



Guideline for Structural Checking

Governing requirements for Structural Checking are contained in APEGBC bylaw 14(b) and state that the engineer's quality management process for their practices shall include "in-house checks of their structural designs as a standard procedure". Therefore this guideline is to assist a qualified checking engineer to check the designs of the original truss design engineer at regular intervals. It provides a formal record of compliance with APEGBC Quality Management bylaws and is intended to demonstrate compliance with Structural Checking requirements during the APEGBC Practice Review process.

This guideline provides a structural checker with a summary of the elements of a truss shop drawing. It is to be used in conjunction with the truss general arrangement drawing (layout) and the documents provided by the EOR/SER. This checklist is not necessarily all-inclusive, however, it represents a consensus of professional engineer designers and others within the membership of the WWTABC.

With consideration for the repetitious nature of the design process and the software environment, in-house structural checking is performed at a frequency that assures on-going compliance with procedures. It is recommended that at least three projects be sampled and a representative sample of Part 4, 9, and Farm projects be checked. Repair jobs should also be included. It is noted that an "outside" or independent engineer need not perform this. The engineer checking the design may work for the same organization, but must not be the original design engineer.

CHECKLIST FOR PROFESSIONAL STRUCTURAL CHECKING

Truss Engineer:
Project Identification:
Truss ID:
Firm Name:
Firm Address:
Checking Engineer:
Firm Name:
Firm Address:
Date:

ITEM	INITIALS	REMARKS
Slope or depth, span & spacing		
Snow buildup, mechanical loads		
Location of joints		
Required bearing widths		
Design criteria as applicable		
Top chord live/dead load		
Bottom chord live/dead load		
Concentrated loads and their points of application		
Specified controlling wind and earthquake loads		
Adjustments to lumber and metal connector plate design values for condition of use		
Each reaction force		
Application details of connector plates		
Lumber size, species, and grade for each member		
Connection requirements specified for:		
truss to girder/beam/wall		
truss ply to ply		
field splices		
Calculated deflection ratio and/or maximum deflection for live and total load		
Required permanent truss web bracing location		

Maximum axial compression forces in the truss members to enable the building designer to design the size, connections, and anchorage of the permanent continuous lateral bracing		
Requirements related to hardware produced by others		
Other		

Comments (note attachments as necessary):

Signature of Checker: _____

Professional Seal: