

FOLLOW ALL RESIDENTIAL ENERY CODE
CHAPTER 4, 2018 NC BUILDING CODE
FOR ALL INSULATION AND FENESTRATION VALUES



Purchaser must verify all dimensions and conditions before beginning construction.

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THIS PLAN DESIGNED UNDER NORTH CAROLINA
RESIDENTIAL CODE 2018 EDITION (2021 IRC)

NC (2018 NCRC) : KING : 118-120 MPH

MidTown Designs Inc. 1732 Deacon Falls Way, Wendell NC 27591 Phone: 919-783-8626 www.midtowndesigns.com

HAYMARKET

DATE 10/17/2024

PROJECT # 241001

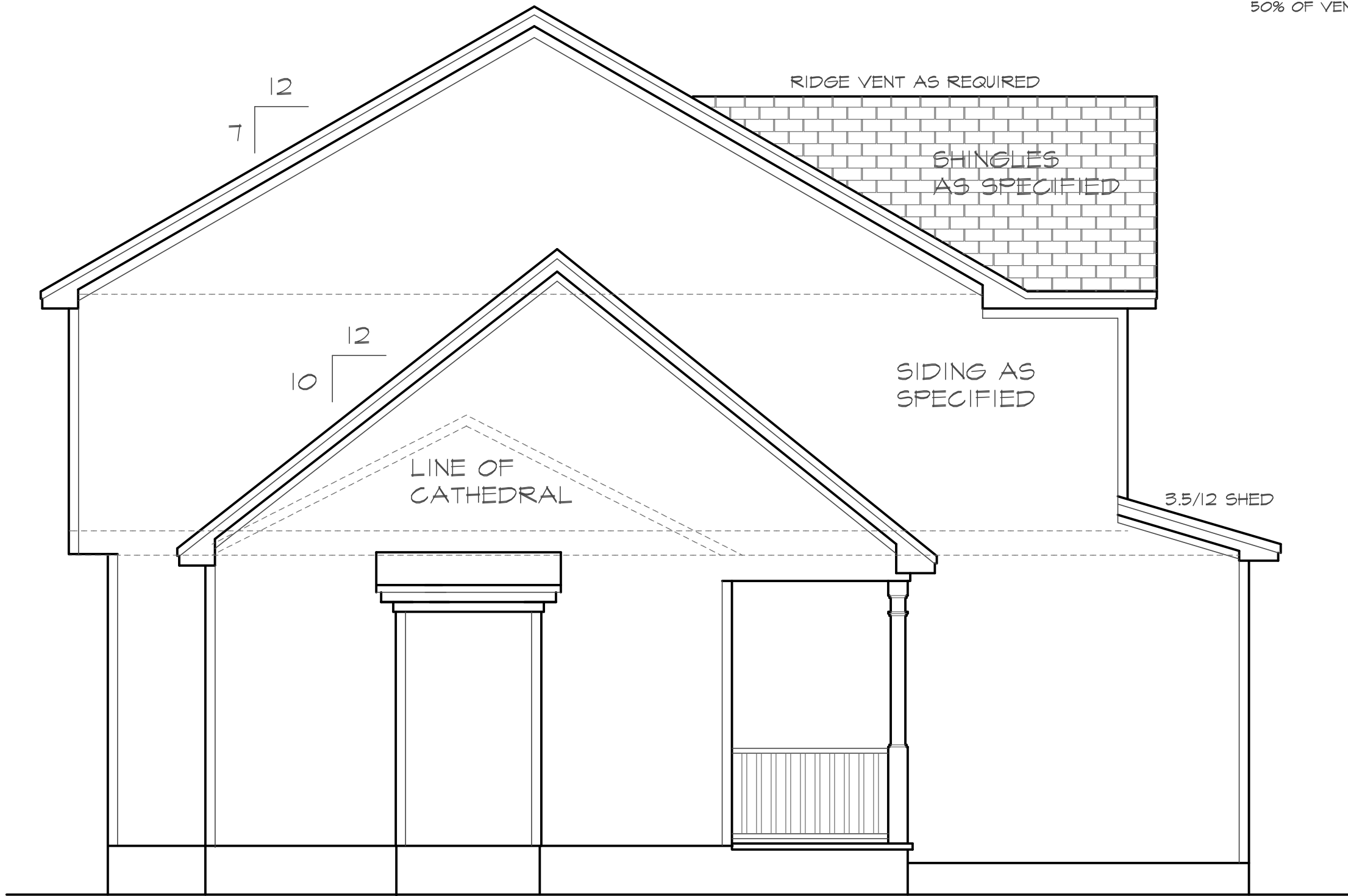
ATTIC VENTILATION:

THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1 TO 150 OF THE AREA OF THE SPACE VENTILATED EXCEPT THAT THE AREA MAY BE 1 TO 300, PROVIDED AT LEAST 50 PERCENT OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3 FEET ABOVE EAVE OR CORNICE VENTS WITH THE BALANCE OF THE REQUIRED VENTILATION TO BE PROVIDED BY EAVE OR CORNICE VENTS.

GROSS ATTIC AREA TO BE VENTILATED 1264 SQ.FT.

2191/300 = 4.21 SQ.FT. NET FREE AREA

50% OF VENTING MUST BE 3FT. ABOVE EAVE OR SOFFIT VENTS.



LEFT SIDE ELEVATION

SCALE 1/8" = 1'0"



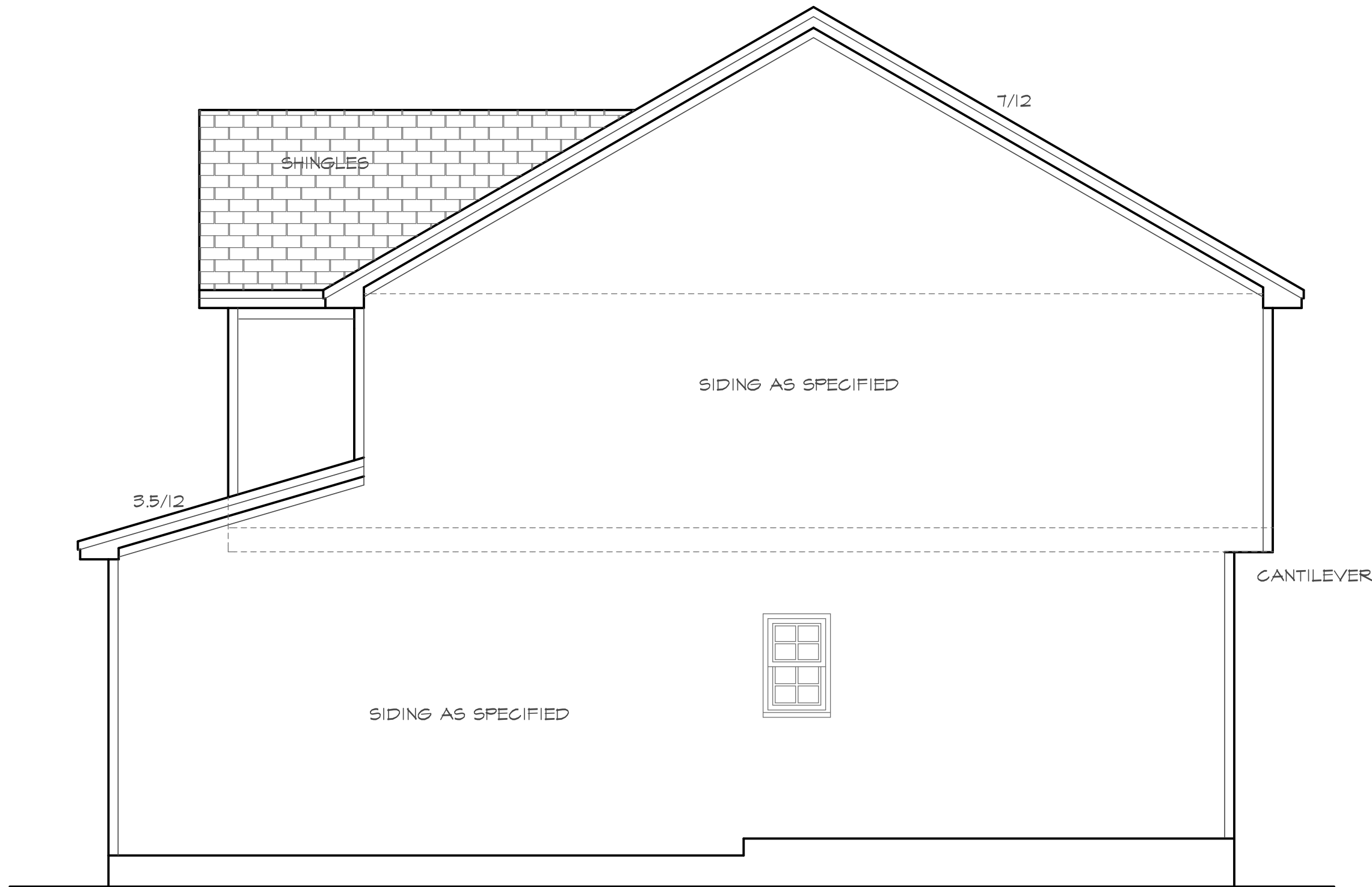
FRONT ELEVATION

SCALE 1/4" = 1'0"



REAR ELEVATION

SCALE 1/8" = 1'0"



RIGHT SIDE ELEVATION

SCALE 1/8" = 1'0"

FOLLOW ALL RESIDENTIAL ENERGY CODE
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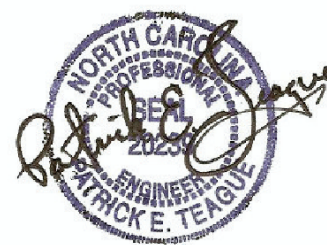
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FOUNDATION STRUCTURAL NOTES:

- (1) (3) 2 x 10 SFF #2 GIRDER, DROPPED TYPICAL UND.
- (2) CONCRETE BLOCK PIER SIZE SHALL BE:

SIZE	HOLLOW MASONRY	SOLID MASONRY
8 x 16	UP TO 32' HIGH	UP TO 5'-0" HIGH
12 x 16	UP TO 48' HIGH	UP TO 8'-0" HIGH
16 x 16	UP TO 64' HIGH	UP TO 12'-0" HIGH
24 x 24	UP TO 96' HIGH	

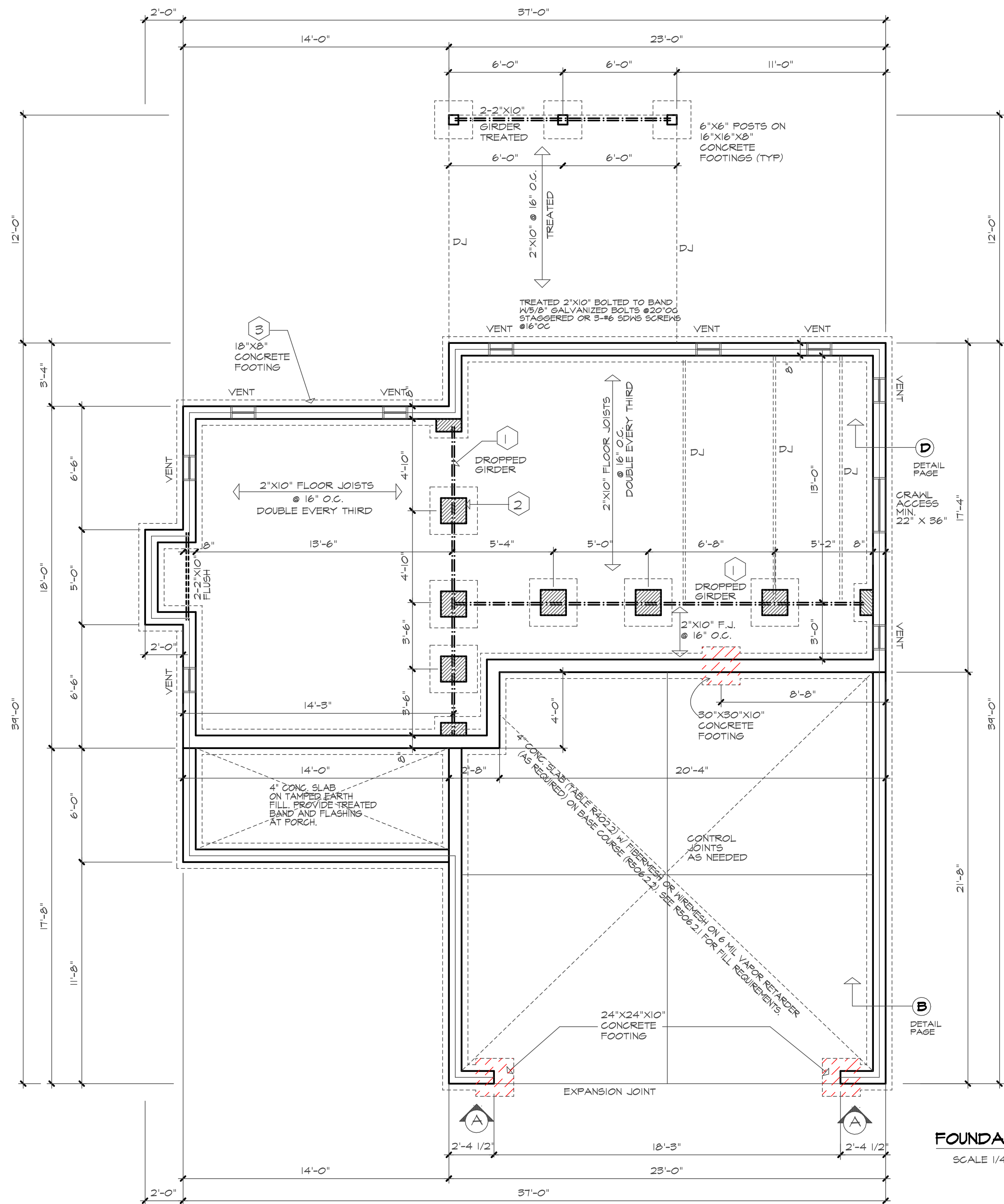
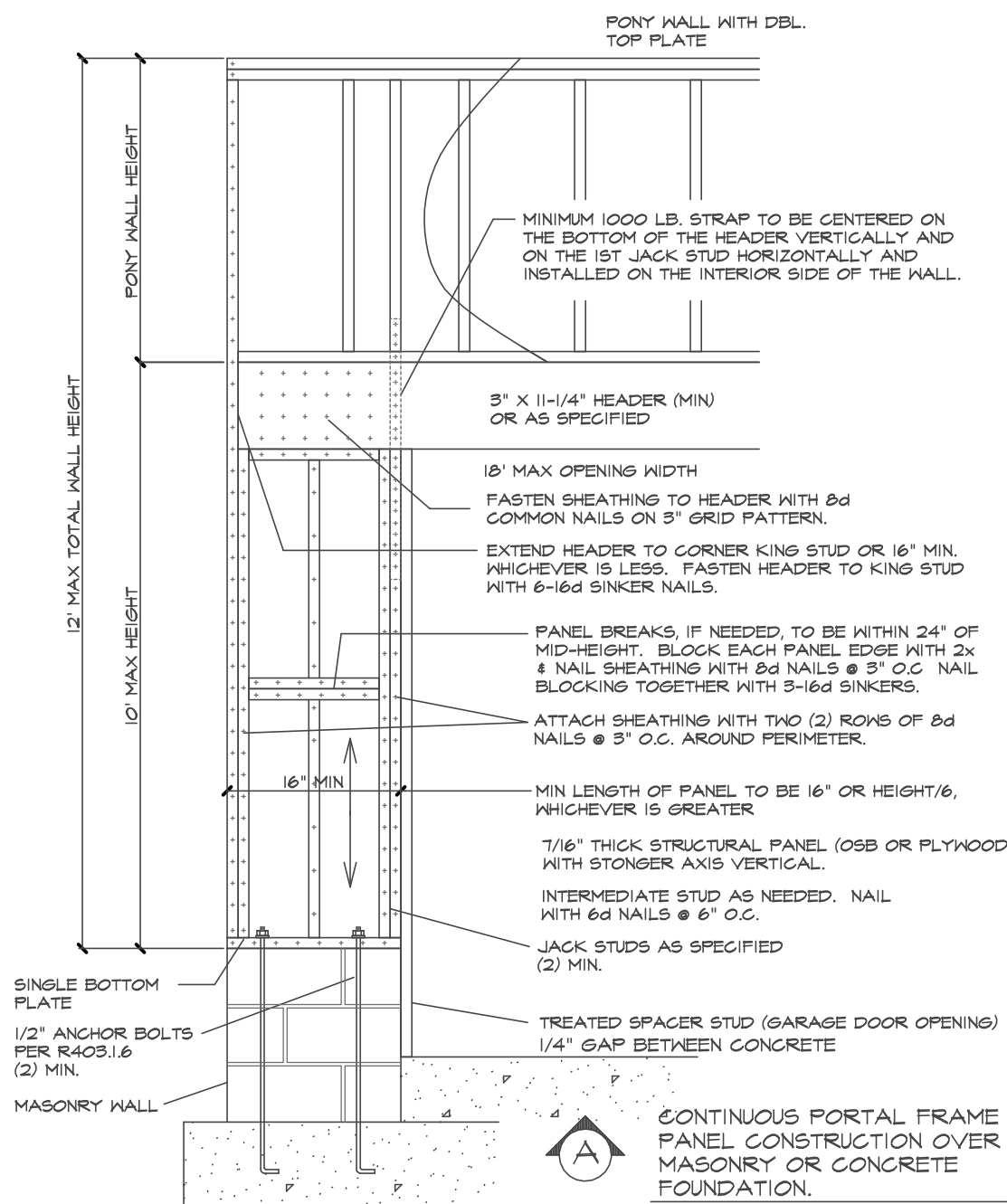
WITH 30" x 30" x 10" CONCRETE FOOTING, UND.
- (3) WALL FOOTING AS FOLLOWS:
DEPTH: 8" - UP TO 2-1/2 STORY
10" - 3 STORY
WIDTH: SIDING (OR EQUAL)
- 16" - UP TO 2-1/2 STORY
- 18" - 3 STORY
BRICK VENEER
- 16" - 1 STORY
- 20" - 2 STORY
- 24" - 3 STORY

FOR FOUNDATION WALL HEIGHT AND BACKFILL
REQUIREMENTS, REFER TO NORTH CAROLINA
RESIDENTIAL CODE TABLE R404.1.1 (1 THRU 4)
NOTE: ASSUMED SOIL BEARING CAPACITY = 2000 PSF.
CONTRACTOR MUST VERIFY SITE CONDITIONS
AND CONTACT SOILS ENGINEER IF MARGINAL OR
UNSTABLE SOILS ARE ENCOUNTERED.
ATTACH SILL PLATE WITH 1/2" DIA. ANCHOR BOLTS
AT 6'-0" CENTERS (1" EMBEDMENT) AND 12" FROM
EACH PLATE END. (SECTION R 405.1.6)

4 * ■ DESIGNATES A SIGNIFICANT POINT
LOAD TO HAVE SOLID BLOCKING TO
PIER. SOLID BLOCK ALL BEAM BEARING
POINTS NOTED TO HAVE THREE OR
MORE STUDS TO FND, TYPICAL.

5 ABBREVIATIONS:
"S" = SINGLE JOIST
"D" = DOUBLE JOIST
"T" = TRIPLE JOIST

(6) (4) 2 x 10 SFF #2 GIRDER, TYPICAL UND.



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STRUCTURAL NOTES

2) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION (2021 IRC), PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK. NOR WILL THE ENGINEER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. "CONSTRUCTION REVIEW" SERVICES ARE NOT PART OF OUR CONTRACT. ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE AND THE BUILDING CODE.

3) DESIGN LOADS (R301.4) (LISTED AS: LIVE LOAD, DEAD LOAD, DEFLECTION LIMIT)

ROOMS OTHER THAN SLEEPING ROOMS: (40 PSF, 10 PSF, L/360)

SLEEPING ROOMS: (30 PSF, 10 PSF, L/360)

ATTIC WITH PERMANENT STAIR: (40 PSF, 10 PSF, L/360)

ATTIC WITH OUT PERMANENT STAIR: (20 PSF, 10 PSF, L/360)

ATTIC WITH OUT STORAGE: (10 PSF, 10 PSF, L/240)

STAIRS: (40 PSF, +/- L/360)

EXTERIOR BALCONIES: (60 PSF, 10 PSF, L/360)

DECKS: (40 PSF, 10 PSF, L/360)

RAILINGS AND HANDRAILS: (200 LBS)

PASSENGER VEHICLE GARAGES: (30 PSF, 10 PSF, L/360)

FIRE ESCAPES: (40 PSF, 10 PSF, L/360)

SNOW: (20 PSF)

WIND LOAD: (BASED ON 100 MPH WIND VELOCITY & EXPOSURE B)

4) WALLS SHALL BE BRACED ACCORDING TO R4506.2 FOR 150 MPH WIND ZONES AND UNDER. NOTE THAT THE BRACING SHOWN ON THE PLAN IS BASED ON THE PRESCRIPTIVE BRACING REQUIREMENTS OF THE CODE AND SHALL BE VERIFIED AND/OR APPROVED BY THE CODE OFFICIAL. WOOD STRUCTURAL PANEL SHEATHING SHALL EXTEND TO UPPER MOST DOUBLE BEARING PLATE

5) ALL WALLS ON ALL STORES SHALL BE SHEATHED 7/16" WOOD STRUCTURAL SHEATHING PANELS 5/8" FOR 150 MPH EXPOSURE C. SHEATHING SHALL BE ATTACHED WITH 8d NAILS AT A 6" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS. BLOCKING IS REQUIRED ON ALL WALLS IN 110 MPH ZONE AND ABOVE

6) IF LESS THAN 50% OF THE WALL LENGTH IS SHEATHED, BLOCKING IS REQUIRED AT ALL PANEL EDGES. ALSO THE 8d NAILS SHALL BE ATTACHED ON A 3/16" NAILING PATTERN. SEE PLAN FOR WALL REQUIRED TO HAVE BLOCKING AND 3/16" NAILING PATTERN.

7) IF LESS THAN 25% OF THE WALL LENGTH IS SHEATHED, THE WALL SHALL BE DESIGNED IN ACCORDANCE WITH APPROVED ENGINEERING PRACTICE. SEE PLAN FOR LOCATION OF ENGINEERED PORTIONS OF WALLS.

8) CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (N.O.). AIR ENTRAINMENT PER TABLE 402.2. ALL CONCRETE SHALL BE PROPORTIONED, MIXED, HANDLED, SAMPLED, TESTED AND PLACED IN ACCORDANCE WITH ACI STANDARDS. ALL SAMPLES FOR PUMPING SHALL BE TAKEN FROM THE EXIT END OF THE PUMP.

6) ALLOWABLE SOIL BEARING PRESSURE ASSUMED TO BE 2000 PSF. THE CONTRACTOR MUST CONTACT A GEOTECHNICAL ENGINEER AND THE STRUCTURAL ENGINEER IF UNSATISFACTORY SUBSURFACE CONDITIONS ARE ENCOUNTERED. THE SURFACE AREA ADJACENT TO THE FOUNDATION WALL SHALL BE PROVIDED WITH ADEQUATE DRAINAGE, AND SHALL BE GRADED SO AS TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS.

7) ALL FRAMING LUMBER SHALL BE SPF #2176 = 875 PSI UNLESS NOTED OTHERWISE (N.O.). ALL TREATED LUMBER SHALL BE SPF #2 (TWP#19 PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (TWP#19 PSI) = 425 PSI - MIN.

8) ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2X4 STUD COLUMN FOR 6'-0" MAX. BEAM SPAN (N.O.), (2) 2X4 STUDS FOR BEAM SPAN GREATER THAN 6'-0" (N.O.).

9) L.V.L. SHALL BE LAMINATED VENEER LUMBER, Fb=2600 PSI, Fv=285 PSI, E=1,800,000 PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER, Fb=2400 PSI, Fv=240 PSI, E=2,000,000 PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER, Fb=2280 PSI, Fv=400 PSI, E=1,850,000 PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

10) ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH THE SEALED STRUCTURAL DRAWINGS. TRUSSES AND I-JOISTS SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. ANY CHANGE IN TRUSS OR I-JOIST LAYOUT SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.

11) ALL STRUCTURAL STEEL SHALL BE ASTM A-36. STEEL BEAMS SHALL BE SUPPORTED AT EACH END WITH A MINIMUM BEARING LENGTH OF 3 1/2" INCHES AND FULL FLANGE WIDTH. PROVIDE SOLID BEARING FROM BEAM SUPPORT TO FOUNDATION. BEAMS SHALL BE ATTACHED TO EACH SUPPORT WITH TWO LAG SCREWS (1/2" DIAMETER x 4" LONG). LATERAL SUPPORT IS CONSIDERED ADEQUATE PROVIDED THE JOIST ARE TOE NAILED TO THE SOLE PLATE, AND SOLE PLATE IS NAILED OR BOLTED TO THE BEAM FLANGE @ 48" O.C. ALL STEEL TUBING SHALL BE ASTM A500.

12) REBAR SHALL BE DEFORMED STEEL, ASTM#615, GRADE 60.

13) FLITCH BEAMS SHALL BE BOLTED TOGETHER USING (2) ROWS OF 1/2" DIAMETER BOLTS (ASTM A307) WITH WASHERS PLACED UNDER THE THREADED END OF BOLT. BOLTS SHALL BE SPACED AT 24" O.C. (MAX), AND STAGGERED AT THE TOP AND BOTTOM OF BEAM 12" EDGE DISTANCE) WITH 2 BOLTS LOCATED AT 6" FROM EACH END.

14) BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 6'-0" SPAN AND 6"x4"x3/16" STEEL ANGLE WITH 6" LEG VERTICAL FOR SPANS UP TO 4'-0" (N.O.).

15) THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF. THE POSITIVE AND NEGATIVE DESIGN PRESSURES REQUIRED FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION SHALL BE AS FOLLOWS:

ROOF:

45.4 PSF - 2:12 PITCH OR LESS

34.8 PSF - 2:12 TO 11:12 PITCH

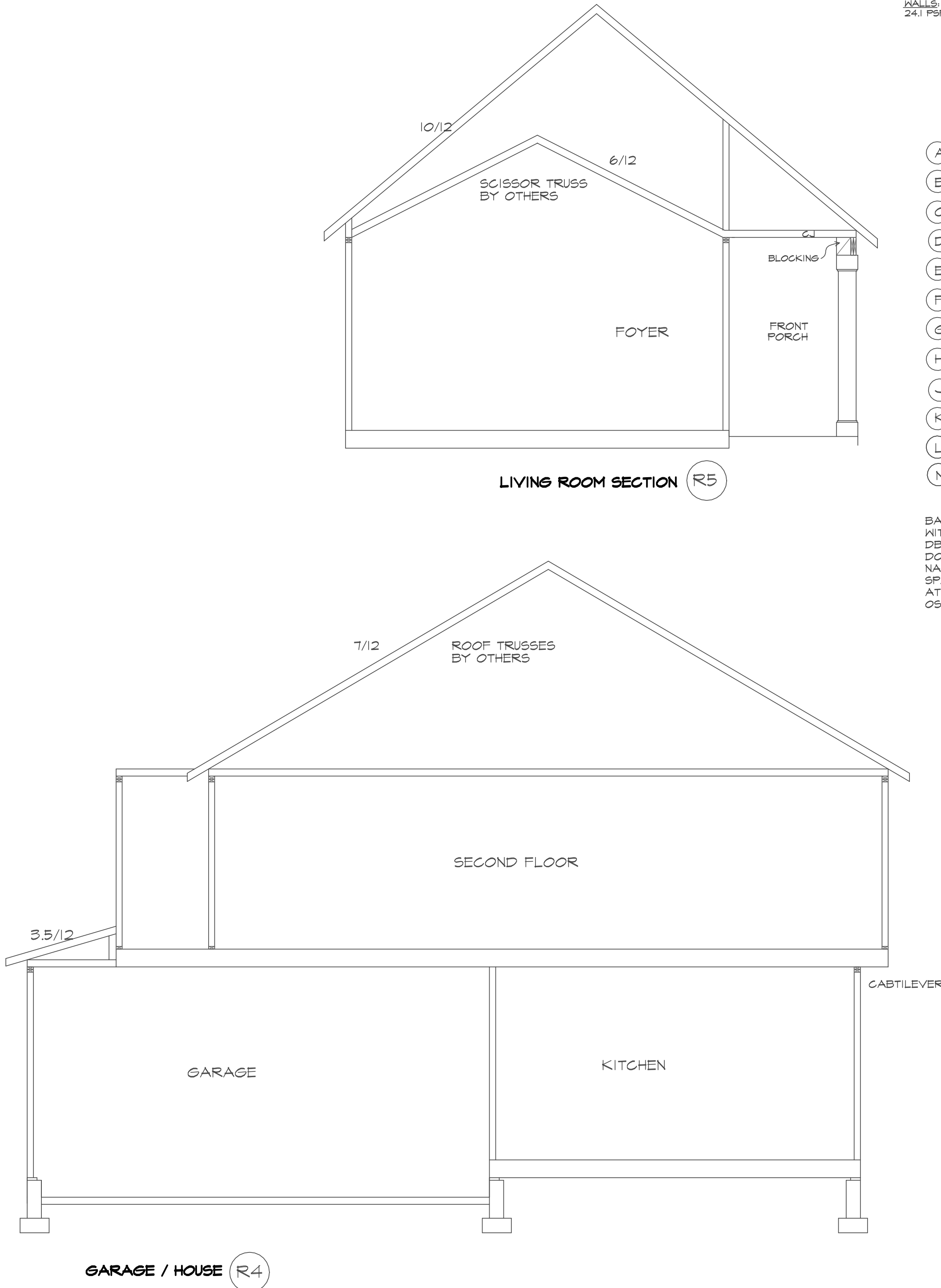
31 PSF - 11:12 TO 12:12 PITCH

WALLS:

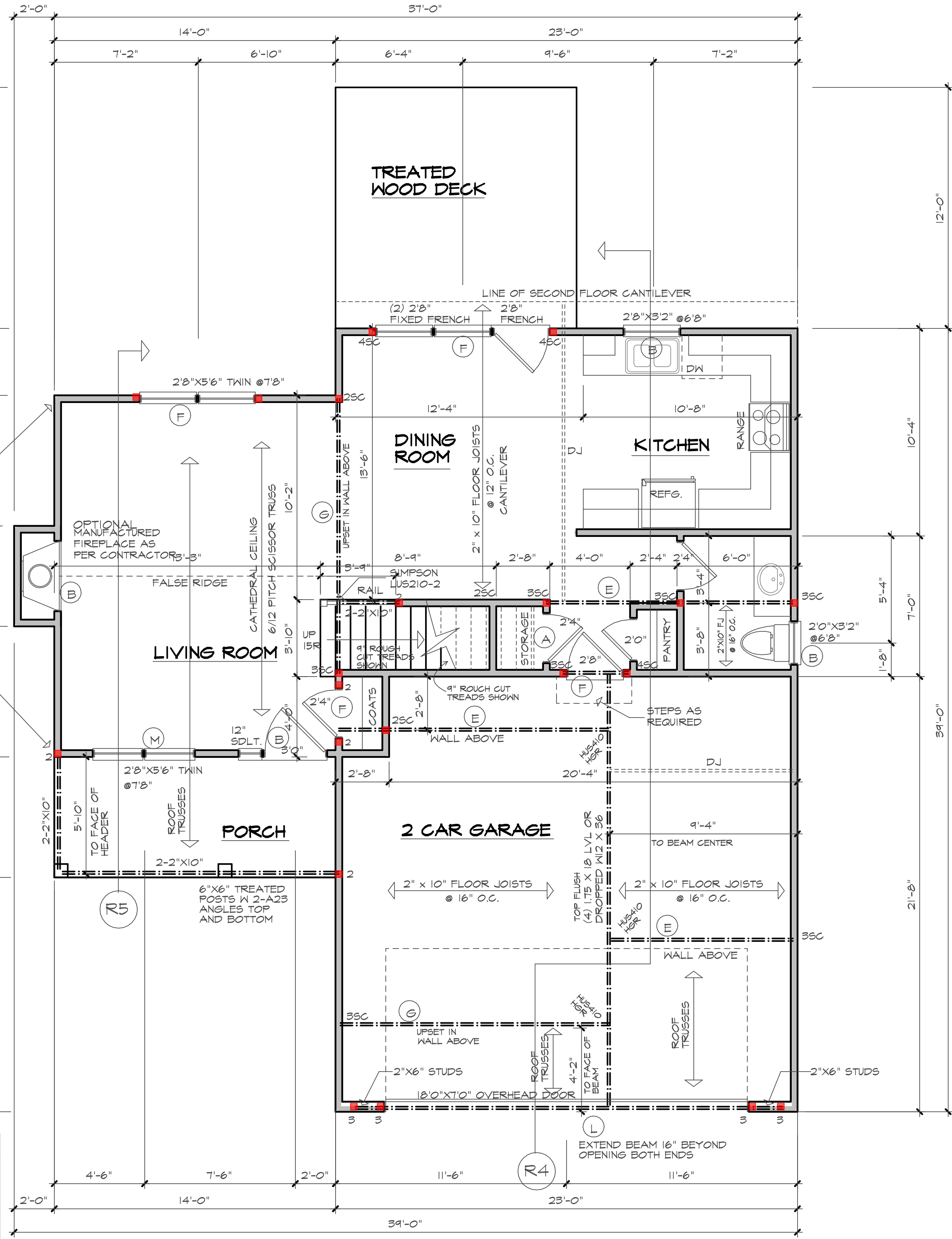
24.1 PSF - WALLS

BEAM SCHEDULE	
(A)	2-2"x10" FLUSH
(B)	2-2"x10" DROPPED
(C)	2-2"x8" FLUSH
(D)	2-2"x8" DROPPED
(E)	2-1.75"x9.25" LVL FLUSH
(F)	2-1.75"x9.25" DROPPED
(G)	2-1.75"x11/16" LVL BOTTOM FLUSH
(H)	2-1.75"x14" LVL FLUSH
(J)	2-1.75"x14" LVL DROPPED
(K)	3-1.75"x14" LVL FLUSH
(L)	3-1.75"x18" LVL DROPPED
(M)	2-2"x12" DROPPED

BALLOON FRAME GABLE END WALL WITH 2"x6" STUDS @ 16" O.C., OR DBL. 2"x4" STUDS @ 16" O.C. DOUBLE 2"x4" STUDS SHALL BE NAILED TOGETHER AND MAY BE SPLICED WITH A MIN. 8'-0" OVERLAP AT CENTER. INSTALL 1/2" CDX OR OSB STRUCTURAL SHEATHING ON WALL.



SQUARE FOOTAGE	
FIRST FLOOR	661 SQ.FT.
SECOND FLOOR	742 SQ.FT.
TOTAL	1403 SQ.FT.
GARAGE	488 SQ.FT.
PORCHES	228 SQ.FT.



FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

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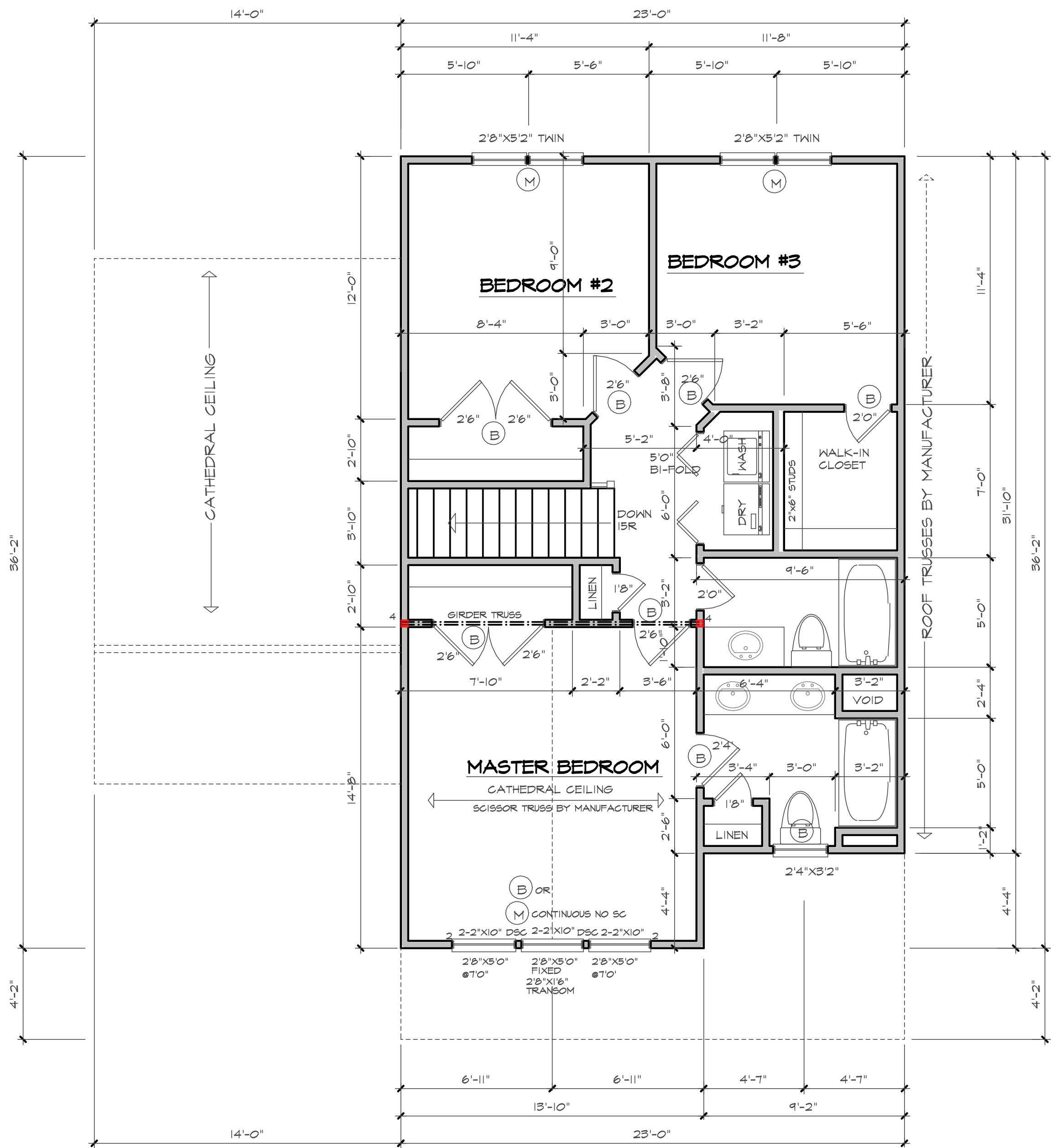
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- BEAM SCHEDULE
- (A) 2-2"x10" FLUSH
 - (B) 2-2"x10" DROPPED
 - (C) 2-2"x8 FLUSH
 - (D) 2-2"x8" DROPPED
 - (E) 2-1.75"x9.25" LVL FLUSH
 - (F) 2-1.75"x9.25" DROPPED
 - (G) 1-1.75"x14" LVL FLUSH
 - (H) 2-1.75"x14" LVL FLUSH
 - (J) 2-1.75"x14" LVL DROPPED
 - (K) 3-1.75"x14" LVL FLUSH
 - (L) 3-1.75"x18" LVL DROPPED
 - (M) 2-2"x12" DROPPED



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ROOF FRAMING NOTES:

(115-120) MPH WIND ZONE)

1. ALL RAFTERS TO BE 2x8 @ 16" O.C. WITH 2 X 12 RIDGE, UNO.
 2. (2)2x10 OR (1) 1.75" X 11 7/8" LVL HIP. (2)2x10 HIPs MAY BE SPLICED WITH A MINIMUM 6'-0" OVERLAP AT CENTER.
 3. (2) 1.75" X 11 7/8" LVL VALLEY. DO NOT SPLICE VALLEYS
 4. 2-1.75x11 7/8" LVL VALLEY
 5. FALSE FRAME VALLEY ON 2x10 FLAT PLATE
 6. 2"x6" RAFTERS @16" O.C. W/ 2x10 RIDGE
 7. 2"x10" RAFTERS @16" O.C. W/ 2x12 RIDGE
FURR DOWN FOR FULL CONTACT
 - "SR" = SINGLE RAFTER
 - "DR" = DOUBLE RAFTER
 - "TR" = TRIPLE RAFTER
 - "RS" = ROOF SUPPORT FOR RAFTER SPLICE
 - "■" = (3) STUD OR 4x4 POST FOR ROOF SUPPORT
 - FIR DOWN 2x8 RAFTERS OR USE 2x10 AT CATHEDRAL CEILINGS
 - ATTACH VAULTED RAFTERS WITH HURRICANE CLIPS, SIMPSON "H-5" OR EQUIVALENT
- 2"x6" COLLAR TIES @32" TYPICAL

HEADER/BEAM & COLUMN NOTES

1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2x10 (4" WALL) OR (3) 2x10 (6" WALL) WITH (1) SUPPORT STUD, UNLESS NOTED OTHERWISE.

2. THE NUMBER SHOWN AT BEAM AND HEADER SUPPORTS INDICATES THE NUMBER OF SUPPORT STUDS REQUIRED IN STUD POCKET OR COLUMN. THE NUMBER OF KING STUDS AT EACH END OF HEADERS IN EXTERIOR WALLS SHALL BE ACCORDING TO ITEM "d" IN TABLE R602.3(5) OR AS BELOW:

- UP TO 4' SPAN: (1) KING STUD
- OVER 4' UP TO 8' SPAN: (2) KING STUDS
- OVER 8' UP TO 11' SPAN: (3) KINGS STUDS
- OVER 11' SPAN: (4) KING STUDS

TRUSS SYSTEM REQUIREMENTS

NC (2018 NRCG): Wind: 115-120 MPH

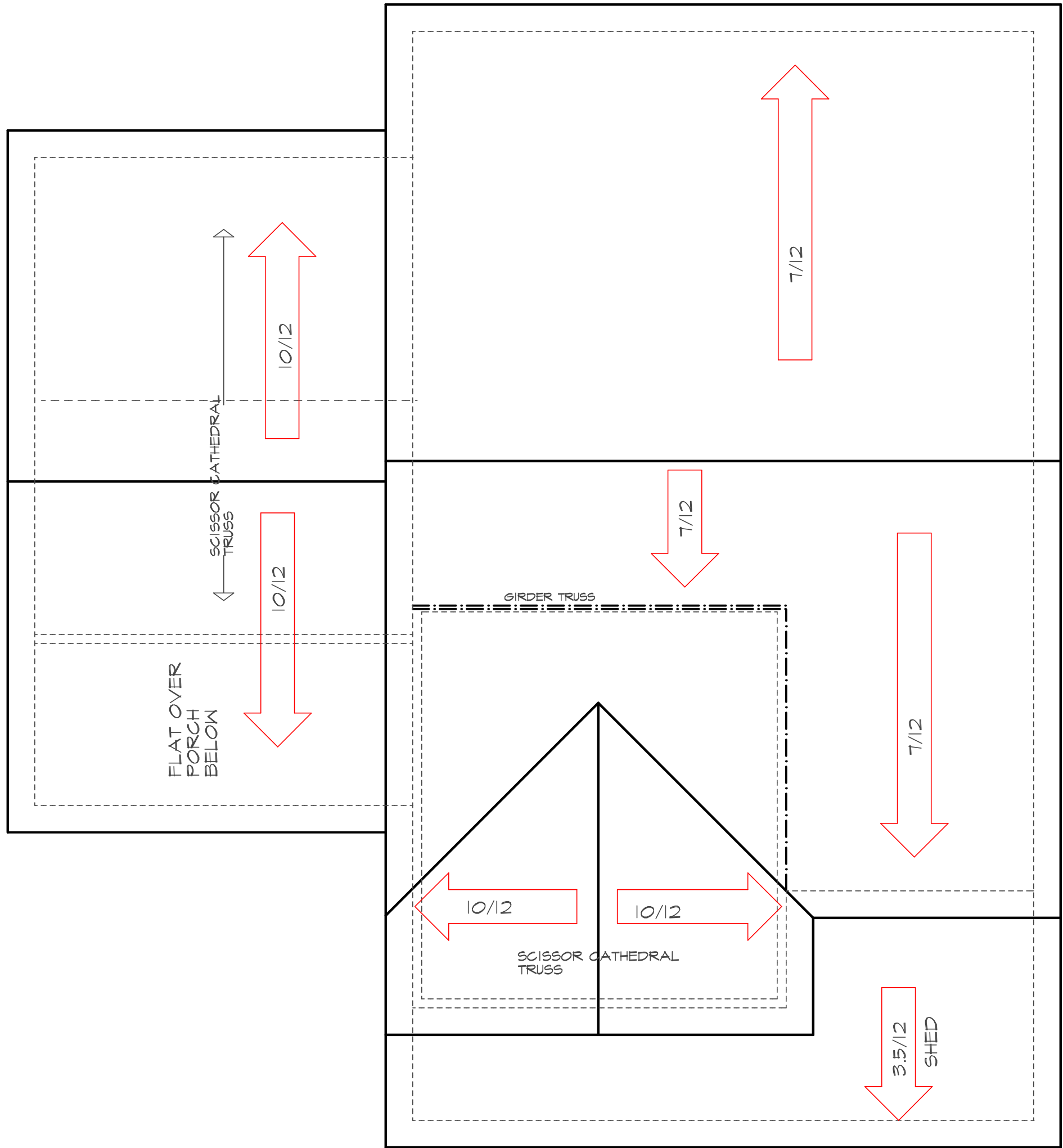
1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH ENGINEER OF RECORD.

2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.

3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SFF #2 OR #3 PLATES OR LEDGERS (NO).

4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

5. INSTALL A TRUSS BELOW PARALLEL NON-LOAD BEARING WALLS OR BLOCK BETWEEN TRUSSES (BY TRUSS SUPPLIER) UNDER WALLS.



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

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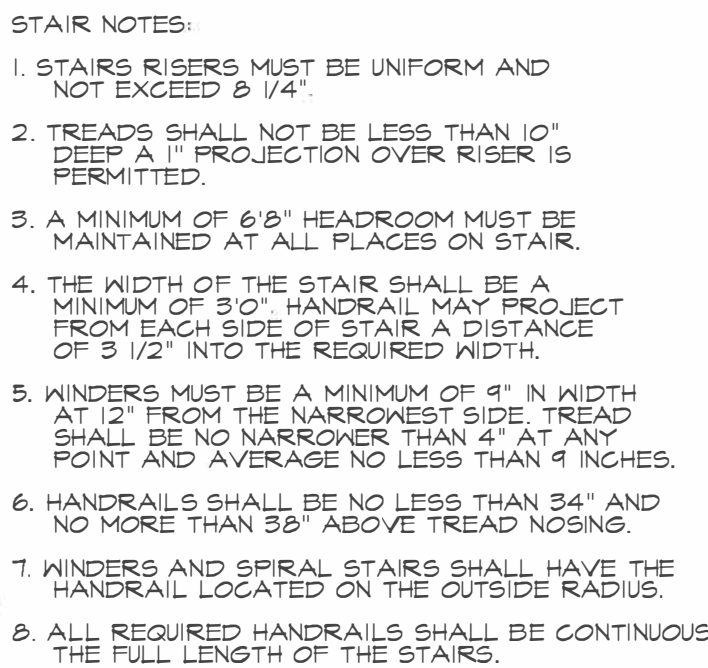
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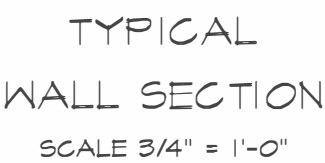
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NO SCALE



HOUSE DESIGNED FOR 115 or 120 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" ON CENTER AND
WITHIN 12" OF ALL CORNERS. THERE SHALL BE A MINIMUM
OF TWO (2) ANCHOR BOLTS PER PLATE SECTION.

MINIMUM VALUES FOR ENERGY COMPLIANCE
ZONE 4A, § 3. VERIFY ZONE BEFORE CONSTRUCTION

CLIMATE ZONE	FENESTRATION U-FACTOR ¹	SKYLIGHT U-FACTOR ²	GLAZED FENESTRATION SHGC ³	CEILING R-VALUE ⁴	WOOD FRAME WALL MASS R-VALUE ⁵	MASS R-VALUE ⁶	FLOOR R-VALUE ⁷	BASEMENT FLOOR R-VALUE ⁸	SLAB R-VALUE AND DEPTH ⁹	CRACK SPACE WALL R-VALUE ¹⁰
3	0.35	0.55	0.30	38 or 30/24	15 or 13+2.5 ¹¹	9/13 or 10/10	5	5/13 ¹²	0	5/13
4	0.35	0.55	0.30	38 or 30/24	15 or 13+2.5 ¹¹	9/13 or 10/10	5	10/15	10	10/15
5	0.35 ¹³	0.55	NR	38 or 30/24	15 or 14+5 ¹⁴ or 15+3 ¹⁵	13/17 or 13/12.5	5	10/15	10	10/19

CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR	CRAWL SPACE WALL U-FACTOR
3	0.35	0.55	0.030	0.077	0.141	0.047	0.091 ^c	0.136
4	0.35	0.55	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.55	0.030	0.061	0.082	0.033	0.059	0.065

8. Nonfermentation *U*-factors shall be obtained from measurement, calculation or an approved source.
 9. Where more than half the insulation is on the interior, the mass wall *U*-factors shall be a maximum of **0.07** in Climate Zone 3, **0.07** in Climate Zone 4 and **0.05** in Climate Zone 5.
 10. Basement wall *U*-factor of 0.360 in warm-humid locations as defined by Figure R301.1 and Table R301.1.
 11. A maximum of two placed fenestration product assemblies having a *U*-factor no greater than 0.55 and a SHGC no greater than 0.70 shall be permitted to be substituted for minimum code compliant fenestration product assemblies without penalty. When applying this note using the REScheck/UA Trade-off compliance method to allow continued use of the software, the applicable fenestration products shall be modeled as meeting the *U*-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual *U*-factor and actual SHGC shall be noted in the comments section of the software for documentation of justification of this note. Customer approval of the use of the software to substitute products shall be verified compared to the allowed maximum *U*-factor, maximum *U*-factor requirement and maximum SHGC requirement, as applicable.

SECTION R807

NO ATTIC ACCESS OR ATTIC ACCESSORIES SHALL BE PROVIDED FOR ROADSIDE ACCESS TO THE TRUCK STOP AREA. THERE SHALL BE A VERTICAL HEIGHT OF 60 INCHES (5'2 1/2") OR GREATER. THE NET CLEAR OPENING SHALL NOT BE LESS THAN 20 INCHES BY 30 INCHES (5'0" BY 7'6") AND SHALL BE LOCATED IN A HALLWAY OR OTHER READILY ACCESSIBLE LOCATION AS AN 8'0" X 7'6" MINIMUM UNOBSTRUCTED HEADROOM IN THE ATTIC SPACE SHALL BE PROVIDED AT SOME POINT ABOVE THE ACCESS OPENING. SEE SECTION MB05.1.9 FOR ACCESS REQUIREMENTS WHERE MECHANICAL EQUIPMENT IS LOCATED IN ATTICS.

EXCEPTIONS:

1. CONCEALED AREAS NOT LOCATED OVER THE MAIN STRUCTURE INCLUDING PORCHES, AREAS BEHIND KNEE WALLS, DORMERS, BAY WINDOWS, ETC. ARE NOT REQUIRED TO HAVE ACCESS.
2. RAIL DOWN STAIR TREADS, STRINGERS, HANDRAILS, AND HARDWARE MAY PROTRUDE INTO THE NET CLEAR OPENING.

REFER TO SECTIONS R3025, R3026, AND R3027

WORKING ASSEMBLED FOR SEPARATION REQUIRED BY THIS SECTION.

STAIRS: A MINIMUM OF 1/2" DRYWALL BOARD MUST BE INSTALLED ON THE UNDERSIDE AND EXPOSED SIDES OF ALL STAIRWAYS.

CEILING: A MINIMUM OF 1/2" SHEET MUST BE INSTALLED ON THE GARAGE CEILING IF THERE ARE NO HABITABLE ROOMS ABOVE THE GARAGE. IF THERE ARE HABITABLE ROOMS ABOVE THE GARAGE A MINIMUM OF 5/8" TYPE 'X' GYPSUM BOARD MUST BE INSTALLED ON THE GARAGE CEILING.

OPENINGS: PENETRATIONS THROUGH THE GARAGE CEILING SHALL BE PROTECTED AS REQUIRED BY SECTION R502.6. PENETRATIONS THROUGH THE GARAGE CEILING SHALL BE PROTECTED AS REQUIRED BY SECTION R502.6. PENETRATIONS THROUGH THE GARAGE CEILING SHALL BE PROTECTED AS REQUIRED BY SECTION R502.6.

EQUIPPED WITH SOLID TYPED DOORS NOT LESS THAN 1 3/8 INCHES (35 MM) IN THICKNESS, SOLID OR HONEYCOMB CORE STEEL DOORS NOT LESS THAN 1 5/8 INCHES (39 MM) THICK, OR 20-MINUTE FIRE-RATED DOORS.

DUCT PENETRATIONS: DUCTS IN THE GARAGE AND DUCTS PENETRATING THE WALLS OR CEILING SEPARATING THE CRAWLING FROM THE GARAGE SHALL BE CONSTRUCTED OF A MINIMUM NO. 26 GAGE (0.04 MM) SHEET STEEL OR OTHER APPROVED MATERIAL AND SHALL HAVE NO OPENINGS INTO THE GARAGE.

OTHER PENETRATIONS: PENETRATIONS THROUGH THE SEPARATION REQUIRED IN SECTION R502.6 SHALL BE PROTECTED AS REQUIRED BY SECTION R502.11, ITEM 4.

SECTION AM1049

SECTION AM01.1
AM01.1 DECK BRACING. DECKS SHALL BE BRACED TO PROVIDE LATERAL STABILITY. THE FOLLOWING ARE ACCEPTABLE MEANS TO PROVIDE LATERAL STABILITY:
AM01.1.1. WHEN THE DECK FLOOR HEIGHT IS LESS THAN 4'-0" ABOVE FINISHED GRADE PER FIGURE AM01.1 AND THE DECK IS ATTACHED TO THE STRUCTURE IN ACCORDANCE WITH SECTION AM04.1, LATERAL BRACING IS NOT REQUIRED.
AM01.1.2. 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 DEGREES AND 60 DEGREES FROM THE POST AND BE SECURED TO THE POST WITH GALVANIZED BOLT AND NUT AND WASHER. LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH SECTION AM01.2 AND THE FOLLOWING:

POST SIZE	MAX FREQUENCY AREA	MAX POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIACTION
4" X 4"	48 SF	4'-0"	2'-6"	1'-0"
6" X 6"	120 SF	8'-0"	5'-6"	1'-6"

AM01.1.3. FOR FREESTANDING DECKS WITHOUT KNEE BRACES OR CHAINS, BRACING, LATERAL STABILITY MAY BE PROVIDED BY EMBEDDING THE POSTS IN CONCRETE IN ACCORDANCE WITH SECTION AM01.2 AND THE FOLLOWING:

POST SIZE	MAX FREQUENCY AREA	MAX POST HEIGHT	EMBEDMENT DEPTH	CONCRETE DIACTION
4" X 4"	48 SF	4'-0"	2'-6"	1'-0"
6" X 6"	120 SF	8'-0"	5'-6"	1'-6"

AM01.1.4. FOR 2" X 6" DIAGONAL VERTICAL CROSS BRACES MAY BE PROVIDED IN THE FREESTANDING DECKS TO PROVIDE LATERAL STABILITY TO THE FREESTANDING DECKS OR PARALLEL TO THE STRUCTURE AT THE EXTERIOR COLUMN LINE FOR ATTACHED DECKS. THE 2" X 6" SHALL BE ATTACHED TO THE POSTS WITH AN 8/16 INCH HOT DIPPED GALVANIZED BOLT WITH NUT AND WASHER AT EACH END OF EACH BRACE AND BE SECURED TO THE POSTS WITH GALVANIZED BOLT AND NUT AND WASHER AT EACH END OF EACH BRACE.

AM01.1.5. FOR EMBEDMENT OF PILLES IN CONCRETE, REVISIONS,

SEE CHAPTER 45.



SCALE 3/4" TO 1'-0"

