TABLE OF OPEN RAIL DIMENSIONS AND NUMBERS

℄-℄ ABUT. BRG		138'-10			151'-4			163'-10			176'-4			188'-10			℄-℄ ABUT. BRG	
SKEW		0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	SKEW	
DIMENSION OR NUMBER	L (FT.-IN.)	155'-10	155'-11¼	156'-3⅜	168'-4	168'-5¼	168'-9⅝	180'-10	180'-11¼	181'-3⅜	193'-4	193'-5¼	193'-9⅝	205'-10	205'-11¼	206'-3⅜	L (FT.-IN.)	DIMENSION OR NUMBER
	S (FT.-IN.)	141'-10	141'-11¼	142'-3⅜	154'-4	154'-5¼	154'-9⅝	166'-10	166'-11¼	167'-3⅜	179'-4	179'-5¼	179'-9⅝	191'-10	191'-11¼	192'-3⅜	S (FT.-IN.)	
	B	18	18	18	19	19	19	21	21	21	23	23	23	24	24	24	B	
	C (FT.-IN.)	7'-7⅞	7'-8	7'-8¼	7'-11	7'-11	7'-11¼	7'-9	7'-9⅛	7'-9⅜	7'-7½	7'-7½	7'-7¾	7'-9⅞	7'-10	7'-10⅛	C (FT.-IN.)	
	D (FT.-IN.)	137'-10	137'-11¼	138'-3⅜	150'-4	150'-5¼	150'-9⅝	162'-10	162'-11¼	163'-3⅜	175'-4	175'-5¼	175'-9⅝	187'-10	187'-11¼	188'-3⅜	D (FT.-IN.)	
	E	17	17	17	18	18	18	20	20	20	22	22	22	23	23	23	E	
	F (FT.-IN.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	F (FT.-IN.)	

TABLE OF OPEN RAIL DIMENSIONS AND NUMBERS

℄-℄ ABUT. BRG		201'-4			213'-10			226'-4			243'-0			℄-℄ ABUT. BRG	
SKEW		0°	15°	30°	0°	15°	30°	0°	15°	30°	0°	15°	30°	SKEW	
DIMENSION OR NUMBER	L (FT.-IN.)	228'-4	228'-4	228'-4	240'-10	240'-10	240'-10	253'-4	253'-4	253'-4	270'-0	270'-0	270'-0	L (FT.-IN.)	DIMENSION OR NUMBER
	S (FT.-IN.)	204'-4	204'-5¼	204'-9⅝	216'-10	216'-11¼	217'-3⅜	229'-4	229'-5¼	229'-9⅝	246'-0	246'-1¼	246'-5⅝	S (FT.-IN.)	
	B	26	26	26	27	27	27	29	29	29	31	31	31	B	
	C (FT.-IN.)	7'-8½	7'-8½	7'-8⅝	7'-10⅝	7'-10⅝	7'-10¾	7'-9¼	7'-9¼	7'-9⅜	7'-9⅜	7'-9¾	7'-9⅞	C (FT.-IN.)	
	D (FT.-IN.)	200'-4	200'-5¼	200'-9⅝	212'-10	212'-11¼	213'-3⅜	225'-4	225'-5¼	225'-9⅝	242'-0	242'-1¼	242'-5⅝	D (FT.-IN.)	
	E	25	25	25	26	26	26	28	28	28	30	30	30	E	
	F (FT.-IN.)	5'-0	4'-11⅜	4'-9¼	5'-0	4'-11⅜	4'-9¼	5'-0	4'-11⅜	4'-9¼	5'-0	4'-11⅜	4'-9¼	F (FT.-IN.)	

OPEN RAIL NOTES:

CONSTRUCTION JOINT BETWEEN TOP OF WING AND RAIL IS ROUGHENED CONCRETE.

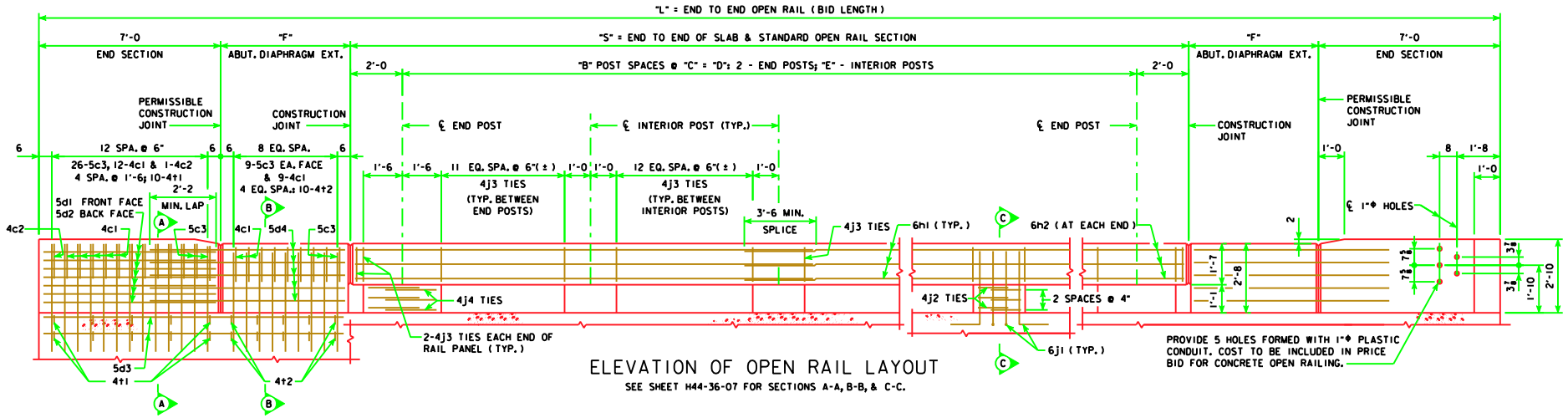
MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE CONCRETE OPEN RAIL IS TO BE BID ON A LINEAL FOOT BASIS MEASURED FROM END TO END OF RAIL. THE NUMBER OF LINEAL FEET OF OPEN RAIL INSTALLED WILL BE PAID FOR AT THE CONTRACT PRICE PER LINEAL FOOT. PRICE BID FOR "CONCRETE OPEN RAILING, TL-4" SHALL BE FULL COMPENSATION FOR FURNISHING ALL MATERIAL, EXCLUDING REINFORCING STEEL, AND ALL OF THE EQUIPMENT AND LABOR REQUIRED TO CONSTRUCT THE RAIL IN ACCORDANCE WITH THESE PLANS AND CURRENT SPECIFICATIONS.

ALL OPEN RAIL REINFORCING STEEL IS TO BE INCLUDED WITH THE SUPERSTRUCTURE REINFORCING STEEL.

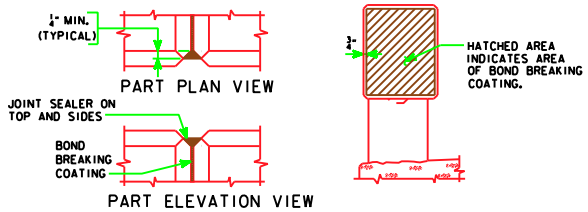
THE CAST-IN-PLACE OPEN RAIL SHALL USE CLASS C MIX. CLASS D CONCRETE IS NOT PERMITTED.

IF CONDUIT IS REQUIRED IN THIS PLAN THE RIGID STEEL CONDUIT, JUNCTION BOXES AND FITTINGS INCLUDING LABOR AND ANY ADDITIONAL WORK TO DO THE INSTALLATION IS CONSIDERED INCIDENTAL TO THE COST OF THE RAILING.



ELEVATION OF OPEN RAIL LAYOUT

SEE SHEET H44-36-07 FOR SECTIONS A-A, B-B, & C-C.



OPEN RAIL JOINT DETAILS

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Iowa Department of Transportation
Highway Division

STANDARD DESIGN - 44' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE MARCH, 2007 HS25 SUBSTRUCTURE

OPEN RAIL, TL-4 DETAILS
SHEET 1 OF 2

H44-35-07