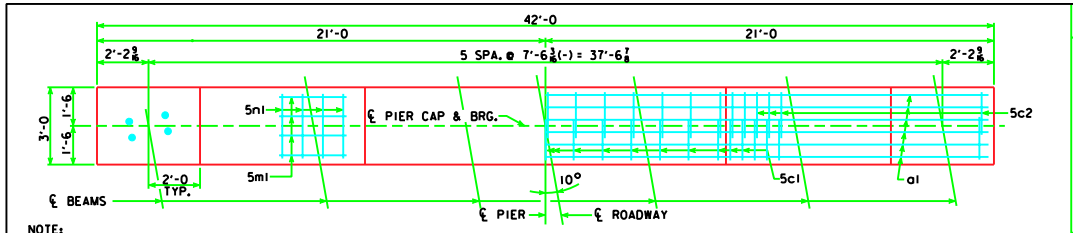
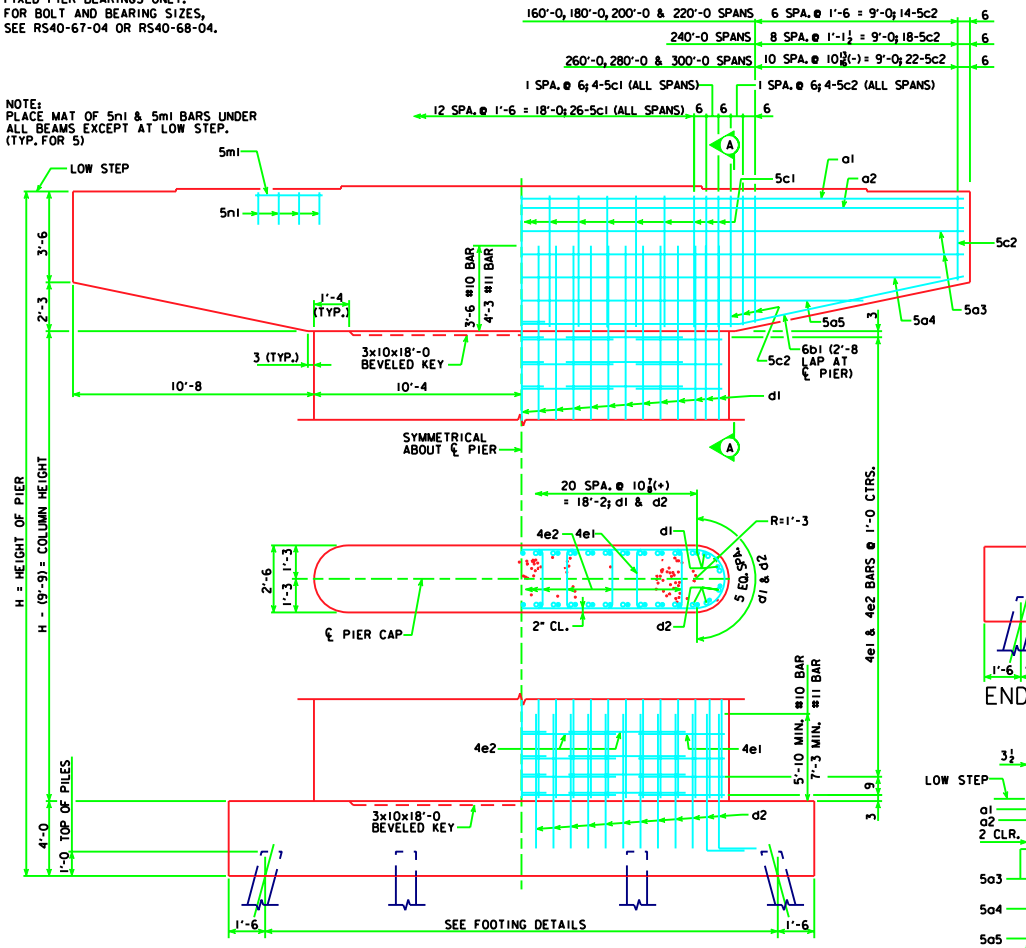


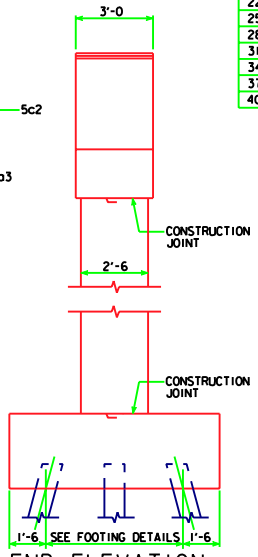
PIER CAP PLAN

NOTE:
ANCHOR BOLTS REQUIRED FOR FIXED PIER BEARINGS ONLY.
FOR BOLT AND BEARING SIZES, SEE RS40-67-04 OR RS40-68-04.

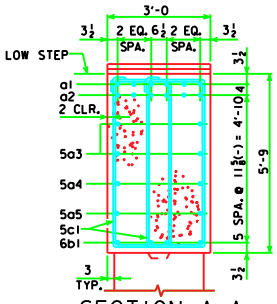


PIER ELEVATION

STEP NOTE:
THE HEIGHT OF THE STEPS ON THE BRIDGE SEAT IS EQUAL TO THE DIFFERENCE IN ELEVATIONS OF THE TOP OF SLAB AT ADJACENT BEAMS ALONG ℄ PIER.



END ELEVATION



SECTION A-A

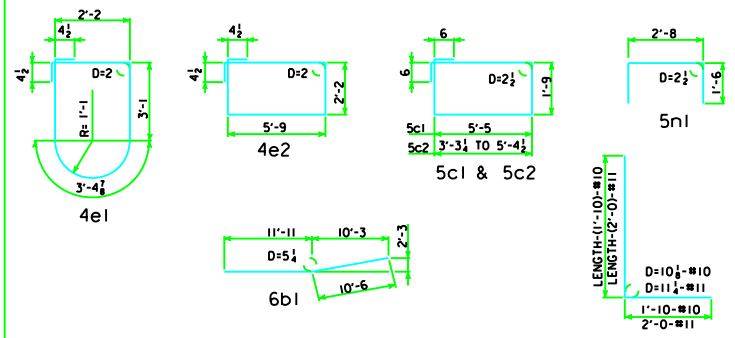
ONE CAP

		℄-℄ ABUT. BEARINGS	160'-0			180'-0			200'-0			220'-0			240'-0			260'-0			280'-0			300'-0		
	BAR	LENGTH	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT	NO.	SIZE	WEIGHT
REINFORCING STEEL	a1	41'-8	6	8	668	6	9	850	6	9	850	6	9	850	6	10	1076	6	10	1076	6	10	1076	6	11	1328
	a2	41'-8	6	8	668	6	8	668	6	8	668	6	9	850	6	9	850	6	9	850	6	10	1076	6	10	1076
	a3	41'-8	4	5	174	4	5	174	4	5	174	4	5	174	4	5	174	4	5	174	4	5	174	4	5	174
	a4	40'-0	2	5	83	2	5	83	2	5	83	2	5	83	2	5	83	2	5	83	2	5	83	2	5	83
	a5	31'-0	2	5	65	2	5	65	2	5	65	2	5	65	2	5	65	2	5	65	2	5	65	2	5	65
	b1	22'-5	8	6	269	8	6	269	8	6	269	8	6	269	8	6	269	8	6	269	8	6	269	8	6	269
	c1	15'-4	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544	34	5	544
	c2	VARIES	36	5	506	36	5	506	36	5	506	36	5	506	44	5	615	52	5	723	52	5	723	52	5	723
	n1	5'-8	20	5	118	20	5	118	20	5	118	20	5	118	20	5	118	20	5	118	20	5	118	20	5	118
	m1	2'-10	20	5	59	20	5	59	20	5	59	20	5	59	20	5	59	20	5	59	20	5	59	20	5	59
	TOTAL LB.				3154			3336			3336			3518			3853			3961			4187			4439
STRUCTURAL CONCRETE (C.Y.)			25.1			25.1			25.1			25.1			25.1			25.1			25.1			25.1		

ONE COLUMN

H IN FEET	COLUMN HEIGHT	STRUCTURAL CONCRETE C.Y.	REINFORCING STEEL: d1 BAR NO.	SIZE	LENGTH	WEIGHT	d2 BAR NO.	SIZE	LENGTH	WEIGHT	4e1 BAR NO.	SIZE	LENGTH	WEIGHT	4e2 BAR NO.	SIZE	LENGTH	WEIGHT	TOTAL WEIGHT LB.
16	6'-3	11.7	-	-	-	-	50	10	14'-6	3120	14	4	12'-6	117	28	4	16'-7	310	3547
19	9'-3	17.2	-	-	-	-	50	10	17'-6	3765	20	4	12'-6	167	40	4	16'-7	443	4375
22	12'-3	22.8	50	10	15'-9	3389	50	10	10'-7	2277	26	4	12'-6	217	52	4	16'-7	576	6459
25	15'-3	28.4	50	10	18'-9	4044	50	10	10'-7	2277	32	4	12'-6	267	64	4	16'-7	709	7287
28	18'-3	34.0	50	11	22'-6	5977	50	11	12'-2	3232	38	4	12'-6	317	76	4	16'-7	842	10,368
31	21'-3	39.6	50	11	25'-6	6774	50	11	12'-2	3232	44	4	12'-6	367	88	4	16'-7	975	11,348
34	24'-3	45.2	50	11	28'-6	7571	50	11	12'-2	3232	50	4	12'-6	418	100	4	16'-7	1108	12,329
37	27'-3	50.8	50	11	31'-6	8368	50	11	12'-2	3232	56	4	12'-6	468	112	4	16'-7	1241	13,309
40	30'-3	56.4	50	11	34'-6	9165	50	11	12'-2	3232	62	4	12'-6	518	124	4	16'-7	1374	14,289

BENT BAR DETAILS



NOTE: DIMENSIONS ARE OUT TO OUT. D = PIN DIAMETER.

NOTE:
CAP STRUCTURAL CONCRETE QUANTITIES BASED ON 1¾ INCH STEP HEIGHT.

07-06
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

T PIER 10° SKEW
CAP & COLUMN DETAILS

RS40-09-04

REVISION - 07-06 - KEYWAY SIZE CHANGED.