STRUCTURAL NOTES

GENERAL:

- 1. Dimensions: The structural drawings shall be considered as a part of the complete set of Contract drawings, including the drawings of all disciplines. It is intended that the Structural drawings will provide sufficient dimensions to locate the primary structural elements and members. Location of secondary members which are affected by systems detailed by others may require reference to the drawings of other disciplines and layout and coordination by the contractor. If direct conflict between dimensions of two or more disciplines is encountered. such conflicts shall be resolved by the Architect. Do not use scaled dimensions. Use written dimensions or where dimensions are not provided. consult the architect for clarifications before proceeding with the work in auestion.
- 2. Omissions or conflicts between various elements of the drawings. specifications, notes, and details shall be brought to the attention of the structural engineer and resolved before proceeding with the work. The contractor must submit in writing any requests for modifications to the plans and specifications. Shop drawings submitted to the structural engineer for review do not constitute "in writing" unless it is clearly noted that specific changes are being requested.
- 3. Deferred Submittals: Where Structural components are fully or partially designed and detailed by the supplier or fabricator. complete shop drawings and calculations, signed and sealed by a professional engineer registered in the state where the project is located, shall be submitted to the structural engineer for review. In addition, a copy of these documents shall be submitted to the Building Official for approval in accordance with IBC Section 107.3.4.1.
- 4. The Contract drawings and specifications represent the finished structure. They do not indicate the method of construction. The contractor shall provide all measures necessary to protect the structure during construction. Such measures shall include but not be limited to bracing and shoring for loads due to construction equipment and materials.

DESIGN CRITERIA:

- 1. Used 2015 International Building Code.
- 2. ASD Design Loads:
 - A. Roof: D.L. = 5#/SF., L.L. = 40#/SF. Snow.
- 3. Wind load = 130 MPH (ultimate), 101 MPH (nominal), exposure C, w = 1.0.
- 4. Seismic: Equivalent Static Force Design Procedure.
 - Seismic Design Category B, Site Class D.
 - $S_{S} = 0.194$ $S_{DS} = 0.207$
 - S1 = 0.056 SD1 = 0.089
 - R = 2.5 Light framed walls w/ shear panels all other materials. le = 1.0.

**Per ICC Commentary:

"Wind speeds are designated as "ultimate design" or "nominal design" wind speeds and are used for either strength design or allowable stress designs respectively. The ultimate design wind speeds are indicated in Figures 1609A. B & C. and vary based on the building's risk category and location. The ultimate design for wind speeds for a Risk Category II building vary from 110 mph on the West Coast to 180 mph in hurricane-prone areas in southern Florida. These wind speeds would convert to a nominal design wind speed, or what was previously called the "basic wind speed" 85 mph for the West Coast and 139 mph for southern Florida when using allowable stress design."

QUALITY ASSURANCE:

FOUNDATIONS:

1. Maximum foundation soil bearing pressure used = 1500 #/SF.

MATERIALS:

CONCRETE

- 1. Mix design shall be established in accordance to Chapter 5 of ACI 318.
- 2. Minimum cement content = 376 # / YD.
- 3. Maximum slump = 4".
- 4. 28 day strength f'c = 2500 PSI. Special inspection not required per IBC 1705.3, exception 2.

STRUCTURAL AND MISCELLANEOUS STEEL:

- 1. All steel work shall conform with AISC specifications.
- 2. Bolts ASTM A307 for connections to concrete. Bolts ASTM A325 for steel to steel connections. Bolts to be snug tight except bolts indicated as S.C. to be fully tightened.
- 3. Roof Steel shall be painted 29 Ga, ribbed steel and shall be attached to framing with 1 $\frac{1}{2}$ x #9 screws with neoprene washers at 9" o.c.
- 4. Wall Steel shall be painted 29 Ga, ribbed steel and shall be attached to framing with 1 $\frac{1}{2}$ x #9 screws with neoprene washers at 9" o.c.

LUMBER:

- 1. Sawn lumber for studs, joists, etc.(2x6 or larger) = No.2 Doug Fir larch.
- 2. 2x4's = Standard Doug Fir larch.
- 3. Posts = So. Pine #1 Nail-lam.
- 4. All nails are to be common nails unless noted otherwise.
- 5. For connections of "SIMPSON" hardware or equivalent follow manufacturers recommendations.
- 6. Trus-Joist products:
 - A. Roof joists shown as TJI etc. shall be designed for the loads specified and shall conform to Trus-Joist specification.
 - B. Joists exceeding 24' in length shall be cambered to a standard radius of R = 2250.
 - C. Any alternate joist system(s) shall be the same depth and load Carrying capacity as the Trus-Joist system show on the drawings.
 - D. Micro Lam (LVL) E-1.900.000 psi.

7. Premanufactured Trusses

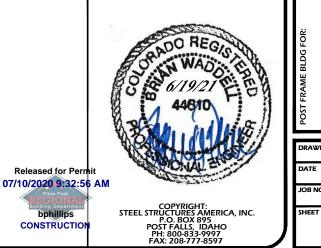
- A. Truss Loadina:
 - Top Chord D.L. = 5 PSF.
- Bottom Chord D.L. = 2 PSF. Top Chord L.L. = 40 PSF. chord I.I.
- B. Member Properties: Chords shall be #2 Doualas Fir or better.
- and constructed with approved plates.
- professional engineer.
- inspection as required by IBC chapter 2303.4.
- 1. Manufacturers identity. 2. Design Load.
- 3. Truss spacing.

Bottom Chord L.L. = 2 PSF. Does not act concurrently with top

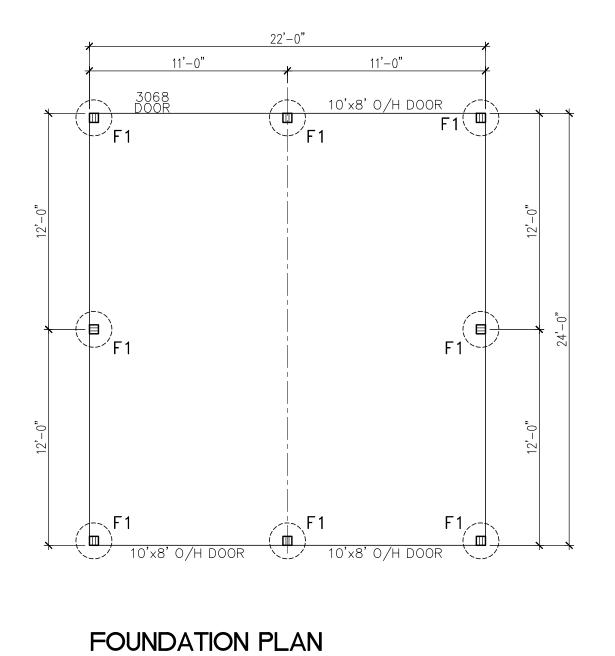
Webs shall have minimum Modulus of Elasticity of 1,500,000 psi. C. All truss blocking shall be provided by the truss manufacturer D. Truss Manufacturer shall verify all truss dimensions, accounting for tolerances, connections, and splice requirements. E. Truss profiles shown are representations of possible configurations of Web locations and member sizes. Truss manufacturer shall submit shop drawings for approval. All trusses shall be designed by a registered professional engineer and all shop drawings shall be stamped and signed by a registered

F. Truss manufacturer shall provide proof of approved third party I G. Truss manufacturer shall design all truss to truss connections and shall indicate said connections on the shop drawings. H. Each truss shall be marked with the following information:

8. All lumber in contact with concrete, masonry, or around shall be preservative treated wood in accordance with AWPA standards. Posts embedded in the ground shall comply with UC4B .60 treatment or greater.



	STRIICTURAL		NUIES	
DATE				
REVISIONS				
NO				
	STEEL STRUCTURE	A MFRICAR		
				COLORADO SPRINGS, COLORADO
POST FRAME BLDG FOR:				18130 TABLE ROCK RD. COLORADO SPRINGS, COLORADO
POST FRAME BLDG FOR:				COLORAD
DRAV				COLORAD
DRAV			w ′20	COLORAD



SCALE: 3/16'' = 1'-0''

SOILS REPORT AND FOUNDATION DESIGN BY LICENSED COLORADO ENGINEER OR ARCHITECT SHALL BE ON HAND AT TIME OF FIRST INSPECTION.

	FOOTING SCHEDULE			
MARK	"D"	DEPTH	POST	DETAIL
F1	2'-0"ø	3'-0"	(3)2x6 So. Pine #1 Nail—Iam	2/S3
F2	_	_	_	_
F3	_	_	_	_
F4	_	_	_	_
		•	•	

FOUNDATION NOTES:

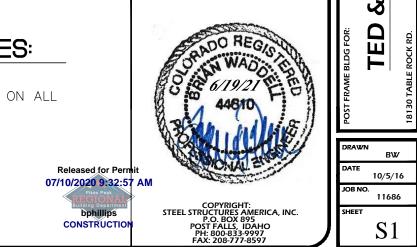
PROVIDE 2x6 STRONGBACKS ON ALL 1 WALL GIRTS > 8'-0".

	FOUNDATION	PLAN	
DATE			
REVISIONS			
NO.			
	IRFS	AINC.	





DRAWN BW DATE 10/5/16 JOB NO. 11686 SHEET **S**1



	HEADER SCHED	DULE
MARK	MEMBER	SUPPORT
H1	(1) 2x10 DF#2 V; (1) 2x6 DF#2 H	(1) 2×6 TRIMMER
H2	(1) 2x6 DF#2 V; (1) 2x8 DF#2 H	_
Н3	(1) 2x6 DF#2 V	_
	FER TO DETAILS 2, 3 & 4/3 AMING CONDITIONS.	S4 FOR HEADER



|--|

LSTA18 STRAP – PLACE AT INSIDE OF FASCIA BOARD IF NO OVERHANGS. PLACE AT INSIDE FACE OF TOP WALL GIRT IF OVERHANGS

