BEAM PROPERTIES

BEAM TYPE	WIDTH (in.) Nom.	WIDTH (in.) Act.	DEPTH (in)	AREA (in²)	I (in⁴)	Y_b (in)	Y_t (in)	S_b (in³)	S_t (in³)	WEIGHT (lbs/ft)	MAX. SPAN (ft)
B36-24	36.0	35.5	24	543	36609	11.82	12.18	3097	3006	566	73
B36-27	36.0	35.5	27	573	50267	13.29	13.71	3782	3666	597	83
B36-30	36.0	35.5	30	603	66503	14.77	15.23	4503	4367	628	91
B36-33	36.0	35.5	33	633	85453	16.24	16.76	5262	5099	659	96
B36-36	36.0	35.5	36	663	107251	17.72	18.28	6053	5867	691	105
B36-39	36.0	35.5	39	748	135514	19.24	19.76	7043	6858	779	115
B36-42	36.0	35.5	42	784	164680	20.73	21.27	7944	7742	817	122
B36-45	36.0	35.5	45	820	197374	22.21	22.79	8887	8661	854	129
B36-48	36.0	35.5	48	856	233759	23.70	24.30	9863	9620	892	135

NOTES:
1. Above drawing is not to scale.
2. See Dwg. No. 4.2.8 for shear key details.
3. Maximum Span lengths are approximate and are based on the following assumptions:
   - f'c = 6500 psi (Precast)
   - f'ci = 4500 psi (Precast)
   - f'c = 4000 psi (5" thick Cast-in-Place Composite Deck)
   - Final Allowable Tension at bottom of beam is equal to $0.0948\sqrt{f'c}$ ksi.
   - HL-93 Live Load
   - Time-Dependent Losses of Article 5.9.5.3 of the AASHTO-LRFD were used.
   - The CP-PL2 Barrier was assumed on the bridge.
   - 3.5" thick HMA wearing surface.
   - 0.6" diameter low relaxation strands.
   - The factor "k" in the Live Load distribution factor equation was taken as 1.5
4. Weights of beams do not include the weight of the solid sections located at the transverse ties. Include the weight of the solid sections for design.
5. Thickness of top flange may have to be increased in order to develop sidewalk/safety curb barrier reinforcement (see Dwg. No. 4.3.2). The Designer will have to calculate and use the modified beam properties in such cases.

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STANDARD 36" WIDE BEAMS

PRECAST CONCRETE BOX BEAMS

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