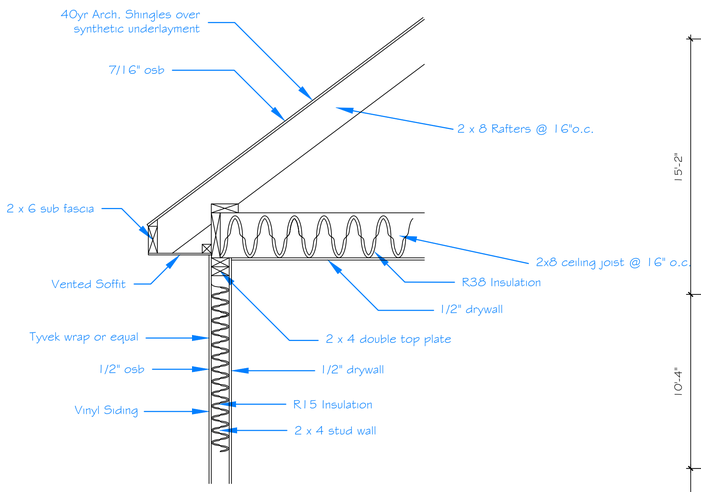


Roof Section

-Framing design based on the following loading conditions R301.4)

Attic with Storage	-20psf
Rooms other than sleeping	-40psf
Sleeping Rooms	-30psf
Passenger Vehicle Garages	-50psf
Maximum wind speed	-100mph

Verify seismic requirements for your area.

-All ceiling joist, rafters, girders, headers, sills, and beams shall be No.2 S.P.F. unless otherwise noted.

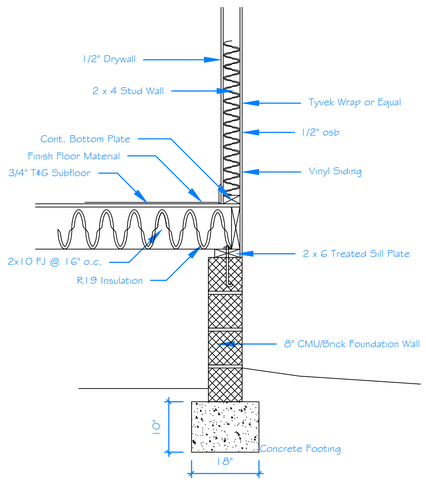
-All load bearing walls shall be No, 2 S.P.F. unless otherwise noted.

-Average dead loads shall not exceed 15 psf for roof/ceiling assemblies or 10 psf for floor assemblies.

Exterior light-frame wood walls	-15psf
Interior light-frame wood walls	-14psf
8-inch thick masonry walls	-80psf
Attics without storage	-10psf

-All girder joist and ends of girders shall rest on solid bearing. Fill cores to footing with concrete.

-Provide pressure treated lumber for sills, plates, bands, and any lumber in contact with masonry.



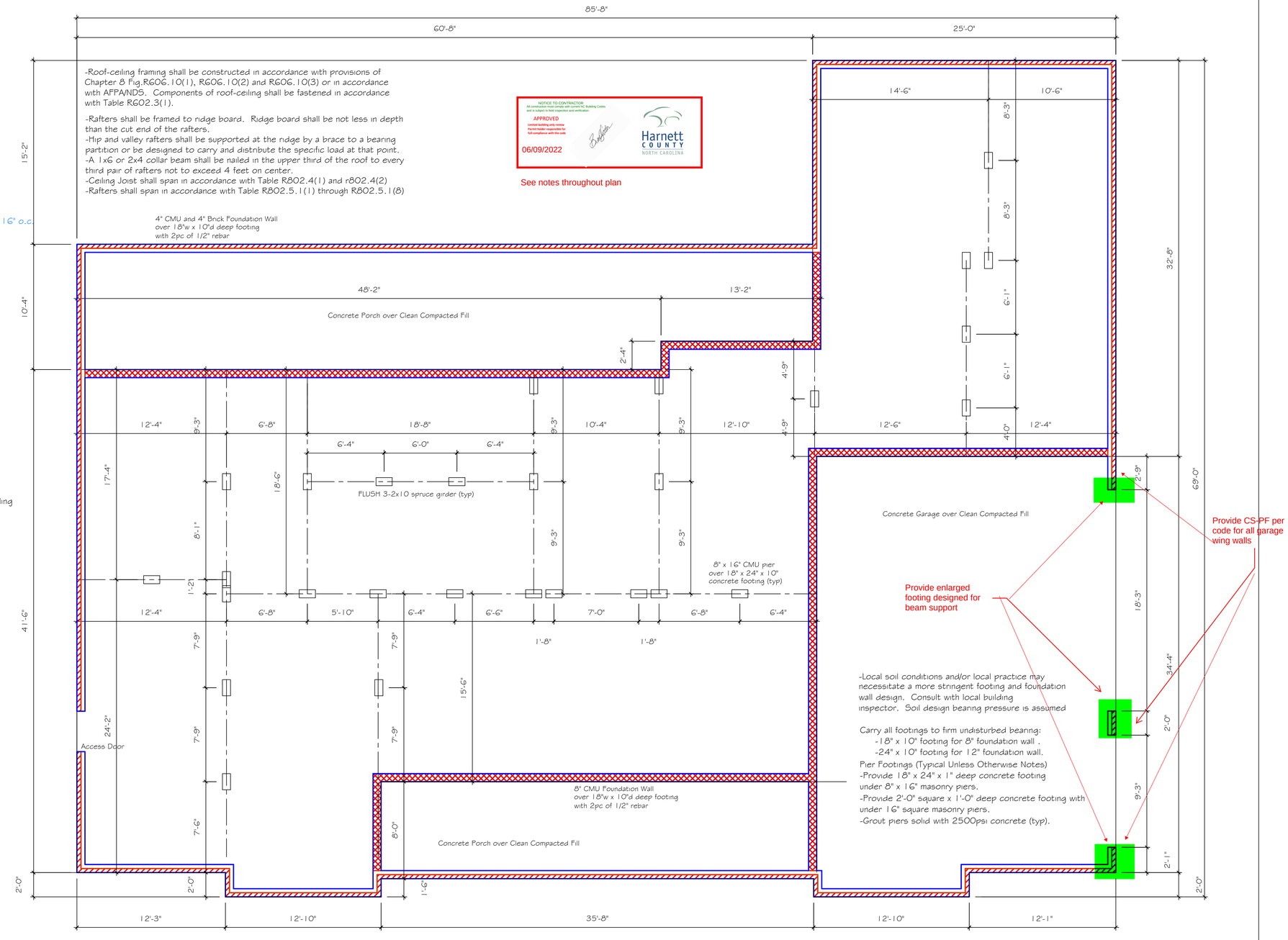
Foundation Section

-Roof-ceiling framing shall be constructed in accordance with provisions of Chapter 8 Fig.R606.10(1), R606.10(2) and R606.10(3) or in accordance with AFPA/NDS. Components of roof-ceiling shall be fastened in accordance with Table R602.3(1).

-Rafters shall be framed to ridge board. Ridge board shall be not less in depth than the cut end of the rafters.
-Hip and valley rafters shall be supported at the ridge by a brace to a bearing partition or be designed to carry and distribute the specific load at that point.
-A 1x6 or 2x4 collar beam shall be nailed in the upper third of the roof to every third pair of rafters not to exceed 4 feet on center.
-Ceiling Joist shall span in accordance with Table R802.4(1) and r802.4(2)
-Rafters shall span in accordance with Table R802.5.1(1) through R802.5.1(8)

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.
APPROVED
Limited building only review
Permit holder responsible for full compliance with the code
06/09/2022
Harnett COUNTY NORTH CAROLINA

See notes throughout plan



-Local soil conditions and/or local practice may necessitate a more stringent footing and foundation wall design. Consult with local building inspector. Soil design bearing pressure is assumed

Carry all footings to firm undisturbed bearing:
-18" x 10" footing for 8" foundation wall .
-24" x 10" footing for 12" foundation wall.

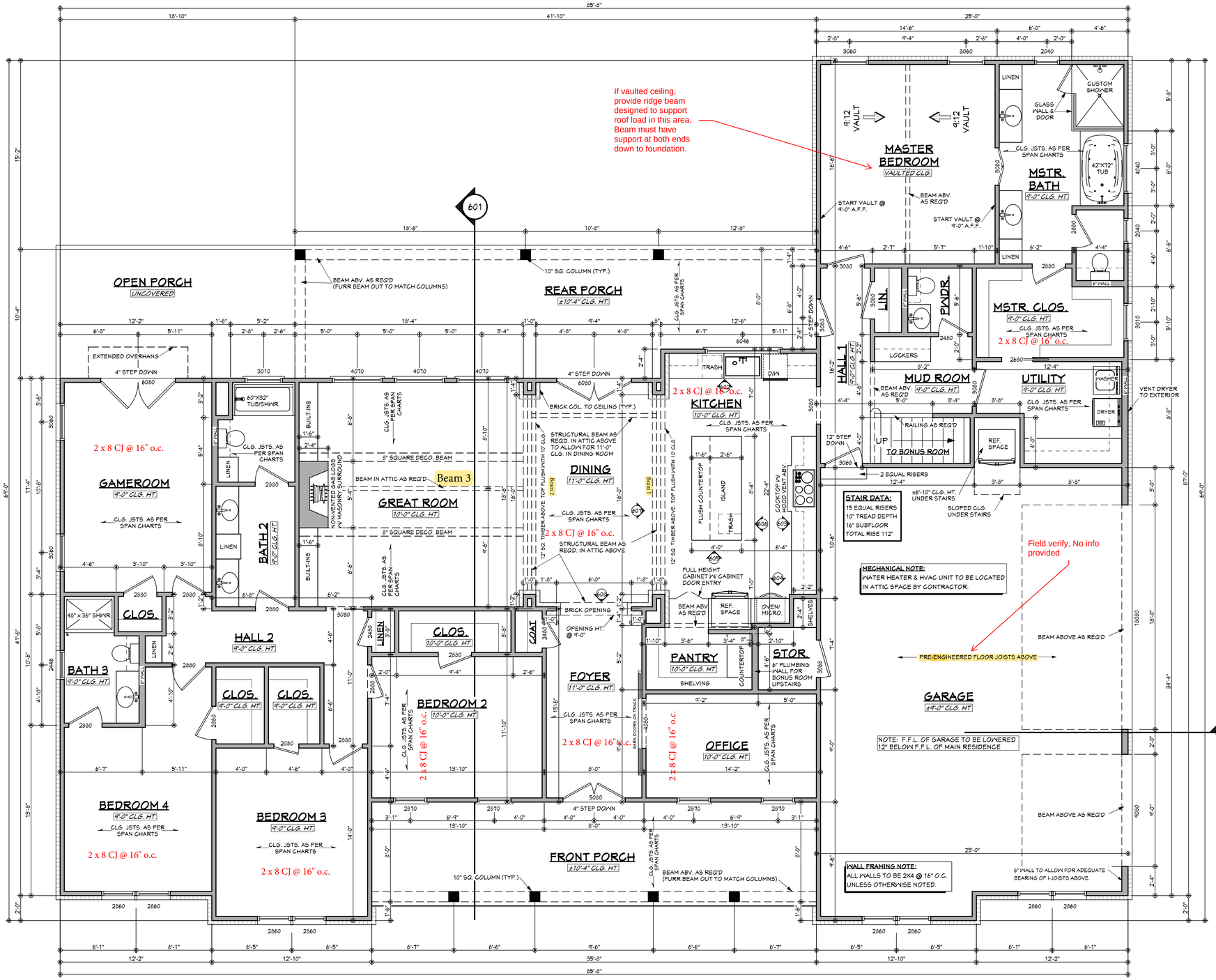
Pier Footings (Typical Unless Otherwise Notes)
-Provide 18" x 24" x 1' deep concrete footing under 8" x 16" masonry piers.
-Provide 2'-0" square x 1'-0" deep concrete footing with under 16" square masonry piers.
-Grout piers solid with 2500psi concrete (typ).

Foundation Plan

Span Table for Joist and Rafters.

-Floors shall be constructed in accordance with the provisions of Chapter 5 of the NC State Building Code, Sect. R502.2 and Sects R319 and R320.
-Spans for floor joist shall be in accordance with Tables R502.3.1(1) and R502.3.1(2). For other grades and species and for other loading conditions, refer to the AF&PA

-The allowable span of girders fabricated of dimension lumber shall not exceed the values set forth in Tables R502.5(1) and R502.5(2).



MAIN FLOOR PLAN

SCALE: 1/4" ========== 1'-0"

AREAS:	3086	S.F. HEATED - NOT INCLUDING MASONRY
	525	S.F. UNHEATED - BONUS ROOM
	285	S.F. UNHEATED - FRONT PORCH
	890	S.F. UNHEATED - GARAGE
	403	S.F. UNHEATED - REAR PORCH
	30	S.F. UNHEATED - STORAGE
	2133	S.F. UNHEATED - TOTAL
	5219	S.F. TOTAL UNDER ROOF

NOTES:

1. ALL DIMENSIONS & SITE CONDITIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
2. ALL FINISHES (INTERIOR & EXTERIOR) TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.
3. VERIFY ALL DOOR AND WINDOW STYLES AND SIZES WITH OWNER PRIOR TO CONSTRUCTION. MANUFACTURER TO SUPPLY ALL ROUGH OPENING SIZES.
4. CONTRACTOR TO VERIFY ALL CLEARANCES OF ALL DOORS, WINDOWS AND OTHER ITEMS THAT ARE CRITICAL, PRIOR TO CONSTRUCTION.
5. CONTRACTOR TO ADAPT PLANS AS REQUIRED TO MEET ALL APPLICABLE CODES AT SITE.
6. ALL BEAMS TO BE SIZED BY A LICENSED STRUCTURAL ENGINEER.
7. PORCHES, BALCONIES OR RAISED FLOOR SURFACES LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW AT ANY POINT WITHIN 36 INCHES HORIZONTALLY SHALL HAVE GUARDS NOT LESS THAN 36 INCHES IN HEIGHT. OPEN SIDES OF STAIRS WITH A TOTAL RISE OF MORE THAN 30 INCHES ABOVE THE FLOOR OR GRADE BELOW SHALL HAVE GUARDS NOT LESS THAN 34 INCHES IN HEIGHT MEASURED VERTICALLY FROM THE NOSING OF THE TREADS. INSECT SCREENING SHALL NOT BE CONSIDERED AS A GUARD. IRC 2018, R312.1.1 & R312.1.2
8. M1305.1.2 APPLIANCES IN ATTICS. ATTICS CONTAINING APPLIANCES SHALL BE PROVIDED WITH AN OPENING AND A CLEAR AND UNOBSTRUCTED PASSAGEWAY LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE, BUT NOT LESS THAN 30 INCHES HIGH AND 22 INCHES WIDE AND NOT MORE THAN 20 FEET LONG MEASURED ALONG THE CENTERLINE OF THE PASSAGEWAY FROM THE OPENING TO THE APPLIANCE. THE PASSAGEWAY SHALL HAVE CONTINUOUS SOLID FLOORING IN ACCORDANCE WITH CHAPTER 5 NOT LESS THAN 24 INCHES WIDE. A LEVEL SERVICE SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE SHALL BE PRESENT ALONG ALL SIDES OF THE APPLIANCE WHERE ACCESS IS REQUIRED. THE CLEAR ACCESS OPENING DIMENSIONS SHALL BE A MINIMUM OF 20 INCHES BY 30 INCHES, AND LARGE ENOUGH TO ALLOW REMOVAL OF THE LARGEST APPLIANCE.
EXCEPTIONS:
a. THE PASSAGEWAY AND LEVEL SERVICE SPACE ARE NOT REQUIRED WHERE THE APPLIANCE CAN BE SERVICED AND REMOVED THROUGH THE REQUIRED OPENING.
b. WHERE THE PASSAGEWAY IS UNOBSTRUCTED AND NOT LESS THAN 6 FEET HIGH AND 22 INCHES WIDE FOR ITS ENTIRE LENGTH, THE PASSAGEWAY SHALL BE NOT MORE THAN 50 FEET LONG.
9. APPLIANCE ACCESS FOR INSPECTION SERVICE, REPAIR AND REPLACEMENT. APPLIANCES SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE, REPAIR AND REFLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION, OTHER APPLIANCES, OR ANY OTHER PIPING OR DUCTS NOT CONNECTED TO THE APPLIANCE BEING INSPECTED, SERVICED, REPAIRED OR REPLACED. A LEVEL WORKING SPACE AT LEAST 30 INCHES DEEP AND 30 INCHES WIDE SHALL BE PROVIDED IN FRONT OF THE CONTROL SIDE TO SERVICE AN APPLIANCE. M1305.1.1
10. EMERGENCY ESCAPE AND RESCUE OPENINGS SHALL BE OPERATIONAL FROM THE INSIDE OF THE ROOM WITHOUT THE USE OF KEYS, TOOLS OR SPECIAL KNOWLEDGE. WINDOW OPENING CONTROL DEVICES COMPLYING WITH ASTM F 2090 SHALL BE PERMITTED FOR USE ON WINDOWS SERVING AS A REQUIRED EMERGENCY ESCAPE AND RESCUE OPENING. ALL SLEEPING ROOMS TO HAVE AN EXTERIOR ACCESS THROUGH A DOOR OR WINDOW WITH A MINIMUM OF 5.7 SQUARE FEET NET CLEAR OPENING AS PER IRC 2018 R310.2.1. EXCEPTION: GRADE FLOOR OR BELOW GRADE OPENINGS SHALL HAVE A MINIMUM NET CLEAR OPENING OF 5 SQUARE FEET. MAXIMUM SILL HEIGHT TO BE 44 INCHES. MINIMUM NET CLEAR OPENING HEIGHT TO BE 24 INCHES. MINIMUM NET CLEAR OPENING WIDTH TO BE 20 INCHES.
11. ALL RETURN AIR GRILLS ARE TO BE LOCATED TO COMPLY WITH SECTION M1602 OF THE IRC 2018.
12. ALL SQUARE FOOTAGE MEASUREMENTS ARE APPROXIMATE AND MAY DIFFER FROM ACTUAL CONSTRUCTED RESIDENCE OR BUILDING.
13. FIRE SPRINKLER SYSTEM TO BE DESIGNED AND INSTALLED (IF REQUIRED BY LOCAL CODES) AS PER THE IRC 2018 AND BY A LICENSED PROFESSIONAL IN THE AREA OF CONSTRUCTION.
14. ALL BATHROOM EXHAUST VENTS SHALL BE VENTED DIRECTLY TO THE EXTERIOR OF THE HOME AND NOT INTO THE ATTIC. IRC 2018, M1505.2

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N·C·B·D·C NATIONAL COUNCIL OF BUILDING DESIGNERS CERTIFICATION
JONATHAN L. BOONE
CERTIFICATION NO. 25-137

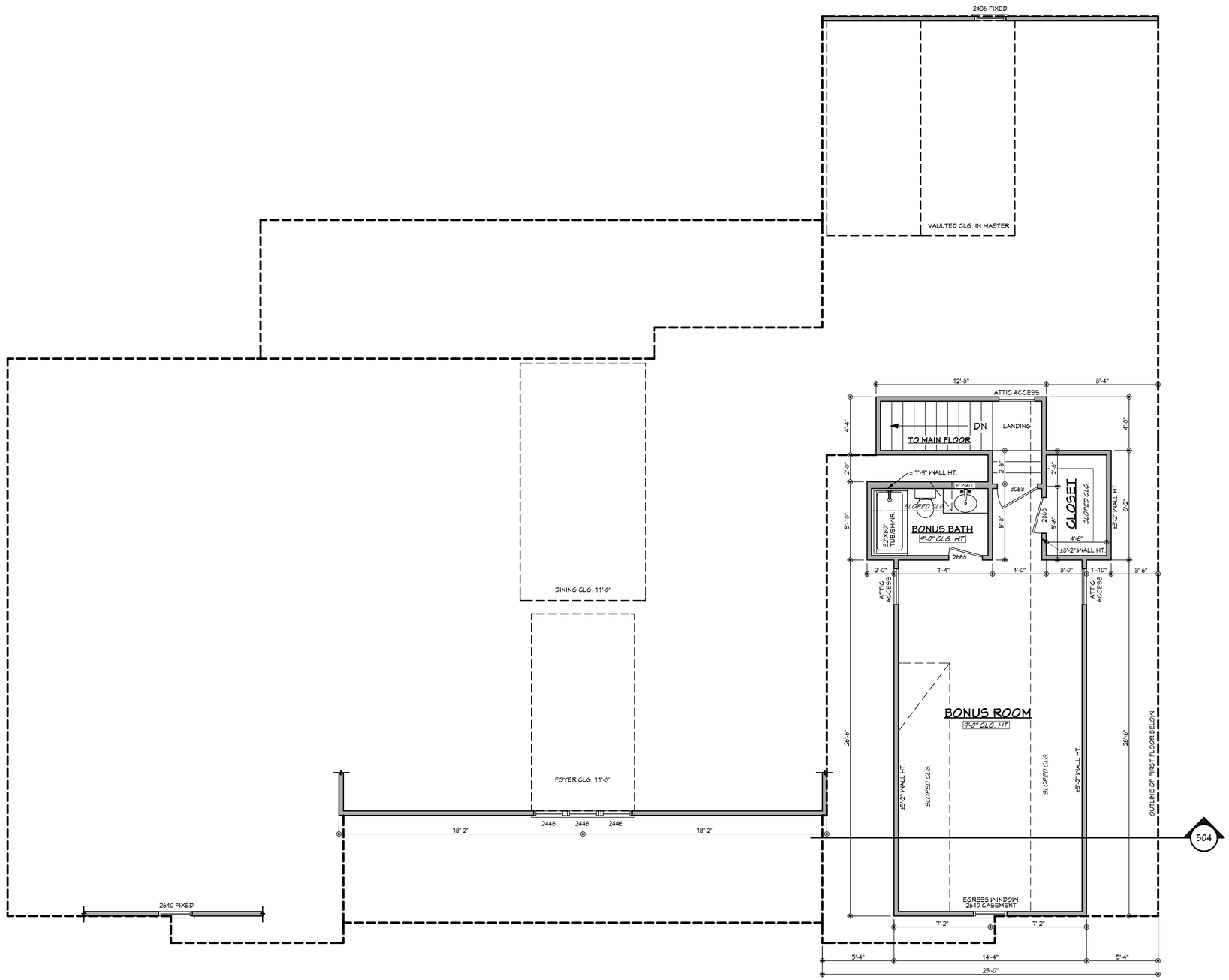
Pre-Drawn Plan ID: BB-3086

Date: 09/24/19

Drawn By: R.B.W.

Project Name:

SHEET NUMBER 3A



BONUS ROOM FLOOR PLAN

SCALE: 1/4" ========== 1'-0"

NOTES:

1. ALL DIMENSIONS & SITE CONDITIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
2. ALL FINISHES (INTERIOR & EXTERIOR) TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.
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NATIONAL COUNCIL OF BUILDING DESIGNERS CERTIFICATION
JONATHAN L. BOONE
CERTIFICATION NO. 25-137
TM

Pre-Drawn Plan ID:

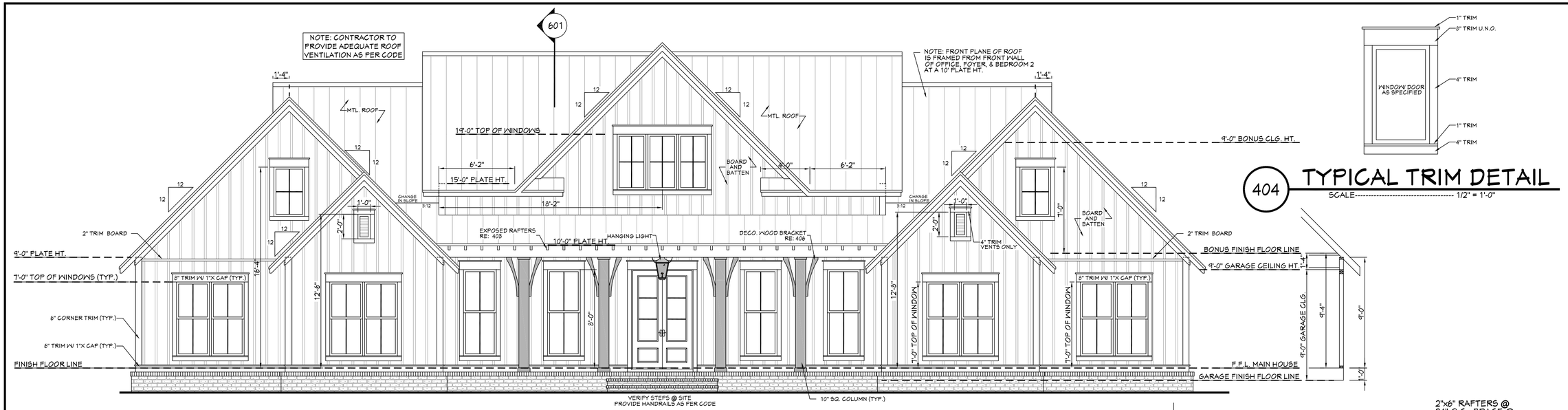
BB-3086

Date:
09/24/19

Drawn By:
R.B.W.

Project Name:

SHEET NUMBER
3B



401 FRONT VIEW

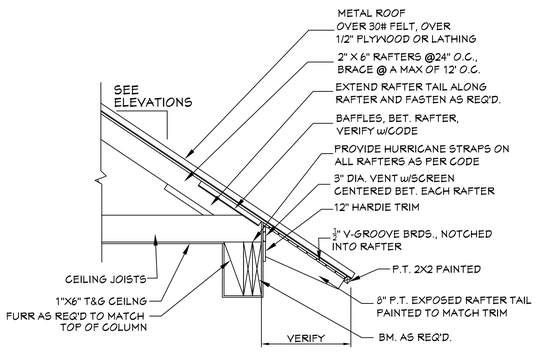
SCALE---------- 1/4" = 1'-0"

404 TYPICAL TRIM DETAIL

SCALE---------- 1/2" = 1'-0"

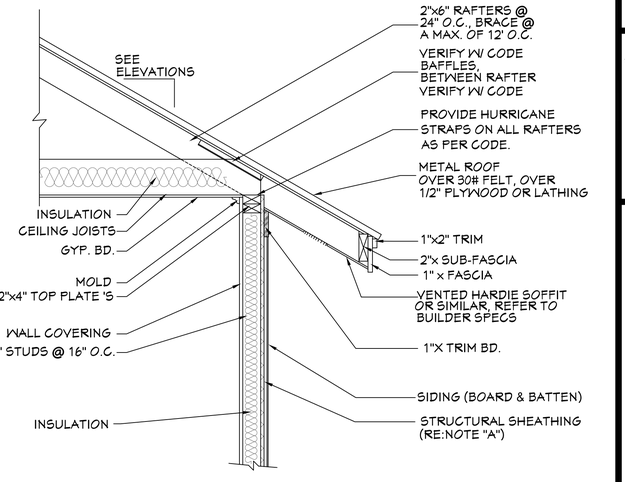
EXTERIOR ELEVATION NOTES:

1. CONTRACTOR TO VERIFY ALL WINDOW AND DOOR STYLES AND SIZES WITH OWNER PRIOR TO CONSTRUCTION.
2. PROVIDE STEPS AND GUARD RAILS AS PER CODE BASED ON SITE CONDITIONS.
3. GROUND LINES SHOWN FOR REFERENCE ONLY AND VARY DEPENDING ON SITE CONDITIONS.
4. ALL FINISH MATERIALS TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.
5. REFER TO TYPICAL WALL DETAIL FOR FRAMING METHODS AND OTHER MISC. INFORMATION.
6. CONTRACTOR TO PROVIDE ADEQUATE ROOF VENTILATION AS REQ'D BY CURRENT CODES.



403 EXPOSED RAFTER DETAIL

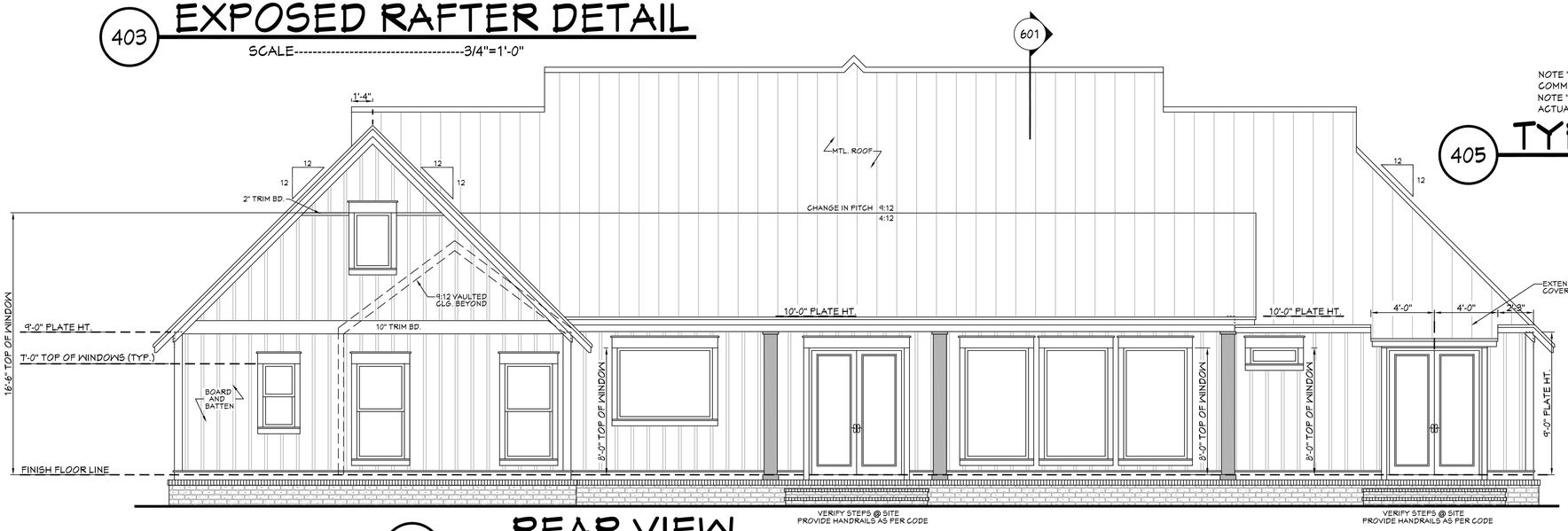
SCALE----------3/4"=1'-0"



NOTE "A": PROVIDE A MINIMUM OF 7/16" STRUCTURAL WOOD PANEL ATTACHED w/ 8d COMMON OR 10d BOX NAILS AT 4" SPACING ON EDGE AND 12" IN FIELD.
NOTE "B": CORNICE DETAIL FOR REFERENCE ONLY. REFER TO BUILDER SPECS FOR ACTUAL MATERIALS.

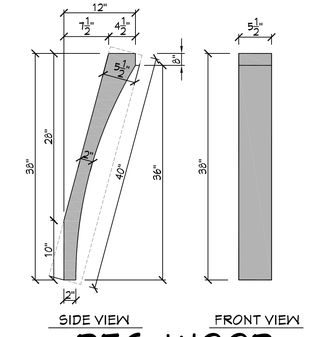
405 TYP. CORNICE DETAIL

SCALE----------3/4"=1'-0"



402 REAR VIEW

SCALE---------- 1/4" = 1'-0"



406 DEC. WOOD BRACKET DTL.

SCALE---------- 1" = 1'-0"

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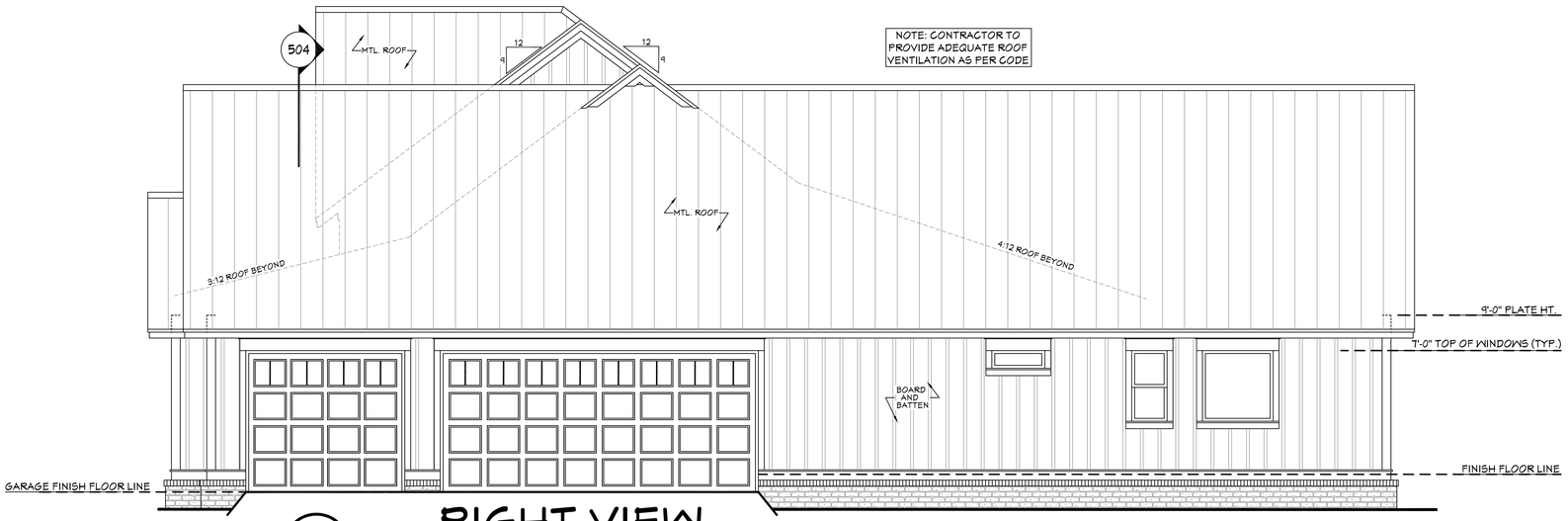
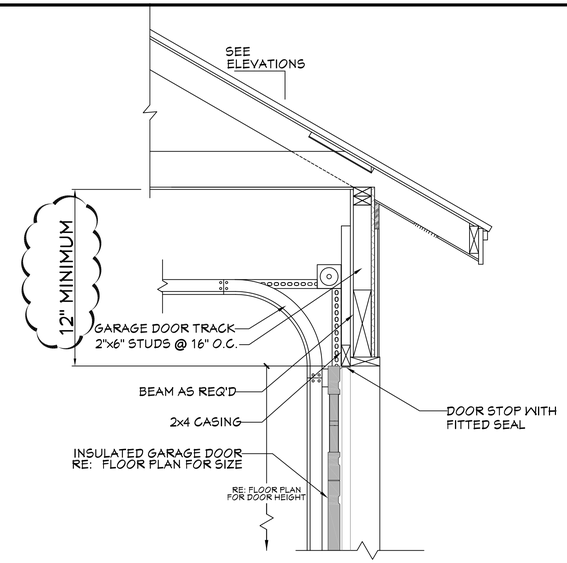
SHEET NUMBER
4



RIGHT VIEW

501

SCALE---------- 1/4" = 1'-0"

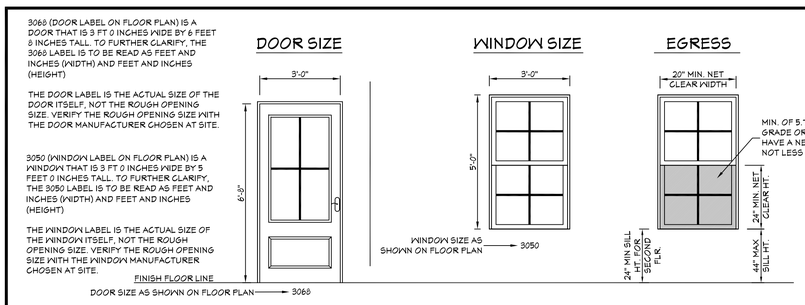


GARAGE DOOR CLEARANCE

503

SCALE---------- N.T.S.

THE INTENT OF THIS DETAIL IS TO SHOW THE MINIMUM REQUIRED DISTANCE FROM THE TOP OF THE GARAGE DOOR OPENING TO THE CEILING OF THE GARAGE.



R311.1 Means of egress. Dwellings shall be provided with a means of egress in accordance with this section. The means of egress shall provide a continuous and unobstructed path of vertical and horizontal egress travel from all portions of the dwelling to the required egress door without requiring travel through a garage. The required egress door shall open directly into a public way or to a yard or court that opens to a public way.

R310.2.1 Minimum opening area. Emergency and escape rescue openings shall have a net clear opening of not less than 5.7 square feet (0.530 m2). The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches (610 mm) and the net clear width shall be not less than 20 inches (508 mm). *Exception: Grade floor or below grade openings shall have a net clear opening of not less than 5 square feet (0.465 m2).*

R310.2.2 Window sill height. Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 44 inches (1118 mm) above the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3.

R310.2.3 Window wells. The horizontal area of the window well shall be not less than 9 square feet (0.9 m2), with a horizontal projection and width of not less than 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened. *Exception: The ladder or steps required by Section R310.2.3.1 shall be permitted to encroach not more than 6 inches (152 mm) into the required dimensions of the window well.*

R310.2.3.1 Ladder and steps. Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with Sections R311.7 and R311.8. Ladders or rungs shall have an inside width of not less than 12 inches (305 mm), shall project not less than 3 inches (76 mm) from the well and shall be spaced not more than 18 inches (451 mm) on center vertically for the full height of the window well.

R312.2 Window fall protection. Window fall protection shall be provided in accordance with Sections R312.2.1 and R312.2.2.

R312.2.1 Window sills. In dwelling units, where the top of the sill of an operable window opening is located less than 24 inches (610 mm) above the finished floor and greater than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, the operable window shall comply with one of the following:

1. Operable windows with openings that will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening where the opening is in its largest opened position.
2. Operable windows that are provided with window fall prevention devices that comply with ASTM F 2090.
3. Operable windows that are provided with window opening control devices that comply with Section R312.2.2.

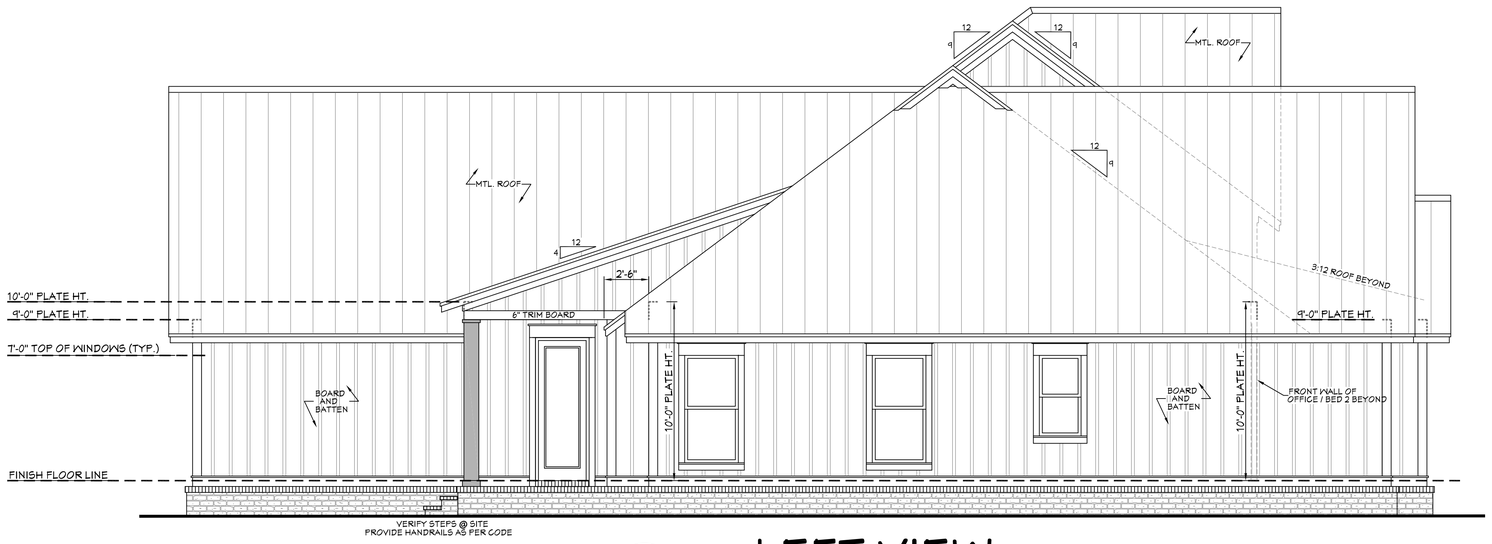
R312.2.2 Window opening control devices. Window opening control devices shall comply with ASTM F 2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Section R310.2.1.

OPENING SIZES/ EGRESS

SCALE---------- NTS

EXTERIOR ELEVATION NOTES:

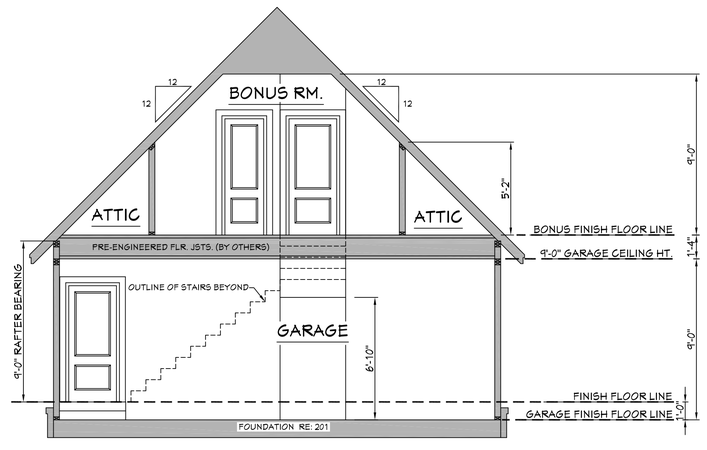
1. CONTRACTOR TO VERIFY ALL WINDOW AND DOOR STYLES AND SIZES WITH OWNER PRIOR TO CONSTRUCTION.
2. PROVIDE STEPS AND GUARD RAILS AS PER CODE BASED ON SITE CONDITIONS.
3. GROUND LINES SHOWN FOR REFERENCE ONLY AND VARY DEPENDING ON SITE CONDITIONS.
4. ALL FINISH MATERIALS TO BE VERIFIED WITH OWNER PRIOR TO CONSTRUCTION.
5. REFER TO TYPICAL WALL DETAIL FOR FRAMING METHODS AND OTHER MISC. INFORMATION.
6. CONTRACTOR TO PROVIDE ADEQUATE ROOF VENTILATION AS REQ'D BY CURRENT CODES.



LEFT VIEW

502

SCALE---------- 1/4" = 1'-0"



GARAGE SECTION

504

SCALE----------1/4"=1'-0"

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CERTIFICATION NO. 25-137

Pre-Drawn Plan ID: BB-3086

Date: 09/24/19

Drawn By: J.A.B.

SHEET NUMBER 5

CEILING JOIST SPANS

CEILING JOIST SPANS FOR SOUTHERN PINE SPECIES
(UNINHABITABLE ATTICS WITH LIMITED STORAGE,
LIVE LOAD = 20psf, L/Δ=240) DEAD LOAD = 10psf)

***IF HABITABLE ATTIC SPACE IS DESIRED,
REFER TO THE INTERNATIONAL RESIDENTIAL CODE, SPAN TABLES.***

SIZE	SPACING (INCHES)	VISUALLY GRADED #2 SOUTHERN PINE (MAXIMUM CEILING JOIST SPANS) (FT. - IN.)
2 × 4	12.0	9-5
	16.0	8-0
	19.2	7-4
	24.0	6-7
2 × 6	12.0	13-11
	16.0	12-0
	19.2	11-0
	24.0	9-10
2 × 8	12.0	17-7
	16.0	15-3
	19.2	13-11
	24.0	12-6
2 × 10	12.0	20-11
	16.0	18-1
	19.2	16-6
	24.0	14-9

NOTES:
The above tables are based on the IRC 2018 TABLE R802.5.1(2)

RAFTER SPANS

RAFTER SPANS FOR SOUTHERN PINE SPECIES
LIVE LOAD=30psf , L/Δ=180 DEAD LOAD = 10psf

SIZE	SPACING (INCHES)	SPANS (MAXIMUM RAFTER SPANS BETWEEN BRACING) (FT. - IN.)
2 × 6	12.0	12-11
	16.0	11-2
	19.2	10-2
	24.0	9-2
2 × 8	12.0	16-4
	16.0	14-2
	19.2	12-11
	24.0	11-7
2 × 10	12.0	19-5
	16.0	16-10
	19.2	15-4
	24.0	13-9
2 × 12	12.0	22-10
	16.0	19-10
	19.2	18-1
	24.0	16-2

NOTES:
The above tables are based on the IRC 2018 TABLE R802.4.1(3)

HIP/ VALLEY CONVERSION

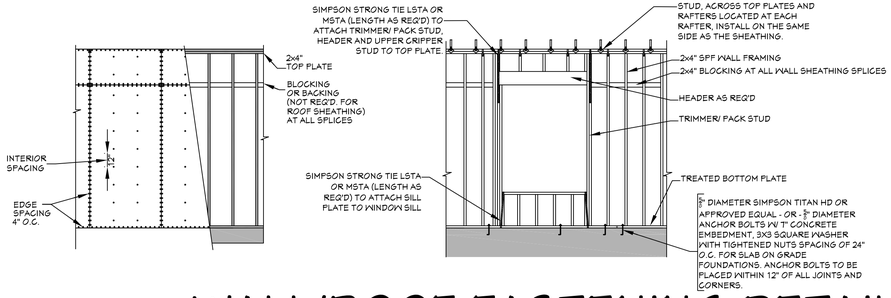
IF COMMON RAFTER ROOF PITCH IS...			THEN HIP/ VALLEY RAFTER ROOF PITCH BECOMES...	
RISE/ RUN	SLOPE		RISE/ RUN	SLOPE
1/12	5°		1/17	3°
2/12	10°		2/17	7°
3/12	14°		3/17	10°
4/12	18°		4/17	13°
5/12	23°		5/17	16°
6/12	27°		6/17	19°
7/12	30°		7/17	22°
8/12	34°		8/17	25°
9/12	37°		9/17	28°
10/12	40°		10/17	30°
11/12	42°		11/17	33°
12/12	45°		12/17	35°

CONVERSION CHART FOR SIMPLE ROOFS ONLY.
CHART DOES NOT AFFLY FOR DUAL PITCH ROOFS.

RAFTER LENGTH CHART

ROOF PITCH		FACTOR
3/12		1.05
4/12		1.07
5/12		1.10
6/12		1.14
7/12		1.17
8/12		1.20
9/12		1.25
10/12		1.30
11/12		1.35
12/12		1.40
14/12		1.54
16/12		1.70

MULTIPLY HORIZONTAL SPAN OF MEMBER BY FACTOR.
CHOOSE APPROPRIATE FACTOR BY ROOF PITCH.



NAIL SIZE SPACING FOR WALL SHEATHING
8d NAILS MIN. OF 7/16" O.S.B. EDGE SPACING = 4" O.C. INTERIOR SPACING = 12" O.C.

NAIL SIZE SPACING FOR ROOF SHEATHING
8d NAILS MIN. OF 7/16" O.S.B. EDGE SPACING = 4" O.C. INTERIOR SPACING = 4" O.C.

NOTES:
1. ALL EXTERIOR SHEATHING TO EXTEND FROM BOTTOM OF BOTTOM PLATE TO THE TOP OF THE TOP PLATES.
2. PROVIDE 2X4 OR GREATER COLLAR TIES ON EACH RAFTER IN THE UPPER THIRD OF ATTIC AND ATTACHED TO RAFTERS WITH 5 - 10d NAILS ON EACH SIDE
3. SHINGLES OR OTHER ROOF MATERIALS TO BE FASTENED AS PER MANUFACTURERS INSTRUCTIONS FOR HIGH WIND APPLICATIONS.
4. EXTERIOR WALL FINISHES TO BE INSTALLED AS PER MANUFACTURERS INSTRUCTIONS BASED ON HIGH WIND APPLICATIONS.

ROOF PLAN NOTES:

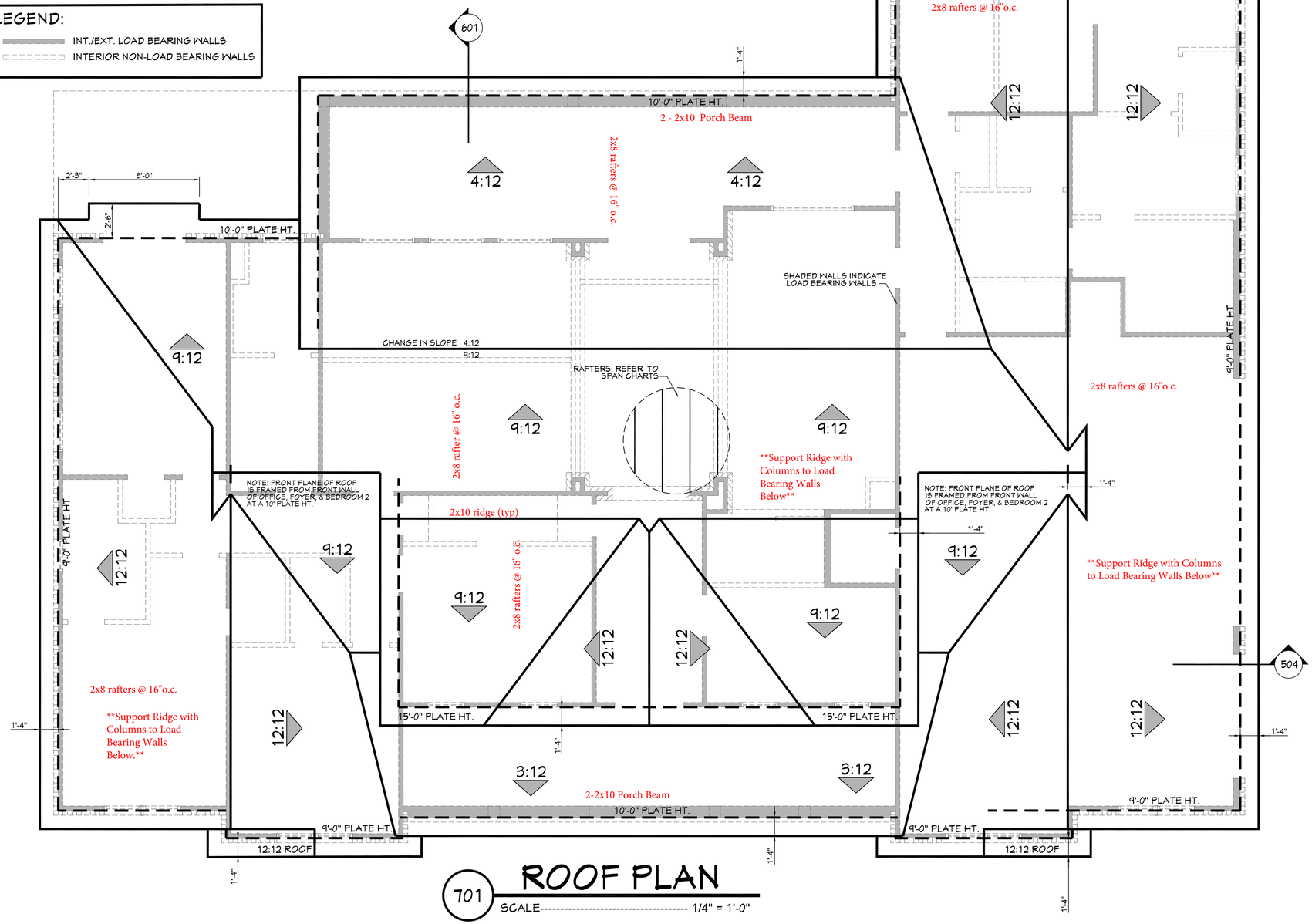
1. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AT SITE.
2. ALL RIDGE BEAMS, HIP RAFTERS, & VALLEY RAFTERS TO BE 2" X 10", No.2 S.Y.P. OR AS REQ'D BY ENGINEER.
3. ALL RAFTERS TO BE SIZED AS PER SPAN CHART.
4. CONTRACTOR TO WATERPROOF ALL ROOF INTERSECTIONS AS PER CODE.
5. CONTRACTOR TO VERIFY ALL ROOF PITCHES WITH EXTERIOR ELEVATIONS PRIOR TO CONSTRUCTION.
6. CONTRACTOR TO PROVIDE ADEQUATE ROOF VENTILATION AS REQ'D BY CURRENT CODES.

702 WALL/ROOF FASTENING DETAILS

SCALE---------- 1/4" = 1'-0"

LEGEND:

INT./EXT. LOAD BEARING WALLS
INTERIOR NON-LOAD BEARING WALLS



701 ROOF PLAN

SCALE---------- 1/4" = 1'-0"

HOUSE PLAN ZONE
Designing Homes Building Relationships

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www.HPZplans.com
Email:
sales@hpzplans.com
Phone:
601.336.3254
Fax:
1.800.574.1387

N·C·B·D·C
NATIONAL COUNCIL OF BUILDING DESIGNER CERTIFICATION
JONATHAN L. BOONE
CERTIFICATION NO. 25-137

Pre-Drawn Plan ID:
BB-3086

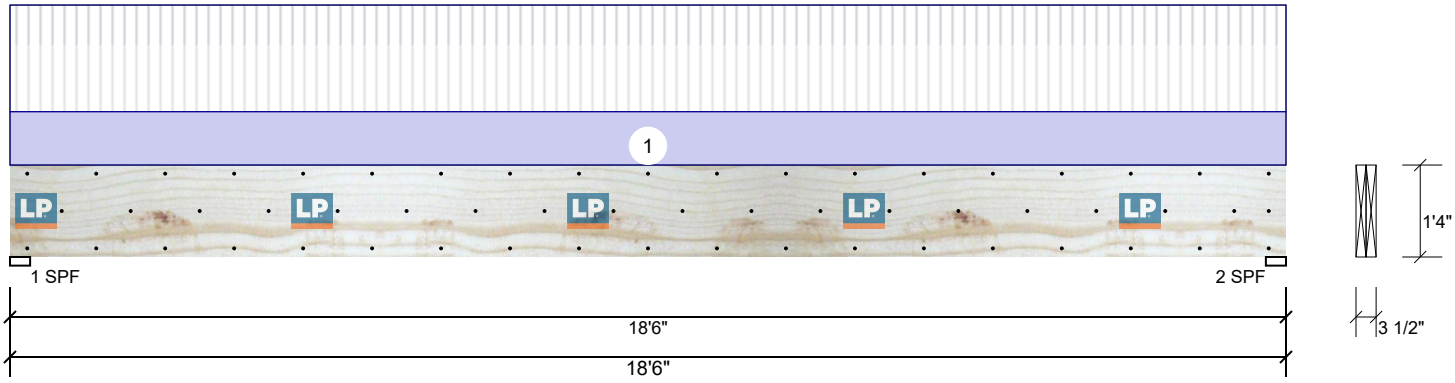
Date:
09/24/19
Drawn By:
J.A.B.

SHEET NUMBER
1

Client:		Date:	5/19/2022
Project:		Input by:	
Address:		Job Name:	Prevette
		Project #:	

B1 Dining Rm to Kitchen LP-LVL 2900Fb-2.0E 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2590	1443	0	0	0
2	Vertical	2590	1443	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	77%	1443 / 2590	4033	L	D+L
2 - SPF	3.500"	Vert	77%	1443 / 2590	4033	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	17782 ft-lb	9'3"	34636 ft-lb	0.513 (51%)	D+L	L
Shear	3346 lb	1'7 1/2"	10640 lb	0.314 (31%)	D+L	L
LL Defl inch	0.304 (L/713)	9'3 1/16"	0.452 (L/480)	0.674 (67%)	L	L
TL Defl inch	0.474 (L/458)	9'3 1/16"	0.903 (L/240)	0.524 (52%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Dead Load Deflection: Instant = 0.169", Long Term = 0.254".
3. Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
4. Refer to last page of calculations for fasteners required for specified loads.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all plies.
7. Top must be laterally braced at a maximum of 8'1 3/8" o.c.
8. Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	140 PLF	280 PLF	0 PLF	0 PLF	0 PLF	Roof/Ceiling Load
	Self Weight				16 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

This design is valid until 11/3/2024

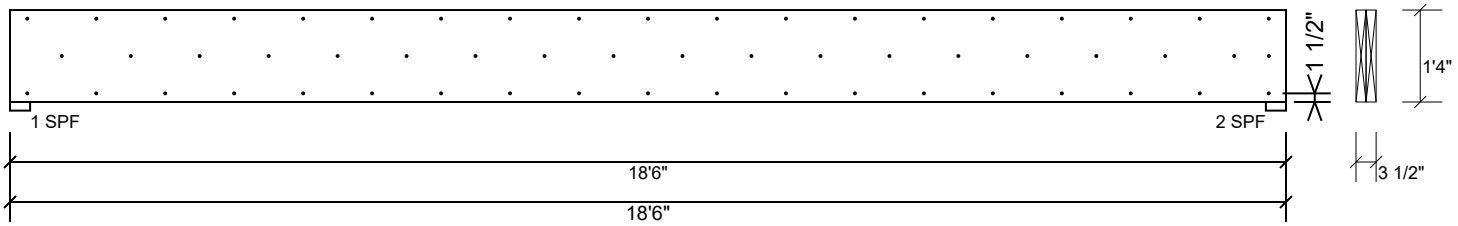
Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

B1 Dining Rm to Kitchen LP-LVL 2900Fb-2.0E 1.750" X 16.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c.. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	278.2 PLF
Yield Limit per Fastener	92.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

This design is valid until 11/3/2024

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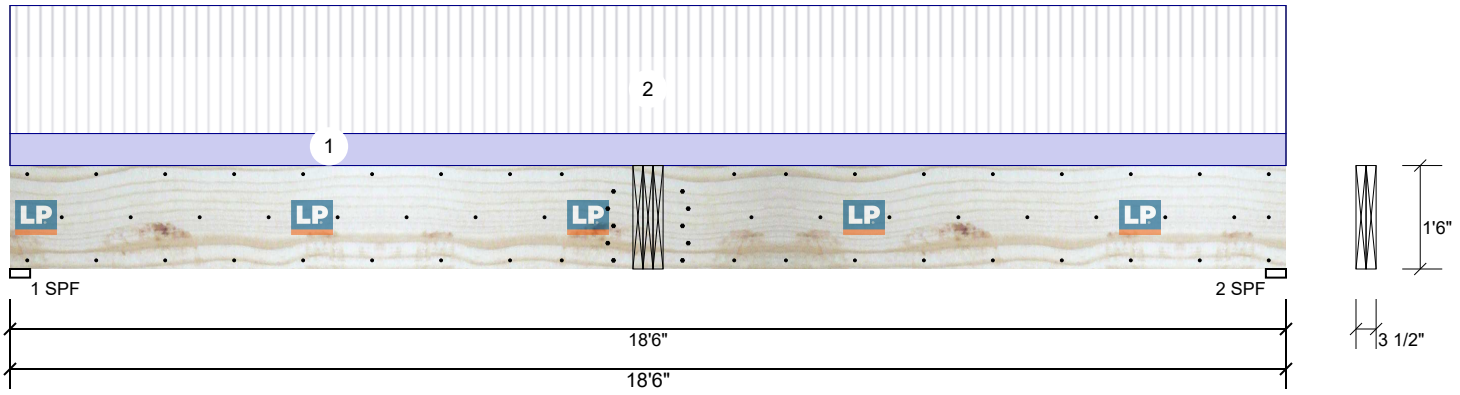
BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

Client:		Date:	5/19/2022
Project:		Input by:	
Address:		Job Name:	Prevette
		Project #:	

B2 Dining To Great Room LP-LVL 2900Fb-2.0E 1.750" X 18.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2365	1955	0	0	0
2	Vertical	2365	1955	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	83%	1955 / 2365	4320	L	D+L
2 - SPF	3.500"	Vert	83%	1955 / 2365	4320	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	36108 ft-lb	9'3"	43105 ft-lb	0.838 (84%)	D+L	L
Shear	4225 lb	1'9 1/2"	11970 lb	0.353 (35%)	D+L	L
LL Defl inch	0.313 (L/693)	9'3 1/16"	0.452 (L/480)	0.693 (69%)	L	L
TL Defl inch	0.574 (L/377)	9'3 1/16"	0.903 (L/240)	0.636 (64%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Dead Load Deflection: Instant = 0.261", Long Term = 0.392".
3 Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
4 Refer to last page of calculations for fasteners required for specified loads.
5 Concentrated load fastener specification is in addition to hanger fasteners if a hanger is present.
6 Simpson fasteners applied from a single side of the member use tip values where published.
7 Girders are designed to be supported on the bottom edge only.
8 Top loads must be supported equally by all plies.
9 Top must be laterally braced at a maximum of 3'11 7/16" o.c.
10 Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform		1-0-0	Top	10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	
2	Point	9-3-0		Near Face	3392 lb	3990 lb	0 lb	0 lb	0 lb	B3 Great Room Beam Brg 1
	Self Weight				18 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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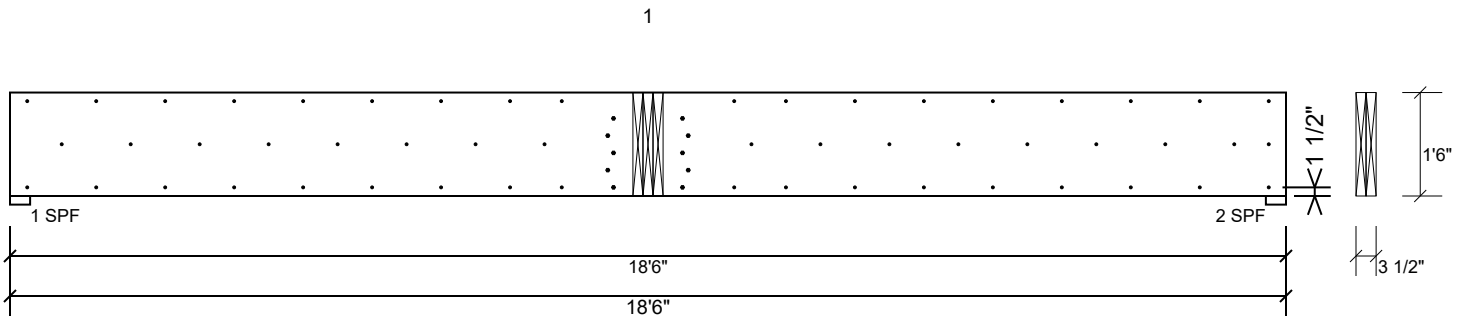
BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

B2 Dining To Great Room LP-LVL 2900Fb-2.0E 1.750" X 18.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c.. except for regions covered by concentrated load fastening. Maximum end distance not to exceed 6". Clinch Nails where possible.

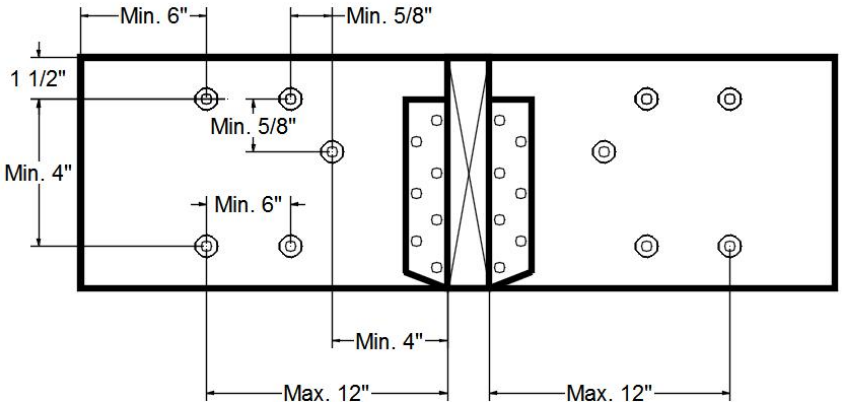
Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	278.2 PLF
Yield Limit per Fastener	92.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Concentrated Load

Fasten at concentrated side load at 9-3-0 with a minimum of (10) – SDW22338 in the pattern shown. All fasteners shall be installed with the head on the side of the applied load.

Capacity	92.3 %
Load	3691.0lb.
Total Yield Limit	4000.0 lb.
Cg	1.0000
Yield Limit per Fastener	400.0 lb.
Yield Mode	Lookup
Load Combination	D+L
Duration Factor	1.00

Min/Max fastener distances for Concentrated Side Loads



Notes

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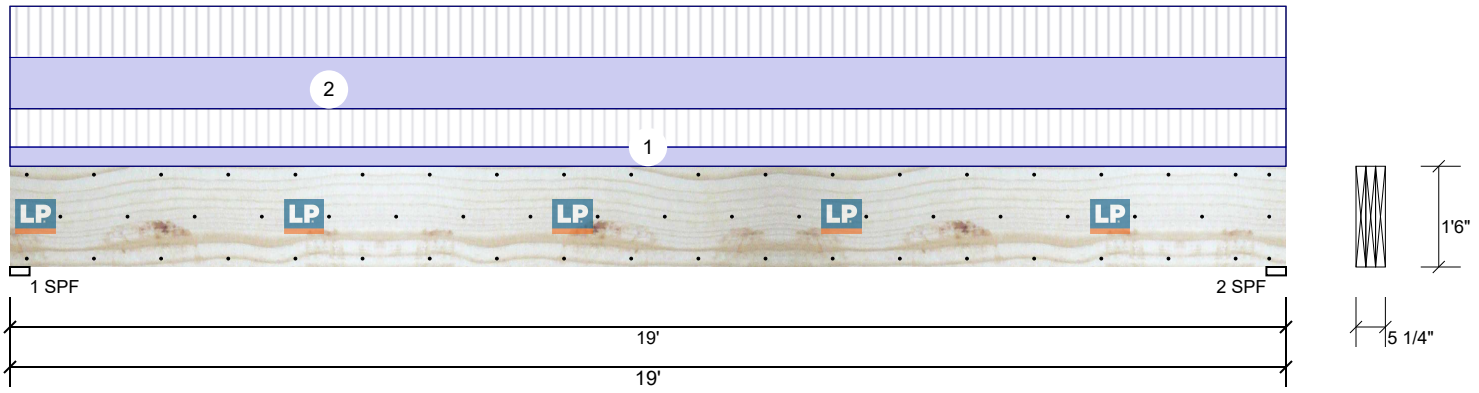
BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

B3 Great Room Beam LP-LVL 2900Fb-2.0E 1.750" X 18.000" 3-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	3990	3392	0	0	0
2	Vertical	3990	3392	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	95%	3392 / 3990	7382	L	D+L
2 - SPF	3.500"	Vert	95%	3392 / 3990	7382	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	33468 ft-lb	9'6"	67243 ft-lb	0.498 (50%)	D+L	L
Shear	6030 lb	1'9 1/2"	17955 lb	0.336 (34%)	D+L	L
LL Defl inch	0.242 (L/921)	9'6 1/16"	0.464 (L/480)	0.521 (52%)	L	L
TL Defl inch	0.448 (L/498)	9'6 1/16"	0.928 (L/240)	0.482 (48%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Dead Load Deflection: Instant = 0.206", Long Term = 0.308".
3. Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
4. Refer to last page of calculations for fasteners required for specified loads.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all plies.
7. Top must be laterally braced at a maximum of 7'3 7/8" o.c.
8. Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	90 PLF	180 PLF	0 PLF	0 PLF	0 PLF	Ceiling Joists
2	Uniform			Top	240 PLF	240 PLF	0 PLF	0 PLF	0 PLF	Roof Load
	Self Weight				27 PLF					

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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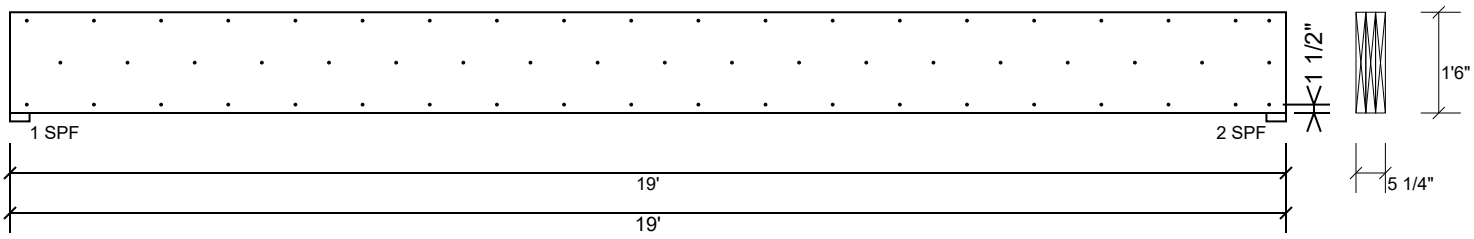
312 E. Main Street, North Carolina 28127
704-888-4411

B3 Great Room Beam LP-LVL 2900Fb-2.0E 1.750" X 18.000" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	278.2 PLF
Yield Limit per Fastener	92.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

This component analysis is based on the loads, geometry and other conditions as entered by the user and listed in this report. The user is responsible to ensure the accuracy of the input and the applicability to the actual conditions of the structure for which this component is intended. This analysis is valid only for the product listed.

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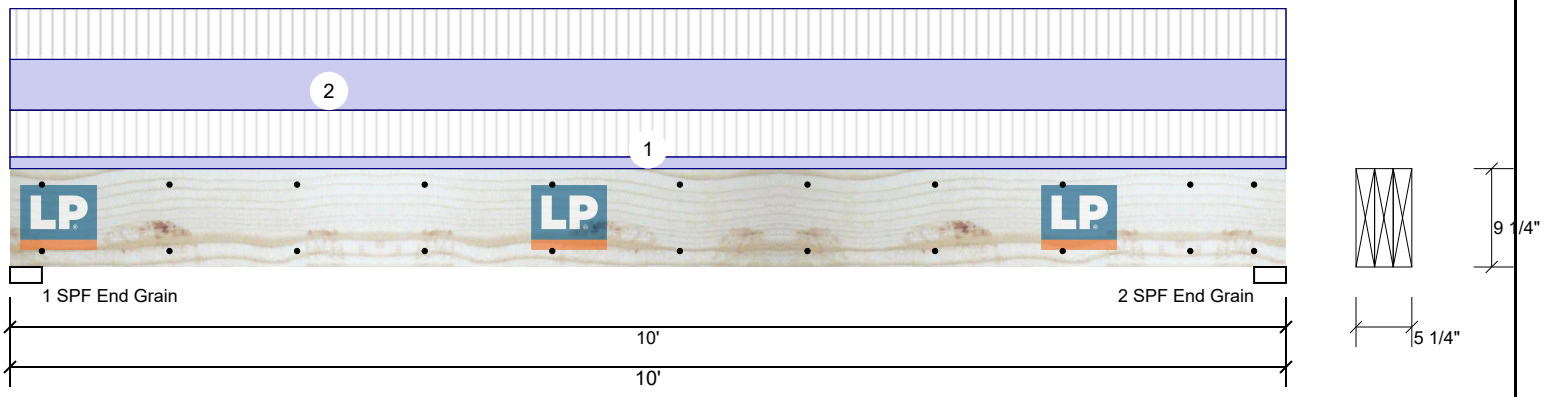
BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

9' Garage Door Header LP-LVL 2900Fb-2.0E 1.750" X 9.250" 3-Ply - PASSED

Level: Level



Member Information

Type:	Header	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Header Supports Glass:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	2500	1669	0	0	0
2	Vertical	2500	1669	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	35%	1669 / 2500	4169	L	D+L
2 - SPF End Grain	3.000"	Vert	35%	1669 / 2500	4169	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	9657 ft-lb	5'	19369 ft-lb	0.499 (50%)	D+L	L
Shear	3329 lb	8'11 3/4"	9227 lb	0.361 (36%)	D+L	L
LL Defl inch	0.153 (L/754)	5'	0.241 (L/480)	0.636 (64%)	L	L
TL Defl inch	0.255 (L/452)	5'	0.481 (L/240)	0.531 (53%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Dead Load Deflection: Instant = 0.102", Long Term = 0.153".
3. Fasten all plies using 2 rows of 12d Box nails (.128x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
4. Refer to last page of calculations for fasteners required for specified loads.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all plies.
7. Top must be laterally braced at end bearings.
8. Bottom must be laterally braced at end bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	60 PLF	240 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	260 PLF	260 PLF	0 PLF	0 PLF	0 PLF	Roof/Ceiling Load
	Self Weight				14 PLF					

Notes

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This design is valid until 11/3/2024

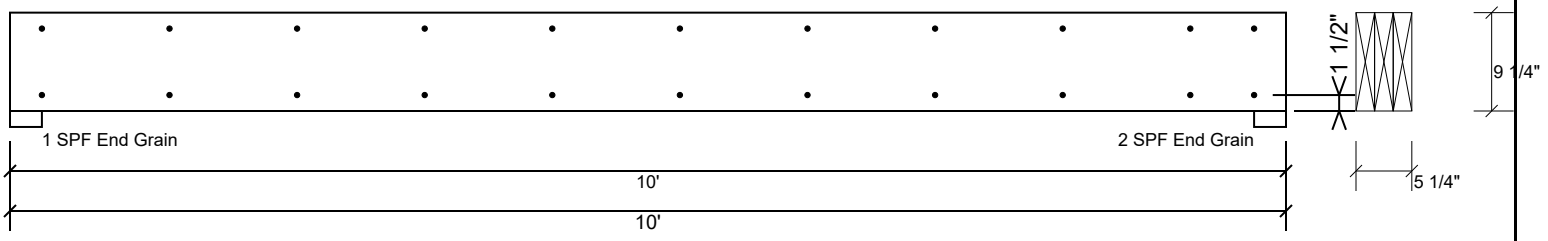
Manufacturer Info

Louisiana-Pacific Corp
414 Union Street, Suite 2000
Nashville, TN 37219
(888) 820-0325
www.lpcorp.com
APA: PR-L280, ICC-ES: ESR-2403, LADBS: RR-25783, Florida: FL15228

BFS/Locust Lumber Company
312 E. Main Street, North Carolina 28127
704-888-4411

9' Garage Door Header LP-LVL 2900Fb-2.0E 1.750" X 9.250" 3-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 12d Box nails (.128x3.25") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	185.4 PLF
Yield Limit per Fastener	92.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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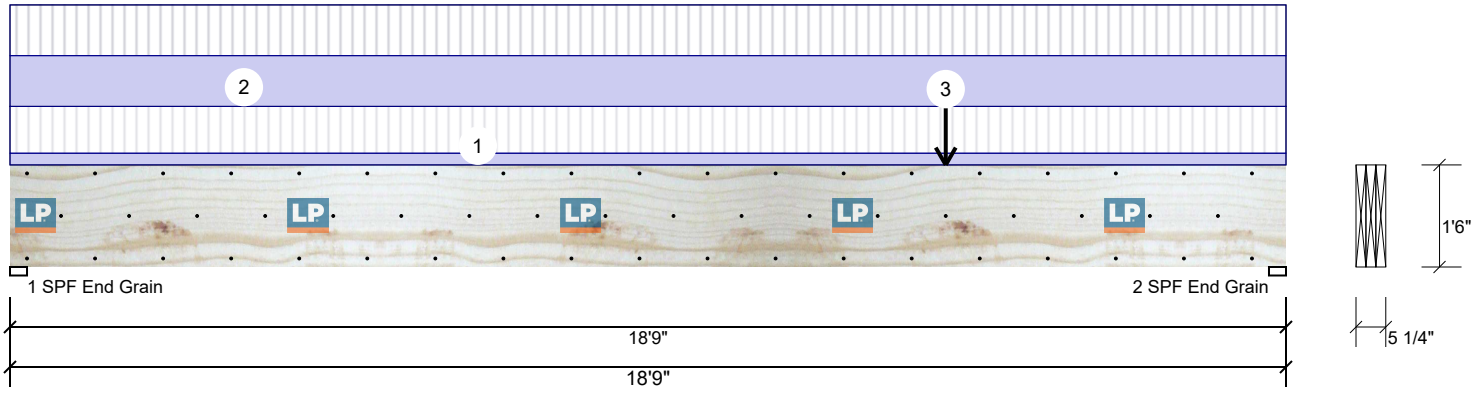
BFS/Locust Lumber Company
312 E. Main Street, North Carolina
28127
704-888-4411

Client:		Date:	5/19/2022
Project:		Input by:	
Address:		Job Name:	Prevette
		Project #:	

18' Garage Door Header LP-LVL 2900Fb-2.0E 1.750" X 18.000" 3-Ply - PASSED Level: Level



Member Information

Type:	Header	Application:	Floor
Plies:	3	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	Yes
Deflection TL:	240	Header Supports Glass:	No
Importance:	Normal - II	Deck:	Not Checked
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	4819	3385	0	0	0
2	Vertical	5056	3622	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	Vert	69%	3385 / 4819	8203	L	D+L
2 - SPF End Grain	3.000"	Vert	73%	3622 / 5056	8679	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	38282 ft-lb	9'8 3/16"	67243 ft-lb	0.569 (57%)	D+L	L
Shear	7237 lb	17'	17955 lb	0.403 (40%)	D+L	L
LL Defl inch	0.295 (L/747)	9'5 3/8"	0.460 (L/480)	0.642 (64%)	L	L
TL Defl inch	0.506 (L/436)	9'5 9/16"	0.920 (L/240)	0.550 (55%)	D+L	L

Design Notes

1. Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2. Dead Load Deflection: Instant = 0.210", Long Term = 0.315".
3. Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c. Maximum end distance not to exceed 6". Clinch Nails where possible.
4. Refer to last page of calculations for fasteners required for specified loads.
5. Girders are designed to be supported on the bottom edge only.
6. Top loads must be supported equally by all plies.
7. Top must be continuously laterally braced.
8. Bottom must be laterally braced at bearings.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	60 PLF	240 PLF	0 PLF	0 PLF	0 PLF	Floor Load
2	Uniform			Top	260 PLF	260 PLF	0 PLF	0 PLF	0 PLF	Roof Load
3	Point	13-9-0		Top	500 lb	500 lb	0 lb	0 lb	0 lb	Point Load
	Bearing Length	0-3-8								
	Self Weight				27 PLF					

Notes

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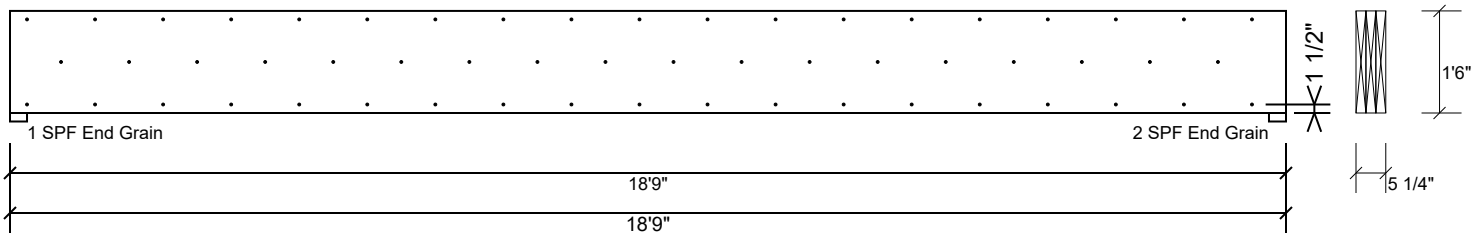
18' Garage Door Header LP-LVL 2900Fb-2.0E 1.750" X 18.000" 3-Ply - PASSED Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 12d Box nails (.128x3.25") at 12" o.c.. Nail from both sides. Maximum end distance not to exceed 6". Clinch Nails where possible.

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	278.2 PLF
Yield Limit per Fastener	92.7 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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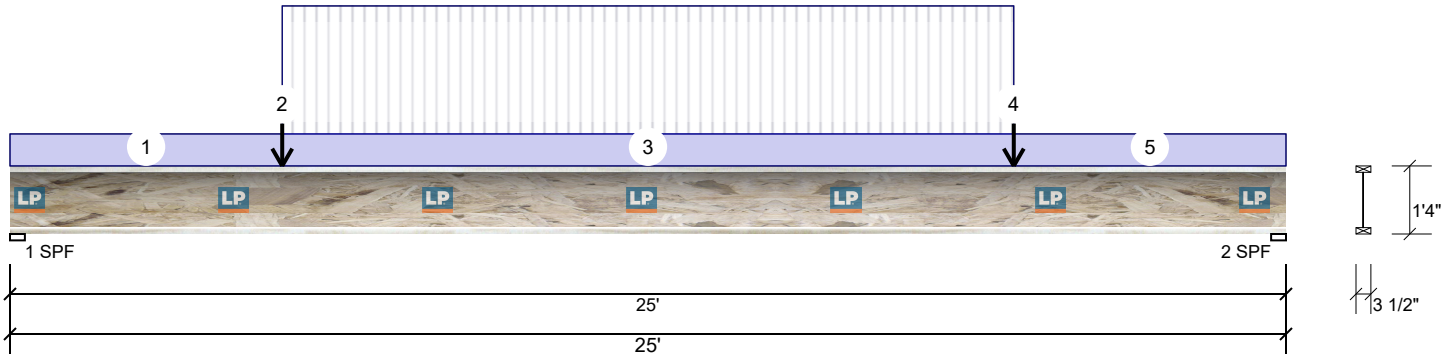
28127
704-888-4411

Client:		Date:	5/19/2022
Project:		Input by:	
Address:		Job Name:	Prevette
		Project #:	

Joists over Garage LPI 42 Plus 16.000" - PASSED

Level: Level



Member Information

Type:	Joist	Application:	Floor
Spacing:	16" o.c.	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	240	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions PATTERNED lb (Uplift)

Brg	Direction	Live	Dead	Snow	Wind	Const
1	Vertical	507	229	0	0	0
2	Vertical	507	229	0	0	0

Bearings

Bearing	Length	Dir.	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	Vert	48%	229 / 507	736	L	D+L
2 - SPF	3.500"	Vert	48%	229 / 507	736	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5281 ft-lb	12'6"	9725 ft-lb	0.543 (54%)	D+L	L
Shear	733 lb	24'9 1/4"	2115 lb	0.347 (35%)	D+L	L
LL Defl inch	0.436 (L/676)	12'6 1/16"	0.614 (L/480)	0.710 (71%)	L	L
TL Defl inch	0.586 (L/502)	12'6 1/16"	1.227 (L/240)	0.478 (48%)	D+L	L

Design Notes

1 Provide support to prevent lateral movement and rotation at the end bearings. Lateral support may also be required at the interior bearings by the building code.
2 Dead Load Deflection: Instant = 0.151", Long Term = 0.226".
3 Top flange must be laterally braced at a maximum of 8'1" o.c.
4 Bottom flange must be laterally braced at bearings.

ID	Load Type	Location	Trib Width	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 5-4-0		10 PSF	0 PSF	0 PSF	0 PSF	0 PSF	Ceiling Load
2	Point	5-4-0		63 lb	125 lb	0 lb	0 lb	0 lb	Kneewall Load
	Bearing Length	0-3-0							
3	Part. Uniform	5-4-0 to 19-8-0		10 PSF	40 PSF	0 PSF	0 PSF	0 PSF	Floor Load
4	Point	19-8-0		63 lb	125 lb	0 lb	0 lb	0 lb	Kneewall Load
	Bearing Length	0-3-0							
5	Part. Uniform	19-8-0 to 25-0-0		10 PSF	0 PSF	0 PSF	0 PSF	0 PSF	Ceiling Load

Notes

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