

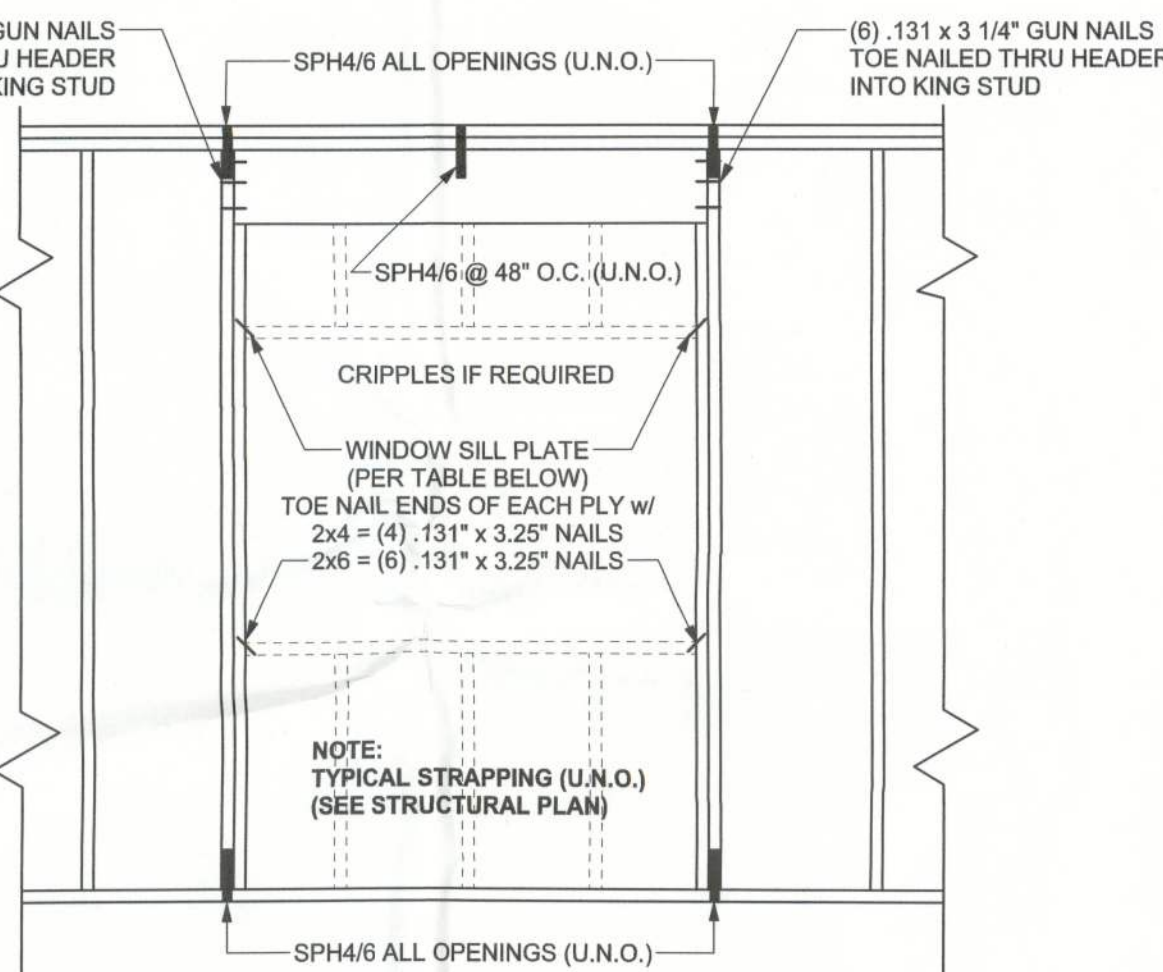
ONE STORY WALL SECTION
SCALE: 3/4" = 1'-0"

**EXTERIOR WALL STUD TABLE
FOR SPF #2 STUDS**

(1) 2x4 @ 16" OC	TO 10'-6" STUD HEIGHT
(1) 2x4 @ 12" OC	TO 11'-1" STUD HEIGHT
(1) 2x6 @ 16" OC	TO 16'-10" STUD HEIGHT
(1) 2x6 @ 12" OC	TO 18'-1" STUD HEIGHT

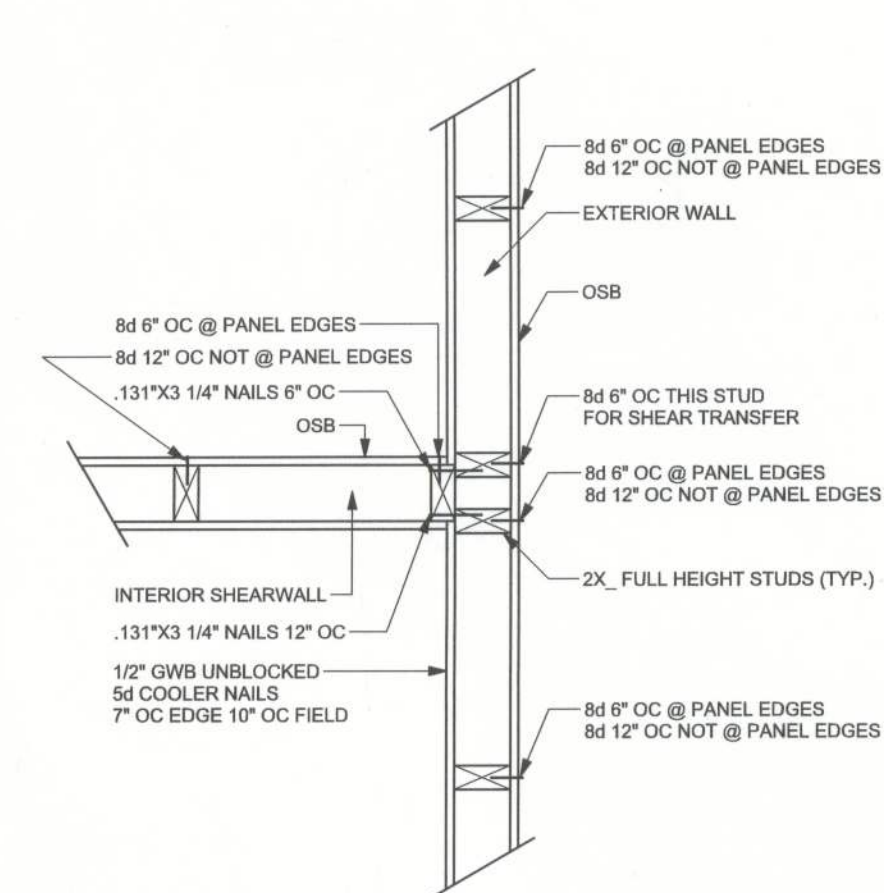
THIS STUD HEIGHT TABLE IS PER WFCM 2001, TABLE 3.20B. EXTERIOR LOAD BEARING & NON LOAD BEARING STUD LENGTHS RESISTING INTERIOR ZONE WIND LOADS 110 MPH EXPOSURE C. STUD SPACINGS SHALL BE MULTIPLIED BY 0.85 FOR FRAMING LOCATED WITHIN 4 FEET OF CORNERS FOR END ZONE LOADING. EXAMPLE 16" O.C. x 0.85 = 13.6" O.C.

NOTE:
IF TRUSS TO WALL STRAPS ARE NAILED TO THE HEADER THE SPH4/6 @ 48" O.C. ARE NOT REQUIRED



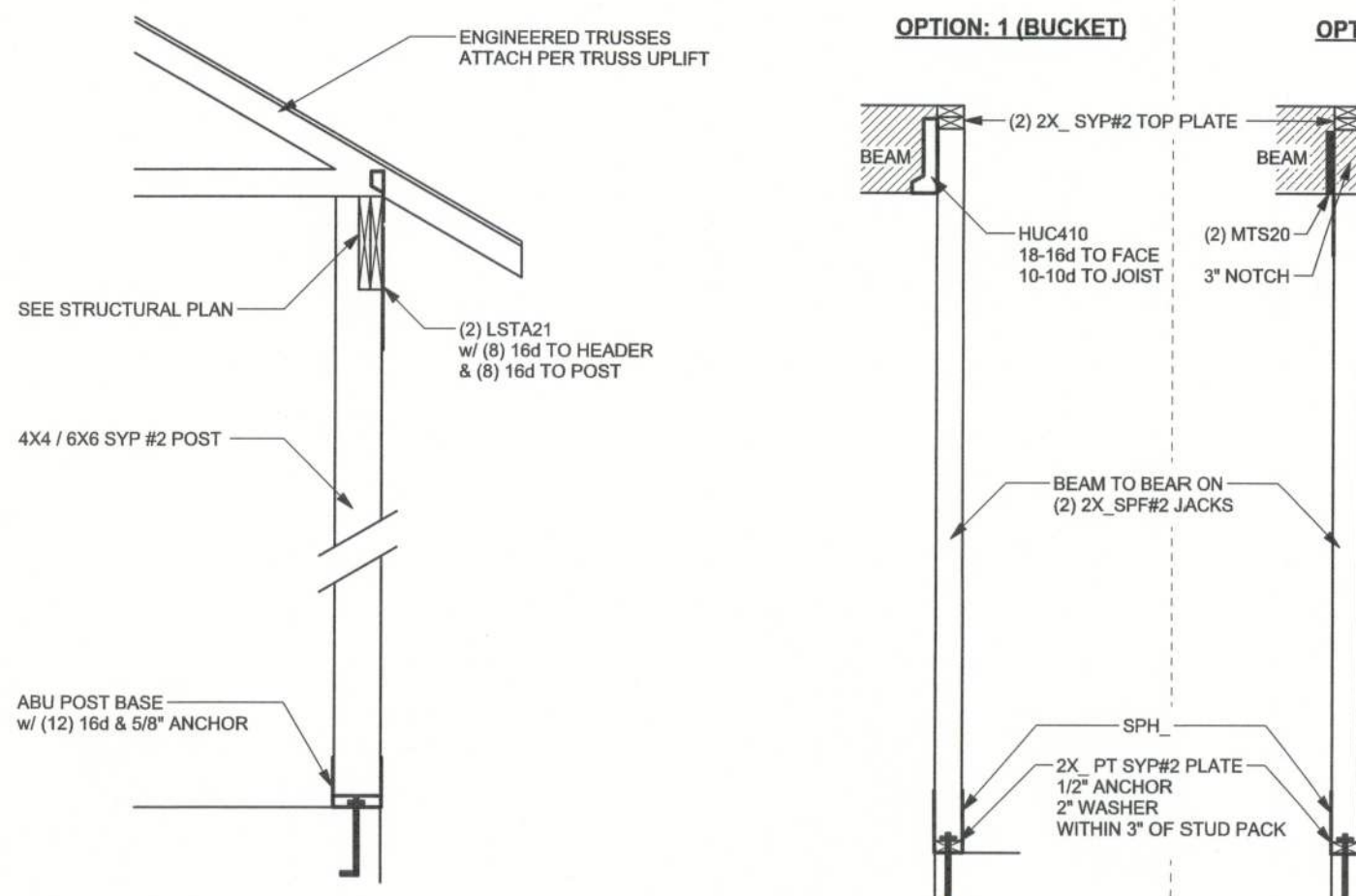
DESIGN WIND SPEED	(1) 2x4	(2) 2x4	(1) 2x6	(2) 2x6
90-100 MPH	5'-3"	7'-5"	7'-8"	11'-4"
110-120 MPH	4'-4"	6'-6"	6'-5"	9'-6"
130 MPH	4'-0"	6'-0"	5'-11"	8'-9"

TYPICAL HEADER STRAPPING DETAIL
SCALE: 1/2" = 1'-0"

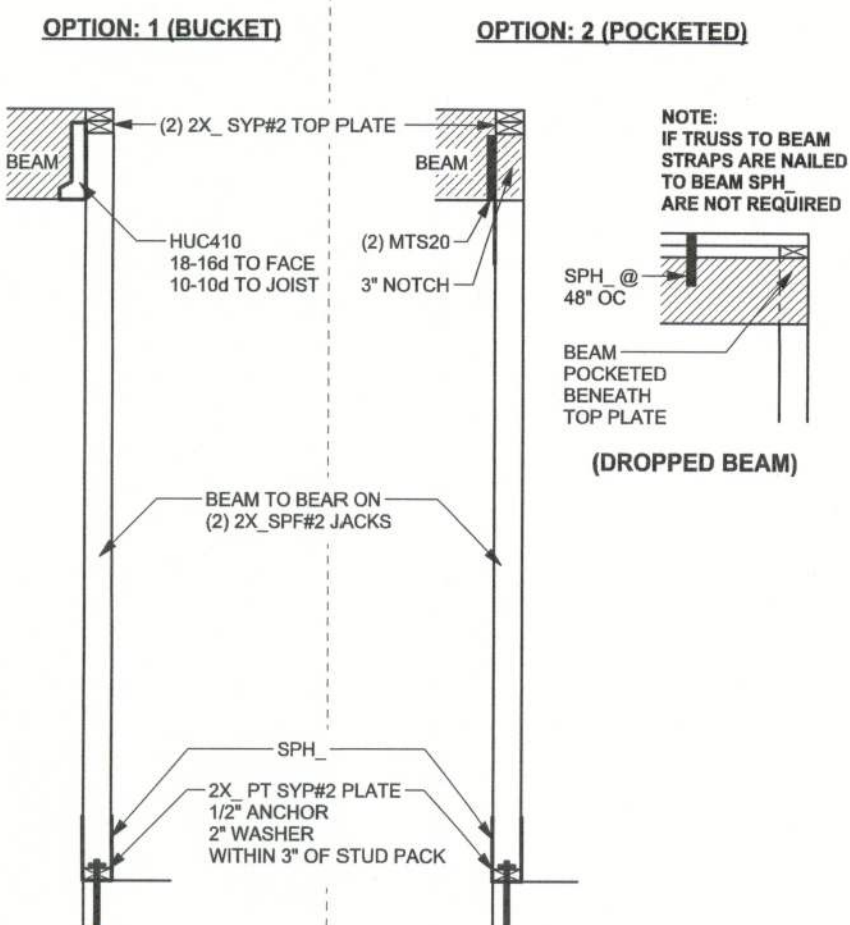


(TYP.) INTERSECTING WALL FRAMING
WOOD FRAME

(TYP.) CORNER FRAMING
WOOD FRAME



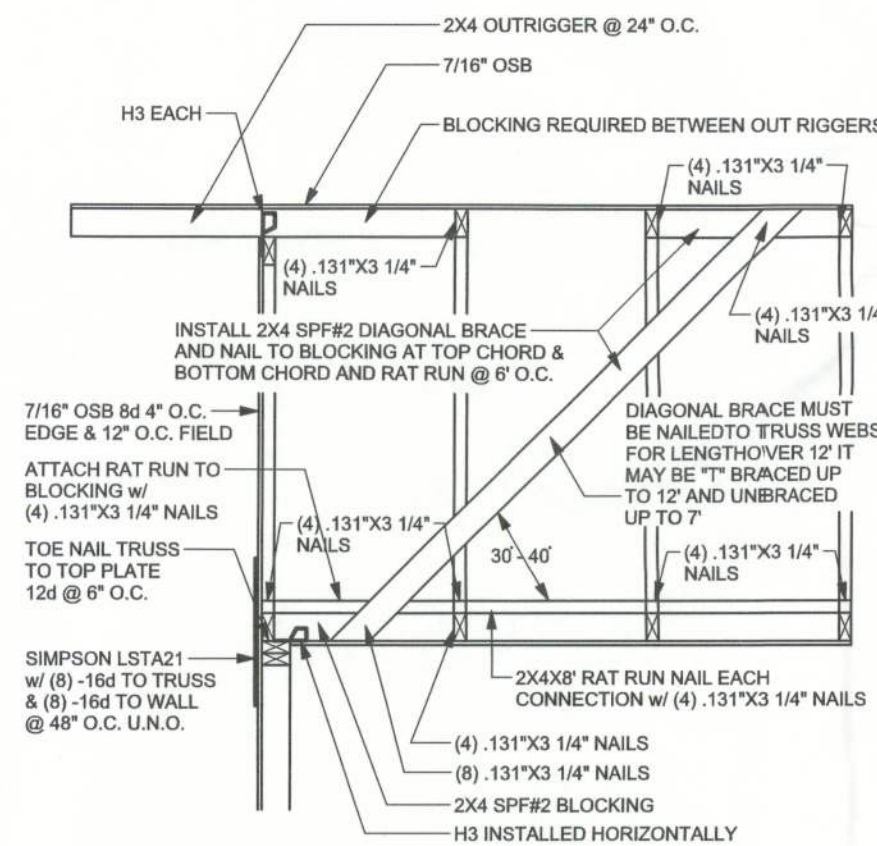
(TYP.) PORCH POST
ONE STORY WOOD



(TYP.) BEAM TO WALL
WOOD FRAME w/ STRAPS & ANCHORS

GRADE & SPECIES TABLE

		Fb (psi)	E (10 ⁶ psi)
2x8	SYP #2	1200	1.6
2x10	SYP #2	1050	1.6
2x12	SYP #2	975	1.6
GLB	24F-V3 SP	2400	1.8
LSL	TIMBERSTRAND	1700	1.7
LVL	MICROLAM	1600	1.9
PSL	PARALAM	2900	2.0

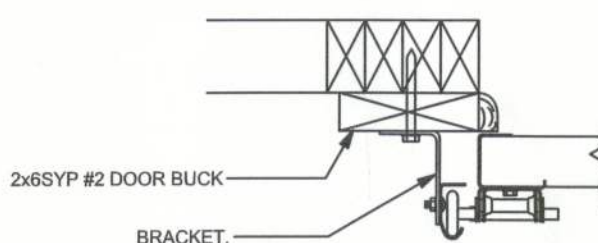


SPACE RAT RUN & DIAGONAL BRACE 6'-0" O.C. FOR GABLE HEIGHT UP TO 25'-0" 110 MPH, EXP. C, ENCLOSED

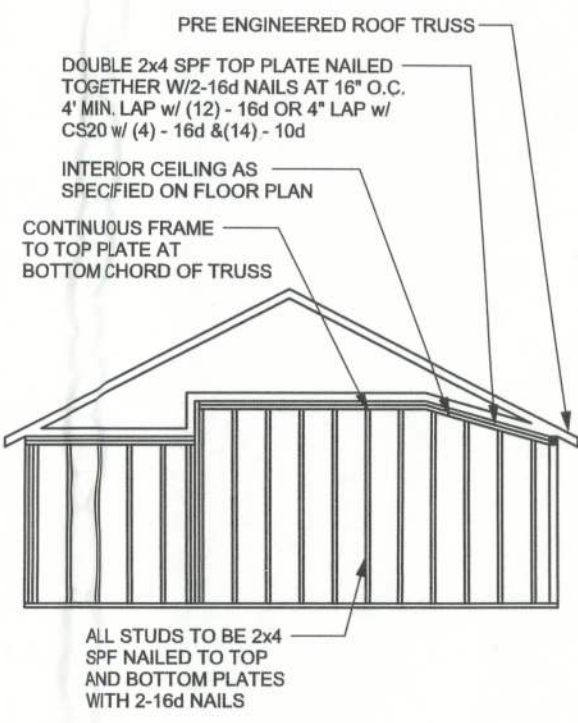
(TYP.) GABLE BRACING DETAIL
WOOD FRAME

2x6 SYP #2 GARAGE DOOR BUCK ATTACHMENT
ATTACH GARAGE DOOR BUCK TO STUD PACK AT EACH SIDE OF DOOR OPENING WITH 3/8"x4" LAG SCREWS w/ 1" WASHER LAG SCREWS MAY BE COUNTERSUNK. HORIZONTAL JAMBS DO NOT TRANSFER LOAD. CENTER LAG SCREWS OR STAGGER 16d NAILS OR (2) ROWS OF .131 x 3 1/4" GN PER TABLE BELOW.

DOOR WIDTH	3/8" x 4" LAG	16d STAGGER	(2) ROWS OF .131 x 3 1/4" GN
8' - 10'	24" O.C.	5" O.C.	5" O.C.
11' - 15'	18" O.C.	4" O.C.	4" O.C.
16' - 18'	16" O.C.	3" O.C.	3" O.C.



GARAGE DOOR BUCK INSTALLATION DETAIL
SCALE: N.T.S.



CONTINUOUS FRAME TO CEILING DIAPHRAGM DETAIL
SCALE: N.T.S.

GENERAL NOTES:

TRUSSES: TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBCR 2007. TRUSS ENGINEERING SHALL INCLUDE TRUSS DESIGN, LAYOUT 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. IT IS THE BUILDER'S RESPONSIBILITY TO VERIFY THE TRUSS DESIGNER FULLY SATISFIED ALL THE ABOVE REQUIREMENTS AND TO 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.
FOUNDATION: CONFIRM THAT THE FOUNDATION DESIGN & SITE CONDITIONS MEET GRAVITY LOAD REQUIREMENTS (ASSUME 1000 PSF BEARING CAPACITY UNLESS VISUAL OBSERVATION OR SOILS TEST PROVES OTHERWISE)

CONCRETE: MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS, F_c = 3000 PSI.

WELDED WIRE REINFORCED SLAB: 6" x 6" W1.4 x W1.4, F_y = 89ksi. WELDED WIRE REINFORCEMENT FABRIC (W.W.M.) CONFORMING TO ASTM A185, LOCATED IN THE TOP OF THE SLAB; SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 3'.

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 WWW 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 60, DEFORMED BARS, F_y = 60 KSI, ALL LAP SPICES 40" DB (25" FOR #5 BARS); UNO. ALL REINFORCEMENT SHALL BE DETAILD AND PLACED IN ACCORDANCE WITH ACI 315-96, U.N.O.

GLULAM BEAMS: GLULAM BEAM, GLB, 24F-V3SP, F_b = 2,4ksi, E = 1800ksi; UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALCULATIONS.

ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS. 7/16" OSB SHEATHING, UNLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (131), 6" OC PANEL EDGES, 12" OC INTERMEDIATE MEMBERS, GABLE ENDS AND DIAPHRAGM BOUNDARY, 4" OC, UNO.

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 TO ACHIEVE RATED LOADS.

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 15" IN GROUTED CMU.

WASHERS: WASHERS USED WITH 1/2" BOLTS TO BE 2" x 2" x 9/64"; WITH 5/8" BOLTS TO BE 3" x 3" x 9/64"; WITH 3/4" BOLTS TO BE 3" x 3" x 9/64"; WITH 7/8" BOLTS TO BE 3" x 3" x 9/16"; UNO.

NAILS: ALL NAILS ARE COMMON NAILS UNLESS OTHERWISE SPECIFIED OR ACCEPTED BY FBC TEST REPORTS AS HAVING EQUAL STRUCTURAL VALUES.

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 BACKFILL HEIGHT, WIND SPEED AND DEBRIS ZONE, AND FLOOD ZONE.

PROVIDE MATERIALS AND CONSTRUCTION TECHNIQUES, WHICH COMPLY WITH FBCR 2007 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.

PROVIDE A CONTINUOUS LOAD PATH FROM TRUSSES TO FOUNDATION. IF YOU BELIEVE THE PLAN OMITTS A CONTINUOUS LOAD PATH CONNECTION, CALL THE WIND LOAD ENGINEER IMMEDIATELY.

VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS DESIGN, LAYOUT 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 2007, SECTION R301.2.1 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 2007 REQUIRED LOADS AND ANY SPECIAL LOADS. THE BUILDER IS RESPONSIBLE TO 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 TRUSS SHEETS.

MASONRY NOTES:

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 THE ENGINEER IN WRITING.

	ACI530.1-02 Section	Specific Requirements
1.4A	Compressive strength	8" block bearing walls F _m = 1500 psi
2.1	Mortar	ASTM C 270, Type N, UNO
2.2	Grout	ASTM C 476, admixtures require approval
2.3	CMU standard	ASTM C 90-02, Normal weight, Hollow, medium surface finish, 8"x8"x16" running bond and 12"x12" or 16"x16" column block
2.3	Clay brick standard	ASTM C 216-02, Grade SW, Type FBS, 5.5"x2.75"x11.5"
2.4	Reinforcing bars, #3 - #11	ASTM 615, Grade 60, F _y = 60 ksi, Lap splices min 48 bar dia. (30" for #5)
2.4F	Coating for corrosion protection	Anchors, sheet metal ties completely embedded in mortar or grout, ASTM A525, Class G60, 0.60 oz/ft ² or 304SS
2.4F	Coating for corrosion protection	Joint reinforcement in walls exposed to moisture or wire ties, anchors, sheet metal ties not completely embedded in mortar or grout, ASTM A153, Class B2, 1.50 oz/ft ² or 304SS
3.3.E.2	Pipes, conduits, and accessories	Any not shown on the project drawings require engineering approval
3.3.E.7	Movement joints	Contractor assumes responsibility for type and location of movement joints if not detailed on project drawings.

ANCHOR TABLE

OBTAIN UPLIFT REQUIREMENTS FROM TRUSS MANUFACTURER'S ENGINEERING

UPLIFT LBS. SYP	UPLIFT LBS. SPF	TRUSS CONNECTOR*	TO PLATES	TO RAFTER/TRUSS	TO STUDS
< 420	< 245	H5A	3-8d	3-8d	
< 455	< 265	H5	4-8d	4-8d	
< 360	< 320	H4	4-8d	4-8d	
< 455	< 325	H3	4-8d	4-8d	
< 415	< 365	H2.5	5-8d	5-8d	
< 600	< 535	H2.5A	5-8d	5-8d	
< 950	< 820	H6	8-8d	8-8d	
< 745	< 565	H8	5-10d, 1 1/2"	5-10d, 1 1/2"	
< 1465	< 1050	H14-1	13-8d	12-8d, 1 1/2"	
< 1465	< 1050	H14-2	15-8d	12-8d, 1 1/2"	
< 990	< 850	H10-1	8-8d, 1 1/2"	8-8d, 1 1/2"	
< 760	< 655	H10-2	6-10d	6-10d	
< 1470	< 1265	H16-1	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1470	< 1265	H16-2	10-10d, 1 1/2"	2-10d, 1 1/2"	
< 1000	< 860	MTS24C	7-10d 1 1/2"	7-10d 1 1/2"	
< 1450	< 1245	HTS24	12-10d 1 1/2"	12-10d 1 1/2"	
< 2900	< 2490	2 - HTS24			
< 2050	< 1785	LGT2	14 -16d	14 -16d	
HEAVY GIRDER TIEDOWNS*					TO FOUNDATION
< 3965	< 3330	MG1		22 -10d	1-5/8" THREADED ROD 12" EMBEDMENT
< 10980	< 6485	HGT-2		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 10530	< 9035	HGT-3		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
< 9250	< 9250	HGT-4		16 -10d	2-5/8" THREADED ROD 12" EMBEDMENT
STUD STRAP CONNECTOR*					TO STUDS
< 435	< 435	SSP DOUBLE TOP PLATE	3 -10d		4 -10d
< 455	< 420	SSP SINGLE SILL PLATE	1 -10d		4 -10d
< 825	< 825	DSP DOUBLE TOP PLATE	6 -10d		8 -10d
< 825	< 600	DSP SINGLE SILL PLATE	2 -10d		8 -10d
< 885	< 760	SP4			6-10d, 1 1/2"
< 1240	< 1065	SPH4			10-10d, 1 1/2"
< 885	< 760	SP6			6-10d, 1 1/2"
< 1240	< 1065	SPH6			10-10d, 1 1/2"
< 1235	< 1165	LSTA18	14-10d		
< 1235	< 1235	LSTA21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
STUD ANCHORS*					TO STUDS
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTT31	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3695	HTT16	18 - 16d		5/8" AB
< 1400	< 1400	PAHD42	16-16d		
< 3335	< 3335	HPAHD22	16-16d		
< 2200	< 2200	ABU44	12-16d		1/2" AB
< 2300	< 2300	ABU66	12-16d		1/2" AB
< 2320	< 2320	ABU88	18 - 16d		2-5/8" AB

DESIGN DATA

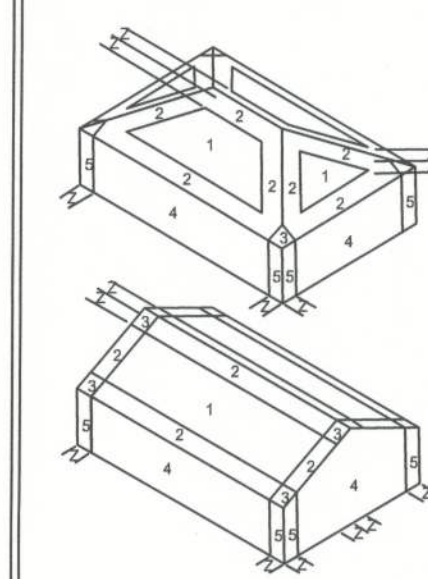
WIND LOADS PER FLORIDA BUILDING CODE 2007 RESIDENTIAL, SECTION R301.2.1

(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 80 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXPOS. B, 30FT IN EXPOS. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)

BUILDING IS NOT IN THE HIGH VELOCITY HURRICANE ZONE

BUILDING IS NOT IN THE WIND-BORNE DEBRIS REGION

- 1.) BASIC WIND SPEED = 110 MPH
- 2.) WIND EXPOSURE = C
- 3.) WIND IMPORTANCE FACTOR = 1.0
- 4.) BUILDING CATEGORY = II
- 5.) ROOF ANGLE = 10-45 DEGREES
- 6.) MEAN ROOF HEIGHT = <30 FT
- 7.) INTERNAL PRESSURE COEFFICIENT = N/A (ENCLOSED BUILDING)
- 8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (TABLE R301.2(2))



Zone	Effective Wind Area (ft ²)	10	100
1	27.8	-30.5	-25.3
2	27.8	-35.7	-30.5
2 Onq		-56.3	-56.8
3	27.8	-35.7	-30.5
3 Onq		-55.6	-59.3
4	30.5	-33.0	-28.5
5	30.5	-40.7	-31.6

Doors & Windows	Worst Case (Zone 5, 10 ft2)	30.5	-40.7
8x7 Garage Door	27.3	-32.0	
16x7 Garage Door	25.9	-29.4	

DESIGN LOADS	
FLOOR	40 PSF (ALL OTHER DWELLING ROOMS)
	30 PSF (SLEEPING ROOMS)
	30 PSF (ATTICS WITH STORAGE)
	10 PSF (ATTICS WITHOUT STORAGE, <3:12)
ROOF	20 PSF (FLAT OR <4:12)
	16 PSF (4:12 TO <12:12)
	12 PSF (12:12 AND GREATER)
STAIRS	40 PSF (ONE & TWO FAMILY DWELLINGS)
SOIL BEARING CAPACITY	1000PSF
NOT IN FLOOD ZONE (BUILDER TO VERIFY)	

REVISIONS

SOFTPLAN
ARCHITECTURAL DESIGN SOFTWARE

WINDLOAD ENGINEER: Mark Disoway, PE No.53915, PDR 868, Lake City, FL 32056, 386-754-5419

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

COPYRIGHTS AND PROPERTY RIGHTS:
Mark Disoway, P.E. hereby expressly reserves its common law copyrights and property right in these instruments of service. This document is not to be reproduced, altered or copied in any form or manner without first the express written permission and consent of Mark Disoway.

CERTIFICATION: I hereby certify that I have examined this plan, and that the applicable portions of the plan, relating to wind engineering comply with section R301.2.1, Florida building code residential 2007, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location.

MARK DISOWAY
P.E. 53915

Mark Disoway
12 JAN 10
SEAL

Stanley Crawford

Spec House
Lot 26
Cannon Creek Place

ADDRESS:
Lot 26 Cannon Creek Place
Columbia County, Florida

Mark Disoway P.E.
P.O. Box 868
Lake City, Florida 32056
Phone: (386) 754 - 5419
Fax: (386) 269 - 4871

PRINTED DATE:
January 12, 2010
DRAWN BY: STRUCTURAL BY: David Disoway

FINALS DATE:
8Jan10

JOB NUMBER:
1001011
DRAWING NUMBER

S-1

OF 3 SHEETS