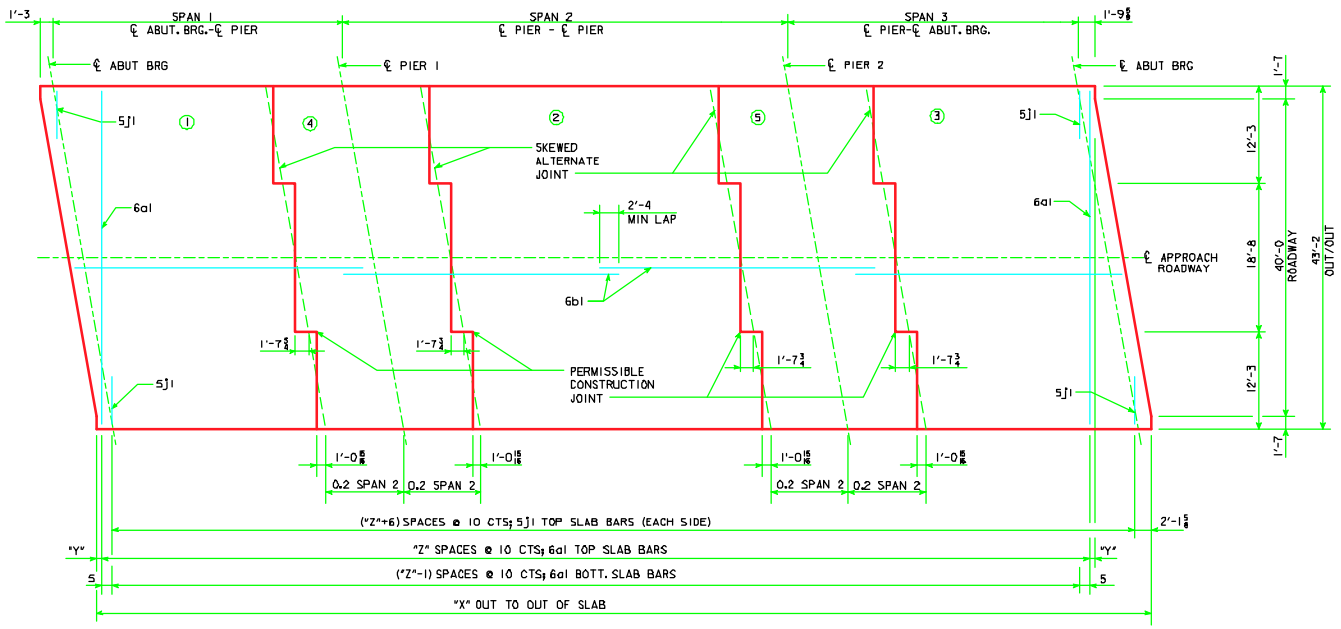
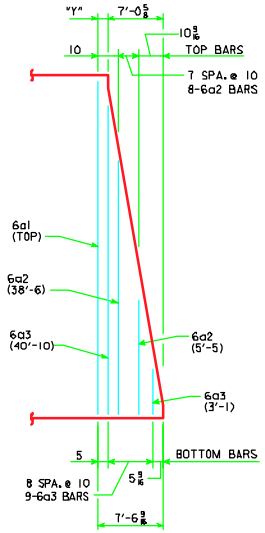




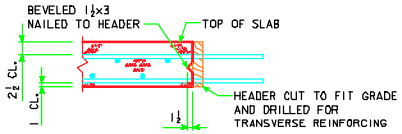
END OF SLAB REINFORCING

(TYPICAL EACH END OF DECK)

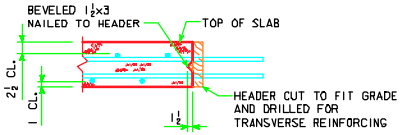
REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
X (FT-IN)	163'-0 5/8	183'-0 5/8	203'-0 5/8	223'-0 5/8	243'-0 5/8	263' 0 5/8	283' 0 5/8	303'-0 5/8
Y (IN)	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16	5 15/16
Z (SPACES)	186	210	234	258	282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

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 QUANTITIES (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
SLAB, AND ABUT DIAPHRAGM, SECTION 1 & 3	CY	114.2	124.2	136.4	146.3	158.1	170.2	179.9	189.9
SLAB, SECTION 2	CY	42.1	47.4	52.7	57.9	63.2	68.5	74.0	79.2
SLAB, SECTION 4 & 5	CY	56.1	63.2	70.2	77.3	84.3	91.3	98.6	105.7
ABUTMENT WINGS	CY	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
ABUTMENT FOOTINGS	CY	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
TOTAL	CY	254.8	277.2	301.7	323.9	348.0	372.4	394.9	417.2

ESTIMATED QUANTITIES (SUPERSTRUCTURE PLUS INTEGRAL ABUTMENTS)		160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
NO. OF STEEL H-PILES FOR TWO ABUTMENTS (HP 10 X 42) AND DESIGN BEARING REQUIRED PER PILE	NO.	14	14	16	16	16	16	18	18
STRUCTURAL CONCRETE, (BRIDGE)	CY	254.8	277.2	301.7	323.9	348.0	372.4	394.9	417.2
REINFORCING STEEL EPOXY COATED	LB	69,749	76,972	84,559	91,868	99,480	106,682	114,105	121,335
REINFORCING STEEL	LB	3554	3568	3628	3697	3697	3710	3728	3728
BARRIER RAIL (2)	LF	354.1	394.1	434.1	474.1	514.1	554.1	594.1	634.1
STRUCTURAL STEEL	LB	112,837	146,317	177,989	212,333	256,143	307,727	358,457	411,372

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

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

SUPERSTRUCTURE QUANTITIES 10° SKEW

RS40-SA2-04