How To Read A Typical Alpine Component Drawing

Alpine, a division of ITW Building Components Group Inc., shall not be responsible for any deviation from this drawing or failure to build the trusses in conformance with ANSI/TP1 1 or for handling, shipping, installation, and bracing of trusses. A seal on this drawing or cover page listing this drawing indicates the absence of professional engineering responsibility solely for the design shown. The suitability and use of this drawing for any structure is the responsibility of the Building Designer per ANSI/TP1 1 Sec.2.

For more information see the job's general notes page and these web sites: Alpine www.alpinekc.com; TR: www.rotdoc.org; SBCA: www.sbcrowser.com; ICC: www.iccsafe.org

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A) **Loading Criteria**

B) **Wind Criteria**
Includes the ASCE Wind Load Standard. Wind Design Speed (mph), Building Type (Closed, Open Clear, Open Obstructed, Partially Enclosed). Building Usage Risk Category. Mean Height of roof. TCDL (Roof dead load). BCDL (Ceiling dead load used in wind analysis). Wind Load pressure Analysis - Main Wind Force Resisting System (MWFRS) and Components & Cladding (C&C). Load Duration Factor used for wind load cases.

C) **Snow Criteria**
Pg = Ground Snow Load which varies by location - refer to applicable ASCE GSL map. Ct = Thermal Factor of the building. Pf = Flat roof snow load. Ce = Exposure Factor from ground surface, vegetation & constructed features. Category (CAT) or Importance Factor based on occupancy. Snow Duration Factor used solely for snow load cases.

D) **Code / Misc. Criteria**
Building Code & Truss Plate Institute (TPI) Standard used in the component design. Repetitive Factors or Load Sharing. Fabrication (FT) and Rotation Tolerances (RT) and Max. (#) indicates override values. Plate type(s) used in iDesign.

E) **Deflection / CSI Criteria**
The span/deflection ratio & the limits used for the design. Dead Load Creep Factor used in the component analysis. Maximum CSI (Combined Stress Index = combined maximum axial & bending stress with associated component type) acting on a member. Camber applied by manufacturer to the component design.

- **VERT (LL)** = Maximum Vertical Panel Point deflection due to Live Load in inches.
- **VERT (CL)** = Maximum Vertical Panel Point deflection due to Live Load plus Creep Component of deflection due to Dead Load in inches.
- **VERT (TL)** = Maximum Vertical Panel Point long term deflection in inches, due to Live Load plus Dead load plus Creep Component of deflection due to Dead Load in inches.
- **HORZ (LL)** = Maximum Horizontal Panel Point deflection due to Live Load in inches.
- **HORZ (TL)** = Maximum Horizontal Panel Point deflection due to Live Load and Dead Load.
- **L/#** = User specified divisor for limiting span/deflection ratio for elevation of actual L/defl Value.
- **L/defl** = Ratio of length between bearings, in inches, divided by the immediate vertical Deflection, in inches, at the referenced panel point. Reported as 999 if greater than or equal to 999.

F) **Maximum Reactions**
- **R+** = Truss pressing on bearing with duration factor equal to gravity duration factor.
- **R-** = Truss pulling (*i.e.* uplift) from bearing with duration factor equal to gravity duration factor.
- **Rh** = Maximum horizontal reaction from a gravity load case.
- **Rw** = Maximum downward reaction from a non-gravity load case (*e.g.* Wind or Drag load).
- **U** = Maximum uplift reaction from a wind load case.
- **RL** = Maximum horizontal reaction from a non-gravity load case (*e.g.* Wind or Drag load).
G) Maximum Top Chord Forces per Ply (lbs.)
Maximum Tension and Compression forces for each top chord member, where member forces exceed 375 lbs.

H) Maximum Bottom Chord Forces per Ply (lbs.)
Maximum Tension and Compression forces for each bottom chord member, where member forces exceed 375 lbs.

I) Maximum Web Forces per Ply (lbs.)
Maximum Tension and Compression forces for each web member, where member forces exceed 375 lbs.

J) Lumber
Size, Species, and Grade for each member used in the analysis.

K) Bracing
Web bracing requirements are noted and referenced by a letter in parenthesis on the component drawing.

L) Loading & Wind Notes
Loading notes indicating additional loading conditions analyzed for the truss, including unbalanced loads, non-concurrent loads, drag loads, mechanical loads, etc.

M) Heel Height
The vertical measurement of the component from the bottom of the bottom chord to the top of the top chord at the outside edge of the heel.

N) Member Label
The member number (e.g. T# = Top Chord, B# = Bottom Chord, W# = Web) as specified by the member label in the Lumber note (refer to item J above).

O) Joint Label
All joints of the component are identified by unique letter(s).

P) Connector Plate
Size and orientation of connector plate. Orientation indicates direction of slots on connector.

Q) Slope
The vertical rise in inches for every 12 inches of horizontal run.

R) Overall Component Height
The vertical dimension including the overhang of the component.

S) Component Span & Panel Dimensions
Horizontal measurements that provide both panel point dimensions and the running total of the top and bottom chord(s) of component joints.
T) **Engineers Seal**
Seal of the registered professional responsible for component design.

U) **Panel Splice**
The location within top chord and/or bottom chord panels where two chord members are joined together by a connector plate.

V) **VIEW Ver.**
The version of the software on which the analysis was performed.