DEAD LOAD DEFLECTION DIAGRAM

NOTES:
I. ENCIRCLED NUMBERS INDICATE ANTICIPATED DEFLECTION DUE TO CONCRETE ONLY.

2. DEFLECTIONS ARE IN INCHES.

MOMENT - foot-kips MOMENT AND REACTION TABLE REACTION - kips													
LOAD NAME		LOAD - k/ft		POSITIVE MOMENT				NEGATIVE MOMENT		REACTION			
				0.4 PT END SPAN		0.5 PT. CENTER SPAN		PIER	PIER	ABUTMENT	ABUTMENT	PIER	PIER
147.00		INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR
DCI		0.74*	0.72*	129	120	167	155	279	259	16	15	55	51
DC2		0.14	0.14	24	24	35	35	38	38	3	3	9	9
DW		0.15	0.15	25	25	37	36	39	39	3	3	9	9
LIVE LOAD +IMPACT HL-93	DISTRIBUTION FACTOR	MOMENT	MOMENT	538	577	606	699	339	380	-	-	-	-
		0.635	0.681										
		REACTION	REACTION	-	-	-	-	-	-	69	61	101	89
		0.772	0.681										
TOTAL				-	-	-	-	695	716	91	82	174	158

* LOAD VALUES DO NOT INCLUDE GIRDER WEIGHT.
MOMENT AND REACTION VALUES DO INCLUDE GIRDER WEIGHT.
MOMENTS AND REACTIONS SHOWN ARE UNFACTORED.



lowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

BEAM DEFLECTIONS 160'-0 BRIDGE

RS40-061-10