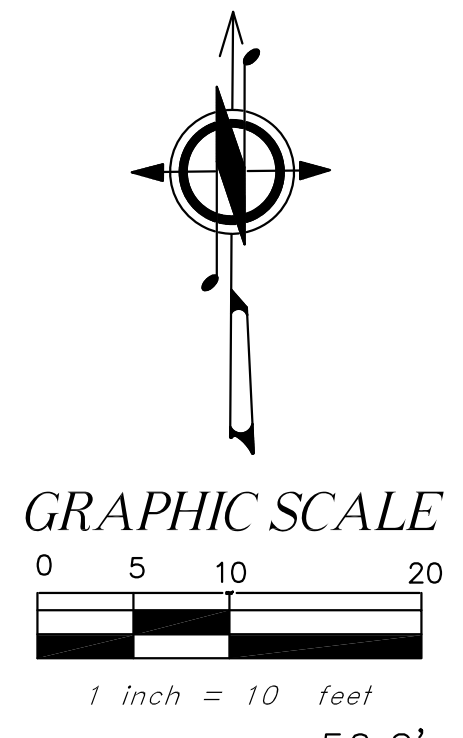


PARCEL #  
0191100345  
8,777± SQ FT  
0.20 ACRE(S)



Wall Segment	Midpoint Elevation	Length	Product
A	367.8	44	16,183.2
B	370.5	15	5,557.5
C	372.4	4	1,489.6
D	372.3	5	1,861.5
E	368.2	18.5	6,811.7
F	368.8	22	8,113.6
G	367.6	40.5	14,887.8
H	367.4	3	1,102.2
I	367	15.5	5,688.5
J	367	18	6,606.0
K	367	3	1,101.0
L	368.8	21	7,744.8
Sub Totals	209.5		77,147.4
ABE			368.2
Max Height			398.2
Proposed Ridge			396.1

**GENERAL INFORMATION**

PROPERTY OWNER  
Ian and Kit Liao

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'  
Side Yard on Street Side - 20'  
Remaining side yard 5'

HEIGHT LIMIT: 30' above ABE to roof peak

MAXIMUM F.A.R.: 40%

MAXIMUM LOT COVERAGE: 40%

MAXIMUM HARDSCAPE: 9%

PARKING SPACES PROVIDED: 2 GARAGE 2 DRIVEWAY

NO CRITICAL AREAS IMPACTED

NO ONSITE EASEMENTS

EXISTING		
Uncovered Patio		552
Front Yard Pavers		288
Stairs		
Rockery/Retaining Walls		18
<b>Existing</b>		<b>858</b>
Existing Removed		626
<b>Net Existing Retained</b>		<b>232</b>
NEW		
Walkways		50
Stairs		
Retaining Walls		20
<b>Total New</b>		<b>70</b>
<b>Total New and Existing</b>		<b>252</b>
<b>Total Hardscape</b>		<b>2.8%</b>

Covered	2 ea
Driveway	2 ea.

Lot Area	8,777
Allowed	40%
Allowed sf	3,511

Main Structure Roof Area	2,901
Including Covered Patio	468
Driveway	468
New sf	3,369

Existing	1,159
Existing Driveway	515
Total Existing	1,674
Existing Removed	(1,674)
Net Existing	-

Total New and Existing	3,369
%	38.4%

High Point	370.95 ft
Low Point	365.5 ft
Elevation Difference	5.45 ft
Distance	137 ft
Slope%	3.98%

Lot Size	8,777 sf
Main Floor	1,604 sf
Garage	455 sf
Second Floor	1,538 sf
Less Stairs Credit	(88) sf
Total	3,509 sf
Max Allowed: 40%	3,511 sf
Proposed %	39.98%

ID	Species	DISH	Drip					Exceptional	Removed	Saved
			N	E	S	W				
190	Coastal Redwood	63.9	32.7	26.7	35.7	33.7	x		63.9	
191	English Holly	Not Regulated						x		
192	English Holly	Not Regulated						x		
194	Doug Fir	31.9	19.3	15.3	17.3	15.3	x		31.9	
195	Western Red Cedar	49.5	20.1	22.1	22.1	24.1	x		49.5	
196	Cherry Laurel	Not Regulated						x		
197	Mountain Ash	Not Regulated						x		
198	Cherry Laurel	Not Regulated						x		
199	Flowering Cherry	13	11.5	8.5	8.5	8.5			13	
200	European White Birch	Not Regulated						x		
201	Pacific Dogwood	10.5	9.4	10.4	9.4	9.4			10.5	
202	Replacement Tree from previous permit								Saved	
203	Replacement Tree from previous permit								Saved	

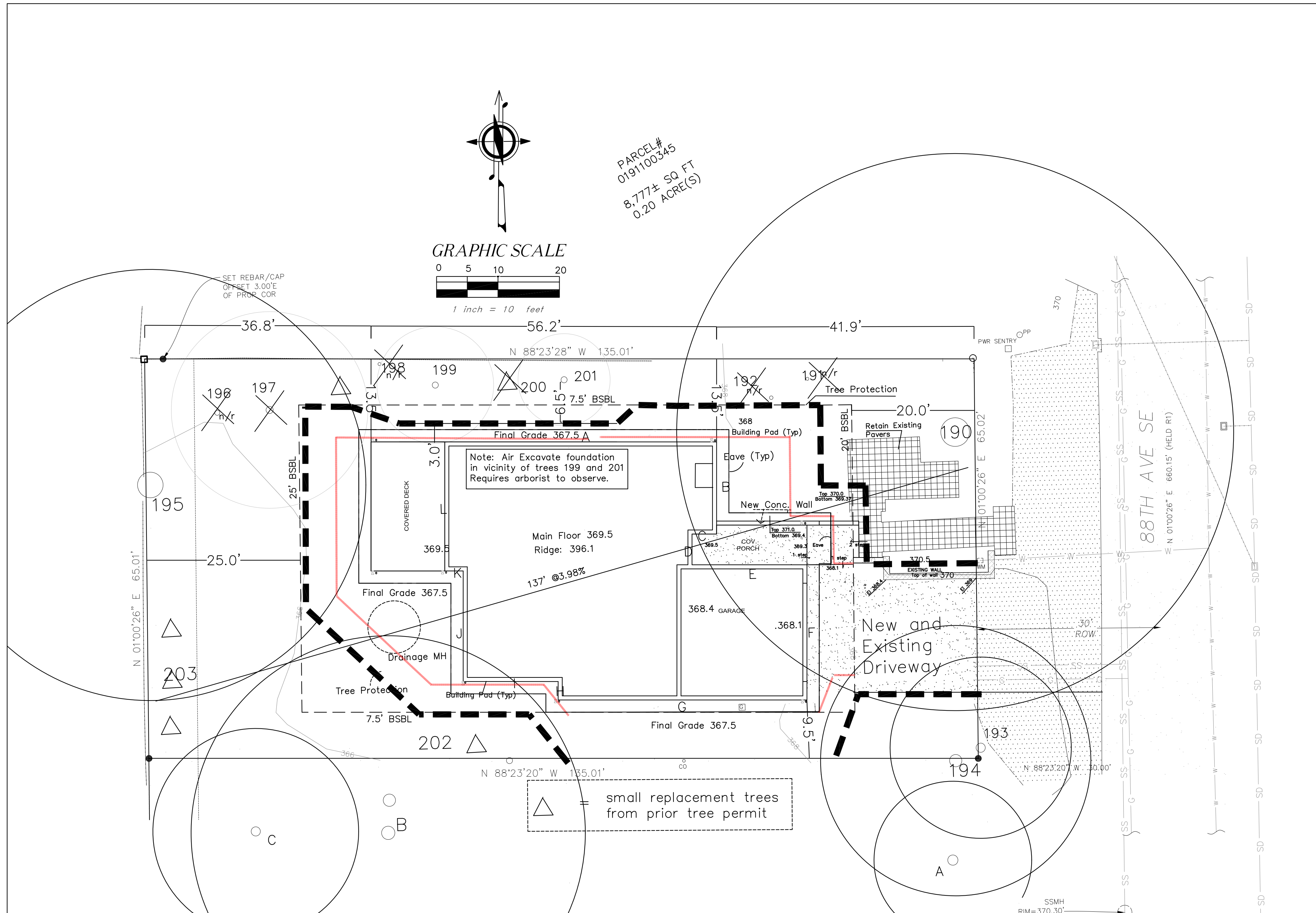
A	Doug Fir	18			16.8				x
B	Western Red Cedar	46.7	20.9						x
C	Doug Fir	24	13						x
193	Doug Fir	20.8	22.9	16.9	16.9	10.9			x

Development proposals for a new single-family home shall remove Japanese knotweed (*Polygonum cuspidatum*) and Regulated Class A, Regulated Class B, and Regulated Class C weeds identified on the King County Noxious Weed list, as amended, from required landscaping areas established pursuant to subsection 19.02.020(F)(3)(a). New landscaping associated with new single-family home shall not incorporate any weeds identified on the King County Noxious Weed list, as amended. Provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

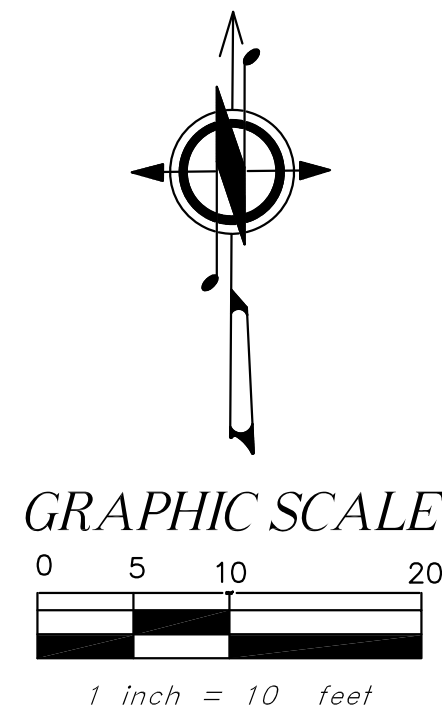
Site Plan  
Liao Residence  
4541 88th Ave SE

Drawn by  
Gary Upper  
12-17-21  
4-26-22

A2.1



PARCEL #  
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194	Doug Fir	31.9	19.3	15.3	17.3	15.3	x		31.9	
195	Western Red Cedar	49.5	20.1	22.1	22.1	24.1	x		49.5	
196	Cherry Laurel	Not Regulated						x		
197	Mountain Ash	Not Regulated						x		
198	Cherry Laurel	Not Regulated						x		
199	Flowering Cherry	13	11.5	8.5	8.5	8.5			13	
200	European White Birch	Not Regulated						x		
201	Pacific Dogwood	10.5	9.4	10.4	9.4	9.4			10.5	
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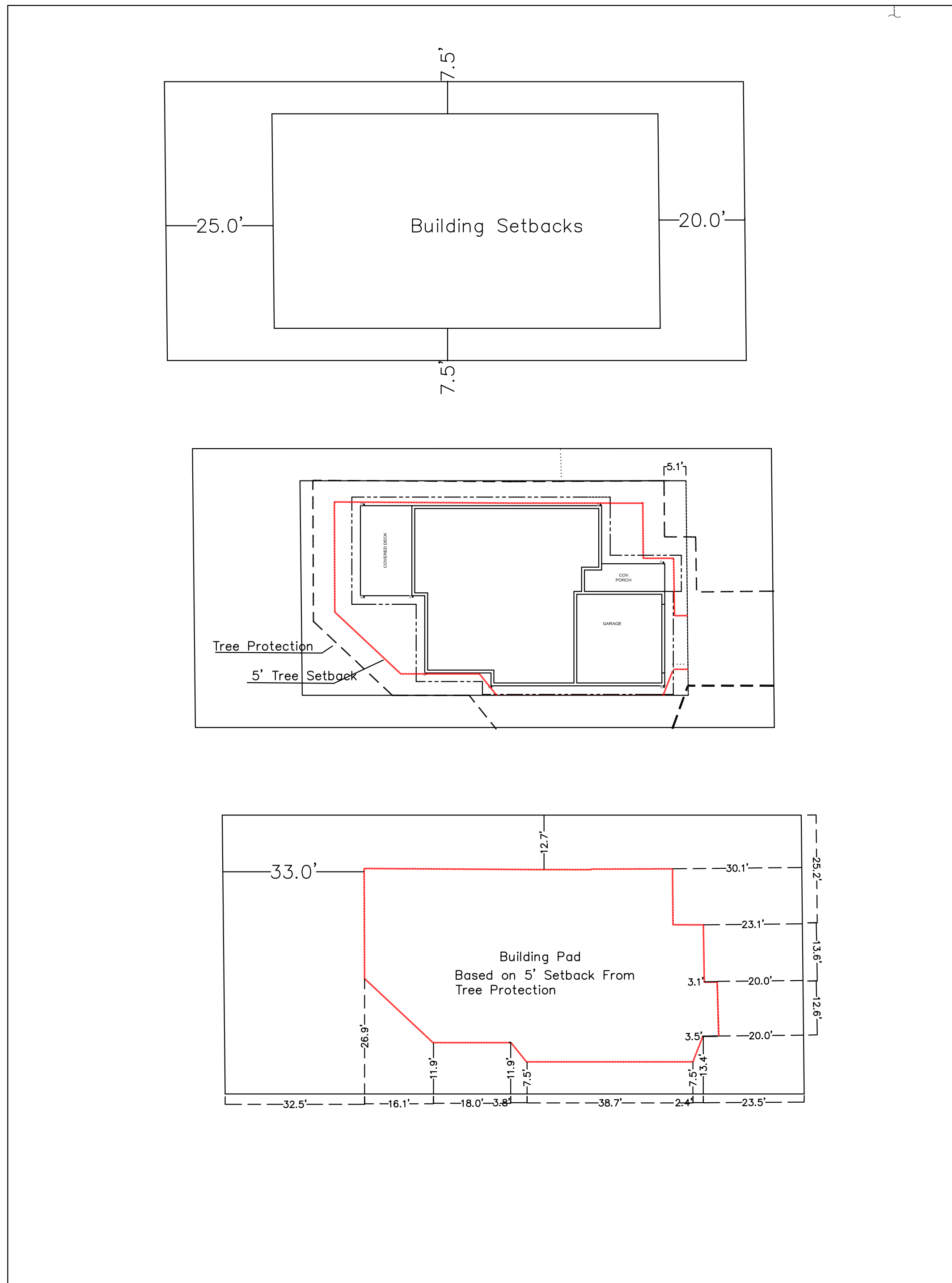
A	Doug Fir	18			16.8				x
B	Western Red Cedar	46.7	20.9						x
C	Doug Fir	24	13						x
193	Doug Fir	20.8	22.9	16.9	16.9	10.9			x

Development proposals for a new single-family home shall remove Japanese knotweed (*Polygonum cuspidatum*) and Regulated Class A, Regulated Class B, and Regulated Class C weeds identified on the King County Noxious Weed list, as amended, from required landscaping areas established pursuant to subsection 19.02.020(F)(3)(a). New landscaping associated with new single-family home shall not incorporate any weeds identified on the King County Noxious Weed list, as amended. Provided, that removal shall not be required if the removal will result in increased slope instability or risk of landslide or erosion.

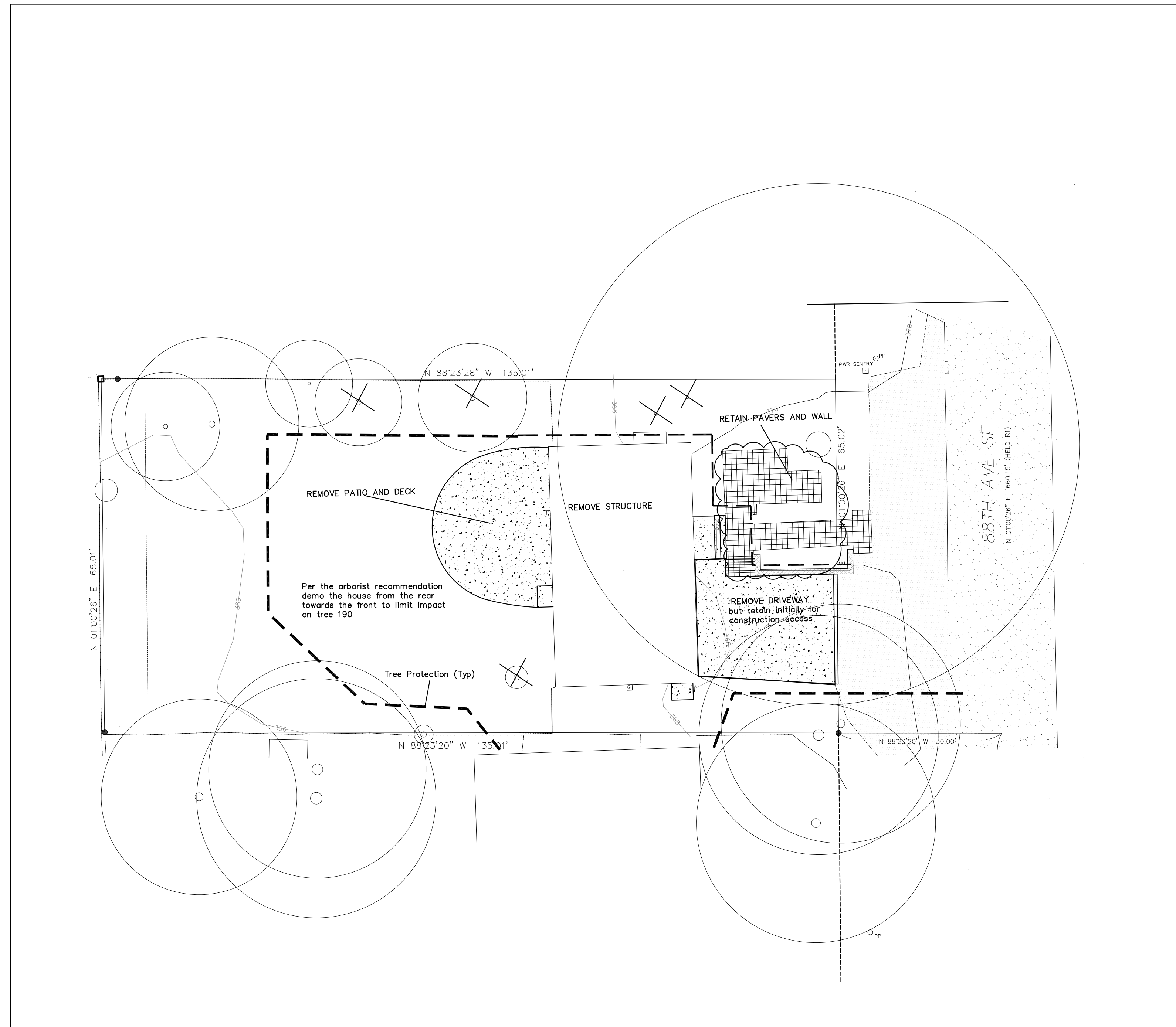
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Liao Residence  
4541 88th Ave SE

Drawn by  
Gary Upper  
12-17-21  
4-26-22

A2.1



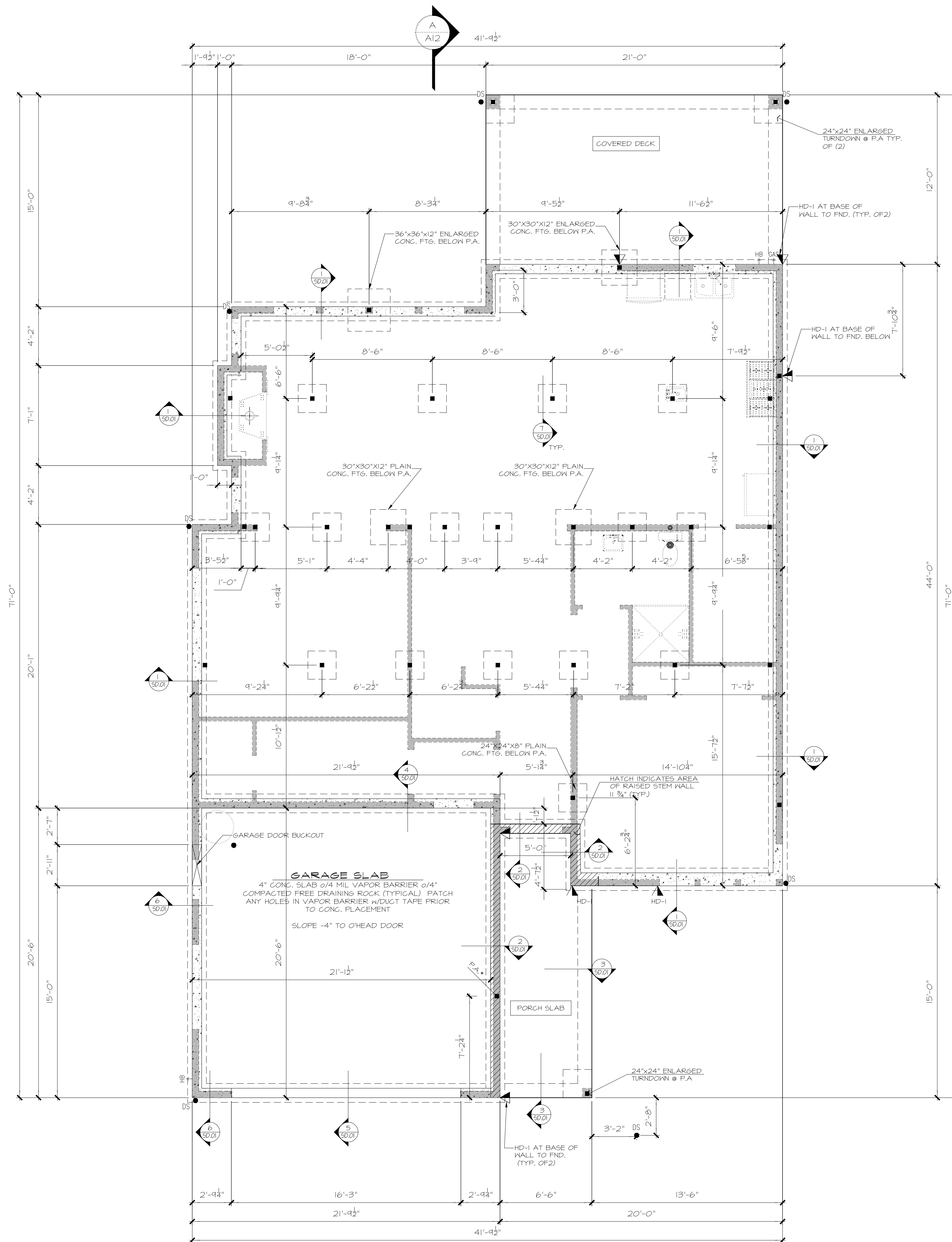
BUILDING PAD



DEMOLITION PLAN

Site Plan  
Liao Residence  
4541 88th Ave SE

Drawn by  
Gary Upper  
11-16-21



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	
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.)**

**TYP. CRAWLSPACE POSTS:**  
 4x4 P.T. POST W/2x4 CLEATS EA. SIDE + (2) A35 CLIPS ON EA. SIDE @ BASE OF POST W/O.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"

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

Issue	Issue Date	By	Description
1	04.08.22		CITY PLAN REVIEW COMMENTS

**Liao Residence**  
**4541 88th Ave SE**  
 Job Number:

plan name: \_\_\_\_\_  
 marketing name: PATAGONIA  
 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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Submittal Date

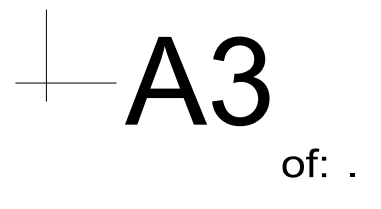
Sheet Title/Description

Design Firm

Drawn by:

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

Primary Scale

  
 of .

Sheet Title/Description

HOLD-DOWN SCHEDULE	
SYMBOL	SPECIFICATION
HD-1	SIMPSON 5THD14 (R.J.) HOLD-DOWN
HD-5	SIMPSON CSI6 STRAP TIE (14" END LENGTH)
HD-6	SIMPSON MSTC40 STRAP TIE (12" END LENGTH)
HD-7	SIMPSON MSTC66 STRAP TIE (24" END LENGTH)

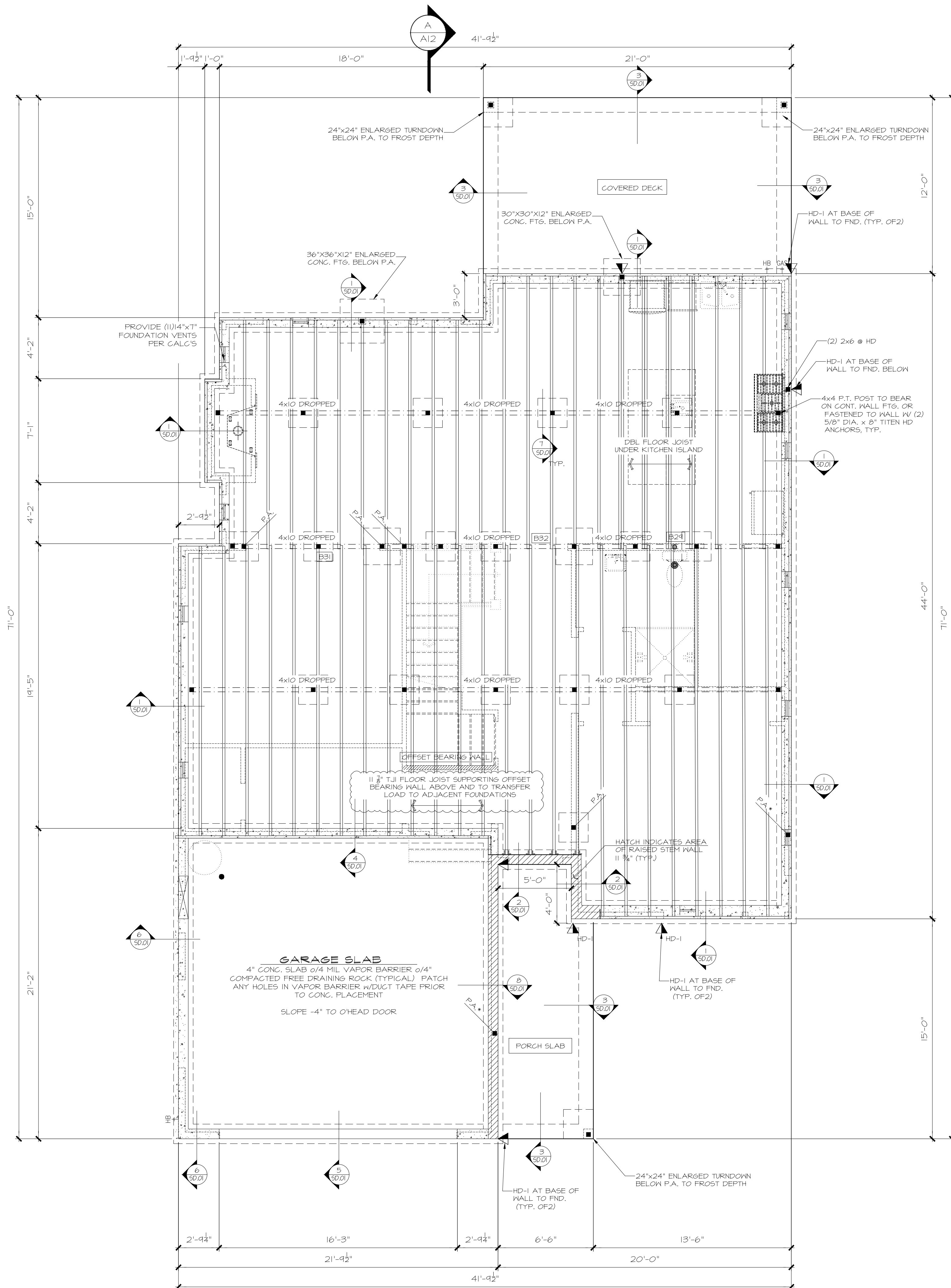
LEGEND	
JL METAL HANGER	
* INDICATES POST ABOVE. PROVIDE SOLID BLOCKING UNDER POST OR JAMB ABOVE.	
▲ INDICATES HOLD-DOWN.	

INDICATES 11-7/8" TJI FLOOR JOISTS 210 SERIES @ 16" O.C. (TYP. U.N.O.)

REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

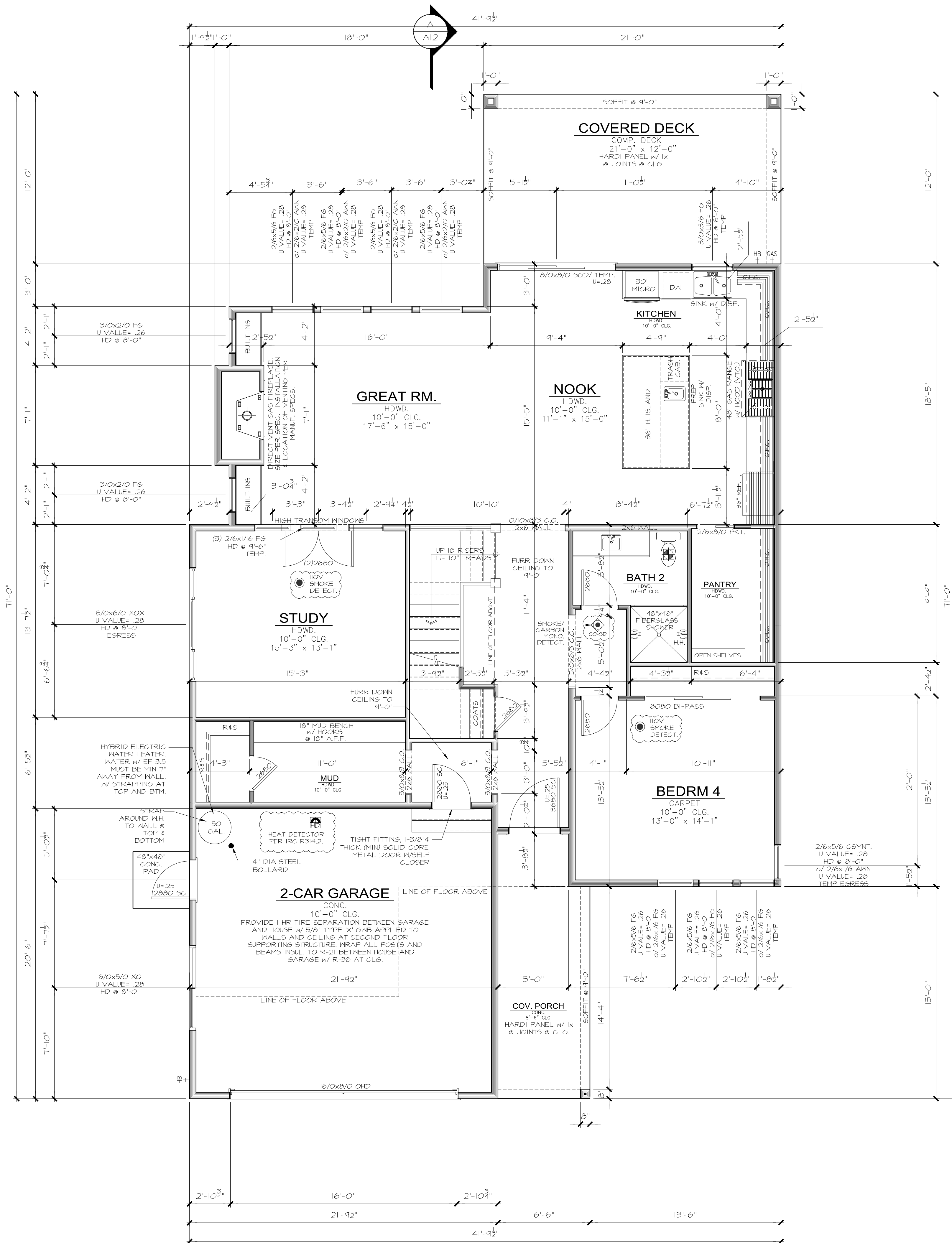
B20 4x10 DROPPED CONT. (TYP. U.N.O.)

FOUNDATION VENTILATION			
Crawlspace Area:	1606 s.f.		
Ventilation Required:	1606 s.f. / 300 =	770.88 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 =	770.88 s.i. / Vent Area =	10.49 s.i.	
Provide:	11 14" x 7" Vents, Area =	808.5 s.i.	
Ventilation Provided =	808.50 s.i. is Greater than	770.88 s.i. Req'd	
Use:	11 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.			



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

Sheet Title/Description



# MAIN FLOOR PLAN NOTES

**PLAN SPECIFIC 2018 WSEC. SECTION R06**  
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.  
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 I.R.C. 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**  
AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF OF 11.0. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT EFFICIENCY. EXTERIOR LOCATED EQUIPMENT SHOULD ALSO BE REPRESENTED ON SITE PLAN.  
**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 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 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 NECA'S ADVANCED WATER HEATING SPECIFICATION.  
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.

**WHOLE HOUSE VENTILATION**  
PROVIDE WHOLE HOUSE VENTILATION per 2018 IRC, M507 and IMC R403.8 USING WHOLE HOUSE VENTILATION SYSTEM USING CENTRAL EXHAUST FAN, CONTINUOUSLY OPERATING + WALL SWITCH LABELED 'WHOLE HOUSE FAN'. LEAVE ON UNLESS OUTDOOR AIR QUALITY IS POOR!

SYMBOL	LOCATION	MIN. FAN REQUIREMENTS (ALL FANS VENT TO OUTSIDE)
	BATH 4	Min. 50cfm, INTERMITTENT at .025kg per TABLE M507.4
	KITCHEN	Min. 100cfm, INTERMITTENT at .025kg per TBL. M507.4
	RANGE HOOD or DOWN DRAFT EXHAUST FAN	RATED at min. 100cfm, at 0.02kg may be used FOR EXHAUST FAN REQUIR. EXHAUST HOODS IN EXCESS OF 400cfm. SHALL BE INTERLOCKED AND PROVIDE MAKE UP AIR per w/M505.4
	LAUNDRY ROOM	FINAL ADJUSTED RATE = 143 CFM (90 CFM PER TABLE M505.4.3), ADJUSTED BY FACTOR OF 1.5 PER TABLE M505.4.3(2) FOR NON-BALANCED, NOT DISTRIBUTED SYSTEM.

PER IRC M505.4.1, WHOLE HOUSE VENTILATION FANS MUST BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN K.C. STATIC PRESSURE IN ACCORDANCE WITH HVI PROCEDURES SPECIFIED IN IRC M505.4.1.2 AND M505.4.1.3.

**CARBON MONOXIDE ALARMS/ DETECTORS ARE REQUIRED TO BE INTERCONNECTED PER IRC 315.5**

# MAIN FLOOR PLAN

**SQUARE FOOTAGE SUMMARY**

MAIN FLOOR AREA + GARAGE	2,051 S.F.
UPPER FLOOR AREA	1,458 S.F.
TOTAL AREA	3,509 S.F.
COVID PORCH	115 S.F.
TOTAL AREA UNDER ROOF	3,624 S.F.
UNCOVERED PATIO	205 S.F.
OVERALL WIDTH	42'-0"
OVERALL DEPTH	58'-11"

Updated: 1/02/2018  
Method for Calculating Square Footage - ANSI Z765-2013 except, no separate distinction of above-grade or below-grade areas and each level is measured to the outside of studs not the exterior finished surface.  
Square Footage calculations for this house were made based on plan dimensions only and may vary from the finished square footage of the house as built.  
See Sheet 'CODES' for additional Zoning required Area Calculations

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

Issue	Issue Date	By
	04.08.22	

CITY PLAN REVIEW COMMENTS

**Liao Residence**  
4541 88th Ave SE

Job Number:

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

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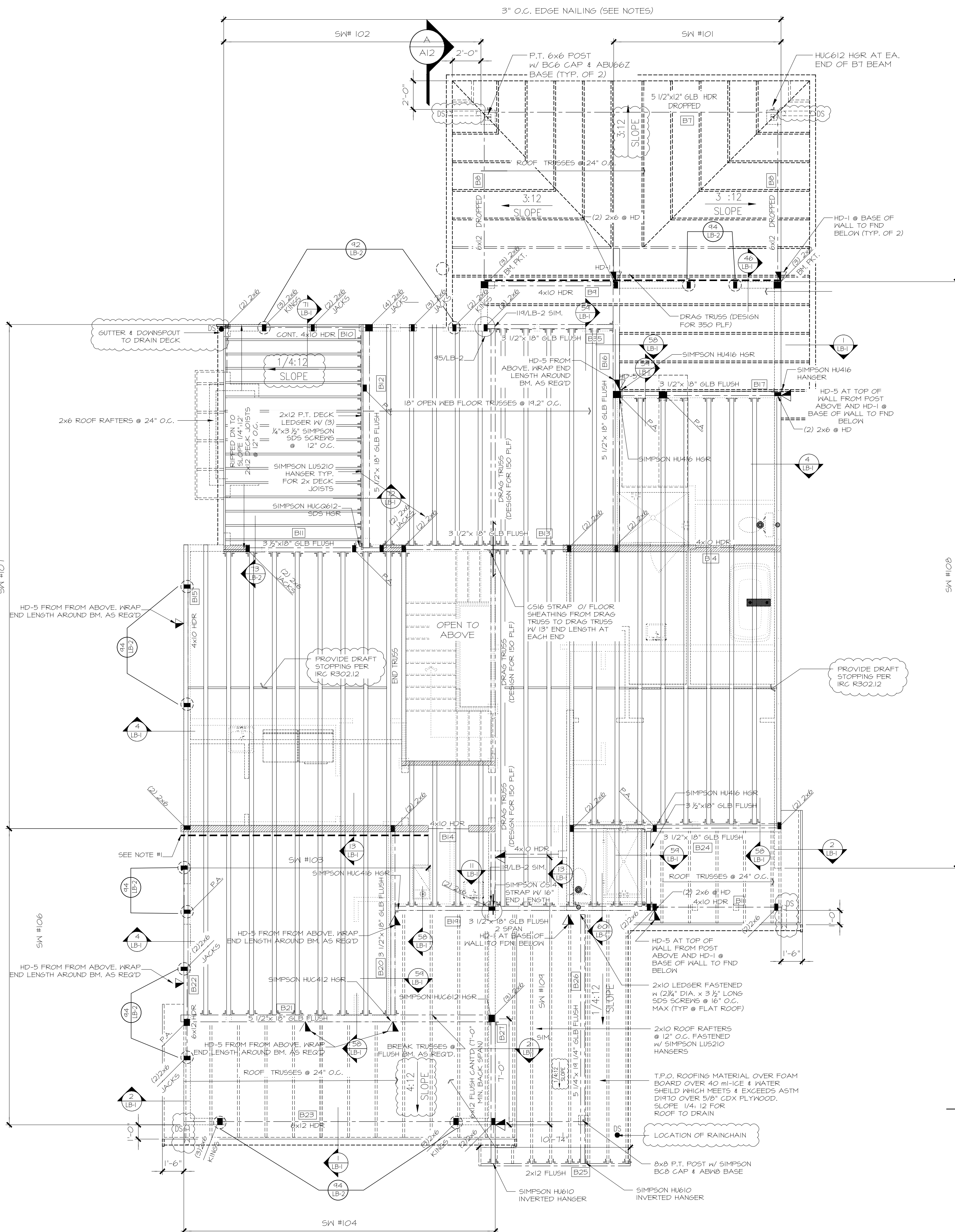
R.R./S.K.

Checked by:

Primary Scale

A5  
of .

Sheet Title/Description



**UPPER FLOOR FRAMING PLAN**

1/4" = 1'-0"

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	
	INTERIOR BEARING WALL
	BEAM / HEADER
	18" FLOOR TRUSSES @ 19.2" O.C. (U.N.O.)
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
	JL 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. [B1] 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 3/8" OSB/PLYWOOD SHTG. + FASTEN PER 3" EDGE NAILING SPECS. (SEE NOTES)

Sheet Title/Description





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

## UPPER FLOOR PLAN NOTES

### PLAN SPECIFIC 2018 WSEC\_SECTION R06

R406.2 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS (MANDATORY). THIS RESIDENTIAL DWELLING SHALL COMPLY WITH SUFFICIENT 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 R402.1 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.

AIR LEAKAGE & 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 M501.3 OF THE I.R.C. OR SECTION 404.8 OF THE I.M.C. 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 ECM 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

AIR-SOURCE, CENTRALLY DUCTED HEAT PUMP WITH MINIMUM HSPF OF 11.0. TO QUALIFY TO CLAIM THIS CREDIT, THE BUILDING PERMIT DRAWINGS SHALL SPECIFY THE OPTION BEING SELECTED AND SHALL SPECIFY THE HEATING EQUIPMENT EFFICIENCY. EXTERIOR LOCATED EQUIPMENT SHOULD ALSO BE REPRESENTED ON SITE PLAN.

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.T. LOCATING SYSTEM COMPONENTS IN CONDITIONED GRAVE 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. 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.

### WHOLE HOUSE VENTILATION

PROVIDE WHOLE HOUSE VENTILATION per 2018 IRC, M501 and IMC R403.8 USING WHOLE HOUSE VENTILATION SYSTEM USING CENTRAL EXHAUST FAN CONTINUOUSLY OPERATING - WALL SWITCH LABELED "WHOLE HOUSE FAN. LEAVE ON UNLESS OUTDOOR AIR QUALITY IS POOR".

SYMBOL	LOCATION	MIN. FAN REQUIREMENTS (ALL FANS VENT TO OUTSIDE)
	BATH 4	Min. 50cfm, INTERMITTENT at .025wg per TABLE M501.4
	KITCHEN	Min. 100cfm, INTERMITTENT at .025wg per TBL. M501.4
	LAUNDRY ROOM	FINAL ADJUSTED RATE = 143 CFM (40 CFM PER TABLE M505.4.3)(1) ADJUSTED BY FACTOR OF 1.5 PER TABLE M505.4.3(2) FOR NON-BALANCED, NOT DISTRIBUTED SYSTEM.

RANGE HOOD or DOWN DRAFT EXHAUST FAN RATED at min. 100cfm, at 0.10wg MAY BE USED FOR EXHAUST FAN REQMT. EXHAUST HOODS IN EXCESS OF 400cfm SHALL BE INTERLOCKED AND PROVIDE MAKE UP AIR per IMC503.4.

PROVIDE CONTROLS FOR WHF. per M501.3.2 AFFIX LABEL TO CONTROLS THAT READS "WHOLE HOUSE VENTILATION - SEE OPERATING INSTRUCTIONS"

PER IRC M505.4.1.1, WHOLE HOUSE VENTILATION FANS MUST BE RATED FOR SOUND AT A MAXIMUM OF 1.0 SONE. THIS SOUND RATING SHALL BE AT A MINIMUM OF 0.1 IN ILC. STATIC PRESSURE IN ACCORDANCE WITH HVI PROCEDURES SPECIFIED IN IRC M505.4.1.2 AND M505.4.1.3.

CARBON MONOXIDE ALARMS/ DETECTORS ARE REQUIRED TO BE INTERCONNECTED PER IRC 315.5

Issue	Issue Date	By	Description
	04.08.22		CITY PLAN REVIEW COMMENTS

04.08.22  
CITY PLAN REVIEW COMMENTS

Liao Residence  
4541 88th Ave SE

Job Number:

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

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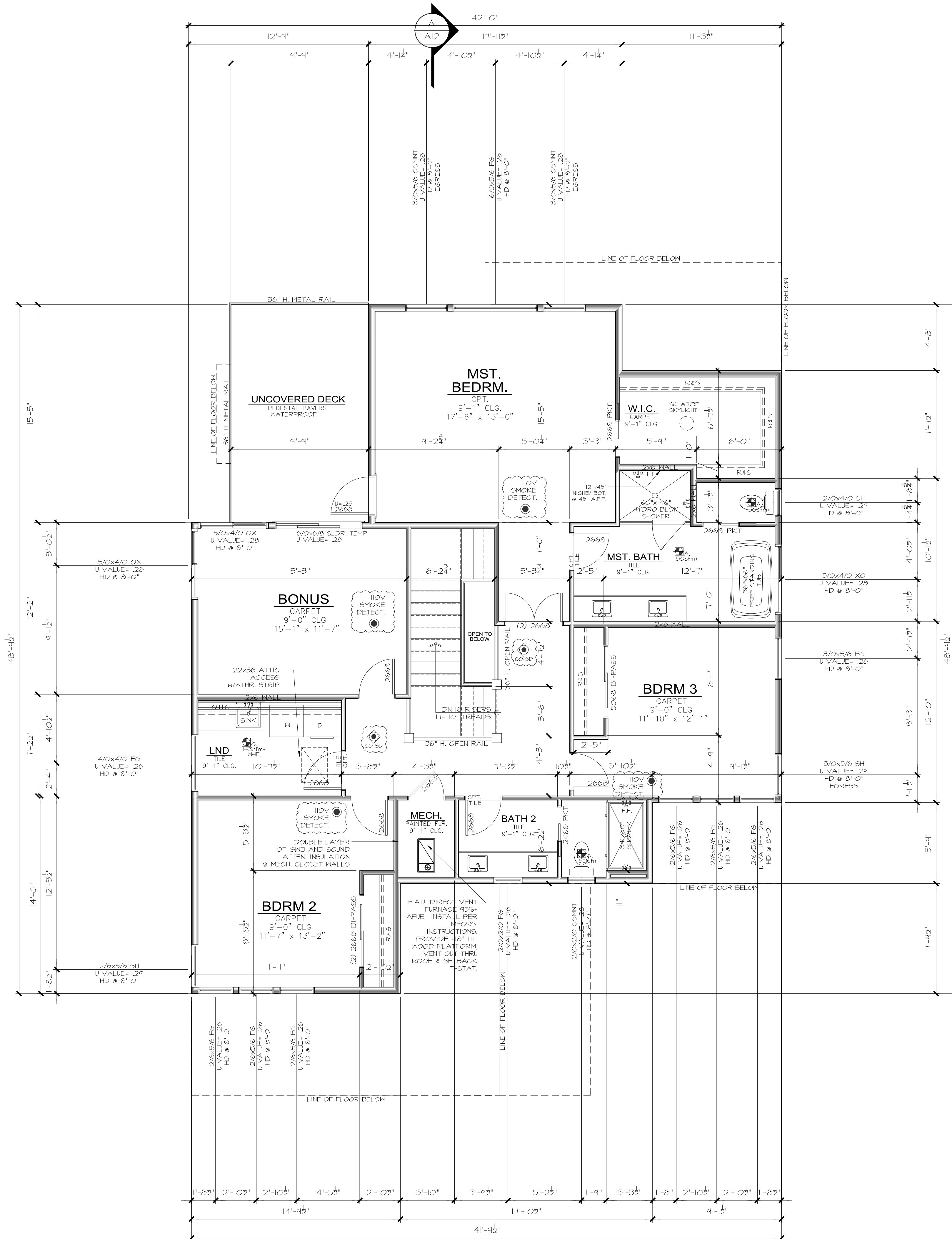
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of .

Sheet Title/Description



### SQUARE FOOTAGE SUMMARY

MAIN FLOOR AREA + GARAGE	2,051 S.F.
UPPER FLOOR AREA	1,458 S.F.
TOTAL AREA	3,509 S.F.

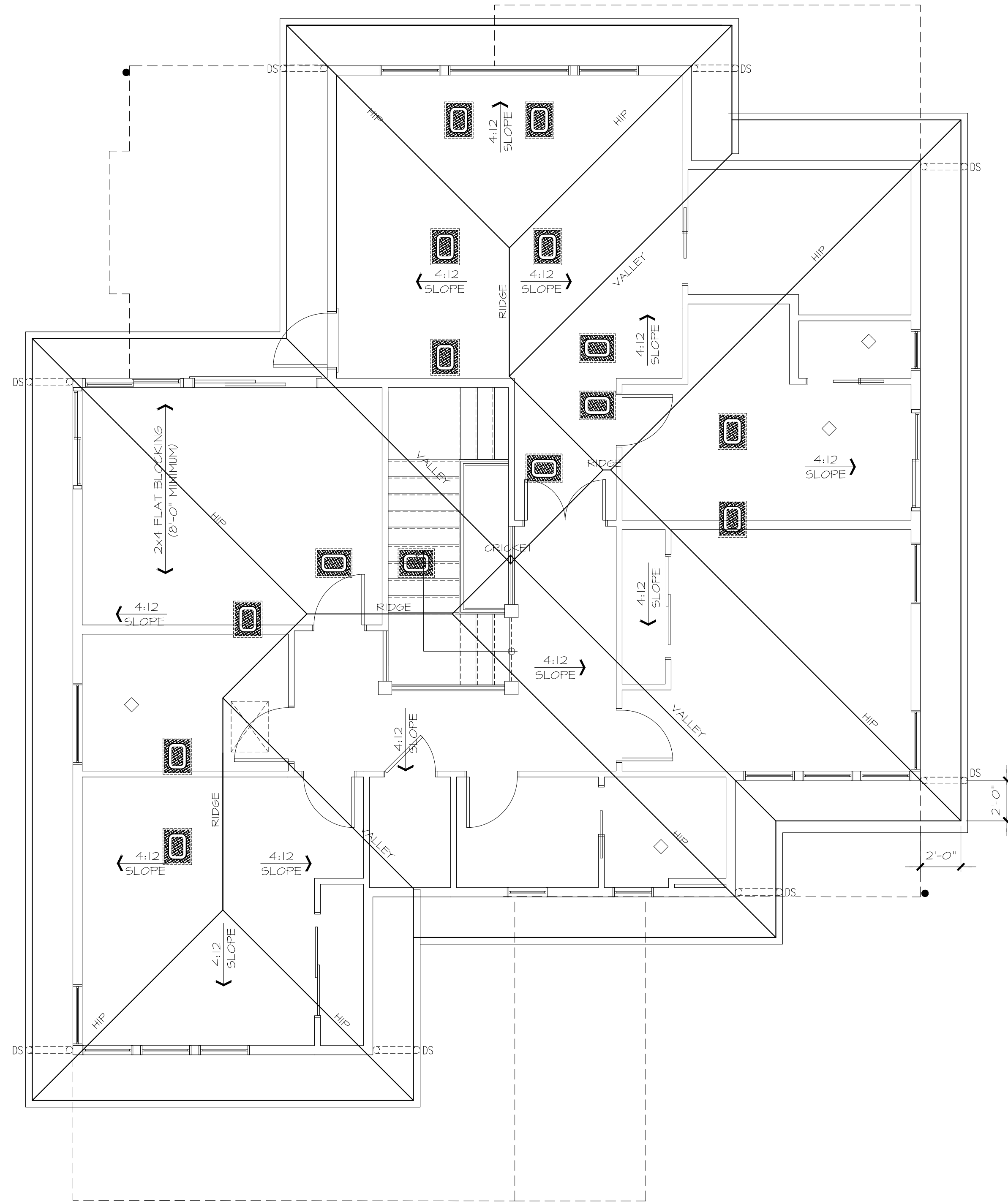
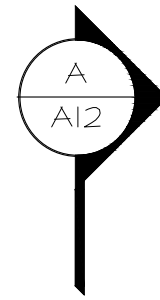
COVERD PORCH	115 S.F.
TOTAL AREA UNDER ROOF	3,624 S.F.
UNCOVERD PATIO	205 S.F.

OVERALL WIDTH	42'-0"
OVERALL DEPTH	58'-11"

Updated: 1/02/2018  
Method for Calculating Square Footage - ANSI Z765-2013 except, no separate distinction of 'above-grade or below-grade' areas and each level is measured to the outside of studs not the exterior finished surface.

Square Footage calculations for this house were made based on plan dimensions only and may vary from the finished square footage of the house as built.

See Sheet "CODES" for additional Zoning required Area Calculations



**ROOF PLAN**

1/4" = 1'-0"

ROOF VENTILATION		ZONE 1
<b>Standard Truss / Scissor Truss Roof Framing Assembly:</b>		
Roof Area :	3038 s.f.	
Ventilation Required:	$3038 \text{ s.f.} \times 144 \text{ s.i.} / \text{s.f.} / 300 =$	1458.2 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		729.12
Continuous Ridge Vent =	$729.12 \text{ s.i.} \times 0.4 / \text{s.i. per linear foot} =$	18.00 s.i. per l.f.
Upper Ventilation MIN. Req'd =	$729.12 \text{ s.i.} \times 0.5 / \text{s.i. per linear foot} =$	33 l.f.
Upper Ventilation MAX. Req'd =	$729.12 \text{ s.i.} \times 0.5 / \text{s.i. per linear foot} =$	40 l.f.
Provide:	0 l.f. ridge vent. Ventilation =	0.00 s.i.
Ventilation area remainder for AF50 vents =		729.12 s.i.
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% =	$729.12 \text{ s.i.} / \text{s.i. of each vent} =$	15 vents
Provide:	15 -10"x7" roof jacks. Ventilation =	750.00 s.i.
<b>Eave Ventilation:</b>		
Birdblocking: (3)" dia holes per bay =	$4.71 \text{ s.i.} / \text{l.f.} - 25\% \text{ reduction} =$	3.53 s.i. / l.f.
Eave Ventilation Req'd =	$729.12 \text{ s.i.} / \text{s.i. per l.f.} =$	941.43 l.f.
Provide Minimum:	201 l.f. birdblocking. Ventilation =	710.03 s.i.
<b>Minimum Ventilation Provided =</b>		<b>1460.03 s.i. IS GREATER THAN :</b>
		<b>1458.2 s.i. Req'd</b>

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**JAYMARC**  
HOMES

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

Issue	Issue Date	By	Description
△	04.08.22		CITY PLAN REVIEW COMMENTS

**Liao Residence**  
**4541 88th Ave SE**

Job Number: .

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

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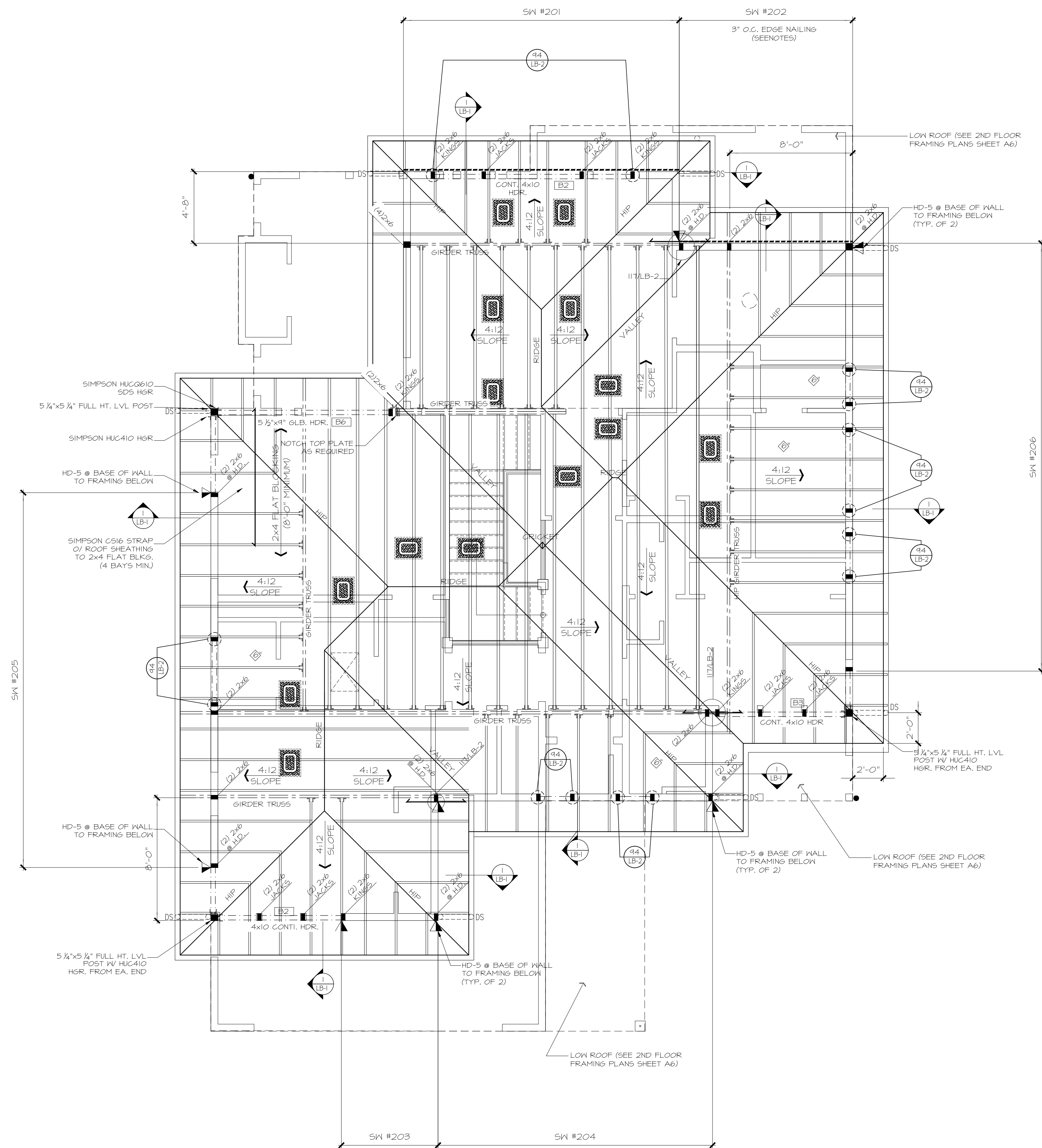
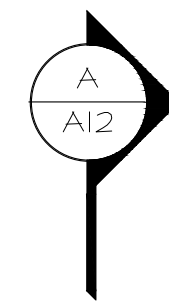
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LEGEND	
	INTERIOR BEARING WALL
	BEAM / HEADER
	ROOF TRUSS @ 24" O.C. (U.N.O.)
	GIRDER TRUSS
	INTERIOR SHEAR WALL PANEL OR EXTERIOR SHEAR WALL w/ 3" O.C. EDGE NAILING
	J.L. METAL HANGER
	INDICATES OVER FRAMED TRUSS AREA

REFER TO S-O FOR TYPICAL STRUCTURAL NOTES & SCHEDULES

4x10 HDR @ ALL EXT. [B1]  
WINDOWS/DOORS (TYP. U.N.O.)

NOTE #1:  
PROVIDE 5/8" OSB/PLYWOOD SHTG. + FASTEN PER TYP. WALL SHTG. SPECS. (SEE NOTES)

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

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

Liao Residence  
4541 88th Ave SE  
Job Number:

plan name: PATAGONIA  
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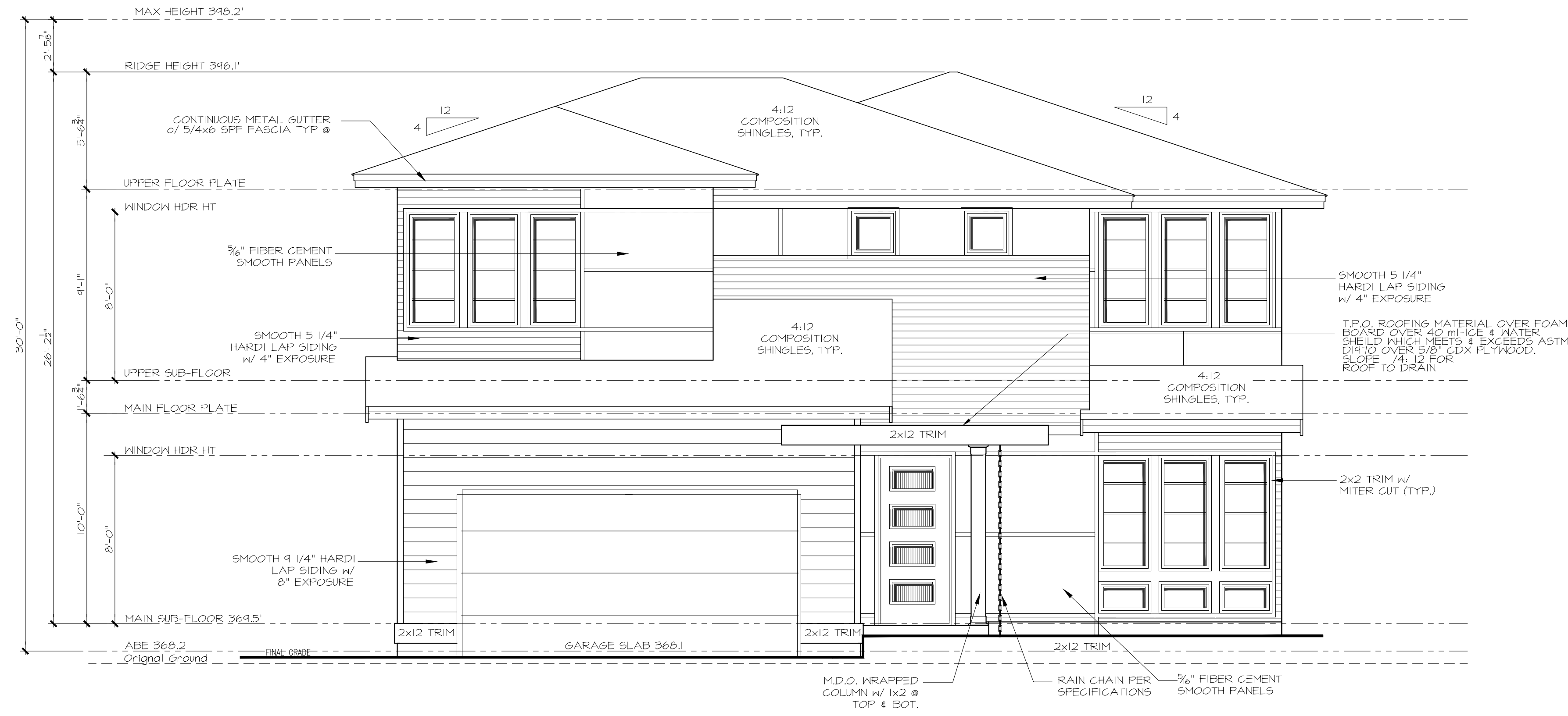
**ROOF FRAMING PLAN**  
1/4" = 1'-0"

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**FRONT ELEVATION**

1/4" = 1'-0"



**LEFT ELEVATION**

1/4" = 1'-0"

Issue Issue Date By Description

04.08.22  
 CITY PLAN REVIEW COMMENTS

Liao Residence  
 4541 88th Ave SE

Job Number:

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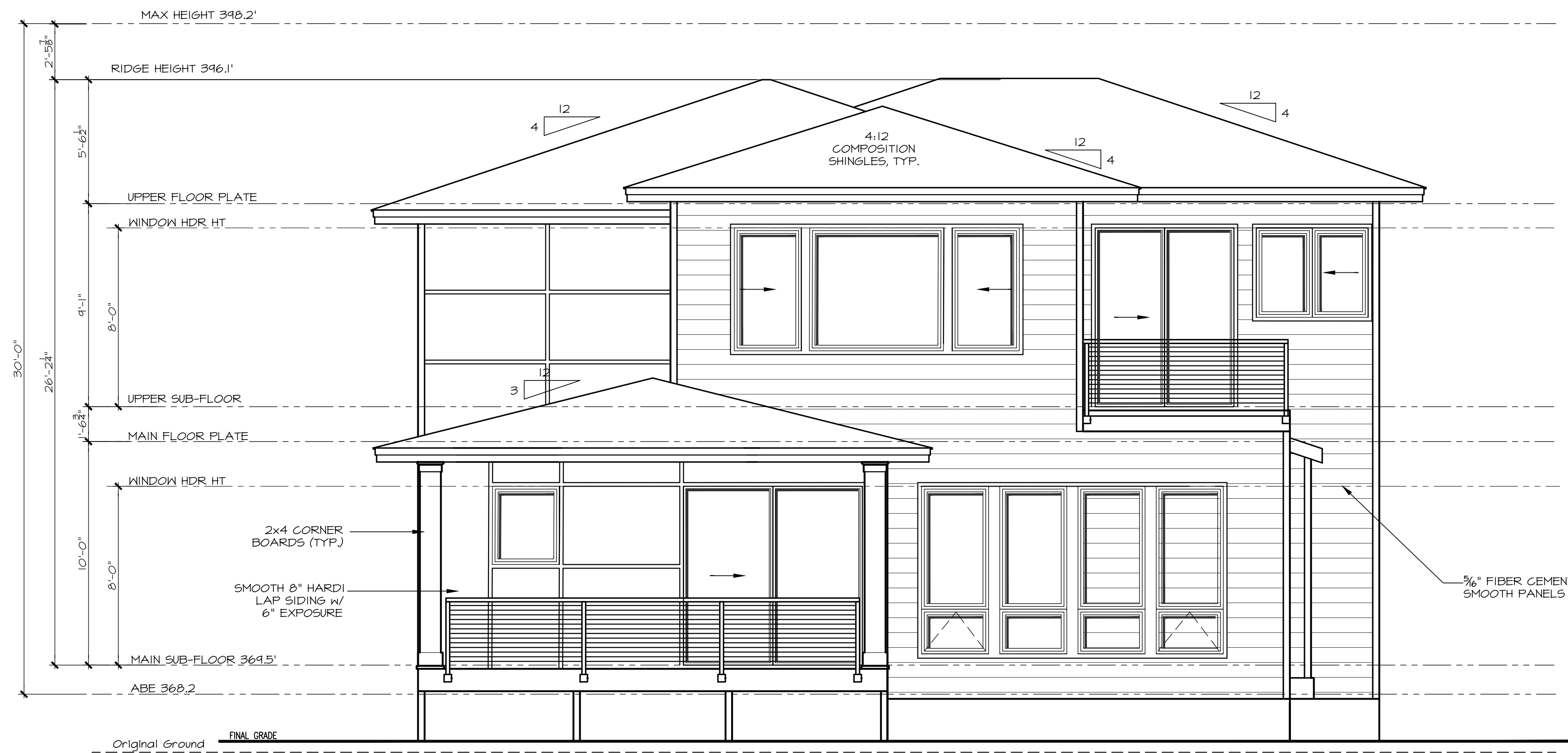
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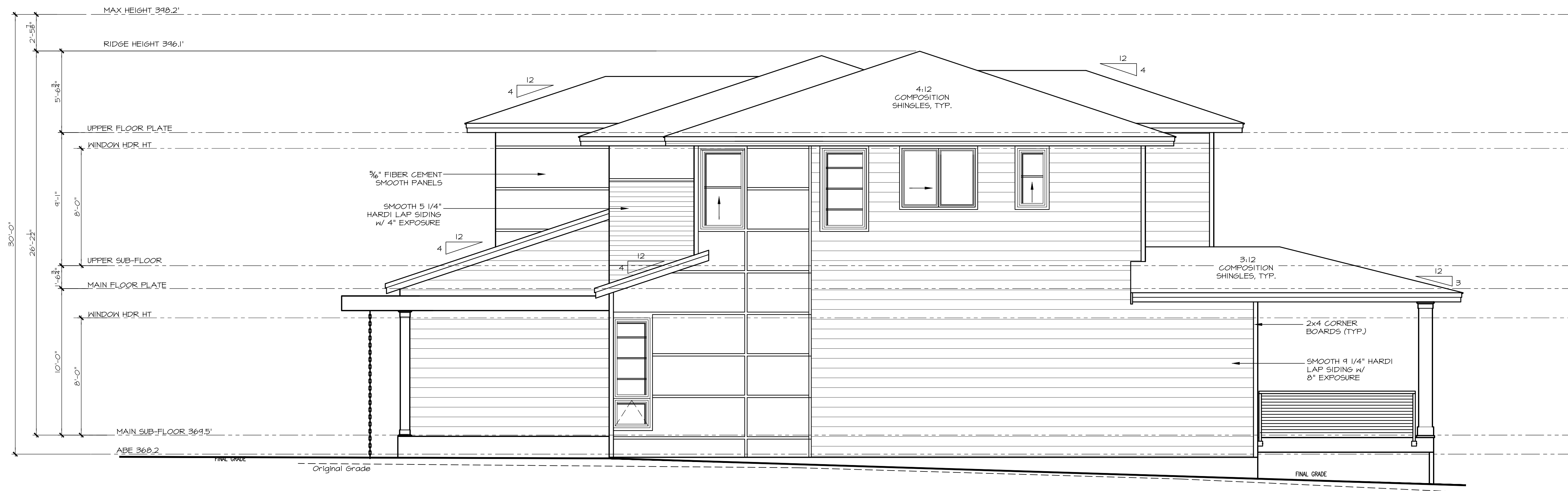
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REAR ELEVATION

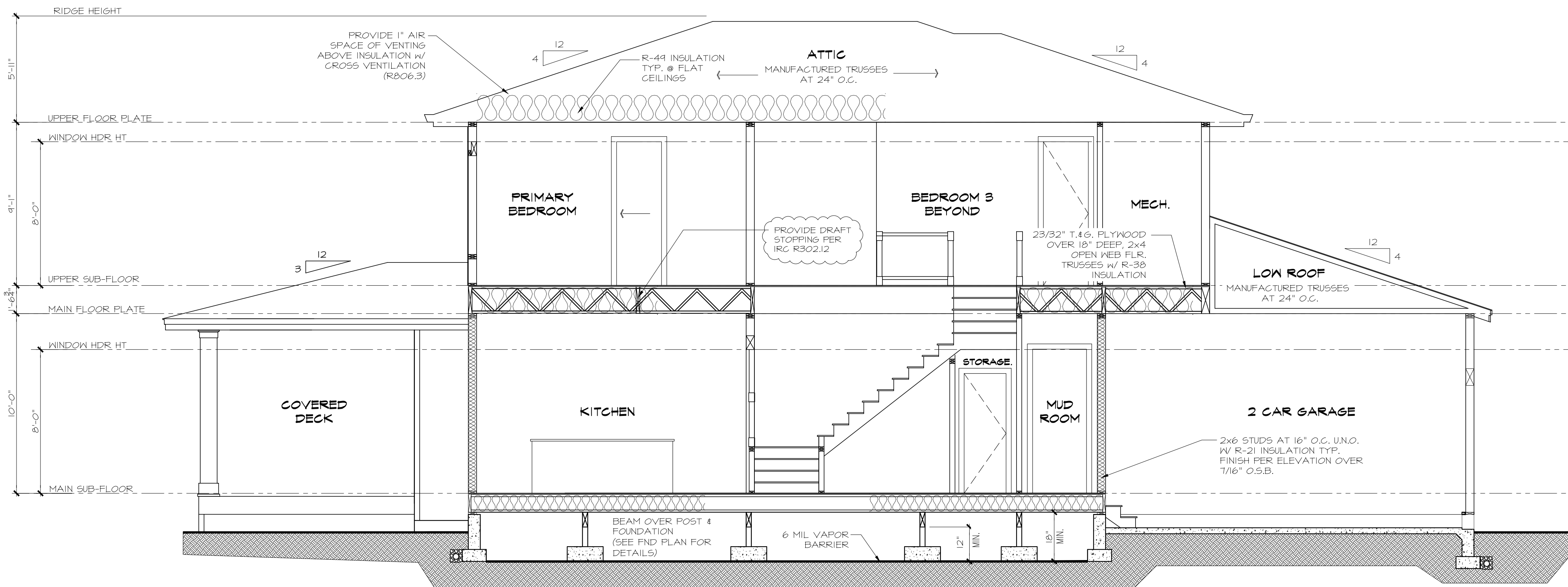
1/4" = 1'-0"



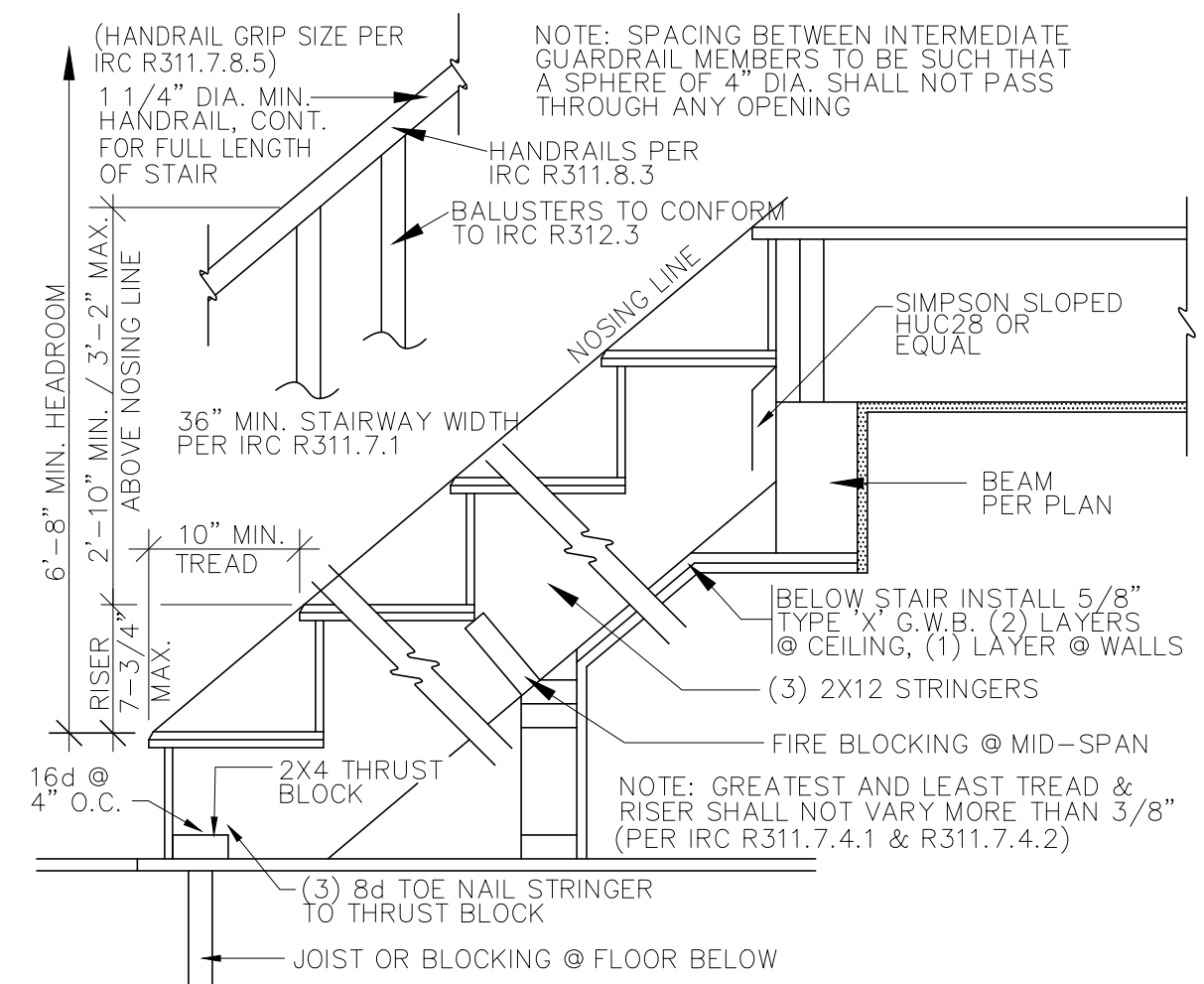
RIGHT ELEVATION

1/4" = 1'-0"

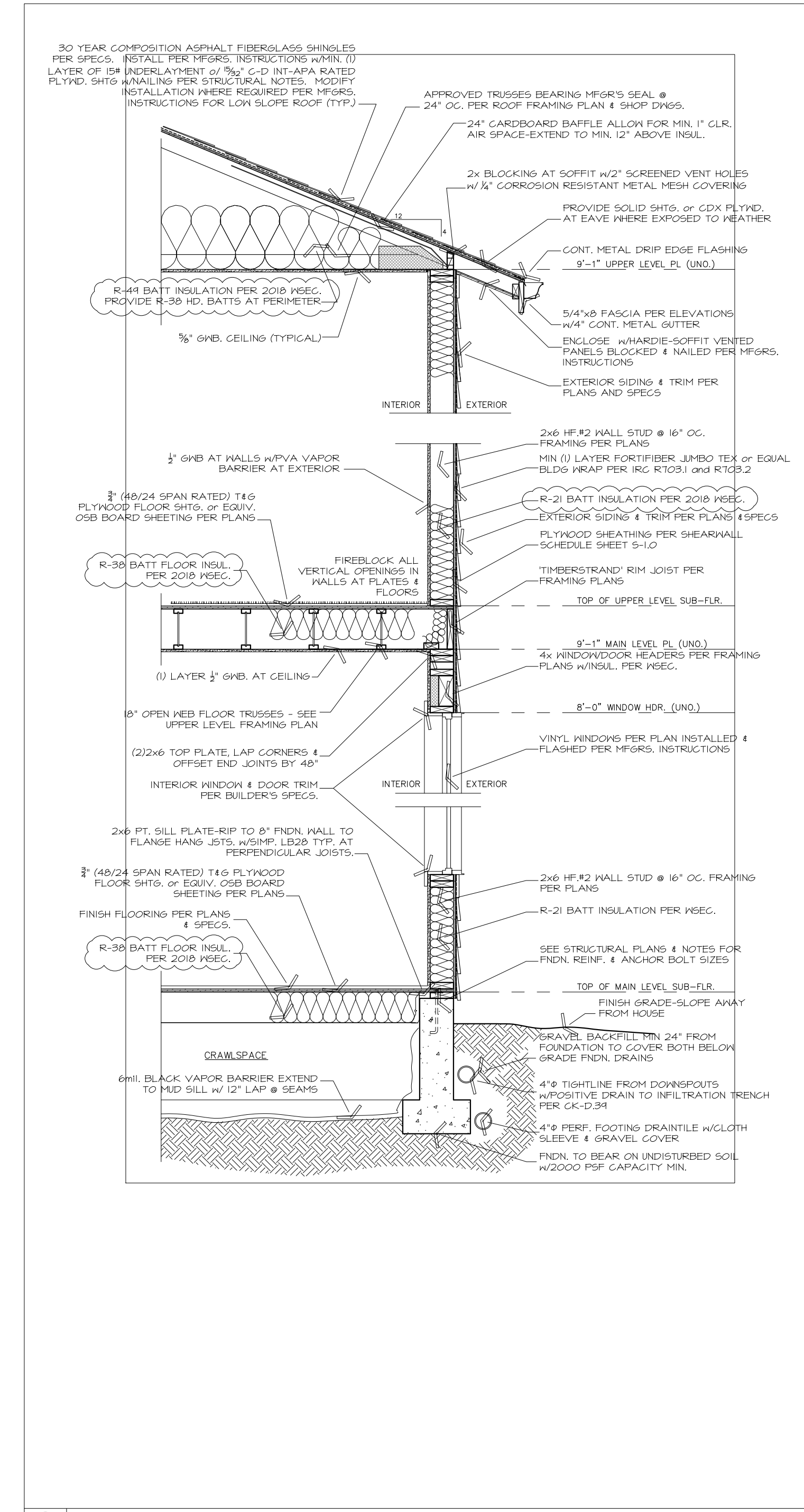
Sheet Title/Description



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



**TYP. STAIR SECTION**  
 1/4" = 1'-0"



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

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Issue Description	Issue Date	By
	04.08.22	

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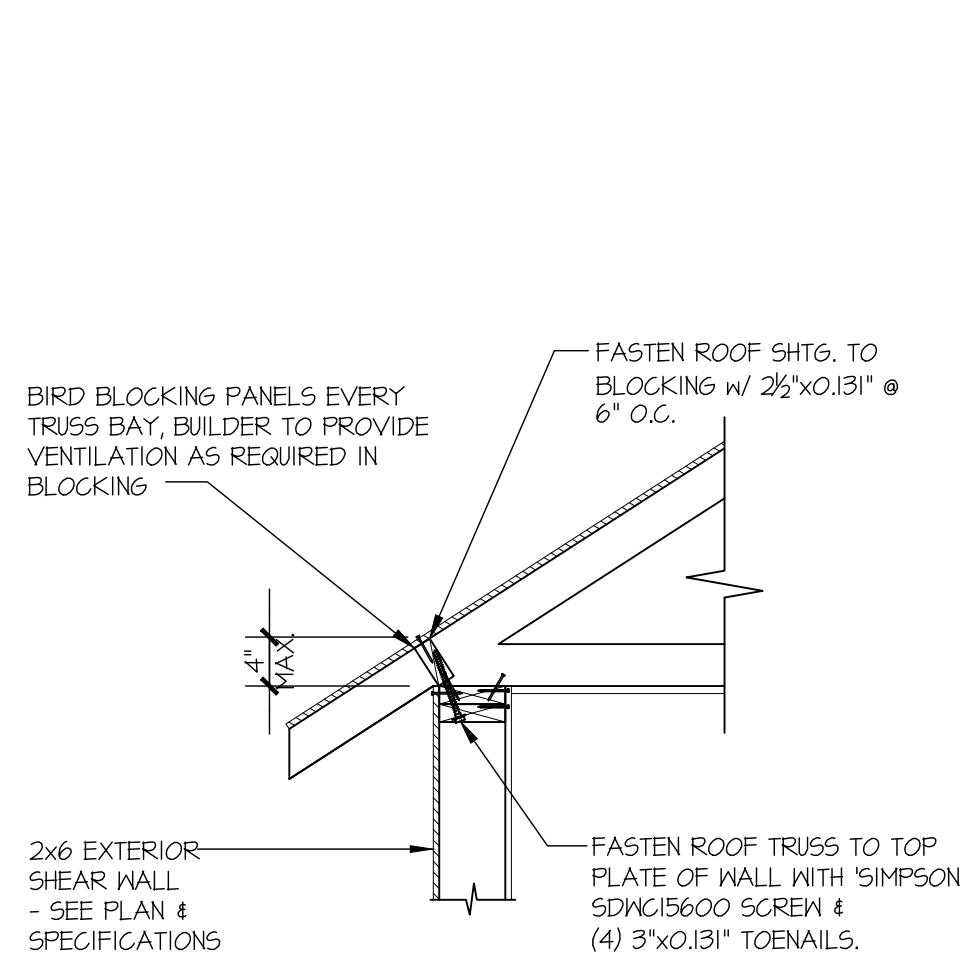
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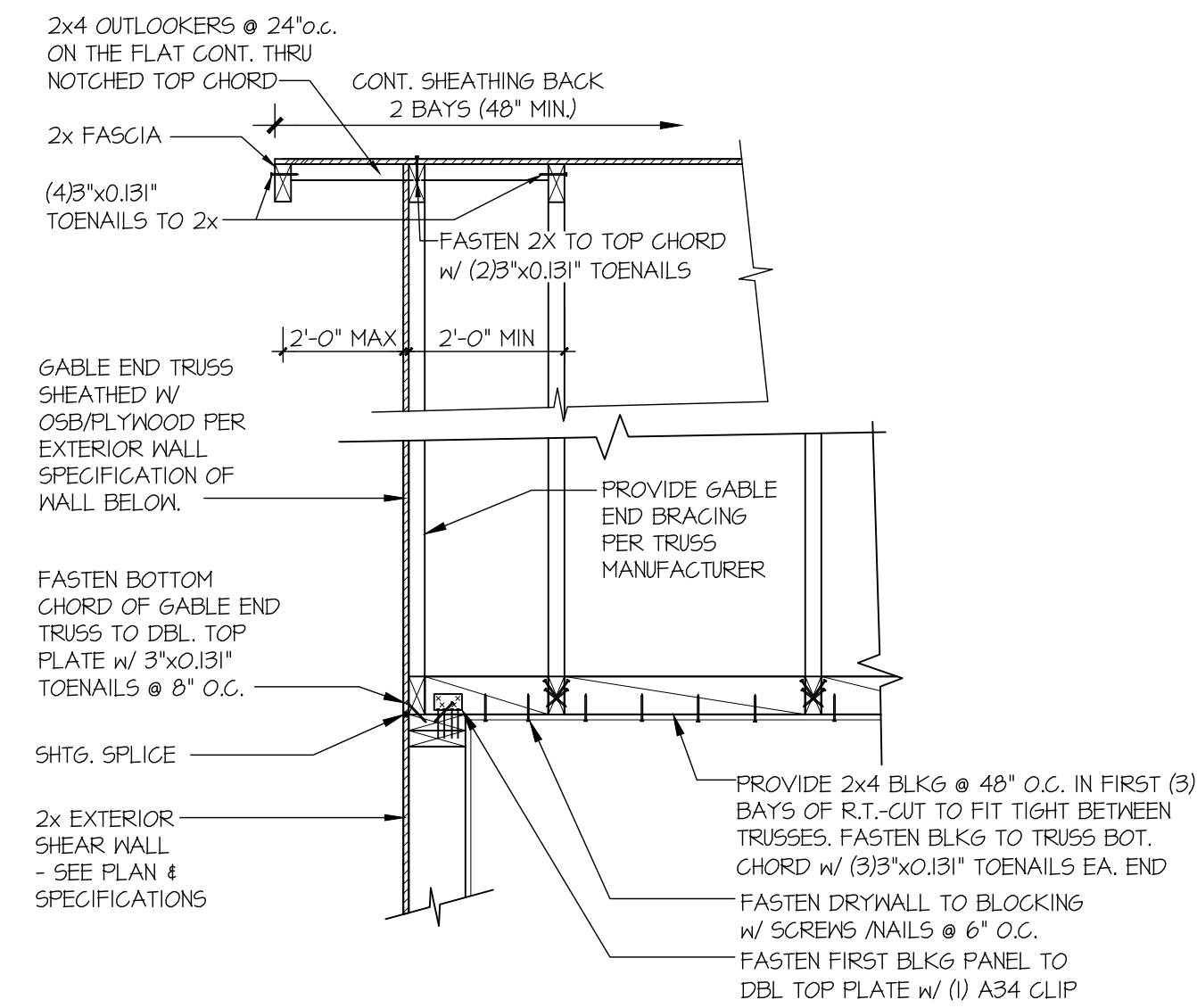
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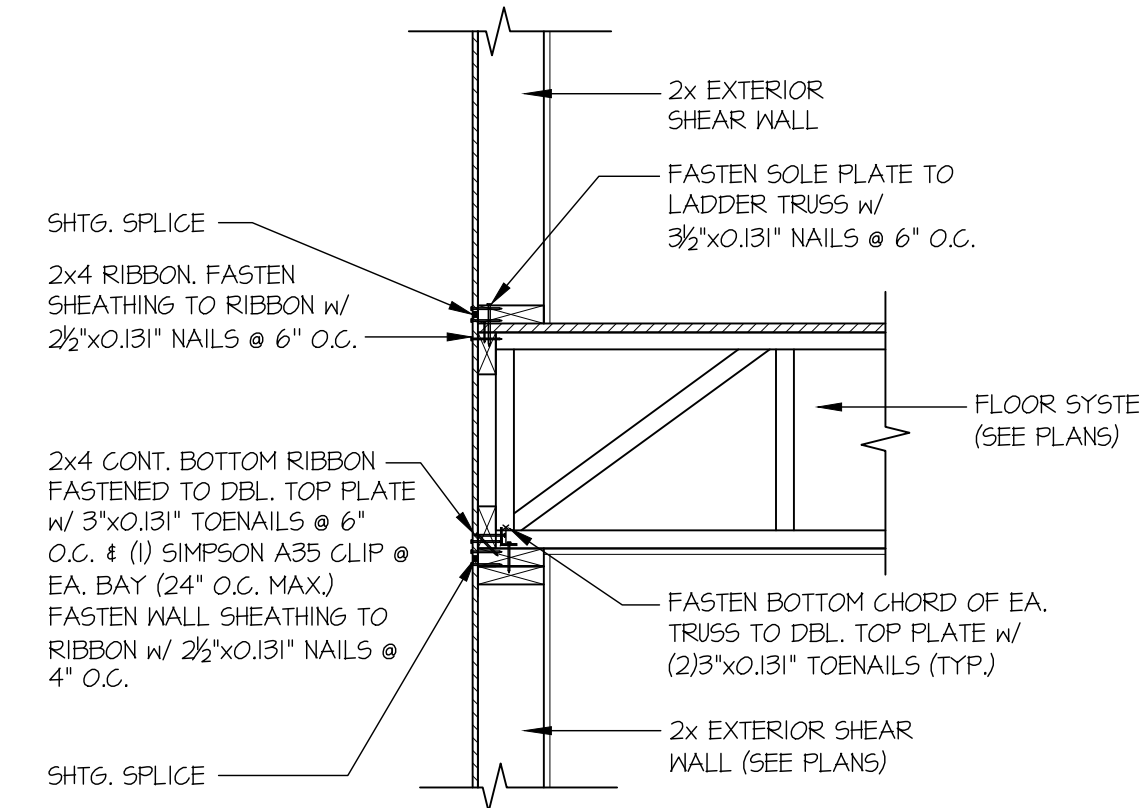




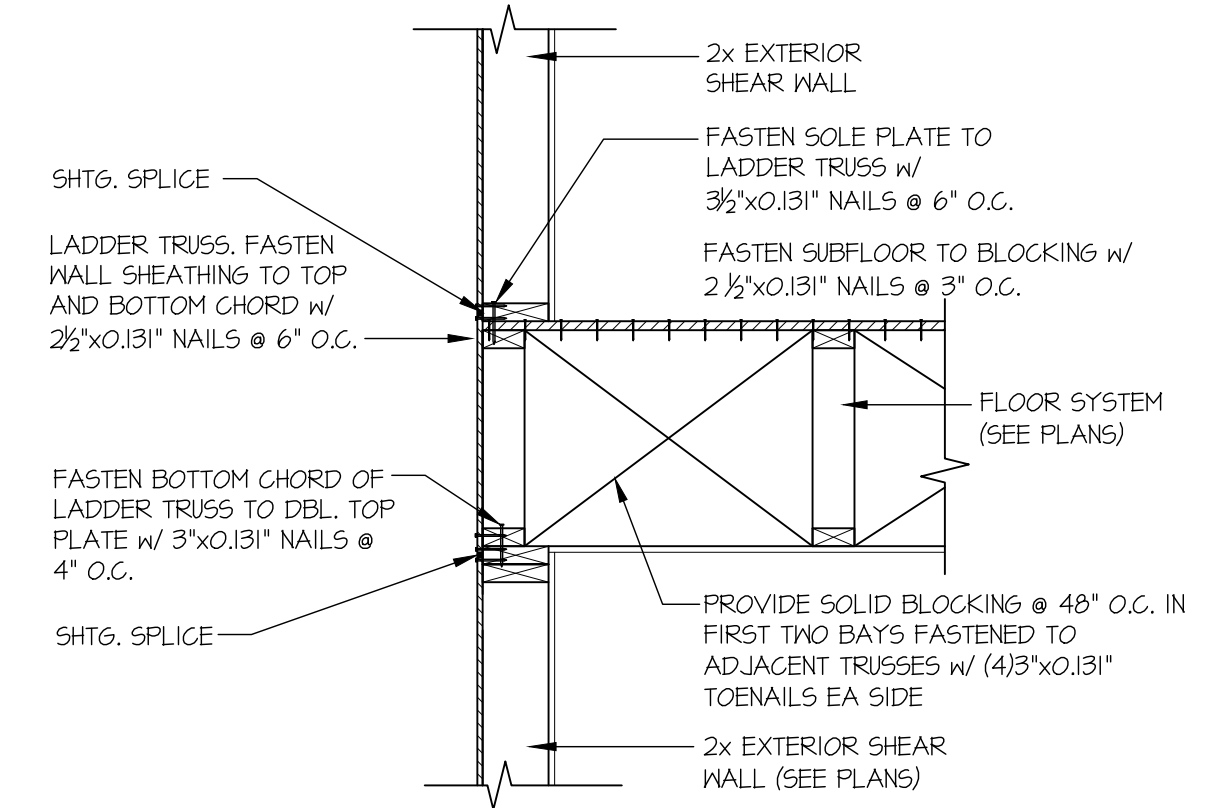
**1 TYPICAL SHEAR TRANSFER DETAIL @ ROOF**  
SCALE: 3/4"=1'-0" HEEL HEIGHT LESS THAN 4"



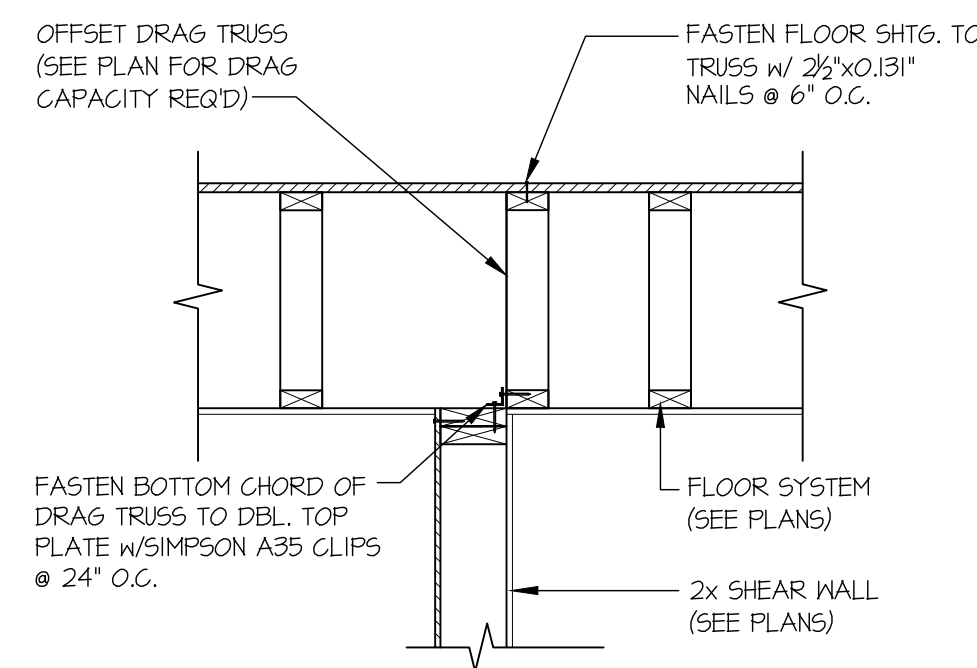
**2 TYPICAL GABLE END DETAIL**  
SCALE: 3/4"=1'-0"



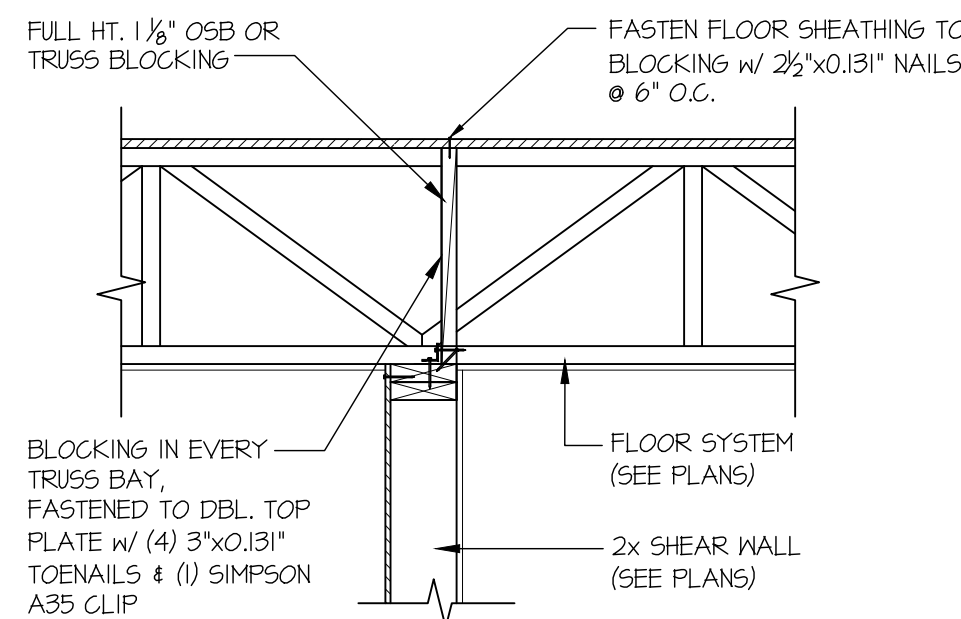
**3 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL**  
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



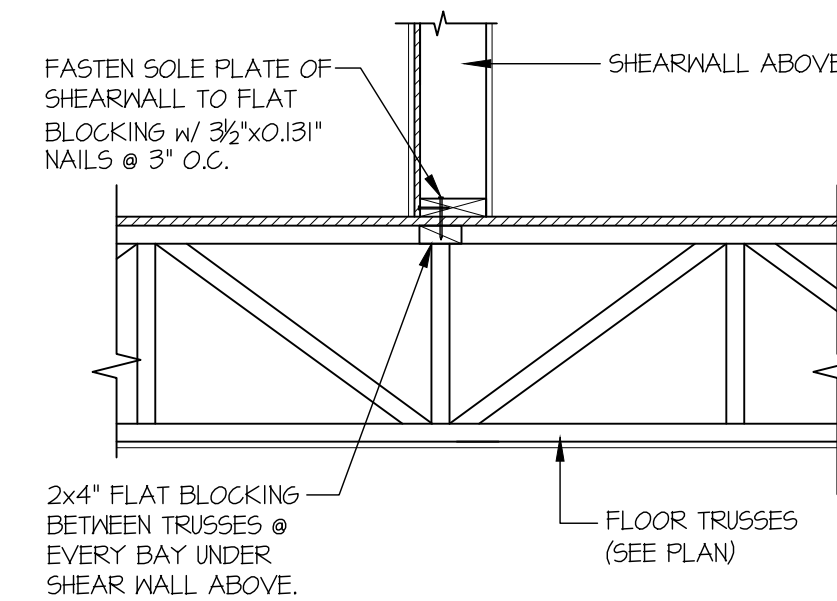
**4 TYPICAL SHEAR TRANSFER DETAIL BETWEEN FLOORS @ EXTERIOR WALL**  
SCALE: 3/4"=1'-0" PARALLEL FRAMING



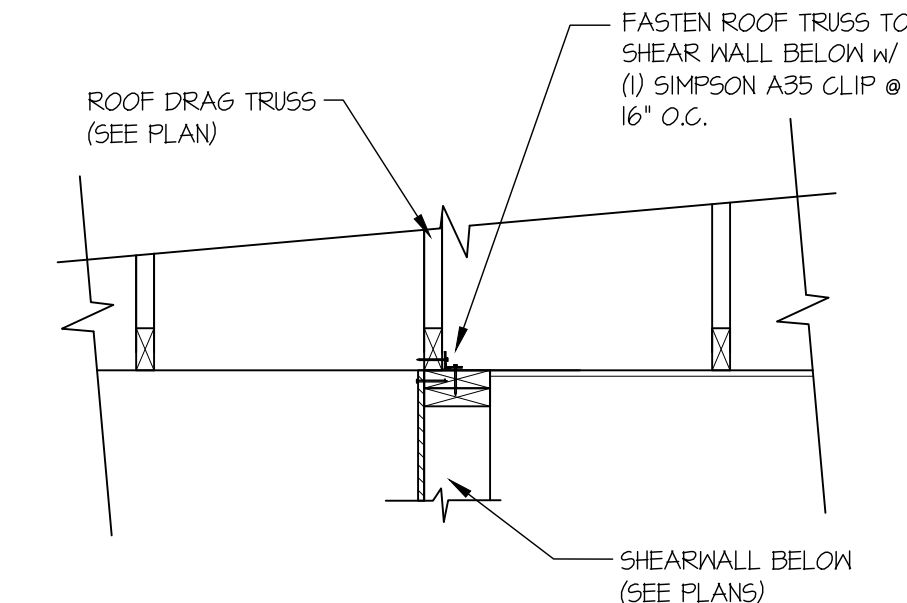
**11 SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW**  
SCALE: 3/4"=1'-0"



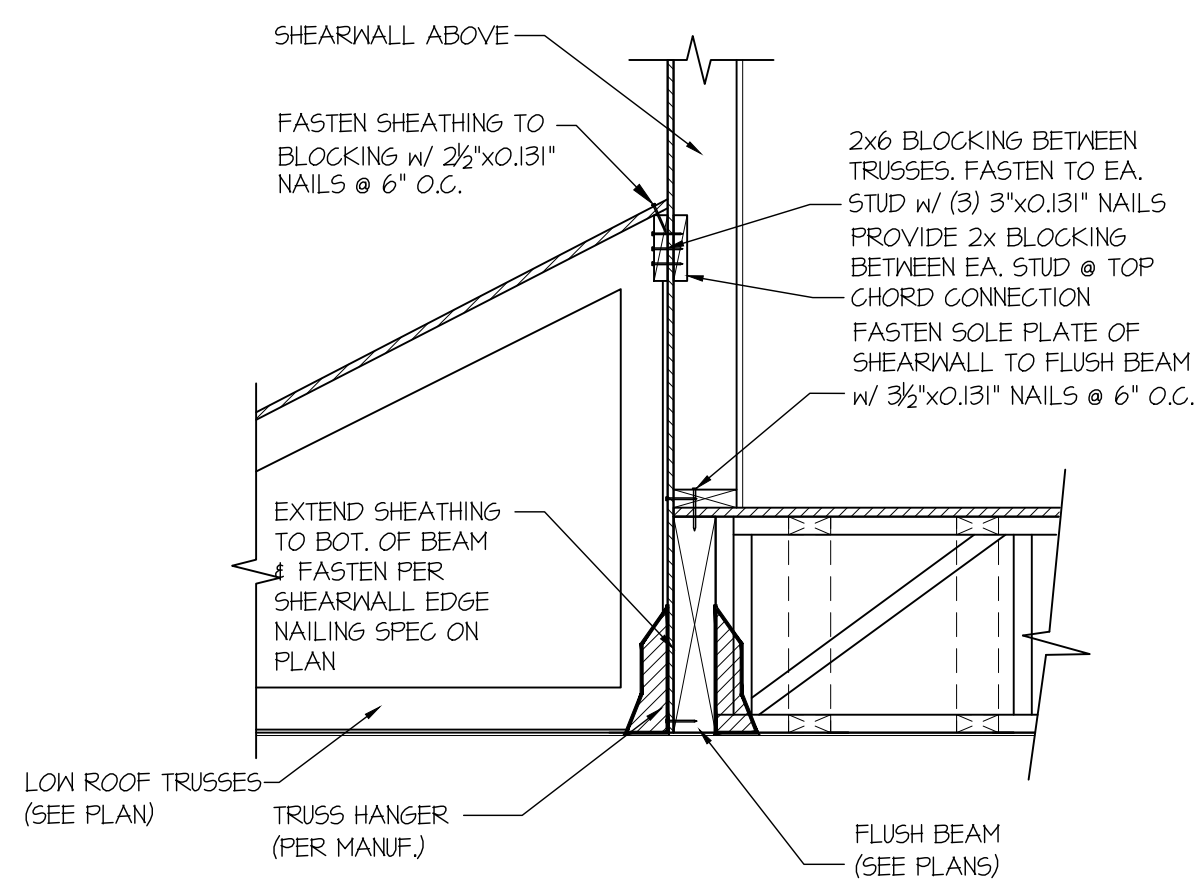
**13 SHEAR TRANSFER DETAIL @ SHEAR WALL BELOW**  
SCALE: 3/4"=1'-0"



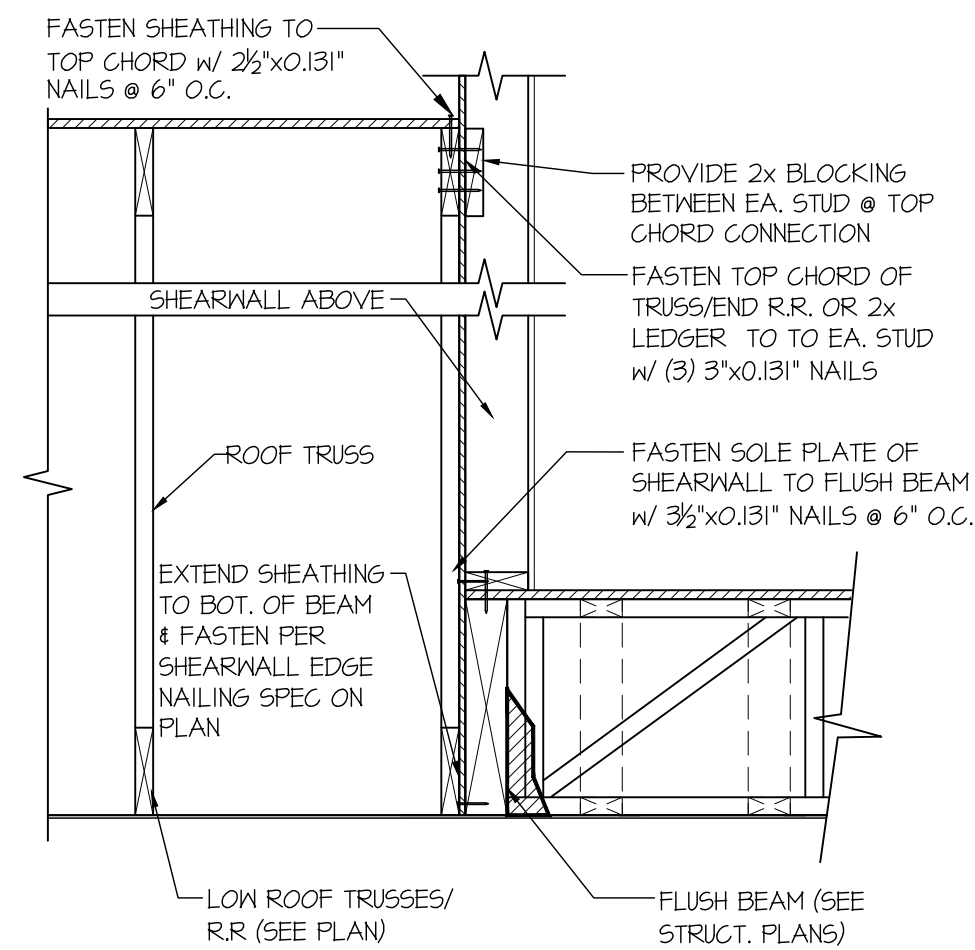
**20 SHEAR TRANSFER DETAIL @ EXTERIOR SHEAR WALL**  
SCALE: 3/4"=1'-0" PERPENDICULAR FRAMING



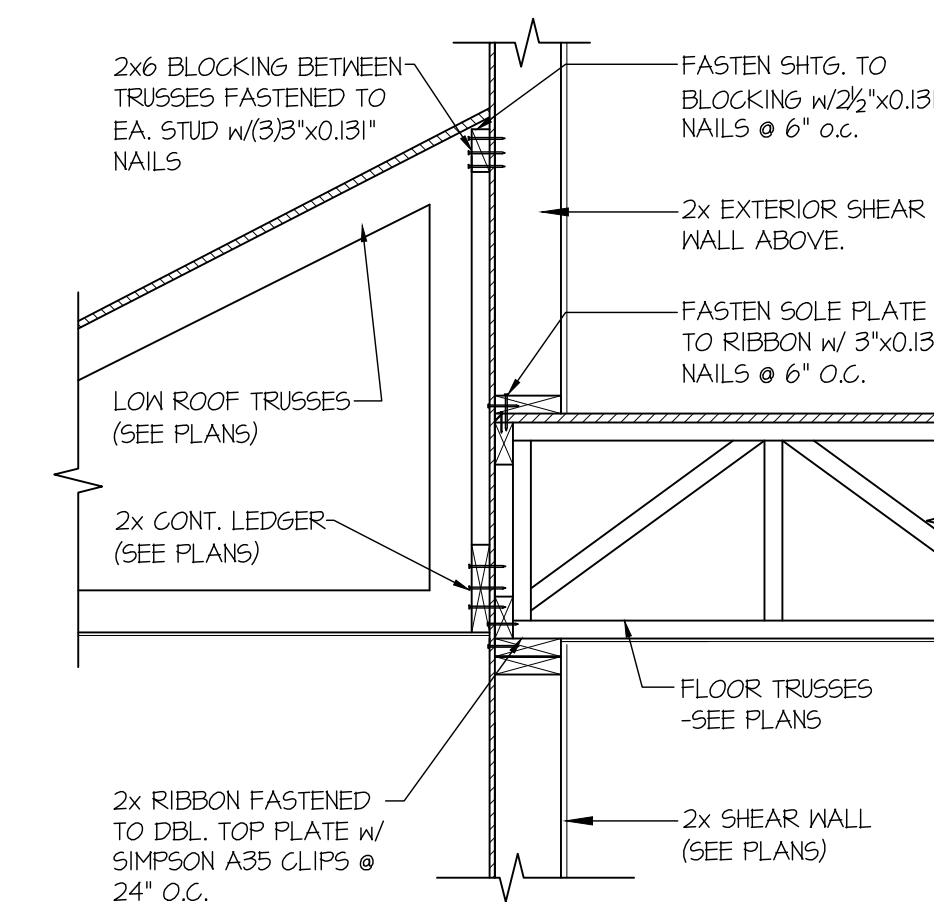
**46 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL BELOW**  
SCALE: 3/4"=1'-0"



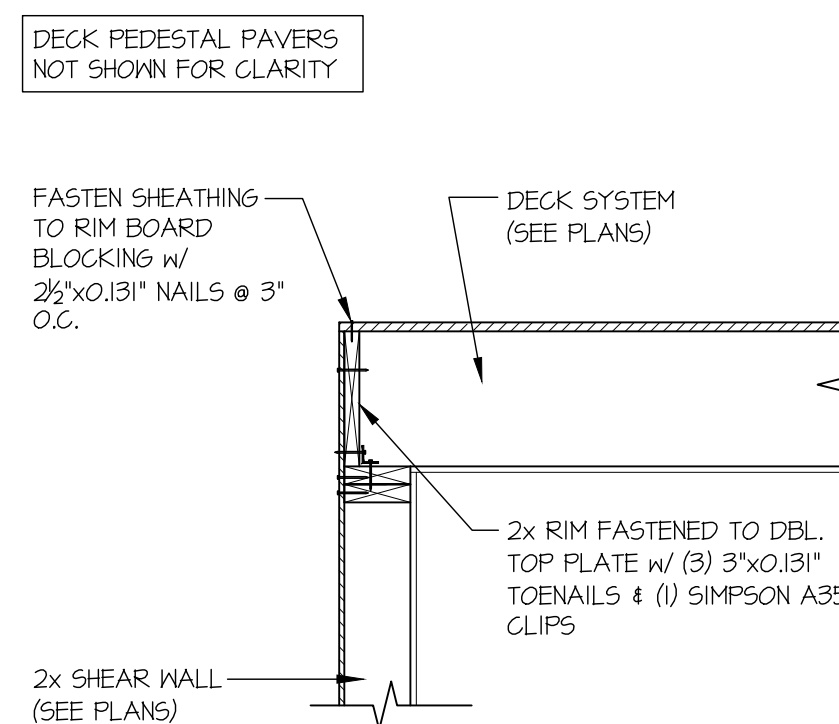
**58 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE**  
SCALE: 3/4"=1'-0"



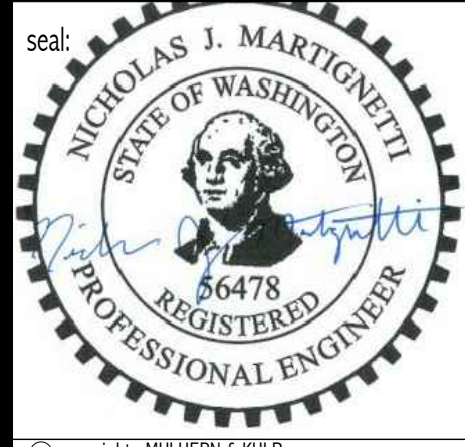
**59 SHEAR TRANSFER DETAIL @ EXTERIOR SHEARWALL ABOVE**  
SCALE: 3/4"=1'-0"



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

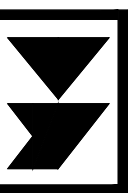


**71 SHEAR TRANSFER DETAIL @ DECK**  
SCALE: 3/4"=1'-0"



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M&K project number:  
154-21030

project mgr: NJM  
drawn by: LGH  
issue date: 11-10-21

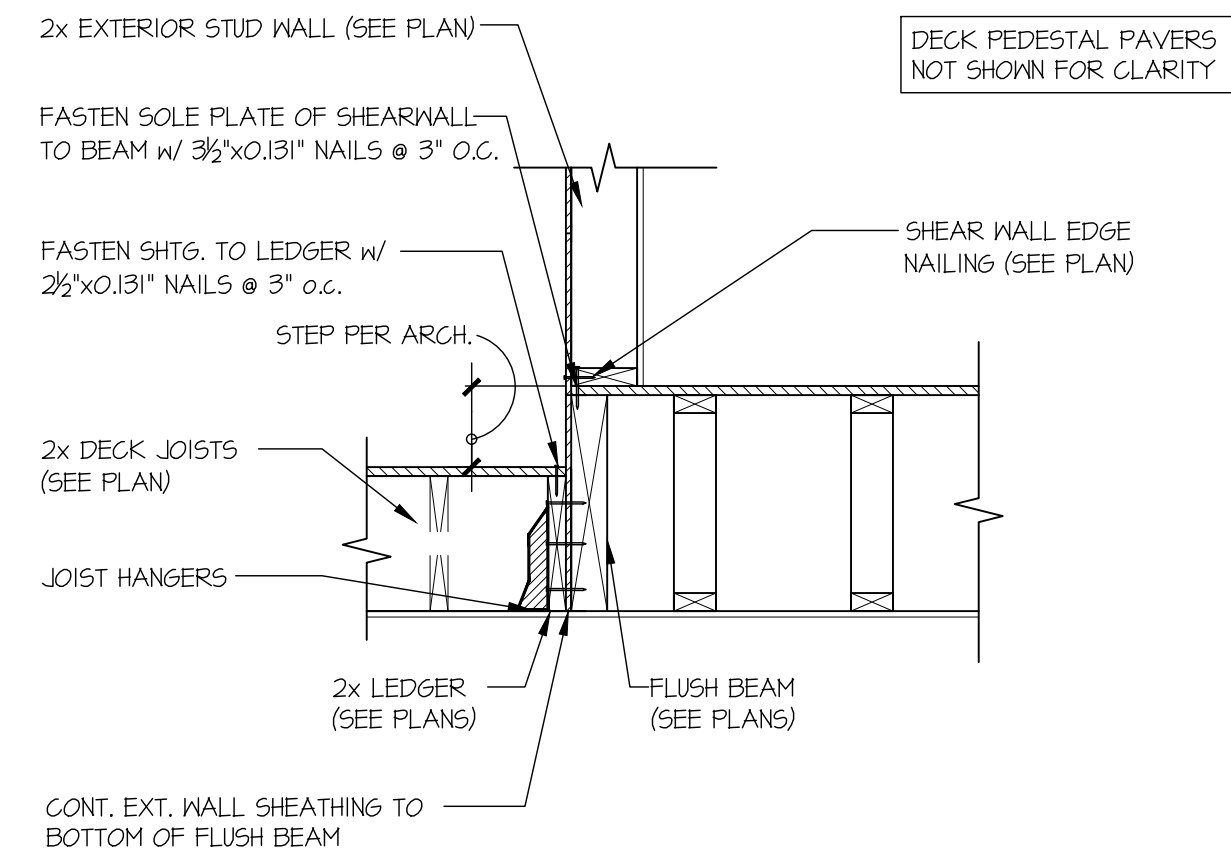
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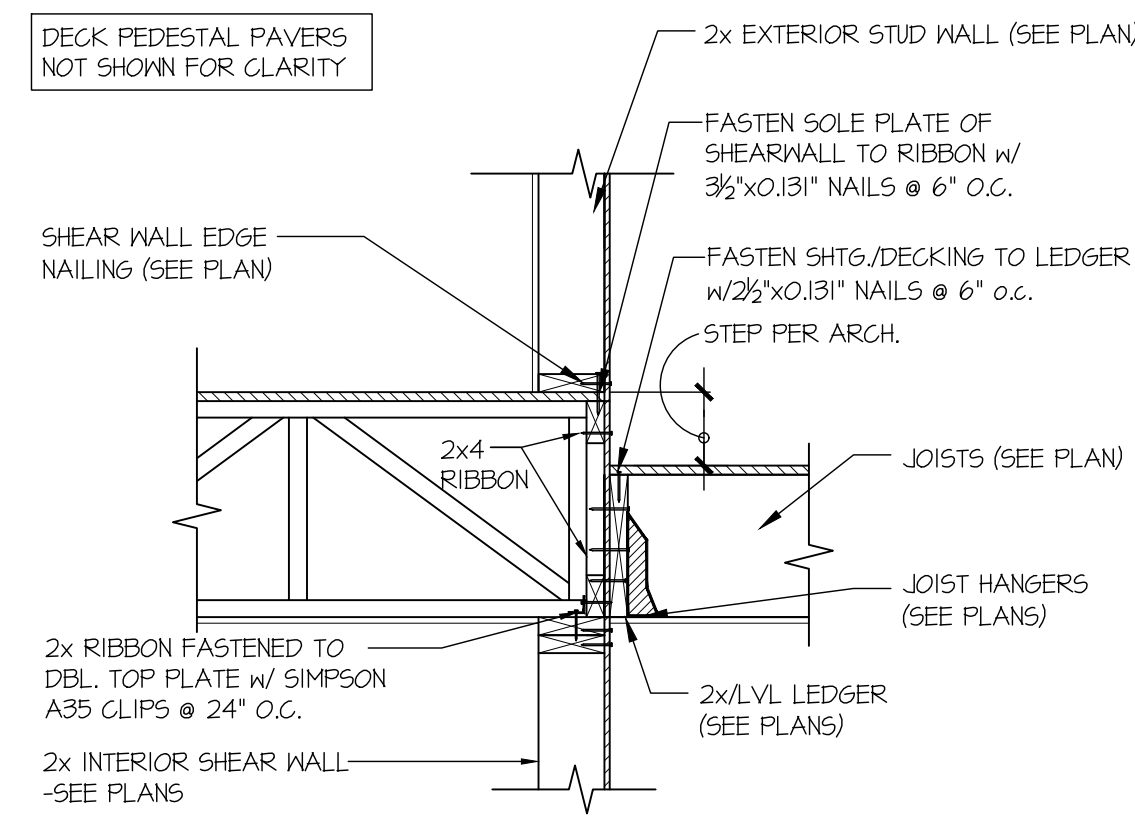
STRUCTURAL DETAILS  
LIAO RESIDENCE  
4541 88TH AVE SE  
MERCER ISLAND, WASHINGTON

sheet:  
**LB-1**

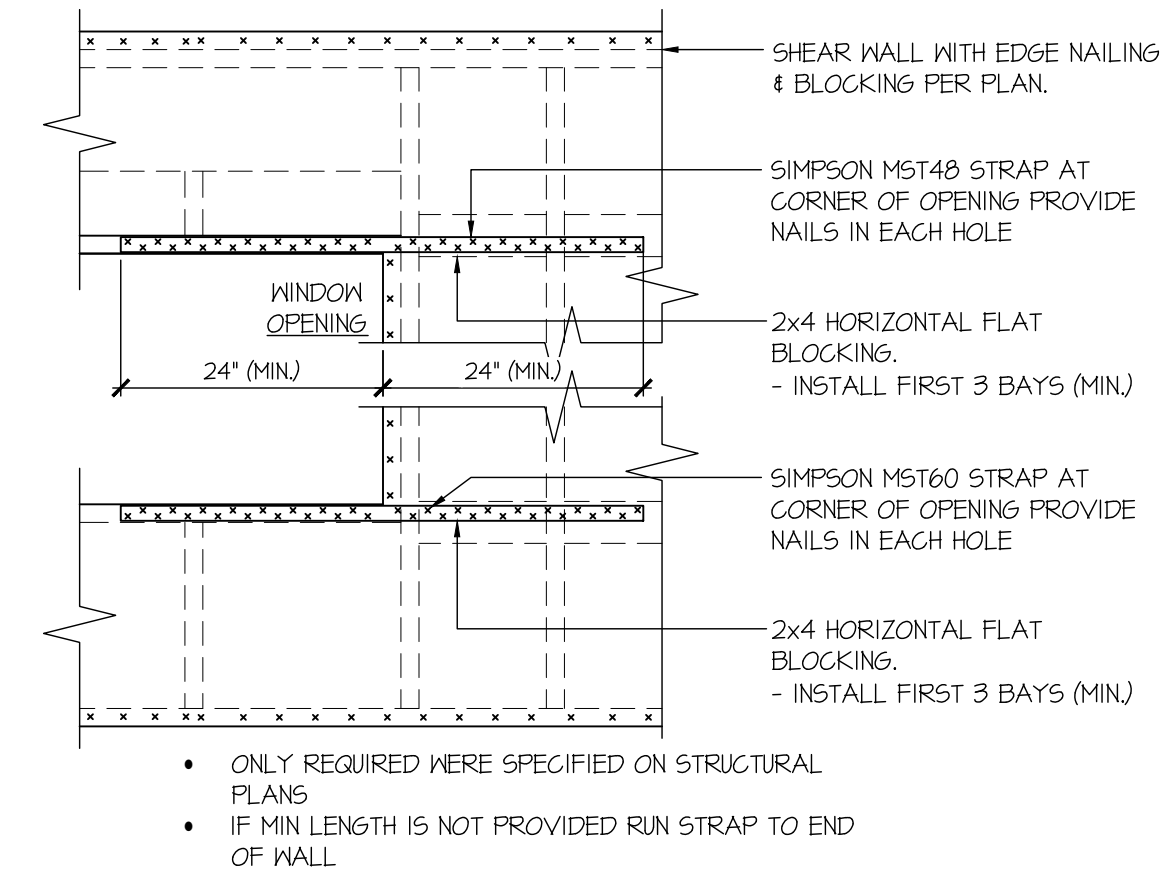




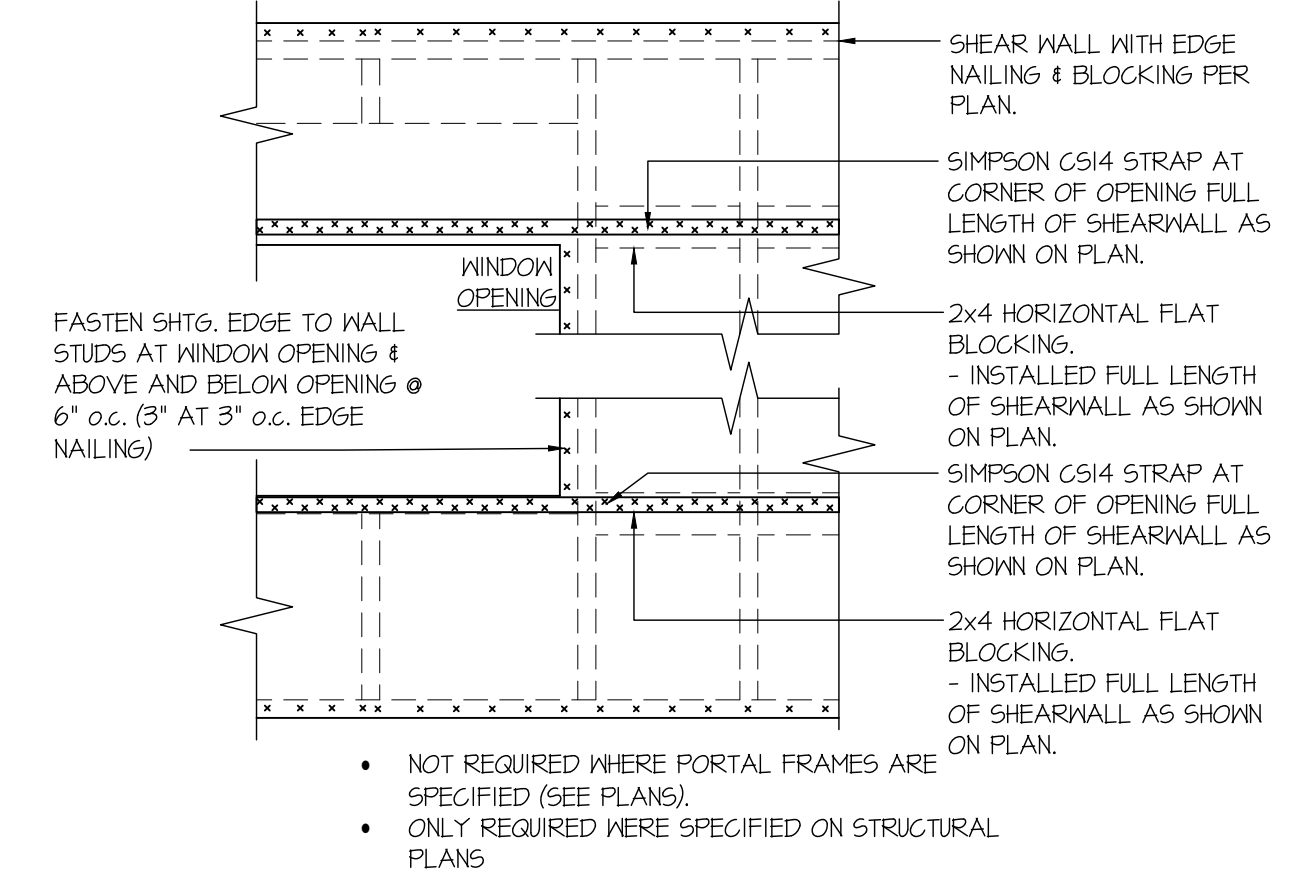
**72** TYPICAL SHEAR TRANSFER  
DETAIL @ EXT. DECK FRAMING  
SCALE: 3/4"=1'-0"



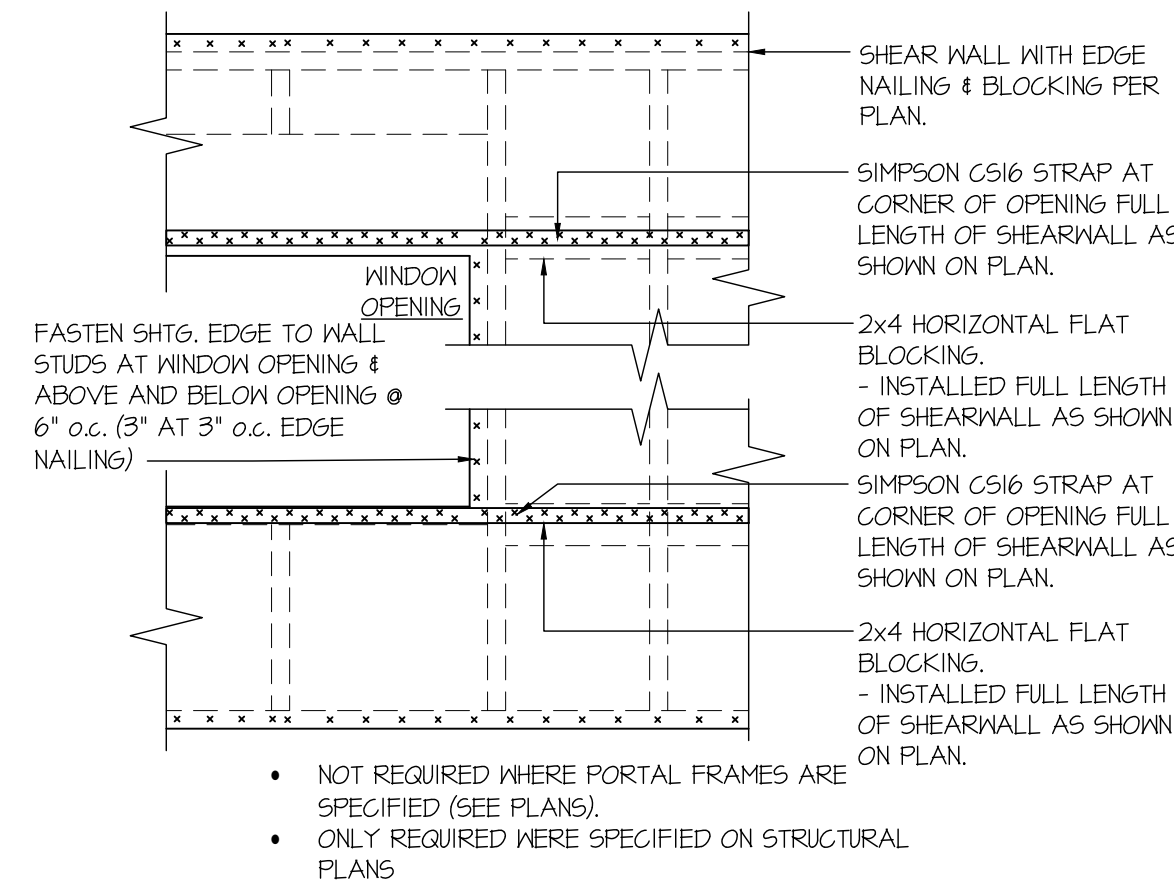
**73** TYPICAL SHEAR TRANSFER  
DETAIL @ EXT. DECK FRAMING  
SCALE: 3/4"=1'-0"



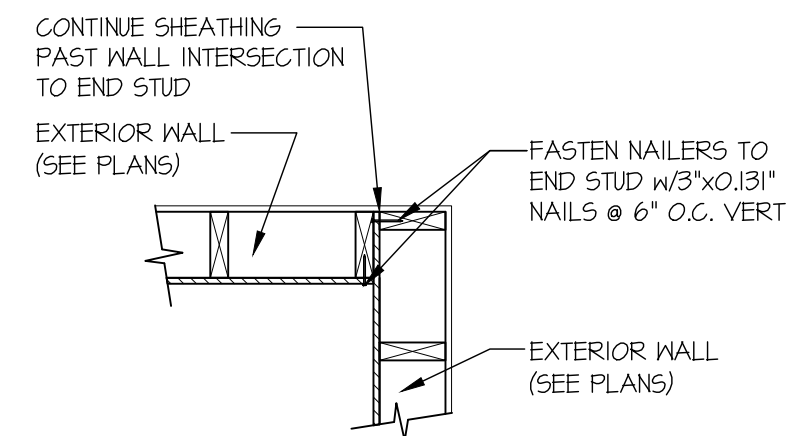
**92** EXT. WALL & INT. SHEARWALL  
OPENING ELEVATION  
SCALE: NTS



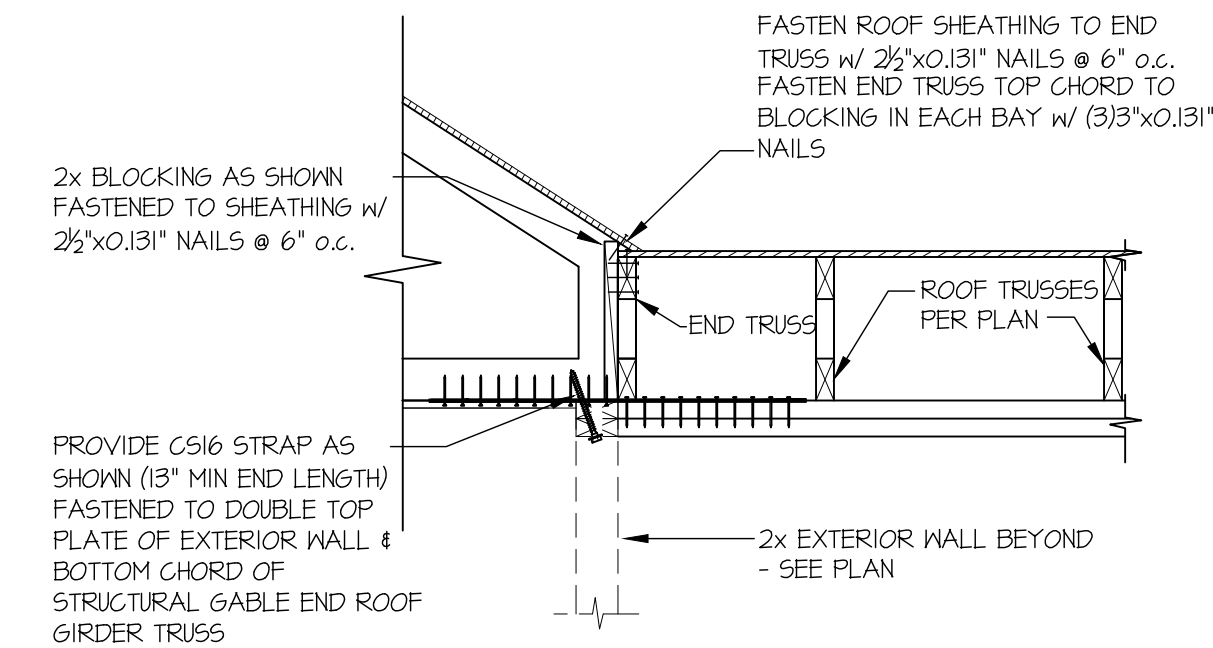
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OPENING ELEVATION  
SCALE: NTS



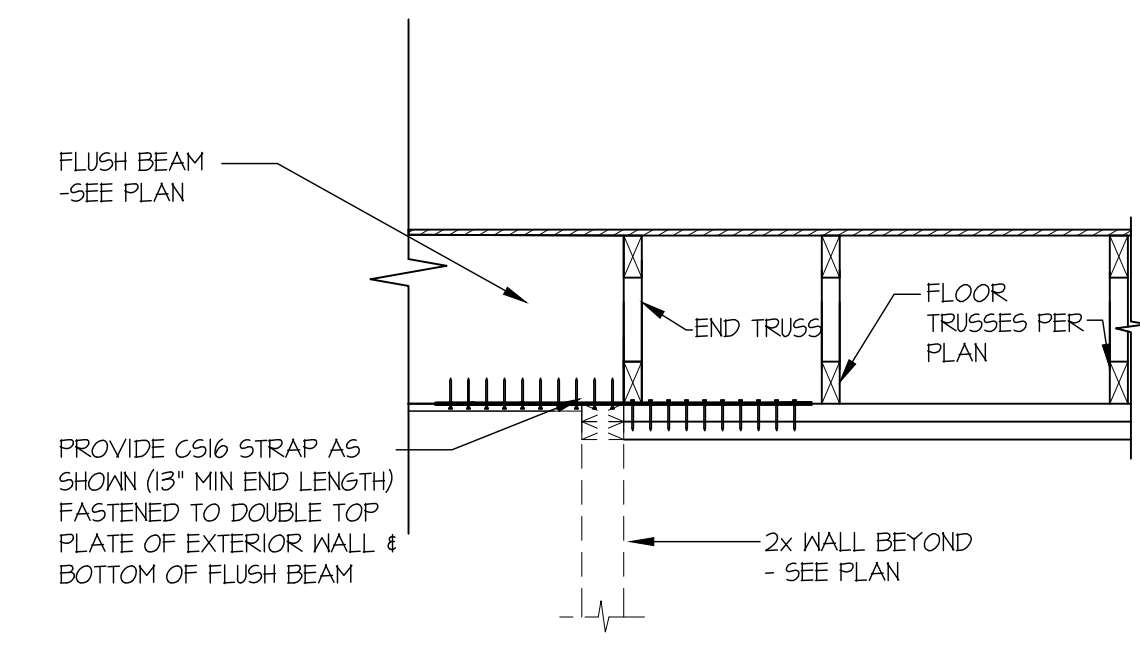
**94** EXT. WALL & INT. SHEARWALL  
OPENING ELEVATION  
SCALE: NTS



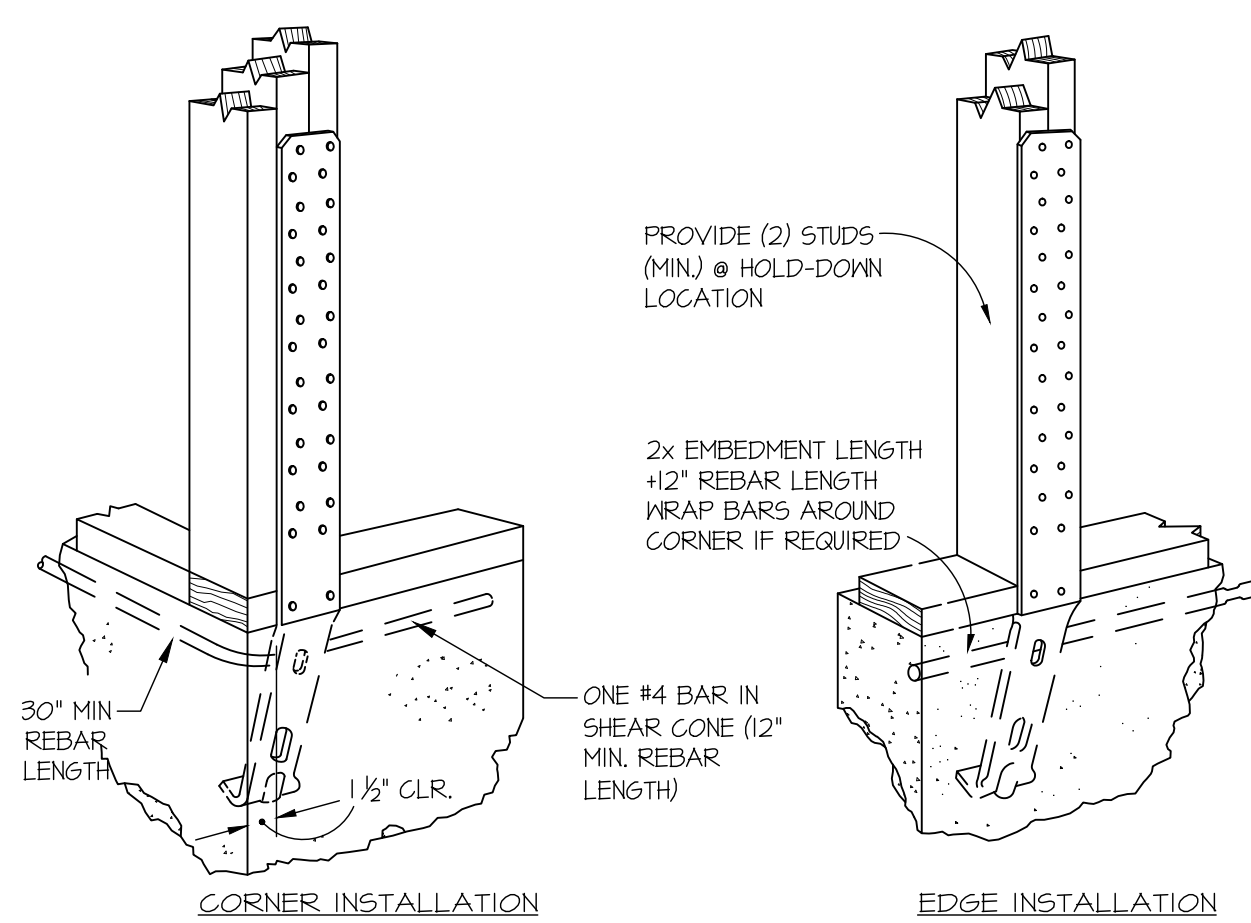
**95** SHEAR TRANSFER DETAIL @  
INTERSECTING INT. SHEARWALL  
SCALE: 3/4"=1'-0"



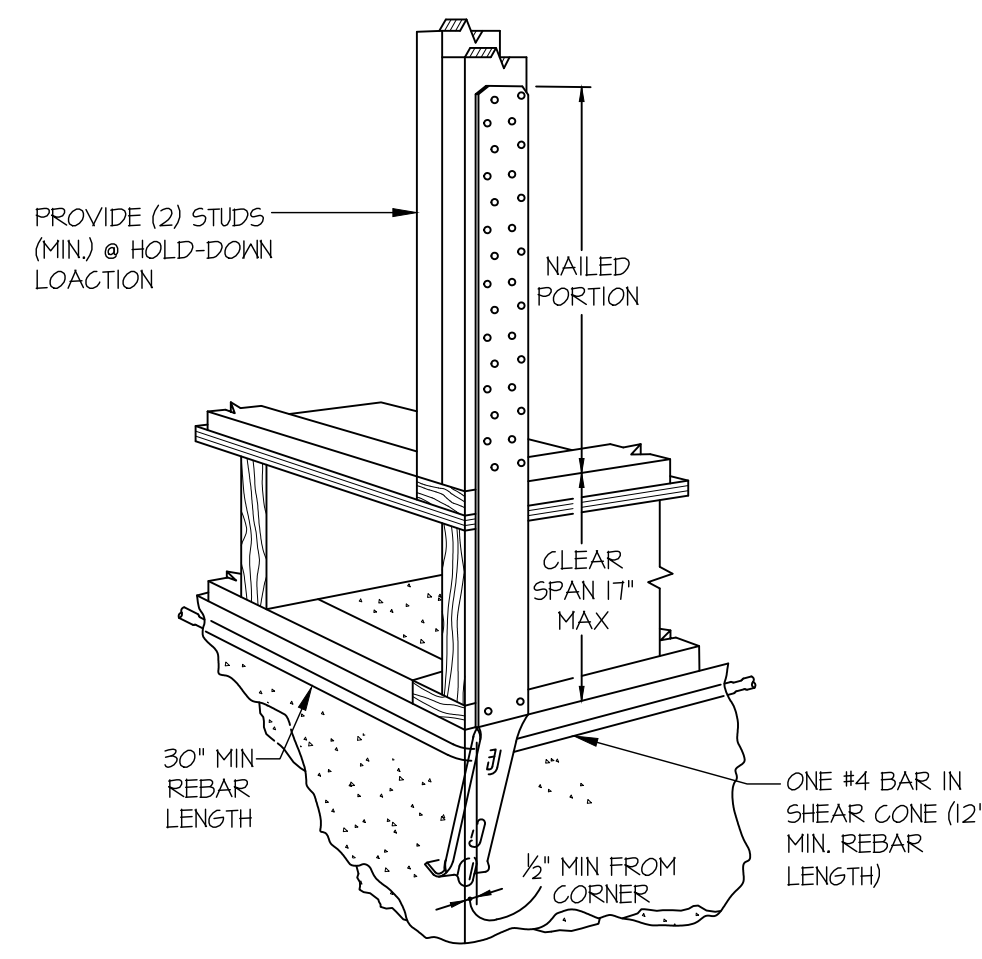
**117** STRAP DETAIL  
SCALE: 3/4"=1'-0"



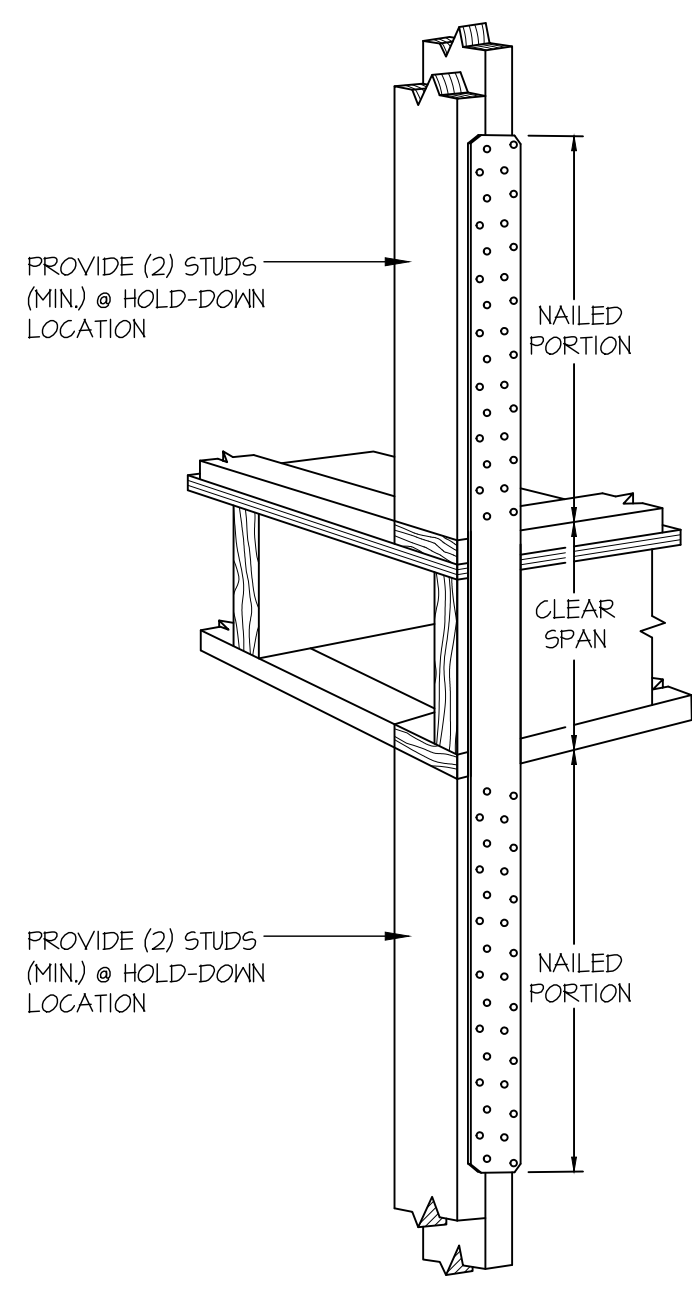
**119** STRAP DETAIL  
SCALE: 3/4"=1'-0"



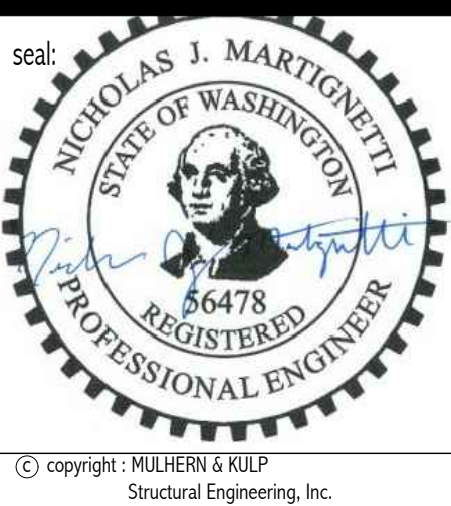
**A** TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON 5THD HD @ FOUNDATION



**B** TYPICAL HOLD-DOWN INSTALLATION  
NOT TO SCALE  
SIMPSON 5THD HD @ FLOOR FRAMING



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



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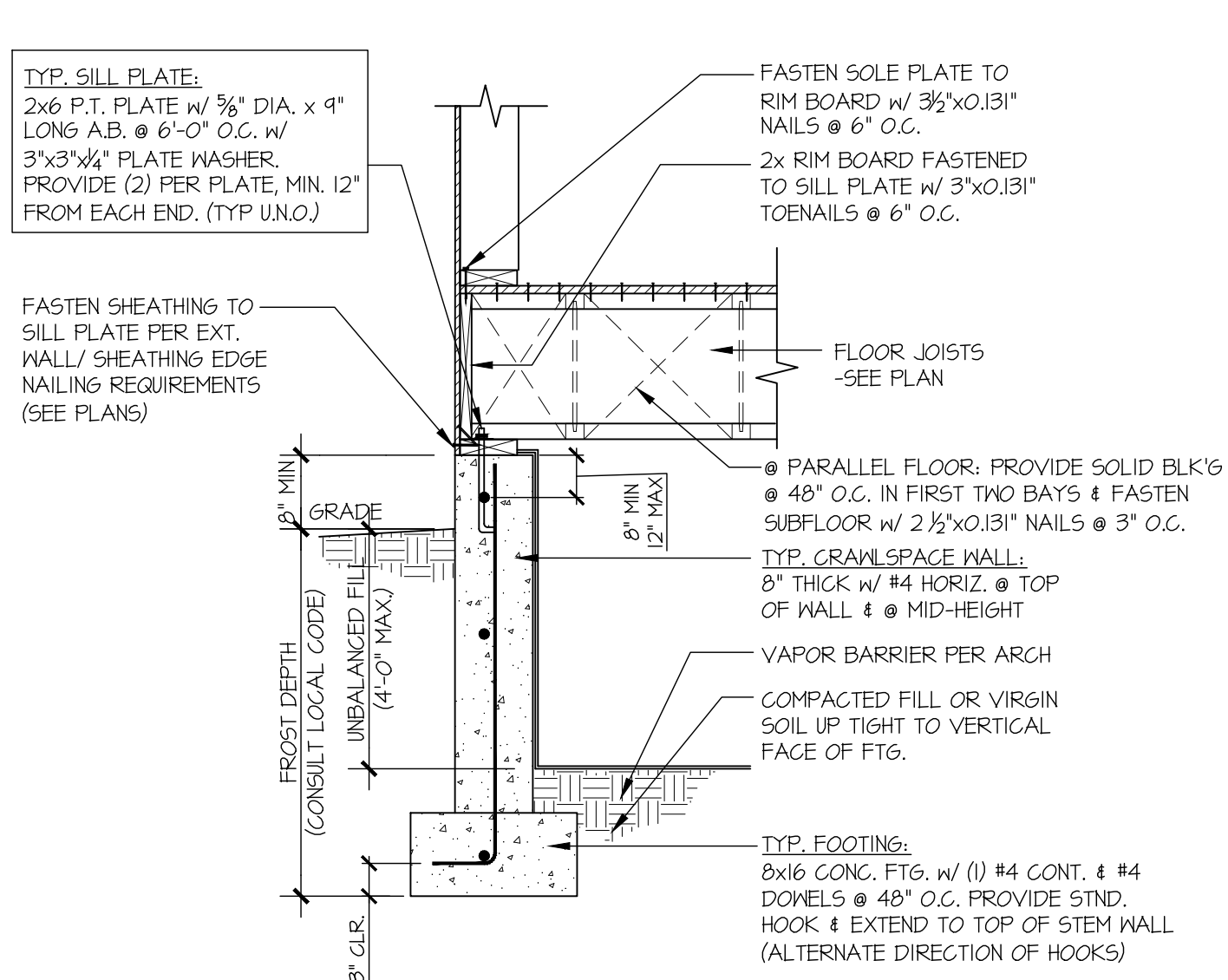
M&K project number: 154-21030

project mgr: NJM  
drawn by: LGH  
issue date: 11-10-21

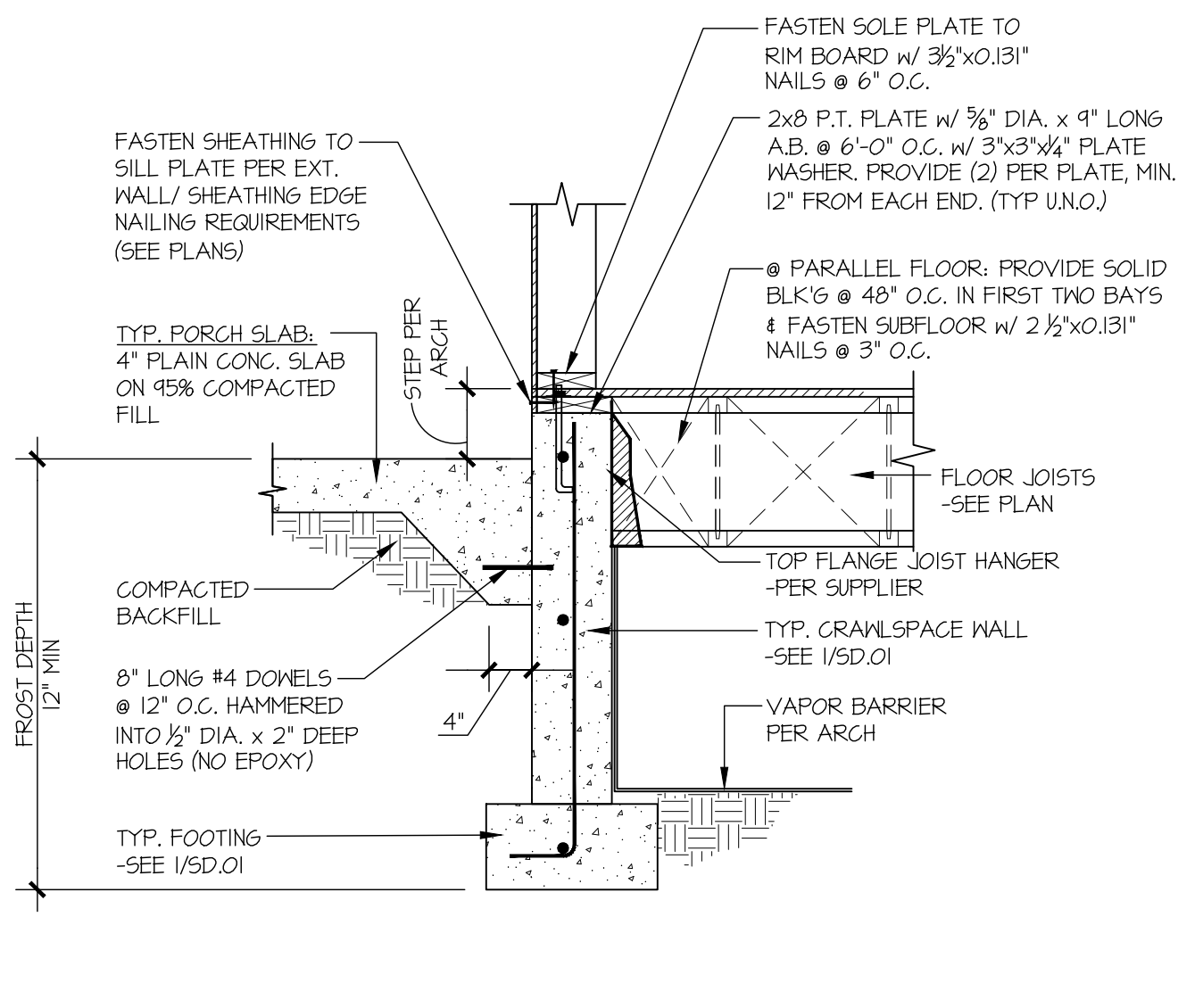
REVISIONS:  
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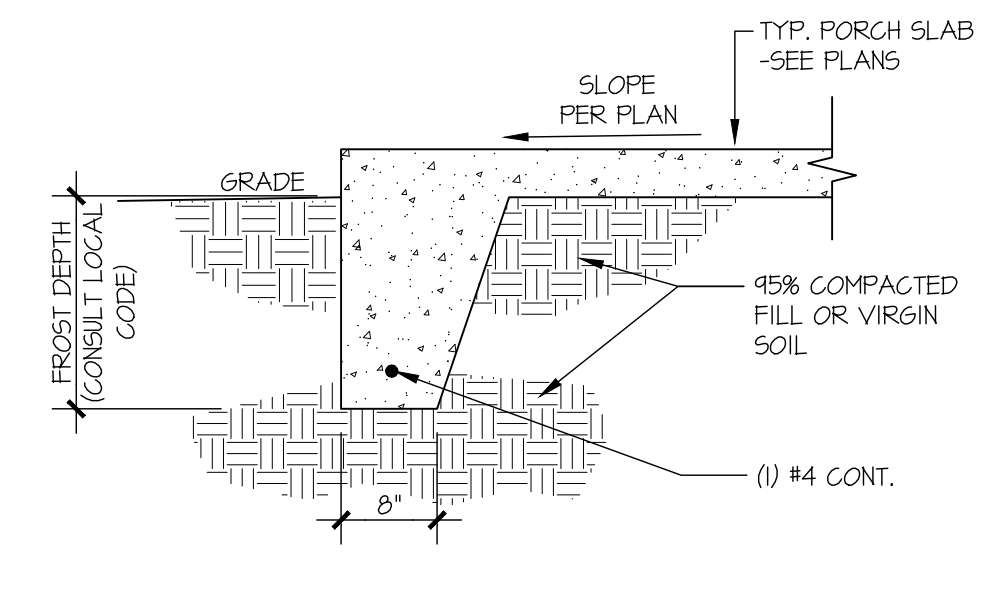
STRUCTURAL DETAILS  
LIAO RESIDENCE  
4541 88TH AVE SE  
MERCER ISLAND, WASHINGTON



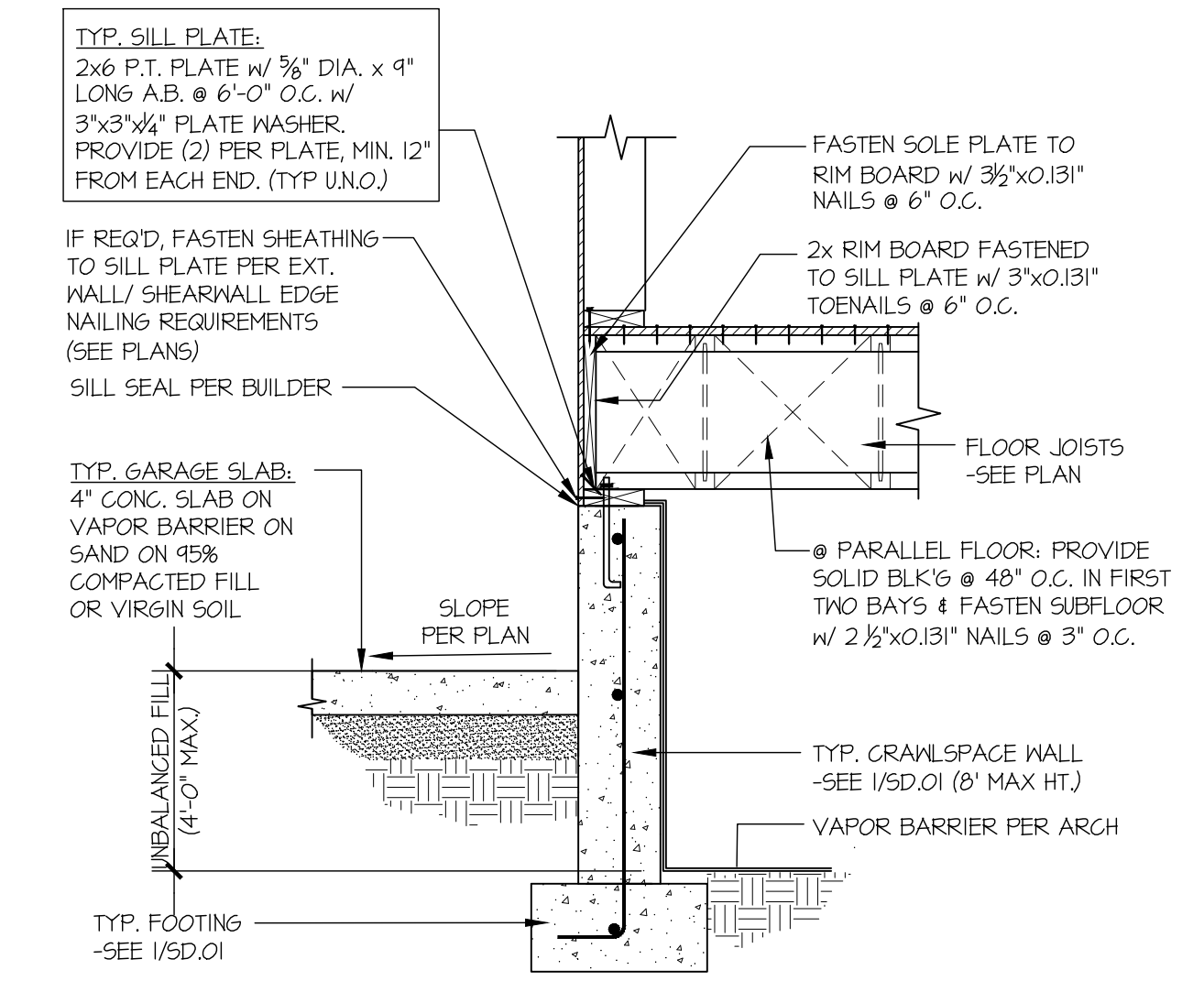
**1 TYPICAL CRAWLSPACE FOUNDATION**  
SCALE: 3/4"=1'-0"



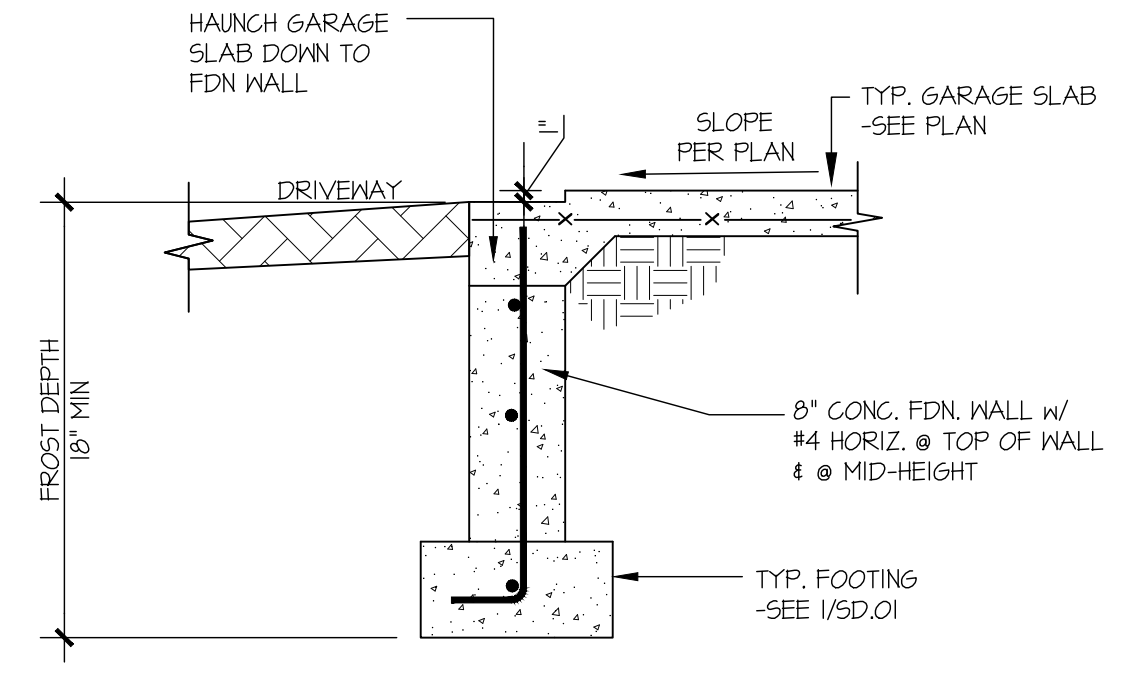
**2 TYPICAL CRAWLSPACE FOUNDATION @ PORCH SLAB**  
SCALE: 3/4"=1'-0"



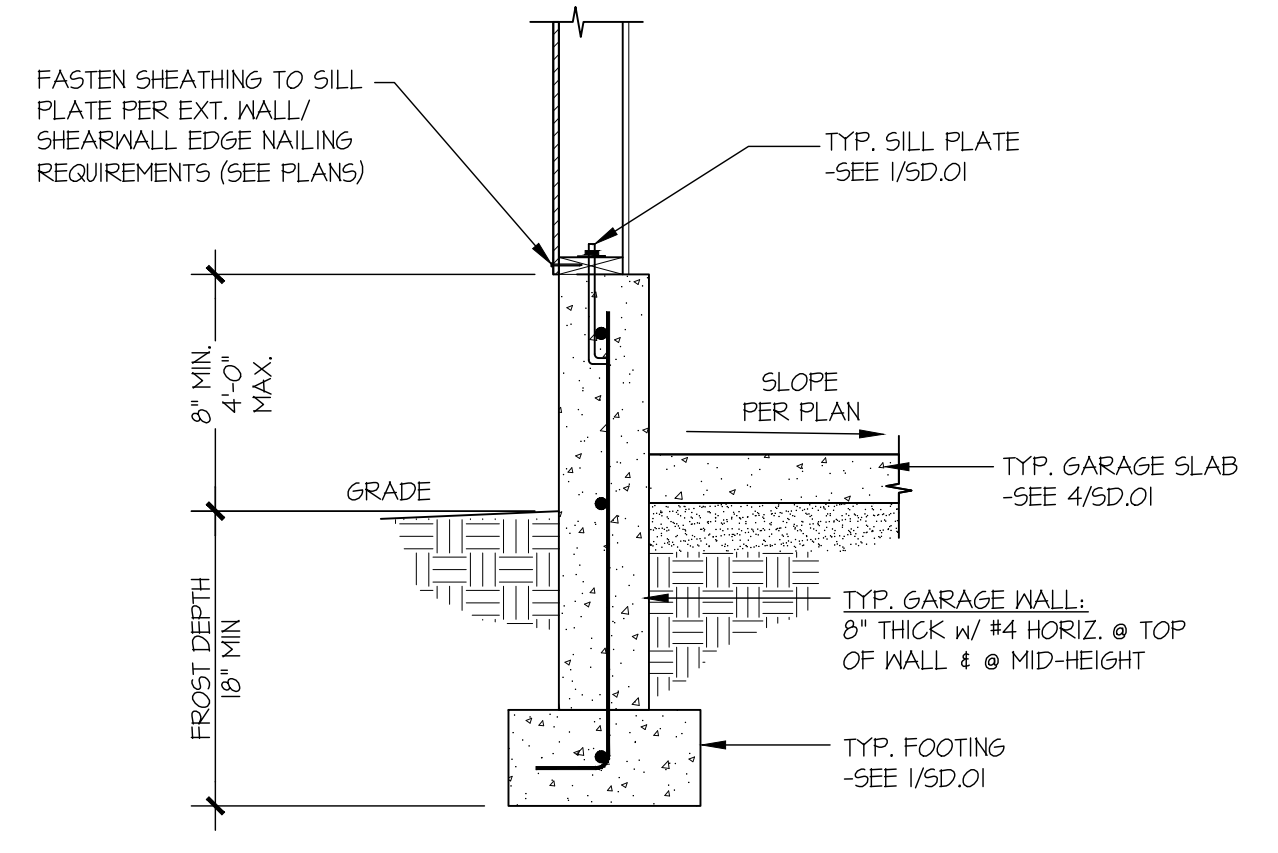
**3 TYPICAL FOOTING @ PORCH SLAB**  
SCALE: 3/4"=1'-0"



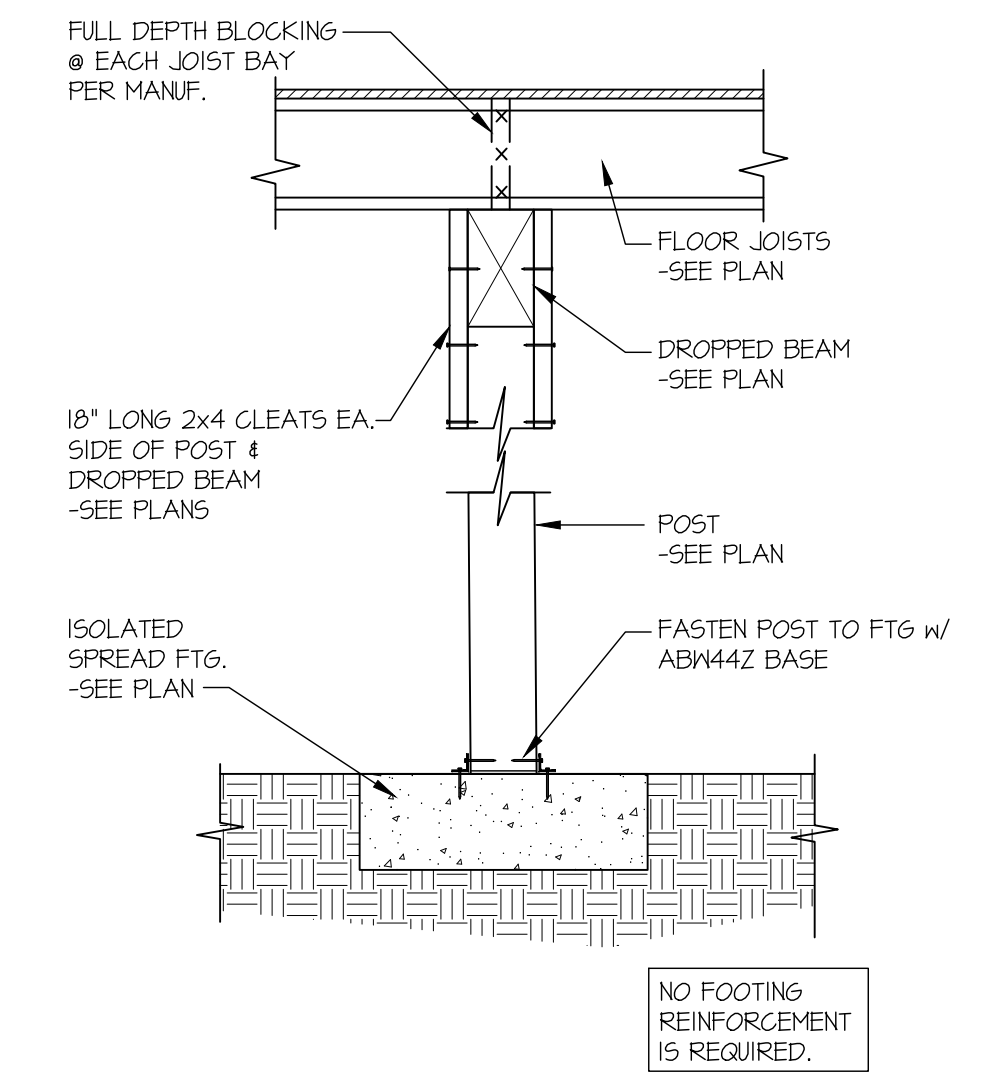
**4 TYPICAL CRAWLSPACE FOUNDATION @ GARAGE**  
SCALE: 3/4"=1'-0"



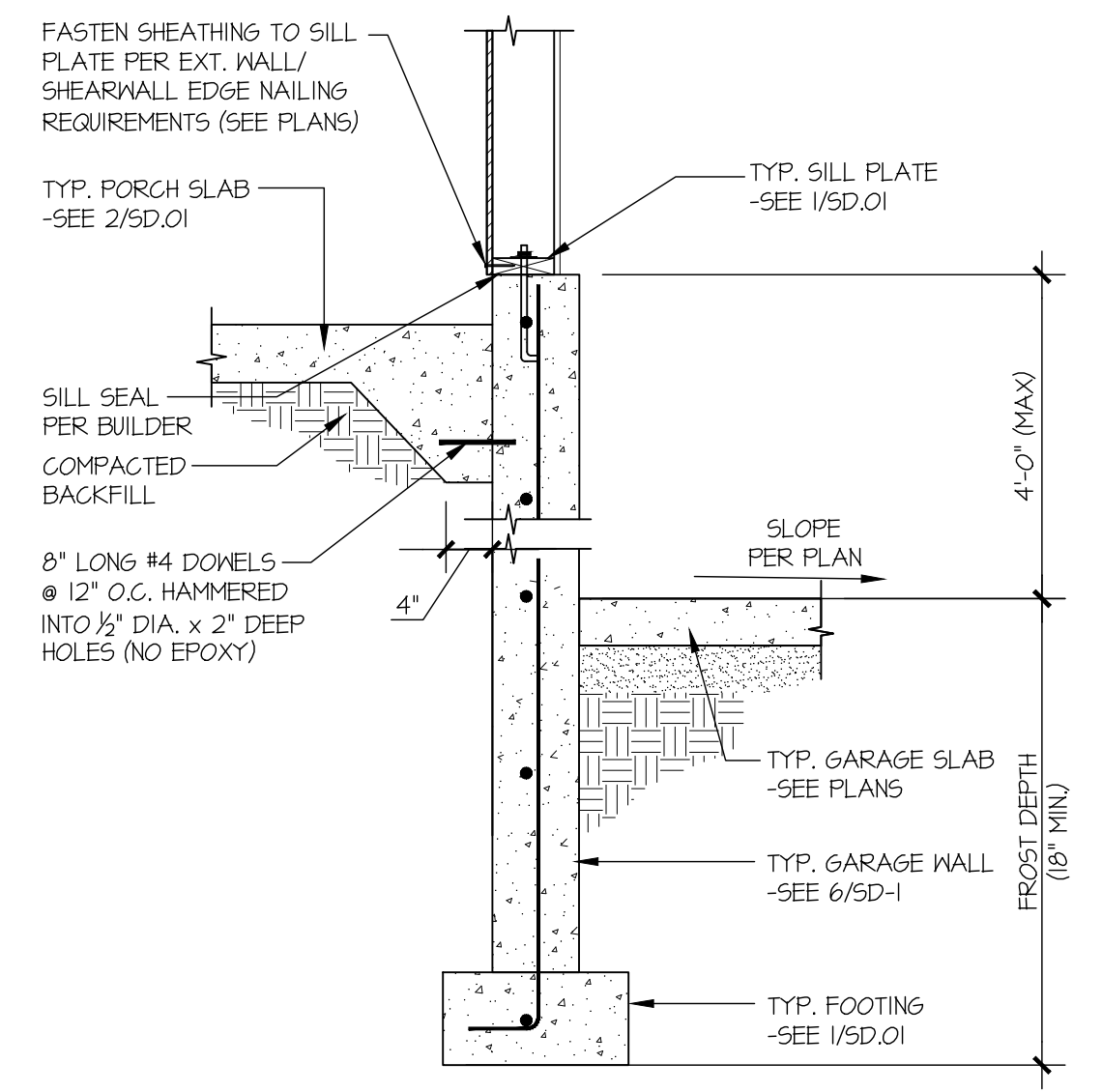
**5 TYPICAL CONCRETE FOOTING @ GARAGE DOOR OPENING**  
SCALE: 3/4"=1'-0"



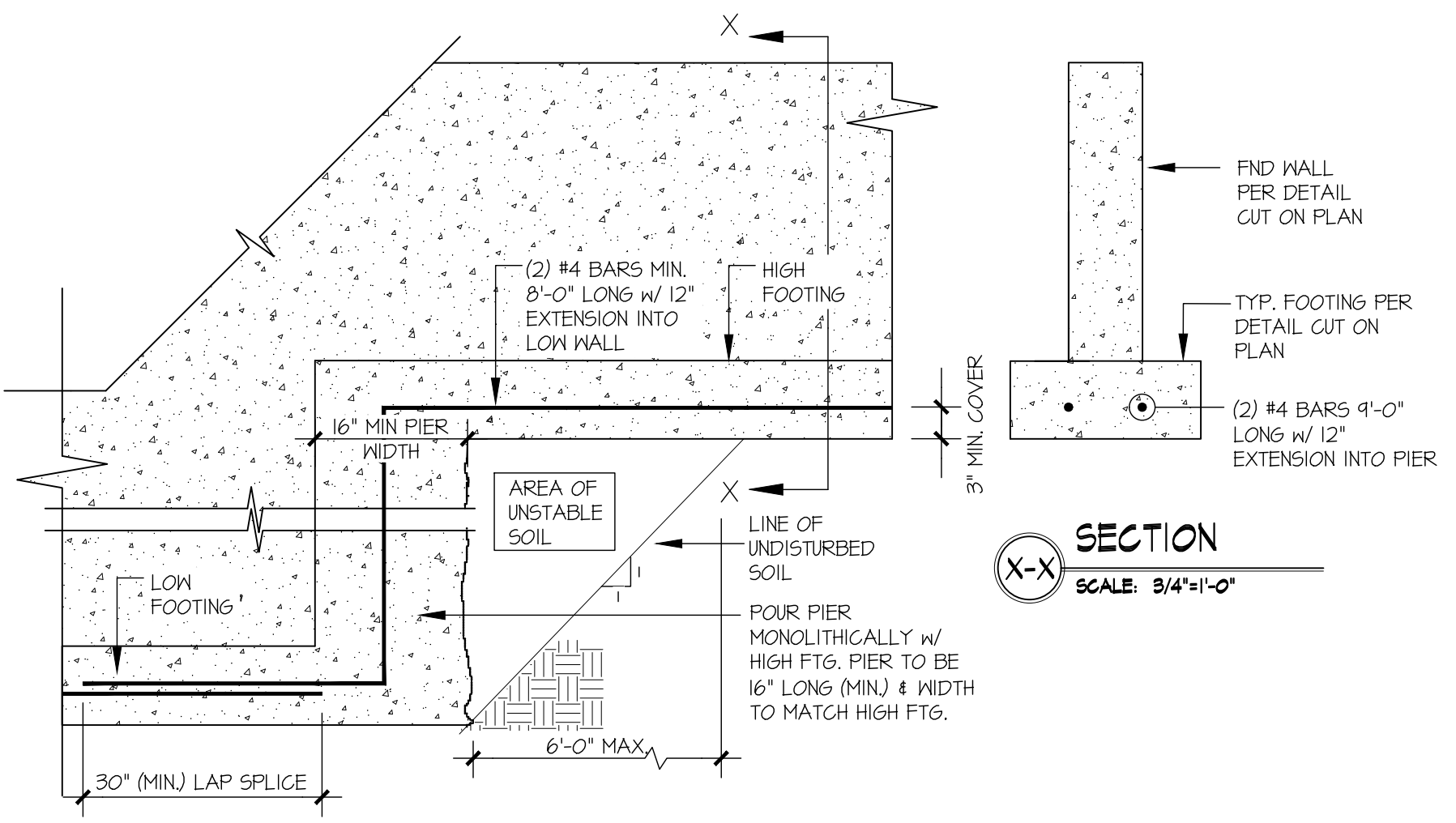
**6 TYPICAL EXT. GARAGE FOUNDATION**  
SCALE: 3/4"=1'-0"



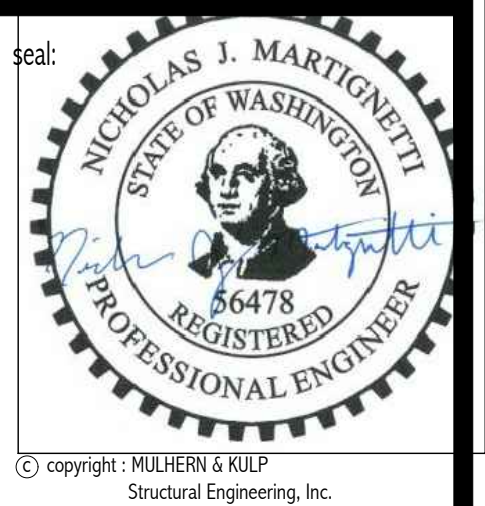
**7 TYPICAL CRAWL SPACE FOOTING DETAIL**  
SCALE: 3/4"=1'-0"



**8 TYPICAL FOUNDATION @ GARAGE/ PORCH SLAB**  
SCALE: 3/4"=1'-0"



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



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M&K project number:  
**154-21030**  
project mgr: NJM  
drawn by: LGH  
issue date: 11-10-21

REVISIONS:  
date: initial:



STRUCTURAL DETAILS  
**LIAO RESIDENCE**  
**4541 88TH AVE SE**  
MERCER ISLAND, WASHINGTON

sheet:  
**SD.01**



**Vertical wall Installation**

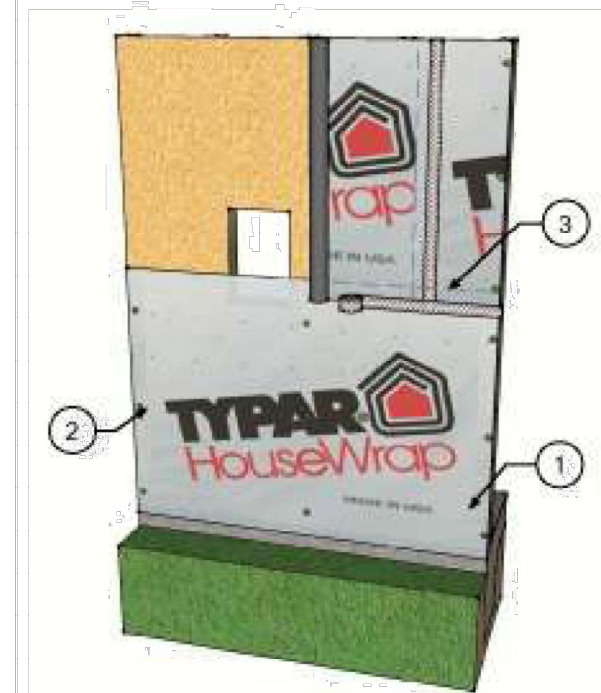
Install TYPAR® HouseWrap over an approved exterior sheathing after the framing is complete and before the windows and doors have been installed. Plastic capped fasteners should be used and spaced at 32" OC (vertically and horizontally) when being applied over 7/16" OSB or 15/32" plywood. When installing 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**

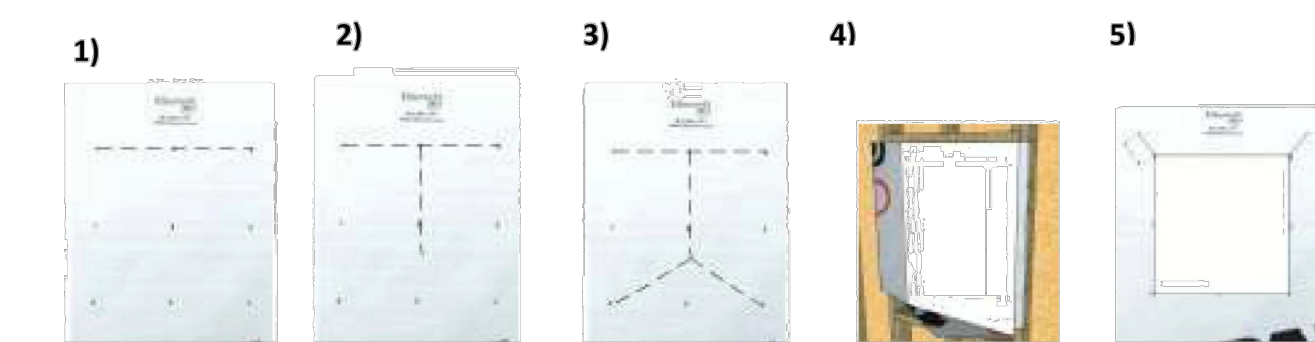
From that stopping point, cut diagonally to both lower left and right corners of the opening.

**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.

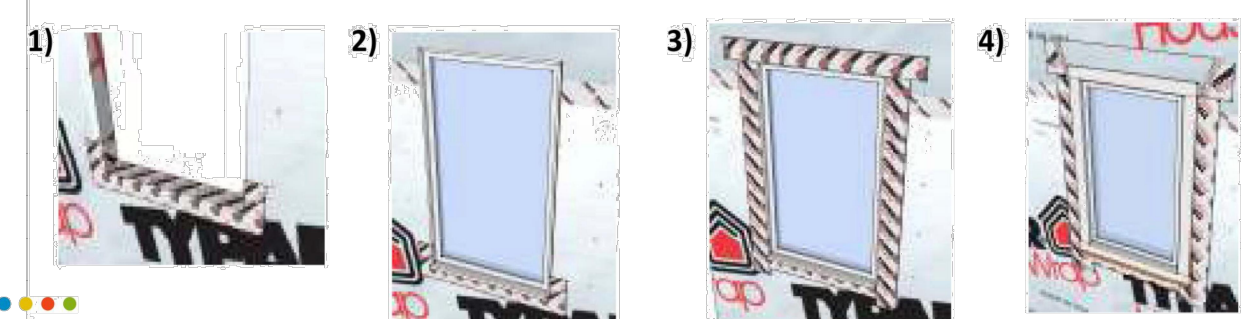
**STEP 3**

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.

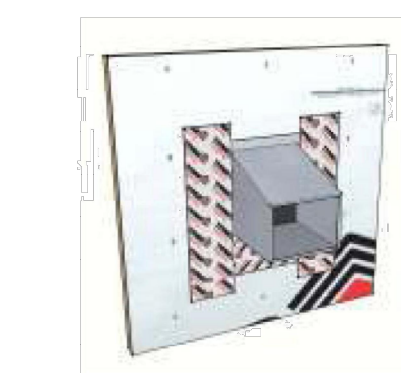
**1)**



**STEP 1**

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

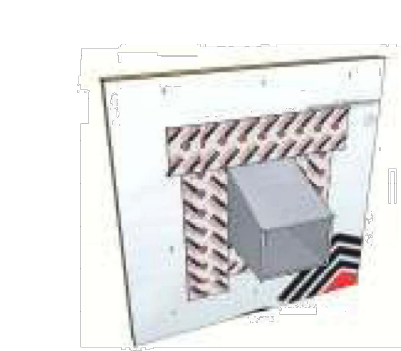
**2)**



**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.

**3)**



**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)



MADE IN USA. ICC #ESR-1404 • CCMC #12884-R • CCMC #12892-R  
Please visit [typar.com](http://typar.com) for installation instructions and warranty information



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

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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Submittal Date \_\_\_\_\_

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

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

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

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

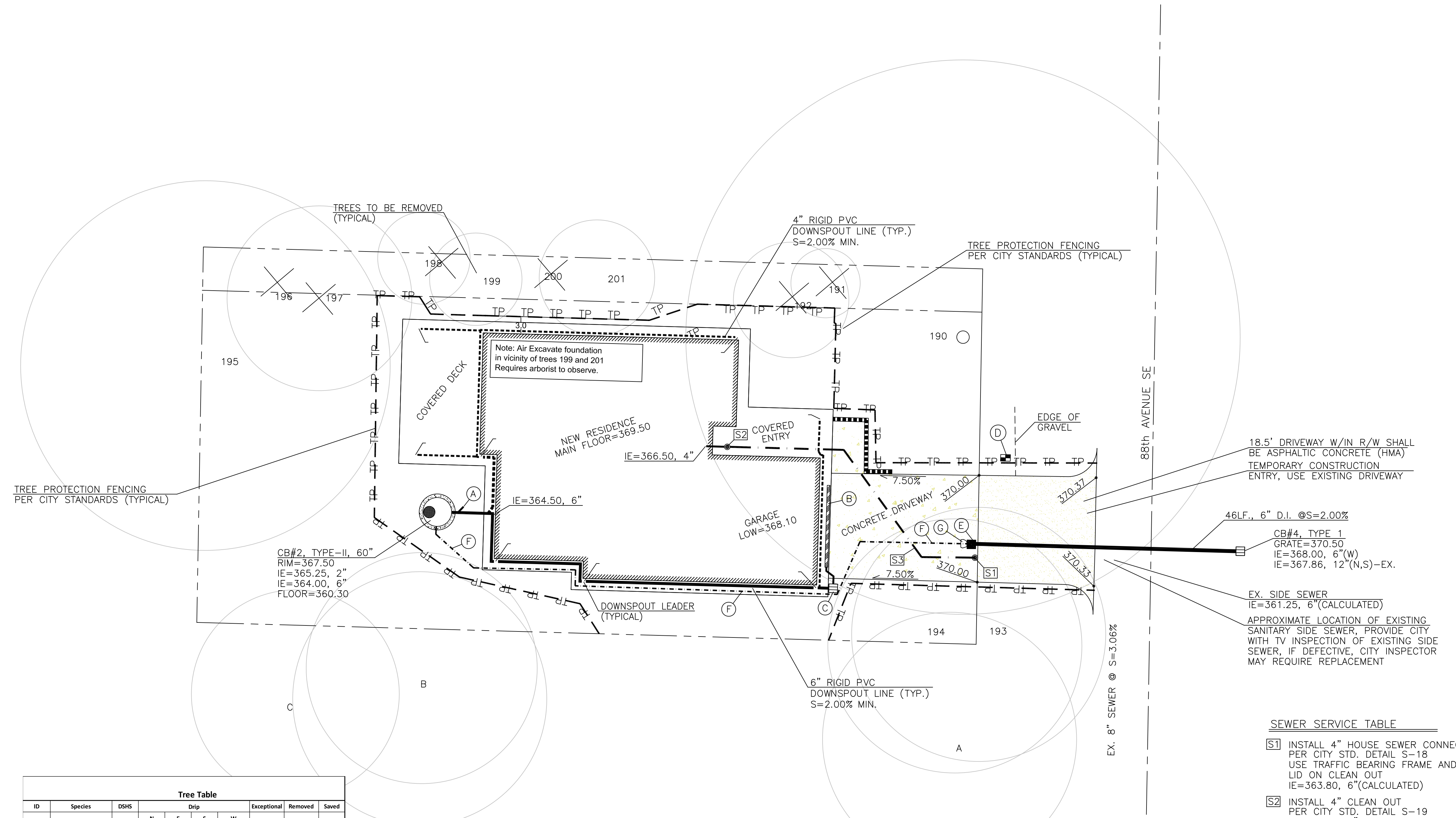
Primary Scale \_\_\_\_\_

D1 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

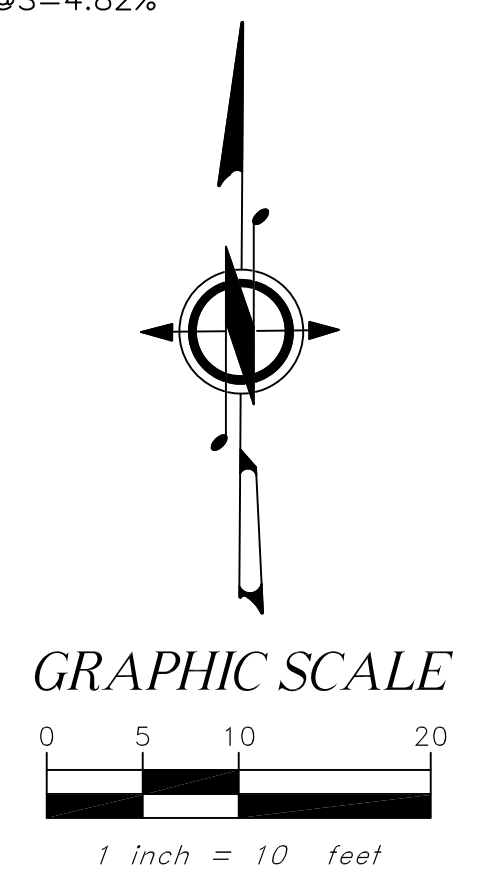


Tree Table									
ID	Species	DSHS	Drip			Exceptional	Removed	Saved	
			N	E	W				
190	Coastal Redwood	63.9	32.7	26.7	35.7	33.7	x		63.9
191	English Holly	Not Regulated						x	
192	English Holly	Not Regulated						x	
194	Doug Fir	31.9	19.3	15.3	17.3	15.3	x		31.9
195	Western Red Cedar	49.5	20.1	27.1	22.1	24.1	x		49.5
196	Cherry Laurel	Not Regulated						x	
197	Mountain Ash	Not Regulated						x	
198	Cherry Laurel	Not Regulated						x	
199	Flowering Cherry	13	11.5	8.5	8.5	8.5			13
200	European White Birch	Not Regulated						x	
201	Pacific Dogwood	10.5	9.4	10.4	9.4	9.4			10.5
202	Replacement Tree from previous permit								Saved
203	Replacement Tree from previous permit								Saved
OFFSITE TREES									
A	Doug Fir	18			16.8				x
B	Western Red Cedar	46.7	20.9						x
C	Doug Fir	24	13						x
193	Doug Fir	20.8	22.9	16.9	16.9	10.9			x

- NOTES:
- (A) FOOTING DRAIN CONNECTION, IE=364.15, 4"
  - (B) SLOT DRAIN; RIM=368.00
  - (C) CB#3, TYPE 1 W/OIL SEPERATOR GRATE=368.00 IE=366.65, 4"(N) IE=366.10, 6"(W)
  - (D) INSTALL NEW WATER SERVICE AND METER; SURROUND BOX WITH GRASS
  - (E) CB#1, TYPE 1 W/SOLID LOCKING LID GRATE=370.00 IE=369.00, 2" IE=368.92, 6"(E)
  - (F) 125LF., 2" PVC FORCEMAIN, 30" BURY MINIMUM
  - (G) 12"x12"x12" CONCRETE THRUST BLOCK

DOWNSPOUT TABLE	
DS#1	GROUND=367.50 DOWNSPOUT LINE=364.74, 6"
DS#2	GROUND=367.50 DOWNSPOUT LINE=365.10, 6"
DS#3	GROUND=368.00 DOWNSPOUT LINE=365.90, 6"
DS#4	CONCRETE=369.25 DOWNSPOUT LINE=366.50, 4"
DS#5	GROUND=367.50 DOWNSPOUT LINE=366.10, 4"
DS#6	GROUND=367.50 DOWNSPOUT LINE=366.00, 4"
DS#7	GROUND=367.50 DOWNSPOUT LINE=366.00, 4"
DS#8	GROUND=367.50 DOWNSPOUT LINE=364.83, 4"

SEWER SERVICE TABLE	
S1	INSTALL 4" HOUSE SEWER CONNECTION PER CITY STD. DETAIL S-18 USE TRAFFIC BEARING FRAME AND LID ON CLEAN OUT IE=363.80, 6"(CALCULATED)
S2	INSTALL 4" CLEAN OUT PER CITY STD. DETAIL S-19 IE=366.31, 4"
S3	56 LF., 4" SIDE SEWER @S=4.82%



IMPERVIOUS SURFACES:  
ROOF AREA (W/EAVES) = 2,887 SQ. FEET  
UNCOVERED FRONT WALK = 50 SQ. FEET  
UNCOVERED DRIVEWAY = 470 SQ. FEET  
TOTAL IMPERVIOUS AREAS = 3,407 SQ. FEET

PERMIT #: 2112-189

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

CHECKED BY: DLO  
DRAWN BY: VS  
DESIGNED BY: DLO

PROJECT: **4541 88th Avenue SE**

CLIENT: **JayMarc Custom Homes - Liao Residence**

SHEET CONTENT: **Utility AND TREE Plan**

DATE: 04/12/2022

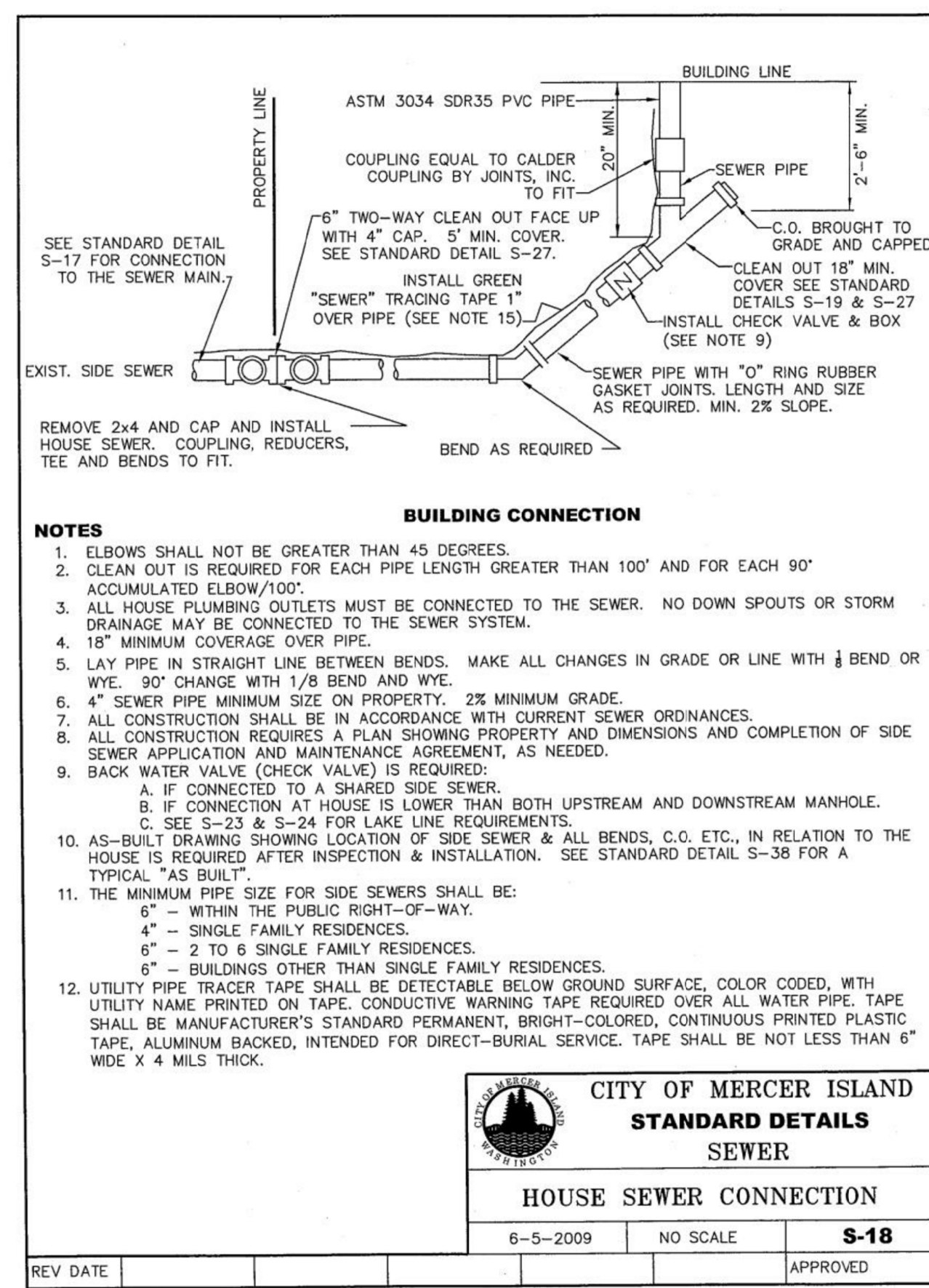
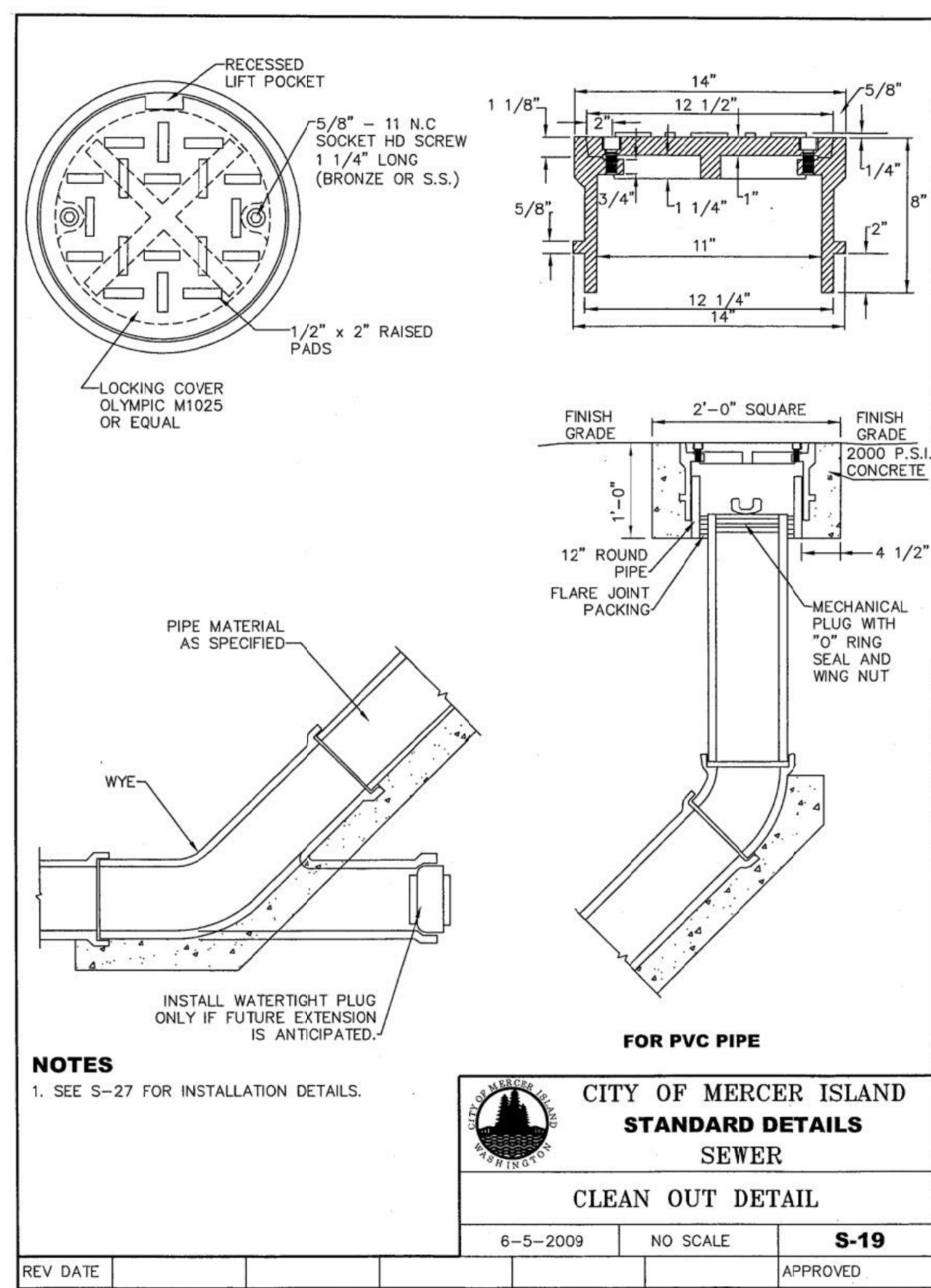
JOB NO. \_\_\_\_\_

DWG NO. \_\_\_\_\_

SHEET **1** OF **2**

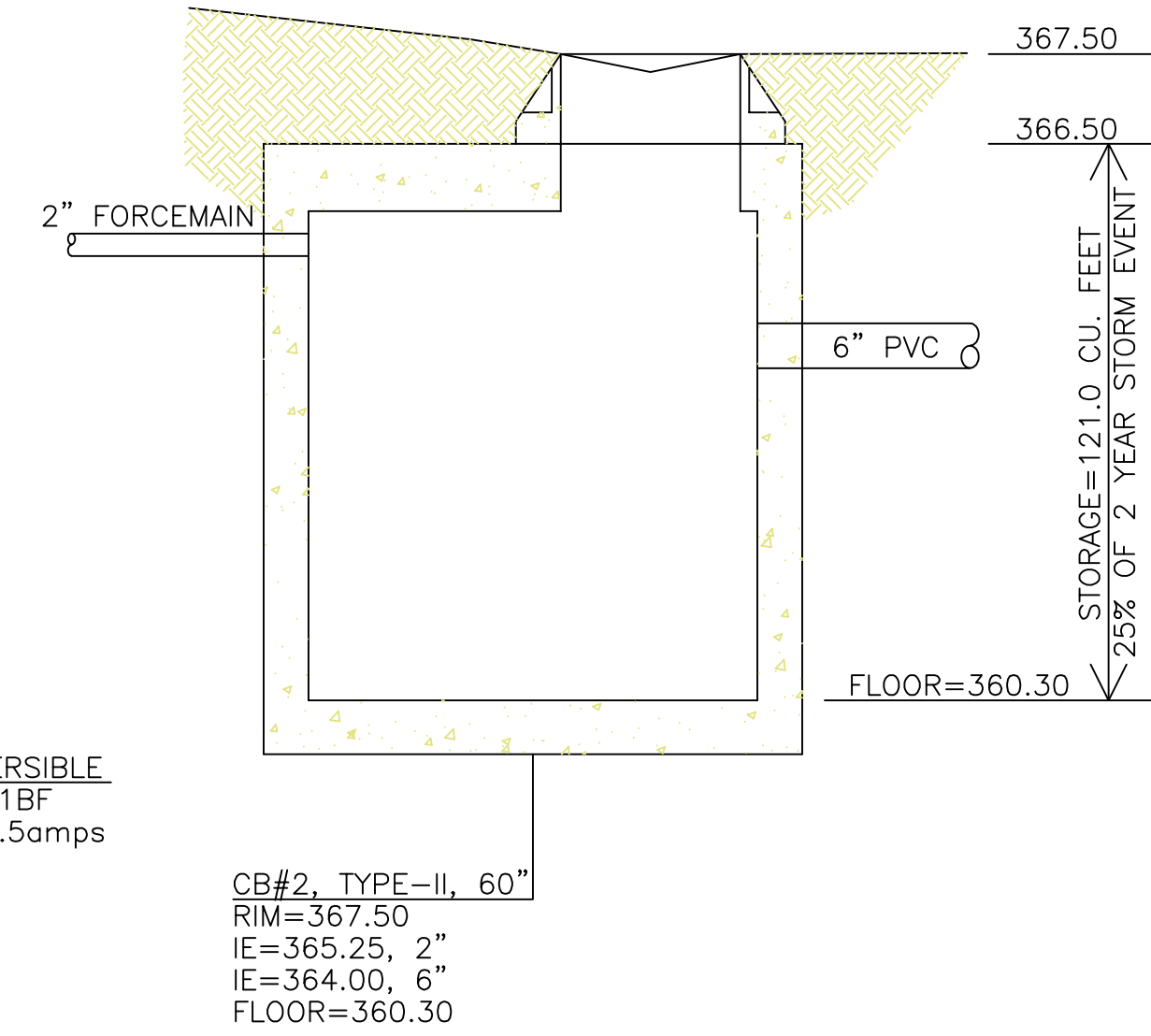
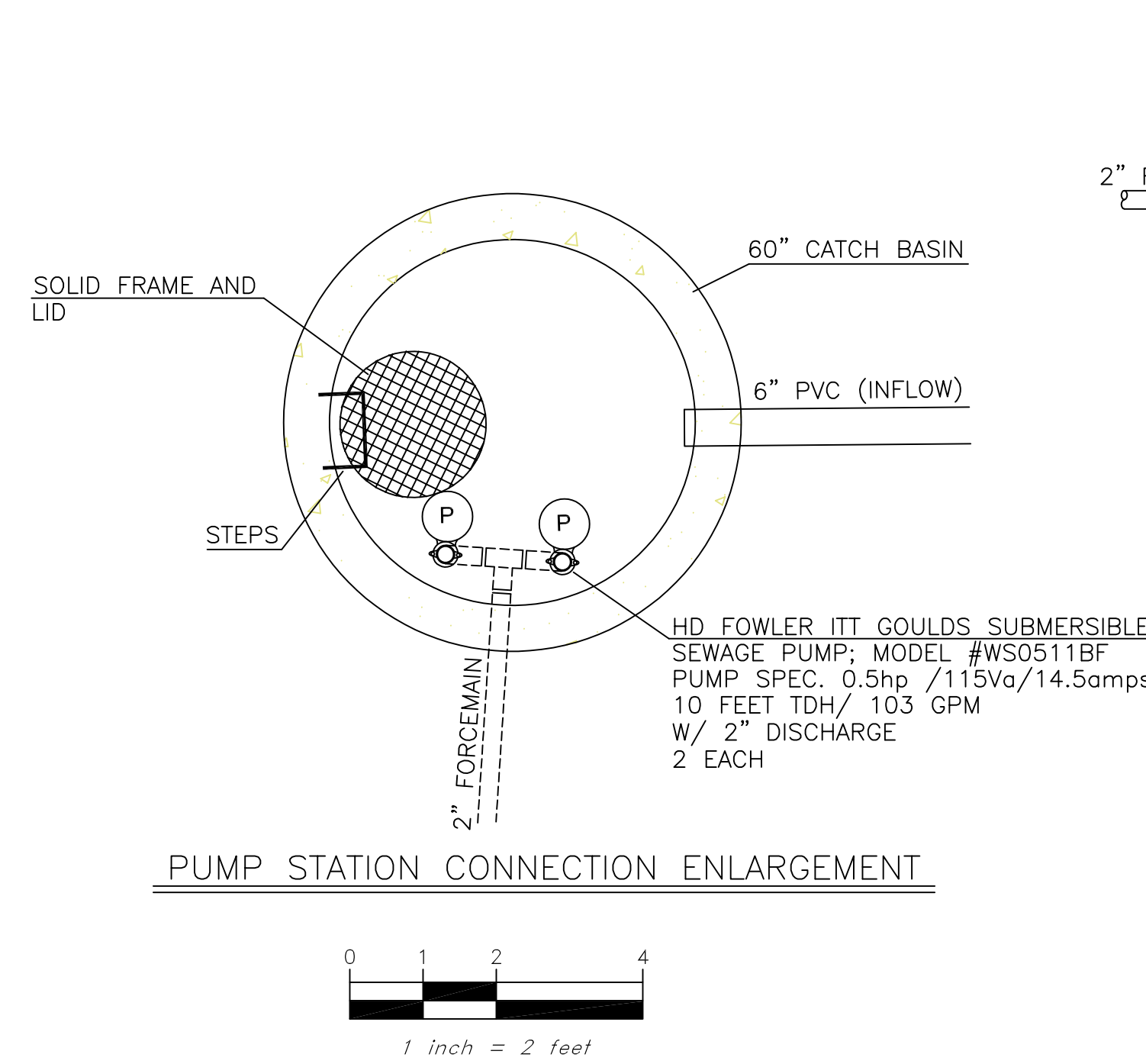
REVISIONS:

REV. NO.	DATE	DESCRIPTION
1	03/28/22	REVISED PER CITY PUBLIC WORKS COMMENTS



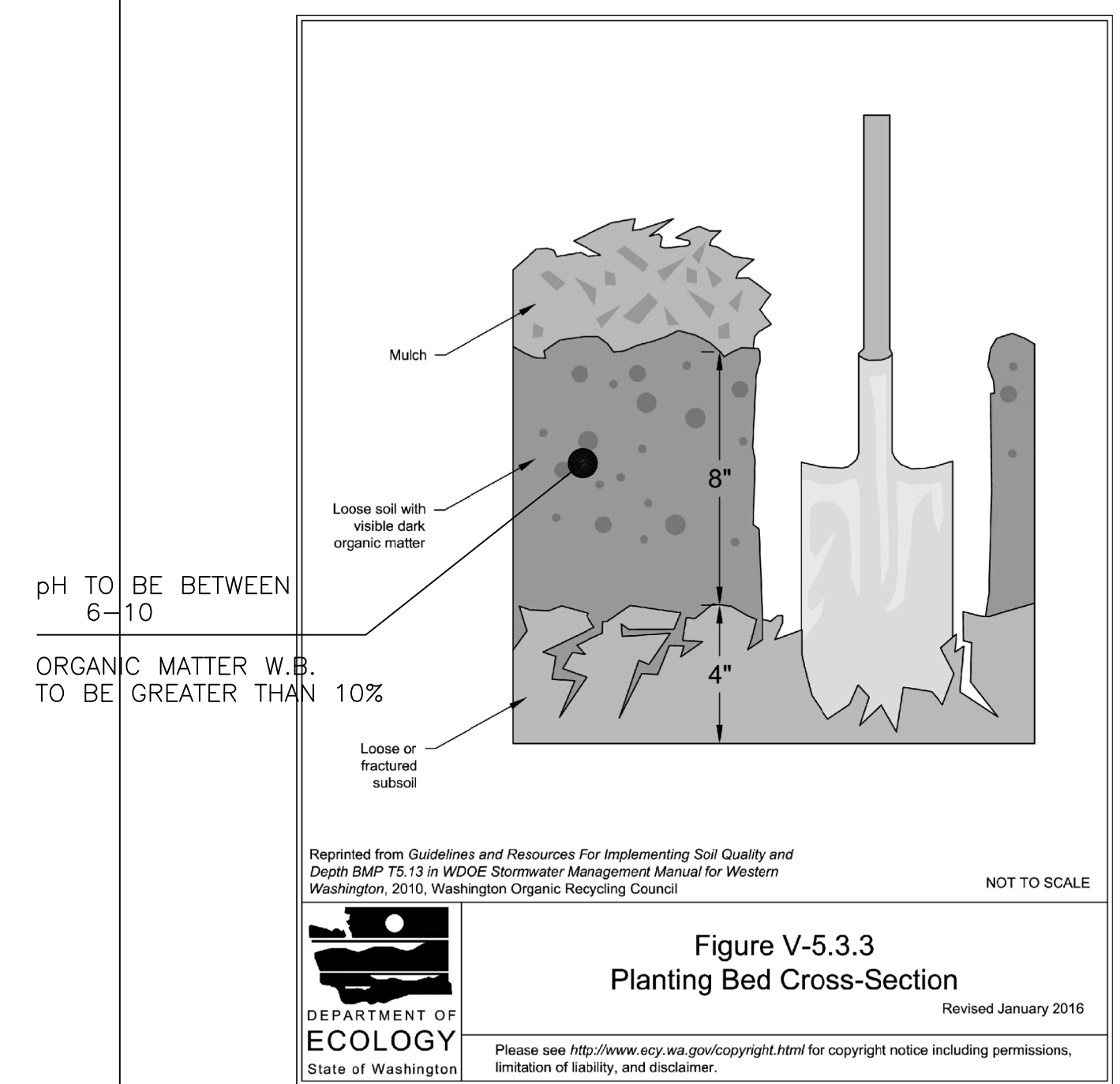
**PUMP STATION NOTES:**

- Pump systems shall be owned, operated, maintained, repaired, and replaced (as needed) by property owner(s) served by such system.
- The pump system shall have dual, alternating pumps with emergency on-site, back-up power supply and an external alarm system for system failure and high water level indicator.
- The property owner(s) shall be responsible for any and all claims for injuries and damage due to the operation or non-operation of the pump system.

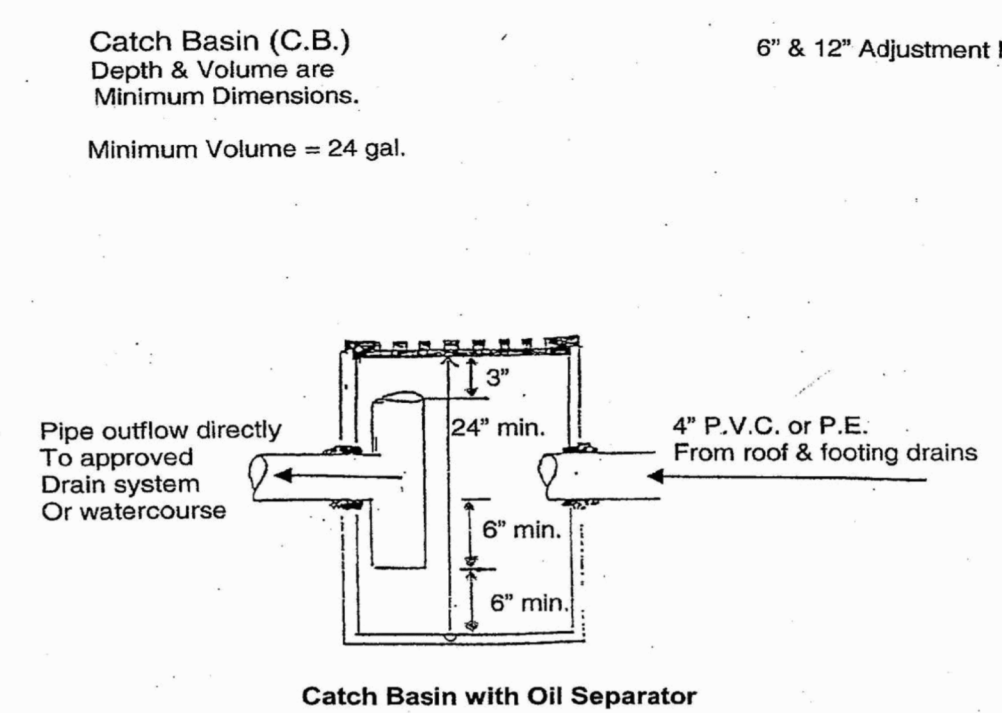
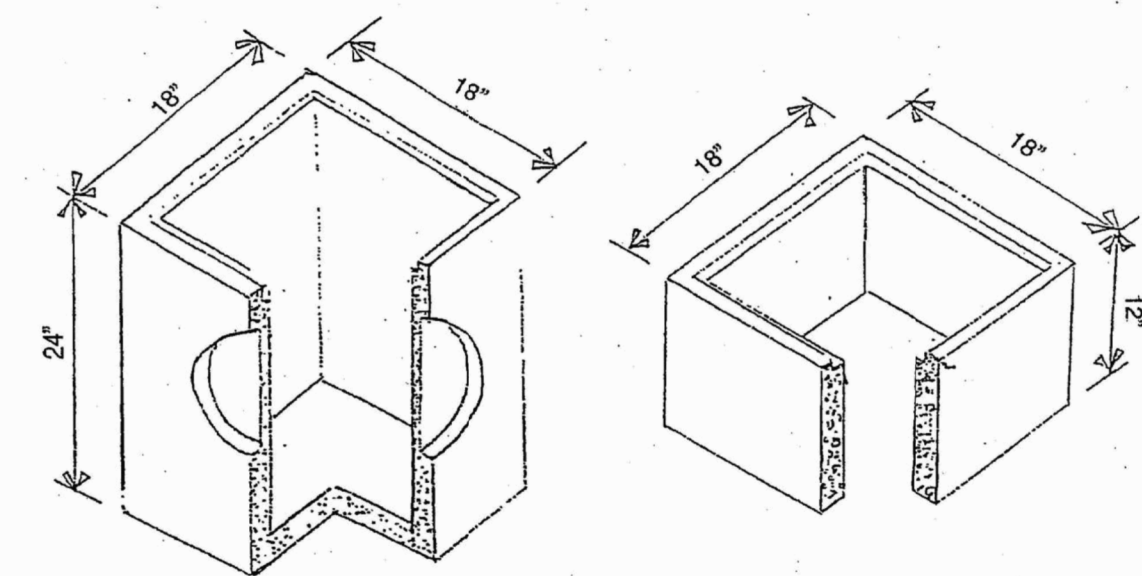


THE PUMP SYSTEM SHALL BE DUAL, ALTERNATING PUMPS WITH EMERGENCY ON-SITE BACK-UP POWER SUPPLY AND AN EXTERNAL ALARM SYSTEM FOR SYSTEM FAILURE AND HIGH WATER LEVEL INDICATOR.

**Figure V-5.3.3 Planting bed Cross-Section**



2014 Stormwater Management Manual for Western Washington  
Volume V - Chapter 5 - Page 914



S:\DSG\FORMS\StormDrainageRequirements.doc 01/2010

PROJECT: **4541 88th Avenue SE**

CLIENT: **JayMarc Custom Homes - Liao Residence**

SHEET CONTENT: **Utility Details**

DATE: 04/12/2022

JOB NO. \_\_\_\_\_

DWG NO. \_\_\_\_\_

SHEET 2 OF 2

DESIGNED BY: DLO

DRAWN BY: VS

CHECKED BY: DLO

DATE: 03/28/22

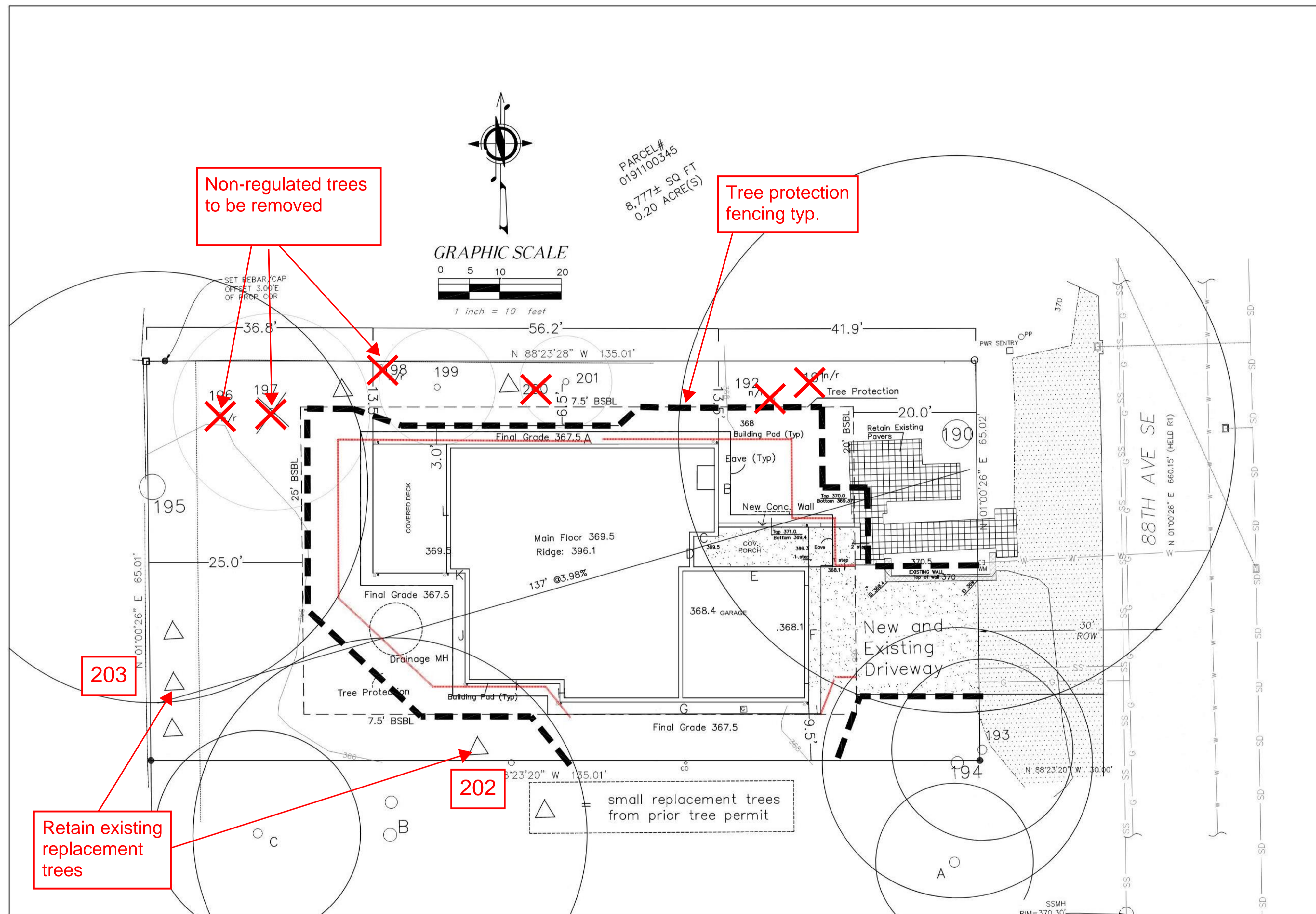
REV. NO. 1

DESCRIPTION: REVISED PER CITY PUBLIC WORKS COMMENTS

04/12/2022

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

PERMIT #: 2112-189



**Key Map**



Parcel size: 8,775 square feet  
 Supplemental plantings required for previous tree removal: 4 trees  
 Supplemental plantings required on-site: 4 trees, 1 credit each

**Tree Solutions Inc**  
 Consulting Arborists

2940 Westlake Ave N #200  
 Seattle, WA 98109  
 www.treesolutions.net  
 206-528-4670

**Connor McDermott**  
 ISA #PN-8704A  
 ISA Qualified Tree Risk Assessor

**Liao Residence**  
 4541 88th Ave SE,  
 Mercer Island, WA  
 Parcel # 0191100345

April 26, 2022

**Tree Removals:** No regulated trees are proposed to be removed for this development. Several non-regulated trees including trees 191, 192, 196, 197, 198, and 200 are proposed for removal.

**Tree Protection:** Trees 190, 193, 194, 195, 199, 201, A, B, and C and supplemental tree plantings 202 and 203 will be protected with tree protection fencing and specifications as included in the Arborist Report (Tree Solutions Inc, 04/26/2022)

**Clearing and Grubbing Notes:** All trees to be removed that are located within the TPZ of site trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.

**Existing Conditions**

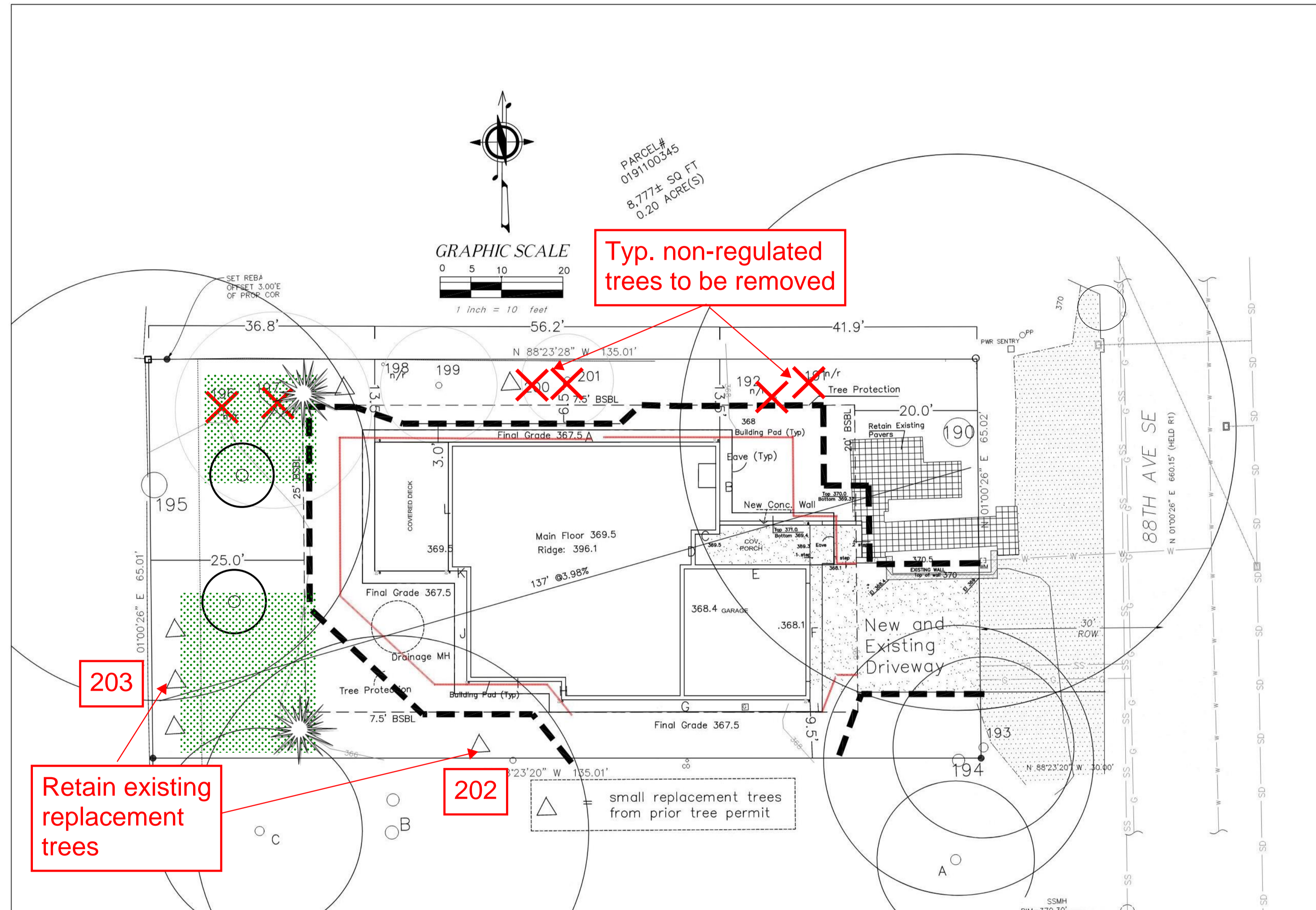
**L-1**

**Liao Residence**  
 4541 88th Ave SE,  
 Mercer Island, WA  
 Parcel # 0191100345

April 26, 2022

Planting Plan

**L-2**



**Plant schedule**

Sym	Qty	Name	Scientific Name	Size	Spacing
	2	Pacific Crabapple	<i>Malus fusca</i>	2-inch caliper	10' o.c.
	2	Shore Pine	<i>Pinus contorta</i> var <i>contorta</i>	6-foot tall	10' o.c.
	10	Sword fern	<i>Polystichum munitum</i>		2' o.c.
	10	Salal	<i>Galtheria shalon</i>		2' o.c.
All plants shall conform to American Association of Nurserymen (AAN) grades and standards as published in the "American Standard for Nursery Stock".					



## Notes: Tree Removal and Planting

### Tree Removals:

The City of Mercer Island requires that four trees to be planted on this property to fulfill the tree replacement requirements from a prior exceptional tree removal.

### Replacement trees:

Prior to the development, one exceptional tree was removed and six replacement trees were required to be planted and retained during a five-year rolling period. Two of the existing replacement trees fit the requirements of a replacement tree. Four additional replacement trees are required to fulfill the previous tree removal on site.

The required minimum size of the supplemental tree worth one (1) tree credit shall be four 6-feet tall for native or other conifers and 1.5-inch caliper for deciduous or evergreen broad-leaf tree (MICC 19.10.070.B.3) . All trees must be spaced 10-feet on center apart. At least half of the replacement trees species must be native to the Pacific Northwest (MICC 19.10.070.B.2).

All plants shall conform to American Association of Nurserymen (AAN) grades and standards as published in the "American Standard for Nursery Stock" manual.

### Clearing and Grubbing Notes:

All trees to be removed that are located within the TPZ of retained trees shall not be ripped, pulled, or pushed over. The tree should be cut to the base and the stump either left or ground out. A flat front bucket can also be used to sever roots around all sides of the stump, or the roots can be exposed using hydro or air excavation and then cut before removing the stump.

Vegetation removal and planting should be done by hand within tree protection areas. All removed plant material shall be properly disposed of off-site.

Removal of invasive plants within tree protection areas should be done using a combination of hand tools, hand-held power equipment, and chemical controls such as foliar herbicide spray and spot-treatments following stem cutting.

Specifically, Ivy (*Hedera spp*) and Himalayan blackberry (*Rubus bifrons*) within tree protection areas should be cleared and grubbed by hand-digging out the roots, or plants shall be cut at the base and chemical treatment shall be applied when the plants are actively growing. Remove invasive plant material from the site for disposal.

English holly (*Ilex aquifolium*) and Cherry laurel (*Prunus laurocerasus*) within tree protection areas should be treated with herbicide pellets injected directly into their stems. Trees and shrubs smaller than three inches diameter will be cleared and grubbed. Vegetative matter shall properly disposed of off site.

All herbicide use must be performed under the supervision of a licensed pesticide applicator with a Commercial Applicator's License per WAC 16-228-1231. All on-site transport, use, and clean-up of pesticides / herbicides shall conform to regulations set forth by WAC 16-228-1220. The applicator will follow King County's noxious weed regulatory guidelines and King County's best management practices for invasive species removal using herbicide.

### Basic Planting Instructions:

Trees must be planted in the wet season (October 1 through April 1) after the completion of the development work (MICC 19.10.070.B.5).

Before planting, set out the plants according to the planting plan. Remove invasive vegetation from all areas within 5-feet of proposed planting holes. Adjust locations of plants if the planting hole location per the planting plan requires damaging existing tree roots or native vegetation.

Dig bowl-shaped planting holes at least twice the width of the root ball. The hole should be just slightly deeper than that of the planted plant. Rough up the sides of the planting hole.

Remove the plant from its container and gently loosen bound roots on the outer inch of the soil and cut roots that encircle the root ball.

Set the plant in the hole so that the top of the soil remains level with the surrounding soil. Fill the surrounding space with loose native soil. Cover any exposed roots but do not pile dirt on the stem as it can kill some plants.

Gently press the filled soil to collapse air pockets, but allow the soil to remain loose. Form a temporary water basin around each plant to encourage water collection.

Water thoroughly.

Mulch with 3-inches of wood chips. Do not allow mulch to touch the base of the plant.

### Maintenance:

The replacement trees are required to be maintained in a healthy condition for 5 years after planting. If a replacement tree dies, becomes diseased, or is removed within the 5 year period a new replacement tree is required to be replanted (MICC 19.10.070.D).

Irrigate the tree twice per week deeply using drip irrigation, or a 15-to 20-gallon water bag at the base of the tree. Maintain irrigation through the 5 year establishment period.

# Tree Solutions Inc



Consulting Arborists

2940 Westlake Ave N #200  
Seattle, WA 98109  
www.treesolutions.net  
206-528-4670

**Connor McDermott**  
ISA #PN-8704A  
ISA Qualified Tree Risk Assessor

**Liao Residence**  
4541 88th Ave SE,  
Mercer Island, WA  
Parcel # 0191100345

April 26, 2022

**Planting Specifications**

# L-3

**LEGAL DESCRIPTION**

(PER STATUTORY WARRANTY DEED RECORDING# 20150610001513)  
 LOT 5, BLOCK 5 OF ALLVIEW HEIGHTS ADDITION TO SEATTLE, AS PER PLAT RECORDED IN VOLUME 16 OF PLATS, PAGE 20, IN KING COUNTY, WASHINGTON;  
 EXCEPT THE SOUTH 10 FEET THEREOF;  
 TOGETHER WITH THE EAST 1/2 OF VACATED ALLEY ADJACENT THERETO, AS VACATED BY COMMISSIONERS RECORDS FILED DECEMBER 2, 1946 UNDER VOLUME 45, PAGE 3; SITUATE IN THE CITY OF MERCER ISLAND, COUNTY OF KING, STATE OF WASHINGTON.

**BASIS OF BEARINGS**

N 43°41'31" W BETWEEN FOUND CENTERLINE MONUMENTATION - AS CALCULATED PER R1

**REFERENCES**

R1. RECORD OF SURVEY, VOL. 127, PG. 204, RECORDS OF KING COUNTY, WASHINGTON.

**VERTICAL DATUM**

NAVD88 PER CITY OF MERCER ISLAND BENCHMARK #4049 (47366)  
 IP FILLED W/ CONC W/ TACK IN LEAD (DN 0.7") INTX SE 46TH ST & 88TH AVE SE  
 ELEV: 362.31

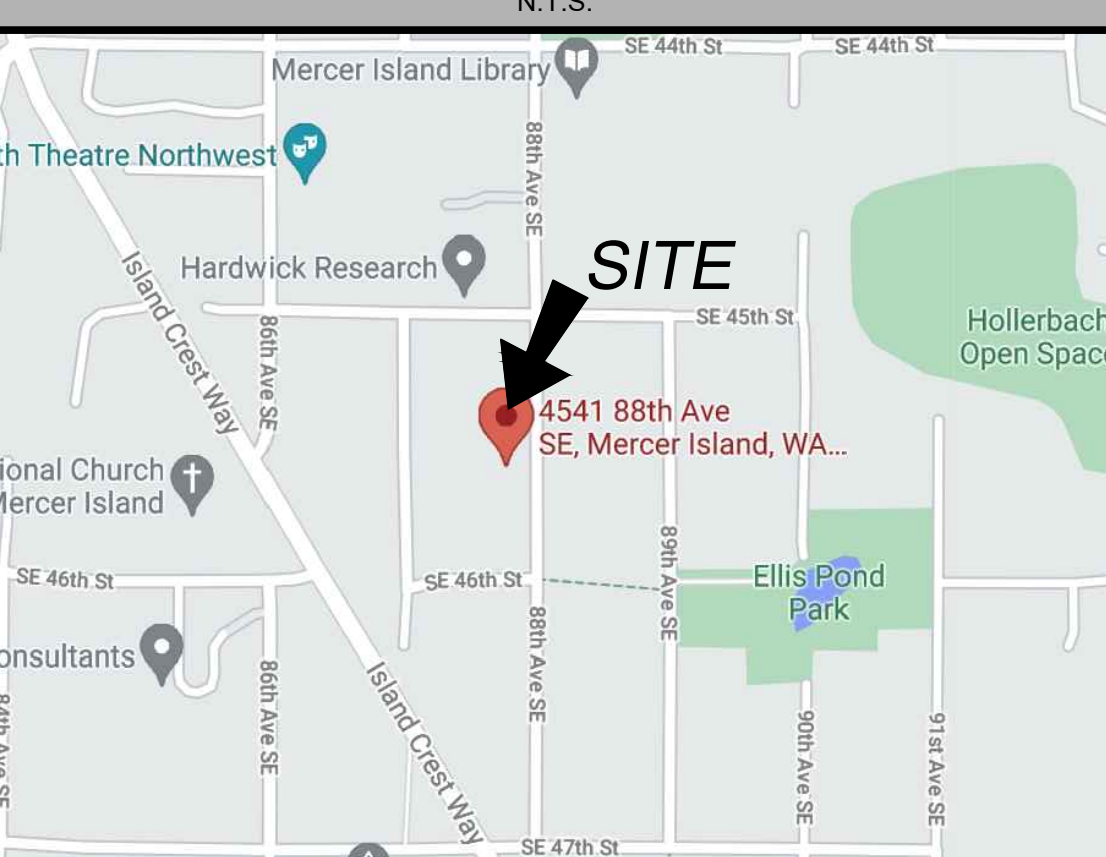
**SURVEYOR'S NOTES**

1. THE TOPOGRAPHIC SURVEY SHOWN HEREON WAS PERFORMED IN JUNE OF 2021. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
3. THE TYPES AND LOCATIONS OF ANY UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED TO US, BY OTHERS OR GENERAL INFORMATION READILY AVAILABLE IN THE PUBLIC DOMAIN INCLUDING, AS APPLICABLE, IDENTIFYING MARKINGS PLACED BY UTILITY LOCATE SERVICES AND OBSERVED BY TERRANE IN THE FIELD. AS SUCH, THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS ARE FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE RELIED ON FOR DESIGN OR CONSTRUCTION PURPOSES; TERRANE IS NOT RESPONSIBLE OR LIABLE FOR THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION. FOR THE ACCURATE LOCATION AND TYPE OF UTILITIES NECESSARY FOR DESIGN AND CONSTRUCTION, PLEASE CONTACT THE SITE OWNER AND THE LOCAL UTILITY LOCATE SERVICE (800-424-5555).
4. SUBJECT PROPERTY TAX PARCEL NO. 0191100345.
5. SUBJECT PROPERTY AREA PER THIS SURVEY IS 8,777± S.F. (0.20 ACRES)
6. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
7. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC 332-130-090.

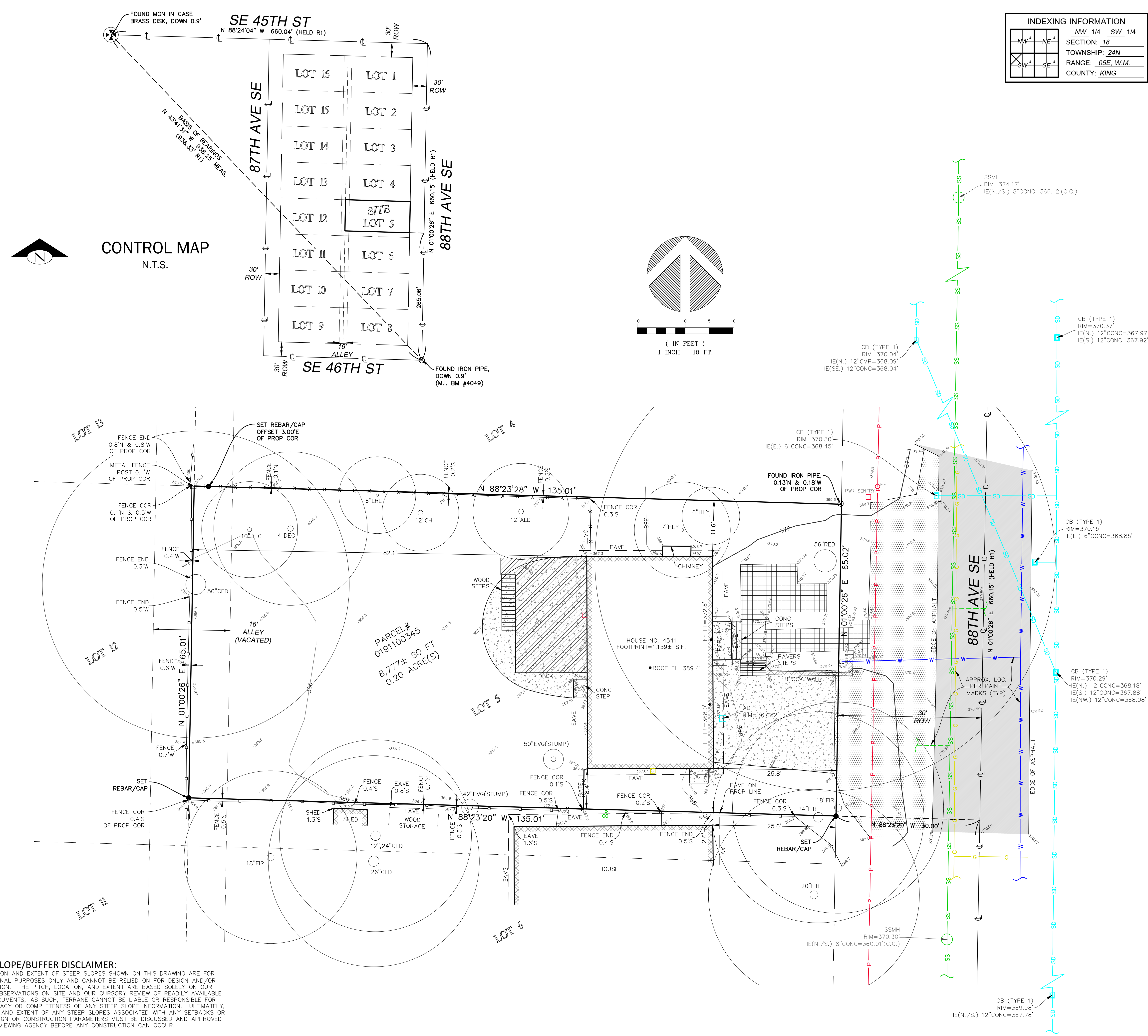
**LEGEND**

	AREA DRAIN		MONUMENT IN CASE (FOUND)
	ASPHALT SURFACE		PAVER SURFACE
	BUILDING		POST
	CENTERLINE ROW		POWER METER
	CLEANOUT		POWER ENTRY
	CONCRETE SURFACE		POWER POLE
	DECK		REBAR & CAP (SET)
	FENCE LINE (CHAIN LINK)		RETAINING WALL
	FENCE LINE (WOOD)		SEWER LINE
	GAS LINE		SEWER MANHOLE
	GAS METER		STORM DRAIN LINE
	GRAVEL SURFACE		TREE (AS NOTED)
	INLET (TYPE 1)		WATER LINE
	IRON PIPE (FOUND)		WATER METER
	POWER (OVERHEAD)		IRON PIPE (FOUND)

**VICINITY MAP**



**TOPOGRAPHIC & BOUNDARY SURVEY**



**INDEXING INFORMATION**

NW 1/4	SW 1/4
SECTION: 18	
TOWNSHIP: 24N	
RANGE: 05E, W.M.	
COUNTY: KING	

**measure success**

**TOPOGRAPHIC & BOUNDARY SURVEY**  
 PARCEL NO. 0191100345  
**JAYMARC HOMES- LIAO RESIDENCE**  
 4541 88TH AVE SE  
 MERCER ISLAND, WA 98040



**Terrane**  
 10801 Main Street, Suite 102, Bellevue, WA 98004  
 phone 425.458.4488 support@terrane.net  
 www.terrane.net

**JOB NUMBER:** 211129  
**DATE:** 06/11/21  
**DRAFTED BY:** RSN  
**CHECKED BY:** JGM/CSP  
**SCALE:** 1" = 10'

**REVISION HISTORY**


**SHEET NUMBER**  
1 OF 1

**STEEP SLOPE/BUFFER DISCLAIMER:**  
 THE LOCATION AND EXTENT OF STEEP SLOPES SHOWN ON THIS DRAWING ARE FOR INFORMATIONAL PURPOSES ONLY AND CANNOT BE RELIED ON FOR DESIGN AND/OR CONSTRUCTION. THE PITCH, LOCATION, AND EXTENT ARE BASED SOLELY ON OUR GENERAL OBSERVATIONS ON SITE AND OUR CURSORY REVIEW OF READILY AVAILABLE PUBLIC DOCUMENTS; AS SUCH, TERRANE CANNOT BE LIABLE OR RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ANY STEEP SLOPE INFORMATION. ULTIMATELY, THE LIMITS AND EXTENT OF ANY STEEP SLOPES ASSOCIATED WITH ANY SETBACKS OR OTHER DESIGN OR CONSTRUCTION PARAMETERS MUST BE DISCUSSED AND APPROVED BY THE REVIEWING AGENCY BEFORE ANY CONSTRUCTION CAN OCCUR.