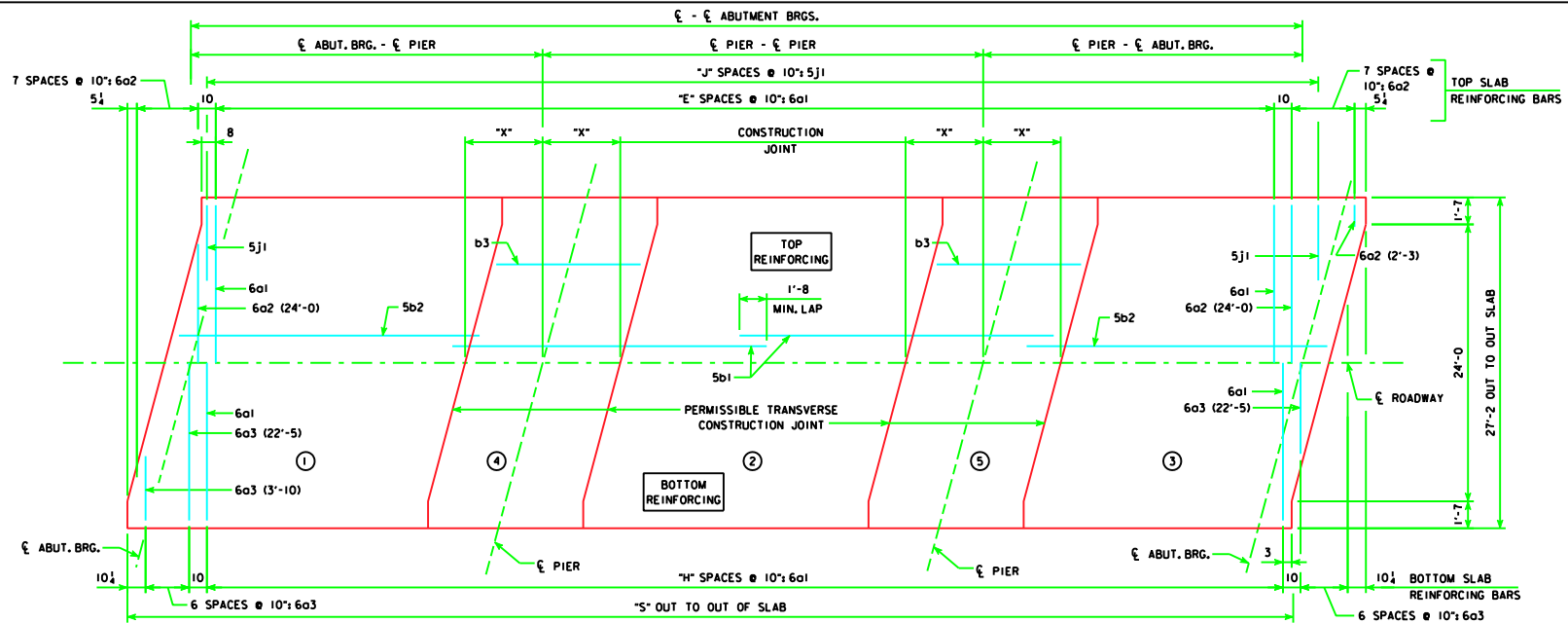




GENERAL DATA		ℓ-ℓ ABUT. BRG.	138'-10"	151'-4"	163'-10"	176'-4"	188'-10"	201'-4"	213'-10"	226'-4"	243'-0"
VERTICAL	TOP OF SLAB TO ABUT. CONSTR. JT. AT C.L. ABUT. BRG.	"U"	3'-8"	3'-7"	4'-2"	4'-2"	4'-2"	4'-8"	4'-8"	4'-9"	4'-9"
CURVE	TOP OF SLAB TO PIER TOP AT C.L. PIER*	"U"	3'-6"	3'-6"	4'-1"	4'-1"	4'-1"	4'-7"	4'-7"	4'-7"	4'-7"
STRAIGHT	TOP OF SLAB TO ABUT. CONSTR. JT. AT C.L. ABUT. BRG.	"U"	3'-8"	3'-7"	4'-2"	4'-2"	4'-3"	4'-8"	4'-8"	4'-9"	4'-9"
GRADE	TOP OF SLAB TO PIER TOP AT C.L. PIER*	"U"	3'-6"	3'-6"	4'-1"	4'-1"	4'-2"	4'-7"	4'-7"	4'-8"	4'-8"
D.L. PIER REACTION (D.L. + F.W.S.)		KIPS	295.3	318.9	363.5	388.4	413.4	493.2	521.1	549.2	576.4
L.L. PIER REACTION (HS25-44) NO IMPACT		KIPS	169.0	170.6	171.9	179.5	187.5	195.5	203.4	211.4	221.0
NO. OF SPACES FOR 6a1 BARS (TOP)		"E"	161	176	191	206	221	236	251	266	286
NO. OF SPACES FOR 6a1 BARS (BOTTOM)		"H"	162	177	192	207	222	237	252	267	287
NO. OF SPACES FOR 5j1 BARS (TOP)		"J"	167	182	197	212	227	242	257	272	292
OUT TO OUT OF SLAB		"S"	141'-11"	154'-5"	166'-11"	179'-5"	191'-11"	204'-5"	216'-11"	229'-5"	246'-11"
SLAB TRANSVERSE CONSTR. JT. DISTANCE FROM C.L. PIER		"X"	6'-7"	7'-1"	7'-7"	8'-1"	8'-8"	9'-2"	9'-8"	10'-2"	10'-2"

CONCRETE PLACEMENT QUANT.		ℓ-ℓ ABUT. BRG.	138'-10"	151'-4"	163'-10"	176'-4"	188'-10"	201'-4"	213'-10"	226'-4"	243'-0"
SLAB INCL. HAUNCH, ABUT. DIAPHR., & WINGWALLS** , SECT. 1 & 3	C.Y.		76.9	82.2	90.8	96.1	101.5	114.5	120.0	125.6	138.0
SLAB INCLUDING HAUNCH, SECTION 2	C.Y.		28.4	30.7	33.0	35.3	37.5	39.9	42.1	44.5	44.5
SLAB INCLUDING HAUNCH & PIER DIAPHRAGM, SECTIONS 4 & 5	C.Y.		30.9	32.5	36.2	37.8	39.6	42.4	43.9	45.5	45.5
ABUTMENT WINGS	C.Y.		7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
ABUTMENT FOOTINGS (w/ WOOD PILES)	C.Y.	***	21.4	21.2	21.1	21.1	21.1	-----	-----	-----	-----
ABUTMENT FOOTINGS (w/ STEEL H PILES)	C.Y.	***	22.4	22.4	22.4	22.4	22.4	30.2	30.2	30.2	30.2

ESTIMATED QUANTITIES		ℓ-ℓ ABUT. BRG.	138'-10"	151'-4"	163'-10"	176'-4"	188'-10"	201'-4"	213'-10"	226'-4"	243'-0"
STRUCTURAL CONCRETE SUPERSTRUCTURE (INCLUDES ABUT. WINGS)	C.Y.		143.4	152.6	167.2	176.4	185.8	204.0	213.2	222.8	235.2
STRUCTURAL CONCRETE ABUTMENTS (w/ WOOD PILES) ***	C.Y.		21.4	21.2	21.1	21.1	21.1	-----	-----	-----	-----
STRUCTURAL CONCRETE ABUTMENTS (w/ STEEL H PILES) ***	C.Y.		22.4	22.4	22.4	22.4	22.4	30.2	30.2	30.2	30.2
PRETENSIONED PRESTRESSED CONCRETE BEAM, CENTER SPAN	NO.		4-A50	4-A55	4-B59	4-B63	4-B67	4-C71	4-C75	4-C80	4-C80
PRETENSIONED PRESTRESSED CONCRETE BEAM, END SPAN	NO.		8-A42	8-A46	8-B50	8-B55	8-B59	8-C63	8-C67	8-C71	8-C80
CONCRETE RAIL	L.F.		311.9	336.9	361.9	386.9	411.9	456.7	481.7	506.7	540.0
STRUCTURAL STEEL (w/ PILE BENT PIERS)	L.B.		2555	2555	2555	2555	2555	2498	2498	2498	2498
STRUCTURAL STEEL (w/ TEE PIERS)	L.B.		3272	3272	3272	3272	3272	3344	3344	3344	3344
REINFORCING STEEL (w/ WOOD PILES)	L.B.		42,239	45,134	48,488	51,883	54,713	-----	-----	-----	-----
REINFORCING STEEL (w/ STEEL H PILES)	L.B.		42,237	45,131	48,381	51,776	54,606	60,713	64,127	67,211	71,036
NO. OF WOOD PILES, TREATED FOR TWO ABUTMENTS	NO.		18	20	22	22	22	-----	-----	-----	-----
NO. OF STEEL H-PILES (HP 10 x 57) FOR TWO ABUTMENTS	NO.		8	10	10	10	10	14	16	16	16
PREBORED HOLES (w/ WOOD PILES)	L.F.		180	200	220	220	220	-----	-----	-----	-----
PREBORED HOLES (w/ STEEL H-PILES)	L.F.		80	100	100	100	100	140	160	160	160

* VALUES SHOWN ARE FOR FIXED PIERS ONLY AND ALLOW FOR 1/4 INCH DEFLECTION OF THE 1 INCH NEOPRENE BEARING PAD. AT EXPANSION PIER LOCATIONS ADD 3/8 INCHES TO "U" VALUES SHOWN.

** WINGWALLS APPLY ONLY TO BRIDGES USING "C" BEAMS.

*** SEE SHEET H24-17-06 FOR ADDITIONAL CONCRETE REQUIRED IN ABUTMENT FOOTINGS.

LATEST REVISION DATE

APPROVED BY BRIDGE ENGINEER

Thomas L. McQuinn

STANDARD DESIGN - 24' ROADWAY, THREE SPAN BRIDGE

PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES

HL93 SUPERSTRUCTURE DECEMBER, 2006 HS25 SUBSTRUCTURE

SUPERSTRUCTURE DETAILS

15° SKEW

H24-15-06