## PLANS DESIGNED TO THE **2018 NORTH CAROLINA STATE RESIDENTIAL BUILDING CODE**

2/17/2021

ZONE 3A		
ZUNE 3A	ZONE 4A	ZONE 5A
0.35	0.35	0.35
0.55	0.55	0.55
0.30	0.30	0.30
38 or 30d	38 or 30d	38 or 30d
15	15	19
19	19	30
5/13	10/15	10/15
0	10	10
5/13	10/15	10/19
THIC SLAB 24" OR F I STEM WALL SLAB 2 H, 3 SECOND GUST	Rom inspection G 14" or to Bottom (93 Fastest Mile)	OF FOUNDATION EXPOSURE "B"
	0.55 0.30 38 or 30d 15 5/13 0 5/13 ULATEON OR R-13 C HIIC SLAB 24" OR F STEM WALL SLAB 3 H, 3 SECOND GLST	0.55     0.55       0.30     0.30       38 or 30d     38 or 30d       15     15       19     19       5/13     10/15       0     10

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
COMPONENT								
MEAN ROOF	UP T	0 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	
			30'-1"		35'-1"	TO 40'	40'-1"	
MEAN ROOF	UP T	0 30'	30'-1"	TO 35'	35'-1" 18.2	TO 40' -19.6	40'-1" 18.7	TO 45' -20.2
MEAN ROOF ZONE 1	UP T 16.7	O 30' -18.0	30'-1" 17.5	TO 35' -18.9	35'-1" 18.2 18.2	TO 40' -19.6 -22.9	40'-1" 18.7 18.7	TO 45' -20.2 -23.5
MEAN ROOF ZONE 1 ZONE 2	UP T 16.7 16.7	O 30' -18.0 -21.0	30'-1" 17.5 17.5	TO 35' -18.9 -22.1	35'-1" 18.2 18.2 18.2	TO 40' -19.6 -22.9 -22.9	40'-1" 18.7 18.7 18.7	TO 45' -20.2

#### **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 one 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 waiding 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: Guards on the open sides of stairs shall have a height not less than 34 inches (854 mm) measured vertically from a line connecting the leading edges of the treads.

2. Where the top of the *quard* also serves as a handrall on the open sides of stars, 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 Ilmitations. 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:

 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 dlameter.

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.

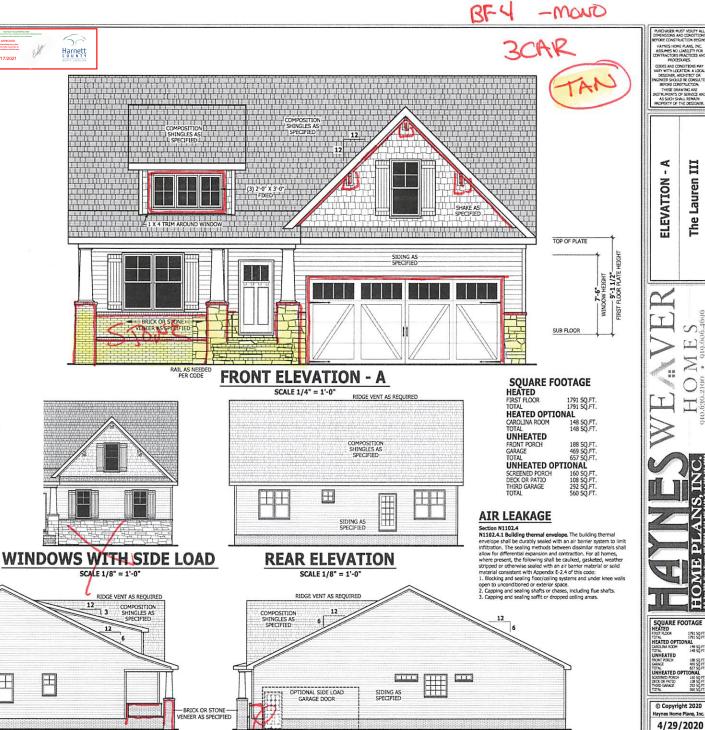
#### **ROOF VENTILATION**

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#### SECTION R806

SQUARE FOOTAGE OF ROOF TO BE VENTED = 2,477 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

WITHOUT 50% TO 80% OF VENTING 3'-0" ABOVE EAVE = 16.51 SQ.FT. WITH 50% TO 80% OF VENTING 3'-D" ABOVE FAVE: OR WITH CLASS LOR II VAPOR RETARDER ON WARM-IN-WINTER SIDE OF CEILING = 8.26 SQ.FT.



**RIGHT SIDE ELEVATION** 

SCALE 1/8" = 1'-0"

OPTIONAL DOOR

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188 SQ F 499 SQ F

150 SQ F 108 SQ F 292 SQ F 560 SQ F

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PAGE 1 OF 6

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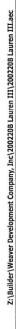
LEFT SIDE ELEVATION SCALE 1/8" = 1'-0"

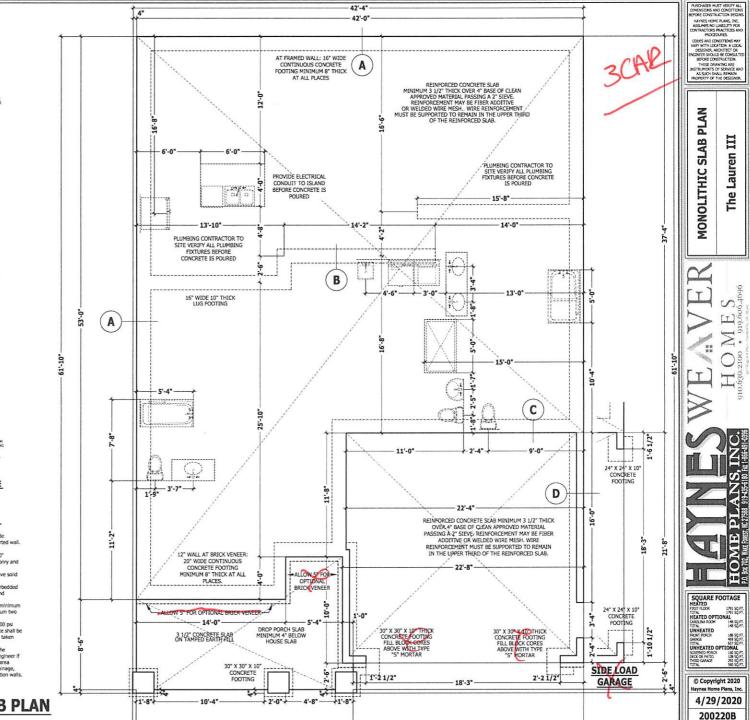
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SPECIFIED





42'-4" -

21'-8'

PAGE 2 OF 6

20'-4"

TE HE VAPOR BARRIER HINIMUM 8" FROM BOTTOM OF SIDING TO GRADE 4' BASE GRADE TAMPED OF UNDISTURIN EARTH CONTINUOU CONCRETE FOOTING PER PLAN A MONOLITHIC SECTION SCALE 1/2" = 1'-0 1/2" GYPSUM 1/2" CONCRETE SLAD WIT FIRER REINFORCEMENT OR X & LQ/LD WELDED WIRE MESH REINFORCEMENT WITH CHARS & MIL VAPOR BARRIER -2 X 4 SILL PLATE " 4" APPROVED BASE -16\* B LUG FOOTING SECTION SCALE 1/2" = 1'-0 - 2 X 4 STUDS AT 16" O.C. UNLESS STRUCTURAL® NOTES FOR ANCHOR BOLT SIZE AND SPACING - 3 1/2" CONCRETE SLAB FISER REINFORCED OR 6 X 6 10/10 WELDED WIRE MESH REINFORCED WITH OWINS -1/2" GYPSUN -2X4 SEL TE MIL VAPOR BARRER +/- 4" STE - EXPANSION 1 Ser BASE 3 1/2" SLAT T BASE TAMPED OF CONCRET FOOTING C MONOLITHIC AT STEP SCALE 1/2" = 1'-0 2X 4 STUDS AT 16" O.C. SIDING AS 1/2" (3059.8 -2XA SILL PLATE 2" INSPECTIO GAP OPTIONAL RIGED -+/- 4" STEP T6 MIL VAPOR BAR HINDHUM 8" FROM BOTTOM OF SLOING TO GRADE CRADE TI' BASE CONTINUOUS CONCRETE FOOTING , PER PLAN AMPED NDISTUR EARTH D MONOLITHIC AT GARAGE 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" PLESS 12 A 15 per white South Resolution (2014) (2014) A 50 A 10 connecte footing with maximum per height of 6<sup>4</sup> with holiow masony and 160° with solid masonry. POINT LOADS: El designates significant point load and should have solid blocking to per, girder or foundation wall. 115 and 120 MH ANGIORS BOLTS: 1/2° Genetice anchor bolts embedded

2 X 4 STUDS AT 15" O.C.

SIDING AS

-2XASUL PLATE

-2" INSPECTION GAP

3 1/2" CONCRETE SLAS FIBER REINFORCED OR 6 X 6 10/10 WELDED WIRE MESH REINFORCED WITH CHURS

OPTIONAL RIGID ----

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 holts per plate.

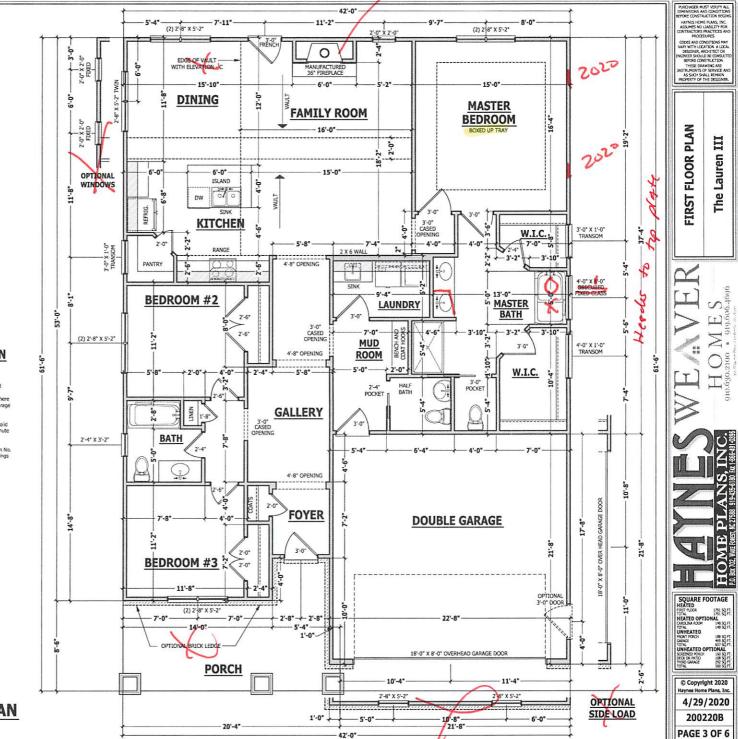
anchor poiss per pate. CONCRETE: Concrete shall have a minimum 28 day strength of 3000 psi and a maximum 5' slump. Air entrained per table 402.2. All concrete shall be in accordance with ACI standards. All samples for pumping shall be taken from the exit end of the pump.

SOILS: Allowable soil bearing pressure assumed to be 2000 PSF. The Contractor much solutions because assume as a solution as a solution of a solution of

# MONOLITHIC SLAB PLAN

SCALE 1/4" = 1'-0"

Raped Heart USDNE



## **DWELLING / GARAGE SEPARATION**

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

MALLS. A minimum 1/2<sup>2</sup> gypsum board must be installed on all walls supporting floor/celling assemblies used for separation required by this section. STAIRS. A minimum of 1/2<sup>\*</sup> gypsum board must be installed on the underside and exposed sides of all stainways. CEILINGS. A minimum of 1/2" gypsum must be installed on the garage celling if there

a minimum of 5/8" type X gypsum base there are habitable room above the garage a minimum of 5/8" type X gypsum baard 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.

The rate boors. **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.



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

## 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 strued to supersede the code JOB SITE PRACTICES AND SAFETY: Havnes 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	LIVE LOAD	DEAD LOAD	DEFLECTION
USE	(PSF)	(PSF)	(11)
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 oted other wis

#### ENGINEERED WOOD BEAMS :

Laminated veneer lumber (LVL) = Fb=2500 PSL, Fv=285 PSL, E=1.9x106 PSL Paralel strand lumber (PSL) = Fb=2900 PSL, Fv=290 PSL, E=2.0x106 PSL Laminated strand lumber (PSL) = Fb=2900 PSL, Fv=290 PSL, E=2.0x106 PSL Laminated strand lumber (LSL) Fb=2250 PSL, Fv=400 PSL, E=1.55x106 PSL 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. CONCRETE AND SOILS: See foundation notes.

## **ROOF TRUSS REQUIREMENTS**

TRUSS DESIGN. Trusses to be designed and engineered in accordance with these dwings. 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 celling heights are shown furred down 10° from roof decking for insulation. If for any reason the truss manufacturer fails to meet o 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 nability 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

#### **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

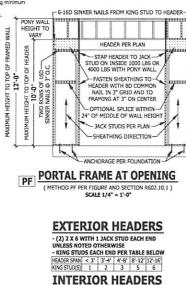
noted otherwise. GYPSUM: All interior sides of exterior walls and both sides Interior walls to have 1/2" gypsum Installed. When not using method GB gypsum to be fastened per table R702.3.5. Method GB to be fastened per table R602 10.1

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

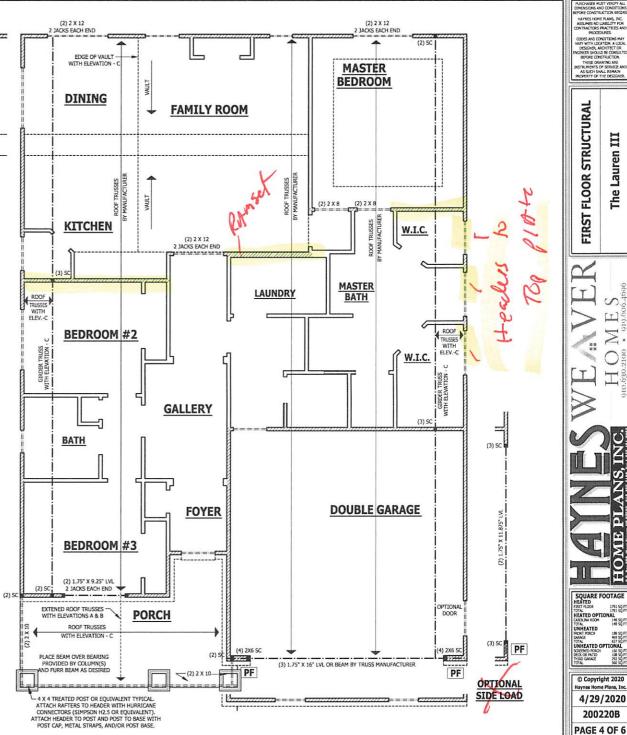
#### CS-WSP: Shall be minimum 3/8" OSB or CDX nailed at 6" on center at edges and 12" on center at intermediate supports with 6d common nails or 8d(2 1/2" long x 0.113" diameter). CS-SFB: Shall be minimum 1/2" structural fiber board nalled at 3" on center at edges and 3" on center at intermediate supports with 1 1/2" long x 0.12" diameter galvanized roofing

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



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





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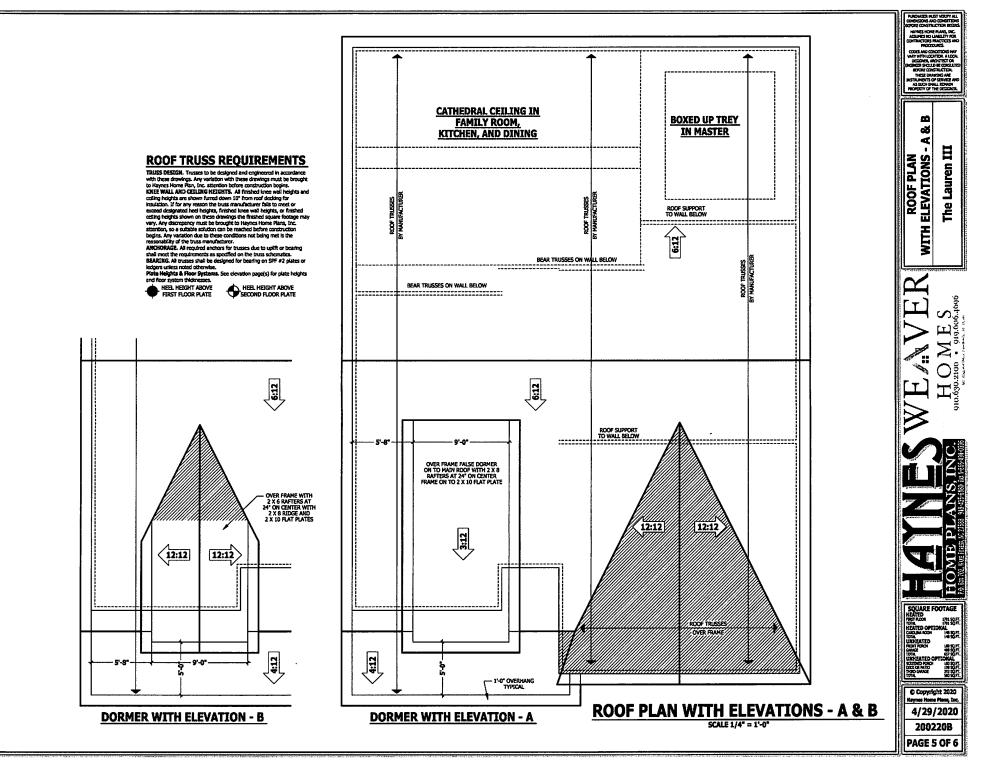
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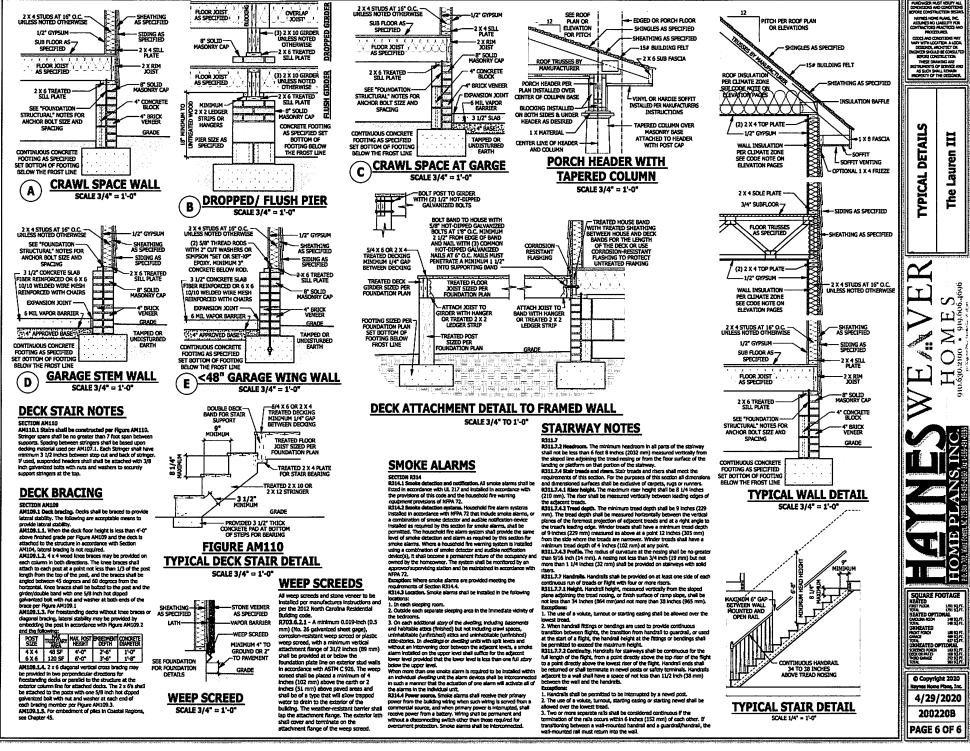
1791 SQ FT

146 SQ.FT

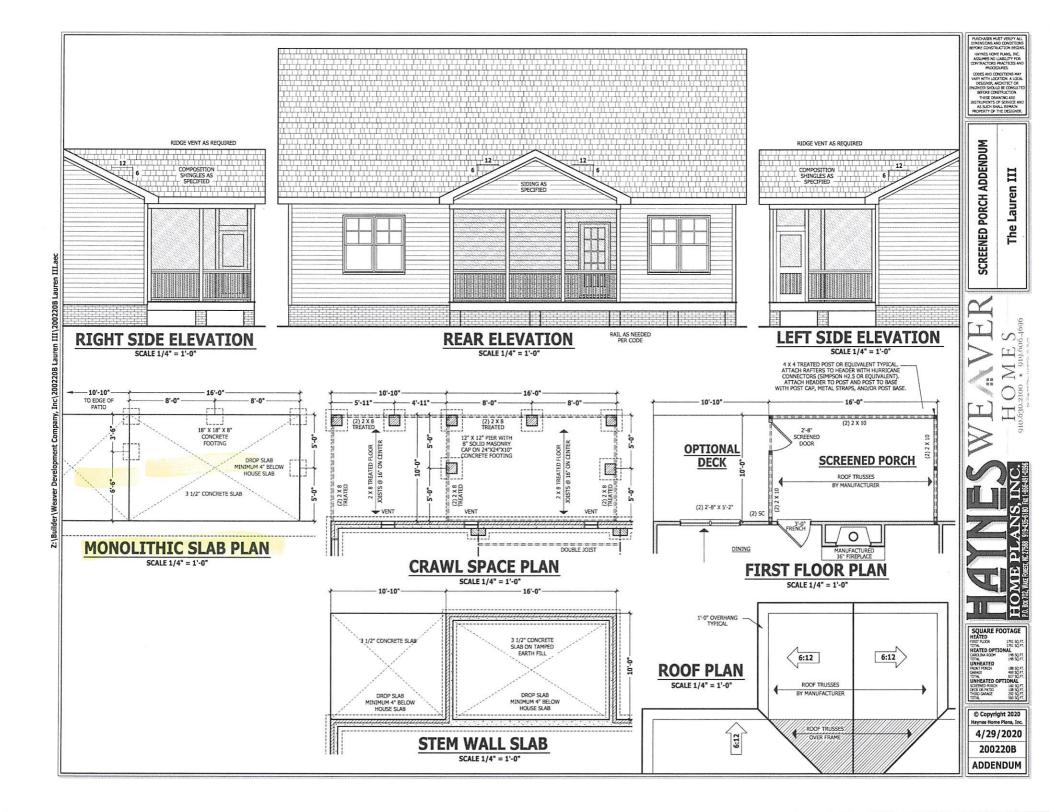
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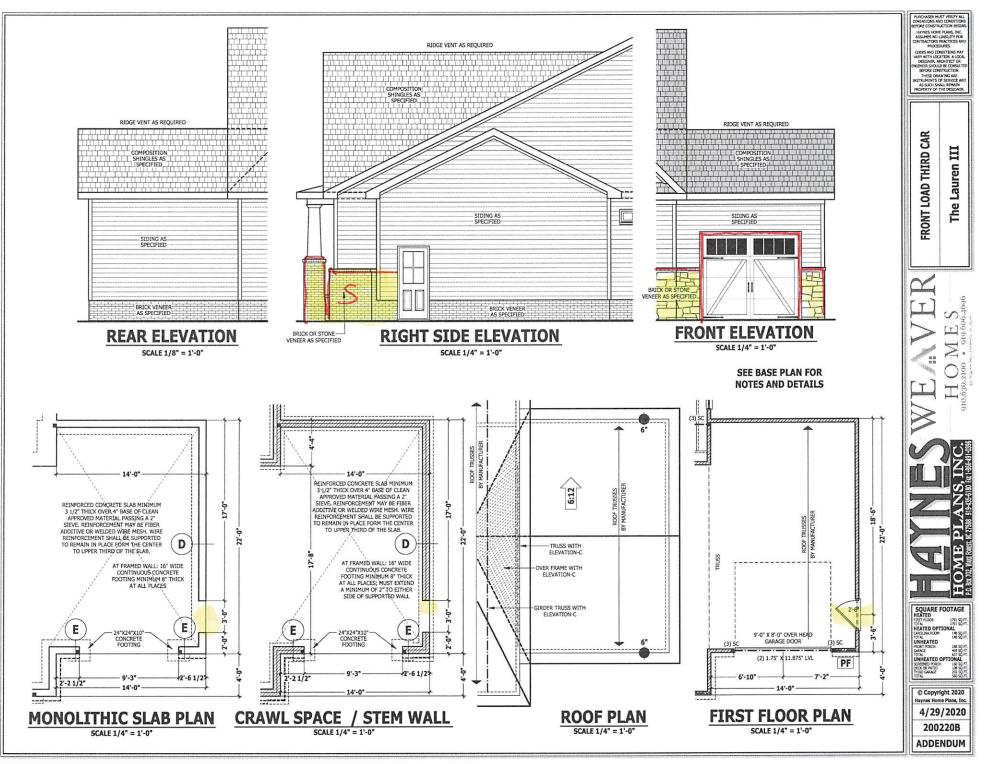
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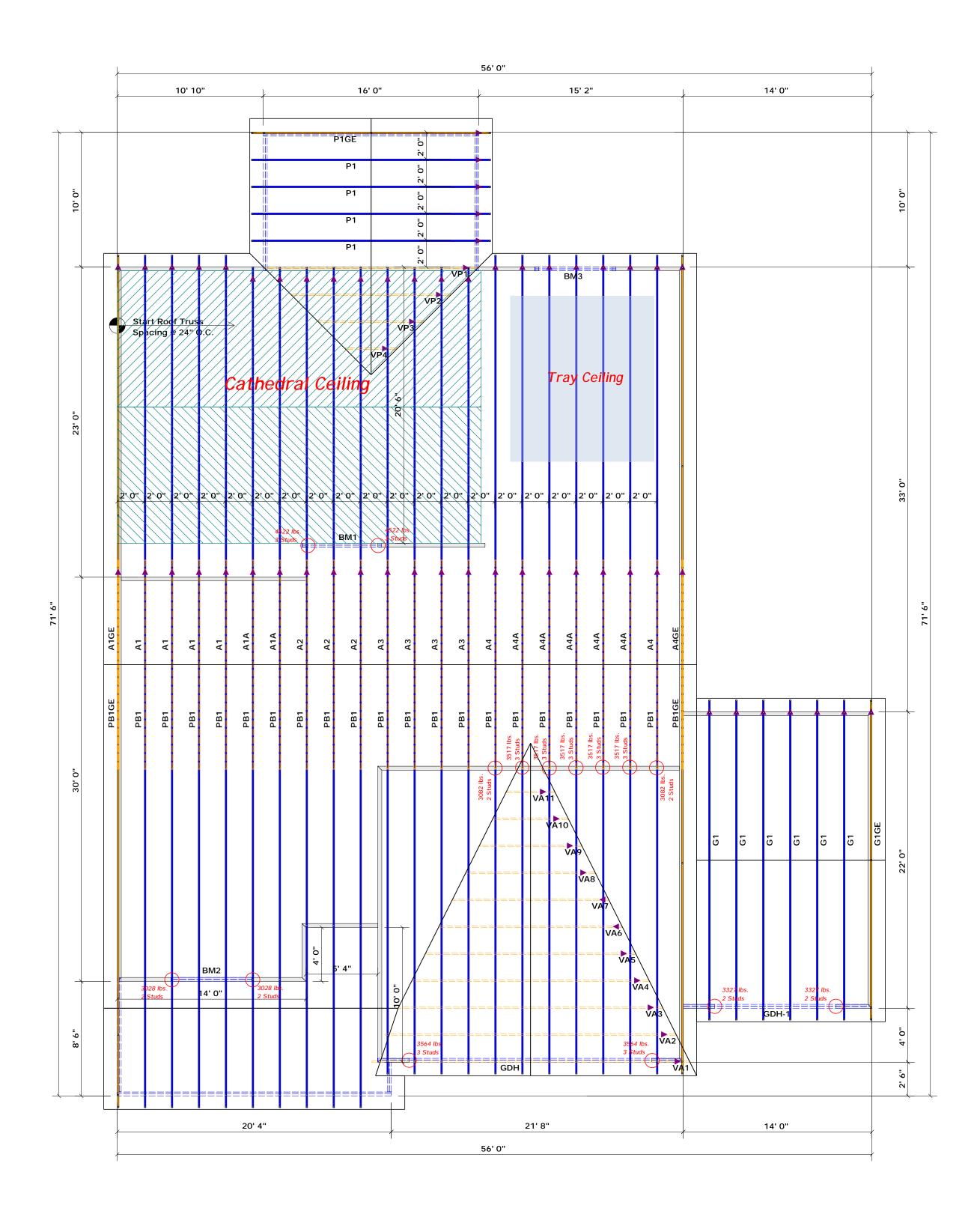




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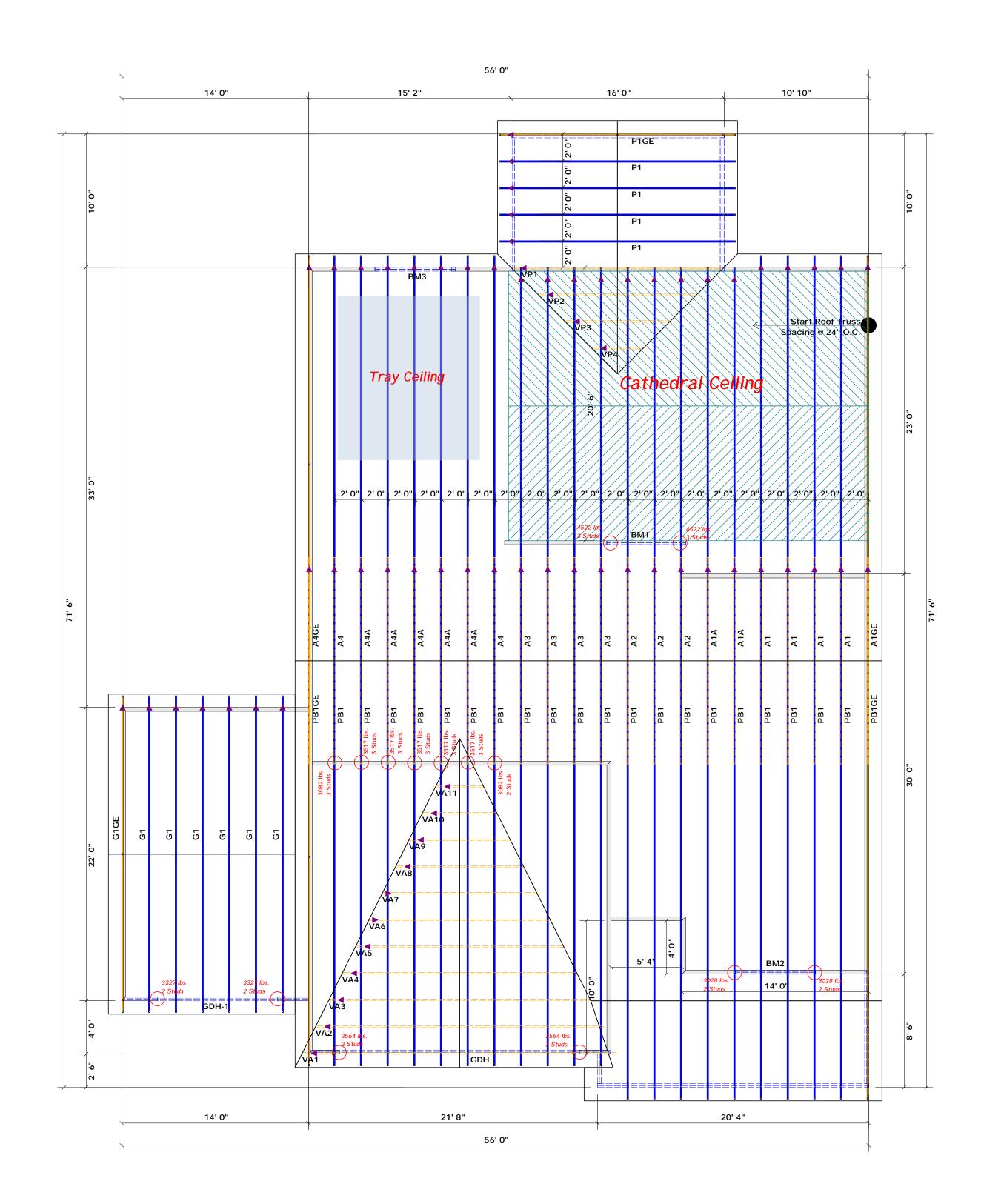






					Beam Legend		
٦		7	PlotID	Length	Product	Plies	Net Qty
	All Truss Reactions are Less		BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
	than 3,000 lbs. Unless Noted Otherwise.		BM1	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
= Denotes Left End of Truss			BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
(Reference Engineered Truss Drawing)	Denotes Reaction Greater than 3,000 lbs.		GDH-1	14' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2
Do Not Erect Trusses Backwards		Truss Placement Plan SCALE: 3/16" = 1'	GDH	23' 0"	1-3/4"x 16" LVL Kerto-S	2	2

	OAD CHART FOR JACK STUDS (04465 CN 14825 850250) 4 00) MARKS OF JACK STUDS #CONTROL & CA CAR OF	BUILDER	Weaver Development	COUNTY	Harnett	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	
NOL	FEADEROFERDER		Lot 4 Byrd Farm	ADDRESS	Lot 4 Byrd Farm	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	соттесн
- NG	2000 2000 2000 2000 2000 2000 2000 200	PLAN	Lauren III A / 3rd Car / CP	MODEL	Roof	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 Tables	<b>ROOF &amp; FLOOR</b>
34 51	200     1     2550     1     3400       300     2     5100     2     6600     3       300     3     7650     3     10200     3	SEAL DATE	3/8/19	DATE REV.	/ /	( derived from the prescriptive Code requirements ) to determine the minimum foundation size and number of wood studs required to support reactions greate 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	TRUSSES & BEAMS Reilly Road Industrial Park
10:	00 5 12750 5 17000 9 00 6 15300 6	QUOTE #	Quote #	DRAWN BY	Curtis Quick	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.	Fayetteville, N.C. 28309 Phone: (910) 864-8787
230	00 7 00 8 00 9	JOB #	J1220-5852	SALESMAN	Lenny Norris	Signature Curtis Quick	Fax: (910) 864-4444



]		1	PlotID	Length	Product	Plies	Net Qty
	All Truss Reactions are Less		BM3	7' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
	than 3,000 lbs. Unless Noted Otherwise.		BM1	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
▲ = Denotes Left End of Truss			BM2	6' 0"	1-3/4"x 9-1/4" LVL Kerto-S	2	2
(Reference Engineered Truss Drawing)	Denotes Reaction Greater than 3,000 lbs.		GDH-1	14' 0"	1-3/4"x 11-7/8" LVL Kerto-S	2	2
Do Not Erect Trusses Backwards		Truss Placement Plan SCALE: 3/16" = 1'	GDH	23' 0"	1-3/4"x 16" LVL Kerto-S	2	2

Beam Legend

a	CHART FOR JAC IANFE ON LABLES (\$502.5)) OF JACK STUDE (\$COURTED)	4.0-m	BUILDER	Weaver Development	COUNTY	Harnett	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	
N 95 FOR	FEADER/STROER	13CN 55 FOR 54 DE	JOB NAME	Lot 4 Byrd Farm	ADDRESS	Lot 4 Byrd Farm	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	соттесн
nn sid au Is o pite	ved gya Lo gi ôga Lo gi ôga	EUND C	PLAN	Lauren III A / 3rd Car / CP	MODEL	Roof	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 Tables	ROOF & FLOOR
3400 2 5100 3	5100 3 7650 3 10200 3	6600 2 10200 3	SEAL DATE	3/8/19	DATE REV.	/ /	(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	<b>TRUSSES &amp; BEAMS</b> Reilly Road Industrial Park
6800 4 8500 5 10200 6	10200 4 12750 5 15300 6	13600 4 17000 5	QUOTE #	Quote #	DRAWN BY	Curtis Quick	specified in the attached Tables. A registered design professional shall be retained to design the support system for all reactions that exceed 15000#.	Fayetteville, N.C. 28309 Phone: (910) 864-8787
11900 7 13600 8 15300 9			JOB #	J1220-5852	SALESMAN	Lenny Norris	Signature Curtis Quick	Fax: (910) 864-4444