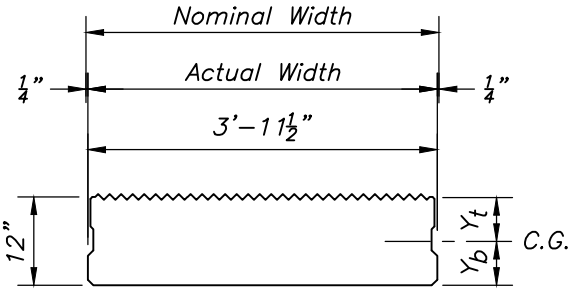
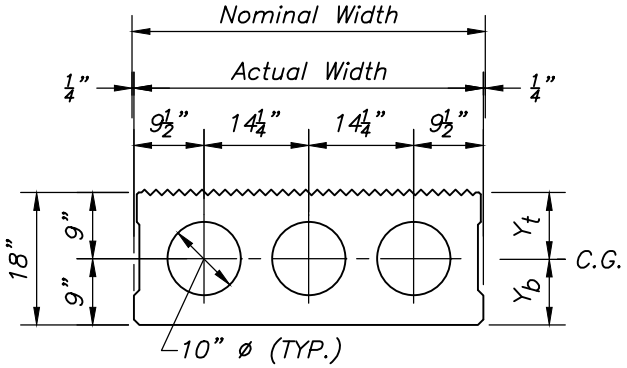
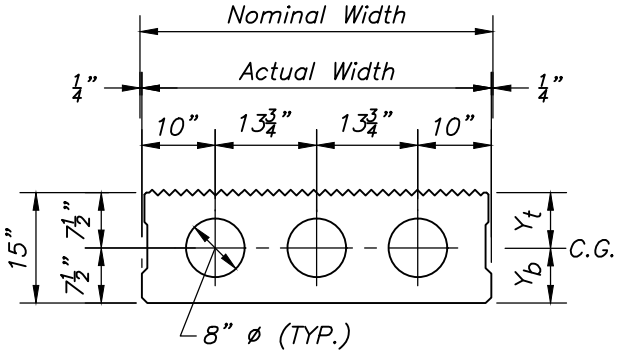


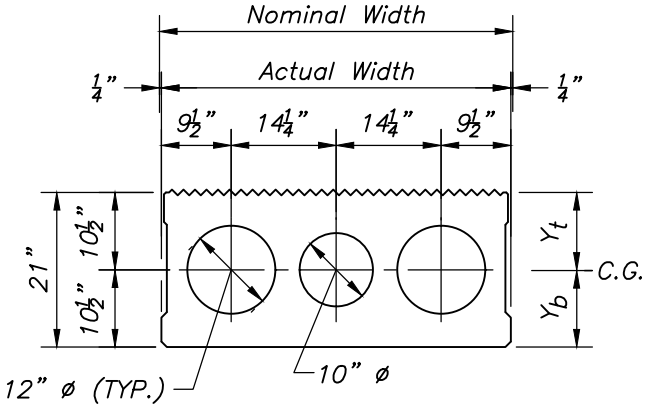
S48–12



S48–18



S48–15



S48–21

BEAM PROPERTIES

BEAM TYPE	WIDTH (in)		DEPTH (in)	AREA (in^2)	I (in^4)	Y_b (in)	Y_t (in)	S_b (in^3)	S_t (in^3)	WEIGHT (lbs/ft)	MAX. SPAN (ft)
	Nom.	Act.									
S48–12	48.0	47.5	12	561	6761	5.98	6.02	1131	1123	584	40
S48–15	48.0	47.5	15	548	12593	7.47	7.53	1686	1672	571	48
S48–18	48.0	47.5	18	601	21303	8.97	9.03	2375	2359	626	57
S48–21	48.0	47.5	21	670	33597	10.47	10.53	3209	3191	698	63

NOTES:

1. Above drawing is not to scale.
2. See Dwg. No. 4.1.8 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. Weight of beams does not include the weight of the solid sections located at the transverse ties. Include the weight of the solid sections for design.