

DESIGN DATA

CLASS AA CONCRETE $f'_c = 4$ KSI
 CLASS A CONCRETE $f'_c = 3$ KSI
 REINFORCING STEEL, $f_y = 60$ KSI
 AASHTO M31 (GRADE 60)
 STRUCTURAL STEEL, $f_y = 50$ KSI
 AASHTO M270 (GRADE 50W)

LOADING -
 HL-93
 20 PSF FUTURE WEARING SURFACE
 5 PSF STAY-IN-PLACE FORMS

DESIGN -
 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS,
 5TH EDITION WITH 2010 INTERIMS, EXCEPT
 AS MODIFIED BY CURRENT ODOT BRIDGE
 DIVISION POLICIES.
 ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
 LFD OPERATING RATING 37.3 BR. A

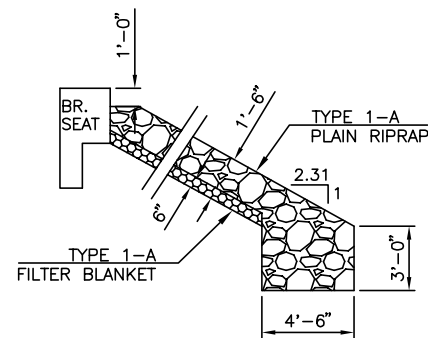
MAXIMUM FACTORED PILE LOADS:
 ABUTMENTS = 78.8 TONS/PILE (BR. A)

STEEL PILING

ALL PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO A POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE FACTORED PILE REACTION IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE FACTORED PILE REACTION IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

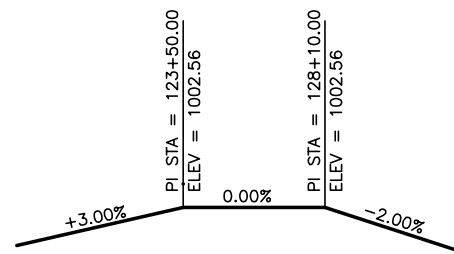
PIER NO. 1 & 2 (72" DIAMETER DRILLED SHAFTS)

FACTORED REACTION = 585 TONS/SHAFT PIER NO. 1
 = 598 TONS/SHAFT PIER NO. 2
 NOMINAL UNIT BEARING RESISTANCE = 52 T.S.F.
 BEARING RESISTANCE FACTOR = 0.70
 FACTORED BEARING RESISTANCE = 1029 TONS/SHAFT
 NOMINAL UNIT FRICTION = 8.25 T.S.F.
 FRICTION RESISTANCE FACTOR = 0.45
 FACTORED FRICTION RESISTANCE = 280.0 TONS/SHAFT
 DEPTH OF ROCK NEGLECTED FOR FRICTION = 6'-0"
 TOTAL RESISTANCE = 1309.0 TONS/SHAFT



RIPRAP TOE DETAIL

HYDRAULIC DATA	
D.A.	= 3.64 SQ. MI.
CONTROLLED D.A.	= 1.80 SQ. MI.
EFFECTIVE D.A.	= 1.84 SQ. MI.
Q2	= 303 CFS
V2	= 1.96 FPS
Q2 CHW	= 988.80 FT.
Q5	= 645 CFS
V5	= 2.10 FPS
Q5 CHW	= 991.40 FT.
Q10	= 989 CFS
V10	= 2.55 FPS
Q10 CHW	= 992.59 FT.
Q25	= 1570 CFS
V25	= 3.12 FPS
Q25 CHW	= 994.10 FT.
Q50	= 1970 CFS
V50	= 3.46 FPS
Q50 CHW	= 994.89 FT.
Q92	= 2415 CFS
V92	= 3.96 FPS
Q92 CHW	= 995.48 FT.
Q100	= 2500 CFS
V100	= 3.92 FPS
Q100 CHW	= 995.64 FT.
QOT = Q92	= 2415 CFS
VOT	= 4.19 FPS
OT ELEV.	= 997.22 FT.
MAX CALC. SCOUR:	Q100 6.05 FT. Q500 6.23 FT.



PROFILE GRADE DATA

31426(04)

SUMMARY OF BRIDGE QUANTITIES

0200 BRIDGE "A" 65'-105'-65' TYPE III & IV P.C. BEAM SPANS, 30° SKEW R.F. W/ TR3 RAILS

ITEM NO.	DESCRIPTION	UNIT	ABUTMENTS	SUPERSTRUCTURE	PIERS	TOTAL
501(B) 1307	SUBSTRUCTURE EXCAVATION COMMON	C.Y.	200.00	0.00	0.00	200.00
501(F) 6352	GRANULAR BACKFILL	C.Y.	88.00	0.00	0.00	88.00
503(A) 1312	PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.	0.00	388.00	0.00	388.00
503(A) 1313	PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.	0.00	314.00	0.00	314.00
504(B) 1305	SAW-CUT GROOVING	S.Y.	0.00	590.20	0.00	590.20
504(C) 6250	SEALED EXPANSION JOINT	L.F.	0.00	33.06	0.00	33.06
504(D) 6239	CONCRETE RAIL (TR3)	L.F.	62.80	489.90	0.00	552.70
506(A) 1322	STRUCTURAL STEEL	PS	0.00	1,330.00	0.00	1,330.00
507(A) 6172	WEATHERING STEEL FIXED BEARING ASSEMBLY	EA.	0.00	9.00	0.00	9.00
507(B) 6176	WEATHERING STEEL EXP. BEARING ASSEMBLY	EA.	0.00	9.00	0.00	9.00
509(A) 1326	CLASS AA CONCRETE	C.Y.	0.00	190.30	0.00	190.30
509(B) 1328	CLASS A CONCRETE	C.Y.	74.20	0.00	78.00	152.20
511(A) 1332	REINFORCING STEEL	LB.	10,440.00	51,050.00	10,720.00	72,210.00
514(A) 6010	PILES, FURNISHED (HP 10X42)	L.F.	282.00	0.00	0.00	282.00
514(A) 6011	PILES, FURNISHED (HP 12x53)	L.F.	681.00	0.00	0.00	681.00
514(B) 6292	PILES, DRIVEN (HP 10X42)	L.F.	282.00	0.00	0.00	282.00
514(B) 6294	PILES, DRIVEN (HP 12x53)	L.F.	681.00	0.00	0.00	681.00
514(L) 6220	PILES SPLICE, H-PILE (NON-BIDDABLE)	EA.	1.00	0.00	0.00	1.00
516(A) 6098	DRILLED SHAFTS 72" DIAMETER	L.F.	0.00	0.00	302.00	302.00
601(B) 1353	TYPE I-A PLAIN RIPRAP	TON	1,380.00	0.00	0.00	1,380.00
601(C) 1355	TYPE I-A FILTER BLANKET	TON	385.00	0.00	0.00	385.00
613(H) 6204	6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	60.00	0.00	0.00	60.00
613(I) 6207	6" NON-PERFORATED PIPE UNDERDRAIN ROUND	L.F.	80.00	0.00	0.00	80.00
619(D) 1397	REMOVAL OF EXISTING BRIDGE STRUCTURE	LSUM	0.00	0.00	0.00	1.00