

These notes should be used for bridges that need Bridge End Terminals.

CPB 7/22/03

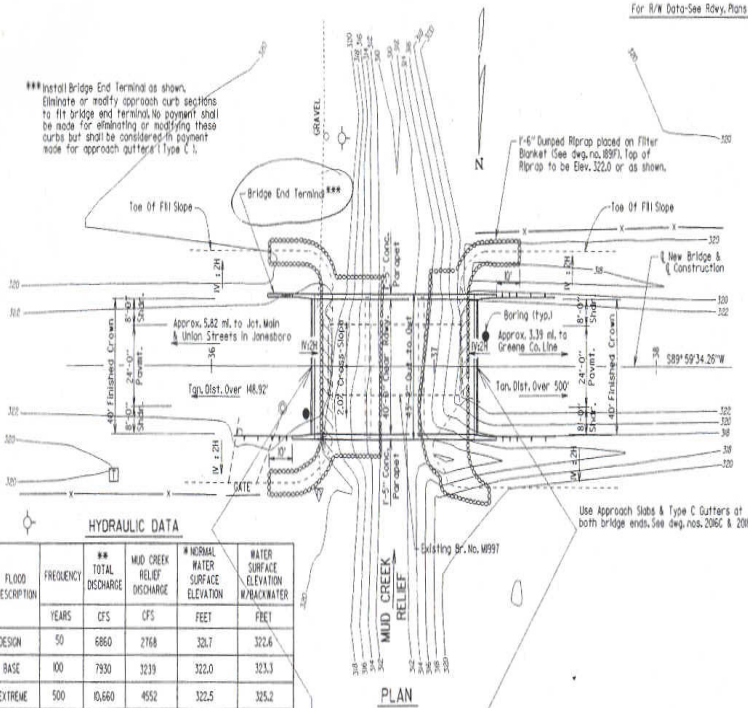
Note ⑥

CPB	kwy
CSF	the
AMS	⁰⁰ n/h
CS	KDK
DM	
SL	UMS
DO	PKB
SRG	AP
MJT	APP
SAT	CTB
JOT	
CEP	
BEP	
CRB	
CSL	
DHP	
SM	
DBS	

DATE REVISION	DATE FILMED	DATE REVISION	DATE FILMED	FED. AD. PROJ. NO.	FEED. AD. PROJ. NO.	JOB NO.	DATE	SCALE	DRAWING NO.	SHEET NO.
				4	AVL	10006	47	132		
				0	0689	LAYOUT	43054			

For R/W Data-See Rwy. Plans

***Install Bridge End Terminal as shown. Eliminate or modify approach curb sections to fit bridge end terminals. No payment shall be made for eliminating or modifying these curbs but shall be considered in payment made for approach outfall Type C 1.



HYDRAULIC DATA

FLOOD DESCRIPTION	FREQUENCY YEARS	TOTAL DISCHARGE CFS	MUD CREEK DISCHARGE CFS	NORMAL WATER SURFACE ELEVATION FEET	WATER SURFACE ELEVATION @ BACKWATER FEET
DESIGN	50	6860	2768	320.7	322.6
BASE	100	7930	3231	322.0	323.3
EXTREME	500	10,660	4552	322.5	325.2
OVERTOPPING	> 500	NA	NA	NA	NA

* Uncontracted water surface without structure or roadway approaches.
 ** Combined Drainage Area = 8.7 sq. mi. for Mud Creek & Relief
 Historical N.M. Elev. = 324.3

"N" VALUES

Sta. 36+43 - 9' R.L. & Constr.

4.2 - 5.2, N+9
8.2 - 10.2, N+11
14.2 - 15.2, N+20
19.2 - 20.2, N+8
24.2 - 25.2, N+8
30.2 - 31.2, N+6
35.2 - 35.5, N+2
40.2 - 41.2, N+46
45.2 - 46.2, N+53
50.2 - 51.2, N+32
55.2 - 56.2, N+4
60.2 - 61.2, N+32
65.2 - 66.2, N+31
70.2 - 71.2, N+47
75.2 - 76.2, N+57
80.2 - 80.8, N+60 (0.3')

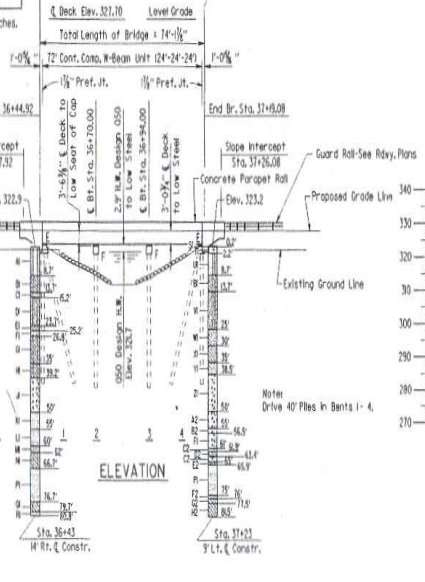
Sta. 37+23 - 9' L.L. & Constr.

4.2 - 5.2, N+4
8.2 - 10.2, N+9
14.2 - 15.2, N+9
19.2 - 20.2, N+4
25.2 - 26.2, N+7
30.2 - 31.2, N+8
35.2 - 36.2, N+18
40.2 - 41.2, N+40
45.2 - 46.2, N+33
50.2 - 51.2, N+27
55.2 - 56.2, N+9
60.2 - 61.2, N+33
65.2 - 65.5, N+60 (0.4')
70.2 - 70.5, N+60 (0.4')
75.2 - 76.2, N+40
80.2 - 81.2, N+66

PLAN

BORING LEGEND

- A-Mud, Loose, Brown and Gray Sandy Silt with some Organic Matter
- B-Mud, Silt, Brown Sandy, Silty Clay with some Organic Matter
- C-Mud, Medium Dense, Brown Clayey Silt
- D-Mud, Medium Dense to Loose, Gray Sandy Silt with Clay Seams
- E-Mud, Medium Silt, Gray Clay with Sand Seams and Traces of Gravel
- F-Mud, Loose, Gray Sand and Gravel
- G-Mud, Medium Silt, Gray Sandy, Silty Clay
- H-Mud, Soft, Brown Sandy, Silty Clay
- J-Mud, Dense to Very Dense, Brown Sand and Gravel
- K-Mud, Dense, Brown Sand
- L-Mud, Very Loose, Reddish Brown Sand
- M-Mud, Dense, Gray Sand with Clay Seams
- N-Mud, Hard, Gray Silty Clay with some Sand
- P-Mud, Very Dense, Reddish Brown Sand
- Q-Mud, Hard, Gray Silty Clay
- R-Mud, Very Dense, Brown Sand
- S-Sandstone
- T-Mud, Very Loose, Brown Sand and Gravel
- U-Mud, Very Loose, Brown Sandy Silt with some Organic Matter
- V-Mud, Very Loose, Brown Sandy Silt with Clay Seams
- W-Mud, Loose, Gray Sand with Clay Seams and Traces of Gravel
- X-Mud, Medium Silt, Gray Sandy Clay
- Y-Mud, Medium Dense, Gray Clayey Sand with Traces of Gravel
- Z-Mud, Dense, Brown Sand and Gravel
- A2-Mud, Medium Dense, Gray Sand and Gravel
- B2-Mud, Loose, Gray Gravel
- C2-Mud, Dense, Gray Sand and Gravel
- D2-Mud, Hard, Gray Sandy Clay
- E2-Mud, Very Dense, Reddish Brown Sand with Traces of Gravel
- F2-Mud, Very Dense, Brown Sand and Gravel
- G2-Mud, Hard, Gray and Brown Silty Clay
- H2-Mud, Very Hard, Gray and Brown Sandy Clay with Traces of Lignite



ELEVATION

GENERAL NOTES

BENCH MARK: 933 CH Sq. 58 Br. Corner 0.69 L.H. Sta. 37+0.35 Elev. 323.68.
 CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1996 edition with applicable supplemental specifications and special provisions. Section and Subsection refer to the Standard Construction Specification unless otherwise noted in the Plans.
 DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, 1996 Edition with current interim specifications.
 LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor
 SEISMIC PERFORMANCE CATEGORY: B
 MATERIALS AND STRENGTHS:
 Class S40 Concrete (Superstructural) f'c = 4,000 psi
 Class S Concrete (Substructural) f'c = 3,500 psi
 Reinforcing Steel (ASTM A630 or A630, Gr. 60) fy = 60,000 psi
 Structural Steel (ASTM A709, Gr. 50) fy = 36,000 psi
 Structural Steel (ASTM A709, Gr. 50) fy = 50,000 psi
 BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.
 PILING: Piling for Bents 1 and 4 shall be 18" square precast concrete and shall be driven to a minimum safe bearing capacity of 44 tons per pile. Piles in bent 1 to be driven after embankment to bottom of cap is in place. Piling for Bents 2 and 3 shall be 18" square precast concrete and shall be driven to a minimum safe bearing capacity of 65 tons per pile. Piles in bents 2 & 3 shall be driven to a minimum penetration of 20' below the channel bottom. All piling shall be driven with an approved air stream or diesel hammer. Lengths of piling shown are for estimating quantities only. Actual lengths to be determined in the field. Drive one 45' test pile in Bent 2 and one 45' test pile in Bent 4.
 BRIDGE DECK: The concrete bridge deck shall be given a finish as specified for final finishing in subsection 802.09 for Class 5 Third Bridge Roadway Surface Finish.
 SURFACE TREATMENT: A Class I Protective Surface treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.
 DETAIL DRAWINGS: DRAWING NO. 43055-43062
 72' Cont. Comp. X-Beam Unit (24'-24'-24') SUBSTRUCTURE 43055-43057 & 43048

EXISTING BRIDGE: The existing bridge no. W997 is 21' wide and 61' long and consists of timber stringers, fiber deck with concrete overlay and with timber substructure.
 REMOVAL AND SALVAGE: The existing bridge no. W997 shall be removed in accordance with Section 206 of the Standard Specifications. Twenty 6" x 10" timber stringers and two fiber caps shall remain the property of the State. All other material from the existing bridge shall become the property of the Contractor.
 TEMPORARY BRIDGE: Construct a temporary bridge approximately 65' upstream from centerline construction with a minimum deck elevation of 322.0. See roadway plans for actual detour grade and alignment. The temporary bridge shall have a minimum length of 57' a minimum roadway width of 24' and a minimum live load capacity of HS. See section 603 of the Standard Specifications and dwgs. 2465-2469 for standard temporary bridge details. The temporary bridge shall have a concrete deck. If fiber piling and pile fiber are used on this temporary bridge structure, the materials shall be treated with a preservative according to the Standard Specifications.
 MAINTENANCE OF TRAFFIC: See Roadway Plans.

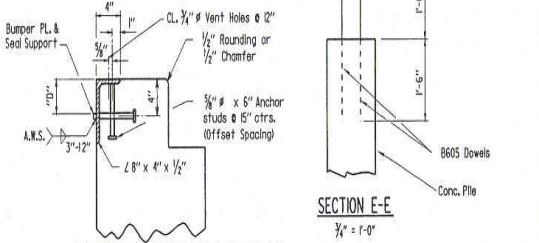
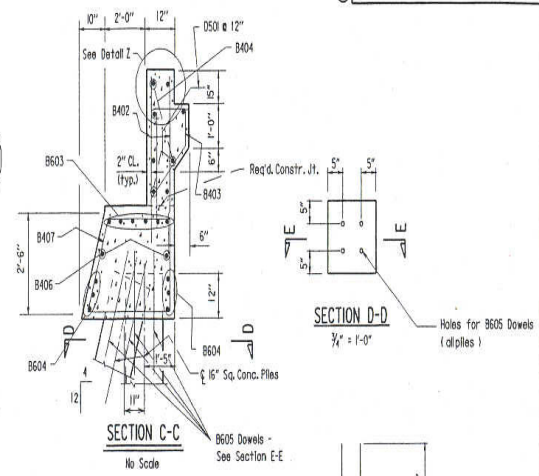
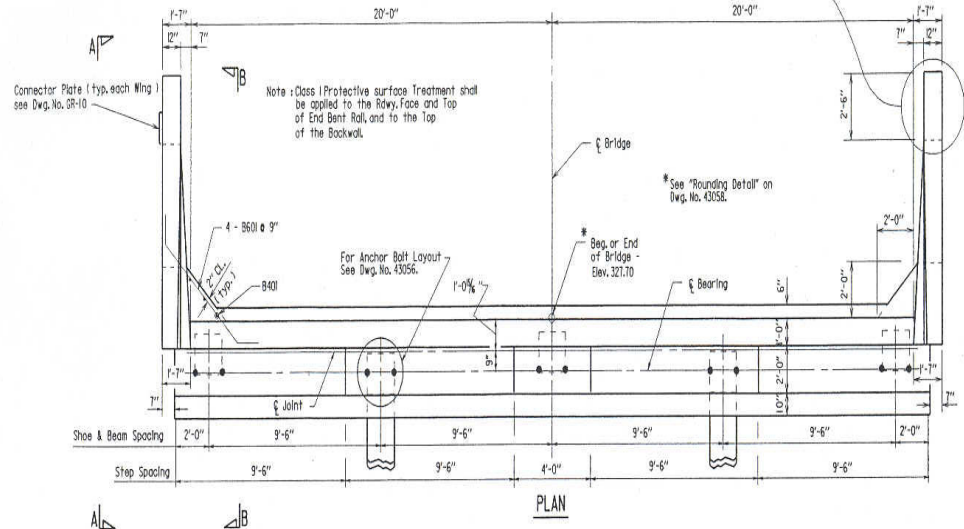
**LAYOUT OF BRIDGE OVER
 MUD CREEK RELIEF
 MUD CREEK & RELIEF STRS. & APPRS. (S)
 CRAIGHEAD COUNTY
 ROUTE 141 SEC. 1
 ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARK.**

DRAWN BY: E.M.H. DATE: 6/10 FILE NO.: B00267221
 CHECKED BY: J.L.S. DATE: 11/6/01 SCALE: 1" = 30'
 DESIGNED BY: J.L.S. DATE: 3-3-01
 BRIDGE NO. 0689 DRAWING NO. 43054



DATE REVISED	DATE FILMED	DATE REVISOR	DATE FILMED	FED. PROJ. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
					AR.			
							06691	43055

Modify the bridge rail and connection detail above the gutterline as required by the manufacturer of the bridge end terminal. Reinforcing bars that are relocated or bent to fit the modified bridge rail shall have minimum plan concrete cover.



Note: For Joint Support Details & Dimension "D" see dwg. no. 43059.

Note: Concrete shall be hand packed under the joint armor in the backwall.

DETAIL Z

N.T.S.

General Notes:

All concrete shall be Class "3" and shall be poured in the dry. All exposed corners to be chamfered 3/4" unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or MS3, Grade 60.

Structural Steel End Bents shall be AASHTO M270, Gr. 50W and shall be paid for as "Structural Steel in Beam Spans (M270, Gr. 50W)".

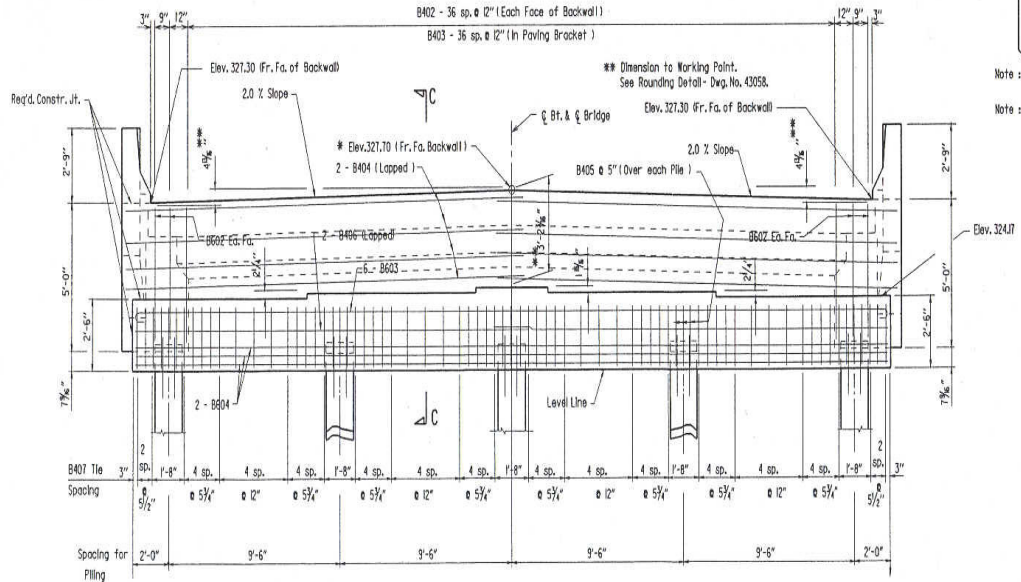
The backwall shown above the required construction joint shall not be poured until the deck concrete for Pour III on the end span has been poured.

If anchor bolts are drilled into cap, top reinforcing bars shall be placed to avoid damage.

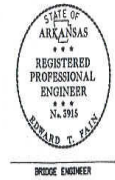
For details of elastomeric bearings, see Dwg. No. 43062.

For details of concrete piles, see Dwg. No. 43048.

For additional information, see layout.



ELEVATION
LOOKING BACK END BENT NO. 1
LOOKING FORWARD END BENT NO. 4



SHEET 1 OF 2
DETAILS OF
END BENT NOS.
1 & 4
MUD CREEK RELIEF
CRAIGHEAD COUNTY
ROUTE 141 SEC. 1
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: K.W.Y. DATE: 9-4-01 FILENAME: 01002622.b3
CHECKED BY: DATE: SCALE: no scale
DESIGNED BY: DATE:
BRIDGE NO. 06691 DRAWING NO. 43055