

SLAB LAYOUT

(LEFT AHEAD SKEW SHOWN, RIGHT AHEAD SKEW SIMILAR)

GENERAL DATA		℄-℄ ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10	201'-4	213'-10	226'-4	243'-0
VERTICAL	TOP OF SLAB TO ABUT. CONSTR. JT. AT C.L. ABUT. BRG.	"U"	3'-8	3'-7 ¹¹ / ₁₆	4'-2 ¹ / ₂	4'-2 ¹ / ₂	4'-2 ¹ / ₂	4'-8 ¹ / ₁₆	4'-8 ¹ / ₁₆	4'-9 ¹ / ₂	4'-9 ¹ / ₂
CURVE	TOP OF SLAB TO PIER TOP AT C.L. PIER*	"U"	3'-6 ³ / ₈	3'-6 ³ / ₈	4'-1 ¹ / ₁₆	4'-1 ¹ / ₂	4'-1 ¹ / ₁₆	4'-7 ¹ / ₁₆	4'-7 ¹ / ₄	4'-7 ¹ / ₂	4'-7 ¹ / ₂
STRAIGHT	TOP OF SLAB TO ABUT. CONSTR. JT. AT C.L. ABUT. BRG.	"U"	3'-8 ¹ / ₁₆	3'-7 ¹ / ₈	4'-2 ¹ / ₁₆	4'-2 ¹ / ₁₆	4'-3	4'-8 ¹ / ₁₆	4'-8 ¹ / ₁₆	4'-9 ¹ / ₈	4'-9 ¹ / ₈
GRADE	TOP OF SLAB TO PIER TOP AT C.L. PIER*	"U"	3'-6 ³ / ₈	3'-6 ³ / ₈	4'-1 ¹ / ₁₆	4'-1 ¹ / ₂	4'-2 ¹ / ₄	4'-7 ¹ / ₁₆	4'-7 ¹ / ₁₆	4'-8	4'-8
D.L. PIER REACTION (D.L. + F.W.S.)		KIPS	456.2	490.9	561.4	598.1	635.1	756.6	797.7	839.3	879.7
L.L. PIER REACTION (HL93) NO IMPACT		KIPS	264.7	274.5	283.9	293.1	302.2	311.0	322.9	341.9	362.6
NO. OF SPACES FOR 6ai BARS (TOP)		"E"	123	138	153	168	183	198	213	228	248
NO. OF SPACES FOR 6ai BARS (BOTTOM)		"H"	122	137	152	167	182	197	212	227	247
NO. OF SPACES FOR 5ji BARS (TOP)		"J"	164	179	194	209	224	239	254	269	289
OUT TO OUT OF SLAB		"S"	143'-0 ¹ / ₈	155'-6 ¹ / ₈	168'-0 ¹ / ₈	180'-6 ¹ / ₈	193'-0 ¹ / ₈	205'-6 ¹ / ₈	218'-0 ¹ / ₈	230'-6 ¹ / ₈	247'-2 ¹ / ₈
SLAB TRANSVERSE CONSTR. JT. DISTANCE FROM C.L. PIER		"X"	6'-7	7'-1	7'-7	8'-1	8'-8	9'-2	9'-8	10'-2	10'-10

CONCRETE PLACEMENT QUANT. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		£-£ ABUT. BRG.	138'-10	151'-4	163'-10	176'-4	188'-10	201'-4	213'-10	226'-4	243'-0
SLAB INCLUDING HAUNCH, ABUT. DIAPHRAGM, & WINGWALLS***, SECTIONS 1 & 3	WITH BARRIER RAIL	C.Y.	133.8	141.8	157.2	165.4	173.4	191.8	200.2	208.8	228.0
	WITH OPEN RAIL	C.Y.	135.1	143.2	158.8	167.1	175.2	193.7	202.2	210.9	230.4
SLAB INCLUDING HAUNCH, SECTION 2	WITH BARRIER RAIL	C.Y.	43.5	47.0	50.5	54.0	57.3	61.1	64.6	68.1	68.1
	WITH OPEN RAIL	C.Y.	44.2	47.8	51.3	54.9	58.3	62.1	65.6	69.2	69.2
SLAB INCLUDING HAUNCH & PIER DIAPHRAGM, SECTIONS 4 & 5	WITH BARRIER RAIL	C.Y.	57.8	60.2	68.0	70.4	73.4	78.8	81.0	83.6	83.6
	WITH OPEN RAIL	C.Y.	58.3	60.7	68.6	71.0	74.0	79.4	81.7	84.3	84.3
ABUTMENT WINGS		C.Y.	7.2	7.2	7.6	7.6	7.6	8.4	8.4	8.4	8.4
ABUTMENT FOOTINGS (w/ WOOD PILES) ***		C.Y.	48.5	48.3	48.2	48.1	48.1	-----	-----	-----	-----
ABUTMENT FOOTINGS (w/ STEEL H PILES) ***		C.Y.	50.2	50.2	50.2	50.2	50.2	57.4	57.4	57.4	57.4

*** SEE SHEET H40-31-06 FOR ADDITIONAL CONCRETE
REQUIRED IN ABUTMENT FOOTINGS.

07-10 LATEST REVISION DATE <i>Norman E. McQuinnell</i> APPROVED BY BRIDGE ENGINEER	 Iowa Department of Transportation Highway Division	
	STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES AUGUST, 2009	
SUPERSTRUCTURE DETAILS 45° SKEW		H40-29-06