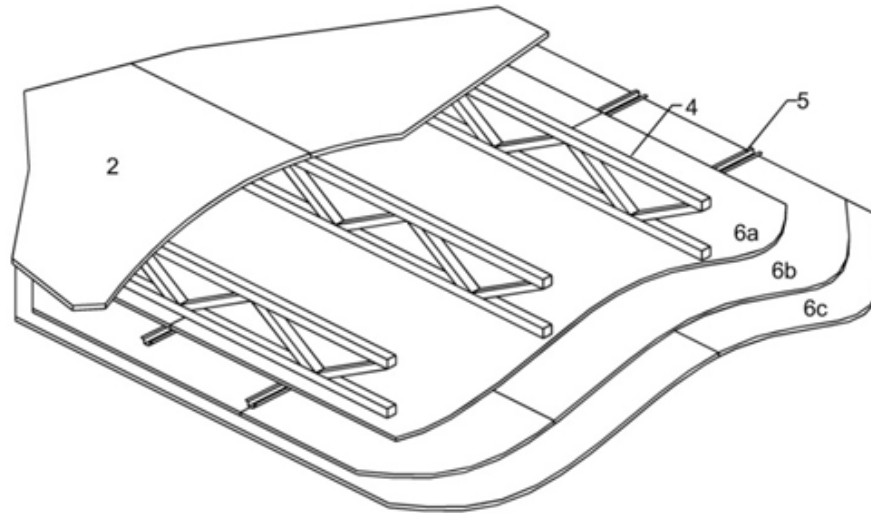

Design Number BS/SFWT 120-02
OPEN JOIST 2000® JOIST SERIES

By Barrette Structural Inc.
ASTM E119 and CAN/ULC S101
Load Bearing Fire Resistance Rated Roof/Ceiling, Floor/Ceiling Assembly
2-Hour Fire Rating



- 1. FLOOR TOPPING (Optional, Not Shown):** Gypsum concrete, lightweight or normal concrete topping.
- 2. SUB-FLOORING:** Min. 5/8 in. thick plywood or OSB or equivalent.
- 3. INSULATION (Optional):** When installed, insulation shall be installed above the joist flanges and supported by stay wires spaced 12 in. oc.
- 4. CERTIFIED MANUFACTURER:** Barrette Structural Inc.

CERTIFIED PRODUCT: Open Joist Series

CERTIFIED MODEL: Open Joist 2000®

Open Joist 2000®, 9-1/4 in. min. depth, installed up to 24 in. oc, with structural graded nominal 2 x 3 or 2 x 4 chords per NLGA grading rules. Structural member should bear the Intertek certification mark.

BRIDGING: Continuous 2x4 lumber nailed to the bottom chord and the sides of the diagonals with 2 in. long nails at 7 ft. oc.

- 5. FURRING CHANNEL:** Min. 0.0179 in. thick galvanized steel hat-shaped furring channels, attached perpendicular to joists using 1-5/8 in. long drywall screws. Furring channels spaced 16 in. oc (furring channels used to support the second and third layers of gypsum wallboard).
- 6. GYPSUM BOARD:** Three layers of min. 5/8 in. Type C gypsum wallboard as follows:

A. **WALLBOARD BASE LAYER** – Base layer of wallboard installed perpendicular to the joists and directly attached to the bottom flange using 1-5/8 in. Type S drywall screws at 12 in. oc. End joints of wallboard centered on bottom flange and staggered a min. of one joist spacing.

B. WALLBOARD MIDDLE LAYER – Middle layer of wallboard attached to furring channels using 1 in. Type S drywall screws spaced 12 in. oc with the long dimension of wallboard perpendicular to furring channels. Edge joints shall be centered between the joists. End joints staggered a min. of one channel spacing and offset from the edge joints in the base layer a min. of one channel spacing.

C. WALLBOARD FACE LAYER – Face layer of wallboard attached to furring channels through middle layer using 1-5/8 in. Type S drywall screws spaced 8 in. oc. Edge joints of face layer of

wallboard offset a distance equal to the joist spacing from those of middle layer. End joints of face layer of wallboard staggered a min. of one channel spacing with respect to the middle layer end joint and base layer edge joint.

7. **FINISH SYSTEM (Not Shown):** Face layer joints covered with tape and coated with joint compound. Screw heads covered with joint compound.