



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 INTERIOR	PIER EXTERIOR	ABUTMENT INTERIOR	ABUTMENT EXTERIOR	PIER INTERIOR	PIER EXTERIOR		
D.L. NO. 1	0.74*	0.12*	125	122	156	152	274	267	15	14	53	52
D.L. NO. 2	0.29	0.29	48	41	68	65	80	84	5	5	18	18
LIVE LOAD + IMPACT HS20-44 LANE TRUCK	MOMENT	MOMENT	450	420	507	470	-	-	55	46	64	55
	1.35	1.21										
	REACTION	REACTION	-	-	-	-	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.

LATEST REVISION DATE	<i>Thomas E. McQuinn</i> 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-BD1-04