

## **Manufactured Floor Joist, Beam and Truss Roof Systems** **Information required for Building Permit Application & Inspection**

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This guide is provided to assist in determining building design information and documents required for building permit and inspection.

All manufactured roof and floor joist systems must be designed using the Limit States Design method. The following **site specific** information is required to determine compliance to the 2006 BC Building Code:

### **A. Identify the Property:**

1. Civic address.
2. Building permit number (if known).

### **B. Details of roof systems:**

1. Dimensioned truss layout showing bearing, intermediate support and areas framed by others.
2. Identify the end reactions of girders and wall trusses (live and dead loads to be totalled). Will wall trusses carry floor loads? Identify all the loads (i.e., span of floor system carried).
3. Identify roof loads; live and dead.
4. Roof slope and roofing material (e.g., concrete tile?).
5. Maximum truss height.

### **C. Details of floor / beam system:**

1. Dimensioned floor & beam layout to include bearing, intermediate support and areas framed by others, beam end reactions (live and dead loads to be totalled) and joist direction and spacing.
2. Identify the product by the manufacturer's specific product name, size and number.
3. Identify required assembly of components needed to meet vibration criteria:  
e.g. - thickness and type of subfloor.  
- subfloor glued.  
- type of blocking, strapping or ceiling finish (directly applied) required.
4. Identify floor loads, live and dead.

### **D. Documents required for Framing Inspection:**

1. Computer generated proprietary designs for each engineered beam, including a layout plan.
2. Engineer certified beam documents for point loaded beams.
3. Computer generated proprietary designs for engineered floor joist systems, including a layout plan.
4. Engineer certified truss documents, including a layout plan.

All documents required for Framing Inspection must reference "Limit States Design", vibration criteria, have a unique number identifying each engineered product that is referenced on the layout, identify product name, size, describe the assembly components, construction details, loads, reactions (with live & dead loads totalled), bearing locations, end grain or squash requirements and size of bearing as applicable.

The maximum span for residential trusses is 12.2 m (40 ft) as per Section 9.4.2.1. of the BC Building Code. Where truss spans exceed 40 feet the entire building must be designed by a structural engineer.

If you have any questions please contact a residential plan checker at 755-4429.