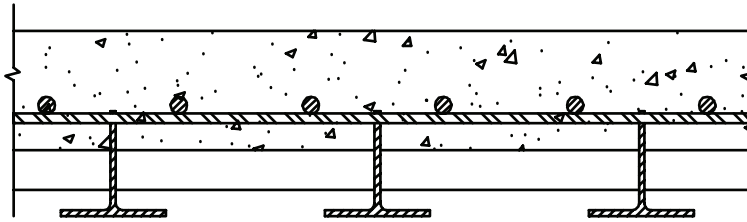


# Deck Properties & Spans



**Grid: WT4x5**  
With Dropped Distribution Bars

Overall Depth (in.)	Concrete Thickness (in.)	Top Rebar & Spacing (in.)	Weight (lbs/sf)		Moment of Inertia (in <sup>4</sup> )		SECTION MODULUS (in <sup>3</sup> )					MAXIMUM SPANS (ft.)							
							Positive Bending		Negative Bending			Main Bars Transverse To Traffic		Main Bars Parallel To Traffic					
			Normal Concrete	Lightweight Concrete	I <sub>pos</sub> (=I <sub>x</sub> )	I <sub>neg</sub>	Top of Concrete	Bottom of Main Bar	Top Rebar	Top of Welds	Bottom of Main Bar	Cast in Place		Precast		Cast in Place		Precast	
												HS-20	HS-25	HS-20	HS-25	HS-20	HS-25	HS-20	HS-25

Grid: WT4x5 @ 8" C-C with dropped distribution bars (weight of grid w/ pans = 11.5 lbs/sf)

7.1	4.5	#6 @ 3	70.3	59.6	31.10	15.19	79.94	-7.86	-7.67	34,247	6.01	10.7	10.6	10.7	10.7	9.3	7.9	10.2	8.4
7.1	4.5	#6 @ 4	69.2	58.5	30.98	13.19	78.83	-7.90	-5.82	-46.23	5.88	10.7	10.4	10.7	10.7	9.2	7.7	9.9	8.2
7.1	4.5	#5 @ 4	68.2	57.4	30.79	10.47	77.39	-7.93	-4.08	-16.05	5.59	10.7	8.7	10.0	8.1	7.5	6.0	7.2	5.9
7.1	4.5	#5 @ 8	67.1	56.2	30.66	6.79	76.17	-7.97	-2.18	-5.70	5.08	5.2	3.8	5.0	3.7	4.1	3.4	4.0	3.3
6.6	4.0	#6 @ 3	64.2	54.8	26.42	15.19	73.43	-7.16	-7.67	34,247	6.01	9.8	9.8	9.8	9.8	9.4	7.9	9.8	8.3
6.6	4.0	#6 @ 4	63.2	53.7	26.15	13.19	71.46	-7.18	-5.82	-46.23	5.88	9.8	9.8	9.8	9.8	9.3	7.8	9.8	8.1
6.6	4.0	#5 @ 4	62.2	52.6	25.78	10.47	69.08	-7.20	-4.08	-16.05	5.59	9.7	8.7	9.7	8.1	7.5	6.0	7.2	5.9
6.6	4.0	#5 @ 8	61.1	51.4	25.46	6.79	66.91	-7.23	-2.18	-5.70	5.08	5.2	3.8	5.0	3.7	4.1	3.4	4.0	3.3
6.1	3.5	#6 @ 3	58.2	50.0	22.60	15.19	68.67	-6.58	-7.67	34,247	6.01	9.1	9.1	9.1	9.1	9.1	8.0	9.1	7.8
6.1	3.5	#6 @ 4	57.1	48.9	22.13	13.19	65.55	-6.57	-5.82	-46.23	5.88	9.0	9.0	9.0	9.0	9.0	7.7	9.0	7.5
6.1	3.5	#5 @ 4	56.1	47.8	21.52	10.47	61.98	-6.54	-4.08	-16.05	5.59	8.8	8.7	8.8	8.2	7.5	6.0	7.2	5.9
6.1	3.5	#5 @ 8	55.0	46.6	20.94	6.79	58.58	-6.53	-2.18	-5.70	5.08	5.2	3.8	5.0	3.7	4.1	3.4	4.0	3.3

Grid: WT4x5 @ 10" C-C with dropped distribution bars (weight of grid w/ pans = 10.0 lbs/sf)

7.14.5	#6 @ 5	67.1	56.3	26.45	10.55	71.17	-6.46	-4.66	-36.98	4.71	9.9	8.5	9.9	9.3	7.6	6.4	8.1	6.6	
7.1	4.5	#5 @ 5	66.4	55.5	26.37	8.38	70.30	-6.48	-3.26	-12.84	4.47	8.7	6.6	7.9	6.2	6.0	4.9	5.8	4.8
7.1	4.5	#5 @ 10	65.5	54.5	26.32	5.43	69.65	-6.51	-1.75	-4.56	4.06	3.8	2.7	3.7	2.7	3.4	2.7	3.3	2.7
6.6	4.0	#6 @ 5	61.1	51.5	22.22	10.55	64.02	-5.86	-4.66	-36.98	4.71	9.0	8.6	9.0	9.0	7.7	6.4	8.1	6.7
6.6	4.0	#5 @ 5	60.3	50.7	22.01	8.38	62.41	-5.87	-3.26	-12.84	4.47	8.7	6.6	8.0	6.3	6.0	4.9	5.8	4.8
6.6	4.0	#5 @ 10	59.4	49.7	21.84	5.43	61.00	-5.90	-1.75	-4.56	4.06	3.8	2.7	3.7	2.7	3.4	2.7	3.3	2.7
6.1	3.5	#6 @ 5	55.1	46.8	18.67	10.55	58.15	-5.34	-4.66	-36.98	4.71	8.2	8.2	8.2	8.2	7.8	6.5	8.2	6.7
6.1	3.5	#5 @ 5	54.3	45.9	18.28	8.38	55.58	-5.32	-3.26	-12.84	4.47	8.1	6.6	8.1	6.3	6	4.9	5.9	4.8
6.1	3.5	#5 @ 10	53.4	45.0	17.93	5.43	53.19	-5.32	-1.75	-4.56	4.06	3.8	2.7	3.7	2.7	3.4	2.7	3.3	2.7

Grid: WT4x5 @ 12" C-C with dropped distribution bars (weight of grid w/ pans = 9.0 lbs/sf)

7.1	4.5	#6 @ 6	65.8	54.9	23.20	8.79	65.46	-5.48	-3.88	-30.82	3.92	8.5	7.1	9.2	7.6	6.5	5.4	6.8	5.6
7.1	4.5	#5 @ 4	65.8	55.0	23.18	8.72	65.22	-5.49	-3.98	-31.94	3.87	8.4	7.0	9.2	7.6	6.4	5.4	6.8	5.6
7.1	4.5	#5 @ 6	65.1	54.2	23.16	6.98	64.93	-5.50	-2.72	-10.70	3.72	6.9	5.2	6.5	5	5.1	4.1	4.9	4.0
6.6	4.0	#6 @ 6	59.7	50.1	19.42	8.79	58.55	-4.96	-3.88	-30.82	3.92	8.4	7.1	8.4	7.7	6.6	5.5	6.9	5.6
6.6	4.0	#5 @ 4	59.8	50.2	19.37	8.72	58.28	-4.96	-3.98	-31.94	3.87	8.3	7.1	8.3	7.7	6.5	5.4	6.8	5.6
6.6	4.0	#5 @ 6	59.1	49.4	19.29	6.98	57.41	-4.97	-2.72	-10.70	3.72	6.9	5.2	6.5	5	5.1	4.1	4.9	4.0
6.1	3.5	#6 @ 6	53.7	45.3	16.24	8.79	52.80	-4.50	-3.88	-30.82	3.92	7.6	7.2	7.6	7.6	6.6	5.5	6.9	5.6
6.1	3.5	#5 @ 4	53.8	45.4	16.18	8.72	52.51	-4.49	-3.98	-31.94	3.87	7.6	7.1	7.6	7.6	6.5	5.4	6.9	5.6
6.1	3.5	#5 @ 6	53.0	44.6	15.98	6.98	50.85	-4.50	-2.72	-10.70	3.72	6.9	5.2	6.5	5.0	5.1	4.1	5.0	4.0

Notes:

- Spans are centerline support to centerline support, with 7" flange width assumed. 4000 psi concrete, n=8 (n=24 for sustained deadload).
- Weights shown are exclusive of "haunch" concrete (between top of beams and top of distribution bars), additional full depth concrete at connections between panels, and any additional deck overlay. Negative section modulus indicates tension.
- For other deck configurations, or for other information, please contact Exodermic Bridge Deck, Inc., info@exodermic.com.