

1 VICINITY PLAN

SCALE: NTS



RENDERING FOR REFERENCE ONLY

# Mercer Grove House

**GENERAL NOTES:**

- ALL MATERIALS, WORKMANSHIP, DESIGN AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE FOLLOWING APPLICABLE CODES USED IN THE DESIGN:
  - 2018 INTERNATIONAL RESIDENTIAL CODE
  - 2018 WASHINGTON STATE ENERGY CODE
  - 2018 IRC M1508 WHOLE HOUSE VENTILATION
- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED IN FIELD.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES REQUIRED TO PERFORM THE WORK.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT.
- ALL WOOD PLATES IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE. PROVIDE 2 LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC. AND CONCRETE OR MASONRY.
- ALL FASTENERS AND CONNECTORS THAT ARE IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED WITH A MINIMUM COATING OF G90 PER ASTM A123 AND/OR ASTM A153.304. 316 STAINLESS STEEL MAY BE SUBSTITUTED IN LIEU OF GALVANIZED PRODUCTS. NO STAINLESS STEEL PRODUCTS SHALL COME IN CONTACT WITH GALVANIZED PRODUCTS.
- SECURITY FROM CRIMINAL ACTIVITY: DEAD BOLT (MIN 1/2" THROW) AND VIEWPOINT REQUIRED @ ALL EXTERIOR DOORS. WINDOW AND SLIDING DOORS WITHIN 10' OF GRADE SHALL BE PROVIDED WITH LATCHING DEVICES. ALL LOCKS SHALL BE ABLE TO BE OPENED WITHOUT SPECIAL KNOWLEDGE OR EFFORT.
- CONSTRUCTION EROSION CONTROL MEASURES MUST BE IN PLACE AND APPROVED BY CITY JURISDICTION PRIOR TO ANY EARTH DISTURBANCE.
- NO SEDIMENT SHALL BE TRACED INTO THE STREET OR ONTO PAVED SURFACES. SEDIMENT SHALL BE REMOVED FROM TRUCKS AND EQUIPMENT PRIOR TO LEAVING THE SITE. IN THE EVENT OF FAILURE OF EROSION CONTROL SYSTEM RESULTING IN SEDIMENT BEING TRACKED ONTO PAVED SURFACES, CONTRACTOR SHALL IMMEDIATELY IMPLEMENT MEASURES TO CORRECT THE SITUATION, AND STREET SWEEPING SHALL BE EMPLOYED ON AN EMERGENCY BASIS. IF STREET SWEEPING VEHICLES ARE UTILIZED THEY SHALL BE OF THE TYPE THAT ACTUALLY REMOVES SEDIMENT FROM THE PAVEMENT.
- LEGAL COMPLIANCE WITH ALL APPLICABLE CODES AND REGULATIONS ARE THE RESPONSIBILITY OF THE OWNER AND CONTRACTOR.

**OWNER:**  
 PAUL BOSVELD + YUSHAN LIN  
 7785 SUNSET HWY UNIT 443  
 MERCER ISLAND, WA 98040  
 954.918.6271  
 CONTACT: PAUL BOSVELD  
 PAULBOSVELD@GMAIL.COM

**ARCHITECT:**  
 WITTMAN ESTES  
 6007 12TH AVE S  
 SEATTLE, WA 98108  
 206.735.7170  
 CONTACT: MATT WITTMAN, AIA  
 MATT@WITTMAN-ESTES.COM

**STRUCTURAL ENGINEER:**  
 J WELCH ENGINEERING, LLC  
 JOSH WELCH, SE  
 PO BOX #28427  
 SEATTLE, WA 98118  
 206.356.9553  
 JOSHTWELCH@GMAIL.COM

**CIVIL ENGINEER:**  
 G2 CIVIL + LITCHFIELD ENGINEERING  
 1375 NW MALL ST, SUITE 3  
 ISSAQUAH, WA 98027  
 CONTACT: NICOLE MECUM, PE  
 NICOLEM@G2CIVIL.COM  
 425.821.5038 (MAIN)  
 425.364.5284 (DIRECT)

**GEOTECHNICAL ENGINEER:**  
 GEO GROUP NORTHWEST  
 13705 BEL-RED ROAD  
 BELLEVUE, WA 98005  
 425.649.8757  
 CONTACT: BILL CHANG, PE  
 WCHANG@GEOGROUPNW.COM

**ARBORIST:**  
 LAYTON TREE CONSULTING, LLC  
 BOB LAYTON, RCA  
 PO BOX #572  
 SNOHOMISH, WA 98291  
 425.220.5711  
 BOB@LAYONTREECONSULTING.COM

**PROJECT DATA**

**PARCEL #** 362350-0037

**ADDRESS:**  
 7345 SE 38TH ST  
 MERCER ISLAND, WA 98040

**ZONE:** R-15

**LOT AREA:** 24,138 SF (0.55 ACRES)

**CONSTRUCTION TYPE:** V-B, PROVIDE NFPA 13R SPRINKLERS

**LEGAL DESCRIPTION:**  
 ISLAND PARK REPLAT OF W 100 FT MEAS ALG N LN & POR VAC ST ADJ E OF W LN PROD S

**PROJECT DESCRIPTION:**  
 CONSTRUCTION OF NEW SINGLE FAMILY HOME WITH DETACHED CARPORT

**CAR2:**  
 APPLICATION SUBMITTED #CAO21-006

**BUILDING AREA SUMMARY:**

1F (HEATED):	830 SF
2F (HEATED):	1321 SF
3F (HEATED):	965 SF
CARPORT (UNHEATED):	570 SF

**HEATED AREA:** 3116 SF  
**TOTAL AREA:** 3686 SF

**MIMC 19.10.070 TREE REPLACEMENT**  
 ONLY 2 VIABLE TREES (#16 AND #18) ARE PROPOSED FOR REMOVAL PER ARBORIST'S REPORT

TREES' DIAMETER = 10"-24" AT DBH, TO BE REPLACED AT RATIO OF 2:1

**REQUIRED:** 4 REPLACEMENT TREES  
**PROVIDED:** 4 REPLACEMENT TREES

**CONIFEROUS REPLACEMENT TREES TO BE 6' TALL MINIMUM. DECIDUOUS REPLACEMENT TREES TO BE 1 1/2" CALIPER MINIMUM.**

**REPLACEMENT TREES SHALL BE PLANTED** BETWEEN 10/1 AND 4/1 FOLLOWING THE APPLICABLE TREE REMOVAL.

**MIMC 19.02.020.C.1 REQUIRED YARDS**  
**FRONT:** REQUIRED: 20'-0", PROVIDED: 47'-11" (HOUSE)  
**SIDES:** REQUIRED: 17'-6" NET, 7'-6" WEST, 10'-0" EAST  
 PROVIDED: 53'-10" NET, 43'-8" WEST, 10'-2" EAST  
**REAR:** REQUIRED 25'-0", PROVIDED: 116'-3"

**MICC 19.02.020.D.1 GROSS FLOOR AREA**  
 MAX. GROSS FLOOR AREA: (0.40) 24,138 = 9655 SF

1F:	62 SF
2F:	1760 SF
3F:	1051 SF
CARPORT:	164 SF

**PROPOSED GROSS FLOOR AREA:** 3037 SF

**MIMC 19.02.020.E BUILDING HEIGHT LIMIT**  
 MAX. BUILDING ELEVATION ALLOWED: 30'-0"  
 BUILDING ELEVATION PROVIDED: 29'-11"  
 (SEE BUILDING SECTIONS FOR HEIGHTS)

**MIMC 19.02.020.E.2 DOWNHILL BUILDING FACADE**  
 MAX. HEIGHT OF DOWNHILL FACADE: 30'-0"  
 DOWNHILL FACADE HEIGHT PROVIDED: 26'-10"  
 (SEE BUILDING SECTIONS FOR HEIGHTS)

**MIMC 19.02.020.E.4 AVERAGE BUILDING ELEVATION**  
 AVERAGE BUILDING ELEVATION = 215.3'  
 (SEE A0.3 FOR DIAGRAM AND CALCULATIONS)

**MIMC 19.02.020.F LOT COVERAGE**  
 LOT SLOPE: 26%  
 ALLOWABLE: 35% OF 24,138 SF = 8448.3 SF  
 PROPOSED: 3429 SF  
 DRIVEWAY: 252 SF

**MIMC 19.020.F.3 LANDSCAPING REQUIRED**  
 LOT SLOPE: 26%  
 REQUIRED: 65% OF 24,138 SF = 15,690 SF  
 PROPOSED: 20,865 SF

**MIMC 19.02.020.F.3.B HARDSCAPE**  
 A MAXIMUM OF 9% OF THE NET LOT AREA MAY CONSIST OF HARDSCAPE IMPROVEMENTS INCLUDING, BUT NOT LIMITED TO, WALKWAYS, DECKS, ETC.

9% OF LOT AREA (24,138 SF) = 2172 SF MAX. HARDSCAPE AREA

**HARDSCAPE ELEMENTS (SEE SHEET L1.0):**

STAIRS:	77 SF
UNCOVERED WALKWAYS:	135 SF

**PROPOSED HARDSCAPE AREA:** 212 SF

**MIMC 19.020.G.2 PARKING REQUIRED**  
 REQUIRED: 2 CARS  
 PROPOSED: 2 CARS (CARPORT)

**MIMC 19.02.040.D CARPORTS IN REQUIRED YARDS**  
**FRONT:** REQUIRED: 10'-0"  
 PROVIDED: 10'-1"

**SHEET INDEX:**

A0.0 COVER SHEET SURVEY

CIVIL  
 C1.0 SITE IMPROVEMENT PLAN  
 C2.0 TREE RETENTION & TESC PLAN  
 C3.0 STORM DRAINAGE PROFILE

LANDSCAPE  
 L1.0 ENLARGED LANDSCAPE PLAN

ARCHITECTURAL  
 A0.1 SITE PLAN  
 A0.3 AVERAGE GRADE CALCULATIONS  
 A0.9 GENERAL PLAN NOTES

A1.0 FLOOR PLAN - 1F  
 A1.1 FLOOR PLAN - 2F  
 A1.2 FLOOR PLAN - 3F  
 A1.3 ROOF PLAN

A1.4 RCP - 1F  
 A1.5 RCP - 2F  
 A1.6 RCP - 3F

A2.0 EXTERIOR ELEVATIONS  
 A2.1 EXTERIOR ELEVATIONS

A3.0 SECTIONS  
 A3.1 SECTIONS  
 A3.2 SECTIONS  
 A3.4 SECTIONS  
 A3.5 SECTIONS

A5.0 DETAILS  
 A5.1 ASSEMBLY DETAILS  
 A5.2 DETAILS  
 A5.3 EXTERIOR DETAILS  
 A5.4 ROOF DETAILS

A6.0 WINDOW SCHEDULE

STRUCTURAL  
 S1.0 GENERAL STRUCTURAL NOTES  
 S1.1 GENERAL STRUCTURAL NOTES

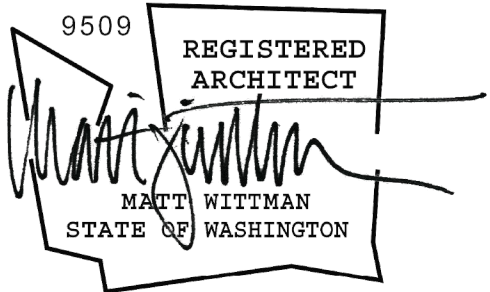
S2.0 FOUNDATION PLAN  
 S2.1 FIRST FLOOR FRAMING PLAN  
 S2.2 SECOND FLOOR FRAMING PLAN  
 S2.3 ROOF FRAMING PLAN

S3.0 STRUCTURAL DETAILS  
 S3.1 STRUCTURAL DETAILS  
 S3.2 STRUCTURAL DETAILS  
 S3.3 STRUCTURAL DETAILS  
 S3.4 STRUCTURAL DETAILS  
 S3.5 STRUCTURAL DETAILS  
 S3.6 STRUCTURAL DETAILS  
 S3.7 STRUCTURAL DETAILS  
 S3.8 STRUCTURAL DETAILS  
 S3.9 STRUCTURAL DETAILS

6007 12th Avenue S  
 Seattle, WA 98108

206-735-7170  
 info@witman-estes.com  
 www.witman-estes.com

Architecture + Landscape



2014

# Mercer Grove

7345 SE 38TH ST  
 MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
 BUILDING PERMIT #2110-193

**BUILDING PERMIT**

ISSUE DATE: 3/30/2023

**REVISIONS**

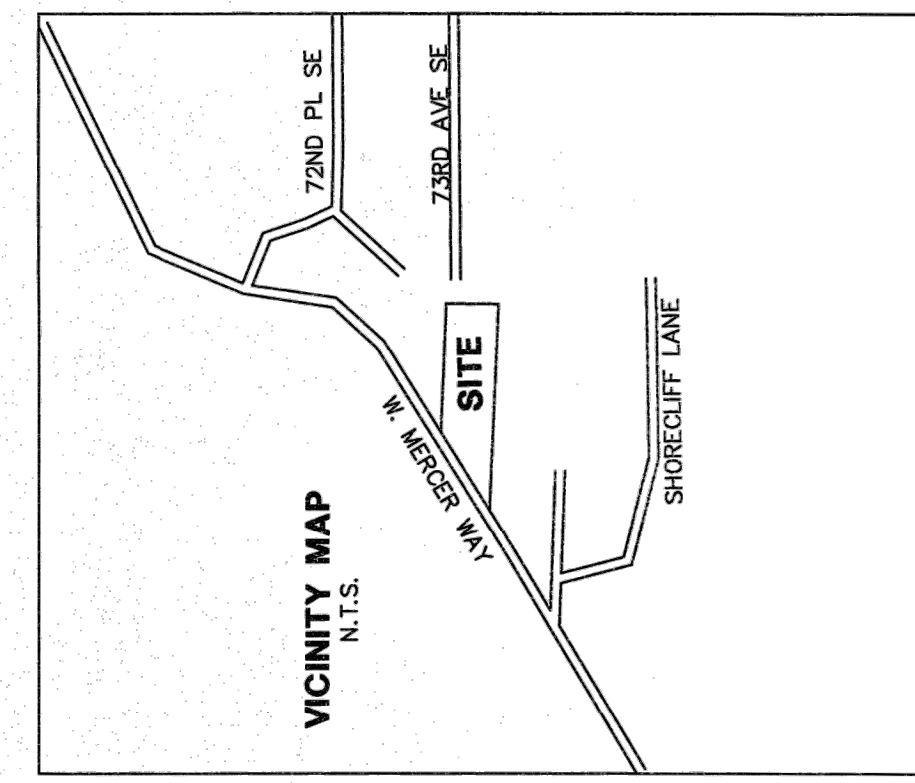
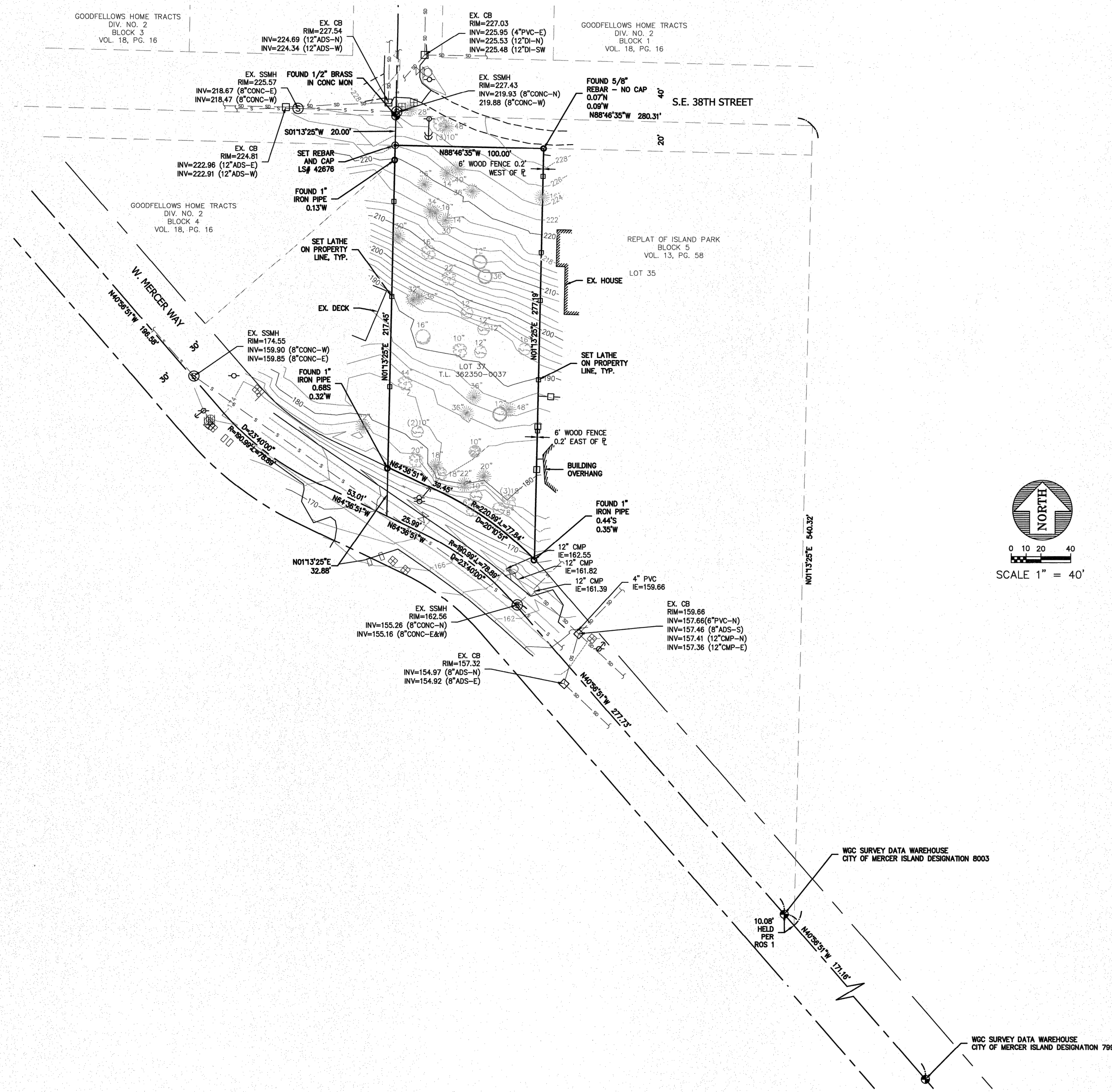
NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
 CHECKED BY: MW

architectural cover sheet

# A0.0

**A PORTION OF THE S.E. 1/4 OF THE S.W. 1/4 OF SECTION 12, T.24N., R.04E., W.M.  
MERCER ISLAND, STATE OF WASHINGTON**



**LEGAL DESCRIPTION**

THE WEST ONE-HUNDRED (100) FEET OF TRACT FIVE (5) (MEASURED ON THE NORTH LINE THEREOF), REPLAT OF ISLAND PARK ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WASHINGTON;

TOGETHER WITH THAT PORTION OF ISLAND AVENUE VACATED BY KING COUNTY COMMISSIONER'S ADJOINING.

**DATUM**

NAVD 88

**BENCHMARK**

WGS DESIGNATION 8003  
3/8" COPPER PIN IN 4" SQUARE CONCRETE MONUMENT, DOWN 1.1', LOCATED ON MERCER WAY 182 FEET NORTHWEST OF THE INTERSECTION WITH S.E. 40TH STREET  
ELEVATION=143.51

**HORIZONTAL DATUM**

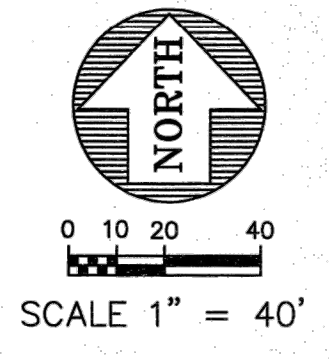
NAD 1983/91

**HORIZONTAL CONTROL**

HELD LINE BETWEEN WGS SURVEY DATA POINT 8003 AND WGS DATA POINT 7999  
IE=N40°56'51"W

**INSTRUMENTATION**

INSTRUMENT USED: 5 SECOND TOTAL STATION,  
FIELD SURVEY WAS BY CLOSED TRAVERSE LOOPS, MINIMUM CLOSURE OF LOOPS WAS 1:22,000, IN ACCORDANCE WITH WAC 332-130-090.



**LEGEND**

- ☐ WATER METER
- ⊗ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊖ GAS VALVE
- ☐ MAILBOX
- ⊕ UTILITY POLE
- ⊗ GUY ANCHOR
- ☐ CATCH BASIN
- ⊕ SEWER MANHOLE
- ⊖ SIGN

**TREE LEGEND**

- ⊕ MAPLE TREE
- ⊖ COTTONWOOD TREE
- ⊕ ALDER TREE
- ⊖ MADRONA TREE
- ⊕ TREE (UNSPECIFIED)

REVISIONS	DESCRIPTION	BY	DATE



10/21/15

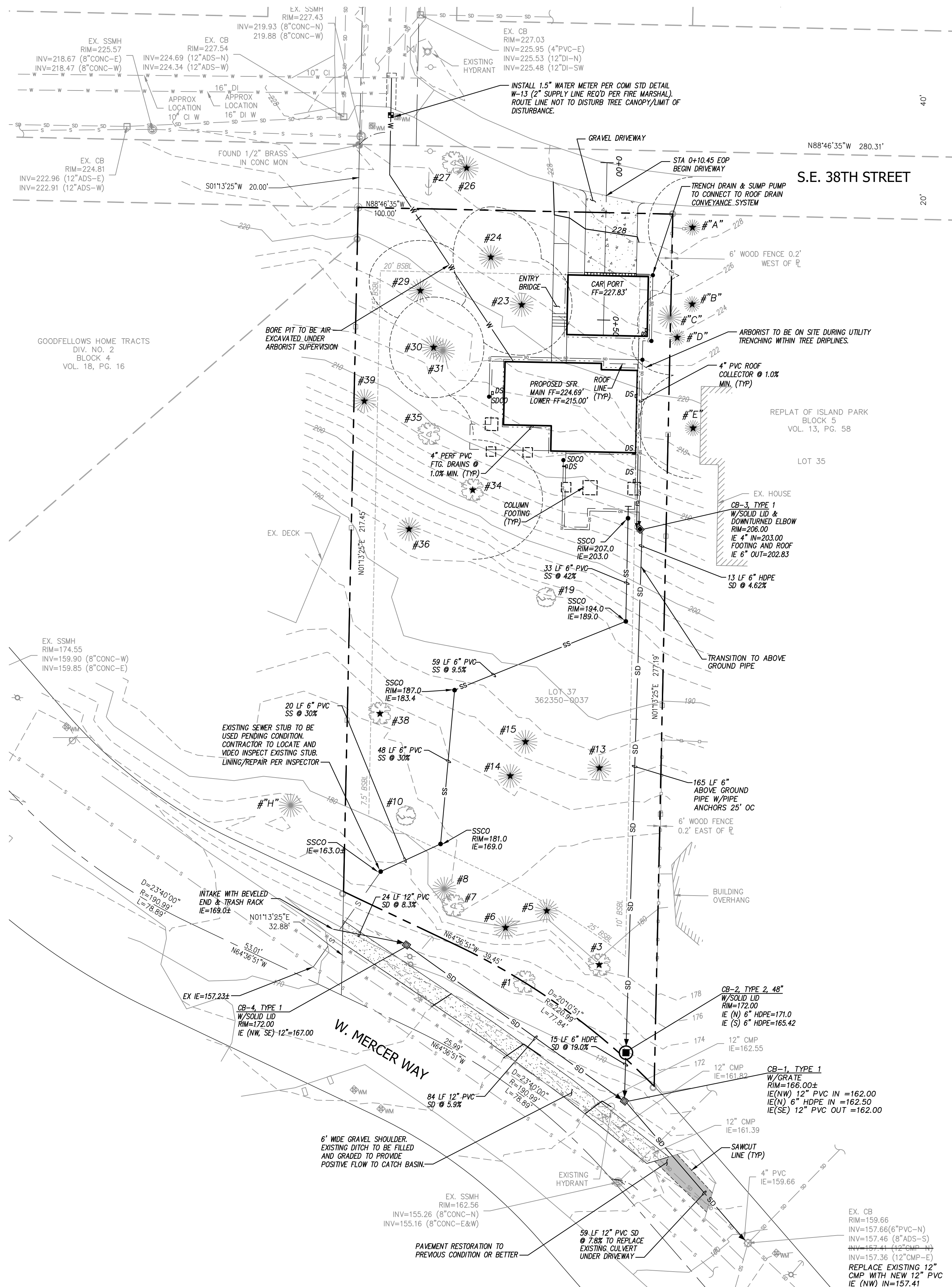
**JANE BURNS**  
**BOUNDARY/TOPOGRAPHY PLAN**

**Encompass**  
ENGINEERING & SURVEYING  
Western Washington Division  
165 NE Juniper Street, Suite 201 • Issaquah, WA 98027 • Phone: (425) 392-0230 • Fax: (425) 391-3055  
Eastern Washington Division  
108 East 2nd Street • Cle Elum, WA 98922 • Phone: (509) 674-7433 • Fax: (509) 674-7419

<b>JOB NO.</b>	15605
<b>DATE</b>	10/06/15
<b>SCALE</b>	1"=40'
<b>DESIGNED</b>	SDM
<b>DRAWN</b>	JEF
<b>CHECKED</b>	SDM
<b>APPROVED</b>	SDM

IN SE 1/4 OF THE SW 1/4 OF SECTION 12, T24N, R4E, W.M.

# SITE IMPROVEMENT PLAN

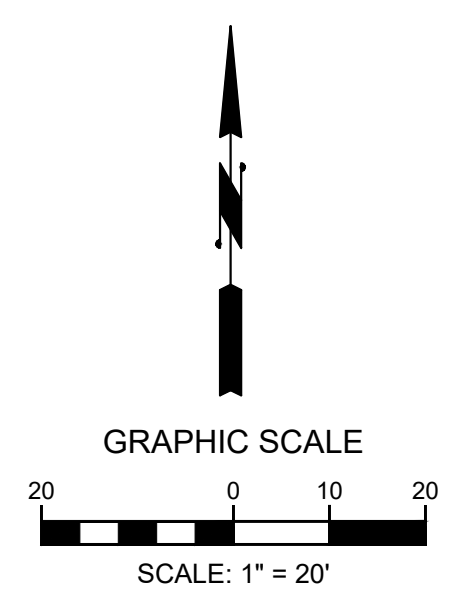


### LEGEND

- ⊕ WATER METER
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ GAS VALVE
- ⊕ MAILBOX
- ⊕ UTILITY POLE
- ⊕ GUY ANCHOR
- ⊕ CATCH BASIN
- ⊕ SEWER MANHOLE
- ⊕ SIGN

### TREE LEGEND

- ⊕ MAPLE TREE
- ⊕ COTTONWOOD TREE
- ⊕ ALDER TREE
- ⊕ MADRONA TREE
- ⊕ TREE (UNSPECIFIED)
- ★ EXCEPTIONAL TREE >=24" DBH



VICINITY MAP  
NOT TO SCALE

**PROJECT DATA**  
 PROPERTY ADDRESS: 38XX WEST MERCER WAY, MERCER ISLAND, WA 98040  
 TAX LOT NUMBER: 362350-0037  
 SITE AREA: 24,288 S.F. (0.56 AC.)  
 ZONING: RESIDENTIAL R-15

**PROJECT TEAM**  
 OWNER: PAUL BOSVELD & LIN YUSHAN  
 1421 36TH AVE S  
 SEATTLE WA 98144  
 (954) 918-6271

ARCHITECT: WITTMAN ESTES  
 6007 12TH AVENUE SOUTH  
 SEATTLE, WA 98108  
 (206) 735-7170  
 CONTACT: MATT WITTMAN

CIVIL ENGINEER: G2 CIVIL  
 1700 NW GILMAN BLVD, SUITE 200  
 ISSAQUAH, WA 98027  
 (425) 821-5038  
 CONTACT: EDWARD MECUM, PE

SURVEYOR: ENCOMPASS ENGINEERING & SURVEYING  
 165 NE JUNIPER STREET, SUITE 201  
 ISSAQUAH, WA 98027  
 (425) 392-0250  
 CONTACT: STEVEN D. McCASKEY, PLS

GEOTECHNICAL ENGINEER: GEO GROUP NORTHWEST, INC.  
 13705 BEL-RED ROAD  
 BELLEVUE, WA 98005  
 (425) 649-8757  
 CONTACT: WILLIAM CHANG, PE

**LEGAL DESCRIPTION**  
 THE WEST ONE-HUNDRED (100) FEET OF TRACT FIVE (5) (MEASURED ON THE NORTH LINE THEREOF), REPLAT OF ISLAND PARK ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 13 OF PLATS, PAGE 58, RECORDS OF KING COUNTY, WASHINGTON;

TOGETHER WITH THAT PORTION OF ISLAND AVENUE VACATED BY KING COUNTY COMMISSIONER'S ADJOINING.

**VERTICAL DATUM**  
 NAVD 88

**BENCHMARK**  
 WGS DESIGNATION 8003  
 3/8" COPPER PIN IN 4" SQUARE CONCRETE MONUMENT, DOWN 1.1', LOCATED ON MERCER WAY 182 FEET NORTHWEST OF THE INTERSECTION WITH S.E. 40TH STREET  
 ELEVATION=143.51

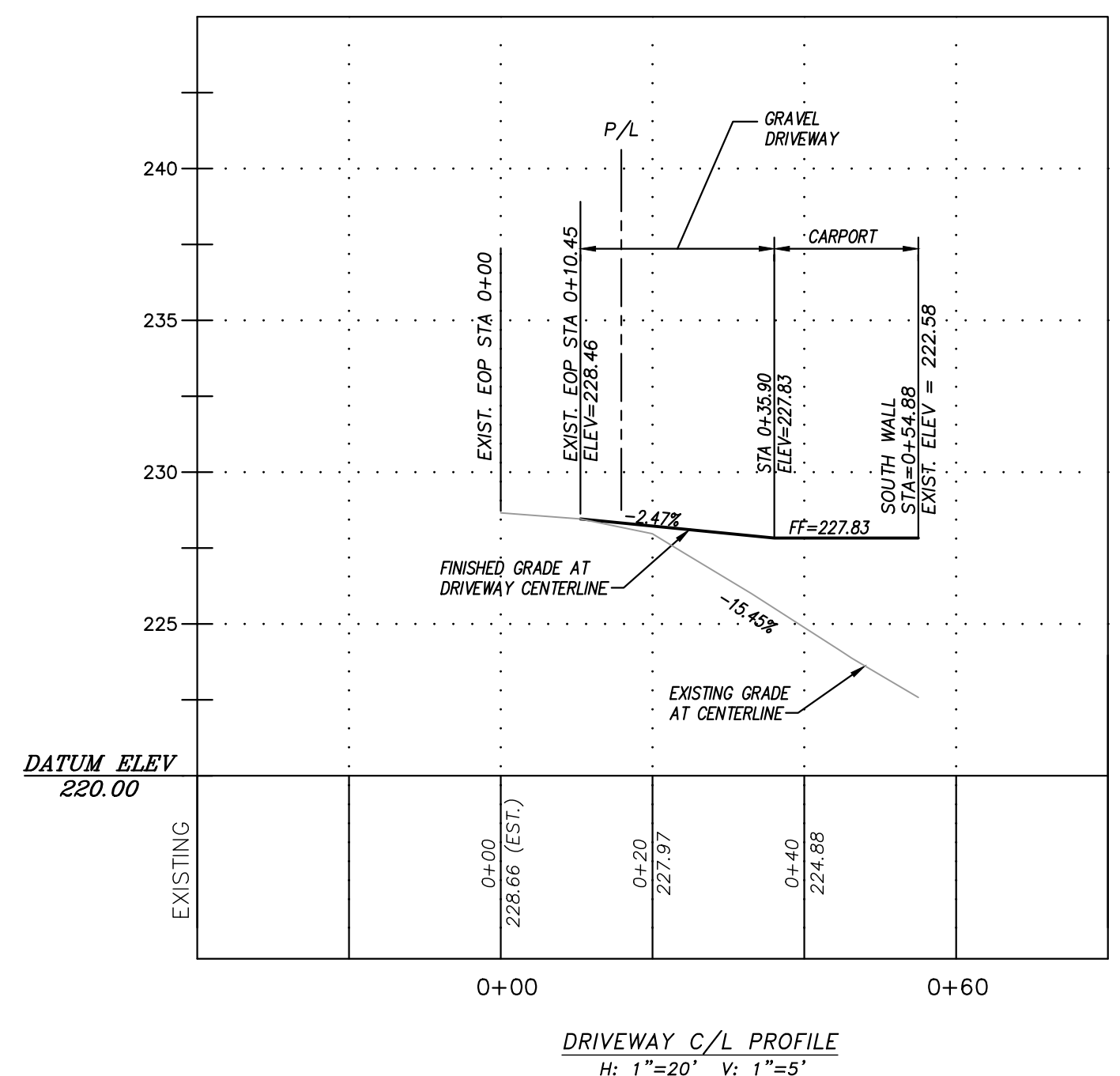
**HORIZONTAL DATUM**  
 NAD 1983/91

**HORIZONTAL CONTROL**  
 HELD LINE BETWEEN WGS SURVEY DATA POINT 8003 AND WGS DATA POINT 7999  
 IE=N40°56'51"W

**INSTRUMENTATION**  
 INSTRUMENT USED: 5 SECOND TOTAL STATION.  
 FIELD SURVEY WAS BY CLOSED TRAVERSE LOOPS, MINIMUM CLOSURE OF LOOPS WAS 1:22,000, IN ACCORDANCE WITH WAC 332-130-090.

**REFERENCES**  
 ROS 1 - RECORD OF SURVEY NO. 770289015, RECORDS OF KING COUNTY, WASHINGTON  
 LOT LINE REVISION NO. 20090505900011, PER RECORDS OF KING COUNTY, WASHINGTON  
 REPLAT OF ISLAND PARK, RECORDED IN VOLUME 13 OF PLATS, PAGE 58  
 PLAT OF GOODFELLOW'S HOME TRACTS, DIVISION NO. 2, RECORDED IN VOLUME 18 OF PLATS, PAGE 16

**SHEET INDEX**  
 C1.0 SITE IMPROVEMENT PLAN  
 C2.0 TREE RETENTION & TESC PLAN  
 C3.0 STORM DRAINAGE PROFILE

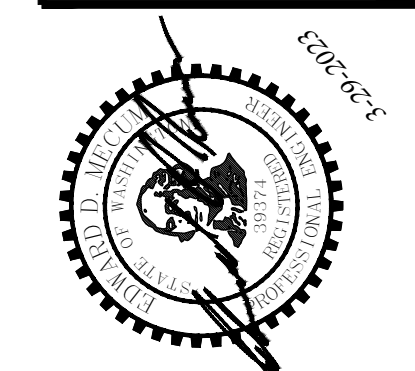


**SURVEY NOTE**  
 EXISTING SURVEY FEATURES, BOUNDARY, AND TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAVE BEEN PREPARED BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, G2 ENGINEERING CANNOT BE HELD RESPONSIBLE FOR THE ACCURACY OF DATA AND INFORMATION PROVIDED BY OTHERS, OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

**DISCREPANCIES**  
 IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

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

**CONTRACTOR RESPONSIBILITY**  
 CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.



DATE	NOTES
2-19-21 <td>SUBMITTED TO CLIENT</td>	SUBMITTED TO CLIENT
9-2-21 <td>REVISED PER CITY COMMENTS</td>	REVISED PER CITY COMMENTS
10-14-21 <td>ADDED TESC/SUBMITTED TO CLIENT</td>	ADDED TESC/SUBMITTED TO CLIENT
3-31-22 <td>REVISED PER CITY COMMENTS</td>	REVISED PER CITY COMMENTS
6-1-22 <td>REVISED PER CITY COMMENTS</td>	REVISED PER CITY COMMENTS
8-25-22 <td>REVISED PER CITY COMMENTS</td>	REVISED PER CITY COMMENTS

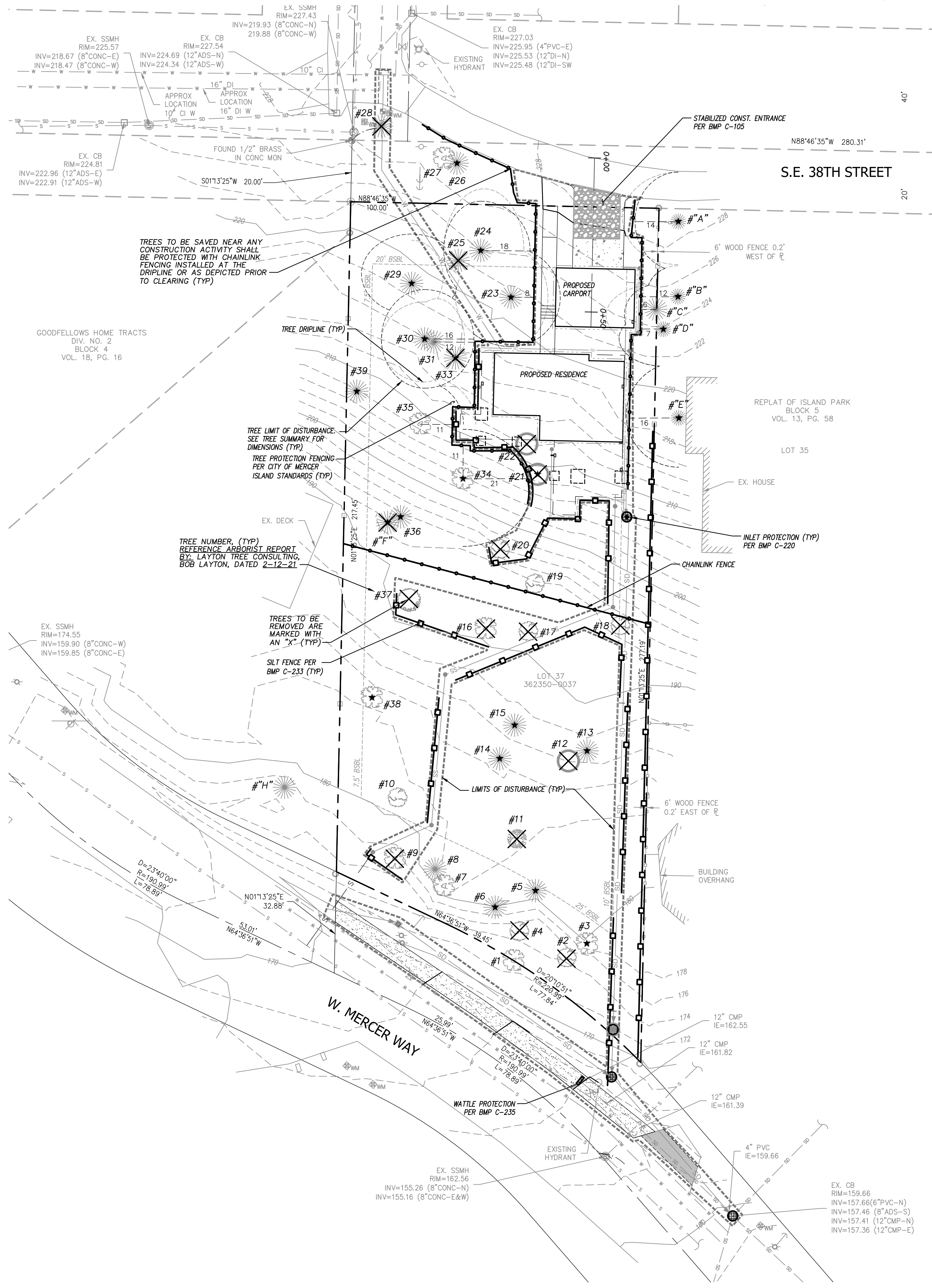
1700 NW GILMAN BLVD, STE 200  
 ISSAQUAH, WA 98027  
**G2 CIVIL**  
 PHONE: (425) 821-5038

**SITE IMPROVEMENT PLAN**  
**38XX WEST MERCER WAY**  
**MERCER ISLAND, WA 98040**

**811**  
 Know what's below.  
 Call before you dig.

IN SE 1/4 OF THE SW 1/4 OF SECTION 12, T24N, R4E, W.M.

# TREE RETENTION & TESC PLAN



### LEGEND

- ⊕ WATER METER
- ⊕ WATER VALVE
- ⊕ FIRE HYDRANT
- ⊕ GAS VALVE
- ⊕ MAILBOX
- ⊕ UTILITY POLE
- ⊕ GUY ANCHOR
- ⊕ CATCH BASIN
- ⊕ SEWER MANHOLE
- ⊕ SIGN

### TREE LEGEND

- ⊕ MAPLE TREE
- ⊕ COTTONWOOD TREE
- ⊕ ALDER TREE
- ⊕ MADRONA TREE
- ⊕ TREE (UNSPECIFIED)
- ★ EXCEPTIONAL TREE >=24" DBH

- CHAINLINK FENCE
- SILT FENCE
- DISTANCE TO TREE FENCING

### SURVEY NOTE

EXISTING SURVEY FEATURES, BOUNDARY, AND TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAVE BEEN PREPARED BASED UPON INFORMATION FURNISHED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, LE/G2 ENGINEERING CANNOT BE HELD RESPONSIBLE FOR THE ACCURACY OF DATA AND INFORMATION PROVIDED BY OTHERS, OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.

### DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

### EXISTING UTILITY NOTE

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

### CONTRACTOR RESPONSIBILITY

CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, AND THAT THIS REQUIREMENT SHALL CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

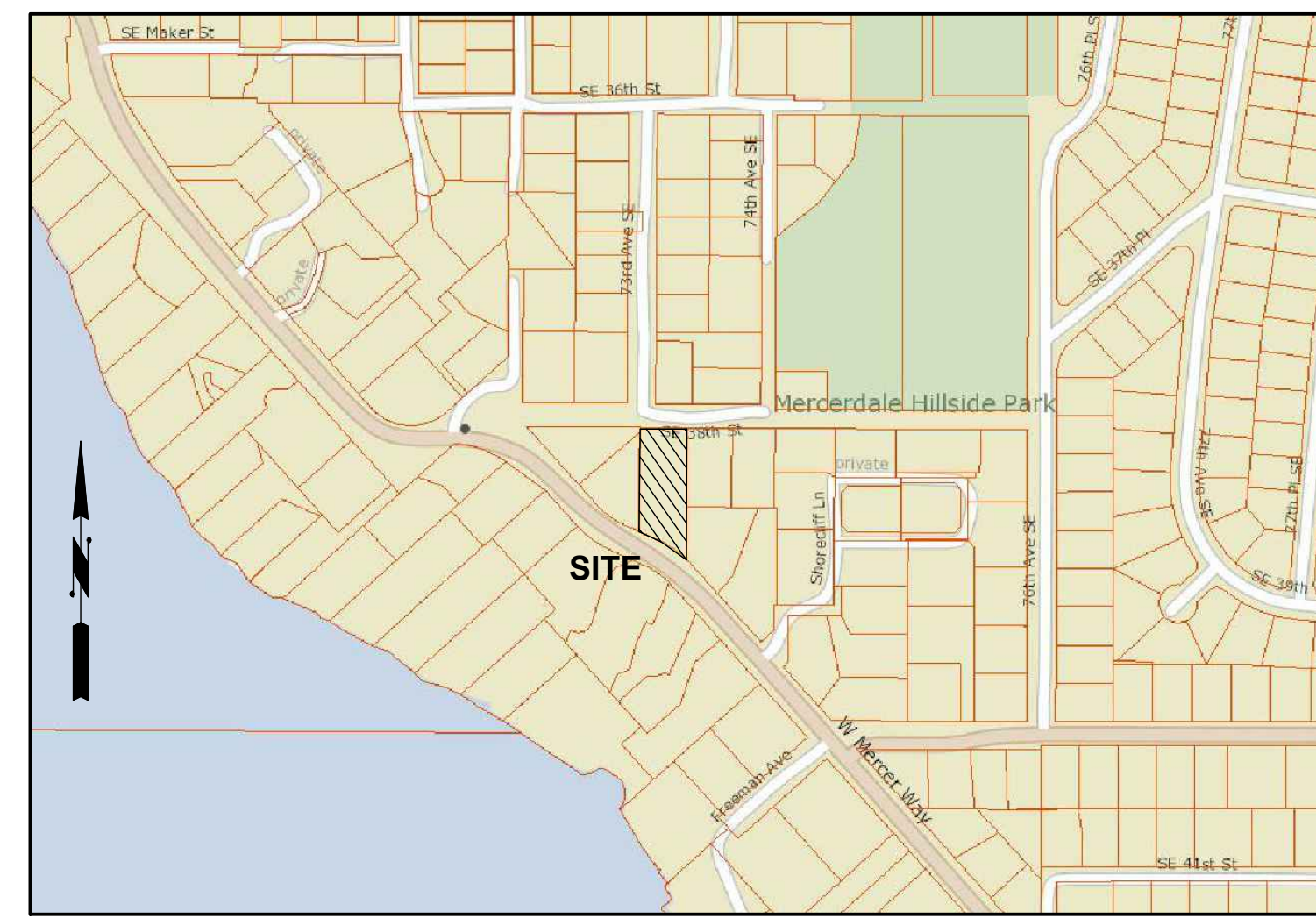
### Layton Tree Consulting LLC

For: Paul Bosveld  
Site: 73XX SE 38th ST - Mercer Island

Tree Summary Table  
Date: 2/12/2021

Tree/Tag #	Species Common Name	Species Scientific Name	DBH (inches)	Height (feet)	Drip-Line / Limits of Disturbance (feet)				Condition	Regulated Yes/No	Exceptional Yes/No	Comments	Proposal	
					N	S	E	W						
2	red alder	Alnus rubra	10						Poor	Yes	No		Remove	
3	bigleaf maple	Acer macrophyllum	27						Fair	Yes	No	OK to leave, needs crown clean pruning	Save	
4	red alder	Alnus rubra	11						Down	NA	NA	dead, fell down	NA	
5	Douglas fir	Pseudotsuga menziesii	30						Good	Yes	Yes		Save	
6	Douglas fir	Pseudotsuga menziesii	41						Fair	Yes	Yes		Save	
7	bigleaf maple	Acer macrophyllum	cluster						Fair	Yes	No	OK to leave, needs crown clean pruning	Save	
8	Douglas fir	Pseudotsuga menziesii	21						Fair	Yes	No		Save	
9	bigleaf maple	Acer macrophyllum	22						Poor	Yes	No	70% dead, lean to powerlines	Remove	
10	Pacific dogwood	Cornus nuttallii	11.11 (16)	59					Fair	Yes	Yes	OK to leave, low risk	Save	
11	Mountain ash	Sorbus aucuparia	8.4 (9)						Dead	NA	NA		NA	
12	Pacific madrone	Arbutus menziesii	11						Poor	Yes	Yes	90% dead, low risk, OK to leave	NA	
13	Douglas fir	Pseudotsuga menziesii	53						Fair	Yes	Yes		Save	
14	Douglas fir	Pseudotsuga menziesii	38						Good	Yes	Yes		Save	
15	Douglas fir	Pseudotsuga menziesii	35						Good	Yes	Yes		Save	
16	bigleaf maple	Acer macrophyllum	11						Fair	Yes	No		Remove	
17	red alder	Alnus rubra	16						Dead	NA	NA		NA	
18	red alder	Alnus rubra	15						Dead	NA	NA		NA	
19	red alder	Alnus rubra	15						Fair	Yes	No	OK to leave, decent vigor, low risk	Save	
20	red alder	Alnus rubra	14						Poor	Yes	No	90% dead	Remove	
21	Pacific madrone	Arbutus menziesii	32						Poor	Yes	Yes	diseased, heavy lean downhill	Remove	
22	Pacific madrone	Arbutus menziesii	12						Dead	NA	NA		NA	
23	Douglas fir	Pseudotsuga menziesii	52		16/16	16/16	12/16	18	Good	Yes	Yes		Save	
24	Douglas fir	Pseudotsuga menziesii	43		155	20/16	10/16	14/16	12	Good	Yes	Yes	old broken top	Save
25	Douglas fir	Pseudotsuga menziesii	14						Dead	NA	NA	Dead snag	Remove	
29	Douglas fir	Pseudotsuga menziesii	30		14/16	10	10/16	NA	Fair	Yes	Yes	caminal rupture	Save	
30	Douglas fir	Pseudotsuga menziesii	30		130	12/16	14/16	10/16	14	Fair	Yes	Yes	incipient pine infection, south side	Save
31	Douglas fir	Pseudotsuga menziesii	18		90	14/14	6/12	10/12	8	Fair	Yes	No		Save
32	Douglas fir	Pseudotsuga menziesii	17		NA	NA	NA	NA	NA	NA	NA	Dead snag	Remove	
33	Douglas fir	Pseudotsuga menziesii	36		NA	NA	NA	NA	NA	NA	NA	Advanced pine infection, all sides	Remove	
34	bigleaf maple	Acer macrophyllum	26		16	22	22	NA	Fair	Yes	No	decent form, some dead wood	Save	
35	bigleaf maple	Acer macrophyllum	20		16/14	NA	18/14	NA	Fair	Yes	No	decent form, some dead wood	Save	
36	Douglas fir	Pseudotsuga menziesii	37						Poor	Yes	Yes		Save	
37	black cottonwood	Populus trichocarpa	21						Poor	Yes	No	suspect internal decay	Remove	
38	bigleaf maple	Acer macrophyllum	40						Fair	Yes	Yes	asymmetric crown to east	Save	
39	Douglas fir	Pseudotsuga menziesii	39		142				Fair	Yes	Yes	old broken top, upper foliage a little sparse	Save	
F	Douglas fir	Pseudotsuga menziesii	31		100				Poor	Yes	Yes	advanced pine infection, leans west to house	Remove	
Neighboring Trees														
1	bigleaf maple	Acer macrophyllum	7						Fair	No	No	in ROW	Protect	
28	Douglas fir	Pseudotsuga menziesii	48						Good	Yes	Yes	in ROW	Protect	
27	bigleaf maple	Acer macrophyllum	19						Fair	Yes	No	in ROW	Protect	
28	Douglas fir	Pseudotsuga menziesii	31						Good	Yes	Yes	in ROW	Protect	
A	Douglas fir	Pseudotsuga menziesii	36		16	14/16	NA	18/14	Good	Yes	Yes		Protect	
B	Douglas fir	Pseudotsuga menziesii	30		10	8	NA	10	Good	Yes	Yes	6-foot off PL/fence	Protect	
C	Douglas fir	Pseudotsuga menziesii	19		8	12	NA	16/10	Fair	Yes	No		Protect	
D	Douglas fir	Pseudotsuga menziesii	32		6	12	NA	14/14	Good	Yes	Yes		Protect	
E	Douglas fir	Pseudotsuga menziesii	42		18	16	NA	17	Fair	Yes	Yes	Foliage somewhat sparse	Protect	

Drip-Line and Limits of Disturbance measurements from face of trunk  
Calculated DBH: the DBH is parenthesis is the square root of the sum of the dbh for each individual stem squared (example with 3 stems: dbh = square root [(stem1)² + (stem2)² + (stem3)²]).



VICINITY MAP  
NOT TO SCALE

### PROJECT DATA

PROPERTY ADDRESS: 38XX WEST MERCER WAY, MERCER ISLAND, WA 98040  
TAX LOT NUMBER: 362350-0037  
SITE AREA: 24,288 S.F. (0.56 AC.)  
ZONING: RESIDENTIAL R-15

### PROJECT TEAM

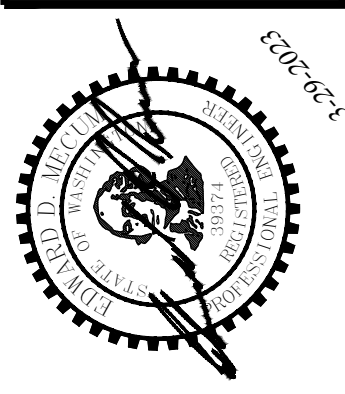
OWNER: PAUL BOSVELD & LIN YUSHAN  
1421 36TH AVE S  
SEATTLE WA 98144  
(954) 918-6271

ARCHITECT: WITTMAN ESTES  
6007 12TH AVENUE SOUTH  
SEATTLE, WA 98108  
(206) 735-7170  
CONTACT: MATT WITTMAN

CIVIL ENGINEER: G2 CIVIL  
1700 NW GILMAN BLVD, SUITE 200  
ISSAQUAH, WA 98027  
(425) 821-5038  
CONTACT: EDWARD MECUM, PE

SURVEYOR: ENCOMPASS ENGINEERING & SURVEYING  
165 NE JUNIPER STREET, SUITE 201  
ISSAQUAH, WA 98027  
(425) 392-0250  
CONTACT: STEVEN D. McCASKEY, PLS

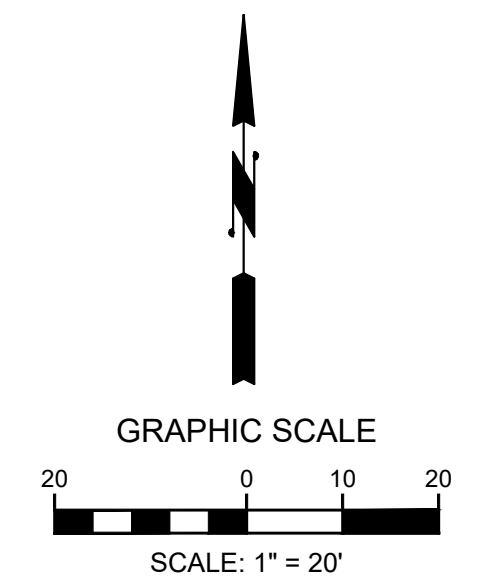
GEOTECHNICAL ENGINEER: GEO GROUP NORTHWEST, INC.  
13705 BEL-RED ROAD  
BELLEVUE, WA 98005  
(425) 649-8757  
CONTACT: WILLIAM CHANG, PE



DATE	NOTES
9-2-21	SUBMITTED TO CLIENT
10-14-21	ADDED TESC/SUBMITTED TO CLIENT
3-31-22	REVISED PER CITY COMMENTS
6-1-22	REVISED PER CITY COMMENTS
8-25-22	REVISED PER CITY COMMENTS
3-29-23	REVISED PER ARCHITECT

1700 NW GILMAN BLVD, STE 200  
ISSAQUAH, WA 98027  
PHONE: (425) 821-5038

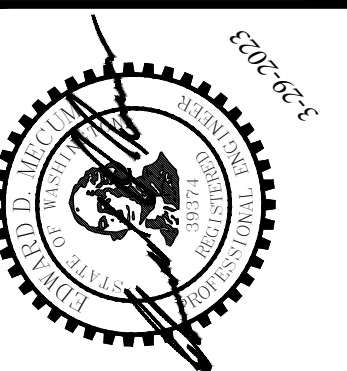
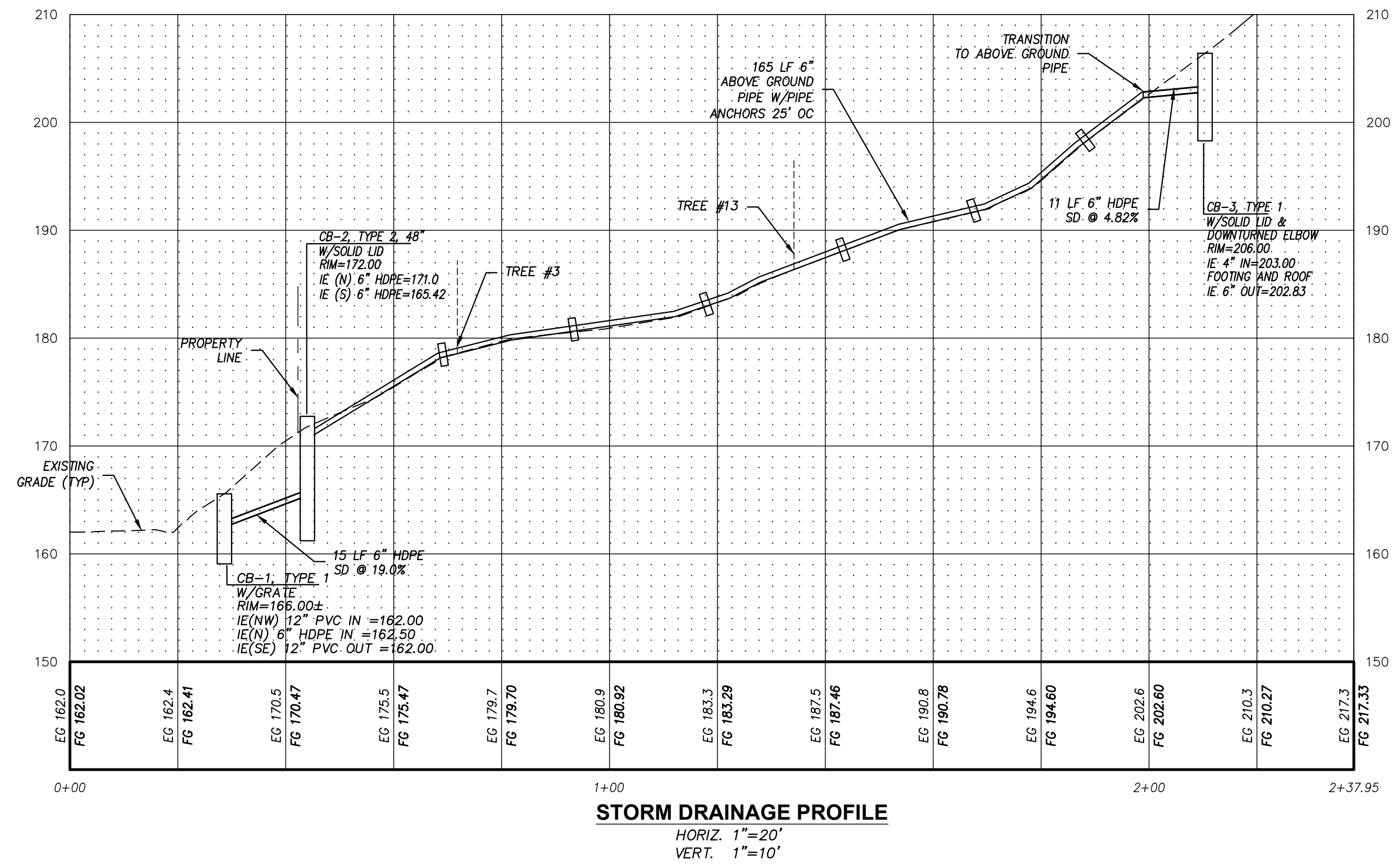
TREE RETENTION & TESC PLAN  
38XX WEST MERCER WAY  
MERCER ISLAND, WA 98040  
PAUL BOSVELD  
1421 36TH AVE S  
SEATTLE, WA 98144  
(954) 918-6271



SHEET  
C2.0

JOB No.

IN SE 1/4 OF THE SW 1/4 OF SECTION 12, T24N, R4E, W.M.



DATE	CHKD BY	NOTES
2-19-21	NEM	SUBMITTED TO CLIENT
9-2-21	NEM	REVISED PER CITY COMMENTS
10-14-21	JAT	ADDED TESC/SUBMITTED TO CLIENT
3-31-22	NEM	REVISED PER CITY COMMENTS
6-1-22	NM	REVISED PER CITY COMMENTS
8-25-22	NEM	REVISED PER CITY COMMENTS

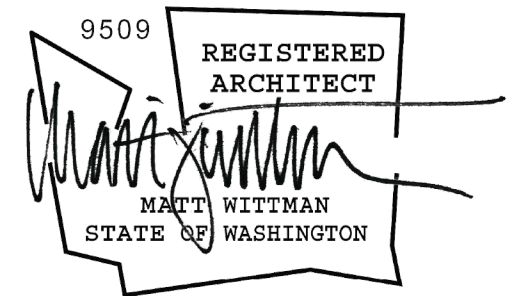
**G2 CIVIL**  
 1700 NW GILMAN BLVD, STE 200  
 ISSAQUAH, WA 98027  
 PHONE: (425) 821-5038

**STORM DRAINAGE PROFILE**  
 38XX WEST MERCER WAY  
 MERCER ISLAND, WA 98040  
 PAUL BUSVELD  
 LICENSED PROFESSIONAL ENGINEER  
 SEATTLE, WA 98114  
 (954) 918-6271



Know what's below.  
 Call before you dig.

SHEET  
**C3.0**



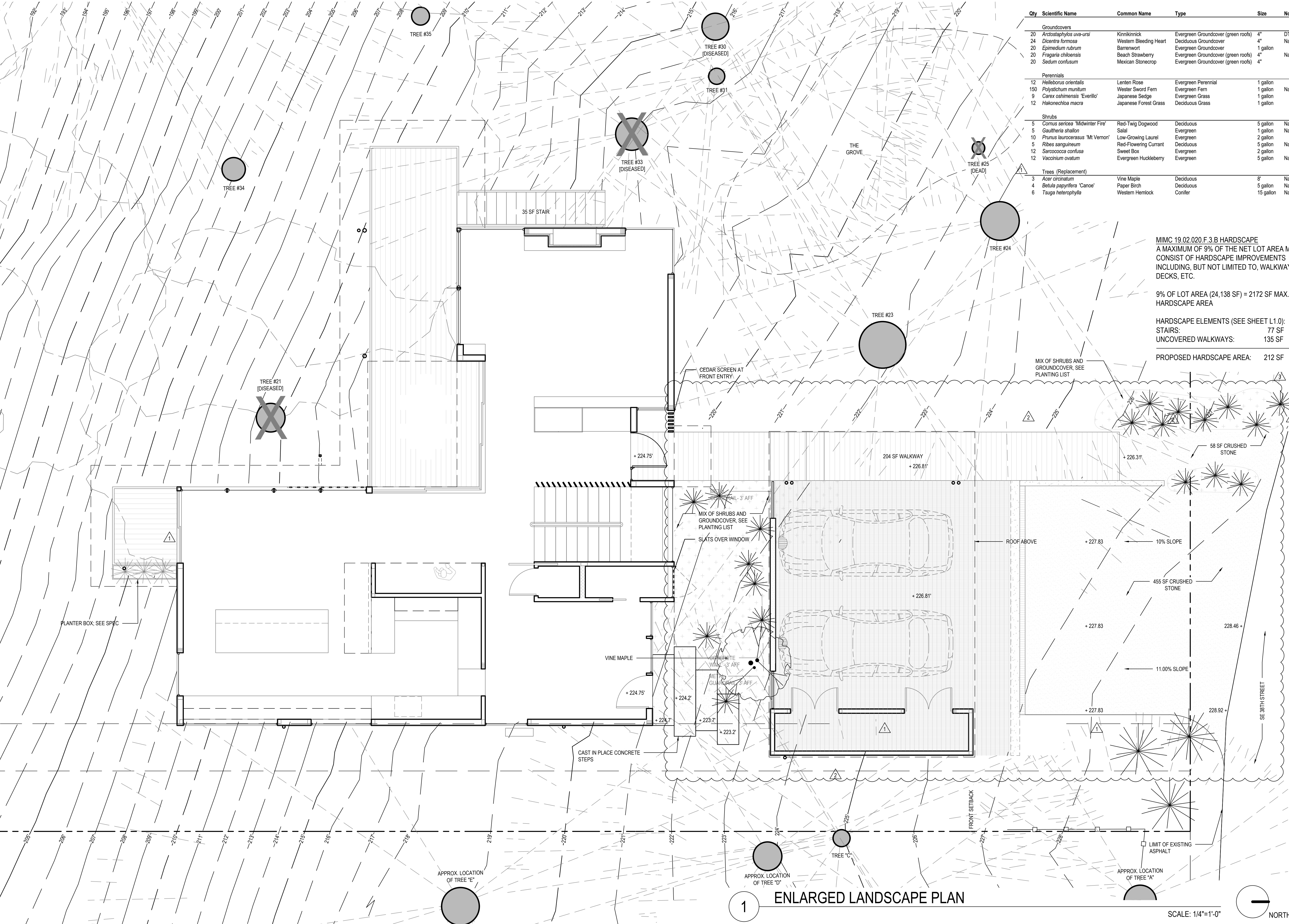
Qty	Scientific Name	Common Name	Type	Size	Notes
<b>Groundcovers</b>					
20	<i>Arctostaphylos uva-ursi</i>	Kinnikinnick	Evergreen Groundcover (green roofs)	4"	DT
24	<i>Dicentra formosa</i>	Western Bleeding Heart	Deciduous Groundcover	4"	Native
20	<i>Epimedium rubrum</i>	Barrenwort	Evergreen Groundcover	1 gallon	
20	<i>Fragaria chiloensis</i>	Beach Strawberry	Evergreen Groundcover (green roofs)	4"	Native
20	<i>Sedum confusum</i>	Mexican Stonecrop	Evergreen Groundcover (green roofs)	4"	
<b>Perennials</b>					
12	<i>Heleborus orientalis</i>	Lenten Rose	Evergreen Perennial	1 gallon	
150	<i>Polystichum munium</i>	Wester Sword Fern	Evergreen Fern	1 gallon	Native
9	<i>Carex oshimensis</i> 'Everillo'	Japanese Sedge	Evergreen Grass	1 gallon	
12	<i>Hakonechloa macra</i>	Japanese Forest Grass	Deciduous Grass	1 gallon	
<b>Shrubs</b>					
5	<i>Cornus sericea</i> 'Midwinter Fire'	Red-Twig Dogwood	Deciduous	5 gallon	Native
5	<i>Gaultheria shallon</i>	Salal	Evergreen	1 gallon	Native
10	<i>Prunus laurocerasus</i> 'Mt Vernon'	Low-Growing Laurel	Evergreen	2 gallon	
5	<i>Ribes sanguineum</i>	Red-Flowering Currant	Deciduous	5 gallon	Native
12	<i>Sarcococca confusa</i>	Sweet Box	Evergreen	2 gallon	
12	<i>Vaccinium ovatum</i>	Evergreen Huckleberry	Evergreen	5 gallon	Native
<b>Trees (Replacement)</b>					
3	<i>Acer circinatum</i>	Vine Maple	Deciduous	8"	Native
4	<i>Betula papyrifera</i> 'Canoe'	Paper Birch	Deciduous	5 gallon	Native
6	<i>Tsuga heterophylla</i>	Western Hemlock	Conifer	15 gallon	Native

MIMC 19.02.020.F.3.B HARDSCAPE  
A MAXIMUM OF 9% OF THE NET LOT AREA MAY  
CONSIST OF HARDSCAPE IMPROVEMENTS  
INCLUDING, BUT NOT LIMITED TO, WALKWAYS,  
DECKS, ETC.

9% OF LOT AREA (24,138 SF) = 2172 SF MAX.  
HARDSCAPE AREA

HARDSCAPE ELEMENTS (SEE SHEET L1.0):  
STAIRS: 77 SF  
UNCOVERED WALKWAYS: 135 SF

PROPOSED HARDSCAPE AREA: 212 SF



2014  
**Mercer Grove**  
7345 SE 38TH ST  
MERCER ISLAND, WA 98040  
TPN #3623500037  
CAR2 #CAO21-006  
BUILDING PERMIT #2110-193  
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

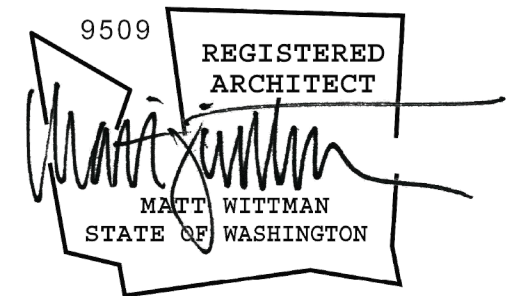
enlarged landscape plan

**L1.0**

**1 ENLARGED LANDSCAPE PLAN**

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





2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

average grade  
calculations

**A0.3**

AVERAGE BUILDING ELEVATION (MICC 19.02.020.E.4):

WEIGHTED MIDPOINT ELEVATIONS:

WALL A: 46.2' X 217.7' = 10,057.7  
WALL B: 22.2' X 207.1' = 4,597.6  
WALL C: 26.0' X 210.9' = 5,483.4  
WALL D: 24.0' X 214.5' = 5,148.0  
WALL E: 20.2' X 215.3' = 4,349.1  
WALL F: 46.2' X 220.0' = 10,164.0

(1) WEIGHTED SUM OF  
MIDPOINT ELEVATIONS = 39,799.8

WALL SEGMENT LENGTHS:

WALL A LENGTH = 46.2'  
WALL B LENGTH = 22.2'  
WALL C LENGTH = 26.0'  
WALL D LENGTH = 24.0'  
WALL E LENGTH = 20.2'  
WALL F LENGTH = 46.2'

(2) TOTAL WALL LENGTH  
OF WALL SEGMENTS = 184.8'

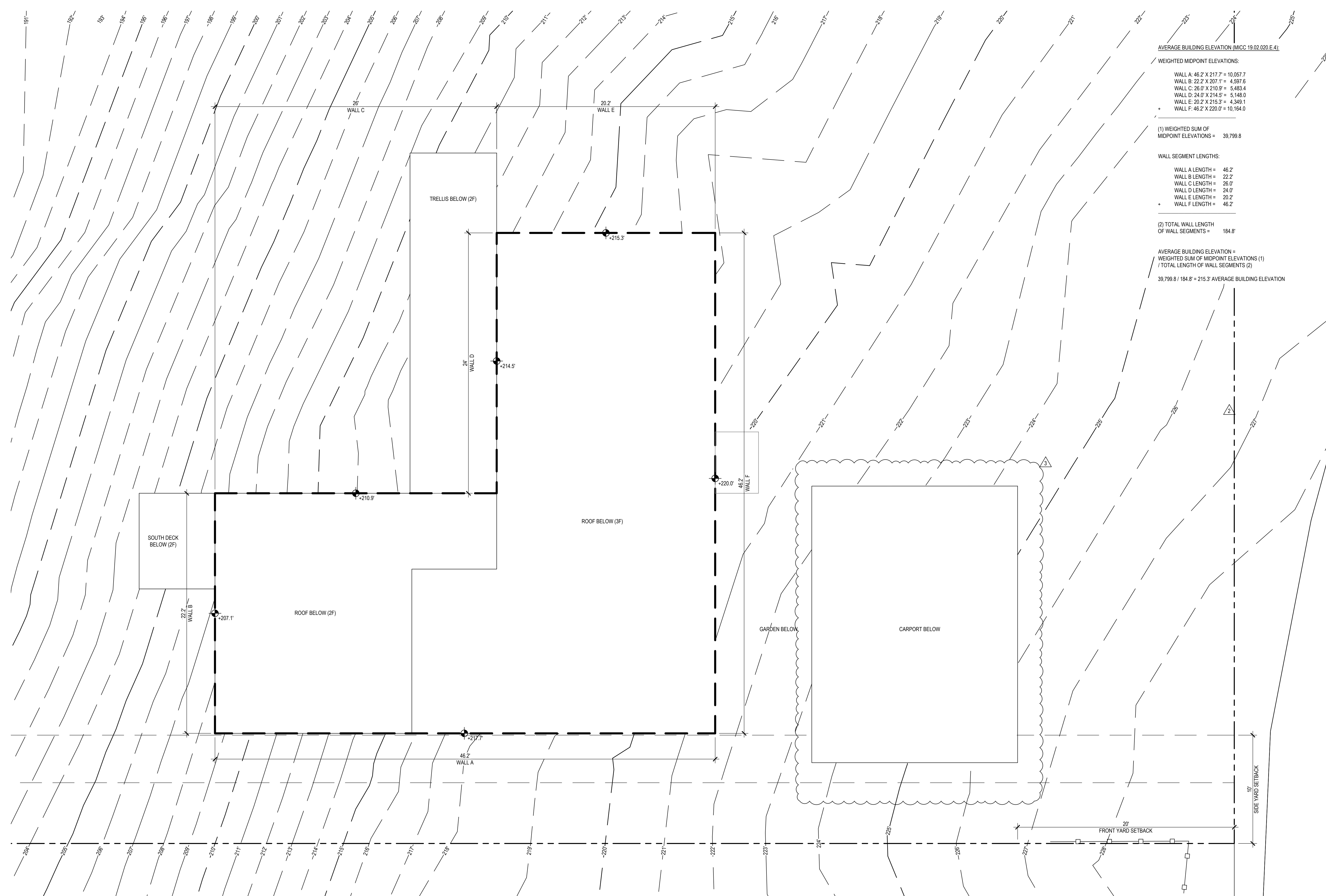
AVERAGE BUILDING ELEVATION =  
WEIGHTED SUM OF MIDPOINT ELEVATIONS (1)  
/ TOTAL LENGTH OF WALL SEGMENTS (2)

39,799.8 / 184.8' = 215.3' AVERAGE BUILDING ELEVATION

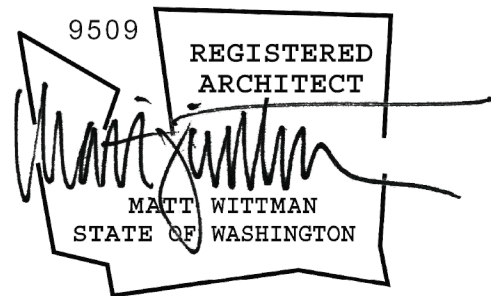
**1 AVERAGE GRADE CALCULATIONS**

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

NORTH







ENERGY CODE NOTES:

WSEC R406.3 ADDITIONAL ENERGY EFFICIENCY REQUIREMENTS  
EACH DWELLING UNIT IN A RESIDENTIAL BUILDING SHALL COMPLY WITH SUFFICIENT OPTIONS FROM TABLE R406.2 SO AS TO ACHIEVE THE FOLLOWING MINIMUM NUMBER OF ENERGY CREDITS:

MEDIUM DWELLING UNIT (1500-5000 SF CONDITIONED FLOOR AREA)  
= 6.0 ENERGY CREDITS MINIMUM

PROJECT SHALL INCLUDE THE FOLLOWING ENERGY CREDIT OPTIONS:

**R406.2 FUEL NORMALIZATION CREDITS, SYSTEM TYPE 4:** HEATING SYSTEM BASED ON ELECTRIC RESISTANCE WITH A DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM IN ACCORDANCE WITH SECTION R403.7.1 INCLUDING THE EXCEPTION. (0.5 CREDITS)

**OPTION 1.3 EFFICIENT BUILDING ENVELOPE:** PRESCRIPTIVE COMPLIANCE IS BASED ON TABLE R402.1.1 WITH THE FOLLOWING MODIFICATIONS:

- VERTICAL FENESTRATION U = 0.28
- FLOOR R-38
- SLAB ON GRADE R-10 PERIMETER AND UNDER ENTIRE SLAB
- BELOW GRADE SLAB R-10 PERIMETER AND UNDER ENTIRE SLAB

(0.5 CREDITS)

**OPTION 2.2 AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION:** COMPLIANCE BASED ON SECTION R402.4.1.2: REDUCE THE TESTED AIR LEAKAGE TO 2.0 AIR CHANGES PER HOUR MAXIMUM AT 50 PASCALS.

ALL WHOLE HOUSE VENTILATION REQUIREMENTS AS DETERMINED BY IRC M1507.3 OR IMC 403.8 SHALL BE MET WITH A HEAT RECOVERY VENTILATION SYSTEM WITH MINIMUM SENSIBLE HEAT RECOVERY EFFICIENCY OF 0.65. (1.0 CREDITS)

**OPTION 3.4 HIGH EFFICIENCY HVAC EQUIPMENT:** DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM, ZONAL CONTROL: IN HOMES WHERE THE PRIMARY SPACE HEATING SYSTEM IS ZONAL ELECTRIC HEATING, A DUCTLESS MINI-SPLIT HEAT PUMP SYSTEM WITH A MINIMUM HSPF OF 10.0 SHALL BE INSTALLED AND PROVIDE HEATING TO THE LARGEST ZONE OF THE HOUSING UNIT. (1.5 CREDITS)

**OPTION 5.5 EFFICIENT WATER HEATING:** THE WATER HEATING SYSTEM SHALL BE AN ELECTRIC HEAT PUMP WATER HEATER THAT MEETS THE STANDARDS FOR TIER III OF NEEA'S ADVANCED WATER HEATING SPECIFICATION. (2.0 CREDITS)

**OPTION 7 APPLIANCE PACKAGE:** ALL OF THE FOLLOWING APPLIANCES SHALL BE NEW AND INSTALLED IN THE DWELLING UNIT AND SHALL MEET THE FOLLOWING STANDARDS:

- DISHWASHER – ENERGY STAR RATED
- REFRIGERATOR (IF PROVIDED) – ENERGY STAR RATED
- WASHING MACHINE – ENERGY STAR RATED
- DRYER – ENERGY STAR RATED, VENTLESS DRYER WITH A MINIMUM CEF RATING OF 5.2

(0.5 CREDITS)

GENERAL PLAN NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR ROOF PENETRATIONS TO BE WATERPROOFED PER APPROVED DETAIL AT ALL NEW WORK.
2. CODE REQUIRED CLEARANCES FOR ALL NEW WORK TO BE VERIFIED IN FIELD BY CONTRACTOR.
3. **IBC 915.2.1 CARBON MONOXIDE DETECTION:**  
PROVIDE CARBON MONOXIDE ALARM OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOM.
4. EACH DWELLING UNIT IS REQUIRED TO BE PROVIDED WITH AT LEAST ONE PROGRAMMABLE THERMOSTAT FOR THE REGULATION OF TEMPERATURE.
5. **IRC R314.3 SMOKE DETECTORS:**  
A SMOKE DETECTOR SHALL BE INSTALLED IN EACH HABITABLE ROOM, AND OUTSIDE EACH SLEEPING ROOM IN THE IMMEDIATE VICINITY OF THE BEDROOM. A SMOKE DETECTOR SHALL BE CENTRALLY LOCATED ON EACH FLOOR. AN ADDITIONAL SMOKE DETECTOR SHALL BE INSTALLED IN EACH LOCATION WHERE THERE IS A CEILING HEIGHT CHANGE GREATER THAN 24". SMOKE DETECTORS TO BE 110V HARDWIRED, INTERCONNECTED, WITH BATTERY BACKUP PER IRC R314.  
  

SD	SD/CM
☉ SMOKE DETECTOR	☉ SMOKE AND CARBON MONOXIDE DETECTOR
6. **VENTILATION SCHEDULE:**  
MECHANICAL VENTILATING SYSTEMS IN BATHROOMS, LAUNDRY ROOMS, AND SIMILAR ROOMS SHOULD EXHAUST DIRECTLY TO THE OUTSIDE. THE POINT OF DISCHARGE OF EXHAUST AIR SHALL BE AT LEAST THREE FEET AWAY FROM ANY OPENING INTO THE BUILDING, PER WAC 51-51-1507 M1507.2.  
  

☉, 100CFM ON SWITCH	☉, 50CFM ON SWITCH	☉, 100CFM RUN INTERMITTENTLY PER M1507.3.2.5
---------------------	--------------------	--
7. **VENTILATION:**  
VENTILATION AIR IS PROVIDED TO EACH HABITABLE SPACE BY USE OF CONTINUOUS DUCTLESS VENTS WITH REGENERATIVE HEAT RECOVERY CORES.
8. **VENTILATION NOTES:**  
SEE ROOF ASSEMBLY DETAILS FOR MORE INFORMATION.
9. AIR LEAKAGE SHALL BE TESTED PER WSEC R402.4.1 AND R402.4.1.1. TESTING SHALL BE CONDUCTED WITH A BLOWER DOOR AT A PRESSURE OF 0.2 INCHES W.G. (50 PASCALS). PROVIDE A WRITTEN REPORT OF THE TEST RESULTS, SIGNED BY THE TESTING PARTY TO THE BUILDING INSPECTOR, PRIOR TO APPROVED FINAL INSPECTION PER WSEC R402.4.1.2.
10. A MINIMUM OF 75% OF PERMANENTLY INSTALLED LAMPS IN LIGHTING FIXTURES SHALL BE HIGH-EFFICIENCY LAMPS.
11. **FIRE SPRINKLERS:**  
PROVIDE NFPA 13R INTERCONNECTED SPRINKLERS WITH EXTERIOR BELL THAT SHALL BE ACTIVATED UPON WATER FLOW. INTERIOR SMOKE DETECTORS OR SOUNDERS MUST ALSO BE INTERCONNECTED WITH THE WATER FLOW SWITCH.
12. NFPA 72 CHAPTER 29 MONITORED FIRE ALARM SYSTEM. THIS SYSTEM SHALL BE LOW VOLTAGE.

2014

# Mercer Grove

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**

ISSUE DATE: 3/30/2023

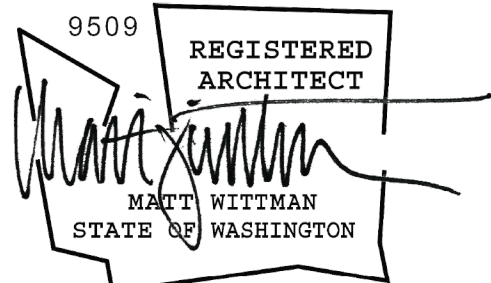
REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

general plan notes

# A0.9

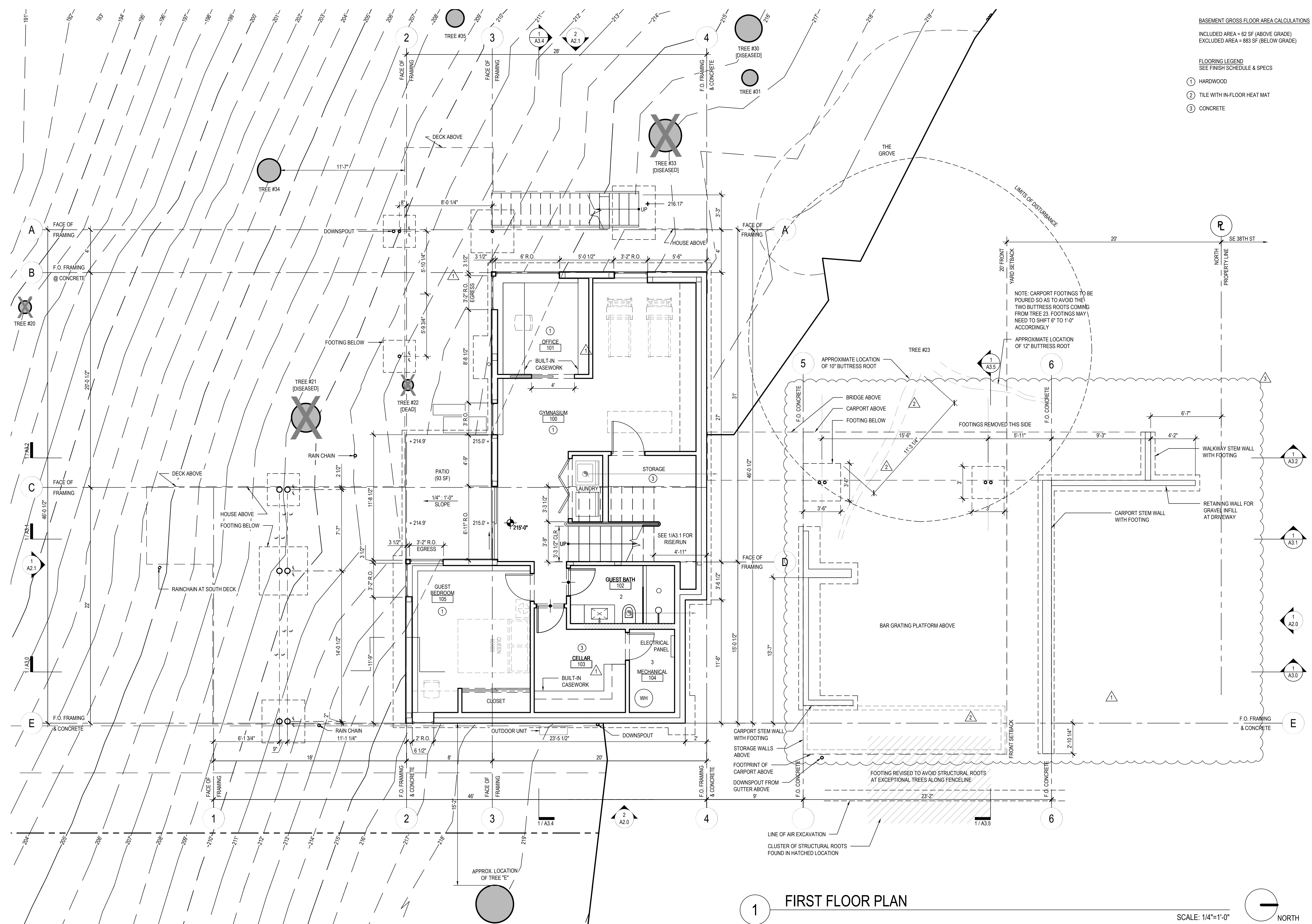


**BASEMENT GROSS FLOOR AREA CALCULATIONS**

INCLUDED AREA = 62 SF (ABOVE GRADE)  
EXCLUDED AREA = 883 SF (BELOW GRADE)

**FLOORING LEGEND**  
SEE FINISH SCHEDULE & SPECS

- ① HARDWOOD
- ② TILE WITH IN-FLOOR HEAT MAT
- ③ CONCRETE



2014  
**Mercer Grove**  
7345 SE 38TH ST  
MERCER ISLAND, WA 98040  
TPN #3623500037  
CAR2 #CAO21-006  
BUILDING PERMIT #2110-193  
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

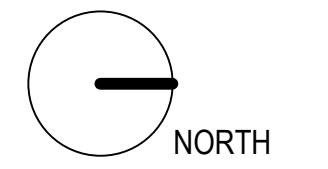
**REVISIONS**

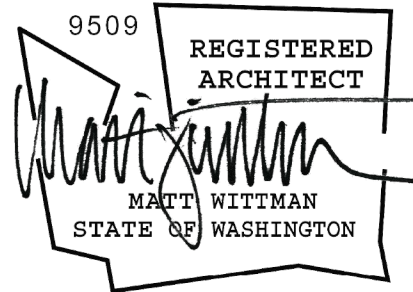
NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

1 FIRST FLOOR PLAN

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





2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

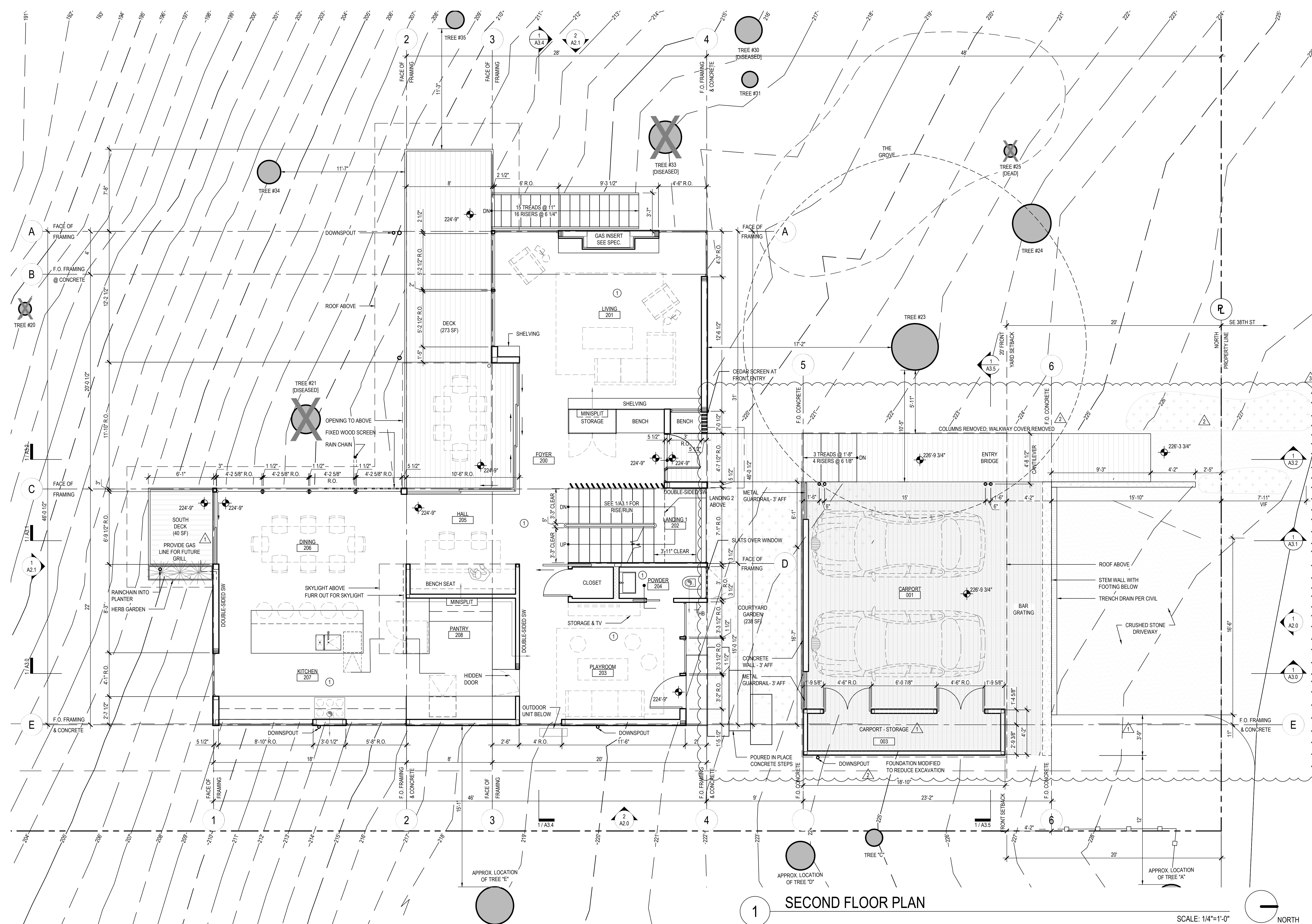
NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

floor plans

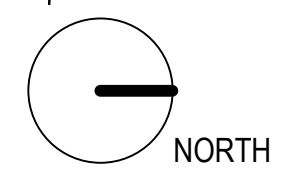
**A1.1**

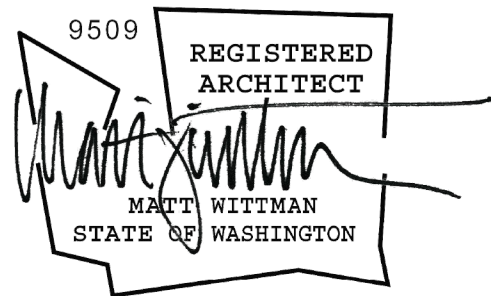
COPYRIGHT 2023 WITTMAN ESTES



**SECOND FLOOR PLAN**

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





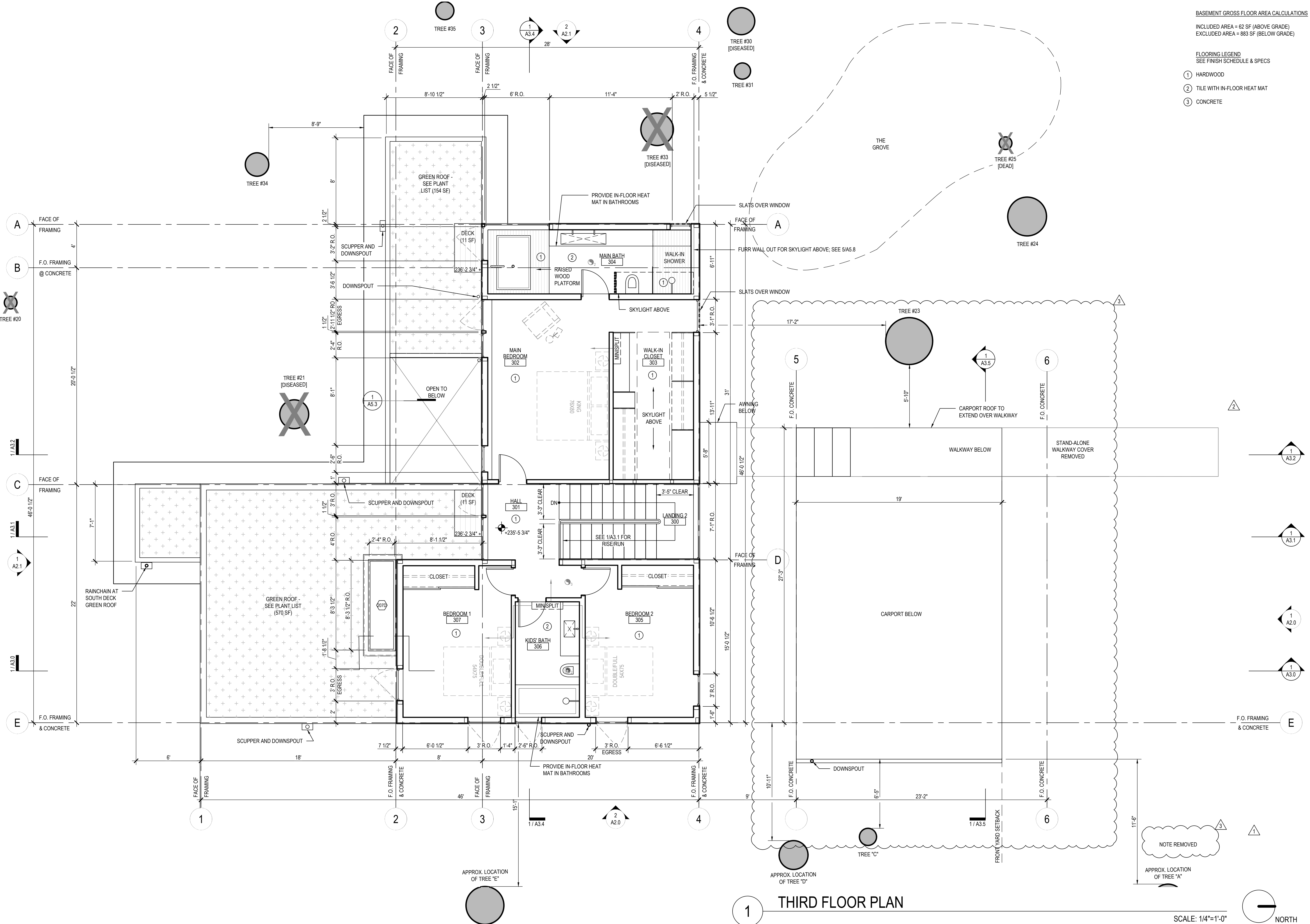
**BASEMENT GROSS FLOOR AREA CALCULATIONS**

INCLUDED AREA = 62 SF (ABOVE GRADE)  
EXCLUDED AREA = 883 SF (BELOW GRADE)

**FLOORING LEGEND**

SEE FINISH SCHEDULE & SPECS

- ① HARDWOOD
- ② TILE WITH IN-FLOOR HEAT MAT
- ③ CONCRETE



2014  
**Mercer Grove**  
7345 SE 38TH ST  
MERCER ISLAND, WA 98040  
TPN #3623500037  
CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

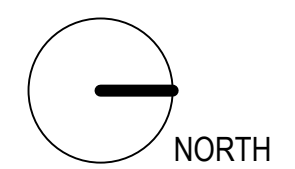
DRAWN BY: HC  
CHECKED BY: MW

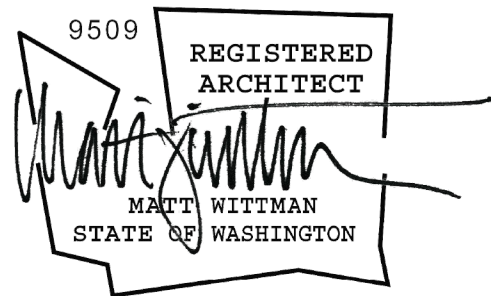
floor plans

**A1.2**

**THIRD FLOOR PLAN**

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





2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

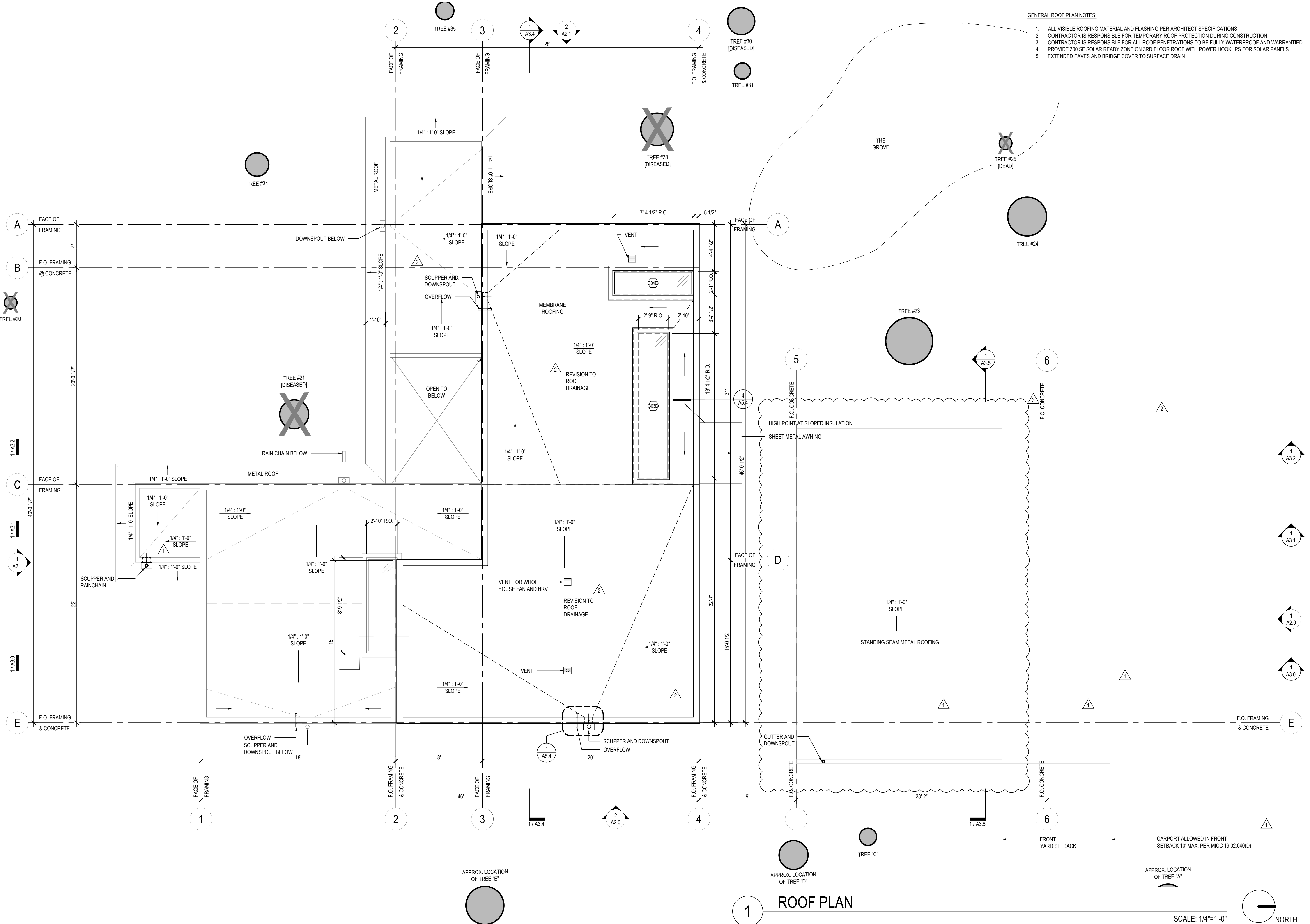
DRAWN BY: HC  
CHECKED BY: MW

roof plan

**A1.3**

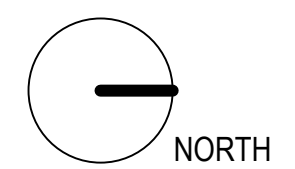
GENERAL ROOF PLAN NOTES:

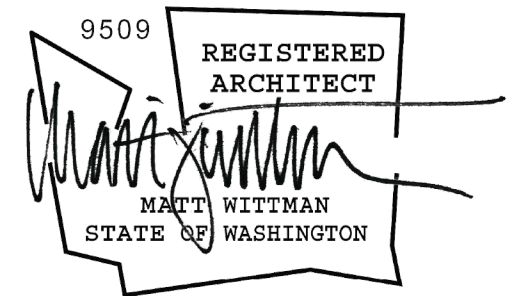
1. ALL VISIBLE ROOFING MATERIAL AND FLASHING PER ARCHITECT SPECIFICATIONS
2. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY ROOF PROTECTION DURING CONSTRUCTION
3. CONTRACTOR IS RESPONSIBLE FOR ALL ROOF PENETRATIONS TO BE FULLY WATERPROOF AND WARRANTED
4. PROVIDE 300 SF SOLAR READY ZONE ON 3RD FLOOR ROOF WITH POWER HOOKUPS FOR SOLAR PANELS.
5. EXTENDED EAVES AND BRIDGE COVER TO SURFACE DRAIN



**1 ROOF PLAN**

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





**BASEMENT GROSS FLOOR AREA CALCULATIONS**

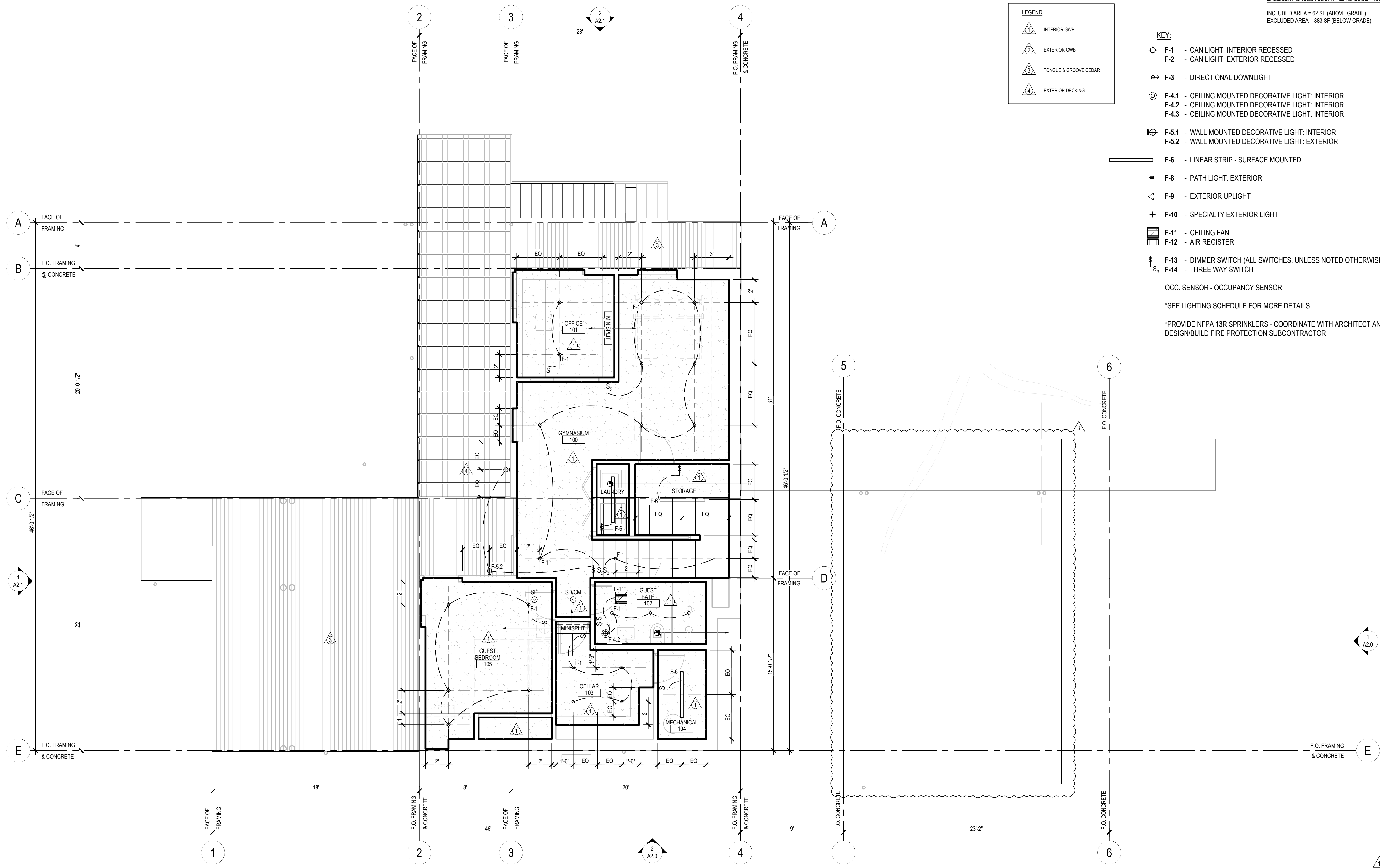
INCLUDED AREA = 62 SF (ABOVE GRADE)  
EXCLUDED AREA = 883 SF (BELOW GRADE)

**LEGEND**

- INTERIOR GWB
- EXTERIOR GWB
- TONGUE & GROOVE CEDAR
- EXTERIOR DECKING

**KEY:**

- F-1 - CAN LIGHT: INTERIOR RECESSED
  - F-2 - CAN LIGHT: EXTERIOR RECESSED
  - F-3 - DIRECTIONAL DOWNLIGHT
  - F-4.1 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
  - F-4.2 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
  - F-4.3 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
  - F-5.1 - WALL MOUNTED DECORATIVE LIGHT: INTERIOR
  - F-5.2 - WALL MOUNTED DECORATIVE LIGHT: EXTERIOR
  - F-6 - LINEAR STRIP - SURFACE MOUNTED
  - F-8 - PATH LIGHT: EXTERIOR
  - F-9 - EXTERIOR UPLIGHT
  - F-10 - SPECIALTY EXTERIOR LIGHT
  - F-11 - CEILING FAN
  - F-12 - AIR REGISTER
  - F-13 - DIMMER SWITCH (ALL SWITCHES, UNLESS NOTED OTHERWISE)
  - F-14 - THREE WAY SWITCH
- OCC. SENSOR - OCCUPANCY SENSOR
- \*SEE LIGHTING SCHEDULE FOR MORE DETAILS
- \*PROVIDE NFPA 13R SPRINKLERS - COORDINATE WITH ARCHITECT AND DESIGN/BUILD FIRE PROTECTION SUBCONTRACTOR



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

**REVISIONS**

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

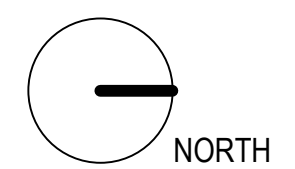
DRAWN BY: HC  
CHECKED BY: MW

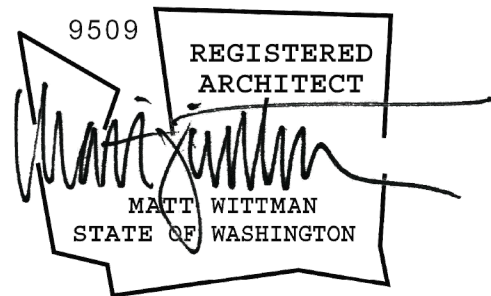
reflected ceiling plans

**A1.4**

**1 FIRST FLOOR - REFLECTED CEILING PLAN**

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





2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

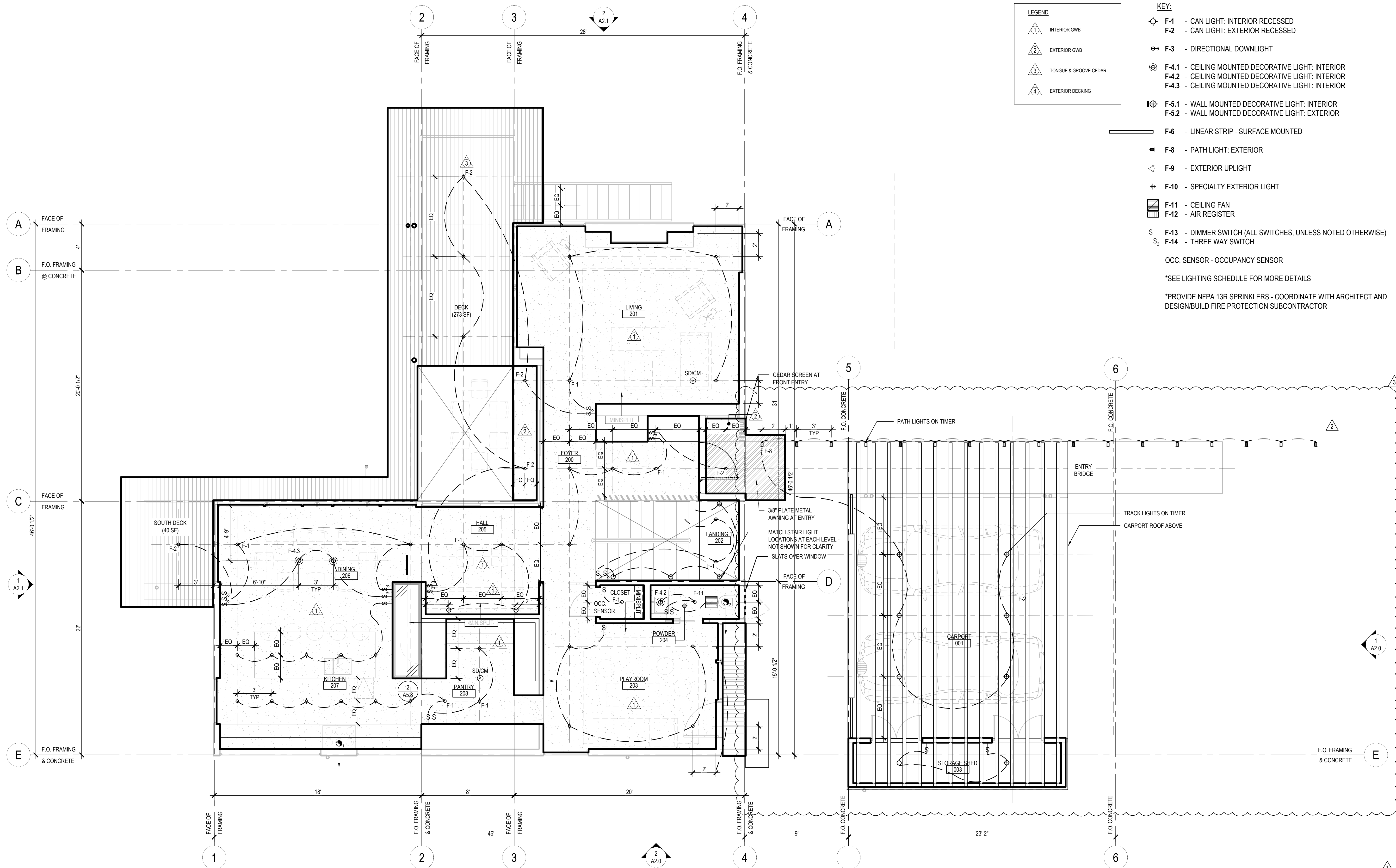
NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

reflected ceiling plans

**A1.5**

COPYRIGHT 2023 WITTMAN ESTES



**LEGEND**

- INTERIOR GWB
- EXTERIOR GWB
- TONGUE & GROOVE CEDAR
- EXTERIOR DECKING

**KEY:**

- F-1 - CAN LIGHT: INTERIOR RECESSED
- F-2 - CAN LIGHT: EXTERIOR RECESSED
- F-3 - DIRECTIONAL DOWNLIGHT
- F-4.1 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
- F-4.2 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
- F-4.3 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
- F-5.1 - WALL MOUNTED DECORATIVE LIGHT: INTERIOR
- F-5.2 - WALL MOUNTED DECORATIVE LIGHT: EXTERIOR
- F-6 - LINEAR STRIP - SURFACE MOUNTED
- F-8 - PATH LIGHT: EXTERIOR
- F-9 - EXTERIOR UPLIGHT
- F-10 - SPECIALTY EXTERIOR LIGHT
- F-11 - CEILING FAN
- F-12 - AIR REGISTER
- F-13 - DIMMER SWITCH (ALL SWITCHES, UNLESS NOTED OTHERWISE)
- F-14 - THREE WAY SWITCH

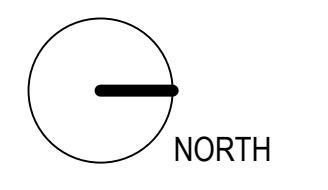
OCC. SENSOR - OCCUPANCY SENSOR

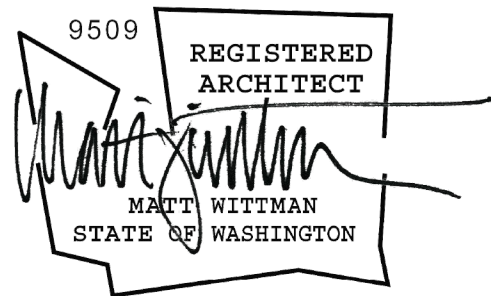
\*SEE LIGHTING SCHEDULE FOR MORE DETAILS

\*PROVIDE NFPA 13R SPRINKLERS - COORDINATE WITH ARCHITECT AND DESIGN/BUILD FIRE PROTECTION SUBCONTRACTOR

**1 SECOND FLOOR - REFLECTED CEILING PLAN**

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





2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

reflected ceiling plans

**A1.6**

COPYRIGHT 2023 WITTMAN ESTES

**LEGEND**

- INTERIOR GWB
- EXTERIOR GWB
- TONGUE & GROOVE CEDAR
- EXTERIOR DECKING

**KEY:**

- F-1 - CAN LIGHT: INTERIOR RECESSED
- F-2 - CAN LIGHT: EXTERIOR RECESSED

- F-3 - DIRECTIONAL DOWNLIGHT

- F-4.1 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
- F-4.2 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR
- F-4.3 - CEILING MOUNTED DECORATIVE LIGHT: INTERIOR

- F-5.1 - WALL MOUNTED DECORATIVE LIGHT: INTERIOR
- F-5.2 - WALL MOUNTED DECORATIVE LIGHT: EXTERIOR

- F-6 - LINEAR STRIP - SURFACE MOUNTED

- F-8 - PATH LIGHT: EXTERIOR

- F-9 - EXTERIOR UPLIGHT

- F-10 - SPECIALTY EXTERIOR LIGHT

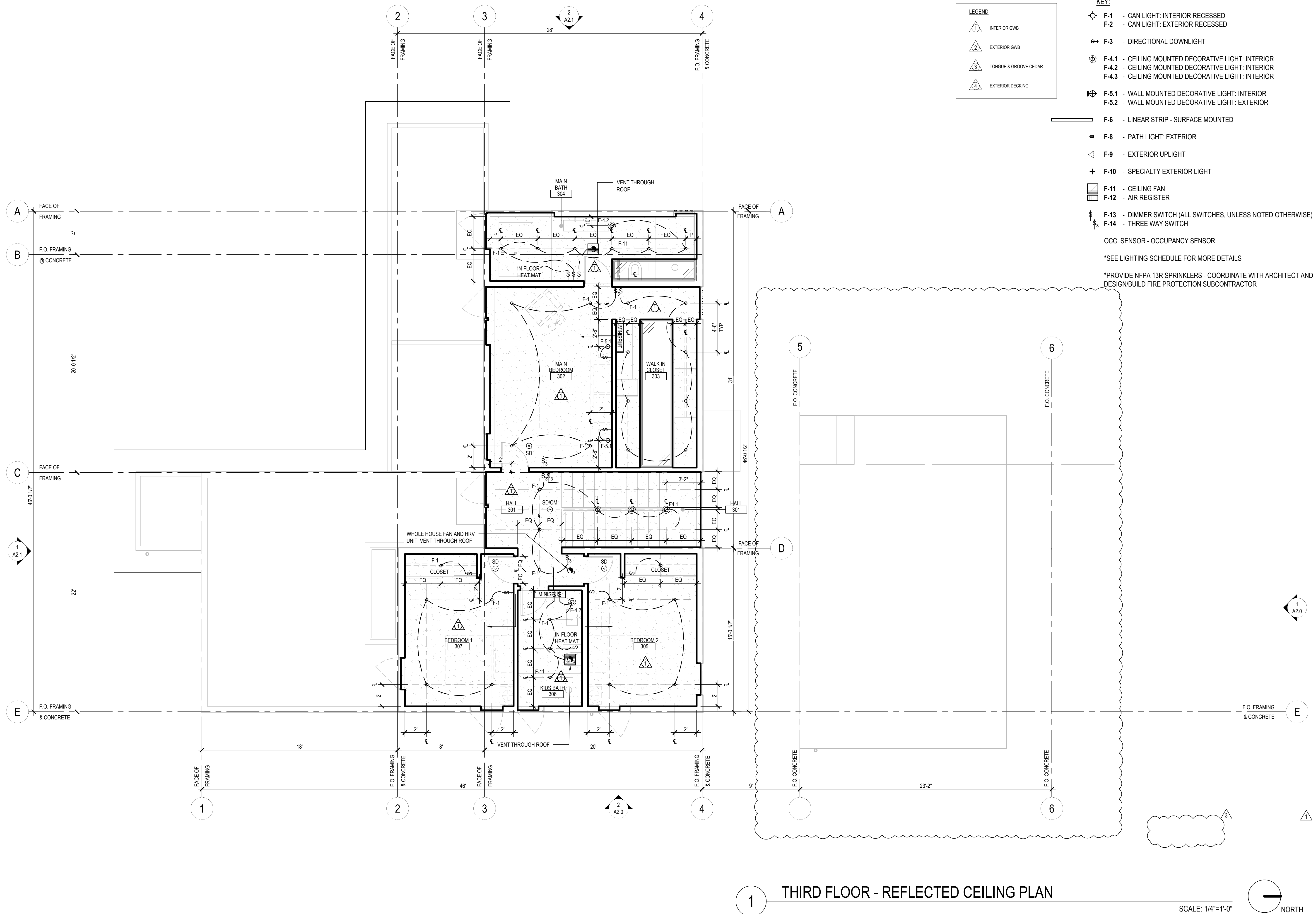
- F-11 - CEILING FAN
- F-12 - AIR REGISTER

- F-13 - DIMMER SWITCH (ALL SWITCHES, UNLESS NOTED OTHERWISE)
- F-14 - THREE WAY SWITCH

OCC. SENSOR - OCCUPANCY SENSOR

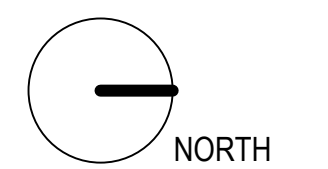
\*SEE LIGHTING SCHEDULE FOR MORE DETAILS

\*PROVIDE NFPA 13R SPRINKLERS - COORDINATE WITH ARCHITECT AND DESIGN/BUILD FIRE PROTECTION SUBCONTRACTOR

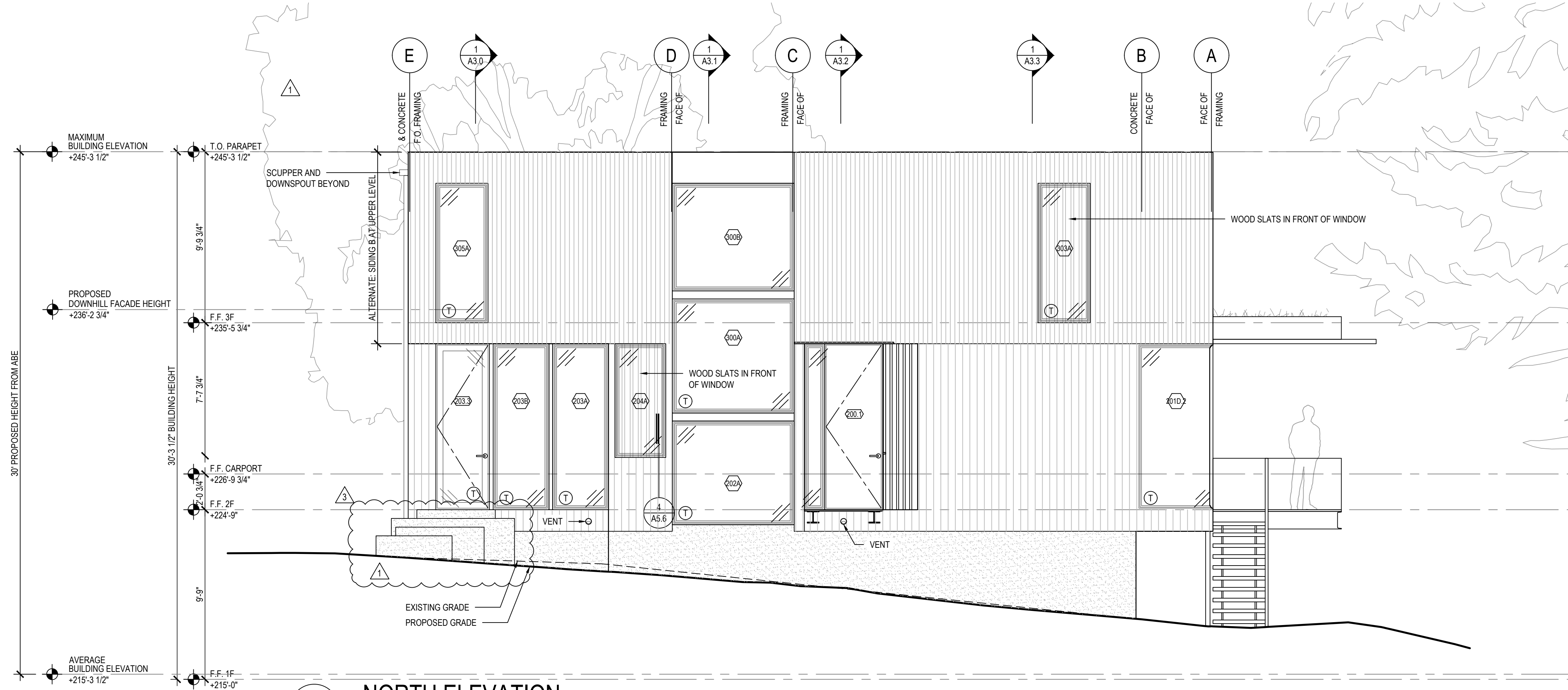
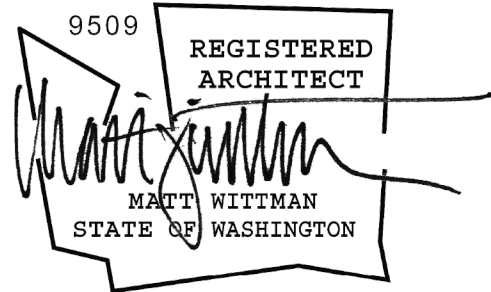


**1 THIRD FLOOR - REFLECTED CEILING PLAN**

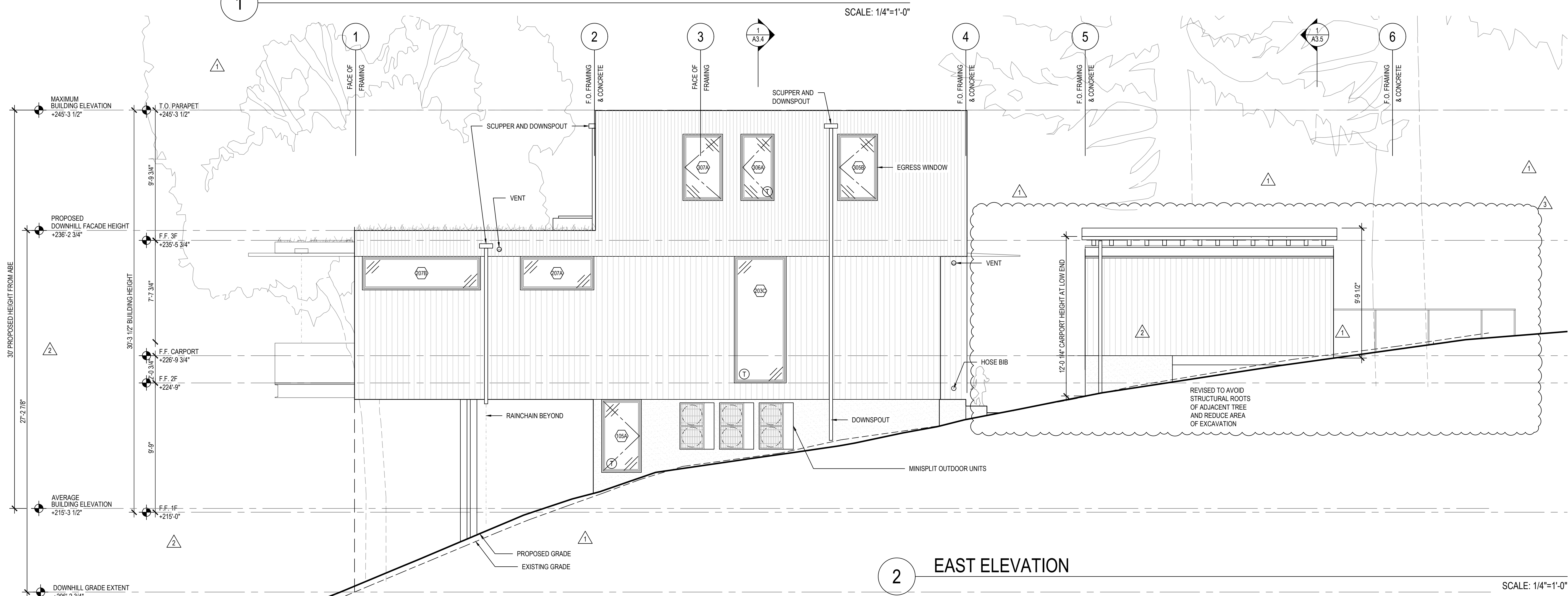
SCALE: 1/4"=1'-0"







**1 NORTH ELEVATION**



**2 EAST ELEVATION**

2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

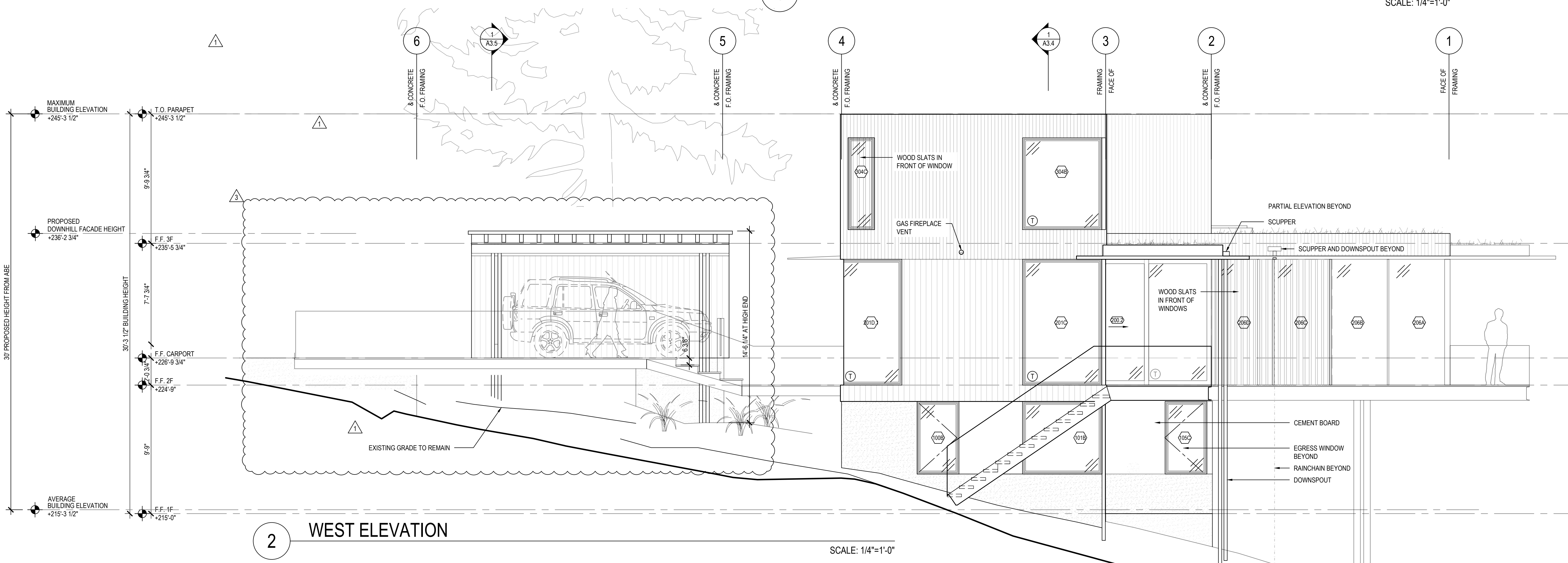
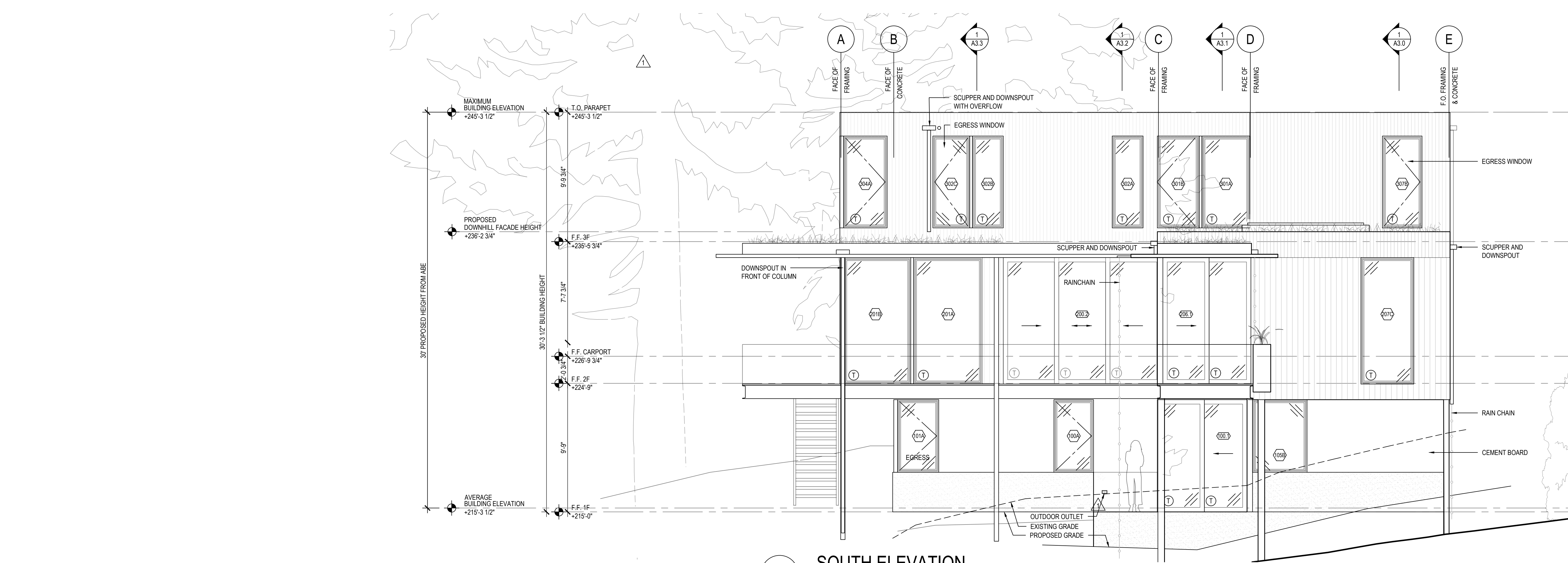
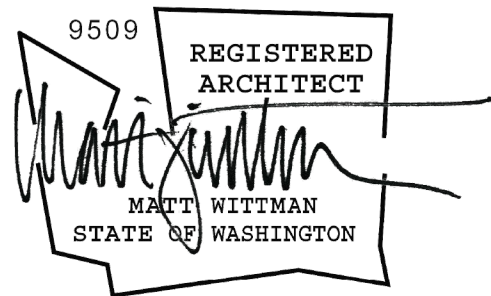
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

exterior elevations

**A2.0**



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

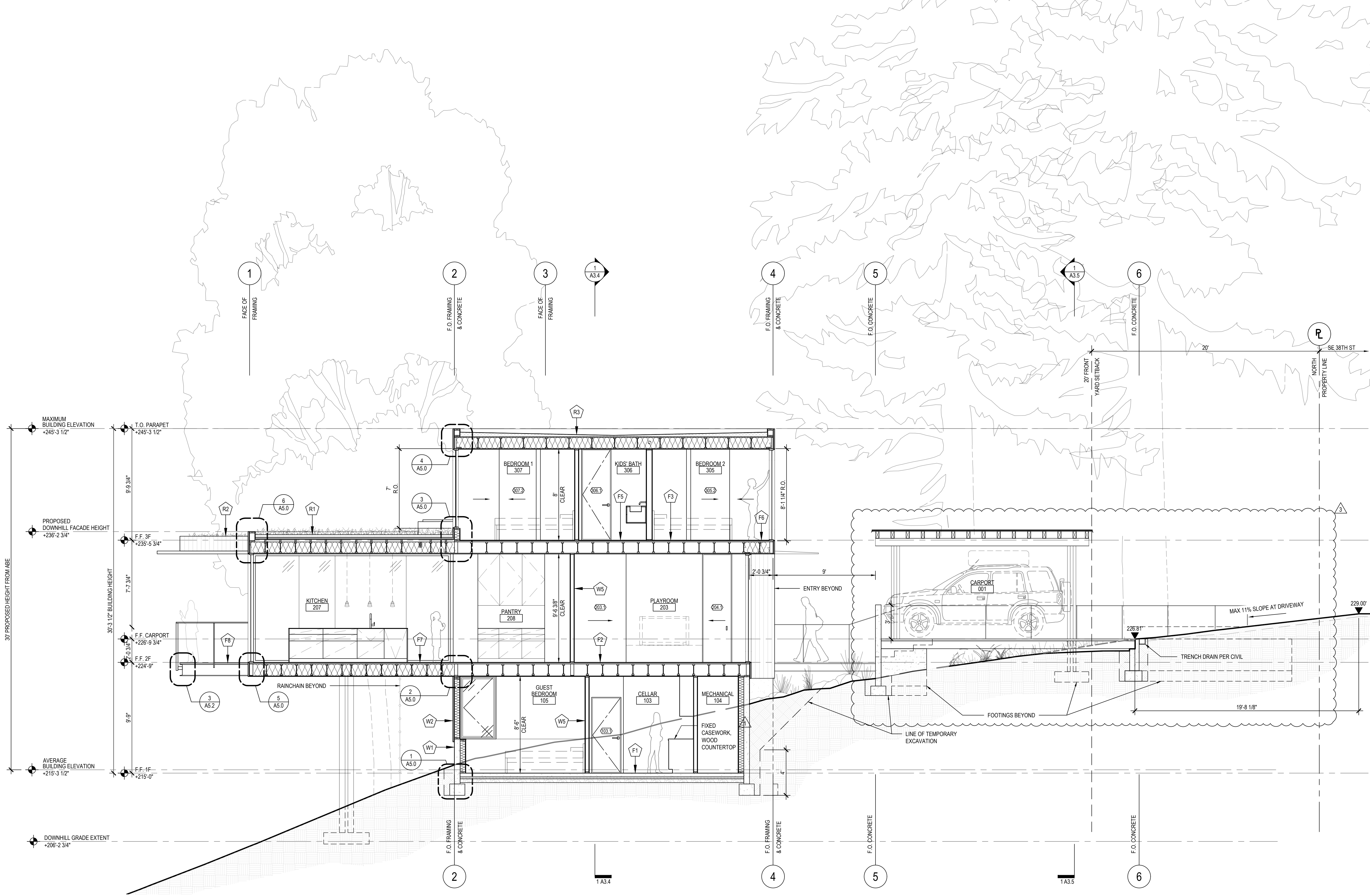
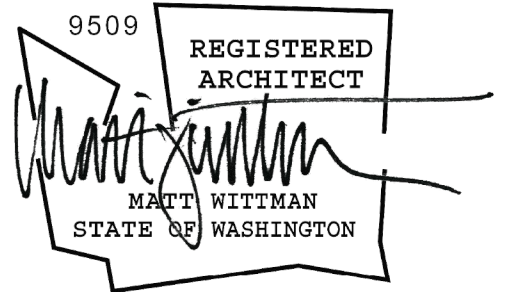
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

exterior elevations

**A2.1**



2014  
**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

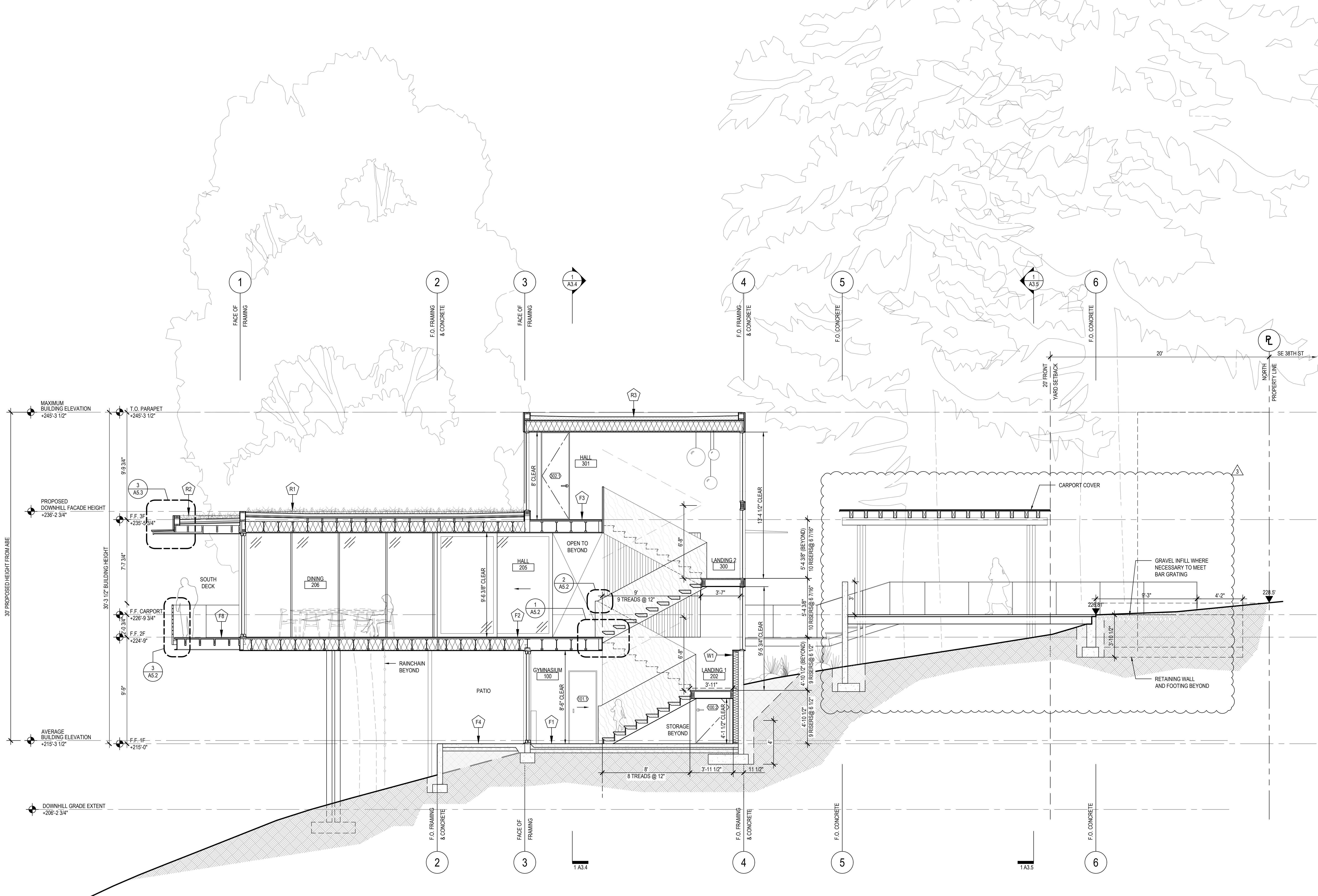
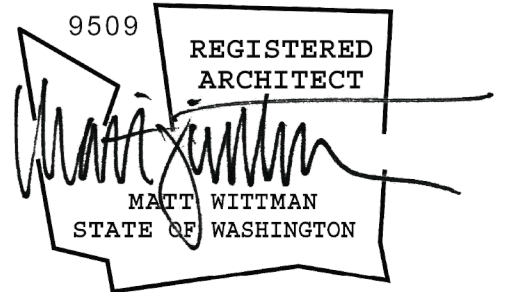
DRAWN BY: HC  
CHECKED BY: MW

sections

**A3.0**

1 NORTH-SOUTH SECTION 1 - LOOKING WEST

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



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

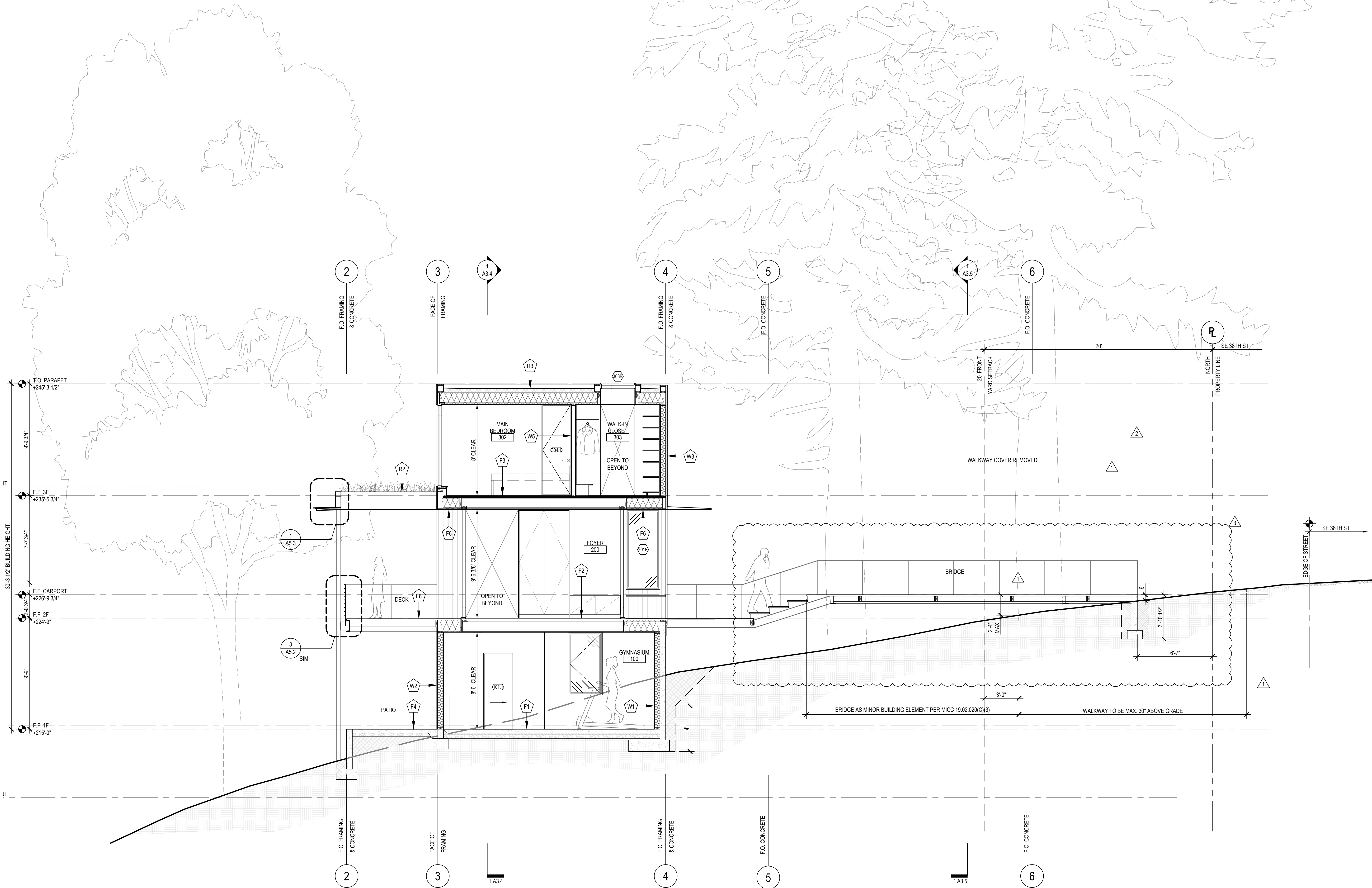
DRAWN BY: HC  
CHECKED BY: MW

sections

**A3.1**

**1 NORTH-SOUTH SECTION 2 - LOOKING WEST**

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



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

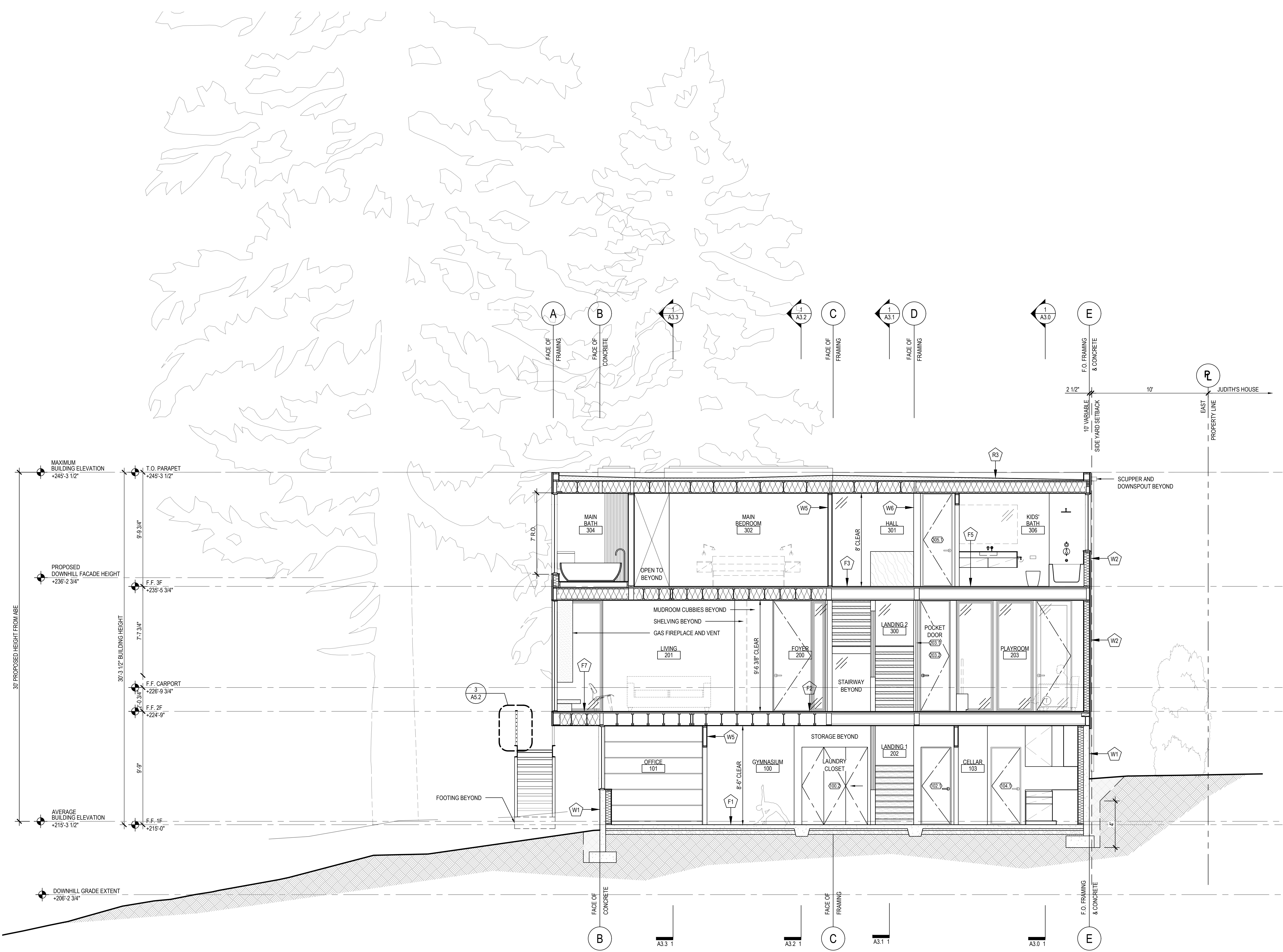
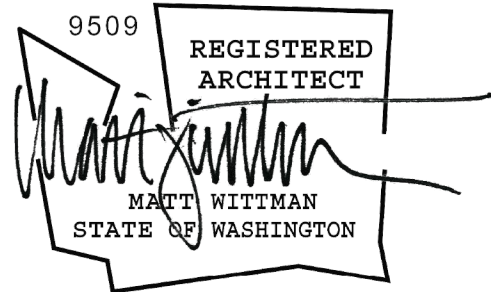
DRAWN BY: HC  
CHECKED BY: MW

sections

**A3.2**

1 NORTH-SOUTH SECTION 3 - LOOKING WEST

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



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

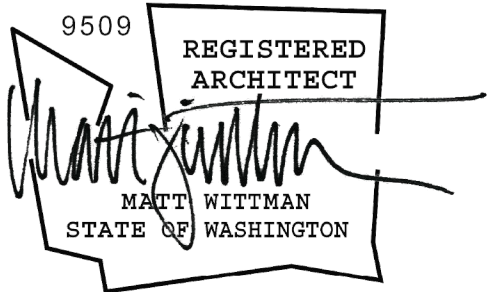
DRAWN BY: HC  
CHECKED BY: MW

sections

**A3.4**

**1 EAST-WEST SECTION 1 - LOOKING NORTH**

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



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

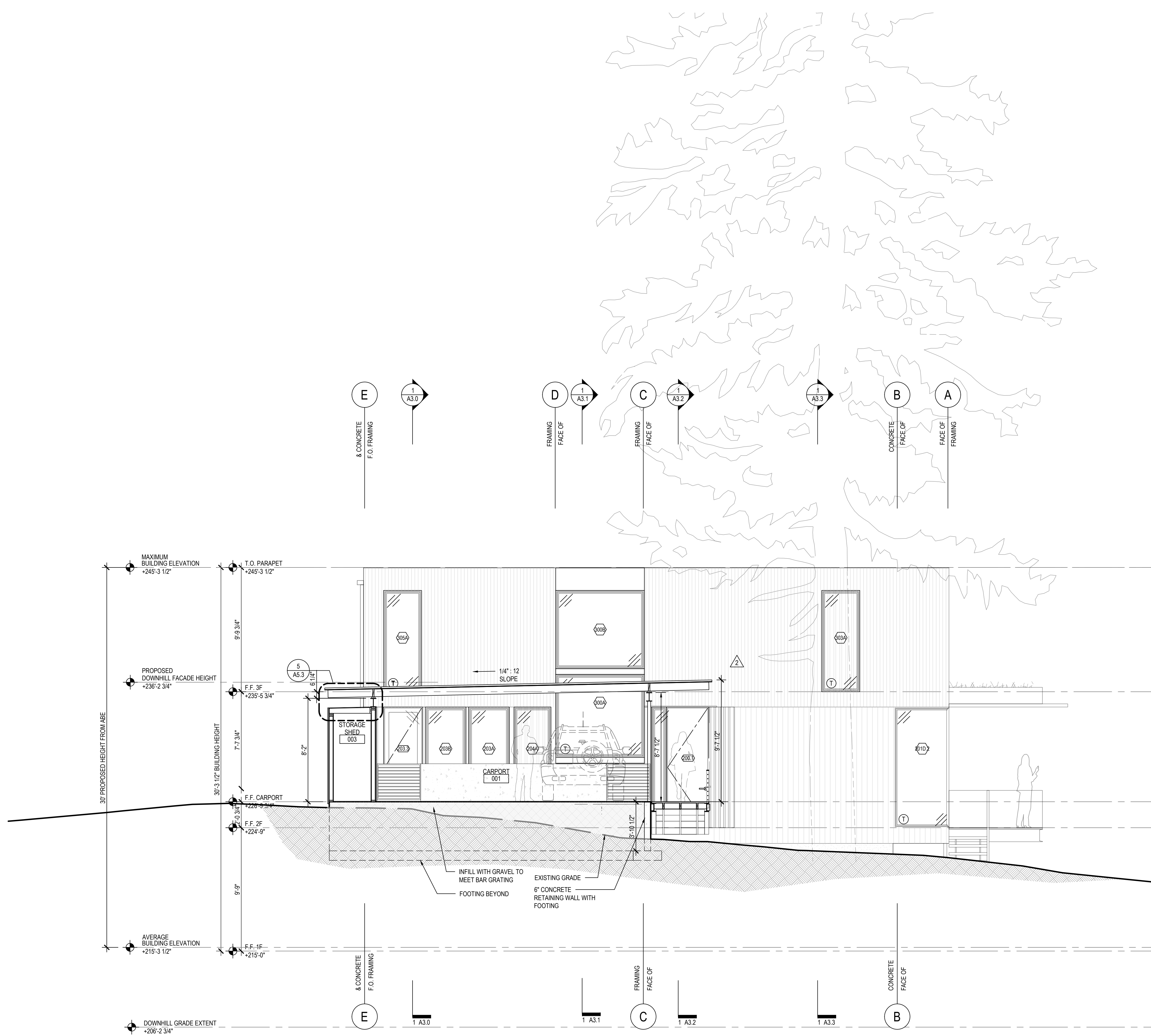
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

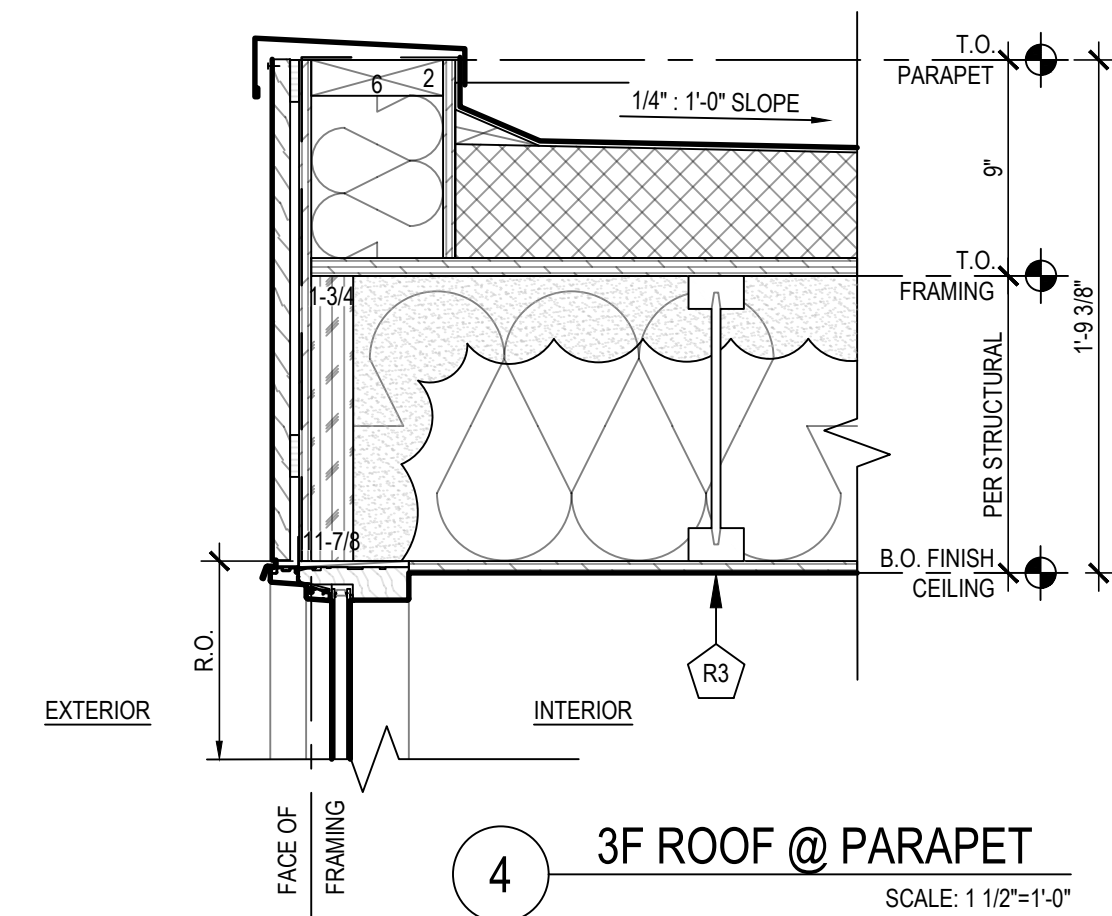
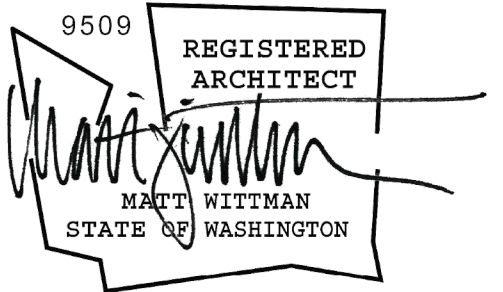
sections

**A3.5**

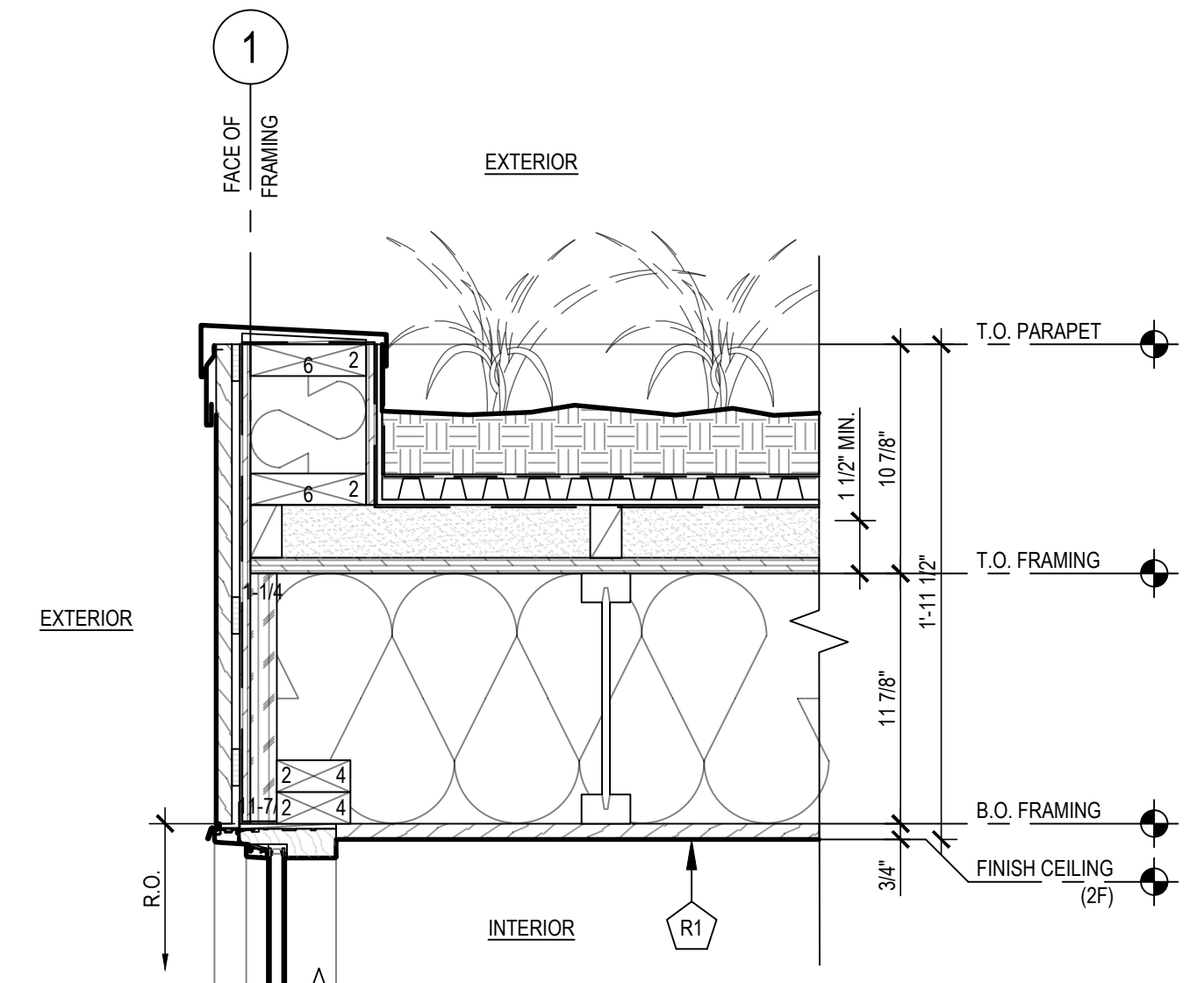


**1 EAST-WEST SECTION 2 - LOOKING SOUTH**

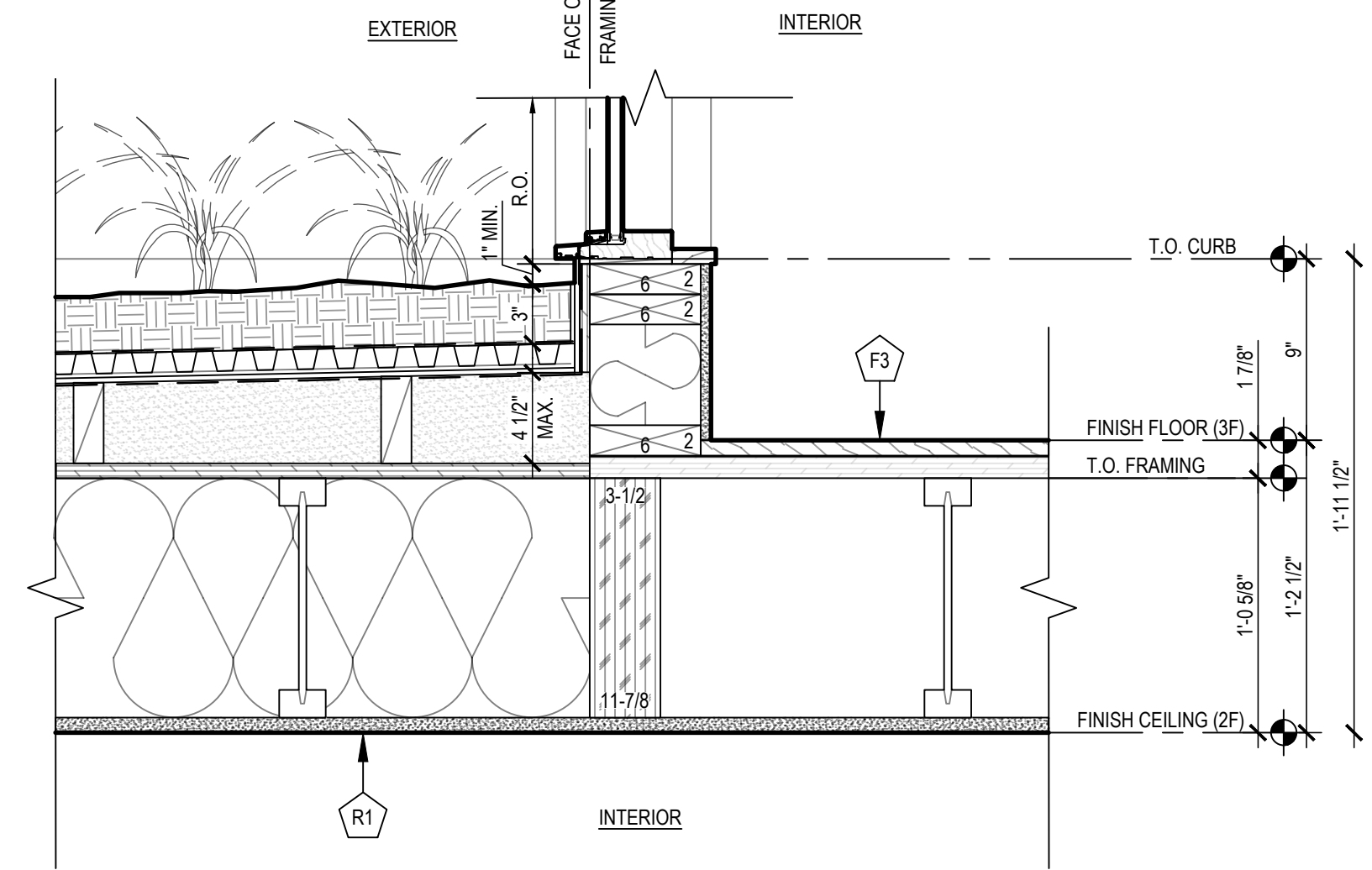
SCALE: 1/4"=1'-0"



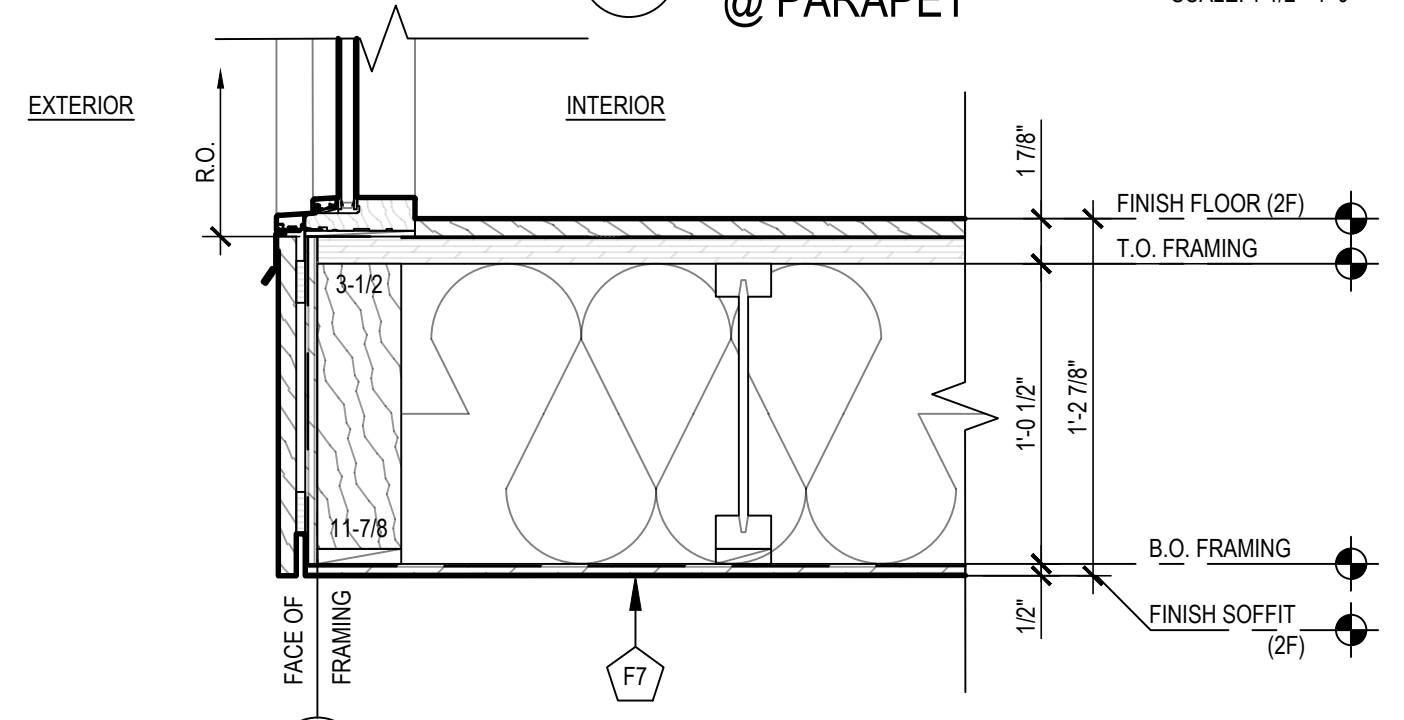
**4 3F ROOF @ PARAPET**  
SCALE: 1 1/2"=1'-0"



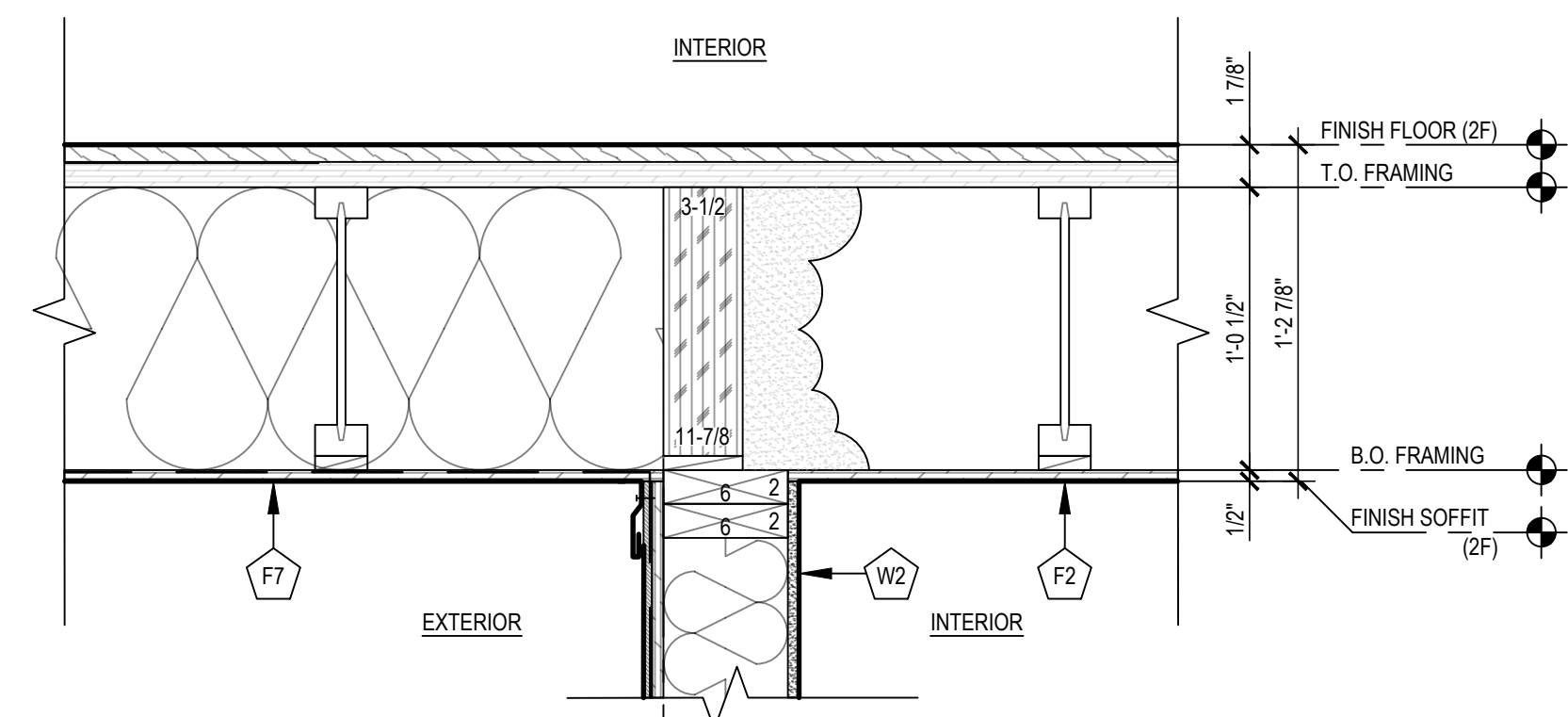
**6 2F GREEN ROOFSCAPE @ PARAPET**  
SCALE: 1 1/2"=1'-0"



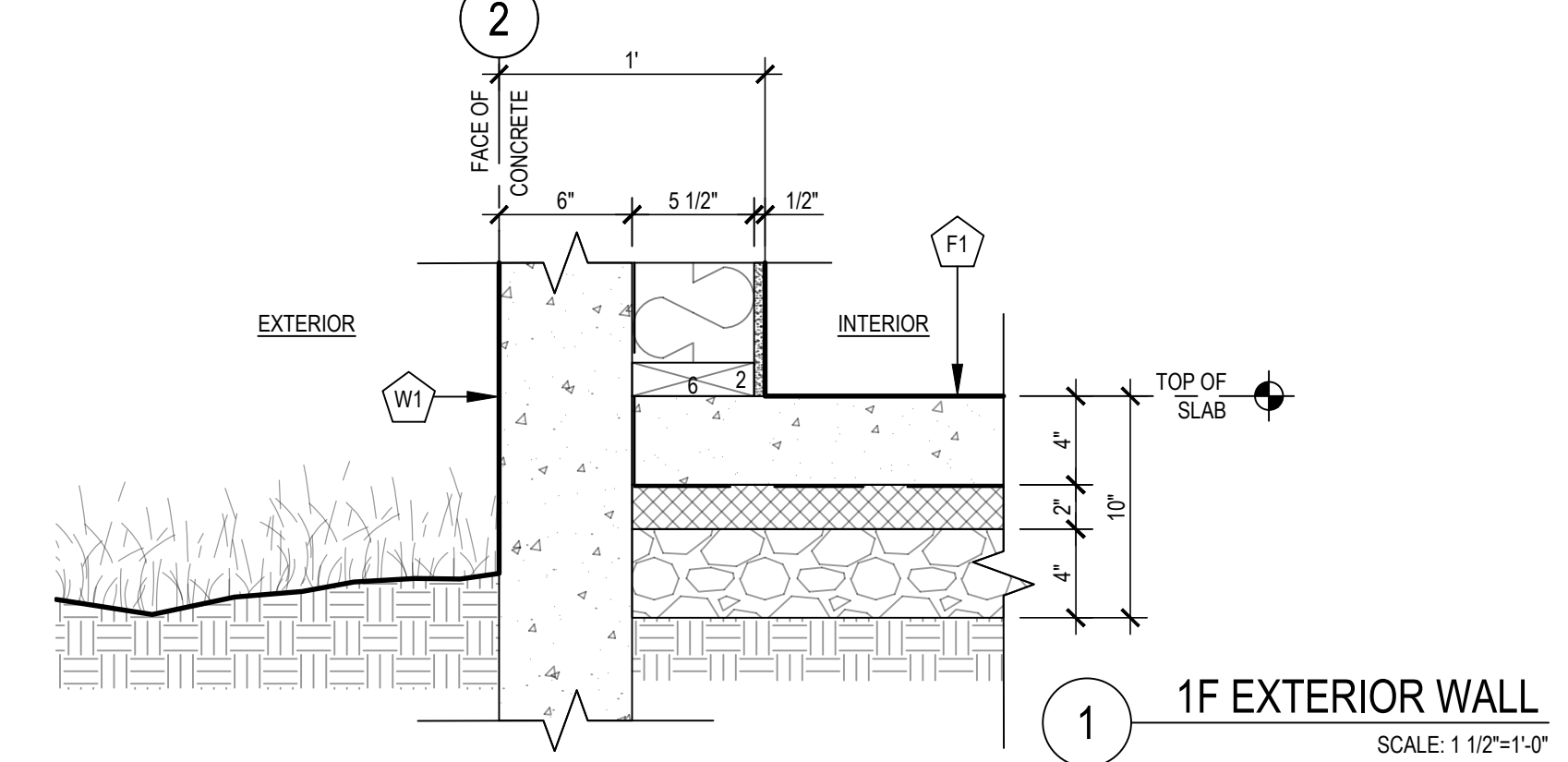
**3 3F & GREEN ROOF @ 3F EXTERIOR WALL**  
SCALE: 1 1/2"=1'-0"



**5 2F SOFFIT @ EXTERIOR WALL**  
SCALE: 1 1/2"=1'-0"



**2 2F FLOOR & SOFFIT @ 1F EXTERIOR WALL**  
SCALE: 1 1/2"=1'-0"



**1 1F EXTERIOR WALL**  
SCALE: 1 1/2"=1'-0"

2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

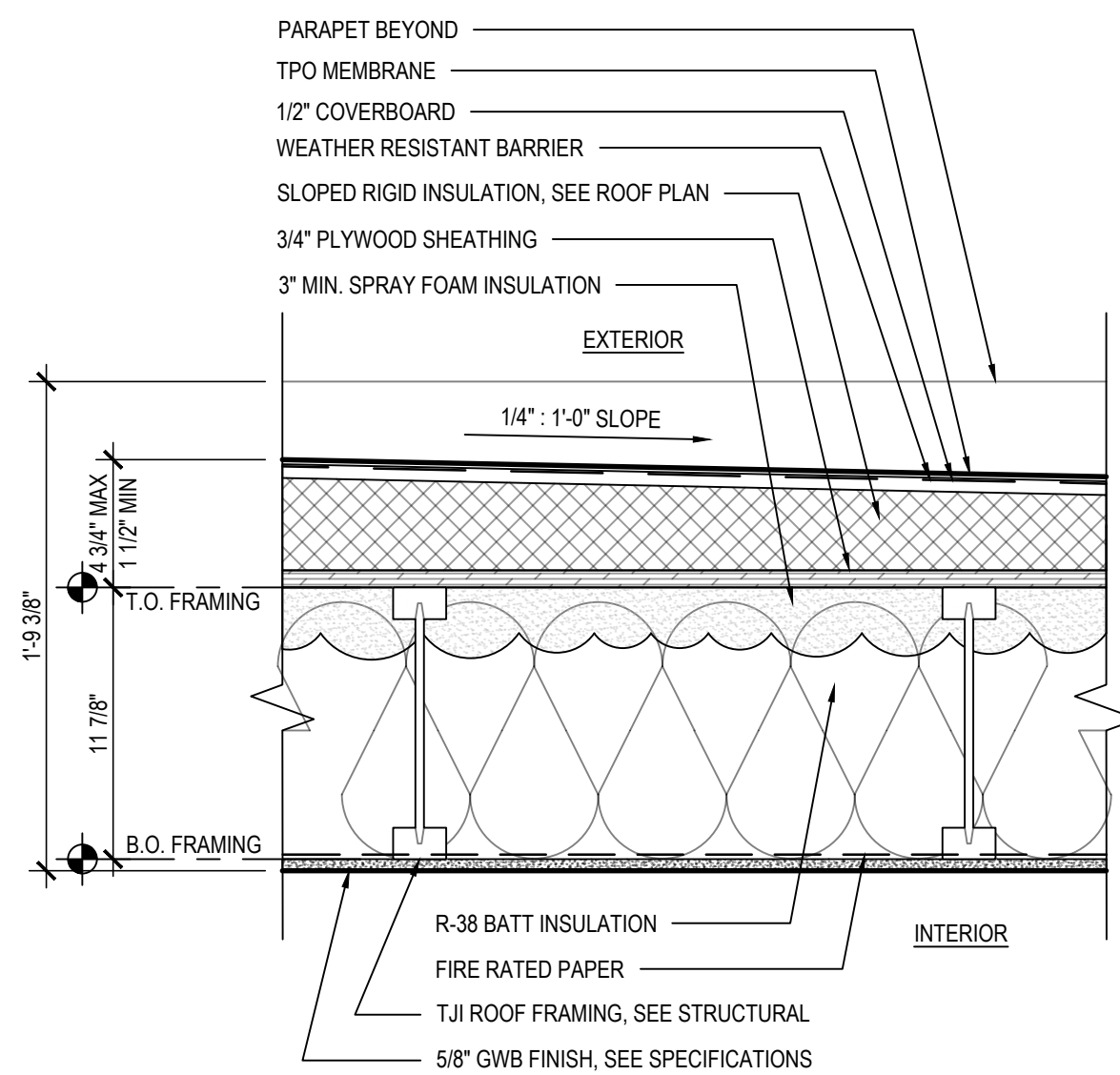
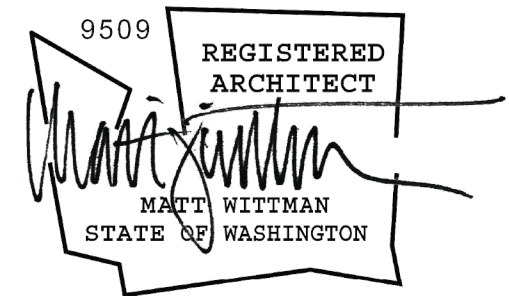
NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

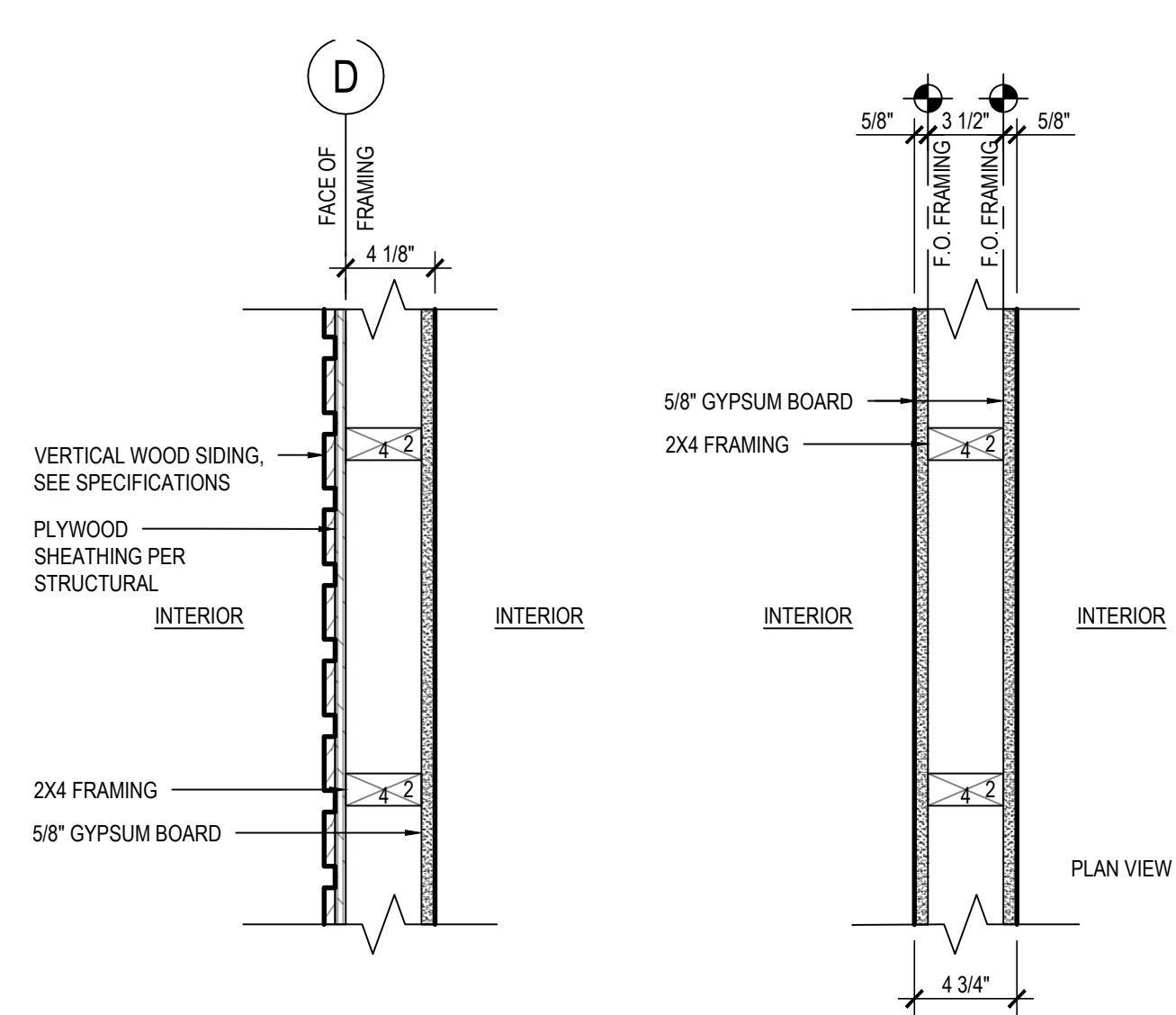
assembly details

**A5.0**





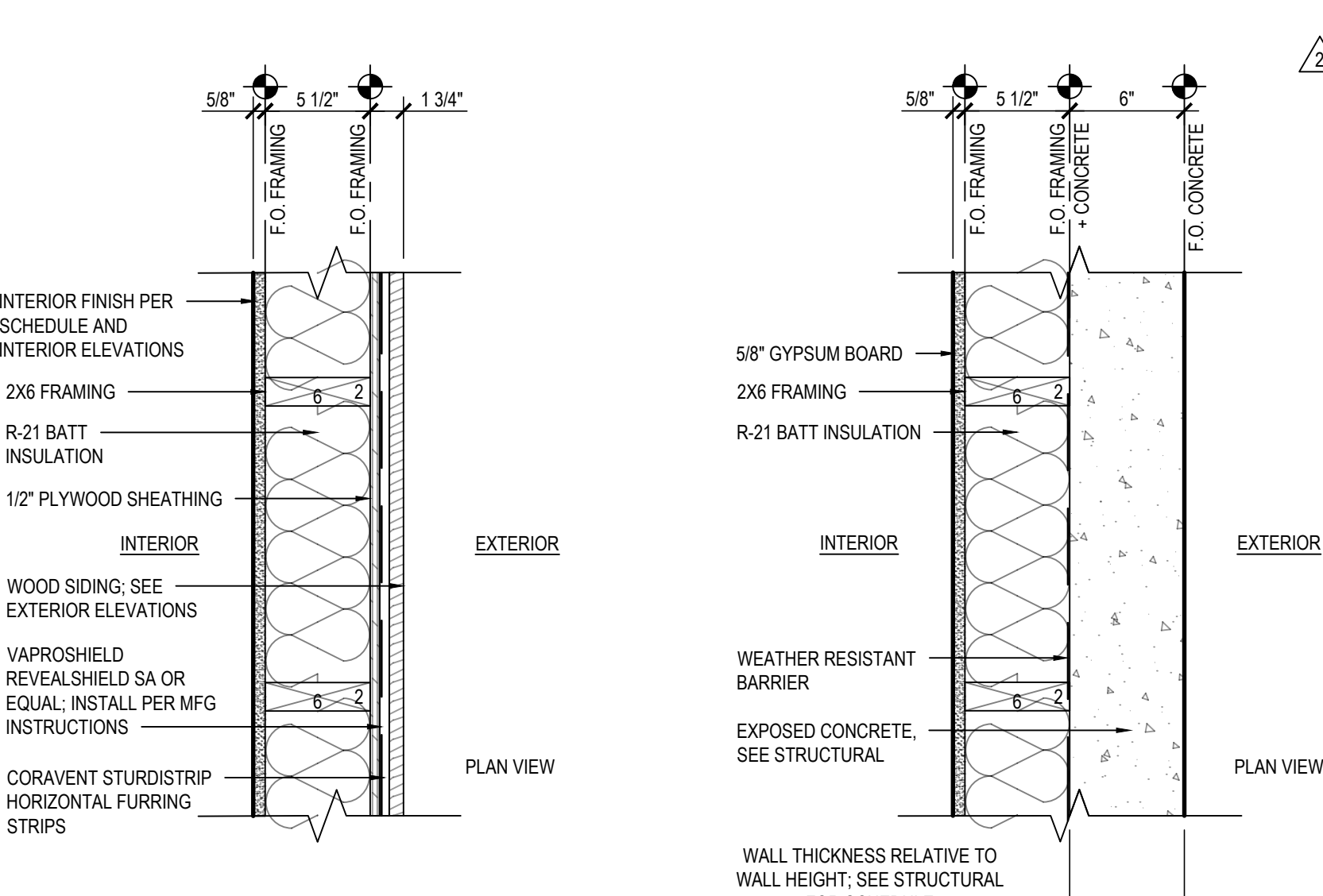
**R3** TYPICAL ROOF ASSEMBLY @ 3F  
SCALE: 1 1/2" = 1'-0"



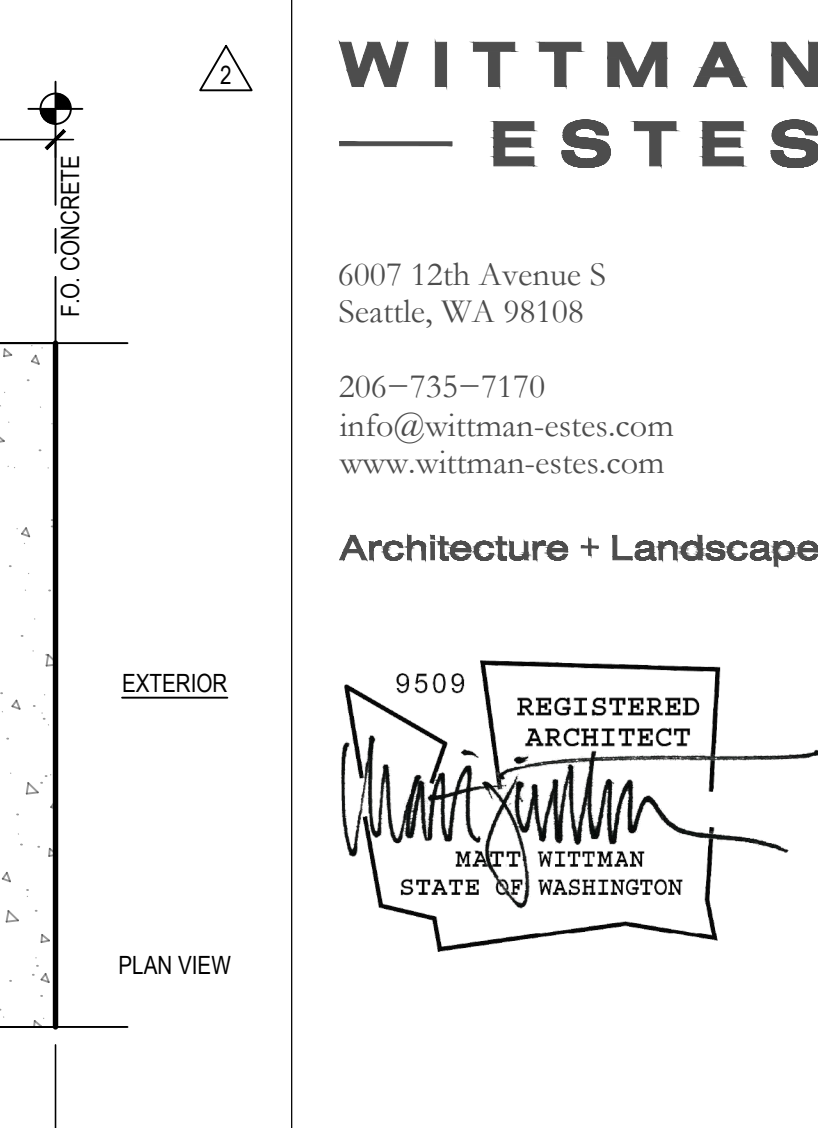
**W6** INTERIOR WALL ASSEMBLY @ WD CLADDING  
SCALE: 1 1/2" = 1'-0"



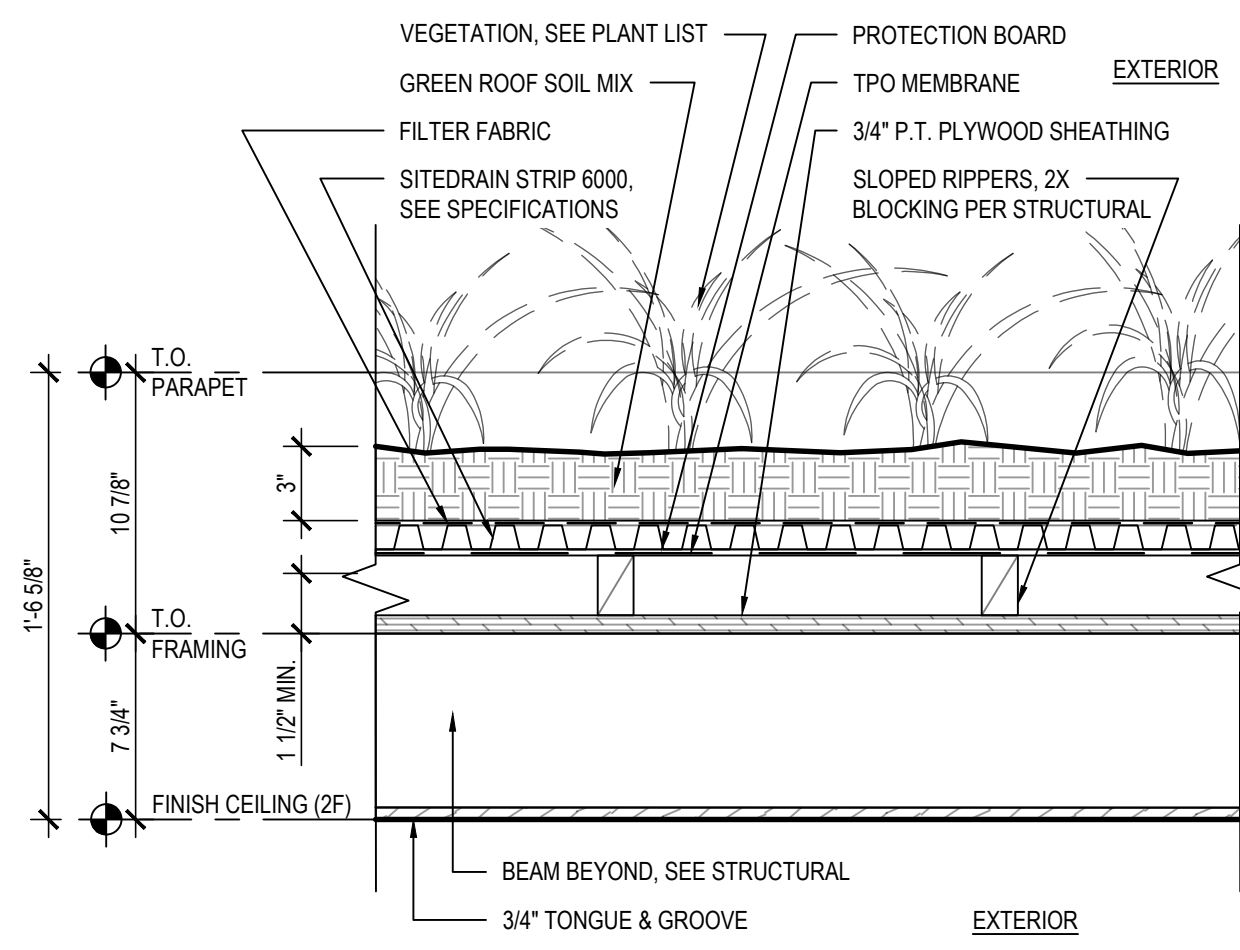
**W5** INTERIOR WALL ASSEMBLY @ GWB (TYP.)  
SCALE: 1 1/2" = 1'-0"



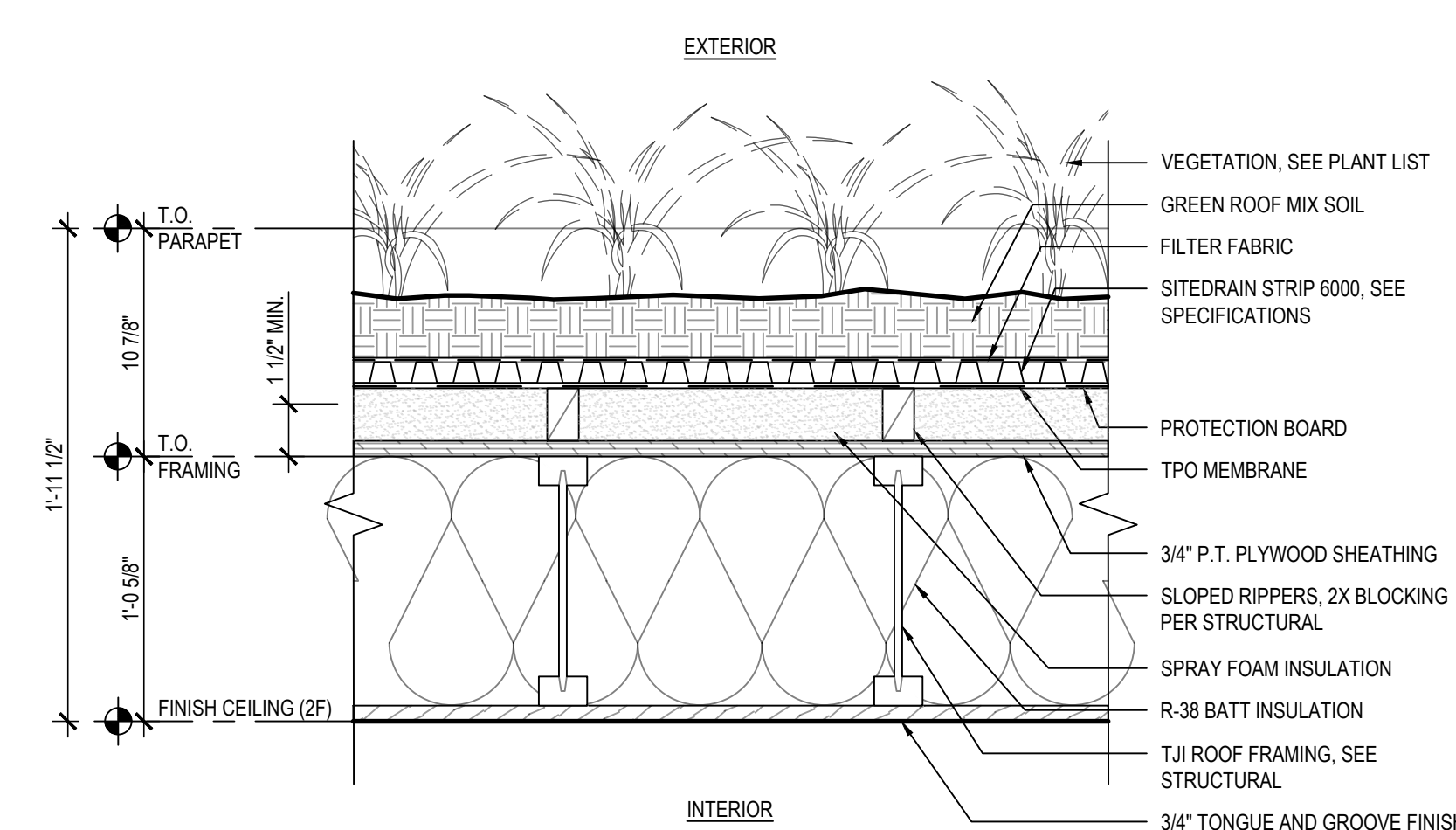
**W2** EXT. WALL ASSEMBLY @ WOOD FRAMED  
SCALE: 1 1/2" = 1'-0"



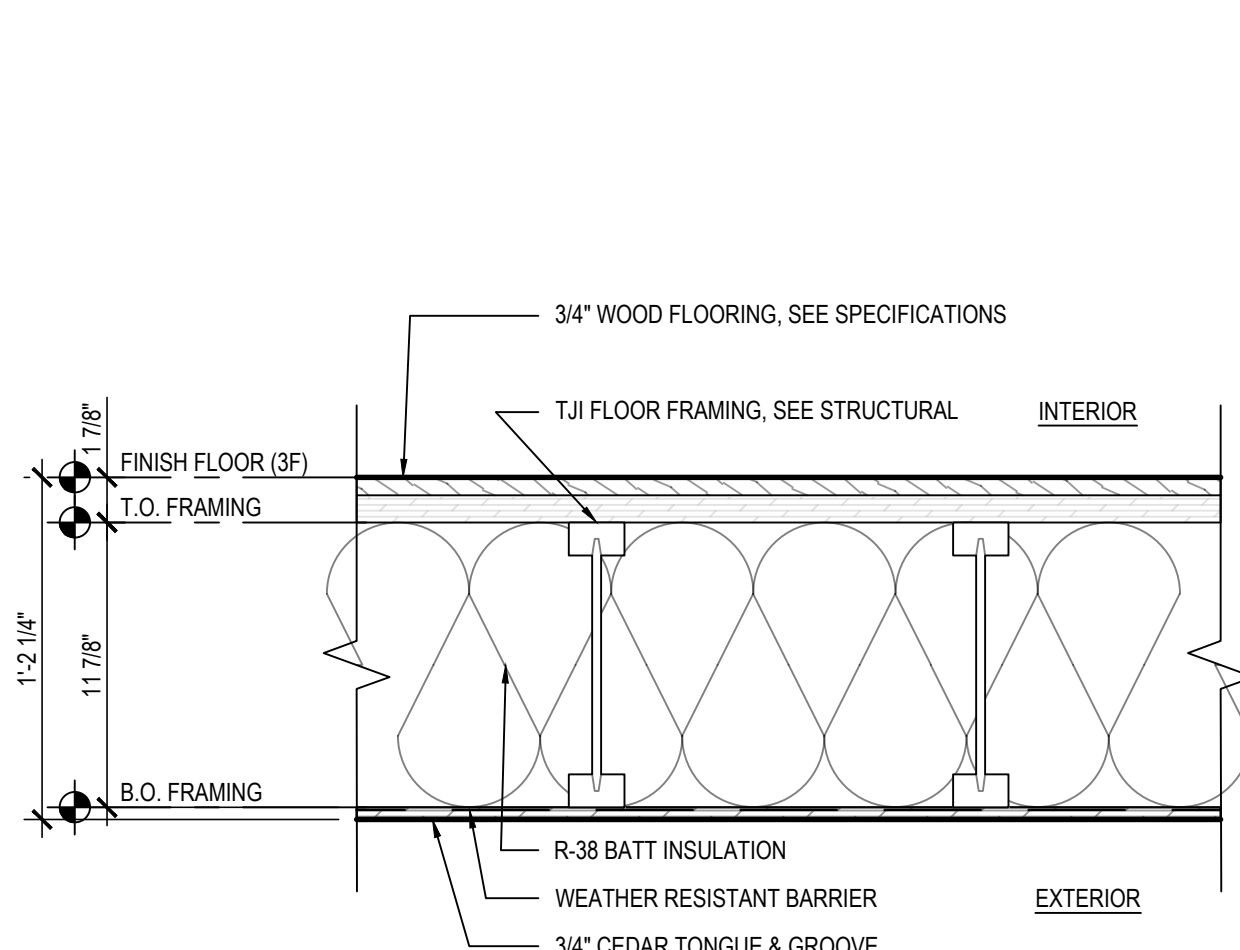
**W1** EXTERIOR WALL ASSEMBLY @ CONCRETE  
SCALE: 1 1/2" = 1'-0"



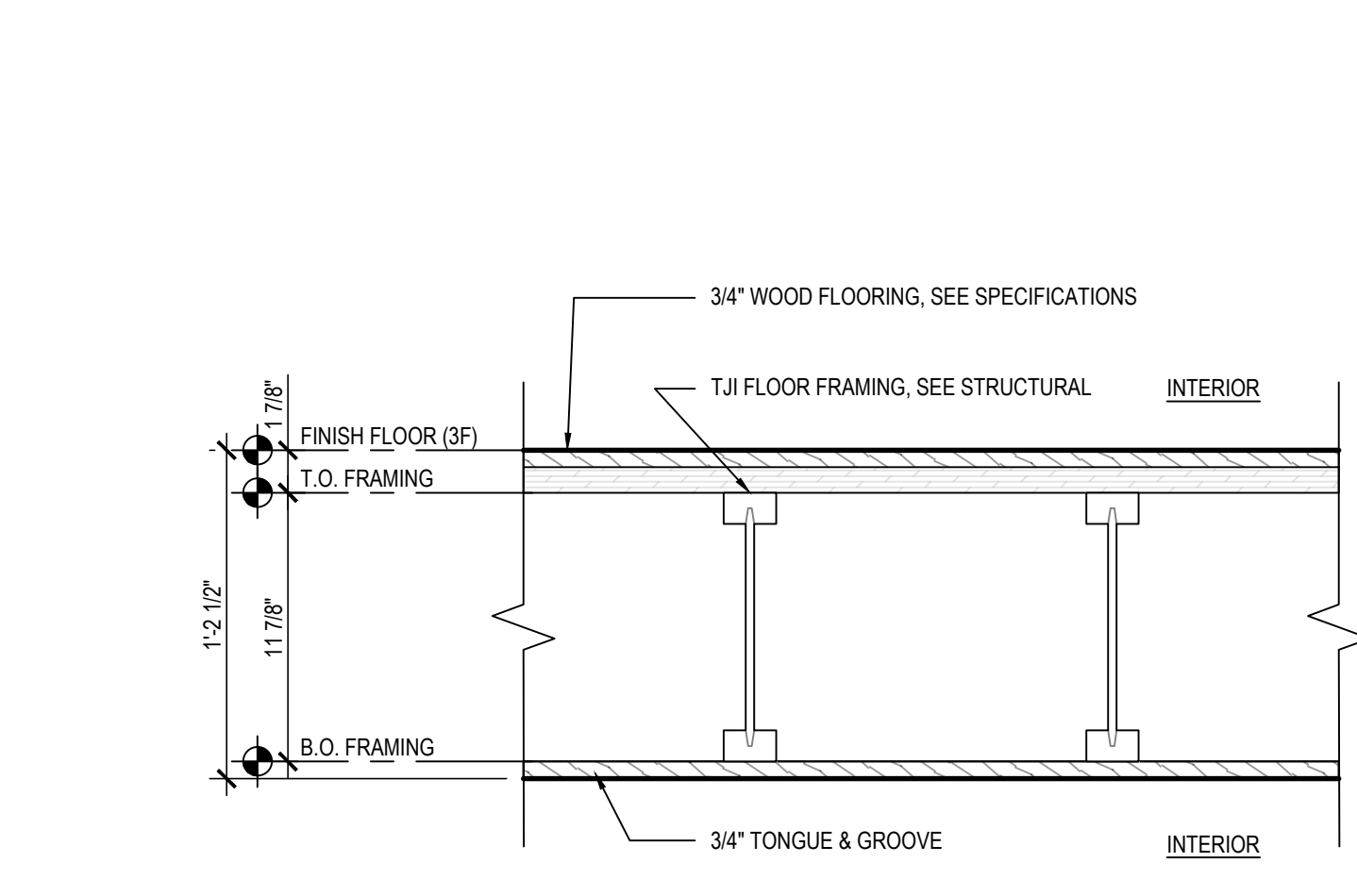
**R2** GREEN ROOF @ 2F DECK  
SCALE: 1 1/2" = 1'-0"



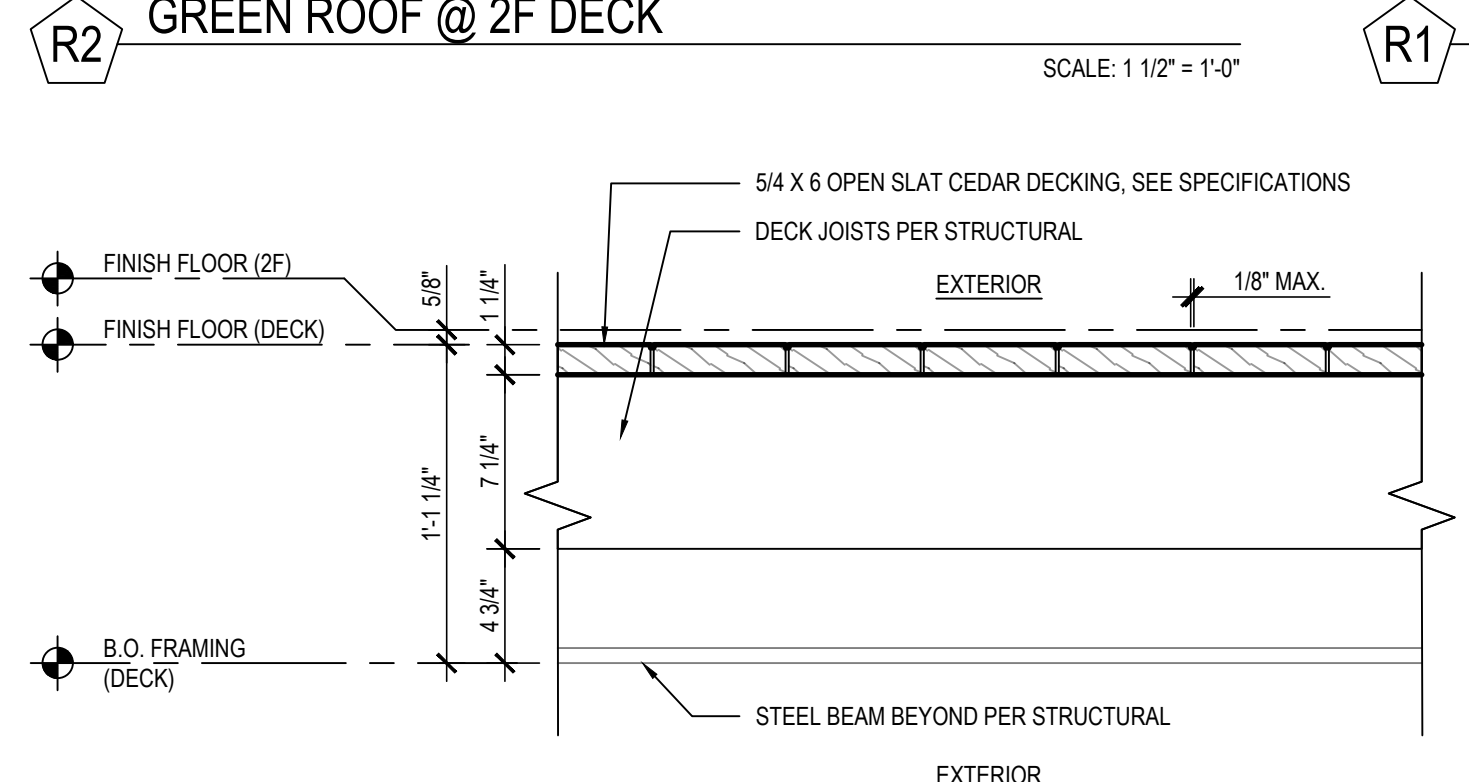
**R1** TYPICAL GREEN ROOF @ 2F  
SCALE: 1 1/2" = 1'-0"



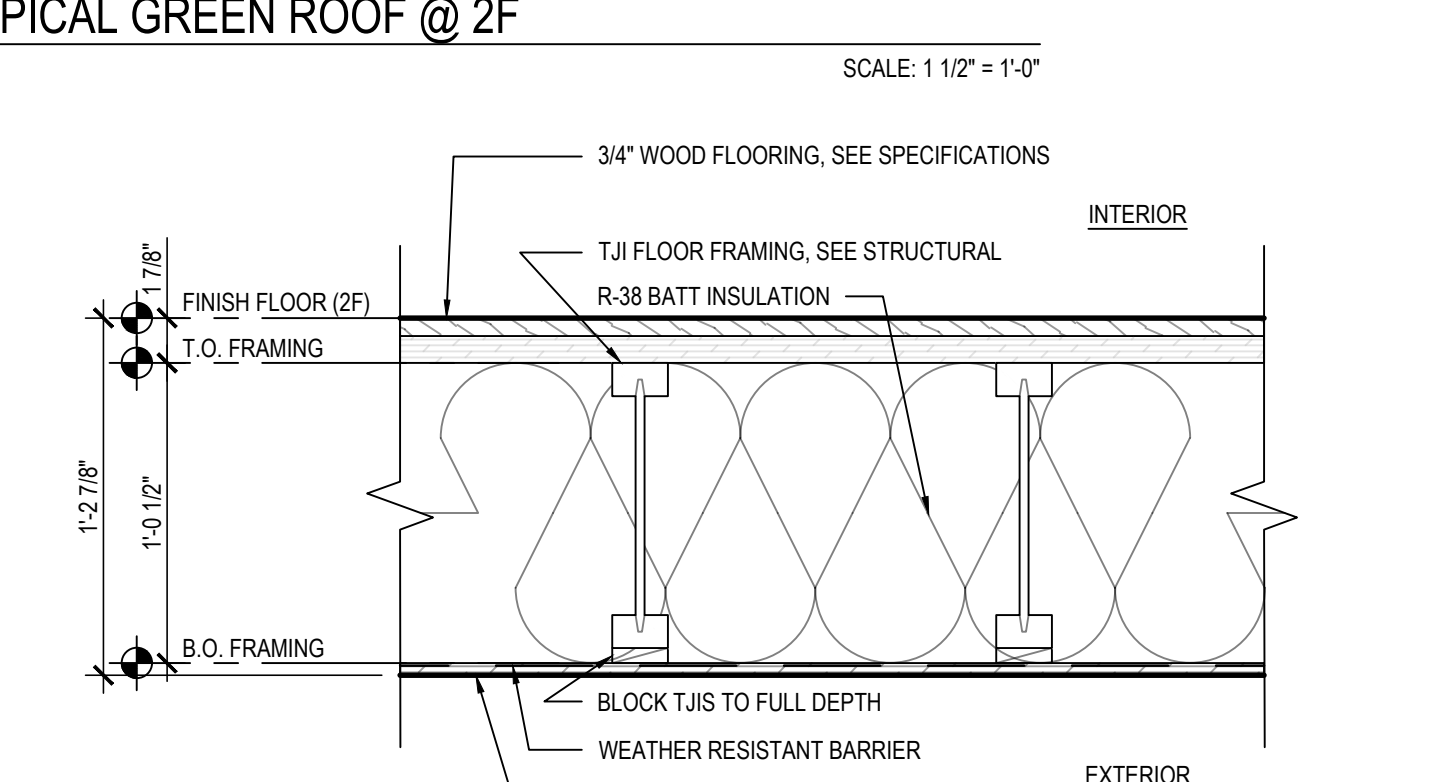
**F6** SOFFIT ASSEMBLY @ 3F  
SCALE: 1 1/2" = 1'-0"



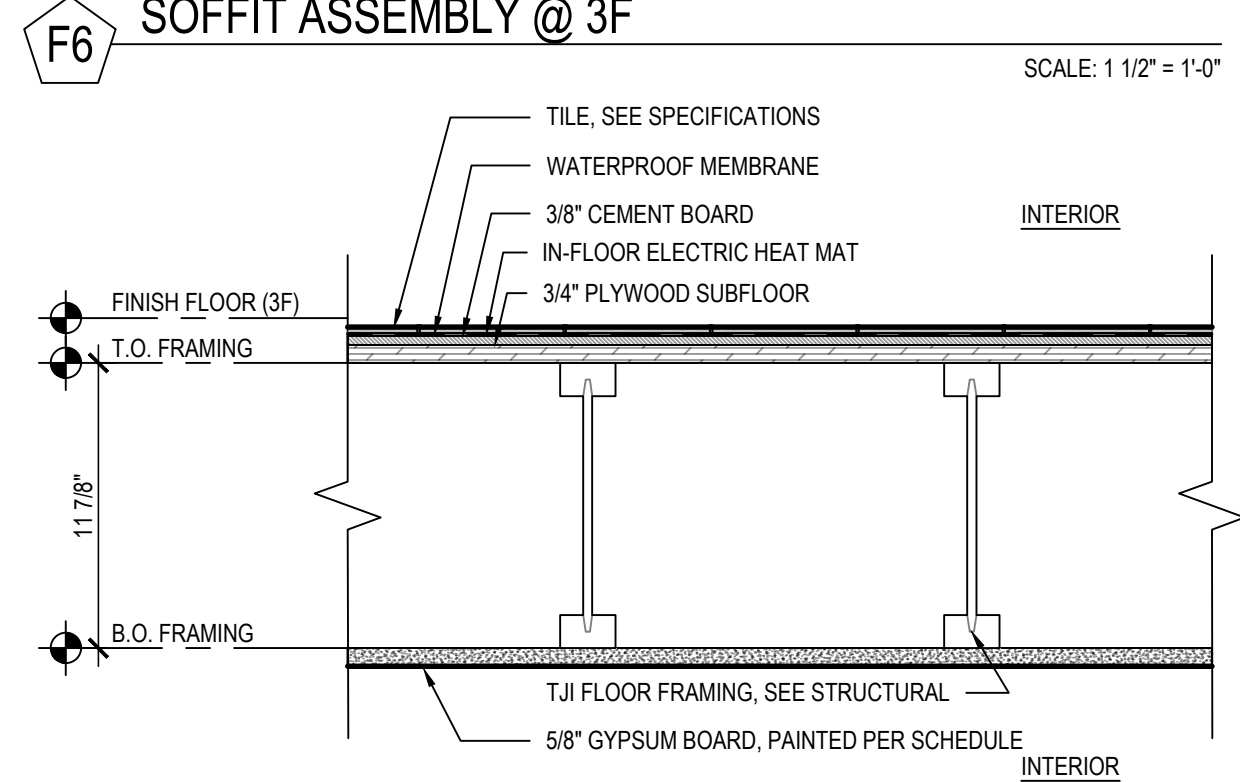
**F3** TYPICAL FLOOR ASSEMBLY @ 3F  
SCALE: 1 1/2" = 1'-0"



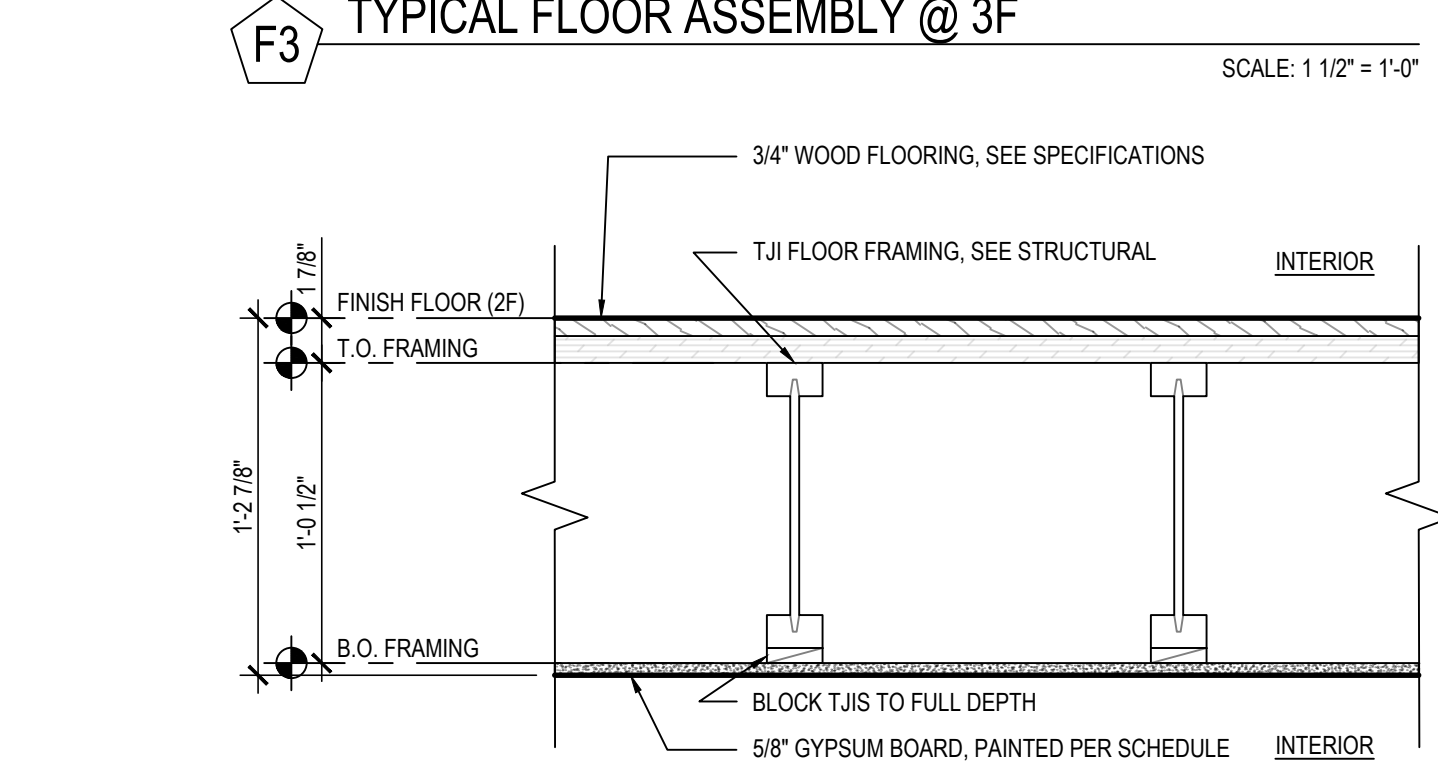
**F8** DECK ASSEMBLY @ 2F  
SCALE: 1 1/2" = 1'-0"



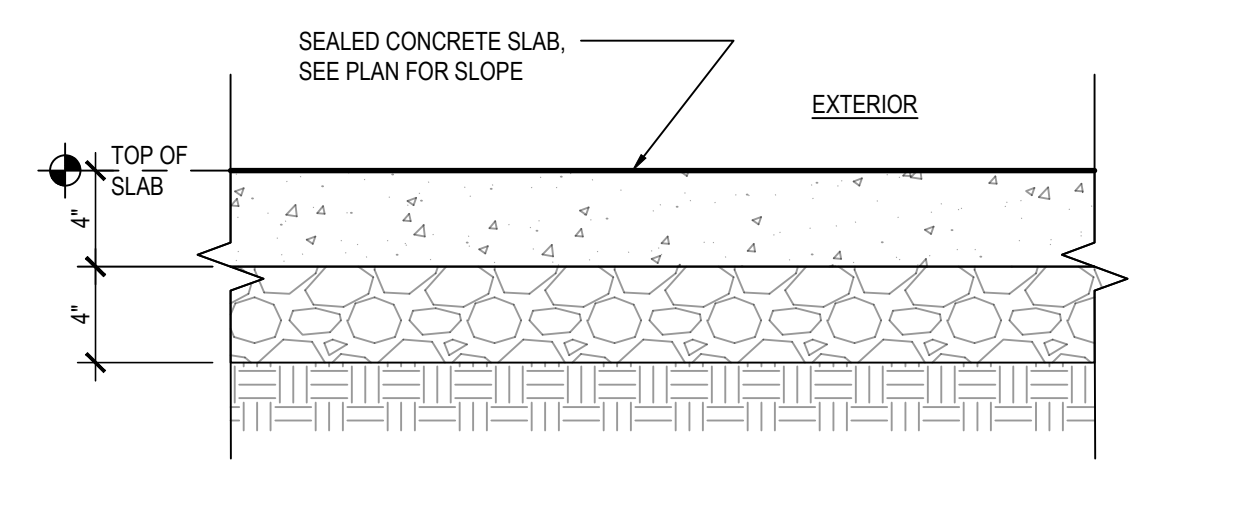
**F7** SOFFIT ASSEMBLY @ 2F  
SCALE: 1 1/2" = 1'-0"



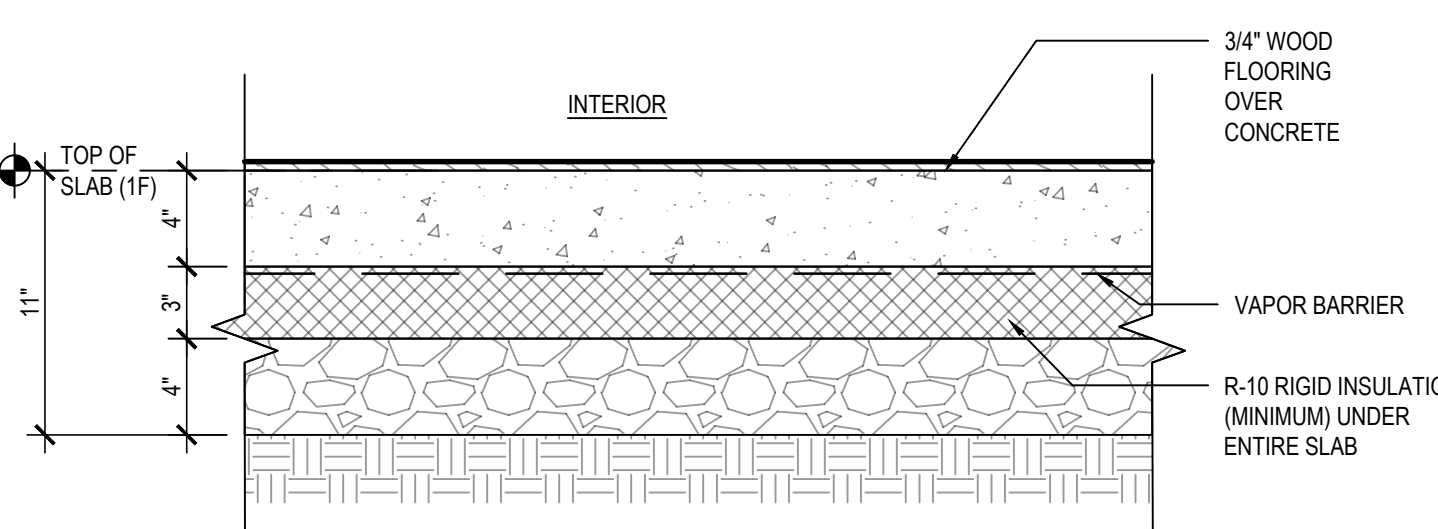
**F5** TILE FLOOR ASSEMBLY @ 3F  
SCALE: 1 1/2" = 1'-0"



**F2** TYPICAL FLOOR ASSEMBLY @ 2F  
SCALE: 1 1/2" = 1'-0"



**F4** SLAB ON GRADE (PATIO)  
SCALE: 1 1/2" = 1'-0"



**F1** SLAB ON GRADE @ 1F  
SCALE: 1 1/2" = 1'-0"

2014  
**Mercer Grove**  
7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037  
CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

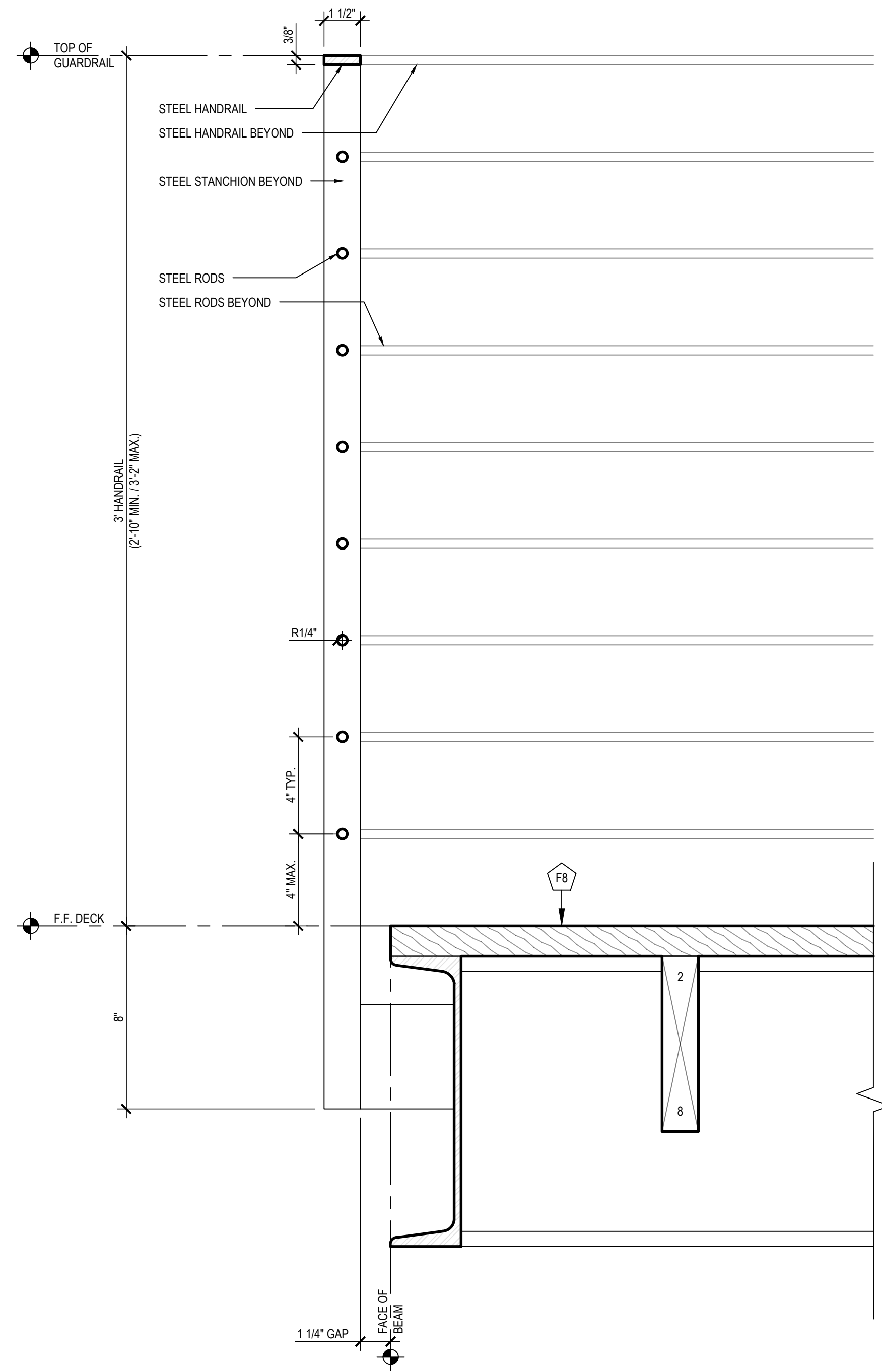
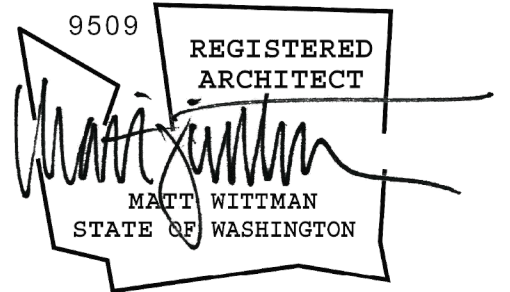
BUILDING PERMIT  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

assembly details

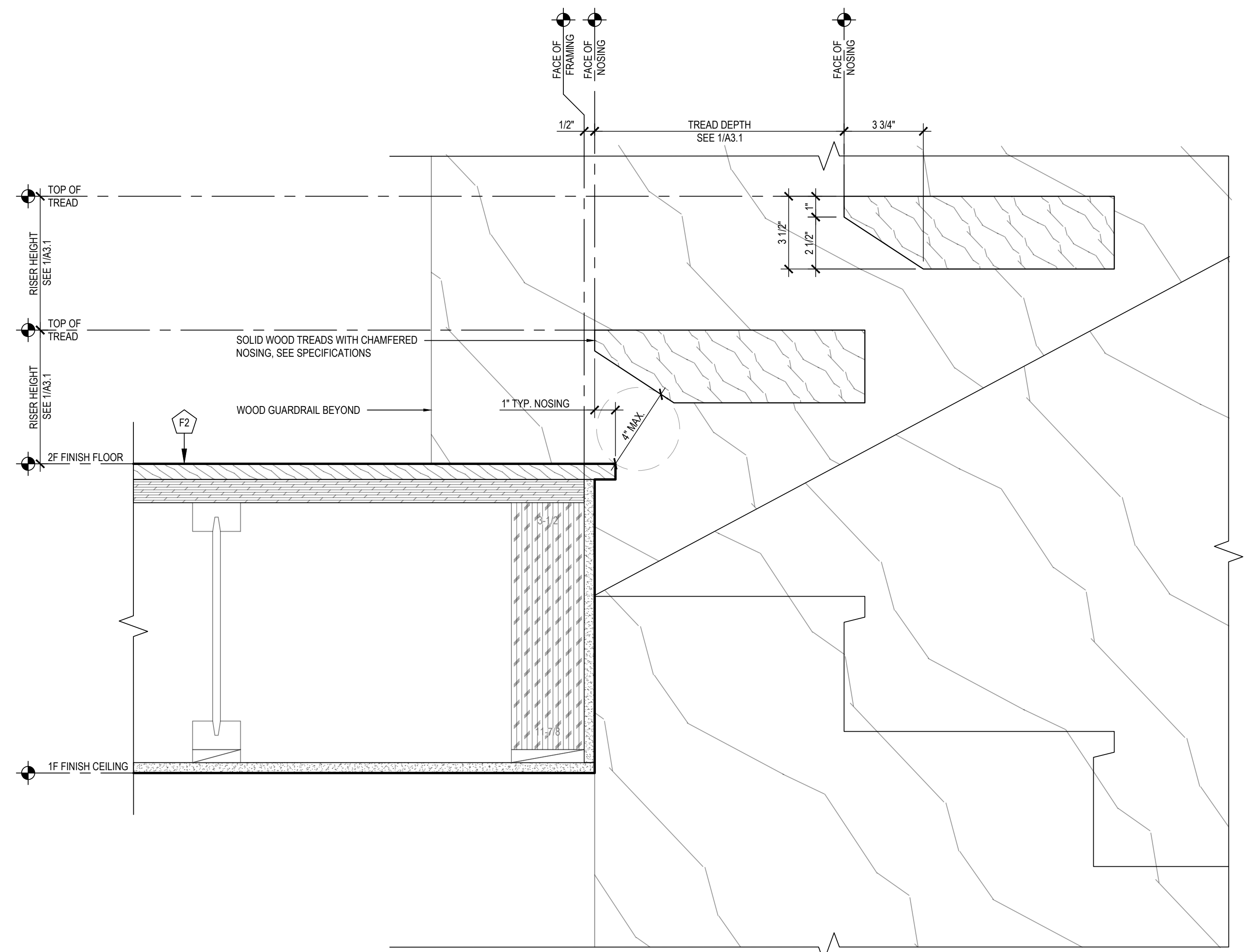
**A5.1**



**3** TYP. EXTERIOR GUARDRAIL SCALE: 3"=1'-0"



**2** HANDRAIL DETAIL SCALE: 3"=1'-0"



**1** STAIR DETAIL SCALE: 3"=1'-0"

2014

**Mercer Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

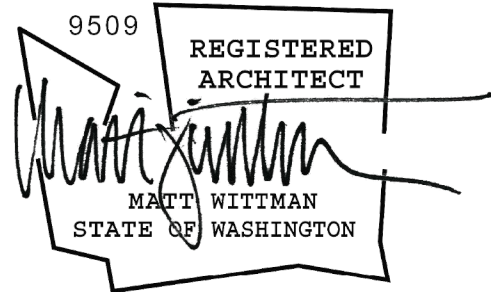
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

stair & guardrail details

**A5.2**



2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

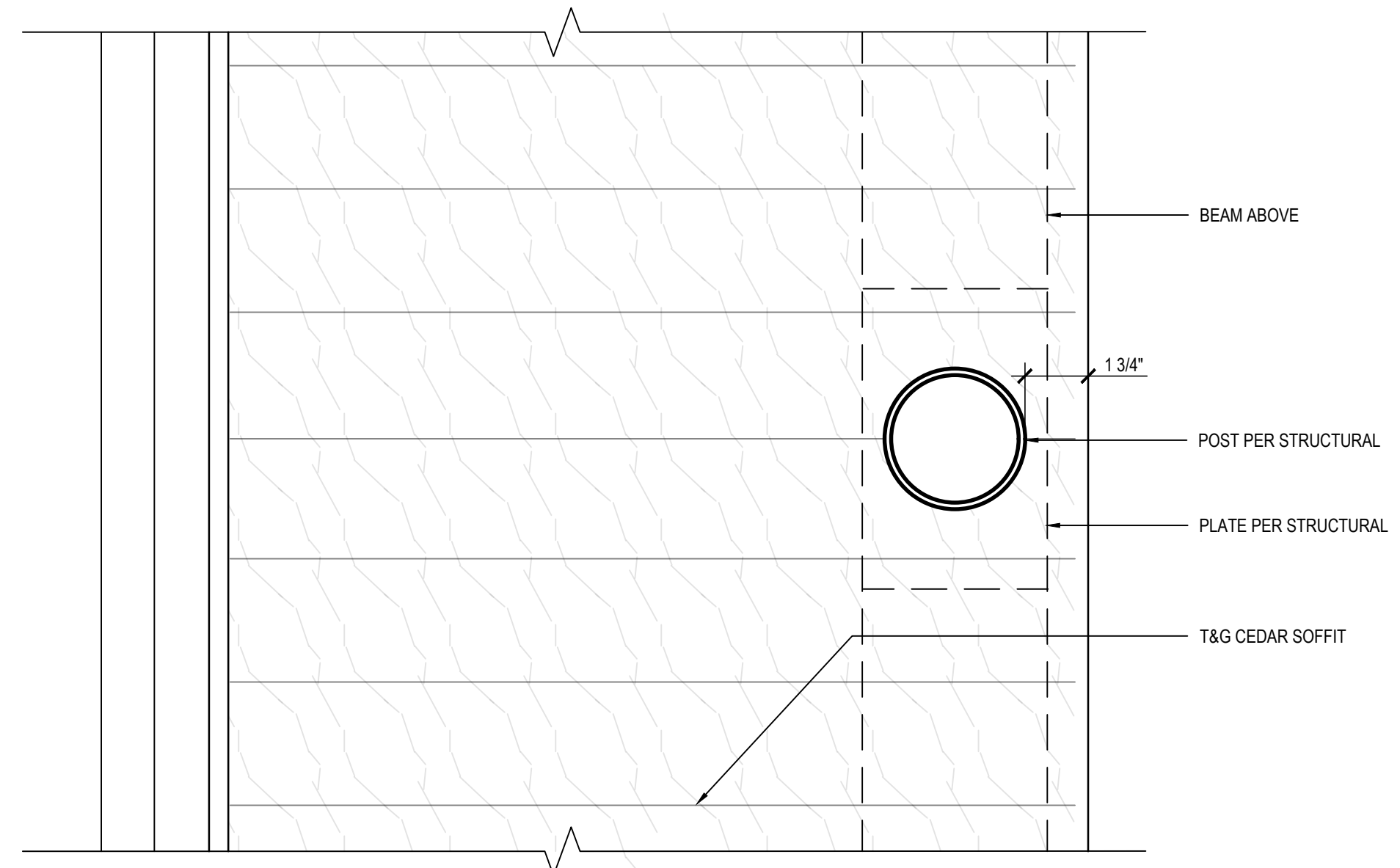
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

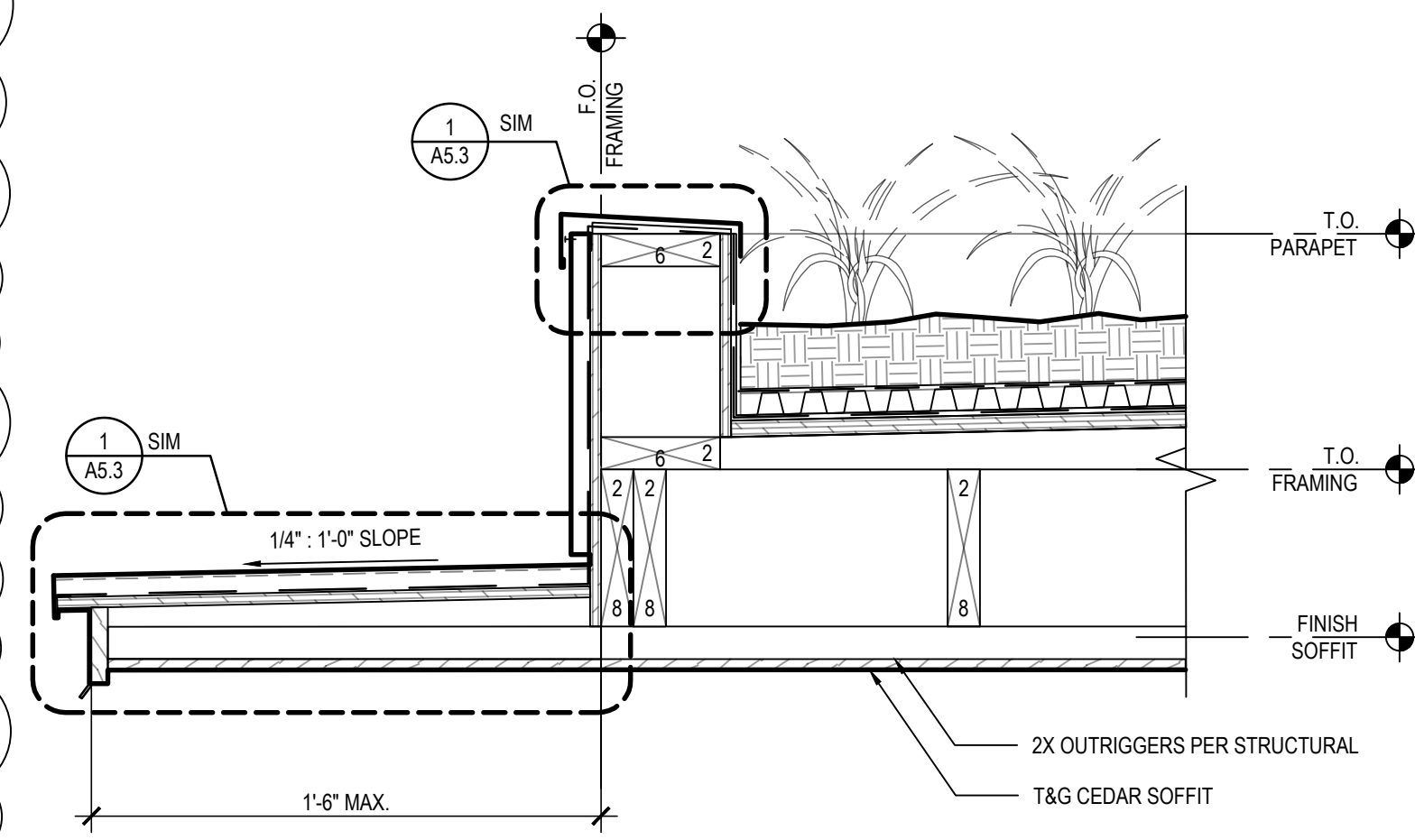
exterior details

**A5.3**



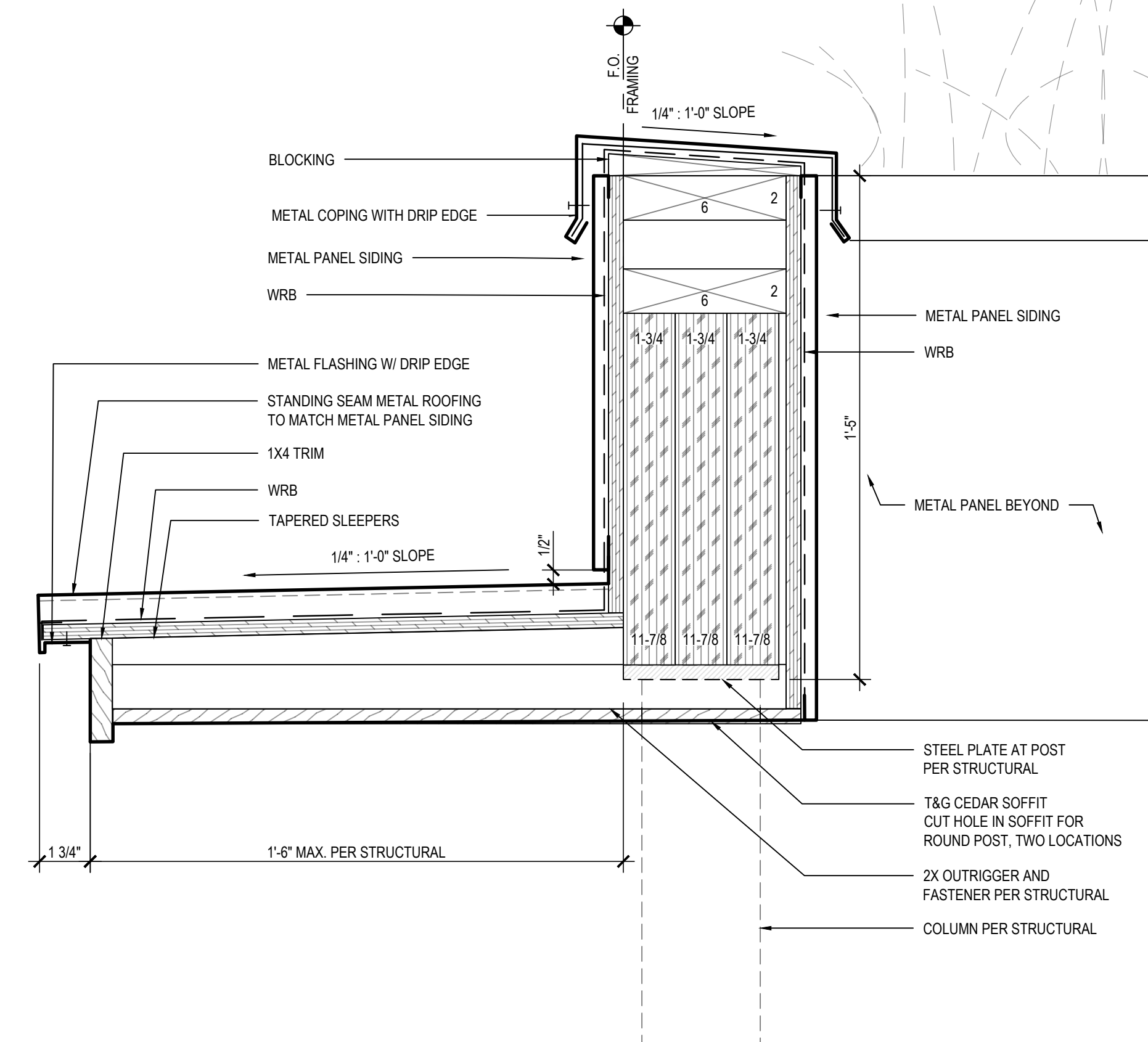
2 PLAN VIEW - UNDERSIDE OF SOFFIT

SCALE: 3"=1'-0"



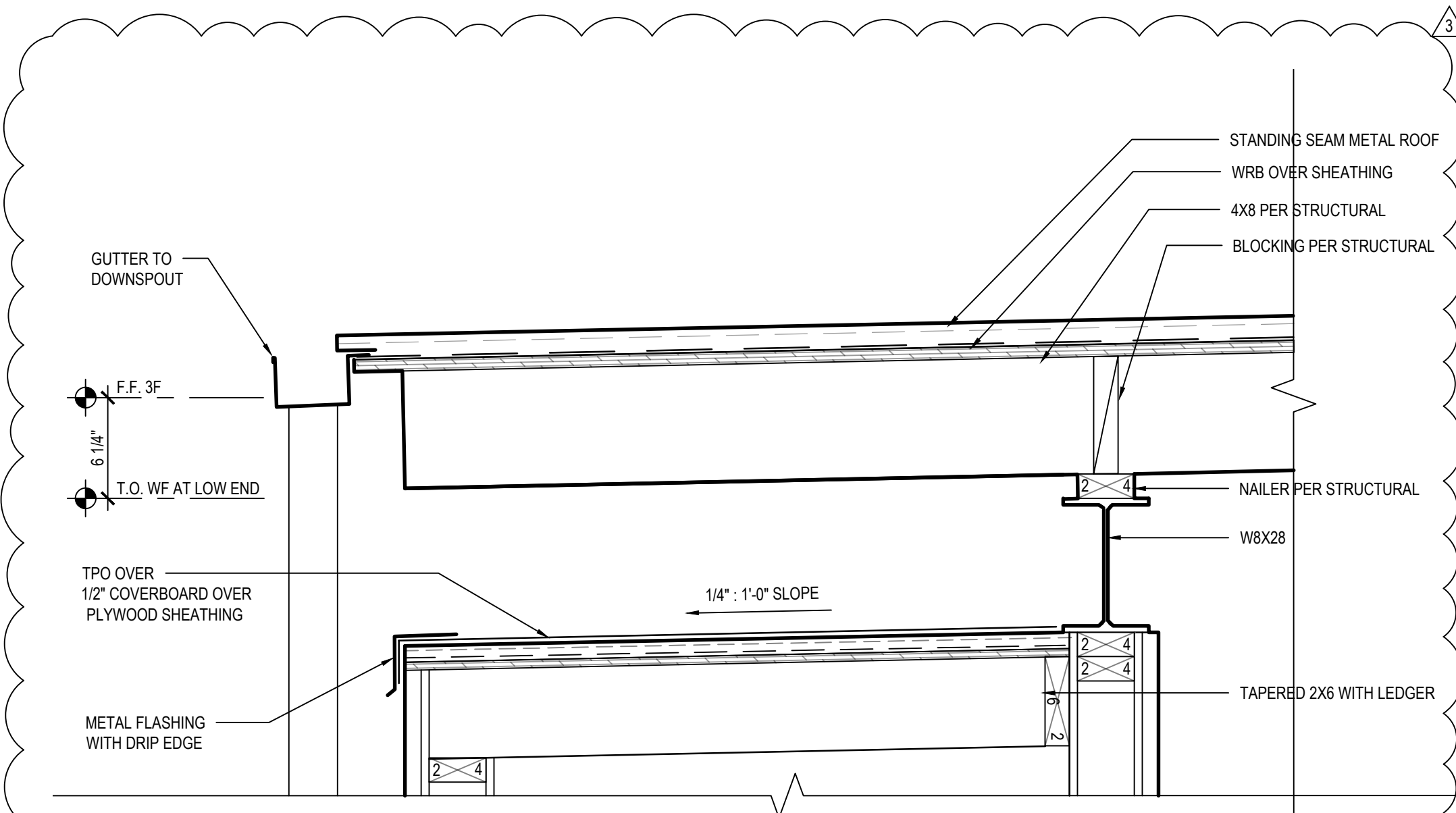
3 EXTENDED EAVE AT GREEN ROOF - OVER LIVING DECK

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



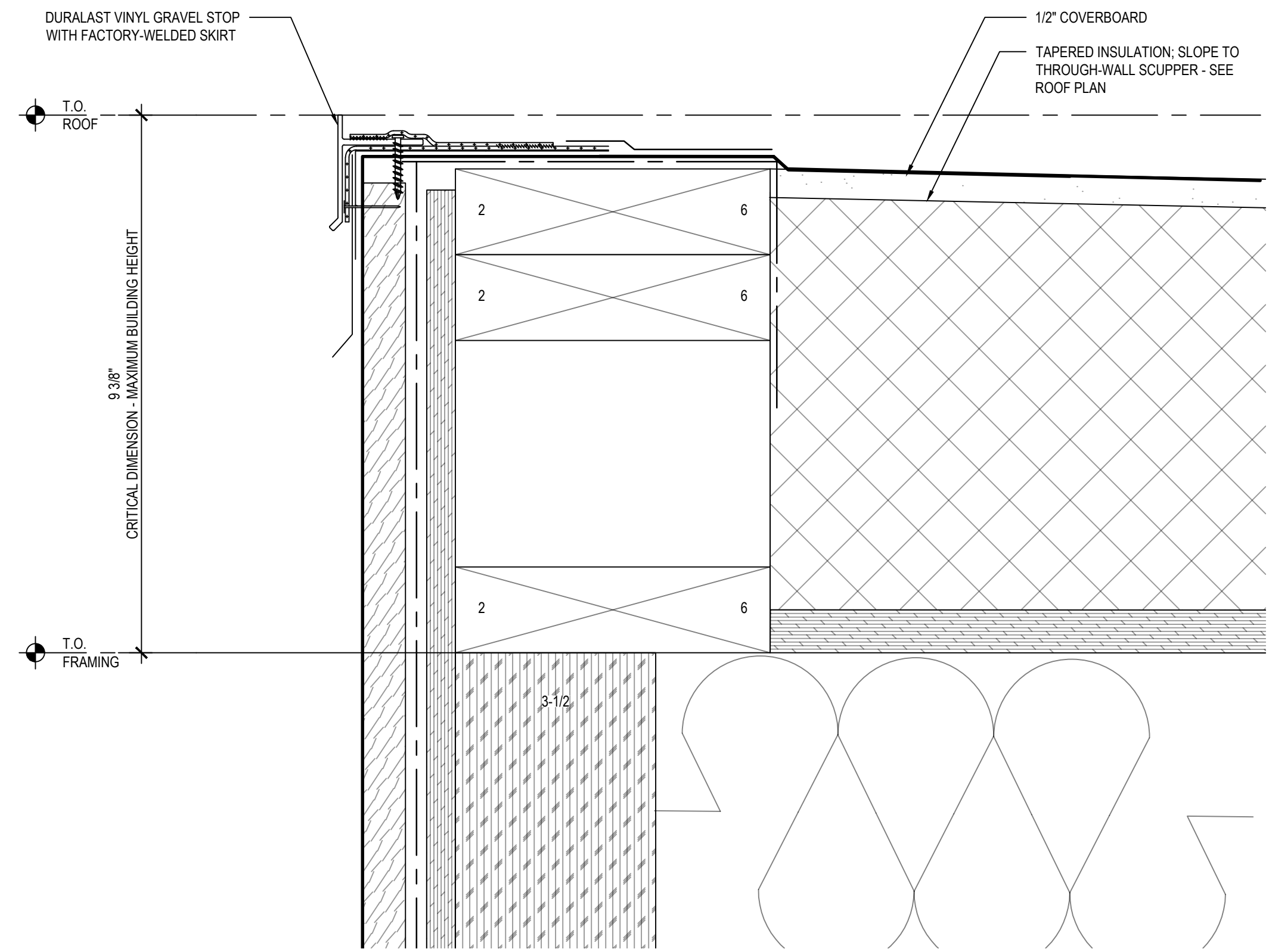
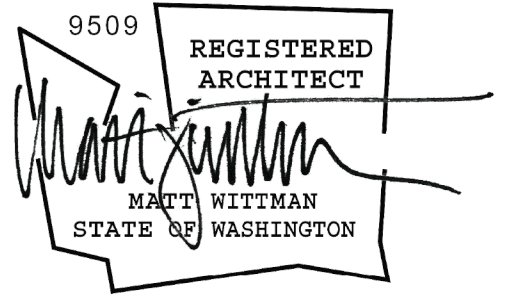
1 EXTENDED EAVE AT GREEN ROOF VOID OVER LIVING DECK

SCALE: 3"=1'-0"



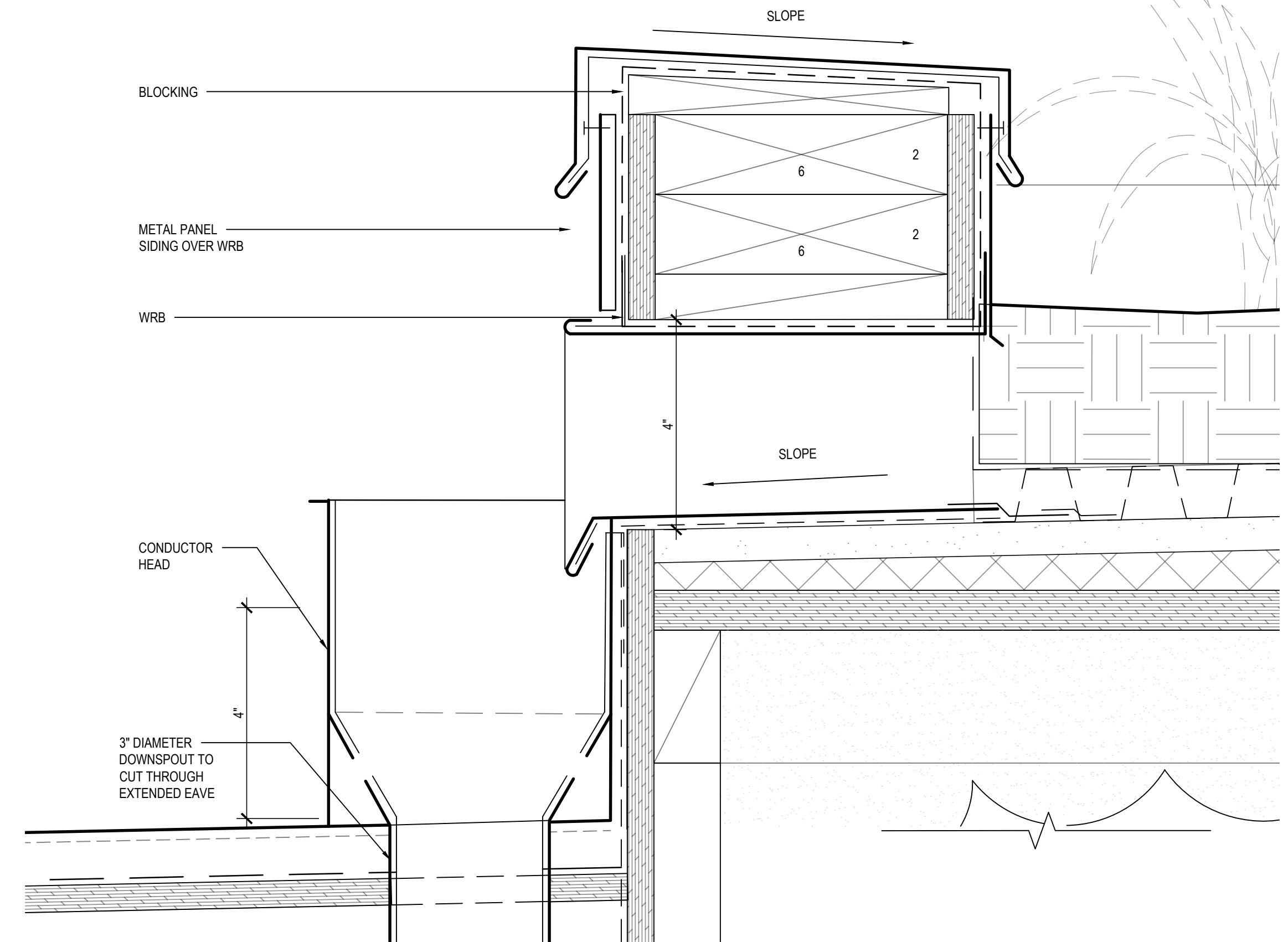
5 EXTENDED EAVE AT CARPORT

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



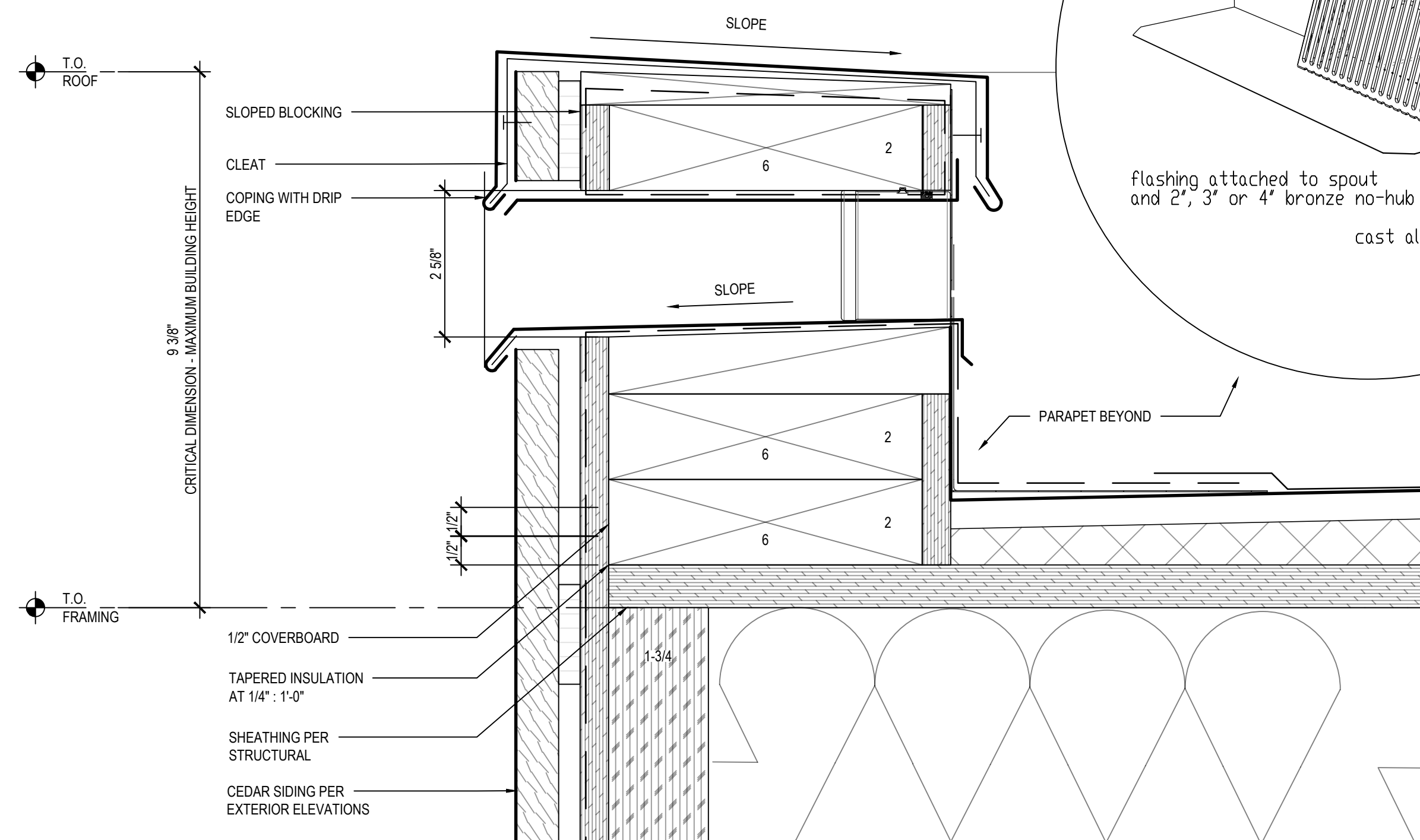
4 ROOF EDGE DETAIL AT TAPERED INSULATION HIGH POINT

SCALE: 6"=1'-0"



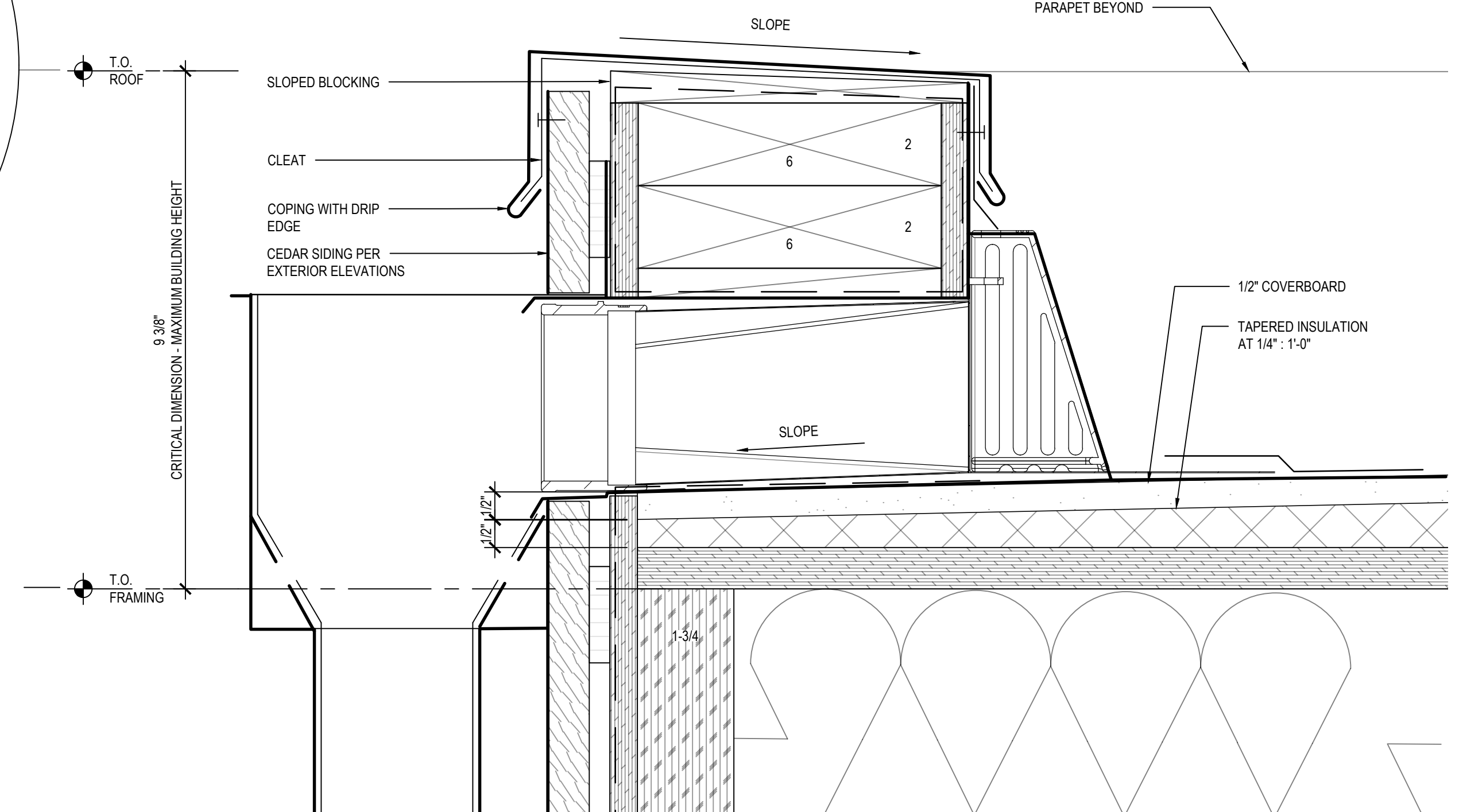
2 TYPICAL SCUPPER WITH CONDUCTOR HEAD AT GREEN ROOFS

SCALE: 3"=1'-0"



3 TYPICAL OVERFLOW SCUPPER

SCALE: 6"=1'-0"



1 TYPICAL SCUPPER WITH CONDUCTOR HEAD

SCALE: 6"=1'-0"

2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

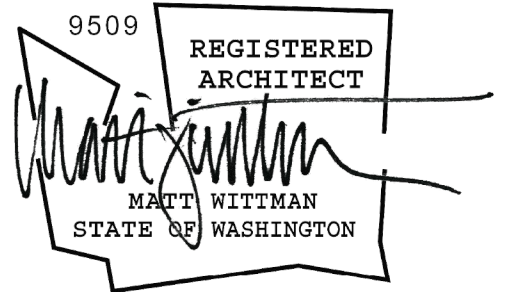
**BUILDING PERMIT**  
ISSUE DATE: 3/30/2023

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

exterior details - roof

**A5.4**



MERCER GROVE DOOR AND WINDOW SCHEDULE  
WITTMAN ESTES

GLAZING SCHEDULE

ROOM	ELEVATION TAG	WIDTH (R.O.)	INCHES	HEIGHT (R.O.)	INCHES	FRAME WIDTH (INCHES)	FRAME HEIGHT (INCHES)	FRAME TYPE	TYPE	AREA S.F.	U-VALUE	UxA	NOTES
GYMNASIUM	100A	3'-0"	36	5'-6"	66	35.25	65.25	WOOD CLAD	RH CASEMENT	16.50	0.28	4.62	
GYMNASIUM	100B	3'-2"	38	5'-6"	66	37.25	65.25	WOOD CLAD	RH CASEMENT	17.42	0.28	4.88	EGRESS
OFFICE	101A	3'-2"	38	5'-6"	66	37.25	65.25	WOOD CLAD	RH CASEMENT	17.42	0.28	4.88	
OFFICE	101B	6'-0"	72	5'-6"	66	71.25	65.25	WOOD CLAD	FIXED	33.00	0.28	9.24	
GUEST BEDROOM	105A	3'-0"	36	5'-6"	66	35.25	65.25	WOOD CLAD	LH CASEMENT	16.50	0.28	4.62	
GUEST BEDROOM	105B	3'-2"	38	5'-6"	66	37.25	65.25	WOOD CLAD	FIXED	17.42	0.28	4.88	
GUEST BEDROOM	105C	3'-2"	38	5'-6"	66	37.25	65.25	WOOD CLAD	LH CASEMENT	17.42	0.28	4.88	EGRESS
LIVING	201A	5'-2.5"	62.5	9'-7"	115	61.75	114.25	WOOD CLAD	FIXED	49.91	0.28	13.98	TEMPERED
LIVING	201B	5'-2.5"	62.5	9'-7"	115	61.75	114.25	WOOD CLAD	FIXED	49.91	0.28	13.98	TEMPERED
LIVING	201C	6'-0"	72	9'-7"	115	71.25	114.25	WOOD CLAD	FIXED	57.50	0.28	16.10	TEMPERED
LIVING	201D.1	4'-6"	54	9'-7"	115	53.25	114.25	WOOD CLAD	CORNER	43.13	0.28	12.08	TEMPERED
LIVING	201D.2	4'-3"	51	9'-7"	115	50.25	114.25	WOOD CLAD	CORNER	40.73	0.28	11.40	TEMPERED
LIVING	201E	3'-0"	36	7'-2"	86	35.25	85.25	WOOD CLAD	FIXED	21.50	0.28	6.02	NARROW REED
LANDING 1	202A	7'-1"	85	5'-10.75"	70.75	84.25	70	WOOD CLAD	FIXED	41.76	0.28	11.69	TEMPERED
PLAYROOM	203A	3'-3.5"	39.5	9'-7"	115	38.75	114.25	WOOD CLAD	FIXED	31.55	0.28	8.83	TEMPERED
PLAYROOM	203B	3'-3.5"	39.5	9'-7"	115	38.75	114.25	WOOD CLAD	FIXED	31.55	0.28	8.83	TEMPERED
PLAYROOM	203C	4'-0"	48	9'-7"	115	47.25	114.25	WOOD CLAD	FIXED	38.33	0.28	10.73	TEMPERED
POWDER	204A	3'-0"	36	6'-8"	80	35.25	79.25	WOOD CLAD	FIXED	20.00	0.28	5.60	WOOD SLAT SCREEN, FIXED
DINING	206A	4'-2.5"	50.5	9'-7"	115	49.75	114.25	WOOD CLAD	FIXED	40.33	0.28	11.29	TEMPERED
DINING	206B	4'-2.5"	50.5	9'-7"	115	49.75	114.25	WOOD CLAD	FIXED	40.33	0.28	11.29	TEMPERED
DINING	206C	4'-2.5"	50.5	9'-7"	115	49.75	114.25	WOOD CLAD	FIXED	40.33	0.28	11.29	TEMPERED
DINING	206D	4'-2.5"	50.5	9'-7"	115	49.75	114.25	WOOD CLAD	FIXED	40.33	0.28	11.29	TEMPERED
DINING	206E	not used	not used	not used	not used	not used	not used	not used	not used	not used	not used	not used	
KITCHEN	207A	5'-8"	68	2'-8"	32	67.25	31.25	WOOD CLAD	FIXED CLERESTORY	15.11	0.28	4.23	
KITCHEN	207B	8'-10"	106	2'-8"	32	105.25	31.25	WOOD CLAD	FIXED CLERESTORY	23.56	0.28	6.60	
KITCHEN	207C	4'-1"	49	9'-7"	115	48.25	114.25	WOOD CLAD	FIXED	39.13	0.28	10.96	TEMPERED
KITCHEN	207D	2'-6"	30	8'-5.5"	101.5	29.25	100.75	ALUMINUM	FIXED SKYLIGHT	21.15	0.28	5.92	
LANDING 2	300A	7'-1"	85	6'-5.5"	77.5	84.25	76.75	WOOD CLAD	FIXED	45.75	0.28	12.81	TEMPERED
LANDING 2	300B	7'-1"	85	6'-5.5"	77.5	84.25	76.75	WOOD CLAD	FIXED	45.75	0.28	12.81	
HALL	301A	4'-0"	48	7'-0"	84	47.25	83.25	WOOD CLAD	FIXED	28.00	0.28	7.84	TEMPERED
HALL	301B	3'-0"	36	7'-0"	84	35.25	83.25	WOOD CLAD	RH CASEMENT	21.00	0.28	5.88	TEMPERED
MAIN BEDROOM	302A	2'-6"	30	7'-0"	84	29.25	83.25	WOOD CLAD	FIXED	17.50	0.28	4.90	TEMPERED, WOOD SLAT SCREEN, FIXED
MAIN BEDROOM	302B	2'-4"	28	7'-0"	84	27.25	83.25	WOOD CLAD	FIXED	16.33	0.28	4.57	TEMPERED
MAIN BEDROOM	302C	2'-11.5"	35.5	7'-0"	84	34.75	83.25	WOOD CLAD	RH CASEMENT	20.71	0.28	5.80	TEMPERED, EGRESS
WALK IN CLOSET	303A	3'-1"	37	8'-0.5"	96.5	36.25	95.75	WOOD CLAD	FIXED	24.80	0.28	6.94	TEMPERED, WOOD SLAT SCREEN, FIXED
WALK IN CLOSET	303B	3'-0"	36	13'-7.5"	163.5	35.25	162.75	ALUMINUM	FIXED SKYLIGHT	40.88	0.28	11.45	
MAIN BATH	304A	3'-2"	38	7'-0"	84	37.25	83.25	WOOD CLAD	LH CASEMENT	22.17	0.28	6.21	TEMPERED
MAIN BATH	304B	6'-0"	72	7'-0"	84	71.25	83.25	WOOD CLAD	FIXED	42.00	0.28	11.76	TEMPERED
MAIN BATH	304C	2'-0"	24	7'-0"	84	23.25	83.25	WOOD CLAD	FIXED	14.00	0.28	3.92	TEMPERED, WOOD SLAT SCREEN, FIXED
MAIN BATH	304D	2'-4"	28	7'-7.5"	89.5	27.25	88.75	ALUMINUM	FIXED SKYLIGHT	17.40	0.28	4.87	
BEDROOM 2	305A	3'-0"	36	8'-0.5"	96.5	35.25	95.75	WOOD CLAD	FIXED	24.13	0.28	6.76	TEMPERED
BEDROOM 2	305B	3'-0"	36	5'-0"	60	35.25	59.25	WOOD CLAD	RH CASEMENT	15.00	0.28	4.20	EGRESS
KIDS' BATH	306A	2'-6"	30	5'-0"	60	29.25	59.25	WOOD CLAD	RH CASEMENT	12.50	0.28	3.50	SHOWER WINDOW
BEDROOM 1	307A	3'-0"	36	5'-0"	60	35.25	59.25	WOOD CLAD	RH CASEMENT	15.00	0.28	4.20	
BEDROOM 1	307B	3'-0"	36	7'-0"	84	35.25	83.25	WOOD CLAD	LH CASEMENT	21.00	0.28	5.88	TEMPERED, EGRESS
WINDOW SUBTOTAL										1285.70	11.76	344.90	

EXTERIOR DOORS WITH MORE THAN 50% GLASS

ROOM	ELEVATION TAG	WIDTH (R.O.)	INCHES	HEIGHT (R.O.)	INCHES	FRAME WIDTH (INCHES)	FRAME HEIGHT (INCHES)	FRAME TYPE	TYPE	AREA S.F.	U-VALUE	UxA	NOTES
GYMNASIUM	100.1	6'-11"	83	8'-6"	102	82.25	101.25	WOOD CLAD	XO SLIDER	58.79	0.28	16.48	
FOYER	200.2	11'-10 1/4" (9'-8 1/8")	258.38	9'-7"	115	257.63	114.25	WOOD CLAD	XX-XXX MULTI-SLIDE	206.35	0.28	57.78	
PLAYROOM	203.3	3'-2"	38	9'-7"	115	37.25	114.25	WOOD CLAD	LH INSWING	30.35	0.28	8.50	
DINING	206.1	6'-9.5"	81.5	9'-7"	115	80.75	114.25	WOOD CLAD	XO SLIDER	65.09	0.28	18.22	

GLAZED DOOR SUBTOTAL 380.57 0.28 100.96

SQ. FT. GLAZING	1,628.27
TOTAL SQ. FT.	3,713.00
GLAZING %	44%

EXTERIOR DOORS

ROOM	ELEVATION TAG	WIDTH (R.O.)	INCHES	HEIGHT (R.O.)	INCHES	FRAME TYPE	TYPE	NOTES
FOYER	200.1	4'-7"	55	9'-8"	116	WOOD	LH SWING	FRONT DOOR; LOCKING HARDWARE; PROVIDE ALLOWANCE FOR CUSTOM PULL
REMOVED								
REMOVED								
STORAGE SHED	3.1	4'-6"	54	7'-0"	84	WOOD	DOUBLE SWING	
STORAGE SHED	3.2	4'-6"	54	7'-0"	84	WOOD	DOUBLE SWING	

INTERIOR DOORS

ROOM	ELEVATION TAG	WIDTH (R.O.)	INCHES	HEIGHT (R.O.)	INCHES	FRAME TYPE	TYPE	NOTES
GYMNASIUM	100.2	5'-8"	68	6'-8"	80	SOLID CORE	BIFOLD (3 PANEL)	
GYMNASIUM	100.3	3'-2"	38	6'-8"	80	SOLID CORE	LH SWING	
OFFICE	101.1	4'-0"	48	6'-8"	80	GLASS LITE	POCKET	
GUEST BATH	102.1	2'-7"	31	6'-8"	80	SOLID CORE	LH SWING	
CELLAR	103.1	2'-7"	31	6'-8"	80	SOLID CORE	RH SWING	
MECHANICAL	104.1	2'-7"	31	6'-8"	80	SOLID CORE	LH SWING	
GUEST BEDROOM	105.1	2'-7"	31	6'-8"	80	SOLID CORE	RH SWING	
GUEST BEDROOM	105.2	6'-5"	77	6'-8"	80	SOLID CORE	BYPASS	
PLAYROOM	203.1	4'-7"	55	8'-0"	96	SOLID CORE	POCKET	
PLAYROOM	203.2	2'-8"	32	8'-0"	96	SOLID CORE	LH SWING	
POWDER	204.1	2'-8"	32	8'-0"	96	SOLID CORE	POCKET	
MAIN BEDROOM	302.1	2'-8"	32	8'-0"	96	SOLID CORE	LH SWING	
MAIN BATH	304.1	2'-8"	32	8'-0"	96	SOLID CORE	LH SWING	
BEDROOM 2	305.1	2'-8"	32	8'-0"	96	SOLID CORE	LH SWING	
BEDROOM 2	305.2	6'-8"	80	8'-0"	96	SOLID CORE	BYPASS	
KIDS' BATH	306.1	2'-8"	32	8'-0"	96	SOLID CORE	RH SWING	
BEDROOM 1	307.1	2'-8"	32	8'-0"	96	SOLID CORE	RH SWING	
BEDROOM 1	307.1	6'-8"	80	8'-0"	96	SOLID CORE	BYPASS	

\*REQUIRED EGRESS WINDOWS:

NET CLEAR OPEN AREA = 5.7 SQ.FT. MIN  
MINIMUM CLEAR OPEN WIDTH = 20"  
MINIMUM CLEAR OPEN HEIGHT = 24"  
MAXIMUM SILL HEIGHT = 44"

2018 WSEC CHAPTER 6 QUALIFICATION - PRESCRIPTIVE - ENERGY CREDIT OPTION 1A: EFFICIENT BUILDING ENVELOPE - ALL WINDOWS AND DOORS SHALL BE NFRC CERTIFIED AND SHALL BE LABELED WITH NFRC CERTIFIED U-FACTOR- OR GLAZING ASSEMBLY SHALL MEET OR EXCEED .28 U VALUE WITH WRITTEN SPECIFICATION FROM GLAZING MANUFACTURER AND INSTALLER

GLAZING MAX%	UNLIMITED
VERT. GLAZ U-FACTOR	0.28
OVHD. GLAZ U-FACTOR	0.5
DOOR U-FACTOR	0.2 (R-5)
CEILINGS W/ATTICS	R-49
CEILINGS, VAULTED	R-38
ABOVE GRADE WALLS	R-21
BELOW GRADE INTERIOR	R-21
BELOW GRADE EXTERIOR	R-10
FLOOR	R-38
SLAB ON GRADE	R-10

WINDOW SCHEDULE NOTES:

1. THIS WINDOW SCHEDULE IS FOR DESIGN INTENT ONLY. THE SIZES SHOWN ARE NOMINAL WINDOW SIZES, ROUGH OPENINGS, GANGING DETAILS, ETC. WILL VARY BY WINDOW TYPE, MATERIAL AND MANUFACTURER. DESIGNATIONS AND DIMENSIONS SHOULD BE CONFIRMED WITH WINDOW MANUFACTURER. DO NOT ORDER WINDOW FROM THIS SCHEDULE. GENERAL CONTRACTORS SHOULD CONFIRM FRAMING AND RESULTING ROUGH OPENING PRIOR TO ORDERING WINDOWS. COORDINATE WITH ARCHITECT TO CONFIRM FINAL WINDOW PROPORTIONS, SIZES, AND BREAK-UP LIGHTS. WINDOWS, COORDINATE WITH ARCHITECT TO CONFIRM FINAL WINDOW PROPORTIONS, SIZES, AND BREAK-UP OF LIGHTS.

2. ALL WINDOWS AND DOORS SHALL MEET OR EXCEED .28 U VALUE WITH WRITTEN SPECIFICATION FROM GLAZING MANUFACTURER AND INSTALLER.

3. GLAZING U-FACTOR TO BE 0.28 OR BETTER IN ACCORDANCE WITH WSEC ENERGY CREDIT OPTION 1.3: EFFICIENT BUILDING ENVELOPE

4. CONTRACTOR SHALL VERIFY WINDOW AND DOOR ROUGH OPENINGS ARE SQUARE, LEVEL AND PLUM BEFORE INSTALLING WINDOW AND/OR DOOR UNITS.

5. WINDOW FLASHING, SILL PANS AND PER AAMA STANDARDS AND MANUFACTURER REQUIREMENTS.

2014

**Mercer  
Grove**

7345 SE 38TH ST  
MERCER ISLAND, WA 98040

TPN #3623500037

CAR2 #CAO21-006  
BUILDING PERMIT #2110-193

BUILDING PERMIT  
ISSUE DATE: 3/30/2023

REVISIONS

NO.	ISSUE	DATE
1	CITY REVISIONS	3.18.2022
2	CITY REVISIONS	8.30.2022
3	CITY REVISIONS	3.30.2023

DRAWN BY: HC  
CHECKED BY: MW

window, door, &  
hardware schedules

**A6.0**

# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue  
1. 10/13/21 PERMIT \_\_\_\_\_  
2. 3/30/22 CORRECTIONS \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_  
5. \_\_\_\_\_

Print Date  
3/30/22

Drawing Title  
**GENERAL STRUCTURAL NOTES**

Drawing Number  
**S1.0**

**GENERAL STRUCTURAL NOTES**  
(THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE PLANS)

**CRITERIA**

- ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, THE INTERNATIONAL RESIDENTIAL CODE (2018 EDITION), & LOCAL BUILDING CODE MODIFICATIONS TO THE INTERNATIONAL RESIDENTIAL CODE.
- DESIGN LOADING CRITERIA:  
  
FLOOR LIVE LOAD (RESIDENTIAL) . . . . .40 PSF  
DECK LIVE LOAD (RESIDENTIAL) . . . . .60 PSF  
ROOF SNOW LOAD (INCLUDING 5 PSF RAIN) . . . . .30 PSF

**WIND:**  
BASIC WIND SPEED (3-SECOND GUST) . . . . .110 MPH  
WIND IMPORTANCE FACTOR (Iw) . . . . .1.0  
WIND EXPOSURE . . . . .C  
TOPOGRAPHICAL FACTOR (Kzt) . . . . . 1.3

**EARTHQUAKE:**  
LAT. / LONG. . . . .47.576 / -122.241  
SEISMIC IMPORTANCE FACTOR (Ie) . . . . .1.0  
SITE CLASS . . . . .D  
MAPPED SPECTRAL RESPONSE (Ss/S1) . . . . .1.42g/0.49g  
SPECTRAL RESPONSE COEF. (SDS/SD1) . . . . .0.94g/0.59g  
SEISMIC FORCE RESISTING SYSTEM/RESPONSE MODIFICATION FACTOR:  
PLYWOOD SHEAR WALLS / R = 6.5  
SPECIAL CONCRETE SHEAR WALLS / R = 5.0  
STEEL CANTILEVER COLUMN / R = 1.25  
DESIGN BASE SHEAR. . . . HOUSE = 18.6k / CARPORT = 5.0k  
SEISMIC RESPONSE COEFFICIENT (Cs) . . . . .0.145  
SEISMIC DESIGN CATEGORY . . . . .D  
ANALYSIS PROCEDURE . . . . .EQUIVALENT LATERAL FORCE

REFERENCE: USGS NATIONAL SEISMIC HAZARD MAPPING PROJECT, 2008 DATA

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY DIMENSIONS AND CONDITIONS FOR COMPATIBILITY AND SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO COMMENCING ANY WORK AND DETERMINE THE LOCATION OF ALL ADJACENT UNDERGROUND UTILITIES PRIOR TO COMMENCING EXCAVATION, AND NOTIFY ARCHITECT OF DISCREPANCIES AND CONFLICTS.
- CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES OF THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.
- SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH SECTIONS 110 AND 1704 OF THE INTERNATIONAL BUILDING CODE AND THE PROJECT SPECIFICATIONS BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS.

- STRUCTURAL STEEL FABRICATION AND ERECTION (INCLUDING FIELD WELDING AND HIGH-STRENGTH FIELD BOLTING)
- EXPANSION BOLTS AND THREADED EXPANSION INSERTS
- EPOXY GROUTED INSTALLATIONS

- SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

- STRUCTURAL STEEL

APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

**GEOTECHNICAL**

- FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH (CONTROLLED, COM-

PACTED STRUCTURAL FILL OR BOTH) AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

ALLOWABLE SOIL PRESSURE. . . . . 2000 PSF  
LATERAL EARTH PRESSURE (ACTIVE) . . . . . 35 PCF  
LATERAL EARTH PRESSURE (PASSIVE) . . . . . 300 PCF  
COEFFICIENT OF FRICTION . . . . . 0.35

SOILS REPORT REFERENCE: GEO GROUP NORTHWEST, INC. REPORT G-5275

- GEOFOAM SHALL CONSIST OF EXPANDED POLYSTYRENE (EPS) MANUFACTURED IN BLOCK FORM FOR USE AS LIGHTWEIGHT GEOTECHNICAL FILL. GEOFOAM SHALL COMPLY WITH ASTM D6817 "STANDARD SPECIFICATION FOR RIGID CELLULAR POLYSTYRENE GEOFOAM." GEOFOAM SHALL BE TYPE EPS19 (AS DESIGNATED BY ASTM D6817), WITH A MINIMUM DENSITY OF 1.15 PCF AND A COMPRESSIVE RESISTANCE OF 5.8 PSI AT 1% DEFORMATION. GEOFOAM SHALL BE INERT AND NON-NUTRITIVE AND SHALL BE TREATED BY THE MANUFACTURER WITH A TESTED AND PROVEN TERMITE TREATMENT FOR BELOW GRADE APPLICATION, MEETING THE REQUIREMENTS OF ICC ES AC239.

**CONCRETE**

- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF F' C = 2,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS.

ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618.

- REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

- REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 318-11. LAP ALL CONTINUOUS REINFORCEMENT 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:  
A. FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE . . . . .3"  
B. ALL OTHER SURFACES . . . . .1 1/2"

- NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

**ANCHORAGE**

- EXPANSION BOLTS INTO CONCRETE AND GROUTED MASONRY UNITS SHALL BE "STRONG-BOLT" ANCHORS AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ER 1771, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS.

- EPOXY-GROUTED ITEMS SPECIFIED ON THE DRAWINGS SHALL BE GROUTED WITH "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2508.

- TITEN HD ANCHORS SPECIFIED ON THE DRAWINGS SHALL CONSIST OF "TITEN HD" HEAVY DUTY SCREW ANCHORS AS MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED IN STRICT ACCORDANCE WITH ICC ESR 2713.

**STEEL**

- STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON THE LATEST EDITIONS OF THE AISC SPECIFICATIONS AND CODES:

- SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS-ALLOWABLE STRESS DESIGN.
- CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, AMENDED BY THE DELETION OF THE FOLLOWING SENTENCE IN PARAGRAPH 4.2.1: "THIS APPROVAL CONSTITUTES THE OWNER'S ACCEPTANCE OF ALL RESPONSIBILITY FOR THE DESIGN ADEQUACY OF ANY DETAIL CONFIGURATION OF CONNECTIONS DEVELOPED BY THE FABRICATOR AS PART OF HIS PREPARATION OF THESE SHOP DRAWINGS."
- SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. BOLTS IN SHEAR OR BEARING TYPE CONNECTIONS NEED ONLY BE TIGHTENED TO THE SNUG TIGHT CONDITION PER SECTION 8(C).

- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM STANDARDS. PLATES, ANGLES, AND CHANNELS SHALL CONFORM TO ASTM A36, FY = 36 KSI. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, FY = 35 KSI. SQUARE OR RECTANGULAR STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 46 KSI. ANCHOR BOLTS AND CONNECTION BOLTS SHALL CONFORM TO ASTM A307. THREADED ROD AND STUDS SHALL CONFORM TO ASTM A36.

- ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED.

**WOOD**

- FRAMING LUMBER SHALL BE KILN DRIED OR MC-15, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD GRADING RULES FOR WEST COAST LUMBER NO. 17, LATEST EDITION. UNLESS NOTED OTHERWISE ON PLAN FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS: (2X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, FB = 850 PSI
(3X & 4X MEMBERS)	DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB = 1000 PSI

STRUCTURAL LIGHT FRAMING: (INCL. 3X AND 4X POSTS)	DOUGLAS FIR NO. 2 MINIMUM BASE VALUE, FB = 900 PSI
--	---

BEAMS AND STRINGERS: (INCL. 6X AND LARGER)	DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FB = 1350 PSI
---	--

POSTS AND TIMBERS: (6X6 AND LARGER )	DOUGLAS FIR NO. 1 MINIMUM BASE VALUE, FC = 1000 PSI
---	--

STUDS, PLATES & MISC. FRAMING:	DOUGLAS FIR OR HEM-FIR STANDARD GRADE
--------------------------------	---------------------------------------

2X6 STUDS AND PLATES:	HEM-FIR NO.3/ STUD GRADE
-----------------------	--------------------------

- GLUED LAMINATED MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ASTM AND AITC STANDARDS. EACH MEMBER SHALL BEAR AN AITC IDENTIFICATION MARK AND SHALL BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE. ALL SIMPLE SPAN BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V4, FB = 2,400 PSI, FV = 165 PSI. ALL CANTILEVERED BEAMS SHALL BE DOUGLAS FIR COMBINATION 24F-V8, FB = 2400 PSI, FV = 165 PSI. CAMBER ALL SIMPLE SPAN GLULAM BEAMS TO 2,000' RADIUS, UNLESS SHOWN OTHERWISE ON THE PLANS. ALL COLUMNS SHALL BE DOUGLAS FIR COMBINATION NO. 5, FC = 2400 PSI, E = 2.0 X 10E6 PSI.

- ENGINEERED LUMBER MEMBERS SHALL BE MANUFACTURED UNDER A PROCESS BY THE NATIONAL RESEARCH BOARD. EACH PIECE SHALL BEAR A STAMP OR STAMPS NOTING THE NAME AND PLANT NUMBER OF THE MANUFACTURER, THE GRADE, THE NATIONAL RESEARCH BOARD NUMBER, AND THE QUALITY CONTROL AGENCY. ALL LUMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH THE APPROPRIATE NER REPORT AND GLUED WITH A WATERPROOF ADHESIVE MEETING THE REQUIREMENTS OF ASTM D2559 WITH ALL GRAIN PARALLEL WITH THE LENGTH OF THE MEMBER.

PSL	FB = 2900 PSI	E = 2000 KSI	FV = 290 PSI	NER-292
LSL	FB = 2250 PSI	E = 1500 KSI	FV = 285 PSI	NER-481
LVL	FB = 2600 PSI	E = 1800 KSI	FV = 285 PSI	NER-126

DESIGN SHOWN ON PLANS IS BASED ON LUMBER MANUFACTURED BY THE WEYERHAUSER CORPORATION. ALTERNATE MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH MEMBERS PROVIDED.

ALL PROPOSED HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.

- PREFABRICATED PLYWOOD WEB JOIST DESIGN SHOWN ON PLANS IS BASED ON JOISTS MANUFACTURED BY THE WEYERHAUSER CORPORATION AND SHALL BE FURNISHED AND INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED SPECIFICATIONS. ALL NECESSARY BRIDGING, BLOCKING, BLOCKING PANELS, STIFFENERS, ETC., SHALL BE DETAILED AND FURNISHED BY THE MANUFACTURER. SUBMIT SHOP DRAWINGS TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. ALTERNATE PLYWOOD WEB JOIST MANUFACTURERS MAY BE USED SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND STRUCTURAL ENGINEER. ALTERNATE JOIST HANGERS AND OTHER HARDWARE MAY BE SUBSTITUTED FOR ITEMS SHOWN PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. ALL JOIST HANGERS AND OTHER HARDWARE SHALL BE COMPATIBLE IN SIZE WITH PLYWOOD WEB JOIST PROVIDED.

ALL HOLES SHALL CONFORM TO THE MANUFACTURERS SPECIFICATIONS. IF THREE OR FEWER HOLES ARE PROPOSED FOR A SINGLE JOIST, HOLES SHALL CONFORM TO THE WEYERHAUSER ILEVEL TJI ALLOWABLE HOLE CHART. IF MORE THEN THREE HOLES ARE PROPOSED FOR ONE SINGLE JOIST, ALL HOLE SIZES AND LOCATIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR APPROVAL TWO WORKING DAYS PRIOR TO DRILLING HOLES.

- PLYWOOD SHEATHING SHALL BE GRADE C-D, EXTERIOR GLUE OR STRUCTURAL II, EXTERIOR GLUE IN CONFORMANCE WITH APA STANDARDS.

- ROOF SHEATHING SHALL BE 5/8" (NOM.) WITH SPAN RATING 24/0.
- FLOOR SHEATHING SHALL BE 3/4" (NOM.) WITH SPAN RATING 40/20.
- WALL SHEATHING SHALL BE 1/2" (NOM.) WITH SPAN RATING 24/0.

REFER TO WOOD FRAMING NOTES BELOW FOR TYPICAL NAILING.

- ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY. ALL WOOD EXPOSED TO WEATHER WITHOUT THE ADEQUATE PROTECTION OF A ROOF OR EAVE SHALL BE AN APPROVED WOOD OF NATURAL RESISTANCE TO DECAY OR PRESSURE TREATED. SUCH MEMBERS INCLUDE HORIZONTAL MEMBERS SUCH AS GIRDERS, JOISTS, AND DECKING; OR VERTICAL MEMBERS SUCH AS POSTS, POLES, AND COLUMNS.

- TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR MOST RECENT CATALOG. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM) AS MEMBERS CONNECTED. HANGERS IN DIRECT CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE EITHER STAINLESS STEEL (SST300), POST HOT-DIPPED GALVANIZED(HDG) OR GALVANIZED WITH A MINIMUM OF 1.85OZ ZINC PER SQUARE INCH (ZMAX). UNLESS NOTED OTHERWISE, ALL LUMBER JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS, AND ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITT" OR "IUT" SERIES JOIST HANGERS.

- WOOD FASTENERS

- NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6D	2"	0.113"
8D	2-1/2"	0.131"
10D	3"	0.148"
12D	3-1/4"	0.148"
16D	3-1/2"	0.162"

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

- NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTER-SINKING PERMITTED.
- FASTENERS IN CONTACT WITH PRESERVATIVE-TREATED OR FIRE RETARDANT-TREATED WOOD SHALL BE HOT DIPPED ZINC COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER.

- STRONG-WALLS SHALL CONSIST OF PREFABRICATED WOOD SHEAR PANELS AS MANUFACTURED BY THE SIMPSON COMPANY AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ICC ESR-1267.

- WOOD FRAMING NOTES--THE FOLLOWING APPLY UNLESS OTHERWISE SHOWN:

- ALL WOOD FRAMING DETAILS NOT SHOWN OTHERWISE SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE INTERNATIONAL BUILDING CODE. MINIMUM NAILING, UNLESS OTHERWISE NOTED, SHALL CONFORM TO TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE. UNLESS NOTED OTHERWISE, ALL NAILS SHALL BE COMMON. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD.

- WALL FRAMING: ALL STUD WALLS SHOWN AND NOT OTHERWISE NOTED SHALL BE 2X4 STUDS @ 16" O.C. AT INTERIOR WALLS AND 2X6 @ 16" O.C. AT EXTERIOR WALLS. TWO STUDS MINIMUM SHALL BE PROVIDED AT THE END OF ALL WALLS AND AT EACH SIDE OF ALL OPENINGS. TWO 2X8 HEADERS SHALL BE PROVIDED OVER ALL OPENINGS NOT OTHERWISE NOTED. SOLID BLOCKING FOR WOOD COLUMNS SHALL BE PROVIDED THROUGH FLOORS TO SUPPORTS BELOW. WALLS SHALL HAVE A SINGLE BOTTOM PLATE AND A DOUBLE TOP PLATE. END NAIL TOP PLATE TO EACH STUD WITH TWO 16D NAILS, AND TOENAIL OR END NAIL EACH STUD TO BOTTOM PLATE WITH TWO 16D NAILS. FACE NAIL DOUBLE TOP PLATE WITH 16D AT 12" O.C. AND LAP MINIMUM 4'-0" AT JOINTS AND PROVIDE SIX 16D NAILS AT 4" O.C. EACH SIDE OF JOINT. ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16D NAILS AT 12" O.C. STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS (WITH 7" MINIMUM EMBEDMENT) @ 4'-0" O.C. UNLESS INDICATED OTHERWISE. INDIVIDUAL MEMBERS OF BUILT-UP POSTS SHALL BE NAILED TO EACH OTHER WITH

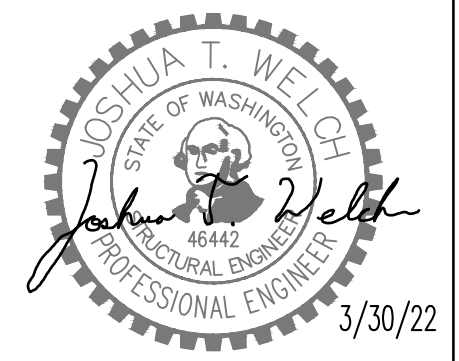
16D @ 12" O.C. STAGGERED. REFER TO THE PLANS AND SHEAR WALL SCHEDULE FOR REQUIRED SHEATHING AND NAILING. WHEN NOT OTHERWISE NOTED, PROVIDE GYPSUM WALLBOARD ON INTERIOR SURFACES NAILED TO ALL STUDS, TOP AND BOTTOM PLATES AND BLOCKING WITH NAILS AT 7" O.C. USE 5D COOLER NAILS FOR 1/2" GWB AND 6D COOLER NAILS FOR 5/8" GWB. WHEN NOT OTHERWISE NOTED, PROVIDE 1/2" (NOM.) APA RATED SHEATHING (SPAN RATING 24/0) ON EXTERIOR SURFACES NAILED AT ALL PANEL EDGES (BLOCK UNSUPPORTED EDGES), TOP AND BOTTOM PLATES WITH 8D @ 6" O.C. AND TO ALL INTERMEDIATE STUDS AND BLOCKING WITH 8D @ 12" O.C. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS.

C. FLOOR AND ROOF FRAMING: PROVIDE DOUBLE JOISTS AROUND ALL OPENINGS IN FLOORS OR ROOFS UNLESS OTHERWISE NOTED. PROVIDE SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16D NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH METAL JOIST HANGERS IN ACCORDANCE WITH TIMBER CONNECTOR NOTE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16D @ 12" O.C. STAGGERED. UNLESS OTHERWISE NOTED ON THE PLANS, ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS AND NAILED WITH 8D NAILS @ 6" O.C. TO FRAMED PANEL EDGES AND OVER STUD WALLS AS SHOWN ON PLANS AND @ 12" O.C. TO INTERMEDIATE SUPPORTS. PROVIDE APPROVED PLYWOOD EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND-GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF ALL ROOF AND FLOOR SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16D @ 12" O.C. UNLESS OTHERWISE NOTED. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS PROVIDE FLAT 2X BLOCKING AT ALL UNFRAMED PLYWOOD PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

**J**Welch  
Engineering LLC

P.O. Box 28427  
Seattle Wa. 98118

Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.9553



# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

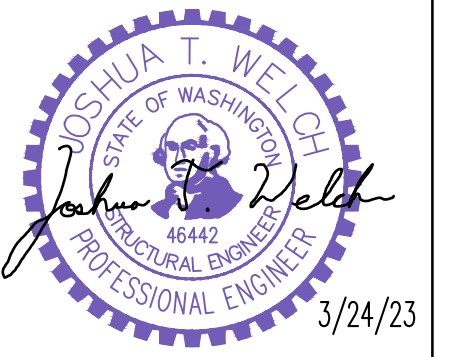
Architect  
**WITTMAN ESTES**  
  
5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue	
1. 10/13/21	PERMIT
2. 3/30/22	CORRECTIONS
3.	
4.	
5.	

Print Date  
3/30/22

Drawing Title  
**GENERAL STRUCTURAL NOTES**

Drawing Number  
**S1.1**



**FOUNDATION PLAN NOTES**

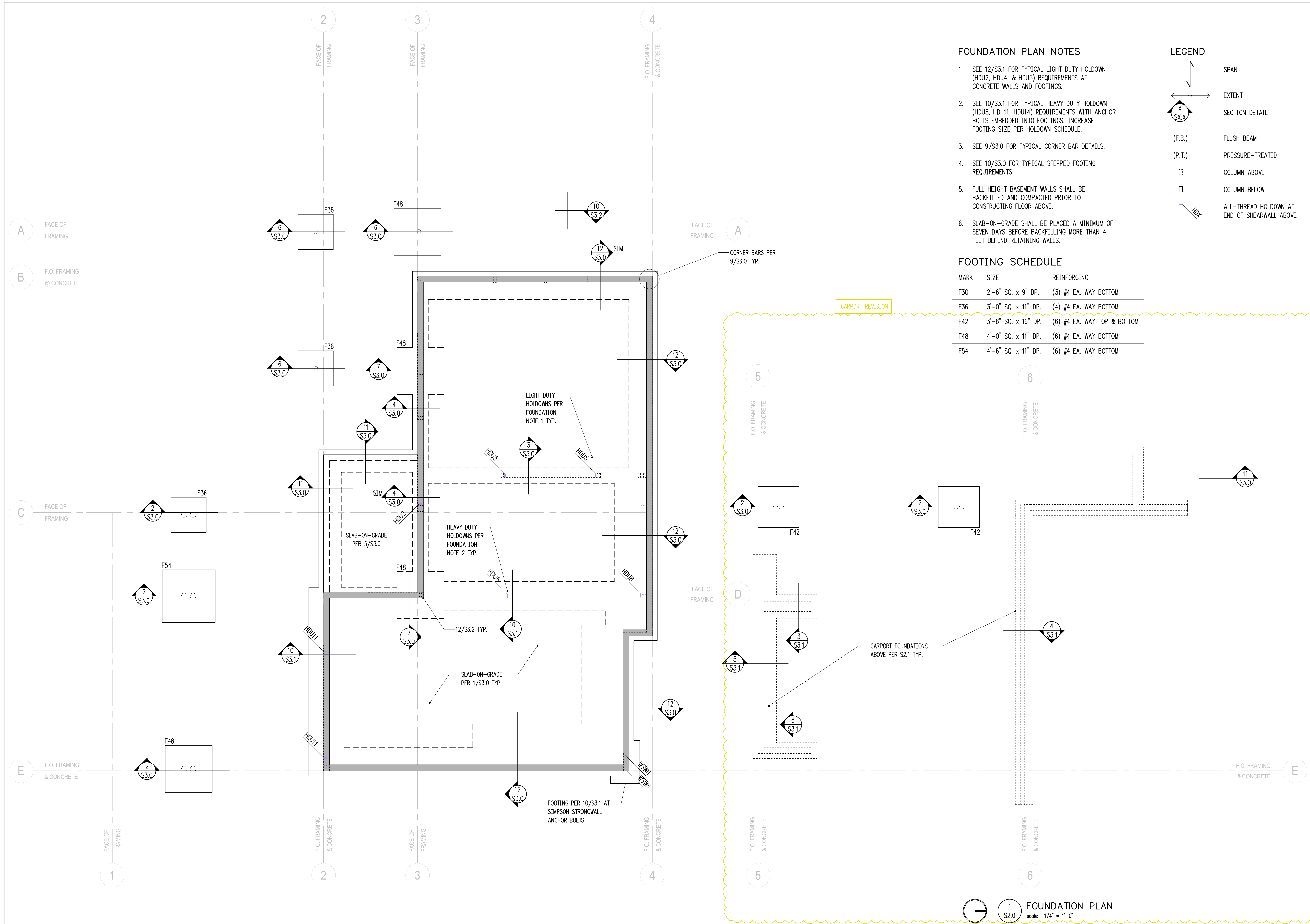
- SEE 12/S3.1 FOR TYPICAL LIGHT DUTY HOLDOWN (HDU2, HDU4, & HDU5) REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- SEE 10/S3.1 FOR TYPICAL HEAVY DUTY HOLDOWN (HDU8, HDU11, HDU14) REQUIREMENTS WITH ANCHOR BOLTS EMBEDDED INTO FOOTINGS. INCREASE FOOTING SIZE PER HOLDOWN SCHEDULE.
- SEE 9/S3.0 FOR TYPICAL CORNER BAR DETAILS.
- SEE 10/S3.0 FOR TYPICAL STEPPED FOOTING REQUIREMENTS.
- FULL HEIGHT BASEMENT WALLS SHALL BE BACKFILLED AND COMPACTED PRIOR TO CONSTRUCTING FLOOR ABOVE.
- SLAB-ON-GRADE SHALL BE PLACED A MINIMUM OF SEVEN DAYS BEFORE BACKFILLING MORE THAN 4 FEET BEHIND RETAINING WALLS.

**LEGEND**

- SPAN
- EXTENT
- SECTION DETAIL
- (F.B.) FLUSH BEAM
- (P.T.) PRESSURE-TREATED
- COLUMN ABOVE
- COLUMN BELOW
- ALL-THREAD HOLDOWN AT END OF SHEARWALL ABOVE

**FOOTING SCHEDULE**

MARK	SIZE	REINFORCING
F30	2'-6" SQ. x 9" DP.	(3) #4 EA. WAY BOTTOM
F36	3'-0" SQ. x 11" DP.	(4) #4 EA. WAY BOTTOM
F42	3'-6" SQ. x 16" DP.	(6) #4 EA. WAY TOP & BOTTOM
F48	4'-0" SQ. x 11" DP.	(6) #4 EA. WAY BOTTOM
F54	4'-6" SQ. x 11" DP.	(6) #4 EA. WAY BOTTOM



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

**MERCER GROVE**

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue

1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.	8/18/22	TREE PROTECTION REV.
4.	3/24/23	CARPORIT REVISION
5.		

Print Date  
3/24/23

Drawing Title  
**FOUNDATION PLAN**

Drawing Number  
**S2.0**



HANGER SCHEDULE

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x6	LUS26	10d COMMON	830 lb
(2)2x6	HU26-2 (MAX)	16d	1540 lb
2x8	LUS28	10d COMMON	1055 lb
(2)2x8	HUC28-2 (MAX)	16d	1490 lb
9/2" TJI 110	IUS1.81/9.5	10d COMMON	935 lb
1 3/4"x11/8" LSL	HUC11	16d	3275 lb
3/2"x11/8" LSL	HUC412 MAX.	16d	3275 lb
11/8" TJI 110	IUS1.81/11.88	10d COMMON	1170 lb
11/8" TJI 360	IUS2.37/11.88	10d COMMON	1170 lb
5/4"x11/8" PSL	HUC612-SDS	1/4"x2/2" SDS	5185 lb

SEE PLAN FOR HANGERS NOT SHOWN HERE OR CONTACT ENGINEER. HANGERS WITH (MAX.) DESIGNATES ALL ROUND AND TRIANGLE HOLES TO BE DRILLED FOR NAILING.

FOUNDATION PLAN NOTES

- SEE 12/S3.1 FOR TYPICAL LIGHT DUTY HOLDOWN (HDU2, HDU4, & HDU5) REQUIREMENTS AT CONCRETE WALLS AND FOOTINGS.
- SEE 10/S3.1 FOR TYPICAL HEAVY DUTY HOLDOWN (HDU8, HDU11, HDU14) REQUIREMENTS WITH ANCHOR BOLTS EMBEDDED INTO FOOTINGS. INCREASE FOOTING SIZE PER HOLDOWN SCHEDULE.
- SEE 9/S3.0 FOR TYPICAL CORNER BAR DETAILS.
- SEE 10/S3.0 FOR TYPICAL STEPPED FOOTING REQUIREMENTS.
- FULL HEIGHT BASEMENT WALLS SHALL BE BACKFILLED AND COMPACTED PRIOR TO CONSTRUCTING FLOOR ABOVE.
- SLAB-ON-GRADE SHALL BE PLACED A MINIMUM OF SEVEN DAYS BEFORE BACKFILLING MORE THAN 4 FEET BEHIND RETAINING WALLS.

FRAMING PLAN NOTES

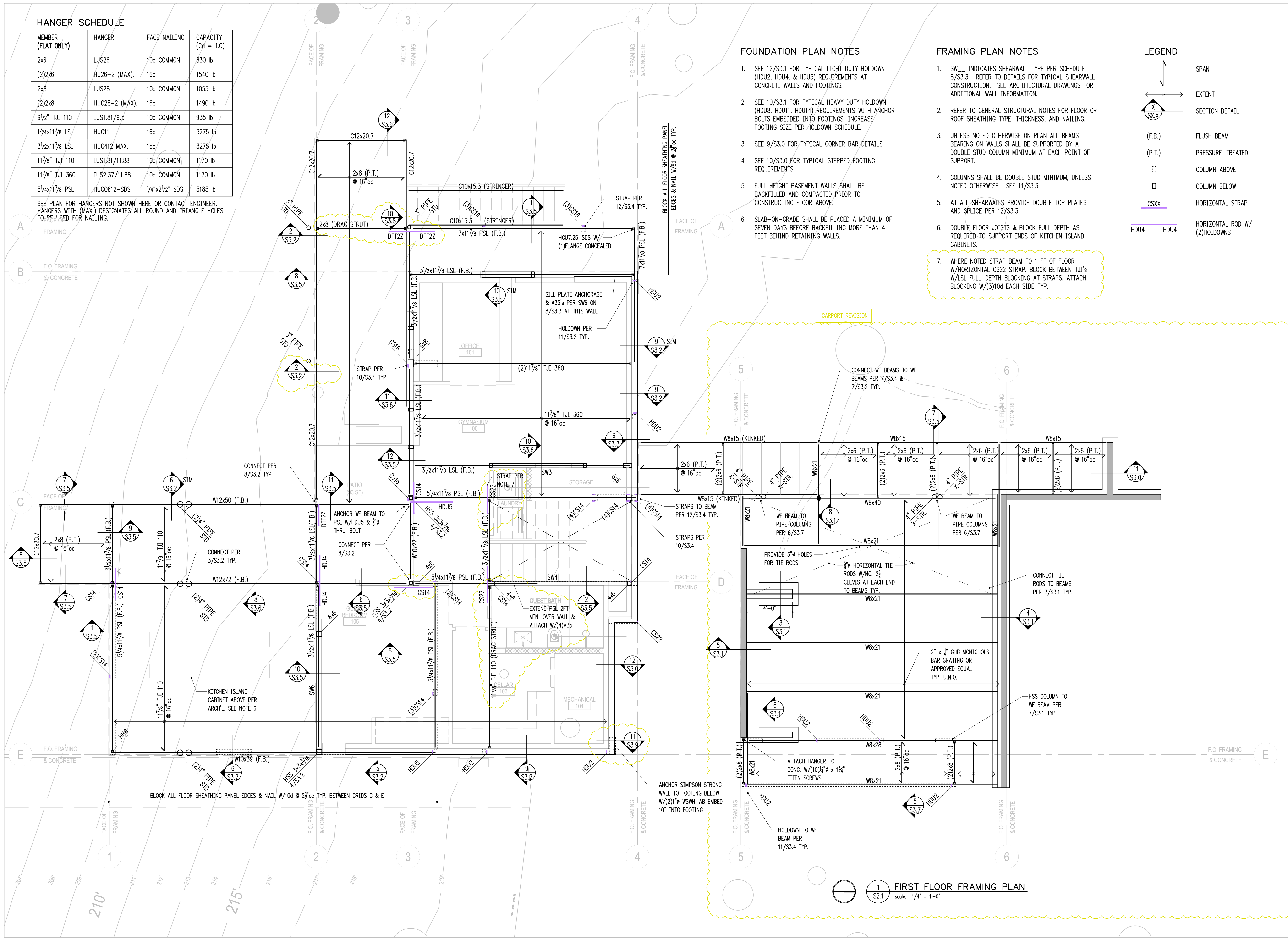
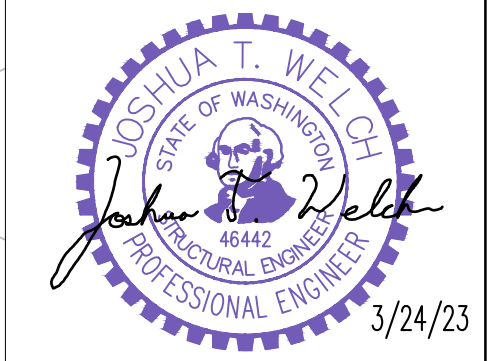
- SW... INDICATES SHEARWALL TYPE PER SCHEDULE 8/S3.3. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- UNLESS NOTED OTHERWISE ON PLAN ALL BEAMS BEARING ON WALLS SHALL BE SUPPORTED BY A DOUBLE STUD COLUMN MINIMUM AT EACH POINT OF SUPPORT.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S3.3.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S3.3.
- DOUBLE FLOOR JOISTS & BLOCK FULL DEPTH AS REQUIRED TO SUPPORT ENDS OF KITCHEN ISLAND CABINETS.
- WHERE NOTED STRAP BEAM TO 1 FT OF FLOOR W/HORIZONTAL CS22 STRAP. BLOCK BETWEEN TJJ'S W/LSL FULL-DEPTH BLOCKING AT STRAPS. ATTACH BLOCKING W/(3)10d EACH SIDE TYP.

LEGEND

- SPAN
- EXTENT
- SECTION DETAIL
- (F.B.) FLUSH BEAM
- (P.T.) PRESSURE-TREATED
- ∴ COLUMN ABOVE
- COLUMN BELOW
- CSXX HORIZONTAL STRAP
- HDU4 HDU4 HORIZONTAL ROD W/ (2)HOLDOWNS

JWelch Engineering LLC

P.O. Box 28427  
Seattle Wa. 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.8553



MERCER GROVE

38XX W MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
WITTMAN ESTES

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue

1. 10/13/21	PERMIT
2. 3/30/22	CORRECTIONS
3. 8/18/22	TREE PROTECTION REV.
4. 3/24/23	CARPORT REVISION
5.	

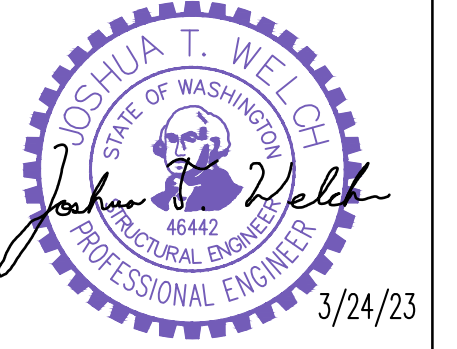
Print Date  
3/24/23

Drawing Title  
FIRST FLOOR FRAMING PLAN

Drawing Number

S2.1

1 FIRST FLOOR FRAMING PLAN  
S2.1 scale: 1/4" = 1'-0"



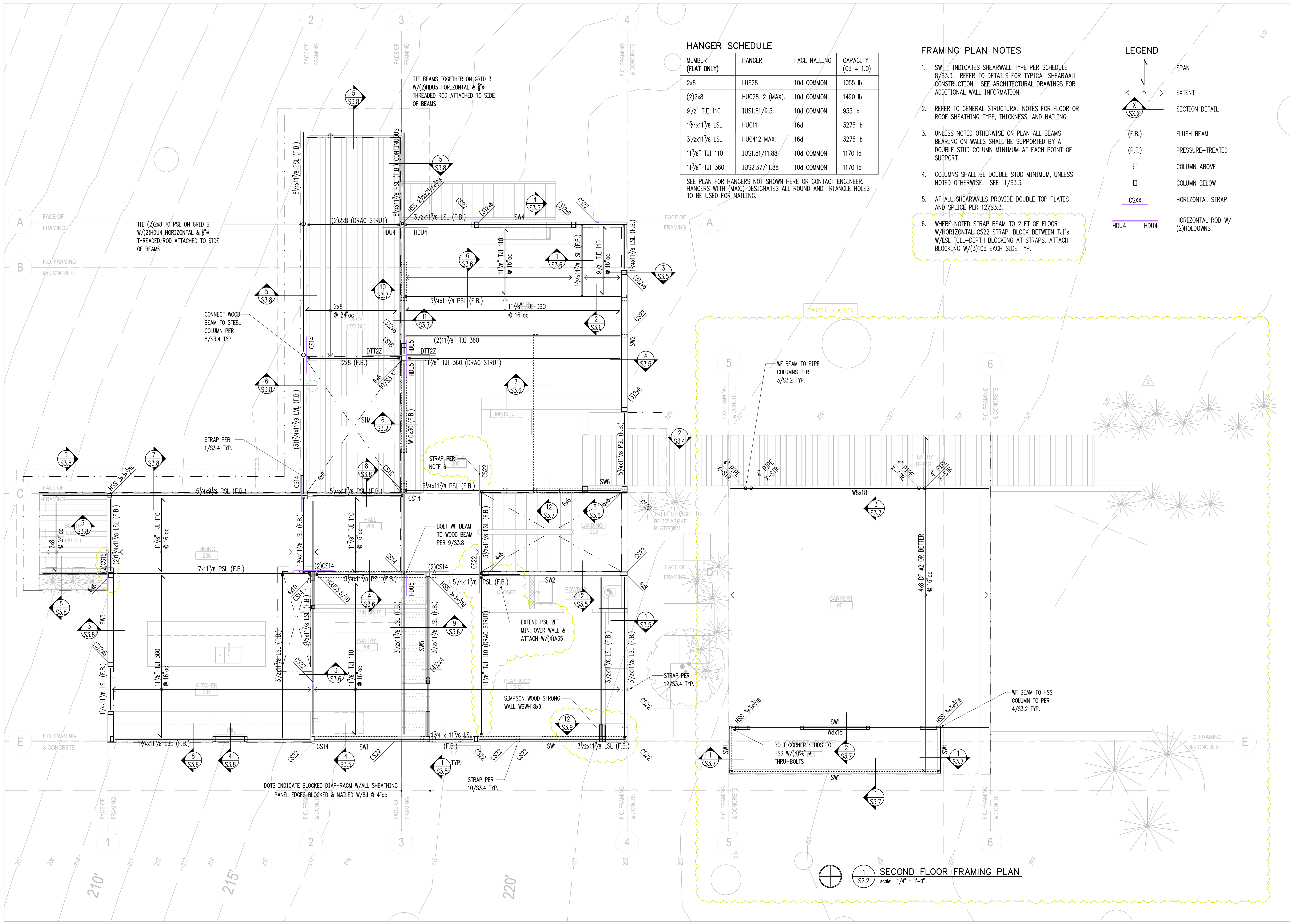
**HANGER SCHEDULE**

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
2x8	LUS28	10d COMMON	1055 lb
(2)2x8	HUC28-2 (MAX)	10d COMMON	1490 lb
9/2" TJI 110	IUS1.81/9.5	10d COMMON	935 lb
1 3/4x11 7/8 LSL	HUC11	16d	3275 lb
3/2x11 7/8 LSL	HUC412 MAX.	16d	3275 lb
11 7/8" TJI 110	IUS1.81/11.88	10d COMMON	1170 lb
11 7/8" TJI 360	IUS2.37/11.88	10d COMMON	1170 lb

- FRAMING PLAN NOTES**
- SW... INDICATES SHEARWALL TYPE PER SCHEDULE 8/S3.3. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
  - REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
  - UNLESS NOTED OTHERWISE ON PLAN ALL BEAMS BEARING ON WALLS SHALL BE SUPPORTED BY A DOUBLE STUD COLUMN MINIMUM AT EACH POINT OF SUPPORT.
  - COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S3.3.
  - AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S3.3.
  - WHERE NOTED STRAP BEAM TO 2 FT OF FLOOR W/HORIZONTAL CS22 STRAP, BLOCK BETWEEN TJI'S W/LSL FULL-DEPTH BLOCKING AT STRAPS. ATTACH BLOCKING W/(3)10d EACH SIDE TYP.

- LEGEND**
- SPAN
  - EXTENT
  - SECTION DETAIL
  - (F.B.) FLUSH BEAM
  - (P.T.) PRESSURE-TREATED
  - ⋮ COLUMN ABOVE
  - COLUMN BELOW
  - CSXX HORIZONTAL STRAP
  - HDU4 HDU4 HORIZONTAL ROD W/ (2)HOLD-DOWNS

SEE PLAN FOR HANGERS NOT SHOWN HERE OR CONTACT ENGINEER. HANGERS WITH (MAX.) DESIGNATES ALL ROUND AND TRIANGLE HOLES TO BE USED FOR NAILING.



# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA. 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

**Issue**

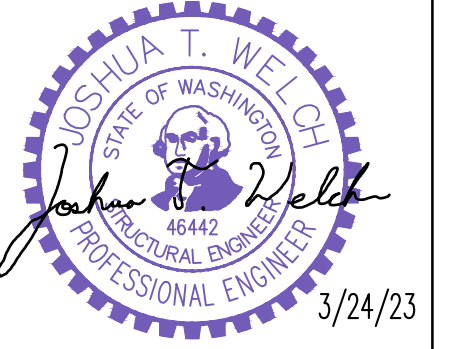
1. 10/13/21	PERMIT
2. 3/30/22	CORRECTIONS
3. 8/18/22	TREE PROTECTION REV.
4. 3/24/23	CARPORT REVISION
5.	

Print Date  
3/24/23

Drawing Title  
**SECOND FLOOR FRAMING PLAN**

Drawing Number  
**S2.2**

**1 SECOND FLOOR FRAMING PLAN**  
scale: 1/4" = 1'-0"



**HANGER SCHEDULE**

MEMBER (FLAT ONLY)	HANGER	FACE NAILING	CAPACITY (Cd = 1.0)
1 3/4"x11/8" LSL	HUC11	16d	3275 lb
3/2"x11/8" LSL	HUC412 MAX.	16d	3275 lb
11/8" TJI 110	IUS1.81/11.88	10d COMMON	1170 lb
11/8" TJI 230	IUS2.37/11.88	10d COMMON	1170 lb

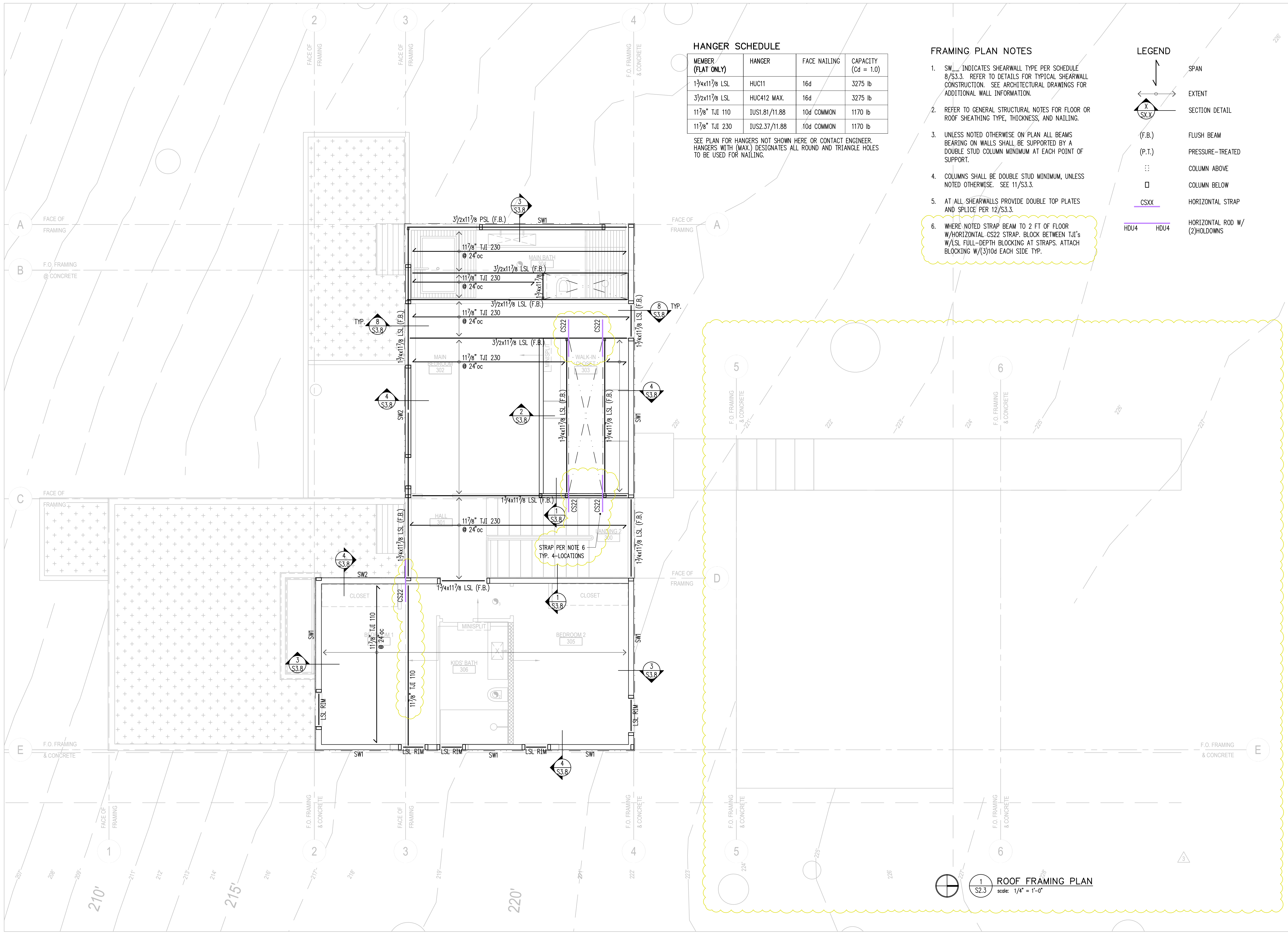
SEE PLAN FOR HANGERS NOT SHOWN HERE OR CONTACT ENGINEER. HANGERS WITH (MAX.) DESIGNATES ALL ROUND AND TRIANGLE HOLES TO BE USED FOR NAILING.

**FRAMING PLAN NOTES**

- SW indicates SHEARWALL TYPE PER SCHEDULE 8/S3.3. REFER TO DETAILS FOR TYPICAL SHEARWALL CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL WALL INFORMATION.
- REFER TO GENERAL STRUCTURAL NOTES FOR FLOOR OR ROOF SHEATHING TYPE, THICKNESS, AND NAILING.
- UNLESS NOTED OTHERWISE ON PLAN ALL BEAMS BEARING ON WALLS SHALL BE SUPPORTED BY A DOUBLE STUD COLUMN MINIMUM AT EACH POINT OF SUPPORT.
- COLUMNS SHALL BE DOUBLE STUD MINIMUM, UNLESS NOTED OTHERWISE. SEE 11/S3.3.
- AT ALL SHEARWALLS PROVIDE DOUBLE TOP PLATES AND SPLICE PER 12/S3.3.
- WHERE NOTED STRAP BEAM TO 2 FT OF FLOOR W/HORIZONTAL CS22 STRAP, BLOCK BETWEEN TJI'S W/LSL FULL-DEPTH BLOCKING AT STRAPS. ATTACH BLOCKING W/(3)10d EACH SIDE TYP.

**LEGEND**

- SPAN
- EXTENT
- SECTION DETAIL
- (F.B.) FLUSH BEAM
- (P.T.) PRESSURE-TREATED
- COLUMN ABOVE
- COLUMN BELOW
- CSXX HORIZONTAL STRAP
- HDU4 HDU4 HORIZONTAL ROD W/ (2)HOLD-DOWNS



**1 ROOF FRAMING PLAN**  
S2.3  
scale: 1/4" = 1'-0"

**MERCER GROVE**

38XX W MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

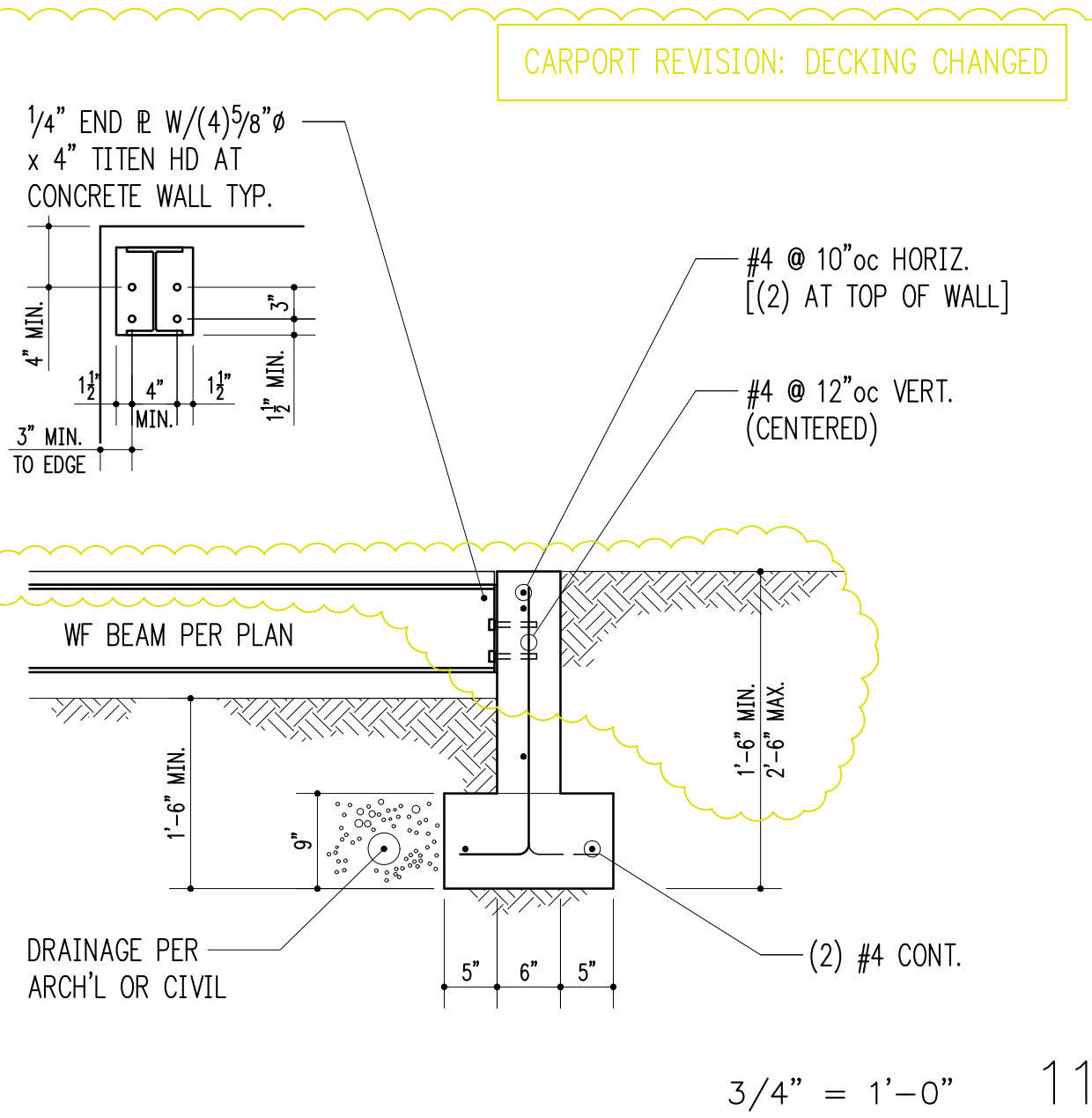
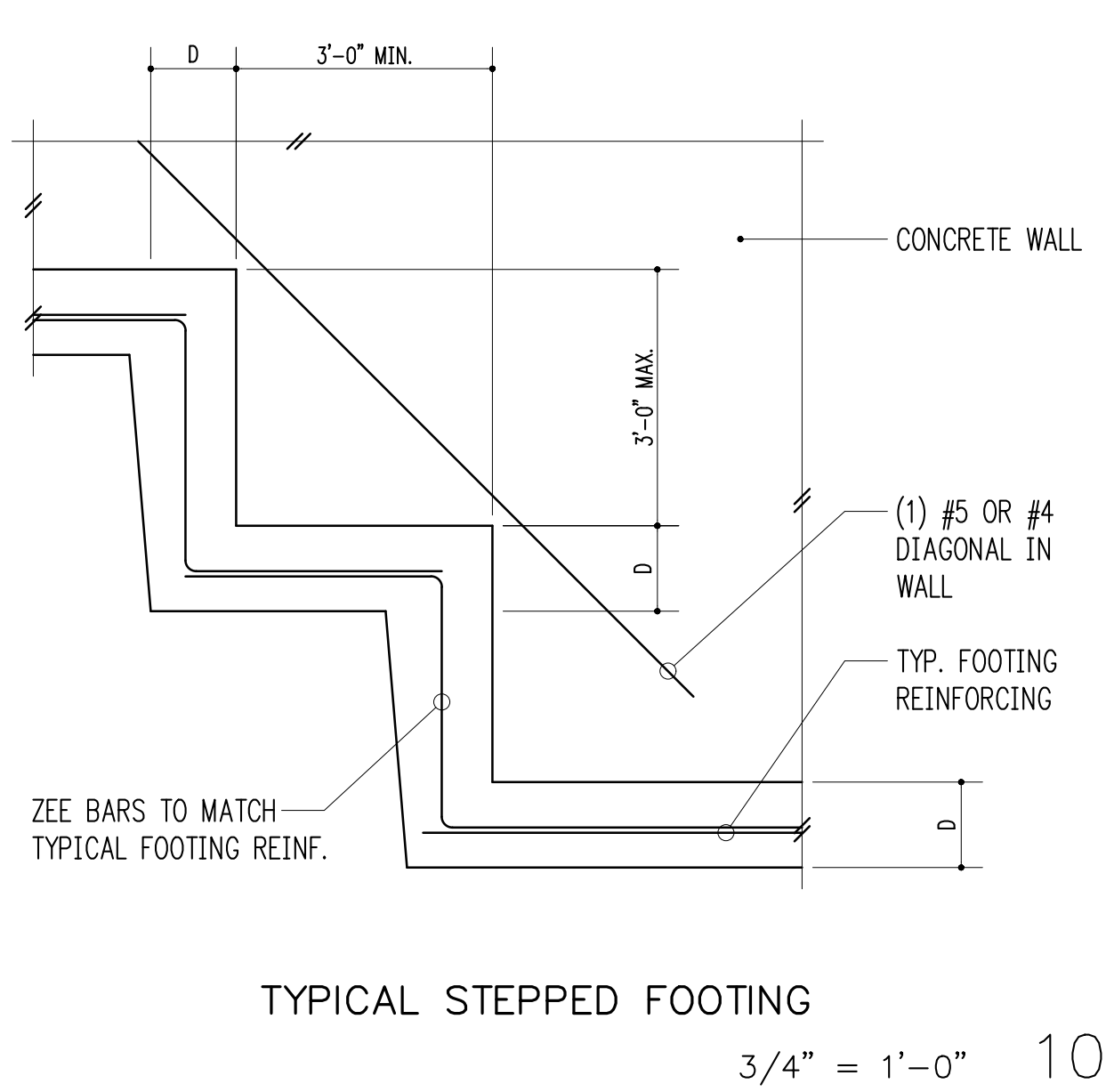
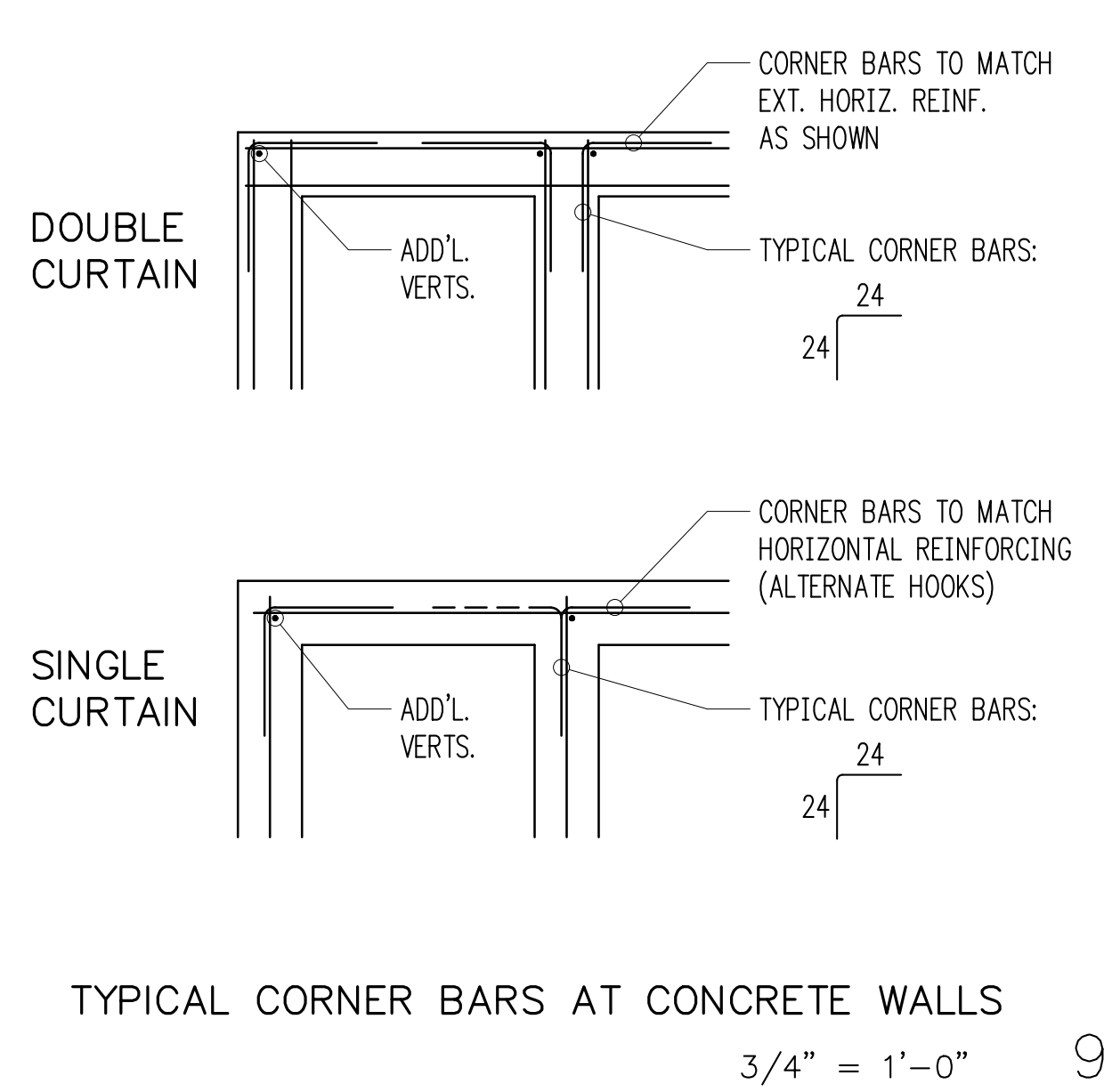
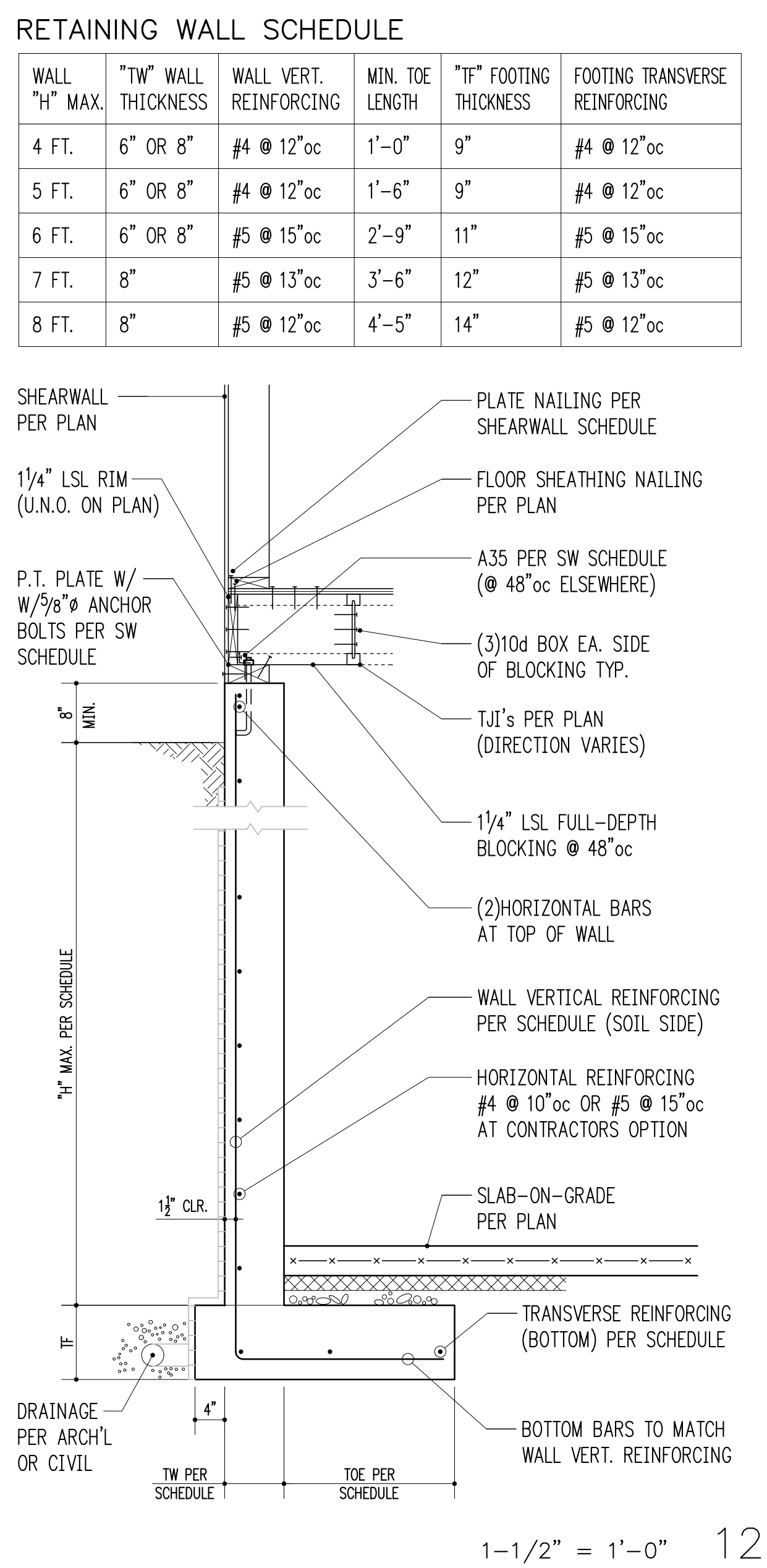
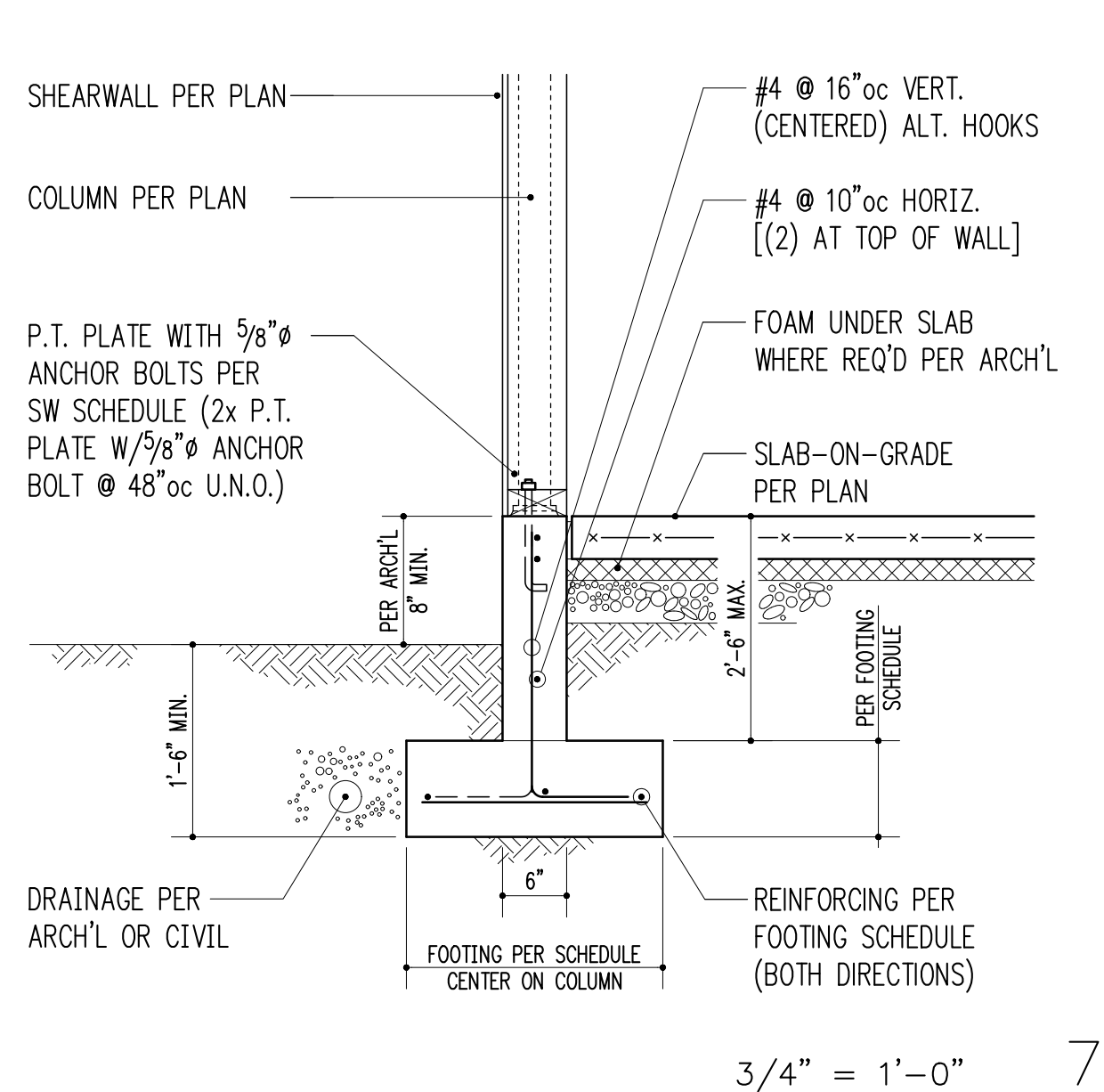
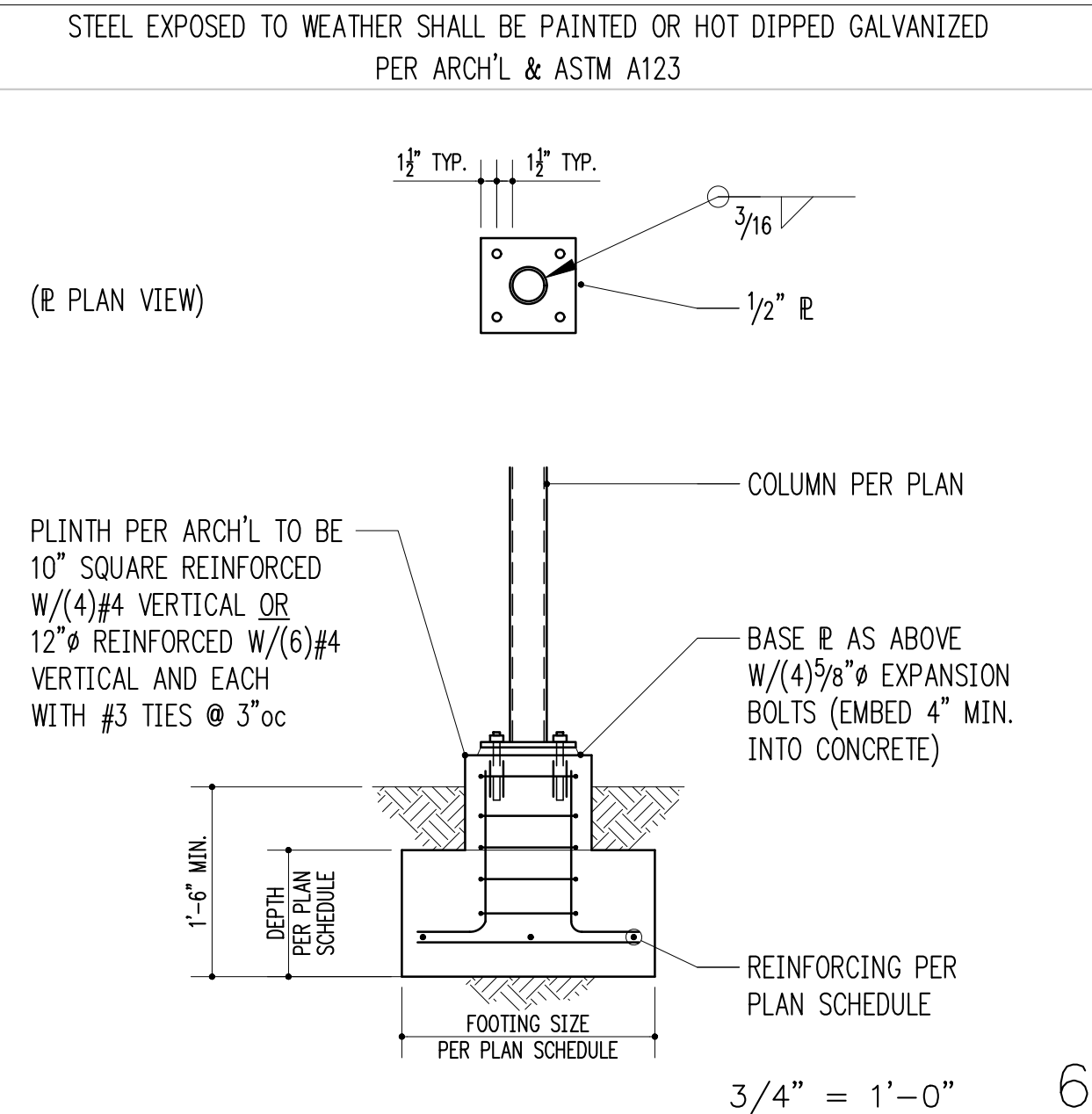
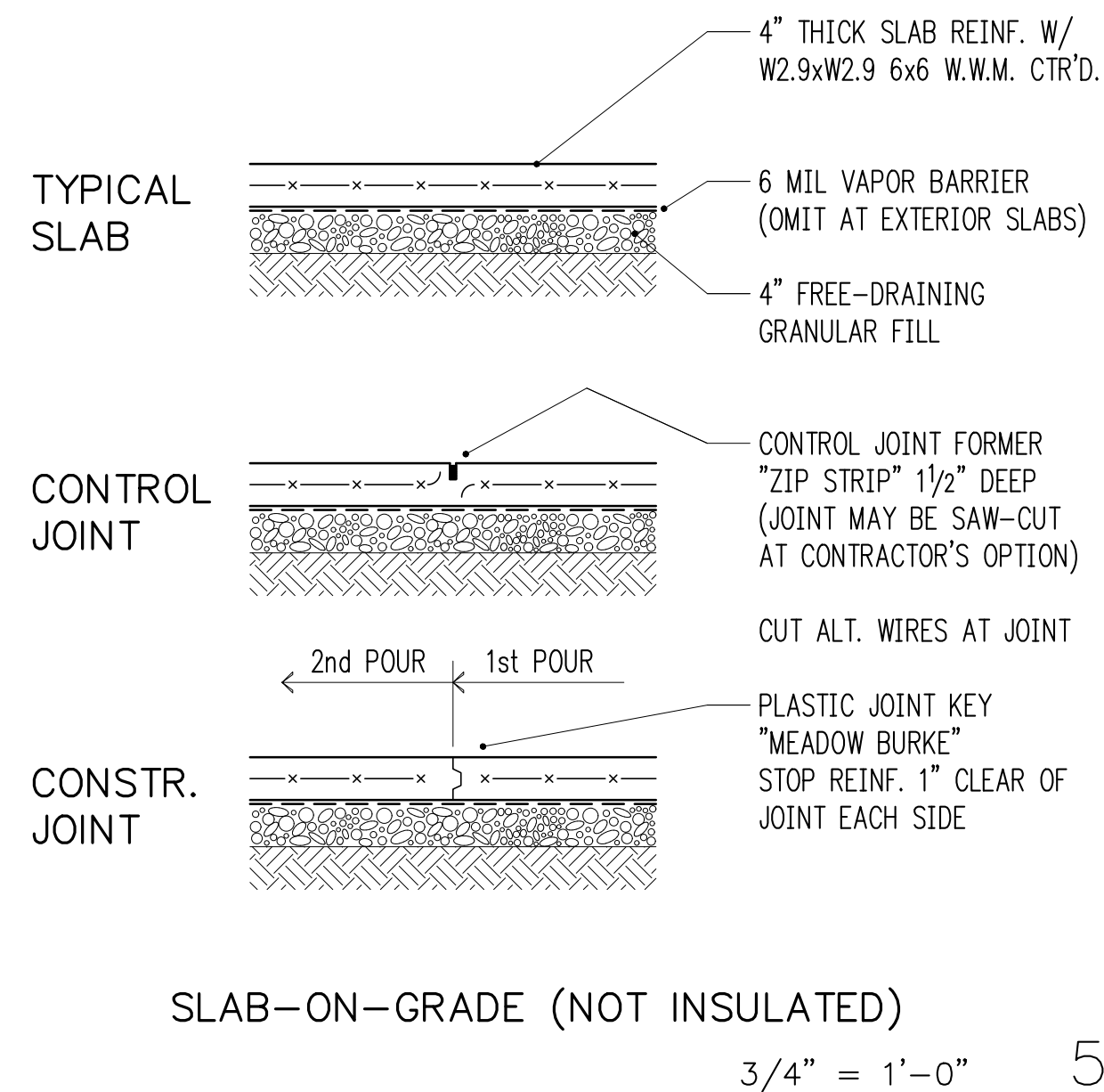
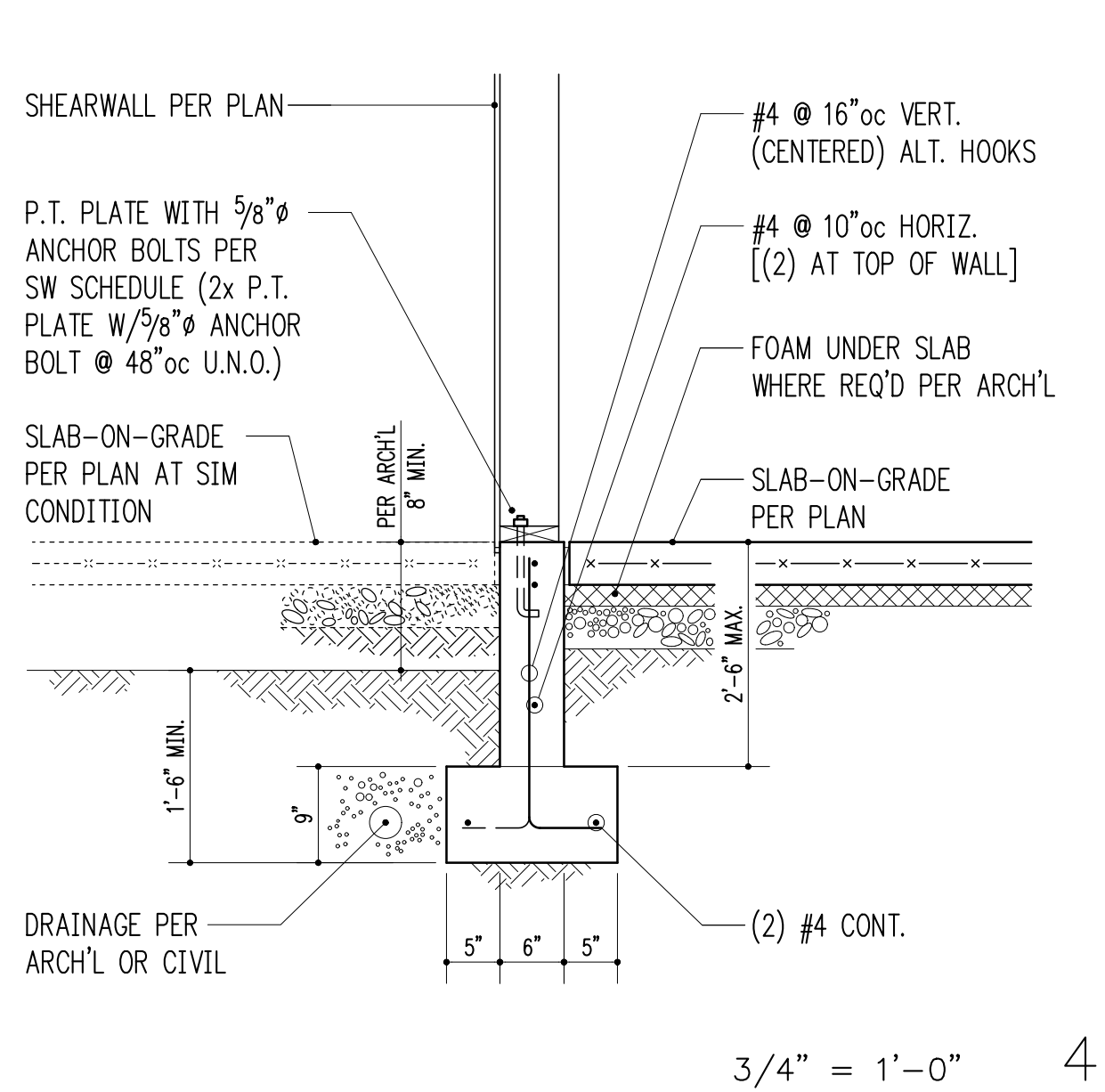
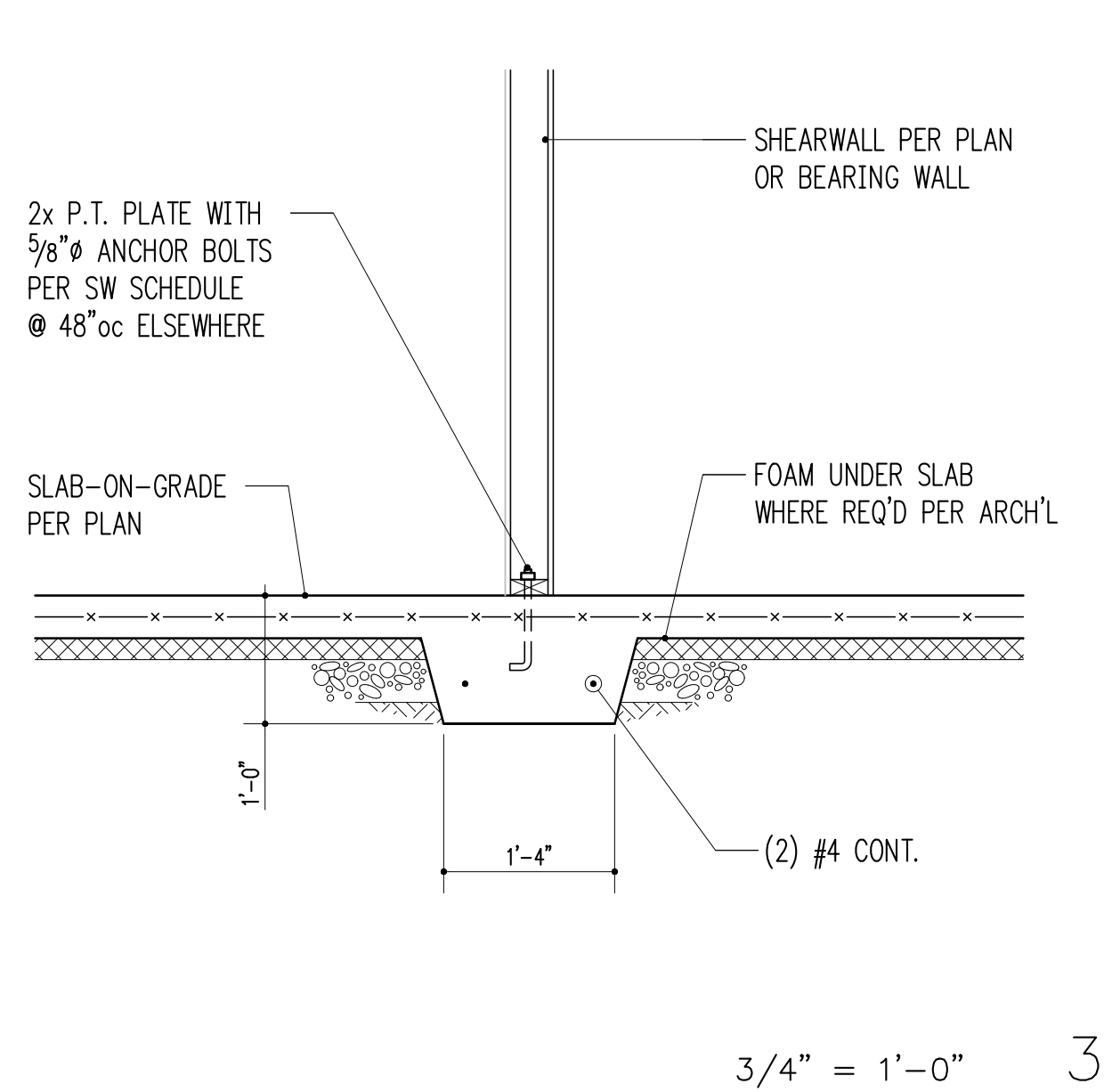
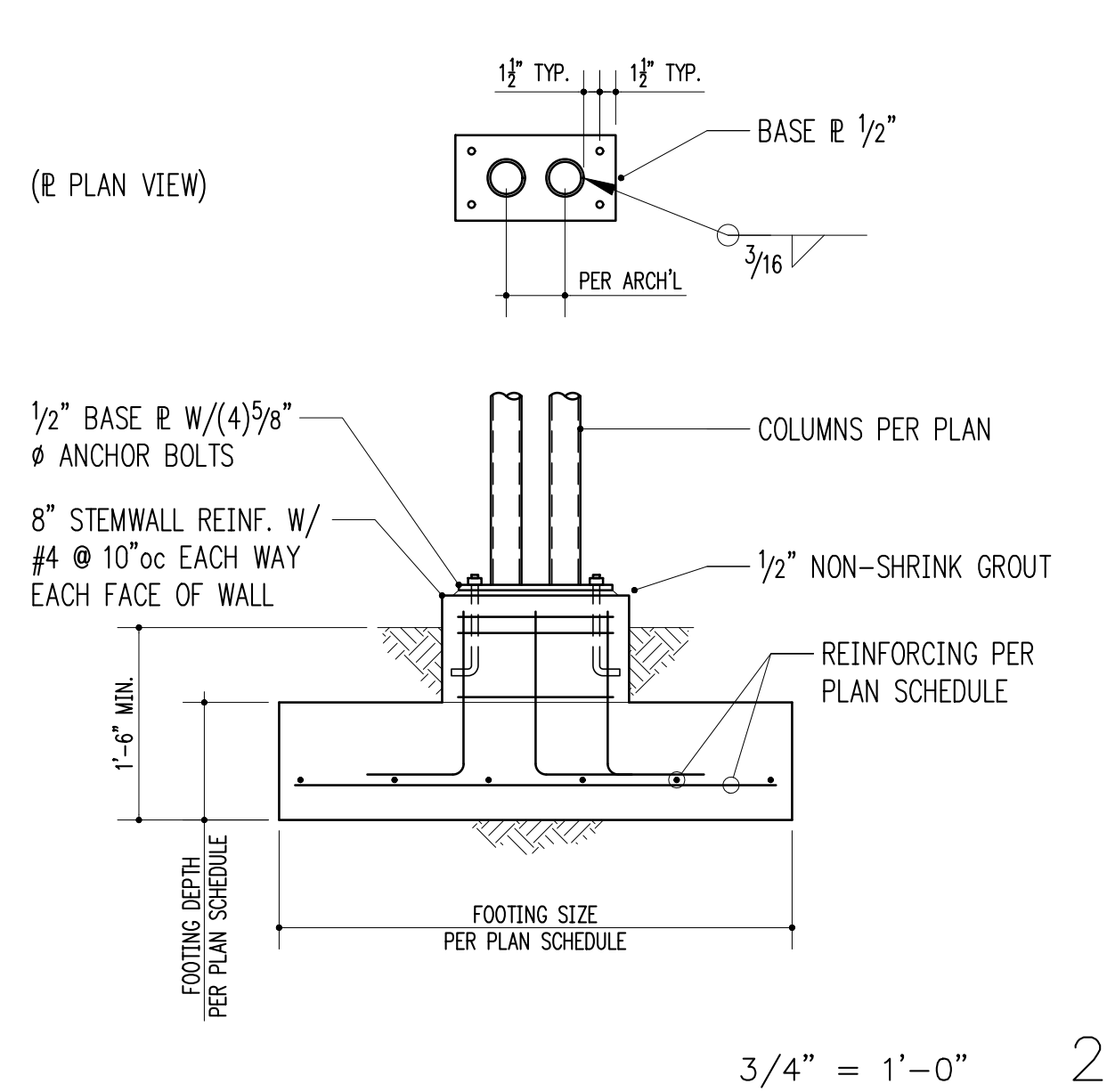
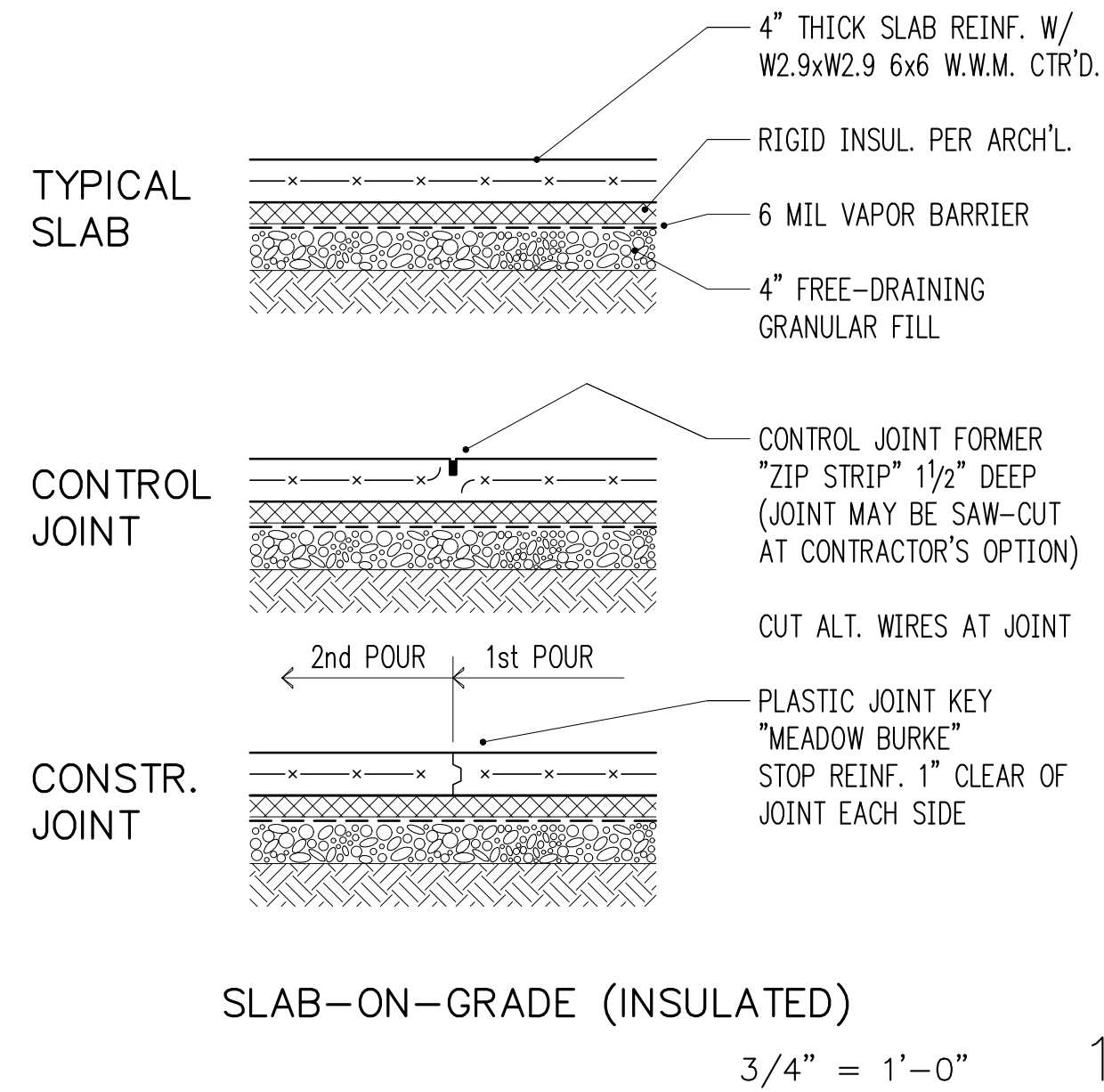
Issue

1. 10/13/21	PERMIT
2. 3/30/22	CORRECTIONS
3. 8/18/22	TREE PROTECTION REV.
4. 3/24/23	CARPORTE REVISION
5.	

Print Date  
3/24/23

Drawing Title  
**ROOF FRAMING PLAN**

Drawing Number  
**S2.3**



**JWelch Engineering LLC**  
 P.O. Box 28427  
 Seattle Wa. 98118  
 Joshua T. Welch S.E.  
 jtwelch@gmail.com  
 tel 206.356.9553

STATE OF WASHINGTON  
 JOSHUA T. WELCH  
 4642  
 PROFESSIONAL ENGINEER  
 3/24/23

**MERCER GROVE**  
 38XX W MERCER WAY  
 MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**  
 5628 Airport Way S Ste 165  
 Seattle, WA 98106

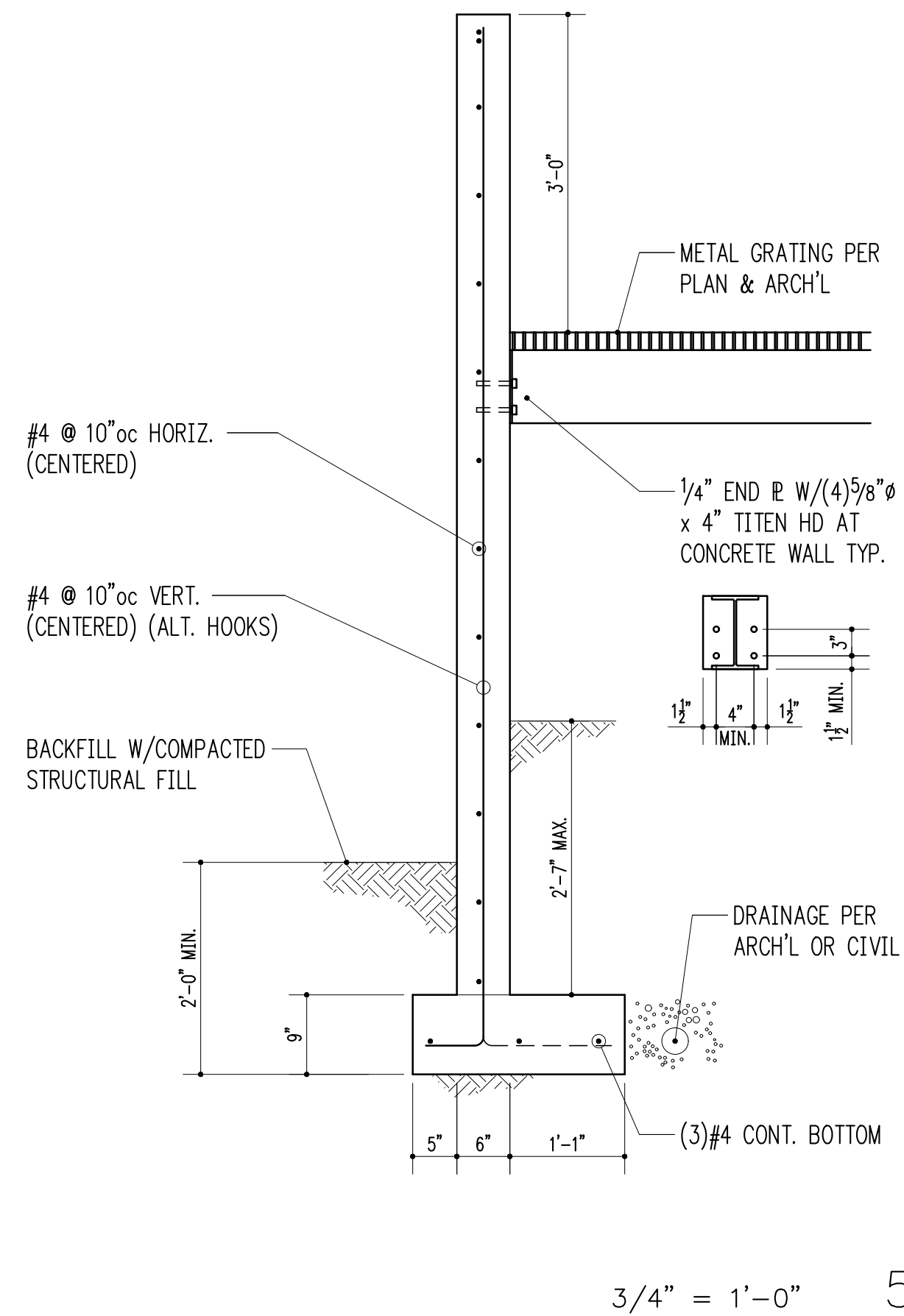
Issue  
 1. 10/13/21 PERMIT  
 2. 3/30/22 CORRECTIONS  
 3. 8/18/22 TREE PROTECTION REV.  
 4. 3/24/23 CARPORIT REVISION  
 5.

Print Date  
 3/24/23

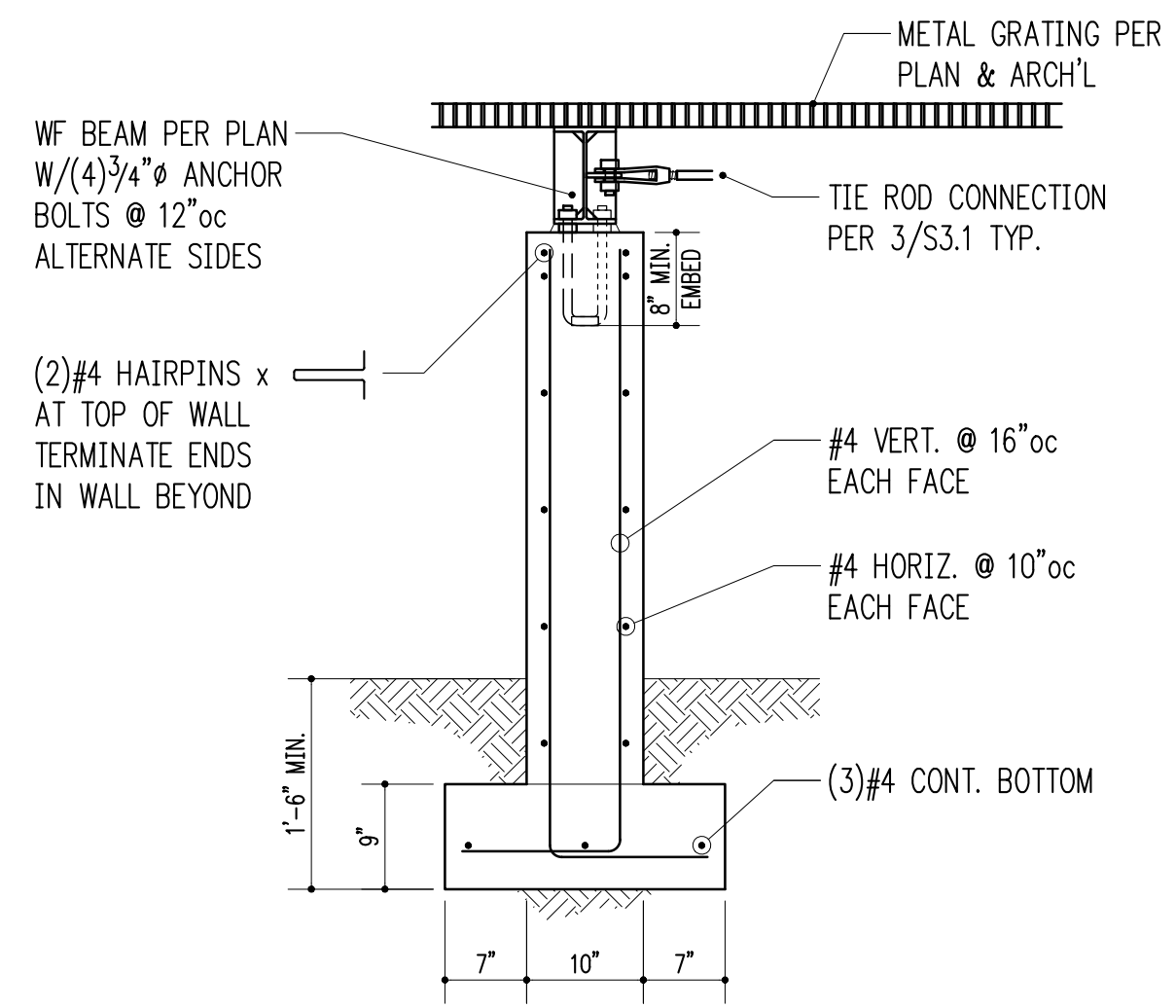
Drawing Title  
**STRUCTURAL DETAILS**

Drawing Number  
**S3.0**

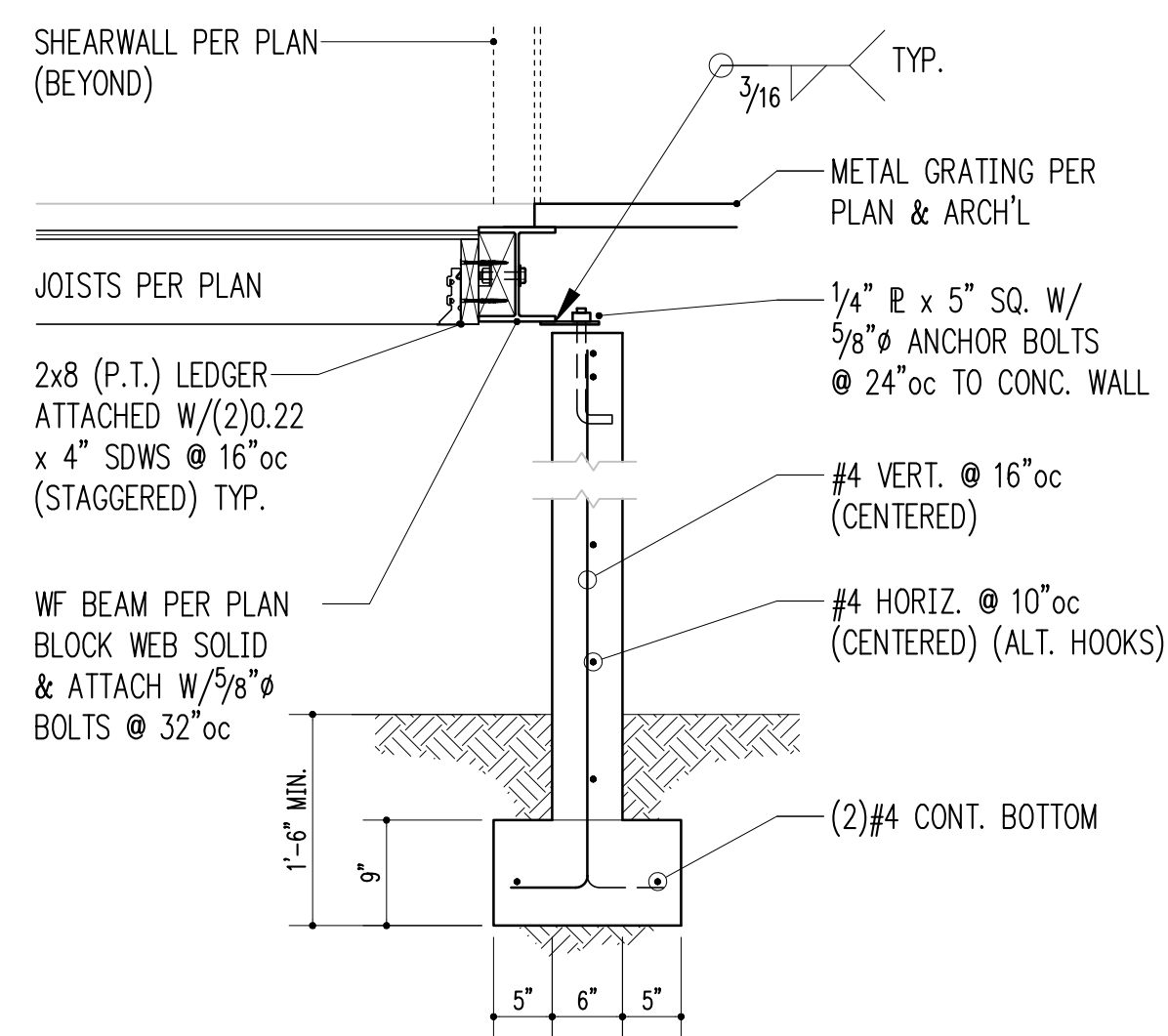
CARPORIT REVISION: NEW OR REVISED CARPORIT DETAILS



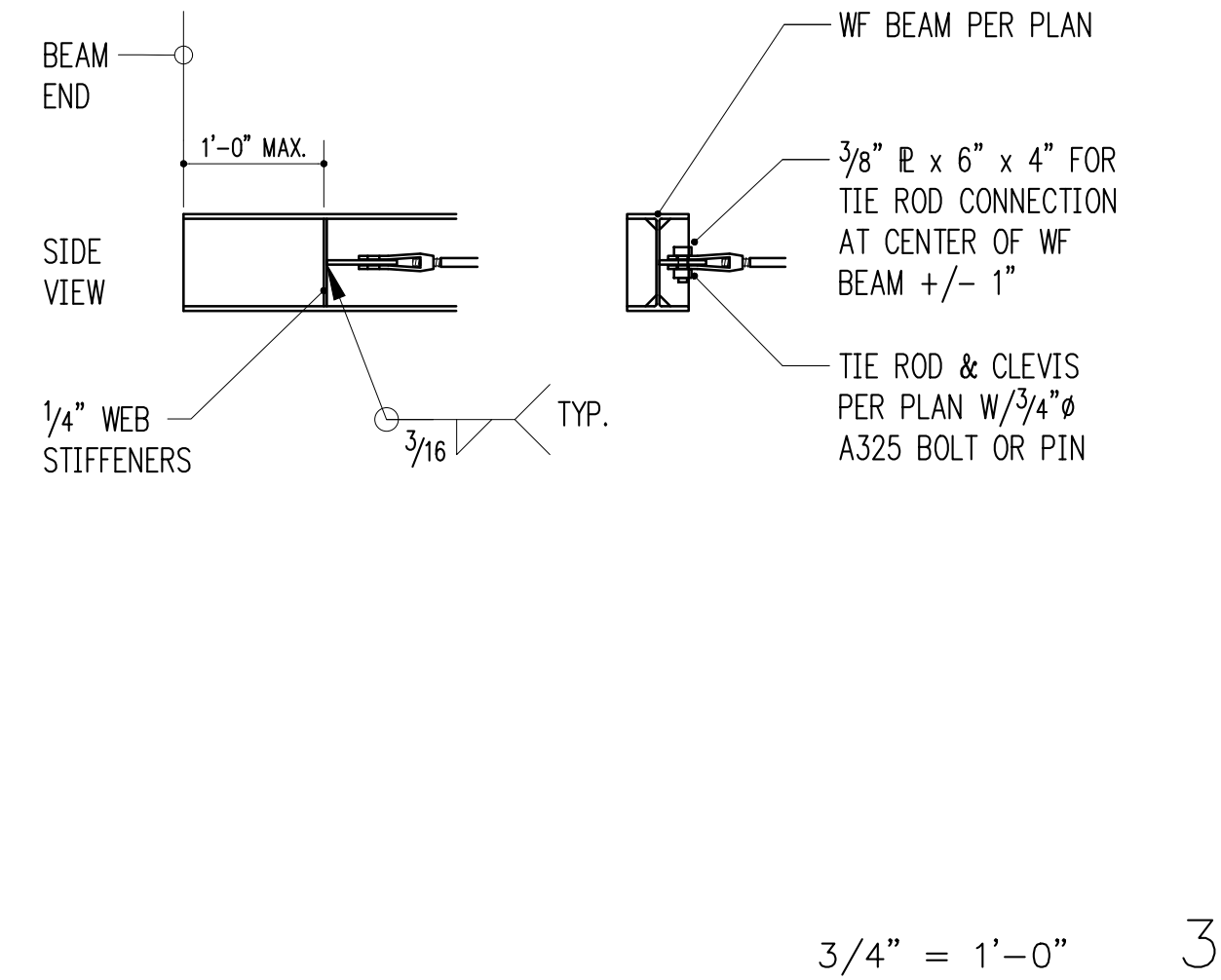
3/4" = 1'-0" 5



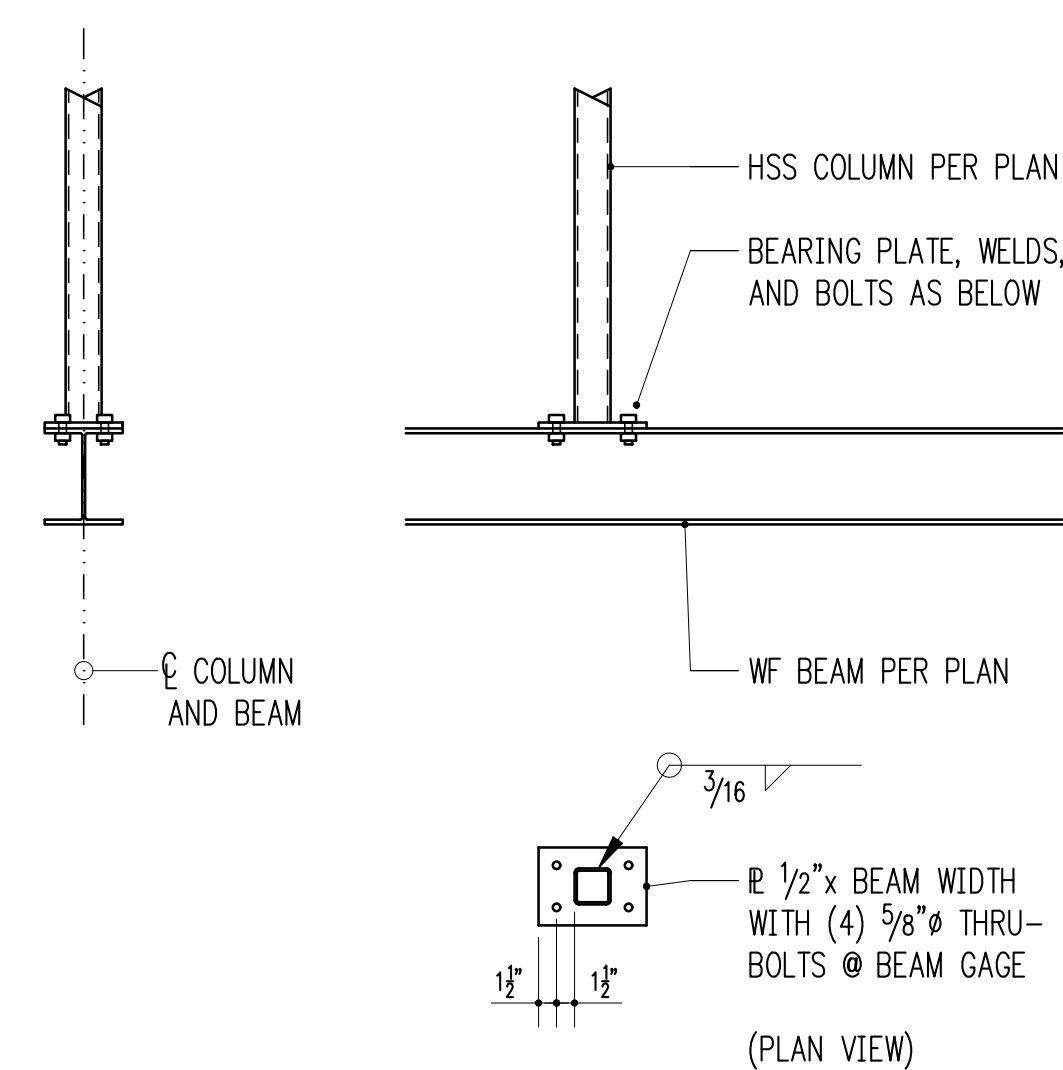
3/4" = 1'-0" 3



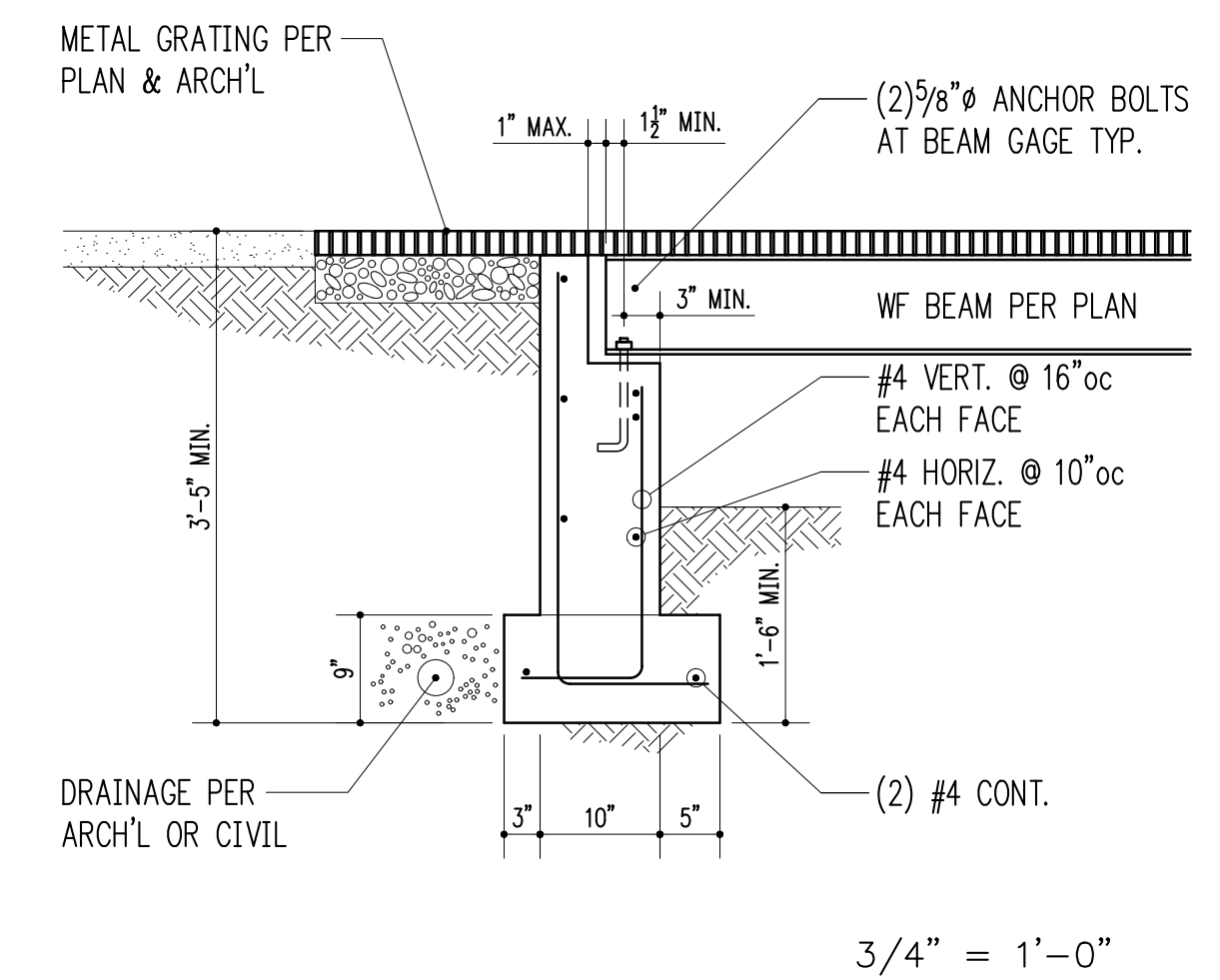
3/4" = 1'-0" 6



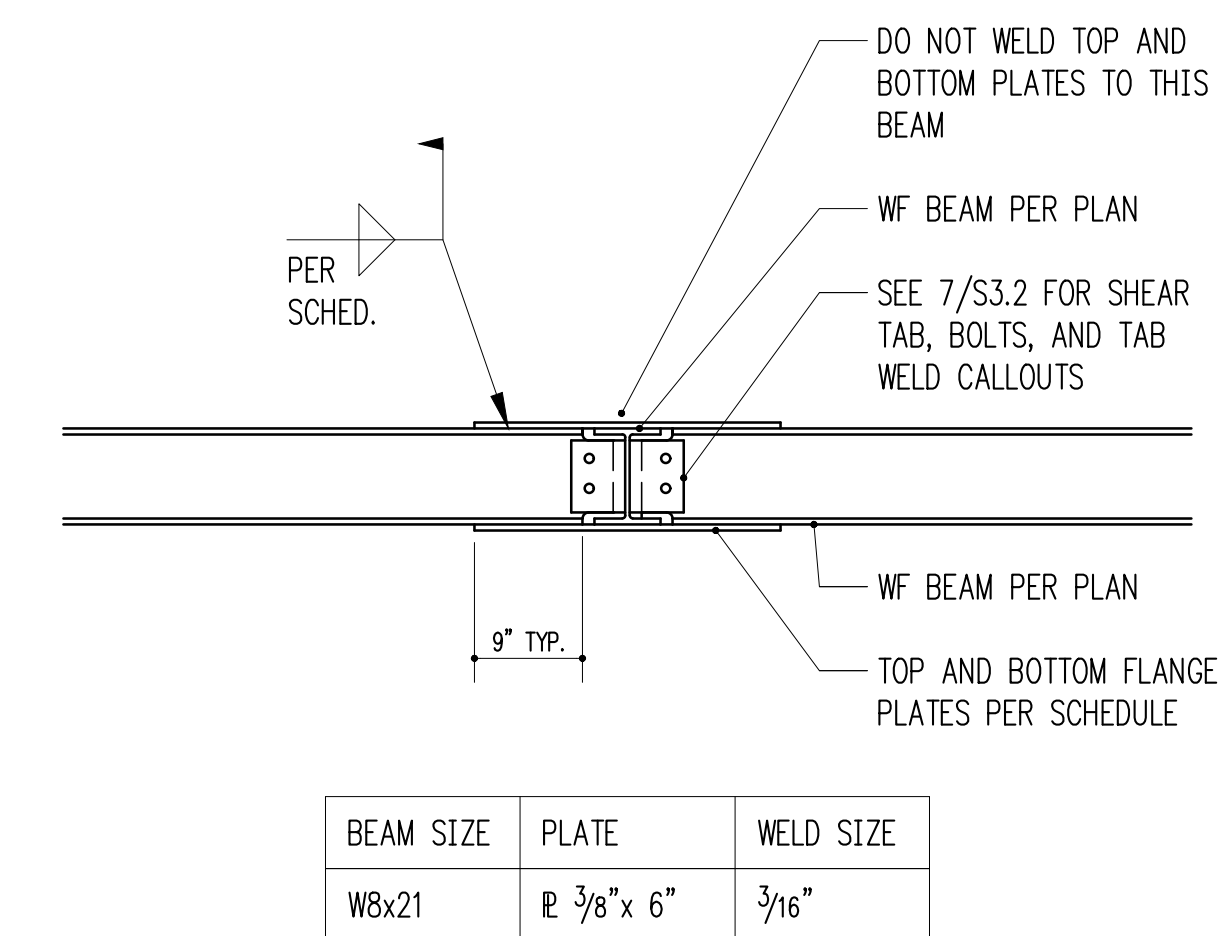
3/4" = 1'-0" 3



HSS COLUMN BEARING ON WF BEAM 3/4" = 1'-0" 7



3/4" = 1'-0" 4

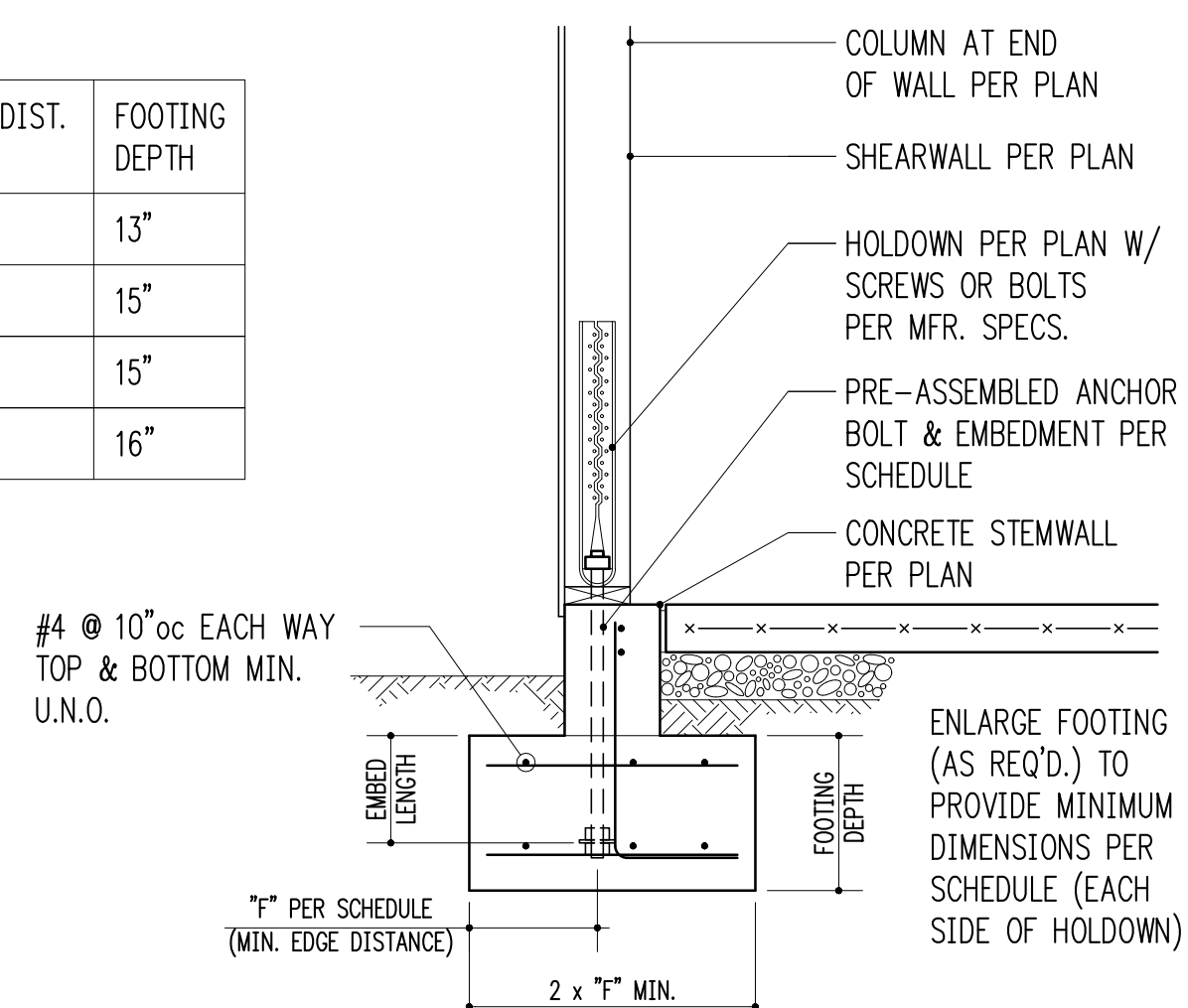


WF BEAM MOMENT CONN. THRU WF BEAM 3/4" = 1'-0" 8

HEAVY-DUTY HOLDOWN SCHEDULE

MARK	FASTENERS TO STUDS <sup>1</sup>	PRE-ASSEMBLED <sup>2,3</sup> ANCHOR BOLT	WASHER SIZE	EMBED LENGTH	EDGE DIST. "F"	FOOTING DEPTH
HDU8	(20) 1/4" x 2 1/2" SCREWS	PAB 7	1/2x2 1/2x2 1/2	10"	15"	13"
HDU11	(30) 1/4" x 2 1/2" SCREWS	PAB 8	5/8x3x2 3/4	12"	18"	15"
HDU14	(36) 1/4" x 2 1/2" SCREWS	PAB 8	5/8x3x2 3/4	12"	18"	15"
WSWH	N/A WOOD STRONG WALL	PAB 8H	5/8x3x2 3/4	10"	15"	16"

- SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- PRE-ASSEMBLED ANCHOR BOLTS SHALL BE PAB SERIES ANCHOR BOLTS INSTALLED PER SIMPSON STRONG-TIE RECOMMENDATIONS. EMBEDMENT & MINIMUM FOOTING DIMENSIONS SHOWN ARE AT A MINIMUM PER PAGE 43 & 44 FOOTNOTE 3 WITH SEISMIC DESIGN CONFORMING TO ACI 318-14 SECTION 17.2.3.4.
- WHERE REQUIRED PROVIDE SIMPSON STRONG-TIE CNW AND HSCNW COUPLER NUTS.

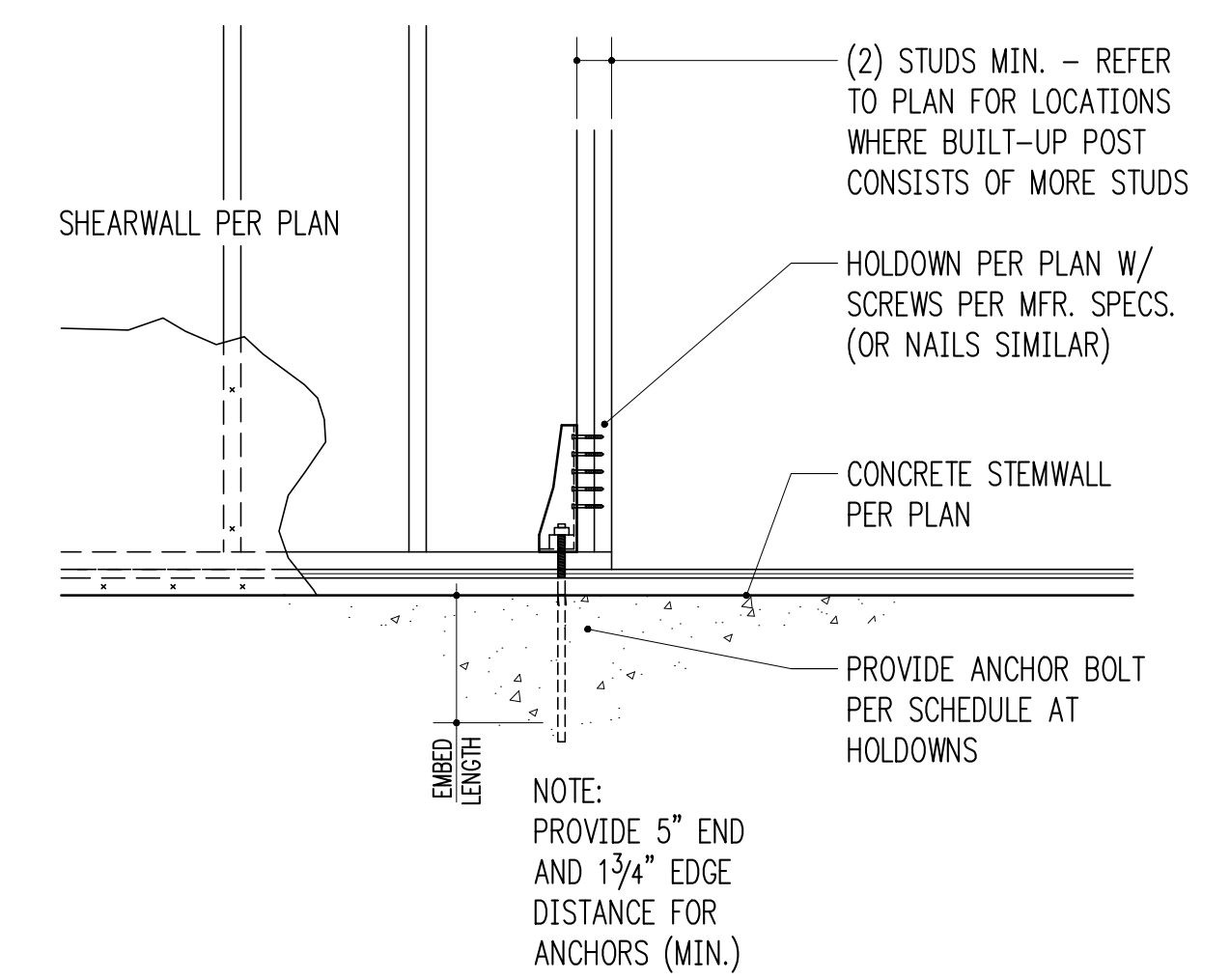


HEAVY-DUTY HOLDOWN AT CONCRETE 3/4" = 1'-0" 10

HOLDOWN SCHEDULE

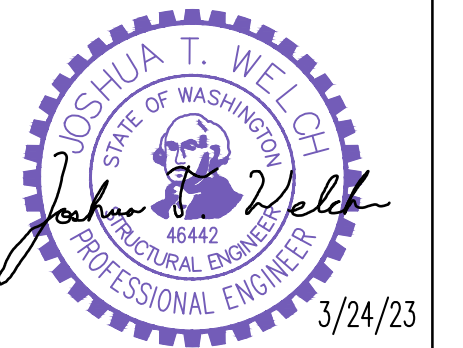
MARK	FASTENERS TO STUDS <sup>1</sup>	ANCHOR <sup>2,3</sup>	MINIMUM EMBED
HDU2	(6) 1/4" x 2 1/2" SCREWS	SSTB16	12 5/8"
HDU4	(10) 1/4" x 2 1/2" SCREWS	SSTB24	20 5/8"
HDU5	(14) 1/4" x 2 1/2" SCREWS	SB5/8x24	18"

- 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.162". SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
- SIMPSON SSTB & SB ANCHOR BOLTS SHALL BE INSTALLED PER SIMPSON STRONG TIE RECOMMENDATIONS.
- AT 3x SILL PLATES, PROVIDE LONGER SSTBL MODELS.



TYPICAL HOLDOWN AT CONCRETE 3/4" = 1'-0" 12

JWelch Engineering LLC  
P.O. Box 28427  
Seattle Wa. 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.8553



MERCER GROVE

38XX W MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

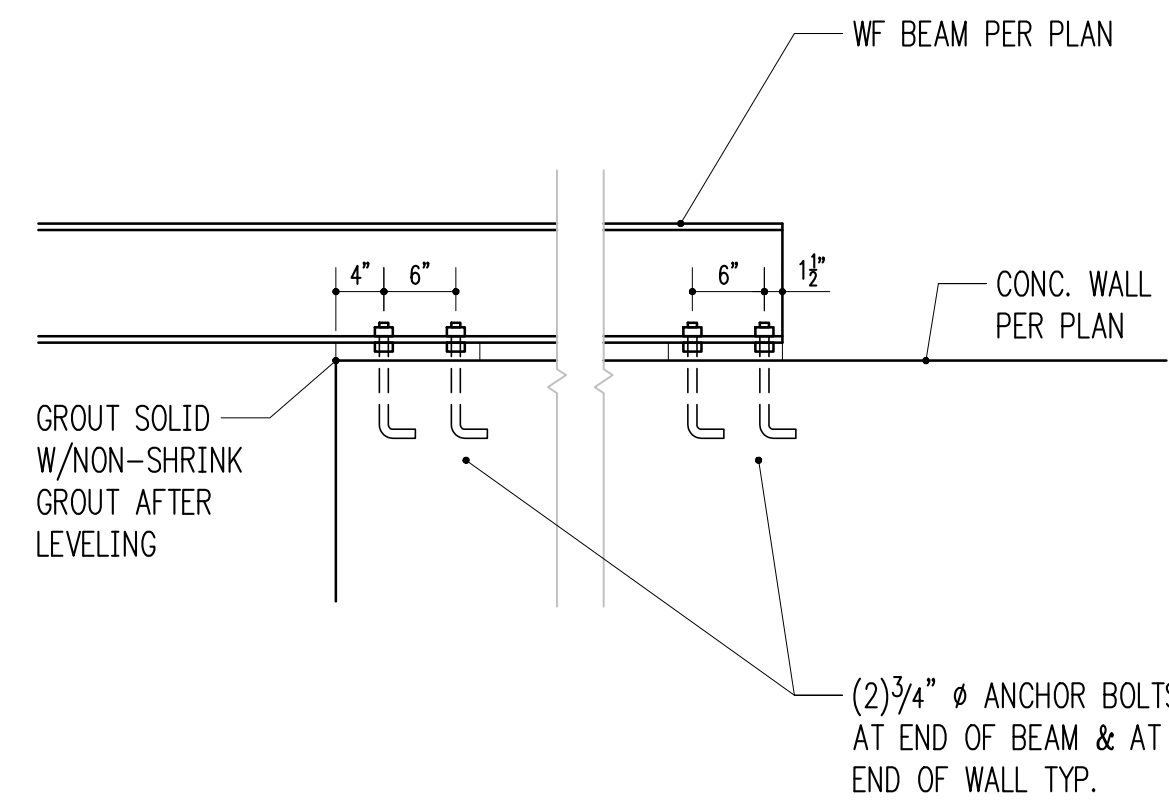
Issue	Date	Description
1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.	8/18/22	TREE PROTECTION REV.
4.	3/24/23	CARPORIT REVISION
5.		

Print Date  
3/24/23

Drawing Title  
**STRUCTURAL DETAILS**

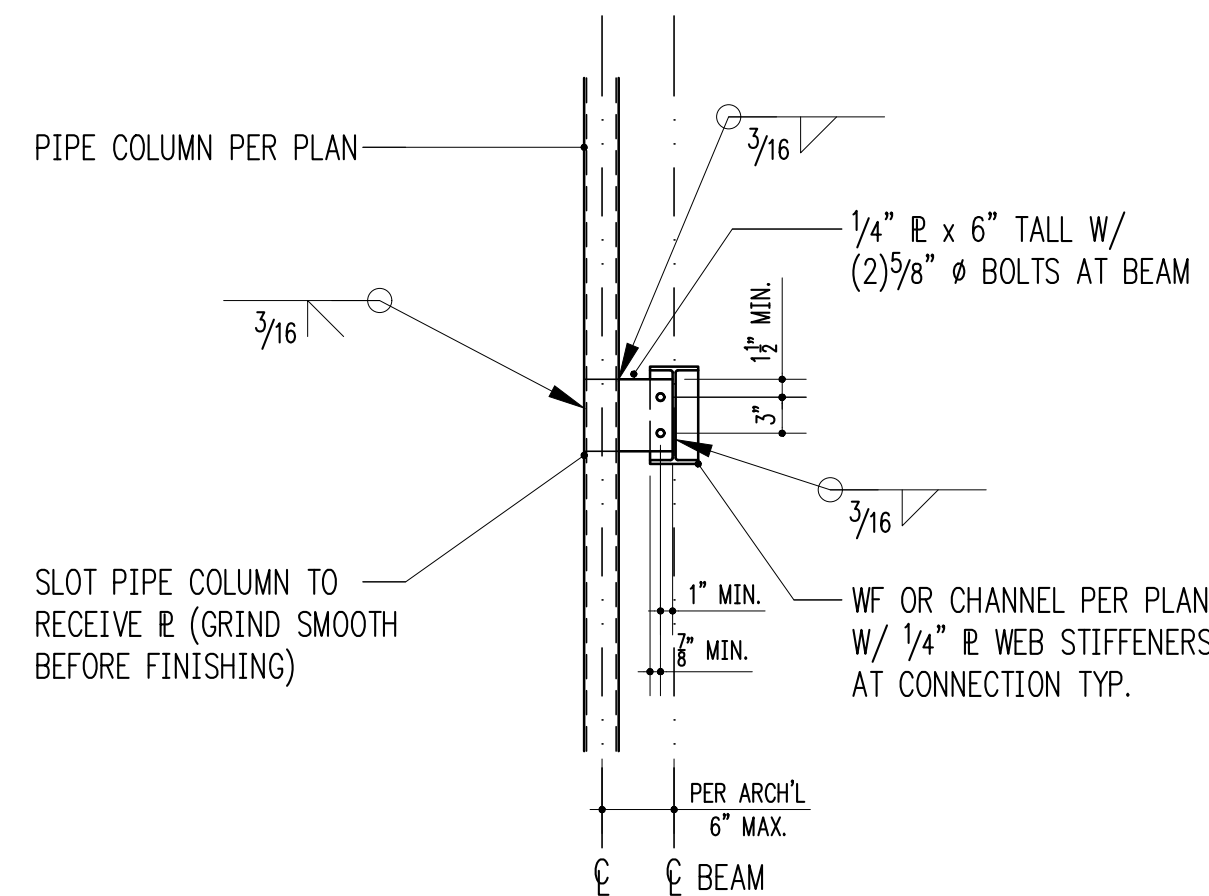
Drawing Number

**S3.1**

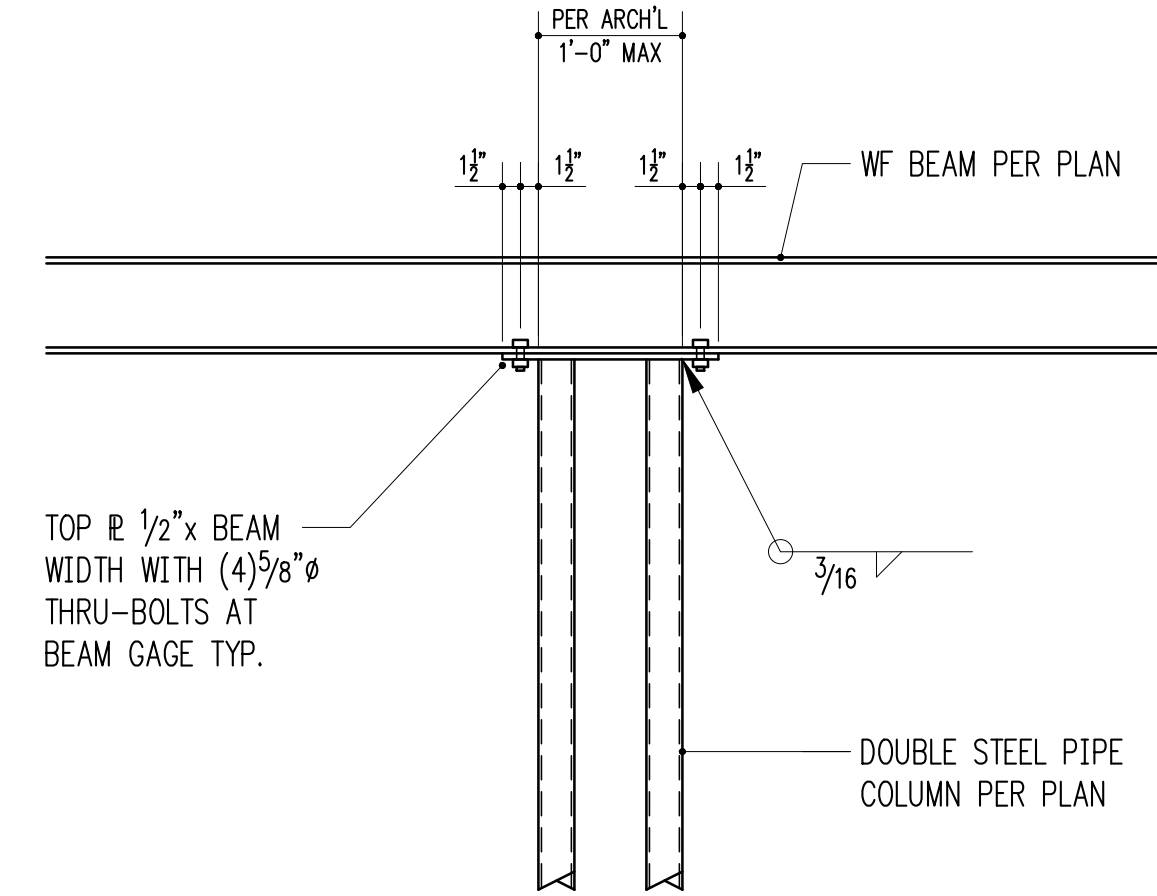


3/4" = 1'-0" 1

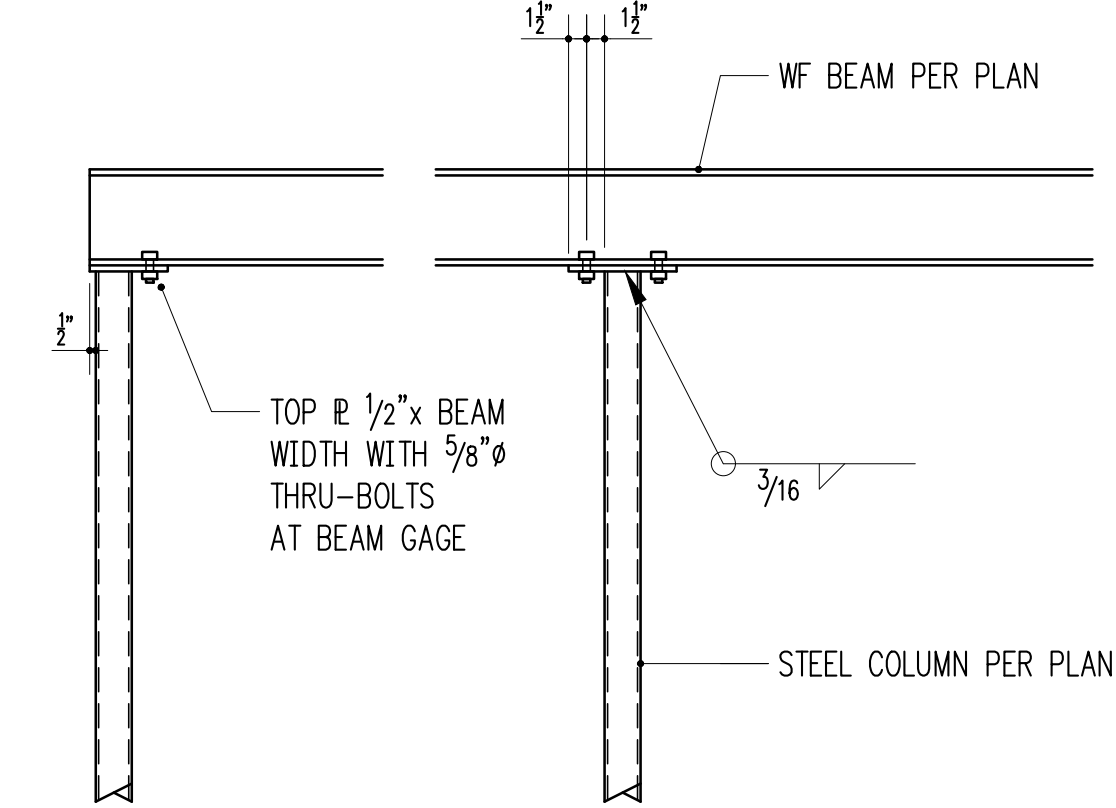
STEEL EXPOSED TO WEATHER SHALL BE PAINTED OR HOT DIPPED GALVANIZED PER ARCH'L & ASTM A123



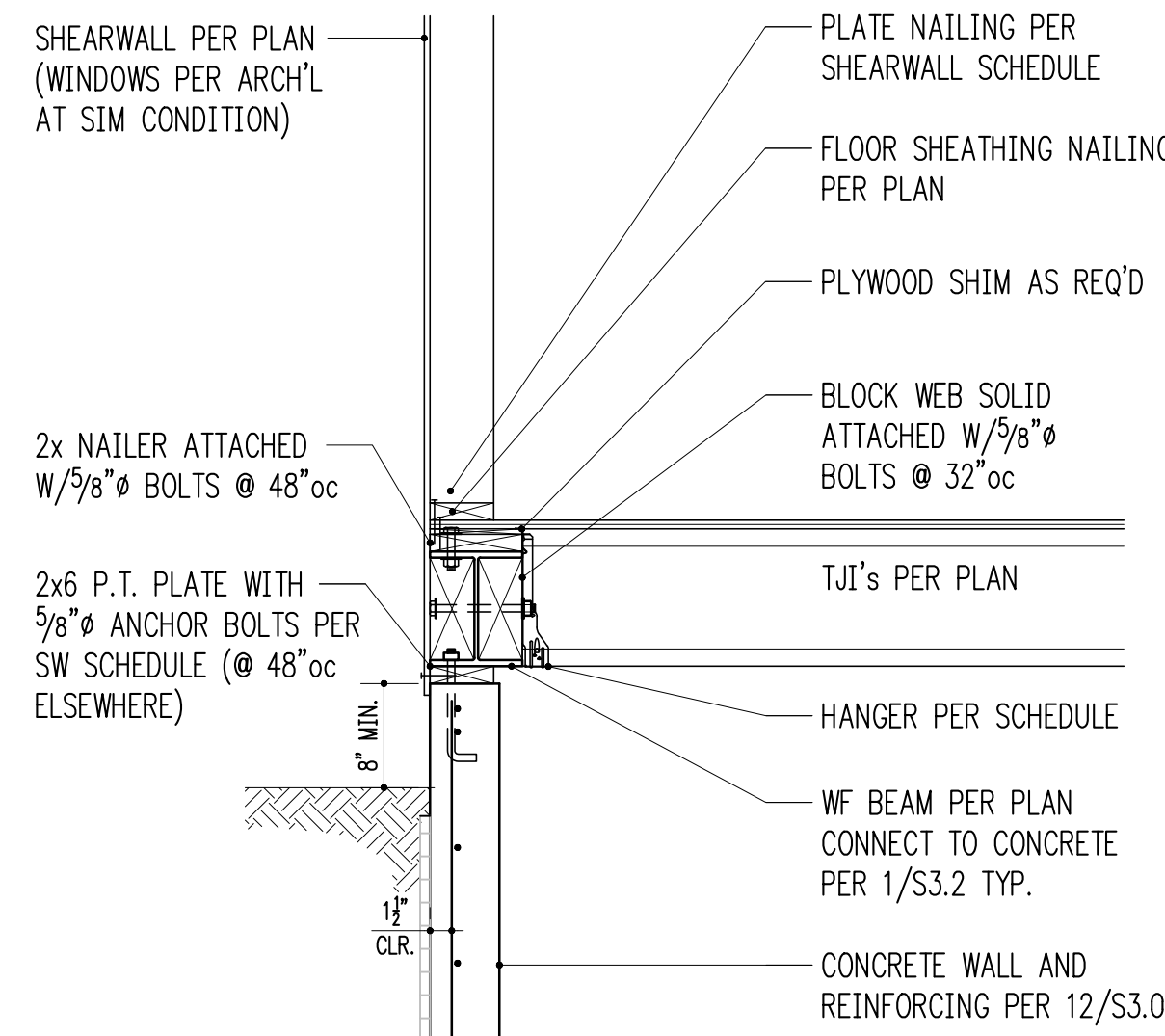
3/4" = 1'-0" 2



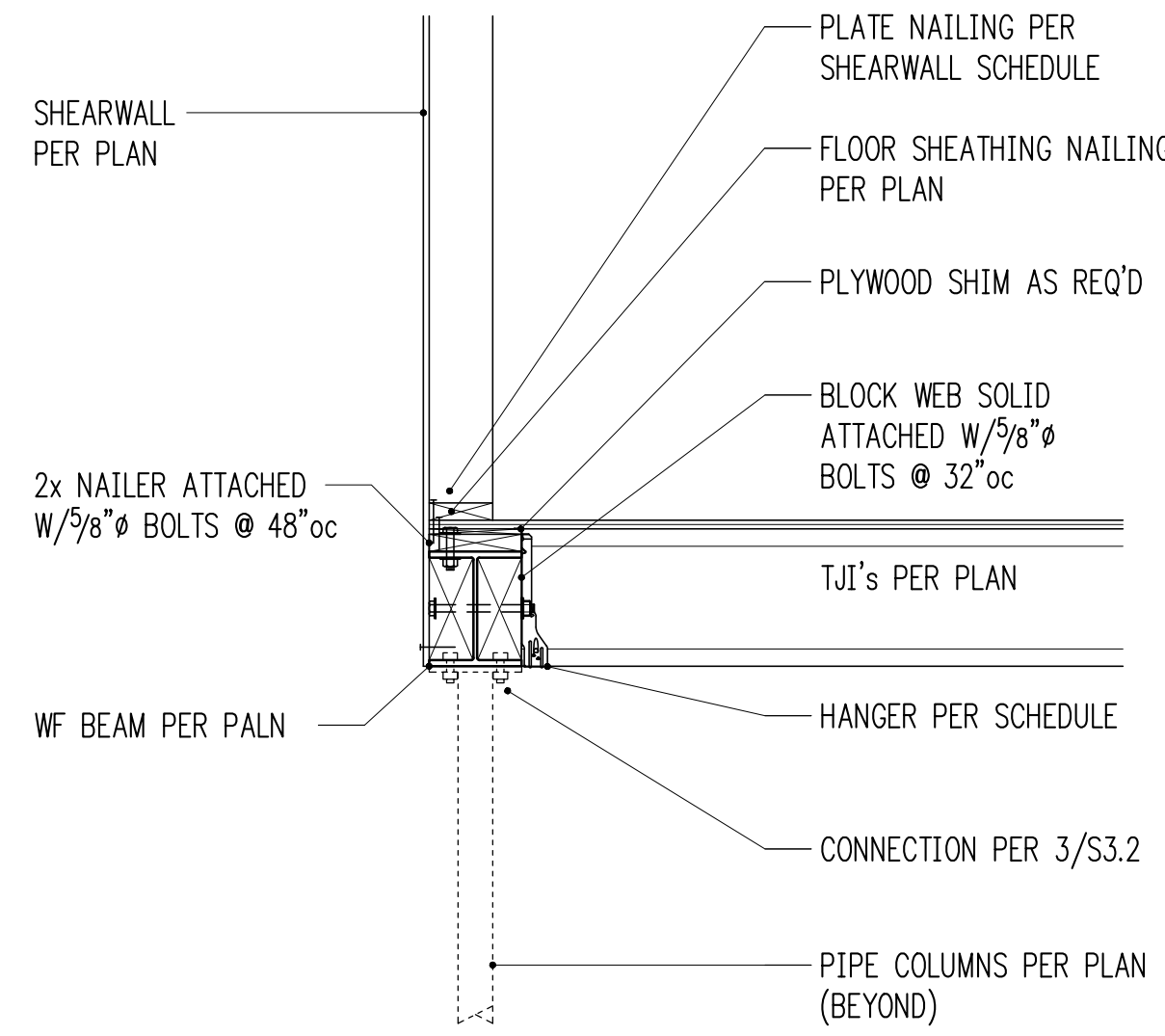
WF BEAM BEARING ON DOUBLE STEEL COLUMN 3/4" = 1'-0" 3



TYPICAL WF BEAM BEARING ON STEEL COLUMN 3/4" = 1'-0" 4



3/4" = 1'-0" 5

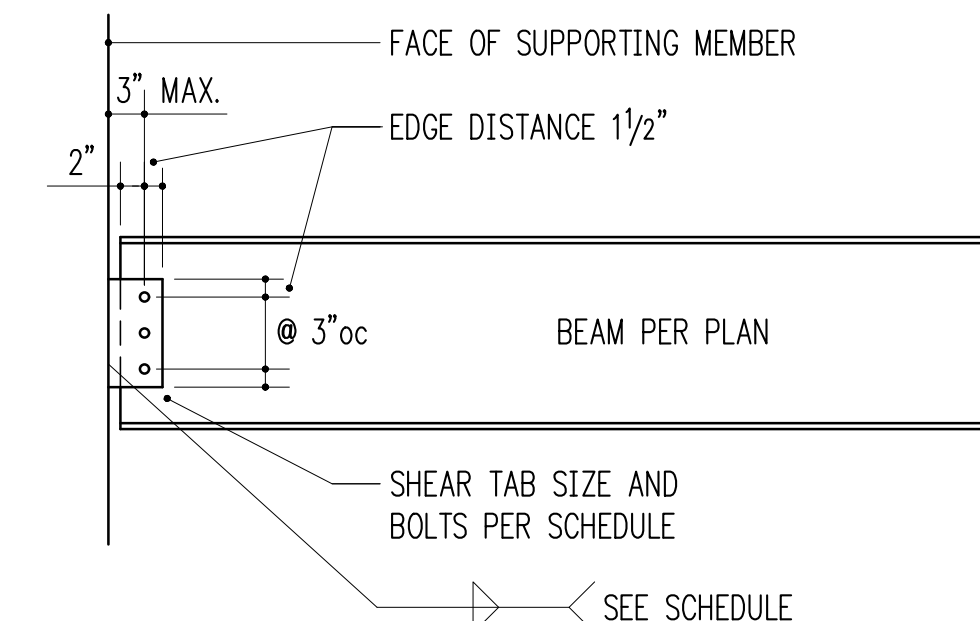


3/4" = 1'-0" 6

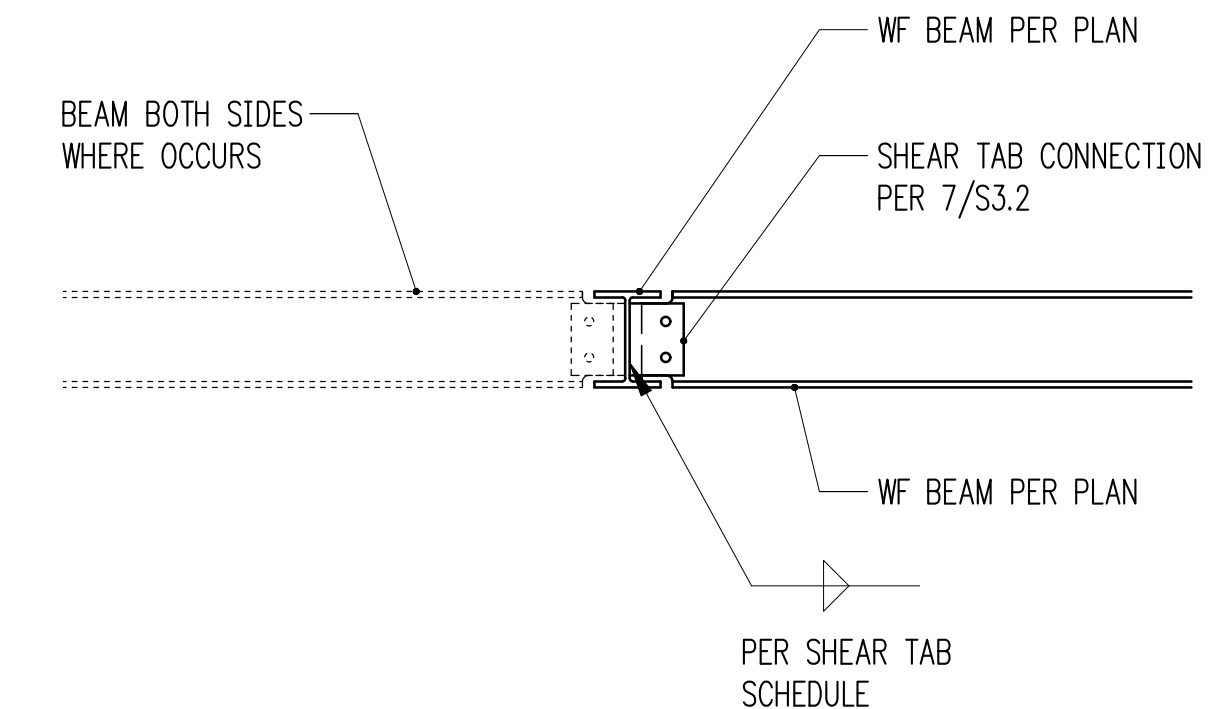
SHEAR TAB SCHEDULE

BEAM SIZE	# BOLTS	BOLT SIZE	PL THICK.	WELD SIZE	CAPACITY
W8,W12,C12	(2)	3/4"φ	1/4"	3/16"	16,300 lb
W16	(2)	3/4"φ	1/4"	3/16"	16,300 lb

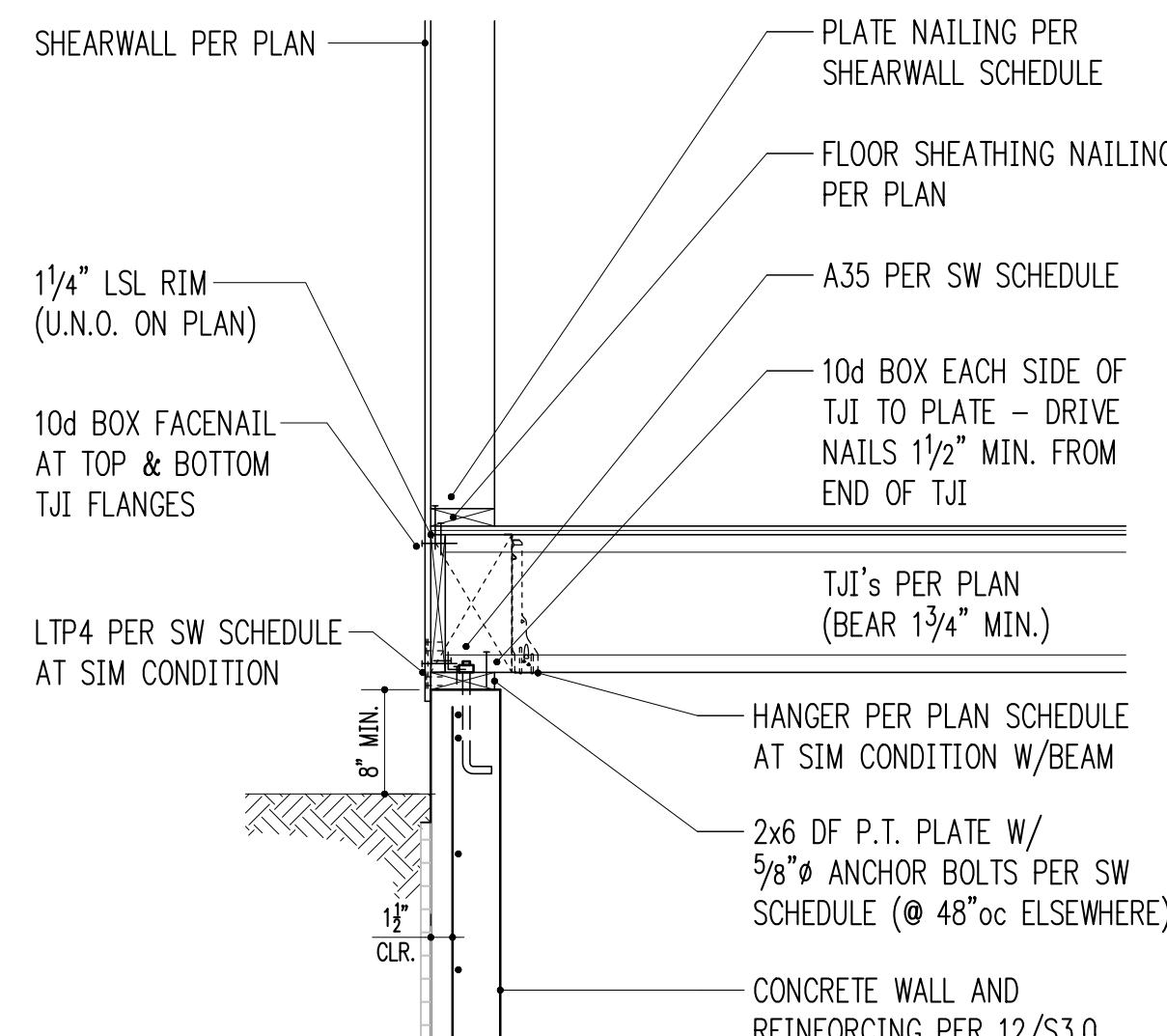
BOLT TYPE SHALL BE A325N. PLATE MATERIAL SHALL BE A36.



TYPICAL SHEAR TAB CONNECTION 3/4" = 1'-0" 7

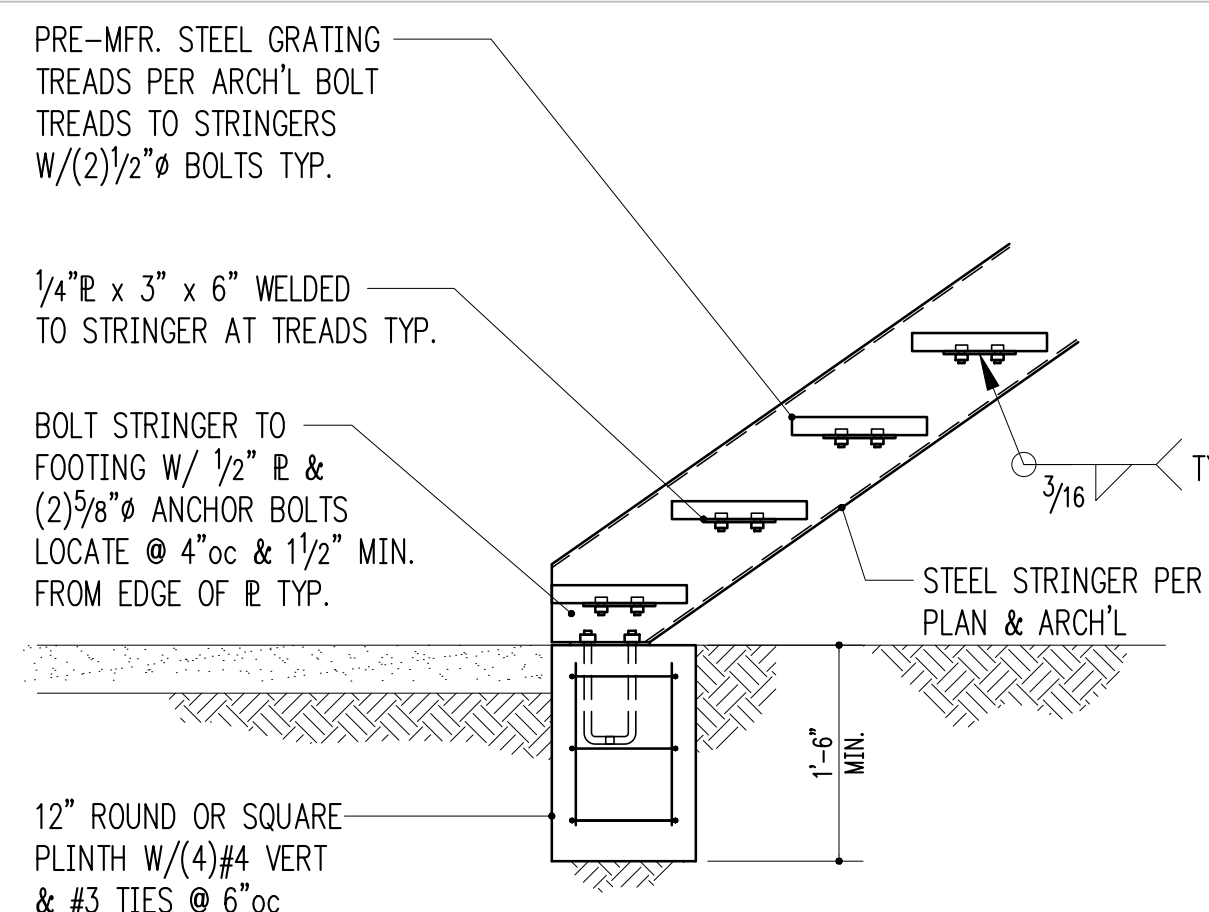


WF BEAM TO SIDE OF WF BEAM 3/4" = 1'-0" 8



3/4" = 1'-0" 9

STAIR DIMENSIONS PER ARCH'L & THE 2015 INTERNATIONAL RESIDENTIAL CODE ALL STEEL EXPOSED TO WEATHER SHALL BE PAINTED OR HOT DIPPED GALVANIZED PER ARCH'L & ASTM A123



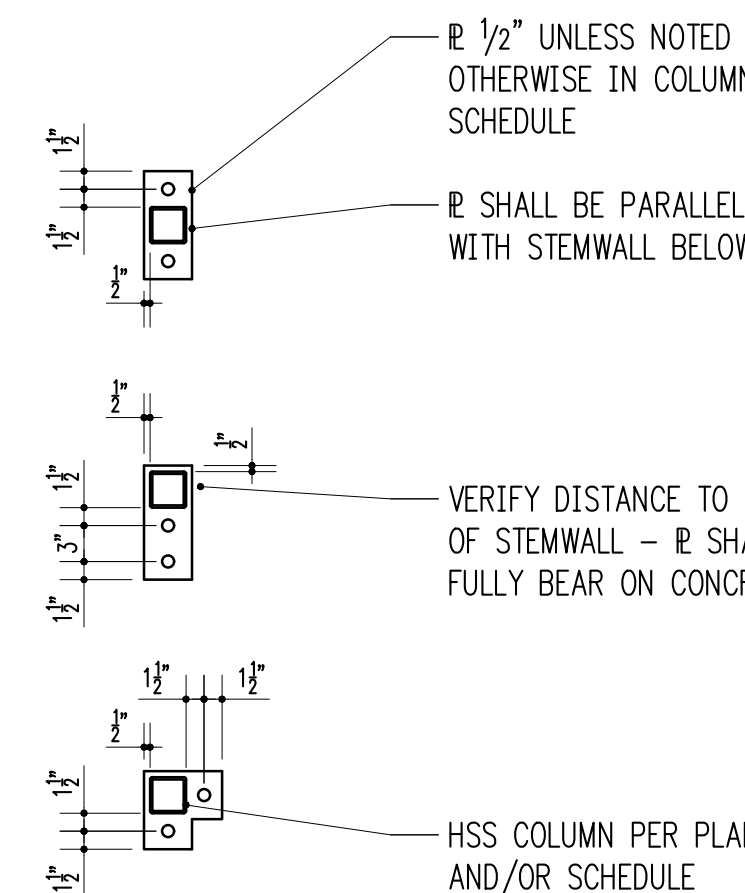
TYPICAL STEEL STRINGER CONCRETE FOOTING 3/4" = 1'-0" 10

BASE PLATE TYPE:

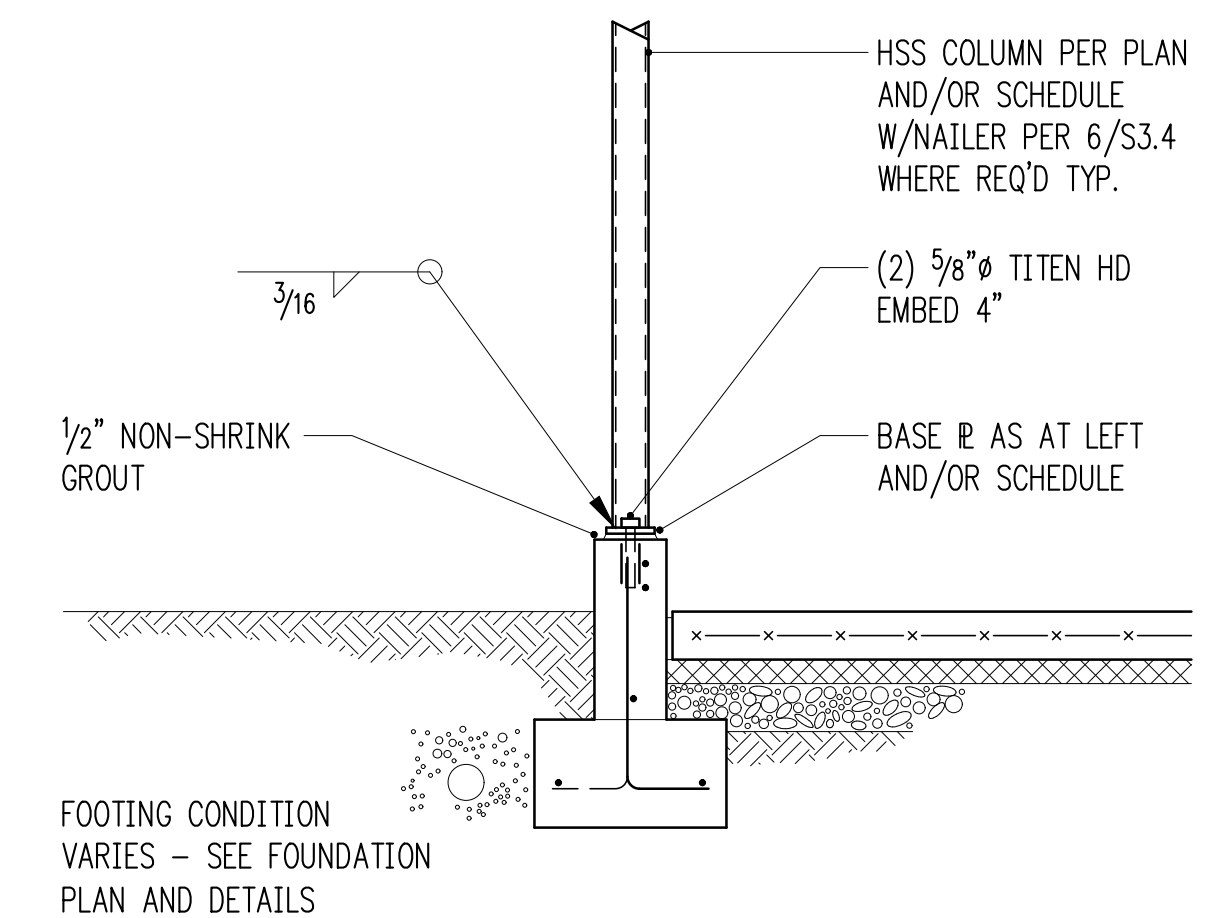
STRAIGHT MARK "BPS" (PLAN OR SCHEDULE)

OFFSET MARK "BPO" (PLAN OR SCHEDULE)

CORNER MARK "BPC" (PLAN OR SCHEDULE)

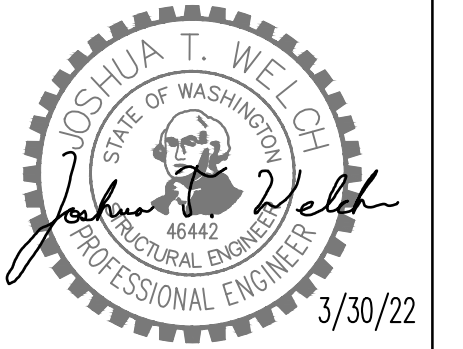


HSS COLUMN BASE PLATES



3/4" = 1'-0" 12

JWelch Engineering LLC  
P.O. Box 28427  
Seattle Wa. 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.8553



MERCER GROVE

38XX W MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
WITTMAN ESTES

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue

1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.		
4.		
5.		

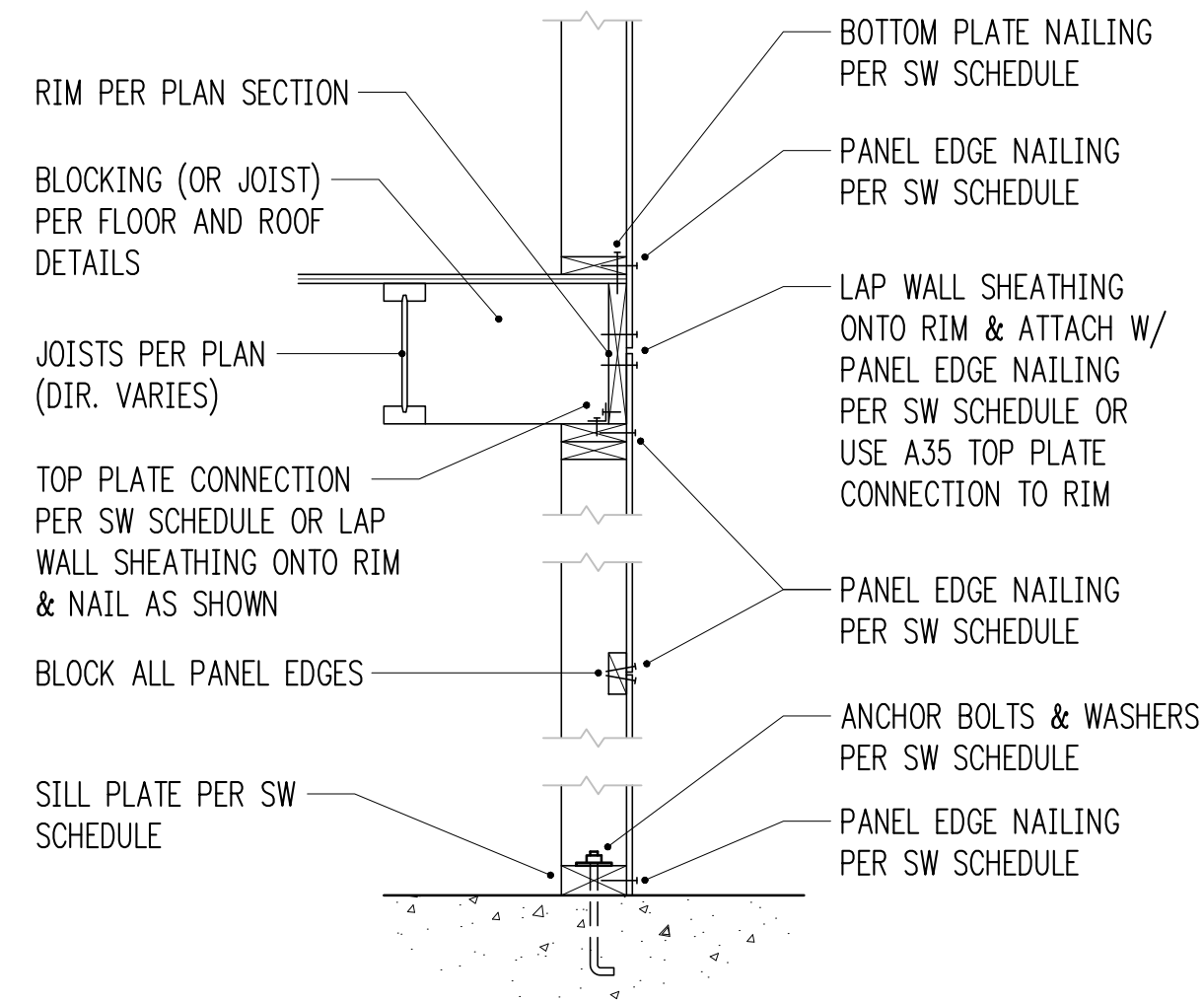
Print Date  
3/30/22

Drawing Title  
STRUCTURAL DETAILS

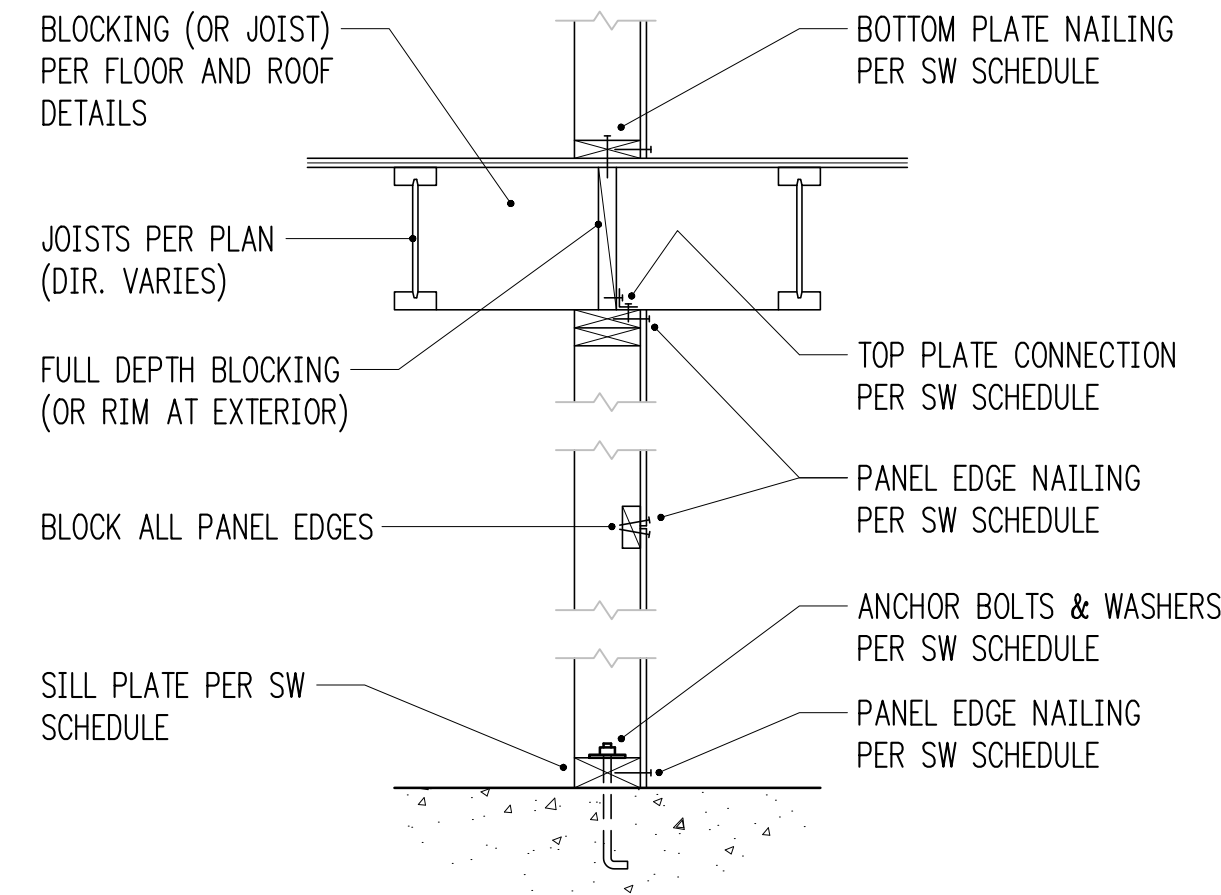
Drawing Number

S3.2

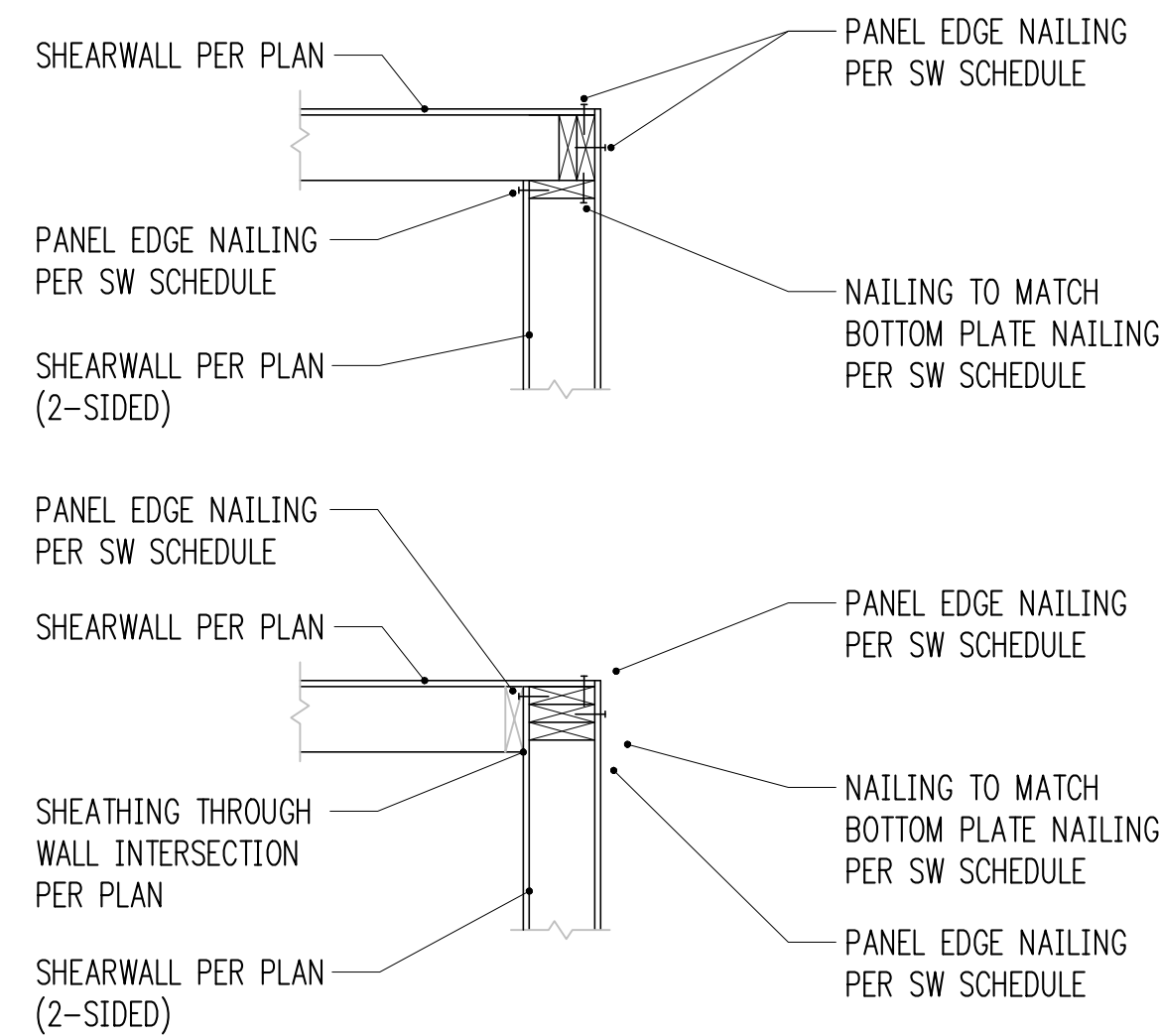
TYPICAL SHEARWALL DETAILS & SCHEDULE



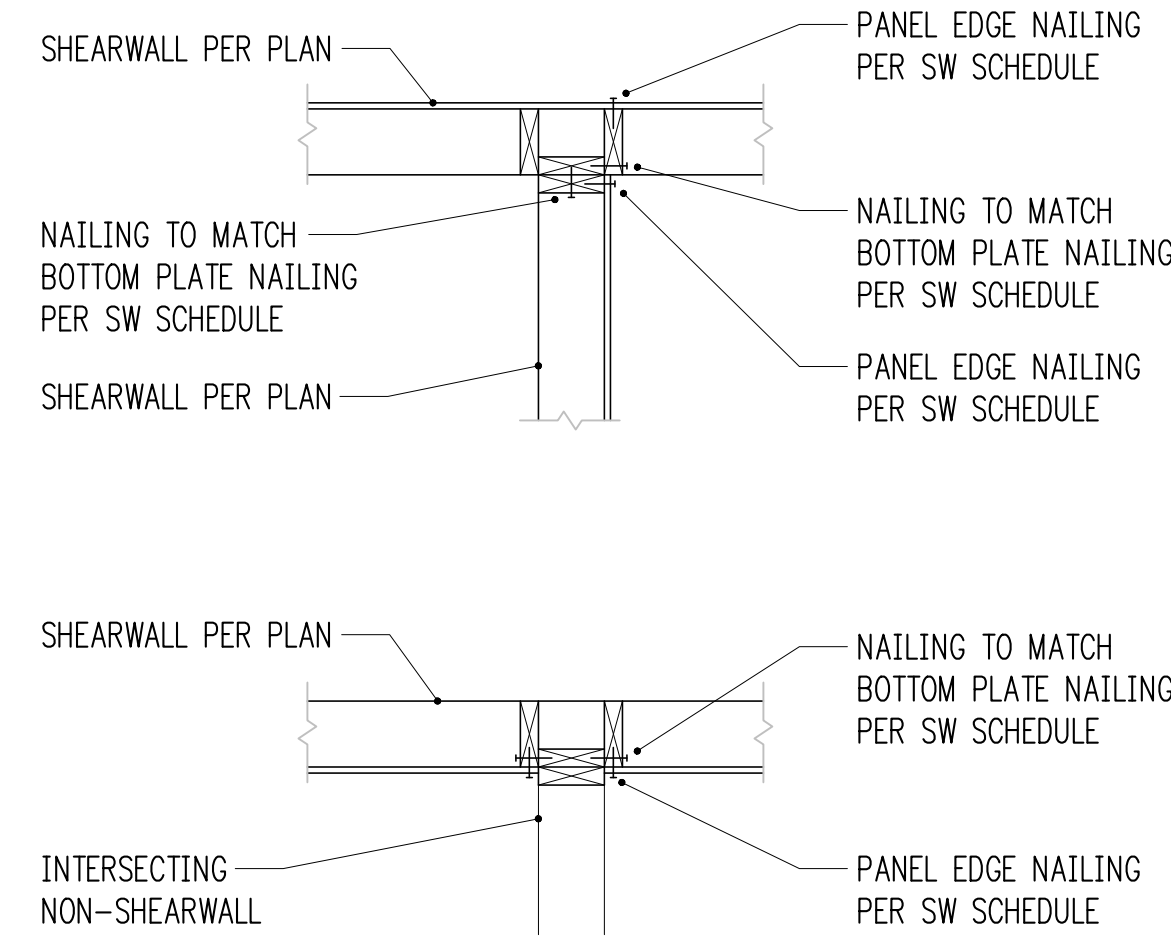
TYPICAL EXTERIOR SHEARWALL SECTION



TYPICAL INTERIOR SHEARWALL SECTION



TYPICAL TWO-SIDED SHEARWALL INTERSECTIONS

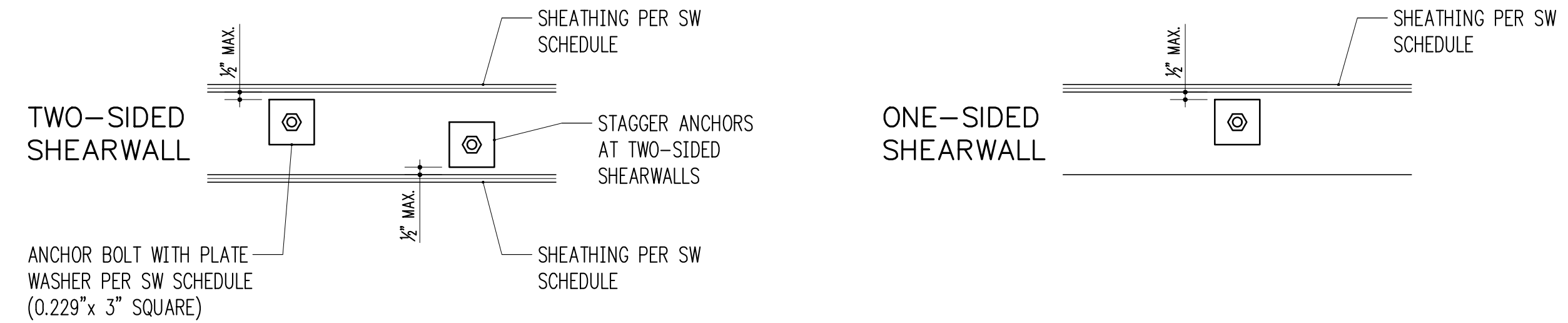


TYPICAL ONE-SIDED SHEARWALL INTERSECTIONS

SHEARWALL SCHEDULE

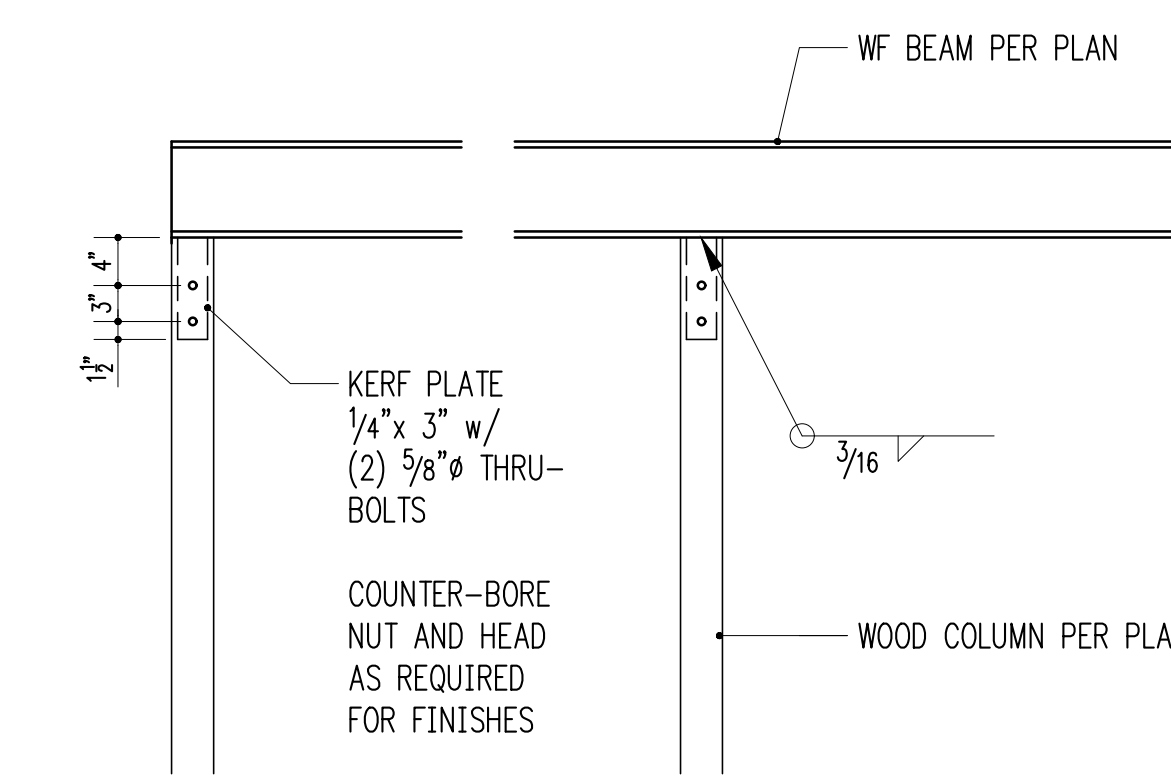
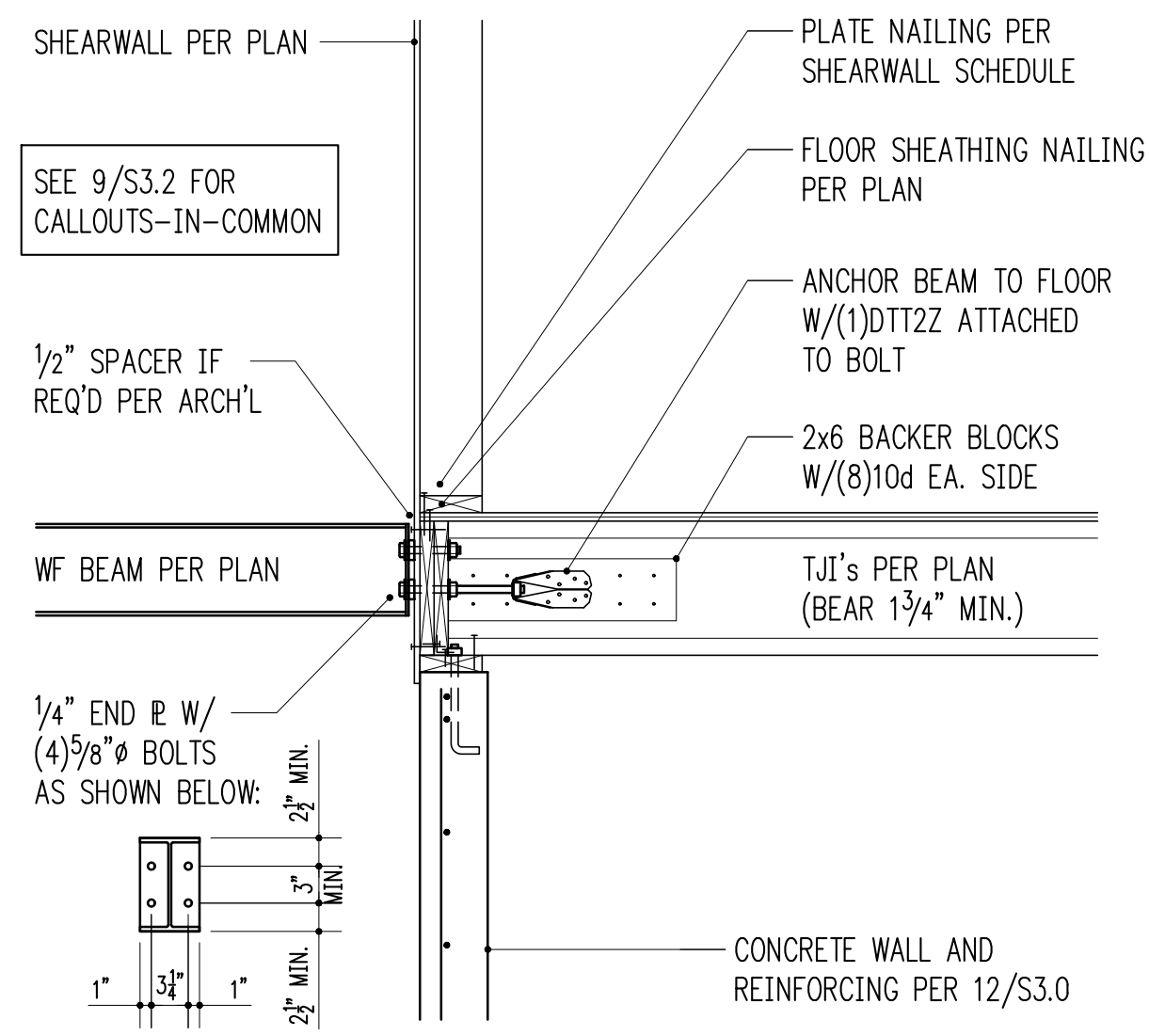
MARK	SHEATHING <sup>1</sup>	STUDS AT ABUTTING PANEL EDGES <sup>2</sup>	PANEL EDGE NAILING <sup>3,4</sup>	RIM JOIST OR BLOCKING TO TOP PLATE		BOTTOM PLATE ATTACHMENT			SPECIES REQUIRED FOR STUDS & PLATES
				SOLID RIM	TJI RIM	BOTTOM PLATE TO RIM JOIST BELOW <sup>4</sup>	ANCHOR BOLT TO CONCRETE <sup>5</sup>	SILL PLATE AT FOUND.	
SW1	15/32" CDX PLYWOOD	2x	8d @ 6"oc	A35 @ 24"oc	16d @ 6"oc	16d @ 6"oc	5/8" @ 48"oc	2x	HEM-FIR FRAMING
SW2	15/32" CDX PLYWOOD	2x	8d @ 4"oc	A35 @ 15"oc	16d @ 4"oc	16d @ 4"oc	5/8" @ 32"oc	2x	
SW3	15/32" CDX PLYWOOD	3x	8d @ 3"oc	A35 @ 12"oc	N/A - USE	16d @ 3"oc	5/8" @ 16"oc	2x	
SW4	15/32" CDX PLYWOOD	3x	8d @ 2"oc	A35 @ 9"oc	SOLID RIM	16d @ 2"oc	5/8" @ 12"oc	2x	
SW5	15/32" CDX PLYWOOD BOTH SIDES	3x	8d @ 3"oc	A35 @ 6"oc	N/A - USE	(2) ROWS 16d @ 3"oc	5/8" @ 16"oc	3x	DOUG-FIR FRAMING REQUIRED
SW6	15/32" CDX PLYWOOD BOTH SIDES	3x	10d @ 2"oc	A35 @ 4 1/2"oc	SOLID RIM	(2) ROWS 16d @ 2"oc	5/8" @ 12"oc	3x	

- WALL SHEATHING SHALL CONSIST OF APA RATED PLYWOOD WITH SPAN RATING 24/0. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF PANELS. 1/16" APA RATED SHEATHING (OSB) MAY BE USED IN PLACE OF 15/32" CDX.
- STUDS AT PANEL EDGES MAY CONSIST OF (2)2x STUDS IN PLACE OF 3x STUDS - NAIL (2)2x STUDS TOGETHER WITH BOTTOM PLATE ATTACHMENT NAILING.
- BLOCK ALL PANEL EDGES W/ 2x4 FLAT, ATTACH W/ PANEL EDGE NAILING. TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SHEARWALLS. END STUDS SHALL RECEIVE PANEL EDGE NAILING. INTERMEDIATE STUDS SHALL BE 2x STUDS. NAIL SHEATHING TO INTERMEDIATE FRAMING MEMBERS WITH 8d @ 12"oc.
- 8d NAILS SHALL BE 0.131" DIAMETER x 2 1/2" (COMMON). 16d NAILS SHALL BE 0.135" DIAMETER x 3 1/2" (BOX). NAILS SHALL BE DRIVEN WITH THE HEAD OF THE NAIL FLUSH WITH FACE OF SHEATHING (NO COUNTERSINKING). NAILS SHALL BE LOCATED 3/8" MIN. FROM EDGE OF SHEATHING. STAGGER NAILS WHERE SPACING IS LESS THAN 4"oc.
- ANCHORS TO CONCRETE SHALL CONSIST OF CAST-IN-PLACE ANCHOR BOLTS, EXPANSION BOLTS, EPOXY GROUTED ALL-THREADS, OR TITEN HD HEAVY DUTY SCREW ANCHORS. CAST-IN-PLACE ANCHOR BOLTS HAVE A 7" EMBED AND SHALL BE J-BOLTS OR SHALL HAVE A HEX NUT AT THE BOTTOM END. SHALL NOT BE USED AT STEM WALL LOCATIONS WITH EDGE DISTANCE LESS THAN 5" (INSTEAD, USE EPOXY GROUTED ALL-THREADS OR TITEN HD ANCHORS). EPOXY GROUTED ANCHORS SHALL HAVE 5" EMBED AND 2 1/2" MIN. EDGE DISTANCE. TITEN HD ANCHORS SHALL HAVE 3 1/2" EMBED AND 1 1/2" MIN. EDGE DISTANCE. AT ALL ANCHOR BOLTS, PROVIDE STEEL PLATE WASHERS THAT ARE A MINIMUM OF 0.229" (3 GAUGE) x 3" x 3" (SIMPSON BP3/8-3 OR SIMILAR).

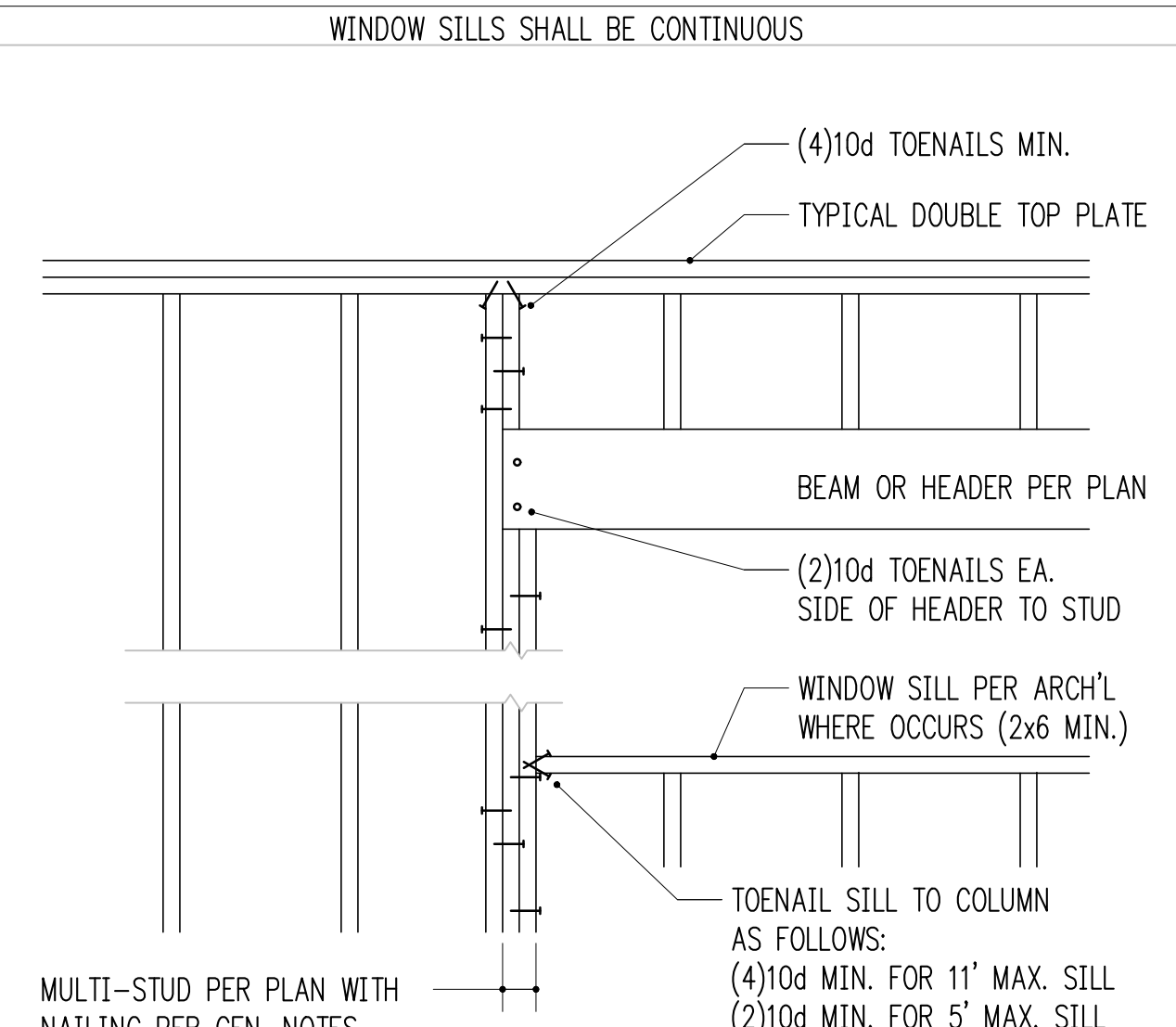


TYPICAL SHEARWALL ANCHOR BOLT PLACEMENT (N.T.S.)

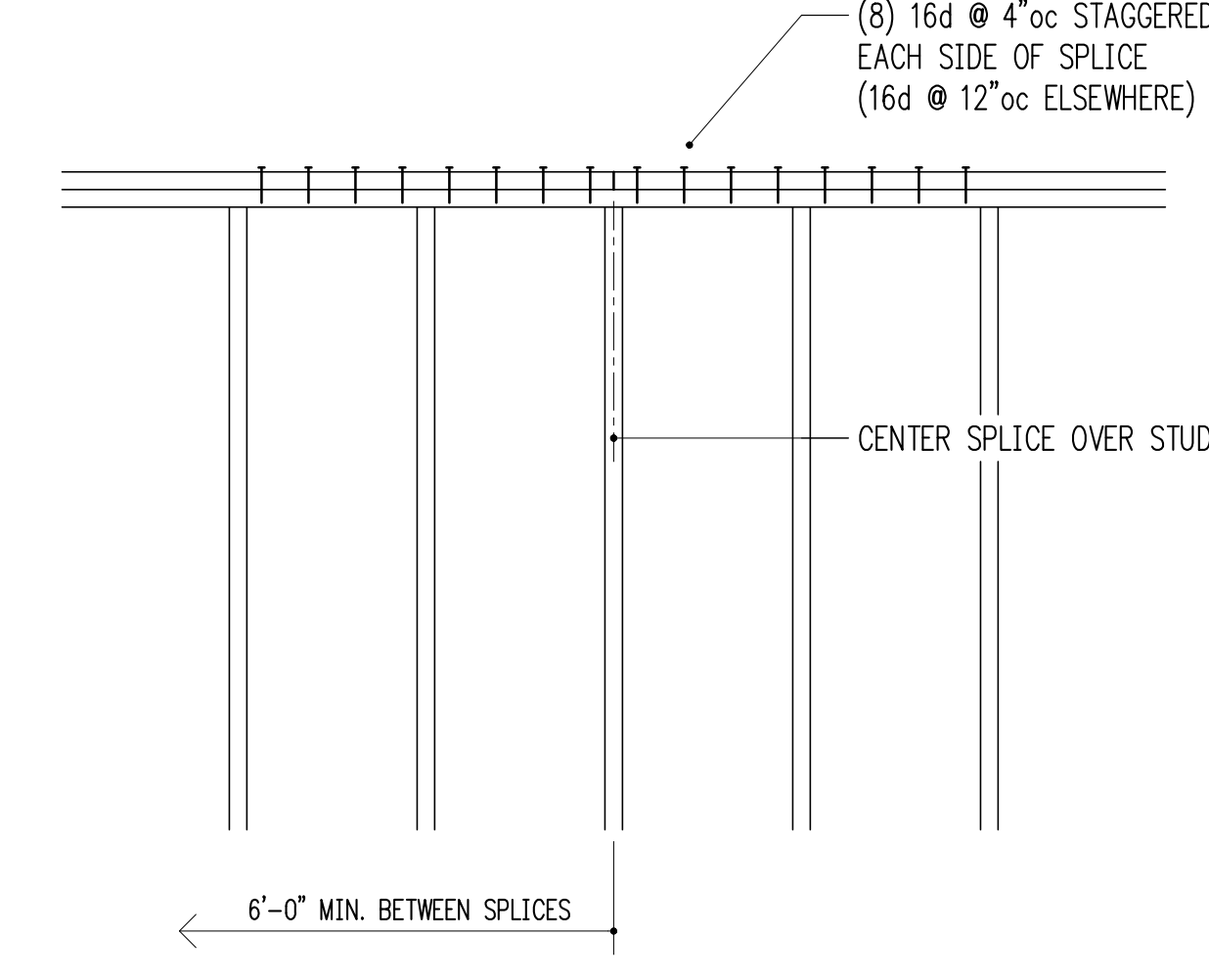
3/4" = 1'-0" 8



WF BEAM BEARING ON WOOD COLUMN (KERF)



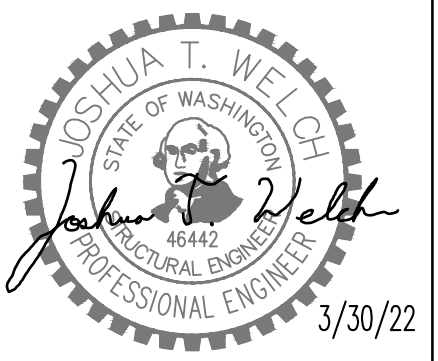
TYPICAL MULTIPLE-STUD POST CONSTRUCTION



TYPICAL TOP PLATE SPLICE CONSTRUCTION

3/4" = 1'-0" 12

JWelch Engineering LLC  
P.O. Box 28427  
Seattle Wa. 98118



3/30/22

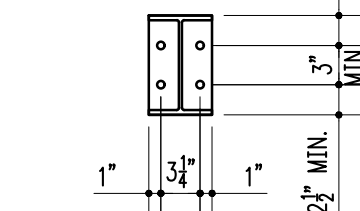
MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA. 98040

SEE 9/S3.2 FOR CALLOUTS-IN-COMMON

1/2" SPACER IF REQ'D PER ARCH'L

1/4" END R. W/ (4) 5/8" BOLTS AS SHOWN BELOW:



3/4" = 1'-0" 9

3/4" = 1'-0" 10

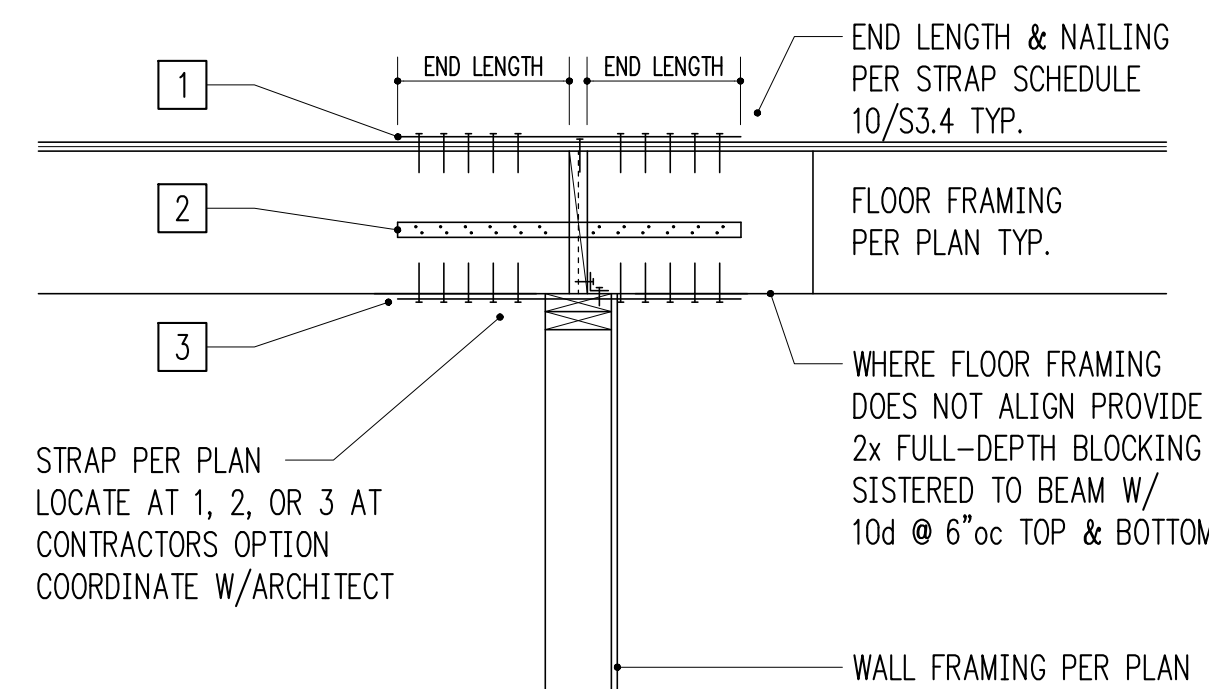
3/4" = 1'-0" 11

3/4" = 1'-0" 12

Architect	WITTMAN ESTES
5628 Airport Way S Ste 165 Seattle, WA 98106	
Issue	1. 10/13/21 PERMIT 2. 3/30/22 CORRECTIONS 3. 4. 5.
Print Date	3/30/22
Drawing Title	STRUCTURAL DETAILS
Drawing Number	S3.3

LOCATION NOTES:

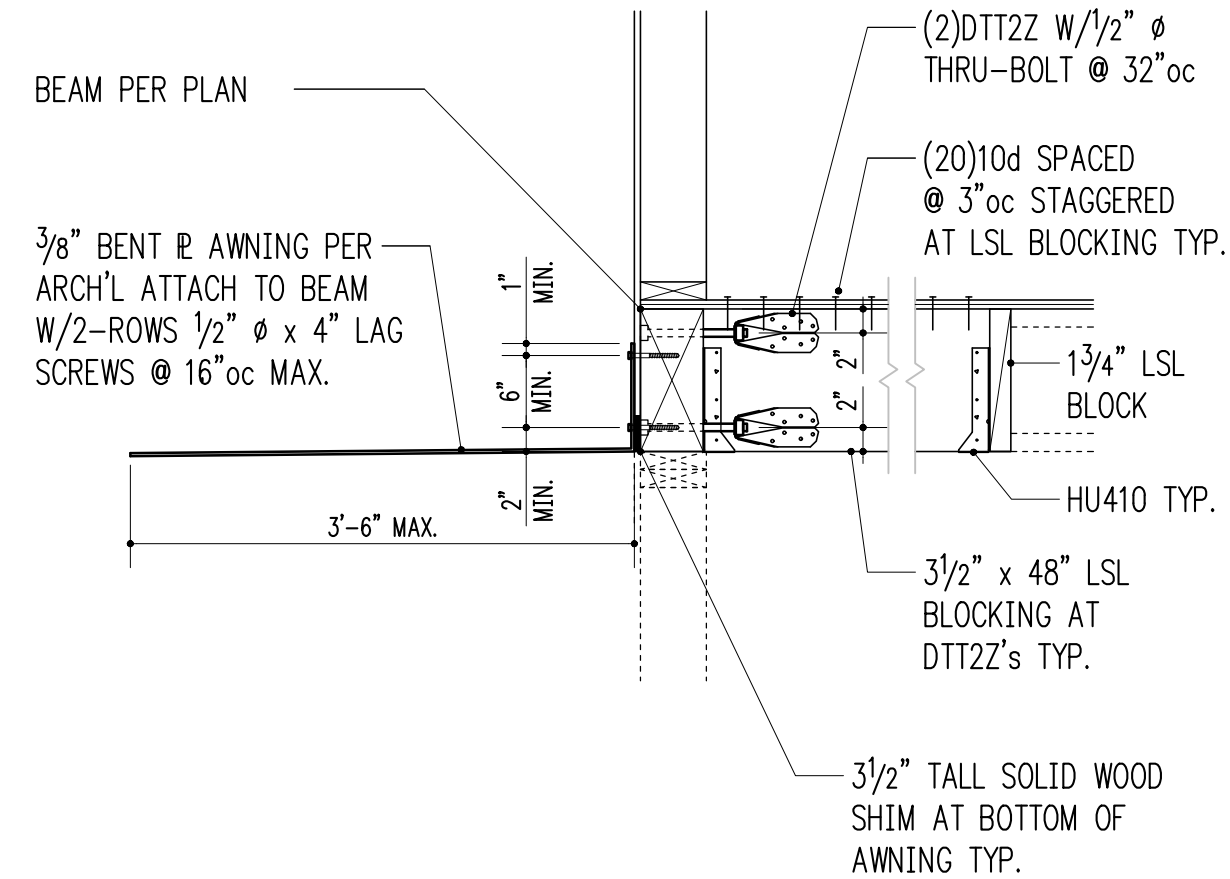
1. AT LOCATION #1 PLACE STRAP OVER SHEATHING. COORDINATE W/FLOOR FINISH.
2. AT LOCATION #2 PLACE ON SIDE OF FRAMING OR BLOCKING. IF TJI BLOCK WEB WITH HORIZONTAL 2x6 x 3x END LENGTH & ATTACH W/2-ROWS 10d @ 6"oc.
3. AT LOCATION #3 PLACE STRAP ON FRAMING & COORDINATE W/CEILING FINISH.



TYPICAL HORIZONTAL STRAP

3/4" = 1'-0"

BENT IN AWNING TO BE A36 STEEL UNLESS NOTED OTHERWISE. STEEL EXPOSED TO WEATHER SHALL BE PAINTED OR HOT DIPPED GALVANIZED PER ARCH'L & ASTM A123



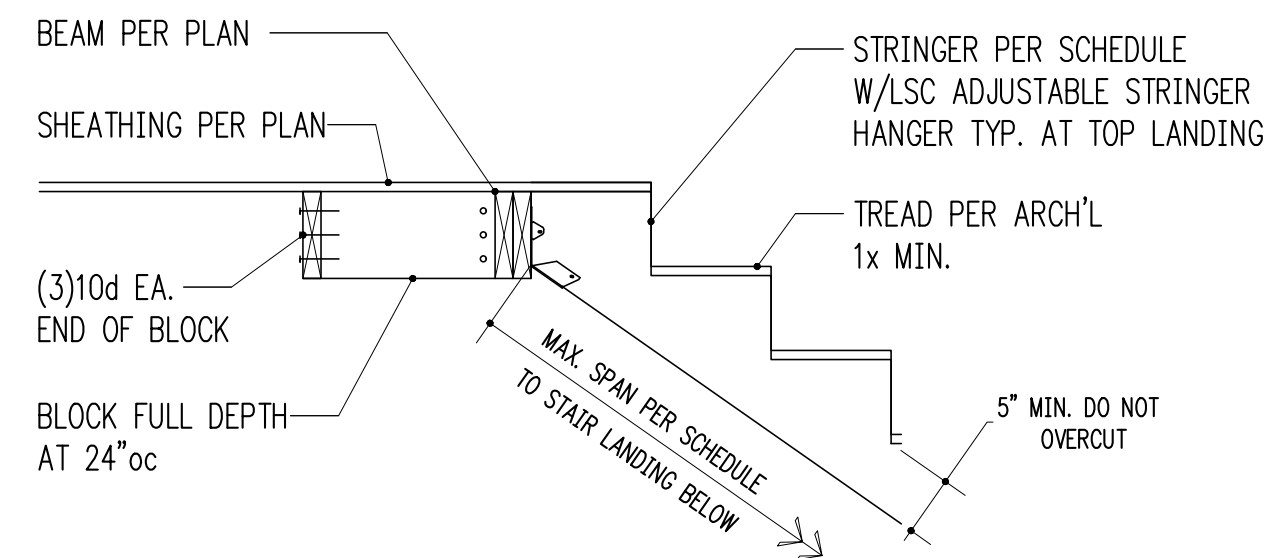
BENT IN AWNING AT FLOOR

3/4" = 1'-0"

STAIR DIMENSIONS PER ARCH'L & THE INTERNATIONAL RESIDENTIAL CODE

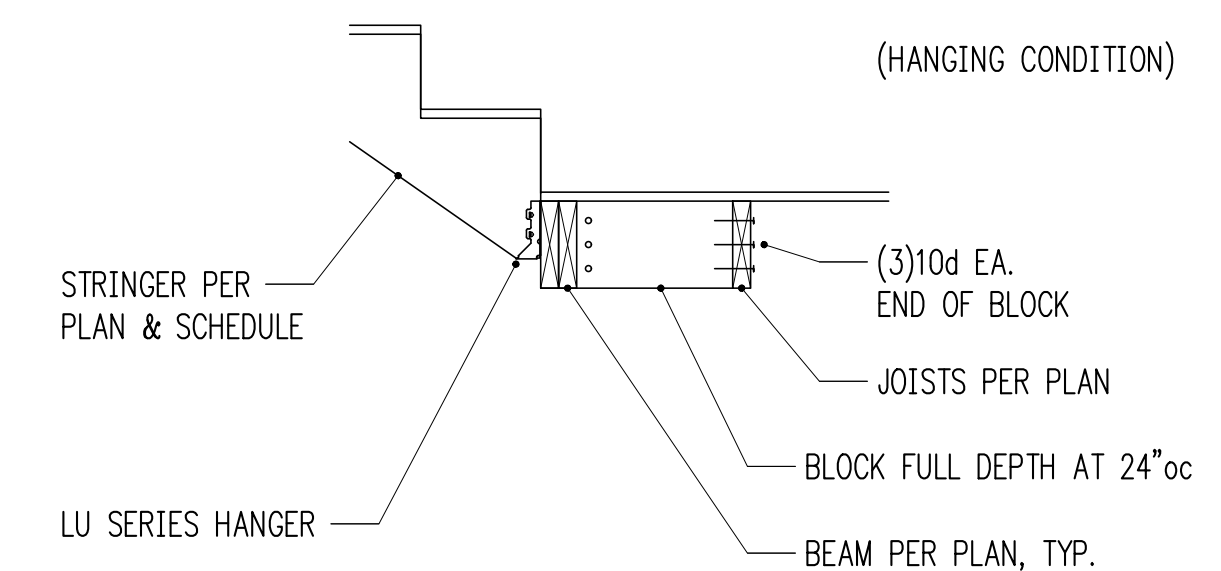
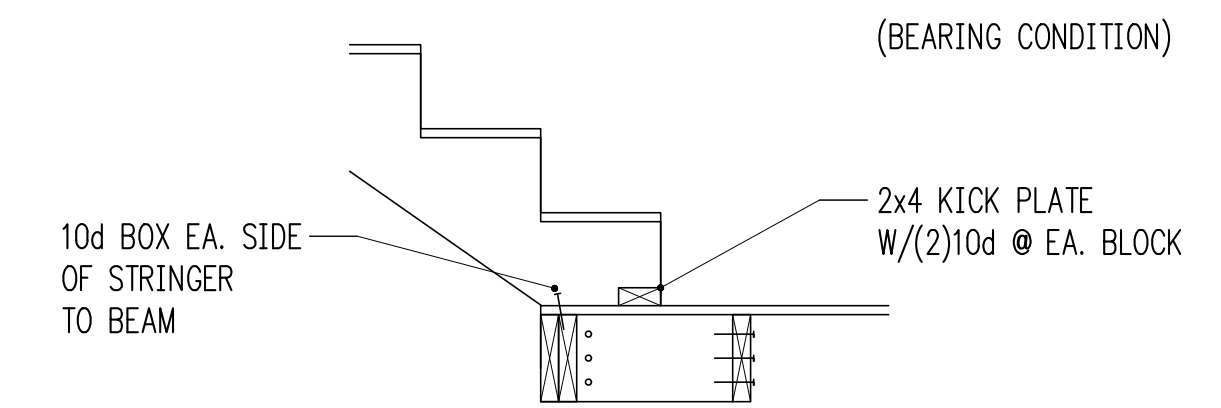
STRINGER SCHEDULE

MAX. SPAN	STRINGER	SPACING
10 FT.	2x DF#1 STRINGER	@ 16"oc
12 FT.	(2)2x DF#1 STRINGER	@ 16"oc
13 FT.	(2)2x DF#1 STRINGER	@ 12"oc



TYPICAL WOOD STAIR STRINGER

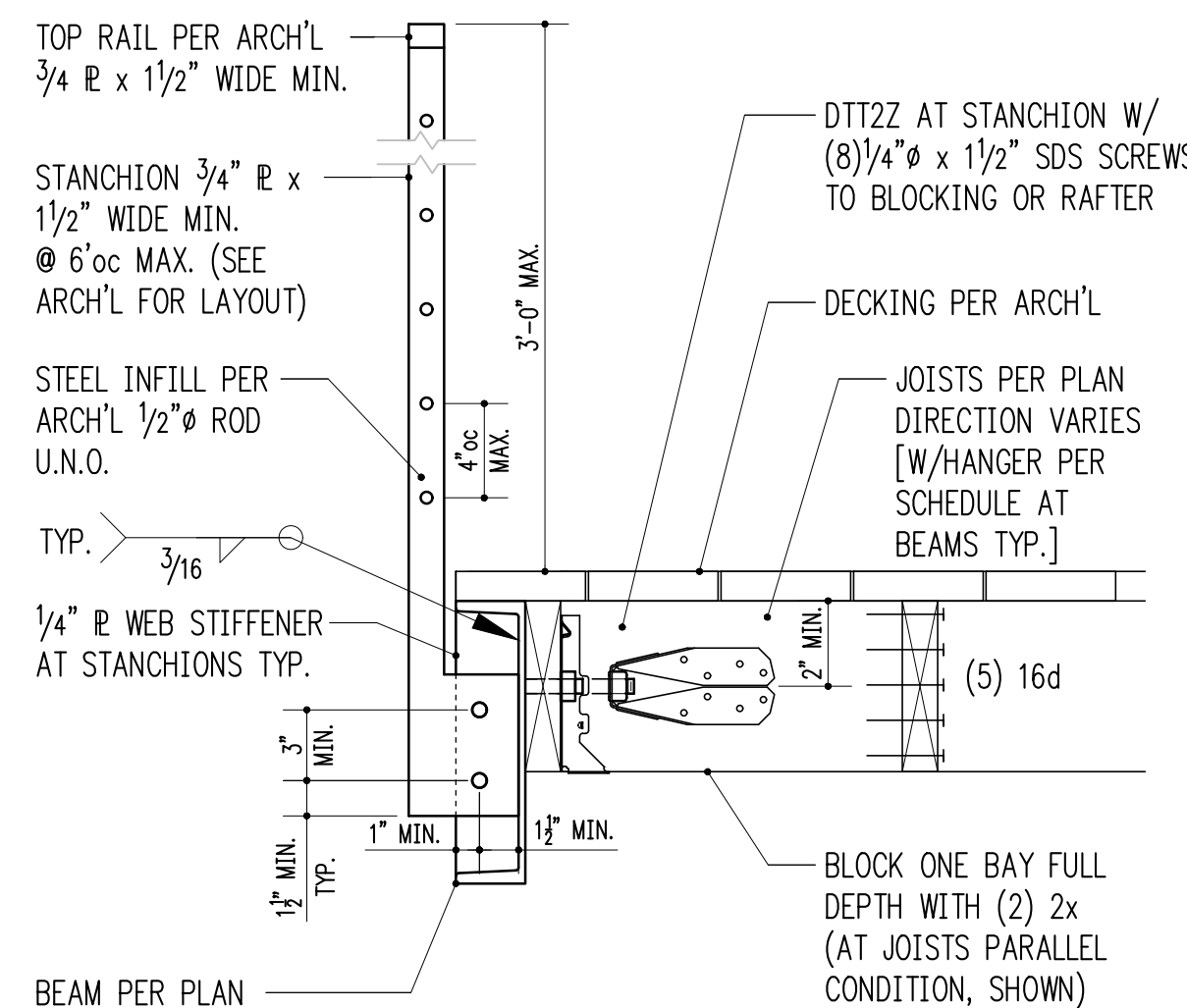
3/4" = 1'-0"



TYP. STRINGER AT LOWER LANDING

3/4" = 1'-0"

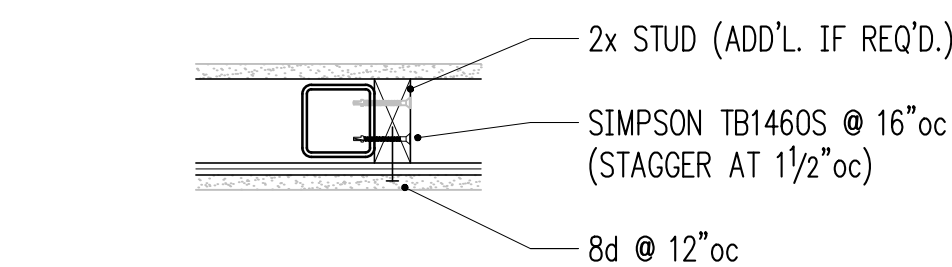
STEEL EXPOSED TO WEATHER SHALL BE PAINTED OR HOT DIPPED GALVANIZED PER ASTM A123, COORDINATE WITH ARCHITECT



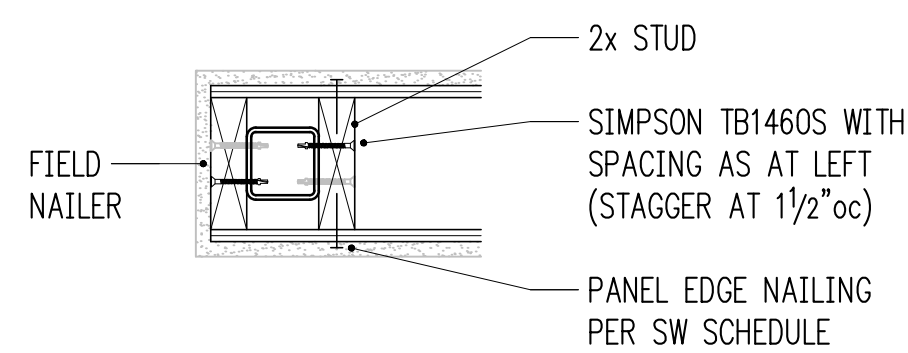
1-1/2" = 1'-0"

NAILER TYPE:

STUD WALL OR SHEARWALL FIELD NAILER



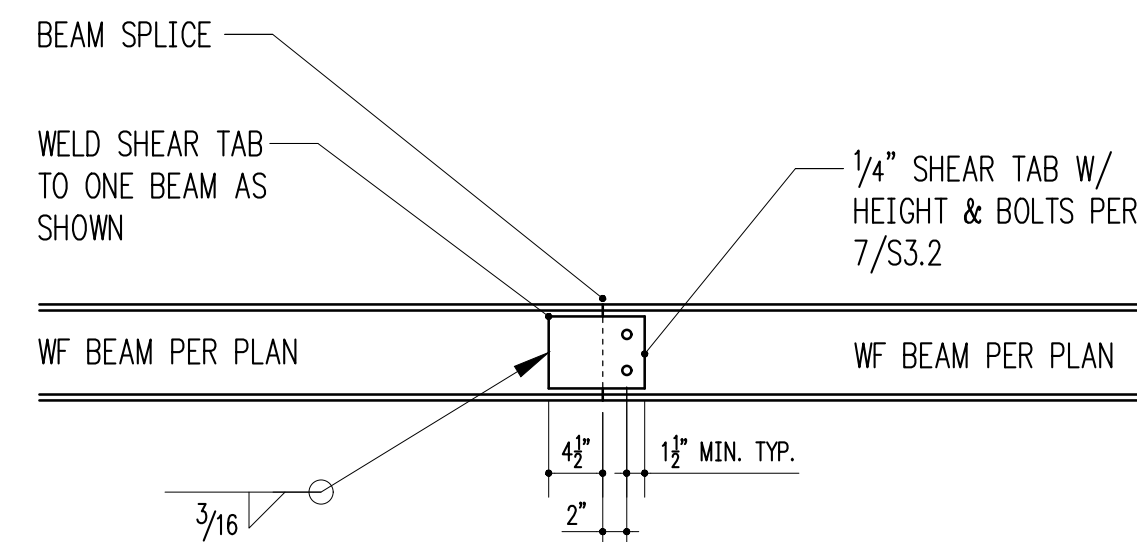
SHEARWALL BOUNDARY NAILER



- SW1 16"oc
- SW2 12"oc
- SW3 9"oc
- SW4 7"oc
- SW5 4 1/2"oc
- SW6 3 1/2"oc

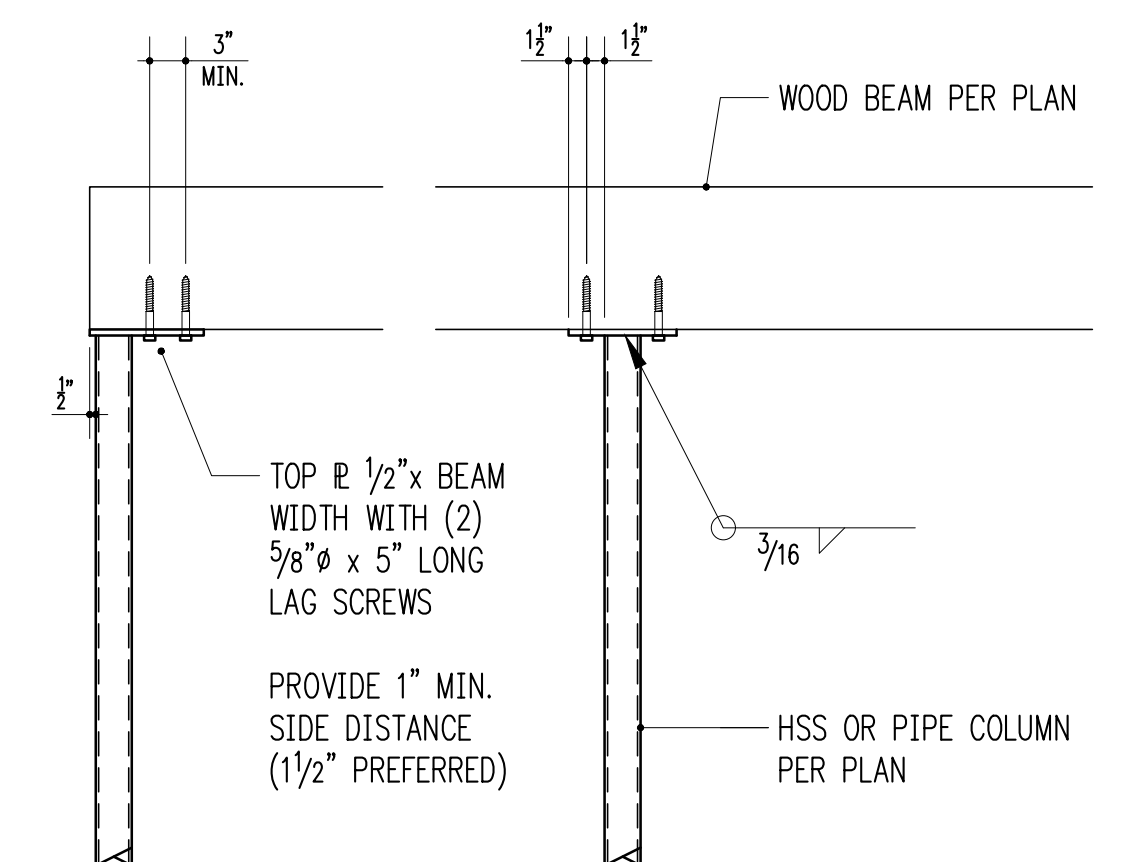
HSS COLUMN NAILERS

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



WF BEAM TO END OF WF BEAM

3/4" = 1'-0"



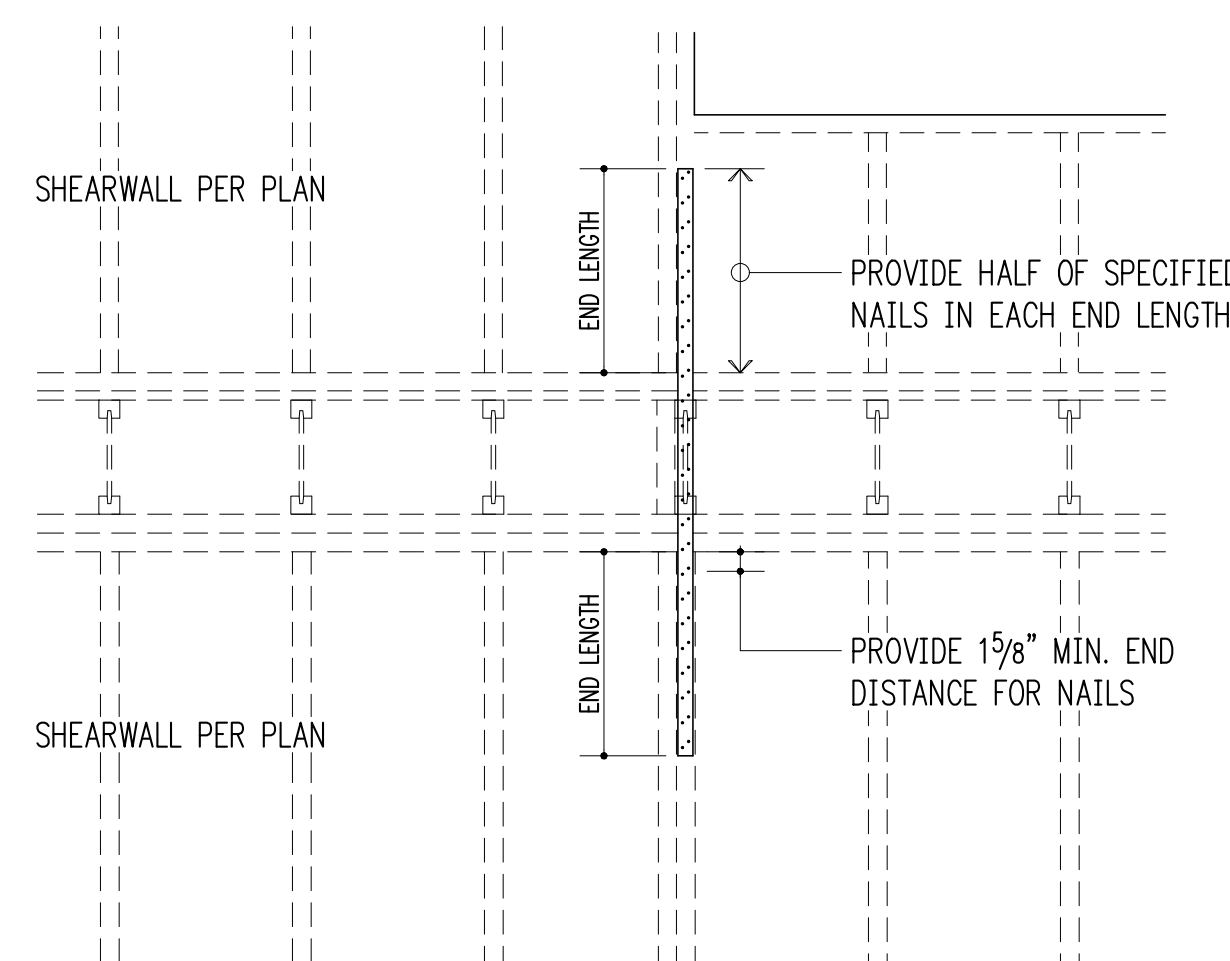
WOOD BEAM BEARING ON STEEL COLUMN

3/4" = 1'-0"

STRAP SCHEDULE

MARK	END LENGTH	NAILS	NAIL SPACING
CMST12	44"	(98) 10d x 3"	1 3/4"
CMST14	34"	(76) 10d x 3"	1 3/4"
CMSTC16	25"	(58) 12d x 3 1/4"	1 1/2"
CS14	19"	(36) 8d x 2 1/2"	2 1/16"
CS16	14"	(26) 8d x 2 1/2"	2 1/16"
CS18	12"	(22) 8d x 2 1/2"	2 1/16"
CS20	9"	(16) 8d x 2 1/2"	2 1/16"
CS22	8"	(14) 8d x 2 1/2"	2 1/16"

1. 10d AND 12d DIAMETER = 0.148"; 8d DIAMETER = 0.131".
2. USE HALF OF THE REQUIRED NAILS IN EACH MEMBER BEING CONNECTED (i.e. IN EACH END LENGTH).



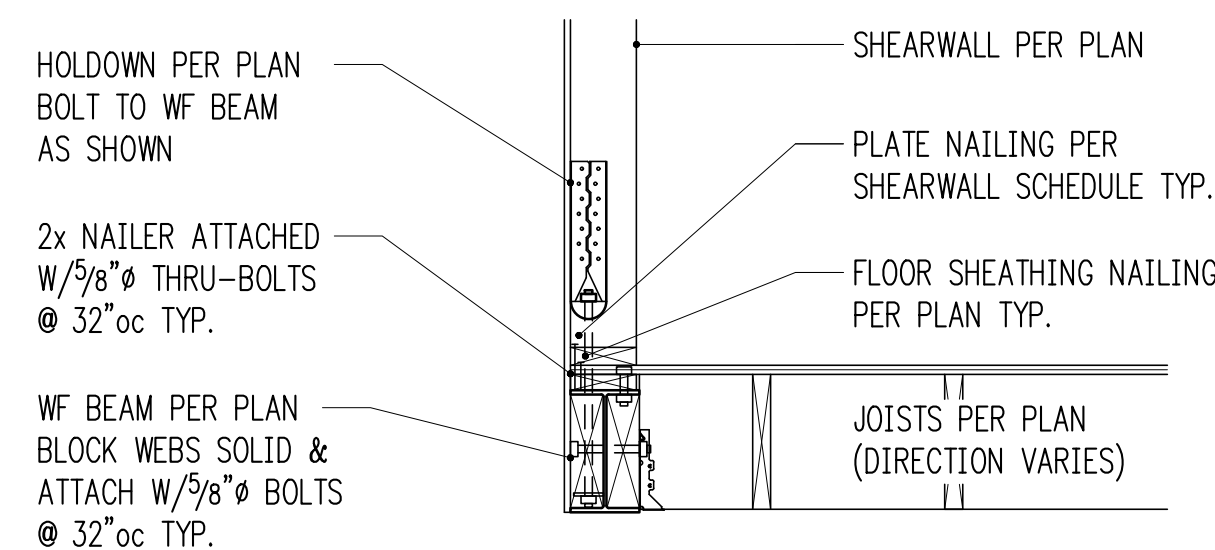
TYPICAL STRAP HOLDOWN AT FLOOR

3/4" = 1'-0"

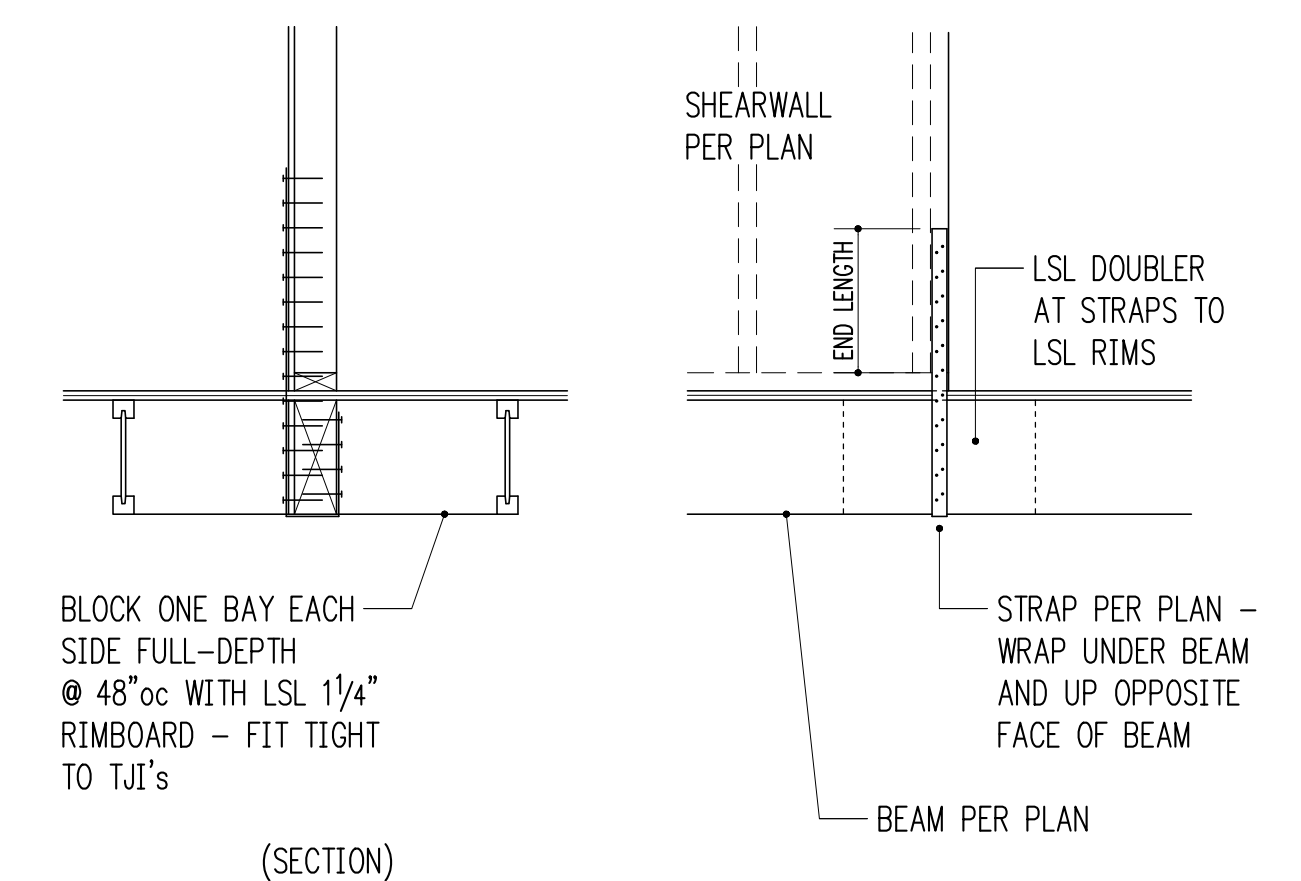
HOLDOWN SCHEDULE

MARK	FASTENERS TO STUDS <sup>1</sup>	ANCHOR <sup>2</sup>
HDU2	(6) 1/4" x 2 1/2" SCREWS	5/8"
HDU4	(10) 1/4" x 2 1/2" SCREWS	5/8"

1. 10d AND 12d DIAMETER = 0.148"; 16d DIAMETER = 0.162". SCREWS SHALL BE SIMPSON "SDS" TYPE SCREWS, INSTALL PER SIMPSON RECOMMENDATIONS.
2. PROVIDE A36 OR A307 ALL-THREAD.



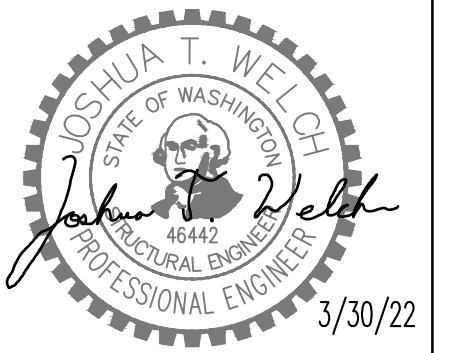
3/4" = 1'-0"



TYPICAL STRAP AT BEAM (PARALLEL)

3/4" = 1'-0"

JWelch Engineering LLC  
P.O. Box 28427  
Seattle, WA 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.9553



MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
WITTMAN ESTES

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue	Date	Description
1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.		
4.		
5.		

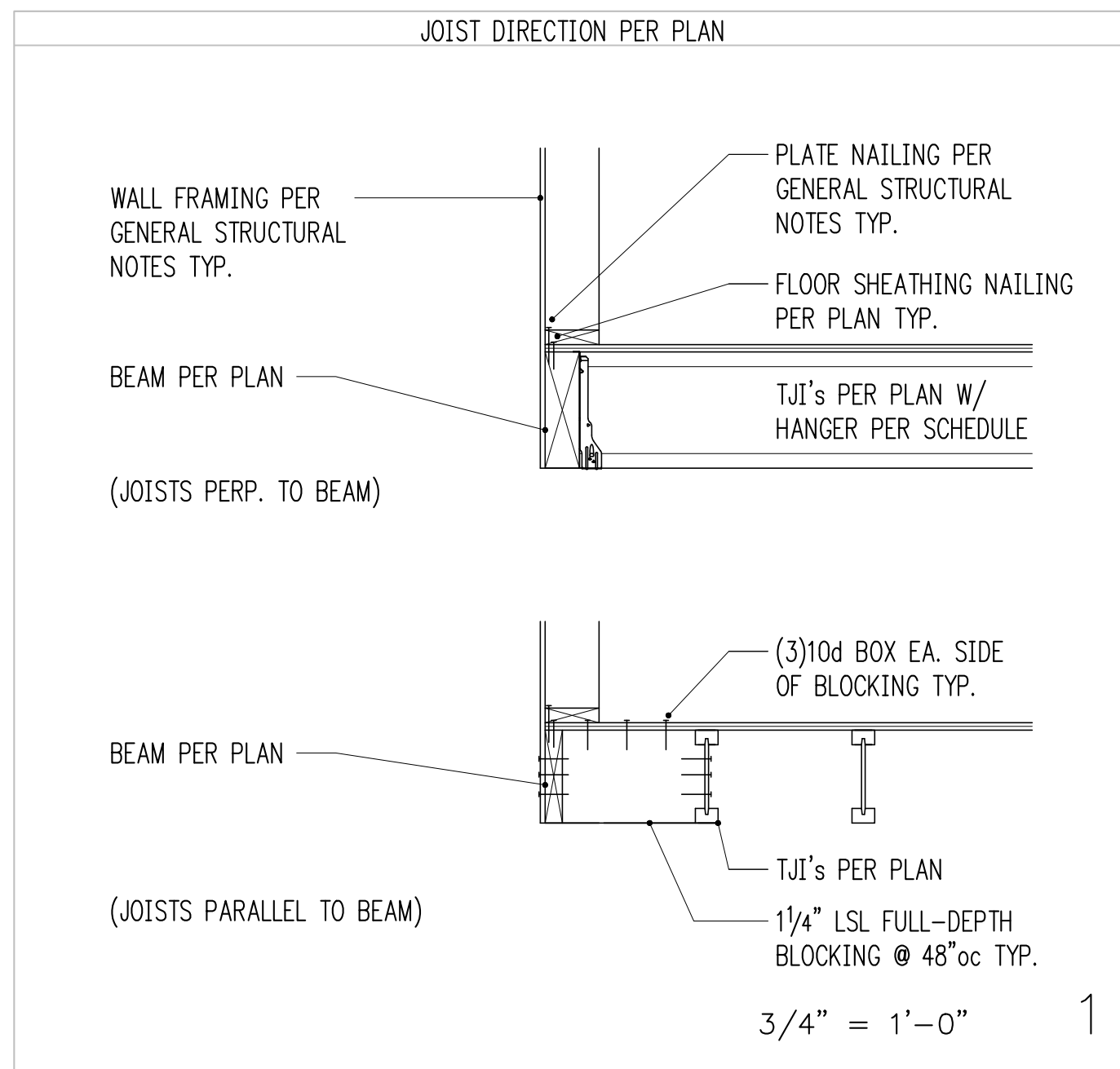
Print Date  
3/30/22

Drawing Title  
STRUCTURAL DETAILS

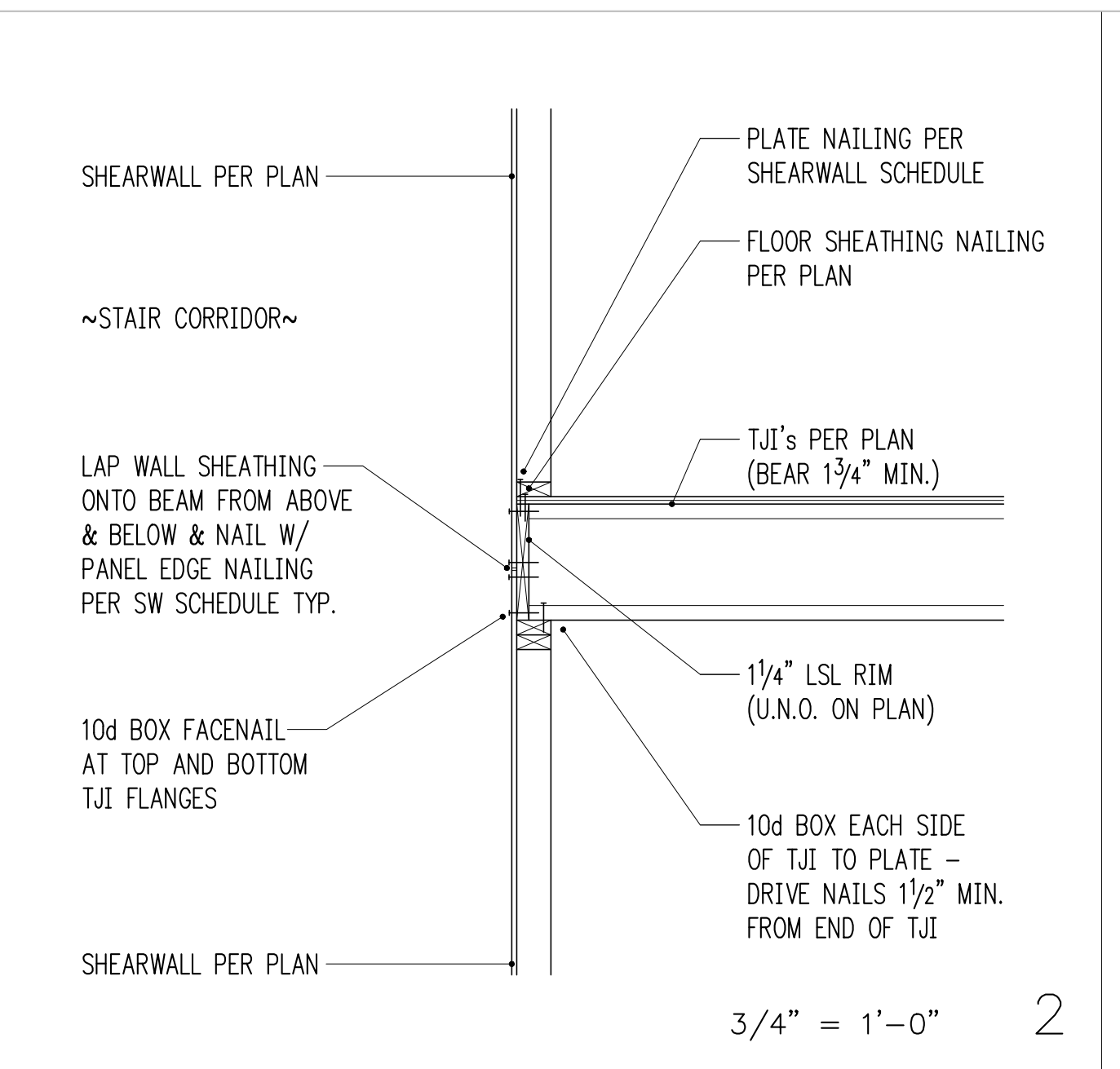
Drawing Number

S3.4

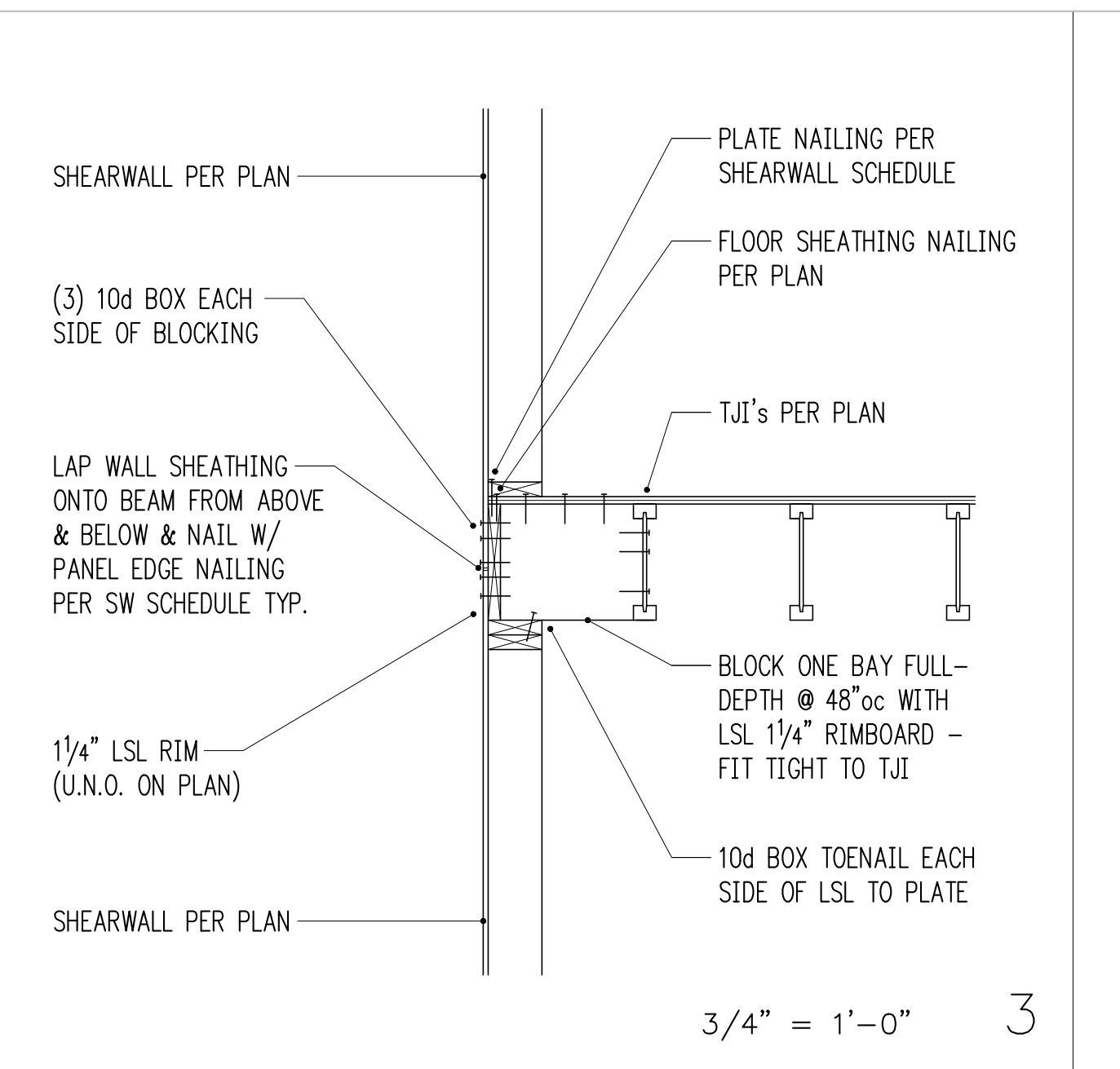




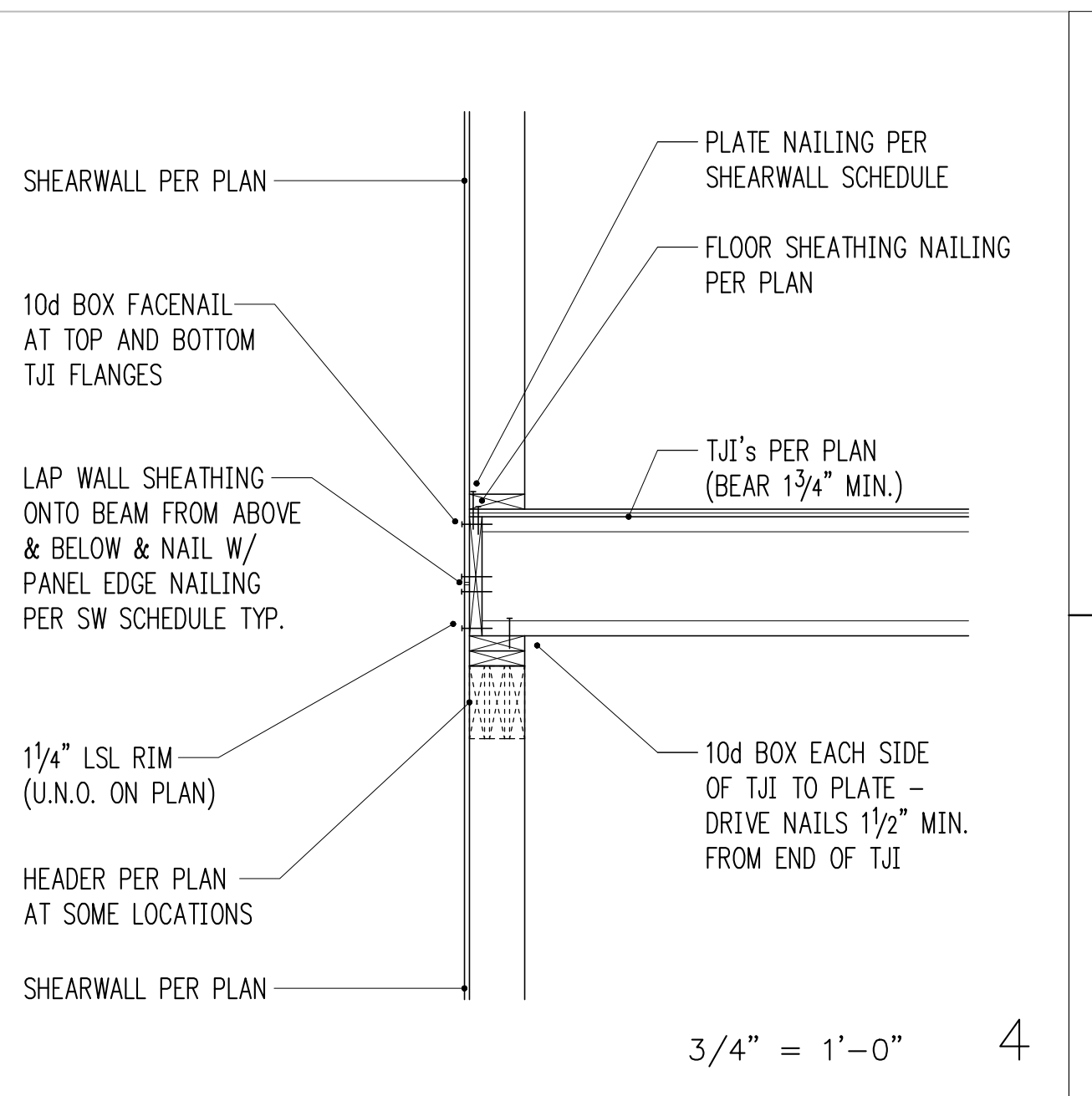
3/4" = 1'-0" 1



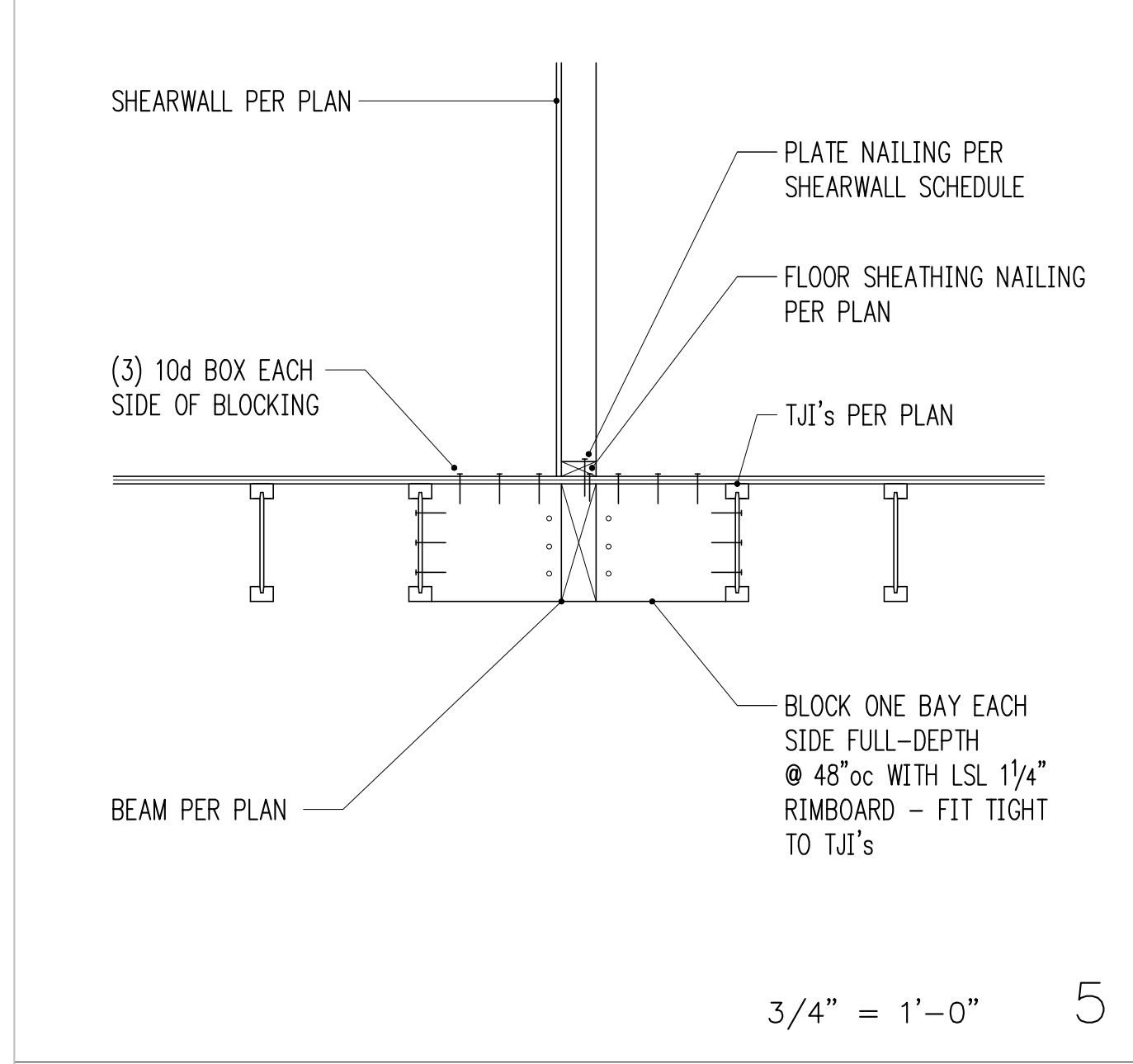
3/4" = 1'-0" 2



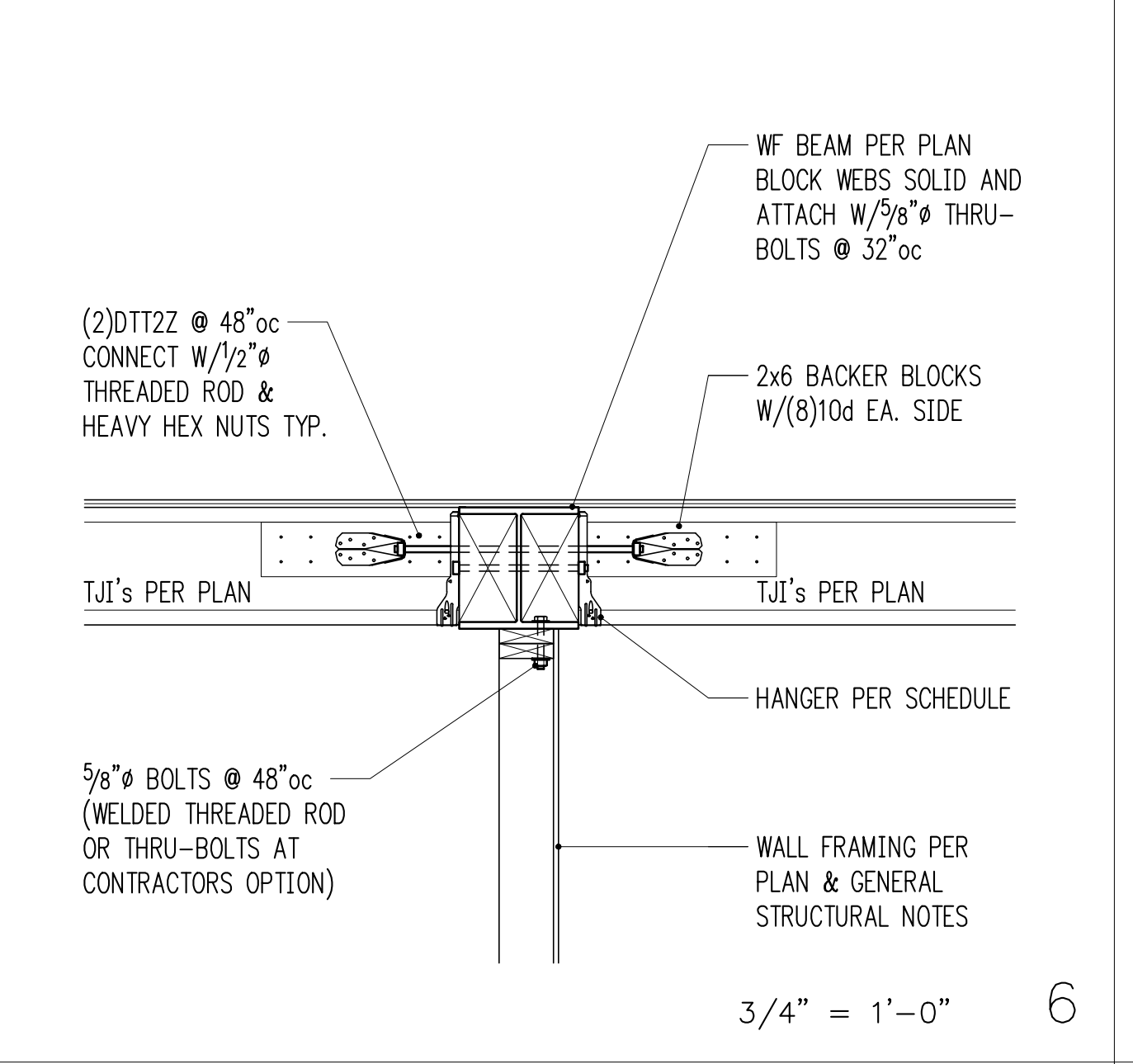
3/4" = 1'-0" 3



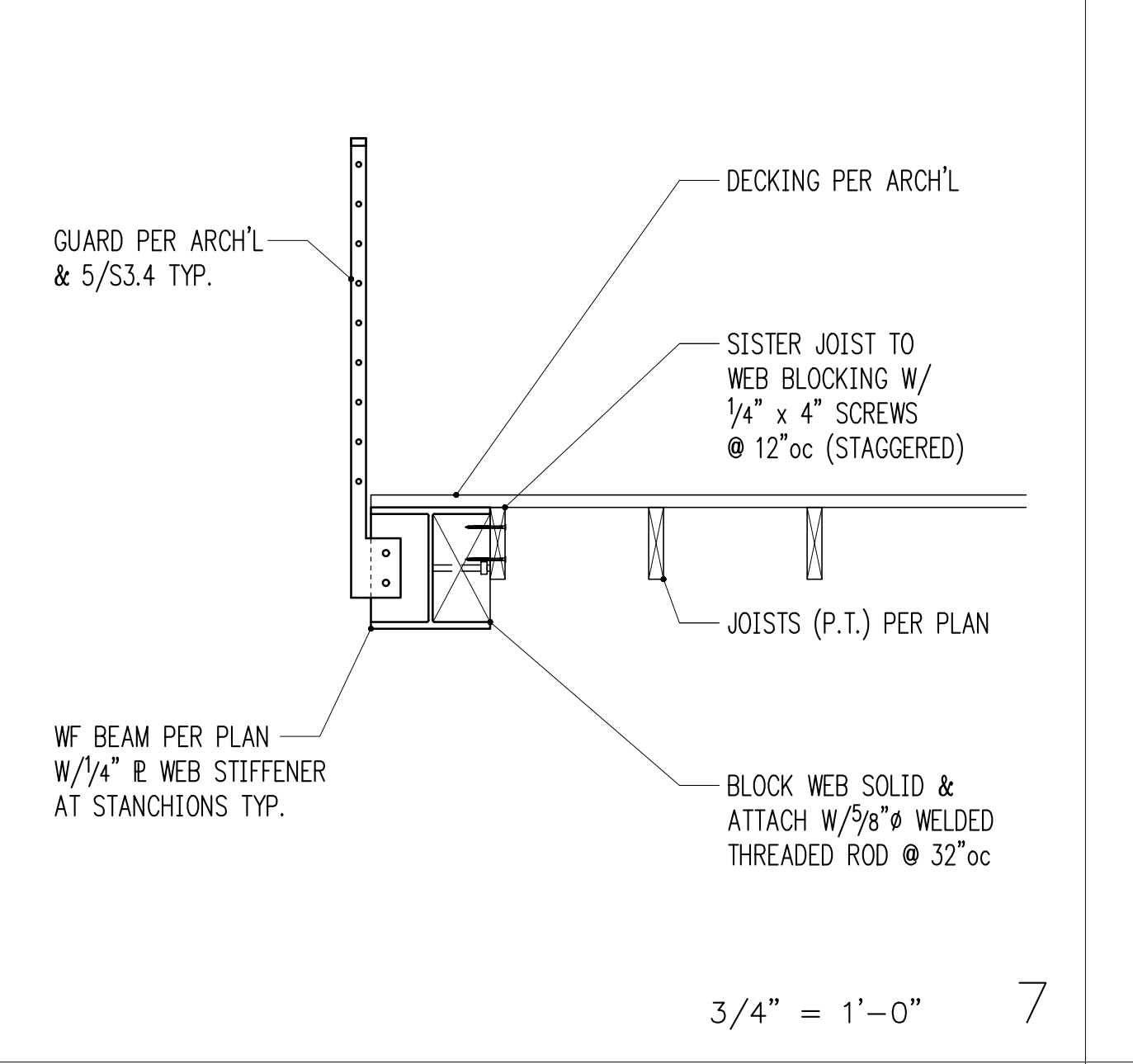
3/4" = 1'-0" 4



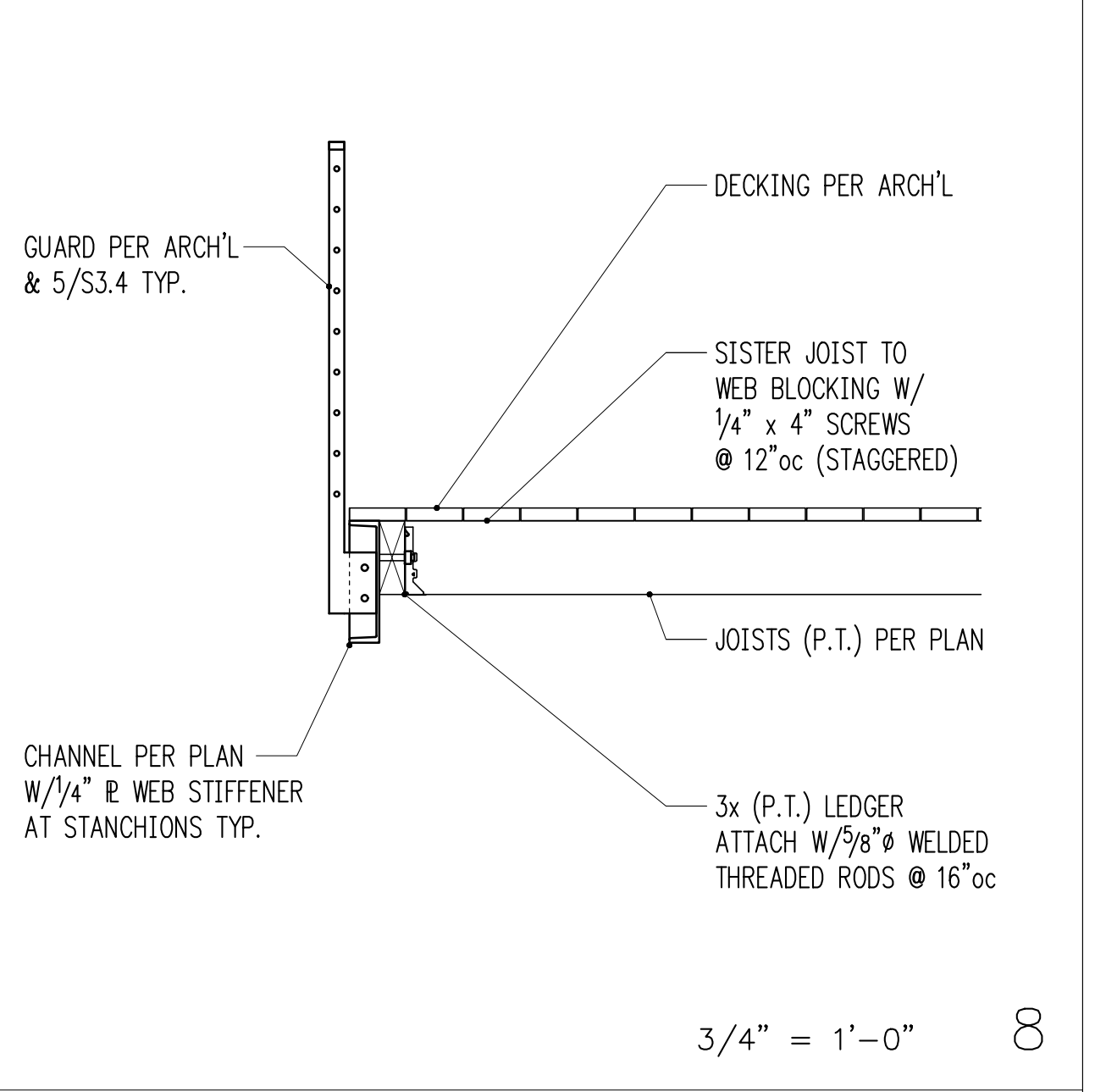
3/4" = 1'-0" 5



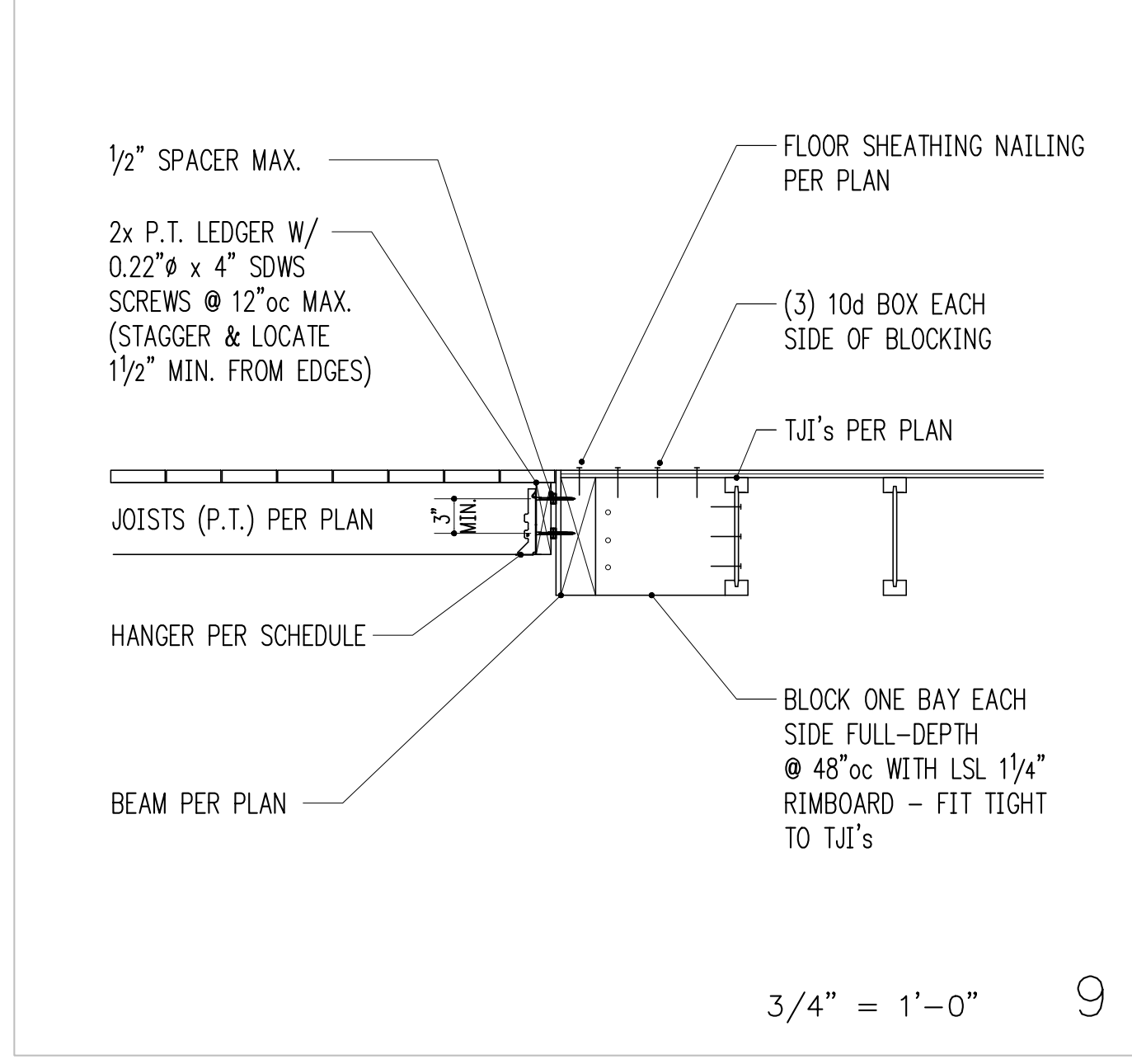
3/4" = 1'-0" 6



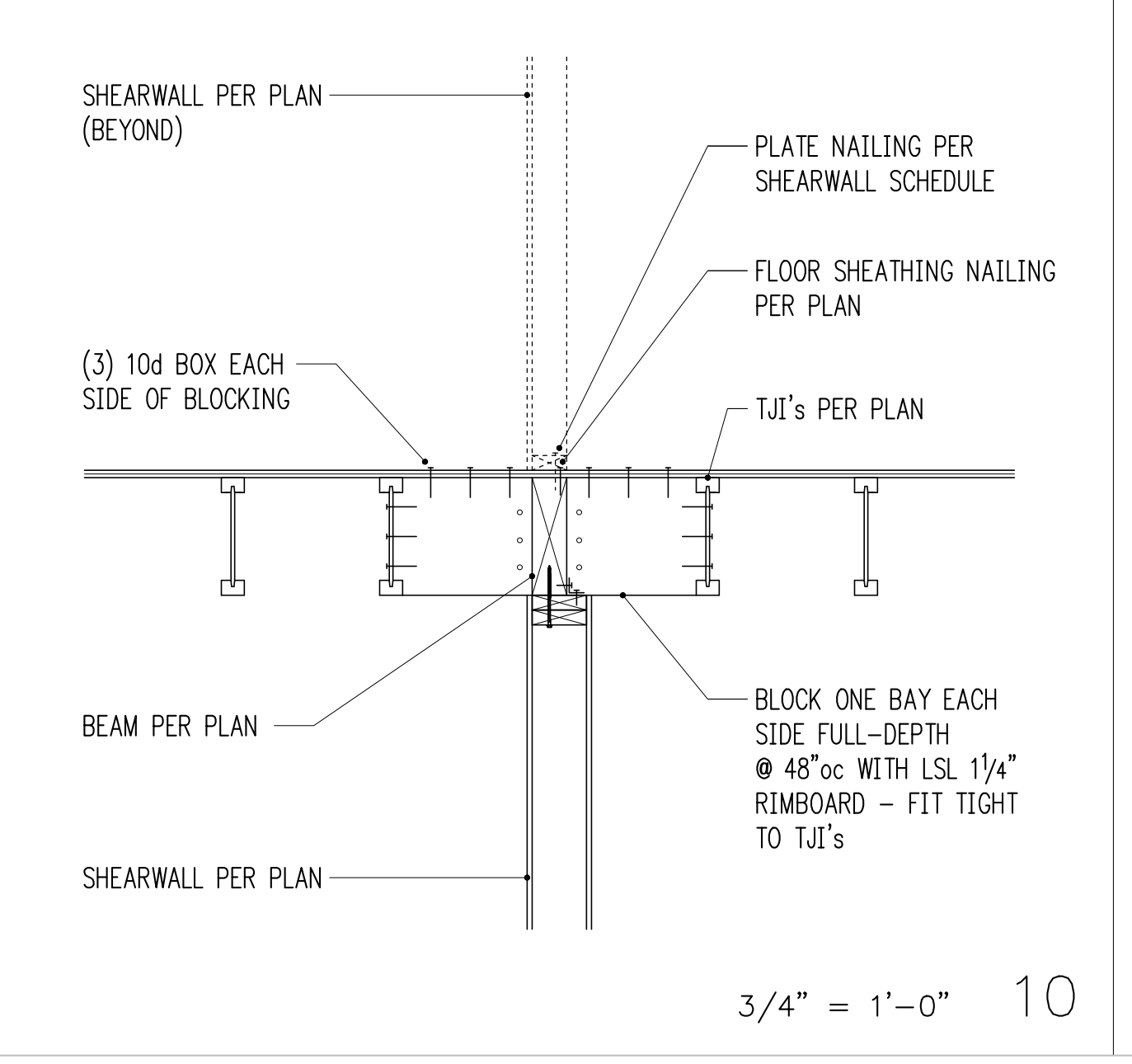
3/4" = 1'-0" 7



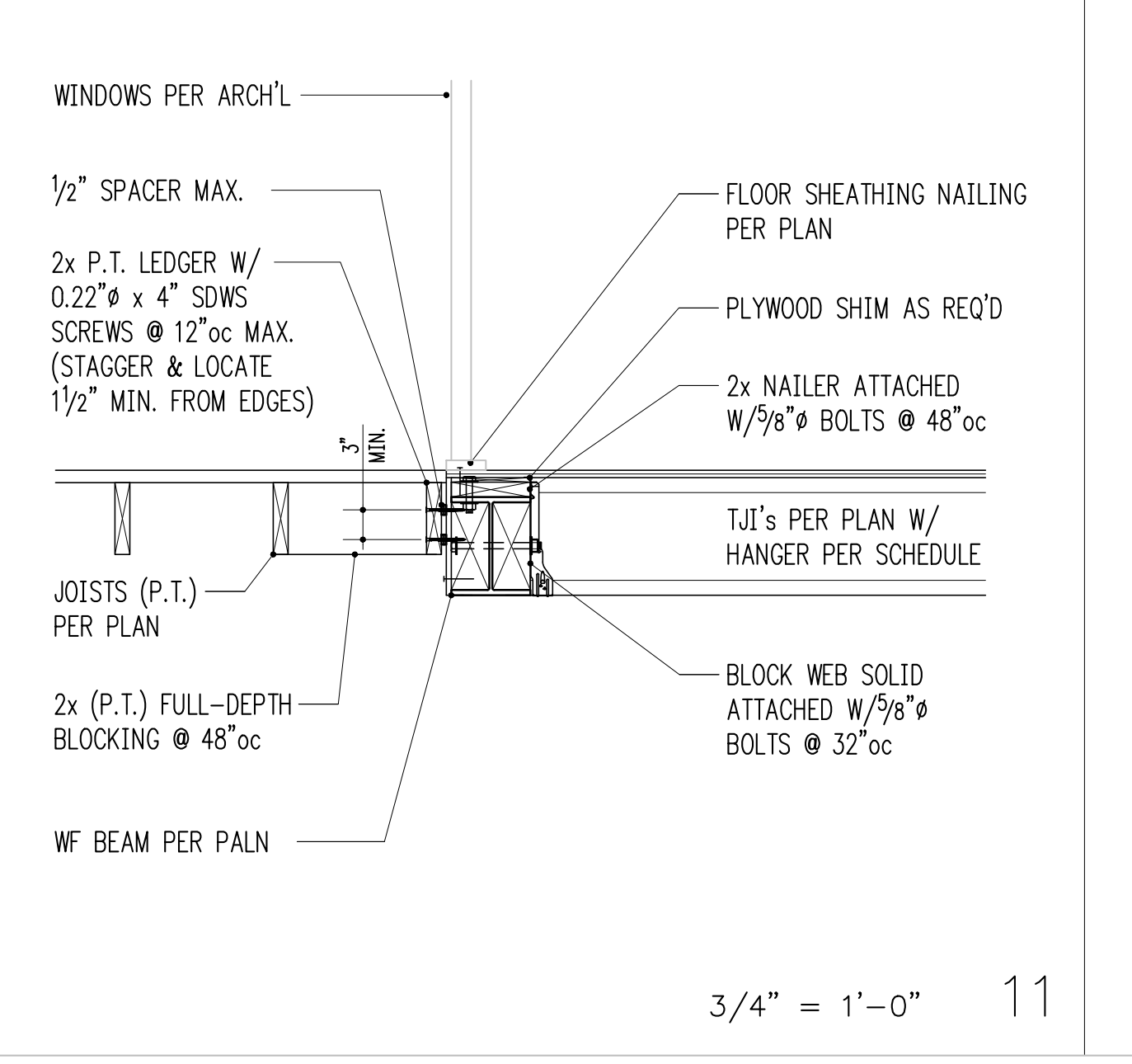
3/4" = 1'-0" 8



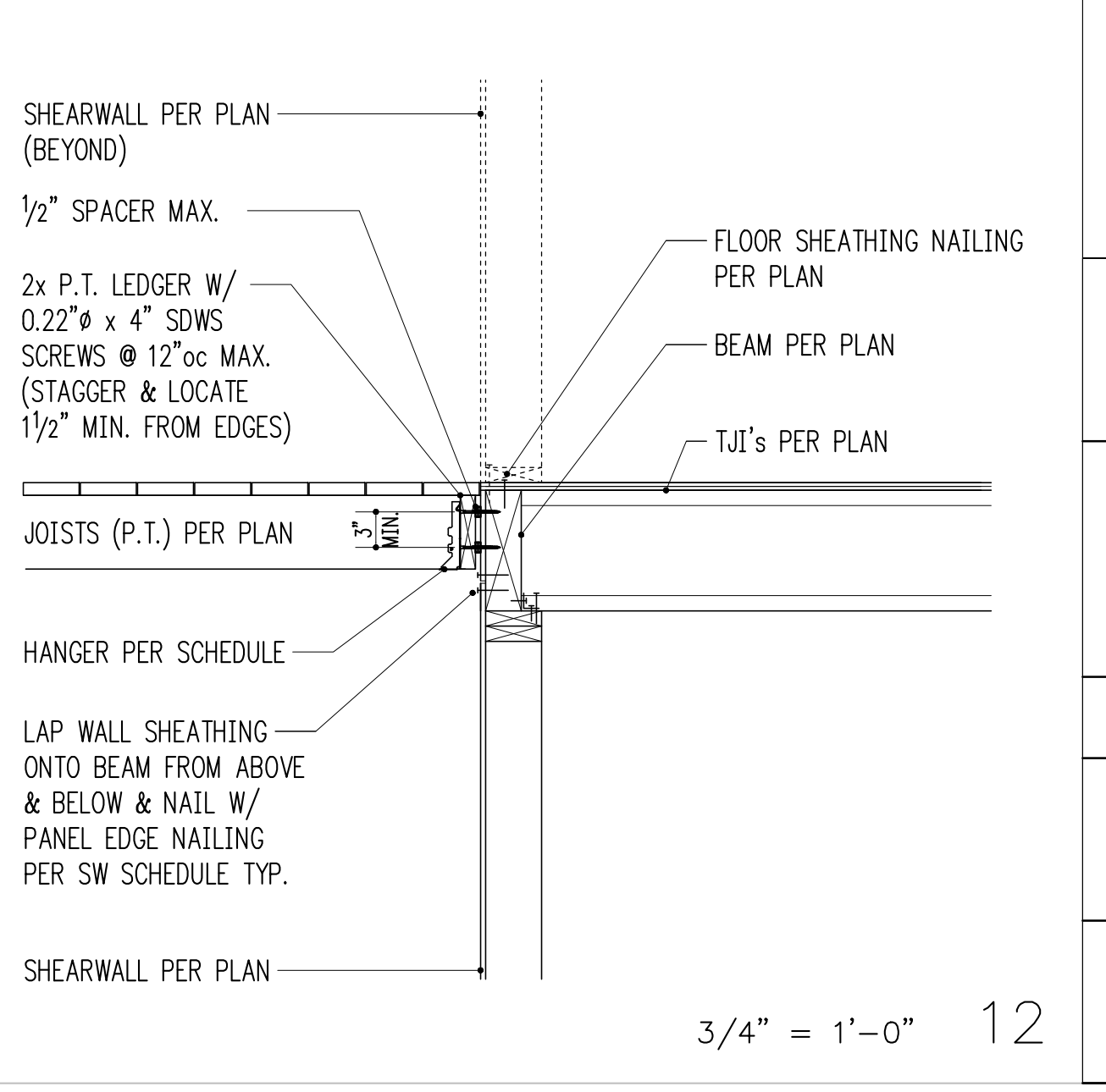
3/4" = 1'-0" 9



3/4" = 1'-0" 10



3/4" = 1'-0" 11



3/4" = 1'-0" 12

**JWelch**  
Engineering LLC  
P.O. Box 28427  
Seattle, WA 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.8553

# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**  
5628 Airport Way S Ste 165  
Seattle, WA 98106

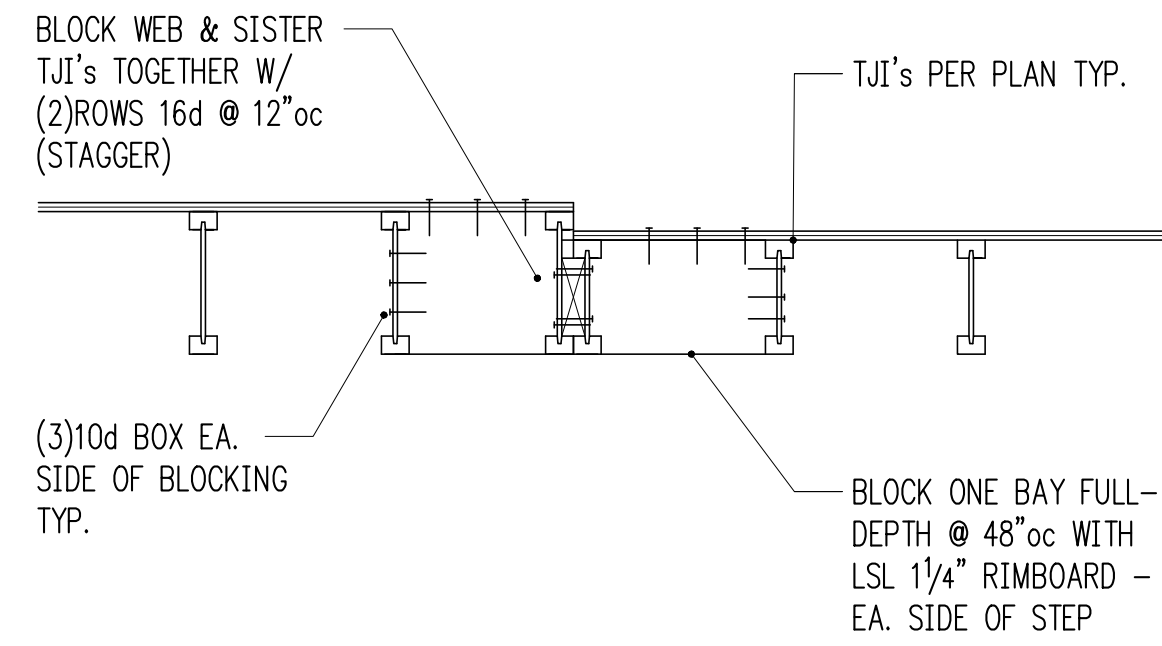
Issue

1. 10/13/21	PERMIT
2. 3/30/22	CORRECTIONS
3.	
4.	
5.	

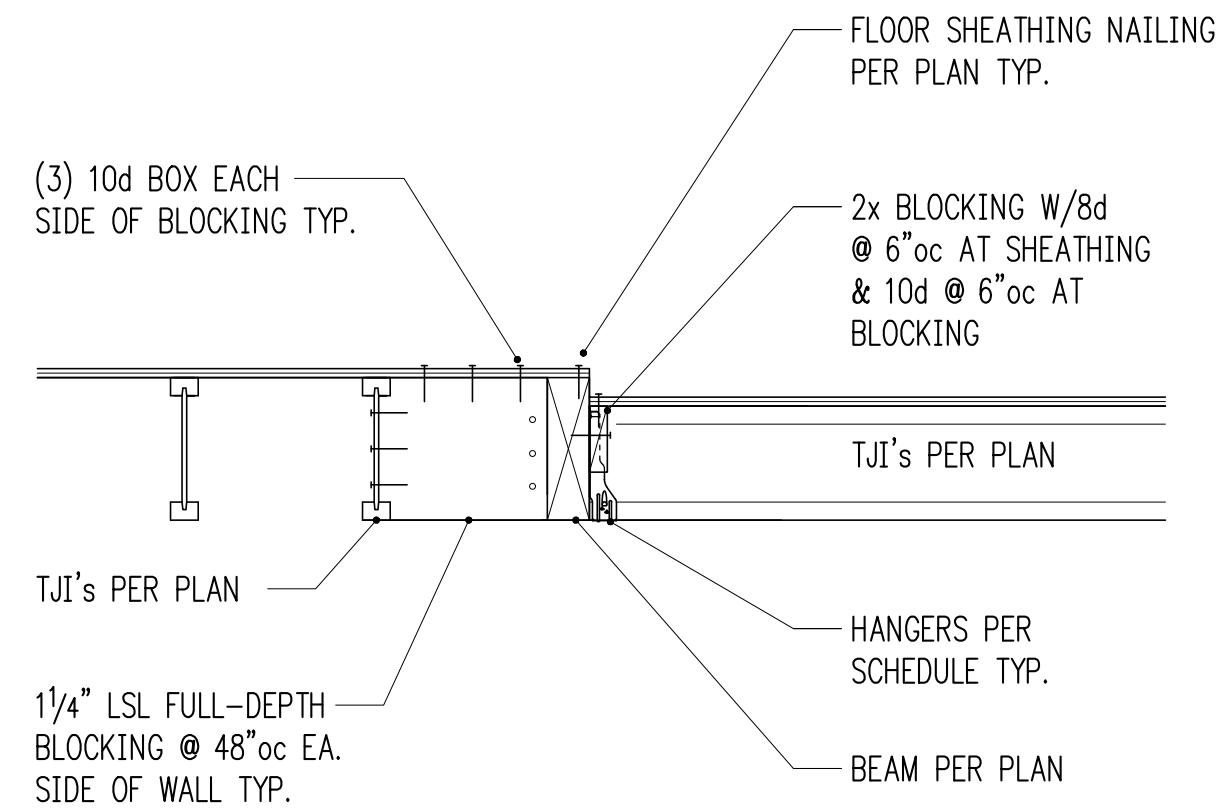
Print Date  
3/30/22

Drawing Title  
**STRUCTURAL DETAILS**

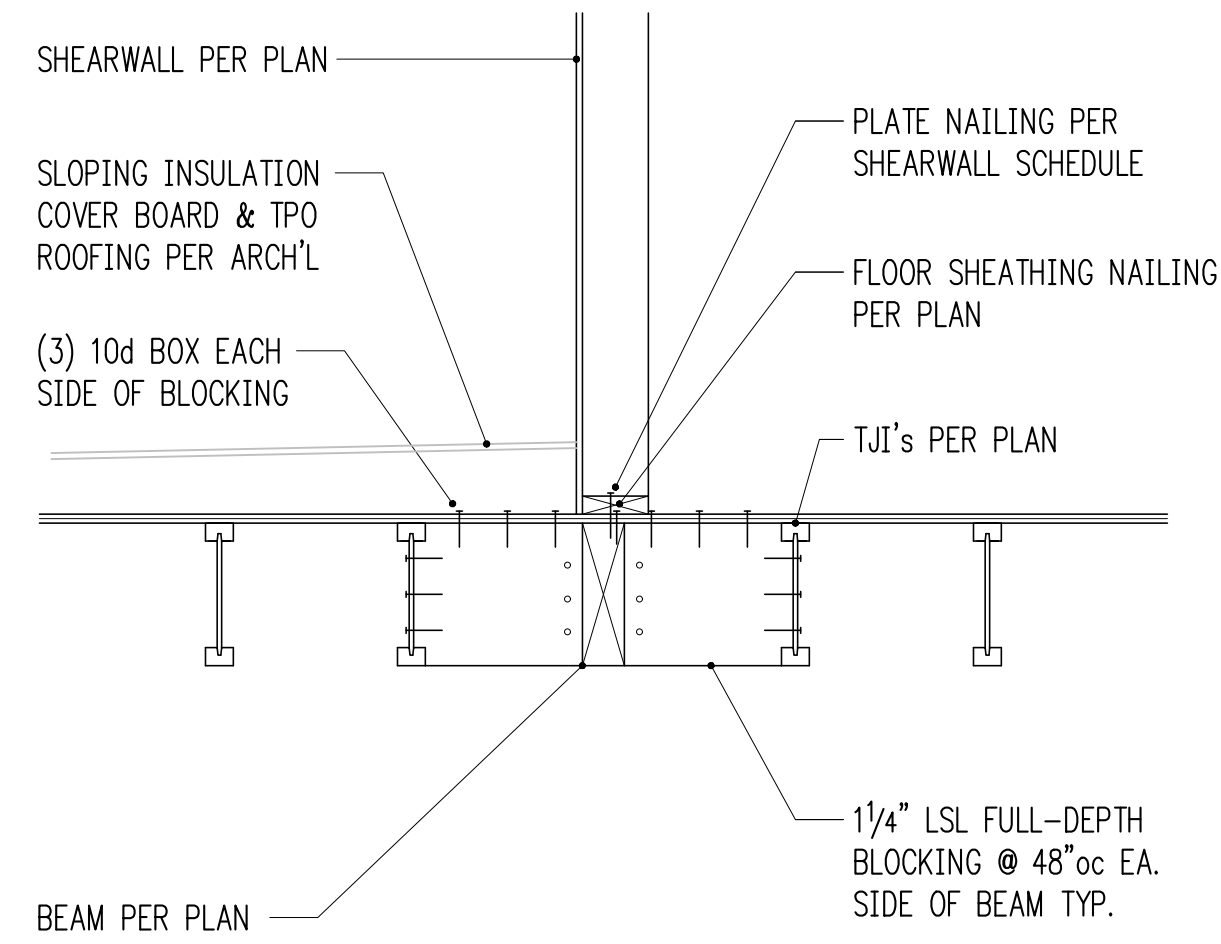
Drawing Number  
**S3.5**



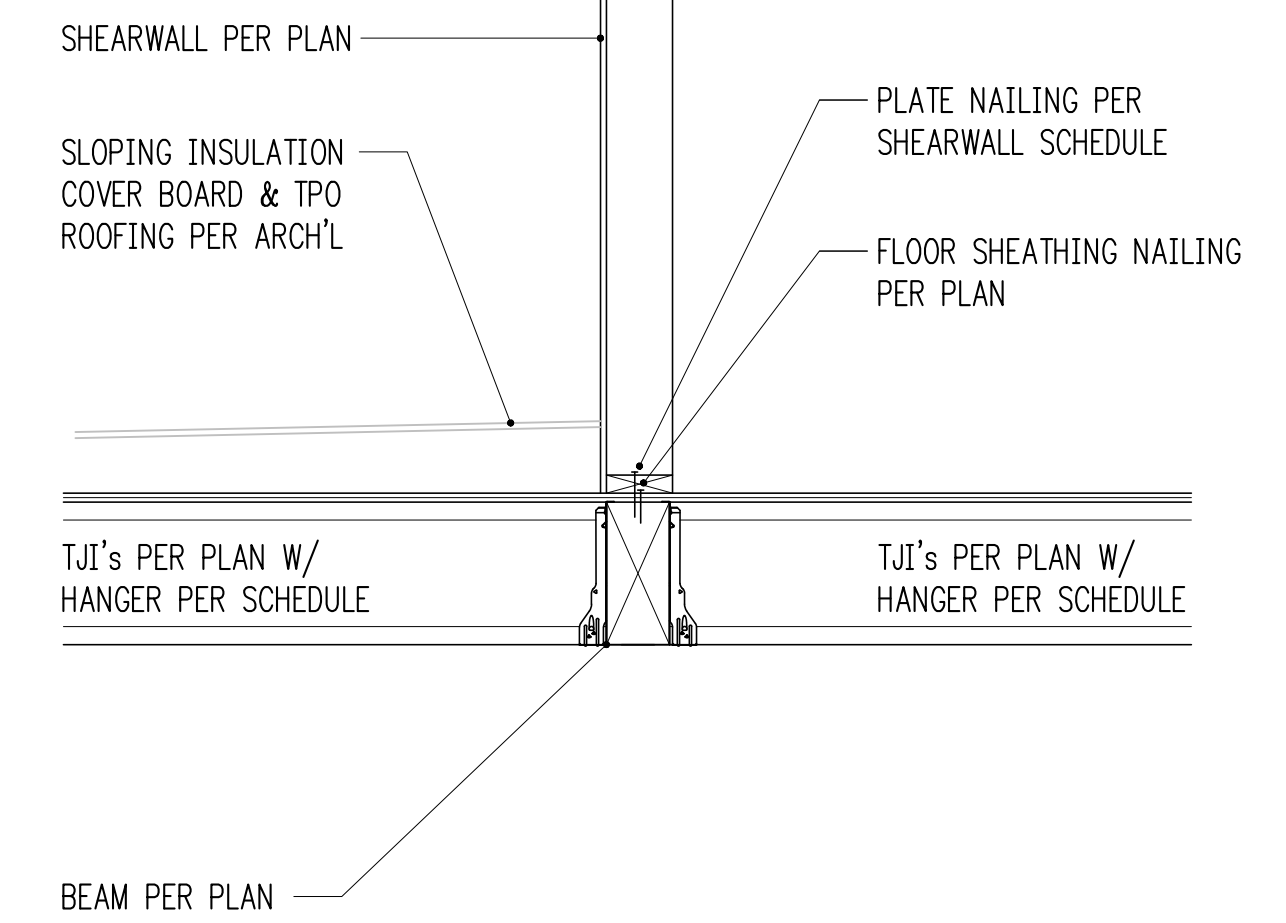
3/4" = 1'-0" 1



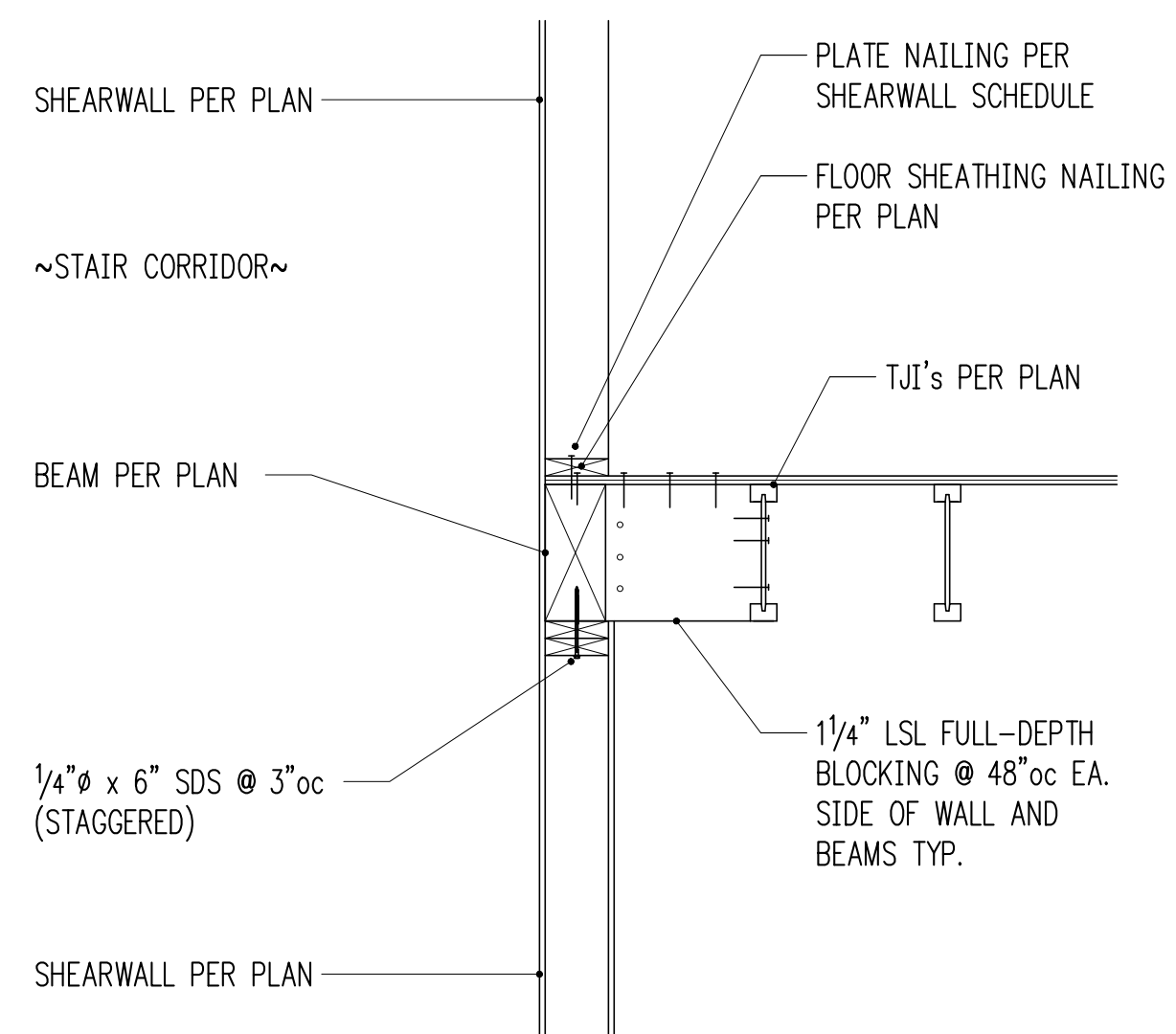
3/4" = 1'-0" 2



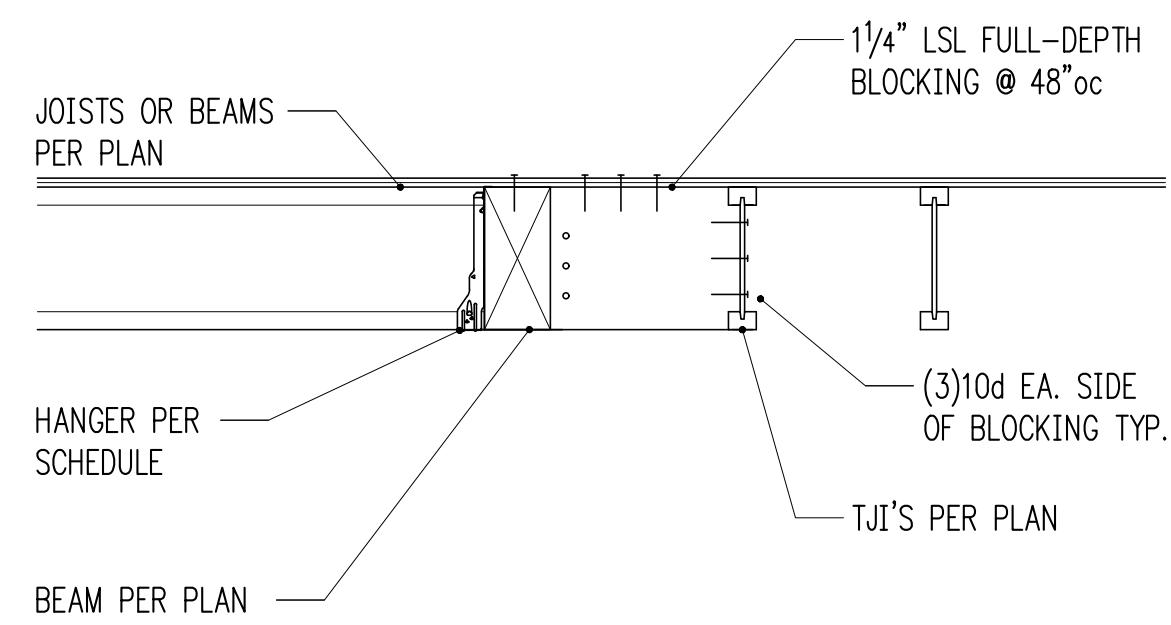
3/4" = 1'-0" 3



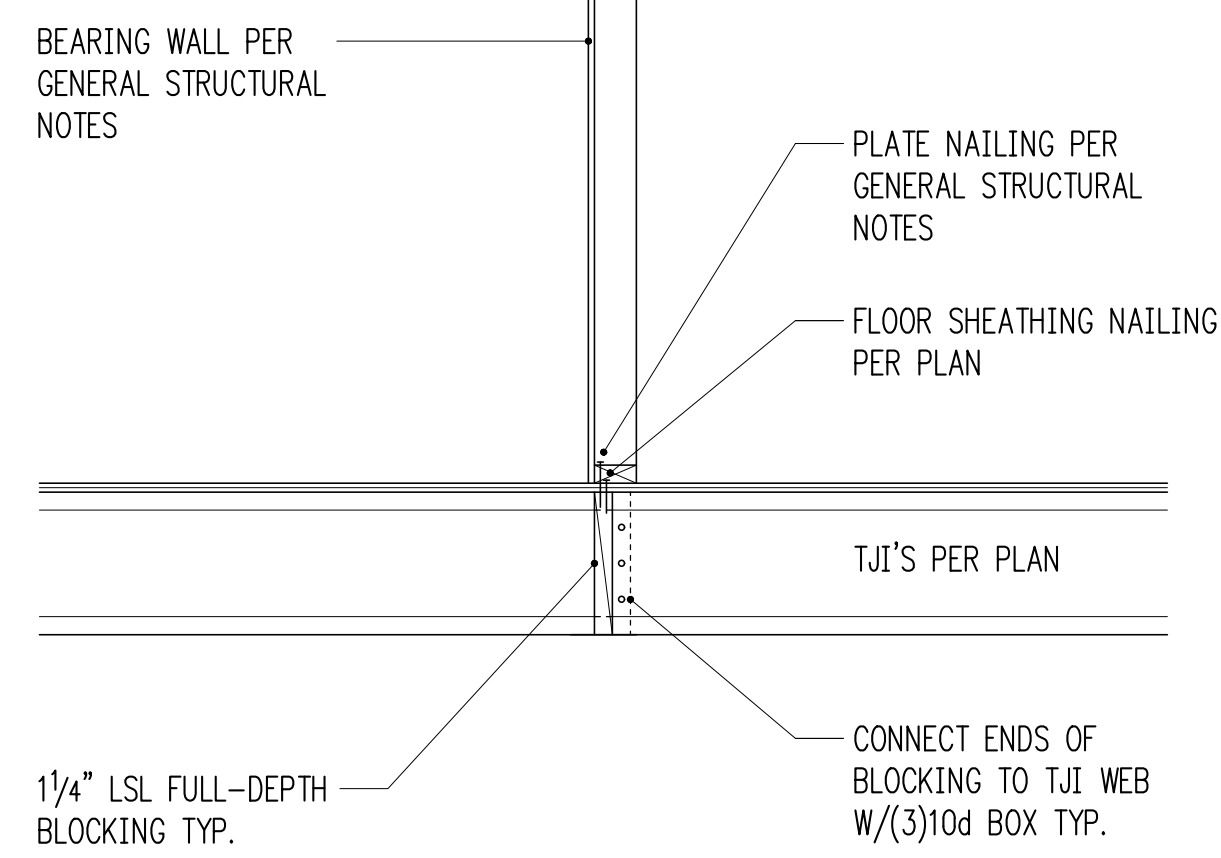
3/4" = 1'-0" 4



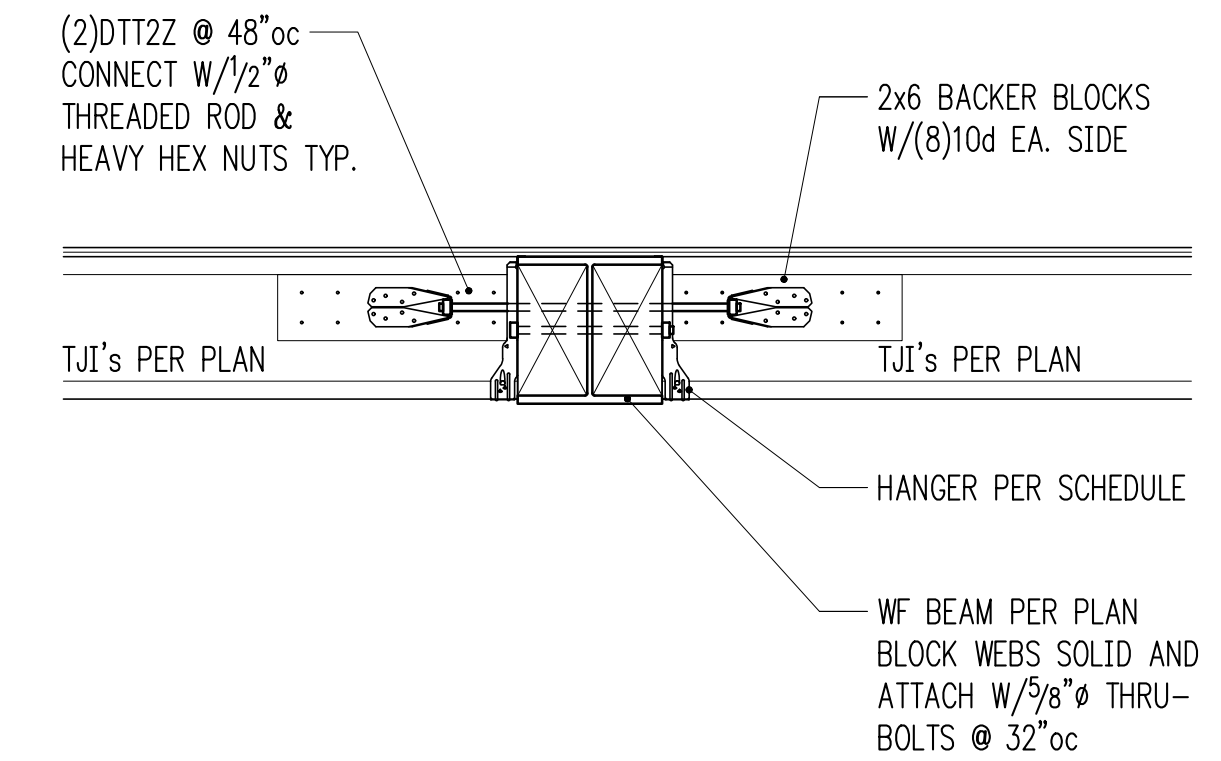
3/4" = 1'-0" 5



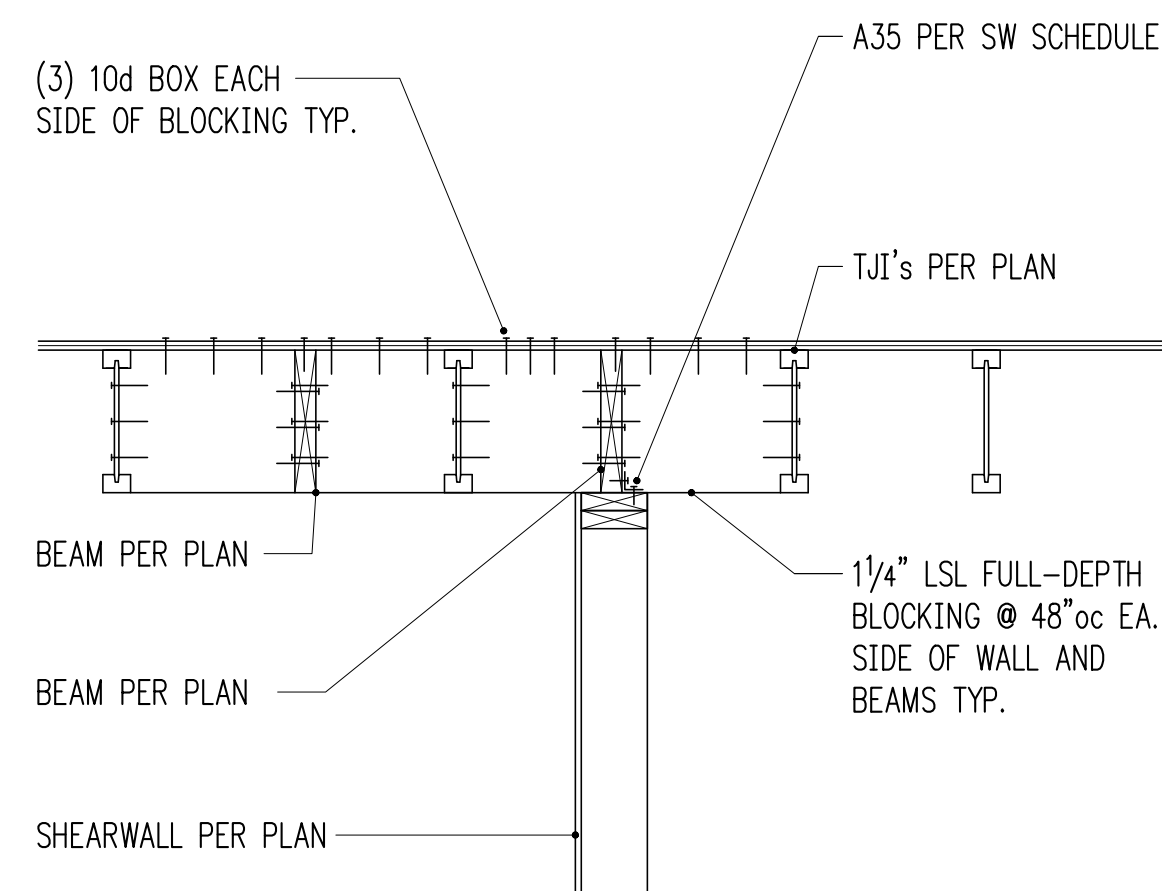
3/4" = 1'-0" 6



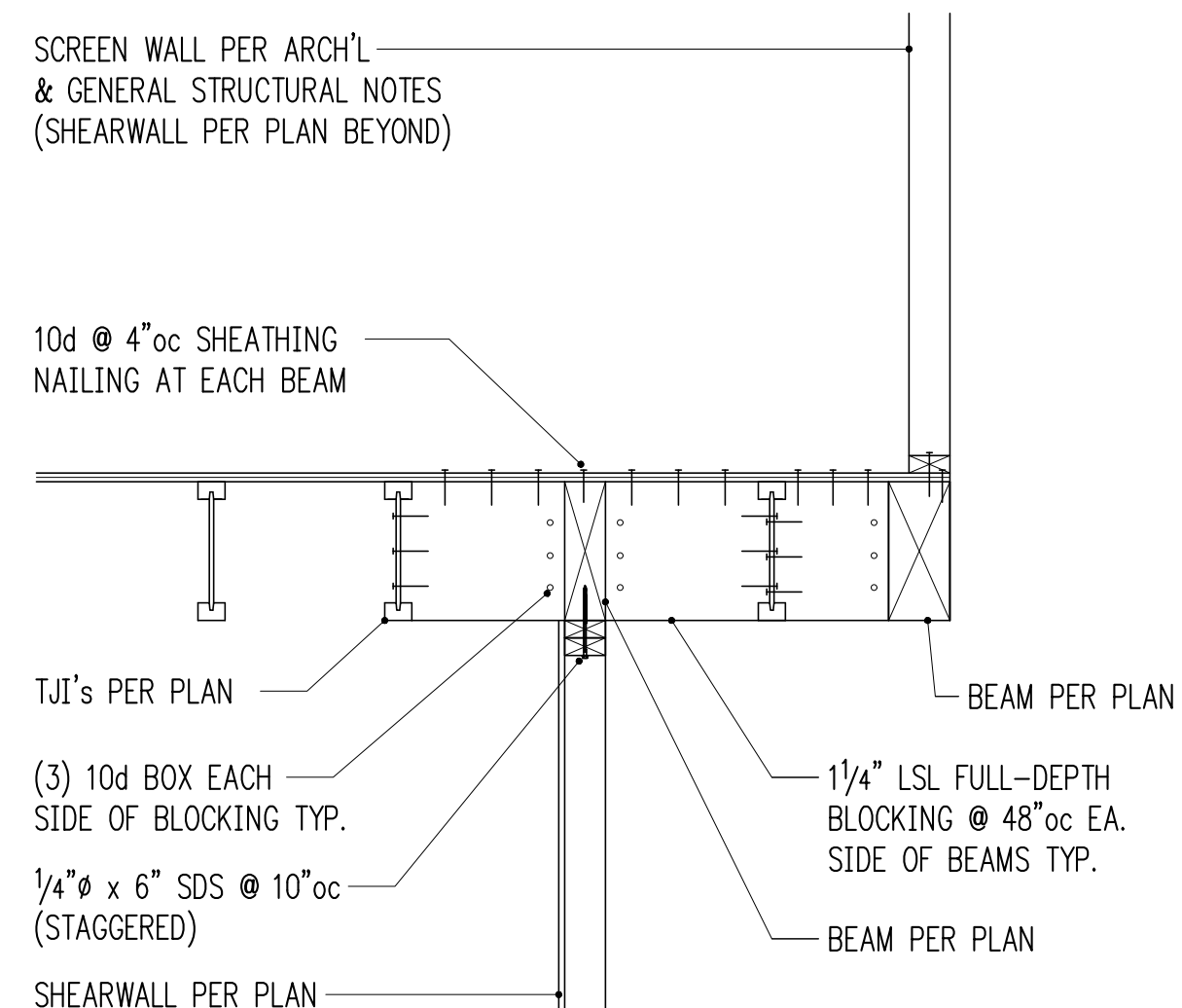
3/4" = 1'-0" 7



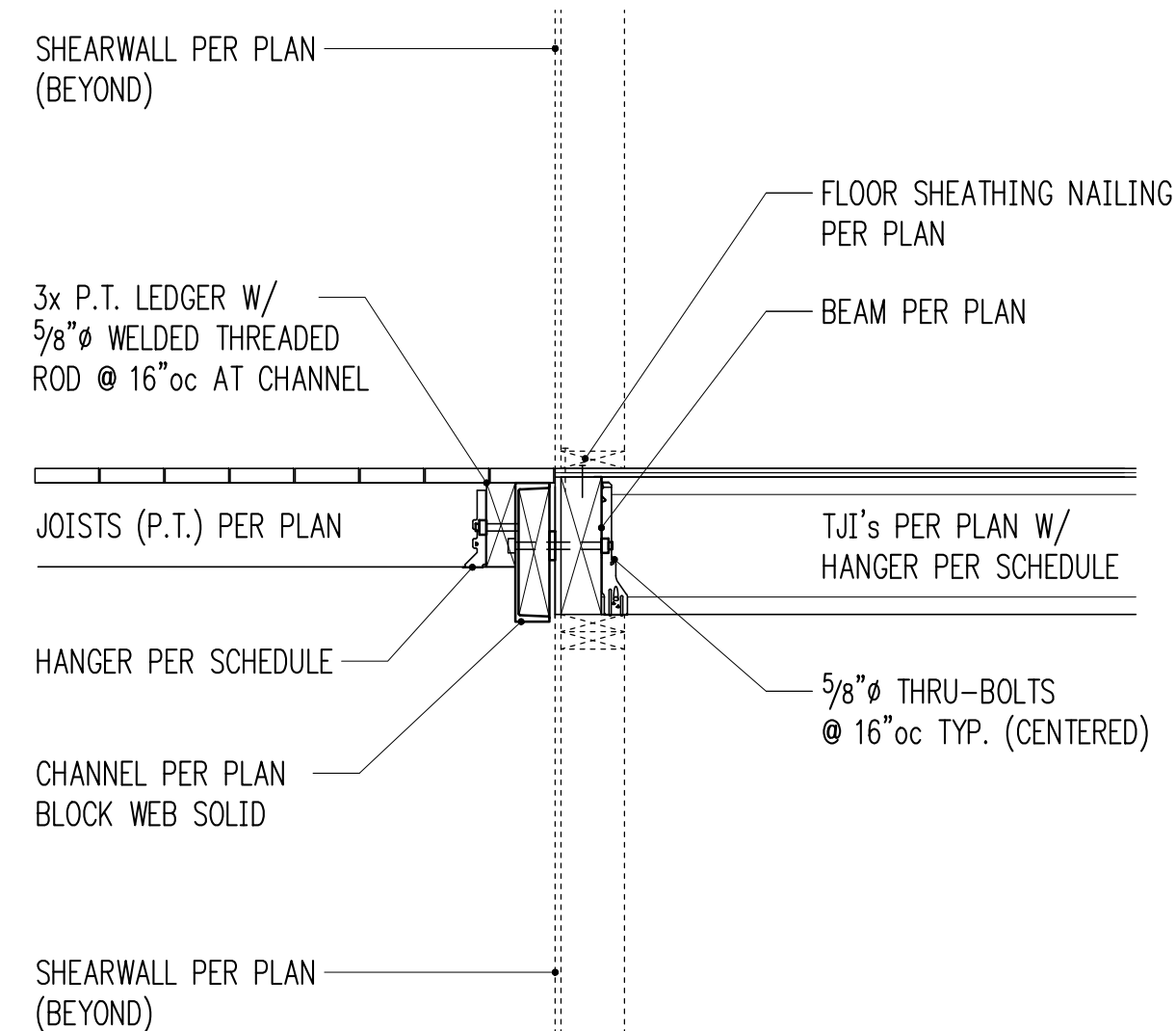
3/4" = 1'-0" 8



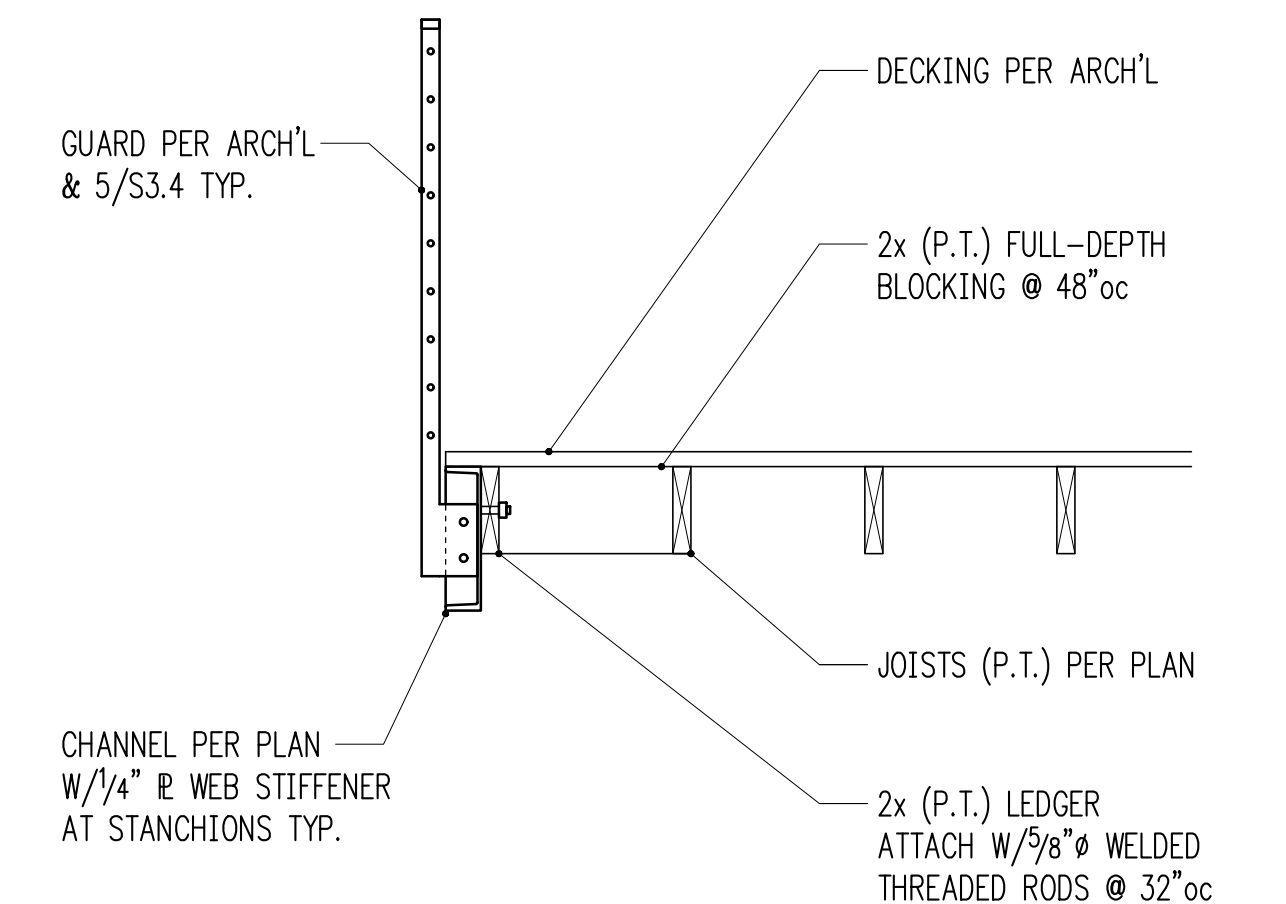
3/4" = 1'-0" 9



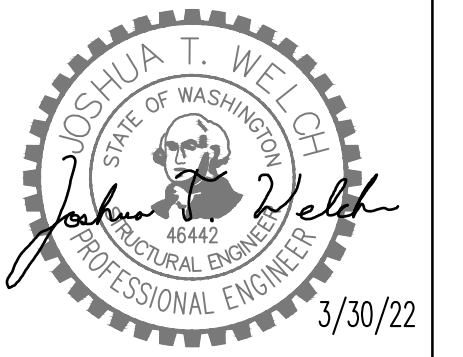
3/4" = 1'-0" 10



3/4" = 1'-0" 11



3/4" = 1'-0" 12



# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
**WITTMAN ESTES**

5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue

1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.		
4.		
5.		

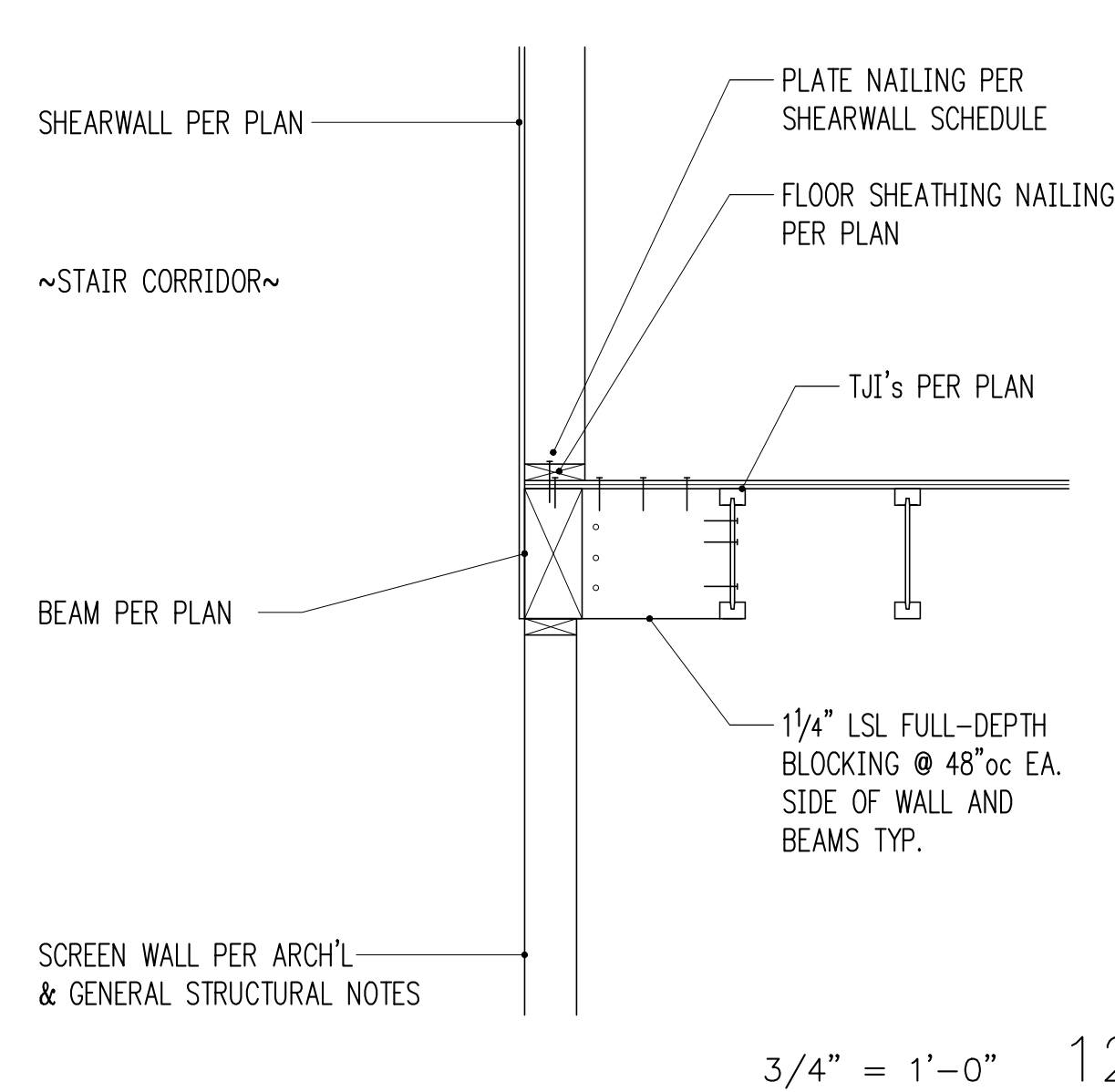
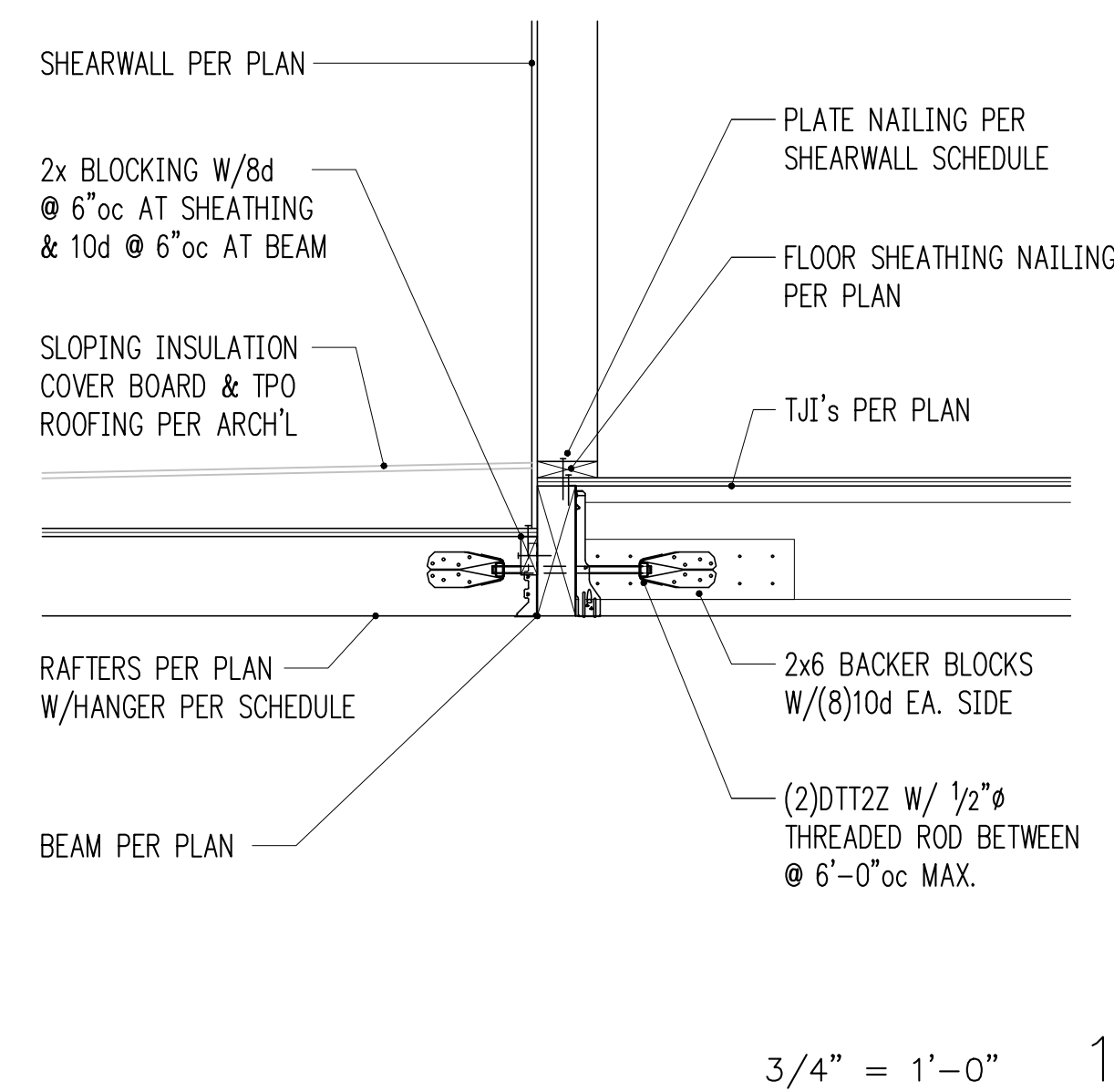
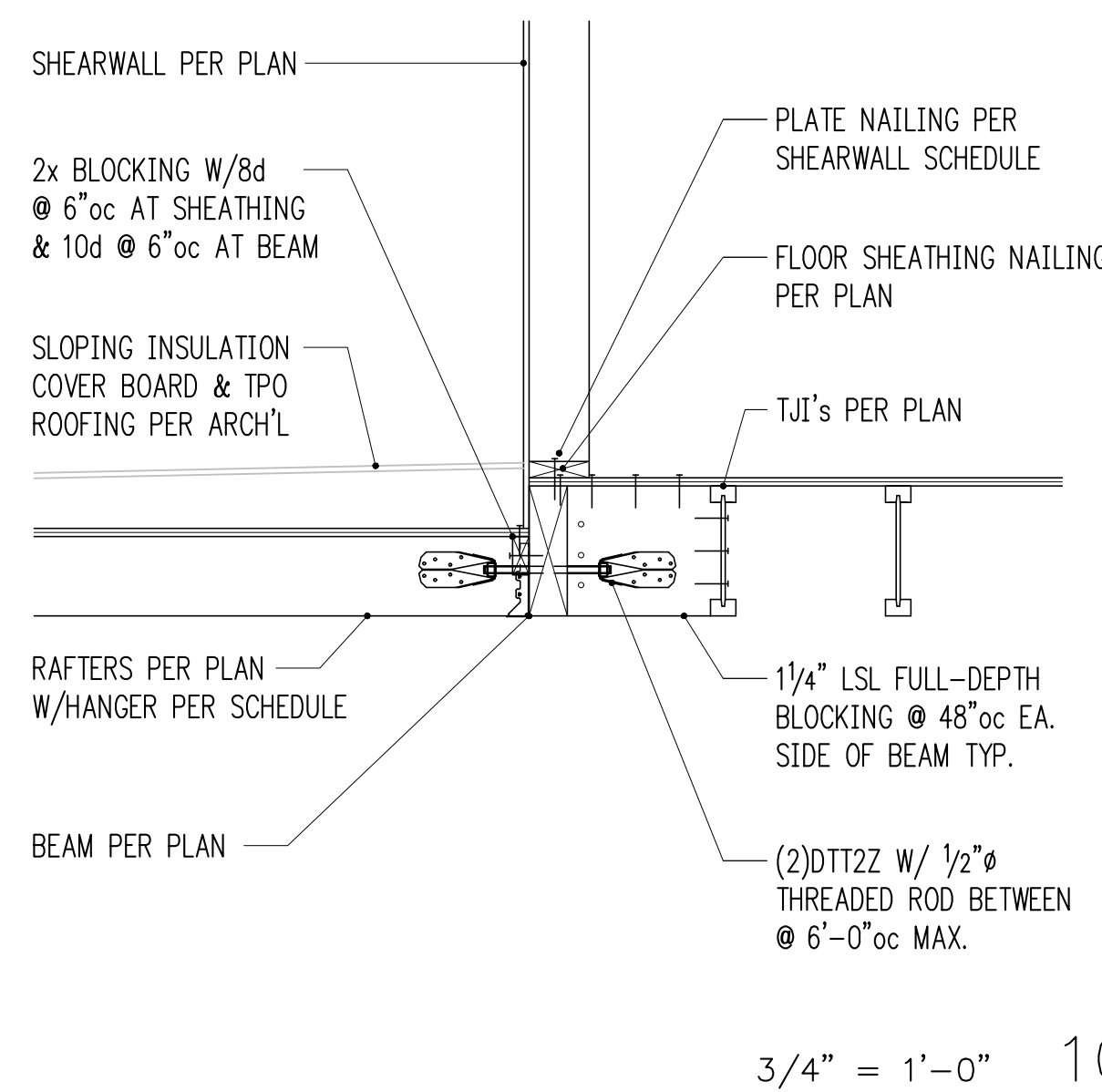
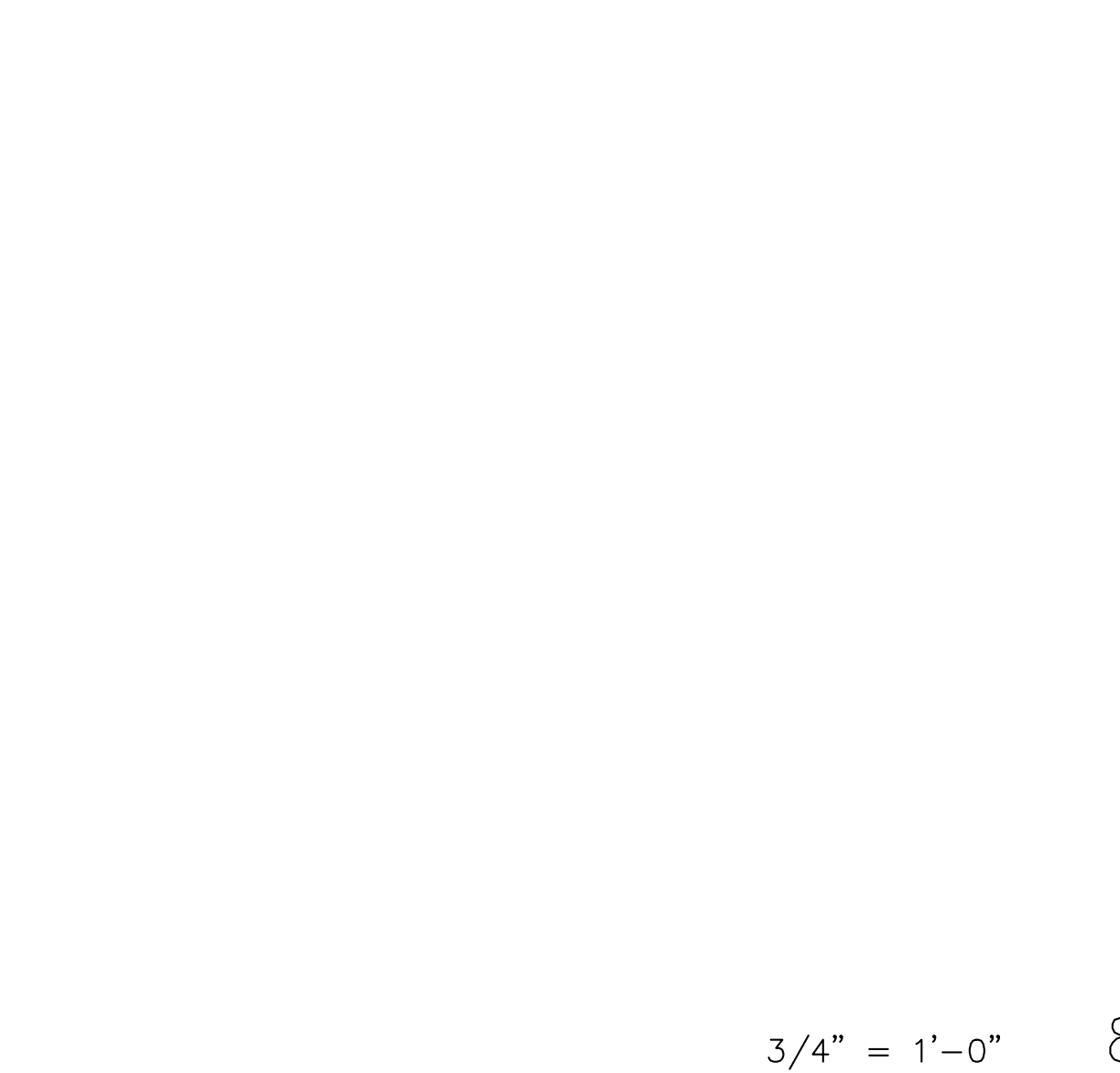
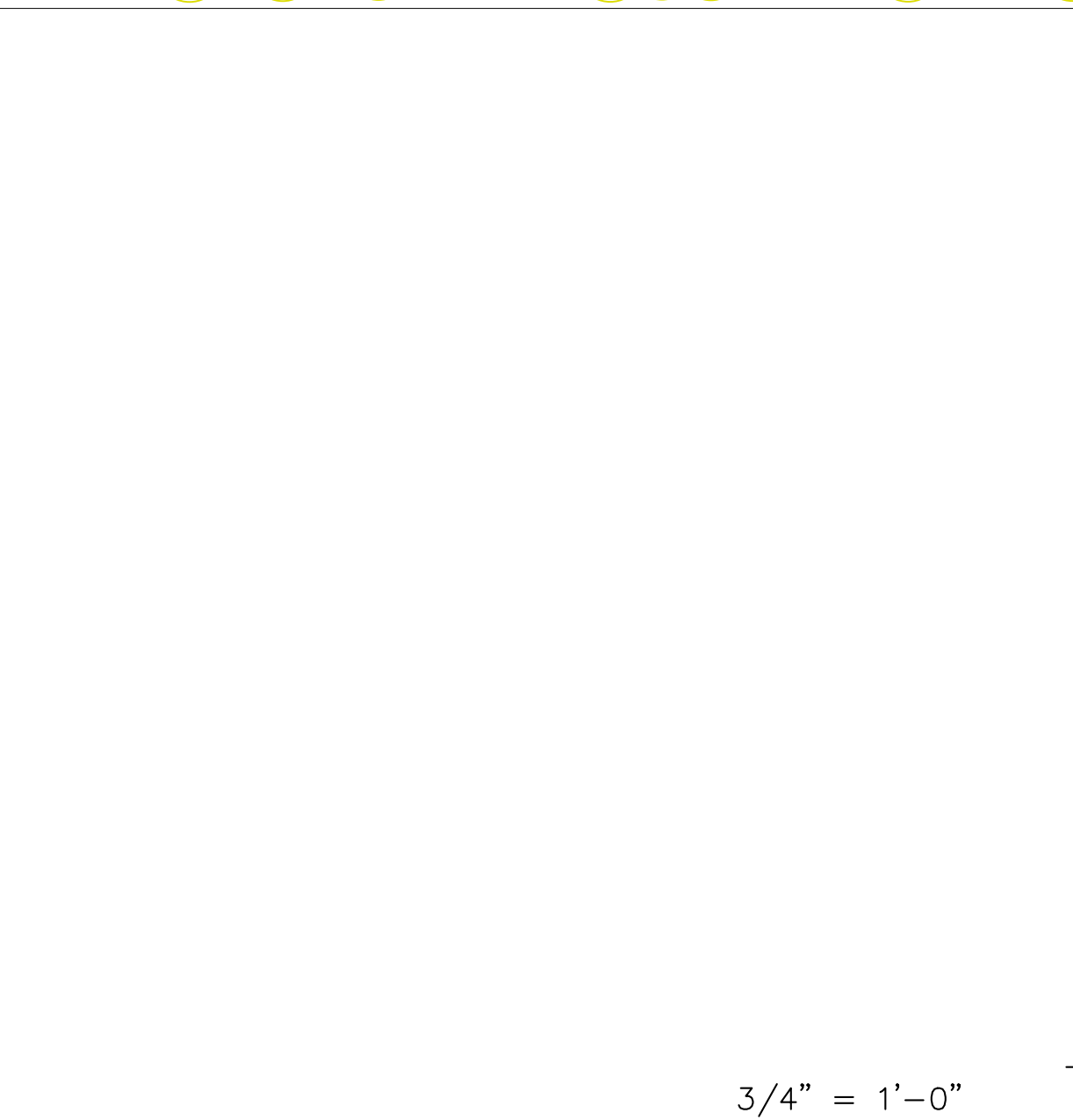
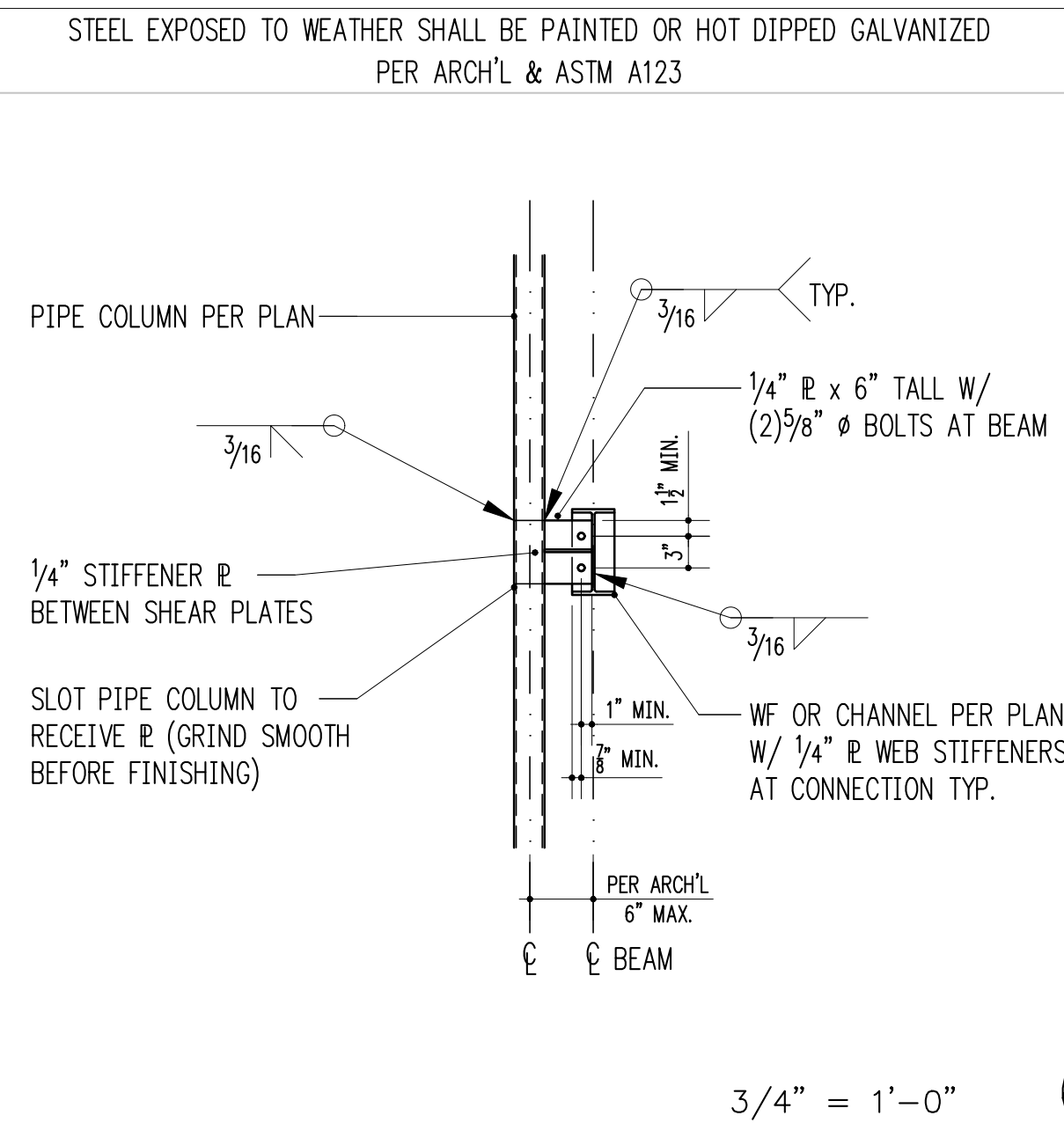
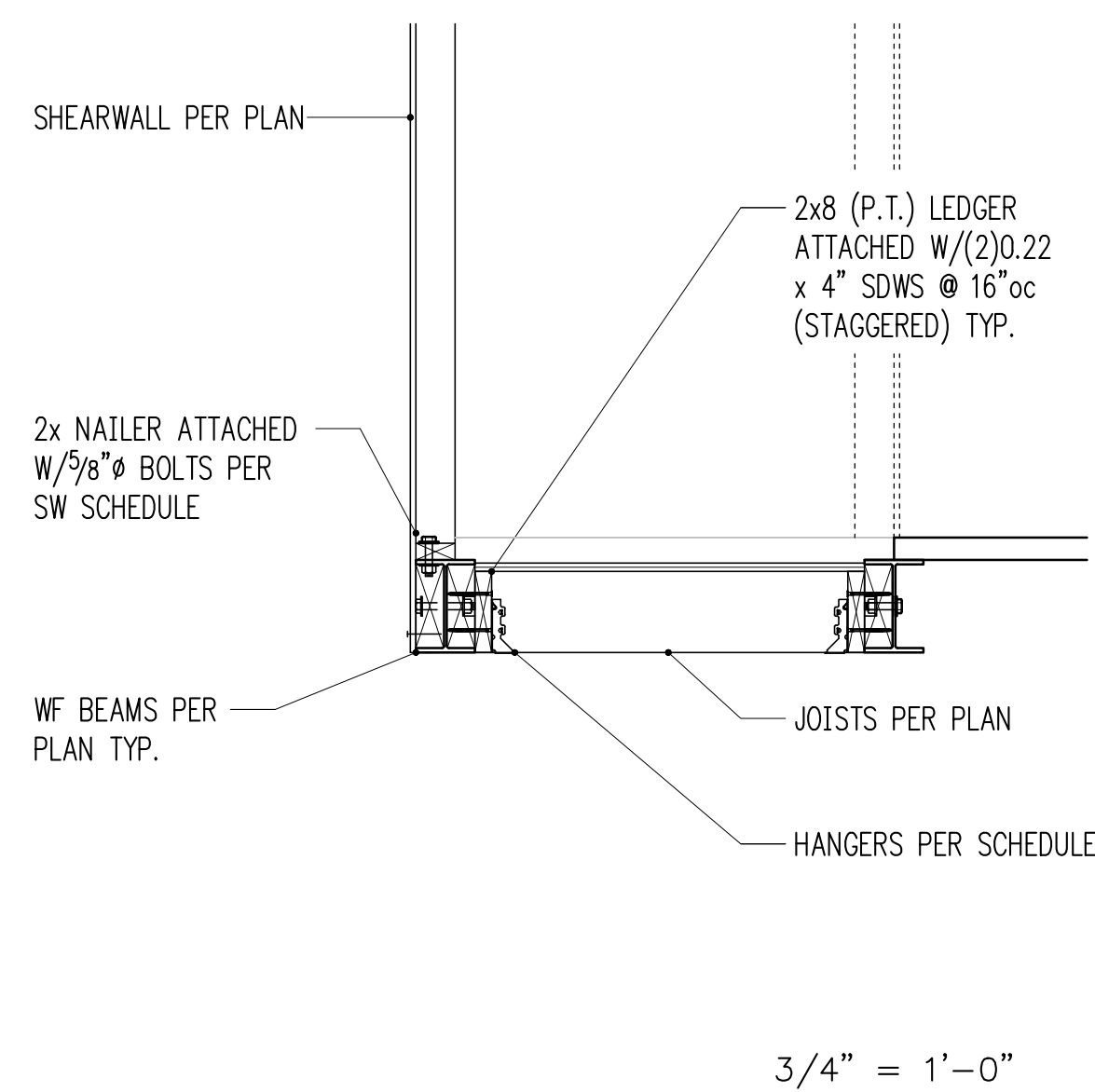
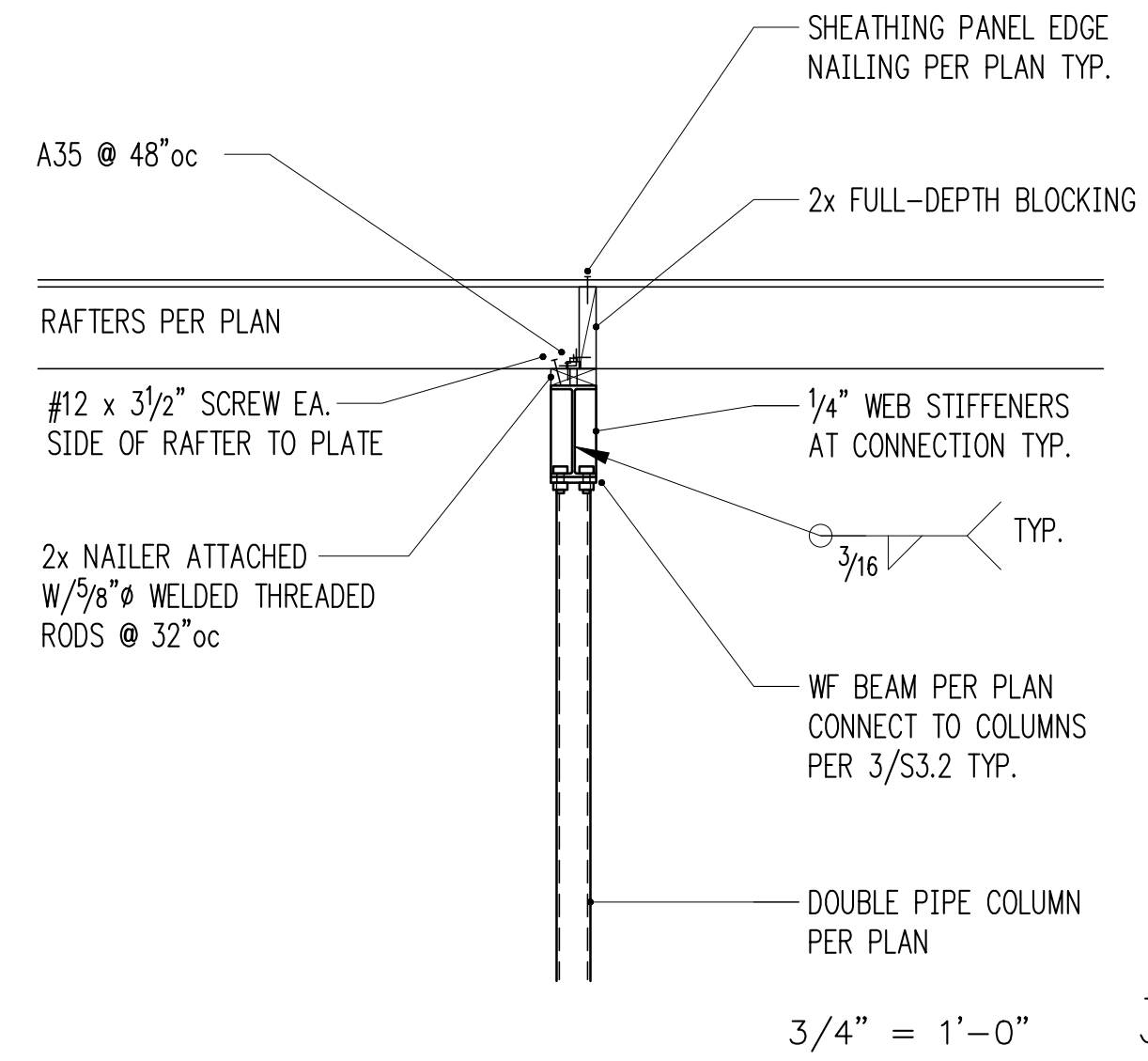
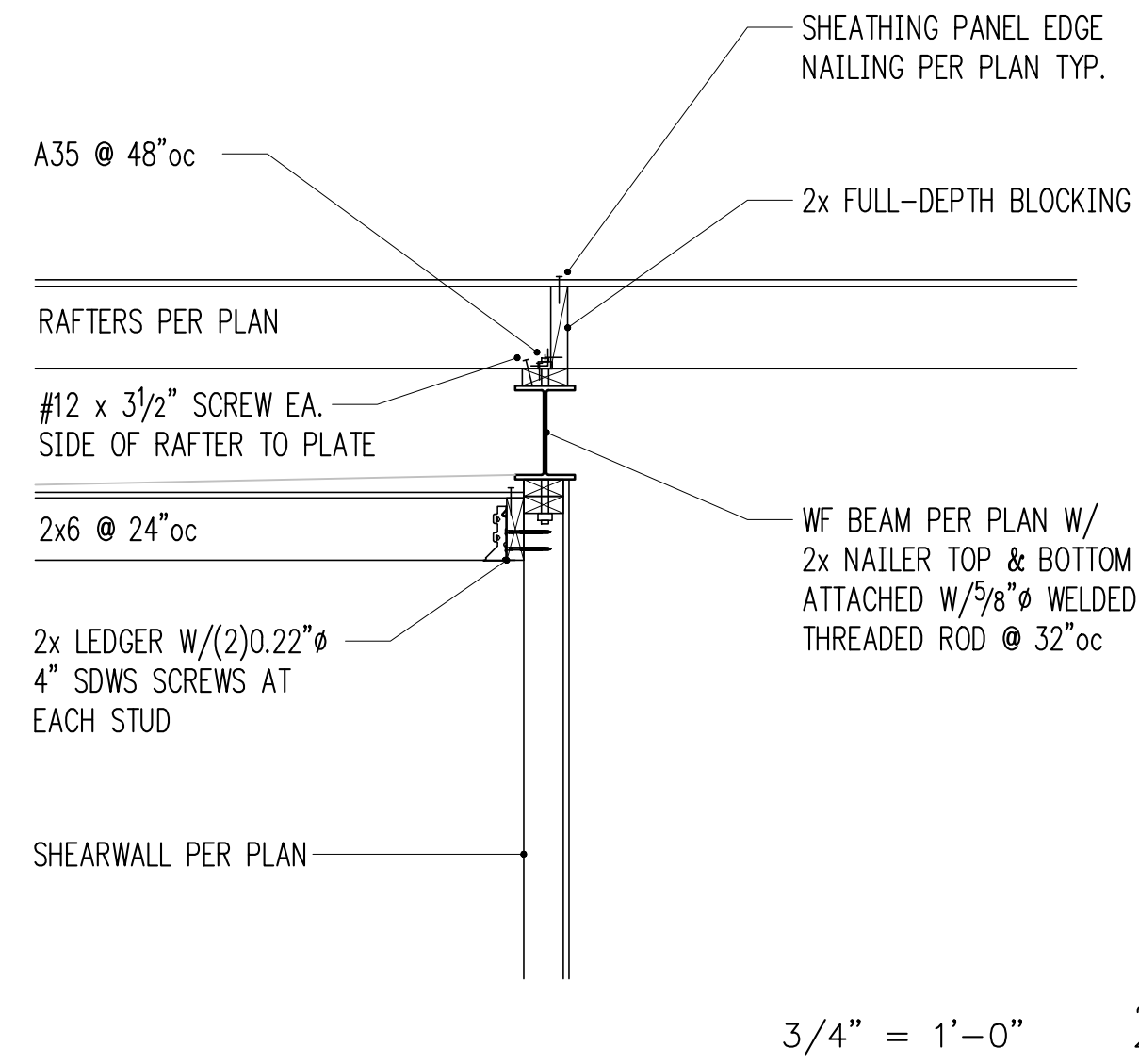
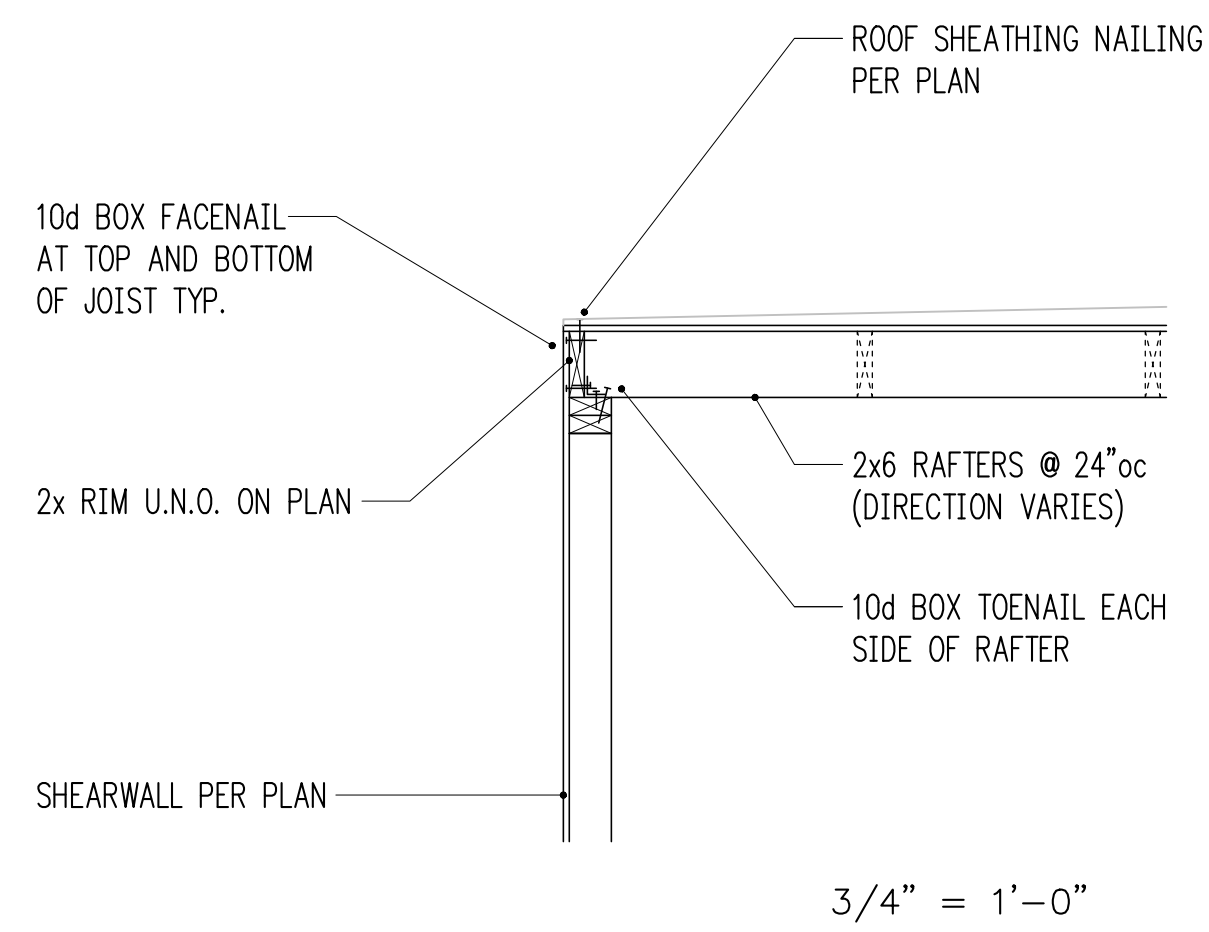
Print Date  
3/30/22

Drawing Title  
**STRUCTURAL DETAILS**

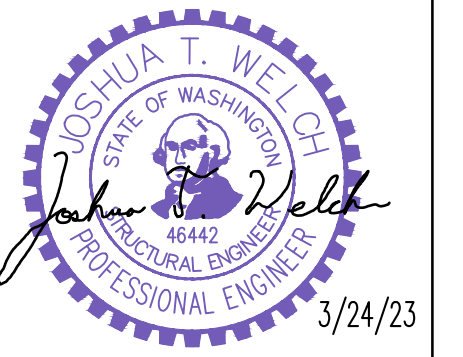
Drawing Number

**S3.6**

CARPORIT REVISION: NEW OR REVISED CARPORIT DETAILS



JWelch  
Engineering LLC  
P.O. Box 28427  
Seattle Wa. 98118  
Joshua T. Welch S.E.  
joshwelch@gmail.com  
tel 206.356.8553



MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect  
WITTMAN ESTES

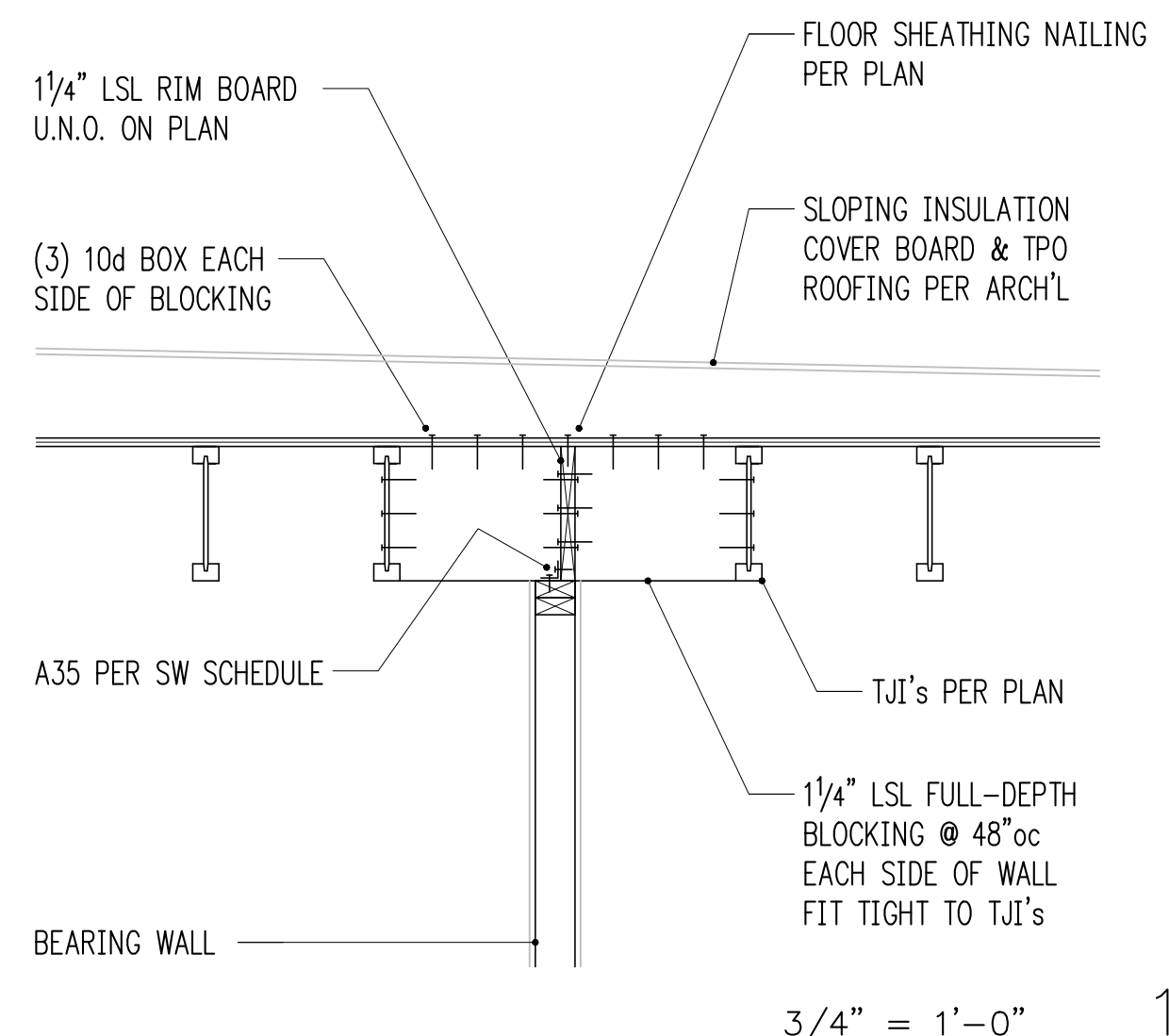
5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue	Date	Description
1.	10/13/21	PERMIT
2.	3/30/22	CORRECTIONS
3.	8/18/22	TREE PROTECTION REV.
4.	3/24/23	CARPORIT REVISION
5.		

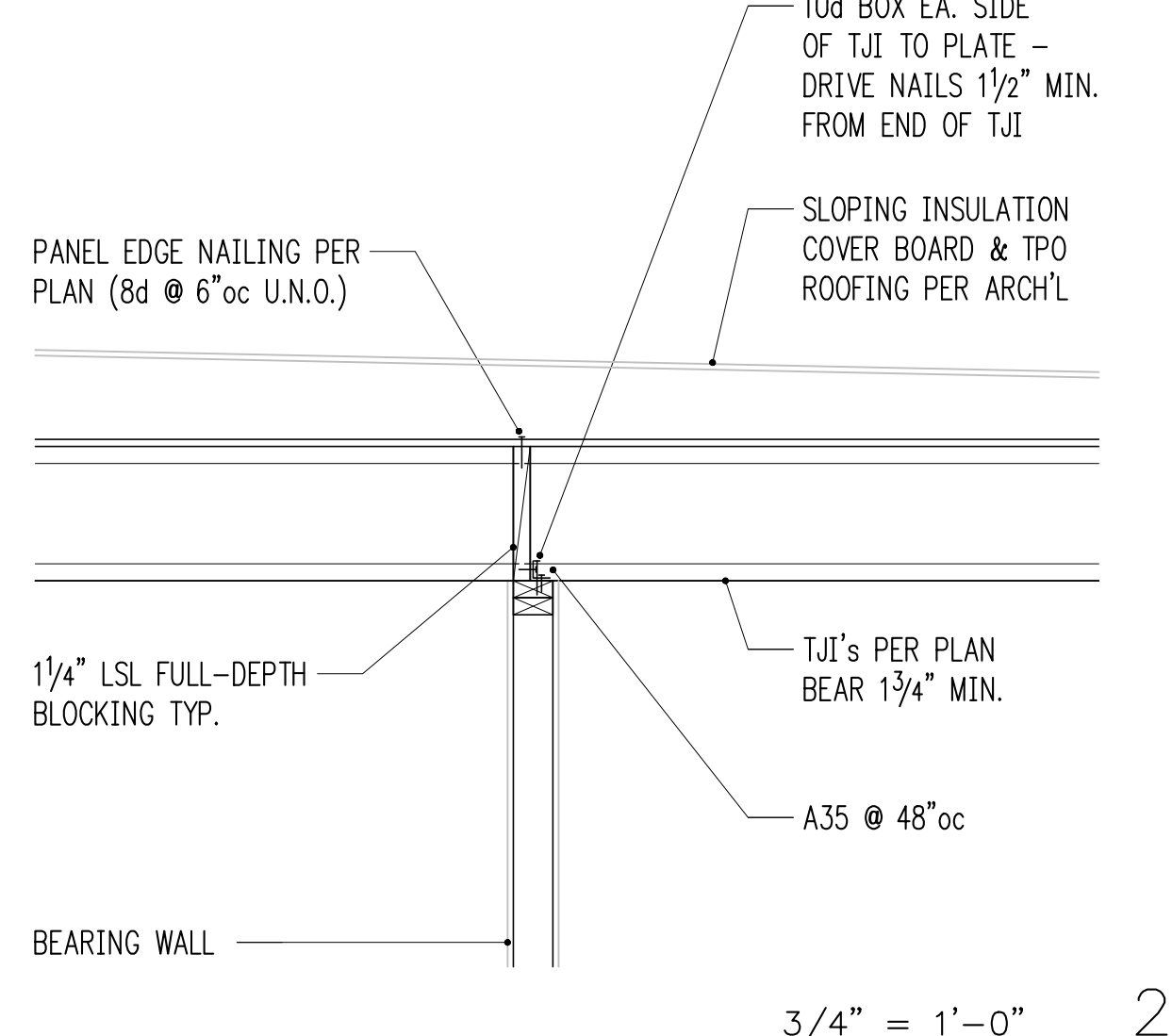
Print Date  
3/24/23

Drawing Title  
STRUCTURAL DETAILS

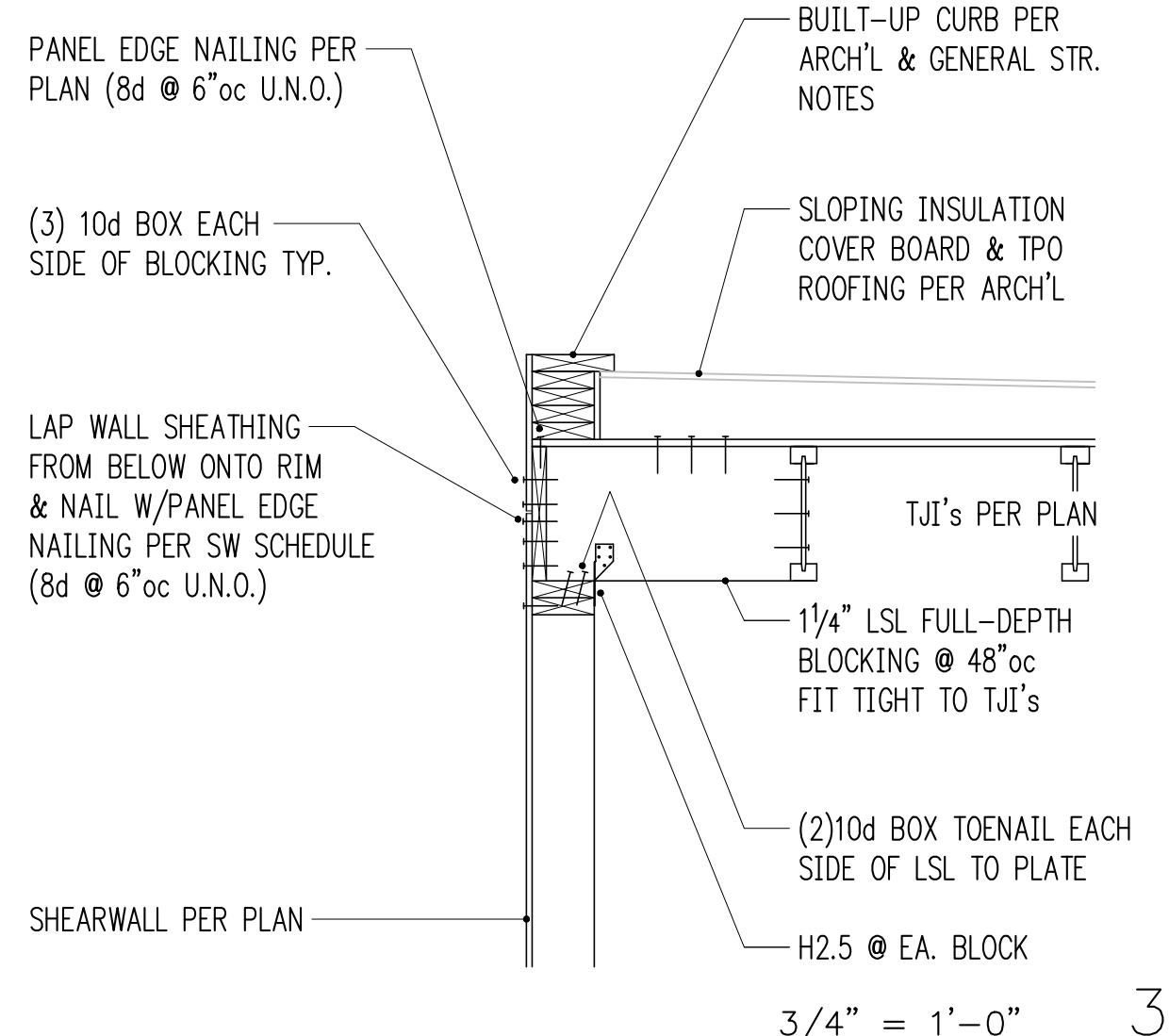
Drawing Number  
S3.7



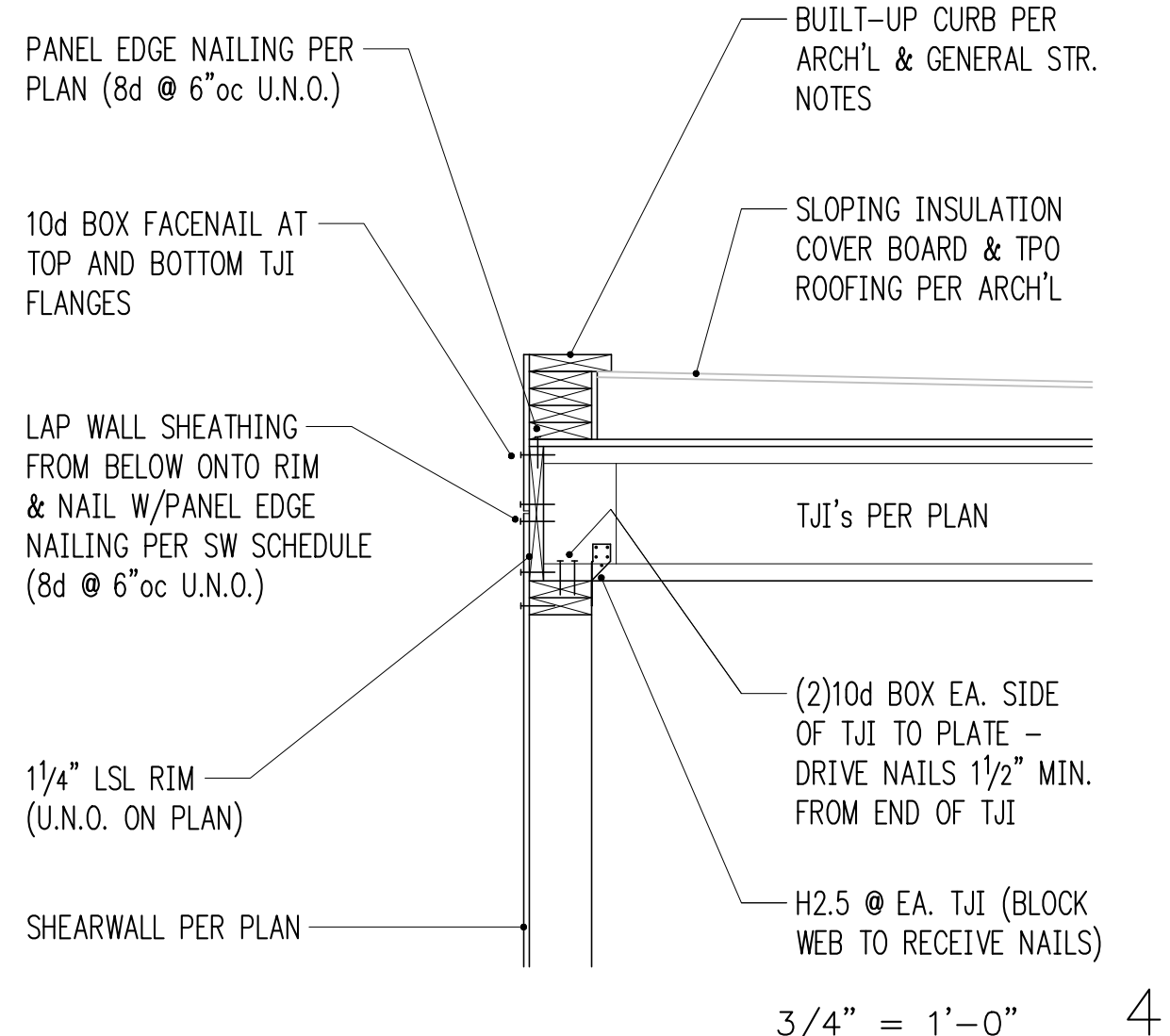
3/4" = 1'-0" 1



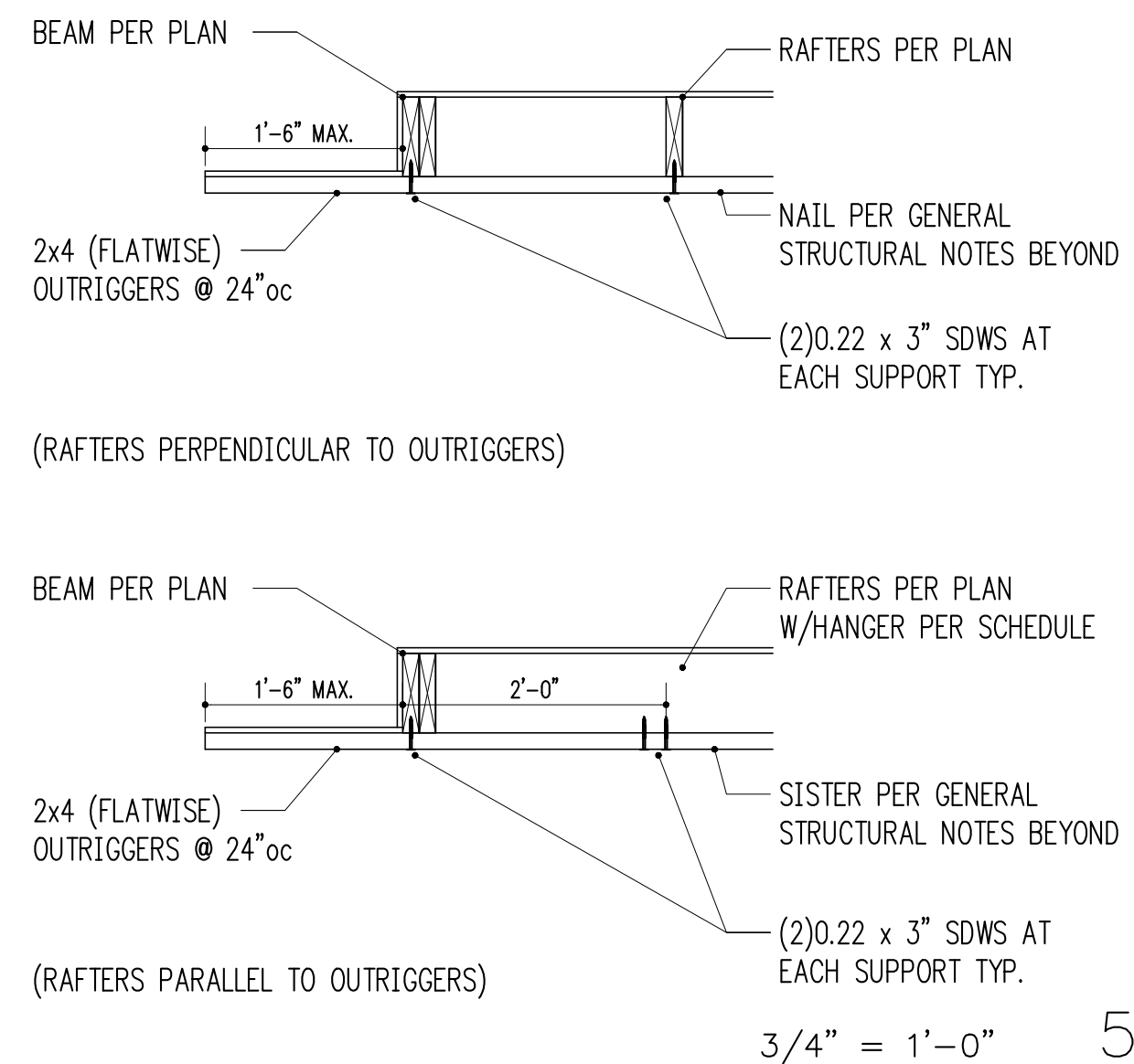
3/4" = 1'-0" 2



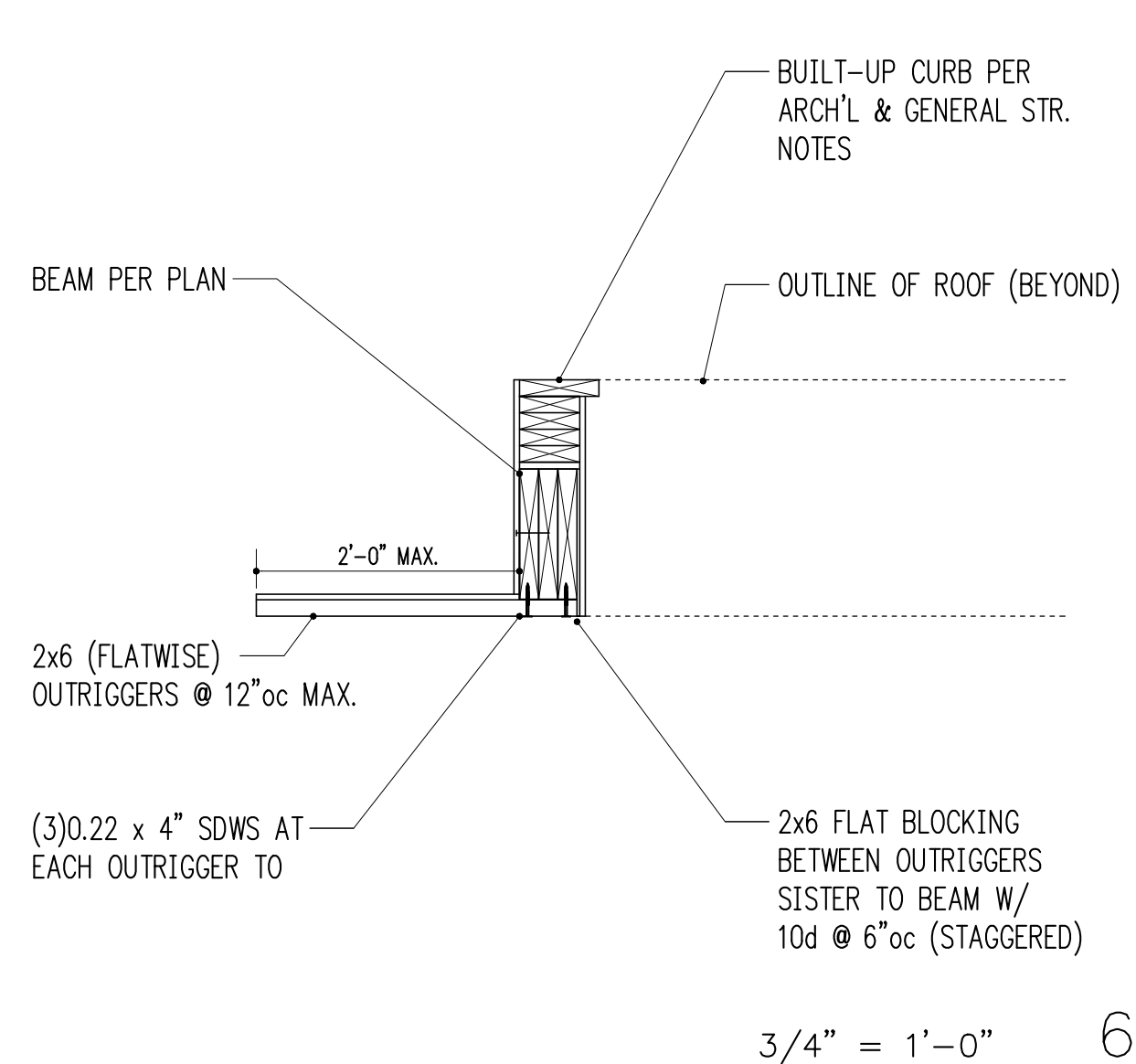
3/4" = 1'-0" 3



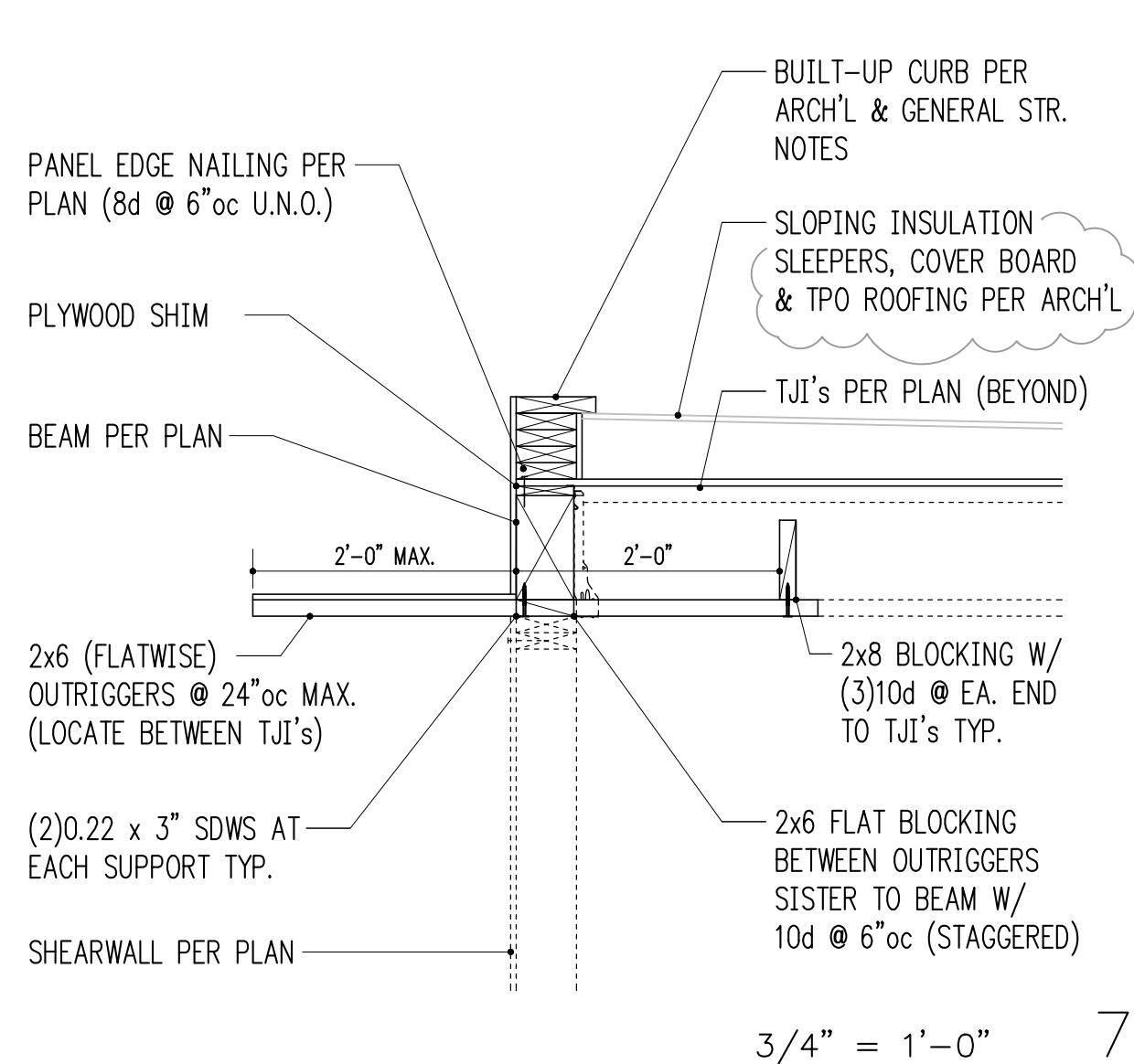
3/4" = 1'-0" 4



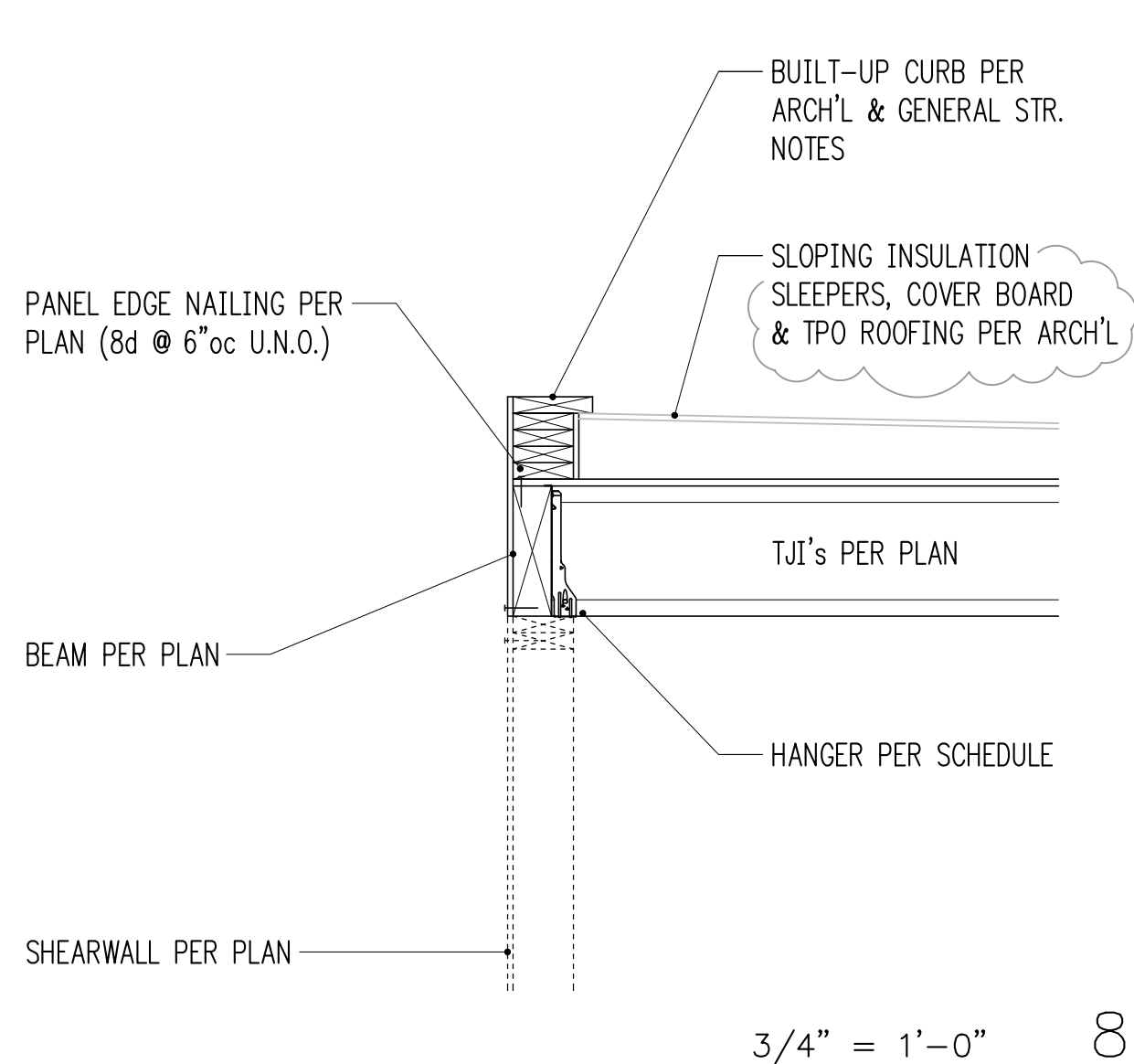
3/4" = 1'-0" 5



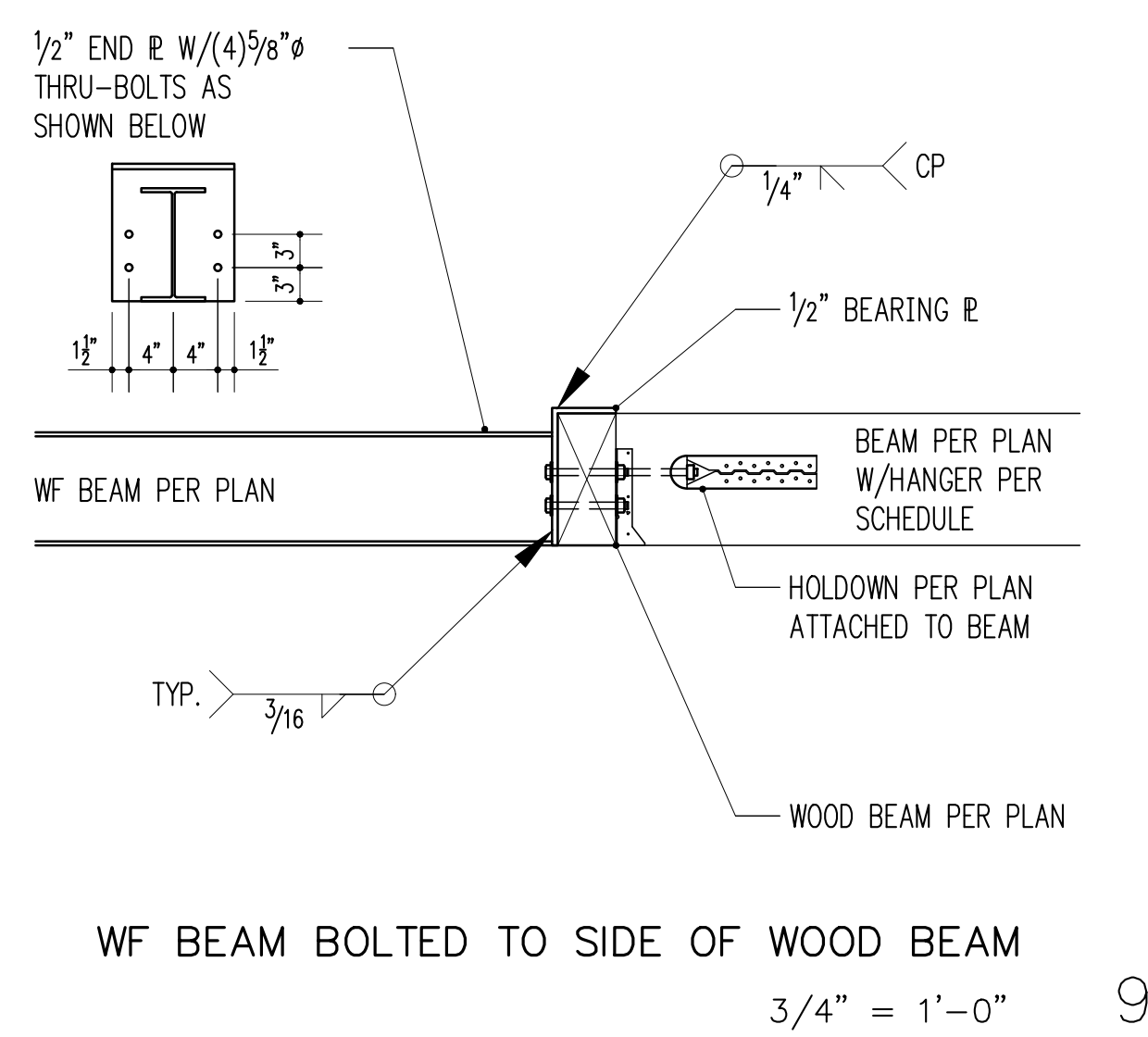
3/4" = 1'-0" 6



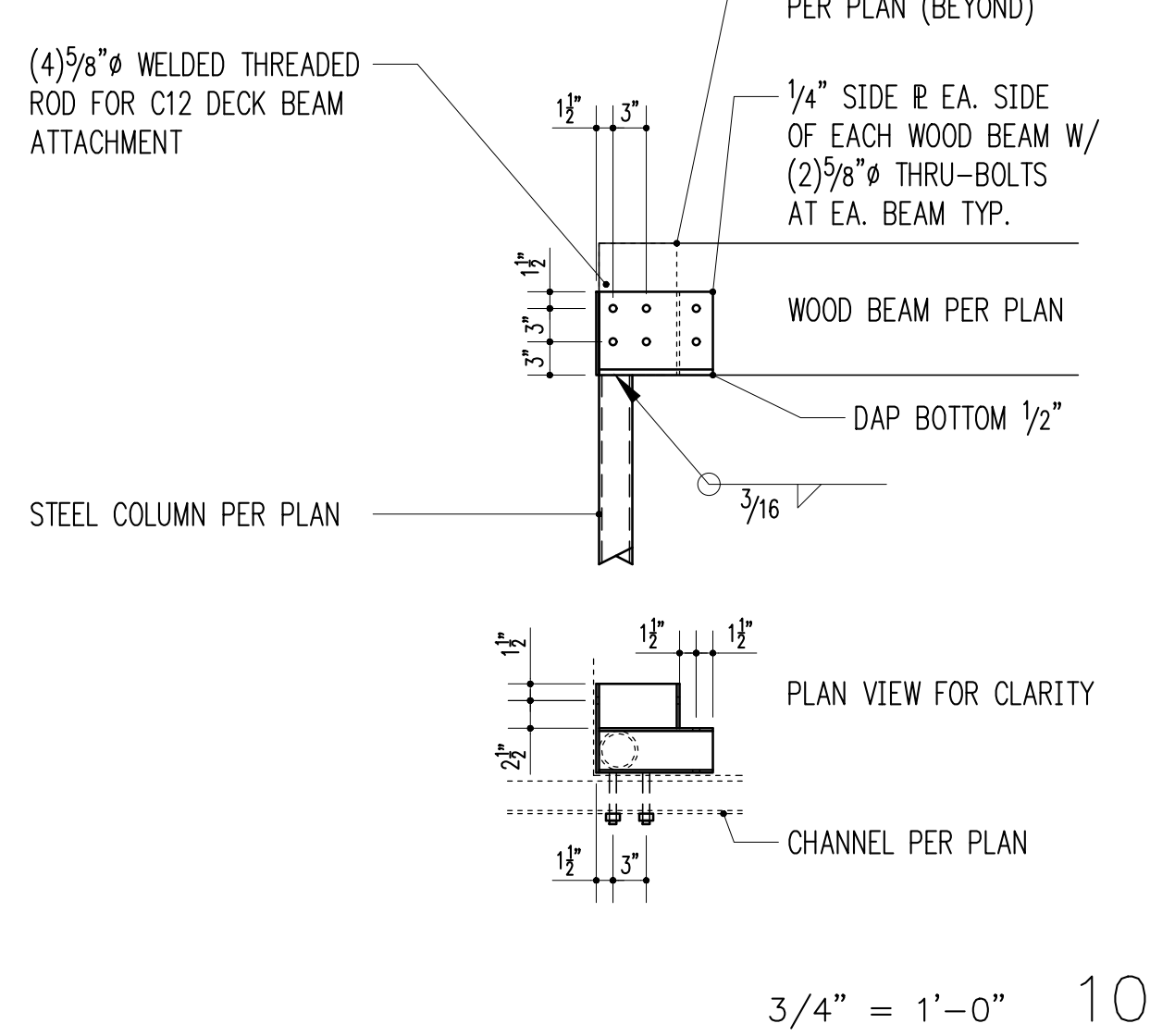
3/4" = 1'-0" 7



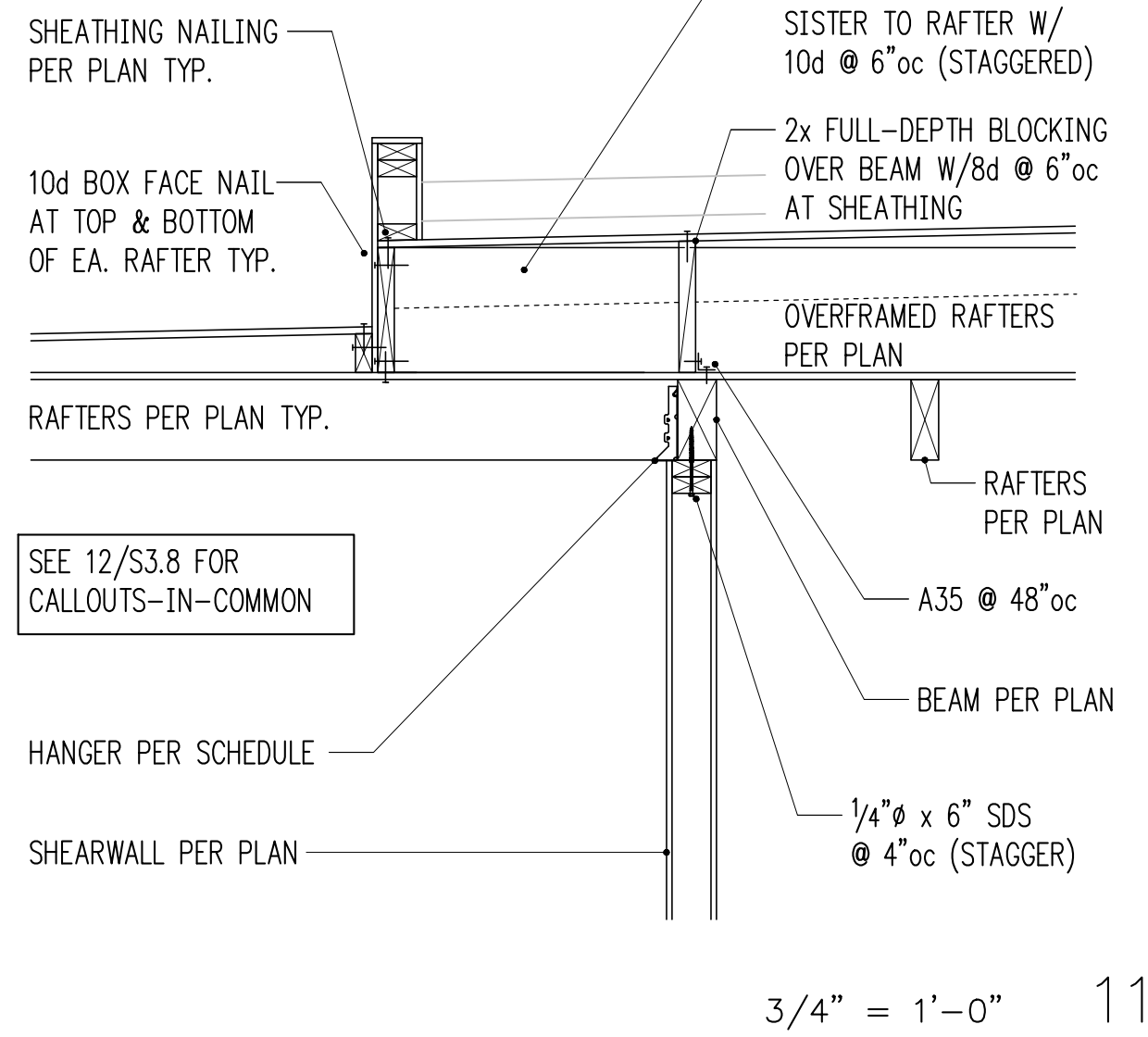
3/4" = 1'-0" 8



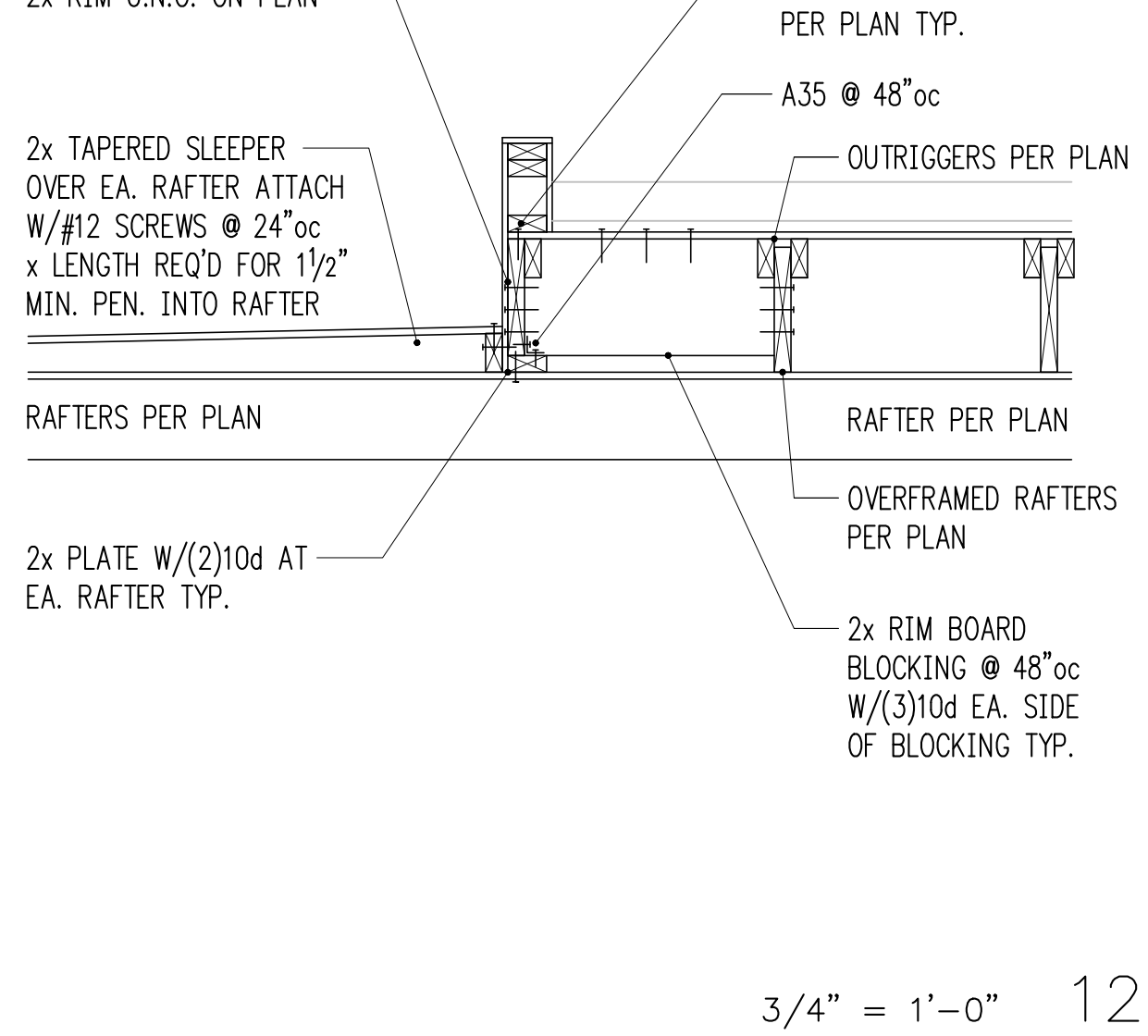
3/4" = 1'-0" 9



3/4" = 1'-0" 10



3/4" = 1'-0" 11



3/4" = 1'-0" 12

**JWelch**  
Engineering LLC  
P.O. Box 28427  
Seattle Wa. 98118  
Joshua T. Welch S.E.  
jtwelch@gmail.com  
tel 206.356.9553

**MERCER GROVE**  
38XX W MERCER WAY  
MERCER ISLAND, WA 98040

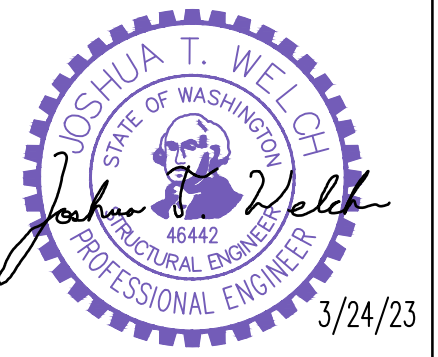
Architect  
**WITTMAN ESTES**  
5628 Airport Way S Ste 165  
Seattle, WA 98106

Issue  
1. 10/13/21 PERMIT  
2. 3/30/22 CORRECTIONS  
3.  
4.  
5.

Print Date  
3/30/22

Drawing Title  
**STRUCTURAL DETAILS**

Drawing Number  
**S3.8**



3/24/23

3/4" = 1'-0" 1

3/4" = 1'-0" 2

3/4" = 1'-0" 3

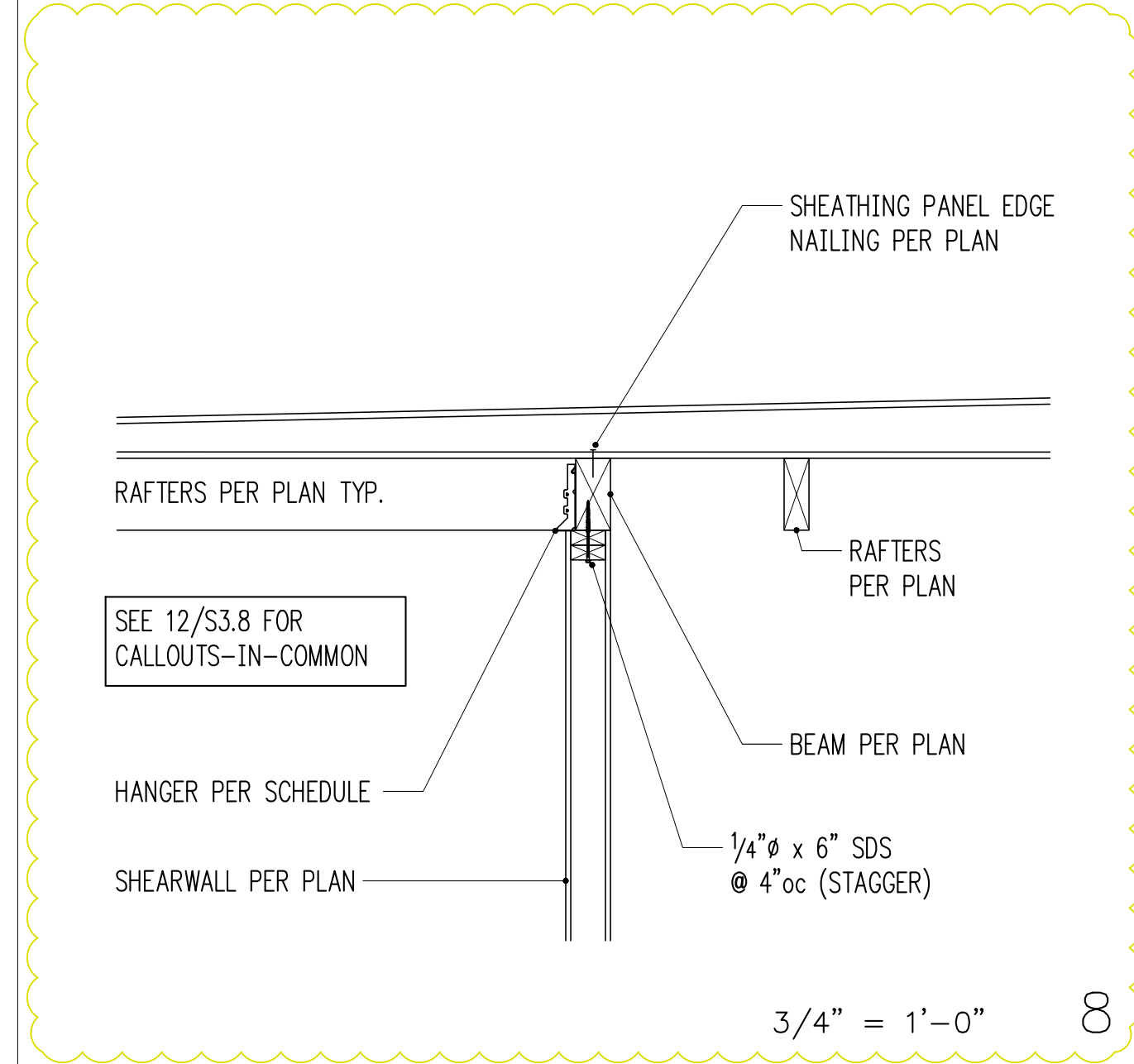
3/4" = 1'-0" 4

3/4" = 1'-0" 5

3/4" = 1'-0" 6

3/4" = 1'-0" 7

3/4" = 1'-0" 8

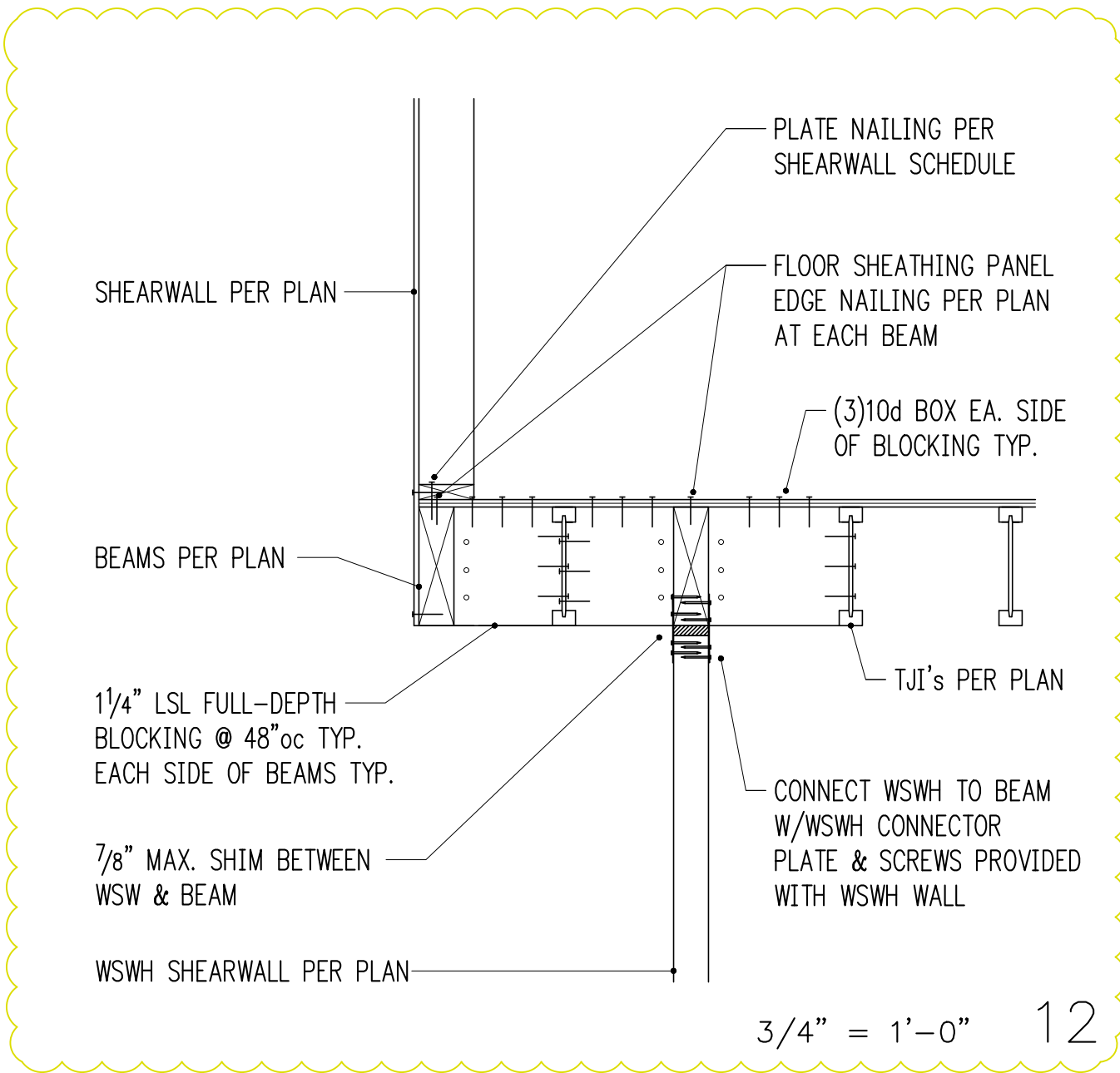
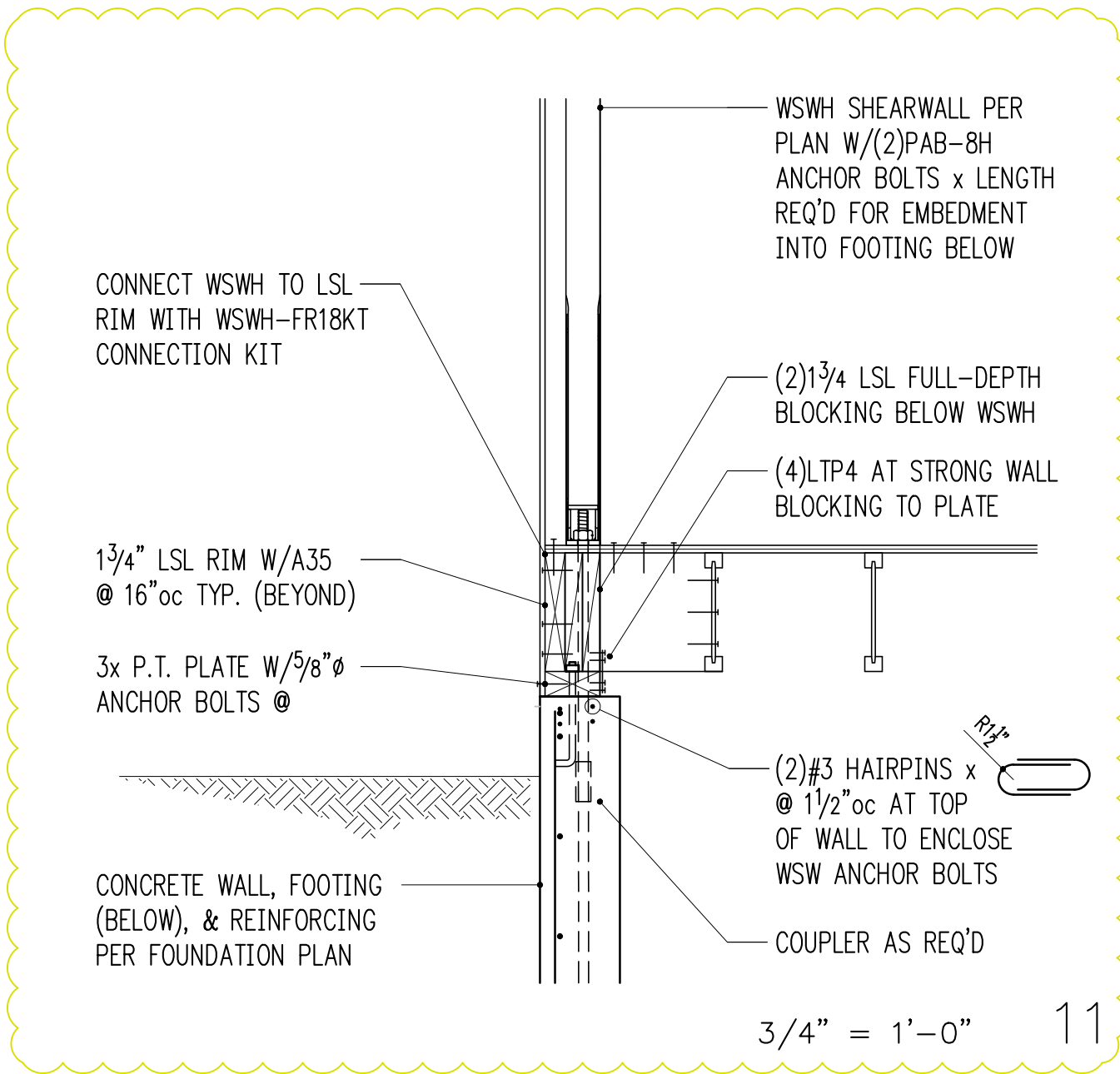
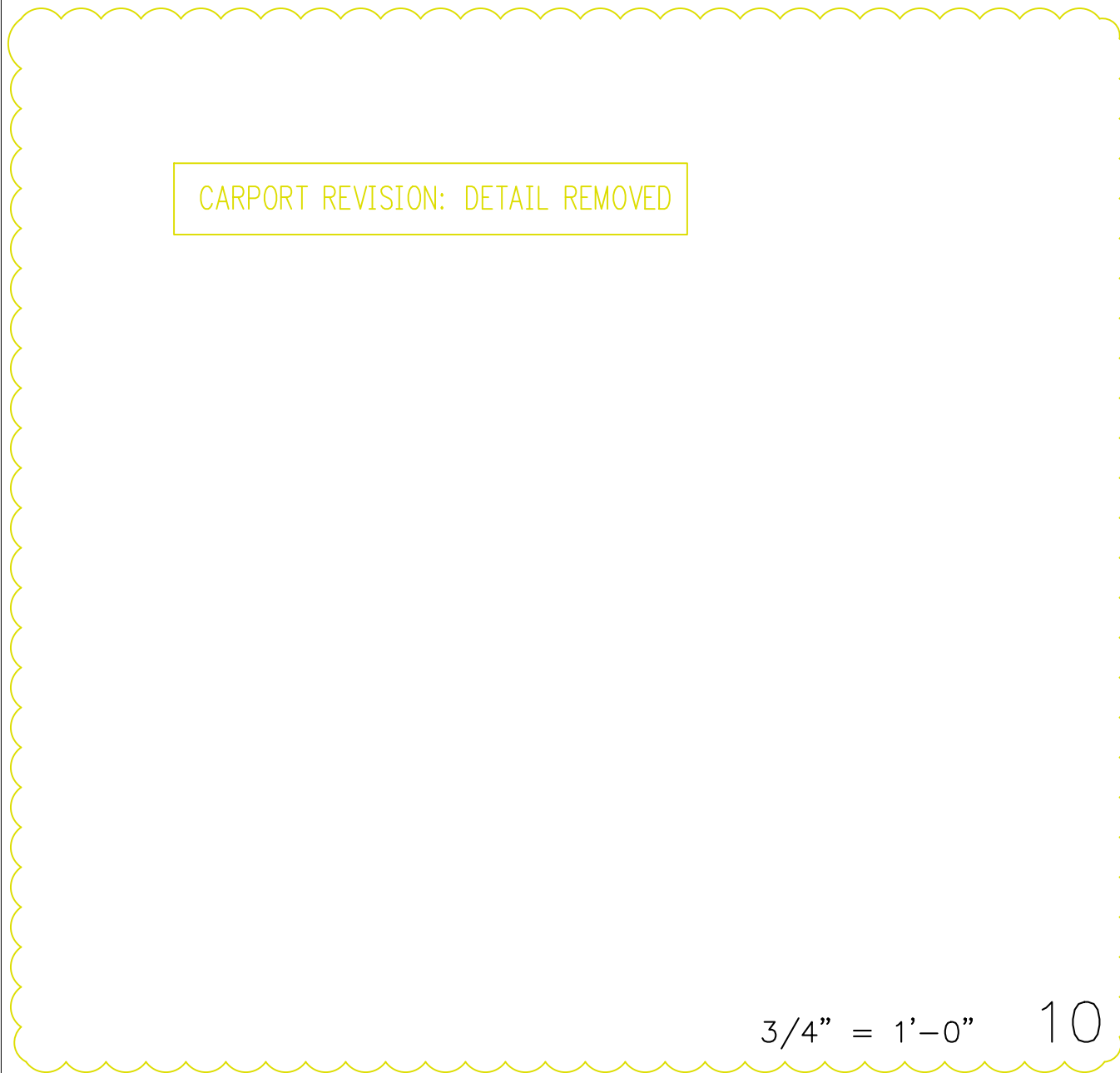


3/4" = 1'-0" 9

3/4" = 1'-0" 10

3/4" = 1'-0" 11

3/4" = 1'-0" 12



# MERCER GROVE

38XX W. MERCER WAY  
MERCER ISLAND, WA 98040

Architect	<b>WITTMAN ESTES</b>
5628 Airport Way S Ste 165 Seattle, WA 98106	
Issue	<ul style="list-style-type: none"> <li>1. 10/13/21 PERMIT</li> <li>2. 3/30/22 CORRECTIONS</li> <li>3. 8/18/22 TREE PROTECTION REV.</li> <li>4. 3/24/23 CARPORT REVISION</li> <li>5.</li> </ul>
Print Date	3/24/23
Drawing Title	<b>STRUCTURAL DETAILS</b>
Drawing Number	<b>S3.9</b>