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OPEN JOIST TRIFORCE® WOOD TRUSSES

CSI Section:

06 17 53 Shop-Fabricated Wood Trusses

1.0 RECOGNITION

The Open Joist TRIFORCE® Wood Trusses recognized in this report, have been evaluated for equivalent fire-resistant construction to 2-inch-by-10-inch nominal dimension lumber in accordance with Exception 4 to Section R302.13 of the 2015 International Residential Code (Section R501.3 of the 2012 International Residential Code). The wood trusses meet the intent of the provisions of the following code editions:

- 2015 and 2012 International Residential Code® (IRC)

2.0 LIMITATIONS

Use of the wood trusses recognized in this report is subject to the following limitations:

- 2.1** The Open Joist TRIFORCE® Wood Trusses have only been evaluated for the fire-resistance requirements noted in Section 1.0. All other requirements shall be evaluated by an approved evaluation service.
- 2.2.** Selection of the floor trusses for structural loading and its supporting structure shall be designed by an approved structural design professional.
- 2.3** The trusses shall be properly braced in accordance with the installation instructions and the IRC.
- 2.4** The wood trusses recognized in this report are produced by Barrette Structural Distribution in Trois-Rivieres, Quebec, Canada.

3.0 PRODUCT USE

3.1 Design: Open Joist TRIFORCE® Wood Trusses shall be designed in accordance with manufacturer’s design information, ANSI/AWC National Specification for Wood Construction (NDS), and evaluation reports by an approved and accredited certification agency.

3.1.1 Fire-Resistance Construction: A minimum 9³/₈-inch-deep (238 mm) truss installed at a maximum spacing of 24 inches (610 mm) and sheathed with minimum 3/4-inch-thick WSP floor sheathing in accordance with the IRC, offer equivalent fire performance to floors framed using 2-inch-by-10-inch nominal dimension solid sawn lumber prescriptively sheathed in accordance with the IRC. The assembly is recognized for installation without the prescribed minimum 1/2-inch-thick (12.7 mm) gypsum wallboard or 5/8-inch-thick (15.9 mm) wood structural panel membrane in accordance with Exception 4 to the 2015 IRC Section R302.13 or Section R501.3 for the 2012 IRC when installed as described in this report.

3.2 Installation: Installation of the Open Joist TRIFORCE® Wood Trusses shall be in accordance with manufacturer’s installation guide, this evaluation report and the applicable provisions of the IRC. The joists are imprinted with the word “bottom” on the bottom flanges to assure installation is as designed. Where there is a conflict between these documents, the most restrictive provisions shall govern. The manufacturer’s installation instructions and this report shall be available at the jobsite during construction for use by installers and for quality assurance purposes.

4.0 PRODUCT DESCRIPTION

4.1 General: Open Joist TRIFORCE® Wood Trusses are prefabricated open web floor joists constructed of solid-sawn wood and finger-jointed Spruce-Pine-Fir (SPF) lumber. Web members are connected to flanges by adhesively bonded finger joints.

4.1.1 Flanges: The top and bottom flanges are constructed of solid-sawn or finger-jointed Spruce-Pine-Fir (SPF) lumber having a minimum 2-inch-by-3-inch nominal dimension.

4.1.2 Web Members: The vertical and diagonal web members are constructed of minimum nominal 2-inch-by-2-inch SPF lumber.

An extension is provided on one end of the truss that may be cut, according to manufacturer’s installation instructions, to adjust the length of the truss. The TRIFORCE® truss uses a 5/8-inch-thick (15.9 mm) wood structural panel or 1/2-inch-thick (12.7 mm) gypsum board attached to each side of a 3/8-inch-thick (9.5 mm) wood structural panel for the extension.

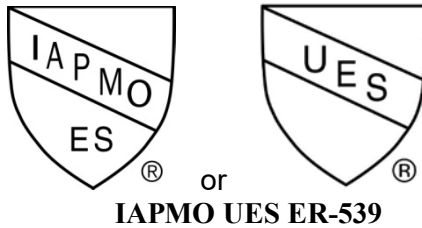
4.1.3 Adhesive: The adhesive used for manufacturing the trusses complies with ASTM D2559 and qualifies under the heat durability performance requirements of ASTM D7247.





5.0 IDENTIFICATION

The bottom flange of the product is imprinted with the manufacturer's name, product name, approved inspection agency, the UES Mark of Conformity and evaluation report number (ER-539). Either UES Mark of Conformity may be used as shown below:



6.0 SUBSTANTIATING DATA

6.1 Report of Fire-resistance in accordance with ASTM E119 from a laboratory in compliance with ISO/IEC 17025.

6.2 Technical Assessment of Fire Performance.

6.3 Engineering analysis.

6.4 Manufacturer's quality documentation, descriptive literature and installation instructions.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research carried out by IAPMO Uniform Evaluation Service on Open Joist TRIFORCE[®] Wood Trusses to assess their conformance to the codes shown in Section 1.0 of this report and documents the product's certification. The Wood Trusses are produced at locations noted in Section 2.4 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

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For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org