Schafer Engineering LLC

14705 Main St. Alachua FL 32615

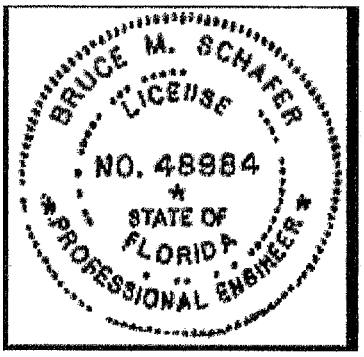
Prepared for:

JOHN NORRIS CONSTRUCTION
BISHOP AND HADORN RESIDENCE
PARCEL: 34-6S-16-04063-013
COLUMBIA COUNTY, FL

By:

Schafer Engineering, LLC

386-462-1340



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Date: 2026.01.02 11:51:14 -05'00'

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SCHAFER ENGINEERING, LLC

7104 NW 42ND LANE \ GAINESVILLE FL. 32606
PHONE: 386-462-1340

Trusses Pre-engineered, pre-fabricated with the manufacturer's required bracing system installed

Roof Sheathing Type OSB Size 7/16" Fastener type nails 8d / 113 Ring Shank

Interior zone spacing Interior 6" Periphery 4"

Edge and end zone spacing Interior 6" Periphery 4"

Double Top Plate Type Spruce Grade #2 Size 2 x 4 Nail Size & Spacing. 10d min" @ 8 o c

Stud Type Spruce Grade #2 Size 2 x 4 min

Interior stud spacing 16" Exterior stud spacing 16"

Required Shear Wall Siding Type OSB Thickness 7/16"

44 ft Trans Fastener 8d/131 Spacing Int 8 Edge 4'

41 ft Long Fastener 8d/131 Spacing Int 8 Edge 4"

Allowable Unit Shear on Shear Walls 314 pounds per linear foot

Unit Shear Transferred from Diaphragm Trans 87 Long 85

Wall Tension Transferred by Siding Nails 8d/131 @ 4" O C Edges

Foundation Anchor Bolts Concrete Strength 3000 psi Size 1/2"

Washer 2" Embedment 7" Location of first anchor bolt from corner 8"

Anchor Bolts @ 48" o c Model A307 Loc from corner 8"

Type of Foundation (1) - #5 rebar continuous required in bond beam

Floor Slab 4" Cmu size 8" x 16" Height 48" Rein #5 at 72" o c

Monolithic Footing Depth 20" Bottom Width 12 Rein 2 #5 rebars

Stemwall Footing Width 20 Depth 10 Rein 2 #5 rebar

Interior Footings 20" Wide X 12" Deep with 2-#5 rebar continuous

Porch Columns 6 X 6 X 9 syp #2 pt @ 12'-1/4" o c max spacing Column Fasteners Simpson PC66 \ PBS66 or equal

Special Comments Install 2 ply 2 x 12 syp #2 with 7/16" osb flitch beam or equal over all doors and windows Install 2 ply 2 x 12 syp #2 with 7/16" osb flitch beam or equal over front porch with a max span of 9'-0

Install 2 ply 2 x 12 syp #2 with 7/16 osb flitch beam or equal over rear porch with a max span of 10'-0"

Install (2) ply 1 75" X 11 25" deep LVL for both 12'-1/4" rear porch headers

Notes

1 Balloon frame all gable ends unless accompanied by gable end detail
2 All walls to be nailed with same nailing pattern as the shear walls
3 This wind load is not valid without a raised, embossed seal (NO COPIES)
4 1500 psf soil bearing pressure minimum
5 Fiber mesh or WWM may be used in concrete slab All steel must be grade 40 min Install standard 10" ACI hook top and bottom
6 Trusses must be installed and anchored in accordance to the truss engineering
7 This is a windload only Not a structural analysis Schafer Engineering strongly recommends always having a structural analysis
8 The foundation is for minimum design use, and may be increased
9 Wind load is for one use only \ FBC-2023 \ No copies permitted
10 Install anchor bolts a 48" o c, & Simpson SP1 at bottom plate and Simpson SP2 at top plate or equal @ 32" O C for all interior bearing walls
11 Truss company to use all exterior porch walls for bearing when possible
12 If soil conditions in this project do not meet or exceed the min 1500 psf soil bearing capacity, the contractor is required to contact Schafer Engineering prior to the foundation pour for verification of the foundation design The soil is to be compacted to at least 95% of max dry density as determined by ASTM-1557 (modified proctor)

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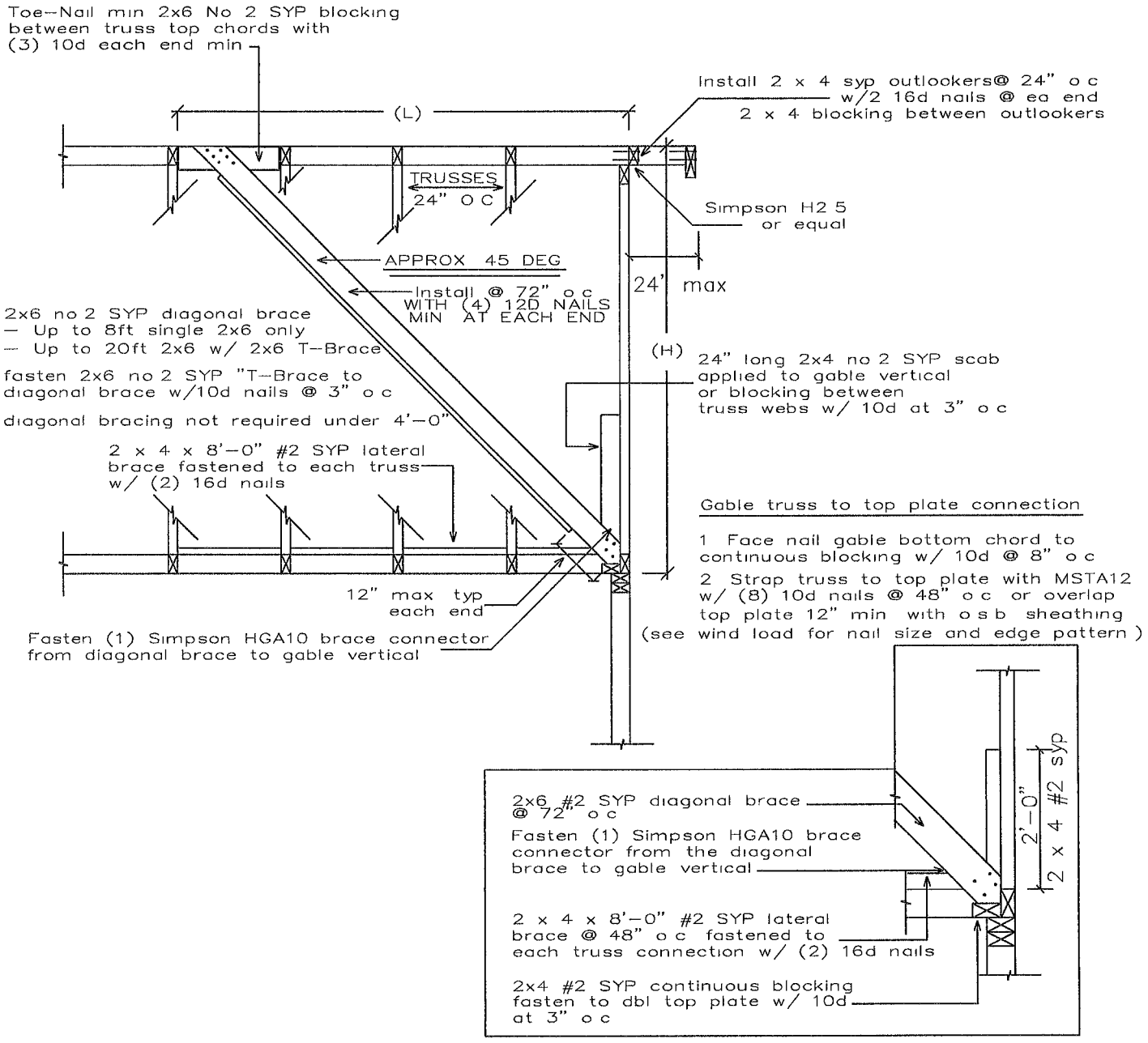

TYPICAL GABLE END BRACING

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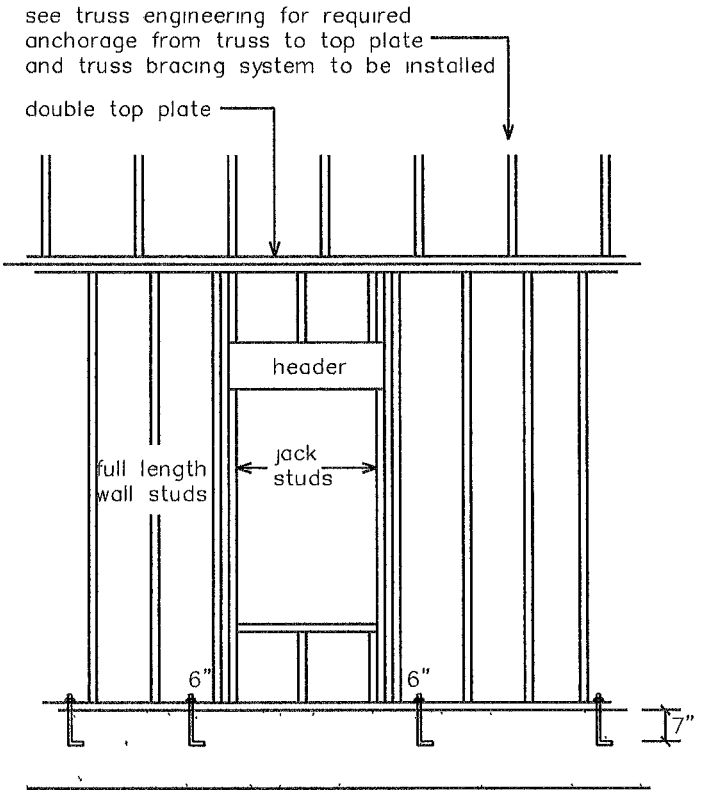

total each truss uplift on the header and divide
by two for the top and bottom header anchorages

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TIE-DOWN TABLES

HEADER STRAPPING				
Uplift Lbs	Top Connector	Rating Lbs	Bottom Connector	Rating Lbs
to 455	LSTA9	635	H3	320
to 910	LSTA12	795	2-H3	640
to 1265	LSTA18	1110	LTT19	1305
to 1750	2-LSTA12	1810	LTT20	1750
to 2530	2-LSTA18	2530	HD2A-2 5	2165
to 2865	3-LSTA18	3255	HD2A-3 5	2565
to 3700	3-LSTA24	3880	HD5A-3	3130
Total the uplift for each truss sitting on the header and divide by 2 to determine the uplift on the header Use proper bolt anchors sufficient to support required uplift loads				

TRUSSES \ GIRDERS			
Uplift Lbs	Top Connector	Bottom Connector	Rating Lbs
to 535	H2 5A	NA	
to 1015	H10A	NA	
to 1215	TS22	LTT19	1305
to 1750	2-TS22	LTT20	1750
to 2570	2-TS22	HD2A	2565
to 3665	3-TS22	HD5A	3645
to 5420	2-MST37	HTT22	5250
to 9660	2-MST60	HD10A	8160
Two 12d common toenials are required per truss for each bearing point into top plate It is the contractors responsibility to provide a continuous load path from truss to foundation			

	TOP CONNECTOR	RATING LBS	BOTTOM CONNECTOR	RATING LBS
BEAM SEATS	LSTA18	1110	LTT19	1305
POSTS	2-LSTA18	2220	ABU44	2200

1 Simpson or equivlent hardware may be used
For nailing into spruce members multiply table values by 86

2 See truss engineering for anchor uplift values

3 This schedule is not meant to be a replacement to the specified values of any manufactures values

User Input Data		
Structure Type	Building	
Basic Wind Speed (V)	135	mph
Structural Category	II	
Exposure	B	
Struc Nat Frequency (n1)	1	Hz
Slope of Roof (Theta)	30.3	Deg
Type of Roof	Gabled	
Eave Height (Eht)	9.00	ft
Ridge Height (RHt)	17.20	ft
Mean Roof Height (Ht)	13.10	ft
Width Perp. to Wind (B)	62.30	ft
Width Parallel to Wind (L)	59.30	ft
Damping Ratio (beta)	0 01	

Red values should be changed only through "Main Menu"

Calculated Parameters	
Type of Structure	
Height/Least Horizontal Dim	0.22
Flexible Structure	No

Calculated Parameters		
Importance Factor	1	
Non-Hurricane, Hurricane (v=85-100 mph) & Alaska		
Table C6-4 Values		
Alpha =	7.000	
zg =	1200.000	
At =	0.143	
Bt =	0.840	
Am =	0.250	
Bm =	0.450	
Cc =	0.300	
l =	320.00	ft
Epsilon =	0.333	
Zmin =	30 00	ft

Gust Factor Category I: Rigid Structures - Simplified Method			
Gust1	For rigid structures (Nat Freq > 1 Hz) use 0.85	0.85	
Gust Factor Category II: Rigid Structures - Complete Analysis			
Zm	Zmin	30.00	ft
Izm	Cc * (33/z)^0.167	0.3048	
Lzm	l*(zm/33)^Epsilon	309.99	ft
Q	(1/(1+0.63*((B+Ht)/Lzm)^0.63))^0.5	0.8914	
Gust2	0.925*((1+1.7*Izm*3.4*Q)/(1+1.7*3 4*Izm))	0.8609	
Gust Factor Category III: Flexible or Dynamically Sensitive Structures			
Vhref	V*(5280/3600)	198.00	ft/s
Vzm	bm*(zm/33)^Am*Vhref	87.00	ft/s
NF1	NatFreq*Lzm/Vzm	3.56	Hz
Rn	(7.47*NF1)/(1+10.302*NF1)^1.667	0.0627	
Nh	4 6*NatFreq*Ht/Vzm	0.69	
Nb	4 6*NatFreq*B/Vzm	3.29	
Nd	15.4*NatFreq*Depth/Vzm	10.50	
Rh	1/Nh-(1/(2*Nh^2)*(1-Exp(-2*Nh)))	0.6624	
Rb	1/Nb-(1/(2*Nb^2)*(1-Exp(-2*Nb)))	0.2576	
Rd	1/Nd-(1/(2*Nd^2)*(1-Exp(-2*Nd)))	0.0907	
RR	((1/Beta)*Rn*Rh*Rb*(0 53+0.47*Rd))^0.5	0.7829	
gg	+(2*LN(3600*n1))^0.5+0.577/(2*LN(3600*n1))^0 5	4.19	
Gust3	0.925*((1+1.7*Izm*(3.4^2*Q^2+GG^2*RR^2)^0.5)/(1+1.7*3 4*Izm))	1.11	

Gust Factor Summary			
Main Wind-force resisting system:		**Components and Cladding:**	
Gust Factor Category:	I	Gust Factor Category:	I
Gust Factor (G)	0.86	Gust Factor (G)	0.86

a = 5.24 ==> 5.24 ft

Component	Width (ft)	Length (ft)	Area (ft^2)	Zone				
					Max	Min	Max	Min
	16	7	112.00	5	0.81	-1.03	26.67	-32.43
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0 00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
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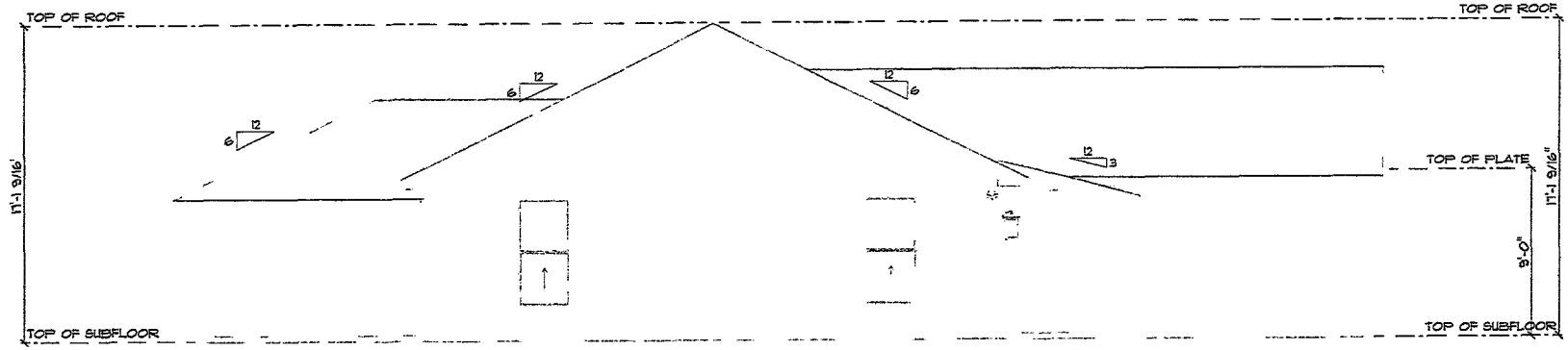
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0 00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					
	0	0	0.00					

Note: * Enter Zone 1 through 5, or 1H through 3H for overhangs.

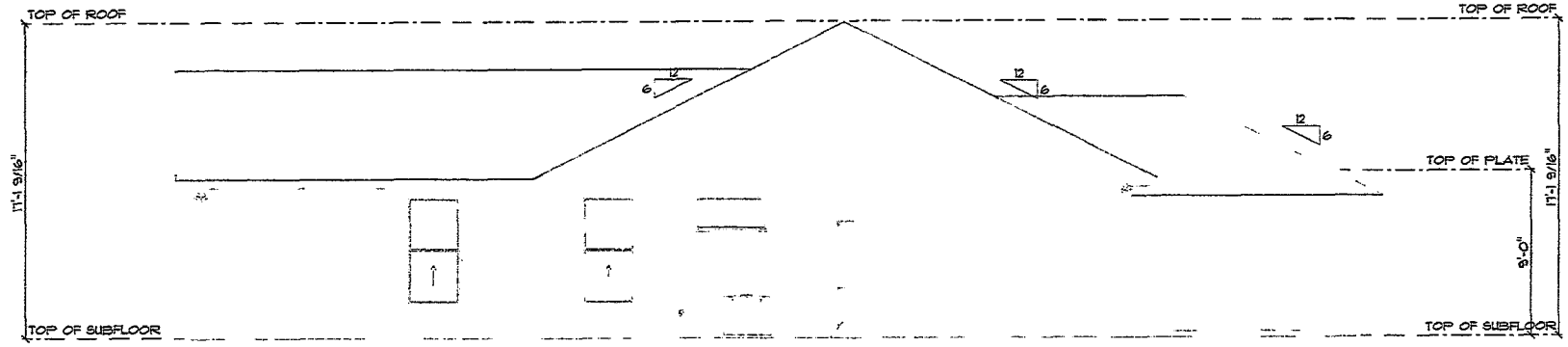
Table 6-7 Internal Pressure Coefficients for Buildings, Gcpi

Condition	Gcpi	
	Max +	Max -
Open Buildings	0.00	0.00
Partially Enclosed Buildings	0.55	-0.55
Enclosed Buildings	0.18	-0.18
Enclosed Buildings	**0.18**	**-0.18**



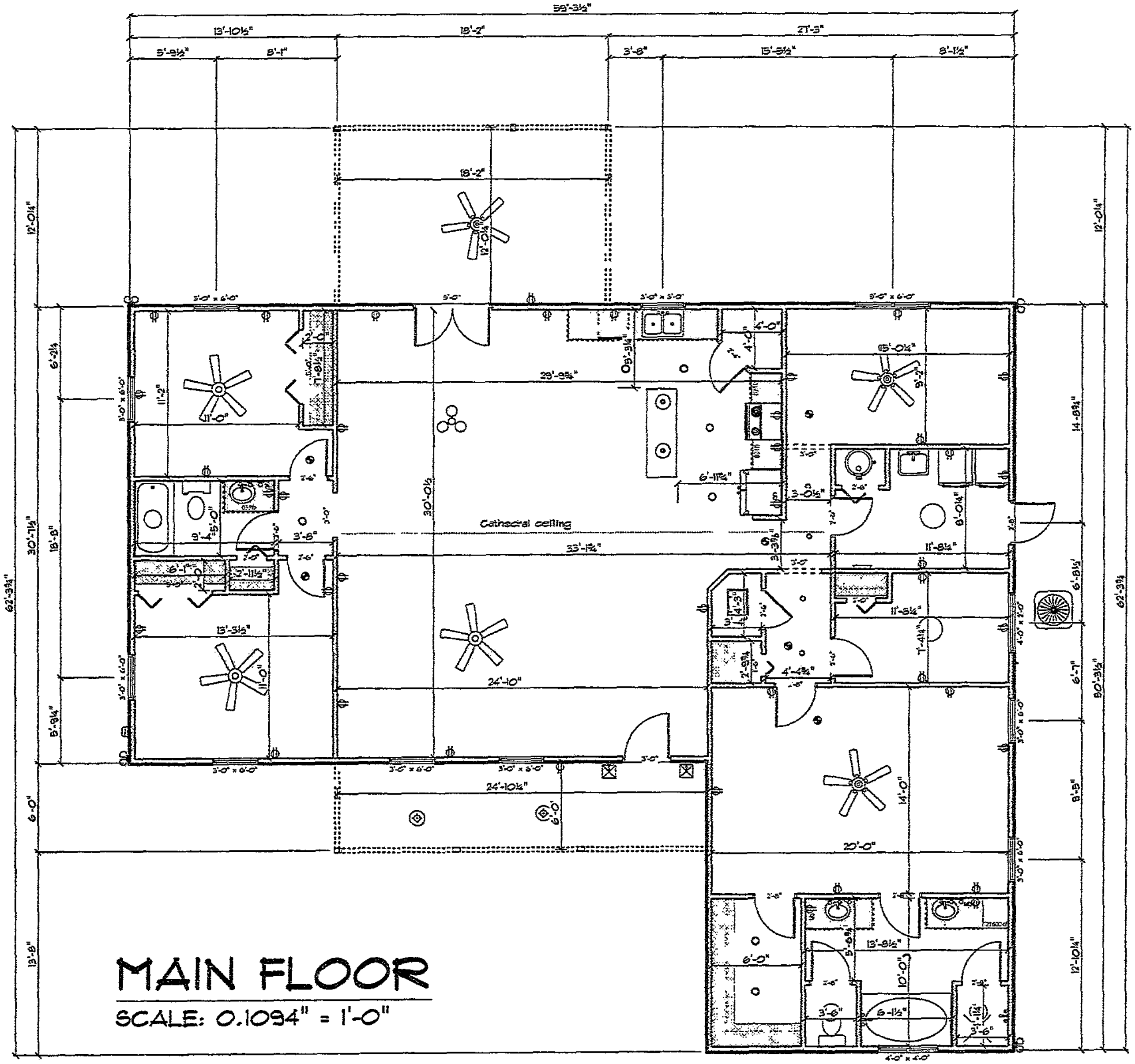
WEST ELEVATION

SCALE: 1/8" = 1'-0"



EAST ELEVATION

SCALE: 1/8" = 1'-0"



MAIN FLOOR

SCALE: 0.1094" = 1'-0"

ELECTRICAL LEGEND		
ELECTRICAL	COUNT	SYMBOL
[illegible] can w/ exhaust fan	3	
can light 4inch	4	
can light 6inch	8	
Pendant	2	
Ceiling Fan	6	
ceiling light 04	2	
ceiling light 06	1	
electrical panel	1	
Exterior ceiling Lights	2	
exterior craftsman light fixture	2	
outlet	36	
outlet - exterior	1	
outlet gfi	6	
smoke detector	5	
spotlight double	3	
vanity bar light 02	3	

AREA SCHEDULE	
NAME	AREA
Heated Area	2248 sq ft.
Covered Porch Area	395 sq ft.

Bishop and Hadorn Residence
Parcel: 24-6S-16-04063-013
Columbia County, FL