LBFoster
Fabricated Bridge Products

5-Inch RB 6.2M Open Grid

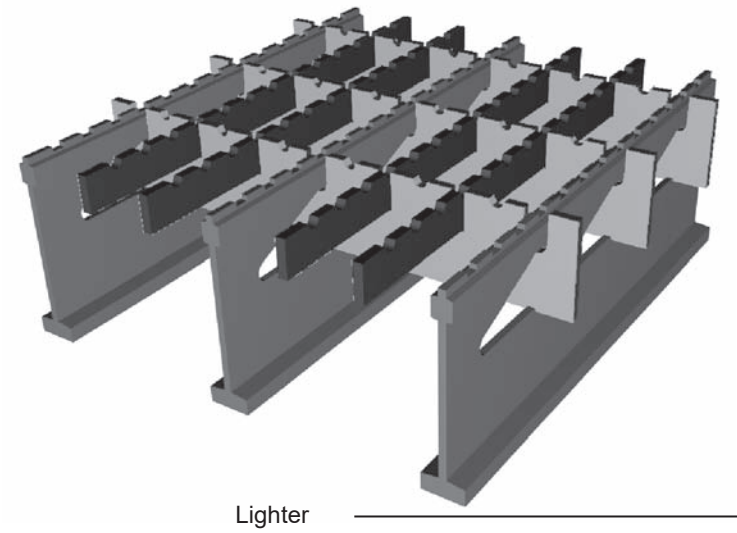
L. B. Foster's 5-Inch RB 6.2M is the most commonly used of the RB series rectangular patterned open grids. RB 6.2M offers the best compromise of deck weight to load and span capability for the RB style rectangular patterned decks.

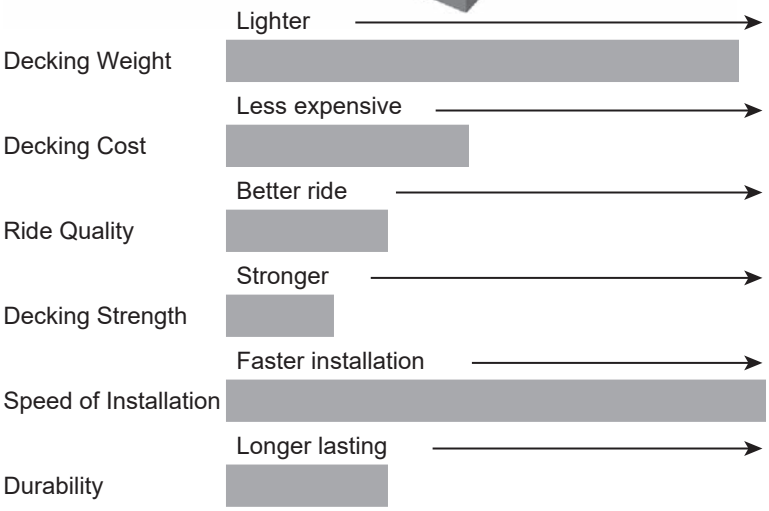
Open grid design durability is linked directly to transverse stiffness — the ability to transmit load from one main beam to adjacent ones. To provide increased transverse stiffness, Foster configured its main beam to permit use of a deeper/stiffer distribution bar.

The modified grid delivers transverse stiffness increases of 50% or more when compared to the outdated 2" deep cross bars offered on some older open grid designs. The deeper cross bars greatly improve load distribution and reduce localized stresses.

If the superior 4-way riding surface is not required, this design is suitable for use on low speed, low to moderate traffic volume structures where the ADTT and deck spans are modest.

APPLICATION GUIDELINES





5-Inch RB 6.2M · Properties Table 5.6.2M

Style / Main Beam Size & Spacing	Section Modulus (in^3/ft)*		50 ksi Steel Max Continuous Clear Span HS25 Wheel Load		Approximate** Weight (lbs/SF)
	Top	Bottom	L/800 Deflect	27 ksi Stress	
RB 6.2M / 5.3# @ 6"	4.281	5.260	4.93 ft.	6.59 ft.	19.2

* Section modulus based on 50% of the supplemental bars active.
** The deck weight psf is based on an uncoated standard panel width of 7'-8", actual weights may vary due to panel widths used, coating weight and deck attachments.

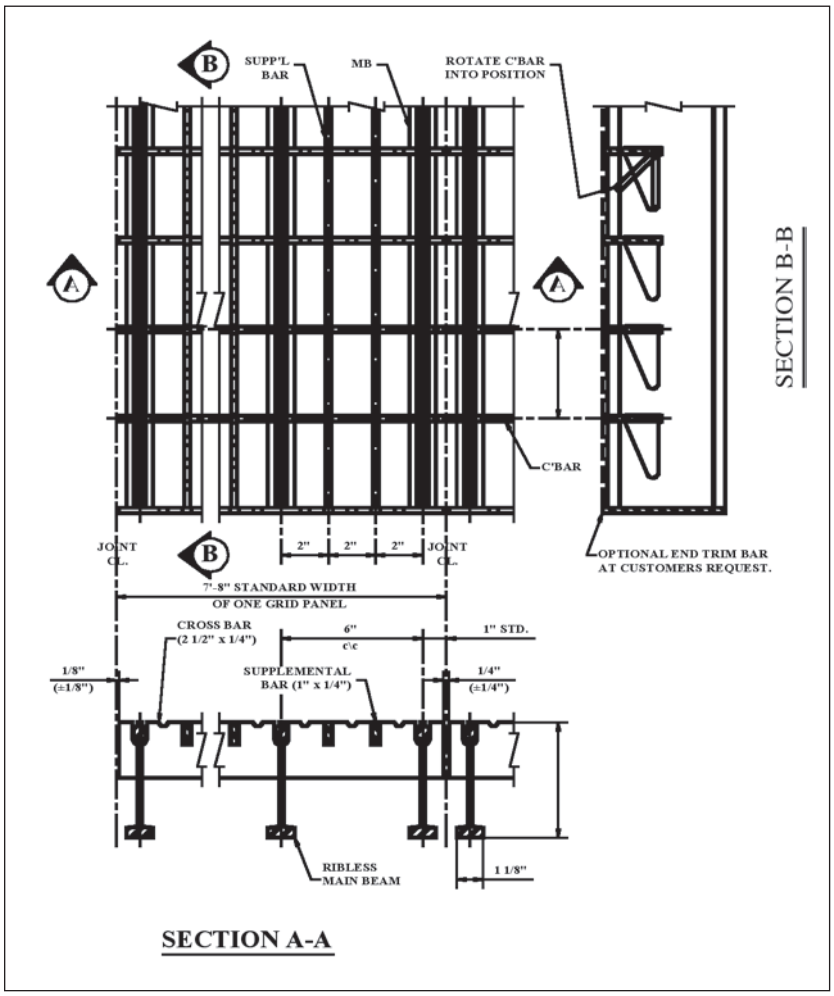
NOTE: The information contained herein has been prepared in accordance with generally accepted engineering principles. However, L.B. Foster Company is not responsible for any errors that may be contained herein. The user of the information provided herein should check the information supplied and make an independent determination as to its applicability to any particular project or application.

Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch RB 6.2M as manufactured by the L.B. Foster Company, 415 Holiday Drive, Pittsburgh, Pennsylvania 15220 – Phone (412) 928-3455. The deck shall be manufactured from the following steel elements:

Main Beam (MB) @ 6" c/c	5 3/16" deep special rolled beam x 5.3#/LF
Cross Bar (C'Bar) @ 4" c/c	2 1/2" x 1/4" flat bar
Supplemental Bar (2 between each MB)	1" x 1/4" (minimum) flat bar
Steel Specification	All steel shall be 50 ksi (A709 Gr. 50 / A-572) or 50 ksi weathering (A709 Gr. 50W / A588)

Typical Details: 5-Inch RB 6.2M



All elements shall be serrated on their top surfaces. Serration pattern shall be @ 1" c/c (max.), where possible.

The deck shall be assembled such that the tops of all elements are in the same plane and notching (other than serration) of the main beam top flange shall not be permitted. The RB 6.2 deck shall have 5.3# main beams at 6" centers with two 1" x 1/4" supplemental bars equally spaced between them and 2 1/2" x 1/4" cross bars at 4" centers. Notching the bottom of the cross bar is not permitted.

The grid shall be welded at all intersections using the manufacturers standard welding process. The grid shall be manufactured and designed to provide the properties indicated in the 5-Inch RB 6.2M Properties Table 5.6.2.

Finish: Most types of coatings can be provided; common finishes are mill finish (for 50 ksi weathering steel) and hot dipped galvanized for 50 ksi steel — note that distortion from galvanizing will occur, request manufacturer's tolerances.

WARNING: Uncoated-weathering steel provides the best skid resistant open grid surface. Galvanized or painted coatings can reduce the skid resistance. Vertical and/or horizontal curves on the bridge decking can increase lateral forces on vehicles, further reducing skid re-sistance efficiency. It is recommended that lane changes be prohibited and appropriate speed limits be strictly enforced to promote safety. Various studies are available upon request.