CLADDING VALUES

THIS PROJECT HAS A MEAN ROOF OF LESS THAN 30 FEET.
WALL CLADDING IS DESIGNED FOR A 24.1 LB. PER SQ.FT. OR GREATER POSITIVE OR NEGATIVE PRESSURE FOR HOUSES WITH A MEAN ROOF HEIGHT OF 30 FEET OR LESS. ROOF VALUES, BOTH POSITIVE AND NEGATIVE, SHALL BE DESIGNED AS FOLLOWS:

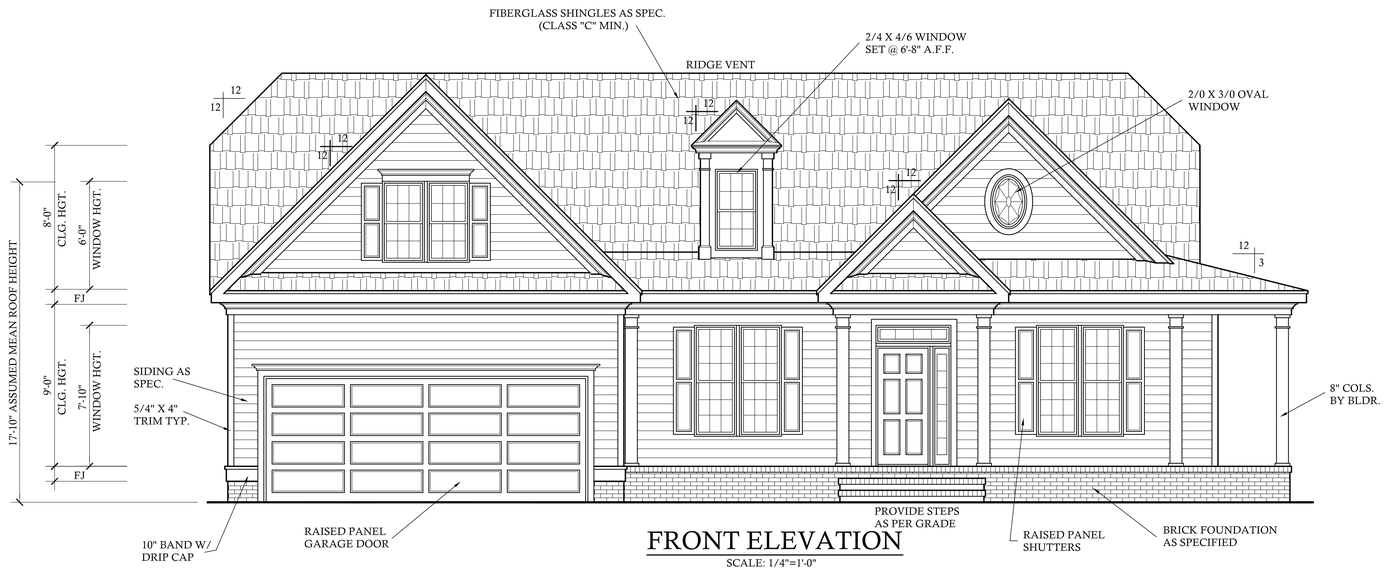
45.4 LBS. PER SQ. FT. FOR ROOF PITCHES OF 0/12 TO < 2.25/12
34.8 LBS. PER SQ. FT. FOR ROOF PITCHES OF 2.25/12 TO < 7/12
21 LBS. PER SQ. FT. FOR ROOF PITCHES OF 7/12 TO 12/12

VALUES STATED ARE FOR ROOFS WITH A MEAN HEIGHT OF 30 FEET OR LESS. ROOFS WITH MEAN ROOF HEIGHTS GREATER THAN 30 FEET MUST SHOW SPECIFIC INFORMATION FOR CLADDING.

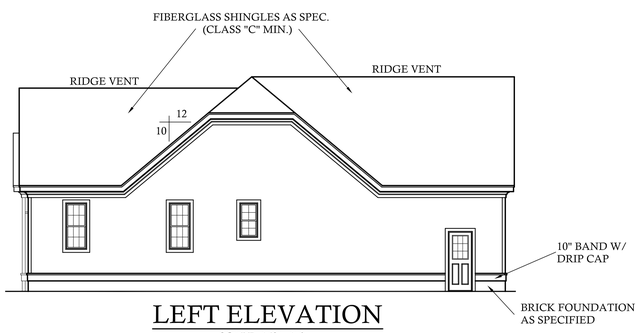
THIS PLAN HAS BEEN DRAWN TO CONFORM TO THE 2018 NORTH CAROLINA RESIDENTIAL CODE

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGGINING WORK. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL STATE AND LOCAL BUILDING CODES AND ORDINANCES. KADS CUSTOM HOME DESIGNS ASSUMES NO LIABILITY FOR SITE CONDITIONS, CONSTRUCTION METHODS OR ANY DEVIATION OF THESE PLANS.

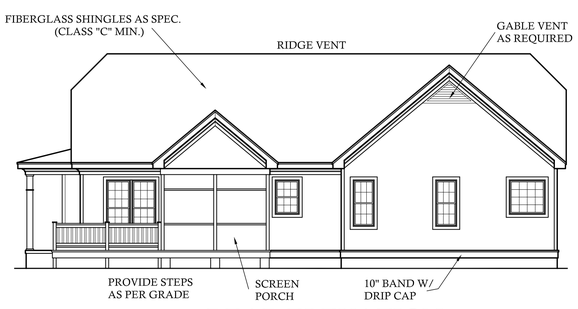
NOTE:
ALL WINDOWS TO BE INSTALLED MUST MEET A MINIMUM OF .32 U VALUE OR BETTER, UNLESS ENERGY CALCULATIONS ARE SUBMITTED WITH PLANS PROVIDED BY BUILDER AT TIME OF PLAN REVIEW.



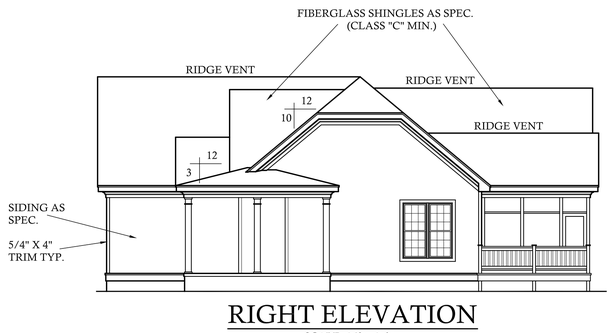
FRONT ELEVATION
SCALE: 1/4"=1'-0"



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



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



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

STANCIL BUILDERS, INC.

DRAWN FOR:

KADS CUSTOM HOME DESIGNS, LLC

FUQUAY-VARINA, NC
919-577-9922

DRAWN BY:
D.W.O.

DATE:
3/11/19

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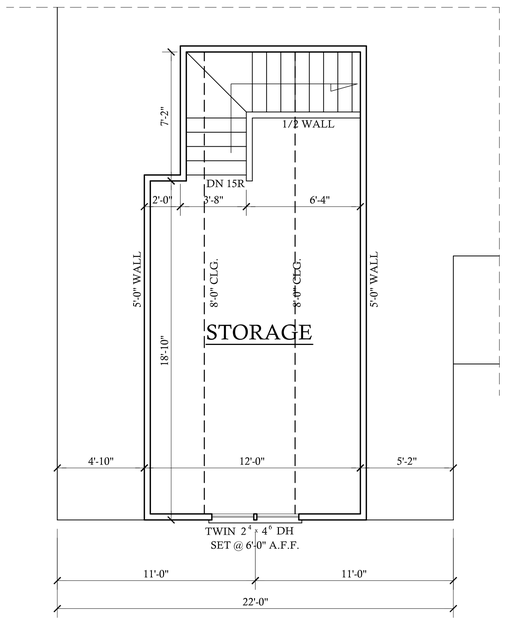
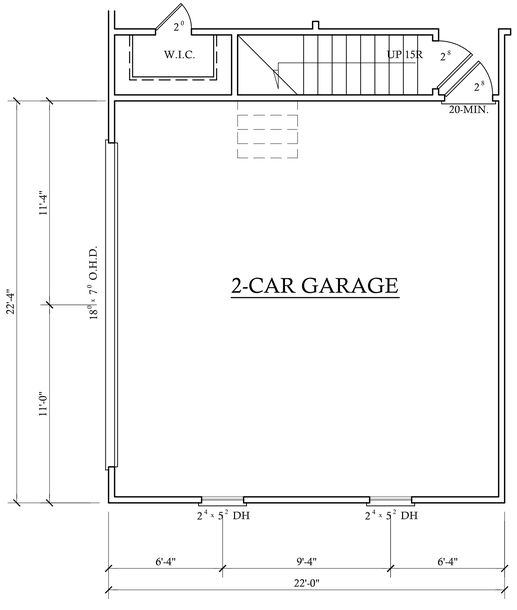
OF
3

PLAN NO.
DK1697



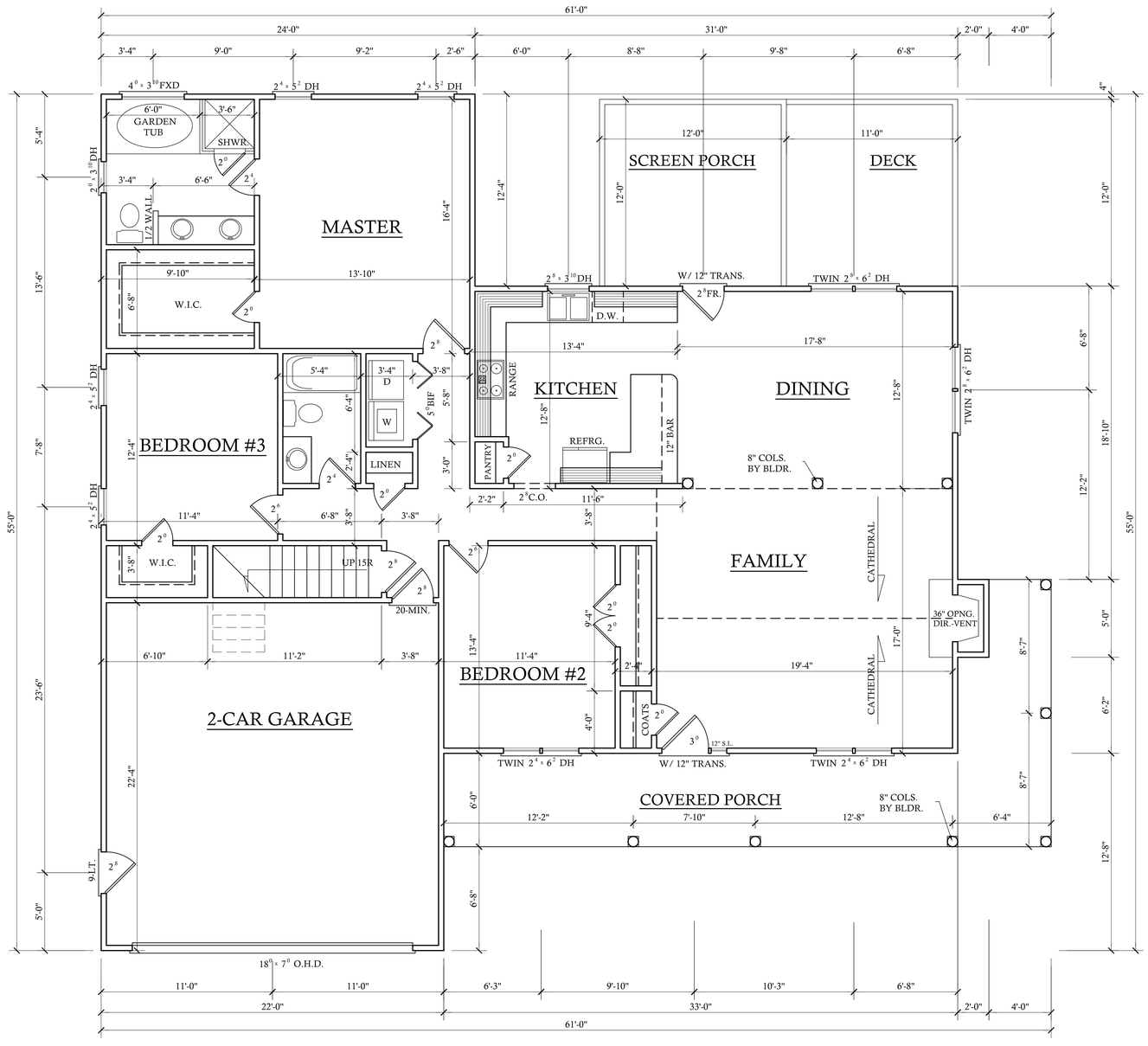
SECOND FLOOR PLAN

SCALE: 1/4"=1'-0"
8'-0" CLG. HGT.



OPTIONAL SIDE ENTRY

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



HEATED	
FIRST FLOOR HTD. SQ. FT.	= 1697
UNHEATED	
STORAGE	= 310
FRONT PORCH SQ. FT.	= 301
SCREEN PORCH SQ. FT.	= 144
DECK SQ. FT.	= 132
GARAGE SQ. FT.	= 489

FIRST FLOOR PLAN

SCALE: 1/4"=1'-0"
9'-0" CLG. HGT.
SET WINDOWS AT 6'-8" A.F.F.

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KADS CUSTOM HOME DESIGNS, LLC
FUQUAY-VARINA, NC
919-577-9922

DRAWN BY: D.W.O.

DATE: 3/11/19

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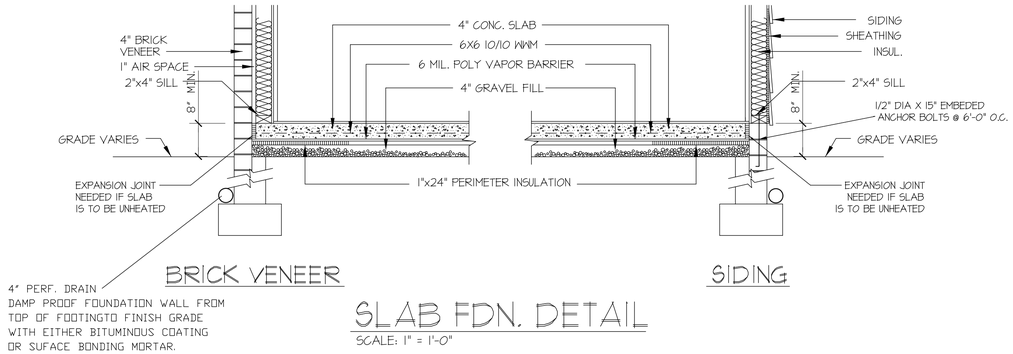
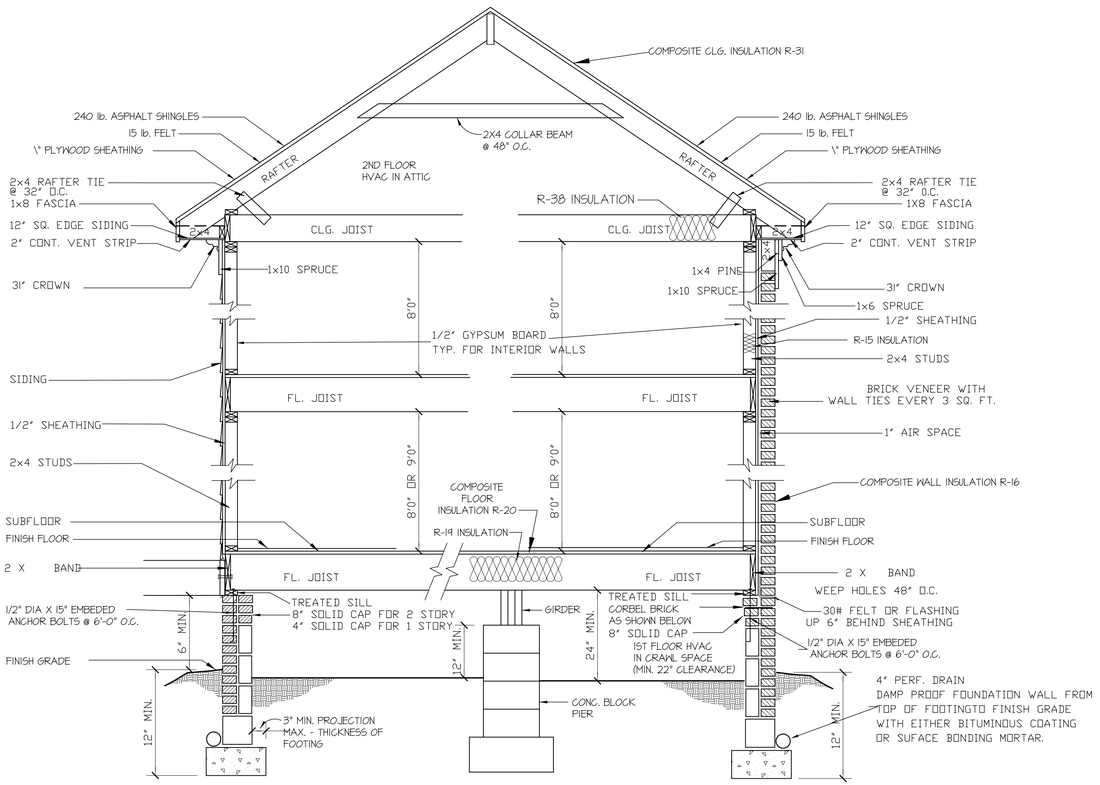
PLAN NO. DK1697



SLAB FDN. DETAIL

SCALE: 1" = 1'-0"



WALL SECTION

SCALE: \" = 1'-0"

CRAWL SPACE VENTILATION

PROVIDE AT LEAST 1.0 SQ. FT. NET FREE VENTILATION AREA FOR EACH 150 SQ. FT. OF CRAWL SPACE.

CRAWL SPACE AREA = 1615 SQ.FT.
1615/150 = 10.77 SQ. FT. REQ'D.

REDUCE REQUIRED AREA TO 1.0 SQ. FT NET FREE VENTILATION AREA FOR EACH 1,500 SQ. FT. OF CRAWL SPACE WITH APPROVED VAPOR BARRIER.

PROVIDE (1) VENT WITHIN 3'-0" OF EACH CORNER.

REFER TO MANUFACTURER SPECIFICATIONS FOR ACTUAL VENTS USED TO DETERMINE NUMBER OF VENTS REQUIRED.

ROOF VENTILATING REQUIREMENTS

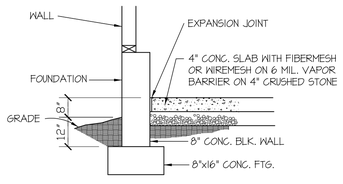
$\frac{2408}{150}$ = 16.05 SQ. FT. REQ'D

ROOF VENTILATING REQUIREMENTS

(POWER ROOF VENTILATOR REQUIRED)

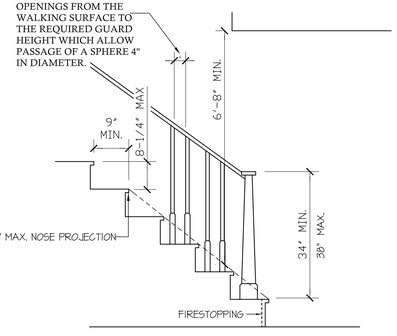
$\frac{2408}{300}$ = 8.03 SQ. FT. REQ'D

BUILDER TO PROVIDE APPROPRIATE VENTILATING AS REQUIRED.



GARAGE SLAB

SCALE: NTS



NOTE:
Stairways shall not be less than 36 inches in clear width at all points above the permitted handrail height and below the required headroom height. Handrails shall not project more than 4.5 inches on either side of the stairway and the minimum clear width of the stairway at and below the handrail height, including treads and landings, shall not be less than 31-1/2 inches where a handrail is installed on one side and 27 inches where handrails are provided on both sides

STAIR DETAIL

SCALE: NTS

STANCIL BUILDERS, INC.

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KADS CUSTOM HOME DESIGNS, LLC

FUQUAY-VARINA, NC
919-577-9922

DRAWN BY:
D.V.O.

DATE:
3/11/19

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3

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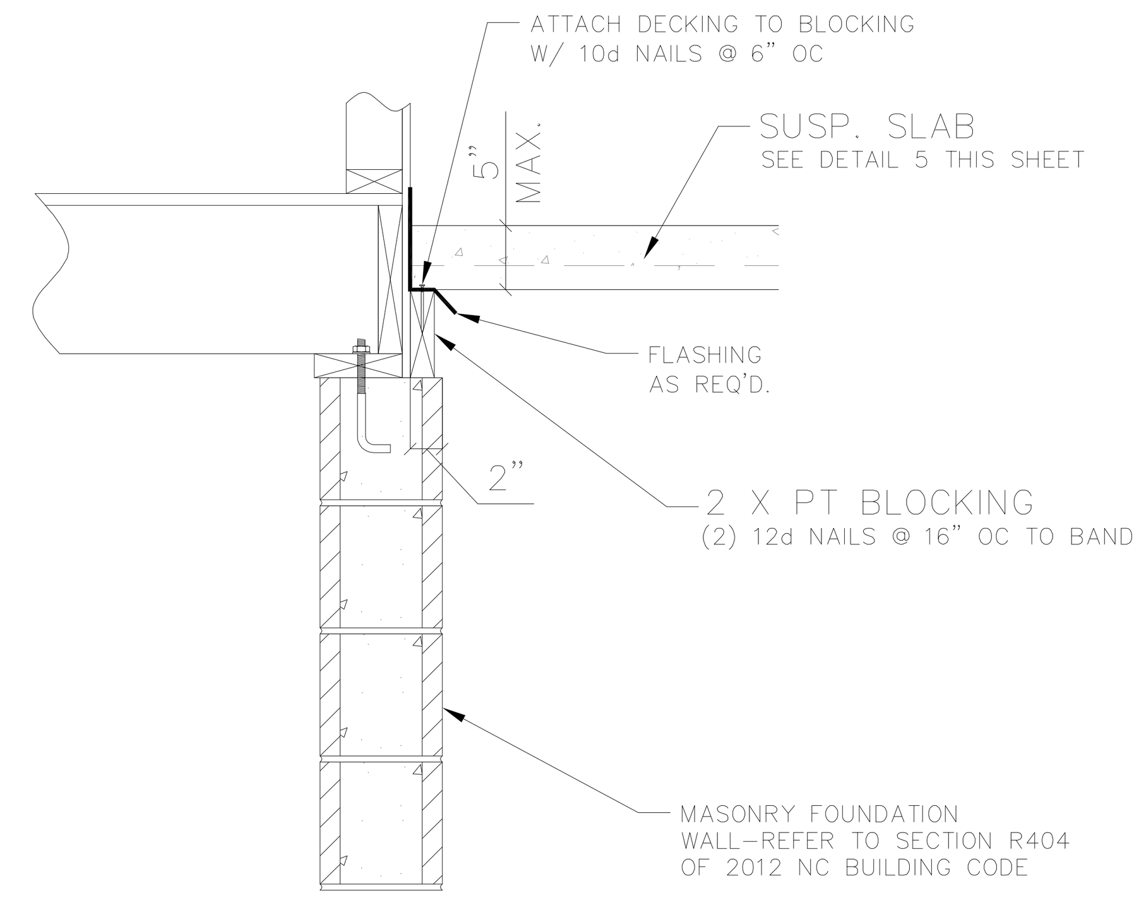
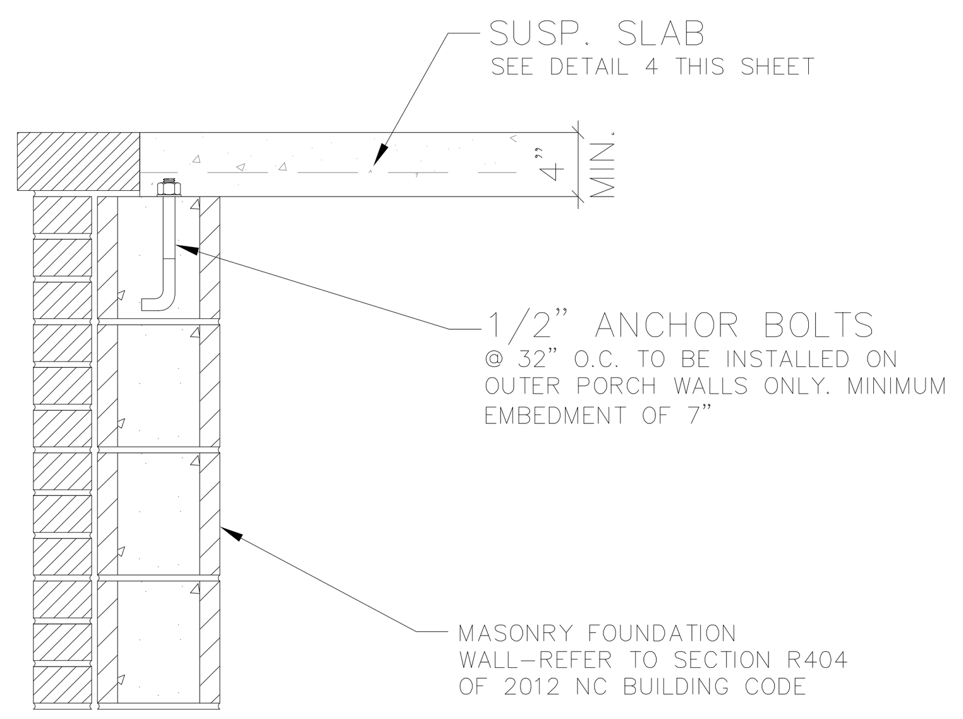
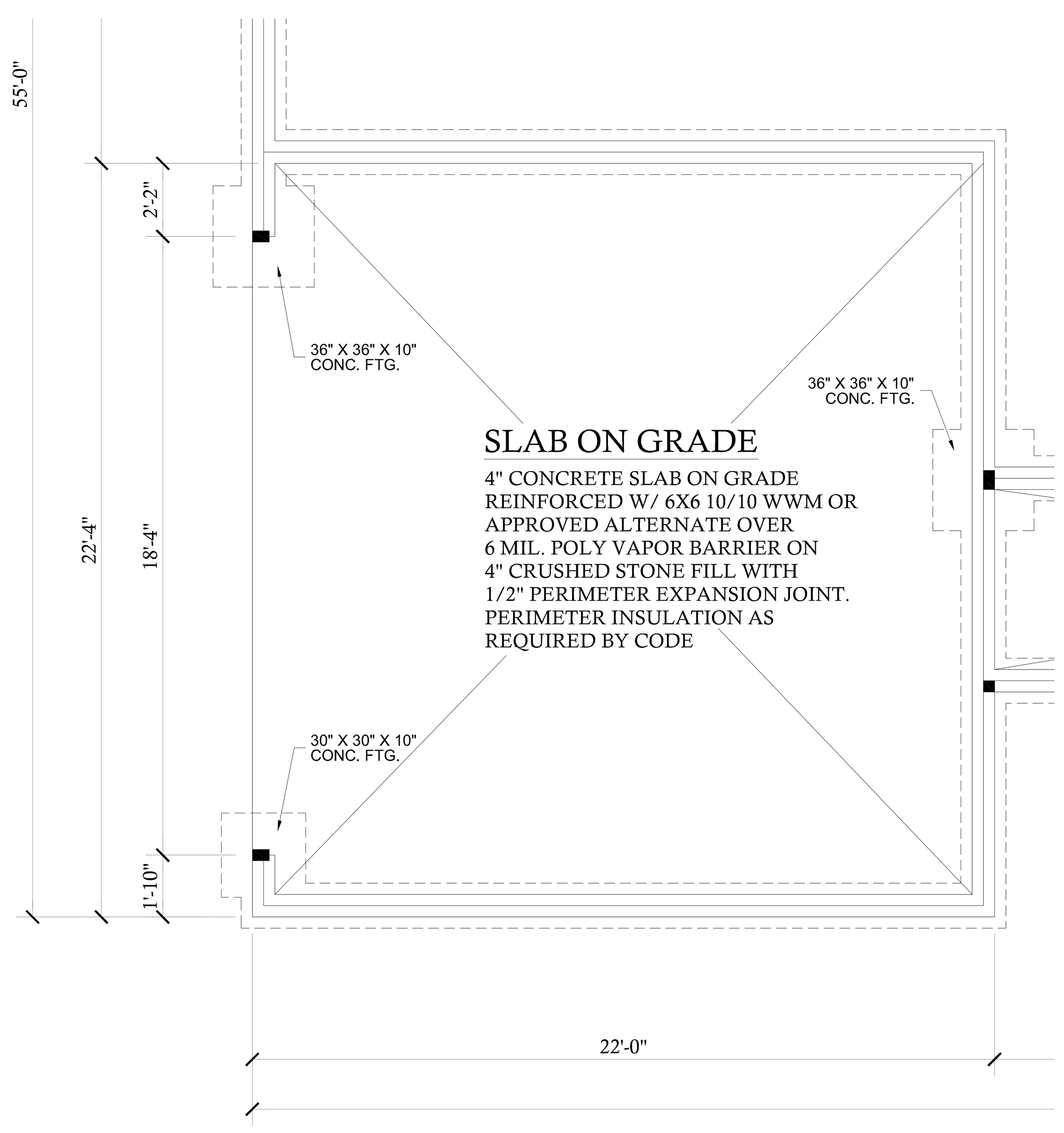
DK1697



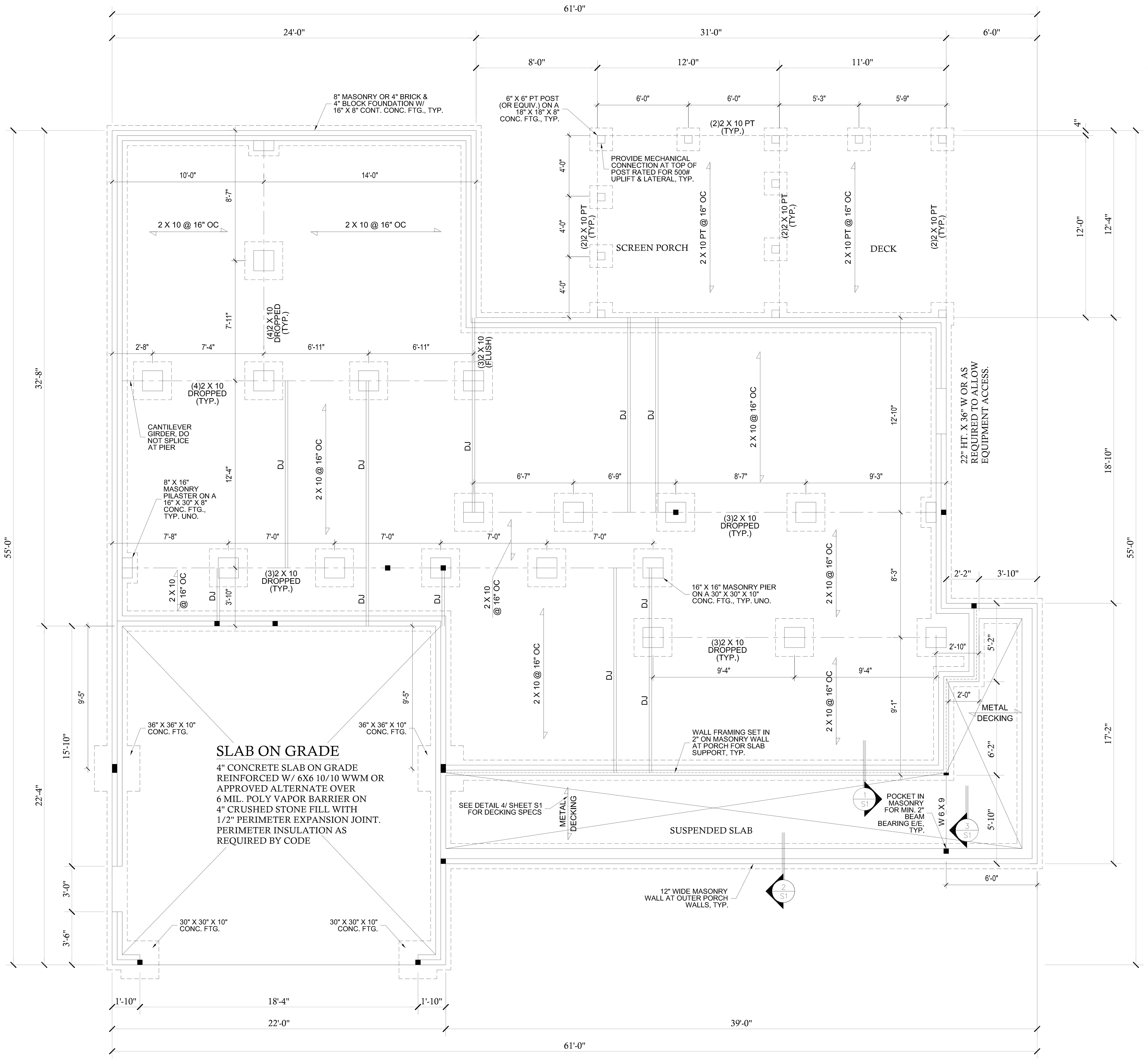
1 BEAM BEARING AT HOUSE WALL
1"=1'-0"



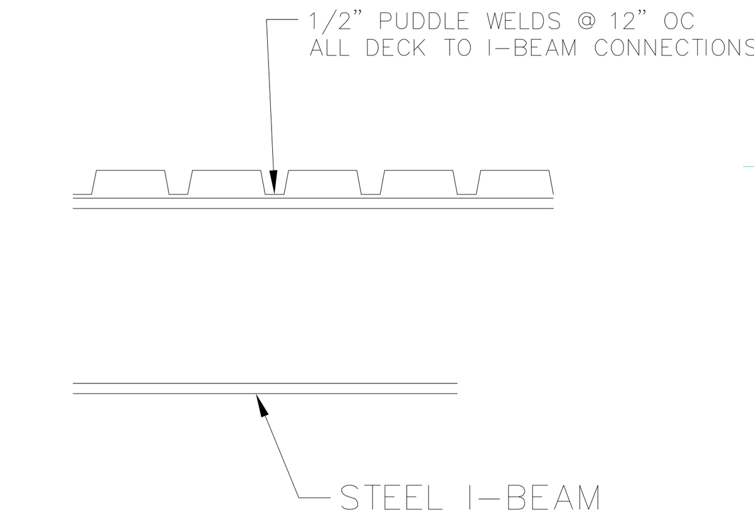
2 SUSP. SLAB CONNECTION
1"=1'-0"



FOUNDATION PLAN
1/4" = 1'-0" (OPT. SIDE ENTRY)

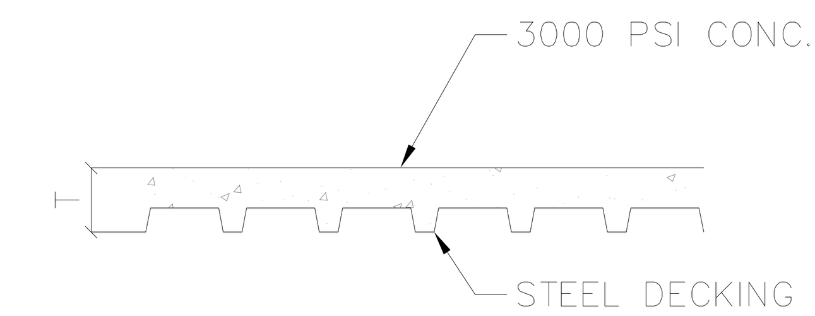


FOUNDATION PLAN
1/4" = 1'-0"



3 DECK CONNECTION TO BEAM
1"=1'-0"

DECKING	T (IN)
1.5C22 VULCRAFT OR EQUIVALENT	4" (MIN.) 5" (MAX.)



DECKING NOTES
1- ANY ADMIXTURE CONTAINING CHLORIDE SALTS SHALL NOT BE USED IN CONCRETE PLACED ON STEEL DECKING, ie. CALCIUM CHLORIDE
2- CONCRETE PLACEMENT SHALL BE IN ACCORDANCE WITH ALL APPLICABLE SECTION OF THE ACI
3- DECKING SHALL BE PLACED IN CONTINUOUS FULL LENGTH STRIPS, ie. NO SPLICES BETWEEN OUTSIDE BEARING WALLS
4- SPECIFIED DECK MANUFACTURED BY: UNITED STEEL DECK, INC. OR EQUAL

4 DECKING NOTES
1"=1'-0"

NORTH CAROLINA PROFESSIONAL SEAL 024899 ENGINEER PRENTICE A. TYNDALL JR.

TYNDALL ENGINEERING & DESIGN, P.A.
290 Shipwash Drive • Garner • North Carolina • 27529

Client: STANCIL BUILDERS, INC.

Plan: DK1697

FOUNDATION PLAN

Project #:	1801-010027
Date:	02/13/18
Drawn/Design By:	PSE
DWG. Checked By:	PTII
Scale:	SEE PLAN

REVISIONS

No.	Date:	Remarks
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2		
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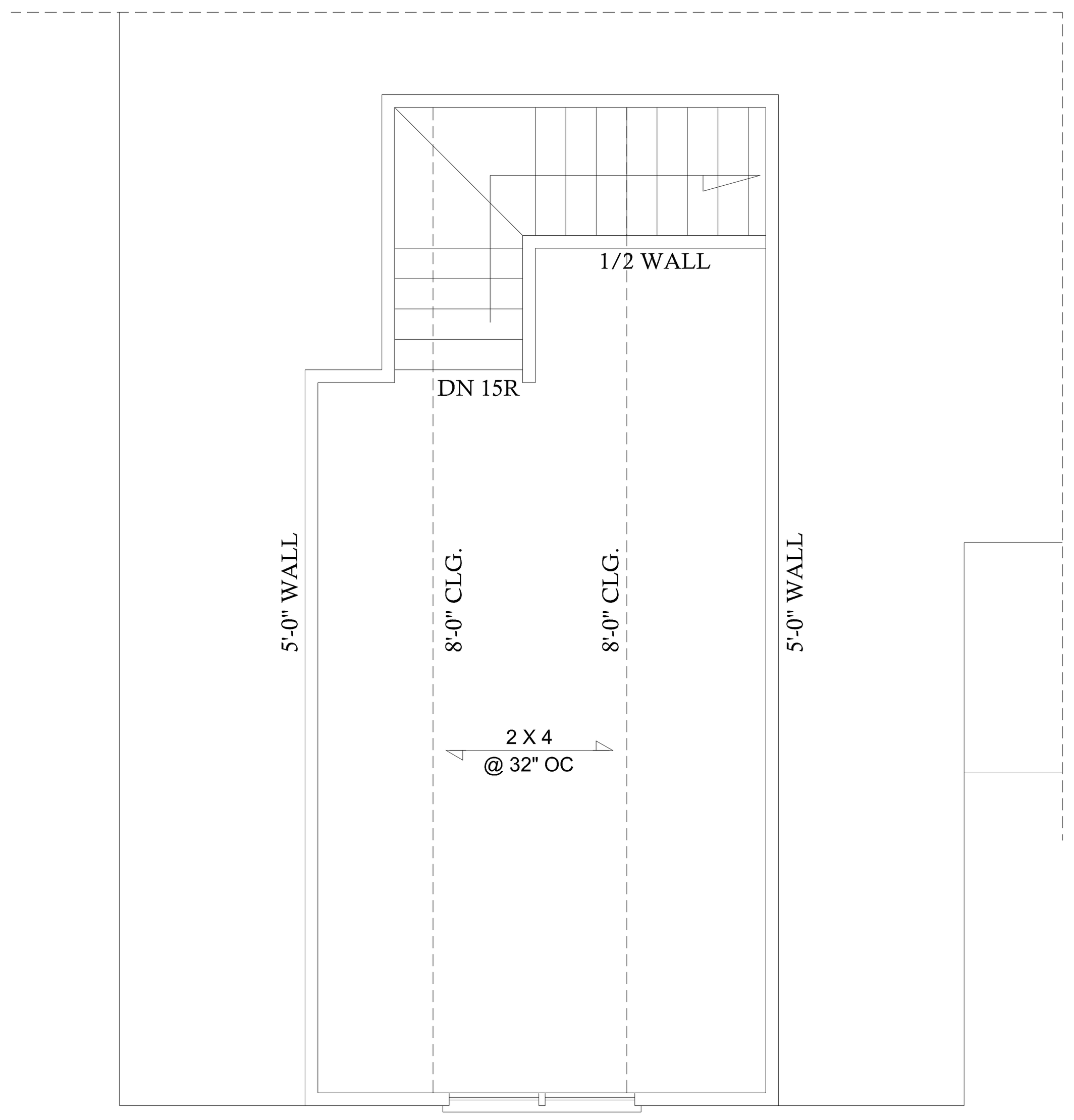
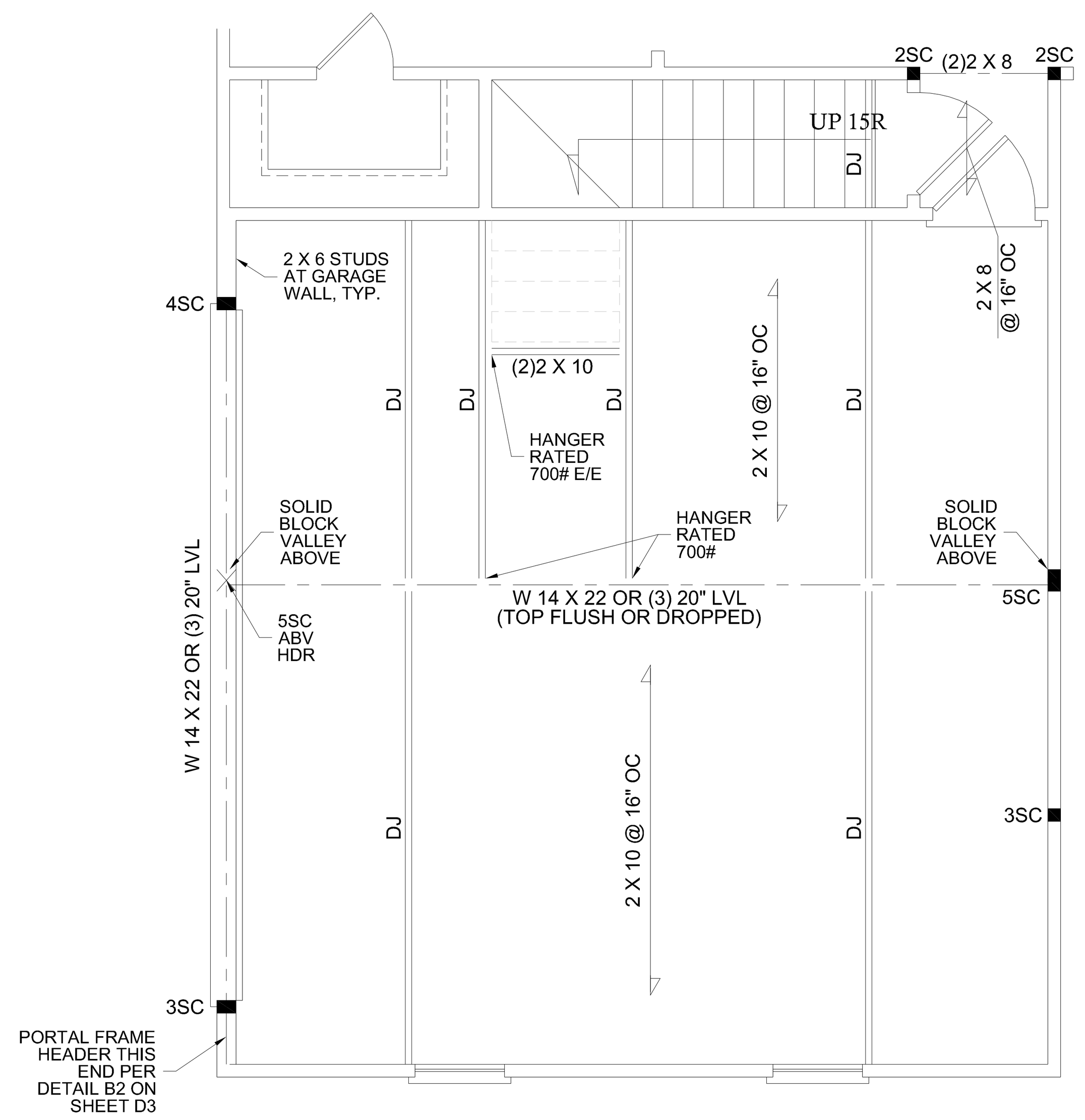
Sheet Number

S1



SECOND FLOOR PLAN

1/4" = 1'-0"


2SC
(2)2 X 8
2SC
UP 15R
DJ
2 X 8
@ 16" OC
4SC
2 X 6 STUDS
AT GARAGE
WALL, TYP.
DJ
DJ
(2)2 X 10
DJ
2 X 10 @ 16" OC
DJ
HANGER
RATED
700# E/E
SOLID
BLOCK
VALLEY
ABOVE
HANGER
RATED
700#
SOLID
BLOCK
VALLEY
ABOVE
W 14 X 22 OR (3) 20" LVL
W 14 X 22 OR (3) 20" LVL
(TOP FLUSH OR DROPPED)
5SC
5SC
ABV
HDR
DJ
2 X 10 @ 16" OC
DJ
3SC
3SC
PORTAL FRAME
HEADER THIS
END PER
DETAIL B2 ON
SHEET D3

FIRST FLOOR PLAN

1/4" = 1'-0" (OPT. SIDE ENTRY)


4" X 4" PT POST (OR EQUIV.)
PROVIDE MECHANICAL
CONNECTION AT TOP &
BOTTOM RATED FOR 500#
UPLIFT & LATERAL, TYP.
(2)2 X 8 (TYP.)
2 X 8 @ 16" OC
2 X 8 @ 16" OC
(2)2 X 8 (TYP.)
2 X 8 @ 16" OC
(2)2 X 8 (TYP.)
2 X 8 @ 16" OC
2 X 8 @ 16" OC
NON-LOAD BEARING
COLUMNS, TYP.
(2) 14" LVL
(BOTTOM FLUSH)
2SC
2SC
DJ
2 X 8
@ 16" OC
2 X 8 CT @ 16" OC
@ CATHEDRAL PEAK
2 X 6 @ 16" OC
(SLOPED)
CATHEDRAL
(5)10d
NAILS TO
RAFTER E/E
(3)10d
NAILS TO
RAFTER
(3)2 X 10
3SC
2SC
(2)2 X 8
2SC
UP 15R
DJ
2 X 8
@ 16" OC
2SC
2SC
2 X 8 @ 16" OC
CATHEDRAL
2 X 6
@ 16" OC
(3)2 X 10 (TYP.)
DJ
DJ
(2)2 X 10
DJ
2 X 10 @ 16" OC
DJ
HANGER
RATED
700# E/E
SOLID
BLOCK
VALLEY
ABOVE
HANGER
RATED
700#
SOLID
BLOCK
VALLEY
ABOVE
5SC
W 14 X 22 OR (3) 20" LVL
(TOP FLUSH OR DROPPED)
5SC
2SC
2 X 6
@ 16" OC
(2)2 X 6
DJ
2 X 10 @ 16" OC
DJ
3SC
3SC
(3)2 X 10 (TYP.)
6" X 6" PT POST (OR EQUIV.)
PROVIDE MECHANICAL
CONNECTION AT TOP &
BOTTOM RATED FOR 500#
UPLIFT & LATERAL, TYP.
3SC
(2) 18" LVL
3SC
PORTAL FRAME HEADER AT EACH
END PER DETAIL B2 ON SHEET D3

FIRST FLOOR PLAN

1/4" = 1'-0"

NORTH CAROLINA PROFESSIONAL SEAL 024899 ENGINEER PRENTICE A TYNDALL JR 2/15/18

TYNDALL
ENGINEERING & DESIGN, P.A.
T 919 773-1200 ▪ F 919 773-9658
250 Shipwash Drive ▪ Garner ▪ North Carolina ▪ 27529
www.tyndallengineering.com

Client: STANCIL BUILDERS, INC.

Plan: DK1697

FIRST FLOOR STRUCTURAL PLAN

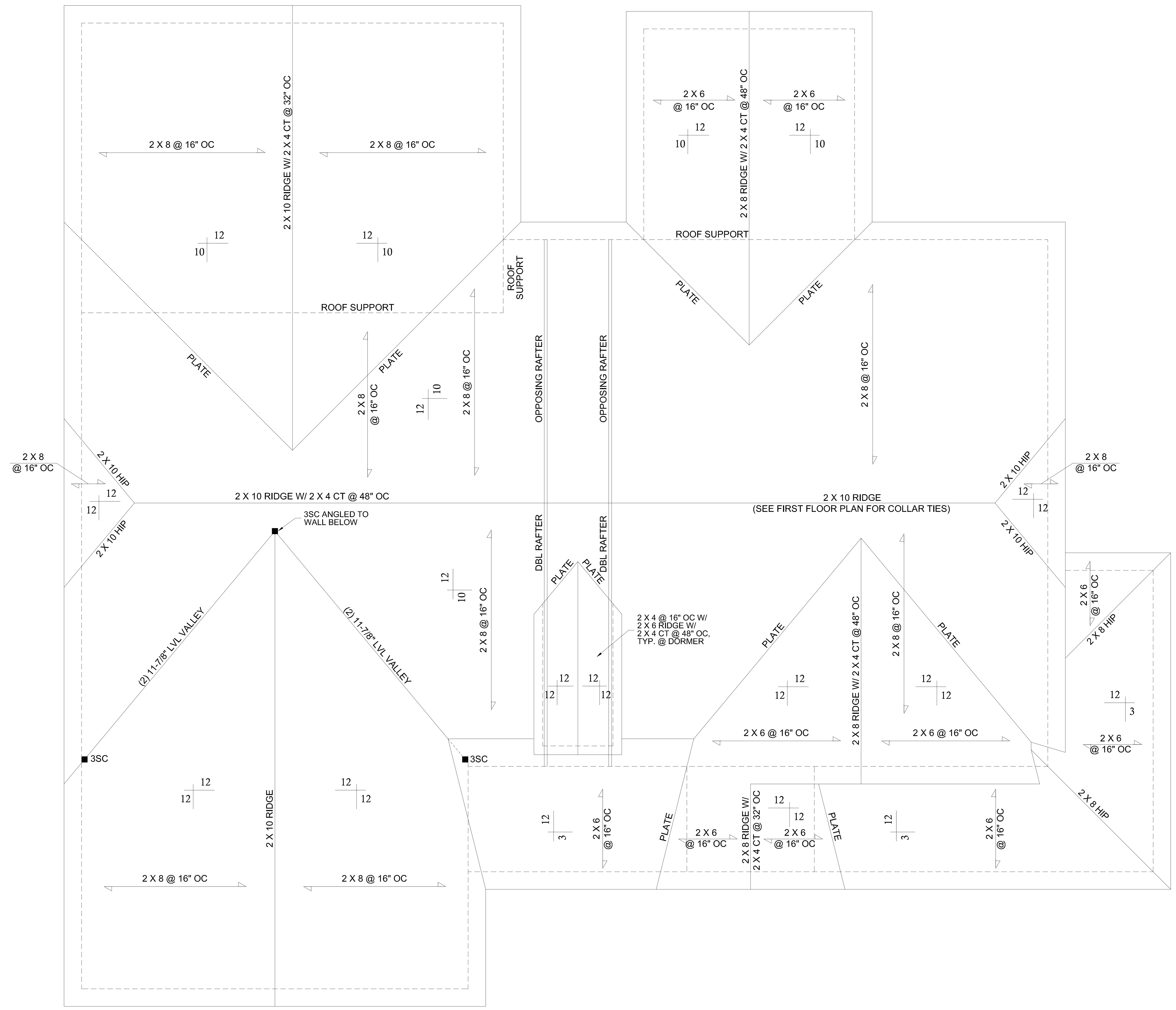
Project #:	1801-010027
Date:	02/13/18
Drawn/Design By:	PSE
DWG. Checked By:	PTII
Scale:	SEE PLAN

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number

S2



2 X 8 @ 16" OC
2 X 10 RIDGE W/ 2 X 4 CT @ 32" OC
2 X 8 @ 16" OC
12
10
ROOF SUPPORT
PLATE
PLATE
2 X 8 @ 16" OC
2 X 8 @ 16" OC
ROOF SUPPORT
OPPOSING RAFTER
OPPOSING RAFTER
2 X 6 @ 16" OC
2 X 8 RIDGE W/ 2 X 4 CT @ 48" OC
2 X 6 @ 16" OC
ROOF SUPPORT
PLATE
PLATE
2 X 8 @ 16" OC
2 X 8 @ 16" OC
2 X 10 HIP
2 X 10 RIDGE W/ 2 X 4 CT @ 48" OC
2 X 10 RIDGE
(SEE FIRST FLOOR PLAN FOR COLLAR TIES)
2 X 10 HIP
2 X 8 @ 16" OC
2 X 10 HIP
2 X 10 HIP
3SC ANGLED TO WALL BELOW
(2) 11-7/8" LVL VALLEY
(2) 11-7/8" LVL VALLEY
DBL RAFTER
DBL RAFTER
PLATE
PLATE
2 X 4 @ 16" OC W/ 2 X 6 RIDGE W/ 2 X 4 CT @ 48" OC, TYP. @ DORMER
2 X 8 @ 16" OC
PLATE
PLATE
2 X 8 RIDGE W/ 2 X 4 CT @ 48" OC
2 X 8 @ 16" OC
2 X 6 @ 16" OC
2 X 6 @ 16" OC
2 X 6 @ 16" OC
2 X 8 HIP
3
2 X 6 @ 16" OC
3SC
3SC
2 X 10 RIDGE
2 X 8 @ 16" OC
2 X 8 @ 16" OC
2 X 6 @ 16" OC
PLATE
2 X 6 @ 16" OC
2 X 8 RIDGE W/ 2 X 4 CT @ 32" OC
2 X 6 @ 16" OC
PLATE
2 X 6 @ 16" OC
2 X 8 HIP

ROOF PLAN

1/4" = 1'-0"

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 024899 PRENTICE A TYNDALL JR 2/15/18

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www.tyndallengineering.com

Client: STANCIL BUILDERS, INC.

Plan: DK1697

SECOND FLOOR STRUCTURAL PLAN

Project #:	1801-010027
Date:	02/13/18
Drawn/Design By:	PSE
DWG. Checked By:	PTII
Scale:	SEE PLAN

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number

S3

STRUCTURAL NOTES

1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2012 RESIDENTIAL BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.

2) DESIGN LOADS:

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION	
			LL	TL
ALL FLOORS	40	10	L/360	L/240
ATTIC (w/ walk up stairs)	30	10	L/360	L/240
ATTIC (pull down access)	20	10	L/240	L/180
ATTIC (no access)	10	5	L/240	L/180
EXTERNAL BALCONY	40	10	L/360	L/240
ROOF	20	10	L/240	L/180
ROOF TRUSS	20	20	L/240	L/180
WIND LOAD	BASED ON 100 MPH (EXPOSURE B)			
SEISMIC	SEISMIC ZONES A, B & C			

3) MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF

4) CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF FIVE INCHES UNLESS NOTED OTHERWISE. (U.N.O.)

5) MAXIMUM DEPTH OF UNBALANCED FILL AGAINST FOUNDATION WALLS TO BE LESS THAN 4'–0" WITHOUT USING SUFFICIENT WALL BRACING. REFER TO SECTION R404 OF 2012 NC BUILDING CODE FOR BACKFILL LIMITATIONS BASED ON WALL HEIGHT, WALL THICKNESS, SOIL TYPE, AND UNBALANCED BACKFILL HEIGHT.

6) ALL FRAMING LUMBER SHALL BE SPF #2 (Fb = 1000 PSI) UNO.
ALL FRAMING LUMBER EXPOSED TO THE ELEMENTS SHALL BE TREATED MATERIAL.
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI (U.N.O.)
ALL LSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2325 PSI, E = 1.6M PSI (U.N.O.)
ALL PSL LUMBER TO BE 3.5" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2400 PSI, E = 1.8M PSI (U.N.O.)

7) ALL LOAD BEARING EXTERIOR HEADERS SHALL BE AT (2) 2x10. (U.N.O.) REFER TO TABLE R502.5(1) & (2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS UNLESS SPECIFICALLY NOTED ON PLANS.

8) ALL STRUCTURAL STEEL W–SHAPES (I–BEAMS) SHALL BE ASTM A992 GRADE 50.
ALL STEEL ANGLES, PLATES, AND C–CHANNELS SHALL BE ASTM A36.
ALL STEEL PIPE SHALL BE ASTM A53 GRADE B.

9) STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3–1/2" AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO (2) LAG SCREWS (1/2"ø x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOISTS ARE TOE NAILED TO THE SOLE PLATES, AND THE SOLE PLATES ARE NAILED OR BOLTED TO THE BEAM FLANGES @ 48" O.C.

10) PROVIDE ANCHOR BOLT PLACEMENT PER SECTION 403.1.6: 1/2"ø ANCHOR BOLTS SPACED AT 6'–0" O.C. AND PLACED 12" FROM THE END OF EACH PLATE SECTION. ANCHOR BOLTS SHALL BE SPACED AT 3'–0" O.C. FOR BASEMENTS. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY. THERE SHALL BE A MINIMUM TWO ANCHOR BOLTS PER PLATE SECTION.

11) FOUNDATION DRAINAGE–DAMP PROOFING OR WATERPROOFING PER SECTION 405 AND 406 OF NC BUILDING CODE.

12) WALL AND ROOF CLADDING VALUES:
WALL CLADDING SHALL BE DESIGNED FOR 24.1 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE.
ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
45.5 LBS/SQFT FOR ROOF PITCHES 0/12 TO 2.25/12
34.8 LBS/SQFT FOR ROOF PITCHES 2.25/12 TO 7/12
21.0 LBS/SQFT FOR ROOF PITCHES 7/12 TO 12/12
**MEAN ROOF HEIGHT 30'–0" OR LESS

13) FOR ROOF SLOPES FROM 2/12 THROUGH 4/12, BUILDER TO INSTALL 2 LAYERS OF 15# FELT PAPER.

14) REFER TO SECTION R602.3 FOR FRAMING OF ALL WALLS OVER 10'–0" IN HEIGHT.

15) PROVIDE CONTINUOUS SHEATHING PER SECTION 602.10.4 OF THE 2012 IRC.

16) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.

17) REFER TO TABLE N1102.1 FOR PRESCRIPTIVE BUILDING ENVELOPE THERMAL COMPONENT CRITERIA.

18) PSL COLUMNS DESIGNED WITH MAXIMUM HEIGHT OF 9'–0" (U.N.O.)

19) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)

20) MAXIMUM MASONRY PEIR HEIGHT SHALL NOT EXCEED FOUR TIMES ITS LEAST HORIZONTAL DIMENSION.

21) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSION OR SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.

CLIMATE ZONES	FENESTRATION U–FACTOR	SKYLIGHT [b] U–FACTOR	GLAZED FENESTRATION SHGC [b,e]	CEILING R–VALUE [k]	WOOD FRAMED WALL R–VALUE [e]	MASS WALL R–VALUE [i]	FLOOR R–VALUE	BASEMENT [c] WALL R–VALUE	SLAB [d] R–VALUE AND DEPTH	CRAWL SPACE [c] WALL R–VALUE
3	0.35	0.65	0.30	30	13	5/10	19	10/13 [f]	0	5/13
4	0.35	0.60	0.30	38 or 30 cont [j]	15 13 + 2.5 [h]	5/10	19	10/13	10 [d]	10/13
5	0.35	0.60	NR	38 or 30 cont [j]	19, 13 + 5 15 + 3 [e,h]	13/17	30 [g]	10/13	10 [d]	10/13

* TABLE N1102.1 CLIMATE ZONES 3–5
NO SCALE

a. R–VALUES ARE MINIMUMS. U–FACTORS AND SHGC ARE MAXIMUMS.
b. THE FENESTRATION U–FACTOR COLUMN EXCLUDED SKYLIGHTS. THE SOLAR HEAT GAIN COEFFICIENT (SHGC) COLUMN APPLIES TO ALL GLAZED FENESTRATION.
c. "10/13" MEANS R–10 CONTINUOUS INSULATED SHEATHING ON THE INTERIOR OR EXTERIOR OF THE HOME OR R–13 CAVITY INSULATION AT THE INTERIOR OF THE BASEMENT WALL OR CRAWL SPACE WALL.
d. FOR MONOLITHIC SLABS, INSULATION SHALL BE APPLIED FROM THE INSPECTION GAP DOWNWARD TO THE BOTTOM OF THE FOOTING OR A MAXIMUM OF 18" BELOW GRADE WHICHEVER IS LESS. FOR FLOATING SLABS, INSULATION SHALL EXTEND TO THE BOTTOM OF THE FOUNDATION WALL OR 24", WHICHEVER IS LESS. R–5 SHALL BE ADDED TO THE REQUIRED SLAB EDGE R–VALUES FOR HEATED SLABS.
e. R–19 FIBERGLASS BATTS COMPRESSED AND INSTALLED IN A 2x6 CAVITY IS DEEMED TO COMPLY. FIBERGLASS BASS RATED R–19 OR HIGHER COMPRESSED AND INSTALLED IN A 2x4 CAVITY IS NOT DEEMED TO COMPLY.
f. BASEMENT WALL INSULATION IS NOT REQUIRED IN WARM–HUMID LOCATIONS AS DEFINED BY FIGURE 41101.2(1) AND TABLE N1101.2.
g. OR INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY. R–19 MINIMUM.
h. "13+5" MEANS R–13 CAVITY INSULATION PLUS R–5 INSULATED SHEATHING. "15+3" MEANS R–15 CAVITY INSULATION PLUS R–3 INSULATED SHEATHING. IF STRUCTURAL SHEATHING COVERS 25% OR LESS OF THE EXTERIOR, INSULATING SHEATHING IS NOT REQUIRED WHERE THE STRUCTURAL SHEATHING IS USED. IF STRUCTURAL SHEATHING COVERS MORE THAN 25 PERCENT OF THE EXTERIOR, SHALL BE SUPPLEMENTED WITH INSULATED SHEATHING OF AT LEAST R–2. "13 + 2.5" MEANS R–13 CAVITY INSULATION PLUS R–2.5 SHEATHING.
i. FOR MASS WALLS, THE SECOND R–VALUE APPLIES WHEN MORE THAN HALF THE INSULATION IS ON THE INTERIOR MASS WALL.
j. R–30 SHALL BE DEEMED TO SATISFY THE CEILING INSULATION REQUIREMENT WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R–30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT THE EAVES. OTHERWISE R–38 INSULATION IS REQUIRED WHERE ADEQUATE CLEARANCE EXISTS OR INSULATION MUST EXTEND TO EITHER THE INSULATION BAFFLE OR WITHIN 1" OF THE ATTIC ROOF DECK.
k. TABLE VALUE REQUIRED EXCEPT FOR ROOF EDGE WHERE THE SPACE IS LIMITED BY THE PITCH OF THE ROOF, THERE THE INSULATION MUST FILL THE SPACE UP TO THE AIR BAFFLE.

DEFINITIONS FOR COMMON ABBREVIATIONS

ALT	ALTERNATE	MAX	MAXIMUM
CANT	CANTILEVER	MIN	MINIMUM
CJ	CEILING JOIST	NOM	NOMINAL
CMU	CONCRETE MASONRY UNIT	O.C.	ON CENTER
COL	COLUMN	PL	PLATE
CONC	CONCRETE	PT	PRESSURE TREATED
CONT	CONTINUOUS	REINF	REINFORCED
CT	COLLAR TIE	REQD	REQUIRED
DBL	DOUBLE	RJ	ROOF JOIST
DIA	DIAMETER	RS	ROOF SUPPORT
DJ	DOUBLE JOIST	SC	STUD COLUMN
DR	DOUBLE RAFTER	SCH	SCHEDULE
EA	EACH	SPEC	SPECIFIED
EE	EACH END	THK	THICK
FJ	FLOOR JOIST	TJ	TRIPLE JOIST
FND	FOUNDATION	TRTD	TREATED
FTG	FOOTING	TYP	TYPICAL
GALV	GALVANIZED	UNO	UNLESS NOTED OTHERWISE
HORIZ	HORIZONTAL	W	WIDE FLANGE BEAM
HT	HEIGHT	WWF	WELDED WIRE FABRIC
MANUF	MANUFACTURER	XJ	EXTRA JOIST

1) MAXIMUM HEIGHT OF DECK SUPPORT POSTS AS FOLLOWS:

POST SIZE	MAX. POST HEIGHT**
4 x 4	8'–0"
6 x 6	20'–0"
***	OVER 20'–0"

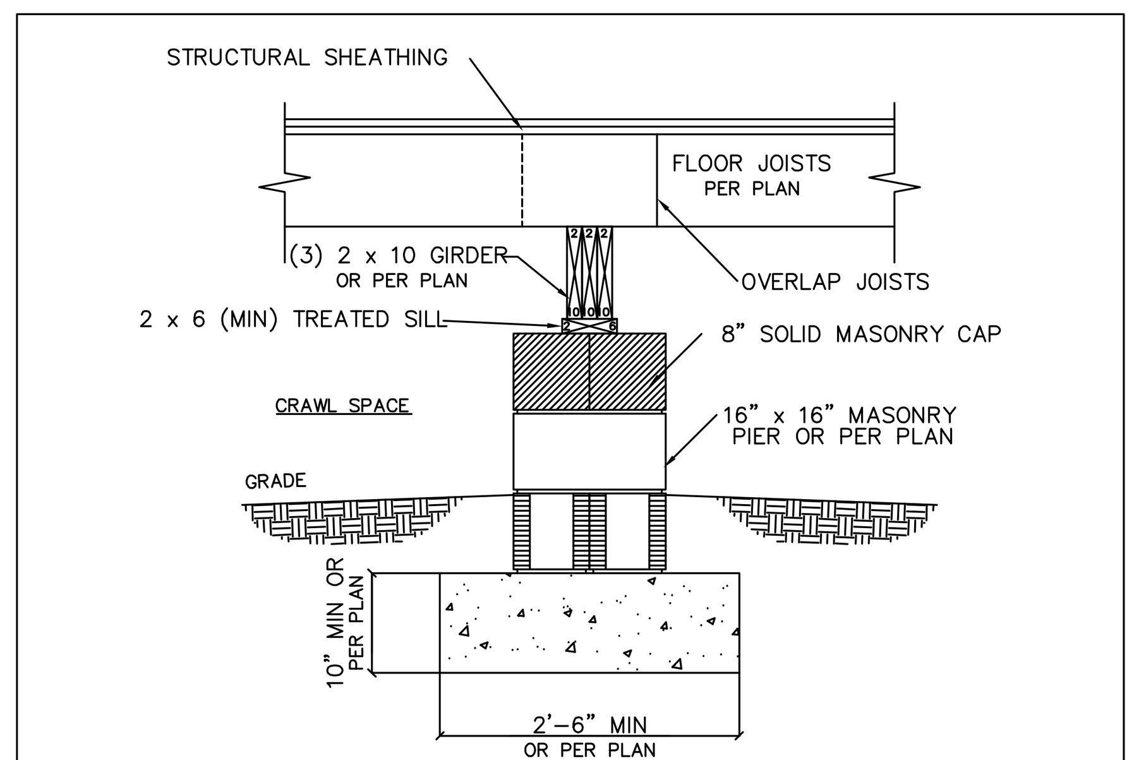
* THIS TABLE IS BASED ON NO. 2 TREATED SOUTHERN PINE POSTS. MAXIMUM TRIBUTARY AREA IS BASED ON 128 TOTAL SQUARE FEET WHICH MAY BE LOCATED AT DIFFERENT LEVELS.
** FROM TOP OF FOOTING TO BOTTOM OF GIRDER
*** DECKS WITH POST HEIGHTS OVER 20'–0" SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER OR REGISTERED ARCHITECT.

2) DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY BY ONE OF THESE METHODS:

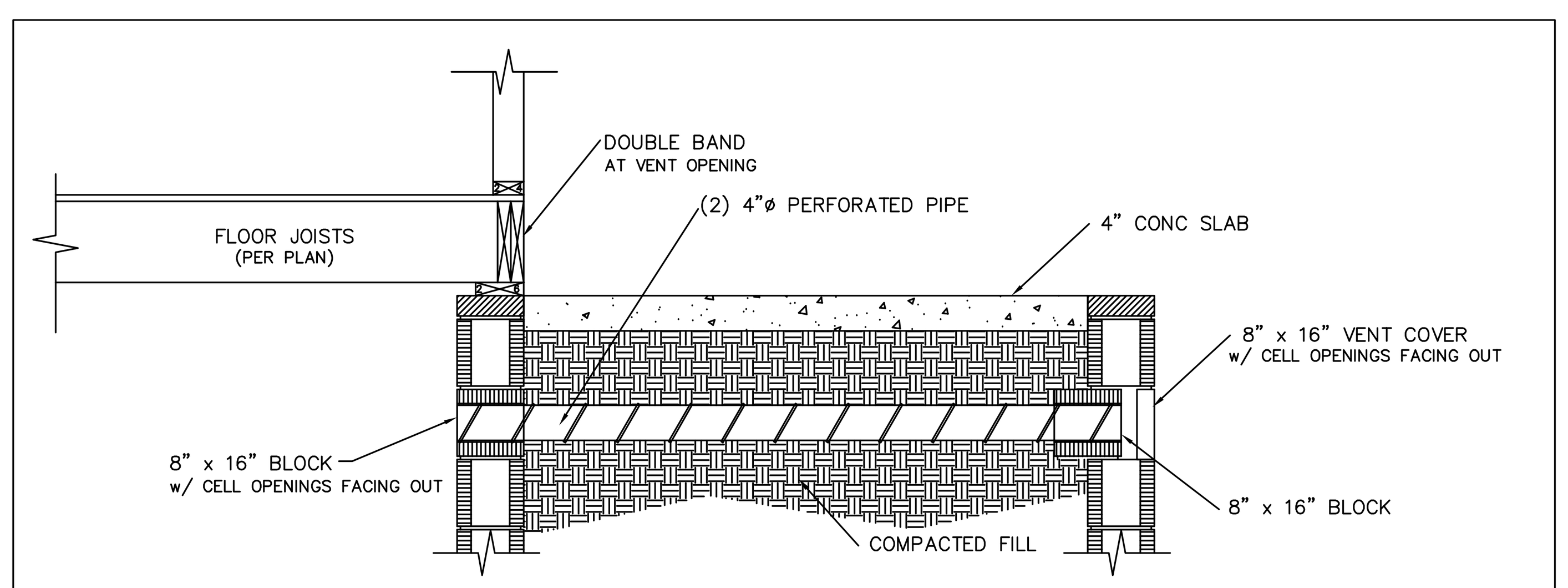
A. THE DECK FLOOR HEIGHT IS LESS THAN 4'–0" AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION (4) ABOVE. LATERAL BRACING IS NOT REQUIRED.
B. 4 x 4 WOOD KNEE BRACES MAY BE PROVIDED ON EACH COLUMN IN BOTH DIRECTIONS. THE KNEE BRACES SHALL ATTACH TO EACH POST AT A POINT NOT LESS THAN 1/3 OF THE POST LENGTH FROM THE TOP OF THE POST, AND THE BRACES SHALL BE ANGLED BETWEEN 45° AND 60° FROM THE HORIZONTAL. KNEE BRACES SHALL BE BOLTED TO THE POST AND GIRDER WITH ONE 5/8"ø HOT DIPPED GALVANIZED BOLT AT EACH END OF THE BRACE.
C. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR DIAGONAL BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN ACCORDANCE WITH THE FOLLOWING:

POST SIZE	MAX. TRIBUTARY AREA	MAX. POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIAMETER
4 x 4	48 SQ. FT.	4'–0"	2'–6"	1'–0"
6 x 6	120 SQ. FT.	6'–0"	3'–6"	1'–8"

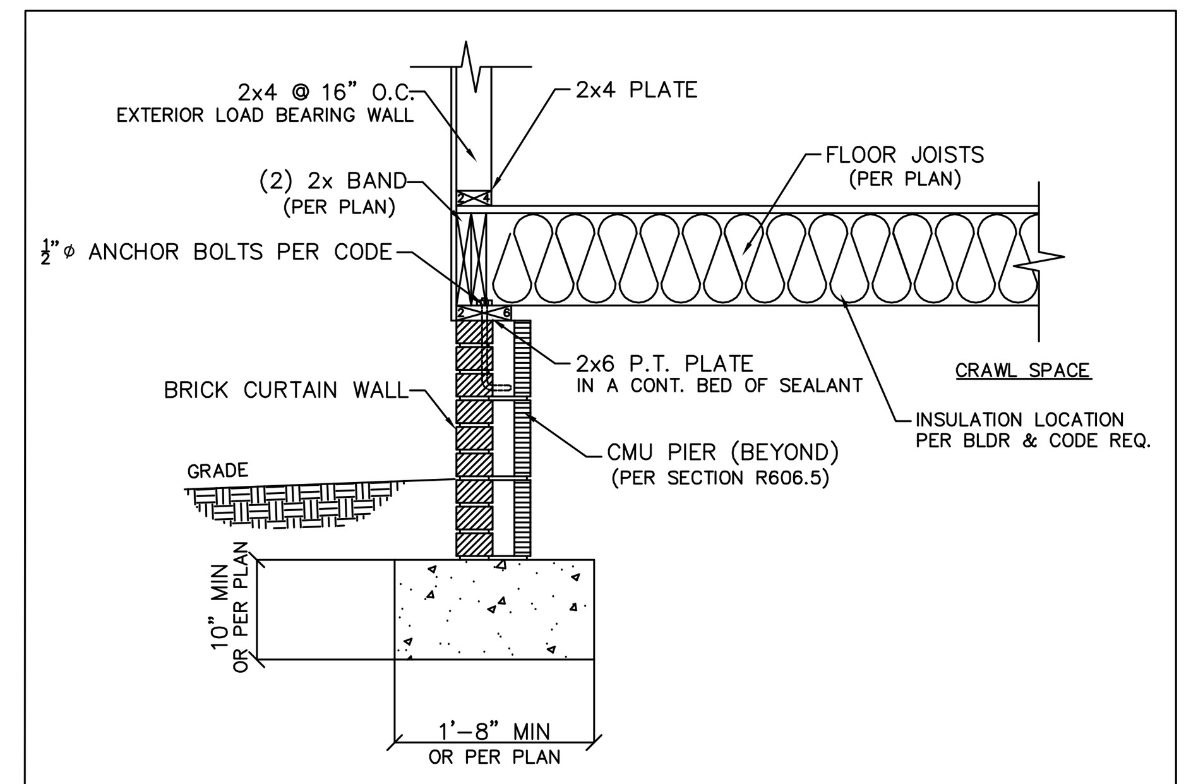
D. 2 x 6 DIAGONAL VERTICAL CROSS BRACING MAY BE PROVIDED IN TWO (2) PERPENDICULAR DIRECTIONS FOR FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2 x 6s SHALL BE ATTACHED TO THE POSTS WITH ONE 5/8"ø HOT DIPPED GALVANIZED BOLT AT EACH END OF EACH BRACING MEMBER.
E. FOR EMBEDMENT OF PILES IN COASTAL REGIONS, SEE CHAPTER 46.



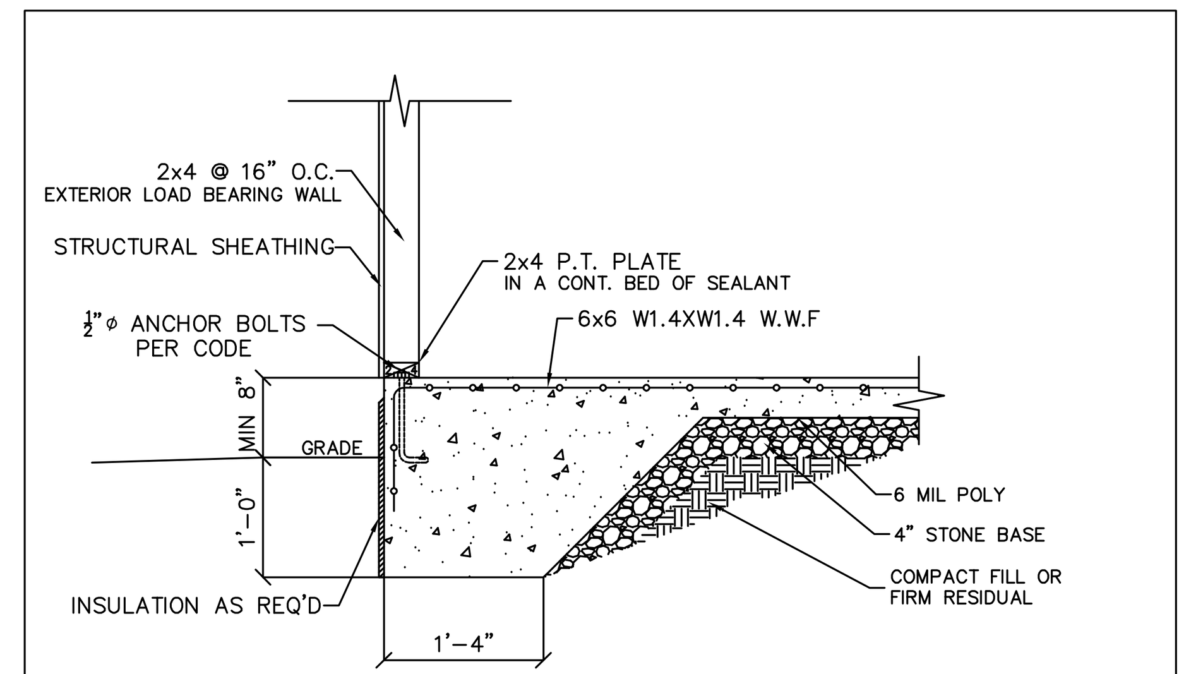
* DROPPED GIRDER DETAIL
NO SCALE



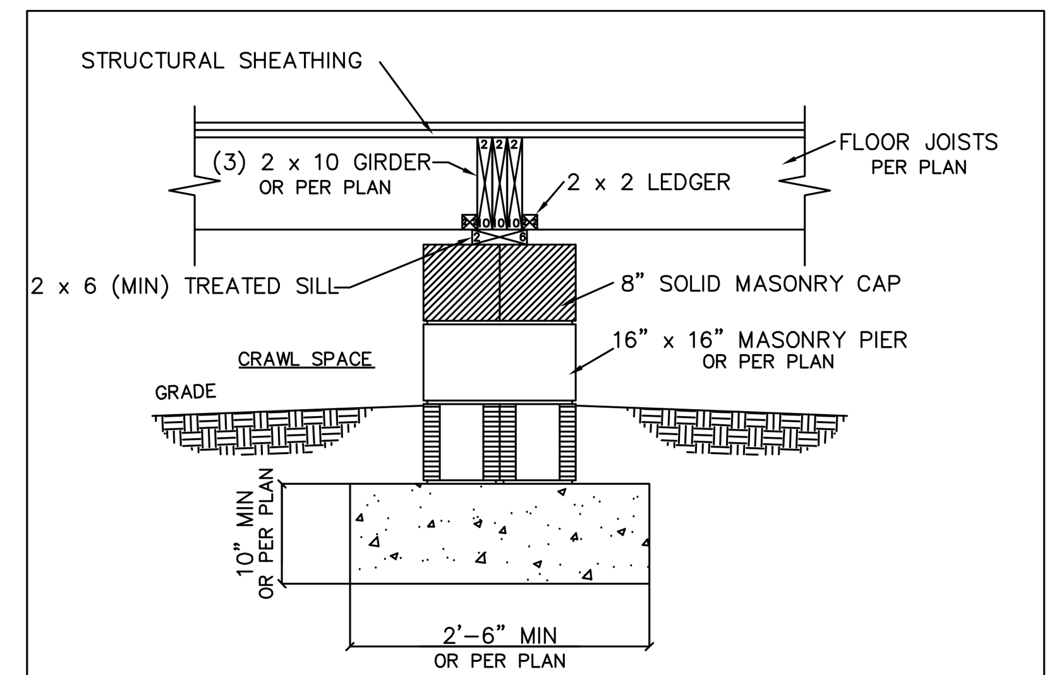
* FOUNDATION VENT DETAIL AT COMPACTED FILL
NO SCALE



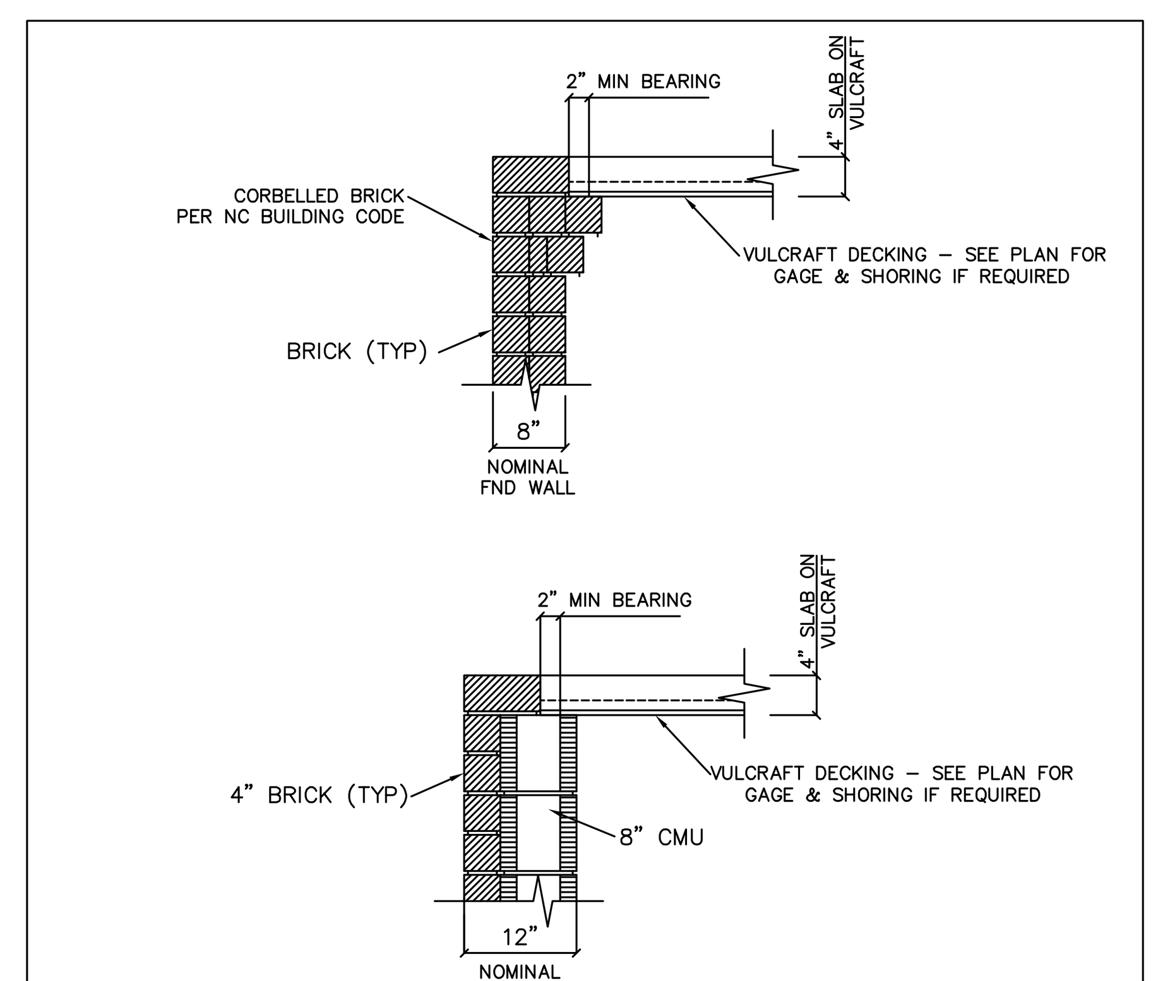
* CURTAIN WALL DETAIL
NO SCALE PIER AND CURTAIN WALL FOUNDATION LIMITED TO 2–STORY DWELLING



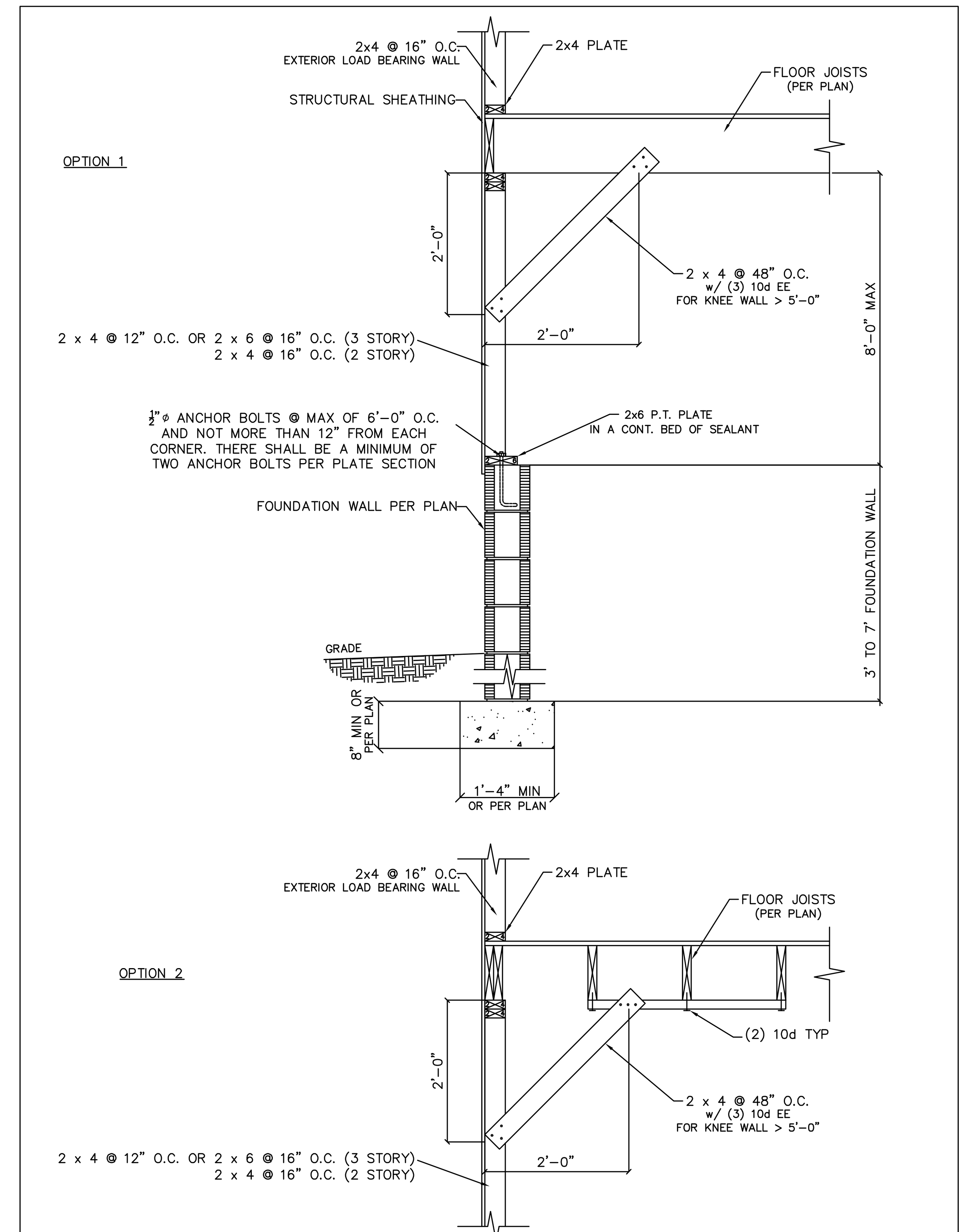
* TURN DOWN FOOTING DETAIL
NO SCALE



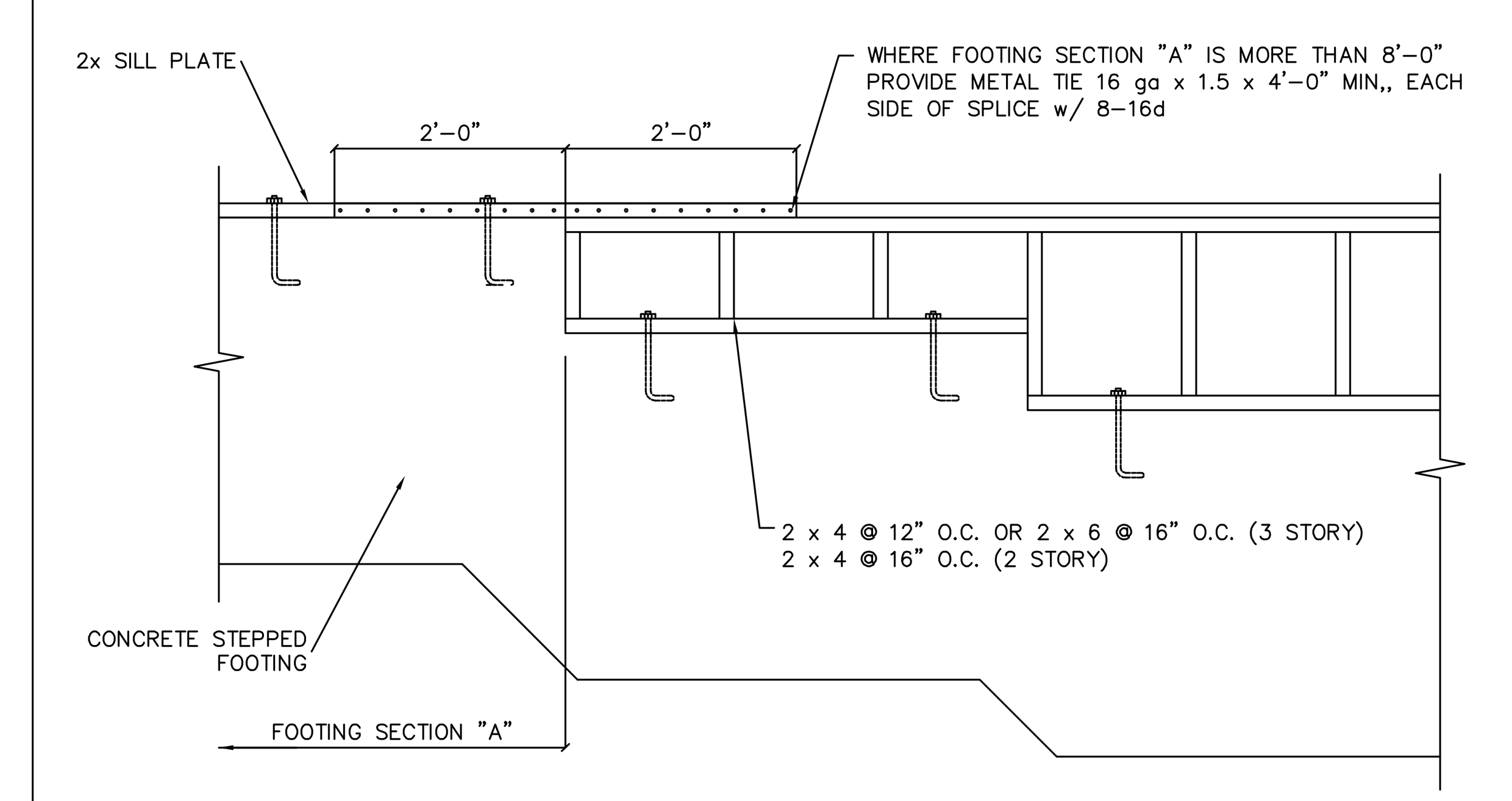
* FLUSH GIRDER DETAIL
NO SCALE



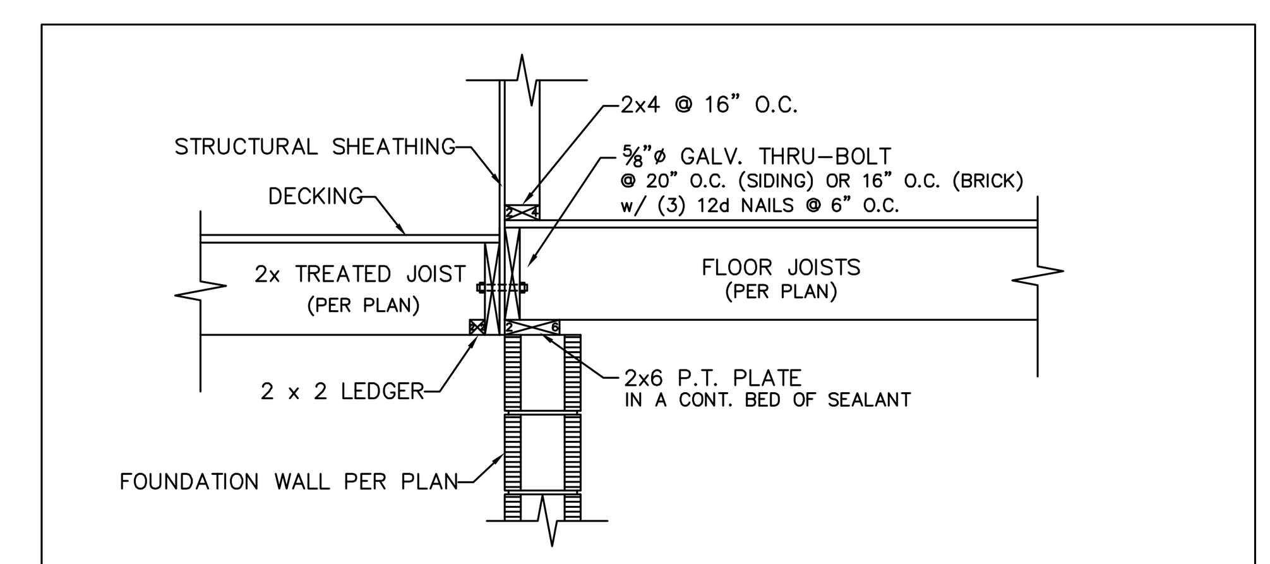
* CONCRETE SLAB ON METAL DECKING DETAIL
NO SCALE



* CRIPPLE WALL DETAIL
NO SCALE 2 OPTIONS



* STEP DOWN FOUNDATION AT CRIPPLE WALL
NO SCALE USED WITH BOTH OPTIONS ABOVE
NOTE: WHERE FOOTING SECTION "A" IS LESS THAN 8 FEET LONG IN A 25 FEET TOTAL LENGTH WALL, PROVIDE BRACING AT CRIPPLE STUD WALL.



* DECK ATTACHMENT DETAIL
NO SCALE

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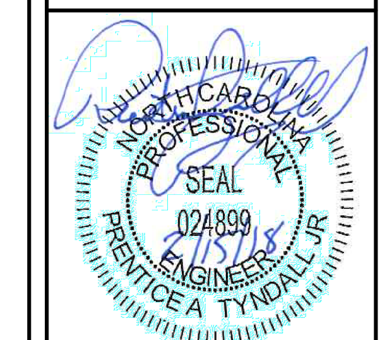

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Client: STANCIL BUILDERS, INC.
Plan: DK 1697

STANDARD DETAILS

Project #: 1801-010027
Date: 02/13/18
Drawn/Design By: PSE
DWG. Checked By: PTII
Scale: NOT TO SCALE

REVISIONS

No.	Date:	Remarks
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2		
3		
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of 3

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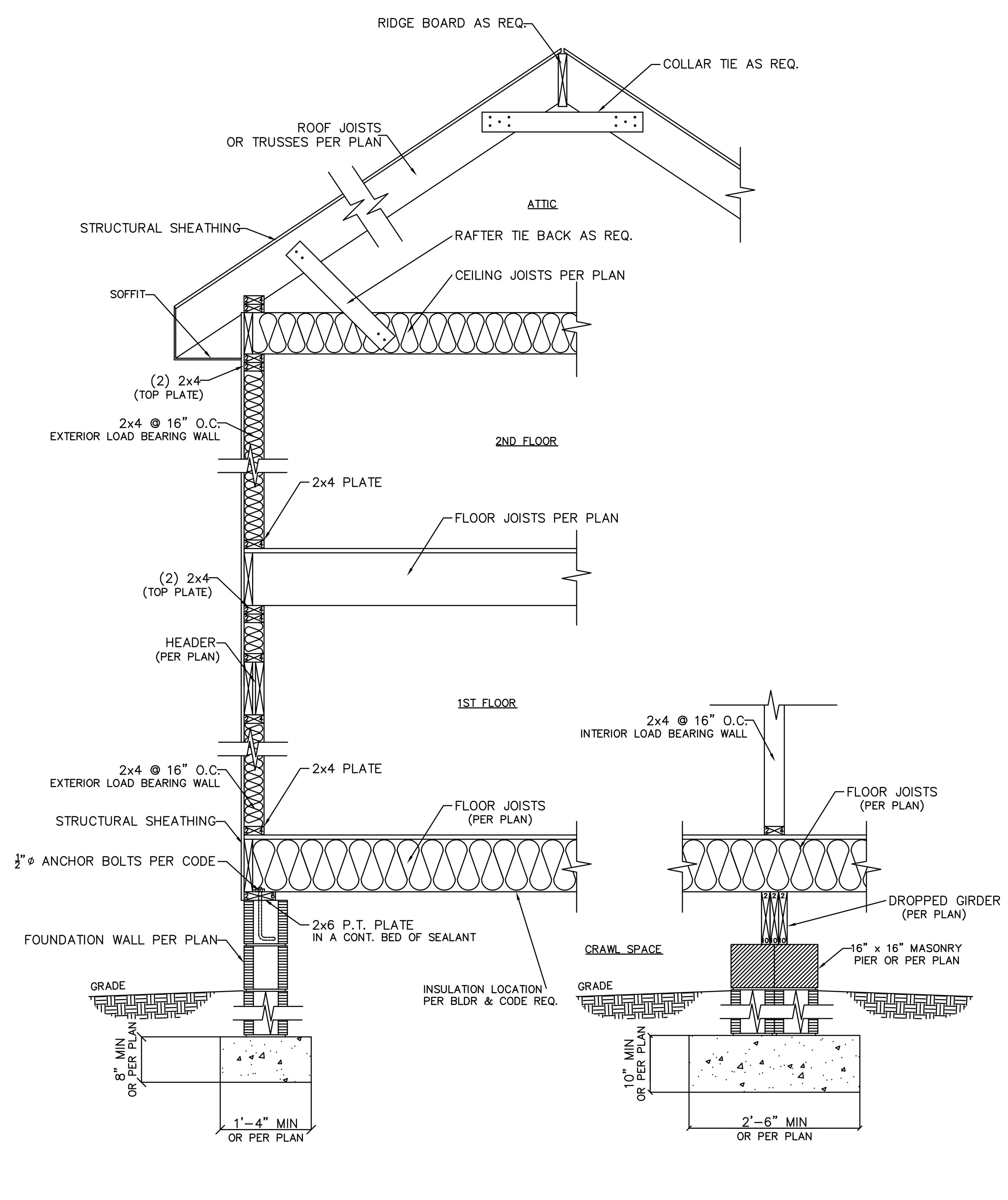
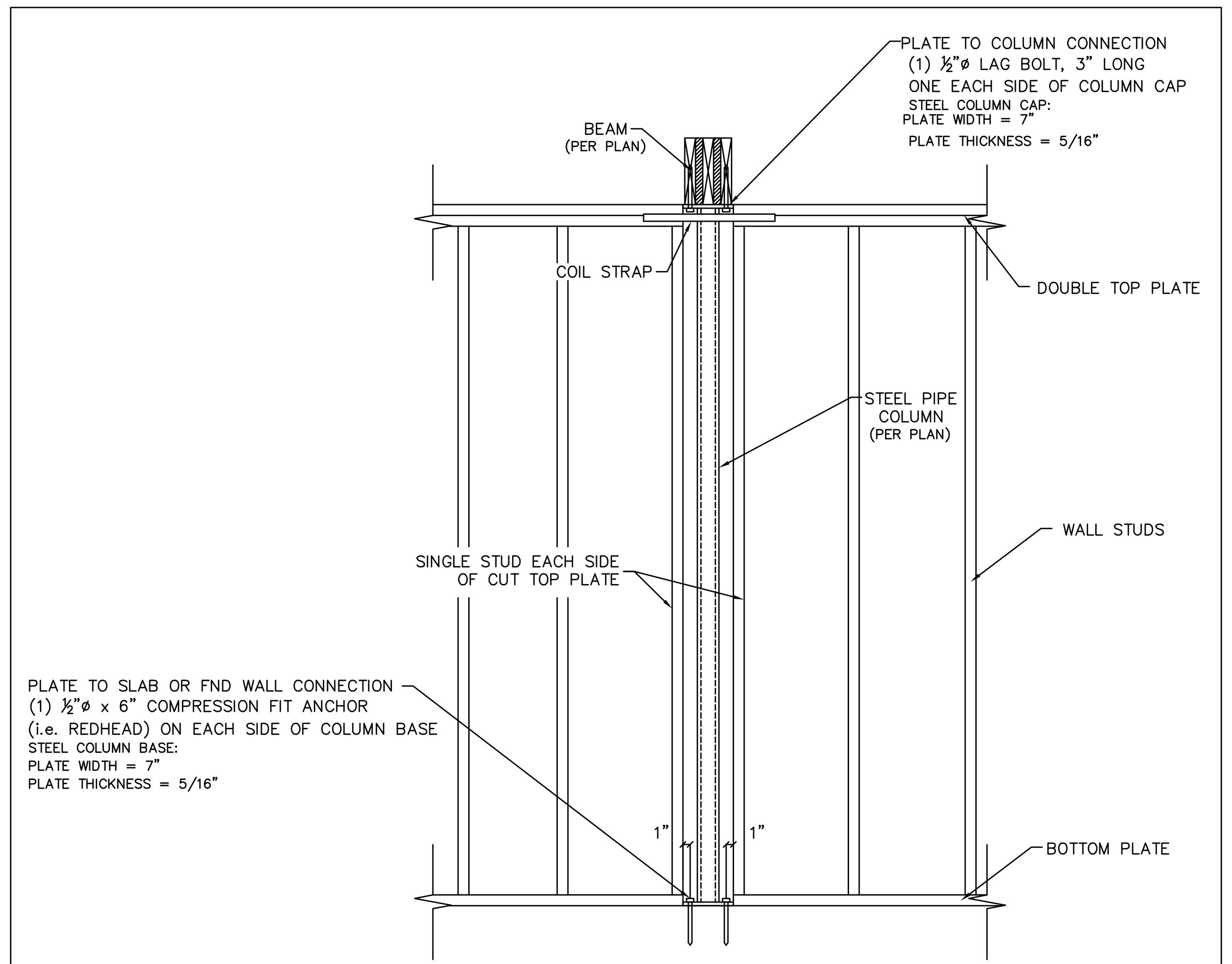
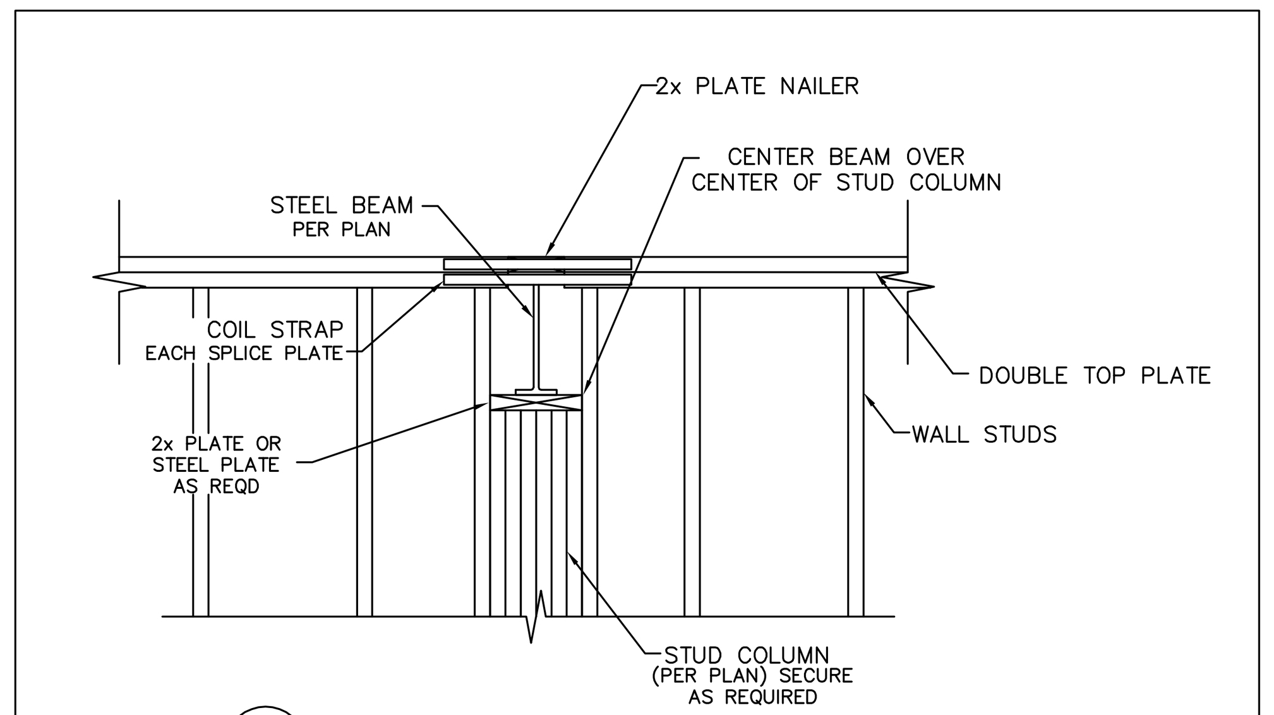


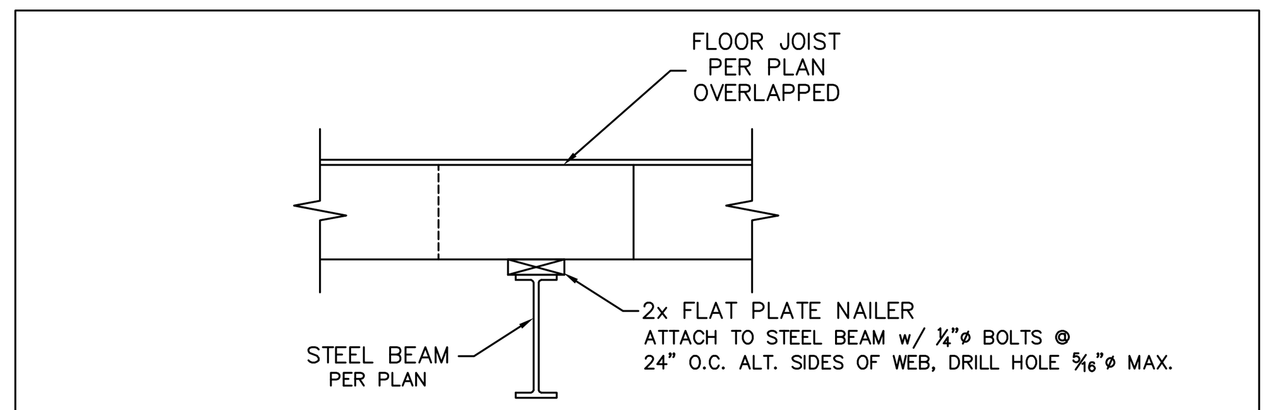
* TWO-STORY ON CRAWL
NO SCALE — TYPICAL WALL DETAIL



* STEEL COLUMN AT WALL
NO SCALE



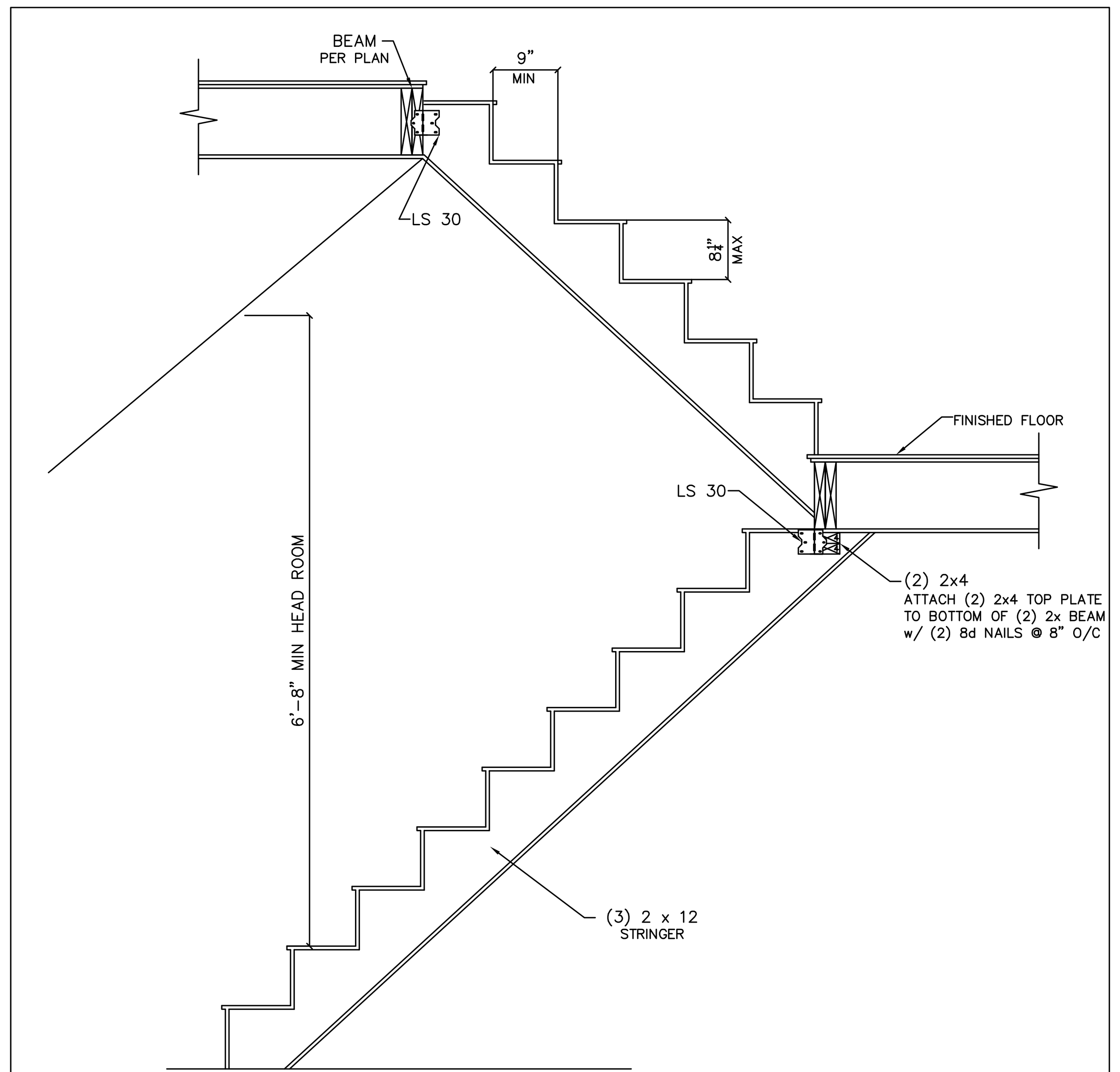
* DROPPED BEAM TO STUD COLUMN DETAIL
NO SCALE — STEEL BEAM SHOWN/LVL SIMILAR



* DROPPED BEAM LATERAL BRACING DETAIL
NO SCALE — STEEL BEAM SHOWN/LVL SIMILAR

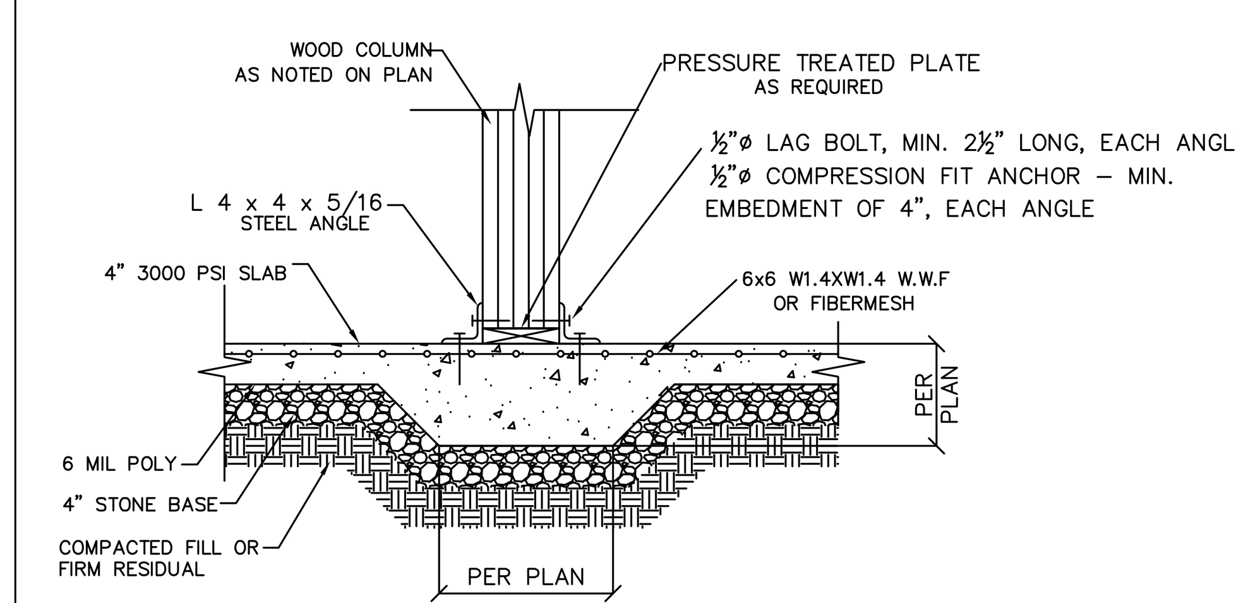
HARDWARE CROSS-REFERENCE CHART

SIMPSON STRONG-TIE	USP STRUCTURAL CONNECTORS
PRODUCT NUMBER	PRODUCT NUMBER
A35	MPA1
ABE	PAE
CBSQ	CBSQ
CCQ	KCCQ
CMSTC16	CMSTC16
CS	RS
H1	RT15
H2.5A	RT7A
H10	RT16
HDQ8-SDS3	UPHD8
HDU2-SDS2.5	PHD2
HDU5-SDS2.5	PHD5
HETA	HTA
HGAM10KTA	HGAM
HHDQ14-SDS2.5	UPHD14
HTS	HTW
HTT	HTT
HUS	HUS
LTA1	LPTA
LTHJA26	HJC26
LTP4	MP4F
LUS	JUS
MAS	FA3
MSTAM	MSTAM
PC	PCM
PHD-SDS3	PHD
SSP	RSPT6
STC	TR1
STHD	STAD

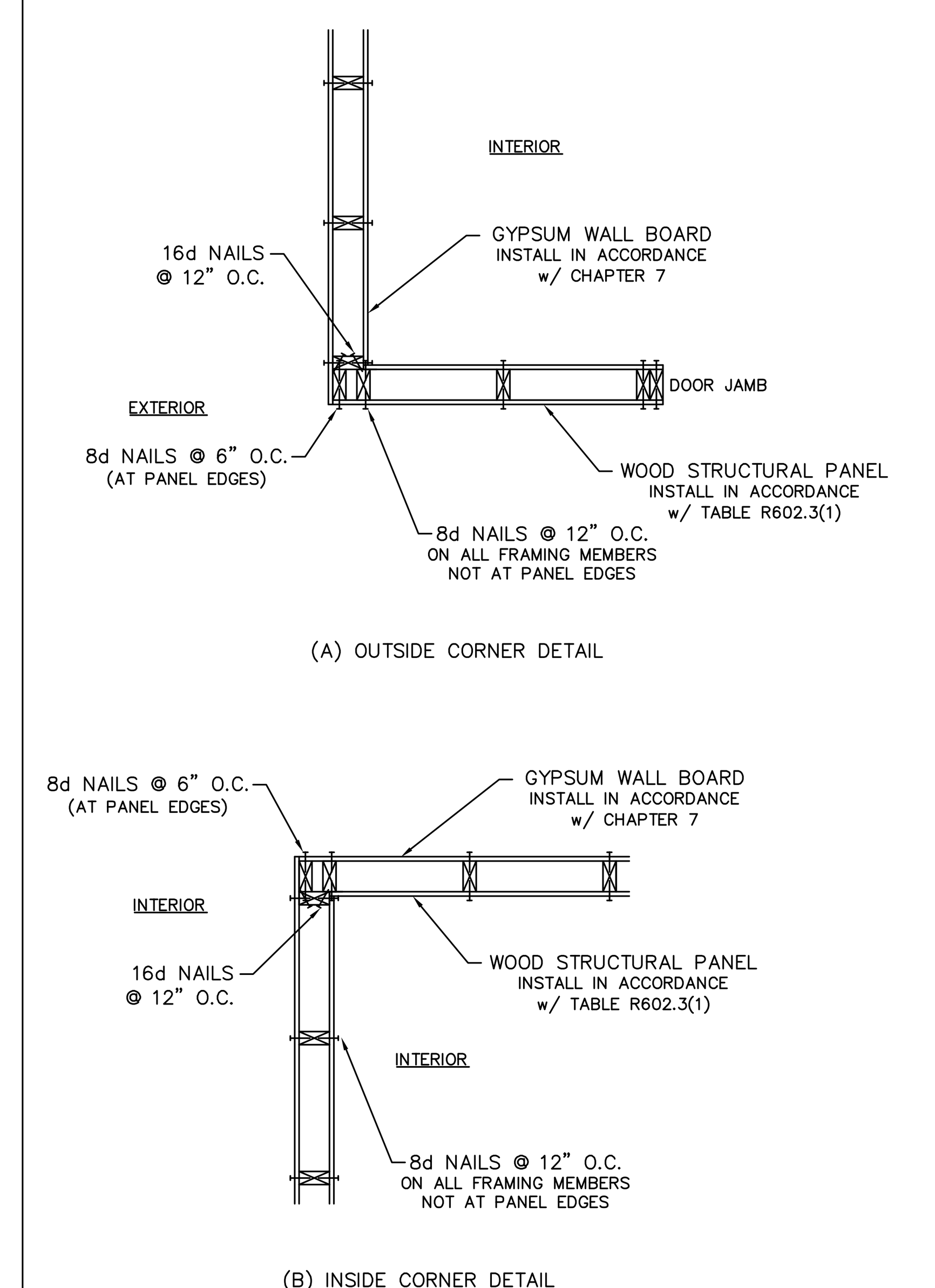


HANDRAILS SHALL BE PROVIDED ON AT LEAST ONE SIDE OF EACH CONTINUOUS RUN OF TREADS OR FLIGHT WITH FOUR OR MORE RISERS. HANDRAIL HEIGHT MEASURED VERTICALLY FROM THE SLOPED PLANE ADJOINING THE TREAD NOSING, OR FINISH SURFACE OF RAMP SLOPE, SHALL NOT BE LESS THAN 30 INCHES AND NOT MORE THAN 38 INCHES.

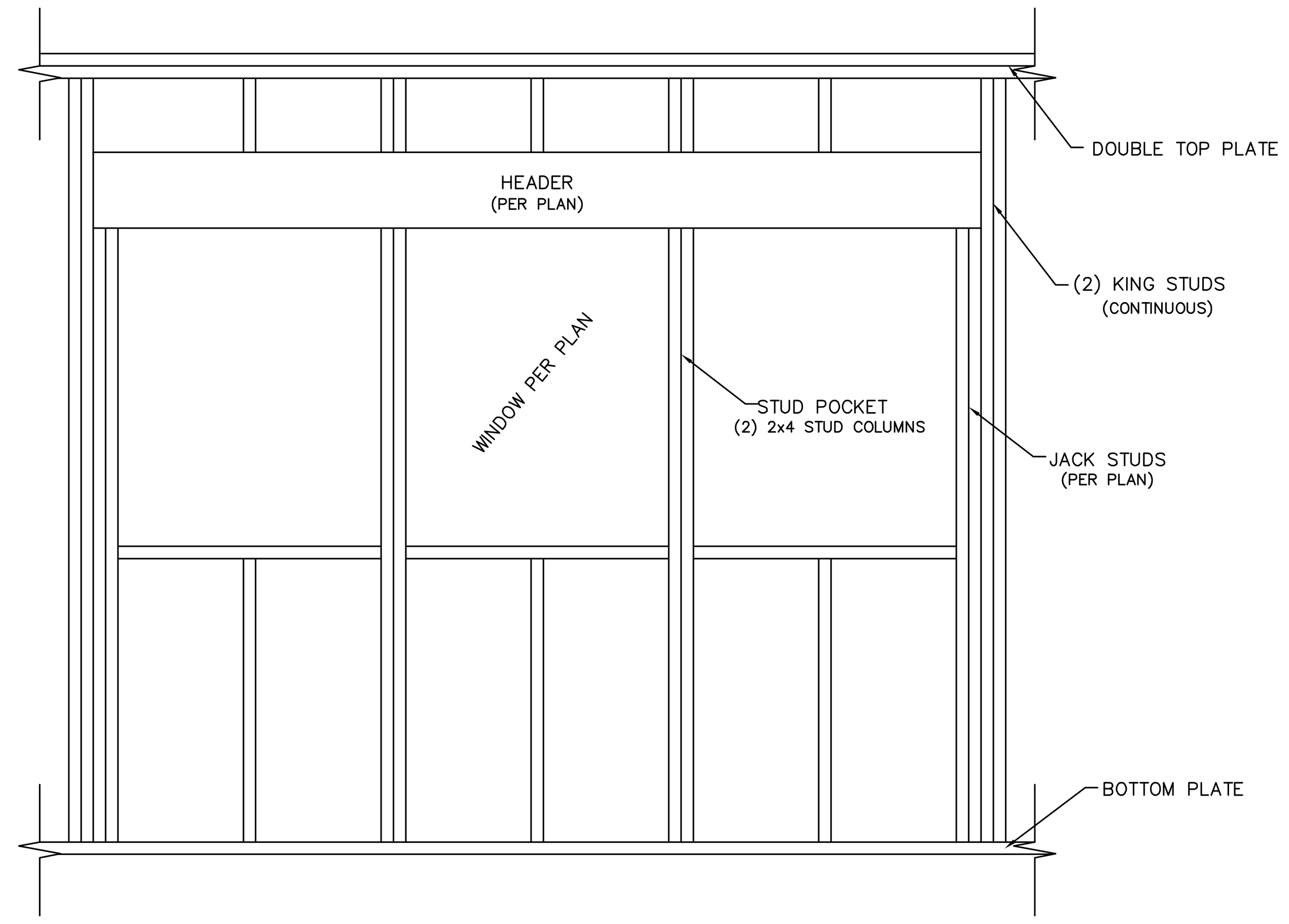
* TYPICAL STAIRWAY DETAIL
NO SCALE



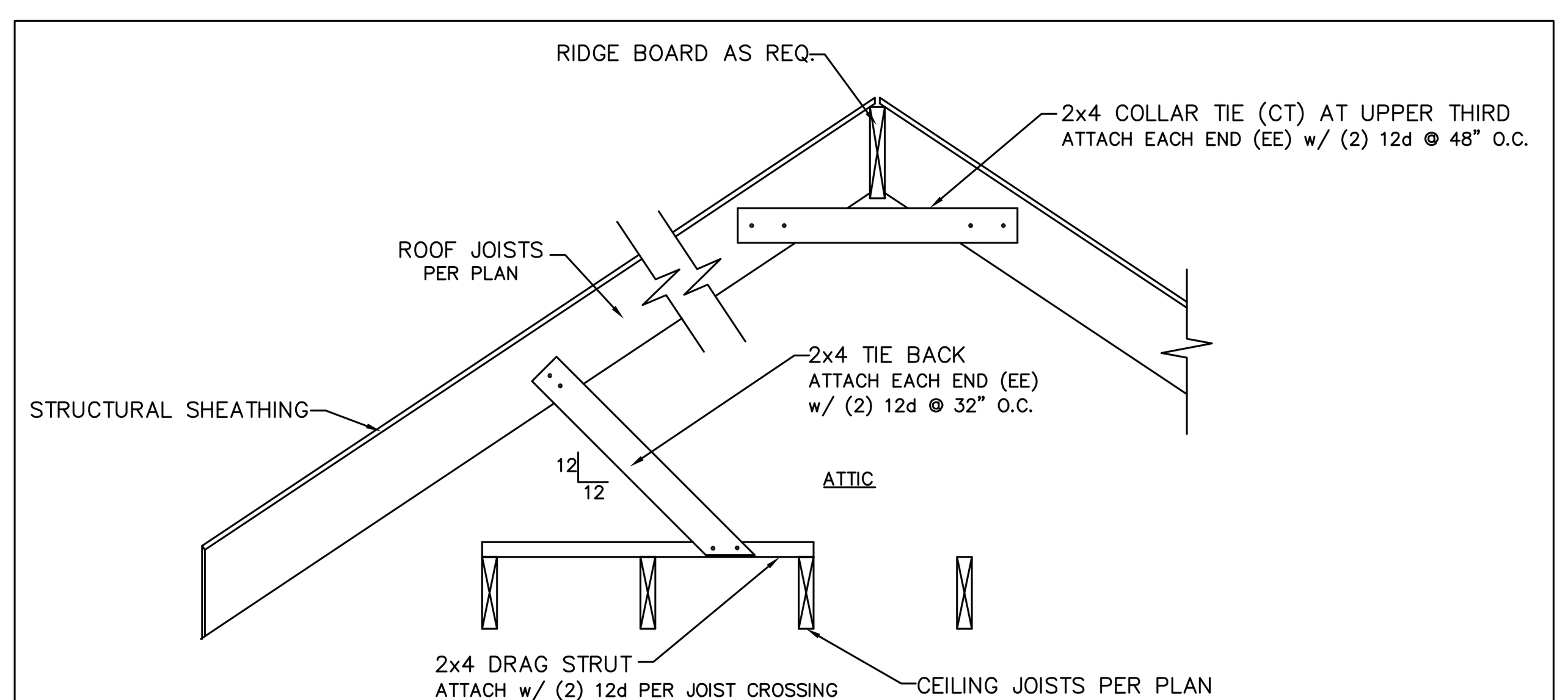
* BASEMENT WOOD COLUMN SLAB ATTACHMENT
NO SCALE



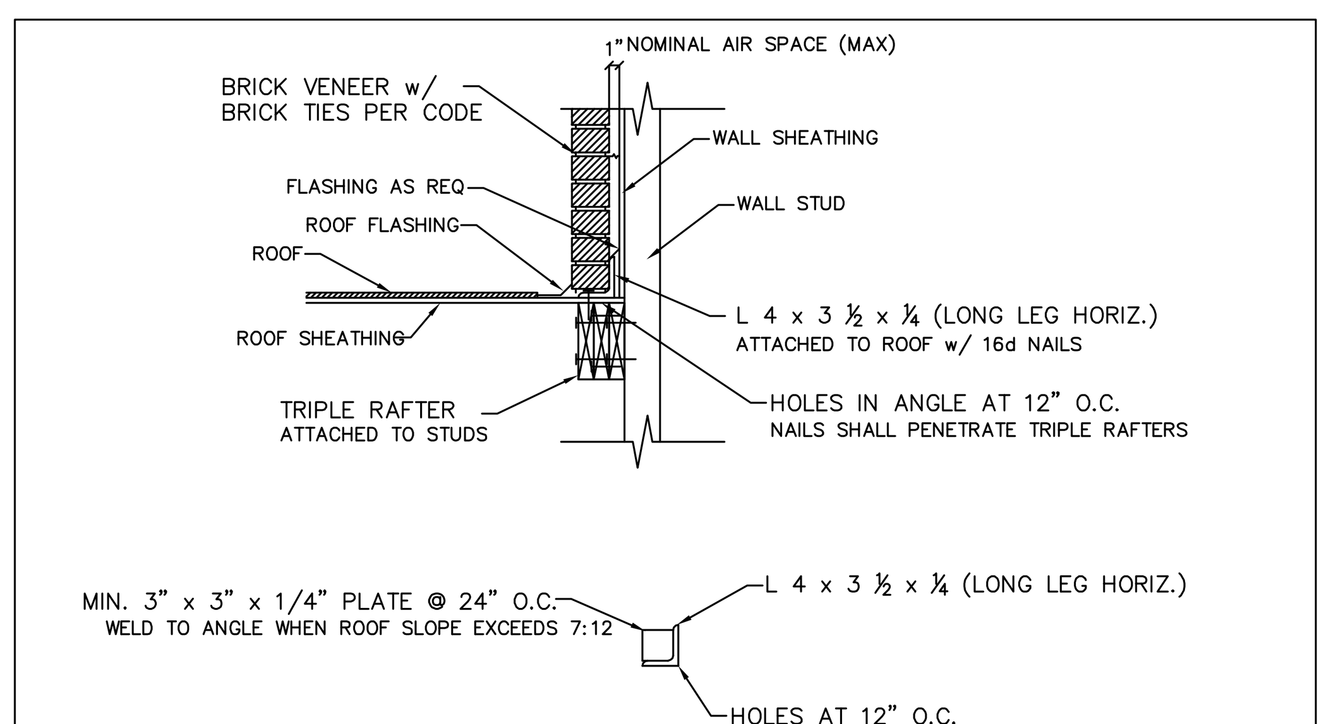
* WALL BRACING DETAIL 602.10.3(4)b
NO SCALE



* TYPICAL WINDOW STUD POCKET DETAIL
NO SCALE



* RAFTER TIE BACK DETAIL
NO SCALE — CJ PERPENDICULAR TO RAFTERS

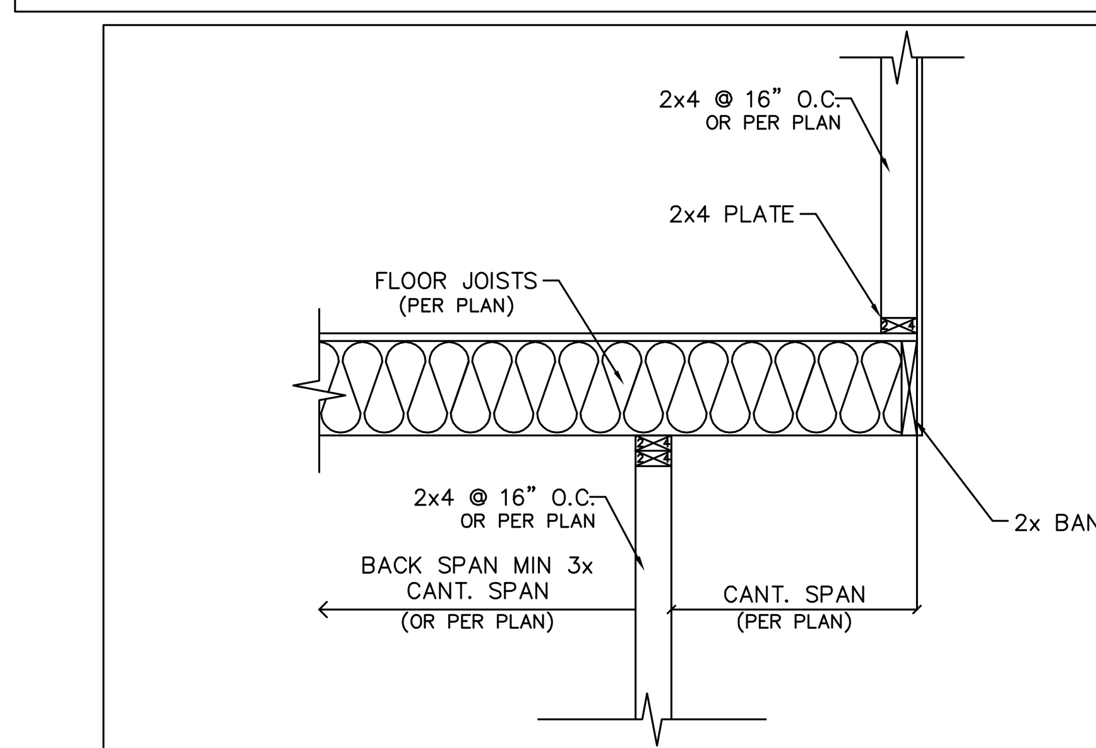


ALLOWABLE SPANS FOR LINTELS SUPPORTING MASONRY VENEER

SIZE OF ANGLE[1,3]	MAXIMUM SPAN[2,4]
L 3 ½ x 3 ½ x ¼	6'-0"
L 5 x 3 ½ x 5/16	10'-0"

1. LONG LEG OF THE ANGLE SHALL BE PLACED IN A VERTICAL POSITION.
2. SPANS OVER 4'-0" SHALL BE SHORED UNTIL CURED.
3. STEEL MEMBERS INDICATED ARE ADEQUATE TYPICAL EXAMPLES. OTHER STEEL MEMBERS INCLUDING LIGHT GAGE STEEL MEETING STRUCTURAL DESIGN REQUIREMENTS MAY BE USED.
4. SPANS OVER 10'-0" SHALL BE DESIGNED IN ACCORDANCE WITH APPROVED STANDARDS.

* MASONRY VENEER SUPPORT FIG 703.7.2.2
NO SCALE



* CANTILEVER FLOOR JOIST DETAIL
NO SCALE

*Engineers seal does not include construction means, methods, techniques, sequences, procedures or safety precaution.
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Client: STANCIL BUILDERS, INC.
Plan: DK 1697

STANDARD DETAILS

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Scale: NOT TO SCALE

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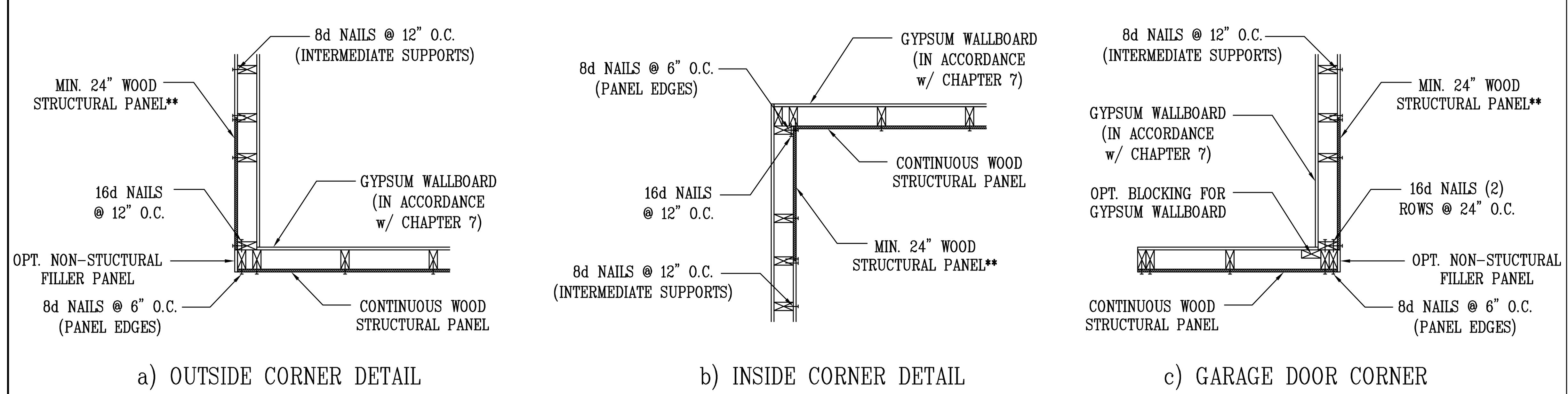
of 3

FILENAME: Z:_RESIDENTIAL ENGINEERING\2018 STRUCTURAL PROJECTS\1801-010027 - STANCIL BUILDERS - PLAN DK 1697\2-13-18\TE&D DETAILS.DWG SAVED BY: SEAN LAST PLOT DATE:2/15/2018 2:40 PM



** IN LIEU OF THE 24" (MIN.) CORNER RETURN, A HOLD-DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.

B1: TYPICAL EXTERIOR CORNER FRAMING FOR CONTINUOUS SHEATHING

NO SCALE

STRUCTURAL SHEATHING NOTES

1) DESIGNED FOR SEISMIC ZONE A–C AND WIND SPEEDS OF 100 MPH OR LESS.
2) WALLS SHALL BE BRACED IN ACCORDANCE WITH SECTION R602.10 OF THE 2012 IRC.
3) BRACING REQUIREMENTS SHALL BE PER TABLE R602.10.3(1).
4) REFER TO SECTION R602.10.8 & R602.10.9 FOR REQUIRED BRACED WALL PANEL (BWP) CONNECTION & SUPPORT.

   ⟨1⟩ REFERENCE FIGURE R602.10.9 OF THE 2012 IRC.

5) INTERIOR BRACED WALL PANELS (BWP) INDICATED SHALL BE SHEATHED IN ACCORDANCE WITH THE GB METHOD OR WSP METHOD AS PRESCRIBED IN SECTION R602.10.4 (UNO)

   ⟨2⟩ 1/2" GYPSUM BOARD (GB) MINIMUM LENGTH OF 8'–0", 4'–0" IF BOTH SIDES ARE SHEATHED. SECURE w/ 5d COOLER NAILS (OR EQUAL PER TABLE R702.3.5) SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C. AT INTERMEDIATE SUPPORTS

   ⟨3⟩ 3/8" WOOD STRUCTURAL PANEL (WSP) SECURE w/ 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS

6) EXTERIOR BRACED WALL PANELS (BWP) SHALL BE CONSTRUCTED IN ACCORDANCE WITH CS–WSP METHOD AS PRESCRIBED IN SECTION R602.10.4.2 (UNO)
7) ALL SHEATHABLE SURFACES OF EXTERIOR WALLS (INCLUDING AREAS ABOVE AND BELOW OPENINGS AND GABLE END WALLS) SHALL BE CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANEL (WSP) SHEATHING WITH A MINIMUM THICKNESS OF 3/8". SHEATHING SHALL BE SECURED WITH MINIMUM 6d COMMON NAILS SPACED AT 6" O.C. AT PANEL EDGES AND SPACED AT 12" O.C. AT INTERMEDIATE SUPPORTS.
8) LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CS–WSP METHOD SHALL BE IN ACCORDANCE WITH TABLE R602.10.5

   ⟨4⟩ SHEATH INTERIOR & EXTERIOR

9) FOR CS–WSP METHOD, A MINIMUM 24" BRACED WALL PANEL CORNER RETURN SHALL BE PROVIDED AT BOTH ENDS OF A BRACED WALL LINE IN ACCORDANCE WITH FIGURE R602.10.7. IN LIEU OF A CORNER RETURN, A HOLD–DOWN DEVICE WITH A MINIMUM UPLIFT DESIGN VALUE OF 800# SHALL BE FASTENED TO THE CORNER STUD AND TO THE FOUNDATION OR FRAMING BELOW.

   ⟨5⟩ MINIMUM 800# HOLD–DOWN DEVICE

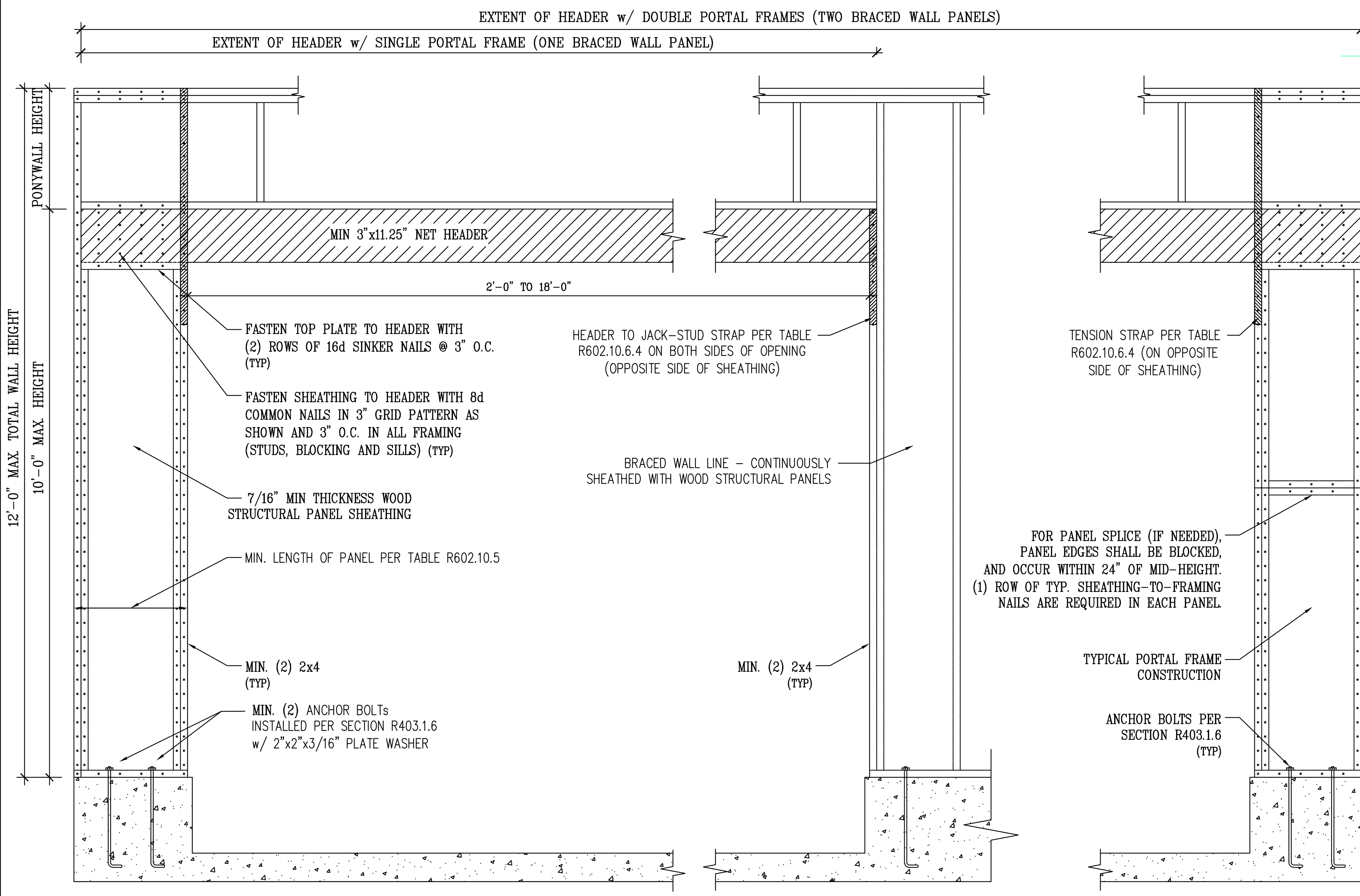
LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CONTINUOUS SHEATHING [a] (INCHES)

METHOD	ADJACENT CLEAR OPENING HEIGHT (INCHES)	WALL HEIGHT (FEET)				
		8	9	10	11	12
CS–WSP	64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	32	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	--	44	40	38	38
	104	--	49	43	40	39
	108	--	54	46	43	41
	112	--	--	50	45	43
	116	--	--	55	48	45
	120	--	--	60	42	48
	124	--	--	--	56	51
	128	--	--	--	61	54
	132	--	--	--	66	58
CS–G	≤ 120	24	27	30	33	36
CS–PF	≤ 120	16	18	20	22 [e]	24 [e]

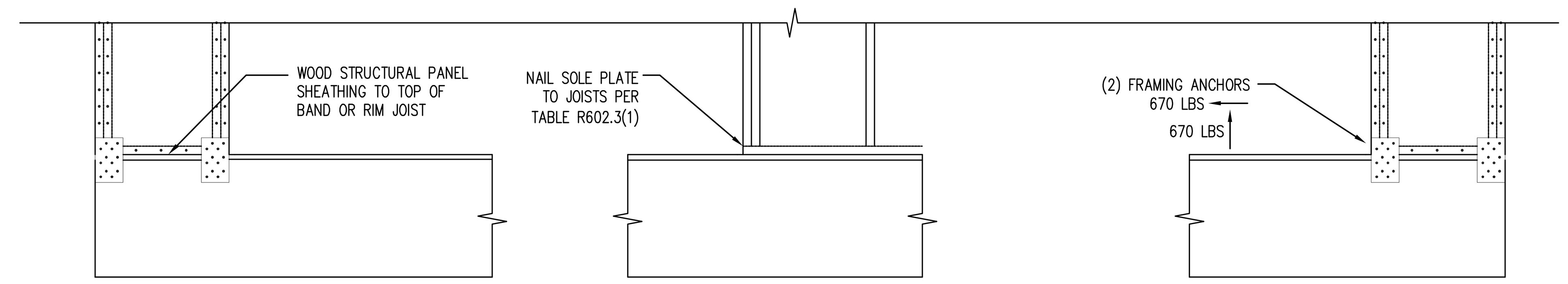
FOR SI: 1 INCH = 25.4 MILLIMETERS, 1 FOOT = 304.8 MILLIMETERS.
a. INTERPOLATION SHALL BE PERMITTED.
e. MAXIMUM OPENING HEIGHT FOR CS–PF IS 10 FEET IN ACCORDANCE WITH FIGURE R602.10.6.4, BUT WALL HEIGHT MAY BE INCREASED TO 12 FEET WITH PONY WALL.

B3: LENGTH REQUIREMENTS FOR BRACED WALL PANELS

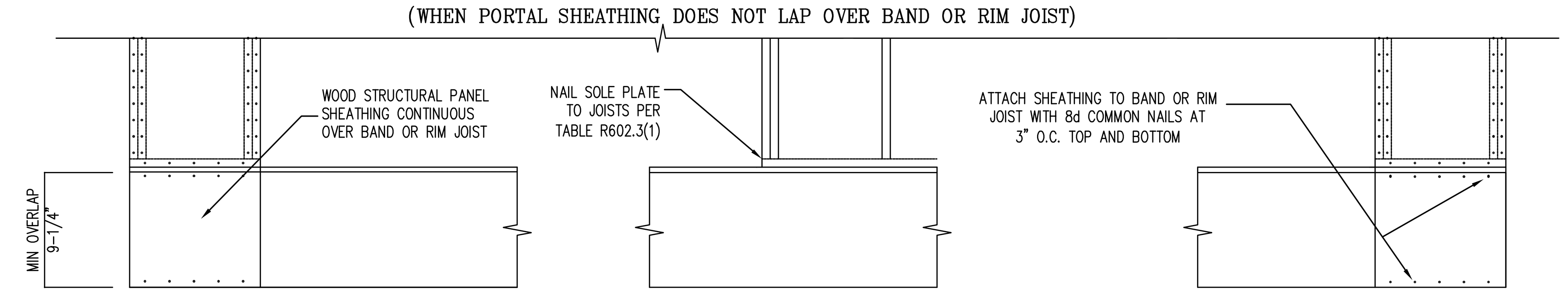
w/ CONTINUOUS SHEATHING – TABLE R602.10.5 – NO SCALE



OVER CONCRETE OR MASONRY BLOCK FOUNDATION



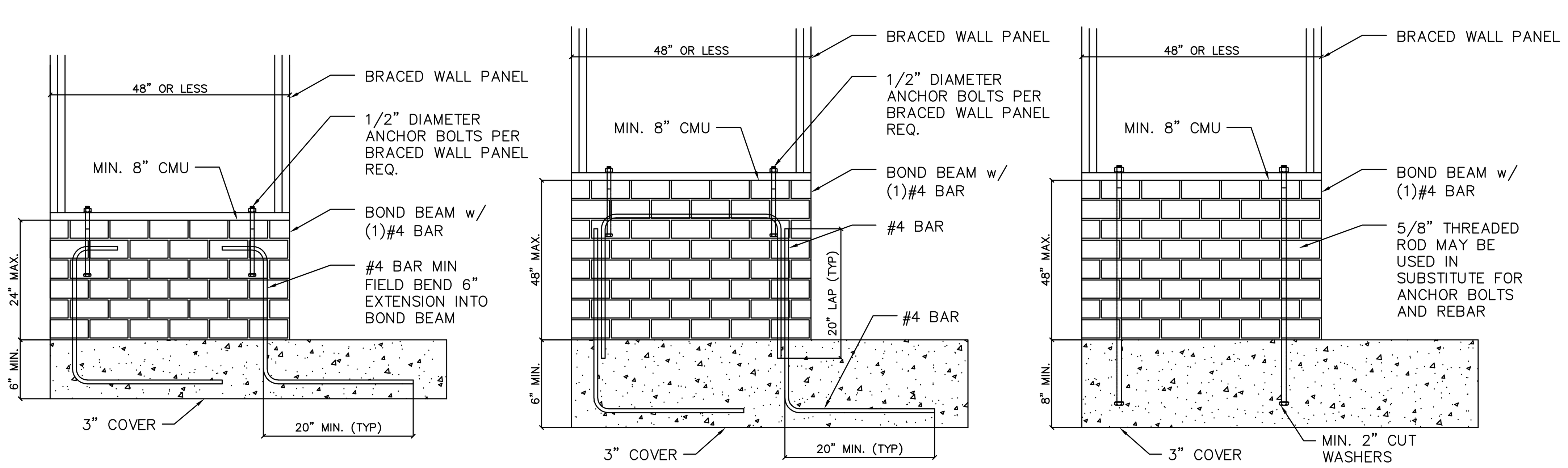
OVER RAISED WOOD FLOOR – FRAMING ANCHOR OPTION
(WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST)



OVER RAISED WOOD FLOOR – OVERLAP OPTION
(WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM JOIST)

B2: METHOD CS–PF: CONTINUOUSLY SHEATHED PORTAL FRAME

FIGURE R602.10.6.4



B5: MASONRY STEM WALL SUPPORTING BRACED WALL PANELS

FIGURE R602.10.9 OF THE IRC
NOTE: GROUT BOND BEAMS AND ALL CELLS WHICH CONTAIN REBAR, THREADED RODS AND ANCHOR BOLTS

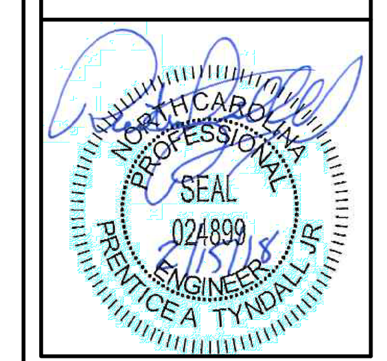
REQUIRED BRACED WALL PANEL CONNECTIONS

METHOD	MATERIAL	MIN. THICKNESS	REQUIRED CONNECTION	
			@ PANEL EDGES	@ INTERMEDIATE SUPPORTS
CS–WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.
GB	GYPSUM BOARD	1/2"	5d COOLER NAIL** @ 7" O.C.	5d COOLER NAIL** @ 7" O.C.
WSP	WOOD STRUCTURAL PANEL	3/8"	6d COMMON NAILS @ 6" O.C.	6d COMMON NAILS @ 12" O.C.

**OR EQUIVALENT PER TABLE R702.3.5

B4: BRACE WALL PANEL CONNECTIONS

NO SCALE



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Client: STANCIL BUILDERS, INC.
Plan: DK 1697

SHEATHING DETAILS

Project #: 1801-010027
Date: 02/13/18
Drawn/Design By: PSE
DWG. Checked By: PTII
Scale: NOT TO SCALE

REVISIONS

No.	Date:	Remarks
1		
2		
3		
4		

Sheet Number
D3
of 3

FILENAME: Z:_RESIDENTIAL ENGINEERING\2018 STRUCTURAL PROJECTS\1801-010027 - STANCIL BUILDERS - PLAN DK 1697\2-13-18\TE&D DETAILS.DWG SAVED BY: SEAN LAST PLOT DATE:2/15/2018 2:40 PM