

Roof & Floor (Wood) Trusses Design & Layout Drawings

The purpose of this brochure is to assist designers, truss companies, Truss Design Engineers, and Registered Professionals of record (RP's) with respect to building permit application requirements for roof/floor truss design drawings and truss layout drawings **for all wood-framed buildings**, including single and multi-family dwellings.

"This information is provided for convenience only and is not in substitution of applicable City Bylaws or Provincial or Federal Codes or laws. You must satisfy yourself that any existing or proposed construction or other works complies with such Bylaws, Codes or other laws."

Design Criteria

All metal plate connected trusses shall be designed in conformance with CSA O86-09 - Engineering Design in Wood, and TPIC 2007 - Truss Design Procedures and Specifications for Light Metal Plate Connected Wood Trusses. All truss layouts shall indicate that the design complies with Limits States Design criteria and a footnote indicating all loads shown are serviceability loads (unfactored).

A set of climatic information, such as snow load, rain load and wind load for building design in Burnaby can be found in the current edition of the BC Building Code, Division B, Appendix C and is reproduced in our brochure called "[Climatic Information for Building Design in Burnaby](#)".

Truss Layout Drawing

For any buildings that incorporate wood trusses, a copy of the truss layout drawing (see sample *attached*), prepared by the project truss company is required. The layout drawing must follow the truss company's standard format, on their letterhead, complete with project address, and specifically include design criteria, end and interior reaction loads and bearing factors for all girder trusses.

The layout drawing must be reviewed by the Registered Professional of Record (RPR) and acknowledged over a note on the drawing that the RP has reviewed the layout and that all girder reactions have been accounted for in the frame and foundation. Notes, such as “For permit use only” and “Loads are estimated only”, are not acceptable.

For single and two family houses the layout drawing is required to be on site for the building inspector at the time of framing inspection.

For any other buildings, the layout drawing is required at the permit application stage.

Framing details of trusses that span across or parallel to party walls or fire separations must also be submitted at permit application stage.

Truss Design Shop Drawings

The truss design shop drawings signed and sealed by the truss design engineer, are required to be on site for the building inspector at the time of framing inspection.

Responsibility of the Registered Professional (RPR)

The RPR is primarily responsible for the coordination of all truss designs and installations; and directly responsible for the inspection of all truss system. Exclusion of roof trusses on the Schedule B is not acceptable.

Inspection by Building Inspector

The Building Inspector may conduct inspection of the installation of roof and floor (wood) trusses. Deficiencies, if any, will be noted by the building inspector and the owner / contractor will be responsible for repair detail / correction.

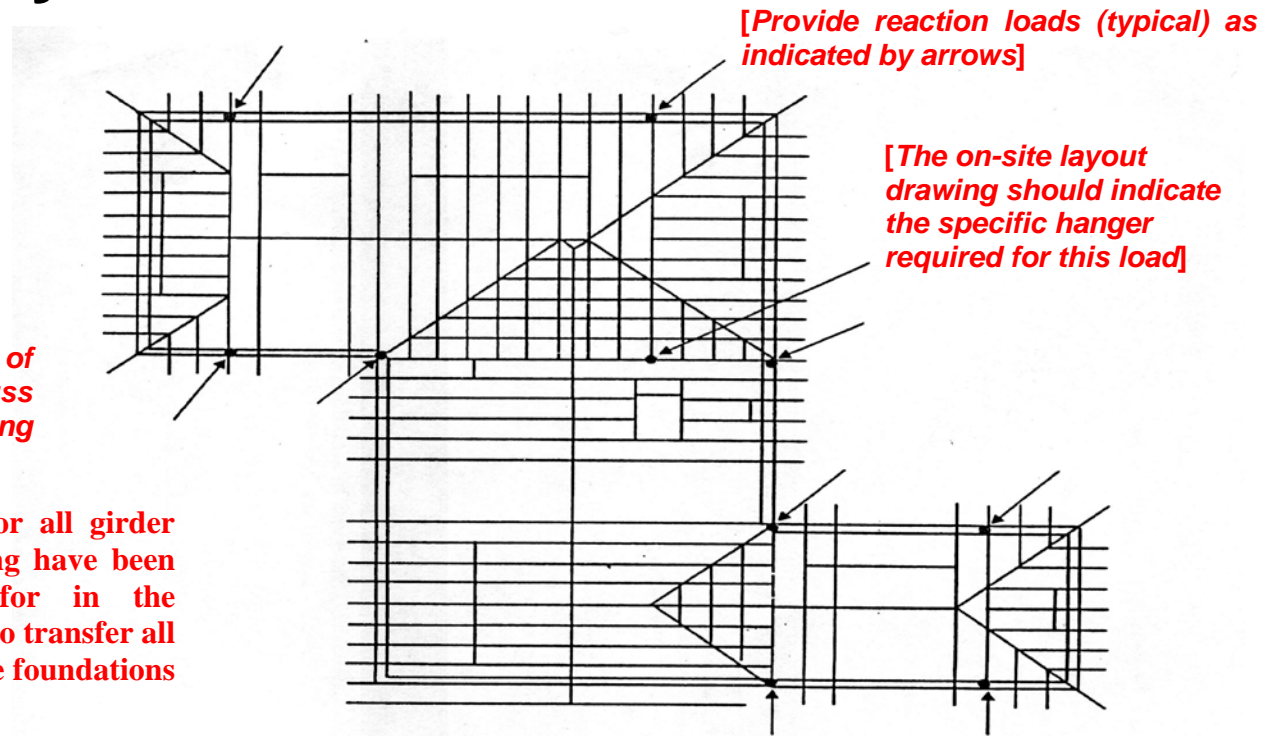
Repair Detail / Correction Drawings

Repair detail/correction drawings must be to the same professional standard as the original design drawings, complete with the seal and signature of the truss design engineer or the truss designer's appointed representative engineer and reviewed by the RPR. This repair/correction detail must be inspected by the Building Inspector on completion and prior to "frame" acceptance.

For more information, please call the Building Department at 604-294-7130.

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(Attachment Included – Truss Layout for Permit Application)

Roof Truss Layout (illustrative only)



[The Registered Professional of Record (RPR) shall review the truss design and provide the following annotation:

The end & reaction loads for all girder trusses on this layout drawing have been reviewed and accounted for in the structure. Support provided to transfer all loads through the frame to the foundations and solid bearing.

(RPR, Please Print)

Signature: _____

Date: _____]

<p>ABC Truss Systems 784 Industrial Dr. Langley, BC V6H 1G4 Phone: 604-299-2090, Fax: 604-299-0090</p> <hr/> <p>(Truss Rep/Engineer or alternate, Please Print) Signature: _____</p> <p>Date: _____</p>	<p>Site Address: 1234 Elm Drive, Burnaby, BC</p> <p>Owner/Contractor: L.T.Enterprises 1221 Smith Way, Burnaby, BC, V7F 1M2</p>	<p>Notes: Design criteria shown are for truss span of 40' or less. All loads shown are serviceability loads (unfactored).</p> <table> <tr> <td>GSL:</td> <td>60.6 PSF</td> <td>BCBC [cite</td> </tr> <tr> <td>55%:</td> <td>33.3 PSF</td> <td>Limit States</td> </tr> <tr> <td>Rain:</td> <td>14.6 PSF</td> <td>Design</td> </tr> <tr> <td>Total LL:</td> <td>47.9 PSF</td> <td></td> </tr> <tr> <td>Roof Type:</td> <td></td> <td></td> </tr> <tr> <td>Pitch:</td> <td></td> <td></td> </tr> <tr> <td>Total DL:</td> <td></td> <td></td> </tr> </table>	GSL:	60.6 PSF	BCBC [cite	55%:	33.3 PSF	Limit States	Rain:	14.6 PSF	Design	Total LL:	47.9 PSF		Roof Type:			Pitch:			Total DL:		
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