MEAN ROOF HEIGHT: 19'-9	)''	HEIGHT TO R	RIDGE: 27'-5"				
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				

\*\* INSULATION DEPTH WITH MONOLITHIC SLAB 24" OR FROM INSPECTION GAP TO BOTTOM OF

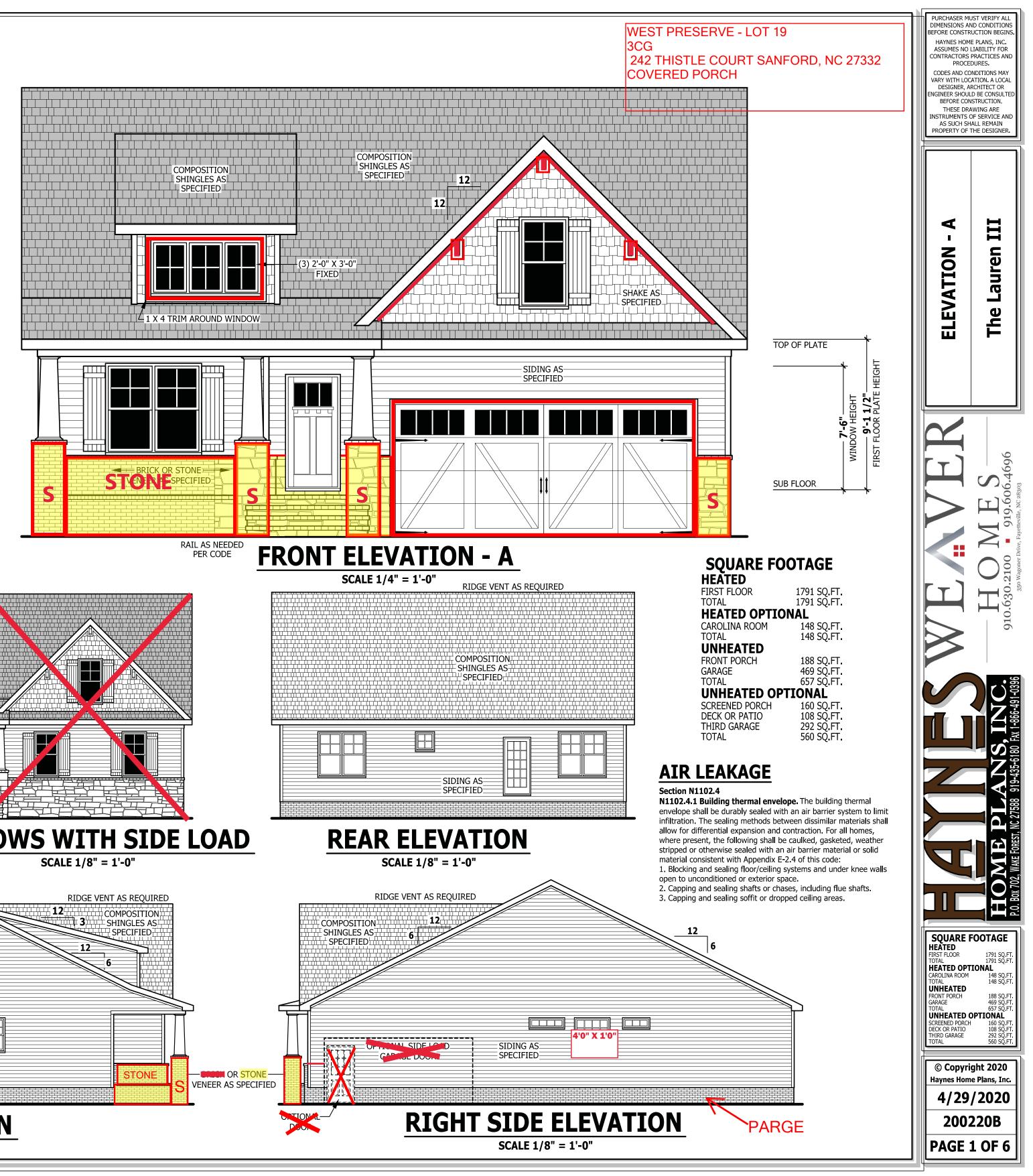
DESIGNED FOR WIN	ID SPEED	OF 120 MF	H, 3 SECO	OND GUST	(93 FAST	EST MILE)	EXPOSUR	E "B"
COMPONENT	<sup>-</sup> & CLA	DDING	DESIG	NED FC	R THE	FOLLO	WING I	OADS
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	14.2	-15.0	14.9	-15.8	15.5	-16.4	15.9	-16.8
ZONE 2	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 3	14.2	-18.0	14.9	-18.9	15.5	-19.6	15.9	-20.2
ZONE 4	15.5	-16.0	16.3	-16.8	16.9	-17.4	17.4	-17.9
ZONE 5	15.5	-20.0	16.3	-21.0	16.9	-21.8	17.4	-22.4
DESIGNED FOR WIN	D SPEED	OF 130 MF	PH, 3 SECO	OND GUST	(101 FAS	TEST MILE	E) EXPOSU	RE "B"
COMPONENT	<sup>-</sup> & CLA	DDING	DESIG	NED FC	DR THE	FOLLO	WING I	OADS
MEAN ROOF	UP T	O 30'	30'-1"	TO 35'	35'-1"	TO 40'	40'-1"	TO 45'
ZONE 1	16.7	-18.0	17.5	-18.9	18.2	-19.6	18.7	-20.2
ZONE 2	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 3	16.7	-21.0	17.5	-22.1	18.2	-22.9	18.7	-23.5
ZONE 4	18.2	-10 0	10.1	-20.0	10.8	-20.7	20.4	-21 3

and bottom rail of a *guard*, shall not allow passage of a sphere 6 inches (153 mm) in diameter.

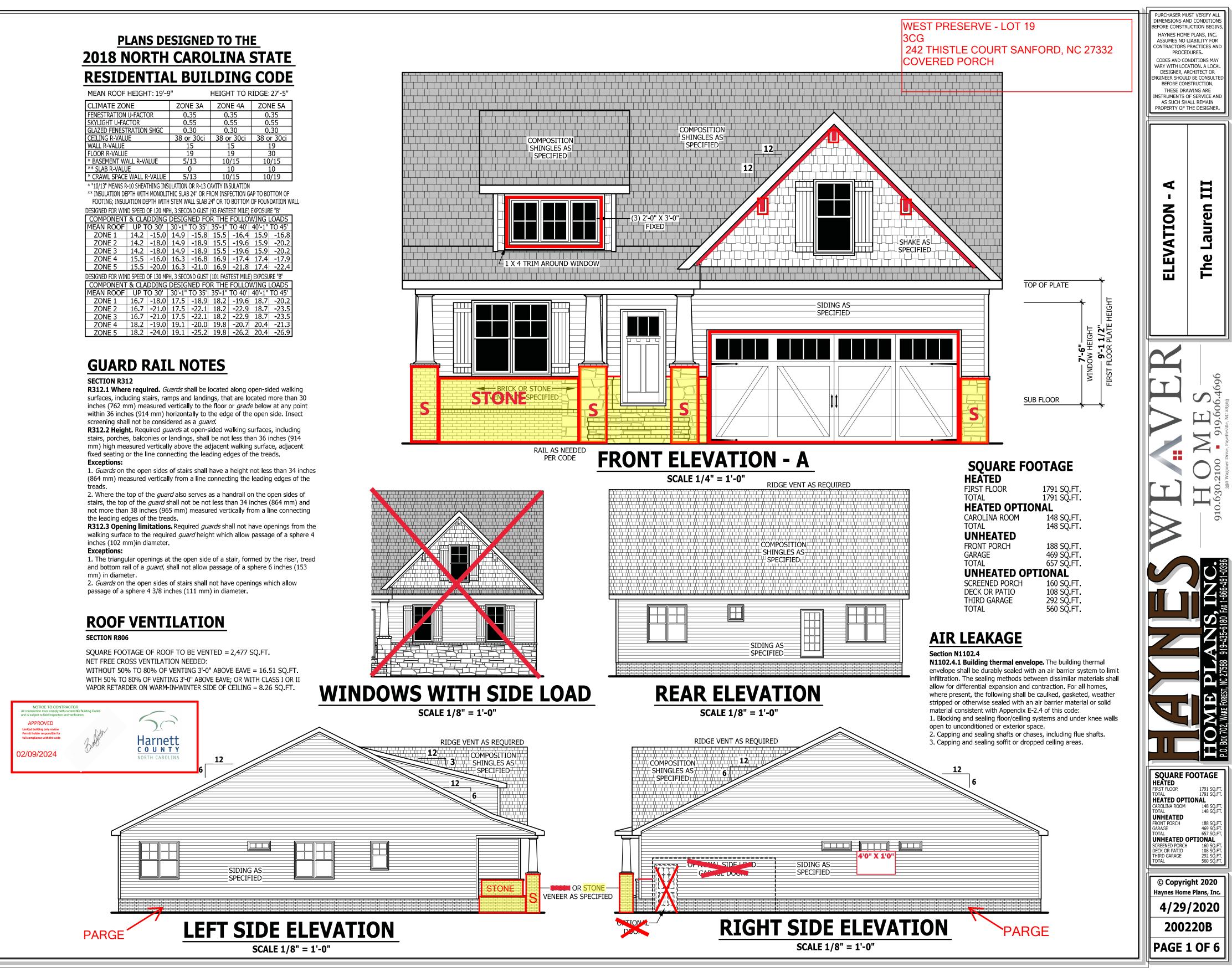


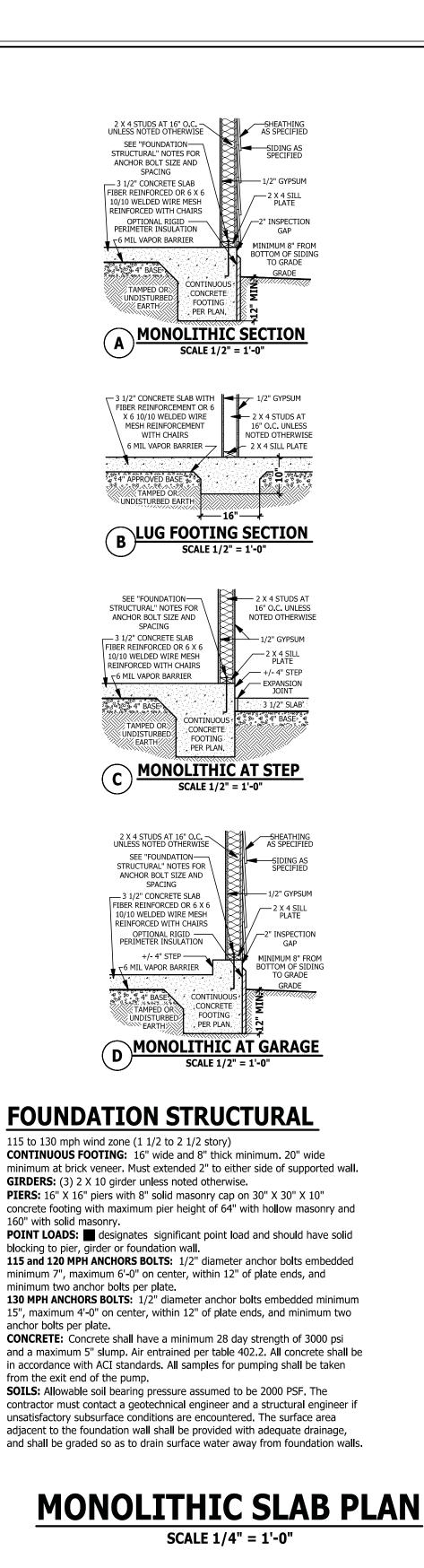
## SECTION R806

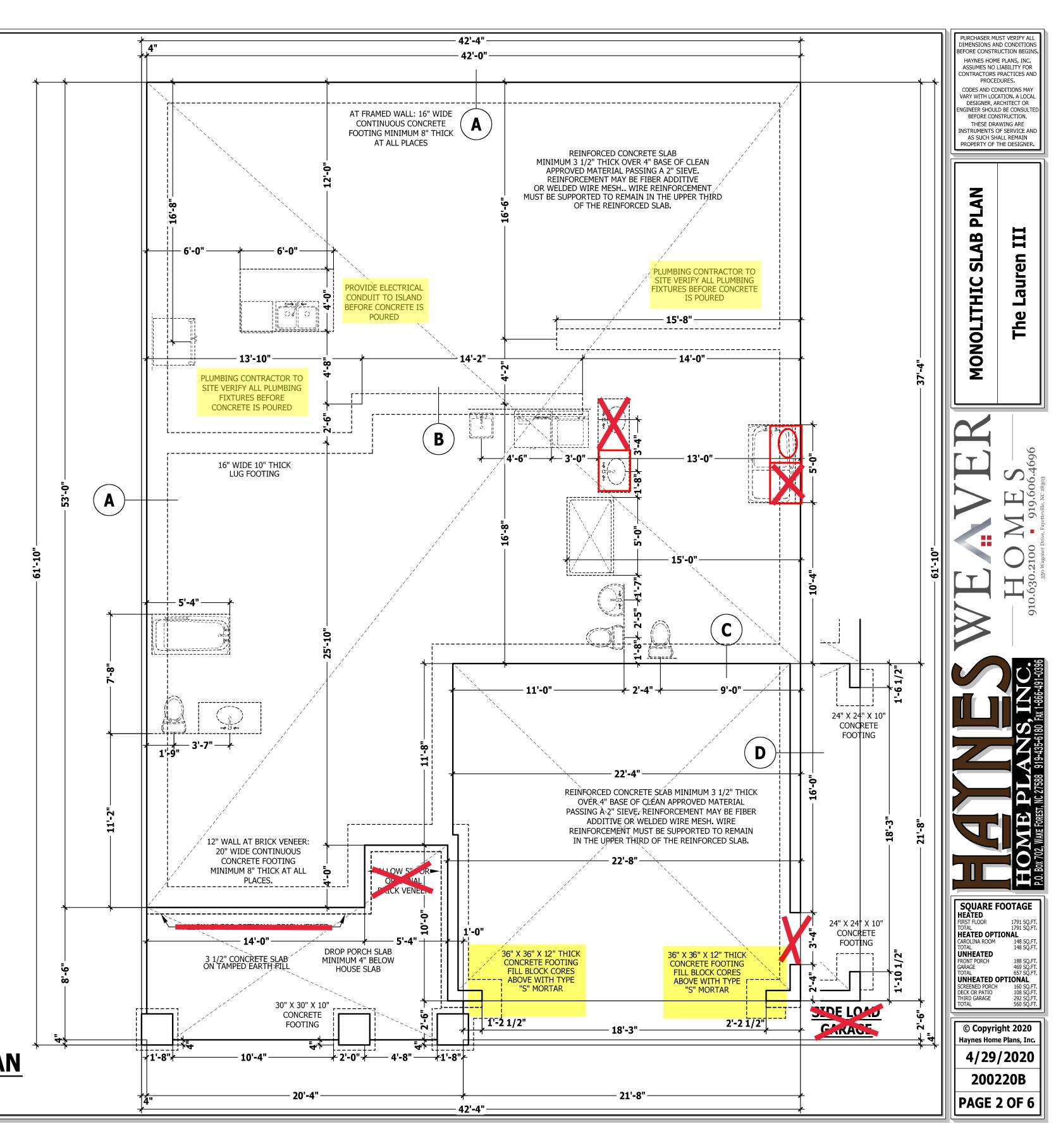
SQUARE FOOTAGE OF ROOF TO BE VENTED = 2,477 SQ.FT. NET FREE CROSS VENTILATION NEEDED:

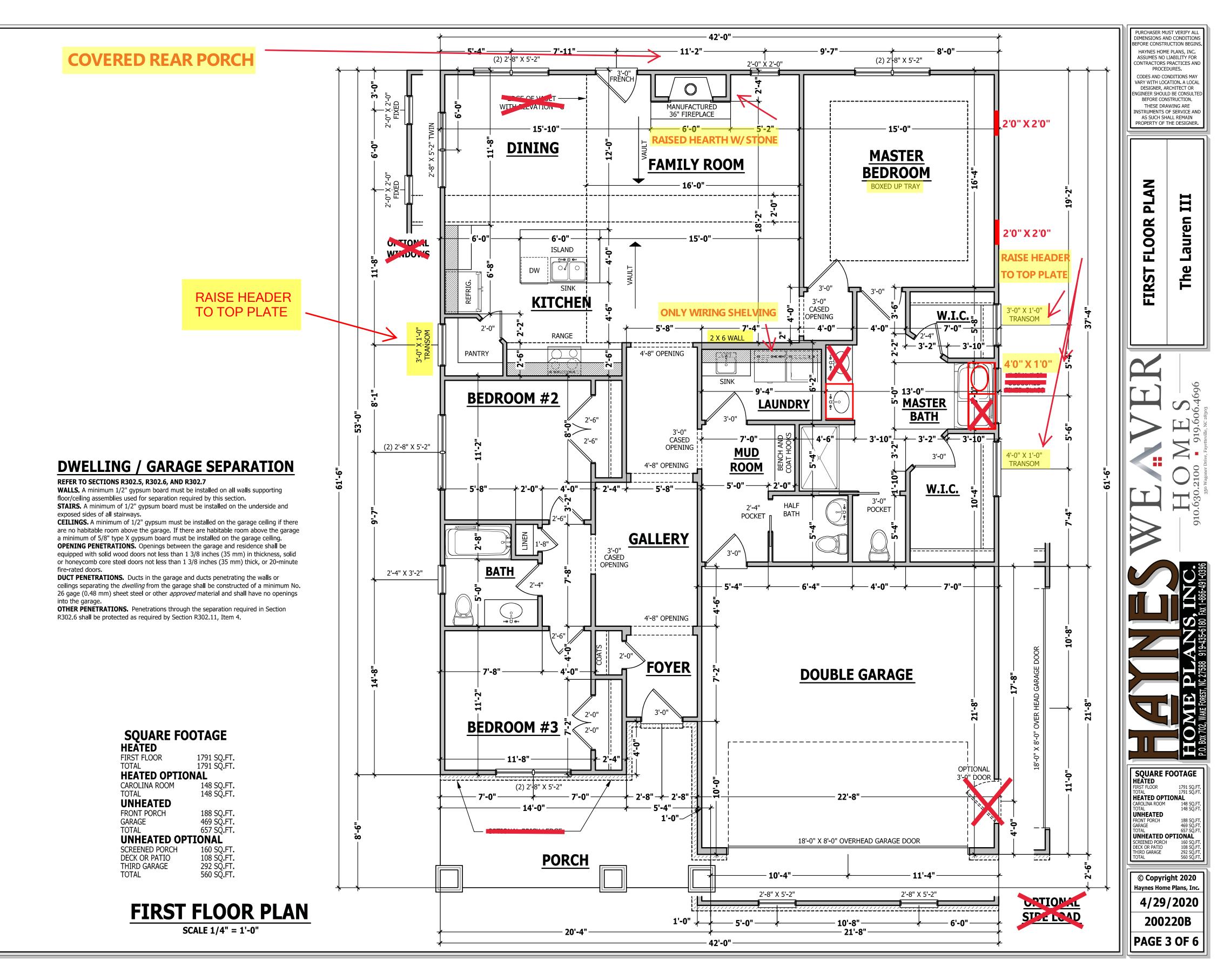












## **STRUCTURAL NOTES**

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	LIVE LOAD	DEAD LOAD	DEFLECTION
USE	(PSF)	(PSF)	(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  $1/2" \times 3 1/2" \times 1/4"$  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  $1/2" \times 3 1/2" \times 1/4"$  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 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.

# **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

- 6-16D SINKER NAILS FROM KING STUD TO HEADER-PONY WALL HEIGHT TO VARY HEADER PER PLAN **\*\*\*\*\*** - STAP HEADER TO JACK -STUD ON INSIDE 1000 LBS OR Ы 4000 LBS WITH PONY WALL. Р - 16D 3" O. ð þ тор . –FASTEN SHEATHING TO $\prec$ ╲╢╘╤╍╍╛╢ ┊╘╾╾╾╼╤╾╼╡║┆╱╱ Р© HEADER WITH 8D COMMON **1** 0 **0** ROWS NAILS NAIL IN 3" GRID AND TO . **10** FRAMING AT 3" ON CENTER INO - OPTIONAL SPLICE WITHIN ----Ψ. 24" OF MIDDLE OF WALL HEIGHT ξ – JACK STUDS PER PLAN ----ЧĂХ -SHEATHING DIRECTION -- ANCHORAGE PER FOUNDATION -**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'</td>
 3'-4'
 4'-8'
 8'-12'
 12'-16'

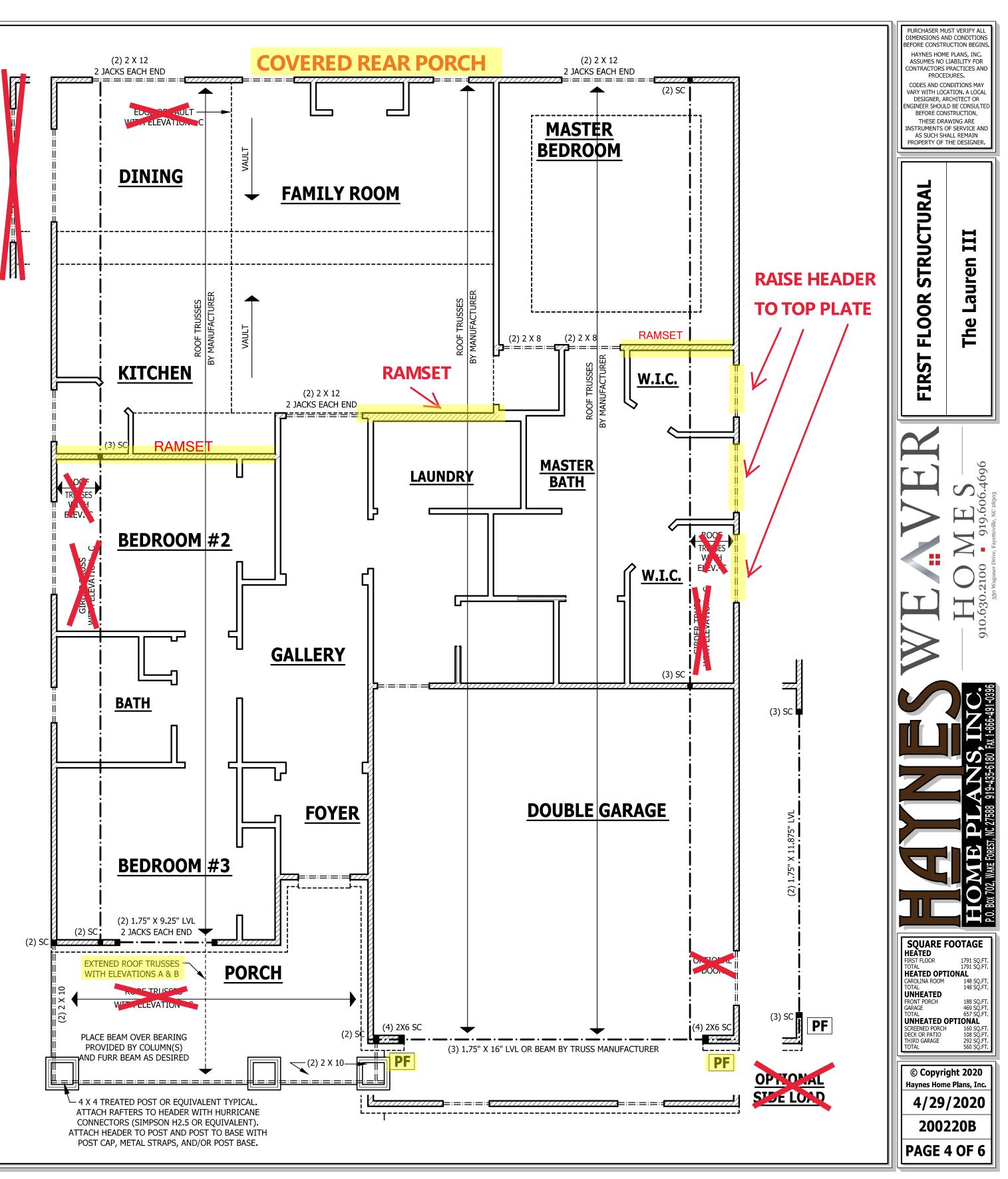
 KING STUD(S)
 1
 2
 3
 5
 6

# - 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"

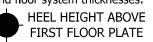


# **ROOF TRUSS REQUIREMENTS**

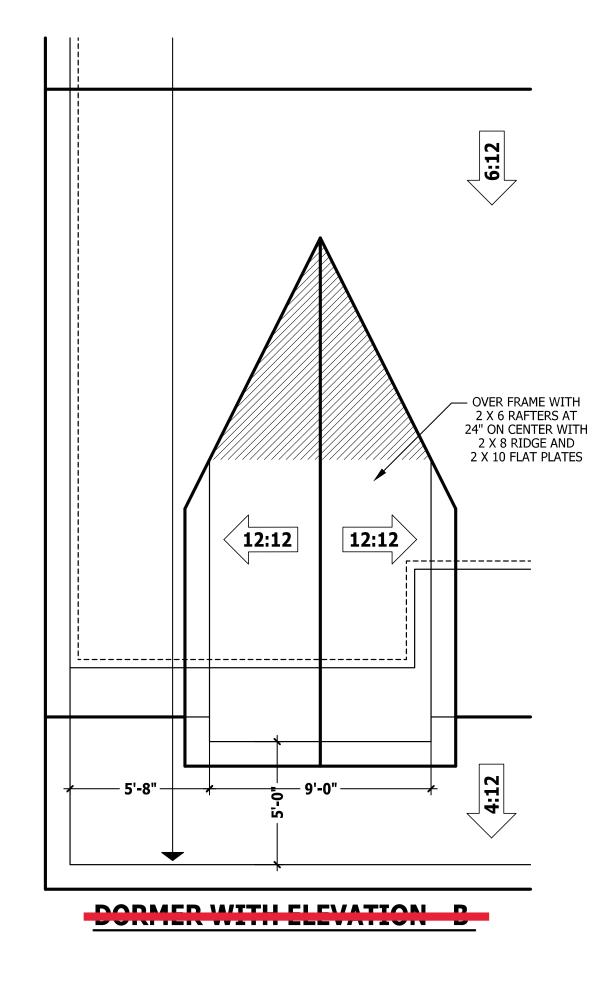
**TRUSS DESIGN.** Trusses to be designed and engineered in accordance with these drawings. Any variation with these drawings must be brought to Haynes Home Plan, Inc. attention before construction begins. **KNEE WALL AND CEILING HEIGHTS.** All finished knee wall heights and ceiling heights are shown 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.

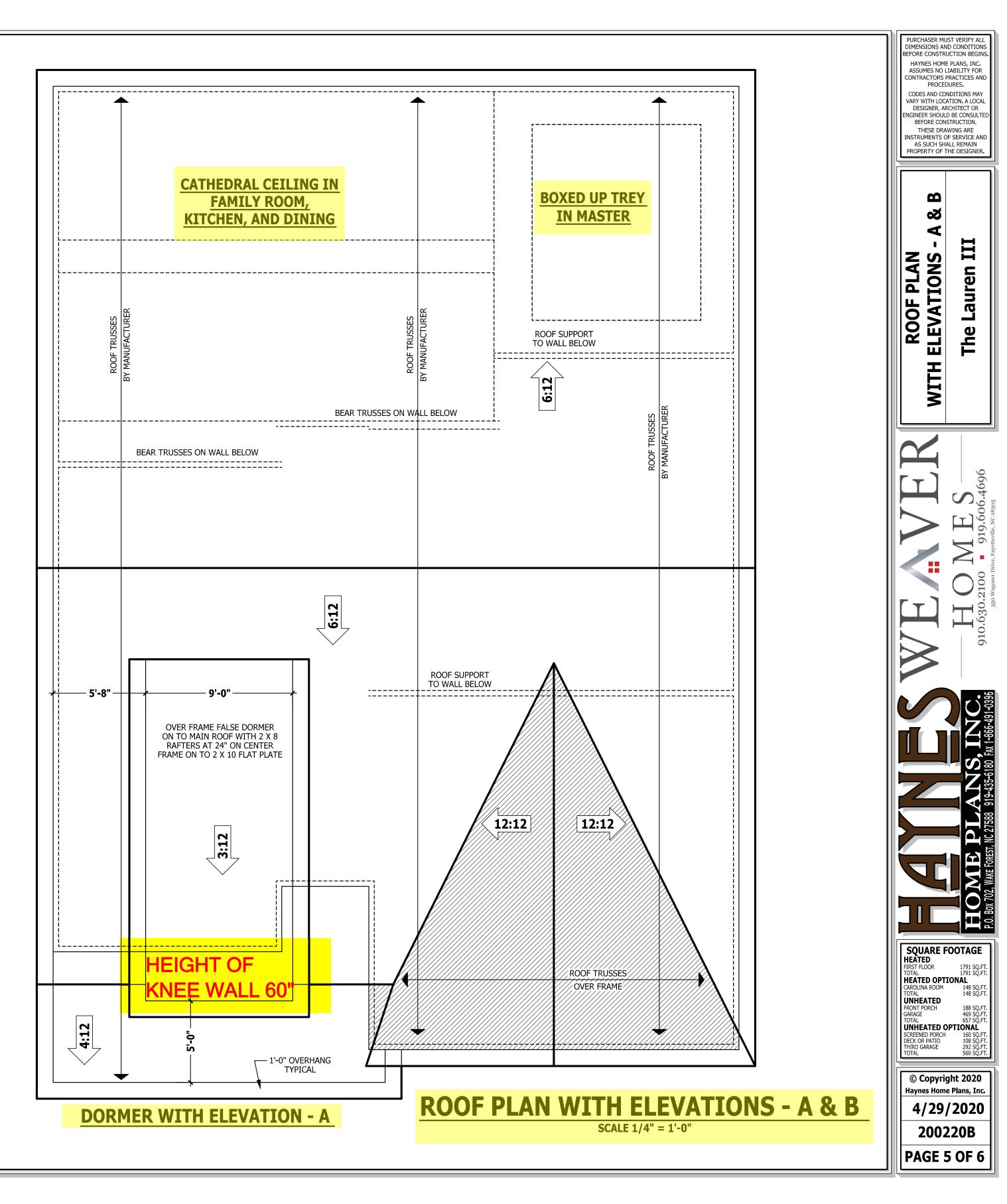
**ANCHORAGE.** All required anchors for trusses due to uplift or bearing shall meet the requirements as specified on the truss schematics. **BEARING.** All trusses shall be designed for bearing on SPF #2 plates or ledgers unless noted otherwise.

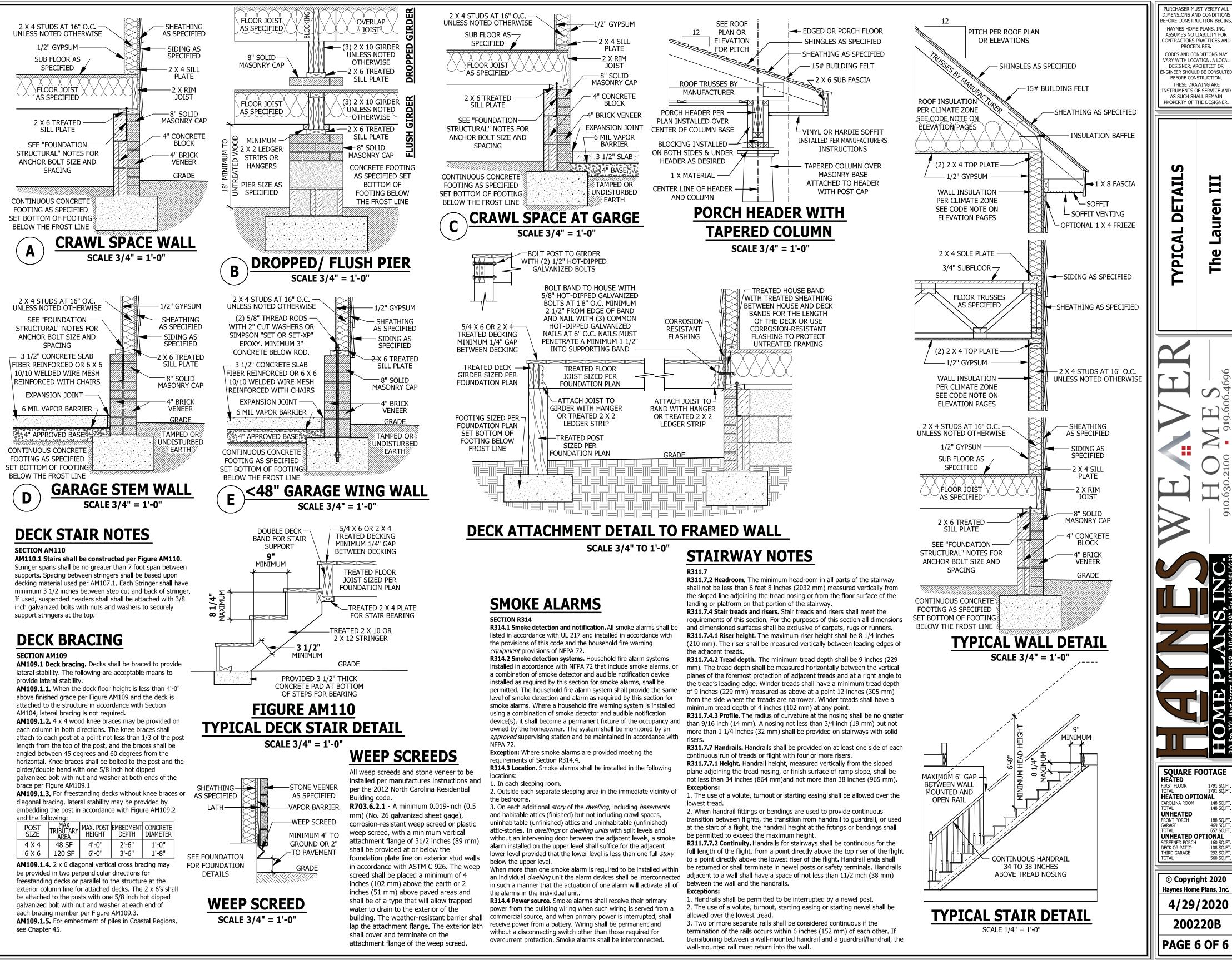
**Plate Heights & Floor Systems.** See elevation page(s) for plate heights and floor system thicknesses.

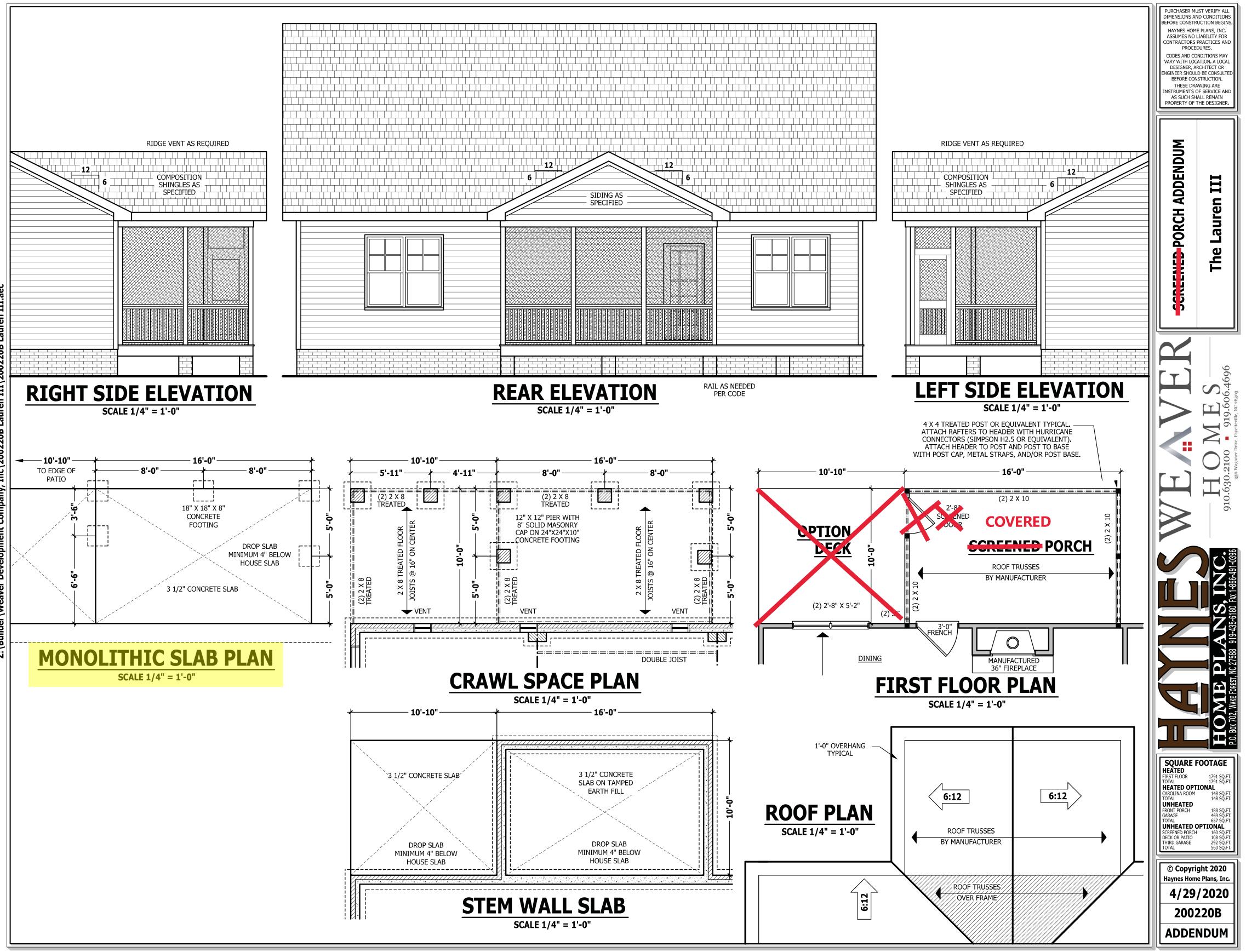


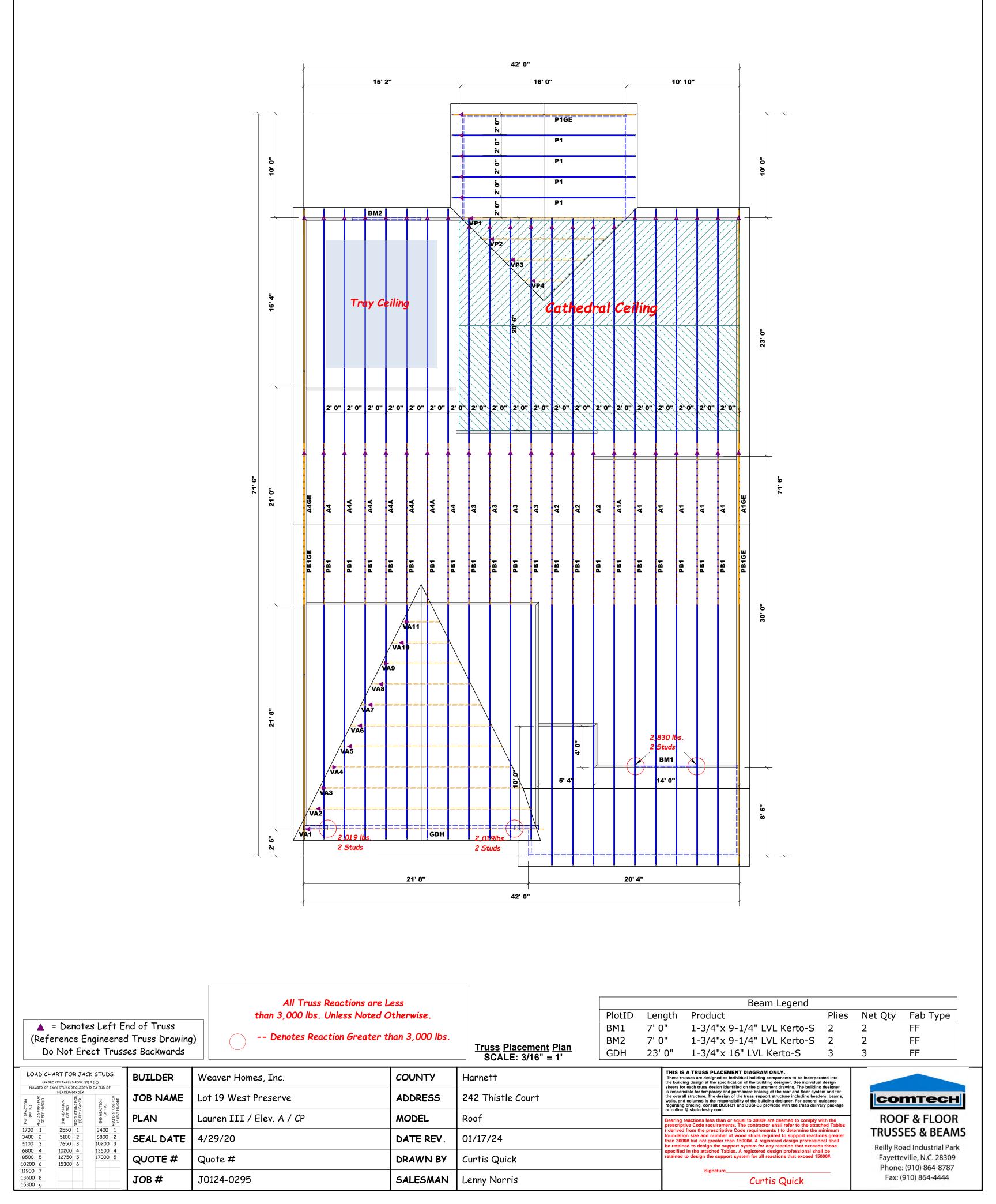
HEEL HEIGHT ABOVE SECOND FLOOR PLATE



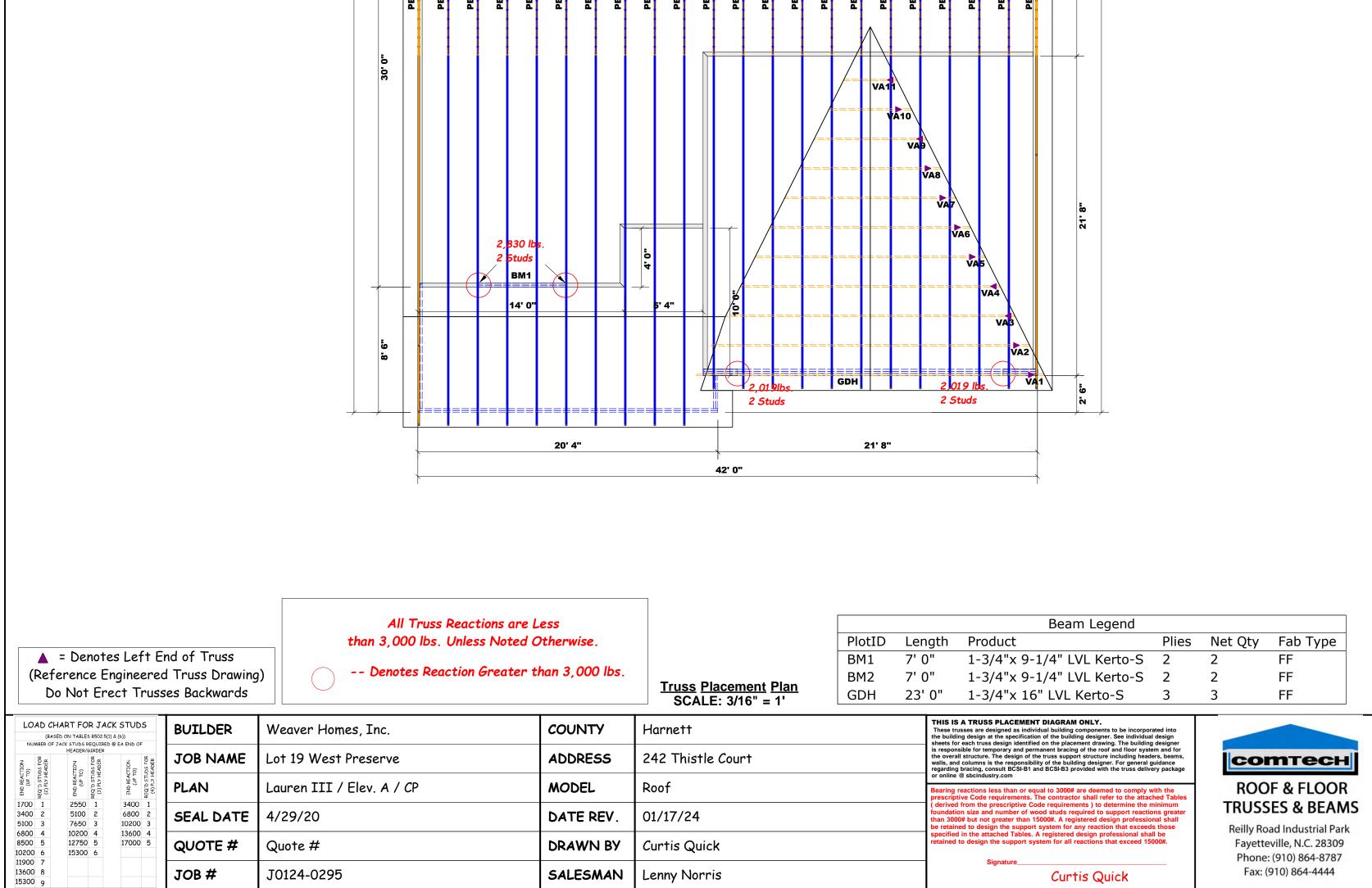








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bio		11GE	A	A1	A1	A1	A1	14	A2	A2	A2	A3	A3	A3	A3	A4	A4A	4 <b>A</b>	A4A	A4A	A4A	A4	A4GE		
bio																									
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Lenny Norris

SALESMAN

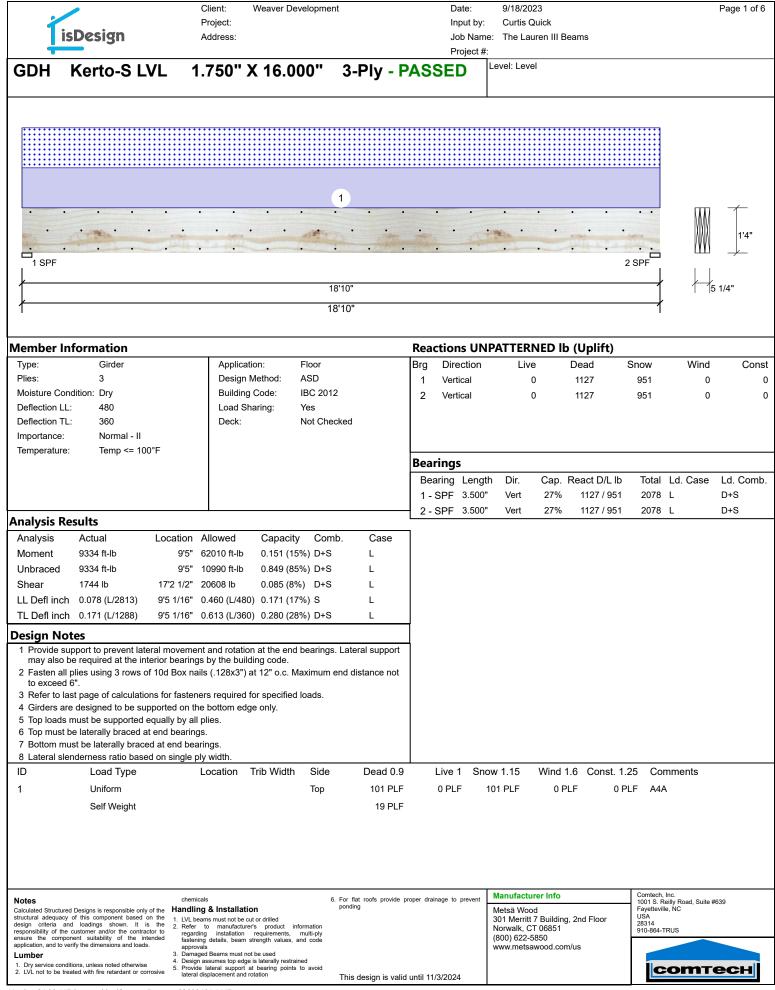
JOB #

J0124-0295

Signatur

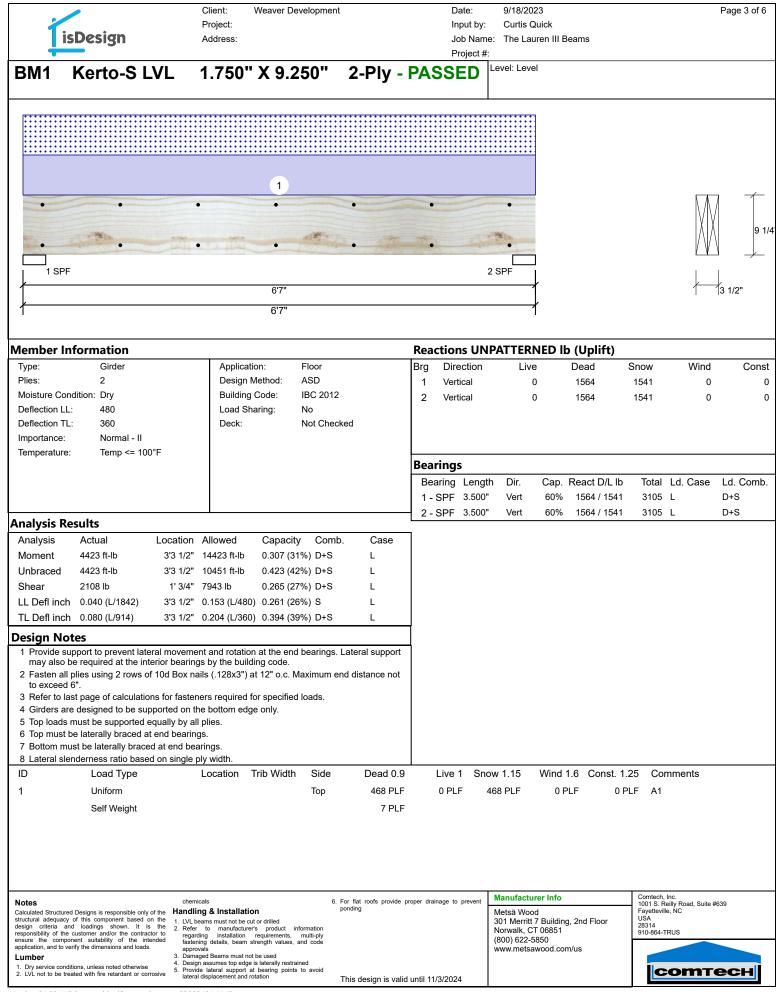
Curtis Quick

Fax: (910) 864-4444



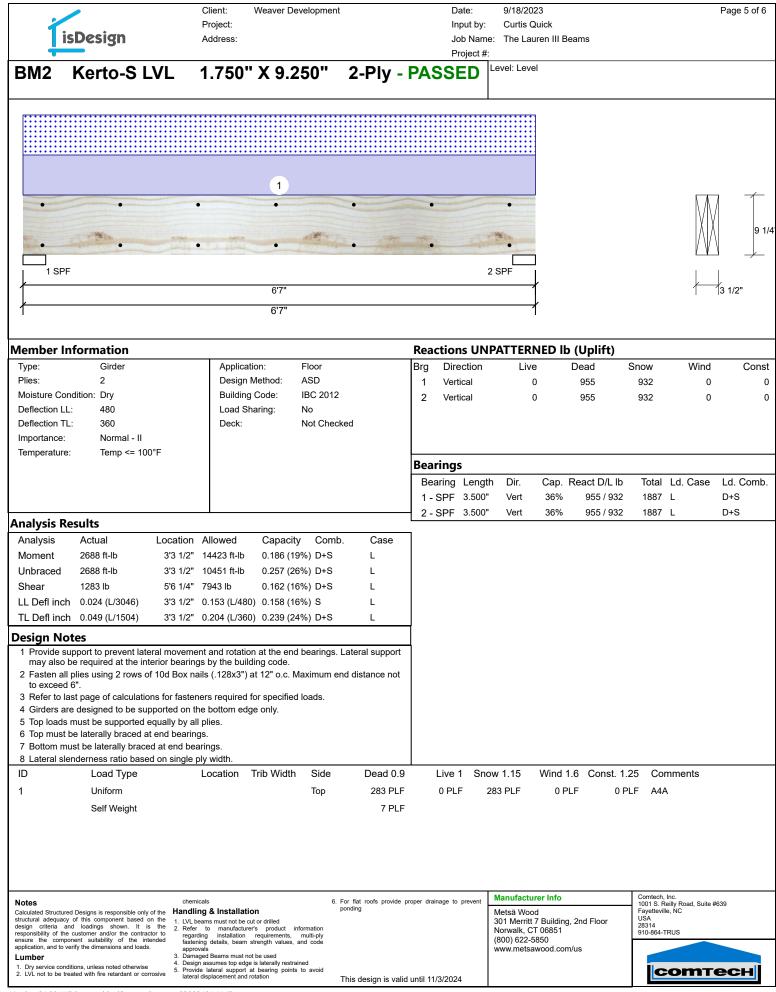
Proj isDesign Add		<b>3-Ply - F</b>	Projec	by: Curtis Curtis C Name: The La	Quick Iuren III Beams	2 SPF	× × 1/2"	Page 2 of 6
GDH Kerto-S LVL 1.7 GDH Kerto-S LVL 1.7 	Address: 750" X 16.000"   	  18'10" 18'10"	Job N Projec	Name: The La	uren III Beams	2 SPF	× × 1/2"	1'4" 1'4" 5 1/4"
GDH Kerto-S LVL 1.7 GDH Kerto-S LVL 1.7 	750" X 16.000"	  18'10" 18'10"	Projec	ect #:		2 SPF	+ + + + + + + + + + + + + + + + + + +	1'4" 1'4" 5 1/4"
GDH Kerto-S LVL 1.7 GDH Kerto-S LVL 1.7 	· · · ·	  18'10" 18'10"			rel		× × × × × × × × × × × × × × × × × × ×	1'4" 1'4" 5 1/4"
Image: Second system   Image: Second system	· · · ·	  18'10" 18'10"	PASSED	Level: Lev	el • • • • • • •	2 SPF	× × × × × × × × × × × × × × × × × × ×	1'4" 1'4" 5 1/4"
Multi-Ply Analysis Fasten all plies using 3 rows of 10d Box 6".		18'10"	· · · ·	· · ·	· · ·		× × 112"	1'4" 
Multi-Ply Analysis Fasten all plies using 3 rows of 10d Box 6".		18'10"				2 SPF	∃ <u>⊼</u> ∤ ∤ ∤	 5 1/4"
Multi-Ply Analysis Fasten all plies using 3 rows of 10d Box 6".		18'10"				,	∳	5 1/4"
Fasten all plies using 3 rows of 10d Box 6".		18'10"					* / *	5 1/4"
Fasten all plies using 3 rows of 10d Box 6".						,	∤	
Fasten all plies using 3 rows of 10d Box 6".							I	
Fasten all plies using 3 rows of 10d Box 6".	)x nails (.128x3") at 12"							
		o.c Nail from	ı both sides. N	∕laximum ei	nd distance	not to excee	èd	
Load 0.0 PLF								
Yield Limit per Foot 245.6 PLF								
Yield Limit per Fastener 81.9 lb.								
Yield Mode IV								
Edge Distance 1 1/2"								
Min. End Distance 3"								
Load Combination								
Duration Factor 1.00								

			Manual actions which	Comtech. Inc.
Notes	chemicals	<ol> <li>For flat roofs provide proper drainage to prevent ponding</li> </ol>	Manufacturer Info	1001 S. Reilly Road, Suite #639
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended	<ol> <li>LVL beams must not be cut or drilled</li> <li>Refer to manufacturer's product information regarding installation requirements, multi-ply</li> </ol>	1 5	Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850	Fayetteville, NC USA 28314 910-864-TRUS
application, and to verify the dimensions and loads. Lumber 1. Dry service conditions, unless noted otherwise	fastening details, beam strength values, and code approvals 3. Damaged Beams must not be used 4. Design assumes top edge is laterally restrained 5. Provide lateral support at bearing points to avoid		www.metsawood.com/us	соттесн
2. LVL not to be treated with fire retardant or corrosive	lateral displacement and rotation	This design is valid until 11/3/2024		соппесн



Version 21.80.417 Powered by iStruct<sup>™</sup> Dataset: 23082101.1447

	Client: Weaver Developr	nent Date:	9/18/2023	Page 4 of 6
2	Project:	Input by:		5
isDesign	Address:		e: The Lauren III Beams	
		Project #		
			Level: Level	
BM1 Kerto-S	LVL 1.750" X 9.250	2-Ply - PASSED		
	• •	• •	• =	
			12	
			<ul><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li><li></li></ul>	∧   ∧   9 1/4
•	• •	• •	•	
1 SPF			2 SPF	
1	6'7"		<u>/</u>	3 1/2"
/	6'7"			
	67		Ι	
Multi-Ply Analysis				
	ows of 10d Box nails (.128x3") at 12	o.c Maximum end distance n	ot to exceed 6".	
Capacity	0.0 %			
Load	0.0 PLF			
Yield Limit per Foot Yield Limit per Fastener	163.7 PLF 81.9 lb.			
Yield Mode	IV			
Edge Distance	1 1/2"			
Min. End Distance	3"			
Load Combination				
Duration Factor	1.00			
			Manufacturor Info	Comtech, Inc.
Notes	chemicals	6. For flat roofs provide proper drainage to prevent ponding	Manufacturer Info	1001 S. Reilly Road, Suite #639 Fayetteville, NC
Calculated Structured Designs is responsible of structural adequacy of this component base	ed on the 1. LVL beams must not be cut or drilled		Metsä Wood 301 Merritt 7 Building, 2nd Floor	USA 28314
design criteria and loadings shown. It responsibility of the customer and/or the cor-	is the 2. Refer to manufacturer's product information ntractor to regarding installation requirements, multi-ply		Norwalk, CT 06851	28314 910-864-TRUS
ensure the component suitability of the application, and to verify the dimensions and lo	ads. approvals		(800) 622-5850 www.metsawood.com/us	
Lumber 1. Dry service conditions, unless noted otherw	3. Damaged Beams must not be used     4. Design assumes top edge is laterally restrained     for provide lateral expression at heating points to explain			
<ol> <li>LVL not to be treated with fire retardant or</li> </ol>	corrosive 5. Provide lateral support at bearing points to avoid lateral displacement and rotation	This design is valid until 11/3/2024		соттесн
L				



Version 21.80.417 Powered by iStruct<sup>™</sup> Dataset: 23082101.1447

	Client: Weaver Developm	ent Date:	9/18/2023	Page 6 of 6
	Project:	Input by:		-
isDesign	Address:	Job Nam	ne: The Lauren III Beams	
		Project #	<b>t</b> :	
BM2 Kerto-S LVL	1 750" X 9 250"	2-Ply - PASSED	Level: Level	
DIVIZ KEI 10-3 LVL	1.750 × 9.250	2-FIY - FASSED		
• •	• •	• •	•	
			• 1/2"	
				Å   Å    9 1/4
• •	• •	• •	•	
1 SPF			2 SPF	
<del> </del>	6'7"			3 1/2"
/	6'7"		ł	
	67		Ι	
Multi-Ply Analysis				
	Rev mails ( 120,2") at 12"	a a Maximum and distance r	at to overad C"	
Fasten all plies using 2 rows of 10d Capacity 0.0 %	BOX Halls (.120X5 ) at 12	o.c Maximum end distance i	Int to exceed 6.	
Load 0.0 PLF				
Yield Limit per Foot 163.7 PL	F			
Yield Limit per Fastener 81.9 lb.				
Yield Mode IV				
Edge Distance1 1/2"Min. End Distance3"				
Load Combination				
Duration Factor 1.00				
Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.	beams must not be cut or drilled er to manufacturer's product information arding installation requirements, multi-ply ening details, beam strength values, and code rovals	<ol> <li>For flat roofs provide proper drainage to prevent ponding</li> </ol>	Manufacturer Info Metsä Wood 301 Merritt 7 Building, 2nd Floor Norwalk, CT 06851 (800) 622-5850 www.metsawood.com/us	Comtech, Inc. 1001 S. Reilly Road, Suite #639 Fayetteville, NC USA 28314 910-864-TRUS
Lumber 3. Dan 4. Des	naged Beams must not be used ign assumes top edge is laterally restrained			
	vide lateral support at bearing points to avoid ral displacement and rotation	This design is valid until 11/3/2024		соттесн