PAGE: OV

THE ENGINEER HAS SELECTED TRUSS FASTENERS AND OTHER CONNECTORS BASED UPON THE TRUSS COMPANY'S CALCULATED UPLIFTS AND REACTIONS.

2. THE ASSUMED SOIL BEARING CAPACITY = 2.0 K.S.F. 3. LIVE LOADS (TABLE R301.5):

ROOF & UNINHABITABLE ATTICS (LIMITED STORAGE) = 20 PSF HABITABLE ATTICS & ATTICS W/ FIXED STAIRS = 30 PSF STAIRS, BALCONIES, DECKS & ALL OTHER ROOMS = 40 PSF GUARDRAILS & HANDRAILS (SINGLE CONCENTRATED LOAD) = 200 LBS 4. DEAD LOADS

ROOF =10 PSF, ALL OTHER DEAD LOADS = ACTUAL WT. OF MATERIALS

RISK CATEGORY II (FBC-BUILDING TABLE 1604.5) BUILDING CATEGORY = "ENCLOSED"

SURFACE ROUGHNESS CATEGORY = "C" (FBCR SECTION R301.2.1.4.2 8. EXPOSURE CATEGORY = "C" (FBCR SECTION R301.2.1.4.3)

9. WIND SPEED-UP EFFECT = "N/A" (FBCR FIGURE R301.2.1.5.1(1) 10. SEISMIC DESIGN LOADS (ASCE7-10 & FBCR SECTION 301.2.2): IMPORTANCE FACTOR le= 1.00 (ASCE TABLE 1.5-2)

SITE CLASS = D (UNLESS DETERMINED BY SITE SPECIFIC STUDY) MAPPED ACCELERATION PARAMETERS: MCER SS = 6.3%g (0.2 SEC SPECTRAL RESPONSE ASCE FIGURE

MCER S1 = 4.3%g (1.0 SEC SPECTRAL RESPONSE ASCE FIGURE 22-2)

SITE COEFFICIENTS: Fa = 1.6 (ASCE TABLE 11.4-1)

Fv = 2.4 (ASCE TABLE 11.4-2) MAPPED ACCELERATION PARAMETERS ADJUSTED FOR SITE CLASS: MCER SMS = 10.0%g (0.2 SEC SPECTRAL RESPONSE ASCE EQN

MCER SM1 = 10.3%g (1.0 SEC SPECTRAL RESPONSE ASCE EQN 11.4-2)

DESIGN SPECTRAL ACCELERATION PARAMETERS: SDS =  $\frac{2}{3}$  SMS = 6.67%g (ASCE EQN 11.4-3)

 $SD1 = \frac{2}{3} SM1 = 6.87\%g (ASCE EQN 11.4-4)$ SEISMIC DESIGN CATEGORY BASED ON SDS = A (ASCE TABLE 11.6-1) SEISMIC DESIGN CATEGORY BASED ON SD1 = A (ASCE TABLE 11.6-2) NOTE: STRUCTURES ASSIGNED TO SEISMIC DESIGN CATEGORY A NEED ONLY COMPLY WITH THE REQUIREMENTS OF ASCE SECTION 1.4 GENERAL STRUCTURAL INTEGRITY. NONSTRUCTURAL COMPONENTS IN SEISMIC DESIGN CATEGORY A ARE EXEMPT FROM SEISMIC DESIGN REQUIREMENTS.

11. ALL OPENINGS IN EXTERIOR WALLS SHALL COMPLY WITH DESIGN PRESSURES DESCRIBED IN ICC600-2014 TABLE 802(1) PAGE NUMBER

12. ALUMINUM STRUCTURE DESIGN TO BE IN ACCORDANCE WITH FBCR SECTION R301.2.1.1.1.1

13. SUNROOM DESIGN TO BE IN ACCORDANCE WITH FBCR SECTION R301.2.1.1.1 SUNROOMS DESIGNED TO BE HEATED AND/OR COOLED BY A SEPARATE TEMPERATURE CONTROL OR SYSTEM AND IS THERMALLY ISOLATED FROM THE PRIMARY STRUCTURE IS CATEGORIZED AS A CATEGORY IV SUNROOM AND DEFINED AS A NONHABITABLE AND CONDITIONED SUNROOM.

## COMPONENT AND CLADDING LOADS ICC 600-2014 TABLE 301(1)

<u>WIND SPEED</u>: VULT = 130 MPH, VASD = 101 MPH <u>MEAN ROOF HEIGHT</u> = 20 FEET, ROOF ANGLE > 7 TO 27° <u>ADJUSTMENT FACTOR</u> = 1.29 PER TABLE 301(2)

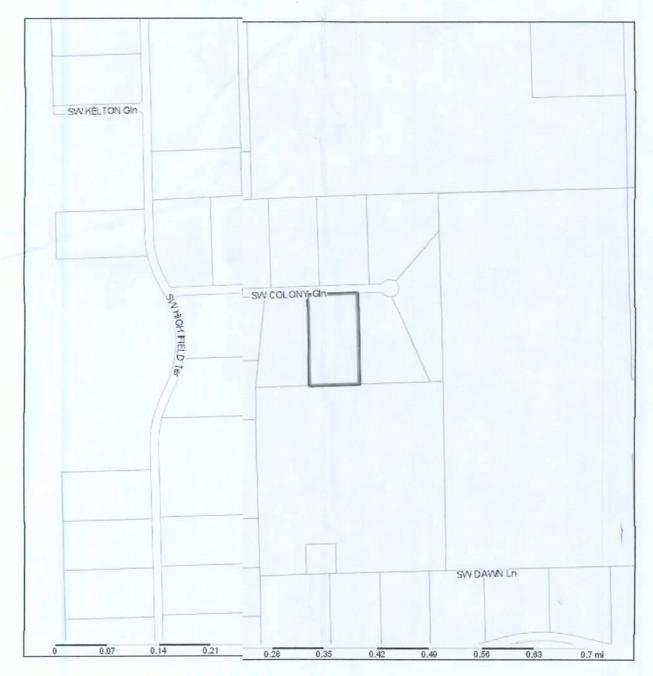
	1.23						
			VULT = 130 MPH				
				VASD = 101 MPH			
	ZONE	EFFECTIVE	VASD PRESS	SD PRESSURES (PSF)			
	ROOF	AREA(SF)	WINDWARD	LEEWARD			
	1	10	10.5	-16.7			
	1	20	9.6	-16.2			
	1	50	8.3	-15.6			
	1	100	7.4	-15.1			
	2	10	10.5	-29.3			
	2	20	9.6	-26.8			
	2	50	8.3	-23.6			
	2 2 2 2 3 3 3	100	7.4	-21.4			
	3	10	10.5	-43.0			
1	3	20	9.6	-40.2			
Ī	3	50	8.3	-36.5			
Ī	3	100	7.4	-33.7			
	WALLS						
Ì	4	10	18.2	-19.8			
Ī	4	20	17.4	-19.0			
Ţ	4	50	16.3	-17.9			
	4	100	15.5	-17.0			
	4	500	13.6	-15.1			
	5	10	18.2	-24.4			
	5	20	17.4	-22.8			
Ī	5	50	16.3	-20.6			
Ī	5	100	15.5	-19.0			
1	5	500	13.6	-15.1			

### GARAGE DOOR LOADS ICC 600-2014 TABLE 802(2)

		VULT = 13 VASD = 10	01 MPH
/IDTH&	<b>EFFECTIVE</b>	VASD PRESS	URES (PSF)
EIGHT	AREA(SF)	WINDWARD	LEEWARD
9x7	63	16.0	-18.1
16x7	112	15.4	-17.1
9x8*	72	16.0	-18.1
16x8*	128	15.4	-17.1

\* PER NOTE b. OF ICC 600-2014 TABLE 802(2)

ENGINEER'S REVIEW AND APPROVAL OF TRUSS INFORMATION AND LINTEL INFORMATION IS BASED UPON THE INFORMATION CONTAINED HEREIN. SHOULD THE OWNER OR CONTRACTOR CHANGE TRUSS COMPANIES OR LINTEL COMPANIES, FURTHER REVIEW BY THE BUILDING ENGINEER IS REQUIRED.



Columbia County Parcel ID:

06-6S-17-03761-137

# Index

# Cover Sheet

- 1 Elevations
- 2 Floor Plan
- 3 Foundation Plan
- 4 Roof Plan
- 5 Sections & Details
- 6 Electrical Layout





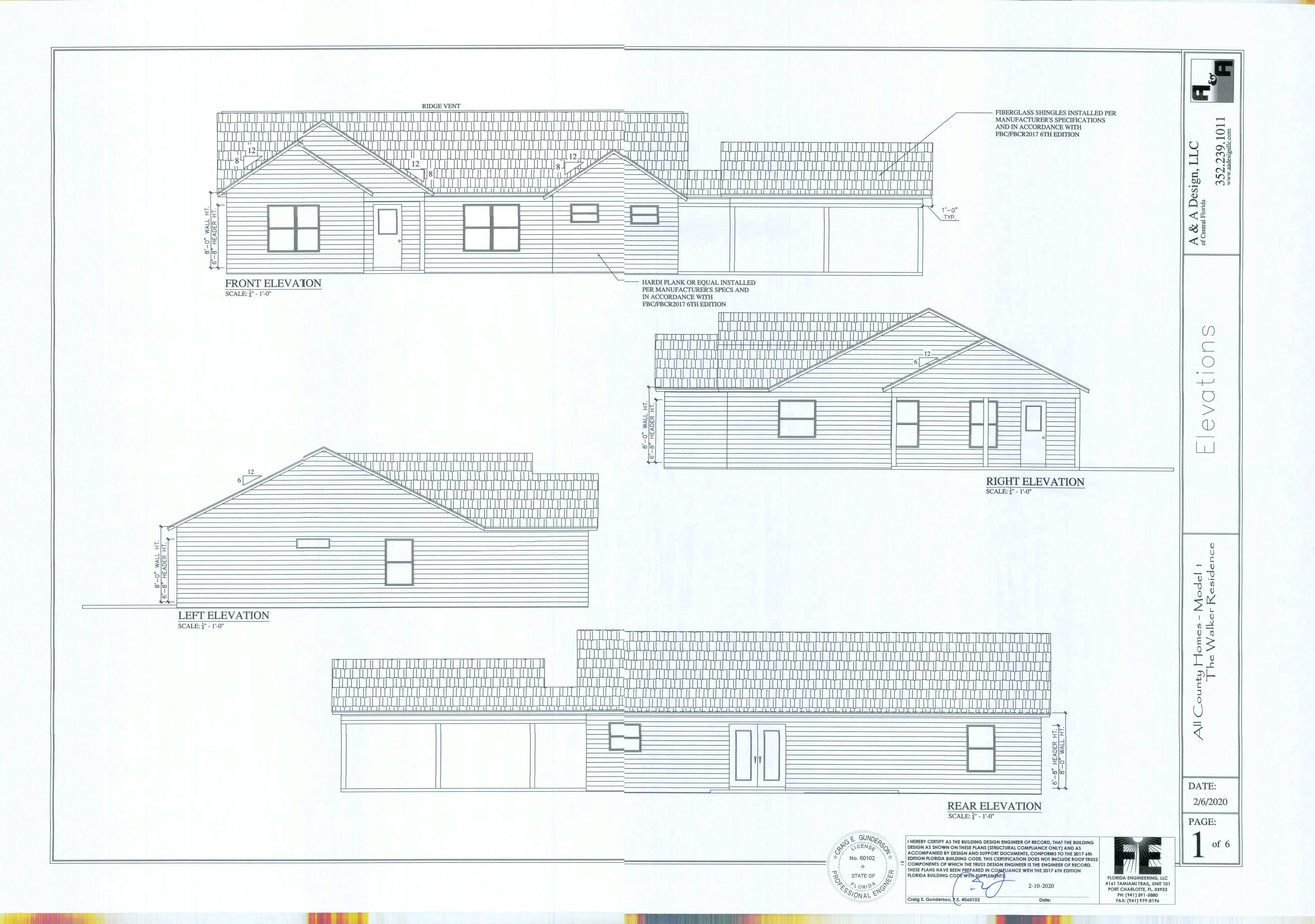
I HEREBY CERTIFY AS THE BUILDING DESIGN ENGINEER OF RECORD, THAT THE BUILDING DESIGN AS SHOWN ON THESE PLANS (STRUCTURAL COMPLIANCE ONLY) AND AS ACCOMPANIED BY DESIGN AND SUPPORT DOCUMENTS, CONFORMS TO THE 2017 6th EDITION FLORIDA BUILDING CODE. THIS CERTIFICATION DOES NOT INCLUDE ROOF TRUSS COMPONENTS OF WHICH THE TRUSS DESIGN ENGINEER IS THE ENGINEER OF RECORD. THESE PLANS HAVE BEEN PREPARED IN COMPLIANCE WITH THE 2017 6TH EDITION

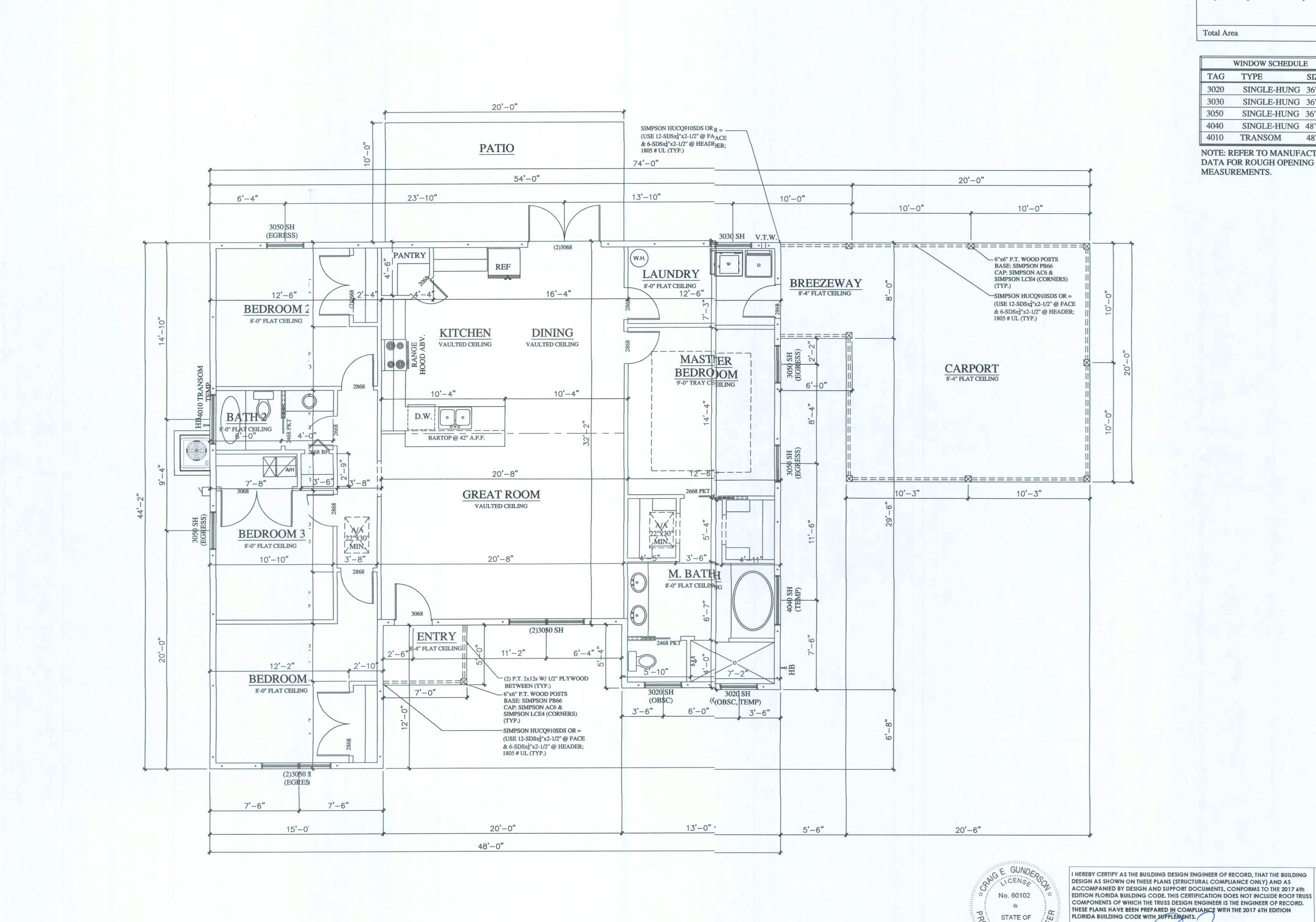
2-10-2020

Date:

Craig E. Gunderson, P.E. #060102

4161 TAMIAMITRAIL, UNIT 101 PORT CHARLOTTE, FL. 33952 PH: (941) 391-5880 FAX: (941) 979-8196





## Area Tabulations

Proposed Living Proposed Entry Porch Proposed Carport & Breezeway 1,841 s.f. 35 s.f. 454 s.f.

2,282 s.f.

Total Area

WINDOW SCHEDULE TAG TYPE SIZE 3020 SINGLE-HUNG 36"x24" 3030 SINGLE-HUNG 36"x36" 3050 SINGLE-HUNG 36"x60" 4040 SINGLE-HUNG 48"x48" 4010 TRANSOM 48"x12"

NOTE: REFER TO MANUFACTURER DATA FOR ROUGH OPENING MEASUREMENTS.

> Model r Reside Jomes e Walk 4

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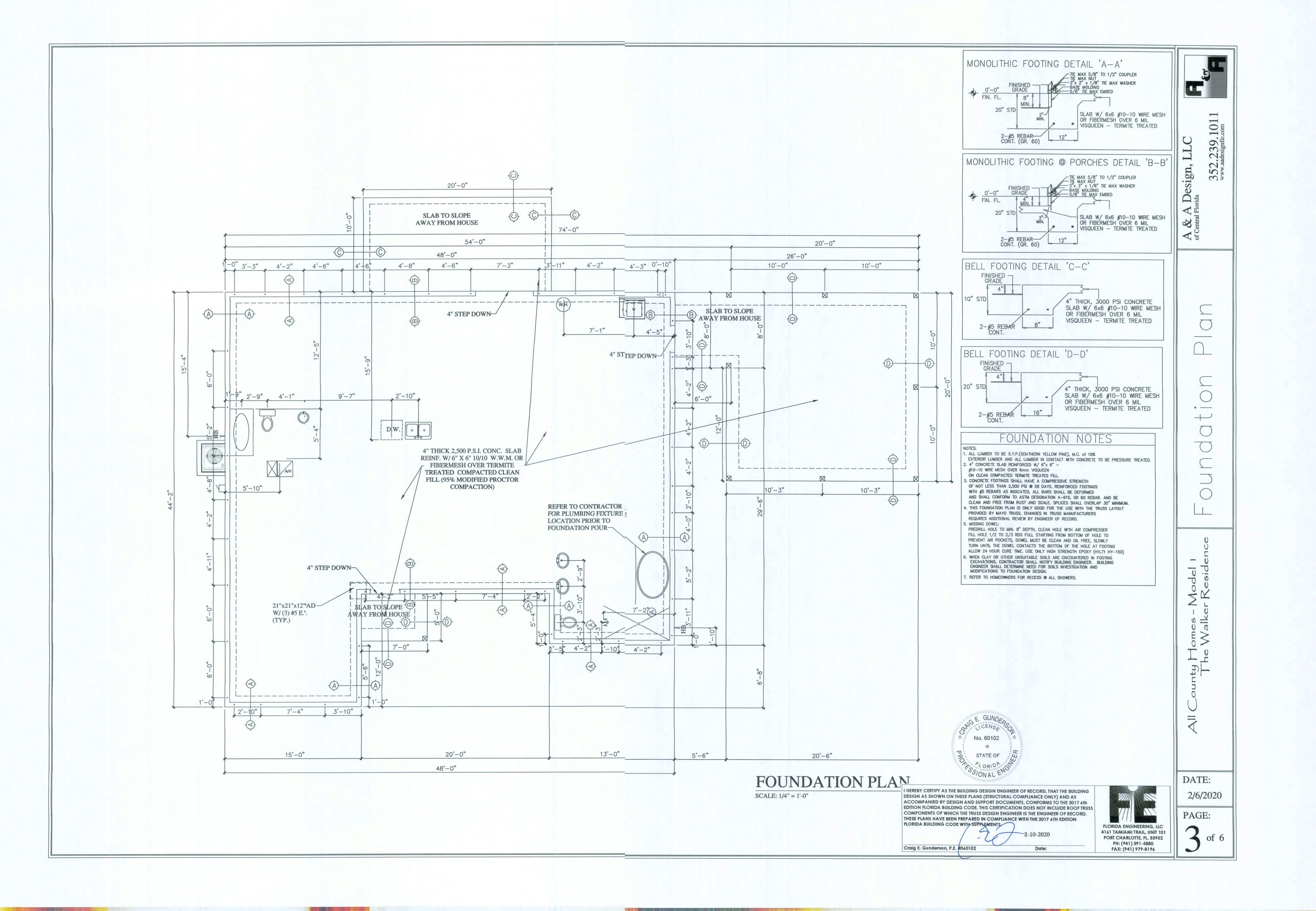
DATE: 2/6/2020 PAGE:

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TRUSS CONNECTORS

TRUSS TO CMU = SIMPSON HETA20 GIRDERS TO CMU = (2) SIMPSON HETA 20 TRUSS TO FRAME = SIMPSON HTS20 GIRDERS TO FRAME = (2) SIMPSON HTS20

ALL UNLESS OTHERWISE NOTED.

IF HETA20 IS MISPLACED, (2) HTSM20 MAY BE USED INSTEAD.

**ROOF LAYOUT** SCALE: N.T.S.

PROVIDED BY MAYO TRUSS

No. 60102 STATE OF

VERIFY DIMENSIONS, PITCH, HEEL HEIGHTS, OVERHANGS ETC. 2017 6th Edition residential building code FLORIDA ENGINEERING, LLC COA #30782

FLORIDA ENGINEERING, LLC 4161 TAMIAMI TRAIL, UNIT 101 PORT CHARLOTTE, FL. 33952 PH: (941) 391-5880 FAX: (941) 979-8196

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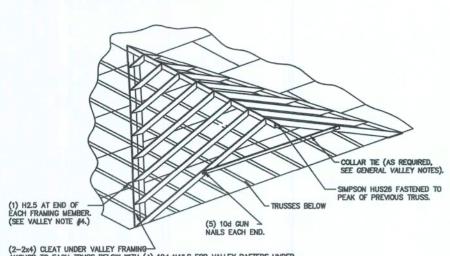
THE TRUSS MANUFACTURER'S LAYOUT APPEARS TO BE IN SUBSTANTIAL COMPLIANCE WITH THE PERMITTING PLANS. CONTRACTOR MUST 2-10-2020

352.239.1011 www.aadesignllc.com A & A Design, LLC of Central Florida

> +  $\bigcirc$ ()\_\_\_\_

Model rr Reside

GENERAL VALLEY NOTES: (1) RAFTERS TO BE 2x4 SPACED 24" O.C. UP TO 8', USE 2x6 UP TO 12' LENGTH.
(2) RAFTER LENGTHS (FROM RIDGE TO CLEAT) OVER 12'-0" TO HAVE (2x4) COLLAR TIE, OR KICKER, AT 1/2 RAFTER SPAN (UP TO 24'-0" MAX RAFTER LENGTH). (3) RIDGE BOARD SHALL BE 2x6 MIN. FOR 2X4 RAFTERS, & 2X8 MIN. FOR 2X6 RAFTERS. (4) ATTACH RAFTERS 4' OR LONGER TO RIDGE BOARD AND CLEAT USING (1) SIMPSON H2.5 CONNECTOR, NAILED 8-8d, ALL OTHERS TOE-NAIL WITH 10d.



(2-2x4) CLEAT UNDER VALLEY FRAMING—ANCHOR TO EACH TRUSS BELOW WITH (4) 10d NAILS FOR VALLEY RAFTERS UNDER 6" AND LESS. OVER 6" USE SIMPSON H2.5 CLIPS. IF CLEAT IS OVER SHEATHING AND VALLEY RAFTER IS OVER 6", USE (1) 3/8" x 4" LAG SCREW WITH 1" WASHER PER CLEAT, OR CUT SLOT AND BEND HUGHES RT12112 (OR EQU/BETTER) AROUND TRUSS BELOW, SPACED (3) TRUSSES MAXIMUM.

VALLEY FRAMING DETAIL SCALE: NTS

ROOFING	OOFING LENGTH		EXPOSURE (Inches	
MATERIAL		GRADE	2:12 PITCH T0<4:12	4:12 PITCH OR STEEPER
ASPHALT	16	No.1	3¾	5
		No.2	3½	4
		No.3	3	3½
SHINGLES	18	No.1	41/4	5½
		No.2	4	4½
		No.3	3½	4
	24	No.1	53/4	71/2
		No.2	5½	6½
		No.3	5	5½

ROOF SHEATHING / NAILING ZONES ROOF SHEATHING SHALL BE MADE OF PLYWOOD (WOOD STRUCTURAL PANELS), OSB PLYWOOD SHEATHING OR BETTER. SHEATHING SHALL BE FASTENED TO ROOF FRAMING W/ 8d RING SHANK FULL HEAD NAILS @ 6" O.C. @ EDGES AND 6" O.C. AT INTERMEDIATE FRAMING.

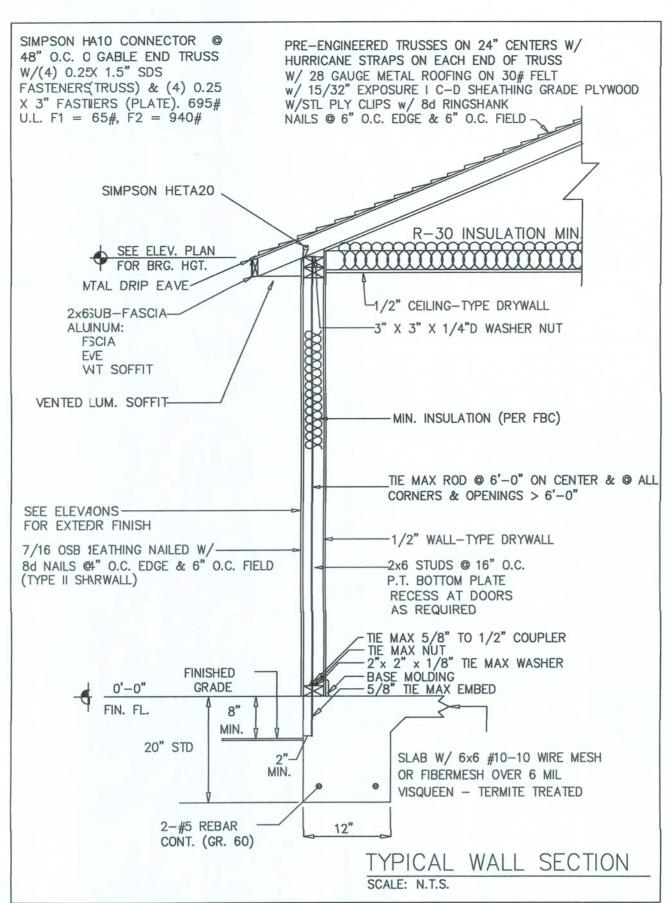
ROOF FLASHING SHALL BE NOT LESS THAN 26 GAGE 0.017 INCHES CORROSION-RESISTANT SHEET METAL AND SHALL EXTEND 10 INCHES FROM THE CENTERLINE EACH WAY FOR ROOFS HAVING SLOPES LESS THAN 12 UNITS VERTICAL IN 12 UNITS HORIZONTAL, AND 7 INCHES FROM THE CENTERLINE EACH WAY FOR SLOPES OF 12/12 AND GREATER. FLASHING SHALL HAVE AN END LAP OF NOT LESS THAN 4 INCHES.

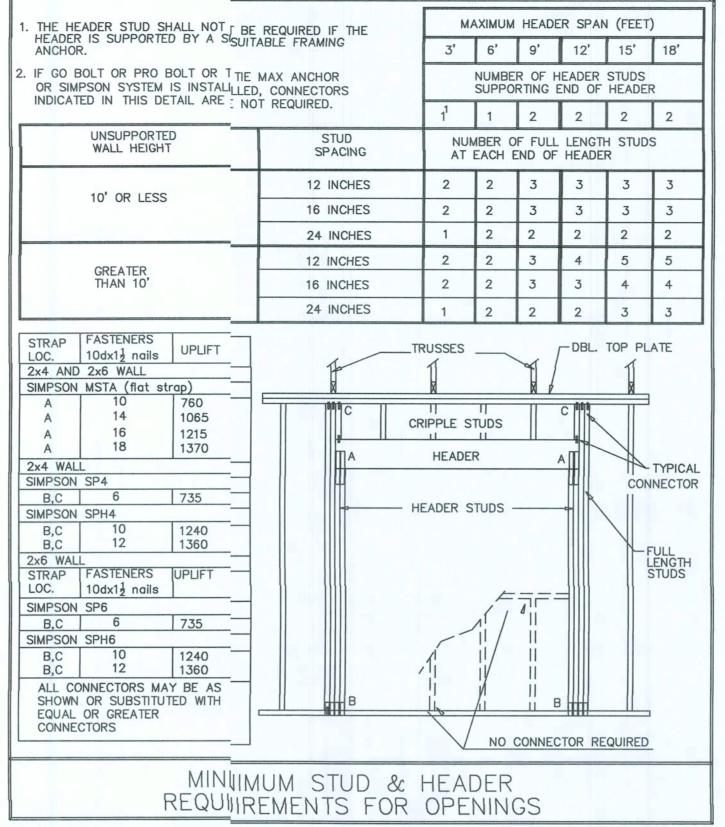
ALL VALLEY LININGS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTORER'S INSTALLATION INSTRUCTIONS BEFORE APPLYING SHINGLES, THE FOLLOWING SHALL BE PERMITTED: 1.) FOR OPEN VALLEY LINED WITH METAL, THE LINING

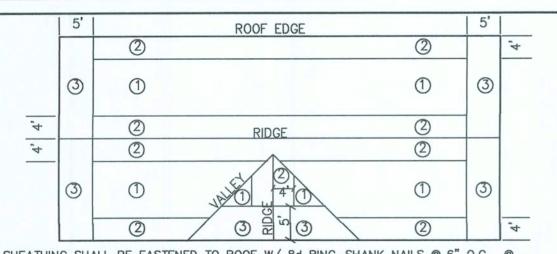
SHALL BE AT LEAST 16" WIDE AND CONSIST OF ANY CORROSION-RESISTANT METALS IN TABLE R903.21 2.) FOR OPEN VALLEYS, THE LINING OF TWO PLIES OF MINERAL SURFACE ROLL ROOFING, COMPLYING WITH ASTM D 3909 OR ASTM D 6380 CLASS M SHALL BE PERMITTED. THE BOTTOM LAYER SHALL BE 18" AND THE TOP LAYER A MIN OF 36" WIDE.

3.) FOR CLOSED VALLEYS, THE LINING OF ONE PLY OF SMOOTH ROLL ROOFING COMPLYING WITH ASTM D 6380 CLASS S AND AT LEAST 36" WIDE OR THE VALLEY LINING AS DESCRIBED IN ITEMS 1 & 2 SHALL BE PERMITTED. SPECIALTY UNDERLAYMENT COMPLYING WITH ASTM D 1970 MAY BE USED I/L/O/ THE LINING MATERIAL.

ROOF SHINGLES SHALL COMPLY WITH ASTM D225 OR ASTM D 3462 SUCH AS GAF BRAND ASPHALT ROOFING SHINGLES OR EQUIVILANT. SHINGLES ARE TO BE NAILED W/ A MINIMUM OF (4) NAILS PER SHINGLE. (6) ARE PREFERRED







SHEATHING SHALL BE FASTENED TO ROOF W/ 8d RING-SHANK NAILS @ 6" O.C. @ EDGES AND 6" O.C. @ INTERMEDIATE FRAMING. RING-SHANK NAILS SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS:

. 0.113 INCH NOMINAL SHANK DIAMETER

RING DIAMETER OF 0.012 OVER SHANK DIAMETER. 3. 16 TO 20 RINGS PER INCH

4. 0.280 INCH FULL ROUND HEAD DIAMETER 2 INCH NAIL LENGTH

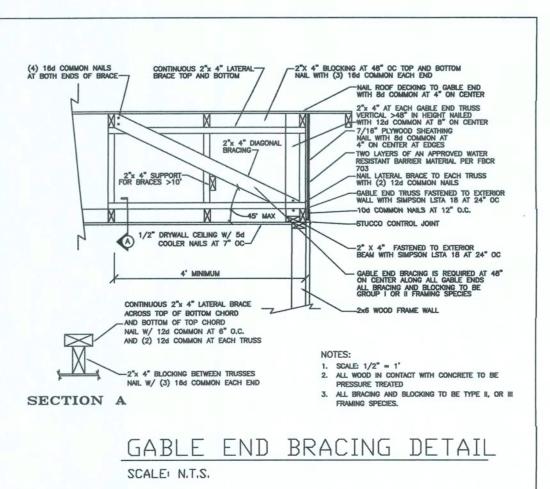
WHERE ROOF FRAMING WITH A SPECIFIC GRAVITY, 0.42<G<0.49 IS USED, SPACING OF RING-SHANK FASTENERS SHALL BE 4 INCHES ON CENTER IN NAILING ZONE 3 IN ACCORDANCE WITH RIGURE 803.2.3.1 WHERE Vasd AS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 IS 130 MPH OR GREATER

. WHERE ROOF FRAMING WITH A SPECIFIC GRAVITY, 0.42<G<0.49 IS USED, SPACING OF RING-SHANK FASTENERS SHALL BE PERMITTED AT 12 INCHES ON CENTER AT INTERMEDIATE FRAMING IN NAILING ZONE 1 FOR ANY Vasa AS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 AND NAILING ZONE 2 FOR Vasd AS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 LESS THAN OR EQUAL TO 110 MPH IN ACCORDANCE WITH FIGURE R803.2.3.1.

2. WHERE ROOF FRAMING SPECIFIC GRAVITY, G>0.49 IS USED, SPACING OF RING-SHANK FASTENERS SHALL BE PERMITTED AT 12 INCHES ON CENTER AT INTERMEDIATE FRAMING IN NAILING ZONE 1 FOR ANY VasdAS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 IN NAILING ZONE 2 FOR Vasd AS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 LESS THAN OR EQUAL TO 120 MPH IN ACCORDANCE WITH FIGURE R301.2.3.1.

. WHERE ROOF FRAMING SPECIFIC GRAVITY, G>0.49 IS USED, 8d COMMON OR 8d HOT DIPPED GALVANIZED BOX NAILS AT 6 INCHES ON CENTER AT EDGES AND 6 INCHES ON CENTER AT INTERMEDIATE FRAMING SHALL BE PERMITTED FOR Vosd AS DETERMINED IN ACCORDANCE WITH SECTION R301.2.1.3 LESS THAN OR EQUAL TO 100 MPH IN ACCORDANCE WITH FIGURE R803.2.3.1. 4. WHERE ROOF DIAPHRAGM REQUIREMENTS NECESSITATE A CLOSER FASTENER SPACING.

ROOF SHEATHING NAILING DETAIL



E GUNDER CENSE" No. 60102 STATE OF CORIDA SSIONAL E

I HEREBY CERTIFY AS THE BUILDING DESIGN ENGINEER OF RECORD, THAT THE BUILDING DESIGN AS SHOWN ON THESE PLANS (STRUCTURAL COMPLIANCE ONLY) AND AS ACCOMPANIED BY DESIGN AND SUPPORT DOCUMENTS, CONFORMS TO THE 2017 6th EDITION FLORIDA BUILDING CODE. THIS CERTIFICATION DOES NOT INCLUDE ROOF TRUSS COMPONENTS OF WHICH THE TRUSS DESIGN ENGINEER IS THE ENGINEER OF RECORD. THESE PLANS HAVE BEEN PREPARED IN COMPLIANCE WITH THE 2017 6TH EDITION FLORIDA BUILDING CODE WITH SUPPLEMENTS

2-10-2020 Craig E. Gunderson, P.E. #060102

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2/6/2020

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