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OPEN JOIST 2000® AND OPEN JOIST TRIFORCE® WOOD TRUSSES

CSI Section:
06 17 53 Shop-Fabricated Wood Trusses

1.0 RECOGNITION

The Open Joist 2000® and Open Joist TRIFORCE® wood trusses recognized in this report, have been evaluated for equivalent fire-resistant construction. Fire-resistant construction was evaluated to 2-inch-by-10-inch nominal dimension lumber in accordance with Exception 4 to Section R302.13 of the 2024, 2021, 2018, and 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:

- 2024, 2021, 2018, 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 2000® and 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 and subject to approval of the building official.

2.2 Selection of the floor trusses for structural loading and its supporting structure shall be designed by an approved structural design professional. The registered design professional shall prepare calculations and drawings when

required by the statutes of the jurisdiction in which the project is to be constructed.

2.3 The trusses shall be properly braced in accordance with the installation instructions and the IRC.

2.4 Open Joist 2000® and Open Joist TRIFORCE® wood trusses are produced in Emlenton, Pennsylvania, and Trois-Rivieres, Quebec, Canada.

3.0 PRODUCT USE

3.1 Design: Open Joist 2000® and 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 (238 mm) deep truss at a maximum spacing of 24 inches (610 mm) shall be required to offer equivalent fire performance to 2-inch by 10-inch nominal dimension solid sawn lumber and are recognized for installation without the prescribed minimum 1/2-inch-thick (12.7 mm) gypsum wallboard or 5/8-inch (15.9 mm) thick wood structural panel membrane in accordance with Exception 4 to the 2024, 2021, 2018, and 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 2000® and Open Joist TRIFORCE® shall be in accordance with the manufacturer’s installation guide, this evaluation report, and the applicable provisions of the IRC. The joists are imprinted with the words “top and bottom” on their respective 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.

4.0 PRODUCT DESCRIPTION

4.1 General: Open Joist 2000® and Open Joist TRIFORCE® wood trusses are prefabricated open web floor joists constructed of solid-sawn wood. 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 with 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.

The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with Section 104.2.3 of the 2024 IBC and Section 104.11 of previous editions. This document shall only be reproduced in its entirety.



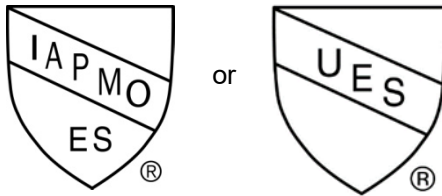


An extension is provided on one or both ends of the trusses that may be cut, according to manufacturer's installation instructions, to adjust the length of the joist. The TRIFORCE[®] truss uses a 5/8-inch (15.9 mm) thick wood structural panel or 1/2-inch (12.7 mm) thick gypsum board attached to each side of a 3/8-inch (9.5 mm) thick wood structural panel for the extension. The Open Joist 2000[®] truss uses a nominal 2-inch by 8-inch solid-sawn lumber web 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, manufacturer's phone number, product name, approved inspection agency and evaluation report number (ER-480). Either IAPMO UES Mark of Conformity may also be used as shown below:



IAPMO UES ER-480

6.0 SUBSTANTIATING DATA

6.1 Report of Fire-resistance tests in accordance with ASTM E119.

6.2 Technical Assessment of Fire Performance.

6.3 Engineering analysis.

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

6.5 Test reports are from laboratories in compliance with ISO/IEC/ 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Open Joist 2000[®] and 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. Open Joist 2000[®] and Open Joist TRIFORCE[®] wood trusses are manufactured at locations noted in Section 2.4 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.

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