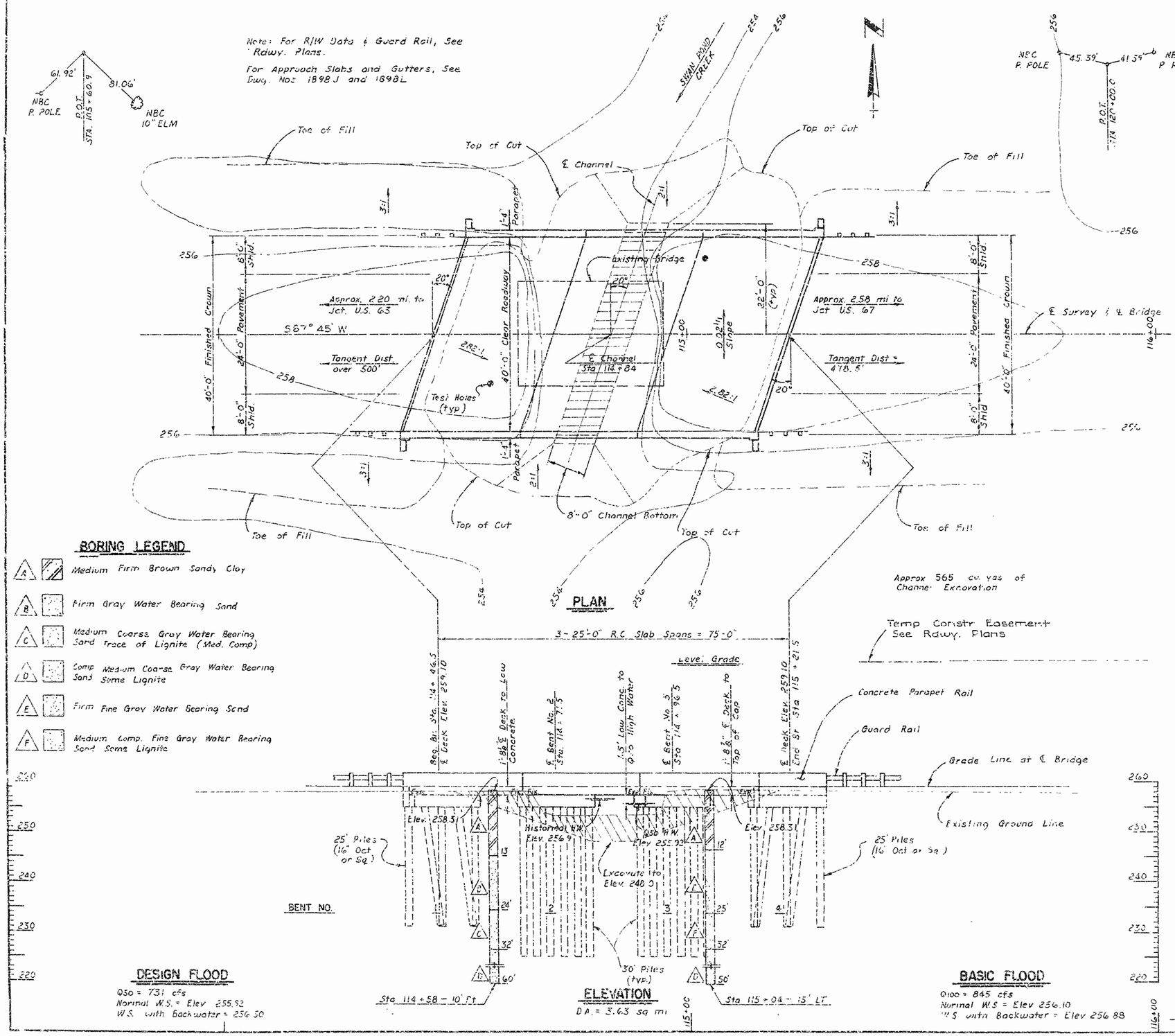
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				8	ARK			
				JOB NO.		10734	16	49
				5726		LAYOUT	21333	

Note: For R/W Data & Guard Rail, See Rdwy. Plans.

For Approach Slabs and Gutters, See Dwg. Nos 1898 J and 1898 L



BORING LEGEND

- A — Medium Firm Brown Sandy Clay
- B — Firm Gray Water Bearing Sand
- C — Medium Coarse Gray Water Bearing Sand Trace of Lignite (Med. Comp)
- D — Comp. Medium Coarse Gray Water Bearing Sand Some Lignite
- E — Firm Fine Grey Water Bearing Send
- F — Medium Comp. Fine Gray Water Bearing Sand Some Lignite

PLAN

ELEVATION

3 - 25'-0" R.C. Slab Spans = 75'-0"

Approx 565 cu. yds of Channel Excavation

Temp Constr. Easement See Rdwy. Plans

DESIGN FLOOD

Q50 = 731 cfs
Normal W.S. = Elev 255.92
W.S. with Backwater = 256.50

BASIC FLOOD

Q100 = 845 cfs
Normal W.S = Elev 256.10
W.S with Backwater = Elev 256.88

D.A. = 3.63 sq mi

GENERAL NOTES

BENCH MARK U.S.G.S. POWER POLE 40 FT RT. STA 115+40, ELEV 257.4

ALL CONCRETE SHALL BE POURED IN THE DRY

ALL PILING SHALL BE 30 FT. OR 16 IN. PRECAST CONCRETE AND THESE SHAPES SHALL NOT BE MIXED ON ANY BRIDGE. PILING SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE AND TO A MINIMUM PENETRATION OF 20 FT BELOW THE GROUND LINE. LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. DRIVE ONE 35 FT. TEST PILE IN BENTS 2 AND 3.

PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF BENT CAP IS IN PLACE.

FOR DETAILS OF BENTS, SEE DWG. NO. 21334
FOR DETAILS OF 28'-0" R.C. SLABS SPANS, SEE DWG. NO. 21335
FOR DETAILS OF PRECAST CONCRETE PILING, SEE DWG. NO. 2593

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1973 EDITION WITH 1974 THRU 1976 INTERIMS

LIVE LOADING: HS20

METHOD OF DESIGN: LOAD FACTOR

UNIT STRESSES: f'c = COMPRESSIVE STRENGTH OF CLASS S OR SAND CONCRETE = 2500 PSI. CONCRETE USED IN SUPERSTRUCTURE SHALL BE CLASS S. CONCRETE USED IN SUBSTRUCTURE SHALL BE CLASS S. fy = YIELD STRENGTH OF REINFORCING STEEL = 60,000 PSI

DETOUR CONSTRUCTION: THE CONTRACTOR SHALL CONSTRUCT A FORD BRIDGE 20 FT SOUTH OF CURVES OF ROAD. THE BRIDGE SHALL BE 20 FT. LONG WITH A MINIMUM DECK ELEVATION OF 260.0. DESIGN LOADING AND SIZE SECTION 207 OF THE STANDARD SPECIFICATIONS

REMOVAL OF EXISTING BRIDGE: THE CONTRACTOR SHALL REMOVE THE EXISTING 30 FT. BRIDGE IN ACCORDANCE WITH SECTION 210 OF THE STANDARD SPECIFICATIONS. THE BRIDGE CONSISTS OF TIMBER DECK ON TIMBER PILING WITH A CONCRETE DECK, AND ASPHALT OVERLAY.

TIMBER, SIZE 6" X 12", 8" X 16", STRINGERS SHALL REMAIN THE PROPERTY OF THE STATE. ALL OTHER MATERIALS FROM THE EXISTING BRIDGE SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

LAYOUT OF BRIDGE OVER SWAN POND CREEK

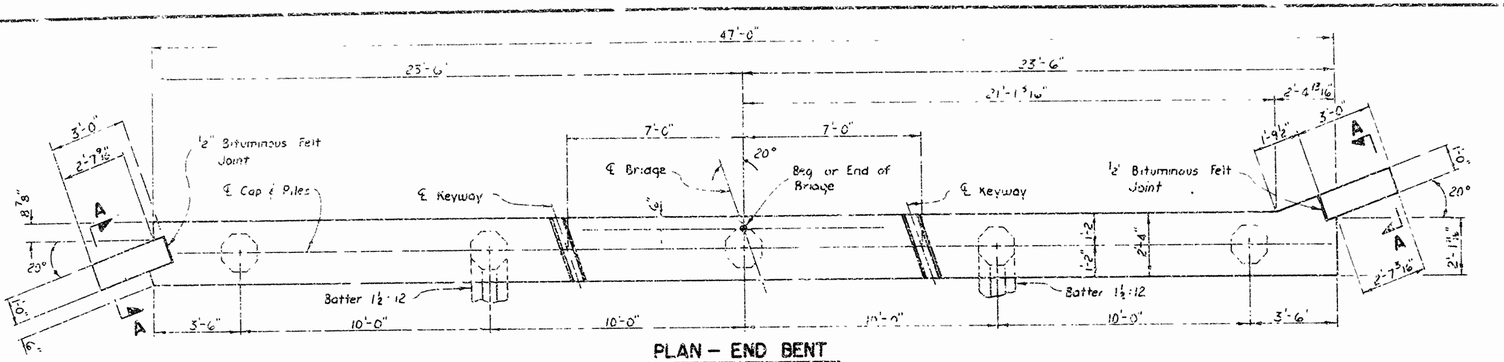
WALNUT RIDGE - WEST BRIDGES & APPRS.
LAWRENCE COUNTY
ROUTE 25 SEC. 7
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK

DRAWN BY: TEB DATE: 9-20-76
CHECKED BY: JGL DATE: 10-20-76 SCALE: 1" = 10'-0"
DESIGNED BY: RJM DATE: Aug 76

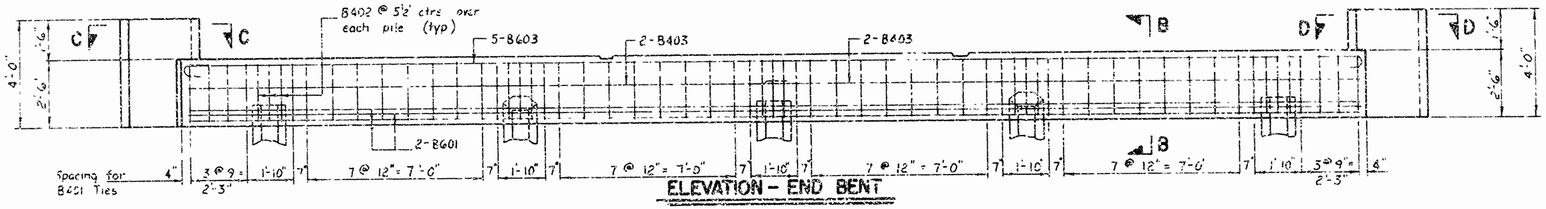
BRIDGE ENGINEER

BRIDGE NO. 5726 DRAWING NO. 21333

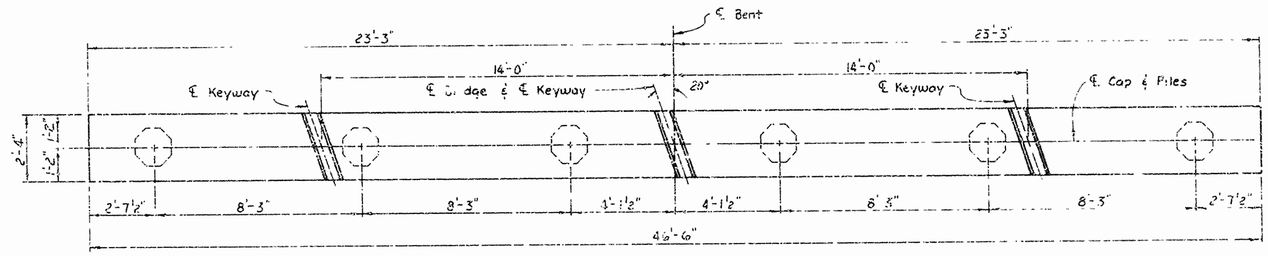
DATE REVISED	DATE REVISED	DATE REVISED	DATE FILED	FED ROAD NO	STATE	FED AID PROJ NO	SHEET NO	TOTAL SHEETS
				E	ARK			
				JOB NO		10734	17	19
				5726		BENT DETAILS		21334



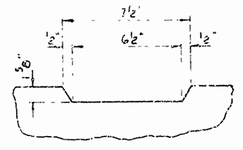
PLAN – END BENT



ELEVATION – END BENT



PLAN – INTERIOR BENT

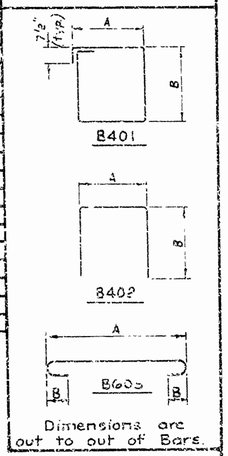


KEYWAY DETAIL
Scale : 3" = 1'-0"

BAR LIST – PER BENT

MARK	NO. REQ'D END BT.	NO. REQ'D INT BT.	LENGTH	A	B	PIN DIA	BENDING DIAGRAMS
B401	42	46	9'-2"	2'-0"	2'-2"	2"	
B402	12	18	6'-2"	2'-0"	3'-2"	2"	
B403	4	-	24'-2"	–	–	Str.	
B404	16	-	3'-8"	–	–	Str.	
B405	8	-	2'-8"	–	–	Str.	
B406	9	-	4'-6"	–	–	Str.	
B407	7	-	6'-3"	–	–	Str.	
B408	1	-	2'-2"	–	–	Str.	
B4		4	23'-11"	–	–	Str.	
		*	2'-6"	–	–	Str.	
B601	6	-	46'-8"	–	–	Str.	
B602	–	11	46'-2"	–	–	Str.	
B603	5	-	48'-0"	46'-8"	6"	4½"	

* 31 For Fix.- Exp. Berits
62 For Fix - Fix Berits



Dimensions are out to out of Bars.

GENERAL NOTES

ALL CONCRETE TO BE CLASS 'S' AND SHALL BE POURED IN THE DRY
ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHER WISE NOTED

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.

ALL PILING SHALL BE 16" OCTAGONAL OR 16" SQUARE PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE.

PILES IN END BENTS SHALL BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF BENT CAP IS IN PLACE.

LIVE LOADING: HS20

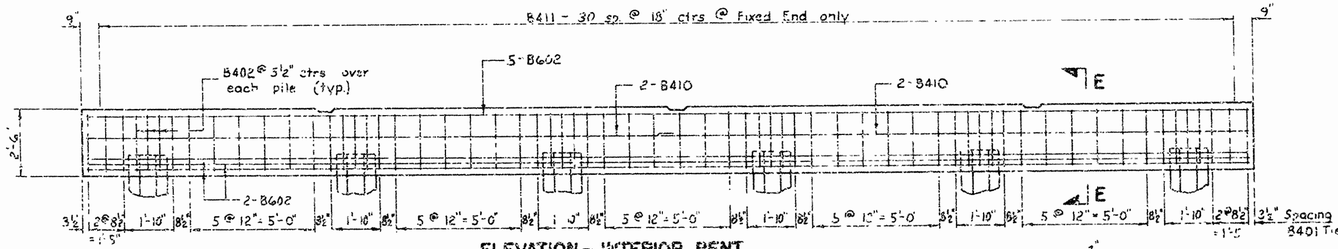
UNIT STRESSES: f'_c = COMPRESSIVE STRENGTH OF CLASS 'S' CONCRETE = 3500 PSI f_y = YIELD STRENGTH OF REINFORCING STEEL = 60,000 PSI.

METHOD OF DESIGN: LOAD FACTOR

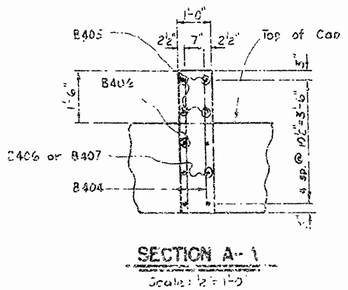
SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 10TH EDITION WITH INTERIM SPECIFICATIONS (1974 THRU 1977)

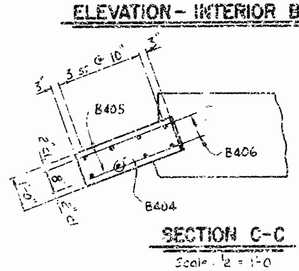
QUANTITY	END BENT	INT. BENT (F-F)	INT. BENT (F-E)
Concrete	10.82 yd^3	9.78 yd^3	9.78 yd^3
Reinforcing Steel	1296 lb	1286 lb	1234 lb



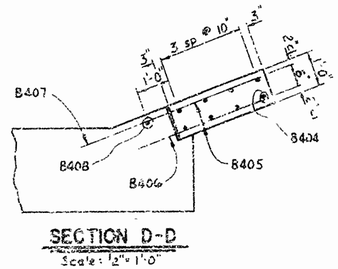
ELEVATION – INTERIOR BENT



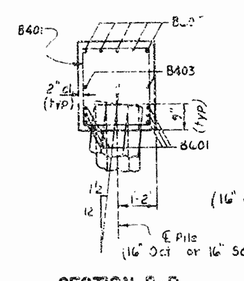
SECTION A-A
Scale : ½" = 1'-0"



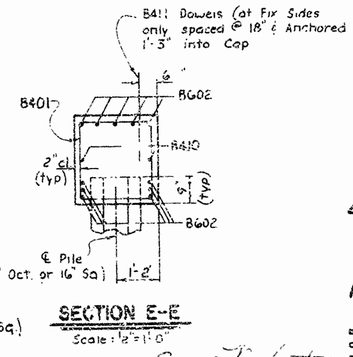
SECTION C-C
Scale : ½" = 1'-0"



SECTION D-D
Scale : ½" = 1'-0"



SECTION B-B
Scale : ½" = 1'-0"



SECTION E-E
Scale : ½" = 1'-0"

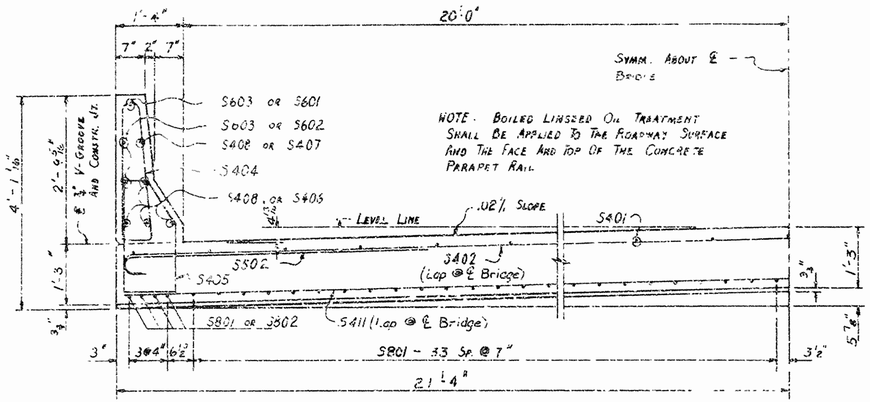
DETAILS OF STANDARD PILE BENTS
25'-0" R.C. SLAB SPANS
40'-0" CL. RDWY. 20° SKEW (LT. FWD.)
CONCRETE PARAPET RAIL
ROUTE 25 SEC. 7
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: FEB DATE: 6-20-77
CHECKED BY: BJM DATE: 7-25-77
CHECKED BY: Std DATE:
SCALE: 3/8" = 1'-0" or as noted

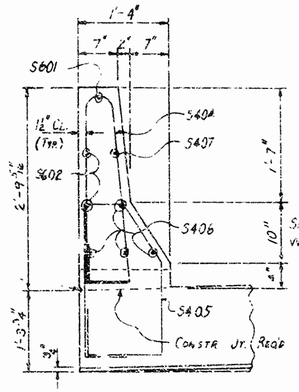
Ferd Tinkerton
BRIDGE ENGINEER

BRIDGE NO. 5726 DRAWING NO. 21334

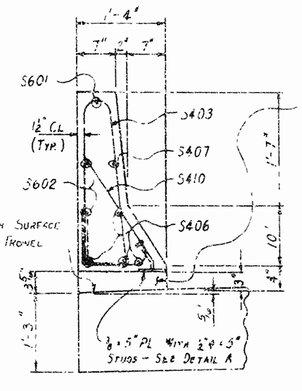
DATE REVISED	DATE PLANED	DATE REVISED	DATE FILMED	PER ROAD NO	STATE	FED AID PROJ NO	SHEET NO	TOTAL SHEETS
				S	ARK.			
				JOB NO		10734	16	40
				(1)	5726	SLAB SPAN 21335		



HALF-SECTION THRU ROADWAY
3/4" = 1'-0"

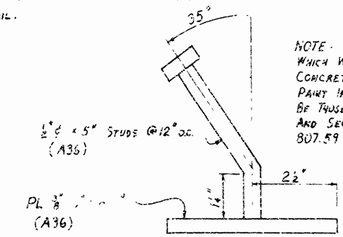


SECTION B-B
1" = 1'-0"



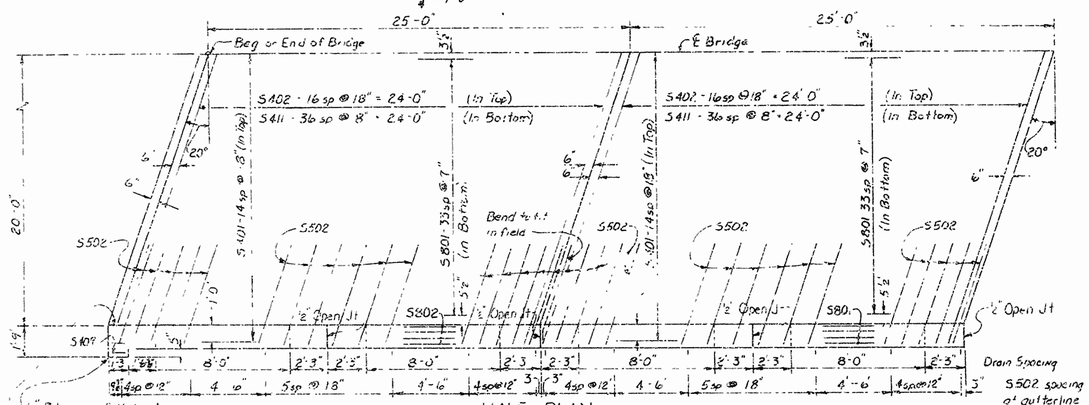
SECTION C-C
1" = 1'-0"

NOTE: DRAIN SHALL TAPER FROM 3" AT 8'-0" CURB TO 3 5/16" AT BACK OF CONCRETE PARAPET RAIL.

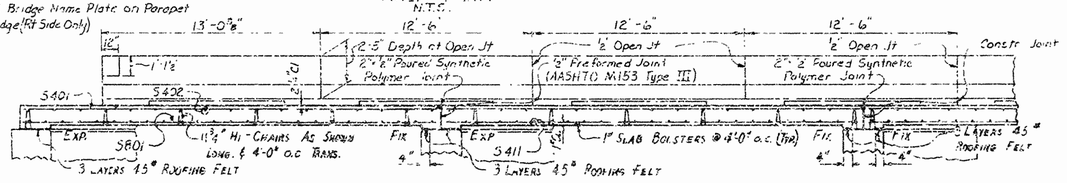


DETAIL A
2" = 1"

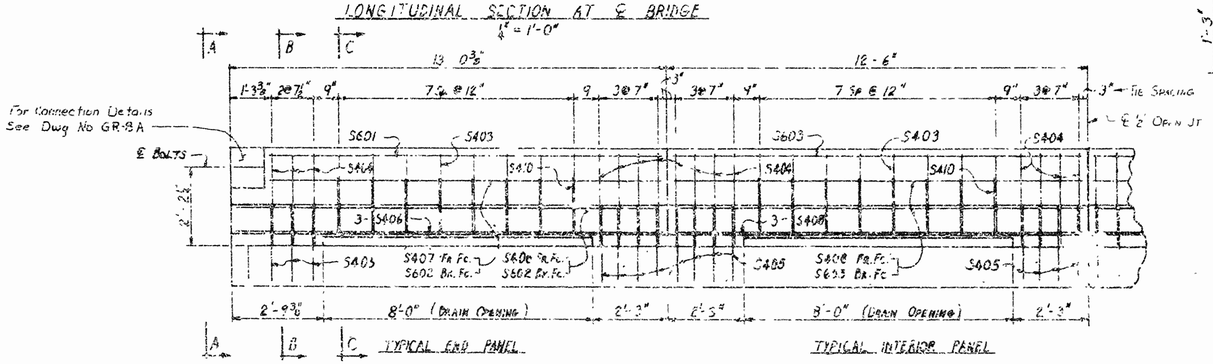
NOTE: THE SURFACES OF THE 3/8" PLATES WHICH WILL NOT BE IN CONTACT WITH CONCRETE SHALL RECEIVE TWO COATS OF PAINT IN THE SHOP. THESE COATS SHALL BE THOSE SPECIFIED AS FIRST SHOP COAT AND SECOND FIELD COAT IN SUBSECTION 807.59 (a) AND 807.59 (c). STUDS SHALL BE 5" LONG, GRANULAR FLUX FILLED, SOLID FLUXED, OR EQUAL AND AUTOMATICALLY WELDED TO PLATE. STUDS & PLATE TO BE MEASURED AND PAID FOR AS CLASS "S/A" CONCRETE. STRUCTURAL STEEL SHALL MEET THE REQUIREMENTS OF SECTION 807 EXCEPT AS NOTED



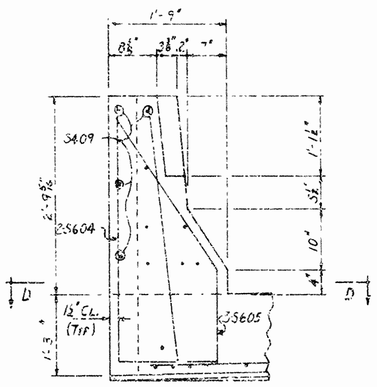
HALF-PLAN
N.T.S.



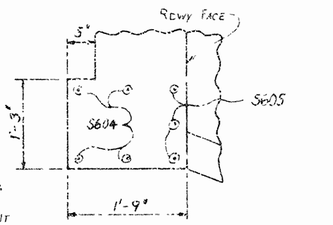
LONGITUDINAL SECTION AT ℄ BRIDGE
1/2" = 1'-0"



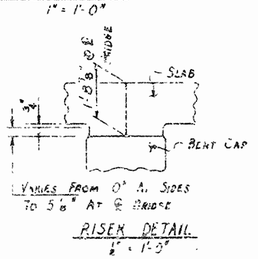
LONGITUDINAL SECTION AT CURB
1/2" = 1'-0"



SECTION A-A
1" = 1'-0"



SECTION D-D
1" = 1'-0"

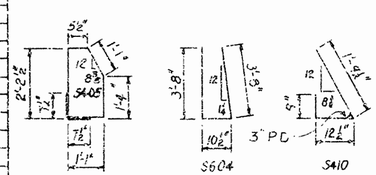


RISER DETAIL
1" = 1'-0"

BAR LIST (EACH SPAN)

MK	NO REQ'D END	NO REQ'D INT.	LENGTH	PIN DIA.
S401	29	29	24'-8"	STR.
S402	34	34	23'-11"	3"
S403	32	32	6'-4"	2"
S404	30	32	7'-1"	2"
S405	30	32	7'-1"	2"
S406	8	–	12'-8"	STR.
S407	2	–	11'-8"	STR.
S408	10	20	12'-2"	STR.
S409	6	–	11"	STR.
S410	32	32	3'-6"	2"
S411	74	74	23'-5"	STR.
S502	32	32	6'-7"	3 3/4"
S601	2	–	11'-8"	STR.
S602	4	–	12'-8"	STR.
S603	6	12	12'-2"	STR.
S604	4	–	7'-11"	3 3/4"
S605	6	–	4'-5"	3 3/4"
S801	4.5	76	24'-8"	STR.
S802	2	–	25'-2"	STR.

BENDING DIAGRAMS



DIMENSIONS ARE OUT TO OUT OF BARS

GENERAL NOTES

ALL CONCRETE TO BE CLASS S/A; ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

REINFORCING STEEL TO BE ASTM A615 GRADE 60. BAR SUPPORTS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL".

ROOFING FELT, BITUMINOUS FELT, PREFORMED JOINT, AND SYNTHETIC POLYMER JOINTS SHALL BE MEASURED AND PAID FOR AS CLASS "S/A" CONCRETE.

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION EDITION OF 1972, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1973 AND 1974 INTERIM.
DESIGN LIVE LOADING: HS20
LOAD DISTRIBUTION TO SLAB: DEAD LOAD = 227 PSF

LIVE LOAD = 0.184 WHEELS/FT + 30% IMPACT

METHOD OF DESIGN: LOAD FACTOR
MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE, f'_c = 3500 PSI
YIELD STRENGTH OF REINFORCING STEEL, f_y = 60,000 PSI

QUANTITY	END SPAN	INT SPAN
Concrete**	55.03 yd³	54.42 yd³
Reinforcing Steel	8380 lb	8[illegible] lb
Structural Steel*	215 lb	[illegible] lb

* Not Paid for Directly; Subsidiary to the Item Class S/A Concrete
** Calculated for 2 4" caps

DETAILS OF STANDARD 25'-0" R.C. SLAB SPAN 20° LT. FWD. SKEW - 40° CL. RDWY. CONCRETE PARAPET RAIL

ROUTE 25 SEC. 7

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

ALTERED BY BJM DATE 4-77
CHECKED BY ARW DATE 3-74
DESIGNED BY JWH DATE 11-1973
SCALE AS NOTED

BRIDGE ENGINEER

BRIDGE NO 5726 DRAWING NO. 21335