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## PLANS DESIGNED TO THE
## 2018 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 / -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 |

## 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 = 2,128 SQ.FT.

NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 14,18 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 = 7,09 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 43/8 inches (111 mm) in diameter.

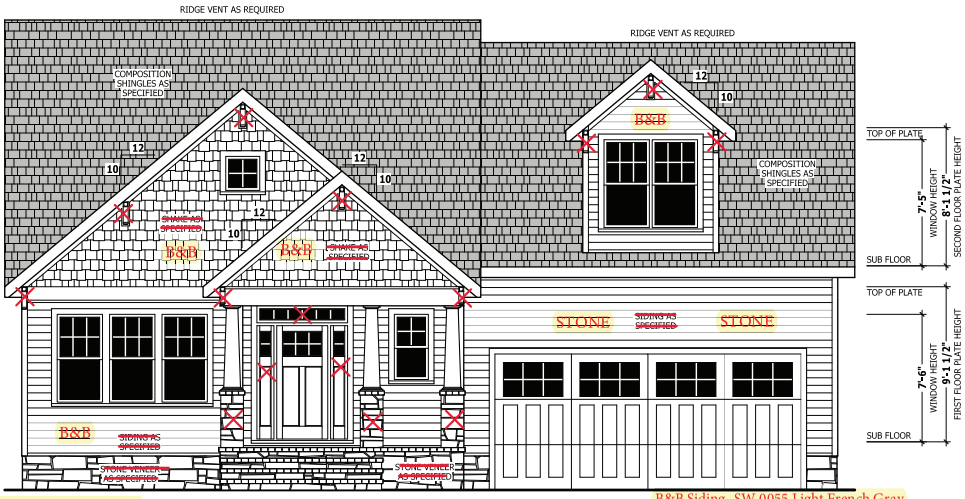
## AIR LEAKAGE

**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.

Lot 1 Mamie Upchurch- 245 Mamie Upchurch Road Lillington, NC ***THIRD CAR SEE ADDENDUM***




Front Door- S1089 FG 3/4 View- Black
Garage Door- Recessed Panel w/ Lites- White
Windows- MGM SH Vinyl- 4 over 1- White
Shingles- 30 year Arch- Charcoal
Gutters- White
Columns- 8" Square PVC- White

RAIL AS NEEDED PER CODE

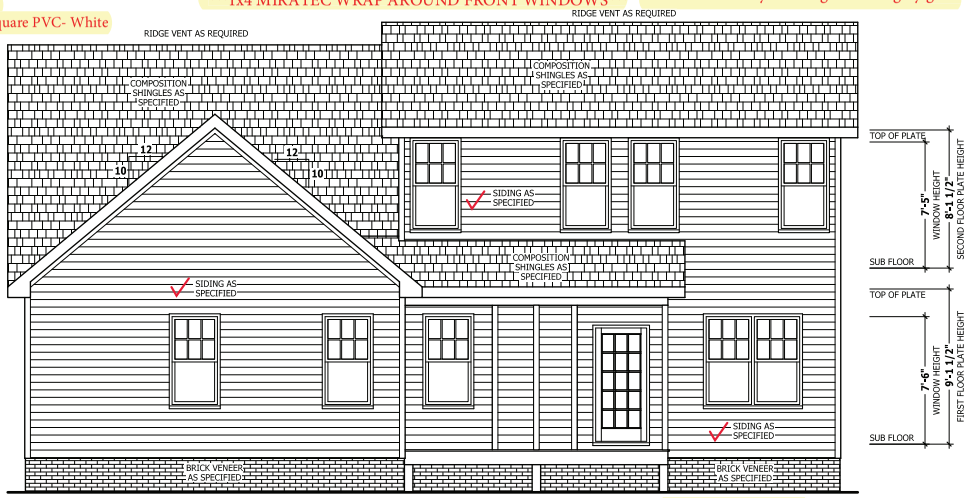
## FRONT ELEVATION

SCALE 1/4" = 1'-0"

B&B Siding- SW 0055 Light French Gray
Horizontal Siding - SW0055 Light French Gray
Trim- White

***1x4 MIRATEC WRAP AROUND FRONT WINDOWS***

Stone- Provia Mystic Ledgestone w/gray grout




RAIL AS NEEDED PER CODE

## REAR ELEVATION

SCALE 1/4" = 1'-0"

Screened Rear Porch

Rear Door- Full View Clear-White

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

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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**

SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. BOX 706, WAKE FOREST, NC 27588 919-556-5180 FAX 919-556-1455

**SQUARE FOOTAGE**

| | |
|---|---|
| **HEATED** | |
| FIRST FLOOR | 1354 SQ.FT. |
| SECOND FLOOR | 599 SQ.FT. |
| BONUS FLOOR | 373 SQ.FT. |
| TOTAL | 2316 SQ.FT. |
| **UNHEATED** | |
| FRONT PORCH | 94 SQ.FT. |
| GARAGE | 491 SQ.FT. |
| SCREENED PORCH | 178 SQ.FT. |
| TOTAL | 763 SQ.FT. |

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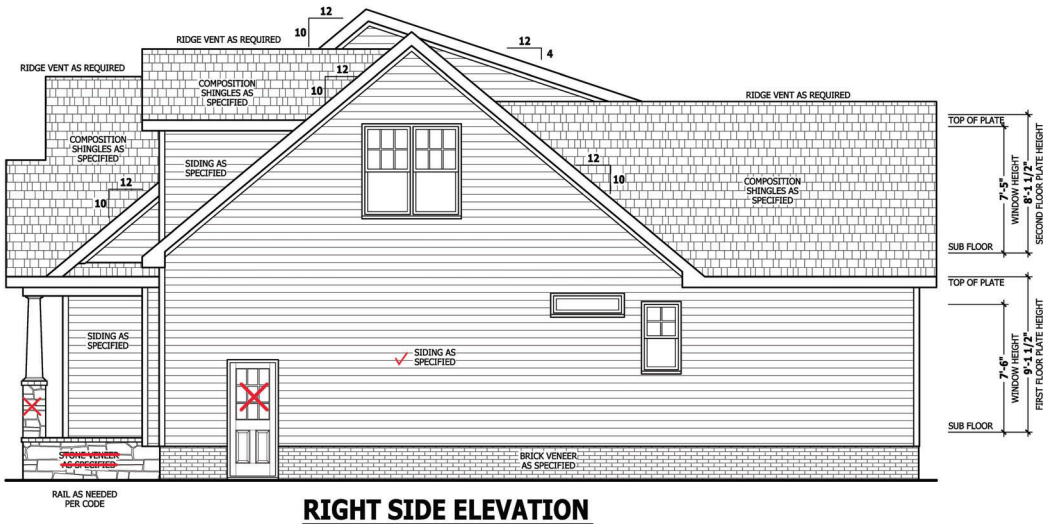
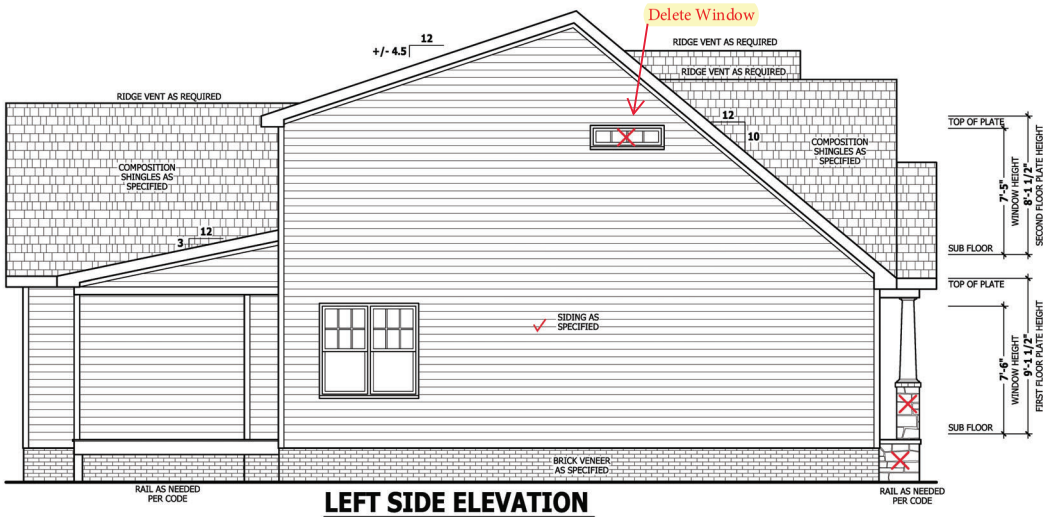



## RIGHT SIDE ELEVATION

SCALE 1/4" = 1'-0"

Garage Pedestrian Door- 2 panel Square




## LEFT SIDE ELEVATION

SCALE 1/4" = 1'-0"

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**LEFT & RIGHT ELEVATIONS**

**MAGNOLIA**

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P.O. BOX 7004, WAKE FOREST, NC 27588 919-435-0180 FAX 1-888-491-0085

**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. |
| TOTAL | 763 SQ.FT. |

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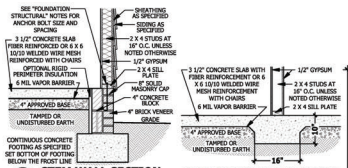
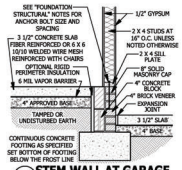
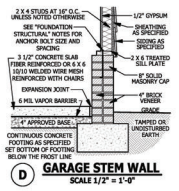



A STEM WALL SECTION
SCALE 1/2" = 1'-0"

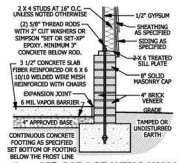
B LUG FOOTING SECTION
SCALE 1/2" = 1'-0"




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




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




E <48" 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.

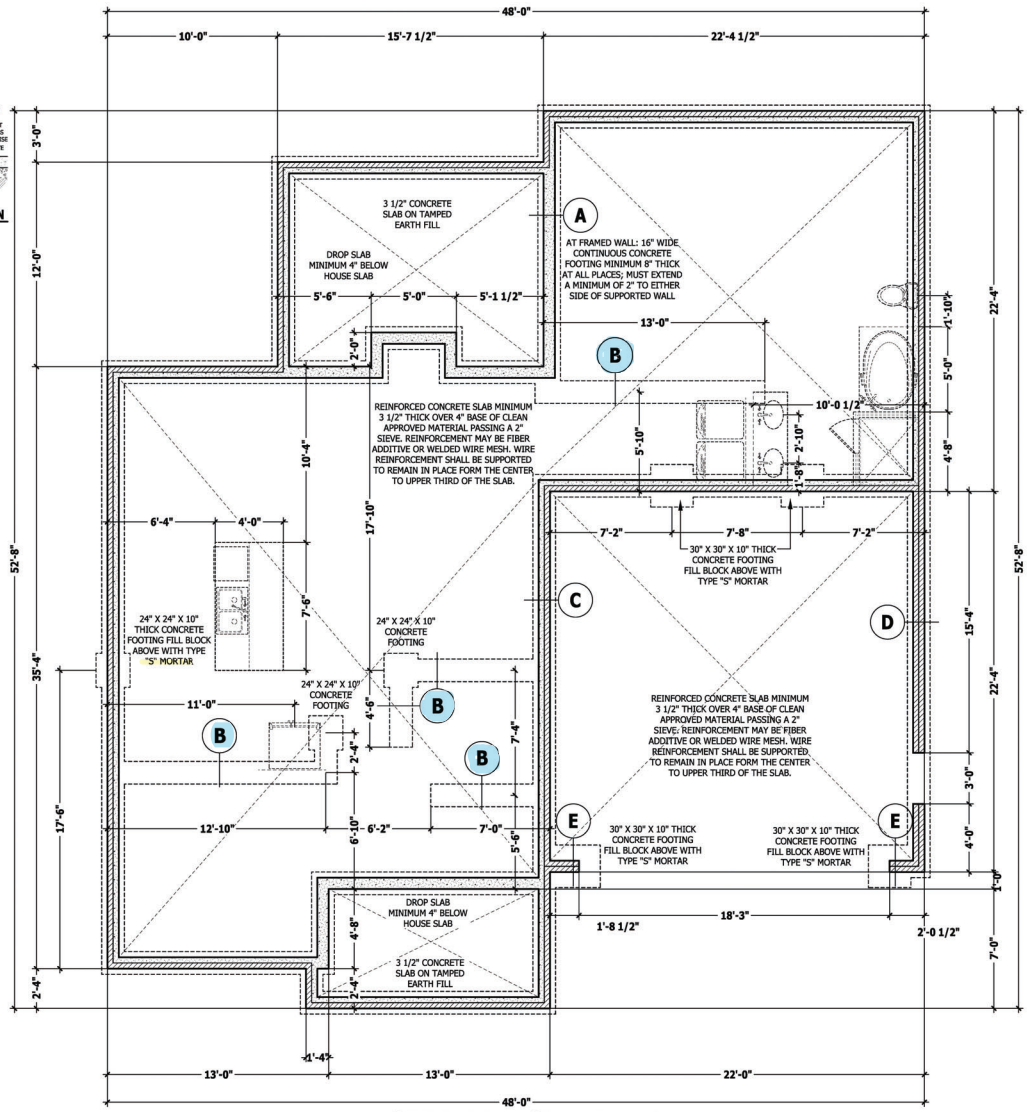
**POINT LOADS:** ■ designates significant point load and should have solid blocking to pier, girder or foundation wall.

**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"

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STEMWALL SLAB PLAN

MAGNOLIA

SHB SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. Box 704, Wake Forest, NC 27588 919-435-0180 FAX 1-888-491-0088

**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. |
| TOTAL | 763 SQ.FT. |

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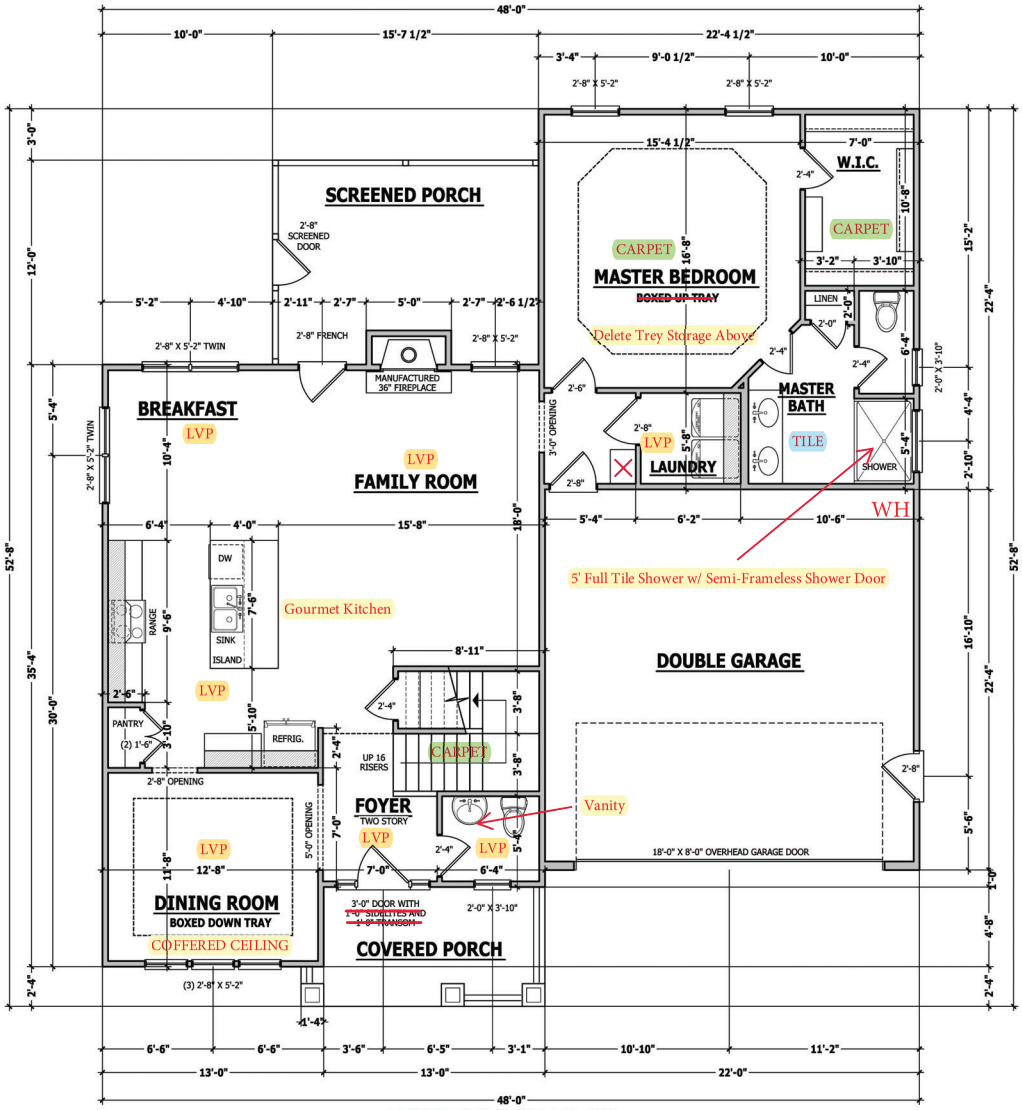


# FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

## 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. |
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FIRST FLOOR PLAN
MAGNOLIA

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SQUARE FOOTAGE
HEATED
FIRST FLOOR 1354 SQ.FT.
SECOND FLOOR 589 SQ.FT.
PLAYROOM 373 SQ.FT.
TOTAL 2316 SQ.FT.
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## 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.

**DESIGN LOADS**

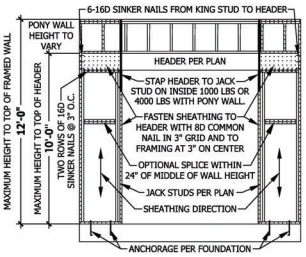
| USE | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION (LL) |
|---|---|---|---|
| Attics without storage | 10 | | L/240 |
| Attics with limited storage | 20 | 10 | L/360 |
| Attics with fixed stairs | 40 | 10 | L/360 |
| Balconies and decks | 40 | 10 | L/360 |
| Fire escapes | 40 | 10 | L/360 |
| Guardrails 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=1.9x10$^6$ PSI
Parallel strand lumber (PSL) = Fb=2900 PSI, Fv=290 PSI, E=2.0x10$^6$ PSI
Laminated strand lumber (LSL) Fb=2250 PSI, Fv=400 PSI, E=1.55x10$^6$ PSI
Install all connections per manufactures 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.

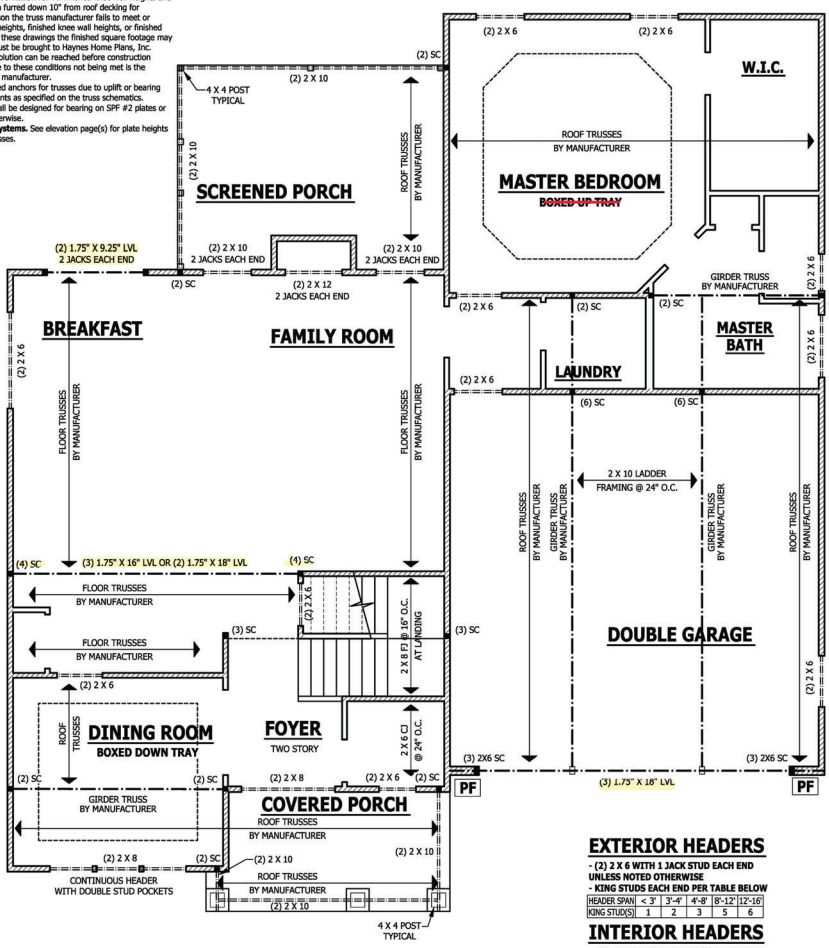
**Methods** Per Table R602.10.1
**CS-WSP:** Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or 8d(2 1/2" long x 0.113" diameter).
**CS-SFB:** Shall be minimum 1/2" structural fiber board nailed at 3" on center at edges and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




PF **PORTAL FRAME AT OPENING**
( METHOD PF PER FIGURE AND SECTION R602.10.1 )
**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 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.




# FIRST FLOOR STRUCTURAL
**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

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.
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THESE DRAWING ARE INSTRUMENTS OF SERVICE AND AS SUCH SHALL REMAIN PROPERTY OF THE DESIGNER.

FIRST FLOOR STRUCTURAL
MAGNOLIA

SHB SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. Box 706, Wake Forest, NC 27588 919-435-0180 FAX 1-888-491-0055

**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. |
| TOTAL | 763 SQ.FT. |

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## 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.

| DESIGN LOADS USE | LIVE LOAD (PSF) | DEAD LOAD (PSF) | DEFLECTION (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 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.

## 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.

## 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.

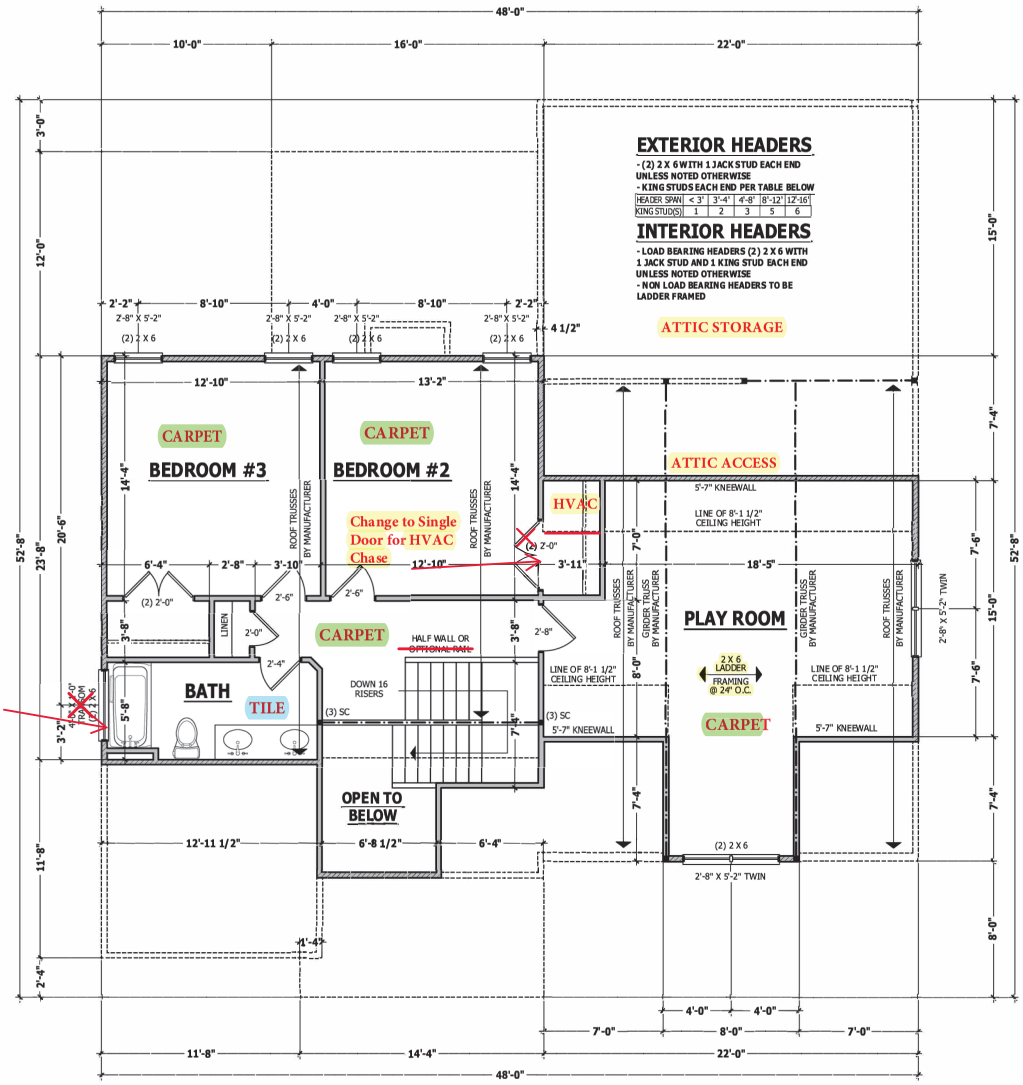
**Interior walls** are drawn as 3 1/2" or as noted 2 X 6 are drawn as 5 1/2", and do not include gypsum.

## 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"

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SECOND FLOOR PLAN

MAGNOLIA

SHB SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. BOX 7004, WAKE FOREST, NC 27588 919-435-0180 FAX 1-888-491-0359

**SQUARE FOOTAGE**

| HEATED | |
|---|---|
| FIRST FLOOR | 1354 SQ.FT. |
| SECOND FLOOR | 589 SQ.FT. |
| FLAYFOOR | 373 SQ.FT. |
| TOTAL | 2316 SQ.FT. |
| **UNHEATED** | |
| FRONT PORCH | 94 SQ.FT. |
| GARAGE | 491 SQ.FT. |
| SCREENED PORCH | 178 SQ.FT. |
| TOTAL | 763 SQ.FT. |

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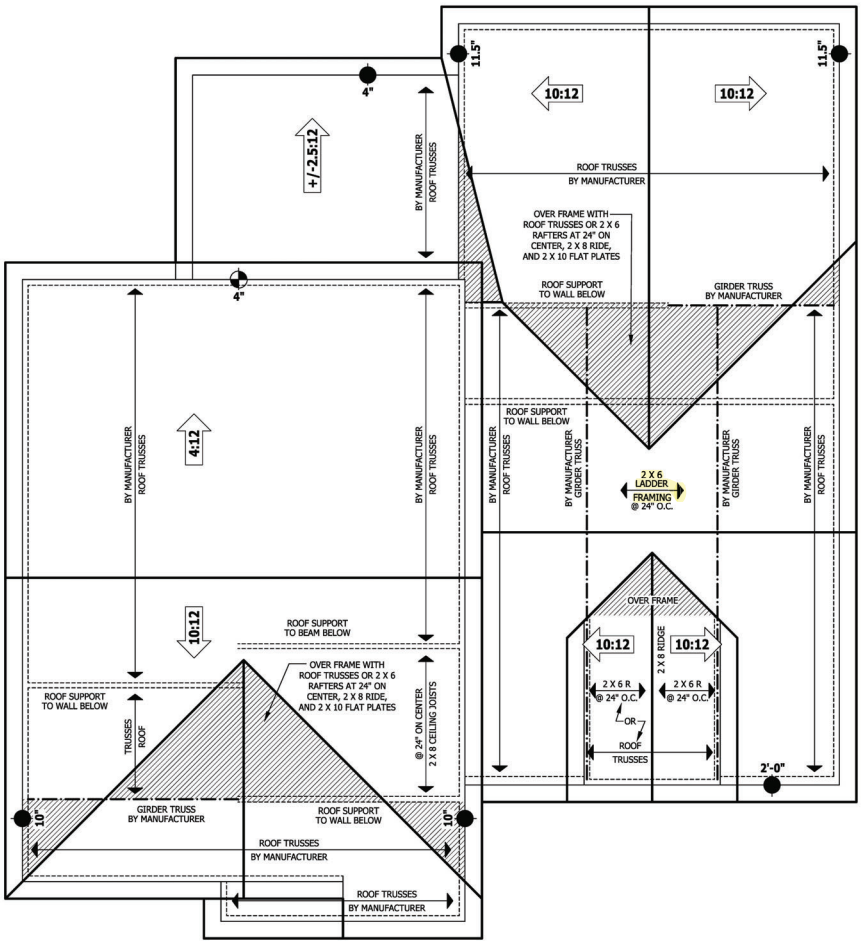


## ROOF TRUSS REQUIREMENTS

**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"

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ROOF PLAN

MAGNOLIA

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HAYNES HOME PLANS, INC.
P.O. Box 7004, Wake Forest, NC 27588 919-435-0180 FAX 1-888-491-0088

**SQUARE FOOTAGE**

| | |
|---|---|
| **HEATED** | |
| FIRST FLOOR | 1354 SQ.FT. |
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| TOTAL | 2316 SQ.FT. |
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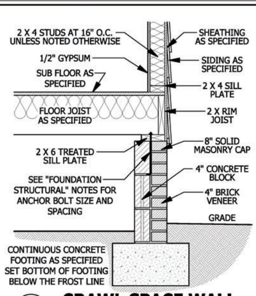
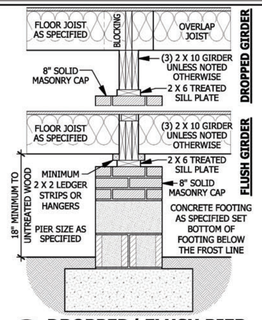


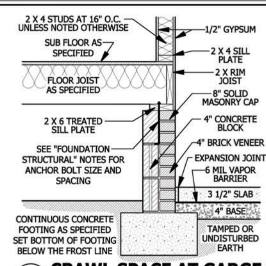

A CRAWL SPACE WALL

SCALE 3/4" = 1'-0"



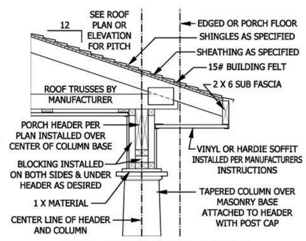

B DROPPED/ FLUSH PIER

SCALE 3/4" = 1'-0"



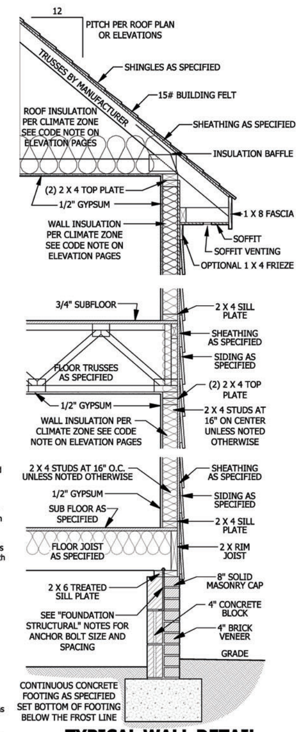

C CRAWL SPACE AT GARGE

SCALE 3/4" = 1'-0"



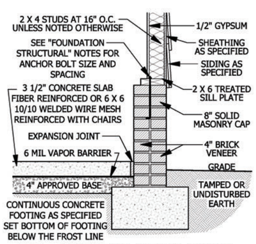

PORCH HEADER WITH TAPERED COLUMN

SCALE 3/4" = 1'-0"



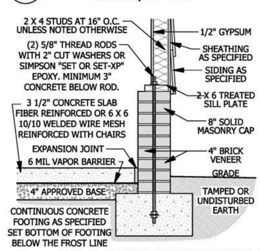

TYPICAL WALL DETAIL

SCALE 3/4" = 1'-0"



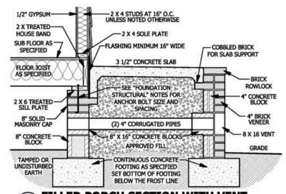

D GARAGE STEM WALL

SCALE 3/4" = 1'-0"



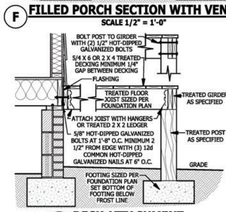

E <48" GARAGE WING WALL

SCALE 3/4" = 1'-0"




F FILLED PORCH SECTION WITH VENT

SCALE 1/2" = 1'-0"




G DECK ATTACHMENT

SCALE 1/2" = 1'-0"

## DECK STAIR NOTES

**SECTION AM110**

**AM110.1 Stairs shall be constructed per Figure AM110.** Stringer spans shall be no greater than 7 foot span between supports. Spacing between stringers shall be based upon decking material used per AM107.1. Each Stringer shall have minimum 3 1/2 inches between step cut and back of stringer. If used, suspended headers shall shall be attached with 3/8 inch galvanized bolts with nuts and washers to securely support stringers at the top.

## DECK BRACING

**SECTION AM109**

**AM109.1 Deck bracing.** Decks shall be braced to provide lateral stability. The following are acceptable means to provide lateral stability.

**AM109.1.1.** When the deck floor height is less than 4'-0" above finished grade per Figure AM109 and the deck is attached to the structure in accordance with Section AM104, lateral bracing is not required.

**AM109.1.2.** 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 horizontal. Knee braces shall be bolted to the post and the girder/double band with one 5/8 inch hot dipped galvanized bolt with nut and washer at both ends of the brace per Figure AM109.1

**AM109.1.3.** For freestanding decks without knee braces or diagonal bracing, lateral stability may be provided by embedding the post in accordance with Figure AM109.2 and the following:

| POST SIZE | MAX TRIBUTARY AREA | MAX. POST HEIGHT | EMBEDMENT DEPTH | CONCRETE DIAMETER |
|---|---|---|---|---|
| 4 X 4 | 48 SF | 4'-0" | 2'-6" | 1'-0" |
| 6 X 6 | 120 SF | 6'-0" | 3'-6" | 1'-8" |

**AM109.1.4.** 2 x 6 diagonal vertical cross bracing may be provided in two perpendicular directions for freestanding decks or parallel to the structure at the exterior column line for attached decks. The 2 x 6's shall be attached to the posts with one 5/8 inch hot dipped galvanized bolt with nut and washer at each end of each bracing member per Figure AM109.3.

**AM109.1.5.** For embedment of piles in Coastal Regions, see Chapter 45.

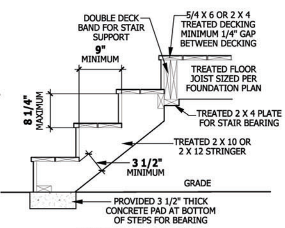
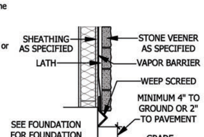



FIGURE AM110

TYPICAL DECK STAIR DETAIL

SCALE 3/4" = 1'-0"




WEEP SCREED

SCALE 3/4" = 1'-0"

## WEEP SCREEDS

All weep screeds and stone veneer to be installed per manufactures instructions and per the 2012 North Carolina Residential Building code.

**R703.6.2.1 -** A minimum 0.019-inch (0.5 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed, with a minimum vertical attachment flange of 31/2 inches (89 mm) shall be provided at or below the foundation plate line on exterior stud walls in accordance with ASTM C 926. The weep screed shall be placed a minimum of 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas and shall be of a type that will allow trapped water to drain to the exterior of the building. The weather-resistant barrier shall lap the attachment flange. The exterior lath shall cover and terminate on the attachment flange of the weep screed.

## SMOKE ALARMS

**SECTION R314**

**R314.1 Smoke detection and notification.** All smoke alarms shall be listed in accordance with UL 217 and installed in accordance with the provisions of this code and the household fire warning *equipment* provisions of NFPA 72.

**R314.2 Smoke detection systems.** Household fire alarm systems installed in accordance with NFPA 72 that include smoke alarms, or a combination of smoke detector and audible notification device installed as required by this section for smoke alarms, shall be permitted. The household fire alarm system shall provide the same level of smoke detection and alarm as required by this section for smoke alarms. Where a household fire warning system is installed using a combination of smoke detector and audible notification device(s), it shall become a permanent fixture of the occupancy and owned by the homeowner. The system shall be monitored by an *approved* supervising station and be maintained in accordance with NFPA 72.

**Exception:** Where smoke alarms are provided meeting the requirements of Section R314.4.

**R314.3 Location.** Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional *story* of the *dwelling*, including *basements* and habitable attics (finished) but not including crawl spaces, uninhabitable (unfinished) attics and uninhabitable (unfinished) attic-stories. In *dwellings* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full *story* below the upper level.

When more than one smoke alarm is required to be installed within an individual *dwelling* unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

**R314.4 Power source.** Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection. Smoke alarms shall be interconnected.

## CARBON MONOXIDE ALARMS

**SECTION R315**

**R315.1 Carbon monoxide alarms.** In new construction, dwelling units shall be provided with an approved carbon monoxide alarm installed outside of each separate sleeping area in the immediate vicinity of the bedroom(s) as directed by the alarm manufacturer.

**R315.2 Where required in existing dwellings.** In existing dwellings, where interior alterations, repairs, fuel-fired appliance replacements, or additions requiring a permit occurs, or where one or more sleeping rooms are added or created, carbon monoxide alarms shall be provided in accordance with Section 315.1.

**R315.3 Alarm requirements.** The required carbon monoxide alarms shall be audible in all bedrooms over background noise levels with all intervening doors closed. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer's installation instructions.

## STAIRWAY NOTES

**R311.7**

**R311.7.2 Headroom.** The minimum headroom in all parts of the stairway shall not be less than 6 feet 8 inches (2032 mm) measured vertically from the sloped line adjoining the tread nosing or from the floor surface of the landing or platform on that portion of the stairway.

**R311.7.4 Stair treads and risers.** Stair treads and risers shall meet the requirements of this section. For the purposes of this section all dimensions and dimensioned surfaces shall be exclusive of carpets, rugs or runners.

**R311.7.4.1 Riser height.** The maximum riser height shall be 8 1/4 inches (210 mm). The riser shall be measured vertically between leading edges of the adjacent treads.

**R311.7.4.2 Tread depth.** The minimum tread depth shall be 9 inches (229 mm). The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. Winder treads shall have a minimum tread depth of 9 inches (229 mm) measured as above at a point 12 inches (305 mm) from the side where the treads are narrower. Winder treads shall have a minimum tread depth of 4 inches (102 mm) at any point.

**R311.7.4.3 Profile.** The radius of curvature at the nosing shall be no greater than 9/16 inch (14 mm). A nosing not less than 3/4 inch (19 mm) but not more than 1 1/4 inches (32 mm) shall be provided on stairways with solid risers.

**R311.7.7 Handrails.** Handrails shall be provided on at least one side of each continuous run of treads or flight with four or more risers.

**R311.7.7.1 Height.** Handrail height, measured vertically from the sloped plane adjoining the tread nosing, or finish surface of ramp slope, shall be not less than 34 inches (864 mm)and not more than 38 inches (965 mm).

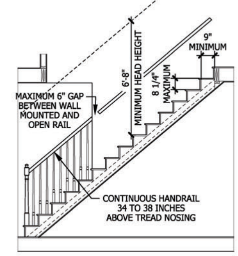
**Exceptions:**

1. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.
2. When handrail fittings or bendings are used to provide continuous transition between flights, the transition from handrail to guardrail, or used at the start of a flight, the handrail height at the fittings or bendings shall be permitted to exceed the maximum height.

**R311.7.7.2 Continuity.** Handrails for stairways shall be continuous for the full length of the flight, from a point directly above the top riser of the flight to a point directly above the lowest riser of the flight. Handrail ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 11/2 inch (38 mm) between the wall and the handrails.

**Exceptions:**

1. Handrails shall be permitted to be interrupted by a newel post.
2. The use of a volute, turnout, starting easing or starting newel shall be allowed over the lowest tread.
3. Two or more separate rails shall be considered continuous if the termination of the rails occurs within 6 inches (152 mm) of each other. If transitioning between a wall-mounted handrail and a guardrail/handrail, the wall-mounted rail must return into the wall.




TYPICAL STAIR DETAIL

SCALE 1/4" = 1'-0"

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TYPICAL DETAILS

MAGNOLIA

SHB SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. BOX 702, WAKE FOREST, NC 27588 919-435-6180 FAX 1-866-491-0396

**SQUARE FOOTAGE**

| | |
|---|---|
| **HEATED** | |
| FIRST FLOOR | 1354 SQ.FT. |
| SECOND FLOOR | 589 SQ.FT. |
| PLAYROOM | 373 SQ.FT. |
| TOTAL | 2316 SQ.FT. |
| **UNHEATED** | |
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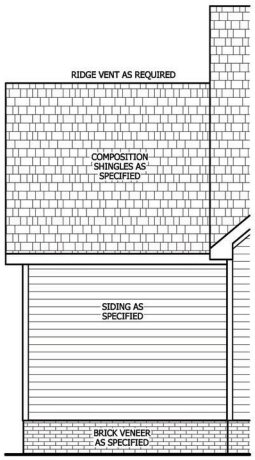
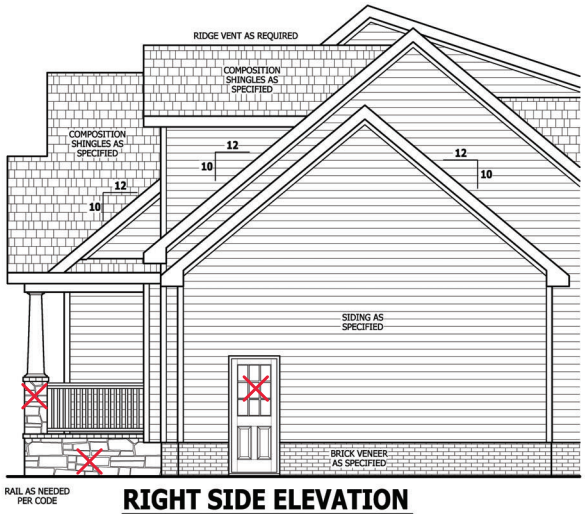



## REAR ELEVATION

SCALE 1/4" = 1'-0"

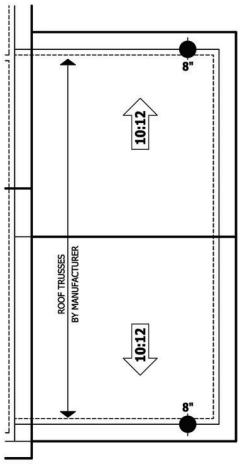



## RIGHT SIDE ELEVATION

SCALE 1/4" = 1'-0"

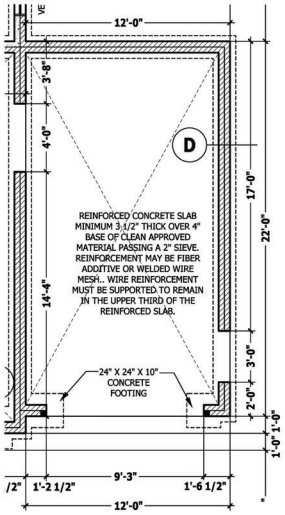
## FRONT ELEVATION

SCALE 1/4" = 1'-0"



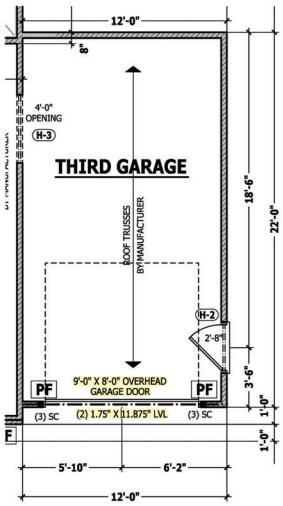

## ROOF PLAN

SCALE 1/4" = 1'-0"




## FOUNDATION PLAN

SCALE 1/4" = 1'-0"




## FIRST FLOOR PLAN

SCALE 1/4" = 1'-0"

PURCHASER MUST VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE CONSTRUCTION BEGINS.

HAYNES HOME PLANS, INC. 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.

**THIRD GARAGE ADDENDUM**

**MAGNOLIA**

SHB SIGNATURE HOME BUILDERS, INC.

HAYNES HOME PLANS, INC.
P.O. BOX 7004, WAKE FOREST, NC 27588 919-435-0180 FAX 1-888-491-0088

**SQUARE FOOTAGE**

| | |
|---|---|
| **HEATED** | |
| FIRST FLOOR | 1354 SQ.FT. |
| SECOND FLOOR | 589 SQ.FT. |
| FLAYROOM | 373 SQ.FT. |
| TOTAL | 2316 SQ.FT. |
| **UNHEATED** | |
| FRONT PORCH | 94 SQ.FT. |
| GARAGE | 493 SQ.FT. |
| SCREENED PORCH | 178 SQ.FT. |
| THIRD GARAGE | 264 SQ.FT. |
| TOTAL | 1027 SQ.FT. |

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9/6/2018

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ADDENDUM

\\ARCHIVE\Archive\Builder\Signature Home Builders, Inc\180903B Magnolia Third Car\180903B Magnolia Third Car.aec