

**Material Properties:**

- Steel: Grid can be constructed using A709 Gr. 36/50/50W, A36, or A588 Steel
- Concrete: 145 pcf normal weight concrete with a compressive strength of 4000 psi
- Concrete: Maximum aggregate size not to exceed 3/8" for 2 Inch Tee Sidewalk Grid Deck Designs

Steel Grid Components:

- Main Rails: ST2x3.85 rolled section
- Cross Bars: 1/4"x1" spaced 4" center-to-center
- Supplemental Bars: None
- Top Rebar: None
- Trim Bars: 1/4"x2" (Optional)

Geometric Profile

- Total height of grid deck = 2" (flush-filled)

Component Code	Deck Parameters			Steel Only			Positive Moment Region			Negative Moment Region			Approximate Weight (psf)	
	Main Rail Spacing (in)	Total Concrete Overfill (in)	Total Height (in)	Moment of Inertia (in ⁴ /ft)	Section Modulus (in ³ /ft)		Moment of Inertia (in ⁴ /ft)	Section Modulus (in ³ /ft)		Moment of Inertia (in ⁴ /ft)	Section Modulus (in ³ /ft)		Steel Only	Concrete Filled
					Top of Steel	Bot of Steel		Top of Concr.	Bot of Steel		Top of Steel	Bot of Concr.		
SDS2T-04	4	0	2	0.89	0.58	2.03	2.09	-13.95	2.76	9.21	0.59	-18.41	15.36	34.86
SDS2T-06	6	0	2	0.59	-0.39	1.35	1.65	-11.89	1.95	0.62	0.40	-12.94	11.59	32.21

(-) Negative value indicates compression

SIMPLE SPAN LOAD TABLE														
Component Code	Main Rail Spacing (in)	Total Concrete Overfill (in)	85 psf Live Load			100 psf Live Load			125 psf Live Load			150 psf Live Load		
			Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	
			L/800	L/1000	L/1200	L/800	L/1000	L/1200	L/800	L/1000	L/1200	L/800	L/1000	L/1200
SDS2T-04	4	0	7.8	7.2	6.8	7.4	6.9	6.5	6.9	6.4	6.0	6.5	6.0	5.6
SDS2T-06	6	0	7.2	6.7	6.3	6.8	6.3	6.0	6.3	5.9	5.5	6.0	5.5	5.2

CONTINUOUS SPAN LOAD TABLE														
Component Code	Main Rail Spacing (in)	Total Concrete Overfill (in)	85 psf Live Load			100 psf Live Load			125 psf Live Load			150 psf Live Load		
			Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	Deflection	
			L/800	L/1000	L/1200	L/800	L/1000	L/1200	L/800	L/1000	L/1200	L/800	L/1000	L/1200
SDS2T-04	4	0	8.4	7.8	7.3	8.0	7.4	7.0	7.4	6.9	6.5	7.0	6.5	6.1
SDS2T-06	6	0	7.8	7.2	6.8	7.4	6.8	6.4	6.8	6.3	6.0	6.4	6.0	5.6

Design Notes:

1. Designs are in accordance with AASHTO (17 Edition - 2002) Allowable Stress Design Method.
2. Reference IDSI SDS2T Series Grid Deck Drawings for further geometric details.
3. Steel only weights include the weight of the form pans.
4. Designs valid for either 36 or 50 ksi minimum yield steel.
5. Deflection is the limiting factor for all span lengths
6. Fatigue not considered for above published span limits.
7. Simple span designs utilize a one quadrant fillet weld and a flat concrete pan.
8. Continuous span designs utilize a two quadrant fillet weld and a formed concrete pan.