

Z:\Builder\Signature Home Builders, Inc\250313B Magnolia with 3 car\250313B Magnolia with 3 car.aec

PLANS DESIGNED TO THE
2024 NORTH CAROLINA STATE
RESIDENTIAL BUILDING CODE

MEAN ROOF HEIGHT: 19'-8"	HEIGHT TO RIDGE: 27'-8"		
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"

COMPONENT & CLADDING DESIGNED FOR THE FOLLOWING LOADS									
MEAN ROOF	UP TO 30'		30'-1" TO 35'		35'-1" TO 40'		40'-1" TO 45'		
ZONE 1	14.2	-26.1	14.9	-27.4	15.5	-28.4	15.9	-29.2	
ZONE 2	14.2	-28.7	14.9	-30.1	15.5	-31.3	15.9	-32.1	
ZONE 3	14.2	-35.3	14.9	-37.1	15.5	-38.5	15.9	-39.5	
ZONE 4	15.5	-16.9	16.3	-16.8	16.9	-17.7	17.4	-18.9	
ZONE 5	15.5	-20.8	16.3	-21.8	16.9	-22.8	17.4	-23.3	

ROOF VENTILATION

SECTION R806
R806.1 Ventilation required. Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7.
R806.2 Minimum area. The total net free ventilating area shall not be less than 1/150 of the area of the space ventilated except that reduction of the total area to 1/300 is permitted provided that at least 50 percent and not more than 80 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 (914 mm) above the eave or cornice vents with the balance of the required ventilation provided by eave or cornice vents. As an alternative, the net free cross-ventilation area may be reduced to 1/300 when a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.

Exceptions:
1. Enclosed attic/rafter spaces requiring less than 1 square foot (0.0929 m2) of ventilation may be vented with continuous soffit ventilation only.
2. Enclosed attic/rafter spaces over unconditioned space may be vented with continuous soffit vent only.

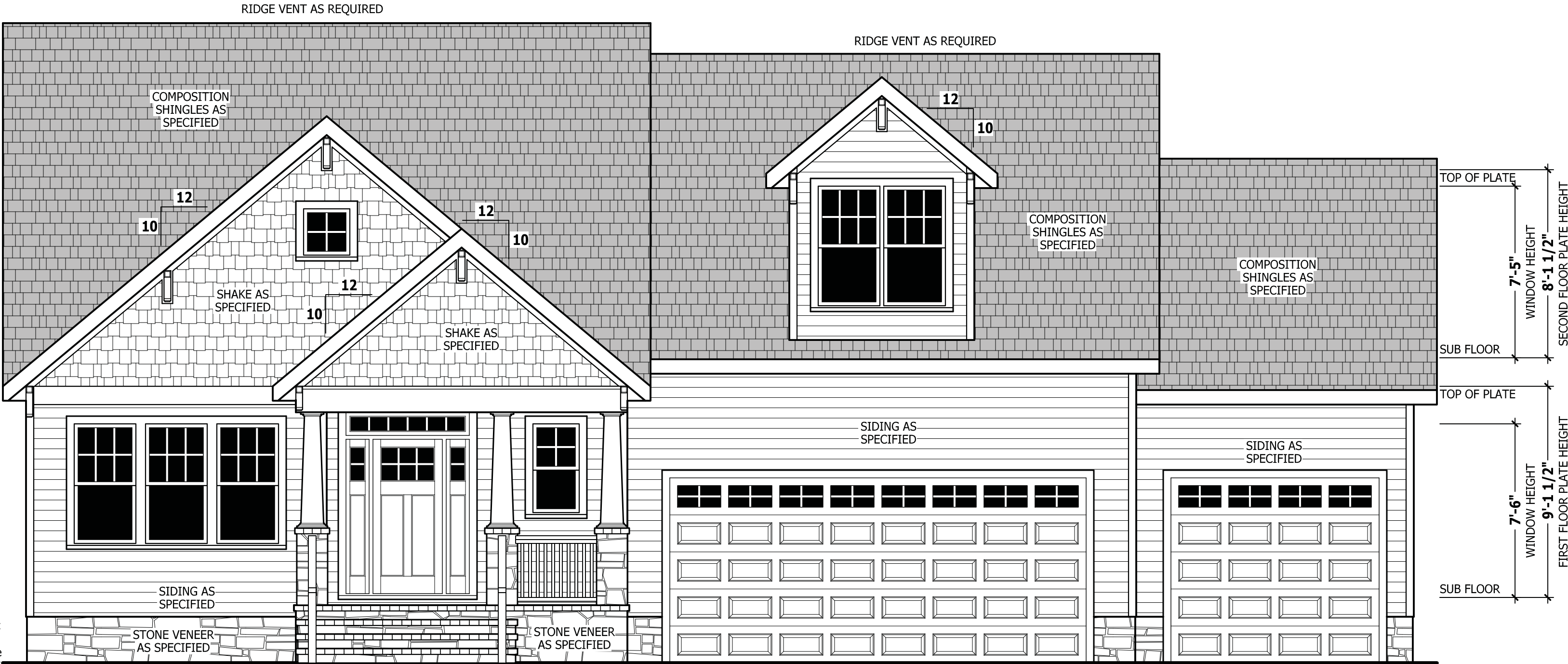
SQUARE FOOTAGE OF ROOF TO BE VENTED = 2392 SQ.FT.
NET FREE CROSS VENTILATION NEEDED:
WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 15.95 SQ.FT.
WITH 50% TO 80% OF VENTING 3'-0" ABOVE EAVE; OR WITH CLASS I OR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 7.97 SQ.FT.

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.

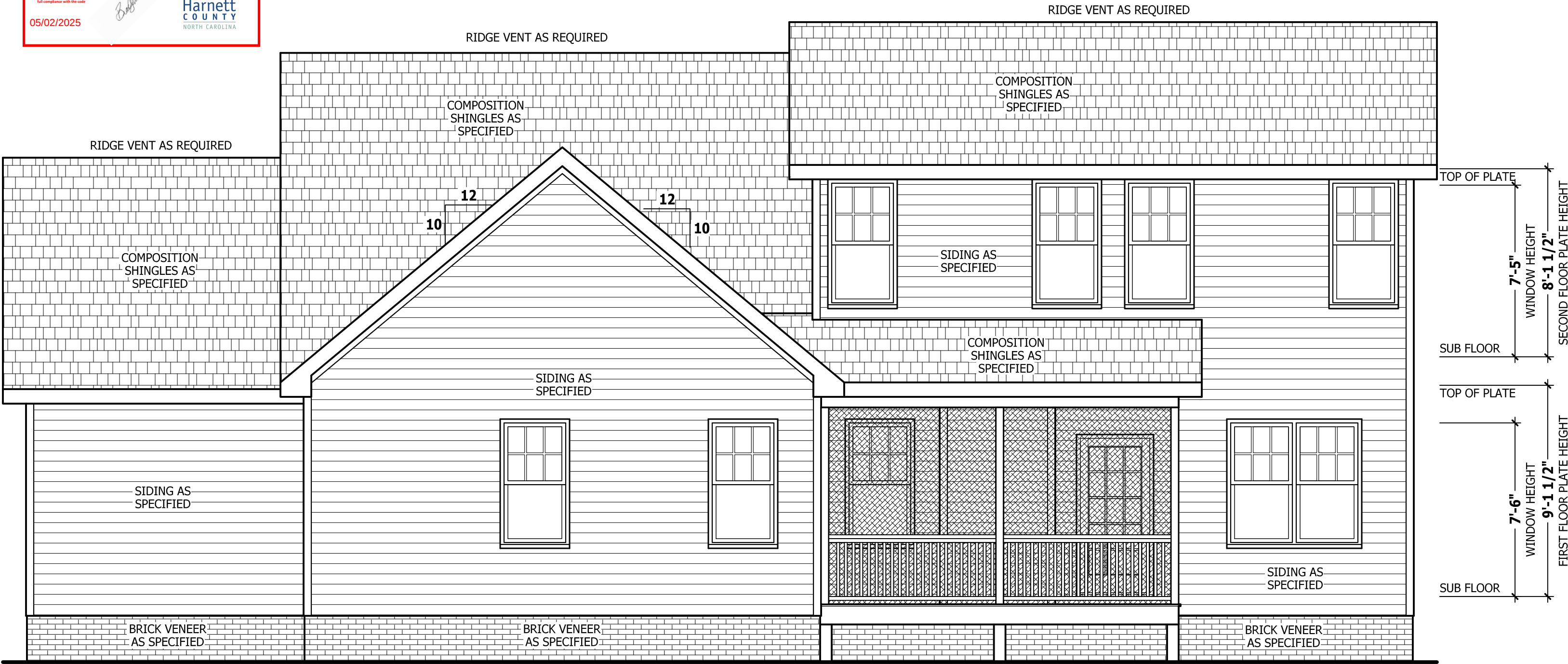
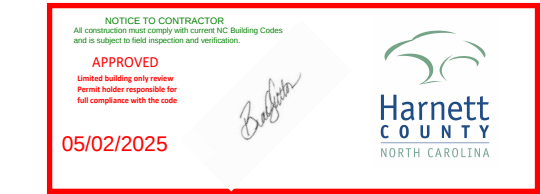
AIR LEAKAGE

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.



FRONT ELEVATION

SCALE 1/4" = 1'-0"



REAR ELEVATION

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.
M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.
THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

FRONT & REAR ELEVATIONS

Magnolia

With Right Hand Three Car Garage



M. HAYNES

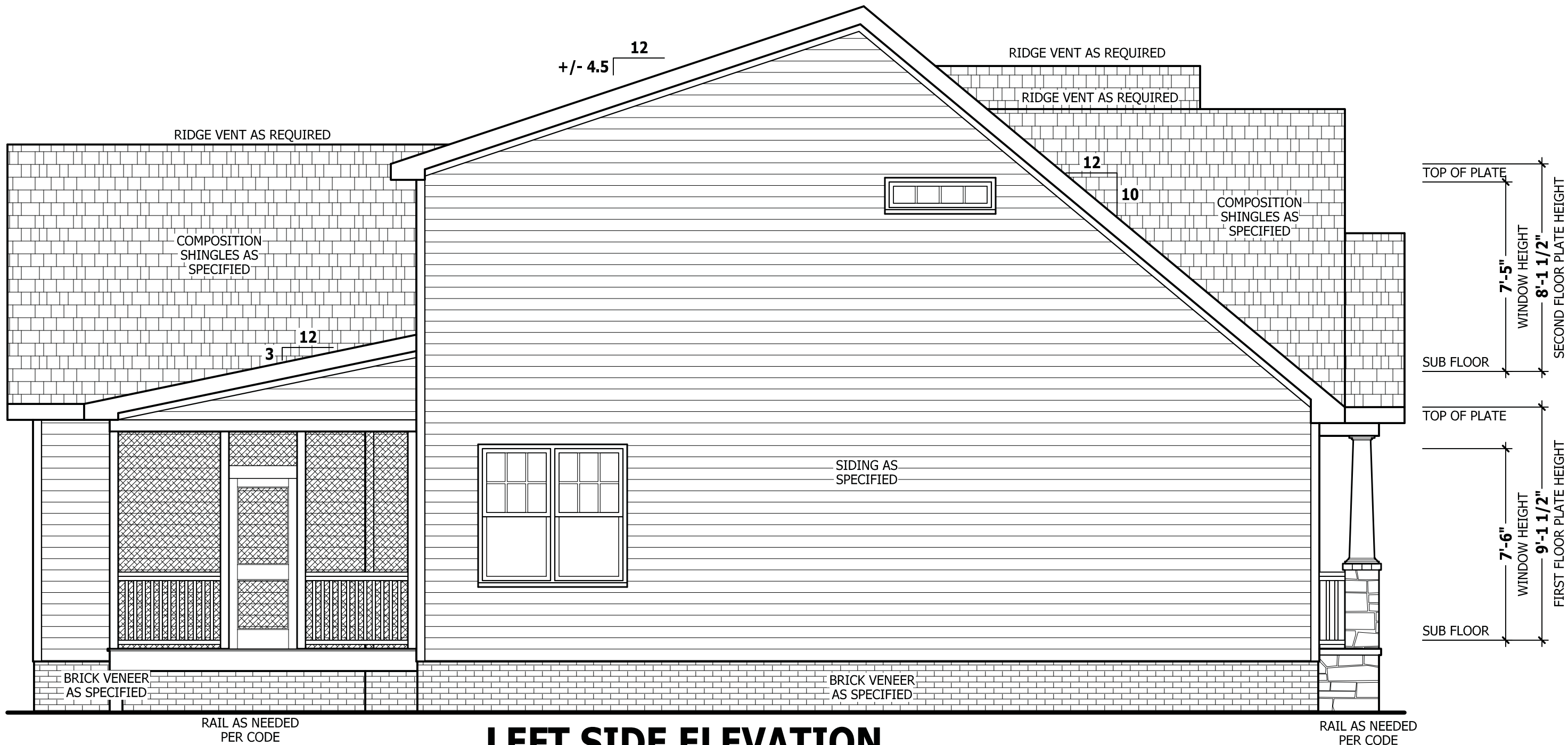
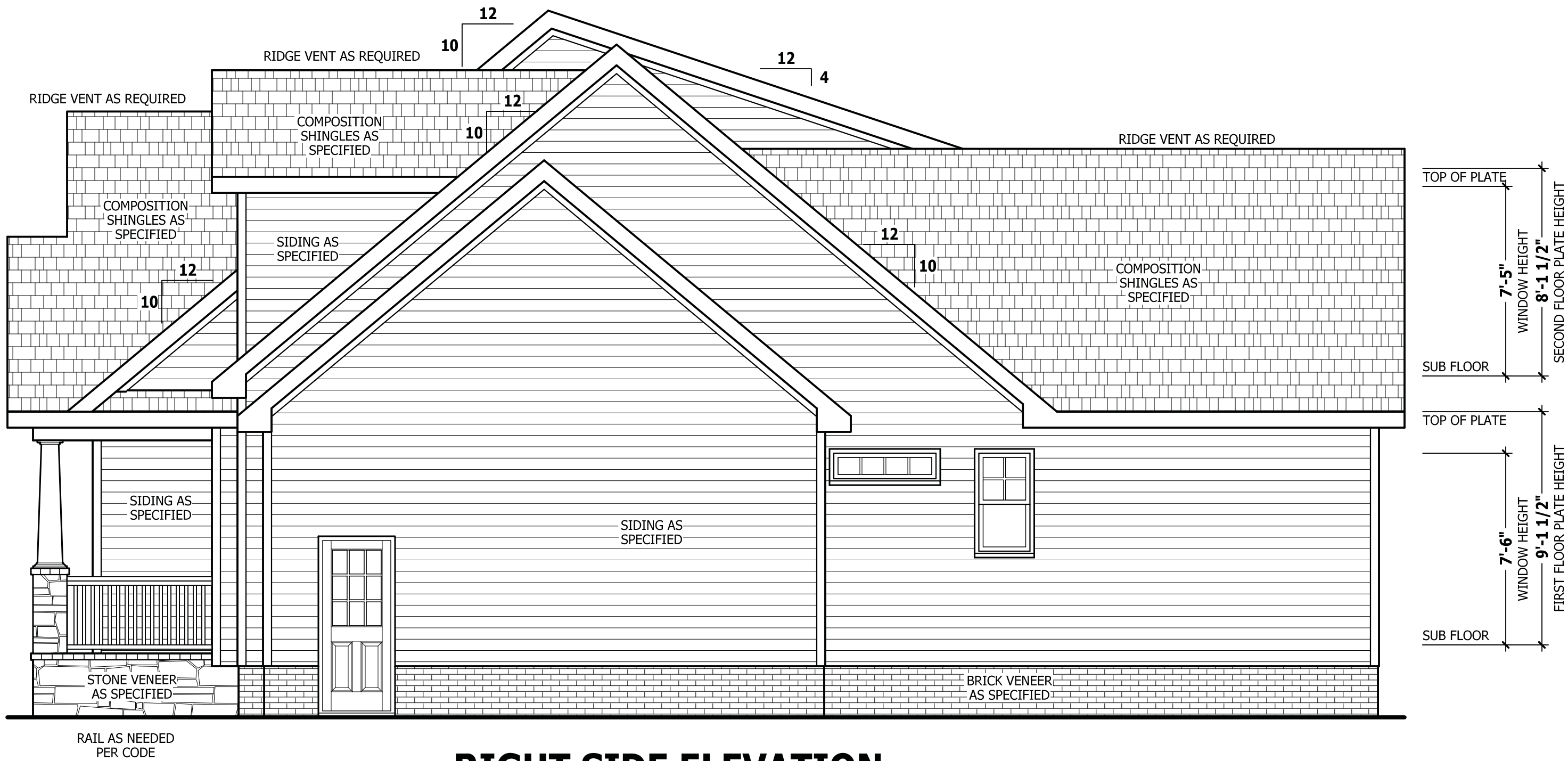
D E S I G N S

2821 ALDERSHOT DRIVE, WAKE FOREST, NC

919-740-0997 mhaynes1@nc.ctr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

Z:\Builder\Signature Home Builders, Inc\250313B Magnolia with 3 car\250313B Magnolia with 3 car.aec



PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

LEFT & RIGHT ELEVATIONS

Magnolia

With Right Hand Three Car Garage

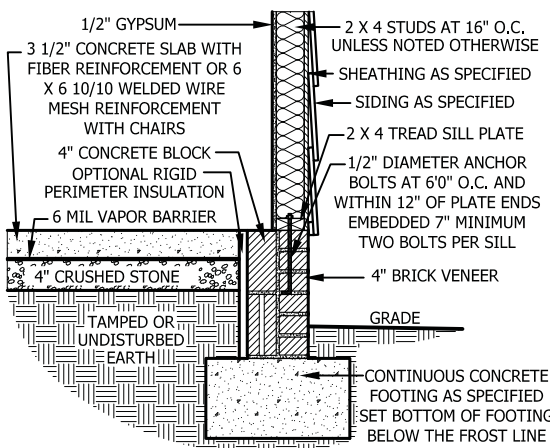


M. HAYNES

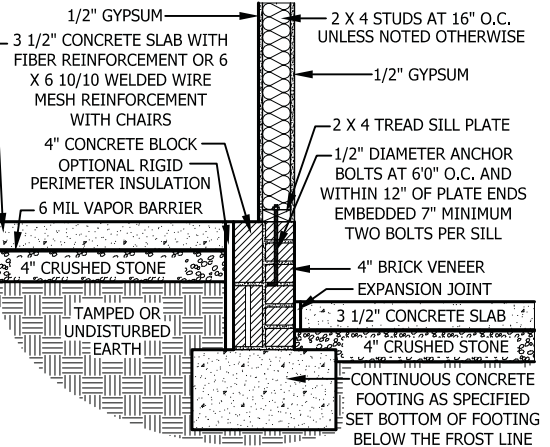
D E S I G N S

2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.crr.com

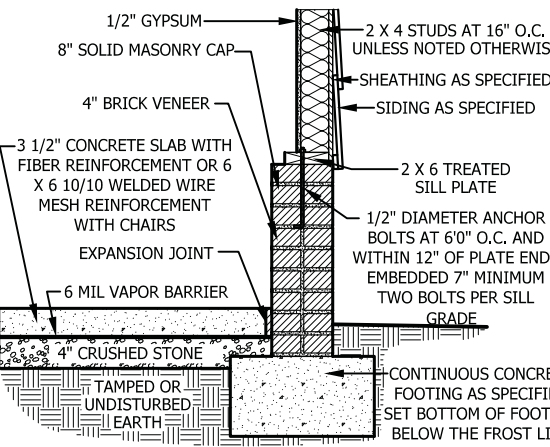
SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.



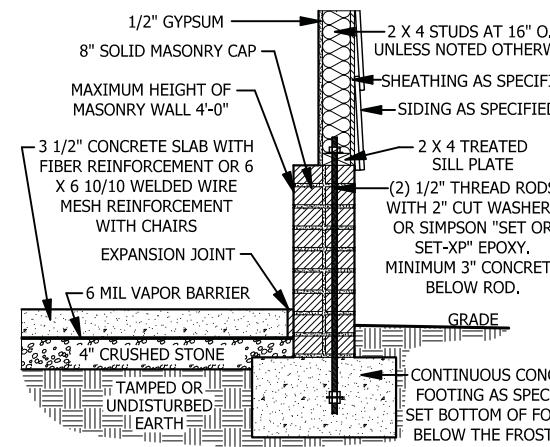
A STEM WALL SECTION
SCALE 1/2" = 1'-0"



C STEM WALL AT GARAGE
SCALE 1/2" = 1'-0"



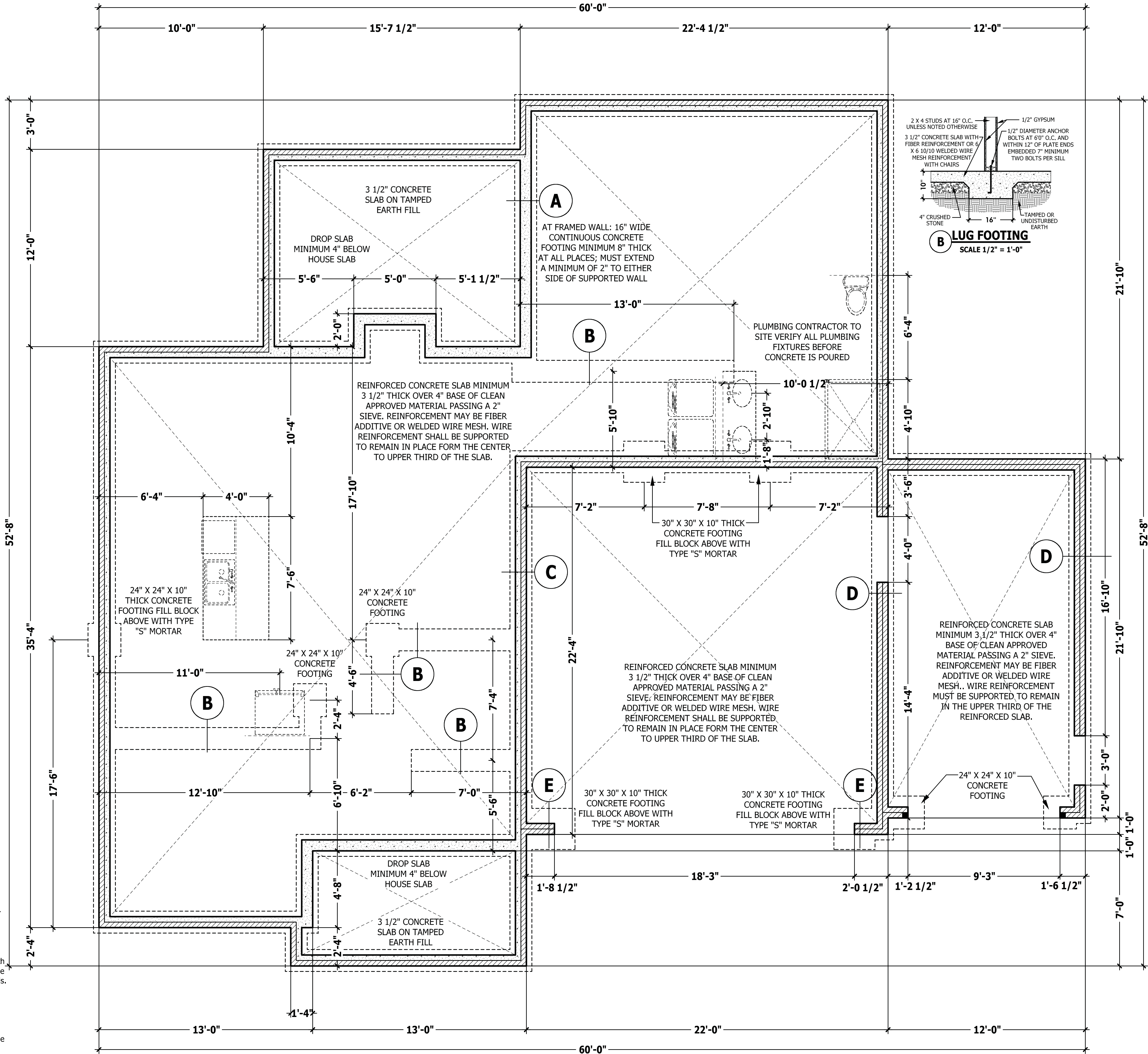
D GARAGE FOUNDATION WALL
SCALE 1/2" = 1'-0"



E 48" OR LESS GARAGE WING WALL
SCALE 1/2" = 1'-0"

FOUNDATION STRUCTURAL

115 to 130 mph wind zone (1 1/2 to 2 1/2 story)
CONTINUOUS FOOTING: 16" wide and 8" thick minimum, 20" wide minimum at brick veneer. Must extended 2" to either side of supported wall.
GIRDERS: (3) 2 X 10 girder unless noted otherwise.
PIERS: 16" X 16" piers with 8" solid masonry cap on 30" X 30" X 10" concrete footing with maximum pier height of 64" with hollow masonry and 160" with solid masonry.
POINT LOADS: ■ designates significant point load and should have solid blocking to pier, girder or foundation wall.
115 and 120 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 7", maximum 6'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
130 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 15", maximum 4'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5" slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.
SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a 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.



STEMWALL SLAB PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.
M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.
THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

STEMWALL SLAB PLAN

Magnolia
With Right Hand Three Car Garage

SHB

SIGNATURE
HOME BUILDERS, INC.

M. HAYNES
DESIGNS
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.rr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

CRAWL SPACE PLAN

Magnolia
With Right Hand Three Car Garage

M. HAYNES
D E S I G N S
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.rr.com

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 3 OF 8

CRAWL SPACE PLAN

SCALE 1/4" = 1'-0"

SCALE 1/4" = 1'-0"

Z:\Builder\Signature Home Builders, Inc\250313B Magnolia with 3 car\250313B Magnolia with 3 car.aec

WALL THICKNESSES

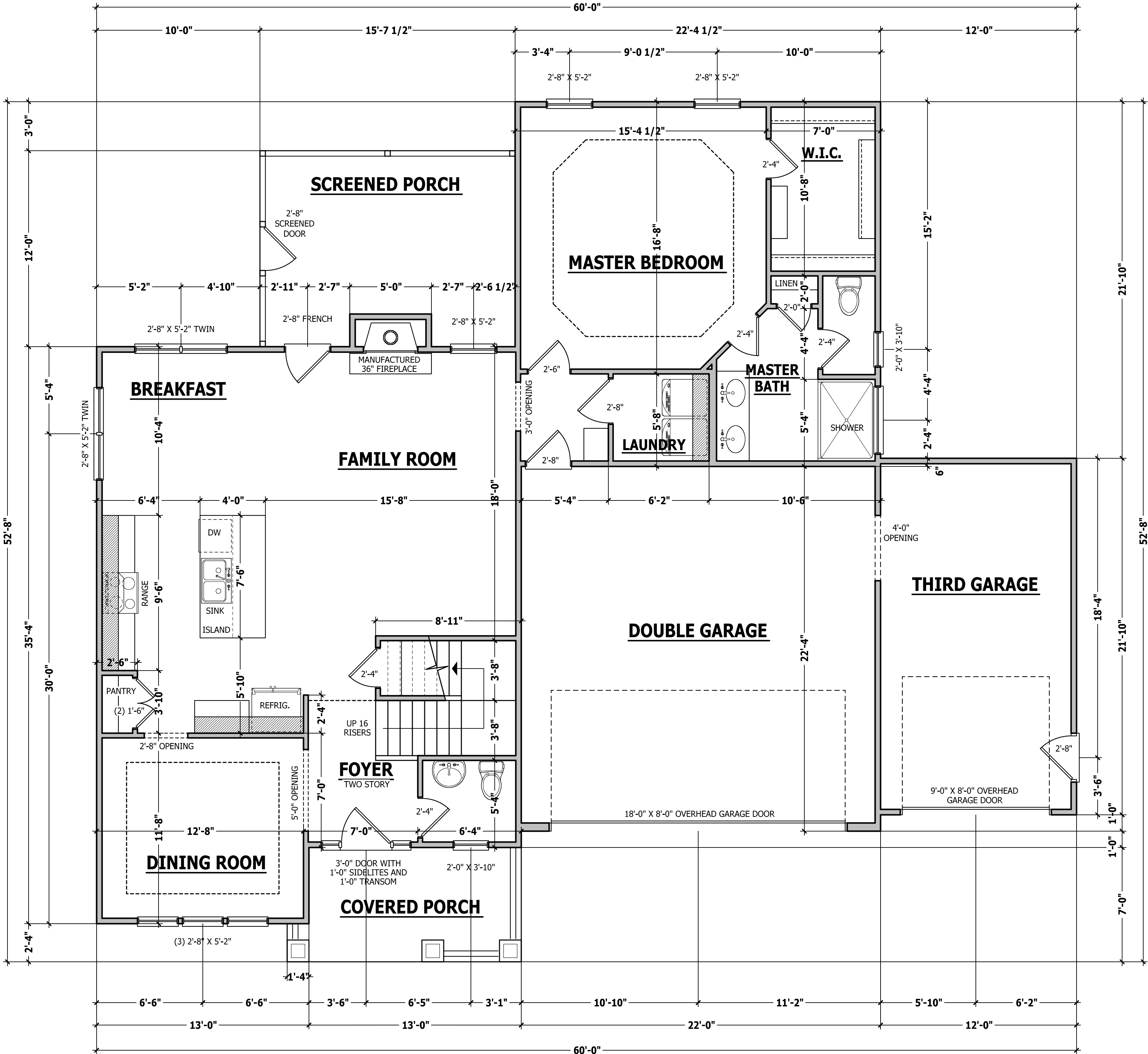
Exterior walls and walls adjacent to a garage area are drawn as 4" or as noted 2 X 6 are drawn as 6" to include 1/2" sheathing or gypsum. Subtract 1/2" for stud face.
Interior walls are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

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 FOOTAGE

HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.



FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.
M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.
THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

FIRST FLOOR PLAN

Magnolia

With Right Hand Three Car Garage



M. HAYNES

DESIGNS
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.ctr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 4 OF 8

Z:\Builder\Signature Home Builders, Inc\250313B Magnolia with 3 car\250313B Magnolia with 3 car.aec

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2024 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: M. Haynes Designs assumes no liability for contractors practices and procedures or safety program. M. Haynes Designs 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.

DESIGN LOADS	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
USE			
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 PSI
Laminated 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 7/16" thick.

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.

REQUIRED 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.

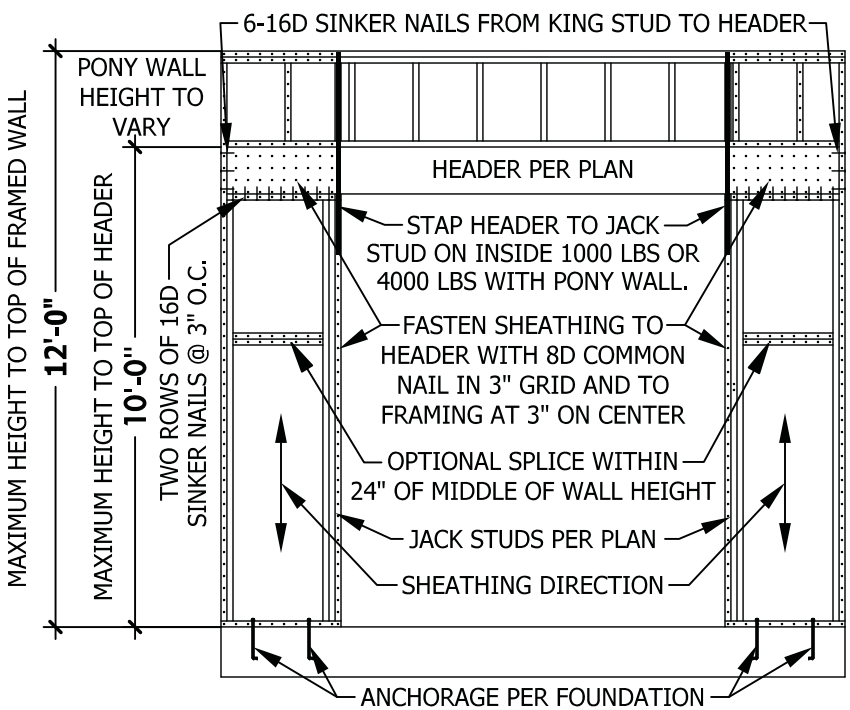
Methods Per Table R602.10.1

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" long 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 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



PORTAL FRAME AT OPENING

(METHOD PF PER FIGURE AND SECTION R602.10.1)

SCALE 1/4" = 1'-0"

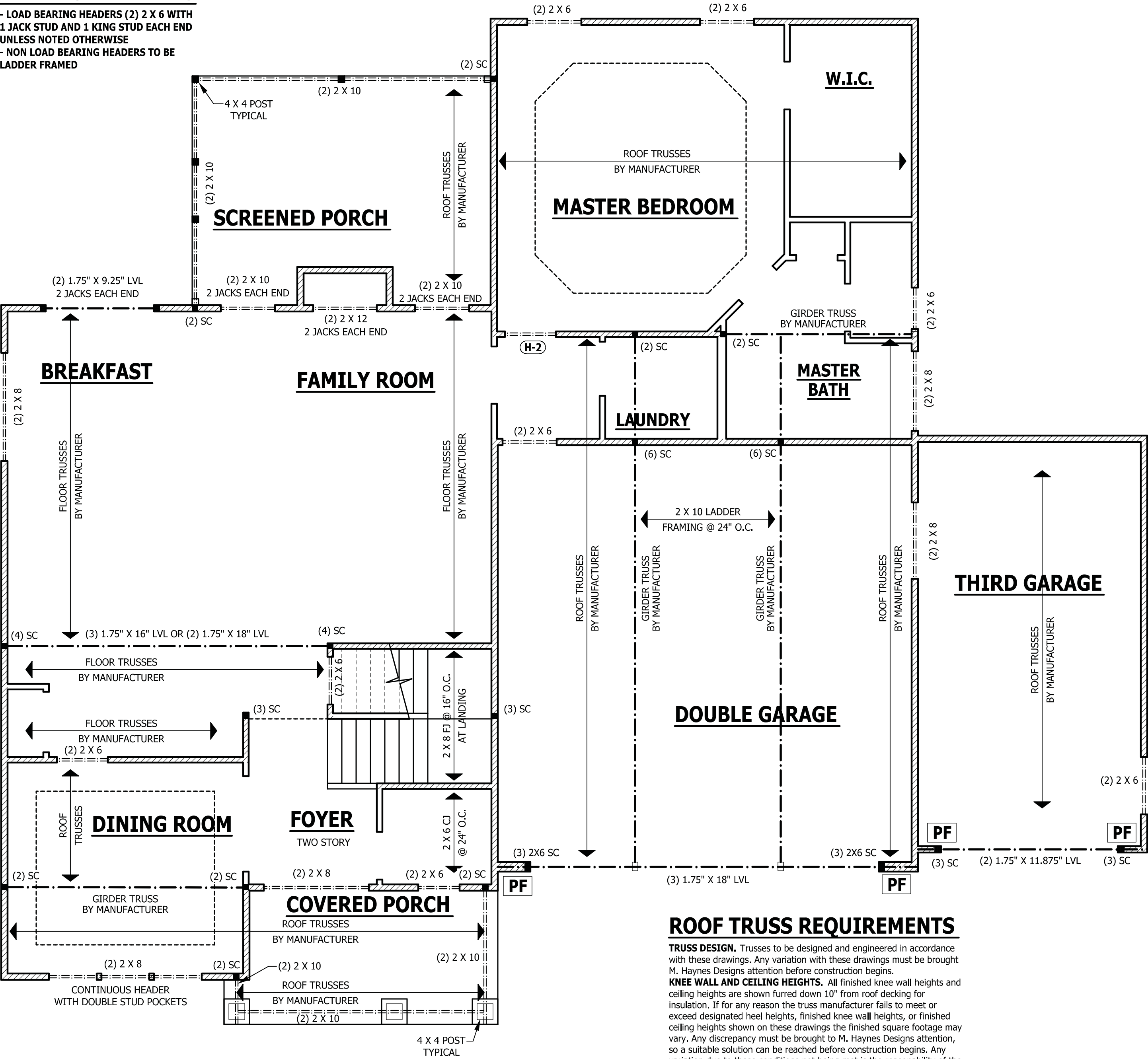
EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END
UNLESS NOTED OTHERWISE
- KING STUDS EACH END PER TABLE BELOW

HEADER SPAN	< 3'	3'-4'	4'-8'	8'-12'	12'-16'
KING STUD(S)	1	2	3	5	6

INTERIOR HEADERS

- LOAD BEARING HEADERS (2) 2 X 6 WITH
1 JACK STUD AND 1 KING STUD EACH END
UNLESS NOTED OTHERWISE
- NON LOAD BEARING HEADERS TO BE
LADDER FRAMED



FIRST FLOOR STRUCTURAL

SCALE 1/4" = 1'-0"

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 M. Haynes Designs 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 M. Haynes Designs 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.

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

FIRST FLOOR STRUCTURAL

Magnolia
With Right Hand Three Car Garage



M. HAYNES

DESIGNS
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.ctr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 5 OF 8

Z:\Builder\Signature Home Builders, Inc\250313B Magnolia with 3 car\250313B Magnolia with 3 car.aec

STRUCTURAL NOTES

All construction shall conform to the latest requirements of the 2024 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: M. Haynes Designs assumes no liability for contractors practices and procedures or safety program. M. Haynes Designs 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.

DESIGN LOADS	USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)	DEFLECTION (LL)
	Attics without storage	10	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 PSI
Laminated 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 3/4" thick.

ROOF SHEATHING: OSB or CDX roof sheathing minimum 3/8" thick.

EXTERIOR HEADERS

- (2) 2 X 6 WITH 1 JACK STUD EACH END UNLESS NOTED OTHERWISE
- KING STUDS EACH END PER TABLE BELOW

HEADER SPAN	< 3'	3'-4'	4'-8'	8'-12'	12'-16'
KING STUD(S)	1	2	3	5	6

INTERIOR HEADERS

- LOAD BEARING HEADERS (2) 2 X 6 WITH 1 JACK STUD AND 1 KING STUD EACH END UNLESS NOTED OTHERWISE
- NON LOAD BEARING HEADERS TO BE LADDER FRAMED

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.

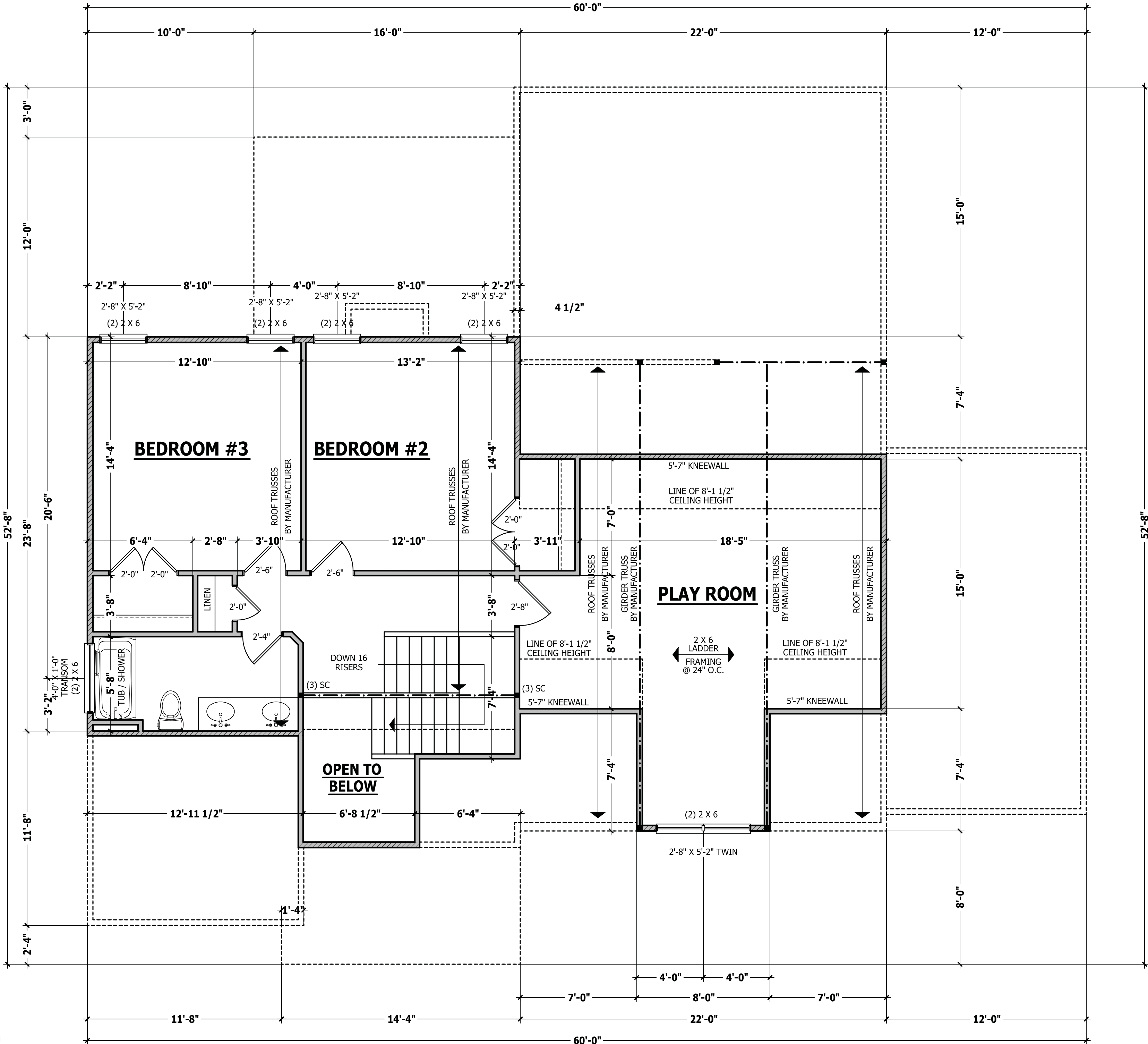
ATTIC ACCESS

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.



SECOND FLOOR PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

SECOND FLOOR PLAN

Magnolia
With Right Hand Three Car Garage



M. HAYNES
DESIGN
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.crr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 6 OF 8

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.

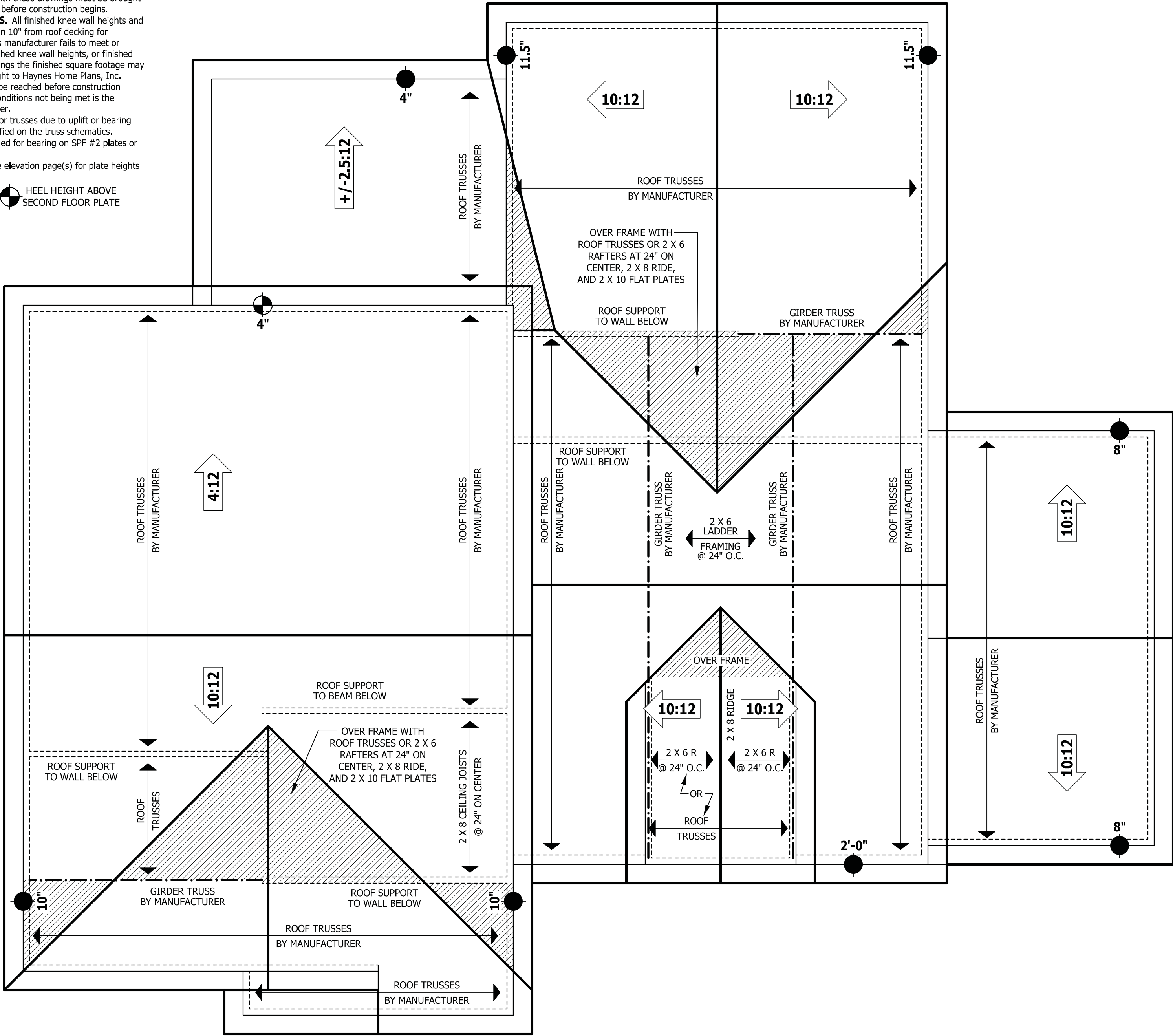
KNEE WALL AND CEILING HEIGHTS. All finished knee wall heights and ceiling heights are shown furred down 10" from roof decking for insulation. If for any reason the truss manufacturer fails to meet or exceed designated heel heights, finished knee wall heights, or finished ceiling heights shown on these 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 FIRST FLOOR PLATE
- HEEL HEIGHT ABOVE SECOND FLOOR PLATE



ROOF PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION. A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.

THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

ROOF PLAN

Magnolia

With Right Hand Three Car Garage



M. HAYNES

DESIGNS

2821 ALDERSHOT DRIVE, WAKE FOREST, NC

919-740-0997 mhaynes1@nc.ctr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 7 OF 8



ROOF & FLOOR
TRUSSES & BEAMS

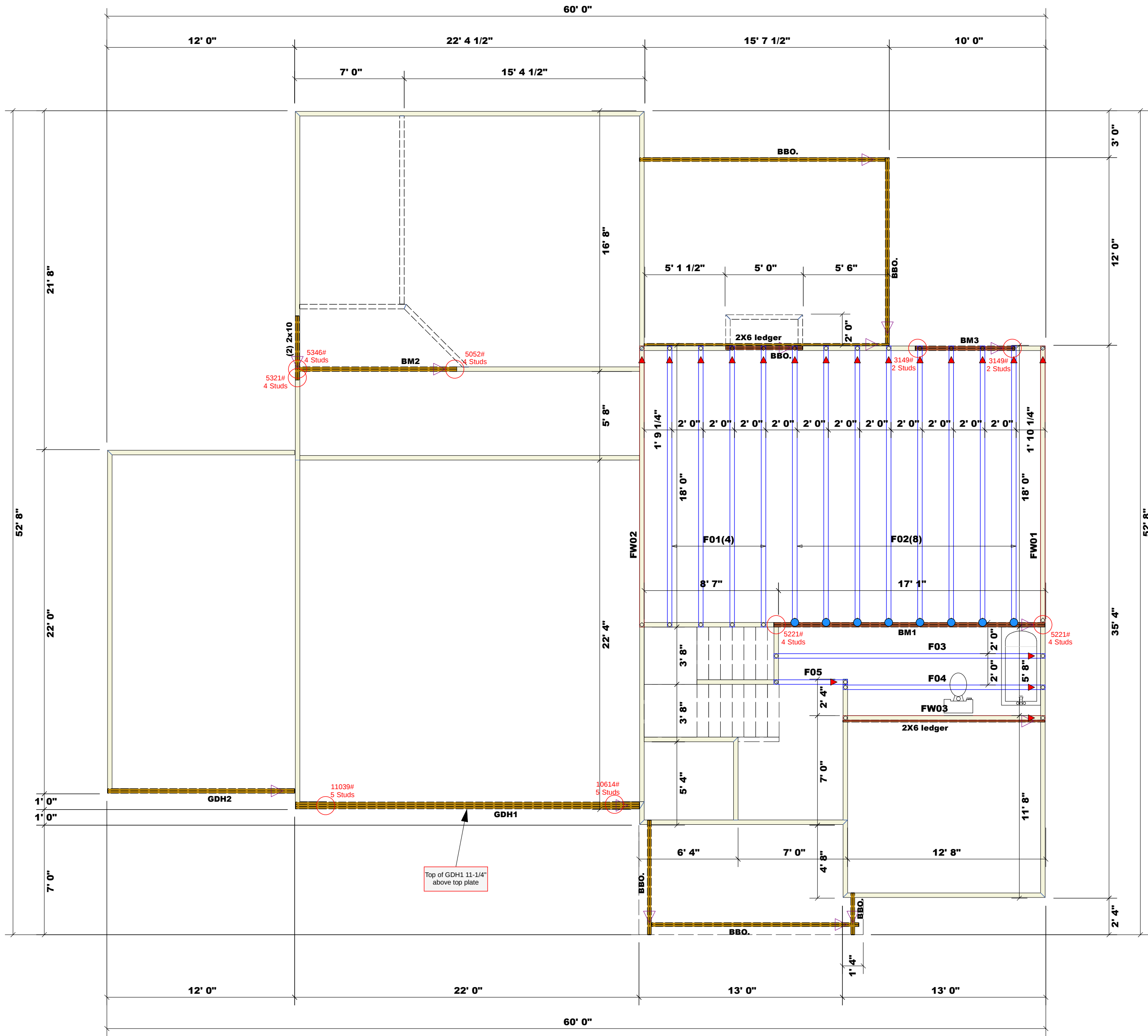
Reilly Road Industrial Park
Fayetteville, N.C. 28309
Phone: (910) 864-8787
Fax: (910) 864-4444

Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Tables (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

Signature
Hampton Horrocks

LOAD CHART FOR JACK STUDS

(BASED ON TABLES R502.5(1) & (b))					
NUMBER OF JACK STUDS REQUIRED @ EA END OF HEADER/GIRDER					
END REACTION (UP TO)	REQ'D STUDS FOR (1) 1" x 1" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1" x 1" HEADER	END REACTION (UP TO)	REQ'D STUDS FOR (1) 1" x 1" HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				



Products					
Net Qty	Plies	Product	Length	PlotID	
2	2	1-3/4"x 9-1/4" LVL Kerto-S	7' 0"	BM3	
2	2	1-3/4"x 11-7/8" LVL Kerto-S	12' 0"	GDH2	
2	2	1-3/4"x 16" LVL Kerto-S	18' 0"	BM1	
2	2	1-3/4"x 16" LVL Kerto-S	11' 0"	BM2	
3	3	1-3/4"x 23-7/8" LVL Kerto-S	22' 0"	GDH1	

All Walls Shown Are
Considered Load Bearing

Dimension Notes
1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
2. All interior wall dimensions are to face of stud unless noted otherwise
3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

= Indicates Left End of Truss ▲
(Reference Engineered Truss Drawing)
Do Not Erect Trusses Backwards

Nail Information		Connector Information				
Truss	Header	Supported Member	Qty	Manuf	Product	Sym
16d/3-1/2"	16d/3-1/2"	Varies	8	USP	HUS410	●

All Truss Reactions are Less
than 3,000 lbs. Unless Noted Otherwise.
-- Denotes Reaction Greater than 3,000 lbs.
Reaction / # of Studs

Truss Placement Plan
SCALE: NTS

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.
These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbcindustry.com



Bearing reactions less than or equal to 3000# are deemed to comply with the prescriptive Code requirements. The contractor shall refer to the attached Table (derived from the prescriptive Code requirements) to determine the minimum foundation size and number of wood studs required to support reactions greater than 3000# but not greater than 15000#. A registered design professional shall be retained to design the support system for any reaction that exceeds those specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.

LOAD CHART FOR JACK STUDS

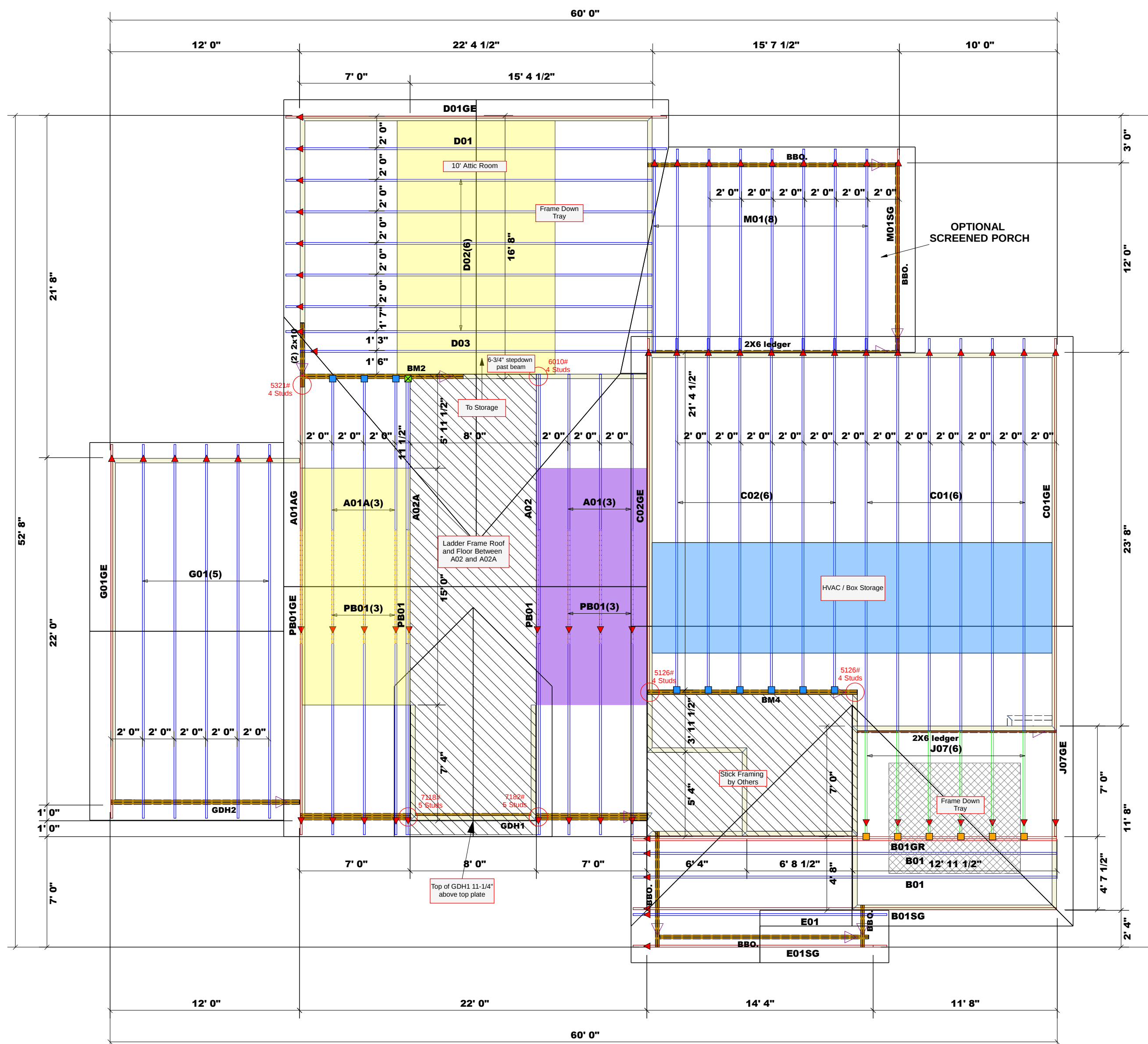
(BASED ON TABLES R502.5(1) & (2))

NUMBER OF JACK STUDS REQUIRED @ EA END OF
HEADER/BRIDGE

END REACTION (kN TO UP)	REQ'D JACK STUDS FOR (1) 1/2" HEADER	END REACTION (kN TO UP)	REQ'D JACK STUDS FOR (2) 1/4" HEADER	END REACTION (kN TO UP)	REQ'D JACK STUDS FOR (3) 3/8" HEADER
1700	1	2550	1	3400	1
3400	2	5100	2	6800	2
5100	3	7650	3	10200	3
6800	4	10200	4	13600	4
8500	5	12750	5	17000	5
10200	6	15300	6		
11900	7				
13600	8				
15300	9				

BUILDER	Signature Home Builders	COUNTY	Angier / Harnett
JOB NAME	Lot 2 Mabry Ridge	ADDRESS	Croatake Court
PLAN	Magnolia 3 Car, GL	MODEL	Roof
SEAL DATE	05/14/19	DATE REV.	03/06/25
QUOTE #	Quote #	DRAWN BY	Hampton Horrocks
JOB #	J0325-1249	SALESMAN	Anthony Williams

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual building components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawings. The building designer is responsible for temporary and permanent bracing of the roof and floor system and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding bracing, consult BCSI-B1 and BCSI-B3 provided with the truss delivery package or online @ sbindustry.com



All Walls Shown Are
Considered Load Bearing

Products					
Net Qty	Plies	Product		Length	PlotID
2	2	1-3/4"x 11-7/8"	LVL Kerto-S	14' 0"	BM4

Nail Information		Connector Information				
Truss	Header	Supported Member	Qty	Manuf	Product	Spec
10d/3"	10d/3"	Varies	6	USP	JUS26	10d/3"
16d/3-1/2"	16d/3-1/2"	Varies	9	USP	HUS26	16d/3-1/2"
16d/3-1/2"	16d/3-1/2"	Varies	1	USP	THDH28-2	16d/3-1/2"

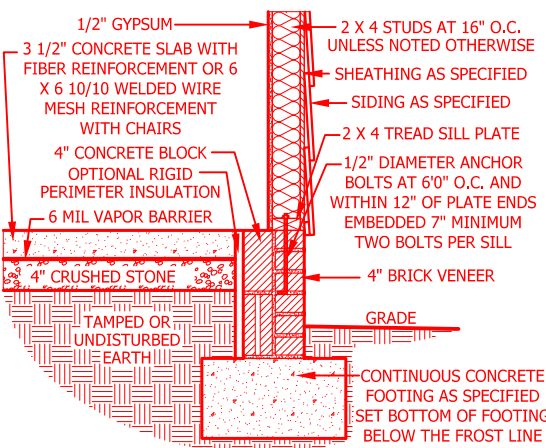
Dimension Notes
1. All exterior wall to wall dimensions are to face of sheathing unless noted otherwise
2. All interior wall dimensions are to face of stud unless noted otherwise
3. All exterior wall to truss dimensions are to face of stud unless noted otherwise

All Truss Reactions are Less than 3,000 lbs. Unless Noted Otherwise.

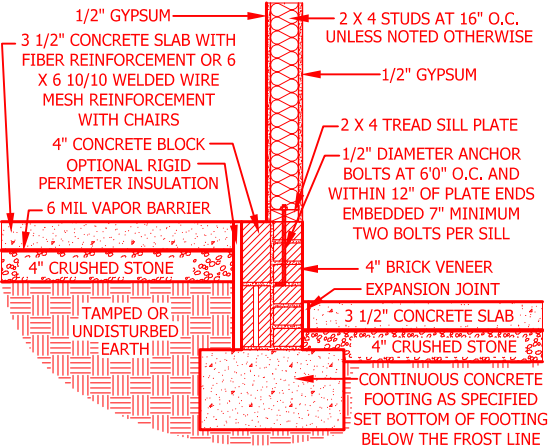
-- Denotes Reaction Greater than 3,000 lbs.

Reaction / # of Studs

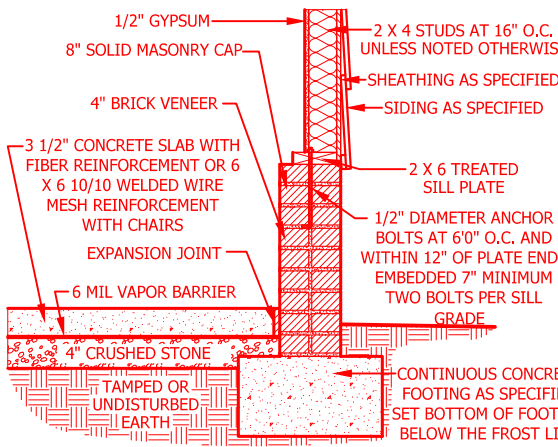
Truss Placement Plan
SCALE: NTS



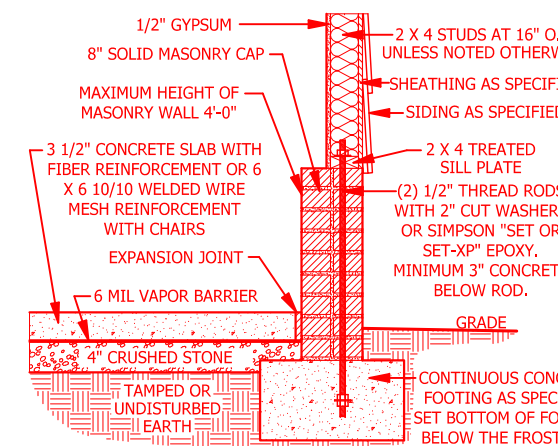
A STEM WALL SECTION
SCALE 1/2" = 1'-0"



C STEM WALL AT GARAGE
SCALE 1/2" = 1'-0"



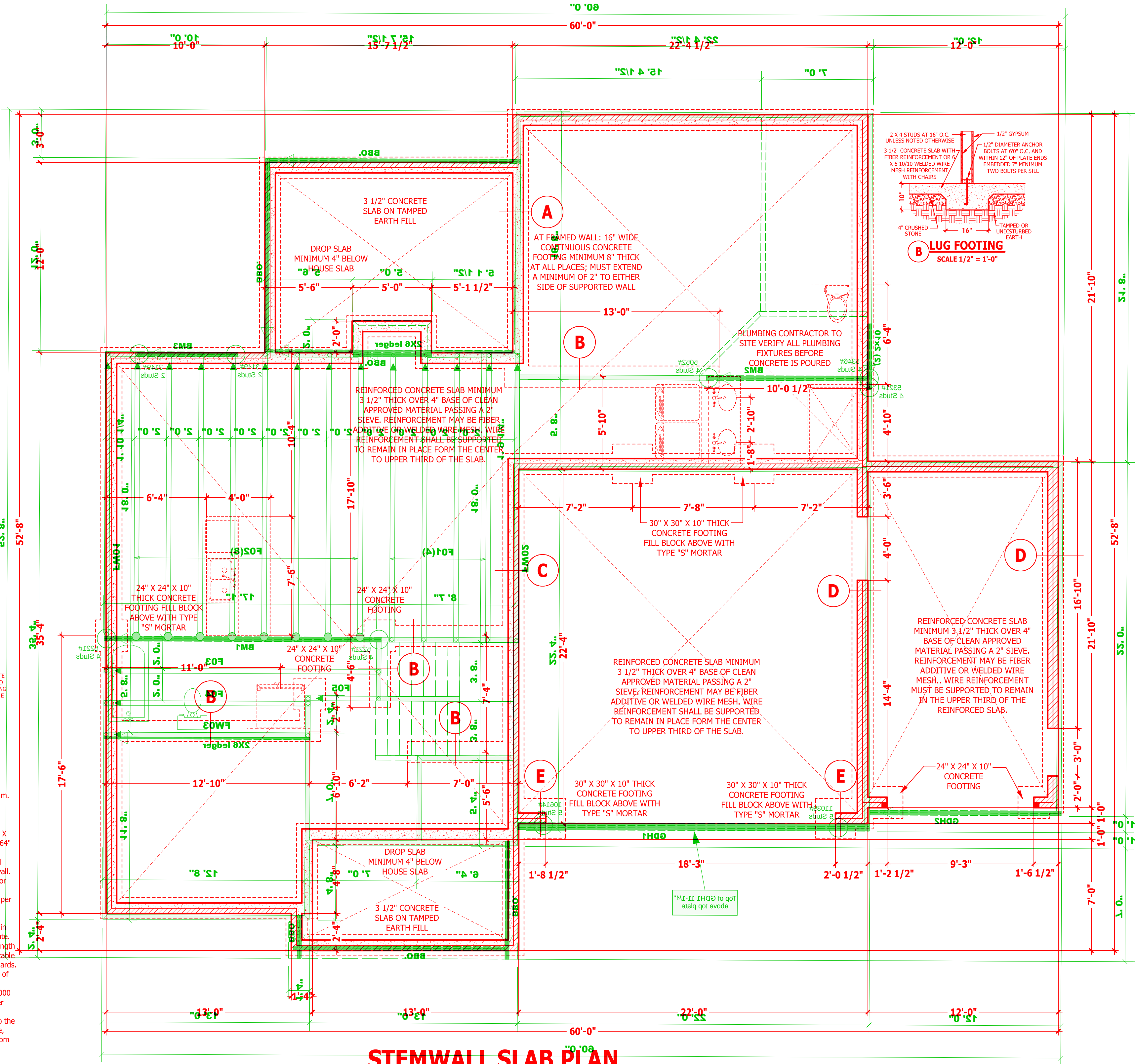
D GARAGE FOUNDATION WALL
SCALE 1/2" = 1'-0"



E 48" OR LESS GARAGE WING WALL
SCALE 1/2" = 1'-0"

FOUNDATION STRUCTURAL

115 to 130 mph wind zone (1 1/2 to 2 1/2 story)
CONTINUOUS FOOTING: 16" wide and 8" thick minimum, 20" wide minimum at brick veneer. Must extend 2" to either side of supported wall.
GIRDERS: (3) 2 X 10 girder unless noted otherwise.
PIERS: 16" X 16" piers with 8" solid masonry cap on 30" X 30" X 10" concrete footing with maximum pier height of 64" with hollow masonry and 160" with solid masonry.
POINT LOADS: ■ designates significant point load and should have solid blocking to pier, girder or foundation wall.
115 and 120 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 7", maximum 6'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
130 MPH ANCHORS BOLTS: 1/2" diameter anchor bolts embedded minimum 15", maximum 4'-0" on center, within 12" of plate ends, and minimum two anchor bolts per plate.
CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5" slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.
SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The contractor must contact a geotechnical engineer and a 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.



STEMWALL SLAB PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.
M. HAYNES DESIGNS ASSUMES NO LIABILITY FOR CONTRACTORS PRACTICES AND PROCEDURES. CODES AND CONDITIONS MAY VARY WITH LOCATION, A LOCAL DESIGNER, ARCHITECT OR ENGINEER SHOULD BE CONSULTED BEFORE CONSTRUCTION.
THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

STEMWALL SLAB PLAN
Magnolia
With Right Hand Three Car Garage

SHB
SIGNATURE
HOME BUILDERS, INC.

M. HAYNES
DESIGN
2821 ALDERSHOT DRIVE, WAKE FOREST, NC
919-740-0997 mhaynes1@nc.ctr.com

SQUARE FOOTAGE	
HEATED	
FIRST FLOOR	1354 SQ.FT.
SECOND FLOOR	589 SQ.FT.
PLAYROOM	373 SQ.FT.
TOTAL	2316 SQ.FT.
UNHEATED	
FRONT PORCH	94 SQ.FT.
GARAGE	491 SQ.FT.
SCREENED PORCH	178 SQ.FT.
THIRD GARAGE	264 SQ.FT.
TOTAL	1027 SQ.FT.

© Copyright 2025
M. HAYNES DESIGNS

3/13/2025

250313B

PAGE 3 OF 8