

FOUNDATION STRUCTURAL NOTES:
 NC (2018 NCRS): Min. 15-120 MPH

① (3) 2x10 SYP #2 OR SPF#2 GIRDER, TYPICAL UNO.
 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 9'-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, UNO.

② 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
 - 20" - 3 STORY
 BRICK VENEER
 - 16" - 1 STORY
 - 20" - 2 STORY
 - 24" - 3 STORY

③ (4) 2x10 SYP#2 OR SPF#2 GIRDER.
 (5) (2) 1.75X9.25 LVL OR LSL GIRDER
 (6) (3) 1.75X9.25 LVL OR LSL GIRDER

7. "■" 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.

8. ABBREVIATIONS:
 "SJ" = SINGLE JOIST
 "DJ" = DOUBLE JOIST
 "TJ" = TRIPLE JOIST

FOR FOUNDATION WALL HEIGHT AND BACKFILL REQUIREMENTS, REFER TO NORTH CAROLINA RESIDENTIAL CODE TABLE R404.1 (I 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.

REFER TO BASIC DETAIL SHEET(S) FOR STANDARD DETAILS, BRACING DETAILS, AND STRUCTURAL NOTES

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

DAMP PROOFING
 FOR DRAINAGE, DAMP PROOFING & WATER PROOFING REFER TO SECTION 405 & 406 IN 2018 EDITION NC RES. CODES

FND VENTS
 2320/150 = 15.41 SQ. FT. REQ'D
 15.41/.88 = 18 VENTS
 *WITH VAPOR BARRIER
 *ONE VENT MUST BE WITHIN 3'-0" OF EVERY CRNR.

H SQUARED HOME DESIGN, INC.

DESIGNED BY:
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THE HAMILTON PLAN
 STAND SURE HOMES

#2320

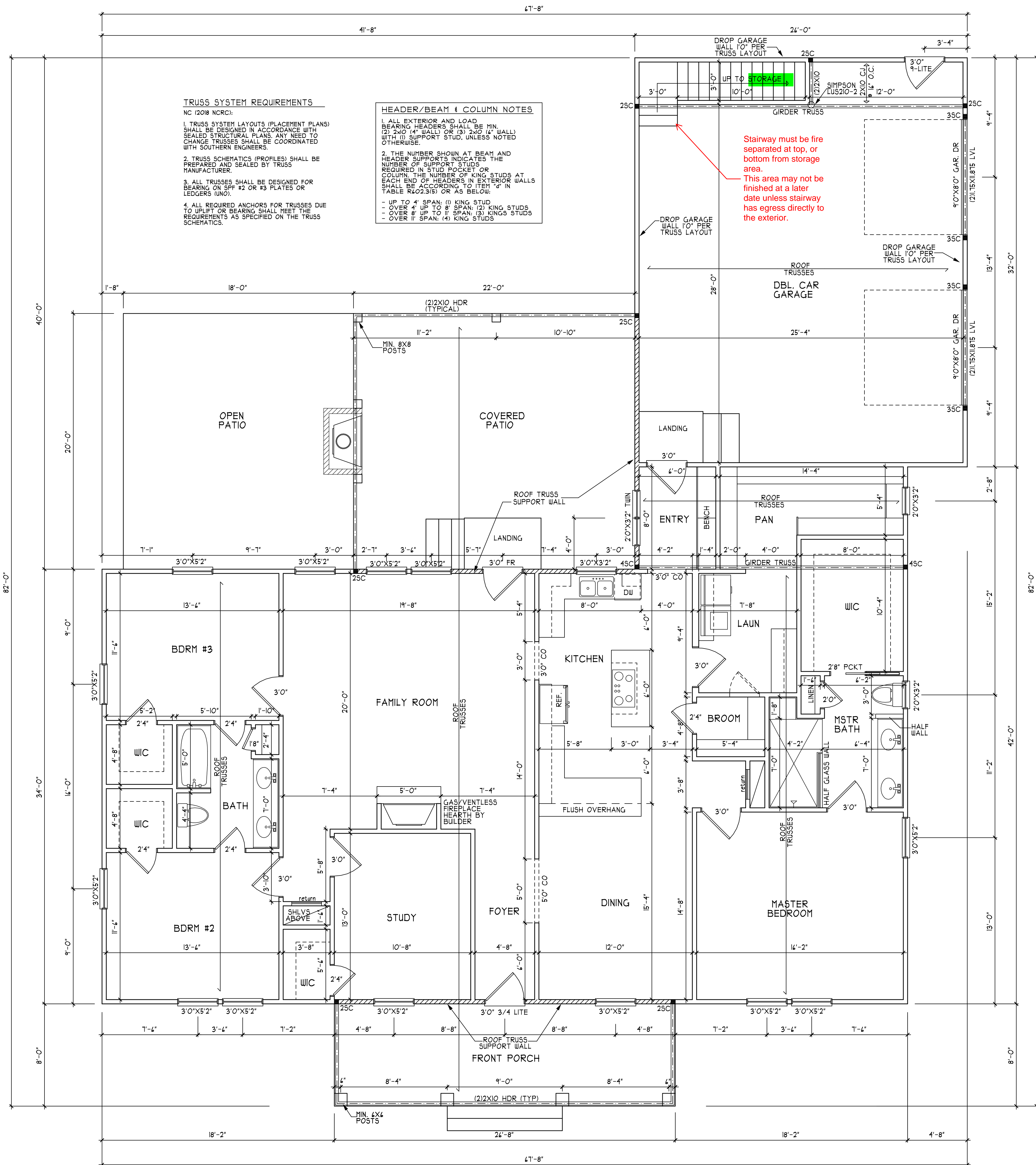
HEATED FOOTAGE:
 = 2320
 = 213
 = 440
 = 825

SQUARE FOOTAGE:
 FIRST FLOOR
 FRONT PORCH
 COVD PATIO
 DBL GARAGE

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DATE: 07/19/23
 1 STORY
 FILE: 022123

THIS PLAN HAS BEEN DRAWN IN ACCORDANCE WITH NORTH CAROLINA STATE RESIDENTIAL BUILDING CODES 2018 EDITION.



TRUSS SYSTEM REQUIREMENTS
 NC (2018 NCR):
 1. TRUSS SYSTEM LAYOUTS (PLACEMENT PLANS) SHALL BE DESIGNED IN ACCORDANCE WITH SEALED STRUCTURAL PLANS. ANY NEED TO CHANGE TRUSSES SHALL BE COORDINATED WITH SOUTHERN ENGINEERS.
 2. TRUSS SCHEMATICS (PROFILES) SHALL BE PREPARED AND SEALED BY TRUSS MANUFACTURER.
 3. ALL TRUSSES SHALL BE DESIGNED FOR BEARING ON SPF #2 OR #3 PLATES OR LEDGERS (UNO).
 4. ALL REQUIRED ANCHORS FOR TRUSSES DUE TO UPLIFT OR BEARING SHALL MEET THE REQUIREMENTS AS SPECIFIED ON THE TRUSS SCHEMATICS.

HEADER/BEAM & COLUMN NOTES
 1. ALL EXTERIOR AND LOAD BEARING HEADERS SHALL BE MIN. (2) 2X10 (4" WALL) OR (3) 2X10 (4" 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 "2" IN TABLE R402.3(5) OR AS BELOW:
 - UP TO 4' SPAN: (1) KING STUD
 - OVER 4' UP TO 8' SPAN: (2) KING STUDS
 - OVER 8' UP TO 12' SPAN: (3) KING STUDS
 - OVER 12' SPAN: (4) KING STUDS

Stairway must be fire separated at top, or bottom from storage area. This area may not be finished at a later date unless stairway has egress directly to the exterior.

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FIRST FLOOR PLAN
 SCALE 1/4" = 1'-0"

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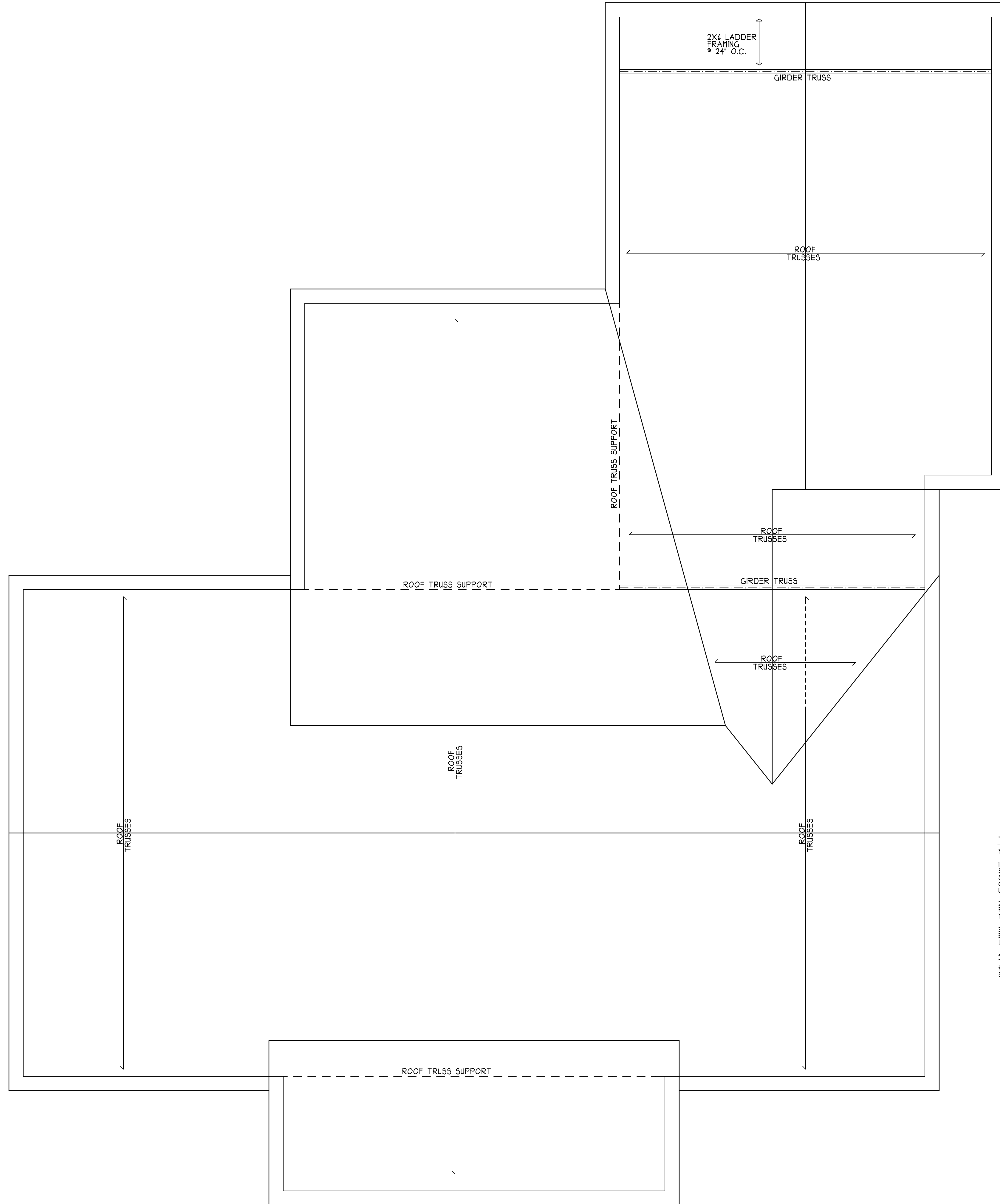
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DATE: 07/19/23
 I STORY
 FILE: 022123

HEATED FOOTAGE:	#2320
SQUARE FOOTAGE:	= 2320 = 213 = 440 = 825
FRONT PORCH COVD PATIO DBL GARAGE	

THE HAMILTON PLAN

STAND SURE HOMES

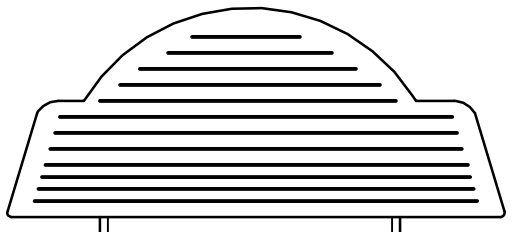


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ROOF PLAN
SCALE 1/4" = 1'-0"



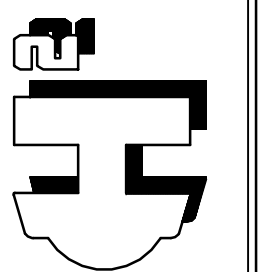
THE HAMILTON PLAN
STAND SURE HOMES

HEATED FOOTAGE:
#2320

SQUARE FOOTAGE:
= 2320
= 213 FRONT PORCH
= 440 COVD PATIO
= 825 DBL GARAGE

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DATE:
07/19/23

1 STORY

FILE:
022123

STRUCTURAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION, PLUS ALL LOCAL CODES AND REGULATIONS. THE STRUCTURAL ENGINEER OR DESIGNER 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 OR DESIGNER 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.
- DESIGN LOADS (R301.4)

	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
ROOMS OTHER THAN SLEEPING ROOMS	40	10	L/360
SLEEPING ROOMS	30	10	L/360
ATTIC WITH PERMANENT STAIR	40	10	L/360
ATTIC WITH OUT PERMANENT STAIR	20	10	L/360
ATTIC WITH OUT STORAGE	10	10	L/240
STAIRS	40	--	L/360
EXTERIOR BALCONIES	40	10	L/360
DECKS	40	10	L/360
GUARDRAILS AND HANDRAILS	200	--	---
PASSENGER VEHICLE GARAGES	50	10	L/360
FIRE ESCAPES	40	10	L/360
SNOW	20	--	---
WIND LOAD (BASED ON 115/120 MPH WIND VELOCITY & EXPOSURE B)			

- WALL BRACING: BRACED WALL PANELS SHALL BE CONSTRUCTED ACCORDING TO SECTION R602.3. THE AMOUNT AND LOCATION OF BRACING SHALL COMPLY WITH TABLE R602.10.1. 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 SECTION R602.10.3. NOTE THAT ANY SPECIFIC BRACED WALL DETAIL SHALL BE INSTALLED AS SPECIFIED.

- CONCRETE SHALL HAVE A MINIMUM 28 DAY STRENGTH OF 3000 PSI AND A MAXIMUM SLUMP OF 5 INCHES UNLESS NOTED OTHERWISE (UNO). 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.
- 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.

- ALL FRAMING LUMBER SHALL BE SPF #2 (F_b = 875 PSI) UNLESS NOTED OTHERWISE (UNO). ALL TREATED LUMBER SHALL BE SYP #2 (F_b = 975 PSI). PLATE MATERIAL MAY BE SPF #3 OR SYP #3 (F_c = 425 PSI - MIN).

- ALL WOODEN BEAMS AND HEADERS SHALL HAVE THE FOLLOWING END SUPPORTS: (1) 2x4 STUD COLUMN FOR 4'-0" MAX. BEAM SPAN (UNO), (2) 2x4 STUDS FOR BEAM SPAN GREATER THAN 4'-0" (UNO).

- L.V.L. SHALL BE LAMINATED VENEER LUMBER: F_b=2400 PSI, F_v=285 PSI, E=1.9x10⁶ PSI. P.S.L. SHALL BE PARALLEL STRAND LUMBER: F_b=2100 PSI, F_v=210 PSI, E=2.0x10⁶ PSI. L.S.L. SHALL BE LAMINATED STRAND LUMBER: F_b=2250 PSI, F_v=400 PSI, E=1.55x10⁶ PSI. INSTALL ALL CONNECTIONS PER MANUFACTURER'S INSTRUCTIONS.

- ALL ROOF TRUSS AND I-JOIST LAYOUTS SHALL BE PREPARED IN ACCORDANCE WITH ANY 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 DESIGNER OR ENGINEER.

- 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.

- REBAR SHALL BE DEFORMED STEEL, ASTM415, GRADE 40.

- FITCH 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 (2" EDGE DISTANCE), WITH 2 BOLTS LOCATED AT 4" FROM EACH END.

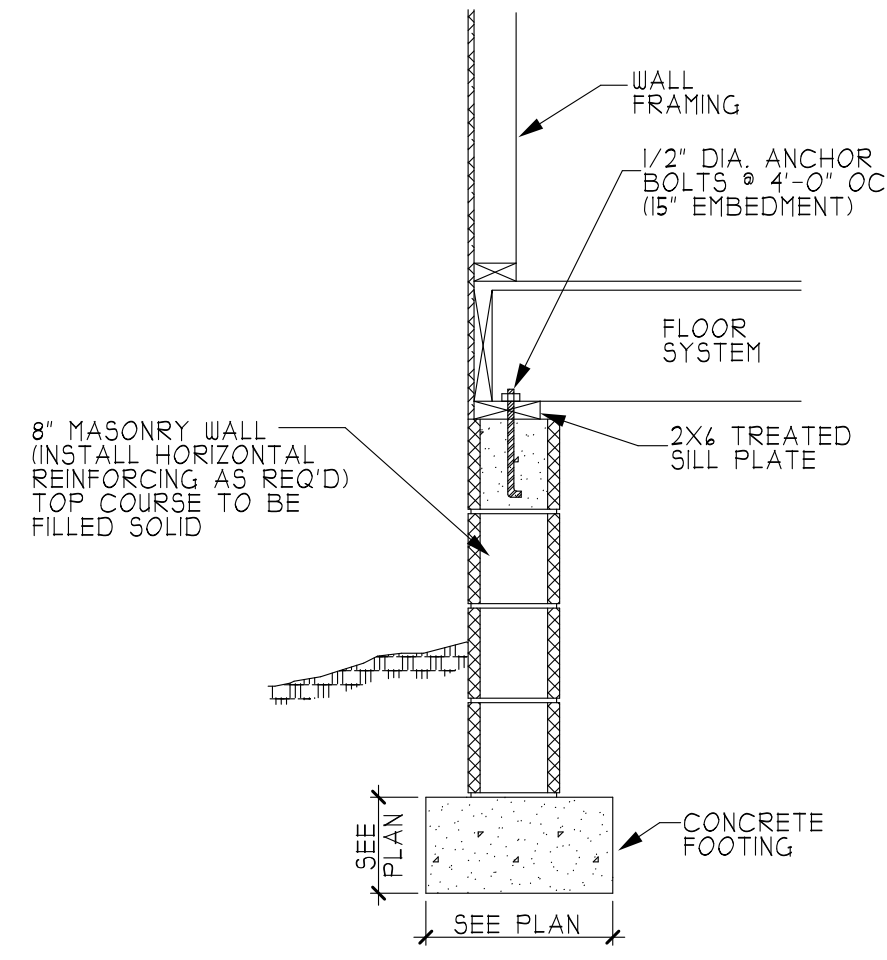
- BRICK LINTELS SHALL BE 3 1/2"x3 1/2"x1/4" STEEL ANGLE FOR UP TO 4'-0" SPAN AND 4"x4"x5/16" STEEL ANGLE WITH 4" LEG VERTICAL FOR SPANS UP TO 9'-0" (UNO).

- THE POSITIVE AND NEGATIVE DESIGN PRESSURE FOR DOORS AND WINDOWS FOR A MEAN ROOF HEIGHT OF 35 FEET OR LESS SHALL BE 25 PSF.

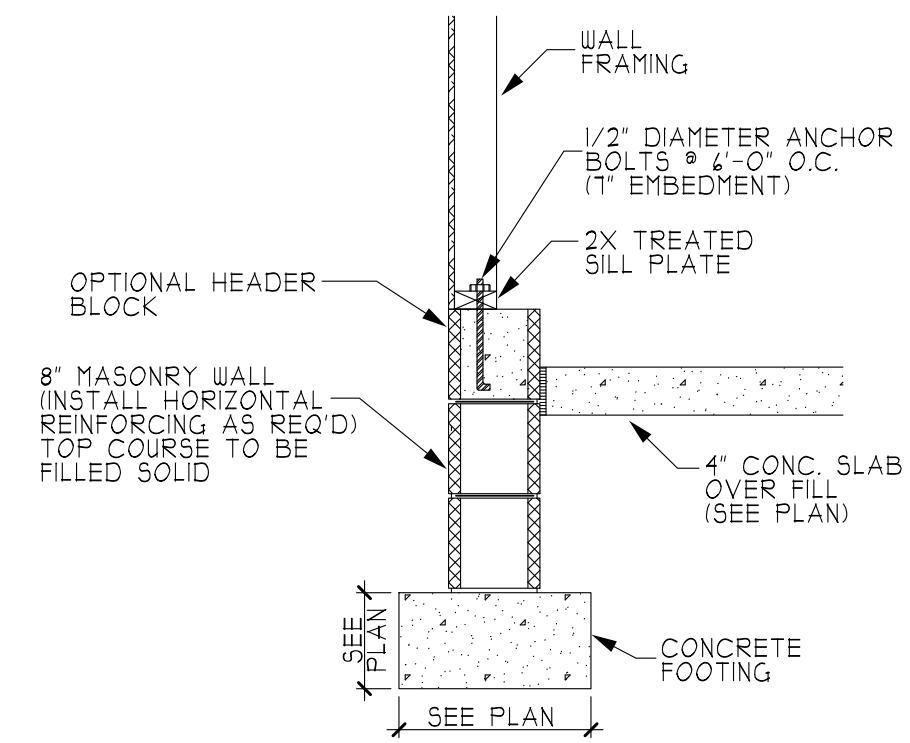
- THE POSITIVE AND NEGATIVE DESIGN PRESSURES REQUIRED FOR ANY ROOF OR WALL CLADDING APPLICATION NOT SPECIFICALLY ADDRESSED IN THE NORTH CAROLINA STATE RESIDENTIAL CODE - 2018 EDITION SHALL BE AS FOLLOWS:

ROOF:
45.4 PSF - 2.25:12 PITCH OR LESS
34.8 PSF - 2.25:12 TO 1:12 PITCH
21 PSF - 1:12 TO 12:12 PITCH

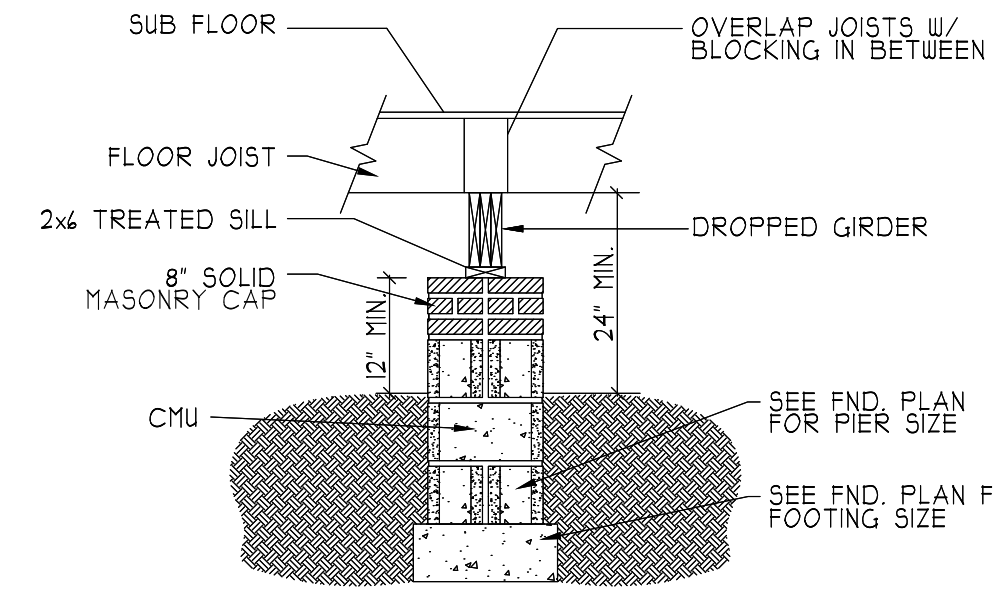
WALLS:
24.1 PSF - WALLS



A CRAWL SPACE FOOTING (SIDING)



B GARAGE WALL FOOTING (SIDING)



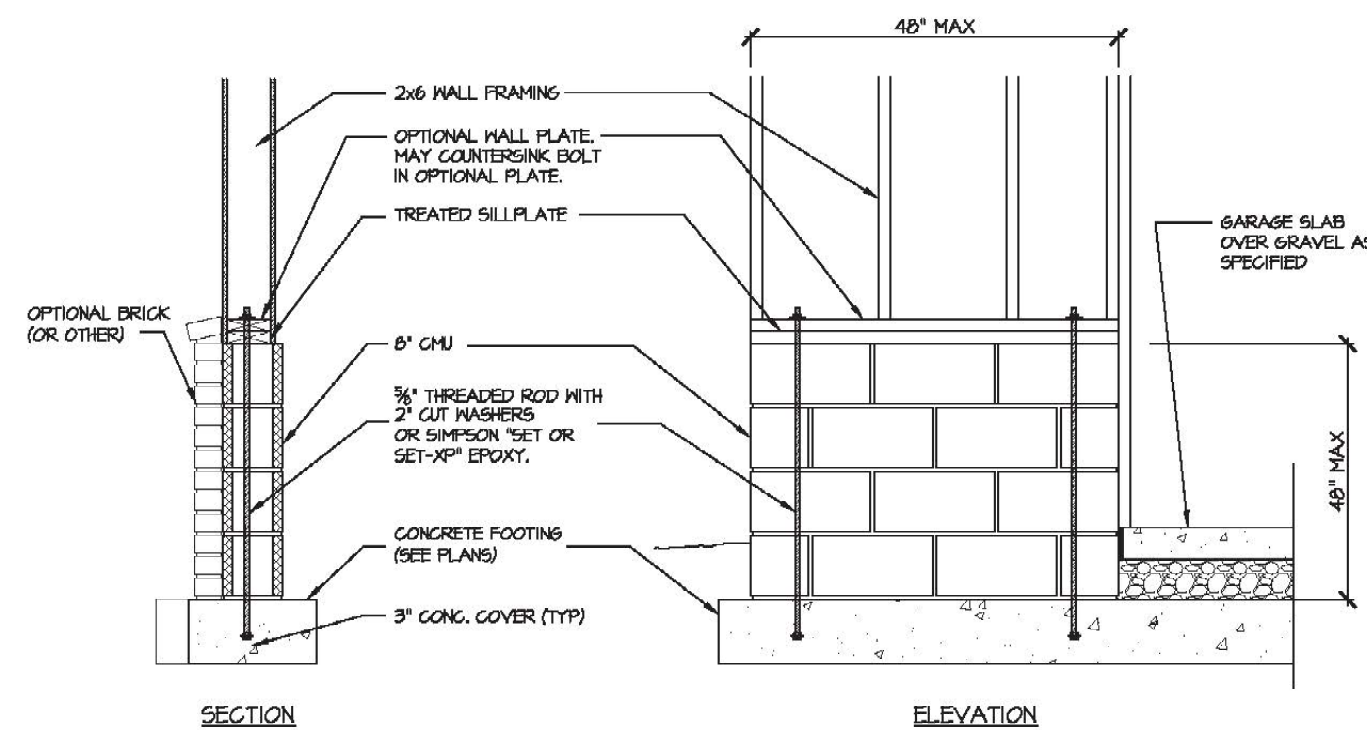
C DROPPED GIRDER NTS

TRUSS SYSTEM REQUIREMENTS
NC (2018 NCRC): Wind: 115-120 MPH

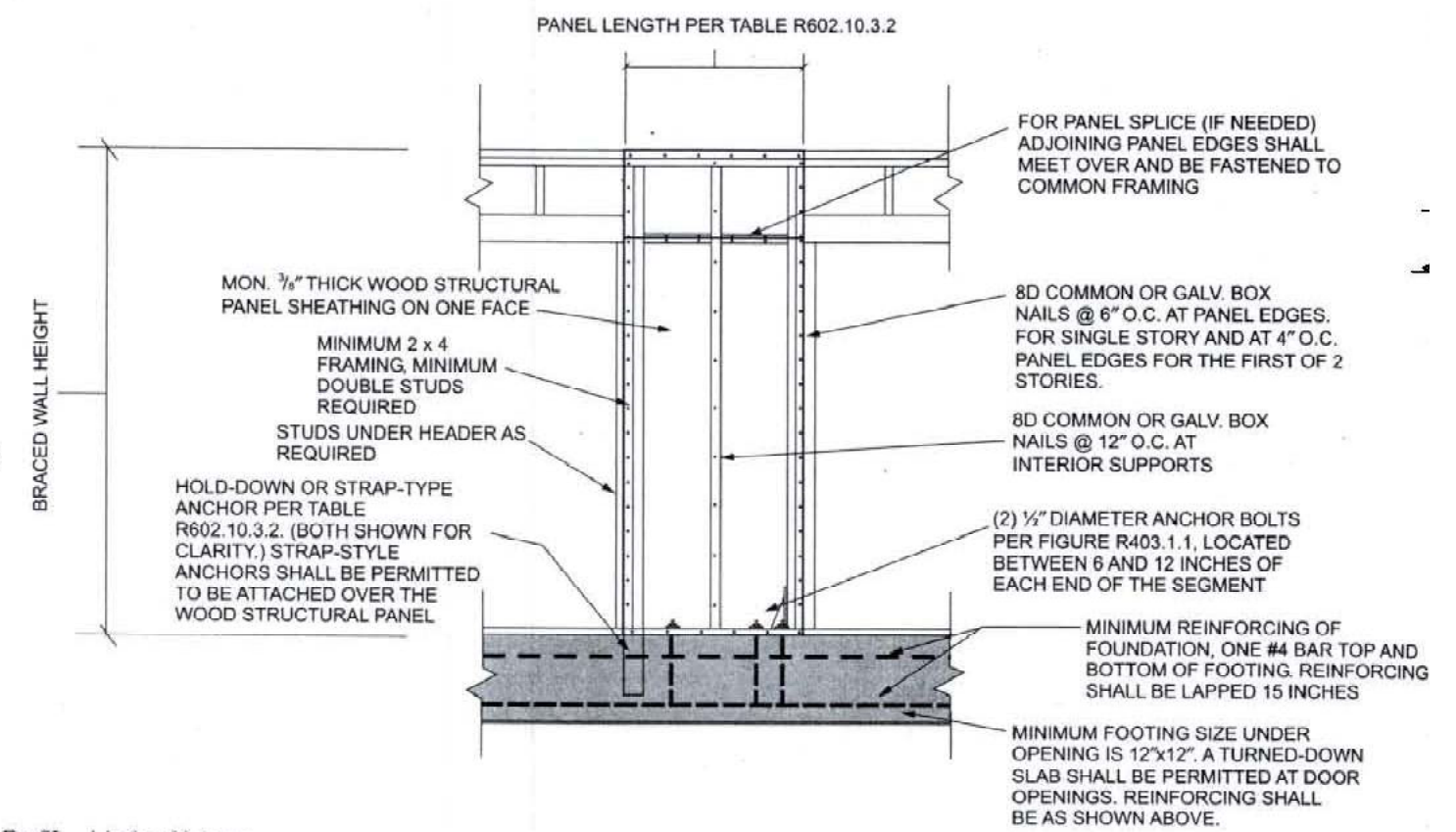
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 - OVER 8' UP TO 11' SPAN: (3) KING STUDS
 - OVER 11' SPAN: (4) KING STUDS

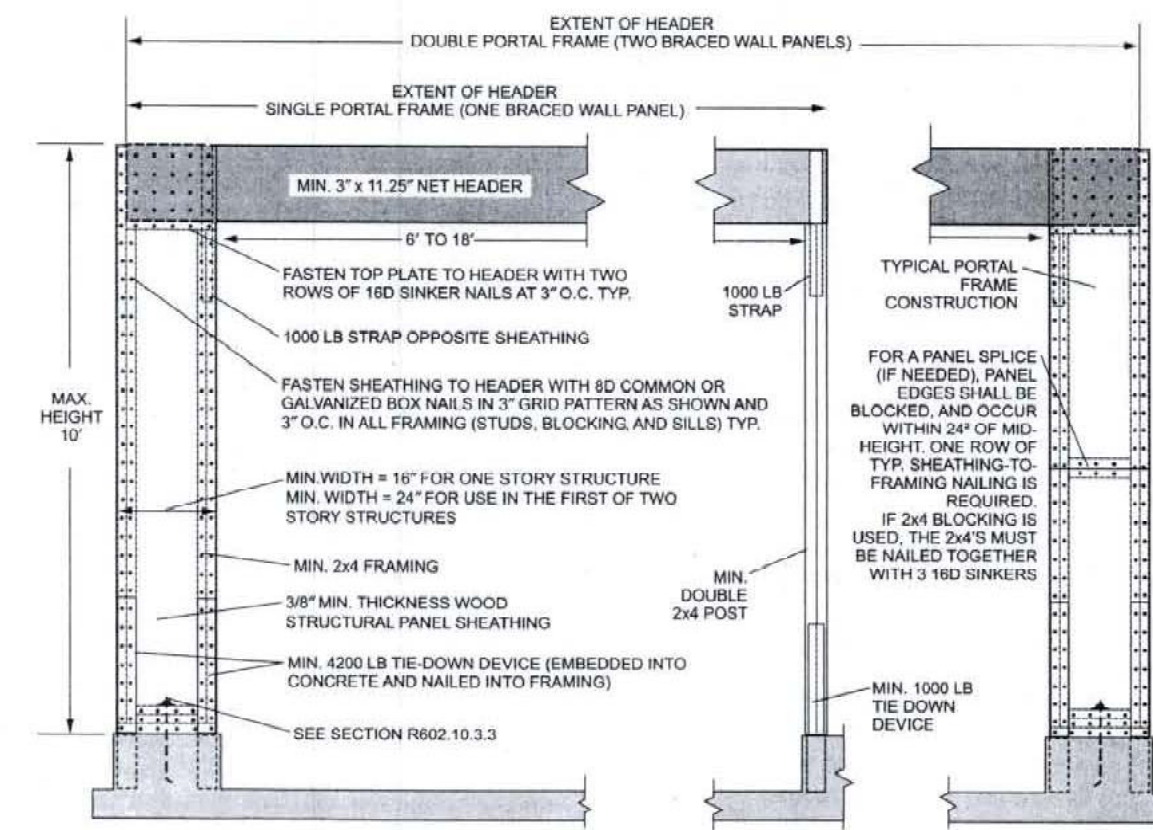


GARAGE 'WING WALL' REINFORCING PER IRC FIGURE R602.10.4.3



For SI: 1 inch = 25.4 mm.

FIGURE R602.10.3.2 ALTERNATE BRACED WALL PANEL



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound force = 4.448 N.

FIGURE R602.10.3.3 METHOD PFH: PORTAL FRAME WITH HOLD-DOWNS

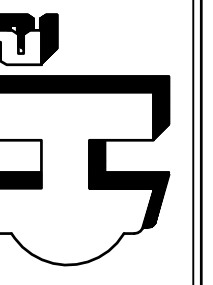
BASIC BUILDING

DETAIL SHEET (115-120 MPH)

*PLEASE NOTE THAT NOT ALL DETAILS APPLY TO EVERY PLAN.

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