

REINFORCING STEEL-TWO OPEN RAILS

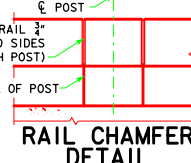
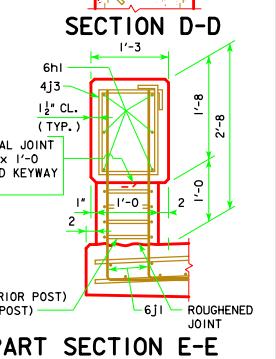
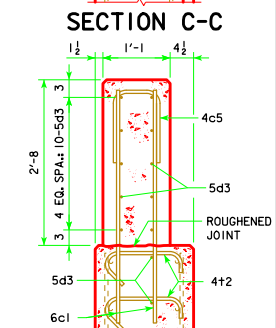
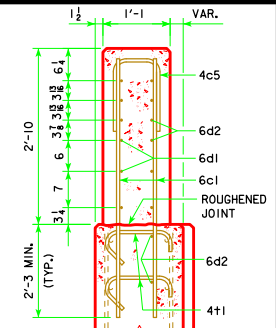
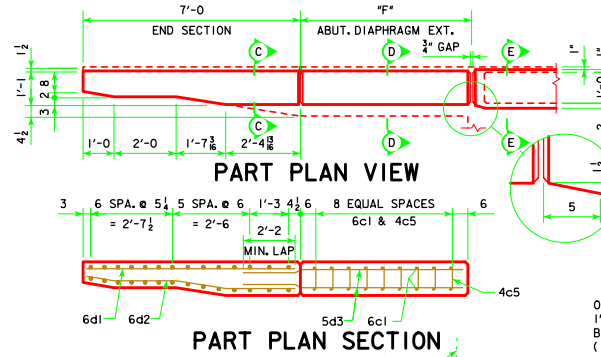
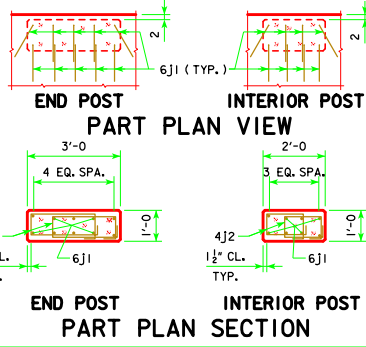
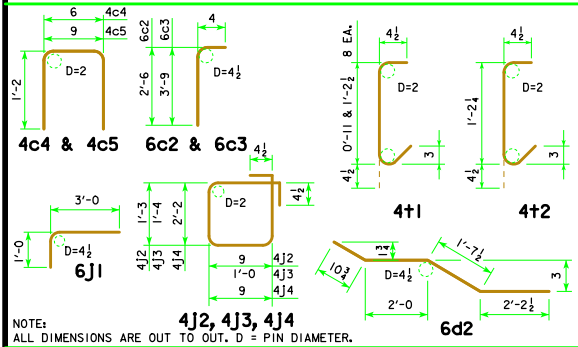
(NOTE: THESE REINFORCING BARS TO BE USED ON ALL SKEWS)

BRIDGE LENGTH			46'-8		55'-0		67'-6		80'-0		90'-0		100'-0		110'-0			
BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	NO.	LENGTH	WEIGHT	
6c1	VERTICAL, END SECTION & ABUT. DIAPH. EXT.		96	4'-11	709	96	4'-11	709	96	4'-11	709	168	4'-11	1,241	168	4'-11	1,241	
6c2	VERTICAL, END SECTION		16	2'-10	68	16	2'-10	68	16	2'-10	68	16	2'-10	68	16	2'-10	68	
6c3	VERTICAL, END SECTION		16	4'-1	98	16	4'-1	98	16	4'-1	98	16	4'-1	98	16	4'-1	98	
4c4	VERTICAL HOOPS, END SECTION		20	2'-10	38	20	2'-10	38	20	2'-10	38	20	2'-10	38	20	2'-10	38	
4c5	VERT. HOOPS, END SEC. & ABUT. DIAPH. EXT.		16	3'-1	33	16	3'-1	33	16	3'-1	33	52	3'-1	107	52	3'-1	107	
6d1	HORIZONTAL, END SECTION-BACK FACE		24	6'-8	240	24	6'-8	240	24	6'-8	240	24	6'-8	240	24	6'-8	240	
6d2	HORIZONTAL, END SECTION-TRAFFIC FACE		32	6'-9	324	32	6'-9	324	32	6'-9	324	32	6'-9	324	32	6'-9	324	
5d3	HORIZONTAL, ABUT. DIAPH. EXT.-BOTH FACES		—	—	—	—	—	—	—	—	—	48	7'-2	359	48	7'-2	359	
6h1	LONGITUDINAL, OPEN RAIL		24	26'-6	955	24	30'-8	1,106	24	36'-11	1,331	36	29'-10	1,613	36	33'-2	1,793	
6j1	VERTICAL DOWELS, OPEN RAIL		120	4'-0	721	136	4'-0	818	168	4'-0	1,009	184	4'-0	1,105	216	4'-0	1,298	
4j2	HOOP, INTERIOR POST		80	4'-9	254	96	4'-9	305	128	4'-9	406	144	4'-9	457	176	4'-9	558	
4j3	HOOP, OPEN RAIL		160	5'-5	579	186	5'-5	673	238	5'-5	861	264	5'-5	955	316	5'-5	1,143	
4j4	HOOP, END POST		32	6'-7	141	32	6'-7	141	32	6'-7	141	32	6'-7	141	32	6'-7	141	
4t1	WING FOOTING TIE BARS		16	VARIABLES	19	16	VARIABLES	19	16	VARIABLES	19	16	VARIABLES	19	16	VARIABLES	19	
4t2	WING FOOTING TIE BARS		—	—	—	—	—	—	—	—	—	40	7'-11	51	40	7'-11	51	
TOTAL LBS. (INCLUDE WITH SUPERSTRUCTURE REINFORCING)			4179			4572			5277			6816			7478			8322

NOTE: ALL BARRIER RAIL REINFORCEMENT TO BE EPOXY COATED IF EPOXY COATING OPTION IS USED.

* TRAFFIC FACE 5d3 BARS MAY REQUIRE FIELD CUTTING OR BENDING FOR HIGHER SKEW BRIDGES.

BENT BAR DETAILS



CONCRETE PLACEMENT SUMMARY - C.Y.

BRIDGE LENGTH	46'-8	55'-0	67'-6	80'-0	90'-0	100'-0	110'-0
OPEN RAIL SECTION	2 @ 0.077 CU. YDS. PER FT.	7.8	9.0	10.9	12.9	14.4	17.5
OPEN RAIL-END SECTION	4 @ 0.687 CU. YDS.	2.7	2.7	2.7	2.7	2.7	2.7
OPEN RAIL-ABUT. DIAPH. SECTION	4 @ 0.107 CU. YDS. PER FT.	—	—	—	1.9	1.9	1.9
OPEN RAIL-END POSTS	4 @ 0.11 CU. YDS.	0.4	0.4	0.4	0.4	0.4	0.4
OPEN RAIL-INTERIOR POSTS	2 x "E" @ 0.07 CU. YDS.	0.7	0.8	1.1	1.3	1.5	1.8
TOTAL (C.Y.)		11.6	12.9	15.1	19.2	22.6	24.3

CONCRETE QUANTITIES SHOWN ARE BASED ON 30° SKEW.

OPEN CONCRETE RAIL, TL-4 QUANTITIES - L.F.

BRIDGE LENGTH	46'-8	55'-0	67'-6	80'-0	90'-0	100'-0	110'-0
OPEN CONCRETE RAILING, TL-4 0° SKEW	127.3	144.0	169.0	214.0	234.0	254.0	274.0
OPEN CONCRETE RAILING, TL-4 15° SKEW	127.5	144.2	169.2	214.2	234.2	254.2	274.2
OPEN CONCRETE RAILING, TL-4 30° SKEW	128.3	144.9	169.9	214.9	234.9	254.9	274.9

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Thomas E. M. [Signature]

STANDARD DESIGN - 30' ROADWAY, SINGLE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

APRIL, 2012

OPEN RAIL, TL-4 DETAILS H30SI-35-12

SHEET 2 OF 2