WEBSHIELD and WEB HOLE SPECIFICATIONS

One of the benefits of using WEBSHIELD protected I-joists in residential basement construction is that holes may be cut in the unprotected joists to accommodate electrical wiring, plumbing lines and other mechanical systems, therefore minimizing the depth of the floor system.

The following rules for cutting holes apply:

1) The distance between the inside edge of the support and the centerline of any hole shall be in compliance with the requirements outlined by the I-joist manufacturer. Consult current specifications guide and code report for details.

2) I-joist top and bottom flanges must NEVER be cut, notched or otherwise modified.

3) Whenever possible, field-cut holes should be centered on the middle of the web.

4) The maximum size hole that can be cut into an I-joist web shall equal the clear diameter between the flanges of the I-joist minus 1/4". A minimum of 1-1/8" should always be maintained between the top or bottom of the hole and the adjacent I-joist flange.

5) The sides of square holes or square edges of rectangular holes should not exceed three-fourths of the diameter of the maximum round hole permitted at that location.

6) Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the rectangular hole) and each hole must be sized and located in compliance with the I-joist manufacturer's documentation.

7) Holes measuring 1-1/2 inches or smaller shall be permitted anywhere in a cantilevered section of an I-joist. Holes of greater size may be permitted subject to verification.

8) A 1-1/2-inch hole or smaller can be placed anywhere in the web provided that it meets the requirements of table number 6 above.

9) All holes shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 6.

10) Limit three maximum-size holes per span.

11) Maximum of one 6" hole is allowed in the WEBshield provided that an additional minimum 6" of WEBshield is added to the penetrated panel. (see IAPMO UES-0653)

12) A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.

WEBSHIELD Made Rainfire

Customer service/support:
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Glulam or multiple structural lumber combined with I-joists as built-up.

Webshield Panel

LOCATION OF ALLOWABLE HOLES IS AS SPECIFIED BY THE I-JOIST MANUFACTURER

See Specific Brand publications for details

WEBSHIELD recommends using I-joist specific hole sizes for clean accurate cutting.

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