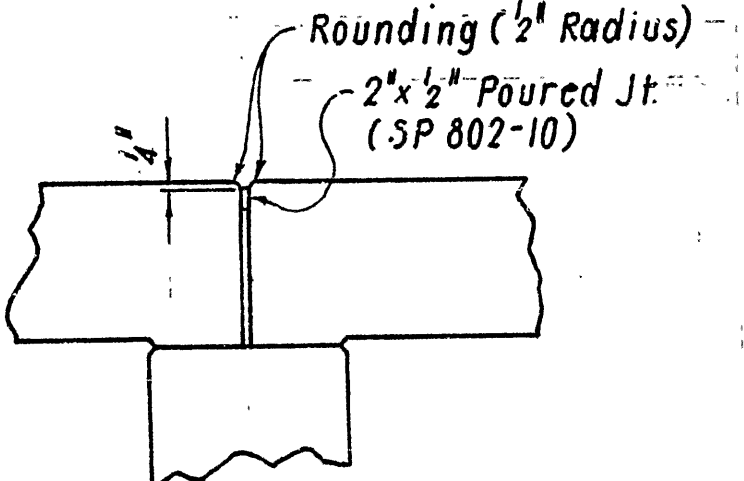


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	2980		6	59
				① 6140-6145	QUANT.		27598	

SCHEDULE OF BRIDGE QUANTITIES - JOB 2980

BRIDGE NO.	CODE NO.	NAME PLATE TITLE	UNIT OF STRUCTURE	ITEM NO.	205	801	SP & 802	* SP & 802	803	804	** SP & 805	*** SP & 805	812	SP & 816	SP & 816	SP & 603
				ITEM	REMOVAL OF EXISTING BRIDGE STRUCTURES	COMMON EXCAVATION FOR STRUCTURES- BRIDGE	CLASS S CONCRETE	CLASS S(AE) CONCRETE	BOILED LINSEED OIL	REINFORCING STEEL (GRADE 60)	PRECAST CONCRETE PILING (16" OCT. or 16" SQ.)	TEST PILES (16" OCT. or 16" SQ.)	BRIDGE NAME PLATES (TYPE "C")	DUMPED RIPRAP	FILTER BLANKET	TEMPORARY BRIDGE STRUCTURES
				LUMP SUM		CU. YD.	CU. YD.	CU. YD.	GAL.	LB.	LIN. FT.	LIN. FT.	EACH	CU. YD.	SQ. YD.	LUMP SUM
6140	X020	HUDGINS CREEK RELIEF	BENT 1		15	9.03				1165	140			55	110	
			BENT 2			6.92				1009	200	45				
			BENT 3			6.92				974	240					
			BENT 4		15	9.03				1165	140			55	110	
			SPAN 1 & 3				152.60	5.8	22754			1.0				
			SPAN 2				75.80	2.9	11293							
TOTALS FOR BRIDGE NO. 6140				0.10	30	31.9	228.4	8.7	38360	720	45	1.0	110	220	0.20	
6141	X020	HUDGINS CREEK	BENT 1			9.01				1165	160			215	430	
			BENT 2			6.92				974	225	50				
			BENT 3			6.92				1009	270					
			BENT 4			6.92				974	270					
			BENT 5			6.92				974	225	50				
			BENT 6		14	9.01				1165	160			175	350	
			SPAN 1 & 5				152.62	5.8	22754			1.0				
			SPAN 2, 3 & 4				227.48	8.7	33895							
TOTALS FOR BRIDGE NO. 6141				0.23	14	45.7	380.1	14.5	62910	1310	100	1.0	390	780	0.27	
6142	X020	HUDGINS CR. RELIEF	BENT 1		12	8.88				1158	140			176	352	
			BENT 2			6.92				974	160	45				
			BENT 3			6.92				1009	200					
			BENT 4		13	8.88				1158	140			147	294	
			SPAN 1 & 3				86.52	4.2	13650			1.0				
			SPAN 2				42.98	2.1	6731							
TOTALS FOR BRIDGE NO. 6142				0.16	25	31.6	129.5	6.3	24680	640	45	1.0	323	646	0.10	
6143	X020	HUNDLEY CREEK	BENT 1		14	9.03				1165	160			158	316	
			BENT 2			6.88				974	160	45				
			BENT 3			6.88				1009	200					
			BENT 4			6.88				974	160	45				
			BENT 5		11	9.03				1165	160			102	204	
			SPAN 1 & 4				115.9	5.0	19238			1.0				
			SPAN 2 & 3				115.8	5.0	19095							
TOTALS FOR BRIDGE NO. 6143				0.16	25	38.7	231.7	10.0	43620	840	90	1.0	260	520	0.20	
6144	X020	HUNDLEY CR. RELIEF	BENT 1		11	8.88				1158	160			174	348	
			BENT 2			6.92				974	160	45				
			BENT 3			6.92				1009	200					
			BENT 4		11	8.88				1158	160			145	290	
			SPAN 1 & 3				86.52	4.2	13650			1.0				
			SPAN 2				42.98	2.1	6731							
TOTALS FOR BRIDGE NO. 6144				0.08	22	31.6	129.5	6.3	24680	680	45	1.0	319	638	0.10	
6145	X020	HUNGERRUN CREEK	BENT 1		13	9.02				1165	160			124	248	
			BENT 2			6.92				974	200	45				
			BENT 3			6.92				1009	240					
			BENT 4			6.92				974	200	45				
			BENT 5		13	9.02				1165	160			140	280	
			SPAN 1 & 4				152.62	5.8	22753			1.0				
			SPAN 2 & 3				151.68	5.8	25590							
TOTALS FOR BRIDGE NO. 6145				0.27	26	38.8	304.3	11.6	53630	960	90	1.0	264	528	0.13	
TOTALS FOR JOB NO. 2980				1.0	142	218.3	1403.5	57.4	247880	5150	415	6.0	1666	3332	1.0	



Note: All joints to be cleaned by sand blasting or other approved methods before pouring joint.

JOINT DETAIL
N.T.S.

DALE F. LOE
DESIGN SQUAD SUPERVISOR

SCHEDULE OF BRIDGE QUANTITIES
CLEVELAND CO. LINE - MONTICELLO
BRIDGE & APPRS.
DREW COUNTY
ROUTE 35 SEC. 7

ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

* Refers to SP 807-10
** Refers to SP 802-5
*** Refers to SP 802-5, SP 805-2

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	2980		18	59
				6140	LAYOUT		27599	

GENERAL NOTES

BENCH MARK: "□" IN HUB RAIL 10' RT. STA. 54+06, ELEV. 140.88.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

LIVE LOADING: HS20

METHOD OF DESIGN: LOAD FACTOR

DETAIL DRAWINGS:

	DRAWING NO.
END BENTS	27601
INTERMEDIATE BENTS	27601
SPANS	27602
EXCAVATION FOR STRUCTURES	1891F
EMBANKMENT CONSTRUCTION	1888A
GUARD RAIL CONNECTION	GR-8A
TYPE C BRIDGE NAME PLATES	2398A
TYPE J APPROACH GUTTERS	1898J
TEMPORARY BRIDGE STRUCTURES	2391 & 2392
PRECAST CONCRETE PILING	2383

CONCRETE PILING: PILING FOR BENTS 1-4 SHALL BE 16" OCT. OR 16" SQ. PRECAST CONCRETE AND 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" BELOW NATURAL GROUND. LENGTHS OF PILING SHOWN ARE ASSUMED FOR ESTIMATING QUANTITIES ONLY. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. DRIVE ONE 45" TEST PILE IN BENT 2. PILES IN END BENTS TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE. PILE SHAPES SHALL NOT BE MIXED ON ANY BRIDGE.

EXISTING BRIDGE: REMOVE THE EXISTING 20' WIDE BY 78' LONG BRIDGE NO. 1659. THE SUPERSTRUCTURE CONSISTS OF A CONCRETE DECK WITH TIMBER STRINGERS. THE SUBSTRUCTURE CONSISTS OF TIMBER PILE BENTS AND TIMBER ABUTMENTS. ALL EXISTING BRIDGE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR. SEE SECTION 205 OF THE STANDARD SPECIFICATIONS.

TEMPORARY BRIDGE: CONSTRUCT A 90' LONG TEMPORARY BRIDGE APPROXIMATELY 40' DOWNSTREAM. THE TEMPORARY BRIDGE SHALL HAVE A MINIMUM ROADWAY WIDTH OF 20' A MINIMUM LIVE LOAD CAPACITY OF HS AND A MINIMUM DECK ELEVATION OF 135.4 FEET. SEE SECTION 603 OF THE STANDARD SPECIFICATIONS. SEE SP 603-3.

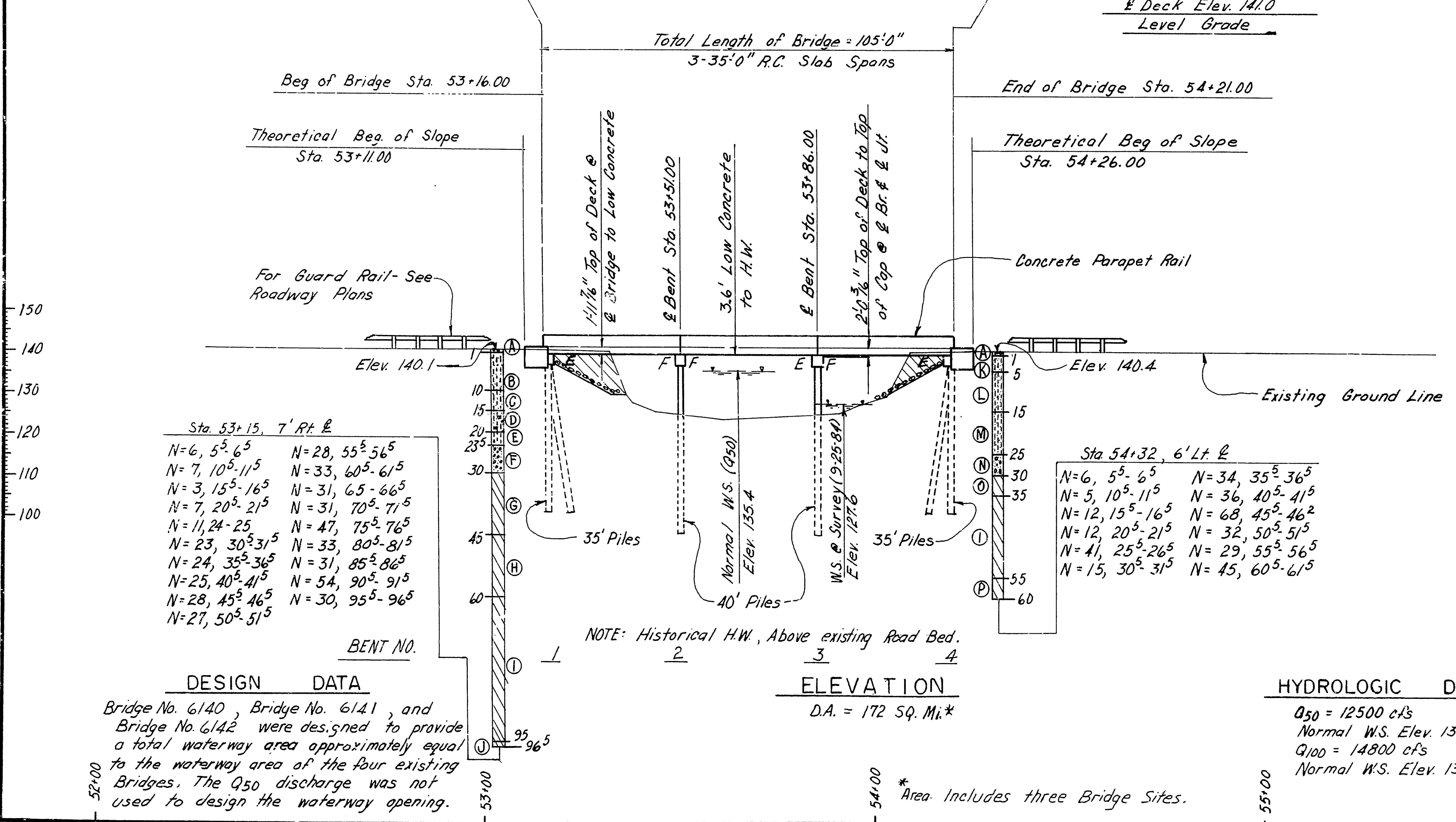
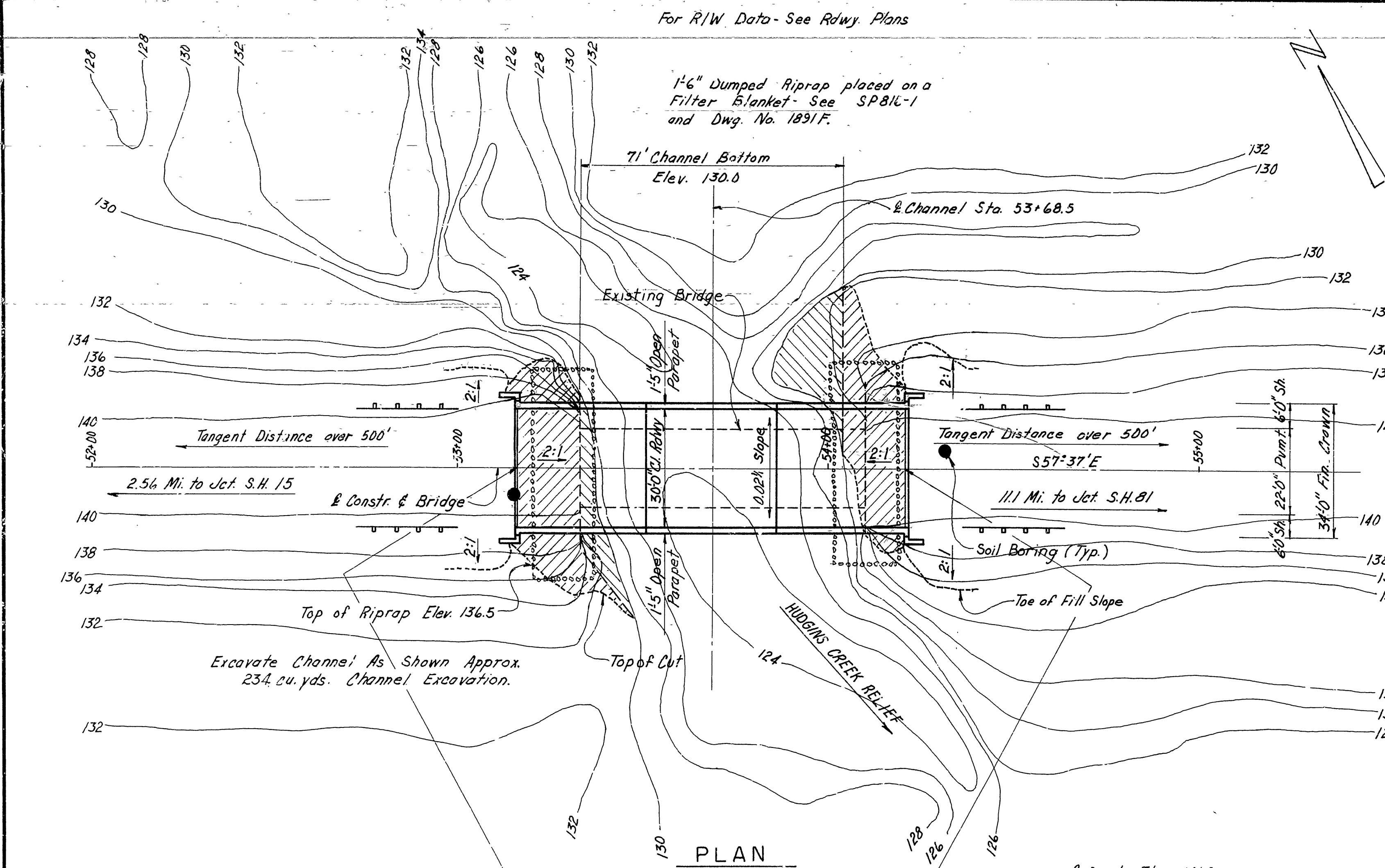
IF TIMBER PILING AND PINE TIMBER ARE USED ON THIS TEMPORARY BRIDGE STRUCTURE, THE MATERIALS SHALL BE TREATED WITH A PRESERVATIVE ACCORDING TO THE STANDARD SPECIFICATIONS.

BOILED LINSEED OIL: BOILED LINSEED OIL TREATMENT SHALL BE APPLIED TO THE ROADWAY SURFACE AND FACE AND TOP OF THE CONCRETE PARAPET RAIL.

BRIDGE DECK: THE CONCRETE BRIDGE DECK SHALL BE GIVEN A FINE FINISH AS SPECIFIED FOR FINAL FINISHING IN SUBSECTION 802.23 FOR CLASS 6 ROADWAY SURFACE FINISH.

BORING LEGEND

- A. ASPHALT PAVEMENT.
- B. MOIST, MEDIUM STIFF, BROWN AND GRAY SANDY, SILTY CLAY (FILL MATERIAL).
- C. MOIST, MEDIUM STIFF, BROWN AND GRAY SANDY, SILTY CLAY.
- D. MOIST, SOFT, BROWN AND GRAY SANDY, SILTY CLAY WITH SOME GRAVEL.
- E. MOIST, MEDIUM STIFF, GRAY SILTY CLAY.
- F. WET, MEDIUM DENSE, GRAY AND BROWN SAND AND GRAVEL.
- G. MOIST, VERY STIFF, GRAY CLAY WITH SILT AND SAND LENSES.
- H. MOIST, VERY STIFF, GRAY FOSSILIFEROUS CLAY WITH SILT AND SAND LENSES.
- I. MOIST, HARD, GRAY FOSSILIFEROUS CLAY WITH SILT AND SAND LENSES.
- J. MOIST, VERY STIFF, GRAY AND BROWN CLAY WITH SILT AND SAND LENSES.
- K. MOIST, MEDIUM STIFF, BROWN SILTY SANDY CLAY (FILL MATERIAL).
- L. MOIST, MEDIUM STIFF, BROWN SILTY SANDY CLAY.
- M. MOIST, STIFF, BROWN TO BROWN AND GRAY SILTY, SANDY CLAY.
- N. WET, DENSE, BROWN AND GRAY SAND AND GRAVEL WITH ORGANIC MATTER (WOOD).
- O. MOIST, STIFF, GRAY CLAY WITH SILT AND SAND LENSES.
- P. MOIST, VERY STIFF TO HARD GRAY FOSSILIFEROUS CLAY WITH SILT AND SAND LENSES.



HYDROLOGIC DATA

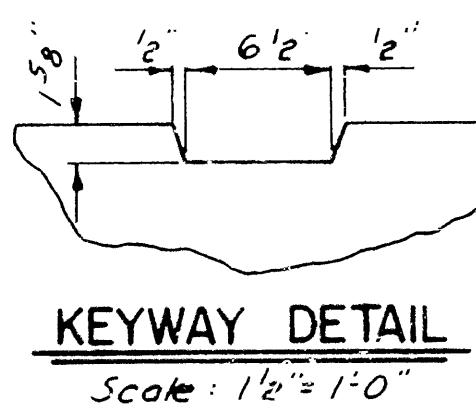
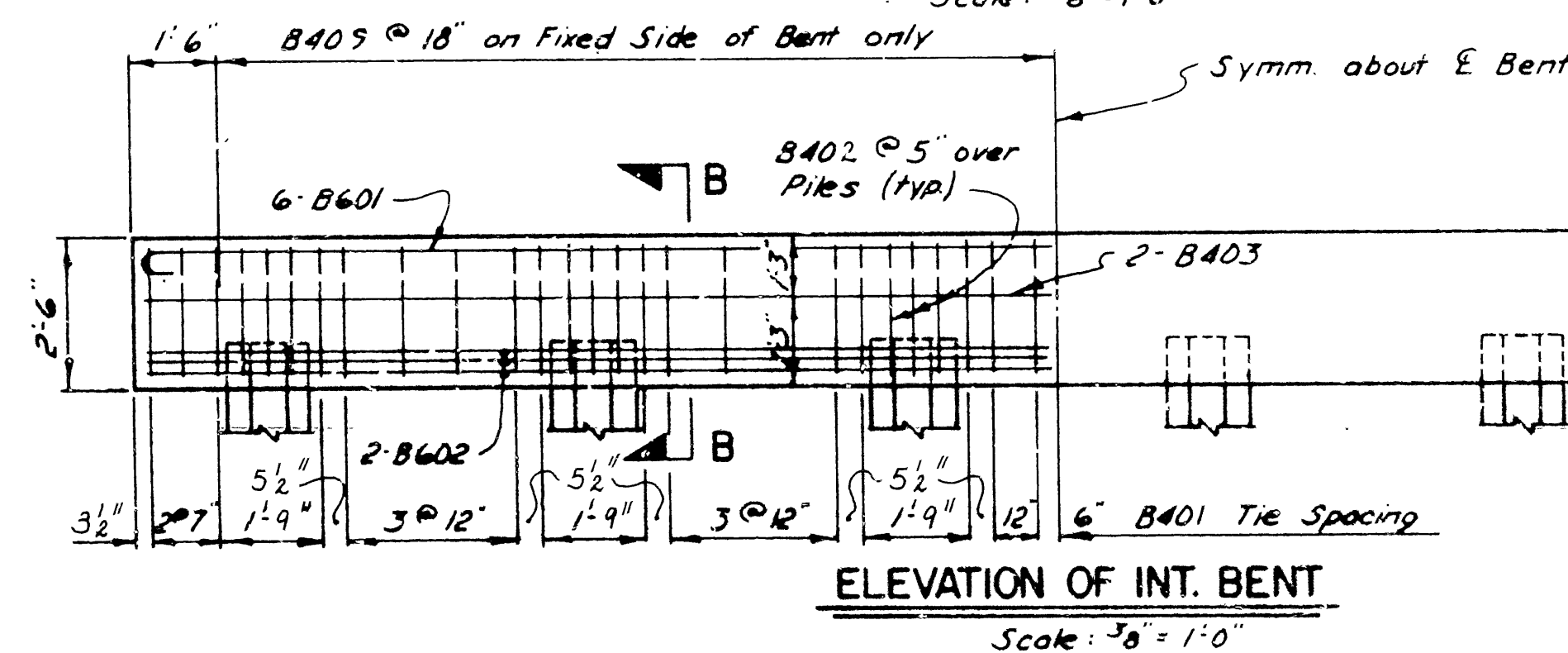
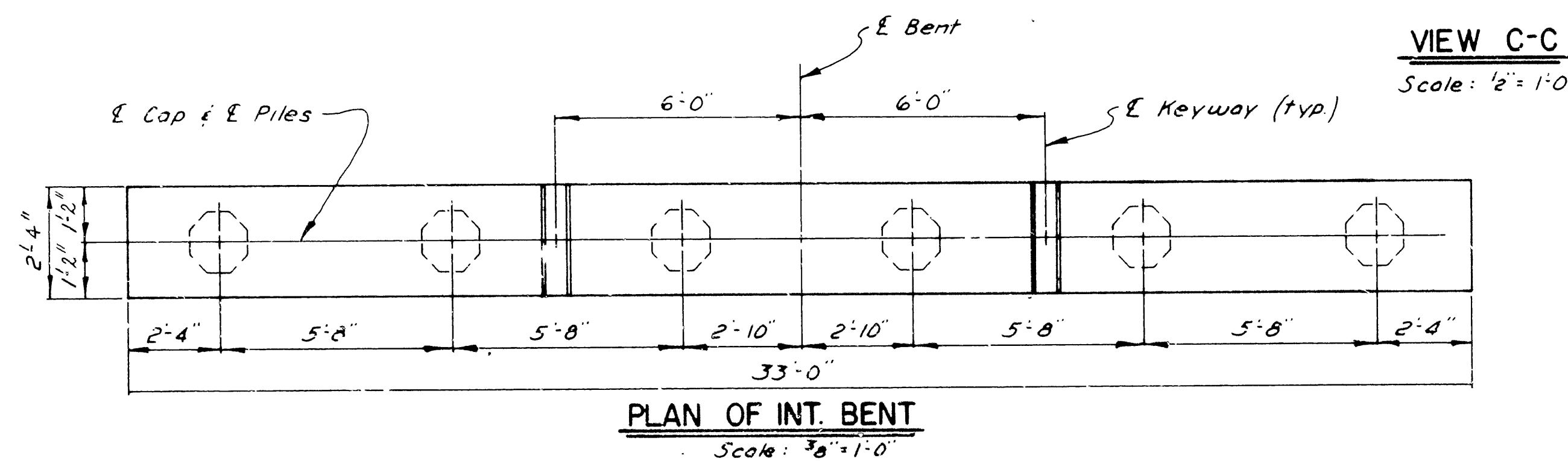
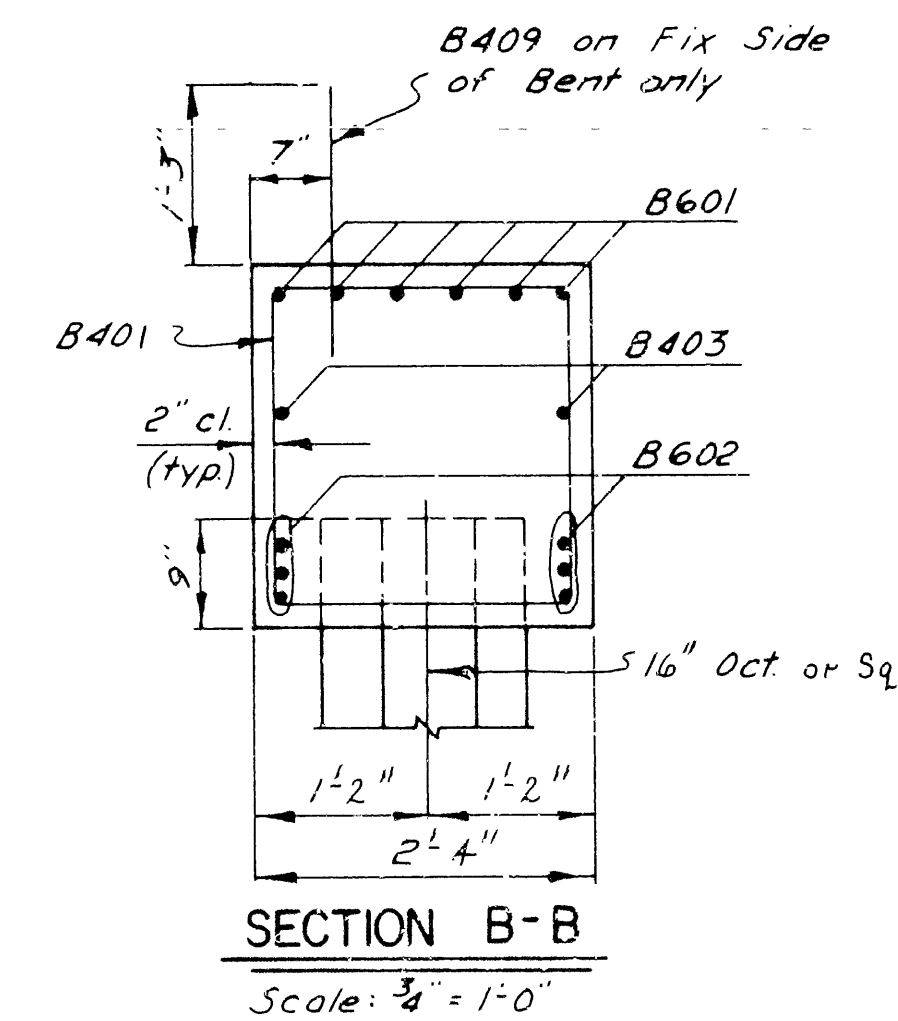
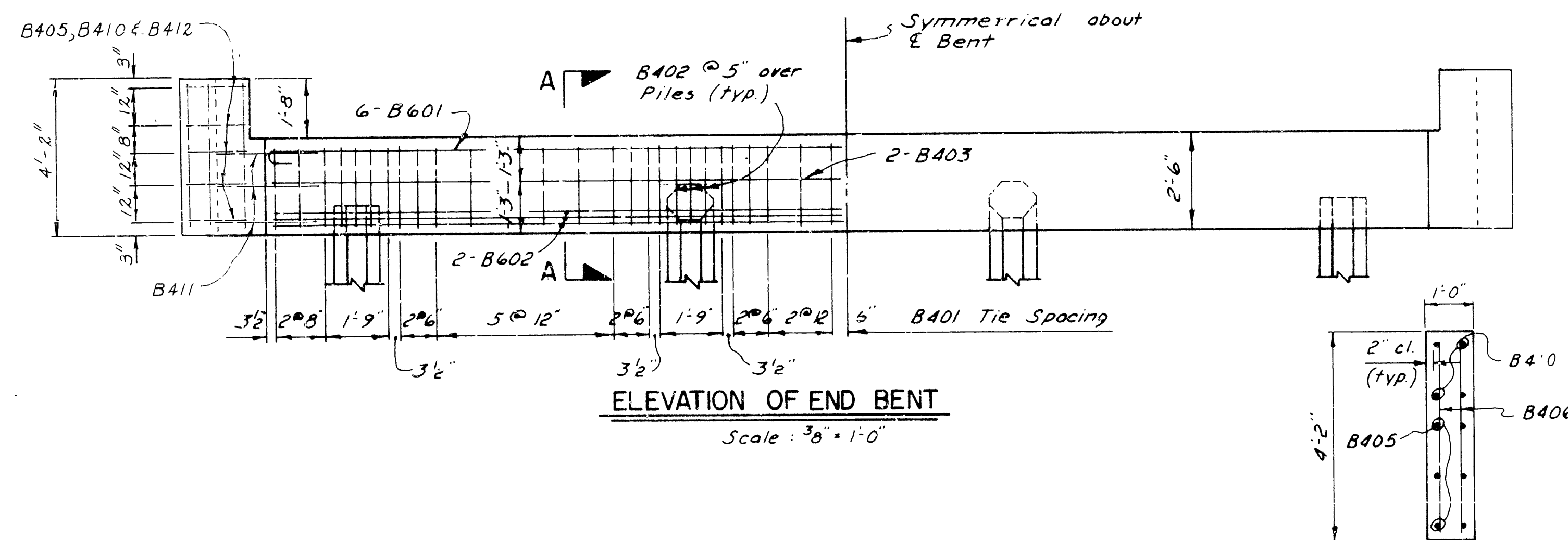
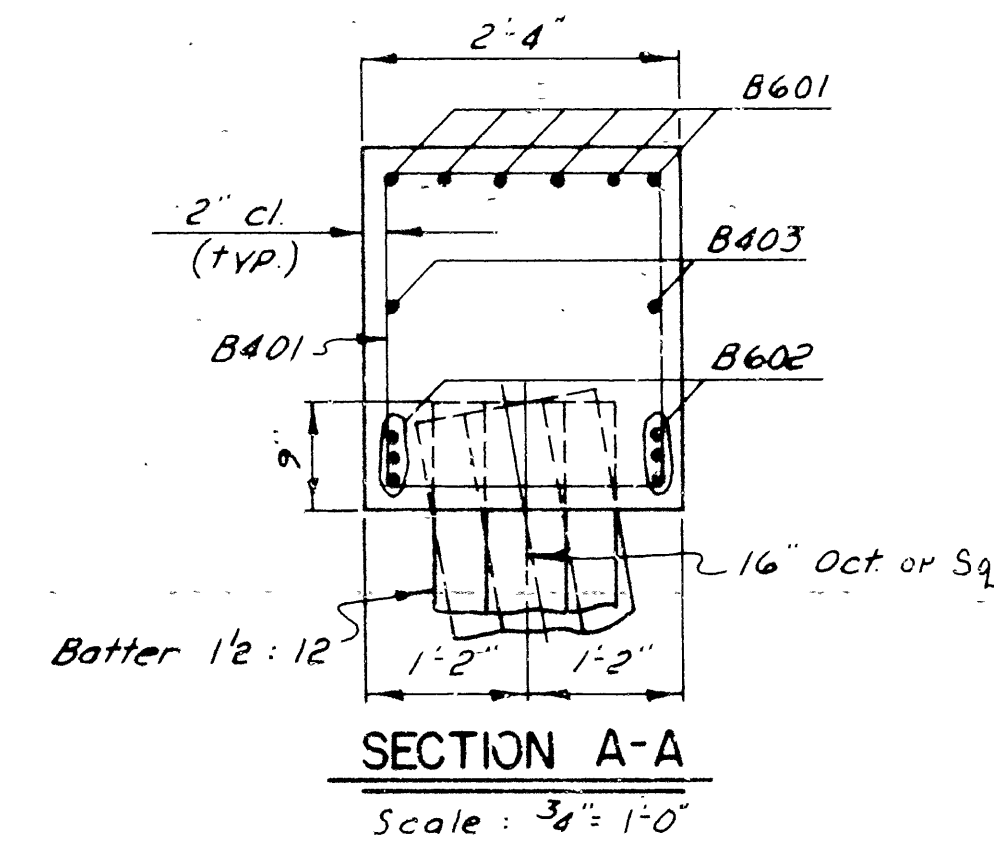
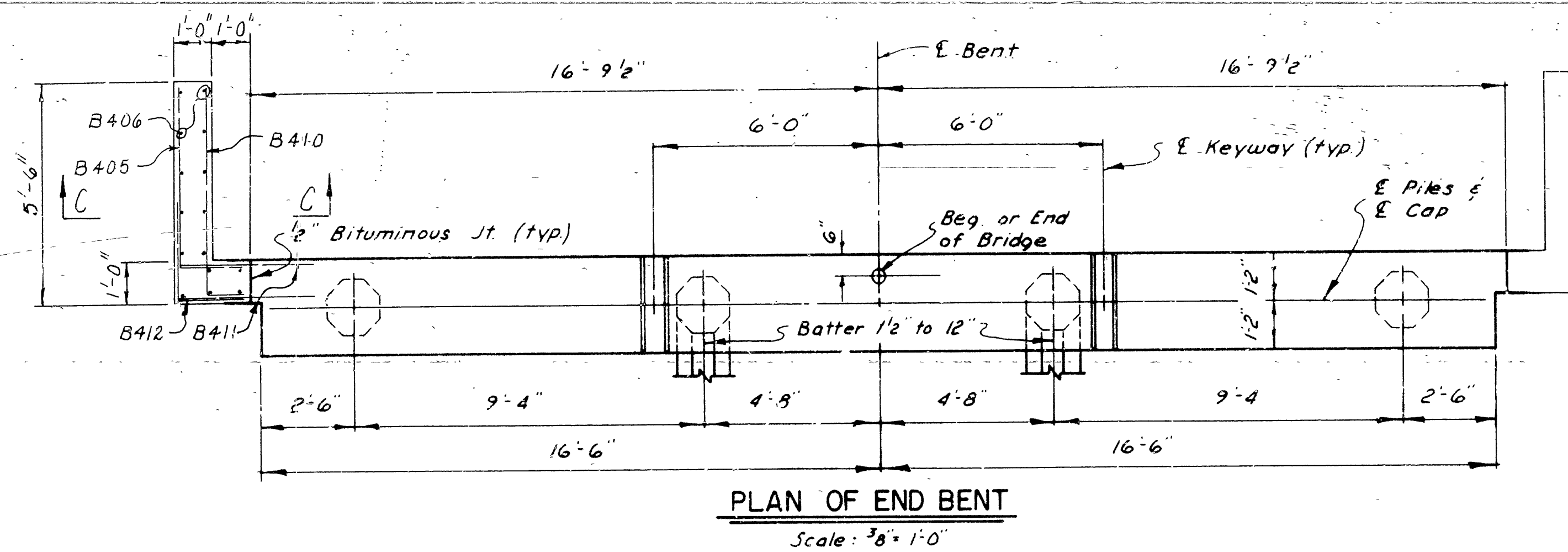
Q₅₀ = 12500 cfs
Normal W.S. Elev. 135.4
Q₁₀₀ = 14800 cfs
Normal W.S. Elev. 135.8

LAYOUT OF BRIDGE OVER
HUDGINS CREEK RELIEF STA. 53+00
CLEVELAND CO. LINE - MONTICELLO
BRIDGE & APPRS.
DREW COUNTY
ROUTE 35 SEC. 7
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MBJ DATE: 5-29-85
CHECKED BY: DFL DATE: 7-2-85
DESIGNED BY: DFL DATE: 5-29-85

BRIDGE NO. 6140 DRAWING NO. 27599

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	2980		20	59
					6140, 6141, 6145	BT, DTL'S.	27601	



QUANTITIES PER BENT

	CONCRETE	REINFORCING STEEL
END BENT	9.03 CU. YDS	1145 LBS.
INT. BENT FIX-FIX	6.88 CU. YDS	1009 LBS.
INT. BENT FIX-EXP.	6.88 CU. YDS	974 LBS.

BAR LIST (EACH BENT)

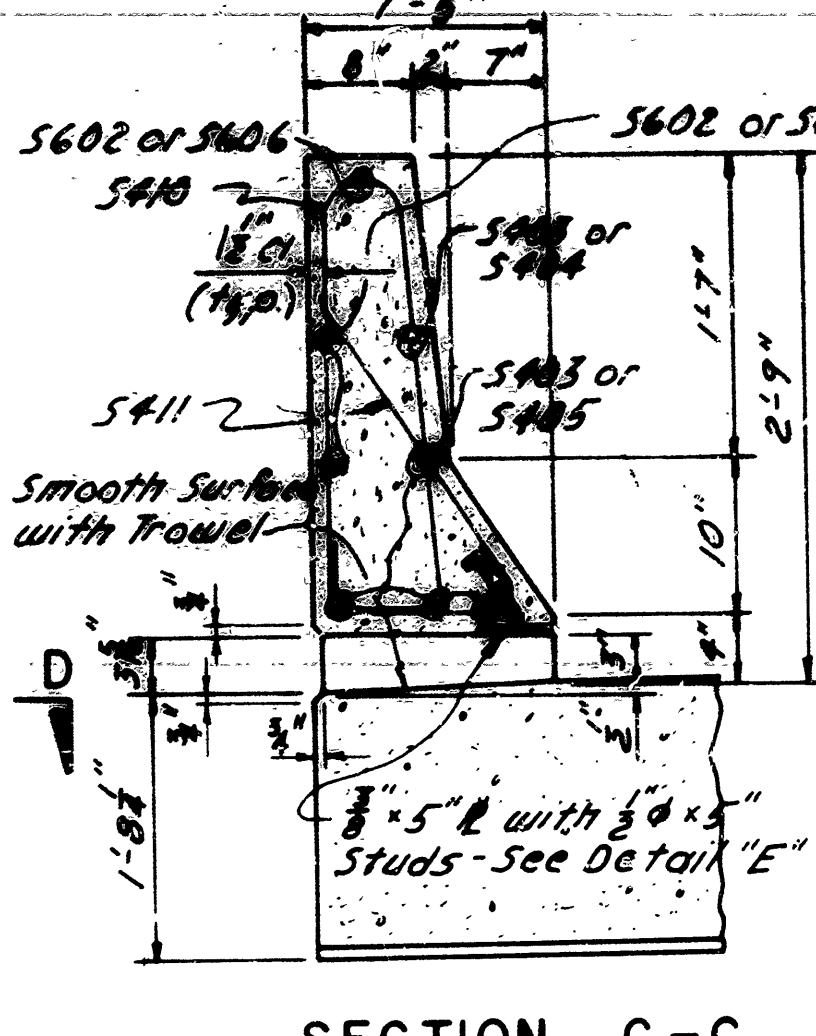
MARK	NO. REQ'D	END	INT.	LENGTH	A	B	PIN DIA.	BENDING DIAGRAMS
B401	42	36	6'-2"	2'-0"	2'-2"	2"		
B402	12	18	6'-2"	2'-0"	2'-2"	2"		
B403	2	2	32'-8"			Str.		
B405	10		6'-1"	4'-6"	1'-8"	2"		
B406	30		3'-10"			Str.		
B409	*		2'-6"			Str.		
B601	6	6	34'-0"	32'-8"	6"	4 1/2"		
B602	6	6	32'-8"			Str.		
B410	10		6'-1"	5'-2"	1'-0"	2"		
B411	12		3'-6"			Str.		
B412	10		4'-1"	2'-6"	1'-8"	2"		

- * 21 Required For Fix-Exp Bent
- * 42 Required For Fix-Fix Bent

GENERAL NOTES

- ALL CONCRETE TO BE CLASS "S" AND SHALL BE POURED IN THE DRY. ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.
- REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60.
- ALL PILING IN END BENTS SHALL BE 16 INCH Oct. or Sq. PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. ALL PILING IN INTERIOR BENTS SHALL BE 16 INCH Oct. or Sq. PRECAST CONCRETE AND SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE AS SHOWN ON THE LAYOUT.
- SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.
- LIVE LOADING: HS20
- METHOD OF DESIGN: LOAD FACTOR
- UNIT STRESSES: f_c = COMPRESSIVE STRENGTH OF CLASS "S" CONCRETE 3,500 PSI
 f_y = YIELD STRENGTH OF REINFORCING STEEL 60,000 PSI

DETAILS OF STANDARD PILE BENTS
35'-0" R.C. SLAB SPAN
30'-0" CLEAR ROADWAY
CONCRETE PARAPET RAILING
ROUTE 160 SEC. 2
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: D.H.P. DATE: 5-9-83
CHECKED BY: GVA DATE: 5-27-83 SCALE: As Noted
DESIGNED BY: D.H.P. DATE: 5-9-83
BRIDGE NO. 6140, 6141, 6145 DRAWING NO. 27601



① 6140, 6141, 6145 SPAN DTL'S. 27602

GENERAL NOTES

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

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

BAR SUPPORTS FOR REINFORCING BARS WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "REINFORCING STEEL".

ROOFING FELT, BITUMINOUS FELT, PREFORMED JOINT, STRUCTURAL STEEL, AND POURED JOINTS SHALL BE MEASURED AND PAID FOR AS CLASS S (A.E.) CONCRETE

SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978, AND APPLICABLE SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO 1983 AND INTERIMS.

DESIGN LIVE LOADING: HS20

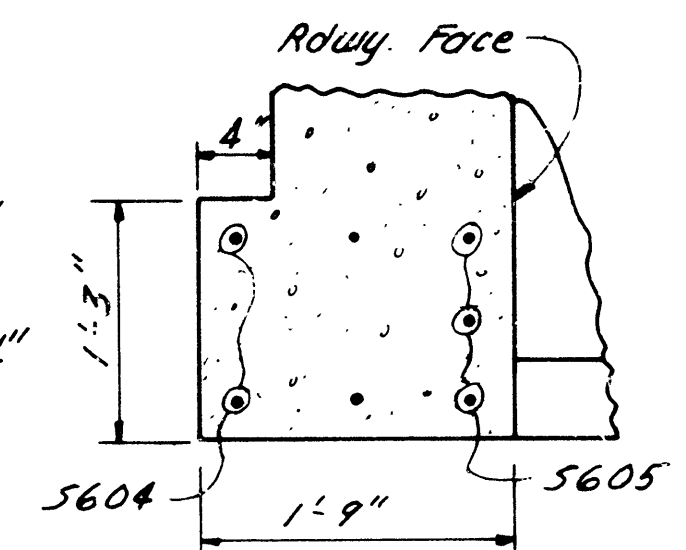
LOAD DISTRIBUTION TO SLAB: DEAD LOAD *286 PSF; LIVE LOAD - 0.166 WHEELS/FT. OF WIDTH PLUS 30% IMPACT.

UNIT STRESSES: COMPRESSIVE STRENGTH OF CLASS S OR S(AE) CONCRETE = 3,500 PSI
YIELD STRENGTH OF REINFORCEMENT = 60,000 PSI

LOAD FACTOR USED FOR DESIGN OF SLAB.

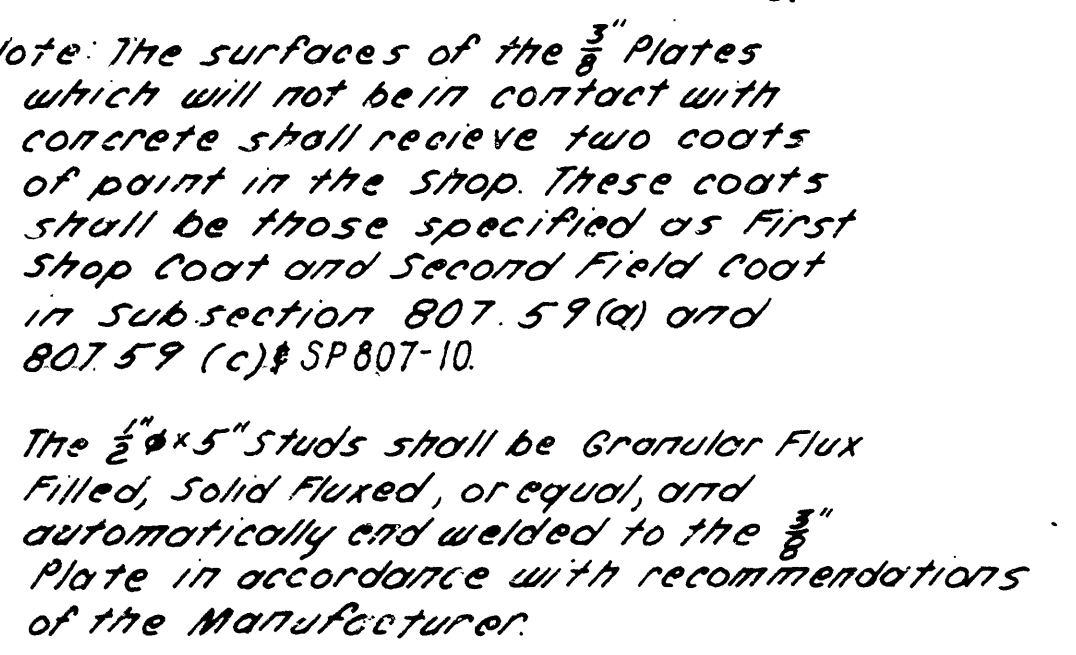
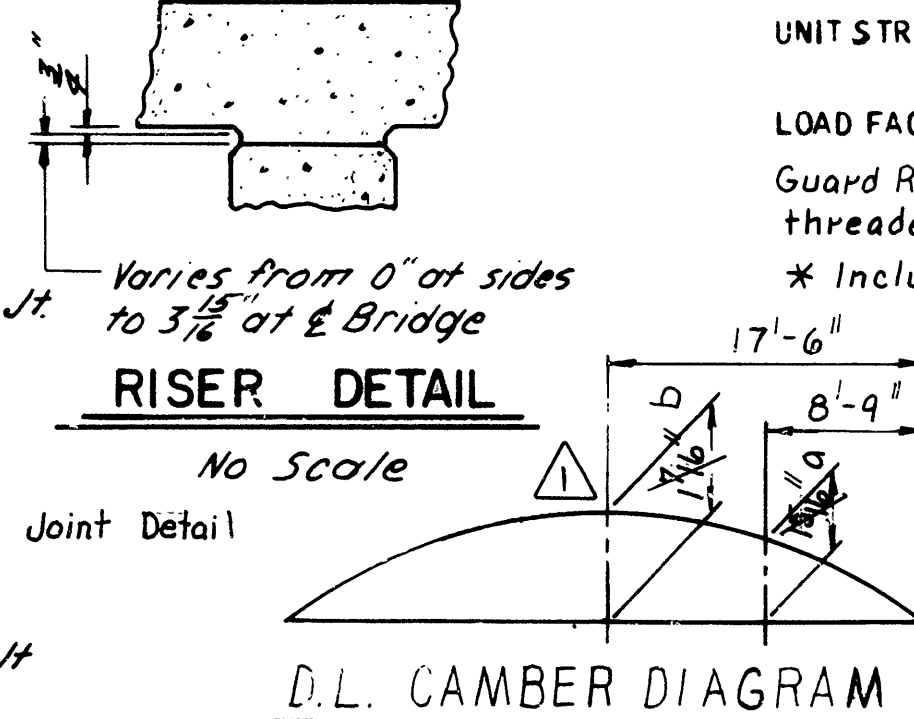
Guard Rail Connection Bolts shall be 3/4"x8" A325 Galvanized Bolts with 1/4" threaded. (Non-Pay Item - Subsidiary to other items.) (Type I)

* Includes 2.5 # Future Wearing Surface.



DEAD LOAD DEFLECTION

Variable	a	b
immediate	$1_4''$	$5_{16}''$
Long Term	$1_2''$	$1_{16}''$
Total Deflection	$3_4''$	$1''$



	Concrete	Reinforcing Steel	Structural Steel
End Span	** 76.31 cu yd.	11,377 Lbs.	* 322 Lbs.
Int. Span	** 75.82 cu yd.	11,297 Lbs.	* 322 Lbs.

- * For information only ; Structural Steel to be measured and paid for as Class S or S(AE) concrete.
- ** Concrete Quantities calculated for 2'4" Caps.

DETAILS OF STANDARD
35'-0" R.C. SLAB SPAN
30' CL. RDWY.-CONCRETE PARAPET RAIL
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION

ALTERED BY: MRS DRAWN BY: H. H. H. DATE: 8-22-83
CHECKED BY: MPT DATE: 8-23-83 SCALE: as noted
DESIGNED BY: STG DATE: _____
P. Pinkster
BRIDGE ENGINEER
BRIDGE NO. 6140, 6142, 6145 DRAWING NO. 27602