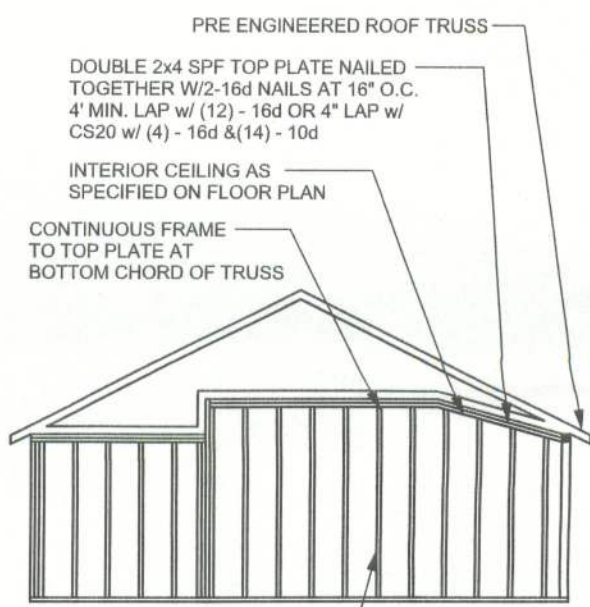


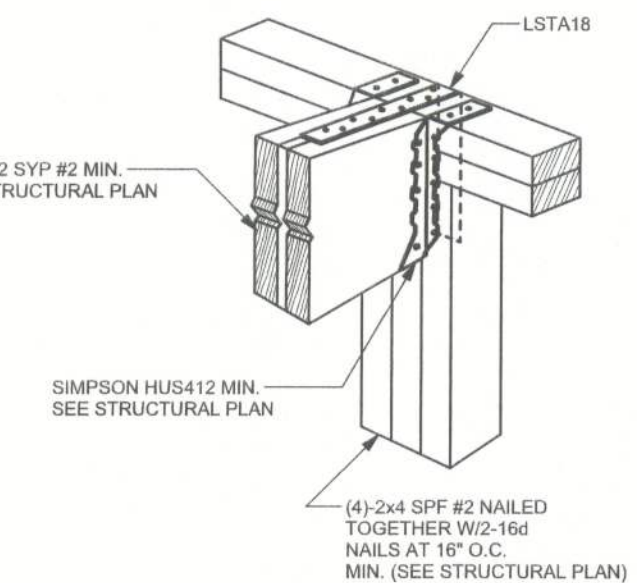
**ONE STORY WALL SECTION**  
SCALE: 3/4" = 1'-0"

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

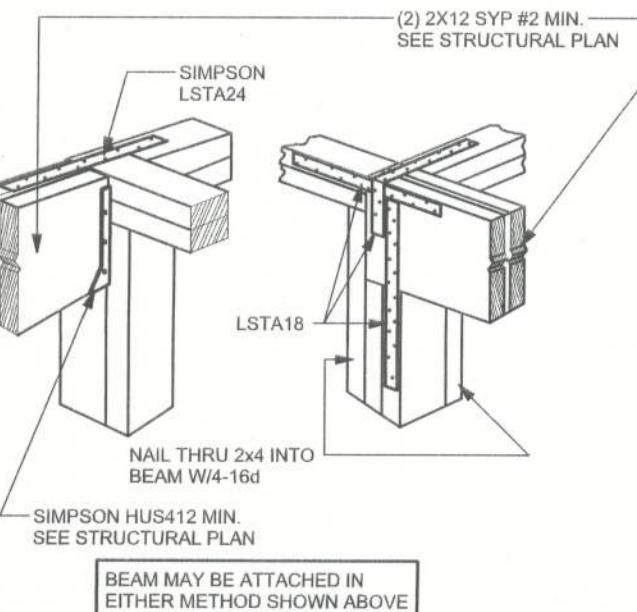
(1) 2x4 @ 16" OC	TO 10'-9" WALL HEIGHT
(1) 2x4 @ 12" OC	TO 13'-0" WALL HEIGHT
(1) 2x6 @ 16" OC	TO 18'-10" WALL HEIGHT
(1) 2x6 @ 12" OC	TO 20.0' WALL HEIGHT



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

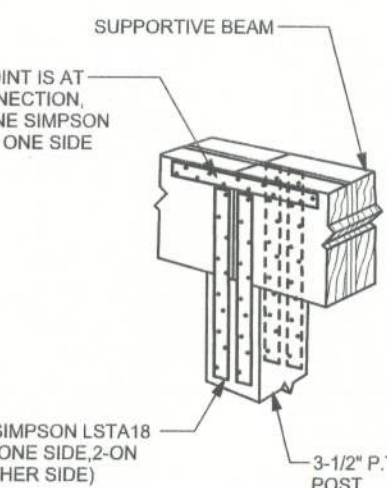


**BEAM MID-WALL CONNECTION DETAIL**  
SCALE: N.T.S.

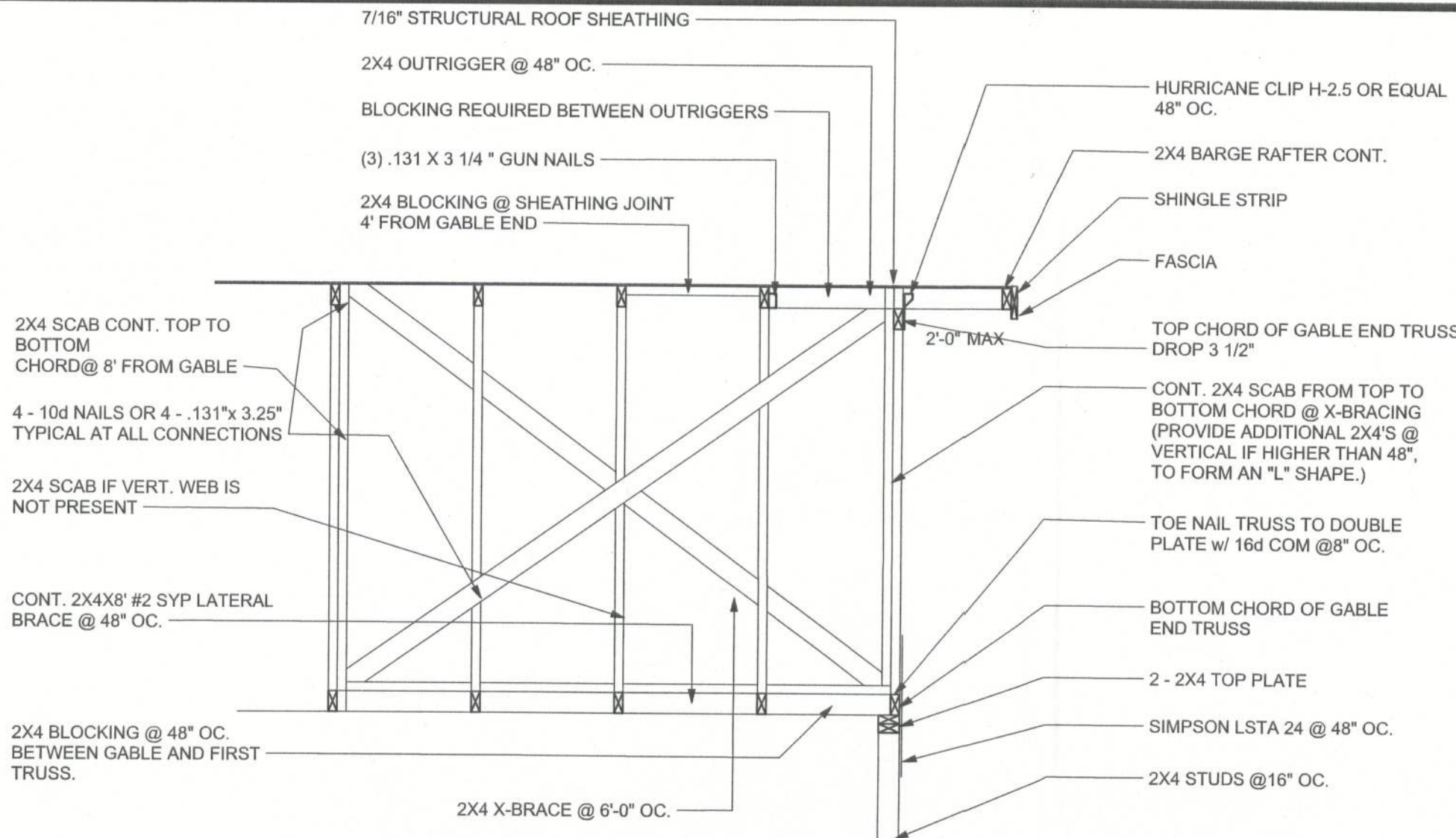


**BEAM CORNER CONNECTION. DETAIL**  
SCALE: N.T.S.

**SUPPORTIVE POST TO BEAM DETAIL FOR SINGLE BEAM**  
SCALE: N.T.S.

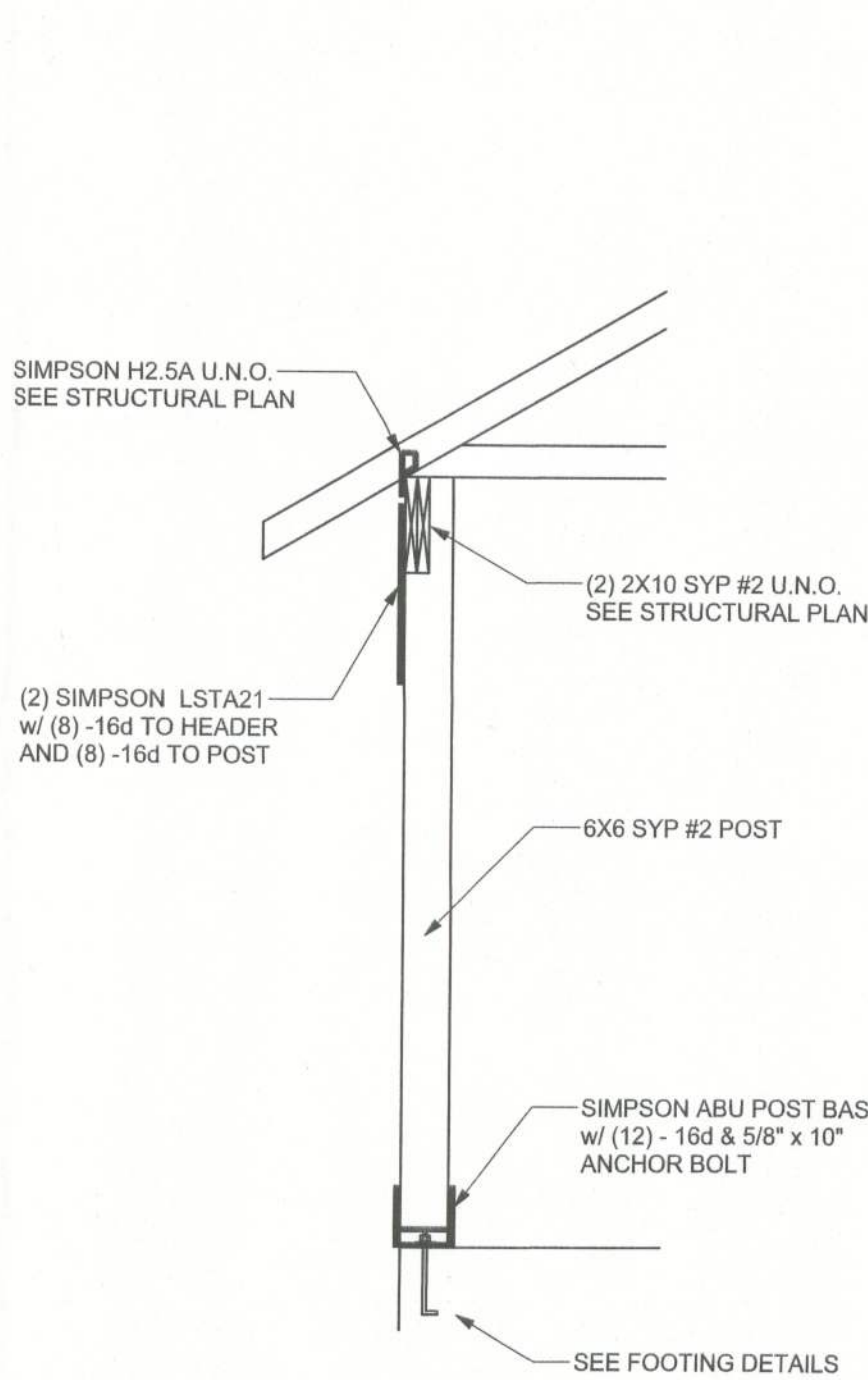


**SUPPORTIVE CENTER POST TO BEAM DETAIL**  
SCALE: N.T.S.

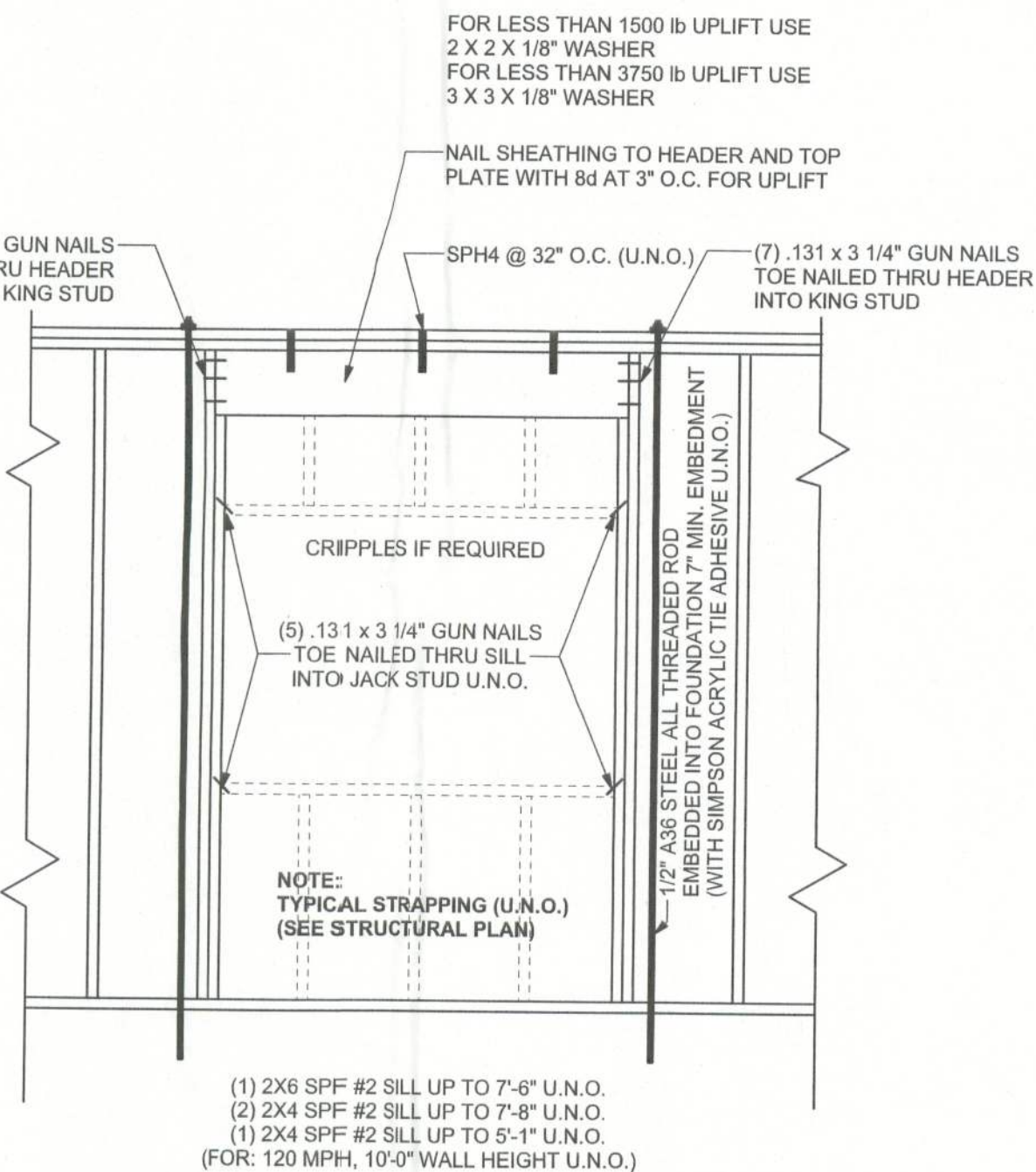


**TYPICAL GABLE END (X-BRACING)**

ALL MEMBERS SHALL BE SYP



**TYPICAL PORCH POST DETAIL**  
SCALE: 1/2" = 1'-0"



**TYPICAL 1 STORY HEADER STRAPING DETAIL**  
SCALE: 1/2" = 1'-0"

**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	< 235	H4	4-8d	4-8d	
< 455	< 320	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, 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	< 2400	2-HTS24			
< 2050	< 1785	LG72	14-16d	14-16d	
HEAVY GIRDER TIEDOWNS*					TO FOUNDATION
< 3965	< 3330	MG7		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"	
< 865	< 760	SP6		6-10d, 1 1/2"	
< 1240	< 1065	SPH6		10-10d, 1 1/2"	
< 1235	< 1165	LST18	14-10d		
< 1235	< 1235	LST21	16-10d		
< 1030	< 1030	CS20	18-8d		
< 1705	< 1705	CS16	28-8d		
STUD ANCHORS*			TO STUDS		TO FOUNDATION
< 1350	< 1305	LTT19	8-16d		1/2" AB
< 2310	< 2310	LTT131	18-10d, 1 1/2"		1/2" AB
< 2775	< 2570	HD2A	2-5/8" BOLTS		5/8" AB
< 4175	< 3685	HDT16	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

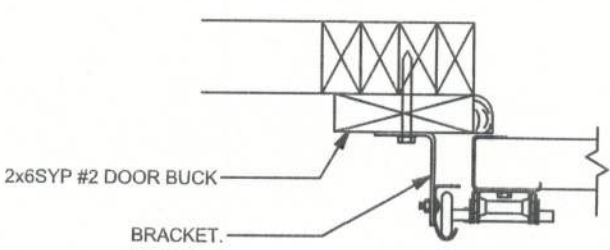
**GRADE & SPECIES TABLE**

		Fb (psi)	E (10 <sup>6</sup> 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	2900	2.0
PSL	PARALAM	2900	2.0

**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 COUNTERSINK. 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.

**GENERAL NOTES:**

**TRUSSES:** TRUSSES SHALL BE DESIGNED BY A FLORIDA LICENSED ENGINEER IN ACCORDANCE WITH THE FBC 2001. 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 SHALL BE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER AND SHALL BE SIGNED & SEALED BY THE MANUFACTURER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY TO VERIFY THE TRUSS DESIGNER'S DESIGN ENGINEER. IT IS THE BUILDER'S RESPONSIBILITY TO VERIFY 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

**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<sub>c</sub> = 3000 PSI.

**WELDED WIRE REINFORCED SLAB:** 6" x 6" W14 x W14, FB = 65KSI, WELDED WIRE REINFORCEMENT FABRIC (W.W.R.) CONFORMING TO ASTM A185, LOCATED IN MIDDLE OF THE SLAB, SUPPORTED WITH APPROVED MATERIALS OR SUPPORTS AT SPACINGS NOT TO EXCEED 12".

**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 W.W.R. 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<sub>y</sub> = 60 KSI, ALL LAP SPICES 48" DB (30" FOR #5 BARS); UNO, ALL REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315-86, U.N.O.

**GLULAM BEAMS:** GLULAM BEAM, GLB, 24F-V3SP, F<sub>b</sub> = 2.4ksi, E = 1800ksi, UNO. SUPPLIER MAY SUPPLY AN ALTERNATE BEAM WITH EQUAL PROPERTIES OR MAY SUBMIT THEIR OWN SIZING CALC. ROOF SHEATHING: ALL ROOFS ARE HORIZONTAL DIAPHRAGMS; 7/16" OSB SHEATHING, UNBLOCKED, APPLIED PERPENDICULAR TO FRAMING, OVER A MINIMUM OF 3 FRAMING MEMBERS, WITH PANEL EDGES STAGGERED, FASTENED WITH 8d COMMON NAILS (131) 4"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 10" 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 5/16"; 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 FBC 2004 REQUIREMENTS FOR THE STATED WIND VELOCITY AND DESIGN PRESSURES.

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

VERIFY THE TRUSS MANUFACTURER'S SEALED ENGINEERING INCLUDES TRUSS 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 FBC 2004, SECTION 1609 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 FBC 2001 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 THE RESPONSIBILITY FOR THE LAYOUT PER NOTES ON THEIR SEALED TRUSS SHEETS.

**DESIGN DATA**

**WIND LOADS PER FLORIDA BUILDING CODE 2004, SECTION 1609**

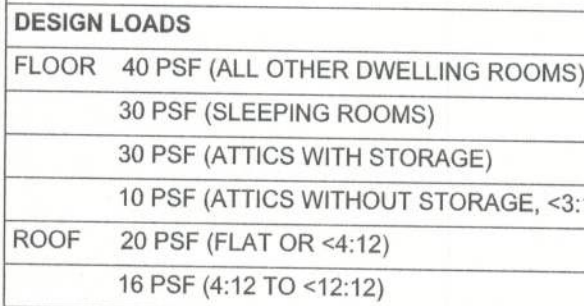
(ENCLOSED SIMPLE DIAPHRAGM BUILDINGS WITH FLAT, HIPPED, OR GABLE ROOFS; MEAN ROOF HEIGHT NOT EXCEEDING LEAST HORIZONTAL DIMENSION OR 60 FT; NOT ON UPPER HALF OF HILL OR ESCARPMENT 60FT IN EXP. B, 30FT IN EXP. C AND >10% SLOPE AND UNOBSTRUCTED UPWIND FOR 50x HEIGHT OR 1 MILE WHICHEVER IS LESS.)

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 = B
- 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, 1609.6)
- 8.) COMPONENTS AND CLADDING DESIGN WIND PRESSURES (FBC TABLE 1609.6 B&C)

Zone	Effective Wind Area (ft <sup>2</sup> )			
	10	10	100	
1	19.9	21.8	18.1	-18.1
2	19.9	25.5	18.1	-21.8
2 Onlg		-40.6		-40.6
3	19.9	25.5	18.1	-21.8
3 Onlg		-68.3		-42.4
4	21.8	23.8	18.5	-20.4
5	21.8	29.1	18.5	-22.6
Doors & Windows Worst Case (Zone 5, 10 ft <sup>2</sup> )		21.8	-29.1	
8x7 Garage Door		19.5	-22.9	
16x7 Garage Door		18.5	-21.0	



**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, POB 868, Lake City, FL 32056, 386-754-5419

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

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**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 1609, Florida building code 2004, to the best of my knowledge.

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

MARK DISOWAY  
P.E. 53915

SEAL

**SPARKS CONSTRUCTION**

Spec House  
Lot 50  
Emerald Forest S/D

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Columbia County, Florida

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PRINTED DATE:  
October 04, 2005

DRAWN BY: David Disoway  
CHECKED BY:

FINALS DATE:  
03 / Oct / 05

JOB NUMBER:  
509016

DRAWING NUMBER

**S-1**

OF 6 SHEETS