

REV. NO.	DESCRIPTION	REVISIONS	DATE

LOAD AND RESISTANCE FACTOR DESIGN

DESIGN DATA

CLASS AA CONCRETE	f'c = 4,000 PSI
CLASS A CONCRETE	f'c = 3,000 PSI
P.C. BEAM TYPE III (65')	f'ci = 6,000 PSI
P.C. BEAM TYPE III (65')	f'c = 8,000 PSI
P.C. BEAM TYPE J (135')	f'ci = 7,000 PSI
P.C. BEAM TYPE J (135')	f'c = 10,000 PSI
REINFORCING STEEL	Fy = 60,000 PSI
STRUCTURAL STEEL M270 (GRADE 50W)	Fy = 50,000 PSI
STAINLESS STEEL A240 (AUSTENITIC STAINLESS STEEL TYPE 316)	Fy = 30,000 PSI

LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK AND 20 LB. PER SQ. FT. FUTURE WEARING SURFACE AND 5 P.S.F. STAY-IN-PLACE FORMS.

DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7th EDITION WITH INTERIMS
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL

LFD OPERATING RATING: HS 48.8

FOUNDATION DATA

ABUTMENTS (HP 12x53 PILING)

	ABUTMENT NO. 1	ABUTMENT NO. 2
FACTORED PILE REACTION ¹	= 67.0 TONS/PILE	= 98.0 TONS/PILE

PIERS (HP 14x73 PILING)

	PIER NO. 1	PIER NO. 2
FACTORED PILE REACTION ¹	= 110.0 TONS/PILE	= 127.0 TONS/PILE

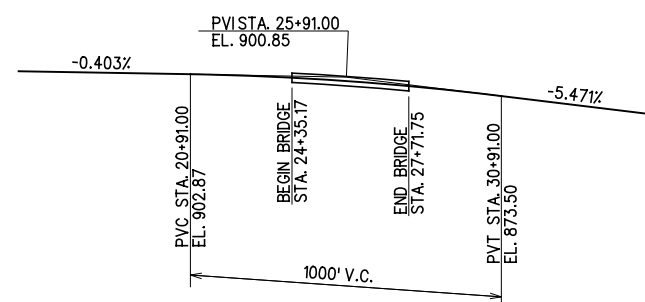
¹ ALL PILING SHALL BE DRIVEN THROUGH THE COMPACTED FILL. PILING SHALL BE DRIVEN TO POINT BEARING ON SOLID FOUNDATION MATERIAL AT THE APPROXIMATE ELEVATION SHOWN ON THE PLANS. IF THE REQUIRED FACTORED PILE CAPACITY IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE REQUIRED FACTORED PILE CAPACITY IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

SUMMARY OF QUANTITIES

ITEM	UNIT	ABUTS.	PIERS	SUPERSTR.	APPR.	SLP. WALL	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	206.0	395.0	---	---	---	601.0
CLSM BACKFILL	C.Y.	264.0	86.0	---	---	---	350.0
PRESTRESSED CONCRETE BEAMS (TYPE III)	L.F.	---	---	258.4	---	---	258.4
PRESTRESSED CONCRETE BEAMS (TYPE J BT)	L.F.	---	---	1,076.0	---	---	1,076.0
APPROACH SLAB	S.Y.	---	---	---	252.8	---	252.8
SAW-CUT GROOVING	S.Y.	---	---	1,196.5	231.1	---	1,427.6
SEALED EXPANSION JOINT	L.F.	---	---	33.0	---	---	33.0
42" F-SHAPED PARAPET	L.F.	---	---	673.0	130.0	---	803.0
STRUCTURAL STEEL	LB.	---	---	2,550.0	---	---	2,550.0
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	---	---	8.0	---	---	8.0
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	---	---	16.0	---	---	16.0
CLASS AA CONCRETE	C.Y.	---	---	349.6	---	---	349.6
CLASS A CONCRETE	C.Y.	120.6	192.6	---	---	---	313.2
SLOPE WALL (5")	S.Y.	---	---	---	---	797.0	797.0
REINFORCING STEEL	LB.	---	22,970.0	---	---	---	22,970.0
EPOXY COATED REINFORCING STEEL	LB.	16,150.0	23,830.0	112,460.0	---	---	152,440.0
PILES, FURNISHED (HP 10X42)	L.F.	582.0	---	---	---	---	582.0
PILES, FURNISHED (HP 12X53)	L.F.	1,485.0	---	---	---	---	1,485.0
PILES, FURNISHED (HP 14X73)	L.F.	---	1,152.0	---	---	---	1,152.0
PILES, DRIVEN (HP 10X42)	L.F.	582.0	---	---	---	---	582.0
PILES, DRIVEN (HP 12X53)	L.F.	1,485.0	---	---	---	---	1,485.0
PILES, DRIVEN (HP 14X73)	L.F.	---	1,152.0	---	---	---	1,152.0
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	---	---	---	---	---	1.0
WATER REPELLENT (VISUALLY INSPECTED)	S.Y.	112.0	286.0	1,570.0	65.0	---	2,033.0
SEALER CRACK PREPARATION	L.F.	---	---	32.0	---	---	32.0
SEALER RESIN	GAL.	---	---	0.4	---	---	0.4
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	68.0	---	---	---	92.0	160.0
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	75.0	---	---	---	26.0	101.0
REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	---	---	---	---	---	1.0

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PROFILE GRADE DATA

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6/27/2017

DESIGN		ROCK CRUSHER RD. OVER I-35	MURRAY COUNTY
DRAWN		BRIDGE "A"	
CHECKED		DESIGN DATA & SUMMARY OF QUANTITIES	
APPROVED		JOB PIECE NO. 30363(04)	SHEET NO. 44
SQUAD	G/K ENGR.		