

FOUNDATION GENERAL NOTES:

- GENERAL:
 - THIS FOUNDATION HAS BEEN DESIGNED AS A SOIL SUPPORTED STIFFENED GRID TYPE BEAM AND SLAB FOUNDATION; AND AS SUCH, WILL MOVE WITH THE SOILS UPON WHICH IT BEARS.
 - CONTRACTOR IS TO VERIFY ALL DIMENSIONS, DROP AREAS, FLOOR PENETRATIONS, AND BLOCK OUT LOCATIONS WITH THE ARCHITECT'S FLOOR PLAN.
 - CONTRACTOR SHALL VERIFY ANY DEVIATION FROM THE INFORMATION ON THIS FOUNDATION DESIGN WITH ENGINEER OF RECORD.
 - THE CONTRACTOR SHALL NOT PLACE ANY CONCRETE UNTIL ENGINEER OF RECORD HAS CONDUCTED A PRE-POUR INSPECTION AND HAS GIVEN APPROVAL TO PLACE THE CONCRETE.
 - CONTRACTOR IS TO CALL ENGINEER OF RECORD IF FOUNDATION REQUIRES MULTIPLE CONCRETE POURS OF THREE (3) OR MORE.
 - CONTRACTOR SHALL FURNISH THE LABOR, MATERIALS, EQUIPMENT AND SUPERVISION NECESSARY TO PERFORM ALL WORK SHOWN ON PLANS AND SPECIFICATIONS.
 - IT IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR TO NOTIFY THE HOMEOWNER OF THE IMPORTANCE OF ITEMS 2C AND 2D BELOW AND OF THE LIMITATIONS AS EXPRESSED IN ITEM NO. 1 ABOVE. NO OTHER WARRANTIES ARE EXPRESSED OR IMPLIED.

- FOUNDATION SITE PREPARATION & FINISH:
 - AREA OF FOUNDATION IS TO BE CLEARED AND GRUBBED OF ALL DELETERIOUS AND ORGANIC MATERIALS DOWN TO A SOLID BASE.
 - PROVIDE A VAPOR BARRIER BENEATH THE FLOOR SLAB BY USING A WATERPROOFING MEMBRANE OF 10 MIL POLYETHYLENE. THE MEMBRANE SHALL BE TAPED AT ALL SPLICES AND TEARS. THE MEMBRANE SHALL EXTEND TO WITHIN 6-INCHES OF THE BOTTOM OF THE BEAM TRENCHES.
 - POSITIVE DRAINAGE AWAY FROM THE PERIMETER OF THE FINISHED FOUNDATION MUST BE PROVIDED. THE TOP OF THE FOUNDATION SLAB SHOULD BE A MINIMUM OF 8-INCHES ABOVE THE FINISHED GRADE. THE GROUND ADJACENT TO THE FOUNDATION SHOULD SLOPE AWAY A MINIMUM OF 6-INCHES IN THE FIRST 5-FEET.
 - ANY TREES PLANTED AFTER PLACEMENT OF THE FOUNDATION SHOULD BE PLANTED NO CLOSER TO THE FOUNDATION THAN ONE-HALF THE POTENTIAL HEIGHT OF THE TREE.
 - ALL AIR CONDITIONING CONDENSER DRAIN LINES SHOULD DISCHARGE A MINIMUM OF 5-FEET FROM THE PERIMETER OF THE FOUNDATION.

- CONCRETE:
 - CONCRETE TO BE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, AND SHALL BE IN ACCORDANCE ACI 301. CEMENT SHALL BE TYPE 1 AND FLY ASH (IF USED) SHALL BE MONEX RESOURCES CLASS C. IF FLY ASH IS USED, IT SHALL NOT EXCEED 20% OF THE TOTAL AMOUNT OF FLY ASH AND CEMENT BY WEIGHT. NO AIR ENTRAINMENT OR CALCIUM CHLORIDE SHALL BE USED. CONTRACTOR SHALL SATISFY HIMSELF THAT THE MIX DESIGN IS ACCEPTABLE FOR ITS INTENDED PURPOSE.
 - CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH ACI 302.1R. FINISH TOLERANCE SHALL BE IN ACCORDANCE WITH ACI 117. A MINIMUM SET OF TWO TEST CYLINDERS FOR 28-DAY COMPRESSIVE STRENGTH TESTS ARE RECOMMENDED TO BE PERFORMED IN ACCORDANCE WITH ASTM C42.
 - PLACE 1/2" X 10" EMBEDMENT ANCHOR BOLTS FOR ALL SILL PLATES ON EXTERIOR WALLS NOT EXCEEDING 4'-0" O.C. AND A MINIMUM OF 2 ANCHOR BOLTS PER WALL AND NOT FARTHER THAN 12-INCHES FROM WALL ENDS.

- GRADE BEAMS:
 - ALL GRADE BEAM DEPTHS MAY BE REDUCED WHEN BEARING ON SOLID UNFRAGMENTED ROCK. ROUGHEN THE ROCK SURFACE A MINIMUM OF 3" AND MAINTAIN A MINIMUM OF 8" ABOVE THE GRADE. FOR DOWNSLOPING EXTERIOR BEAMS MORE THAN 5% GRADE, REMOVE A 10" DIAMETER BOULDER EVERY 4' TO PROVIDE ADDITIONAL ROUGHNESS AND ENGAGEMENT TO THE HILL.
 - FOR GRADE BEAMS WITH DEPTHS EQUAL TO OR IN EXCESS OF 36-INCHES, INCREASE THE AMOUNT OF REINFORCING STEEL BY ADDING TWO-#4 BARS HORIZONTALLY EVERY 18-INCHES OF VERTICAL. IF THE EXTERIOR GRADE BEAMS EXCEED 8-FEET IN DEPTH, SEE DETAIL 16 PER THIS DRAWING.

- REINFORCING STEEL:
 - REINFORCING BARS SHALL BE NEW BILLET STEEL, DEFORMED BARS, CONFORMING TO ASTM A615 GRADE 60.
 - LAPS AND SPLICES PER TABLE 1 THIS SHEET
 - ALL BARS TO BE SUPPORTED IN THE FORMS AND SLAB WITH CHAIRS OR WIRE BOLSTERS, AND SHALL BE TIED AT EVERY OTHER INTERSECTION.
 - ALL BARS SHALL HAVE A MINIMUM CLEAR COVER OF 3-INCHES FROM THE BOTTOM AND SIDES OF THE BEAMS. SLAB REINFORCEMENT SHALL BE IN MID PLANE.
 - CORNER REINFORCING BARS: TWO CORNER BARS AT EACH CORNER OF THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 14, AND FOUR CORNER BARS AT THE INTERSECTION OF ALL INTERIOR GRADE BEAMS WITH THE PERIMETER GRADE BEAM/WALL, AS PER DETAIL 13.
 - STIRRUP ANCHOR HOOKS SHALL NEVER BE CUT WITHOUT THE AUTHORIZATION OF THE ENGINEER. IF STIRRUPS ARE TOO LONG, THEY MAY BE BENT IN THE DIRECTION OF THE BEAM.

- CONSTRUCTION:
 - FOR ALL SLAB DROPS GREATER THAN 36-INCHES, THE CONTRACTOR SHALL CONSTRUCT A FRENCH DRAIN SYSTEM OF CAPACITY SUFFICIENT TO INTERCEPT AND TRANSPORT WATER FROM BENEATH THE FOUNDATION TO A POINT AWAY FROM THE FOUNDATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ESTABLISH THE DIRECTION OF FLOW AND POINT OF DISCHARGE TO DAYLIGHT. DISCHARGE OUTLET TO BE A MINIMUM OF 5-FEET AWAY FROM FOUNDATION. SOLID WALL PIPE MAY BE USED OUTSIDE OF FOUNDATION. WRAP ALL PERFORATED PIPE WITH MIRAFI N-SERIES FILTER FABRIC.
 - ALL FOUNDATIONS THAT ARE TO HAVE A FILL DEPTH GREATER THAN 2-FEET BELOW BOTTOM OF INTERIOR GRADE BEAM SHALL MEET ONE OF THE FOLLOWING:
 - INTERIOR GRADE BEAMS MAY BE DEEPENED TO MAINTAIN 2-FEET MAXIMUM DEPTH OF FILL BELOW BOTTOM OF BEAM. INTERMEDIATE BARS PER NOTE 4-B SHALL BE ADDED IF REQUIRED.
 - IF BEARING ON SOLID ROCK - 14-INCHES DIA. PIERS, FORMED WITH SONO-TUBES, SHALL BE PLACED AT ALL INTERIOR BEAM INTERSECTIONS. PIERS ARE TO BE REINFORCED WITH A MINIMUM OF FOUR-#4 VERTICAL BARS WITH #3 TIES @ 12-INCHES O.C. VERTICALLY. REFER TO DETAIL 15.
 - IF EARTH SUPPORTED - SELECT FILL EQUAL TO TXDOT NO. 2 BASE SHALL BE COMPACTED TO A MINIMUM 95-PERCENT MODIFIED PROCTOR PER ASTM D-1557. FILL IS TO BE PLACED IN 8-INCH LIFTS AND TESTED BY A SOILS TESTING LAB.
 - ALTERNATIVELY, IF EARTH SUPPORTED - CRUSHED LIMESTONE BASE FILL WITH 100% PASSING 1 1/2-INCH SIEVE, AND 0% PASSING NO. 4 SIEVE, CAN BE PLACED WITHOUT COMPACTION. BEFORE INSTALLATION OF BASE FILL, FILTER FABRIC SUCH AS MIRAFI N-SERIES IS TO BE PLACED OVER EXISTING EARTH.
 - WHERE PIPES PASS THROUGH BEAMS, INCREASE BEAM SIZE AT PIPE PENETRATIONS TO MAINTAIN MINIMUM BEAM WIDTH AND HEIGHT. PLACEMENT OF OVERSIZED DIAMETER SLEEVES IS ALSO RECOMMENDED.
 - CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE SLAB PERIMETER DURING CONSTRUCTION.
 - CONCRETE SHALL NOT BE PLACED ON SOILS THAT HAVE BEEN DISTURBED BY RAINFALL OR SEEPAGE, AND ALL BEARING SURFACES SHALL BE FREE OF LOOSE SOIL, PONDED WATER, AND DEBRIS PRIOR TO PLACING THE CONCRETE.

SOILS INFORMATION

DESIGN LEVEL	SOIL TYPE	P.I.	BY	DATE
E	CLAY	---		

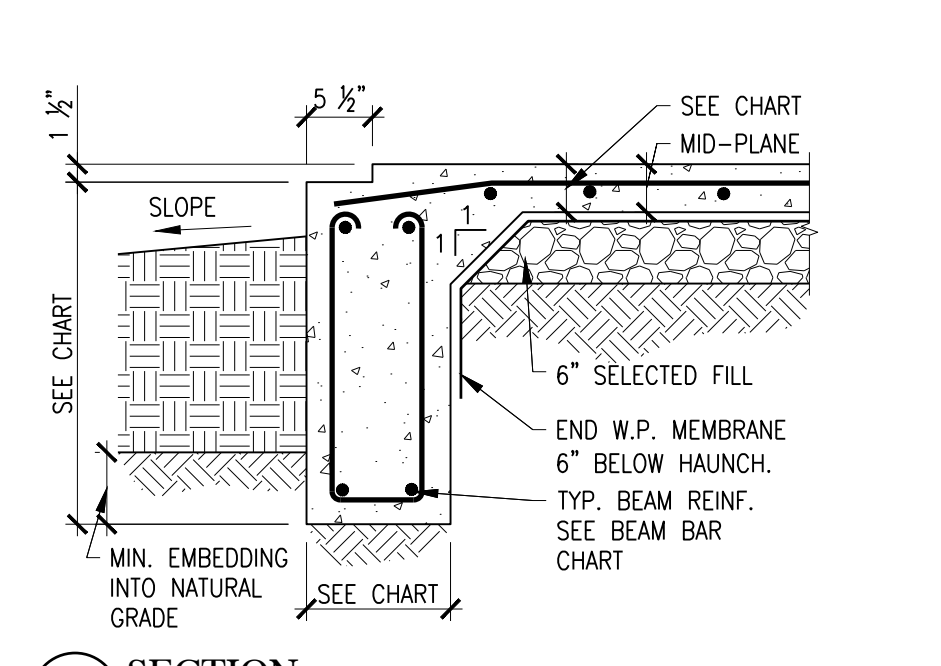
BEAM AND SLAB INFORMATION

BEAM WIDTH	EXT. BEAM DEPTH	EXT. BEAM DEPTH IN GRADE	INT. BEAM DEPTH	BEAM BARS	STIRRUP EXT. BEAM	STIRRUP INT. BEAM	PAD BARS	SLAB THICKNESS
12" MIN.	36" MIN.	12" MIN.	30" MIN.	2-#6 TOP 2-#6 BOT.	#3 @ 18" O.C.	#3 @ 18" O.C.	#3 @ 12" O.C.	4"

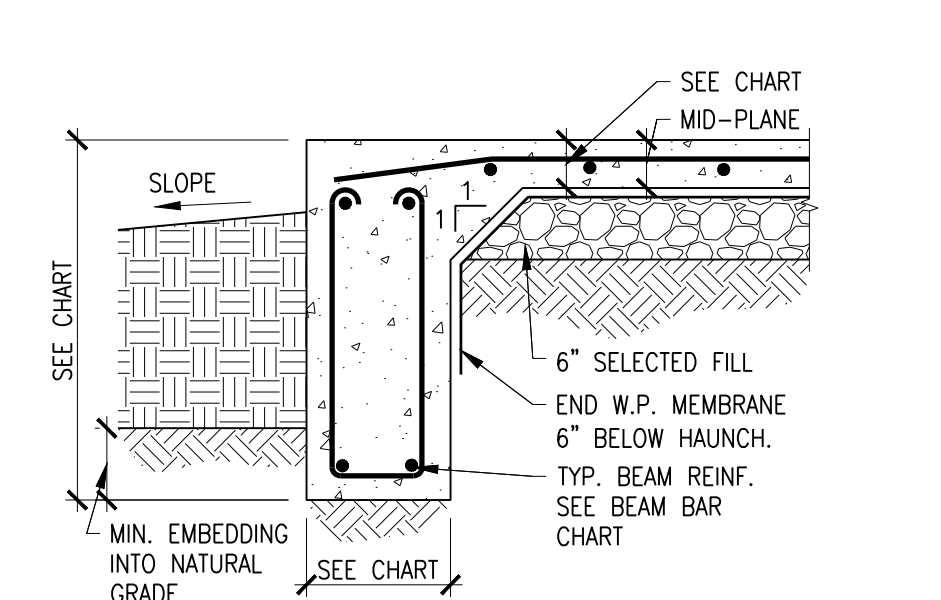
TABLE 1 REBAR SPICE DISTANCES (INCHES) FOR 3000 PSI CONCRETE

BAR SIZE	BEAM TOP BARS	OTHER BARS
3	22	17
4	29	22
5	36	28
6	43	33
7	63	48
8	72	55
9	81	62

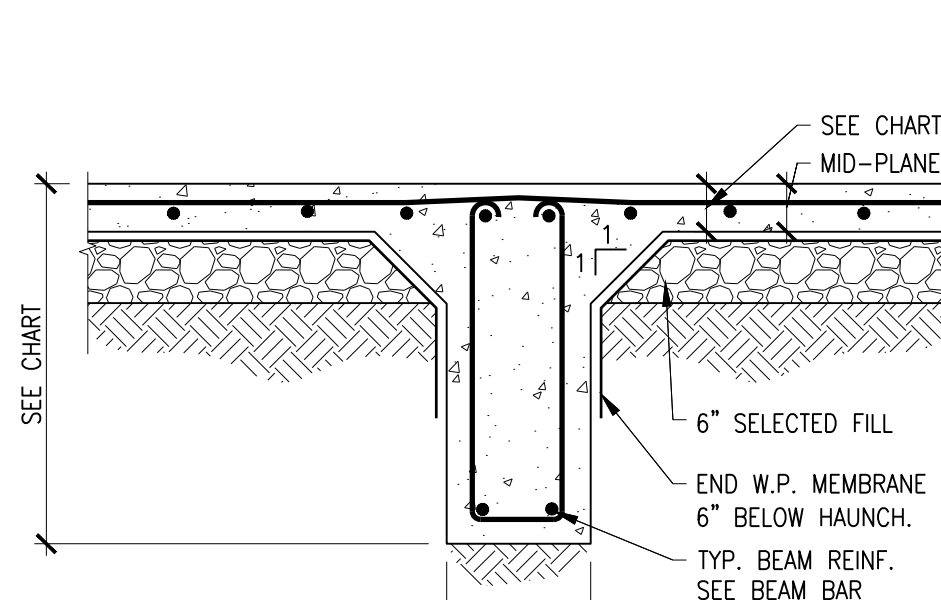
FOUNDATIONS ON EXPANSIVE CLAY SUBGRADES ARE SUBJECT DIFFERENTIAL SETTLEMENT AND MOVEMENT WITH CHANGES TO MOISTURE CONTENT OF THE SOILS UNDER THE FOUNDATION. THESE MOVEMENTS ARE EXPECTED TO STAY WITHIN INDUSTRY ACCEPTED RANGES. HOWEVER, SOIL IMPROVEMENT BY REMOVAL OF THE TOP 5' OF SOIL, TO 5' OUT FROM THE BUILDING PERIMETER AND REPLACING IT WITH LOW PLASTICITY SELECT FILL CAN MITIGATE SOME OF THE FOUNDATION MOVEMENT. THE DEPTH OF SOIL REPLACEMENT IS THE OWNER'S DECISION BASED ON AN EVALUATION OF THE RISK



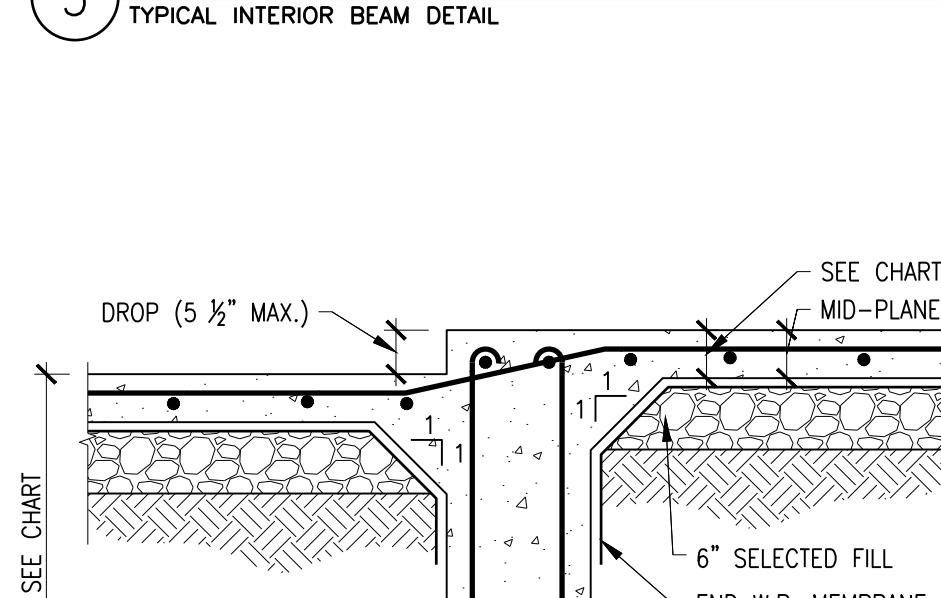
1 SECTION EXTERIOR BEAM W/BRICK LUG SCALE: 3/4"=1'-0"



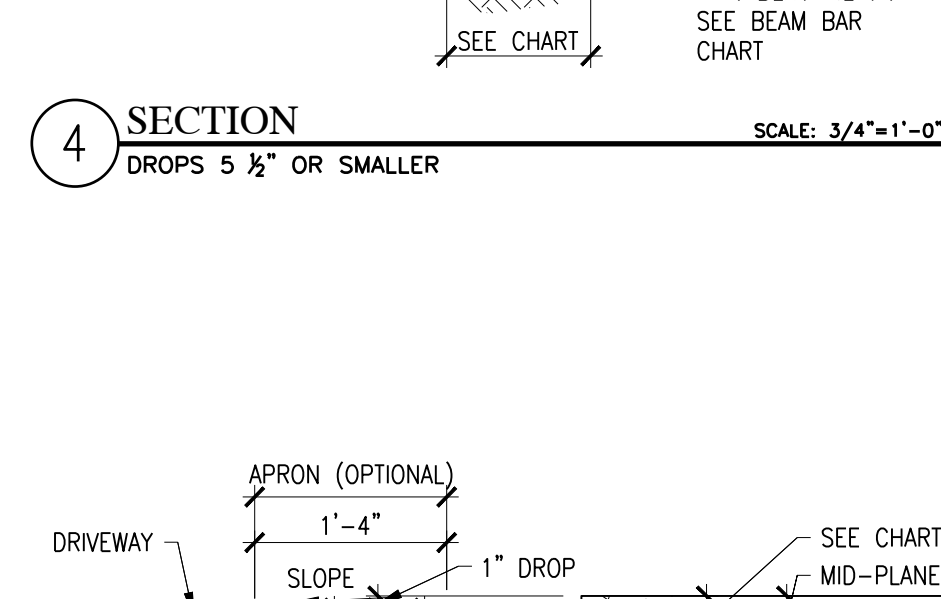
2 SECTION EXTERIOR BEAM - NO BRICK LUG SCALE: 3/4"=1'-0"



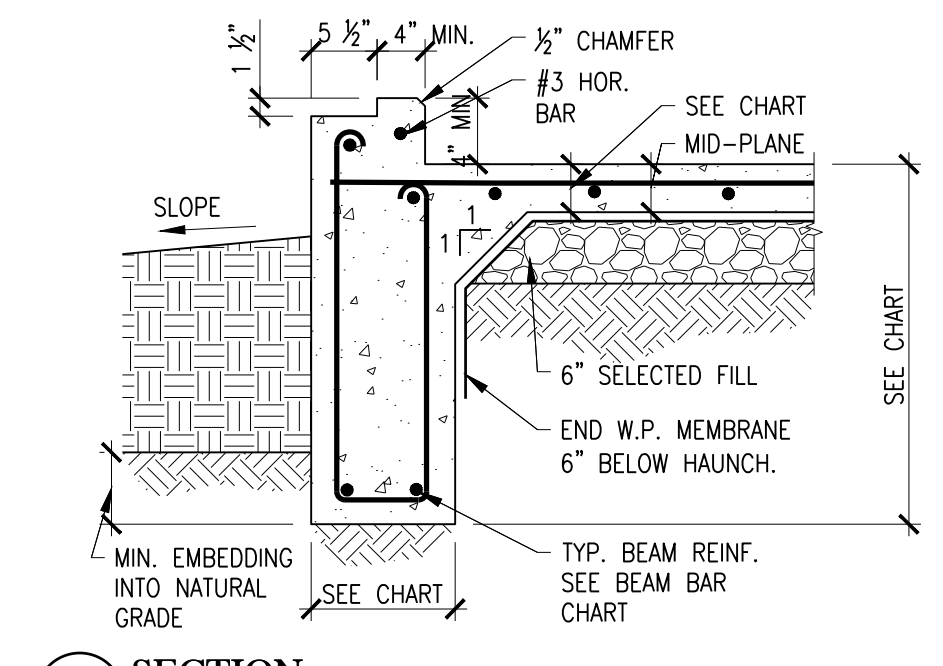
3 SECTION TYPICAL INTERIOR BEAM DETAIL SCALE: 3/4"=1'-0"



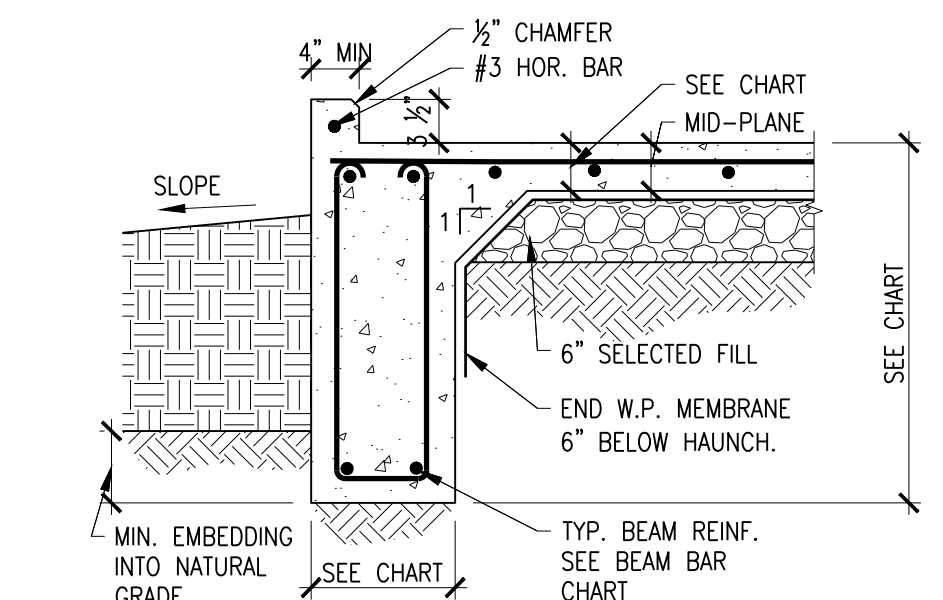
4 SECTION DROPS 5 1/2" OR SMALLER SCALE: 3/4"=1'-0"



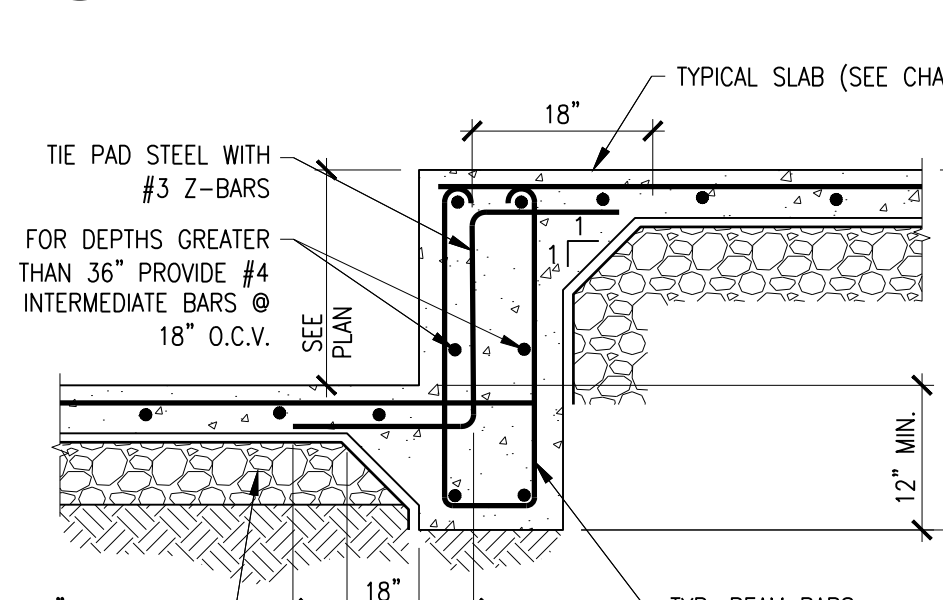
5 SECTION GARAGE RAMP DETAIL SCALE: 3/4"=1'-0"



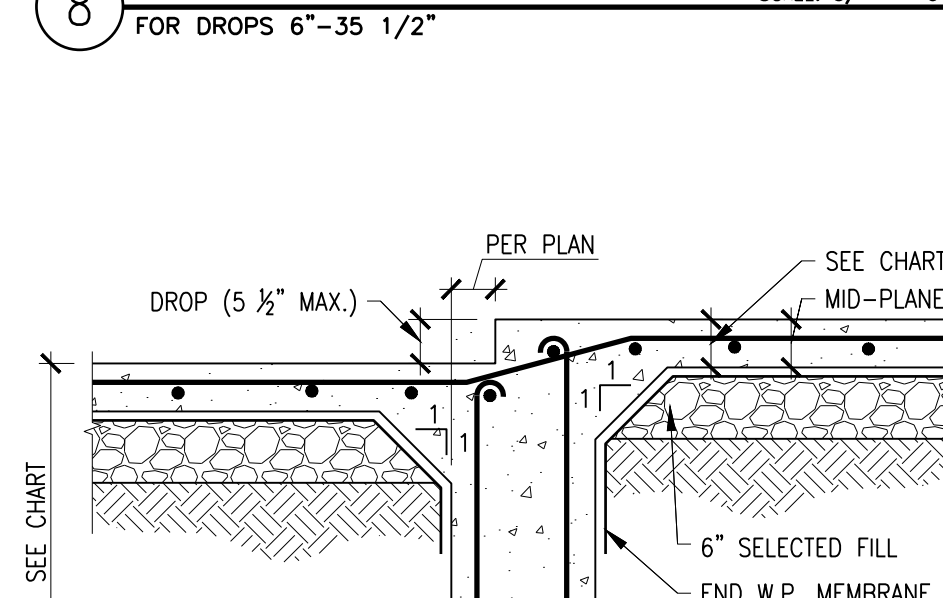
6 SECTION EXTERIOR BEAM W/BRICK LUG SCALE: 3/4"=1'-0"



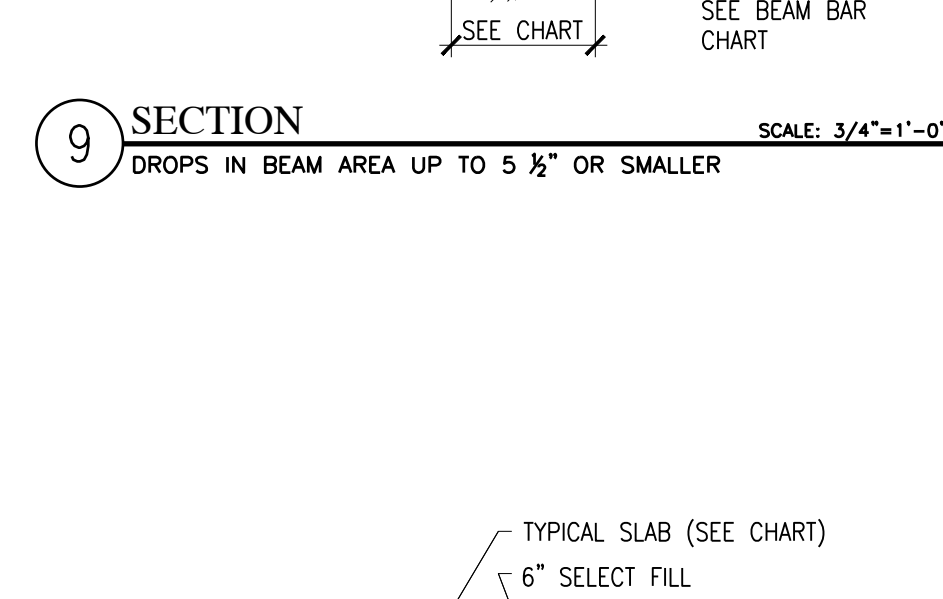
7 SECTION EXTERIOR BEAM W/BRICK LUG SCALE: 3/4"=1'-0"



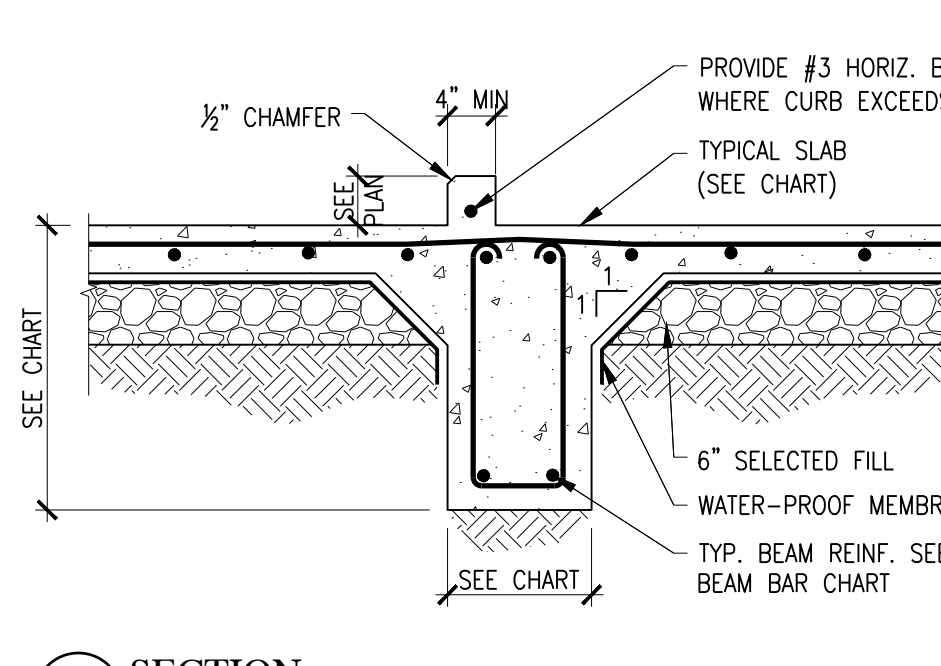
8 SECTION FOR DROPS 6"-35 1/2" SCALE: 3/4"=1'-0"



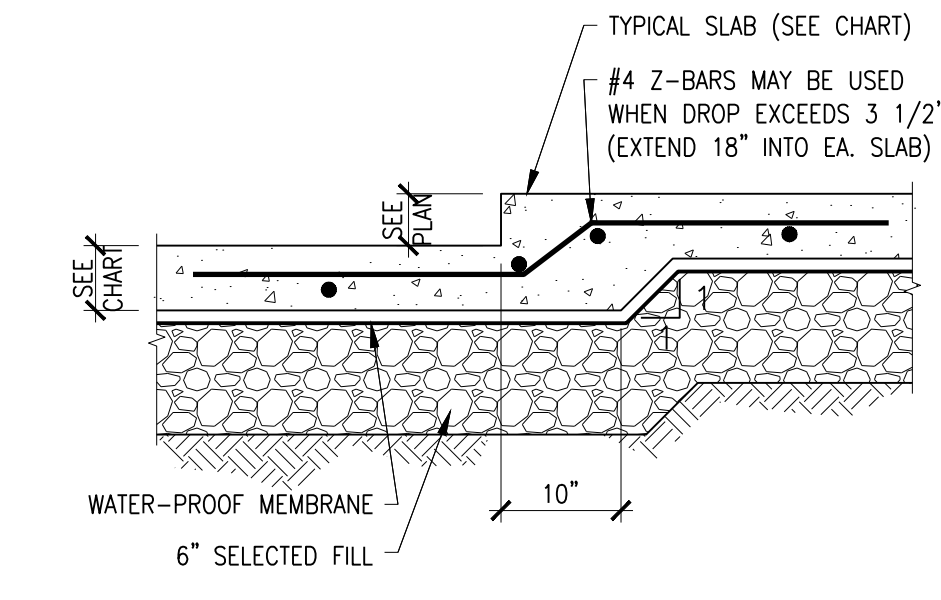
9 SECTION DROPS IN BEAM AREA UP TO 5 1/2" OR SMALLER SCALE: 3/4"=1'-0"



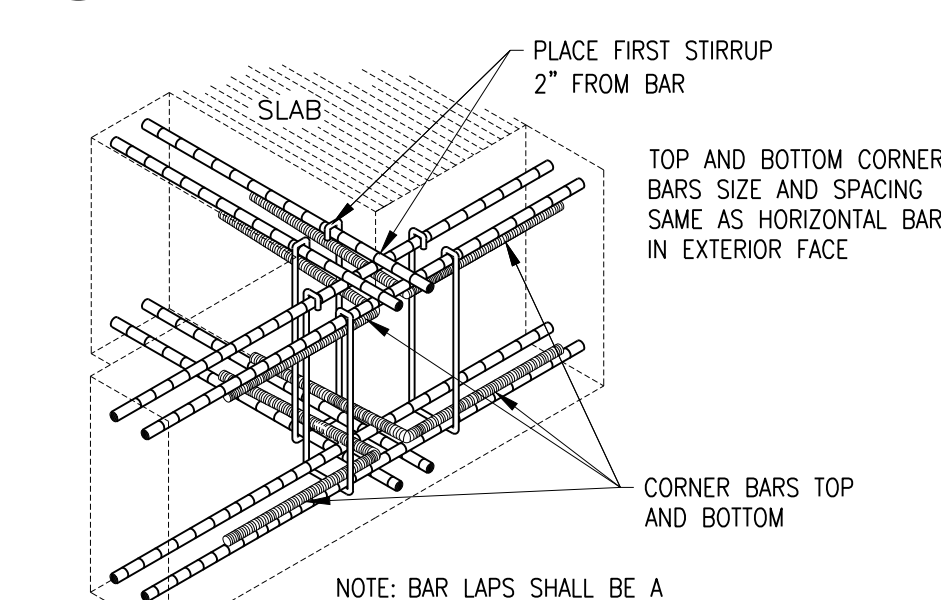
10 TYP. DROP LUG EXTERIOR DROP BRICK/ROCK LUGS SCALE: 3/4"=1'-0"



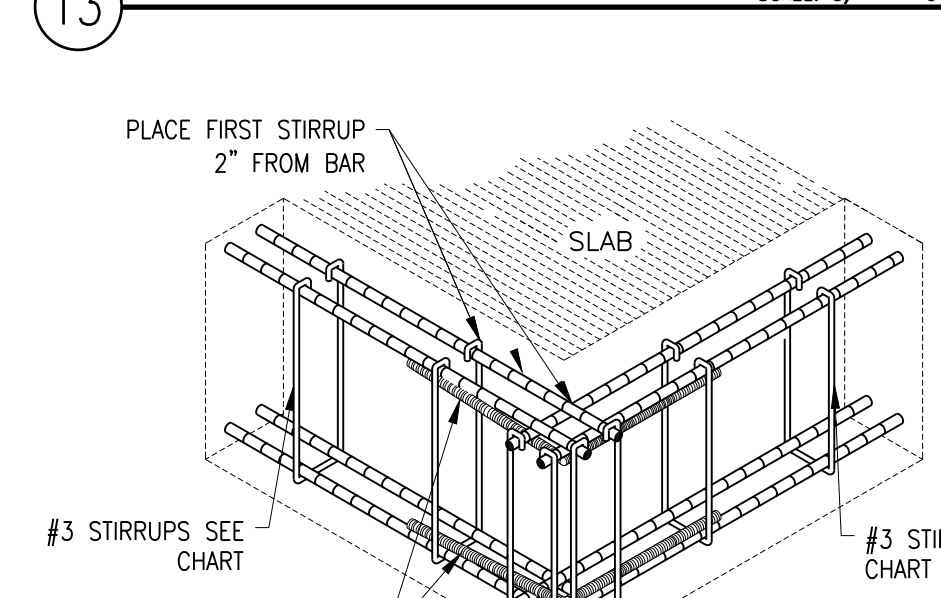
11 SECTION CURB & BEAM SCALE: 3/4"=1'-0"



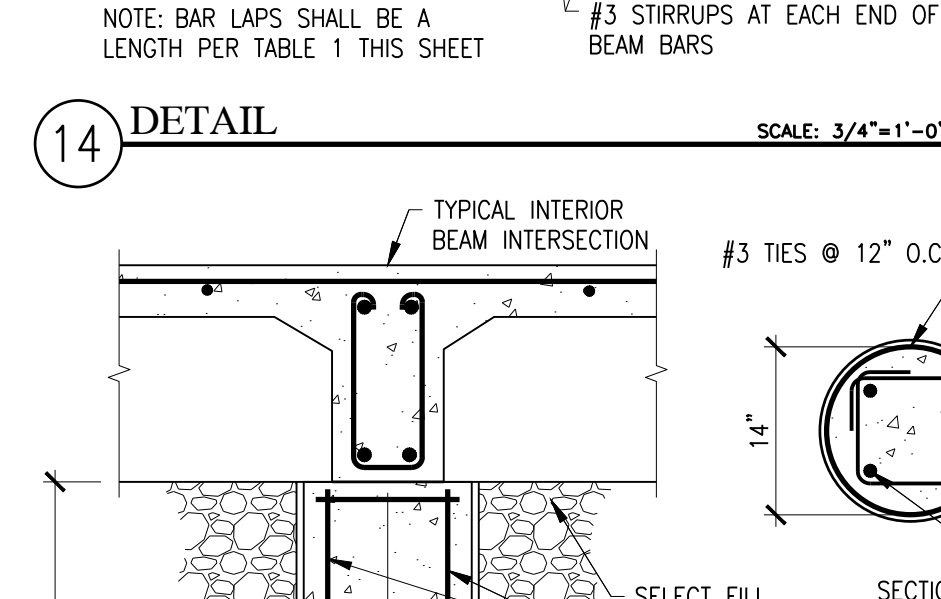
12 SECTION DROPS IN BEAM AREA UP TO 5 1/2" OR SMALLER SCALE: 3/4"=1'-0"



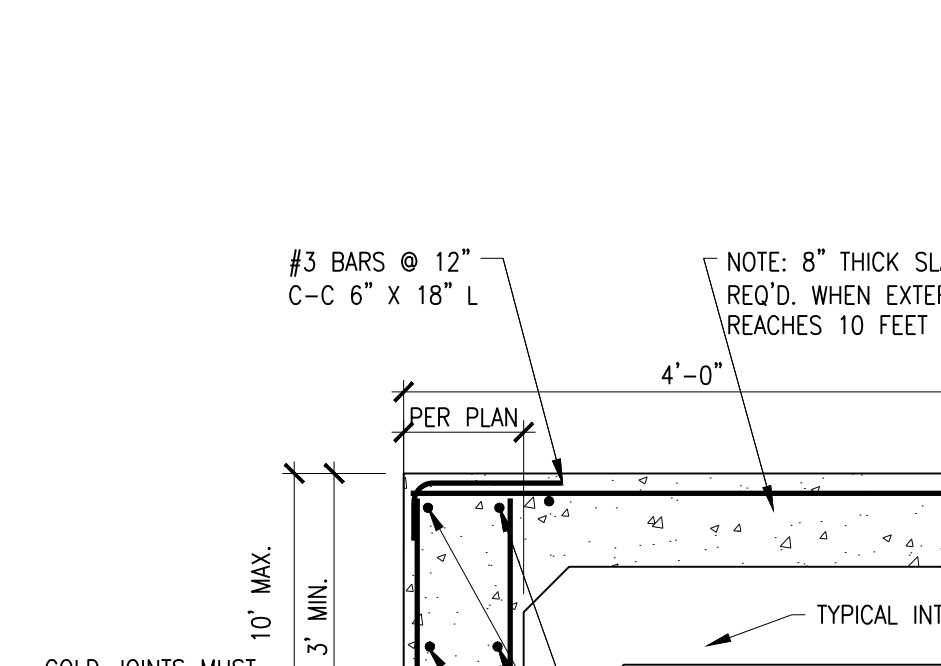
13 DETAIL CORNER BARS TOP AND BOTTOM SCALE: 3/4"=1'-0"



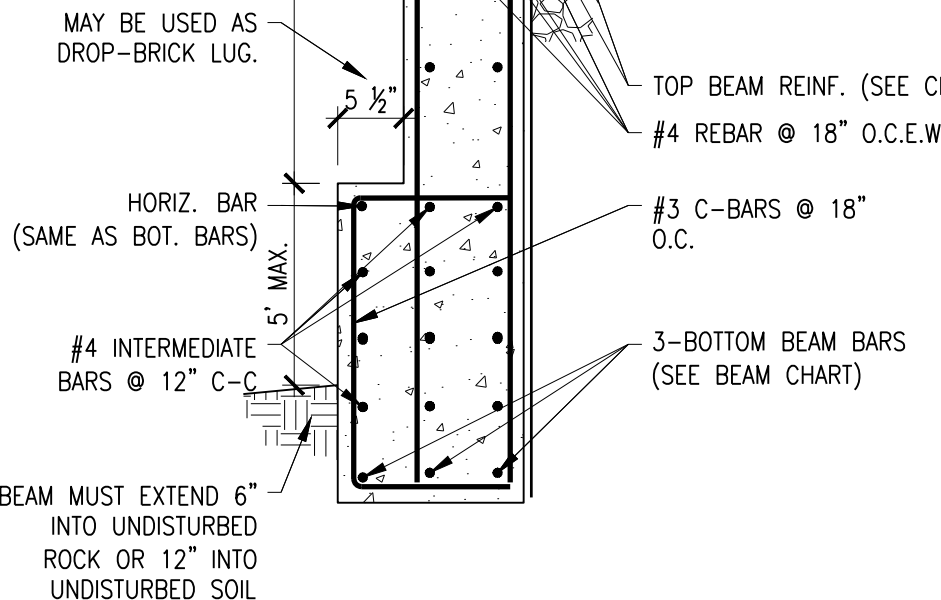
14 DETAIL CORNER BARS TOP AND BOTTOM SCALE: 3/4"=1'-0"



15 TYP. BEAM INTERSECT PIER RECOMMENDED WHEN DEPTH EXCEEDS 2'-0" SCALE: 3/4"=1'-0"



16 TYP. DEEP BEAM DEEP BEAMS 10-15 FEET DEEP SCALE: 3/4"=1'-0"



17 SECTION CANTILEVER DETAIL SCALE: 3/4"=1'-0"

REVISIONS

NO.	DESCRIPTION	DATE	APPR.



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FOUNDATION DETAILS

NEW RESIDENCE
 HEALTH CIRCLE - F
 SAN ANTONIO, TX

SHEET TITLE: FOUNDATION DETAILS

JOB NO:	23-424
DATE:	10/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR
SHEET:	S-1 OF 7

DESIGN CRITERIA NOTES

1. THE INTENDED DESIGN STANDARDS (LATEST EDITION) AND/OR CRITERIA ARE AS FOLLOWS:

GENERAL INTERNATIONAL RESIDENTIAL/BUILDING CODE 2021 EDITION
 WOOD AITC
 WOOD TRUSSES TPI

2. DESIGN LOADS

DEAD LOADS ROOF 10 PSF - COMPOSITION SHINGLE OR METAL
 LIVE LOADS FLOORS 40 PSF
 ROOF 20 PSF
 CEILING JOIST 10 PSF

3. SNOW LOAD : 5PSF
 4. WIND LOAD : 115MPH APPLIED PER I(B/R)C I = 1.0 EXPOSURE "B"
 5. SEISMIC : SEISMIC CATEGORY "A"

ROUGH CARPENTRY

1. ALL WOOD FRAMING MATERIAL SHALL BE SURFACE DRY AND USED AT 19% MAXIMUM MOISTURE CONTENT. ALL FRAMING LUMBER SHALL BE NO. 2 SOUTHERN YELLOW PINE (SYP) OR BETTER.

2. ALL LOAD BEARING PARTITIONS SHALL RECEIVE A DOUBLE 2X TOP PLATE AND LAPPED AT CORNERS.

3. ALL EXTERIOR AND LOAD BEARING WALLS SHALL BE 2X4 @ 16" O.C. UNLESS ARCHITECTURAL DRAWINGS ARE SHOWING 2X6 STUD WALLS OR IT IS 3 STORY BUILDING. FOR 3 STORY BUILDING EXTERIOR AND LOAD BEARING WALLS ON THE FIRST FLOOR SHALL BE 2X6 @ 16" O.C. OR DOUBLE 2X4 STUDS @ 16" O.C.

4. ALL PARTITIONS SHALL BE BRACED ON THE TOP AT INTERVALS NOT EXCEEDING 6 FEET ON CENTER.

5. ALL MULTIPLE GIRDERS, BEAMS AND JOISTS SHALL BE GANG NAILED.

6. ALL FRAMING EXPOSED TO WEATHER OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE TREATED.

7. PREFABRICATED METAL JOIST HANGERS, HURRICANE CLIPS, HOLD-DOWN ANCHORS, AND OTHER ACCESSORIES SHALL BE MANUFACTURED BY "SIMPSON STRONG TIE" OR APPROVED EQUAL.

8. PREFABRICATED LVL'S, GLULAMS, AND PSL HEADERS AND BEAMS SHALL BE MANUFACTURED BY "TRUS JOIST MacMILLAN CORP." OR APPROVED EQUAL. MINIMUM BENDING STRESSES SHALL BE AS FOLLOWS:

LVL'S = 2,600 PSI
 PSL'S = 2,900 PSI
 GLULAMS = 2,400 PSI

9. ALL PLATES, ANCHORS, NAILS, BOLTS, NUTS, WASHERS AND OTHER HARDWARE EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED.

10. INSTALL ALL BLOCKING NECESSARY FOR ATTACHING ALL FINISHES, GYPSUM WALLBOARD, CABINETRY , ETC.

11. ATTACH WOOD SILL PLATES FOR EXTERIOR WALLS AND SHEAR WALLS TO FOUNDATIONS WITH 1/2" ANCHOR BOLTS AT 5'-0" O.C. MAXIMUM SPACING WITH AT LEAST 2 BOLTS PER PLATE.

12. INSTALL COLUMNS AT ALL LINTELS, BEAMS, HEADERS. EQUAL TO THE WIDTH OF THE BEAM. ALL MEMBERS WITH SPANS LESS THAN 5 FOOT SHALL HAVE SINGLE JACK STUDS.

13. ATTACH WALL AND ROOF SHEATHING TO FRAMING WITH 8d NAILS AT 12" O.C. INTERMEDIATE SUPPORTS AND 6" O.C. EDGE SUPPORTS.

14. THE CONTRACTOR SHALL INSURE THAT ALL LOADS AND REACTIONS FROM BEAMS, BEARINGS WALLS, COLUMNS, ETC. ARE CONTINUOUSLY SUPPORTED TO THE FOUNDATION.

15. ALL FLOOR SHEATHING SHALL BE A MINIMUM 3/4" TONGUE AND GROOVE SHEATHING GLUED AND NAILED AT 6" O.C. WITH 8d NAILS.

16. FLOOR DECK SHALL BE 3/4" T&G APA RATED SHEATHING WITH MINIMUM SPAN INDEX OD 48/24. NAIL PLYWOOD TO FRAMING MEMBERS WITH 10d NAILS AS FOLLOWS:

FLOOR ZONE: FIRST 8' FROM SHEARWALLS - OTHERS

PANEL EDGES 4" O.C. 6" O.C. 6" O.C.
 PANEL FIELD 6" O.C. 6" O.C. 6" O.C.

17. FOR METAL AND COMPOSITE SHINGLE ROOFING PLYWOOD ROOF DECKING SHALL BE 1/2" OSB AND FOR CLAY AND CONCRETE ROOFING PLYWOOD ROOF DECKING SHALL BE 3/8" OSB APA RATED CD INTERIOR WITH EXTERIOR GLUE. NAIL PLYWOOD TO FRAMING WITH 6d NAILS AS FOLLOWS:

ROOF ZONE: FIRST 5' FROM END - FIRST 4' FROM EDGE & RIDGE - OTHERS & SHEAR WALLS

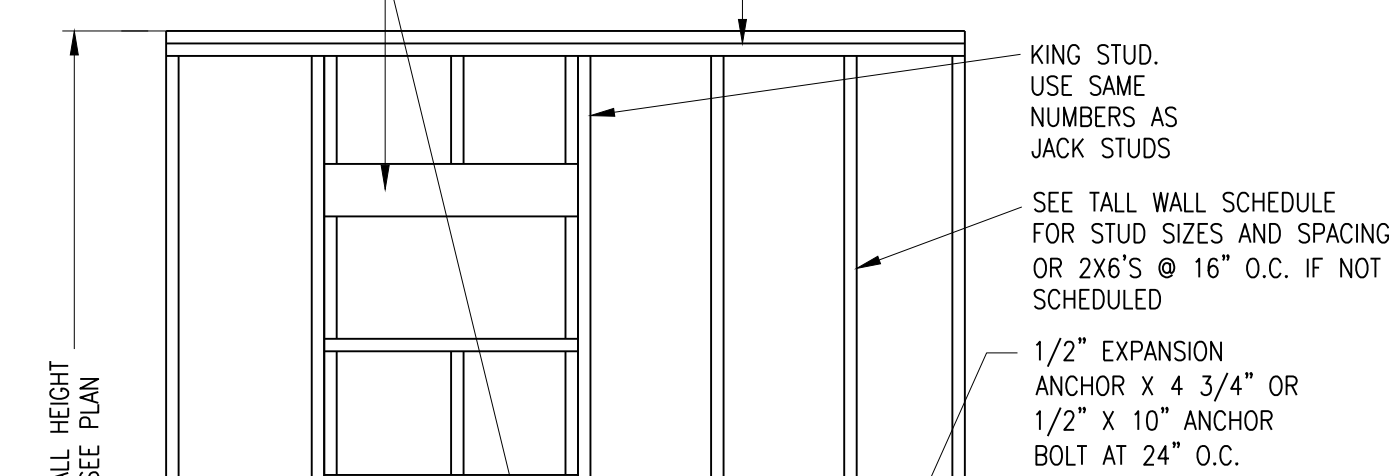
PANEL EDGES 4" O.C. 6" O.C. 6" O.C.
 PANEL FIELD 6" O.C. 6" O.C. 6" O.C.

18. TAPERED END CUTS SHALL MEET MANUFACTURERS REQUIREMENTS.

19. NOTCHING OF PREFABRICATED LUMBER SHALL NOT BE PERMITTED. WEB HOLES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

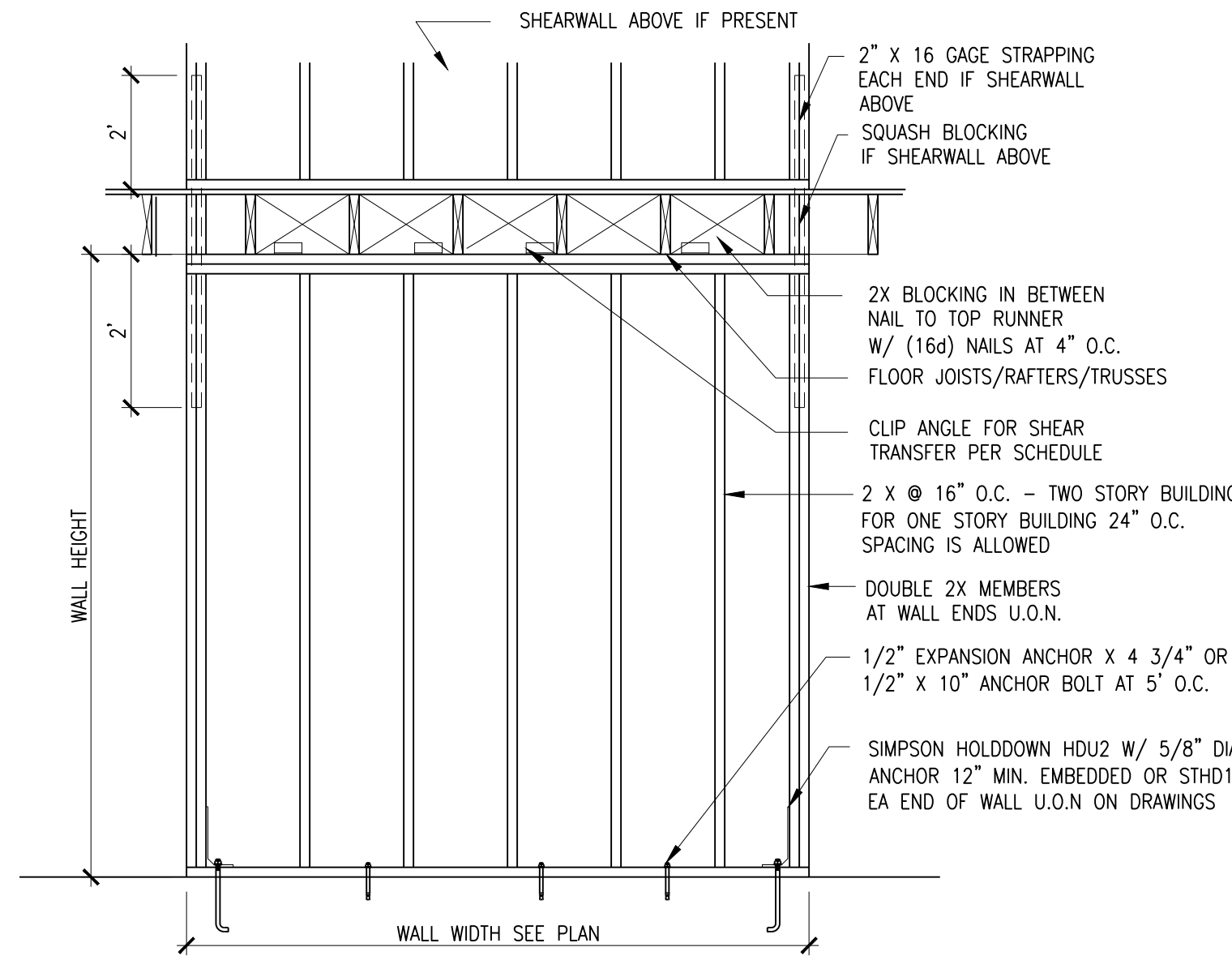
20. PORCH COLUMNS TO BE ANCHORED IN GALVANIZED POST BASES BEAMS TO BE CONNECTED TO POSTS WITH METAL STRAPS ALL RAFTERS AT OPEN PORCH TO RECEIVE WIND CLIPS, 1 PER RAFTER.

SEE HEADER SCHEDULE DOUBLE TOP PLATE



SECTION	SPACING	MAX HEIGHT
2X6	16" O.C.	10'-0"
2X6	12" O.C.	12'-0"
2X6	8" O.C.	14'-0"
2X6	6" O.C.	19'-6" *
2X6	4" O.C.	21'-0" *
2X8	16" O.C.	15'-0"
2X8	12" O.C.	16'-5"
2X8	8" O.C.	15'-5"
2X8	4" O.C.	29'-6" **

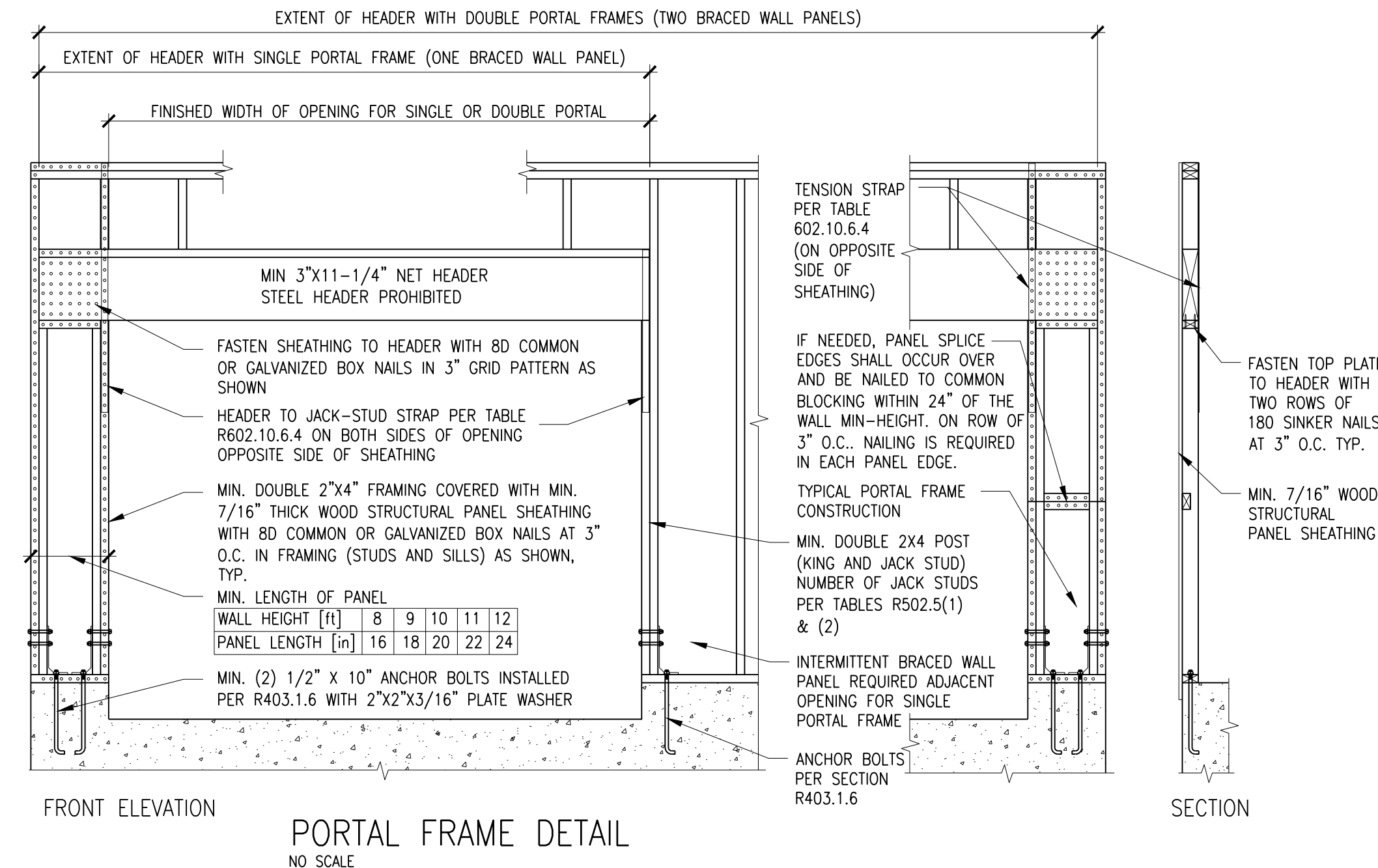
* BASED ON ALLOWABLE DEFLECTION OF H/240 PER IRC TABLE R301.7, NOT USING STUCCO BRITTLE FINISHES
 ** BASED ON ALLOWABLE DEFLECTION OF H/180 PER IRC TABLE R301.7, USING EIFS EXTERIOR OR NON BRITTLE FINISH



TYPICAL BRACED WALL DETAIL
 NO SCALE

ALLOWABLE LOAD	MARK/TYPE	DESCRIPTION*	NO. OF SIDES	SILL BOLTING	SHEAR TRANSFER	SILL NAILING	ALT. SHEAR TRANSFER	IRC METHOD
150 PLF	A	1/2" GYP. BOARD @ INT. FACE BLOCKED W/ 6D COOLER NAILS @ 4" O.C. AND 1/2" GYP. SHEATHING @ EXT. FACE BLOCKED W/ 5D COOLER NAILS @ 4" O.C. (ALL SUPPORTS EA. FACE NAILED @ 4" O.C.)	TWO	1/2" @ 60" O.C.	A35F @ 18"	16D @ 6" O.C.	A35 @ 20"	GB
175 PLF	B	1/2" GYP. BOARD BLOCKED W/ 6D COOLER @ 4" O.C. (ALL SUPPORTS NAILED @ 4" O.C.) OR 1X4 LET-IN BRACING OR SIMPSON RCWB ROLLED COMPRESSION WALL BRACING	TWO	1/2" @ 60" O.C.	A35F @ 15"	16D @ 3" O.C.	A35 @ 17"	GB
280 PLF	C	1/2" PLYWOOD STRUCT. 1 BLOCKED W/ 8D NAILS @ 6" O.C. AT EDGES OR RED T-PLY STAPLED @ 3" O.C., 6" IN THE FIELD OR METAL LET IN BRACING PER DETAIL	ONE	1/2" @ 60" O.C.	A35F @ 21"	16D @ 7" O.C.	A35 @ 19"	WSP
560 PLF	D	1/2" PLYWOOD STRUCT. 1 BLOCKED W/ 8D NAILS @ 6" O.C. EDGES	TWO	1/2" @ 18" O.C. OR 5/8" @ 27" O.C.	A35F @ 10"	16D @ 3 1/2" O.C.	A35 @ 9"	WSP

1. NAIL ALL PANELS 12" O.C. AT INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE. (ALL PANEL EDGES SHALL BE BLOCKED.)
2. SHEATHING AT ONE SIDED WALLS MAY BE PLACED ON EITHER FACE OF STUDS. PLACE ON EXTERIOR FACE AT EXTERIOR WALLS. PLACE ON GUEST ROOM SIDE AT INTERIOR WALLS.



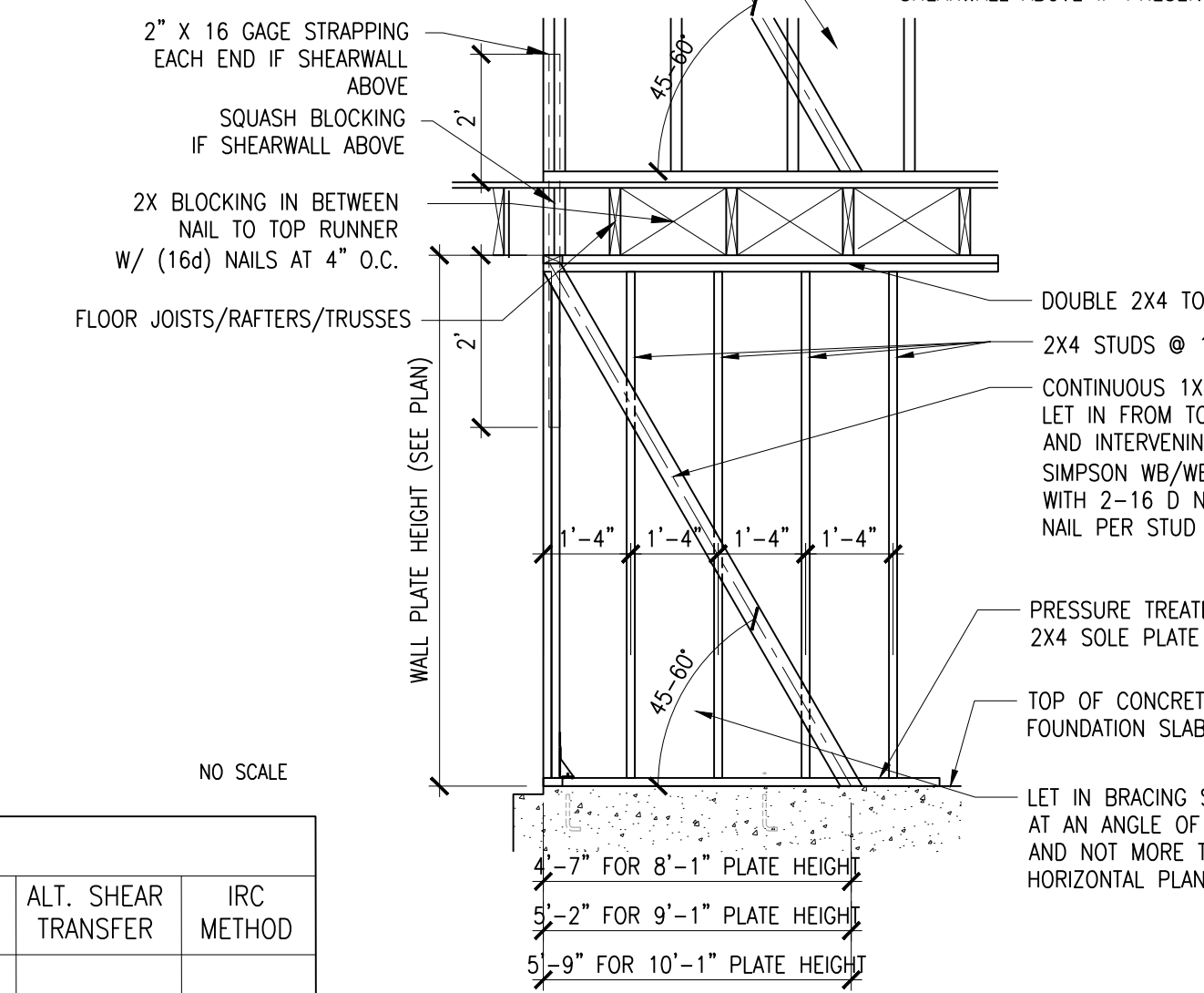
FRONT ELEVATION PORTAL FRAME DETAIL
 NO SCALE

OPENING SIZES	LINTEL SIZE	MIN. END BEARING
UP TO 5'	L6X4X ⁵ / ₈ LLV	6"
5' - 7'	L6X4X3/8 LLV	6"
7' - 8'	L6X4X7/16 LLV	6"
8' - 10'	L6X4X7/16 LLV	6"
10' - 12'	L6X4X7/16 LLV	6"
12' - 14'	L6X4X7/16 LLV	6"
14' - 16'	L6X4X7/16 LLV	6"
16' - 18'	L6X4X7/16 LLV	6"

ATTACH ANGLE TO STUD WALL W/ (2) #12 SCREWS @ 12" O.C.

ANGLE PER SPECIFICATION

HEADER PER PLAN



TYPICAL LET IN BRACING DETAIL
 NO SCALE

MEMBER	HANGER	REACTION (LBS)
(1) 2x'S	HU SERIES	500 MIN.
(2) 2x10	HU210-2	1,650
(2) 2x12	HU212-2	2,145
(3) 2x10	HU210-3	1,875
(3) 2x12	HU212-3	2,145
3.5X9.25	HUS410	1,860
3.5x11.875	HUS412	2,510
3.5x14	HU416	2,680
3.5x16	HHUS410	5,190
3.5x18	HGUS414	11,180
5.25X9.25	HUS.31/9	1,875
5.25x11.875	HHUS5.5/10	5,190
5.25x14	HHUS5.5/10	5,190
5.25x16	HHUS5.5/10	5,190
5.25x18	HGUS5.5/14	11,180
TJI'S	JUT SERIES	730 MIN
TRUSSES	H SERIES	

* THESE HANGERS ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN
 * ALL HANGERS ARE SIMPSON STRONG TIE.

SIZE	ONE STORY B.R.	TWO STORY B.R.
2-2x6	3'-6"	2'-5"
2-2x8	4'-5"	3'-2"
2-2x10	5'-5"	3'-10"
2-2x12	6'-3"	4'-5"

* THESE HEADER SIZES ARE TO BE USED UNLESS OTHERWISE NOTED ON PLAN
 * ALL MATERIAL TO BE NO.2 S.P.
 * NUMBER OF STORIES BELOW ROOF LEVEL (B.R.)
 * USE (2) JACK STUDS FOR 2X12 (1) JACK STUD FOR OTHERS. KING STUDS NO. EQUALS JACK STUD

MARK	SIZE	JACK STUDS
L1	(2) 1 3/4" X 11 1/4" LVL	(2) 2 X 4/6
L2	(2) 1 3/4" X 14" LVL	(2) 2 X 4/6
L3	(2) 1 3/4" X 16" LVL	(2) 2 X 4/6
L4	(2) 1 3/4" X 18" LVL	(3) 2 X 4/6
L5	(3) 1 3/4" X 11 1/4" LVL	(2) 2 X 6
L6	(3) 1 3/4" X 14" LVL	(2) 2 X 6
L7	(3) 1 3/4" X 16" LVL	(2) 2 X 6
L8	(3) 1 3/4" X 18" LVL	(3) 2 X 6
L9	(5) 1 3/4" X 20" LVL	(4) 2 X 6

CONNECTIONS	NAILING
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8D
2. BRIDGING TO JOIST, TOENAIL EA END	2-8D
3. 1"X6" SUBFLOOR OR LESS TO EA JOIST, FACE NAIL	2-8D
4. WIDER THAN 1"X6" SUBFLOOR TO EA JOIST, FACE NAIL	3-8D
5. 2" SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16D
6. SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16D @ 16" OC
7. TOP PLATE TO STUD, END NAIL	2-16D
8. STUD TO SOLE PLATE	4-8, TOENAIL OR 2-16D, END NAIL
9. DOUBLE STUDS, FACE NAIL	16D @ 24" OC
10. DOUBLE TOP PLATES, FACE NAIL	16D @ 16" OC
11. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16D
12. CONTINUOUS HEADER, TWO PIECES	16D @ 16" OC ALONG EA EDGE
13. CEILING JOIST TO PLATE, TOENAIL	3-8D
14. CONTINUOUS HEADER TO STUD, TOENAIL	4-8D
15. CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16D
16. CEILING JOIST TO PARALLEL RAFTERS, FACE NAIL	3-16D
17. RAFTER TO PLATE, TOENAIL	3-8D
18. 1" BRACE TO EA STUD AND PLATE, FACE NAIL	2-8D
19. 1"X8" SHEATHING OR LESS TO EA BEARING, FACE NAIL	2-8D
20. WIDER THAN 1"X8" SHEATHING TO EA BEARING, FACE NAIL	3-8D
21. BUILT-UP CORNER STUDS	16D @ 24" OC
22. BUILT-UP GIRDER AND BEAMS	20D @ 32" OC AT TOP AND BOTTOM AND STAGGERED 2-20D @ EA ENDS AND AT EA SPLICE
23. TRUSS TO PLATE, TOENAIL	3-16D

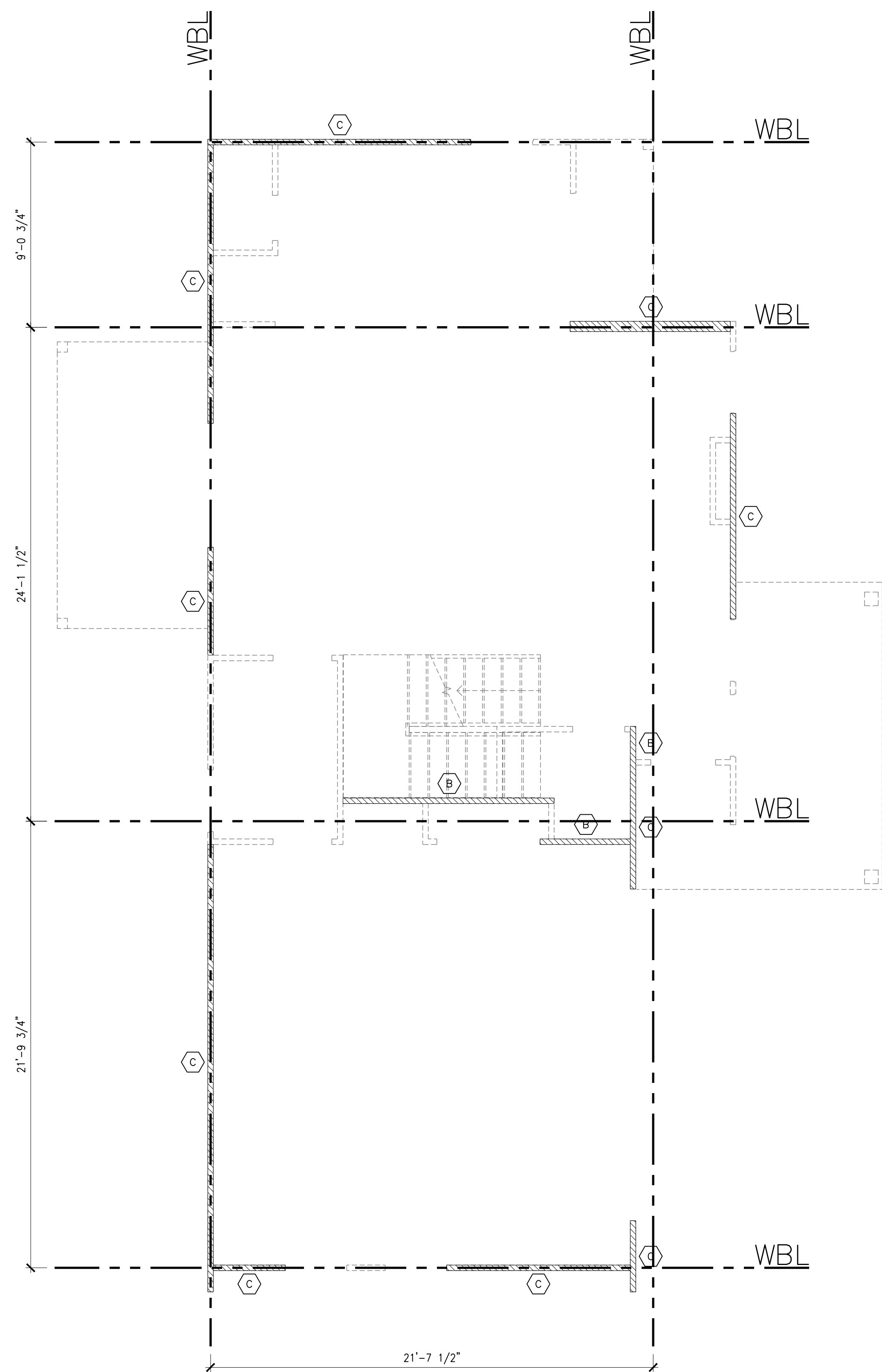
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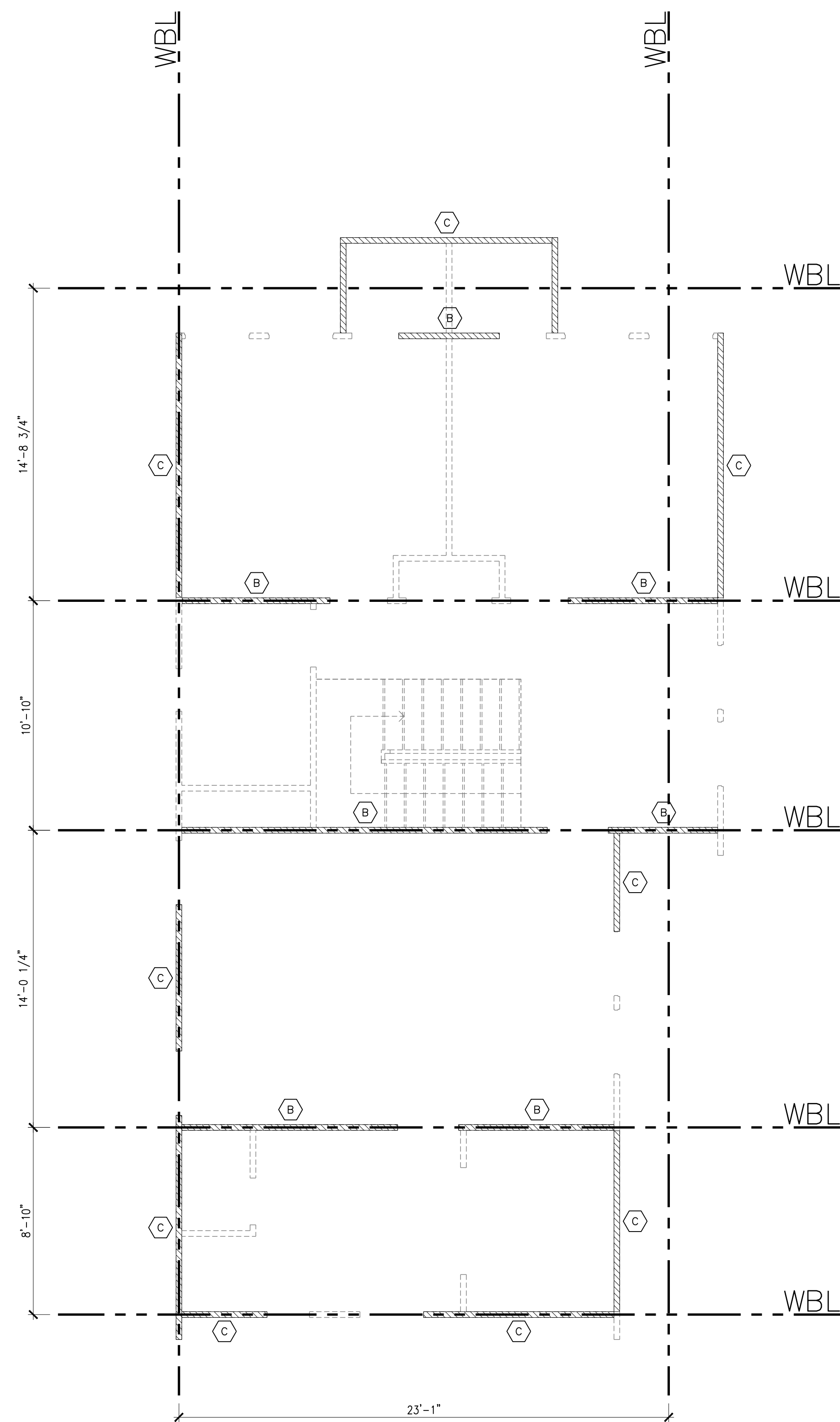
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 Jose@villarrealDesign.com
 Texas Firm 12109
 (210) 725-6100

DETAILS
 NEW RESIDENCE
 HEALTH CIRCLE - F
 SAN ANTONIO, TX

SHEET TITLE:
 JOB NO: 23-424
 DATE: 10/6/23
 DESIGNER: MR
 CHECKED: JIV, PE
 DRAWN: MR
 SHEET: S-3 OF 7



FIRST FLOOR WIND BRACING PLAN
Scale: 1/4" = 1'-0"



SECOND FLOOR WIND BRACING PLAN
Scale: 1/4" = 1'-0"

NO.	DESCRIPTION	DATE	APPR.

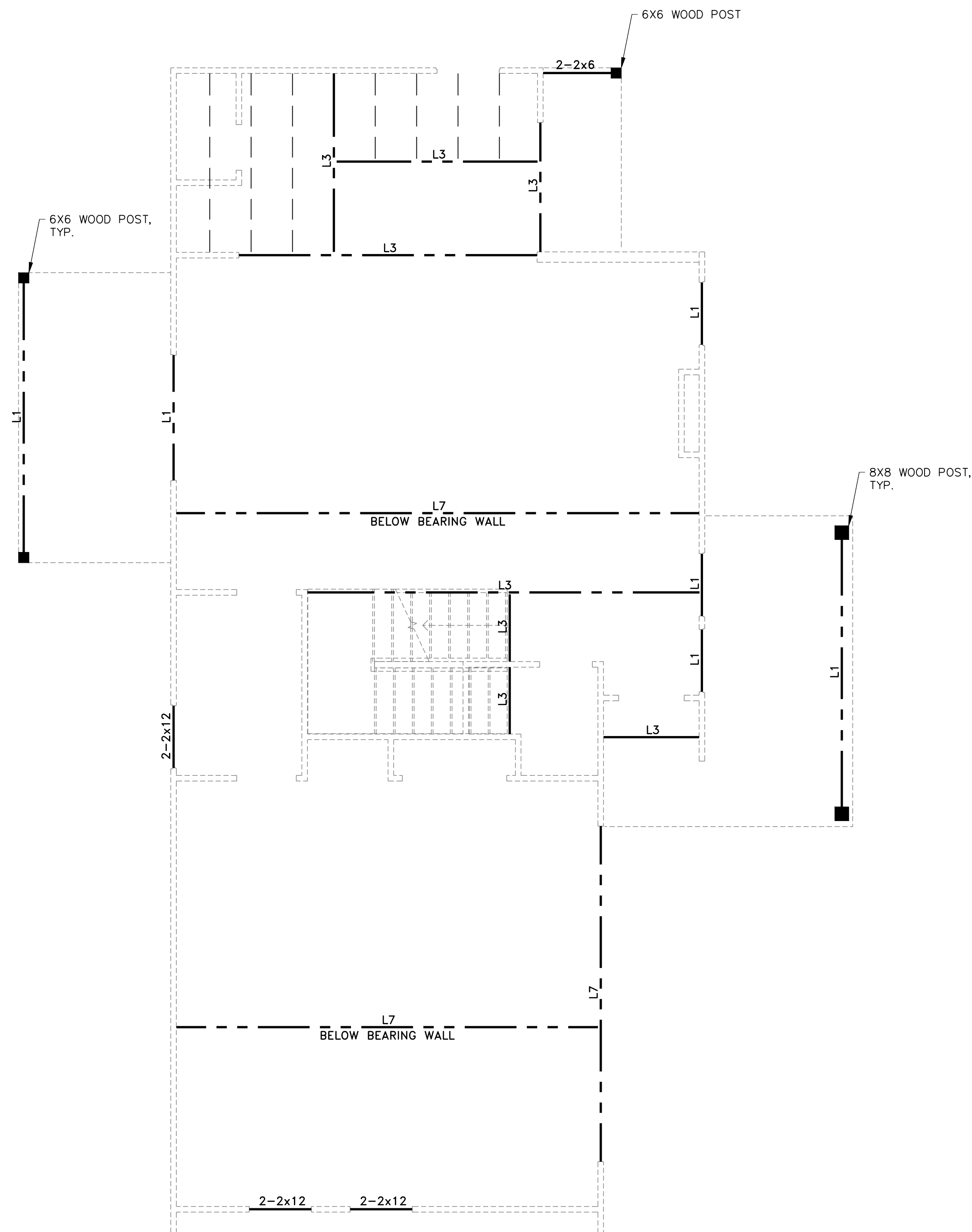


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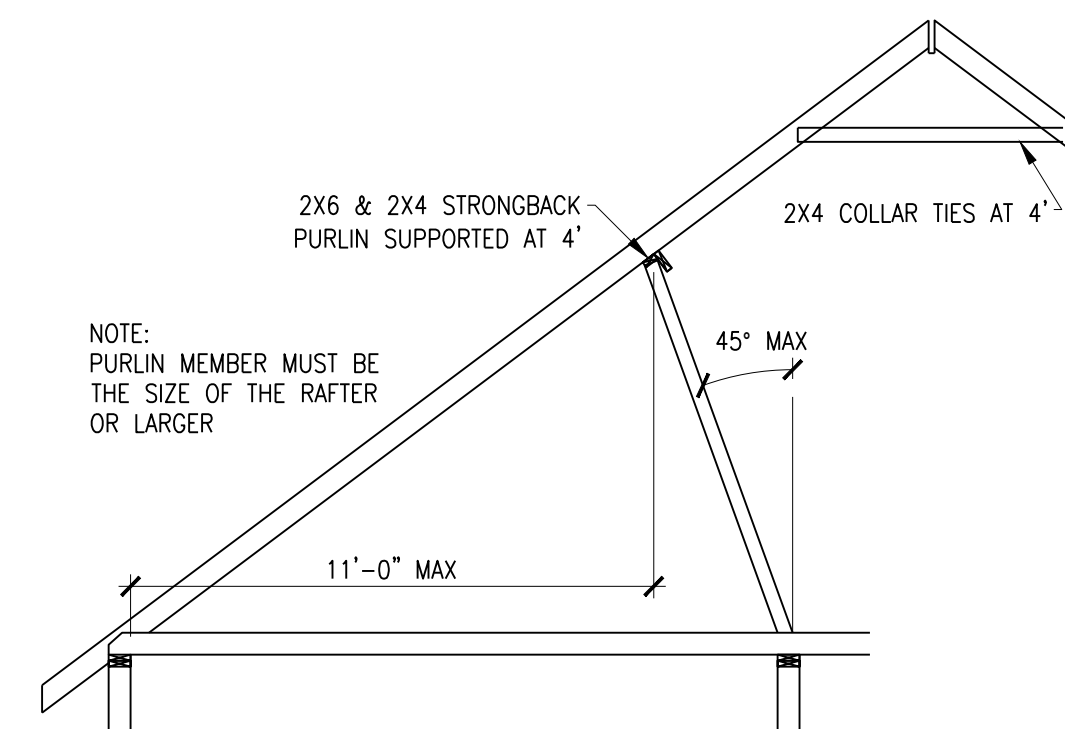
WIND BRACING PLANS

NEW RESIDENCE
 HEATH CIRCLE - F
 SAN ANTONIO, TX

JOB NO:	23-424
DATE:	10/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR
SHEET:	S-4
	OF 7

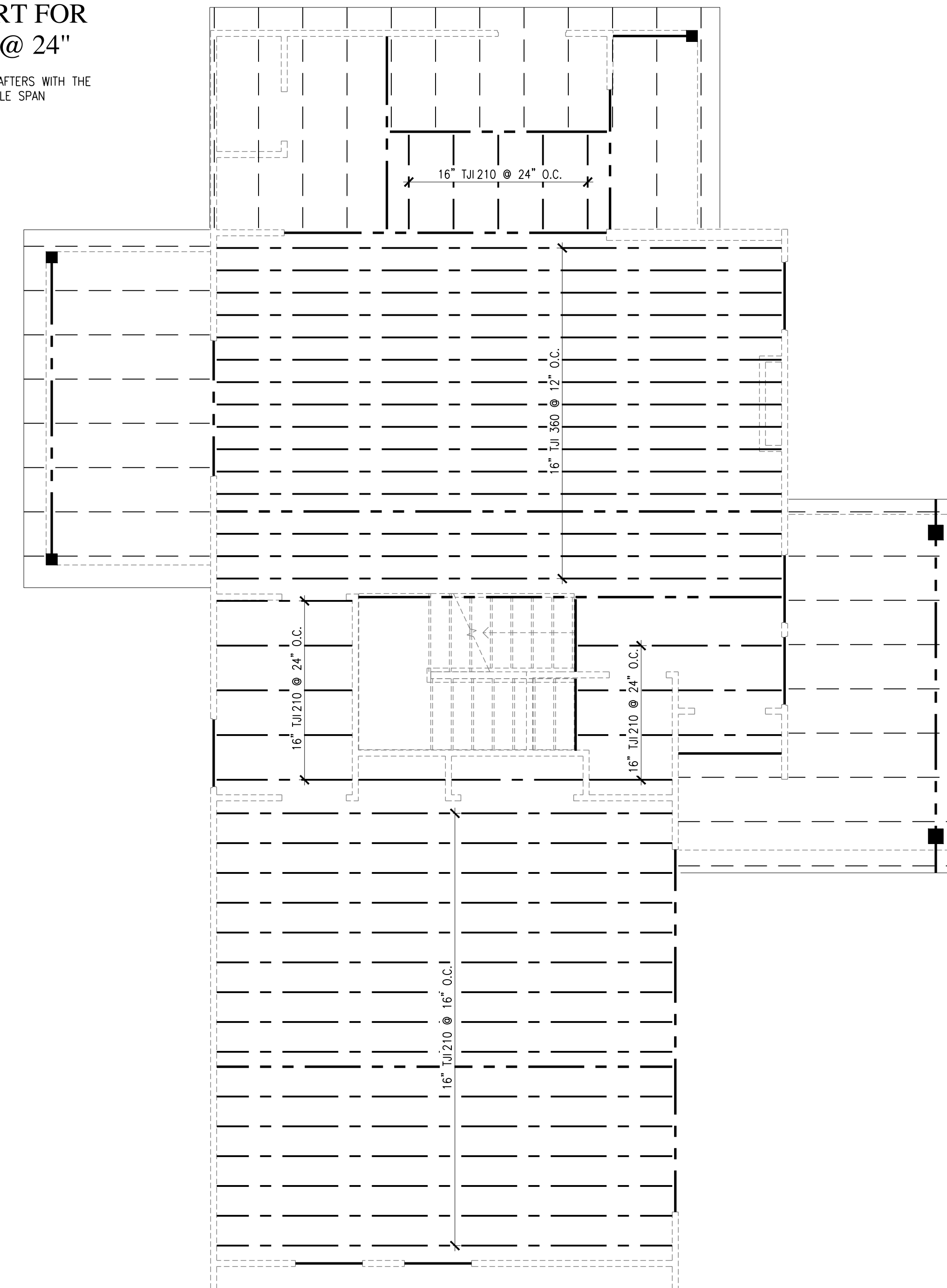


FIRST FLOOR CEILING PLAN
 Scale: 1/4" = 1'-0"
 ALL CEILING JOISTS TO BE 2X6 @ 24" O.C.
 ALL CEILING TO BE 9'-0" HIGH U.O.N. ON DRAWINGS



PURLIN SUPPORT FOR 2X6 RAFTERS @ 24"

SIMILAR CONFIGURATION FOR LARGER RAFTERS WITH THE SUPPORT DISTANCE EQUAL TO ALLOWABLE SPAN



2ND FLOOR AND LOWER ROOF FRAMING PLAN
 Scale: 1/4" = 1'-0"
 ALL RAFTERS TO BE 2X6 @ 24" O.C. U.O.N
 ALL VALLEY BEAMS TO BE (2) 2X8 U.O.N

NO.	DESCRIPTION	DATE	APPR.

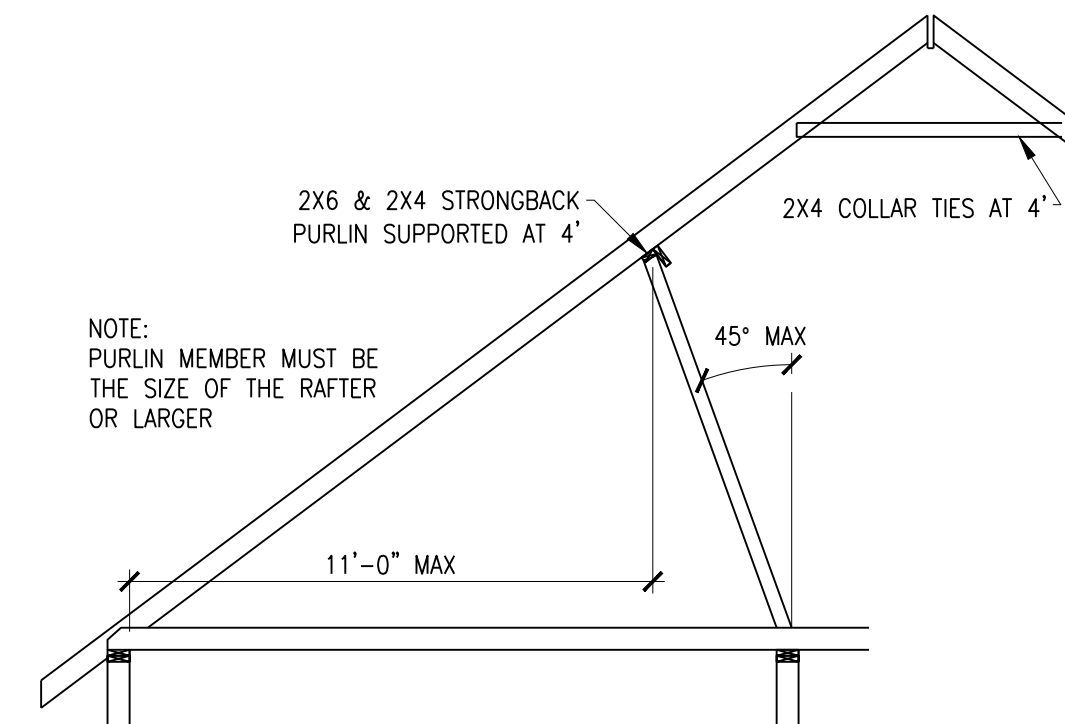


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FRAMING PLANS

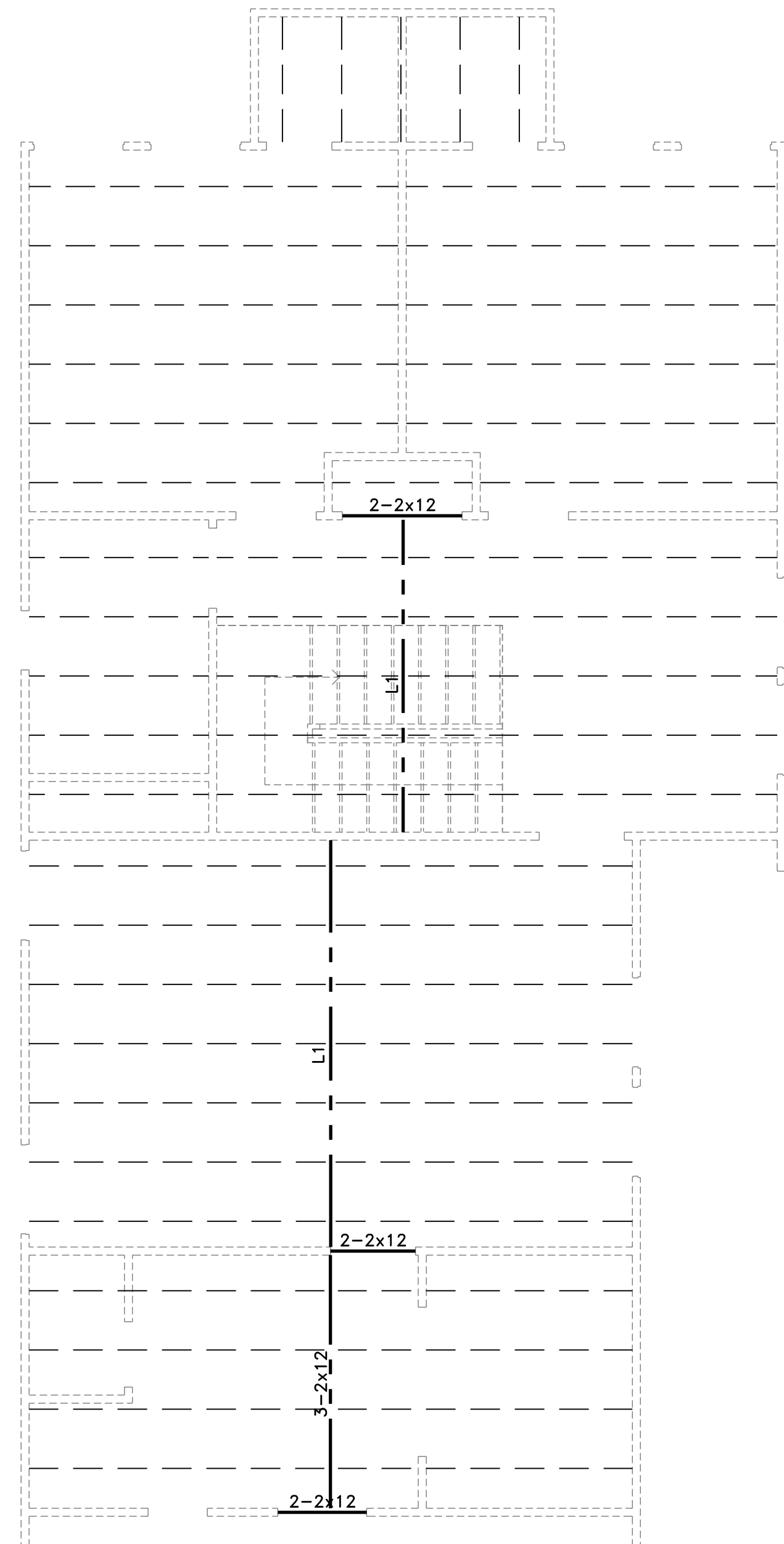
NEW RESIDENCE
 HEALTH CIRCLE - F
 SAN ANTONIO, TX

SHEET TITLE:	
JOB NO:	23-424
DATE:	10/6/23
DESIGNER:	MR
CHECKED:	JIV, PE
DRAWN:	MR
SHEET:	S-5
OF	7



**PURLIN SUPPORT FOR
2X6 RAFTERS @ 24"**

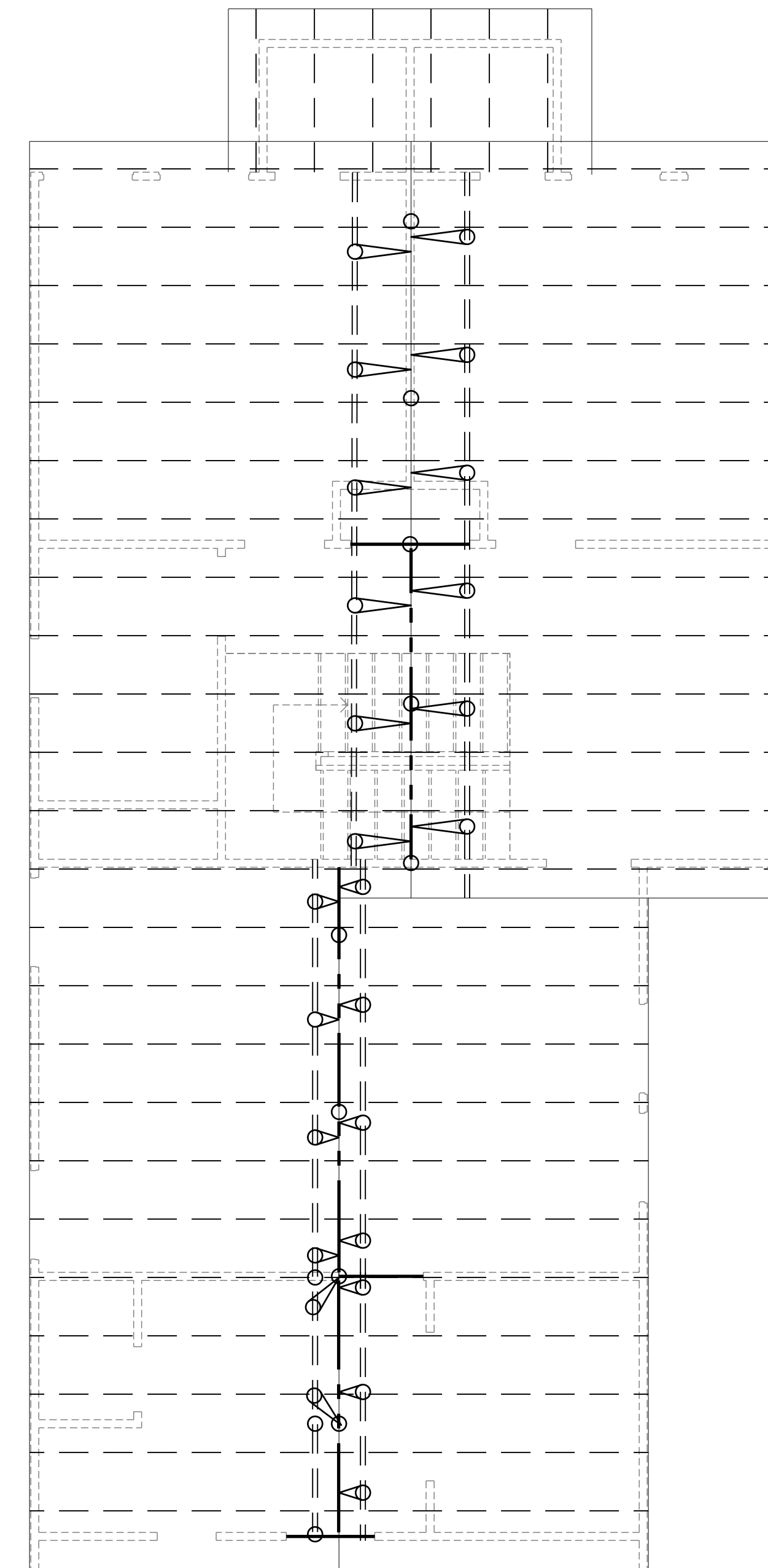
SIMILAR CONFIGURATION FOR LARGER RAFTERS WITH THE SUPPORT DISTANCE EQUAL TO ALLOWABLE SPAN



SECOND FLOOR CEILING PLAN

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

ALL CEILING JOISTS TO BE 2X6 @ 24" O.C.
ALL CEILING TO BE 9'-0" HIGH U.O.N. ON DRAWINGS



UPPER ROOF FRAMING PLAN

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

ALL RAFTERS TO BE 2X6 @ 24" O.C. U.O.N
ALL VALLEY BEAMS TO BE (2) 2X8 U.O.N

NO.	DESCRIPTION	DATE	APPR.



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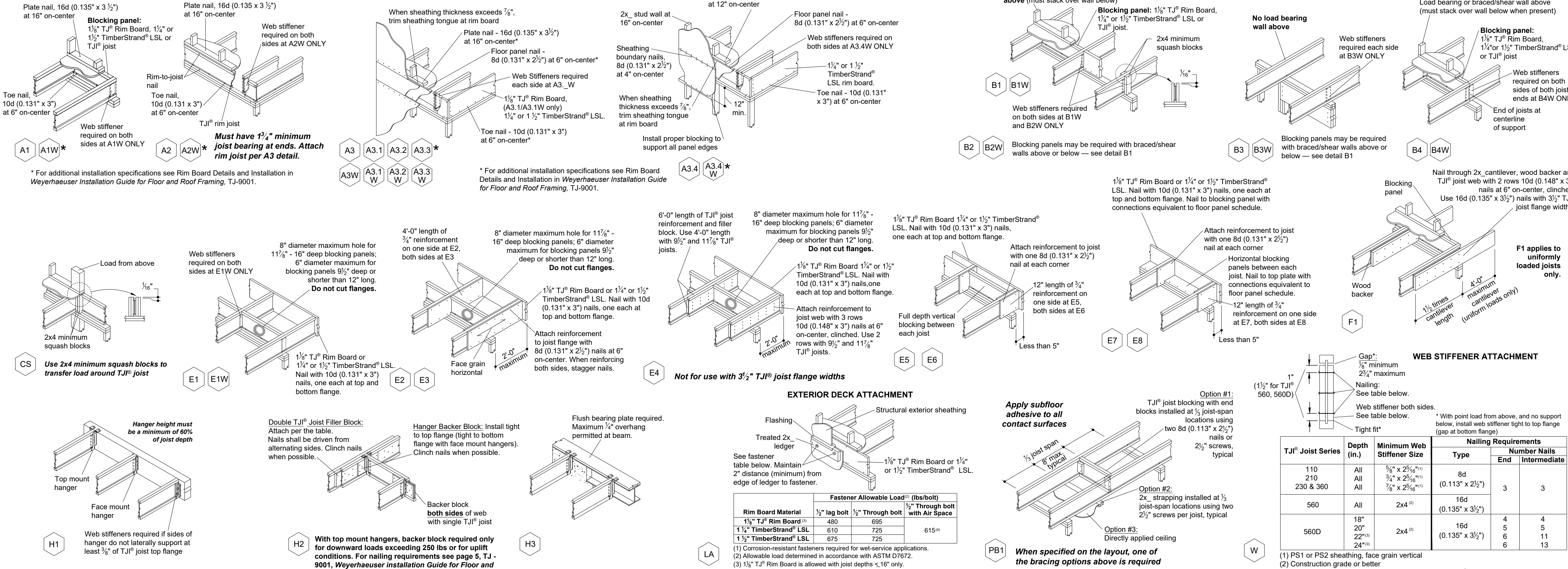
FRAMING PLANS

NEW RESIDENCE
HEATH CIRCLE - F
SAN ANTONIO, TX

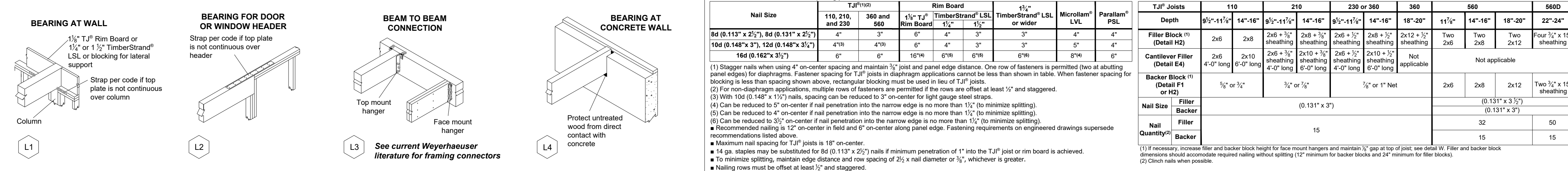
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DATE: 10/6/23
DESIGNER: MR
CHECKED: JIV, PE
DRAWN: MR

SHEET: **S-6**
OF 7

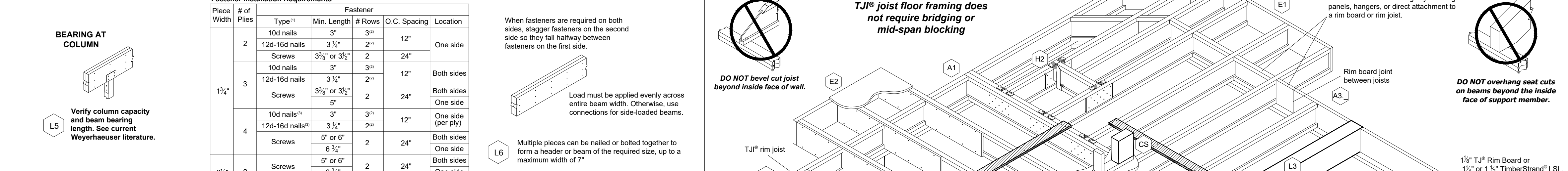
JOIST DETAILS



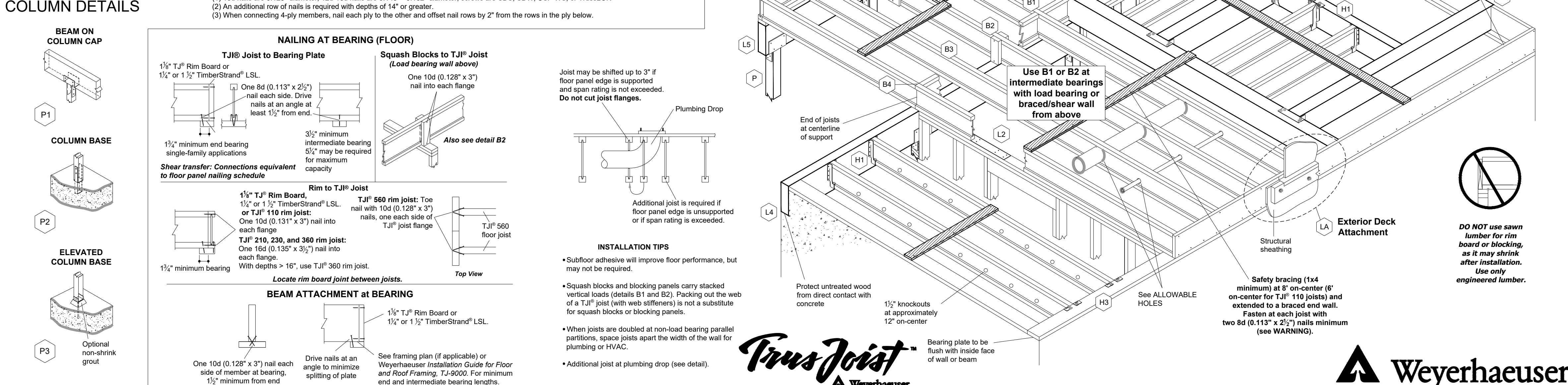
BEAM DETAILS



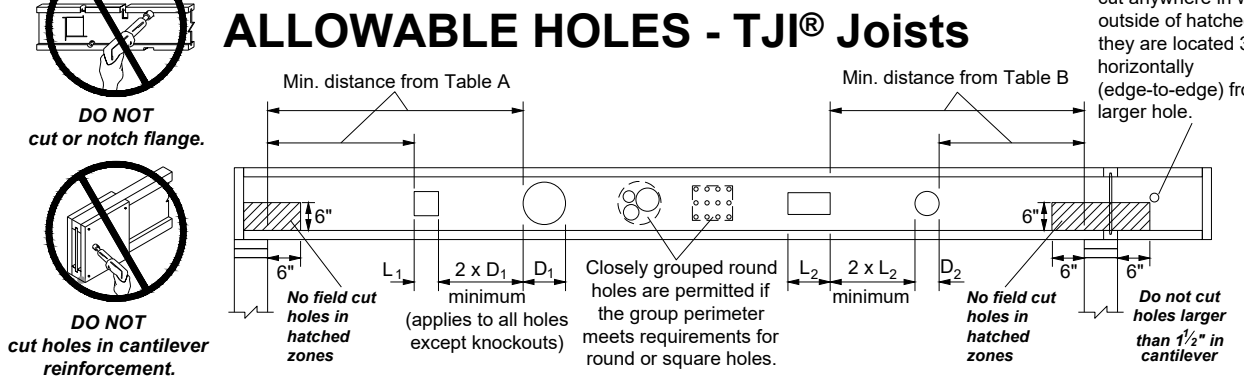
COLUMN DETAILS



JOIST DETAILS



ALLOWABLE HOLES - TJI® Joists

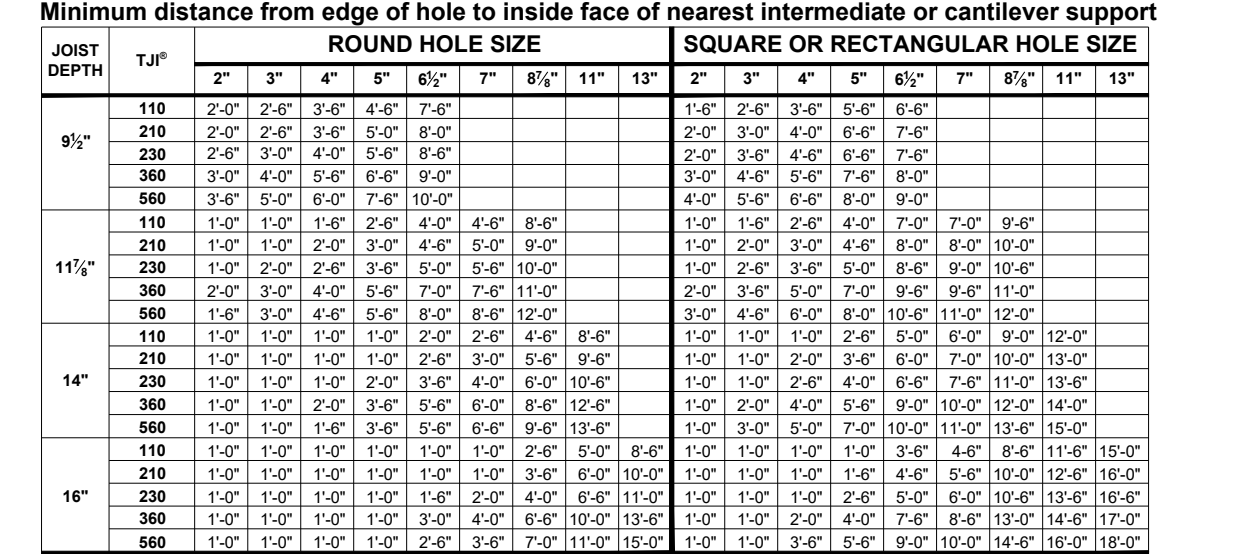


FASTENING OF FLOOR PANELS

Fasteners for Closest On-Center Spacing per Row

Nail Size	110, 210, and 230	360 and 560	1 1/2" TJI® Rim Board	1 1/2" TimberStrand® LSL	4 1/2" Microlam® LVL	Paralam® PSL
8d (0.113" x 2 1/2")	4"	3"	6"	4"	3"	4"
10d (0.148" x 3")	4 1/4"	4 1/4"	6"	4"	3"	4"
16d (0.162" x 3 1/2")	6"	6"	16 1/4"	6 1/4"	6 1/4"	8 1/4"

ALLOWABLE HOLES - Headers and Beams



WARNING

Joists are unstable until braced laterally.

Bracing Includes: Blocking, Hangers, Sheathing, Rim Board, Strut Lines, Rim Joist.

DO NOT walk on joists until braced. INJURY MAY RESULT.

DO NOT walk on joists that are lying flat.

DO NOT stack building materials on unbraced joists. Stack only over beams or walls.

Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

- All blocking, hangers, rim boards and rim joists at the end supports of the TJI® joists must be completely installed and properly nailed.
- Lateral strength: The braced deck must be established at the ends of the bay. This can also be accomplished by a temporary or permanent deck (sheathing) fastened to the first 4 feet of joists at the end of the bay.
- Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area (as in note 2) and to each joist. Install bracing with 16d (0.113" x 2 1/2") nails and end support at 8 ft on center (8 ft for TJI 110 joists). Without the bracing, buckling sideways or rollover is highly probable under light construction loads - such as a worker or one layer of unnailed sheathing.
- Sheathing must be completely attached to each TJI® joist before additional loads can be placed on the system.
- Ends of cantilevers require safety bracing on both the top and bottom flanges.
- The flanges must remain straight within 1/2" from true alignment.
- See www.wy.com/besafe for additional installation information.

Weyerhaeuser

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NEW RESIDENCE HEALTH CIRCLE - F SAN ANTONIO, TX

JOBS: 23-424
DATE: 10/6/23
DESIGNED: MR
CHECKED: JIV, PE
DRAWN: MR
SHEET: S-7 OF 7

REVISIONS

NO.	DESCRIPTION	DATE	APPR.

STATE OF TEXAS
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PROFESSIONAL ENGINEER

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TJI DETAILS