

Load Bearing Header Sizing Methods (BY BUILDER)

- Determine header size from FBC 2001, Tables 2308.3 A, B, & C, or 2308.5.
- Use supplier published data or Southern pine span tables.
- For engineered lumber beams have suppliers engineer size beam.
- Jack Studs and King Studs (BY BUILDER)
- Lookup jack studs from FBC 2001, Tables 2308.3 A, B, & C, or 2308.5.
- Use one jack stud for every 3000 lb vertical load.
- Total king plus jack studs + studs needed to be there if no opening was there.
- Calculate the uplift at each end of the header by summing the moments of all truss uplifts and dividing by the length of the header.
- Select header connections from table below or mfg. catalog to connect header to stud (top connector) and stud to foundation (bottom connector).

Option #	Uplift, lb.	Top Connector	Bottom Connector
#1	< 800	End nail or toe nail w/ 13"x3.25"	SP4, 6-10d x 1 1/2"
#2	< 1500	LSTA12, 10-10d	(2) SP4, 6-10d x 1 1/2", 5" AB
#3	< 1750	LSTA18, 14-10d	1055 LTT20B, 10-16d x 1 1/2" AB
#4	< 2500	(2) LSTA18, 14-10d	2110 LTT131, 18-10d x 1 1/2" AB
#5	< 3885	(2) LSTA18, 14-10d	3480 HTT16, 18-16d x 1 1/2" AB

Uplift greater than 3885 lb requires engineering design.

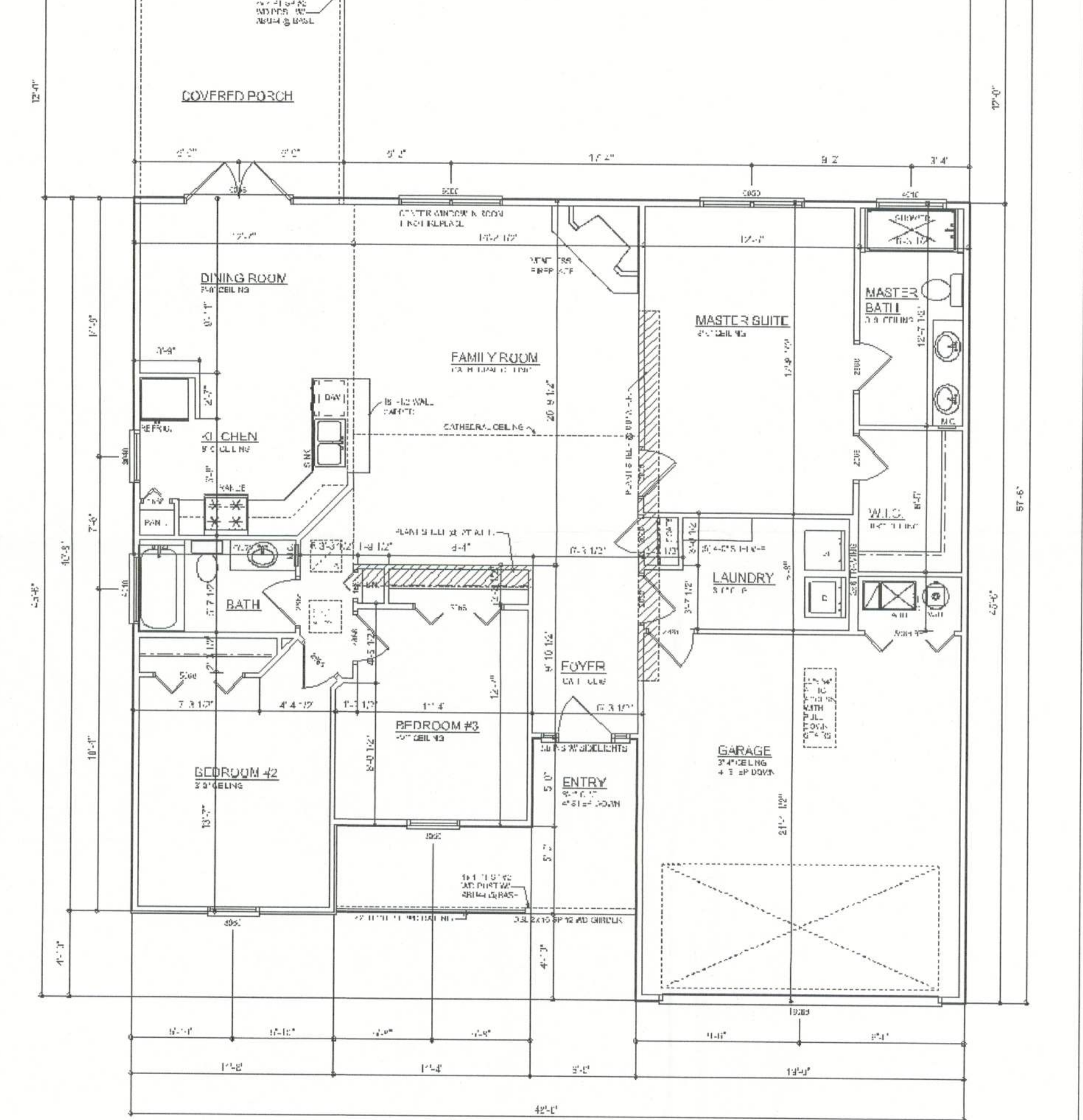
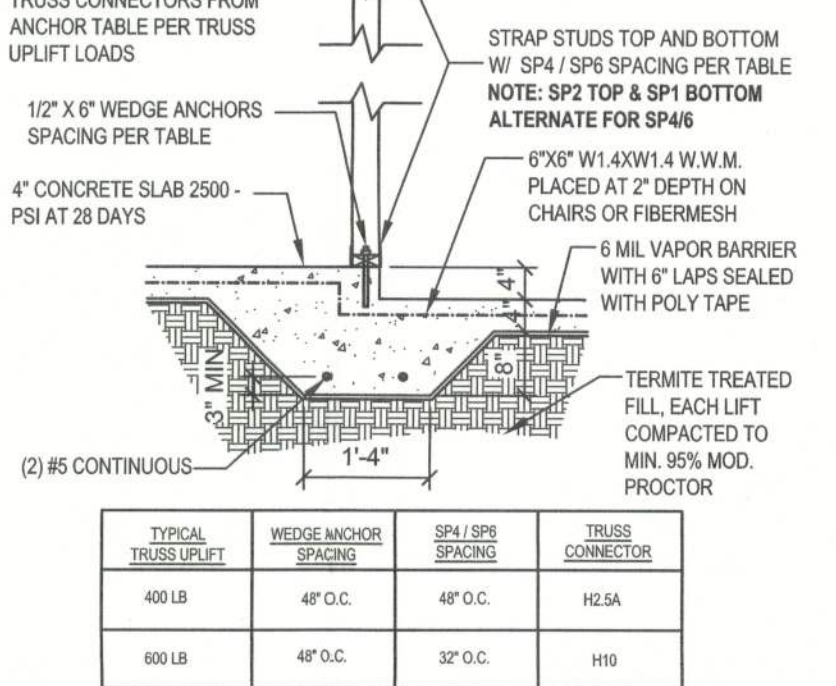
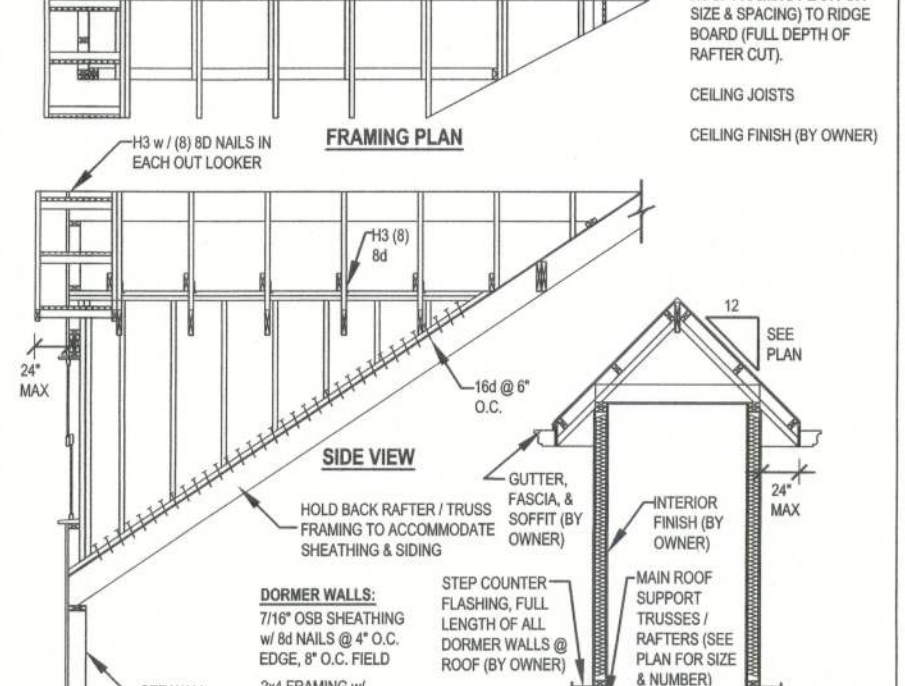
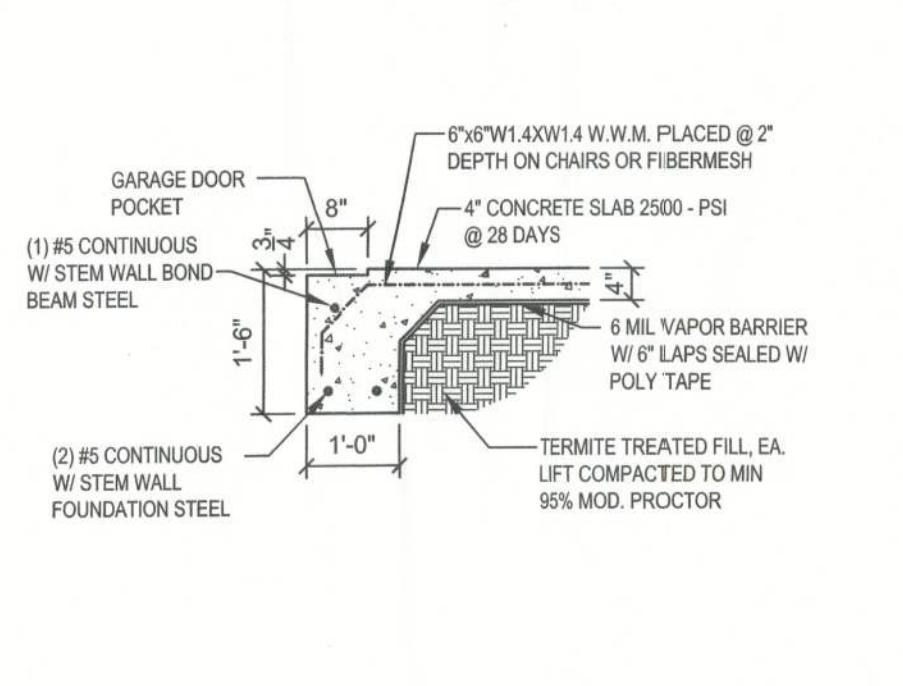
FBC2001, TABLE 2308.3A
Header Spans For Lateral Bearing Walls Supporting Roof/Ceiling (24psi-24psi)

Header Spans (ft)	Building Width / Truss Span (ft)			
	20	28	36	44
2-2 1/2	3-4	1	3-2	1
2-2 1/2	5-5	1	4-8	1
2-2 1/2	6-10	1	5-11	2
2-2 1/2	8-5	2	7-3	2
2-2 1/2	9-9	2	8-5	2
2-2 1/2	8-4	1	7-5	1
3-2 1/2	10-6	1	9-1	2
3-2 1/2	12-2	2	10-7	2
4-2 1/2	9-2	1	8-4	1
4-2 1/2	11-8	1	10-6	1
4-2 1/2	14-1	1	12-2	2

NOTES: NJ = Number of jack studs required to support each end. Building width is measured perpendicular to the ridge. For widths between those shown, spans may be interpolated. Spans are based on uniform loads on header.

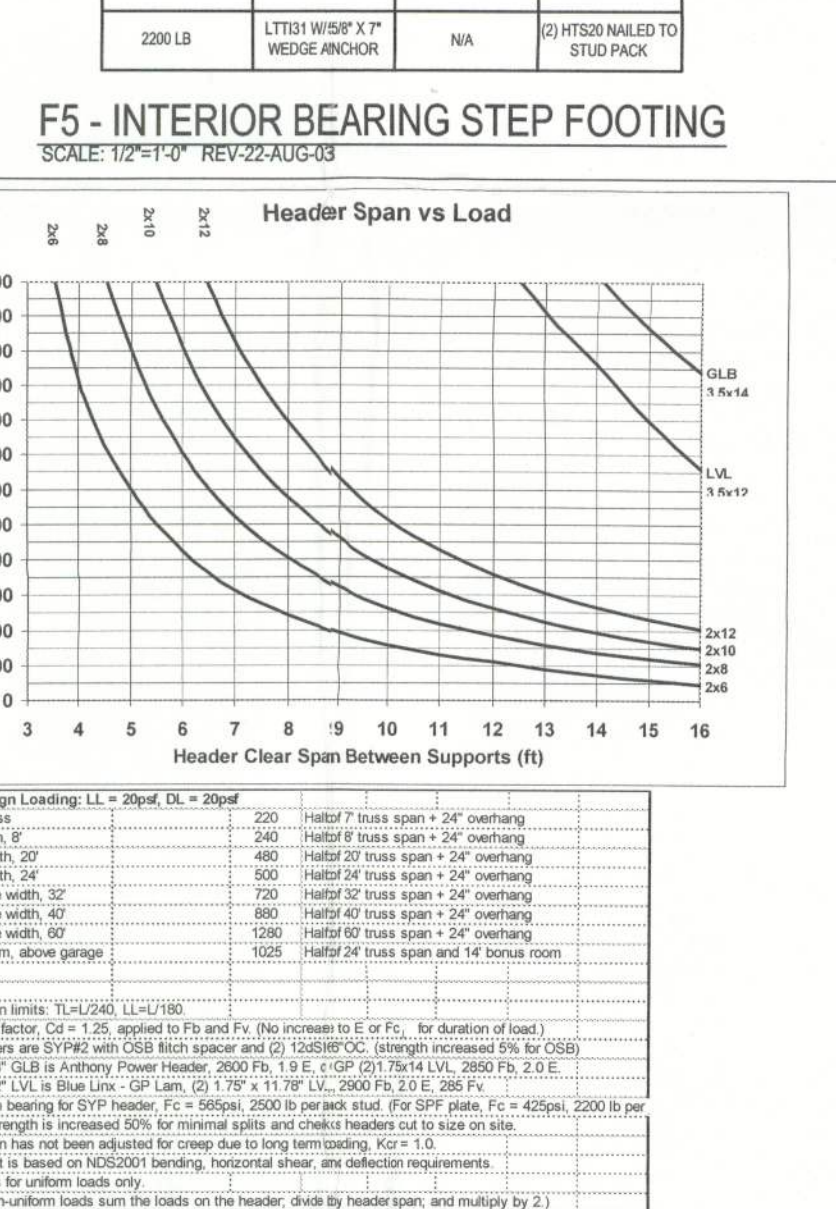
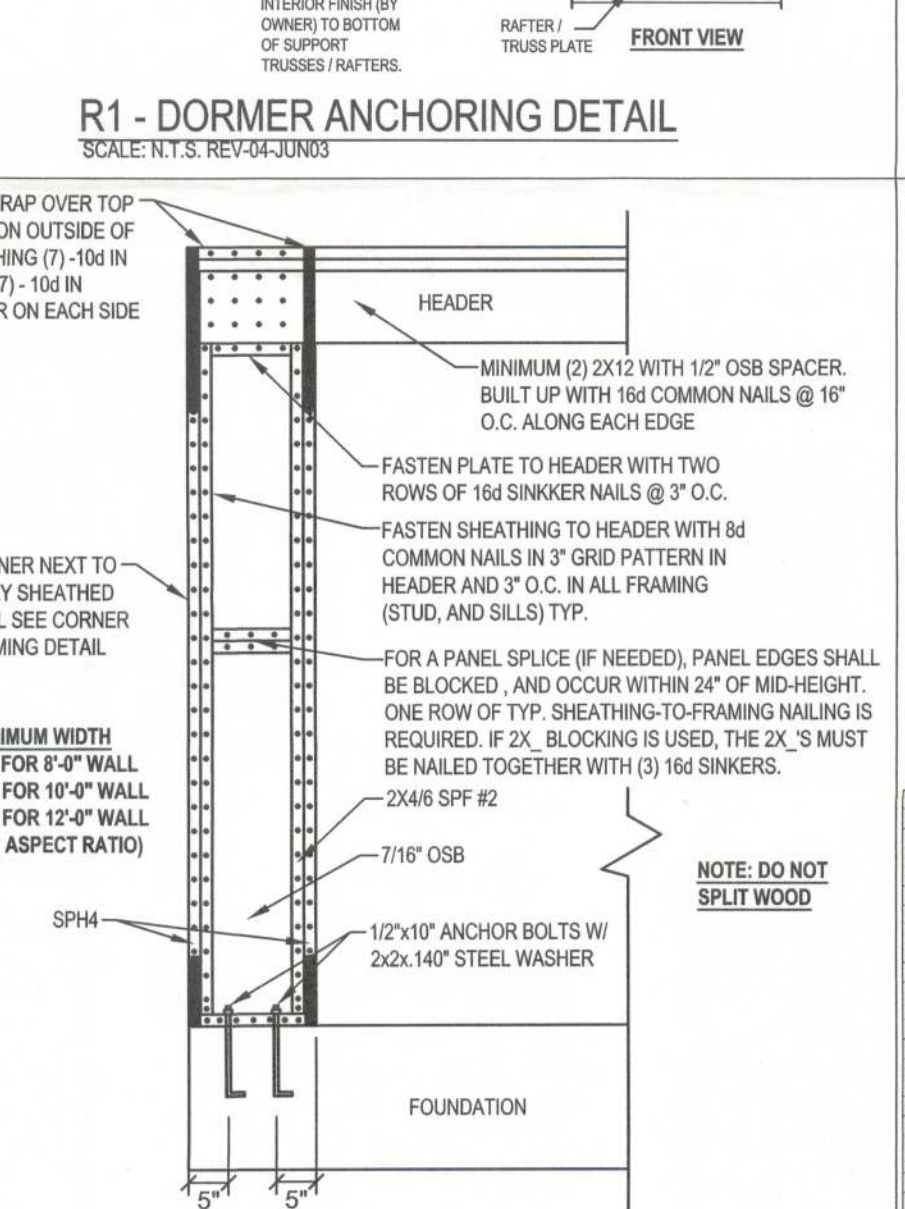
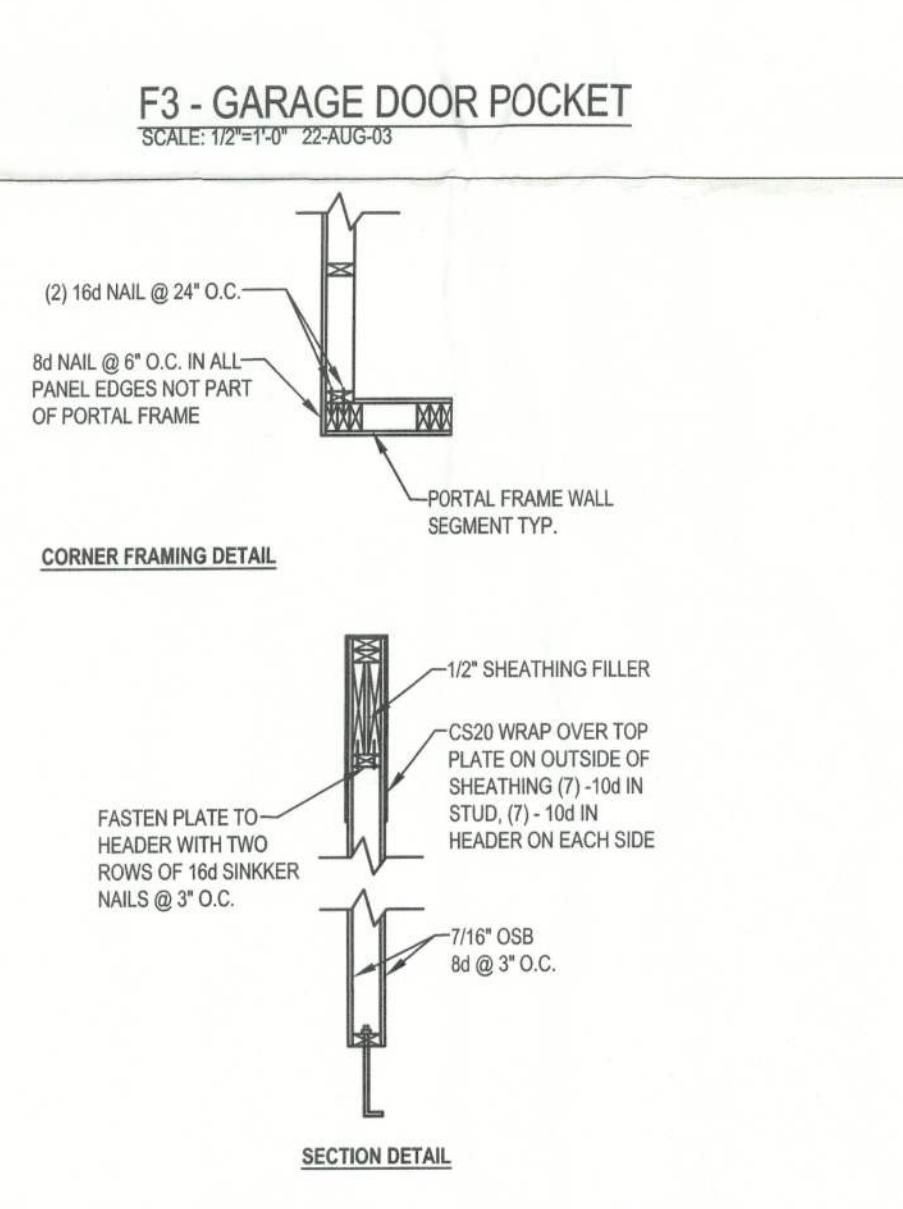
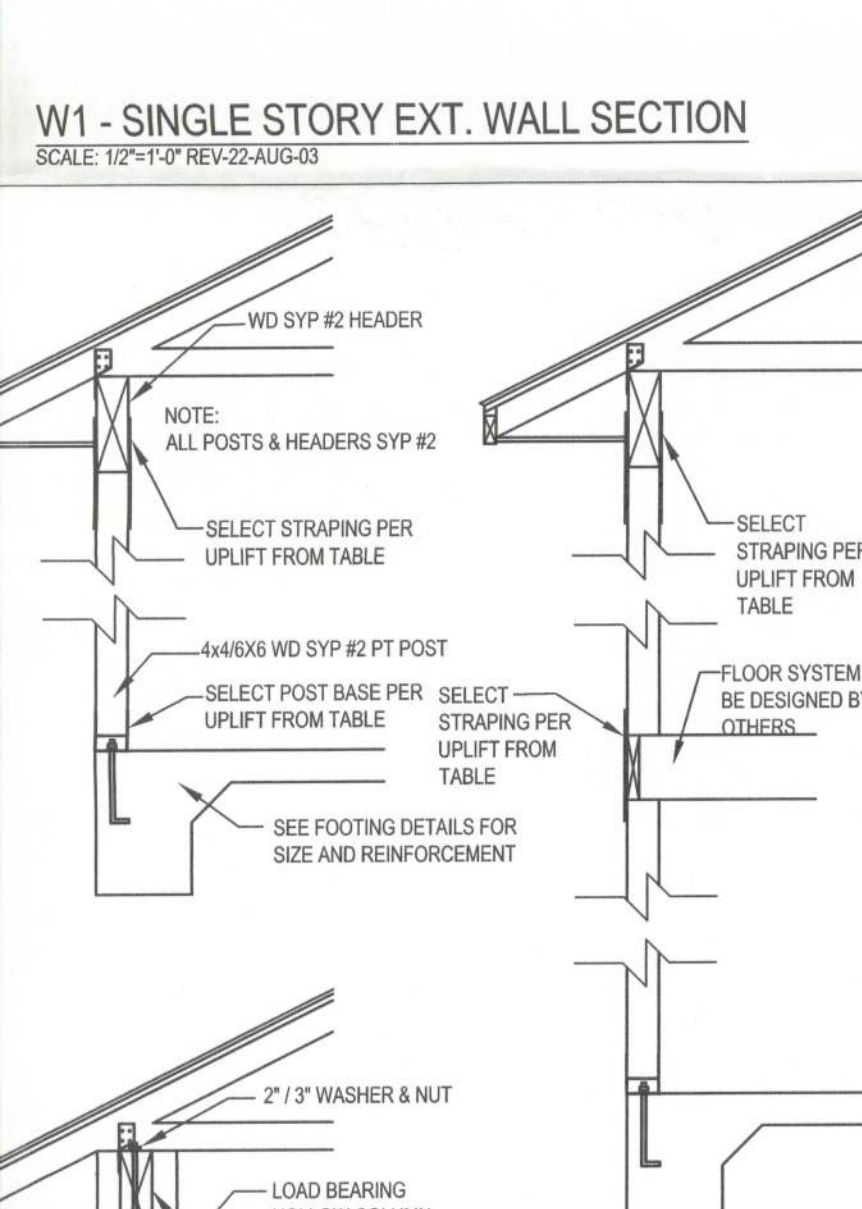
STUD ANCHOR TABLE

TYPICAL TRUSS UPLIFT & MAX 12\"/>



N2-GENERAL NOTES:

FOUNDATION: FOR POINT LOADS GREATER THAN 5000 LB OR REPETITIVE TRUSS LOADS GREATER THAN 2000 LB PER TRUSS PROVIDE A THICKENED SLAB OR PAD FOOTING 1'-0\"/>



N4-WIND LOAD DESIGN DATA

(Wind loads are per FBC 2001, Section 1606.2 for enclosed simple diaphragm buildings with mean roof height less than 60' or the least horizontal dimension, not sited on the upper half of an unobstructed 60' high hill with >10% slope.)

Basic Wind Speed	110 MPH
Wind Exposure	B
Wind Importance Factor	1.0
Building Category	II
Internal pressure Coefficient	N/A (Enclosed)
Building not in the high velocity hurricane zone	
Building not in the wind-borne debris region	
Mean Roof Height	< 30 ft
Roof Angle	10-45 degrees

Components And Cladding Wind Pressures (FBC Table 1606.2 B&C)

Zone	Effective Wind Area (ft ²)
1	100
2	100
3	21.8
4	21.8
5	21.8
6	21.8
7	21.8
8	21.8
9	21.8
10	21.8

2-4' min for 6'-21' wall, 2'-10" min for 10'-21' wall.

	Transverse	Longitudinal
Required	32.5'	28.5'
Actual	103.8'	44.0'
All exterior walls are type II shear walls	ACTUAL SHEAR WALL	length is the total of all wall segments with full height sheathing and width to height ratio greater than 1:3.5 (plus special shear wall segments if noted)
REQUIRED SHEAR WALL length is from IRC-605.2007, table 3.17.6A & 3.17B with table 3.17E adjustment for type II shear wall (or equivalent calculation)	REV-27-Jun-03	

N5-TRUSS UPLIFT CONNECTOR TABLE REV-18-NOV-04

All connectors are Simpson Strong-Tie, Inc. Select top and bottom connections from this table or SST catalog to meet truss uplift. Use fasteners as specified.

N6-WIND LOAD DESIGN DATA

(Wind loads are per FBC 2001, Section 1606.2 for enclosed simple diaphragm buildings with mean roof height less than 60' or the least horizontal dimension; not sited on the upper half of an unobstructed 60' high hill with >10% slope.)

Basic Wind Speed	110 MPH
Wind Exposure	B
Wind Importance Factor	1.0
Building Category	I
Internal pressure Coefficient	N/A (Enclosed)
Building not in the high velocity hurricane zone	
Building not in the wind-borne debris region	
Mean Roof Height	< 30 ft
Roof Angle	10-45 degrees

DOCUMENT CONTROL AND PRIORITY: Structural requirements on S-1 control unless the building code or architectural sheets have more stringent requirements. Non-structural requirements on architectural sheets control. Specific requirements take precedence over general requirements. Revision control is by the latest signature date and is the responsibility of the builder.

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DIMENSIONS:

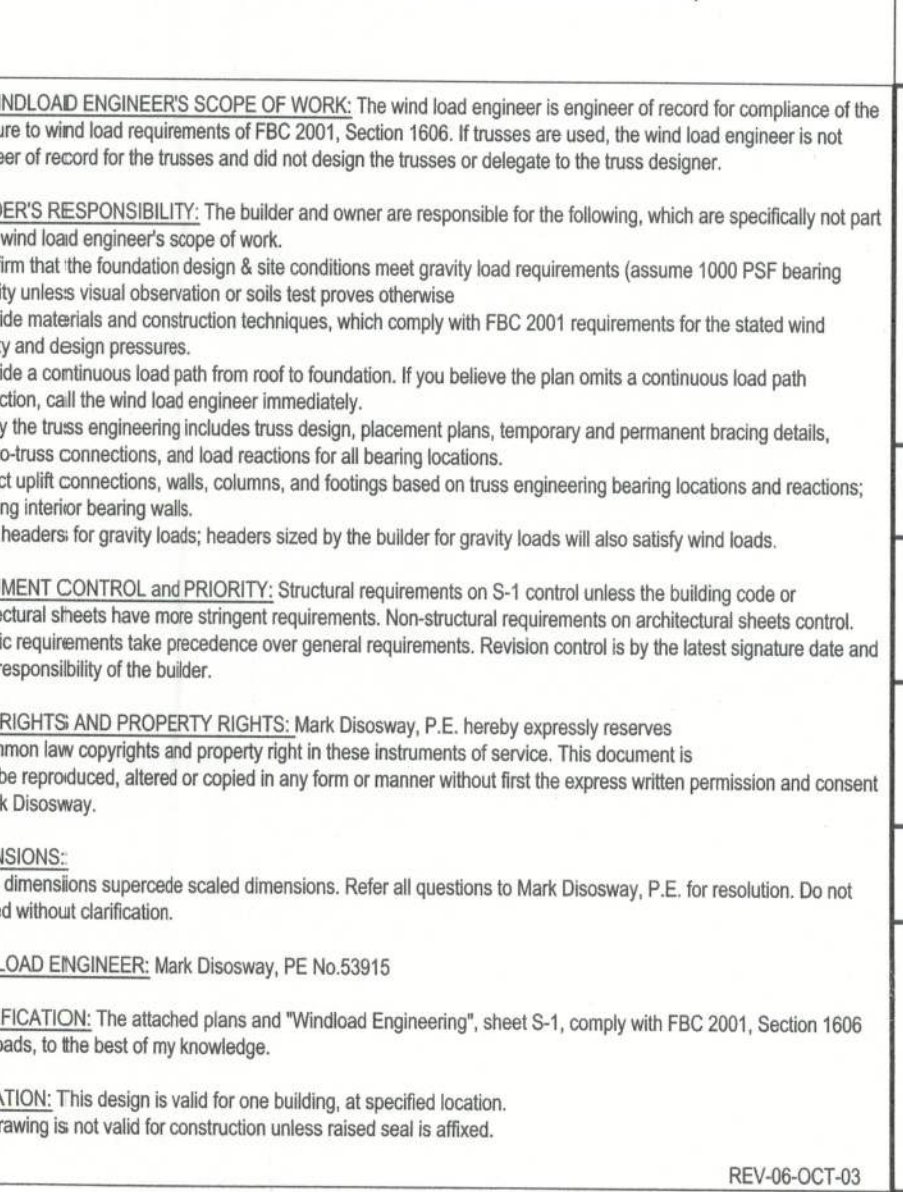
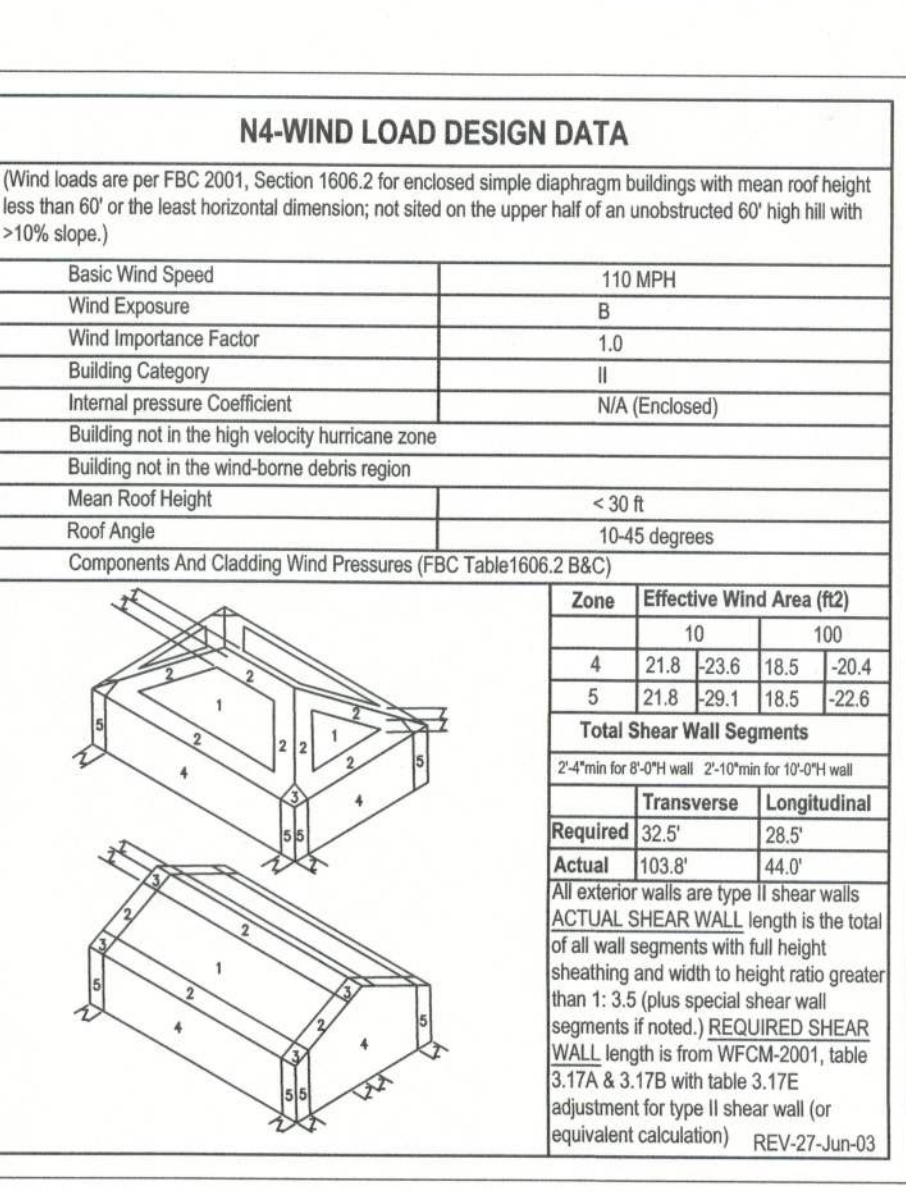
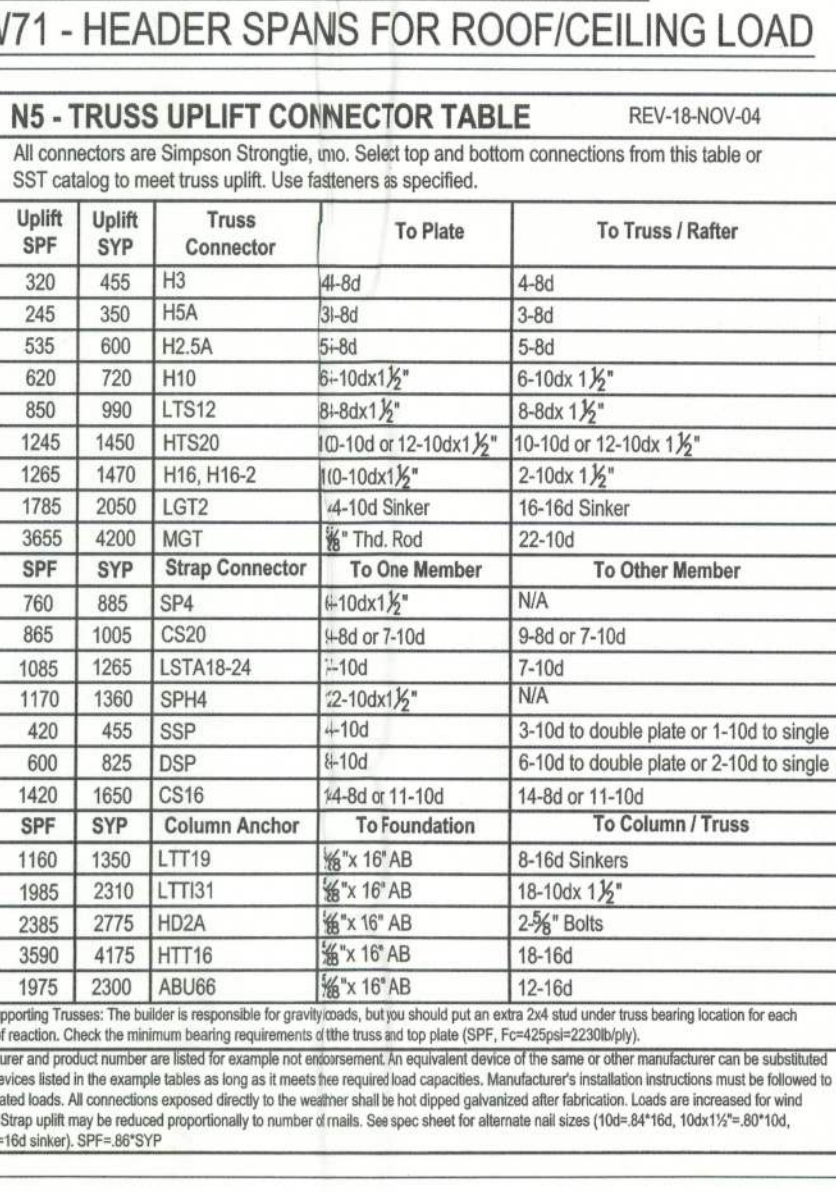
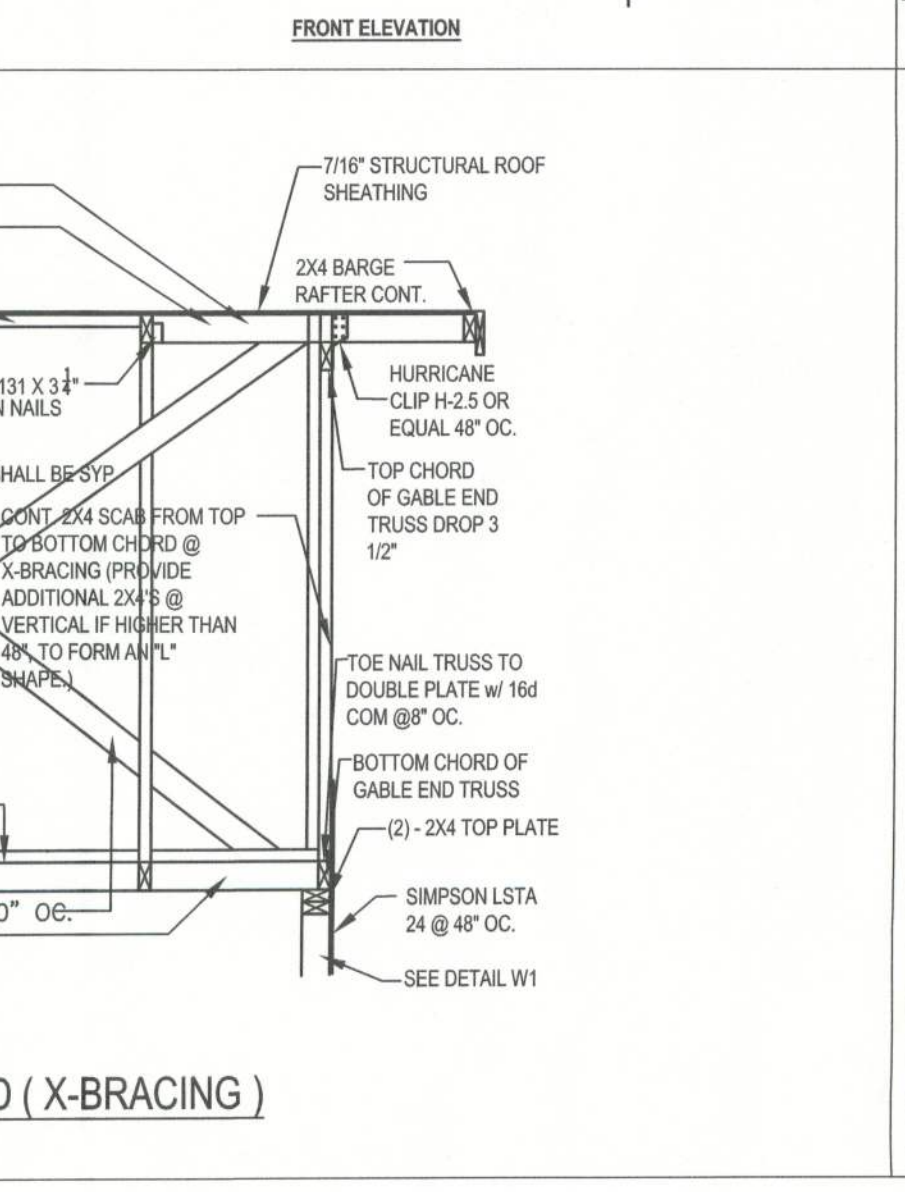
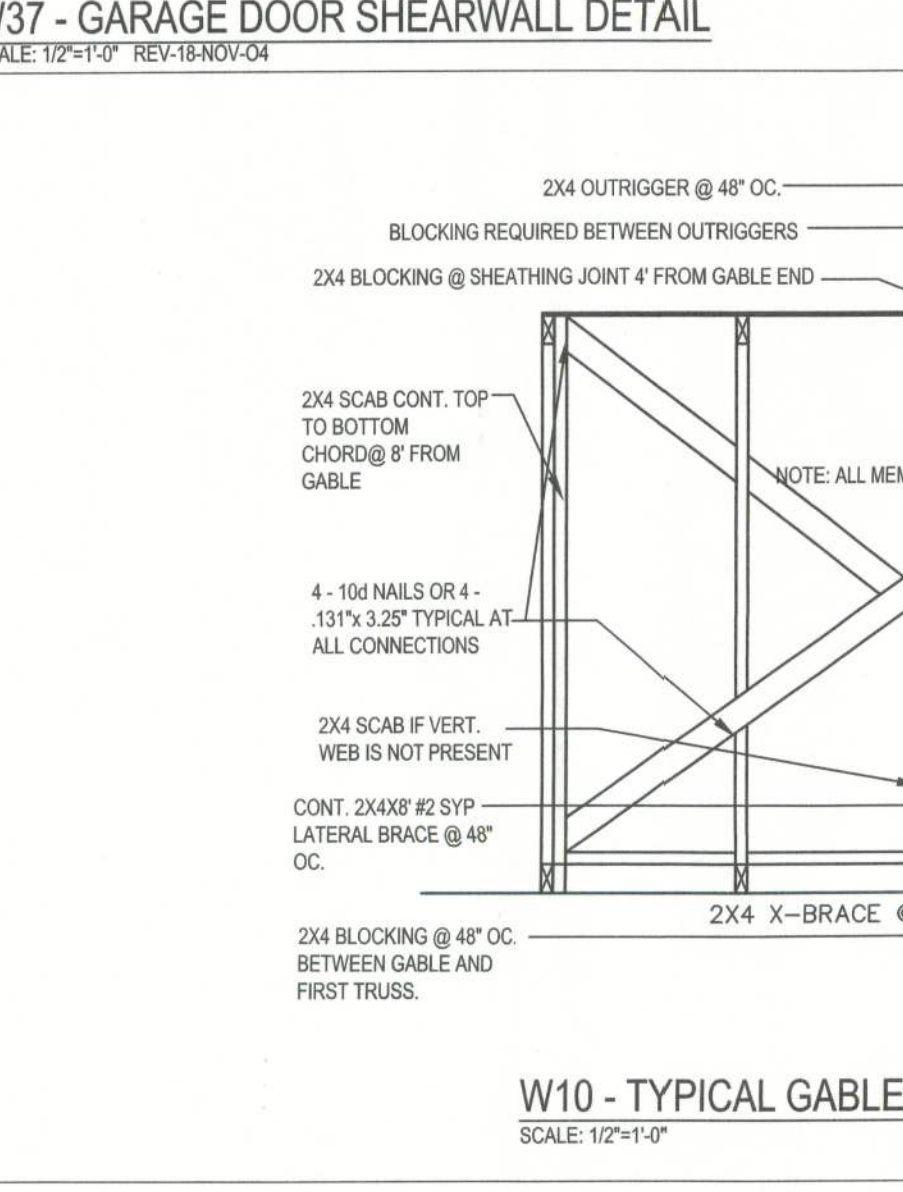
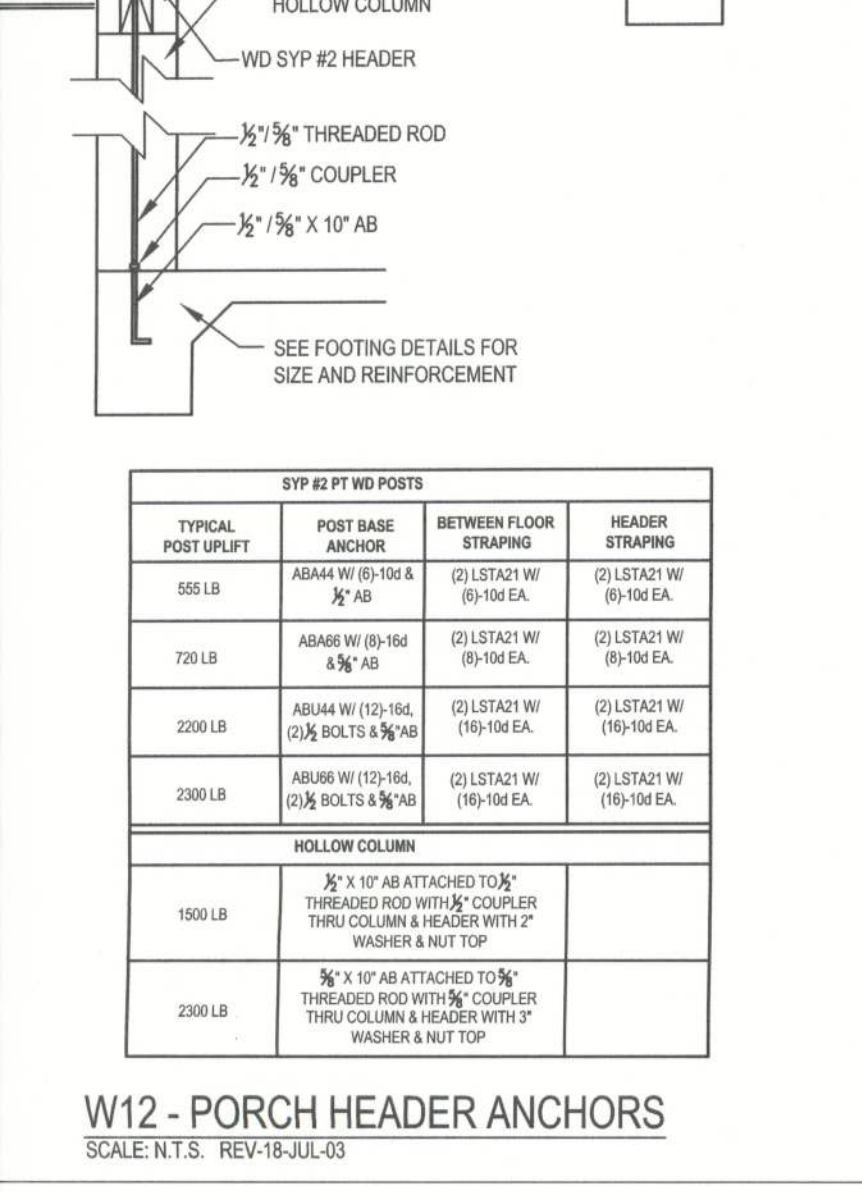
Stated dimensions supersede scaled dimensions. Refer all questions to Mark Discoway, P.E. for resolution. Do not proceed without clarification.

WINDLOAD ENGINEER: Mark Discoway, PE No.53915

CERTIFICATION: The attached plans and "Windload Engineering", sheet S-1, comply with FBC 2001, Section 1606 wind loads, to the best of my knowledge.

LIMITATION: This design is valid for one building, at specified location. This drawing is not valid for construction unless sealed and affixed.

REV-06-OCT-03



WINDLOAD ENGINEERING

"EVERYTHING YOU NEED FOR YOUR BUILDING PERMIT"

Mark Discoway P.E.

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Builder: Aaron Simque

Designer:

Approved: FLPER53915 Revisions:

Sheet S-1 of 1 Sheet

Windload Engineering
Job # 509024