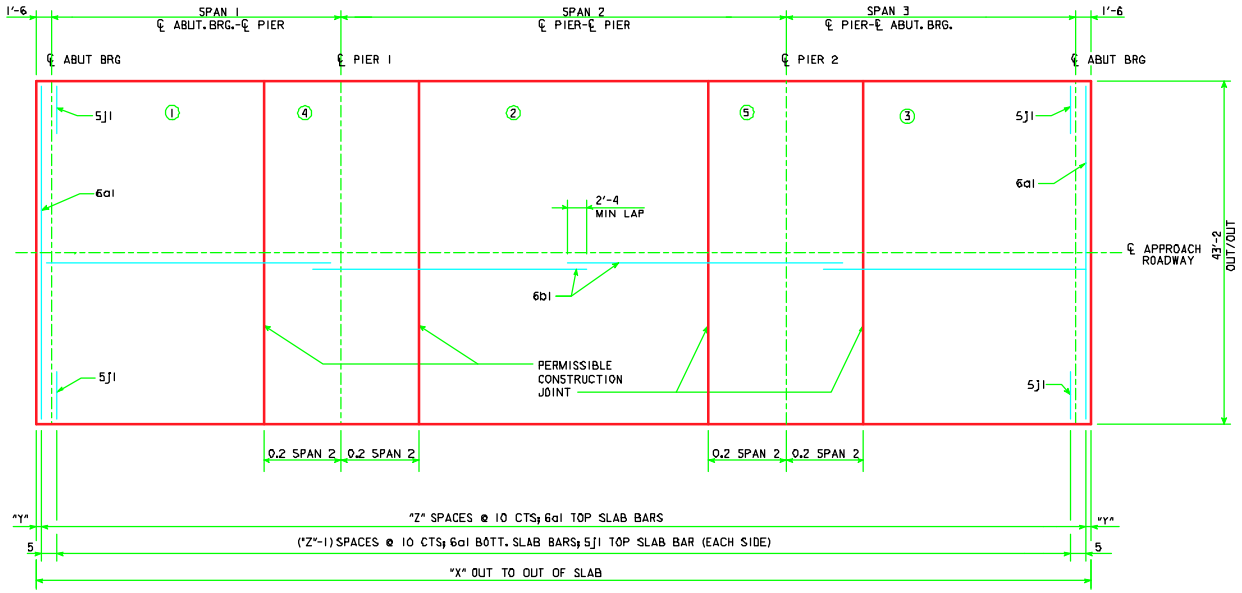


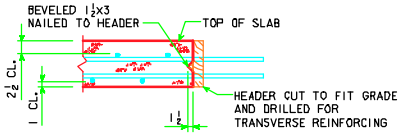
REINFORCEMENT DIMENSIONS ℄-℄ ABUTMENT BEARINGS	160'-0	180'-0	200'-0	220'-0	240'-0	260'-0	280'-0	300'-0
X (FT-IN)	163'-0	183'-0	203'-0	223'-0	243'-0	263'-0	283'-0	303'-0
Y (IN)	3	3	3	3	3	3	3	3
Z (SPACES)	195	219	243	267	291	315	339	363

CONCRETE PLACEMENT DIAGRAM SHOWING SLAB REINFORCING

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	113.7	123.7	135.9	145.7	157.5	169.6	179.3	189.3
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	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
TOTAL	CY	253.8	276.2	300.7	322.8	346.9	371.3	393.8	416.1

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)	NO.	14	14	16	16	16	16	18	18
STRUCTURAL CONCRETE, (BRIDGE)	CY	253.8	276.2	300.7	322.8	346.9	371.3	393.8	416.1
REINFORCING STEEL EPOXY COATED	LB	69,800	77,023	84,610	91,920	99,446	106,733	114,157	121,388
REINFORCING STEEL	LB	3532	3546	3606	3675	3675	3688	3706	3706
BARRIER RAIL (2)	LF	354.0	394.0	434.0	474.0	514.0	554.0	594.0	634.0
STRUCTURAL STEEL	LB	112,779	146,259	177,931	212,275	256,080	307,664	358,395	411,310

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



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.

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 0° SKEW

RS40-SA1-04