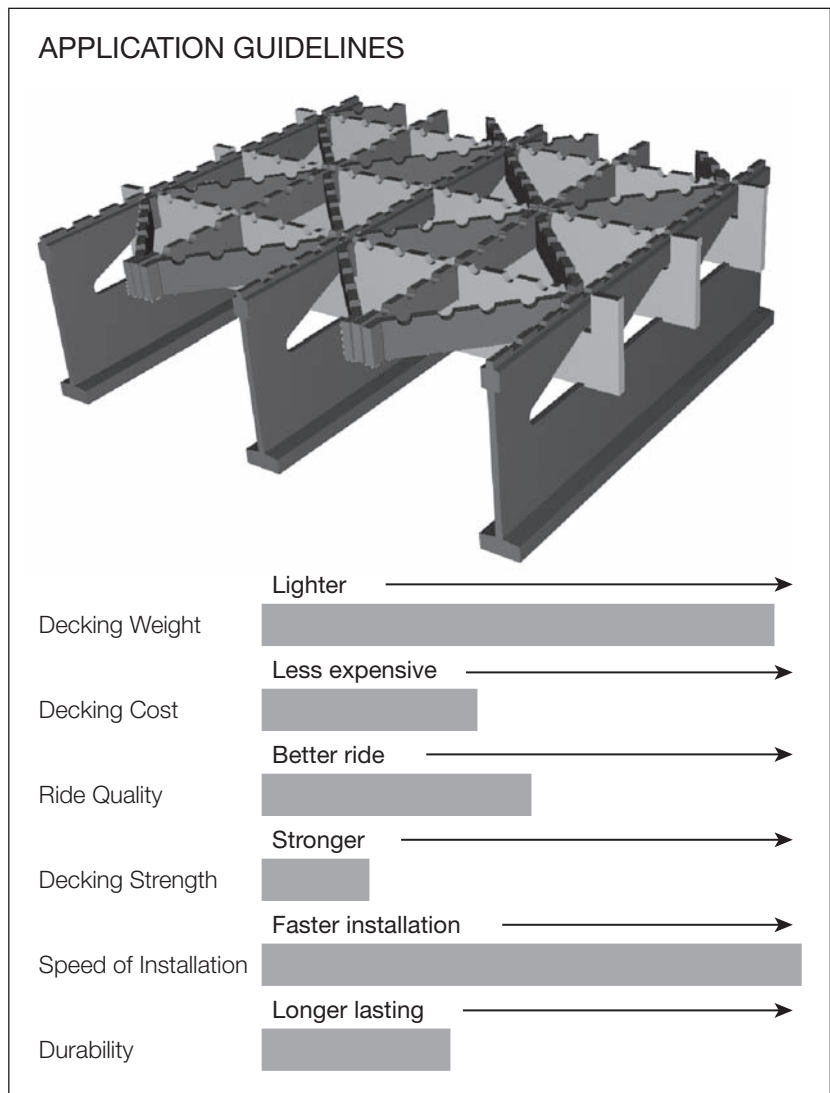


L. B. Foster's 5-Inch 4-Way Modified was developed to meet increasing performance and reliability needs, as highway traffic volumes and truck loadings continue to grow, without adding additional deck dead load. Open grid design durability is linked directly to transverse stiffness — the ability to transmit 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, greatly improving load distribution and reducing localized stresses.

This grid maintains the 4-Way design style so the desirable deck features of fatigue resistance, ride quality and stiffness are maintained or improved. The standard modified grid is available with the 5 3/16" x 5.3# main beam spaced on 7 1/2" centers. Material is either 50-ksi or 50-ksi weathering steel.



**5-Inch 4-Way Modified • Properties Table 5.4-M**

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	
4 Way M / 5.3# @ 7.5"	4.038	4.321	4.81 ft.	6.71 ft.	18.5

\* Section modulus based on 50% of the diagonal 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.

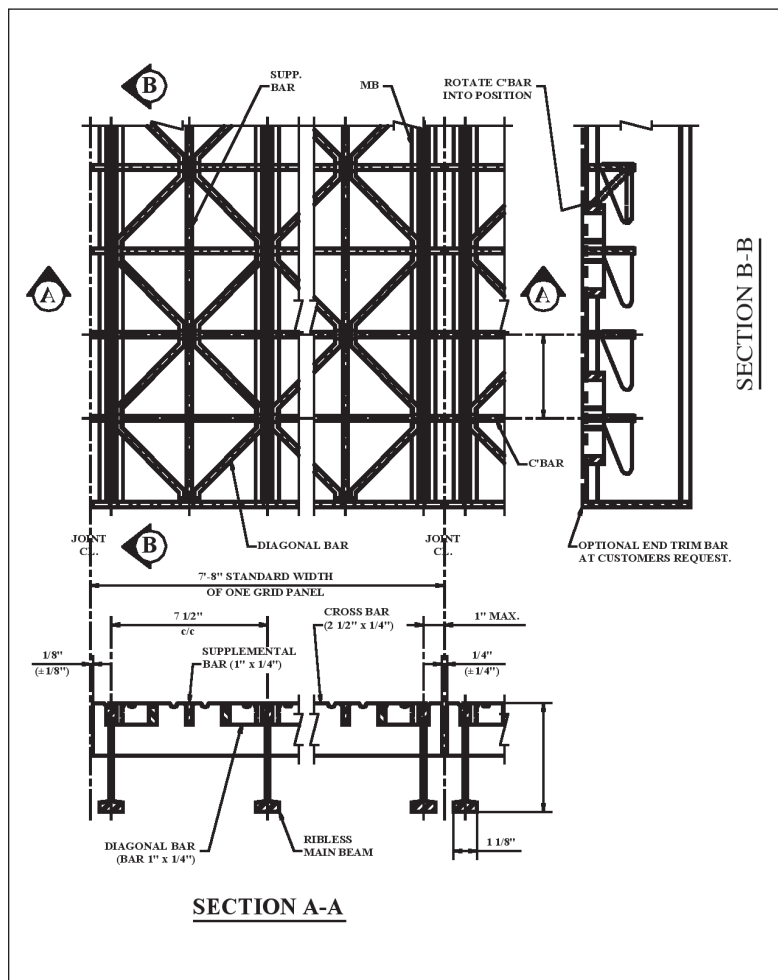
NOTE: The information contained herein has been prepared in accordance with generally accepted engineering principles. However, L.B. Foster Company is not responsible for any errors that may be contained herein. The user of the information provided herein should check the information supplied and make 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 4-Way Modified 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:

<b>Main Beam (MB) @ 7.5" c/c</b>	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.3#/LF
<b>Cross Bar (C'Bar) @ 4" c/c</b>	2 1/2" x 1/4" flat bar
<b>Diagonal Bar (2 between each main bar)</b>	1" x 1/4" (minimum) flat bar
<b>Supplemental Bar @ 7.5" c/c</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A-572) or 50 ksi weathering (A709 Gr. 50W / A-588)

### Typical Details: 5-Inch 4-Way Modified



All elements shall be serrated on their top surfaces. Serration pattern shall be @ 1" c/c (max.), where possible. The new uncoated deck shall provide a skid resistance number (SN) of 53 @ 40mph-when tested in accordance with ASTM E274.

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 bar top flange shall not be permitted. Two tertiary diagonal bars shall be provided between each grid main beam to provide a diagonal style riding surface. Notching the bottom of the cross bar or substitution of a rectangular patterned grid is not permitted.

The grid shall be welded at all intersections using the manufacturer's standard welding process. The grid shall be manufactured and designed to provide the properties indicated in the 5-Inch 4-Way Properties Table 5.4-M.

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.

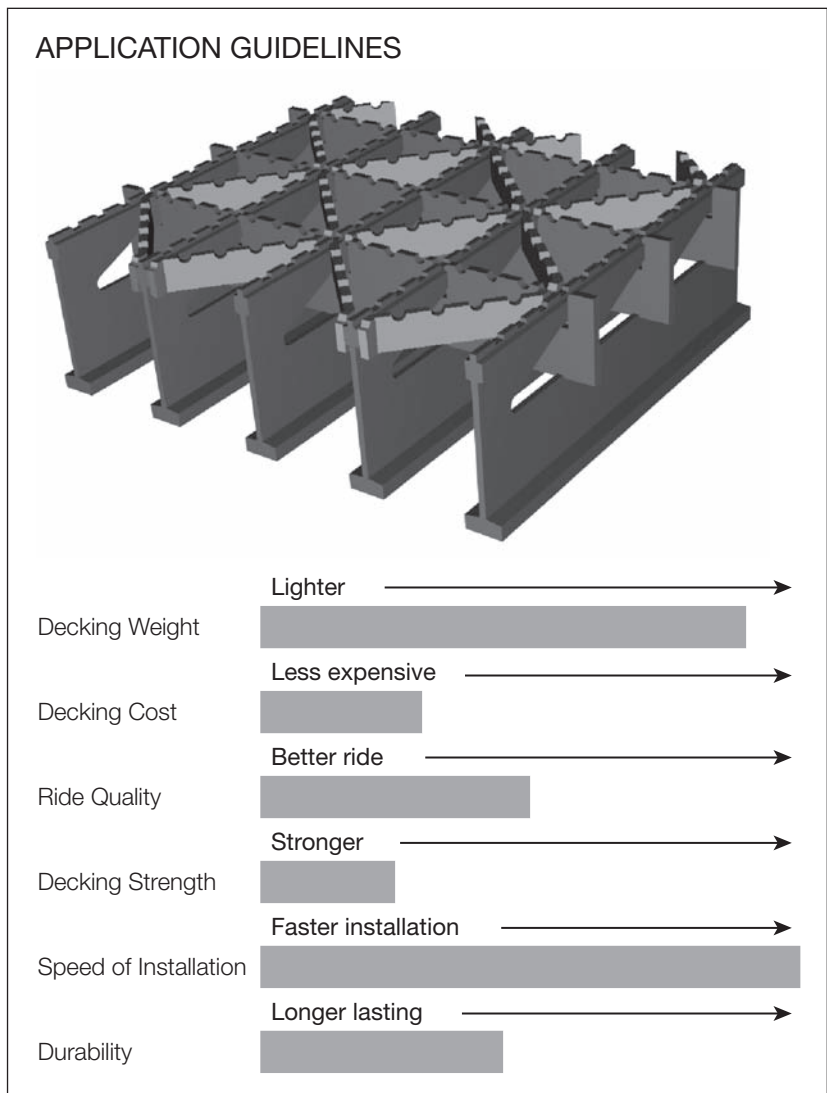
**WARNING:** Uncoated-weathering steel provides the best skid resistant open grid surface. Galvanized or painted coatings can reduce the skid resistance. Vertical and/or horizontal curves on the bridge decking can increase lateral forces on vehicles, further reducing skid resistance efficiency. It is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

L. B. Foster's 5-Inch 4-Way HD Modified is the highest evolution in open grid design. It is engineered to provide the highest level of reliability for the heaviest and most intense loading conditions, even on longer spans.

HD Modified combines the best design features of all other 4-Way designs including diagonal bars, deeper/stiffer cross bars and closely spaced main beams. These features all work together in the HD Modified to provide the top-of-the-line open grid on the market today.

No other open grid can deliver the longitudinal, transverse and torsional stiffness of the HD Modified deck. The high deck stiffness results in improved load and stress distribution throughout the grid network reducing localized stresses.

The grid is available with the 5 3/16" x 5.3# main beam spaced on 3 3/4" centers. Material is either 50 ksi or 50 ksi weathering steel.



**5-Inch 4-Way HD Modified • Properties Table 5.4-HM**

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	
4 way / 5.3# @ 3.75"	5.588	8.100	5.45 ft.	7.41 ft.	25.8

\* Section modulus based on 50% of the diagonal 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.

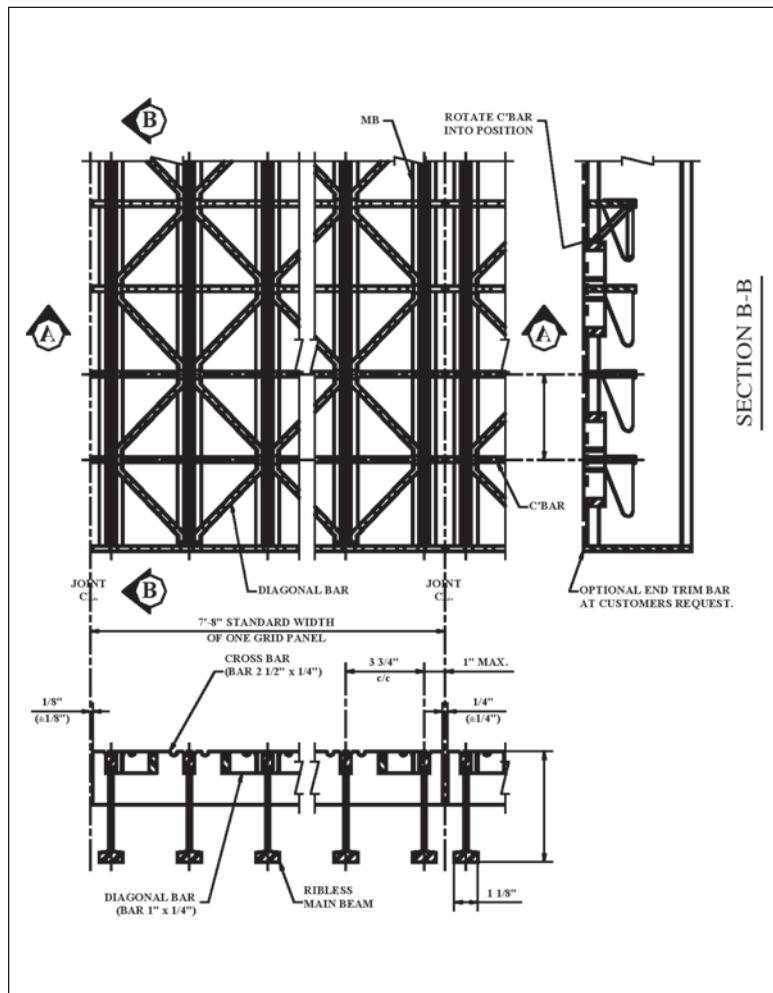
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## Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch 4-Way HD Modified 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:

<b>Main Beam (MB) @ 3.75" c/c</b>	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.3#/LF
<b>Cross Bar (C'Bar) @ 4" c/c</b>	2 1/2" x 1/4" flat bar
<b>Diagonal Bar (1 between each main bar)</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A-572) or 50 ksi weathering (A709 Gr. 50W / A588)

### Typical Details: 5-Inch 4-Way HD Modified



All elements shall be serrated on their top surfaces. Serration pattern shall be @ 1" c/c (max.), where possible. The new uncoated deck shall provide a skid resistance number (SN) of 53 @ 40mph-when tested in accordance with ASTM E274.

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 bar top flange shall not be permitted. One tertiary diagonal bar shall be provided between each grid main beam to provide a diagonal style riding surface. Notching the bottom of the cross bar or substitution of a rectangular patterned grid 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-Way HD Modified Properties Table 5.4-HM.

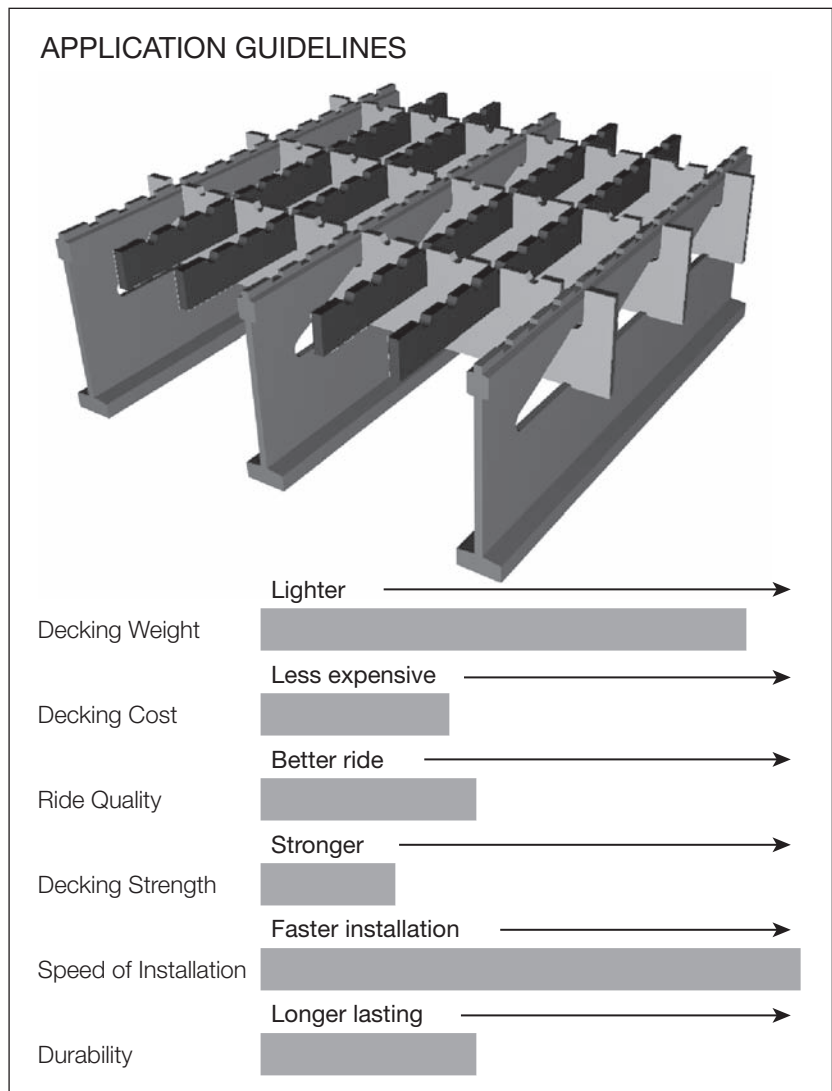
Finish: Most types of coatings can be provided; common finishes are mill finish (for 50 ksi weathering steel) and hot dipped galvanized for 50 ksi steel – note that distortion from galvanizing will occur, request manufacturer's tolerances.

**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.

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.

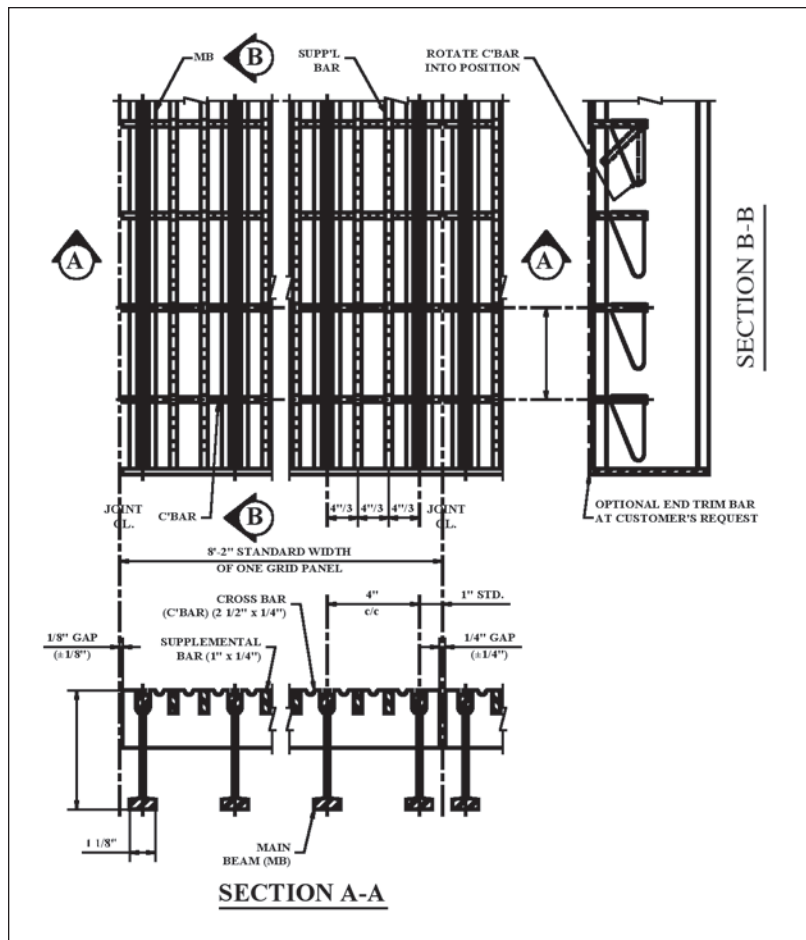
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## Typical Specification

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.

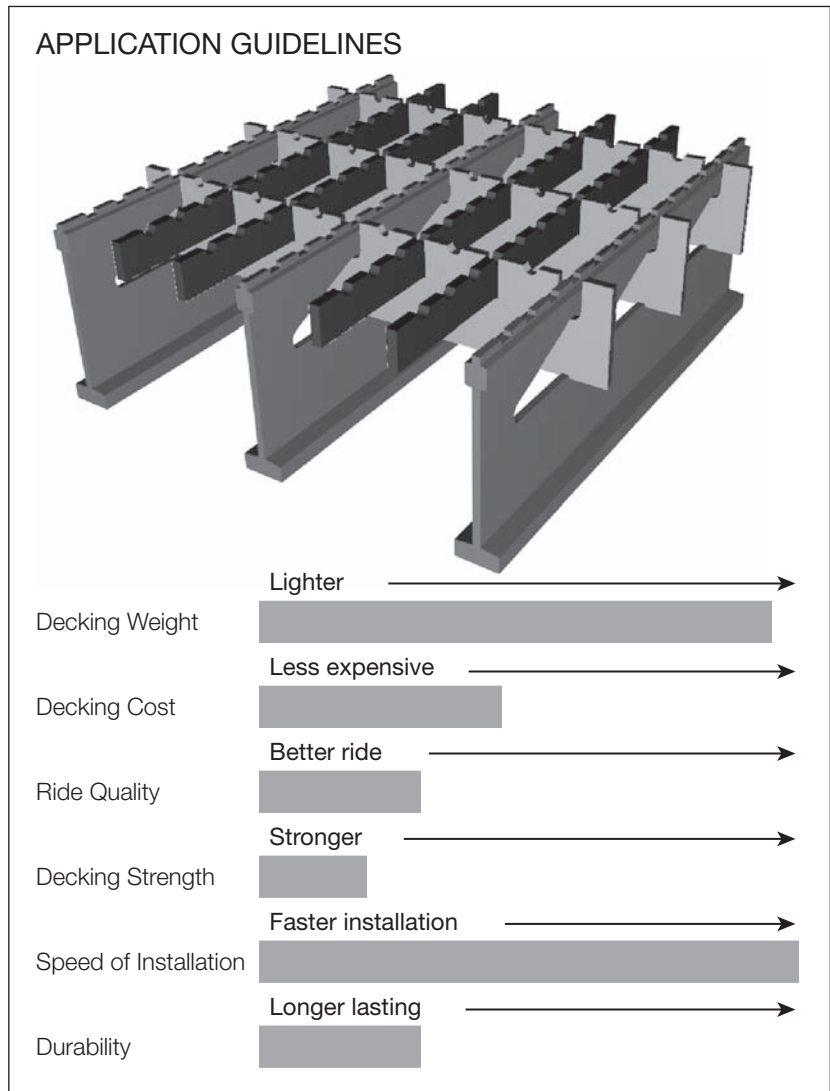
WARNING: Uncoated-weathering steel provides the best skid resistant open grid surface. Galvanized or painted coatings can reduce the skid resistance. Vertical and/or horizontal curves on the bridge decking can increase lateral forces on vehicles, further reducing skid resistance efficiency. It is recommended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

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.



**5-Inch RB 6.2M • Properties Table 5.6.2M**

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 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.

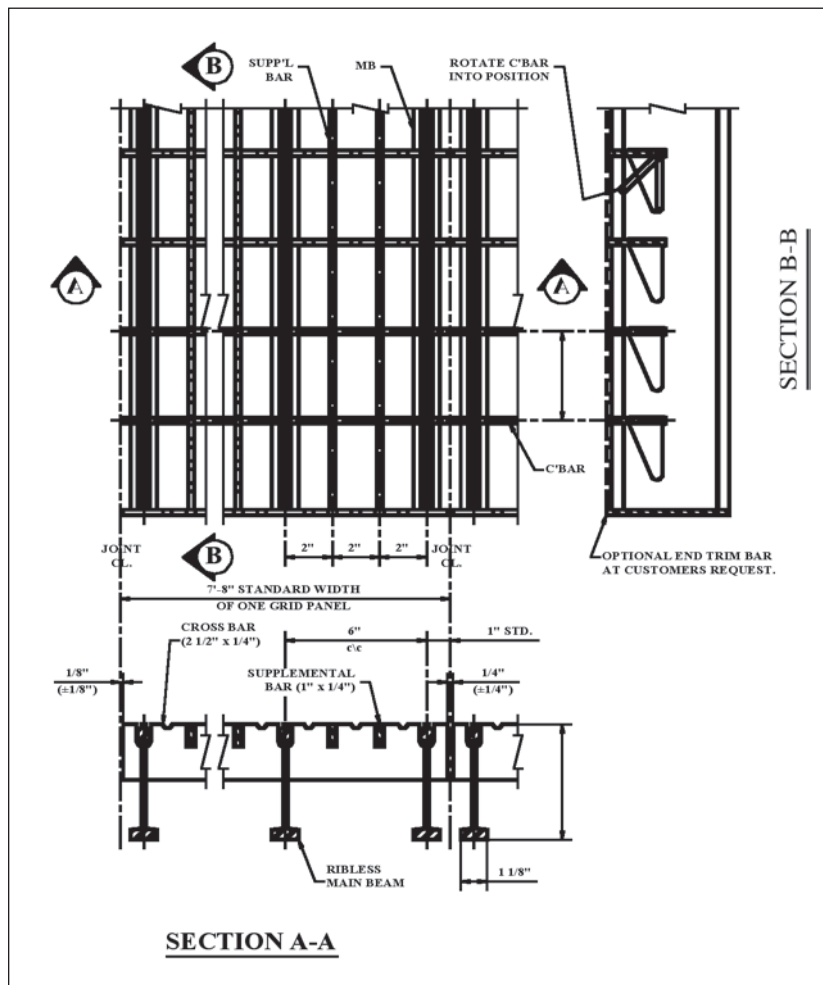
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## Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch RB 6.2M 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:

<b>Main Beam (MB) @ 6" c/c</b>	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.3#/LF
<b>Cross Bar (C'Bar) @ 4" c/c</b>	2 1/2" x 1/4" flat bar
<b>Supplemental Bar (2 between each MB)</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	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



**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.

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.

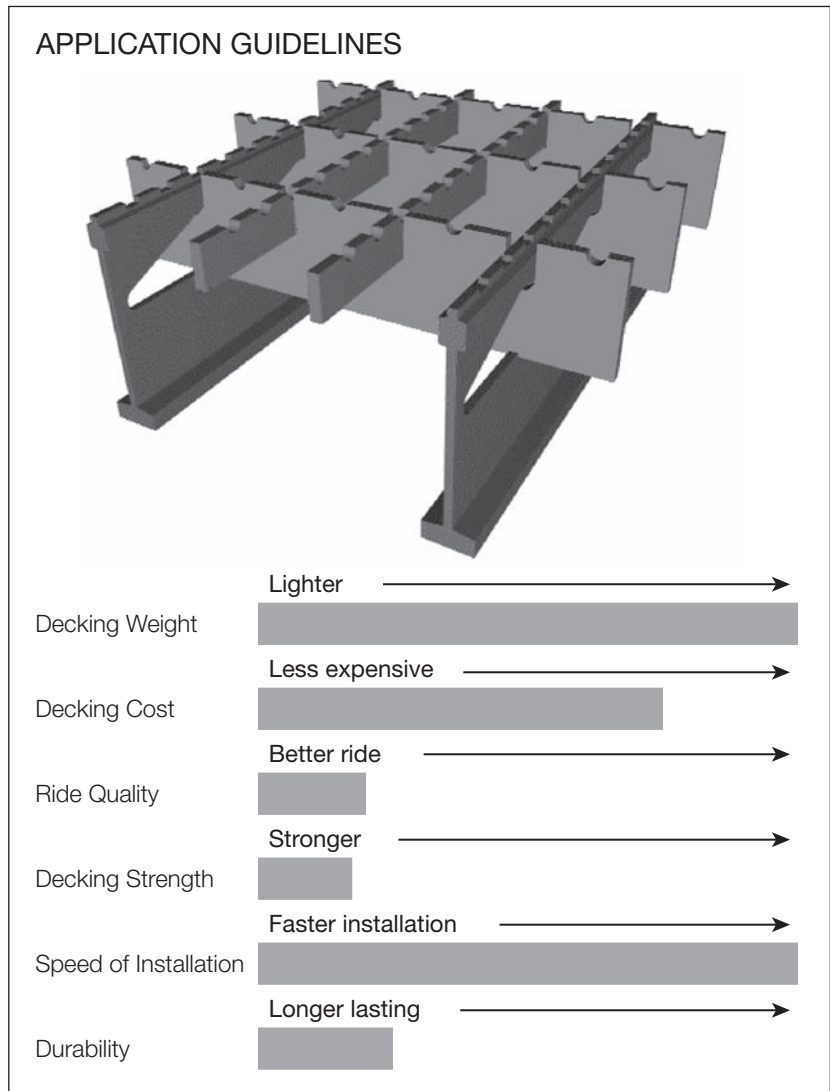
**Finish:** Most types of coatings can be provided; common finishes are mill finish (for 50 ksi weathering steel) and hot dipped galvanized for 50 ksi steel – note that distortion from galvanizing will occur, request manufacturer's tolerances.

L. B. Foster's 5-Inch RB 8.2M is generally recommended for light duty and / or temporary applications with shorter span lengths and lighter loads. RB 8.2M offers a less expensive alternative where a more heavy duty deck is not required.

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 reconfigured 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.



**5-Inch RB 8.2M • Properties Table 5.8.2M**

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 8.2 / 5.3# @ 8"	3.219	3.955	4.49 ft.	5.66 ft.	16.4

\* 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.

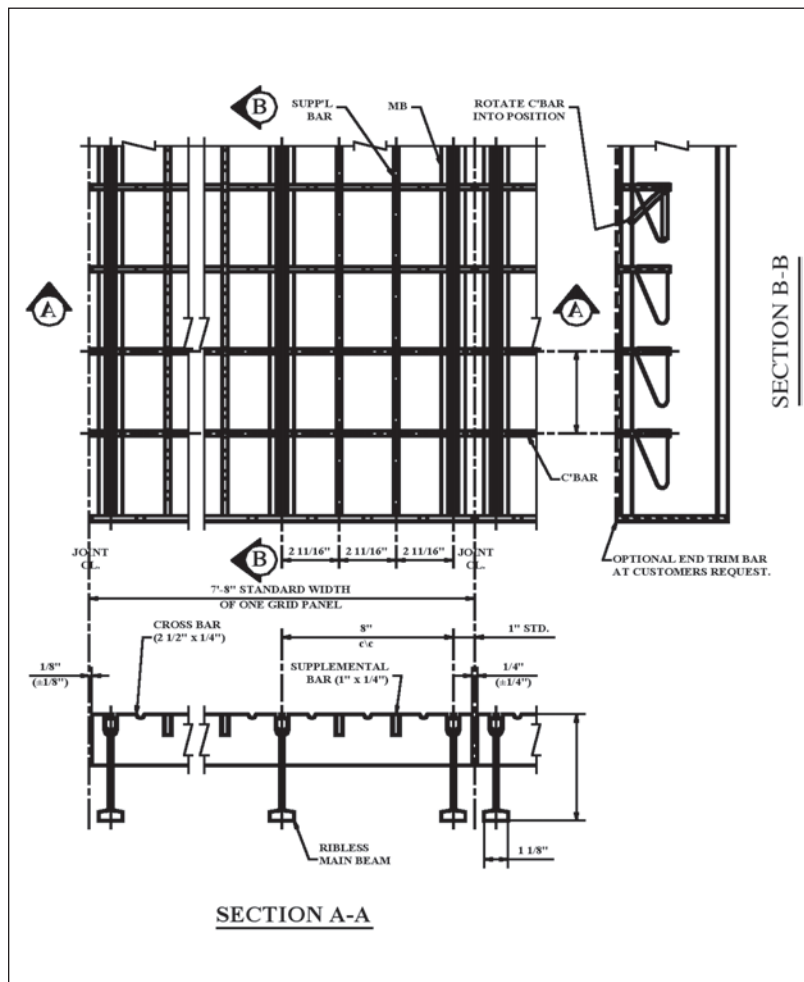
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## Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch RB 8.2M 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:

<b>Main Beam (MB) @ 8" c/c</b>	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.3#/LF
<b>Cross Bar (C'Bar) @ 4" c/c</b>	2 1/2" x 1/4" flat bar
<b>Supplemental Bar (2 between each MB)</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### Typical Details: 5-Inch RB 8.2M



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 8.2M deck shall have 5.3# main beams at 8" 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 manufacturer's standard welding process. The grid shall be manufactured and designed to provide the properties indicated in the 5-Inch RB 8.2M Properties Table 5.8.2.

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.

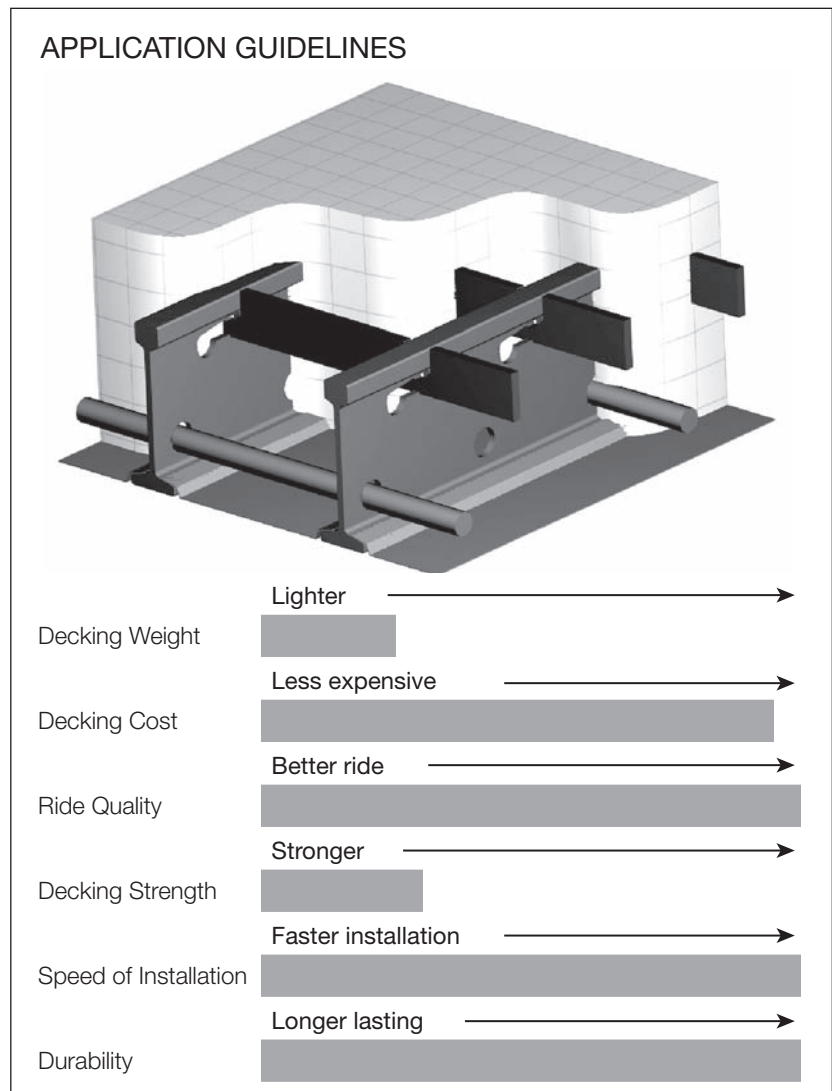
**WARNING:** Uncoated-weathering steel provides the best skid resistant open grid surface. Galvanized or painted coatings can reduce the skid resistance. Vertical and/or horizontal curves on the bridge decking can increase lateral forces on vehicles, further reducing skid resistance efficiency. It is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

This grid is an excellent choice where dead-load reduction is not a primary goal but speed of construction, long term durability and low cost are key decision making factors.

The design table below shows the grid properties including a 1 1/2" monolithic concrete over-pour which is recommended for improved ride quality and added corrosion protection for the steel grid. The additional concrete also increases the structural properties of the composite deck section.

As with all grid reinforced concrete bridge decks, we recommend using shear studs for attaching the decking to the supporting structure for a fully composite system.

4 1/4" grids are commonly supplied with main beam spacing ranging from 6" to 12" c/c so that you can match the strength of the decking to the requirements of the application.



**4 1/4" Interlock • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)		Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse Gr.50	Parallel Gr.50	Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative					
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>				
6	3.04	3.29	63.82	4.88	52.93	3.20	7.5	6.1	16.8	81.1
8	2.28	2.47	56.78	3.79	44.26	2.43	6.2	4.8	14.3	79.3

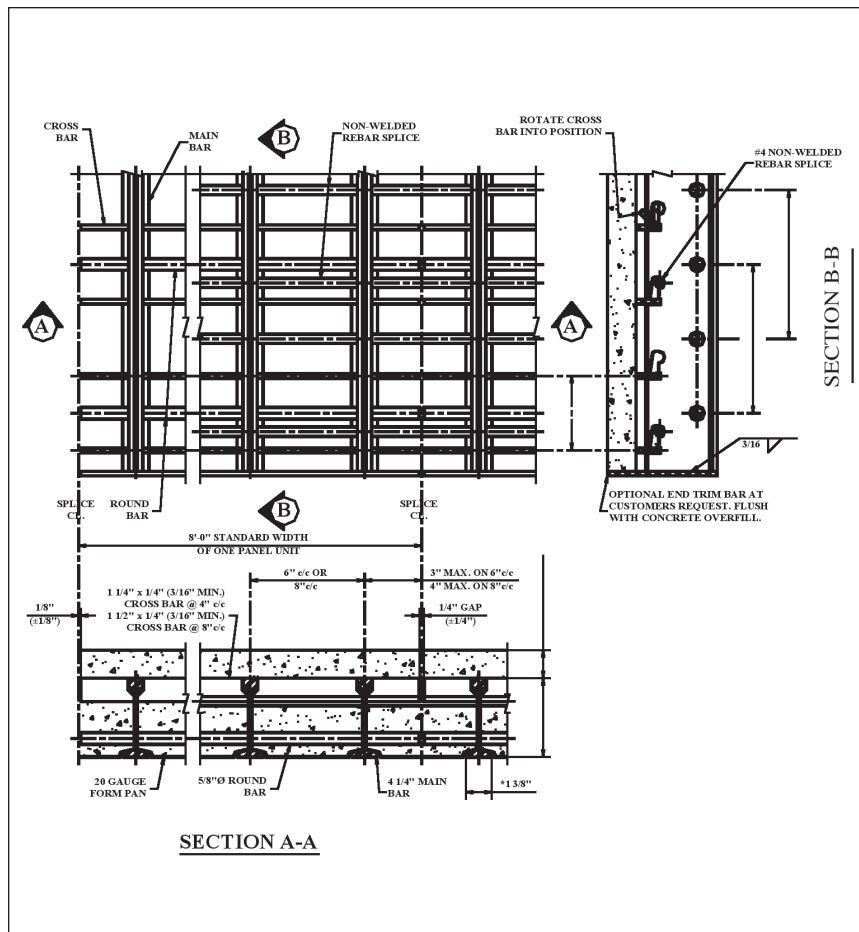
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## Typical Specification

The steel grid bridge flooring shall be 4 1/4" Interlock 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:

<b>Main Beam (MB) @ 6" or 8" c/c</b>	4 1/4" deep special rolled beam x 5#/LF
<b>Cross Bar (C'Bar) @ 4" or 8" c/c</b>	1 1/2" x 1/4" flat bar
<b>Bottom Round Bar @ 8" c/c</b>	5/8" Diameter round bar or #5 Rebar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### Typical Details: 4 1/4" Interlock with Concrete Overfill



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main beam top flange shall not be permitted.

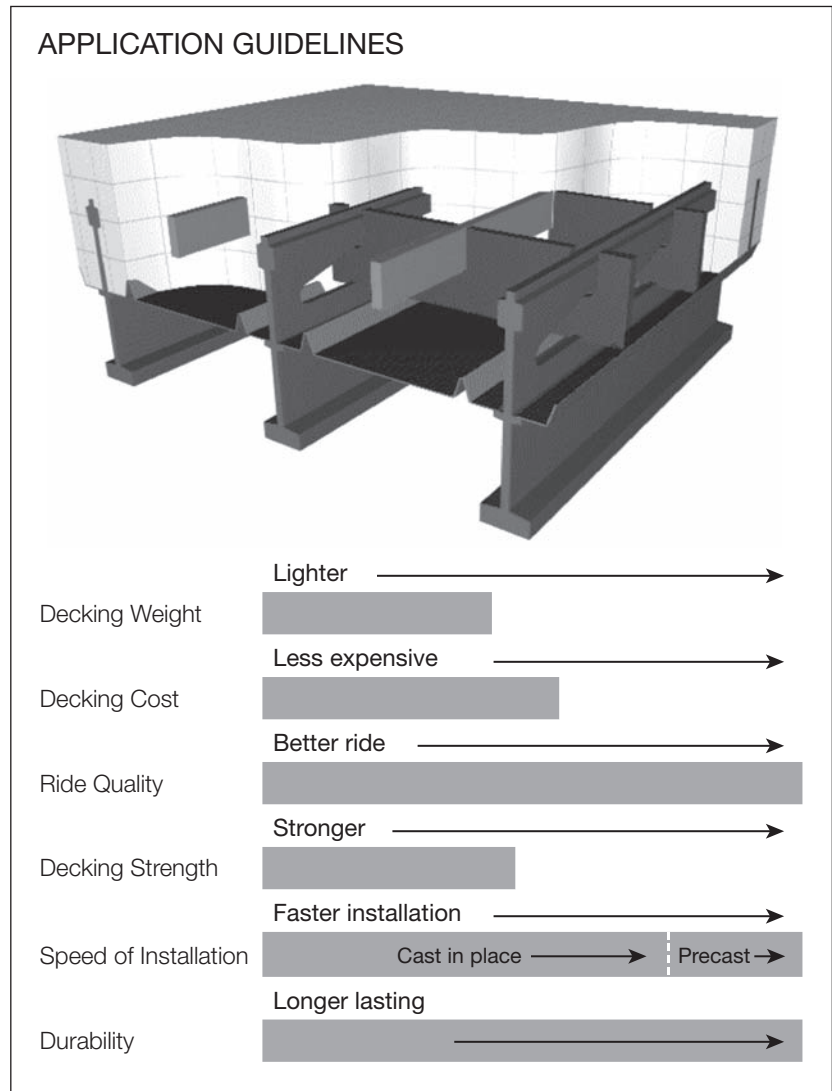
Grid assembly welding will be per manufacturer's standard welding details.

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.

5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 6.1 has grid main beams at 6" c/c and one supplemental bar.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 6.1 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		A36	A588	A36	A588		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
6	4.38	5.18	91.77	7.78	4.38	5.18	8.8	10.1	6.3	8.3	19.6	65.0

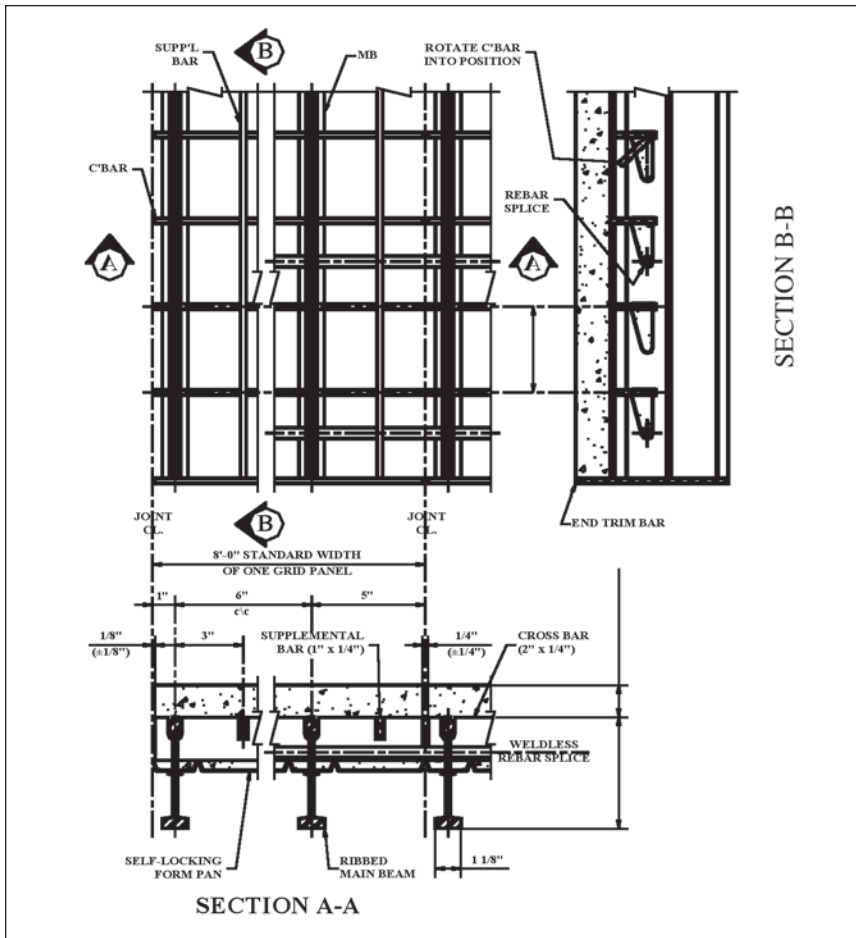
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## Typical Specification

The steel grid bridge flooring shall be 5-Inch RB 6.1 Half-Filled 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) @ 6" c/c	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.6 #/LF
Cross Bar (C'Bar) @ 4" or 8" c/c	2" x 1/4" flat bar
Supplemental Bar (1 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 6.1 Half-Filled



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The decking shall consist of panels fabricated in maximum standard widths of 8'-0". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

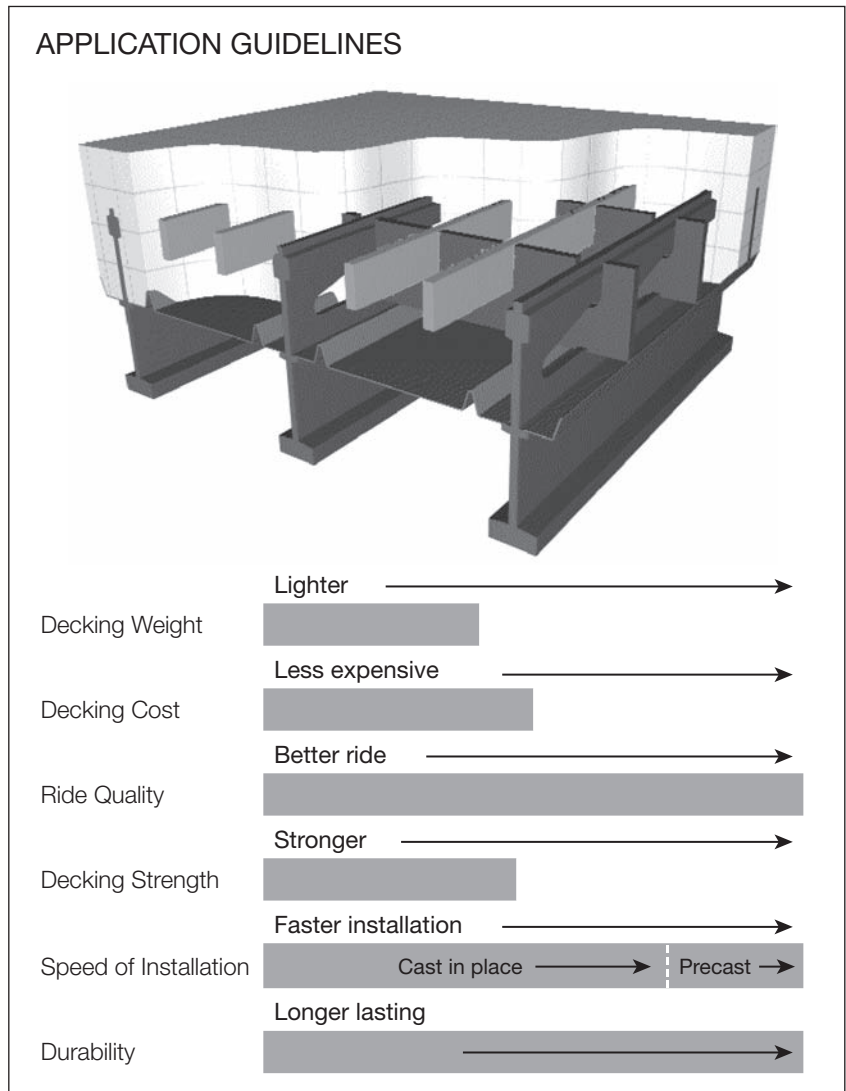
The grid shall be welded using the manufacturer's standard welding process.

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.

5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 6.2 has grid main beams at 6" c/c and two supplemental bars.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 6.2 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		A36	A588	A36	A588		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
6	5.84	5.47	94.07	7.76	5.84	5.51	10.1	10.1	7.8	10.1	21.3	66.4

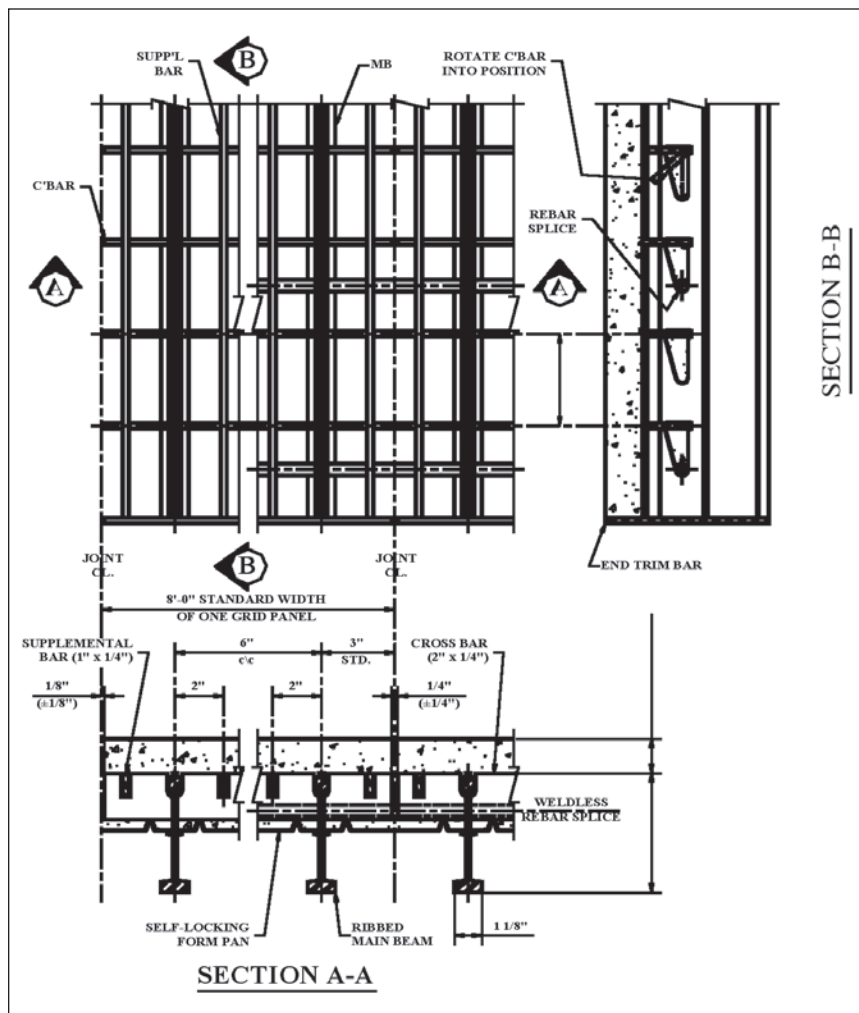
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## Typical Specification

The steel grid bridge flooring shall be 5-Inch RB 6.2 Half-Filled 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:

<b>Main Beam (MB) @ 6" c/c</b>	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.6#/LF
<b>Cross Bar (C'Bar) @ 4" or 8" c/c</b>	2" x 1/4" flat bar
<b>Supplemental Bar (2 between each MB)</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A-572) or 50 ksi weathering (A709 Gr. 50W / A588)

### Typical Details: 5-Inch RB 6.2 Half-Filled



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The decking shall consist of panels fabricated in maximum standard widths of 8'-0". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

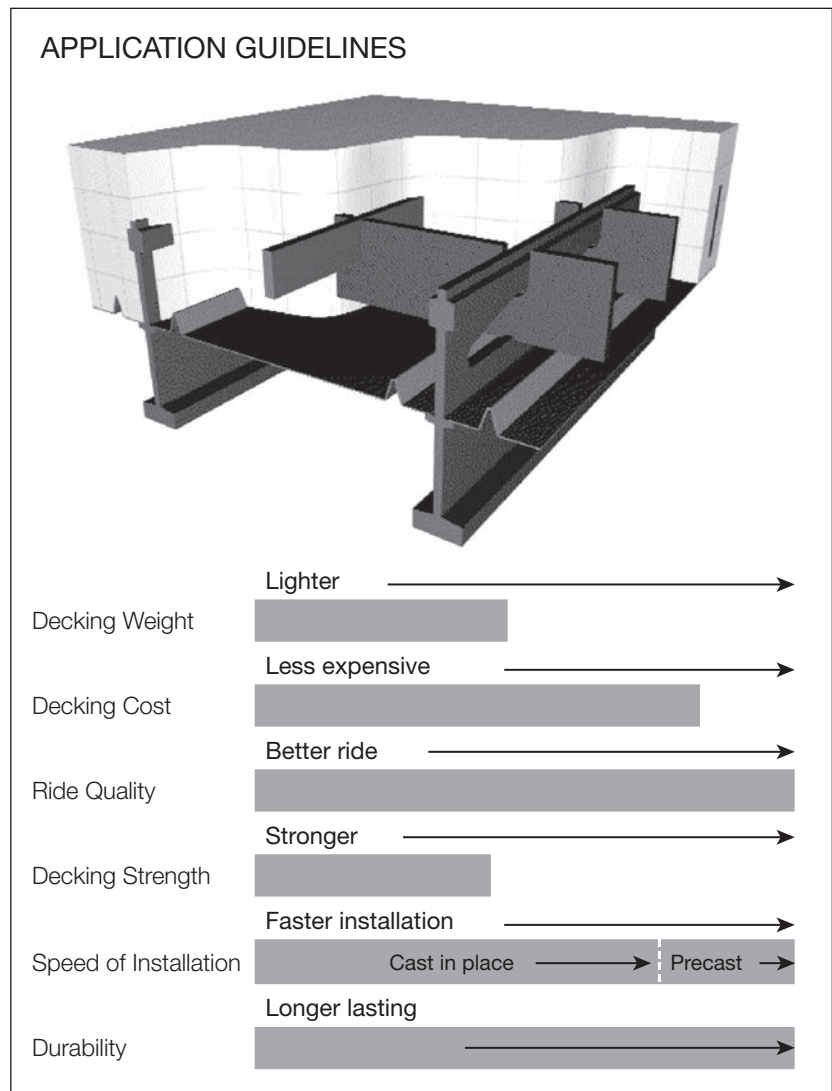
The grid shall be welded using the manufacturers standard welding process.

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.

5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 8.1 has grid main beams at 8" c/c and one supplemental bar.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 8.1 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		Gr.36	Gr.50	Gr.36	Gr.50		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
8	3.28	3.89	81.63	6.06	3.28	3.90	6.4	8.9	4.9	6.4	16.4	62.2

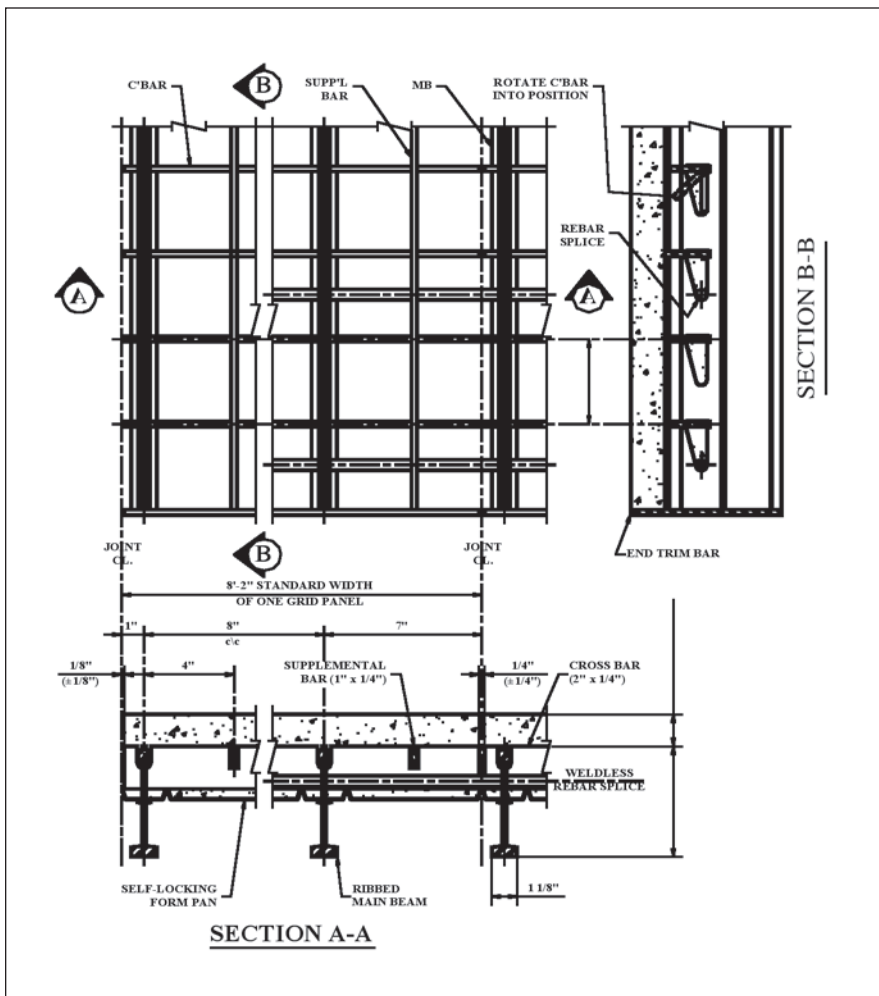
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## Typical Specification

The steel grid bridge flooring shall be 5-Inch RB 8.1 Half-Filled 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) @ 8" c/c	5 <sup>3</sup> / <sub>16</sub> " deep x 5.6 #/LF special rolled beam
Cross Bar (C'Bar) @ 4" or 8" c/c	2" x 1/4" flat bar
Supplemental Bar (1 between each MB)	1" x 1/4" (minimum) flat bar
Steel Specification	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### 5-Inch RB 8.1 Concrete Half-Filled Grid w/ Overfill



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The decking shall consist of panels fabricated in maximum standard widths of 8'-2". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

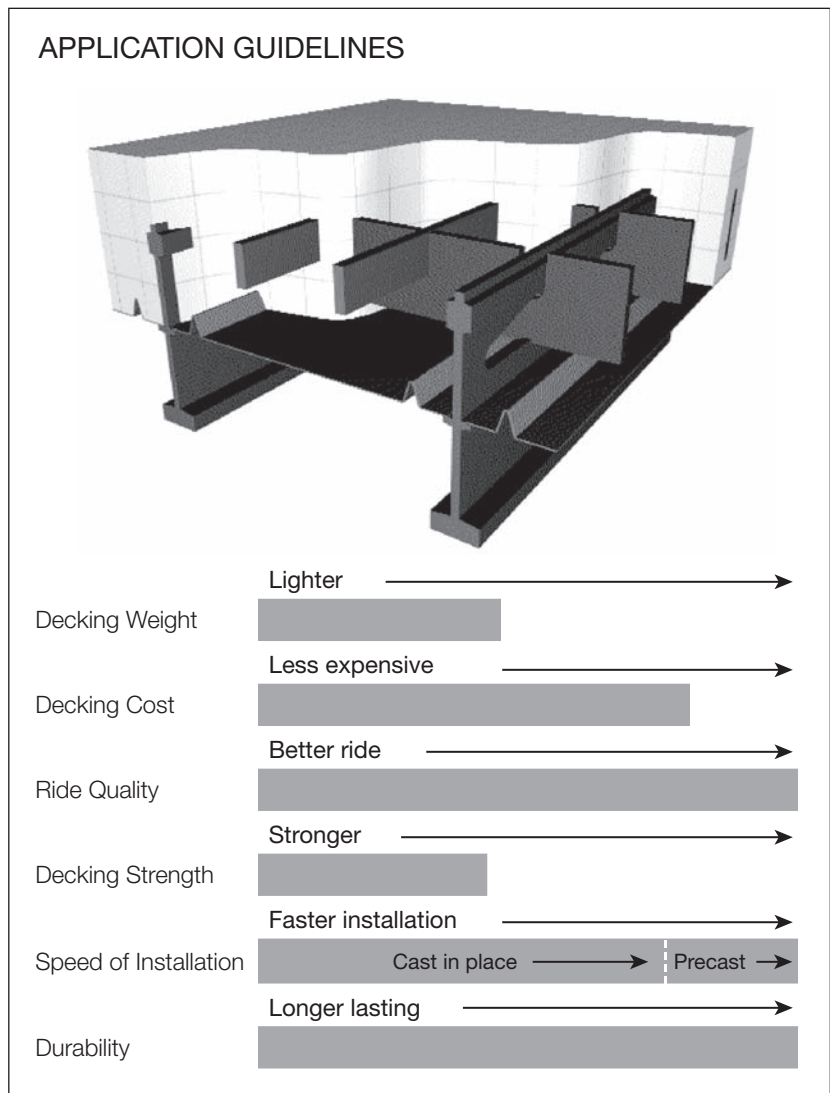
The grid shall be welded using the manufacturers standard welding process.

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.

5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 8.2 has grid main beams at 8" c/c and two supplemental bars.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 8.2 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		Gr.36	Gr.50	Gr.36	Gr.50		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
8	4.10	3.29	82.91	6.04	4.38	4.13	8.3	9.1	6.0	7.9	17.6	63.3

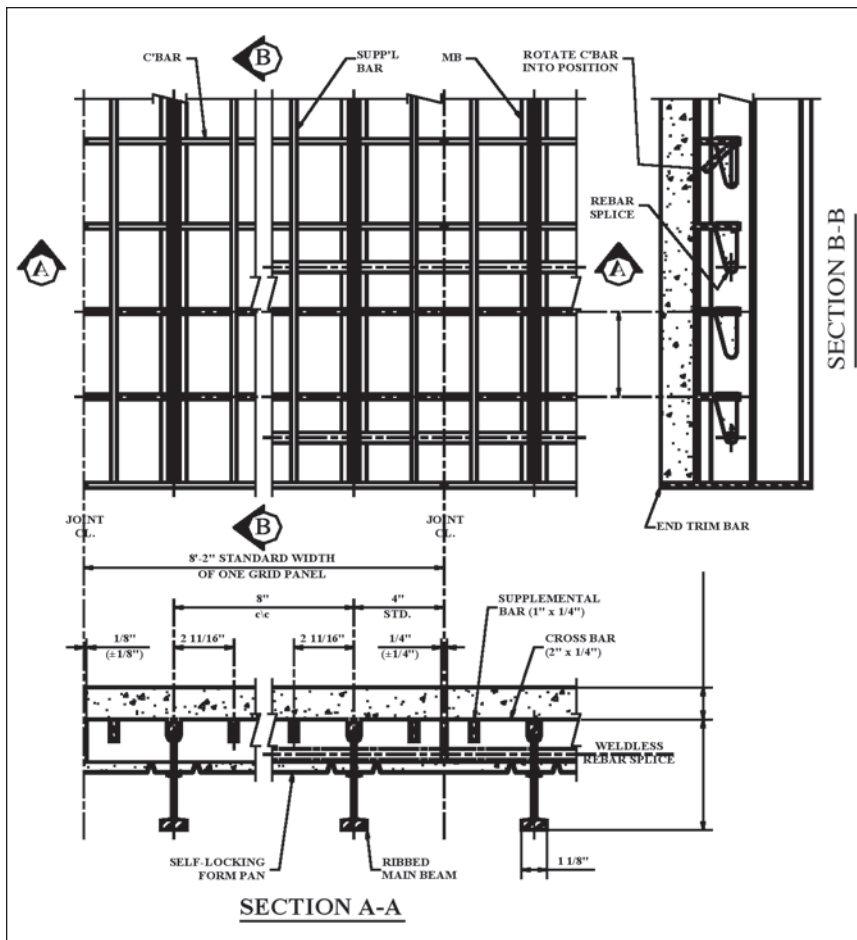
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## Typical Specification

The welded open steel grid bridge flooring shall be 5-Inch RB 8.2 Half-Filled 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:

<b>Main Beam (MB) @ 8" c/c</b>	5 3/16" deep special rolled beam x 5.6#/LF
<b>Cross Bar (C'Bar) @ 4" or 8" c/c</b>	2" x 1/4" flat bar
<b>Supplemental Bar (1 between each MB) @ 8" c/c</b>	1" x 1/4" (minimum) flat bar
<b>Steel Specification</b>	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### Typical Details: 5-Inch RB 8.2 Half-Filled



Request manufacturer's standard 4 part product specification for inclusion with project documents.

The decking shall consist of panels fabricated in maximum standard widths of 8'-2". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

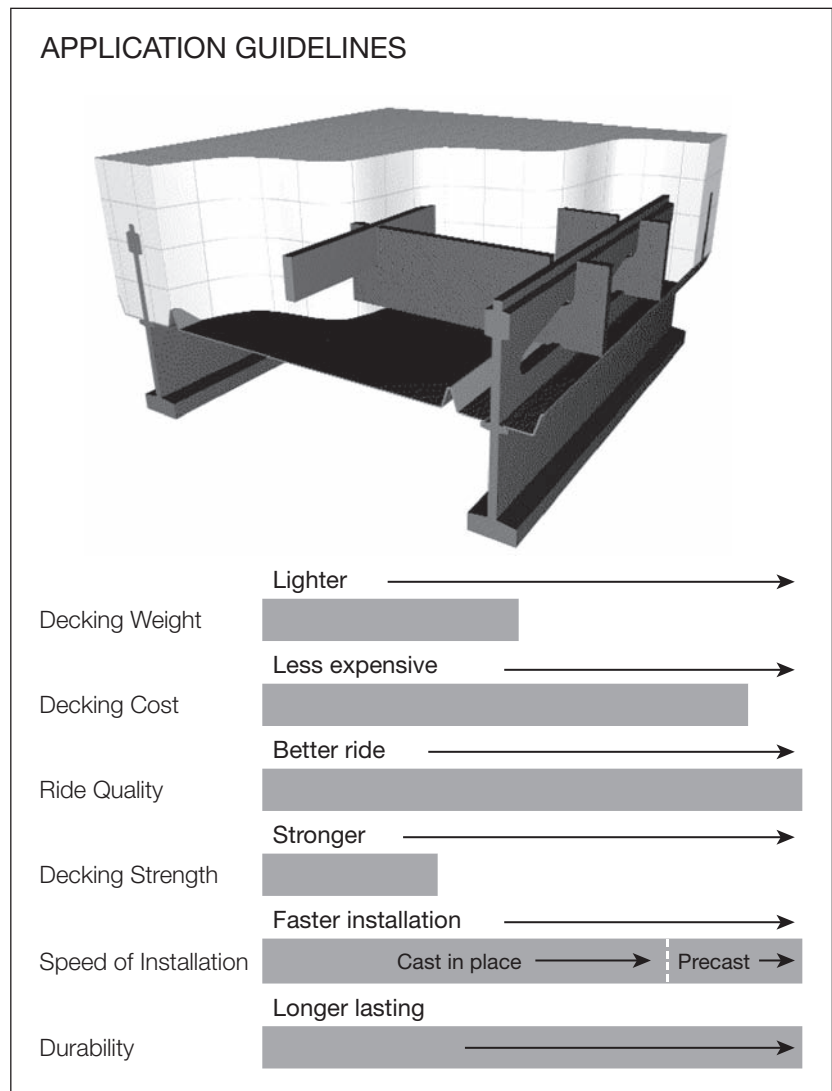
The grid shall be welded using the manufacturer's standard welding process.

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.

5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 10.1 has grid main beams at 10" c/c and one supplemental bar.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 10.1 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		Gr.36	Gr.50	Gr.36	Gr.50		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
10	2.62	3.10	74.70	4.98	2.62	3.10	4.8	7.0	4.0	5.2	14.5	60.5

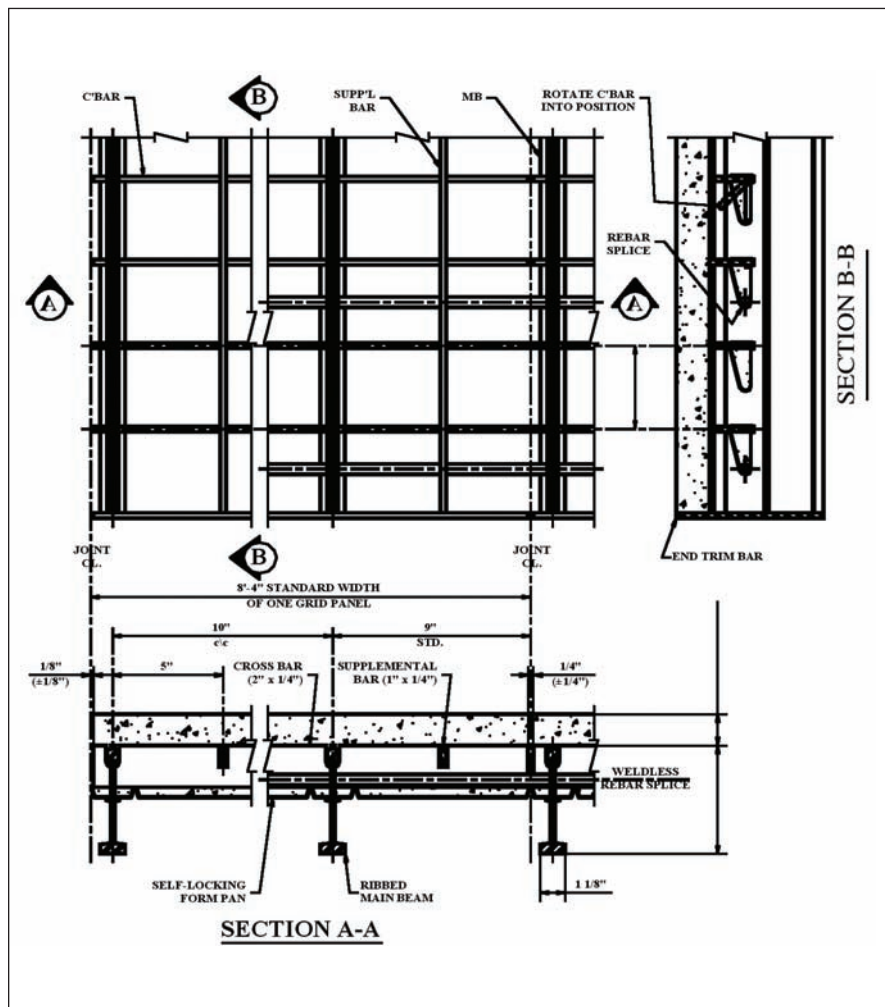
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## Typical Specification

The steel grid bridge flooring shall be 5-Inch RB 10.1 Half-Filled 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) @ 10" c/c	5 <sup>3</sup> / <sub>16</sub> " deep special rolled beam x 5.6 #/LF
Cross Bar (C'Bar) @ 4" or 8" c/c	2" x 1/4" flat bar
Supplemental Bar (1 between each MB)	1" x 1/4" (minimum) flat bar
Steel Specification	All steel shall be 50 ksi (A709 Gr. 50 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### 5-Inch RB 10.1 Concrete Half-Filled Grid w/ Overfill



The decking shall consist of panels fabricated in maximum standard widths of 8'-4". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

The grid shall be welded using the manufacturers standard welding process.

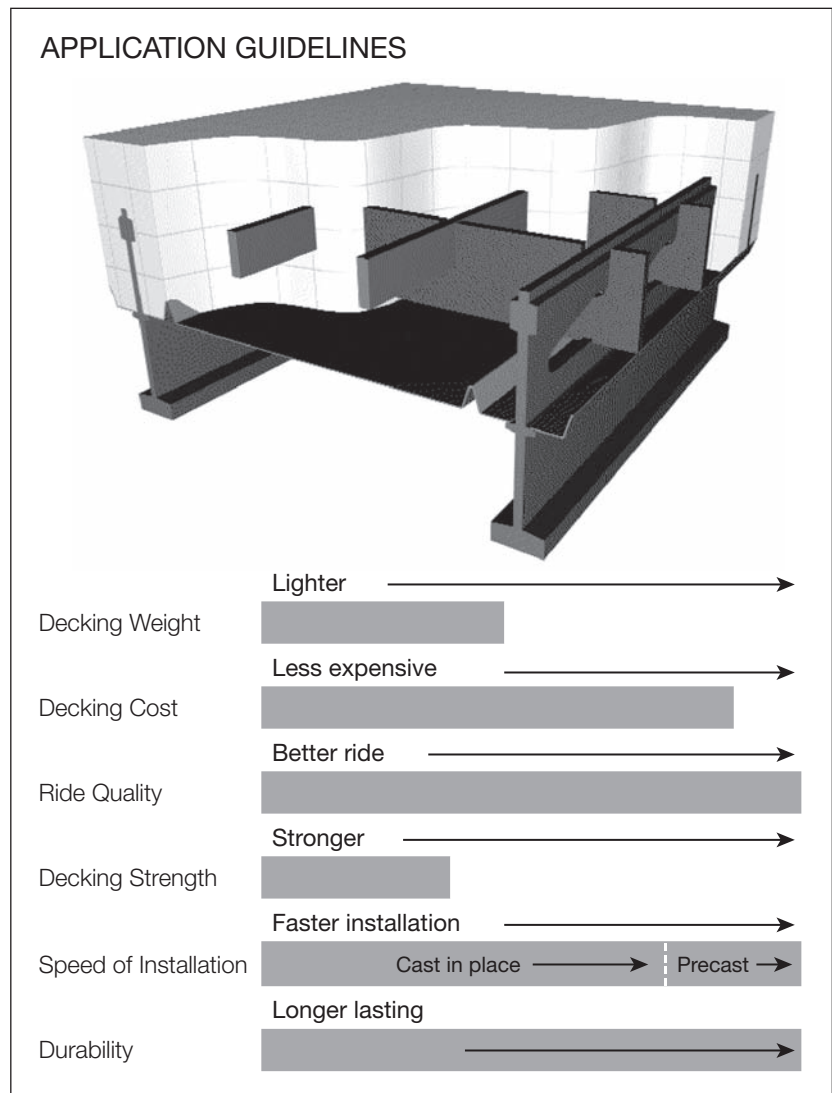
Finish: Most types of coatings can be provided; common finishes are mill finish (for 50 ksi weathering steel) and hot dipped galvanized for 50 ksi steel-note that distortion from galvanizing will occur, request manufacturer's tolerances.

Request manufacturer's standard 4 part product specification for inclusion with project documents.

L. B. Foster's 5-Inch RB 10.2 Half-Filled w/ Overfill 5" RB half-filled grid products are available with a variety of bar spacings, typically ranging from 6" c/c to 10" c/c, but can be more or less depending on the required loading and support spacing. Different configurations allow the designer to match the strength of the decking to the requirements of the application. The 5" RB 10.2 has grid main beams at 10" c/c and two supplemental bars.

Because this grid is half filled with concrete it is significantly lighter than a common rebar reinforced slab and most fully filled grids. The concrete provides a smooth, quiet, non-skid riding surface. Supplemental bars that run parallel with the grid main beams are added to help balance out the section properties of the deck.

Grids can be made fully composite with supports and can accommodate complex deck geometry, cross-slopes and super-elevation. Speed of construction, high strength to weight ratio and excellent long term durability make these grid systems an excellent product choice.



**5" RB 10.2 Half-Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)						Maximum Continuous Clear Span (ft)				Approximate Weight (lbs/sf) Incl 1 1/2 Overfill	
	Steel Only		Composite Section				Transverse		Parallel		Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive		Negative		Gr.36	Gr.50	Gr.36	Gr.50		
			S <sub>CONC</sub>	S <sub>STEEL</sub>	S <sub>TOP</sub>	S <sub>BOTTOM</sub>						
10	3.50	3.28	75.42	4.97	3.50	3.30	6.4	8.4	4.9	6.4	15.5	61.4

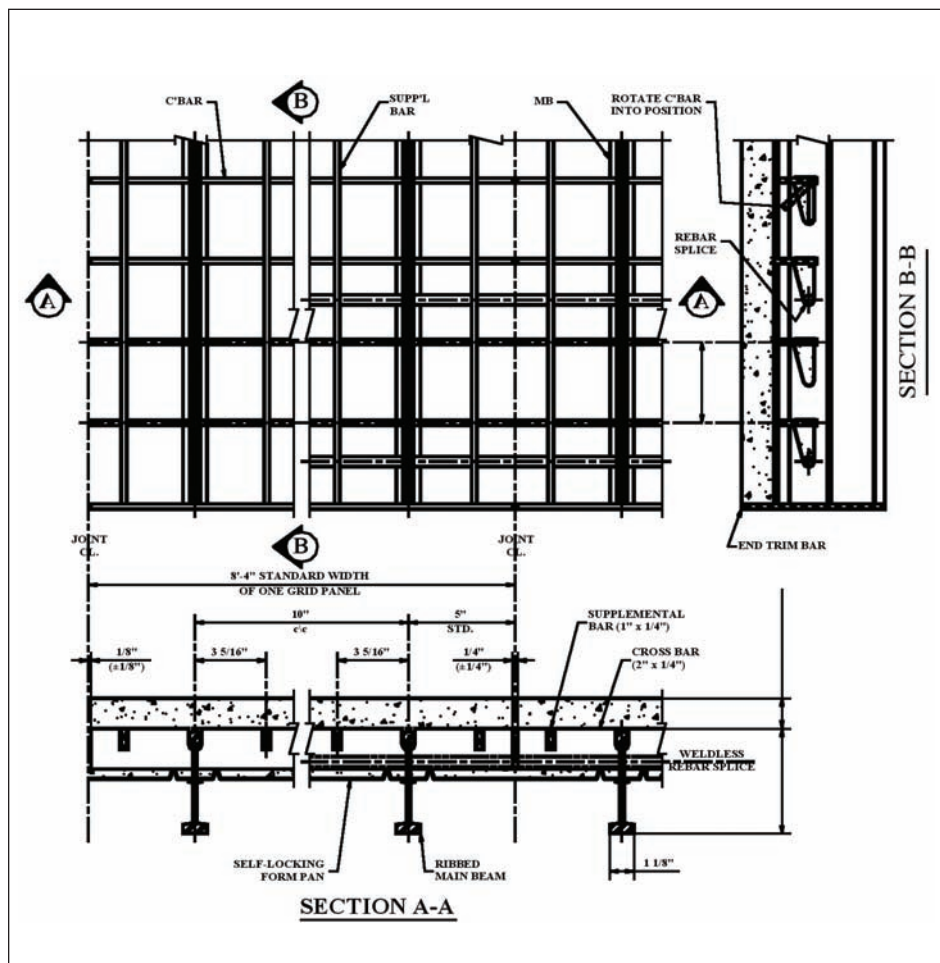
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## Typical Specification

The steel grid bridge flooring shall be 5-Inch RB 10.2 Half-Filled 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) @ 10" c/c	5 3/16" deep special rolled beam x 5.6 #/LF
Cross Bar (C'Bar) @ 4" or 8" c/c	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 / A572) or 50 ksi weathering (A709 Gr. 50W / A588)

### 5-Inch RB 10.2 Concrete Half-Filled Grid w/ Overfill



The decking shall consist of panels fabricated in maximum standard widths of 8'-4". Narrower units shall be furnished when required at slab end, transverse joints, or along edges of slabs adjacent to curbs. The deck shall be assembled such that the tops of all elements are in the same plane and notching of the main bar top flange shall not be permitted.

The grid shall be welded using the manufacturers standard welding process.

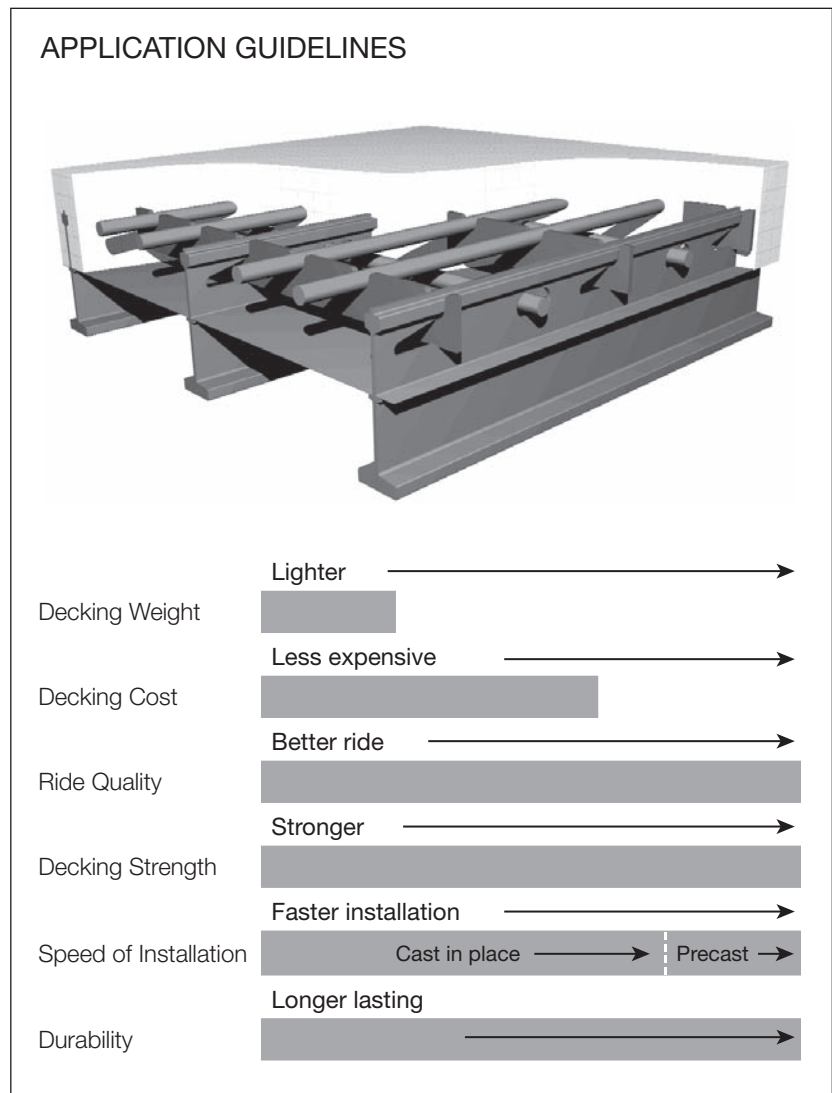
Finish: Most types of coatings can be provided; common finishes are mill finish (for 50 ksi weathering steel) and hot dipped galvanized for 50 ksi steel-note that distortion from galvanizing will occur, request manufacturer's tolerances.

Request manufacturer's standard 4 part product specification for inclusion with project documents.

The 6.5" Half-Depth grid reinforced concrete bridge decking is the latest design innovation from L.B. Foster. The increased decking depth offers improved stiffness for longer spans. Important changes in the grid construction have helped to make this grid cost competitive with alternative deck types while still offering the advantages of higher strength-to-weight ratio, better durability and faster installation time.

Because this grid is filled half-depth with concrete it has a much higher strength-to-weight ratio than a common rebar reinforced slab. The half-depth concrete in the grid drops down to full depth at the supports and is typically attached with headed shear studs for full composite action.

This grid style requires the use of a concrete overfill which is the amount of concrete poured over the top of the steel grid. As with all grid reinforced concrete bridge decking, the concrete overfill provides increased stiffness, added corrosion protection for the steel and a smooth riding surface that can be resurfaced, as required, with standard resurfacing techniques.



**6.5 inch RB Half Depth • HS 25 Load Table**

Main Bar Spacing (in)	Minimum Sectional Properties (in <sup>3</sup> /ft)				Maximum Continuous Clear Span (ft)	Approximate Weight (lbs/sf)	
	Steel Only		Composite Section			Steel Only	Steel & 144#ft <sup>3</sup> Conc
	Top Steel	Bottom Steel	Positive	Negative	Transverse or Parallel		
6	13.9087	13.6836	183.2325	13.7386	17.1	28.3	86.3
8	10.4315	10.2627	160.827	10.3039	15.4	22.4	80.9
10	8.3452	8.2101	145.9349	8.2431	14.1	18.9	77.7
12	6.9543	6.8418	135.1171	6.8693	13.2	17.2	75.6

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