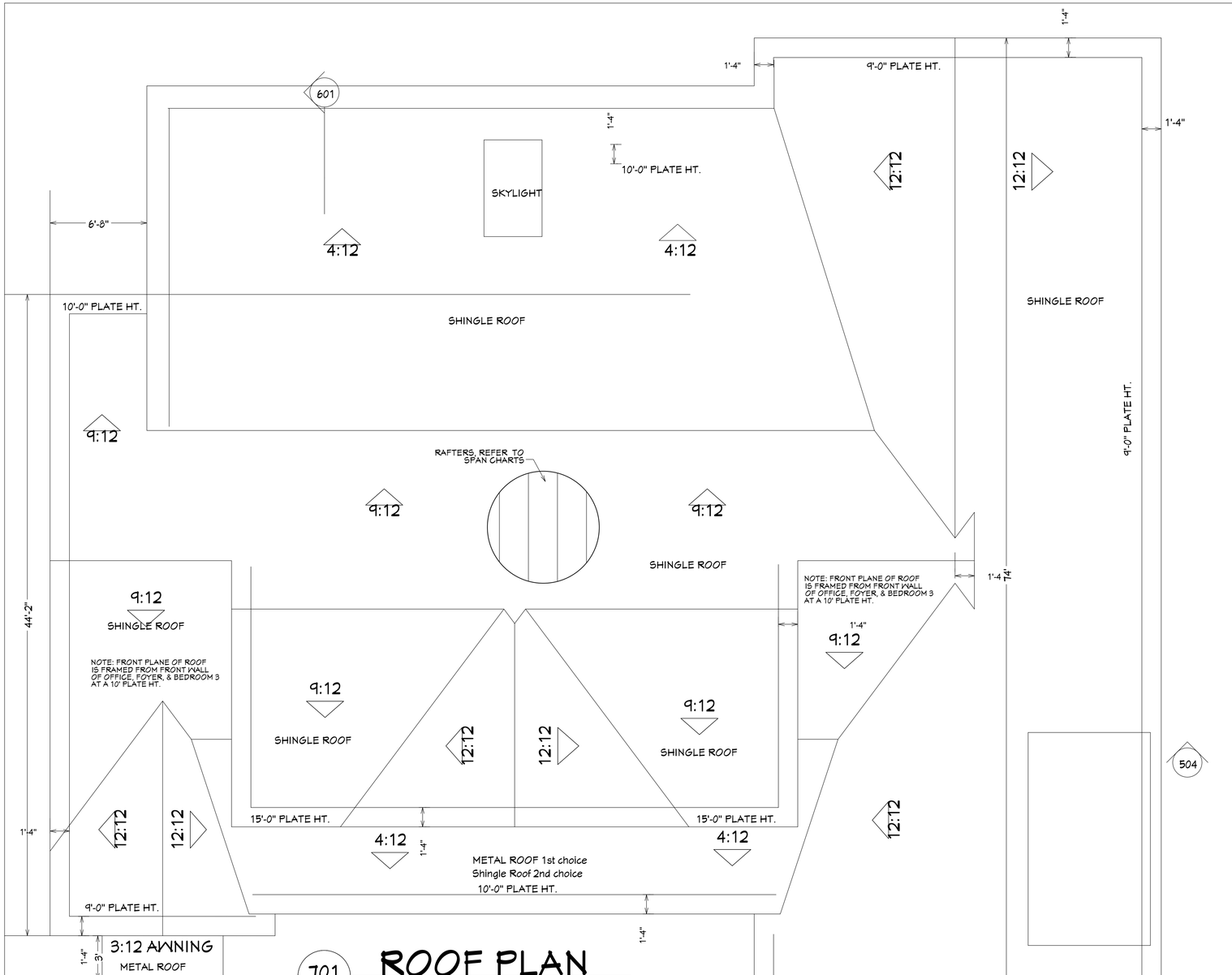


701 **ROOF PLAN**

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

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.

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

MULTIPY HORIZONTAL SPAN OF MEMBER BY FACTOR. CHOOSE APFROPRIATE FACTOR BY ROOF PITCH.

CEILING JOIST SPANS

CEILING JOIST SPANS FOR SOUTHERN PINE SPECIES
(UNINHABITABLE ATTICS WITH LIMITED STORAGE,
LIVE LOAD = 20psf, L/△=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 x 4	12.0	9-3
	16.0	8-0
	19.2	7-4
	24.0	6-7
2 x 6	12.0	13-11
	16.0	12-0
	19.2	11-0
	24.0	9-10
2 x 8	12.0	17-7
	16.0	15-3
	19.2	13-11
	24.0	12-6
2 x 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)

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%%D		1/17	3%%D
2/12	10%%D		2/17	7%%D
3/12	14%%D		3/17	10%%D
4/12	18%%D		4/17	13%%D
5/12	23%%D		5/17	16%%D
6/12	27%%D		6/17	19%%D
7/12	30%%D		7/17	22%%D
8/12	34%%D		8/17	25%%D
9/12	37%%D		9/17	28%%D
10/12	40%%D		10/17	30%%D
11/12	42%%D		11/17	33%%D
12/12	45%%D		12/17	35%%D

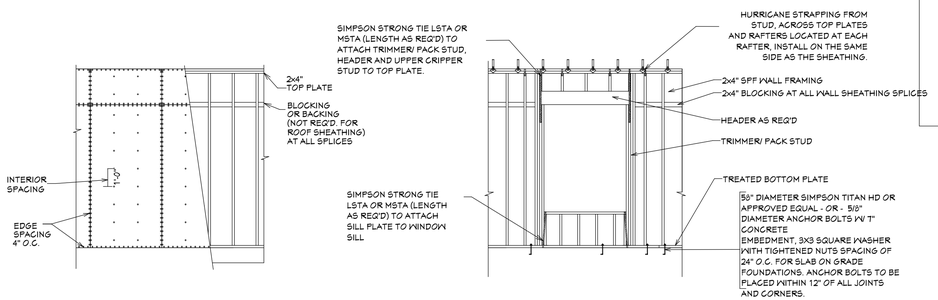
CONVERSION CHART FOR SIMPLE ROOFS ONLY. CHART DOES NOT APPLY FOR DUAL PITCH ROOFS.

RAFTER SPANS

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

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



3:12 AWNING
METAL ROOF

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.

702 **WALL/ROOF FASTENING DETAILS**

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

HOUSEPLANZONE
Designing Homes
Building Relationships

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

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NATIONAL COUNCIL OF BUILDING DESIGNER CERTIFICATION
JONATHAN L. BOONE
CERTIFICATION NO. 25-137

House Plan Zone, LLC. has exercised great care and effort in the development of these plans and the completion of these construction documents. However, due to the great variance in building codes and site specific conditions, House Plan Zone, LLC. assumes no responsibility for any damages, including structural failures resulting from errors, omissions or deficiencies in the design. In addition to your local building officials prior to construction. Additional engineering may be required to comply to seismic, wind and other special conditions required by your local building codes. Any structural or framing details, or foundation plan has been included in these plans, it is general in nature and shall be verified by a licensed engineer prior to construction.

Pre-Drawn Plan ID:
BB-2553-3C-YC

Date: 03/19/2023

Drawn By: J.A.B.

SHEET NUMBER
7