INTERIOR BEAM MOMENT TABLE				
		0.4 Sp. 1 or 0.6 Sp. 3	0.5 Sp. 2	Piers
I_s	(in^4)	6710	6710	6710
$I_c(n)$	(in^4)	17608	17608	17608
$I_c(3n)$	(in^4)	12839	12839	12839
$I_c(cr)$	(in^4)	———	———	8936
S_s	(in^3)	406	406	406
$S_c(n)$	(in^3)	594	594	1474
$S_c(3n)$	(in^3)	535	535	730
$S_c(cr)$	(in^3)	———	———	648
DC1	(k/')	0.754	0.754	0.754
M_{DC1}	('k)	193.2	185.5	358.7
DC2	(k/')	0.150	0.150	0.150
M_{DC2}	('k)	38.4	36.9	71.4
DW	(k/')	0.296	0.296	0.296
M_{DW}	('k)	75.8	72.9	140.8
M_{L+IM}	('k)	588.1	572.1	595.3
M_u (Strength I)	('k)	1432.5	1388.9	1790.5
$\phi_f M_n$	('k)	3008.0	3008.0	———
f_s DC1	(ksi)	5.7	5.5	10.6
f_s DC2	(ksi)	0.9	0.8	1.3
f_s DW	(ksi)	1.7	1.6	2.6
f_s (L+IM)	(ksi)	11.9	11.6	11.0
f_s (Service II)	(ksi)	23.7	23.0	28.8
$0.95R_hF_{yf}$	(ksi)	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	———	———	38.0
$\phi_f F_n$	(ksi)	———	———	50.0
V_f	(k)	22.7	19.4	25.7

INTERIOR BEAM REACTION TABLE			
		Abuts.	Piers
R_{DC1}	(k)	17.1	57.5
R_{DC2}	(k)	3.4	11.4
R_{DW}	(k)	6.7	22.6
R_{L+IM}	(k)	63.7	96.2
R_{Total}	(k)	90.9	187.7

I_s, S_s: Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads ($in.^4$ and $in.^3$).

$I_c(n)$, $S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to short-term composite live loads ($in.^4$ and $in.^3$).

$I_c(3n)$, $S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads ($in.^4$ and $in.^3$).

$I_c(cr)$, $S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite dead loads ($in.^4$ and $in.^3$).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

M_{L+IM}: Un-factored live load moment plus dynamic load allowance (impact) ((kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
$1.25\ (M_{DC1} + M_{DC2}) + 1.5\ M_{DW} + 1.75\ M_{L+IM}$

$\phi_f M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
$M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
$M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s (L+IM): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
$M_{L+IM} / S_c(n)$ or $M_{L+IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
$f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3\ f_s(L+IM)$

$0.95R_hF_{yf}$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
$1.25\ (f_{sDC1} + f_{sDC2}) + 1.5\ f_{sDW} + 1.75\ f_{sL+IM}$

$\phi_f F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).

V_f: Maximum factored shear range in composite portion of span computed according to Article 6.10.10.

*TOP OF BEAM ELEVATIONS

Location	℄ Brg. E. Abut.	℄ Brg. Pier 1	℄ Splice 1	℄ Splice 2	℄ Brg. Pier 2	℄ Brg. W. Abut.
Beam 1	357.76	357.71	357.70	357.70	357.71	357.76
Beam 2	357.87	357.82	357.81	357.81	357.82	357.87
Beam 3	357.96	357.91	357.90	357.90	357.91	357.96
Beam 4	357.96	357.91	357.90	357.90	357.91	357.96
Beam 5	357.87	357.82	357.81	357.81	357.82	357.87
Beam 6	357.76	357.71	357.70	357.70	357.71	357.76

*For fabrication use only.

DESIGNED - Nicholas R. Barnett	EXAMINED	DATE - MARCH 20, 2012	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION
CHECKED - Michael D. Rolape	ENGINEER OF BRIDGE DESIGN		
DRAWN - h.t. duong	PASSED	REVISED	
CHECKED - NRB/MDR	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	

STRUCTURAL STEEL DATA
STRUCTURE NO. 076-0031
SHEET NO. 16 OF 25 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
885	6B-2	POPE	51	33
		CONTRACT NO. 78168		
	ILLINOIS	FED. AID PROJECT		