

**INVITATION TO BID**  
**Ft. White Enrichment Center (Senior Center) Pavilion**  
**BID NO. 2017-M**

Please be advised that Columbia County desires to accept bids on the above referenced item. Bids will be accepted until 11:00 a.m. on April 4, 2017 in the office of the Board of County Commissioners located at 135 NE Hernando Ave. Room 203, Lake City, Florida 32055.

Specifications and bid forms may be downloaded at the County web site, <https://webportal.columbiacountyfla.com/list-purchasing-projects.aspx>.

There will be a non-mandatory pre-bid meeting at the site March 28, 2017 at 2:00 P.M.

Columbia County reserves the right to reject any and/or all bids and to accept the bid in the County's best interest.

**Columbia County, Florida  
Purchasing Department  
General Instructions to Bidders**

These instructions will bind bidders and conditions herein set forth, except as specifically qualified in special bid and contract terms issued with any individual bid.

1. The following criteria are used in determining low responsible bidder:
  - A. The ability, capacity and skill of bidder to perform required service.
  - B. Whether the bidder can perform service promptly or within specified time.
  - C. The character, integrity, reputation, judgment, experience and efficiency of bidder.
  - D. The performance of previous contracts with Columbia County.
  - E. The suitability of equipment or material for county use.
  - F. The ability of bidder to provide future maintenance.
2. Payment Terms are net (30) unless otherwise specified. Favorable terms, discounts, may be offered and will be considered in determining low bids if they are deemed by Purchasing Department to be advantageous to the County.
3. All bids should be tabulated, totaled and checked for accuracy. Unit price will prevail in case of errors.
4. All requested information shall be included in the envelope. All desired information must be included for your bid to receive full consideration.
5. If anything on the bid request is not clear, you should contact the Purchasing Director immediately.
6. A bidders list is available at the Purchasing Office.
7. Quote all prices F.O.B. our warehouse or as specified in bid documents.
8. Each proposal shall be clearly marked on the outside of the envelope including Fed Ex, UPS or other delivery service envelopes, as a sealed bid. The name of the item being bid shall be shown on the outside in full.
9. No responsibility shall attach to any County representative or employee for the premature opening of bids not properly addressed or identified.
10. If only one (1) bid is received, the bid may be rejected and re-advertised or excepted if determined to be in the counties best interest.
11. Bids received late will not be accepted, and the County will not be responsible for late mail delivery.
12. Telephone and facsimile bids will not be acceptable in formal bid openings (sealed bids). Should a bid be misplaced by the County and found later, it will be considered. Any bidder may request and shall receive a receipt showing the day and time any bid is delivered to the appropriate office of the County from the personnel thereof.

13. Bids requiring bid bonds will not be accepted if bond is not enclosed. Cash or certified check will be accepted in lieu of bond except on construction projects where cost exceeds \$40,000.
14. All bidders must be recognized dealers in the materials or equipment specified and is qualified to advise in their application or use. A bidder at any time requested must satisfy the Purchasing Office and the County Manager that he has the requisite organization, capital, plant, stock ability and experience to satisfactorily execute the contract in accordance with the provisions of the contract in which he is interested.
15. Any alterations, erasures, additions, or admissions of required information or any changes to specifications or bidding schedule are done at the risk of the bidder. Any bid will be rejected that has a substantial variation, that is; a variation that affects price, quantity, and quality or delivery date (when delivery is required by a specific time).
16. When requested, samples will be furnished to the County free of expense, properly marked for identification and accompanied by a list where there is more than one (1) sample. The County reserves the right to mutilate or destroy any sample submitted whenever it may be to the best interest of the County to do so for the purpose of testing.
17. The County will reject any material, supplies or equipment that did not meet the specifications, even though the bidder lists the trade names or names of such material on the bid or price quotation form.
18. The unauthorized use of patented articles is done entirely at the risk of the successful bidder.
19. The ESTIMATED QUANTITY given in the specifications or advertisements is for the purpose of bidding only. The County may purchase more or less than the estimated quantity and the vendor must not assume that such estimated quantity is part of the contract.
20. Only the latest model equipment as evidenced by the manufacture's current published literature will be considered. Obsolete models of equipment not in production will not be acceptable. The equipment shall be composed of new parts and materials. Any unit containing used parts or having seen any service other than the necessary tests will be rejected. In addition to the equipment specifically called for in the specification, all equipment catalogued by the manufacturer as standard or required by the State of Florida shall be furnished with the equipment. Where required by the State of Florida Motor Vehicle Code, vehicles shall be inspected and bear the latest inspection sticker of the Florida Department of Revenue.
21. The successful bidder on motor vehicle equipment shall be required to furnish with delivery of vehicle, certificate of origin and any other appropriate documentation as required by the Florida Motor Vehicle Department.
22. Prospective bidders are required to examine the location of the proposed work or delivery and determine, in their own way, the difficulties, which are likely to be encountered in the prosecution of the same.

23. All materials, equipment and supplies shall be subject to rigid inspection, under the immediate supervision of the Purchasing Department, its designee and /or the department to which they are delivered. If defective material, equipment, or supplies are discovered, the contractor, upon being instructed by the Purchasing Department or designee, shall remove, or make good such material, equipment, or supplies without extra compensation. It is expressly understood and agreed that the inspection of materials by the County will in no way lessen the responsibility of the Contractor release him from his obligation to perform and deliver to the County Sound and satisfactory materials, equipment, or supplies. The Contractor agrees to pay the costs of all tests upon defective material, equipment, or supplies or allow the costs to be deducted from any monies due him from the County.
24. Unless otherwise specified by the Purchasing Department all materials, supplies, or equipment quoted herein must be delivered within thirty (30) days from the day of notification or exceptions noted on bid sheets.
25. A contract will not be awarded to any corporation, firm, or individual who is, from any cause, in arrears to the County or who has failed in former contracts with the County to perform work satisfactorily, either to the character of the work, the fulfillment or guarantee, or the time consumed in completing the work.
26. Reasonable grounds for supposing that any bidder is interested in more than one proposal for the same item will be considered sufficient cause for rejection of all proposals in which he is interested.
27. Submitting a proposal when the bidder intends to sublet the contract may be a cause for rejection of bids or cancellation of the contract by the County Manager.
28. Unless otherwise specified the County reserves the right to award each items separately or on a lump sum basis whichever is in the best interest of the County.
29. The County reserves the right to reject any and/or all quotations, to waive any minor discrepancies in the bids for all bidders equally, quotations, or specifications, when deemed to be in the best interest of the County and also to purchase any part, all or none of the materials, supplies, or equipment specified.
30. Failure of the bidder to sign the bid or have the signature of an authorized representative or agent on the bid proposal in the space provided will be cause for rejection of the bid. Signature must be written in ink. Typewritten or printed signatures will not be acceptable.
31. Any bidder may withdraw his bid at any time before the time set for the opening of the bids. No bid may be withdrawn in the thirty- (30) day period after bids are opened.
32. It is mutually understood and agreed that if at any time the Purchasing Department or designee shall be of the opinion that the contract or any part thereof is unnecessarily delayed or that the rate of progress or delivery is unsatisfactory, or that the contractor is willfully violating any of the conditions or covenants of the agreement, or executing the same in bad faith, the Purchasing Department or his designee shall have the power to notify the aforesaid contractor of the nature of the complaint. Notification shall constitute delivery of notice, or letter to address given in the proposal. If after three (3) working days of notification the conditions are not corrected to the

satisfaction of the Purchasing Director, he shall thereupon have the power to take whatever action he may deem necessary to complete the work or delivery herein described, or any part thereof, and the expense thereof, so charged, shall be deducted from any paid by the County out of such monies as may become due to the said contractor, under and by virtue of this agreement. In case such expense shall exceed the last said sum, then and in that event, the bondsman or the contractor, his executors, administrators, successors, or assigns, shall pay the amounts of such excess to the County on notice made by the Purchasing Department or his designee of the excess due.

33. If the bidder proposes to furnish any item of foreign make or product, he shall write "foreign" together with the name of the originating country opposite such item on a proposal.
34. Any complaint from bidders relative to the invitation to bid or attached specifications shall be made prior to the time of opening bids; other- wise, the bidder waives any such complaint.
35. Contracts may be cancelled by the County with or without cause on thirty- (30) days advance written notice.
36. All contractors submitting bids for road projects in excess of \$150,000 must be pre-qualified with the Florida Department of Transportation and shall provide proof of such qualification upon request.
37. Any bidder affected adversely by an intended decision with respect to the award of any bid, shall file with the Purchasing Department for Columbia County, a written notice of intent to file a protest not later than seventy-two (72) hours (excluding Saturdays, Sundays and legal holidays), after the posting of the bid tabulation. Protest procedures may be obtained in the Purchasing Department.
38. A person or affiliate who has been placed on the convicted vendor's list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to Columbia County, may not submit a bid on a contract with Columbia County for the construction or repair of a public building or public work, may not submit bids on leases of real property to Columbia County, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with Columbia County, and may not transact business with Columbia County for a period of 36 months from the date of being placed on the convicted vendor list.
39. Vendor/Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system, in accordance with the terms governing use of the system, to confirm the employment eligibility of;
  - A. all persons employed by the Vendor/Contractor during the term of the Contract to perform employment duties within Florida; and
  - B. all persons, including subcontractors, assigned by the Vendor/Contractor to perform work pursuant to the contract with the County.

**Project: Fort White Lifestyle Enrichment Center (Senior Center)**

**We would like for qualified contractors to bid on the construction of a 24ft. x 32ft. Pavilion to be constructed at the Ft. White Lifestyle Enrichment Center (Senior Center). Located on the south side of Ft. White on US Hwy 47.**

**Scope of Work**

**GENERAL**

- The following scope of work has been prepared to clarify items of responsibility and is not intended to be all-inclusive. Any and all scope items reasonably necessary for a complete construction of Pavilion must be included.
- If any inconsistencies within the Contract Documents arise, the most stringent shall govern.
- Unless otherwise noted, all work should include labor, material, equipment, supervision, insurance, and taxes (including sales tax).
- All work will be completed according to the Schedule prepared by the Board of County Commissioners.
- All construction to be done according to plans and specifications provided by the County.
- The Contractor will include the following:
  - All hoisting, unloading, receiving and proper storage of the materials.
  - All Pressure Treated material used on this project must be from a certified treatment plant.
  - Complete all engineering and layout required to accomplish the work from established axis lines, reference points and bench marks which have been provided by others. Assistance in layout by County personnel and/or others does not relieve this subcontractor of layout errors.
  - All scaffolding, hoisting, operators, fuel and associated equipment necessary to properly perform the Work.

- Compliance with project rules and regulations set forth by County and in accordance with OSHA regulations.
- Cost of all permits, licenses and fees. County permit will be required but at no cost.
- A responsible supervisor must be on site at all times while his/her company is working. This supervisor must have the authority to make final decisions regarding the allocation of contractor's resources.
- This project will be constructed next to an occupied facility; workers will conduct themselves in a respectful manor.
- This project will have a cleanup required daily.
- Chemical toilets will be furnished and paid for by Contractor.
- Subcontractors will be required to haul their construction trash and debris to a centralized dumpster provided by Contractor on a daily basis.

**NOTES: 1.THE CONSTRUCTION DOCUMENTS INDICATE THAT THE ROOF IS A STANDING SEEM METAL ROOF BUT THIS HAS BEEN CHANGED TO 29 GAUGE MASTER RIB 5 RIB METAL ROOF PANEL INSTALLED TO MANUFACTURERS SPECIFICATIONS.**

**2. COLORS FOR ROOF METAL AND PAINT COLORS TO BE SELECTED AT A LATER DATE.**

END OF SCOPE OF WORK

**BID FORM  
2017-M  
Ft. White Enrichment Center (Senior Center) Pavilion  
COLUMBIA COUNTY BOARD OF COUNTY COMMISSIONERS**

Bids must be received in the Office of the Board of County Commissioners, Columbia County, 135 NE Hernando Avenue, Room 203, Lake City, FL, 32055 no later than 11:00 A.M., on April 4, 2017.

Columbia County reserves the right to reject any and/or all bids and to accept the bid in the county's best interest, bid F.O.B., Columbia County, Florida.

**Lump Sum** \$ \_\_\_\_\_

I certify that this bid meets or exceeds the County specifications and that the undersigned bidder declares that I have carefully examined the specifications, term and conditions of this bid and I am thoroughly familiar with its provisions. The undersigned bidder further declares that he/she has not divulged, discussed or compared his bid with any other bidders and has not colluded with any other bidders or parties to a bid whatsoever for any fraudulent purpose.

COMPANY: \_\_\_\_\_ DATE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE NO: \_\_\_\_\_

EMAIL: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

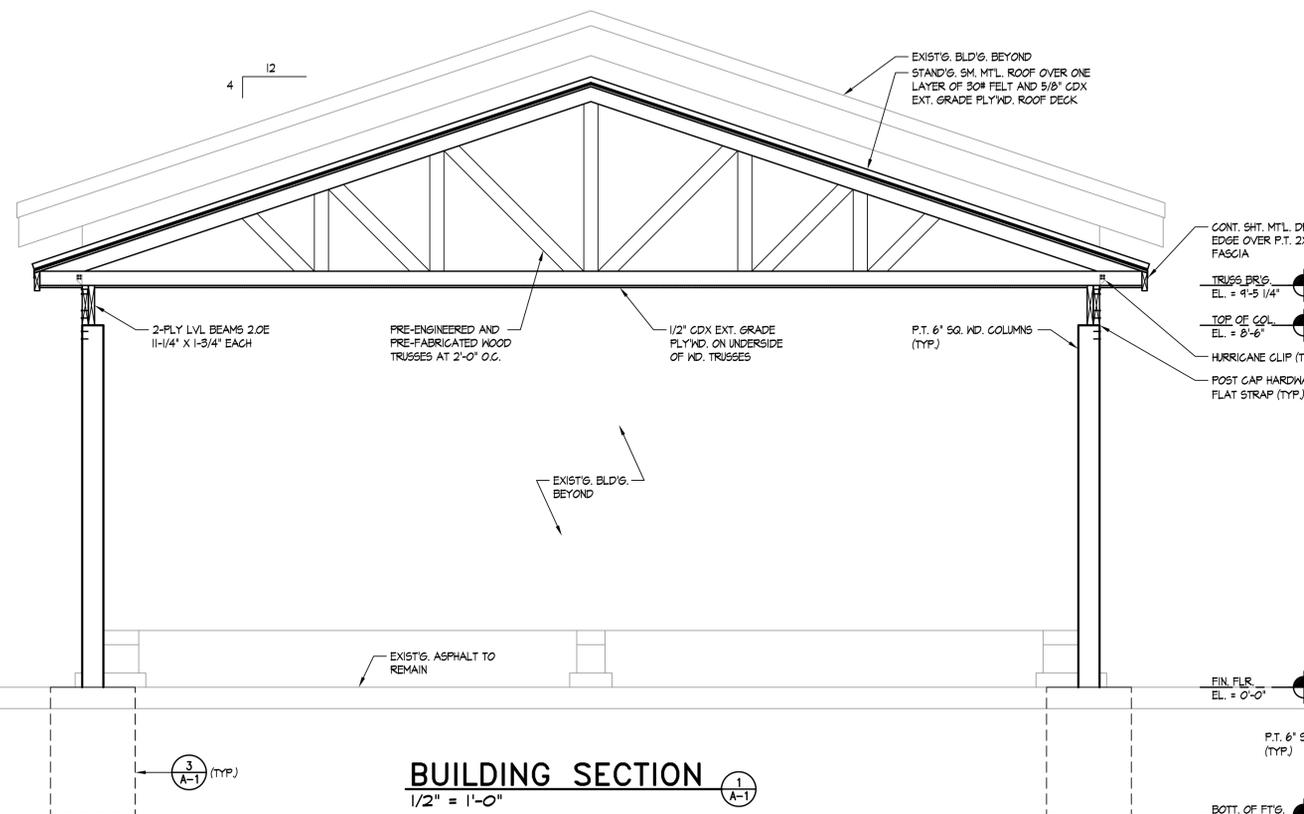
PRINT NAME/TITLE: \_\_\_\_\_

### DESIGN CRITERIA

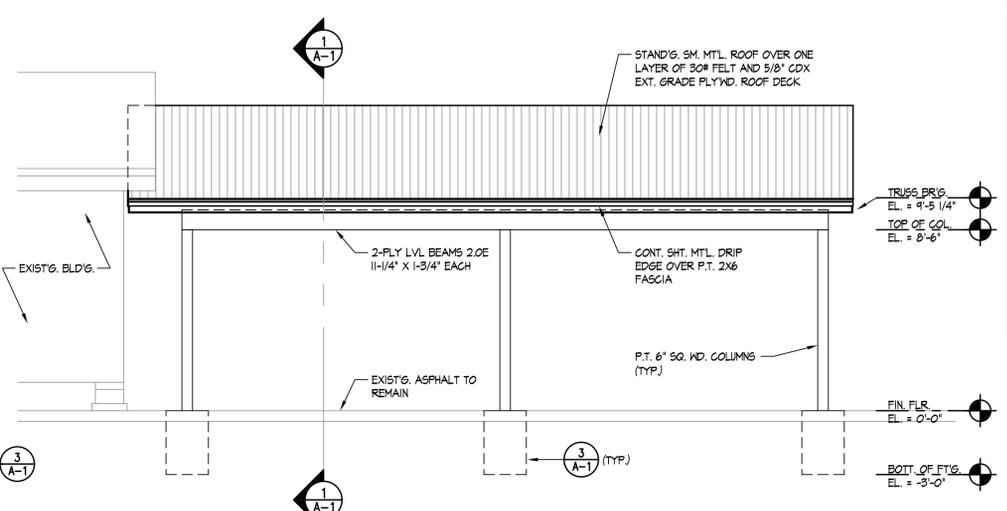
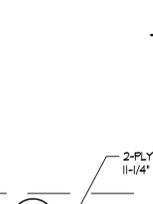
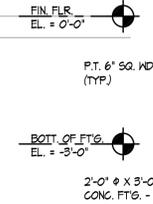
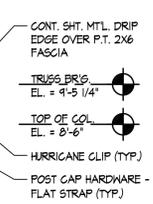
1. FLORIDA BUILDING CODE 5TH EDITION (2014)
2. COVERED AREA = 284 SF
3. OCCUPANCY CLASSIFICATION = UTILITY AND MISCELLANEOUS GROUP U
4. BUILDING CONSTRUCTION IS TYPE V
5. STRUCTURAL FIRE-RESISTANT RATING REQUIREMENTS = 0 HOURS

### STRUCTURAL DESIGN CRITERIA

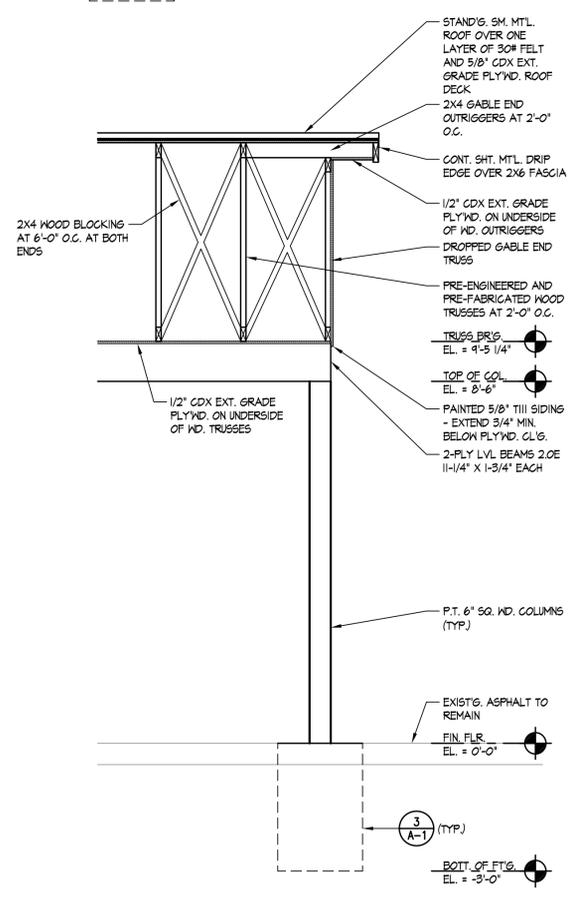
1. FLORIDA BUILDING CODE 5TH EDITION 2014
2. ASCE 7-10
3. MINIMUM DESIGN LOAD FOR WOOD TRUSSES = 20 PSF LIVE AND 11 PSF DEAD
4. TRUSSES TO BE DESIGNED AS AN OPEN STRUCTURE WITH AN INTERNAL PRESSURE COEFFICIENT OF +/- 0.55\*
5. ULTIMATE DESIGN WIND SPEED (3-SECOND GUST) = 125 MPH
6. NOMINAL DESIGN WIND SPEED = 91 MPH
7. RISK CATEGORY = II
8. APPLICABLE ENCLOSURE CLASSIFICATION = ENCLOSED
9. WIND EXPOSURE CATEGORY = C
10. ASSUMED ALLOWABLE SOIL BEARING PRESSURE AFTER COMPACTION = 2,000 PSF



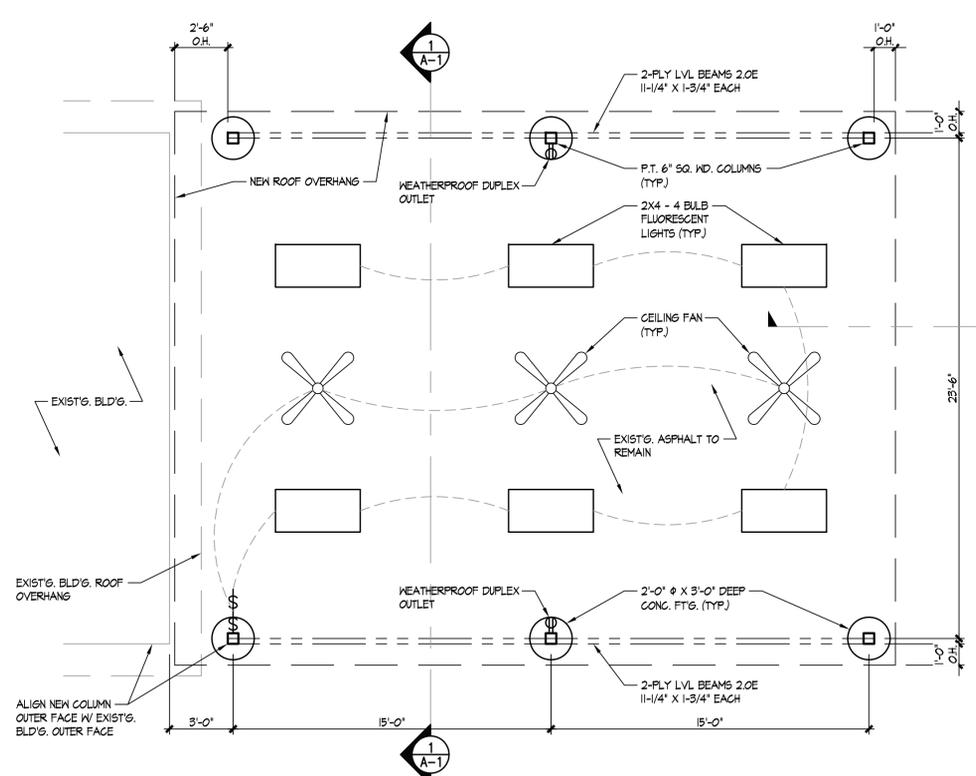
**BUILDING SECTION**  
1-A-1  
1/2" = 1'-0"



**SIDE ELEVATION**  
1-A-1  
1/4" = 1'-0"



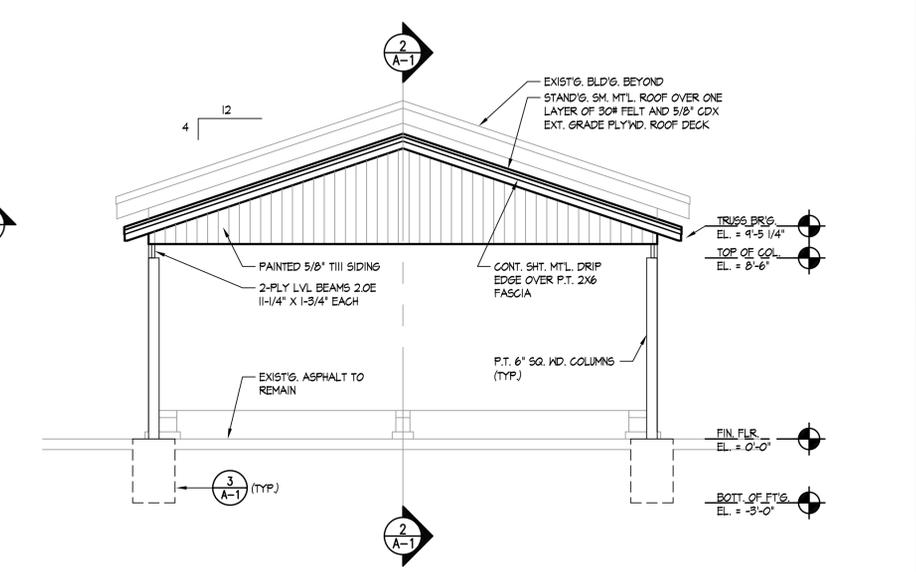
**WALL SECTION**  
2-A-1  
1/2" = 1'-0"



**FLOOR PLAN**  
1-A-1  
1/4" = 1'-0"

NOTE  
ALL DIMENSIONS ARE +/- AND SHALL  
BE FIELD VERIFIED BY BIDDERS  
DURING THE BIDDING PHASE

ELECTRICAL NOTE  
CONNECT ELECTRICAL FUNCTIONS  
POWER TO THE EXISTING BUILDING  
ELECTRICAL PANEL



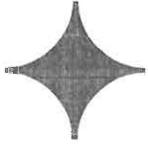
**END ELEVATION**  
2-A-1  
1/4" = 1'-0"

**WIND RESISTANCE ENGINEERING  
CALCULATIONS FOR  
FORT WHITE SENIOR CENTER NEW  
PAVILION  
18829 HWY 47 SOUTH  
FORT WHITE, FL**

**DESIGNED IN ACCORDANCE WITH  
REQUIREMENTS OF 2014 FLORIDA BUILDING CODE,  
USING ASCE 7-10 FOR 125 MPH WIND SPEED, RISK CATEGORY II**

**KIMBERLY LAMMERT, P.E.  
PE 67405**

**SPUTO AND LAMMERT ENGINEERING, LLC  
STRUCTURAL ENGINEERS  
10 SW 1st AVENUE, GAINESVILLE, FLORIDA 32601  
(352) 378-0448  
CA 6855**



# SPUTO AND LAMMERT ENGINEERING, LLC

STRUCTURAL ENGINEERS

10 SW 1<sup>ST</sup> AVENUE, GAINESVILLE, FL 32601

PHONE: 352-378-0448 FAX: 352-373-1331

E-MAIL: salestructures@gmail.com

Wind resistance of the referenced building has been designed using a wind speed of 125 mph as required by Section 1609, 2014 Florida Building Code using ASCE 7-10 with a Risk Category II.

**ROOF SHEATHING:** Minimum 1/2" Plywood, installed without blocking. The FPA for the metal roofing may require a minimum sheathing thickness greater than the minimum listed here and therefore the minimum requirements of the FPA need to be followed. Use 8d common or 10-1/4 gage x 2" minimum length power nails at 6" o.c. at sheet edges and 6" o.c. in the sheet field. The roof acts as a structural diaphragm.

**GABLE END WALL SHEATHING:** 5/8" T-111 siding, installed with blocking at all horizontal sheet edges. Sheathing is installed from bottom to top plate to provide a continuous load path. Use 8d common or 10-1/4 gage x 2" minimum length power nails at 6" o.c. at vertical sheet edges, 6" o.c. at horizontal sheet edges, and 12" o.c. in the sheet field.

**SHEARWALLS:** Wind load resisted by embedded 6x6 wood posts

**HURRICANE CLIPS:** Sized as follows. Subject to revision by the engineer after review of engineering from truss manufacturer.

- One Ply Truss: Simpson H10A (Truss engineering uplift of 1015# max)
- Two Ply Truss: Simpson H10-2 (Truss engineering uplift max of 655#)
- Truss to Truss: Specified by truss manufacturer, IAW Wood Truss Council of America Standard WTCA 1-1995.
- Girders / Truss: If uplifts exceed indicated values above, clips may be doubled (one inside, one outside) or a strap added to the clip for additional uplift (Simpson LSTA21 for 1235#).

**CONCRETE:** All concrete shall have a 28 day compressive strength of 3000 psi.

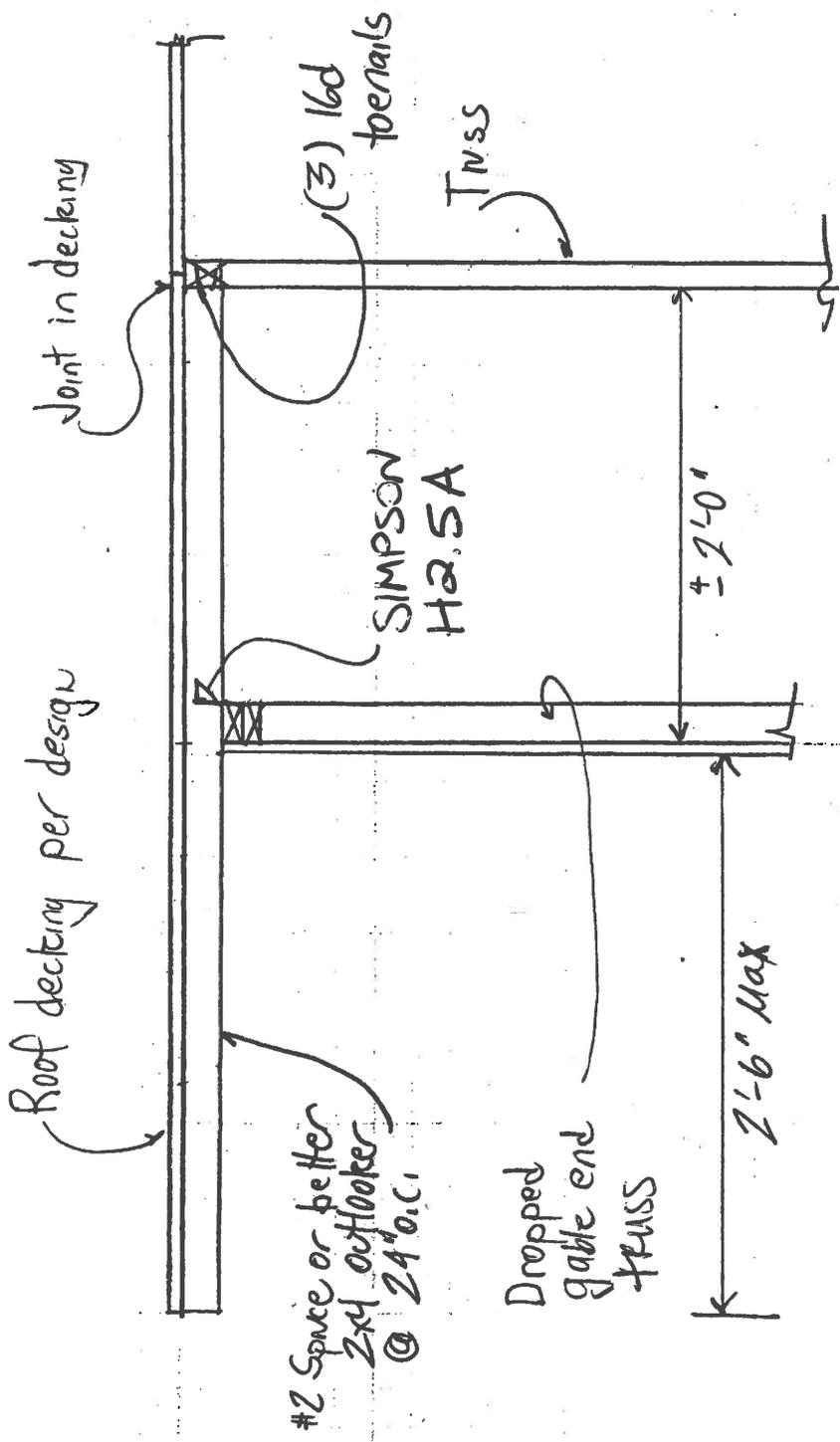
**POSTS:** Shall be 6x6 PT #2 Southern Pine. Post cap hardware shall be (2) Simpson MSTA21Z straps. Post shall be embedded in concrete footing, post bases are not acceptable for this building. Alternate products with uplift capacity of 2950# may be substituted for the post cap only.

**NOTE:** 10-1/4 GAGE NAILS HAVE A DIAMETER OF 0.131 INCHES.

## 2014 Florida Building Code Section 1603.1.4 Information

V <sub>ULT</sub>	=	125 mph
V <sub>ASD</sub>	=	97 mph
Risk Category	=	II
Wind Exposure	=	C
Internal Pressure Coefficient	=	+/- 0.18
C & C Pressures(ASD)	=	Zone 4 = 22.2 psf Zone 5 = 27.4 psf

13-782 500 SHEETS, FILLER 5 SQUARE  
 42-382 100 SHEETS, FILLER 5 SQUARE  
 42-382 100 SHEETS, EYE-EASE 5 SQUARE  
 42-388 200 SHEETS, EYE-EASE 5 SQUARE  
 42-382 100 RECYCLED WHITE 5 SQUARE  
 42-389 200 RECYCLED WHITE 5 SQUARE  
 Made in U.S.A.



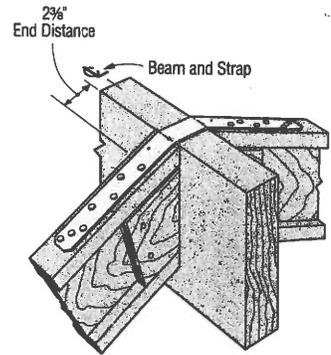
Detail for Dropped Truss at Both Gable End

**HRS/ST/PS/HST/HTP/LSTA/LSTI/MST/MSTA/MSTC/MSTI** Strap Ties

CODES: See page 12 for Code Reference Key Chart.

These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

These products are approved for installation with the Strong-Drive® SD Connector screw. See page 27 for more information.

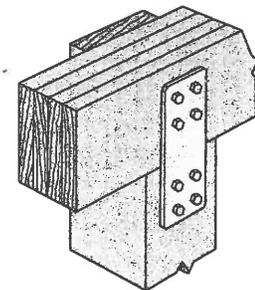
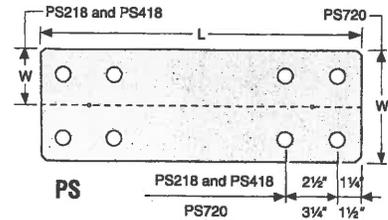


**Typical LSTA Installation**  
(Hanger not shown)  
Bend strap one time only,  
max 12/12 joist pitch.

Model No.	Ga	Dimensions		Fasteners (Total)	Allowable Tension Loads (DF/SP)	Allowable Tension Loads (SPF/HF)	Code Ref.		
		W	L		(160)	(160)			
LSTA9	20	1 1/4	9	8-10d	740	635	I4, L3, L5, F2		
LSTA12		1 1/4	12	10-10d	925	795			
LSTA15		1 1/4	15	12-10d	1110	950			
LSTA18		1 1/4	18	14-10d	1235	1110			
LSTA21		1 1/4	21	16-10d	1235	1235			
LSTA24		1 1/4	24	18-10d	1235	1235			
ST292		2 1/16	9 1/16	12-16d	1265	1120			
ST2122		2 1/16	12 13/16	16-16d	1530	1505			
ST2115		3/4	16 1/16	10-16d	660	660			
ST2215		2 1/16	16 1/16	20-16d	1875	1875			
LSTA30		1 1/4	30	22-10d	1640	1640			
LSTA36		1 1/4	36	24-10d	1640	1640			
LSTI49	18	3 3/4	49	32-10dx1 1/2	2975	2555	I4, L3, L5, F2		
LSTI73		3 3/4	73	48-10dx1 1/2	4205	3830			
MSTA9		1 1/4	9	8-10d	750	645			
MSTA12		1 1/4	12	10-10d	940	810			
MSTA15		1 1/4	15	12-10d	1130	970			
MSTA18		1 1/4	18	14-10d	1315	1130			
MSTA21		1 1/4	21	16-10d	1505	1290			
MSTA24		1 1/4	24	18-10d	1640	1455			
MSTA30		1 1/4	30	22-10d	2050	1820			
MSTA36		1 1/4	36	26-10d	2050	2050			
MSTA49		1 1/4	49	26-10d	2020	2020		F2, L3, L5	
ST6215		2 1/16	16 3/16	20-16d	2095	1900		I4, IL14, L3, L5, F2	
ST6224	2 1/16	23 3/16	28-16d	2540	2540	I4, L3, L5, F2			
ST9	16	1 1/4	9	8-16d	885	760	I4, L3, L5, F2		
ST12		1 1/4	11 1/2	10-16d	1105	950			
ST18		1 1/4	17 3/4	14-16d	1420	1330			
ST22		1 1/4	21 1/2	18-16d	1420	1420			
MSTC28		3	28 1/4	36-16d sinkers	3455	2980			
MSTC40		3	40 1/4	52-16d sinkers	4745	4305			
MSTC52		3	52 1/4	62-16d sinkers	4745	4745			
HTP37Z		3	7	20-10dx1 1/2	1850	1600		L5	
MSTC66		14	3	65 3/4	76-16d sinkers	5860		5860	I4, L3, L5, F2
MSTC78			3	77 3/4	76-16d sinkers	5860		5860	
ST6236			2 1/16	33 13/16	40-16d	3845		3845	
HRS6			1 1/4	6	6-10d	605		525	
HRS8	1 1/4		8	10-10d	1010	880			
HRS12	1 1/4		12	14-10d	1415	1230			
MSTI26	2 1/16		26	26-10dx1 1/2	2745	2325	I4, L3, L5, F2		
MSTI36	2 1/16		36	36-10dx1 1/2	3800	3220			
MSTI48	2 1/16		48	48-10dx1 1/2	5065	4290			
MSTI60	2 1/16		60	60-10dx1 1/2	5080	5080			
MSTI72	2 1/16		72	72-10dx1 1/2	5080	5080			
HRS416Z	3/4		16	16-SDS 1/4"x1 1/2"	2835	2305		170	

Model No.	Material Thickness Gauge	Dim.		Bolts		Code Ref.
		W	L	Qty	Dia	
PS218	7 ga	2	18	4	3/4	180
PS418		4	18	4	3/4	
PS720		6 1/4	20	8	1/2	

- PS strap design loads must be determined by the Designer for each installation. Bolts are installed both perpendicular and parallel-to-grain. Hole diameter in the part may be oversized to accommodate the HDG. Designer must determine if the oversize creates an unacceptable installation.
- For allowable tension loads, see page 230.



**Typical PS720 Installation**

- Loads include a 60% load duration increase on the fasteners for wind or earthquake loading.
- 10dx1 1/2" nails may be substituted where 16d sinkers or 10d are specified at 100% of the table loads except where straps are installed over sheathing.
- 10d commons may be substituted where 16d sinkers are specified at 100% of table loads.
- 16d sinkers (0.148" dia. x 3 3/4" long) or 10d commons may be substituted where 16d commons are specified at 0.84 of the table loads.
- Use half of the nails in each member being connected to achieve the listed loads.
- Tension loads apply for uplift when installed vertically.
- NAILS:** 16d = 0.162" dia. x 3 1/2" long, 16d Sinker = 0.148" dia. x 3 3/4" long, 10d = 0.148" dia. x 3" long, 10dx1 1/2" = 0.148" dia. x 1 1/2" long. See page 22-23 for other nail sizes and information.

**H/TSP** Seismic & Hurricane Ties

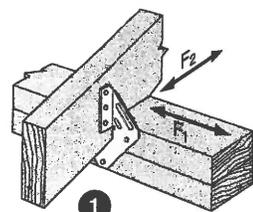
These products are available with additional corrosion protection. Additional products on this page may also be available with this option, check with Simpson Strong-Tie for details.

These products are approved for installation with the Strong-Drive® SD Connector screw. See page 27 for more information.

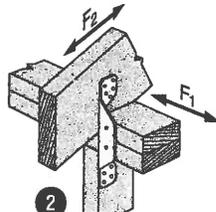
Model No.	Ga	Fasteners			DF/SP Allowable Loads			Uplift with 8dx1½ Nails (160)	SPF/HF Allowable Loads			Uplift with 8dx1½ Nails (160)	Code Ref.
		To Rafter/Truss	To Plates	To Studs	Uplift (160)	Lateral (160) F <sub>1</sub>	F <sub>2</sub>		Uplift (160)	Lateral (160) F <sub>1</sub>	F <sub>2</sub>		
H1	18	6-8dx1½	4-8d	—	585	485	165	455	400	415	140	370	I17, L5, L6, F16
H2A	18	5-8dx1½	2-8dx1½	5-8dx1½	575	130	55	—	495	130	55	—	IP1, L18, F25
H2ASS	18	5-SS8D	2-SS8D	5-SS8D	400	130	55	400	345	130	55	345	170
H2.5A	18	5-8d	5-8d	—	600	110	110	575	535	110	110	495	I17, L5, L6, F16
H2.5ASS	18	5-SS8d	5-SS8d	—	440	75	70	365	380	75	70	310	170
H2.5T	18	5-8d	5-8d	—	545	135	145	425	545	135	145	425	IP1, L18, F25
H3	18	4-8d	4-8d	—	455	125	160	415	320	105	140	290	I17, L6, F16
H4	20	4-8d	4-8d	—	360	165	160	360	235	140	135	235	—
H5	18	4-8d	4-8d	—	455	115	200	455	265	100	170	265	I17, L5, L6, F16
H6	16	—	8-8d	8-8d	950	—	—	—	820	—	—	—	—
H7Z	16	4-8d	2-8dx1½	8-8d	985	400	—	—	845	345	—	—	I17, F16
H8	18	5-10dx1½	5-10dx1½	—	745	75	—	630	565	75	—	510	L5, L10, L18, F26
H10A Sloped	18	9-10dx1½	9-10dx1½	—	855	590	285	—	760	505	285	—	—
H10A	18	9-10dx1½	9-10dx1½	—	1140 <sup>7</sup>	590	285	—	1015	505	285	—	I17, L5, L18, F25
H10ASS	18	9-SSN10	9-SSN10	—	970	565	170	—	835	485	170	—	—
H10AR	18	9-10dx1½	9-10dx1½	—	1050	490	285	—	905	420	285	—	170
H10S <sup>9/10</sup>	18	8-8dx1½	8-8dx1½ <sup>10</sup>	8-8d	1010	660	215	550	870	570	185	475	IP1, L18, F25
H10A-2	18	9-10dx1½	9-10dx1½	—	1245	815	260	—	1070	700	225	—	L18, F25
H10-2	18	6-10d	6-10d	—	760	455	395	—	655	390	340	—	I17, L6, F16
H11Z	18	6-16dx2½	6-16dx2½	—	830	525	760	—	715	450	655	—	170
H14	18	1 12-8dx1½	13-8d	—	1350 <sup>7</sup>	515	265	—	1050	480	245	—	IP1, L18, F25
		2 12-8dx1½	15-8d	—	1350 <sup>7</sup>	515	265	—	1050	480	245	—	
TSP	16	9-10dx1½	6-10dx1½	—	740	310	190	—	635	265	160	—	F26
		9-10dx1½	6-10d	—	890	310	190	—	765	265	160	—	

1. Loads have been increased for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
2. Allowable loads are for one anchor. A minimum rafter thickness of 2½" must be used when framing anchors are used on each side of the joist and on the same side of the plate (exception: connectors installed such that nails on opposite side don't interfere).
3. Allowable DF/SP uplift load for stud to bottom plate installation (see detail 15) is 390 lbs. (H2.5A); 265 lbs. (H2.5ASS); 360 lbs. (H4) and 310 lbs. (H8). For SPF/HF values multiply these values by 0.86.
4. Allowable loads in the F<sub>1</sub> direction are not intended to replace diaphragm boundary members or cross grain bending of the truss or rafter members.
5. When cross-grain bending or cross-grain tension cannot be avoided in the members, mechanical reinforcement to resist such forces may be considered.
6. Hurricane Ties are shown on the outside of the wall for clarity and assume a minimum overhang of 3½". Installation on the inside of the wall is acceptable (see General Instructions for the Installer notes u on page 17). For uplift

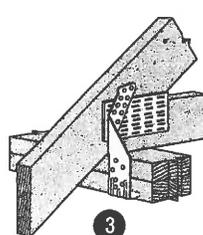
- Continuous Load Path, connections in the same area (i.e. truss to plate connector and plate to stud connector) must be on the same side of the wall. See T-HTIECOMPAT for more information.
7. Southern Pine allowable uplift loads for H10A = 1340 lbs. and for the H14 = 1465 lbs.
8. Refer to Simpson Strong-Tie® technical bulletin T-HTIEBEARING for allowable bearing enhancement loads.
9. H10S can have the stud offset a maximum of 1" from rafter (center to center) for a reduced uplift of 890 lbs. (DF/SP) and 765 lbs. (SPF).
10. H10S nails to plates are optional for uplift but required for lateral loads.
11. Some load values for the stainless-steel connectors shown here are lower than those for the carbon-steel versions. Ongoing test programs have shown this to also be the case with other stainless-steel connectors in the product line that are installed with nails. Visit [www.strongtie.com/corrosion](http://www.strongtie.com/corrosion) for updated information.
12. **NAILS:** 16dx2½" = 0.162" dia. x 2½" long, 10d = 0.148" dia. x 3" long, 10dx1½" = 0.148" dia. x 1½" long, 8d = 0.131" dia. x 2½" long, 8dx1½" = 0.131" dia. x 1½" long. See page 22-23 for other nail sizes and information.
13. **SCREWS:** Strong-Drive® SD #9x1½" (model SD9112) = 0.131" dia. x 1½" long (for the models marked with the orange flag only). Full table loads apply.



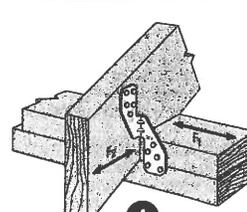
**1 H1 Installation**



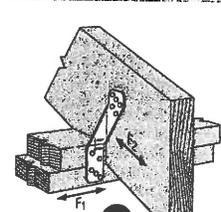
**2 H2A Installation**



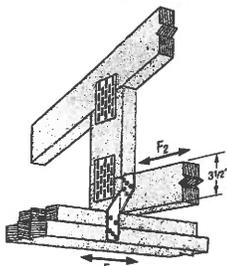
**3 TSP Installation**



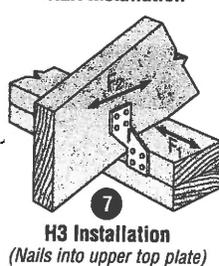
**4 H2.5A Installation**  
(Nails into both top plates)



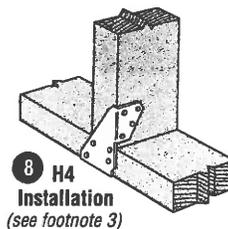
**5 H2.5T Installation**  
(Nails into both top plates)



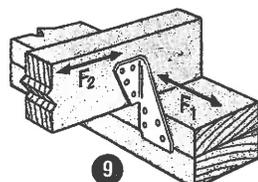
**6 H2.5T Installation**



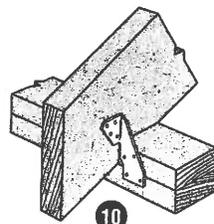
**7 H3 Installation**  
(Nails into upper top plate)



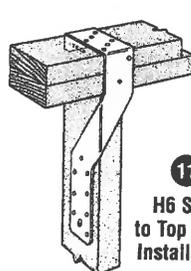
**8 H4 Installation**  
(see footnote 3)



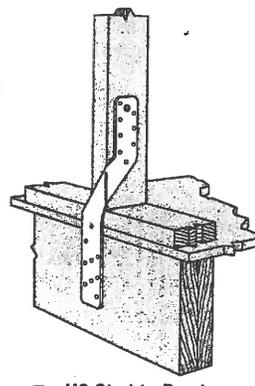
**9 H4 Installation**  
(Nails into upper top plate)



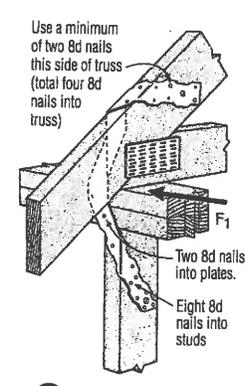
**10 H5 Installation**  
(Nails into both top plates)



**11 H6 Stud to Top Plate Installation**



**12 H6 Stud to Band Joist Installation**



**13 H7Z Installation**

Use a minimum of two 8d nails this side of truss (total four 8d nails into truss)

Two 8d nails into plates.

Eight 8d nails into studs

# WIND LOAD DESIGN PER 2014 FBC (PER ASCE 7-10)

## SINGLE STORY BUILDING

**BUILDING DIMENSIONS:**

L = 30.5 FEET  
 W = 24 FEET  
 EAVE = 10 FEET  
 PITCH = 4 /12 = 18.4 DEG.  
 O'HANG = 1.75 FEET  
 RIDGE = 14 FEET  
 MEAN RF = 12 FEET

**WIND EXPOSURE:**

VELOCITY = 125 MPH  
 Risk Category II  
 EXPOSURE = C  
 ADJUSTMENT = 1.21 (PER FIGURE 28.6-1)

**MWFRS PRESSURE PER FIGURE 28.6-1 (BASE PRESSURE W/O ADJUSTMENT)**  
**Method 2 (PRESSURES IN PSF)**

**TRANSVERSE WIND DIRECTION**

	END ZONE		INTERIOR ZONE	
HORIZONTAL LOADS	WALL	ROOF	WALL	ROOF
	34.35	-9.05	22.9	-5
VERTICAL LOADS	WINDWD	LEEWD	WINDWD	LEEWD
O'HANG	-29.8	-20.8	-20.8	-15.8
	-41.8		-32.7	

**LONGITUDINAL WIND DIRECTION**

	END ZONE		INTERIOR ZONE	
HORIZONTAL LOADS	WALL	ROOF	WALL	ROOF
	24.8	-12.9	16.5	-7.6
VERTICAL LOADS	WINDWD	LEEWD	WINDWD	LEEWD
O'HANG	-29.8	-17.0	-20.8	-13.2
	-41.8		-32.7	

**CALCULATE EDGE STRIPS:**

2.4 FEET	(10% OF LEAST DIM)		
4 FEET	(40% OF EAVE)		
		Least =	2.4 FEET
0.96 FEET	(4% OF LEAST DIM)		
3 FEET	(3 FEET)		
		Max =	3 FEET

A = 3 FEET  
 2A = 6 FEET

HORIZONTAL TRANSVERSE LOAD

ROOF -584 LBS.  
WALL 6068 LBS.

*Includes 0.6 Load Comb Factor*

LONGITUDINAL TRANSVERSE LOAD

ROOF 646 LBS.  
WALL 3594 LBS.

**ROOF DIAPHRAM**

TRANSVERSE

TOTAL DRAGSTRUT LENGTH = 48 FEET  
LOAD RESISTED = -584 ROOF  
3034 WALL  
2450 TOTAL  
51.0 PLF

7/16" OSB  
8d COMMON OR 0.131" DIA. P-NAIL  
6"/12" 4"/12" 3"/12" PINE  
357 476 707  
OK OK OK

LONGITUDINAL

TOTAL DRAGSTRUT LENGTH = 61 FEET  
LOAD RESISTED = 646 ROOF  
1797 WALL  
2443 TOTAL  
40.0 PLF

6"/12" 4"/12" 3"/12" PINE  
357 476 707  
OK OK OK

**SHEARWALLS**

TRANSVERSE

TOTAL SHEARWALL LENGTH = 1 FEET  
LOAD RESISTED = -584 ROOF  
3034 WALL  
2450 TOTAL  
2450.1 PLF

7/16" OSB  
8d COMMON OR 0.131" DIA. P-NAIL  
6"/12" 4"/12" 3"/12" PINE  
364 532 686  
N.G. N.G. N.G.  
298 436 563 SPRUCE  
N.G. N.G. N.G.

LONGITUDINAL

TOTAL SHEARWALL LENGTH = 1 FEET  
LOAD RESISTED = 646 ROOF  
1797 WALL  
2443 TOTAL  
2442.8 PLF

6"/12" 4"/12" 3"/12" PINE  
364 532 686  
N.G. N.G. N.G.  
298 436 563 SPRUCE  
N.G. N.G. N.G.

*1/2 WALL LOAD TO FOOTING / FON*

$\frac{3034}{2} - 584 = 933 \#$  OR  $\frac{1797}{2} + 646 = 1544.5$

**HURRICANE CLIPS**

(Truss at 24" on center)  
(Includes 6 psf dead load)

*Includes 0.6 Load Comb Factor*

**COMMON**

TRUSS	SPAN	O'HANG	END ZONE UPLIFT	INT. ZONE UPLIFT
T1	24	1	-393	-252
T2	0	0	0	0
T3	0	0	0	0
T4	0	0	0	0

**JACK**

TRUSS	SPAN	O'HANG	UPLIFT
J1	0	0	0
J2	0	0	0

**#1 HIP**

TRUSS	SPAN	O'HANG	SETBACK	UPLIFT
H1	0	0	7	0
H2	0	0	9	0
H3	0	0	11	0

**WALL TENSION TIE USING SHEATHING**

*Includes 0.6 Load Comb Factor*

WALL TO WALL	O'HANG	UPLIFT LOAD	PLF	3/8" MINIMUM SHEATHING	8d COMMON NAIL SPACING	SPRUCE	PINE	INCHES
24	1.75	112		10.1	12.6			

**HURRICANE CLIPS**

CLIP	HARDWARE	PINE	SPRUCE
Simpson H10A	(18) 10d x 1-1/2" nail	1140	1015
Simpson H2.5A	(10) 8d nail	600	535

**POLE MOUNTED SIGN DESIGN**

TS  
3-Jan-2017

Sputo and Lammert  
Engineering, LLC  
10 SW 1st Avenue  
Gainesville, FL 32601  
CA # 6855

NAME: Ft. White Senior Center Pavilion - Posts

FLORIDA BUILDING CODE 2014  
ASCE 7-10

VELOC. = 125 MPH  
RISK CATEGORY II

EXPOSURE = C

Alpha = 9.5  
Zg = 900

IF EXPOSURE = D  
Alpha = 11.5  
Zg = 700

H = 10 FEET

Kz = 0.85  
Kzt = 1.00  
Kd = 0.85

qz = 28.86 PSF

G = 0.85  
Cf = 1.70 (SIGN)  
Cf = 1.70 (POLE)

Ps = 25.02 PSF Includes 0.6 Load  
Pp = 25.02 PSF Combination Multiplier

**SUMMATION OF AREAS**

SIGN				POLE			
AREA	CENT.	MOMENT	FORCE	AREA	CENT.	MOMENT	FORCE
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
TOTALS			0	TOTALS			0
	F-#		#		F-#		#

SUMMATION MOMENT = 14673 F-#  
SHEAR = 1545 #

NUMBER OF POLES = 6 POLES

PER POLE MOMENT = 2445 F-#  
SHEAR = 257 #

-1544.5 (9.5')  
SEE PAGE 2 OF 3

**CHECK POLE**

SECTION = 6x6 WOOD POST  
MATERIAL = #2 PINE  
YIELD = 1 KSI  
WIND MOD = 1.6  
OMEGA = 1  
Zx = 27.73 IN^3  
Fb = 1600 PSI  
fb = 1058 PSI

fb < Fb OK

**POLE FOUNDATION BY MODIFIED UBC METHOD**

BASIC S = 150 PSF CLAY = 100 PSF  
MOD S = 450 PSF SAND = 150 PSF

FLAGPOLE MOD = 1  
DEPTH MOD = 3  
WIND MOD = 1

D = 3 FEET  
P = 257 POUNDS  
M = 2445 FT-POUNDS  
B = 2 FEET

**CONSTRAINED CASE**

S = 192 PSF OK AS CONSTRAINED FOOTING

**NON-CONSTRAINED CASE**

S = 421 PSF OK AS NON-CONSTRAINED FOOTING

Title :  
 Dsgnr:  
 Description :

Job #  
 Date: 11:08AM, 16 DEC 16

Scope :

Rev: 580000  
 User: KW-0602180, Ver 5.8.0, 1-Dec-2003  
 (c)1983-2003 ENERCALC Engineering Software

## General Timber Beam

Page 1

Description 16-174 Beam btwn posts

### General Information

Code Ref: 1997 NDS, 2003 IBC, 2003 NFPA 5000. Base allowables are user defined

Section Name	LVL:3.500x11.250	Center Span	15.00 ft	.....Lu	2.00 ft
Beam Width	3.500 in	Left Cantilever	ft	.....Lu	0.00 ft
Beam Depth	11.250 in	Right Cantilever	ft	.....Lu	0.00 ft
Member Type		Louisiana Pacific, GangLam 2.0E W 2950			
Bm Wt. Added to Loads		Fb Base Allow	2,950.0 psi		
Load Dur. Factor	1.250	Fv Allow	290.0 psi		
Beam End Fixity	Pin-Pin	Fc Allow	1,020.0 psi		
Wood Density	40.000 pcf	E	2,000.0 ksi		

### Full Length Uniform Loads

170

20L

W/ 13.5' of TW

Center	DL	229.50 #/ft	LL	270.00 #/ft
Left Cantilever	DL	#/ft	LL	#/ft
Right Cantilever	DL	#/ft	LL	#/ft

### Summary

Beam Design OK

Span= 15.00ft, Beam Width = 3.500in x Depth = 11.25in, Ends are Pin-Pin

Max Stress Ratio 0.638 : 1

Maximum Moment Allowable 14.4 k-ft  
 Maximum Shear \* 1.5 Allowable 5.1 k  
 22.5 k-ft 14.3 k

Max. Positive Moment	14.36 k-ft	at	7.500 ft	Shear:	@ Left	3.83 k
Max. Negative Moment	0.00 k-ft	at	0.000 ft		@ Right	3.83 k
Max @ Left Support	0.00 k-ft			Camber:	@ Left	0.000 in
Max @ Right Support	0.00 k-ft				@ Center	0.495 in
Max. M allow	22.51				@ Right	0.000 in
fb	2,333.43 psi	f <sub>v</sub>	128.34 psi	Reactions...		
Fb	3,658.61 psi	F <sub>v</sub>	362.50 psi	Left DL	1.80 k	Max 3.83 k
				Right DL	1.80 k	Max 3.83 k

### Deflections

Center Span...	Dead Load	Total Load	Left Cantilever...	Dead Load	Total Load
Deflection	-0.330 in	-0.700 in	Deflection	0.000 in	0.000 in
...Location	7.500 ft	7.500 ft	...Length/Defl	0.0	0.0
...Length/Defl	545.9	257.14	Right Cantilever...		
Camber ( using 1.5 * D.L. Defl ) ...			Deflection	0.000 in	0.000 in
@ Center	0.495 in		...Length/Defl	0.0	0.0
@ Left	0.000 in				
@ Right	0.000 in				

### Stress Calcs

#### Bending Analysis

Ck	18.887	Le	4.118 ft	Sxx	73.828 in <sup>3</sup>	Area	39.375 in <sup>2</sup>
Cf	1.000	Rb	6.738	Cl	0.992		

	Max Moment	Sxx Req'd	Allowable fb
@ Center	14.36 k-ft	47.09 in <sup>3</sup>	3,658.61 psi
@ Left Support	0.00 k-ft	0.00 in <sup>3</sup>	3,687.50 psi
@ Right Support	0.00 k-ft	0.00 in <sup>3</sup>	3,687.50 psi

#### Shear Analysis

	@ Left Support	@ Right Support
Design Shear	5.05 k	5.05 k
Area Required	13.940 in <sup>2</sup>	13.940 in <sup>2</sup>
Fv Allowable	362.50 psi	362.50 psi

#### Bearing @ Supports

Max. Left Reaction	3.83 k	Bearing Length Req'd	1.072 in
Max. Right Reaction	3.83 k	Bearing Length Req'd	1.072 in

Title :  
Dsgnr:  
Description :

Job #  
Date: 11:08AM, 16 DEC 16

Scope :

Rev: 580000  
User: KW-0602180, Ver 5.8.0, 1-Dec-2003  
(c)1983-2003 ENERCALC Engineering Software

## General Timber Beam

Page 2

**Description**      16-174 Beam btwn posts

### Query Values

M, V, & D @ Specified Locations		Moment	Shear	Deflection
@ Center Span Location =	0.00 ft	0.00 k-ft	3.83 k	0.0000 in
@ Right Cant. Location =	0.00 ft	0.00 k-ft	0.00 k	0.0000 in
@ Left Cant. Location =	0.00 ft	0.00 k-ft	0.00 k	0.0000 in