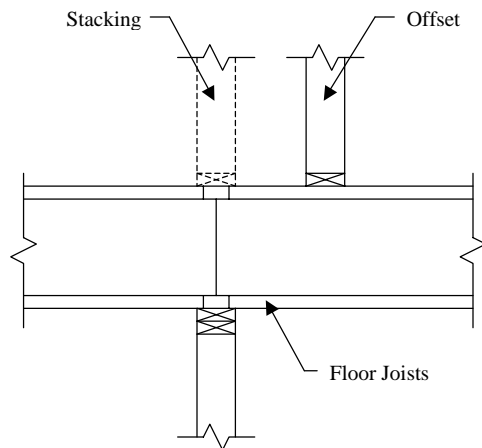


WIJMA – Position Statement

Offset Bearing Walls

Perpendicular to Joist

Engineered Wood I-Joists have become the building material of choice due to their performance and design flexibility. It is important to reiterate that design and specification of a Wood I-Joist framing system differs from conventional construction provisions addressed in building codes. While these engineered products are recognized as an alternative building material, the manufacturer should be consulted for code compliant design assistance. Some areas that require special design include hole size and placement restrictions, cantilever detailing, safety / erection bracing, vertical / lateral load transfer, etc.



One application that WIJMA has been asked to clarify is the transfer of loads through the floor system from load bearing walls above.

When using conventional 2x floor joist framing in residential construction, the United States and Canadian codes allow the placement of offset bearing walls within a specified distance from supporting girders, walls, or partitions without additional design calculations. This does not hold true for engineered wood I-joists due to the differences in cross-section.

The use of engineered wood I-joists with offset or stacking bearing walls is not covered in the building codes; therefore, each application should be designed in accordance with manufacturers literature, software, or consultation. Typically, blocking is specified between joists below stacked bearing walls. The I-Joist design assumes that this blocking transfers the loads around the I-Joist and directly to the bearing locations. This cannot occur for offset wall applications; so, the point load created by the offset wall must be considered in the design of the wood I-joist.

Individual manufacturers should be contacted for assistance, due to the proprietary nature of their I-Joist design properties.