



DEAD LOAD DEFLECTION DIAGRAM

NOTES:

1. ENCIRCLED NUMBERS INDICATE ANTICIPATED DEFLECTION DUE TO CONCRETE ONLY.

2. DEFLECTIONS ARE IN INCHES.

LOAD NAME		MOMENT - foot-kips						REACTION - kips					
		LOAD - k/ft		POSITIVE MOMENT				NEGATIVE MOMENT		REACTION			
		INTERIOR	EXTERIOR	0.4 PT. END SPAN		0.5 PT. CENTER SPAN		PIER	PIER	ABUTMENT	ABUTMENT	PIER	PIER
D.L. NO. 1		0.74*	0.72*	125	122	156	152	274	267	15	14	53	52
D.L. NO. 2		0.29	0.29	48	47	68	65	80	84	5	5	18	18
LIVE LOAD + IMPACT HS20-44 DISTRIBUTION FACTOR	TRUCK	MOMENT	MOMENT	450	420	507	470	-	-	55	46	64	55
		REACTION	REACTION										
	LANE		1.35	1.27	-	-	-	-	271	264	-	-	-
TOTAL		-	-	-	-	-	-	625	615	75	65	135	125

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

07-06 LATEST REVISION DATE	 APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
		STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES ROLLED STEEL BEAM BRIDGES FEBRUARY, 2004	
		BEAM DEFLECTIONS 160'-0 BRIDGE	RS40-46-04

REVISION - 07-06 - ADDED DISTRIBUTION FACTOR TERM TO TABLE.