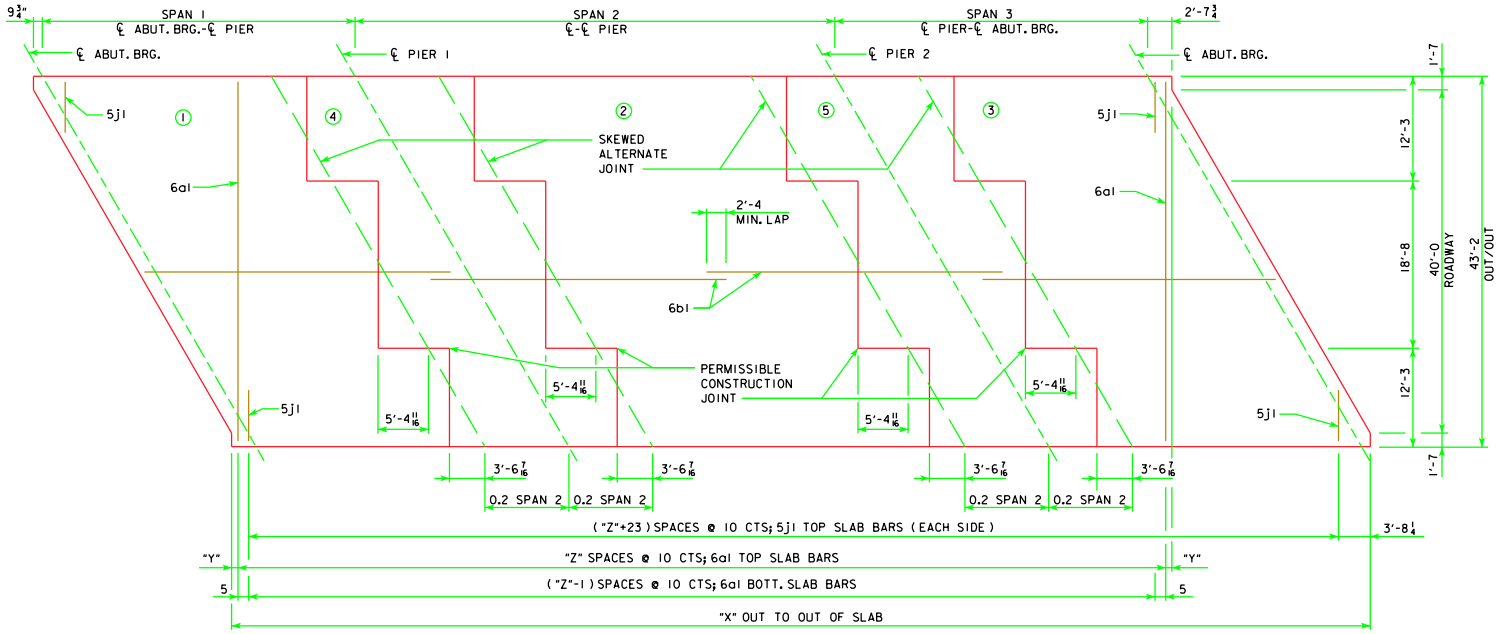
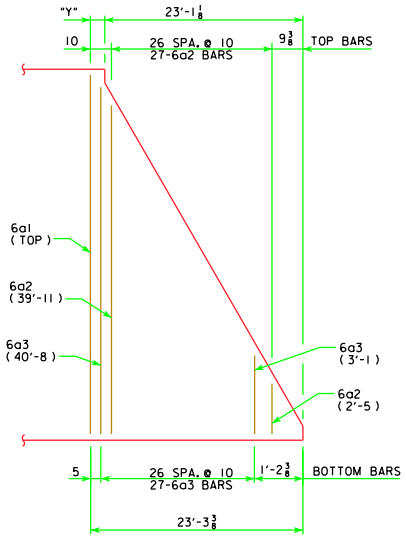




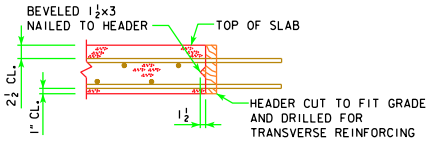
END OF SLAB REINFORCING

(TYPICAL EACH END OF DECK)

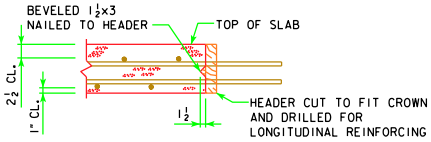
REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
X (FT.-IN.)	163'-5½	183'-5½	203'-5½	223'-5½	243'-5½	263'-5½	283'-5½	303'-5½	323'-5½	343'-5½
Y (IN.)	2¼	2¼	2¼	2¼	2¼	2¼	2¼	2¼	2¼	2¼
Z (SPACES)	168	192	216	240	264	288	312	336	360	384

CONCRETE PLACEMENT DIAGRAM SHOWING SLAB REINFORCING

(RIGHT AHEAD SKEW SHOWN, LEFT AHEAD SKEW SIMILAR)



LONGITUDINAL SLAB CONSTRUCTION JOINT



TRANSVERSE SLAB CONSTRUCTION JOINT

NOTES:

1. ROADWAY SLAB SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING SLAB CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS.
2. WEIGHT OF STRUCTURAL STEEL SHOWN ON THIS SHEET INCLUDES: BEAMS, DIAPHRAGMS, SPLICES, SHEAR STUDS, BEARINGS, WELDS AND BOLT HARDWARE.
3. QUANTITY OF STRUCTURAL STEEL SHOWN ON THIS SHEET IS TABULATED FOR BENT PLATE DIAPHRAGM OPTION. PAYMENT FOR STRUCTURAL STEEL WILL BE BASED ON THE QUANTITIES SHOWN. THE CONTRACTOR MAY CHOOSE TO PROVIDE ROLLED CHANNEL DIAPHRAGMS AT NO ADDITIONAL COST.
4. QUANTITY OF STRUCTURAL STEEL SHOWN ON THIS SHEET IS BASED ON THE USE OF 5" HIGH SHEAR STUDS. CONTRACTOR WILL BE PAID ON AMOUNT SHOWN, BUT IS REQUIRED TO ADJUST HEIGHT OF STUDS AS REQUIRED PER "BEAM PLAN AND ELEVATION" SHEET.

CONCRETE PLACEMENT QTYS. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
SLAB, AND ABUT DIAPHRAGM, SECTION 1 & 3	CY	119.4	129.5	142.2	154.3	164.3	176.5	186.4	196.5	206.6	219.8
SLAB, SECTION 2	CY	42.1	47.4	52.7	58.0	63.2	68.7	74.0	79.2	84.5	89.8
SLAB, SECTION 4 & 5	CY	56.1	63.2	70.2	77.3	84.3	91.6	98.6	105.7	112.7	119.8
ABUTMENT WINGS	CY	7.2	7.2	7.2	7.6	7.6	7.6	7.6	7.6	7.6	13.9
ABUTMENT FOOTINGS	CY	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	40.4	48.2
TOTAL	CY	265.2	287.7	312.7	337.6	359.8	384.8	407.0	429.4	451.8	491.5

ESTIMATED QTYS. (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
NO. OF STEEL H-PILES FOR TWO ABUTMENTS (HP 10 X 57)	NO.	16	16	18	18	18	20	20	20	20	26
STRUCTURAL CONCRETE, (BRIDGE)	CY	265.2	287.7	312.7	337.6	359.8	384.8	407.0	429.4	451.8	491.5
REINFORCING STEEL EPOXY COATED	LB	74,707	81,930	89,546	96,904	104,427	111,660	119,217	126,448	133,948	144,462
BARRIER RAILS	LF	354.9	394.9	434.9	474.9	514.9	554.9	594.9	634.9	674.9	734.0
STRUCTURAL STEEL	LB	118,397	155,504	189,946	233,533	294,184	335,181	388,962	470,243	521,573	574,238

SPAN LENGTHS			
BRIDGE LENGTH	SPAN 1	SPAN 2	SPAN 3
160'-0	48'-0	64'-0	48'-0
180'-0	54'-0	72'-0	54'-0
200'-0	60'-0	80'-0	60'-0
220'-0	66'-0	88'-0	66'-0
240'-0	72'-0	96'-0	72'-0
260'-0	78'-0	104'-0	78'-0
280'-0	84'-0	112'-0	84'-0
300'-0	90'-0	120'-0	90'-0
320'-0	96'-0	128'-0	96'-0
340'-0	102'-0	136'-0	102'-0

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 40' ROADWAY, 3 SPAN BRIDGES

ROLLED STEEL BEAM BRIDGES

JUNE, 2010

SUPERSTRUCTURE QUANTITIES 30° SKEW

RS40-034-10