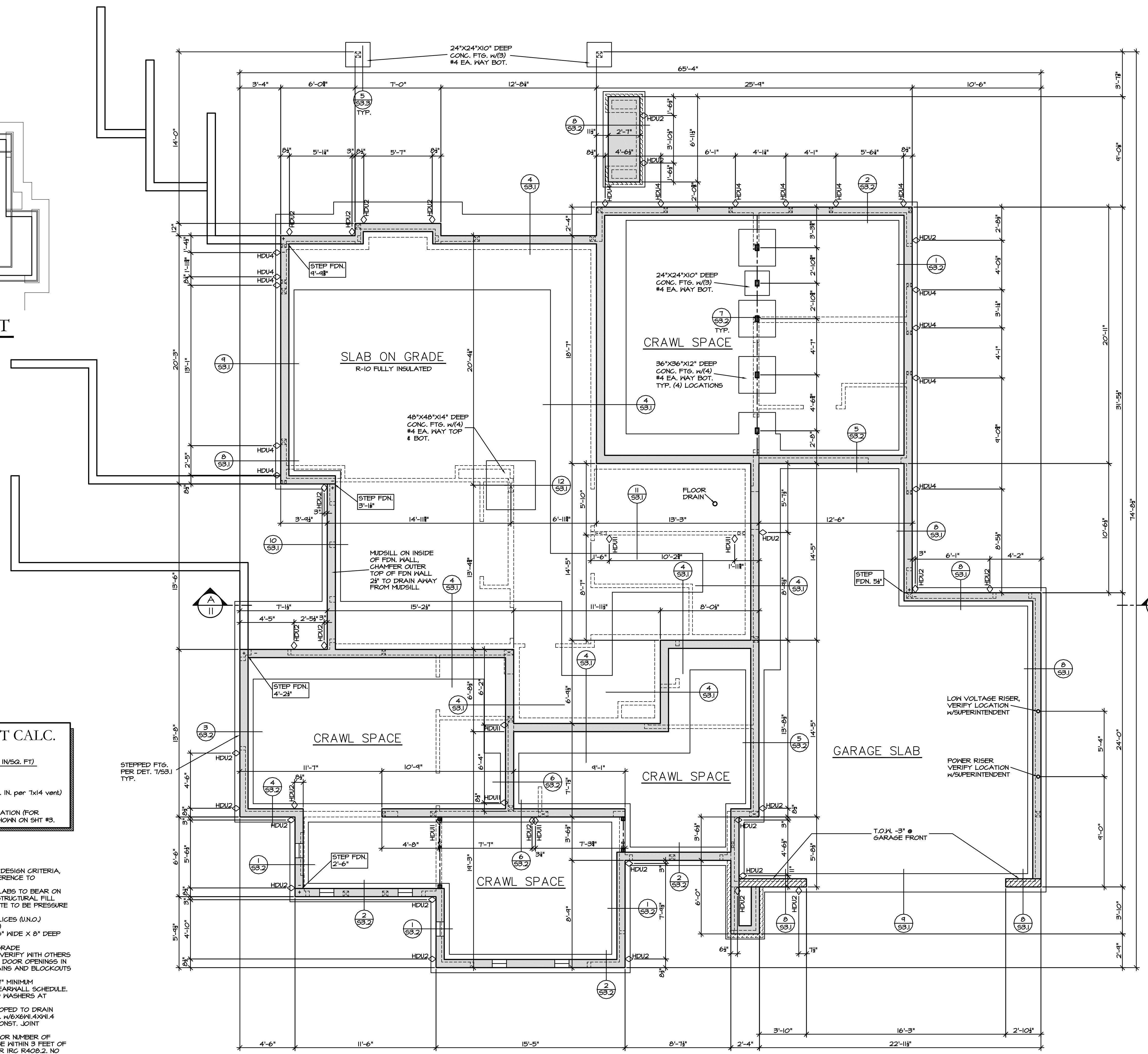


**FOOTPRINT**  
SCALE: 1" = 20'-0"

**FOUNDATION VENT CALC.**  
 CRAWL SPACE AREA = 1350 SQ.FT.  
 VENT AREA REQ'D = (1350 SQ. FT. / 144 SQ. IN./SQ. FT.)  
 = 1246 SQ. IN.  
 VENTS REQUIRED = (1246 SQ. IN. / (12.5 SQ. IN. per 7x14 vent))  
 = (10) 7"x14" VENTS  
 VENTS AT FRONT ELEVATION ARE IN FOUNDATION (FOR AESTHETICS), REMAINDER WILL BE IN RIM SHOWN ON SHT #3.

**NOTES:**

- FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
- ALL FOOTINGS AND STRUCTURAL SLABS TO BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL TREATED OR EQUAL.
- ALL WOOD IN CONTACT W/ CONCRETE TO BE PRESURE TREATED OR EQUAL.
- ALL POSTS TO BE 4x6 AT BEAM SPLICES (U.N.O.)
- ALL BEAMS TO BE 3x8x1 LSL (U.N.O.)
- STEM WALLS TO BE 8" WIDE WITH 18" WIDE X 8" DEEP FOOTINGS (U.N.O.)
- STEP FOOTINGS AS REQUIRED BY GRADE CONTRACTOR SHALL LOCATE AND VERIFY WITH OTHERS PRIOR TO POURING CONCRETE, ALL DOOR OPENINGS IN EXTERIOR FOUNDATION WALLS, DRAINS AND BLOCKOUTS FOR PLUMBING.
- ANCHOR BOLTS TO BE 5/8" DIA X 1" MINIMUM EMBEDMENT @ 40" O.C. U.N.O. ON SHEARWALL SCHEDULE. PROVIDE HOT-DIPPED GALVANIZED WASHERS AT PRESSURE TREATED SILL PLATES.
- 4" CONCRETE SLAB IN GARAGE, SLOPED TO DRAIN TOWARD OVERHEAD DOORS, REINF. W/6x6MI 4X11.4 W/F. SEE 2/53.1 FOR CONTROL & CONST. JOINT REQUIREMENTS.
- SEE CRAWL SPACE CALCULATION FOR NUMBER OF VENTS, ONE VENT OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING PER IRC R408.2, NO VENTS AT FRONT PORCH.
- A GROUND COVER OF 6 MIL POLYETHYLENE REQ'D PER WA STATE ADMENDMENT TO IRC SECTION R408.1
- ALL HARDWARE TO BE SIMPSON OR EQUAL
- ALL DIMENSIONS ARE TO FACE OF FRAMING
- VERIFY ALL +/- DIMENSIONS IN FIELD

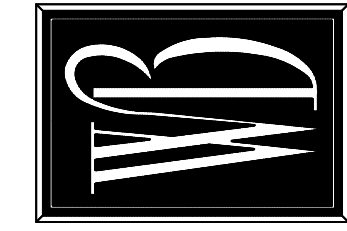
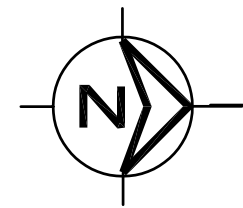


STEPPED FTG. PER DET. 1/53.1 TYP.

PROVIDE FULL DEPTH VERTICAL GRAIN BLOCKING IN FLOOR CAVITY BELOW SUPPORTED POSTS & MULTI-STUD COLUMNS TYP. ALL LOCATIONS

**FOUNDATION PLAN**

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



CONTENT  
**FOUNDATION PLAN**  
 4215 MERGERWOOD DR.

JOB NO.  
 9118  
 DATE  
 10/14/21  
 DRAWN BY  
 DS  
 ENGINEER  
 S.S.F.

| REVISION | DATE     |
|----------|----------|
| 1        | XX/XX/XX |
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SHEET  
**2**  
 OF 19

**WILLIAM E BUCHAN INC.**  
 2630 - 116th Ave. NE. · Bellevue, Washington 98004 · (425) 828-6424  
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**RAINIER**

**ELECTRICAL SYMBOLS**

- 50 CFM EXHAUST FAN VENTED TO OUTSIDE (U.N.O.)
- SMOKE DETECTOR
- CARBON MONOXIDE/SMOKE DETECTOR

608.3 Expansion Tanks, and Combination, Temperature and Pressure-Relief Valves. A water system provided with a check valve, backflow preventer, or other normally closed device that prevents dissipation of building pressure back into the water main independent of the type of water heater used, shall be provided with an approved, listed, and adequately sized expansion tank or other approved device having a similar function to control thermal expansion. Such expansion tank or other approved device shall be installed on the building side of the check valve, backflow preventer, or other device and shall be sized and installed in accordance with the manufacturer's installation instructions...

**SQUARE FOOTAGE CALC.**

|                          |                  |
|--------------------------|------------------|
| BASEMENT                 | 1055 S.F.        |
| MAIN FLOOR               | 2298 S.F.        |
| UPPER FLOOR              | 1601 S.F.        |
| <b>TOTAL LIVING AREA</b> | <b>4960 S.F.</b> |
| GARAGE                   | 730 S.F.         |
| COVERED PORCH            | 69 S.F.          |
| COVERED PATIO            | 374 S.F.         |
| UPPER FLR. DECK          | 205 S.F.         |

**GROSS FLOOR AREA**

|                               |                  |
|-------------------------------|------------------|
| GROSS BASEMENT                | 1055 S.F.        |
| MAIN FLOOR                    | 2298 S.F.        |
| UPPER FLOOR                   | 1601 S.F.        |
| GARAGE                        | 730 S.F.         |
| <b>TOTAL FLOOR AREA</b>       | <b>5684 S.F.</b> |
| BASEMENT EXCLUDED             | 829 S.F.         |
| 1055 - 829 = ADJ'D BASEMENT   | 226 S.F.         |
| 150% GFA MODIFIER - MAIN =    |                  |
| 2298 - 531 (12' CLG'S) + 796  |                  |
| (12' CLG'S X 150%) ADJ'D MAIN | 2564 S.F.        |
| <b>TOTAL BLDG AREA</b>        | <b>5121 S.F.</b> |

**NOTES:**

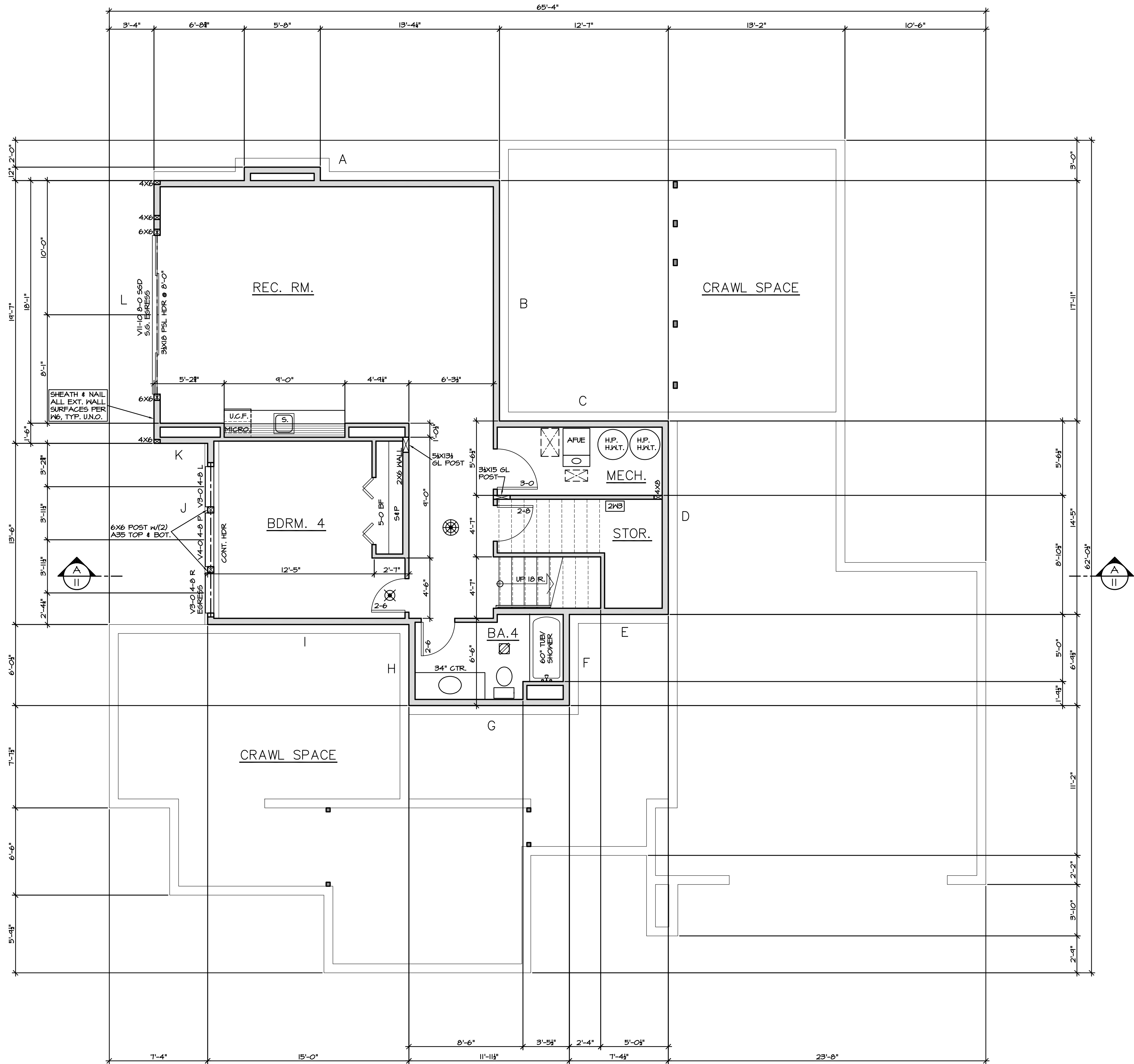
- FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
- ALL WOOD PLATES TO BE 4" X 12" (U.N.O.)
- ALL HEADERS (HDR) TO BE 4" X 10" EXTERIOR AND 2" X 12" INTERIOR (U.N.O.) BIFOLDS @ 7'-2", POCKETS @ 7'-4"
- ALL EXTERIOR WALLS ARE 2" X 6" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES
- ALL INTERIOR BEARING WALLS ARE 2" X 4" @ 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES.
- HEADERS (HDRS)/BEAMS (BMS) SHOWN BUT NOT SPECIFIED SHALL BE 4" X 10" (U.N.O.). ALL HEADERS/BMS SHOWN SHALL BE SUPPORTED BY (2) TRIMMER AND (1) KING STUD MINIMUM (U.N.O.). WHERE MORE THAN (2) TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THIS (N). TRIMMER LOADS TO BE ADEQUATELY TRANSFERRED TO THE FOUNDATION.
- THE WATER RESISTANT VAPOR GHD BASE FOR TILE IN THE SHOWER ENCLOSURES SHOULD NOT BE USED OVER A VAPOR BARRIER OR ON THE CEILING
- ALL DIMENSIONS TO FACE OF FRAMING
- ALL HARDWARE TO BE SIMPSON OR EQUAL
- VERIFY ALL 1/2" DIMENSIONS IN FIELD.
- ALL EXTERIOR WALLS SHALL BE M6 UNLESS NOTED OTHERWISE.

**BASEMENT FLOOR AREA CALCULATION**

| WALL SEGMENT  | LENGTH X      | COVERAGE = | RESULT         |
|---------------|---------------|------------|----------------|
| A             | 25.75         | 100%       | 25.75%         |
| B             | 17.92         | 100%       | 17.92%         |
| C             | 12.58         | 100%       | 12.58%         |
| D             | 14.42         | 100%       | 14.42%         |
| E             | 7.37          | 100%       | 7.37%          |
| F             | 6.79          | 100%       | 6.79%          |
| G             | 11.96         | 100%       | 11.96%         |
| H             | 6.04          | 100%       | 6.04%          |
| I             | 15.0          | 100%       | 15.0%          |
| J             | 13.5          | 22%        | 2.97%          |
| K             | 4.0           | 22%        | .88%           |
| L             | 19.58         | 0%         | 0%             |
| <b>TOTALS</b> | <b>154.92</b> | <b>NA</b>  | <b>121.68%</b> |

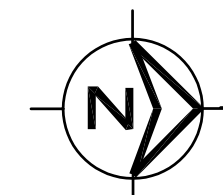
TOTAL BASEMENT FLOOR AREA = 1055 SQ. FT. X 121.68/154.92 = 78.54

1055 SQ. FT. X 78.54% = 828.63 SQ. FT. EXCLUDED FROM GROSS FLOOR AREA



**BASEMENT PLAN**

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



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CONTENTS  
 LOWER FLOOR PLAN  
 4215 MERGERWOOD DR.

JOB NO.  
 9118

DATE  
 10/14/21

DRAWN BY  
 DS

ENGINEER  
 S.S.F.

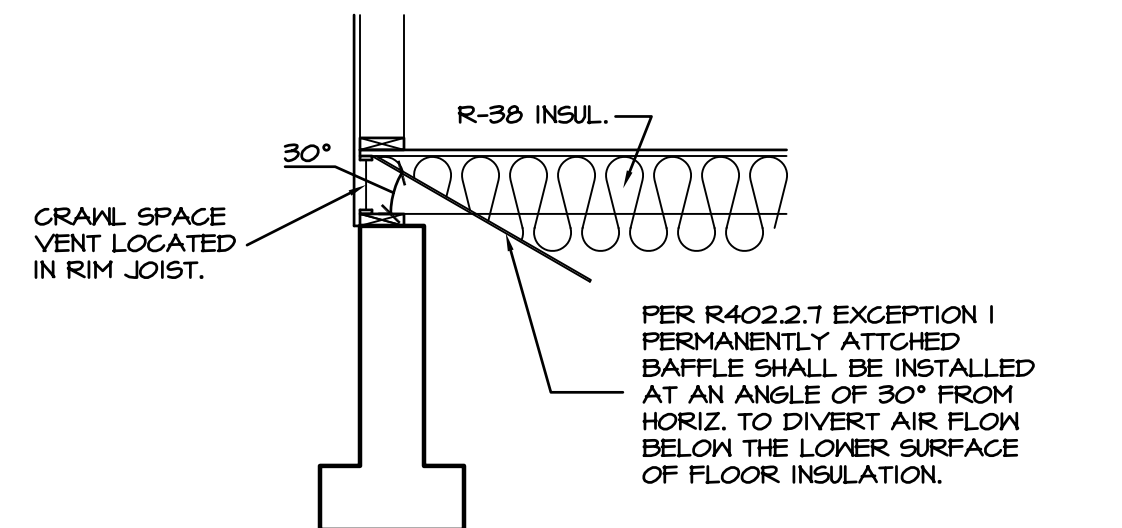
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**RAINIER**

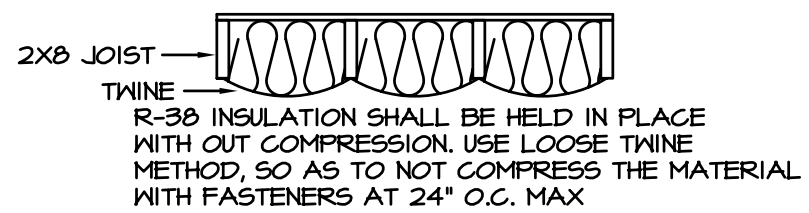
SHEET  
**3**  
 OF 19

**CONSTRUCTION NOTES:**

1. ALL WOOD IN CONTACT WITH CONCRETE MUST BE PRESSURE TREATED OR NATURALLY RESISTANT TO DECAY. TREAT ALL CUT ENDS WITH END CUT SOLUTION. USE GROUND CONTACT TREATED WOOD. ALL WOOD TO BE HEM-FIR #2 OR BETTER.
2. FASTENERS, NAILS, HANGERS, ETC., STAINLESS STEEL, HOT-DIPPED GALVANIZED, OR AS SPECIFICALLY REQUIRED FOR THE SPECIFIED WOOD PRESERVATIVE USED. THE COATING WEIGHTS FOR ZINC COATED FASTENERS TO BE IN ACCORDANCE WITH ASTM A 153.
3. ATTACHEMENT TO BE PER MANUFACTURE SPECIFICATIONS.

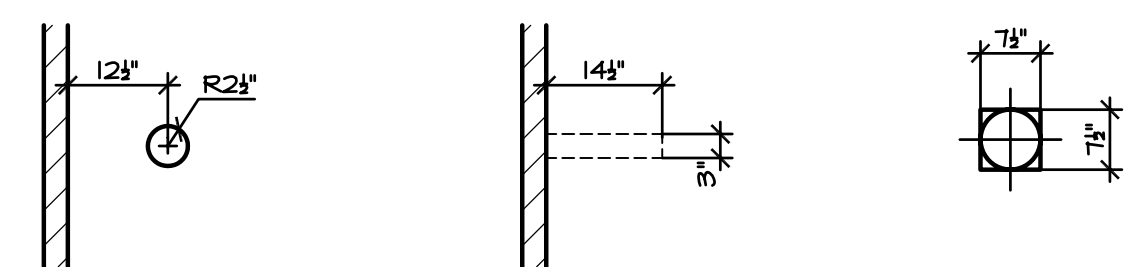


**A CRAWL SPACE VENT Baffle**  
SCALE: 1/4" = 1'-0"



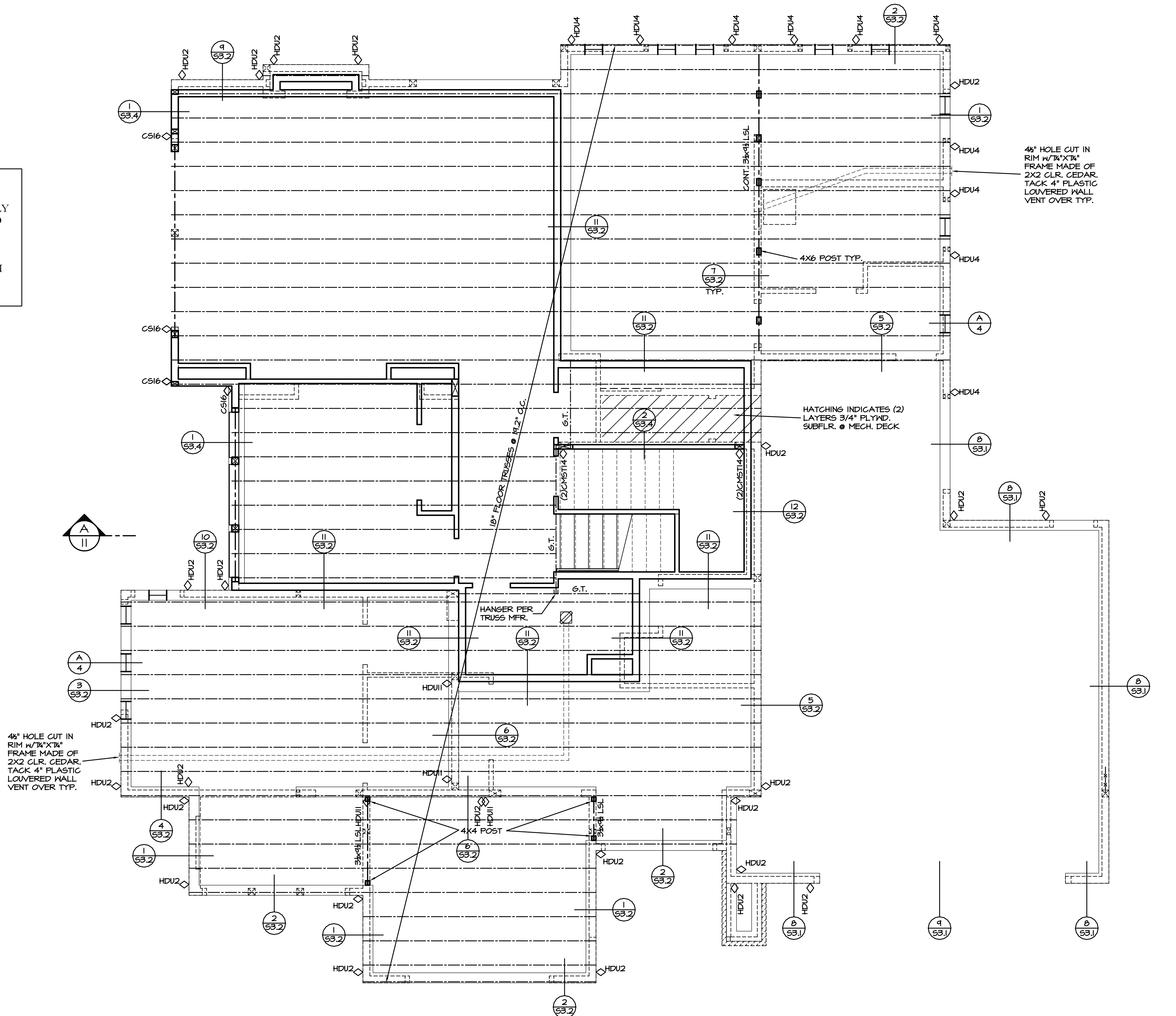
**INSULATION DETAIL**  
SCALE: 1/2" = 1'-0"

\* HEAD-OUT OR ADJUST JOIST LAYOUT TO PROVIDE FRAMING ALLOWANCE PER DETAILS :



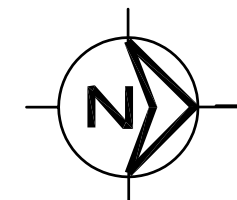
**NOTES:**

1. FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
2. FLOOR TRUSS LAYOUT IS APPROXIMATE. FLOOR TRUSS SUPPLIER IS RESPONSIBLE FOR FINAL LAYOUT & CONFIGURATION. NOTIFY ENGINEER/BUILDER OF ANY REVISIONS TO PLAN.
3. FLOOR TRUSS LAYOUT IS APPROXIMATE. FLOOR TRUSS SUPPLIER RESPONSIBLE FOR FINAL LAYOUT AND CONFIGURATION. NOTIFY ENGINEER/BUILDER OF ANY REVISIONS TO PLAN.
4. ALL MAIN FLOOR JOISTS TO BE 10" FLOOR TRUSSES @ 19.2" O.C. (U.N.O.)
5. ALL RIM JOISTS TO BE 1-3/4" LVL MINIMUM (U.N.O.)
6. ALL JOIST TO LAP 6" MIN.
7. PROVIDE DOUBLE JOISTS AROUND ALL FLOOR AND ROOF OPENINGS GREATER THAN 24" ON ONE SIDE (U.N.O.)
8. FLOOR SHEATHING TO BE 23/32" TONGUE AND GROOVE APA-RATED STURD-I-FLOOR OR EQUAL. SHEATHING TO BE GLUED AND NAILED TO FRAMING WITH 0.91" DIA. X 2-1/2" NAILS AT 6" O.C. AT PANEL EDGES AND AT 12" O.C. FIELD (U.N.O.). LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES.
9. CROSS HATCHING INDICATES OVER-FRAMING
10. ALL HARDWARE TO BE SIMPSON OR EQUAL
11. ALL DIMENSIONS TO FACE OF FRAMING
12. VERIFY ALL +/- DIMENSIONS IN FIELD



**MAIN FLR. FRAMING**

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



PROVIDE FULL DEPTH VERTICAL GRAIN BLOCKING IN FLOOR CAVITY BELOW SUPPORTED POSTS & MULTI-STUD COLUMNS TYP. ALL LOCATIONS



CONTENT  
MAIN FLR. FRAMING  
4215 MERCERWOOD DR.

|          |          |
|----------|----------|
| JOB NO.  | 9118     |
| DATE     | 10/14/21 |
| DRAWN BY | DS       |
| ENGINEER | S.S.F.   |

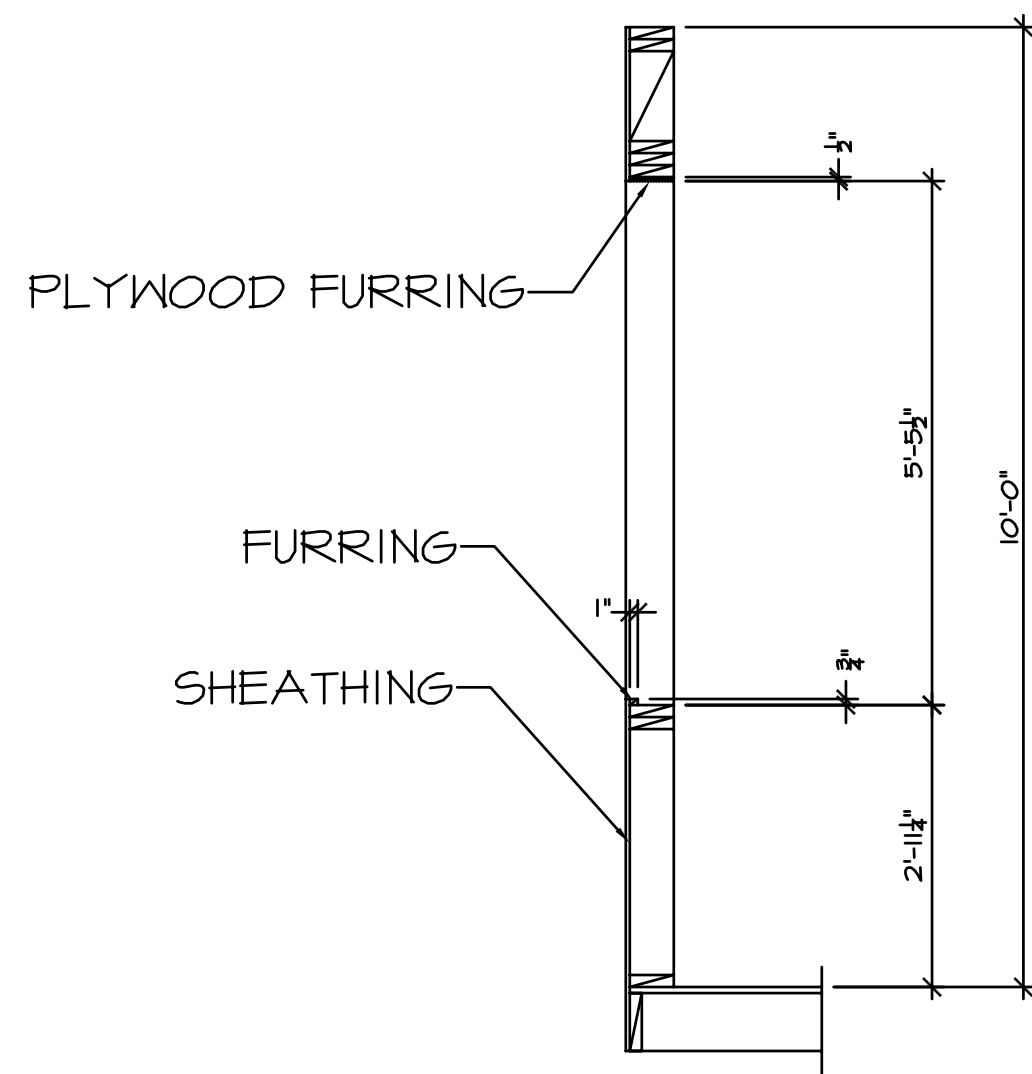
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**RAINIER**

R302.11 Fireblocking. In combustible construction, fire-blocking shall be provided to cut off both vertical and horizontal concealed draft openings and to form an effective fire barrier between stories, and between a top story and the roof space.

Fireblocking shall be provided in wood-framed construction in the following locations:

- In concealed spaces of stud walls and partitions, including furred spaces and parallel rows of studs or staggered studs, as follows:
  - Vertically at the ceiling and floor levels.
  - Horizontally at intervals not exceeding 10 feet (3048 mm).
- At interconnections between concealed vertical and horizontal spaces such as occur at soffits, drop ceilings and cove ceilings.
- In concealed spaces between stair stringers at the top and bottom of the run. Enclosed spaces under stairs shall comply with Section R302.7.
- At openings around vents, pipes, ducts, cables and wires at ceiling and floor level, with an approved material to resist the free passage of flame and products of combustion. The material filling this annular space shall not be required to meet the ASTM E 136 requirements.
- For the fireblocking of chimneys and fireplaces, see Section R1003.19.



**A** 10' PL. KIT. WDW. FRMG. DET.  
SCALE: 1/2" = 1'-0"

**NOTES:**

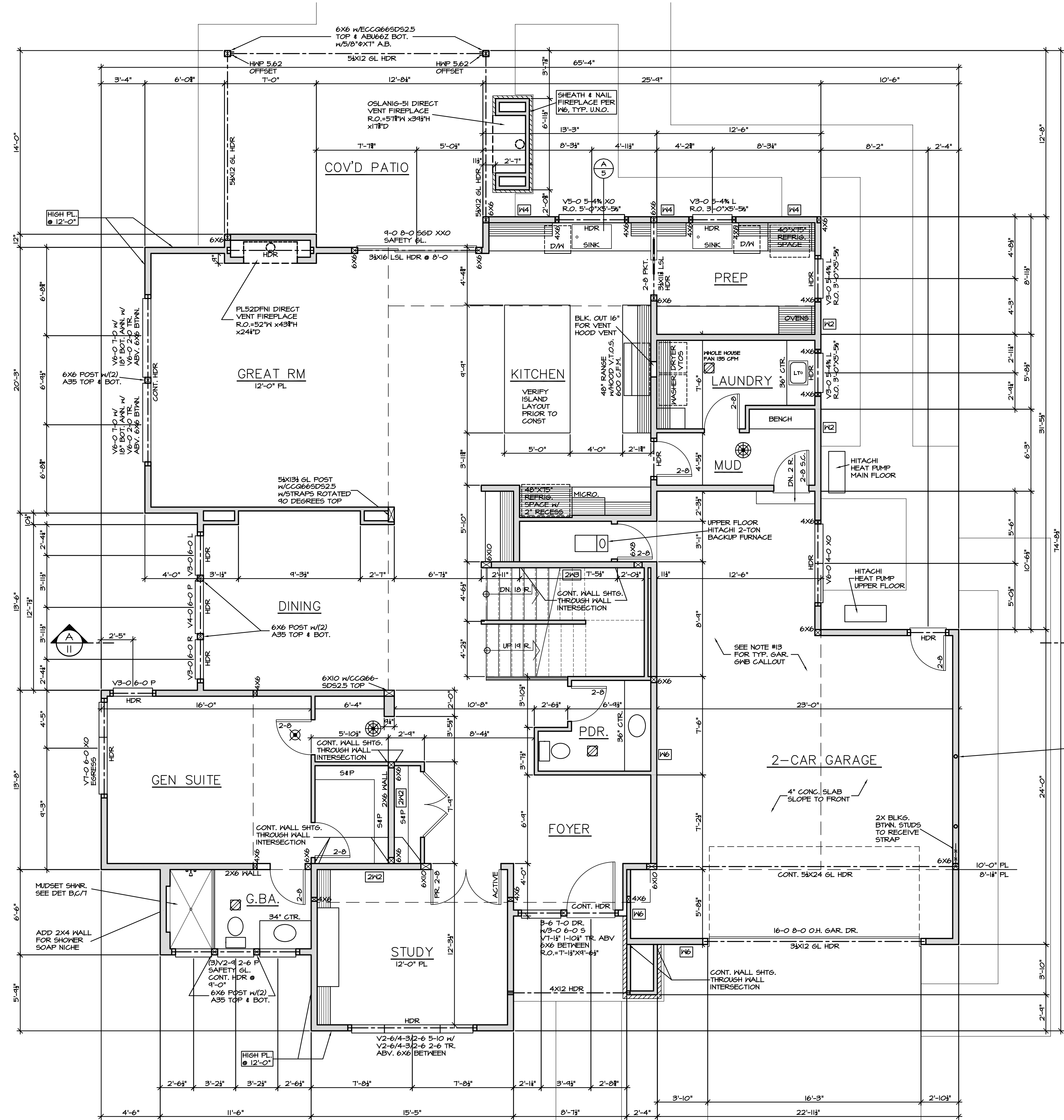
- FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
- ALL WOOD PLATES TO BE 10'-0" (U.N.O.)
- ALL HEADERS (HDR) TO BE 6"-0" EXTERIOR AND 1'-2" INTERIOR (U.N.O.), POCKETS 6"-0", BI-FOLDS 6"-10".
- ALL EXTERIOR WALLS ARE 2X6 @ 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES
- ALL INTERIOR BEARING WALLS ARE 2X4 @ 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES
- BALLOON FRAME ALL WALLS GREATER THAN ONE LEVEL 10'-0" WITH (2) 2X AT 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES
- HEADERS (HDR)/BEAMS (BMS) SHOWN BUT NOT SPECIFIED SHALL BE 4X12 (U.N.O.) ALL HEADERS/BEAMS SHALL BE SUPPORTED BY (2) TRIMMER AND (1) KING STUD (U.N.O.), WHERE MORE THAN 1 TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THIS (N). TRIMMER LOADS TO BE ADEQUATELY TRANSFERRED TO THE FOUNDATION. SEE 3/53.2 FOR TYP. HDR. CONST. REQUIREMENTS.
- PILOTS, BURNERS, HEATING ELEMENTS AND SWITCHES TO FURNACE AND WATER HEATER SHALL BE LOCATED A MINIMUM OF 18" ABOVE GARAGE FLOOR AND BE PROTECTED FROM VEHICULAR COLLISION
- FIRE STOPS SHALL BE PROVIDED TO CUT OFF ALL CONCEALED DRAFT OPENINGS FROM VERTICAL TO HORIZONTAL SPACES, INCLUDING STAIRWELLS, TUBS AND SHOWERS, FIREPLACES, ETC. DRAFT-STOPPING IS REQ'D BETWEEN EACH STORY AND IN AREAS NOT EXCEEDING 1000 SF.
- GMB NOTE: USE 1/2" TYPE X GMB UNDER STAIRS W/ FINISHED SPACE BELOW
- AREA SEPARATION NOTE: USE 2 LAYERS 1/2" PLYWOOD FOR TOP DECKING ON ALL EXPOSED SUB-FLOOR IN GARAGE
- R 304.1, OPENINGS BETWEEN THE GARAGE AND THE RESIDENCE SHOULD BE EQUIPPED WITH SOLID WOOD DOORS OR SOLID/HONEYCOMB STEEL DOORS AT LEAST 1-3/8" THICK. A 20 MINUTE FIRE RATED DOOR IS ALSO ACCEPTABLE, REQ'D TO BE SELF CLOSING PER IRC 302.5.1
- R304.2, SEPARATION REQUIRED. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE. GARAGES BENEATH HABITABLE ROOMS SHALL BE SEPARATED FROM ALL HABITABLE ROOMS ABOVE BY NOT LESS THAN 5/8" TYPE-X GYPSUM BOARD OR EQUIVALENT, WHERE THE SEPARATION IS A FLOOR-CEILING ASSEMBLY THE STRUCTURE SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED BY NOT LESS THAN 1/2" GYPSUM BOARD OR EQUIVALENT
- ALL HARDWARE TO BE SIMPSON OR EQUAL
- ALL DIMENSIONS TO FACE OF FRAMING
- VERIFY ALL 1/2" DIMENSIONS IN FIELD
- ALL EXTERIOR WALLS SHALL BE W6 UNLESS NOTED OTHERWISE.
- PER TABLE R402.11 FOOTNOTE M, ALL EXT. WALL HDRS ARE REQ'D TO BE INSULATED WITH MIN. R-10 INSUL.

**ELECTRICAL SYMBOLS**

- 50 CFM EXHAUST FAN VENTED TO OUTSIDE (U.N.O.)
- SMOKE DETECTOR W/ BATTERY BACKUP
- CARBON MONOXIDE/SMOKE DETECTOR W/ BATTERY BACKUP
- HEAT DETECTOR W/ BATTERY BACKUP

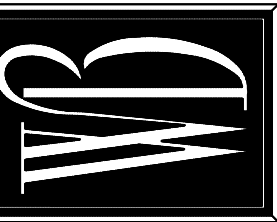
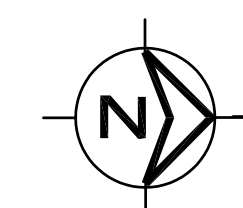
Per IRC Section R302.5.2 Duct penetration. Ducts in the garage and ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material and shall not have openings into the garage.

Per WSEC Section R403.3.1 Insulation. Ducts outside the building thermal envelope, including those located in the crawl space, shall be insulated to a minimum of R-8.



**MAIN FLOOR PLAN**

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



CONTENT  
MAIN FLOOR PLAN  
4215 MERGERWOOD DR.

JOB NO.  
9118

DATE  
10/14/21

DRAWN BY  
DS

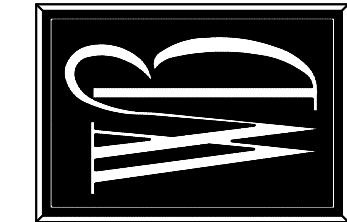
ENGINEER  
S.S.F.

REVISION DATE

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**RAINIER**



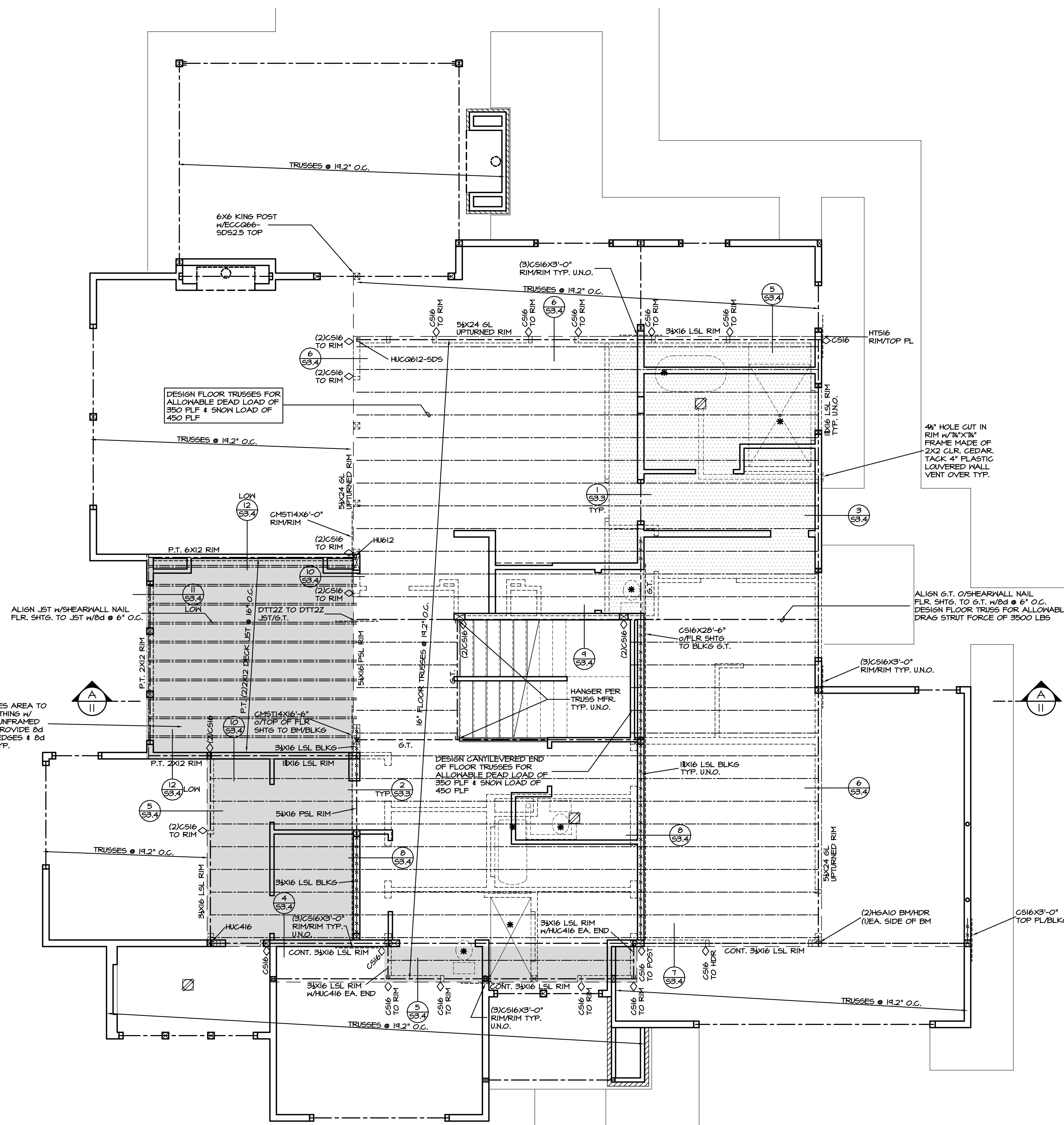
CONTENT  
 UPPER FLR. FRAMING  
 4215 MERCERWOOD DR.

JOB NO.  
 9118  
 DATE  
 10/14/21  
 DRAWN BY  
 DS  
 ENGINEER  
 S.S.F.

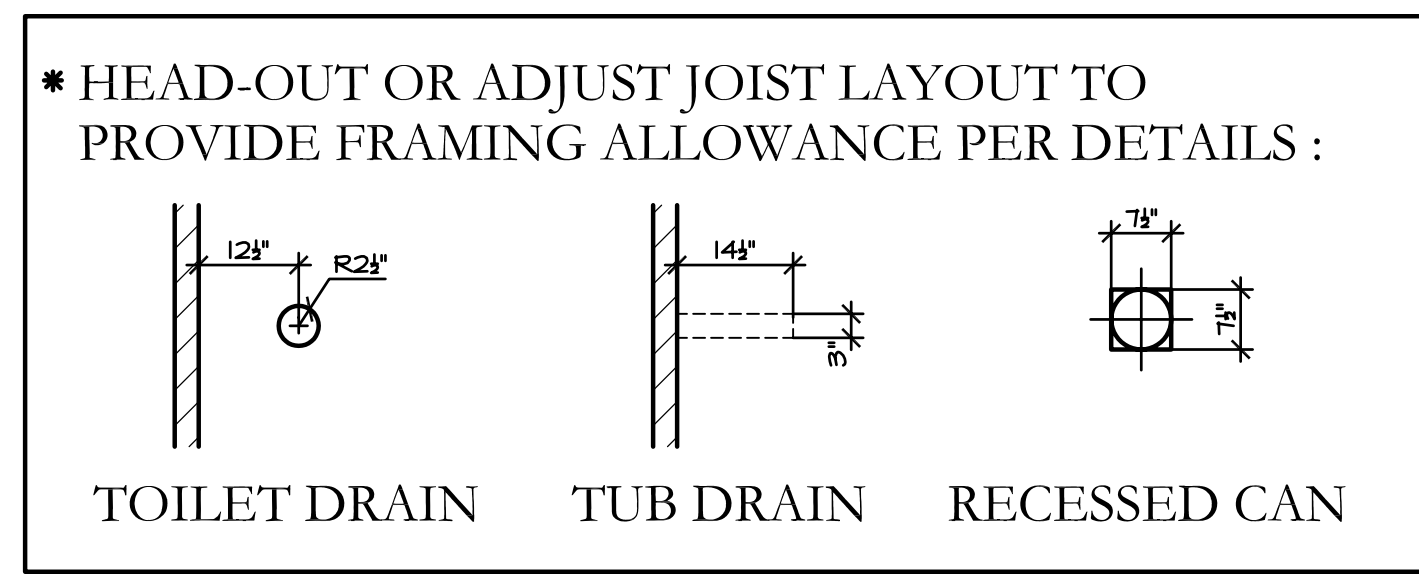
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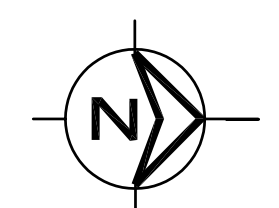
RAINIER



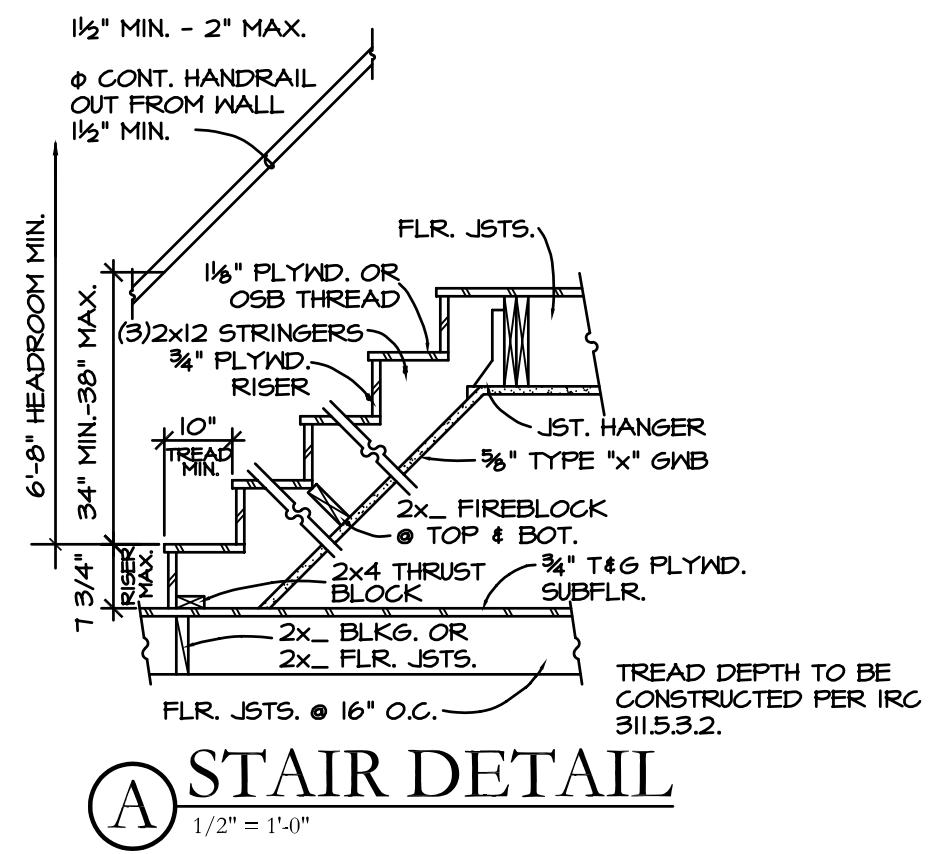
- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
  - FLOOR TRUSS LAYOUT IS APPROXIMATE. FLOOR TRUSS SUPPLIER IS RESPONSIBLE FOR FINAL LAYOUT & CONFIGURATION. NOTIFY ENGINEER/BUILDER OF ANY REVISIONS TO PLAN.
  - ALL UPPER FLOOR JOIST TO BE 16" FLOOR TRUSSES @ 19.2" O.C. U.N.O.
  - ALL JOISTS TO LAP 6" MINIMUM.
  - ALL RIM JOISTS TO BE 1-1/2" LSL MINIMUM (U.N.O.)
  - PROVIDE DOUBLE JOISTS AROUND ALL FLOOR AND ROOF OPENINGS GREATER THAN 24" ON ONE SIDE (U.N.O.)
  - FLOOR SHEATHING TO BE 23/32" TONGUE AND GROOVE APA-RATED STURD-I-FLOOR OR EQUAL. SHEATHING TO BE GLUED AND NAILED TO FRAMING WITH 0.131" DIA X 2-1/2" NAILS AT 6" O.C. AT PANEL EDGES AND AT 12" O.C. FIELD (U.N.O.). LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES.
  - CROSS HATCHING INDICATES OVER-FRAMING.
  - ALL HARDWARE TO BE SIMPSON OR EQUAL.
  - ALL DIMENSIONS TO FACE OF FRAMING.
  - VERIFY ALL +/- DIMENSIONS IN FIELD.



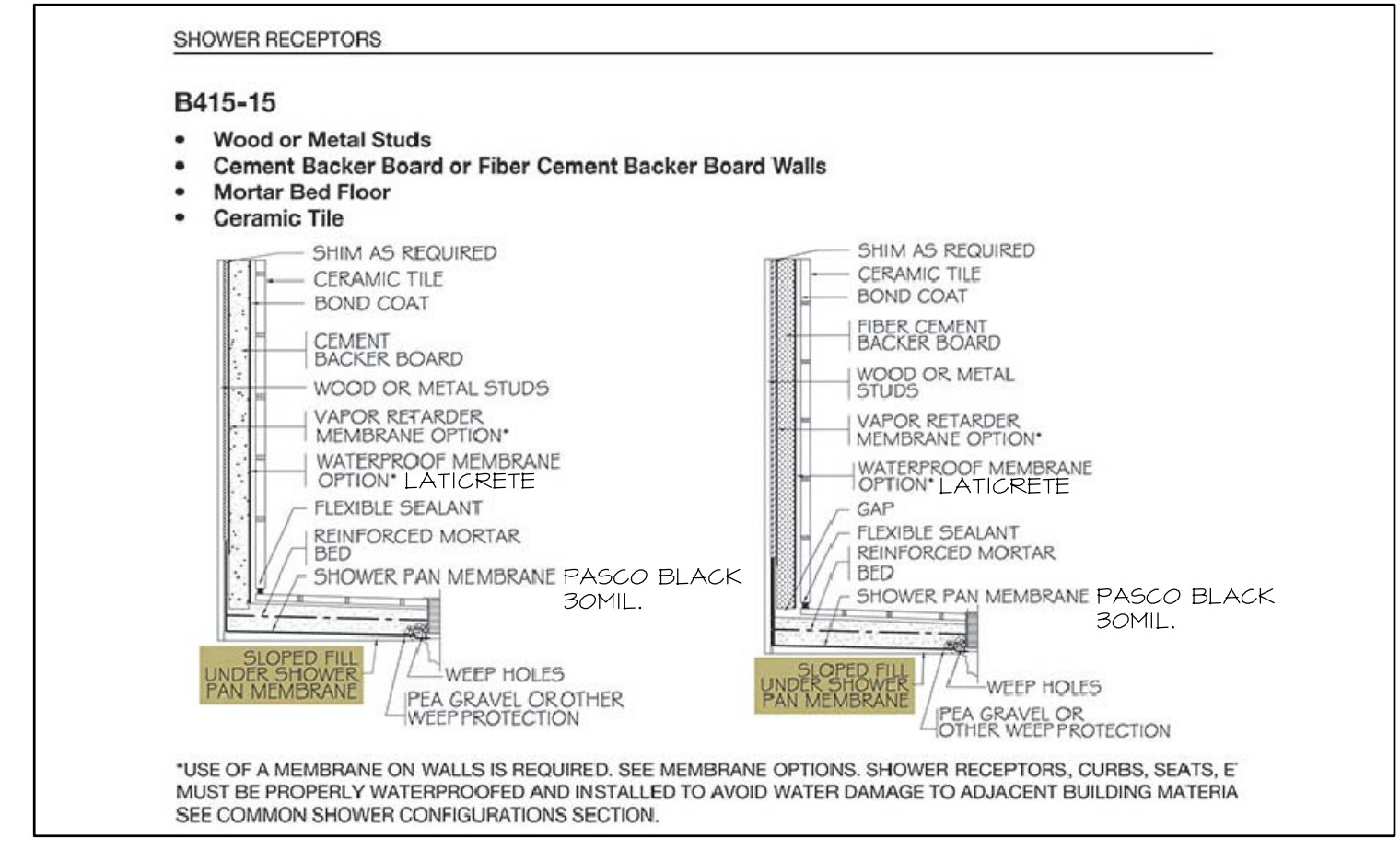
**UPPER FLR. FRAMING**  
 SCALE: 1/4" = 1'-0"



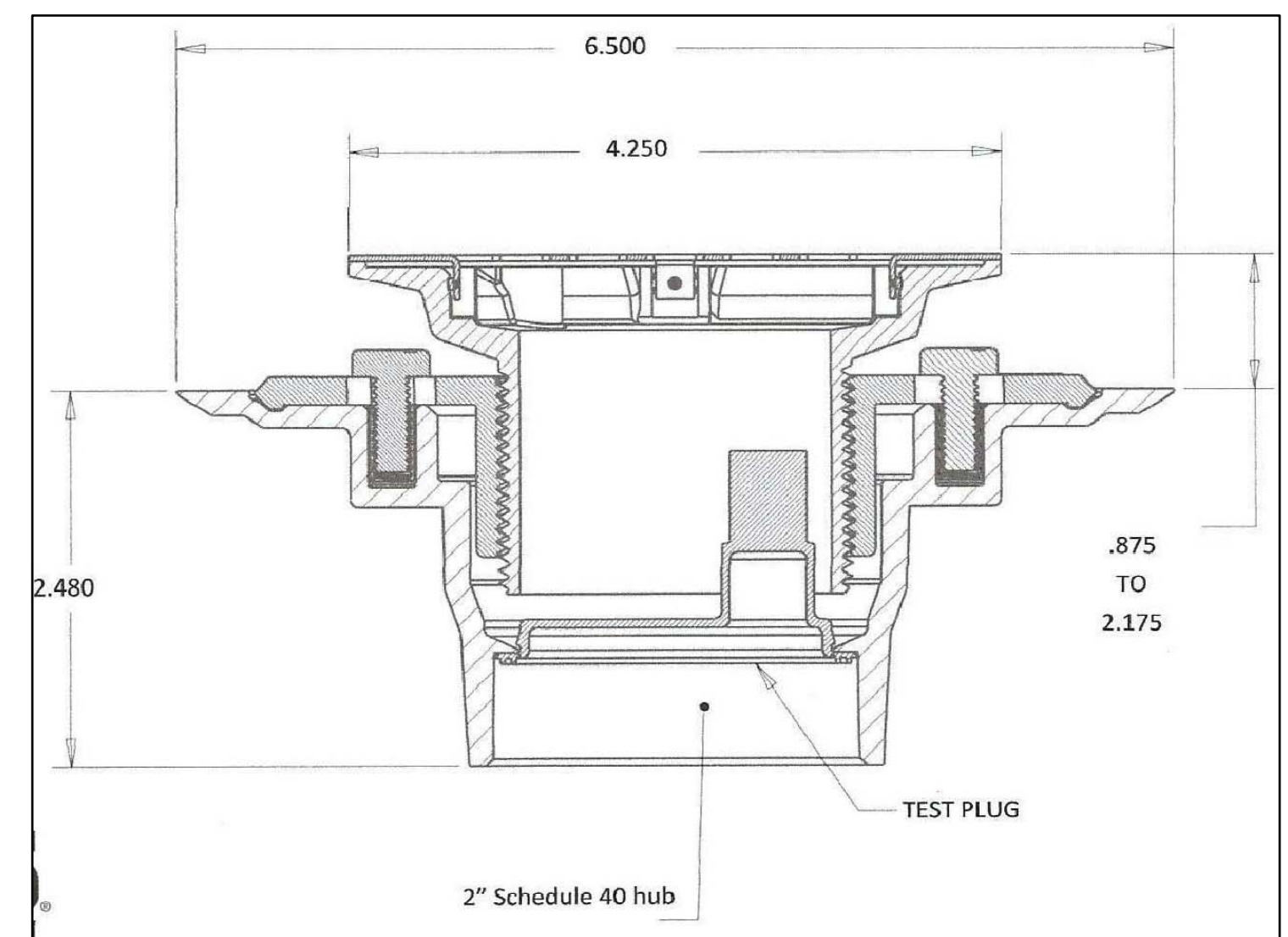
PROVIDE FULL DEPTH VERTICAL GRAIN BLKG IN FLOOR CAVITY BELOW SUPPORTED POST & MULTI-STUD COLUMNS TYP. ALL LOCATIONS



**A STAIR DETAIL**  
1/2" = 1'-0"



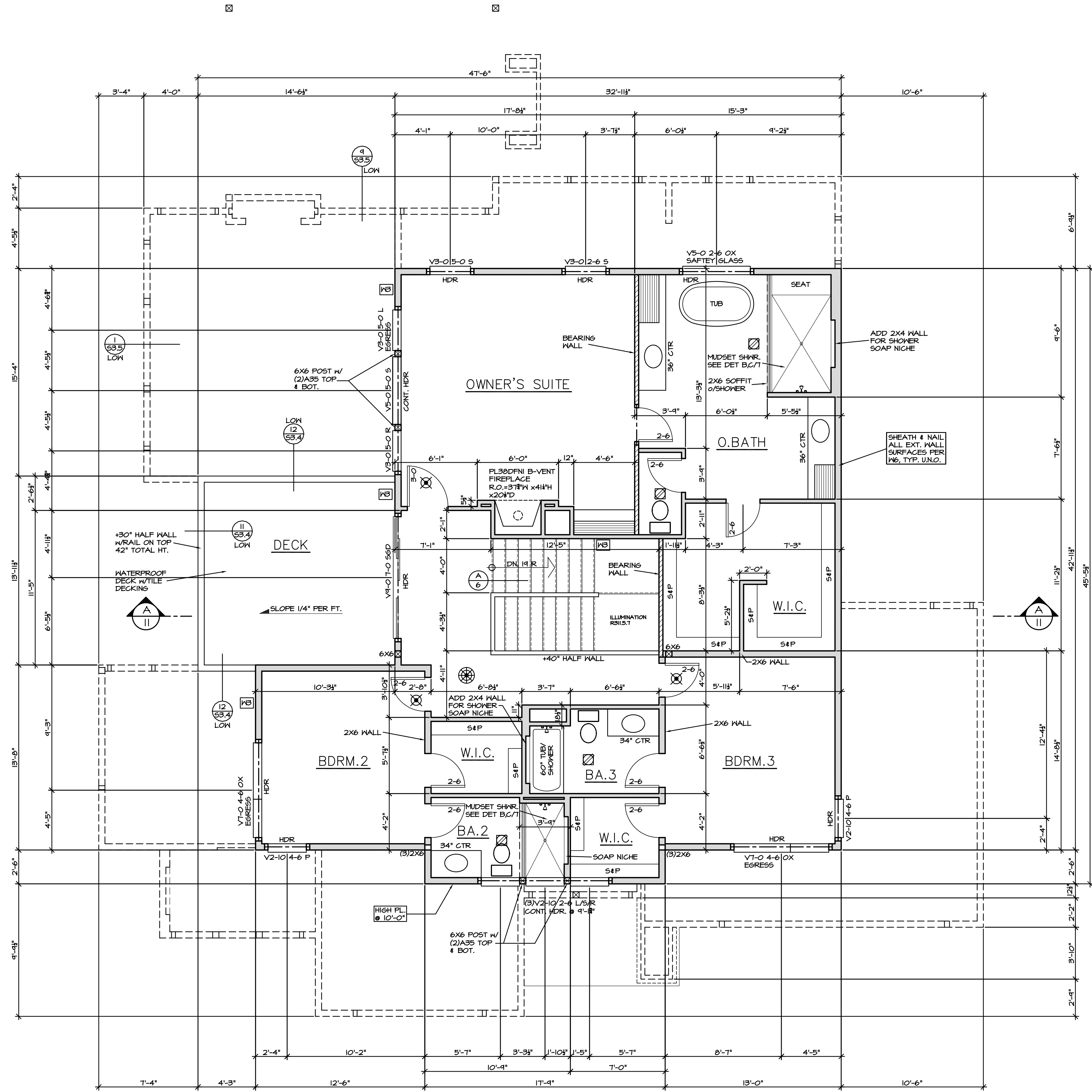
**B SHOWER DETAIL**  
N.T.S.



**C SHOWER DRAIN**  
N.T.S.

**NOTES:**

- FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
- ALL WOOD PLATES TO BE 9'-0" (U.N.O.)
- ALL HEADERS (HDR) TO BE 4X10 @ 7'-0" EXTERIOR AND 7'-2" INTERIOR (U.N.O.) BIFOLDS @ 6'-10", POCKETS @ 7'-0"
- ALL EXTERIOR WALLS ARE 2X6 @ 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES.
- ALL INTERIOR BEARING WALLS ARE 2X4 @ 16" O.C., FOR LUMBER GRADE, REFERENCE STRUCTURAL GENERAL NOTES.
- HEADERS (HDRS)/BEAMS (BMS) SHOWN BUT NOT SPECIFIED SHALL BE 4X10 (U.N.O.). ALL HEADERS/BEMS SHOWN SHALL BE SUPPORTED BY (2) TRIMMER AND (1) KING STUD MINIMUM (U.N.O.), WHERE MORE THAN (2) TRIMMER IS REQUIRED, THE NUMBER OF TRIMMER STUDS SHALL BE NOTED THIS (N). TRIMMER LOADS TO BE ADEQUATELY TRANSFERRED TO THE FOUNDATION.
- FIRE STOPS SHALL BE PROVIDED TO CUT OFF ALL CONCEALED SPACE OPENINGS FROM VERTICAL TO HORIZONTAL SPACES, INCLUDING STAIRWELLS, TUBS AND SHOWERS, FIREPLACES, ETC.
- THE WATER RESISTANT VAPOR GNB BASE FOR TILE IN THE SHOWER ENCLOSURES SHOULD NOT BE USED OVER A VAPOR BARRIER OR ON THE CEILING.
- ALL DIMENSIONS TO FACE OF FRAMING
- ALL HARDWARE TO BE SIMPSON OR EQUAL
- VERIFY ALL +/- DIMENSIONS IN FIELD.
- ALL EXTERIOR WALLS SHALL BE #6 UNLESS NOTED OTHERWISE.

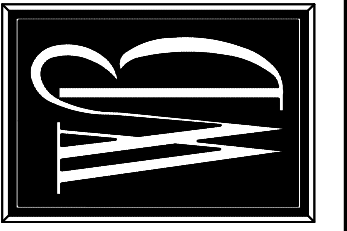
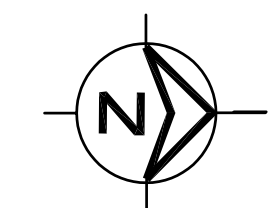


**ELECTRICAL SYMBOLS**

- EXHAUST FAN VENTED TO OUTSIDE
- SMOKE DETECTOR
- CARBON MONOXIDE/SMOKE DETECTOR

**UPPER FLOOR PLAN**

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



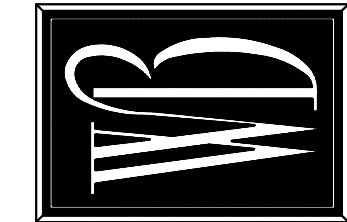
**CONTENT**  
UPPER FLOOR PLAN  
4215 MERGERWOOD DR.

**JOB NO.**  
9118  
**DATE**  
10/14/21  
**DRAWN BY**  
DS  
**ENGINEER**  
S.S.F.

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**SHEET**  
**7**  
OF 19

**RAINIER**



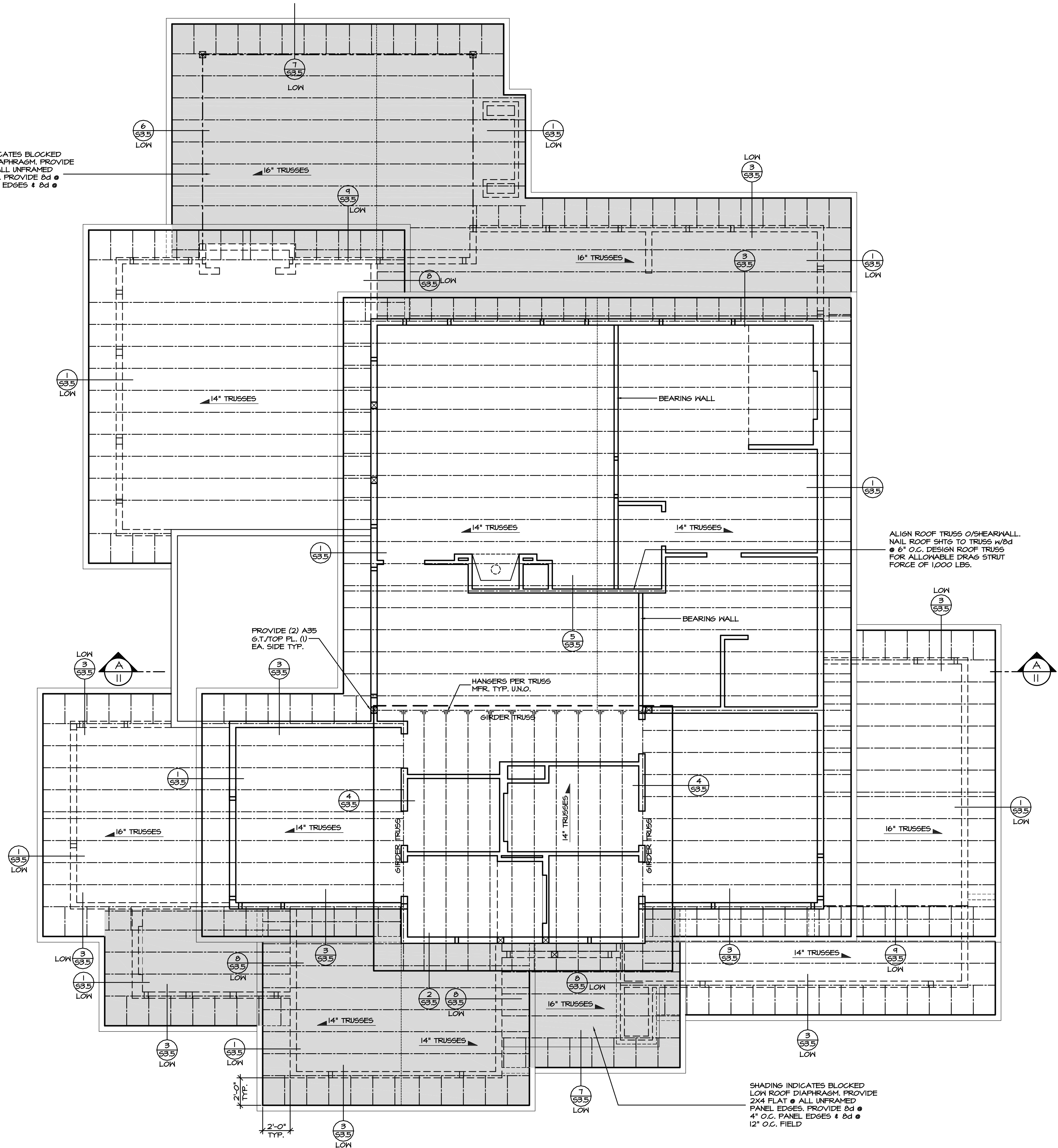
CONTRACT  
 ROOF FRAMING PLAN  
 4215 MERCERWOOD DR.

JOB NO.  
 9118  
 DATE  
 10/14/21  
 DRAWN BY  
 DS  
 ENGINEER  
 S.S.F.

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SHEET  
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SHADING INDICATES BLOCKED  
 LOW ROOF DIAPHRAGM. PROVIDE  
 2X4 FLAT @ ALL UNFRAMED  
 PANEL EDGES. PROVIDE 8d @  
 4" O.C. PANEL EDGES & 8d @  
 12" O.C. FIELD



ALIGN ROOF TRUSS O/SHEARWALL.  
 NAIL ROOF SITS TO TRUSS w/8d  
 @ 6" O.C. DESIGN ROOF TRUSS  
 FOR ALLOWABLE DRAG STRUT  
 FORCE OF 1,000 LBS.

PROVIDE (2) A35  
 6\"/>

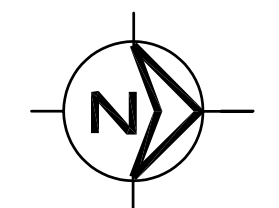
HANGERS PER TRUSS  
 MFR. TYP. U.N.O.

SHADING INDICATES BLOCKED  
 LOW ROOF DIAPHRAGM. PROVIDE  
 2X4 FLAT @ ALL UNFRAMED  
 PANEL EDGES. PROVIDE 8d @  
 4" O.C. PANEL EDGES & 8d @  
 12" O.C. FIELD

NOTES:

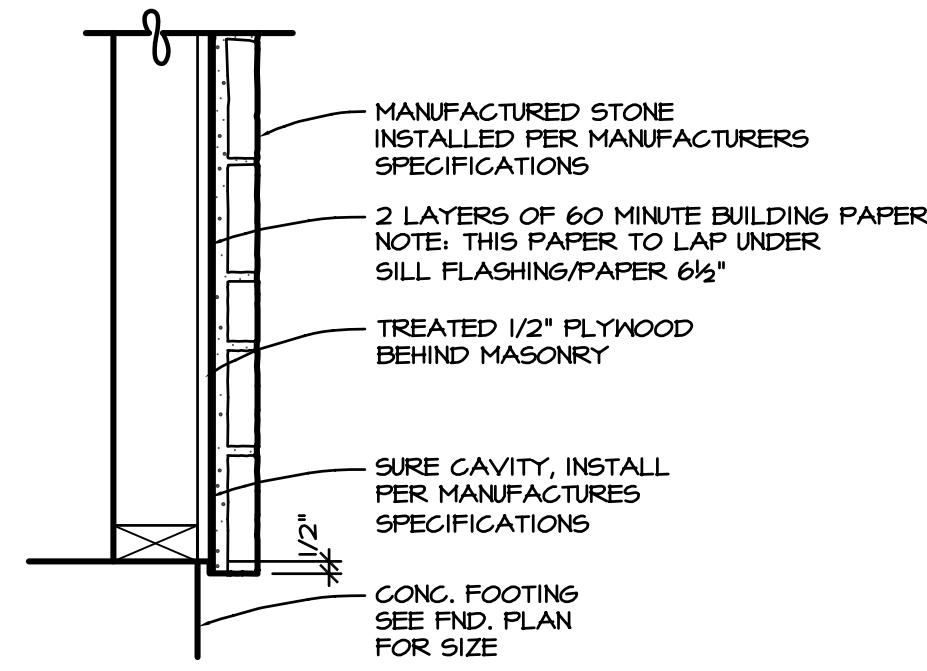
1. FOR STRUCTURAL GENERAL NOTES, DESIGN CRITERIA, ABBREVIATIONS AND LEGEND, REFERENCE TO STRUCTURAL DRAWINGS.
2. ALL FLAT TRUSSES TO BE @ 14' O.C. (U.N.O.).
3. TRUSSES TO CARRY MANUFACTURERS STAMP.
4. TRUSSES TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.
5. TRUSSES SHALL BE ACCOMPANIED BY DESIGN DRAWINGS FOR INSPECTOR'S APPROVAL.
6. ROOF SHEATHING TO BE 7/16" APA RATED SHEATHING WITH A MINIMUM 32/16 SPAN RATING. SHEATHING TO BE NAILED TO ROOF FRAMING WITH 0.131" DIA X 2-1/2" NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. FIELD (U.N.O.). LAY SHEATHING WITH FACE GRAIN (LONG DIRECTION) PERPENDICULAR TO SUPPORTS AND STAGGER PANEL END JOINTS. ALLOW 1/8" SPACE BETWEEN PANEL ENDS AND EDGES. PROVIDE PANEL SHEATHING CLIPS CENTERED BETWEEN FRAMING AT UNBLOCKED SHEATHING EDGES AS REQUIRED BY ROOFING WARRANTY.
7. ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING CRITERIA:
  - a. TRUSS LAYOUT SHOWN IS APPROXIMATE. TRUSS SUPPLIER IS RESPONSIBLE FOR FINAL TRUSS LAYOUT AND CONFIGURATION. NOTIFY ENGINEER OF REVISIONS TO PLAN.
  - b. FOR STANDARD DEAD AND LIVE LOADS AND SUBMITTAL INFORMATION, REFERENCE TO THE STRUCTURAL GENERAL NOTES.
  - c. ALL GIRDER TRUSSES SHALL BE SUPPORTED BY A MINIMUM OF (3) STUDS. TRUSS MANUFACTURER TO SUBMIT TO ENGINEER GIRDER TRUSS REACTIONS.
  - d. PROVIDE SIMPSON HI OR HURRICANE TIES AT ALL ROOF TRUSS AND ROOF JOISTS, TYP.
  - e. ALL MULTIPLE STUDS SUPPORTING GIRDER TRUSSES TO CONTINUE TO FOUNDATION.
8. TRUSS HANGERS SHALL BE SUPPLIED AND DESIGNED BY THE TRUSS SUPPLIER
9. CROSS HATCHING INDICATES OVERFRAMING.
10. ALL HARDWARE TO BE SIMPSON OR EQUAL.
11. ALL DIMENSIONS TO FACE OF FRAMING.
12. VERIFY ALL 1/4" DIMENSIONS IN FIELD.
13. CONT. 5" METAL GUTTER @ 8" FASCIA BOARD. GUTTERS TO DRAIN THROUGH DOWNSPOUTS DIRECTLY TO STORM SYSTEM. PER 1011 UPC.
14. 80-MIL TPO MEMBRANE TURNED DOWN OVER ROOF EDGE & NAILED OFF w/FLASHING STRIP HEAT WELDED TO TPO COATED METAL DRIP EDGE & ROOF MEMBRANE.
15. SLOPE ROOF w/TAPERED POLYISOCYANURATE INSULATION MECHANICALLY FASTENED TO ROOF DECK @ MIN. 1/4" PER FOOT SLOPE.

ROOF FRAMING PLAN  
 SCALE: 1/4" = 1'-0"



RAINIER



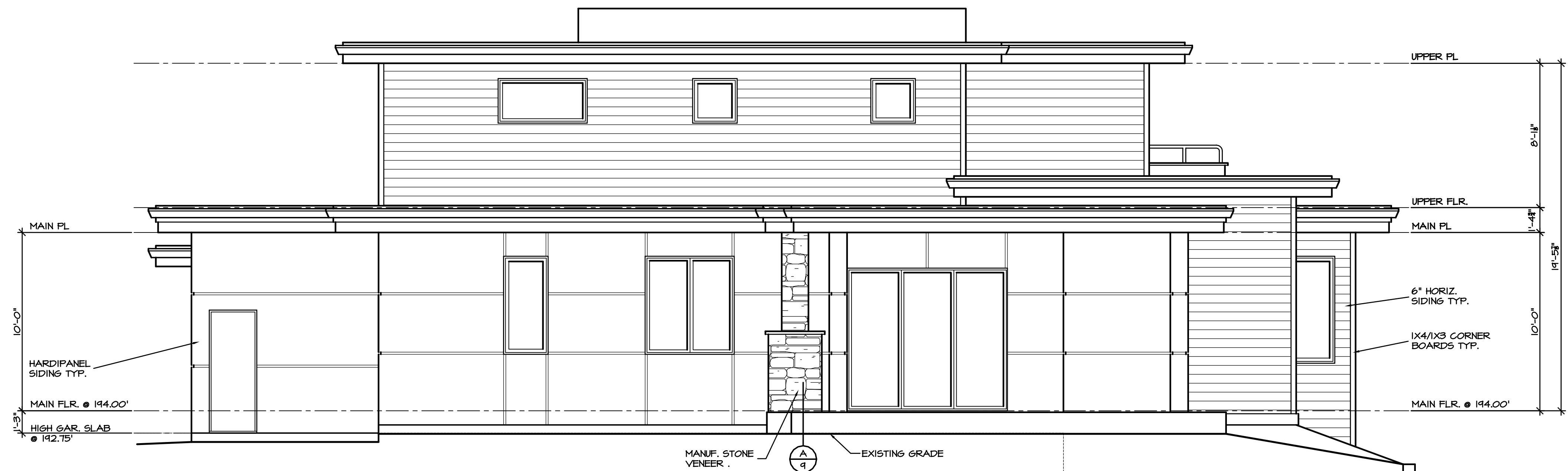


**FAUX STONE WAINSCOT DETAIL**  
 SCALE: 1-1/2" = 1'-0"



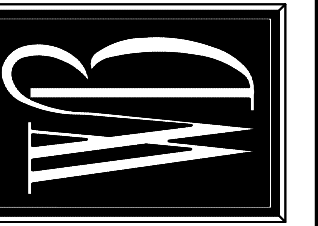
**EAST ELEVATION**

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



**WEST ELEVATION**

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



CONTENT  
 ELEVATIONS  
 4215 MERCERWOOD DR.

JOB NO.  
 9118

DATE  
 10/14/21

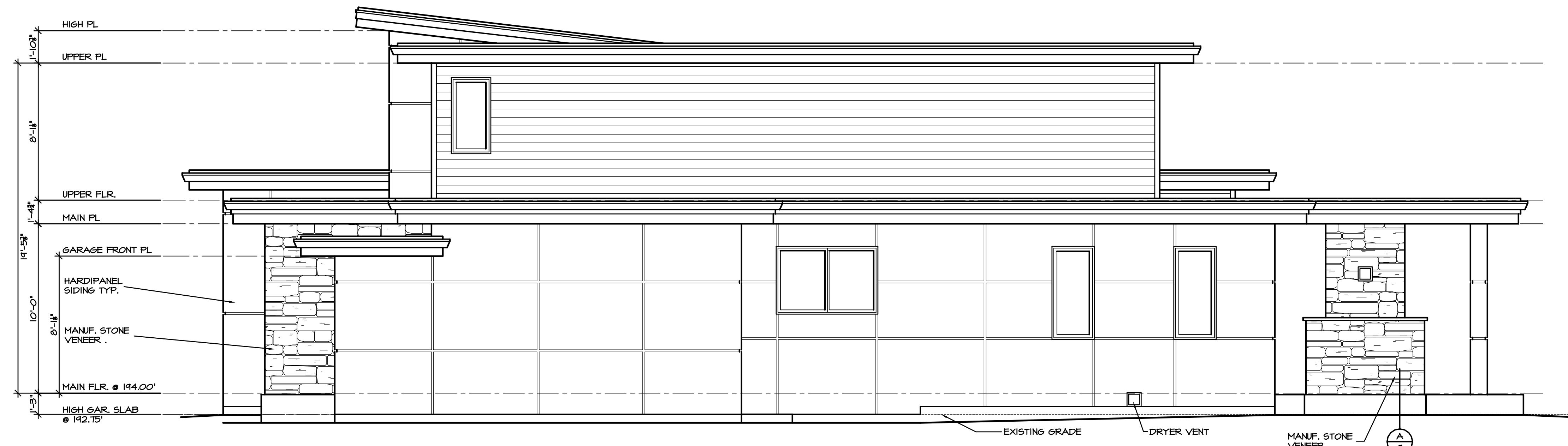
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| REVISION | DATE     |
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RAINIER

SHEET  
 9  
 OF 19



# NORTH ELEVATION

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



# SOUTH ELEVATION

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

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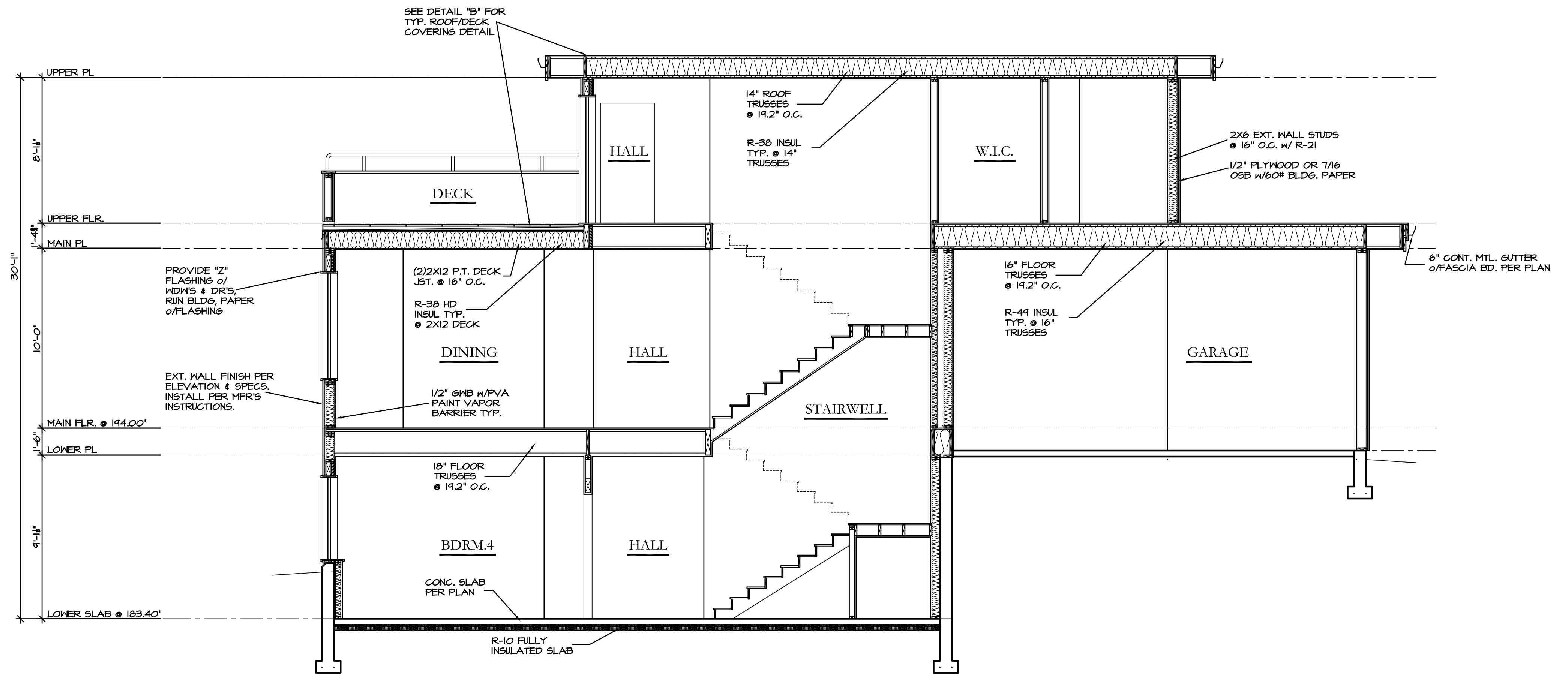
CONTENT  
 ELEVATIONS  
 4215 MERCERWOOD DR.

JOB NO.  
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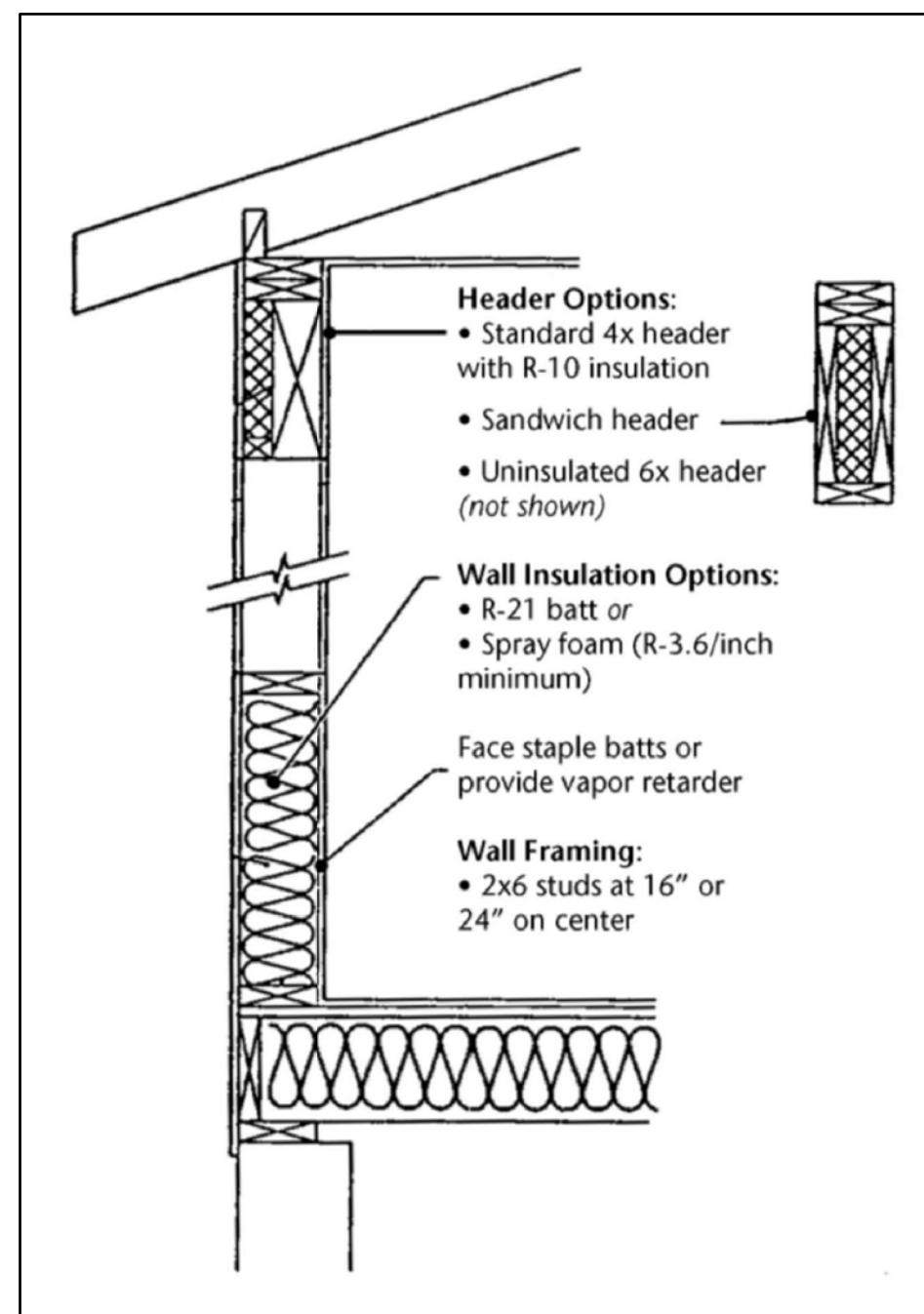
RAINIER

SHEET  
 10  
 OF 19



# BUILDING SECTION "A"

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



**A** 4X HDR w/R-10 INSUL.  
SCALE: 1/2" = 1'-0"

## ROOF CONSTRUCTION

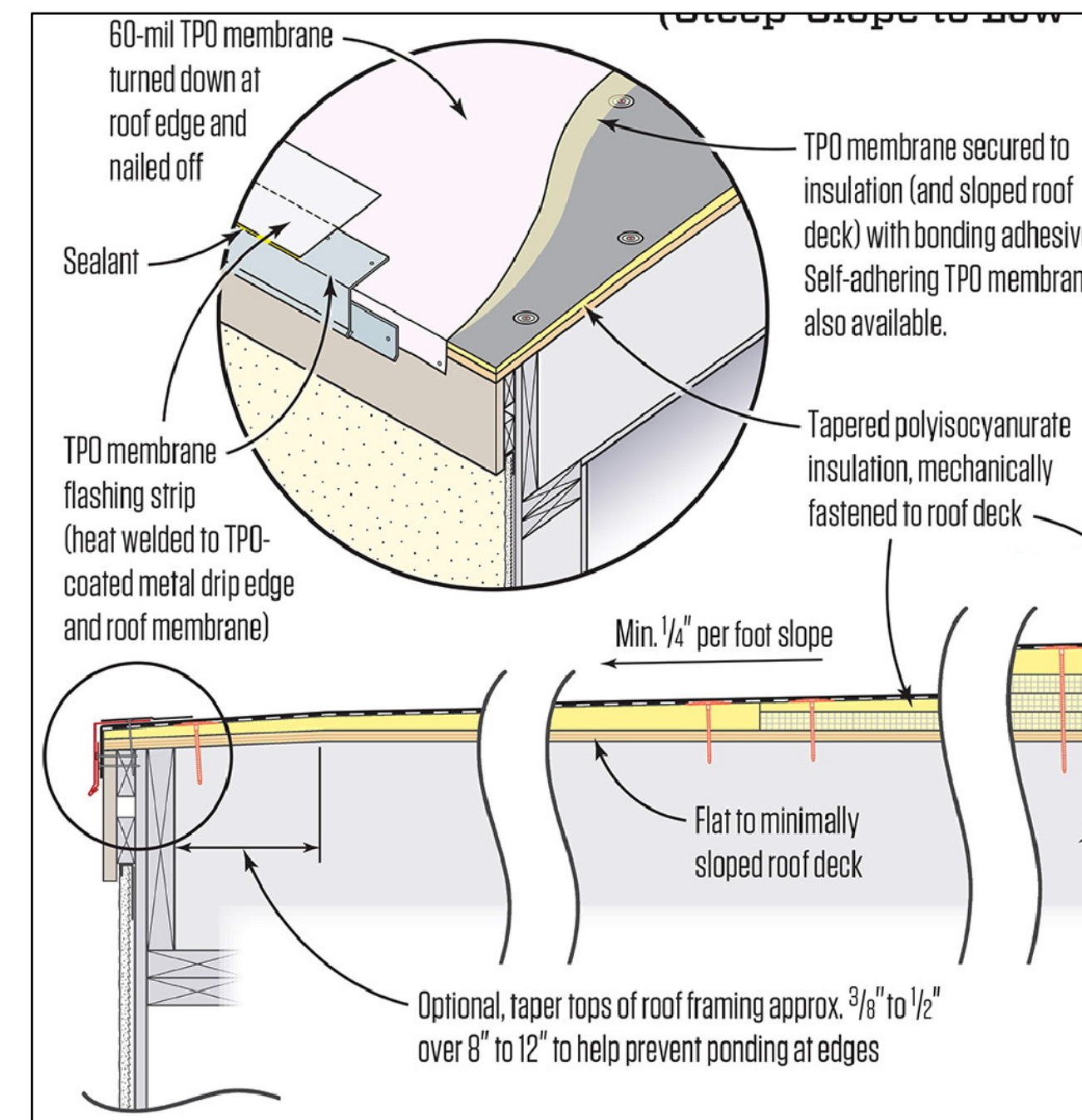
80 MIL TPO MEMBRANE  
TAPERED POLY INSULATION @ 1/4" PER FOOT TO DRAIN  
2-LAYERS 15# BUILDERS FELT  
3/4" PLYWOOD SHEATHING  
MANUFACTURED TRUSSES @ 19.2" O.C. (U.N.O.) SEE PLANS.  
1/2" GYPSUM WALL BOARD  
INSULATION PER ENERGY CODE (R-41/R-38 FLAT CEILING CLASS I OR II VAPOR RETARDER IS REQUIRED ON THE WARM SIDE OF ALL ROOF/CEILING ASSEMBLIES AND EXTERIOR WALLS. PVA PAINT VAPOR BARRIER PROPOSED MUST HAVE A RATING OF 1.0 PERM OR LESS.

## WALL CONSTRUCTION

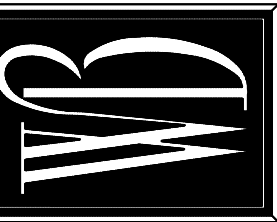
SIDING AS PER EXTERIOR ELEVATIONS  
60# BUILDING PAPER  
1/2" PLYWOOD OR 7/16 OSB  
2x6 EXTERIOR WALL STUDS @ 16" O.C. 2x4 INTERIOR WALL STUDS @ 16" O.C.  
INSULATION PER ENERGY CODE (R-21)  
1/2" GYPSUM WALL BOARD  
CLASS I OR II VAPOR RETARDER IS REQUIRED ON THE WARM SIDE OF ALL ROOF/CEILING ASSEMBLIES AND EXTERIOR WALLS. PVA PAINT VAPOR BARRIER PROPOSED MUST HAVE A RATING OF 1.0 PERM OR LESS.

## FLOOR CONSTRUCTION

FINISHED FLOOR PER SPECIFICATIONS.  
3/4" T&G PLYWOOD SUB FLOOR GLUED & NAILED  
FLOOR TRUSSES @ 19.2" O.C. (18" MAIN, 16" UPPER)  
(2)2X12 P.T. DECK JOIST  
BEAMS, HEADERS, POSTS PER PLANS  
INSULATION PER ENERGY CODE (R-38, R-38HD)  
4" CONC. SLAB ON GRADE FULLY INSULATED w/R-10 (BASEMENT)  
4" CONC. SLAB ON BELOW GRADE FULLY INSULATED w/R-12 CI (BASEMENT)



**B** TPO FLAT ROOF/DECK DETAIL  
SCALE: N.T.S.



CONTENT SECTION  
4215 MERCERWOOD DR.

JOB NO.  
9118  
DATE  
10/14/21  
DRAWN BY  
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ENGINEER  
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RAINIER

**R303.7 Interior Stairway Illumination**  
 Interior stairways shall be provided with an artificial light source to illuminate the landings and treads. The light source shall be capable of illuminating treads and landings to levels of not less than 1 foot-candle (11 lux) as measured at the center of treads and landings. There shall be a wall switch at each floor level to control the light source where the stairway has six or more risers.

### FAN SCHEDULE

Whole house ventilation system shall be provided by using a central whole house exhaust fan in accordance with M1505.4.1.1. Whole house fan shall operate continuously and have a noise rating of 1.0 sones or less. Continuous ventilation shall be determined using table M1505.4.3(1), and then increased by a factor of 1.5 in accordance with table M1505.4.3(2).

| LOCATION         | CFM     |
|------------------|---------|
| KITCHEN          | 100 CFM |
| LAUNDRY RM       | 50 CFM  |
| POWDER RM        | 50 CFM  |
| MASTER BATH      | 50 CFM  |
| BATH #2          | 50 CFM  |
| ADDITIONAL BATHS | 50 CFM  |

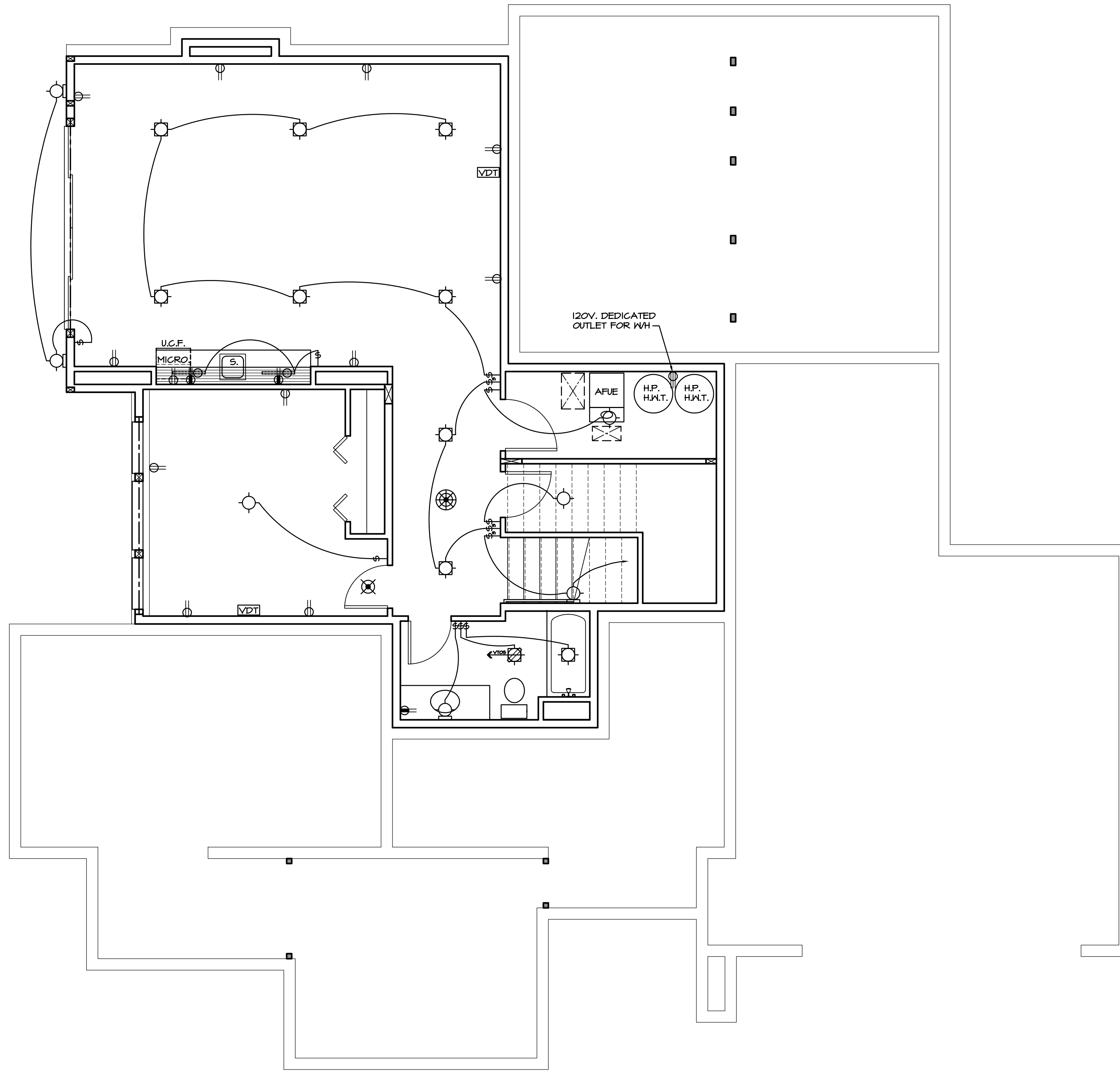
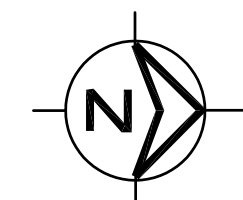
### ELECTRICAL SYMBOLS

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NOTE:  
 75% OF ALL LIGHT FIXTURES MUST BE HIGH EFFICIENCY.

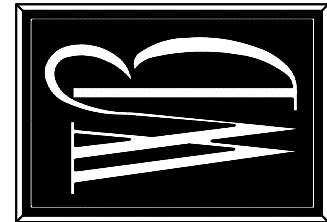
# BASEMENT ELECTRICAL

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



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CONTRACT  
 BASEMENT ELECT. PLAN  
 4215 MERGERWOOD DR.

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| JOB NO.  | 9118     |
| DATE     | 10/14/21 |
| DRAWN BY | DS       |
| ENGINEER | S.S.F.   |

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R303.7 Interior Stairway Illumination  
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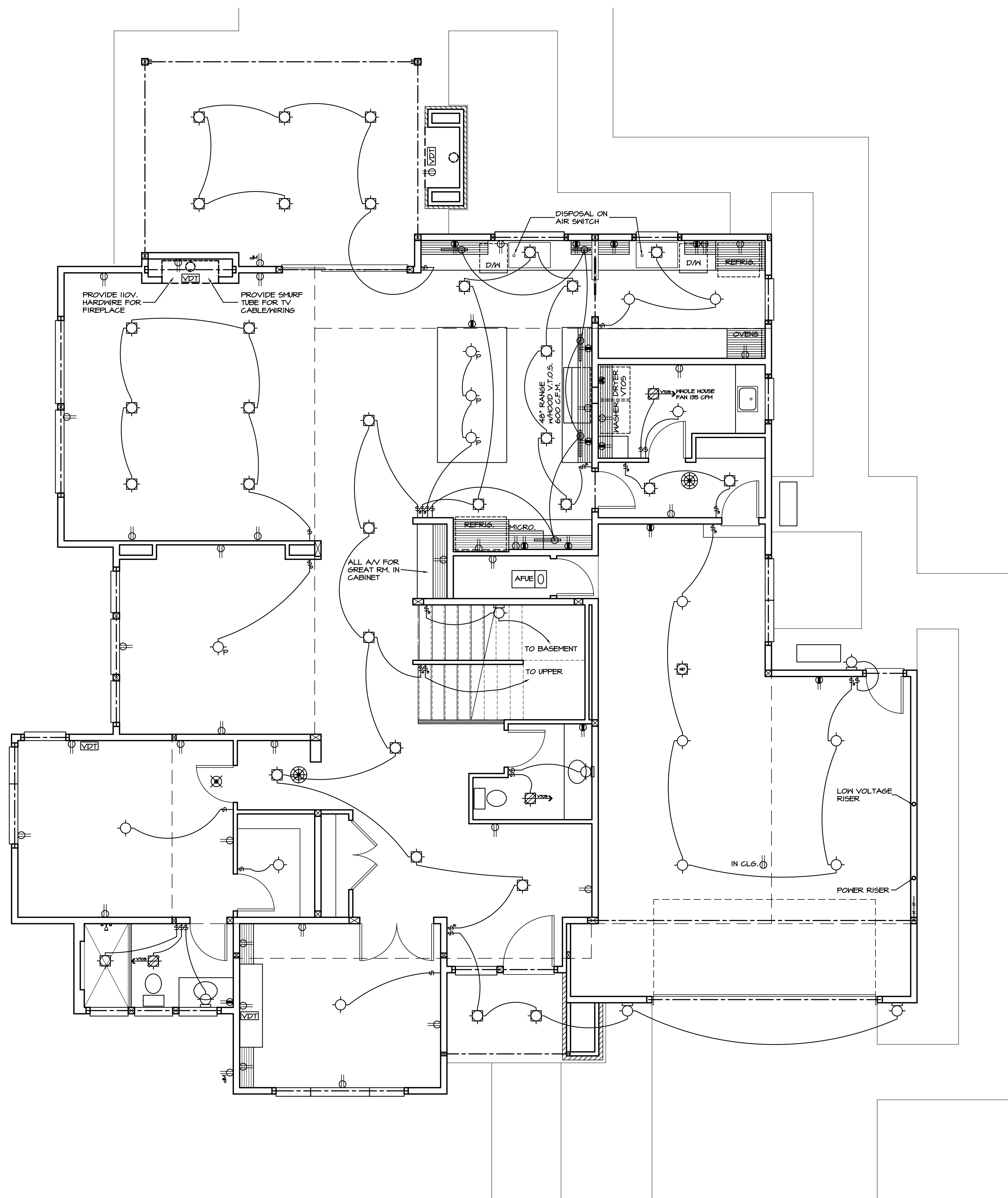
### FAN SCHEDULE

Whole house ventilation system shall be provided by using a central whole house exhaust fan in accordance with M1505.4.1.1. Whole house fan shall operate continuously and have a noise rating of 1.0 sones or less. Continuous ventilation shall be determined using table M1505.4.3(1), and then increased by a factor of 1.5 in accordance with table M1505.4.3(2).

| LOCATION         | CFM     |
|------------------|---------|
| KITCHEN          | 100 CFM |
| LAUNDRY RM       | 50 CFM  |
| POWDER RM        | 50 CFM  |
| MASTER BATH      | 50 CFM  |
| BATH #2          | 50 CFM  |
| ADDITIONAL BATHS | 50 CFM  |

### ELECTRICAL SYMBOLS

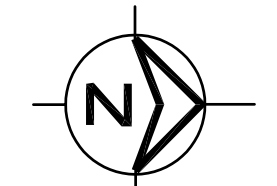
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NOTE:  
 75% OF ALL LIGHT FIXTURES MUST BE HIGH EFFICIENCY.

# MAIN ELECTRICAL

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



CONTENT  
 MAIN ELECT. PLAN  
 4215 MERGERWOOD DR.

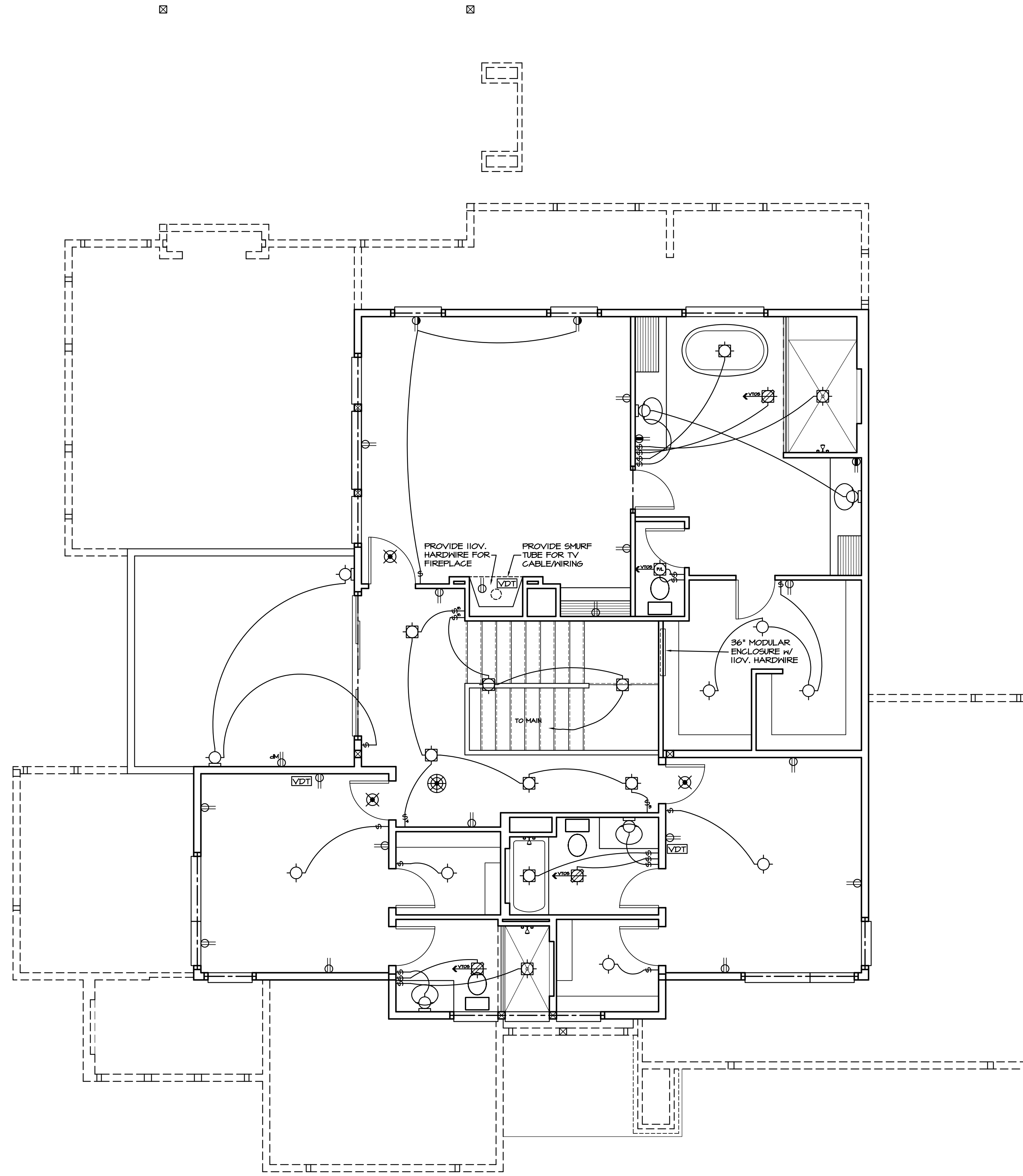
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RAINIER



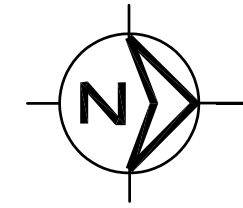
**ELECTRICAL SYMBOLS**

- |  |                                    |  |   |
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|  | 110 VOLT OUTLET                    |  | RECESSED CAN LIGHT FIXTURE                  |
|  | SWITCHED OUTLET                    |  | RECESSED CAN DIRECTIONAL RESEAL             |
|  | 6 FT. L. OUTLET RESEAL             |  | PENDANT LIGHT FIXTURE                       |
|  | HEATHER PROOF 110 VOLT OUTLET      |  | CEILING MOUNTED LIGHT FIXTURE               |
|  | DEDICATED OUTLET                   |  | HALL MOUNTED LIGHT FIXTURE                  |
|  | 220 VOLT OUTLET                    |  | UNDER COUNTER FLOURESCENT                   |
|  | SWITCH - 2 POLE                    |  | 50 CFM EXHAUST FAN VENTED TO OUTSIDE (N.O.) |
|  | SWITCH - 3 POLE                    |  | HEAT DETECTOR                               |
|  | SWITCH - 4 POLE                    |  | SMOKE DETECTOR                              |
|  | SWITCH - DIMMER                    |  | VIDEO/DATA TELECOM PORT                     |
|  | SMOKE DETECTOR WITH BATTERY BACKUP |  | CARBON MONOXIDE/CO/HEAT DETECTOR            |
|  | VDT                                |  | 50 CFM EXHAUST FAN LIGHT COMBO (N.O.)       |

NOTE:  
75% OF ALL LIGHT FIXTURES MUST BE HIGH EFFICIENCY.

**UPPER ELECTRICAL**

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



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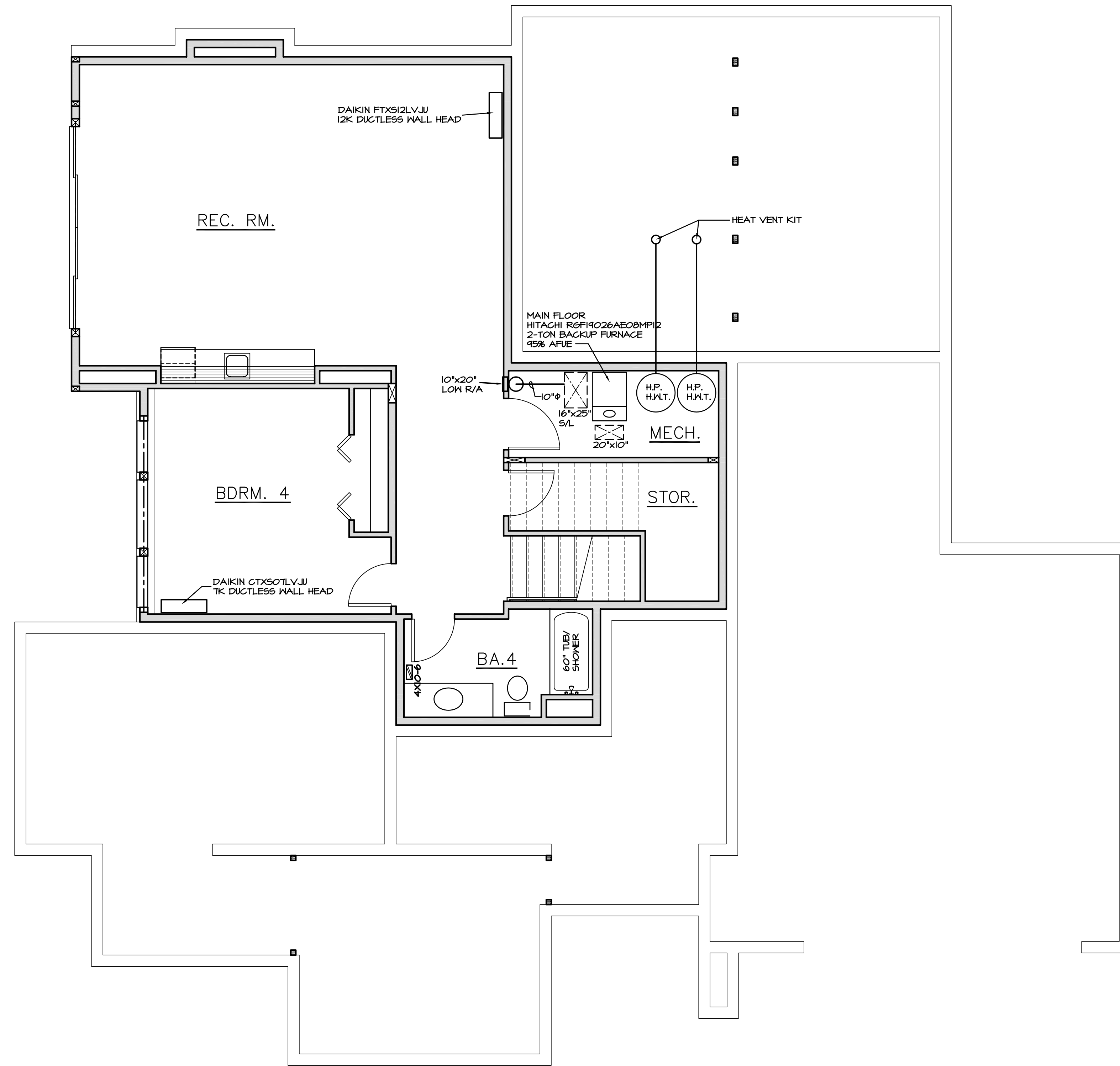


CONTENT  
 UPPER ELECT. PLAN  
 4215 MERCERWOOD DR.

JOB NO.  
9118  
 DATE  
10/14/21  
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 ENGINEER  
S.S.F.

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HEATING SYMBOLS

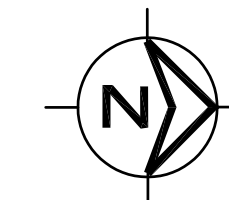
▬ 24"X REGISTER

▬ 4"X REGISTER

NOTE: REGISTERS TO BE  
PLACED 6" FROM  
EXT. WALLS, & 3"  
FROM INT. WALLS.

**BASEMENT MECH. PLAN**

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



RAINIER

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SHEET  
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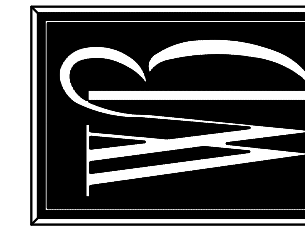
CONTENT  
BSMT FLOOR MECH  
4215 MERCERWOOD DR.

JOB NO.  
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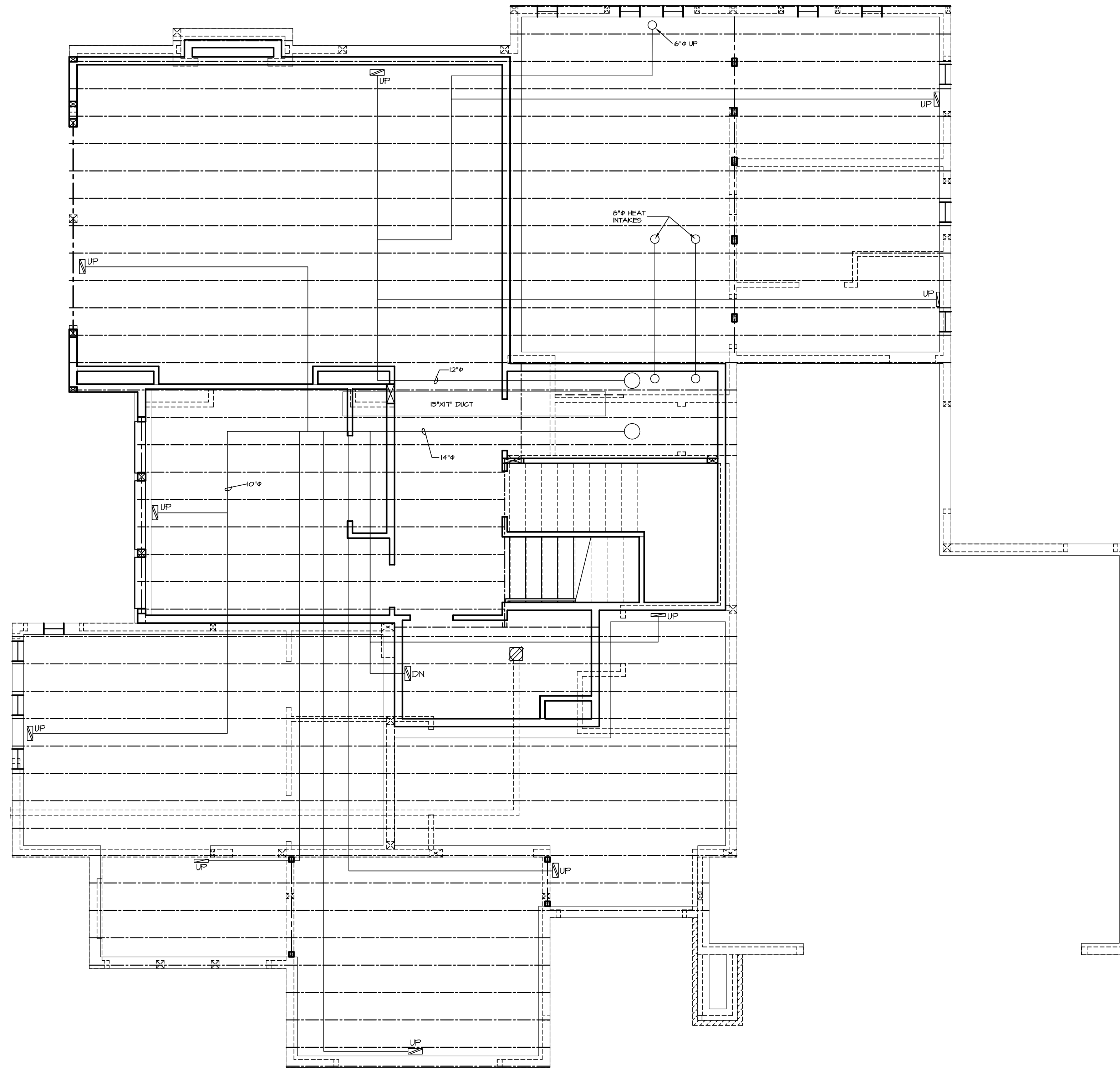
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DRAWN BY  
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ENGINEER  
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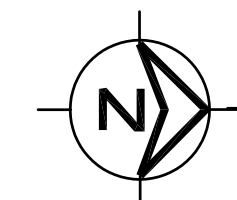


**HEATING SYMBOLS**

- ▭ 24\"/>

NOTE: REGISTERS TO BE PLACED 6\"/>

**MAIN FLR. FRMG MECH**  
 SCALE: 1/4\"/>



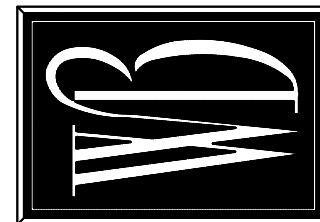
**RAINIER**

CONTENT  
 MAIN FLR. FRMG MECH  
 4215 MERGERWOOD DR.

JOB NO.  
 9118  
 DATE  
 10/5/21  
 DRAWN BY  
 DS  
 ENGINEER  
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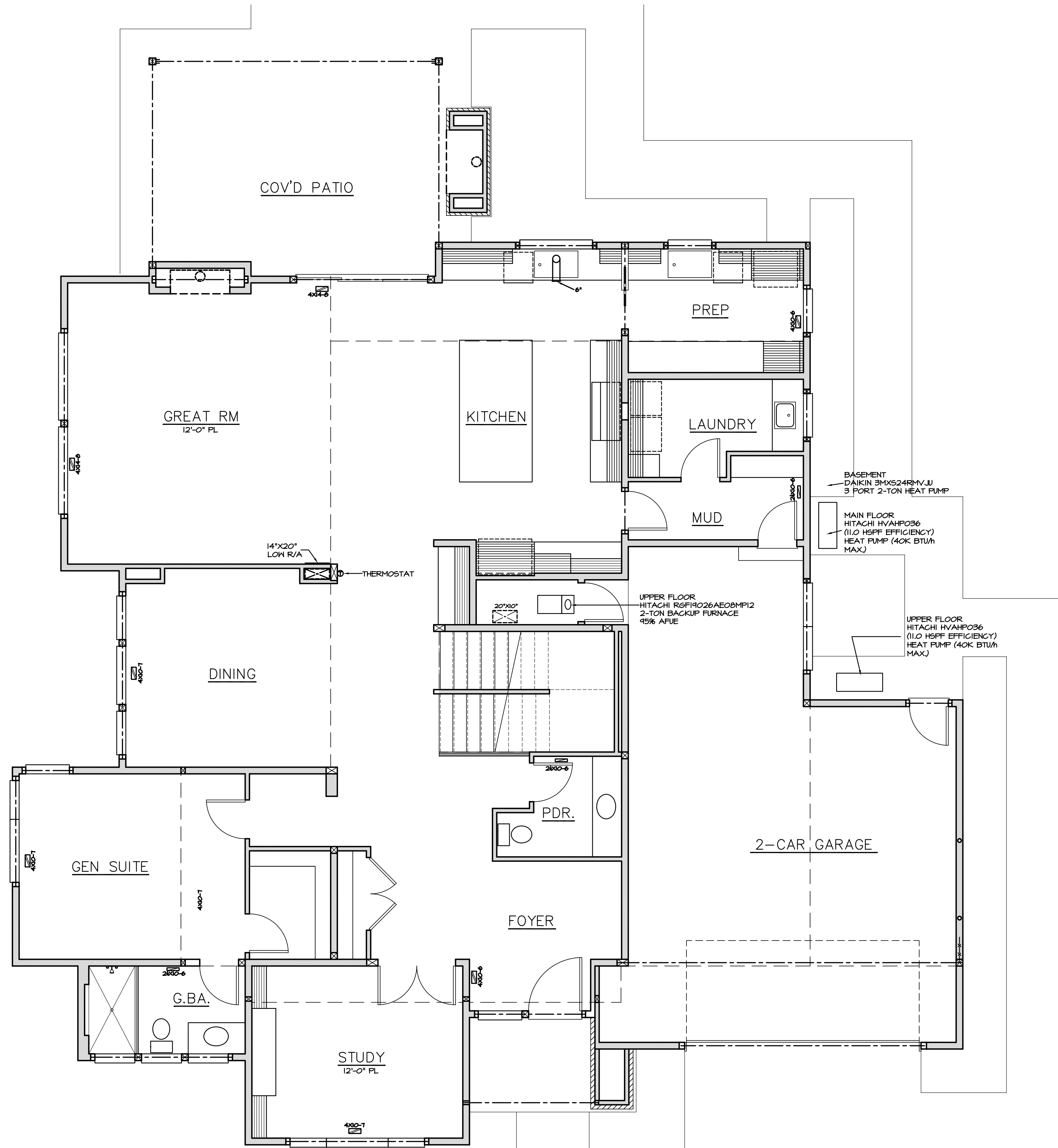
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SHEET  
**M2**  
 OF 18

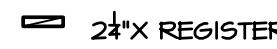



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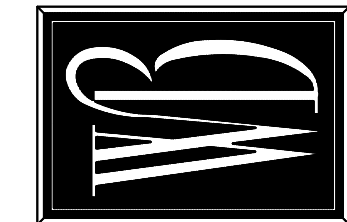
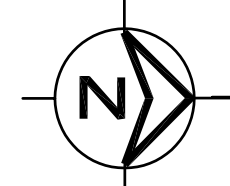
**HEATING SYMBOLS**

-  24" REGISTER
-  4" REGISTER

NOTE: REGISTERS TO BE PLACED 6" FROM EXT. WALLS, & 3" FROM INT. WALLS.

**MAIN FLOOR MECH**

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



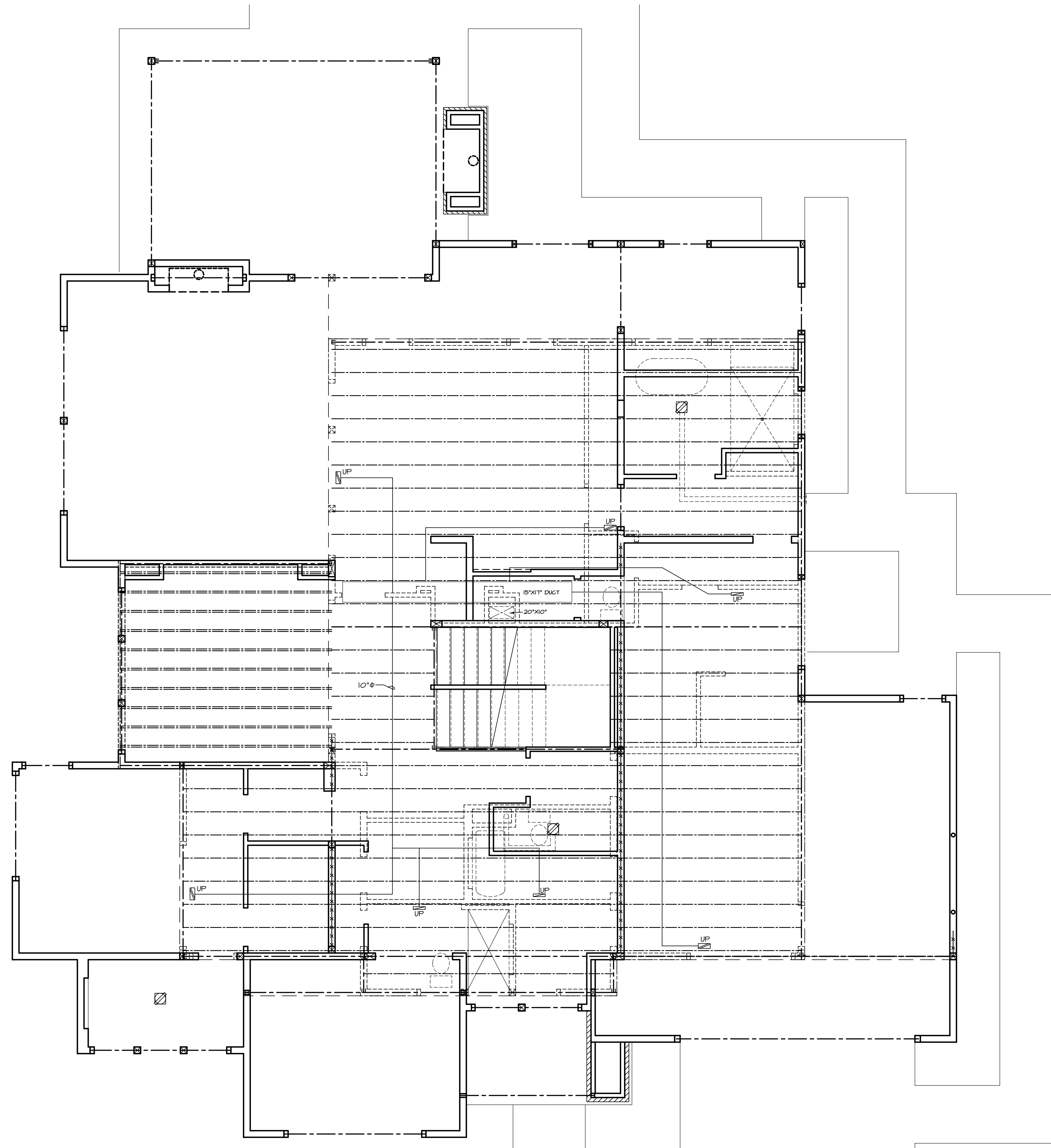
CONTENT  
 MAIN FLOOR MECH  
 4215 MERCERWOOD DR.

JOB NO.  
 9118  
 DATE  
 10/5/21  
 DRAWN BY  
 DS  
 ENGINEER  
 S.S.F.

| REVISION | DATE     |
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| 1        | xx/xx/xx |
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SHEET  
**M3**  
 OF 18

RAINIER



**HEATING SYMBOLS**

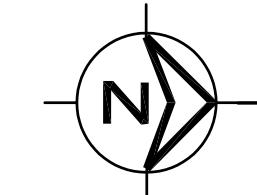
▬ 24"X REGISTER

▩ 4"X REGISTER

NOTE: REGISTERS TO BE PLACED 6" FROM EXT. WALLS, 1 3/4" FROM INT. WALLS.

**UPPER FLR. FRMG. MECH.**

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

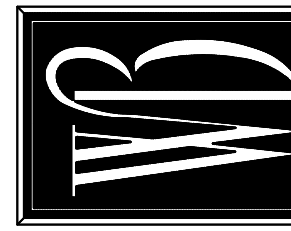


**RAINIER**

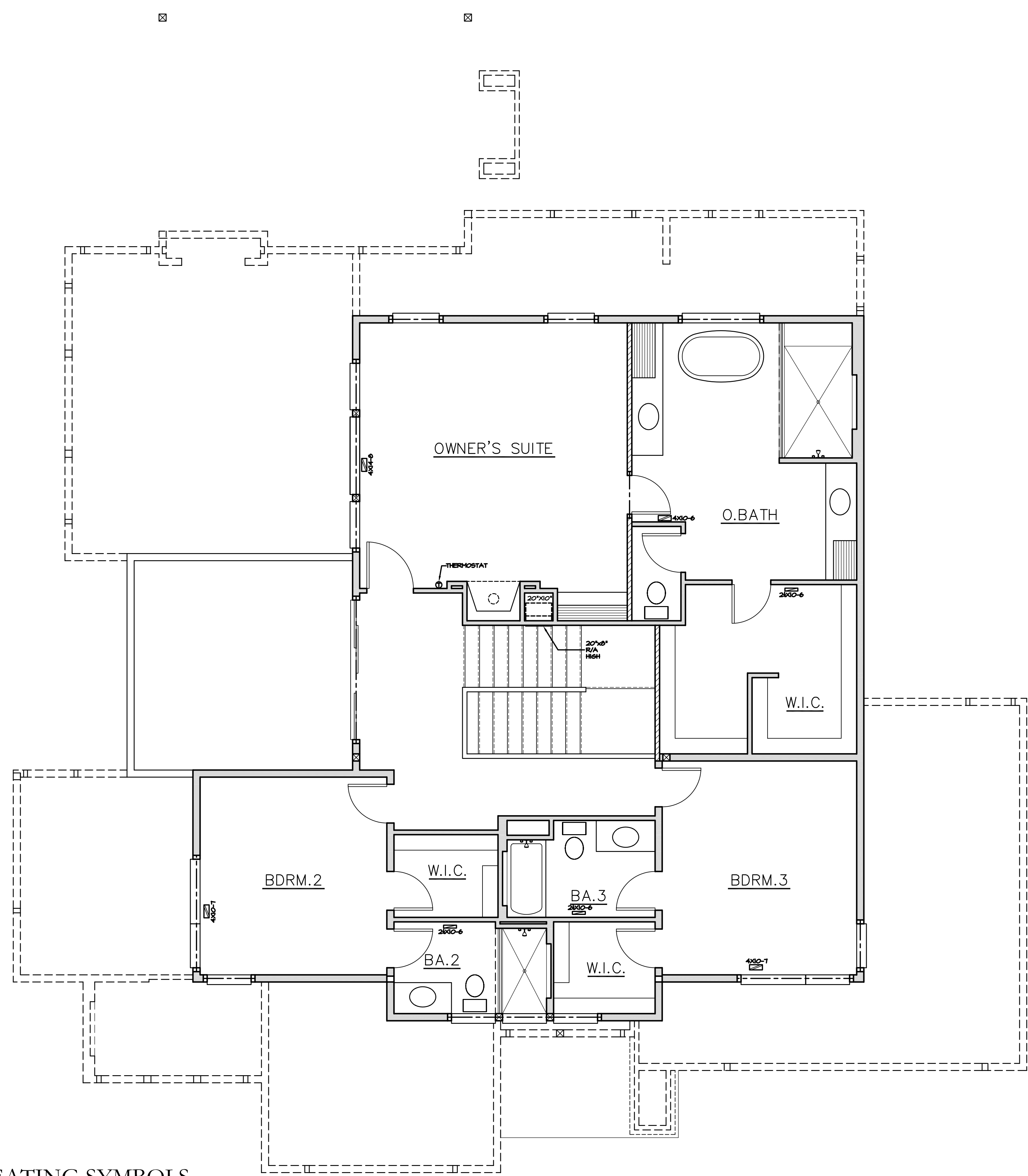
| REVISION | DATE     |
|----------|----------|
| 1        | xx/xx/xx |
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|          |          |
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|          |          |
|          |          |
|          |          |

SHEET  
**M4**  
OF 18

CONTENT  
UPPER FLR. FRMG MECH  
4215 MERCERWOOD DR.



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**HEATING SYMBOLS**

▭ 24"X REGISTER

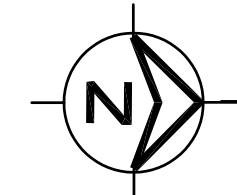
◻ 4"X REGISTER

NOTE: REGISTERS TO BE PLACED 6" FROM EXT. WALLS, 4" FROM INT. WALLS.

HEAT LAYOUT IS SHOWN TO ASSIST WITH FRAMING LAYOUT ONLY. THE FINAL DESIGN FOR HEATING OF THE HOME WILL BE DETERMINED BY THE HEAT CONTRACTORS.

**UPPER FLOOR MECH.**

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

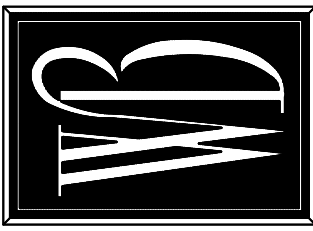


RAINIER

| REVISION | DATE     |
|----------|----------|
| 1        | xx/xx/xx |
|          |          |
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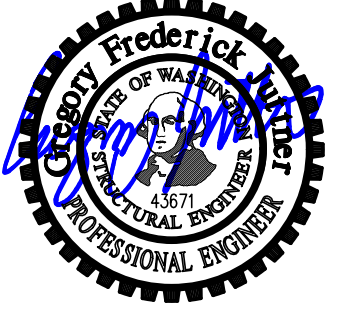
SHEET  
**M5**  
OF 18

CONTENT  
UPPER FLOOR MECH  
4215 MERCERWOOD DR.

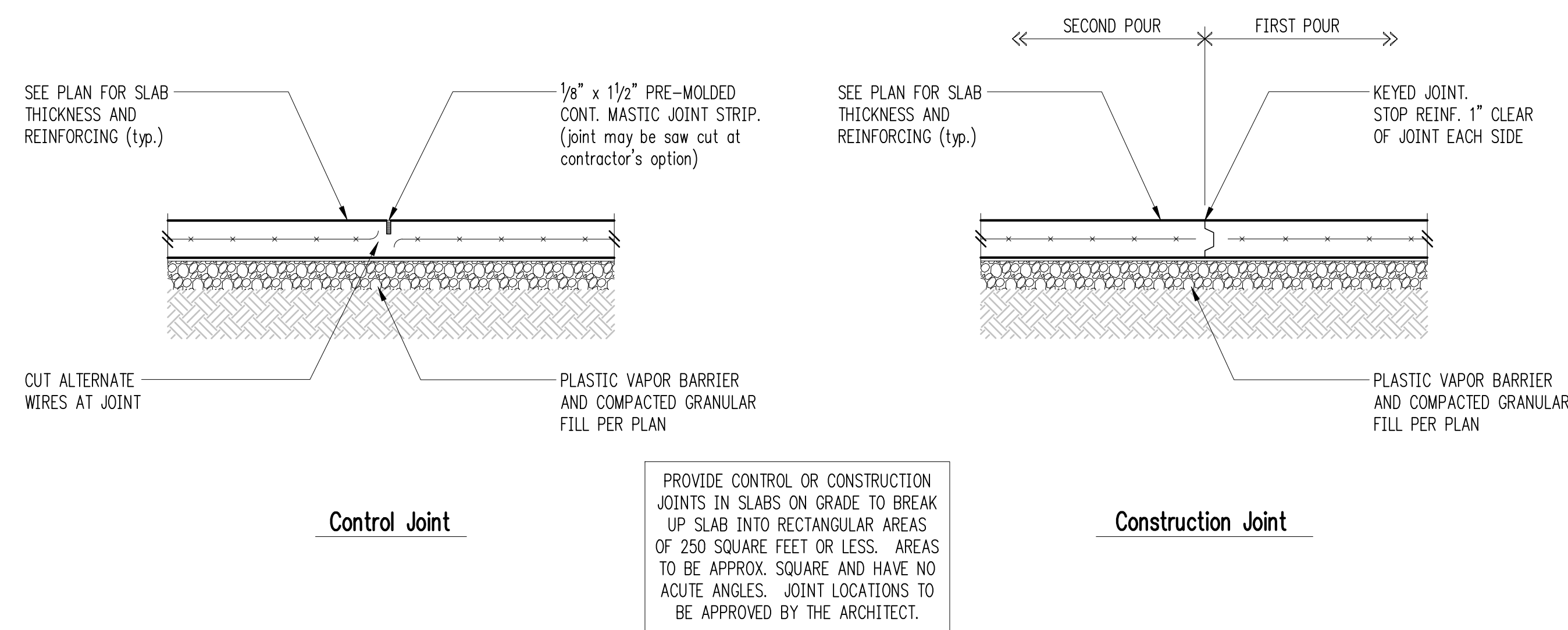


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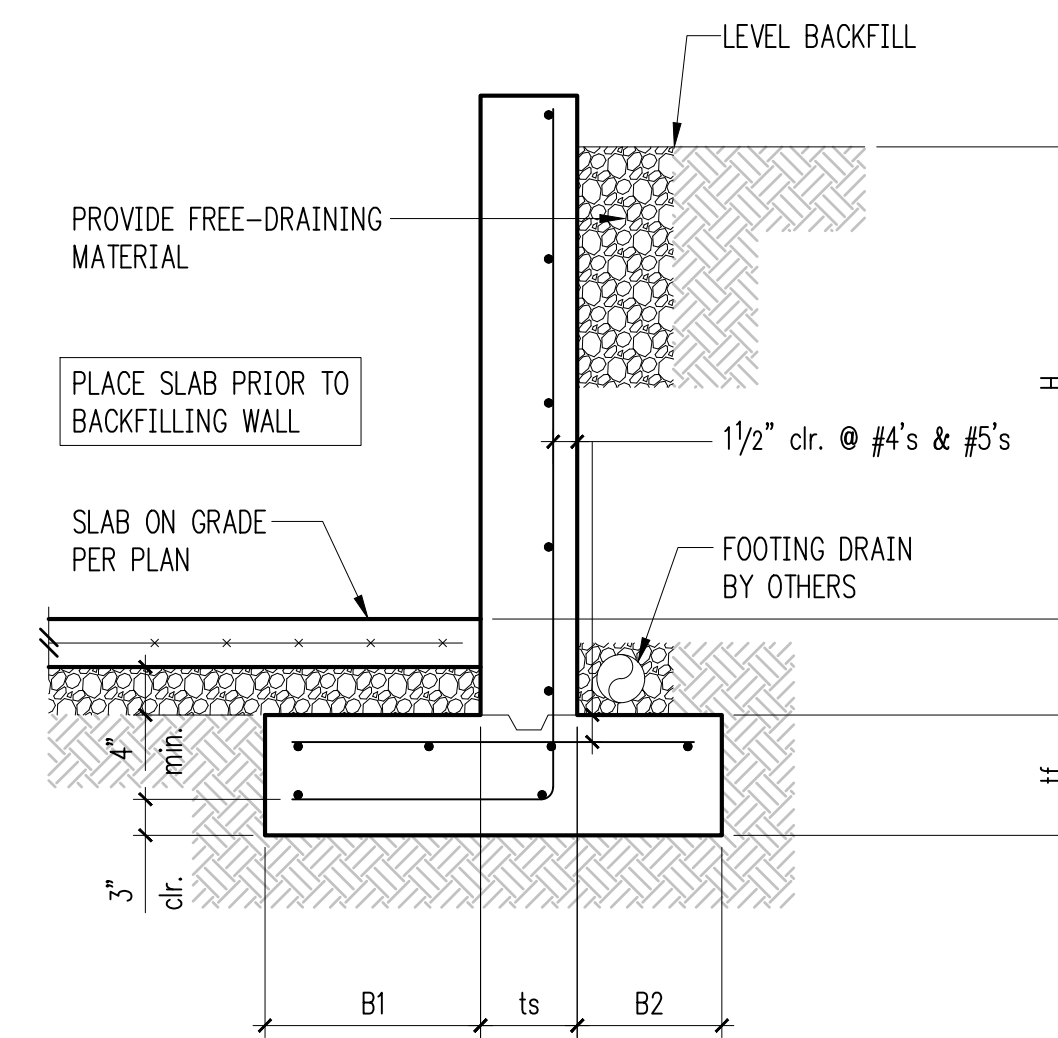
DRAWN: SRK/ABH  
DESIGN: JDT  
CHECKED: JDT  
APPROVED: GFJ



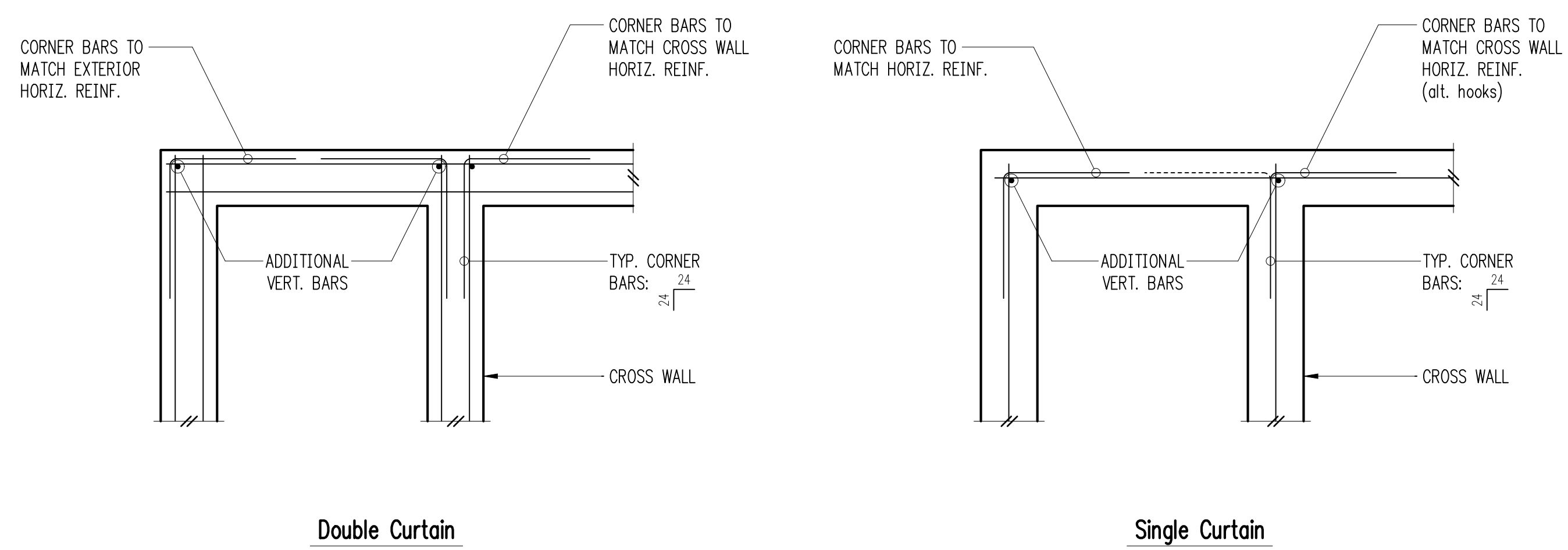
Typical Slab Joints (w.w.m.) 2

Retaining Wall Schedule W/ Slab

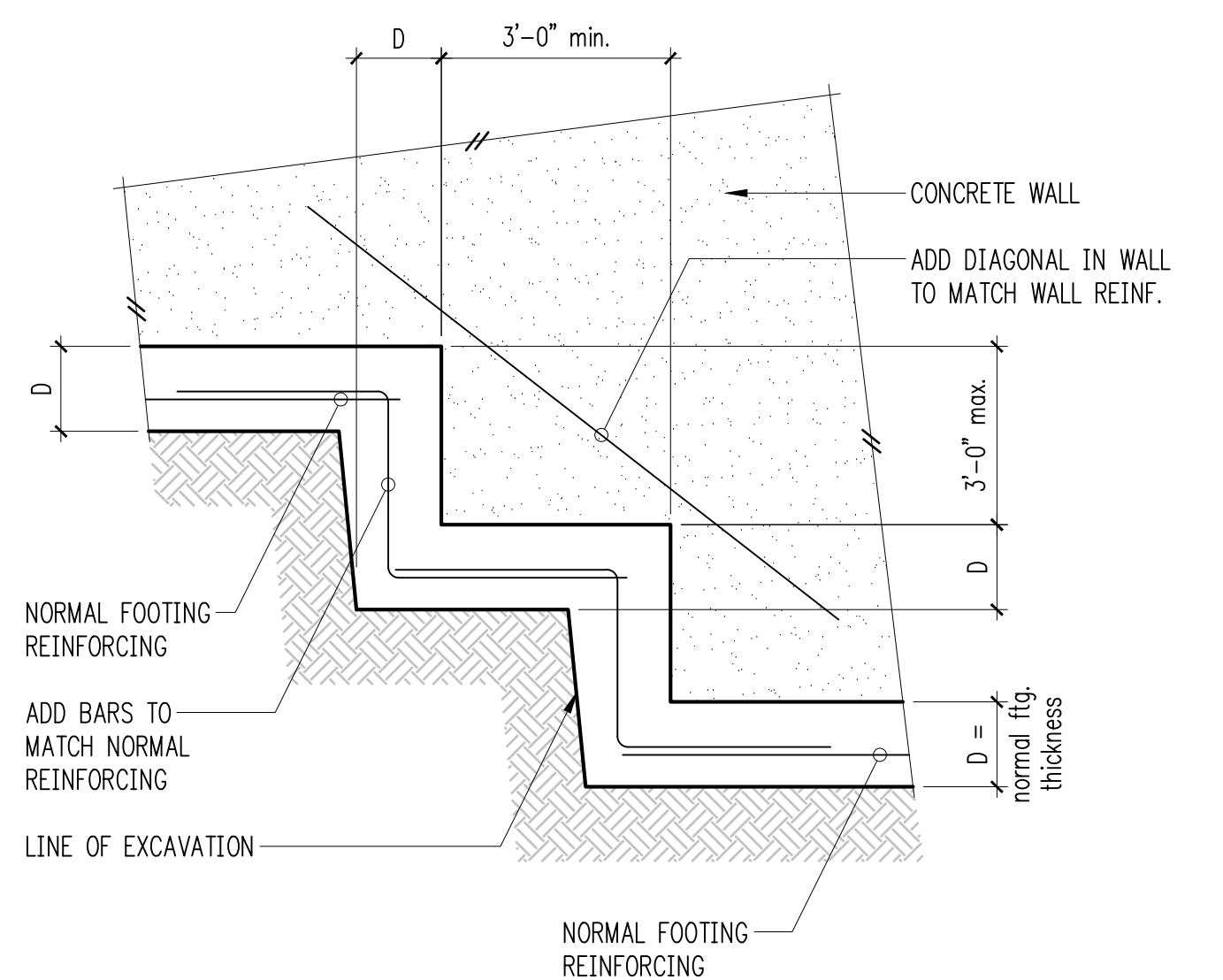
| H (ft.) | B1    | ts | B2    | tf  | Stem Reinforcing |            | Footing Reinforcing |         |
|---------|-------|----|-------|-----|------------------|------------|---------------------|---------|
|         |       |    |       |     | Vert.            | Horiz.     | Top                 | Longit. |
| 10'-0"  | 3'-9" | 8" | 1'-9" | 18" | #5 @ 6"oc        | #4 @ 12"oc | #5 @ 6"oc           | (8)#5   |



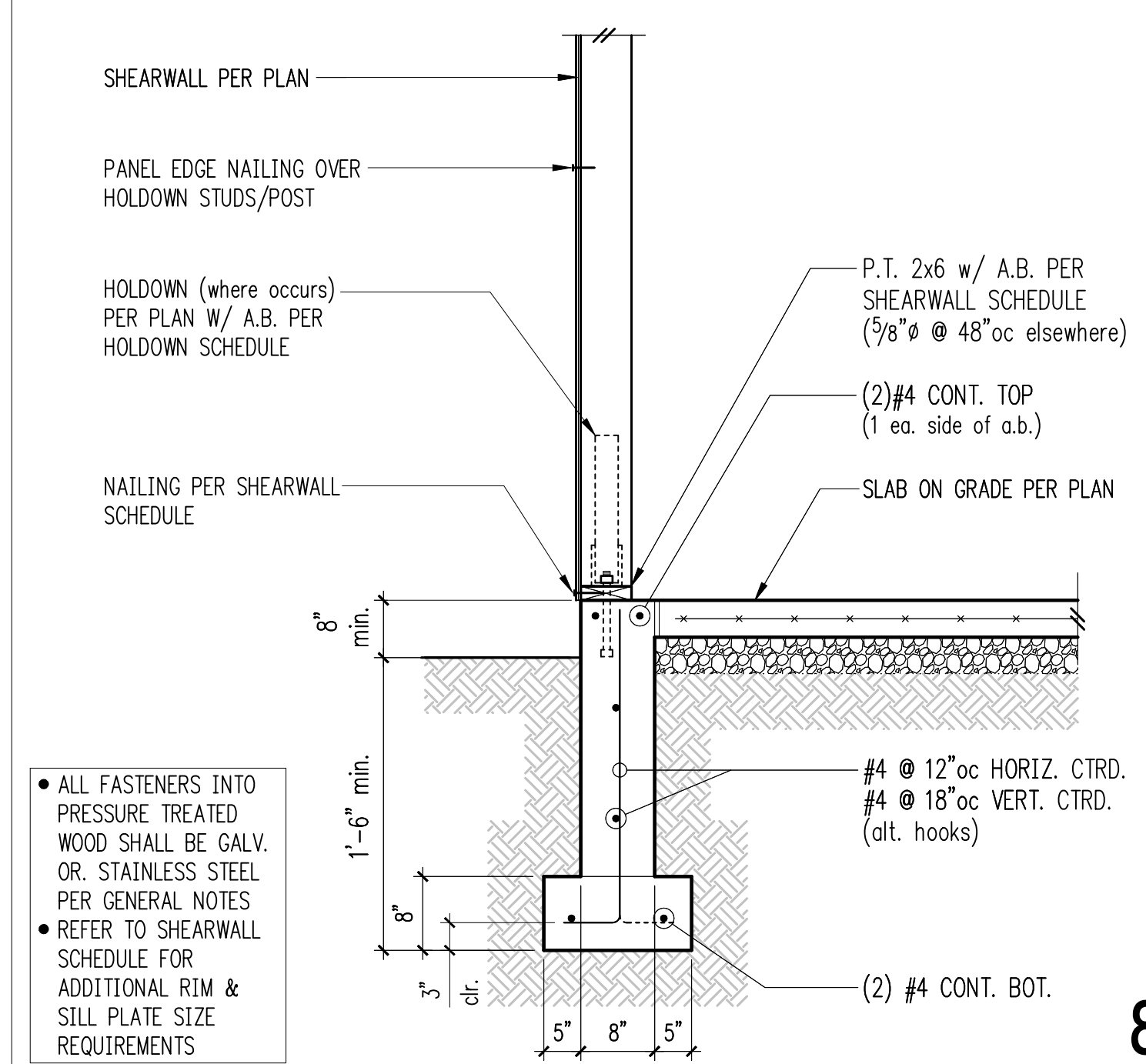
Retaining Wall Schedule W/ Slab 4



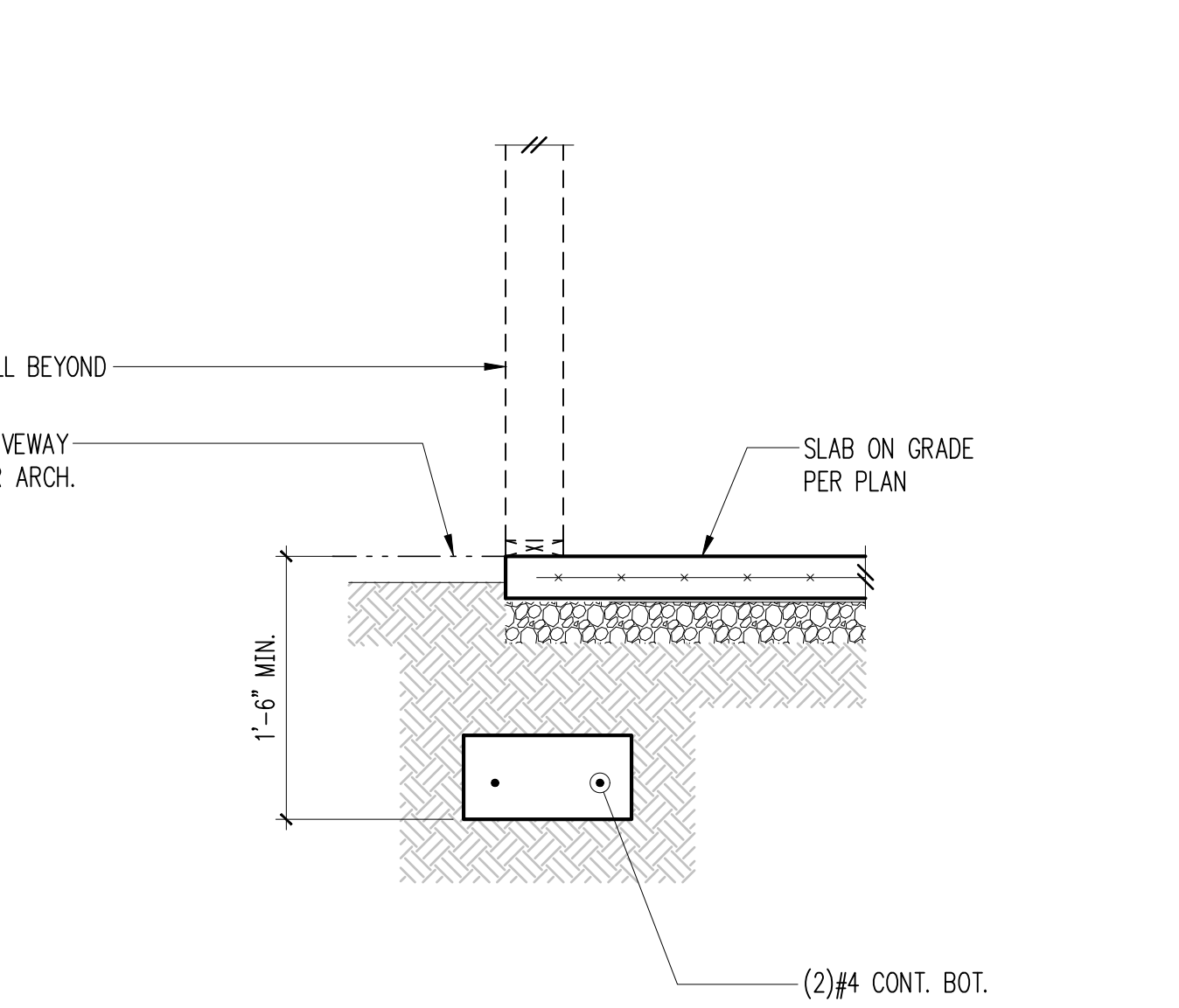
Typical Corner Bars at Concrete Walls and Footings 6



Typical Stepped Footing 7

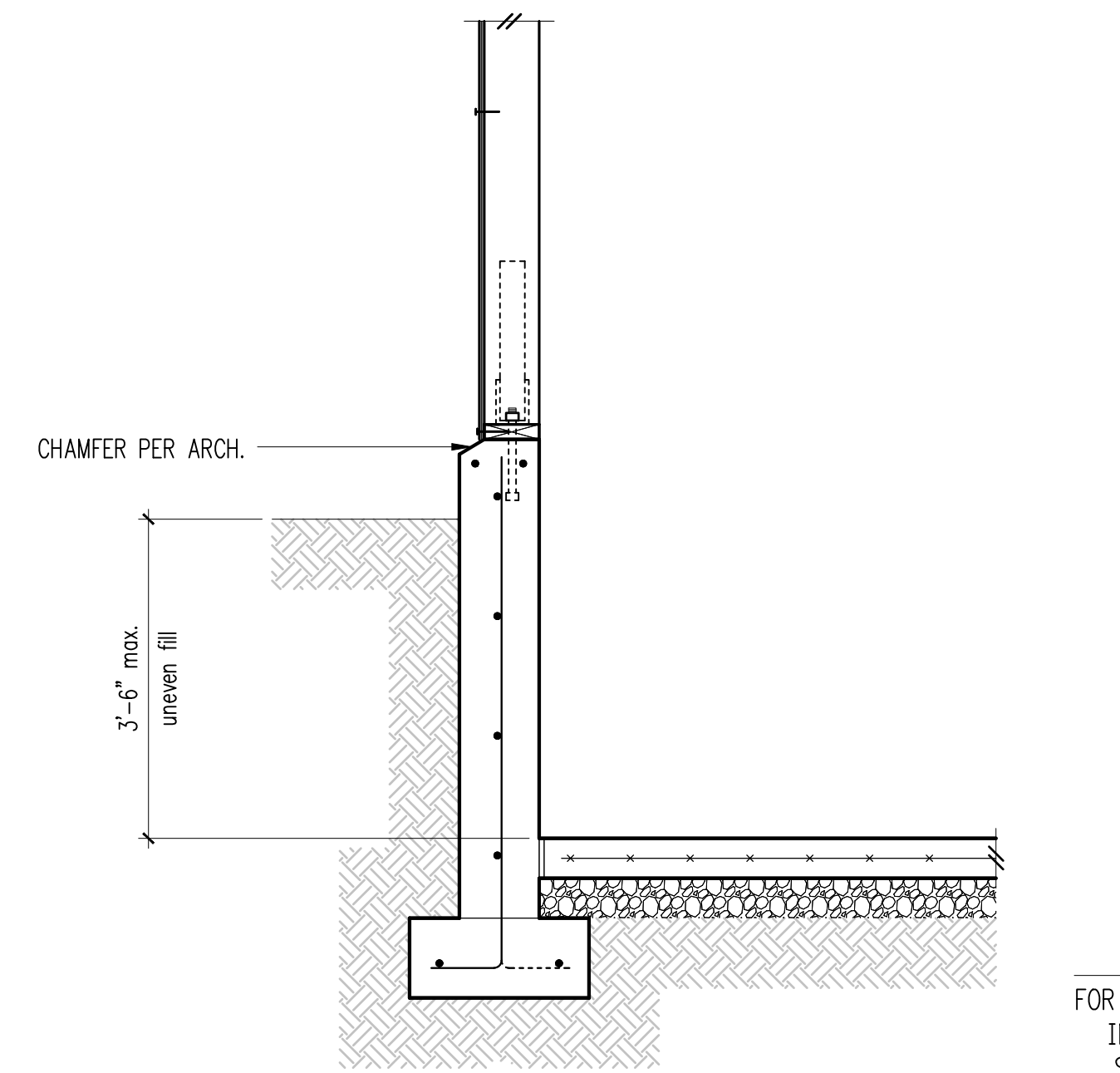


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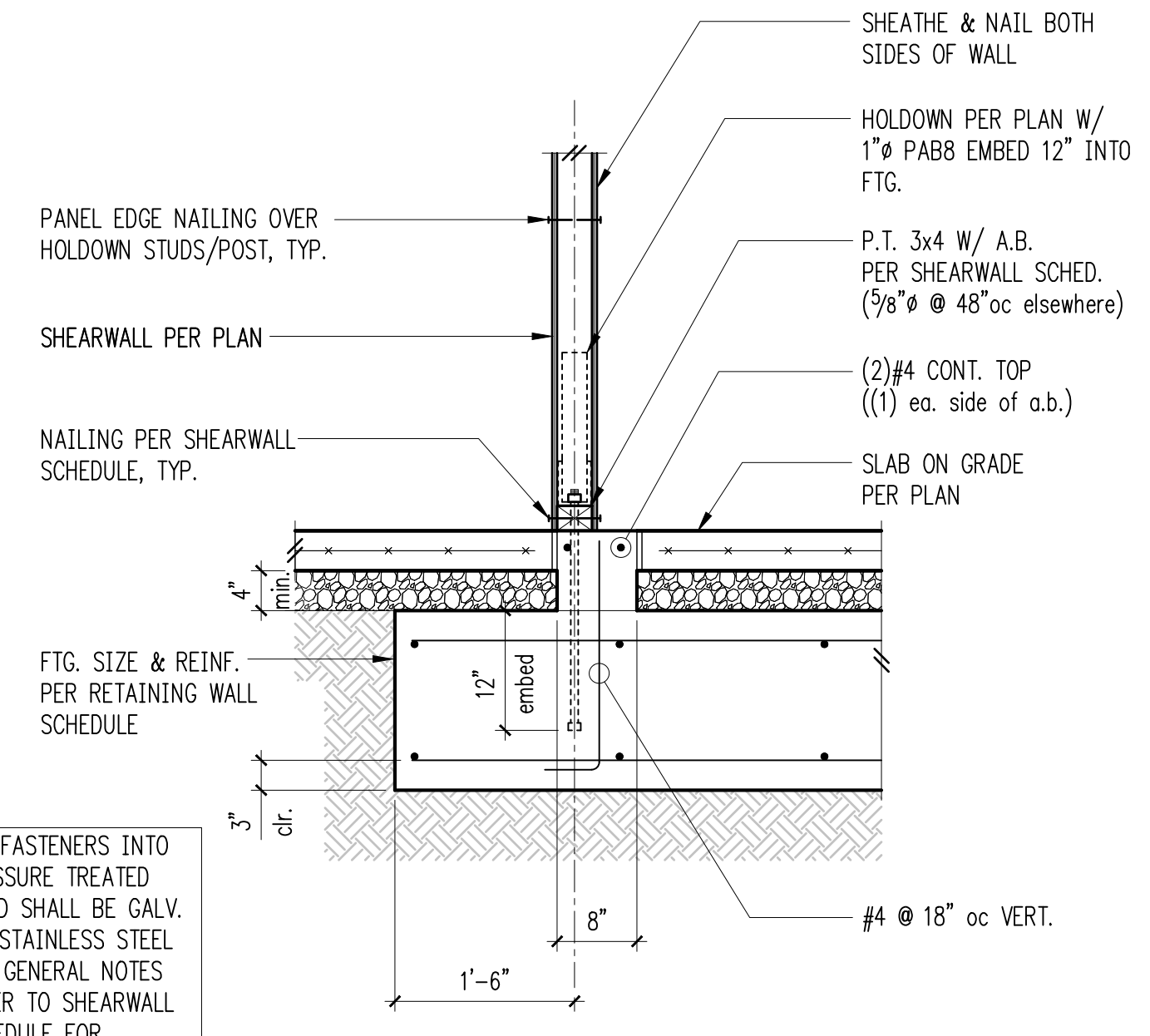
FOR CALLOUTS IN COMMON REFER 8/S3.1

9

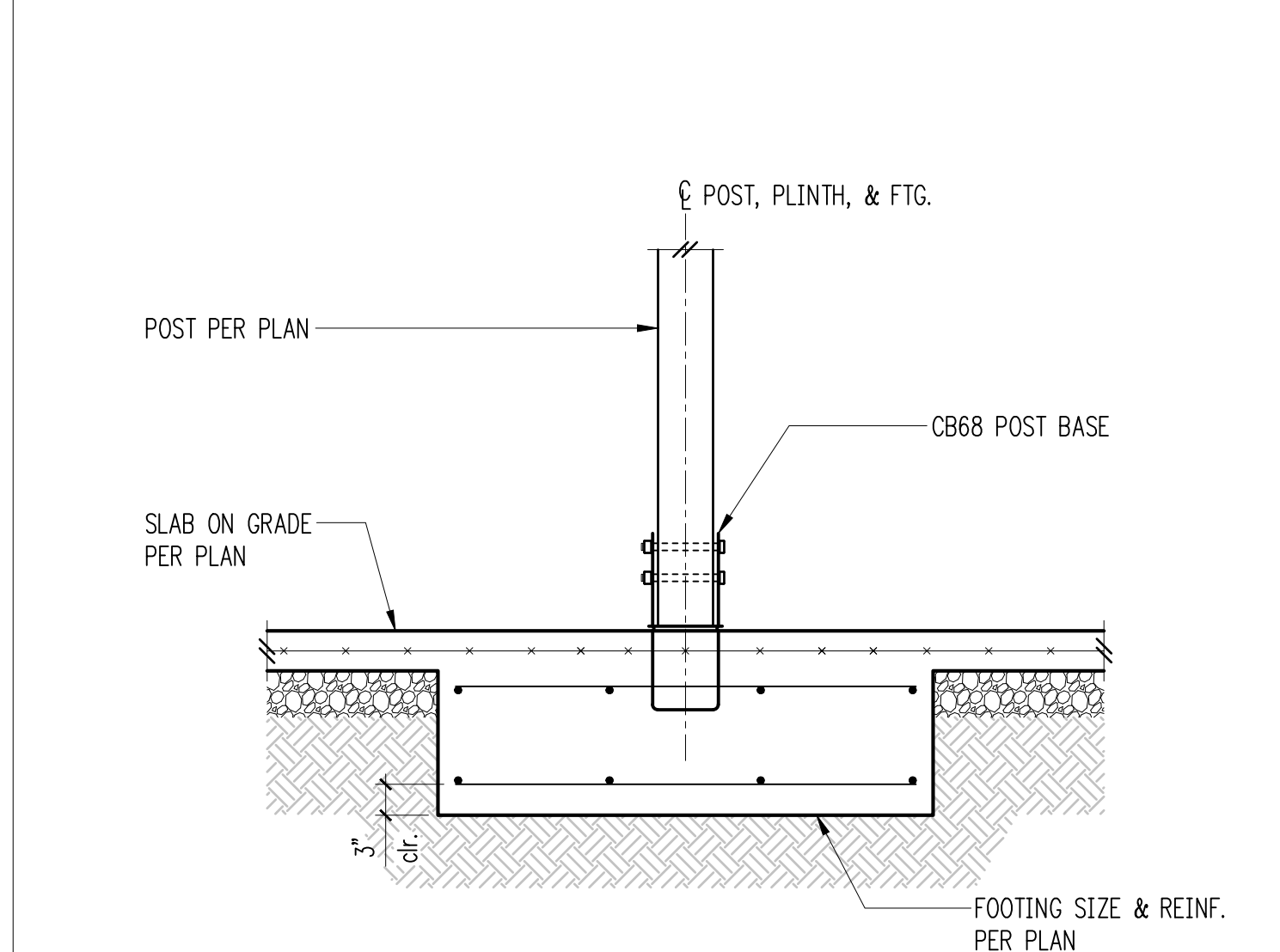


FOR CALLOUTS IN COMMON SEE 8/S3.1

10



11



12

REVISIONS:

JURISDICTIONAL APPROVAL STAMP:

PROJECT TITLE:

Rainier 9118

ARCHITECT:  
William E. Buchan Homes  
2630 116th Ave NE Suite 100  
Bellevue, WA 98004

ISSUE:

PERMIT SET

SHEET TITLE:

Concrete  
Details

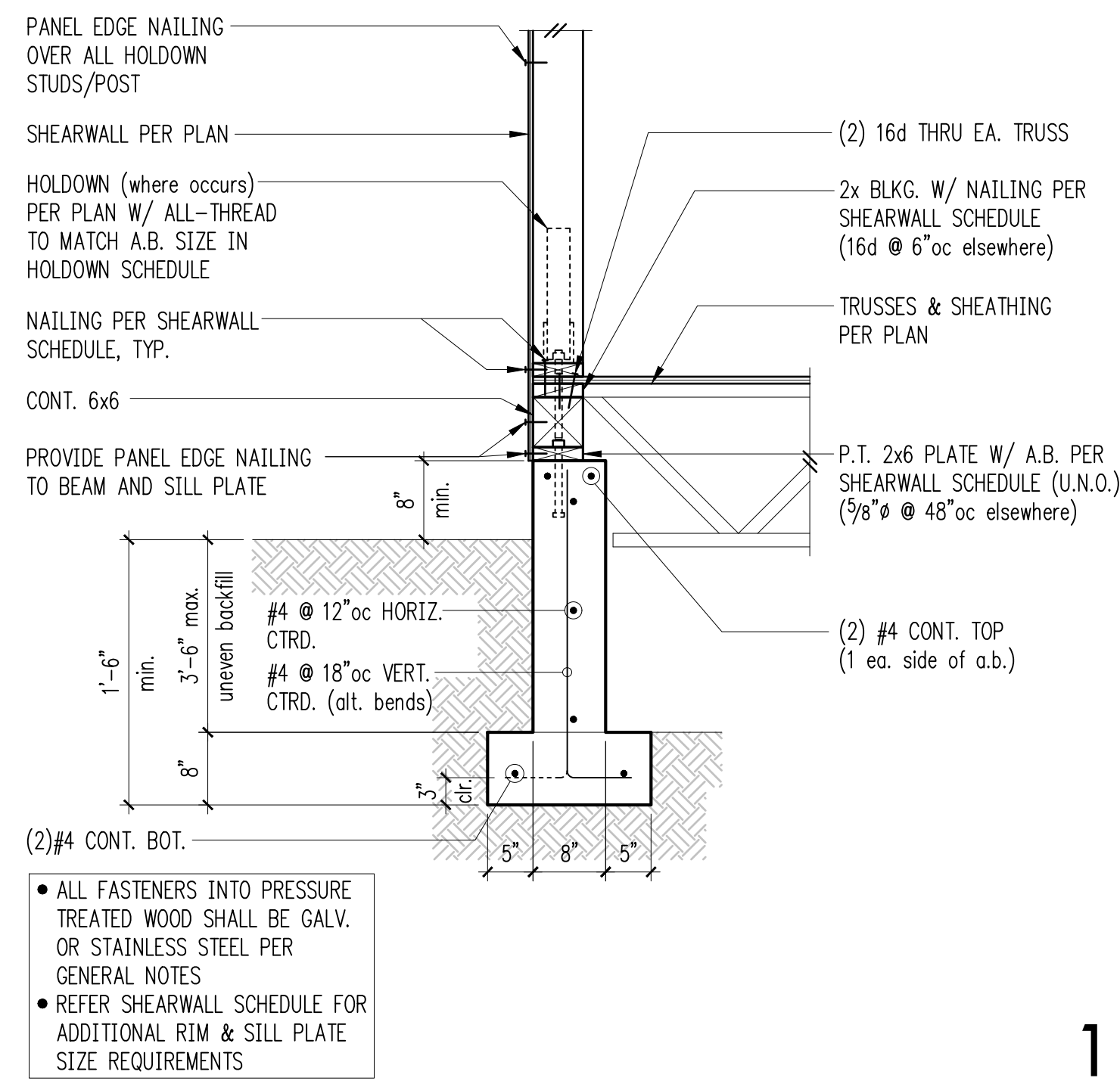
SCALE: 3/4" = 1'-0" U.N.O.

DATE: September 10, 2021

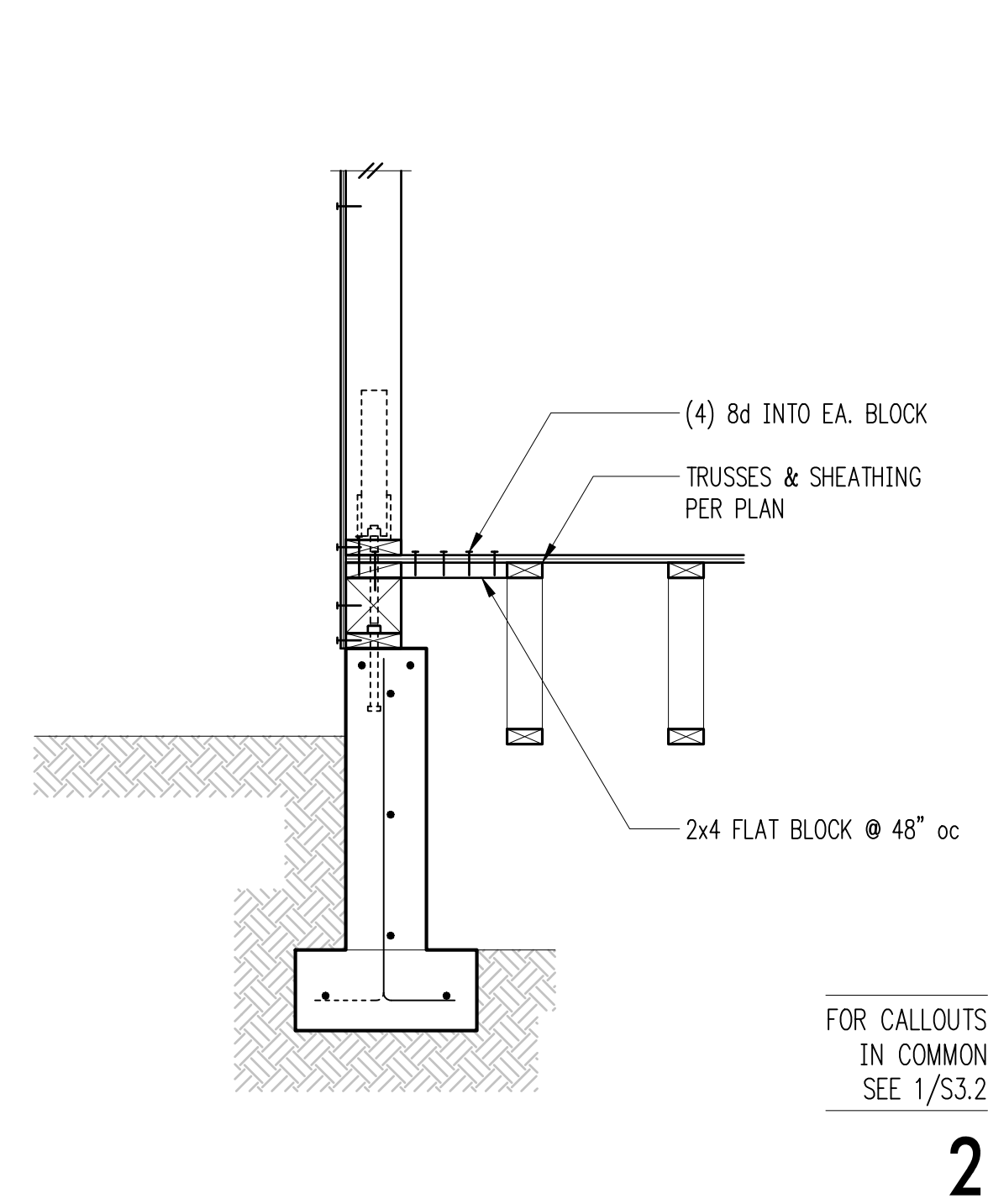
PROJECT NO: 01011-2021-06

SHEET NO:

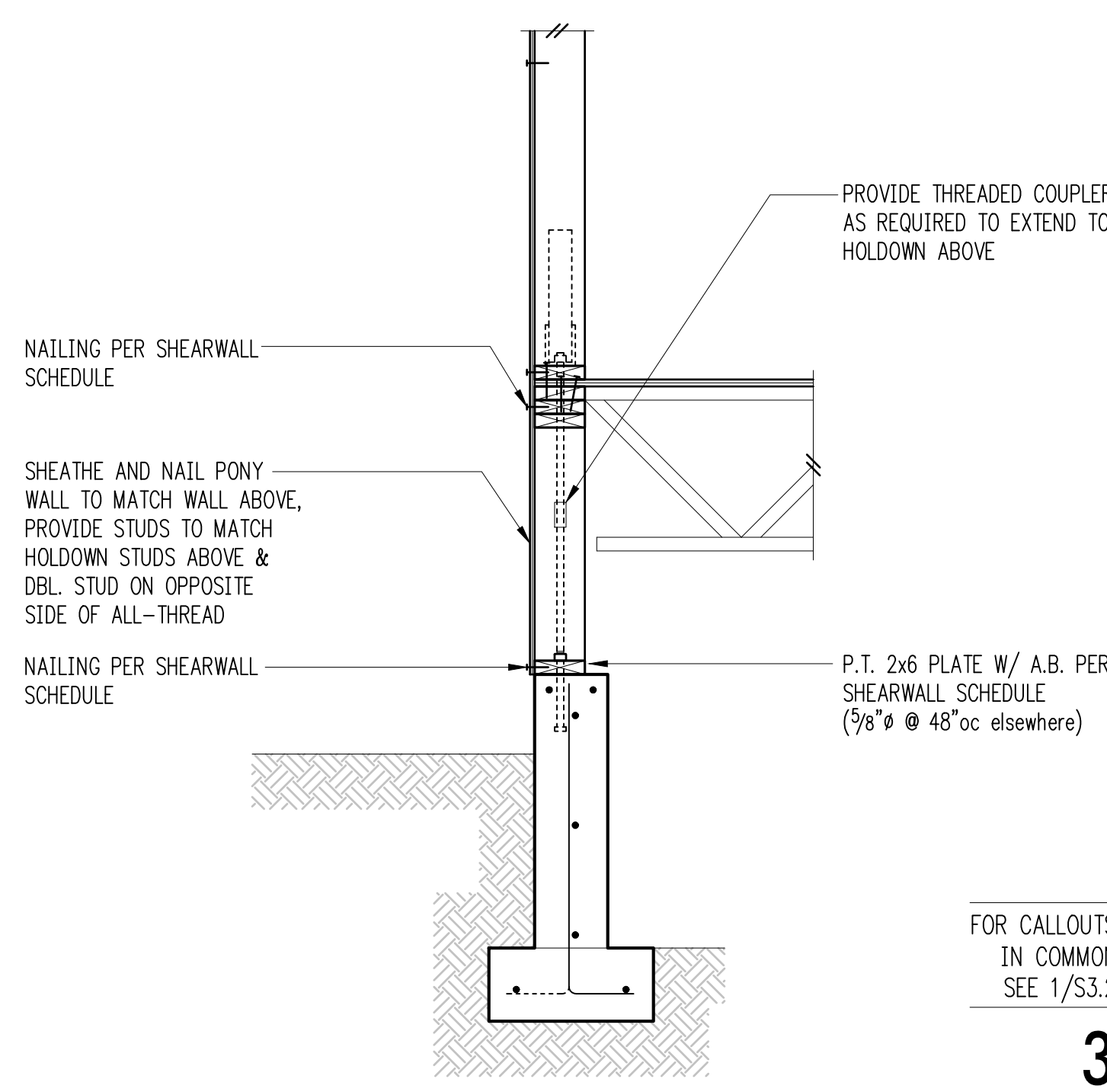
S3.1



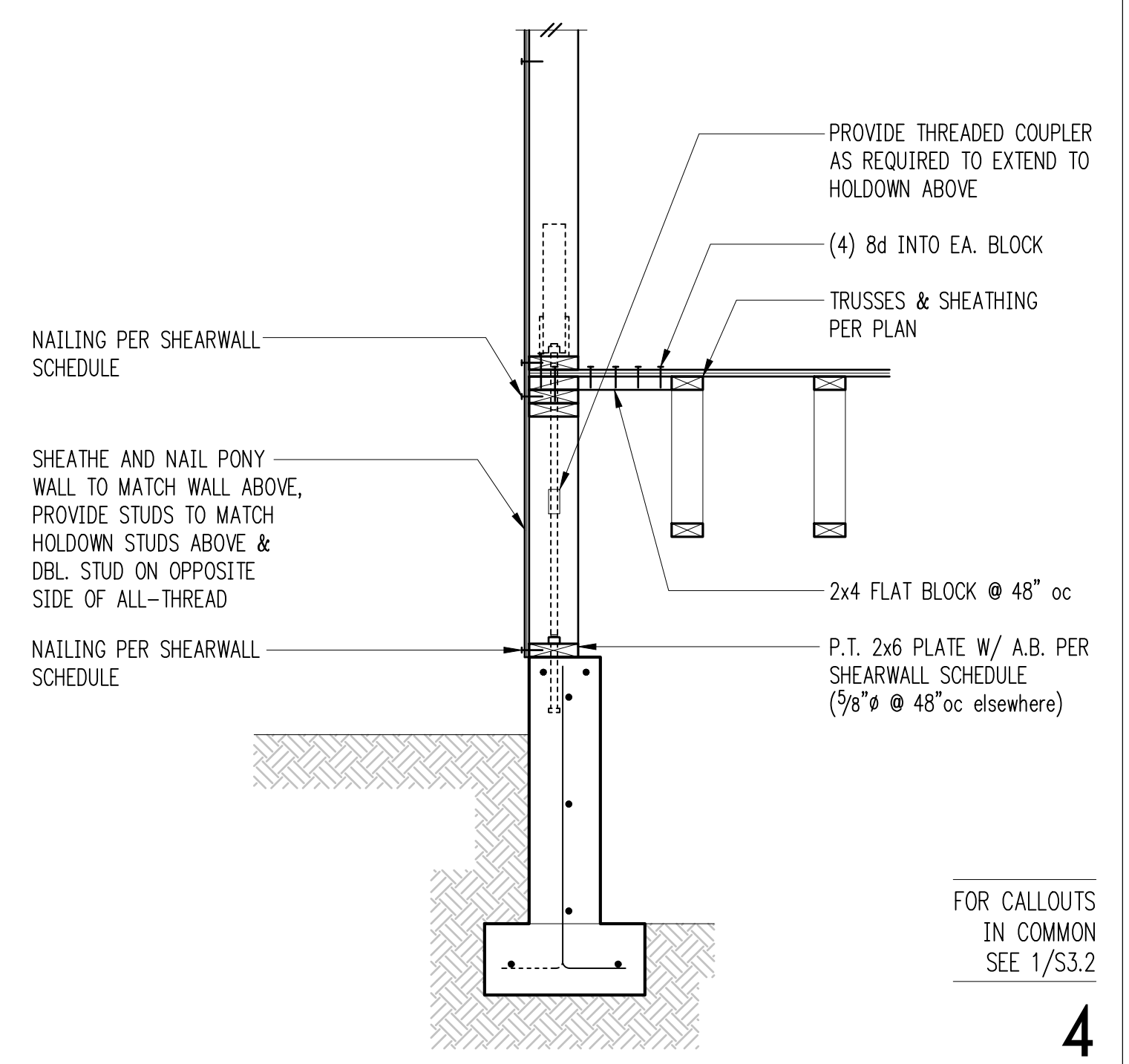
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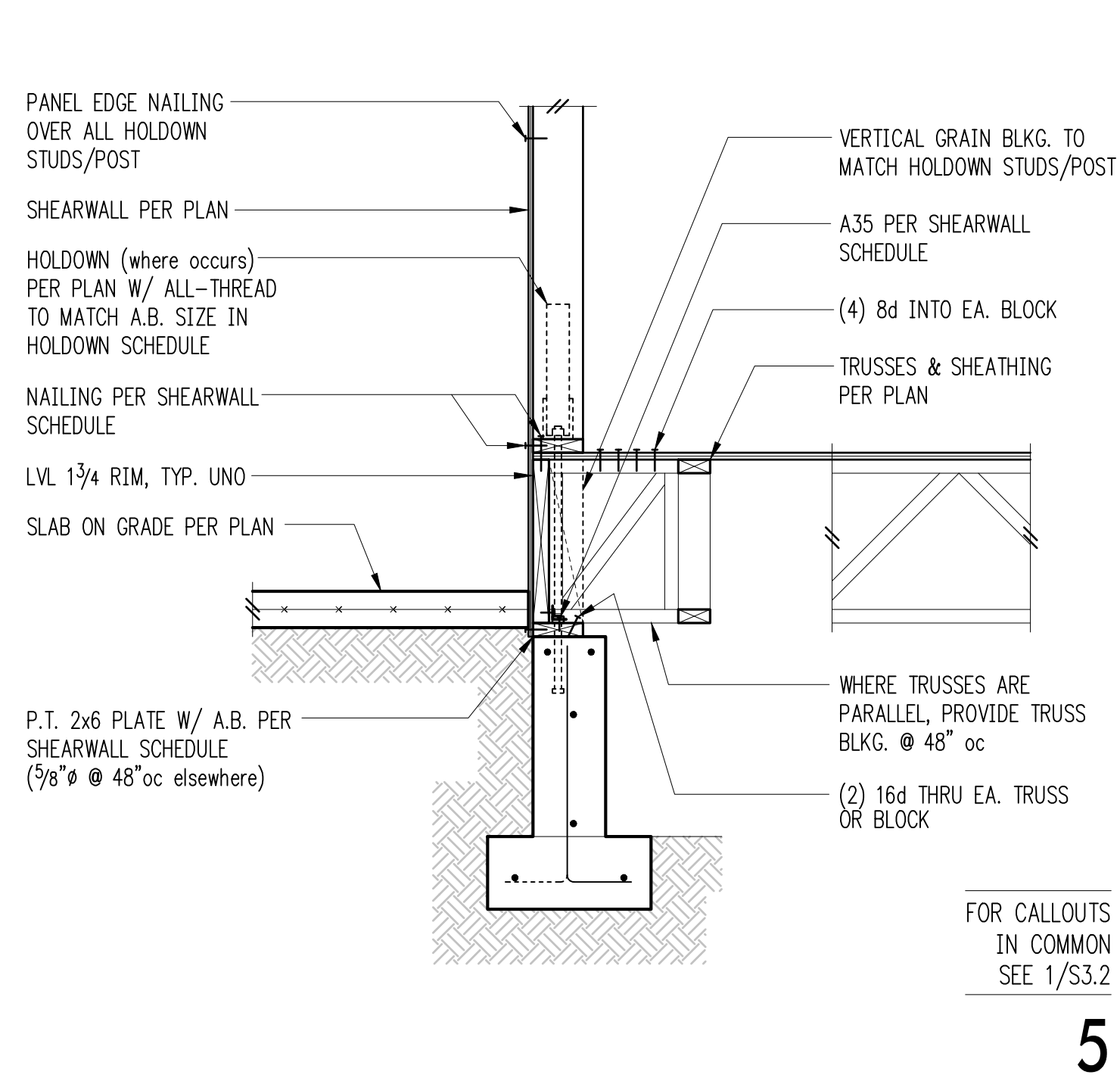
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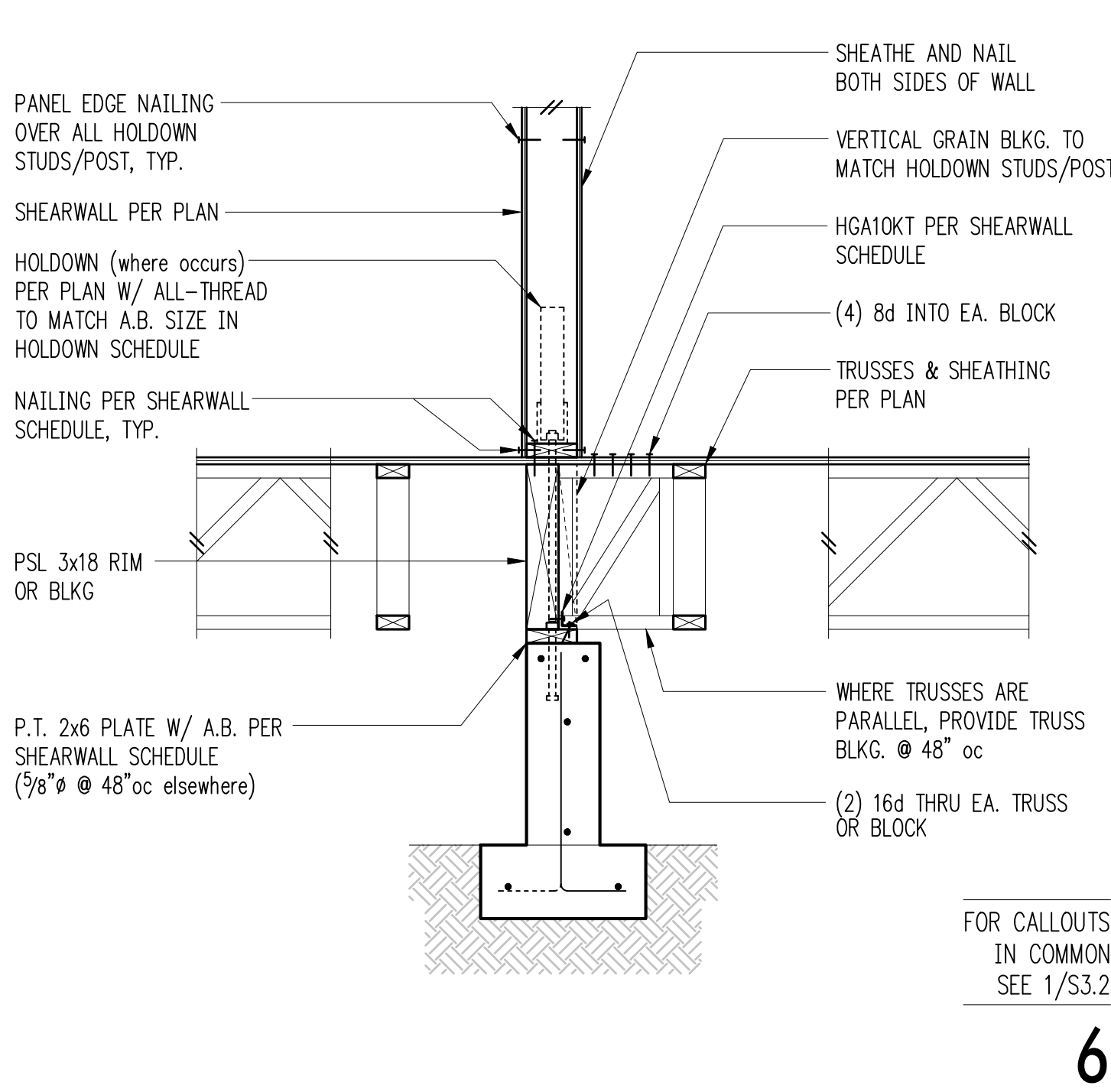
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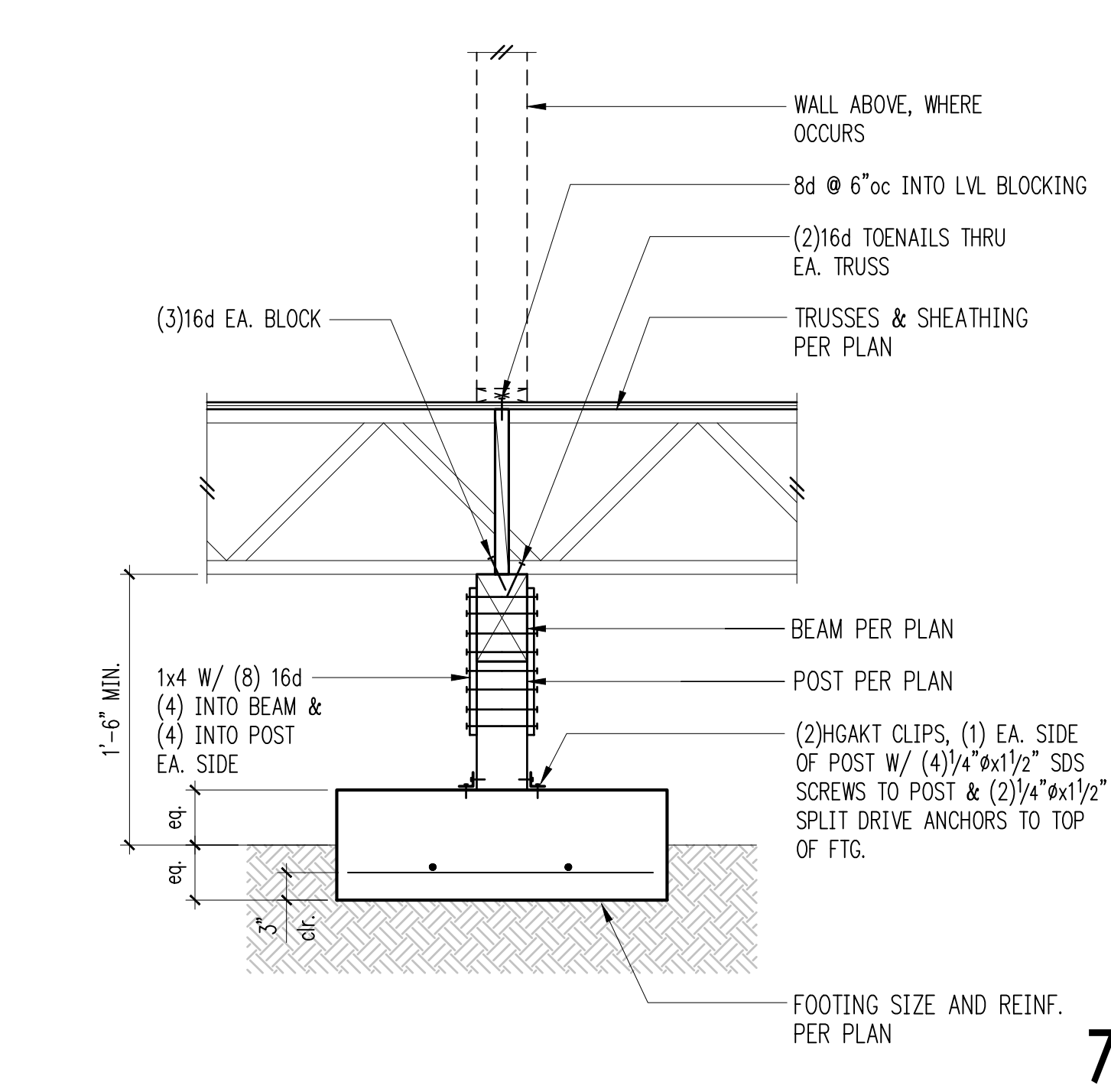
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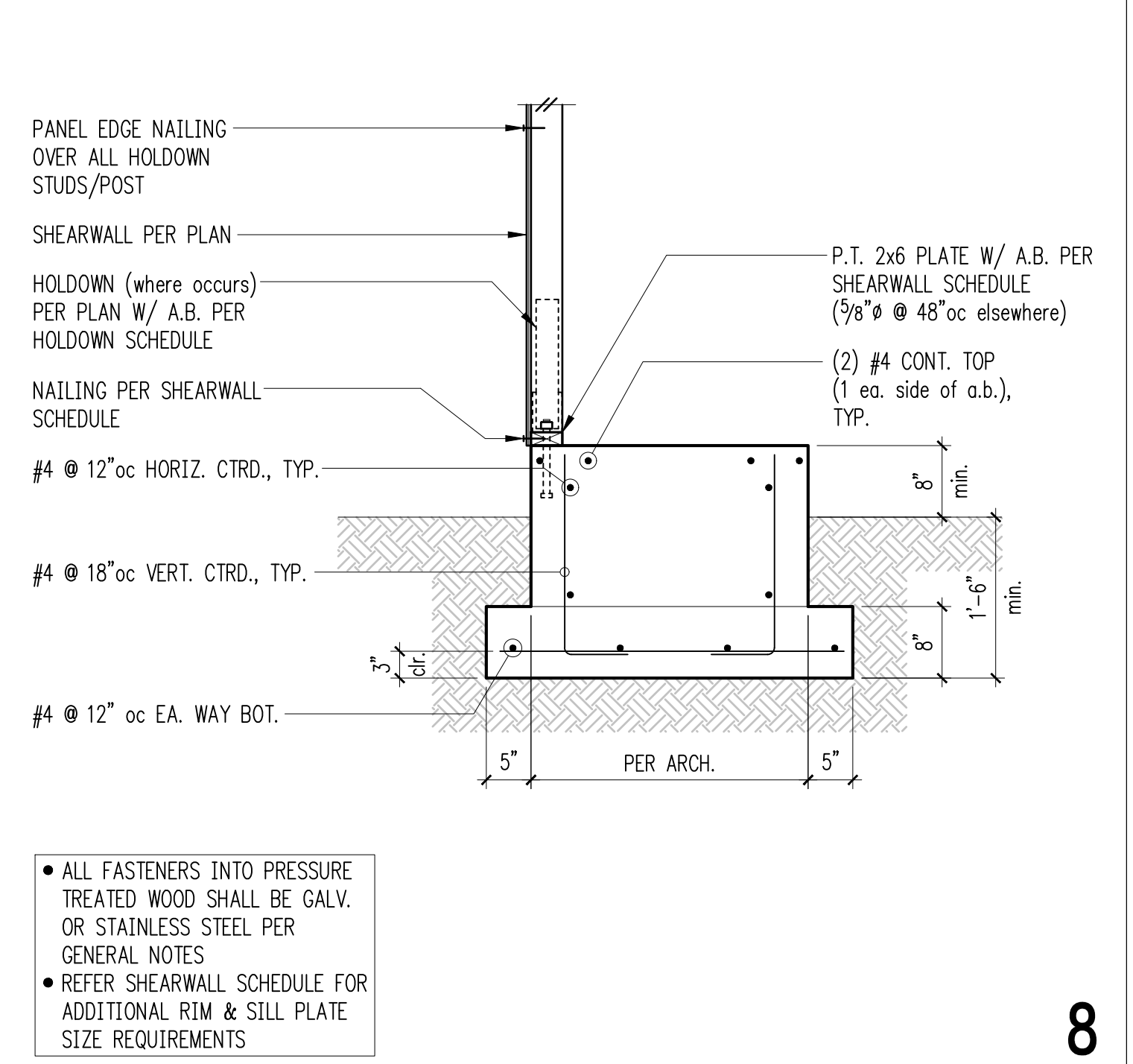
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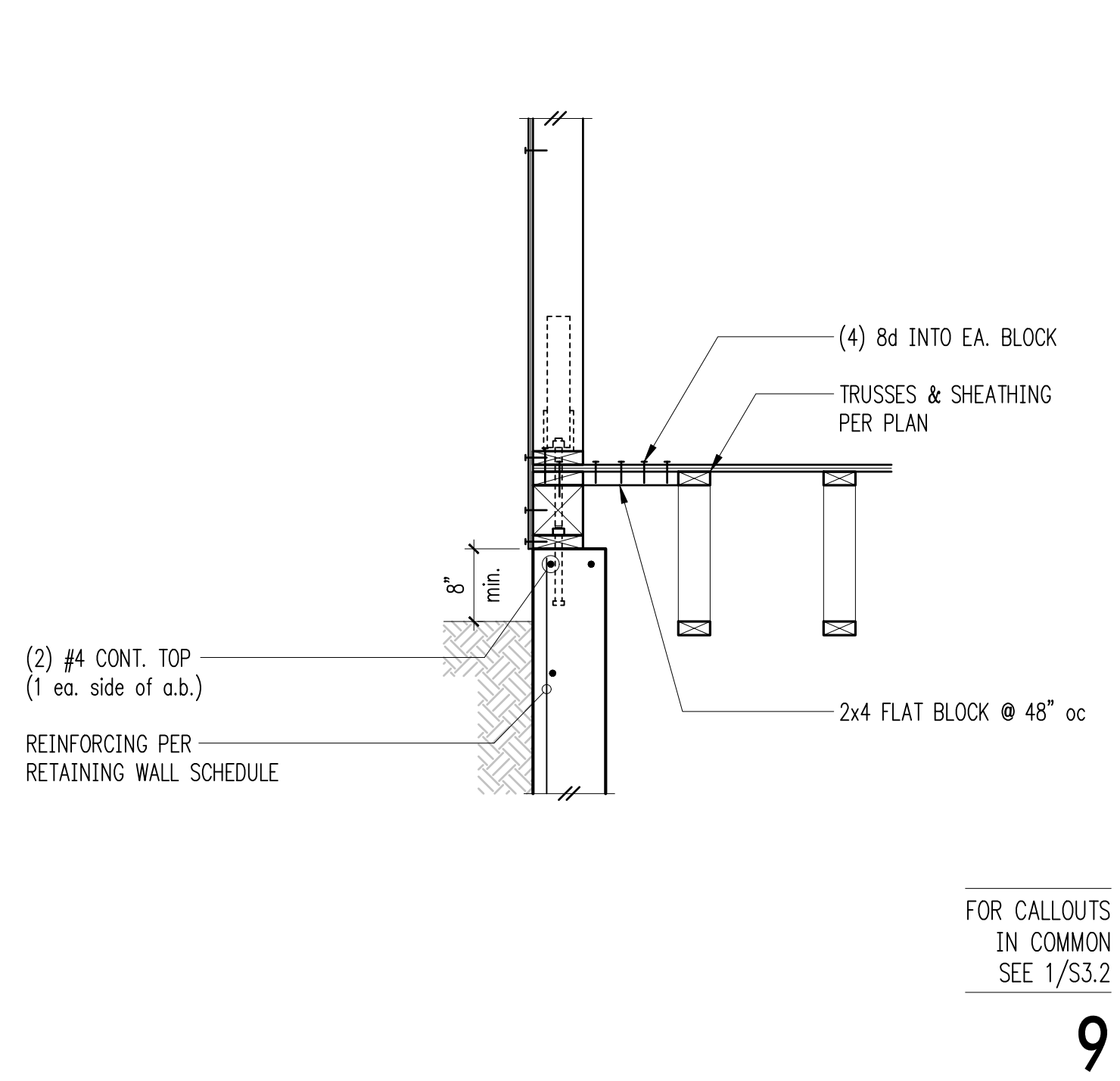
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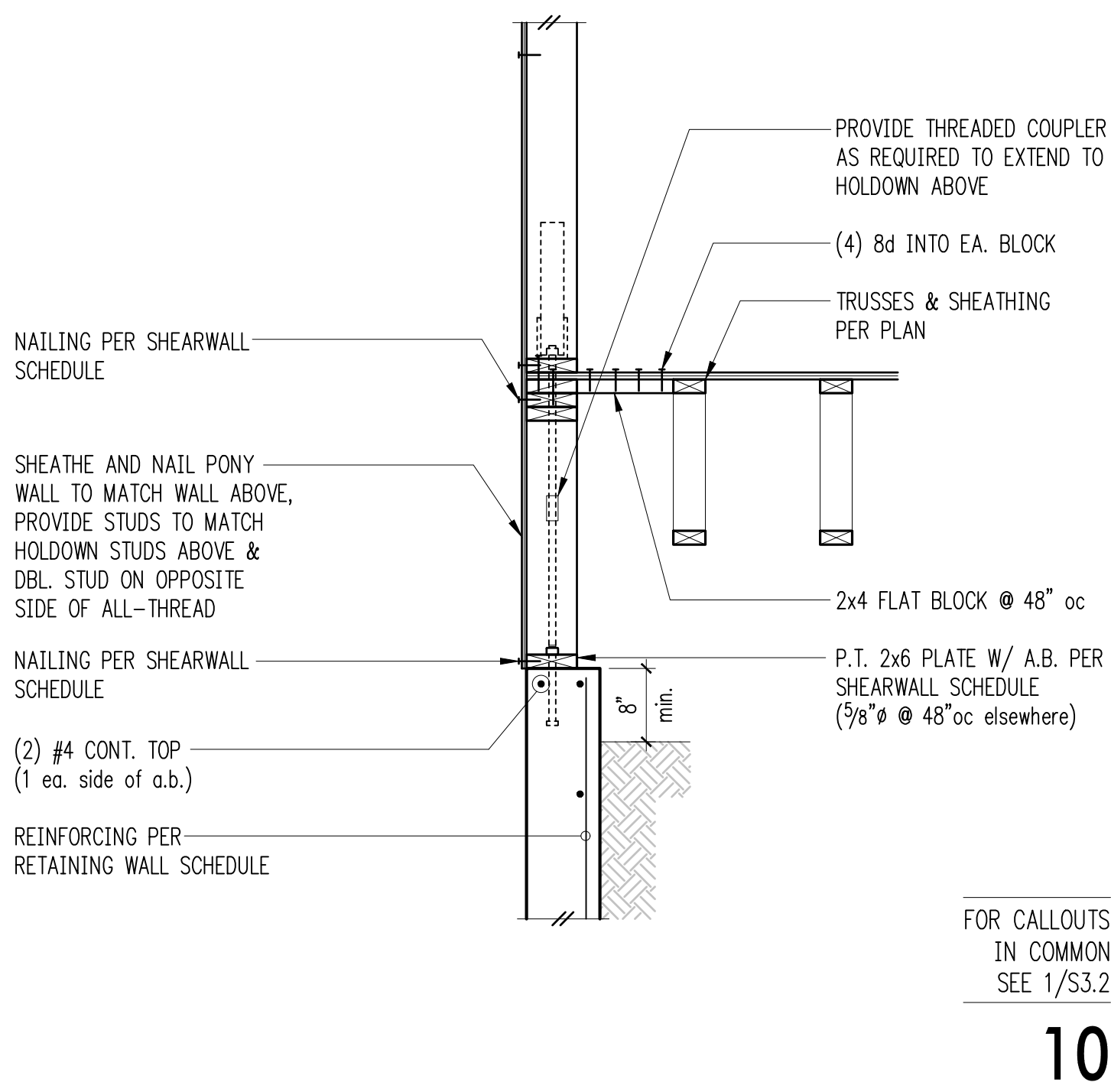
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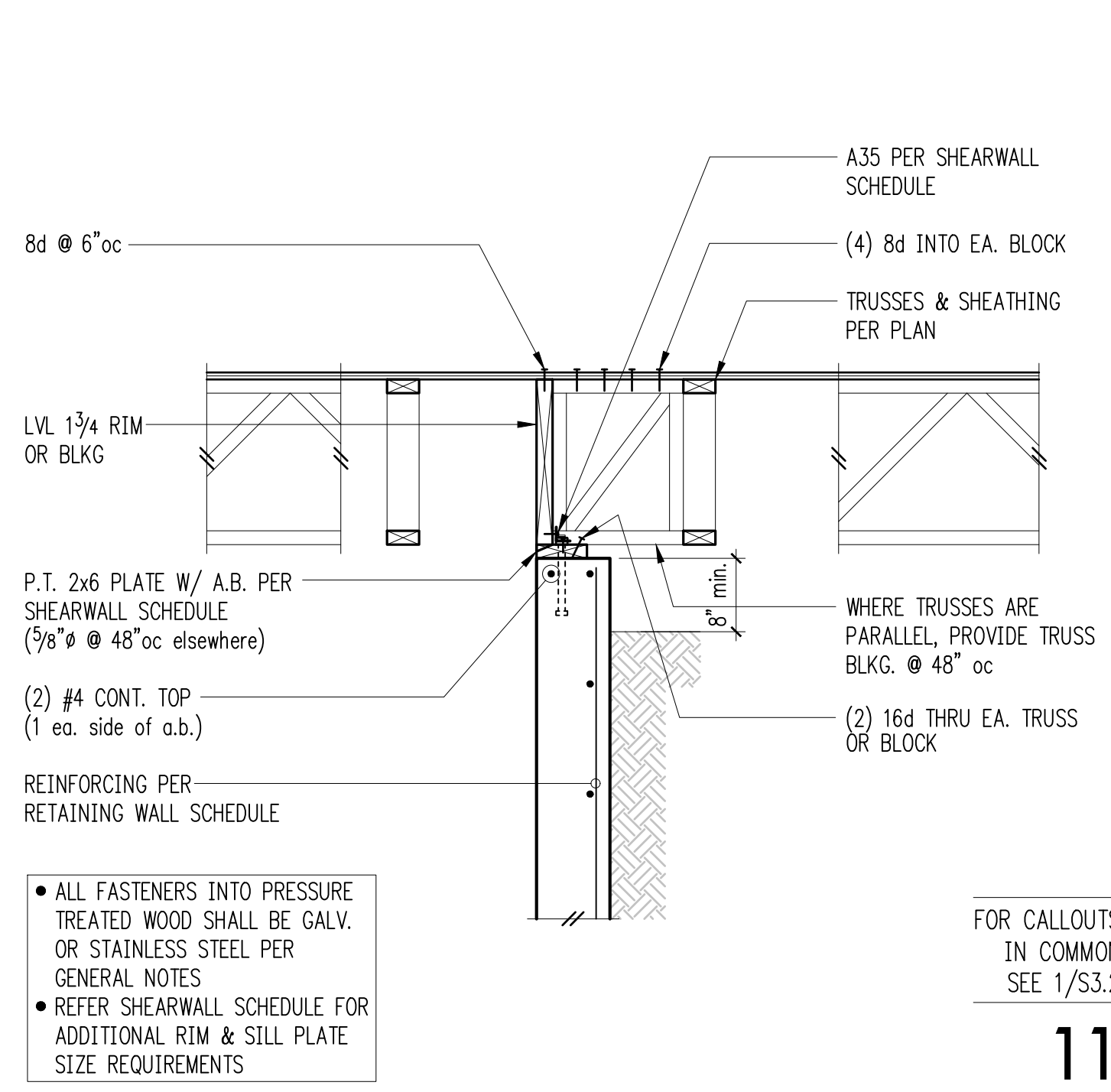
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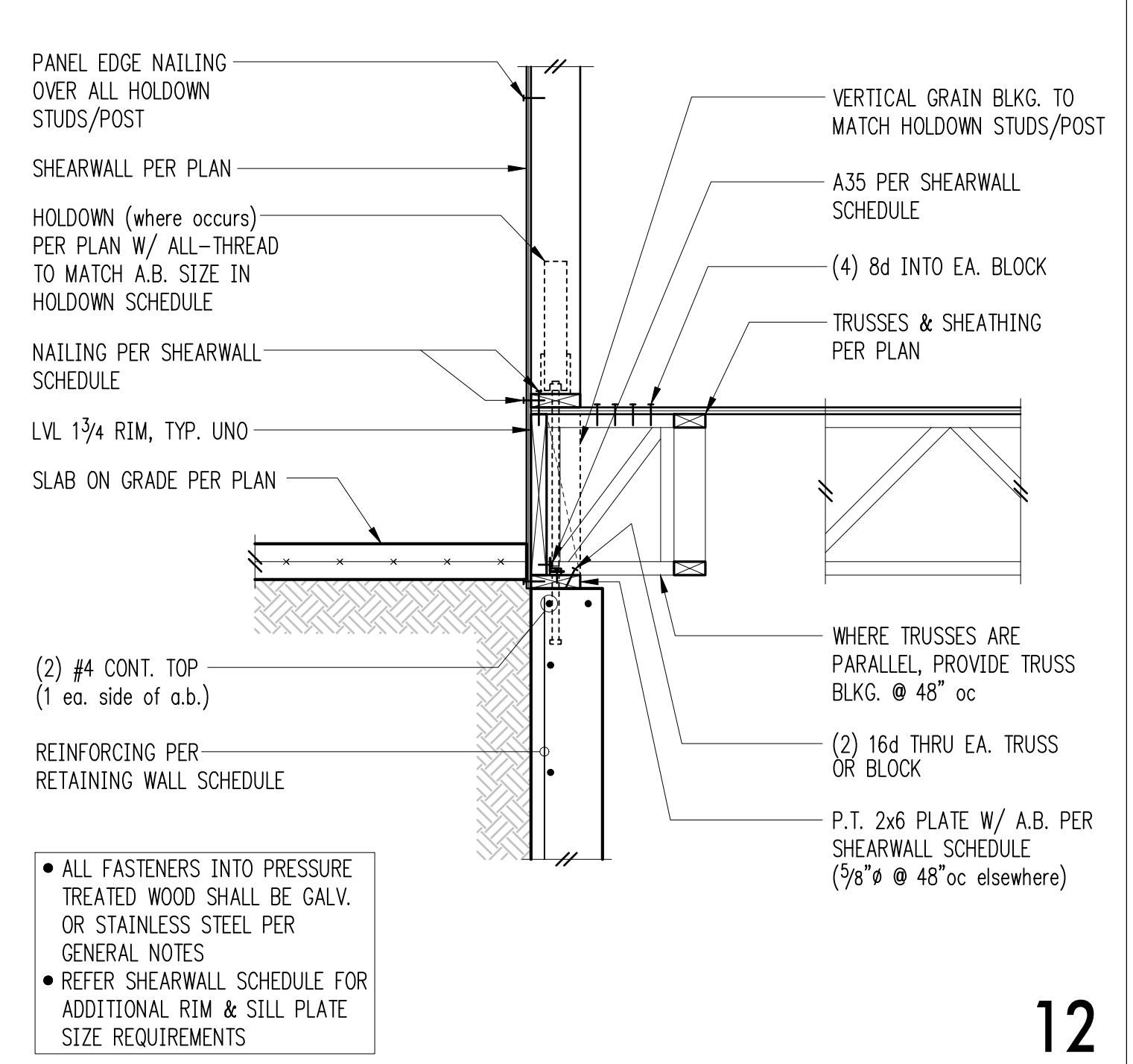
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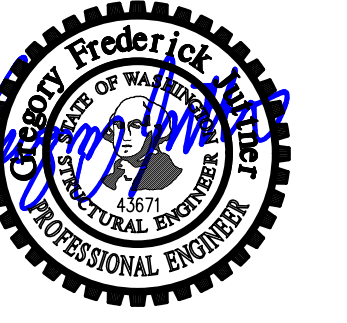
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11



12



DRAWN: SRK/ABH  
DESIGN: JDT  
CHECKED: JDT  
APPROVED: GFJ

REVISIONS:  
  
  
  
  
  
JURISDICTIONAL APPROVAL STAMP:

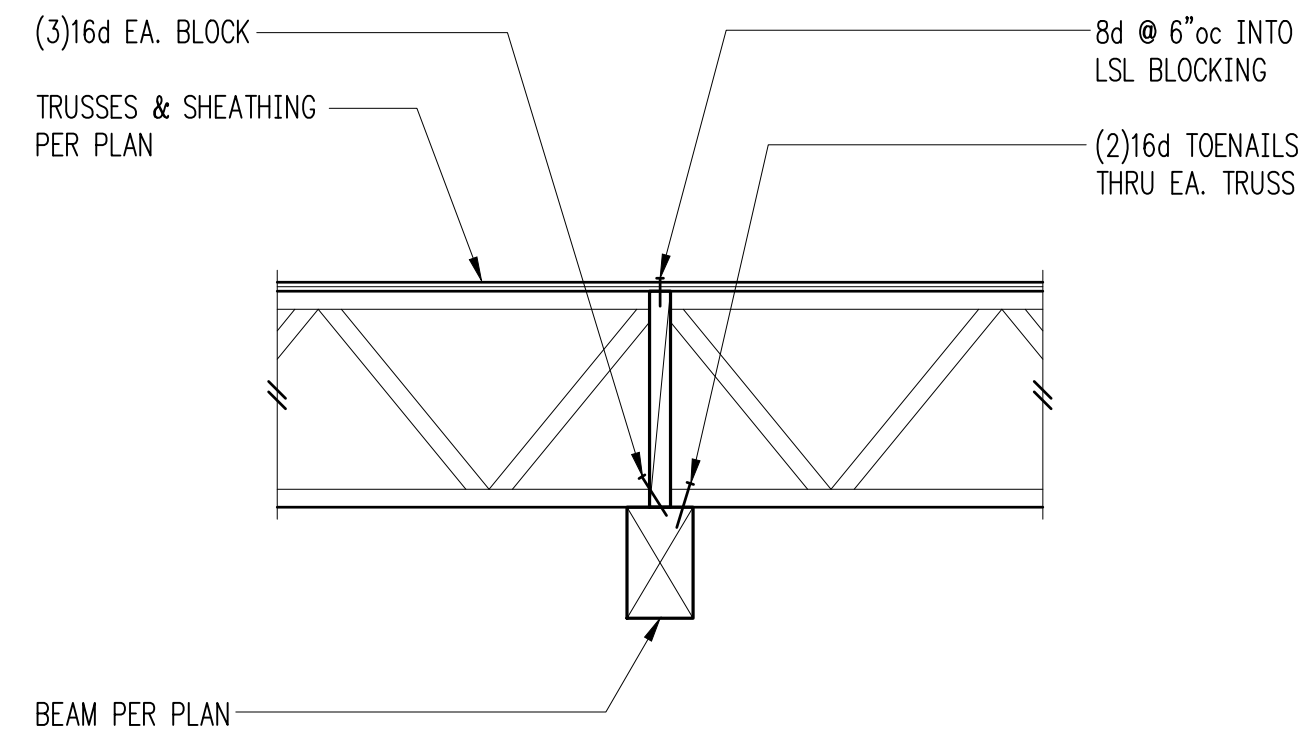
PROJECT TITLE:  
**Rainier 9118**

ARCHITECT:  
**William E. Buchan Homes**  
2630 116th Ave NE Suite 100  
Bellevue, WA 98004

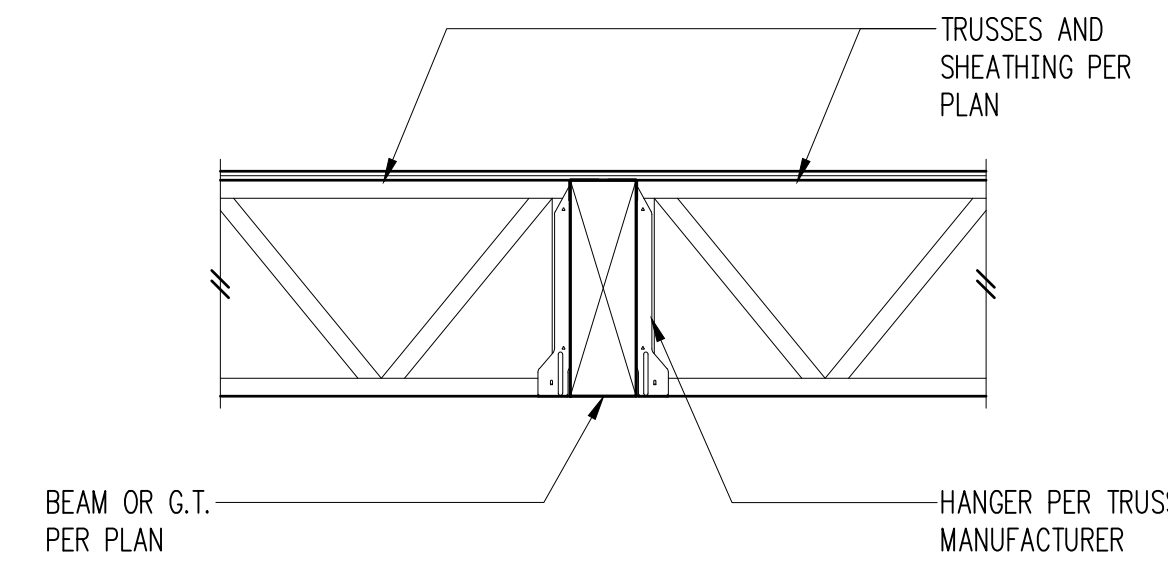
ISSUE:  
**PERMIT SET**

SHEET TITLE:  
**Concrete Details**  
SCALE: 3/4" = 1'-0" U.N.O.  
DATE: September 10, 2021  
PROJECT NO: 01011-2021-06  
SHEET NO:

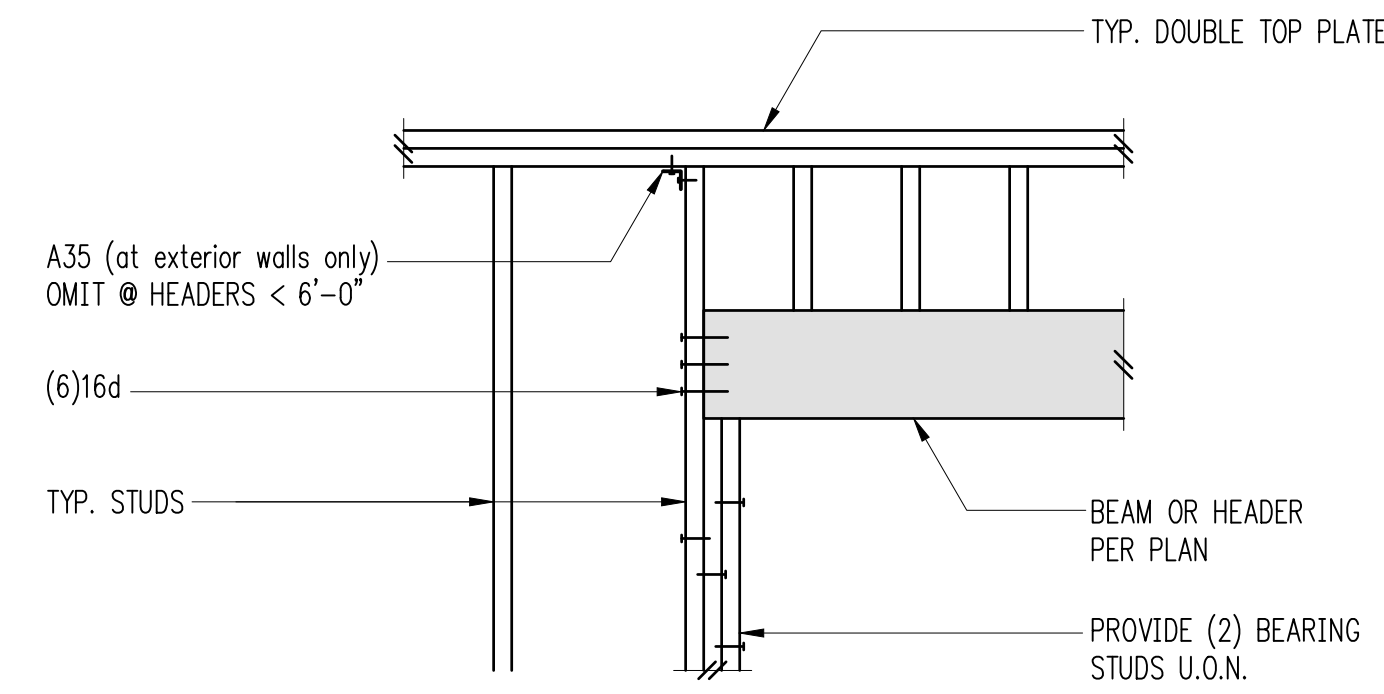
**S3.2**



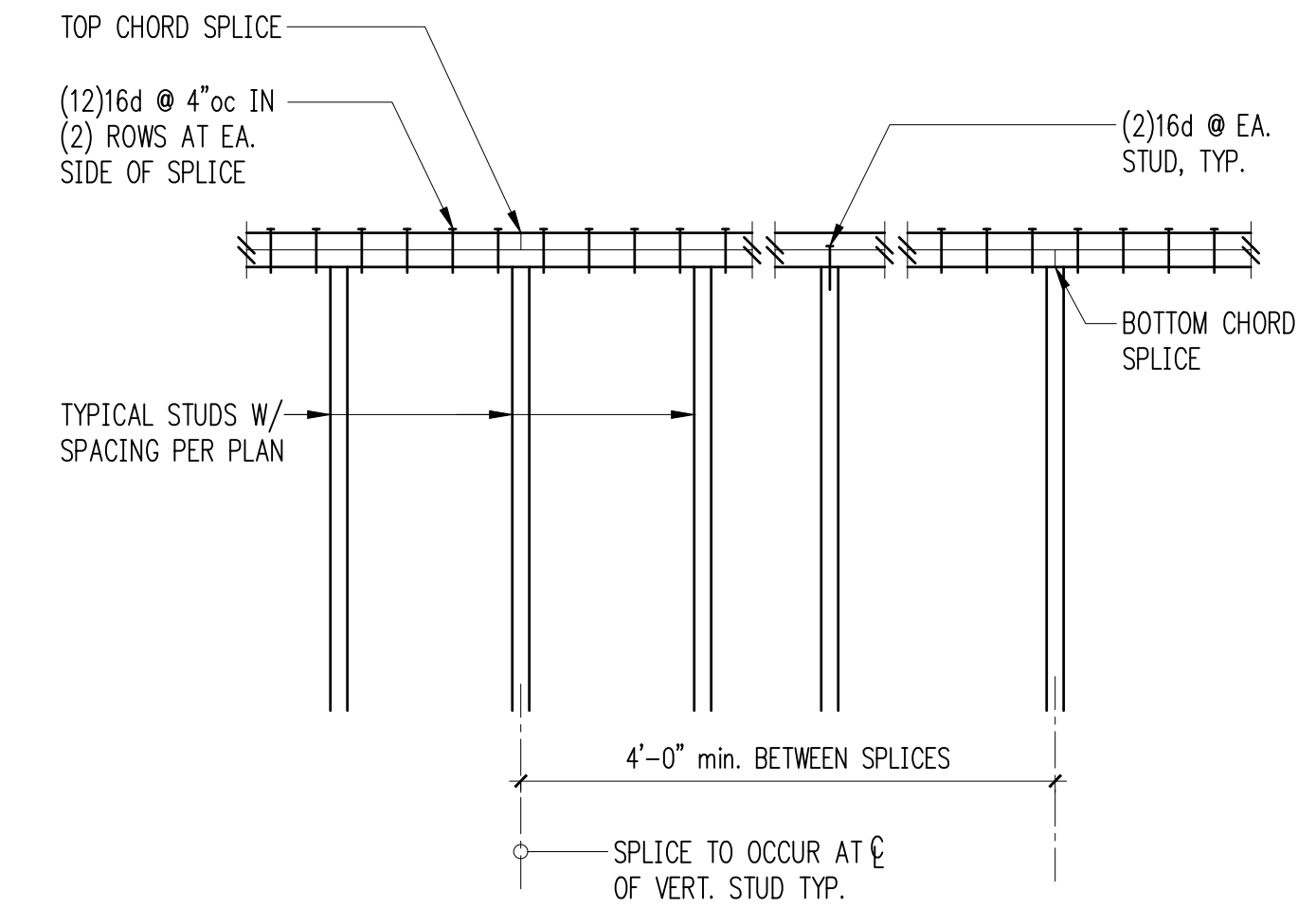
Typical Header Beam 1



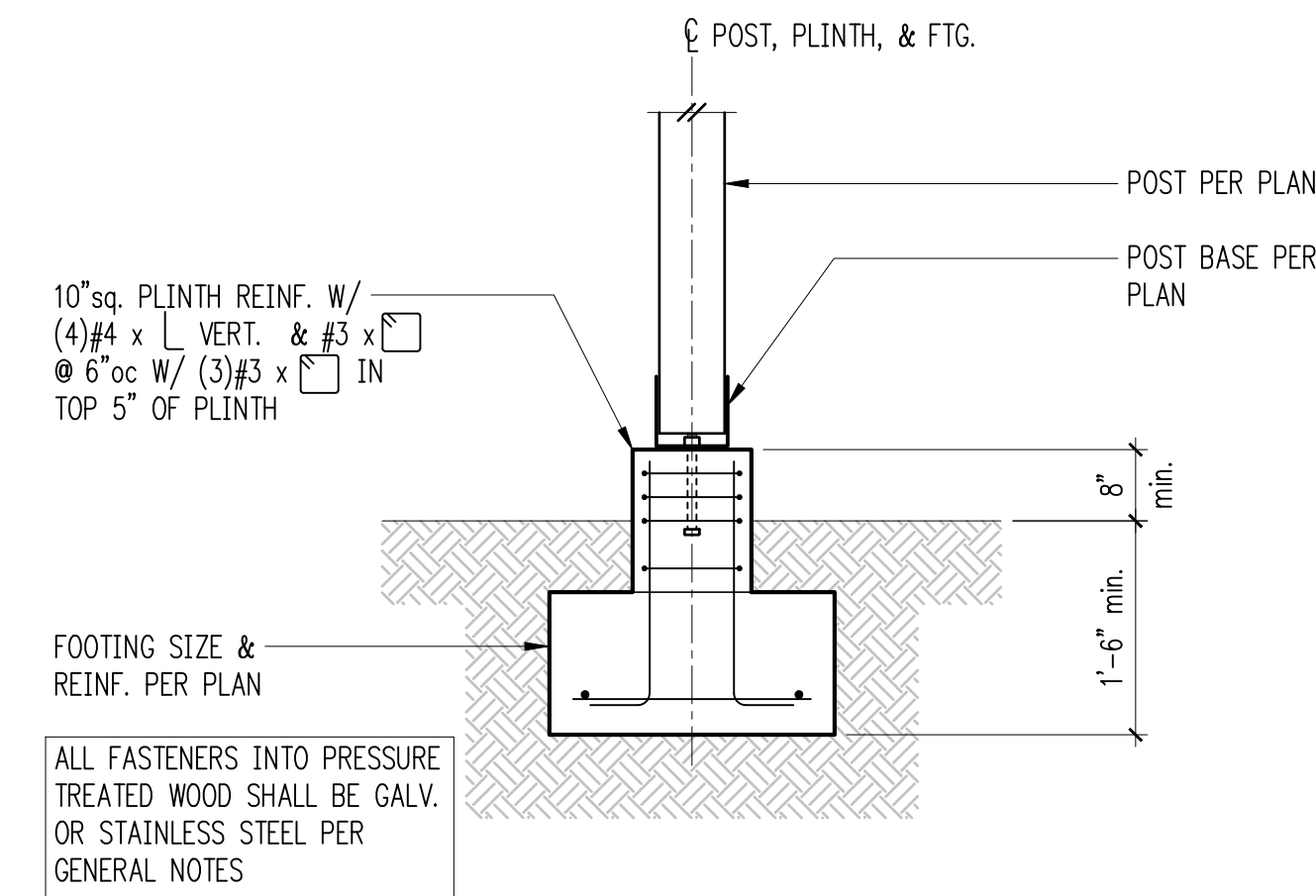
Typical Flush Beam (w/ Trusses) 2



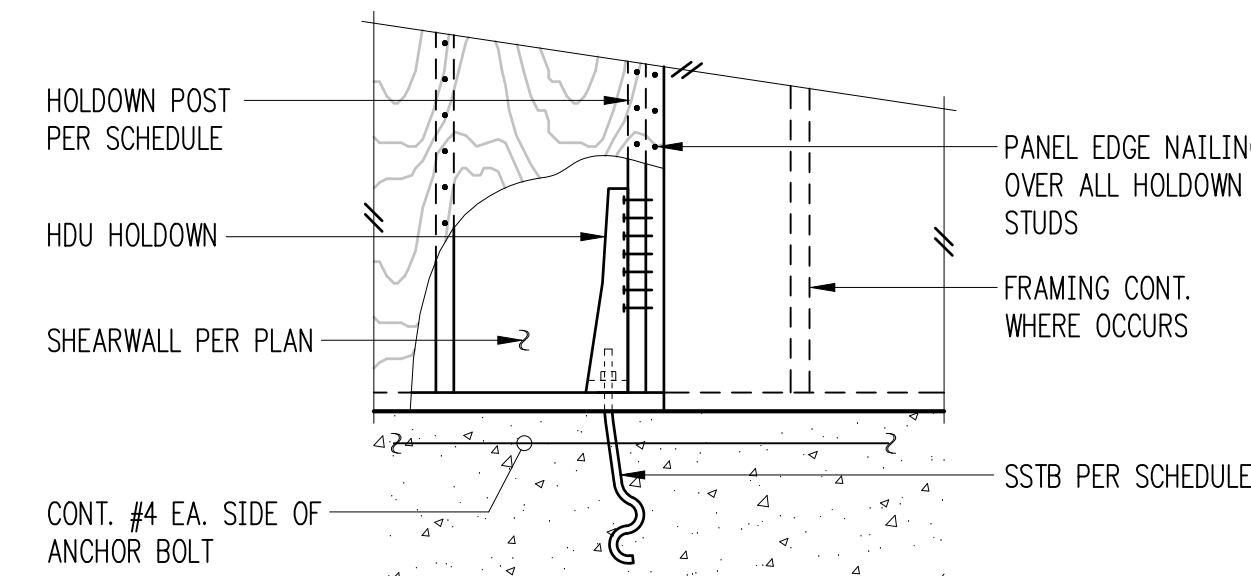
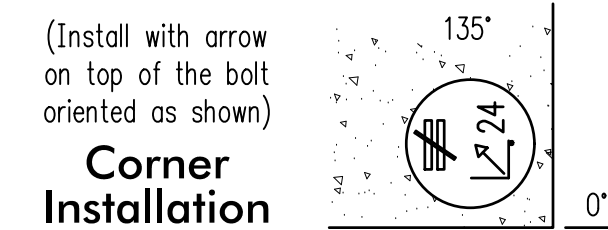
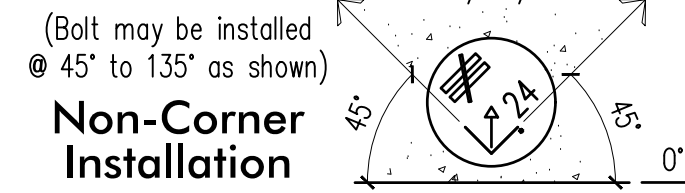
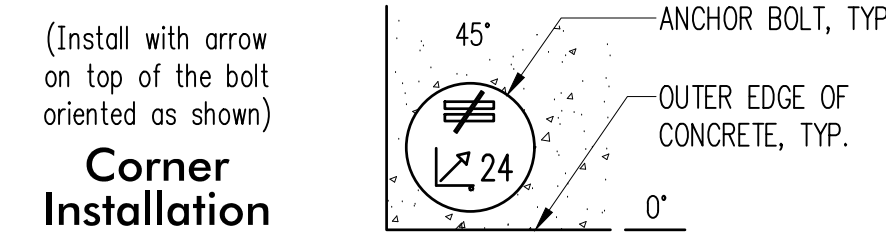
Typical Header Support 3



Typical Top Plate Splice 4



Deck or Canopy Post Footing - Square Plinth 5



Holddown Schedule

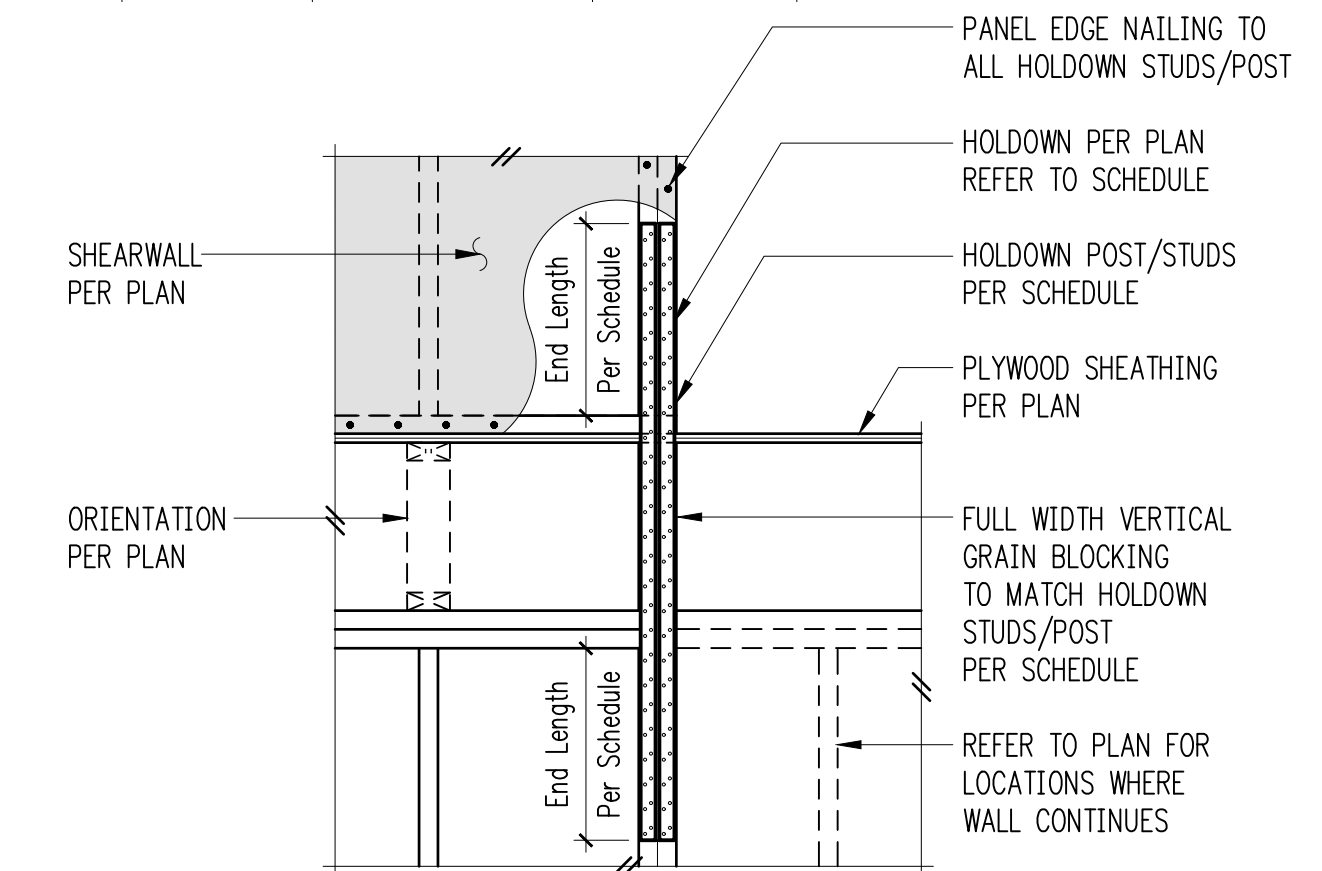
| Plan Mark    | Screws              | Anchor Bolt | A.B. Embed | Holddown Post ① |         |
|--------------|---------------------|-------------|------------|-----------------|---------|
|              |                     |             |            | if 2x4          | if 2x6  |
| HDU2-SDS2.5  | (6)SDS 1/4"x2 1/2"  | SSTB20      | 16 5/8"    | (2) 2x4         | (2) 2x6 |
| HDU4-SDS2.5  | (10)SDS 1/4"x2 1/2" | SB 5/8x24   | 18"        | 4x4             | 4x6     |
| HDU5-SDS2.5  | (14)SDS 1/4"x2 1/2" | SB 5/8x24   | 18"        | 4x4             | 4x6     |
| HDU8-SDS2.5  | (20)SDS 1/4"x2 1/2" | SSTB28      | 24 7/8"    | 4x6             | 6x6     |
| HDU11-SDS2.5 | (30)SDS 1/4"x2 1/2" | SBIx30      | 24"        | 4x8             | 6x6     |

① MINIMUM SIZE OF POST AT END OF WALL UNLESS OTHERWISE NOTED ON FRAMING PLANS.

Typical HDU Holdown 7

Holddown Strap Schedule

| Plan Mark | End Length | #Nails Ea. End Length | Holddown Studs/Post |         |
|-----------|------------|-----------------------|---------------------|---------|
|           |            |                       | if 2x4              | if 2x6  |
| CS16      | 1'-2"      | (13) 8d               | (1) 2x4             | (1) 2x6 |
| CMST14    | 2'-6"      | (33) 10d              | 4x6                 | 4x6     |
| CMST12    | 3'-3"      | (43) 10d              | 4x8                 | 6x6     |



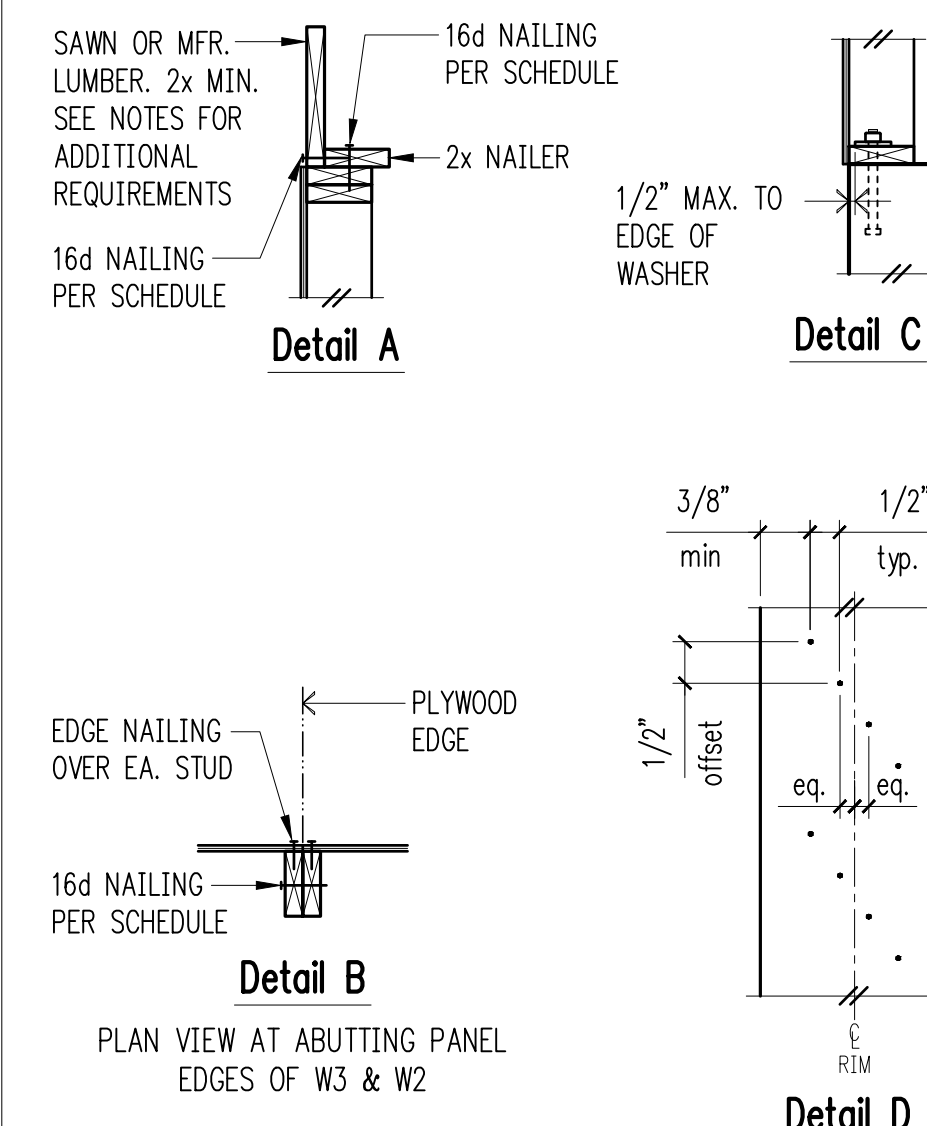
Typical Holddown Schedule 8

Deck or Canopy Post Footing - Square Plinth 5

Shearwall Schedule ①②③④⑤⑥⑦⑧

| Mark     | Sheathing                  | Panel Edge Nailing  | Top Plate Connection |                | Base Plate Connection |                   |
|----------|----------------------------|---------------------|----------------------|----------------|-----------------------|-------------------|
|          |                            |                     | if TJI               | if Wood ⑤      | at Wood ①②            | at Concrete       |
| W6       | 15/32" CDX PLYWOOD         | 8d @ 6"oc           | 16d @ 6"oc           | A35 @ 24"oc ⑩  | 16d @ 6"oc            | 5/8" A.B. @ 48"oc |
| W4       | 15/32" CDX PLYWOOD         | 8d @ 4"oc           | 16d @ 4"oc           | A35 @ 16"oc ⑩  | (2)rows 16d @ 6"oc    | 5/8" A.B. @ 32"oc |
| W3 ④     | 15/32" CDX PLYWOOD         | 8d @ 3"oc           | (2)rows 16d @ 4"oc   | A35 @ 12"oc ⑩  | (2)rows 16d @ 6"oc    | 5/8" A.B. @ 24"oc |
| W2 ④     | 15/32" CDX PLYWOOD         | 8d @ 2"oc           | (2)rows 16d @ 4"oc   | A35 @ 9"oc ⑩   | (2)rows 16d @ 4"oc ⑬  | 5/8" A.B. @ 16"oc |
| 2W3 ⑤    | 15/32" CDX PLYWD. EA. SIDE | 8d @ 3"oc EA. SIDE  | n/a                  | A35 @ 6"oc     | (3)rows 16d @ 4"oc ⑬  | 5/8" A.B. @ 16"oc |
| 2W2 ⑤    | 15/32" CDX PLYWD. EA. SIDE | 8d @ 2"oc EA. SIDE  | n/a                  | HGA10KT @ 8"oc | (3)rows 16d @ 4"oc ⑬  | 5/8" A.B. @ 12"oc |
| 2W2-10 ⑤ | 15/32" CDX PLYWD. EA. SIDE | 10d @ 2"oc EA. SIDE | n/a                  | HGA10KT @ 6"oc | (4)rows 16d @ 4"oc ⑬  | 5/8" A.B. @ 12"oc |

- BLOCK PANEL EDGES WITH 2x MIN. LAID FLAT AND NAIL PANELS TO INTERMEDIATE SUPPORTS WITH 8d @ 12"oc.
- 8d NAILS SHALL BE 0.131" x 2 1/2" (common) - 16d NAILS SHALL BE 0.135" x 3 1/2" (box) - 10d NAILS SHALL BE 0.148" x 3" (common).
- EMBED ANCHOR BOLTS AT LEAST 7". EXPANSION BOLTS MAY BE SUBSTITUTED FOR ANCHOR BOLTS WITH 4" EMBEDMENT. TITEN HD SCREW ANCHORS MAY BE SUBSTITUTED FOR ANCHOR BOLTS W/ 4" EMBEDMENT. ALL BOLTS SHALL HAVE 3" x 3" x 1/4" MIN. PLATE WASHERS. PLATE WASHERS SHALL EXTEND TO WITHIN 1/2" OF THE EDGE OF THE BOTTOM PLATE ON THE SIDE WITH SHEATHING. SEE DETAIL C.
- 3x STUDS OR DOUBLE STUDS NAILED TOGETHER W/ BASE PLATE NAILING ARE REQUIRED AT ABUTTING PANEL EDGES OF W3 AND W2. SEE DETAIL B. WHERE 3x STUDS ARE USED FOR W2, STAGGER NAILS AT ADJOINING PANEL EDGES.
- 3x FOUNDATION SILL PLATES ARE REQUIRED FOR 2W3 AND 2W2. 3x STUDS ARE REQUIRED AT ABUTTING PANEL EDGES AND PANEL JOINTS SHALL BE OFFSET EACH SIDE OF WALL. STAGGER NAILS AT ADJOINING PANEL EDGES. 3x STUD, MIN., REQUIRED AT END OF SHEARWALL.
- TWO STUDS MINIMUM ARE REQUIRED AT EACH END OF ALL SINGLE-SIDED SHEARWALLS. ALL END STUDS SHALL RECEIVE PANEL EDGE NAILING. SEE PLANS AND HOLDOWN SCHEDULE FOR ALTERNATE REQUIREMENTS.
- ALL EXTERIOR WALLS SHALL BE W6, UNLESS NOTED OTHERWISE.
- 7/16" O.S.B. MAY BE SUBSTITUTED FOR 15/32" CDX, EXCEPT AT 10d PANEL EDGE NAILING.
- LTP4's (HORIZONTAL ORIENTATION) W/ 8d COMMON MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- A 2x NAILER ATTACHED W/ BASE PLATE NAILING PER DETAIL A MAY BE SUBSTITUTED FOR A35's AT CONTRACTORS OPTION.
- AT MULTI-ROW NAILING, MINIMUM OFFSET BETWEEN ROWS AND ROW SPACING 1/2", SEE DETAIL D.
- LVL RIMS PERMITTED AT SINGLE SIDED SHEAR WALLS ONLY.
- PROVIDE (3) ROWS 16d @ 6"oc AT LVL RIMS.
- MINIMUM RIM OR JOIST 3/2" WIDE BELOW SHEARWALL.



10

Shearwall Schedule 12

9



DRAWN: SRK/ABH  
DESIGN: JDT  
CHECKED: JDT  
APPROVED: GFJ

REVISIONS:

JURISDICTIONAL APPROVAL STAMP:

PROJECT TITLE:

Rainier 9118

ARCHITECT:  
William E. Buchan Homes  
2630 116th Ave NE Suite 100  
Bellevue, WA 98004

ISSUE:

PERMIT SET

SHEET TITLE:

Wood Framing Details

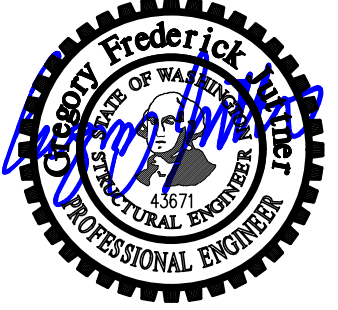
SCALE: 3/4" = 1'-0" U.N.O.

DATE: September 10, 2021

PROJECT NO: 01011-2021-06

SHEET NO:

S3.3



DRAWN: SRK/ABH  
 DESIGN: JDT  
 CHECKED: JDT  
 APPROVED: GFJ

REVISIONS:

JURISDICTIONAL APPROVAL STAMP:

PROJECT TITLE:

Rainier 9118

ARCHITECT:

William E. Buchan Homes  
 2630 116th Ave NE Suite 100  
 Bellevue, WA 98004

ISSUE:

PERMIT SET

SHEET TITLE:

Wood Framing Details

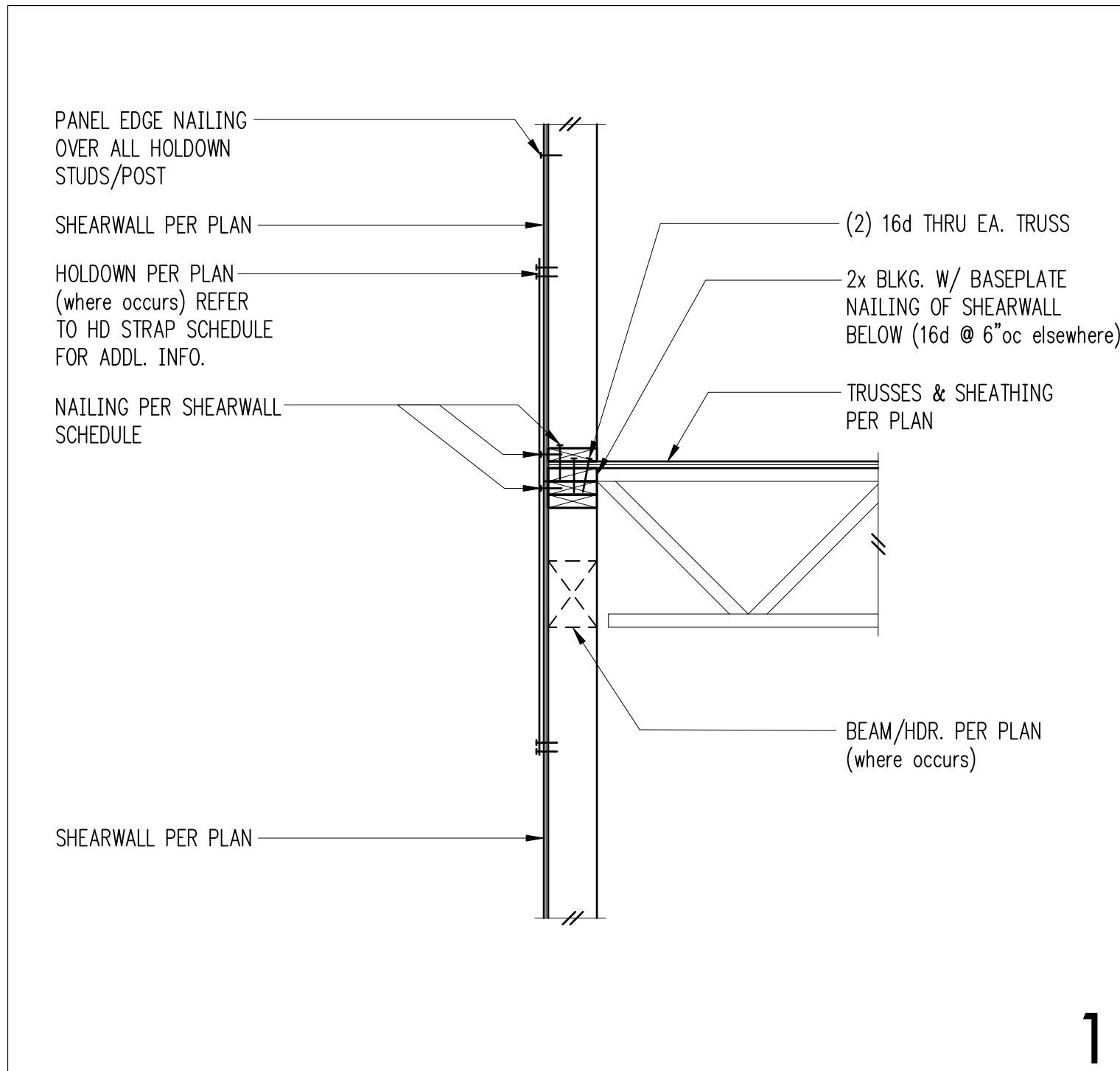
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DATE: September 10, 2021

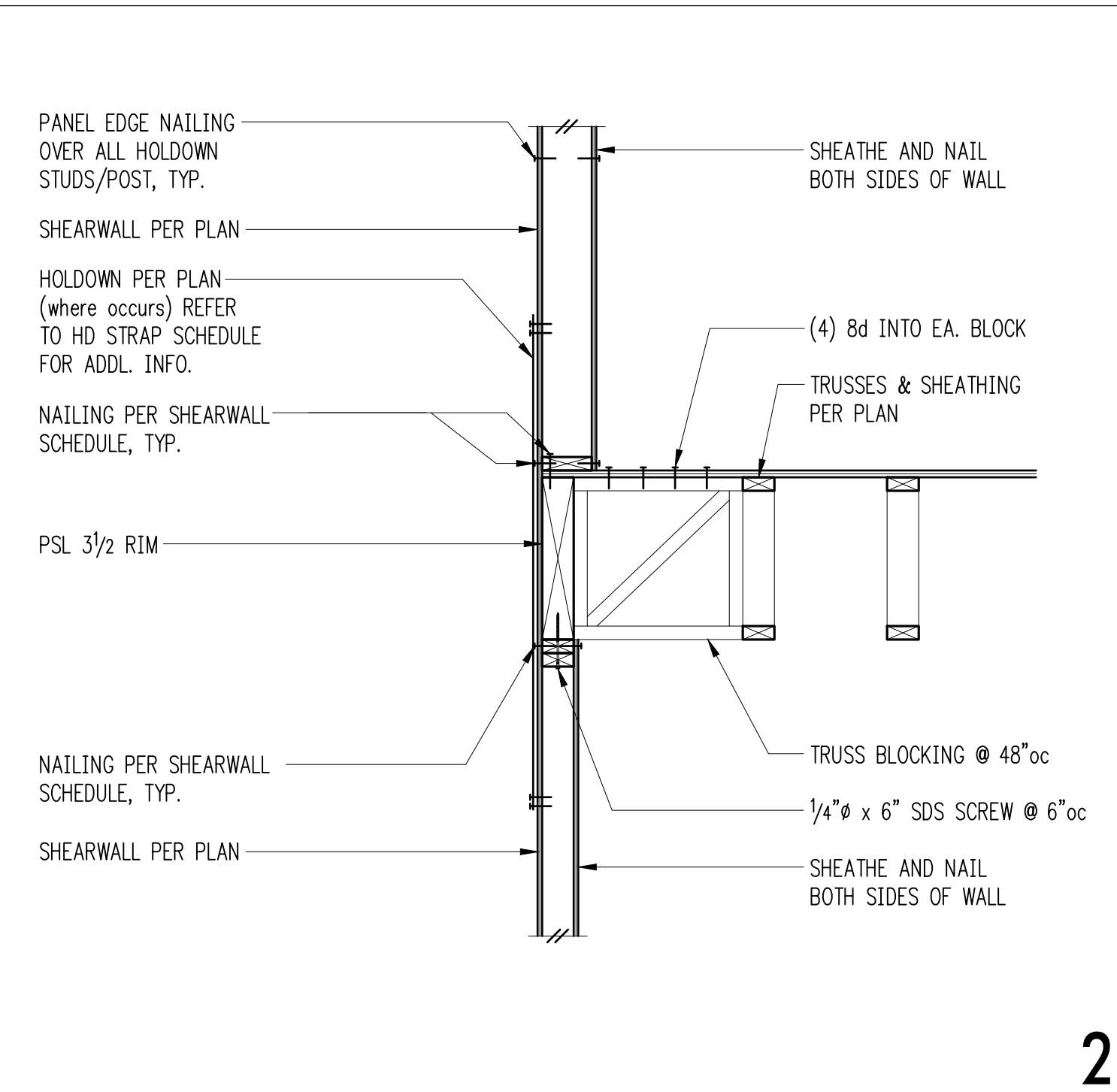
PROJECT NO: 01011-2021-06

SHEET NO:

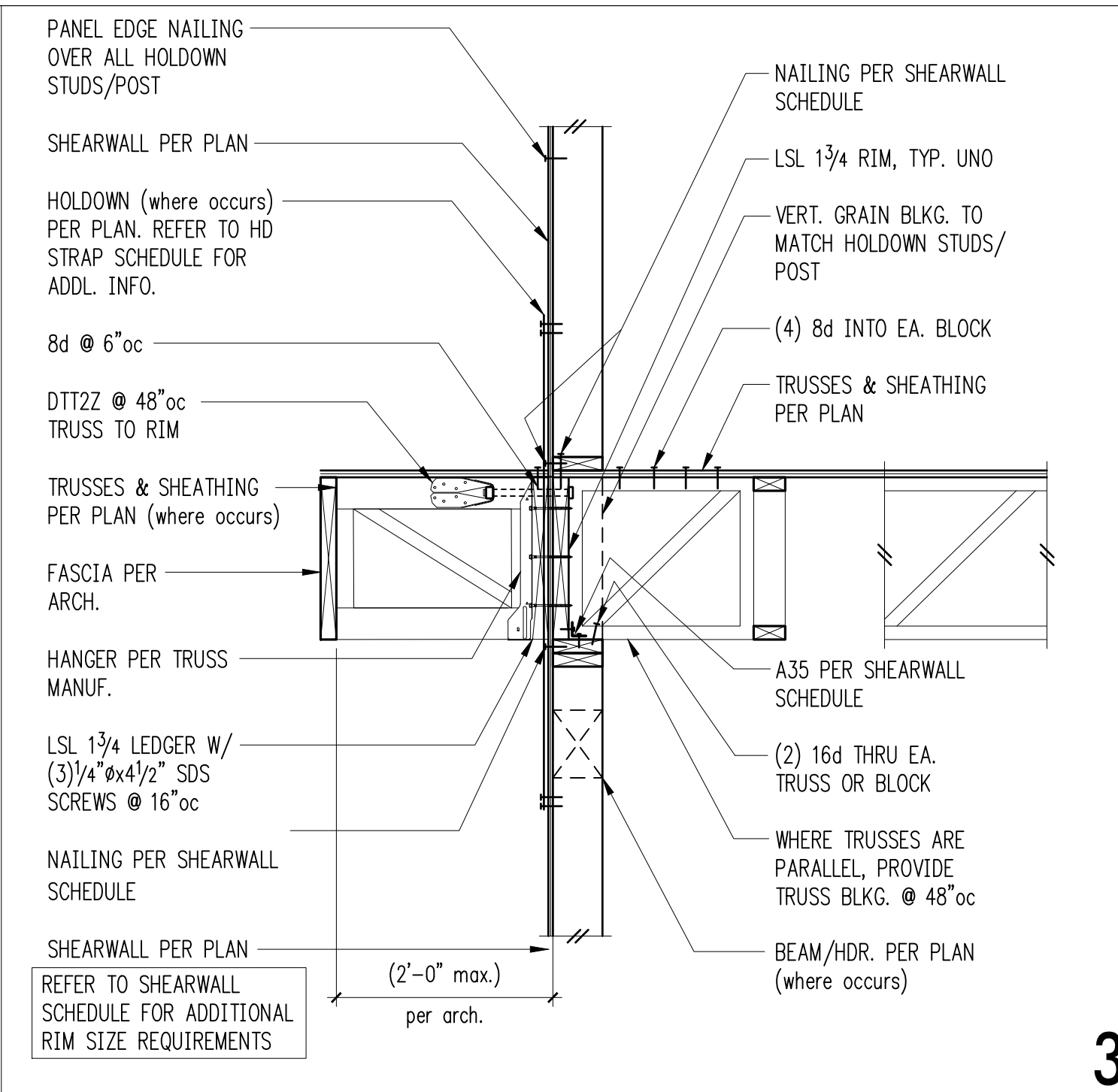
S3.4



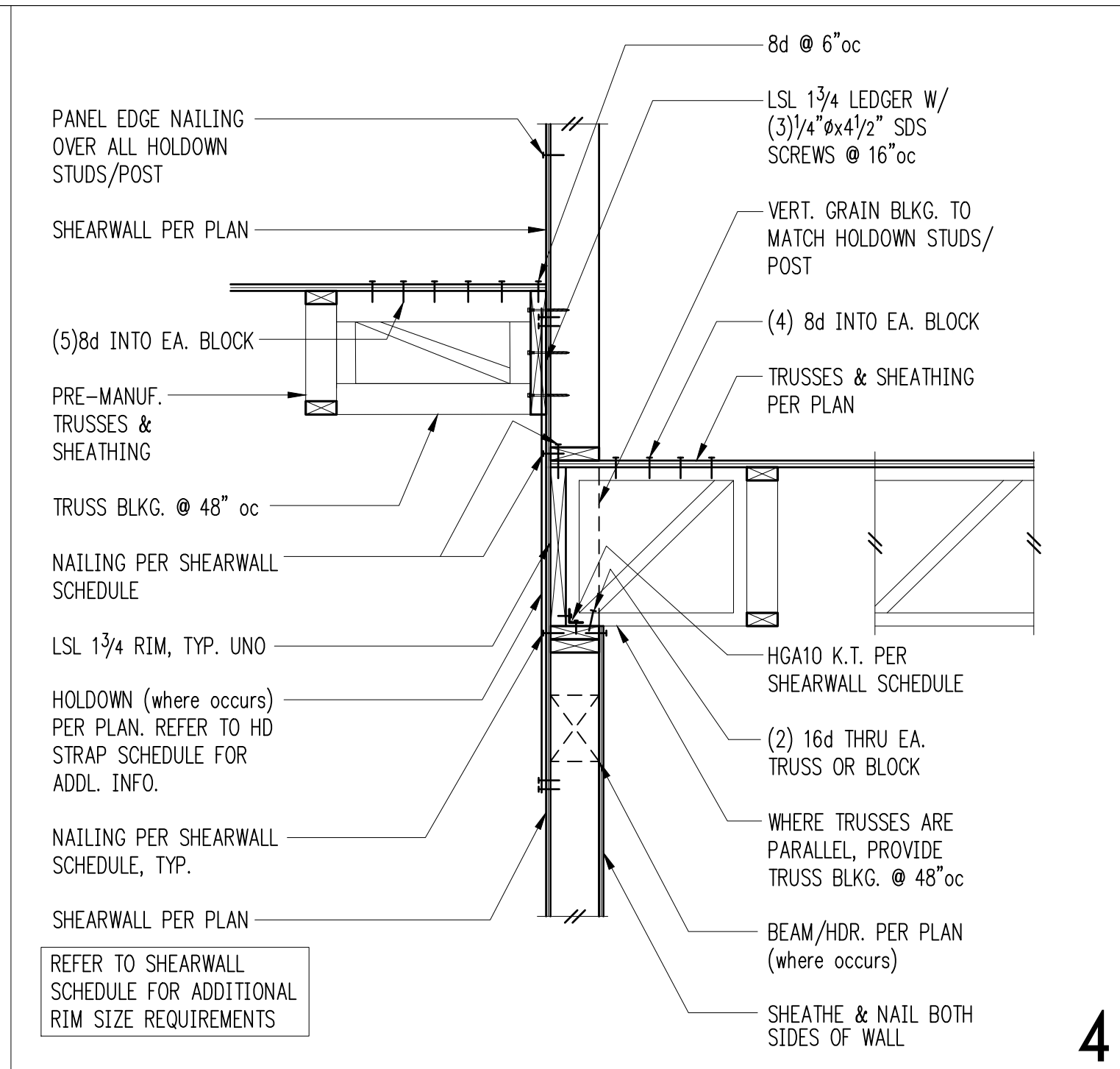
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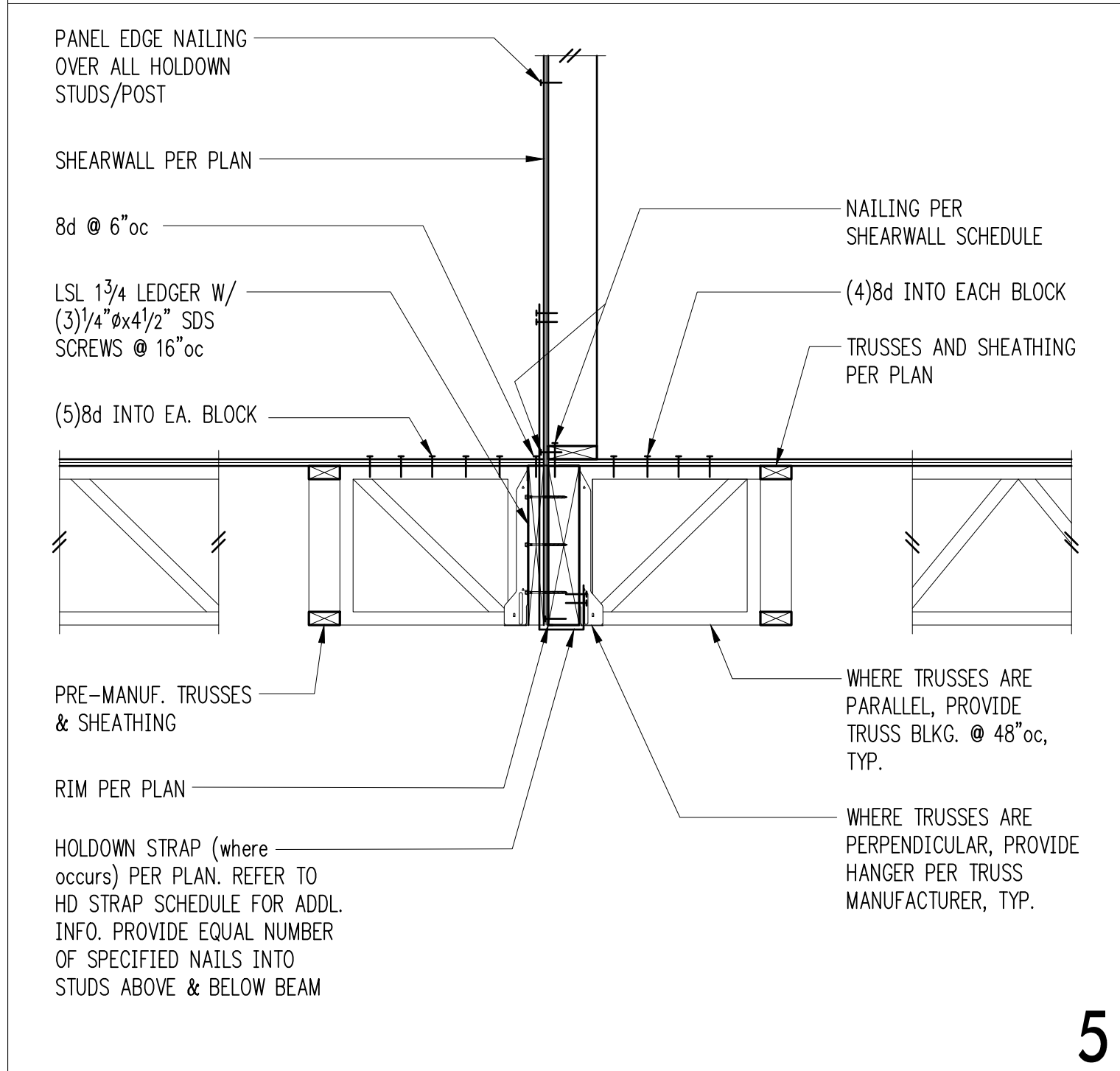
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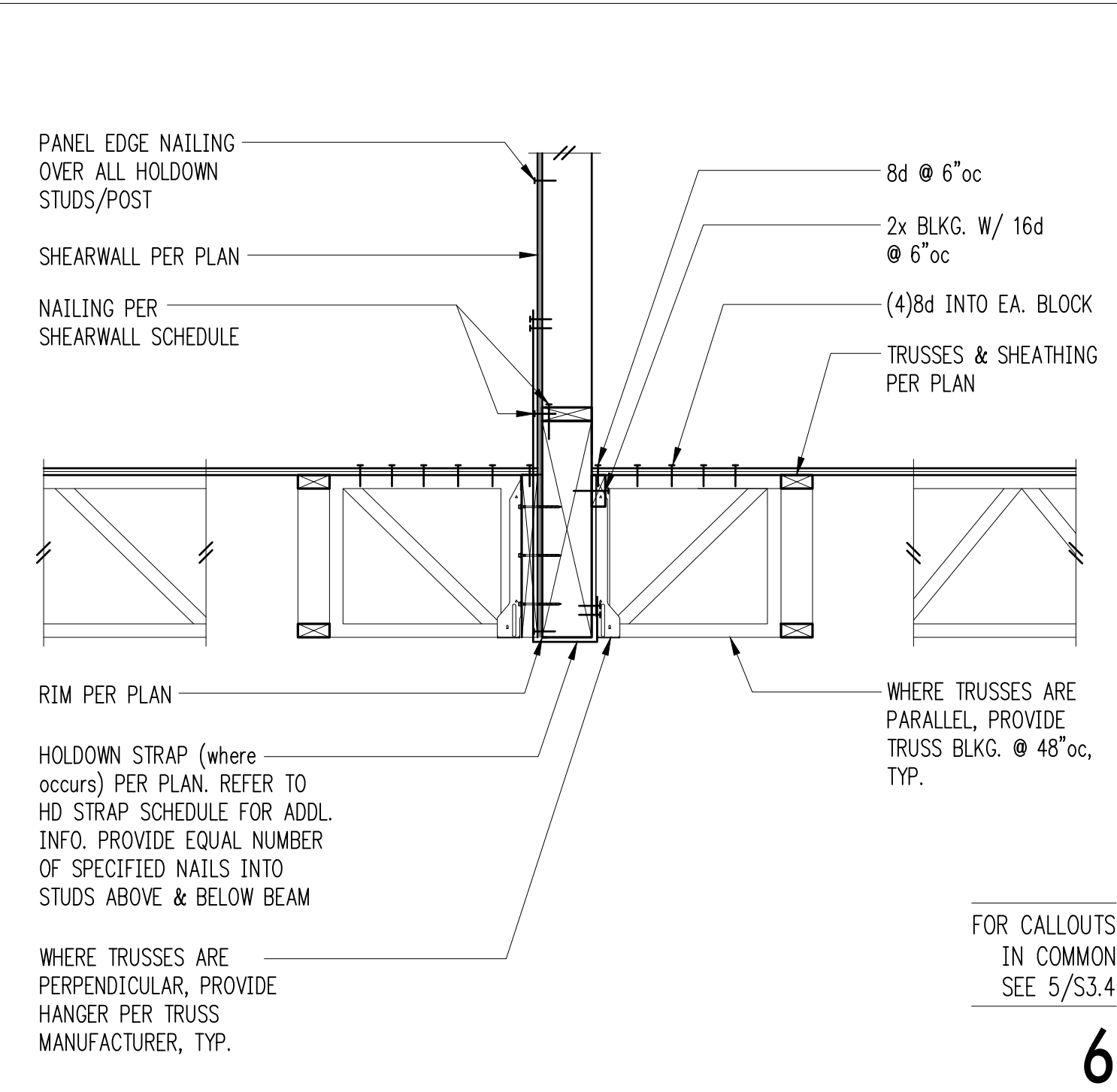
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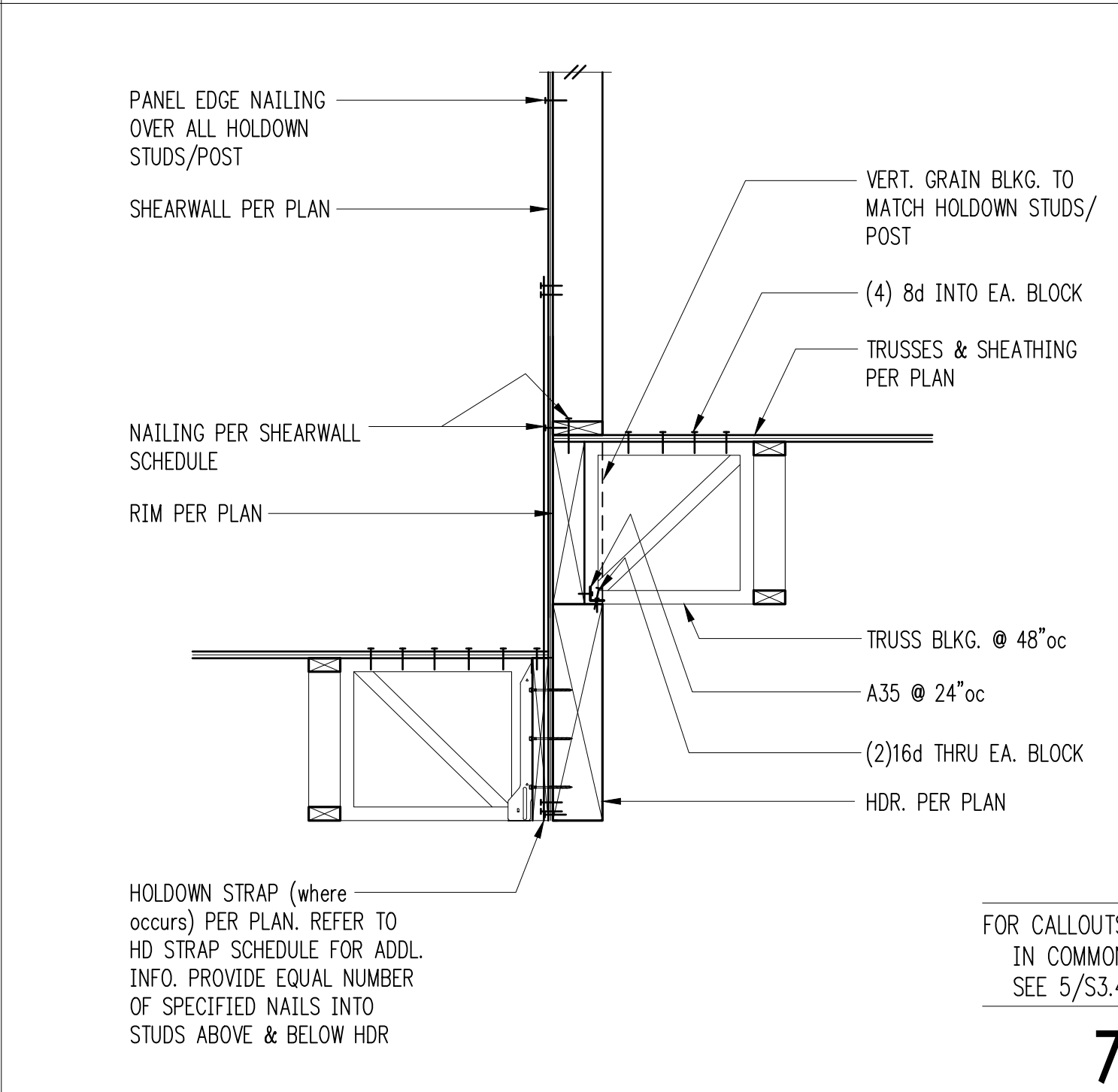
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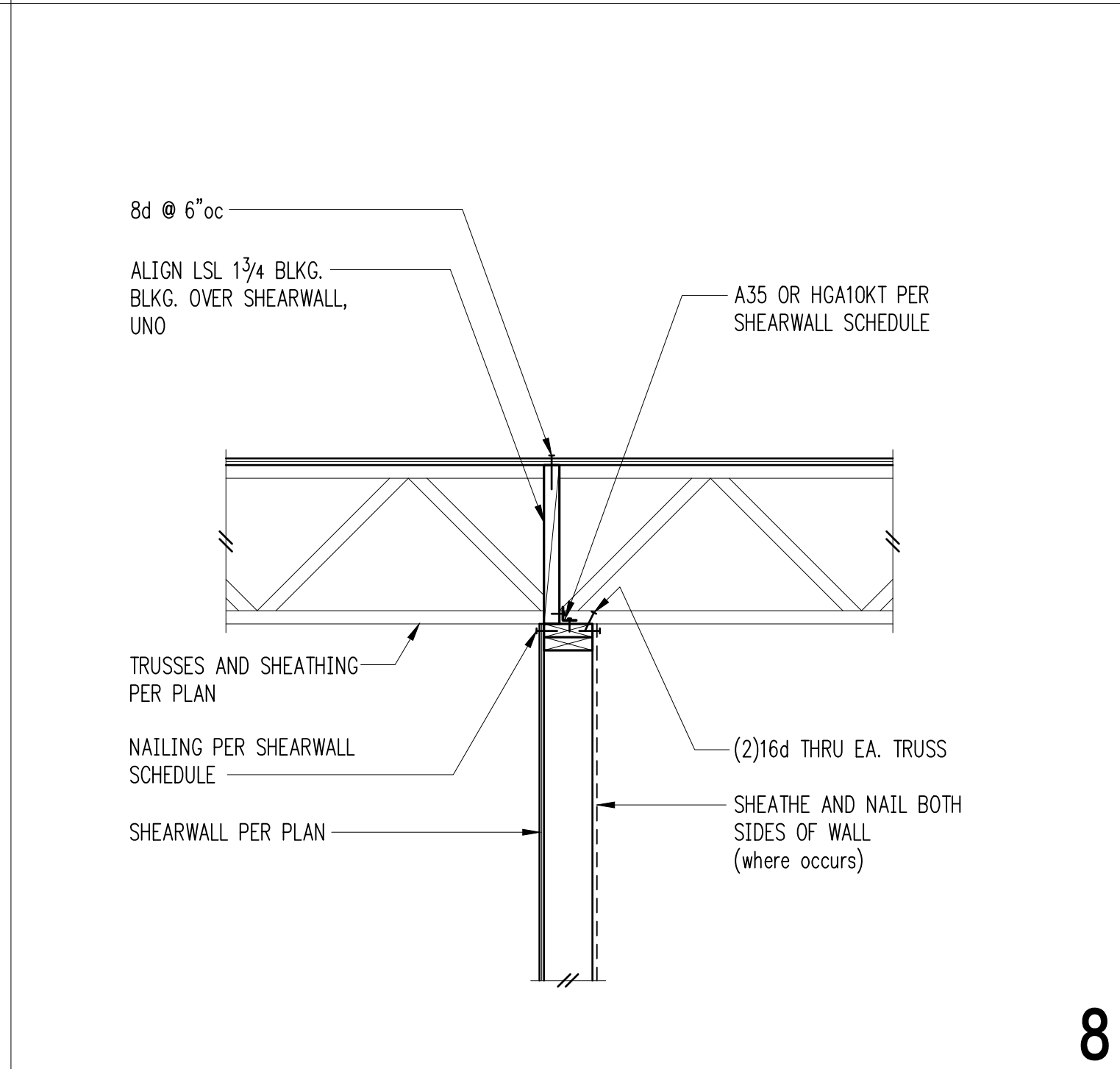
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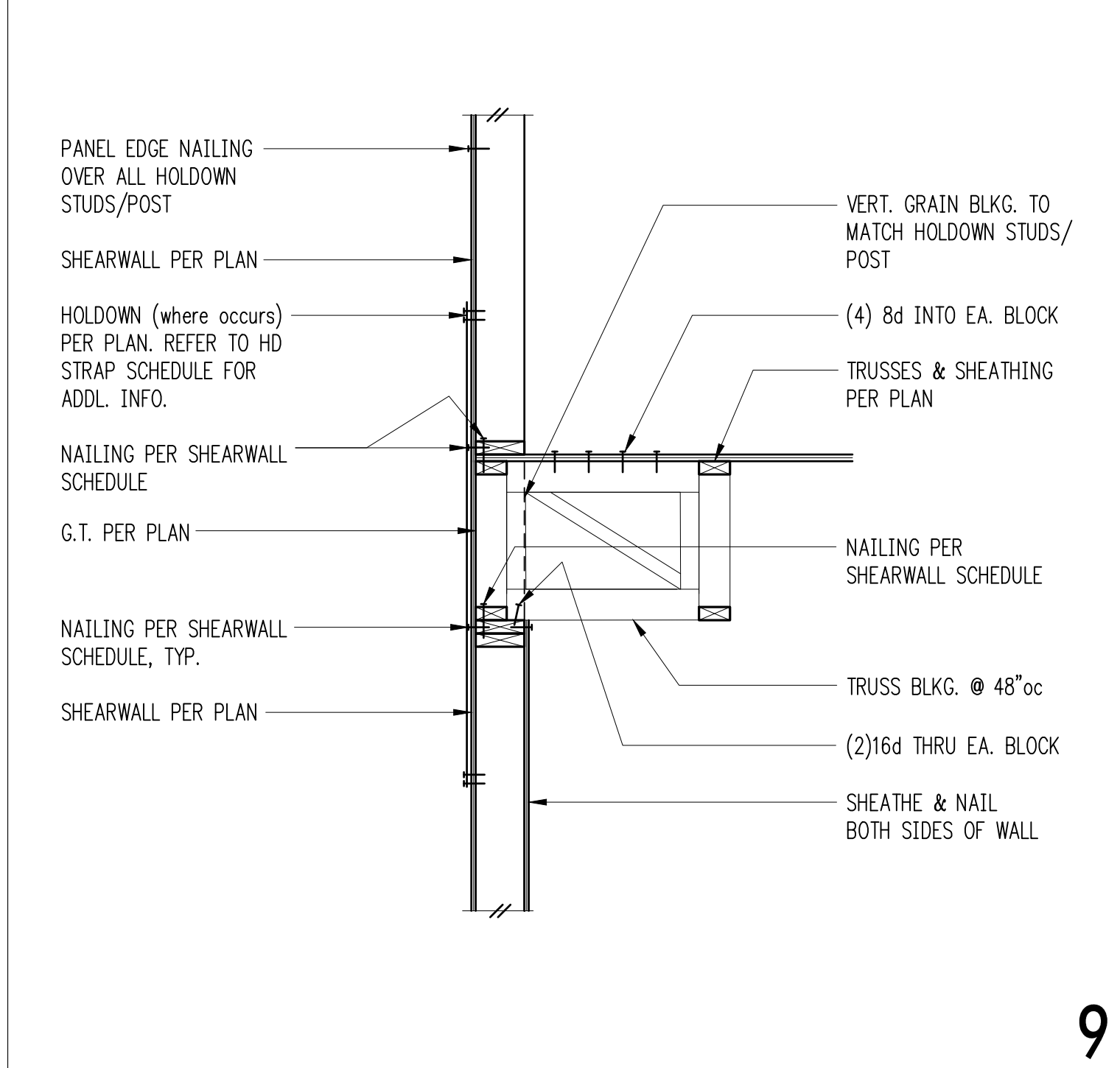
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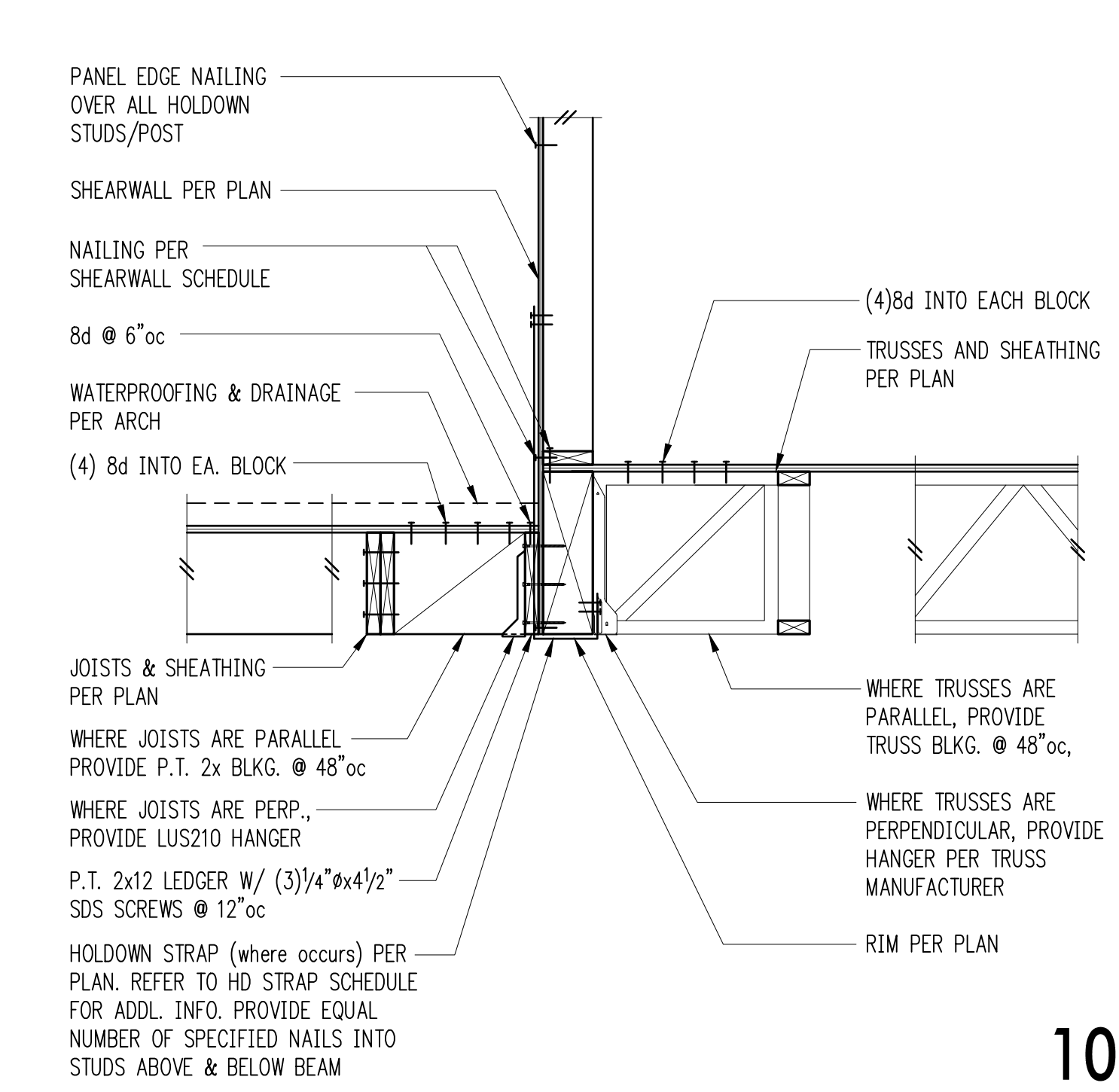
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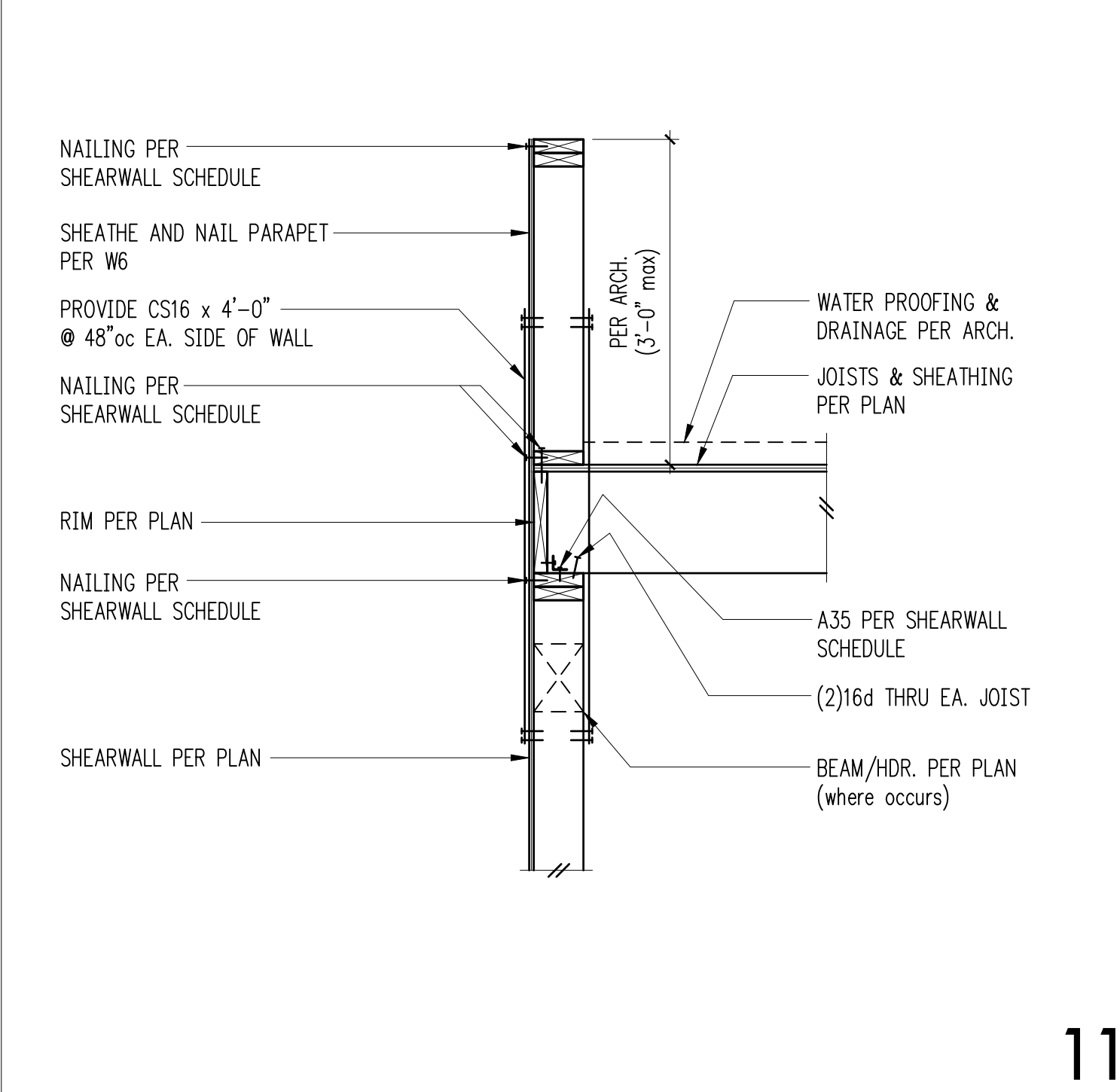
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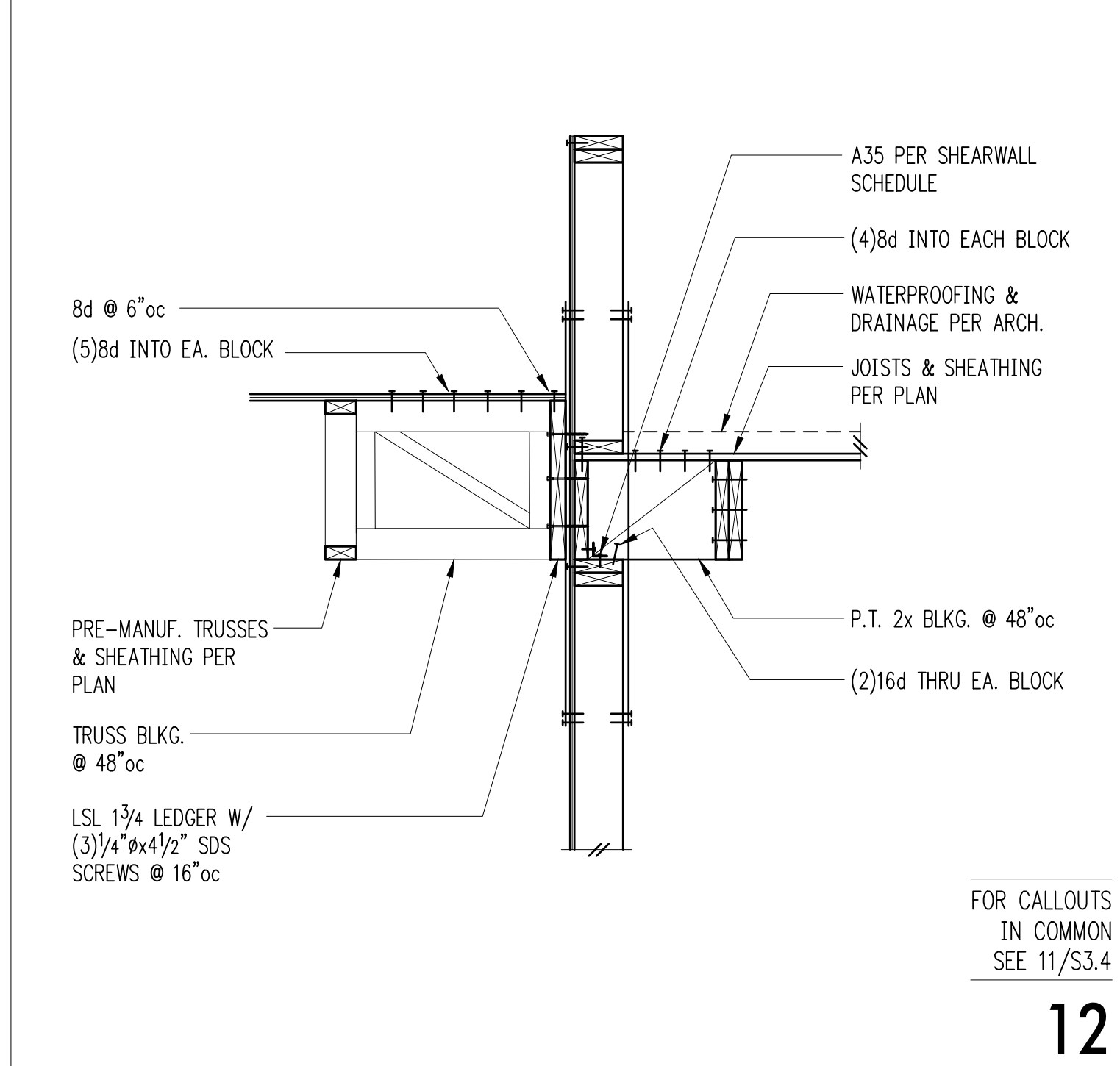
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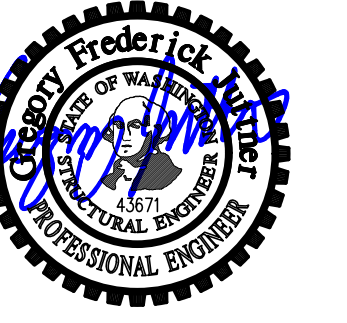
11



12

FOR CALLOUTS IN COMMON SEE 11/S3.4





DRAWN: SRK/ABH  
 DESIGN: JDT  
 CHECKED: JDT  
 APPROVED: GFJ

REVISIONS:

|  |  |
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JURISDICTIONAL APPROVAL STAMP:

PROJECT TITLE:  
**Rainier 9118**

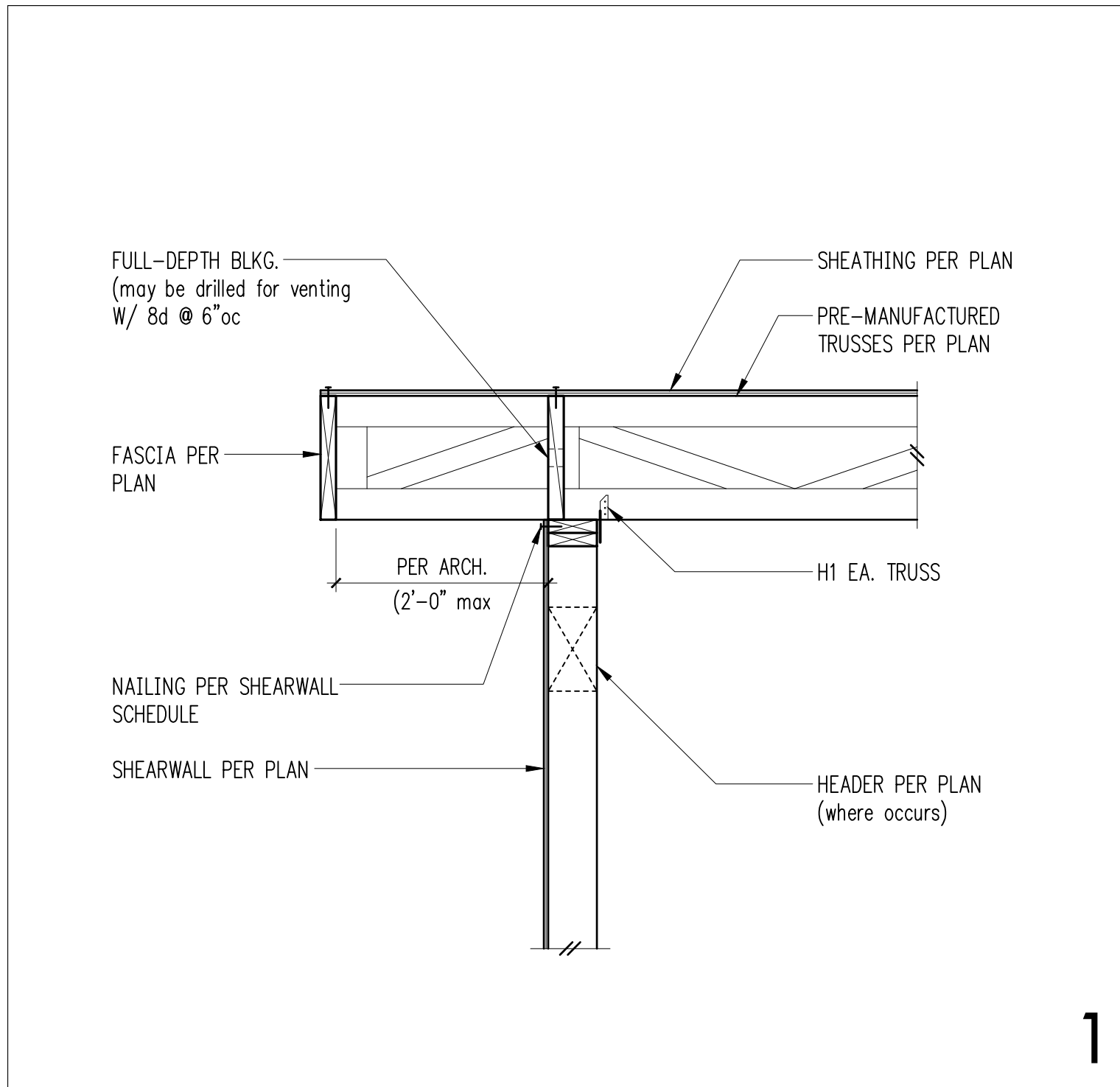
ARCHITECT:  
**William E. Buchan Homes**  
 2630 116th Ave NE Suite 100  
 Bellevue, WA 98004

ISSUE:  
**PERMIT SET**

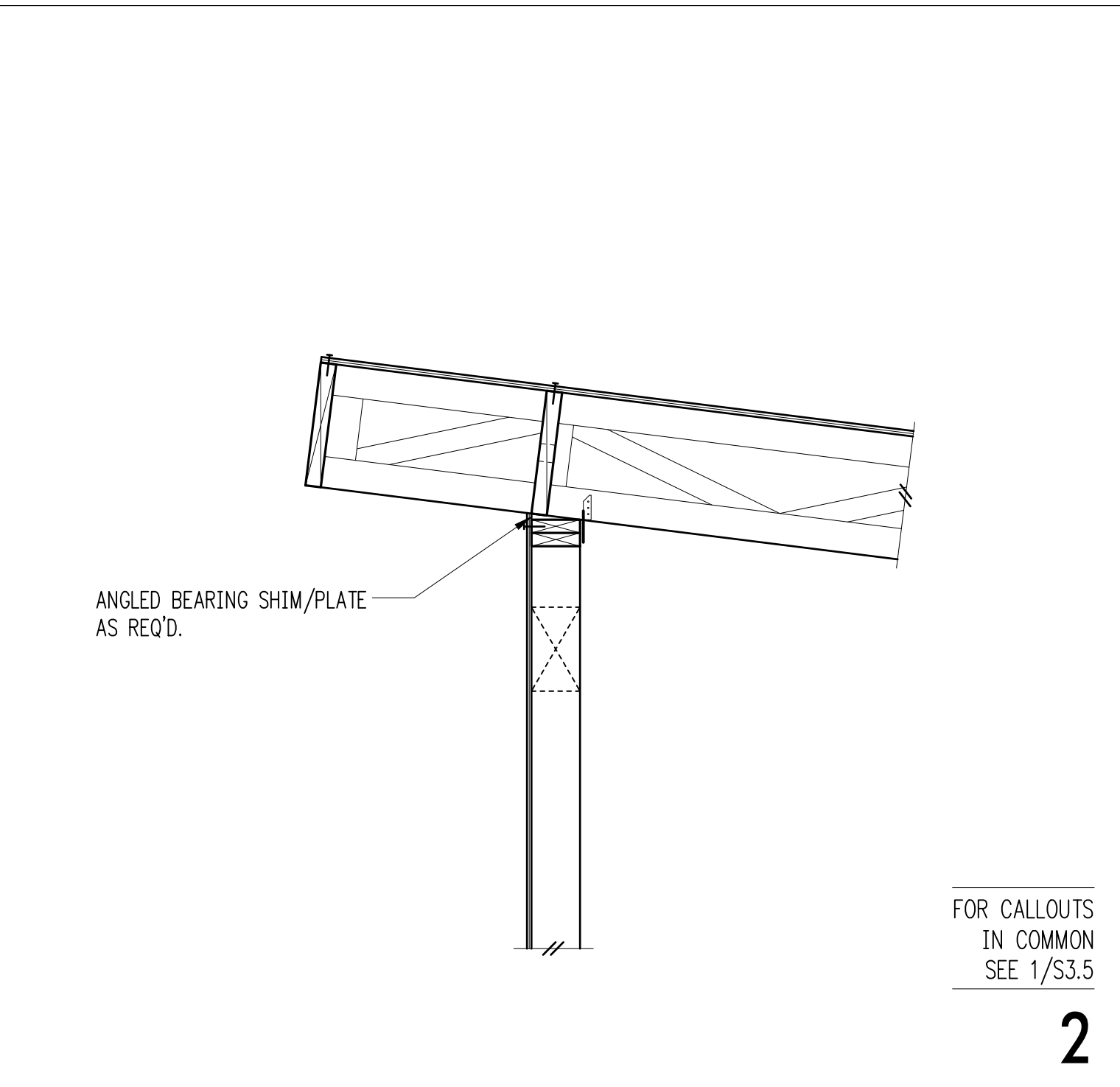
SHEET TITLE:  
**Wood Framing Details**

SCALE: 3/4" = 1'-0" U.N.O.  
 DATE: September 10, 2021  
 PROJECT NO: 01011-2021-06  
 SHEET NO:

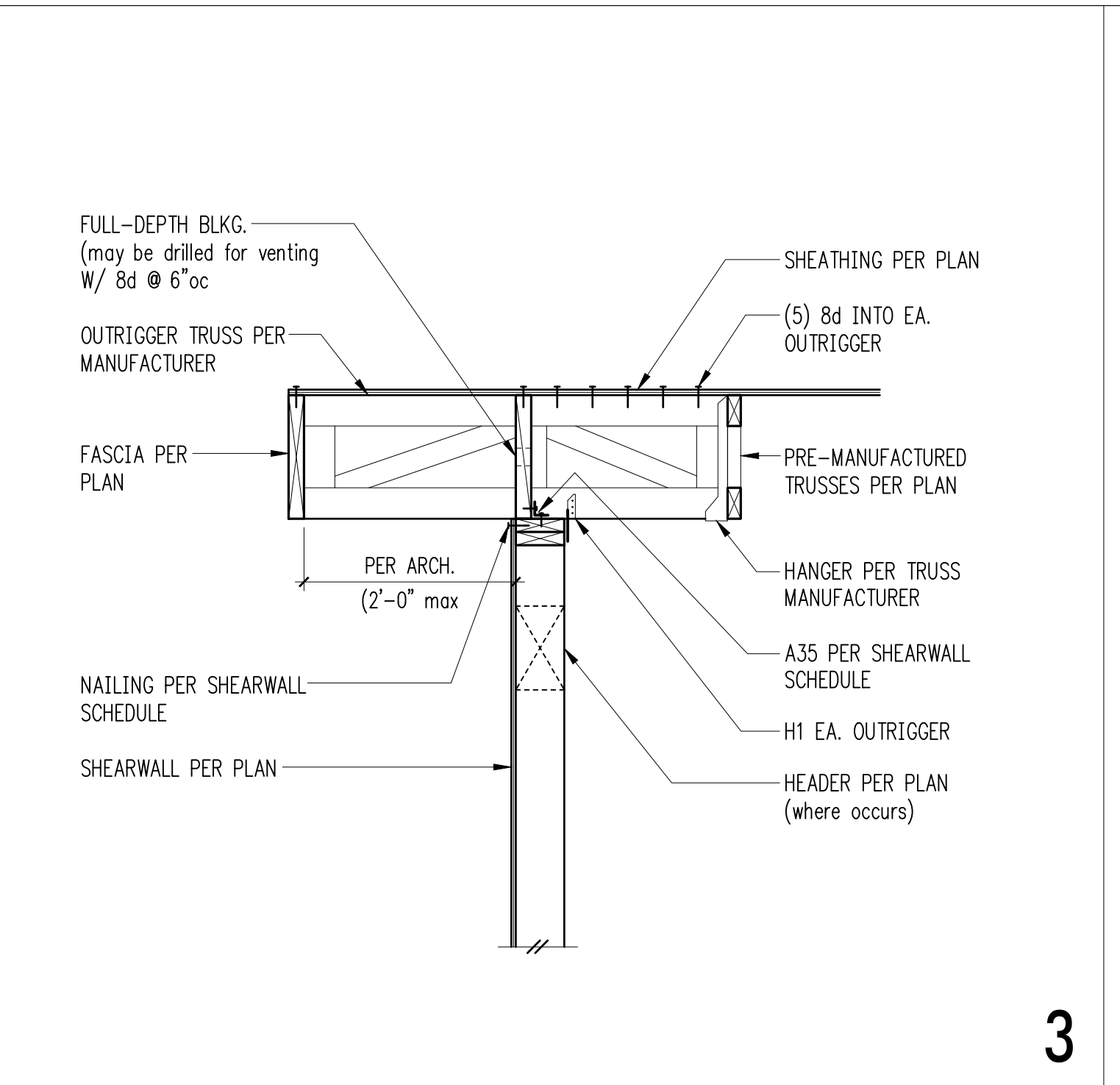
**S3.5**



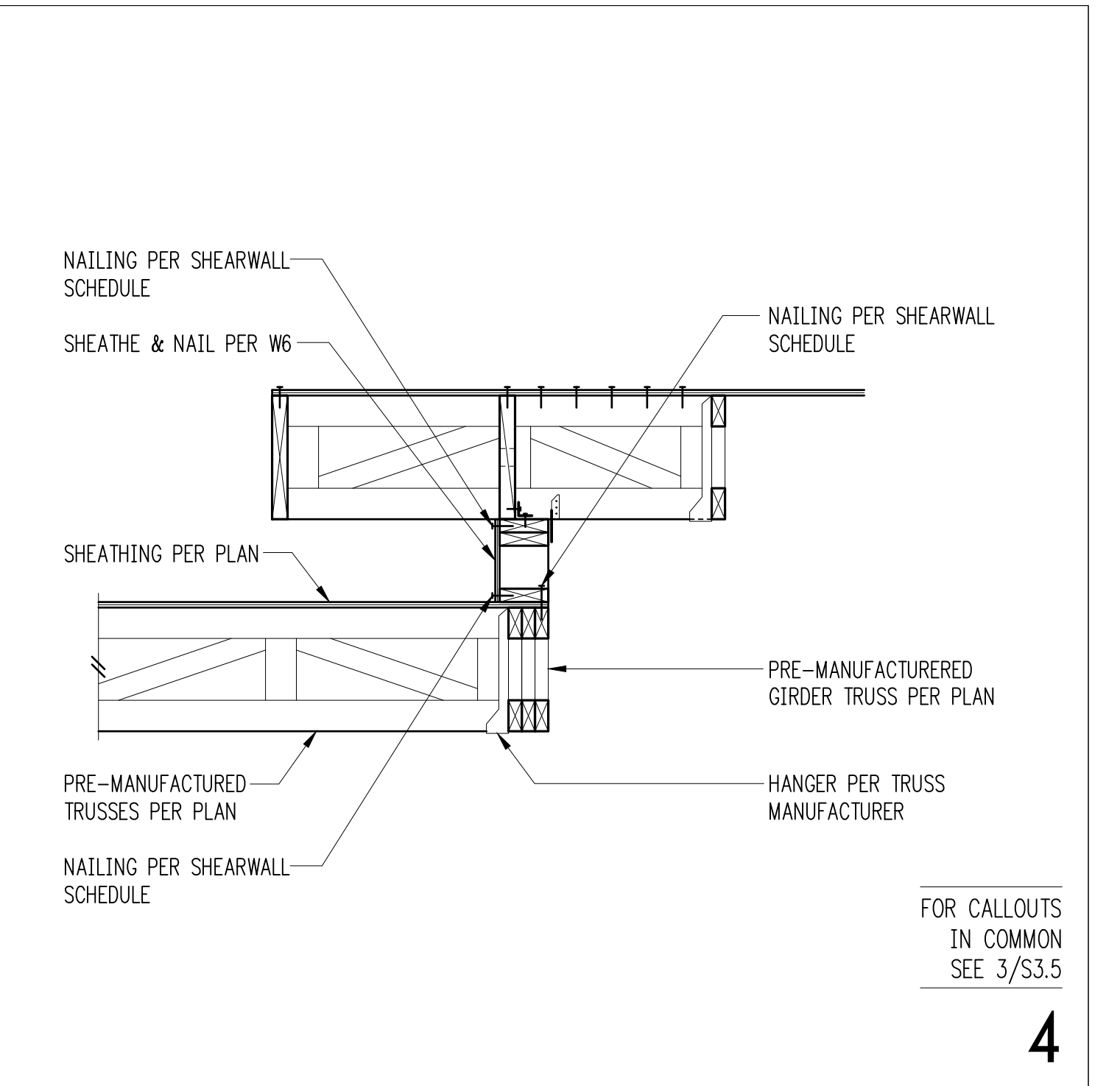
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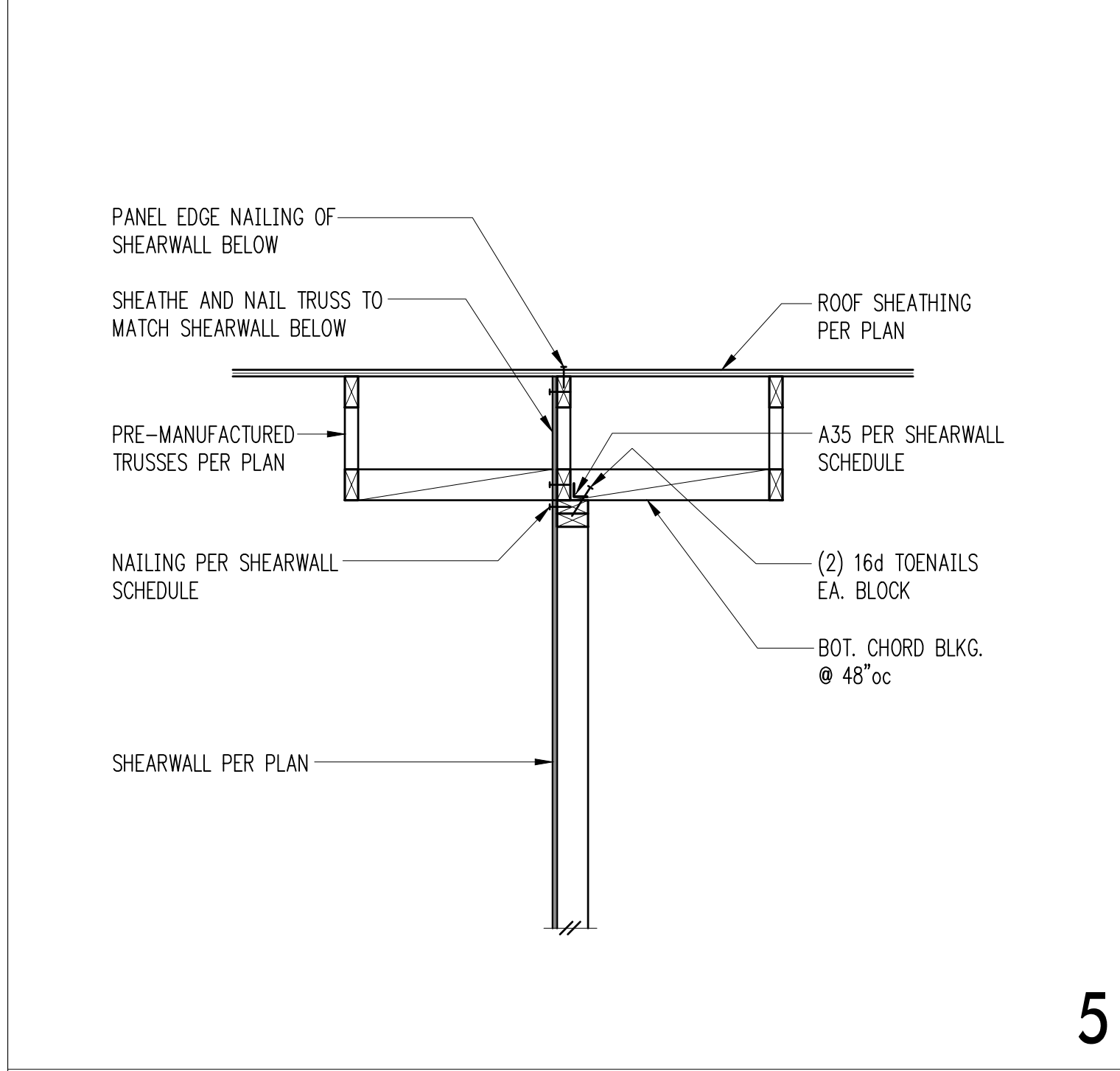
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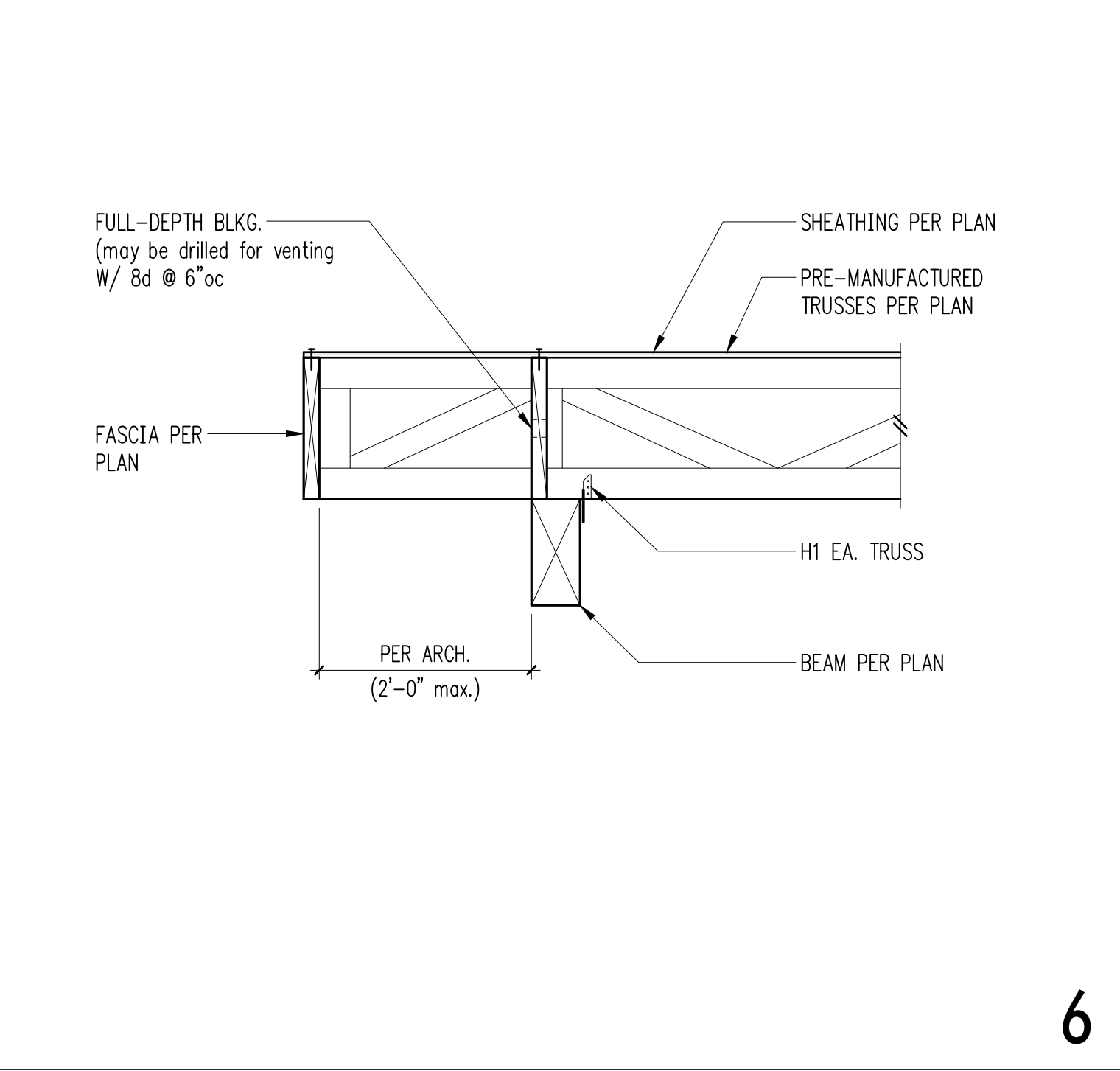
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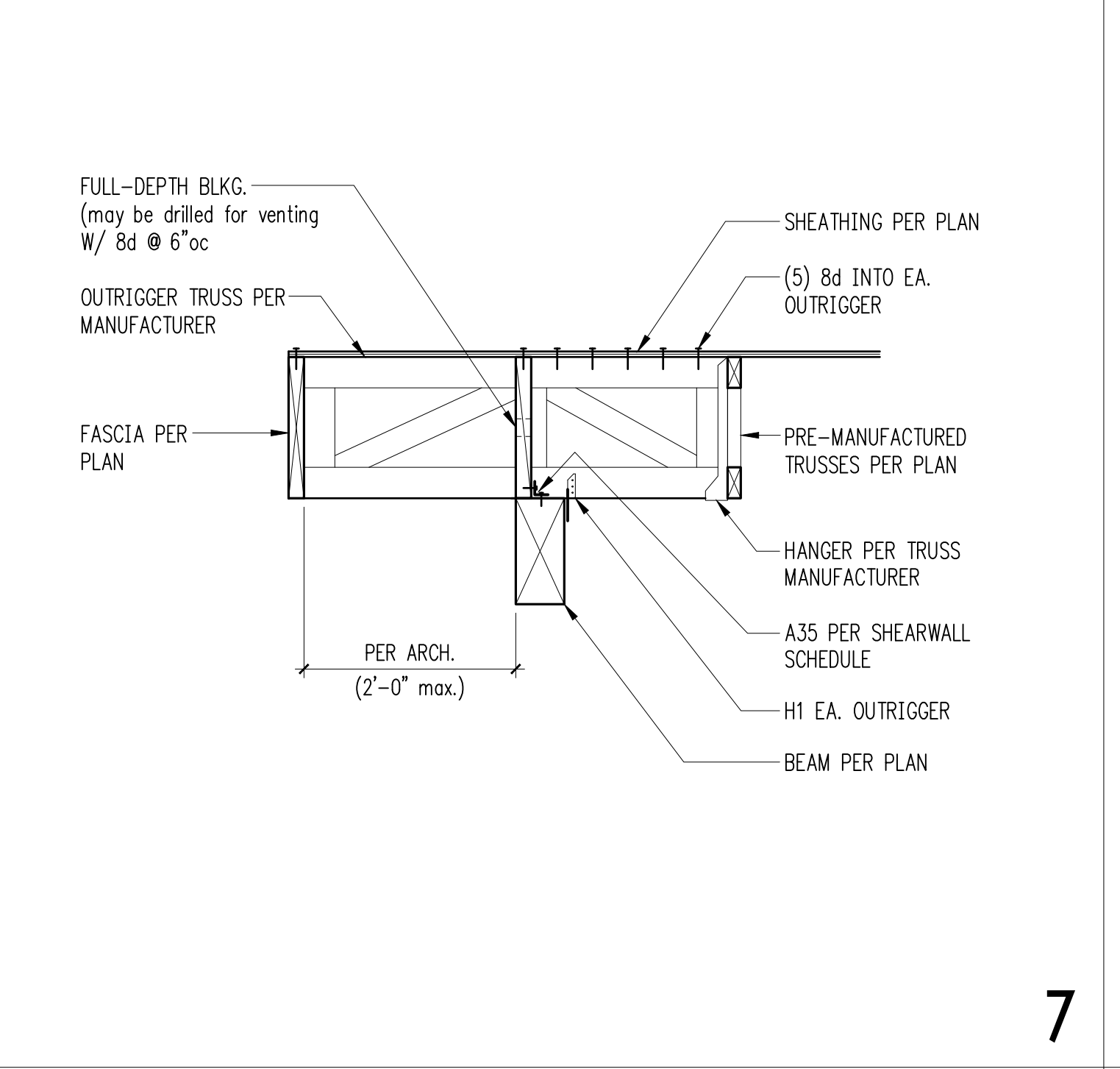
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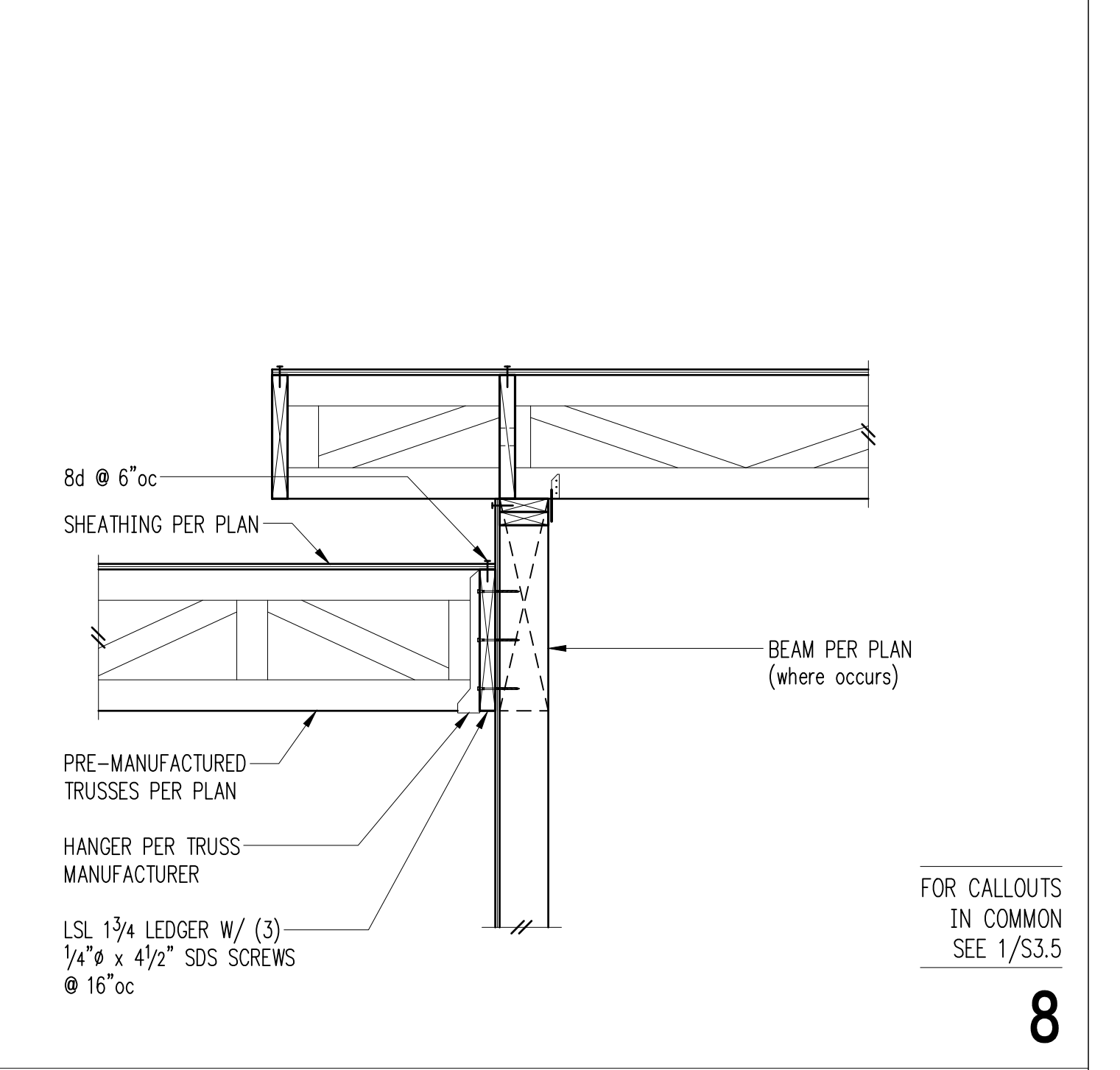
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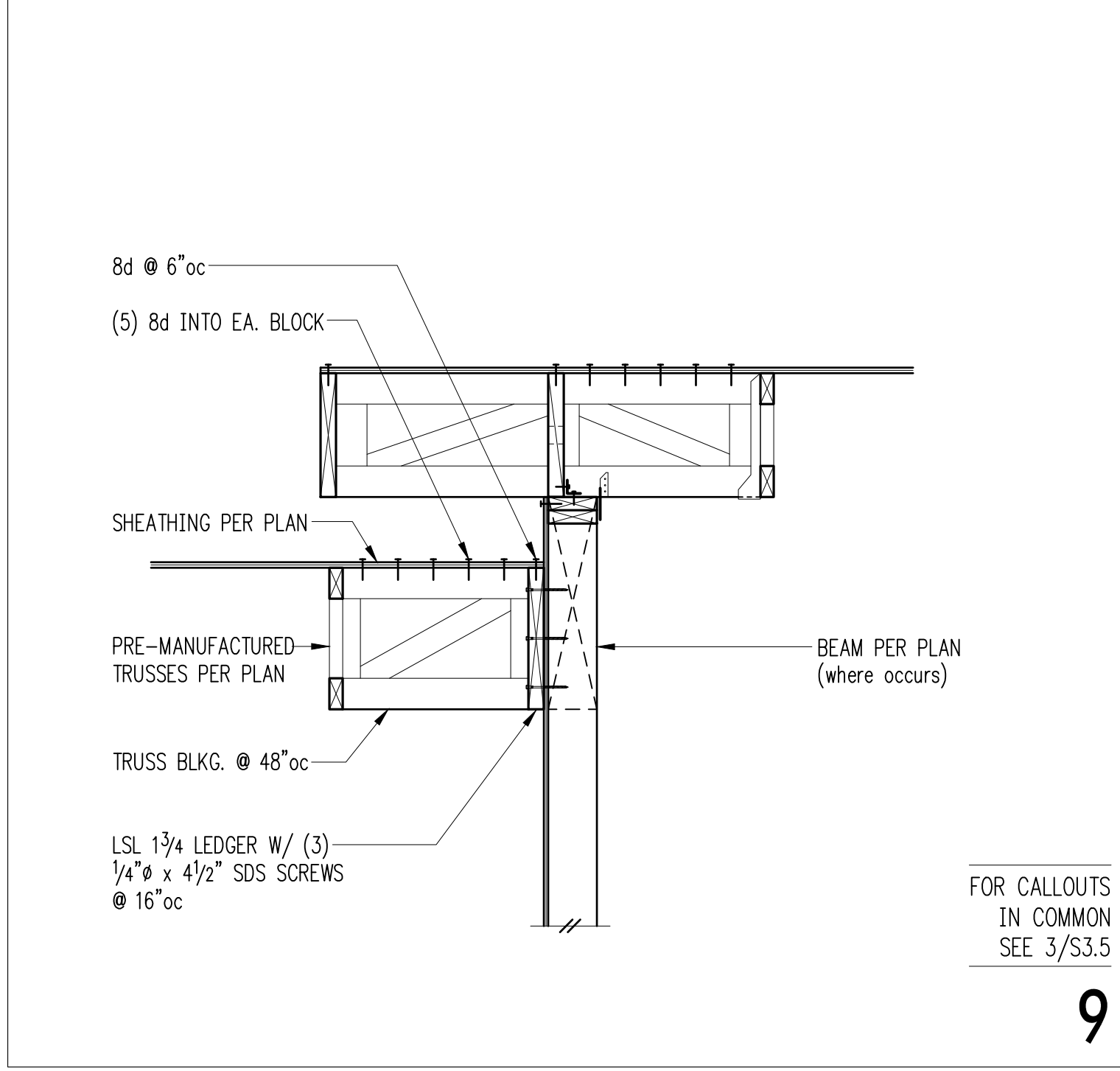
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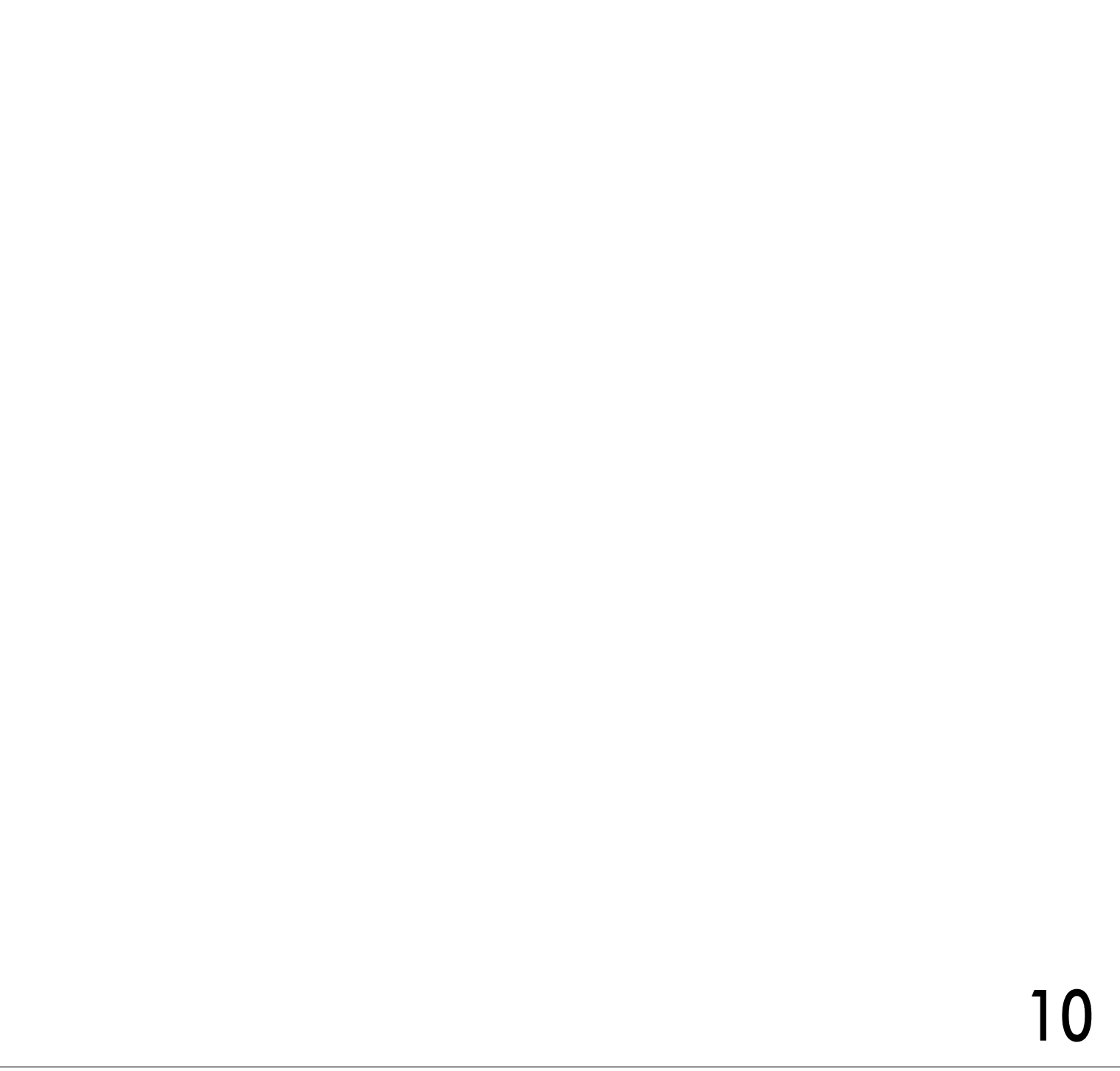
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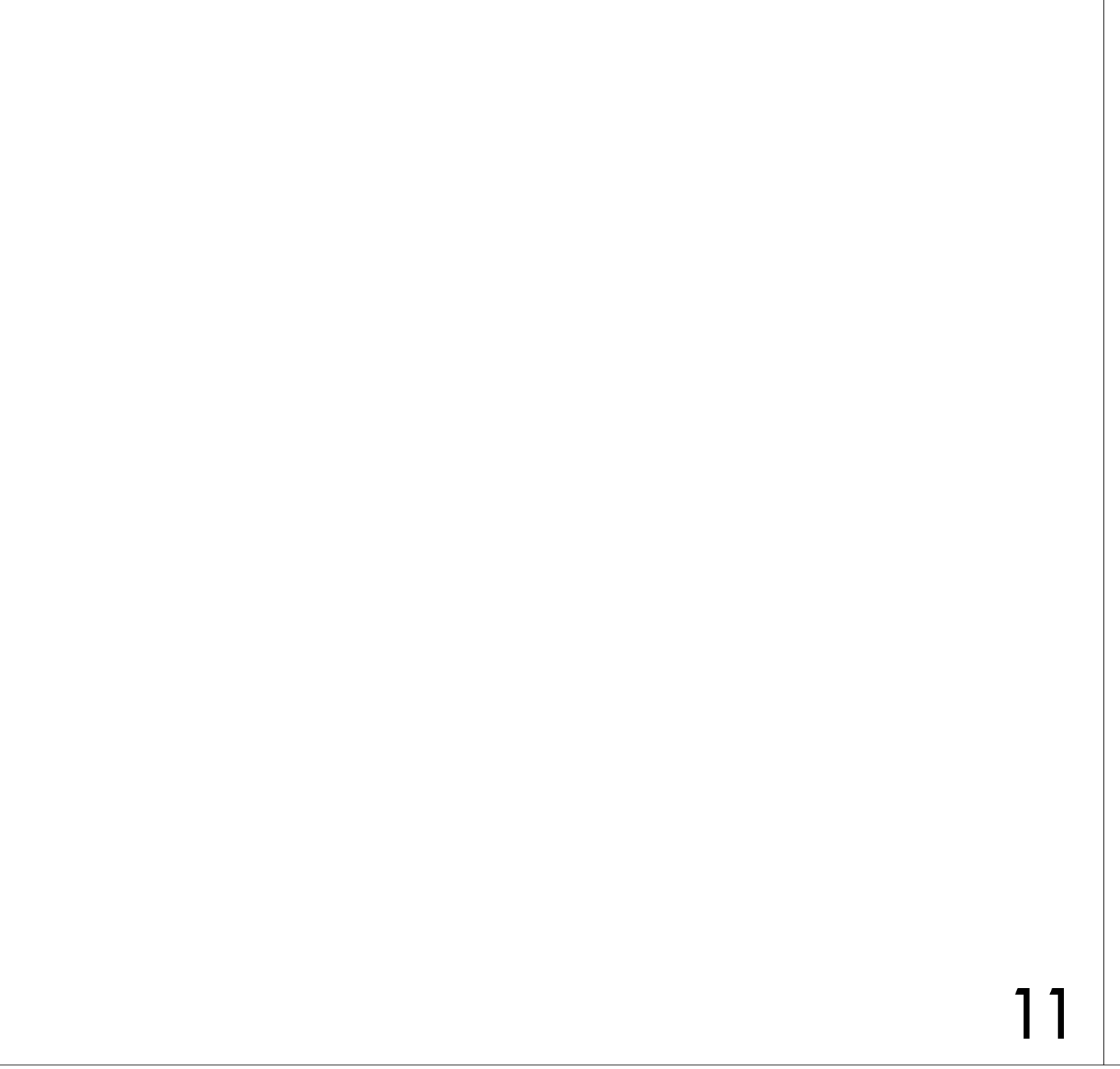
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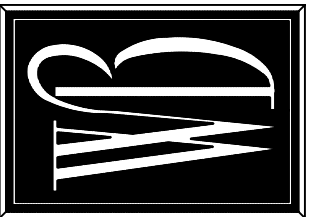
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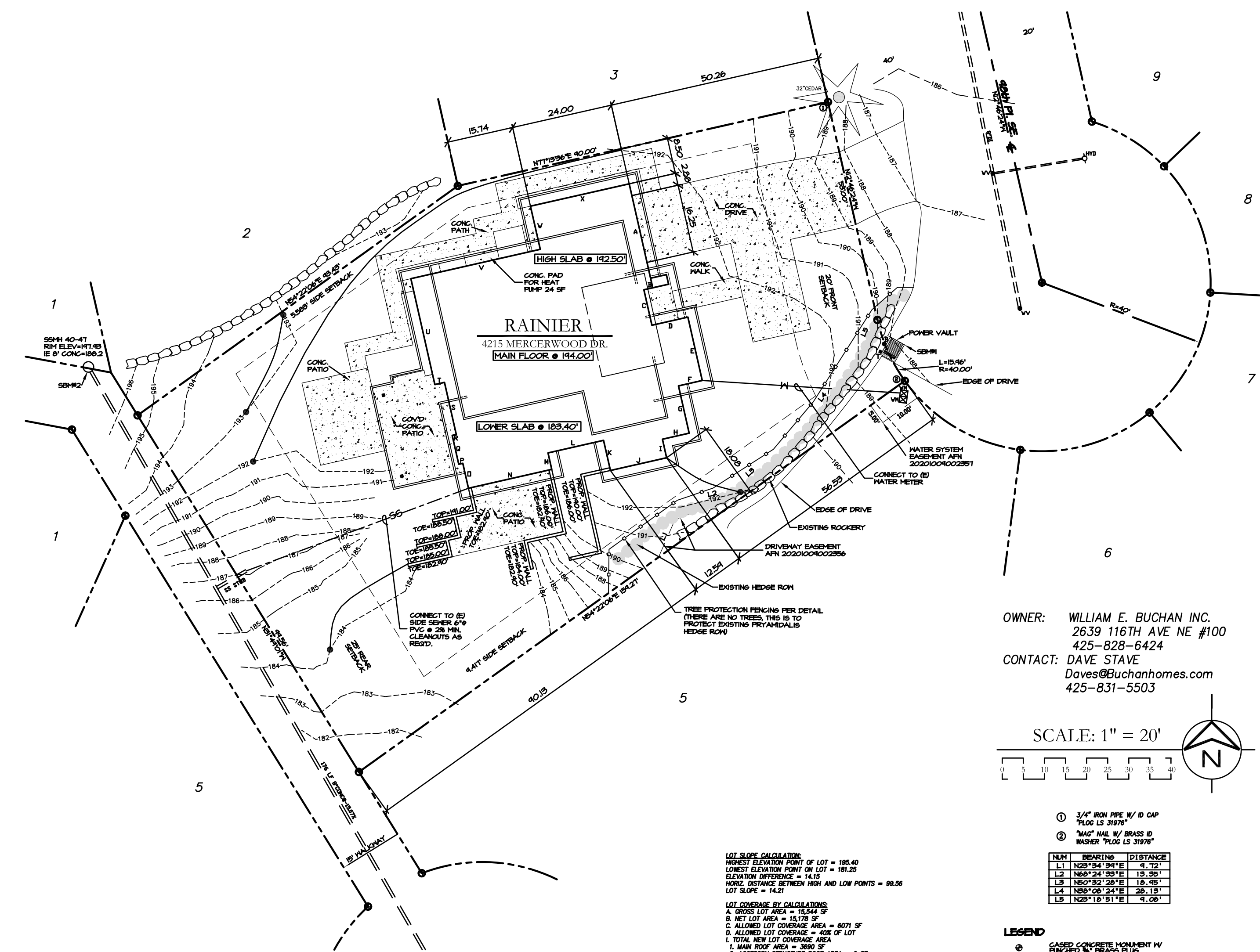


CONTENT  
**SITE PLAN**  
 4215 MERCERWOOD DR

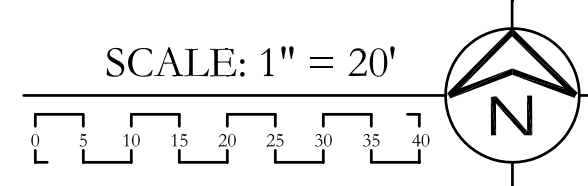
JOB NO.  
**9118**  
 DATE  
**10/14/21**  
 DRAWN BY  
**DS**  
 ENGINEER  
**SSF**

| REVISION | DATE     |
|----------|----------|
| 1        | XX/XX/XX |
|          |          |
|          |          |
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|          |          |
|          |          |
|          |          |
|          |          |

SHEET  
**S**



OWNER: WILLIAM E. BUCHAN INC.  
 2639 116TH AVE NE #100  
 425-828-6424  
 CONTACT: DAVE STAVE  
 Daves@Buchanhomes.com  
 425-831-5503



| SYM | DESCRIPTION               |
|-----|---------------------------|
| 1   | 3/4" IRON PIPE W/ 10 CAP  |
| 2   | 1/2" IRON PIPE W/ 10 CAP  |
| 3   | 1/2" IRON PIPE W/ BRASS D |
| 4   | 1/2" IRON PIPE W/ BRASS D |
| 5   | 1/2" IRON PIPE W/ BRASS D |
| 6   | 1/2" IRON PIPE W/ BRASS D |
| 7   | 1/2" IRON PIPE W/ BRASS D |
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| 98  | 1/2" IRON PIPE W/ BRASS D |
| 99  | 1/2" IRON PIPE W/ BRASS D |
| 100 | 1/2" IRON PIPE W/ BRASS D |

### TREE PROTECTION AREA (TPZ) KEEP OUT!

**DO NOT REMOVE OR ADJUST THE APPROVED LOCATION OF THIS TREE PROTECTION AREA**

Trees enclosed by this fence are protected and are subject to the conditions of the tree permit. Violation of tree conditions may lead to:

1. Correction Notices or Stop Work Orders until compliance is achieved
2. RE Inspection Fees
3. Arborist reports recommending mitigation

Notes:

1. No pruning shall be performed unless under the direction of an arborist
2. No equipment shall be stored or operated inside the protective fencing including during fence installation and removal
3. No storage of materials shall occur inside the protective fencing
4. Refer to Site/Utility Plan for allowable modifications to the tree protection area.
5. Unauthorized activities in tree protection area may require evaluation by private arborist to identify impacts and mitigation required
6. Exposed roots for roots > 1" damaged during construction, make a clean straight cut to remove damaged portion and inform City Arborist

Tree protection fence: 4'6" chain link fence, solidly anchored into the ground, or 4' authorized high-density polyethylene fencing with 3.5" x 1.5" openings; color orange. Steel posts installed at 8' o.c.

2" x 6" steel posts or approved equal

Maintain existing grade with the tree protection fence unless otherwise indicated on the plans.

Any Work in the protected area must be with the permission of the City Arborist [john.keeney@mercergov.org](mailto:john.keeney@mercergov.org)

LOT SLOPE CALCULATION:  
 HIGHEST ELEVATION POINT OF LOT = 185.40  
 LOWEST ELEVATION POINT OF LOT = 181.20  
 ELEVATION DIFFERENCE = 4.20  
 HORIZONTAL DISTANCE BETWEEN HIGH AND LOW POINTS = 99.50  
 LOT SLOPE = 4.21%

LOT COVERAGE CALCULATIONS:  
 A. GROSS LOT AREA = 15,544 SF  
 B. NET LOT AREA = 14,176 SF  
 C. ALLOWED LOT COVERAGE AREA = 80% OF LOT AREA = 11,341 SF  
 D. TOTAL NEW LOT COVERAGE AREA = 0 SF  
 E. TOTAL EXISTING LOT COVERAGE AREA = 0 SF  
 F. TOTAL PROJECT LOT COVERAGE AREA = 0 SF

HARDSCAPE CALCULATIONS:  
 A. GROSS LOT AREA = 15,544 SF  
 B. NET LOT AREA = 14,176 SF  
 C. AREA BOUNDARY FROM LOT COVERAGE = 80% OF LOT AREA = 11,341 SF  
 D. ALLOWED HARDSCAPE AREA = 80% OF LOT AREA = 11,341 SF  
 E. TOTAL EXISTING HARDSCAPE AREA = 2,007 SF  
 F. TOTAL PROJECT HARDSCAPE AREA = 2,007 SF  
 G. TOTAL EXISTING HARDSCAPE AREA = 136 SF  
 H. TOTAL PROJECT HARDSCAPE AREA = 136 SF  
 I. TOTAL PROJECT HARDSCAPE AREA = 136 SF  
 J. TOTAL PROJECT HARDSCAPE AREA = 136 SF

AVERAGE BUILDING ELEVATION:  
 A = 182.50 x 25.39 = 4623.75  
 B = 182.20 x 27.17 = 4950.14  
 C = 182.40 x 24.85 = 4531.98  
 D = 182.70 x 27.75 = 5068.88  
 E = 182.80 x 25.42 = 4648.28  
 F = 182.90 x 27.78 = 5080.26  
 G = 182.80 x 27.78 = 5080.26  
 H = 182.40 x 25.00 = 4560.00  
 I = 182.50 x 25.00 = 4562.50  
 J = 182.50 x 25.00 = 4562.50  
 K = 182.50 x 25.00 = 4562.50  
 L = 182.50 x 25.00 = 4562.50  
 M = 182.50 x 25.00 = 4562.50  
 N = 182.50 x 25.00 = 4562.50  
 O = 182.50 x 25.00 = 4562.50  
 P = 182.50 x 25.00 = 4562.50  
 Q = 182.50 x 25.00 = 4562.50  
 R = 182.50 x 25.00 = 4562.50  
 S = 182.50 x 25.00 = 4562.50  
 T = 182.50 x 25.00 = 4562.50  
 U = 182.50 x 25.00 = 4562.50  
 V = 182.50 x 25.00 = 4562.50  
 W = 182.50 x 25.00 = 4562.50  
 X = 182.50 x 25.00 = 4562.50  
 Y = 182.50 x 25.00 = 4562.50  
 Z = 182.50 x 25.00 = 4562.50

Avg. Building Elevation (AVE) = 2155.35/289.08 = 181.58  
 ALLOWED BUILDING HEIGHT = 21.58'  
 TOTAL BUILDING HEIGHT = 24.57'  
 PROPOSED ROOF HEIGHT = 24.58'  
 MAIN FLOOR ELEVATION = 114.00'  
 MAIN GROUND ELEVATION = 182.50'

**RAINIER**

# 4215 MERCERWOOD DR MERCER ISLAND SITE PLAN

**VERTICAL DATUM**

NAVD 88

**BENCHMARK**

CITY OF MERCER ISLAND BENCHMARK NO. 2173  
BRASS NAIL W/ PUNCH IN 3"x3" CONC @ INTX. 86TH AVE SE & SE 44TH ST  
ELEVATION: 359.37'  
SITE BENCH MARK#1 (SBM#1): NE CORNER OF POWER VAULT - 8.5N OF SE CORNER OF LOT. ELEVATION=187.90 (NAVD 88)  
SITE BENCH MARK#2 (SBM#2): SLY RIM SANITARY SEWER MANHOLE #40-47 - 15.5' NW OF NW LOT CORNER ELEVATION=197.93 (NAVD 88)

**HORIZONTAL DATUM & BASIS OF BEARING**

PER THE PLAT OF MERCERWOOD ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 52 OF PLATS, PAGE 32, RECORDS OF KING COUNTY WASHINGTON.  
ACCEPTED THE BEARING OF S 12°46'24" E FOR 150TH PLACE BASED ON FOUND MONUMENTS IN CASE PER RECORD OF SURVEY, RECORDING NO 20200818900007.

**LEGAL DESCRIPTION**

LOT 4, BLOCK N, MERCER WOOD, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 52 OF PLATS, PAGES 32

**SURVEY NOTES**

- BOUNDARY INFORMATION SHOWN IS ACCORDING TO A RECORD OF SURVEY RECORDED IN VOLUME 430 OF SURVEYS, PAGE 84, UNDER KING COUNTY RECORDING NO. 20200818900007
- VERTICAL CONTROL ESTABLISHED BY USING RTK MEASUREMENT UTILIZING A TOPCON MODEL HIPER SR GPS RECEIVER CONNECTED TO THE WASHINGTON STATE REFERENCE NETWORK (WSRN). VERTICAL DATUM - NAVD 88
- SITE BENCH MARK#1 (SBM#1): NE CORNER OF POWER VAULT - 8.5N OF SE CORNER OF LOT. ELEVATION=187.90 (NAVD 88)
- SITE BENCH MARK#2 (SBM#2): SLY RIM SANITARY SEWER MANHOLE #40-47 - 15.5' NW OF NW LOT CORNER ELEVATION=197.93 (NAVD 88)
- WATER AND SEWER INFORMATION, INCLUDING PIPE SIZES IS ACCORDING TO CITY OF MERCER ISLAND RECORDS.
- CONTOUR INTERVAL = 1 FOOT
- SITE ADDRESS: 4215 MERCERWOOD DR.
- SITE APN: 545800-0480
- SITE AREA: 15,544 SQ. FT.

**SITE DATA**

HIGHEST ELEVATION OF LOT: 195.4  
LOWEST ELEVATION OF LOT: 181.0  
LOT SLOPE: 14.5%  
TOTAL SITE AREA: 15,544 SF  
ALLOWED LOT COVERAGE: 40%  
PROPOSED LOT COVERAGE \* 5,340 SF (34.4%)  
PROPOSED HARDSCAPE 1,160 SF (7.5%)  
PROJECT IMPERVIOUS AREA: 6,500 SF (41.8%)

\* LOT COVERAGE INCLUDES THE COMBINATION OF BUILDINGS, INCLUDING EAVES AND ROOF OVERHANGS, AND VEHICULAR DRIVING SURFACES AS DEFINED PER MMC 19.16.010

**OWNER / ARCHITECT**

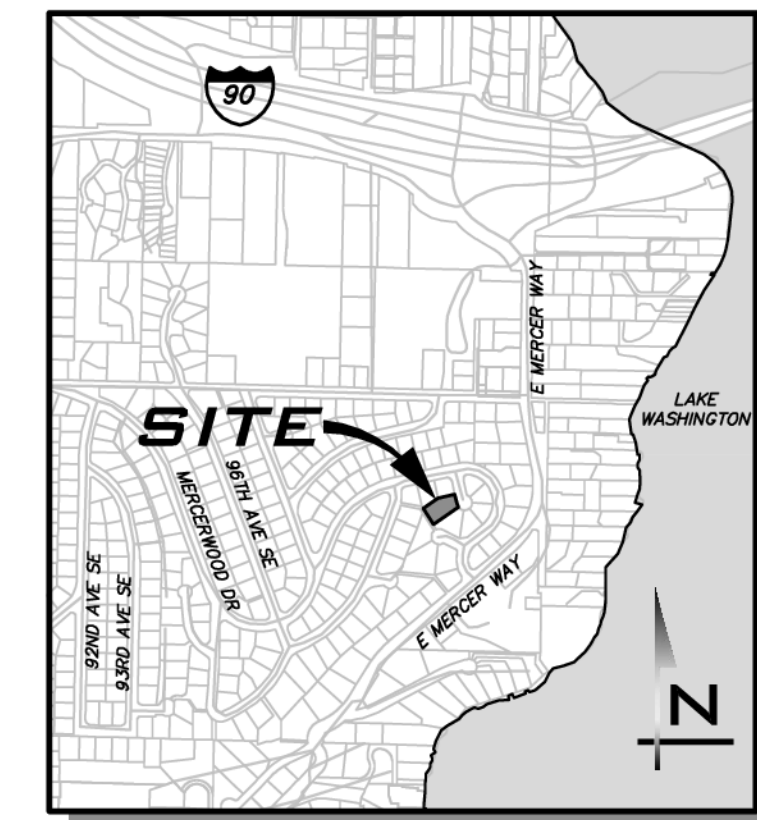
WILLIAM E. BUCHAN INC.  
2630 116 AVE NE #100  
BELLEVUE, WA 98004  
(425) 831-5503  
CONTACT: DAVID STAVE

**ENGINEER**

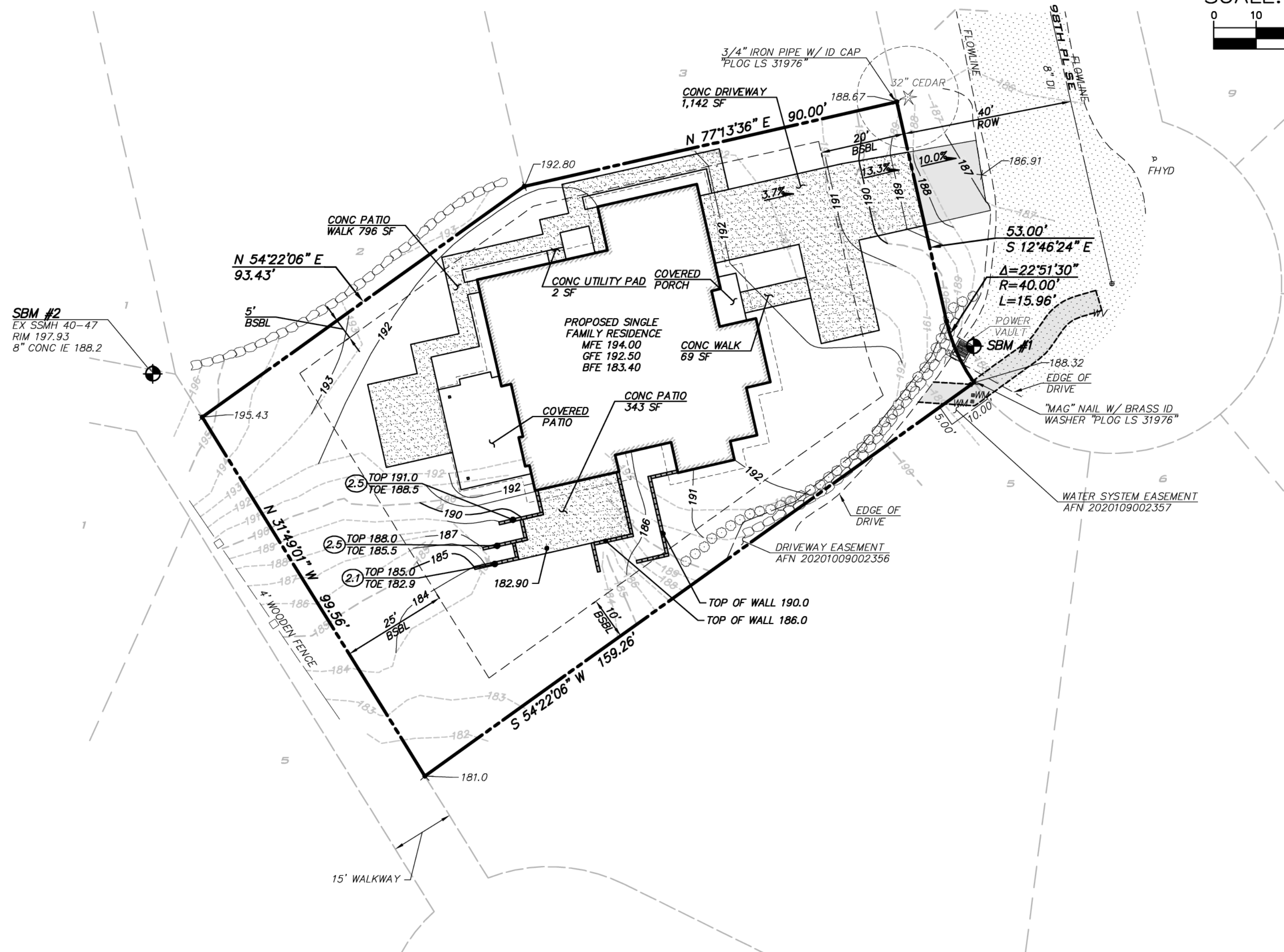
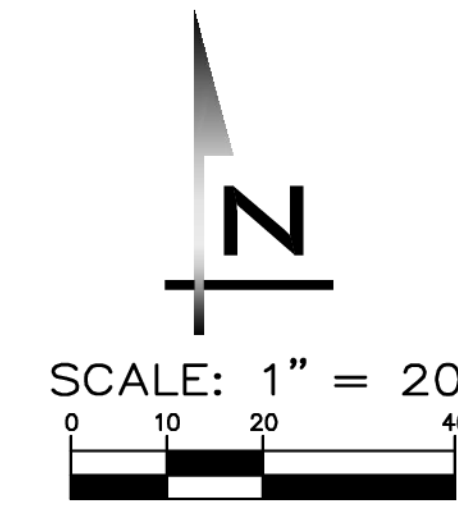
THE BLUELINE GROUP  
25 CENTRAL WAY, SUITE 400  
KIRKLAND, WA 98033  
(425) 250-7224  
CONTACT: TODD A. OBERG, PE

**GEOTECH ENGINEER**

TERRA ASSOCIATES, INC  
12220 113TH AVE NE, SUITE 130  
KIRKLAND, WA 98034  
(425) 821-7777  
CONTACT: CAROLYN S. DECKER, PE



VICINITY MAP  
NOT TO SCALE



| LEGEND                         |   |
|--------------------------------|---|
| <b>PROPOSED FEATURES</b>       |   |
| --- BOUNDARY                   | ■ MAILBOX                                 |
| --- RIGHT-OF-WAY               | ■ SIGN                                    |
| --- LOT LINE                   | ■ GRAVEL                                  |
| --- SIDEWALK                   | ■ ASPHALT PAVEMENT                        |
| --- CENTER LINE                | ■ CONCRETE                                |
| --- SAWCUT                     |   |
| --- EASEMENT                   |   |
| --- BUILDING FOOTPRINT         |   |
| --- BUILDING OVERHANG          |   |
| --- BUILDING ROOFLINE          |   |
| --- BUILDING SETBACK (BSBL)    |   |
| --- 190 10' PROPOSED CONTOURS  |   |
| --- 192 2' PROPOSED CONTOURS   |   |
| <b>PROPOSED STORM DRAINAGE</b> |   |
| --- STORM DRAIN PIPE           | ⊙ YARD DRAIN                              |
| --- ROOF & FOOTING DRAIN       |   |
| --- SWALE OR DITCH             |   |
| --- SURFACE FLOW               |   |
| <b>EXISTING FEATURES</b>       |   |
| --- ADJACENT PLAT/PARCEL LINE  | ⊠ GAS METER                               |
| --- ADJACENT RIGHT-OF-WAY      | ⊠ GAS VALVE                               |
| --- CENTERLINE                 | ⊠ MAIL BOX                                |
| --- EASEMENT                   | ⊠ SIGN                                    |
| --- SURFACE FEATURES           | ⊠ EXISTING CONIFEROUS TREE                |
| --- BUILDING FOOTPRINT         | ⊠ EXISTING DECIDUOUS TREE                 |
| --- 190 10' CONTOURS           | ⊠ DRIP LINE                               |
| --- 192 2' CONTOURS            | ⊠ CONIFEROUS TREE TO BE SAVED             |
| --- SD STORM DRAIN PIPE        | ⊠ DECIDUOUS TREE TO BE SAVED              |
| SS SEWER MAIN                  | ⊠ EXISTING CONIFEROUS TREE TO BE REMOVED  |
| W WATER MAIN                   | ⊠ EXISTING DECIDUOUS TREE TO BE REMOVED   |
| OHP AERIAL POWER LINE          | ⊠ ASPHALT                                 |
| G GAS MAIN                     | ⊠ CONCRETE                                |
| X WIRE FENCE                   | ⊠ GRAVEL                                  |
| □ BOARD FENCE                  |   |
| □ RETAINING WALL               |   |
| ○ ROCKERY                      |   |
| ⊠ CATCH BASIN, TYPE I          |   |
| ⊠ CATCH BASIN, TYPE II         |   |
| ⊠ SD PIPE FLOW                 |   |
| ⊠ SEWER MANHOLE                |   |
| ⊠ SS PIPE FLOW                 |   |
| ⊠ FIRE HYDRANT                 |   |
| ⊠ WATER METER                  |   |
| ⊠ GATE VALVE                   |   |
| ⊠ POWER POLE                   |   |
| ⊠ GUY ANCHOR                   |   |
| ⊠ STREET LIGHT                 |   |
| ⊠ POWER VAULT                  |   |
| ⊠ POWER METER                  |   |
| <b>TESC FEATURES</b>           |   |
| --- FILTER FENCE               | ⊠ RIPRAP PAD                              |
| --- CONSTRUCTION FENCE         | ⊠ ROCK CHECK DAM                          |
| --- INTERCEPTOR SWALE          | ⊠ PIPE FLOW                               |
| ↑ CLEARED AREA                 | ⊠ INTERIM CATCH BASIN PROTECTION (INSERT) |
| --- LIMITS OF CLEARING         |   |

**SHEET INDEX**

- CV-01 COVER SHEET
- TP-01 TESC, DRAINAGE & TREE RETENTION PLAN
- TP-02 TESC NOTES & DETAILS
- SP-01 SITE PLAN
- DT-01 DETAILS

**BUILDING CALCULATIONS**

SEE ARCHITECTURAL SITE PLAN FOR TREE RETENTION, BUILDING HEIGHTS AND FAR CALCULATIONS.

**EXISTING UTILITY NOTE**

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**BLUELINE**  
25 CENTRAL WAY, SUITE 400, KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052 WWW.THEBLUELINEGROUP.COM

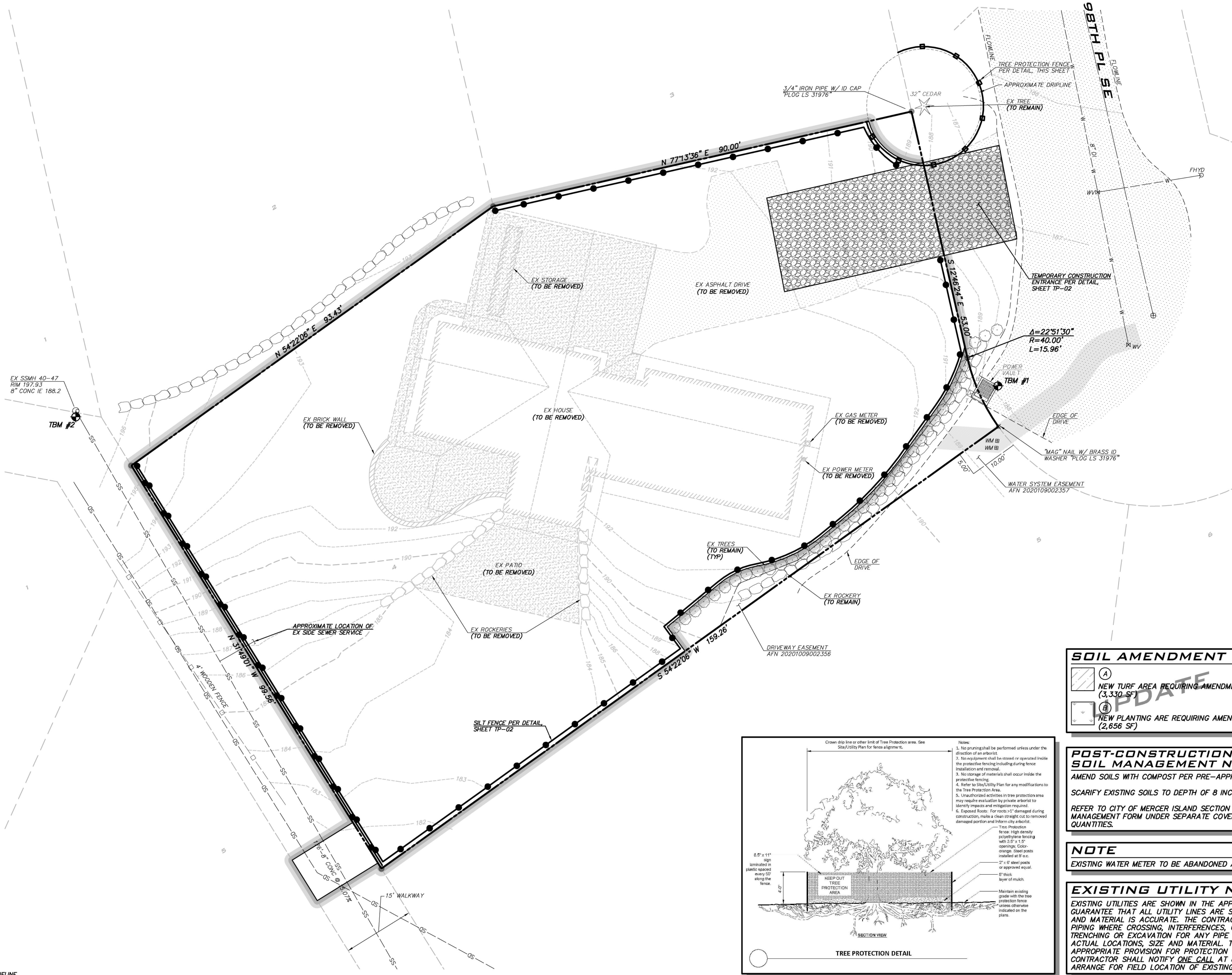
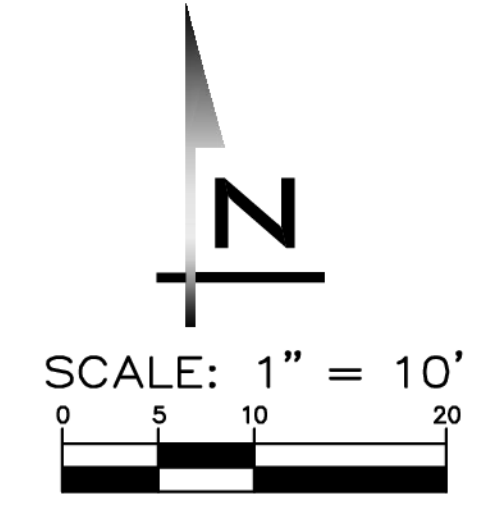
SCALE: AS NOTED  
PROJECT MANAGER: TODD A. OBERG, PE  
PROJECT ENGINEER: YANNICK METS, PE  
DESIGNER: LEE M. TOMKINS  
ISSUE DATE: 10/25/2021

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COVER SHEET  
4215 MERCERWOOD DR  
SITE PLAN  
CITY OF MERCER ISLAND WASHINGTON

10/25/21  
JOB NUMBER: 20-410  
SHEET NAME: CV-01  
SHT 1 OF 5

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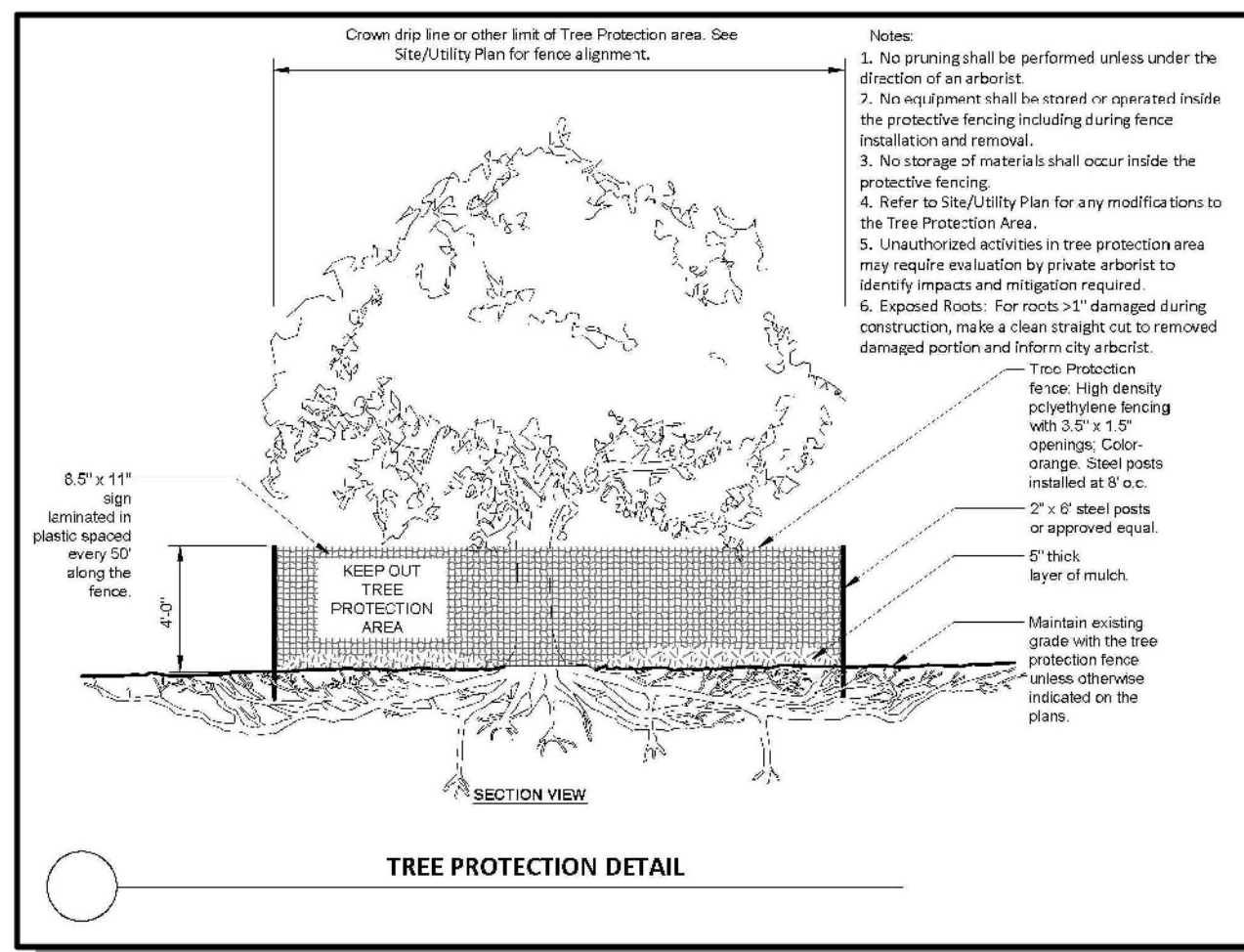
**SOIL AMENDMENT LEGEND**

|  |  |
|--|--|
|  | <b>A</b><br>NEW TURF AREA REQUIRING AMENDMENT<br>(3,330 SF)    |
|  | <b>B</b><br>NEW PLANTING ARE REQUIRING AMENDMENT<br>(2,656 SF) |

**POST-CONSTRUCTION SOIL MANAGEMENT NOTES**  
 AMEND SOILS WITH COMPOST PER PRE-APPROVED AMENDMENT METHOD  
 SCARIFY EXISTING SOILS TO DEPTH OF 8 INCHES  
 REFER TO CITY OF MERCER ISLAND SECTION D: POST-CONSTRUCTION SOIL MANAGEMENT FORM UNDER SEPARATE COVER FOR CALCULATED AMENDMENT QUANTITIES.

**NOTE**  
 EXISTING WATER METER TO BE ABANDONED AT THE CITY MAIN.

**EXISTING UTILITY NOTE**  
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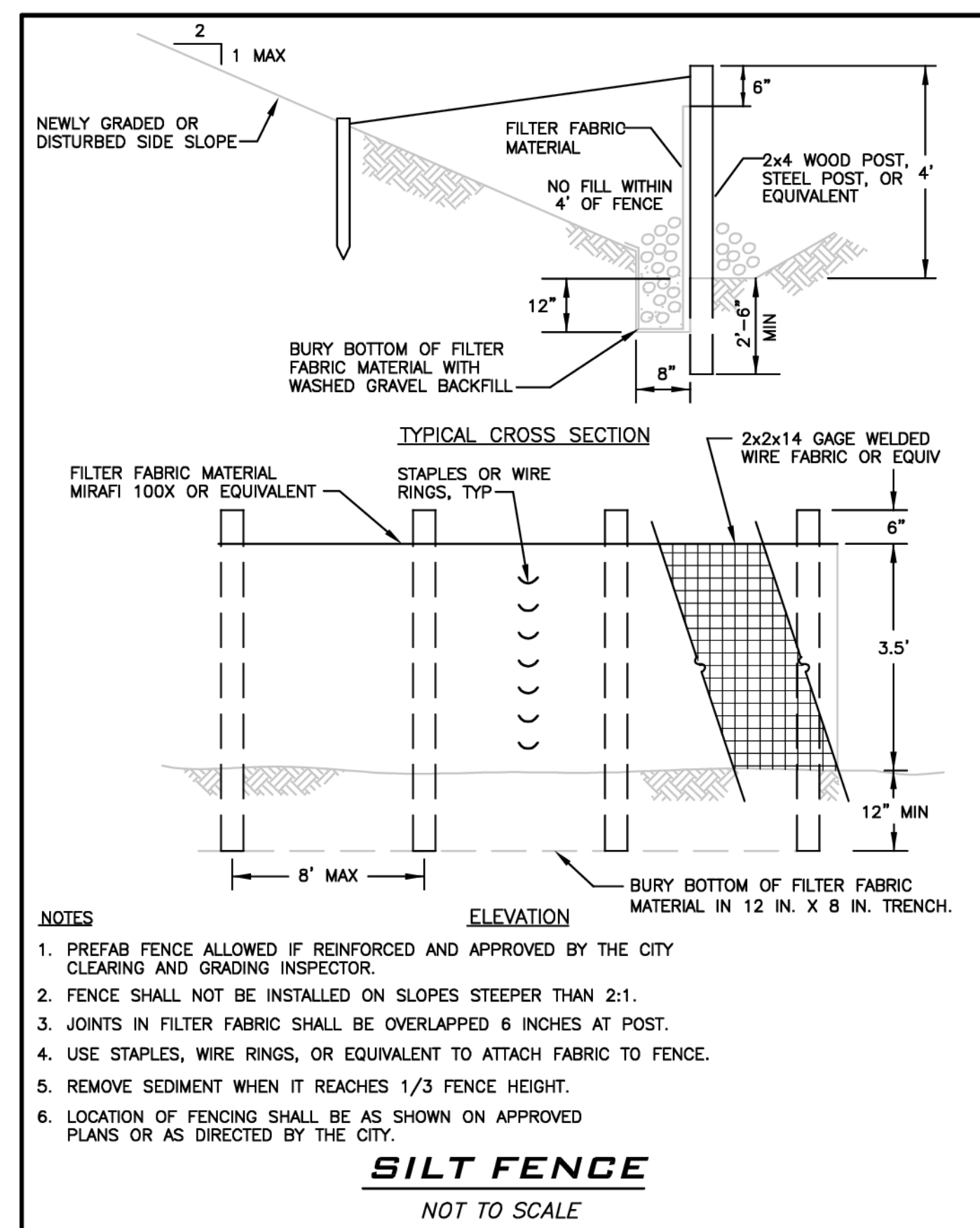
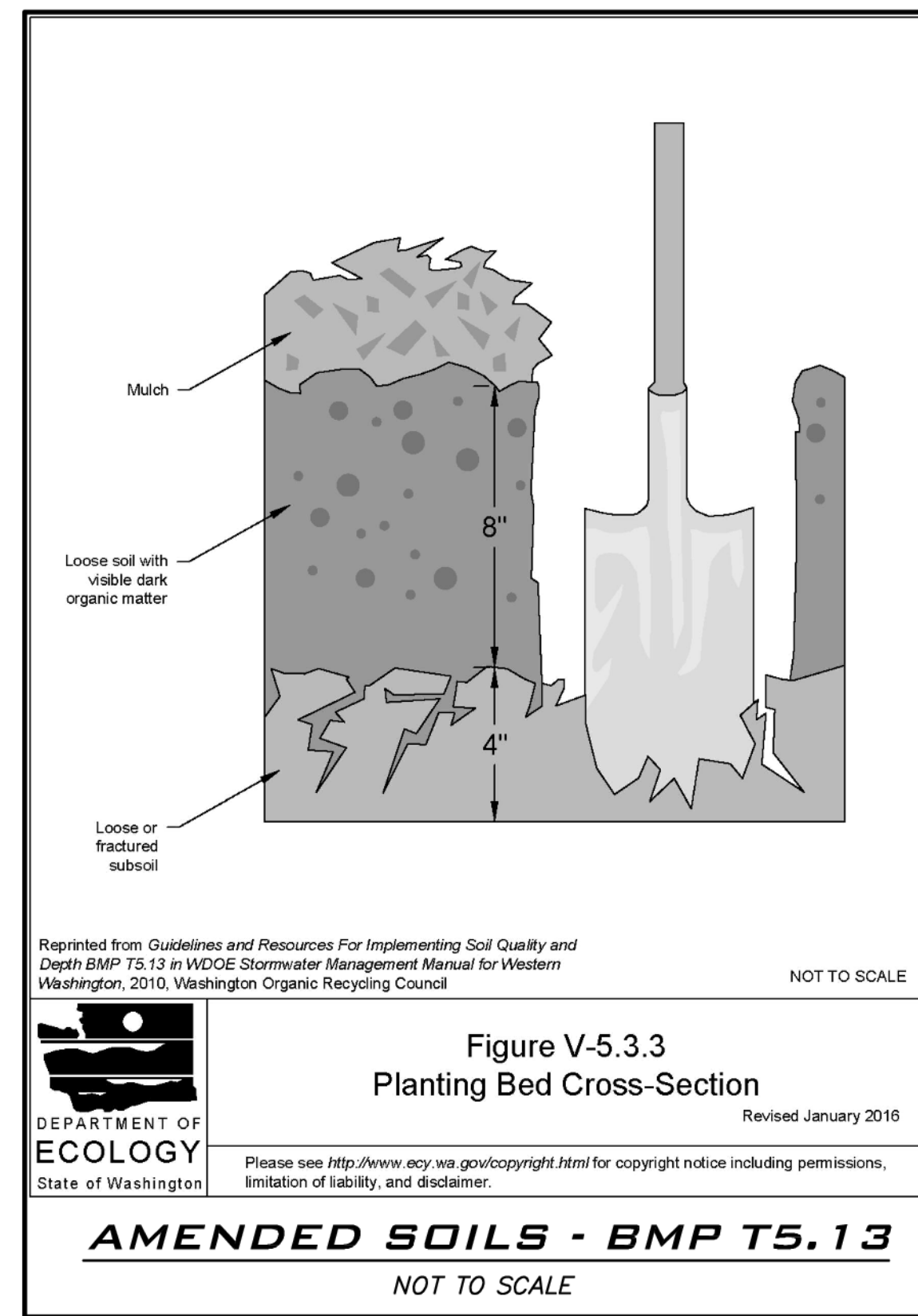
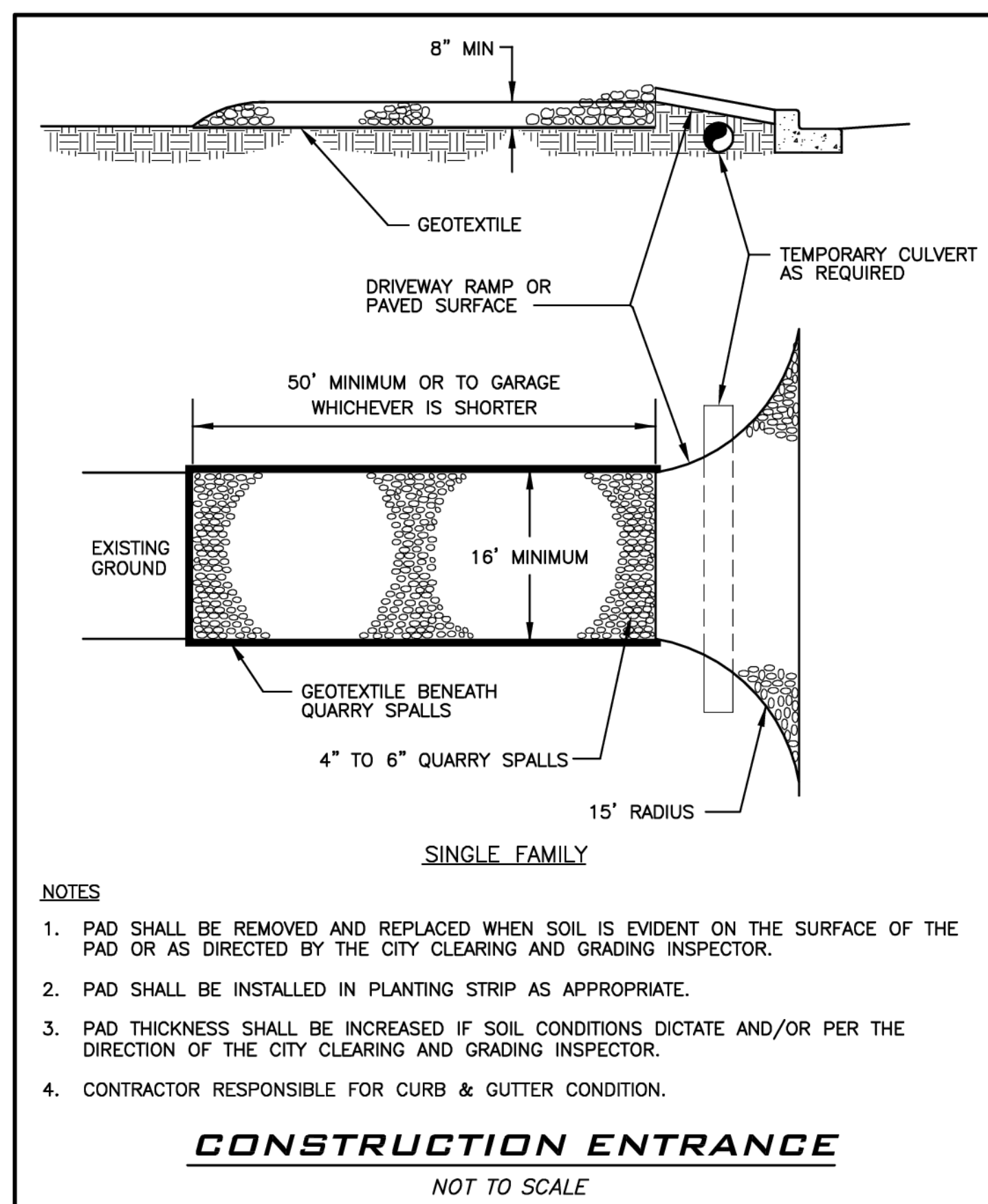
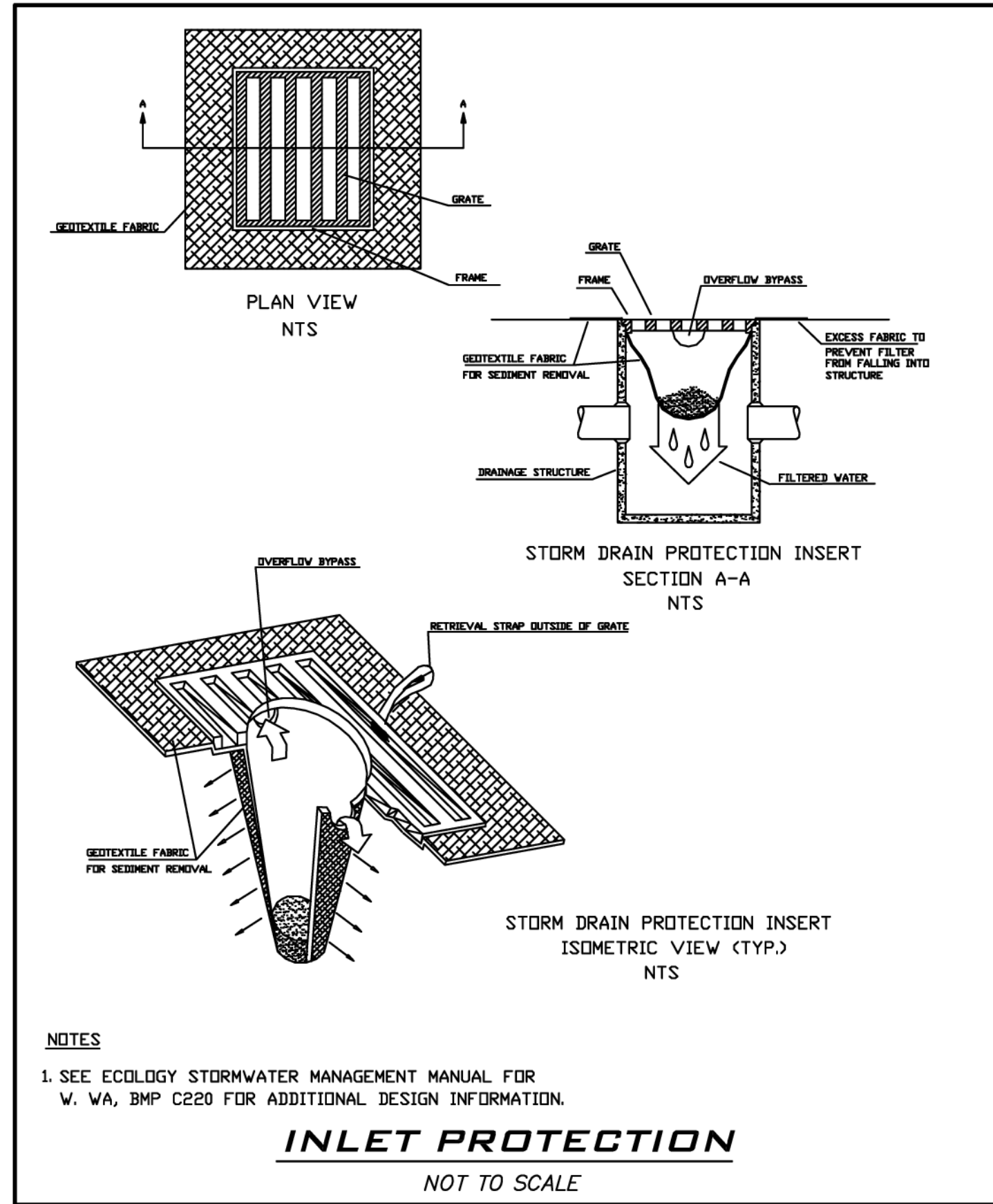
**TESG, DRAINAGE & TREE RETENTION PLAN**  
**4215 MERCERWOOD DR**  
**SITE PLAN**  
 CITY OF MERCER ISLAND WASHINGTON



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**TESC - PLAN NOTES**

- THE APPROVED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
  - CONDUCT PRE-CONSTRUCTION MEETING.
  - FLAG OR FENCE CLEARING LIMITS.
  - POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
  - INSTALL CATCH BASIN PROTECTION IF REQUIRED.
  - GRADE AND INSTALL CONSTRUCTION ENTRANCES(S).
  - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
  - CONSTRUCT SEDIMENT PONDS AND TRAPS.
  - GRADE AND STABILIZE CONSTRUCTION ROADS.
  - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
  - MAINTAIN EROSION CONTROL MEASURES IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
  - RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
  - COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
  - STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN 7 DAYS.
  - SEED OR SOO ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
  - UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.
- APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY FLAGGED IN THE FIELD BY A CLEARING CONTROL FENCE PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- THE TESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE TESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED, PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEWS OF THE ESC FACILITIES.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.
- ALL DENUDED SOILS MUST BE STABILIZED WITH AN APPROVED TESC METHOD (E.G. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES: APRIL 1 TO OCTOBER 31 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING. NOVEMBER 1 TO MARCH 31 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING. AT NO TIME SHALL MORE THAN 1" OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".
- ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF MERCER ISLAND STANDARDS AND SPECIFICATIONS.
- THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY OF MERCER ISLAND INSPECTOR.
- A COPY OF THE APPROVED EROSION CONTROL PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 4' HIGH TEMPORARY CONSTRUCTION FENCE (CYCLONE OR PLASTIC MESH) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL A DWELLING IS CONSTRUCTED AND OWNERSHIP TRANSFERRED TO THE FIRST OWNER/OCCUPANT.
- CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6'-FT. HIGH CHAIN LINK FENCE ADJACENT THE DRIP LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UPSLOPE OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE CITY, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.
- OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE THEIR GRATES COVERED WITH FILTER FABRIC DURING CONSTRUCTION. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE CITY INSPECTOR SHALL BE PROTECTED WITH A FILTER FABRIC SOCK OR EQUIVALENT.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION AS DETERMINED BY THE CITY OF MERCER ISLAND. ALSO, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40 % -70 % PASSING; 2"-4" ROCK/30 % -40 % PASSING; AND 1"-2" ROCK/10 % -20 % PASSING.
- IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
- ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.
- DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.
- PRIOR TO THE OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDED WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDED AND THE AREAS REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.



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**BLUELINE**

25 CENTRAL WAY, SUITE 400,  
KIRKLAND, WA 98033  
P: 425.216.4051 F: 425.216.4052  
WWW.THEBLUELINEGROUP.COM

SCALE: AS NOTED  
 PROJECT MANAGER: TODD A. OBERG, PE  
 PROJECT ENGINEER: YANNICK METS, PE  
 DESIGNER: LEE M. TOMKINS  
 ISSUE DATE: 10/25/2021

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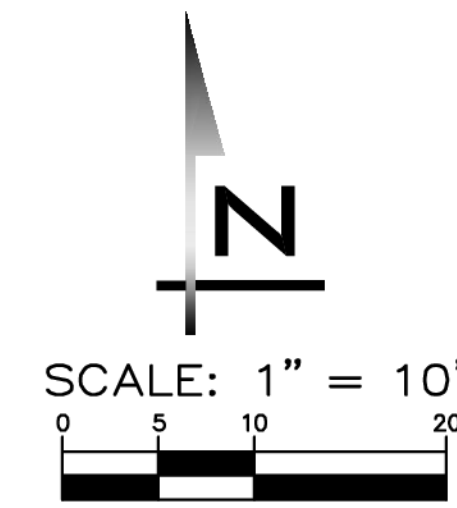
**TESC NOTES & DETAILS**

**4215 MERCERWOOD DR**

**SITE PLAN**

**CITY OF MERCER ISLAND WASHINGTON**

10/25/21  
 JOB NUMBER: **20-410**  
 SHEET NAME: **TP-02**  
 SHT **3** OF **5**



**BLUELINE**  
 25 CENTRAL WAY, SUITE 400,  
 KIRKLAND, WA 98033  
 P: 425.216.4051 F: 425.216.4052  
 WWW.THEBLUELINEGROUP.COM

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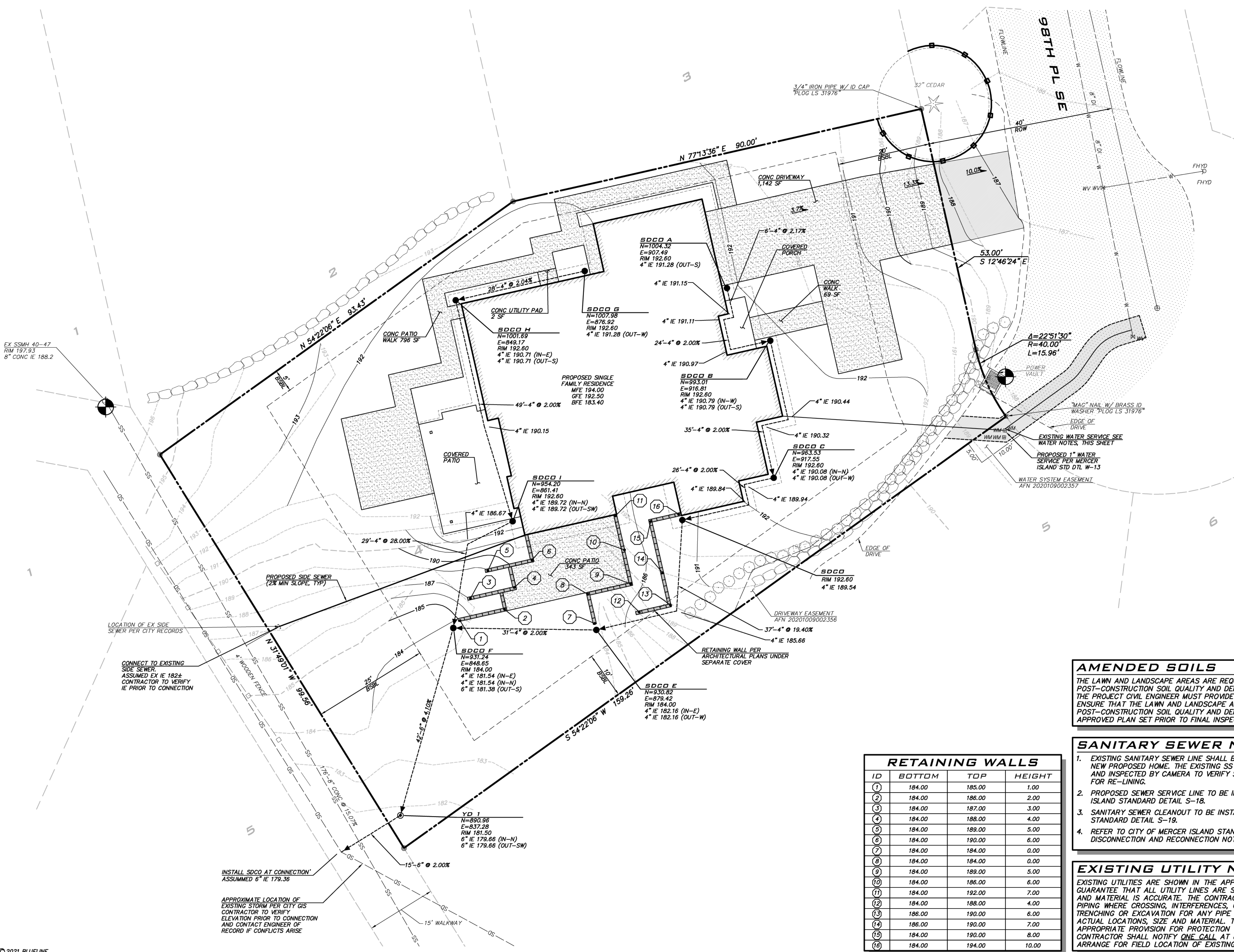
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SITE PLAN  
**4215 MERCERWOOD DR**  
 SITE PLAN  
 CITY OF MERCER ISLAND WASHINGTON

10/25/21

JOB NUMBER:  
**20-410**  
 SHEET NAME:  
**SP-01**

SHT **4** OF **5**



**AMENDED SOILS**  
 THE LAWN AND LANDSCAPE AREAS ARE REQUIRED TO PROVIDE POST-CONSTRUCTION SOIL QUALITY AND DEPTH IN ACCORDANCE WITH BMP T5.13. THE PROJECT CIVIL ENGINEER MUST PROVIDE A LETTER OF CERTIFICATION TO ENSURE THAT THE LAWN AND LANDSCAPE AREAS ARE MEETING THE POST-CONSTRUCTION SOIL QUALITY AND DEPTH REQUIREMENTS SPECIFIED ON THE APPROVED PLAN SET PRIOR TO FINAL INSPECTION OF THE PROJECT.

**SANITARY SEWER NOTES**

- EXISTING SANITARY SEWER LINE SHALL BE RE-USED FOR SERVICE FOR THE NEW PROPOSED HOME. THE EXISTING SS LINE SHALL BE CLEANED, LOCATED AND INSPECTED BY CAMERA TO VERIFY SUITABILITY FOR RE-USE AND NEED FOR RE-LINING.
- PROPOSED SEWER SERVICE LINE TO BE INSTALLED PER CITY OF MERCER ISLAND STANDARD DETAIL S-18.
- SANITARY SEWER CLEANOUT TO BE INSTALLED PER CITY OF MERCER ISLAND STANDARD DETAIL S-19.
- REFER TO CITY OF MERCER ISLAND STANDARD DETAIL S-22 FOR DISCONNECTION AND RECONNECTION NOTES AND SPECIFICATIONS

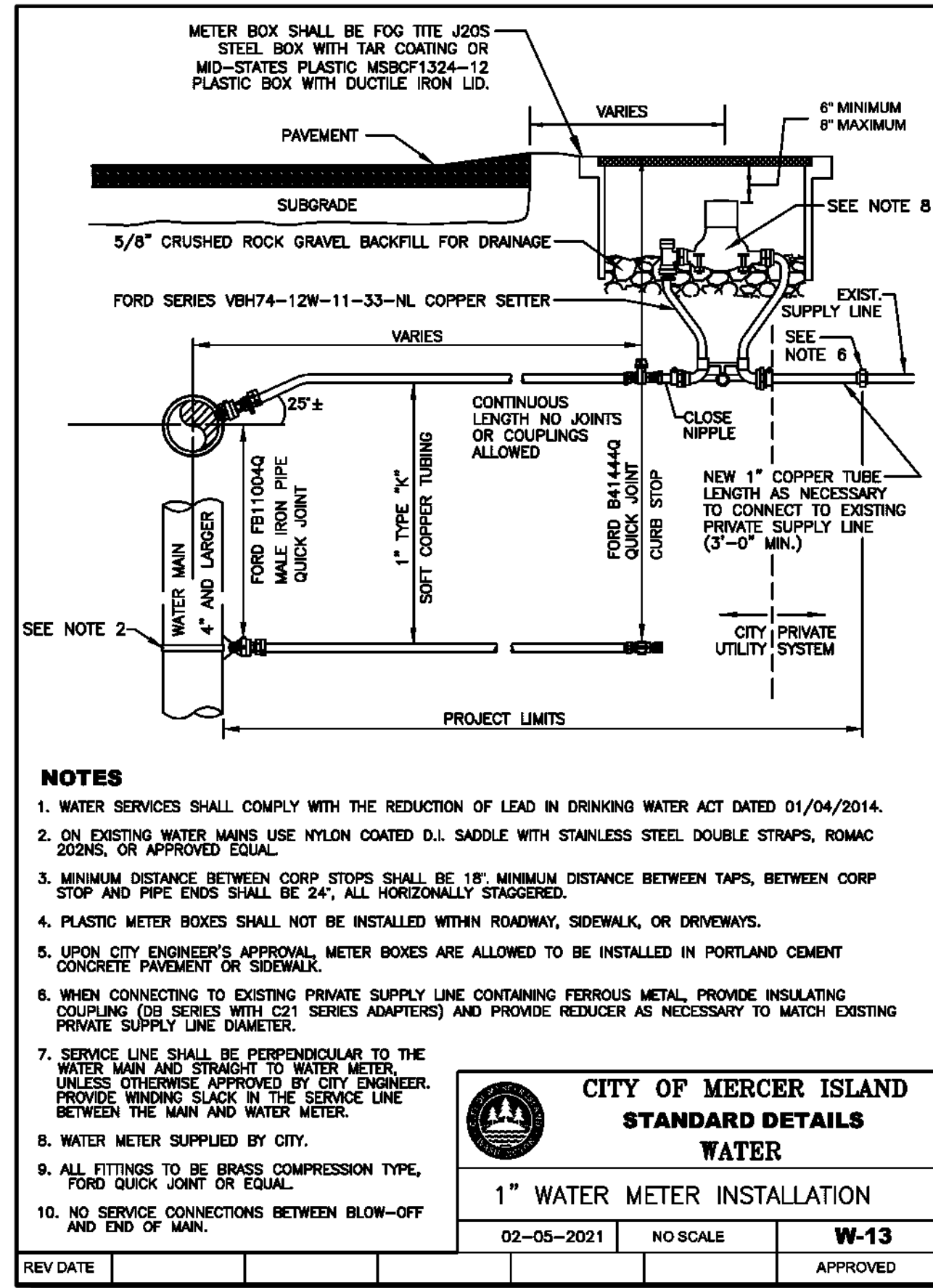

**RETAINING WALLS**

| ID | BOTTOM | TOP    | HEIGHT |
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| 2  | 184.00 | 186.00 | 2.00   |
| 3  | 184.00 | 187.00 | 3.00   |
| 4  | 184.00 | 188.00 | 4.00   |
| 5  | 184.00 | 189.00 | 5.00   |
| 6  | 184.00 | 190.00 | 6.00   |
| 7  | 184.00 | 184.00 | 0.00   |
| 8  | 184.00 | 184.00 | 0.00   |
| 9  | 184.00 | 189.00 | 5.00   |
| 10 | 184.00 | 186.00 | 2.00   |
| 11 | 184.00 | 192.00 | 8.00   |
| 12 | 184.00 | 188.00 | 4.00   |
| 13 | 186.00 | 190.00 | 4.00   |
| 14 | 186.00 | 190.00 | 4.00   |
| 15 | 184.00 | 190.00 | 6.00   |
| 16 | 184.00 | 194.00 | 10.00  |

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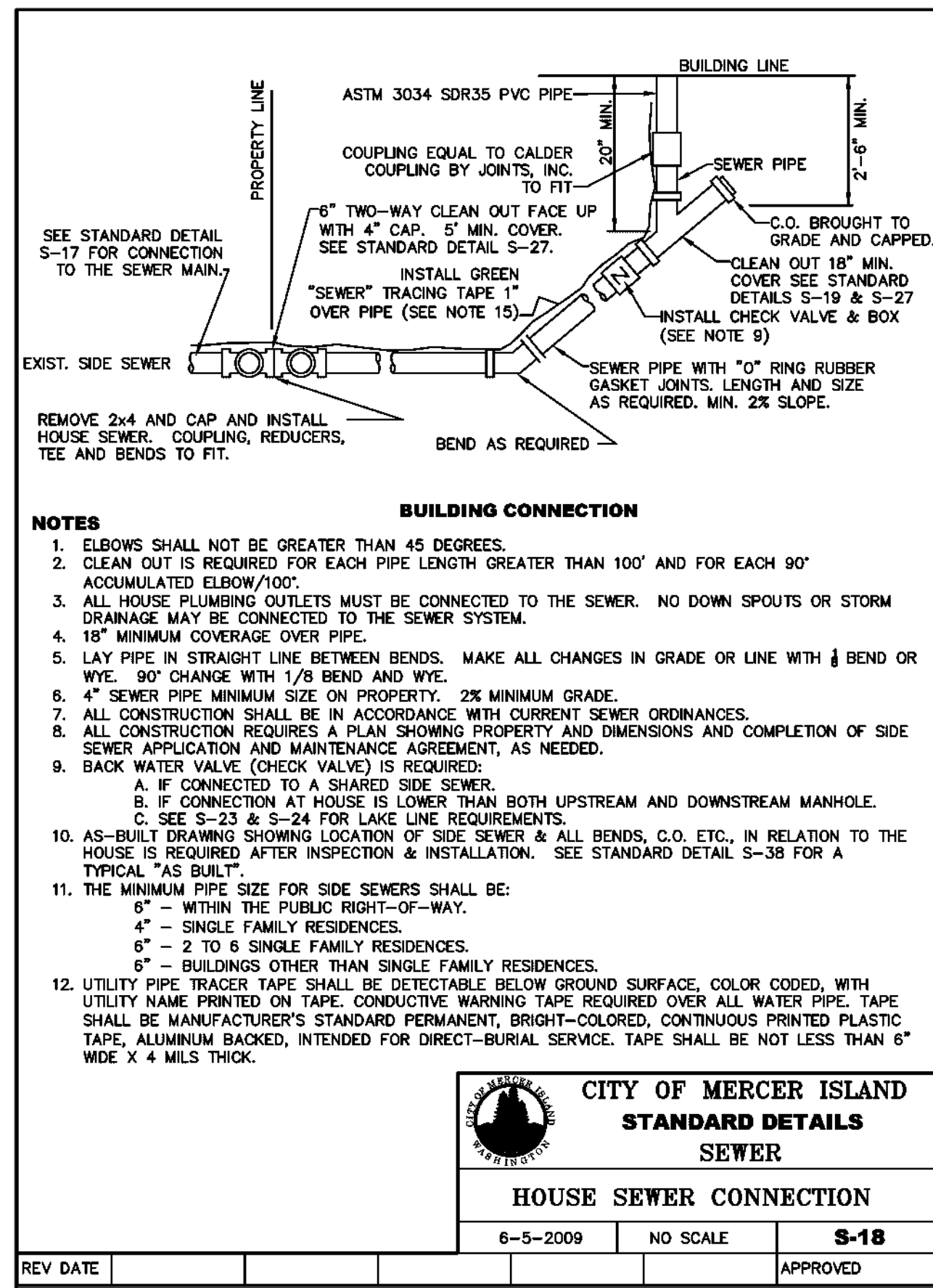

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SCALE:  
AS NOTED  
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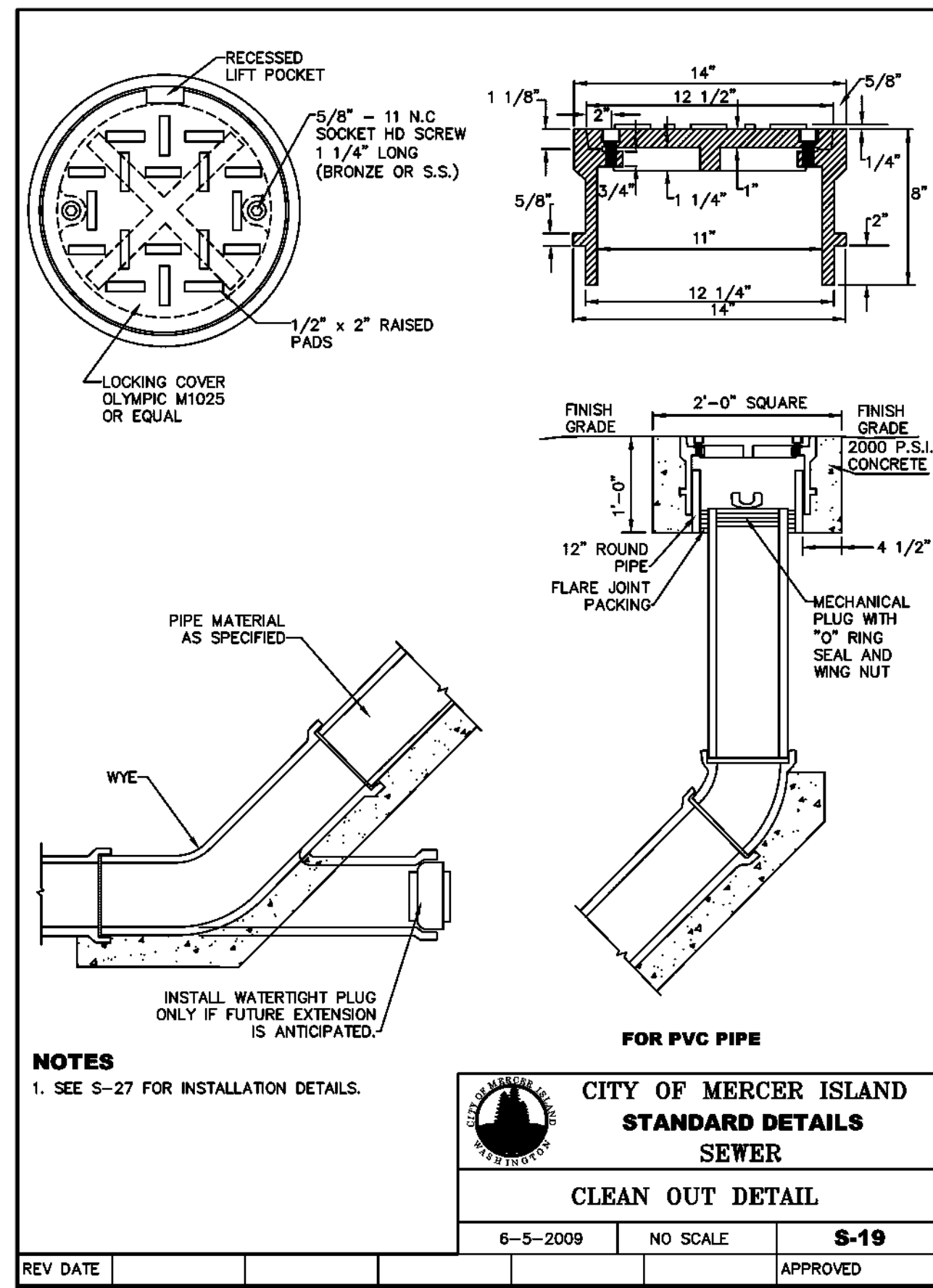

**CITY OF MERCER ISLAND  
STANDARD DETAILS  
WATER  
1" WATER METER INSTALLATION**

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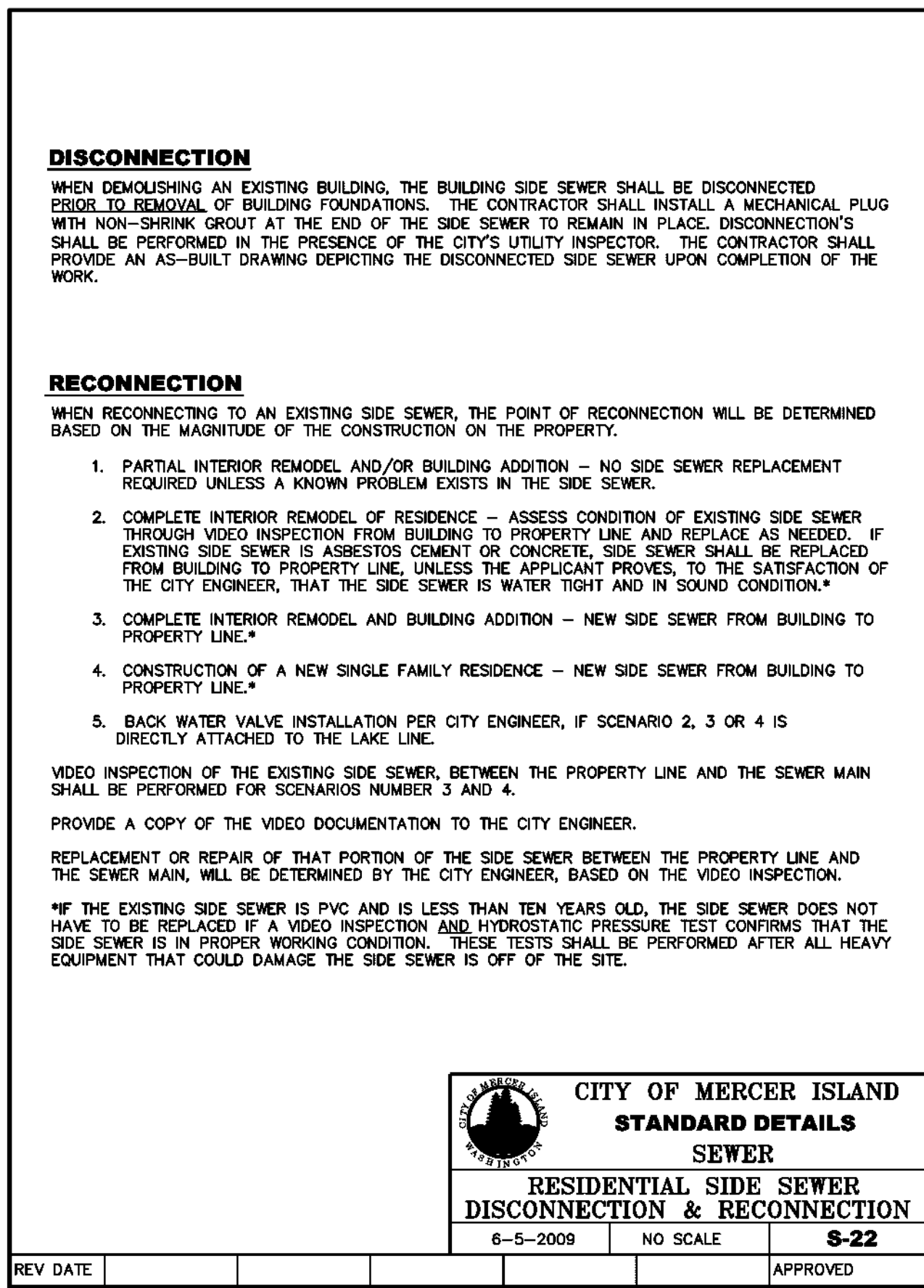

**CITY OF MERCER ISLAND  
STANDARD DETAILS  
SEWER  
HOUSE SEWER CONNECTION**

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| 6-5-2009 | NO SCALE | <b>S-18</b> |
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**CITY OF MERCER ISLAND  
STANDARD DETAILS  
SEWER  
CLEAN OUT DETAIL**

|          |          |             |
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**CITY OF MERCER ISLAND  
STANDARD DETAILS  
SEWER  
RESIDENTIAL SIDE SEWER  
DISCONNECTION & RECONNECTION**

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| 6-5-2009 | NO SCALE | <b>S-22</b> |
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**EXISTING UTILITY NOTE**  
EXISTING UTILITIES ARE SHOWN IN THE APPROXIMATE LOCATION. THERE IS NO GUARANTEE THAT ALL UTILITY LINES ARE SHOWN, OR THAT THE LOCATION, SIZE AND MATERIAL IS ACCURATE. THE CONTRACTOR SHALL UNCOVER ALL INDICATED PIPING WHERE CROSSING, INTERFERENCES, OR CONNECTIONS OCCUR PRIOR TO TRENCHING OR EXCAVATION FOR ANY PIPE OR STRUCTURES, TO DETERMINE ACTUAL LOCATIONS, SIZE AND MATERIAL. THE CONTRACTOR SHALL MAKE THE APPROPRIATE PROVISION FOR PROTECTION OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY ONE CALL AT 8-1-1 (WASHINGTON811.COM) AND ARRANGE FOR FIELD LOCATION OF EXISTING FACILITIES BEFORE CONSTRUCTION.

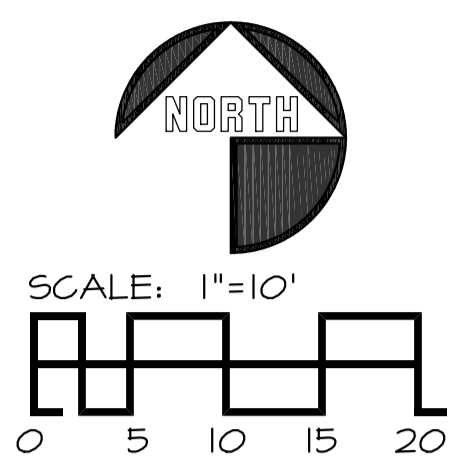
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**DETAILS**  
**4215 MERCERWOOD DR**  
**SITE PLAN**  
**CITY OF MERCER ISLAND WASHINGTON**



10/25/21  
JOB NUMBER:  
**20-410**  
SHEET NAME:  
**DT-01**  
SHT **5** OF **5**

22/23/24  
Oct 25, 2021, 2:38pm - User: dtpatrick  
E:\Projects\20410\DWG\Site Plan\20410D1.dwg



| NUM | BEARING     | DISTANCE |
|-----|-------------|----------|
| L1  | N23°34'34"E | 4.72'    |
| L2  | N68°24'33"E | 13.35'   |
| L3  | N50°32'28"E | 18.95'   |
| L4  | N38°08'24"E | 28.13'   |
| L5  | N23°18'51"E | 4.08'    |

**LEGEND**

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**SURVEY OF**

Lot 4, Block N, MERCER WOOD, according to the plat thereof recorded in Volume 52 of Plats, Pages 32 through 33 inclusive, Records of King County, Washington. Situate in the County of King, State of Washington.

**NOTES**

1. Boundary information shown is according to a Record of Survey recorded in Volume 430 of Surveys, Page 84, under King County Recording No. 20200810400007.
2. Vertical control established by using RTK measurement utilizing a TOPCON Model HiPer SR GPS receiver connected to the Washington State Reference Network (WSRN). Vertical Datum - NAVD 88.
3. Site Bench Mark#1 (SBM#1): NE corner of power vault - 8.5' N of SE corner of lot. Elevation=1071.90 (NAVD 88)
4. Site Bench Mark#2 (SBM#2): Sly rim sanitary sewer manhole #40-41 - 15.5' NN of NW lot corner. Elevation=141.43 (NAVD 88)
5. Water and sewer information, including pipe sizes is according to City of Mercer Island records.
6. Contour interval = 1 foot
7. Site address: 4215 Mercerwood Dr.
8. Site APN: 545600-0480
9. Site area: 15544 sq. ft.



**TOPOGRAPHIC SURVEY**  
 for  
**WILLIAM E. BUCHAN, INC.**

| NO | DATE | REV. BY | COMMENTS |
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