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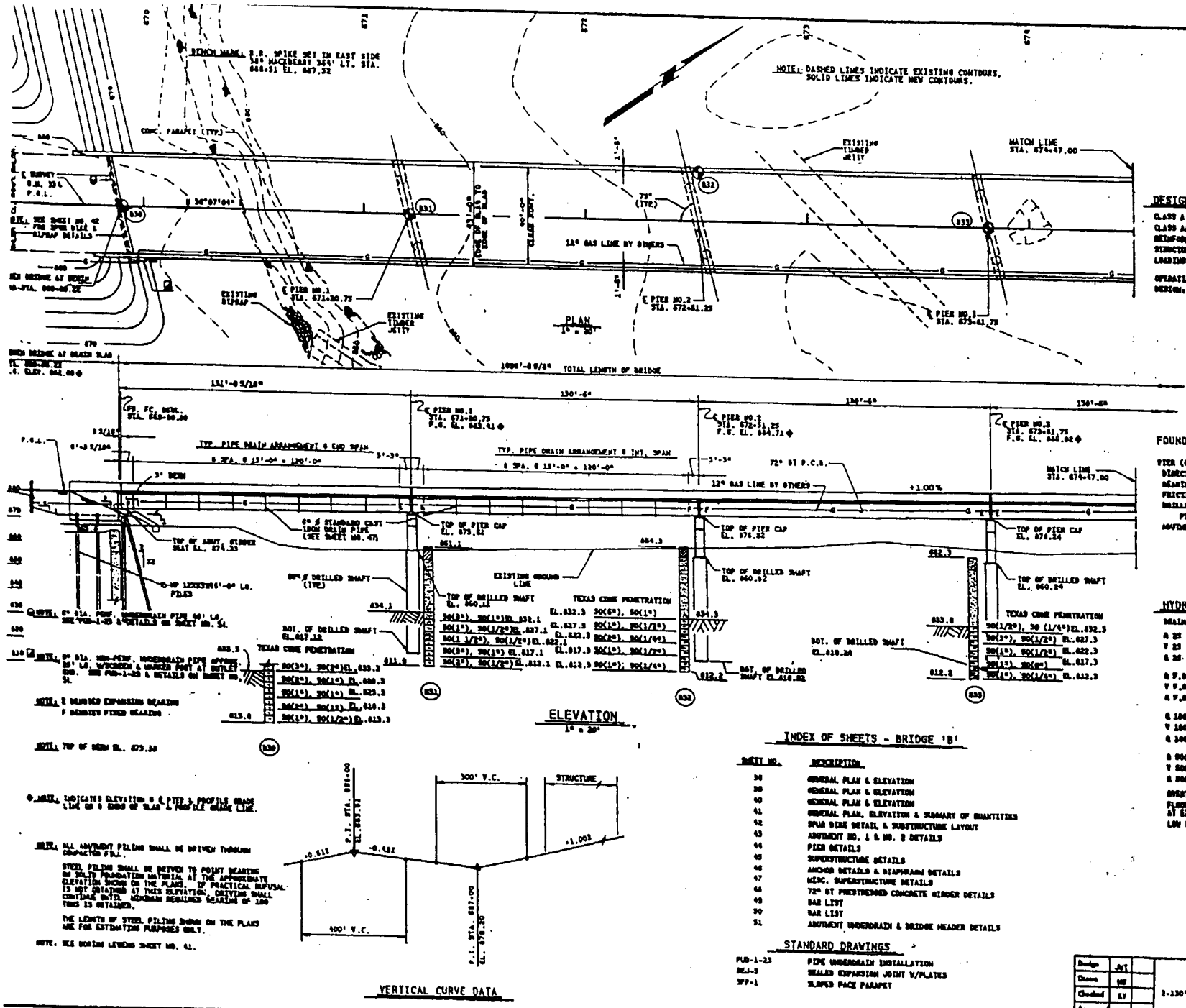

DESIGN DATA

CLASS A CONCRETE	F'C = 3000 P.S.I.
CLASS AA CONCRETE	F'C = 3500 P.S.I.
REINFORCING STEEL (GR. 60)	FY = 60,000 P.S.I.
STRUCTURAL STEEL (GR. 36)	FY = 36,000 P.S.I.

LOADING: HS 20 + 20 P.S.F. FUTURE WEAR, SURFACE AND OKLAHOMA OVERLOAD LOADS + 20 P.S.F. F.W.S.

OPERATING RATING HS 33

DESIGN: AASHTO SPECIFICATIONS 1983 EDITION AND CURRENT INTERIMS (BRIDGES) AND CURRENT ANS SPEC'S.

LOAD FACTOR DESIGN

FOUNDATION PRESSURES

PIER (60" ø DRILLED SHAFT)

DIRECT BEARING	530 T/CDL.
BEARING CAPACITY (16.5 T.S.F.)	324 T/CDL.
FRICTION CAPACITY (2.6 T.S.F.)	249 T/CDL.

DRILLED SHAFTS TO EXTEND INTO ROCK 15'-0" MIN. PIERS 1-8, 10'-0" MIN. PIERS 10-12

ABUTMENT HP 12X53 PILING 53.4 T/PILE

HYDRAULIC DATA

DRAINAGE AREA 12,766 SQ. MILES

Q 25	115,100 C.F.S.
V 25	6.2 F.P.S.
Q 25	COMPUTED HIGH WATER ELEV. = 672.36
Q F.O.R.	151,587 C.F.S.
V F.O.R.	6.40 F.P.S.
Q F.O.R.	COMPUTED HIGH WATER ELEV. = 674.93
Q 100	162,338 C.F.S.
V 100	6.72 F.P.S.
Q 100	COMPUTED HIGH WATER ELEV. = 675.00
Q 500	218,760 C.F.S.
V 500	7.68 F.P.S.
Q 500	COMPUTED HIGH WATER ELEV. = 677.34

OVERTOPPING EL. = 676.00

FLOOD OF RECORD - OCTOBER, 1986 EL. = 674.00 AT EXISTING BRIDGE

LOW BEAM EL. 674.66

INDEX OF SHEETS - BRIDGE 'B'

SHEET NO.	DESCRIPTION
36	GENERAL PLAN & ELEVATION
39	GENERAL PLAN & ELEVATION
40	GENERAL PLAN & ELEVATION
41	GENERAL PLAN, ELEVATION & SUMMARY OF QUANTITIES
42	SPUR DIKE DETAIL & SUBSTRUCTURE LAYOUT
43	ABUTMENT NO. 1 & NO. 2 DETAILS
44	PIER DETAILS
45	SUPERSTRUCTURE DETAILS
46	ANCHOR DETAILS & DIAPHRAGM DETAILS
47	MISC. SUPERSTRUCTURE DETAILS
48	72" BT PRESTRESSED CONCRETE GIRDER DETAILS
49	BAR LIST
50	BAR LIST
51	ABUTMENT UNDERDRAIN & BRIDGE HEADER DETAILS

STANDARD DRAWINGS

PUB-1-23	PIPE UNDERDRAIN INSTALLATION
SEJ-3	SEALED EXPANSION JOINT W/PLATES
SFP-1	SLOPED FACE PARAPET

BRIDGE "B"

STATE HIGHWAY 33 OVER CIMARRON RIVER

GENERAL PLAN & ELEVATION

2-130'-9" AND 11-130'-8" 72" BT P.C.B. SPANS - 75° SKEW

40'-0" CLEAR ROADWAY W/CONCRETE PARAPETS @ STATION 678+38.90

F.A. Project No. BRF-100(70) Sheet No. 36

Design	JVT	
Drawn	MF	
Checked	KY	
Approved		
Squad	HTB, INC.	

OKR2012395
OKLAHOMA DEPARTMENT OF TRANSPORTATION
CIMARRON RIVER
BRIDGE REPLACEMENT
ENCLOSURE 2 OF 3