

REVISIONS		
REV. NO.	DESCRIPTION	DATE

FOUNDATION DATA
ABUTMENTS (HP 12 X 53 PILING)

FACTORED PILE REACTION = 83.1 TONS/PILE

ALL ABUTMENT 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 AXIAL LOAD RESISTANCE IS NOT OBTAINED AT THIS ELEVATION, DRIVING SHALL CONTINUE UNTIL THE AXIAL LOAD RESISTANCE IS OBTAINED. THE LENGTH OF STEEL PILING SHOWN ON THE PLANS IS FOR ESTIMATING PURPOSES ONLY.

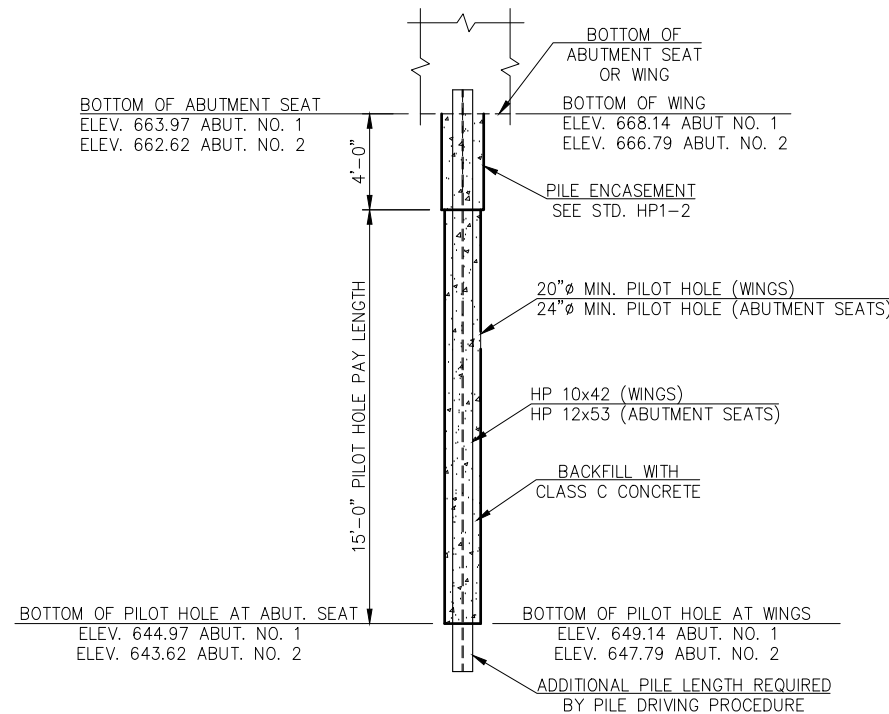
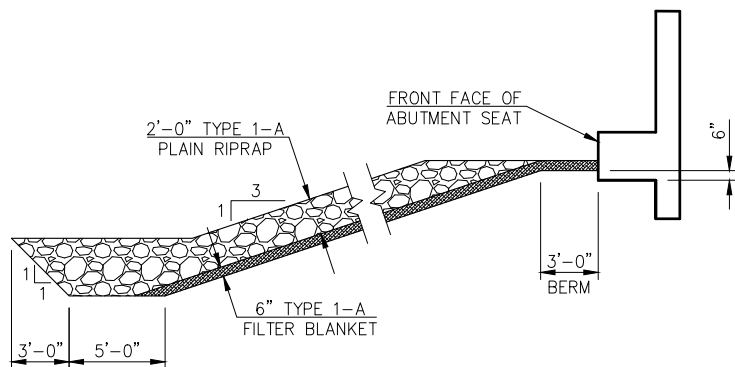
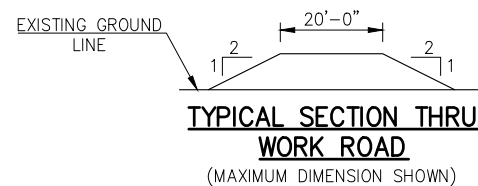
PIERS (48" DIAMETER DRILLED SHAFTS)

	PIER NO. 1	PIER NO. 2
FACTORED REACTION	= 615 TONS/SHAFT	= 615 TONS/SHAFT
NOMINAL UNIT BEARING RESISTANCE	= 34.21 TSF	= 34.21 TSF
BEARING RESISTANCE FACTOR	= 0.7	= 0.7
FACTORED BEARING RESISTANCE	= 301 TONS/SHAFT	= 301 TONS/SHAFT
NOMINAL UNIT FRICTION RESISTANCE	= 9.00 TSF	= 9.00 TSF
FRICTION RESISTANCE FACTOR	= 0.45	= 0.45
FACTORED FRICTION RESISTANCE	= 356 TONS/SHAFT	= 356 TONS/SHAFT
DEPTH OF ROCK NEGLECTED FOR FRICTION	= 6 FEET	= 6 FEET
TOTAL FACTORED RESISTANCE	= 657 TONS/SHAFT	= 657 TONS/SHAFT

LOAD AND RESISTANCE FACTOR DESIGN DATA

CLASS AA CONCRETE $f'_c = 4,000$ p.s.i.
CLASS A CONCRETE $f'_c = 3,000$ p.s.i.
REINFORCING STEEL (GRADE 60) $f_y = 60,000$ p.s.i.
STRUCTURAL STEEL M270 (GRADE 50W) $f_y = 50,000$ p.s.i.
STAINLESS STEEL A240 (TYPE 316) $f_y = 30,000$ p.s.i.
LOADING: HL-93 OR OKLAHOMA OVERLOAD TRUCK
20 P.S.F. FUTURE WEARING SURFACE
DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION
ANSI/AASHTO/AWS D1.5 BRIDGE WELDING CODE
ANSI/AWS D1.6 STRUCTURAL WELDING CODE - STAINLESS STEEL
L.F.D. OPERATING RATING: HS 51.8

ITEMIZED QUANTITIES						
ITEM	UNIT	ABUTMENTS	PIERS	SUPERSTRUCTURE	APPROACH SLABS	TOTAL
SUBSTRUCTURE EXCAVATION COMMON	C.Y.	250.00	-	-	-	250.00
CLSM BACKFILL	C.Y.	288.00	-	-	-	288.00
PRESTRESSED CONCRETE BEAMS (TYPE IV)	L.F.	-	-	1,345.00	-	1,345.00
APPROACH SLAB	S.Y.	-	-	-	381.40	381.40
SAW-CUT GROOVING	S.Y.	-	-	1,218.10	361.80	1,579.90
SEALED EXPANSION JOINT	L.F.	-	-	48.90	-	48.90
CONCRETE RAIL (TR4)	L.F.	-	-	548.20	162.80	711.00
STRUCTURAL STEEL	LB.	-	-	1,575.00	-	1,575.00
STAINLESS STEEL FIXED BEARING ASSEMBLY	EA.	-	-	10.00	-	10.00
STAINLESS STEEL EXPANSION BEARING ASSEMBLY	EA.	-	-	20.00	-	20.00
CLASS AA CONCRETE	C.Y.	-	-	331.80	-	331.80
CLASS A CONCRETE	C.Y.	116.10	90.80	-	-	206.90
CLASS C CONCRETE	C.Y.	-	-	-	-	12.00
EPOXY COATED REINFORCING STEEL	LB.	16,600.00	18,020.00	89,650.00	-	124,270.00
PILES, FURNISHED (HP 10X42)	L.F.	84.00	-	-	-	84.00
PILES, FURNISHED (HP 12X53)	L.F.	378.00	-	-	-	378.00
PILES, DRIVEN (HP 10X42)	L.F.	84.00	-	-	-	84.00
PILES, DRIVEN (HP 12X53)	L.F.	378.00	-	-	-	378.00
(PL) PILOT HOLES	L.F.	330.00	-	-	-	330.00
PILE SPLICE, H-PILE (NON-BIDDABLE)	EA.	-	-	-	-	1.00
WATER REPELLANT (VISUALLY INSPECTED)	S.Y.	132.00	178.00	915.00	76.00	1,301.00
DRILLED SHAFTS 48" DIAMETER	L.F.	-	82.00	-	-	82.00
CROSSHOLE SONIC LOGGING	EA.	-	1.00	-	-	1.00
SEALER CRACK PREPARATION	L.F.	-	-	46.50	-	46.50
SEALER RESIN	GAL.	-	-	0.60	-	0.60
TYPE I-A PLAIN RIPRAP	TON	-	-	-	-	1,550.00
TYPE I-A FILTER BLANKET	TON	-	-	-	-	295.00
6" PERFORATED PIPE UNDERDRAIN ROUND	L.F.	96.00	-	-	-	96.00
6" NON-PERF. PIPE UNDERDRAIN RND.	L.F.	60.00	-	-	-	60.00
REMOVAL OF EXISTING BRIDGE STRUCTURE	L.SUM	-	-	-	-	1.00



PILOT HOLE NOTE:
ALL COSTS FOR DRILLING, EXCAVATION, CASING (IF NECESSARY), AND CLASS C CONCRETE WITHIN THE PILOT HOLE PAY LENGTH SHOWN INCLUDING MATERIALS, LABOR, EQUIPMENT, AND INCIDENTALS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF "(PL) PILOT HOLES".

DESIGN	MBS	4/14	SH-28 OVER SALT CREEK BRIDGE "A"	NOWATA COUNTY
DETAIL	SLP	4/14		
CHECK	MBS	3/15		
GUY ENGINEERING SERVICES, INC.			GENERAL PLAN AND ELEVATION (SHEET NO. 2 OF 2) CONST. 85'-100'-85' TYPE IV P.C. BEAM SPANS x 40' CLR. RDWY. W/ CONC. TRAFFIC RAIL (TR4), SKEW 30° RF, @ STA. 303+64.00 STATE JOB PIECE NO. 28857(04) SHEET NO. B002	