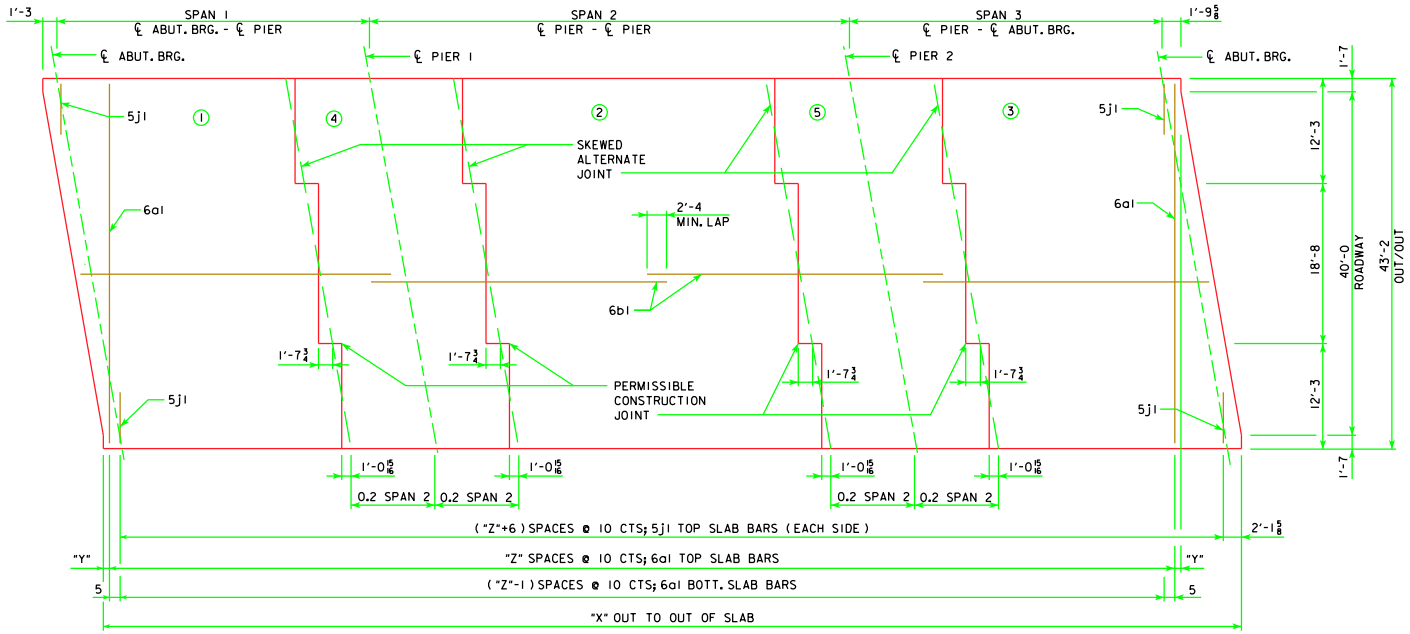
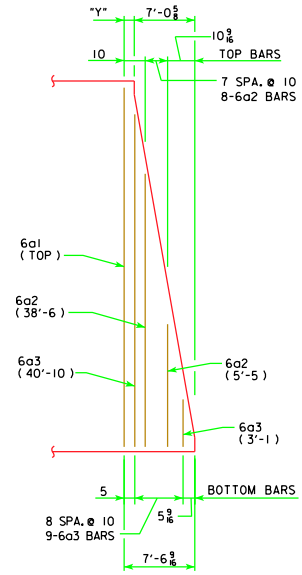




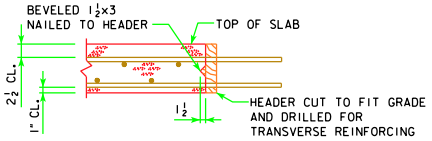
END OF SLAB REINFORCING

(TYPICAL EACH END OF DECK)

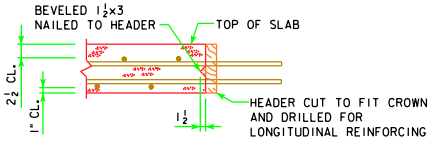
REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0	320'-0	340'-0
X (FT.-IN.)	163'-0 5/8	183'-0 5/8	203'-0 5/8	223'-0 5/8	243'-0 5/8	263'-0 5/8	283'-0 5/8	303'-0 5/8	323'-0 5/8	343'-0 5/8
Y (IN.)	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16
Z (SPACES)	186	210	234	258	282	306	330	354	378	402

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	114.4	124.4	136.7	148.5	158.5	170.3	180.3	190.3	200.4	213.1
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	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	43.3
TOTAL	CY	255.3	277.7	302.3	326.9	349.1	373.7	396.0	418.3	440.7	479.9

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) AND DESIGN BEARING REQUIRED PER PILE	NO.	16	16	16	18	18	18	20	20	20	24
STRUCTURAL CONCRETE, (BRIDGE)	CY	255.3	277.7	302.3	326.9	349.1	373.7	396.0	418.3	440.7	479.9
REINFORCING STEEL EPOXY COATED	LB	73,973	81,196	88,839	96,125	103,648	110,996	118,789	126,020	133,520	143,791
BARRIER RAILS	LF	354.1	394.1	434.1	474.1	514.1	554.1	594.1	634.1	674.1	734.0
STRUCTURAL STEEL	LB	117,875	154,982	189,424	232,973	293,628	334,620	388,402	469,683	521,018	573,678

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 10° SKEW

RS40-032-10