Standard Concrete Deck Designs
Supported by 3 Steel Beams

		Steel Rail		Concrete Rail	
Design Spacing (<= value)		**Top**	**Bottom**	**Top**	**Bottom**
5.0'	Transverse Bars	#5 @ 9"	#5's @ 9"	#5 @ 9"	#5's @ 9"
	Longitudinal Bars	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12"
5.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12"
6.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
6.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
7.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
7.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
8.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
8.5'	Transverse Bars	#6 @ 6"	#5 @ 6"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
9.0'	Transverse Bars	#6 @ 6"	#5 @ 6"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
9.5'	Transverse Bars	#6 @ 6"	#5 @ 6"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
10.0'	Transverse Bars	#6 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#7 @ 12"	#5 @ 12"
10.5'	Transverse Bars	#7 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#5 @ 12"	#7 @ 12"	#5 @ 12"
11.0'	Transverse Bars	#7 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#6 @ 12"	#7 @ 12"	#6 @ 12"
11.5'	Transverse Bars	#7 @ 6"	#5 @ 6"	#8 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#6 @ 12"	#7 @ 12"	#6 @ 12"
12.0'	Transverse Bars	#8 @ 6"	#5 @ 6"	#8 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#6 @ 12"	#7 @ 12"	#6 @ 12"

Assumptions: 8.5" paved deck (2.5" cover top & 1.5" cover bottom)
9.0" bare deck (3.0" cover top & 1.5" cover bottom)
Can be used with sidewalks on the bridge
4,000 psi min concrete strength
60,000 psi min reinforcing steel strength

Standard Concrete Deck Designs
Supported by 4 or More Steel Beams

		Steel Rail		Concrete Rail	
Design Spacing (<= value)		**Top**	**Bottom**	**Top**	**Bottom**
5.0'	Transverse Bars	#5 @ 9"	#5's @ 9"	#5 @ 9"	#5's @ 9"
	Longitudinal Bars	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12"
5.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#4 @ 12"	#4 @ 12"	#4 @ 12"	#4 @ 12"
6.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
6.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
7.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
7.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
8.0'	Transverse Bars	#5 @ 6"	#5 @ 9"	#5 @ 6"	#5 @ 9"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#5 @ 12"	#5 @ 12"
8.5'	Transverse Bars	#5 @ 6"	#5 @ 9"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#5 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
9.0'	Transverse Bars	#6 @ 6"	#5 @ 6"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
9.5'	Transverse Bars	#6 @ 6"	#5 @ 6"	#6 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#6 @ 12"	#5 @ 12"
10.0'	Transverse Bars	#6 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#7 @ 12"	#5 @ 12"
10.5'	Transverse Bars	#6 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#6 @ 12"	#5 @ 12"	#7 @ 12"	#6 @ 12"
11.0'	Transverse Bars	#7 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#5 @ 12"	#7 @ 12"	#6 @ 12"
11.5'	Transverse Bars	#7 @ 6"	#5 @ 6"	#7 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#6 @ 12"	#7 @ 12"	#6 @ 12"
12.0'	Transverse Bars	#7 @ 6"	#5 @ 6"	#8 @ 6"	#5 @ 6"
	Longitudinal Bars	#7 @ 12"	#6 @ 12"	#7 @ 12"	#6 @ 12"

Assumptions: 8.5" paved deck (2.5" cover top & 1.5" cover bottom)
9.0" bare deck (3.0" cover top & 1.5" cover bottom)
Can be used with sidewalks on the bridge
4,000 psi min concrete strength
60,000 psi min reinforcing steel strength