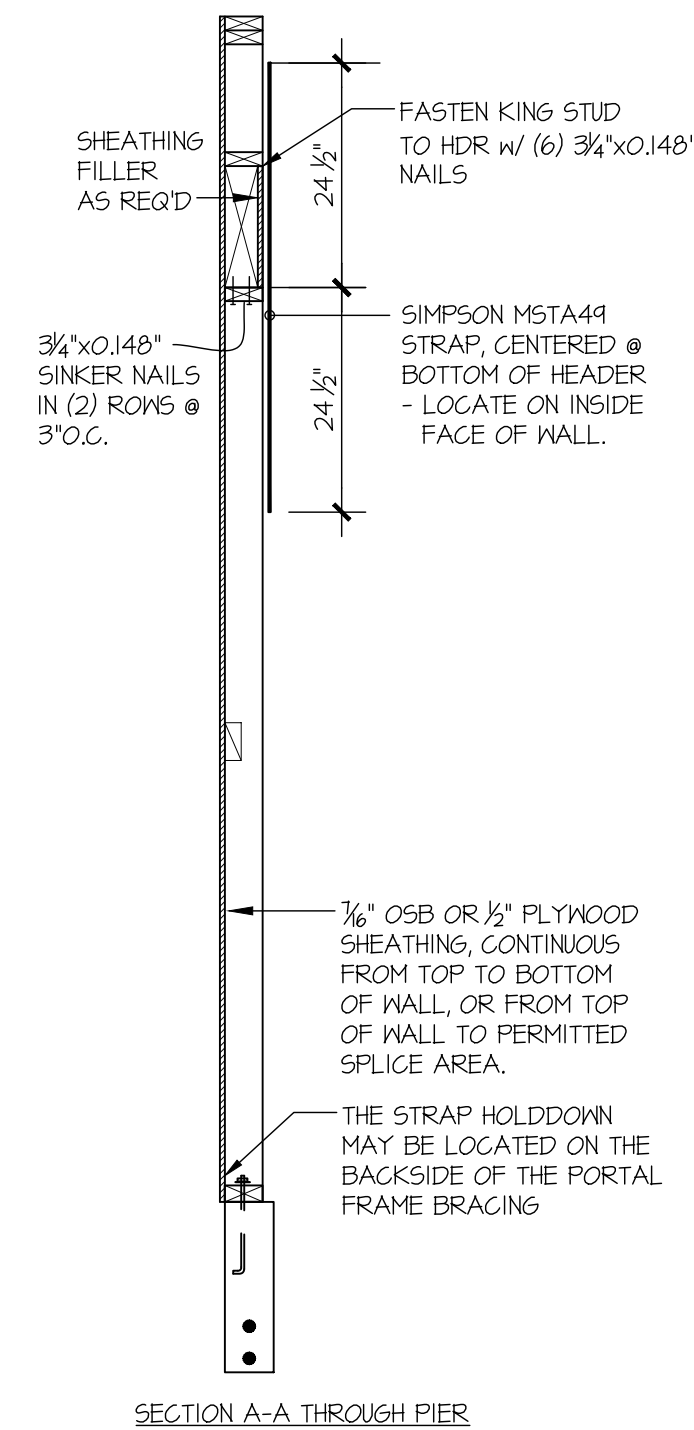
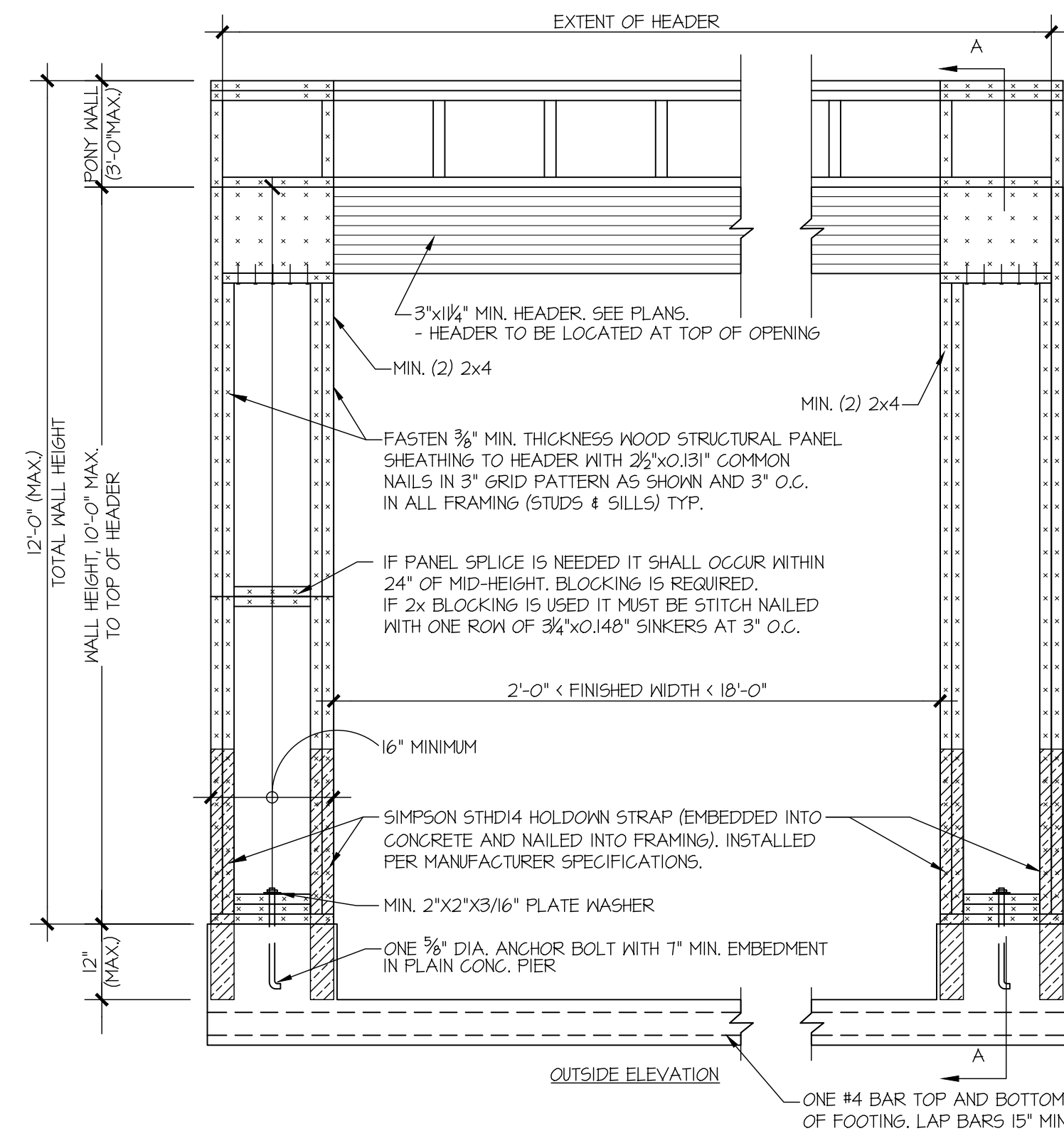


STRUCTURAL DETAILS

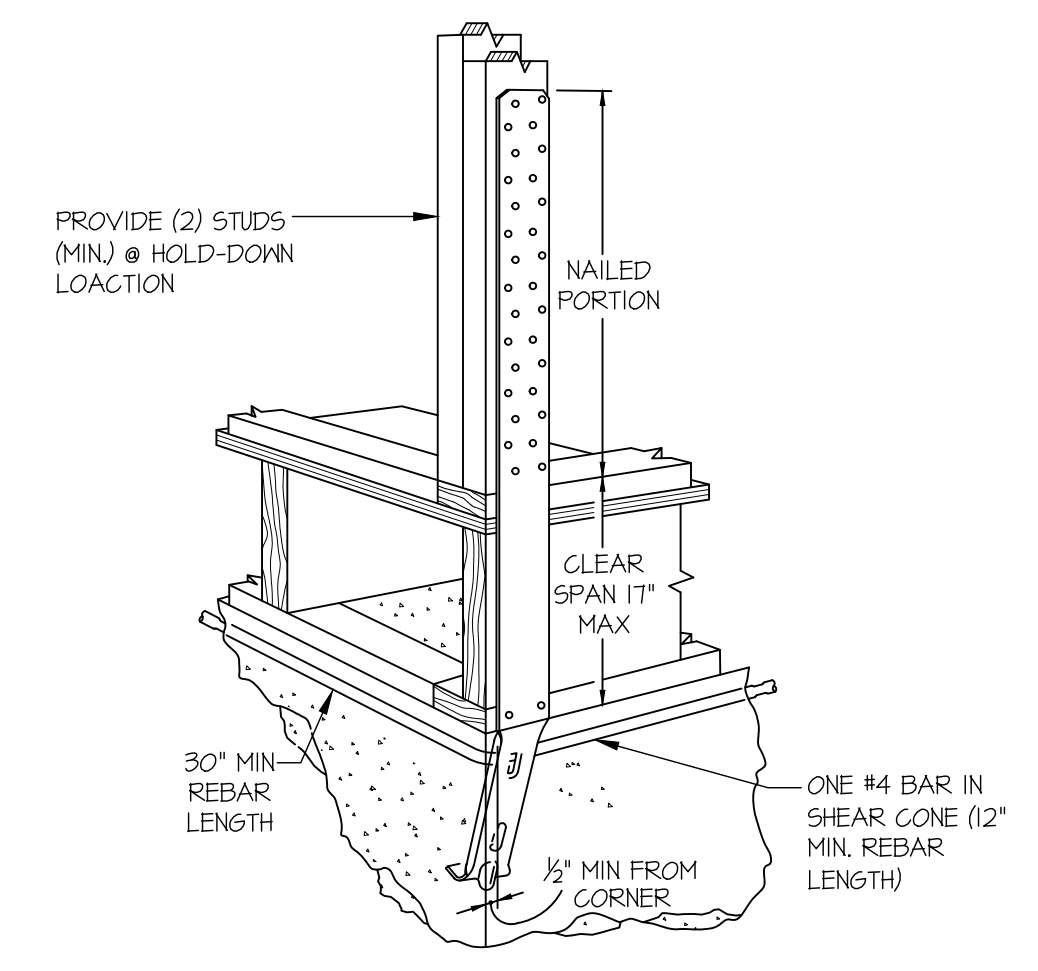
6515 SE 30TH ST  
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sheet: **LB-2**

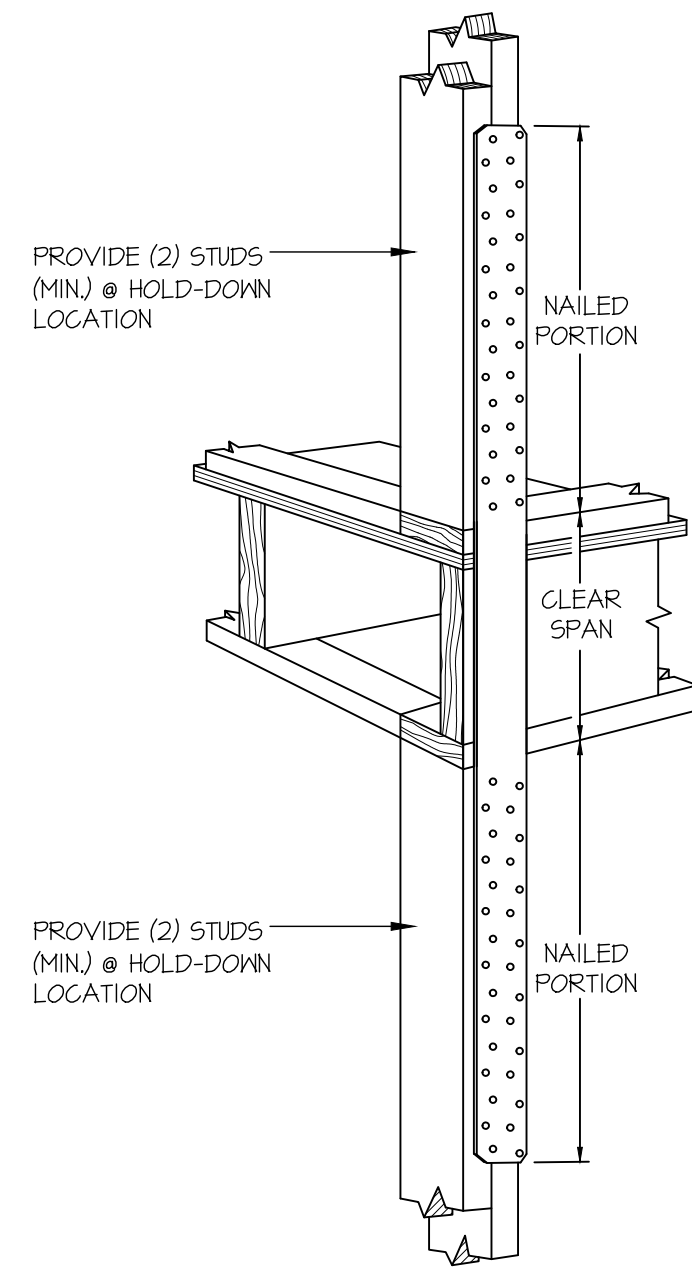




**A** TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON STD14 HD @ FOUNDATION

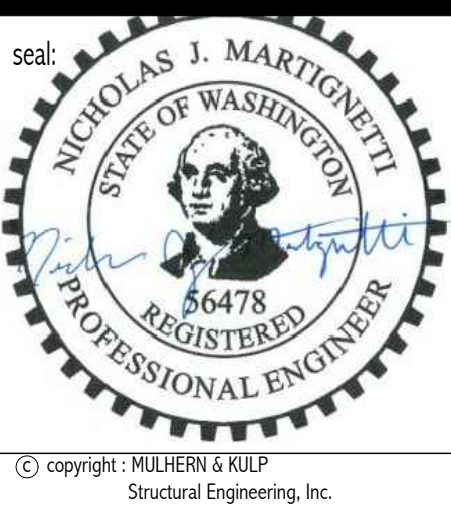


**B** TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON STD14 HD @ FLOOR FRAMING



**C** TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON STRAP HD @ FLOOR FRAMING

**APA PORTAL FRAME DETAIL WITH HOLDDOWNS**  
SCALE: N.T.S.



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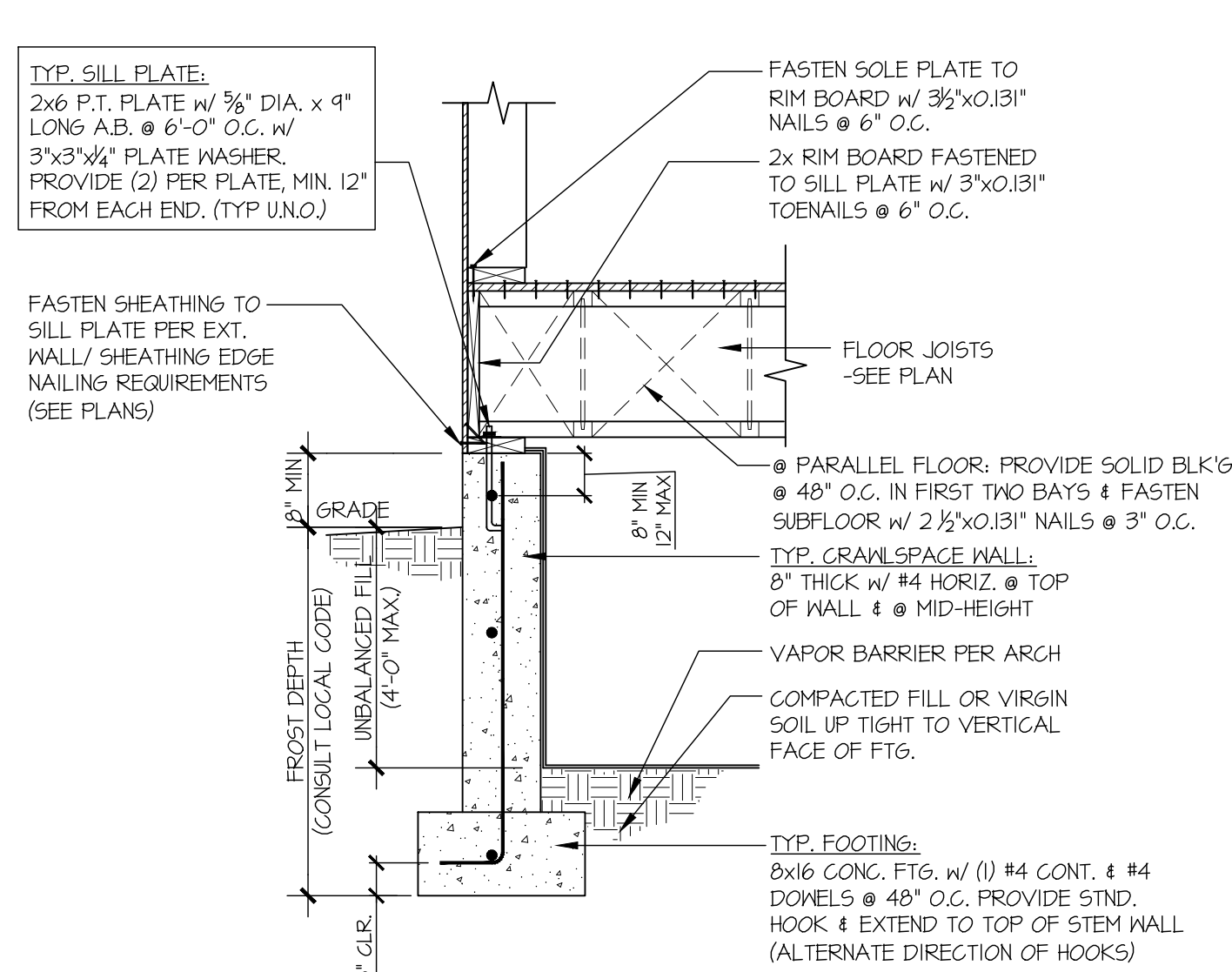
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project mgr: R.JZ  
drawn by: RJD  
issue date: 04-12-21

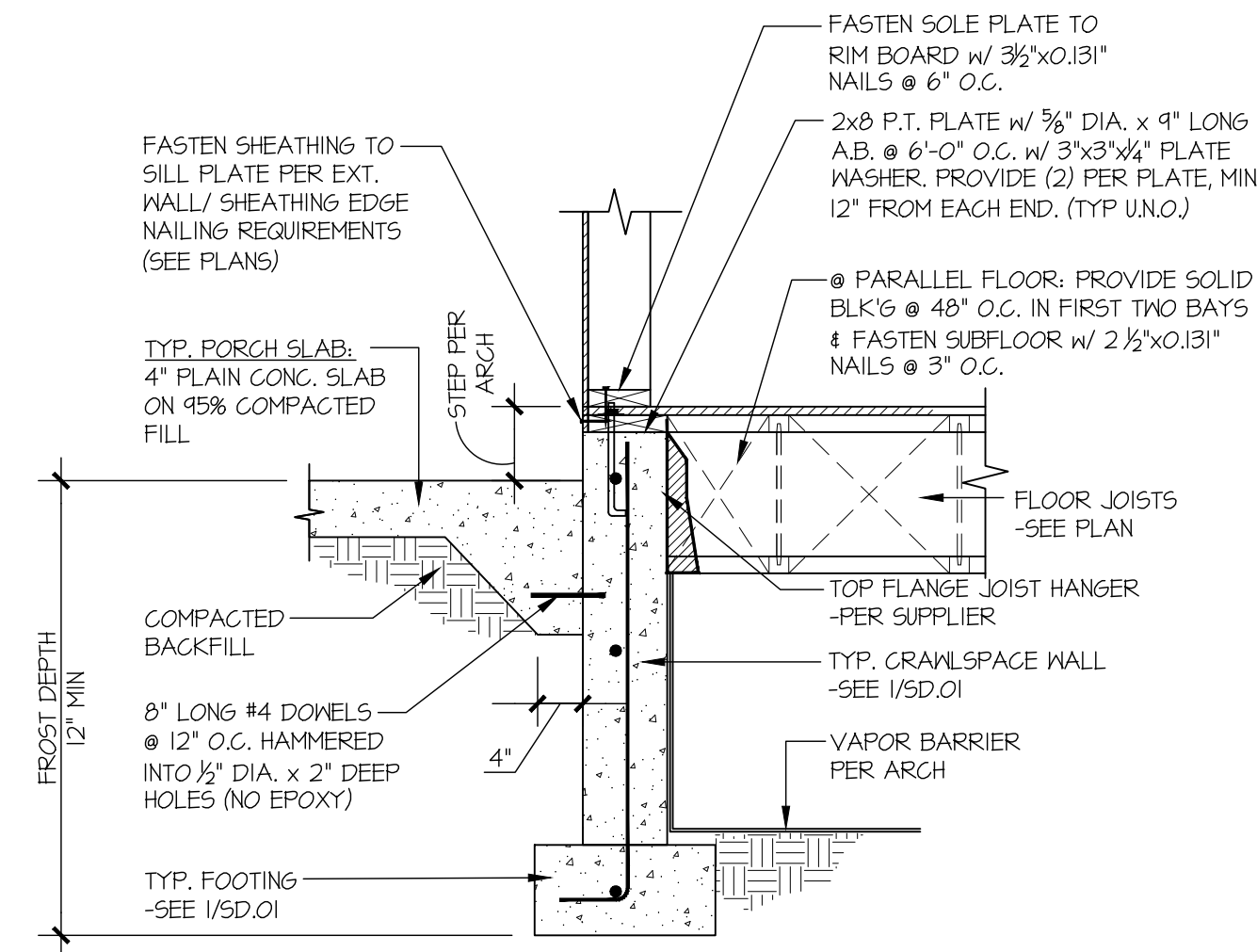
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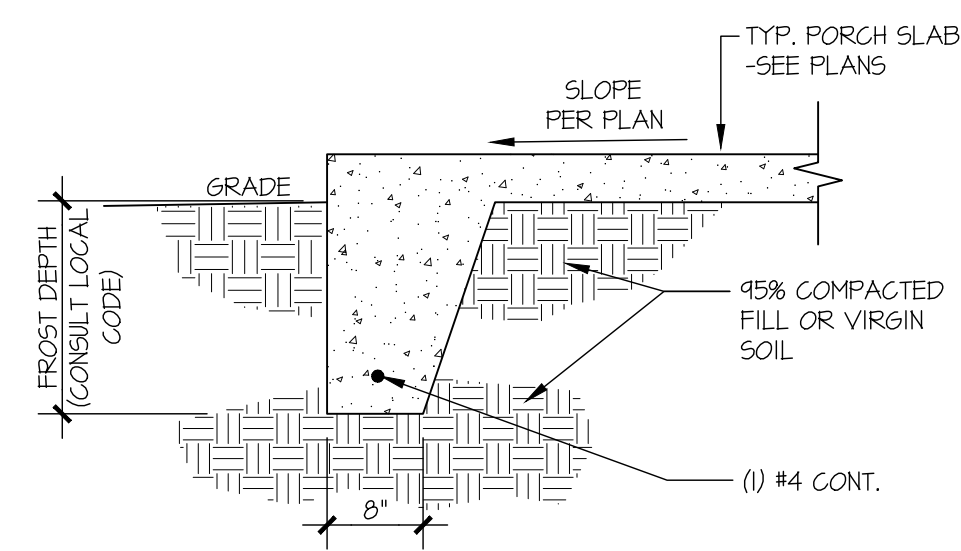
STRUCTURAL DETAILS  
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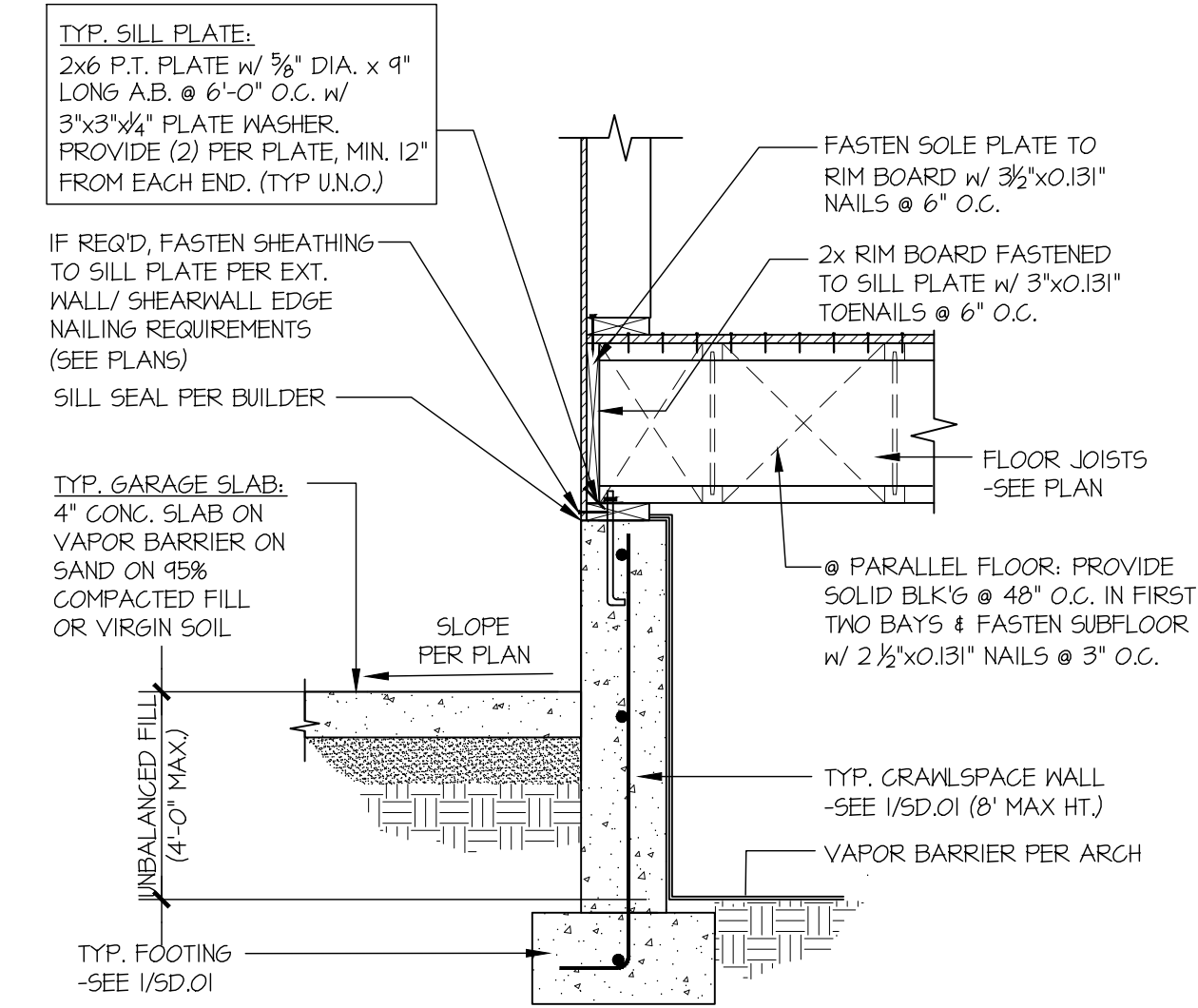
1 TYPICAL CRAWLSPACE FOUNDATION  
SCALE: 3/4"=1'-0"



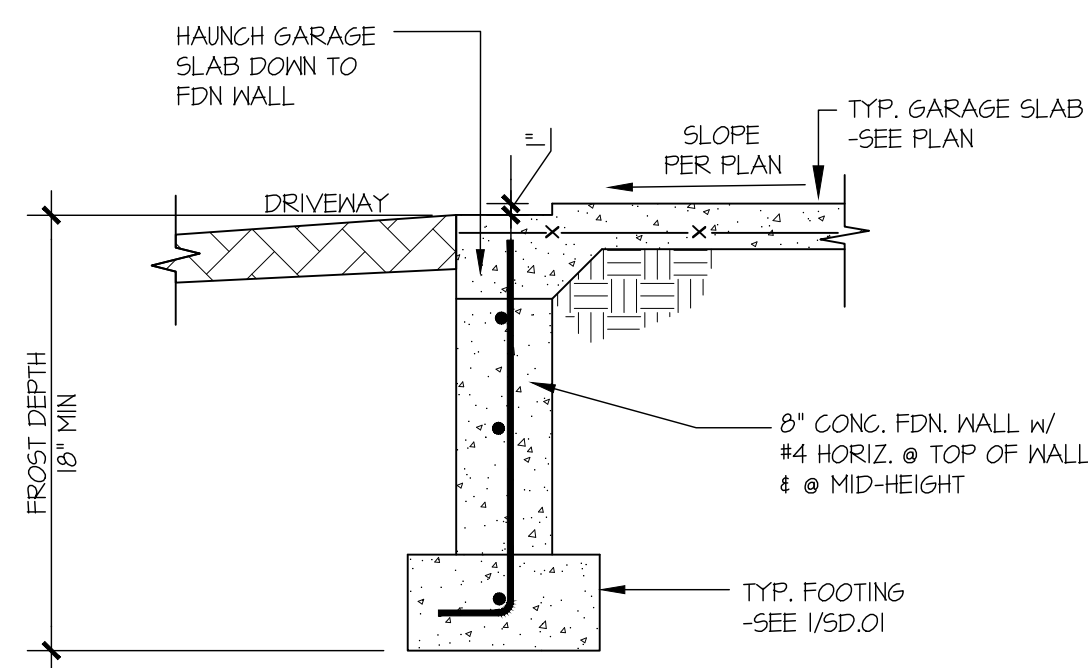
2 TYPICAL CRAWLSPACE FOUNDATION @ PORCH SLAB  
SCALE: 3/4"=1'-0"



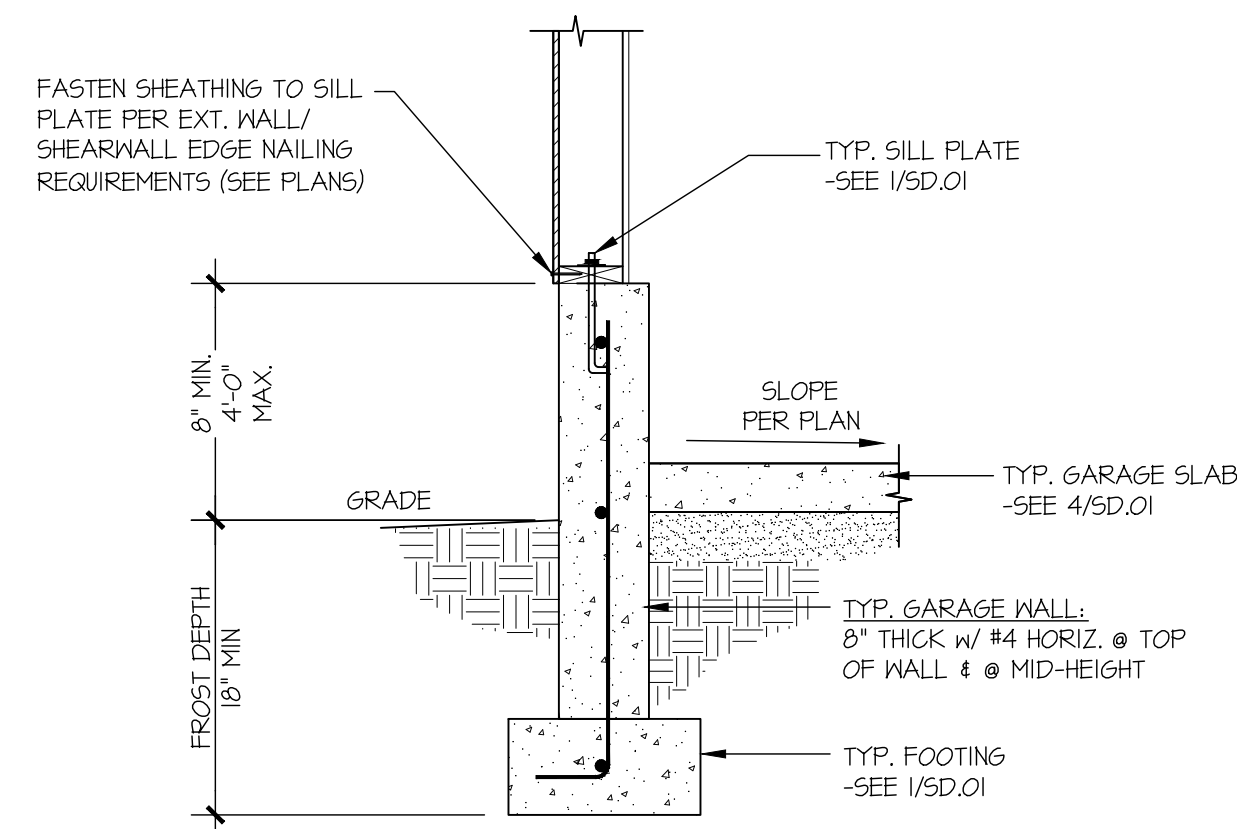
3 TYPICAL FOOTING @ PORCH SLAB  
SCALE: 3/4"=1'-0"



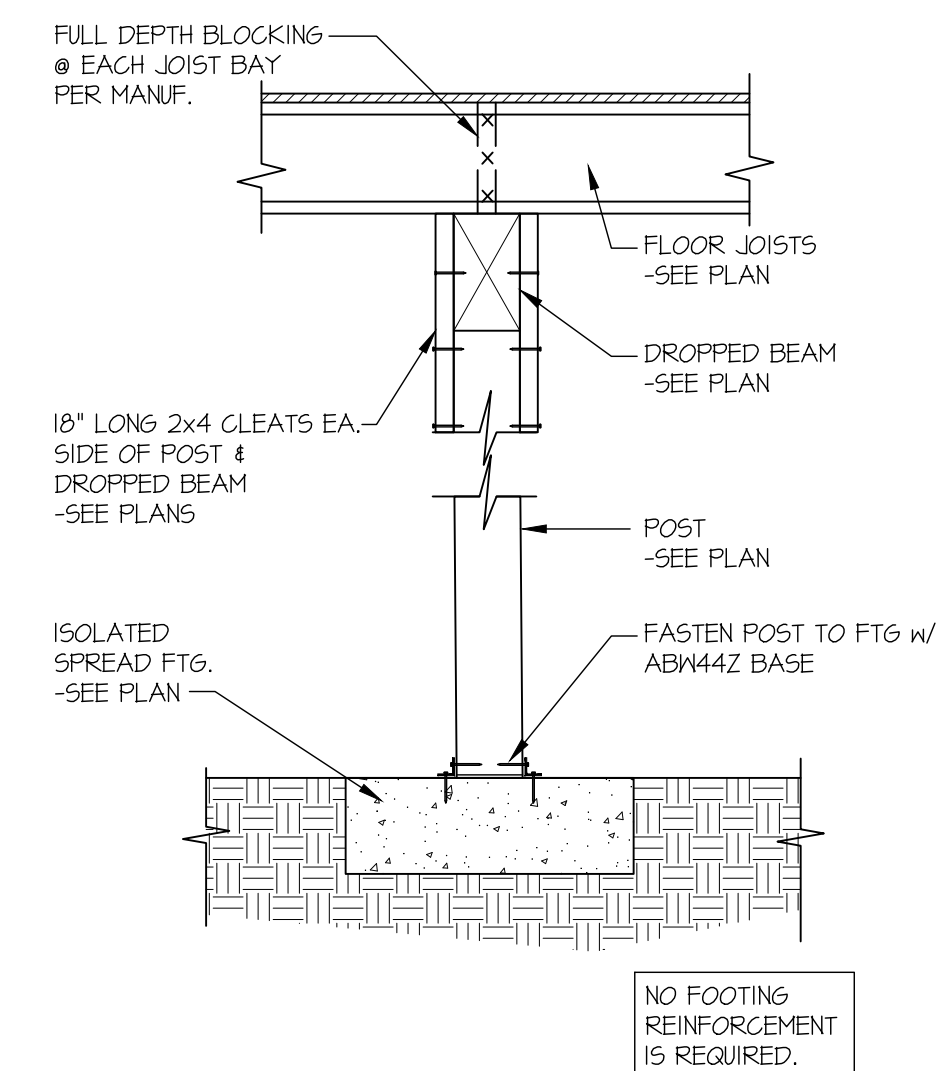
4 TYPICAL CRAWLSPACE FOUNDATION @ GARAGE  
SCALE: 3/4"=1'-0"



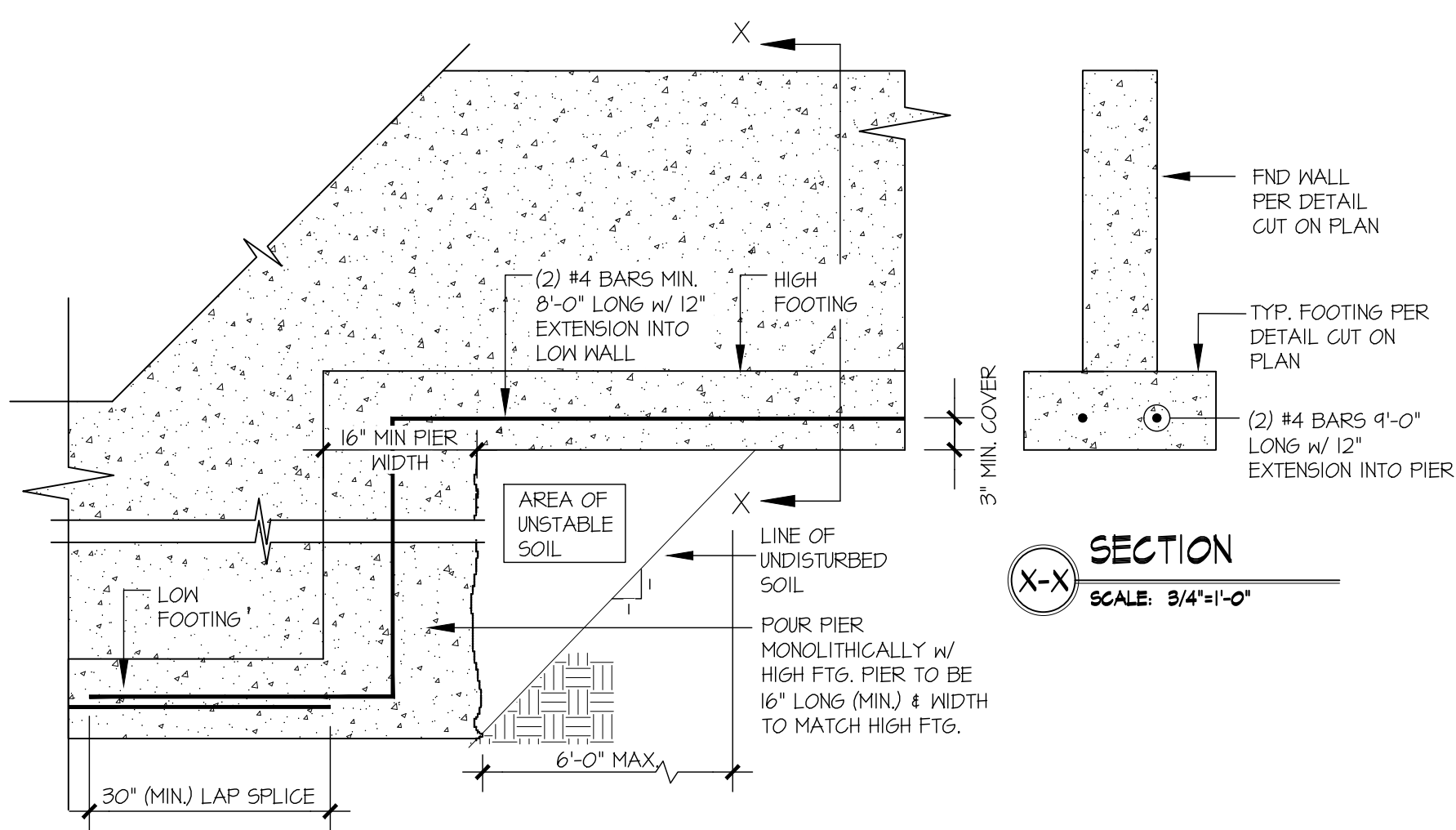
5 TYPICAL CONCRETE FOOTING @ GARAGE DOOR OPENING  
SCALE: 3/4"=1'-0"



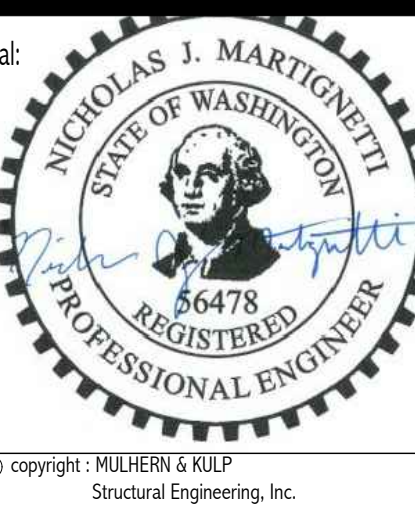
6 TYPICAL EXT. GARAGE FOUNDATION  
SCALE: 3/4"=1'-0"



7 TYPICAL CRAWL SPACE FOOTING DETAIL  
SCALE: 3/4"=1'-0"



A TYPICAL STEPPED FOOTING  
SCALE: 3/4"=1'-0"



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STRUCTURAL DETAILS  
6515 SE 30TH ST  
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sheet:  
**SD.01**

**Vertical wall Installation**

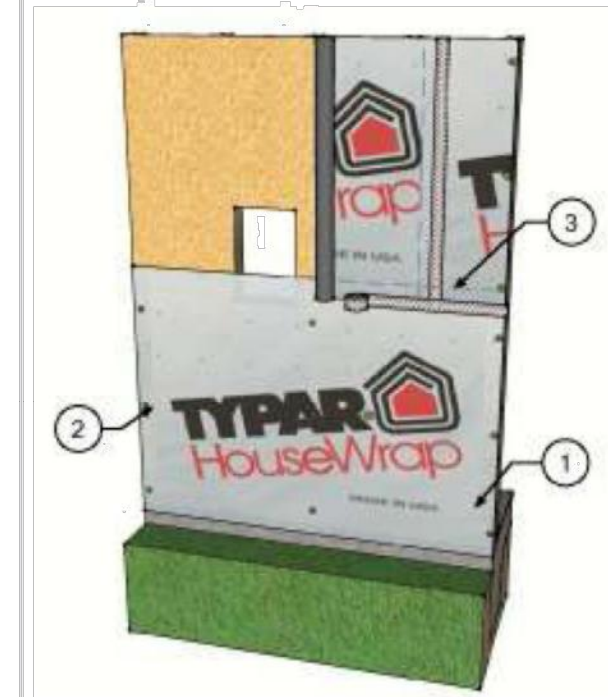
Install Typar® HouseWrap over an approved exterior sheathing after the framing is complete and before the windows and doors have been installed. Plastic capped fasteners should be used and spaced at 32" OC (vertically and horizontally) when being applied over 7/16" OSB or 15/32" plywood. When installing over metal framing use screws with washers. If the windows and doors have already been installed, trim the Typar WRB close to the window frame and flash according to the Typar Flashing instructions.

**STEP 1**

Start at the bottom of one end of the wall with the printed side facing out. When starting at a corner, overlap by a minimum of 12".

Place the housewrap roll horizontally and roll out the first course evenly, covering rough window and door openings. A minimum of a 1" (25.4 mm) overlap on the sill plate is required; however, for maximum protection, a 2-4" (51-102 mm) overlap on the sill plate is recommended.

Pull the Typar snug and avoid wrinkles and creases. Ensure that the product is level.



**STEP 2**

Fasten the Typar to the stud using plastic capped nails or plastic capped staples at 32" O.C. both horizontally and vertically.



**STEP 3**

The upper layer of Typar housewrap should overlap the bottom layer by a minimum of 6" (152 mm) vertically and horizontally. Ensure proper shingling throughout the installation to properly shed water. Once the structure is completely covered, tape all seams and penetrations using Typar® construction tape. (Please refer to the Typar® flashing instructions for more detailed instruction on penetrations and window flashing installation).

**STEP 4**

After the installation complete and before the exterior cladding is installed, inspect the Typar® for tears. Repair the issues with Typar Construction tape or Typar Flashing.

**Window and Door Preparation**

**Preparing for Window Installation**

**STEP 1**

After wrapping the structure and covering all rough openings. Cut a horizontal line across the top of the window opening. The cut should not extend past the rough opening.

**STEP 2**

Start at the top center and make a vertical cut running two-thirds of the way down the opening.

**STEP 3**

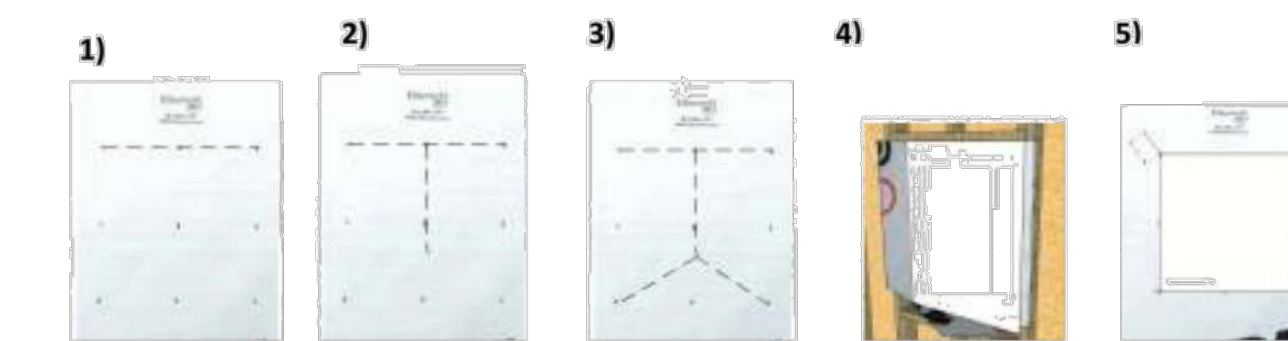
From that stopping point, cut diagonally to both lower left and right corners of the opening.

**STEP 4**

Pull each of the flaps tightly inside the rough opening and attach them to the frame with nails, staples, or tape.

**STEP 5**

At the window header, make a 6" diagonal cut at a 45 degree angle on both corners. Fold the material up exposing the sheathing. Now install the window or door according to the manufacturer instructions. The final step is to flash all seams and flanges securely (refer to Typar® Flashing instructions). Typar® flashing should also be installed in accordance with window manufacturer instructions and according to the ASTM 2112 standard.



**Typical Window Flashing**

**STEP 1**

Install the window sill pan according to the manufacturer's instructions. Alternatively, you can create a sill pan using Typar Flashing Flex. Cut a piece that is 12" longer than the length of the rough opening window sill.

Carefully pull off the release liner. Center the Flashing in the center of the rough opening and work your way toward the corners and then up the sides. Note: the flex flashing should overlap to the outside of the wall by 2-3". Only stretch the flashing in the corners.

Alternatively to above, you can create a sill pan by installing TYPAR Straight Flashing along the bottom sill and installing TYPAR Flashing Flex on the corners only.

If needed, secure the fanned edges of the TYPAR Flashing Flex with a plastic capped nail/ plastic capped staple.

**STEP 2**

Apply a continuous bead of sealant to the back of the window or on the wall. Do not apply the sealant across the bottom of the sill or on the bottom of the window. This area is left open to allow for proper drainage.

Install the window according to the manufacturer's installation instructions.

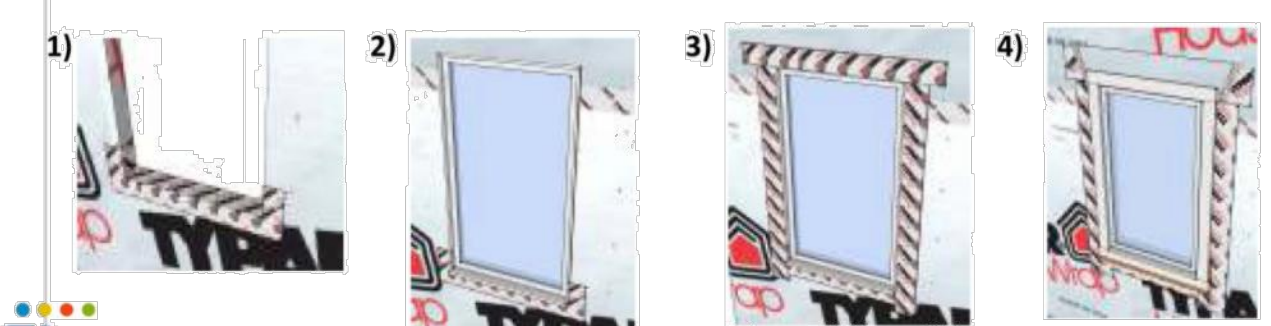
**STEP 3**

Cut two pieces of Typar Flashing long enough to extend 1" above the window head flange and 1" below the window sill flange. Carefully peel off the release liner and apply the flashing on both sides of the window. Make sure to cover the entire window flange, press firmly either by hand or using a J-roller. Ensure there are no wrinkles or bubbles.

Cut a piece of Typar Flashing for the head flashing. Ensure that the piece is long enough to extend by 1" on both sides of the jamb flashing. Remove the release liner and carefully install the flashing. Cover the window flange and press firmly by hand or using a J-roller.

**STEP 4**

Release the upper flap of the WRB that you cut earlier. Tape the 45 degree cuts using Typar Construction Tape or Typar Flashing. DO NOT tape the WRB along the top of the window flange.



**Flashing Penetrations**

Penetrations such as exhaust fans, exterior electrical outlets, dryer vents, exterior lights, and gas outlets are a common entrance for bulk water into the wall cavity. Using Typar flashing will ensure proper water hold out and maintain the integrity of the structure.

The method is similar to the flashing a window. Start by flashing the bottom of the penetration. Ensure to shingle the upper tape over the bottom tape.

Some penetrations have flanges, such as dryer vents. These penetrations should be flashed according to the details below.

**STEP 1**

Install the vent according to the manufacturer's recommendations. Trim the housewrap as close as possible around the perimeter of the vent.

**STEP 2**

Flash the vent using the same method as windows. Starting at the bottom flange; cut the flashing so that it extends past the flanges by 1" on both sides. Now apply the flashing to the sides of the vent. Remember to extend the flashing 1" on both top and bottom. Make sure to smooth out wrinkles and air bubbles. The use of a J-roller is optional.

**STEP 3**

The Final step is to install the flashing across the top. Extend the flashing out at least 1" on both sides.

**Note:** This type of installation is suitable for several different penetrations. Always use the shingling method and ensure a tight seal around the flange/penetration.

Typar® HouseWrap is part of a complete Weather Protection System, which also includes Typar® Metro Wrap, Typar® Flashings and Construction tape

For more information, visit [www.Typar.com](http://www.Typar.com)



Issue Description	Issue Date	By

Job Number: \_\_\_\_\_

plan name: --  
marketing name: --  
plan number: --  
mark sys. number: --

Conditions not specifically represented graphically or in writing or which conflict with the current International Residential Code (IRC) or those of the local municipality then the current standards and requirements of each respectively shall govern.

The drawings in this set are instruments of service and shall remain the property of JayMarc Homes, LLC.

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Submission Date \_\_\_\_\_

Sheet Title/Description \_\_\_\_\_

Design Firm \_\_\_\_\_

Drawn by: \_\_\_\_\_

Checked by: \_\_\_\_\_

Primary Scale \_\_\_\_\_

D1 of .

Sheet Title/Description





# 2018 WSEC COMPLIANCE NOTES - SHEET 3

## 2018 WASH. STATE ENERGY CODE (WSEC)



7525 SE 24th St., 487  
Mercer Island, WA  
98040  
425.266.9100

(CONTINUED FROM PREVIOUS SHEET)

R403.6 MECHANICAL VENTILATION (MANDATORY). BUILDING SHALL BE PROVIDED WITH VENTILATION THAT MEETS THE REQUIREMENTS OF THE INTERNATIONAL RESIDENTIAL CODE OR INTERNATIONAL MECHANICAL CODE, AS APPLICABLE, OR WITH OTHER APPROVED MEANS OF VENTILATION. OUTDOOR AIR INTAKES AND EXHAUSTS SHALL HAVE AUTOMATIC OR GRAVITY DAMPERS THAT CLOSE WHEN THE VENTILATION SYSTEM IS NOT OPERATING.  
R403.6.1 WHOLE-HOUSE MECHANICAL VENTILATION SYSTEM FAN EFFICACY. MECHANICAL VENTILATION SYSTEM FANS SHALL MEET THE EFFICACY REQUIREMENTS OF TABLE R403.6.1. EXCEPTION: WHERE MECHANICAL VENTILATION FANS ARE INTEGRAL TO TESTED AND LISTED HVAC EQUIPMENT, THEY SHALL BE POWERED BY AN ELECTRICALLY COMMUTATED MOTOR.

FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)
RANGE HOODS	ANY	2.8 CFM/WATT	ANY
IN-LINE FAN	ANY	2.8 CFM/WATT	ANY
BATHROOM, UTILITY ROOM	10	1.4 CFM/WATT	< 90
BATHROOM, UTILITY ROOM	90	2.8 CFM/WATT	ANY

R403.1 EQUIPMENT SIZES AND EFFICIENCY RATINGS (MANDATORY). HEATING AND COOLING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS CALCULATED IN ACCORDANCE WITH ACCA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES. THE OUTPUT CAPACITY OF HEATING AND COOLING EQUIPMENT SHALL NOT BE GREATER THAN THAT OF THE SMALLEST AVAILABLE EQUIPMENT SIZE THAT EXCEEDS THE LOADS CALCULATED, INCLUDING ALLOWABLE OVERTSIZING LIMITS. NEW OR REPLACEMENT HEATING AND COOLING EQUIPMENT SHALL HAVE AN EFFICIENCY RATING EQUAL TO OR GREATER THAN THE MINIMUM REQUIRED BY FEDERAL LAW FOR THE GEOGRAPHIC LOCATION WHERE THE EQUIPMENT IS INSTALLED.

R403.1.1 ELECTRIC RESISTANCE ZONE HEATED UNITS. ALL DETACHED ONE- AND TWO-FAMILY DWELLINGS AND MULTIPLE SINGLE-FAMILY DWELLINGS (TOWNHOUSES) UP TO THREE STORIES IN HEIGHT ABOVE GRADE PLAN USING ELECTRIC ZONAL HEATING AS THE PRIMARY HEAT SOURCE SHALL INSTALL AN INVERTER-DRIVEN DUCTLESS MINI-SPLIT HEAT PUMP IN THE LARGEST ZONE IN THE DWELLING. BUILDING PERMIT DRAWINGS SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND LOCATION OF THE HEATING SYSTEM.  
EXCEPTION: TOTAL INSTALLED HEATING CAPACITY OF 2K4 PER DWELLING OR LESS.

R403.8 SYSTEMS SERVING MULTIPLE DWELLINGS UNITS (MANDATORY). SYSTEMS SERVING MULTIPLE DWELLINGS UNITS SHALL COMPLY WITH SECTIONS C403 AND C404 OF THE WSEC—COMMERCIAL PROVISIONS IN LIEU OF SECTION R403.

R403.9 SNOW MELT SYSTEM CONTROLS (MANDATORY). SNOW AND ICE-MELTING SYSTEMS, SUPPLIED THROUGH ENERGY SERVICE TO THE BUILDING, SHALL INCLUDE AUTOMATIC CONTROLS CAPABLE OF SHUTTING OFF THE SYSTEM WHEN THE PAVEMENT TEMPERATURE IS ABOVE 50°F, AND NO PRECIPITATION IS FALLING AND AN AUTOMATIC OR MANUAL CONTROL THAT WILL ALLOW SHUTOFF WHEN THE OUTDOOR TEMPERATURE IS ABOVE 40°F.

R403.10 POOL AND PERMANENT SPA ENERGY CONSUMPTION (MANDATORY). POOLS AND PERMANENT SPAS SHALL COMPLY WITH SECTIONS R403.10.1 THROUGH R403.10.4.2.  
R403.10.1 HEATERS. THE ELECTRIC POWER TO HEATERS SHALL BE CONTROLLED BY A READILY ACCESSIBLE ON-OFF SWITCH THAT IS AN INTEGRAL PART OF THE HEATER MOUNTED ON THE EXTERIOR OF THE HEATER, OR EXTERNAL TO AND WITHIN 3 FEET (914 MM) OF THE HEATER. OPERATION OF SUCH SWITCH SHALL NOT CHANGE THE SETTINGS OF THE HEATER THERMOSTAT. SUCH SWITCHES SHALL BE IN ADDITION TO A CIRCUIT BREAKER FOR THE POWER TO THE HEATER. GAS-FIRED HEATERS SHALL NOT BE EQUIPPED WITH CONSTANT BURNING PILOT LIGHTS.  
R403.10.2 TIME SWITCHES. TIME SWITCHES OR OTHER CONTROL METHOD THAT CAN AUTOMATICALLY TURN OFF AND ON ACCORDING TO A PRESET SCHEDULE SHALL BE INSTALLED FOR HEATERS AND PUMP MOTORS. HEATERS AND PUMP MOTORS THAT HAVE BUILT IN TIME SWITCHES SHALL BE DEEMED IN COMPLIANCE WITH THIS REQUIREMENT.  
EXCEPTIONS:  
1. WHERE PUBLIC HEALTH STANDARDS REQUIRE 24-HOUR PUMP OPERATION.  
2. PUMPS THAT OPERATE SOLAR- AND WASTE-HEAT-RECOVERY POOL HEATING SYSTEMS.

R403.10.3 COVERS. OUTDOOR HEATED POOLS AND OUTDOOR PERMANENT SPAS SHALL BE PROVIDED WITH A VAPOR-RETARDANT COVER, OR OTHER APPROVED VAPOR RETARDANT MEANS.  
EXCEPTION: WHERE MORE THAN 10 PERCENT OF THE ENERGY FOR HEATING, COMPUTED OVER AN OPERATING SEASON, IS FROM SITE-RECOVERED ENERGY, SUCH AS FROM A HEAT PUMP OR SOLAR ENERGY SOURCE, COVERS OR OTHER VAPOR-RETARDANT MEANS SHALL NOT BE REQUIRED.  
R403.10.4 RESIDENTIAL POOL PUMPS. POOL PUMP MOTORS MAY NOT BE SPLIT-PHASE OR CAPACITOR START-INDUCTION RUN TYPE.  
R403.10.4.1 TWO-SPEED CAPABILITY. 1. PUMP MOTORS: POOL PUMP MOTORS WITH A CAPACITY OF 1 HP OR MORE SHALL HAVE THE CAPABILITY OF OPERATING AT TWO OR MORE SPEEDS WITH LOW SPEED HAVING A ROTATION RATE THAT IS NO MORE THAN ONE-HALF OF THE MOTOR'S MAXIMUM ROTATION RATE.  
2. PUMP CONTROLS: POOL PUMP MOTOR CONTROLS SHALL HAVE THE CAPABILITY OF OPERATING THE POOL PUMP WITH AT LEAST TWO SPEEDS. THE DEFAULT CIRCULATION SPEED SHALL BE THE LOWEST SPEED, WITH A HIGH SPEED OVERRIDE CAPABILITY BEING FOR A TEMPORARY PERIOD NOT TO EXCEED ONE NORMAL CYCLE.  
R403.10.4.2 PUMP OPERATION. CIRCULATING WATER SYSTEMS SHALL BE CONTROLLED SO THAT THE CIRCULATION PUMPS CAN BE CONVENIENTLY TURNED OFF, AUTOMATICALLY OR MANUALLY, WHEN THE WATER SYSTEM IS NOT IN OPERATION.

R403.11 PORTABLE SPAS (MANDATORY). THE ENERGY CONSUMPTION OF ELECTRIC-POWERED PORTABLE SPAS SHALL BE CONTROLLED BY THE REQUIREMENTS OF A5P5-14.  
R403.12 RESIDENTIAL POOLS AND PERMANENT RESIDENTIAL SPAS. RESIDENTIAL SWIMMING POOLS AND PERMANENT RESIDENTIAL SPAS THAT ARE ACCESSORY TO DETACHED ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES THREE STORIES OR LESS IN HEIGHT ABOVE GRADE PLANE AND THAT ARE AVAILABLE ONLY TO THE HOUSEHOLD AND ITS GUESTS SHALL BE IN ACCORDANCE WITH A5P5-15.

FENESTRATION U-FACTOR	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	WOOD FRAMED WALL R-VALUE	FLOOR R-VALUE	BELOW GRADE WALL R-VALUE	SLAB R-VALUE & DEPTH
0.30	0.50	NR	R-44 R-38 VAULTED	R-21	R-30	10/15 R-21 + TB	R-10 2 FEET

### SECTION R404 ELECTRICAL POWER AND LIGHTING SYSTEMS

R404.1 LIGHTING EQUIPMENT (MANDATORY). A MINIMUM OF 75 PERCENT OF LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS.  
HIGH-EFFICACY LAMPS: COMPACT FLUORESCENT LAMPS, T-8 OR SMALLER DIAMETER LINEAR FLUORESCENT LAMPS, OR LAMPS WITH A MINIMUM EFFICACY OF:  
1. 60 LUMENS PER WATT FOR LAMPS OVER 40 WATTS;  
2. 50 LUMENS PER WATT FOR LAMPS OVER 15 WATTS AND 40 WATTS; AND  
3. 40 LUMENS PER WATT FOR LAMPS 15 WATTS OR LESS.  
R404.1.1 LIGHTING EQUIPMENT (MANDATORY). FUEL GAS LIGHTING SYSTEMS SHALL NOT HAVE CONTINUOUSLY BURNING PILOT LIGHTS.

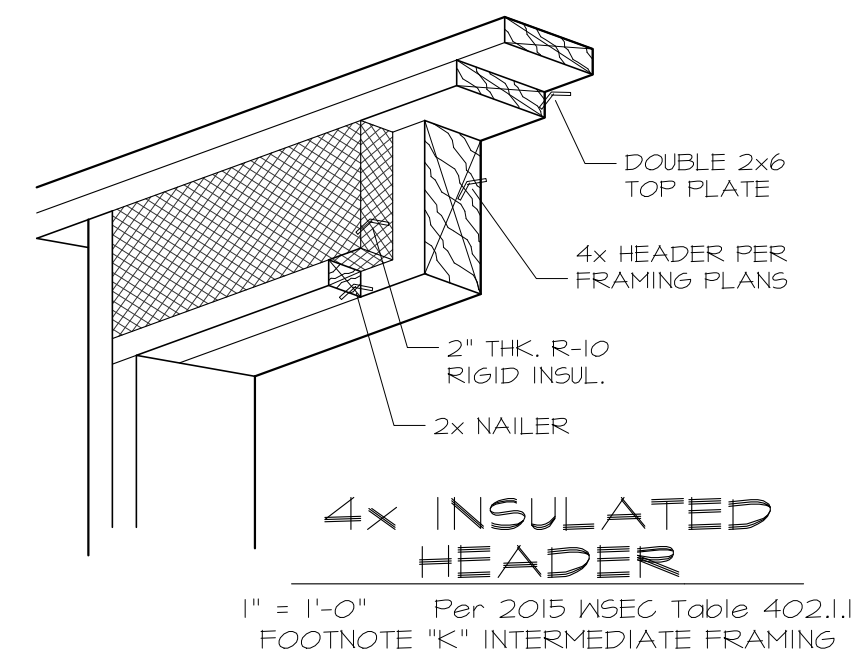
### SECTION R406 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS

R406.1 SCOPE. THIS SECTION ESTABLISHES OPTIONS FOR ADDITIONAL CRITERIA TO BE MET FOR ONE- AND TWO-FAMILY DWELLINGS AND TOWNHOUSES, AS DEFINED IN SECTION 101.2 OF THE INTERNATIONAL RESIDENTIAL CODE TO DEMONSTRATE COMPLIANCE WITH THIS CODE.

R406.2 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS (MANDATORY). EACH DWELLING UNIT IN A RESIDENTIAL BUILDING SHALL COMPLY WITH SUFFICIENT OPTIONS FROM TABLE R406.2 SO AS TO ACHIEVE THE FOLLOWING MINIMUM NUMBER OF CREDITS:

- SMALL DWELLING UNIT: ..... 15 CREDITS  
DWELLING UNITS LESS THAN 1500 SQUARE FEET IN CONDITIONED FLOOR AREA WITH LESS THAN 300 SQUARE FEET OF FENESTRATION AREA. ADDITIONS TO EXISTING BUILDING GREATER THAN 500 SQUARE FEET OF HEATED FLOOR AREA BUT LESS THAN 1500 SQUARE FEET.
- MEDIUM DWELLING UNIT: ..... 35 CREDITS  
ALL DWELLING UNITS THAT ARE NOT INCLUDED IN #1 OR #3.  
EXCEPTION: DWELLING UNITS SERVING R-2 OCCUPANCIES SHALL REQUIRE 25 CREDITS.
- LARGE DWELLING UNIT: ..... 45 CREDITS  
DWELLING UNITS EXCEEDING 5000 SQUARE FEET OF CONDITIONED FLOOR AREA.  
EXCEPTION: DWELLING UNITS SERVING R-2 OCCUPANCIES SHALL REQUIRE 25 CREDITS.
- ADDITIONS LESS THAN 500 SQUARE FEET: ..... 05 CREDITS  
THE DRAWINGS INCLUDED WITH THE BUILDING PERMIT APPLICATION SHALL IDENTIFY WHICH OPTIONS HAVE BEEN SELECTED AND THE POINT VALUE OF EACH OPTION, REGARDLESS OF WHETHER SEPARATE MECHANICAL, PLUMBING, ELECTRICAL, OR OTHER PERMITS ARE UTILIZED FOR THE PROJECT.

OPTION	DESCRIPTION	CREDITS
1a	EFFICIENT BUILDING ENVELOPE 1a: PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1J WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.28 FLOOR R-30 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB or COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOTAL UA BY 5%.	0.5
1b	EFFICIENT BUILDING ENVELOPE 1b: PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1J WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.25 WALL R-21 PLUS R-4 FLOOR R-30 BASEMENT WALL R-21 INT PLUS R-5 G1 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB or COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOTAL UA BY 15%.	1.0
1c	EFFICIENT BUILDING ENVELOPE 1c: PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1J WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.22 CEILING AND SINGLE-RAFTER OR JOIST-VAULTED R-44 ADVANCED WOOD FRAME WALL R-21 INT PLUS R-12 C1 FLOOR R-30 BASEMENT WALL R-21 INT PLUS R-12 C1 SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB or COMPLIANCE BASED ON SECTION R402.1.4: REDUCE THE TOTAL UA BY 30%.	2.0
1d*	EFFICIENT BUILDING ENVELOPE 1d: PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1J WITH THE FOLLOWING MODIFICATIONS: VERTICAL FENESTRATION U = 0.24	0.5
2a	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2a: COMPLIANCE BASED ON R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 3.0 AIR CHANGES PER HOUR MAXIMUM and ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M501.3 OF THE INTERNATIONAL RESIDENTIAL CODE SHALL BE MET WITH A HIGH EFFICIENCY FAN (MAXIMUM 0.35 WATTS/CFM), NOT INTERLOCKED WITH THE FURNACE FAN. VENTILATION SYSTEMS USING A FURNACE INCLUDING AN ECM MOTOR ARE ALLOWED, PROVIDED THAT THEY ARE CONTROLLED TO OPERATE AT LOW SPEED IN VENTILATION ONLY MODE. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE QUALIFYING VENTILATION SYSTEM.	0.5
2b	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2b: COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAXIMUM and ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M501.3 OF THE INTERNATIONAL RESIDENTIAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.10. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE HEAT RECOVERY VENTILATION SYSTEM.	1.0
2c	AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION 2c: COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 1.5 AIR CHANGES PER HOUR MAXIMUM and ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY SECTION M501.3 OF THE INTERNATIONAL RESIDENTIAL CODE SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.85. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM TESTED BUILDING AIR LEAKAGE AND SHALL SHOW THE HEAT RECOVERY VENTILATION SYSTEM.	1.5
3a <sup>B</sup>	HIGH EFFICIENCY HVAC EQUIPMENT 3a: GAS, PROPANE OR OIL-FIRED FURNACE WITH MINIMUM AFUE OF 94%, or GAS, PROPANE OR OIL-FIRED BOILER WITH MINIMUM AFUE OF 92% TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0
3b <sup>B</sup>	HIGH EFFICIENCY HVAC EQUIPMENT 3b: AIR-SOURCE HEAT PUMP WITH MINIMUM HSPF OF 10 TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0
3c <sup>B</sup>	HIGH EFFICIENCY HVAC EQUIPMENT 3c: CLOSED-LOOP GROUND SOURCE HEAT PUMP, WITH A MINIMUM COP OF 3.3 or OPEN LOOP WATER SOURCE HEAT PUMP WITH A MAXIMUM PUMPING HYDRAULIC HEAD OF 150 FEET AND MINIMUM COP OF 3.6 TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.5
3d <sup>B</sup>	HIGH EFFICIENCY HVAC EQUIPMENT 3d: DUCTLESS SPLIT SYSTEM HEAT PUMPS, ZONAL CONTROL, IN HOMES WHERE THE PRIMARY SPACE HEATING SYSTEM IS ZONAL ELECTRIC HEATING, A DUCTLESS HEAT PUMP SYSTEM SHALL BE INSTALLED AND PROVIDE HEATING TO THE LARGEST ZONE OF THE HOUSING UNIT. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0



4x INSULATED HEADER

1" = 1'-0" Per 2015 WSEC Table 402.1.1 FOOTNOTE "K" INTERMEDIATE FRAMING

OPTION	DESCRIPTION	CREDITS
4	HIGH EFFICIENCY HVAC DISTRIBUTION SYSTEM: ALL HEATING AND COOLING SYSTEM COMPONENTS INSTALLED INSIDE THE CONDITIONED SPACE. THIS INCLUDES ALL EQUIPMENT AND DISTRIBUTION SYSTEM COMPONENTS SUCH AS FORCED AIR DUCTS, HYDRONIC PIPING, HYDRONIC FLOOR HEATING LOOP, CONVECTORS AND RADIATORS. ALL COMBUSTION EQUIPMENT SHALL BE DIRECT VENT OR SEALED COMBUSTION. FOR FORGED AIR DUCTS: A MAXIMUM OF 10 LINEAR FEET OF RETURN DUCTS AND 5 LINEAR FEET OF SUPPLY DUCTS MAY BE LOCATED OUTSIDE THE CONDITIONED SPACE. ALL METALLIC DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST HAVE BOTH TRANSVERSE AND LONGITUDINAL JOINTS SEALED WITH MASTIC. IF FLEX DUCTS ARE USED, THEY CANNOT CONTAIN SPLICES. FLEX DUCT CONNECTIONS MUST BE MADE WITH NYLON STRAPS AND INSTALLED USING A PLASTIC STRAPPING TENSIONING TOOL. DUCTS LOCATED OUTSIDE THE CONDITIONED SPACE MUST BE INSULATED TO A MINIMUM OF R-8. LOCATING SYSTEM COMPONENTS IN CONDITIONED CRAWL SPACES IS NOT PERMITTED UNDER THIS OPTION. ELECTRIC RESISTANCE HEAT AND DUCTLESS HEAT PUMPS ARE NOT PERMITTED UNDER THIS OPTION. DIRECT COMBUSTION HEATING EQUIPMENT WITH AFUE LESS THAN 90% IS NOT PERMITTED UNDER THIS OPTION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT TYPE AND SHALL SHOW THE LOCATION OF THE HEATING AND COOLING EQUIPMENT AND ALL THE DUCTWORK.	1.0
5a	EFFICIENT WATER HEATING 5a: ALL SHOWERHEAD AND KITCHEN SINK FAUCETS INSTALLED IN THE HOUSE SHALL BE RATED AT 1.75 GPM OR LESS. ALL OTHER LAVATORY FAUCETS SHALL BE RATED AT 1.0 GPM OR LESS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE MAXIMUM FLOW RATES FOR ALL SHOWERHEADS, KITCHEN SINK FAUCETS, AND OTHER LAVATORY FAUCETS.	0.5
5b	EFFICIENT WATER HEATING 5b: WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS, PROPANE OR OIL WATER HEATER WITH A MINIMUM EF OF 0.14 or WATER HEATER HEATED BY GROUND SOURCE HEAT PUMP MEETING THE REQUIREMENTS OF OPTION 3c. or FOR R-2 OCCUPANCY, A CENTRAL HEAT PUMP WATER HEATER WITH AN EF GREATER THAN 2.0 THAT WOULD SUPPLY DHW TO ALL THE UNITS THROUGH A CENTRAL WATER LOOP INSULATED WITH R-8 MINIMUM PIPE INSULATION. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY.	1.0
5c	EFFICIENT WATER HEATING 5c: WATER HEATING SYSTEM SHALL INCLUDE ONE OF THE FOLLOWING: GAS, PROPANE OR OIL WATER HEATER WITH A MINIMUM EF OF 0.91 or SOLAR WATER HEATING SUPPLEMENTING A MINIMUM STANDARD WATER HEATER. SOLAR WATER HEATING WILL PROVIDE A RATED MINIMUM SAVINGS OF 85 THERMS OR 2000 KWH BASED ON THE SOLAR RATING AND CERTIFICATION CORPORATION (SRCC) ANNUAL PERFORMANCE OF 06-300 CERTIFIED SOLAR WATER HEATING SYSTEMS. or ELECTRIC HEAT PUMP WATER HEATERS WITH A MINIMUM EF OF 2.0 AND MEETING THE STANDARDS OF NEEA'S NORTHERN CLIMATE SPECIFICATIONS FOR HEAT PUMP WATER HEATERS. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE WATER HEATER EQUIPMENT TYPE AND THE MINIMUM EQUIPMENT EFFICIENCY AND, FOR SOLAR WATER HEATING SYSTEMS, THE CALCULATION OF THE MINIMUM ENERGY SAVINGS.	1.5
5d	EFFICIENT WATER HEATING 5d: A DRAIN WATER HEAT RECOVERY (UNIT) SHALL BE INSTALLED, WHICH CAPTURES WASTE WATER HEAT FROM ALL THE SHOWERS, AND HAS A MINIMUM EFFICIENCY OF 40% IF INSTALLED FOR EQUAL FLOW OR A MINIMUM EFFICIENCY OF 52% IF INSTALLED FOR UNEQUAL FLOW. SUCH UNITS SHALL BE RATED IN ACCORDANCE WITH CSA B551 AND BE SO LABELED. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL INCLUDE A PLUMBING DIAGRAM THAT SPECIFIES THE DRAIN WATER HEAT RECOVERY UNITS AND THE PLUMBING LAYOUT NEEDED TO INSTALL IT AND LABELS OR OTHER DOCUMENTATION SHALL BE PROVIDED THAT DEMONSTRATES THAT THE UNIT COMPLIES WITH THE STANDARD.	0.5
6	RENEWABLE ELECTRIC ENERGY: FOR EACH 1000 KWH OF ELECTRICAL GENERATION PER HOUSING UNIT PROVIDED ANNUALLY BY ON-SITE WIND OR SOLAR EQUIPMENT A 0.5 CREDIT SHALL BE ALLOWED, UP TO 3 CREDITS. GENERATION SHALL BE CALCULATED AS FOLLOWS: FOR SOLAR ELECTRIC SYSTEMS, THE DESIGN SHALL BE DEMONSTRATED TO MEET THIS REQUIREMENT USING THE NATIONAL RENEWABLE ENERGY LABORATORY CALCULATOR PVWATTS. DOCUMENTATION NOTING SOLAR ACCESS SHALL BE INCLUDED ON THE PLANS. FOR WIND GENERATION PROJECTS DESIGNS SHALL DOCUMENT ANNUAL POWER GENERATION BASED ON THE FOLLOWING FACTORS: THE WIND TURBINE POWER CURVE, AVERAGE ANNUAL WIND SPEED AT THE SITE; FREQUENCY DISTRIBUTION OF THE WIND SPEED AT THE SITE AND HEIGHT OF THE TOWER. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SHOW THE PHOTOVOLTAIC OR WIND TURBINE EQUIPMENT TYPE, PROVIDE DOCUMENTATION OF SOLAR AND WIND ACCESS, AND INCLUDE A CALCULATION OF THE MINIMUM ANNUAL ENERGY POWER PRODUCTION.	0.5

- A. PROJECTS USING THIS OPTION MAY NOT USE OPTION 1b or 1c.
- B. PROJECTS MAY ONLY INCLUDE CREDIT FROM ONE SPACE HEATING OPTION, 3a, 3b, 3c, or 3d, WHEN A HOUSING UNIT HAS TWO PIECES OF EQUIPMENT (I.E., TWO FURNACES) BOTH MUST MEET THE STANDARD TO RECEIVE THE CREDIT.
- C. PLUMBING FIXTURES FLOW RATINGS, LOW FLOW PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCETS AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS:  
1. RESIDENTIAL BATHROOM LAVATORY SINK FAUCETS: MAXIMUM FLOW RATE - 3.8 L/MIN (1.0 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A112.18.1/CSA B125.1.  
2. RESIDENTIAL KITCHEN FAUCETS: MAXIMUM FLOW RATE - 6.6 L/MIN (1.75 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A112.18.1/CSA B125.1.  
3. RESIDENTIAL SHOWERHEADS: MAXIMUM FLOW RATE - 6.6 L/MIN (1.75 GAL/MIN) WHEN TESTED IN ACCORDANCE WITH ASME A112.18.1/CSA B125.1.

Issue Description	Issue Date	By

6515 SE 30th St.  
Mercer Island, WA.  
Job Number: --

plan name:	--
marketing name:	--
plan number:	--
mark sys. number:	--

Conditions not specifically represented graphically or in writing or which conflict with the current International Residential Code (IRC) or those of the local municipality then the current standards and requirements of each respectively shall govern.

The drawings in this set are instruments of service and shall remain the property of JayMarc Homes, LLC.

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04.15.21  
Submittal Date

Sheet Title/Description  
JAYMARC HOMES  
Design Firm

R.R.  
Drawn by:  
R.R./ S.K.  
Checked by:

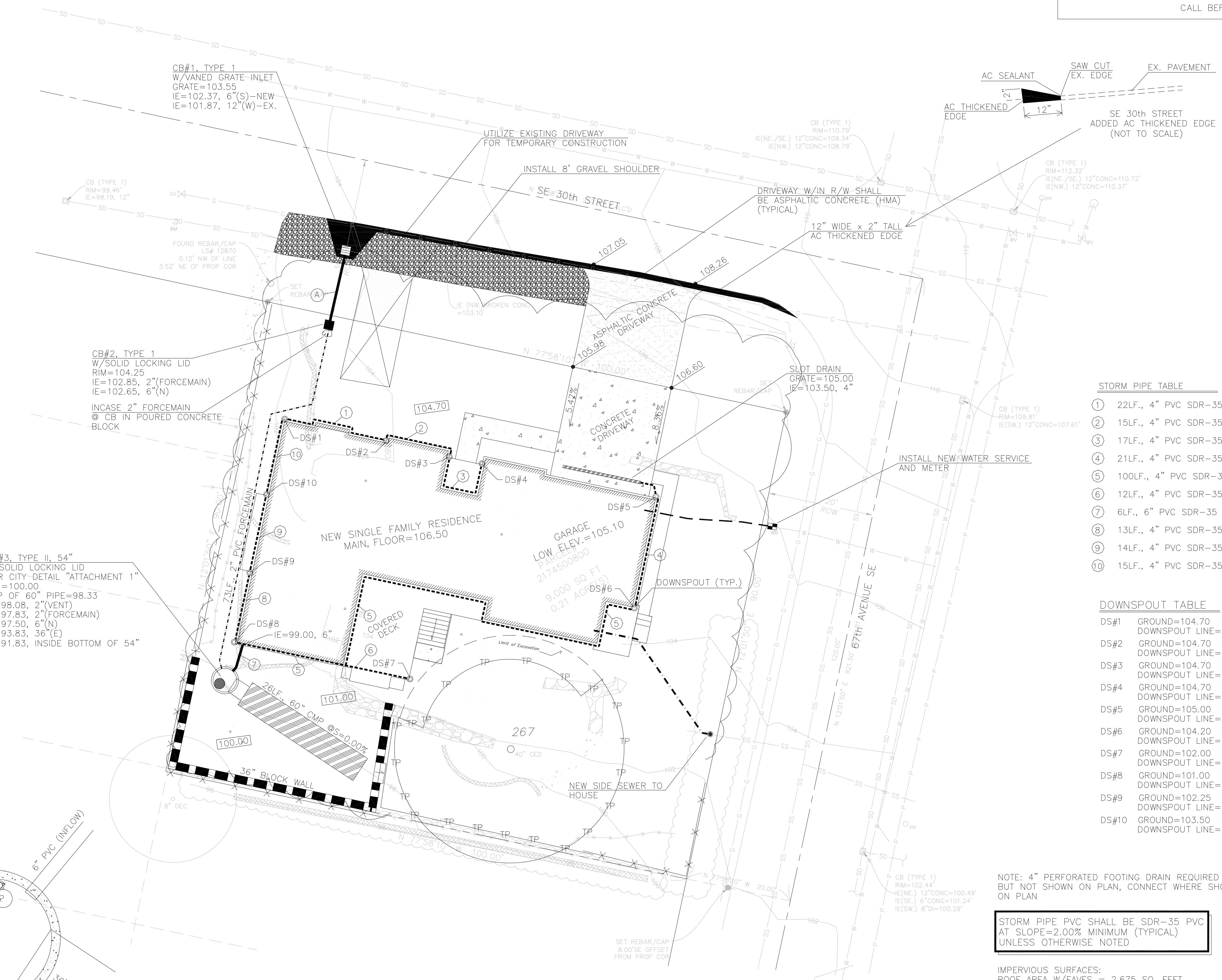
Primary Scale

EN3  
of .

Sheet Title/Description

EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

CALL BEFORE YOU DIG: 811



STORM PIPE TABLE

1	22LF., 4" PVC SDR-35 @ S=2.00%
2	15LF., 4" PVC SDR-35 @ S=2.00%
3	17LF., 4" PVC SDR-35 @ S=2.00%
4	21LF., 4" PVC SDR-35 @ S=5.71%
5	100LF., 4" PVC SDR-35 @ S=3.20%
6	12LF., 4" PVC SDR-35 @ S=7.06%
7	6LF., 6" PVC SDR-35 @ S=25.00%
8	13LF., 4" PVC SDR-35 @ S=8.10%
9	14LF., 4" PVC SDR-35 @ S=8.10%
10	15LF., 4" PVC SDR-35 @ S=8.10%

DOWNSPOUT TABLE

DS#1	GROUND=104.70 DOWNSPOUT LINE=102.50
DS#2	GROUND=104.70 DOWNSPOUT LINE=102.95
DS#3	GROUND=104.70 DOWNSPOUT LINE=103.25
DS#4	GROUND=104.70 DOWNSPOUT LINE=103.60
DS#5	GROUND=105.00 DOWNSPOUT LINE=103.40
DS#6	GROUND=104.20 DOWNSPOUT LINE=102.20
DS#7	GROUND=102.00 DOWNSPOUT LINE=100.67
DS#8	GROUND=101.00 DOWNSPOUT LINE=99.10
DS#9	GROUND=102.25 DOWNSPOUT LINE=100.15
DS#10	GROUND=103.50 DOWNSPOUT LINE=101.30

NOTE: 4" PERFORATED FOOTING DRAIN REQUIRED BUT NOT SHOWN ON PLAN, CONNECT WHERE SHOWN ON PLAN

STORM PIPE PVC SHALL BE SDR-35 PVC AT SLOPE=2.00% MINIMUM (TYPICAL) UNLESS OTHERWISE NOTED

IMPERVIOUS SURFACES:  
ROOF AREA W/EAVES = 2,675 SQ. FEET  
UNCOVERED DRIVEWAY = 399 SQ. FEET  
UNCOVERED DECK = 8 SQ. FEET  
UNCOVERED STAIRS & LANDING = 51 SQ. FEET  
UNCOVERED WALKWAY = 91 SQ. FEET  
TOTAL IMPERVIOUS AREAS = 3,224 SQ. FEET

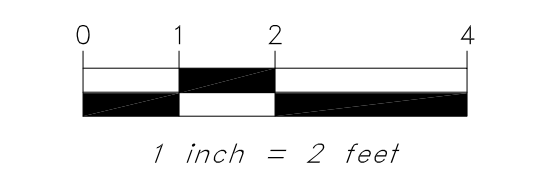
LANDSCAPE AREAS NOTE:  
DISTURBED LANDSCAPE AREAS SHALL BE TREATED AS AMENDED SOILS PER DOE FIGURE V-5.3.3, TYPICAL

CB#3, TYPE II, 54"  
W/SOLID LOCKING LID  
PER CITY-DETAIL "ATTACHMENT 1"  
RIM=100.00  
TOP OF 60" PIPE=98.33  
IE=98.08, 2"(VENT)  
IE=97.83, 2"(FORCEMAIN)  
IE=97.50, 6"(N)  
IE=93.83, 36"(E)  
IE=91.83, INSIDE BOTTOM OF 54"

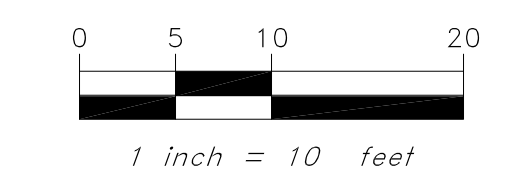
CB#2, TYPE 1  
W/SOLID LOCKING LID  
RIM=104.25  
IE=102.85, 2"(FORCEMAIN)  
IE=102.65, 6"(N)  
INCASE 2" FORCEMAIN  
@ CB IN POURED CONCRETE  
BLOCK

CB#1, TYPE 1  
W/VANED GRATE INLET  
GRATE=103.55  
IE=102.37, 6"(S)-NEW  
IE=101.87, 12"(W)-EX.

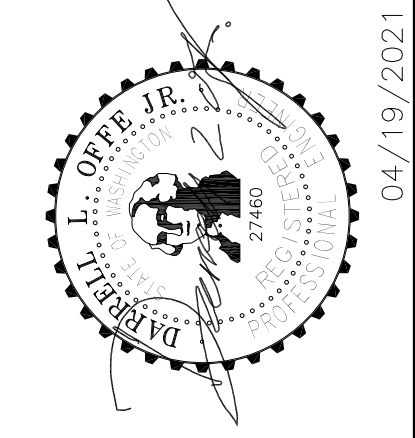
CB#3 ENLARGEMENT



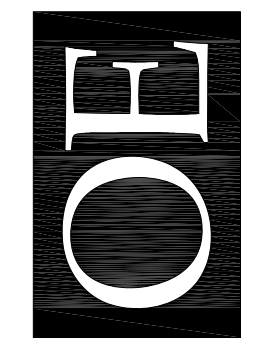
GRAPHIC SCALE



REV. NO.	DATE	DESCRIPTION



OFFE ENGINEERS  
13922 SOUTHEAST 15TH PLACE  
RENTON, WASHINGTON 98068  
CONTACT: DARRELL OFFE, P.E.

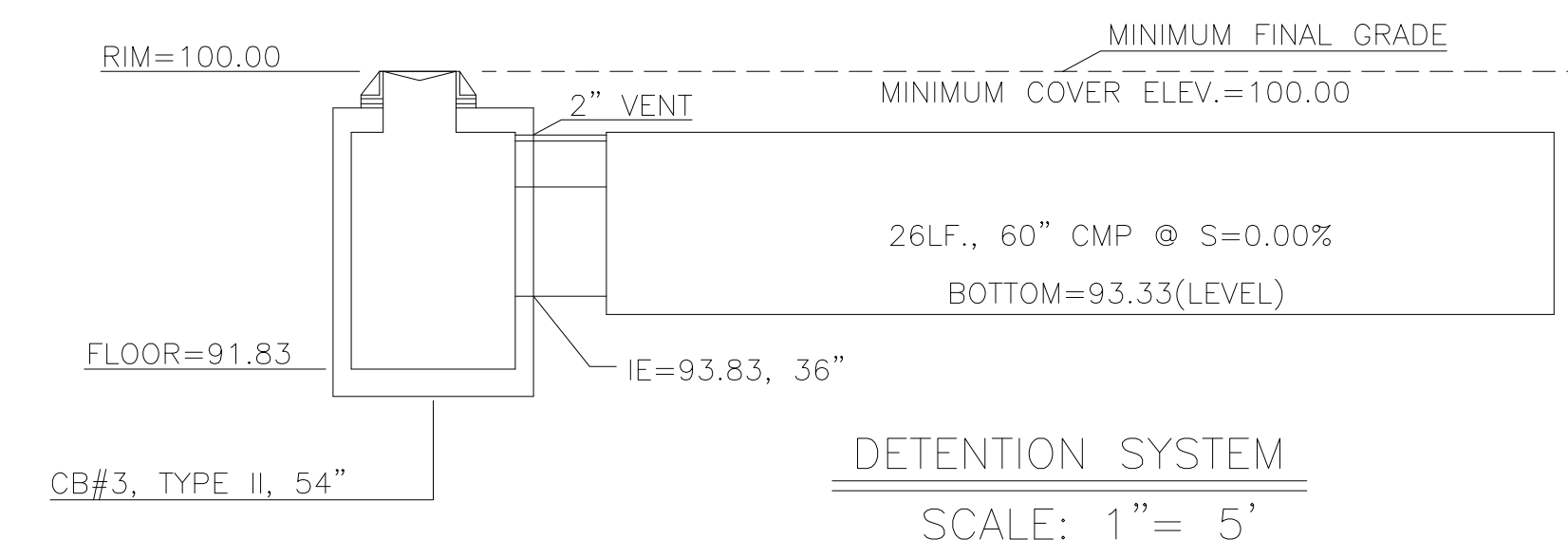


PROJECT: **6515 SE 30th Street**  
CLIENT: **JayMarc Emerald, LLC**  
SHEET CONTENT: **Utility & Tree Plan**

DATE	04/19/2021
JOB NO.	
DWG NO.	
SHEET	2
OF	2

pH TO BE BETWEEN  
6-10  
ORGANIC MATTER W.B.  
TO BE GREATER THAN 10%

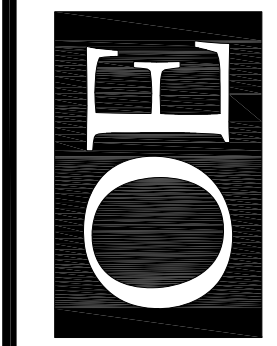
.. \.. \.. \.. \DETAILS\DOE\Soil Amendment.jpg



Missing or invalid reference  
File: ..\ATTACHMENT A.pdf  
Sheet: 1



**OFFE ENGINEERS**  
13902 SOUTHEAST 159TH PLACE  
RENTON, WASHINGTON 98058  
PHONE: 425-260-3412  
CONTACT: DARRELL OFFE, P.E.



**6515 SE 30th Street**  
**JayMarc Emerald, LLC**  
**Storm Water Details**

PROJECT  
CLIENT  
SHEET CONTENT

DATE 04/19/2021  
JOB NO.  
DWG NO.

2 SHEET OF 2

DESIGNED BY DLO  
DRAWN BY VS  
CHECKED BY DLO

REV. NO.	DATE	DESCRIPTION

04/19/2021



