

Technical Bulletin (TB-IJ-12)

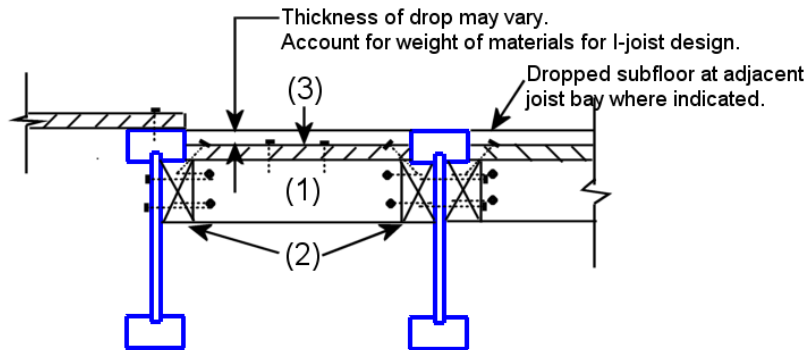
Subject: Dropped Subfloor Detail for IB I-joists

April 2013 (Updated June 2017)

This technical bulletin is intended for use with International Beams Inc. products and offers general guidelines for topics that may not be covered in our literature. Appropriateness of details for a specific project should be evaluated by a qualified designer. This technical bulletin may be periodically updated. Check internationalbeams.com to ensure that you have the most recent version.

There are special design conditions where the subfloor may need to be “dropped” below the top surface of an I-joist. An example of this condition is when a thick grout bed is needed for ceramic or stone flooring, but only for a portion of the floor joist, not the entire joist length. The detail at the bottom of this page has been successfully used on IB (International Beams) I-joists. It is recommended that an analysis be performed with IB software to account for the following special design considerations:

1. Account for the additional material weight of flooring such as the grout bed and ceramic or stone flooring.
2. Design the IB I-joist without subfloor. Partial composite action that occurs when subfloor is glued and nailed to the top flange can reduce deflection of the floor system. This feature will not be present when the subfloor is dropped.



Dropped Subfloor Detail

(not to scale)

Notes:

- (1) 2x4 No. 2 SPF ladder framing, max. 24" o.c. Nail with (2) 16d sinker nails toenailed at each end (alternate: end nail with two 16d common nails each end).
- (2) 2x4 No. 2 SPF continuous for length of drop. Nail from opposite side of OSB web with 16d sinker nails staggered at 8" o.c. full length.
- (3) 23/32" APA span-rated 48/24 subfloor, with face grain parallel to joist span. Nail as for typical subfloor, and nail edges to continuous 2x4's