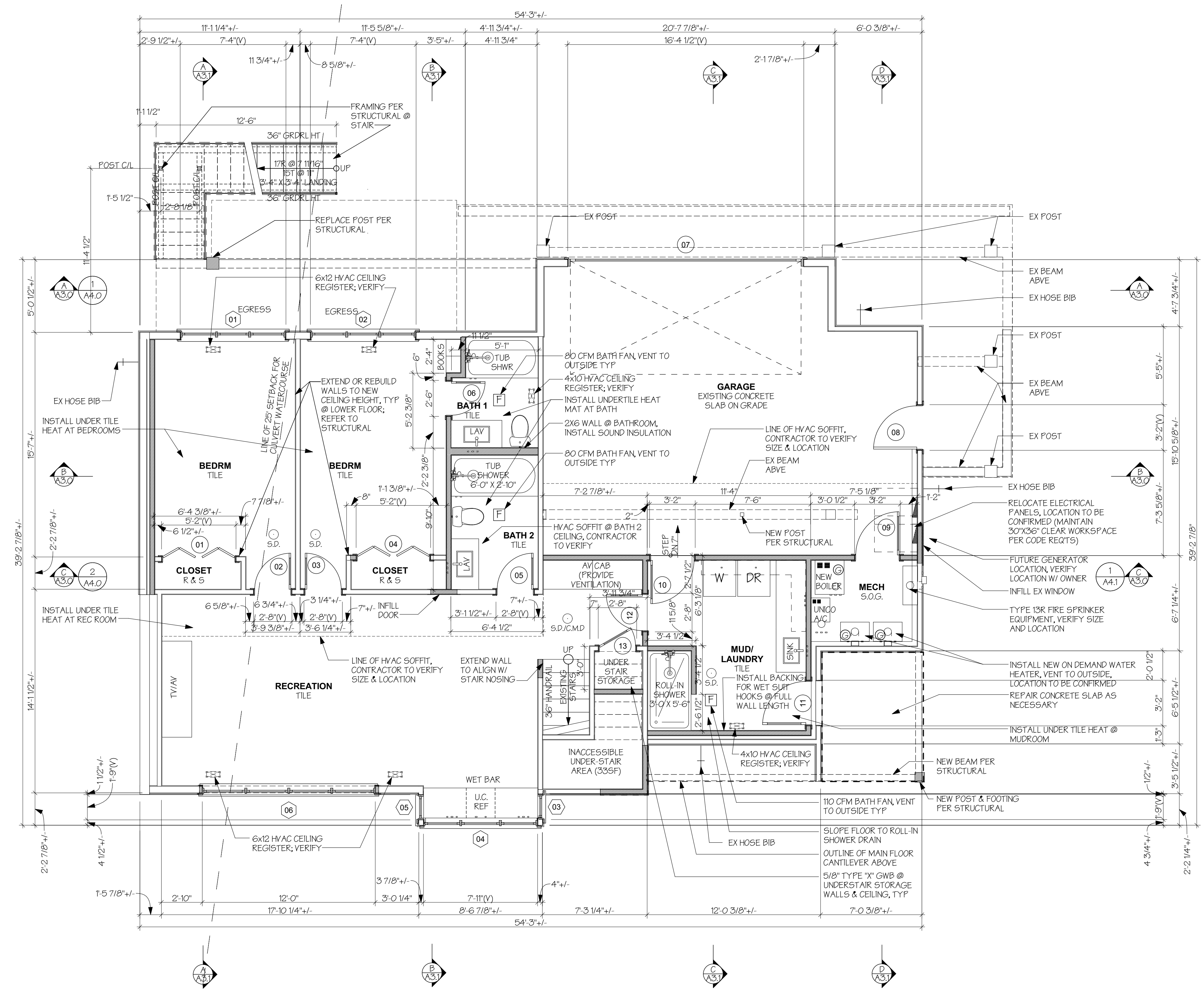


REFER TO S2.0A FOR FOUNDATION PIPE PILES



LOWER FLOOR PLAN

SCALE: 1/4" = 1'-0"
 EXISTING WALLS
 NEW OR MODIFIED WALLS

- NOTES:
1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD WALL.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
 4. INSTALL SMOKE DETECTORS (S.D.) AT LOCATIONS SHOWN. HARDWARE AND INTERCONNECT DETECTORS TO POWER SUPPLY AND PROVIDE BATTERY BACKUP AS REQUIRED.
 5. INSTALL CARBON MONOXIDE ALARMS (C.M.D.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM AND SHALL BE LISTED AS COMPLYING WITH UL 2004 AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC R310.3 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 6. UNDERCUT INTERIOR DOORS 1/2" MINIMUM TO PROVIDE AIR FLOW TO ALL HABITABLE SPACES.

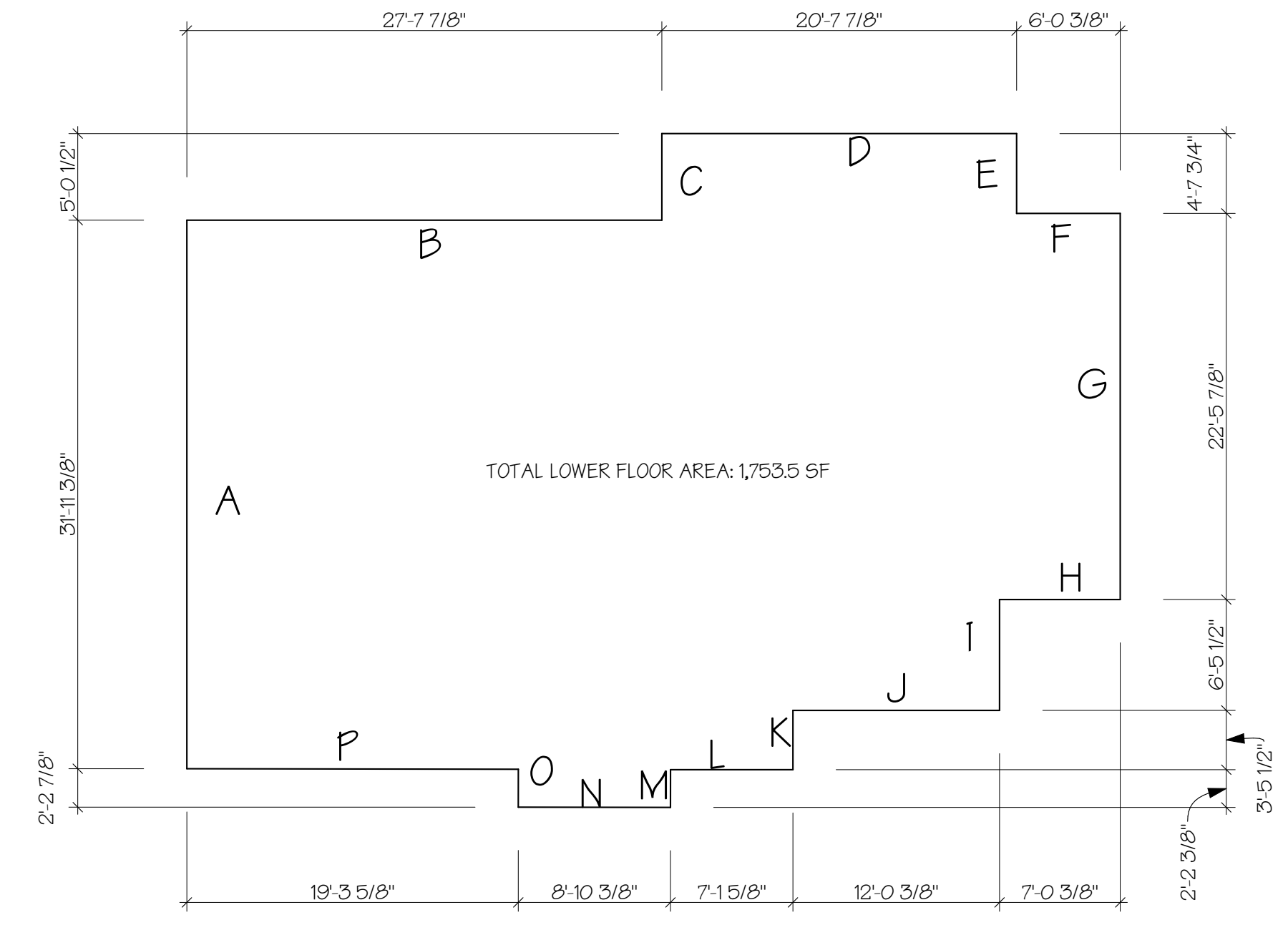


TABLE OF WALL LENGTHS AND COVERAGE

WALL SEGMENT	LENGTH X	COVERAGE =	RESULT
A	31-11 3/8"	76.8%	24'-6 1/2"
B	27'-7 7/8"	0%	0
C	5'-0 1/2"	0%	0
D	20'-7 7/8"	0%	0
E	4'-7 3/4"	0%	0
F	6'-0 3/8"	0%	0
G	22'-5 7/8"	0%	0
H	7'-0 3/8"	0%	0
I	6'-5 1/2"	0%	0
J	12'-0 3/8"	0%	0
K	3'-5 1/2"	0%	0
L	7'-1 5/8"	0%	0
M	2'-2 3/8"	0%	0
N	8'-10 3/8"	0%	0
O	2'-2 7/8"	0%	0
P	19'-3 5/8"	10.6%	2'-0 1/2"
TOTALS	187-1 3/4"	NA	26'-7"

26'-7" / 187-1 3/4" = 14.2%
 1,753.5 SF X 14.2% = 249 SF EXCLUDED FROM THE GFA
 (PER APPENDIX B OF MICC TITLE 19)

LOWER FLOOR GFA EXEMPTION

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

NEW HVAC NOTES:

1. INSTALL NEW HYDRONIC RADIANT SYSTEM @ LOWER FLOOR WALL RADIATORS WITH HIGH EFFICIENCY BOILER, WITH MINIMUM AFUE OF 92%, VENT TO OUTSIDE TYPICAL. MAIN AND UPPER JOIST TRACK RADIANT HEAT SYSTEM.
2. PROVIDE SHUT OFF VALVE @ CONNECTION TO APPLIANCE.
3. INSTALL UNICO DUCTED COOLING SYSTEM THROUGHOUT.
4. PER IRC 1506.3.5: PROVIDE WHOLE HOUSE VENTILATION SYSTEM INTEGRATED WITH THE UNICO DUCTED COOLING SYSTEM.
5. INTEGRATED WHOLE HOUSE VENTILATION SYSTEM SHALL OPERATE CONTINUOUSLY. PROVIDE CONTROLS TO ALLOW OPERATION OF VENTILATION SYSTEM WITHOUT NEED TO OPERATE HEATING SYSTEM. A LABEL SHALL BE AFFIXED TO THE CONTROLS THAT READS "WHOLE HOUSE VENTILATION (SEE OPERATING INSTRUCTIONS)".
6. CONTINUOUS WHOLE HOUSE MECHANICAL VENTILATION MINIMUM AIRFLOW RATE OF 90 CFM. REFER TO IRC TABLE M1507.3.5.

GAS WATER HEATER NOTES:

1. INSTALL NEW TANKLESS GAS WATER HEATER; RHEEM HIGH EFFICIENCY 110 GPM INDOOR NATURAL GAS TANKLESS WATER HEATER WITH RECIRCULATION PUMP, #RTGH-RH1DVLN W/ 0.94 EFF (CONFIRM SELECTION W/ OWNER PRIOR TO PURCHASING)
2. PROVIDE SHUT OFF VALVE @ CONNECTION TO APPLIANCE.
3. PER IRC M1307.2 ANCHOR OR STRAP WATER HEATER APPLIANCE TO RESIST HORIZONTAL DISPLACEMENT CAUSED BY EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3RD AND LOWER 1/3RD OF THE APPLIANCE'S VERTICAL DIMENSIONS. AT THE LOWER POINT, THE STRAPPING SHALL MAINTAIN A MINIMUM DISTANCE OF 4" ABOVE CONTROLS.

VENTILATION REQUIREMENTS

VENTILATION NOTES:
 WHOLE HOUSE VENTILATION TO BE INTEGRATED INTO THE UNICO DUCTED COOLING SYSTEM TO MEET IRC M1507.3.5. PROVIDE CONTINUOUS AIRFLOW OF 90CFM.

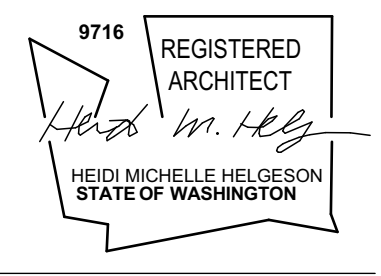
GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)

EXISTING/PROPOSED GROSS LOWER FLOOR AREA:	1,739.2 SF
EXEMPT AREA: BELOW GRADE	(-249 SF)
EXEMPT AREA: UNDER STAIR	(34 SF)
TOTAL GROSS FLOOR AREA AT LOWER FLOOR:	1,456.2 SF

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)

EXISTING LOWER FLOOR AREA	921.6 SF
EXISTING GARAGE CONVERTED TO CONDITIONED AREA:	214.9 SF
TOTAL CONDITIONED AREA AT LOWER FLOOR:	1,136.5 SF

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



H 2 D
 ARCHITECTURE
 +
 DESIGN

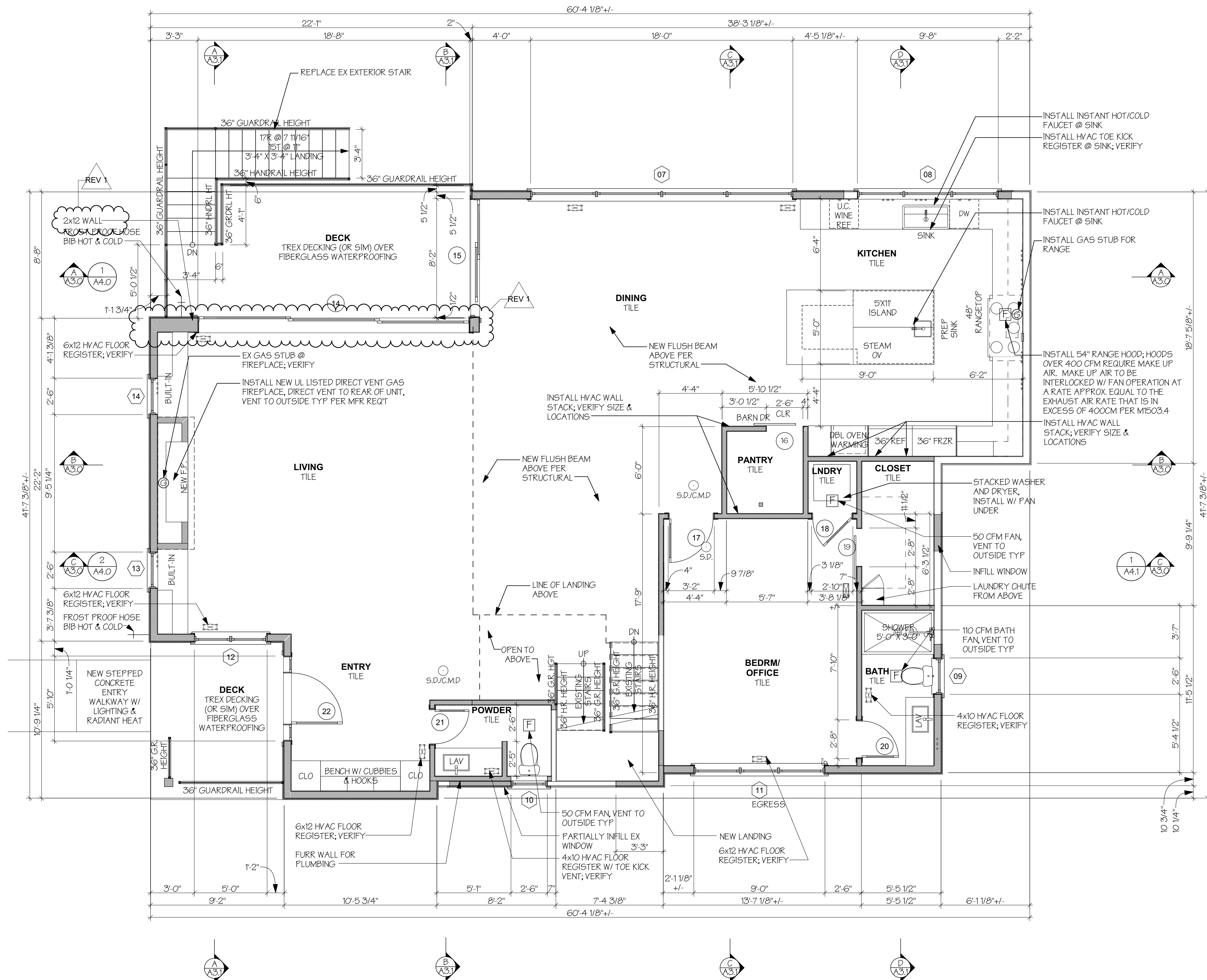
23020 EDMONDS WAY, #113
 EDMONDS, WA 98020
 P. 206.542.3734
 www.h2darchitects.com

DATE: 7/26/2019
 REV 1: 11/14/2020

PERMIT REVISION SET

LOWER FLOOR PLAN

A1.3



1 MAIN FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 EXISTING WALLS
 NEW OR MODIFIED WALLS

NOTES:
 1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD UNO.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
 4. INSTALL SMOKE DETECTORS (S.D.) AT LOCATIONS SHOWN. HARDWARE AND INTERCONNECT DETECTORS TO POWER SUPPLY AND PROVIDE BATTERY BACKUP AS REQUIRED.
 5. INSTALL CARBON MONOXIDE ALARMS (C.M.D.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM AND SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC R3153 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)	
EXISTING MAIN FLOOR AREA:	1,564.3 SF
EXISTING AREA DEMOLISHED:	(19.4 SF)
NEW ADDITION:	487.2 SF
TOTAL GROSS FLOOR AREA AT MAIN FLOOR:	2,032.1 SF
TOTAL GROSS FLOOR AREA (ALL FLOORS):	4646.4 SF
MAXIMUM ALLOWED FLOOR AREA RATIO:	4652 SF

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)	
EXISTING MAIN FLOOR AREA:	1479.8 SF
EXISTING AREA DEMOLISHED:	(19.4 SF)
NEW ADDITION:	394.6 SF
TOTAL CONDITIONED AREA AT MAIN FLOOR:	1874.4 SF
EXISTING UNCOVERED DECK TO BE REBUILT:	190.2 SF
EXISTING COVERED PORCH TO HAVE NEW FINISHES:	97.6 SF
TOTAL CONDITIONED FLOOR AREA:	3918.5 SF
TOTAL CONDITIONED FLOOR AREA (ALL FLOORS):	4463.5 SF

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



H 2 D
 ARCHITECTURE
 +
 DESIGN
 23020 EDMONDS WAY, #113
 EDMONDS, WA 98020
 P. 206.542.3734
 www.h2darchitects.com

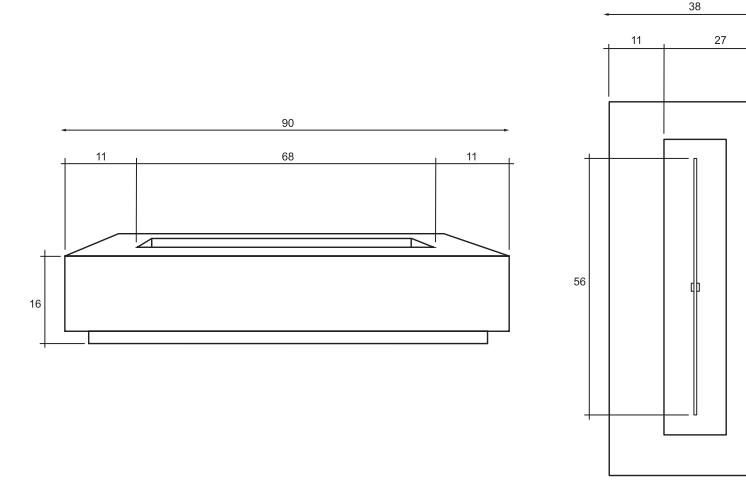
DATE: 7/26/2019
 REV 1: 11/14/2020

PERMIT REVISION SET

MAIN FLOOR PLAN

A1.4

SECTION 3: DIMENSIONS & DIAGRAMS



SPECIFICATIONS	
Width	36"
Length	90"
Height	48"
Surface	11'
Burner Size	87" / 45,000 BTU
Weight	450 lbs.
Finish/Stone	12" x 12"
Lighting	See Notes
Materials	Class II non-vented cement

SECTION 4: PARTS LIST

PART NO.	PART NAME	QTY.
01	48" x 11" Burner	1
02	48" x 16" Burner Plate	1
03	70,000 BTU Orifice	1
04	5/8" Mide Flared fitting	1
05	5/8" Max line hose	1
06	Key	1
07	Gas Key Valve	1
08	10 1/2" x 38" x 1 1/4" Fire Table	1
09	Lava Rock	50 LBS
IF MODEL ONLY		
10	1/2" Propane Hose 10ft	1
11	90,000 BTU LP Regulator	1

TOOLS REQUIRED

- Gloves
- Spray Gun with #2 pHlex Head tip to remove packaging
- Box cutter to cut bands & miscellaneous plastic
- Crescent wrench to attach gas line.

SECTION 5: GAS REQUIREMENTS

Read this section before installation. It explains what you need to know about liquid propane & natural gas prior to setting up your fire feature.

LIQUID PROPANE

Your fire feature is not provided with a propane tank. You will need to provide one. Use the following specifications for purchasing your propane tank.

SPECIFICATIONS

The 2-lb. propane gas supply cylinder is constructed and marked in accordance with the specifications for propane gas cylinders as required by the U.S. Department of Transportation (DOT).

MANIFOLD PRESSURE

For plumbed-in liquid propane installation, use a regulator.

- Minimum - 8.0" W.C.
- Normal - 11.0" W.C.
- Maximum - 14.0" W.C. (1/2psi)

SUPPLY PRESSURE

Maximum line pressure for plumbed-in propane is 14" W.C. (3.5 kPa). Minimum line pressure for propane is 11" W.C. (2.5 kPa).

PRESSURE REGULATOR

The unit must be used with the supplies gas pressure regulator and hose assembly. The regulator will control and maintain a uniform gas pressure in the manifold. The burner orifice has been sized for the gas pressure delivered by the regulator. Replacement pressure regulator and hose assemblies must be those specified in the instructions.

CYLINDER SPECIFICATION

Any propane gas supply cylinder used with this fire feature must be approximately 12" in diameter and 18" high. The maximum fuel capacity is 20 lbs. of propane or 5 gallons. Full cylinder weight should be approximately 38 lbs. Always use the cylinder dust cap on the cylinder valve outlet during transport and when the cylinder is not connected to the fire feature. The 20-lb. propane gas cylinder used must include a collar to protect the cylinder valve.

FILLER VALVE

If you do not have an updated filler valve on your existing propane tank, you will need to purchase one at your local hardware store, otherwise you will not be able to refill the propane tank at the refill station.

TRANSPORTING GAS CYLINDER

Only one cylinder should be transported at a time. Be sure that the cylinder is secure and transported in an upright position with the control valve turned off.

NATURAL GAS

Ensure that the service supplying the fire feature is fitted with a positioned shut off valve that is easily accessible.

REQUIREMENTS

Always check the rating plate to make sure the gas supply you are connecting is the gas type for the manufactured fire feature. The installation of this appliance must conform with local codes or, in the absence of local codes, to the National Fuel Gas Code, ANSI Z223.1, NFPA 54, National Fuel Gas Code, Natural Gas and Propane Installation Code, CSA B149.1, or Propane Storage and Handling Code, CSA B146.2 as applicable. Natural gas connection must be performed by a licensed contractor or local gas company representative.

SUPPLY PRESSURE

- Minimum - 3.5" W.C.
- Normal - 7.0" W.C.
- Maximum - 14.0" W.C. (1/2psi)

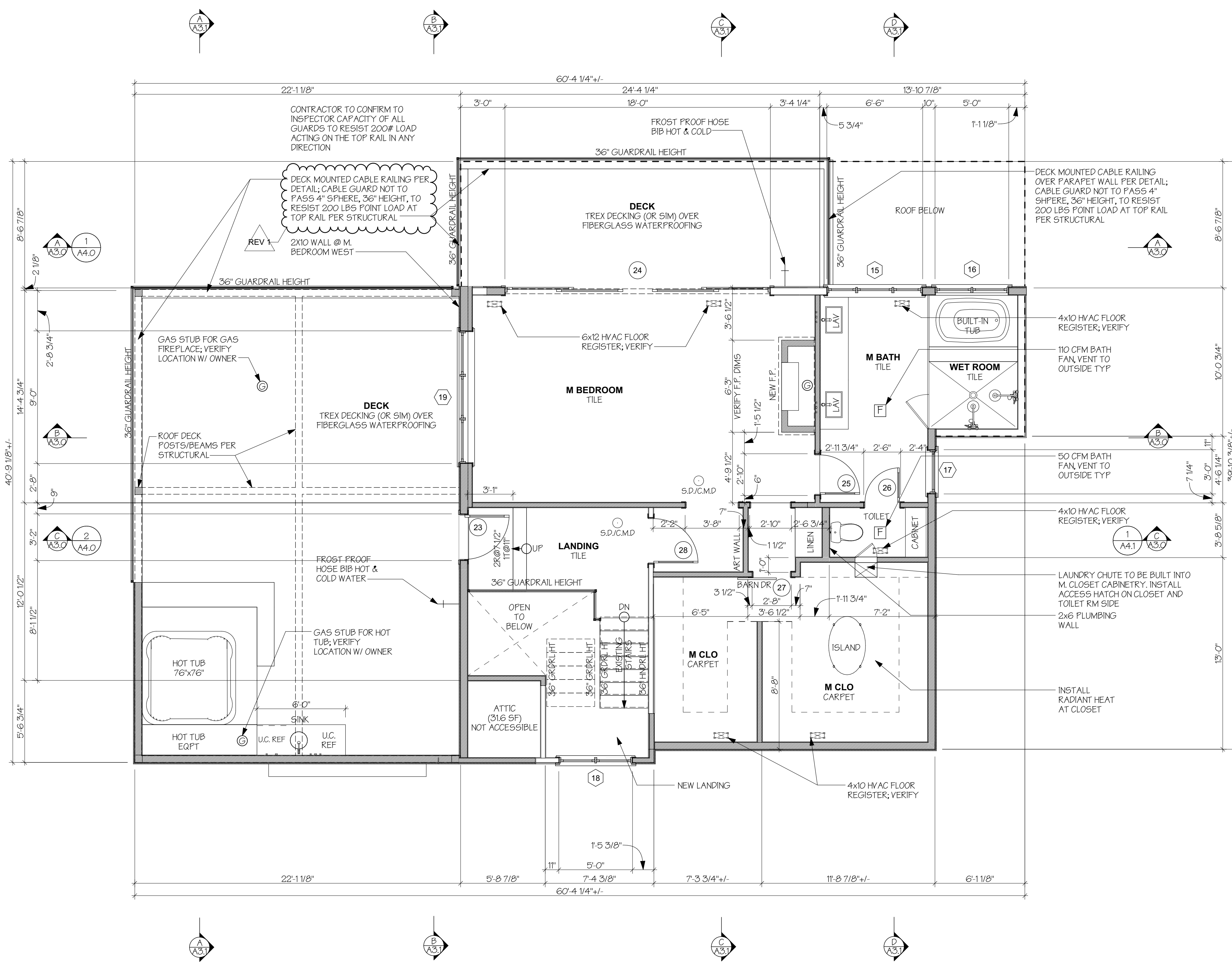
PRESSURE TESTING

If the fire feature is installed with a fixed fuel piping system and equipped with an appliance gas pressure regulator, the fire feature and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressure in excess of 1/2psi (3.5 kPa).

The fire feature must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2psi (3.5 kPa).

GROSS FLOOR AREA (MEASURED FROM THE OUTSIDE OF EXTERIOR WALLS)	
EXISTING UPPER FLOOR AREA:	846.5 SF
EXISTING AREA DEMOLISHED:	(-216 SF)
NEW ADDITION:	254.4 SF
PROPOSED GROSS FLOOR AREA AT UPPER FLOOR:	1,079.35F
EXEMPT AREA: ATTIC	(-316 SF)
DOUBLE-HEIGHT SPACE:	+514 SF
STAIRCASE:	+59 SF
TOTAL FLOOR AREA AT UPPER FLOOR:	1,581.5F

CONDITIONED FLOOR AREA (MEASURED FROM THE INSIDE OF EXTERIOR WALLS)	
EXISTING UPPER FLOOR AREA:	684.1 SF
EXISTING AREA DEMOLISHED:	(-216 SF)
NEW ADDITION:	223.5 SF
DOUBLE HEIGHT SPACE AT UPPER LEVEL (COUNT AT 100%)	514SF
TOTAL CONDITIONED AREA AT UPPER FLOOR:	907.6 SF
TOTAL FLOOR AREA AT UPPER FLOOR:	959 SF



UPPER FLOOR PLAN

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

EXISTING WALLS
NEW OR MODIFIED WALLS

- NOTES:
1. ALL DIMENSIONS ARE GIVEN TO THE FACE OF STUD UNO.
 2. ALL DOOR AND WINDOW DIMENSIONS ON THIS PLAN ARE ROUGH OPENING SIZES, UNO. REFER TO WINDOW AND DOOR SCHEDULE FOR MORE INFORMATION.
 3. SEE ATTACHED WSEC FORMS FOR ENERGY CODE COMPLIANCE INFORMATION.
 4. INSTALL SMOKE DETECTORS (S.D.) AT LOCATIONS SHOWN HARDWARE AND INTERCONNECT DETECTORS TO POWER SUPPLY AND PROVIDE BATTERY BACKUP AS REQUIRED.
 5. INSTALL CARBON MONOXIDE ALARMS (C.M.D.) OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS. THE ALARM AND SHALL BE LISTED AS COMPLYING WITH UL 2034 AND SHALL BE INSTALLED IN ACCORDANCE WITH IRC R3153 AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040



H 2 D
ARCHITECTURE
+
DESIGN

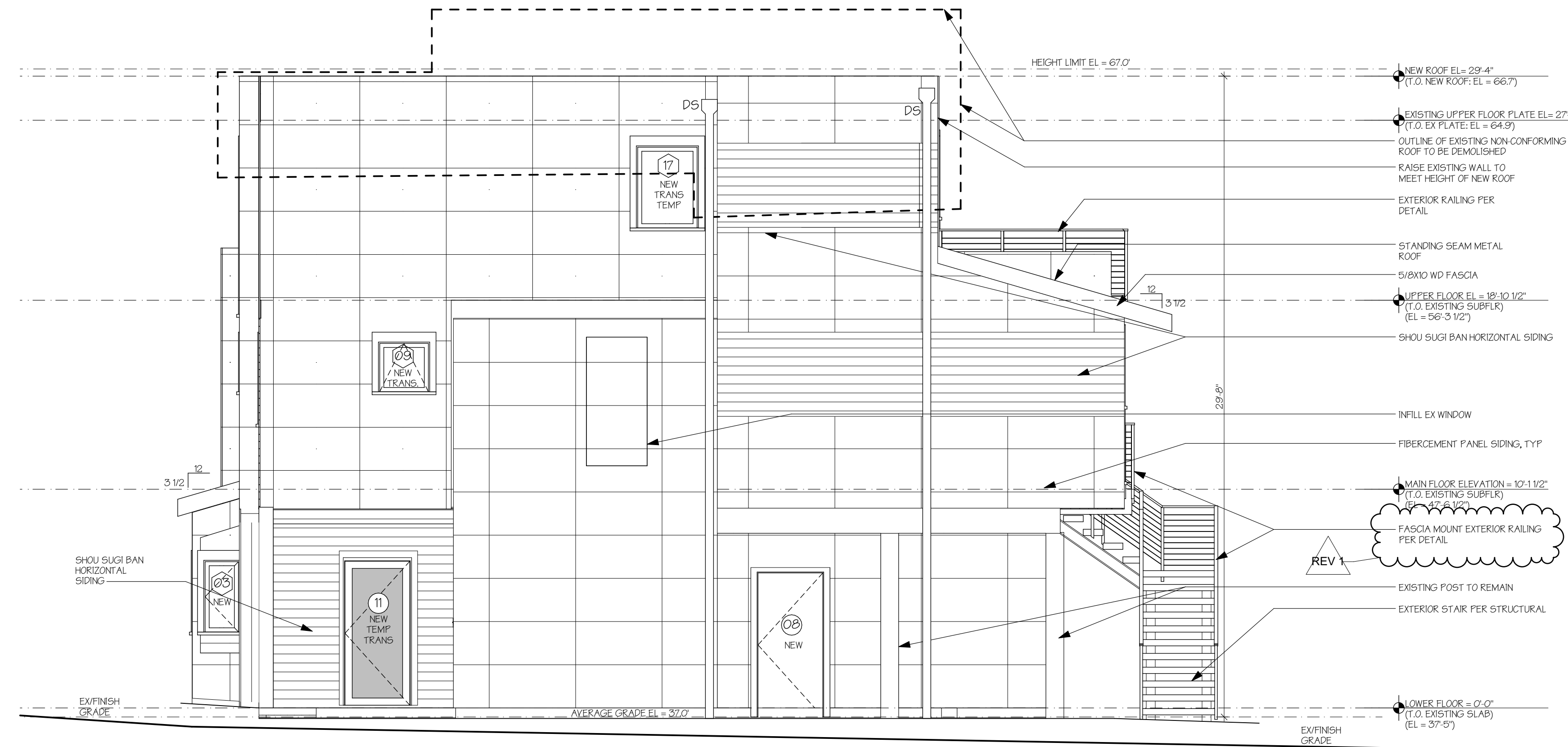
23020 EDMONDS WAY, #113
EDMONDS, WA 98020
P. 206.542.3734
www.h2darchitects.com

DATE: 7/26/2019
REV 1: 11/14/2020

PERMIT
REVISION SET

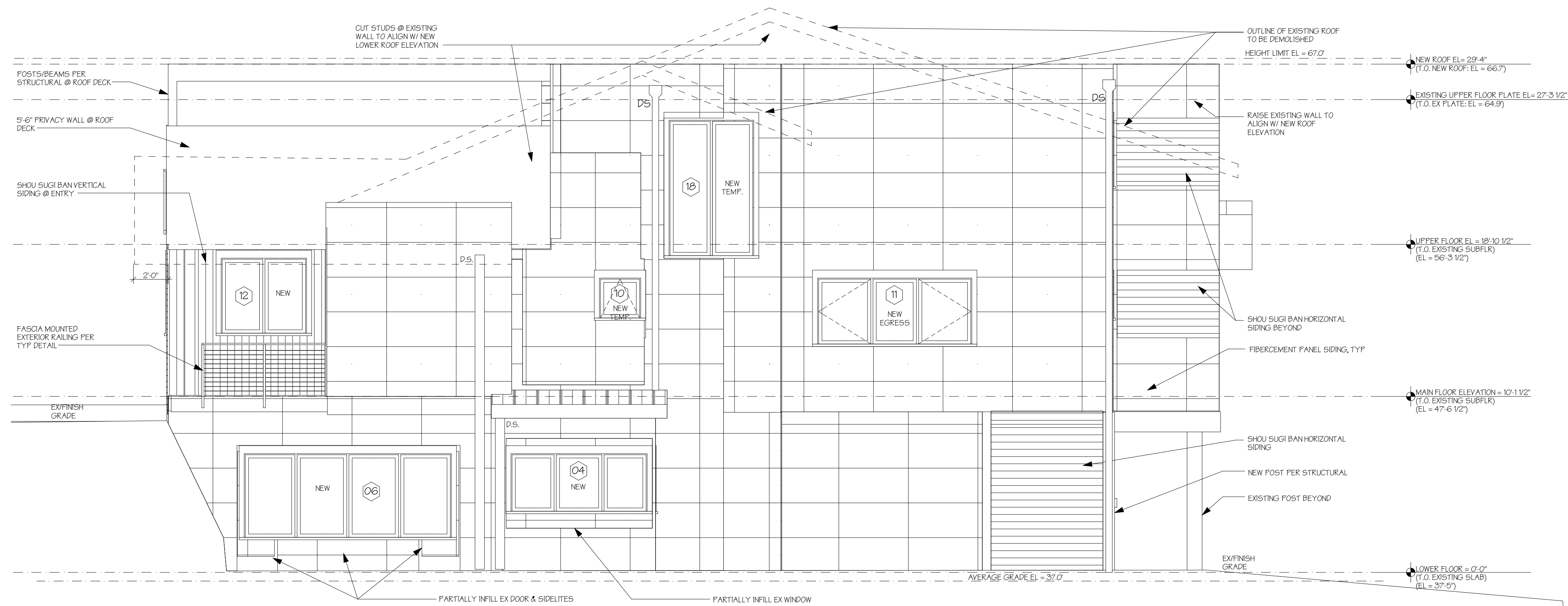
UPPER FLOOR PLAN

A1.5



EAST ELEVATION

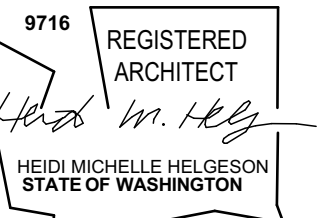
SCALE: 1/4" = 1'-0"



SOUTH ELEVATION

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

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



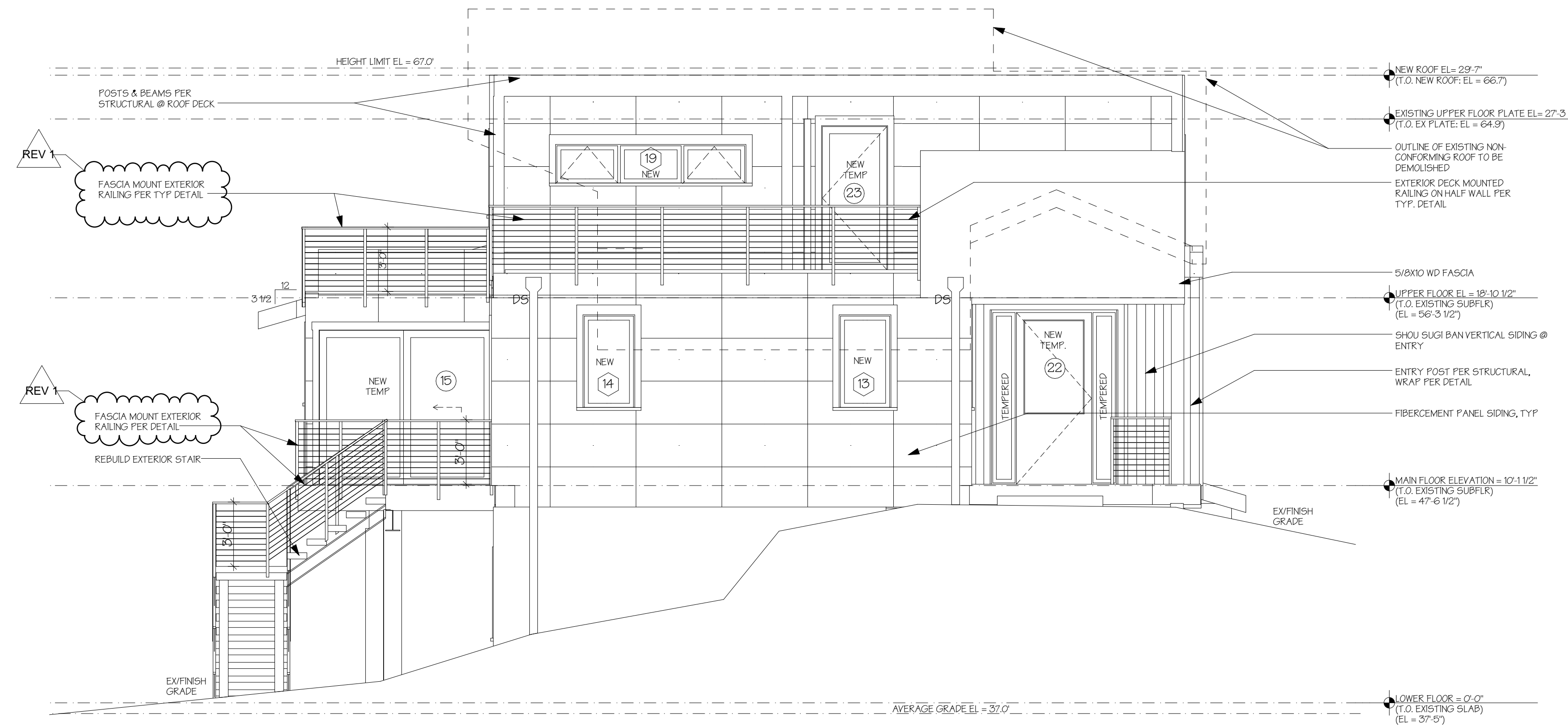
H 2 D
 ARCHITECTURE
 +
 DESIGN

23020 EDMONDS WAY, #113
 EDMONDS, WA 98020
 P. 206.542.3734
 www.h2darchitects.com

DATE: 7/26/2019
 REV 1: 11/14/2020

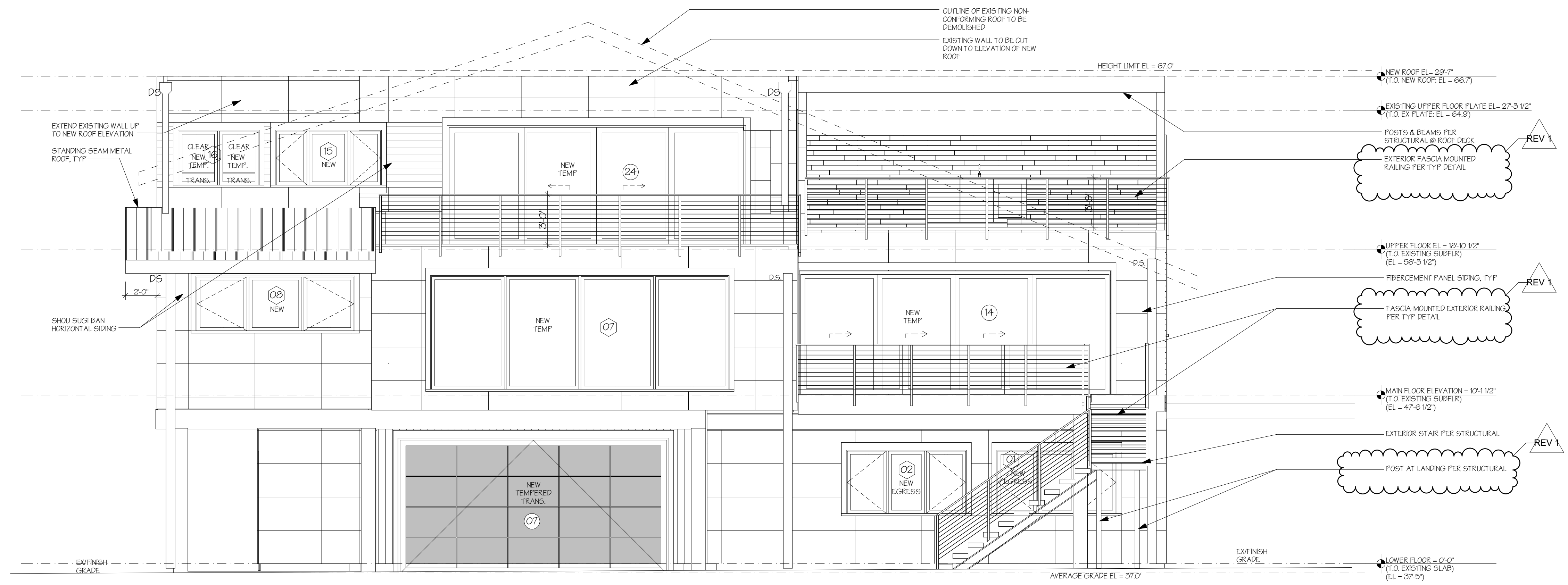
**PERMIT
 REVISION SET**

EXTERIOR ELEVATIONS



WEST ELEVATION

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



NORTH ELEVATION

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

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040



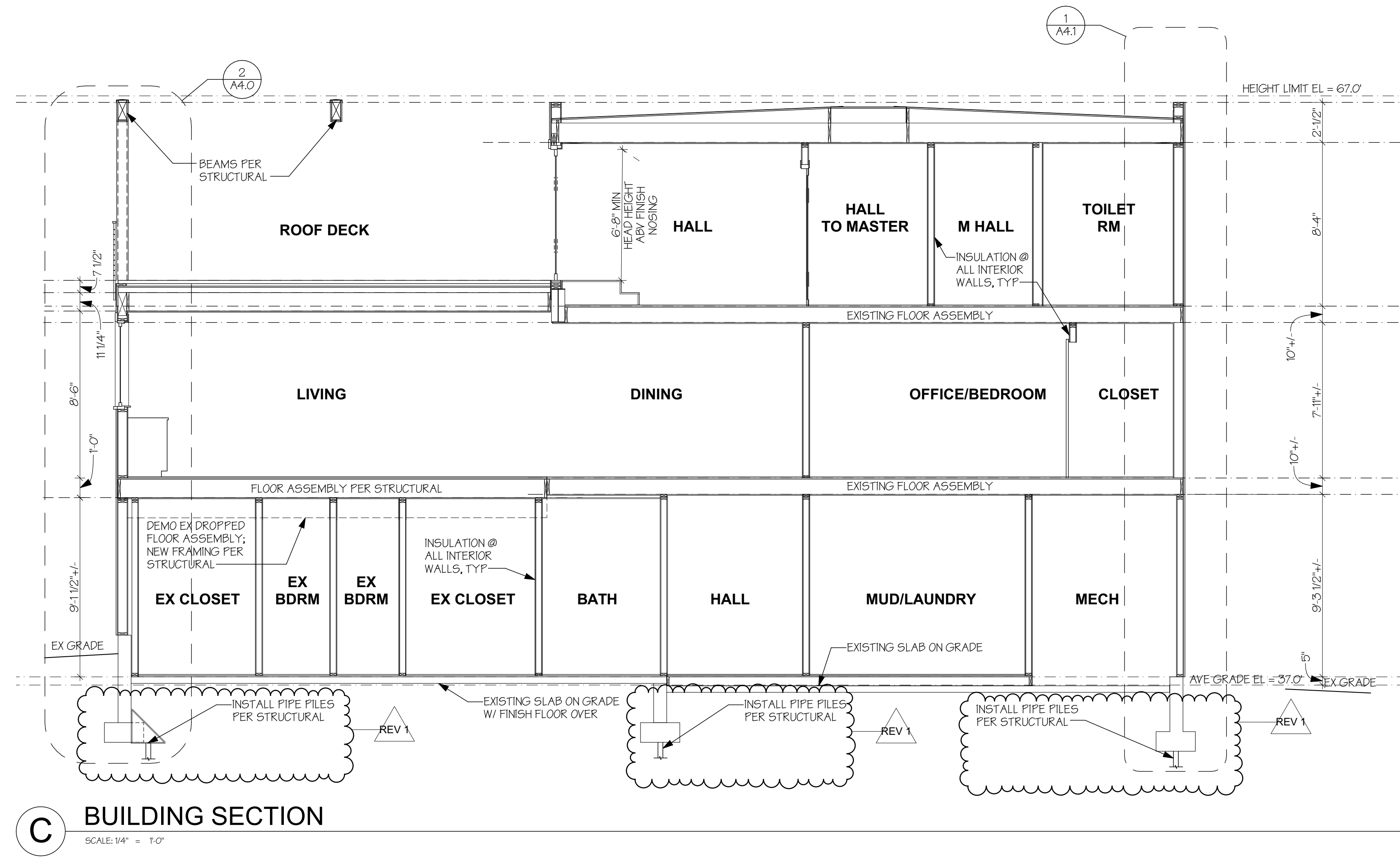
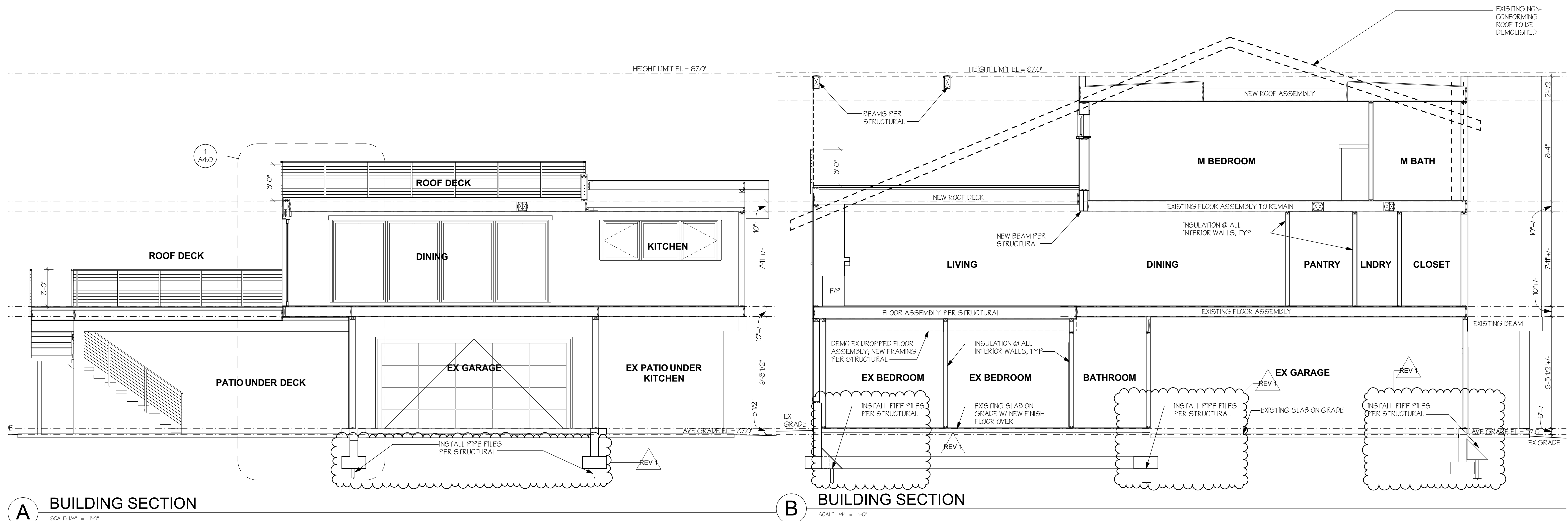
H 2 D
ARCHITECTURE
+
DESIGN

23020 EDMONDS WAY, #113
EDMONDS, WA 98020
P. 206.542.3734
www.h2darchitects.com

DATE: 7/26/2019
REV 1: 11/14/2020

PERMIT
REVISION SET

EXTERIOR ELEVATIONS



WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi M. Helgeson
HEIDI MICHELLE HELGESON
STATE OF WASHINGTON

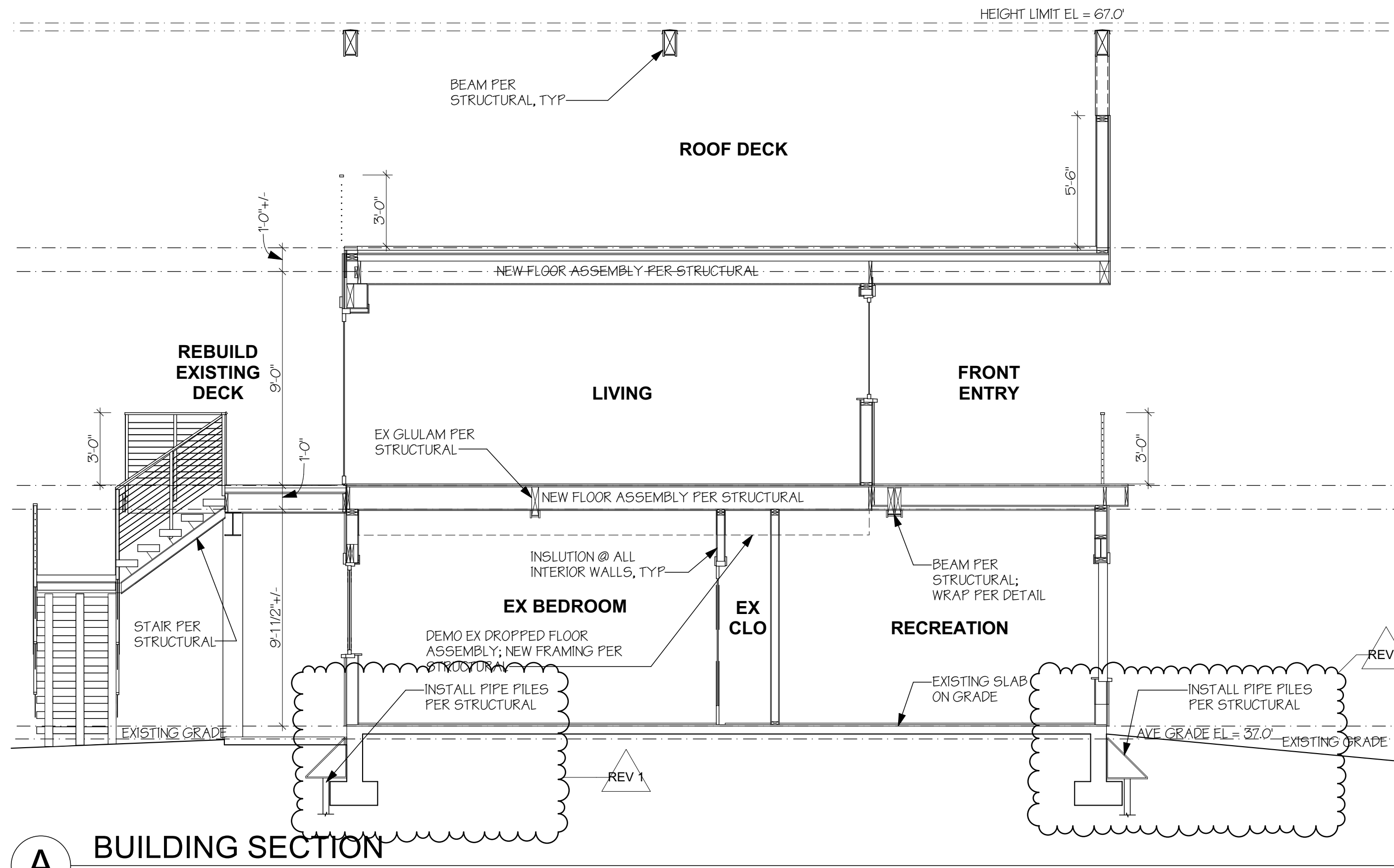


H 2 D
ARCHITECTURE
DESIGN
23020 EDMONDS WAY, #113
EDMONDS, WA 98020
P. 206.542.3734
www.h2darchitects.com

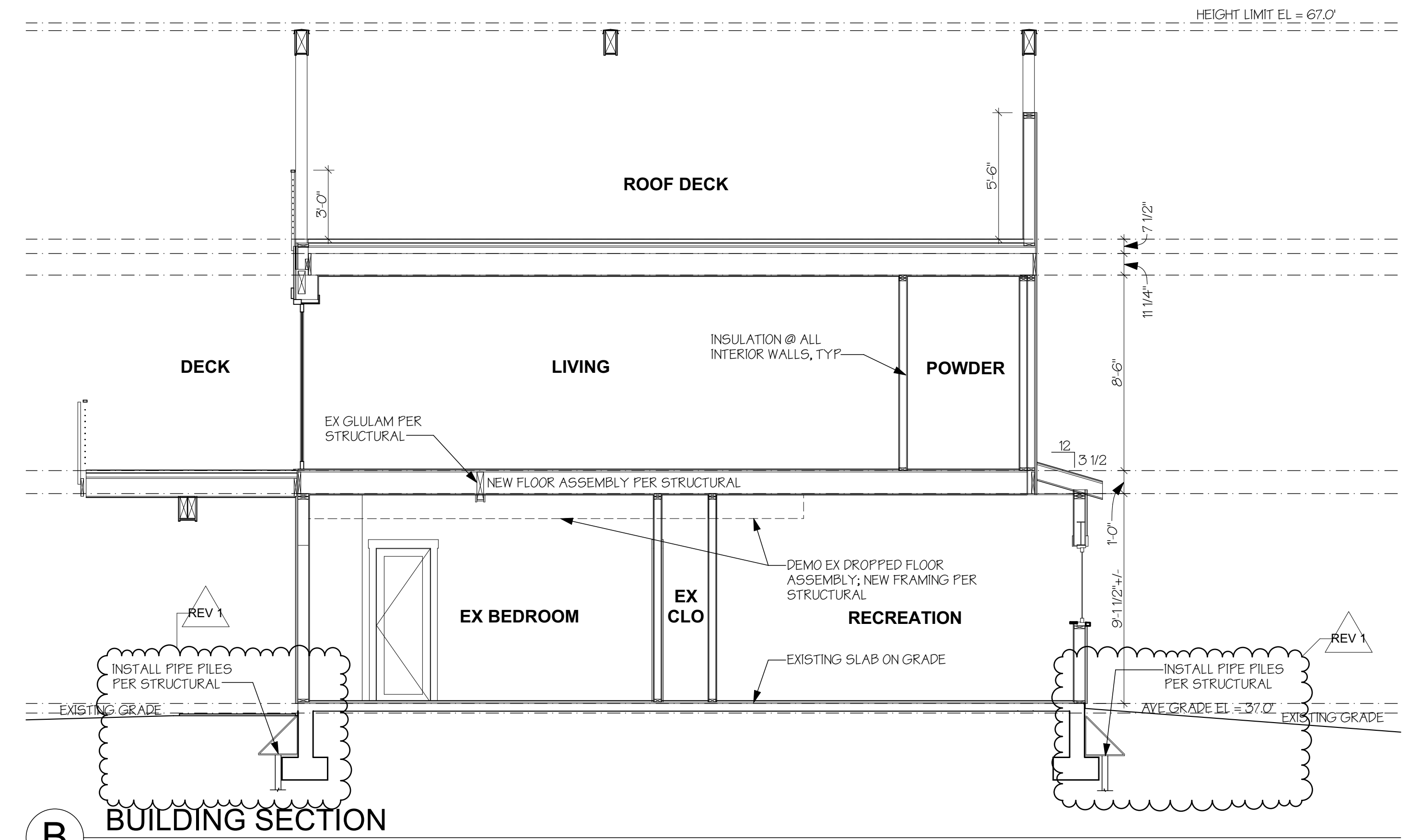
DATE: 7/26/2019
REV 1: 11/14/2020

PERMIT
REVISION SET

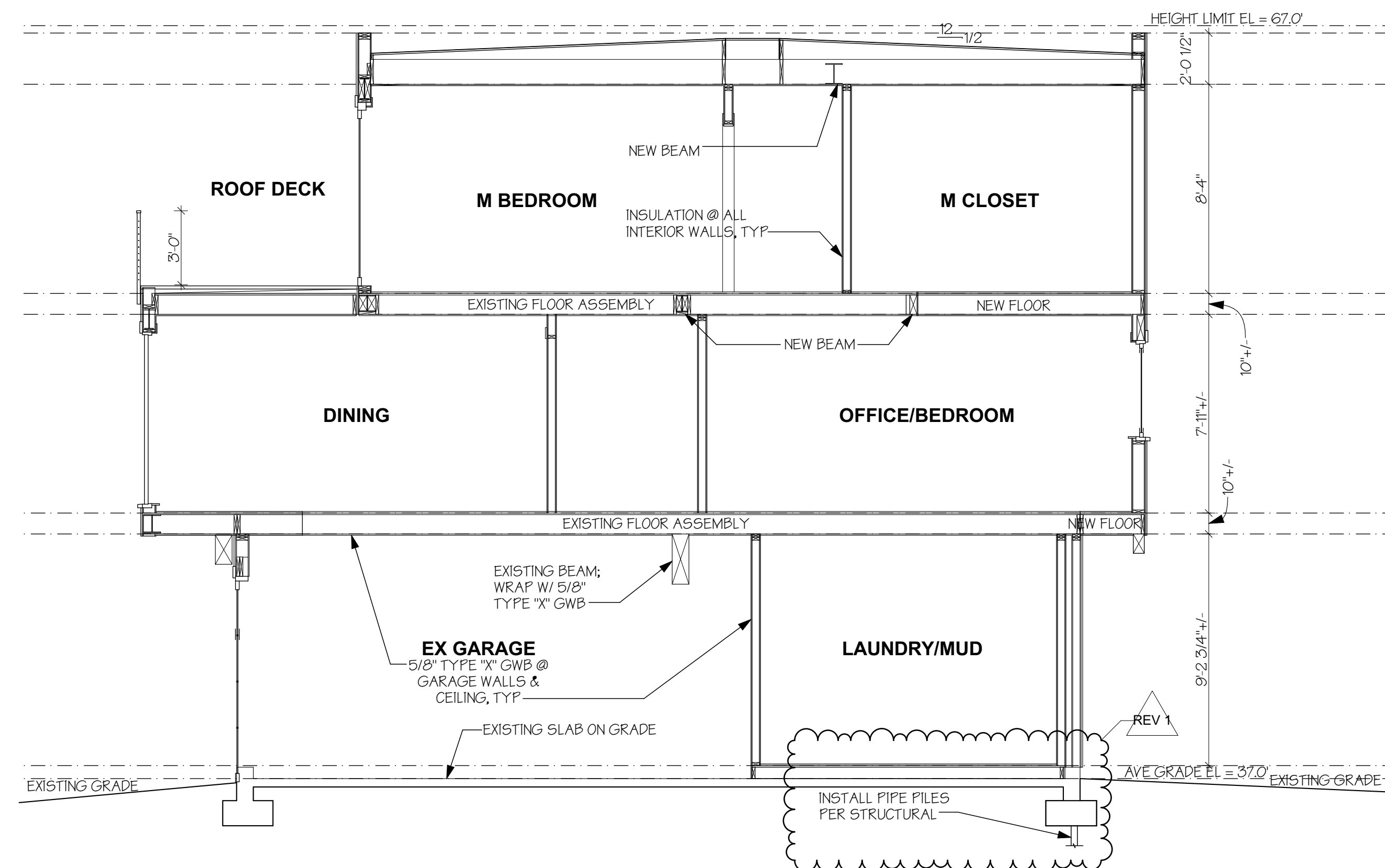
BUILDING SECTIONS



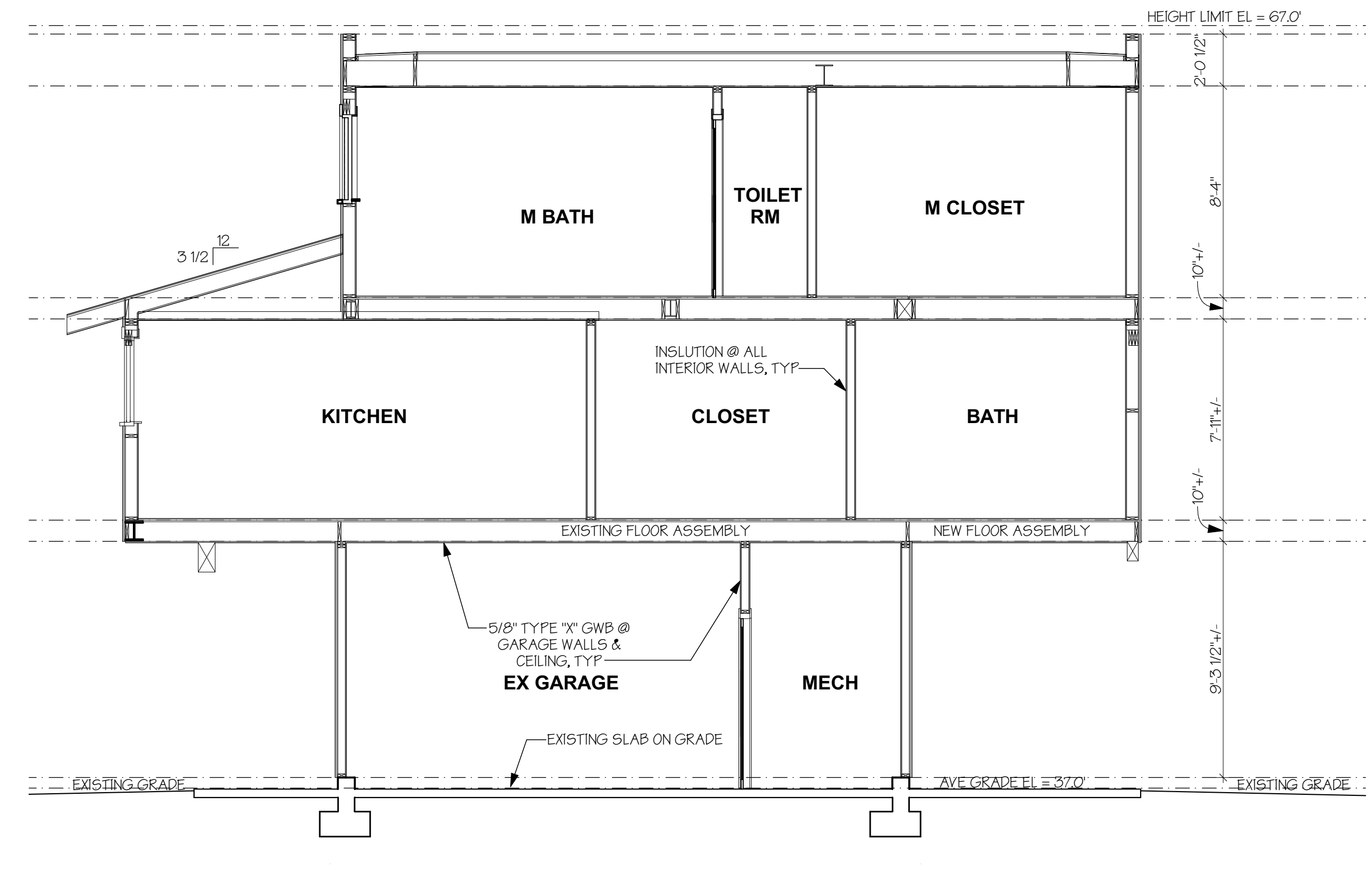
A BUILDING SECTION
SCALE: 1/4" = 1'-0"



B BUILDING SECTION
SCALE: 1/4" = 1'-0"



C BUILDING SECTION
SCALE: 1/4" = 1'-0"



D BUILDING SECTION
SCALE: 1/4" = 1'-0"

WERELIUS RESIDENCE
8452 NORTH MERCER WAY
MERCER ISLAND WA 98040

9716 REGISTERED ARCHITECT
Heidi M. Helly
HEIDI MICHELLE HELLY DESIGN
STATE OF WASHINGTON

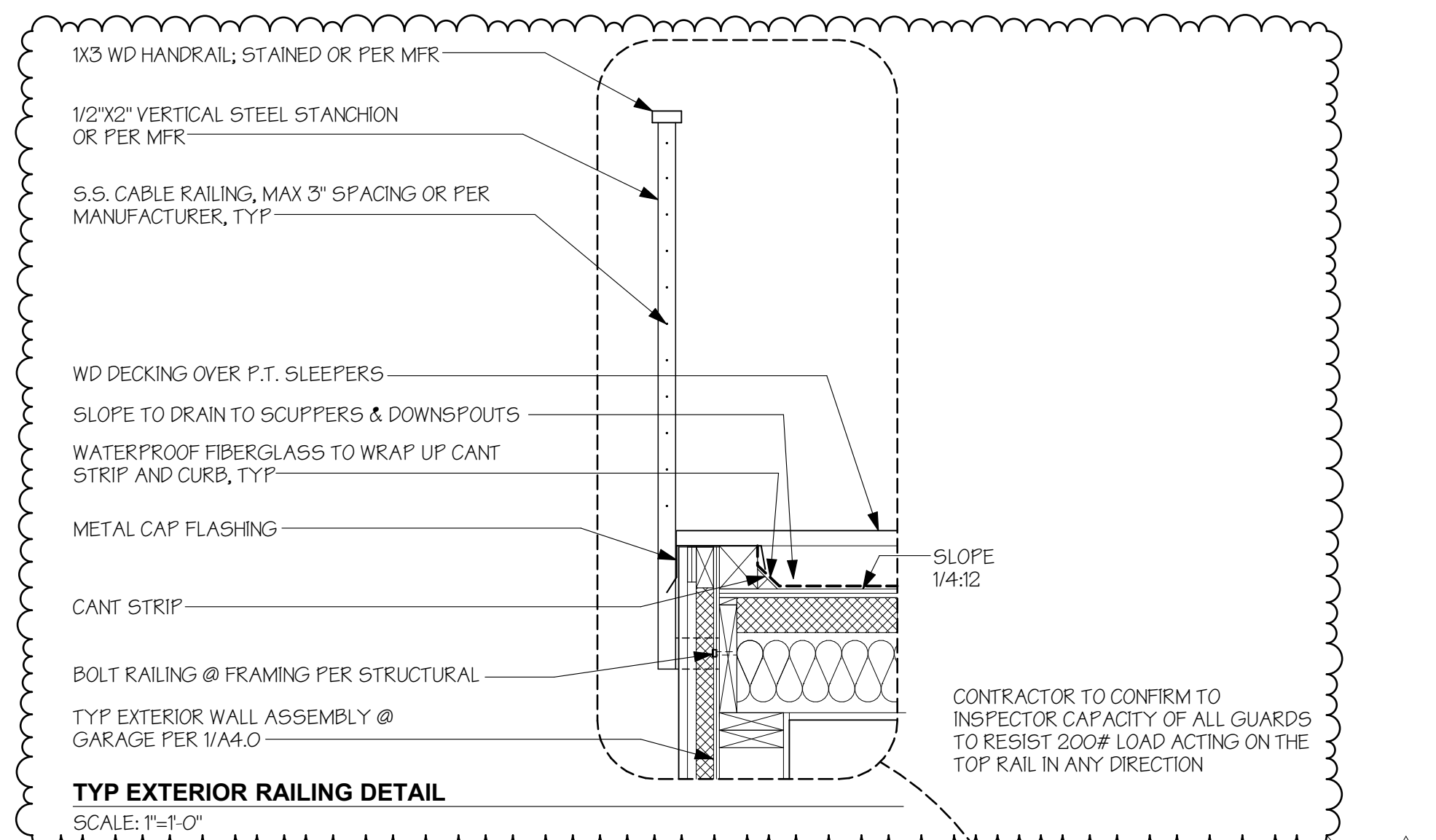


H 2 D ARCHITECTURE + DESIGN
23020 EDMONDS WAY, #113 EDMONDS, WA 98020
P. 206.542.3734
www.h2darchitects.com

DATE: 7/26/2019
REV 1: 11/14/2020

PERMIT REVISION SET

BUILDING SECTIONS



TYP WATERPROOF ROOF DECK ASSEMBLY

- TREX DECKING (OR SIMILAR)
- P.T. SLEEPERS PER STRUCTURAL
- FIBERGLASS WATERPROOFING SYSTEM; SLOPE MIN 1/4":12"
- MARINE GRADE PLYWOOD OR PER STRUCTURAL AND MANUFACTURER
- SLEEPERS CUT TO SLOPE (VERIFY W/ STRUCTURAL)
- FRAMING PER STRUCTURAL
- MIN R-30 INSULATION; 3" CLOSED CELL SPRAY FOAM INSULATION (R-19 +/-) W/ MIN R-19 UNFACED BATT OR BLOWN-IN INSULATION; NON VENTED
- 5/8" GWB
- PVA PRIMER

TYP DECK MOUNTED RAILING PER DETAIL

HEADER PER STRUCTURAL W/ R-10 FOAM
 METAL FLASHING OVER WD TRIM, TYP

TYP NEW MAIN FLOOR ASSEMBLY OVER UNCONDITIONED SPACE

- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- R-30 BATT INSULATION
- FURRED FRAMING TO MATCH CEILING HEIGHT @ ROOF DECKS
- 1/2" T&G CEDAR SOFFIT

TYP WATERPROOF DECK ASSEMBLY

- TREX DECKING (OR SIMILAR)
- P.T. SLEEPERS PER STRUCTURAL
- FIBERGLASS WATERPROOFING SYSTEM; SLOPE MIN 1/4":12"
- MARINE GRADE PLYWOOD OR PER STRUCTURAL AND MANUFACTURER
- SLEEPERS CUT TO SLOPE (VERIFY W/ STRUCTURAL)
- FRAMING PER STRUCTURAL
- 1/2" T&G CEDAR SOFFIT

ROOF DECK MEMBRANES MUST MEET AC309 STANDARDS OR HAVE ICC ES APPROVAL FOR USE AS A ROOF DECK MEMBRANE

2" CONTINUOUS FLUSH VENT W/ NON-CORROSIVE WIRE INSECT SCREEN

TYP NEW MAIN FLOOR ASSEMBLY OVER UNCONDITIONED SPACE

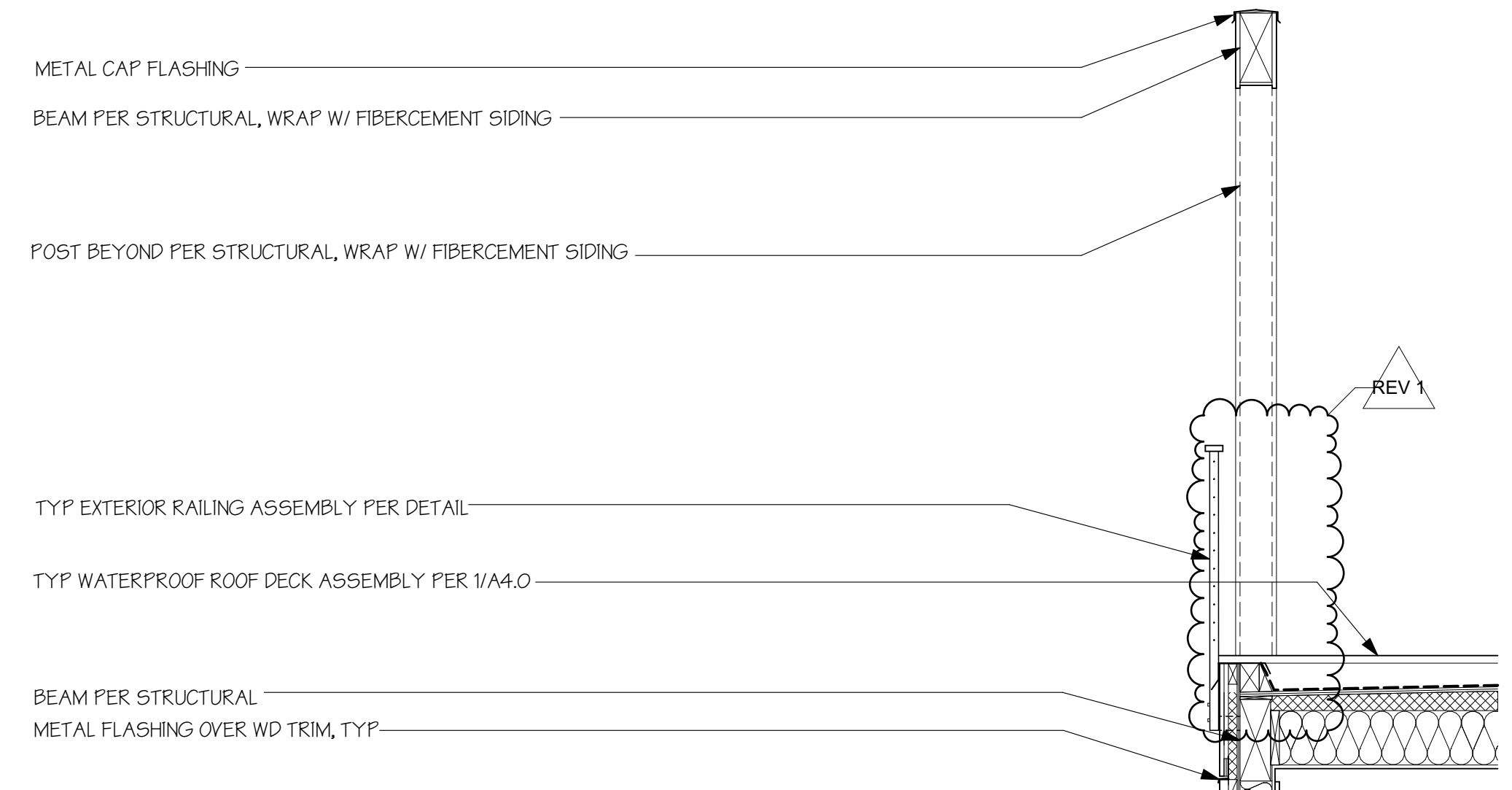
- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- R-30 BATT INSULATION
- 5/8" GWB (5/8" TYPE X GWB @ AREAS OVER GARAGE)
- PVA PRIMER

TYP EX EXTERIOR WALL ASSEMBLY @ GARAGE

- SIDING PER ELEVATIONS
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" FURRING (FLUSH W/ EXTERIOR RIGID INSULATION BELOW)
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- EXISTING SHEATHING OR PER STRUCTURAL
- EXISTING FRAMING
- 1/2" GWB
- PVA PRIMER
- EXIST CONCRETE FOUNDATION AND FOOTING TO REMAIN OR PER STRUCTURAL
- EXIST FOOTING DRAIN TO REMAIN (VERIFY)

INSTALL PIPE PILES PER STRUCTURAL

1 WALL SECTION
 SCALE: 1/2" = 1'-0"



TYP NEW FLOOR ASSEMBLY

- FINISH FLOOR
- PLYWOOD SHEATHING PER STRUCTURAL
- FRAMING PER STRUCTURAL
- SOUND INSULATION
- 5/8" GWB

TYP MAIN FLOOR EXTERIOR WALL ASSEMBLY

- SIDING PER ELEVATION
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" RIGID INSULATION
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- 2X6 FRAMING PER STRUCTURAL
- R-21 BATT INSULATION
- 1/2" GWB
- PVA PRIMER

TYP LOWER FLOOR CONDITIONED EXTERIOR WALL ASSEMBLY

- SIDING PER ELEVATION
- 3/4" VENTED AIRSPACE W/ 1X4 P.T. FURRING STRIPS @ 16" O.C.
- 1 1/2" RIGID INSULATION
- HENRY BLUESKIN VP100 BUILDING WRAP OR BETTER
- CDX PLYWOOD SHEATHING PER STRUCTURAL
- EXISTING FRAMING
- R-21 BATT INSULATION
- 2X4 FRAMING FURRING WALL
- R-21 RIGID INSULATION @ EXISTING CONCRETE STEM WALL
- 1/2" GWB
- PVA PRIMER

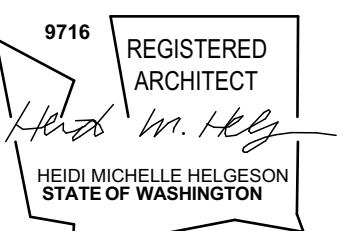
TYP EXISTING CONCRETE SLAB ON GRADE

- FINISH FLOORING
- EXISTING SLAB ON GRADE

- COR-A-VENT SV-5
- METAL DRIP EDGE W/ MIN 1/4" GAP
- EXIST CONCRETE FOUNDATION AND FOOTING TO REMAIN OR PER STRUCTURAL
- INSTALL PIPE PILE PER STRUCTURAL
- EXIST FOOTING DRAIN TO REMAIN (VERIFY)

2 WALL SECTION
 SCALE: 1/2" = 1'-0"

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



H 2 D
 ARCHITECTURE
 +
 DESIGN

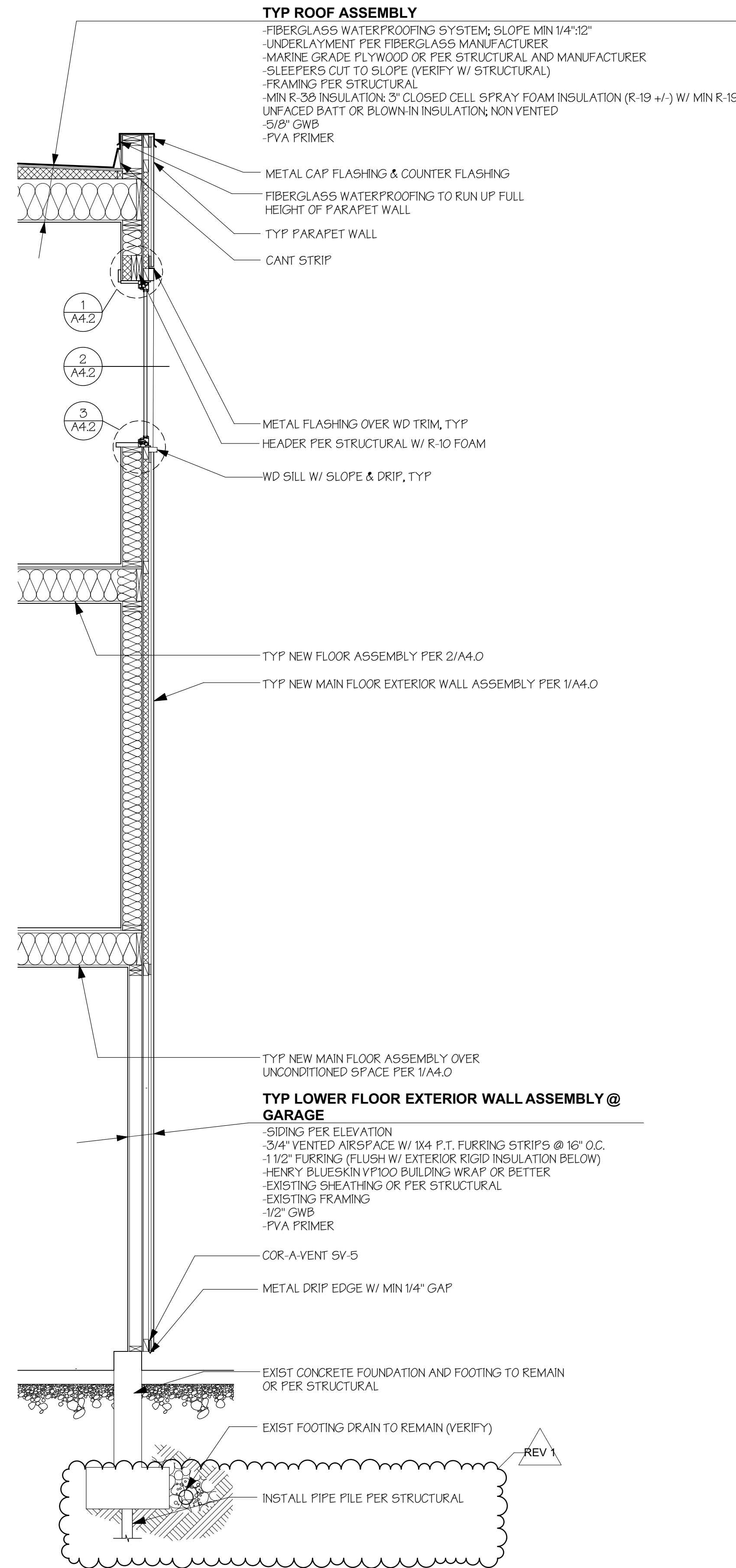
23020 EDMONDS WAY, #113
 EDMONDS, WA 98020
 P. 206.542.3734
 www.h2darchitects.com

DATE: 7/26/2019
 REV 1: 11/14/2020

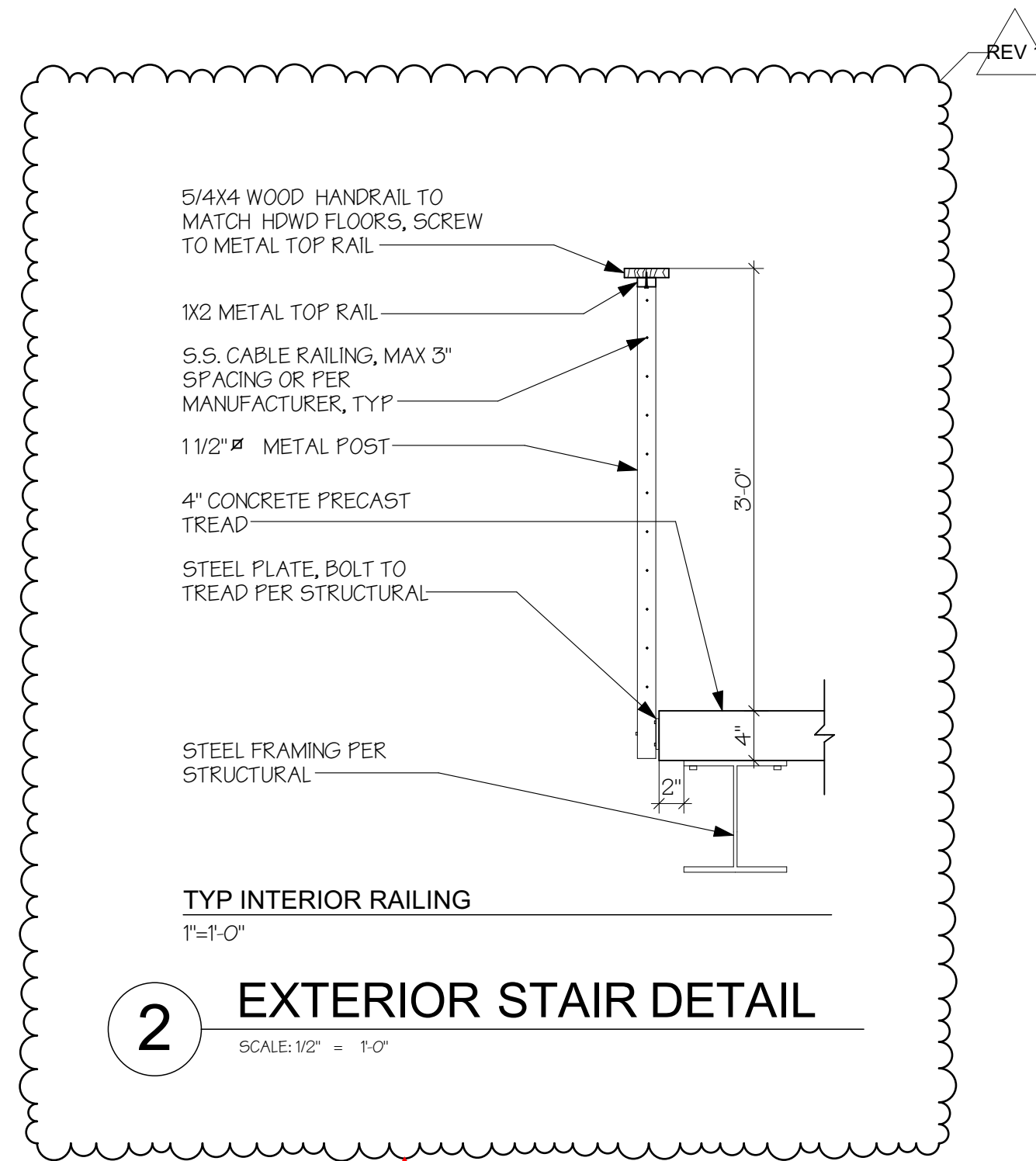
PERMIT REVISION SET

WALL SECTIONS

A4.0



1 WALL SECTION
 SCALE: 1/2" = 1'-0"



DESIGN AND CONSTRUCTION OF STAIR HANDRAIL SHALL BE A DEFERRED SUBMITTAL. CITY REVIEW SHALL BE PERFORMED ON ARCHITECT / ENGINEER ACCEPTED DRAWINGS. JUSTIFYING CALCULATIONS SHALL BE PROVIDED FOR REVIEW.

haysite ENGINEERING
 reinforced plastics DATA

GPO-3 H900 12/8/2009

H900 is recognized throughout the world as a reliable, consistent GPO-3 material. Standard size sheets are available in thicknesses ranging from .094" to 2.00". H900 also exhibits excellent smoke, flame and toxicity characteristics. Govt. Spec I-24768/6. Standard color - red.

Physical	Test Method	Unit	Result
Barcol Hardness	Barcol	Scale	62
Specific Gravity	D-792		1.80
Density, Lbs/in ³		Lbs/Cu. In.	0.065
Water Absorption, %	D-229	%	0.20
UL Flammability, File# E81893	UL94	Class	94V-0
Flame Resistance, Seconds			
Ignition Time	D-229	Seconds	130
Burning Time	D-229	Seconds	33
Radiant Panel	E-162	Flame Spread	5.0
Smoke Density at 4.0 minutes, flaming	E-662	Optical Density	0.33
Tunnel Test, 1/4" Thickness	E-84	Flame Spread	<25
Temperature Class*	--	Degrees C	160
Mechanical			
Tensile Strength, PSI	D-638	PSI	9,000
Flexural Strength, PSI	D-790	PSI	18,000
Modulus of Elasticity in Flexure, PSI	D-790	X10 ⁴ PSI	1.50
Compressive Strength, PSI	D-695	PSI	30,000
Bond Strength, 1/2" Thickness, PSI	D-229	PSI	1400
Shear Strength, PSI	D-732	PSI	14,000
Impact Strength, Izod Edgewise	D-256	Ft lbs/in. Notch	8.0

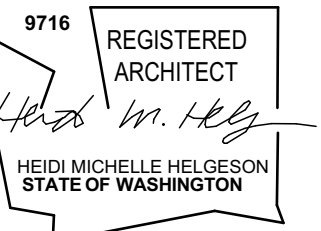
haysite ENGINEERING
 reinforced plastics DATA

GPO-3 H900 12/8/2009

Electrical			
Dielectric Strength, J, Short Time In Oil 1/16", VPM	D-149	VPM	450
Dielectric Strength, Parallel, Step-By-Step In Oil, KV	D-149	KV	55.0
Arc Resistance, Seconds	D-495	Seconds	190
Comparative Track Index	CTI	Seconds	600+
Inline Plane Track Resistance -	D-2303	Minutes	1000
Dielectric Constant @60HZ	D-150		5.20
Dissipation Factor @ 60 Hz	D-150		0.06

Unless otherwise indicated, all properties published are based on test performed on standard ASTM test samples and according to ASTM test methods. Values shown are for test samples made from production materials and they are believed to be conservative. No warranty is to be construed, however, in fabricated or molded form, parts may vary considerably from this standard test data. Where specific or unusual applications arise, test should be made on actual parts, and test procedures agreed upon between Haysite Reinforced Plastics and the customer.

WERELIUS RESIDENCE
 8452 NORTH MERCER WAY
 MERCER ISLAND WA 98040



H 2 D
 ARCHITECTURE
 +
 DESIGN

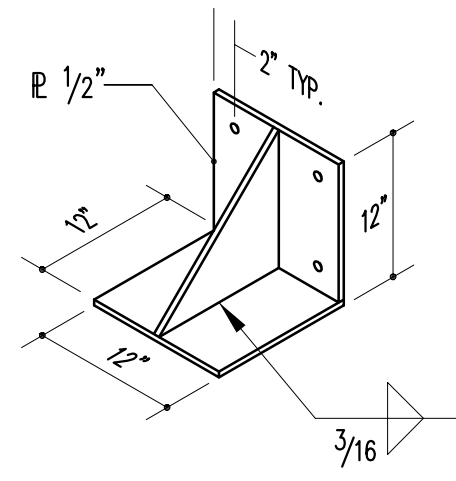
23020 EDMONDS WAY, #113
 EDMONDS, WA 98020
 P. 206.542.3734
 www.h2darchitects.com

DATE: 7/26/2019
 REV 1: 11/14/2020

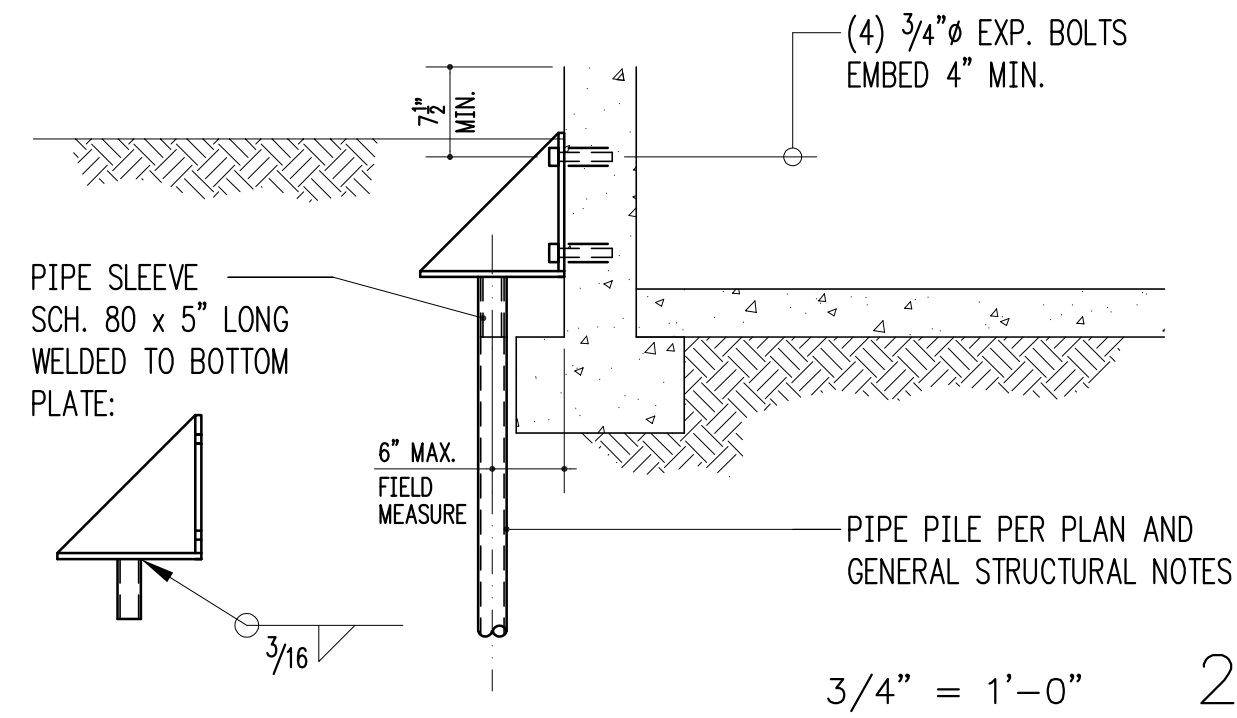
PERMIT
 REVISION SET

WALL SECTION

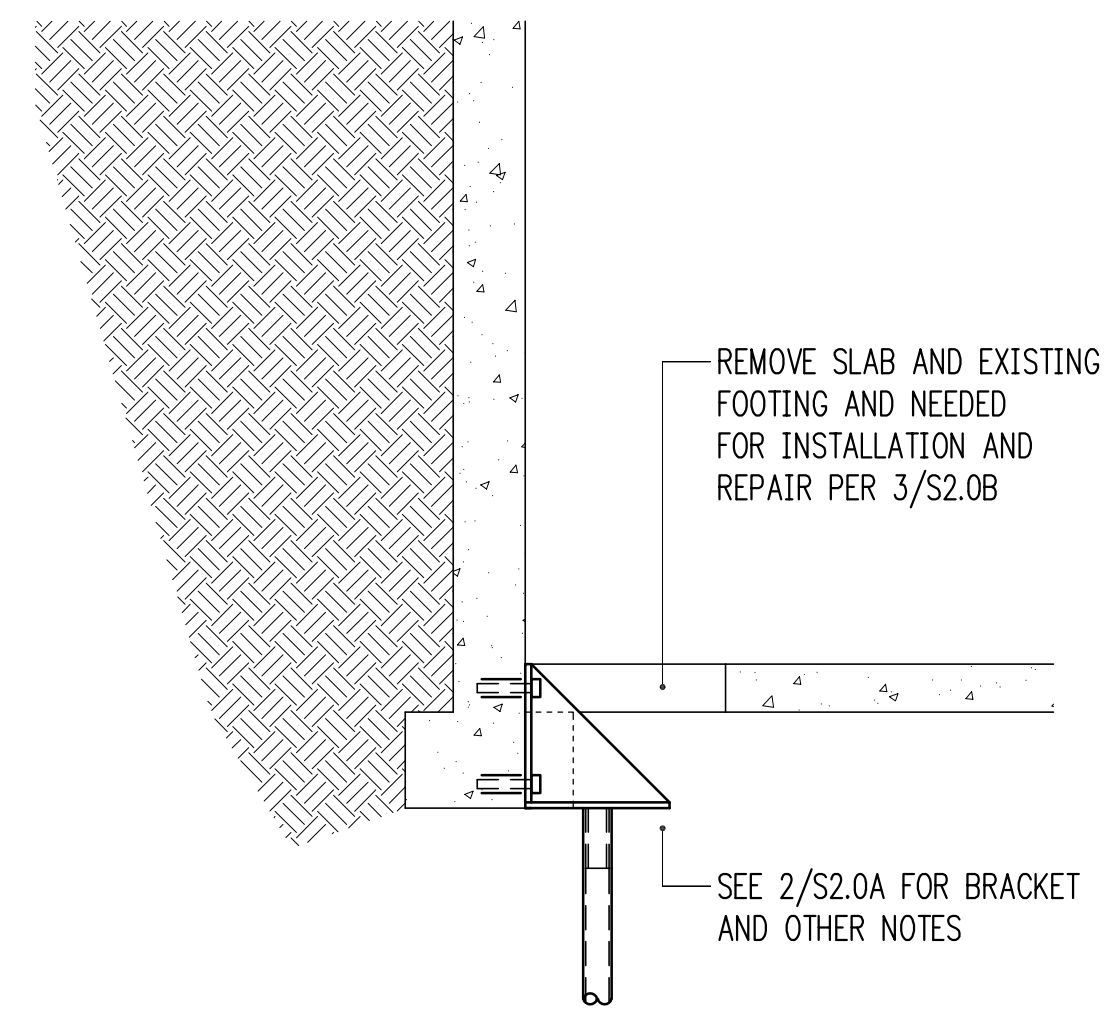
A4.1



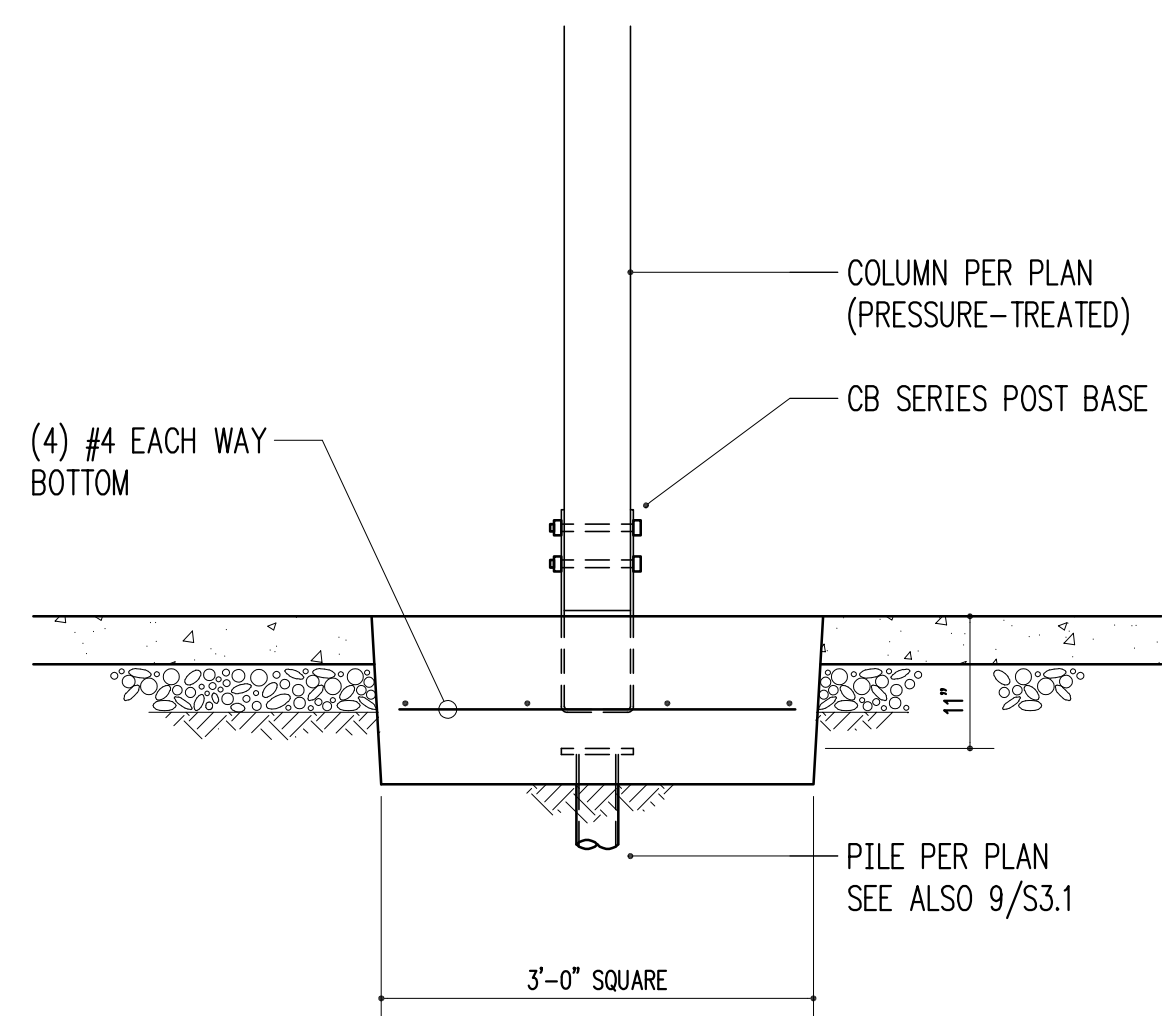
THIS BRACKET MAY BE SUBSTITUTED FOR AN INSTALLER'S ALTERNATIVE IF SUBMITTED TO AND APPROVED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO INSTALLATION



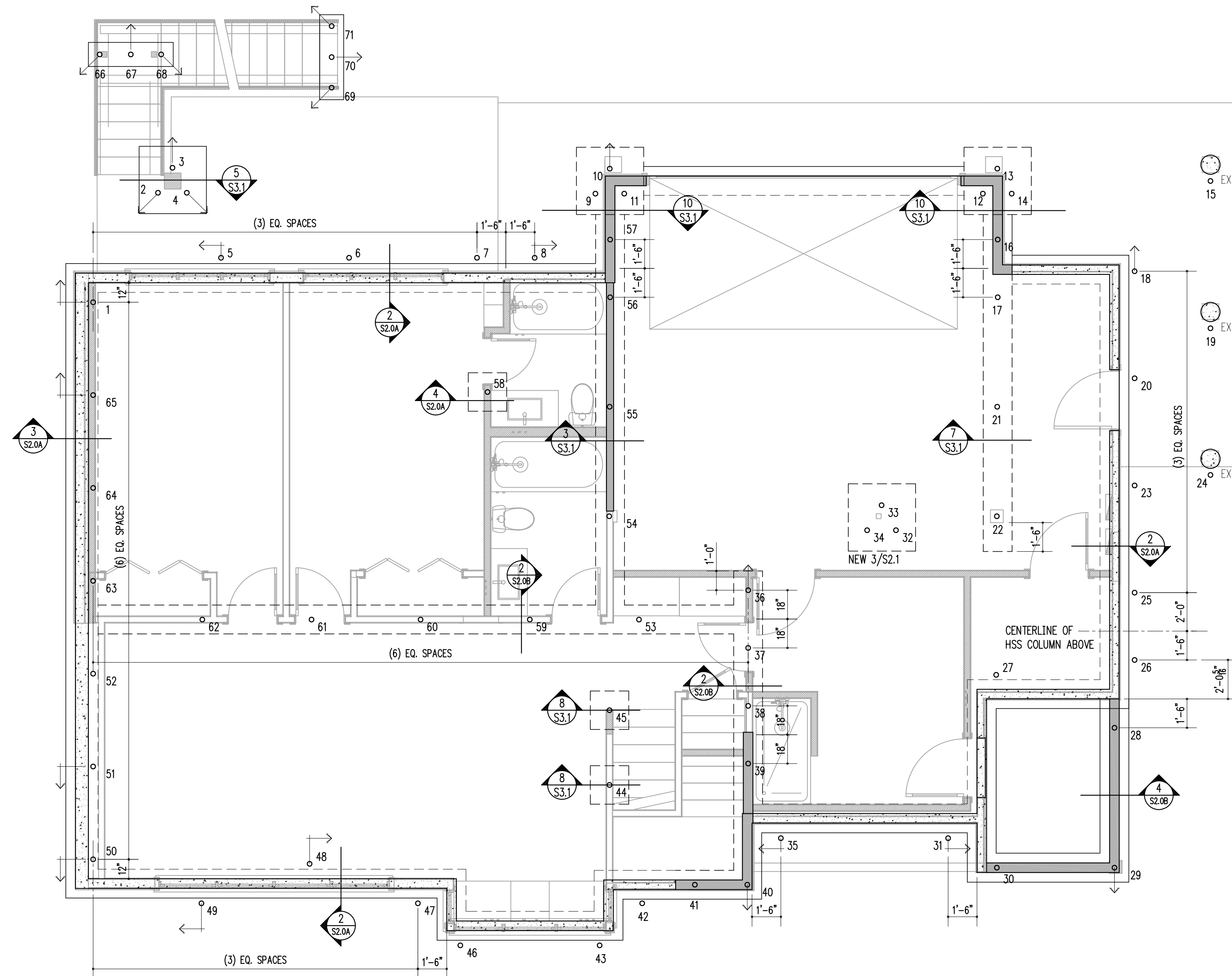
3/4" = 1'-0" 2



3/4" = 1'-0" 3



3/4" = 1'-0" 4



1 PILE PLAN
scale: 1/4" = 1'-0"

LEGEND

- PILE BATTER DIRECTION SEE PLAN NOTE 2
- SECTION DETAIL
- COLUMN ABOVE
- 3"Ø STEEL PIPE PILE
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL

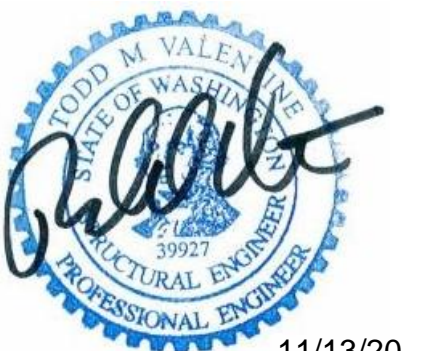
PILE PLAN NOTES

1. ALL PILES 3"Ø PER GENERAL NOTES
2. WHERE MARKED WITH BATTER PILE AT 15 DEGREES FROM VERTICAL IN THE DIRECTION INDICATED
3. GEOTECHNICAL ENGINEER OF RECORD MUST BE PRESENT FOR PILE DRIVING.
4. SEE GENERAL STRUCTURAL NOTES FOR HAMMER AND DRIVING REQUIREMENTS
5. UNLESS NOTED OTHERWISE, ALL PILES SHALL BE CENTERED UNDER THE STEM WALL DIRECTLY ABOVE
6. SEE X/SX.0 FOR PILE EMBEDMENT INTO FOOTING REQUIREMENTS

THIS SHEET ENTIRELY NEW

HV

Harriott Valentine Engineers Inc.
1932 First Avenue, Suite 720
Seattle, Washington 98101-2447
tel 206 624 4760 fax 206 447 6971
www.harriottvalentine.com



11/13/20

Project Contact
Todd Valentine
tel 206 624 4760 ex. 27
fax 206 447 6971
tvalentine@harriottvalentine.com

Project Architect
H2D Architecture + Design
23020 Edmonds Way, #113
Edmonds, WA 98020

Project
Werelius Residence
8452 North Mercer Way
Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/26/19	Framing Revisions
1/17/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

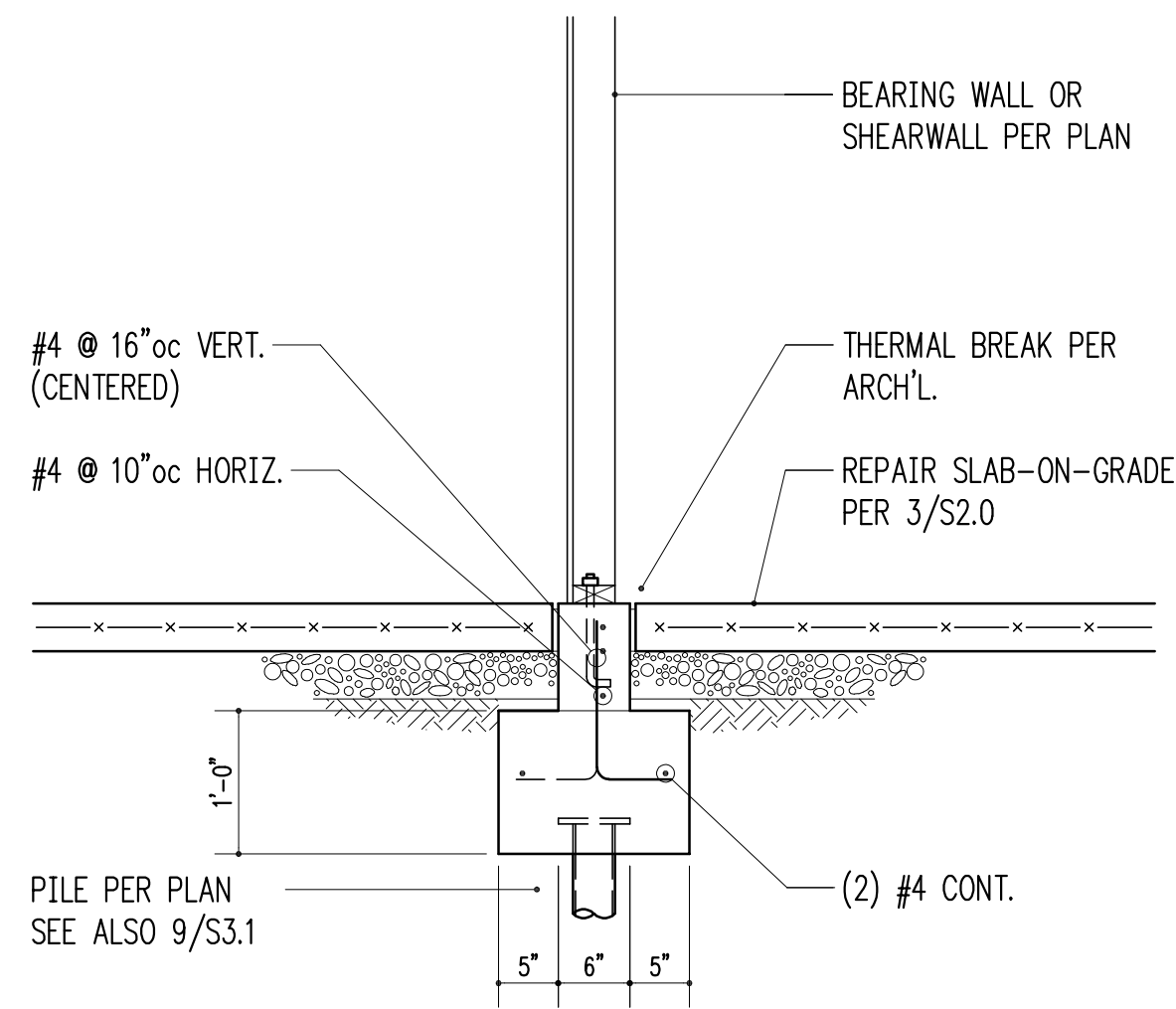
Building Department Approval

Drawing Title
PILE PLAN

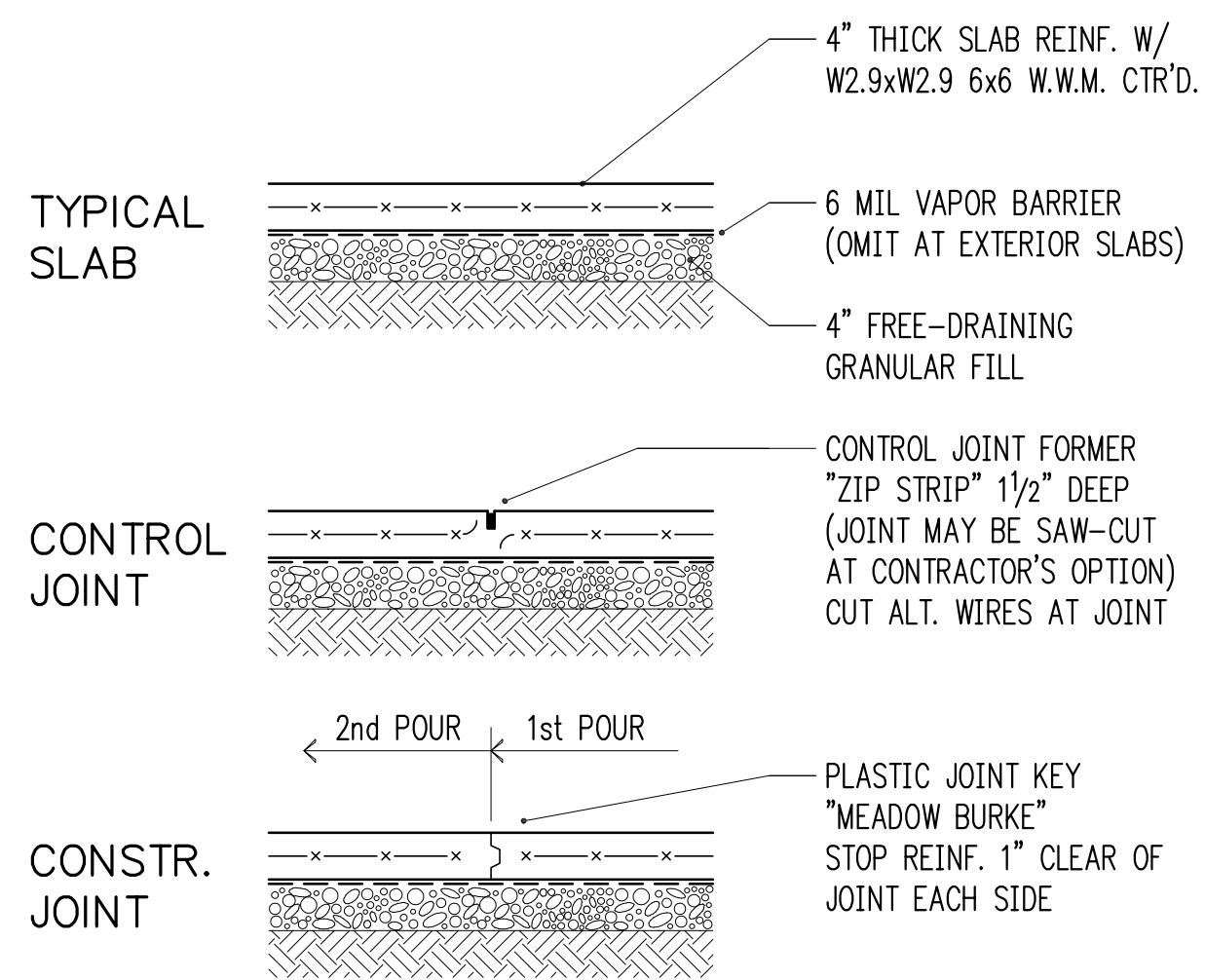
Drawing Number

S2.0A

WERELIUS RESIDENCE

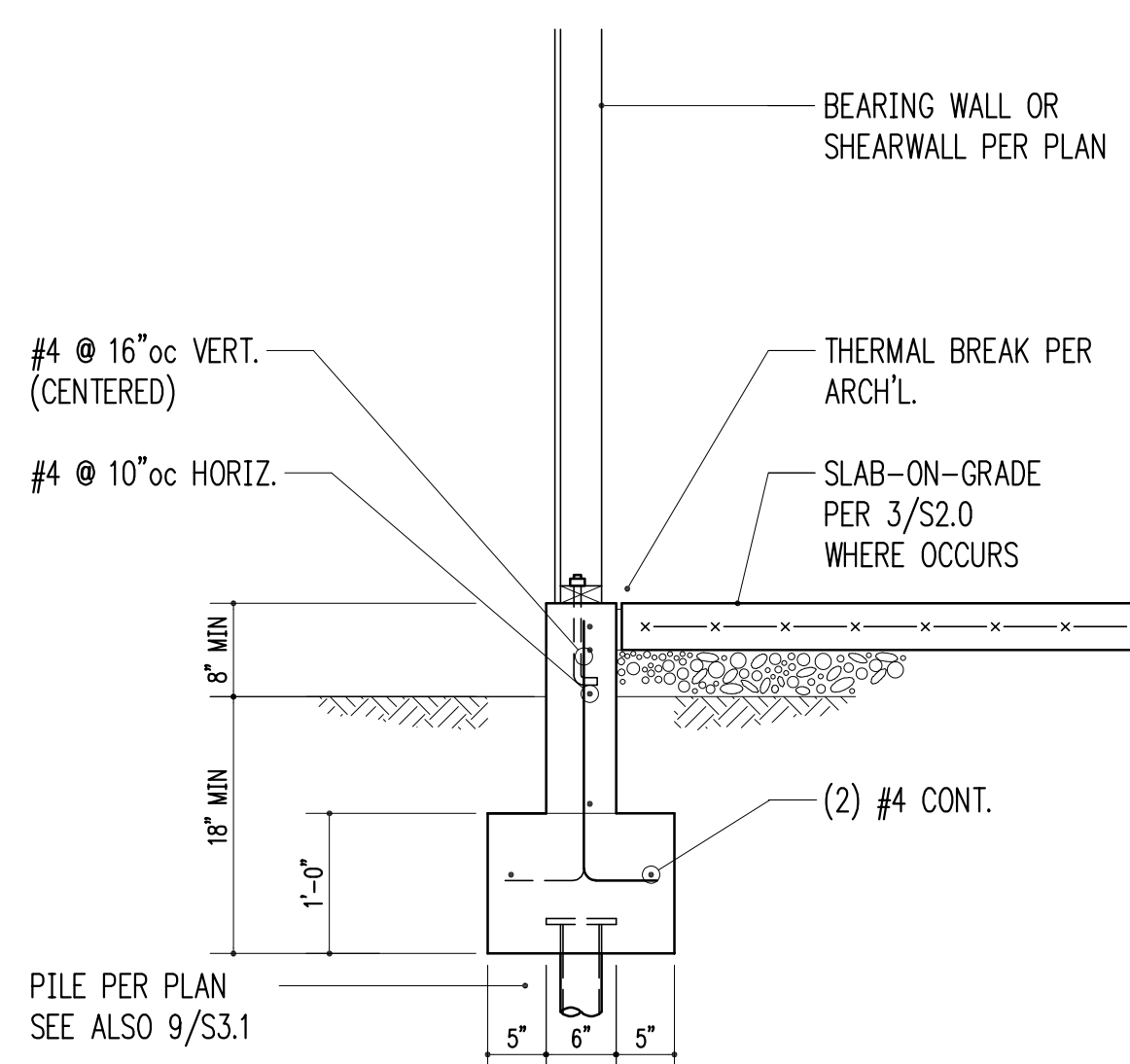


3/4" = 1'-0" 2

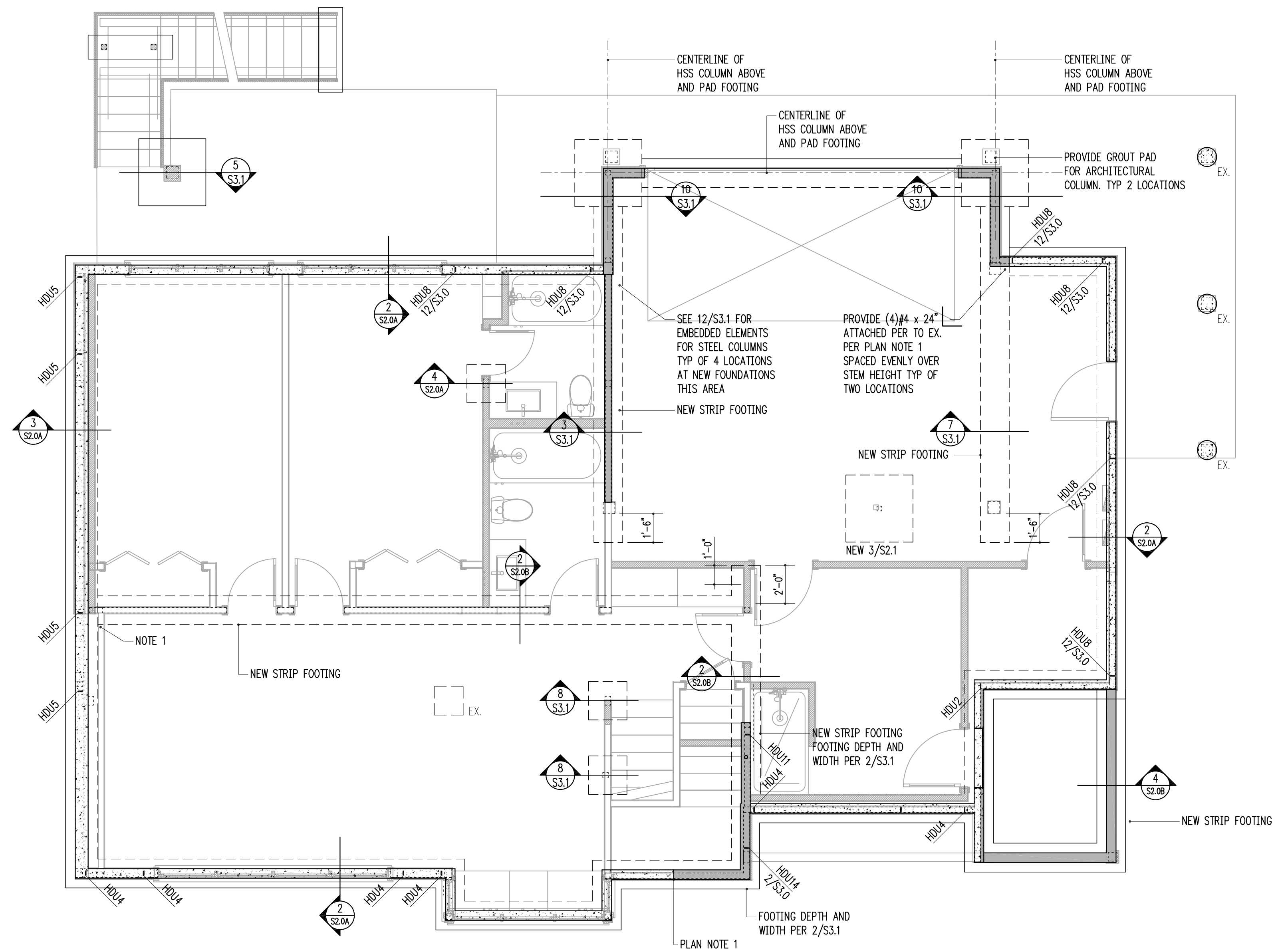


SLAB-ON-GRADE (NOT INSULATED)

3/4" = 1'-0" 3



3/4" = 1'-0" 4



FOUNDATION PLAN
scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
117/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4x9/4 LVL	HUC410	0.162x3/2	2680 lb

NOTE! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- (PT) PRESSURE-TREATED
- COLUMN ABOVE
- COLUMN BELOW
- NEW STRUCTURAL WALL
- EXISTING STRUCTURAL WALL
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL
- HDA ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE
- CSX STRAP HOLDOWN AT END OF SHEARWALL ABOVE

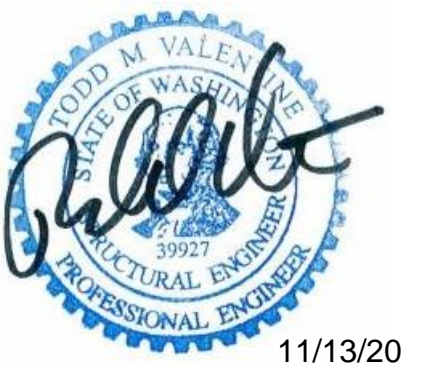
FOUNDATION PLAN NOTES

- WHERE NEW CONCRETE WALLS OR FOOTING ABUT EX. CONCRETE, PROVIDE DOWELS #4 x 2'-0" TO MATCH HORIZ. REINFORCING, EMBED 5" IN EPOXY GROUT.
- SEE 10/S4.0 FOR TYPICAL HOLDOWN REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- SLAB-ON-GRADE SHALL BE PLACED AND CURED FOR A MINIMUM OF SEVEN DAYS BEFORE RETAINING WALLS ARE BACKFILLED. SEE RETAINING WALL DETAILS FOR SPECIFIC CONFIGURATION.
- SEE 11/S3.0 FOR CORNER REINFORCING AT NEW CONCRETE STEMS AND FOOTINGS

THIS SHEET ENTIRELY REVISED

HV

Harrriott Valentine Engineers Inc.
1932 First Avenue, Suite 720
Seattle, Washington 98101-2447
tel 206 624 4760 fax 206 447 6971
www.harrriottvalentine.com



11/13/20

Project Contact
Todd Valentine
tel 206 624 4760 ex. 27
fax 206 447 6971
tvalentine@harrriottvalentine.com

Project Architect
H2D Architecture + Design
23020 Edmonds Way, #113
Edmonds, WA 98020

Project
Werelius Residence
8452 North Mercer Way
Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/28/19	Framing Revisions
1/17/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

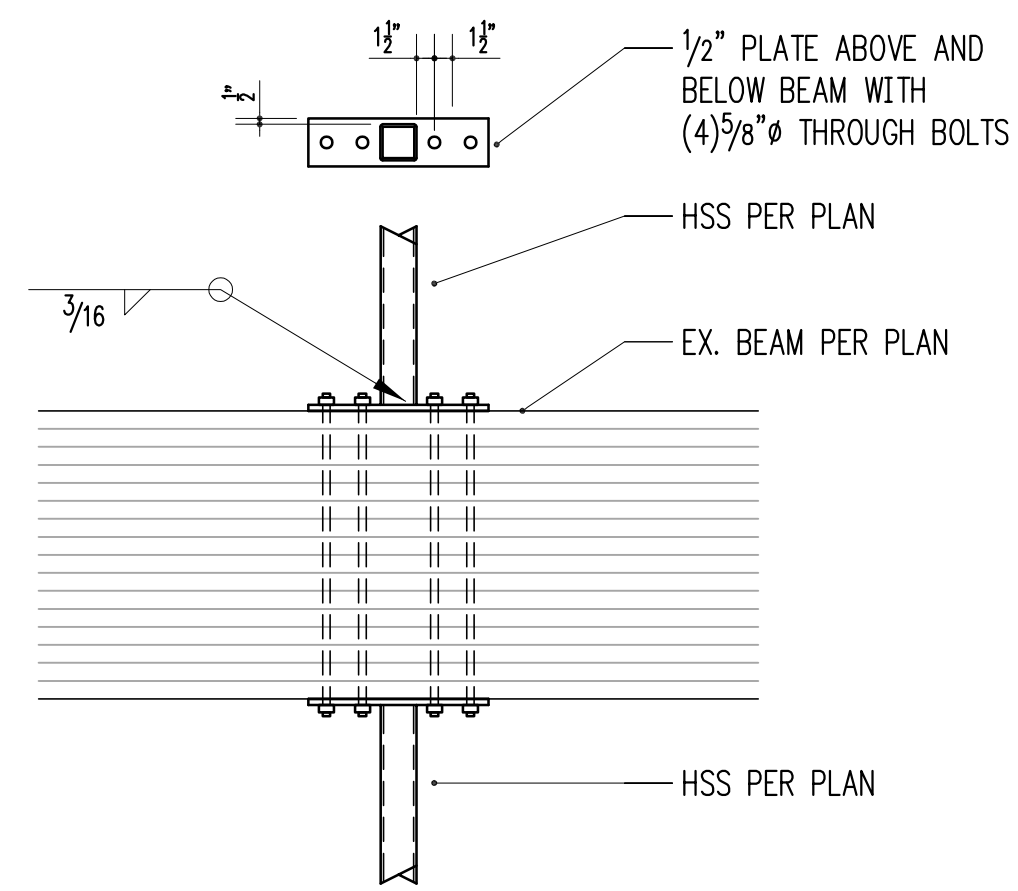
Building Department Approval

Drawing Title
FOUNDATION PLAN

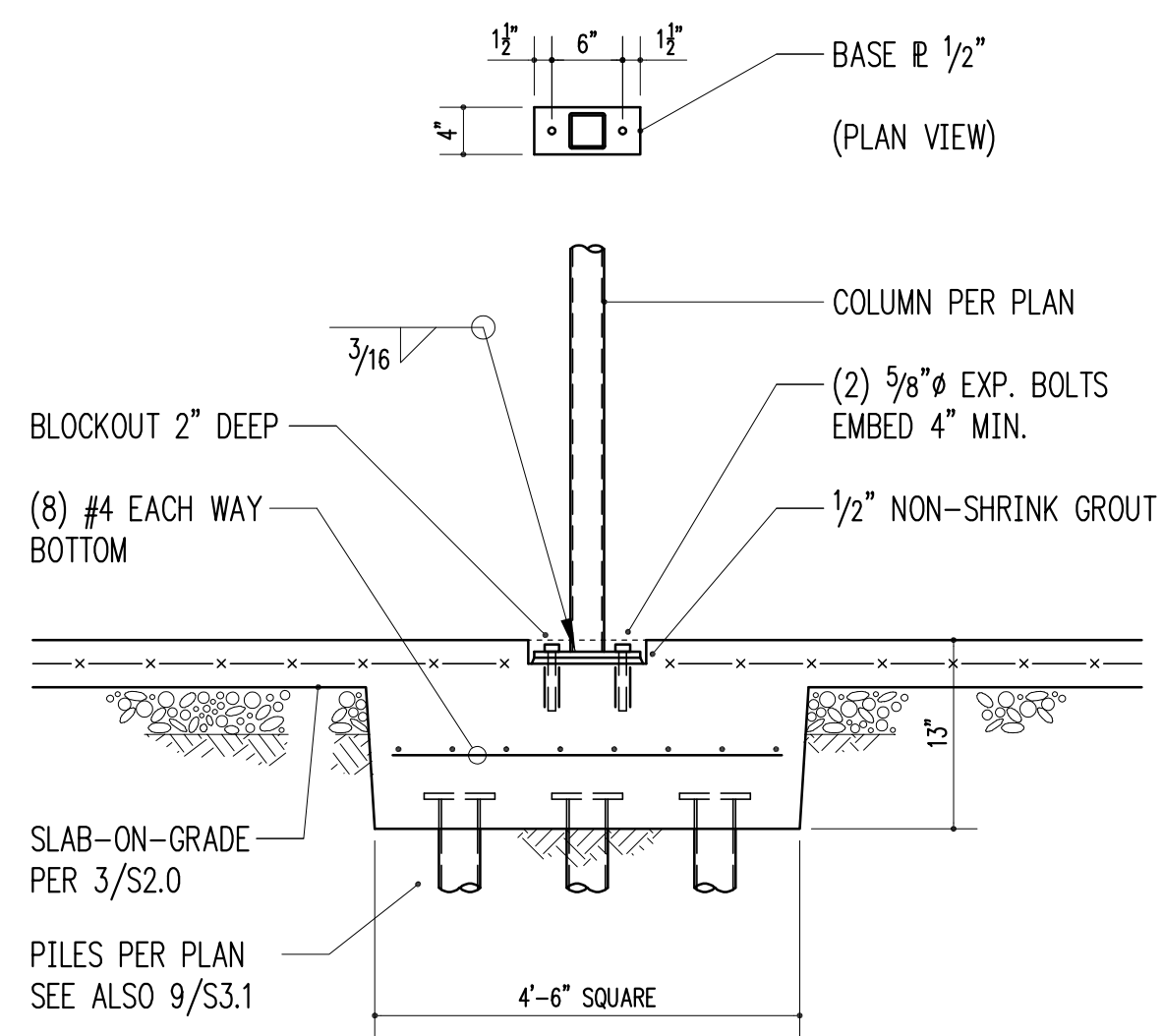
Drawing Number

S2.0B

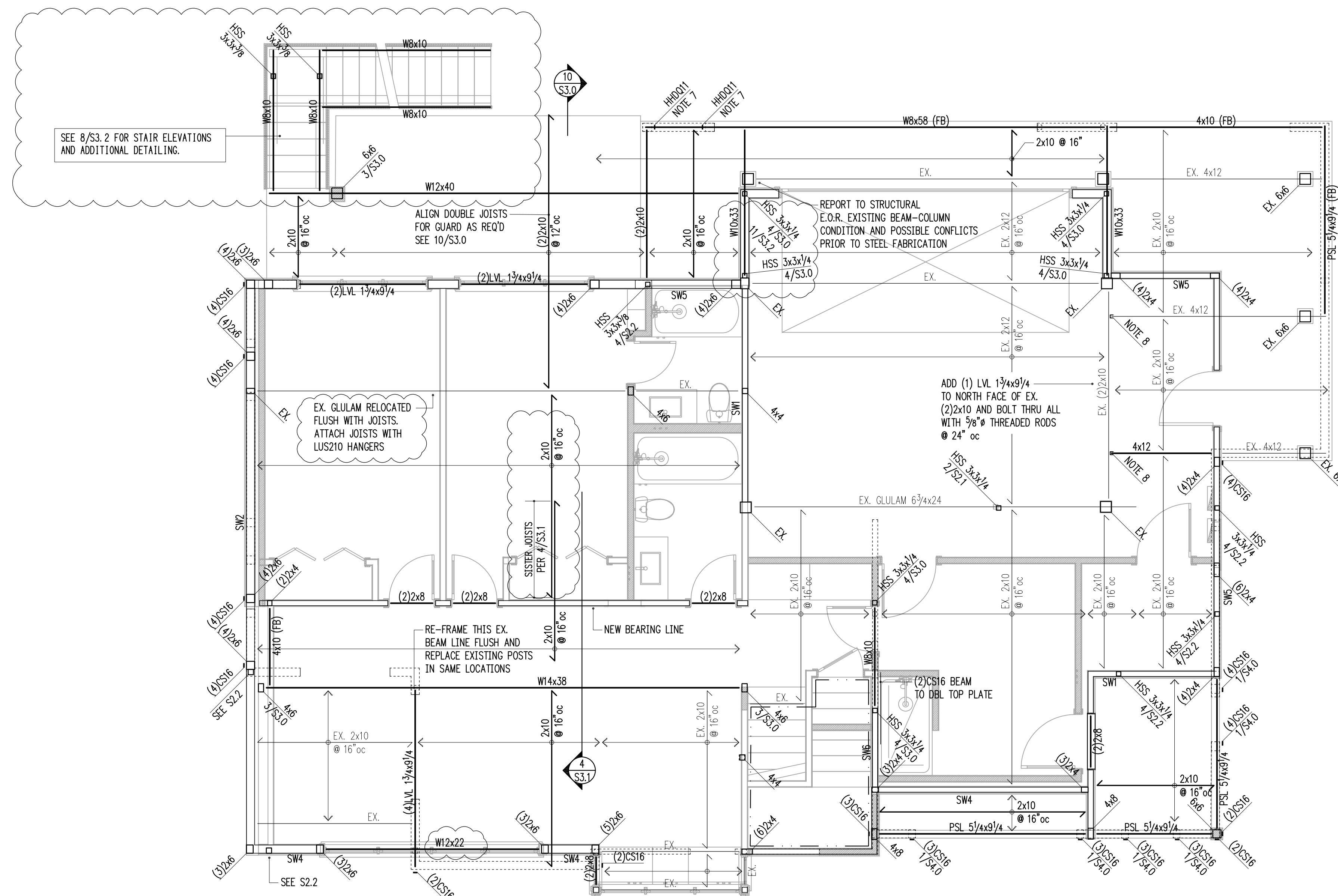
WERELIUS RESIDENCE



3/4" = 1'-0" 2



3/4" = 1'-0" 3



1 MAIN FLOOR FRAMING PLAN (BASEMENT WALLS)
S2.1 scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
11 7/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4x9 1/4 LVL	HUC410	0.162x3/2	2680 lb

NOTE! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

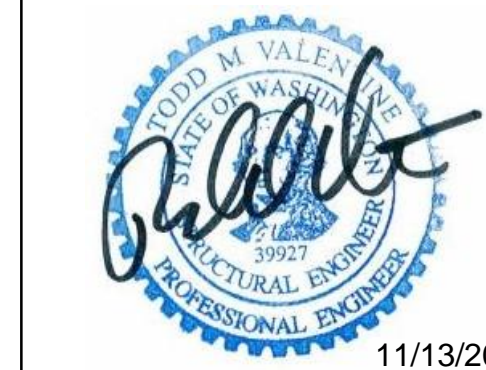
LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- (PT) PRESSURE-TREATED
- ⋮ COLUMN ABOVE
- COLUMN BELOW
- ▬ NEW STRUCTURAL WALL
- ▬ EXISTING STRUCTURAL WALL
- ▬ NEW CONCRETE WALL
- ▬ EXISTING CONCRETE WALL
- ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE
- STRAP HOLDOWN AT END OF SHEARWALL ABOVE

FRAMING PLAN NOTES

1. SW___ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
5. CS___ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
7. WELD THREADED RODS FOR HOLD DOWNS AND BOTTOM PLATE ATTACHMENT TO STEEL BEAMS BELOW
8. WHERE NOTED ON PLAN ATTACH 4x12 TO BEAM ABOVE WITH SIMPSON THA426 TRUSS HANGER

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



Project Contact
 Todd Valentine
 tel 206 624 4760 ext. 27
 fax 206 447 6971
 tvalentine@harriottvalentine.com

Project Architect
 H2D Architecture + Design
 23020 Edmonds Way, #113
 Edmonds, WA 98020

Project
Werelius Residence
 8452 North Mercer Way
 Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/28/19	Framing Revisions
11/7/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

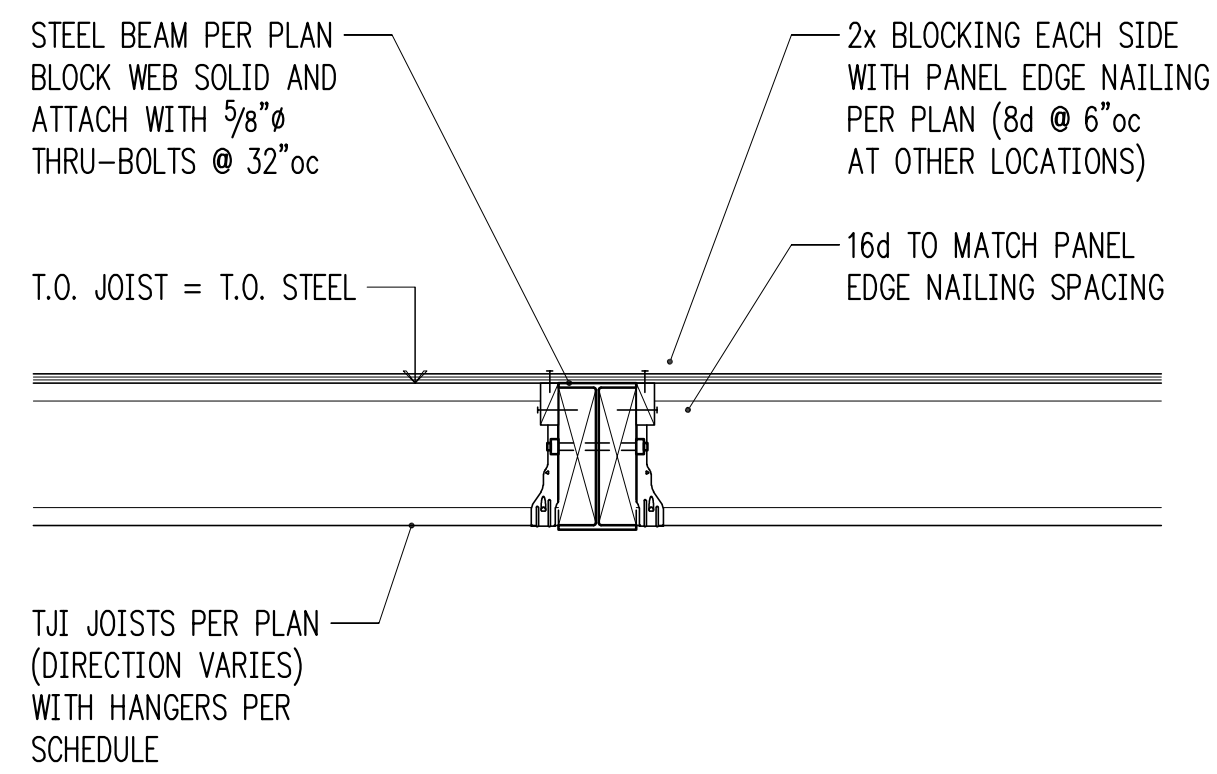
Building Department Approval

Drawing Title
MAIN FLOOR FRAMING PLAN

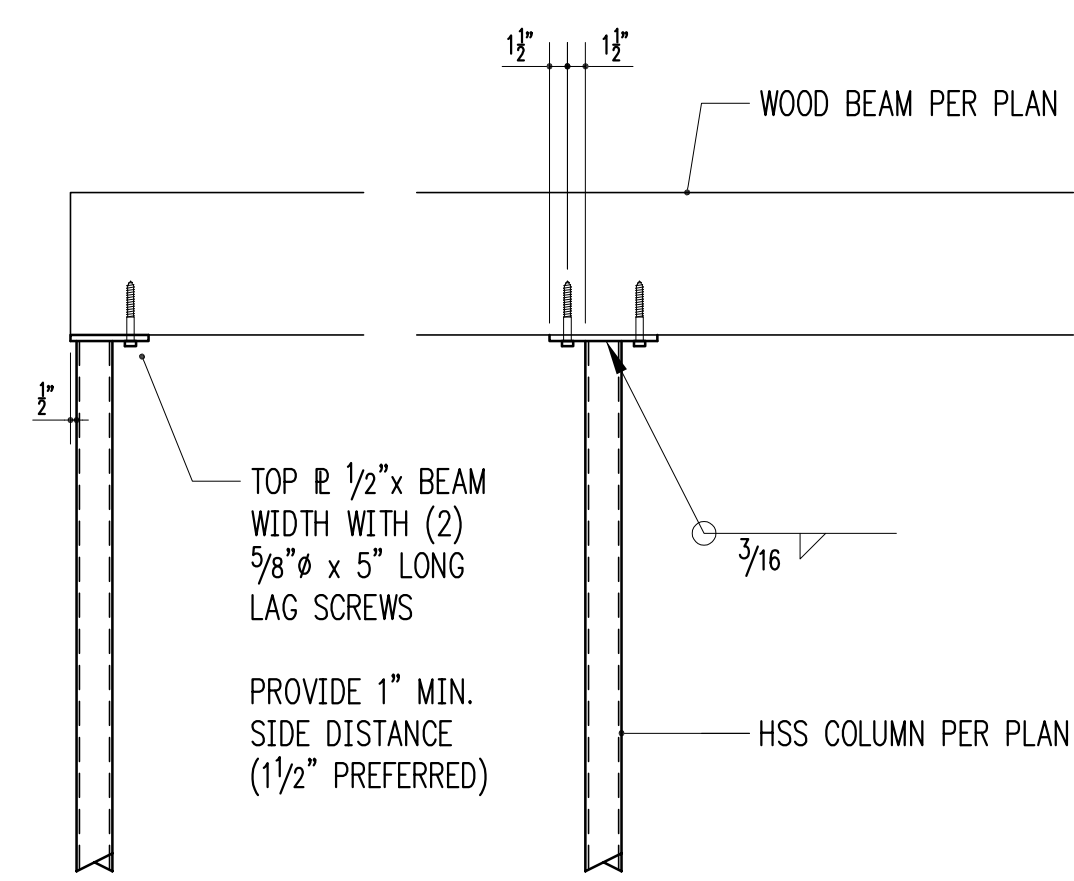
Drawing Number

S2.1

WERELIUS RESIDENCE

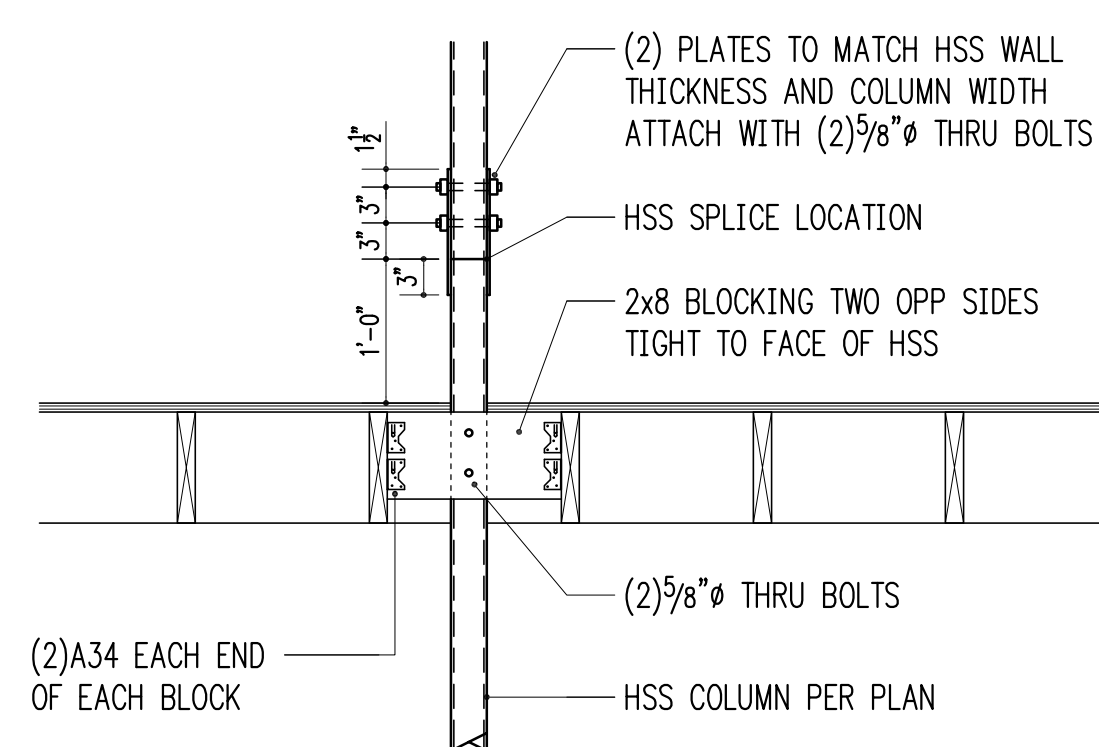


3/4" = 1'-0" 2



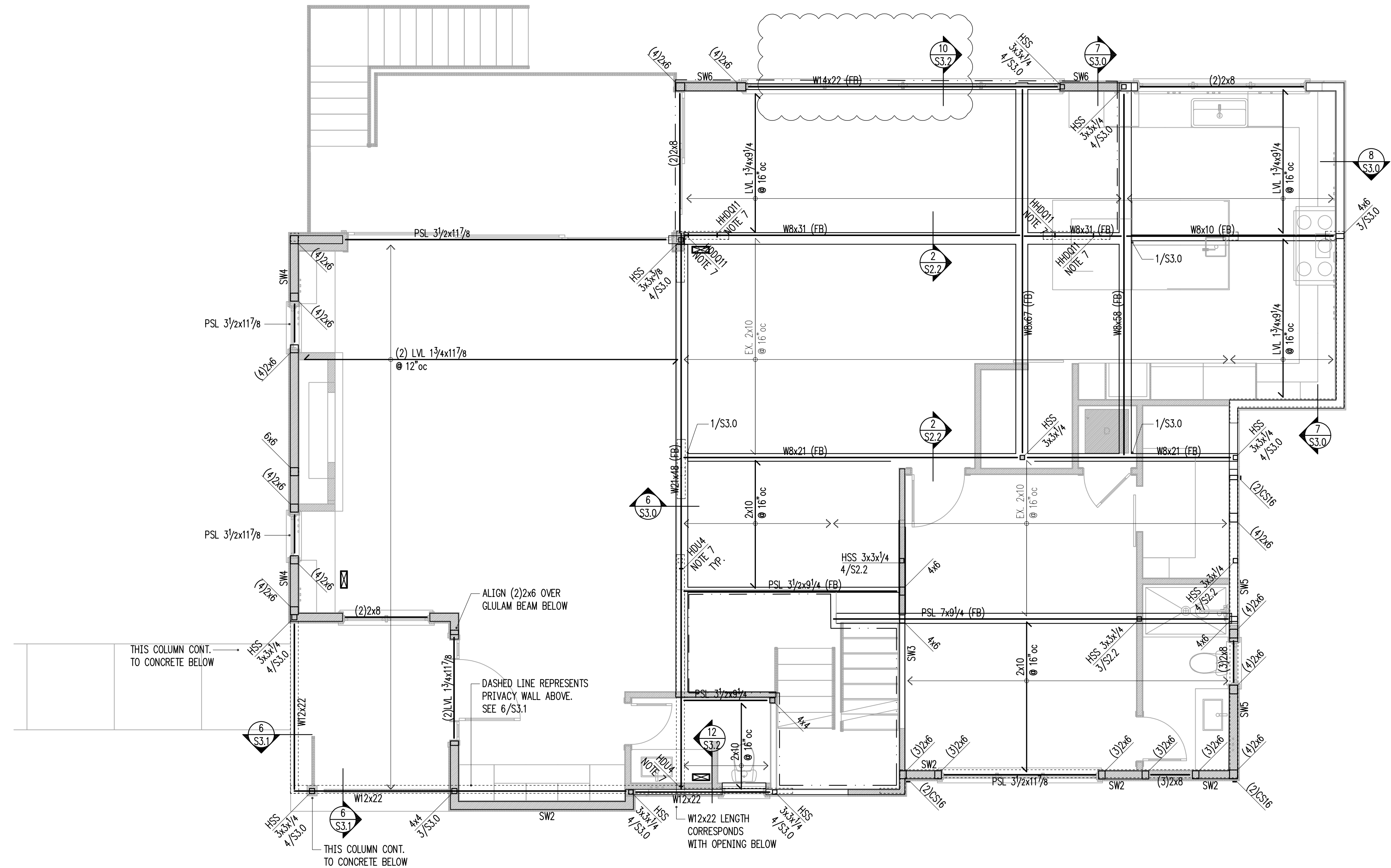
WOOD BEAM BEARING ON HSS COLUMN

3/4" = 1'-0" 3



HSS COLUMN SPLICE

3/4" = 1'-0" 4



1 SECOND FLOOR FRAMING PLAN (MAIN FLOOR WALLS)
scale: 1/4" = 1'-0"

HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x10 or 2x12	LUS210	10d COMMON	1275 lb
(2)2x10	HUS210-2	0.162x3/2	2110 lb
4x10	HUC410	0.162x3/2	2680 lb
11 7/8" TJI 560	IUS3.56/11.88	10d COMMON	1405 lb
(2) 1 3/4x9/4 LVL	HUC410	0.162x3/2	2680 lb

NOTE! EXISTING FRAMING MEMBERS AS INDICATED ON THIS PLAN ARE ASSUMED FOR DESIGN PURPOSES ONLY. HARRIOTT VALENTINE ENGINEERS SHALL NOT BE HELD LIABLE FOR LOCATION/ SIZE OF EXISTING MEMBERS AS CALLED ON THIS PLAN. EXISTING MEMBERS SHALL BE VERIFIED AND REPORTED TO STRUCTURAL ENGINEER OF RECORD PRIOR TO CONSTRUCTION.

LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (FB) FLUSH BEAM
- (PT) PRESSURE-TREATED
- COLUMN ABOVE
- COLUMN BELOW
- NEW STRUCTURAL WALL
- EXISTING STRUCTURAL WALL
- NEW CONCRETE WALL
- EXISTING CONCRETE WALL
- ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE
- STRAP HOLDOWN AT END OF SHEARWALL ABOVE

FRAMING PLAN NOTES

1. SW___ INDICATES SHEARWALL TYPE PER SCHEDULE 8/S4.0. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
2. REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
3. COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S4.0.
4. AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S4.0.
5. CS___ INDICATES COILED STRAP TYPE PER SCHEDULE 6/S4.0. REFER TO DETAILS FOR TYPICAL STRAP ASSEMBLY.
6. POSTS □, INCLUDING ENDS OF WALL OPENINGS, SHALL BE (2)2x6 UNLESS NOTED OTHERWISE.
7. WELD THREADED RODS FOR HOLD DOWNS AND BOTTOM PLATE ATTACHMENT TO STEEL BEAMS BELOW

HV

Harrlott Valentine Engineers Inc.
1932 First Avenue, Suite 720
Seattle, Washington 98101-2447
tel 206 624 4760 fax 206 447 6971
www.harrlottvalentine.com



11/13/20

Project Contact
Todd Valentine
tel 206 624 4760 ex. 27
fax 206 447 6971
tvalentine@harrlottvalentine.com

Project Architect
H2D Architecture + Design
23020 Edmonds Way, #113
Edmonds, WA 98020

Project
Werelius Residence
8452 North Mercer Way
Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/26/19	Framing Revisions
11/7/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

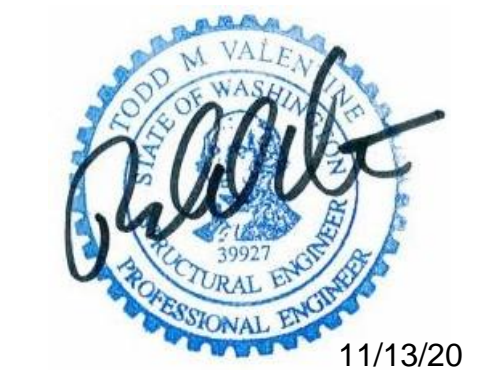
Building Department Approval

Drawing Title
SECOND FLOOR FRAMING PLAN

Drawing Number

S2.2

WERELIUS RESIDENCE



Project Contact
 Todd Valente
 tel 206 624 4760 ext. 27
 fax 206 447 6971
 tvalente@harriottvalentine.com

Project Architect
 H2D Architecture + Design
 23020 Edmonds Way, #113
 Edmonds, WA 98020

Project
Werelius Residence
 8452 North Mercer Way
 Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/26/19	Framing Revisions
1/17/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

Building Department Approval

Drawing Title
STRUCTURAL DETAILS

Drawing Number

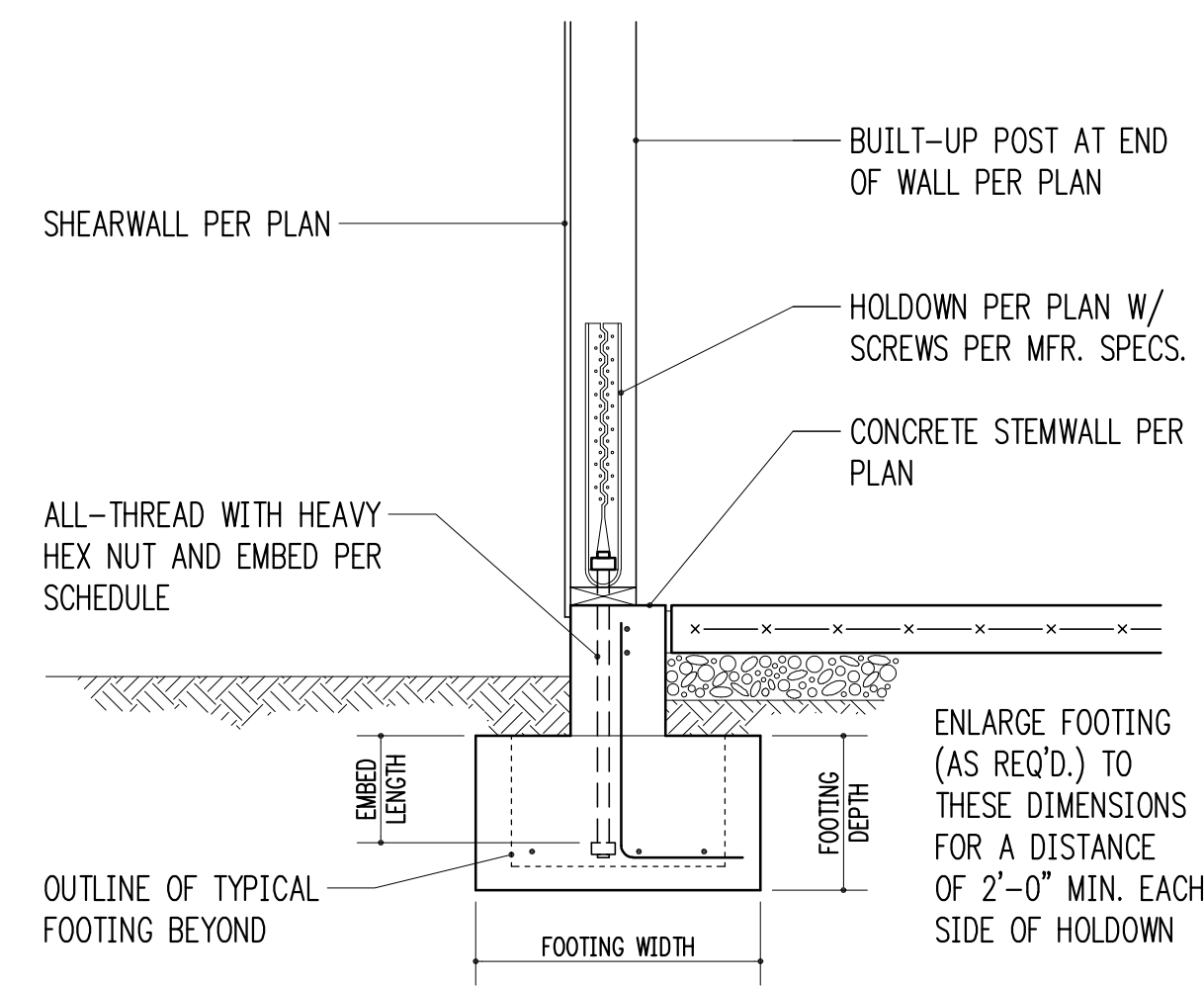
S3.1

WERELIUS RESIDENCE

HEAVY-DUTY HOLDOWN SCHEDULE

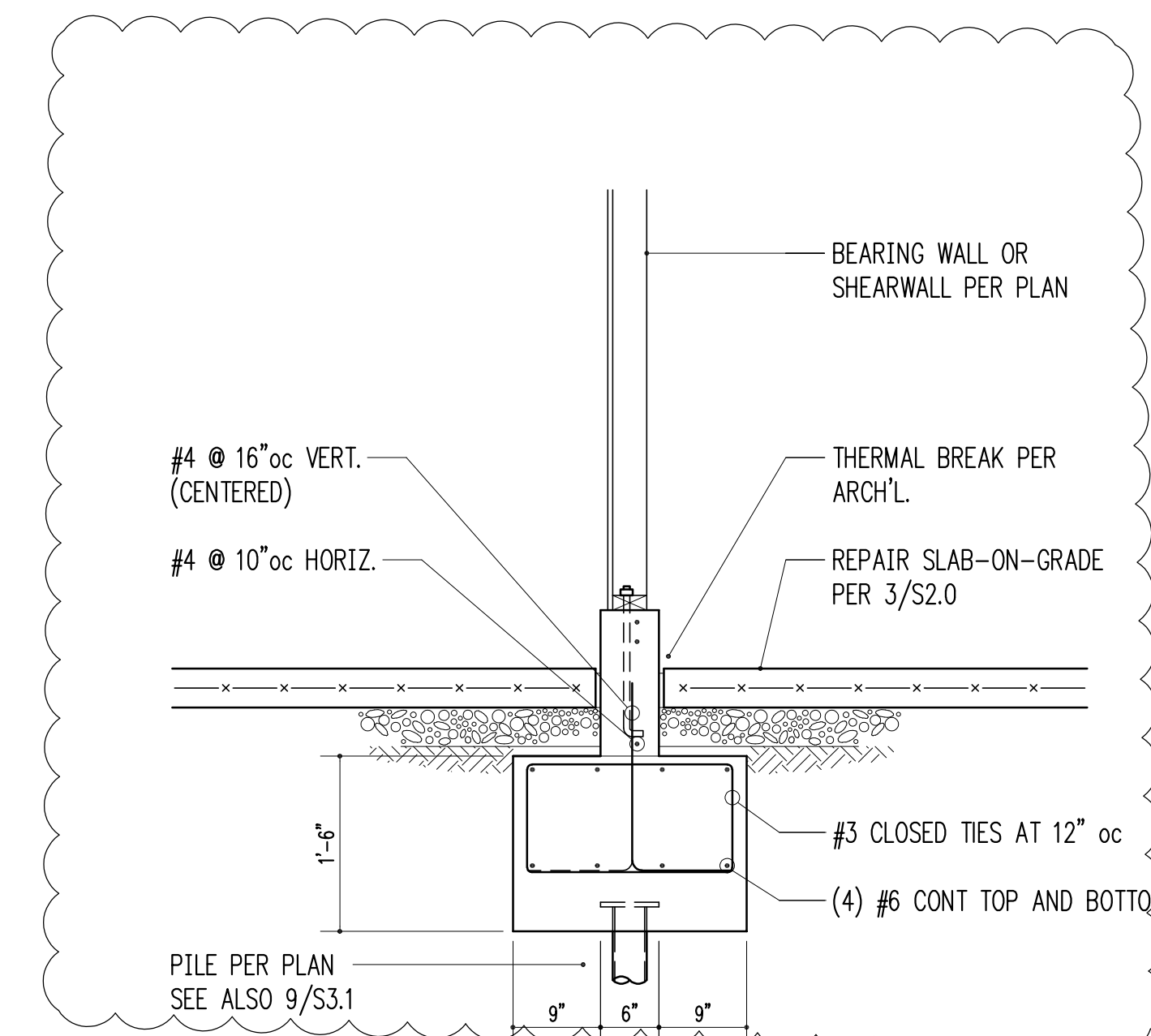
MARK	FASTENERS TO STUDS ¹	ANCHOR DIA. ²	EMBED LENGTH	FOOTING WIDTH	FOOTING DEPTH
HDUB	(20) 1/4"φ x 2 1/2" SCREWS	7/8"	6"	16"	9"
HDU11	(30) 1/4"φ x 2 1/2" SCREWS	1"	6"	24"	10"
HDU14	(36) 1/4"φ x 2 1/2" SCREWS	1"	9"	24"	13"

- SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- PROVIDE A36 OR A307 ALL-THREAD FOR ANCHORS. THE ANCHORS LISTED IN THIS SCHEDULE MUST BE CAST-IN-PLACE.

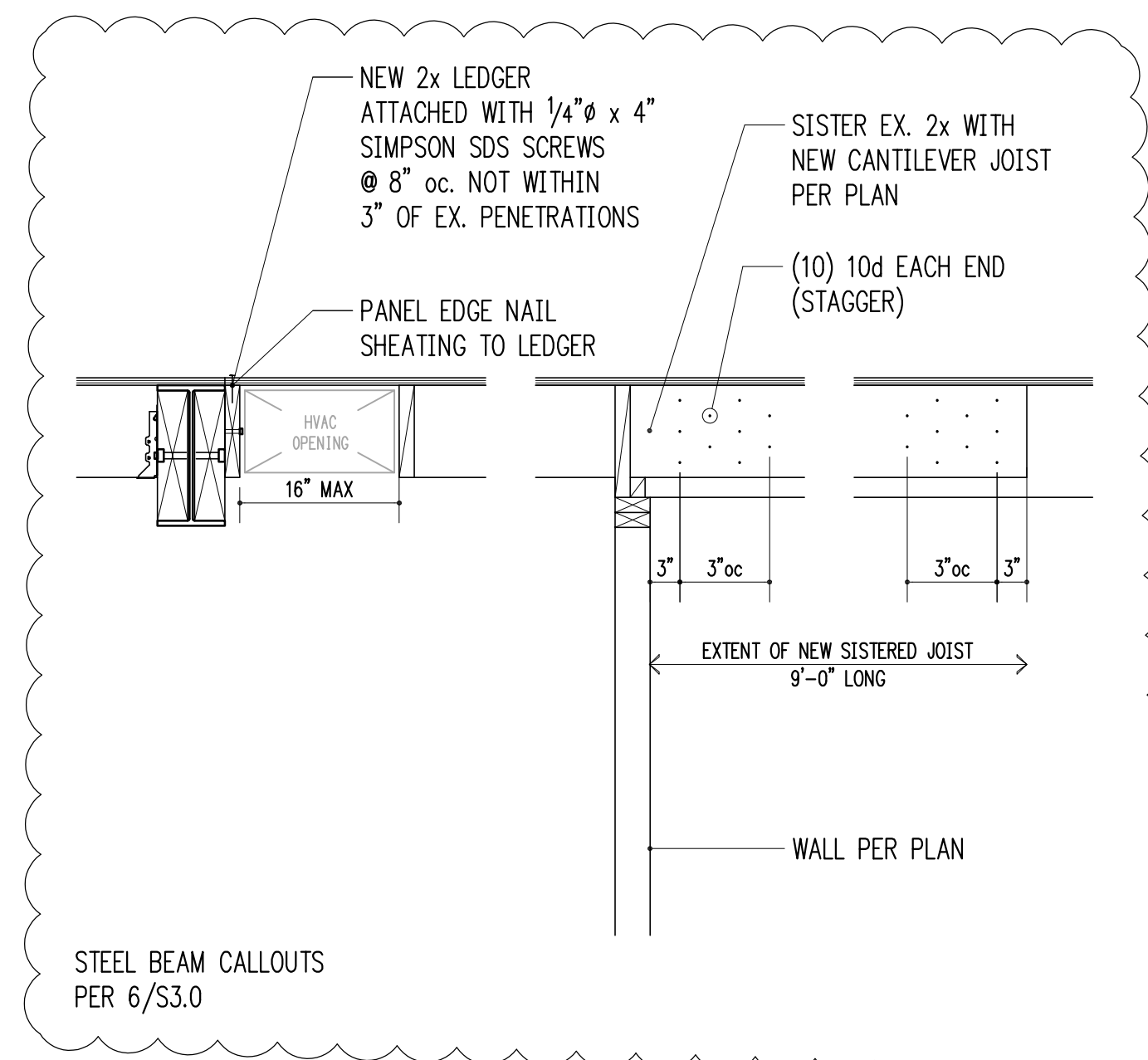


HEAVY-DUTY HOLDOWN AT CONCRETE

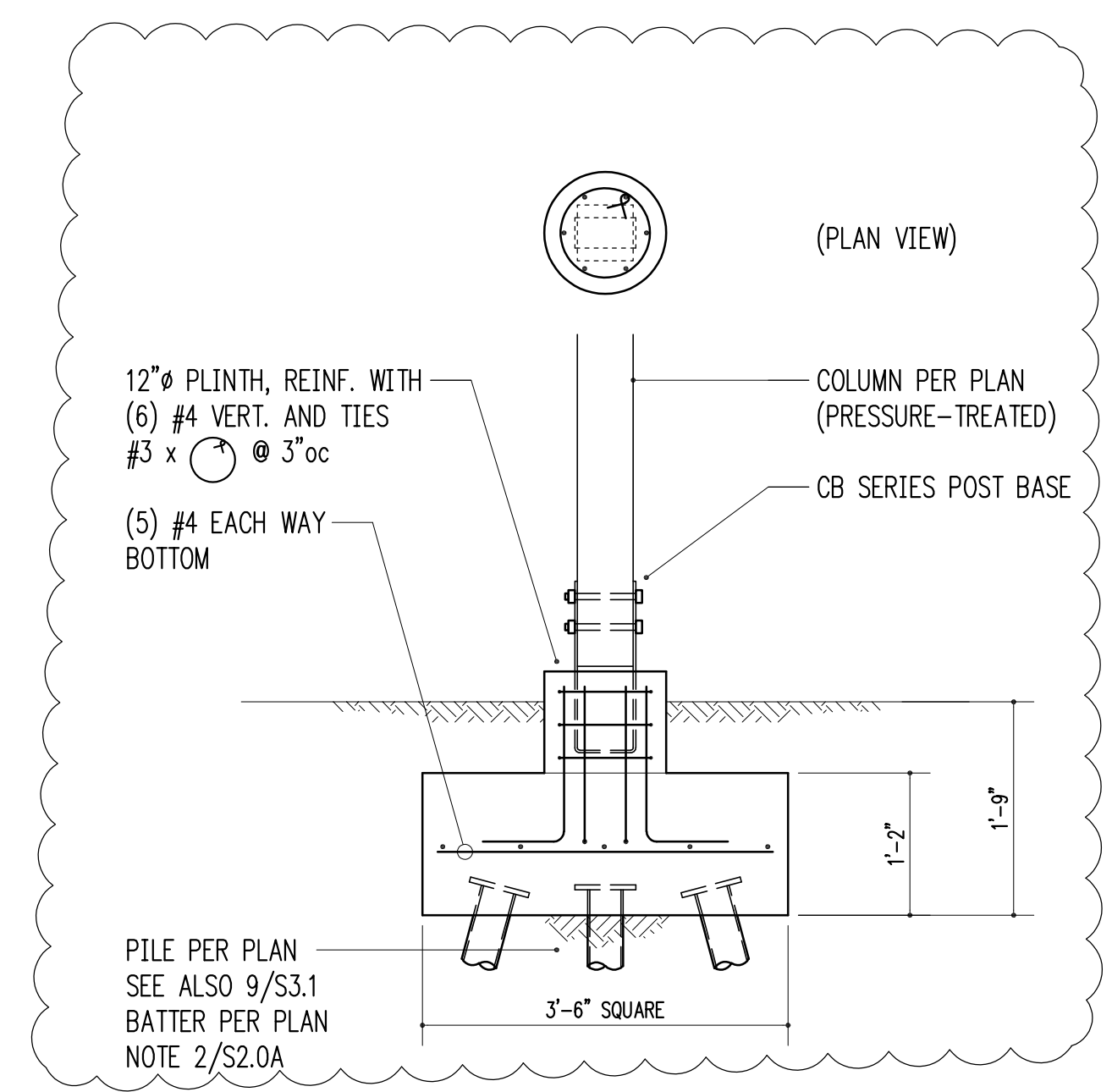
3/4" = 1'-0" 2



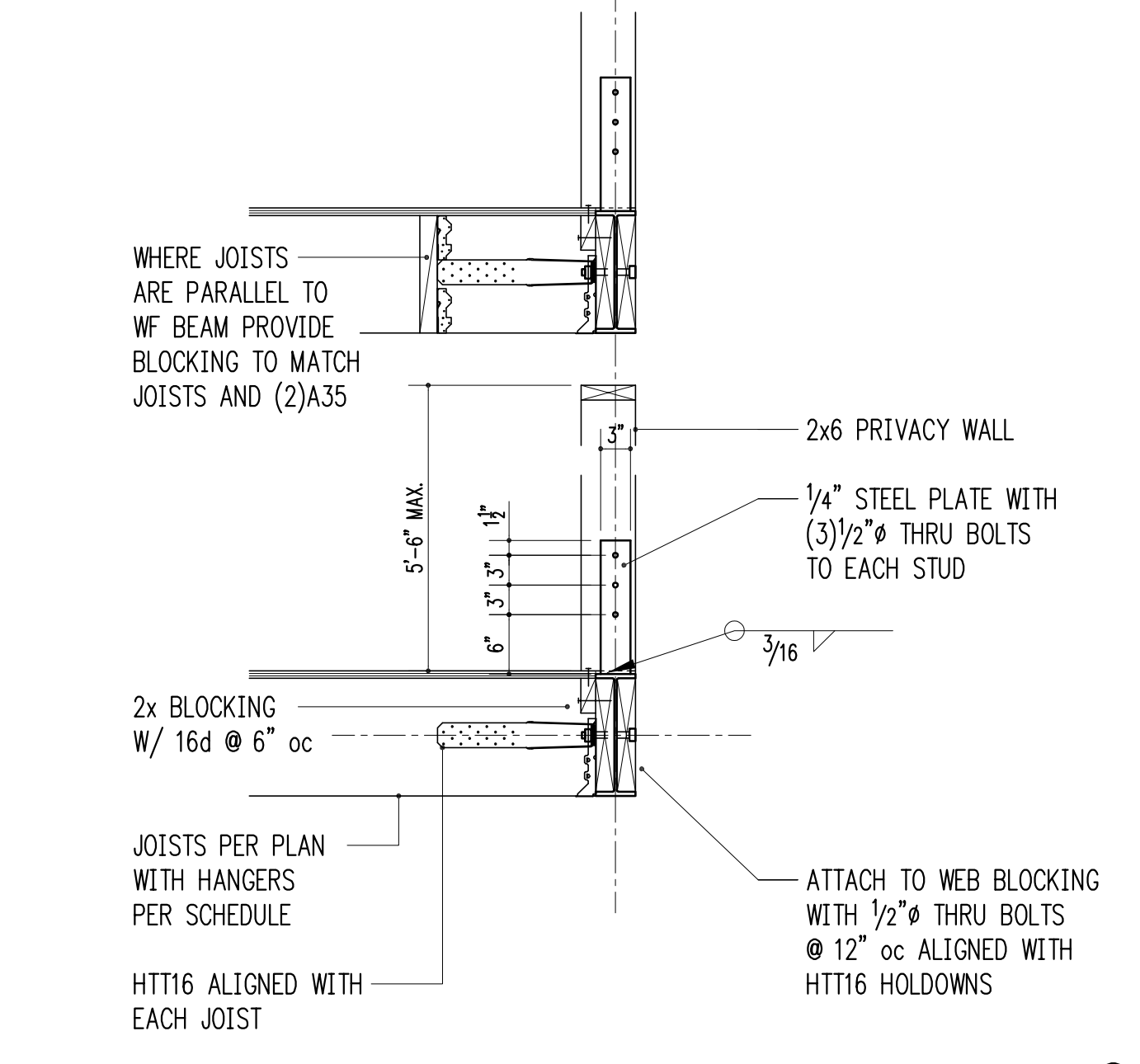
3/4" = 1'-0" 3



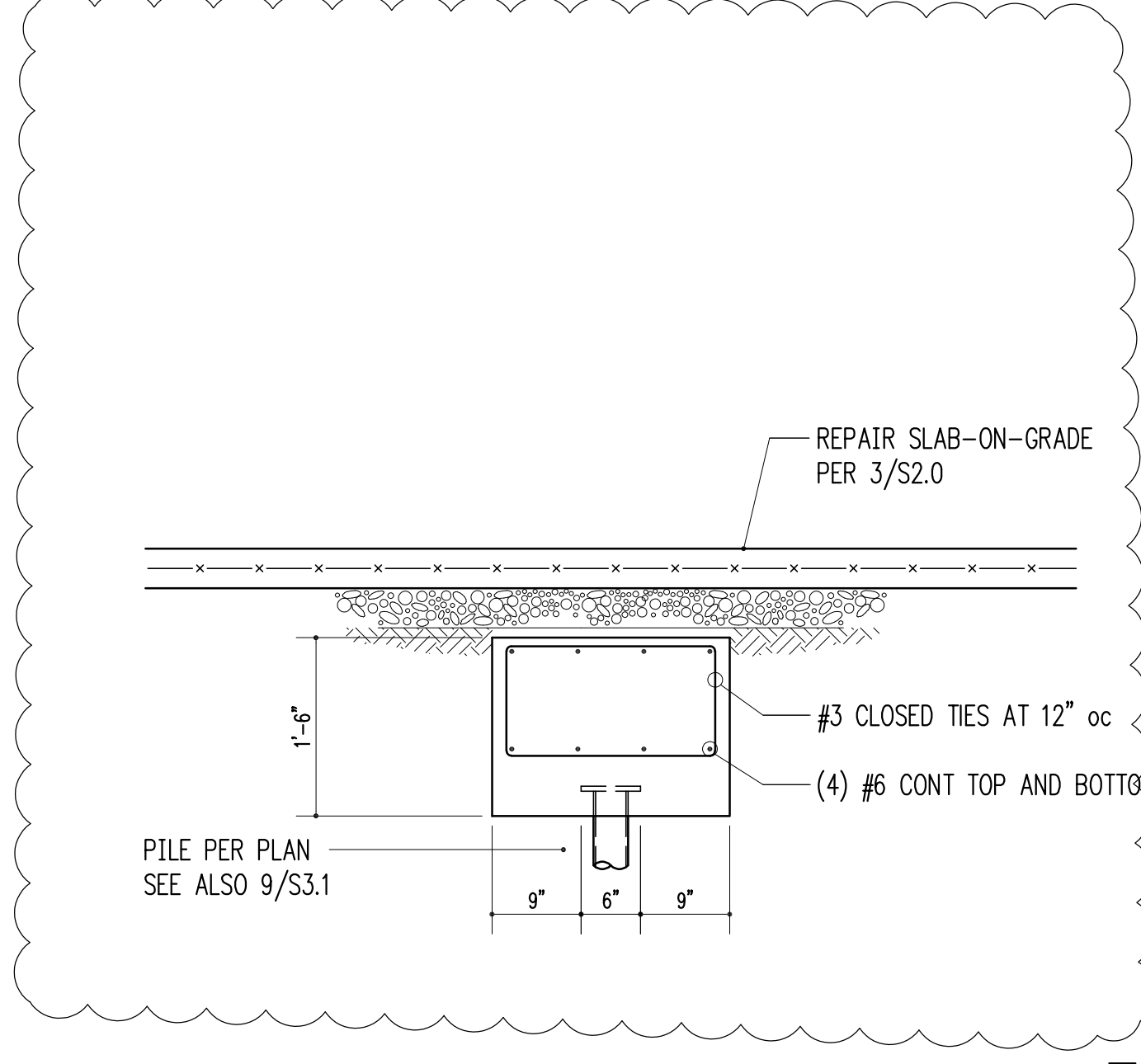
3/4" = 1'-0" 4



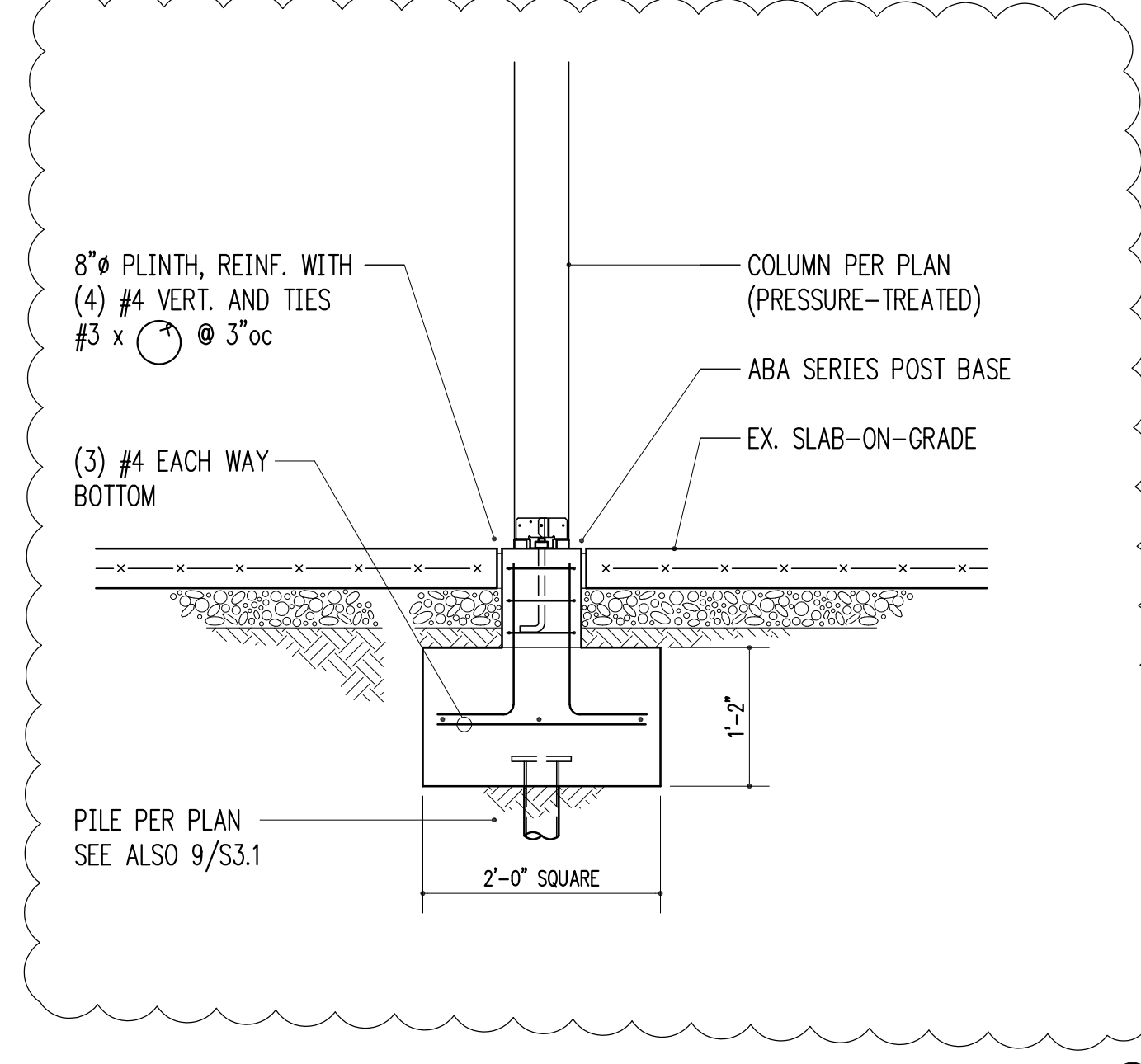
3/4" = 1'-0" 5



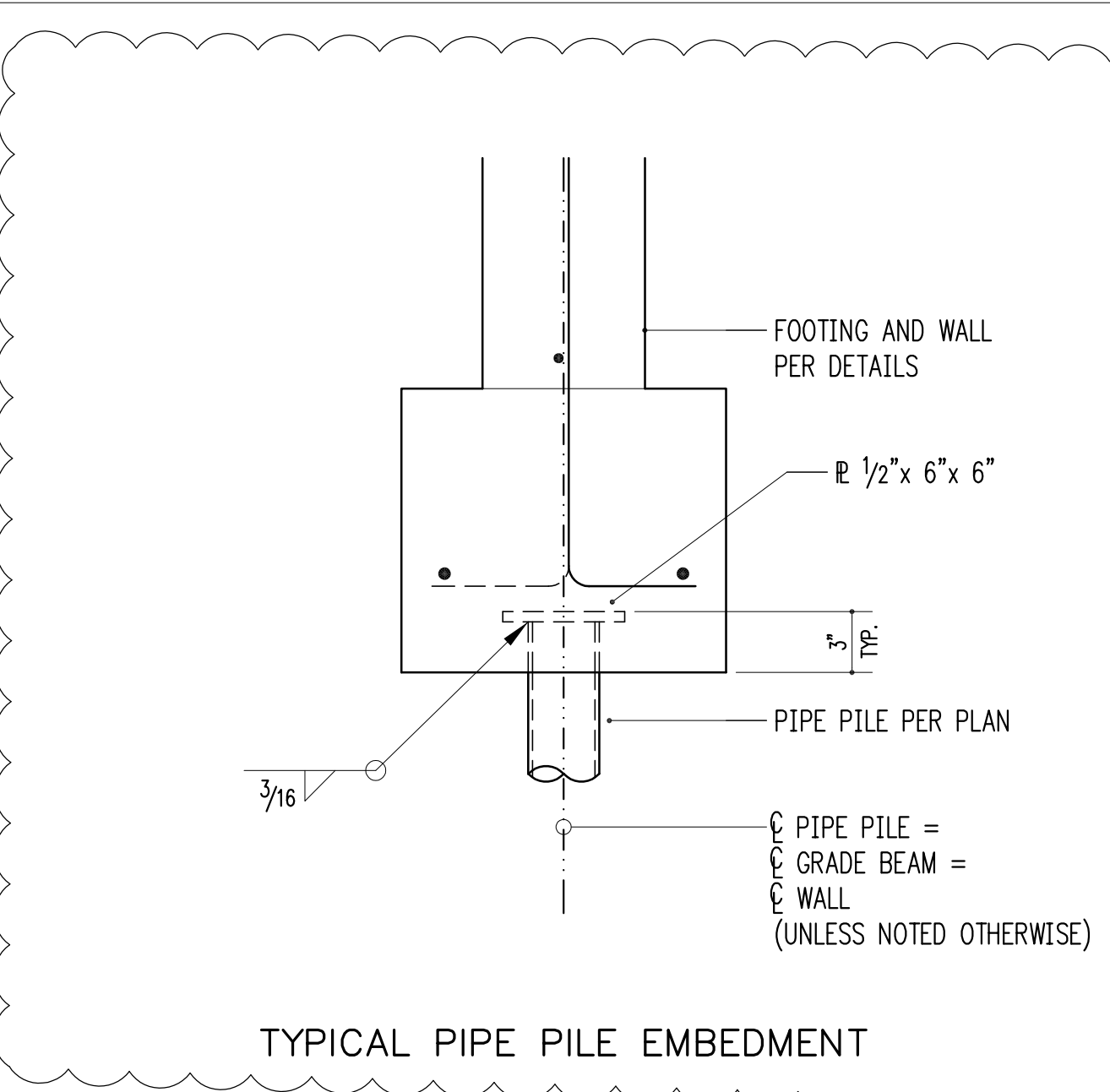
3/4" = 1'-0" 6



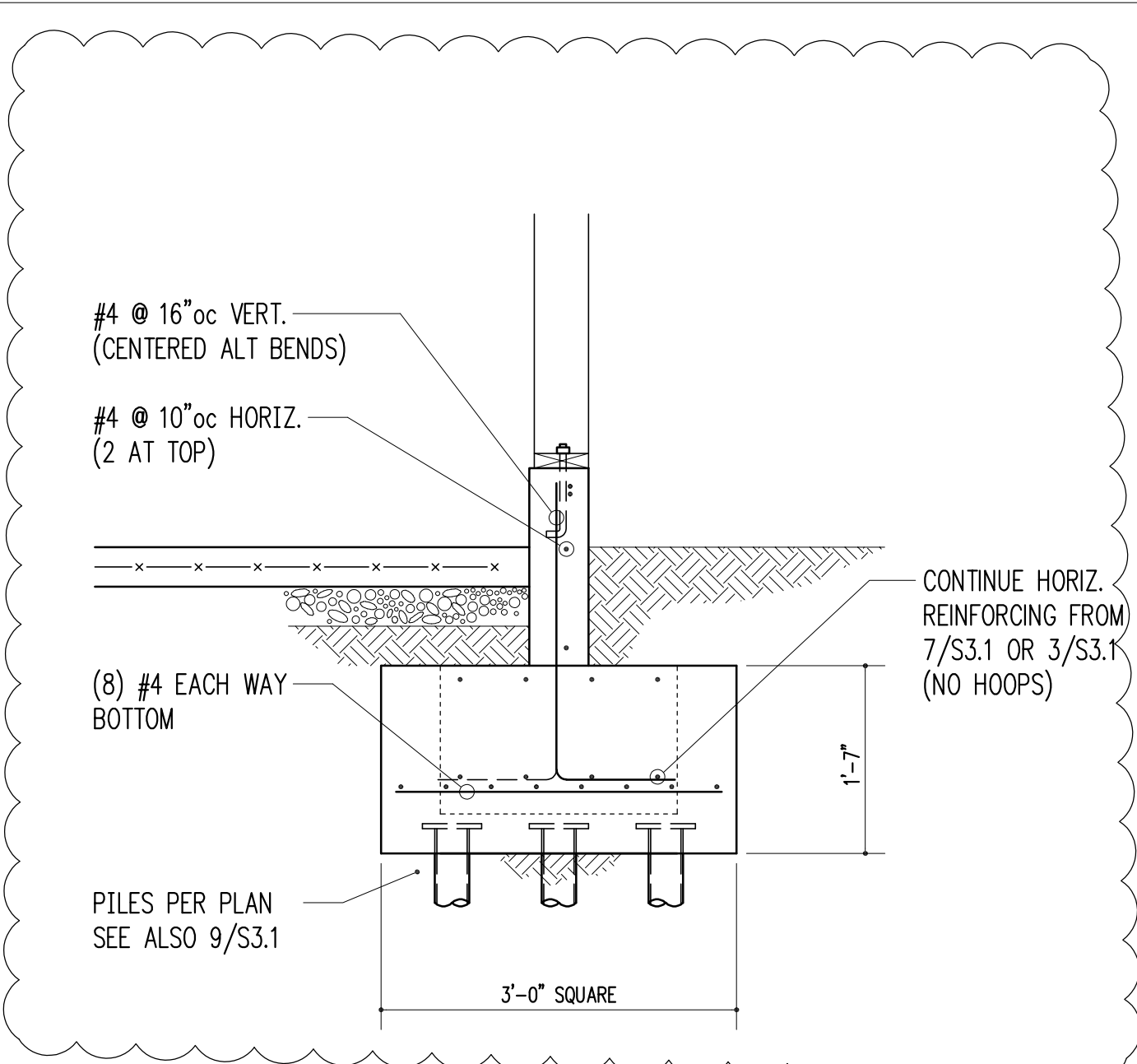
3/4" = 1'-0" 7



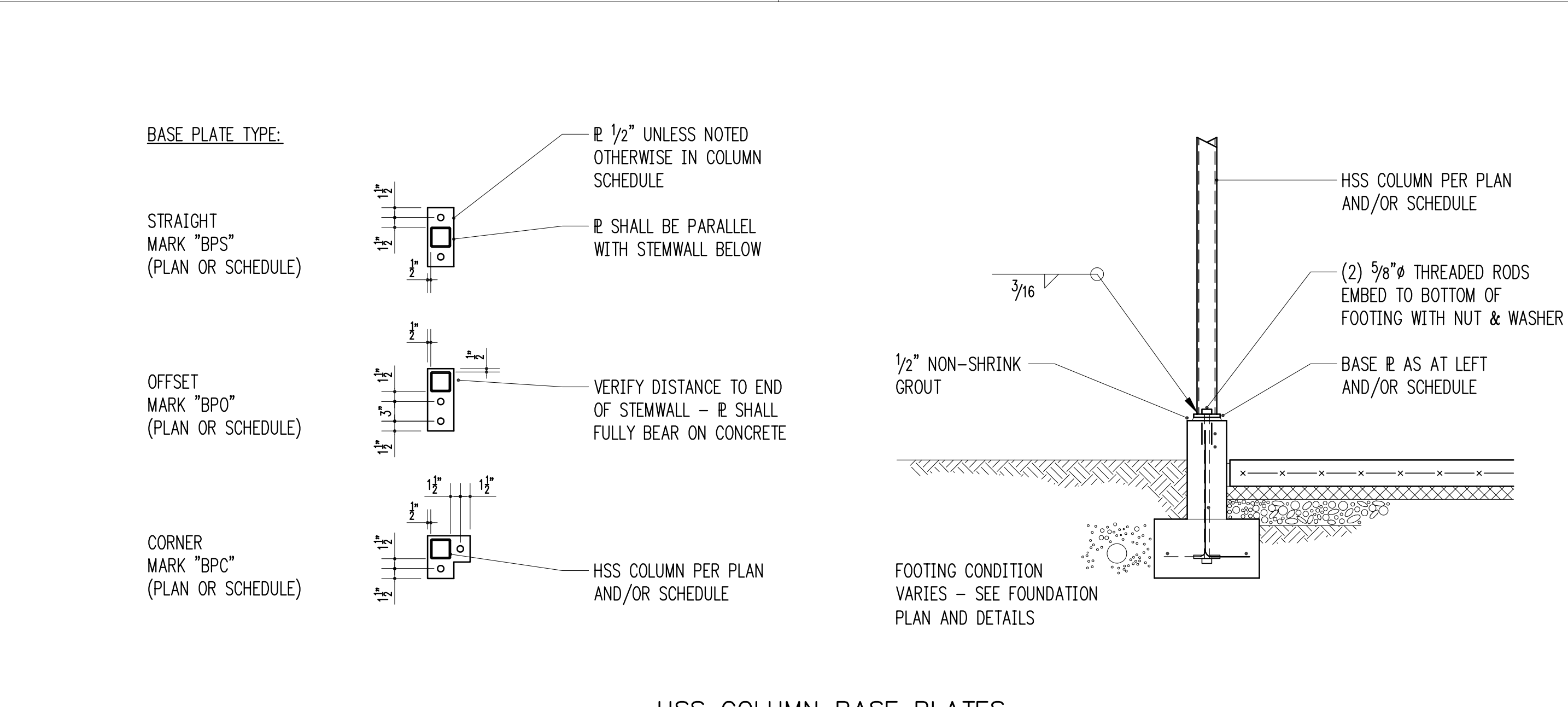
3/4" = 1'-0" 8



1-1/2" = 1'-0" 9



3/4" = 1'-0" 10



HSS COLUMN BASE PLATES

3/4" = 1'-0" 12



11/13/20

Project Contact
Todd Valentine
tel 206 624 4760 ex. 27
fax 206 447 6971
tvalentine@harriottvalentine.com

Project Architect
H2D Architecture + Design
23020 Edmonds Way, #113
Edmonds, WA 98020

Project
Werelius Residence
8452 North Mercer Way
Mercer Island, WA 98040

Issue Date	Issue Description
6/18/19	Permit
7/16/19	Framing Revisions
7/26/19	Framing Revisions
1/17/20	Corrections #1
4/3/20	Framing Revisions
4/17/20	Construction
4/24/20	Trellis Revisions
6/1/20	Corrections #2
8/17/20	Revisions
8/31/20	Foundation Revisions
10/8/20	Framing Revisions
10/14/20	Pin Pile Revision
11/13/20	Revisions

Building Department Approval

Drawing Title
STRUCTURAL DETAILS

Drawing Number

S3.2

WERELIUS RESIDENCE

