

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R30087

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	802	802	803	SP & 804	805	805	805	805	812	816	816
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURE (SITE NO.)	CLASS S CONCRETE - BRIDGE	CLASS S (AE) CONCRETE - BRIDGE	CLASS I PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL - BRIDGE (GRADE 400)	CONCRETE PILING (405 mm OCT. OR 355 mm SQ)	TEST PILE (405 mm OCT. OR 355 mm SQ)	CONCRETE PILING (455 mm SQ.)	TEST PILE (455 mm SQ.)	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP
					UNIT	LUMP SUM	CU. METER	CU. METER	LITER	KILOGRAM	METER	METER	METER	METER	EACH	SQ. METER
06671	X021	LITTLE CANEY SLOUGH														
			BENT NO. 1		9.04			764	44.0	12.5			1	261	118	
			BENT NO. 2		6.64			664			82.5					
			BENT NO. 3		6.64			716			66.0	18.0				
			BENT NO. 4		6.64			664			82.5					
			BENT NO. 5		9.04			764	55.0					275	125	
			4 - 9 M R.C. DECK GIRDER SPANS			179.00	42	20,588								
			SITE NO. 1 (BRIDGE NO. 02019)	1												
TOTALS FOR BRIDGE NO. 06671				1	38.00	179.00	42	24,160	99.0	12.5	231.0	18.0	1	536	243	
06672	X021	LITTLE CANEY CREEK														
			BENT NO. 1		9.06			764	50.0	14.0			1	246	112	
			BENT NO. 2		6.64			664			67.5					
			BENT NO. 3		6.64			664			67.5					
			BENT NO. 4		6.64			664			54.0	15.0				
			BENT NO. 5		6.64			716			67.5					
			BENT NO. 6		6.64			664			67.5					
			BENT NO. 7		6.64			664			54.0	15.0				
			BENT NO. 8		6.64			664			67.5					
			BENT NO. 9		9.06			764	62.5					213	97	
			8 - 9 M R.C. DECK GIRDER SPANS			355.60	85	41,762								
			SITE NO. 2 (BRIDGE NO. 02018)	1												
TOTALS FOR BRIDGE NO. 06672				1	64.60	355.60	85	47,990	112.5	14.0	445.5	30.0	1	459	209	
06673	X021	CYPRESS CREEK														
			BENT NO. 1		9.04			764	44.0	12.5			1	146	67	
			BENT NO. 2		6.64			664			55.0					
			BENT NO. 3		6.64			716			44.0	12.5				
			BENT NO. 4		6.64			664			55.0					
			BENT NO. 5		9.04			764	55.0					115	53	
			4 - 9 M R.C. DECK GIRDER SPANS			180.10	42	20,780								
			SITE NO. 3 (BRIDGE NO. 02017)	1												
TOTALS FOR BRIDGE NO. 06673				1	38.00	180.10	42	24,352	99.0	12.5	154.0	12.5	1	261	120	
TOTALS FOR JOB NO. R30087				3	140.60	714.70	169	96,502	310.5	39.0	830.5	60.5	3	1256	572	

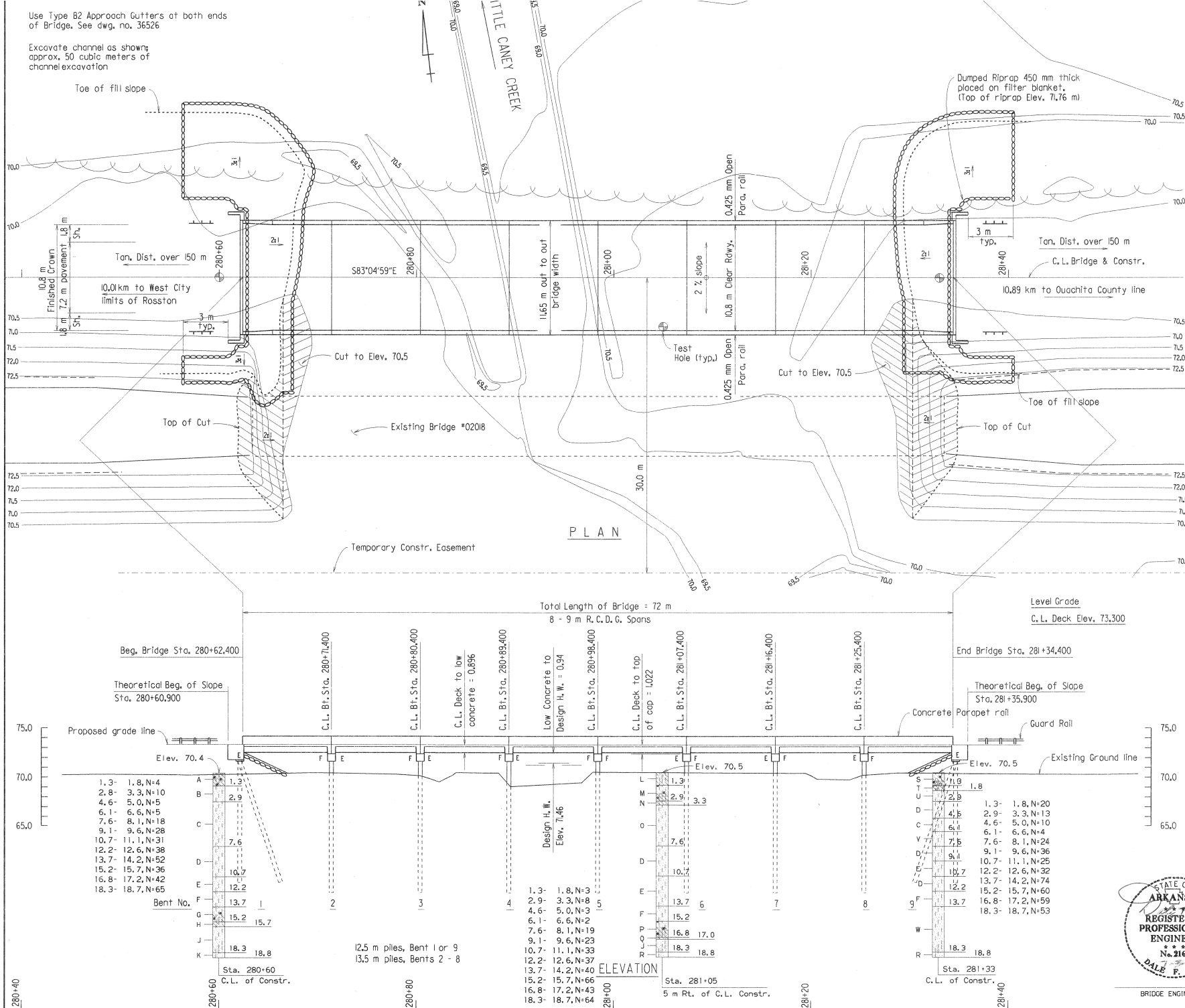
ED FAIN
DESIGN SECTION SUPERVISOR



SCHEDULE OF BRIDGE QUANTITIES
ROSSTON - OUACHITA CO. LINE STRS. & APPRS.(S)
NEVADA COUNTY
ROUTE 4 SEC. 7
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: LM DATE: 4-24-96
CHECKED BY: C.J.F. DATE: 5-3-96 SCALE: NONE
DESIGNED BY: DATE:
BRIDGE NO. 06671, 06672, 06673 DRAWING NO. 37648

Use Type B2 Approach Gutters at both ends of Bridge. See dwg. no. 36526

Excavate channel as shown; approx. 50 cubic meters of channel excavation



6

ARK.

JOB NO.

R30087

29

31

06672

LAYOUT

37655

GENERAL NOTES

All dimensions are in meters unless otherwise noted.
BENCH MARK: Chiseled Sq., SE corner bridge, 3.16 m rt. Sta. 281+30.40, Elev. 72.86

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction (1996 edition) with applicable supplemental specifications and special provisions.

DESIGN SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications (1994 edition).

LIVE LOADING: HL93

SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S1A2 Concrete (superstructure)	$f'_c = 28.0$ MPa
Class S Concrete (substructure)	$f'_c = 24.0$ MPa
Reinforcing Steel (AASHTO M31 or M53, Gr. 400)	$f_y = 400$ MPa

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

CONCRETE PILING: Piling for Bents 1 and 9 shall be 405 mm octagonal or 355 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 390 kN per pile. Piling shapes shall not be mixed. Piling in Bents 2 thru 8 shall be 455 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 490 kN per pile. All piling shall be driven with an approved air, steam, or diesel hammer. Piling in end bents shall be driven after embankment to bottom of cap is in place and shall have a minimum penetration of 6.0 m below natural ground. Piling in Bents 2 thru 8 shall be driven to a minimum tip elevation of 59.5. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. Drive one 140 m test pile in Bent 1, one 15.0 m test pile in bent 4, and one 15.0 m test pile in Bent 7.

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in Subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

DETAIL DRAWINGS:

End Bents	DRAWING NO.
Intermediate Bents	37656
9 m R.C.D.G. Spans	37657
Concrete Piling	37658, 37659
Type C Bridge Name Plate	36506
Embankment Construction	36502
Dumped Riprap and Filter Blanket	36500
Computing Excavation for Structures	36501
Type B2 Approach Gutters	36501
	36526

EXISTING BRIDGE: The existing bridge No. 02018 (log 17.44) is 6.1 m wide and 70.1 m long and consists of 12 Beam Spans supported by a timber substructure. The existing bridge is located approximately 15.0 meters upstream from the proposed new bridge.

REMOVAL AND SALVAGE: After the new bridge is open to traffic, the existing bridge (02018) shall be removed in accordance with section 205 of the Standard Specifications. All material from the existing bridge shall become the property of the contractor except the Steel I-Beams which shall remain the property of the State.

HYDRAULIC DATA

Flood Description	Frequency	Total Discharge	Discharge thru bridge opening	*Natural Water Surface Elevation	Water Surface Elevation with Backwater
		Years	CMS	CMS	Meters
Design	50	238.7	149.4	71.46	71.88
Base	100	281.8	177.7	71.62	72.06
Extreme	500	390.8	249.5	71.90	72.45
Overtopping	>500	-	-	-	-

* Unrestricted water surface without structure or roadway approaches. Drainage area = 107.5 sq. km (includes Little Caney Slough)
Historical H.W. Elev. = 71.44

Boring Legend

A-Moist, Soft, Brown Sandy, Silty Clay with Organic Matter
B-Moist, Very Loose, Gray Silty Sand
C-Wet, Loose, Gray Silty Sand
D-Wet, Medium Dense, Gray Silty Sand
E-Wet, Dense, Gray Silty Sand
F-Wet, Dense, Gray Silty Sand with some Organic Matter
G-Moist, Very Dense, Gray Silty Sand with Organic Matter
H-Moist, Dense, Gray Silty Sand with Clay Seams
J-Moist, Dense, Gray Silty Sand
K-Moist, Very Dense, Gray Silty Sand
L-Moist, Very Loose, Brown Silty Sand with Clay Seams
M-Moist, Very Loose, Gray Silty Sand with Organic Matter
N-Moist, Medium Stiff, Gray and Brown Sandy, Silty Clay
O-Wet, Very Loose, Gray Silty Sand with some Clay Seams
P-Wet, Very Dense, Gray Silty Sand with Organic Matter
Q-Moist, Very Stiff, Gray Sandy, Silty Clay
R-Moist, Very Stiff, Gray Silty Sand with some Thin Cemented Silt Seams
S-Moist, Loose, Brown Silty Sand with Organic Matter
T-Moist, Very Stiff, Gray and Brown Clay with Silt Seams and Pea Gravel
U-Moist, Medium Dense, Gray Silty Sand
V-Wet, Very Loose, Gray Silty Sand
W-Wet, Very Dense, Gray Silty Sand with some Organic Matter

LAYOUT OF BRIDGE OVER LITTLE CANEY CREEK
ROSSTON - OUACHITA CO. LINE STRS. & APPRS. (S)
NEVADA COUNTY
ROUTE 4 SEC. 7
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

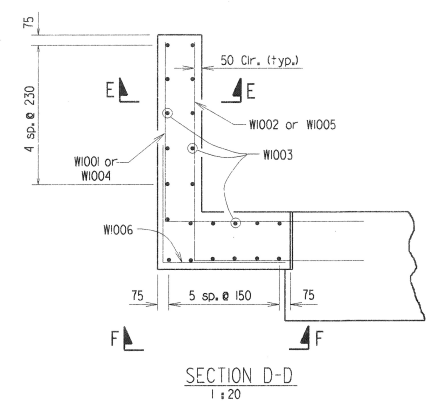
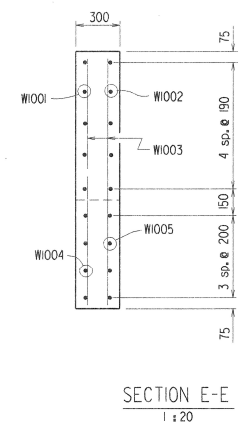
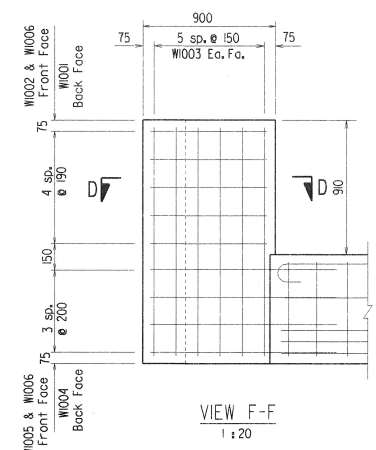
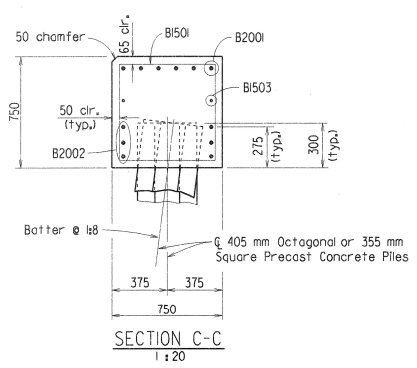
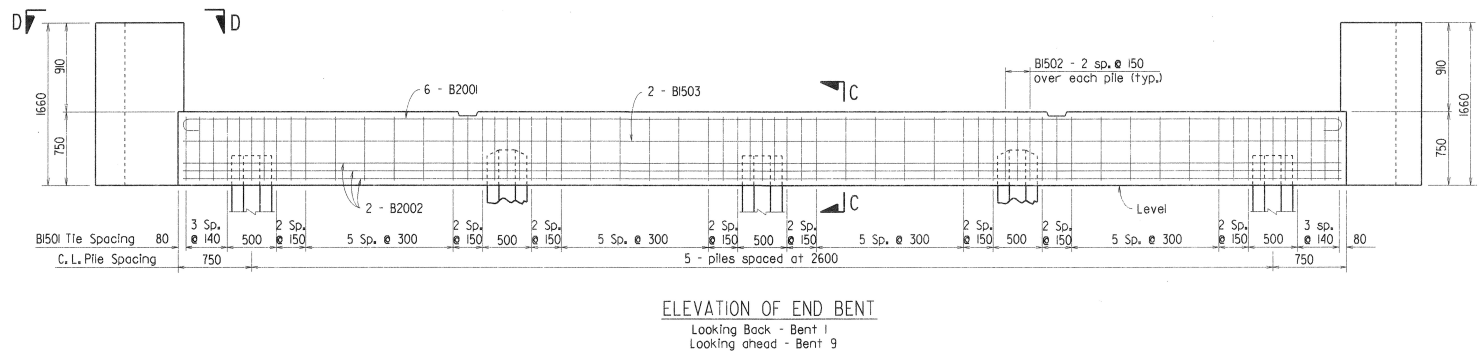
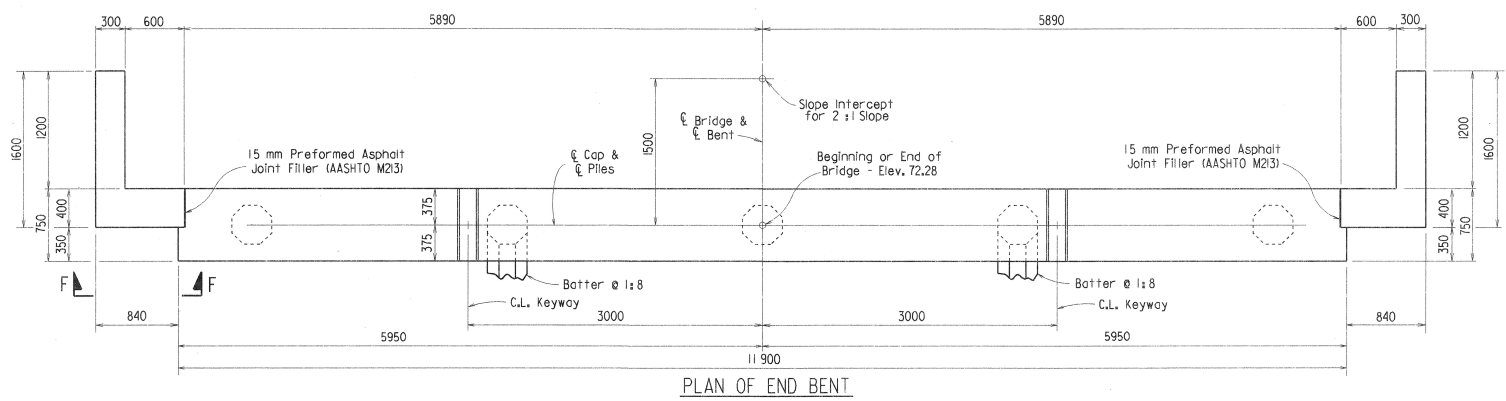
DRAWN BY: LM DATE: 11-7-95
CHECKED BY: ETE DATE: 2-12-96 SCALE: 1:200
DESIGNED BY: MEC DATE: 11-7-95
BRIDGE NO. 06672 DRAWING NO. 37655

BRIDGE ENGINEER
DALE F. LOE
No. 2168
DALE F. LOE

STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 2168
DALE F. LOE

BRIDGE ENGINEER

BR 30087x2.11

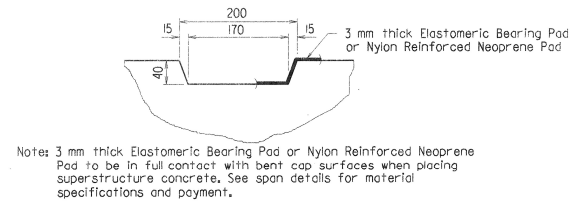


BAR LIST - PER BENT

MARK	NUMBER REQUIRED	LENGTH	A	B	P.D.
B1501	48	2700	650	635	70
B1502	15	1850	650	635	70
B1503	2	11800			Str.
B2001	6	12240	11800	160	120
B2002	6	11800			Str.
W1001	10	1980	1200	800	50
W1002	10	2080	1500	600	50
W1003	44	1560			Str.
W1004	8	2480	1200	1300	50
W1005	8	2580	1500	1100	50
W1006	18	1580	800	800	50

BENDING DIAGRAMS

Dimensions are out to out of bars.



GENERAL NOTES

Stations and elevations are in meters. All other dimensions are in millimeters (mm) unless otherwise noted.

All concrete shall be Class "S" with a minimum 28 day compressive strength $f'c=24.0$ MPa and shall be poured in the dry. All exposed corners shall be chamfered 20 mm unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 400 (yield strength = 400 MPa).

Preformed Asphalt Joint Filler shall be measured and paid for as Class 5 Concrete-Bridge.

All piles shall be 405 mm octagonal or 355 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 390 kN per pile.

For additional information, see Layout.



DETAILS OF END BENTS
LITTLE CANEY CREEK

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

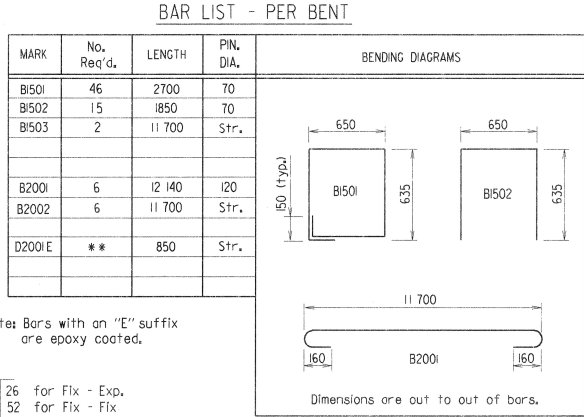
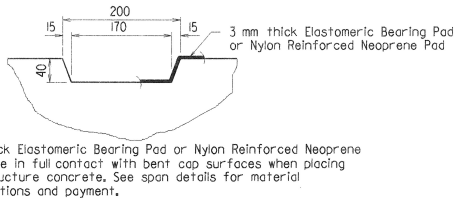
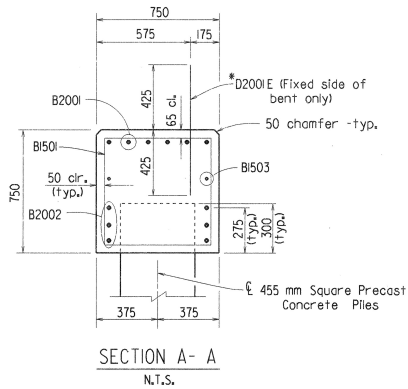
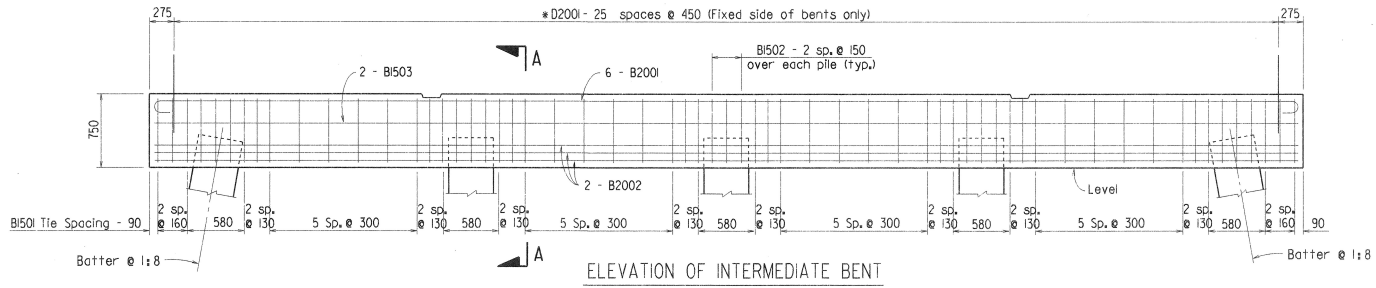
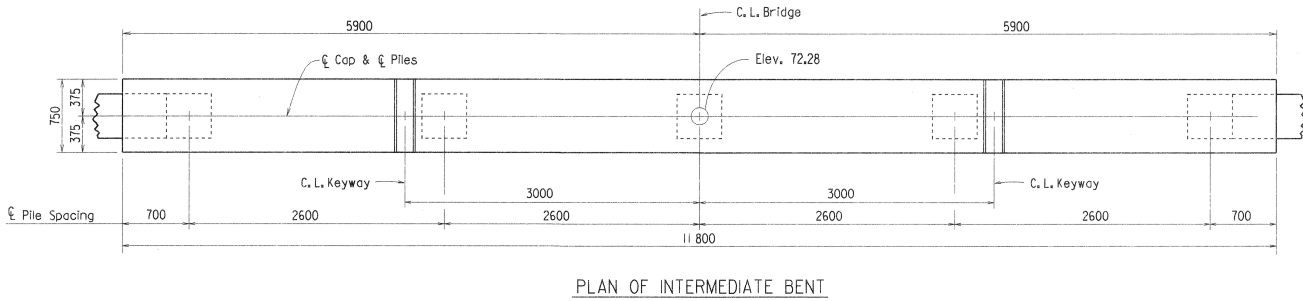
ALTERED BY: LM DATE: 4-19-96
CHECKED BY: C.J.F. DATE: 4-22-96
DESIGNED BY: C.J.F. DATE: 4-10-96

BRIDGE NO. 06672
DRAWING NO. 37656

SCALE: 1:30 OR AS NOTED

BRIDGE ENGINEER

METRIC



GENERAL NOTES

Stations and elevations are in meters. All other dimensions are in millimeters (mm) unless otherwise noted.

All concrete shall be Class "S" with a minimum 28 day compressive strength $f'_c = 24.0$ MPa and shall be poured in the dry. All exposed corners shall be chamfered 20 mm unless otherwise noted.

All reinforcing steel shall conform to AASHTO M31 or M53, Grade 400 (yield strength = 400 MPa).

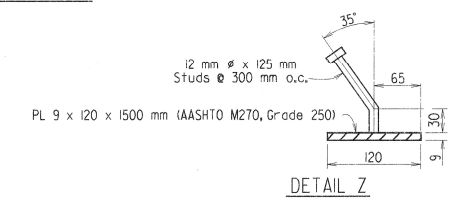
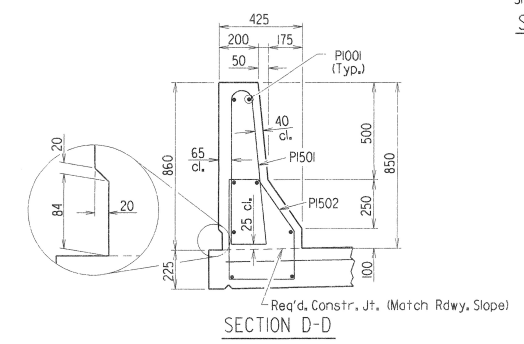
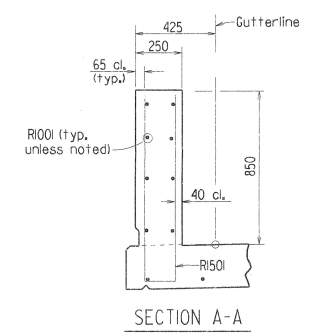
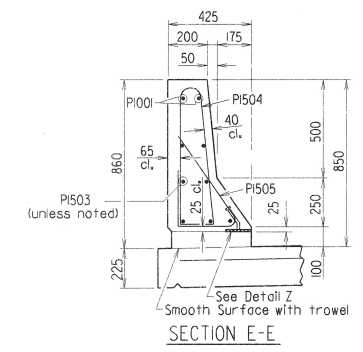
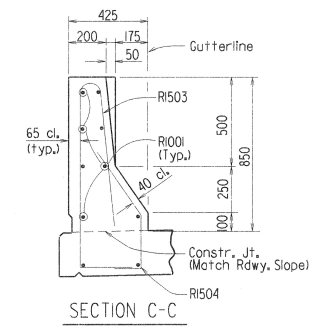
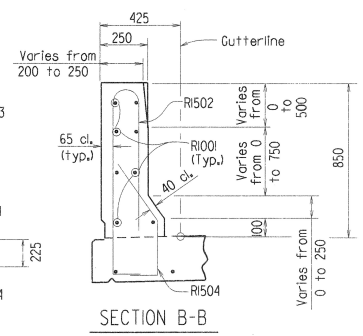
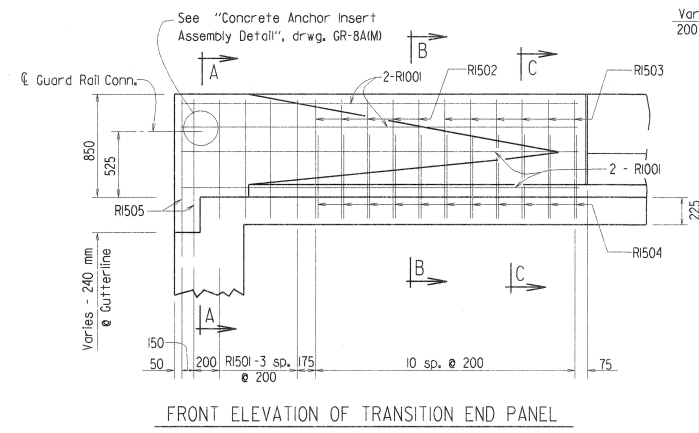
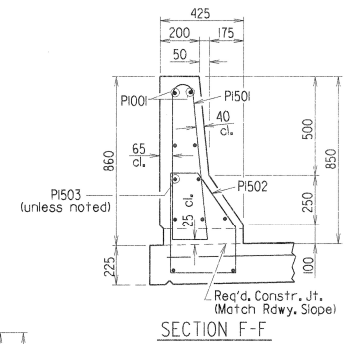
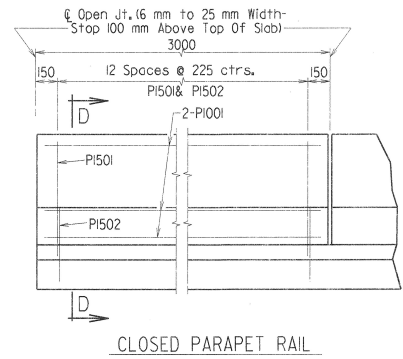
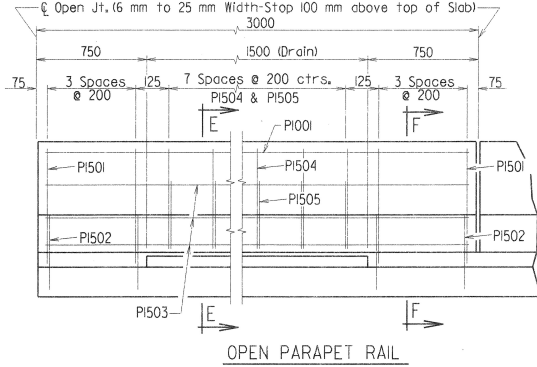
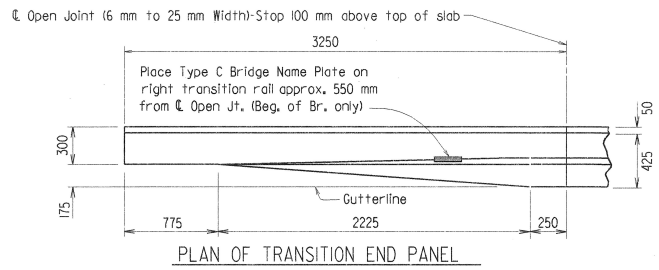
All piles shall be 455 mm square precast concrete and shall be driven to a minimum safe bearing capacity of 490 kN per pile.

For additional information, see Layout.

QUANTITIES (PER INTERMEDIATE BENT)		
Bent	Class S Concrete	Reinforcing Steel
Fix-Fix	6.64 cu.meters	716 kg
Fix-Exp	6.64 cu.meters	664 kg



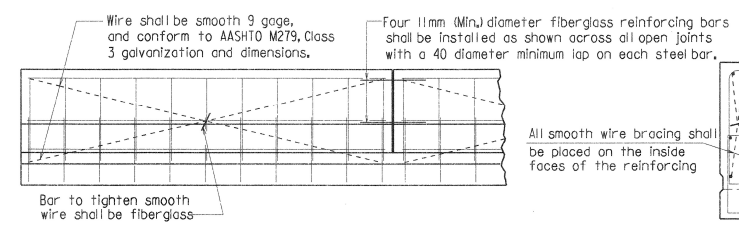
DETAILS OF INTERIOR BENTS
LITTLE CANEY CREEK
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
ALTERED BY: LM DATE: 4-19-96
CHECKED BY: C.J.F. DATE: 4-23-96 SCALE: 1:30 OR AS NOTED
DESIGNED BY: C.J.F. DATE: 4-5-96
BRIDGE NO. 06672 DRAWING NO. 37657



BAR LIST - PER SPAN

MK	Size	Length	Pin Dia.	Number Required	
				END	INT
PI001	10	2900	Str.	24	12
PI501	15	2000	70	52	48
PI502	15	1660	70	52	48
PI503	15	2900	Str.	—	42
PI504	15	1840	70	—	48
PI505	15	950	70	—	48
RI001	10	3150	Str.	16	—
RI501	15	1950	70	8	—
RI502	15	2010	70	10	—
RI503	15	1990	70	12	—
RI504	15	900	70	22	—
RI505	15	2810	70	4	—

Bending Diagrams (Dimensions are out to out of bars.)



All panels shall be braced as shown to prevent racking. All open joints shall be sawed as soon as practical to a minimum width of 6 mm. To control cracking before sawing all joints must be grooved before the concrete is set. Sawing of the joints must be controlled so it will follow the grooved joint.

The extruded parapet shall conform to the horizontal and vertical lines shown on the plans or as directed by the Engineer and shall present a smooth, uniform appearance and texture. Exposed surfaces may be given a light brush finish or a Class 3, Textured Coating Finish, in place of Class 2, Rubbed Finish.



Notes:

The surfaces of the 9 mm Plates which will not be in contact with concrete shall be painted in accordance with Section 638, or as approved by the Engineer. Only one coat is required and shall be applied in the fabricator's shop. Painting will not be paid for directly, but will be considered subsidiary to Class 3(AE) Concrete-Bridge.

Studs shall be granular flux filled, solid fluxed, or equal, and shall be automatically and welded to the plate in accordance with the recommendations of the manufacturer.

SHEET 2 OF 2

DETAILS OF STANDARD

9 METER R.C. DECK GIRDER

10.8 METER CL. RDWY 2% PEAKED CROWN

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: JWD DATE: 2-1-96

CHECKED BY: C.J.F. DATE: 5-2-96

DESIGNED BY: STD. DATE:

BRIDGE NO. 06672 & 06673 DRAWING NO. 37659

SCALE: N.T.S.

