

ALLOWABLE HOLES

9 1/2"-16" JOISTS

1 1/2" round holes may be cut anywhere in web outside of hatched zone if they are located 3" away horizontally (edge-to-edge) from a larger hole.

Do not cut holes larger than 1 1/2" in cantilever.

Do not cut holes larger than 1 1/2" in cantilever.

Minimum distance from Table A

Minimum distance from Table B

2 x D_h (applies to all holes except knockouts)

Closely grouped round holes are permitted if the group perimeter meets requirements for round or square holes

Table A—End Support (Minimum distance from edge of hole to inside face of nearest end support)

Depth	TJI®	Round Hole Size							Square or Rectangular Hole Size									
		2"	3"	4"	5"	6"	7"	8"	2"	3"	4"	5"	6"	7"	8"	11"	12"	
9 1/2"	110	1'-0"	1'-6"	2'-0"	3'-0"	3'-0"	5'-0"											
	210	1'-0"	1'-6"	2'-0"	3'-0"	3'-0"	5'-0"											
	230	1'-6"	2'-0"	2'-6"	3'-6"	3'-6"	5'-6"											
	360	1'-6"	2'-0"	2'-6"	3'-6"	3'-6"	5'-6"											
11 1/4"	110	1'-0"	1'-6"	2'-0"	3'-0"	3'-0"	5'-0"											
	210	1'-0"	1'-6"	2'-0"	3'-0"	3'-0"	5'-0"											
	230	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	6'-0"										
	360	1'-6"	2'-0"	3'-0"	3'-6"	4'-6"	5'-0"	7'-0"										
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	6'-0"								
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	2'-6"	4'-0"	7'-0"								
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	2'-6"	4'-0"	7'-0"								
	360	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	4'-0"	5'-6"	8'-0"	10'-0"								
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"								
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"								
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"								
	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	2'-6"	4'-6"	6'-6"	9'-0"							

Table B—Intermediate or Cantilever Support (Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support)

Depth	TJI®	Round Hole Size							Square or Rectangular Hole Size									
		2"	3"	4"	5"	6"	7"	8"	2"	3"	4"	5"	6"	7"	8"	11"	12"	
9 1/2"	110	2'-0"	2'-6"	3'-6"	4'-6"	7'-6"												
	210	2'-0"	2'-6"	3'-6"	5'-0"	8'-0"												
	230	2'-6"	3'-0"	4'-0"	5'-6"	8'-6"												
	360	3'-0"	4'-0"	5'-6"	6'-6"	9'-0"												
11 1/4"	110	1'-0"	1'-0"	1'-6"	2'-6"	4'-0"	4'-6"	8'-6"										
	210	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"										
	230	1'-0"	1'-0"	2'-0"	3'-6"	5'-0"	5'-6"	10'-0"										
	360	2'-0"	3'-0"	4'-0"	5'-6"	7'-0"	7'-6"	11'-0"										
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-6"	4'-6"	8'-6"									
	210	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-6"	9'-6"									
	230	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	6'-0"	10'-6"									
	360	1'-0"	1'-0"	2'-0"	3'-6"	5'-0"	6'-0"	12'-6"										
16"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"									
	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"									
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"									
	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	4'-0"	6'-6"	13'-6"									

General Notes

- Rectangular holes based on measurement of longest side.
- Holes may be located vertically anywhere within the web. Leave 1/4" of web (minimum) at top and bottom of hole.
- Knockouts are located in web at approximately 12" on-center; they do not affect hole placement and may be located in the hatched zone.
- For simple span (5' minimum) uniformly loaded joists meeting the requirements of this guide, one maximum size round hole may be located at the center of the joist span provided that no other holes occur in the joist.
- Distances are based on the maximum uniform loads shown in this guide. For other load conditions or hole configurations use ForteWEB® software or contact your Weyerhaeuser representative.

See page 24 for how to use these tables and General Notes.

True Joist® TJI Joist® Specifier's Guide (Canada) | NBCC TJI-4500 | March 2021

NOTE: ADHESIVE SHALL BE APPLIED BETWEEN EA. PLY

NOTE: ADD A ROW OF NAILS IF BEAM IS DEEPER THAN 14"

NOTE: IF USING 16d X 3" NAILS, CAN REDUCE BY A ROW

MIN. 10d X 3" NAILS @ 12" O.C., ONE SIDE

MIN. 10d X 3" NAILS @ 12" O.C., BOTH SIDES

MIN. 10d X 3" NAILS @ 12" O.C., ONE SIDE PER PLY - OFFSET EA. ROW 2" ALONG LENGTH OF BM.

FASTEN EA. 2X6 PLY TOGETHER w/ MIN. 2 ROWS OF 10d COMMON NAILS @ MAX. 12" O.C., STAGGERED. (OR 1 ROW OF NAILS FOR 2X4's)

FASTEN STUDS TO TOP OR SILL 12" w/ MIN. (4) 8d COMMON OR (4) 10d BOX TOENAILS OR MIN. (2) 16d COMMON OR (3) 10d BOX END NAILS

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

4 ALLOWABLE HOLES IN 9 1/2"-16" TJI JOISTS

PER WEYERHAEUSER MARCH 2021 SPECIFIER'S GUIDE #TJ-4500

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

VERIFY WITH OTHER MANUFACTURER SPECIFICATIONS IF OTHER THAN WEYERHAEUSER JOISTS USED

ONLY APPLICABLE FOR RESIDENTIAL LIVING AREA LOADING - CONTACT SEAD FOR OTHER SCENARIOS

2 TYPICAL BUILT-UP WOOD COLUMN

PER IBC, TBL. 2304.10.1, FASTENING SCHEDULE # NDS SECTION 15.3.3

SCALE: 1" = 1'-0"

ALLOWABLE HOLES

1.55E TimberStrand® LSL Headers and Beams

2 x diameter of the largest hole (minimum)

1/4 depth

Allowed hole zone

General Notes

- Allowed hole zone suitable for headers and beams with uniform and/or concentrated loads anywhere along member.
- Round holes only.
- No holes in headers or beams in plank orientation.

1.55E TimberStrand® LSL

Header or Beam Depth	Maximum Round Hole Size
9 1/2"	3"
11 1/4"	3 3/8"
14"-16"	4 1/8"

• See illustration for allowed hole zone.

Microllam® LVL and Parallam® PSL Headers and Beams

2 x diameter of the largest hole (minimum)

1/4 depth

Microllam® LVL and Parallam® PSL allowed hole zone middle 1/3 span

General Notes

- Allowed hole zone suitable for headers and beams with uniform loads only.
- Round holes only.
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

Microllam® LVL and Parallam® PSL

Header or Beam Depth	Maximum Round Hole Size
5 1/2"	1 1/4"
7 1/2"-28"	2"

• See illustration for allowed hole zone.

Larger holes in True Joist® structural composite lumber may be possible; refer to ForteWEB or Javalin® software.

DO NOT cut, notch, or drill holes in headers or beams except as indicated in the illustrations and tables

3 TYPICAL BOLT SPACING CLEARANCES

2" MIN.

2 1/2" MIN. 2 3/8" MIN. MIN. MIN.

NOTE: DIMENSIONS SHOWN APPLY FOR 5/8" Ø BOLTS

- FOR 1/2" Ø BOLTS, USE MIN. 2" SPACING
- FOR 3/4" Ø BOLTS, USE MIN. 3" SPACING

SADDLE NOTCH CONNECTION @ BM - COL.

SCALE: N.T.S.

5 ALLOWABLE HOLES IN LSL/LVL/PSL BMS.

PER WEYERHAEUSER MARCH 2020 SPECIFIER'S GUIDE #TJ-9505

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

VERIFY WITH OTHER MANUFACTURER SPECIFICATIONS IF OTHER THAN WEYERHAEUSER JOISTS USED

3 TYPICAL BOLT SPACING CLEARANCES

SCALE: N.T.S.



SEAD

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BERLET GARAGE

23620 FRAYSHER LANE
ROUTT COUNTY, COLORADO

A NEW PROJECT FOR:
THE BERLET FAMILY

ISSUE DATES

03	16	22	REVIEW SET
03	25	22	REVIEW SET
03	31	22	REVIEW SET
03	13	22	PERMIT

DRAWN BY: JEM
REVIEWED BY: CAM/KLN
PROJECT # 22024

GENERAL WOOD FRAMING DETAILS

S-O.1

FOUNDATION NOTES

- ELEVATION @ TOP OF CONCRETE WALL INDICATED THUS: ELEV. /
- ELEVATION @ TOP OF CONCRETE FOOTING INDICATED THUS: (ELEV.) /
- COLUMNS THAT BEGIN THIS LEVEL ARE INDICATED ON PLAN.
- FLOOR SLABS SHALL BE SEPARATED FROM ALL BEARING WALLS, COLUMNS, & FOUNDATIONS w/ POSITIVE SLIP JOINT ($\frac{1}{2}$ " CELLOTIX MATERIAL OR APPROVED EQUAL).
- ALL FLOOR SLABS SHALL HAVE SAWN OR TOOLED CONTROL JOINTS @ 10'-0" O.C., EACH WAY
- PROVIDE MIN. 6 MIL. POLYVINYL CHLORIDE WATERPROOFING (w/ JOINTS LAPPED & SEALED PER MANUFACTURER) OVER MIN. 6" GRAVEL BELOW CONC. FLOOR SLABS.
- APPLY WATERPROOFING TO EXTERIOR OF CONC. WALL w/ MIN. 2-PLY HOT-MOPPED FELT, 40 MIL POLYMER-MODIFIED ASPHALT, OR 6-MIL POLYETHYLENE
- INTERIOR NON-BEARING WALLS SHALL HAVE POSITIVE SLIP JOINT. Re: SOILS REPORT FOR TYPICAL SECTION

FOOTING SCHEDULE

⊗ MARK	SIZE	REINFORCING
A	28" DRILLED PIER - POUR 'NEAT' IN HOLE. FORM TOP 12" w/ 14"φ SONOTUBE	(4) #4 VERTS w/ #3 HOOP TIES @ 12" O.C. w/ (3) IN TOP 5"

COLUMN LEGEND & SCHEDULE

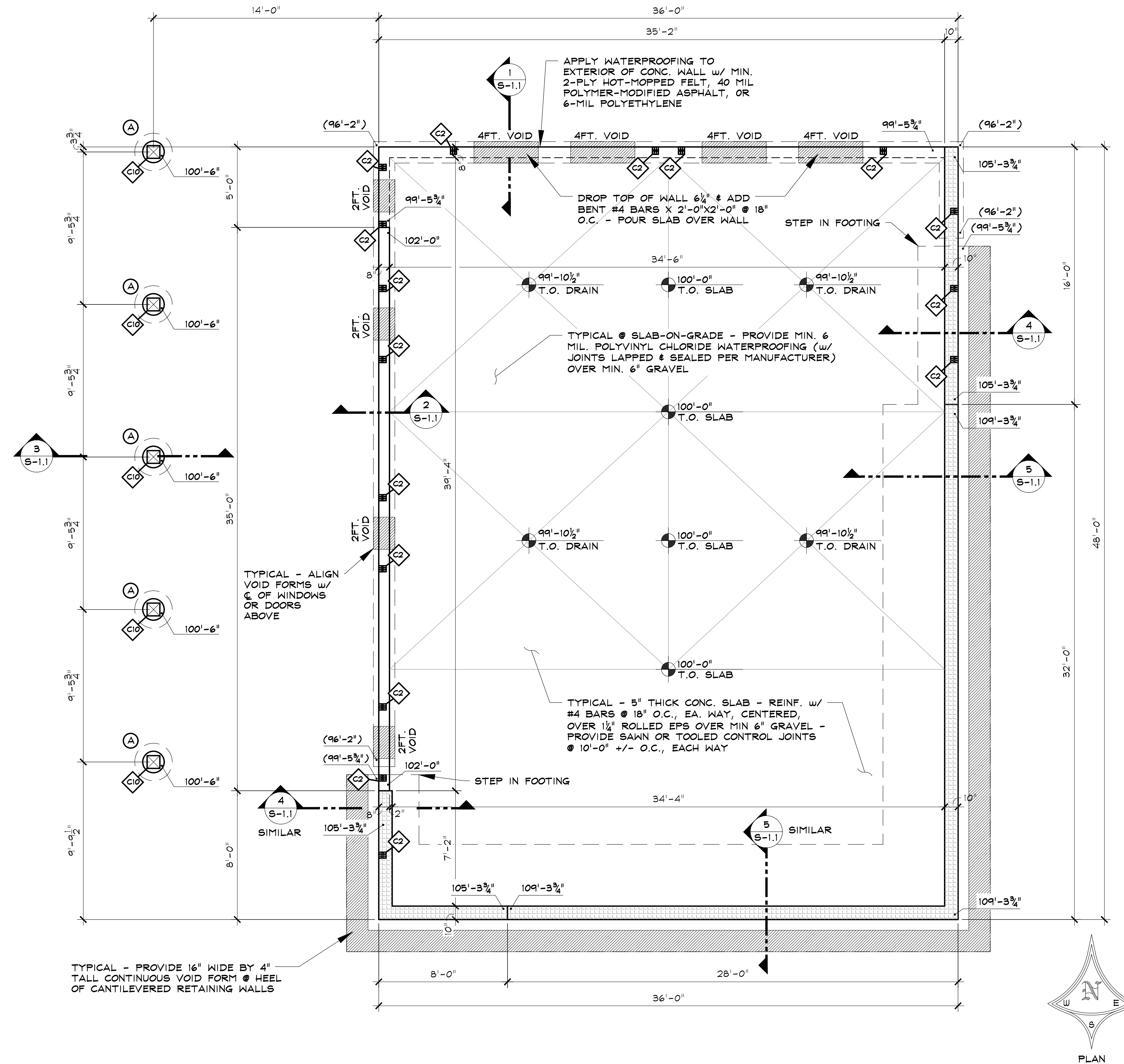
⊗ MARK	SIZE	REMARKS
C2	(3) 2X6	
C10	10X10	TIMBER COL. w/ ABUZIO10

NOTES:

- ⊗ INDICATES COLUMN BELOW
 - ⊗ INDICATES COLUMN ABOVE
 - INDICATES CONTINUOUS COLUMNS
- COLUMN SCHEDULE IS FOR ENTIRE PROJECT
 - N/A DENOTES COLUMN IS NOT USED THIS SHEET

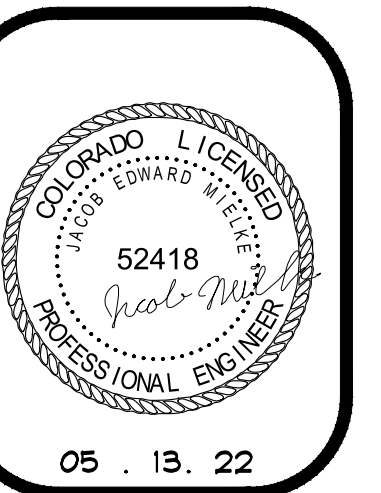
WALL KEY

	= 8" WIDE CONCRETE WALL
	= 10" WIDE CONCRETE WALL



1 FOUNDATION PLAN

SCALE: $\frac{1}{4}$ " = 1'-0"



BERLET GARAGE
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 ROUTT COUNTY, COLORADO
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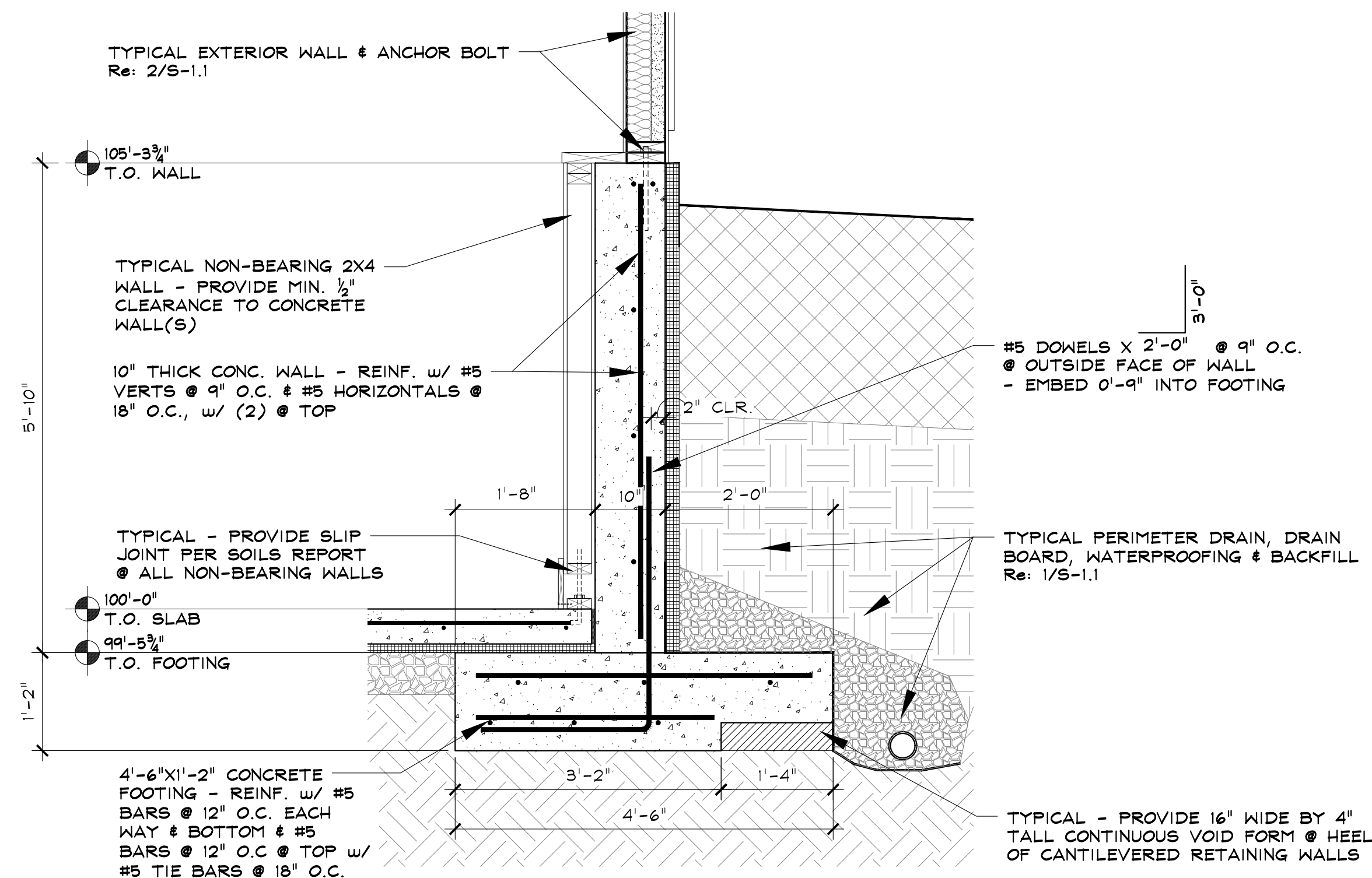
ISSUE DATES

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03.25.22	REVIEW SET
03.31.22	REVIEW SET
03.15.22	PERMIT

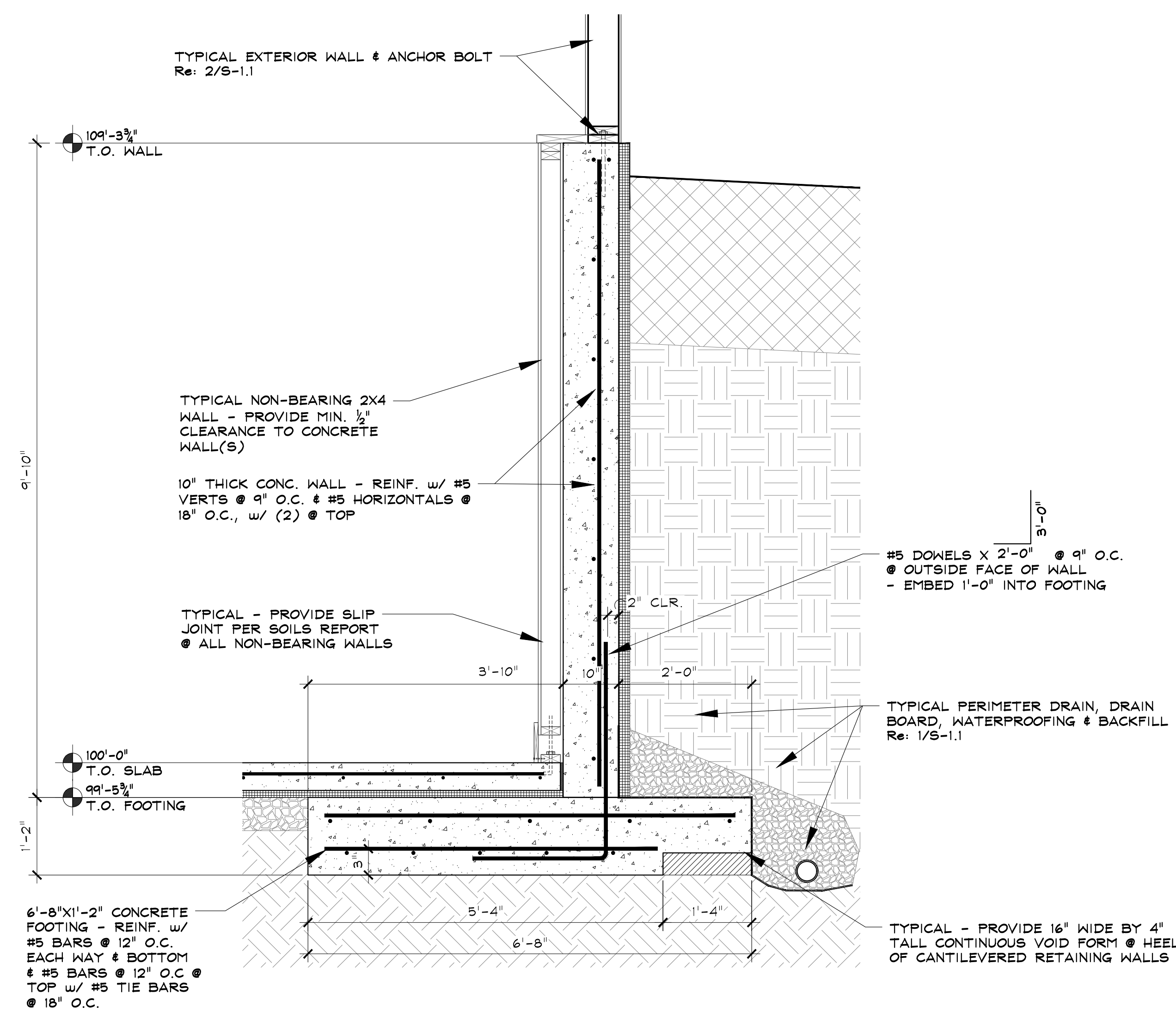
DRAWN BY: JEM
 REVIEWED BY: CHM/KLN
 PROJECT # 22024

FOUNDATION PLAN

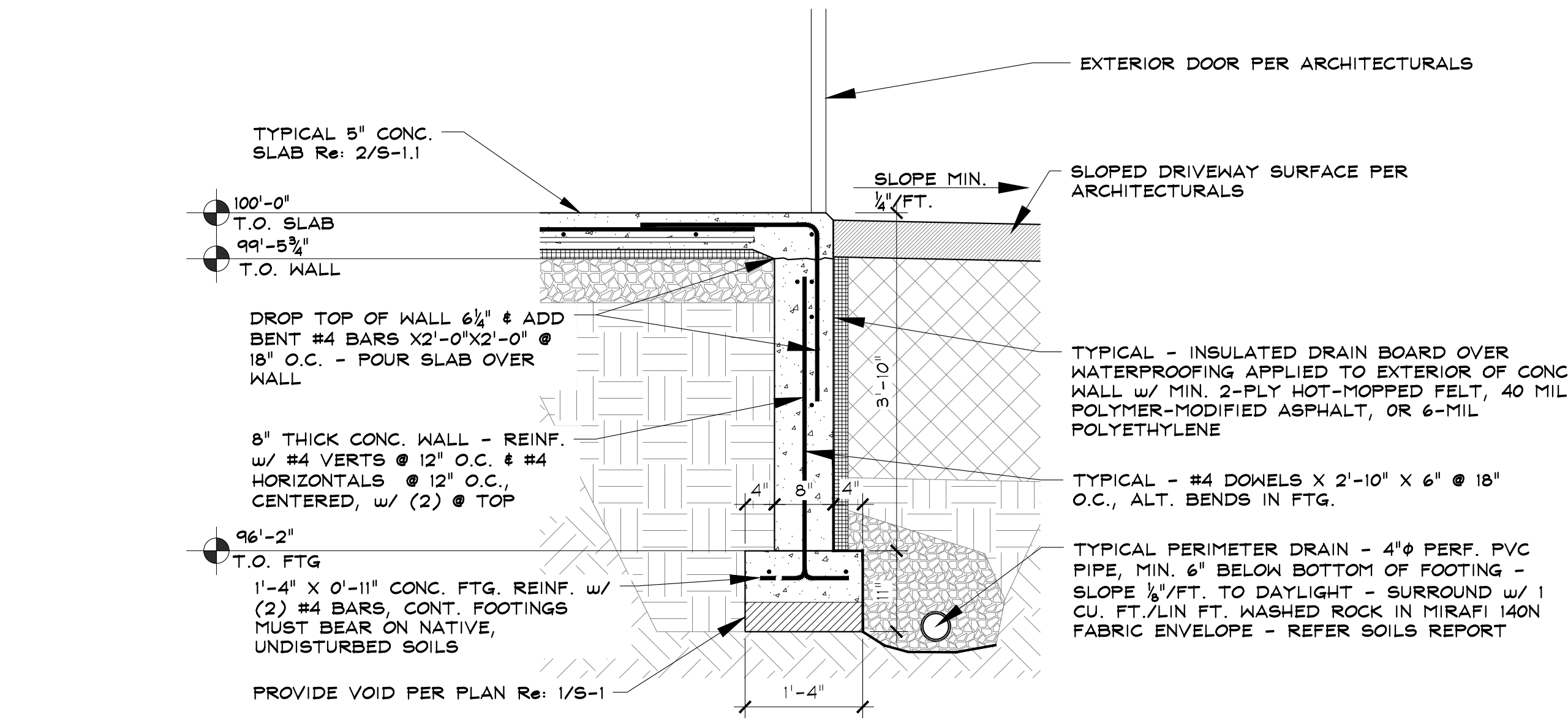
S-1



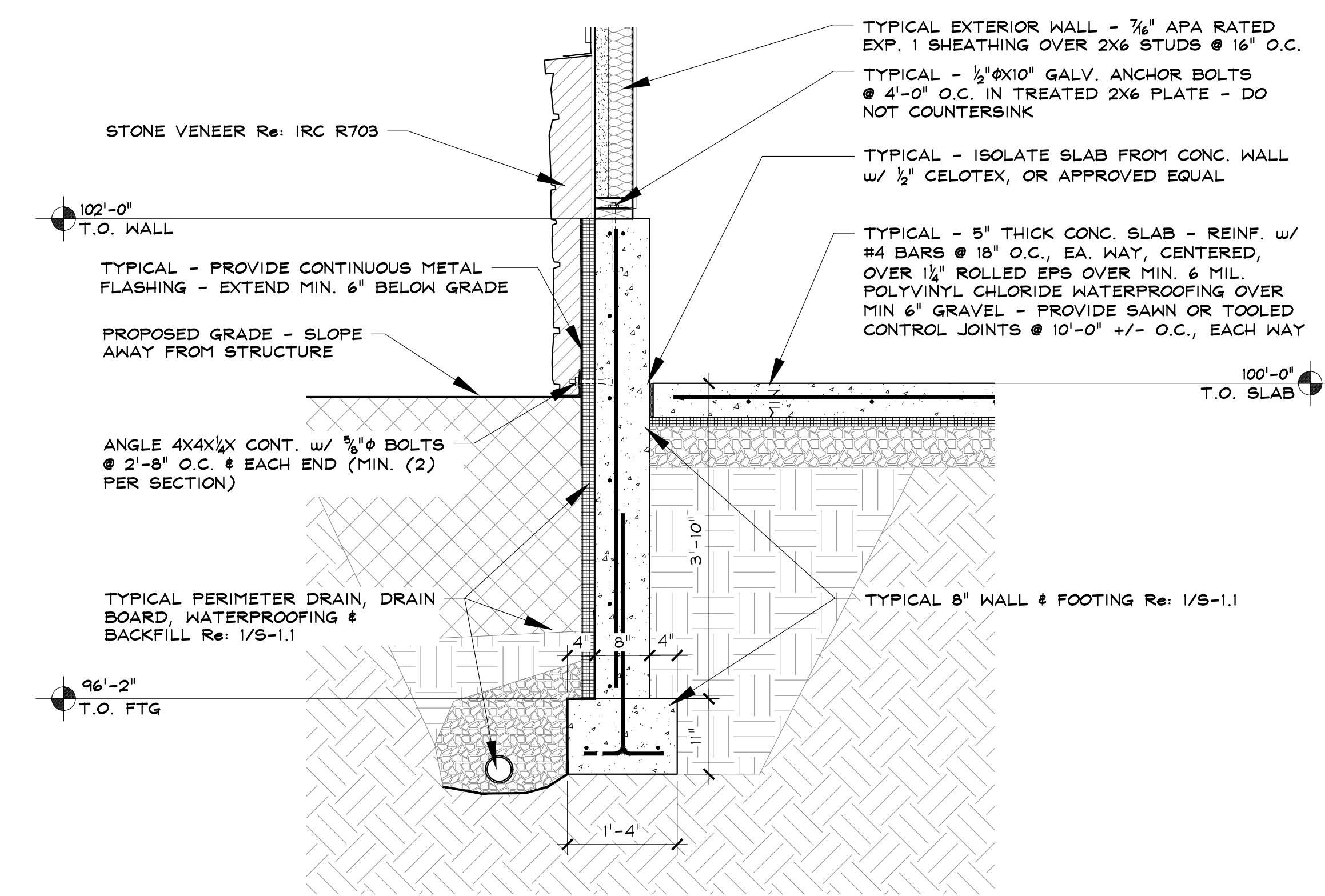
4 5'-10" TALL CANTILEVERED WALL SECTION
SCALE: 3/4" = 1'-0"



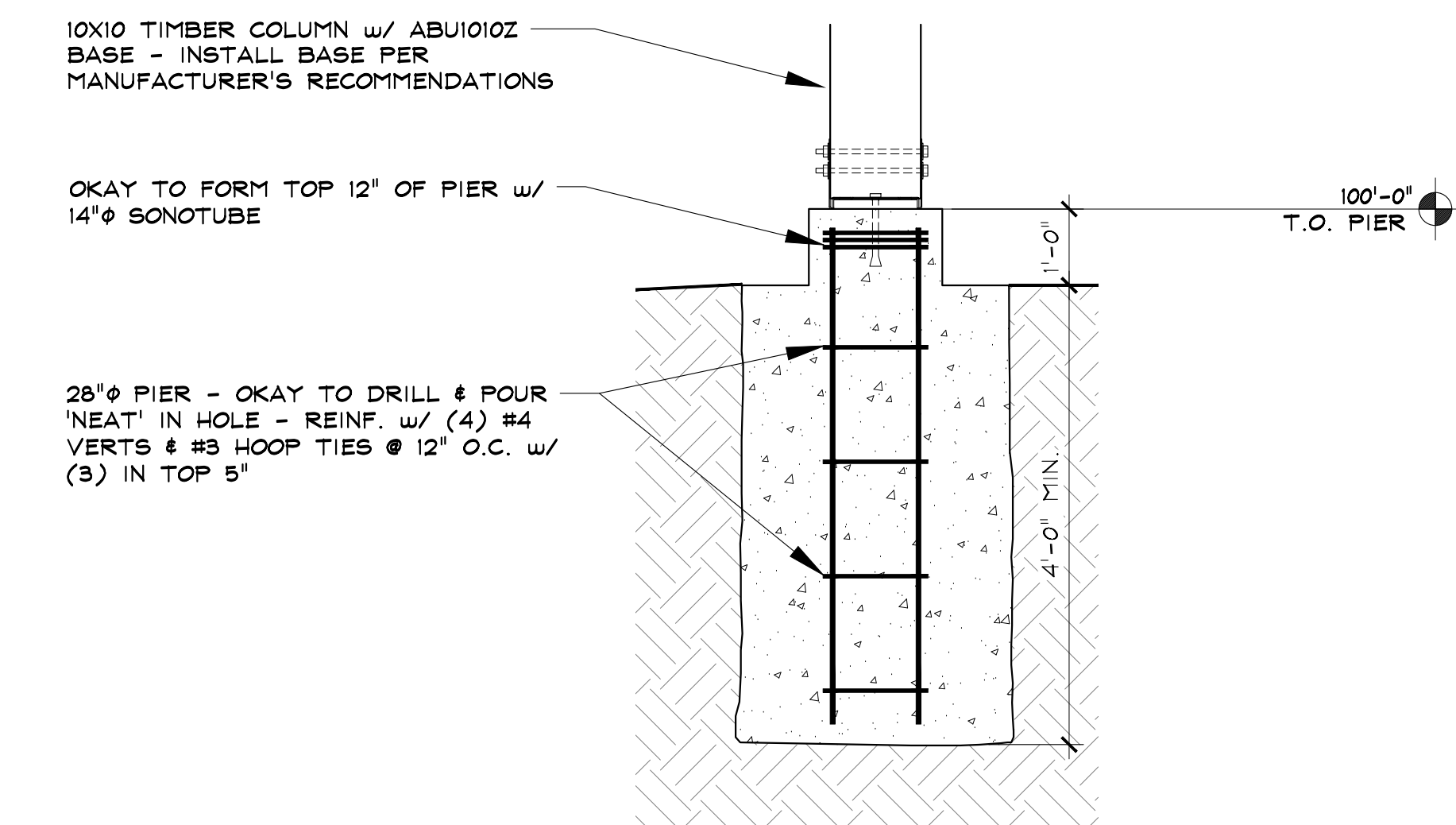
5 9'-10" TALL CANTILEVERED WALL SECTION
SCALE: 3/4" = 1'-0"



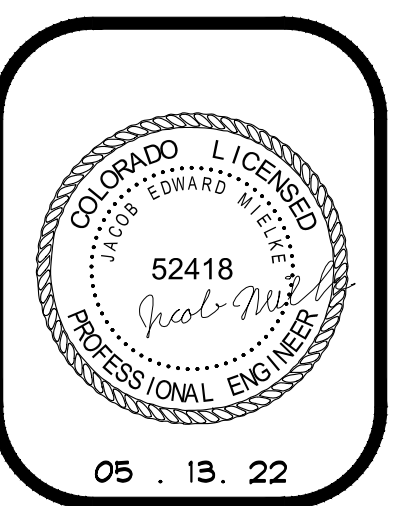
1 TYPICAL FOUNDATION SECTION @ DROPPED WALL
SCALE: 3/4" = 1'-0"



2 FOUNDATION SECTION @ 8" WALL
SCALE: 3/4" = 1'-0"



3 TYPICAL PIER SECTION
SCALE: 3/4" = 1'-0"



ISSUE DATES

03.18.22	REVIEW SET
03.25.22	REVIEW SET
03.31.22	REVIEW SET
03.18.22	PERMIT

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REVIEWED BY: CHM/KLN
PROJECT # 22024

FOUNDATION SECTIONS

S-1.1

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FRAMING NOTES

1. PROVIDE 5/8" APA RATED EXPOSURE 1 40/20 SHEATHING
2. ELEVATION @ TOP OF BEAM INDICATED THUS: (ELEV)
3. TYPICAL @ MULTI-PLY BEAMS & HEADERS - FASTEN EA. PLY W/ ADHESIVE & FASTENING PER 1/S-0.1
4. Re: 5/S-2.1 FOR MANUFACTURED TRUSS SCHEMATICS
5. FULL HEIGHT BLOCKING & DIAPHRAGM NAILING INDICATED THUS: Re: 2/S-2.1
6. TYPICAL @ GIRDER TRUSSES & GIRDER RAFTERS - PROVIDE FULL BEARING 2X6 STUD PACK BELOW GIRDER BEARING, U.N.O.
8. ATTIC SPACES OF TRUSSES SHALL NOT BE USED FOR STORAGE UNLESS SPECIFICALLY NOTED ON PLANS THAT SUCH SPACE WAS DESIGNED FOR A STORAGE LOAD

WALL SCHEDULE

HATCH	DESCRIPTION	STUDS	FASTENING	REMARKS
	TYPICAL 1 3/4" X 5 1/2" LSL BEARING W/ SHEATHING	1 3/4" X 5 1/2" LSL OR LVL	7/8" SHEATHING ONE SIDE W/ 6" EDGE NAILING & 12" FIELD NAILING	NO SHEATHING @ INTERIOR WALLS
	BALLOON FRAME	1 3/4" X 5 1/2" LSL OR LVL	SAME AS TYPICAL	

- NOTES:
1. ALL STUDS SHALL BE MAX. 16" O.C., U.N.O.
 2. WALL HATCHES ARE FOR WALLS BELOW FRAMING PLAN SHOWN
 3. BLOCK ALL PANEL EDGES OF ALL SHEAR WALLS
 4. PROVIDE HOLDOWNS AT SHEAR WALLS AS LABELED ON FRAMING PLANS

HEADER SCHEDULE

MARK	SIZE	TRIMMER	KING	REMARKS
H1	(2) 9 1/2" LVL's	(2) 2x6	(1) 2x6	
H2	(3) 11 7/8" LVL's	(2) 2x6	(1) 2x6	

- NOTES:
1. HEADER SCHEDULE IS FOR ENTIRE PROJECT
 2. N/A DENOTES HEADER IS NOT USED THIS SHEET
 3. TRIMMER & KING STUDS ARE PER EA. END OF HEADER, U.N.O.

COLUMN LEGEND & SCHEDULE

MARK	SIZE	REMARKS
C2	(3) 2x6	TRIMMER/KING STUDS OR COLUMNS BELOW GIRDERS
C10	10x10	TIMBER COL.

- NOTES:
- INDICATES COLUMN BELOW
 - INDICATES COLUMN ABOVE
 - INDICATES CONTINUOUS COLUMNS
1. COLUMN SCHEDULE IS FOR ENTIRE PROJECT
 2. N/A DENOTES COLUMN IS NOT USED THIS SHEET

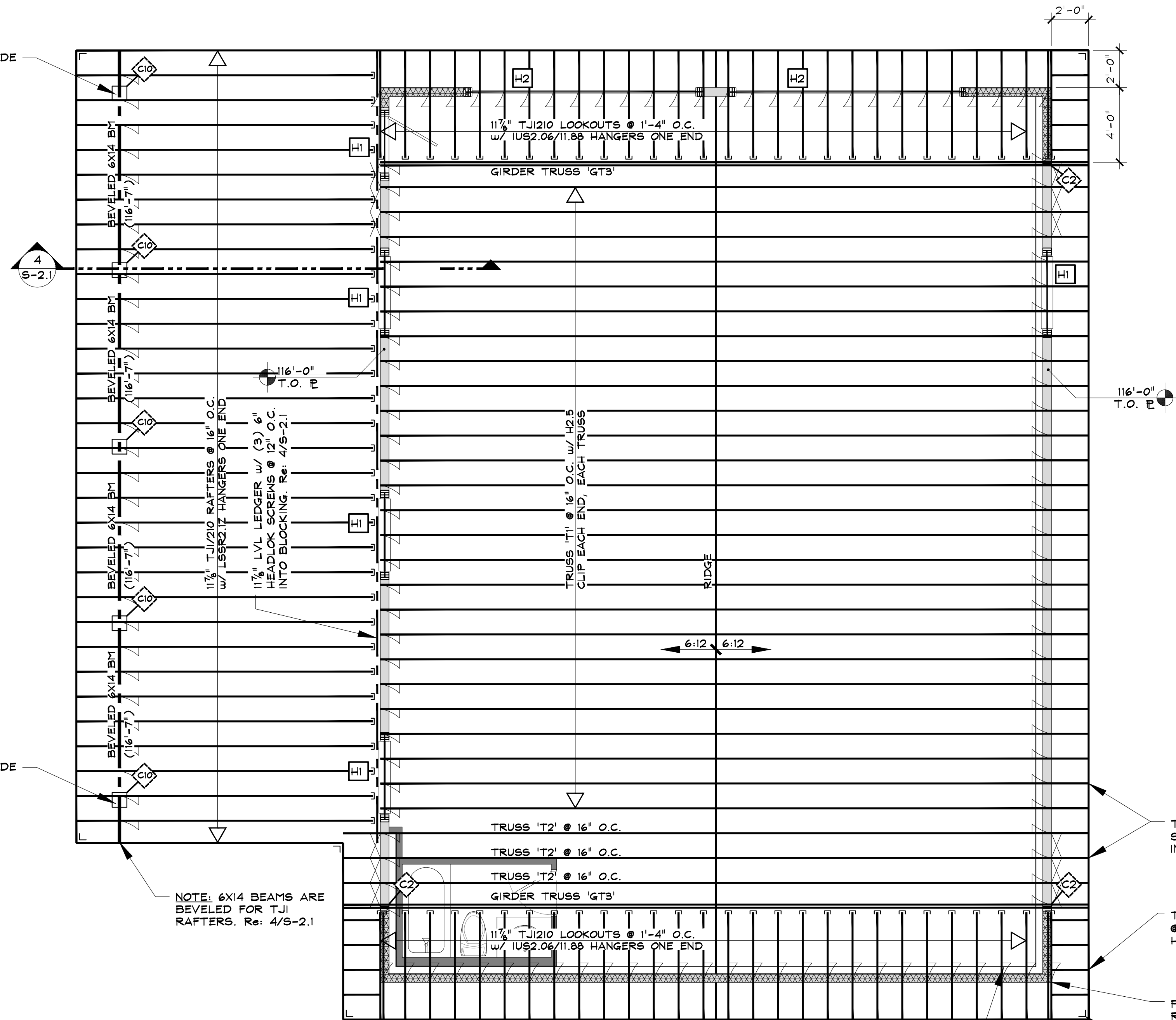
STRUCTURE LEGEND

	BEARING ARROW	
	RAFTER	
	JOIST	
	BEAM	
	RIM	
	LEDGER	
	TYPICAL HEADER	
	CLOSURE WALL	
	HANGER	
	CLIP	
	WALL KEY (Re WALL SCHEDULE):	
	TYPICAL 2X6 BEARING WALL	
	BALLOON FRAMED WALL	

TYPICAL - NOTCH ONE SIDE OF COLUMN TO ACCEPT BEAMS & FASTEN W/ (2) 5/8" φ BOLTS. Re: 4/S-2.1

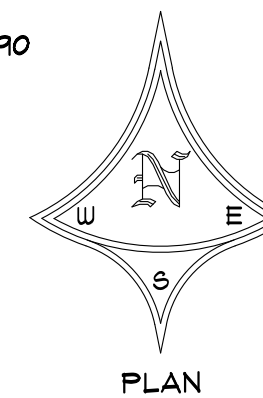
TYPICAL - NOTCH ONE SIDE OF COLUMN TO ACCEPT BEAMS & FASTEN W/ (2) 5/8" φ BOLTS. Re: 4/S-2.1

NOTE: 6X14 BEAMS ARE BEVELED FOR TJI RAFTERS. Re: 4/S-2.1



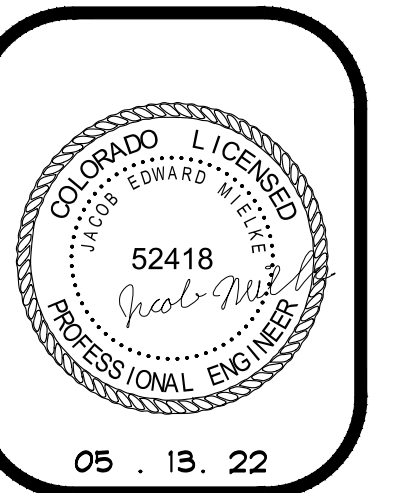
IMPORTANT NOTE: FRAME MNI, 22"X30" ATTIC ACCESS IN CEILING BELOW LOOKOUTS

- TYPICAL - 11 7/8" LVL OR LSL SUBFASCIA W/ (4) 16d NAILS INTO 2X4 BLOCK. Re: 4/S-2.1
- TYP. - INFILL W/ 11 7/8" TJI/210's @ 16" O.C. W/ IUS2.06/11.88 HANGERS AS INDICATED
- PROVIDE 11 7/8" LVL GIRDER RAFTER W/ HUP HANGER AS INDICATED
- TYPICAL - PROVIDE L590 CLIPS @ CORNERS



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

1 ROOF FRAMING PLAN



BERLET GARAGE
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ISSUE DATES

03.18.22	REVIEW SET
03.25.22	REVIEW SET
03.31.22	REVIEW SET
05.13.22	PERMIT

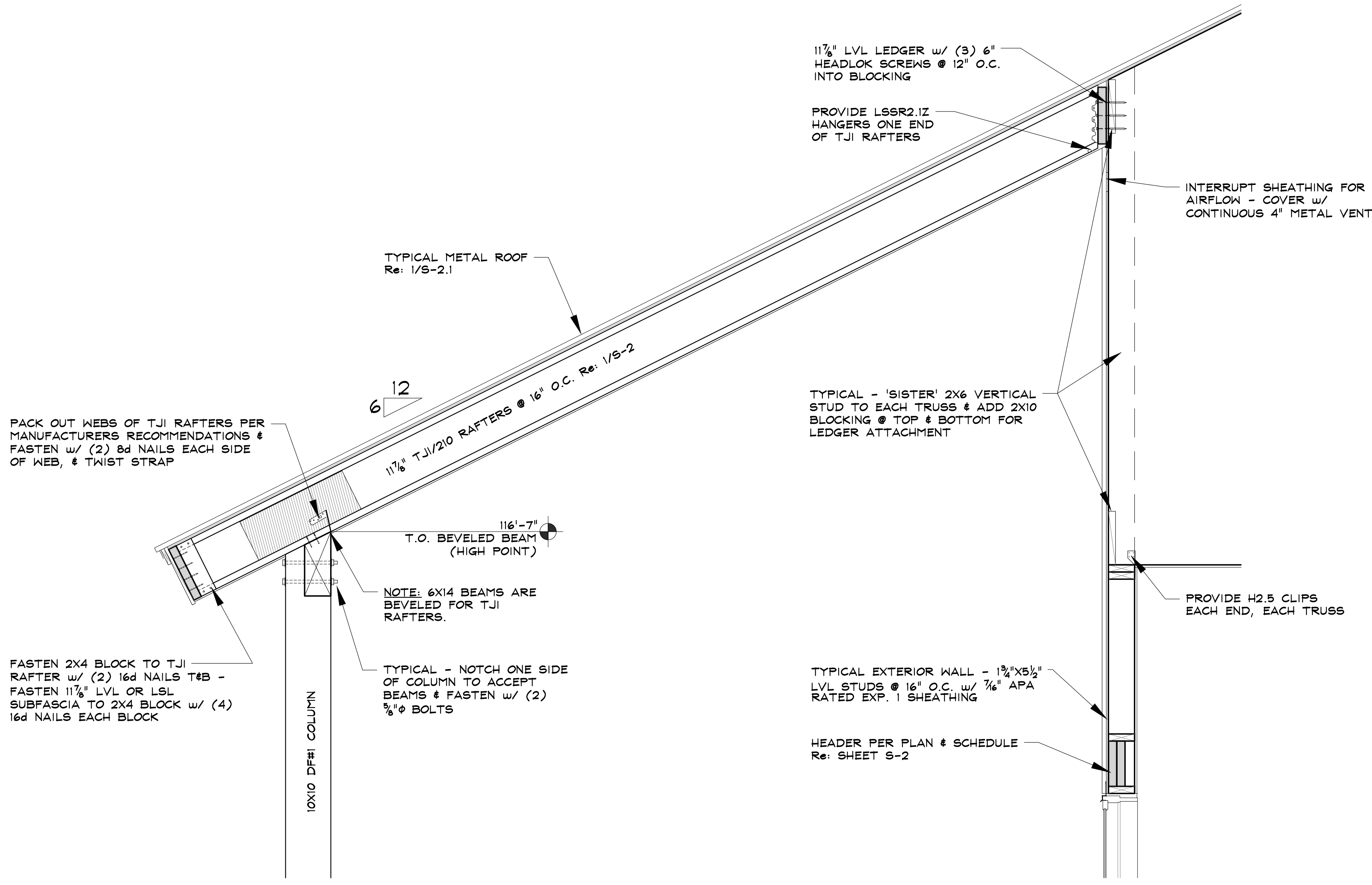
DRAWN BY: JEM
 REVIEWED BY: CMY/KLN
 PROJECT # 22024

ROOF FRAMING PLAN

S-2

MANUFACTURED TRUSS NOTES

- TRUSSES SHALL BE SIZED FOR 118 psf ROOF SNOW LOAD AND 20 psf DEAD LOAD, PLUS APPLIED LOADS AS INDICATED
- UNBALANCED SNOW LOADING SHALL BE ACCOUNTED FOR IN TRUSS DESIGN BY MANUFACTURER.
- Re: 1/5-2 FOR TRUSS LAYOUT
- ALL LATERAL BRACING SHALL BE SPECIFIED BY TRUSS MANUFACTURER
- TRUSS SCHEMATICS SHALL BE APPROVED BY ENGINEER OF RECORD PRIOR TO ORDERING



4 SECTION THROUGH SHED ROOF

SCALE: 3/4" = 1'-0"

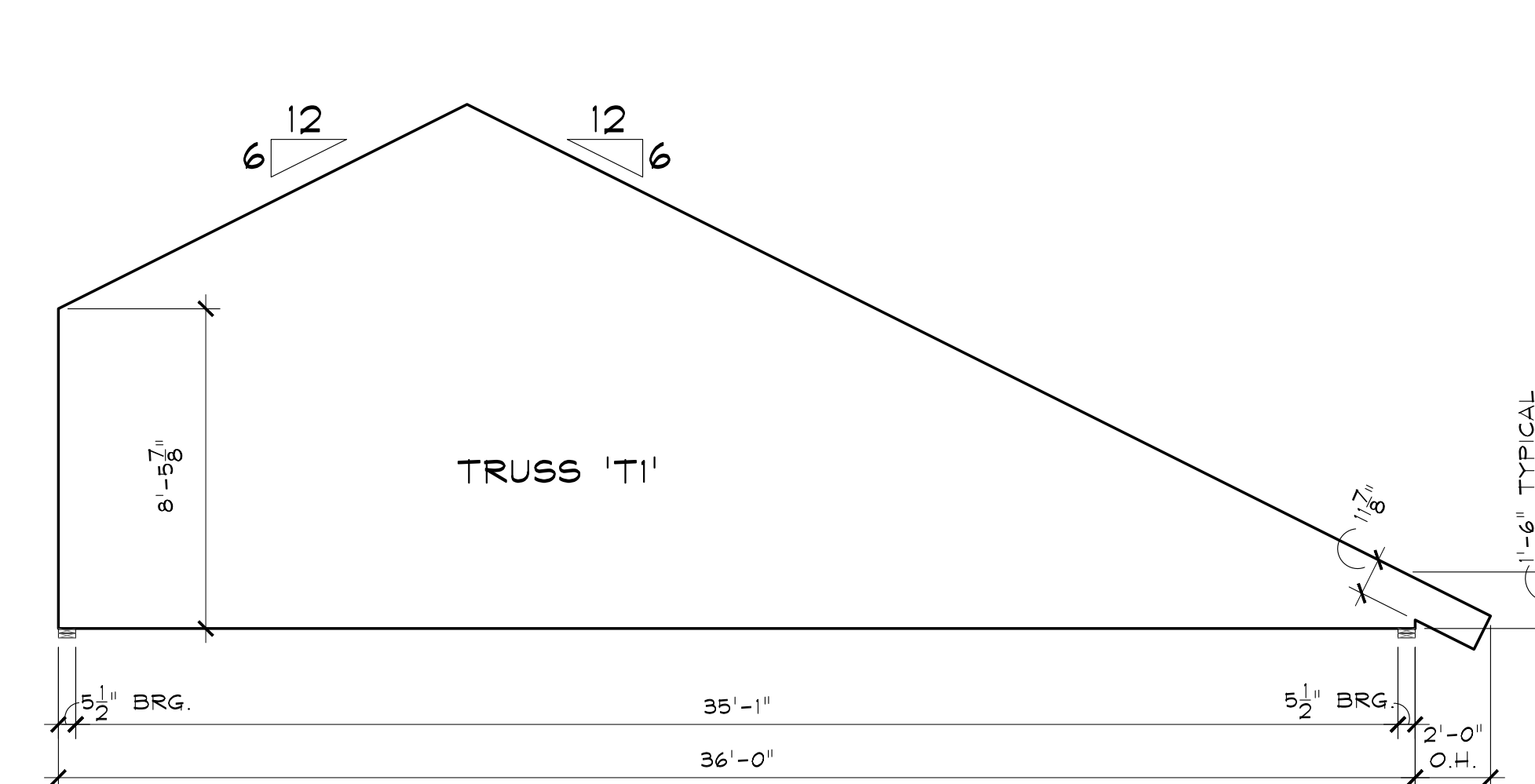
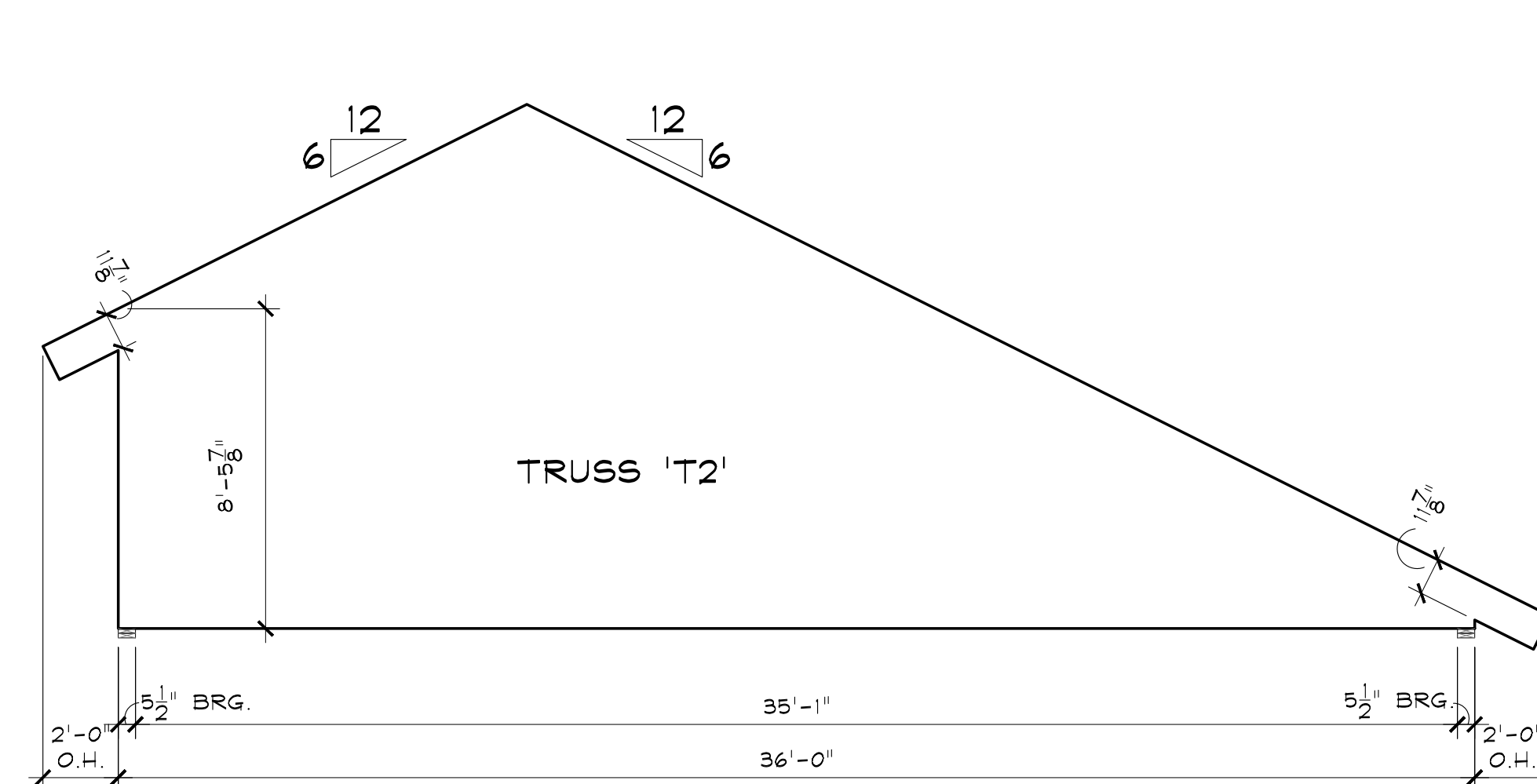
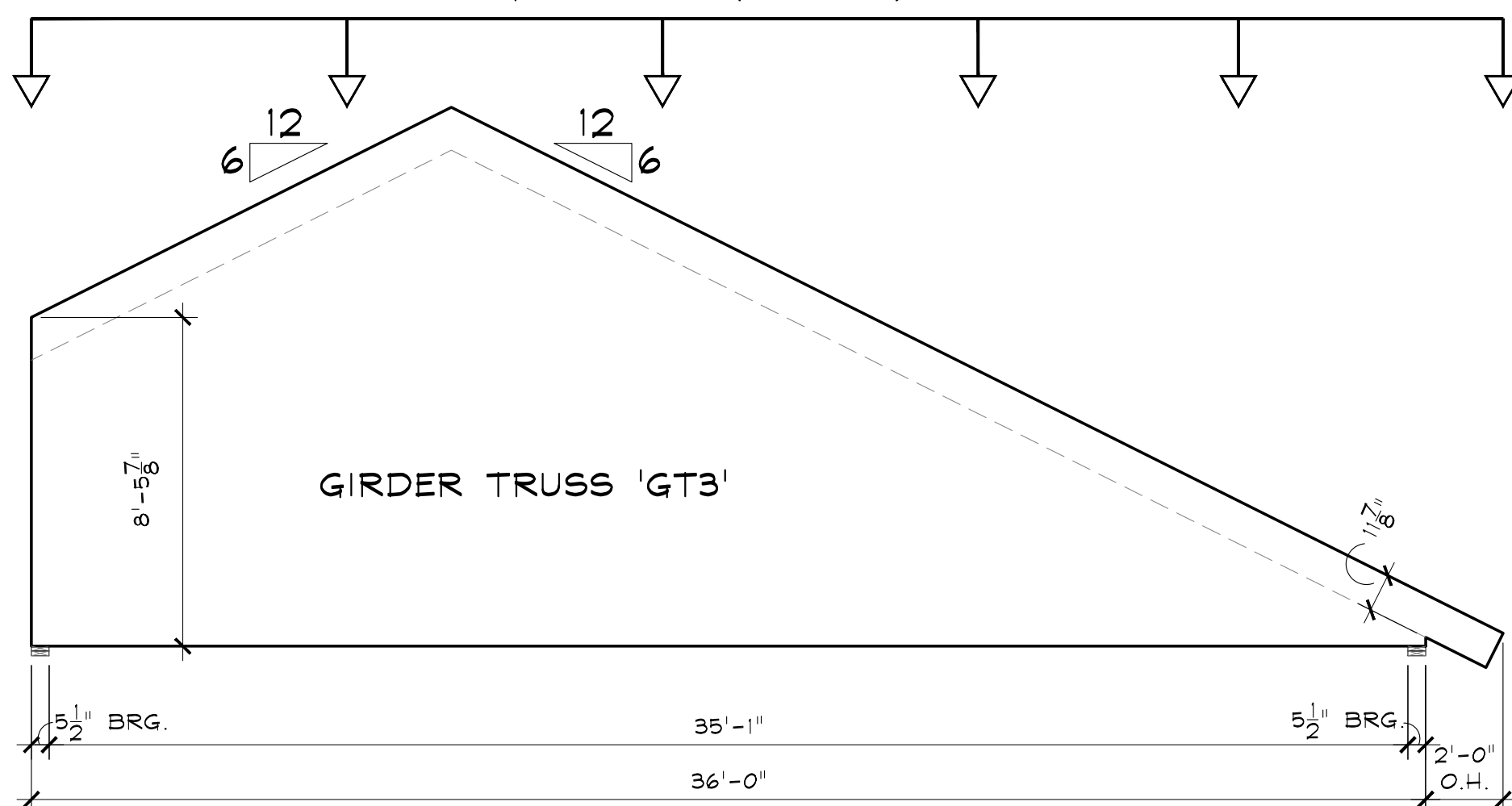
NOTE:

TRUSS SCHEMATICS SHALL BE APPROVED BY ENGINEER OF RECORD PRIOR TO ORDERING

NOTE:

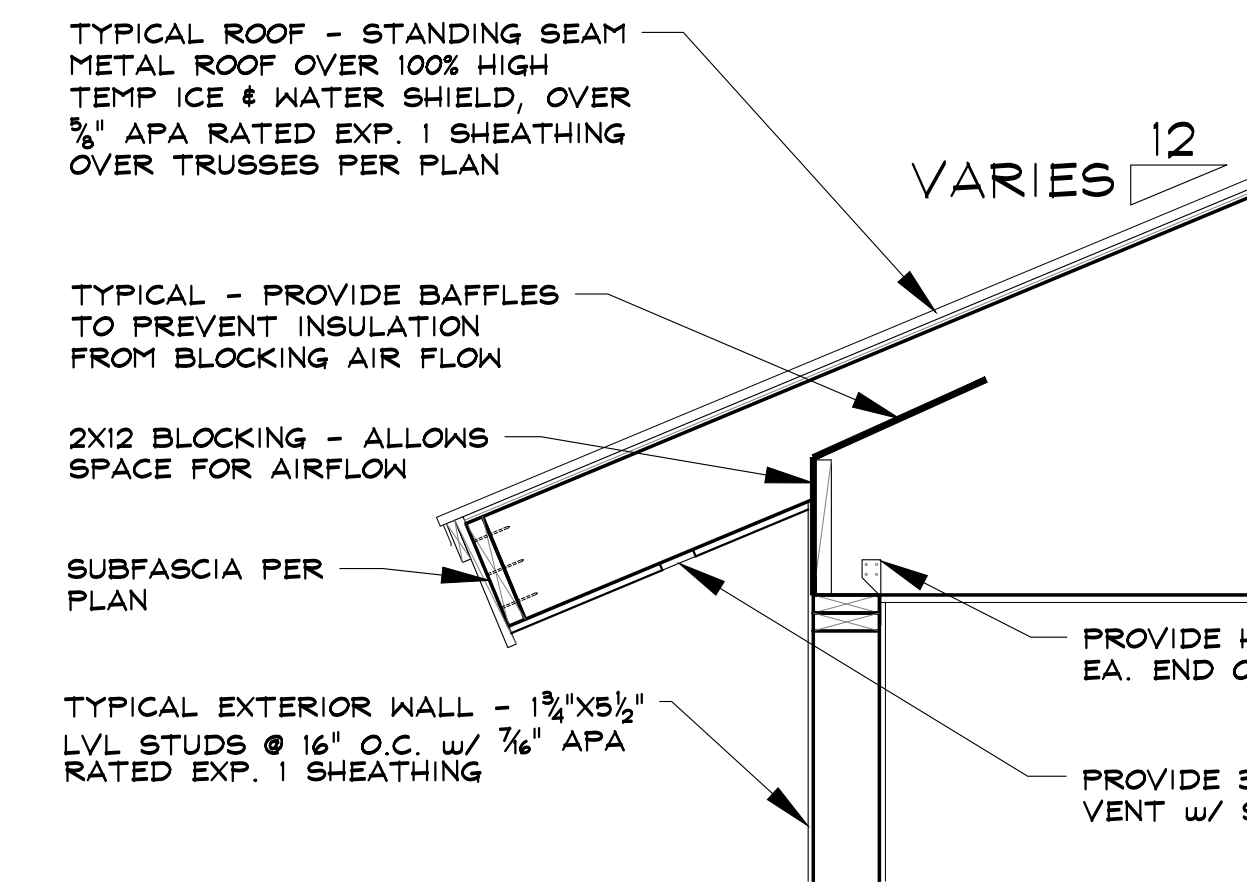
TRUSS MANUFACTURER SHALL PROVIDE LATERAL BRACING @ TALL HEELS OF TRUSSES

NOTE: GIRDER TRUSS REQUIRES 11 7/8" TOP CHORD FOR LOOKOUT FRAMING
DIST. LOADS: 118 psf SNOW LOAD,
20 psf DEAD LOAD (3'-0" TRIB.)



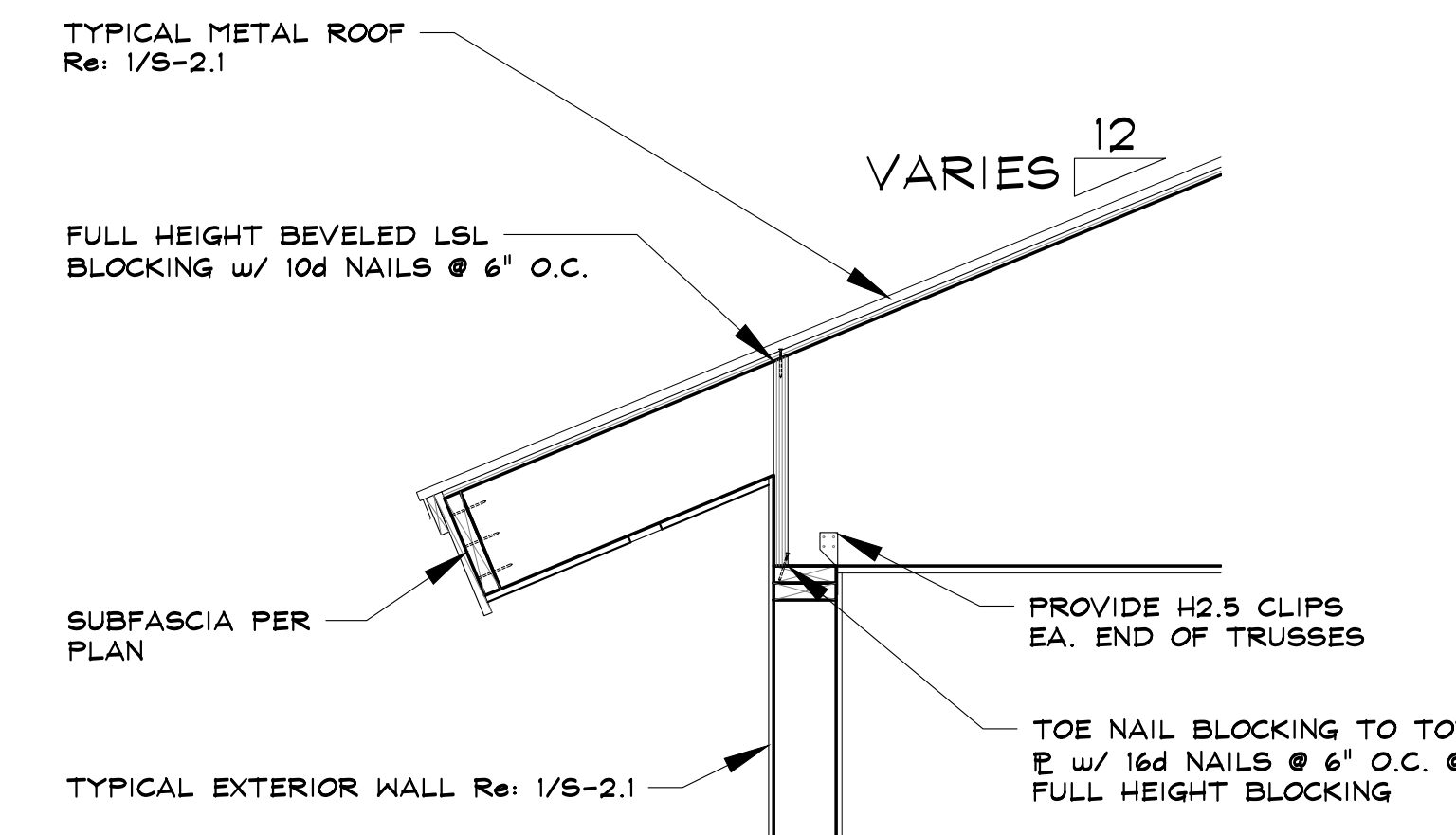
5 MANUFACTURED TRUSS SCHEMATICS

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



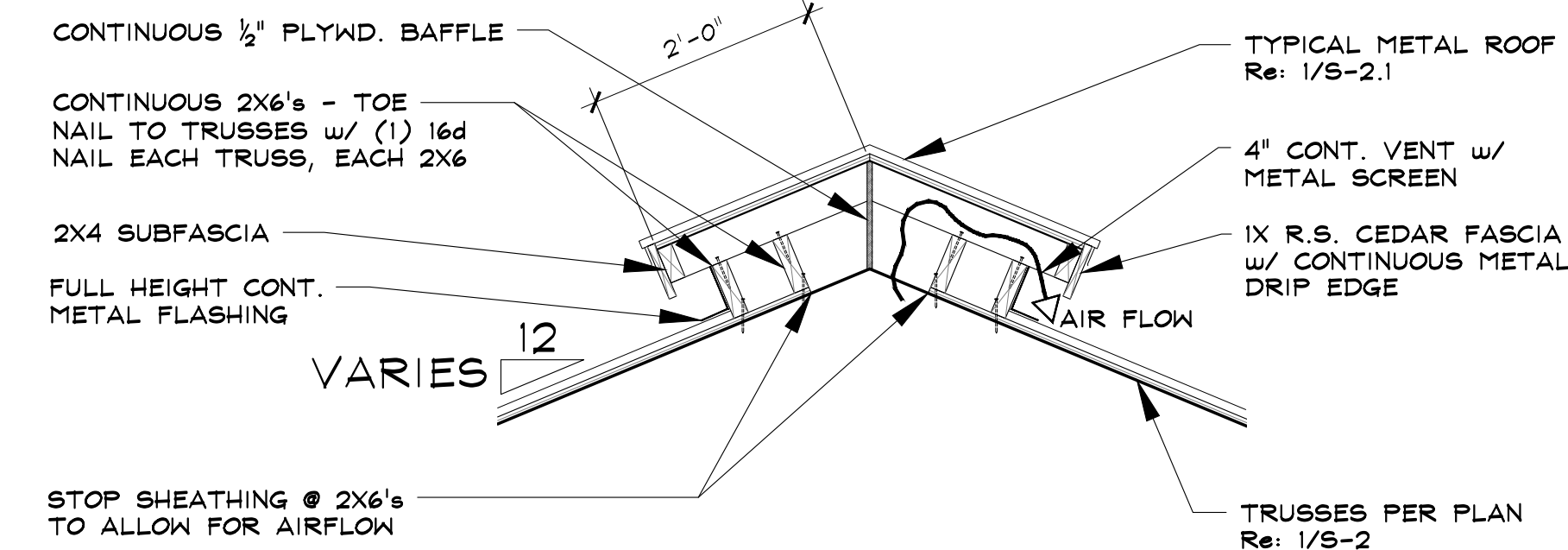
1 TYPICAL TRUSS EAVE SECTION

SCALE: 3/4" = 1'-0"



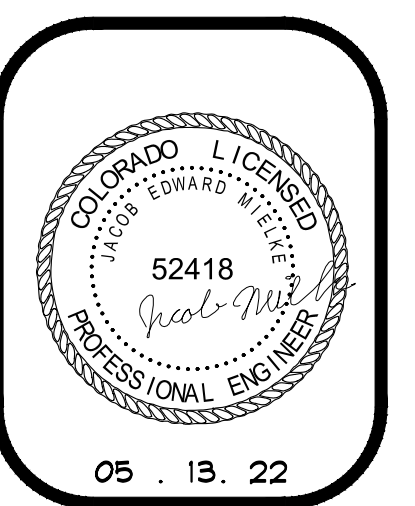
2 TYPICAL DIAPHRAGM BLOCKING SECTION

SCALE: 3/4" = 1'-0"



3 TYPICAL 'DOG-HOUSE' RIDGE VENT SECTION

SCALE: 3/4" = 1'-0"



BERLET GARAGE
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ROUTT COUNTY, COLORADO
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ROOF FRAMING SECTIONS

S-2.1

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