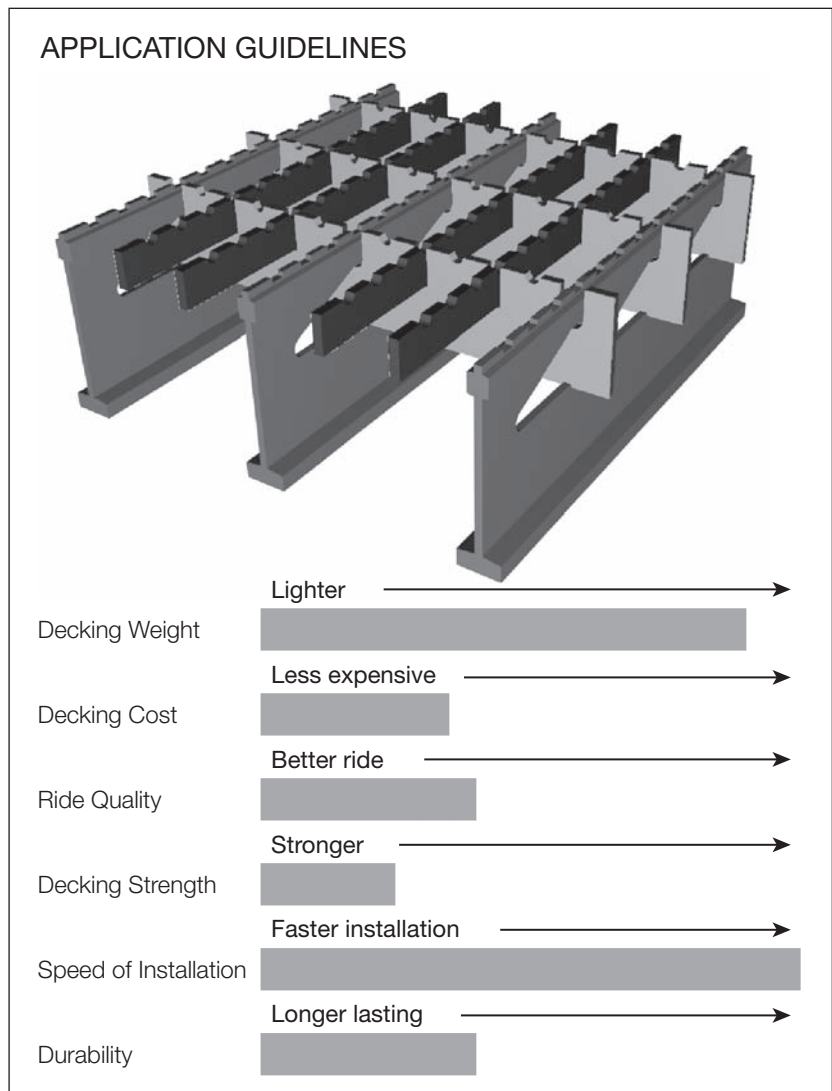


L. B. Foster's 5-Inch RB 4.2M is designed to provide increased load carrying capability and longer span capacity compared to the lighter RB 6.2M and RB 8.2M open grid designs. It's 4" spaced main beams and two supplemental bars yield a more balanced section than RB 3.0M resulting in greater load and span capabilities with no added weight.

The Modified grid delivers transverse stiffness increases of 50% or more when compared to the outdated 2" deep cross bars offered on some older open grid designs.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.

This rectangular patterned deck is suitable for lower traffic volume structures where the 4-Way style grids may not be required. However, the close spaced main beam design permits its use on longer spans and for heavy loads.



**5-Inch RB 4.2M • Properties Table 5.4.2M**

Style / Main Beam Size & Spacing	Section Modulus (in <sup>3</sup> /ft)*		50 ksi Steel Max Continuous Clear Span HS25 Wheel Load		Approximate** Weight (lbs/SF)
	Top	Bottom	L/800 Deflect	27 ksi Stress	
RB 4.2M / 5.3# @ 4"	6.421	7.889	5.69 ft.	8.48 ft.	25.4

\* Section modulus based on 50% of the supplemental bars active.

\*\* The deck weight psf is based on an uncoated standard panel width of 8'-2", actual weights may vary due to panel widths used, coating weight and deck attachments.

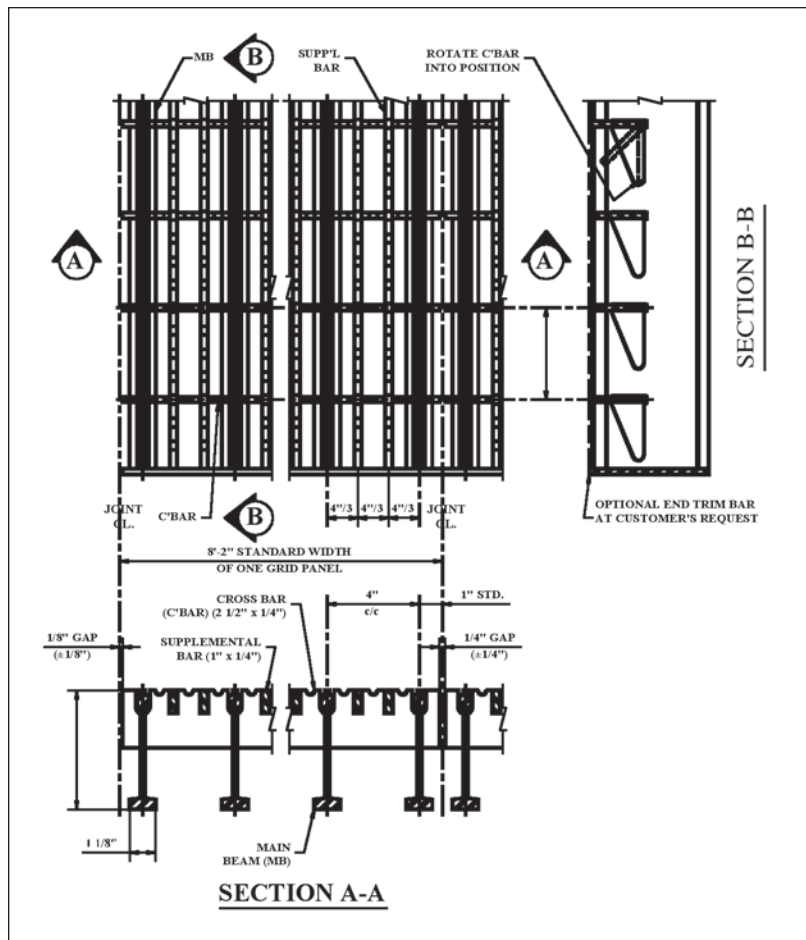
NOTE: The information contained herein has been prepared in accordance with generally accepted engineering principles. However, L.B. Foster Company is not responsible for any errors that may be contained herein. The user of the information provided herein should check the information supplied and make 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 4.2M as manufactured by the L.B. Foster Company, 1016 Greentree Road, Pittsburgh, Pennsylvania 15220 – Phone (412) 928-3452 & Fax (412) 928-3514. The deck shall be manufactured from the following steel elements:

Main Beam (MB) @ 4" c/c	5 <sup>3</sup> / <sub>16</sub> " 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 4.2M



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

The deck shall be assembled such that the tops of all elements are in the same plane and notching, other than serrations, of the main beam top flange shall not be permitted. The RB 4.2M deck shall have 5.3# main beams at 4" centers with two 1" x 1/4" supplemental bars equally spaced between the main bars 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 4.2M Properties Table 5.4.2M.

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 resistance 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.