

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS. TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS. TRUSS ENGINEERING IS THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO SELECT UPLIFT CONNECTIONS BASED ON TRUSS ENGINEERING UPLIFT AND PROVIDE FOOTINGS FOR INTERIOR BEARING WALLS. BUILDER IS TO FURNISH TRUSS ENGINEERING TO WIND LOAD ENGINEER FOR REVIEW OF TRUSS REACTIONS ON THE BUILDING STRUCTURE. STRAP 2X6 RAFTERS WITH MIN. UPLIFT CONNECTION 415LB EACH END; 2X8 RAFTERS 700 LB EACH END. SITE PREPARATION: SITE ANALYSIS AND PREPARATION IS NOT PART OF THIS PLAN

FOLINDATION: CONFIRM THAT THE FOLINDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1500 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE)

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F'c = 2500 PSI. WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4. FB = 85KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185: LOCATED IN MIDDLE OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS

FIBER CONCRETE SLAB: CONCRETE SLABS ON GROUND CONTAINING SYNTHETIC FIBER REINFORCEMENT. FIBER LENGTH 1/2 INCH TO 2 INCHES. DOSAGE AMOUNTS FROM 0.75 TO 1.5 POUNDS PER CUBIC YARD PER THE MANUFACTURER'S RECOMMENDATIONS. FIBERS TO COMPLY WITH ASTM C 1116. SUPPLIER TO PROVIDE ASTM C 1116 CERTIFICATION OF COMPLIANCE WHEN REQUESTED BY BUILDING OFFICIAL.

CONTROL JOINTS: WHERE SPECIFIED, SAWN CONTROL JOINTS IN SLAB-ON-GRADE SHALL BE CUT IN ACCORDANCE WITH ACI 302. JOINTS SHALL BE CUT WITHIN 12 HOURS OF SLAB PLACEMENT THE LENGTH / WIDTH RATIOS OF SLAB AREAS SHALL NOT EXCEED 1.5 AND TYPICAL SPACING OF CUTS TO BE 12FT. DO NOT CUT WWM OR REINFORCING STEEL. (RECOMMENDED LOCATION OF CONTROL JOINTS IS SUBJECT TO OWNER AND CONTRACTOR'S APPROVAL. THE CONTROL JOINTS ARE NOT INTENDED TO PREVENT CRACKS BUT RATHER TO ENCOURAGE THE SLAB TO CRACK ON A GIVEN LINE.)

REBAR: ASTM A 615, GRADE 40, DEFORMED BARS, FY = 40 KSI. ALL LAP SPLICES 40 \* DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

STRUCTURAL CONNECTORS: MANUFACTURERS AND PRODUCT NUMBER FOR CONNECTORS ANCHORS, AND REINFORCEMENT ARE LISTED FOR EXAMPLE NOT ENDORSEMENT. AN EQUIVALENT DEVICE OF THE SAME OR OTHER MANUFACTURER CAN BE SUBSTITUTED FOR ANY DEVICES LISTED IN THE EXAMPLE TABLES AS LONG AS IT MEETS THE REQUIRED LOAD CAPACITIES. MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE FOLLOWED

ANCHOR BOLTS: A-307 ANCHOR BOLTS WITH MINIMUM EMBEDMENT AS SPECIFIED IN DRAWINGS BUT NO LESS THAN 7" IN CONCRETE OR REINFORCED BOND BEAM OR

MASONRY CONSTRUCTION AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO ALL REQUIREMENTS OF "SPECIFICATION FOR MASONRY STRUCTURES" (ACI 530.1/ASCE 6/TMS 602). THE CONTRACTOR AND MASON MUST IMMEDIATELY, BEFORE PROCEEDING, NOTIFY THE ENGINEER OF ANY CONFLICTS BETWEEN ACI 530.1-02 AND THESE DESIGN DRAWINGS. ANY EXCEPTIONS TO ACI 530.1-02 MUST BE APPROVED BY

ACI530.1-02 Section 8" block bearing walls F'm = 1500 psi Compressive strengt ASTM C 270, Type N, UNO ASTM C 476, admixtures require approva CMU standard ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running oond and 12"x12" or 16"x16" column ASTM C 216-02, Grade SW, Type FBS, Clay brick standard 5.5"x2.75"x11.5" ASTM 615, Grade 40, Fy = 40 ksi, Lap Reinforcing bars, #3 - #11 splices min 40 bar dia. (25" for #5) embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft2 or 304SS Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal Ities not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft2 3.3.E.2 Pipes, conduits, and accessories Any not shown on the project drawings require engineering approval. Contractor assumes responsibility for type and location of movement joints if not

### **BUILDER'S RESPONSIBILITY:** THE BUILDER AND OWNER ARE RESPONSIBLE FOR THE FOLLOWING. WHICH ARE SPECIFICALLY NOT PART OF THE WIND LOAD ENGINEER'S SCOPE OF WORK. CONFIRM SITE CONDITIONS. FOUNDATION BEARING CAPACITY, GRADE AND BACKELL HEIGHT WIND SPEED AND DEBRIS ZONE AND ELOOD ZONE PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES

PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITS A CONTINUOUS LOAD PATH CONNECTION, CALL

detailed on project drawings.

DESIGN, PLACEMENT PLANS, TEMPORARY AND PERMANENT BRACING DETAILS, TRUSS-TO-TRUSS CONNECTIONS, AND UPLIFT AND REACTION LOADS FOR ALL BEARING LOCATIONS.

**ROOF SYSTEM DESIGN:** 

THE SEAL ON THESE PLANS FOR COMPLIANCE WITH FBCR, IS BASED ON REACTIONS, UPLIFTS, AND BEARING LOCATIONS IN TRUSS ENGINEERING SUBMITTED TO THE WIND LOAD ENGINEER. IT IS THE RESPONSIBILITY OF THE BUILDER TO CHECK ALL DETAILS OF THE COMPLETE ROOF SYSTEM DESIGN SUBMITTED BY THE TRUSS MANUFACTURER AND HAVE IT SIGNED, AND SEALED BY A DESIGN. PROFESSIONAL FOR CORRECT APPLICATION OF FBCR REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE 1 REVIEW EACH INDIVIDUAL TRUSS MEMBER AND THE TRUSS ROOF SYSTEM AS A WHOLE AND TO PROVIDE RESTRAINT FOR ANY LATERAL BRACING. THE BUILDER SHOULD USE CARE CHECKING THE ROOF DESIGN BECAUSE THE WIND LOAD ENGINEER IS SPECIFICALLY NOT RESPONSIBLE FOR THE TRUSS LAYOUT WHICH WAS CREATED BY THE TRUSS MANUFACTURER AND THE TRUSS DESIGNER ALSO DENIES RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED

**DESIGN CRITERIA & LOADS** 

	(2020)				
CODE FOR DESIGN LOADS	ASCE 7-16				
WINDLOADS					
BASIC WIND SPEED (ASCE 7-10, 3S GUST)	130 MPH				
WIND EXPOSURE (BUILDER MUST FIELD VERIFY)	С				
TOPOGRAPHIC FACTOR (BUILDER MUST FIELD VERIFY)					
RISK CATEGORY	II				
ENCLOSURE CLASSIFICATION	ENCLOSED				
INTERNAL PRESSURE COEFFICIENT	0.18				
ROOF ANGLE	7-45 DEGREES				
MEAN ROOF HEIGHT	30 FT				
<b>C&amp;C DESIGN PRESSURES</b>	SEE TABLE				
FLOOR LOADING					
ROOMS OTHER THAN SLEEPING ROOM	40 PSF LIVE LOAD				
SLEEPING ROOMS	30 PSF LIVE LOAD				
ROOF LOADING					
FLAT OR < 4:12	20 PSF LIVE LOAD				
4:12 TO < 12:12	16 PSF LIVE LOAD				
12:12 & GREATER	12 PSF LIVE LOAD				
SOIL BEARING CAPACITY	1500 PSF				

FLORIDA BUILDING CODE RESIDENTIAL

Mark Disosway P.E. **163 SW Midtown Place** Suite 103 THIS BUILDING IS NOT IN THE FLOOD ZONE

END 4' FROM ALL

OUTSIDE CORNER

+25.6(Vasd) -27.8(Vasd) +25.6(Vasd) -34.2(Vasd)

+42.6(Vult) -46.2(Vult) +42.6(Vult) -57(Vult)

+22.6(Vasd) -25.5(Vasd)

+21.7(Vasd) -24.1(Vasd)

Lake City, Florida 32025 386.754.5419 disoswaydesign@gmail.com JOB NUMBER:

DIMENSIONS:

Stated dimensions supercede scaled

dimensions. Refer all questions to

Mark Disosway, P.E. for resolution

Do not proceed without clarification

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permission and consent of Mark Disosway.

CERTIFICATION: I hereby certify that I have

portions of the plan, relating to wind engineering

MARK DISOSWAY P.E. 53915

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No 53915

STATE OF

Thursday, August 26, 2021

CLICK HERE TO VERIFY.

examined this plan, and that the applicable

LIMITATION: This design is valid for one

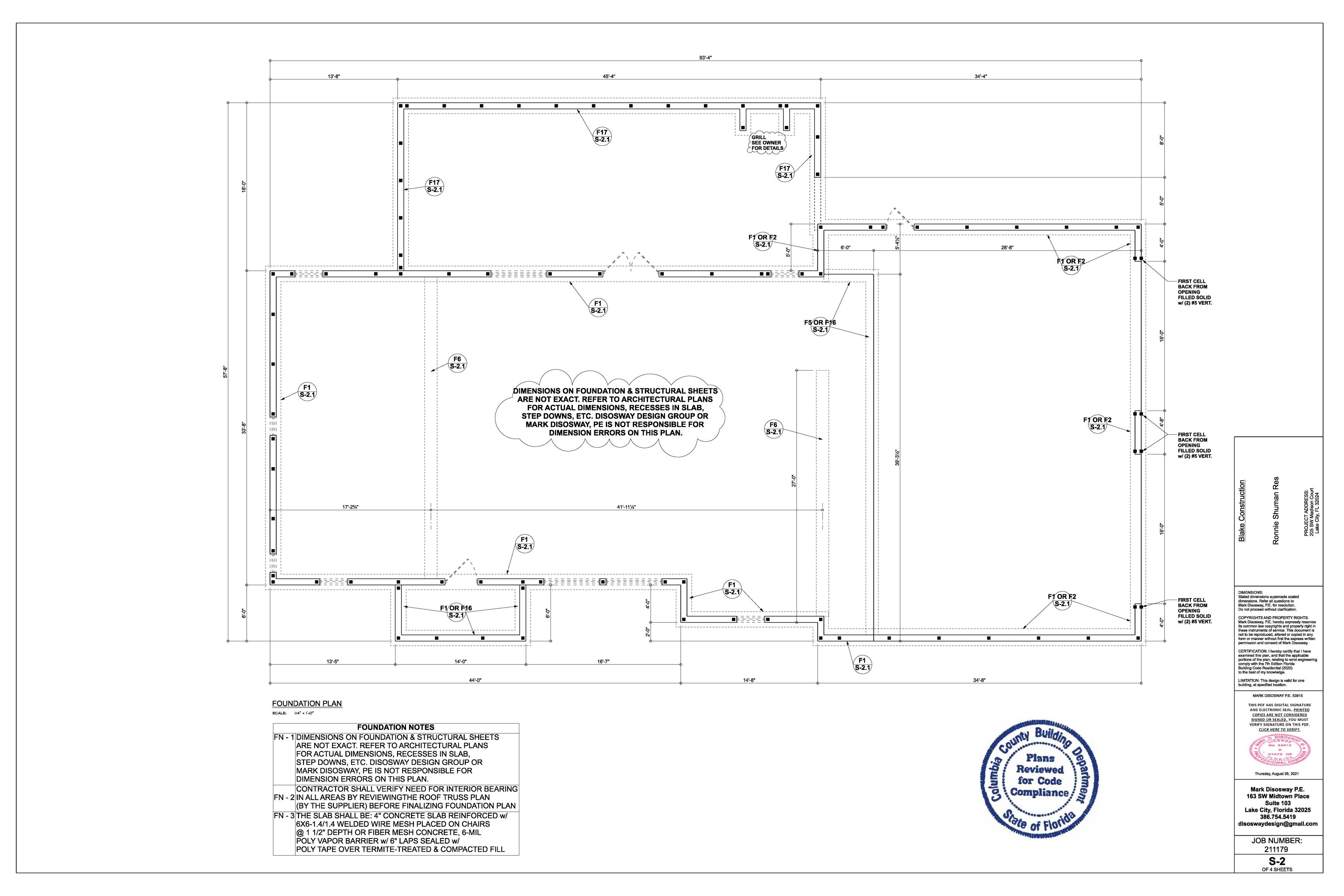
comply with the 7th Edition Florida

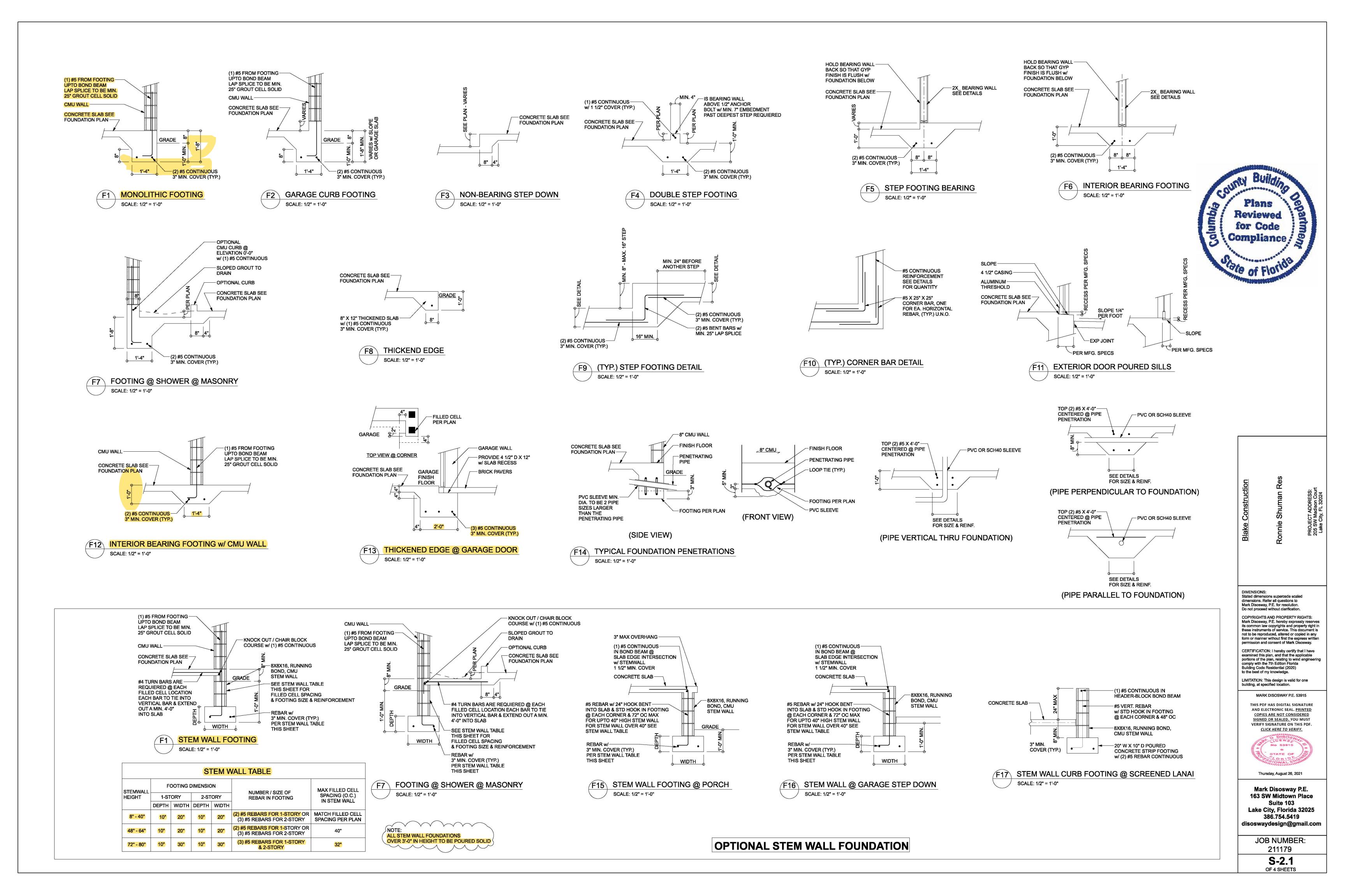
Building Code Residential (2020)

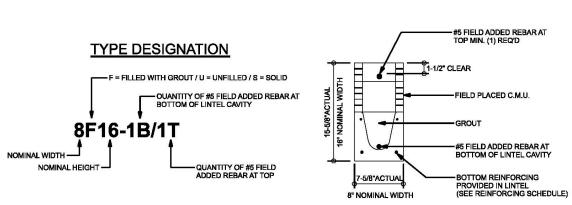
to the best of my knowledge.

building, at specified location.

211179 **S-1** OF 4 SHEETS







**MATERIALS** 1. fc 8" precast lintel = 3500 psi 2. fc prestressed lintel = 6000 psi 3. Grout per ASTM C476 fc = 3000 psi w/ maximum 3/8 inch aggregate & 8 to 11 inch slump 4. Concrete Masonry Units (CMU) per ASTM C90 w/minimum net area compressive strength = 1900 psi 5. Rebar per ASTM A615 grade 60 Prestressing strand per ASTM A416 grade 270 low relaxation
 Mortar per ASTM C270 type M or S

**GENERAL NOTES** Provide full mortar bed and head joints.
 Shore filled lintels as required.
 Installation of lintel must comply with the architectural

3. Installation or linter must comply with the architectural and/or structural documents.
4. U-Lintels are manufactured with 5 1/2" long notches at the ends to accomodate vertical cell reinforcing and grouting.
5. All lintels meet or exceed L/360 deflection, except lintels 17'-4" and longer with a nominal height of 8" meet or exceed L/180 deflection.
6. Bottom field added rebar to be located at the bottom of the lintel cavity. of the lintel cavity.

7. 7/32" diameter wire stirrups are welded to the bottom steel for mechanical anchorage.

8. Cast-in-place concrete may be provided in composite lintel in lieu of concrete masonry units.

 Safe load rating based on rational design analysis per ACI 318 and ACI 530
 Product Approvals: Miami-Dade County, Florida No. 03-0606.05 The exterior surface of lintels installed in exterior concrete masonry walls shall have a coating of stucco applied in accordance with ASTM C-296 or other approved coating.

 Lintels loaded simultaneously with vertical (gravity or uplift) and horizontal (lateral) loads should be checked for the combined loading with the following equation: Applied vertical load Safe vertical load + Applied horizontal load Safe horizontal load ≤1.0 13. Additional lateral load capacity can be obtained by the designer by providing additional reinforced concrete masonry above the lintel. See detail at right:

SAFE LOAD TABLE NOTES 1. All values based on minimum 4 inch nominal bearing.

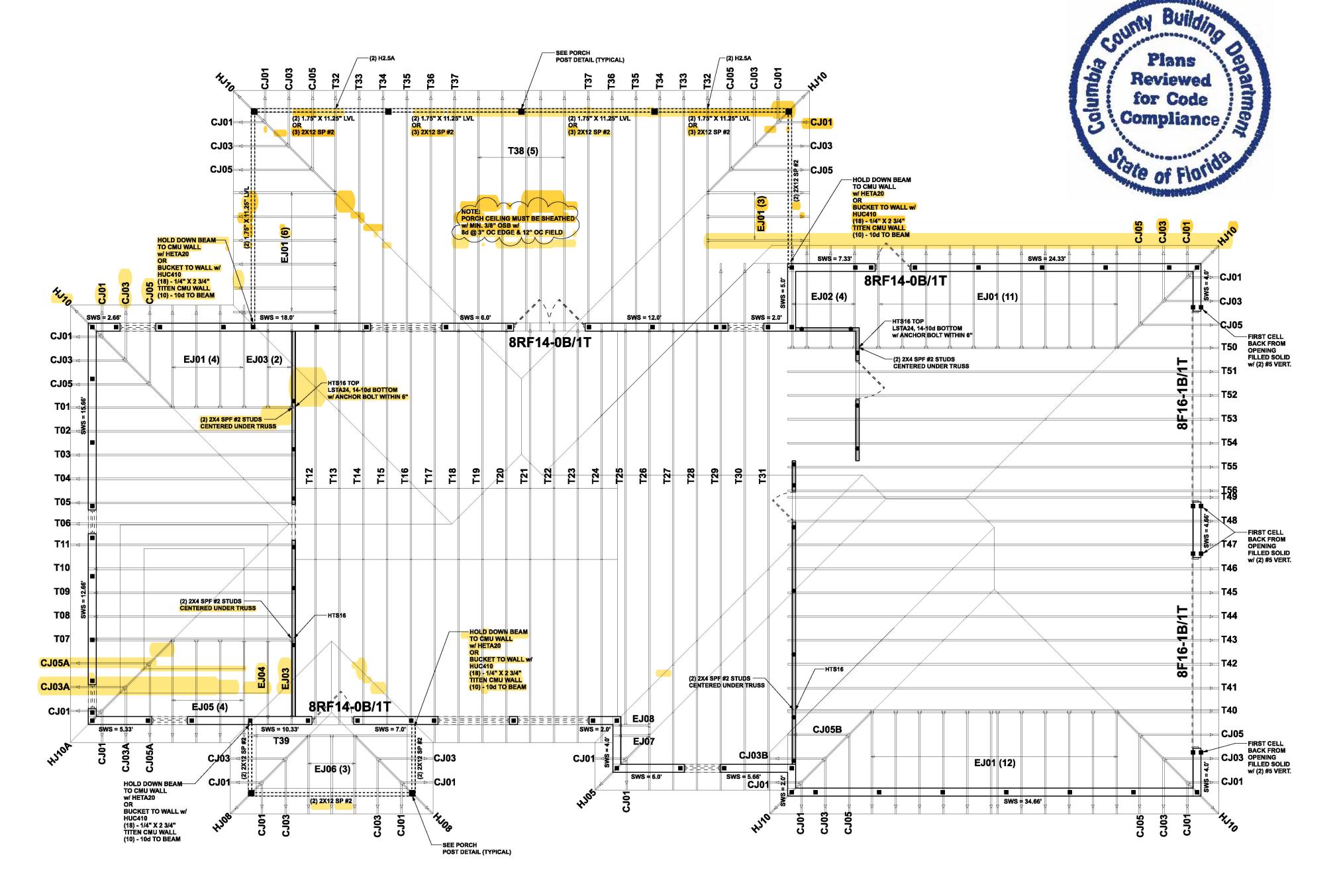
Exception: Safe loads for unfilled lintels must be reduced by 20% if bearing length is less than 6 1/2 inches. 2. N.R. = Not Rated

 Safe loads are superimposed allowable loads
 Safe loads based on grade 40 or grade 60 5. One #7 rebar may be substituted for two #5 rebars in 8" lintels only The designer may evaluate concentrated loads from the safe load tables by calculating the maximum resisting moment and shear at d-away from face of support. 7. For composite lintel heights not shown, use safe load from next lower height shown. 8. For lintels lengths not shown, use safe load

from next longest length shown
9. All safe loads in units of pounds per linear 10. All safe loads based on simply supported 11. The number in the the parenthesis indicates the percent reduction for grade 40 field added rebar.

Example 7'-6" lintel type 8F32-1B safe gravity load = 6472\H0.0469;(15)\H0.0781; w/ 15% reduction 6472 ⇒ (.85) = 5501 plf

	_	7.5/014.0711			TTOM BE	INCOROL	10						
		7-5/8"ACTU	-φ	PF	OTTOM RE	N LINTEL							
		8" NOMINAL W	IDTH	(8	EE REINFO	JRCING S	CHEDULE	)					
		FE GRAVITY L	DADS FO	OR 8" PF	RECAST	& PRES	TRESSE	D U-LIN	TELS				
<u> </u>				SAFE LOAD - POUNDS PER LINEAR FOOT									
LENGT	H	TYPE	8U8	8F8-0B 8F8-1B	8F12-0B 8F12-1B	8F16-0B 8F16-1B	8F20-0B 8F20-1B	8F24-0B 8F24-1B	8F28-0B 8F28-1B	8F32-0E 8F32-1E			
2'-10"	(34")	PRECAST	2231	3069 3069	4605 4605	6113 6113	7547 7547	8974 8974	10394 10394	11809 11809			
3'-6"	(42")	PRECAST	2231	3069	3719	5163	6607	8054	9502	10951			
4'-0"	(48")	PRECAST	1966	3069 2561	4605 2751	6113 3820	7547 4890	8974 5961	10394 7034	11809 8107			
4'-6"	(54")	PRECAST	0.000000	2693 1969	4605 2110	6113 2931	7547 3753	8974 4576	10394 5400	11809 6224			
4-0	(54 )	FRECASI	1599	2189 1349	4375 1438	6113 1999	7547 <sub>(7</sub>	8672 3123	10294 3686	11809 4249			
5'-4"	(64")	PRECAST	1217	1663	3090	5365	7547(36	7342(19)	8733(19	10127(1			
5'-10"	(70")	PRECAST	1062	1105 1451	1173 2622	1631 4360	2090 7168 (45	2549 6036 <sub>(19</sub>	3009 7181 <sub>(19</sub>	3470 8328 <sub>(2</sub>			
6'-6"	(78")	PRECAST	908	1238 1238	2177	3480 3480	3031 5381	3707 8360	4383 10394 <sub>(37</sub>	5061 8825 (1			
7'-6"	(90°)	PRECAST	743	1011	1729 1729	2632	2205	2698	3191	3685			
9'-4"	(112")	PRECAST	554	1011 699	1160	2661 1625	3898 2564	5681 3486	8467 <sub>(44)</sub> 2818	3302			
				752 535	1245 890	1843 1247	2564 2093	3486 2777	4705(37) 2163	6390 <sub>(4</sub> ; 2536			
10'-6"	(126")	PRECAST	475	643	1052	1533	2093	2781	3643 (38	4754 (4			
11'-4"	(136")	PRECAST	362	582 582	945 945	1366 1366	1846 1846	2423 2423	3127 3127	4006 4006			
12'-0"	(144*)	PRECAST	337	540 540	873 873	1254 1254	1684 1684	2193 2193	2805 2805	3552 3552			
13'-4"	(160")	PRECAST	296	471 471	755 755	1075 1075	1428 1428	1838 1838	2316 2316	2883 2883			
14'-0"	(168")	PRECAST	279	424	706	1002	1326	1697	2127	2630			
14'-8"	(176")	PRESTRESSED	N.R.	442 NR	706 NR	1002 NR	1326 NR	1697 NR	2127 NR	2630 NR			
8.	988 0		20000998	458 NR	783 NR	1370 NR	1902 NR	2245 NR	2517 NR	2712 NR			
15'-4"	(184")	PRESTRESSED	N.R.	412 NR	710 NR	1250 NR	1733 NR	2058 NR	2320 NR	2513 NR			
17-4"	(208")	PRESTRESSED	N.R.	300	536	950	1326	1609	1849	2047			
19'-4"	(232")	PRESTRESSED	N.R.	NR 235	NR 418	750	NR 1037	1282	NR 1515	NR 1716			
21'-4"	(256")	PRESTRESSED	N.R.	NR 180	NR 340	NR 598	NR 845	NR 1114	NR 1359	NR 1468			
22'-0"	(264")	PRESTRESSED	N.R.	NR	NR	NR	NR	NR	NR	NR			
24'-0"	(200E)	DDECTDECCED	2.3030302	165 NR	315 NR	550 NR	784 NR	1047 NR	1285 NR	1399 NR			
	(288")	PRESTRESSED	N.R.	129	250	450	654	884	1092	1222			
_	ACCURATE CONTROL DESA	RAVITY LOAD	S FOR	8" PRE	CAST w	/ 2" REC	CESS D	OOR U-	LINTEL	S			
_ &		CAGTG			LOAD -								
LENG	TH	TYPE	8RU6	8RF6-0B 8RF6-1B	8RF10-0B 8RF10-1B			8RF22-0B 8RF22-1B					
4'-4"	(52")	PRECAST	1635	1749 1891	3355 3699	3280 5206	4349 6639	5421 8060	6493 9479	7567 10893			
4'-6"	(54")	PRECAST	1494	1596	3063	2992	3968	4946	5924	6904			
5'-8"	(68")	PRECAST	866	1756 920	3699 1770	5206 1716	6639 2277	8060 2839	9479 3402	10893 3966			
				1167 859	2481 1653	4567 1600	6389 2124	8060 <sub>(34)</sub> 2649	7917 <sub>(19)</sub> 3174	9311 (10 3700			
5'-10"	(70")	PRECAST	810	1113 901	2342 1825	4242 3120	6639 <sub>(10)</sub>	8060 <sub>(39)</sub> 7747	7402 (19) 9448	8706 (15 7360			
6'-8"	(80")	PRECAST	797	901	1825	3120	5048	7915	9479	10893 (32			
			000	755	1490	2459	3776	5743	7239	5623			
7'-6"	(90")	PRECAST	669	755	1490	2459	3776	5743	8998 (19)	10893 (48			



# STRUCTURAL PLAN SCALE: 3/16" = 1'-0"

## STRUCTURAL PLAN NOTES

SN-1 DIMENSIONS ON STRUCTURAL SHEETS ARE NOT EXACT. REFER TO ARCHITECTURAL FLOOR PLAN FOR ACTUAL DIMENSIONS

PERMANENT TRUSS BRACING IS TO BE INSTALLED AT LOCATIONS AS SHOWN ON THE SEALED TRUSS DRAWINGS. LATERAL BRACING IS TO BE RESTRAINED PER BCSI1-03, BCSI-B1, BCSI-B2, & BCSI-B3. BCSI-B1, BCSI-B2, & BCSI-B3 ARE FURNISHED BY THE TRUSS SUPPLIER, WITH THE SEALED

# FRAME HEADER LEGEND

HEADER/BEAM CALL-OUT (U.N.O.) -NUMBER OF KING STUDS (FULL LENGTH) - NUMBER OF JACK STUDS (UNDER HEADER) - SIZE OF HEADER MATERIAL -NUMBER OF PLIES IN HEADER

THREADED ROD LEGEND

INDICATES LOCATION OF: 3/8" A307 ALL THREADED ROD

**ACTUAL vs REQUIRED SHEARWALL** TRANSVERSE LONGITUDUNAL 51.9' 143.3' REQUIRED 35.0'

UNLESS NOTED OTHERWISE ON STRUCTURAL PLANS 1. USE HETA16 CMU TO TRUSS 2. USE H2.5A FRAME TO TRUSS 3. ALL LENTELS TO BE: 8F16-0B/1T 4. ALL LOAD BEARING FRAME WALL & PORCH HEADERS SHALL BE A MINIMUM OF (2) 2X12 SP #2 5. ALL LOAD BEARING FRAME WALL HEADERS SHALL HAVE (1) JACK STUD & (1) KING STUD

**EACH SIDE** 

**ENGINEERED TRUSSES** ATTACH PER TRUSS UPLIFT TO CMU WALLS: HETA16 FOR UP TO 1350 LB UPLIFT (2) HETA16 FOR UP TO 2035 LB UPLIFT MGT FOR UP TO 3965 LB UPLIFT TO FRAME WALLS: (1) H2.5A FOR UP TO 495 LB UPLIFT OR (2) H2.5A FOR UP TO 990 LB UPLIFT SEE CONNECTOR TABLE OR SIMPSON BOOK FOR ADDITIONAL OPTIONS

Stated dimensions supercede scaled dimensions. Refer all questions to Mark Disosway, P.E. for resolution. Do not proceed without clarification.

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examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with the 7th Edition Florida Building Code Residential (2020) to the best of my knowledge. LIMITATION: This design is valid for one building, at specified location.

CERTIFICATION: I hereby certify that I have

MARK DISOSWAY P.E. 53915

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Thursday, August 26, 2021

Mark Disosway P.E. 163 SW Midtown Place Suite 103 Lake City, Florida 32025 386.754.5419 disoswaydesign@gmail.com

> **JOB NUMBER: S-3**

> > OF 4 SHEETS

CONNECTIONS, WALL, & HEADER DESIGN IS BASED ON REACTIONS & UPLIFTS FROM TRUSS ENGINEERING FURNISHED BY BUILDER. BUILDERS FIRST SOURCE JOB #2902489