

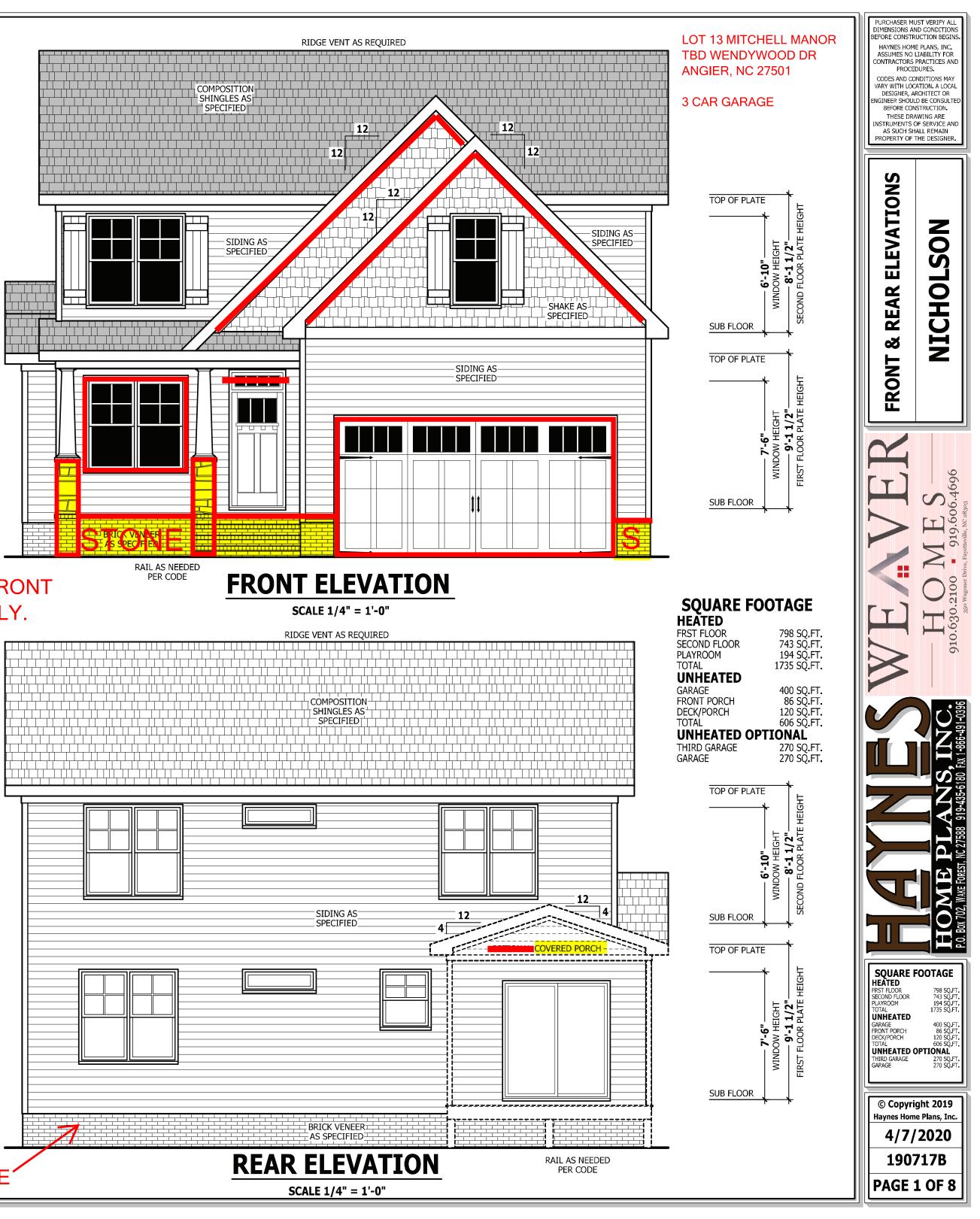
PLANS DESIGNED TO THE 2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE

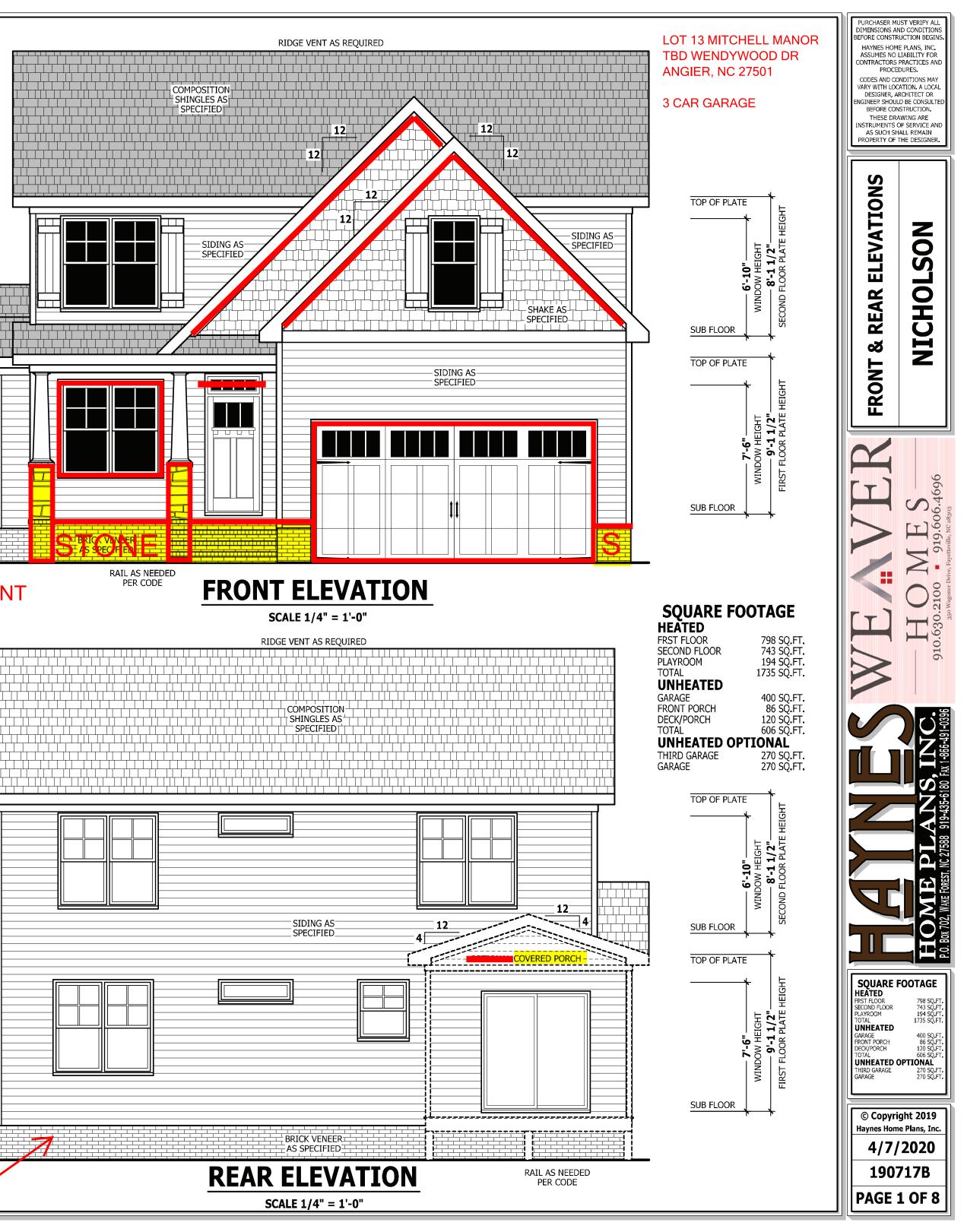
MEAN ROOF HEIGHT: 25'-6"		HEIGHT TO RIDGE: 29'-9"		
CLIMATE ZONE	ZONE 3A	ZONE 4A	ZONE 5A	
FENESTRATION U-FACTOR	0.35	0.35	0.35	
SKYLIGHT U-FACTOR	0.55	0.55	0.55	
GLAZED FENESTRATION SHGC	0.30	0.30	0.30	
CEILING R-VALUE	38 or 30ci	38 or 30ci	38 or 30ci	
WALL R-VALUE	15	15	19	
FLOOR R-VALUE	19	19	30	
* BASEMENT WALL R-VALUE	5/13	10/15	10/15	
** SLAB R-VALUE	0	10	10	
* CRAWL SPACE WALL R-VALUE	5/13	10/15	10/19	
* "10/13" MEANS R-10 SHEATHING INSULATION OR R-13 CAVITY INSULATION				

** INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF FOOTING; INSULATION DEPTH WITH STEM WALL SLAB 24" OR TO BOTTOM OF FOUNDATION WALL

DESIGNED FOR WIND SPEED OF 120 MPH, 3 SECOND GUST (93 FASTEST MILE) EXPOSURE "B"						E "B"		
COMPONENT	COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS						LOADS	
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	14.2	-15.0	14.9	-15.8	15.5	-16.4	15.9	-16.8
ZONE 2	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 3	14.2	-18.0	14 . 9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 4	15.5	-16.0	16.3	-16.8	16.9	-17.4	17.4	-17.9
ZONE 5	15.5	-20.0	16.3	-21.0	16.9	-21.8	17.4	-22.4
DESIGNED FOR WIN	D SPEED							
DESIGNED FOR WIN		OF 130 MF	PH, 3 SECO	OND GUST	(101 FAS	TEST MILE) EXPOSU	RE "B"
	& CLA	OF 130 MF	PH, 3 SECO DESIG	OND GUST	(101 FAS OR THE	TEST MILE) exposu WING	RE "B"
COMPONENT	& CLA	OF 130 MF DDING	PH, 3 SECO DESIG 30'-1"	ond Gust Ned FC	(101 FAS DR THE 35'-1"	test Mile Follo To 40') EXPOSU WING 40'-1"	re "b" _OADS TO 45'
COMPONENT MEAN ROOF	& CLA UP T	of 130 MF DDING O 30'	2H, 3 SECO DESIG 30'-1" 17.5	ND GUST NED FC TO 35'	(101 FAS DR THE 35'-1" 18.2	Test Mile Follo To 40' -19.6	E) EXPOSU WING 40'-1" 18.7	RE "B" _OADS TO 45' _20.2
COMPONENT MEAN ROOF ZONE 1	& CLA UP T 16.7	OF 130 MF DDING O 30' -18.0	2H, 3 SECO DESIG 30'-1" 17.5 17.5	DND GUST NED FC TO 35' -18.9	(101 FAS OR THE 35'-1" 18.2 18.2	TEST MILE FOLLO TO 40 -19.6 -22.9	E) EXPOSU WING 40'-1" 18.7 18.7	RE "B" _OADS TO 45' _20.2 _23.5
COMPONENT MEAN ROOF ZONE 1 ZONE 2	& CLA UP T 16.7 16.7	OF 130 MF DDING O 30' -18.0 -21.0	H, 3 SECO DESIG 30'-1" 17.5 17.5 17.5	DND GUST NED FC TO 35' -18.9 -22.1	(101 FAS DR THE 35'-1" 18.2 18.2 18.2	TEST MILE FOLLO TO 40' -19.6 -22.9 -22.9) EXPOSU WING 40'-1" 18.7 18.7 18.7	RE "B" OADS TO 45' -20.2 -23.5 -23.5

***STONE ON FRONT **ELEVATION ONLY.**





ROOF VENTILATION

SECTION R806

SQUARE FOOTAGE OF ROOF TO BE VENTED = 1,344 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 8.96 SQ.FT. WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE; OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 4.48 SQ.FT.

AIR LEAKAGE

Section N1102.4

N1102.4.1 Building thermal envelope. The building thermal envelope shall be durably sealed with an air barrier system to limit infiltration. The sealing methods between dissimilar materials shall allow for differential expansion and contraction. For all homes, where present, the following shall be caulked, gasketed, weather stripped or otherwise sealed with an air barrier material or solid material consistent with Appendix E-2.4 of this code: 1. Blocking and sealing floor/ceiling systems and under knee walls

open to unconditioned or exterior space. 2. Capping and sealing shafts or chases, including flue shafts

3. Capping and sealing soffit or dropped ceiling areas.

GUARD RAIL NOTES

SECTION R312

R312.1 Where required. *Guards* shall be located along open-sided walking surfaces, including stairs, ramps and landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade below at any point within 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a *guard*.

R312.2 Height. Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads. Exceptions:

1. *Guards* on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.

2. Where the top of the *guard* also serves as a handrail on the open sides of stairs, the top of the *guard* shall not be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

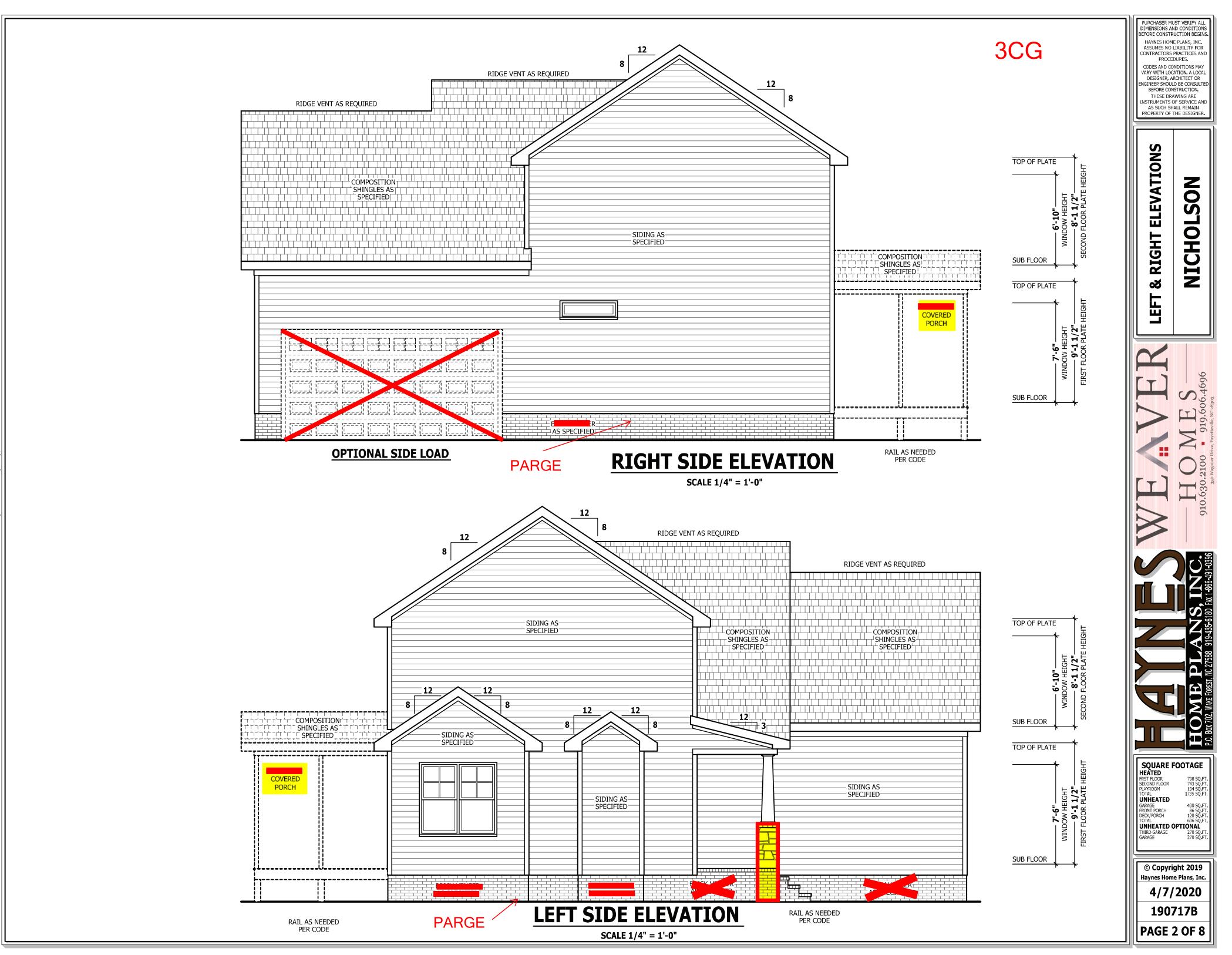
R312.3 Opening limitations. Required *guards* shall not have openings from the walking surface to the required *guard* height which allow passage of a sphere 4 inches (102 mm)in diameter

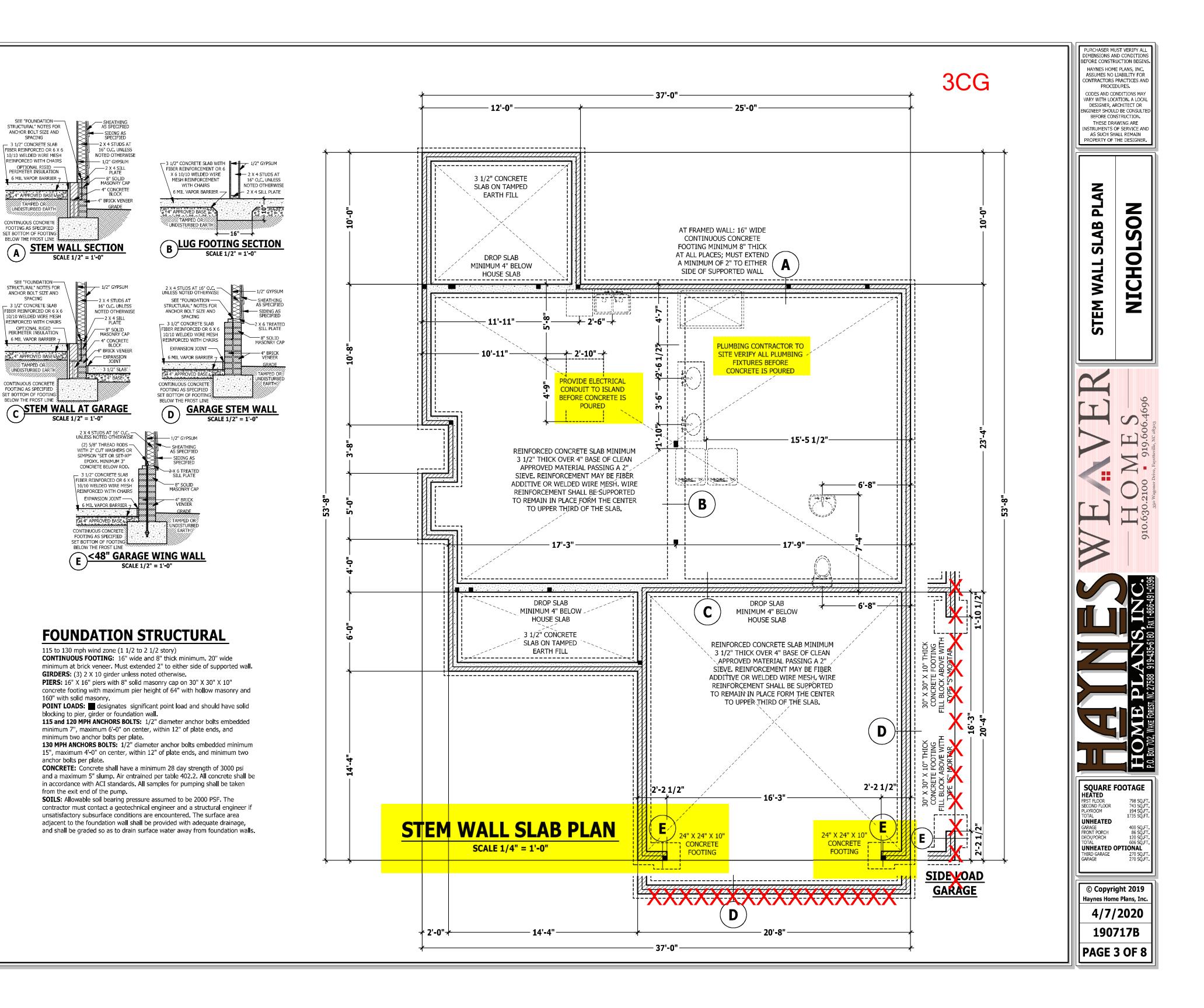
Exceptions:

1. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a *guard*, shall not allow passage of a sphere 6 inches (153 mm) in diameter.

2. *Guards* on the open sides of stairs shall not have openings which allow passage of a sphere 4 3/8 inches (111 mm) in diameter.

PARGE





WALL THICKNESSES

Exterior walls and walls adjacent to a garage area are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for stud face. **Interior walls** are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

DWELLING / GARAGE SEPARATION

REFER TO SECTIONS R302.5, R302.6, AND R302.7

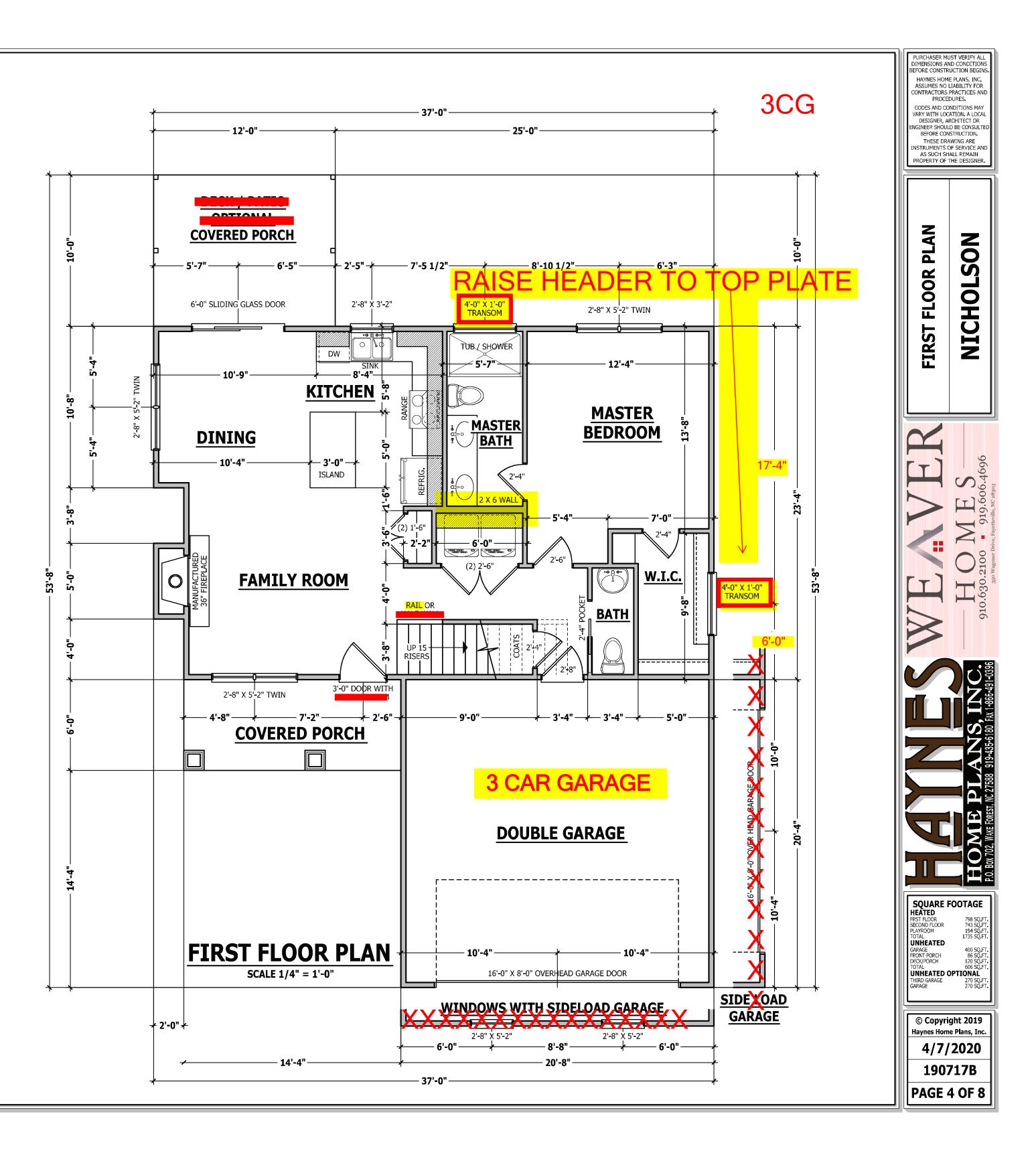
WALLS. A minimum 1/2" gypsum board must be installed on all walls supporting floor/ceiling assemblies used for separation required by this section. **STAIRS.** A minimum of 1/2" gypsum board must be installed on the underside and exposed sides of all stairways.

CEILINGS. A minimum of 1/2" gypsum must be installed on the garage ceiling if there are no habitable room above the garage. If there are habitable room above the garage a minimum of 5/8" type X gypsum board must be installed on the garage ceiling. **OPENING PENETRATIONS.** Openings between the garage and residence shall be equipped with solid wood doors not less than 1 3/8 inches (35 mm) in thickness, solid or honeycomb core steel doors not less than 1 3/8 inches (35 mm) thick, or 20-minute fire-rated doors.

DUCT PENETRATIONS. Ducts in the garage and ducts penetrating the walls or ceilings separating the *dwelling* from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other *approved* material and shall have no openings into the garage.

OTHER PENETRATIONS. Penetrations through the separation required in Section R302.6 shall be protected as required by Section R302.11, Item 4.

SQUARE FO	OOTAGE
FRST FLOOR	798 SQ.FT.
SECOND FLOOR	743 SQ FT
PLAYROOM	194 SQ.FT.
TOTAL	1735 SQ FT
UNHEATED	
GARAGE	400 SQ.FT.
FRONT PORCH	86 SQ.FT.
DECK/PORCH	120 SQ.FT.
TOTAL	606 SQ.FT.
UNHEATED O	PTIONAL
THIRD GARAGE	270 SQ.FT.
GARAGE	270 SQ.FT.



STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2018 North Carolina Residential Building Code, plus all local codes and regulations. This

document in no way shall be construed to supersede the code. JOB SITE PRACTICES AND SAFETY: Haynes Home Plans, Inc. assumes no liability for contractors practices and procedures or safety program. Haynes Home Plans, Inc. takes no responsibility for the contractor's failure to carry out the construction work in accordance with the contract documents. All members shall be framed, anchored, and braced in accordance with good construction practice and the building code.

construction practice and the building code.				
DESIGN LOADS	LIVE LOAD	DEAD LOAD	DEFLECTION	
USE	(PSF)	(PSF)	(LL)	
Attics without storage	10		L/240	
Attics with limited storage	20	10	L/360	
Attics with fixed stairs	40	10	L/360	
Balconies and decks	40	10	L/360	
Fire escapes	40	10	L/360	
Guardrails and handrails	200	—		
Guardrail in-fill components	50	—		
Passenger vehicle garages	50	10	L/360	
Rooms other than sleeping	40	10	L/360	
Sleeping rooms	30	10	L/360	
Stairs	40	_	L/360	
Snow	20	_		

FRAMING LUMBER: All non treated framing lumber shall be SPF #2 (Fb = 875 PSI) or SYP #2 (Fb = 750 PSI) and all treated lumber shall be SYP #2 (Fb = 750 PSI) unless noted other wise. **ENGINEERED WOOD BEAMS :**

Laminated veneer lumber (LVL) = Fb=2600 PSI, Fv=285 PSI, E=1.9x106 PSI Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x106 PSILaminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x106 PSI Install all connections per manufacturers instructions.

TRUSS AND I-JOIST MEMBERS: All roof truss and I-joist layouts shall be prepared in accordance with this document. Trusses and I-joists shall be installed according to the manufacture's specifications. Any change in truss or I-joist layout shall be coordinated with Haynes Homes Plans, Inc. LINTELS: Brick lintels shall be 3 1/2" x 3 1/2" x 1/4" steel angle for up to 6'-0" span. 6" x 4" x 5/16" steel angle with 6" leg vertical for spans up to 9'-0" unless noted otherwise. 3 1/2" x 3 1/2" x 1/4" steel angle with 1/2" bolts at 2'-0" on center for spans up to 18'-0" unless noted otherwise. FLOOR SHEATHING: OSB or CDX floor sheathing minimum 1/2" thick for 16" on center joist spacing, minimum 5/8" thick for 19.2" on center joist spacing, and minimum 3/4" thick for 24" on center joist spacing.

ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick for 16" on center rafters and 7/16" for 24" on center rafters. **CONCRETE AND SOILS:** See foundation notes.

BRACE WALL PANEL NOTES

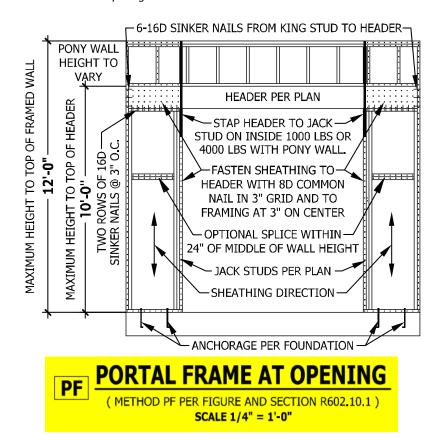
EXTERIOR WALLS: All exterior walls to be sheathed with CS-WSP or CS-SFB in accordance with section R602 10.3 unless noted otherwise.

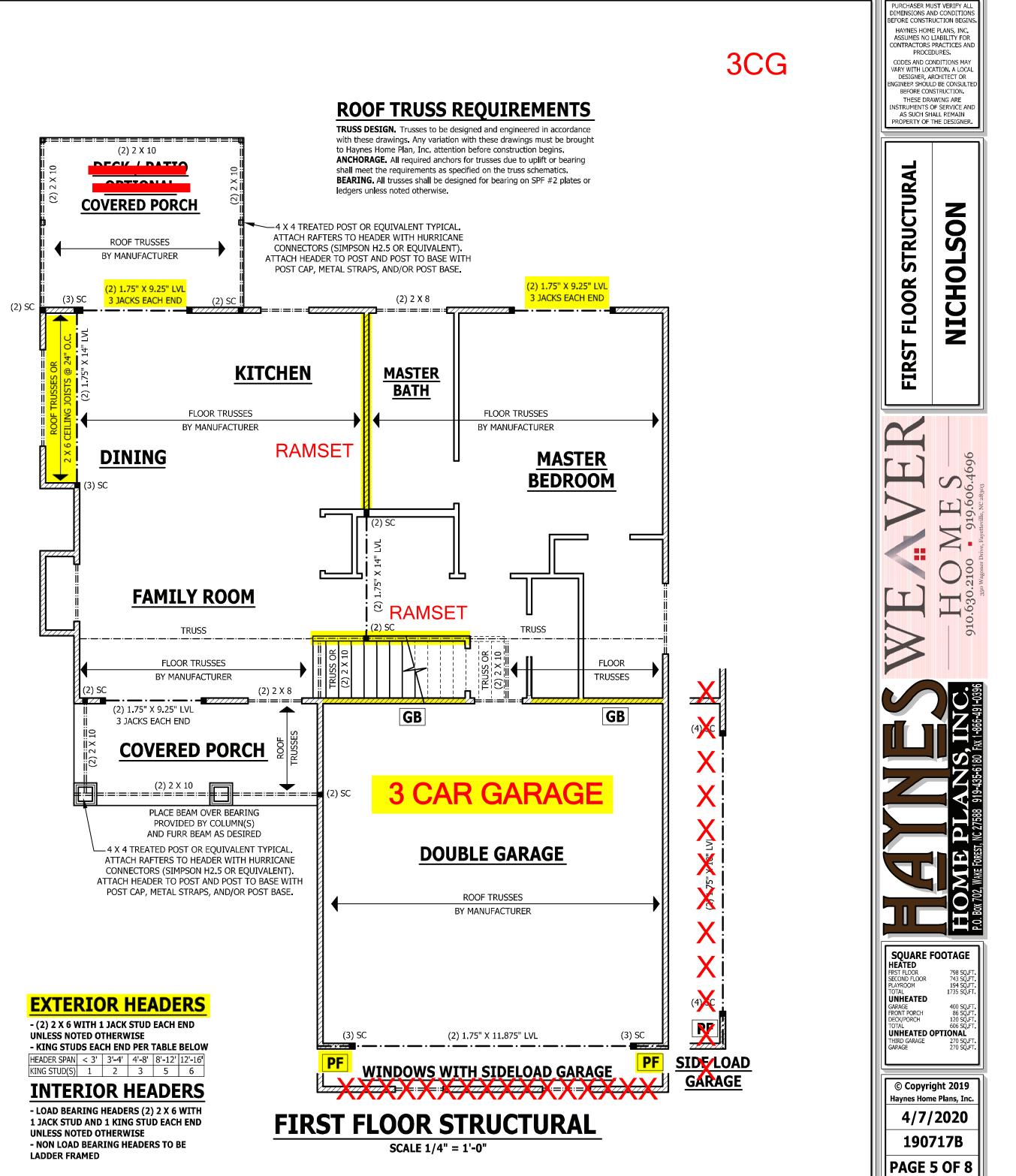
GYPSUM: All interior sides of exterior walls and both sides interior walls to have 1/2" gypsum installed. When not using method GB gypsum to be fastened per table R702.3.5. Method GB to be fastened per table R602.10.1.

REOUIRED LENGTH OF BRACING: Required brace wall length for each side of the circumscribed rectangle are interpolated per table R602.10.3. Methods CS-WSP and CS-SFB contribute their actual length. Method GB contributes 0.5 it's actual length. Method PF contributes 1.5 times its actual length. HD: 800 lbs hold down hold down device fastened to the edge of the brace wall panel closets to the corner.

Methods Per Table R602.10.1 CS-WSP: Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or $8d(2 1/2" \log x 0.113" diameter)$. CS-SFB: Shall be minimum 1/2" structural fiber board nailed at 3" on center at edges and 3" on center at intermediate supports with $1 \frac{1}{2}$ long x 0.12" diameter galvanized roofing nails

GB: Interior walls show as GB are to have minimum 1/2" gypsum board on both sides of the wall fastened at 7" on center at edges and 7" on center at intermediate supports with minimum 5d cooler nails or #6 screws. **PF**: Portal fame per figure R602.10.1





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(2) 2'-0" **'-0**" UNDRY 2'-8' DOWN 1 RISER **OPTIONAL LAUNDRY ROOM**

ATTIC ACCESS SECTION R807

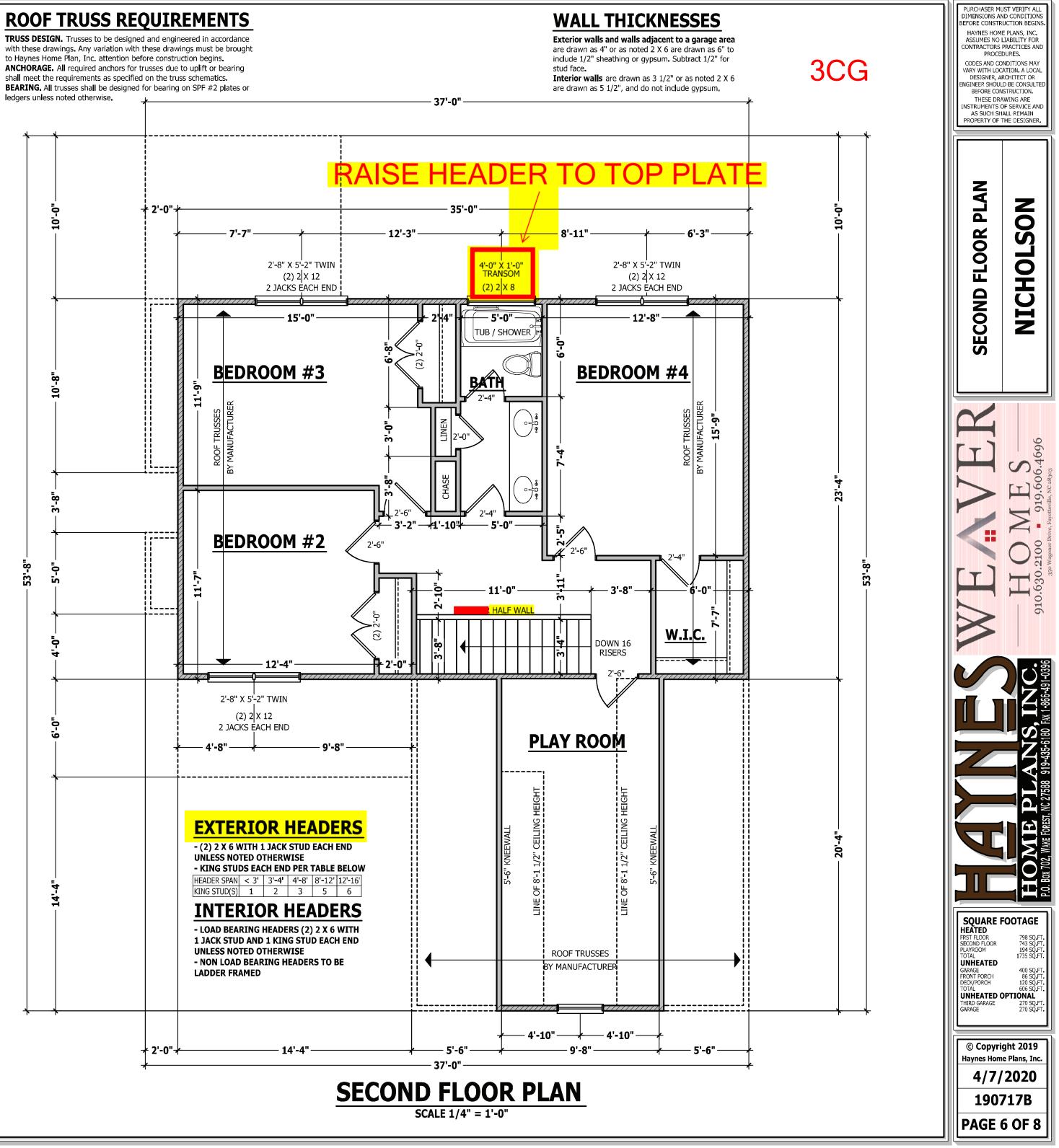
R807.1 Attic access. An attic access opening shall be provided to attic areas that exceed 400 square feet (37.16 m2) and have a vertical height of 60 inches (1524 mm) or greater. The net clear opening shall not be less than 20 inches by 30 inches (508 mm by 762 mm) and shall be located in a hallway or other readily accessible location. A 30-inch (762 mm) minimum unobstructed headroom in the attic space shall be provided at some point above the access opening. See Section M1305.1.3 for access requirements where mechanical equipment is located in attics.

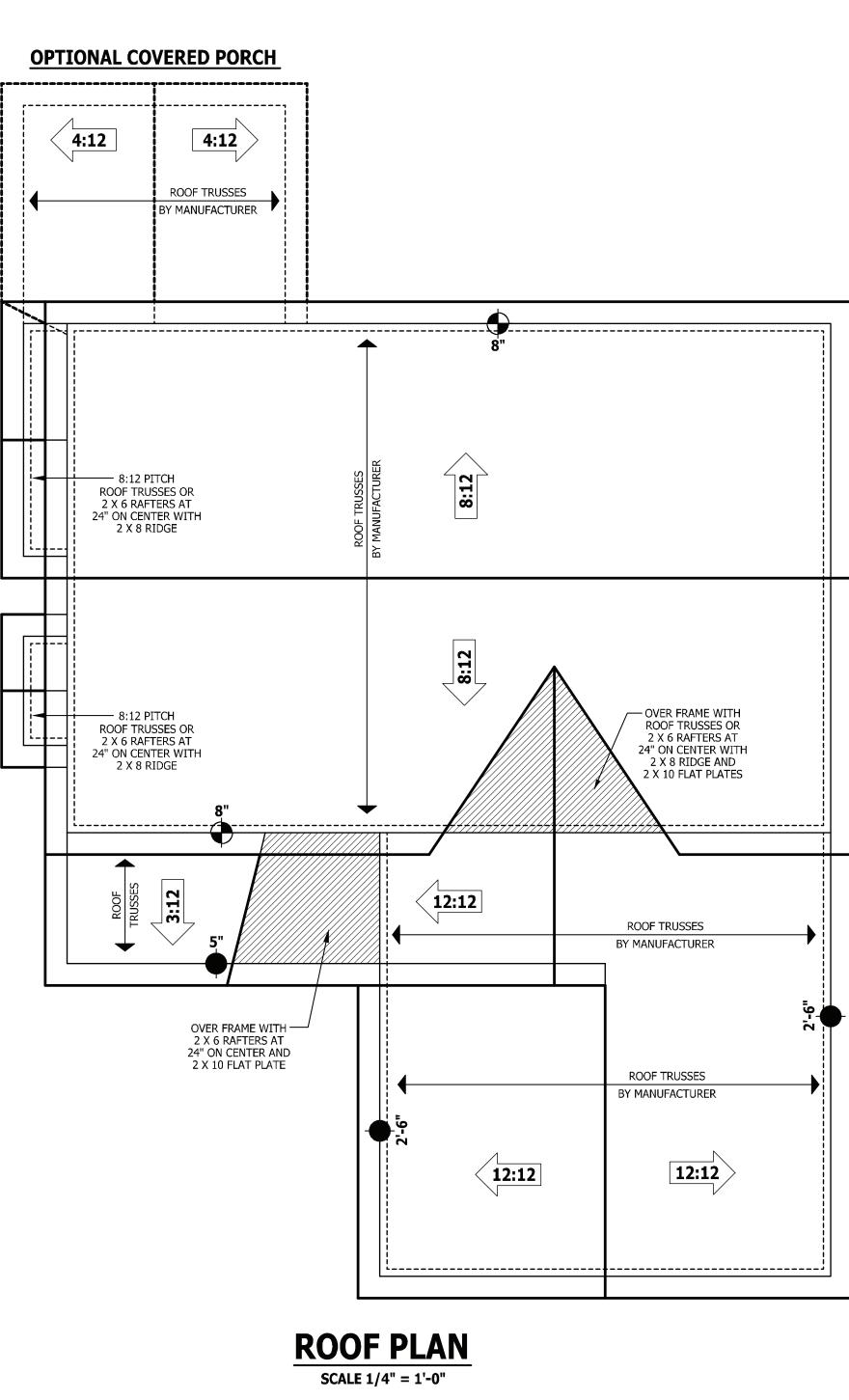
Exceptions:

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. Pull down stair treads, stringers, handrails, and hardware may protrude into the net clear opening.

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. **ANCHORAGE.** All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. BEARING. All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.



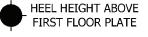


ROOF TRUSS REQUIREMENTS

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. KNEE WALL AND CEILING HEIGHTS. All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these drawings the finished square footage may vary. Any discrepancy must be brought to Haynes Home Plans, Inc. attention, so a suitable solution can be reached before construction begins. Any variation due to these conditions not being met is the reasonability of the truss manufacturer.

ANCHORAGE. All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. BEARING. All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

Plate Heights & Floor Systems. See elevation page(s) for plate heights and floor system thicknesses



HEEL HEIGHT ABOVE



