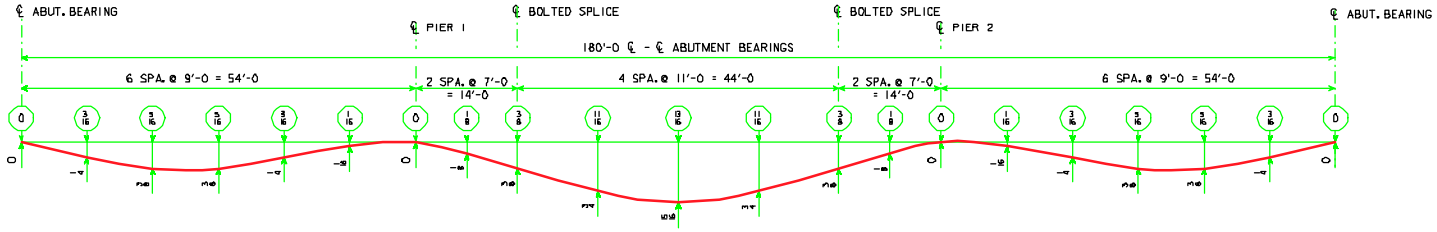

DEAD LOAD DEFLECTION DIAGRAM

NOTES:

1. ENCIRCLED NUMBERS INDICATE ANTICIPATED DEFLECTION DUE TO CONCRETE ONLY.
2. DEFLECTIONS ARE IN INCHES.

MOMENT AND REACTION TABLE

MOMENT - foot-kips | 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
	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR	INTERIOR	EXTERIOR
D.L. NO. 1	0.74*	0.72*	161	158	202	197	354	346	17	16	61	60
D.L. NO. 2	0.29	0.29	61	59	86	81	102	107	6	6	20	20
LIVE LOAD + IMPACT HS20-44 — LANE TRUCK — MOMENT	1.35	1.27	522	487	606	559	-	-	57	47	65	-
LIVE LOAD + IMPACT HS20-44 — LANE TRUCK — REACTION	1.65	1.05	-	-	-	-	326	319	-	-	-	58
TOTAL	-	-	-	-	-	-	782	772	80	69	146	138

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

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
180'-0 BRIDGE

RS40-BD2-04