

**SOUTH  
DESIGNS**  
P.O. Box 688  
Wake Forest, NC 27588  
(O) 919-556-2226  
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www.southdesigns.com

# THE "Winston" PLAN NO. 1441

DESIGN LOADS	LIVE LOAD (PSF)	DEAD LOAD (PSF)
TABLE R301.4	40	10
DWELLING UNITS	30	10
SLEEPING ROOMS	20	10
ATTICS WITH STORAGE	20	10
ATTICS WITHOUT STORAGE	20	10
ROOF SNOW	20	10
STAIRS	40	10
DECKS	40	10
EXTERIOR BALCONIES	60	10
PASSENGER VEHICLE GARAGES	50	-
FIRE ESCAPES	40	10
GUARDRAILS AND HANDRAILS	200	-

- MATERIALS**
- FRAMING LUMBER SHALL BE #2 SPRUCE PINE FIR (SPF) WITH THE FOLLOWING DESIGN PROPERTIES:  
F<sub>b</sub> = 875 PSI F<sub>v</sub> = 70 PSI E = 1,4E6 PSI
  - FRAMING LUMBER EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE #2 SOUTHERN YELLOW PINE (SYP) TREATED IN ACCORDANCE WITH AWPAC C22 WITH THE FOLLOWING DESIGN PROPERTIES:  
F<sub>b</sub> = 1050 PSI F<sub>v</sub> = 95 PSI E = 1,8E6 PSI
  - ENGINEERED WOOD BEAMS SHALL BE LAMINATED VENEER LUMBER (LVL) OR PARALLEL STRAND LUMBER (PSL) WITH THE FOLLOWING MINIMUM DESIGN PROPERTIES:  
F<sub>b</sub> = 2900 PSI F<sub>v</sub> = 285 PSI E = 1,9E5 PSI
  - STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 MINIMUM GRADE.
  - BOLTS SHALL CONFORM TO A307 MINIMUM GRADE.
  - REBAR SHALL BE DEFORMED STEEL CONFORMING TO ASTM A615 GRADE 60.
  - POURED CONCRETE SHALL HAVE A MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. MATERIALS USED TO PRODUCE CONCRETE SHALL COMPLY WITH THE APPLICABLE STANDARDS LISTED IN ACI 318 OR ASTM C 1157.
  - CONCRETE LOCATED PER TABLE R402.2 SHALL BE AIR ENTRAINED WITH THE TOTAL AIR CONTENT NOT LESS THAN 5 PERCENT OR MORE THAN 7 PERCENT.
  - MASONRY UNITS SHALL CONFORM TO ACI 530/ASCE 5/TMS 402 AND MORTAR SHALL COMPLY WITH ASTM C 270.
  - ALLOWABLE SOIL BEARING PRESSURE 2000 PSF.

**GENERAL**

ENGINEER'S SEAL APPLIES TO STRUCTURAL COMPONENTS ONLY AND DOES NOT CERTIFY ARCHITECTURAL LAYOUT OR DIMENSIONAL ACCURACY. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS OR ANY DEVIATION FROM THE PLANS.

ALL CONSTRUCTION, WORKMANSHIP, MATERIAL QUALITY AND SELECTION SHALL BE IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE - RESIDENTIAL CODE 2018 EDITION FROM THE INTERNATIONAL RESIDENTIAL CODE 2018 (IRC), AND LOCAL CODES AND REGULATIONS. DIMENSIONS SHALL GOVERN OVER SCALE AND CODE SHALL GOVERN OVER DIMENSIONS.

**ADDITIONAL LOADS**

FIGURE R301.2(4) - ULTIMATE DESIGN WIND SPEEDS 115-120 MPH

FIGURE R301.2(2) - SEISMIC DESIGN CATEGORY B

TABLE R301.2(4) - DESIGN POSITIVE AND NEGATIVE PRESSURE FOR DOORS AND WINDOW FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF

TABLE R301.2(2) - COMPONENT AND CLADDING LOADS FOR A MEAN ROOF HEIGHT OF 30 FEET OR LESS LOCATED IN EXPOSURE B

ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE DETERMINED BASED ON ROOF PITCHES AS FOLLOWS:  
45.4 PSF FOR 0:12 TO 2:25:12, 34.8 PSF FOR 2:25:12 TO 7:12 AND 21 PSF FOR 7:12 TO 12:12  
WALL CLADDING IS DESIGNED FOR A 24.1 PSF POSITIVE AND NEGATIVE PRESSURE

**ENERGY COMPLIANCE:**

TABLE N1102.1 - REFER TO TABLE N1101.1 TO DETERMINE THE CLIMATE ZONE BY COUNTY AND REFER TO TABLE N1102.1 FOR R VALUE INSULATION REQUIREMENTS LISTED BY ZONE.

TABLE N1102.1 - ZONE 7 - MAX. GLAZING U FACTOR: 0.40, MIN. INSULATION R VALUES: CEILING R-30, WALLS R-13, FLOORS R-19, BASEMENT WALLS R-7, SLAB PERIMETER R-0, CRAWL SPACE WALLS R-7

TABLE N1102.1 - ZONE 8 - MAX. GLAZING U FACTOR: 0.40, MIN. INSULATION R VALUES: CEILING R-30, WALLS R-13, FLOORS R-19, BASEMENT WALLS R-8, SLAB PERIMETER R-5 (2 FT DEEP), CRAWL SPACE WALLS R-10

**CONSTRUCTION**

- STEEL FLITCH BEAMS SHALL BE FASTENED TOGETHER WITH 1/2" DIAMETER BOLTS WITH WASHERS PLACED UNDER THE THREADED END OF THE BOLT. BOLTS SHALL BE SPACED AT MAXIMUM 24" o.c. STAGGERED TOP AND BOTTOM OF BEAM WITH A MINIMUM 2" EDGE DISTANCE. TWO BOLTS SHALL BE LOCATED AT 6" FROM EACH END OF FLITCH BEAM.
- STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" AND FULL FLANGE WIDTH. BEAMS MUST BE ANCHORED AT EACH END WITH A MINIMUM OF FOUR 1/4" LAG BOLTS OR TWO 1/2" x 4" LAG SCREWS.
- ENGINEERED WOOD BEAMS SHALL BE INSTALLED WITH ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.
- ALL BEAMS SHALL BE CONTINUOUSLY SUPPORTED LATERALLY AND SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED WITH A MINIMUM OF THREE STUDS.
- SOLID BLOCKING SHALL BE PROVIDED AT ALL POINT LOADS TO TRANSFER LOADS THROUGH FLOOR LEVELS. COLUMNS SHALL BE CONTINUOUS TO THE FOUNDATION OR TO OTHER STRUCTURAL ELEMENTS.
- ENGINEERED WOOD FLOOR SYSTEMS AND ROOF TRUSS SYSTEMS SHALL BE PROVIDED FOR REVIEW AND COORDINATED WITH THE ENGINEER OF RECORD. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
- WALL BRACING REQUIREMENTS SHALL BE IN ACCORDANCE WITH SECTION R602.10 OF THE NORTH CAROLINA RESIDENTIAL CODE.
- BRICK LINTELS SHALL BE 3 1/2 x 3 1/2 x 1/4 STEEL ANGLE FOR UP TO 6' MAXIMUM SPAN AND 6 x 4 x 5/16 FOR SPANS GREATER THAN 6'.
- BRICK LINTELS AT SLOPED AREAS SHALL BE 4 x 3 1/2 x 1/4 STEEL ANGLE WITH 1/4" HOLES IN 3/16" HOLES IN 4" ANGLE LEG AT 12" o.c. TO DOUBLE RAFTER. WHEN THE SLOPE EXCEEDS 4:12 A MINIMUM OF 3 x 3/4 PLATES SHALL BE WELDED AT 24" o.c. ALONG THE STEEL ANGLE.

MEAN ROOF HEIGHT  
1 STORY = 11'-0"  
CLADDING POSITIVE & NEGATIVE PRESSURE = 21 PSF

1 1/2 STORY = 19'-0"  
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

2 STORY = 19'-0"  
CLADDING POSITIVE & NEGATIVE PRESSURE = 34.8 PSF

ANCHOR BOLTS  
INSTALL ANCHOR BOLTS, NUTS, AND WASHERS PER CODE AT ALL EXTERIOR WALL TREATED PLATES AND AT INTERIOR BEARING WALL TREATED PLATES ON SLAB FOUNDATIONS, TO BE A MINIMUM OF 6" O.C. AND WITHIN 12" FROM THE ENDS OF EACH PLATE.

DESIGN PRESSURES  
MINIMUM RATING: 25 PSF

MI WINDOWS 3500 SERIES  
LOW E-GLASS WINDOWS

**ABBREVIATIONS**

CONC	CONCRETE
CONT	CONTINUOUS
DBL	DOUBLE
DJ	DOUBLE JOIST
DSP	DOUBLE STUD POCKET
EA	EACH
FL PT	FLAT PLATE
FTG	FOOTING
MSR	HANGER
LVL	LAMINATED VENEER LUMBER
NTS	NOT TO SCALE
OC	ON CENTER
PSL	PARALLEL STRAND LUMBER
PT	PRESSURE TREATED
SC	STUD COLUMN
SP	STUD POCKET
TJ	TRIPLE JOIST
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

**SQUARE FOOTAGE**

FIRST FLOOR	611 S.F.
SECOND FLOOR	810 S.F.
<b>TOTAL HEATED AREA</b>	<b>1441 S.F.</b>
OVERALL WIDTH	24'-0"
OVERALL DEPTH	37'-4"

**REVISION LOG**

Rev	Description	Drawn By	Date	Sheets Affected	Brochure Required	Engineering Required
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						

**TABLE N1102.1 CLIMATE ZONES 3-5**

CLIMATE ZONE	FENESTRATION U-FACTOR*	SKYLIGHT† U-FACTOR	GLAZED FENESTRATION SHGC**	CEILING R-VALUE‡	WOOD FRAME WALL R-VALUE§	MASS WALL R-VALUE¶	FLOOR R-VALUE	BASEMENT†† R-VALUE	SLAB R-VALUE & DEPTH	CRAWL SPACE††† WALL R-VALUE
3	0.35	0.55	0.30	30 or 20	15 or 13 + 2"	5/13 or 5/16	19	5/17	0	5/13
4	0.35	0.55	0.30	30 or 20	15 or 13 + 2"	5/13 or 5/16	19	10/15	10	10/15
5	0.35	0.55	NR	30 or 20	15 or 13 + 2" or 15 + 3"	13/17 or 13/13.5	30	10/15	10	10/15

FIG. 501 - 14000-304-8-000

\* R-Values are minimum. U-Values are maximum. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.

† Skylight U-Value shall not be greater than 0.55. The U-Value shall apply to all glass fenestration.

\*\* SHGC shall be 0.30 for glazing on the exterior side of the house and 0.35 for glazing on the interior side of the house.

‡ R-Value shall be 30 for ceiling in the main living area and 20 for ceiling in the attic.

§ R-Value shall be 15 for exterior walls and 13 for interior walls.

¶ R-Value shall be 5/13 for exterior walls and 5/16 for interior walls.

\*\* R-Value shall be 13/17 for exterior walls and 13/13.5 for interior walls.

†† R-Value shall be 5/17 for exterior walls and 10/15 for interior walls.

††† R-Value shall be 5/13 for exterior walls and 10/15 for interior walls.

**ATTIC VENT SCHEDULE**

ELEVATION

VENT TYPE	MAIN HOUSE		SQ. FT. SUPPLIED	PERCENT OF TOTAL SUPPLIED	AT / NEAR RIDGE		AT / NEAR EAVE	
	SQ. FT. REQUIRED RANGE	3093			POT LARGE (SQ. FT. EACH)	POT SMALL (SQ. FT. EACH)	RIDGE VENT (SQ. FT. PER LF)	EAVE VENT (SQ. IN. EACH)
RIDGE VENT	4.12 - 5.16	6.63	39.85	0	0	53.00		
SOFFIT VENTS	6.19 - 5.16	10.00	60.15				0	160.00
<b>TOTAL (MIN)</b>	<b>10.31</b>	<b>10.31</b>	<b>16.63</b>	<b>100.00</b>	POT VENTS MAY BE REQUIRED IF THERE IS INSUFFICIENT RIDGE AVAILABLE			

\* SCHEDULE HAS BEEN CALCULATED ASSUMING EAVE VENTILATION AT 50-60% OF TOTAL AND RIDGE AT 40-50% OF TOTAL REQUIRED VENTILATION

Drawn By: **RWB**

Checked By: **RWB**

Date: **5-24-2023**

Revision No.	Revision Date

**Designer Signature**

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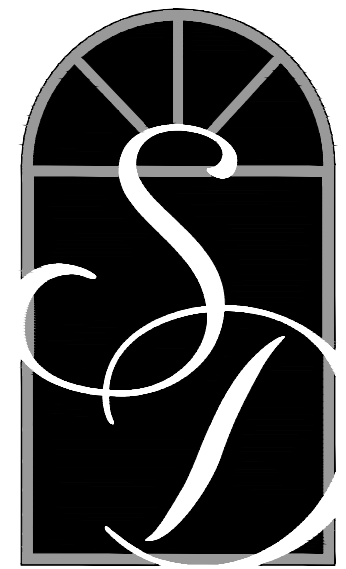
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Client:

Title:  
**COVER SHEET**

Plan No.  
**CS-1**

Sheet No. \_\_\_\_\_ Of \_\_\_\_\_



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Drawn By: **RWB**

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Client:

Title:

**FIRST FLOOR  
PLAN**

Plan No.

**A-1**

Sheet No. Of

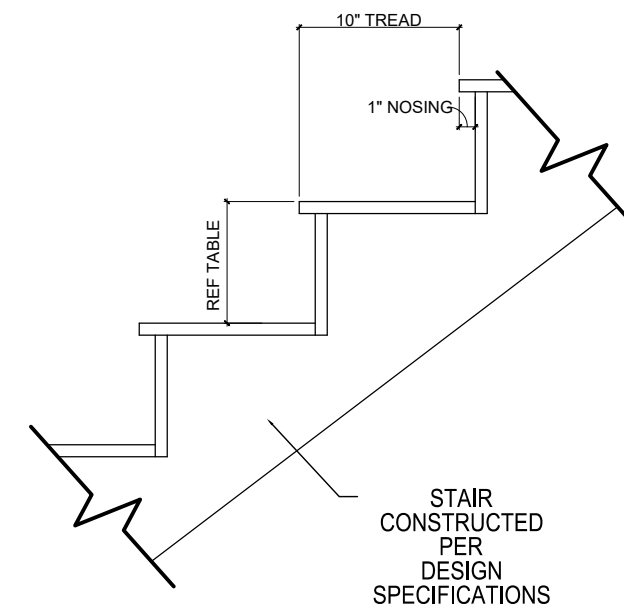


PLATE HEIGHT	RISER HEIGHTS PER STAIR CONFIGURATION		
	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM
8'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"

**2 TYPICAL STAIR DETIAL**  
SCALE: 3/8" = 1'-0"

**GENERAL NOTES**

**WALLS:**

ALL WALLS ARE DRAWN 4" THICK U.N.O. ANGLED WALL ARE DRAWN @45° U.N.O.

**SMOKE DETECTORS:**

LOCATION AND NUMBER OF DETECTORS SHALL CONFORM TO NEC.

**EGRESS:**

ALL BEDROOMS MUST HAVE AT LEAST ONE WINDOW WHICH CONFORMS TO R-310 OF THE N.C. BLDG. CODE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY CHOSEN WINDOWS MEET EGRESS REQUIREMENTS AS MANUFACTURERS VARY.

**ATTIC ACCESS:**

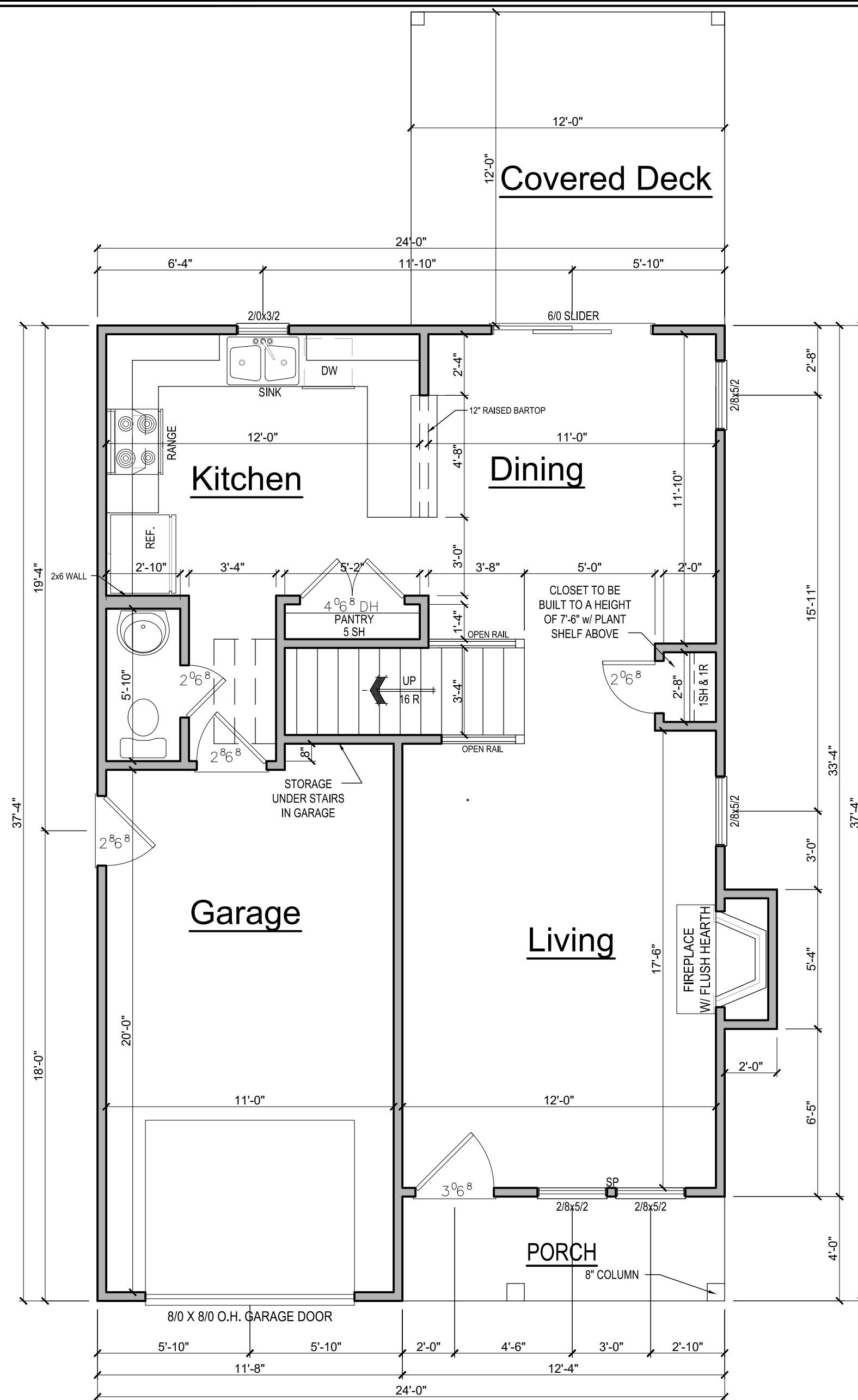
MIN. ATTIC ACCESS SHALL BE PROVIDED BY BUILDER AND LOCATED ON SITE.

**WALL/CEILING HGT.**

WALL AND CEILING HEIGHT NOTES ARE BASED ON NOMINAL WALL SIZE. KNEE WALL HEIGHT LABELS FOR WALLS UNDER RAFTERS ASSUME AN EXTRA 2" FOR FURRING (IN HEATED SPACES) FOR INSULATION. THE WALL HEIGHT REFERS TO THE HGT. FROM THE FLOOR DECKING TO THE BOTTOM OF THE FURRING.

NOTE:  
HANDRAILS SHALL BE PROVIDE ON AT LEAST ONE SIDE OF STAIR TREADS WITH 4, OR MORE RISERS. VERTICAL HT. OF HANDRAILS SHALL BE NOT LESS THAN 34" AND NO MORE THAN 38" PER NC 2018 RESIDENTIAL CODE SEC. R311.7.8

GUARDS ON ALL HANDRAILS SHALL BE PLACED SO THAT A SPHERE OF 4" CANNOT PASS THROUGH PER NC 2018 RESIDENTIAL CODE SEC. R312.1



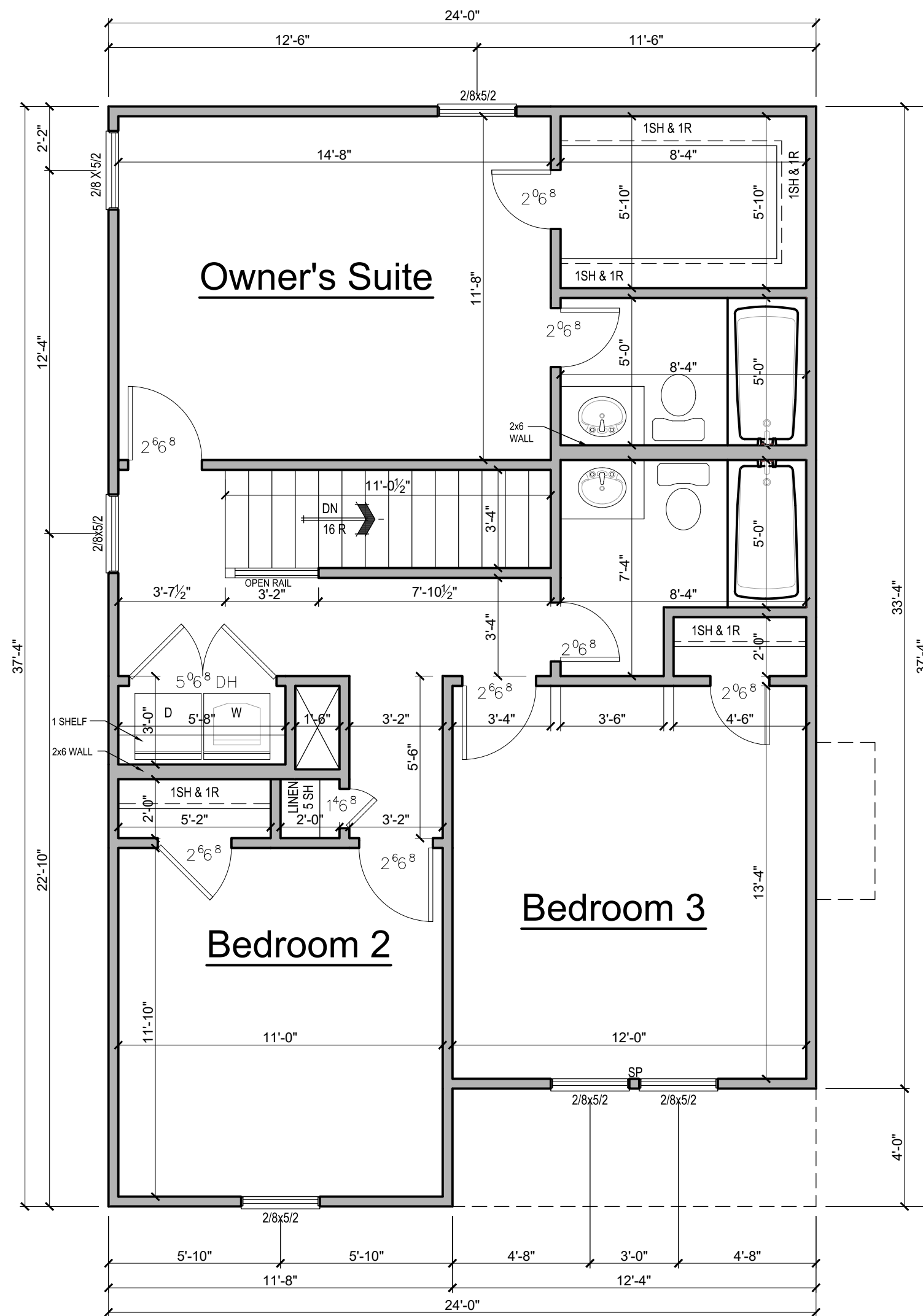
**SQUARE FOOTAGE**

FIRST FLOOR	611 S.F.
SECOND FLOOR	810 S.F.
<b>TOTAL HEATED AREA</b>	<b>1441 S.F.</b>
OVERALL WIDTH	24'-0"
OVERALL DEPTH	37'-4"



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**1 SECOND FLOOR PLAN**  
SCALE: 3/4"=1'-0"

Drawn By: RWB

Checked By: RWB

Date: 5-24-2023

Revision No.	Revision Date

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Client:

Title:

**SECOND FLOOR  
PLAN**

Plan No.

**A-2**

Sheet No.      Of



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Client:

Title:

**ELEVATIONS 'A'**

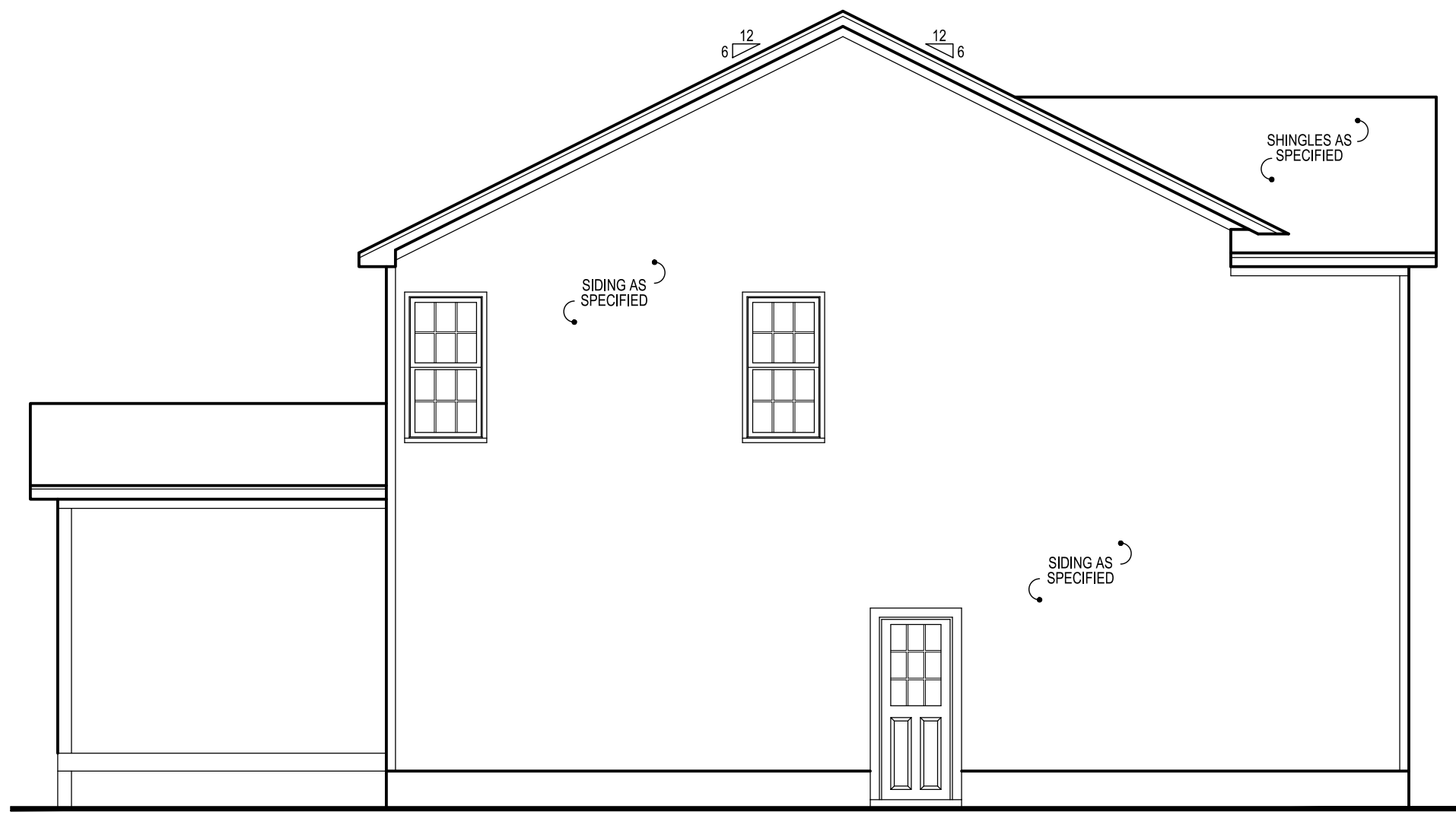
Plan No.

**A-3**

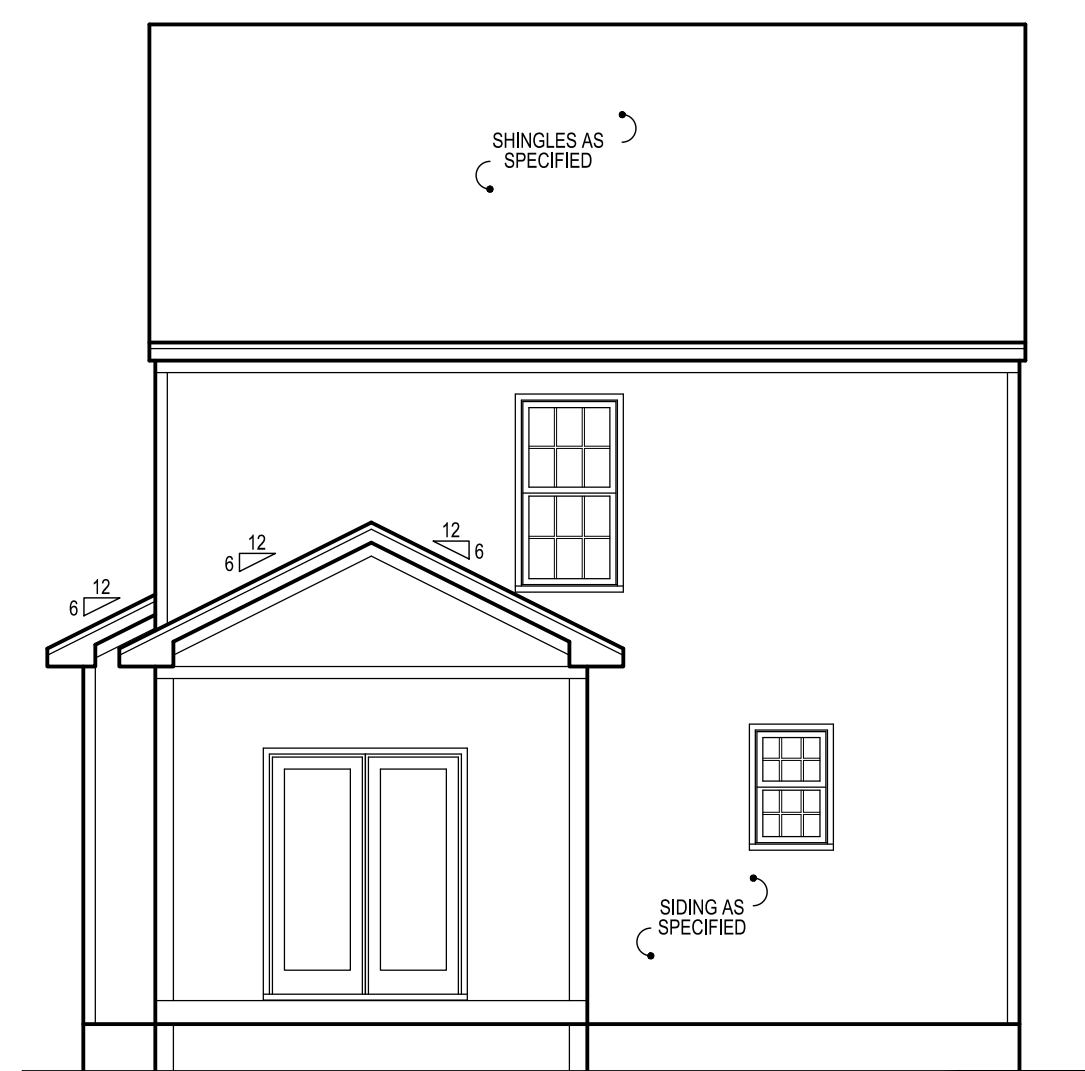
Sheet No.      Of



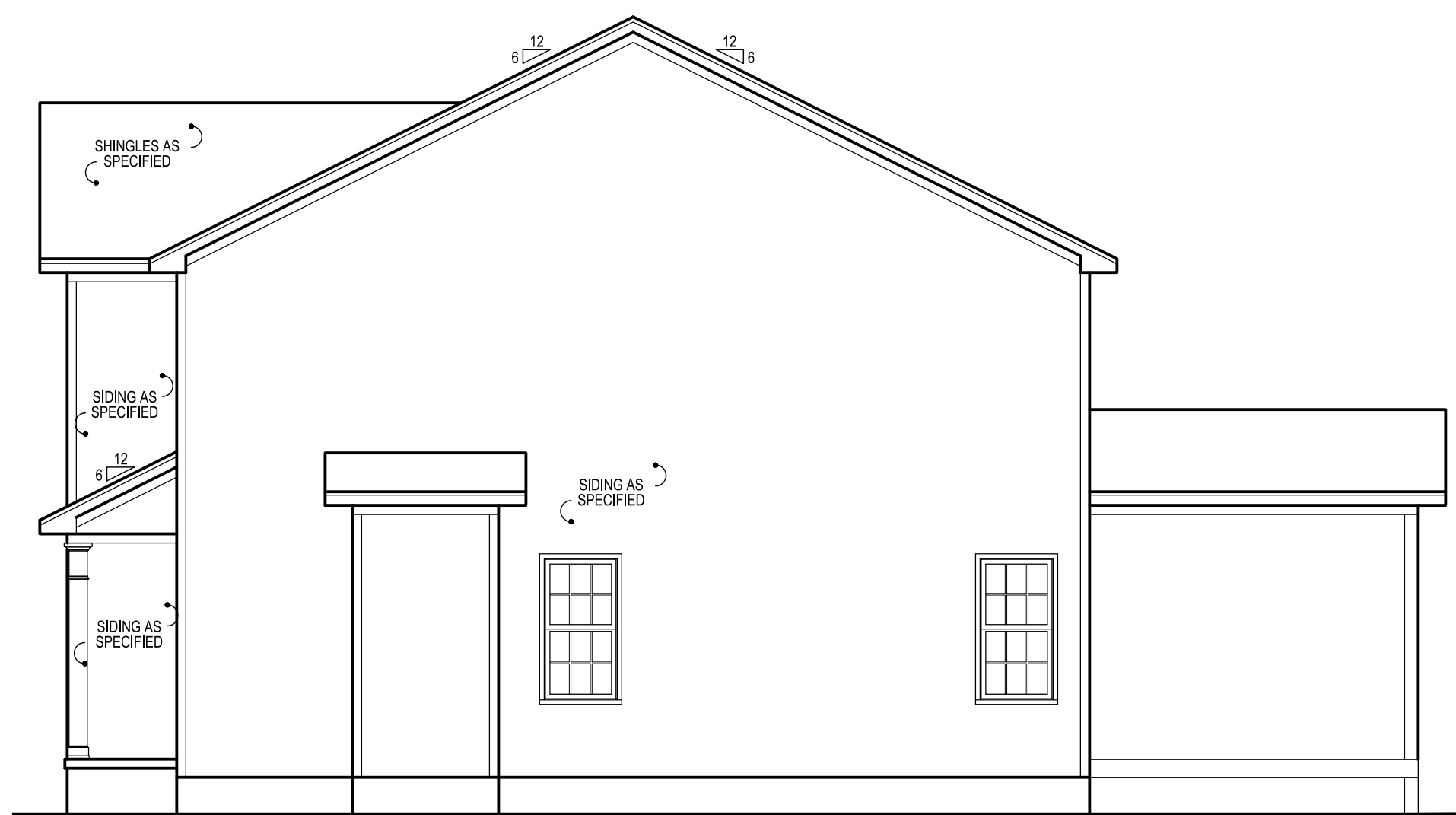
**1 FRONT ELEVATION "A"**  
SCALE: 3/16" 1'-0"



**2 LEFT SIDE ELEVATION "A"**  
SCALE: 1/8" 1'-0"

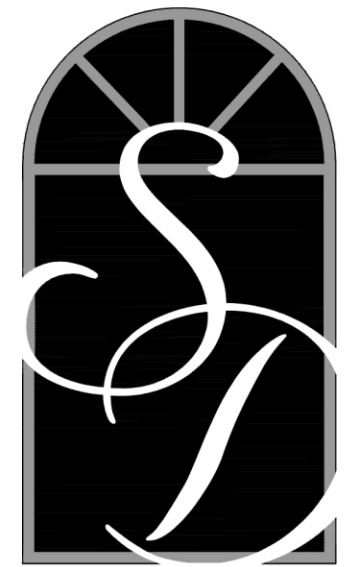


**4 REAR ELEVATION "A"**  
SCALE: 1/8" 1'-0"



**3 RIGHT SIDE ELEVATION "A"**  
SCALE: 1/8" 1'-0"





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**STRUCTURAL NOTES:**

- Framing lumber shall be SYP or #2 SPF (modulus of elasticity 1,100,000 psi, fb 950). All beams & treated lumber to be #2 SYP, E=1,600,000, fb=1100 min. Studs min.#2 or stud grade.
- Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections is the sole responsibility of the general contractor and his subs.
- Structural members fastening to conform to Table R602.3(1) and (2).
- Roof Framing Notes:
  - Dbl Hips may be spliced with a min. 6'-0" overlap at center. No valley splices
  - Use 2x10 or fir down rafters for vaulted areas
  - Attach each vaulted rafters with hurricane connectors: Simpson H-2.5, H-5 or approved equal or 6" SDWC's.
- All construction shall conform to the latest requirements of the NC State Residential Building Code - 2018 Edition, plus all local codes & regulations or 2015 IBC.
- Structural Engineer is not responsible for and will not control of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the construction work.
- Structural Engineer is not responsible for the contractor's failure to carry out the proposed construction work in accordance with the contract document.
- Use Method #3 for Structural Sheathing; "Accepted Engineer's Practice"

**FRAMING NOTES:**

- Design Loads (R301.5)
 

Rooms not for Sleeping	Live Loads (PSF)	Dead (PSF)
Sleeping Rooms	40	10
Attic w/Permanent Stairs	30	10
Attic w/o Permanent Stairs	40	10
Attic w/o Storage	20	10
Stairs	10	10
Exterior Balconies	40	10
Decks	60	10
Guardrails & Handrails	40	10
Passenger Vehicle Garages	200	10
Fire Escapes	50	10
Snow	40	10
Wind Load: (Refer to Table R301.2.4)	20	-
- Verify Zone before Construction  
Wake County 115 mph
- Wall Bracing: Braced wall panels shall be constructed according to section R602.103. The wall structural paneling shall comply with Table R602.103. The length of braced panels shall be determined by section R602.10.4. Lateral bracing shall be satisfied per method 3 by continuously sheathing walls with structural sheathing per Table 601.3. Note that any specific braced wall detail shall be installed as specified.
- All framing lumber shall be SPF#2 (Fb=875 psi) unless otherwise noted (UNO). All treated lumber shall be SYP#2 (Fb=975 psi), Plate material may be SPF#3 or SYP#3 (Fc (perp.) = 425 psi min.).
- All interior bearing headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >5'-0".
- All exterior headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >4'-6", use (2)2x8 w/ dbl. jacks for all openings >3'-0" u.n.o.
- All interior non-bearing headers to be min. (2)2x4 flat u.n.o.
- Fireblock to conform with R602.8

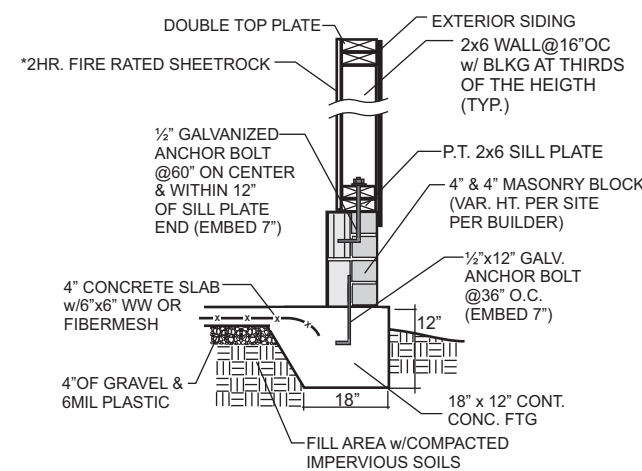
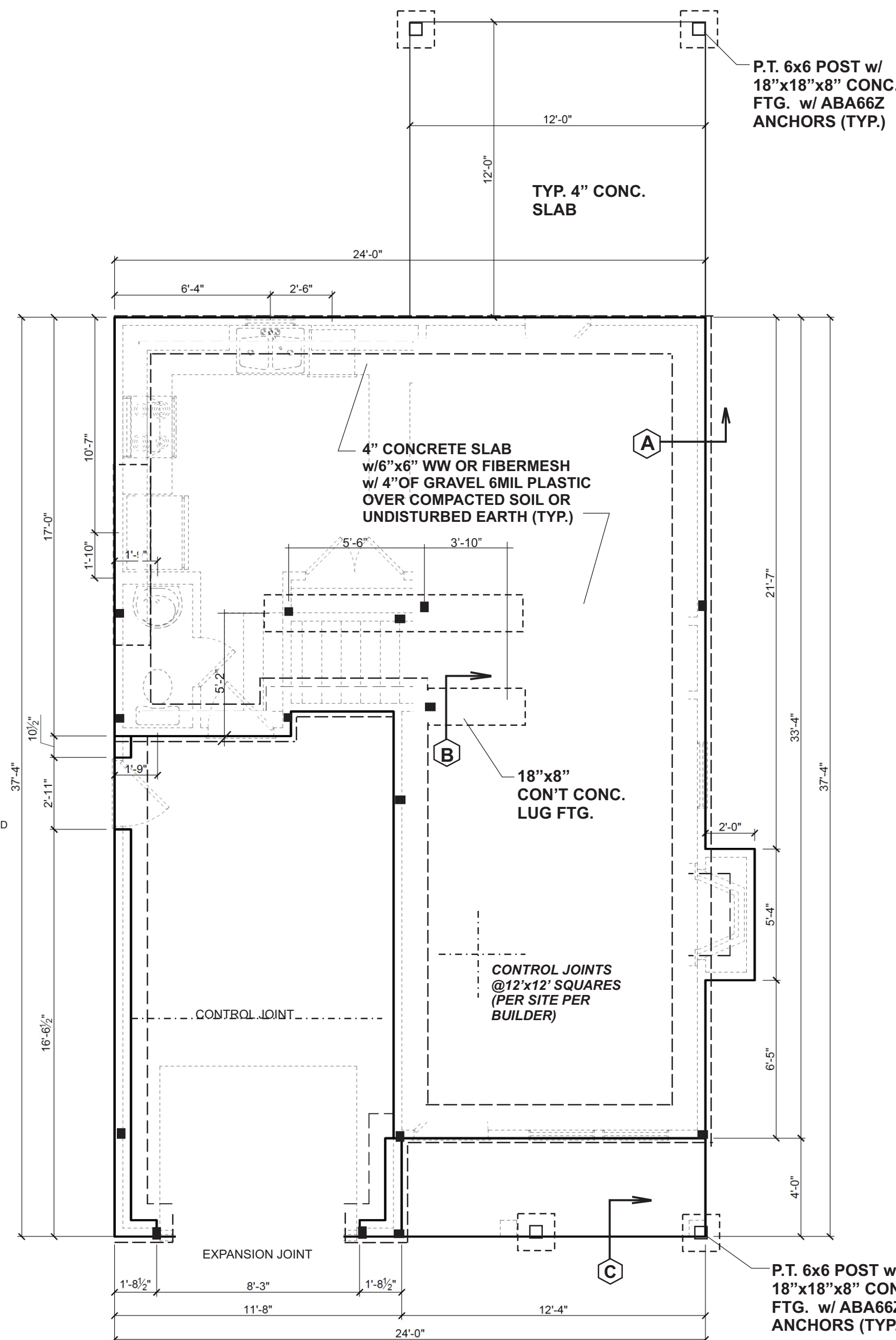
**FOUNDATION NOTES:**

- Deck posts min. 4'-0" above grade are to be knee or diagonally braced per Appendix M. fastening to house will be by nailer with 5/8" galvanized bolts @ 20" o.c. and 12d hot dipped galv. @ 42" o.c.
- Corners shall be braced with one of the approved methods as outlined in R602.10.3.
- Structural members fastening to conform to Table R602.3(1) and (2).
- Girders and piers shall bear on center 1/3 of pier and footing, respectively.
- 2018 NC State Residential Building Code apply to the construction of footings.
- Typical lug footing to be 18"x 8" deep, (UNO)
- Pressure treated wood shall be installed for exterior use.
- Hanger Schedule (Simpson hangers) for beam to beam connections (UNO)
  - (2)2x10's: LUS210-2
  - (3)2x10's: LUS210-3
  - (2)9-14 LVL's: HUS410
- Concrete shall have min. 28 day strength of 3000 psi. and max. Slump of 5 inches unless noted otherwise (UNO). Air entrained per Table 4022. All concrete shall be proportioned, mixed, handled, sampled, tested, and placed in accordance with ACI current standards. All samples for pumping shall be taken from the exit pump.
- Allowable soil bearing pressure assumed to be 2000 psf. The contractor must contact Geotechnical Engineer & the Structural Engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided adequate drainage, and shall be graded so as to drain surface water away from foundation walls

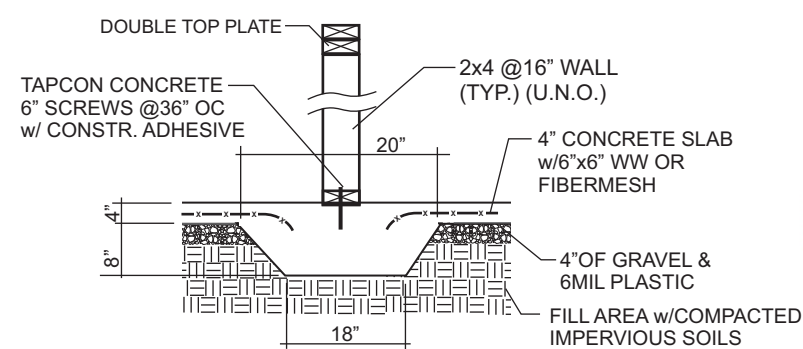
**THIS PLAN DESIGNED UNDER NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION**

HOUSE DESIGNED FOR 115 MPH, EXPOSURE B  
ANCHOR BOLTS SHALL BE MINIMUM 1/2" DIAMETER & SHALL EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6'-0" ON CENTER & WITHIN 12" OF ALL PLATE SPLICES.

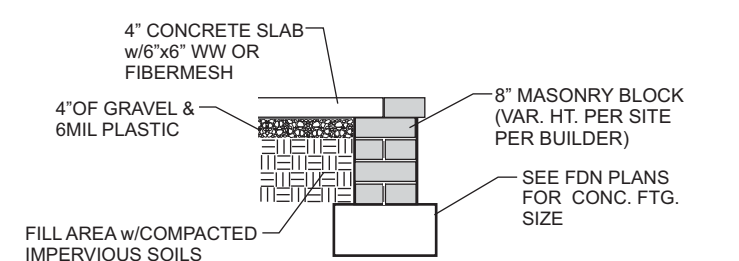
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**A SLAB FOUNDATION DETAIL**  
NOT TO SCALE (NTS)



**B LUG FOOTING DETAIL ON CONCRETE SLAB**  
NOT TO SCALE (NTS)



**C DETAIL OF FRONT PORCH WALL**  
NOT TO SCALE (NTS)



Engineered by:  
Patrick E. Teague, PE  
Date: 5/26/23  
North Carolina License # 20239

**P. E. TEAGUE, P.E., PLLC**  
2705 WATERLOO COURT  
RALEIGH, N.C. 27613  
(919)247-2572 Lic. # P0207  
PETEAGUE50@GMAIL.COM  
WWW.TEAGUEENGINEERING.COM



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

Drawn By:	RWB
Checked By:	RWB
Date:	5-24-2023
Revision No.	Revision Date

**Designer Signature**  
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Client:

Title:  
**FOUNDATION**

Plan No.  
**S1**  
PO24256RB  
Sheet No. Of



**THIS PLAN DESIGNED UNDER NORTH CAROLINA RESIDENTIAL CODE 2018 EDITION**

HOUSE DESIGNED FOR 115 MPH, EXPOSURE B  
ANCHOR BOLTS SHALL BE MINIMUM 1/2" DIAMETER & SHALL EXTEND A MINIMUM OF 7" INTO MASONRY OR CONCRETE. ANCHOR BOLTS TO BE NO MORE THAN 6'-0" ON CENTER & WITHIN 12" OF ALL PLATE SPICES.

**STRUCTURAL NOTES:**

- Framing lumber shall be SYP or #2 SPF (modulus of elasticity 1,100,000 psi, fb 950). All beams & treated lumber to be #2 SYP, E=1,600,000, fb=1100 min. Stud min.#2 or stud grade.
- Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections is the sole responsibility of the general contractor and his subs.
- Structural members fastening to conform to Table R602.3(1) and (2).
- Roof Framing Notes:
  - Dbl Hips may be spliced with a min. 6'-0" overlap at center. No valley splices
  - Use 2x10 or fir down rafters for vaulted areas
  - Attach each vaulted rafter with hurricane connectors: Simpson H-2.5, H-5 or approved equal or 6" SDWC's.
- All construction shall conform to the latest requirements of the NC State Residential Building Code - 2018 Edition, plus all local codes & regulations or 2015 IBC.
- Structural Engineer is not responsible for and will not control of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the construction work.
- Structural Engineer is not responsible for the contractor's failure to carry out the proposed construction work in accordance with the contract document.
- Use Method #3 for Structural Sheathing; "Accepted Engineer's Practice"

**FRAMING NOTES:**

- Design Loads (R301.5)
 

	Live Loads (PSF)	Dead (PSF)
Rooms not for Sleeping	40	10
Sleeping Rooms	30	10
Attic w/Permanent Stairs	40	10
Attic w/o Permanent Stairs	20	10
Attic w/o Storage	10	10
Stairs	40	-
Exterior Balconies	60	10
Decks	40	10
Guardrails & Handrails	200	-
Passenger Vehicle Garages	50	10
Fire Escapes	40	10
Snow	20	-

Wind Load: (Refer to Table R301.2.4)  
Verify Zone before Construction  
Wake County 115 mph
- Wall Bracing: Braced wall panels shall be constructed according to section R602.103. The wall structural paneling shall comply with Table R602.103. The length of braced panels shall be determined by section R602.10.4. Lateral bracing shall be satisfied per method 3 by continuously sheathing walls with structural sheathing per Table 601.3. Note that any specific braced wall detail shall be installed as specified.
- All framing lumber shall be SPF#2 (Fb=875 psi) unless otherwise noted (UNO). All treated lumber shall be SYP#2 (Fb=975 psi). Plate material may be SPF#3 or SYP#3 (Fc (perp.) = 425 psi min.).
- All exterior headers to be (2)2x10 spf. u.n.o w/ dbl. Jacks for all openings >5'-0".
- All interior bearing headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >4'-6". Use (2)2x8 w/ dbl. Jacks for all openings >3'-0" u.n.o.
- All interior non-bearing headers to be min. (2)2x4 flat u.n.o.
- Fireblock to conform with R602.8

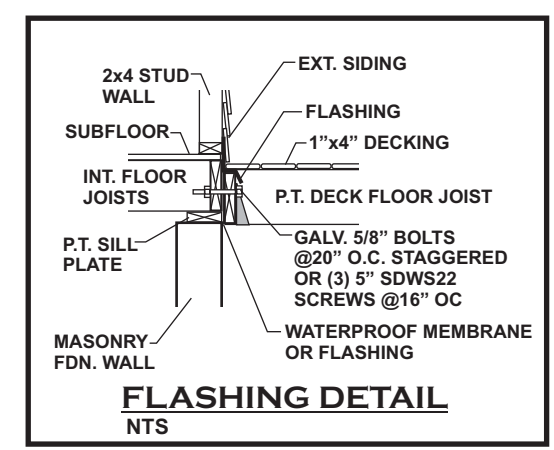
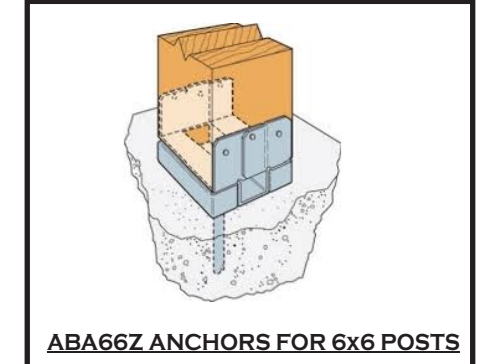
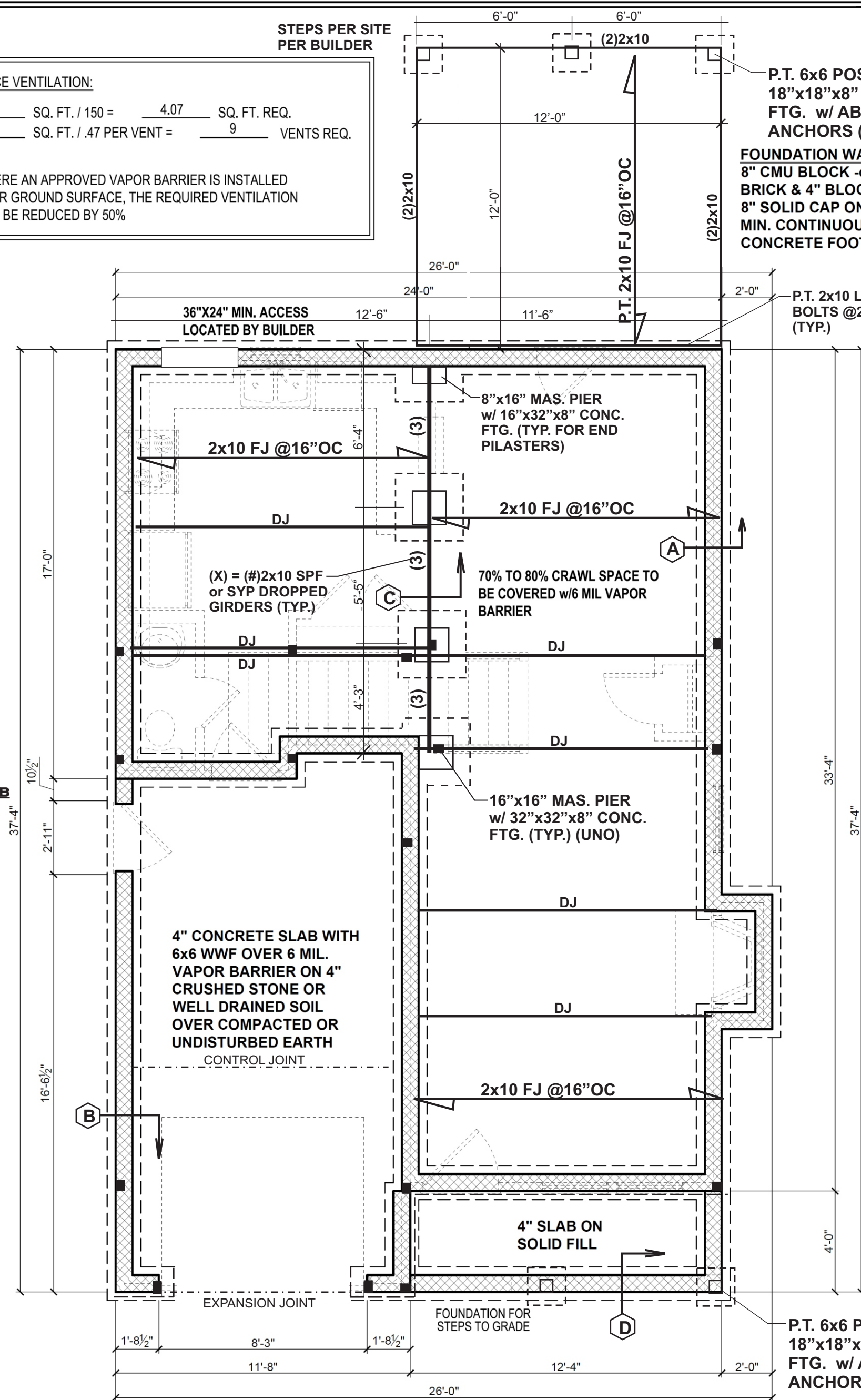
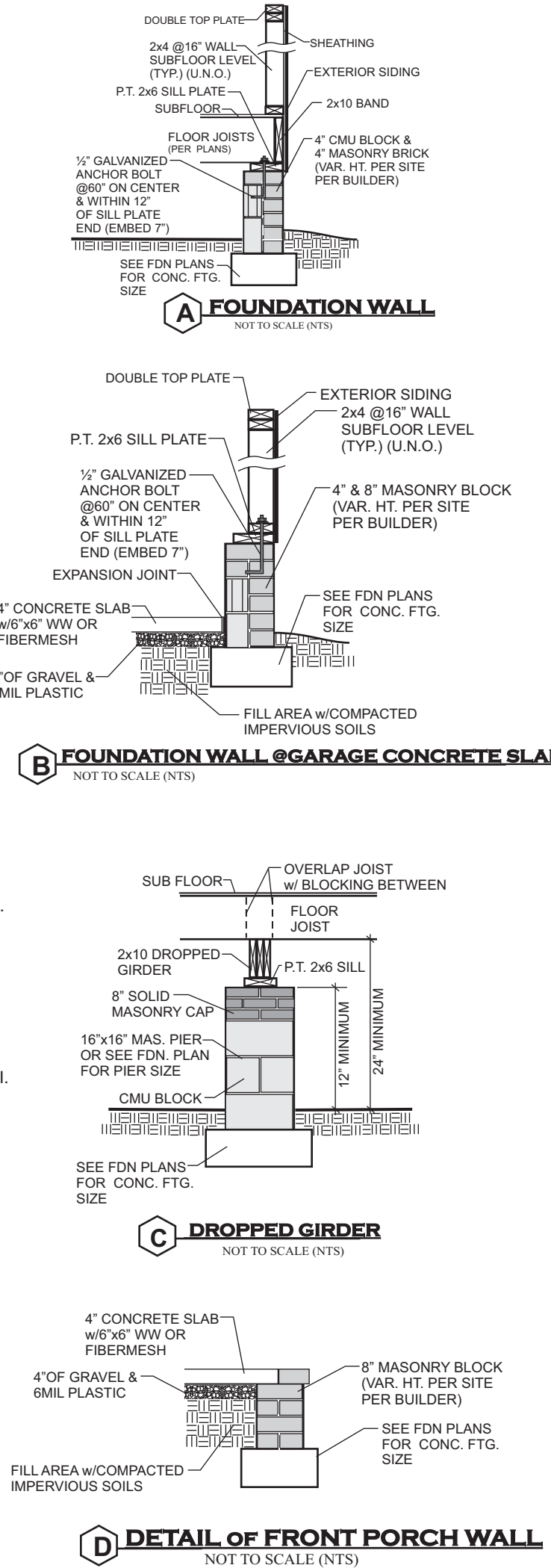
**FOUNDATION NOTES:**

- Deck posts min. 4'-0" above grade are to be knee or diagonally braced per Appendix M. fastening to house will be by nailer with 5/8" galvanized bolts @ 20" o.c. and 12d hot dipped galv. @ 42" o.c.
- Corners shall be braced with one of the approved methods as outlined in R602.10.3.
- Structural members fastening to conform to Table R602.3(1) and (2).
- Girders and piers shall bear on center 1/3 of pier and footing, respectively.
- 2018 NC State Residential Building Code apply to the construction of footings.
- Typical lug footing to be 18"x 8" deep, (UNO)
- Pressure treated wood shall be installed for exterior use.
- Hanger Schedule (Simpson hangers) for beam to beam connections (UNO)
  - (2)2x10's: LUS210-2
  - (3)2x10's: LUS210-3
  - (2)9-1/4 LVL's: HUS410
- Concrete shall have min. 28 day strength of 3000 psi. and max. Slump of 5 inches unless noted otherwise (UNO). Air entrained per Table 4022. All concrete shall be proportioned, mixed, handled, sampled, tested, and placed in accordance with ACI current standards. All samples for pumping shall be taken from the exit pump.
- Allowable soil bearing pressure assumed to be 2000 psf. The contractor must contact Geotechnical Engineer & the Structural Engineer if unsatisfactory subsurface conditions are encountered. The surface area adjacent to the foundation wall shall be provided adequate drainage, and shall be graded so as to drain surface water away from foundation walls

**CRAWL SPACE VENTILATION:**

611 SQ. FT. / 150 = 4.07 SQ. FT. REQ.  
4.07 SQ. FT. / .47 PER VENT = 9 VENTS REQ.

NOTE: WHERE AN APPROVED VAPOR BARRIER IS INSTALLED OVER GROUND SURFACE, THE REQUIRED VENTILATION MAY BE REDUCED BY 50%



**1 CRAWL SPACE FOUNDATION PLAN**  
SCALE: 1/4" = 1'-0"

Engineered by:  
Patrick E. Teague, PE  
Date: 5/26/23  
North Carolina License # 20239

**P. E. TEAGUE, P.E., PLLC**  
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Drawn By: RWB  
Checked By: RWB  
Date: 5-24-2023

Revision No.	Revision Date

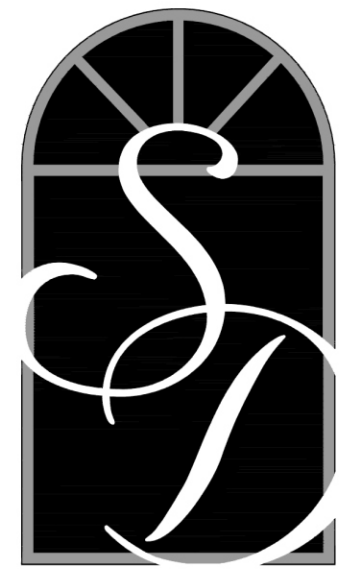
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Client:

Title:  
**FOUNDATION**

Plan No.  
**S1A**  
PO24256RB  
Sheet No. 01





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Drawn By: **RWB**

Checked By: **RWB**

Date: **5-24-2023**

Revision No.	Revision Date

Designer Signature

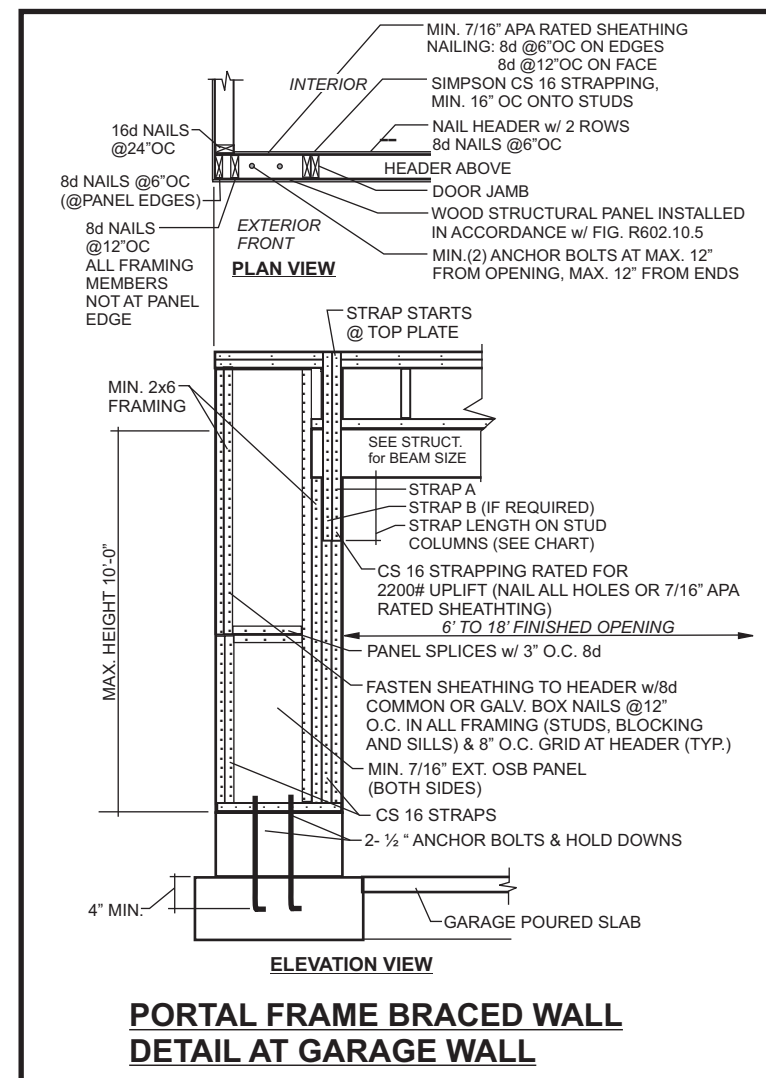
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Client:

Title:  
**ELEVATIONS 'B'**  
**2nd FLOOR FRAMING**

Plan No.  
**S2**  
PO24256RB  
Sheet No. **01**



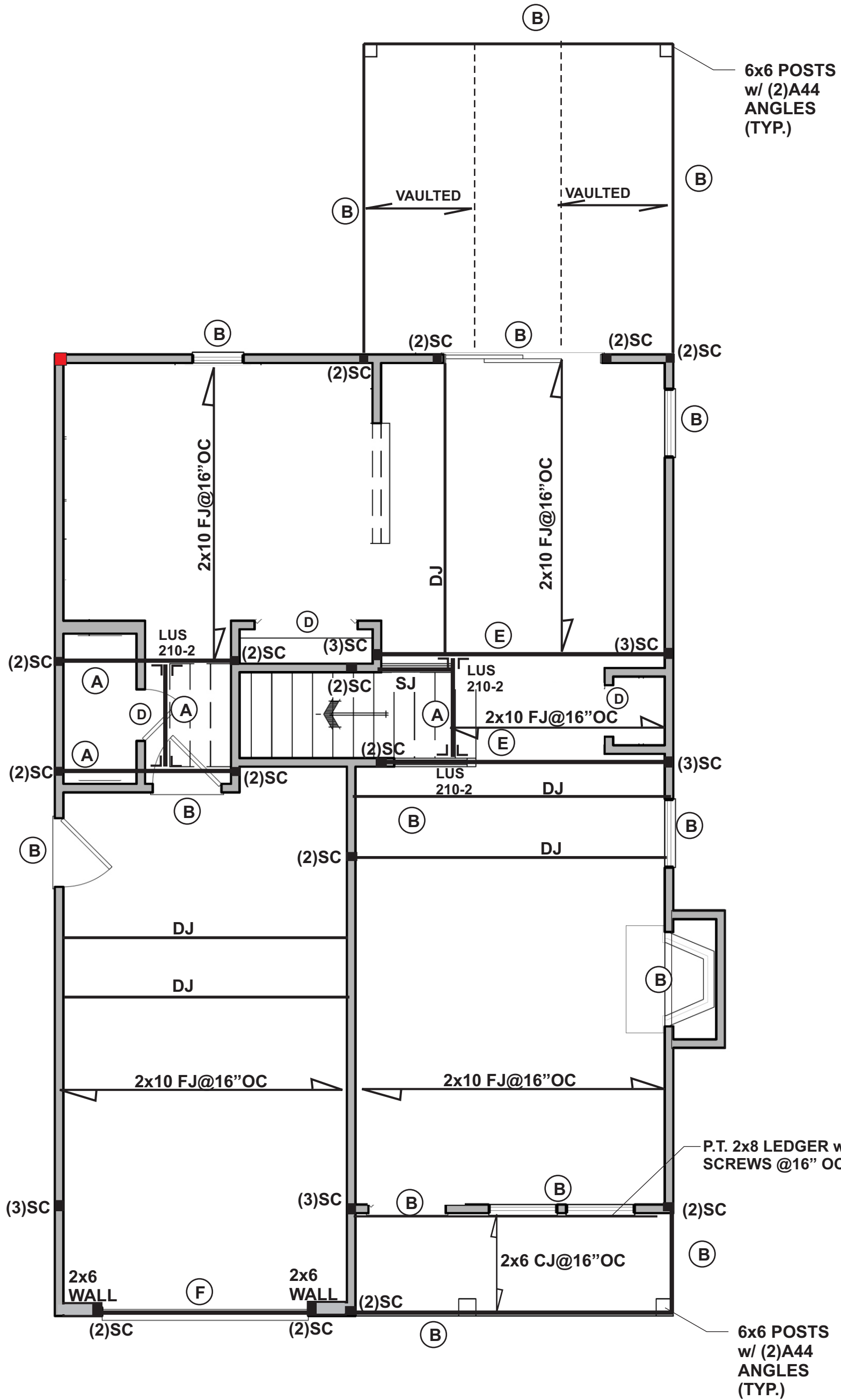
**HEADER SCHEDULE**

- (A) (2) 2x10's Flush
- (B) (2) 2x10's Dropped
- (C) (2) 2x8's Flush
- (D) (2) 2x8's Dropped
- (E) (2) 9.25" LVL's Flush
- (F) (2) 9.25" LVL's Dropped

**WALL BRACING NOTES:**

**WALL BRACING SHALL BE IN ACCORDANCE WITH SECTION R602.10.3 CONTINUOUS SHEATHING. BRACING METHOD CS-WSP SHALL BE USED IN ACCORDANCE WITH TABLE R602.10.1**

1. THE REQUIRED LENGTH OF BRACING FOR EACH SIDE OF A RECTANGLE CIRCUMSCRIBED AROUND THE PLAN OR A PORTION OF THE PLAN AT EACH STORY LEVEL SHALL BE IN ACCORDANCE WITH TABLE R602.10.3 AND FIGURE R602.10.3(1). UNLESS NOTED OTHERWISE, THE ENTIRE STRUCTURE IS ASSUMED TO CIRCUMSCRIBED WITHIN A SINGLE RECTANGLE.
2. MINIMUM PANEL WIDTH IS 24". SEE SECTION R602.10.3 FOR ADDITIONAL INFORMATION. CONNECTION CRITERIA SHALL BE IN ACCORDANCE WITH TABLE R602.10.1.
3. PORTAL FRAME CONSTRUCTION SHALL BE IN ACCORDANCE WITH FIGURE R602.10.1.
4. HOLD DOWN DEVICE SHALL BE AS FOLLOWS:  
SIMPSON LSTA24 STRAP (OR EQUIVALENT) BETWEEN FLOORS EXTENDING FROM BOTTOM OF FLOOR BAND AND UP THE STUDS PER SITE PER BUILDER  
SIMPSON HD3B HOLD DOWN (OR EQUIVALENT) WHERE REQUIRED TO CONNECT DIRECTLY TO FOUNDATION.



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

**STRUCTURAL NOTES:**

1. Framing lumber shall be SYP or #2 SPF (modulus of elasticity 1,100,000 psi, fb 950). All beams & treated lumber to be #2 SYP, E=1,600,000, fb=1100 min. Studs min.#2 or stud grade.
2. Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections is the sole responsibility of the general contractor and his subs.
3. Structural members fastening to conform to Table R602.3(1) and (2).
4. Roof Framing Notes:
  - a. Dbl Hips may be spliced with a min. 6'-0" overlap at center. No valley splices
  - b. Use 2x10 or fir down rafters for vaulted areas
  - c. Attach each vaulted rafters with hurricane connectors: Simpson H-2.5, H-5 or approved equal or 6" SDWC's.
5. All construction shall conform to the latest requirements of the NC State Residential Building Code - 2018 Edition, plus all local codes & regulations or 2015 IBC.
6. Structural Engineer is not responsible for and will not control of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the construction work.
7. Structural Engineer is not responsible for the contractor's failure to carry out the proposed construction work in accordance with the contract document.
8. Use Method #3 for Structural Sheathing; "Accepted Engineer's Practice"

**FRAMING NOTES:**

1. Design Loads (R301.5)
 

Rooms not for Sleeping	Live Loads (PSF)	Dead (PSF)
Sleeping Rooms	40	10
Attic w/Permanent Stairs	30	10
Attic w/o Permanent Stairs	40	10
Attic w/o Storage	20	10
Stairs	10	10
Exterior Balconies	40	10
Decks	40	10
Guardrails & Handrails	60	10
Passenger Vehicle Garages	40	10
Fire Escapes	50	10
Snow	20	10

 Wind Load: (Refer to Table R301.2.4)  
Verify Zone before Construction  
Wake County 115 mph
2. Wall Bracing: Braced wall panels shall be constructed according to section R602.103. The wall structural paneling shall comply with Table R602.103. The length of braced panels shall be determined by section R602.10.4. Lateral bracing shall be satisfied per method 3 by continuously sheathing walls with structural sheathing per Table 601.3. Note that any specific braced wall detail shall be installed as specified.
3. All framing lumber shall be SPF#2 (Fb=875 psi) unless otherwise noted (UNO). All treated lumber shall be SYP#2 (Fb=975 psi). Plate material may be SPF#3 or SYP#3 (Fc (perp.) = 425 psi min.)
4. All exterior headers to be (2)2x10 spf. u.n.o w/ dbl. Jacks for all openings >5'-0".
5. All interior bearing headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >4'-6", use (2)2x8 w/ dbl. Jacks for all openings >3'-0" u.n.o.
6. All interior non-bearing headers to be min. (2)2x4 flat u.n.o.
7. Fireblock to conform with R602.8



Engineered by:  
Patrick E. Teague, PE  
Date: **5/17/23**  
North Carolina License # 20239

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**STRUCTURAL NOTES:**

- Framing lumber shall be SYP or #2 SPF (modulus of elasticity 1,100,000 psi, fb 950). All beams & treated lumber to be #2 SYP, E=1,600,000, fb=1100 min. Studs min.#2 or stud grade.
- Use hangers for all beam to beam connections. Structural fastening as per R602.3(1). Adequate connections is the sole responsibility of the general contractor and his subs.
- Structural members fastening to conform to Table R602.3(1) and (2).
- Roof Framing Notes:
  - Dbl Hips may be spliced with a min. 6'-0" overlap at center. No valley splices
  - Use 2x10 or fir down rafters for vaulted areas
  - Attach each vaulted rafters with hurricane connectors: Simpson H-2.5, H-5 or approved equal or 6" SDWC's.
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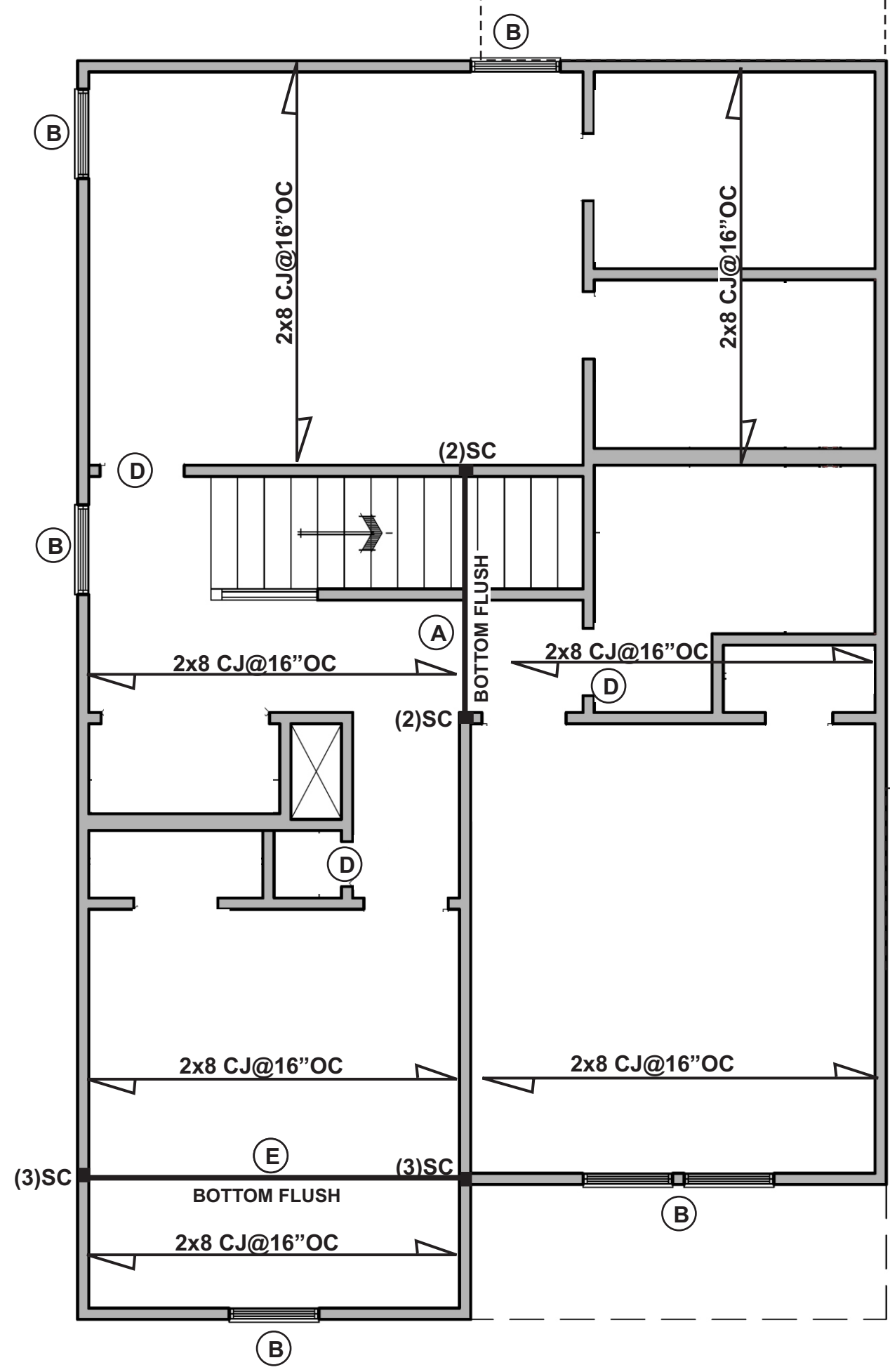
**FRAMING NOTES:**

- Design Loads (R301.5)
 

	Live Loads (PSF)	Dead (PSF)
Rooms not for Sleeping	40	10
Sleeping Rooms	30	10
Attic w/Permanent Stairs	40	10
Attic w/o Permanent Stairs	20	10
Attic w/o Storage	10	10
Stairs	40	-
Exterior Balconies	60	10
Decks	40	10
Guardrails & Handrails	200	-
Passenger Vehicle Garages	50	10
Fire Escapes	40	10
Snow	20	-

 Wind Load: (Refer to Table R301.2.4)  
Verify Zone before Construction  
Wake County 115 mph
- Wall Bracing: Braced wall panels shall be constructed according to section R602.10.3. The wall structural paneling shall comply with Table R602.10.3. The length of braced panels shall be determined by section R602.10.4. Lateral bracing shall be satisfied per method 3 by continuously sheathing walls with structural sheathing per Table 601.3. Note that any specific braced wall detail shall be installed as specified.
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- All exterior headers to be (2)2x10 spf. u.n.o w/ dbl. Jacks for all openings >5'-0".
- All interior bearing headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >4'-6"; use (2)2x8 w/ dbl. Jacks for all openings >3'-0" u.n.o.
- All interior non-bearing headers to be min. (2)2x4 flat u.n.o.
- Fireblock to conform with R602.8

HEADER SCHEDULE	
(A)	(2) 2x10's Flush
(B)	(2) 2x10's Dropped
(C)	(2) 2x8's Flush
(D)	(2) 2x8's Dropped
(E)	(2) 9.25" LVL's Flush
(F)	(2) 9.25" LVL's Dropped



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

**WALL BRACING NOTES:**

WALL BRACING SHALL BE IN ACCORDANCE WITH SECTION R602.10.3 CONTINUOUS SHEATHING. BRACING METHOD CS-WSP SHALL BE USED IN ACCORDANCE WITH TABLE R602.10.1

- THE REQUIRED LENGTH OF BRACING FOR EACH SIDE OF A RECTANGLE CIRCUMSCRIBED AROUND THE PLAN OR A PORTION OF THE PLAN AT EACH STORY LEVEL SHALL BE IN ACCORDANCE WITH TABLE R602.10.3 AND FIGURE R602.10.3(1). UNLESS NOTED OTHERWISE, THE ENTIRE STRUCTURE IS ASSUMED TO CIRCUMSCRIBED WITHIN A SINGLE RECTANGLE.
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SIMPSON HD3B HOLD DOWN (OR EQUIVALENT) WHERE REQUIRED TO CONNECT DIRECTLY TO FOUNDATION.



Engineered by:  
Patrick E. Teague, PE  
Date: 5/17/23  
North Carolina License # 20239

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Drawn By:	RWB
Checked By:	RWB
Date:	5-24-2023
Revision No.	Revision Date

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Client:

Title:  
**CEILING FRAMING**

Plan No.  
**S3**  
PO24256RB  
Sheet No. Of





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Drawn By: **RWB**

Checked By: **RWB**

Date: **5-24-2023**

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Client:

Title:

**ROOF PLANS**

Plan No.

**S4**

PO23248RB

Sheet No. Of

**STRUCTURAL NOTES:**

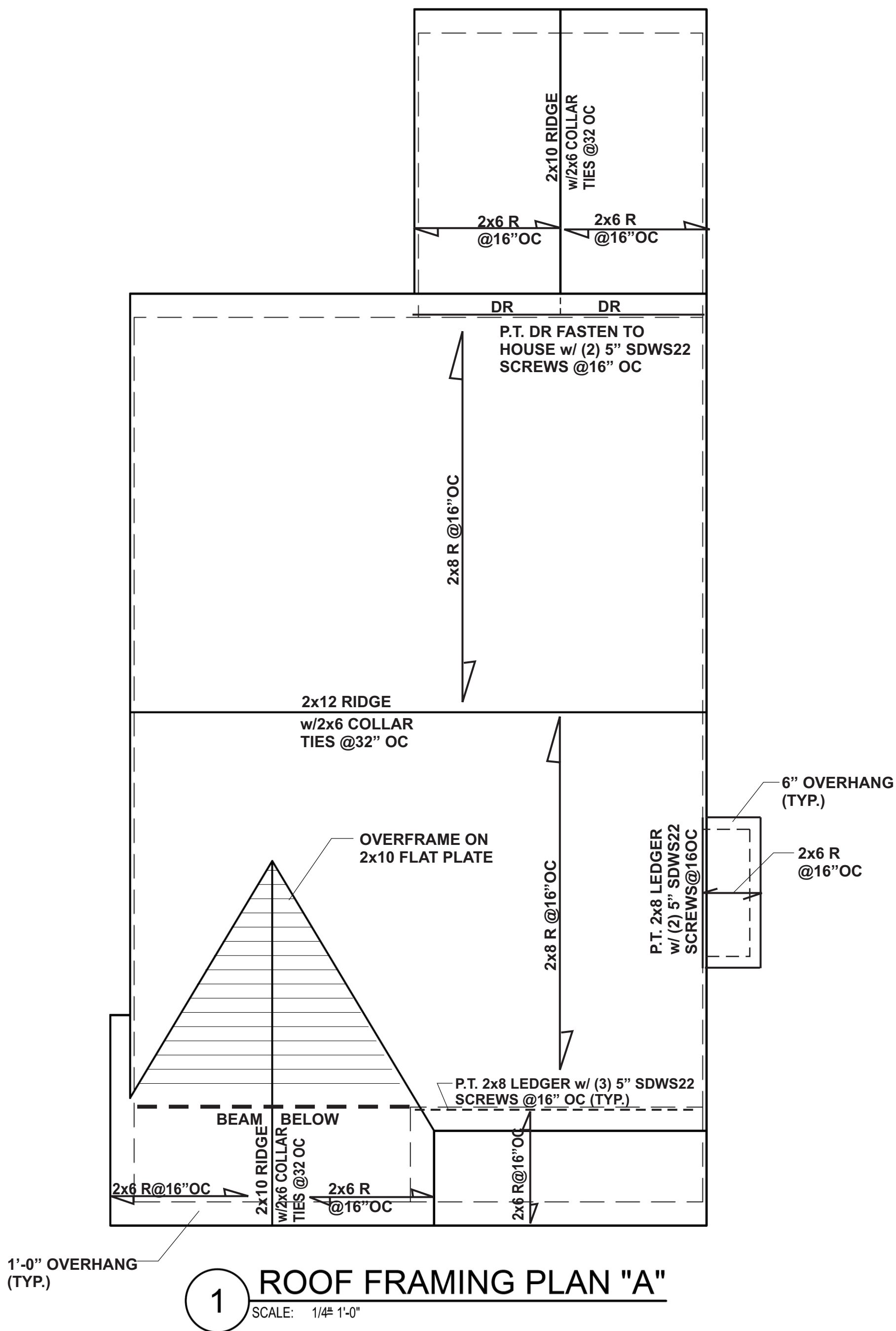
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**FRAMING NOTES:**

- Design Loads (R301.5)
 

	Live Loads (PSF)	Dead (PSF)
Rooms not for Sleeping	40	10
Sleeping Rooms	30	10
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Attic w/o Permanent Stairs	20	10
Attic w/o Storage	10	10
Stairs	40	-
Exterior Balconies	60	10
Decks	40	10
Guardrails & Handrails	200	-
Passenger Vehicle Garages	50	10
Fire Escapes	40	10
Snow	20	-

 Wind Load: (Refer to Table R301.2.4)  
Verify Zone before Construction  
Wake County 115 mph
- Wall Bracing: Braced wall panels shall be constructed according to section R602.103. The wall structural paneling shall comply with Table R602.103. The length of braced panels shall be determined by section R602.10.4. Lateral bracing shall be satisfied per method 3 by continuously sheathing walls with structural sheathing per Table 601.3. Note that any specific braced wall detail shall be installed as specified.
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- All exterior headers to be (2)2x10 spf. u.n.o w/ dbl. Jacks for all openings >5'-0".
- All interior bearing headers to be (2)2x10 u.n.o. w/ dbl. jacks for all openings >4'-6"; use (2)2x8 w/ dbl. Jacks for all openings >3'-0" u.n.o.
- All interior non-bearing headers to be min. (2)2x4 flat u.n.o.
- Fireblock to conform with R602.8



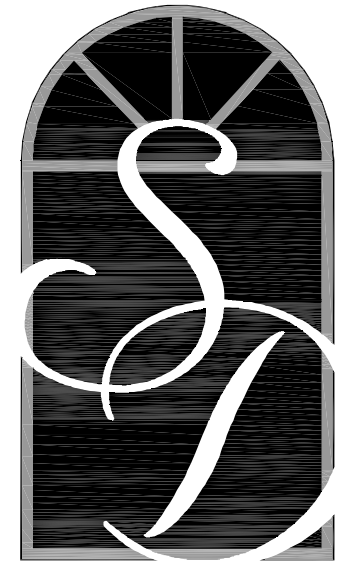
**1 ROOF FRAMING PLAN "A"**  
SCALE: 1/4" = 1'-0"



Engineered by:  
Patrick E. Teague, PE  
Date: **5/17/23**  
North Carolina License # 20239

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Drawn By: \_\_\_\_\_  
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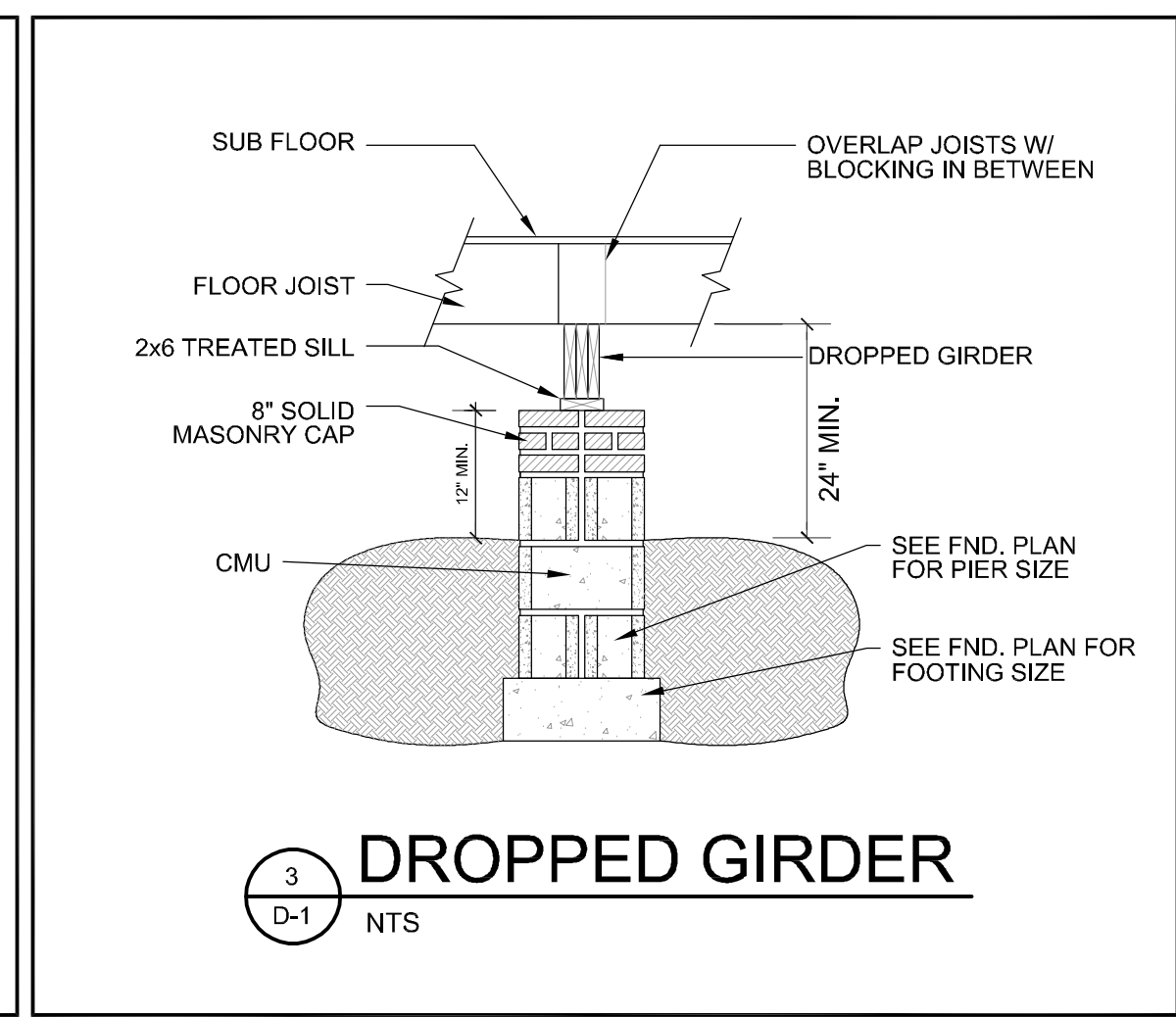
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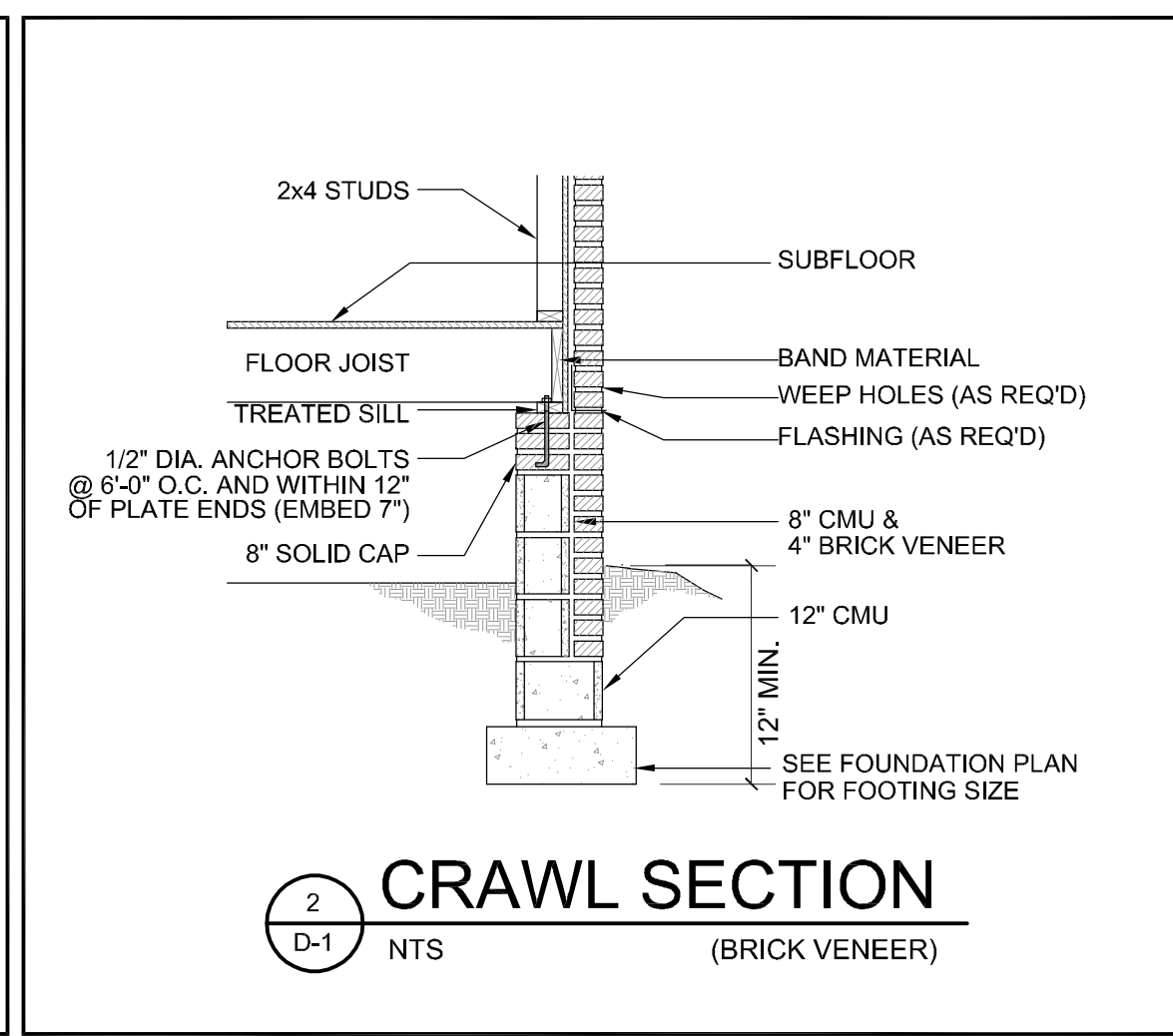
Client: \_\_\_\_\_

Title:  
**Standard  
Details**

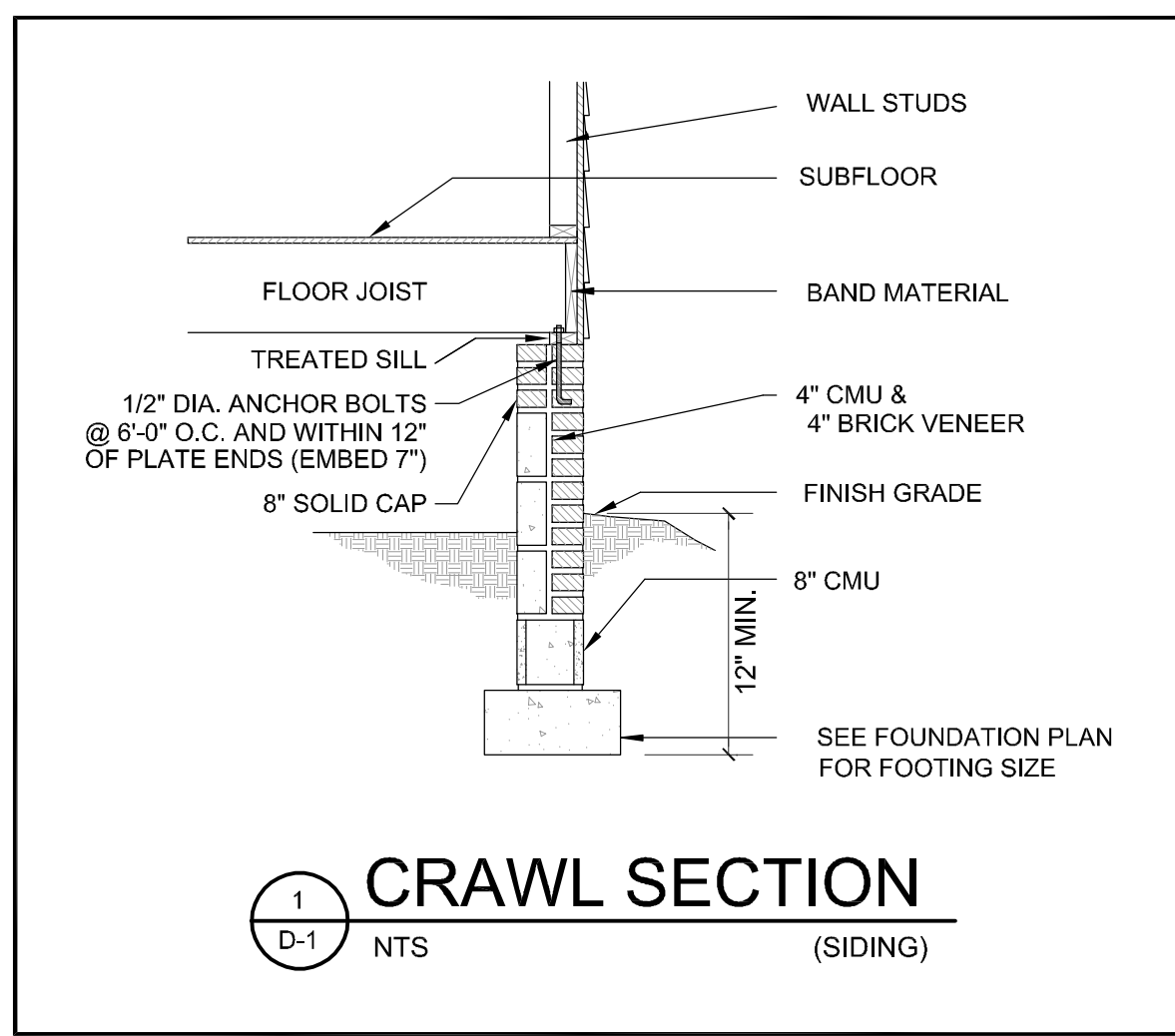
Plan No.  
**D-1**  
Sheet No. \_\_\_\_\_ Of \_\_\_\_\_



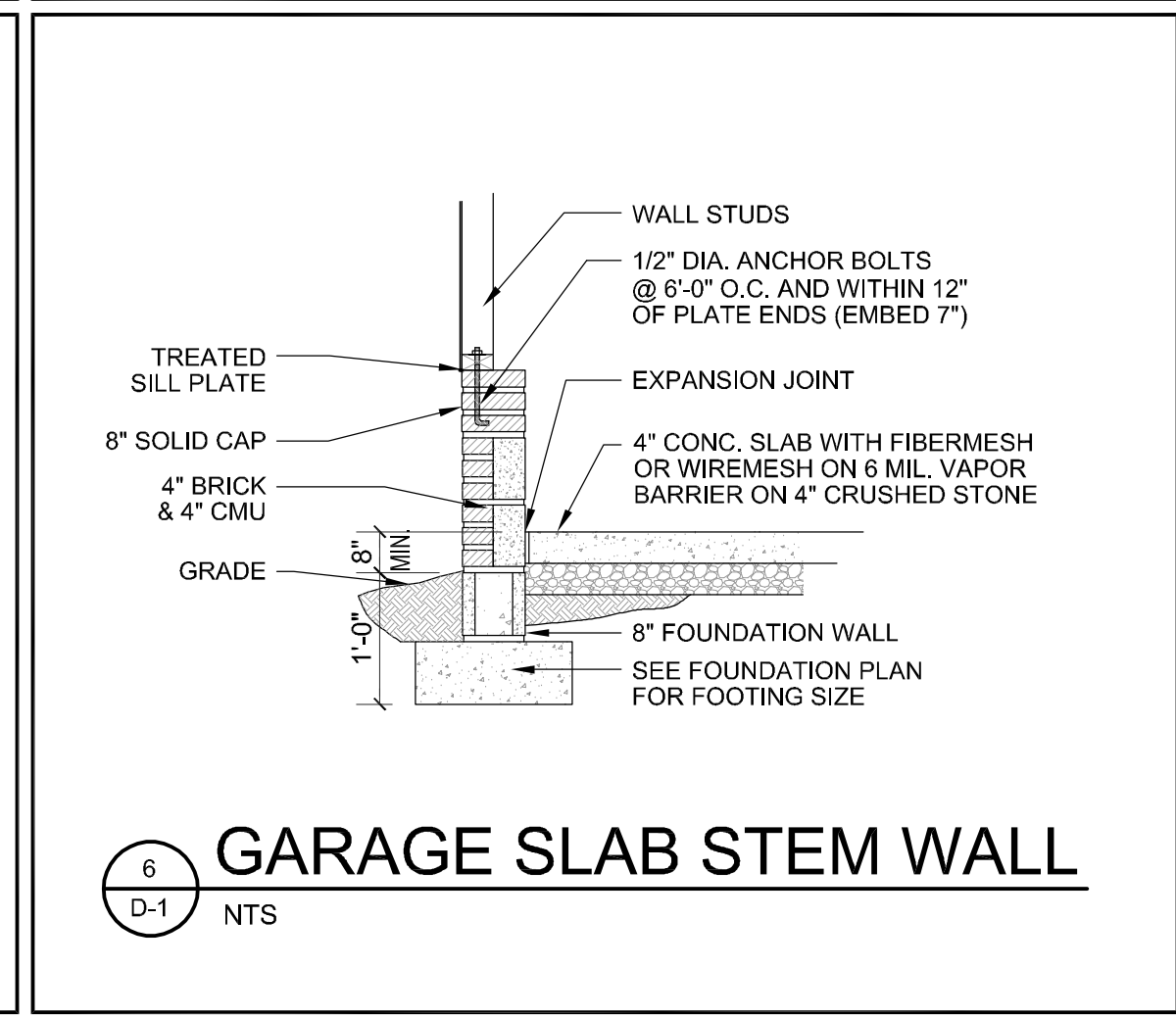
**3 DROPPED GIRDER**  
D-1 NTS



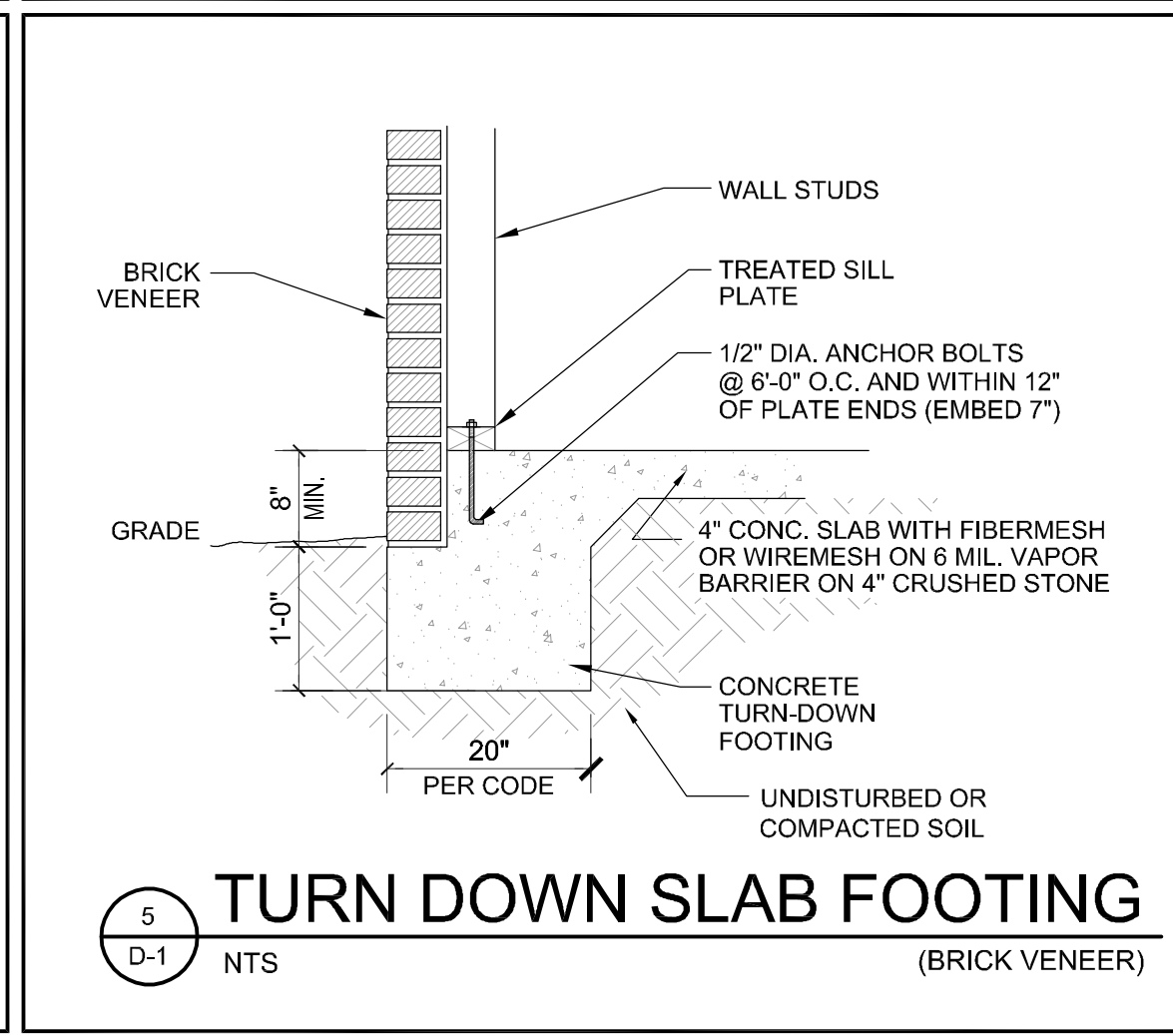
**2 CRAWL SECTION (BRICK VENEER)**  
D-1 NTS



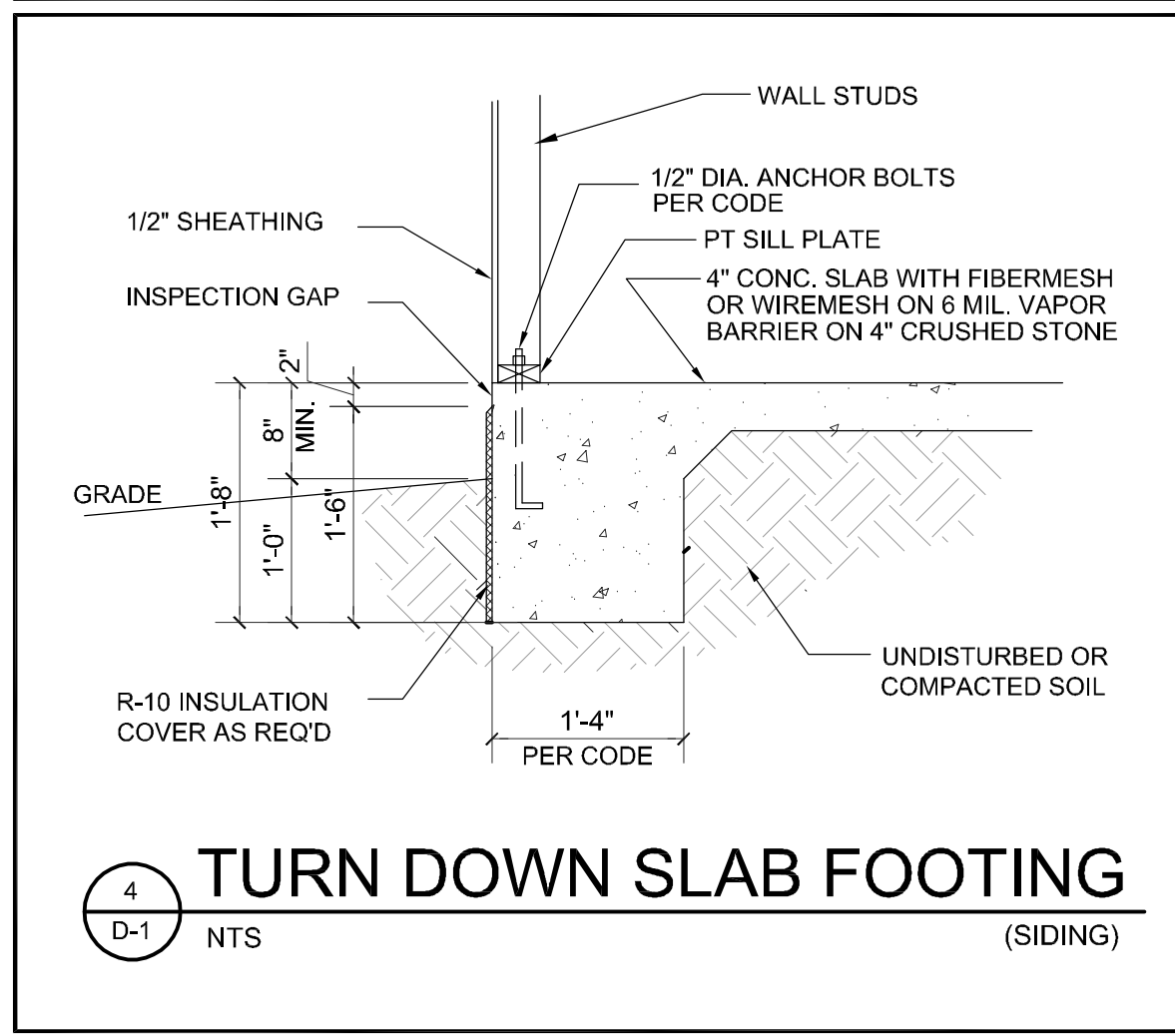
**1 CRAWL SECTION (SIDING)**  
D-1 NTS



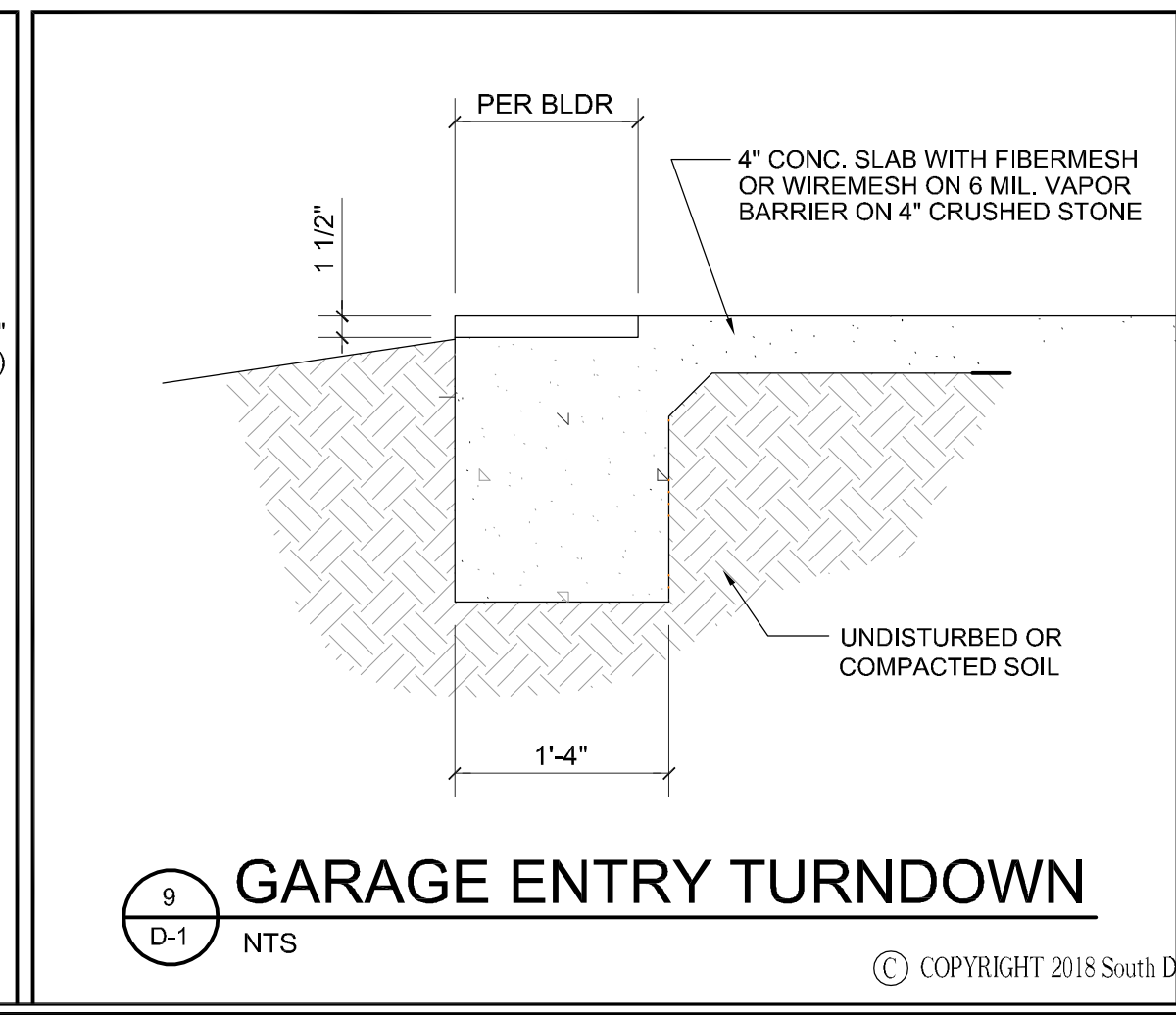
**6 GARAGE SLAB STEM WALL**  
D-1 NTS



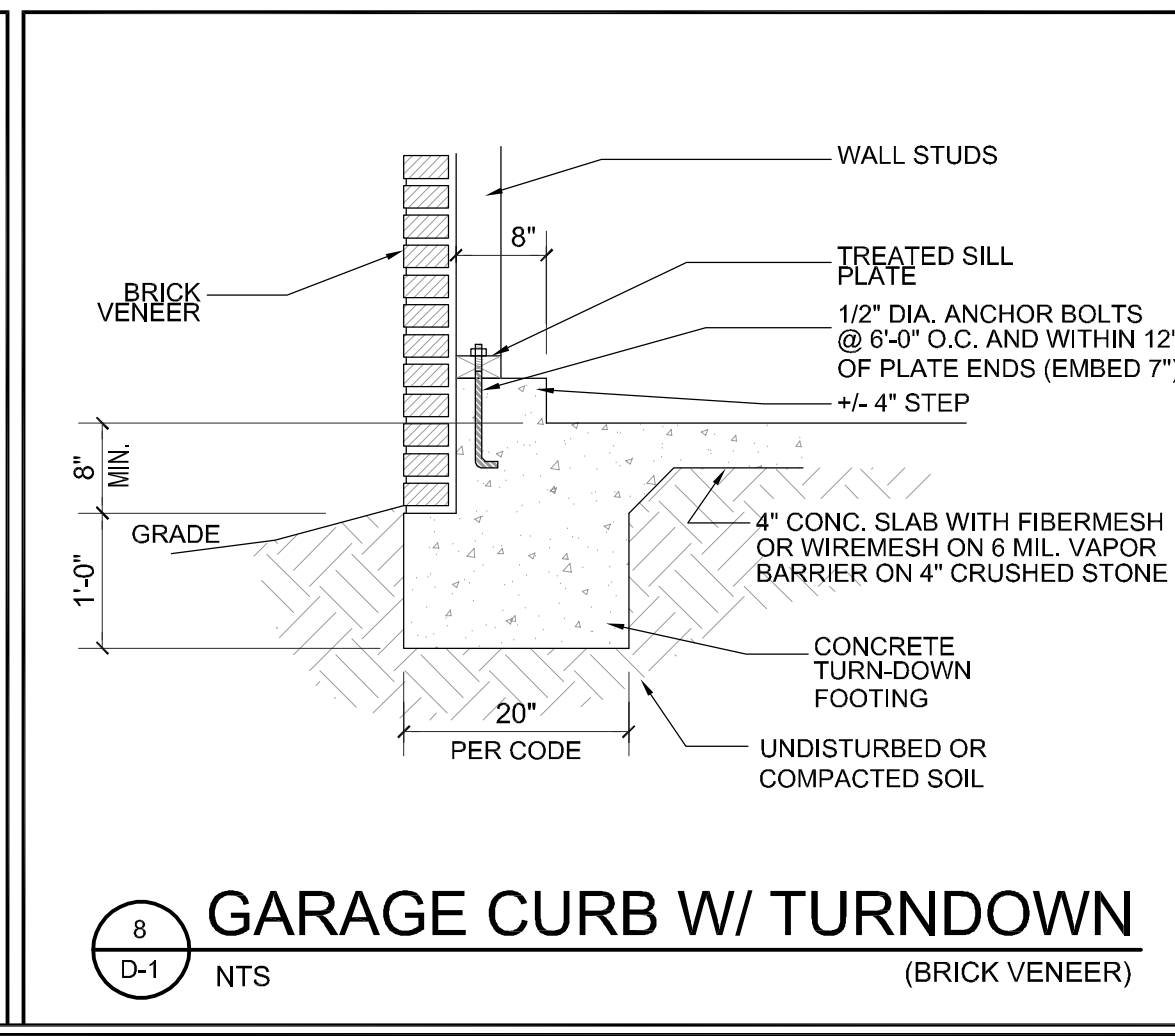
**5 TURN DOWN SLAB FOOTING (BRICK VENEER)**  
D-1 NTS



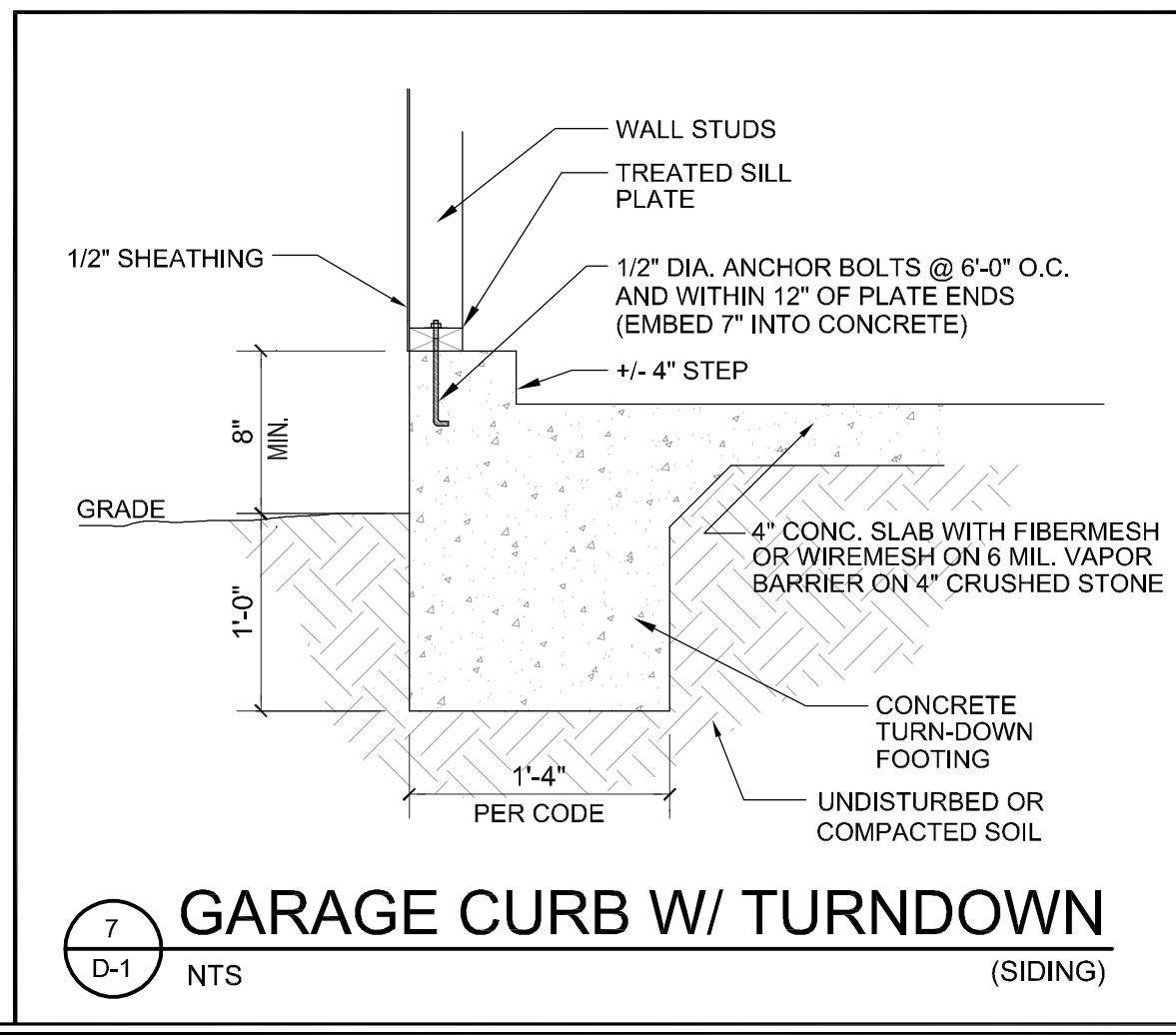
**4 TURN DOWN SLAB FOOTING (SIDING)**  
D-1 NTS



**9 GARAGE ENTRY TURNDOWN**  
D-1 NTS

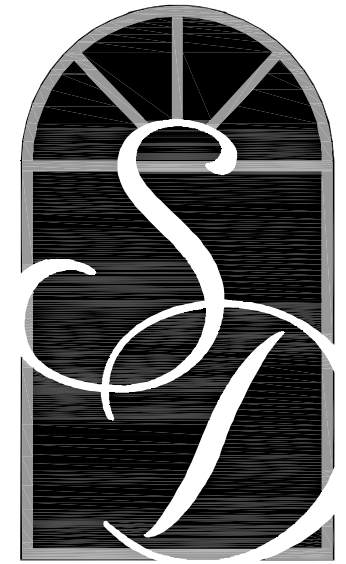


**8 GARAGE CURB W/ TURNDOWN (BRICK VENEER)**  
D-1 NTS



**7 GARAGE CURB W/ TURNDOWN (SIDING)**  
D-1 NTS





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Checked By: \_\_\_\_\_

Date: \_\_\_\_\_

Revision No.	Revision Date

Designer Signature \_\_\_\_\_

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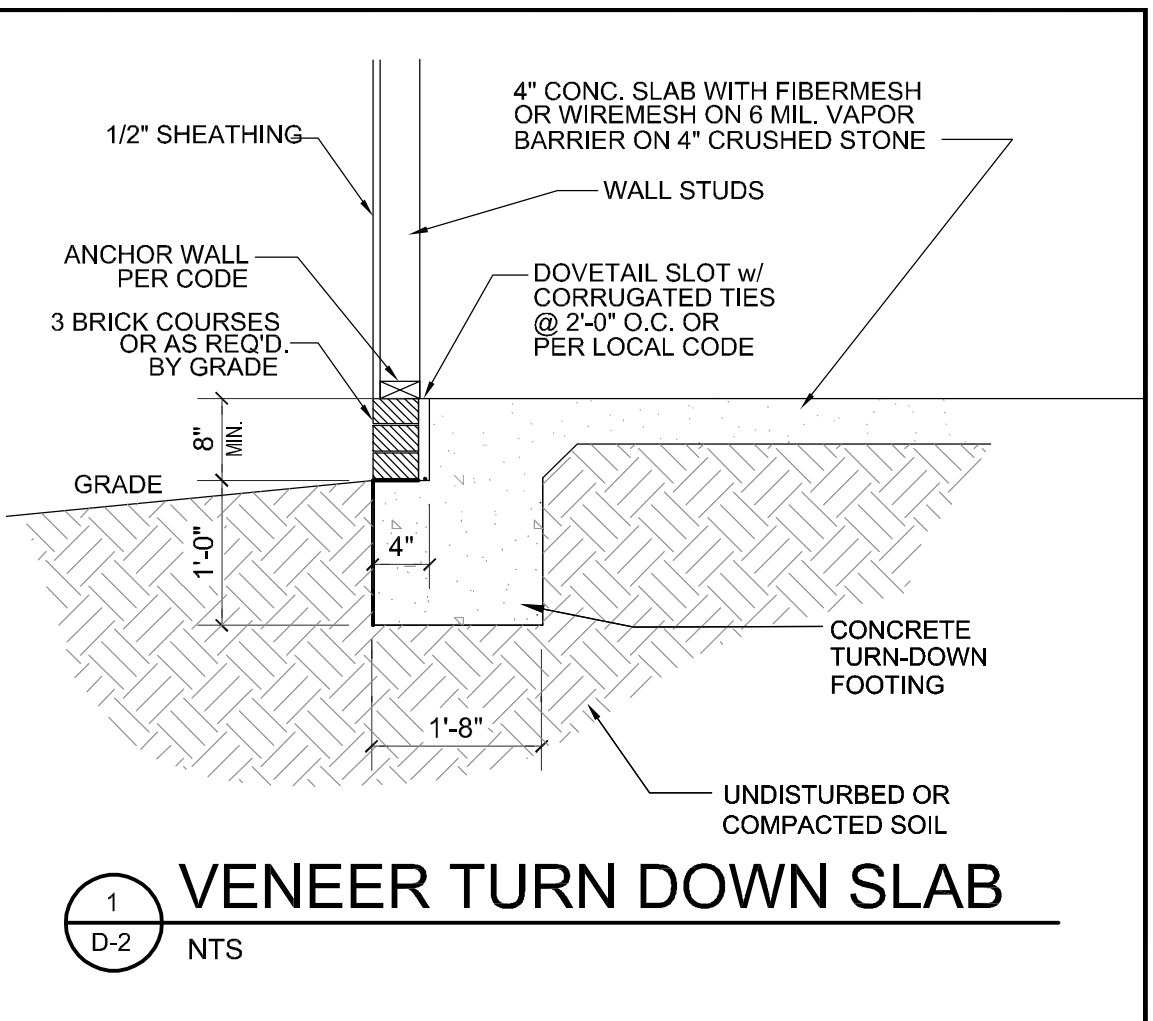
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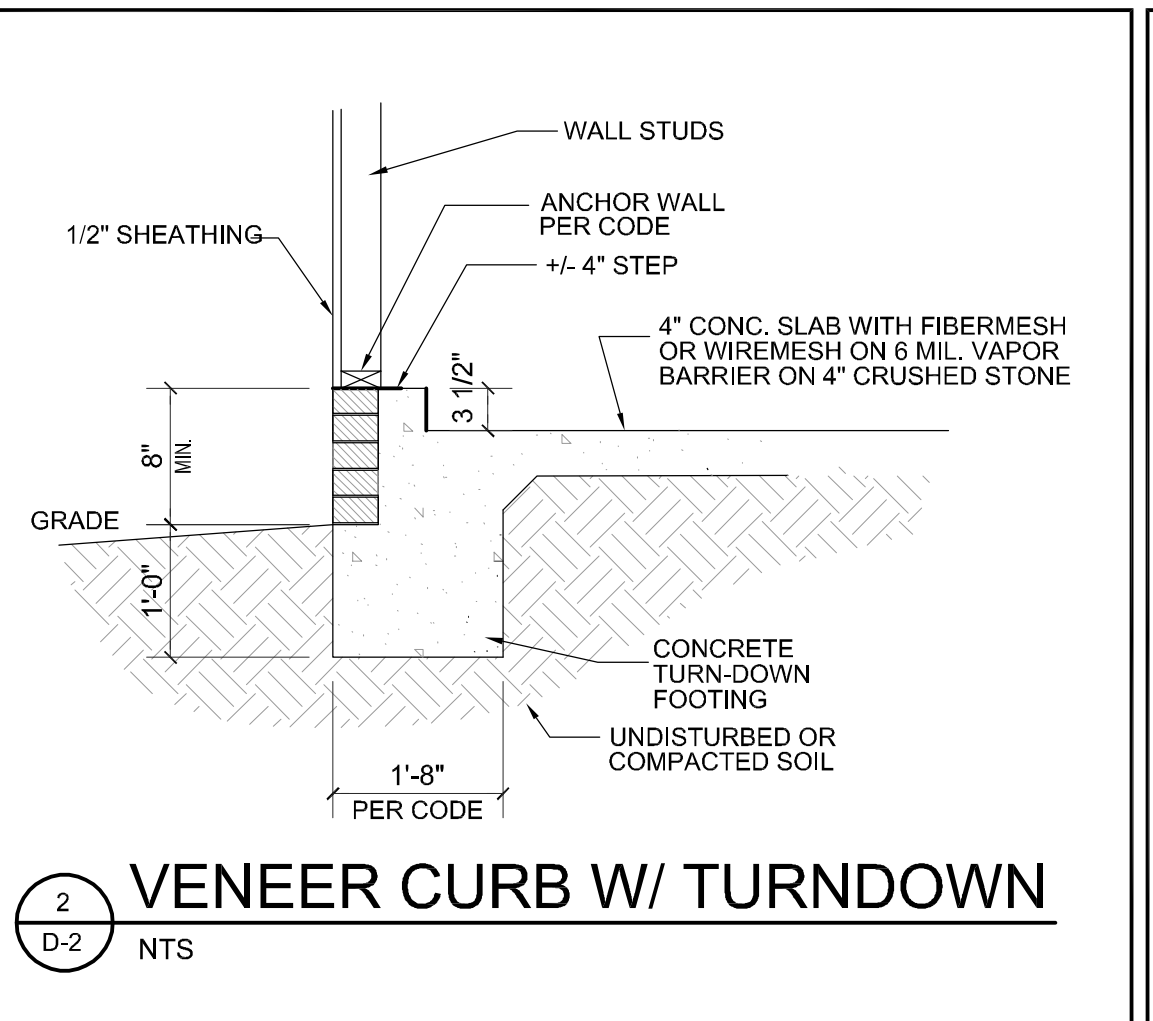
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**Standard  
Details**

Plan No.  
**D-2**

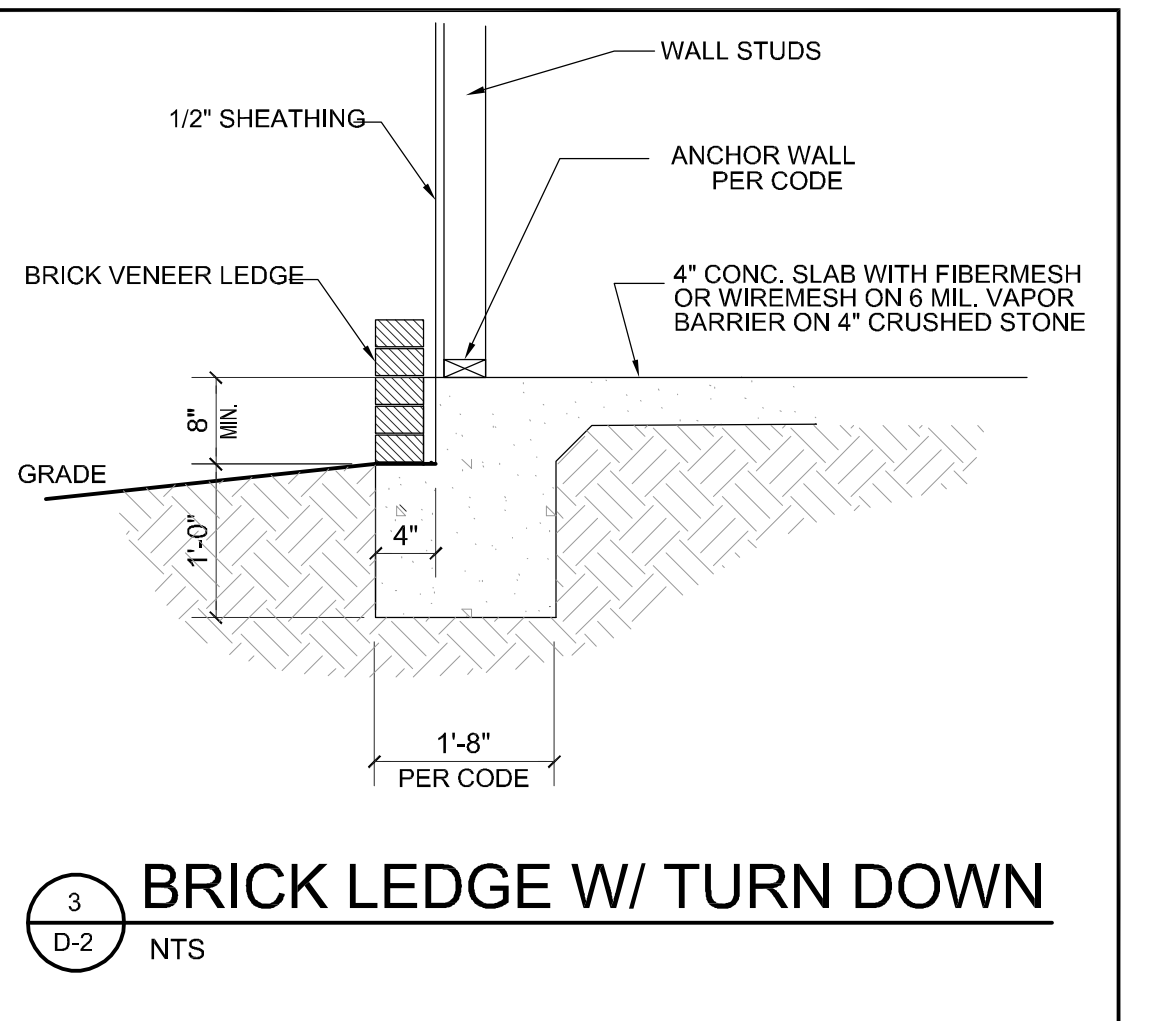
Sheet No. \_\_\_\_\_ Of \_\_\_\_\_



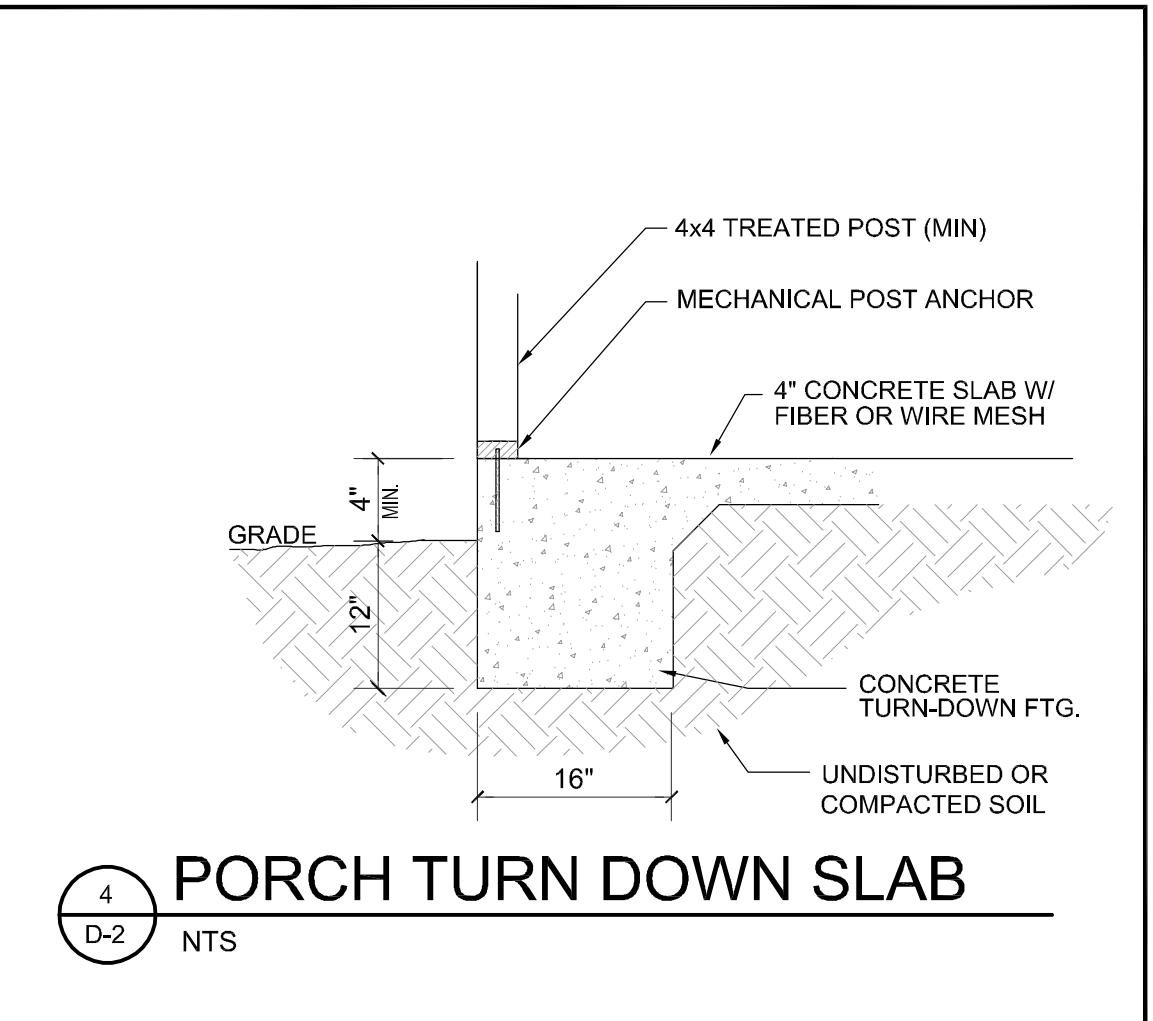
**1 VENEER TURN DOWN SLAB**  
D-2 NTS



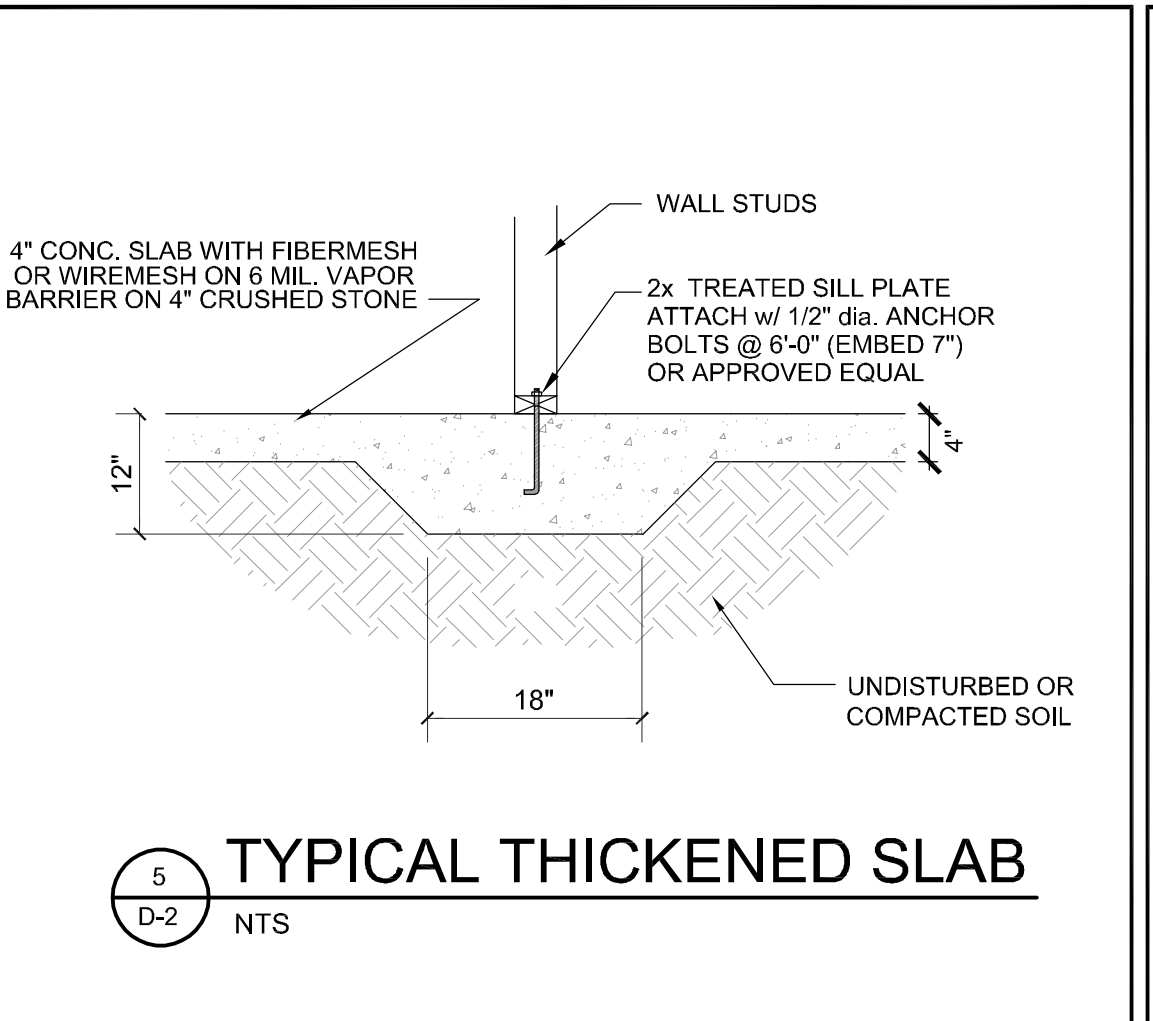
**2 VENEER CURB W/ TURNDOWN**  
D-2 NTS



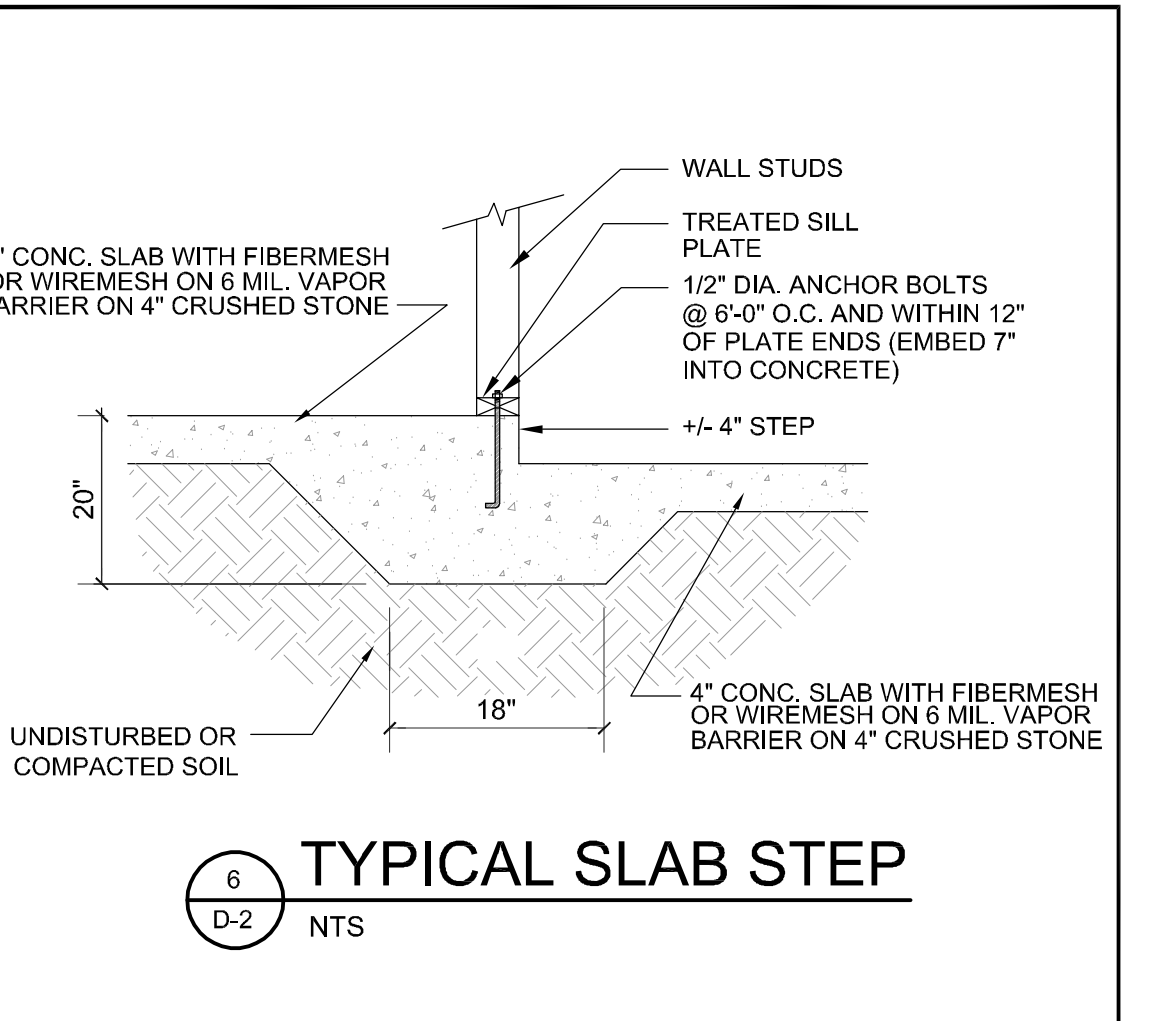
**3 BRICK LEDGE W/ TURN DOWN**  
D-2 NTS



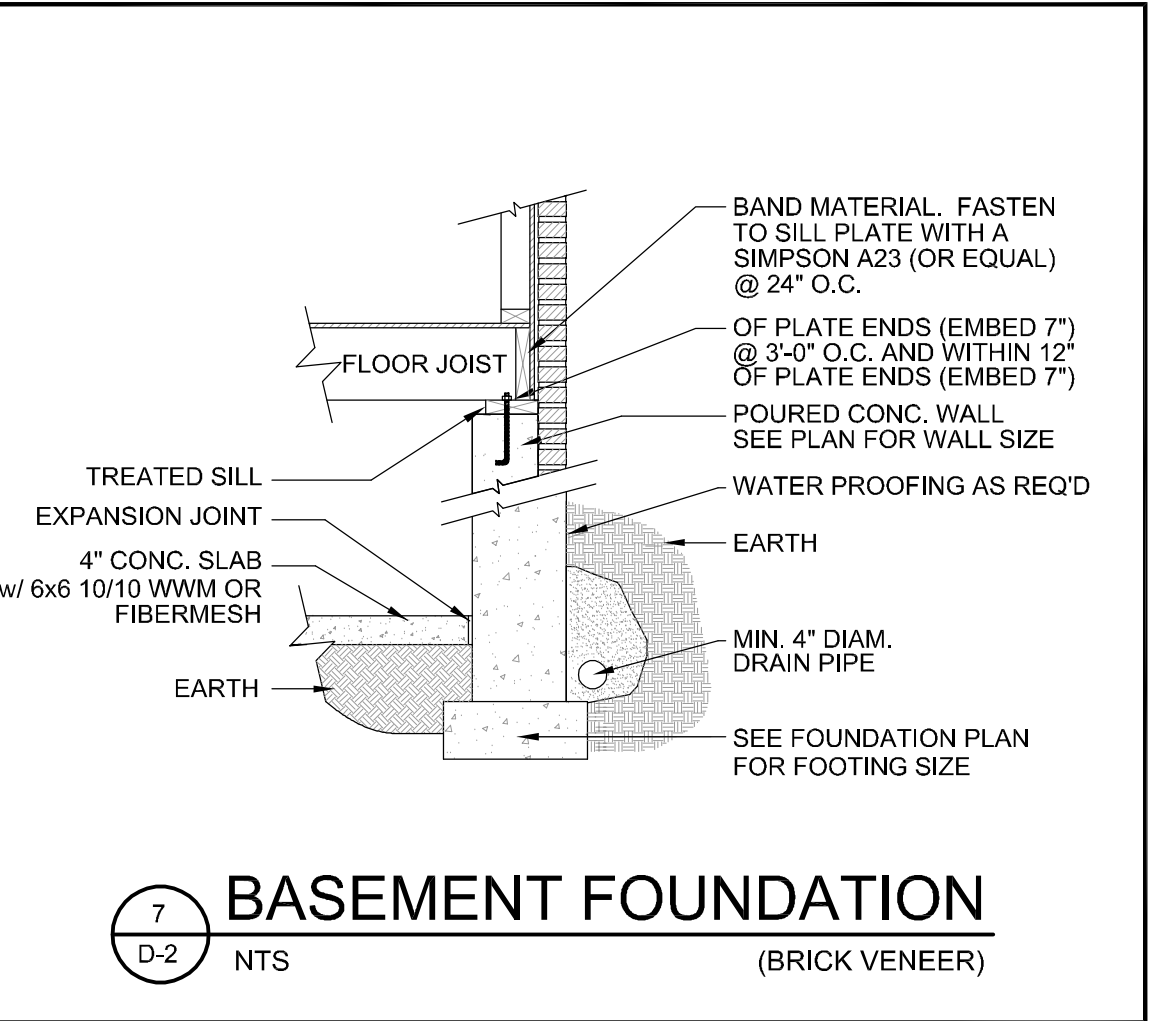
**4 PORCH TURN DOWN SLAB**  
D-2 NTS



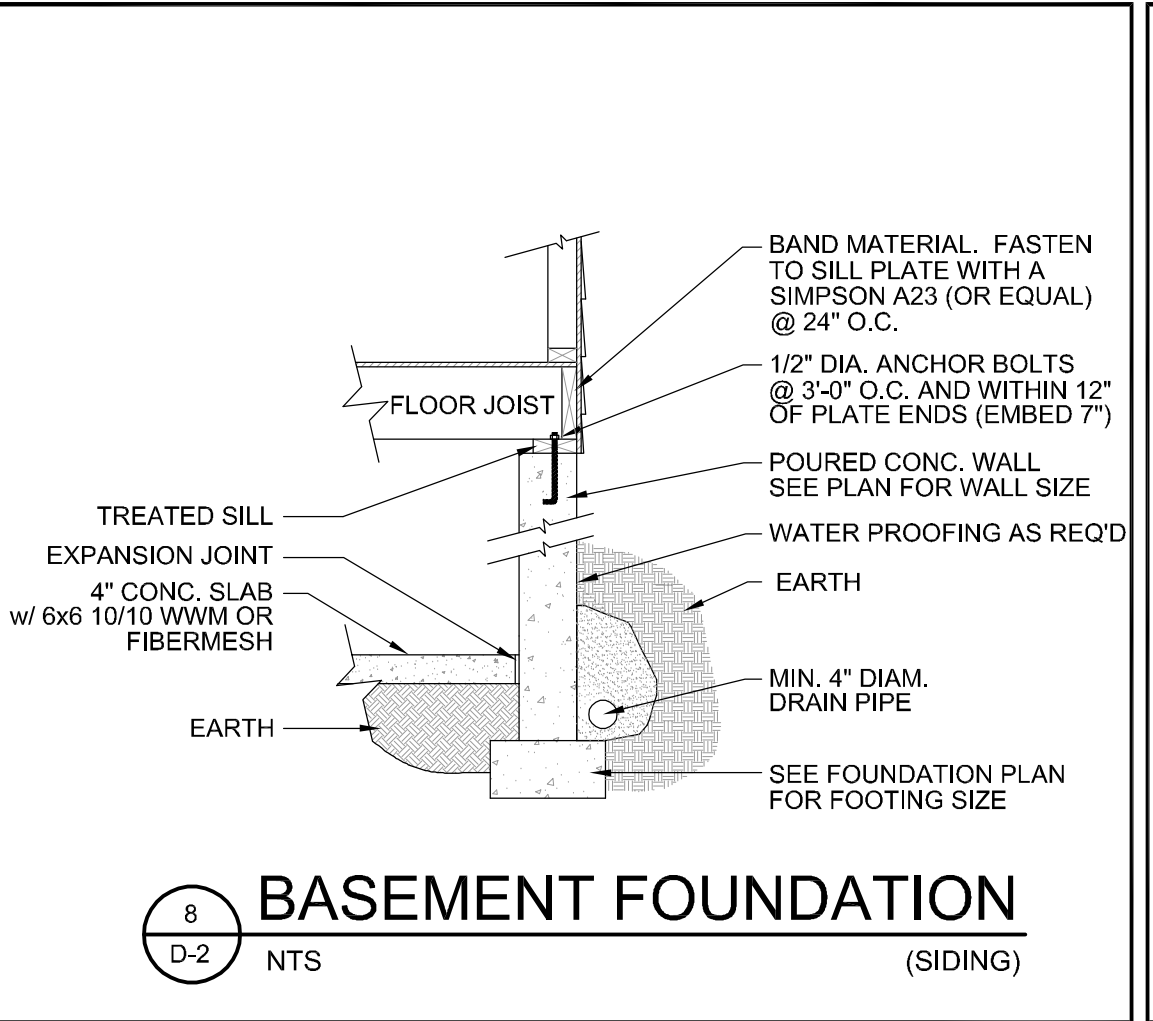
**5 TYPICAL THICKENED SLAB**  
D-2 NTS



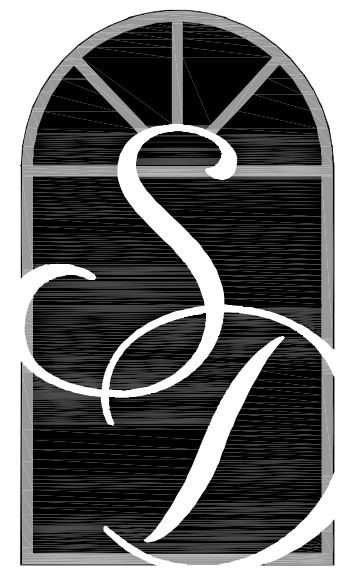
**6 TYPICAL SLAB STEP**  
D-2 NTS



**7 BASEMENT FOUNDATION (BRICK VENEER)**  
D-2 NTS



**8 BASEMENT FOUNDATION (SIDING)**  
D-2 NTS



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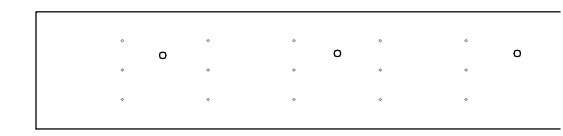
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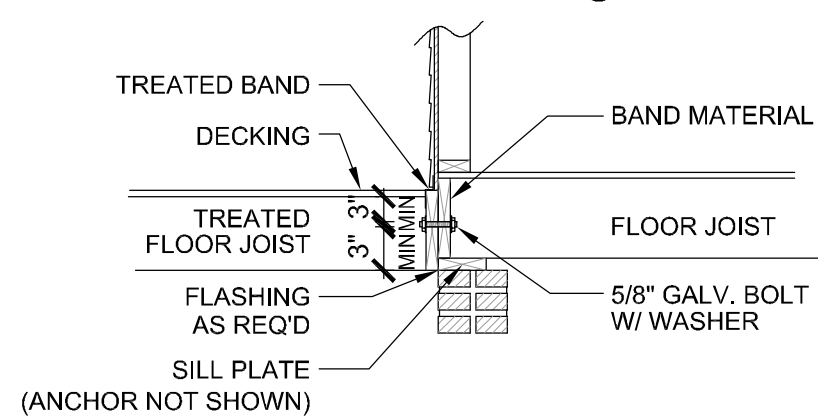
Plan No.  
**D-3**

Sheet No. \_\_\_\_\_ Of \_\_\_\_\_

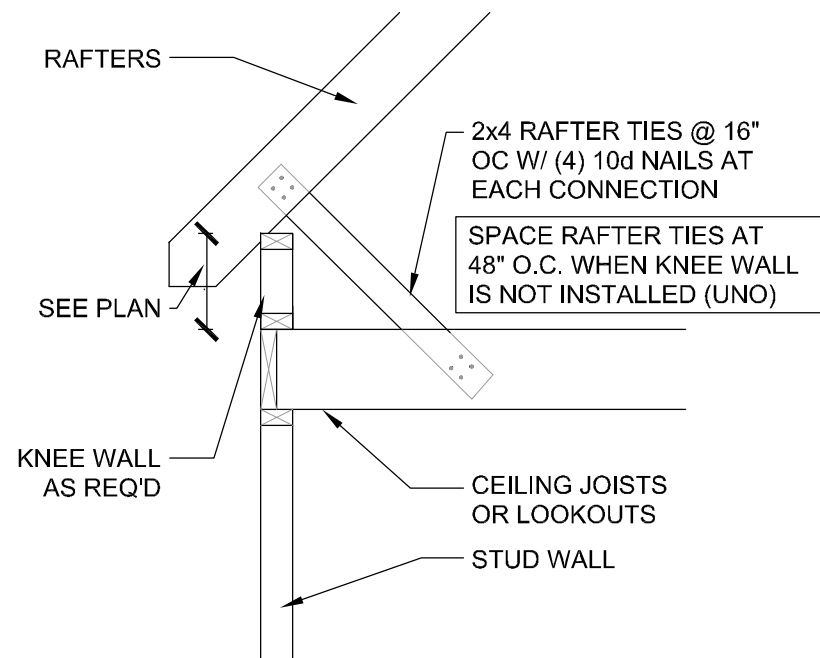


(3) 12d GALV. NAILS @ 6" O.C. AND  
5/8"dia. GALV. BOLTS W/ WASHER @ 20" O.C.

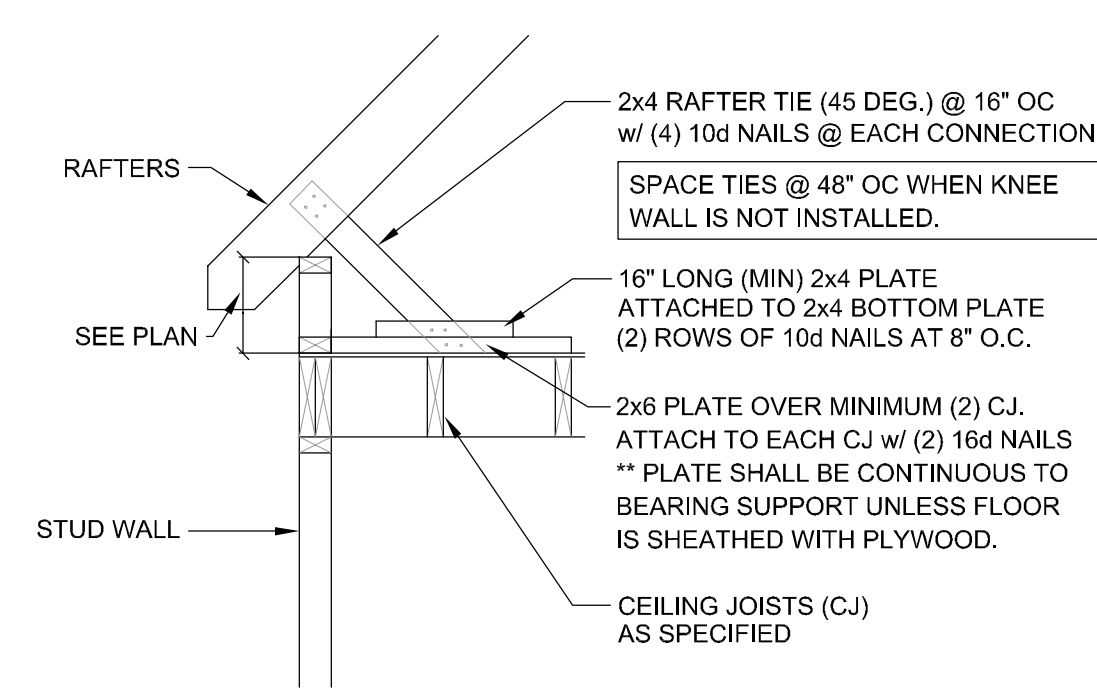
FOR BRICK VENEER STRUCTURES:  
5/8"dia. GALV. BOLTS W/ WASHER @ 16" O.C.



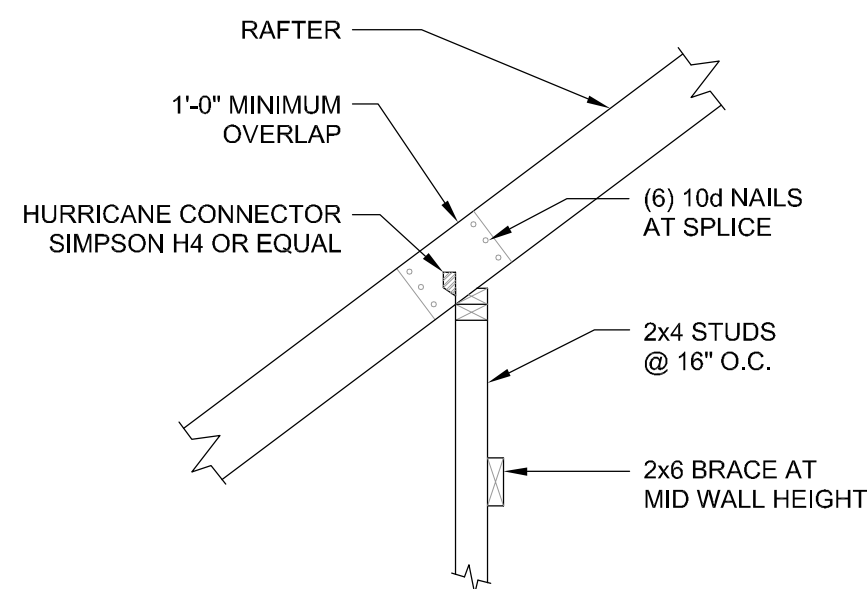
**1 DECK ATTACHMENT DETAIL**  
D-3 NTS



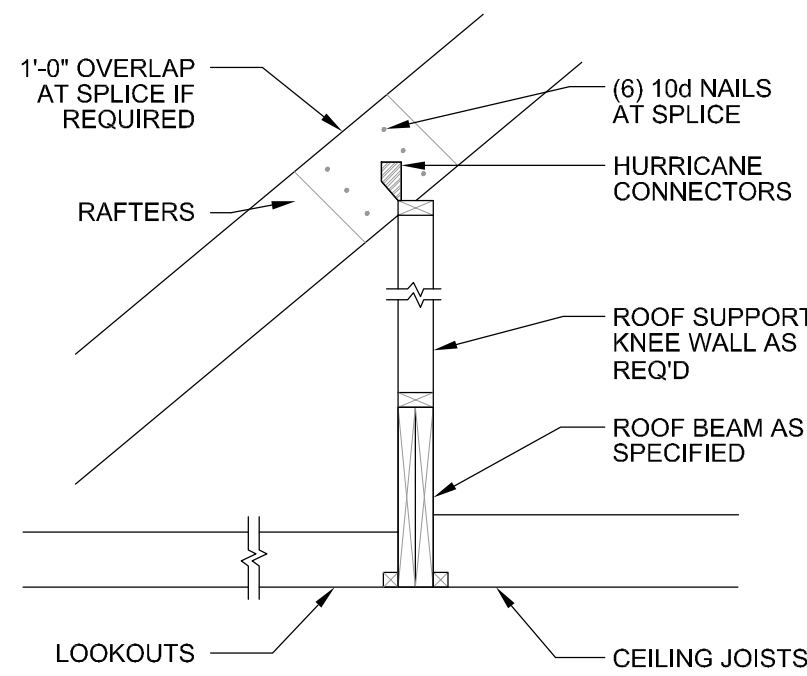
**2 RAFTER TIE DOWN (TYP.)**  
D-3 NTS



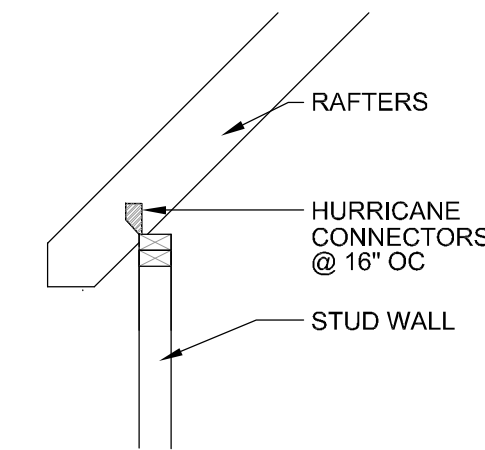
**3 RAFTER TIE DOWN (TYP.)**  
D-3 NTS (RAFTERS PERPENDICULAR TO JOISTS)



**4 RAFTER SPLICE - ATTIC K.W.**  
D-3 NTS

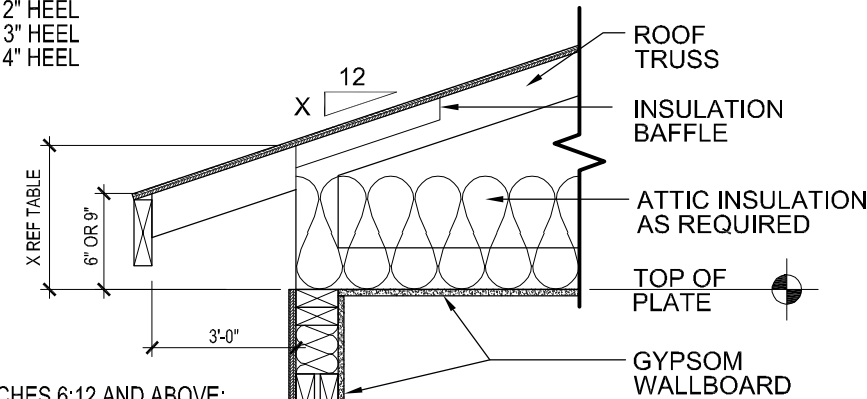


**5 ROOF BEAM**  
D-3 NTS



**6 RAFTER TIE @ VAULT**  
D-3 NTS

FOR ROOF PITCHES 5:12 AND BELOW:  
-SHOW TOP OF FASCIA BOARD 9" ABOVE  
PLATE HEIGHT.  
-WHEN DRAWN CORRECTLY, THE HEEL  
HEIGHTS WILL MEASURE AS FOLLOWS:  
3:12 = 12" HEEL  
4:12 = 13" HEEL  
5:12 = 14" HEEL

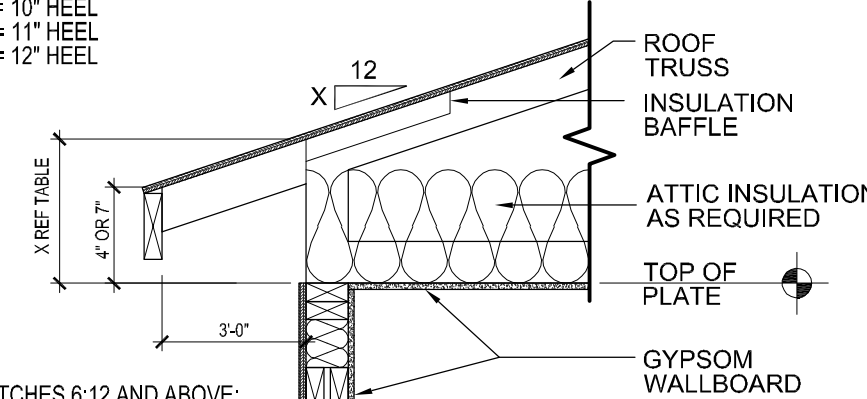


FOR ROOF PITCHES 6:12 AND ABOVE:  
-SHOW TOP OF FASCIA BOARD 6" ABOVE  
PLATE HEIGHT.  
-WHEN DRAWN CORRECTLY, THE HEEL  
HEIGHTS WILL MEASURE AS FOLLOWS:  
6:12 = 12" HEEL  
7:12 = 13" HEEL  
8:12 = 14" HEEL  
9:12 = 15" HEEL  
10:12 = 16" HEEL

IMPORTANT REMINDER: THE LOWEST PITCH ROOF  
ALWAYS MANDATES THE CONDITION. FOR EXAMPLE,  
A ROOF WITH A 4:12 PITCH AND A 6:12 PITCH, WOULD  
FOLLOW THE 9" ABOVE PLATE HEIGHT RULE. THE  
HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL  
DIFFER FROM WHAT IS LISTED HERE.

**7 ENERGY HEEL DETAIL: CZ 4 & 5**  
D-3 NTS

FOR ROOF PITCHES 5:12 AND BELOW:  
-SHOW TOP OF FASCIA BOARD 7" ABOVE  
PLATE HEIGHT.  
-WHEN DRAWN CORRECTLY, THE HEEL  
HEIGHTS WILL MEASURE AS FOLLOWS:  
3:12 = 10" HEEL  
4:12 = 11" HEEL  
5:12 = 12" HEEL



FOR ROOF PITCHES 6:12 AND ABOVE:  
-SHOW TOP OF FASCIA BOARD 4" ABOVE  
PLATE HEIGHT.  
-WHEN DRAWN CORRECTLY, THE HEEL  
HEIGHTS WILL MEASURE AS FOLLOWS:  
6:12 = 10" HEEL  
7:12 = 11" HEEL  
8:12 = 12" HEEL  
9:12 = 13" HEEL  
10:12 = 14" HEEL

IMPORTANT REMINDER: THE LOWEST PITCH ROOF  
ALWAYS MANDATES THE CONDITION. FOR EXAMPLE,  
A ROOF WITH A 4:12 PITCH AND A 6:12 PITCH, WOULD  
FOLLOW THE 7" ABOVE PLATE HEIGHT RULE. THE  
HEEL FOR THE 6:12 ROOF IN THIS CONDITION WILL  
DIFFER FROM WHAT IS LISTED HERE.

**8 ENERGY HEEL DETAIL: CZ 2 & 3**  
D-3 NTS

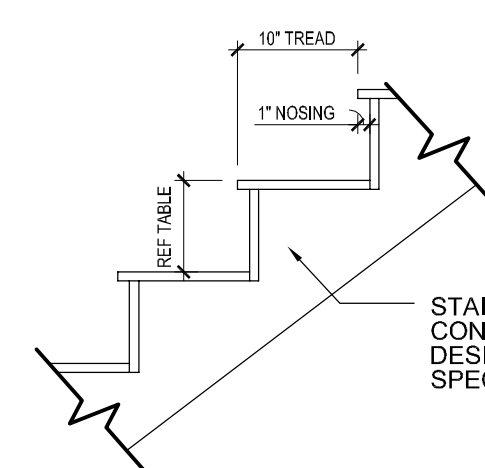


PLATE HEIGHT	10" FLOOR SYSTEM	14" FLOOR SYSTEM	16" FLOOR SYSTEM
8'-1 1/2"	14 RISERS @ 7 11/16"	15 RISERS @ 7 1/2"	15 RISERS @ 7 5/8"
9'-1 1/2"	16 RISERS @ 7 1/2"	16 RISERS @ 7 3/4"	17 RISERS @ 7 7/16"
10'-1 1/2"	17 RISERS @ 7 3/4"	18 RISERS @ 7 9/16"	18 RISERS @ 7 11/16"

**9 TYPICAL STAIR DETAIL**  
D-3 NTS





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Revision No.	Revision Date

**Designer Signature**

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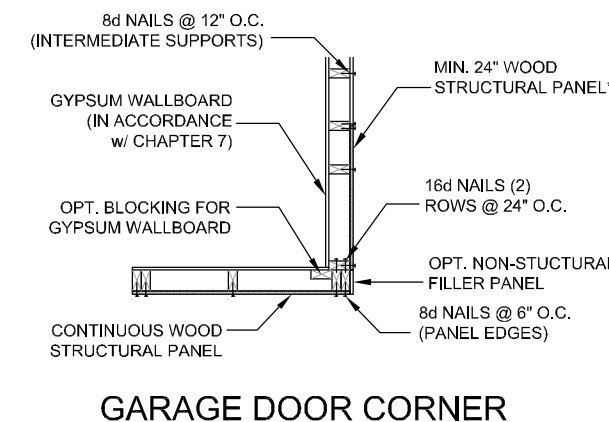
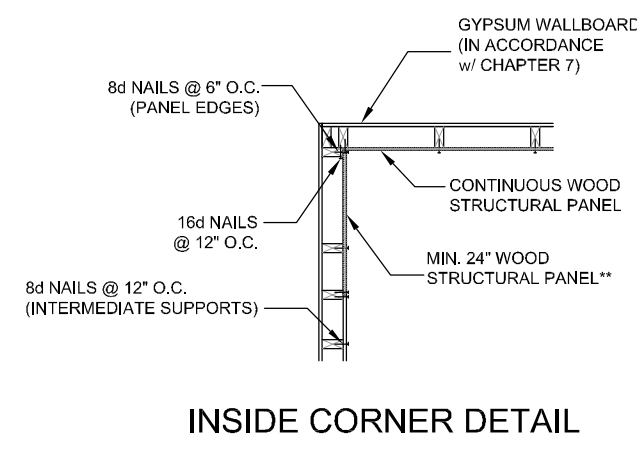
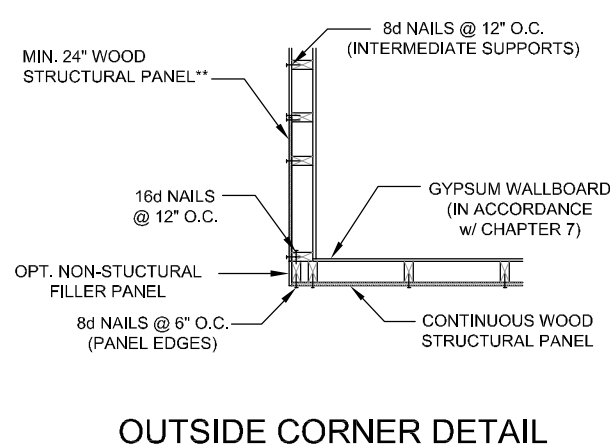
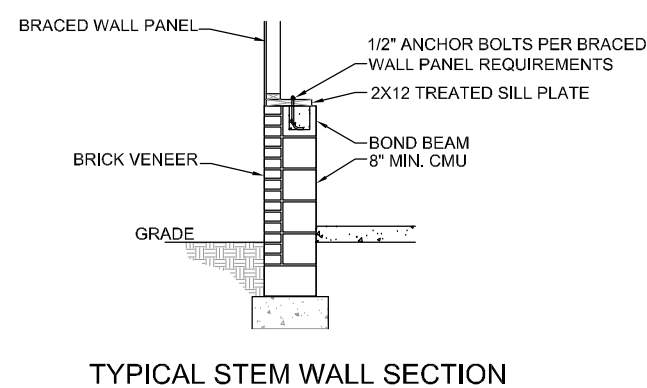
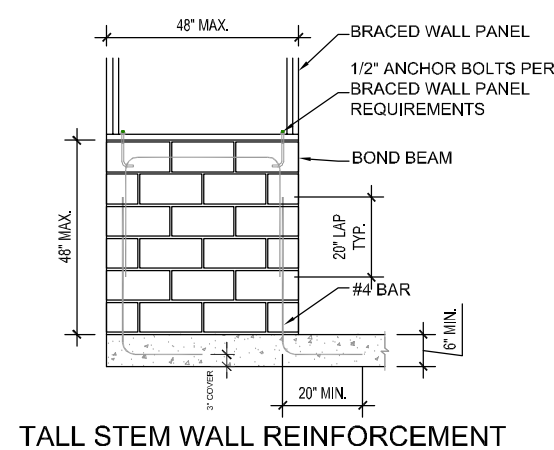
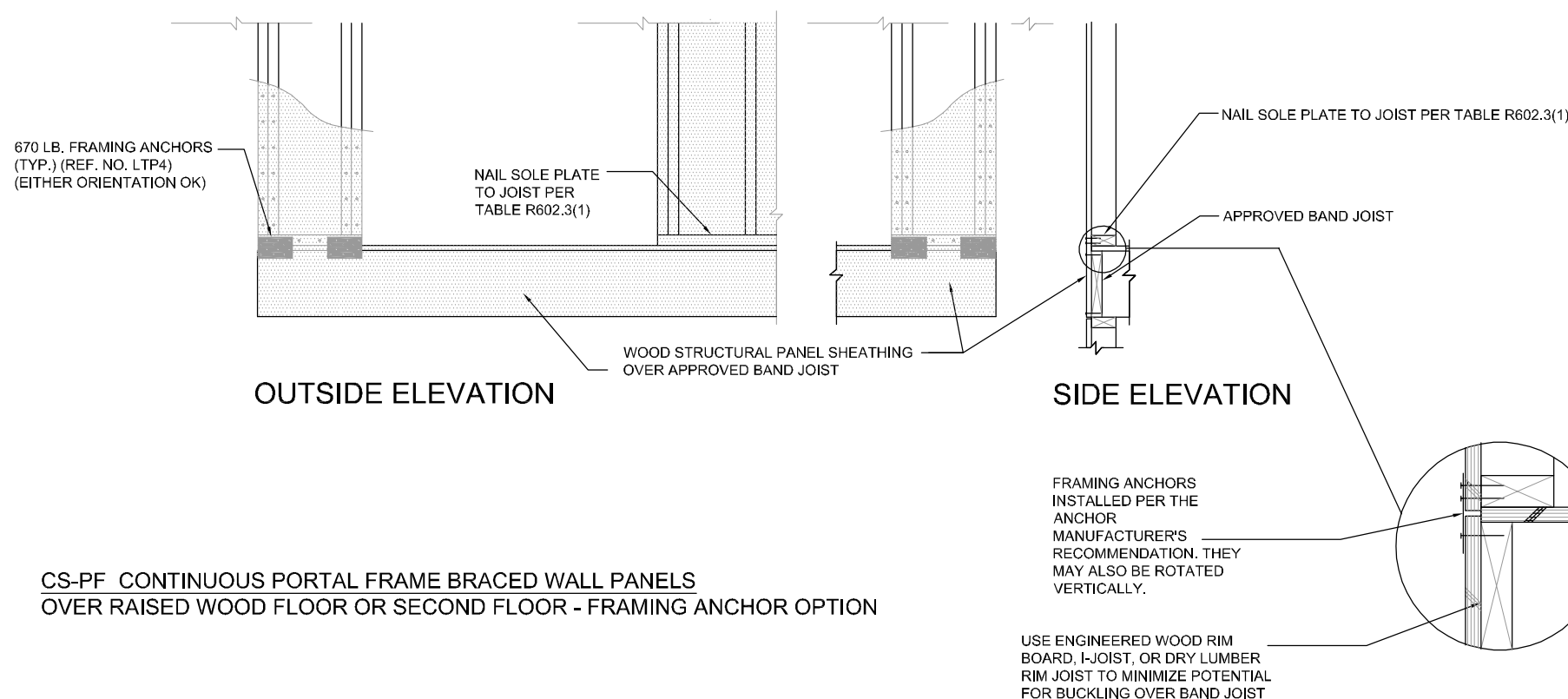
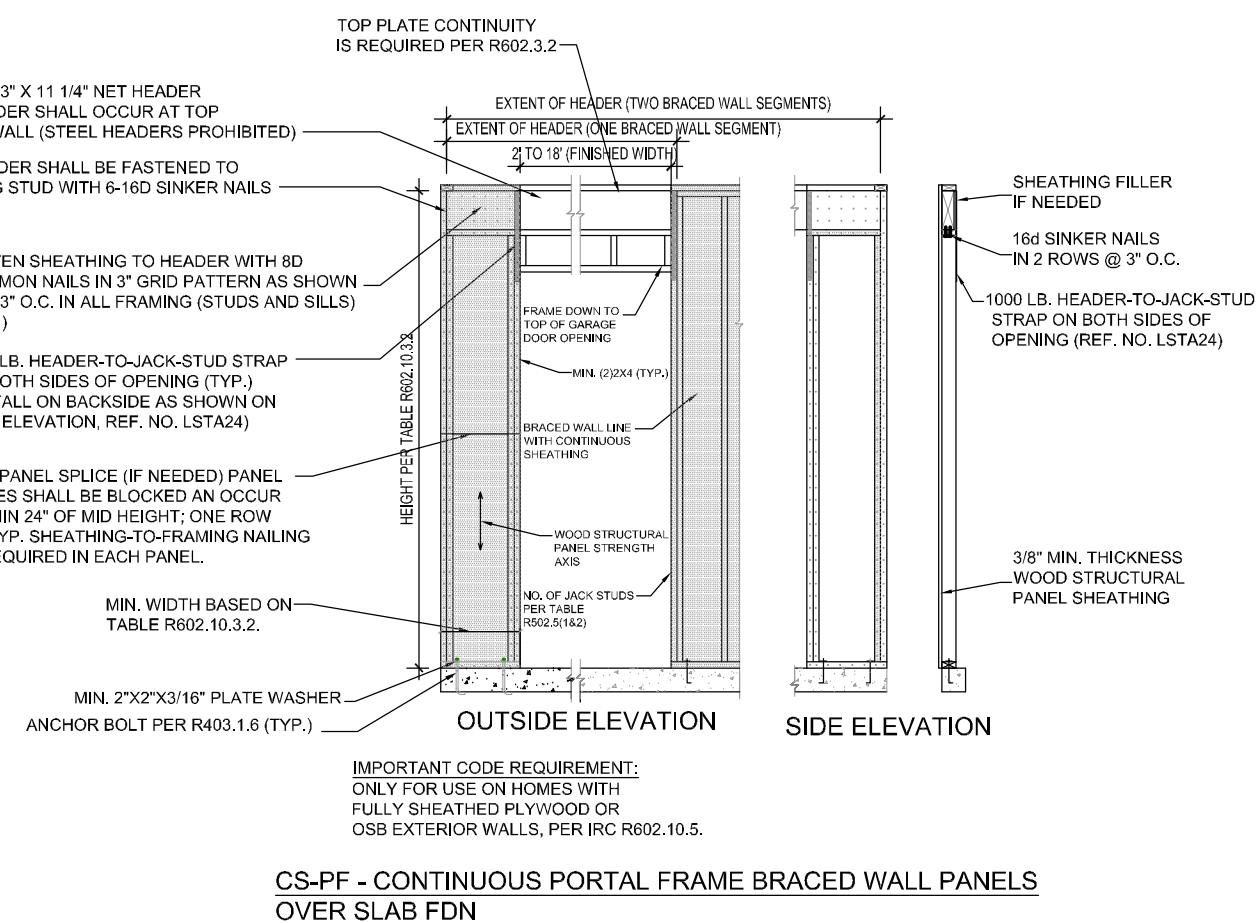
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Title:  
**Standard  
Details**

Plan No.  
**D-4**

Sheet No. \_\_\_\_\_ Of \_\_\_\_\_



**WALL CORNER DETAILS**

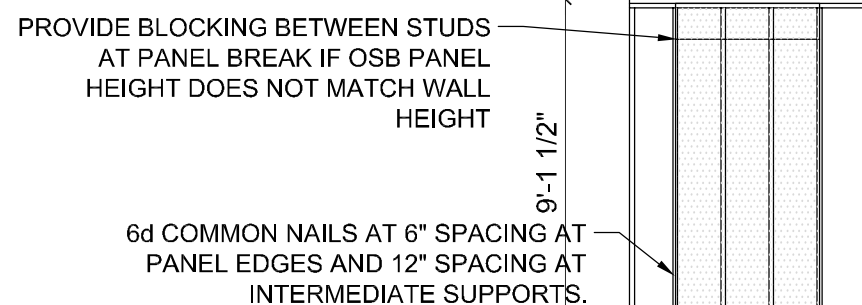
**BRACING NOTES**

**BRACED WALL CONSTRUCTION NOTES: 30' MAX MRH - 10 FT MAX WALL HEIGHT (EXCEPT ITEM 5)**

- ALL EXTERIOR WALLS ARE BRACED WALLS NOTATED EBW AND CONTINUOUSLY SHEATHED (EXTERIOR ONLY) WITH MIN. 7/16 OSB. MINIMUM WALL BRACED WALL PANEL LENGTH TO BE 12" PER LEVEL IN EACH DIRECTION U.N.O. W/ 6d COMMON NAILS AT 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE STUD SUPPORTS. PROVIDE BLOCKING BETWEEN STUDS AT PANEL BREAK IF OSB PANEL HEIGHT DOES NOT MATCH WALL HEIGHT (FIRST LEVEL SHEATHING TO LAP TREATED MUD-SILL PLATE).
- ALL INTERIOR BRACED WALLS NOTATED IBW (IF USED) ARE TO BE BRACED USING DOUBLE SIDED GWB WITH A MINIMUM BRACED WALL PANEL LENGTH OF 20' PER LEVEL U.N.O. W/ GWB NAILED TO STUDS AT 7" O.C.
- MAXIMUM DISTANCE BETWEEN BRACED WALL LINES TO BE 60' U.N.O.
- MAXIMUM OFFSET FOR BRACED WALL CONTINUITY TO BE 4" EACH AND 8" TOTAL PER BRACED WALL LINE (BWL)
- BALLOON FRAMED AND TALL WALLS (OVER 10'-0") TO BE BRACED USING A COMBINATION OF INTERIOR SIMPSON WB126 STRAPPING (CROSS PATTERN - FULLY NAILED) W/ 1/2" GWB AND EXTERIOR OSB SHEATHING WITH CONNECTIONS AS OUTLINED ABOVE.
- PROVIDE 800# HOLD DOWN FASTENERS AT BUILDING CORNERS WHEN A MINIMUM 24" RETURN CANNOT BE MET. SEE R602.10 FOR HOLD DOWN ATTACHMENT.
- FOR 120 MPH & 130 MPH PROVIDE BLOCKING PER R4506.2 IF LESS THAN 50% OF THE WALL LENGTH IS SHEATHED.

**WSP - WOOD STRUCTURAL PANEL**

BRACED WALL PANEL PER IRC TABLE R602.10.2.1  
3/8" MIN. OSB SHEATHING ON ONE SIDE OF WALL.  
MINIMUM PANEL LENGTH 48".



**BRACING METHODS**

**GB - GYPSUM BOARD**

BRACED WALL PANEL PER IRC TABLE R602.10.2.1  
1/2" GYPSUM BOARD NAILED TO STUDS AT 7" O.C.  
MINIMUM PANEL LENGTH 48" WHEN APPLIED TO BOTH SIDES OF WALL AND 96" WHEN APPLIED TO ONE SIDE OF WALL.

