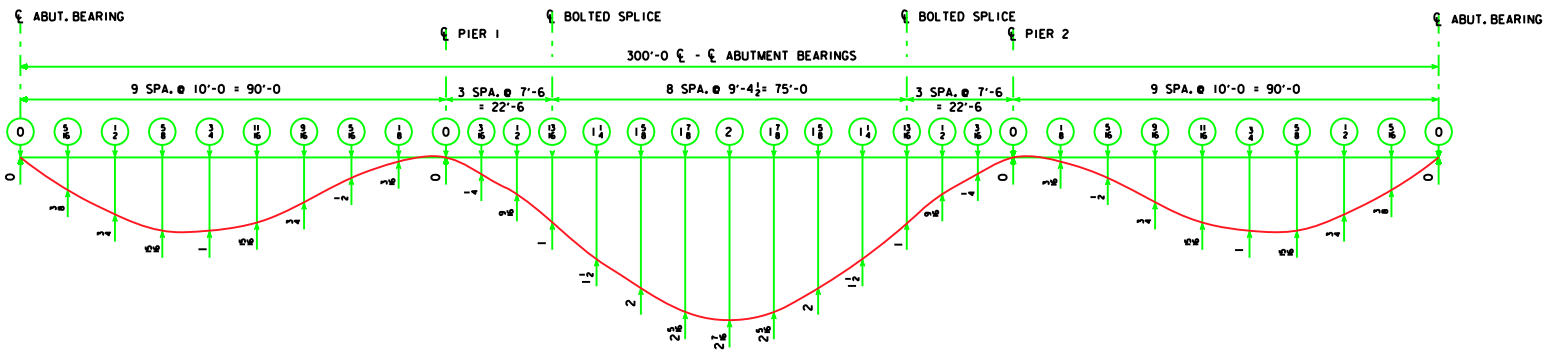

DEAD LOAD DEFLECTION DIAGRAM

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*	502	492	584	571	1108	1085	31	31	113	111
D.L. NO. 2			0.29	0.29	160	155	218	205	304	317	10	10	34	34
LIVE LOAD +IMPACT HS20-44	DISTRIBUTION FACTOR	TRUCK	MOMENT	MOMENT	952	888	1057	964	-	-	59	50	-	-
			1.35	1.27										
		LANE	REACTION	REACTION	-	-	-	-	778	771	-	-	85	80
			1.65	1.05										
TOTAL			-	-	-	-	-	-	2190	2173	100	91	232	225

* 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
300'-0 BRIDGE

RS40-53-04

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