

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. R10085			1	92
				② BAYOU DeVIEW STRS. AND APPRS. (F)				

"A FULLY CONTROLLED ACCESS FACILITY"

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

CONSTRUCTION PLANS FOR STATE HIGHWAY

BAYOU DeVIEW

STRS. AND APPRS. (F)

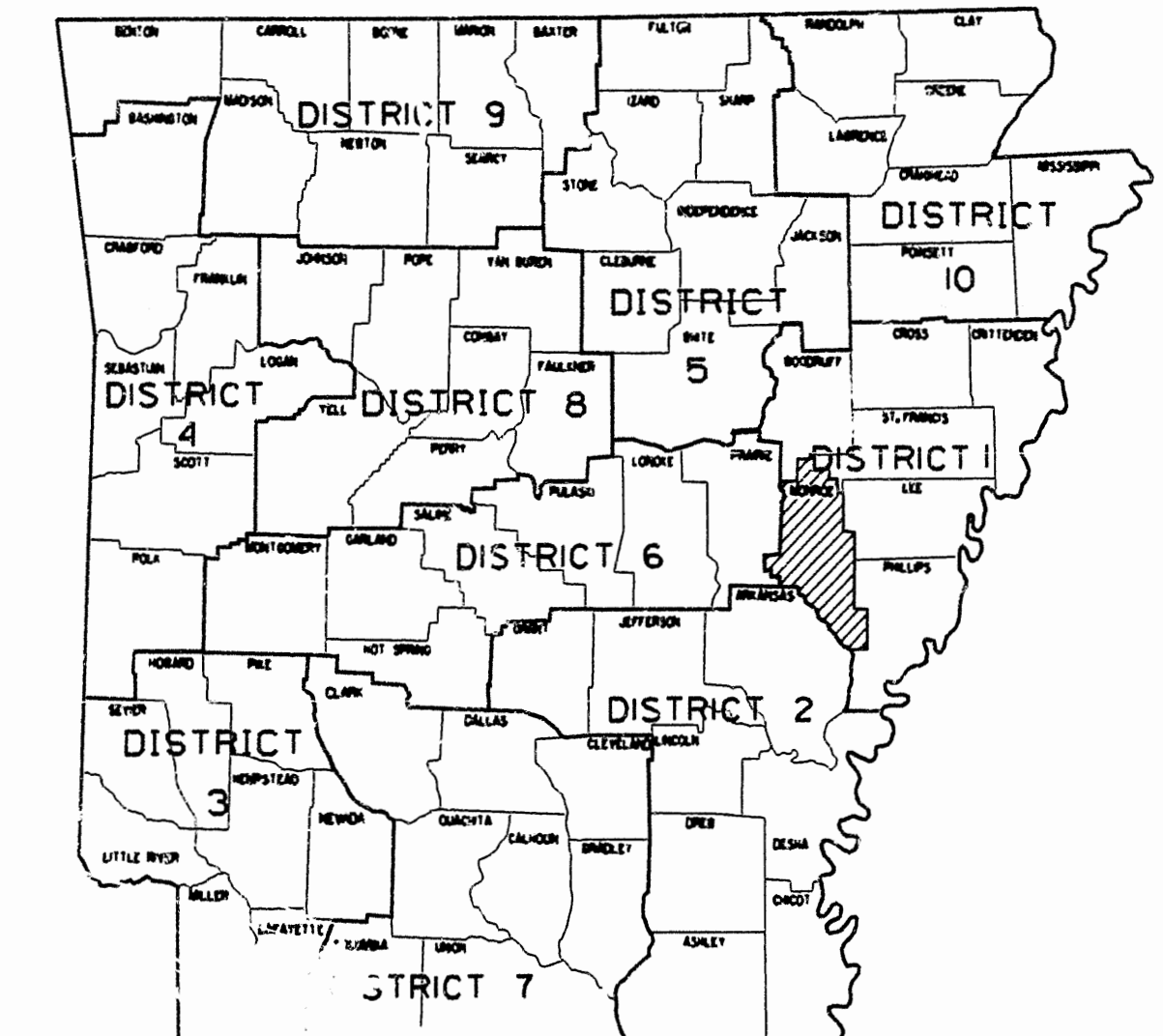
MONROE COUNTY

ROUTE 40 SECTION 43

FEDERAL AID PROJECT BRN-40-4(69)209

JOB R10085

SCALE: 1" = 1/2 MILE



ARK. HWY. DIST. 1

DESIGN TRAFFIC DATA

DESIGN YEAR	2017
1997 ADT	26800
2017 ADT	45100
2017 DHV	4961
DIRECTIONAL DISTRIBUTION	0.60
TRUCKS	48%
DESIGN SPEED	70 MPH

RECOMMENDED FOR APPROVAL

BRIDGE DESIGN ENGINEER

ROADWAY DESIGN ENGINEER

DISTRICT ENGINEER

APPROVED

CHIEF ENGINEER

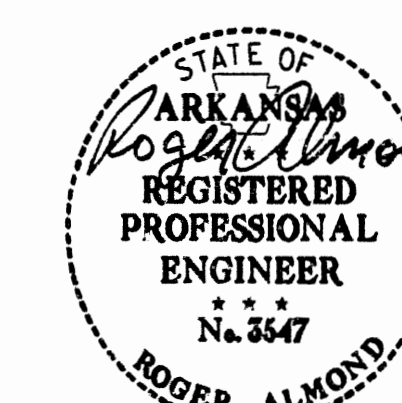
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
RECOMMENDED FOR APPROVAL

APPROVED

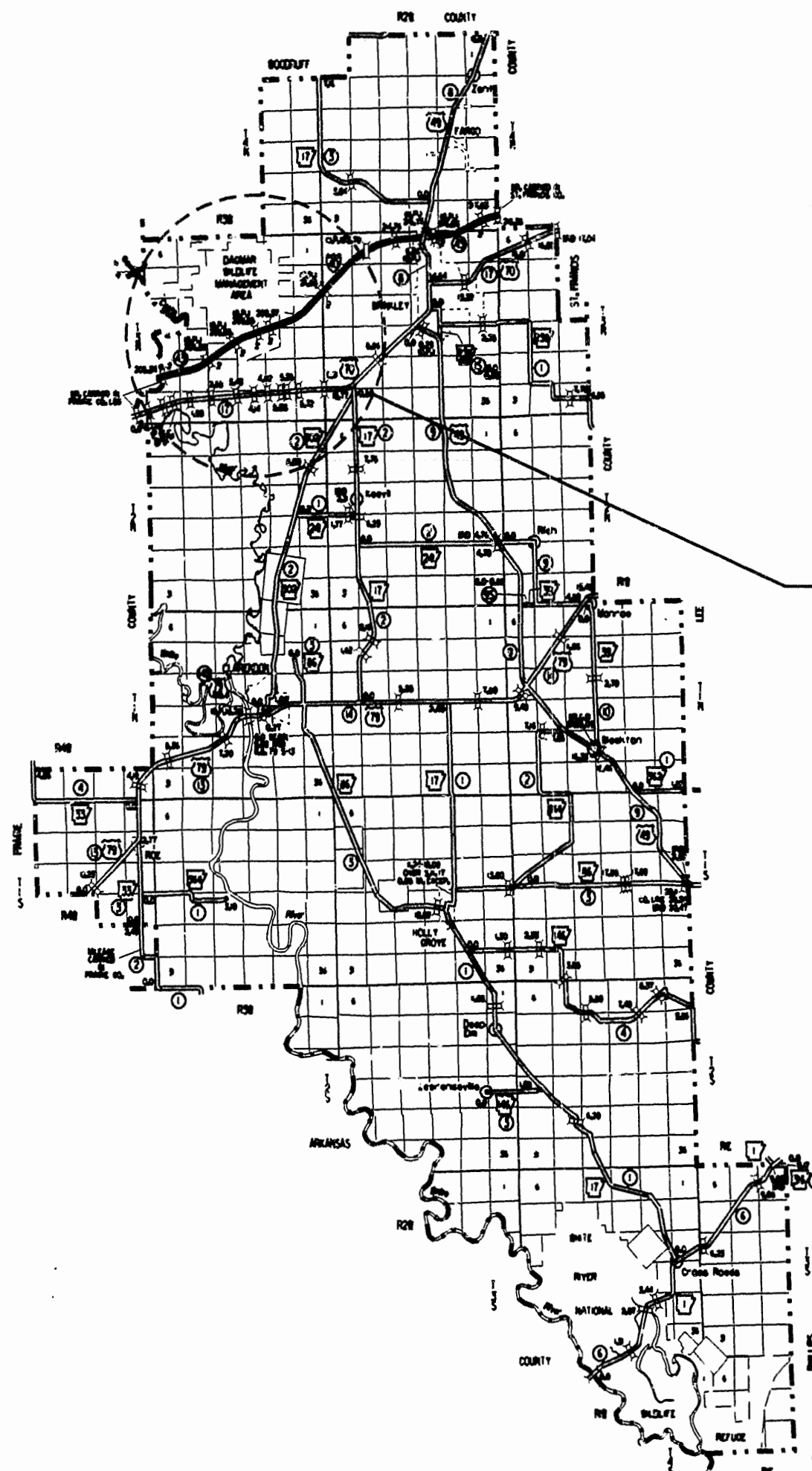
DIVISION ENGINEER

DATE

DATE



P.E. JOB 001726
NON-PART.

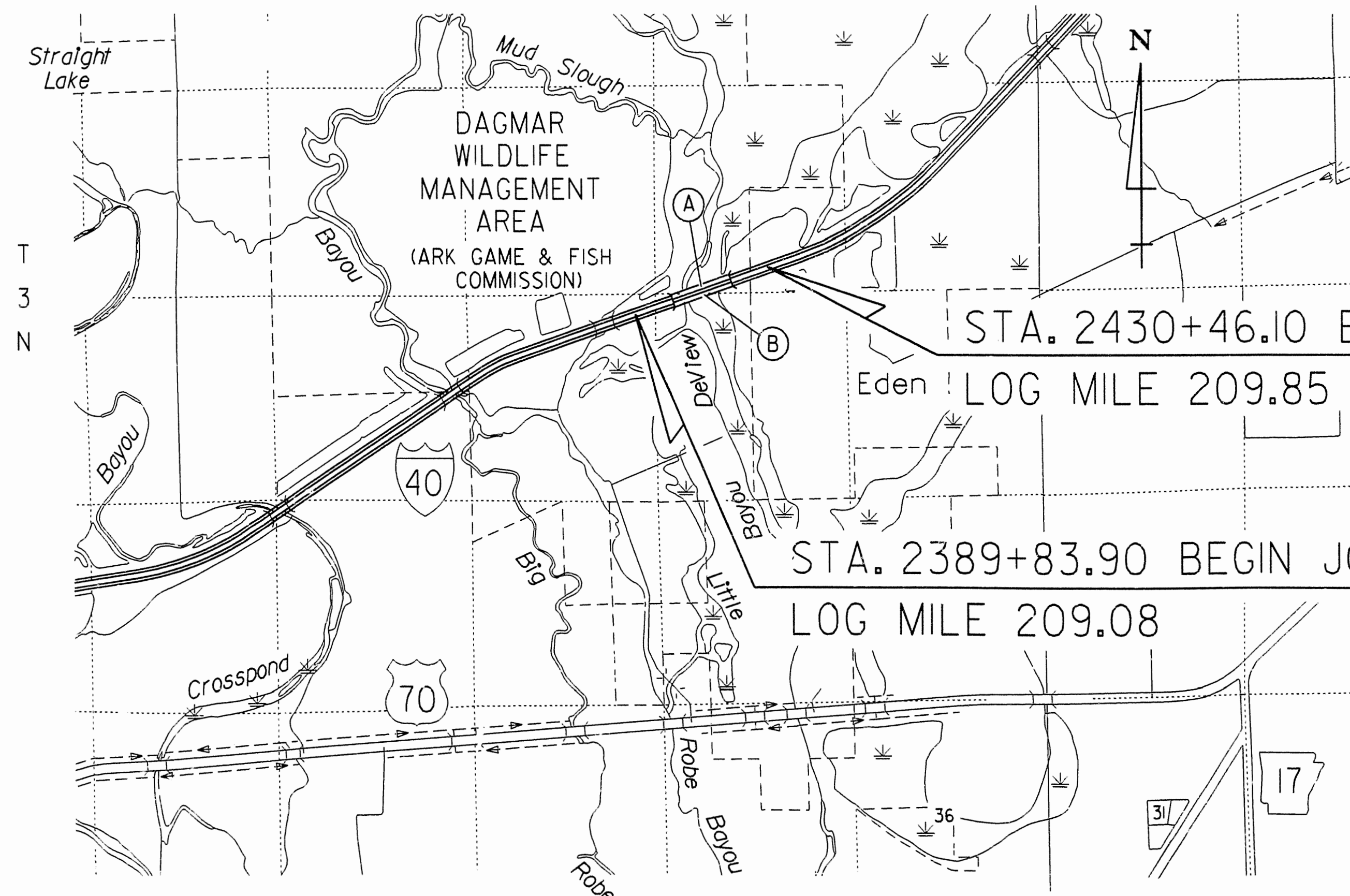


PROJECT LOCATION

MONROE COUNTY

BRIDGE DATA

- (A) STA. 2405+38.90 BRIDGE END A
1322'-2 1/2" CONT. COMP. W-BEAM
BRIDGE NO. 3724A
40'-0" CLEAR ROADWAY
STA. 2418+61.0 BRIDGE END A
- (B) STA. 2405+38.90 BRIDGE END B
1322'-2 1/2" CONT. COMP. W-BEAM
BRIDGE NO. 3724B
40'-0" CLEAR ROADWAY
STA. 2418+61.0 BRIDGE END B



MID-POINT OF PROJECT
LATITUDE 34°52'00"N
LONGITUDE 91°17'30"W

NOTE: LENGTH IS COMPUTED ALONG C/MEDIAN & IS SHOWN FOR INFORMATION ONLY.

GROSS LENGTH OF PROJECT	4062.20	FEET OR	0.769	MILES
NET " " ROADWAY	2740.00	" "	0.519	"
NET " " BRIDGES	1322.20	" "	0.250	"
NET " " PROJECT	4062.20	" "	0.769	"

R10085.TIT

5- B-57

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.	R10085		27	92
				3724 A	QUANTITIES		35711	

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R10085																									
BRIDGE NO. CODE NO. NAME PLATE	UNIT OF STRUCTURE	ITEM	ITEM NO.	801	802	802	802 *	803	804	804	805	805	SP Job R10085	SP Job R10085	SP Job R10085	807	SP & 808	SP Job R10085	SP & 808	812	816	816	821	SP Job R10085	SP Job R10085
			UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	SEAL CONCRETE -BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	CONCRETE PILING (16" OCT. OR 14" SQ.)	TEST PILE (16" OCT. OR 14" SQ.)	SLURRY DISPLACEMENT DRILLED SHAFT (4.0' DIA.)	PERMANENT STEEL CASING (4.0' DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN BEAM SPANS (AASHTO M270, GR. 50W)	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	SLIDING ELASTOMERIC BEARING	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP	MODIFICATION OF EXISTING BRIDGE STRUCTURES	CRACK REPAIR	REPAIR OF EXISTING BENTS	
			CU.YDS.	CU.YDS.	CU.YDS.	CU.YDS.	GAL.	LB.	LB.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LB.	CU.IN.	LIN.FT.	CU.IN.	EACH	SQ.YDS.	CU.YDS.	LUMP SUM	LIN.FT.	CU.FT.	
3724 A X071 BAYOU DE VIEW	END BENT 1	52	19.32			28.09	0.3	2,365	456	47 Δ	52					1,403		42			44	22			
	BENT 2	76	36.05					4,819		310						306									
	BENT 3	72	36.99			27.82		5,006		290						306									
	BENT 4	87	37.80			28.00		5,192		270						308									
	BENT 5	95	37.87			30.67		5,306		310						308									
	BENT 6	75	39.39			28.09		5,492		290						306									
	BENT 7	49	39.01			28.27		5,413		300						306									
	BENT 8	94	38.67			28.36		5,358		310						877		42							
	BENT 9	93	37.84			27.11		5,171		270						306									
	BENT 10	94	37.00			27.91		5,006		261 Δ	34					306									
	BENT 11	102	37.42			28.18		5,099		280						306									
	BENT 12		18.15					4,426					120	20		308									
	BENT 13		18.13					4,426					120	20		308									
	BENT 14		18.24					4,420					120	20		306									
	BENT 15		18.19					4,412					120	36		306									
	BENT 16		18.11					4,406					120	28	60	877		42							
	BENT 17	120	39.03			28.18		5,420		320						306									
	BENT 18	120	38.92			28.18		5,399		320						306									
	BENT 19	138	38.69			28.09		5,379		320						308									
	BENT 20	138	38.58			28.09		5,358		288 Δ	37					308									
	BENT 21	130	38.15			27.91		5,233		330						306									
	BENT 22	138	36.50			28.09		4,912		330						306									
	END BENT 23	52	19.32				0.3	2,365		456	110						1,403		42		1	44	22		
	UNIT 1				506.13		44.1		116,655								385,680	7,177.5		13,104.0					
	UNIT 2				578.20		50.3		133,649								441,187	7,177.5		15,595.9					
	UNIT 3				506.13		44.1		116,655								385,680	7,177.5		13,104.0					
	TOTAL BRIDGE A	1,725	737.37	1,590.46	451.04	139.1	110,383	367,871	4,956	123	600	124	60	Ø 1,222,935	21,532.5	168	41,803.9	1	88	44	1.0	152	7		

* Seal Concrete

The Location For The Use Of Seal Concrete And Elevations For Bottom Of Seal Concrete Which Are Shown On The Plans Are Approximate Only And Have Been Developed For The Purpose Of Estimating Seal Concrete Quantities.

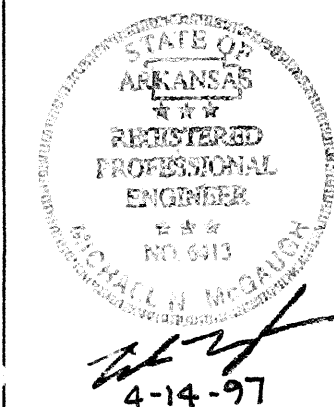
The Contractor's Attention Is Directed To The Fact That The Actual Requirements For The Locations And Quantities Of Seal Concrete May Vary From Those Shown On The Plans Depending Upon The Actual Conditions At The Time Of Construction.

The Contractor Shall Determine Locations And Thicknesses Of Seal Concrete Based On The Actual Conditions Encountered At The Time Of Construction. The Contractor Shall Satisfy All Requirements Of And Submit All Details And Certification Required By Article 801.05(c) Of The Standard Specifications.

Any Increase In The Seal Depth May Require Additional Piling And Must Be Approved By The Engineer Prior To Any Substructure Constuction.

Δ Permanent Pile Quantity Adjusted For Deletion Of One Permanent Pile To Be Included As Permanent Test Pile As Per Article 805.09.

Ø Includes 23,380 Lbs. Of AASHTO M270, GR.36 Structural Steel



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SCHEDULE OF BRIDGE QUANTITIES 1 OF 2 ALT. A. BRIDGE 3724 A	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH CHECKED BY: AD/SM DESIGNED BY: GPS/AD	DATE: 11/96 DATE: 4/97 DATE: 9/94
SCALE: No Scale	
BRIDGE NO. 3724 A & B	
DRAWING NO. 35711	

ABMB ENGINEERS, INC.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO. R10085		28	92	
				3724 B		QUANTITIES		35712

1

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R10085																										
BRIDGE NO.	CODE NO.	NAME PLATE	ITEM NO.		801	802	802	802 *	803	804	804	805	805	SP Job R10085	SP Job R10085	SP Job R10085	807	SP & 808	SP Job R10085	SP & 808	812	816	816	821	SP Job R10085	SP Job R10085
			UN'T OF STRUCTURE	ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	SEAL CONCRETE -BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	CONCRETE PILING (16" OCT. OR 14" SQ.)	TEST PILE (16" OCT. OR 14" SQ.)	SLURRY DISPLACEMENT DRILLED SHAFT (4.0' DIA.)	PERMANENT STEEL CASING (4.0' DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN BEAM SPANS (AASHTO M270, GR. 50W)	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	SLIDING ELASTOMERIC BEARING	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP	MODIFICATION OF EXISTING BRIDGE STRUCTURES	CRACK REPAIR	REPAIR OF EXISTING BENTS
					UNIT	CU.YDS.	CU.YDS.	CU.YDS.	CU.YDS.	GAL.	LB.	LB.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LB.	CU.IN.	LIN.FT.	CU.IN.	EACH	SQ.YDS.	CU.YDS.	LUMP SUM	LIN.FT.
3724 B X071 BAYOU DE VIEW			END BENT 1	52	19.32			0.3	2,365	456	94					1,403		42			1	44	22			
			BENT 2	76	36.07		27.82		4,819		310					306										
			BENT 3	72	37.00		27.91		5,006		290					306										
			BENT 4	87	37.81		28.09		5,192		270					308										
			BENT 5	95	38.42		27.64		5,306		310					308										
			BENT 6	75	39.41		28.18		5,492		261 Δ	34				306										
			BENT 7	49	39.10		27.73		5,413		300					306										
			BENT 8	94	38.67		28.27		5,358		310					877		42								
			BENT 9	93	37.76		28.36		5,171		270					306										
			BENT 10	94	37.04		27.64		5,006		290					306										
			BENT 11	102	37.66		26.31		5,099		280					306										
			BENT 12		18.21				4,426				120	20		308										
			BENT 13		18.17				4,426				120	20		308										
			BENT 14		18.26				4,420				120	20		306										
			BENT 15		18.23				4,412				120	36		306										
			BENT 16		18.17				4,406				120	28		877		42								
			BENT 17	120	39.08		27.82		5,420		288 Δ	37				306										
			BENT 18	120	38.97		28.00		5,399		320					306										
			BENT 19	138	38.67		28.18		5,379		320					308										
			BENT 20	138	38.58		28.18		5,358		320					308										
			BENT 21	130	38.16		28.00		5,233		330					306										
			BENT 22	138	36.56		27.73		4,912		330					306										
			END BENT 23	52	19.32			0.3	2,365	456	55 Δ	60				1,403		42				44	22			
				UNIT 1			506.13	44.1		116,655							385,680	7,177.5		13,104.0						
				UNIT 2			578.20	50.3		133,649							441,187	7,177.5		15,595.9						
				UNIT 3			506.13	44.1		116,655							385,680	7,177.5		13,104.0						
				TOTAL BRIDGE B	1,725	738.64	1,590.46	445.86	139.1	110,383	367,871	4,948	131	600	124	0	1,222,935	21,532.5	168	41,803.9	1	88	44	1.0	153	7
				TOTAL JOB NO. R10085	3,450	1,476.01	3,180.92	896.90	278.2	220,766	735,742	9,904	254	1,200	248	60	2,445,870	43,065.0	336	83,607.8	2	176	88		305	14

* Seal Concrete

The Location For The Use Of Seal Concrete And Elevations For Bottom Of Seal Concrete Which Are Shown On The Plans Are Approximate Only And Have Been Developed For The Purpose Of Estimating Seal Concrete Quantities.

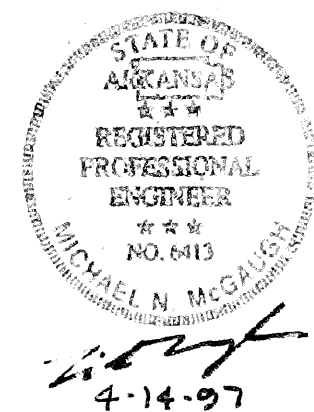
The Contractor's Attention Is Directed To The Fact That The Actual Requirements For The Locations And Quantities Of Seal Concrete May Vary From Those Shown On The Plans Depending Upon The Actual Conditions At The Time Of Construction.

The Contractor Shall Determine Locations And Thicknesses Of Seal Concrete Based On The Actual Conditions Encountered At The Time Of Construction. The Contractor Shall Satisfy All Requirements Of And Submit All Details And Certification Required By Article 801.05(c) Of The Standard Specifications.

Any Increase In The Seal Depth May Require Additional Piling And Must Be Approved By The Engineer Prior To Any Substructure Constnction.

Δ Permanent Pile Quantity Adjusted For Deletion Of One Permanent Pile To Be Included As Permanent Test Pile As Per Article 805.09.

Ø Includes 23,380 Lbs. Of AASHTO M270, GR.36 Structural Steel



ABMB ENGINEERS, INC.

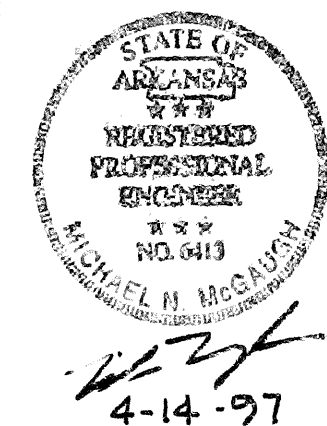
ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SCHEDULE OF BRIDGE QUANTITIES 2 OF 2 ALT. A. BRIDGE 3724 B	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH CHECKED BY: AD/SM DESIGNED BY: GPS/AD	DATE: 11/96 DATE: 4/97 DATE: 9/94
SCALE: No Scale	
BRIDGE NO. 3724 A & B	
DRAWING NO. 35712	

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.	R10085		31	92

① 3724 A QUANTITIES 35715

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R10085																									
BRIDGE NO. 3724 A	CODE NO. X071	NAME PLATE BAYOU DE VIEW	ITEM NO.		801	802	802	803	804	804	805	805	SP	SP	SP	807	SP & 808	SP	SP & 808	812	816	816	821	SP	SP
			UNIT	ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	CONCRETE PILING * (16" OCT. OR 14" SQ.)	TEST PILE * (16" OCT. OR 14" SQ.)	SLURRY DISPLACEMENT DRILLED SHAFT (4.0' DIA.)	PERMANENT STEEL CASING (4.0' DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN BEAM SPANS (AASHTO M270, GR. 50W)	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	SLIDING ELASTOMERIC BEARING	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP	MODIFICATION OF EXISTING BRIDGE STRUCTURES	CRACK REPAIR	REPAIR OF EXISTING BENTS
					CU.YDS.	CU.YDS.	CU.YDS.	GAL.	LB.	LB.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LB.	CU.IN.	CU.IN.	CU.IN.	EACH	SQ.YDS.	CU.YDS.	LUMP SUM	LIN.FT.	CU.FT.
				END BENT 1	52	19.32		0.3	2,365	456	47 Δ	52				1,403		42			44	22			
				BENT 2		16.32			4,143				104	24		306									
				BENT 3		17.19			4,340				100	20		306									
				BENT 4		17.21			4,50				100	20		308									
				BENT 5		16.92			4,422				100	24		308									
				BENT 6		17.50			4,415				100	28		306									
				BENT 7		17.56			4,435					36		306									
				BENT 8		17.64			4,442					24		877		42							
				BENT 9		17.72			4,462				100	24		306									
				BENT 10		17.78			4,462				100	20		306									
				BENT 11		17.76			4,469				100	20		306									
				BENT 12		18.15			4,426				120	20		308									
				BENT 13		18.13			4,426				120	20		308									
				BENT 14		18.24			4,420				120	20		306									
				BENT 15		18.19			4,412				120	36		306									
				BENT 16		18.11			4,406				120	28	60	877		42							
				BENT 17		17.58			4,428				100	28		306									
				BENT 18		17.50			4,415				100	28		306									
				BENT 19		17.29			4,394				100	28		308									
				BENT 20		17.19			4,367				100	28		308									
				BENT 21		17.20			4,333				100	24		306									
				BENT 22		16.30			4,143				104	20		306									
				END BENT 23	52	19.32		0.3	2,365	456	110					1,403		42		1	44	22			
				UNIT 1			506.13	44.1		116,655						385,680	7,177.5		13,104.0						
				UNIT 2			578.20	50.3		133,649						441,187	7,177.5		15,595.9						
				UNIT 3			506.13	44.1		116,655						385,680	7,177.5		13,104.0						
				TOTAL BRIDGE A	104	406.12	1,590.46	139.1	96,850	387,871	157	52	2,208	520	60	1,222,935	21,532.5	168	41,803.9	1	88	44	1.0	152	7

- Δ Permanent Pile Quantity Adjusted For Deletion Of
One Permanent Pile To Be Included As Permanent
Test Pile As Per Article 805.09.
- ▽ Nominal Wall Thickness = 0.50"
- Ø Includes 23,380 Lbs. Of AASHTO M270, GR.36 Structural Steel
- * Piling Quantities Shown for Concrete Piles;
For Steel Shell Piling See Note Alt. B, Dwg. 35717.
For Quantities See Dwg. 35713 & 35714.
Note: Test Piles Are Not Required For Steel Shell Piling.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SCHEDULE OF BRIDGE QUANTITIES 1 OF 2 ALT. C. BRIDGE 3724 A	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH DATE: 11/96 CHECKED BY: AD/SM DATE: 4/97 DESIGNED BY: GPS/AD DATE: 9/94	SCALE: No Scale
BRIDGE NO. 3724 A & B	DRAWING NO. 35715

ABMB ENGINEERS, INC.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.		R10085	32	92

① 3724 B QUANTITIES 35716

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R10085																											
BRIDGE NO.	CODE NO.	NAME PLATE	ITEM NO.		801	802	802	803	804	804	805	805	SP	SP	SP	807	SP & 808	SP	SP & 808	812	816	816	821	SP	SP		
			UNIT OF STRUCTURE	ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	CONCRETE PILING * (16" OCT. OR 14" SQ.)	TEST PILE * (CONCRETE) (16" OCT. OR 14" SQ.)	SLURRY DISPLACEMENT DRILLED SHAFT (4.0' DIA.)	PERMANENT STEEL CASING (4.0' DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN BEAM SPANS (AASHTO M270, GR. 50W)	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	SLIDING ELASTOMERIC BEARING	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP	MODIFICATION OF EXISTING BRIDGE STRUCTURES	CRACK REPAIR	REPAIR OF EXISTING BENTS		
					UNIT	CU.YDS.	CU.YDS.	CU.YDS.	GAL.	LB.	LB.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LB.	CU.IN.	LIN.FT.	CU.IN.	EACH	SQ.YDS.	CU.YDS.	LUMP SUM	LIN.FT.	CU.FT.	
3724 B	X071	BAYOU DE VIEW	END BENT 1	52	19.32		0.3	2,365	456	94						1,403		42		1	44	22					
			BENT 2		16.32			4,143					104	24	60	306											
			BENT 3		17.18			4,340					100	20		306											
			BENT 4		17.21			4,360					100	20		308											
			BENT 5		16.79			4,422					100	24		308											
			BENT 6		17.49			4,415					100	28		306											
			BENT 7		17.54			4,435					100	36		306											
			BENT 8		17.64			4,442					100	24		877		42									
			BENT 9		17.72			4,462					100	24		306											
			BENT 10		17.76			4,462					100	20		306											
			BENT 11		17.72			4,469					100	20		306											
			BENT 12		18.21			4,426					120	20		308											
			BENT 13		18.17			4,426					120	20		308											
			BENT 14		18.26			4,420					120	20		306											
			BENT 15		18.23			4,412					120	36		306											
			BENT 16		18.17			4,406					120	28		877		42									
			BENT 17		17.57			4,428					100	28		306											
			BENT 18		17.50			4,415					100	28		306											
			BENT 19		17.30			4,394					100	28		308											
			BENT 20		17.18			4,367					100	28		308											
			BENT 21		17.20			4,333					100	24		306											
			BENT 22		16.36			4,143					104	20		306											
			END BENT 23	52	19.32		0.3	2,365	456	55 Δ	60						1,403		42			44	22				
			UNIT 1			506.13	44.1		116,655								385,680	7,177.5		13,104.0							
			UNIT 2			578.20	50.3		133,649								441,187	7,177.5		15,595.9							
			UNIT 3			506.13	44.1		116,655								385,680	7,177.5		13,104.0							
			TOTAL BRIDGE B	104	406.16	1,590.46	139.1	96,850	367,871	149	60	2,208	520	60	Ø 1,222,935	21,532.5	168	41,803.9	1	88	44	1.0	153	7			
			TOTAL JOB NO. R10085	208	812.28	3,180.92	278.2	193,700	735,742	306	112	4,416	1,040	120	Ø 2,445,870	43,065.0	336	83,607.8	2	176	88		305	14			

- Δ Permanent Pile Quantity Adjusted For Deletion Of One Permanent Pile To Be Included As Permanent Test Pile As Per Article 805.09.
- ▽ Nominal Wall Thickness = 0.50"
- Ø Includes 23,380 Lbs. Of AASHTO M270, GR.36 Structural Steel
- * Piling Quantities Shown for Concrete Piles;
For Steel Shell Piling See Note Alt. B, Dwg. 35717.
For Quantities See Dwg. 35713 & 35714.
Note: Test Piles Are Not Required For Steel Shell Piling.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SCHEDULE OF BRIDGE QUANTITIES 2 OF 2 ALT. C. BRIDGE 3724 B	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH DATE: 11/96 CHECKED BY: AD/SM DATE: 4/97 DESIGNED BY: GPS/AD DATE: 9/94	SCALE: No Scale
BRIDGE NO. 3724 A & B	DRAWING NO. 35716

ABMB ENGINEERS, INC.

SUMMARY OF QUANTITIES

ITEM NUMBER	ITEM	QUANTITY				UNIT
		ITEMS COMMON TO ALL ALTERNATES	BRIDGE ALTERNATES			
			ALT. A	ALT. B	ALT. C	
202	REMOVAL AND DISPOSAL OF APPROACH SLABS AND GUTTERS	4			EACH	
202	REMOVAL AND DISPOSAL OF CONCRETE PARAPET WALL	6			EACH	
202	REMOVAL AND DISPOSAL OF PIPE CULVERTS	5			EACH	
202	REMOVAL AND DISPOSAL OF HEADWALLS	5			EACH	
202	REMOVAL AND DISPOSAL OF CONCRETE SPILLWAY	4			EACH	
202	REMOVAL AND DISPOSAL OF GUARD RAIL	5024			LIN. FT.	
SP	REMOVAL AND DISPOSAL OF IMPACT ATTENUATION BARRIER	2			EACH	
210	UNCLASSIFIED EXCAVATION	2320			CU. YD.	
SP	COMPACTED EMBANKMENT	860			CU. YD.	
210	TRENCHING EXISTING SHOULDERS	46.00			STATION GALLON	
401	TACK COAT	3562			TON	
SP & 405	MINERAL AGGREGATE IN ACHM SUPERPAVE BASE COURSE	2537			TON	
SP & 405	ASPHALT BINDER (PG 76-22) IN ACHM SUPERPAVE BASE COURSE	134			TON	
SP & 406	ASPHALT AGGREGATE IN ACHM SUPERPAVE UNDER COURSE	8838			TON	
SP & 407	MINERAL AGGREGATE IN ACHM SUPERPAVE SURFACE COURSE	3406			TON	
SP & 407	ASPHALT BINDER (PG 76-22) IN ACHM SUPERPAVE SURFACE COURSE	175			TON	
SP & 411	ASPHALT CONCRETE COLD PLANT MIX	680			TON	
412	COLD MILLING ASPHALT PAVEMENT	1067			SO. YD.	
414	ASPHALT CONCRETE PATCHING FOR MAINTENANCE OF TRAFFIC	100			TON	
SP	ACHM PATCHING OF EXISTING SHOULDERS	100			TON	
504	APPROACH SLABS	197.20			CU. YD.	
504	APPROACH GUTTERS (TYPE SPECIAL)	147.28			CU. YD.	
507	REMOVAL AND DISPOSAL OF CONCRETE PAVEMENT FOR PATCHING	1206			SO. YD.	
507	PORTLAND CEMENT CONCRETE PAVEMENT PATCHING (10" UNIFORM THICKNESS)	1267			SO. YD.	
512	CLEANING AND FILLING JOINTS IN EXISTING CONCRETE PAVEMENT (TYPE 7)	12776			LIN. FT.	
SP	SCAFFOLDING CONCRETE PAVEMENT	800			SO. YD.	
601	FURNISHING OF FIELD OFFICE	1			LUMP SUM	
602	MAINTENANCE OF TRAFFIC	1.00			FIN. FT.	
SP & 603	SIGNS	1184			SO. FT.	
604	BARRICADES	180			LIN. FT.	
604	TRAFFIC DRUMS	146			EACH	
604	FURNISHING AND INSTALLING PRECAST CONCRETE BARRIER	4410			LIN. FT.	
604	RELOCATING PRECAST CONCRETE BARRIER	4410			LIN. FT.	
604	CONSTRUCTION PAVEMENT MARKINGS	15832			LIN. FT.	
604	REMOVABLE CONSTRUCTION PAVEMENT MARKINGS	2644			LIN. FT.	
604	REMOVAL OF CONSTRUCTION PAVEMENT MARKINGS	1335			LIN. FT.	
604	REMOVAL OF PERMANENT PAVEMENT MARKINGS	2958			LIN. FT.	
SP & 604	ADVANCE WARNING ARROW PANEL	1200			DAY	
SP & 604	PORTABLE CHANGEABLE MESSAGE SIGN	170			WEEK	
SP	MODULAR GLARE SHIELD	600			LIN. FT.	
606	18" REINFORCED CONCRETE PIPE CULVERTS (TYPE B)	238			SO. YD.	
606	18" FLARED END SECTIONS FOR REINFORCED CONCRETE PIPE CULVERTS	315			SO. YD.	
SP & 606	30" P. P. M. C. CORRUGATED STEEL PIPE FOR SLIP Lining	250			LIN. FT.	
606	30" FLARED END SECTIONS FOR CORRUGATED STEEL PIPE CULVERTS	1			EACH	
606	SELECTED PIPE BEDDING	50			CU. YD.	
606	SELECTED PIPE BACKFILL	50			CU. YD.	
611	PORTLAND CEMENT AND FLY ASH FOR PRESSURE GROUTING	19			CU. YD.	
611	UNDERDRAIN OUTLET PROTECTORS	10			EACH	
617	4" PIPE UNDERDRAINS	2000			LIN. FT.	
617	GUARD RAIL (TYPE A)	5536			LIN. FT.	
617	GUARD RAIL (TYPE B)	50			LIN. FT.	
620	LIME	9			TON	
620	SEEDING	4.74			ACRE	
620	WATER	932.60			ACRE-AL.	
621	TEMPORARY SEEDING	2.00			ACRE	
621	BALED STRAW DITCH CHECKS	50			BALE	
621	SEDIMENT REMOVAL AND DISPOSAL	50			CU. YD.	
621	DROP INLET SILT FENCE	100			LIN. FT.	
624	SOLID SEEDING APPLICATION	4.74			ACRE	
624	SOLID SODDING	231.00			ACRE	
625	ROADWAY CONSTRUCTION CONTROL	12665			SUMP YD.	
719	THERMOPLASTIC PAVEMENT MARKING WHITE (4")	504			LIN. FT.	
719	THERMOPLASTIC PAVEMENT MARKING WHITE (8")	504			LIN. FT.	
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (4")	10300			LIN. FT.	
719	THERMOPLASTIC PAVEMENT MARKING YELLOW (8")	180			LIN. FT.	
722	FLOWABLE PAVEMENT MARKER (TYPE 1)	104			EACH	
731	IMPACT ATTENUATION BARRIER (TYPE SPECIAL)	1			EACH	
SP	BARRELS FOR IMPACT ATTENUATION BARRIERS	10			EACH	
732	CRASH CUSHION	2			EACH	
SP	REINFORC. C. STEEL - ROADWAY (GRADE 60)	15032			POUND	
SP	WORK ROAD	1.00			LUMP SUM	
SP	WARNING LIGHTS	16			EACH	
STRUCTURES OVER 20' - 0"						
		SPAN				
636	BRIDGE CONSTRUCTION CONTROL	1.00	1.00	1.00	LUMP SUM	
801	UNCLASSIFIED EXCAVATION FOR STRUCTURES-BRIDGE	3450	3450	208	CU. YD.	
802	CLASS 5 CONCRETE-BRIDGE	1476.01	1476.01	812.28	CU. YD.	
802	CLASS SLAE) CONCRETE-BRIDGE	3180.92	3180.92	3180.92	CU. YD.	
802	SEAL CONCRETE-BRIDGE	846.90	846.90		CU. YD.	
803	CLASS 1 PROTECTIVE SURFACE TREATMENT	278.2	278.2	278.2	GALLON	
804	REINFORCING STEEL-BRIDGE (GRADE 60)	220766	220766	193700	POUND	
804	REINFORCING STEEL-BRIDGE (GRADE 60)	735742	735742	735742	POUND	
805	CRACK FILLING (16 OZ. 14" SQ.)	904		306	LIN. FT.	
805	TEST PIPE (16 OZ. 14" SQ.)	254		112	LIN. FT.	
805	STEEL SHELL PILING (14" DIA.)		12984		LIN. FT.	
SP	SLURRY DISPLACEMENT DRILLED SHAFT (4' - 0" DIA.)		1200	4416	LIN. FT.	
SP	PERMANENT STEEL CASING (4' - 0" DIA.)		248	1040	LIN. FT.	
SP	CORING DRILLED SHAFT		60	120	LIN. FT.	
807	STRUCTURAL STEEL IN BEAM SPANS (M270-GR. 50W)		2445870	2445870	POUND	
SP & 808	ELASTOMERIC BEARINGS		43065.0	43065.0	CU. IN.	
SP	ARMORED JOINT WITH NEOPRENE STRIP SEAL		336	336	LIN. FT.	
SP & 808	SLIDING ELASTOMERIC BEARINGS		83507.8	83507.8	CU. IN.	
812	BRIDGE NAME PLATE (TYPE C)		2	2	EACH	
816	FILTER BLANKET		176	176	SO. YD.	
816	DUMPED RIPRAP		88	88	CU. YD.	
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 3724A)		1.00	1.00	LUMP SUM	
821	MODIFICATION OF EXISTING BRIDGE STRUCTURE (BRIDGE NO. 3724B)		1.00	1.00	LUMP SUM	
SP	CRACK REPAIR		305	305	LIN. FT.	
SP	REPAIR OF EXISTING BENTS		14	14	CU. FT.	

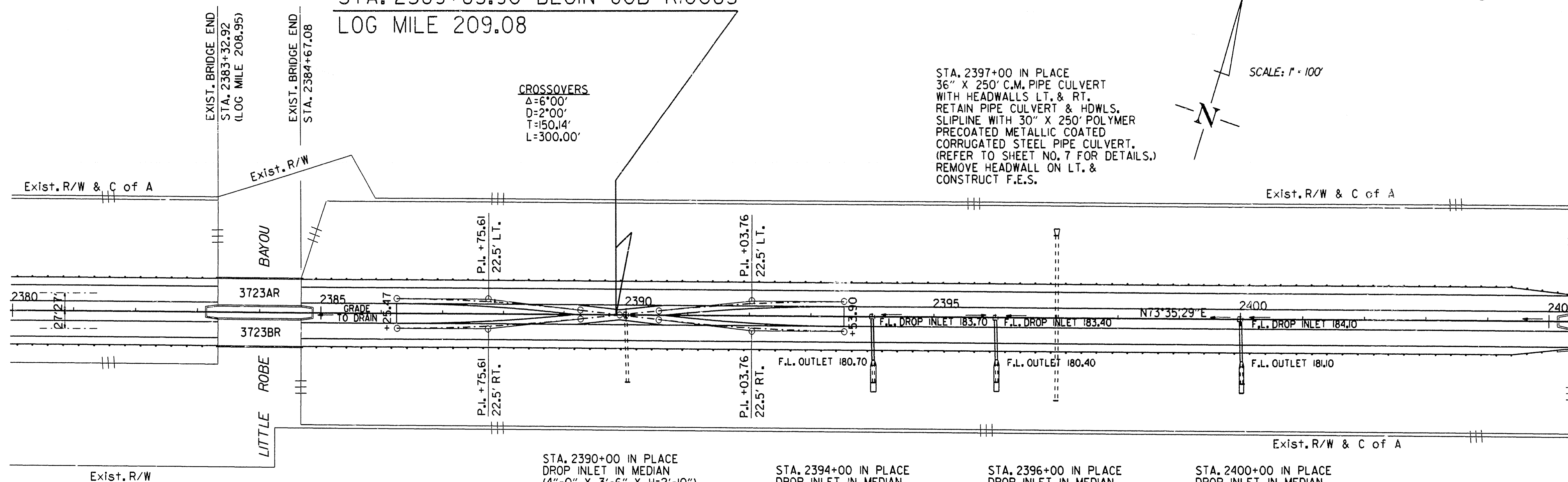
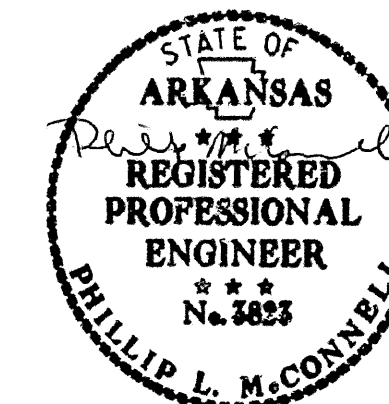
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
6-9-97	6-9-97			6	ARK.			
				JOB NO.		R10085	33	92
<div style="text-align: center;"> (2) SUMMARY OF QUANTITIES & REVISIONS </div>								

[illegible]

IN PLACE TWO 134.16' REINF. CONC.
BRIDGES NO. 3723 AR & BR
40'-0" CLEAR ROADWAY.
RETAIN

STA. 2389+83.90 BEGIN JOB R10085
LOG MILE 209.08

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085		34	92
				PLAN	STA. 2380 - STA. 2435			



STA. 2390+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 102' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
RETAIN, COVER DROP INLET AS
DIRECTED BY THE ENGINEER PRIOR
TO CONSTRUCTION OF CROSSOVER.
REMOVE COVER WHEN CROSSOVER
IS REMOVED. PAYMENT FOR THIS
WORK SHALL BE INCLUDED IN THE
PRICE BID FOR THE VARIOUS
CONTRACT ITEMS.

STA. 2394+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 98' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
REMOVE C.M.P. OUTLET & HDWL.
CONSTRUCT 18" X 62' R.C. PIPE
OUTLET TO RT. WITH F.E.S.
CONSTRUCT 8' X 40' CONC. DITCH
PAVING (TYPE B) DOWN SLOPE.

STA. 2396+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 96' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
REMOVE C.M.P. OUTLET & HDWL.
CONSTRUCT 18" X 62' R.C. PIPE
OUTLET TO RT. WITH F.E.S.
CONSTRUCT 8' X 40' CONC. DITCH
PAVING (TYPE B) DOWN SLOPE.

STA. 2400+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 98' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
REMOVE C.M.P. OUTLET & HDWL.
CONSTRUCT 18" X 62' R.C. PIPE
OUTLET TO RT. WITH F.E.S.
CONSTRUCT 8' X 40' CONC. DITCH
PAVING (TYPE B) DOWN SLOPE.

REMOVAL & DISPOSAL OF APPROACH SLABS & GUTTERS

STA. 2405+03.90 - STA. 2405+38.90 RT. LANES = 1 EACH
STA. 2405+03.90 - STA. 2405+38.90 LT. LANES = 1 EACH
STA. 2418+61.00 - STA. 2418+96.10 RT. LANES = 1 EACH
STA. 2418+61.00 - STA. 2418+96.10 LT. LANES = 1 EACH

REMOVAL & DISPOSAL OF CONCRETE PARAPET WALL

STA. 2405+12.90 - STA. 2403+38.90 RT. OF RT. LANES = 1 EACH
STA. 2405+12.90 - STA. 2403+38.90 MEDIAN = 2 EACH
STA. 2418+61.00 - STA. 2418+87.10 MEDIAN = 2 EACH
STA. 2418+61.00 - STA. 2418+87.10 LT. OF LT. LANES = 1 EACH

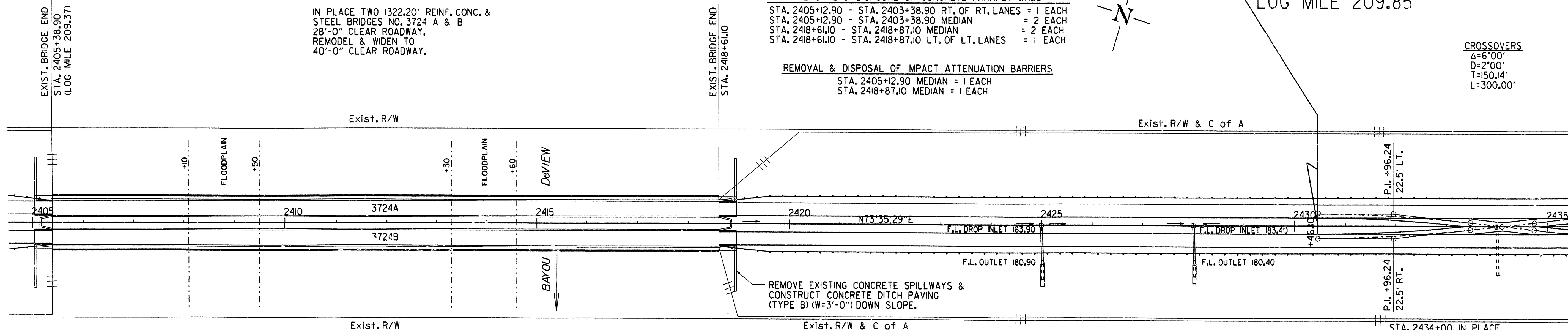
REMOVAL & DISPOSAL OF IMPACT ATTENUATION BARRIERS

STA. 2405+12.90 MEDIAN = 1 EACH
STA. 2418+87.10 MEDIAN = 1 EACH

B.M. CHISELED SQUARE IN SOUTHWEST WINGWALL
AT BEGINNING OF BRIDGE 3724B
ELEV. 192.21

STA. 2430+46.10 END JOB R10085
LOG MILE 209.85

CROSSOVERS
Δ=6'-00'
D=2'-00'
T=150.14'
L=300.00'



REMOVAL & DISPOSAL OF CONCRETE SPILLWAY

STA. 2405+03.90 RT. OF RT. LANES = 1 EACH
STA. 2405+03.90 LT. OF LT. LANES = 1 EACH
STA. 2418+96.10 RT. OF RT. LANES = 1 EACH
STA. 2418+96.10 LT. OF LT. LANES = 1 EACH

REMOVAL & DISPOSAL OF GUARD RAIL

STA. 2392+02.08 - STA. 2405+13.90 RT. OF RT. LANES = 131.8 LIN. FT.
STA. 2392+02.08 - STA. 2405+38.90 LT. OF LT. LANES = 1336.8 LIN. FT.
STA. 2418+61.00 - STA. 2430+61.00 RT. OF RT. LANES = 1200 LIN. FT.
STA. 2418+86.10 - STA. 2430+61.00 LT. OF LT. LANES = 1175 LIN. FT.

GUARD RAIL
(TYPE A) (TYPE B) CRASH CUSHION

STA. 2392+02.08 - STA. 2405+29.50 RT. OF RT. LANES = 1327.4 LIN. FT.
STA. 2392+02.08 - STA. 2405+29.50 LT. OF LT. LANES = 1327.4 LIN. FT.
STA. 2402+54.50 - STA. 2405+29.50 MEDIAN = 250 LIN. FT. -- 25 LIN. FT. -- 1 EACH
STA. 2418+70.50 - STA. 2421+45.50 MEDIAN = 250 LIN. FT. -- 25 LIN. FT. -- 1 EACH
STA. 2418+70.50 - STA. 2430+61.00 RT. OF RT. LANES = 1190.6 LIN. FT.
STA. 2418+70.50 - STA. 2430+61.00 LT. OF LT. LANES = 1190.6 LIN. FT.

STA. 2425+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 98' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
REMOVE C.M.P. OUTLET & HDWL.
CONSTRUCT 18" X 62' R.C. PIPE
OUTLET TO RT. WITH F.E.S.
CONSTRUCT 8' X 40' CONC. DITCH
PAVING (TYPE B) DOWN SLOPE.

STA. 2428+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 92' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
REMOVE C.M.P. OUTLET & HDWL.
CONSTRUCT 18" X 62' R.C. PIPE
OUTLET TO RT. WITH F.E.S.
CONSTRUCT 8' X 34' CONC. DITCH
PAVING (TYPE B) DOWN SLOPE.

STA. 2434+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 88' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
RETAIN, COVER DROP INLET AS
DIRECTED BY THE ENGINEER PRIOR
TO CONSTRUCTION OF CROSSOVER.
REMOVE COVER WHEN CROSSOVER IS REMOVED.
PAYMENT FOR THIS WORK SHALL BE
INCLUDED IN THE PRICE BID FOR THE
VARIOUS CONTRACT ITEMS.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.		R10085	30	92
				① 3724 B		QUANTITIES	35714	

SCHEDULE OF BRIDGE QUANTITIES - JOB NO. R10085																									
BRIDGE NO. 3724 B	CODE NO. X071	NAME PLATE BAYOU DE VIEW	UNIT OF STRUCTURE	ITEM NO.	801	802	802	802 *	803	804	804	805	SP Job R10085	SP Job R10085	SP Job R10085	807	SP & 808	SP Job R10085	SP & 808	812	816	816	821	SP Job R10085	SP Job R10085
				ITEM	UNCLASSIFIED EXCAVATION FOR STRUCTURES - BRIDGE	CLASS S CONCRETE -BRIDGE	CLASS S(AE) CONCRETE -BRIDGE	SEAL CONCRETE -BRIDGE	CLASS 1 PROTECTIVE SURFACE TREATMENT	REINFORCING STEEL -BRIDGE (GRADE 60)	EPOXY COATED REINFORCING STEEL (GRADE 60)	STEEL SHELL PILING (14" DIA.) ▽	SLURRY DISPLACEMENT DRILLED SHAFT (4.0' DIA.)	PERMANENT STEEL CASING (4.0' DIA.)	CORING DRILLED SHAFT	STRUCTURAL STEEL IN BEAM SPANS (AASHTO M270, GR. 50W)	ELASTOMERIC BEARINGS	ARMORED JOINT WITH NEOPRENE STRIP SEAL	SLIDING ELASTOMERIC BEARING	BRIDGE NAME PLATE (TYPE C)	FILTER BLANKET	DUMPED RIPRAP	MODIFICATION OF EXISTING BRIDGE STRUCTURES	CRACK REPAIR	REPAIR OF EXISTING BENTS
					UNIT	CU.YDS.	CU.YDS.	CU.YDS.	CU.YDS.	GAL.	LB.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	CU.IN.	LIN.FT.	CU.IN.	EACH	SQ.YDS.	CU.YDS.	LUMP SUM	LIN.FT.	CU.FT.	
				END BENT 1	52	19.32			0.3	2,365	456	120				1,403		42		1	44	22			
				BENT 2	76	36.07		27.82		4,819		400				306									
				BENT 3	72	37.00		27.91		5,006		370				306									
				BENT 4	87	37.81		28.09		5,192		350				308									
				BENT 5	95	38.42		27.64		5,306		400				308									
				BENT 6	75	39.41		28.18		5,492		370				306									
				BENT 7	49	39.10		27.73		5,413		380				306									
				BENT 8	94	38.67		28.27		5,358		400				877		42							
				BENT 9	93	37.76		28.36		5,171		350				306									
				BENT 10	94	37.04		27.64		5,006		370				306									
				BENT 11	102	37.66		26.31		5,099		360				306									
				BENT 12		18.21				4,426			120	20		308									
				BENT 13		18.17				4,426			120	20		308									
				BENT 14		18.26				4,420			120	20		306									
				BENT 15		18.23				4,412			120	36		306									
				BENT 16		18.17				4,406			120	28		877		42							
				BENT 17	120	39.08		27.82		5,420		410				306									
				BENT 18	120	38.97		28.00		5,399		410				306									
				BENT 19	138	38.67		28.18		5,379		410				308									
				BENT 20	138	38.58		28.18		5,358		410				308									
				BENT 21	130	38.16		28.00		5,233		420				306									
				BENT 22	138	36.56		27.73		4,912		420				306									
				END BENT 23	52	19.32			0.3	2,365	456	142				1,403		42			44	22			
				UNIT 1			506.13		44.1		116,655					385,680	7,177.5		13,104.0						
				UNIT 2			578.20		50.3		133,649					441,187	7,177.5		15,595.9						
				UNIT 3			506.13		44.1		116,655					385,680	7,177.5		13,104.0						
				TOTAL BRIDGE B	1,725	738.64	1,590.46	445.86	139.1	110,383	367,871	6,492	600	124	0	Ø 1,222,935	21,532.5	168	41,803.9	1	88	44	1.0	153	7
				TOTAL JOB NO. R10085	3,450	1,476.01	3,180.92	896.90	278.2	220,766	735,742	12,984	1,200	248	60	Ø 2,445,870	43,065.0	336	83,607.8	2	176	88		305	14

* Seal Concrete

The Location For The Use Of Seal Concrete And Elevations For Bottom Of Seal Concrete Which Are Shown On The Plans Are Approximate Only And Have Been Developed For The Purpose Of Estimating Seal Concrete Quantities.

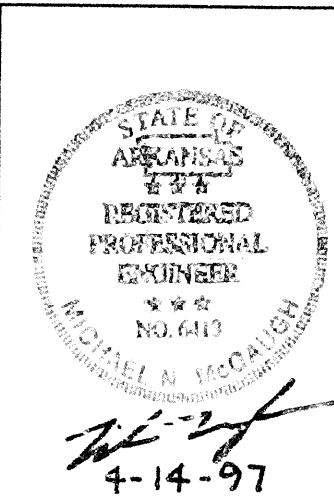
The Contractor's Attention Is Directed To The Fact That The Actual Requirements For The Locations And Quantities Of Seal Concrete May Vary From Those Shown On The Plans Depending Upon The Actual Conditions At The Time Of Construction.

The Contractor Shall Determine Locations And Thicknesses Of Seal Concrete Based On The Actual Conditions Encountered At The Time Of Construction. The Contractor Shall Satisfy All Requirements Of And Submit All Details And Certification Required By Article 801.05(c) Of The Standard Specifications.

Any Increase In The Seal Depth May Require Additional Piling And Must Be Approved By The Engineer Prior To Any Substructure Constuction.

▽ Nominal Wall Thickness = 0.50"

Ø Includes 23,380 Lbs. Of AASHTO M270, GR.36 Structural Steel



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SCHEDULE OF BRIDGE QUANTITIES 2 OF 2 ALT. B. BRIDGE 3724 B	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH CHECKED BY: AD/SM DESIGNED BY: GPS/AD	DATE: 11/96 DATE: 4/97 DATE: 9/94
SCALE: No Scale	
BRIDGE NO. 3724 A & B	DRAWING NO. 35714

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. RD. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. R10085	35	92
						PLAN STA. 2435 - STA. 2493		



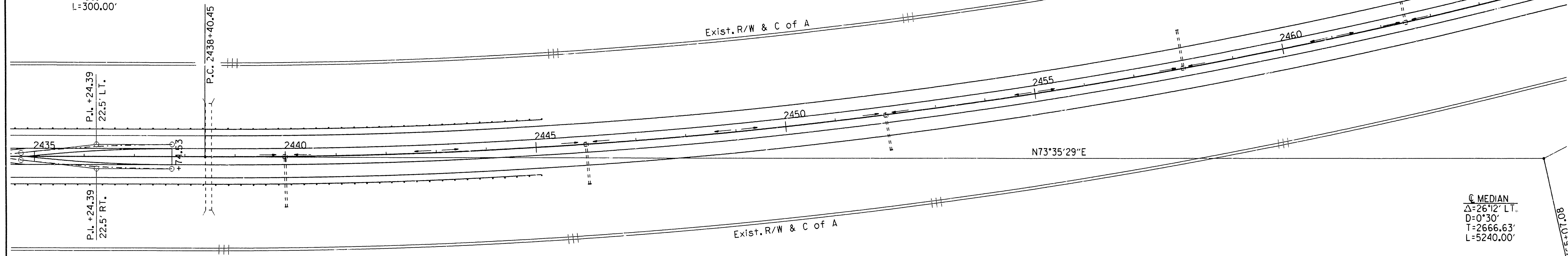
STA. 2438+50 IN PLACE
6' X 6' X 190' R.C. BOX CULVERT.
RETAIN

CROSSOVERS
Δ=6'00'
D=2'00'
T=150.14'
L=300.00'

SCALE: 1" = 100'

STA. 2458+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=5'-10")
WITH 24" X 70' C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN

STA. 2462+50 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 78" C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN



C MEDIAN
Δ=26'12" LT.
D=0'30"
T=2666.63'
L=5240.00'

STA. 2440+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 92' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
RETAIN

STA. 2446+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=5'-11")
WITH 24" X 72' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
RETAIN

STA. 2452+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=3'-1")
WITH 24" X 64' C.M.P. OUTLET
TO RIGHT AND HEADWALL.
RETAIN

STA. 2466+00 IN PLACE
42" X 160' C.M. PIPE CULVERT
WITH HEADWALLS LT. AND RT.
RETAIN

STA. 2470+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=6'-2")
WITH 24" X 70' C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN

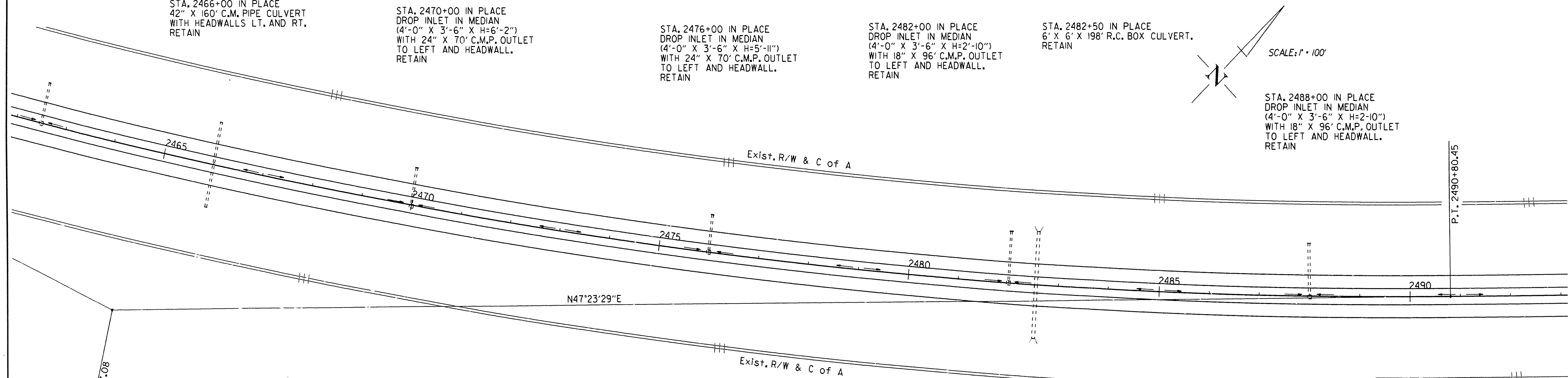
STA. 2476+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=5'-11")
WITH 24" X 70' C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN

STA. 2482+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 96' C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN

STA. 2482+50 IN PLACE
6' X 6' X 198' R.C. BOX CULVERT.
RETAIN

SCALE: 1" = 100'

STA. 2488+00 IN PLACE
DROP INLET IN MEDIAN
(4'-0" X 3'-6" X H=2'-10")
WITH 18" X 96' C.M.P. OUTLET
TO LEFT AND HEADWALL.
RETAIN



FRONTAGE RD.
Exist. R/W

9-19-96 R10085.P01

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO.	R10085	36 92

① 3724 A & B NOTES 35717

BRIDGE GENERAL NOTES

The proposed work consists of: Raising and widening the existing bridges; removing and replacing the existing bridge decks, existing diaphragms and struts and expansion devices; removing and replacing all existing beams; removing and replacing shoes with bearings as shown on plans; constructing pedestals and repairing existing bents; constructing new bent additions; reconstructing end bents as shown on plans; and constructing new footings, piles, and drilled shafts as shown on plans.

BENCH MARK: - Chiseled square southwest wing wall at beginning of Bridge 3724 B elevation 192.21.

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 Standard Specifications for Highway Bridges, 1992 with current interim specifications.

LIVE LOADING: HS20 and Military (AASHTO 3.7.4)

METHOD OF DESIGN: Load Factor

SEISMIC PERFORMANCE CATEGORY: A

MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)----- f'c = 4,000 psi
Class S Concrete (substructure)----- f'c = 3,500 psi
Seal Concrete----- f'c = 2,100 psi
Reinforcing Steel (AASHTO M31 OR M53, GR 60)---- Fy = 60,000 psi
Structural Steel (AASHTO M270, GR.36)----- Fy = 36,000 psi
Structural Steel (AASHTO M270, GR.50W, unpainted)--- Fy = 50,000 psi
Bolts (AASHTO M164 Type 3)

LOAD DISTRIBUTION:

	Interior Beam	Exterior Beam
Dead Load:		
To Beam only:	758#/Ft. + 1.15	651#/Ft. + 1.08(Bm. Wt.)
To Composite Beam:	263#/Ft.*	263#/Ft.*
*Includes 133#/Ft. for future wearing surface.		

Live Load:
To composite Beam: 1.379 Wheels + Impact 1.286 Wheels + Impact

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

ALTERNATE A. CONCRETE PILING: Piling shall be 14" square or 16" octagonal and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile and to a minimum penetration of 20'. Piling in end bents shall be driven after embankment is in place. Lengths of piling shown are assumed for estimating quantities only. Actual lengths to be determined in the field. At minimum piles shall be driven to the existing pile tip elevation. No additional payment will be made for cut--off and build-up.

ALTERNATE B. CONCRETE FILLED STEEL SHELL PILING: Ref. Drawing No. 35732. Piling shall be 14" diameter concrete filled steel shell piling and shall be driven with an approved air, steam, or diesel hammer to a minimum safe bearing capacity of 44 tons per pile and to a minimum penetration of 20 feet below natural ground. Piling in end bents shall be driven after embankment is in place. Lengths of piling shown are based upon Concrete Piling. To obtain steel shell pile lengths, multiply lengths shown by 1.28. Lengths shown are for estimating quantities only. Actual lengths to be determined in the field. At minimum piles shall be driven to the existing pile tip elevations.

ALTERNATE C. SLURRY DRILLED SHAFT: Refer To Supplemental Specification "Slurry Displacement Drilled Shaft".

TEST PILES: Contractor shall furnish and install test piles at locations indicated on plans in accordance with Standard Specifications Section 805.09(a) Method A Empirical Pile Formulas. Test piles shall be made a part of the completed work and shall be cut off or built up to grade elevations as necessary.

CONCRETE: All concrete shall be Class S, Class S(AE) or Seal Concrete with a minimum 28 day compressive strength as specified in MATERIALS AND STRENGTHS table above. Concrete except seal concrete shall be poured in dry and all exposed corners shall be chamfered 3/4" unless otherwise noted.

STRUCTURAL STEEL: Structural steel shapes of equal or greater strength may be substituted for shapes shown if prior approval is obtained from the Bridge Engineer. Payment will be made on the basis of shapes shown.

Bolted field splices shown may be eliminated or shop welded splices may be substituted with approval of the Bridge Engineer. Payment will be made on the basis of the bolted splice shown.

All beams shall be blocked in their true position with webs horizontal in the shop, in groups of a minimum of 3 sections as specified in Section 807.54(b)(2). The camber, length of sections, distance between bearings and opening of joints shall be measured with the beams in this position and this information shall become part of the permanent record of this job. The component parts shall be match marked in this assembly and these marks shall be shown on the erection diagram. All beam dimensions are based on a temperature of 60° F. A tolerance of ±1/4" is allowed for camber.

Flange splice plates for main members shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile and/or compressive stresses.

All welding that is to be done during fabrication of structural steel, including temporary welds, shall be detailed on the shop drawings and submitted for approval. If the contractor or erector should want to make additional welds, whether temporary or permanent, he shall submit detailed drawings with a formal request to the Bridge Engineer of the Arkansas State Highway and Transportation Department for approval. All welding shall conform to Subsection 807.26.

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

CLASS 1 PROTECTIVE SURFACE TREATMENT: Treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

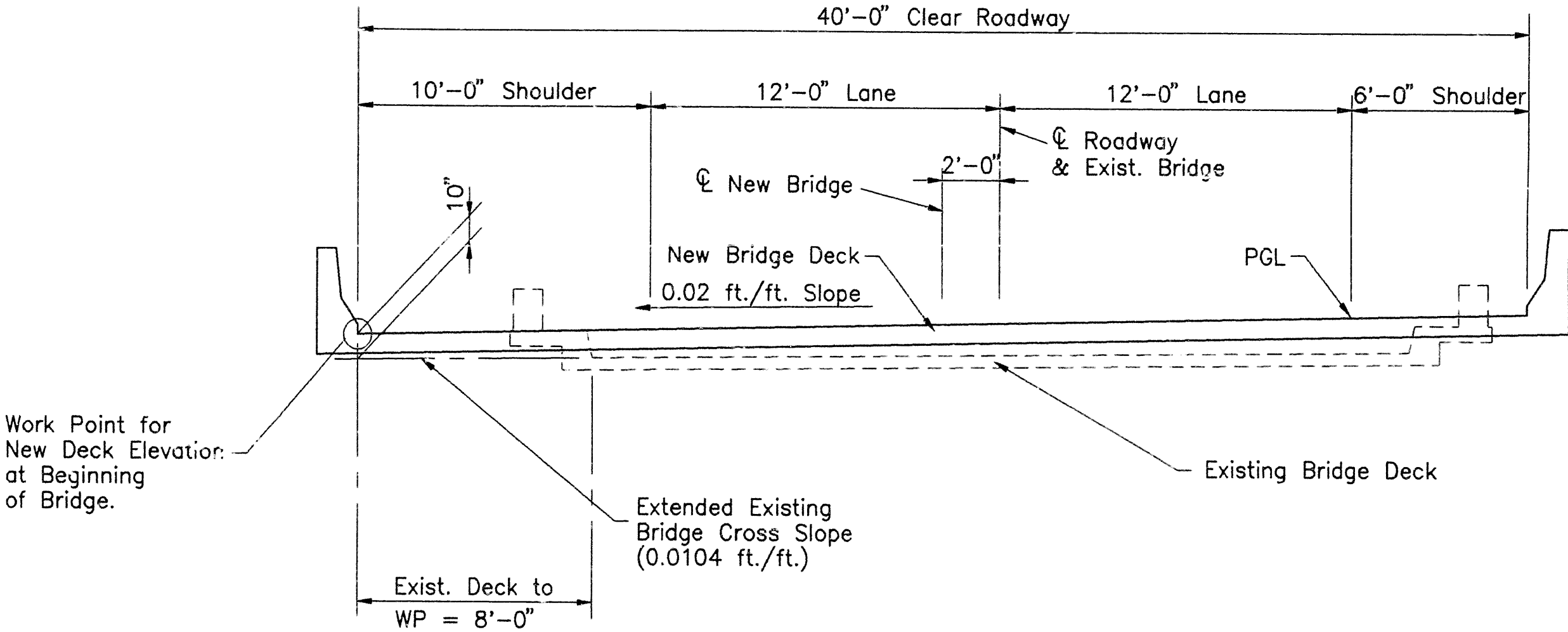
CHARPY V-NOTCH TEST: All beams and cover plates are considered main load carrying members and shall meet the longitudinal Charpy v-notch test specified in Subsection 807.05.

VERIFICATION: Components of these existing bridges are to be retained and joined to the proposed work. The Contractor is to strictly adhere to the requirements for verification of the geometry of the existing bridges and its relationship to the proposed work described in Article 821.02 of the Standard Specification.

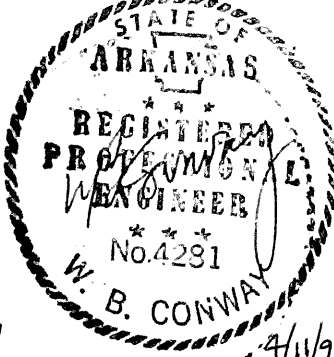
MAINTENANCE OF TRAFFIC: See Roadway Plans.

REMOVAL AND SALVAGE: All material shown to be removed from the existing bridges shall become the property of the contractor. For removal of existing bridge deck see Special Provision "Water Pollution Control".

METHOD OF ESTABLISHING NEW BRIDGE DECK ELEVATIONS: The following sketch shows the AHTD method for establishing the geometry of the new bridges relative to the existing bridges. Contractor shall verify the elevations shown on the drawings with this method as well as with the existing bridge geometry in accordance with Section 821 of the Standard Specifications.

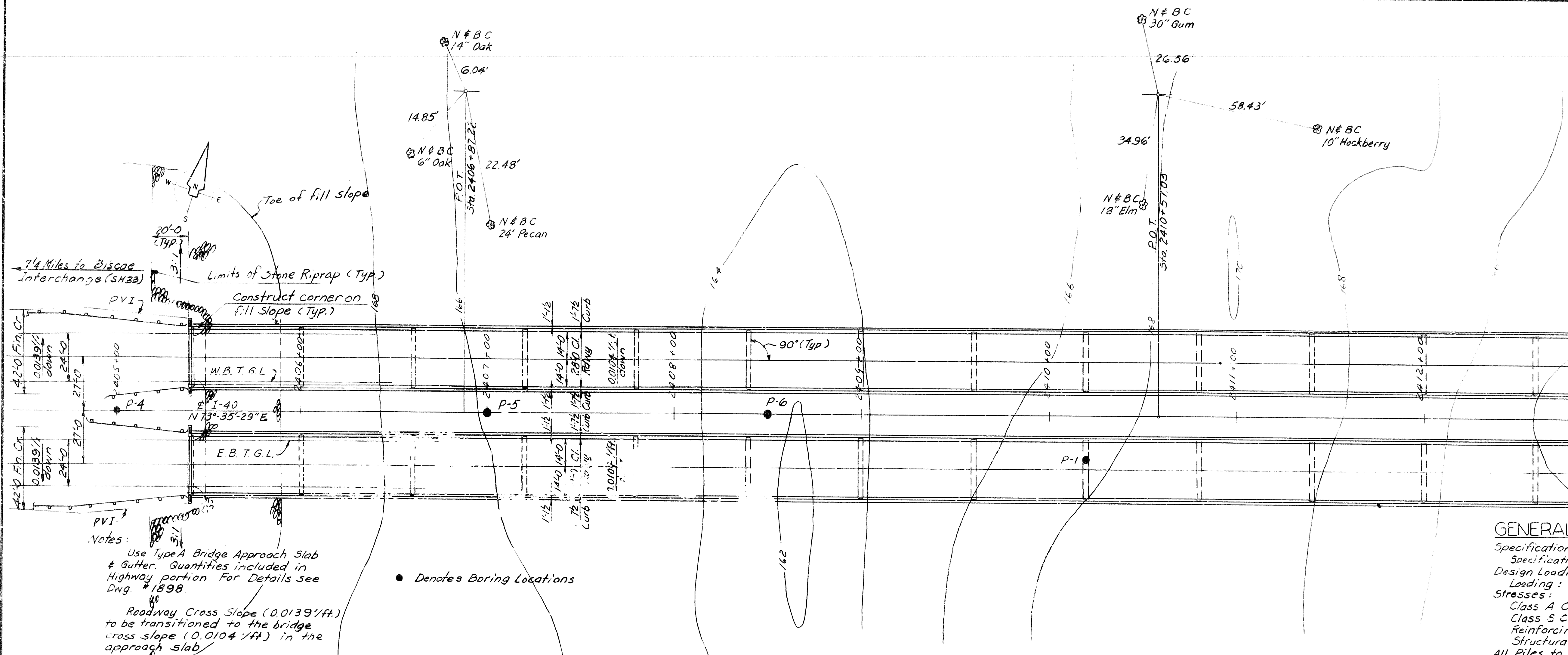


BRIDGE DIAGRAM - BRIDGE 3724 A
(BRIDGE 3724 B OPP. HAND)



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
GENERAL NOTES	
BRIDGE 3724 OVER BAYOU DEVIEW	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS CHECKED BY: CDE DESIGNED BY: CDE	DATE: 3/96 DATE: 4/97 DATE: 9/94
SCALE: None	
BRIDGE NO. 3724 A & B	DRAWING NO. 35717

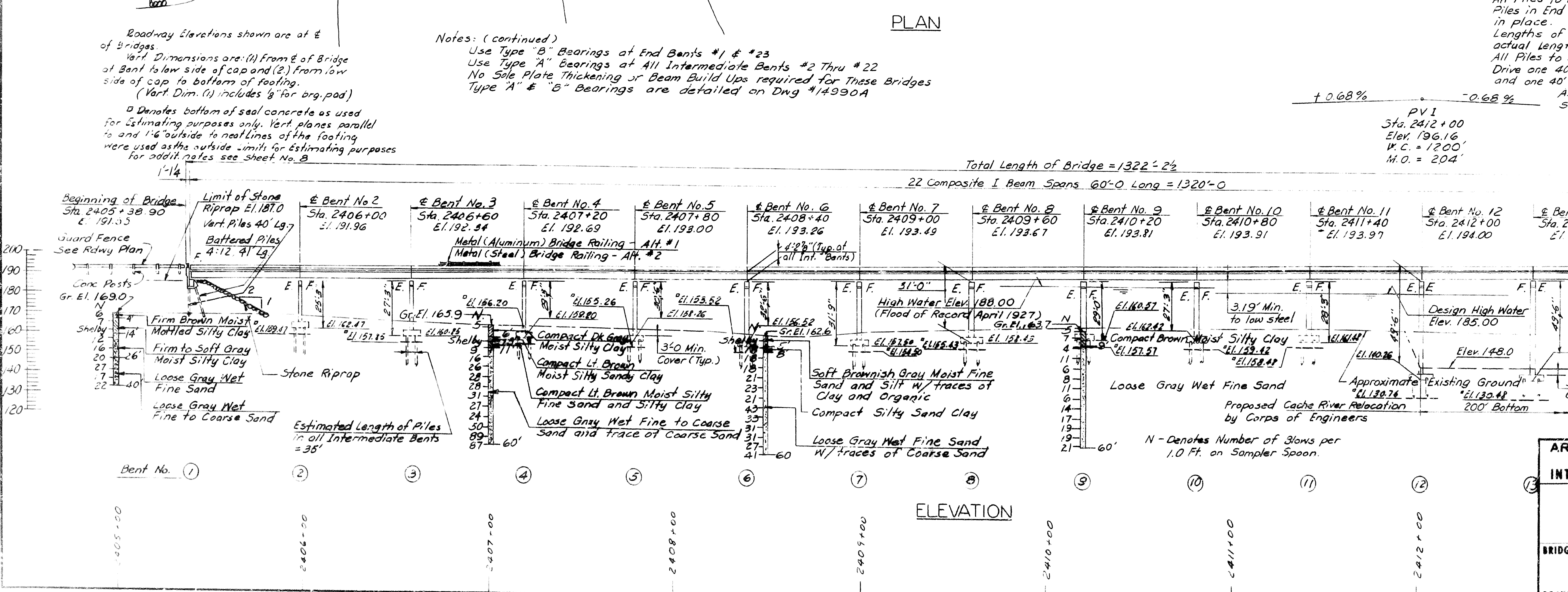
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			37	92
JOB NO. R10035					



GENERAL NOTES

Specifications: Arkansas State Highway Commission Standard Specifications for Highway Construction adopted Dec. 9, 1959
 Design Loading: HS20 AASHTO 1961 & Special Interstate Loading: 2-24,000 lbs axles @ 4'-0" on centers
 Stresses:
 Class A Concrete: (n=15) 840 #/sq.
 Class S Concrete: (n=10) 1,200 #/sq.
 Reinforcing Steel 20,000 #/sq.
 Structural Steel (A-36) 20,000 #/sq.
 All Piles to be 16" Octagonal Precast Concrete Piles
 Piles in End Bents to be driven after the Embankment is in place.
 Lengths of Piling shown are for Estimating Purposes only, actual lengths to be determined in the field.
 All Piles to be driven to a minimum bearing of 36 ton/pile
 Drive one 40' test pile in Bents 2, 6, 10, 14 & 18 of Bridge #3724A and one 40' test pile in Bents 3, 7, 11, 15 & 19 of Bridge #3724B
 All piling to be driven with an approved air, steam and diesel hammer

- REFERENCES:
- 1) For Superstructure Details see Dwg. #15030 Rev. & Dwg. #14990A.
 - 2) For End Bent Details see Dwg. #15030A.
 - 3) For Intermediate Bent Details see Dwg. #5T2-3 & Dwg. #5T2-4.
 - 4) For Precast Concrete Pile Details see Dwg. #2382
 - 5) For Stone Riprap Details see Summary of Bridge Quantities - Sheet No. B
 - 6) For Right of Way see Roadway Plans.



FOR INFORMATION ONLY

ARKANSAS STATE HIGHWAY COMMISSION
 LITTLE ROCK, ARKANSAS

INTERSTATE ROUTE 40 SECTION 4

LAYOUT OF BRIDGES
 OVER BAYOU DE VIEW - I

BRIDGE NO. 3724 A
 & 3724 B

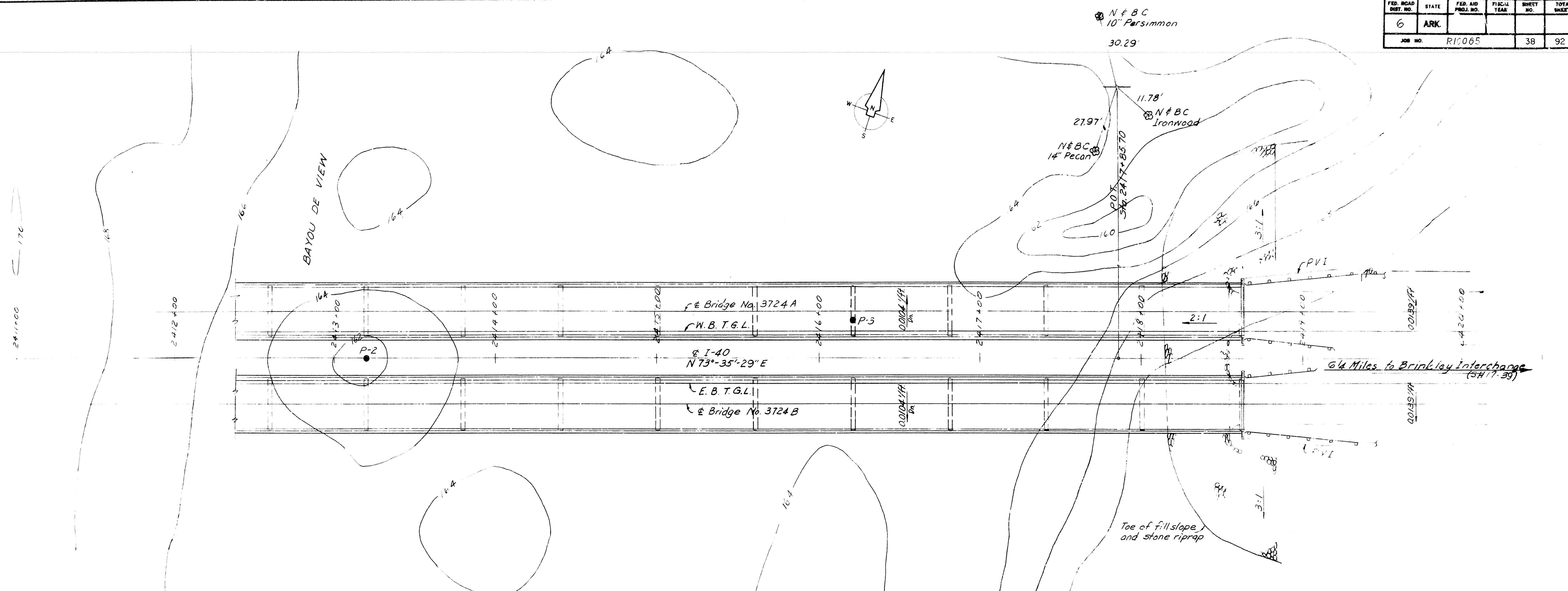
SCALE 1"=30'-0"

DATE

BLAUVELT ENGINEERING CO.
 CONSULTING ENGINEERS

DRAWING NO. 3T2-1
 AHD:2993-35718

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
6	ARK.			38	92
JOB NO. R10065					



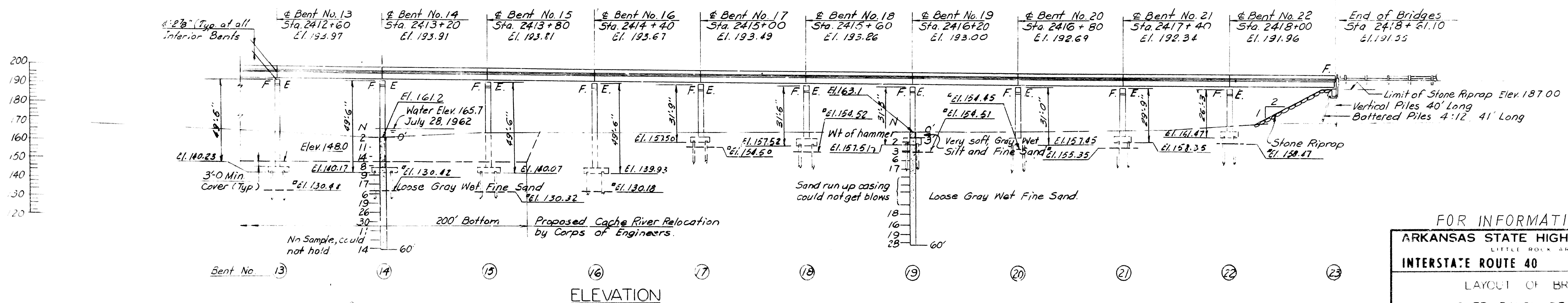
PLAN

NOTE

For Dimensions, Details, General Notes and References not shown see Dwg # ST2-1.

Total Length of Each Bridge = 1322'-2 1/2"

22 Composite I Beam Spans 60'-0" Long = 1320'-0"



ELEVATION

FOR INFORMATION ONLY

ARKANSAS STATE HIGHWAY COMMISSION	
LITTLE ROCK, ARKANSAS	
INTERSTATE ROUTE 40	SECTION 4
LAYOUT OF BRIDGES	
OVER BAYOU DE VIEW - II	
BRIDGE NO. 3724A	SCALE 1" = 30'-0"
# 3724B	BLAUVELT ENGINEERING CO.
DRAWING NO. ST2-2	DATE

AHD12994 35719

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R10085	39	92
				3724 A & B LAYOUT				35720

HYDRAULIC DATA		
FREQUENCY	DISCHARGE CFS	WATER SURFACE ELEVATION
Design Flood	Q 50	10,670
Basic Flood	Q 100	12,040
Extreme Flood	Q 500	14,850
Drainage Area = 675 Sq. Mi.		
Historical H.W. Elev.=188.0 (1927)		

BORING LOG - Sta. 2406+60

A-Loose brown silty sand
B-Firm gray & brown silty clay with sand.
C-Stiff tan & gray silty clay with ferrous stains & nodules.
D-Stiff tan & gray clay with silt pockets & ferrous nodules.
-clayey sand layer, 8.5 to 9 ft.
E-Loose gray silty fine sand.
F-Medium-dense gray fine to medium sand with trace fine to coarse gravel.
G-Dense below 19'.
H-Medium dense, 34 to 38 ft.
I-Dense gray fine to medium sand with trace fine to coarse gravel.
J-With coarse sand below 54'.

BORING LOG - Sta. 2408+40

A-Stiff brown sandy clay with roots & sand seams & pockets.
B-Loose tan to gray clayey fine sand with silty clay seams.
C-Medium dense gray fine sand with occasional clay seams.
D-Dense below 19'.
E-Dense grayish brown fine to medium sand with trace fine gravel.
F-Medium-dense, 34 to 54 ft.
G-Dense to medium-dense grayish brown fine to medium sand.
H-Dense below 54 ft.
I-Increasing fine gravel at 81 ft.
J-Dense gray sandy fine to coarse gravel.

- Note:
1. Stations & Dimensions Based Upon Existing Plans.
 2. (E) Indicates Expansion Bearing.
 3. (F) Indicates Fixed Bearing.
 4. Bridge A & B are the Same Except as Noted.
 5. Roadway Elevations Shown are at C New Bridges.
 6. Vertical Dimensions are from C Bridge to top of Low Riser.
 7. For General Notes See Drawing 35717.
 8. For Additional Data and Continuation of Bridge See Drawing 35721.

30 20 10 0 30 60
SCALE IN FEET

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

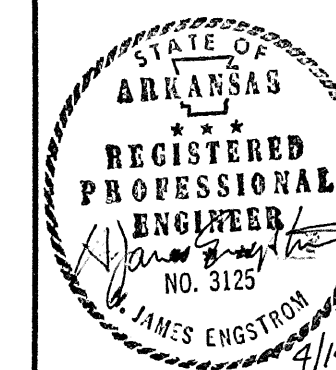
STRUCTURE PLAN & ELEVATION 1 of 2 ALT. A. & B. BRIDGE 3724 OVER BAYOU DEVIEU

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 8-84

SCALE: 1" = 30'-0"

BRIDGE NO. 3724 A & B DRAWING NO. 35720



The Seal & Footing Shown On The Plans Were Designed For A Max. Water El. Of 165.0'. The Design Is Based On Using 10 PSI Of Allowable Bond Between The Pile And Seal.

SEAL CONCRETE BOTTOM ELEVATION			
BENT	ELEV.	BENT	ELEV.
2	159.47	7	154.50
3	157.85	8	155.43
4	156.20	9	157.57
5	155.26	10	159.42
6	153.52	11	158.48

Bottom of seal concrete as used for estimating purposes only. Vertical planes parallel to and 1'-6" outside to neat lines of the footing were used as the outside limits for estimating. See additional notes on drawing 35711, 35712, 35713 AND 35714.

Bents 6, 7, 15 And 16 Are Located Within The Streambed And Shall Be Backfilled With Clean Gravel Or Crushed Rock According To Section 801.08

ELEVATION BRIDGE "A" & "B"

BENT	EXISTING PILE TIP ELEVATIONS*
1	EL. 142
2	EL. 140
3	EL. 138
4	EL. 138
5	EL. 135
6	EL. 134
7	EL. 135
8	EL. 135
9	EL. 138
10	EL. 141
11	EL. 137
12	EL. 111

*Existing pile tip elevations are the lowest average pile tip elevations at the bents. At minimum, required piles shall be driven to the existing pile tip elevation.

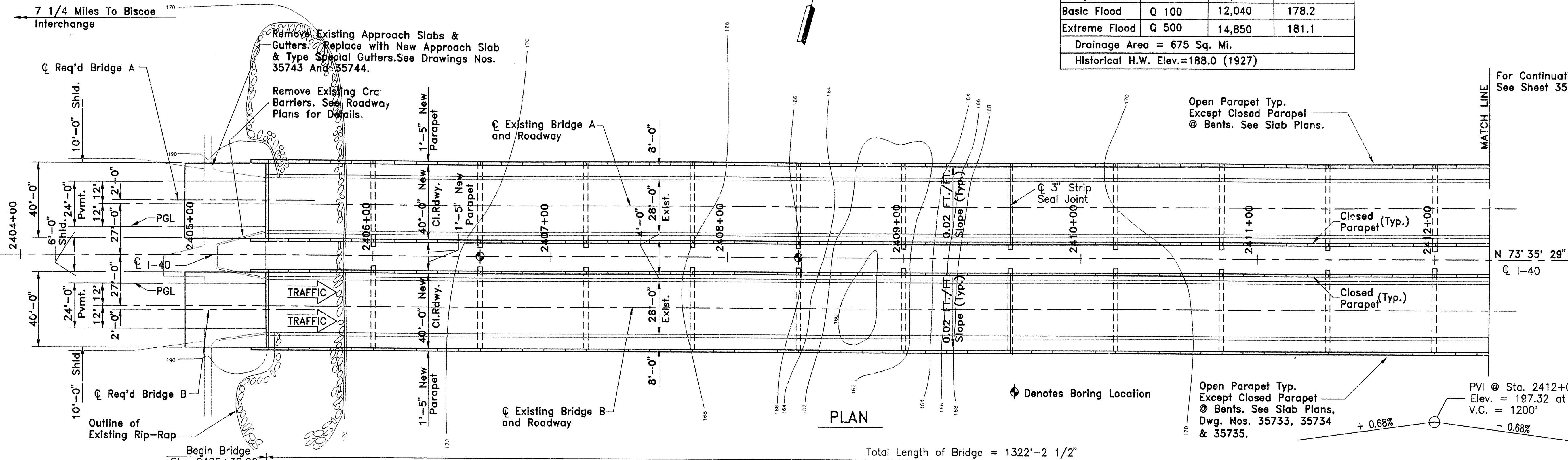
2405+00

2406+00

2407+00

2408+00

2409+00

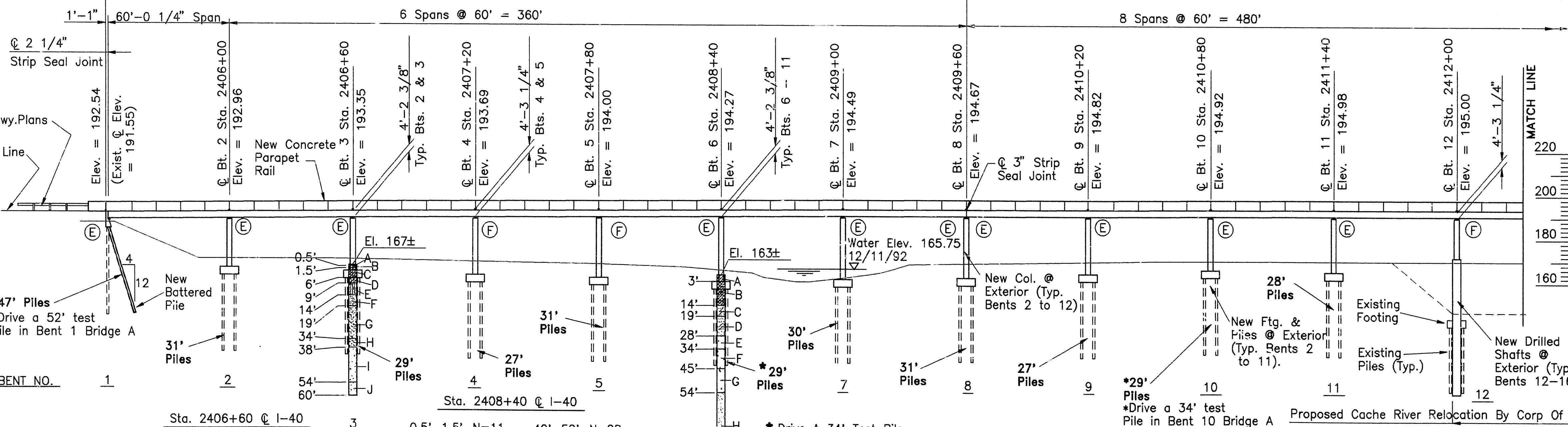


Total Length of Bridge = 1322'-2 1/2"

Begin Bridge
Sta. 2405+38.90

New 7 Span Continuous Unit and New Concrete Deck

New 8 Span Continuous Unit and New Concrete Deck



BENT NO. 1

Sta. 2406+60 C I-40

Sta. 2408+40 C I-40

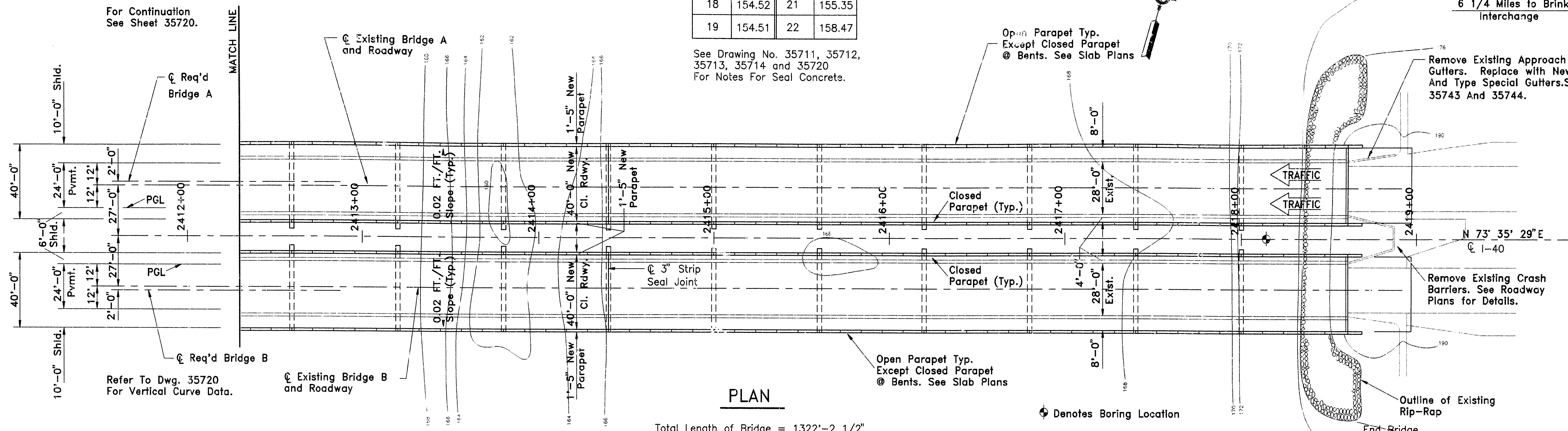
Proposed Cache River Relocation By Corp Of Engineers - 200 Ft. Bottom

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085		40	92

3724 A & B LAYOUT 35721

SEAL CONCRETE BOTTOM ELEVATION			
BENT	ELEV.	BENT	ELEV.
17	154.50	20	154.45
18	154.52	21	155.35
19	154.51	22	158.47

See Drawing No. 35711, 35712, 35713, 35714 and 35720 For Notes For Seal Concrete.



PLAN

Total Length of Bridge = 1322'-2 1/2"

BORING LOG - Sta. 2418+14

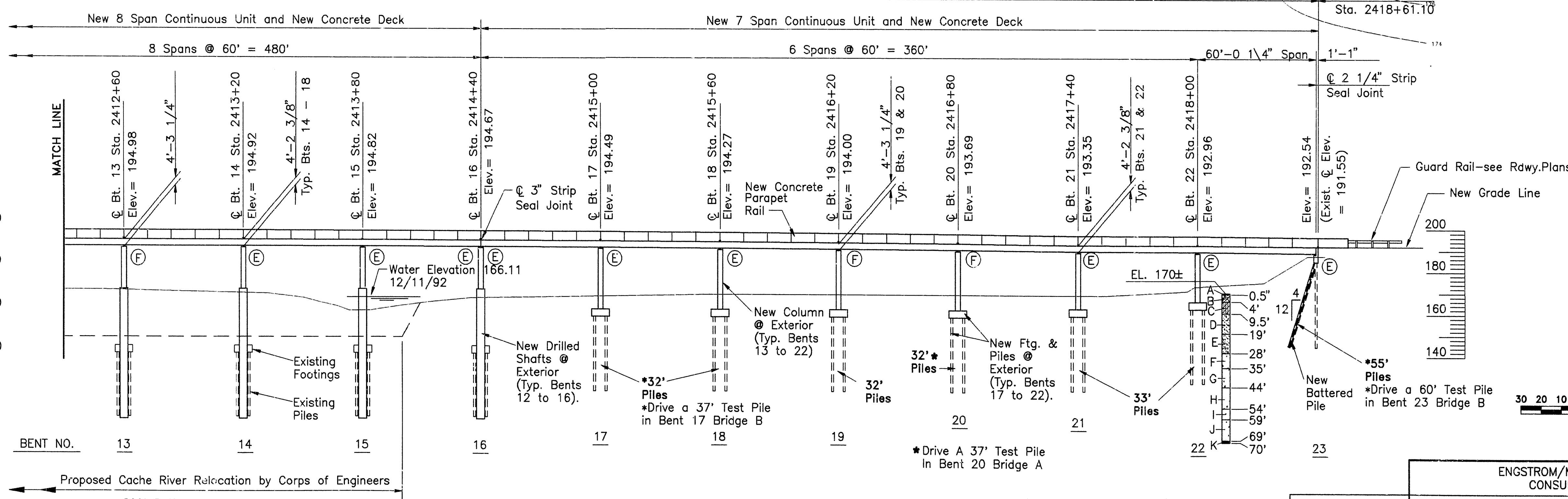
- A-Brown sandy clay with gravel & concrete (fill).
- B-Stiff reddish tan sandy clay.
- C-Firm to stiff gray silty clay with ferrous nodules & roots.
- D-Loose tan & gray fine sand with ferrous stains.
- E-medium-dense, wet below 19 feet.
- F-Dense gray fine to medium sand with trace gravel.
- G-Dense tan fine to medium sand with trace gravel.
- H-medium-dense to dense below 44 feet.
- I-loose, 54 to 59 feet.
- J-medium-dense to dense
- K-Dense gray coarse sand with fine gravel.

Note:

- Stations & Dimensions Based Upon Existing Plans.
- (E) Indicates Expansion Bearing. (F) Indicates Fixed Bearing.
- Bridge A & B are the Same Except as Noted.
- Roadway Elevations Shown are at New Bridges.
- Vertical Dimensions are from Bridge to top of Low Riser.
- For General Notes See Drawing 35717.
- For Additional Data and Continuation of Bridge See Drawing 35720.

BENT	EXISTING PILE TIP ELEVATIONS*
13	EL. 111
14	EL. 110
15	EL. 110
16	EL. 110
17	EL. 134
18	EL. 134
19	EL. 134
20	EL. 134
21	EL. 135
22	EL. 138
23	EL. 134

*Existing pile tip elevations are the lowest average pile tip elevations at the bents. At minimum, required piles shall be driven to the existing pile tip elevation.

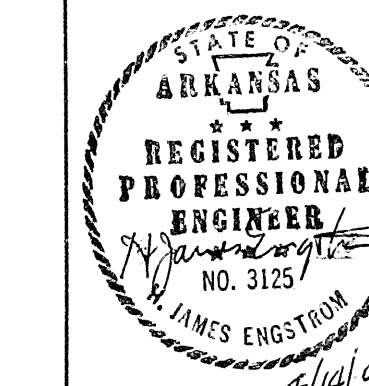


ELEVATION BRIDGE "A" & "B"

Bents 6, 7, 15 And 16 Are Located Within The Streambed And Shall Be Backfilled With Clean Gravel Or Crushed Rock According To Section 801.08

Sta. 2418 + 14 @ I-40

- 19'-20'-N=28
- 24'-25'-N=28
- 29'-30'-N=30
- 34'-35'-N=38
- 39'-40'-N=48
- 44'-45'-N=25
- 49'-50'-N=34
- 54'-55'-N=8
- 59'-60'-N=38
- 64'-65'-N=26
- 69'-70'-N=46



ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

STRUCTURE PLAN & ELEVATION 2 of 2 ALT. A. & B. BRIDGE 3724 OVER BAYOU DEVIEU

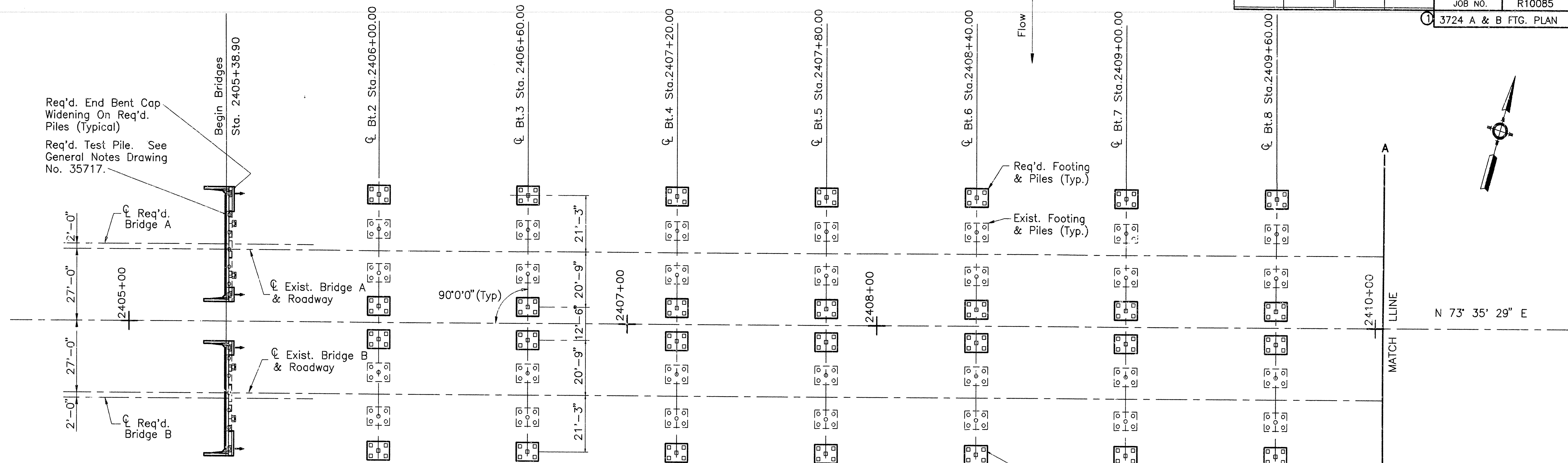
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 8/94

SCALE: 1" = 30'-0"

BRIDGE NO. 3724 A & B DRAWING NO. 35721

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R10085	41	92
				3724 A & B FTG. PLAN		35722		



PLAN

Req'd. Test Pile. See
General Notes Drawing
No. 35717.

EXISTING BENT REPAIR – BRIDGE 3724 A	
BENT	Repair The following:
1	Spall Under Existing Stringer #2. Crack & Delaminated Concrete Under Stringer #1.
3	Crack On West Face Of North Column. Crack On South End Bottom Of Pier Cap. Crack On Top Of Pier Cap.
4	Crack On North Face Of North Column.
5	Crack On South End, West Face Of Pier Cap. Crack On Top Of Pier Cap. Crack & Spall On South Face Of North Column
6	Crack & Spall On West Face Of Cap & Column Crack & Spall On North Face Of South Column Crack & Spall On Top Of Pier Cap.
7	Spall On Pier Cap.
8	Crack & Spall On West Face Of South Column. Crack & Spall On West Face Of Pier Cap. Crack & Spall On Top Of Pier Cap.
9	Crack & Spall On South Face Of South Column Crack & Spall On Top Of Pier Cap.
10	Crack On West & South Face Of South Column
11	Crack On South Face Of South Column. Spall On North Face Of North Column. Crack On East Face Of Pier Cap. Crack On Top Of Pier Cap.

EXISTING BENT REPAIR – BRIDGE 3724 B	
BENT	Repair The following:
2	Crack On South End, West Face Of Pier Cap. Spall On South Face Of Pier Cap.
3	Crack & Spall On East Face Of South Column. Spall On South Face Of Pier Cap.
5	Spall On Bottom Of Pier Cap.
6	Crack On North Face & West Face Of North Column.
9	Crack On South Face Of South Column. Crack On West & South Face Of North Column.
10	Crack & Spall On East Face Of North Column.
11	Crack On East Face Of South Column. Crack On South Face Of North Column. Crack On West Face Of North Column.

NOTES

1. Stations And Dimensions Based Upon Existing Plans.
2. Restoration Of Riprap Protection At End Bents Required After End Bent Construction. For Details, See Drawing No. 35724.

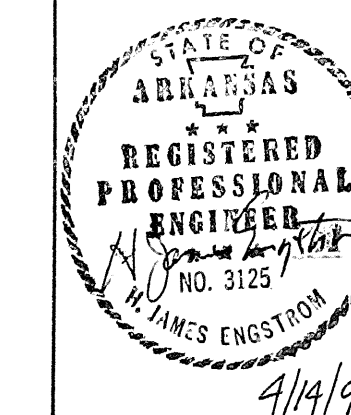
ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

FOOTING PLAN 1 of 2
ALT. A. & B.
BRIDGE 3724 OVER BAYOU DEVIEW

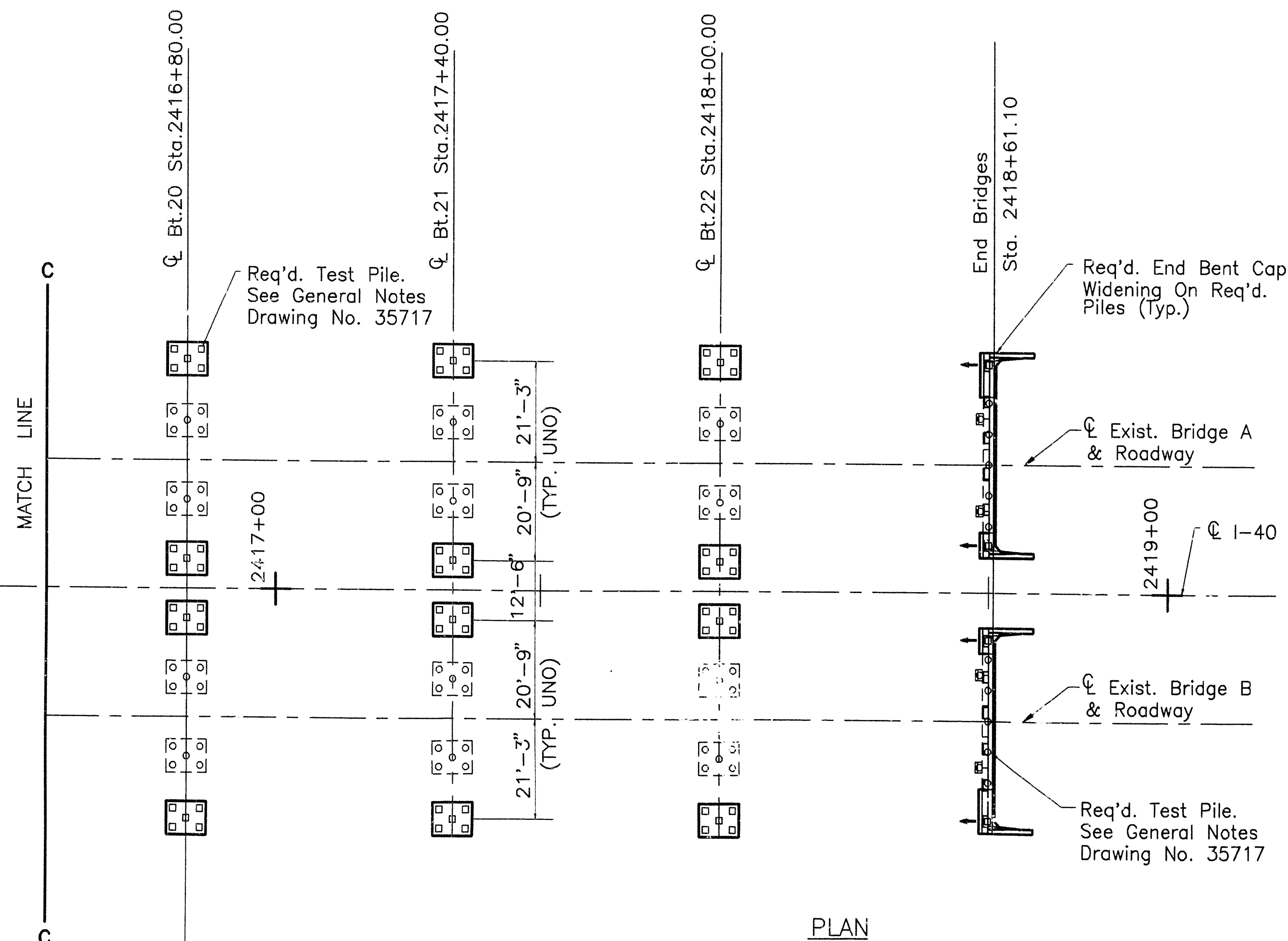
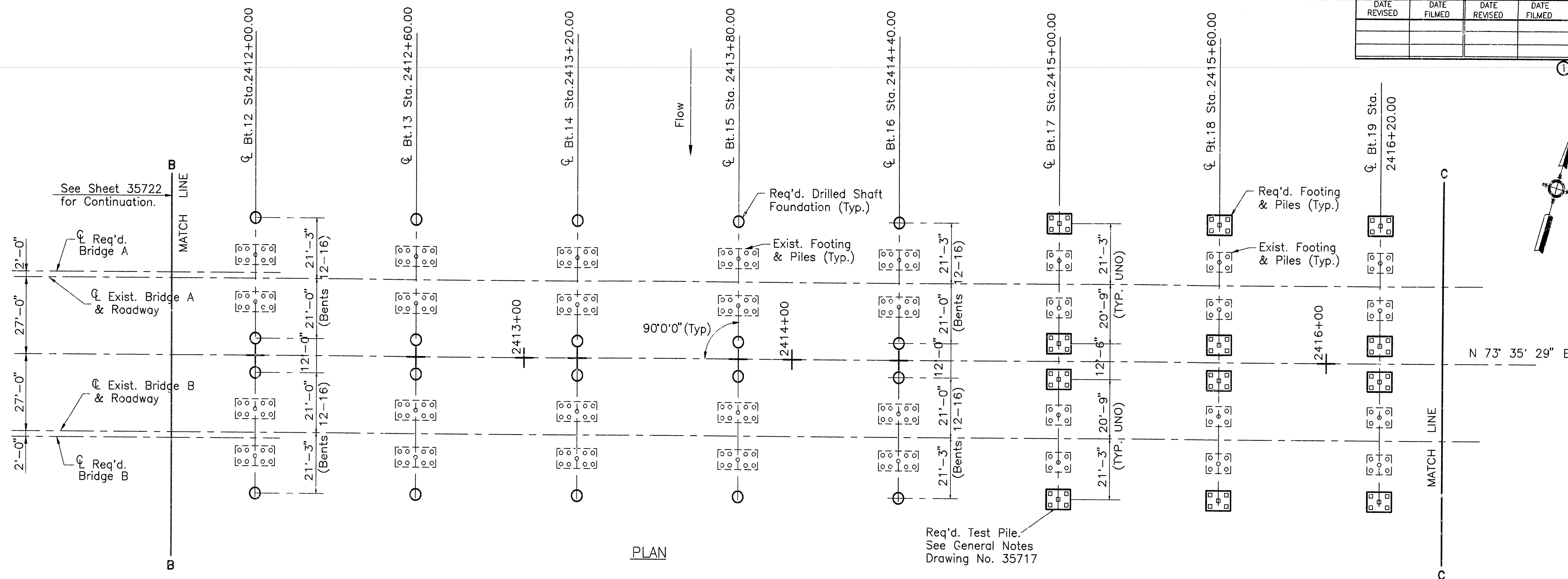
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: <u>JHS</u> DATE: <u>3/96</u> CHECKED BY: <u>GF</u> DATE: <u>4/97</u> DESIGNED BY: <u>CDE</u> DATE: <u>9/94</u>	SCALE: <u>1" = 20'-0"</u>
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BRIDGE NO. 3724 A & B	DRAWING NO. 35722
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R10085	42	92
3724 A & B FTG. PLAN								35723



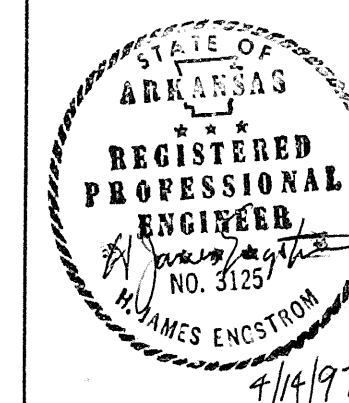
EXISTING BENT REPAIR - BRIDGE 3724 B	
BENT	Repair The following:
12	Crack On East Face & North Face Of South Column. Crack On North Face & West Face Of North Column.
13	Crack & Spall On South Face Of South Column.
14	Crack On East Face Of North Column. Crack On East Face Of South Column. Crack On South Face Of South Column.
16	Crack & Spall On East Face Of North Column. Crack & Spall On East Face Of South Column.
17	Spall On South End, West Face Of Pier Cap. Crack & Spall On East Face Of South Column. Spall On South Face Of North Column.
18	Crack & Spall On East Face & South Face Of Pier Cap.
20	Crack & Spall On West Face Of South Column. Crack & Spall On East Face Of North Column.
21	Spall On East Face Of North Column. Spall On East Face Of South Column.
22	Spall On West Face Of North Column. Spall On North End Bottom Of Pier Cap. Spall On West Face Of South Column.
23	Spall Under Existing Stringer #1. Spall Under Existing Stringer #5.

EXISTING BENT REPAIR - BRIDGE 3724 A	
BENT	Repair The following:
12	Crack On North Face Of North Column. Spall On West Face Of Pier Cap. Crack & Spall On East Face Of Cap & Column. Crack On South Face Of South Column.
14	Spall On West Face Of South Column.
17	Crack & Spall On West Face Of Pier Cap.
18	Crack On East Face Of South Column. Spall On East Face Of North Column.
21	Spall On East Face Of North Column.

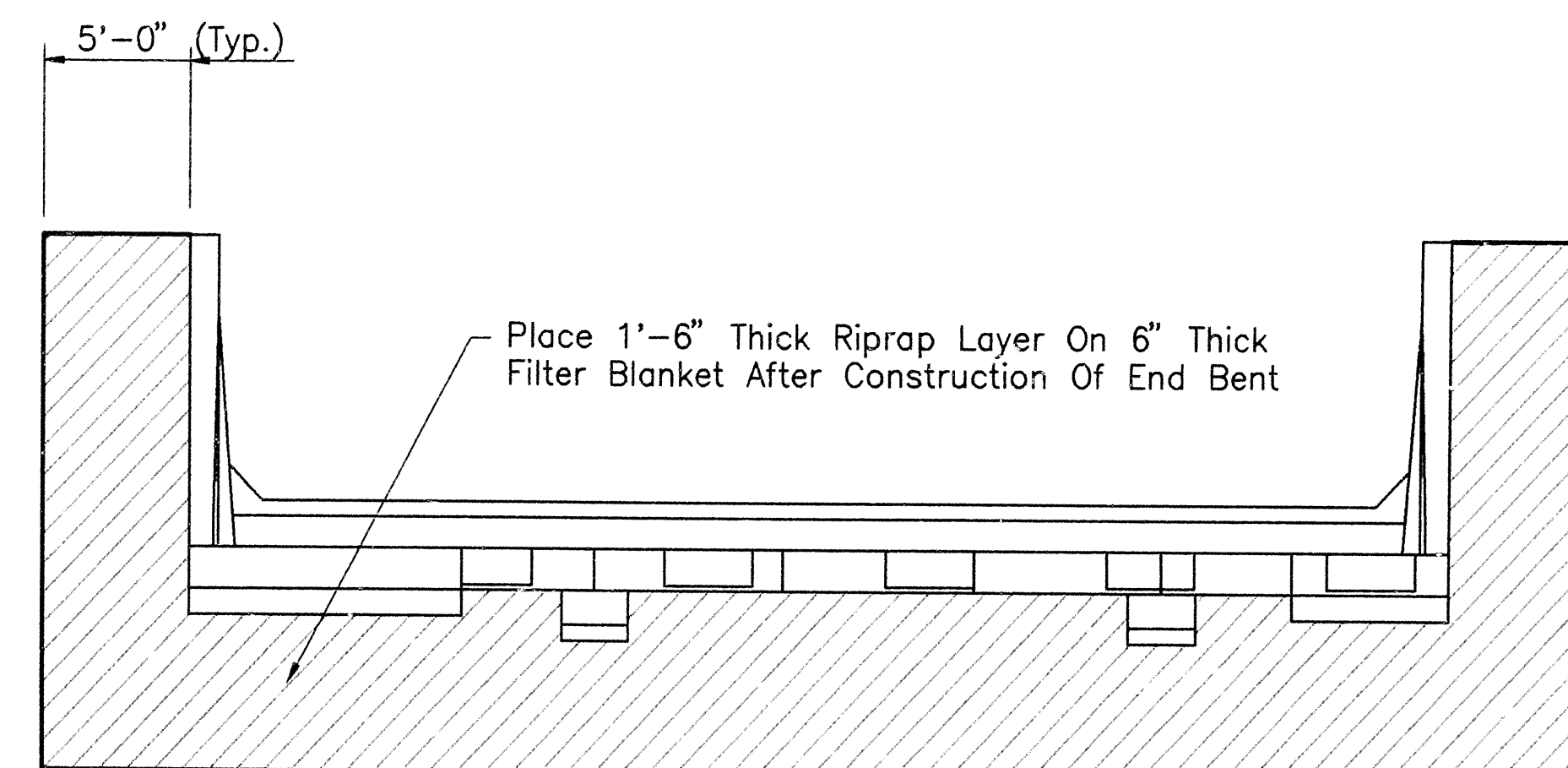
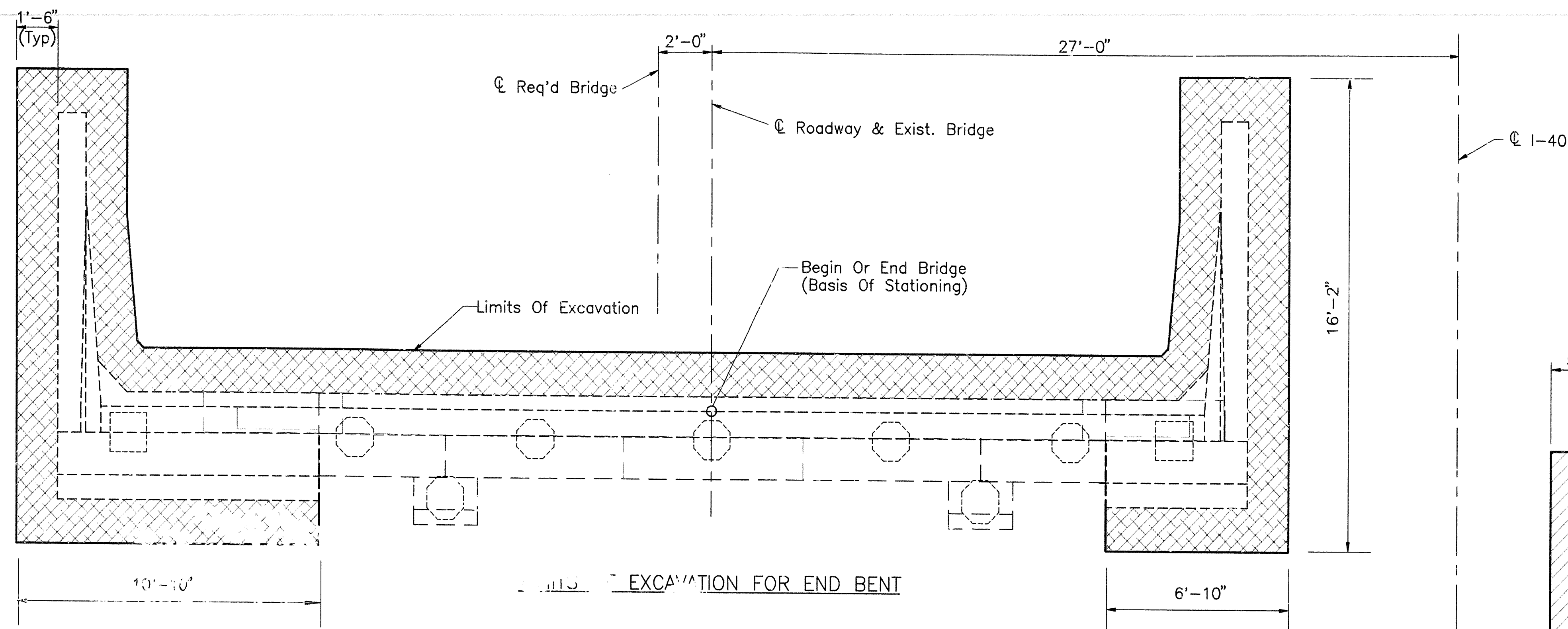
NOTES

- Stations & Dimensions Based Upon Existing Plans.
- Restoration Of Riprap Protection At End Bents Required After End Bent Construction. For Details, See Drawing No. 35724.

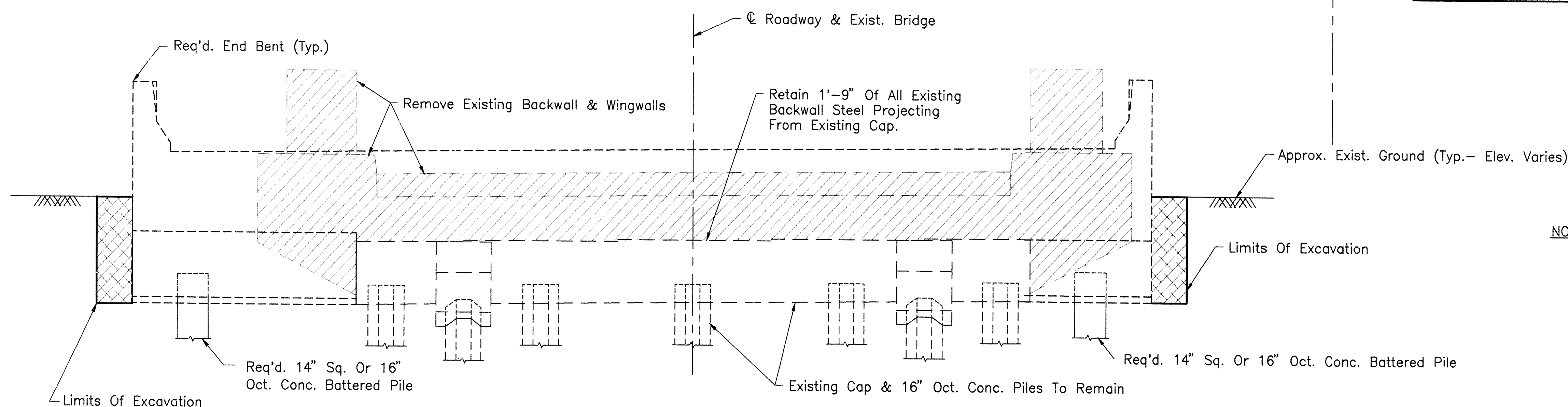
ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
FOOTING PLAN 2 of 2 ALT. A. & B. BRIDGE 3724 OVER BAYOU DEVUEW	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS. DATE: 3/96 CHECKED BY: GE. DATE: 4/97 DESIGNED BY: CDE. DATE: 9-94	SCALE: 1" = 20'-0"
BRIDGE NO. 3724 A & B	DRAWING NO. 35723



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085		43	92
				① 3724 A & B	BENT			35724



RIPRAP DETAIL
No Scale



ELEVATION
Scale: $\frac{3}{8}'' = 1'-0''$

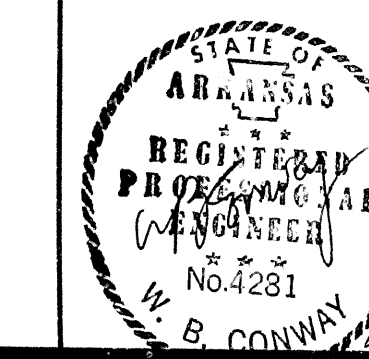
NOTES:

For Notes Pertaining To This Sheet, See Dwg. No. 35725.

NOTES:

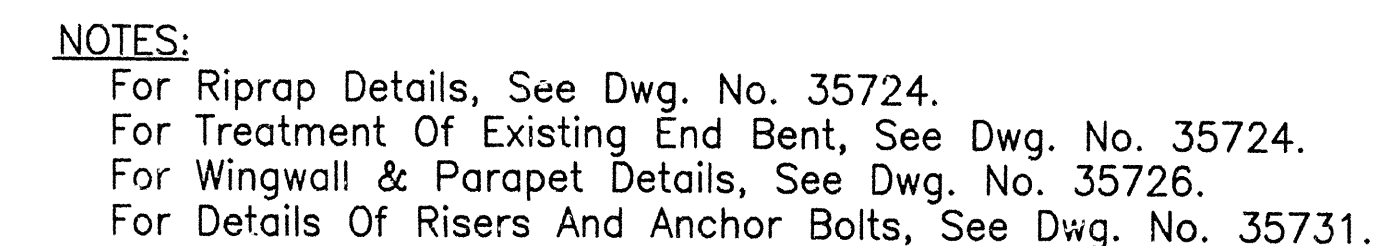
Care Shall Be Taken To Avoid Damage To The Existing Steel To Be Retained. If Two Or More Adjacent Bars, Or Two Bars Separated By Only One Bar, Are Broken In The Concrete Removal Or Bar Straightening Process, #6 Replacement Dowel Bars, 3'-3" Long (1'-6" Embedment), Shall Be Drilled And Grouted In Place. Work Involved In The Placement Of The #6 Dowels Shall Be Included In The Item "Modification Of Existing Bridge Structure".

Alt. A. Piles Shown. Alt. B. Piles Are Concrete Filled Steel Shell Piling.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
LIMITS OF EXCAVATION FOR ENDBENTS 1 & 23 BRIDGE 3724 OVER BAYOU DEVIEU	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS DATE: 3/96	SCALE: $\frac{3}{8}'' = 1'-0''$
CHECKED BY: CDE DATE: 4/97	
DESIGNED BY: FS DATE: 9/94	
BRIDGE NO. 3724 A & B	DRAWING NO. 35724

Table Of Variables				
	Bridge 3724 A		Bridge 3724 B	
	Bent 1 Sta. 2405+38.90	Bent 23 Sta. 2418+61.10	Bent 1 Sta. 2405+38.90	Bent 23 Sta. 2418+61.10
A	192.14	192.14	192.14	192.14
B	188.35	188.35	188.35	188.35
C	188.50	188.50	188.50	188.50
D	188.65	188.65	188.65	188.65
E	188.80	188.80	188.80	188.80
F	188.95	188.95	188.95	188.95
G	189.10	189.10	189.10	189.10
H	192.94	192.94	192.94	192.94
J	188.37	188.42	188.34	188.16
K	2'-8 3/8"	2'-8"	2'-8 7/8"	2'-8 1/8"



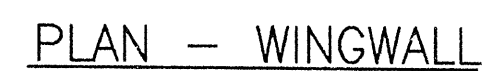
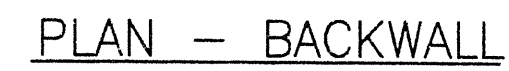
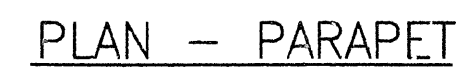
Pile Note: Batter Req'd. Piles Forward 4 Horiz. On 12 Vertical. Req'd. Pile Tip Elevation Is Approximately El. 142 For Bent 1 (Pile Length Approx. 47 Feet). At Minimum, The Req'd. Piles For Bent 1 Are To Be Driven To El. 144. Req'd. Pile Tip Elev. Is Approximately El. 134 For Bent 23 (Pile Length Approx. 55 Feet). At Minimum, The Req'd. Piles For Bent 23 Are To Be Driven To El. 134.

PILE LENGTHS SHOWN ARE FOR ALTERNATE A, CONCRETE PILES. PILE LENGTHS FOR ALTERNATE B, CONCRETE FILLED STEEL SHELL PILING, MAY BE OBTAINED BY MULTIPLYING LENGTHS SHOWN BY 1.28. SEE SHEET 35717.

C:\PROJ\AHTD\DEVIEW\ENDBENT ACAD SCALE: 3/8" = 1'-0"

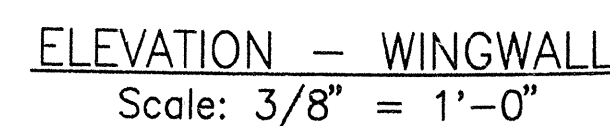
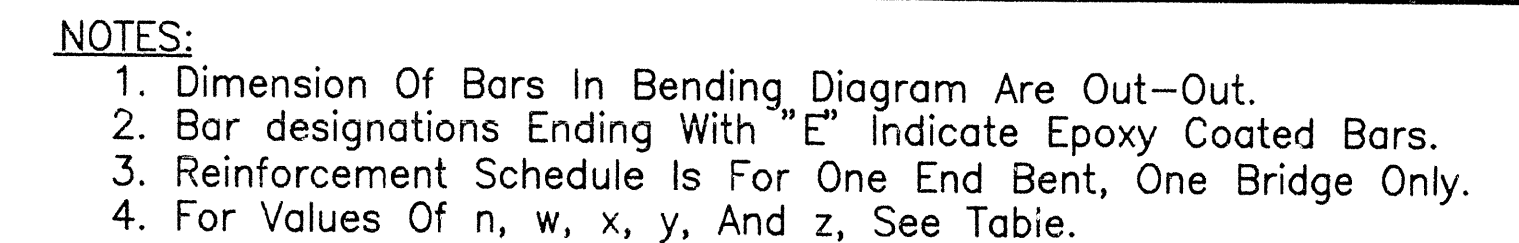
C:\PROJ\AHTD\DEVIEW\ENDBENT

①	3724 A & B	BENT	35726
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If Anchor Bolts Are To Be Drilled Into Place, The Contractor Shall Carefully Place Bars To Avoid Interference With Drilling For Placement Of Anchor Bolts. For Anchor Bolt Details, See Dwg. No. 35731.

BENDING DIAGRAMS



SECTION A-A

Scale: $\frac{3}{8}" = 1'-0"$

Dimensions and Labels:

- Top horizontal dimensions:
 - Varies 10" To 1'-0"
 - Varies 1'-0" To 1'-7"
 - Varies 10" To 1'-0"
 - Varies 0" To 2"
- Vertical dimensions on the left:
 - 3"
 - W701 @ 12" Sp.
 - 5 Sp.
 - 12" EF
 - 2 1/2" Cl.
 - W401 @ 12"
 - 3"
- Vertical dimensions on the right:
 - 2'-5"
 - 1 1/2"
 - 1'-11"
 - Or 16'
- Horizontal dimensions within the wall:
 - 2" Cl.
 - 12"
 - 2" Cl.
- Labels:
 - WP402E
 - WP401E
 - WP402E
 - W402E @ 12"

For Expansion Joint At End Bent, See Dwg. No. 35747.

1'-4"

10"

A402 Or A405

A501

A502

A401

A801 Or A802

A606

10-A403

4-A606

2' x 4' Shear Key

8-A602 Or A605

12" Pile Embedment

12" x 6" Min.

1'-7 1/2"

12"

6"

Exist. Reinf.

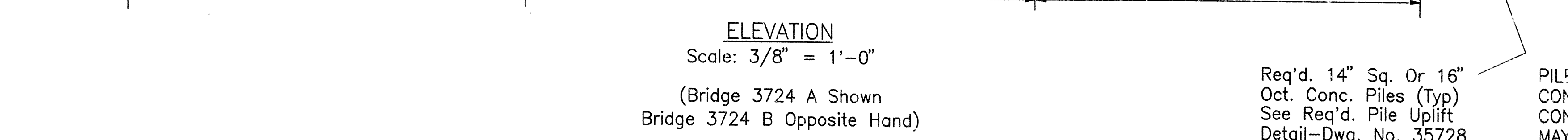
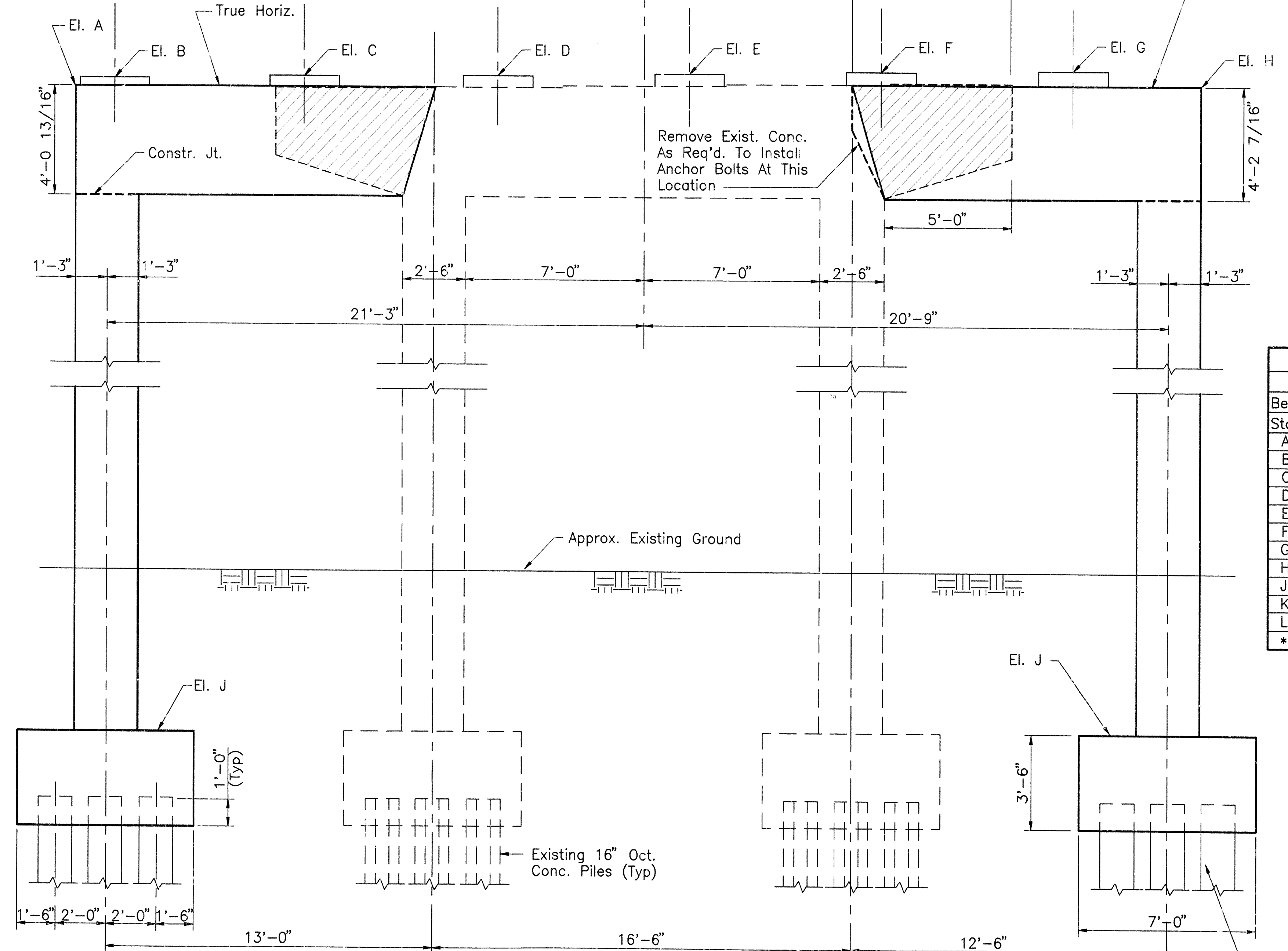
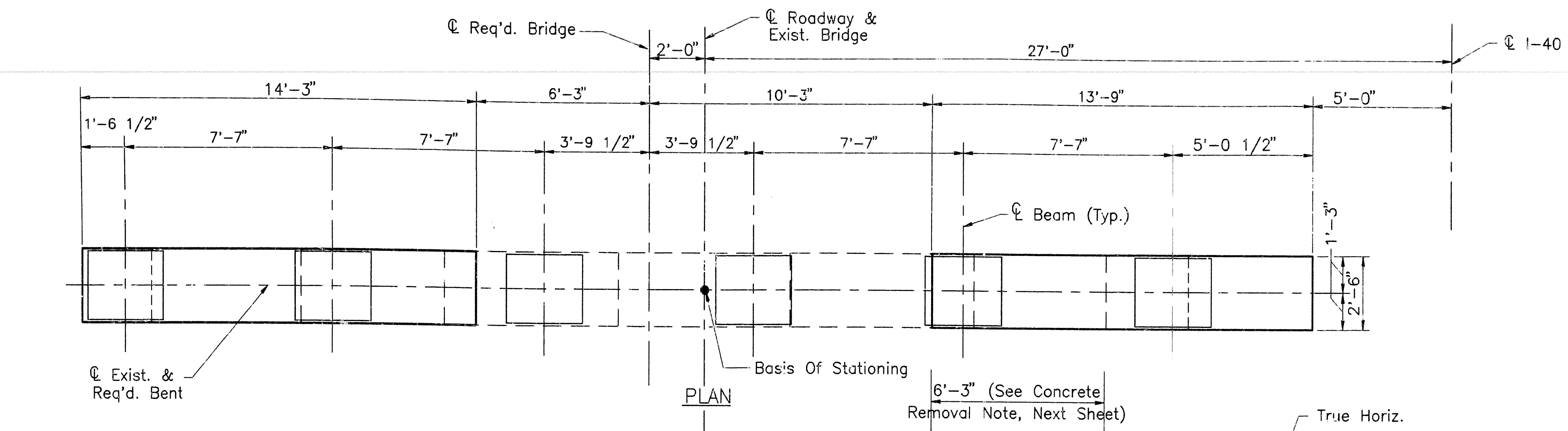
Exist. Cap & Piles

STATE OF
ARKANSAS
REGISTERED
PROFESSIONAL
ENGINEER
No. 4281
W. B. CONWAY
4/1/9

ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
EXISTING BENT MODIFICATIONS WINGWALL/ENDBENT REINF. BRIDGE 3724 OVER BAYOU DEVIEUX	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS CHECKED BY: CDE DESIGNED BY: FS	DATE: 3/96 DATE: 4/97 DATE: 9/94 SCALE: 3/8" = 1'-0"
BRIDGE NO. 3724 A & B	DRAWING NO. 35726

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	46	92	

3724 A & B BENT 35727



Bridge 3724 A										
Table Of Variables										
Bent	2	3	4	5	6	7	8	9	10	11
Sta.	2406+00	2406+60	2407+20	2407+80	2408+40	2409+00	2409+60	2410+20	2410+80	2411+40
A	187.95	188.30	188.67	189.28	189.25	189.50	189.69	189.78	189.88	189.97
B	188.76	189.15	189.42	189.73	190.07	190.29	190.47	190.62	190.72	190.78
C	188.91	189.30	189.57	189.88	190.22	190.44	190.62	190.77	190.87	190.93
D	189.06	189.45	189.72	190.03	190.37	190.59	190.77	190.92	191.02	191.08
E	189.21	189.60	189.87	190.18	190.52	190.74	190.92	191.07	191.17	191.23
F	189.36	189.75	190.02	190.33	190.67	190.89	191.07	191.22	191.32	191.38
G	189.51	189.90	190.17	190.48	190.82	191.04	191.22	191.37	191.47	191.53
H	188.05	188.50	188.78	189.48	189.41	189.64	189.78	189.96	190.03	190.11
J	166.13	164.48	162.85	162.21	160.18	161.18	162.12	164.12	166.06	165.15
K	133	133	133	129	129	129	129	135	135	135
L	31	29	27	31	29	30	31	27	29	28
*M	140	138	138	135	134	135	135	138	143	137

Bridge 3724 B										
Table Of Variables										
Bent	2	3	4	5	6	7	8	9	10	11
Sta.	2406+00	2406+60	2407+20	2407+80	2408+40	2409+00	2409+60	2410+20	2410+80	2411+40
A	187.92	188.31	188.68	188.94	189.26	189.44	189.68	189.83	189.85	189.76
B	188.76	189.15	189.42	189.73	190.07	190.29	190.47	190.62	190.72	190.78
C	188.91	189.30	189.57	189.88	190.22	190.44	190.62	190.77	190.87	190.93
D	189.06	189.45	189.72	190.03	190.37	190.59	190.77	190.92	191.02	191.08
E	189.21	189.60	189.87	190.18	190.52	190.74	190.92	191.07	191.17	191.23
F	189.36	189.75	190.02	190.33	190.67	190.89	191.07	191.22	191.32	191.38
G	189.51	189.90	190.17	190.48	190.82	191.04	191.22	191.37	191.47	191.53
H	188.07	188.45	188.75	189.10	189.36	189.59	189.80	189.93	190.02	190.08
J	166.10	164.49	162.86	161.87	160.19	161.12	162.11	164.26	166.03	164.94
K	133	133	133	129	129	129	129	135	135	135
L	31	29	27	31	29	30	31	27	29	28
*M	140	138	138	135	134	135	135	138	141	137

Bridge 3724 A						
Table Of Variables						
Bent	17	18	19	20	21	22
Sta.	2415+00	2415+60	2416+20	2416+80	2417+40	2418+00
A	189.49	189.26	188.99	188.68	188.31	187.95
B	190.29	190.07	189.73	189.42	189.15	188.76
C	190.44	190.22	189.88	189.57	189.30	188.91
D	190.59	190.37	190.03	189.72	189.45	189.06
E	190.74	190.52	190.18	189.87	189.60	189.21
F	190.89	190.67	190.33	190.02	189.75	189.36
G	191.04	190.82	190.48	190.17	189.90	189.51
H	189.62	189.40	189.15	188.83	188.47	188.08
J	161.17	161.19	161.17	161.11	161.99	165.13
K	127	127	127	127	127	130
L	32	32	32	32	33	33
*M	134	134	134	134	135	138

Bridge 3724 B						
Table Of Variables						
Bent	17	18	19	20	21	22
Sta.	2415+00	2415+60	2416+20	2416+80	2417+40	2418+00
A	189.45	189.24	189.00	188.69	188.32	187.91
B	190.29	190.07	189.73	189.42	189.15	188.76
C	190.44	190.22	189.88	189.57	189.30	188.91
D	190.59	190.37	190.03	189.72	189.45	189.06
E	190.74	190.52	190.18	189.87	189.60	189.21
F	190.89	190.67	190.33	190.02	189.75	189.36
G	191.04	190.82	190.48	190.17	189.90	189.51
H	189.60	189.36	189.17	188.80	188.43	188.05
J	161.13	161.17	161.18	161.12	162.00	165.09
K	127	127	127	127	127	130
L	32	32	32	32	33	33
*M	134	134	134	134	135	138

- NOTES**
- Pile Loads Are 44 Tons Each.
 - K= Approximate Pile Tip Elevation.
 - L= Approximate Pile Length.
 - *M= Average Existing Pile Tip Elevation. At Minimum, Req'd. Piles Shall Be Driven To This Elevation. Ref. Grubbs, Garner, & Hoskyns Geotechnical Report, Dated November 1993.
 - For Details Of Risers & A.B.'s See Drawing No. 35731.
 - For Seal Concrete See Drawing No. 35720 & 35721.
 - All Existing Anchor Bolts On Cap To Be Cut To 2" Below The Top Of Existing Cap. Holes Shall Be Completely Filled With Portland Cement Grout Or An Approved Non-Shrink Grout Prior To Construction Of Risers.
 - For Repair Of Existing Bents See Dwg. No. 35722 & 35723.

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

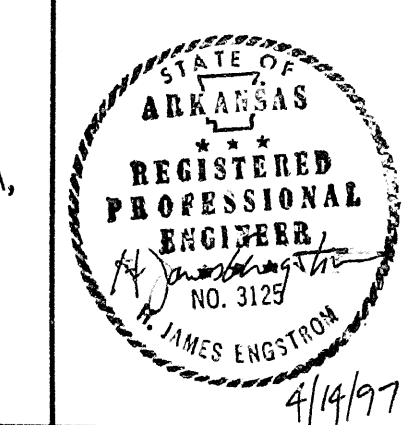
EXISTING BENT MODIFICATIONS
BENTS 2-11 & 17-22 ALT. A. & B.
BRIDGE 3724 OVER BAYOU DEVIEU

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

SCALE: 3/8" = 1'-0"

BRIDGE NO. 3724 A & B DRAWING NO. 35727

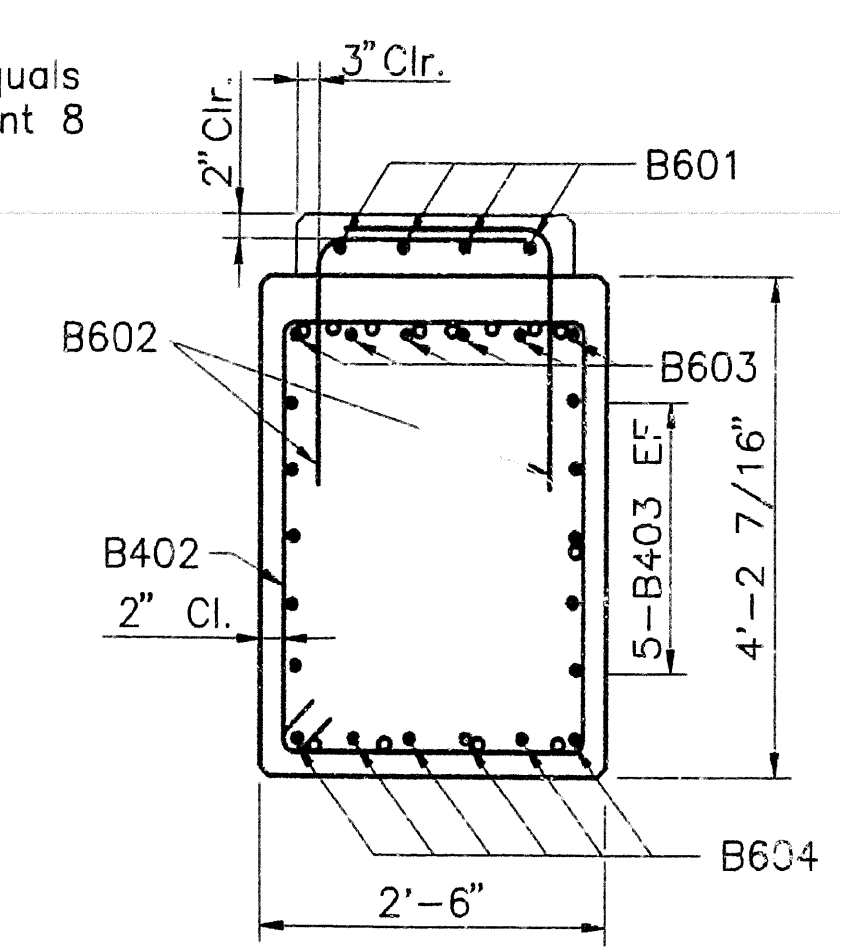
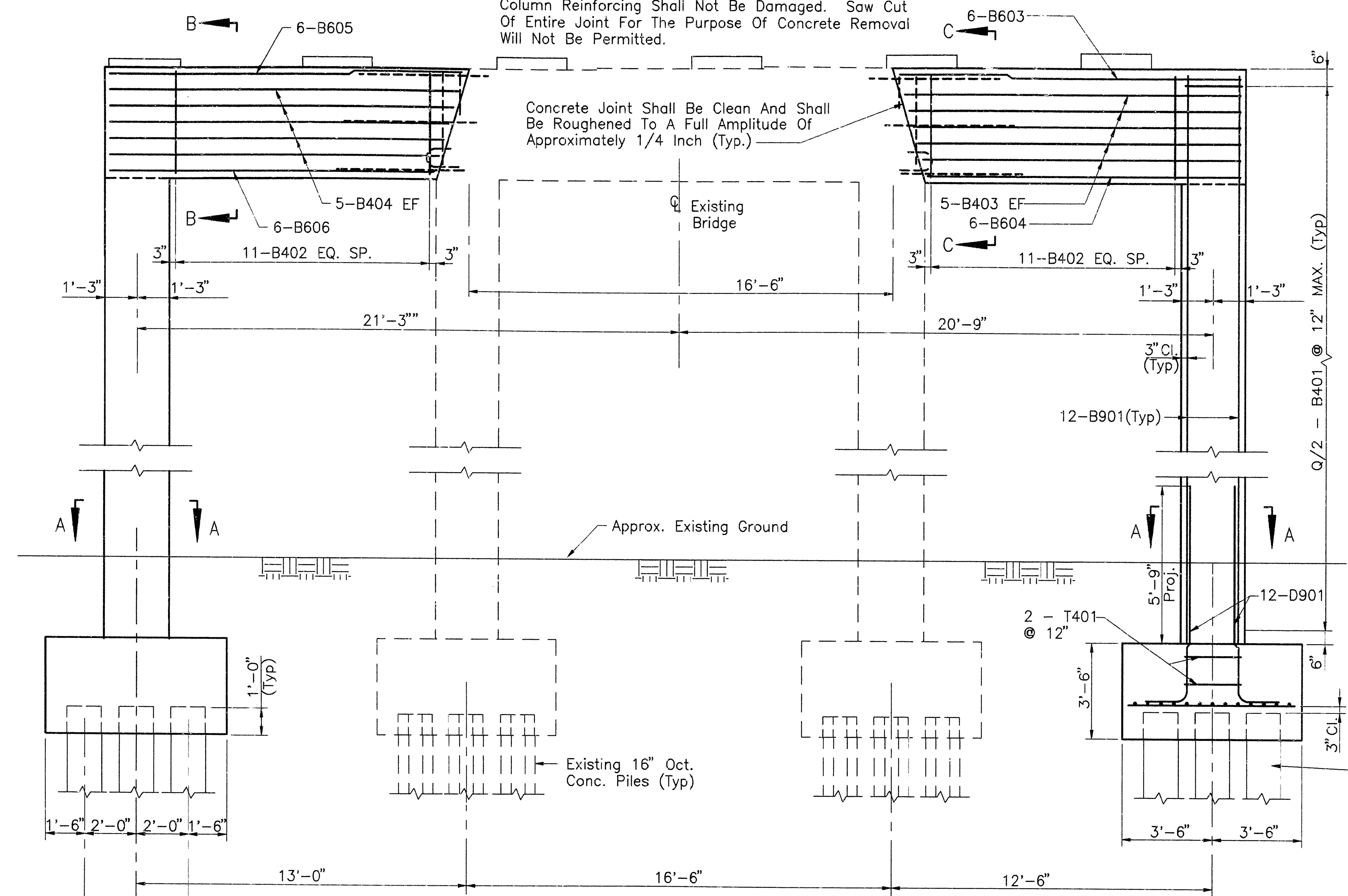


If Anchor Bolts Are To Be Drilled Into Place, The Contractor Shall Carefully Place Bars To Avoid Interference With Drilling For Placement Of Anchor Bolts. For Anchor Bolt Details, See Dwg. No. 35731.

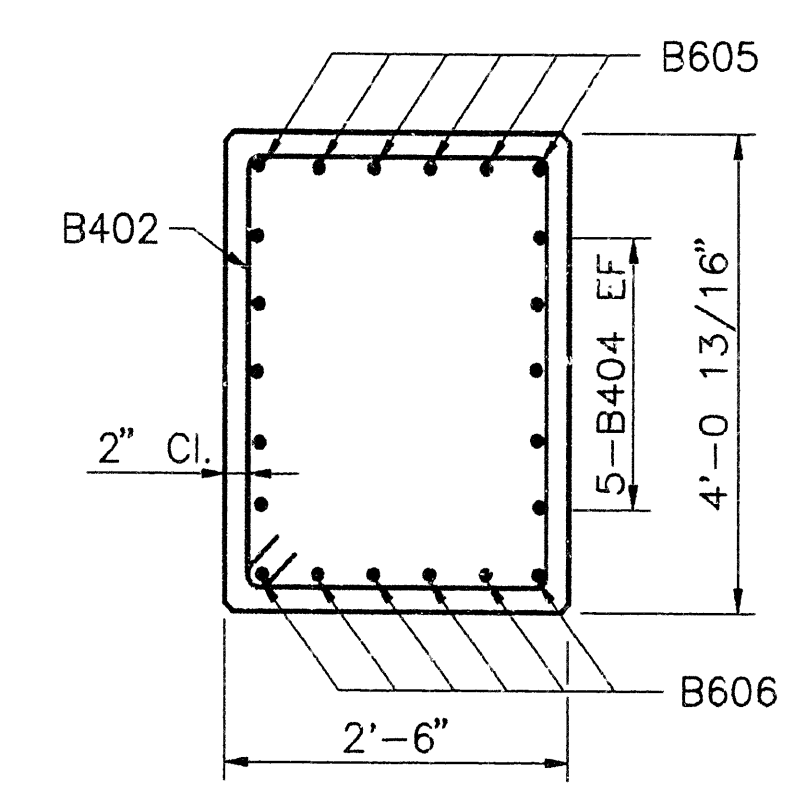
CONCRETE REMOVAL NOTE:
Existing Horizontal Reinforcing Shall Be Retained During Concrete Removal. Should Less Than 4'-0" Of The Horizontal Bar Project From The Edge Of Concrete Removal, A #6 Replacement Dowel 6'-0" Long Shall Be Grouted Into A 2'-0" Long 1 1/2" Ø Hole Drilled Into The Concrete Adjacent To The Broken Bar. Column Reinforcing Shall Not Be Damaged. Saw Cut Of Entire Joint For The Purpose Of Concrete Removal Will Not Be Permitted.

Note: Riser width equals 30 inches at Bent 8

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	47	92	
				3724 A & B	BENT		35728	



SECTION C-C
Scale: 3/4" = 1'-0"
• -Required Bars
• -Exist. Bars To Remain (See Concrete Removal Note)



SECTION B-B
Scale: 3/4" = 1'-0"

REINFORCEMENT SCHEDULE						
MARK	NO.	LENGTH	PIN DIA.	A	B	C
F601	36	6'-6"	Str.			
F602	28	8'-6"	Str.			
T401	6	8'-9"	2"	2'-0"	2'-0"	
D901	24	9'-7"	9 1/2"	8'-0"	1'-7"	
B401	"Q"	8'-9"	2"	2'-0"	2'-0"	
B402	22	12'-5"	2"	3'-8"	2'-2"	
B403	10	2 Sets Of 5	Str.	12'-5" To 13'-2"	Step 2 1/4"	
B404	10	2 Sets Of 5	Str.	12'-11" To 13'-8"	Step 2 1/4"	
B601	24	2'-3"	Str.			
B602	48	5'-1"	4 1/2"	3'-3"	1'-10"	
B603	6	13'-5"	Str.			
B604	6	12'-2"	Str.			
B605	6	13'-11"	Str.			
B606	6	12'-8"	Str.			
B901	24	"P"	Str.			

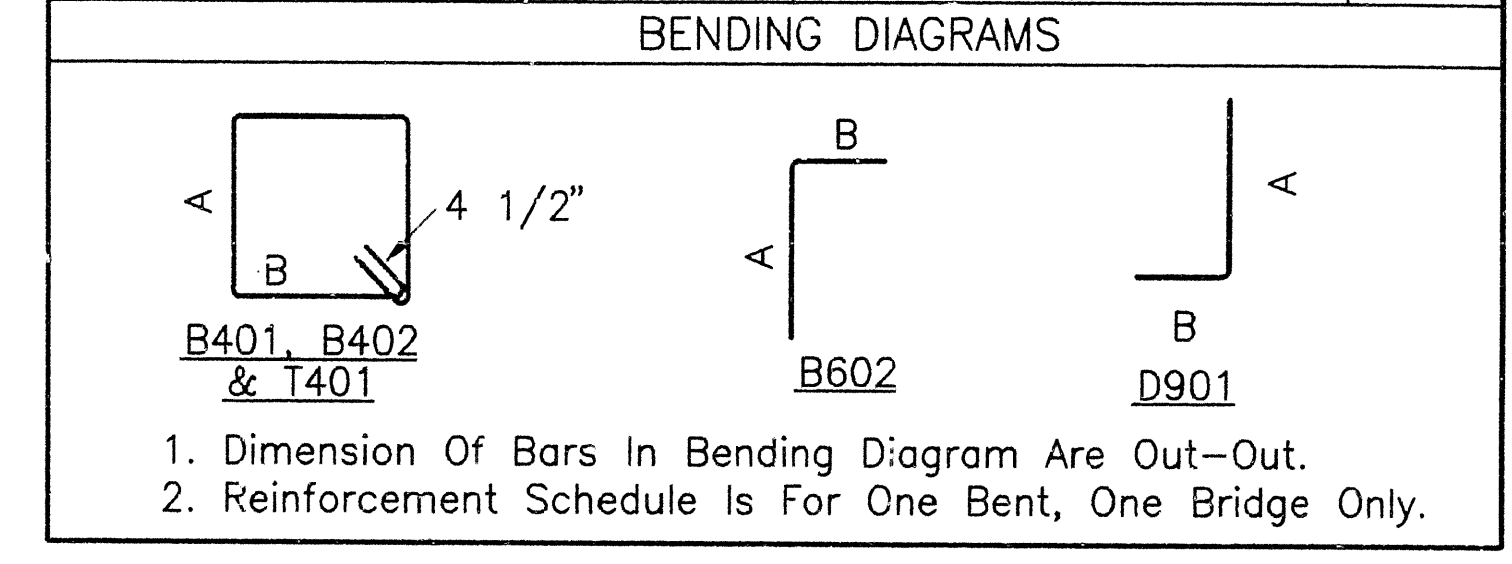
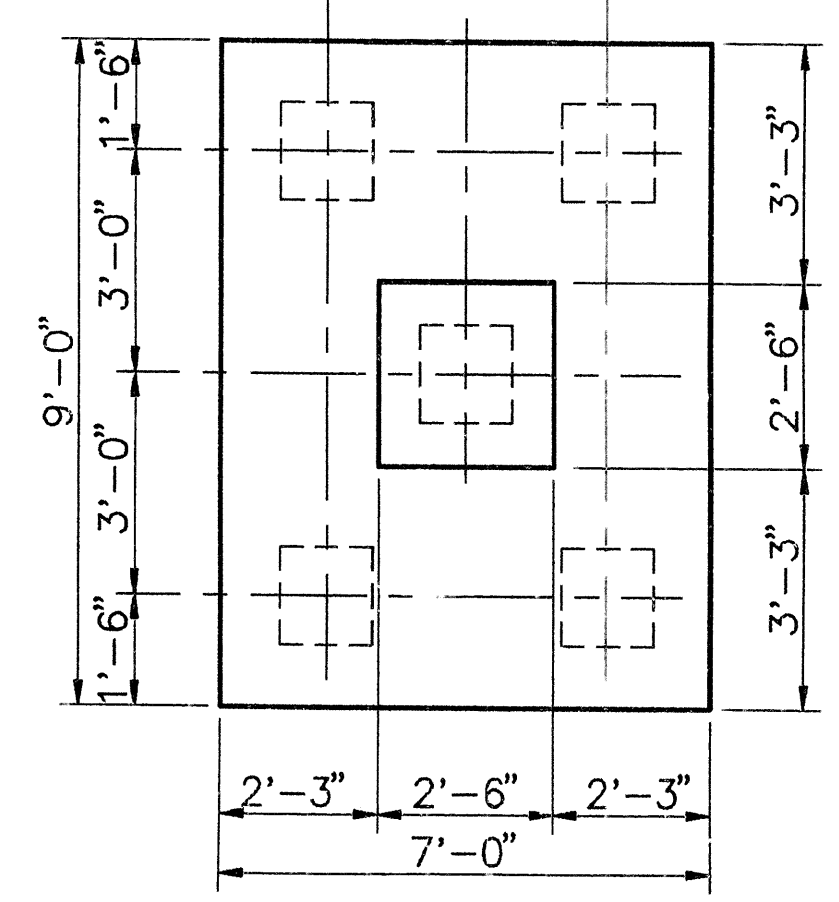


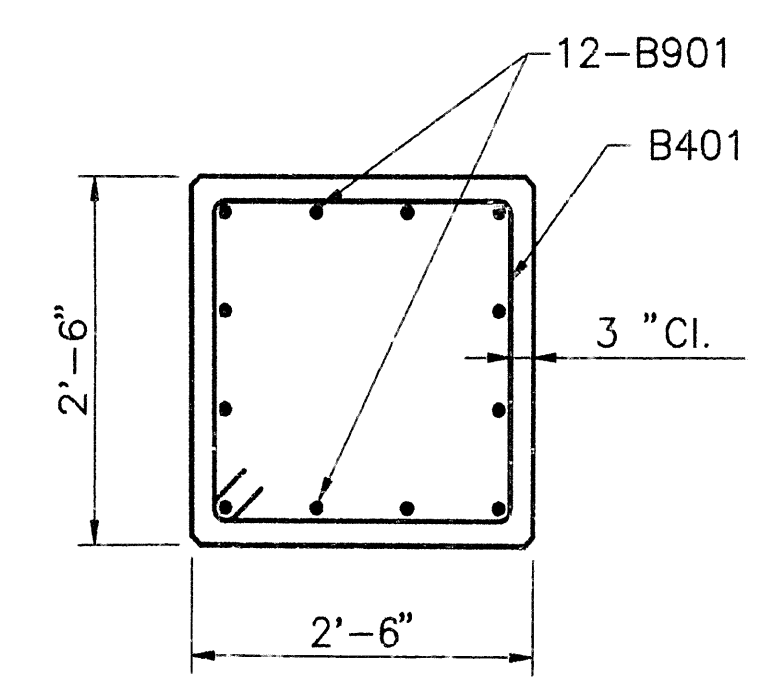
Table Of Variables- Columns		
BAR	B901 "P"	B401 "Q"
Bent 2	21'-7"	44
Bent 3	23'-7"	48
Bent 4	25'-7"	52
Bent 5	26'-10"	54

Table Of Variables- Columns		
BAR	B901 "P"	B401 "Q"
Bent 9	25'-4"	52
Bent 10	23'-7"	48
Bent 11	24'-7"	50
Bent 17	28'-1"	56
Bent 18	27'-10"	56
Bent 19	27'-7"	56
Bent 20	27'-4"	56
Bent 21	26'-1"	52
Bent 22	22'-7"	46

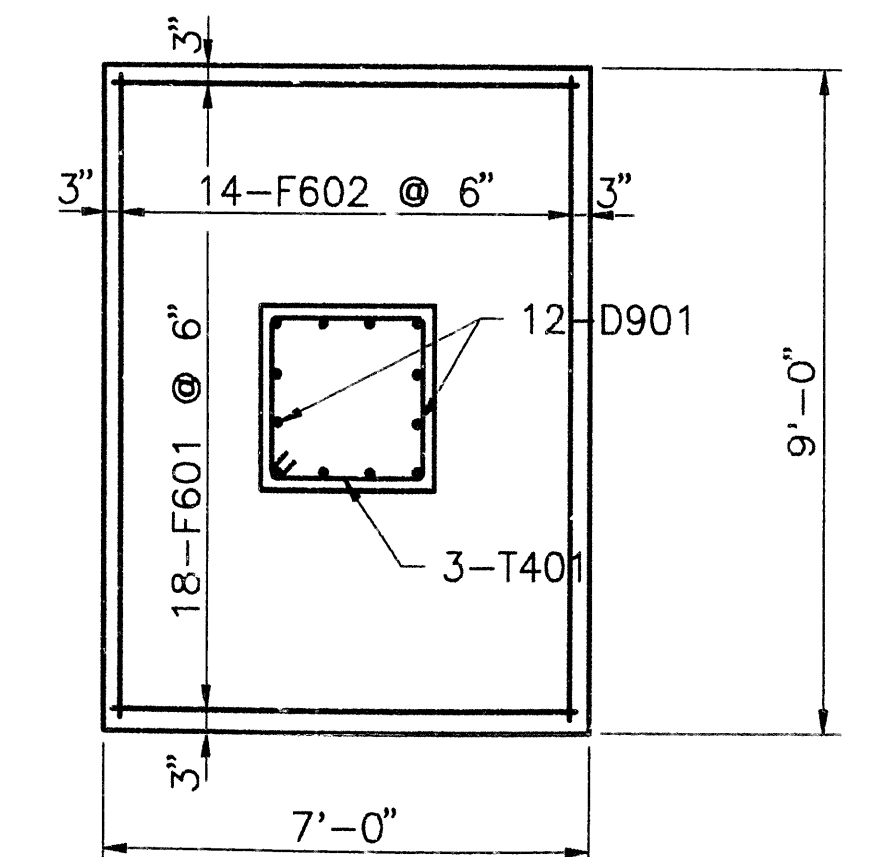
ELEVATION
Scale: 3/8" = 1'-0"
(Bridge 3724 A Shown
Bridge 3724 B Opposite Hand)



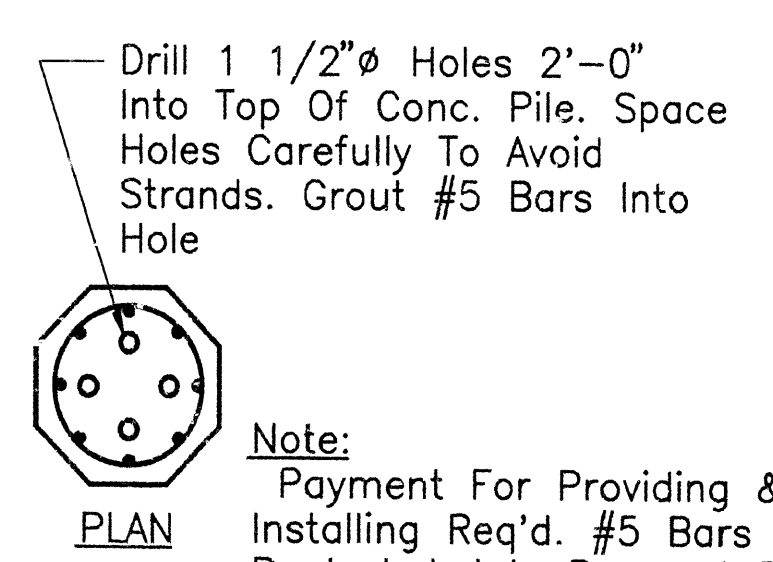
FOOTING PLAN



SECTION A-A
Scale: 3/4" = 1'-0"

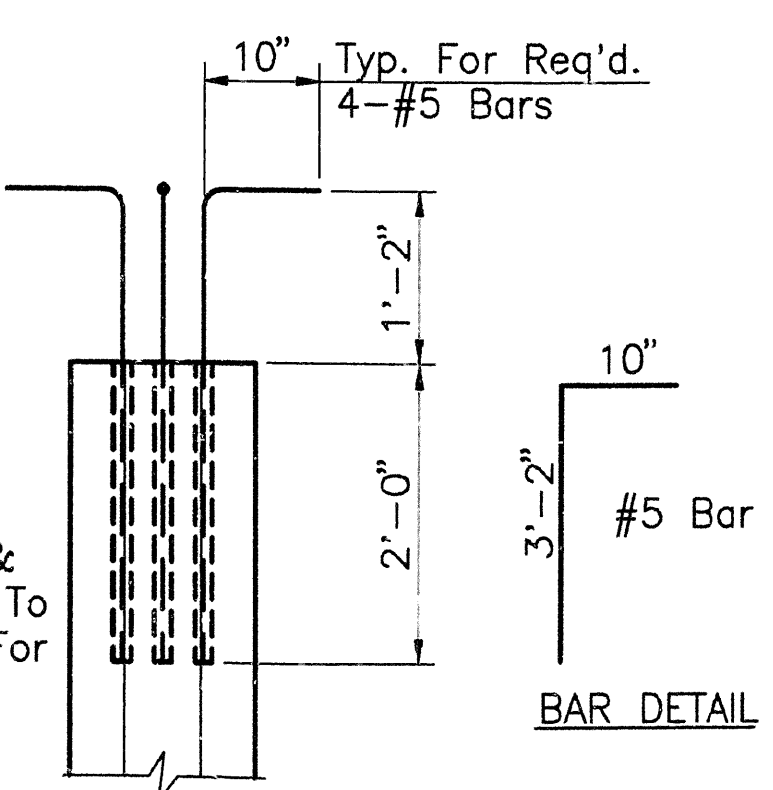


FOOTING REINFORCEMENT PLAN



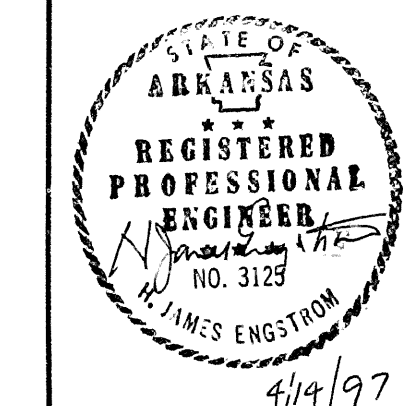
PLAN

Note: Payment For Providing & Installing Req'd. #5 Bars To Be Included In Payment For Req'd. Conc. Piles.



ELEVATION

PILE UPLIFT DETAIL
Scale: 3/4" = 1'-0"
16" Ø Oct. Conc. Pile Shown-14" Sq. Conc. Pile & Conc. Filled Steel Shell Pile Similar Detail Req'd. At All Req'd. Piles For Intermediate Bents, This Bridge.



ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

**EXISTING BENT MODIFICATIONS REINF.
BENTS 2-11 & 17-22 ALT. A. & B.
BRIDGE 3724 OVER BAYOU DEVUE**

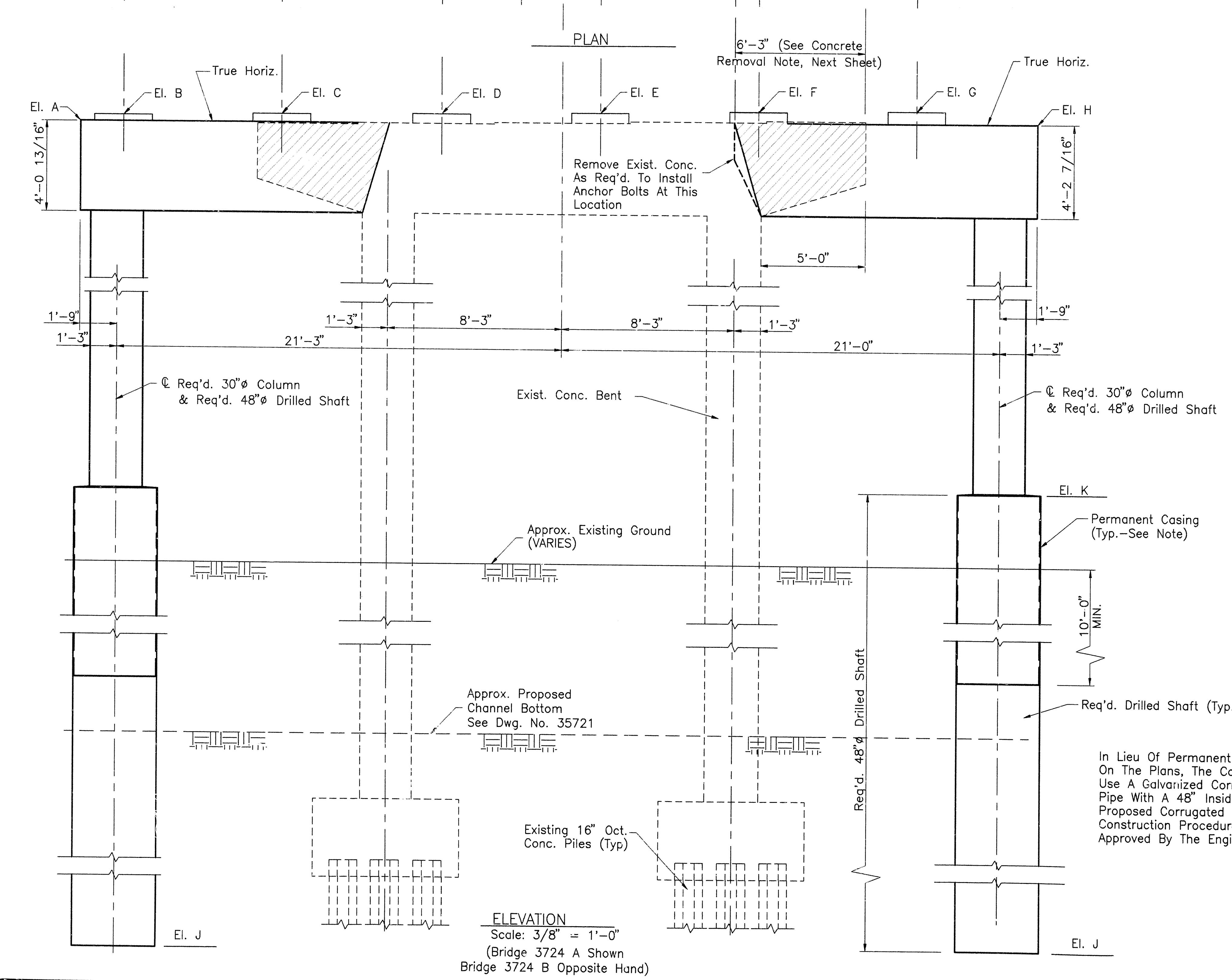
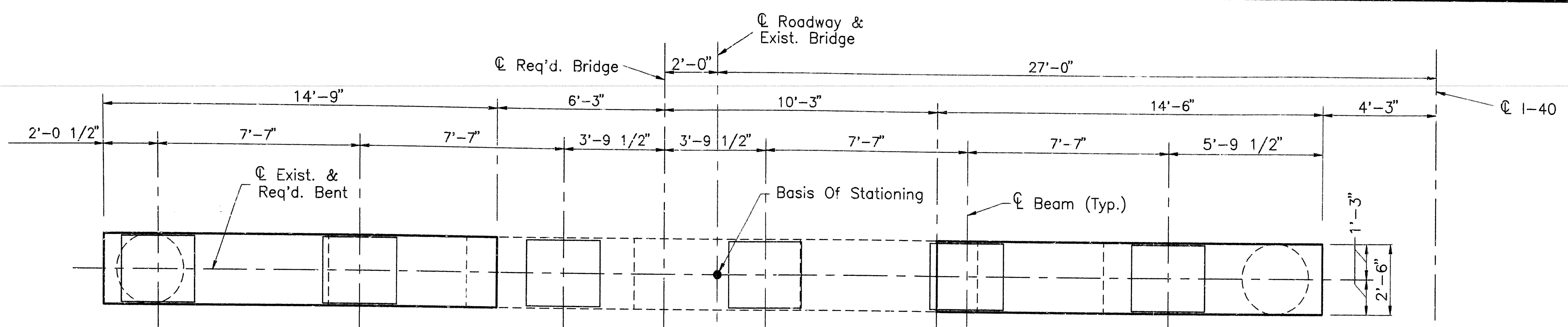
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

SCALE: 3/8" = 1'-0"

BRIDGE NO. 3724 A & B DRAWING NO. 35728

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	48	92	
				3724 A & B	BENT		35729	



Bridge 3724 A					
Table Of Variables					
Bent	12	13	14	15	16
Sta.	2412+00	2412+60	2413+20	2413+80	2414+40
A	190.00	189.99	189.90	189.81	189.67
P	190.73	190.71	190.72	190.62	190.47
C	190.88	190.86	190.87	190.77	190.62
D	191.03	191.01	191.02	190.92	190.77
E	191.18	191.16	191.17	191.07	190.92
F	191.33	191.31	191.32	191.22	191.07
G	191.48	191.46	191.47	191.37	191.22
H	190.11	190.09	190.03	189.94	189.83
J	110	110	110	110	110
K	170.00	170.00	170.00	170.00	170.00
*L	111	111	110	110	110

Bridge 3724 B					
Table Of Variables					
Bent	12	13	14	15	16
Sta.	2412+00	2412+60	2413+20	2413+80	2414+40
A	189.95	189.95	189.89	189.78	189.64
B	190.73	190.71	190.72	190.62	190.47
C	190.88	190.86	190.87	190.77	190.62
D	191.03	191.01	191.02	190.92	190.77
E	191.18	191.16	191.17	191.07	190.92
F	191.33	191.31	191.32	191.22	191.07
G	191.48	191.46	191.47	191.37	191.22
H	190.06	190.07	190.01	189.90	189.76
J	110	110	110	110	110
K	170.00	170.00	170.00	170.00	170.00
*L	111	111	110	110	110

- NOTES
1. Drilled Shaft Loads Are 140 Tons Each.
 2. *L= Average Existing Pile Tip Elevation. At Minimum, Req'd. Drilled Shafts Shall Extend To This Elevation. Ref. Grubbs, Garner, & Hoskyns Geotechnical Report Dated November 1993.

Exist. Bent Modifications & Repairs
All Exist. Anchor Bolts On Cap To Remain Shall Be Cut To 2 Inches Below The Top Of Exist. Cap. Holes Shall Be Completely Filled With Portland Cement Grout Or An Approved Non-Shrink Grout Prior To Construction Of Risers.

- Notes:
1. For Details Of Risers And Anchor Bolts, See Dwg. No. 35731.
 2. Permanent Casing Shall Be 48"Ø, 1/2" Wall Pipe Conforming To ASTM A252, Grade 1. Permanent Casing Length May Be Increased As Directed By The Engineer.
 3. For Repair Of Existing Bents See Dwg. No. 35722 & 35723.

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

EXISTING BENT MODIFICATIONS
BENTS 12 - 16
BRIDGE 3724 OVER BAYOU DEVIEW

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

BRIDGE NO. 3724 A & B

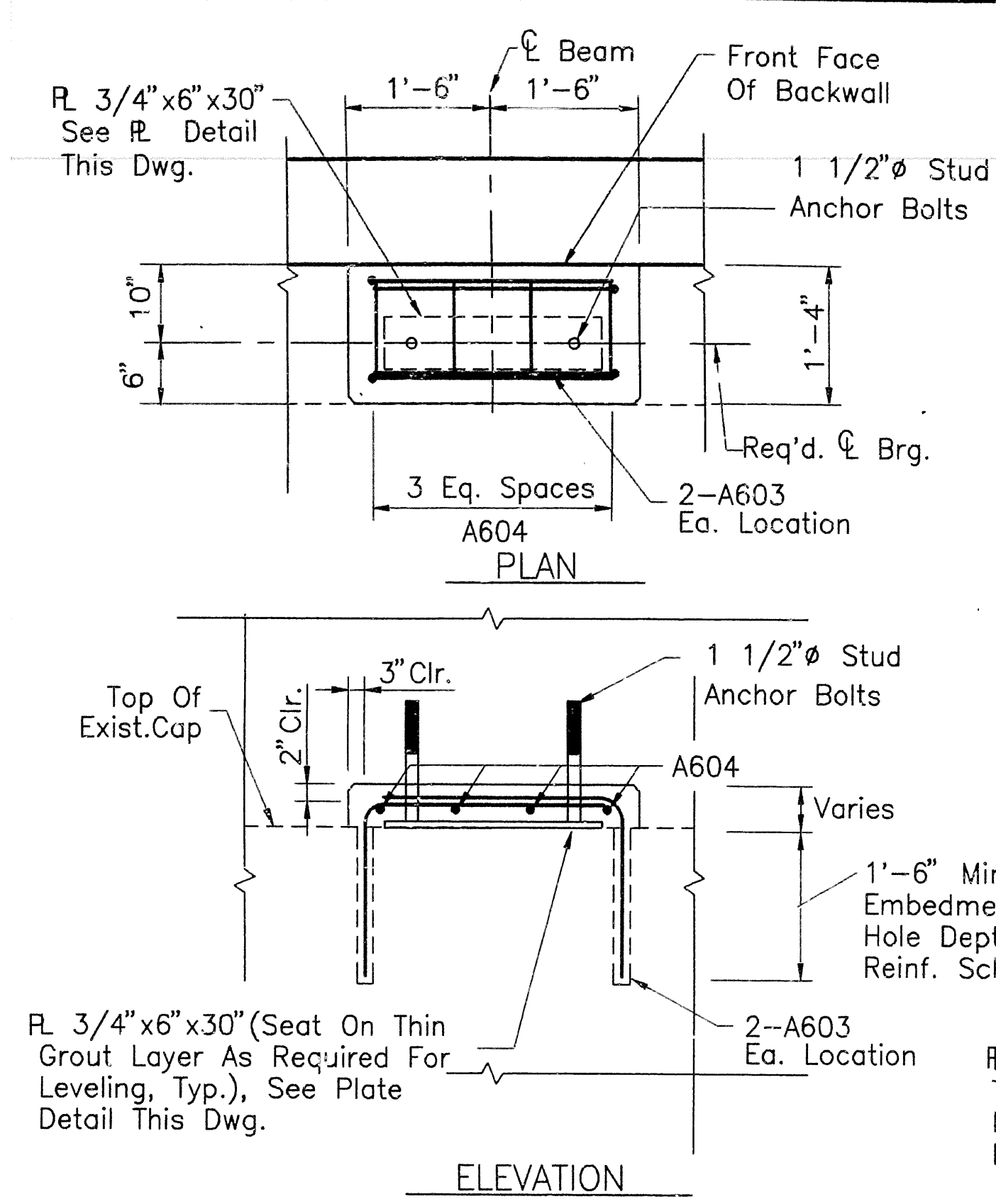
SCALE: 3/8" = 1'-0"

DRAWING NO. 35729

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	50	92	
				3724 A & B	RISERS		35731	

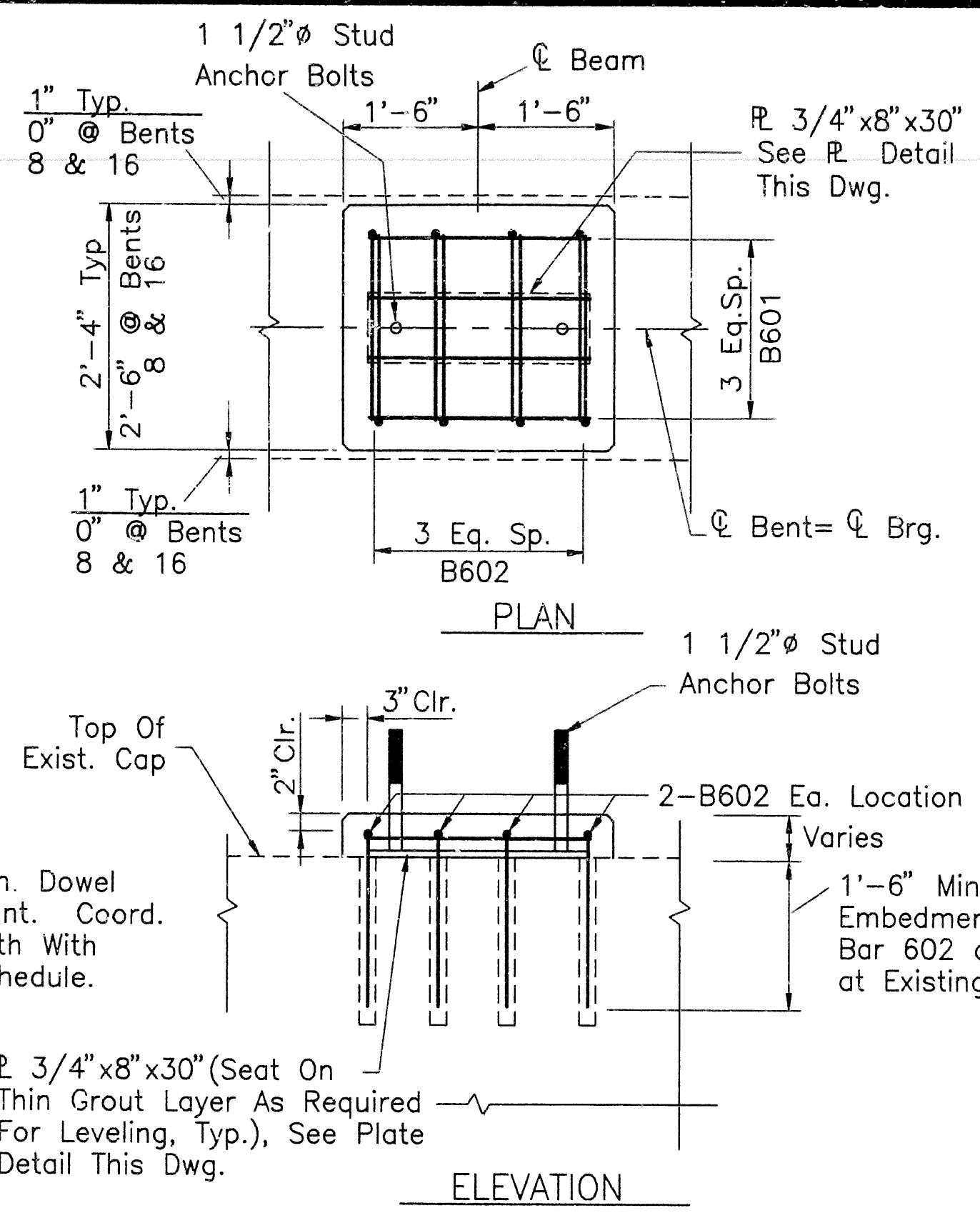
NOTES

- Anchor Bolts, Nuts, Washers and Plates Shall Conform To Standard Specification Section 807.07 And Shall Be Paid For Under The Item "Structural Steel in Beam Spans" AASHTO M270, GR.50W. Indentions Shall Be Circular With Rounded Bottoms And Staggered As Shown.
- Drill 1 1/2" Hole Into The Existing Cap (Depth Varies). Fill Hole With Grout and Insert #6 Dowel Bars. Payment Shall Be Made Under The Item "Modification Of Existing Bridge Structure". Typical At Existing Cap.
- Anchor Bolts On Req'd. Cap May Be Cast In Place Or Drilled and Grouted Into Place. If A.B.s Are To Be Drilled & Grouted Into Place, A 3" x 12" Galv. Sheet Metal Sleeve Shall Be Cast In Place As Shown. The Sleeve Shall Be Packed With Styrofoam, Urethane Foam Or Approved Equal Prior To Pouring The Concrete. After Pouring Of The Cap and Prior To Erection Of The Structural Steel, The Packing Shall Be Removed and Holes For The Anchor Bolts Shall Be Accurately Drilled Into The Concrete. The Bolts Shall Then Be Set and Fixed As Specified In Subsection 807.66. If Anchor Bolts Are To Be Cast In Place, The Sheet Metal Sleeve Will Not Be Required. These Sleeves Are To Be Considered Subsidiary To The Item "Structural Steel In Beam Spans (AASHTO M270, GR.50W).
- Set All Anchor Bolts Vertical.



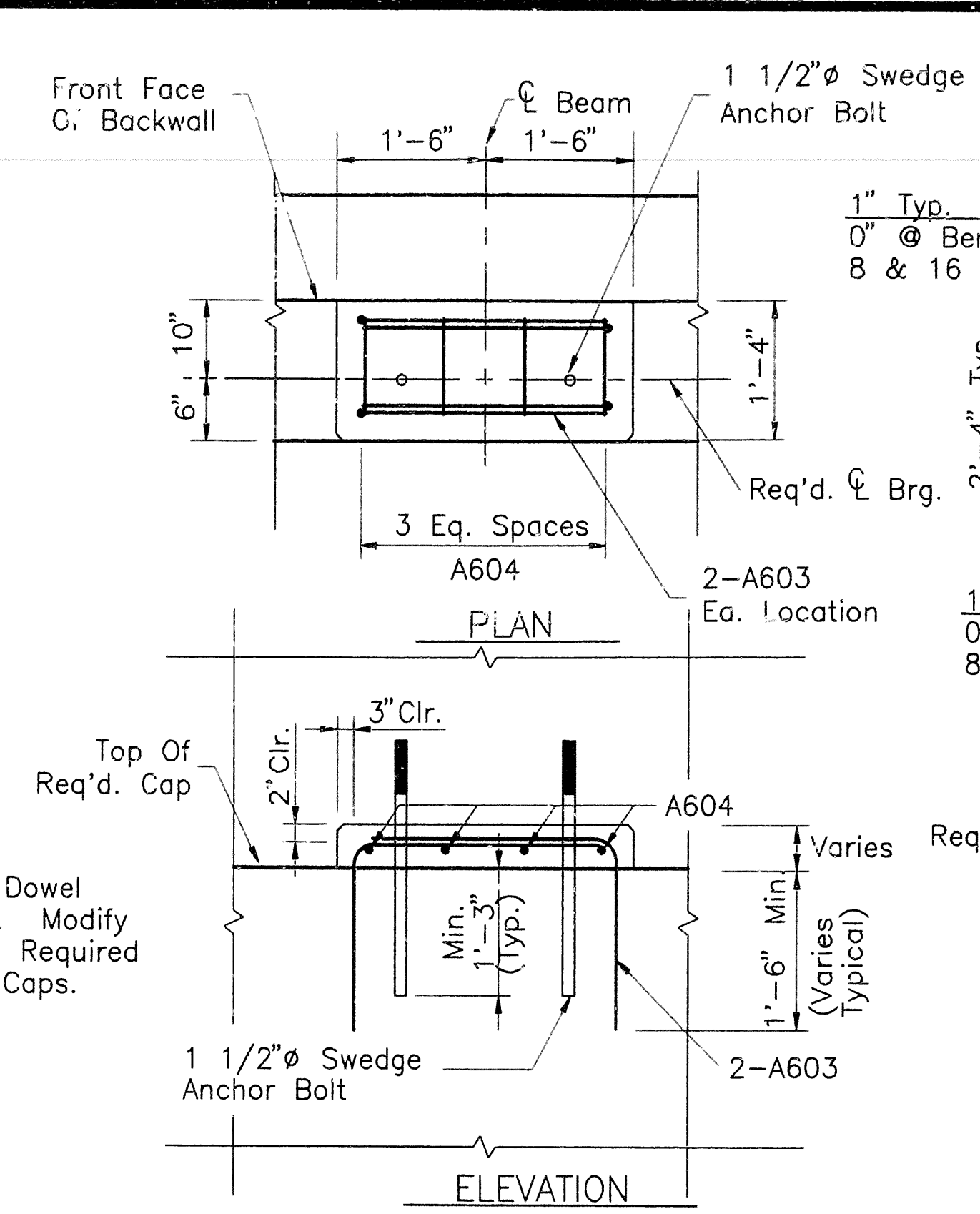
END BENTS

Refer to Dwg. 35726 for A603 & A 604



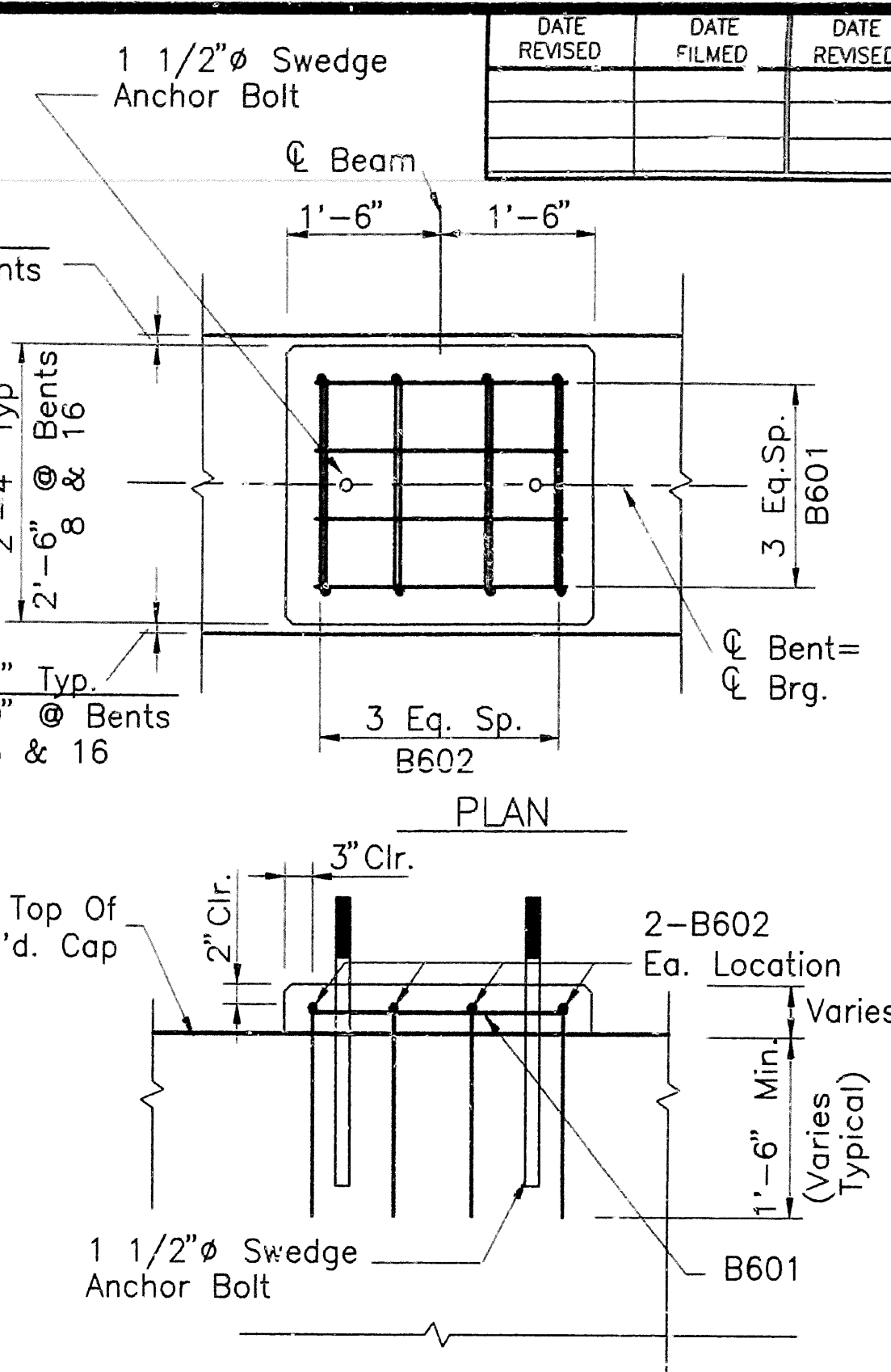
INTERMEDIATE BENTS

See PLATE DETAIL AT EXPANSION JT. This Drawing For Bents 8 and 16 Refer to Dwg. 35728 for B601 & B602



END BENTS

Refer to Dwg. 35726 for A603 & A 604



INTERMEDIATE BENTS

See PLATE DETAIL AT EXPANSION JT. This Drawing For Bents 8 and 16 Refer to Dwg. 35728 for B601 & B602

RISER DETAILS AT EXISTING CAP

Scale: 3/4" = 1'-0"

RISER DETAILS AT REQUIRED CAP

Scale: 3/4" = 1'-0"

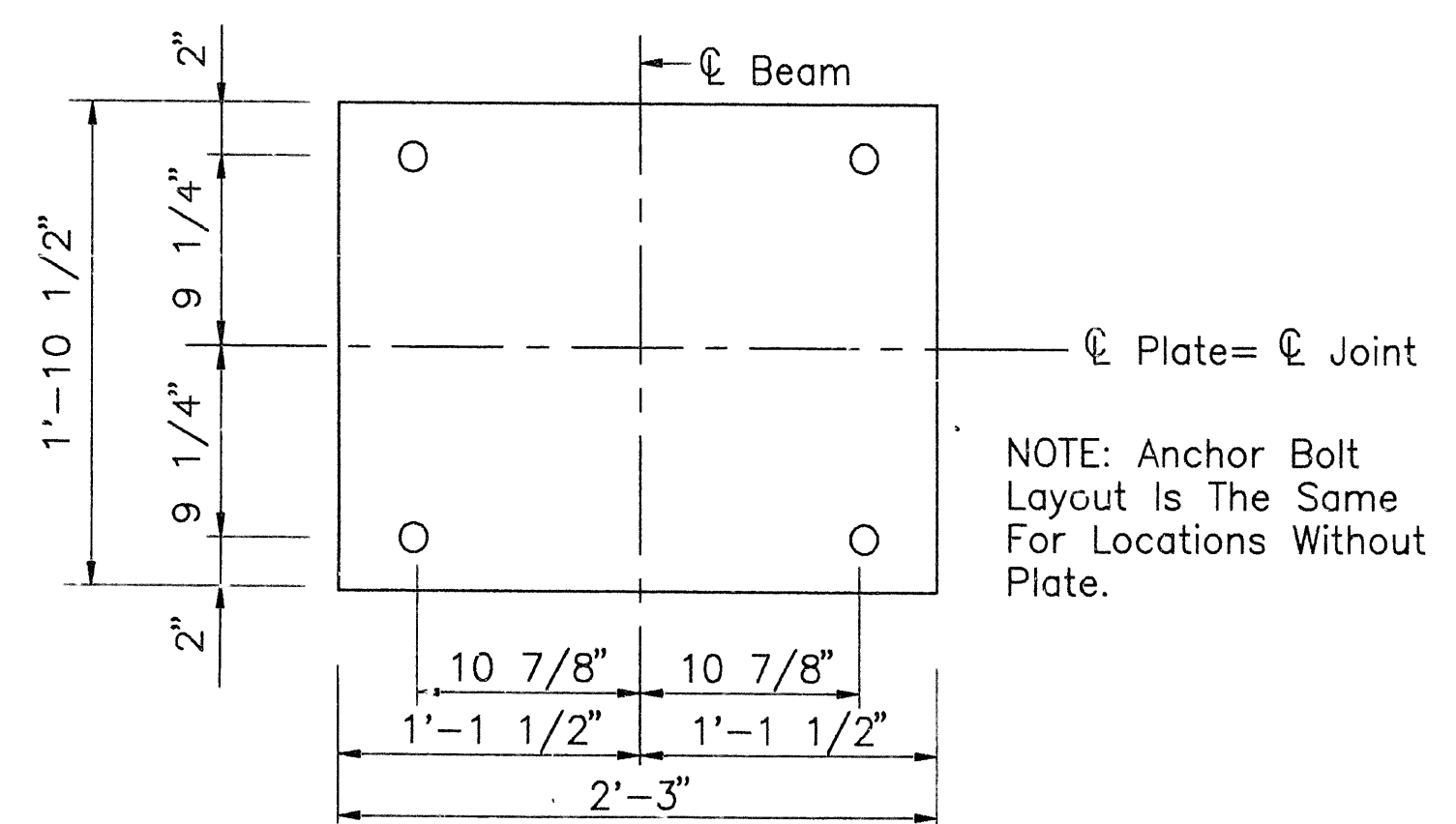
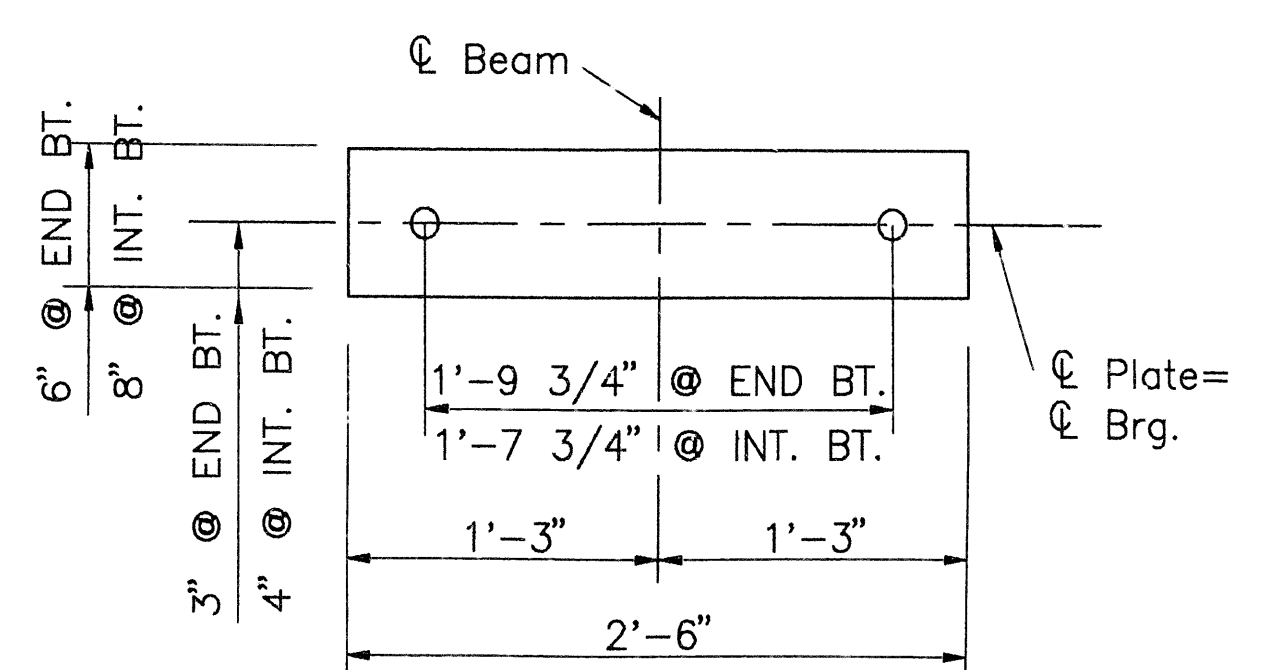


PLATE DETAIL AT EXPANSION JOINT

BENTS 8 AND 16

Scale: 1 1/2" = 1'-0"



TYPICAL PLATE DETAIL

Scale: 1 1/2" = 1'-0"

NOTE: After Fabrication, The 3/4" R. & Stud Anchors Shall Be Galvanized In Accordance With AASHTO M232

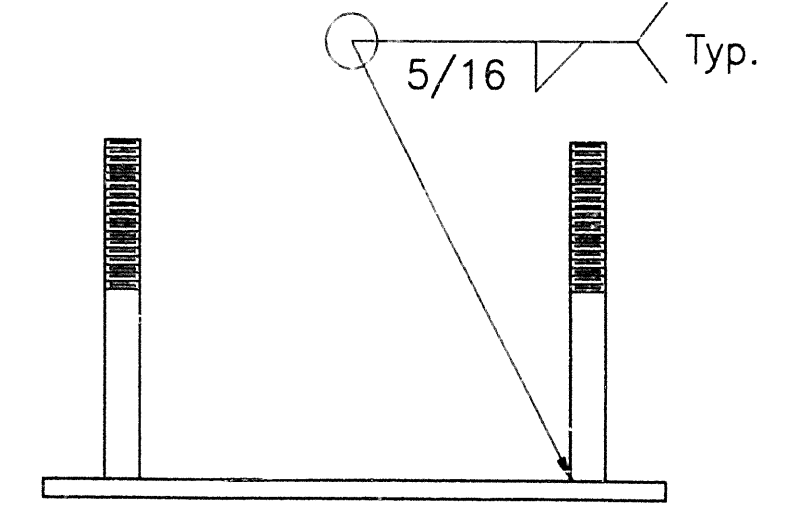
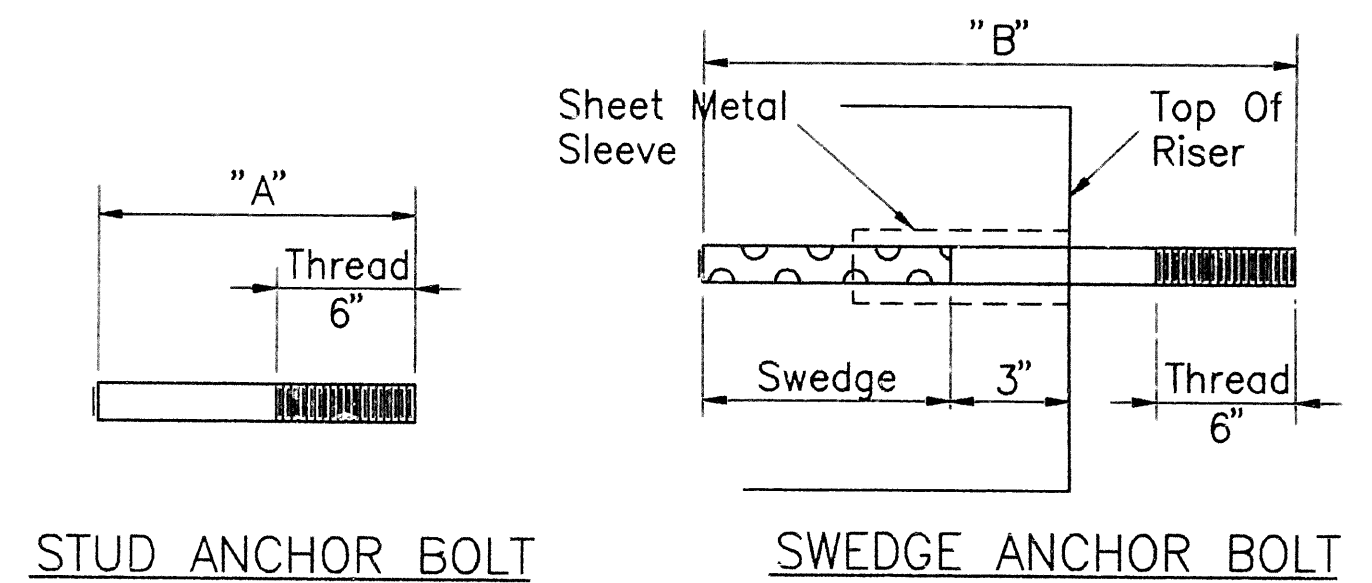


PLATE ELEVATION TYPICAL ALL BENTS

ANCHOR BOLT LENGTHS					
END BENTS			INTERMEDIATE BENTS		
Riser Designation	Br. 3724 A & B		Riser Designation	Br. 3724 A & B	
b	-	1'-10 1/2"	b	-	2'-8 1/2"
c	13 1/2"	-	c	-	3'-0"
d	14 1/2"	-	d	1'-10"	-
e	15 1/2"	-	e	1'-11"	-
f	16 1/2"	-	f	-	3'-3"
g	-	2'-9 1/2"	g	-	3'-4 1/2"

- 2-Anchor Bolts Req'd. Each Riser, Except 4 Req'd For Bents 8 & 16.
- Provide Heavy Hex Nut & Washer For Each Anchor Bolt.
- Provide 1 1/2" Standard Pipe Sleeve For Each Anchor Bolt. Sleeves Shall Conform To ASTM A53, Grade B and Galvanized to Conform to AASHTO M232 Class C Or AASHTO M298, Class 50. See Bearing Details Drawing No. 35745 for Sleeve Heights.



STUD ANCHOR BOLT

SWEDGE ANCHOR BOLT

ANCHOR BOLT DETAILS

Scale: 1 1/2" = 1'-0"

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

**EXISTING BENT MODIFICATIONS
DETAILS OF RISERS
BRIDGES 3724 OVER BAYOU DEVIEW**

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

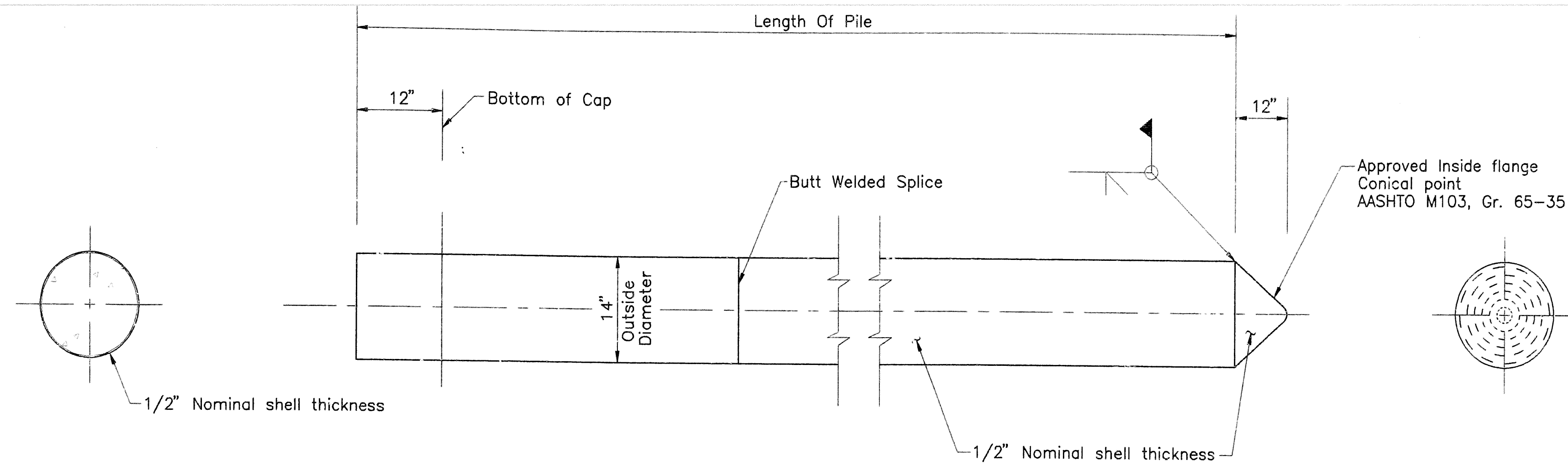
BRIDGE NO. 3724 A & B

SCALE: 3/8" = 1'-0"

DRAWING NO. 35731

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.		R10085	51	92

① 3724 A & B SHELL PILES 35732



Note:
Steel pile tip reinforcing will not be paid for directly, but shall be considered subsidiary to the item "Steel Shell Piling"

GENERAL NOTES FOR CONCRETE FILLED STEEL SHELL PILES

Steel shells shall conform to ASTM A252. Grade 2. ($F_y = 35,000$ psi.).

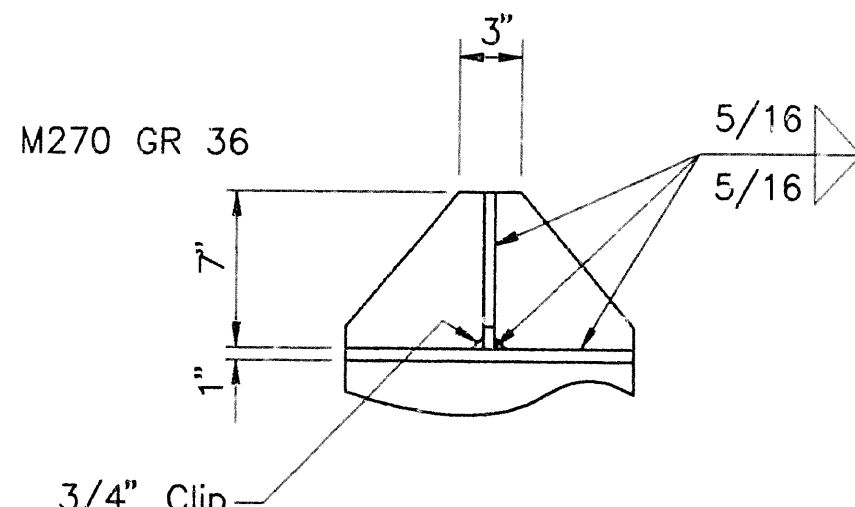
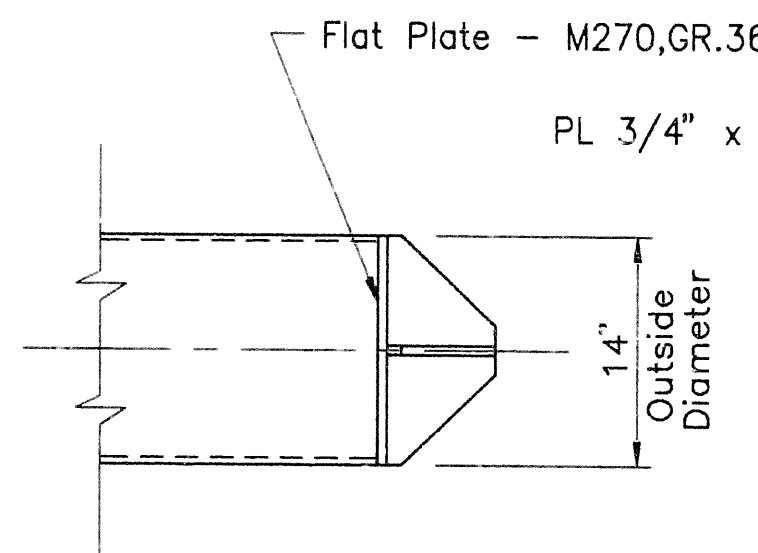
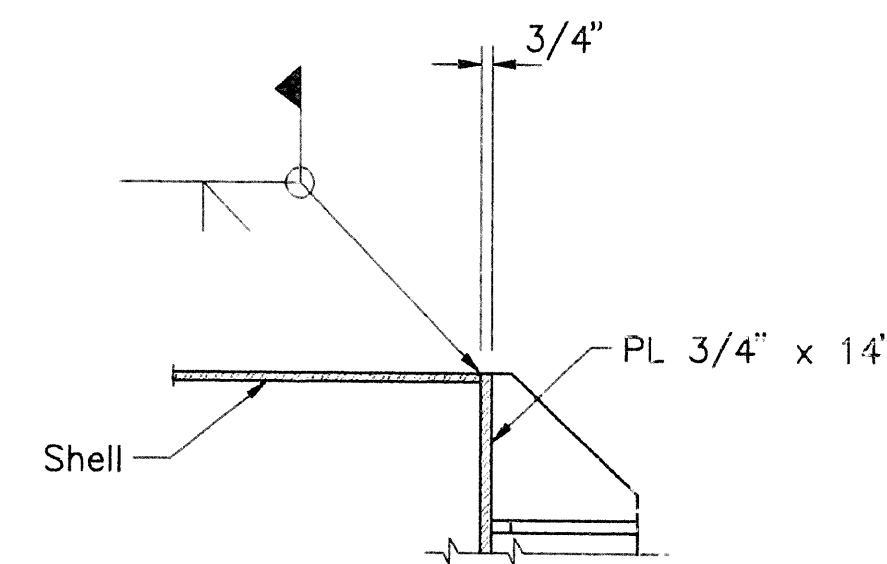
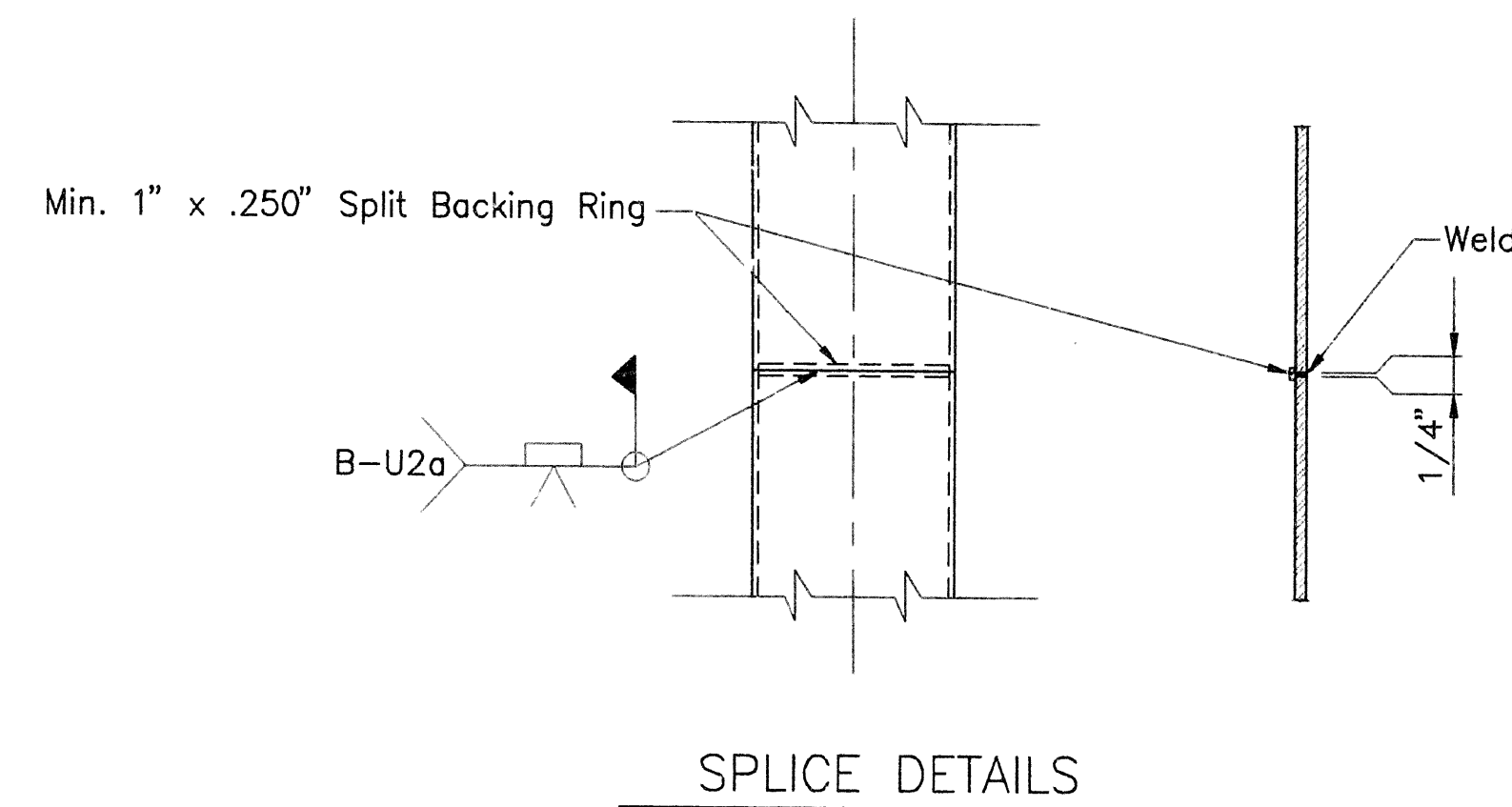
Concrete used for filling of steel shell shall be Class S with a minimum 28 day compressive strength, $f'_c = 3,500$ psi and shall be poured in the dry.

See bridge layout for size and length of shell piles and for additional driving information.

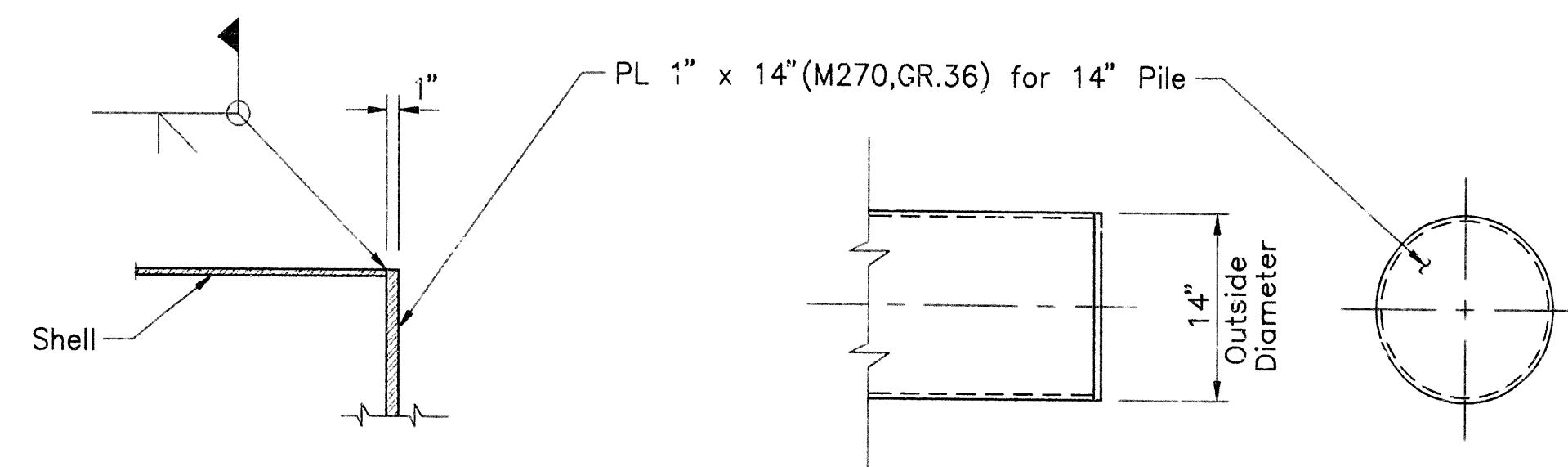
Concrete and structural steel and reinforcing steel, including welding, will not be paid for directly, but will be considered as part of the corresponding item "Steel Shell Piling (14" dia.)".

The shell shall be welded or seamless steel pipe.

CONCRETE FILLED STEEL SHELL PILES

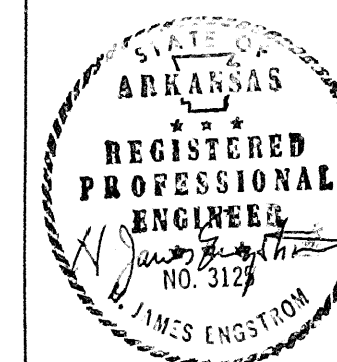


ALTERNATE VANED TIP DETAIL



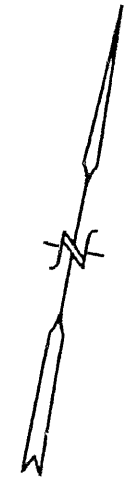
ALTERNATE FLAT TIP DETAIL

ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
DETAILS OF CONCRETE FILLED STEEL SHELL PILES ALT. B. BRIDGES 3724 OVER BAYOU DEVIEU	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DLG DATE: 11/96	CHECKED BY: CDE DATE: 4/97
DESIGNED BY: HJE DATE: 11/96	SCALE: NONE
BRIDGE NO. 3724 A & B	DRAWING NO. 35732



BRIDGE ENGINEER

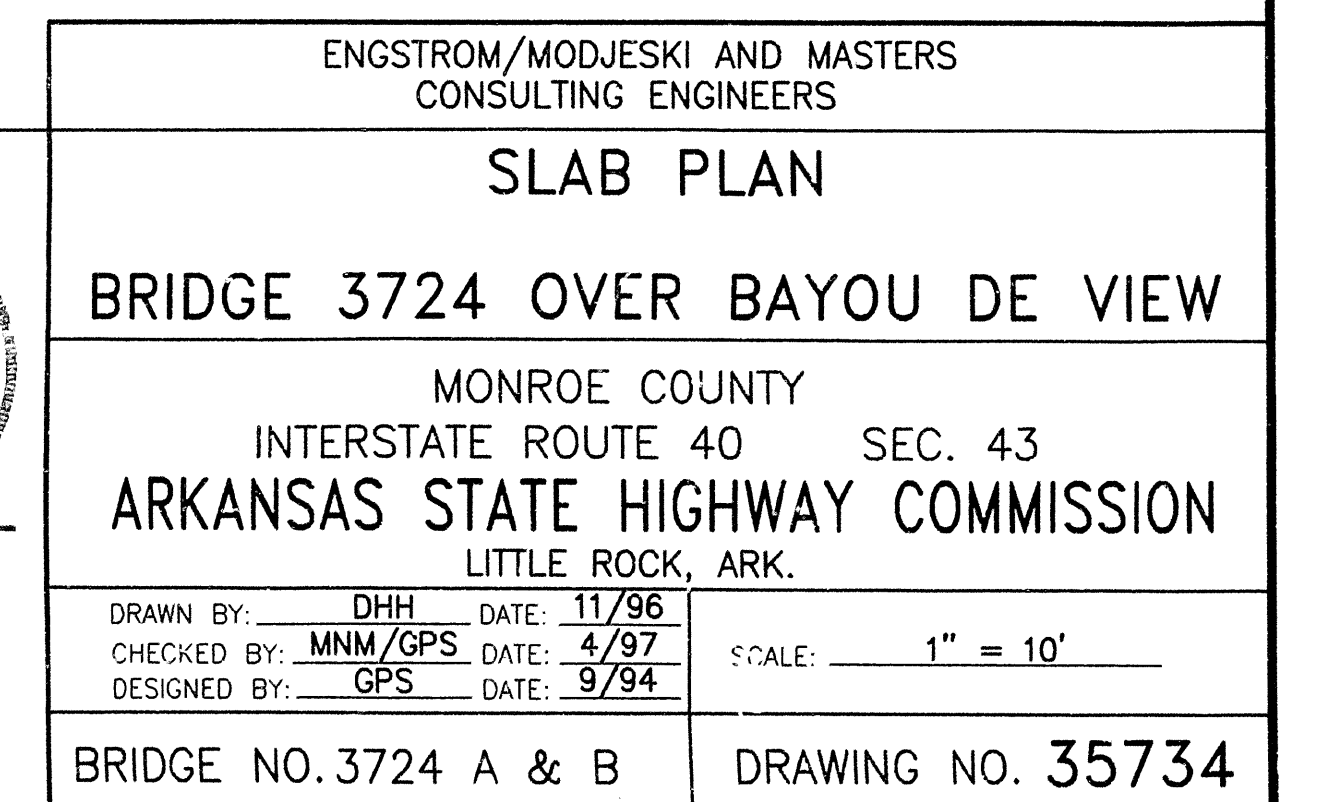
1



Scale: 1"=10'
(Bridge A Sym. About ∇ 1-40)



Note: For Additional Notes On Pouring Sequence, See Dwg. No. 35733.



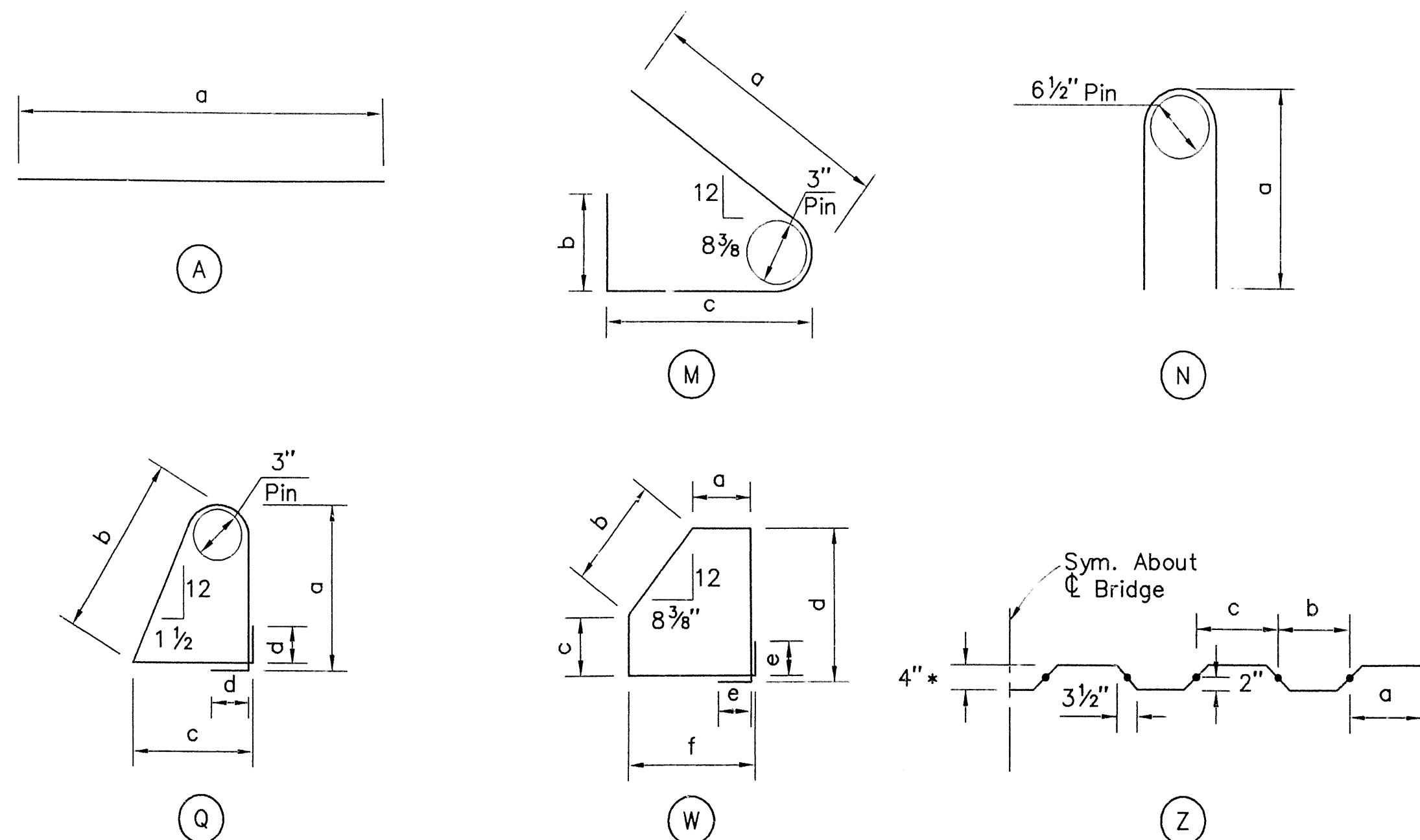
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.	R10085	55	92	
				3724 A&B	SPAN	35736		

DESIGN MARK	BEND MARK	NO.	SIZE	LENGTH	DIMENSIONS					
					a	b	c	d	e	f
SLAB - UNIT 1A OR 1B					(SPANS 1-7)(QUANTITIES FOR ONE BRIDGE ONLY)					
S401E	A	1050	4	40'-0"	40'-0"					
S402E	A	105	4	34'-8"	34'-8"					
S501E	A	840	5	42'-3"	42'-3"					
S502E	Z	419	5	43'-6"	4'-2"	3'-9½"	3'-9½"			
S601E	A	86	6	37'-0"	37'-0"					
S602E	A	172	6	34'-0"	34'-0"					
S701E	N	196	7	10'-10"	5'-3"					
P401E	Q	840	4	6'-2"	2'-5¾"	2'-6"	7½"	4½"		
P402E	W	840	4	5'-7"	5½"	1'-1"	10½"	1'-9"	4½"	1'-1"
P403E	Q	147	4	5'-7"	2'-2½"	2'-3"	6½"	4½"		
P404E	M	147	4	3'-2"	1'-7"	9"	10½"			
P406E		378	4	11'-8"	11'-8"					
P602E	A	105	6	11'-8"	11'-8"					

DESIGN MARK	BEND MARK	NO.	SIZE	LENGTH	DIMENSIONS					
					a	b	c	d	e	f
SLAB - UNIT 2A OR 2B					(SPANS 8-15)(QUANTITIES FOR ONE BRIDGE ONLY)					
S401E	A	1260	4	40'-0"	40'-0"					
S402E	A	105	4	17'-8"	17'-8"					
S501E	A	960	5	42'-3"	42'-3"					
S502E	Z	479	5	43'-6"	4'-2"	3'-9½"	3'-9½"			
S601E	A	86	6	37'-0"	37'-0"					
S602E	A	215	6	34'-0"	34'-0"					
S701E	N	224	7	10'-10"	5'-3"					
P401E	Q	960	4	6'-2"	2'-5¾"	2'-6"	7½"	4½"		
P402E	W	960	4	5'-7"	5½"	1'-1"	10½"	1'-9"	4½"	1'-1"
P403E	Q	168	4	5'-7"	2'-2½"	2'-3"	6½"	4½"		
P404E	M	168	4	3'-2"	1'-7"	9"	10½"			
P406E	A	432	4	11'-8"	11'-8"					
P602E	A	120	6	11'-8"	11'-8"					
			</							

DESIGN MARK	BEND MARK	NO.	SIZE	LENGTH	DIMENSIONS					
					a	b	c	d	e	f
SLAB - UNIT 3A OR 3B (SPANS 16-22)(QUANTITIES FOR ONE BRIDGE ONLY)										
S401E	A	1050	4	40'-0"	40'-0"					
S402E	A	105	4	34'-8"	34'-8"					
S501E	A	840	5	42'-3"	42'-3"					
S502E	Z	419	5	43'-6"	4'-2"	3'-9½"	3'-9½"			
S601E	A	86	6	37'-0"	37'-0"					
S602E	A	172	6	34'-0"	34'-0"					
S701E	N	196	7	10'-10"	5'-3"					
P401E	Q	840	4	6'-2"	2'-5¾"	2'-6"	7½"	4½"		
P402E	W	840	4	5'-7"	5½"	1'-1"	10½"	1'-9"	4½"	1'-1"
P403E	Q	147	4	5'-7"	2'-2½"	2'-3"	6½"	4½"		
P404E	M	147	4	3'-2"	1'-7"	9"	10½"			
P406E	A	378	4	11'-8"	11'-8"					
P602E	A	105	6	11'-8"	11'-8"					

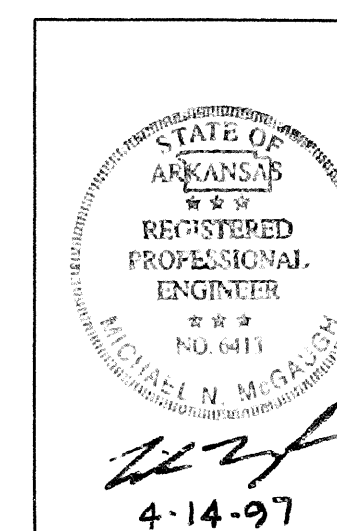
BENDING DIAGRAMS



NOTE: Dimensions Shown Are Out-to-Out of Bars

All Bars Designated With An 'E' Suffix Are To Be Epoxy Coated. The Coatings On Epoxy Coated Reinforcing Steel Shall Conform To The Requirements Of Subsection 804.01. Tie Wires And Chairs Used To Support Epoxy Coated Reinforcing Steel Shall Be Vinyl Coated.

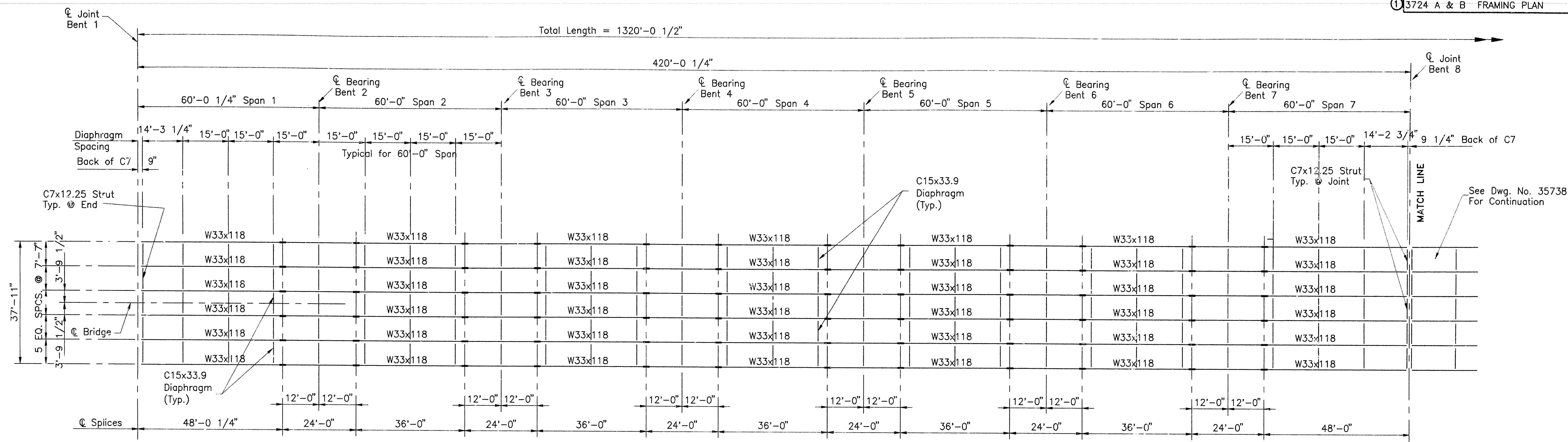
* + ½" Overtolerance. No Undertolerance.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
SLAB REINFORCEMENT SCHEDULE	
BRIDGE 3724 OVER BAYOU DE VIEW	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH CHECKED BY: MNM/GPS DESIGNED BY: GPS	DATE: 11/96 DATE: 4/97 DATE: 9/94
SCALE: No Scale	
BRIDGE NO. 3724 A & B	DRAWING NO. 35736

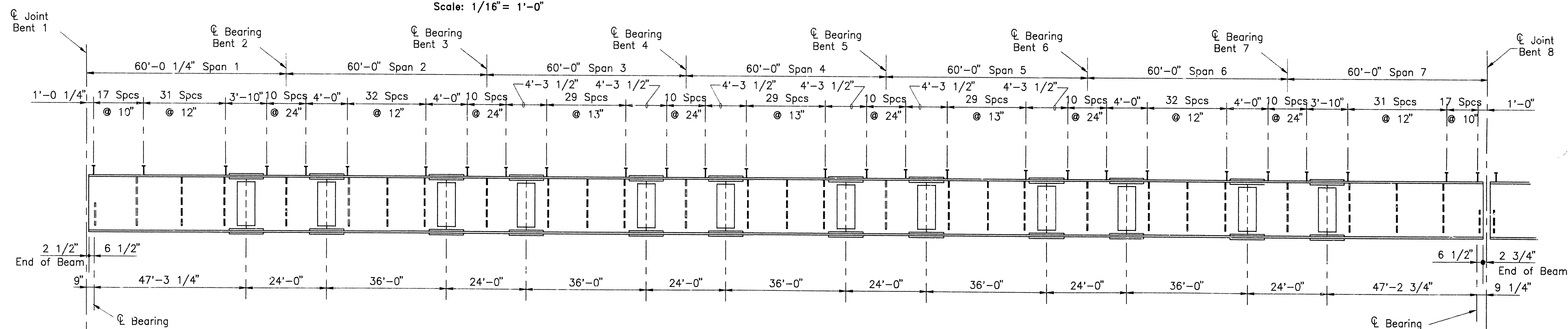
ABMB ENGINEERS, INC.

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						R10085	56	92
				JOB NO.		FRAMING PLAN		35737



FRAMING PLAN (SPANS 1-7)

Scale: 1/16" = 1'-0"

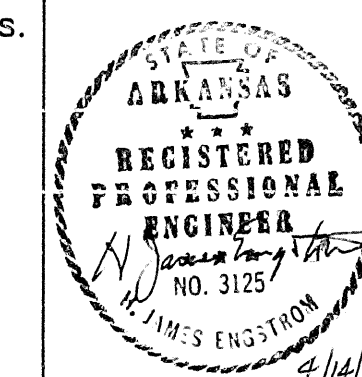


BEAM ELEVATION (SPANS 1-7)

Exterior Beam Shown
No Scale

NOTES

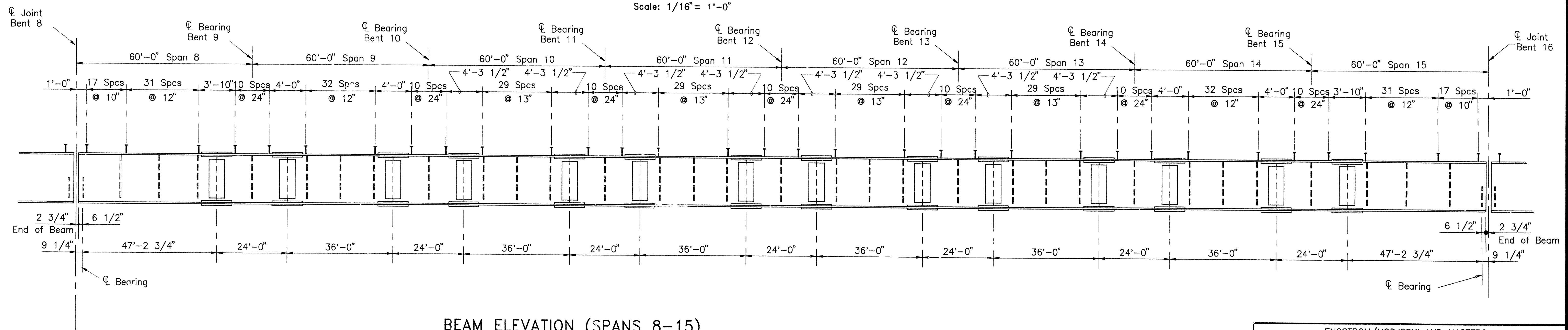
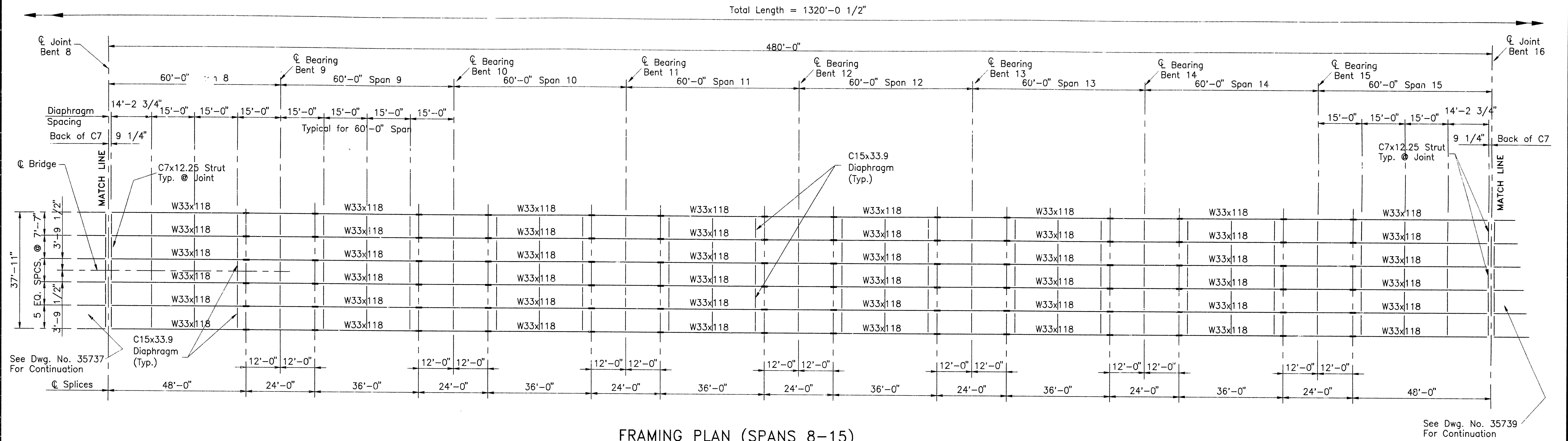
1. All Steel To Be AASHTO M270, GR.50W.
2. See Dwg. No. 35717 For General Notes.
3. See Dwg. No. 35745 For Bearing Details.
4. See Dwg. No. 35746 For Splice, Diaphragm Details & Shear Connector Details.
5. See Dwg. No. 35747 For Expansion Details.
6. Bolted Field Splices Shown May Be Eliminated Or Shop Welded Splices May Be Substituted With Approval Of The Bridge Engineer. Payment Will Be Made On The Basis Of The Bolted Splices Shown.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
FRAMING PLAN 1 OF 3 BRIDGE 3724 OVER BAYOU DEVIEU	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS CHECKED BY: C.D.E. DESIGNED BY: C.D.E.	DATE: 3/96 DATE: 4/97 DATE: 9/94
SCALE: AS NOTED	
BRIDGE NO. 3724 A & B	DRAWING NO. 35737

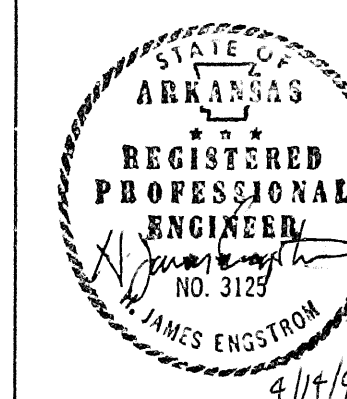
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085		57	92

① 3724 A & B FRAMING PLAN 35738



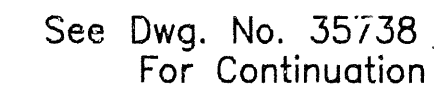
NOTES

- All Steel To Be AASHTO M270, GR.50W.
- See Dwg. No. 35717 For General Notes.
- See Dwg. No. 35745 For Bearing Details.
- See Dwg. No. 35746 For Splice, Diaphragm and Shear Connector Details.
- See Dwg. No. 35747 For Expansion Details.
- Bolted Field Splices Shown May Be Eliminated Or Shop Welded Splices May Be Substituted With Approval Of The Bridge Engineer. Payment Will Be Made On The Basis Of The Bolted Splices Shown.

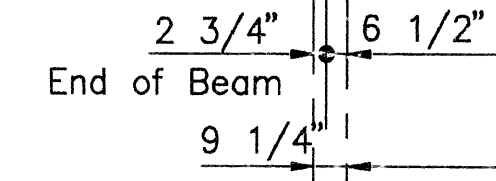


ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
FRAMING PLAN 2 OF 3 BRIDGE 3724 OVER BAYOU DEVIEU	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS.	DATE: 3/96
CHECKED BY: C.D.E.	DATE: 4/97
DESIGNED BY: C.D.E.	DATE: 9/94
SCALE: AS NOTED	
BRIDGE NO. 3724 A & B	DRAWING NO. 35738

① 3724 A & B FRAMING PLAN 35739

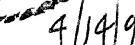


Scale: $1/16" = 1'-0"$



Exterior Beam Shown
No Scale

1. All Steel To Be AASHTO M270, GR.50W.
2. See Dwg. No. 35717 For General Notes.
3. See Dwg. No. 35745 For Bearing Details.
4. See Dwg. No. 35746 For Splice, Diaphragm And Shear Connector Details.
5. See Dwg. No. 35747 For Expansion Details.
6. Bolted Field Splices Shown May Be Eliminated Or Shop Welded Splices May Be Substituted With Approval Of The Bridge Engineer. Payment Will Be Made On The Basis Of The Bolted Splices Shown.



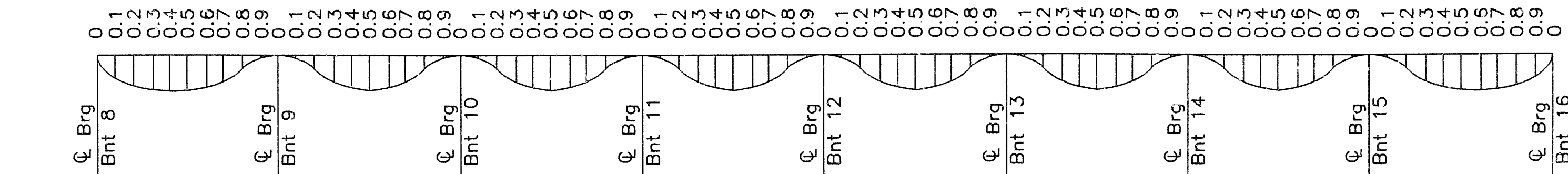
BRIDGE NO. 3724 A & B	DRAWING NO. 35739
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			

JOB NO. R10085 59 92
3724 A & B DEFLECT. SCHED. 35740

DEAD LOAD DEFLECTIONS - INCHES							
SPANS 1 THRU 7 AND 16 THRU 22							
Span	Point of Deflection	Structural Steel Interior	Structural Steel Exterior	Structural Steel+Slab Interior	Structural Steel+Slab Exterior	Str. Steel+Slab+Rail Interior	Str. Steel+Slab+Rail Exterior
1	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.043	0.043	0.268	0.231	0.286	0.265
	0.2	0.079	0.079	0.498	0.428	0.529	0.491
	0.3	0.106	0.106	0.661	0.568	0.703	0.653
	0.4	0.118	0.118	0.741	0.638	0.790	0.734
	0.5	0.117	0.117	0.734	0.632	0.783	0.728
	0.6	0.103	0.103	0.647	0.556	0.691	0.643
	0.7	0.079	0.079	0.495	0.426	0.530	0.495
	0.8	0.049	0.049	0.309	0.266	0.332	0.311
	0.9	0.020	0.020	0.128	0.110	0.137	0.128
2	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	-0.002	-0.002	-0.016	-0.014	-0.015	-0.012
	0.2	0.005	0.005	0.030	0.026	0.038	0.040
	0.3	0.016	0.016	0.098	0.085	0.112	0.111
	0.4	0.026	0.026	0.158	0.136	0.176	0.171
	0.5	0.031	0.031	0.189	0.163	0.209	0.202
	0.6	0.030	0.030	0.183	0.158	0.202	0.195
	0.7	0.023	0.023	0.142	0.122	0.158	0.153
	0.8	0.013	0.013	0.080	0.069	0.090	0.088
	0.9	0.003	0.003	0.021	0.018	0.024	0.024
3	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.010	0.010	0.060	0.052	0.065	0.061
	0.2	0.025	0.025	0.156	0.134	0.169	0.160
	0.3	0.040	0.040	0.249	0.215	0.269	0.254
	0.4	0.051	0.051	0.315	0.271	0.340	0.320
	0.5	0.054	0.054	0.336	0.290	0.363	0.341
	0.6	0.050	0.050	0.309	0.266	0.333	0.314
	0.7	0.039	0.039	0.238	0.205	0.258	0.244
	0.8	0.023	0.023	0.143	0.123	0.156	0.148
	0.9	0.008	0.008	0.051	0.044	0.055	0.053
4	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.006	0.006	0.038	0.033	0.042	0.041
	0.2	0.019	0.019	0.118	0.102	0.130	0.125
	0.3	0.033	0.033	0.203	0.175	0.222	0.211
	0.4	0.043	0.043	0.265	0.228	0.289	0.274
	0.5	0.047	0.047	0.288	0.248	0.313	0.297
	0.6	0.043	0.043	0.265	0.228	0.289	0.274
	0.7	0.033	0.033	0.203	0.175	0.222	0.211
	0.8	0.019	0.019	0.118	0.102	0.130	0.125
	0.9	0.006	0.006	0.038	0.033	0.042	0.041
5	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.008	0.008	0.051	0.044	0.055	0.053
	0.2	0.023	0.023	0.143	0.123	0.156	0.148
	0.3	0.039	0.039	0.238	0.205	0.258	0.244
	0.4	0.050	0.050	0.309	0.266	0.333	0.314
	0.5	0.054	0.054	0.336	0.290	0.363	0.341
	0.6	0.051	0.051	0.315	0.271	0.340	0.320
	0.7	0.040	0.040	0.249	0.215	0.269	0.254
	0.8	0.025	0.025	0.156	0.134	0.169	0.160
	0.9	0.010	0.010	0.060	0.052	0.065	0.061
6	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.003	0.003	0.021	0.018	0.024	0.024
	0.2	0.013	0.013	0.080	0.069	0.090	0.088
	0.3	0.023	0.023	0.142	0.122	0.158	0.153
	0.4	0.030	0.030	0.183	0.158	0.202	0.195
	0.5	0.031	0.031	0.189	0.163	0.209	0.202
	0.6	0.026	0.026	0.158	0.136	0.176	0.171
	0.7	0.016	0.016	0.098	0.085	0.112	0.111
	0.8	0.005	0.005	0.030	0.026	0.038	0.040
	0.9	-0.002	-0.002	-0.016	-0.014	-0.015	-0.012
7	0	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.020	0.020	0.128	0.110	0.137	0.128
	0.2	0.049	0.049	0.309	0.266	0.332	0.311
	0.3	0.079	0.079	0.495	0.426	0.530	0.495
	0.4	0.103	0.103	0.647	0.556	0.691	0.643
	0.5	0.117	0.117	0.734	0.632	0.783	0.728
	0.6	0.118	0.118	0.741	0.638	0.790	0.734
	0.7	0.106	0.106	0.661	0.568	0.703	0.653
	0.8	0.079	0.079	0.498	0.428	0.529	0.491
	0.9	0.043	0.043	0.268	0.231	0.286	0.265

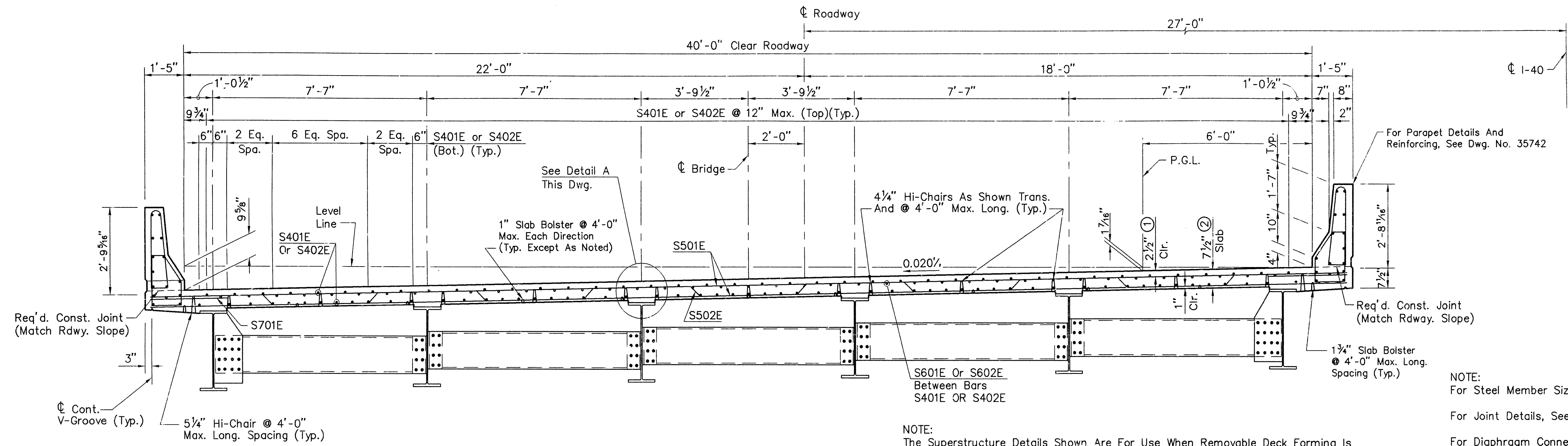
DEAD LOAD DEFLECTION DIAGRAM



DEAD LOAD DEFLECTION DIAGRAM

DEAD LOAD DEFLECTIONS – INCHES								SPANS 8 THRU 15									
Span	Point of Deflection	Structural Steel		Structural Interior	Steel+Slab		Str. Steel+Slab+Rail Interior	Str. Steel+Slab+Rail Exterior	Span	Point of Deflection	Structural Steel		Structural Interior	Steel+Slab		Str. Steel+Slab+Rail Interior	Str. Steel+Slab+Rail Exterior
		Interior	Exterior		Interior	Exterior					Interior	Exterior		Interior	Exterior		
8	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	12	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.1	0.043	0.043	0.270	0.232	0.287	0.266	0.1		0.007	0.007	0.044	0.038	0.048	0.046		
	0.2	0.079	0.079	0.500	0.430	0.532	0.493	0.2		0.021	0.021	0.129	0.111	0.141	0.134		
	0.3	0.105	0.105	0.664	0.571	0.707	0.655	0.3		0.035	0.035	0.218	0.187	0.236	0.224		
	0.4	0.118	0.118	0.745	0.641	0.794	0.737	0.4		0.045	0.045	0.281	0.242	0.305	0.288		
	0.5	0.117	0.117	0.739	0.635	0.787	0.732	0.5		0.048	0.048	0.304	0.261	0.329	0.310		
	0.6	0.103	0.103	0.651	0.559	0.695	0.646	0.6		0.044	0.044	0.218	0.240	0.241	0.286		
	0.7	0.079	0.079	0.499	0.429	0.533	0.497	0.7		0.034	0.034	0.214	0.184	0.233	0.220		
	0.8	0.049	0.049	0.311	0.267	0.334	0.312	0.8		0.020	0.020	0.125	0.107	0.137	0.130		
	0.9	0.020	0.020	0.128	0.109	0.137	0.127	0.9		0.006	0.006	0.040	0.035	0.045	0.043		
9	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	0.1	-0.002	-0.002	-0.015	-0.013	-0.014	-0.011	0.1	0.008	0.008	0.050	0.043	0.054	0.052			
	0.2	0.005	0.005	0.033	0.029	0.041	0.042	0.2	0.023	0.023	0.143	0.123	0.156	0.148			
	0.3	0.016	0.016	0.104	0.089	0.117	0.115	0.3	0.038	0.038	0.240	0.206	0.259	0.244			
	0.4	0.026	0.026	0.165	0.141	0.183	0.177	0.4	0.049	0.049	0.311	0.267	0.335	0.315			
	0.5	0.031	0.031	0.196	0.169	0.216	0.208	0.5	0.054	0.054	0.339	0.291	0.365	0.343			
	0.6	0.030	0.030	0.190	0.163	0.209	0.200	0.6	0.050	0.050	0.317	0.273	0.342	0.322			
	0.7	0.023	0.023	0.144	0.127	0.159	0.157	0.7	0.040	0.040	0.251	0.216	0.271	0.255			
	0.8	0.013	0.013	0.083	0.072	0.093	0.091	0.8	0.025	0.025	0.156	0.134	0.169	0.160			
	0.9	0.004	0.004	0.022	0.019	0.026	0.025	0.9	0.010	0.010	0.060	0.051	0.065	0.061			
10	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	0.1	0.010	0.010	0.060	0.051	0.065	0.061	0.1	0.004	0.004	0.022	0.019	0.026	0.025			
	0.2	0.025	0.025	0.156	0.134	0.169	0.160	0.2	0.013	0.013	0.083	0.072	0.093	0.091			
	0.3	0.040	0.040	0.251	0.216	0.271	0.255	0.3	0.023	0.023	0.144	0.127	0.159	0.157			
	0.4	0.050	0.050	0.317	0.273	0.342	0.322	0.4	0.030	0.030	0.190	0.163	0.209	0.200			
	0.5	0.054	0.054	0.339	0.291	0.365	0.343	0.5	0.031	0.031	0.196	0.169	0.216	0.208			
	0.6	0.049	0.049	0.311	0.267	0.335	0.315	0.6	0.026	0.026	0.165	0.141	0.183	0.177			
	0.7	0.038	0.038	0.240	0.206	0.259	0.244	0.7	0.016	0.016	0.104	0.089	0.117	0.115			
	0.8	0.023	0.023	0.143	0.123	0.156	0.148	0.8	0.005	0.005	0.033	0.029	0.041	0.042			
	0.9	0.008	0.008	0.022	0.019	0.026	0.025	0.9	-0.002	-0.002	-0.015	-0.013	-0.014	-0.011			
11	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000		
	0.1	0.006	0.006	0.040	0.035	0.045	0.043	0.1	0.020	0.020	0.128	0.109	0.137	0.127			
	0.2	0.020	0.020	0.125	0.107	0.137	0.130	0.2	0.049	0.049	0.311	0.267	0.334	0.312			
	0.3	0.034	0.034	0.214	0.184	0.233	0.220	0.3	0.079	0.079	0.499	0.429	0.533	0.497			
	0.4	0.044	0.044	0.218	0.240	0.241	0.286	0.4	0.103	0.103	0.651	0.559	0.695	0.646			
	0.5	0.048	0.048	0.304	0.261	0.329	0.310	0.5	0.117	0.117	0.739	0.635	0.787	0.732			
	0.6	0.045	0.045	0.281	0.242	0.305	0.288	0.6	0.118	0.118	0.745	0.641	0.794	0.737			
	0.7	0.035	0.035	0.218	0.187	0.236	0.224	0.7	0.105	0.105	0.664	0.571	0.707	0.655			
	0.8	0.021	0.021	0.129	0.111	0.141	0.134	0.8	0.079	0.079	0.500	0.430	0.532	0.493			
	0.9	0.007	0.007	0.044	0.038	0.048	0.046	0.9	0.043	0.043	0.270	0.232	0.287	0.266			
0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000			

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
						R10085	60	92
				JOB NO.		3724 A & B TYP. X-SEC. 35741		



SLAB REINFORCING:

TRANSVERSE: S501E @ 12" In Top & Bottom
S502E @ 12" Bent Up Over Beams
S701E (See Plan For Placement)

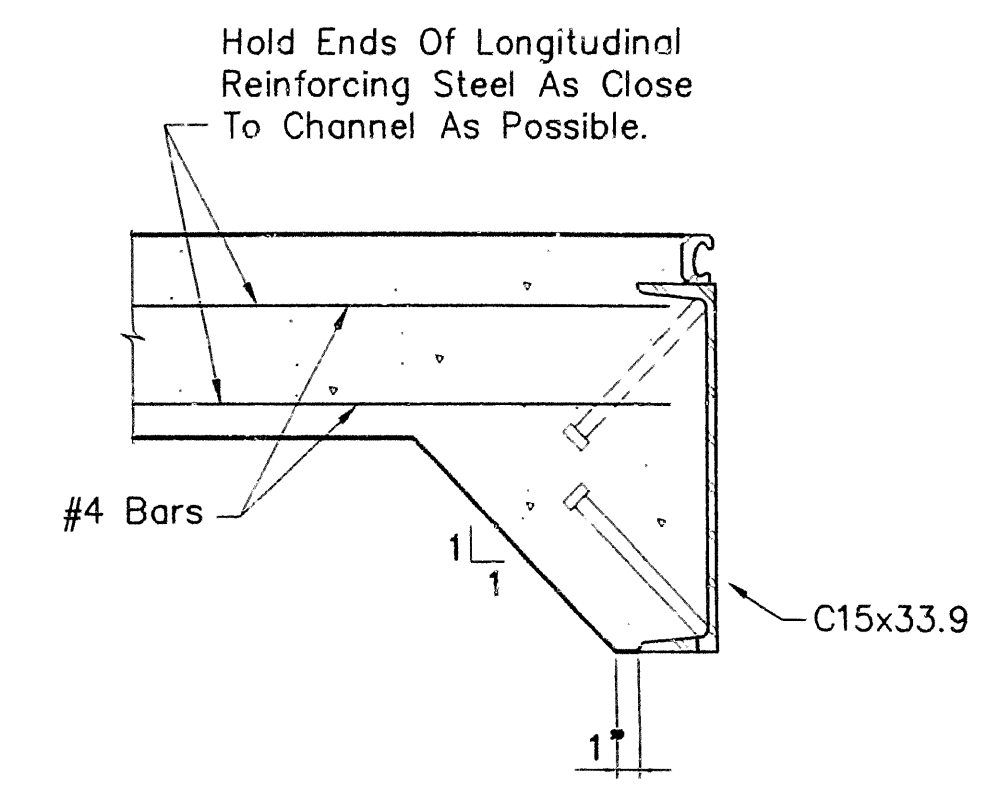
LONGITUDINAL: S401E & 402E In Top (Placed As Shown - 12" Max. Spa.)
S401E & 402E In Bottom (Placed As Shown)
S601E or S602E In Top
(Placed As Shown - 12" Max. Spa.)(Over Int. Supports)

TYPICAL SECTION
Scale: 1/2" = 1'-0"
Looking Ahead Bridge A
Bridge B Sym. About C I-40

NOTE:
The Superstructure Details Shown Are For Use When Removable Deck Forming Is Used And Are The Basis For Measurement Of Class S(AE) Concrete. See Standard Drawing No. 14991 For Allowable Modifications And For Tolerances When Permanent Bridge Deck Forms Are Used.

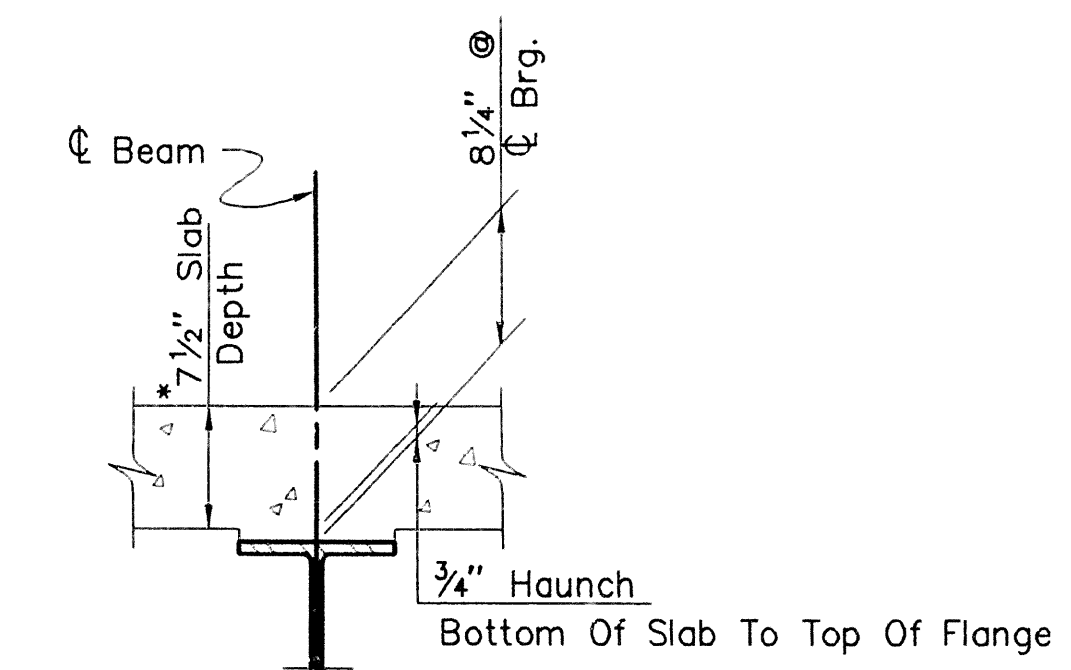
① Tolerance Minus: 1/4"
Plus: Equal To Amount Of Slab Thickening Used To Meet Slab Thickness Tolerance - See Typical Haunch Detail.

② Refer To Typical Haunch Detail



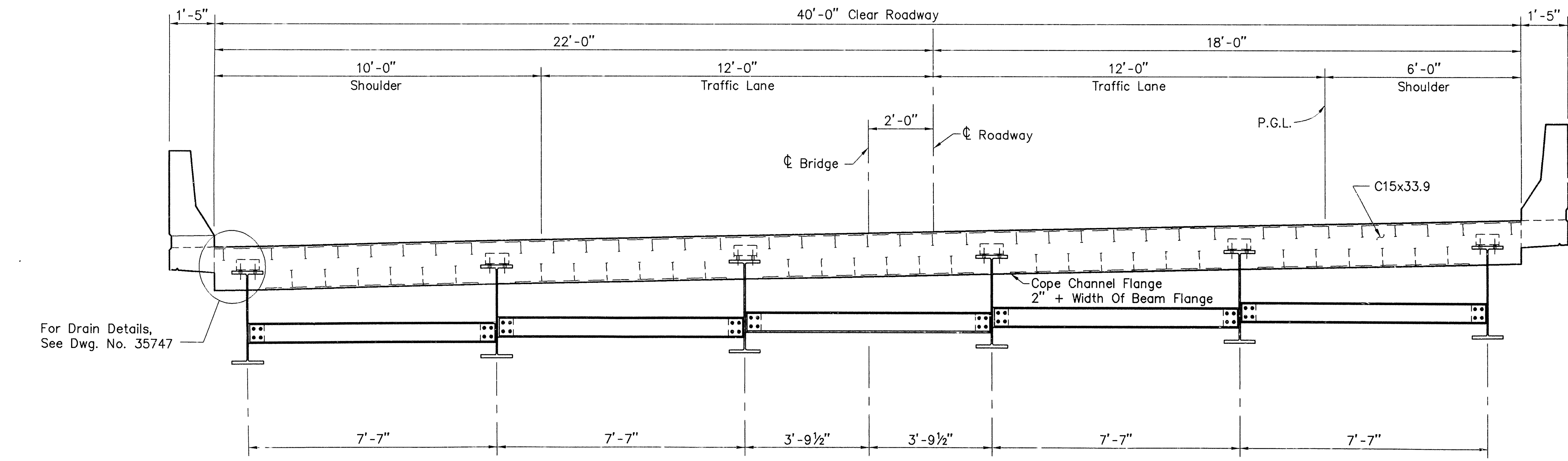
SLAB END DETAILS
NOTE: For Anchor Stud Details, See Dwg. No. 35747

NOTE:
For Steel Member Sizes, See Dwg. Nos. 35737-35739 (Bridge 3724).
For Joint Details, See Dwg. No. 35747.
For Diaphragm Connection Details, See Dwg. No. 35746.
Class 1 Protective Surface Treatment Shall Be Applied To The Roadway Surface And To The Face And Top Of Parapet.
At The Contractors Option, In Lieu Of Providing Bars S502E, Two #5 Bars May Be Substituted With The Bars Epoxy Coated. Payment For Reinforcing Will Be Based On The Weight Of Bars S502E.

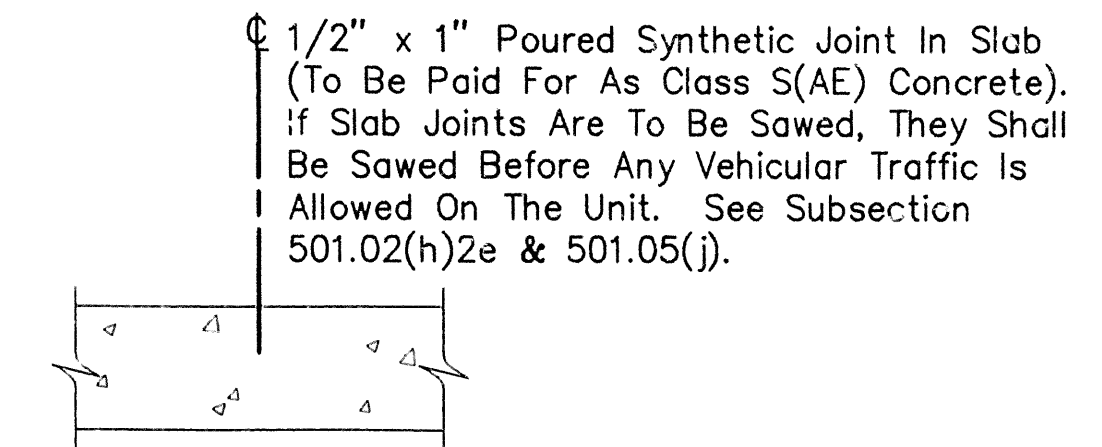


Haunch Is Required. Slab May Be Thickened And/Or The Haunch Thickened To Maintain Slab Tolerance.
*Thickness As Detailed On Roadway Section. Tolerance Is Minus 1/4" And Plus 1/2".

Note: No Increase In Concrete And Structural Steel Quantities Will Be Made To Meet Slab Tolerances.



SECTION AT C JOINT
Scale: 1/2" = 1'-0"
Looking Ahead Bridge A
Bridge B Symmetrical
About C I-40



SLAB JOINT DETAIL
N.T.S.

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

**TYPICAL SUPERSTRUCTURE SECTION
BRIDGES 3724
A & B**

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: DHH	DATE: 11/96
CHECKED BY: MNM/GPS	DATE: 4/97
DESIGNED BY: GPS	DATE: 9/94

BRIDGE NO. 3724 - A & B

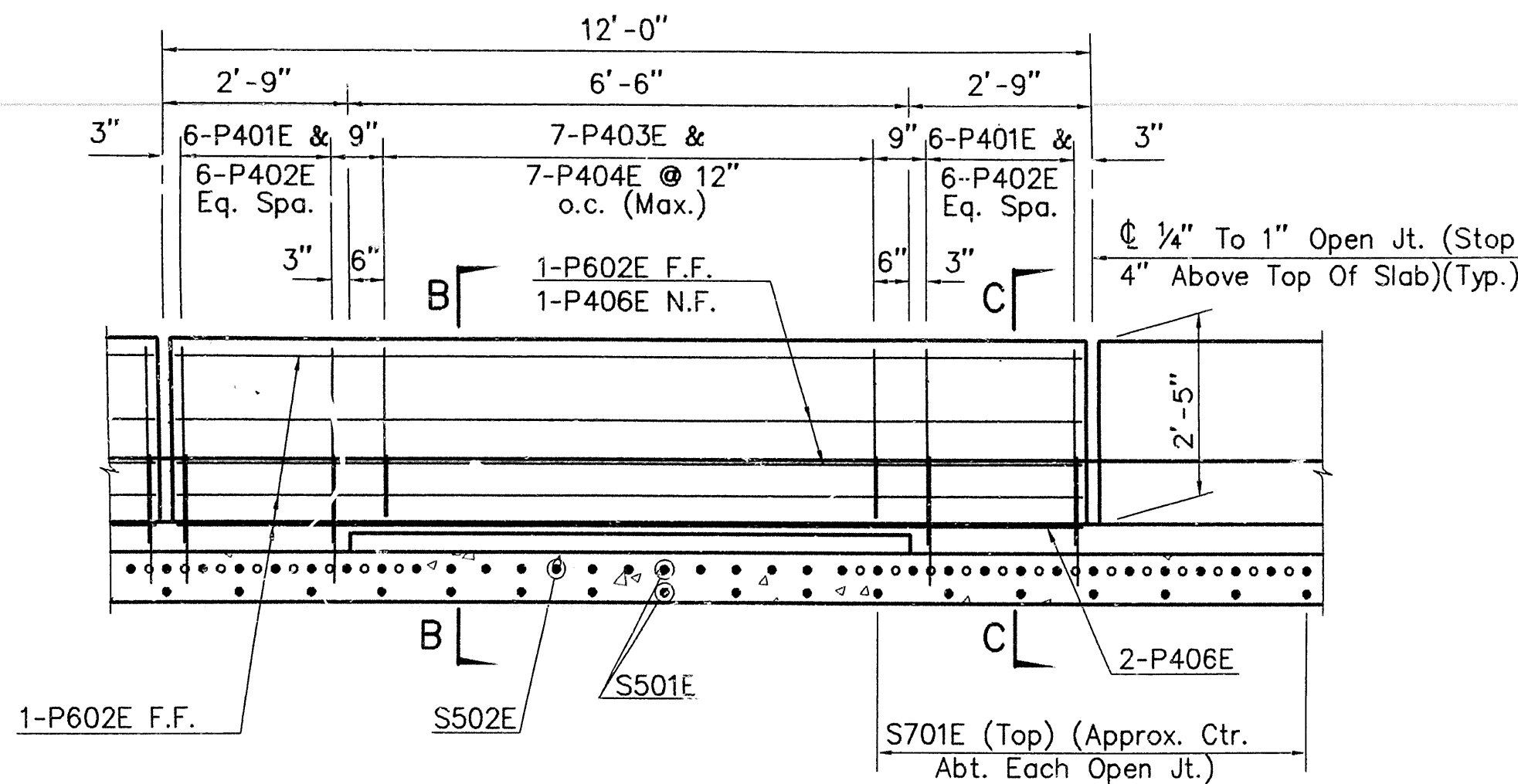
SCALE: 1/2" = 1'-0"

DRAWING NO. 35741

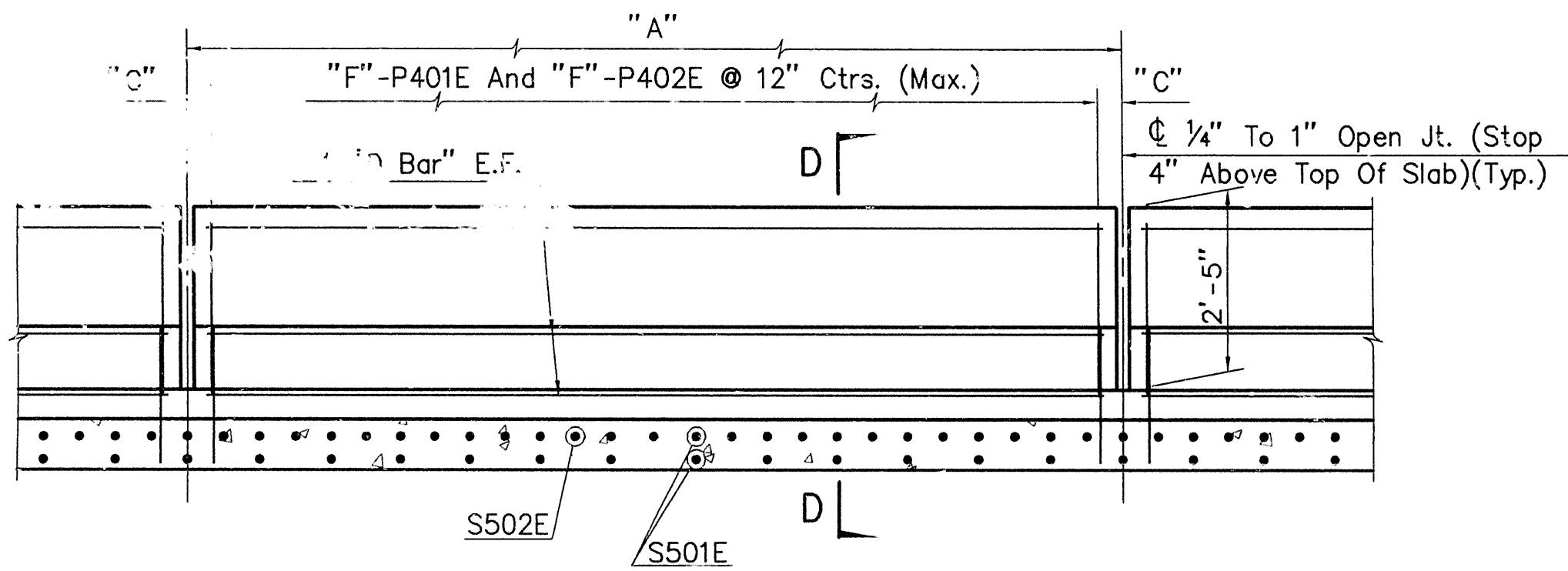
Q: \ACAD\01069\TYP-SEC
ACAD SCALE: 1/2" = 1'

ABMB ENGINEERS, INC.

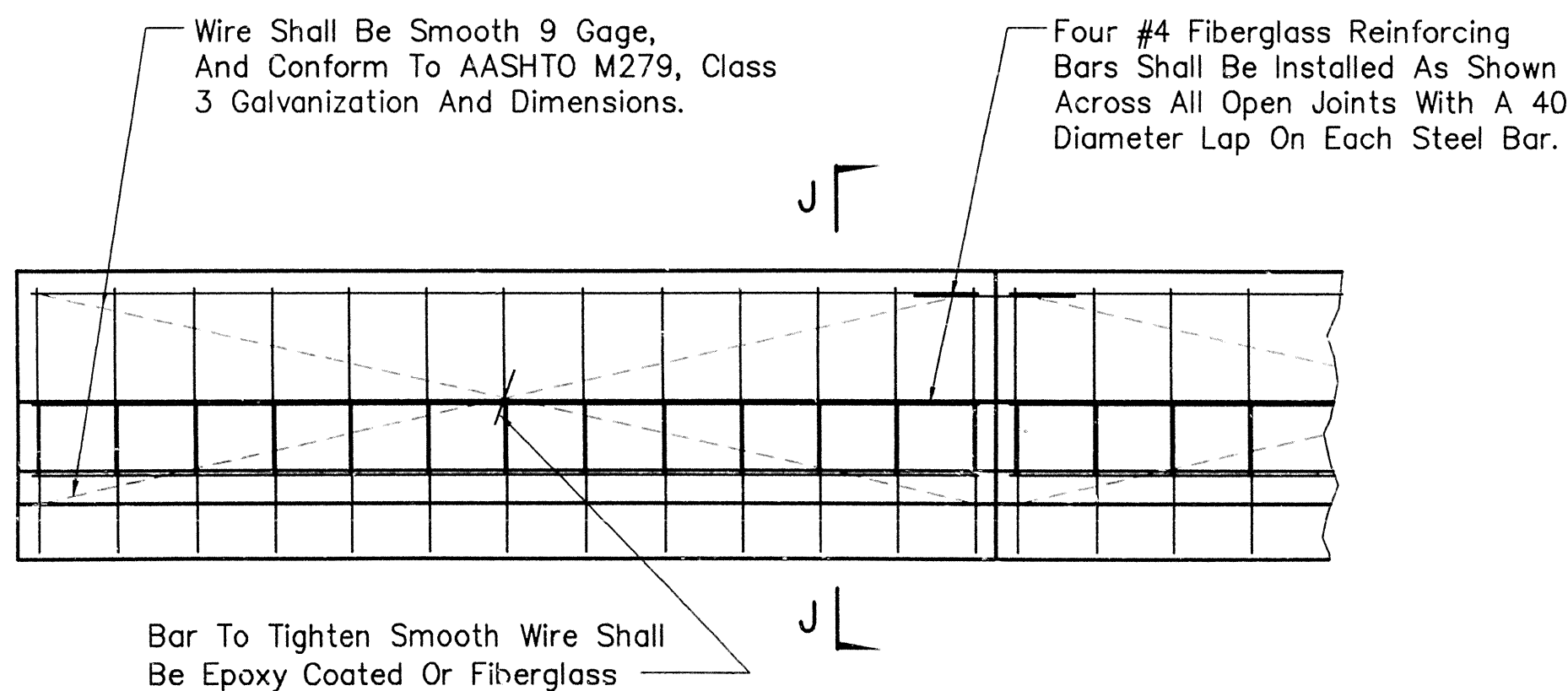
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK			
				JOB NO.		R10085	61	92
				3724 A & B	PARAPET		35742	



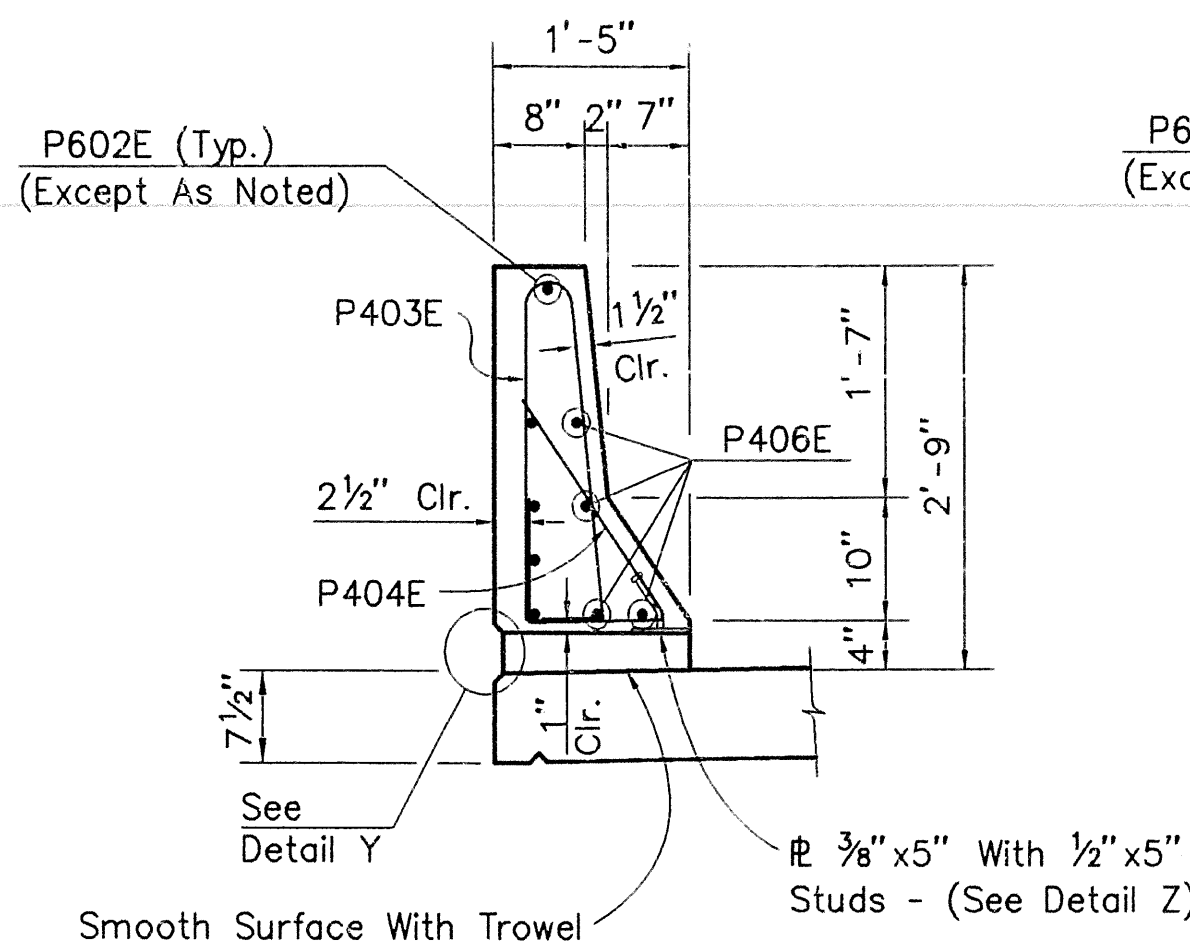
SECTION A-A (FOR OPEN PARAPET RAIL)
N.T.S.



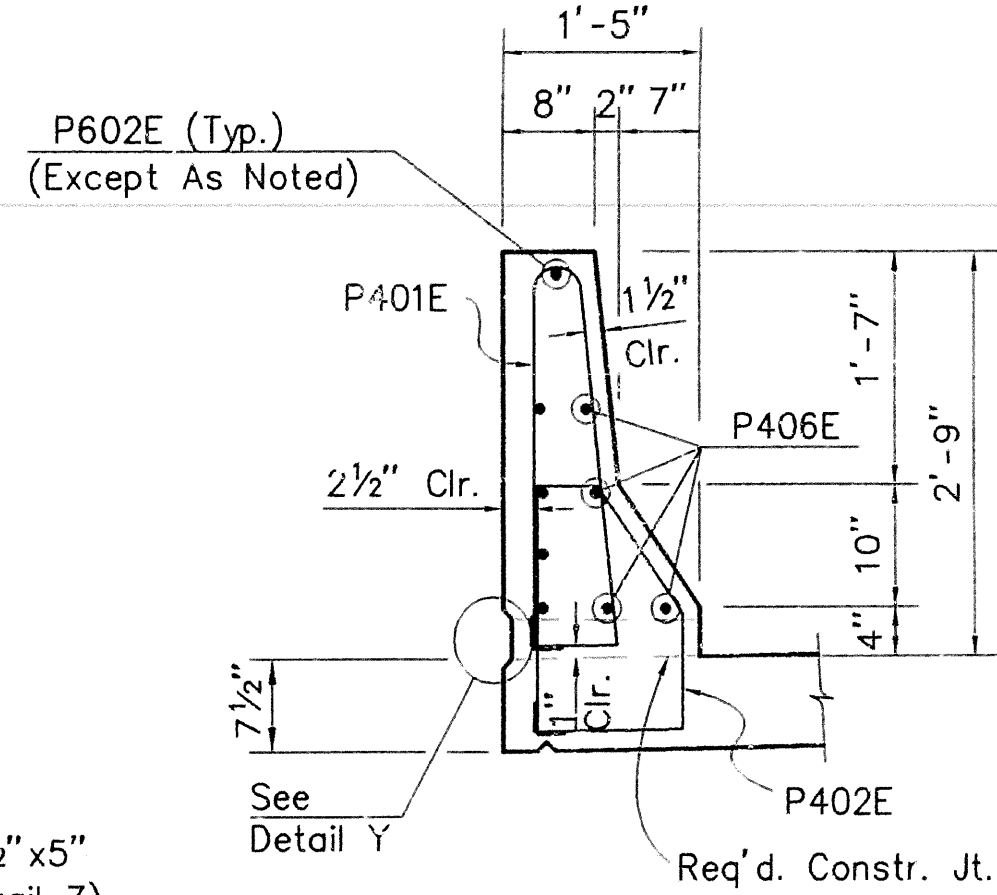
SECTION A-A (FOR CLOSED PARAPET RAIL)
N.T.S.



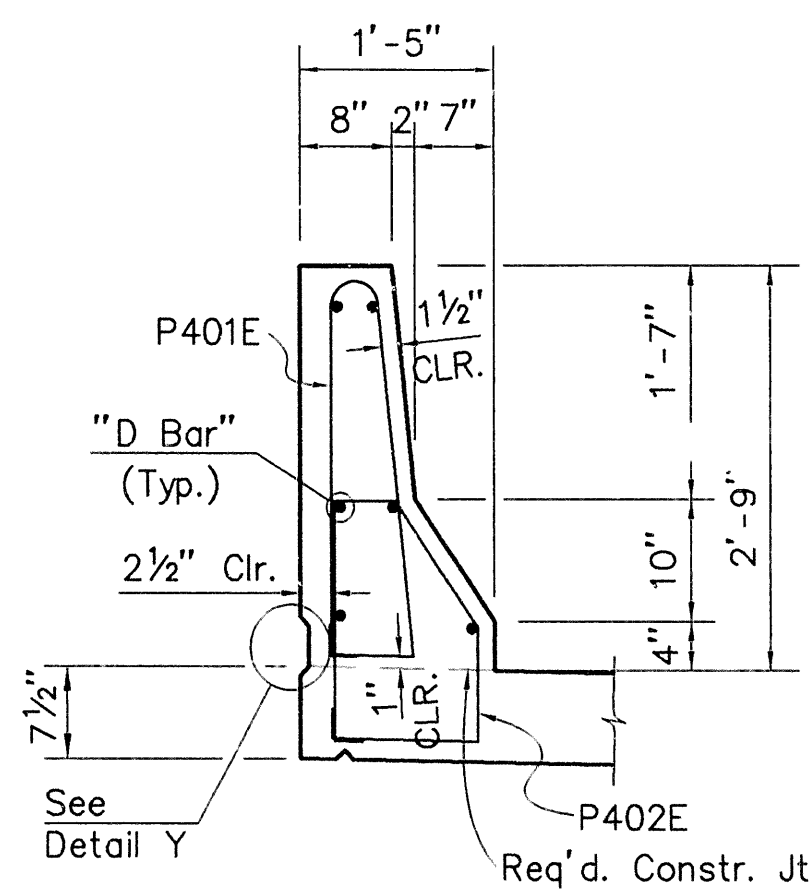
DETAILS OF OPTIONAL SLIPFORMING OF
CONCRETE PARAPET RAIL (OPEN OR CLOSED)
N.T.S.



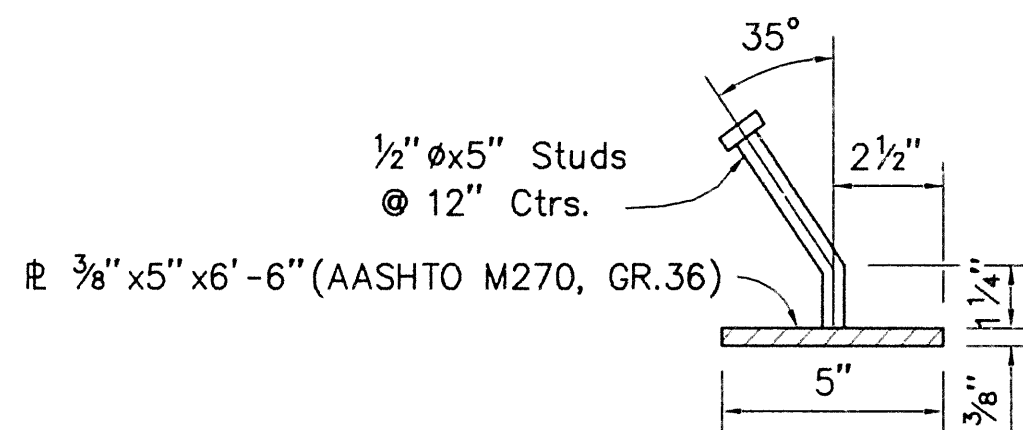
SECTION B-B
Scale: 3/4" = 1'-0"



SECTION C-C
Scale: 3/4" = 1'-0"



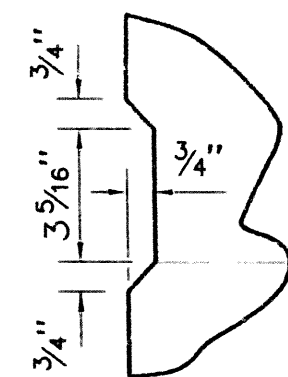
SECTION D-D
Scale: 3/4" = 1'-0"



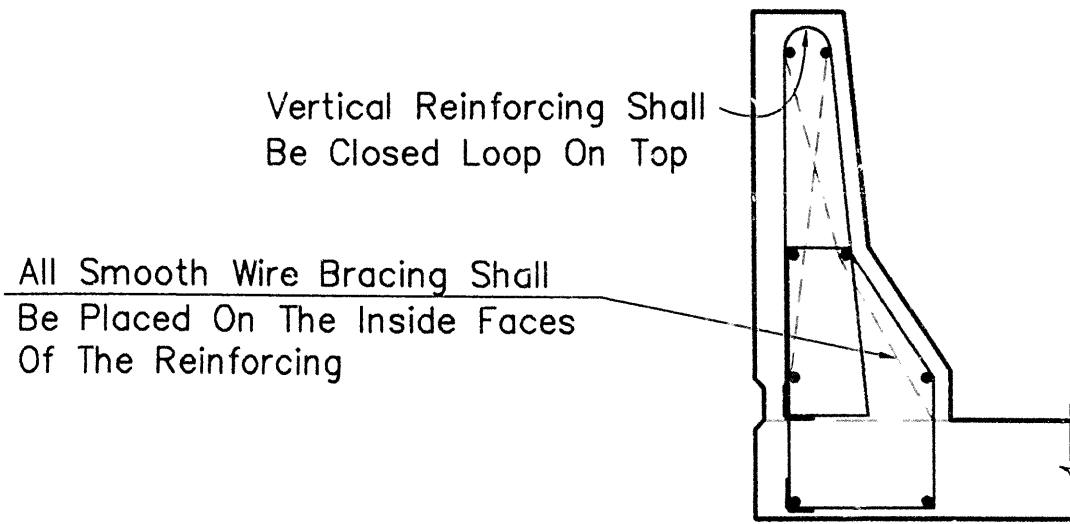
DETAIL Z
N.T.S.

Notes:
Parapet Studs Shall Be 5" Long, Granular Flux Filled, Solid Fluxed, Or Equal And Automatically End Welded To The Plate. Studs And Plate Shall Meet The Requirements Of Section 807. Studs And Plates Shall Be Measured And Paid For As "Structural Steel In Beam Spans (AASHTO M270, GR.50W)."

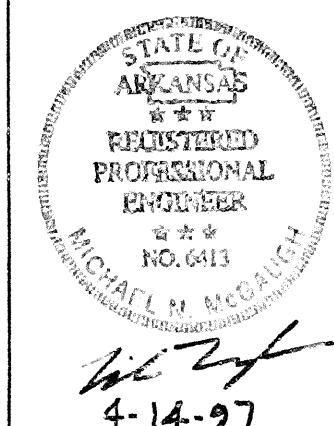
The Surfaces Of The 3/8" Plates Which Will Not be in Contact With Concrete Shall Be Painted In Accordance With Section 638, Or As Approved By The Engineer. Only One Prime Coat Is Required Where Multiple Coats Are Specified. All Coats Shall Be Applied In The Fabricator's Shop. Painting Will Not Be Paid For Directly, But Will Be Considered Subsidiary To "Structural Steel In Beam Spans (AASHTO M270, GR.50W)."



DETAIL Y
N.T.S.



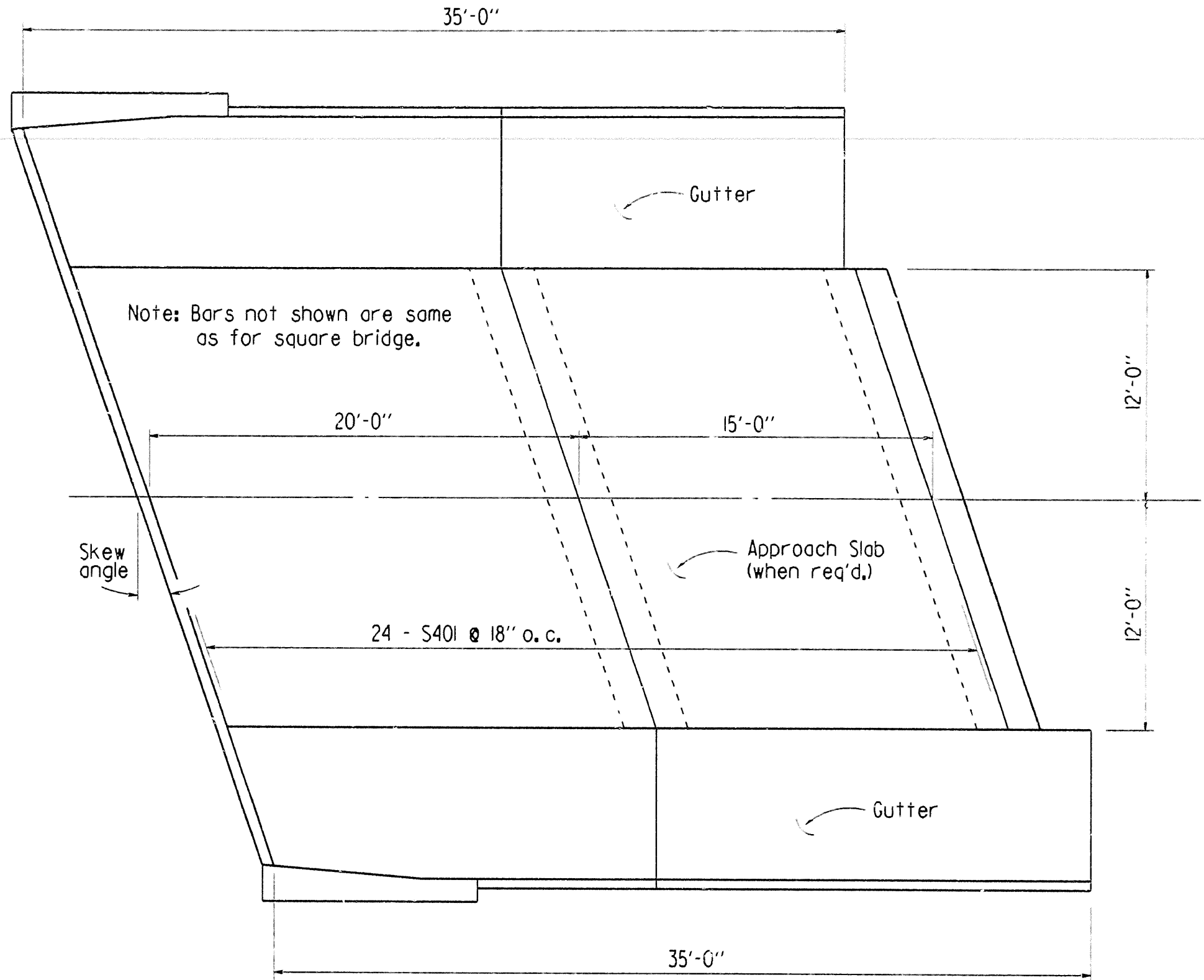
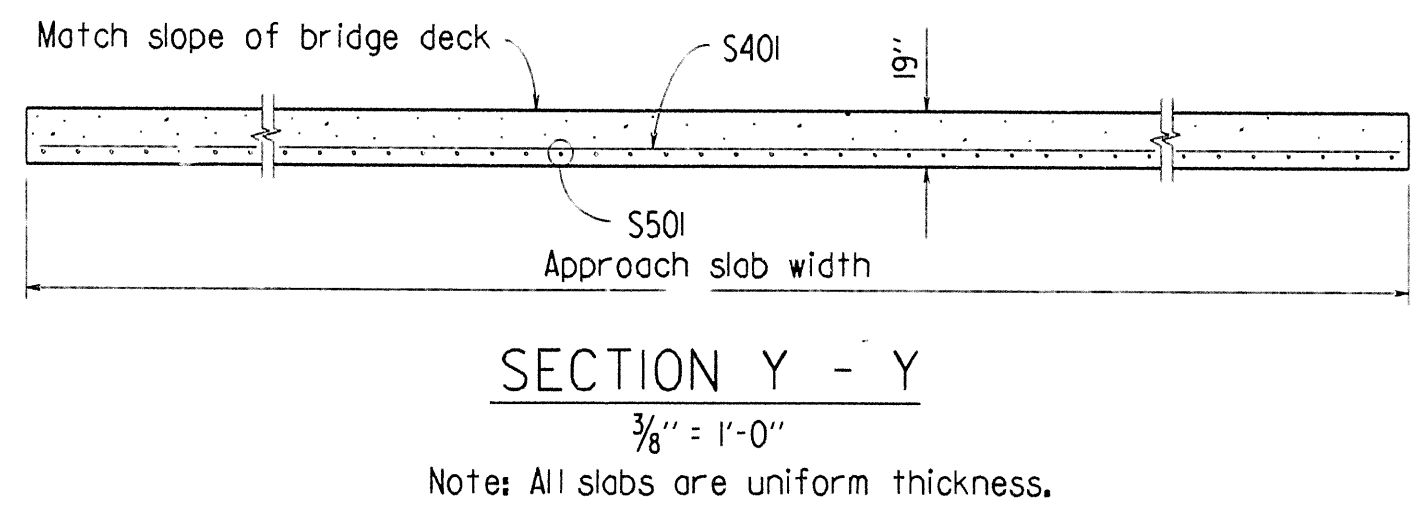
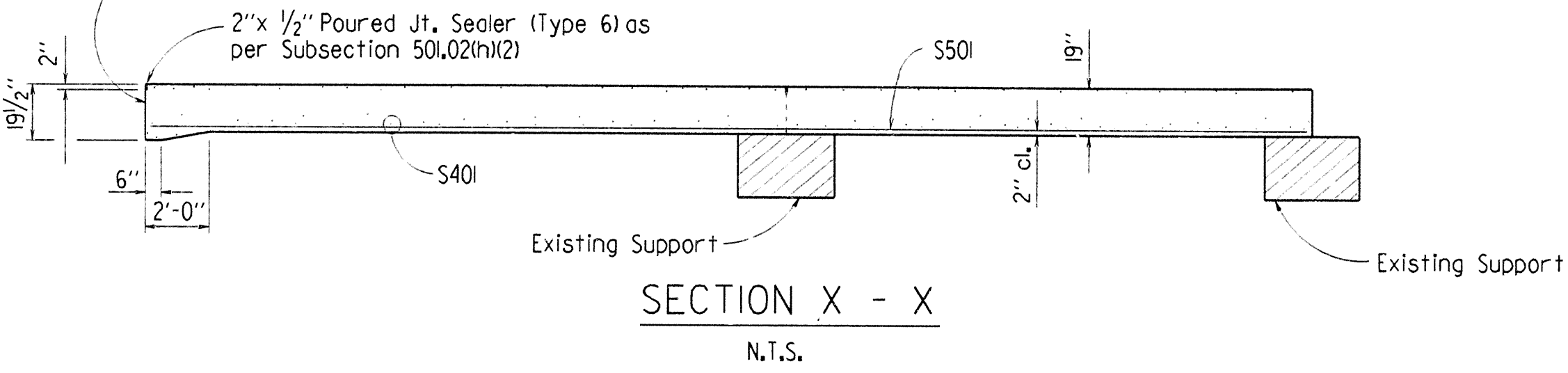
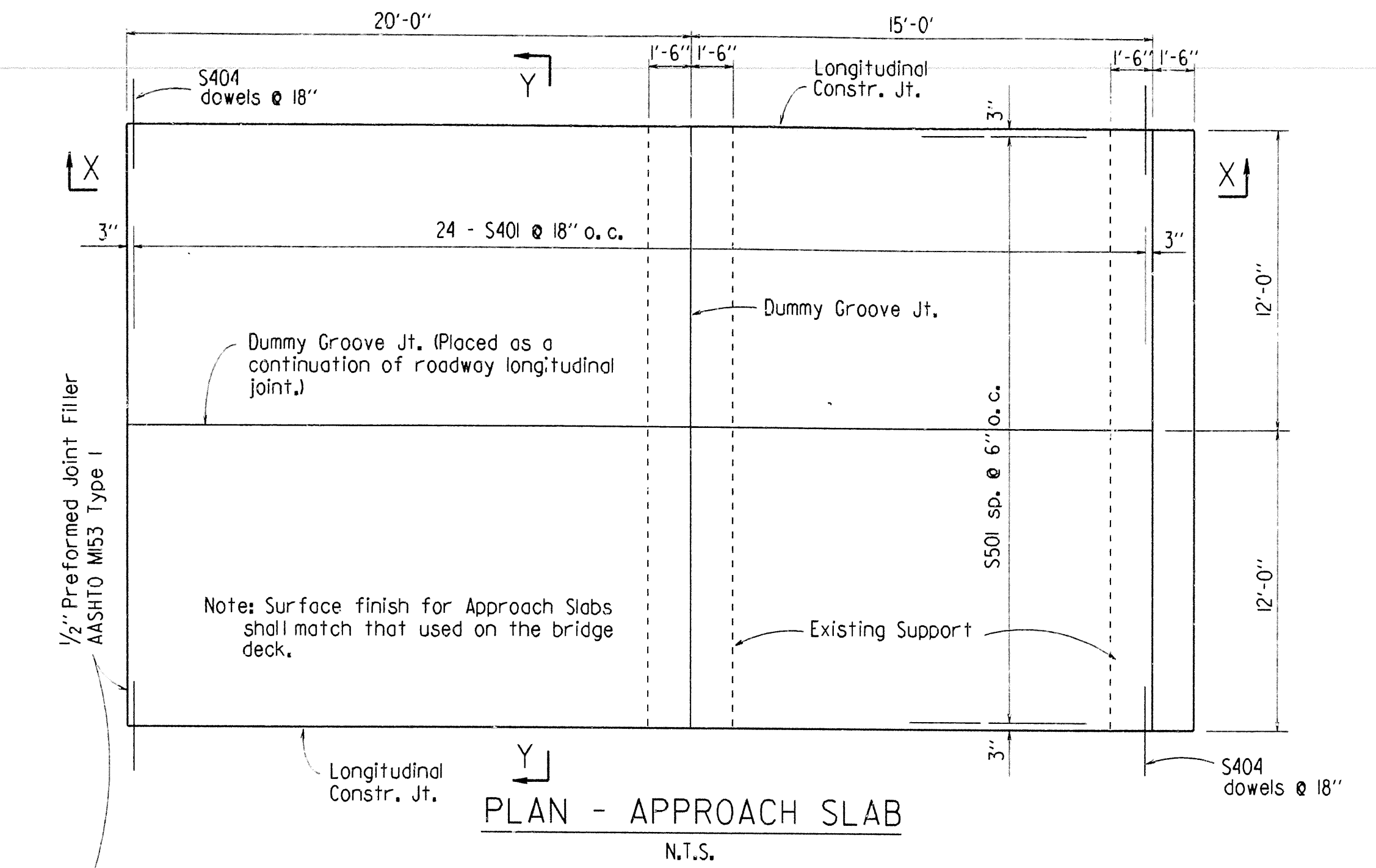
SECTION J-J
Scale: 3/4" = 1'-0"



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
PARAPET RAIL DETAILS BRIDGES 3724 A & B	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: DHH DATE: 11/96 CHECKED BY: MNM/GPS DATE: 4/97 DESIGNED BY: GPS DATE: 9/94	SCALE: As Shown
BRIDGE NO. 3724 - A & B	DRAWING NO. 35742

ABMB ENGINEERS, INC.

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.		RI0085	62	92
				3724A & B	APPR. SLAB		35743	



BAR LISTS
(Square & Skewed Slabs)

Mark	No. Req'd.	Length	
		Square	Skewed
S401	24	23'-8"	23'-8" (secant skew angle)
S404	48	3'-0"	
S501	48	34'-8"	

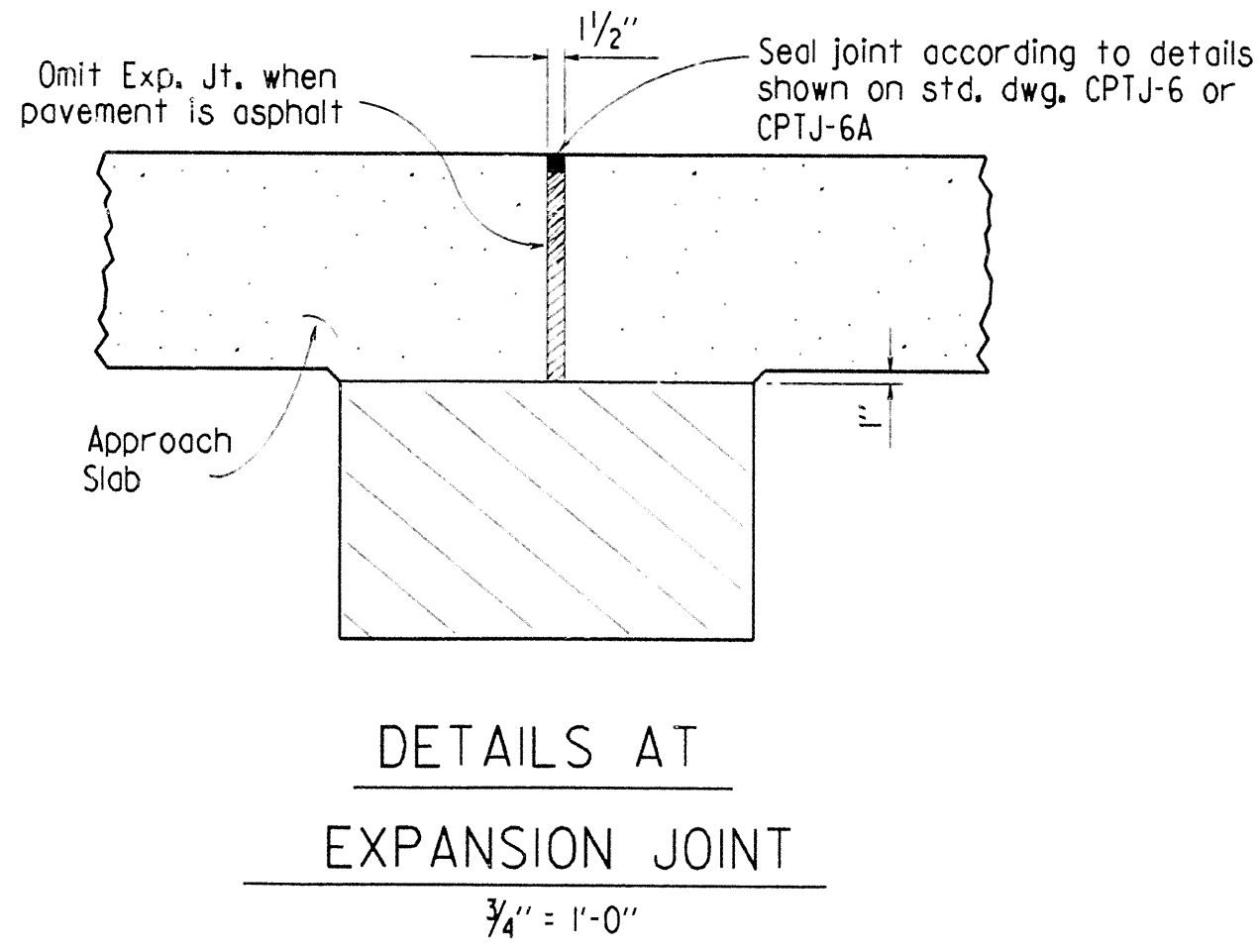
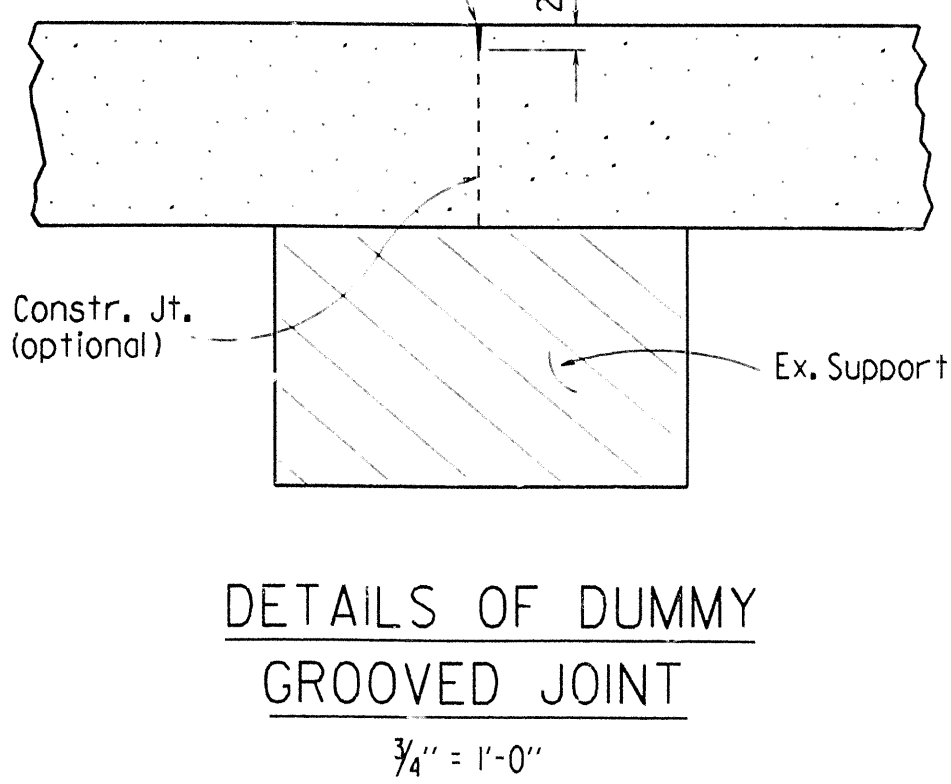
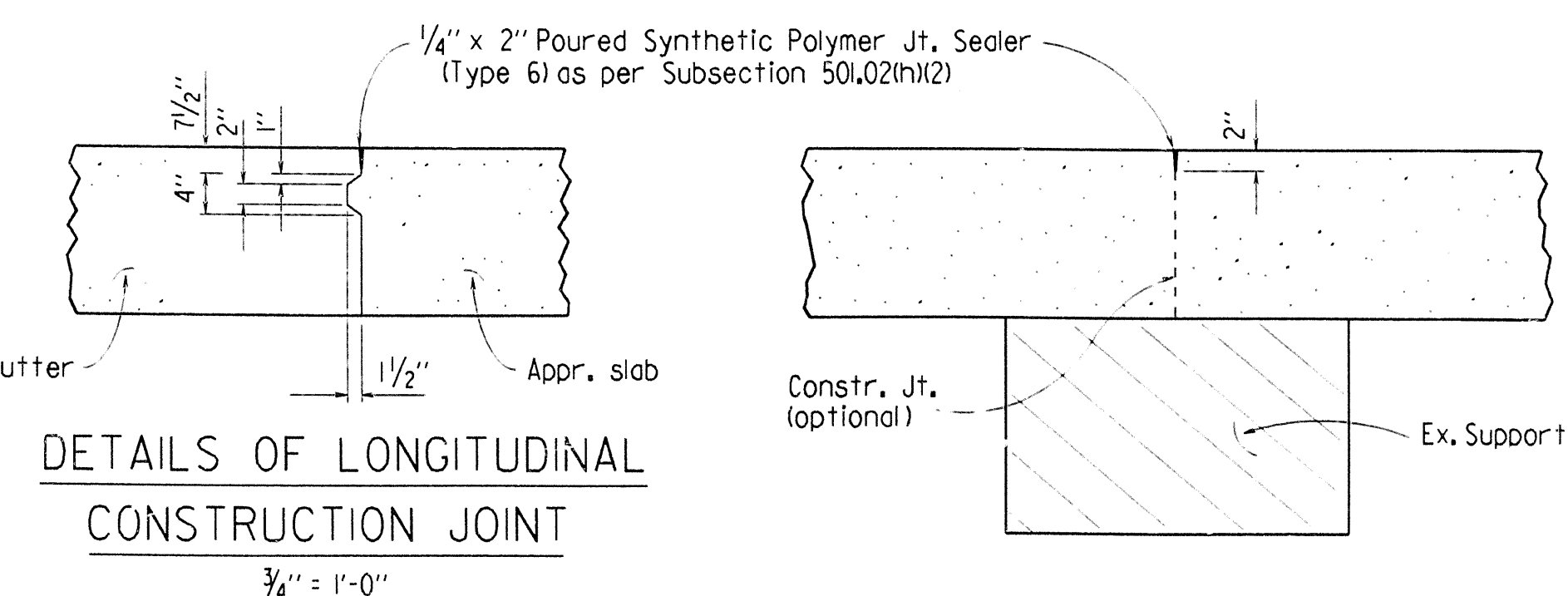


TABLE OF QUANTITIES FOR ONE SQUARE APPROACH SLAB

Slab Width	Reinforcing Steel	Concrete (Cu. Yds.)
24'-0"	2211 lb.	49.30

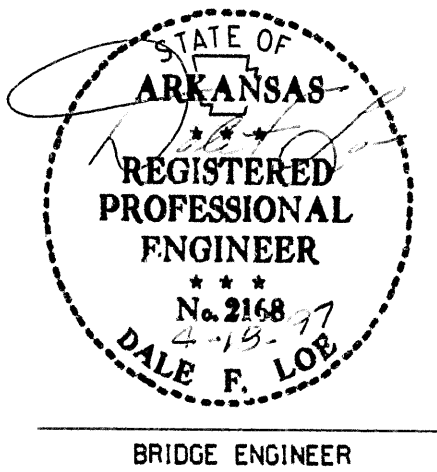
GENERAL NOTES

Concrete shall be Class S or Class S (AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Slabs and Approach Gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

This drawing to be used with dwg. no. 35744.



DETAILS OF APPROACH SLAB

ROUTE SEC.

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: WMAJ. DATE: 4-18-97

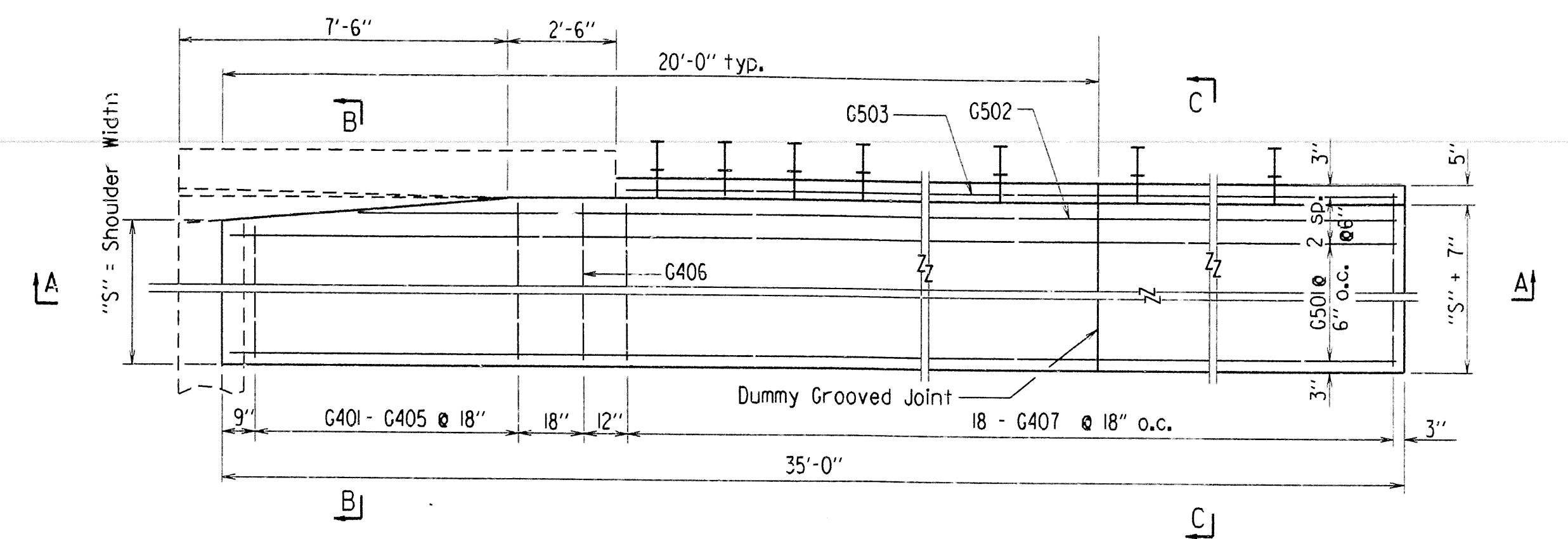
CHECKED BY: GYA DATE: 4-18-97

DESIGNED BY: DATE:

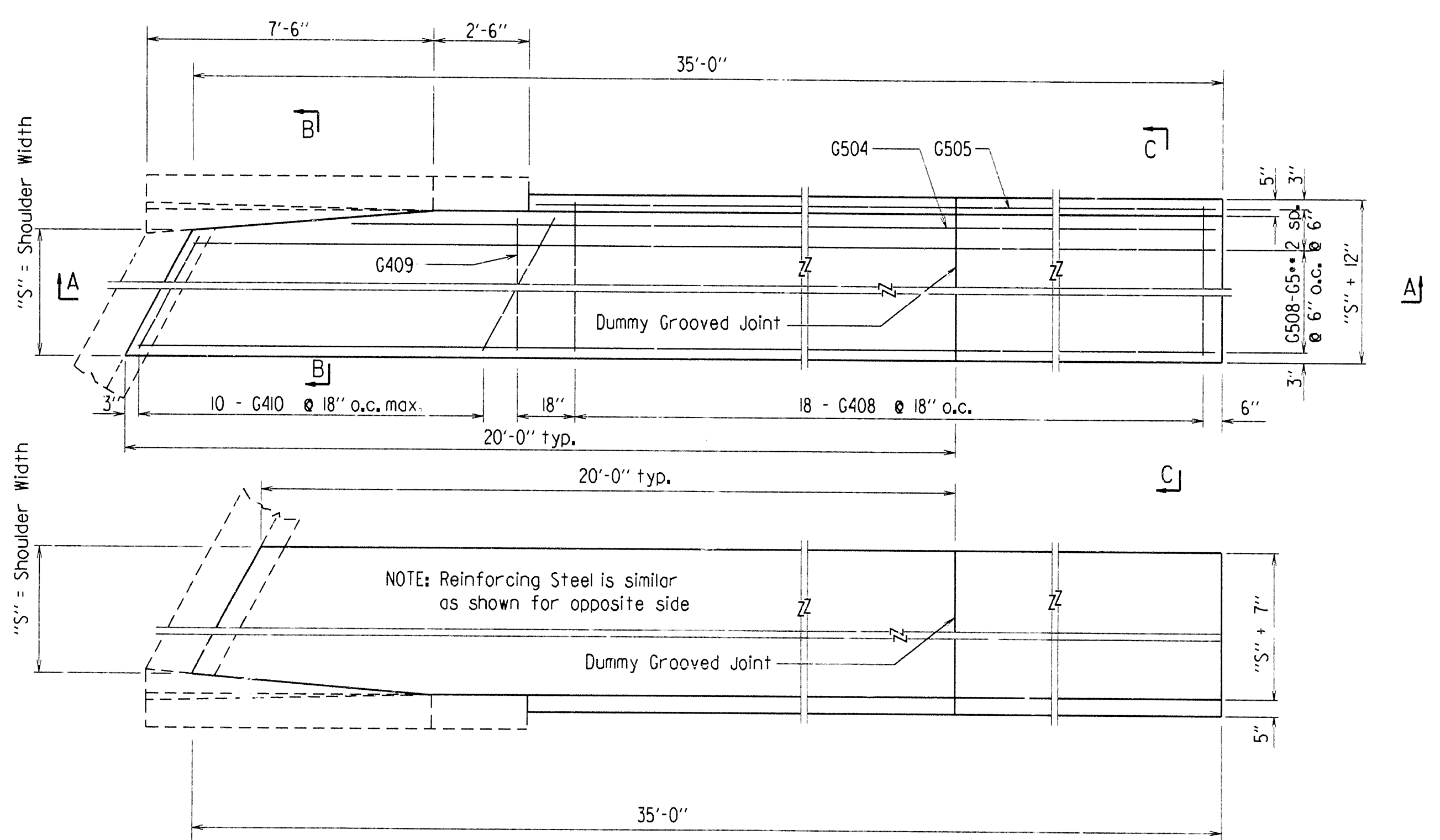
BRIDGE NO. 3724 A & B DRAWING NO. 35743

SCALE: As Shown

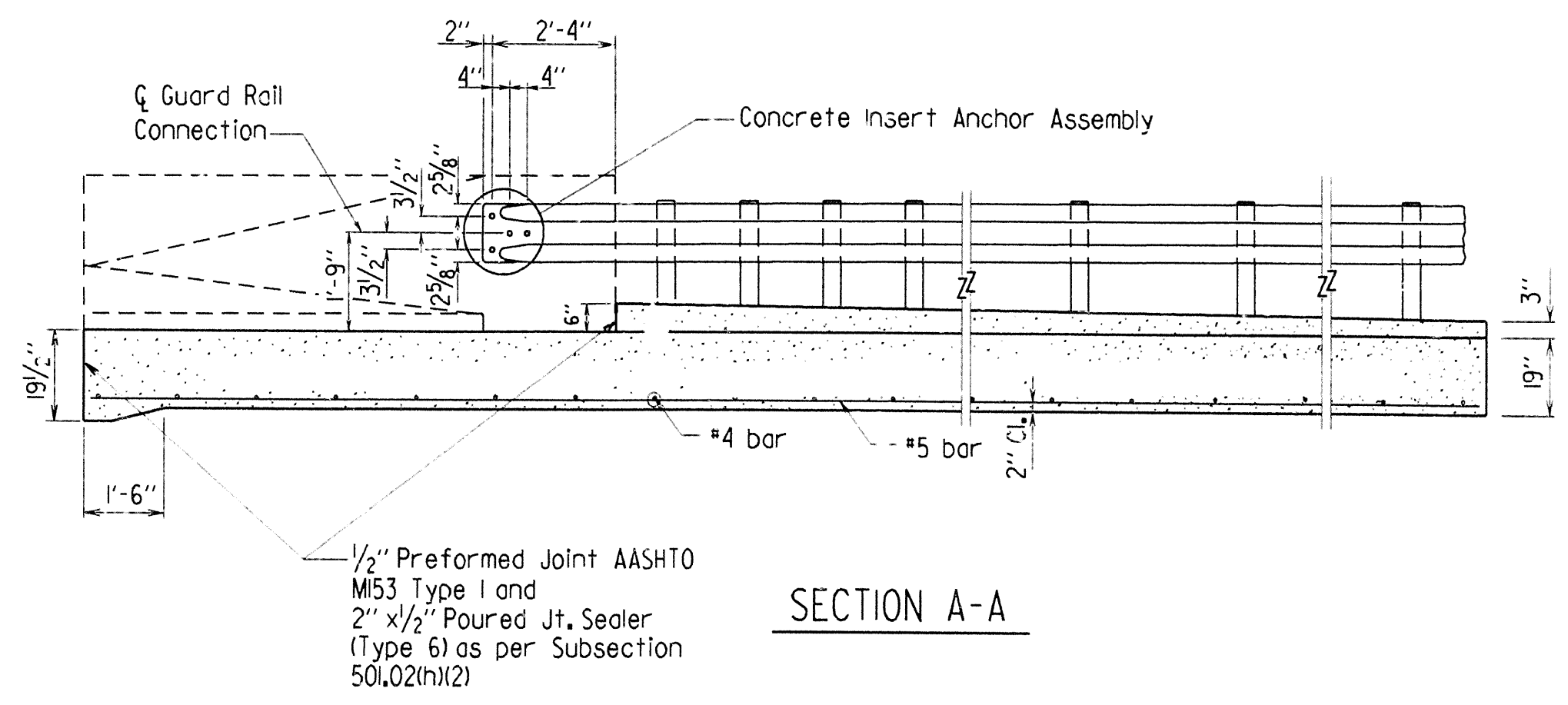
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		RI0085	63	92
				3724A & B	GUTTERS		35744	



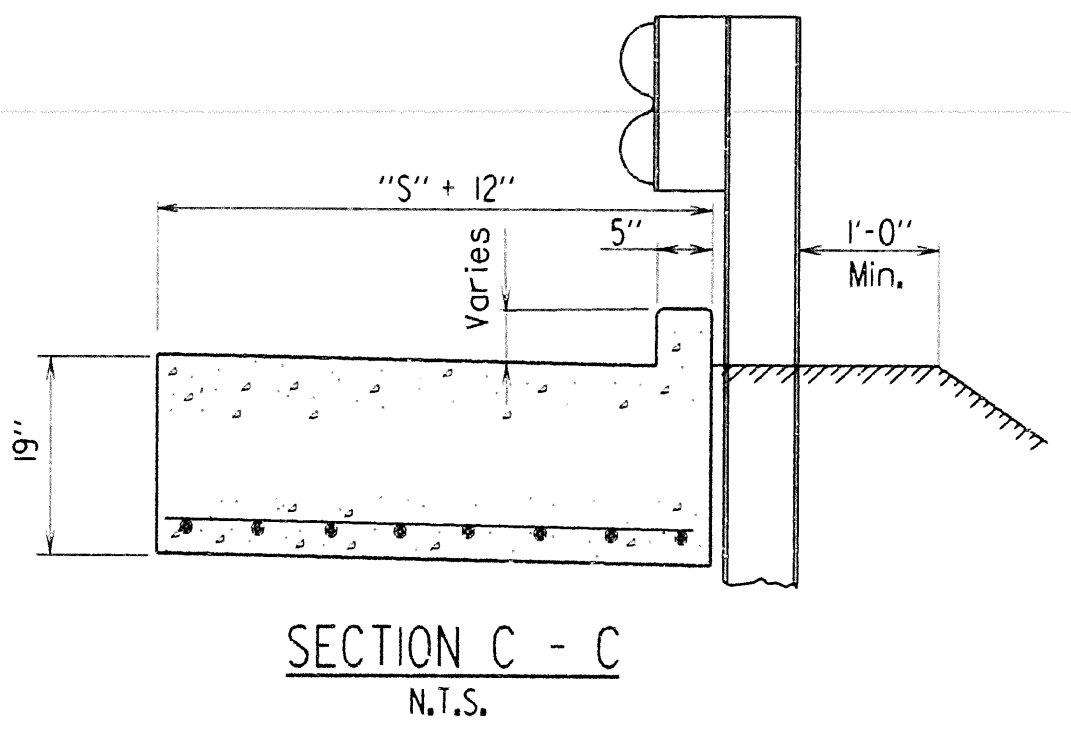
HALF PLAN OF APPROACH GUTTERS FOR SQUARE BRIDGE



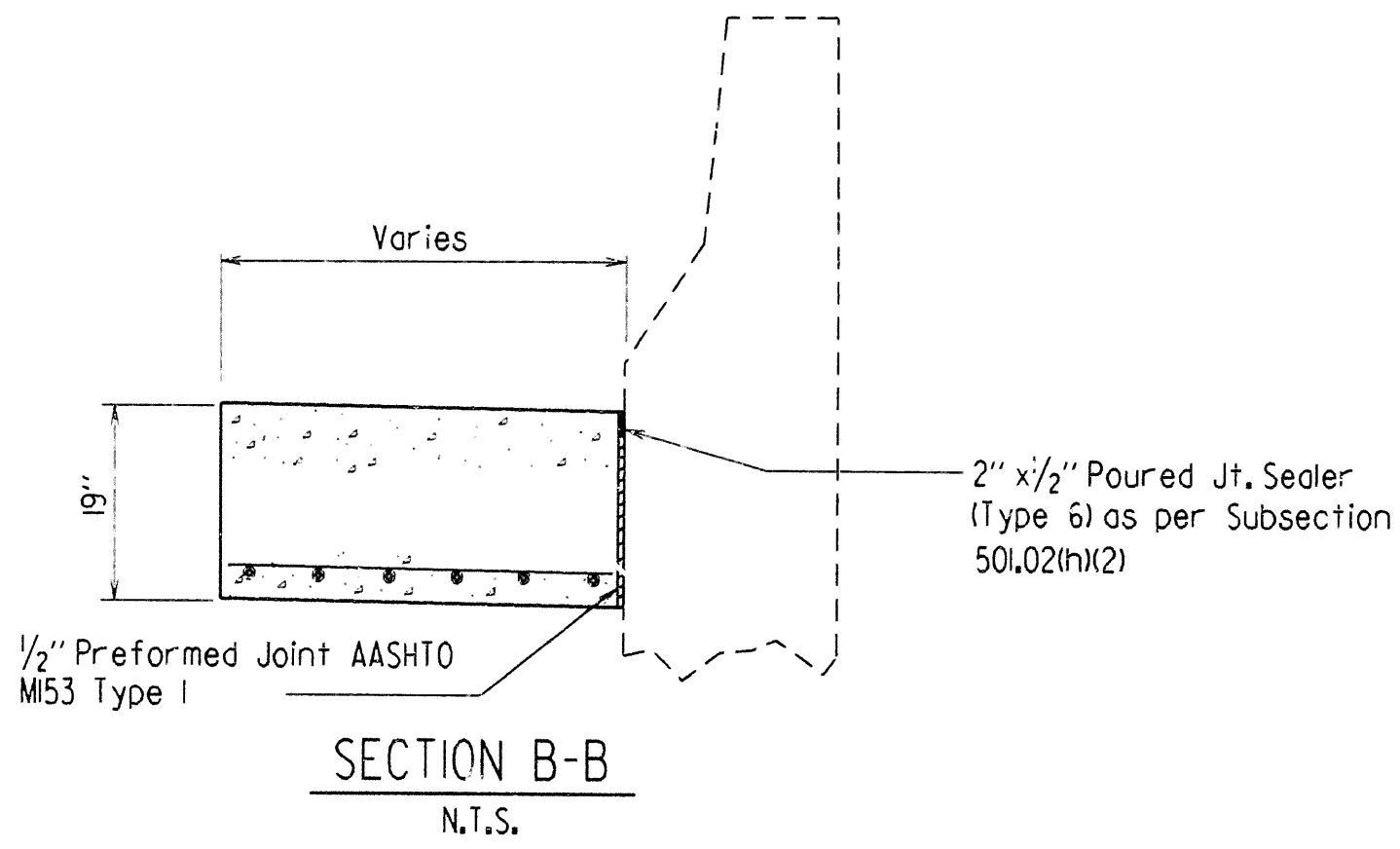
PLAN OF APPROACH GUTTERS FOR SKEWED BRIDGE



SECTION A-A



SECTION C - C
N.T.S.



SECTION B-B
N.T.S.

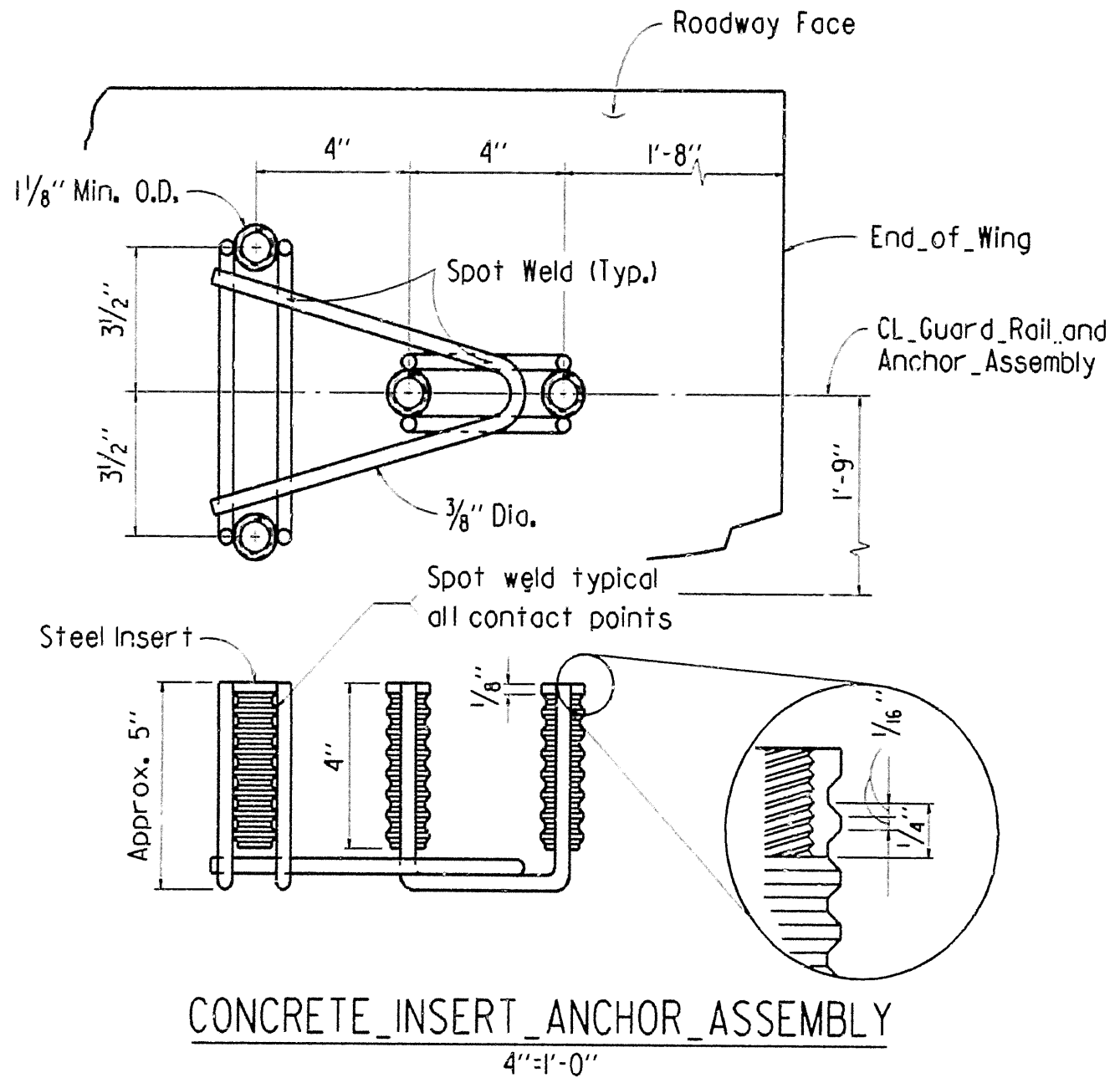
BAR LIST FOR ONE
TYPE C GUTTER

Mark	No. Req'd.		Length	Square or Skewed
	Shoulder Width			
	6'-0"	10'-0"		
G401 - G405	1 each	1 each	"S"-3" to "S"+3"	Square
G406	1	1	"S"+3"	Square
G407	18	18	"S"+8"	Square
G408	18	18	"S"+8"	Skewed
G409	1	1	"S"+3"	Skewed
G410	10	10	•	Skewed
G501	12	20	34'-8"	Square
G502	1	1	30'-2"	Square
G503	1	1	25'-8"	Square
G504	1	1	•	Skewed
G505	1	1	•	Skewed
G508 - G512	1 each	1 each	•	Skewed

- Bar Lengths vary with Skew. Lengths shown are for Square Bridges.
- ** G519 for S = 6'
- G527 for S = 10'

QUANTITIES FOR ONE
SQUARE APPROACH GUTTER

Shoulder Width (ft.)	Reinforcing Steel (lbs.)	Concrete (cubic yards)
6	597	14.27
10	950	22.55



CONCRETE_INSERT_ANCHOR_ASSEMBLY

Minimum capacity of guard rail attachment by concrete insert anchor assembly or other means shall be 12,000 lbs. ultimate shear capacity per bolt and insert (48,000 lbs. per assembly). There shall be a minimum of four bolts per attachment located as shown. The contractor may use the insert anchor assembly shown, or one similar which provides the same ferrule depth and thread length. The capacity of the insert anchor assembly shall be certified to the Engineer.

Guard rail attachment using other types of concrete insert will be allowed, provided they meet the minimum capacity specified, the capacity is certified, and approval is obtained from the Engineer before use.

The threaded steel insert shall have a solid bottom, tapped to a minimum threaded depth of 2 1/2". The guard rail shall be connected with 1/8" x 2 1/2" high strength hex bolts and one hardened steel washer. See Section 807 of the Standard Specifications.

Bolts shall conform to the requirements of AASHTO M64 and shall be threaded full length. Bolts and washers shall be galvanized in accordance with AASHTO M232.

Bolts shall be installed in accordance with Subsection 807.71 of the Standard Specifications.

Concrete insert Anchor Assembly will not be paid for directly, but will be considered subsidiary to the item of Class S or Class S (AE) Concrete - Bridge.

For Details of Guard Rail see dwg. nos. GR-8 & GR-8A.

GENERAL NOTES

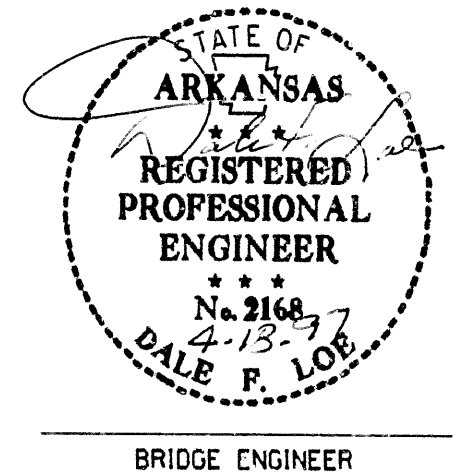
Concrete shall be Class S or Class S(AE) or mixture used for Portland Cement Concrete Pavement.

Reinforcement Steel shall conform to AASHTO M31 or M53, Grade 60 (fy = 60,000 psi).

Approach Gutters will be measured and paid for in accordance with Section 504 of the Standard Specifications.

DETAILS OF
TYPE SPECIAL APPROACH GUTTERS

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: W.M.A. DATE: 4-18-97
CHECKED BY: GYA DATE: 4-18-97 SCALE: 3/8" = 1'-0"
DESIGNED BY: DATE:
BRIDGE NO. 3724 A & B DRAWING NO. 35744



1" Min. 2" 2" 1" 2 1/4"

Shear Block

Pipe Sleeve And Anchor Bolt

Slot In Sole Plate And Shear Block

$C/2$

$C/2$

E

2"

2"

The Location Of The Anchor Bolts In Relation To The Holes In The Sole Plate Shall Correspond With The Temperature At The Time Of Erection. AT 60° F The Holes Should Center On The Anchor Bolts.

The diagram illustrates the cross-section of an elastomeric pad fixed bearing. It shows a 2" sole plate at the base, with internal plates embedded within a 50 Durometer Elastomer. The elastomer has a total thickness of T and contains n internal elastomer layers of equal thickness t . The internal plates have a thickness of tB . The bearing is fixed to a 1/8" CLR (Typ.) base. A note specifies: "The Elastomeric Pad Must Be Vulcanized To The Sole Plate."

2" Sole Plate

The Elastomeric Pad Must Be Vulcanized To The Sole Plate.

Internal Plates

50 Durometer Elastomer

T

tB

t

n

1/8" CLR (Typ.)

Internal elastomer layers of equal thickness, t

ELASTOMERIC PAD

FIXED BEARINGS

① Care Shall Be Taken To Ensure That The Sole Plate Is In Full, Complete Contact With The Beam Or Girder Flange Before Welding Begins

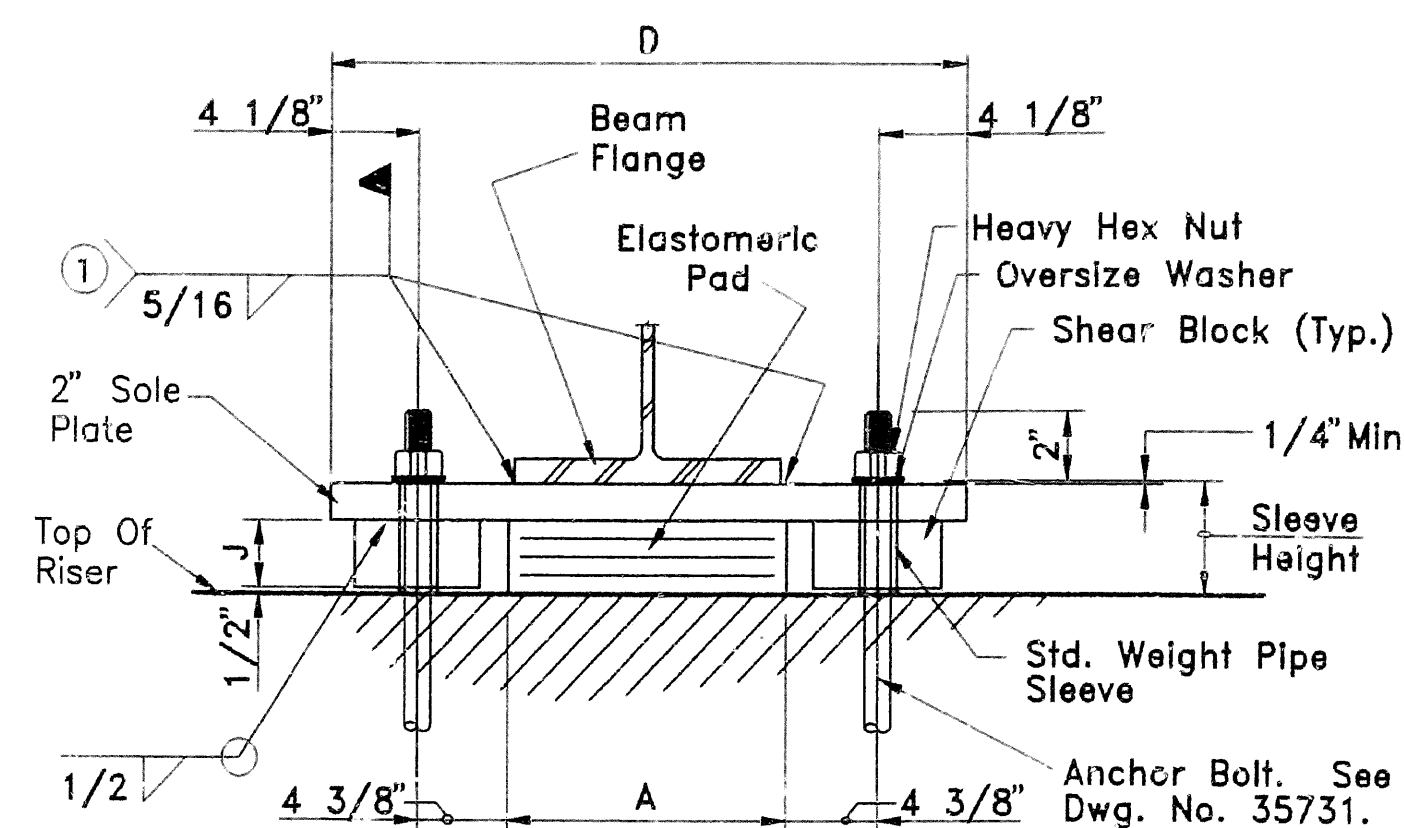


Diagram illustrating the bearing assembly details:

- Bevel Plate To Match Slope Of Beam After Dead Load Deflection To Nearest $1/32"$ Total Difference In Thickness Across Plate For Bearing.**
- Sole Plate 2" Thick @ \bar{C} Bearing**
- Top of Cap**
- Bearing**
- B** (Width of the cap)
- C** (Width of the sole plate)

TABLE OF VARIABLES																
UNIT or SPAN	BENT LOCATION	BEARING TYPE	No. OF BEARINGS EA. BENT	A	B	T	tT	tB	No. & THK. FOR (t)	No. & THK. OF INTERNAL PLATE	C	D	E	J	K	SLEEVE HEIGHT
420'-0"	Endbent 1	Sld	6	13"	8"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	13"	30"	6"	2 9/32"	12"	5 1/32"
	2,3	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	5"	2 9/32"	18"	5 1/32"
	4,5	Fix	6	11"	15"	3 5/8"	1/4"	1/4"	7 @ 3/8"	8 @ 1/16"	16"	28"	2 1/4"	3 1/8"	5 7/8"	5 1/32"
	6,7	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	5"	2 9/32"	18"	5 1/32"
480'-0"	Bent 8	Dbl Sld	12	13"	8"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	13"	30"	6 1/2"	2 9/32"	12"	5 1/32"
	9,10,11	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	6"	2 9/32"	18"	5 1/32"
	12,13	Fix	6	11"	15"	3 5/8"	1/4"	1/4"	7 @ 3/8"	8 @ 1/16"	16"	28"	2 1/4"	3 1/8"	5 7/8"	5 1/32"
	14,15	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	5"	2 9/32"	18"	5 1/32"
420'-0"	Bent 16	Dbl Sld	12	13"	8"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	13"	30"	6"	2 9/32"	12"	5 1/32"
	17,18	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	5"	2 9/32"	18"	5 1/32"
	19,20	Fix	6	11"	15"	3 5/8"	1/4"	1/4"	7 @ 3/8"	8 @ 1/16"	16"	28"	2 1/4"	3 1/8"	5 7/8"	5 1/32"
	21,22	Sld	6	11"	15"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	19"	28"	5"	2 9/32"	18"	5 1/32"
	Endbent 23	Sld	6	13"	8"	1 7/16"	1/4"	1/4"	2 @ 3/8"	3 @ 1/16"	13"	30"	6"	2 9/32"	12"	5 1/32"

Pipe Sleeves Shall Be ASTM A53, Grade B, And Shall Be Galvanized To Conform To AASHTO M232 CLASS C. Or AASHTO M298, Class 50 Sleeves Shall Be Paid For At The Unit Price For "Structural Steel In Beam Spans" (AASHTO M270, GR.50W).

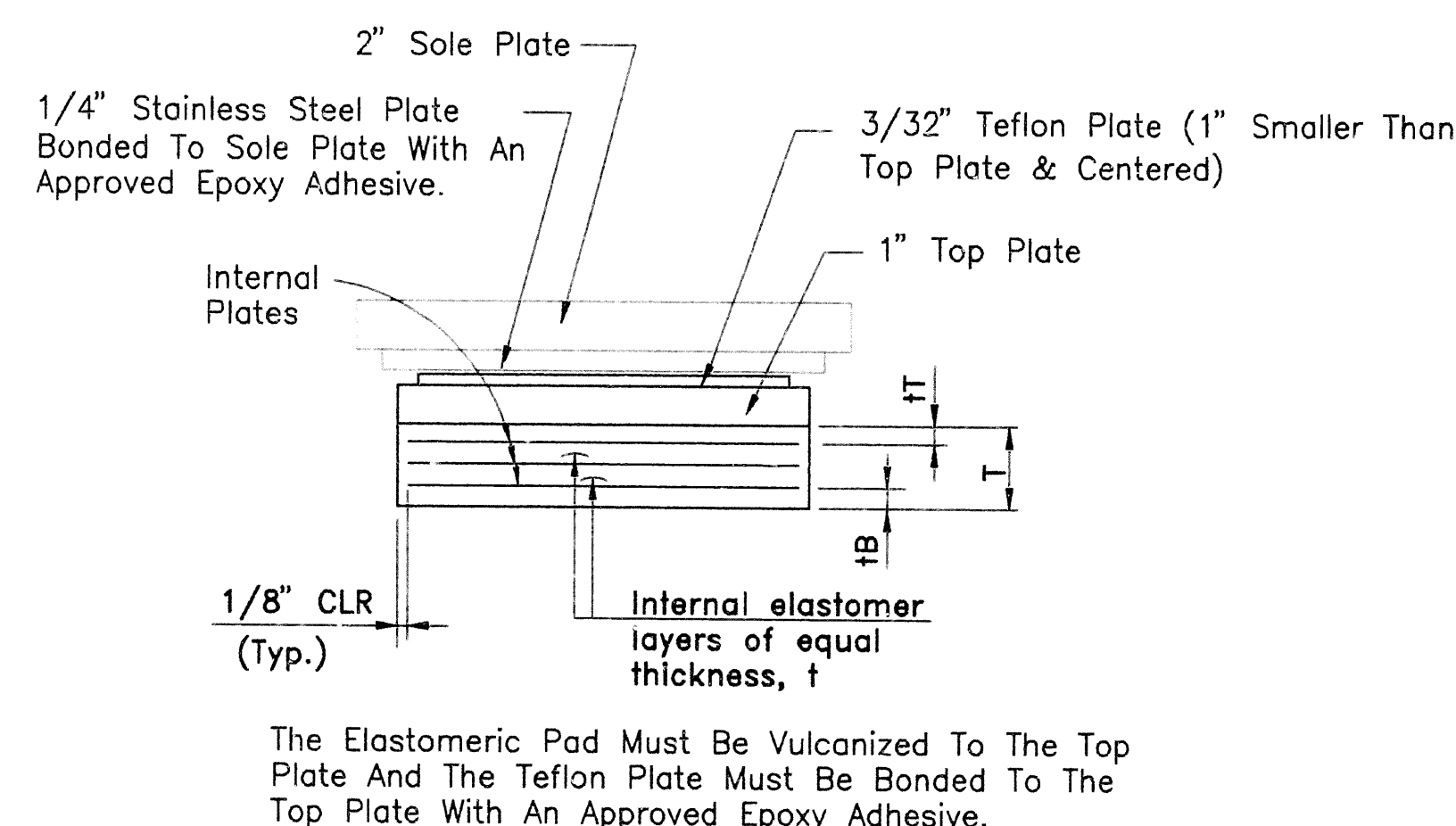
Sole Plates, Top Plates And Shear Blocks Shall Be AASHTO M270, GR.50W Steel. Sole Plates, Stainless Steel Plates And Shear Blocks Will Not Be Paid For Directly, But Will Be Considered As Part Of The Item "Elastomeric Bearings" Or "Sliding Elastomeric Bearings".

Sole Plates, Top Plates And Shear Blocks Shall Not Be Painted. Sole Plates, Top Plates And Shear Blocks Shall Be Cleaned In Accordance With Subsection 807.84(e).

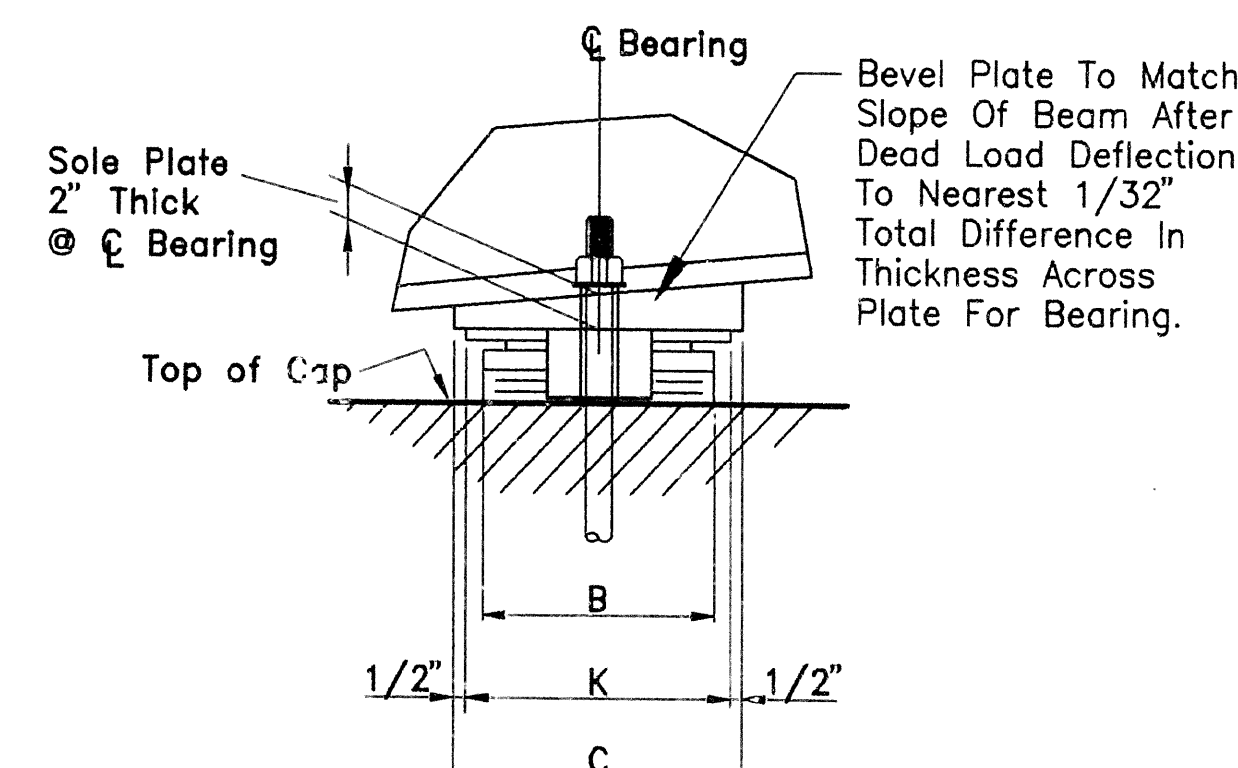
Elastomeric Pads Shall conform To Section 808 Of The Standard Specifications And SP Job R10085 Sliding Elastomeric Bearings And Shall Be Paid For At The Unit Price Bid For "Elastomeric Bearings" Or "Sliding Elastomeric Bearings".

Each Reinforced Bearing Shall Be Marked In Indelible Ink Or Flexible Paint. The Marking Shall Consist Of The Orientation, The Order Number, Lot Number, Bearing Identification Number, and Elastomeric Type And Grade Number. Unless Otherwise Specified, The Marking Shall Be On A Face That Is Visible After Erection Of The Bridge. This Information Shall Be Clearly Shown On The Shop Drawings.

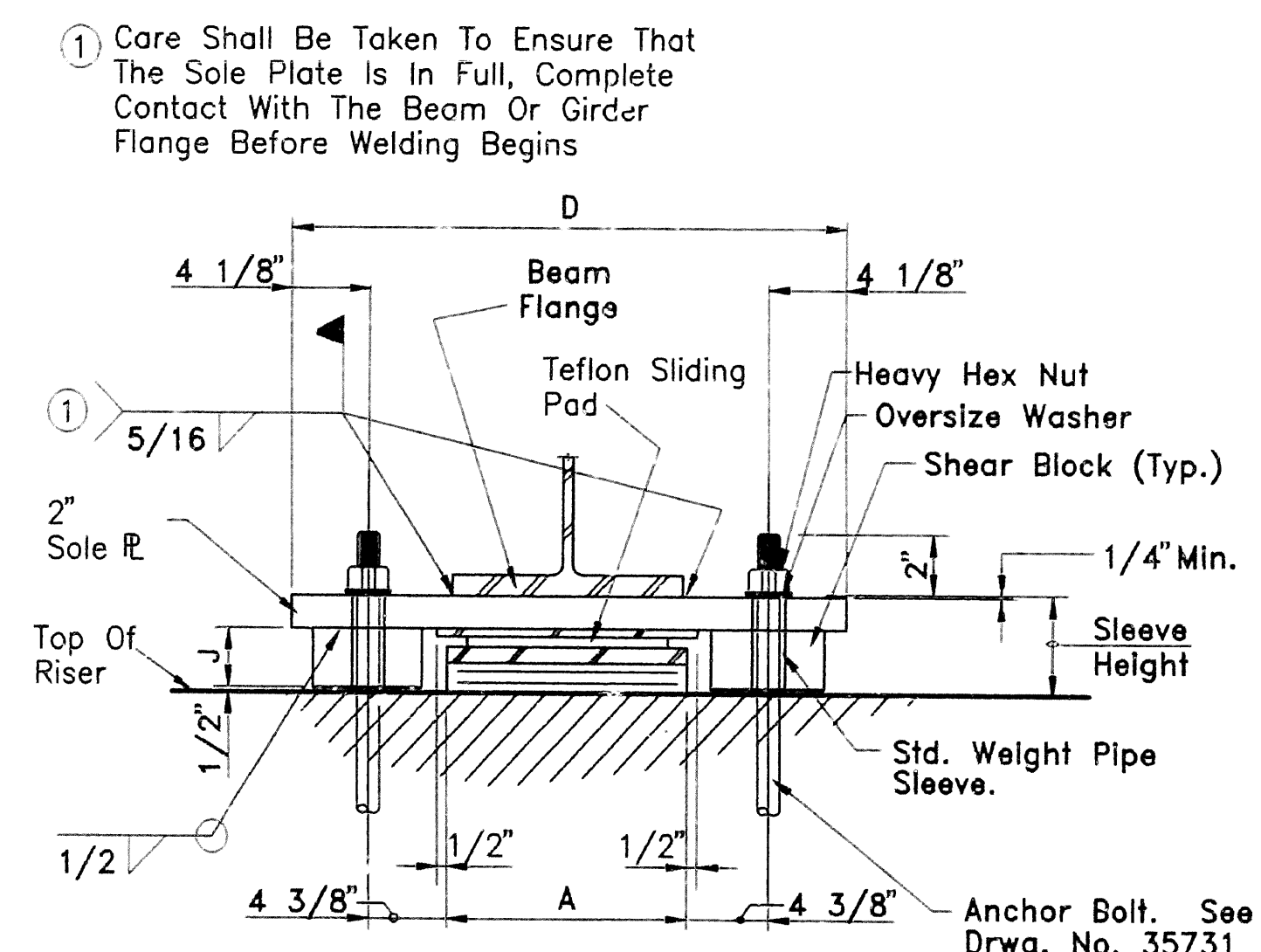
All Anchor Bolts Shall Be 1 1/2"Ø. See Drawing No. 35731.



TEFLON PAD
SLIDING BEARINGS



SIDE VIEW - SLD BEARING



FRONT VIEW - SLD BEARING

* Double Bearing Assemblies Required At Expansion Joints Bents 8 & 16.

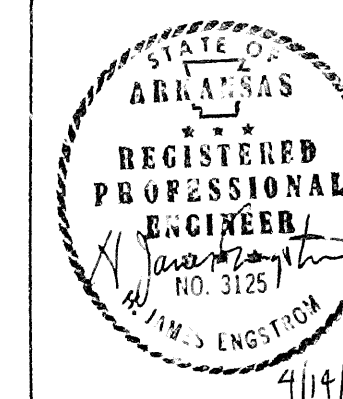
ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

BEARING DETAILS
BRIDGE 3724 OVER BAYOU DEVIEW

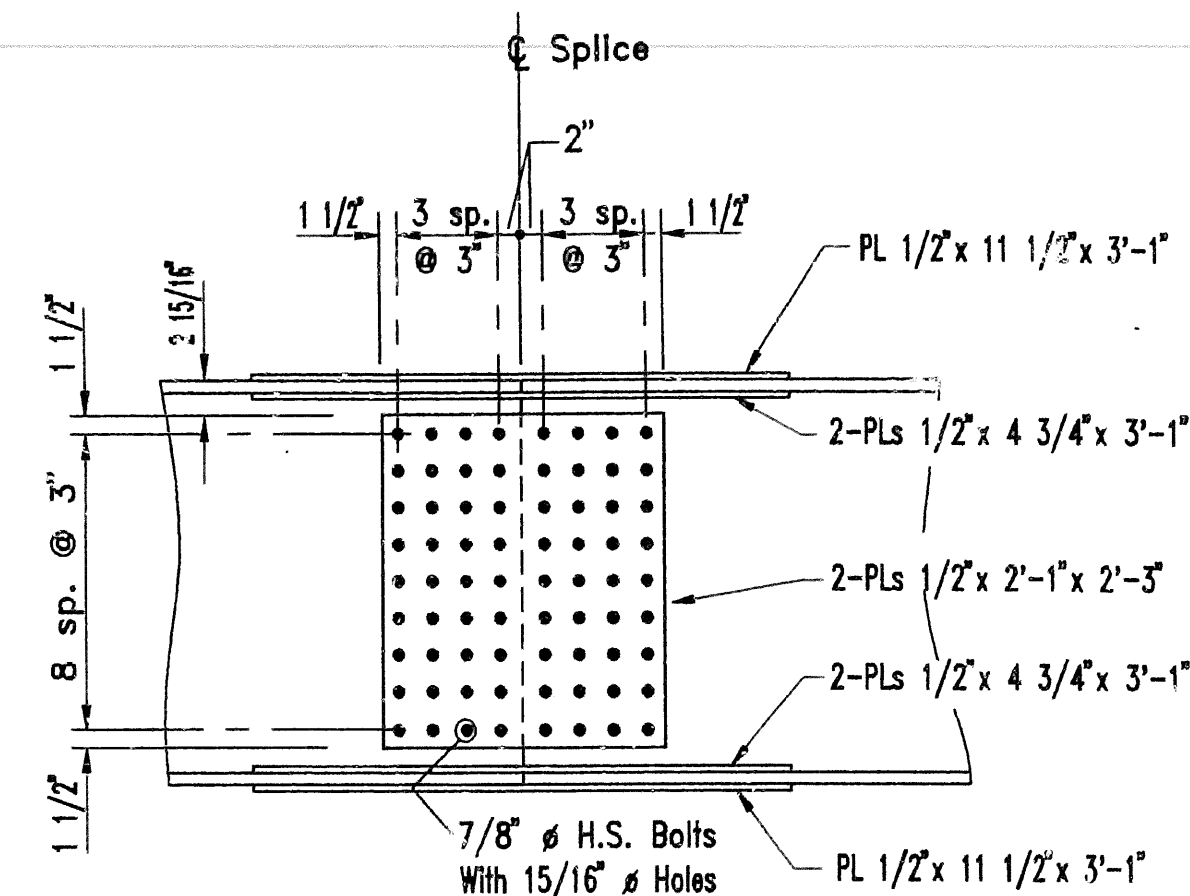
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: GE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

197	BRIDGE NO. 3724 A & B	DRAWING NO. 35745
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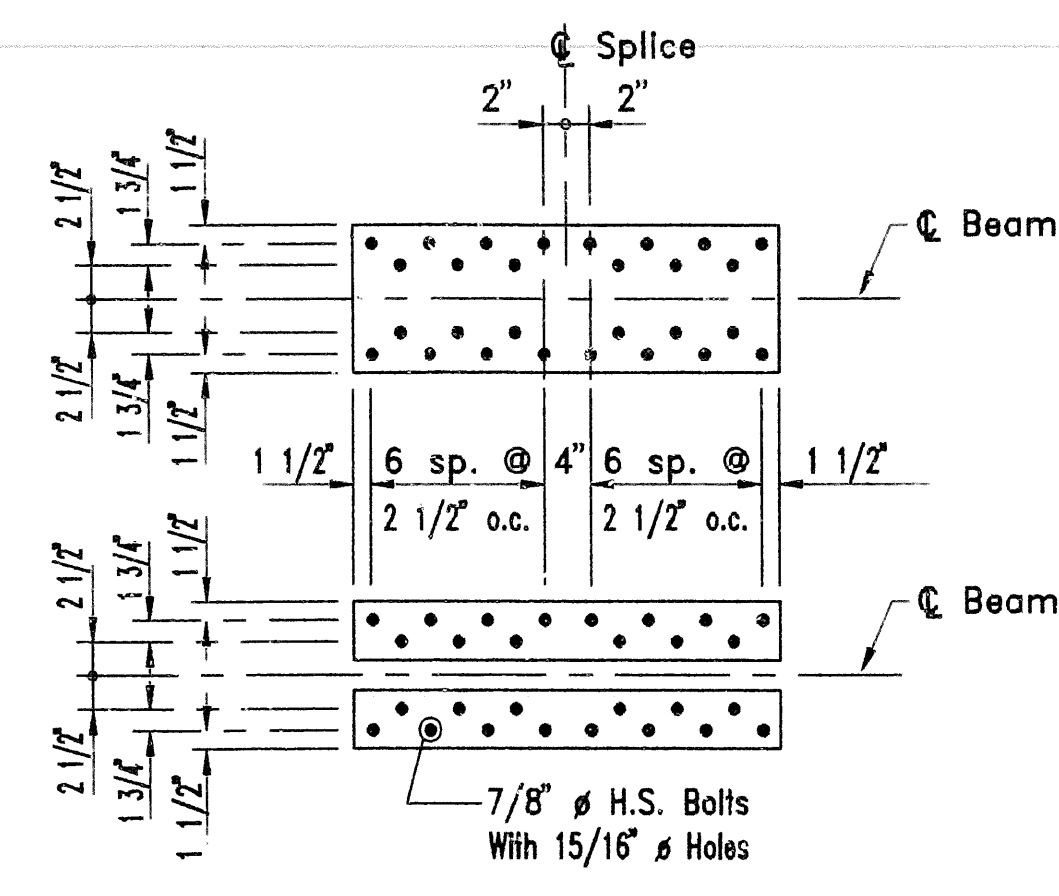


DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R10085	65	92
3724 A & B FRAMING DTLS								35746



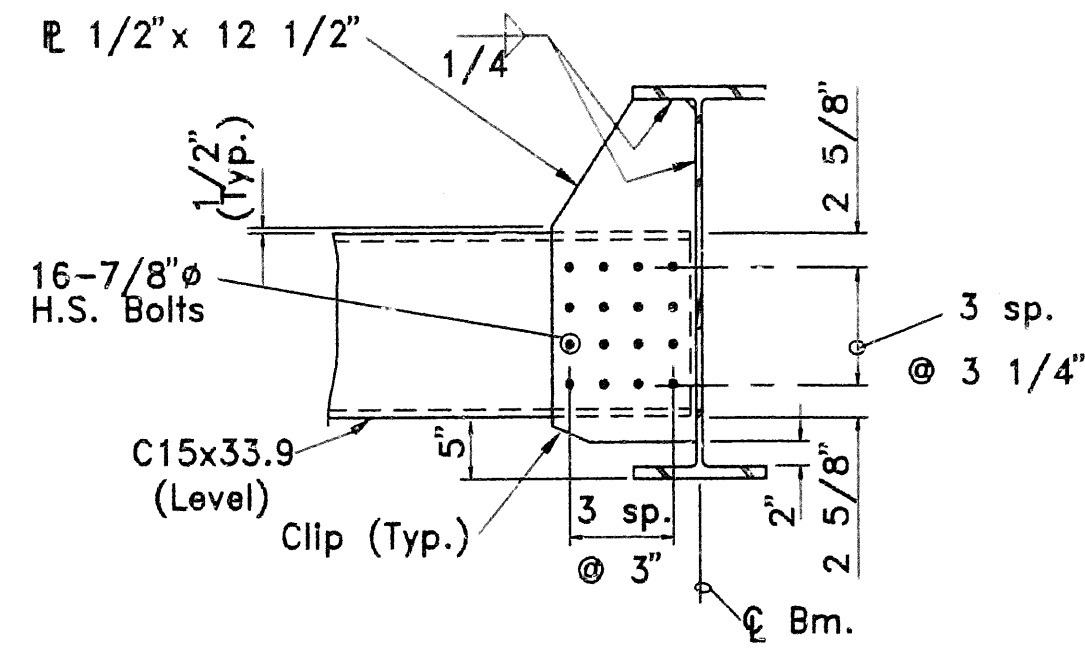
W-33 BEAM WEB SPLICE

Scale: 3/4"=1'-0"



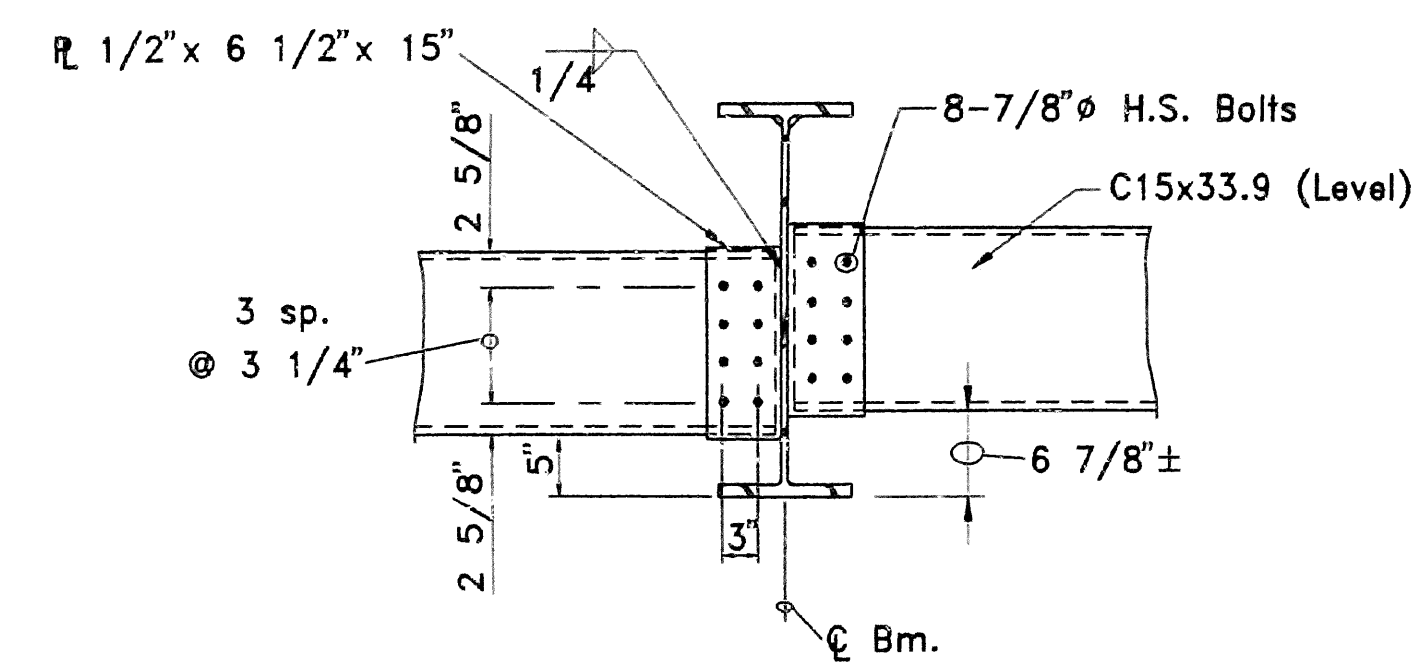
W-33 BEAM FLANGE SPLICE

Scale: 3/4"=1'-0"



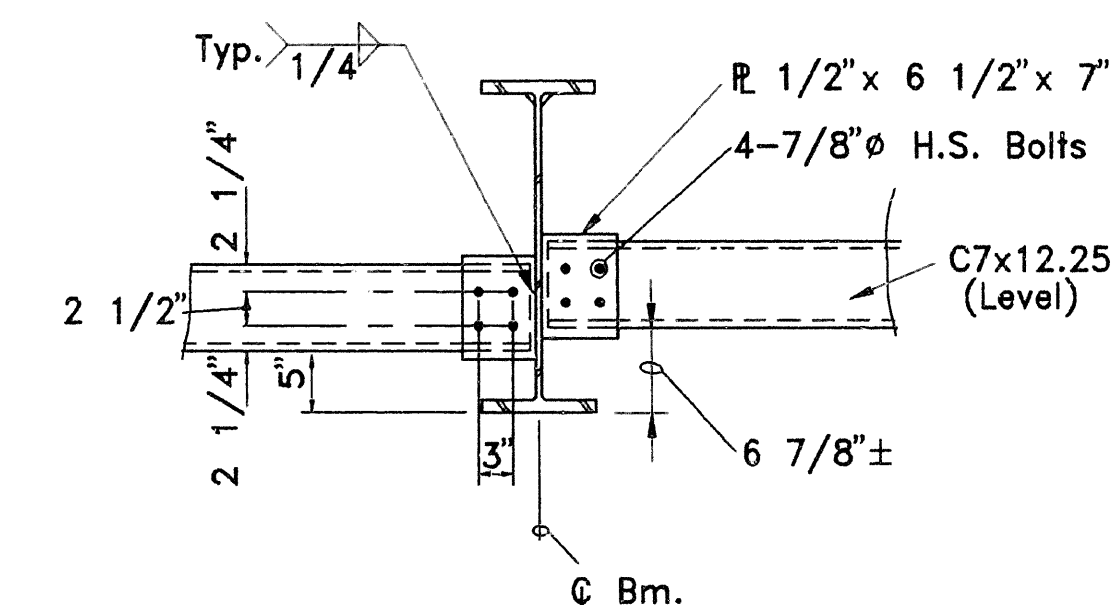
EXT. DIAPHRAGM CONNECTION

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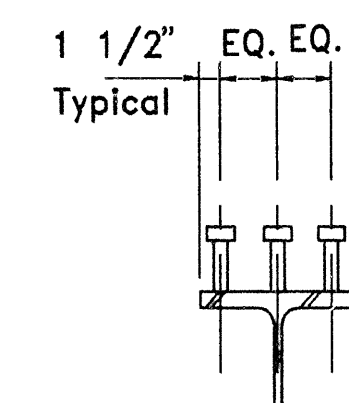
INT. DIAPHRAGM CONNECTION

Scale: 3/4"=1'-0"



END DIAPHRAGM CONNECTION

Scale: 1 1/2"=1'-0"

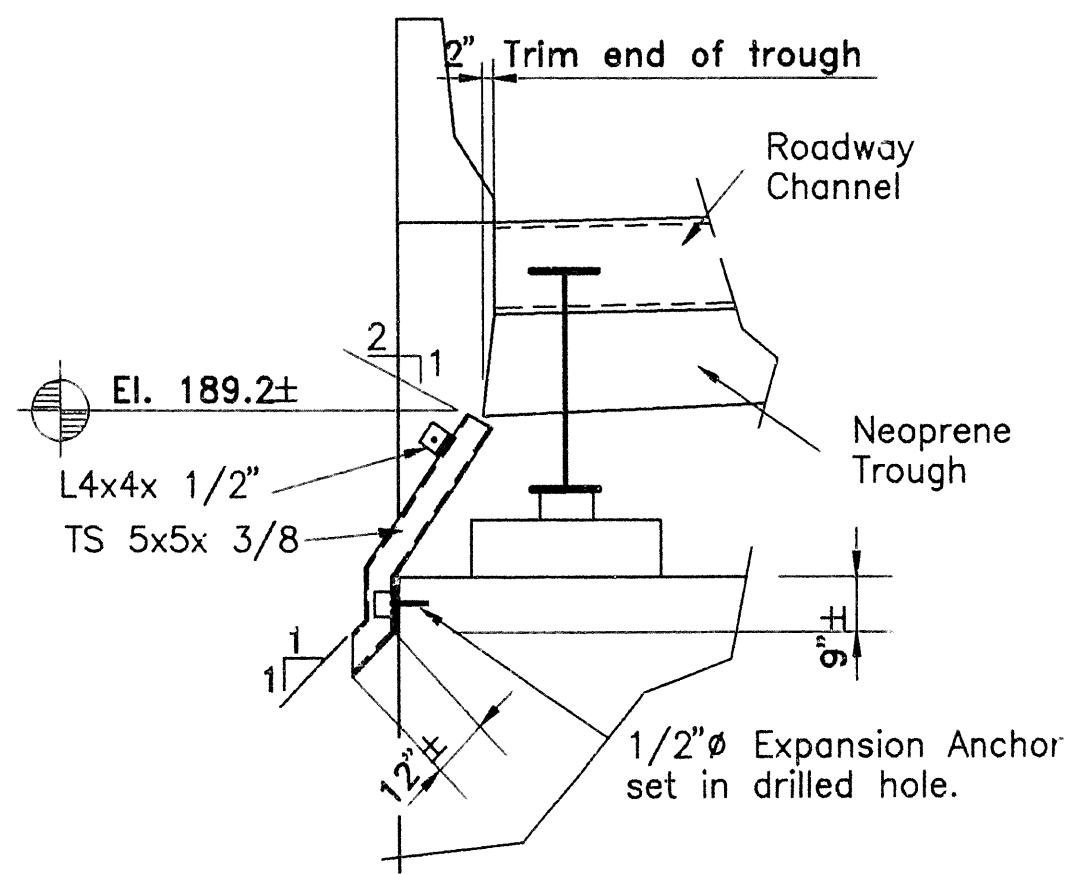


Stud Shear Connectors shown shall be 7/8" x 4" long, granular flux filled, solid fluxed or equal, and automatically end welded to the beam flange in accordance with the recommendations of the Manufacturer. 3/4" studs may be used in place of the 7/8" studs shown at the ratio of 1.361-3/4" studs in place of one 7/8" stud. 7/8" studs will be used as basis for measurement of structural steel in shear connectors. Maximum stud spacing= 24".

SHEAR CONNECTOR DETAIL

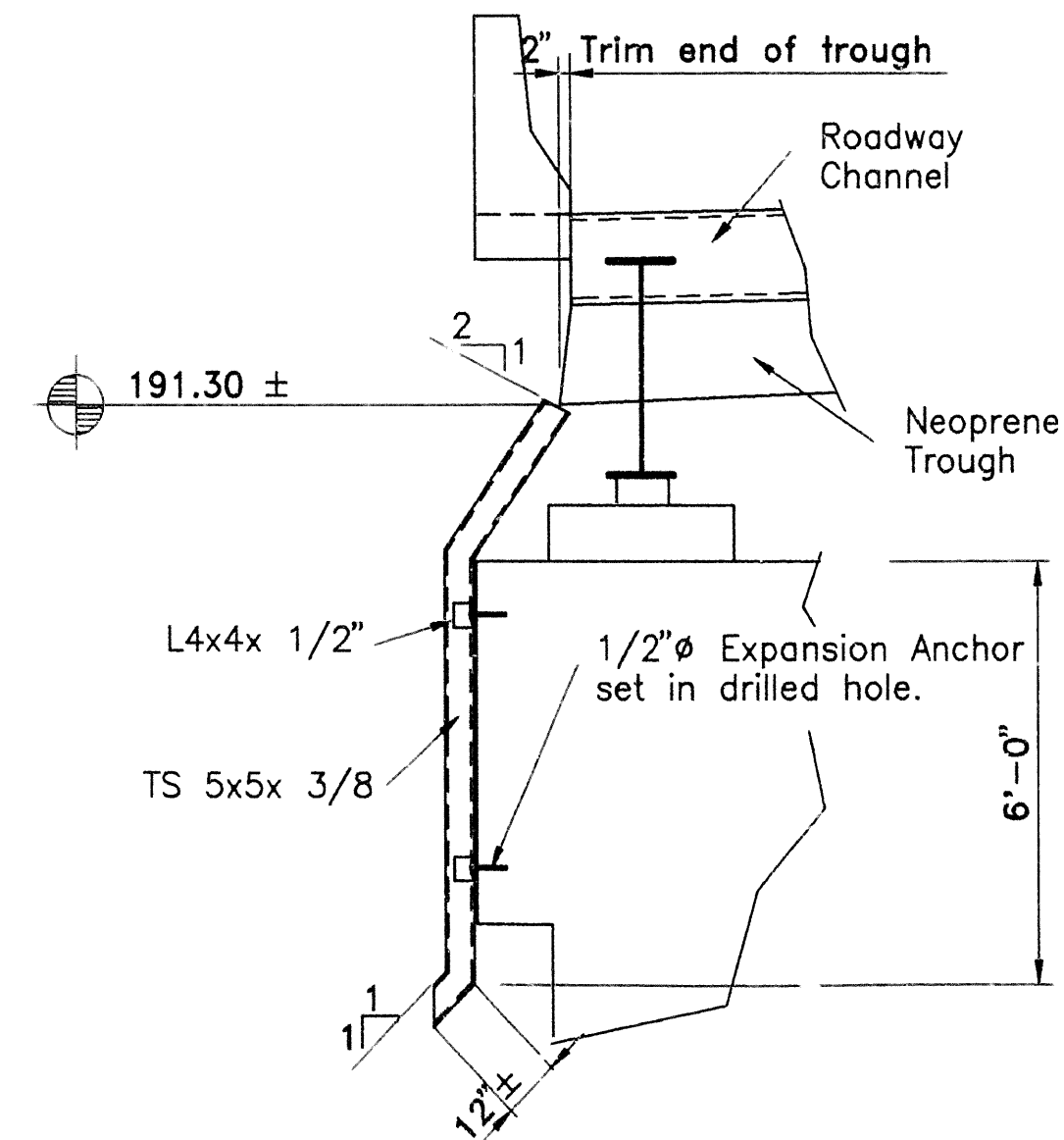
1"=1'-0"

- NOTES:
- All Splice Plates Shall Be AASHTO M270, GR.50W.
 - Field Connections To Be Made Using High Strength AASHTO M164 Type 3 Bolts (Size and Spacings As Shown On The Drawings). Bolts To Be Placed With The Heads On The Outside Face Of The Exterior Beam And On The Bottom Of The Beam Flanges.
 - Diaphragms Shall Be Installed As Beams Are Erected. Bolts In Diaphragm And splice connections Shall Be Properly Installed And Tightened In Accordance With Subsection 807.71 Of The Standard Specifications Prior To Pouring Of The Slabs.
 - Drains may be AASHTO M270, GR.36 Structural Steel and hot-dipped galv. after fabrication in accordance with AASHTO M232, or drains may be AASHTO M270, GR.50W Structural Steel. Measured and paid for as Structural Steel in Beam Spans (AASHTO M270, GR.50W). Galvanizing and anchor installation will not be paid for directly but will be considered subsidiary to the item of Structural Steel in Beam Spans (AASHTO M270, GR.50W).



DRAIN DETAIL AT END BENTS

3/8"=1'-0"



DRAIN DETAIL AT BENTS 8 & 16

3/8"=1'-0"

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

FRAMING DETAILS
1 OF 2
BRIDGE 3724 OVER BAYOU DEVIEU

MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

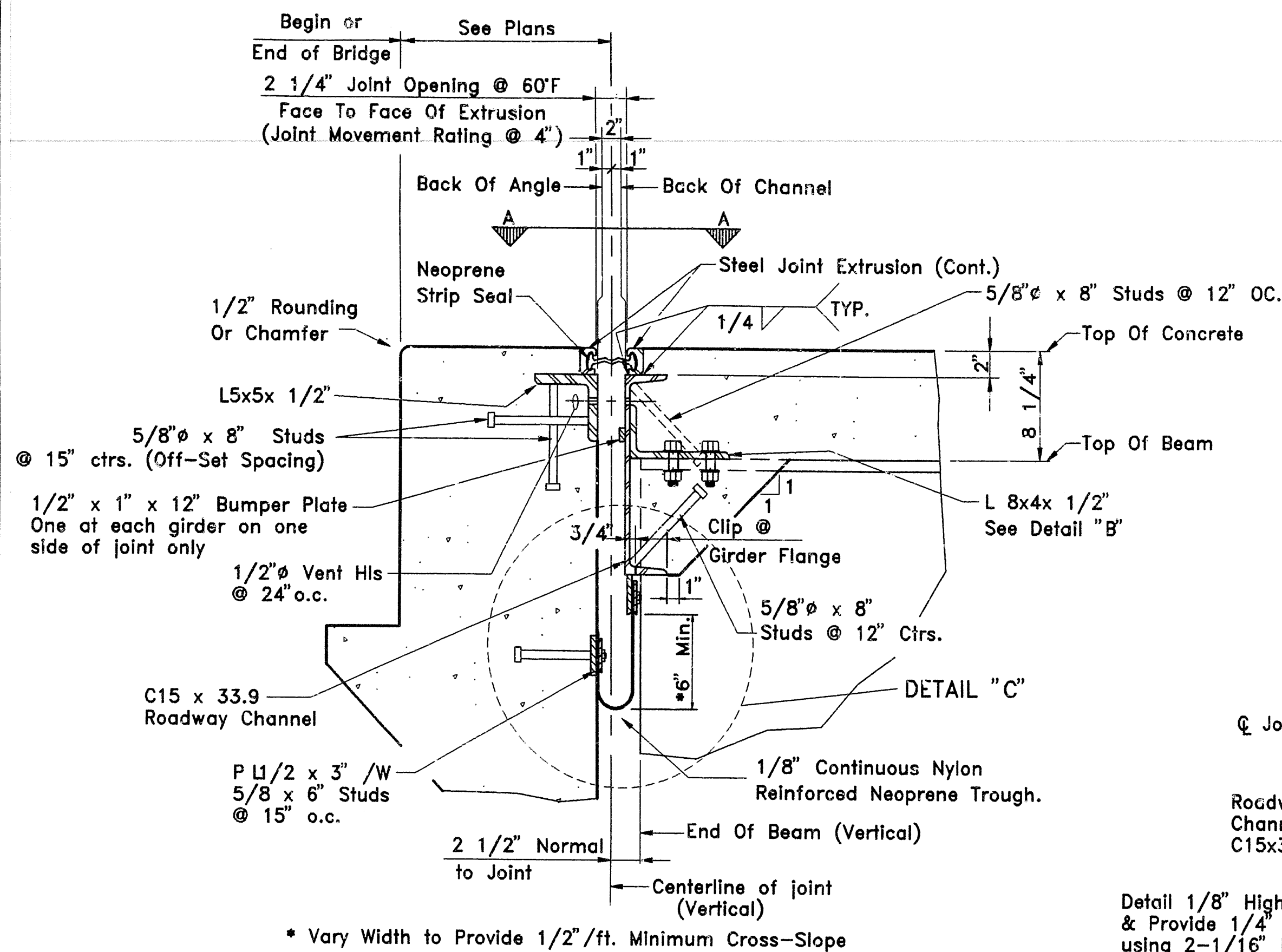
DRAWN BY: JHS DATE: 3/96
CHECKED BY: C.D.E. DATE: 4/97
DESIGNED BY: C.D.E. DATE: 9/94

SCALE: AS NOTED

BRIDGE NO. 3724 A & B

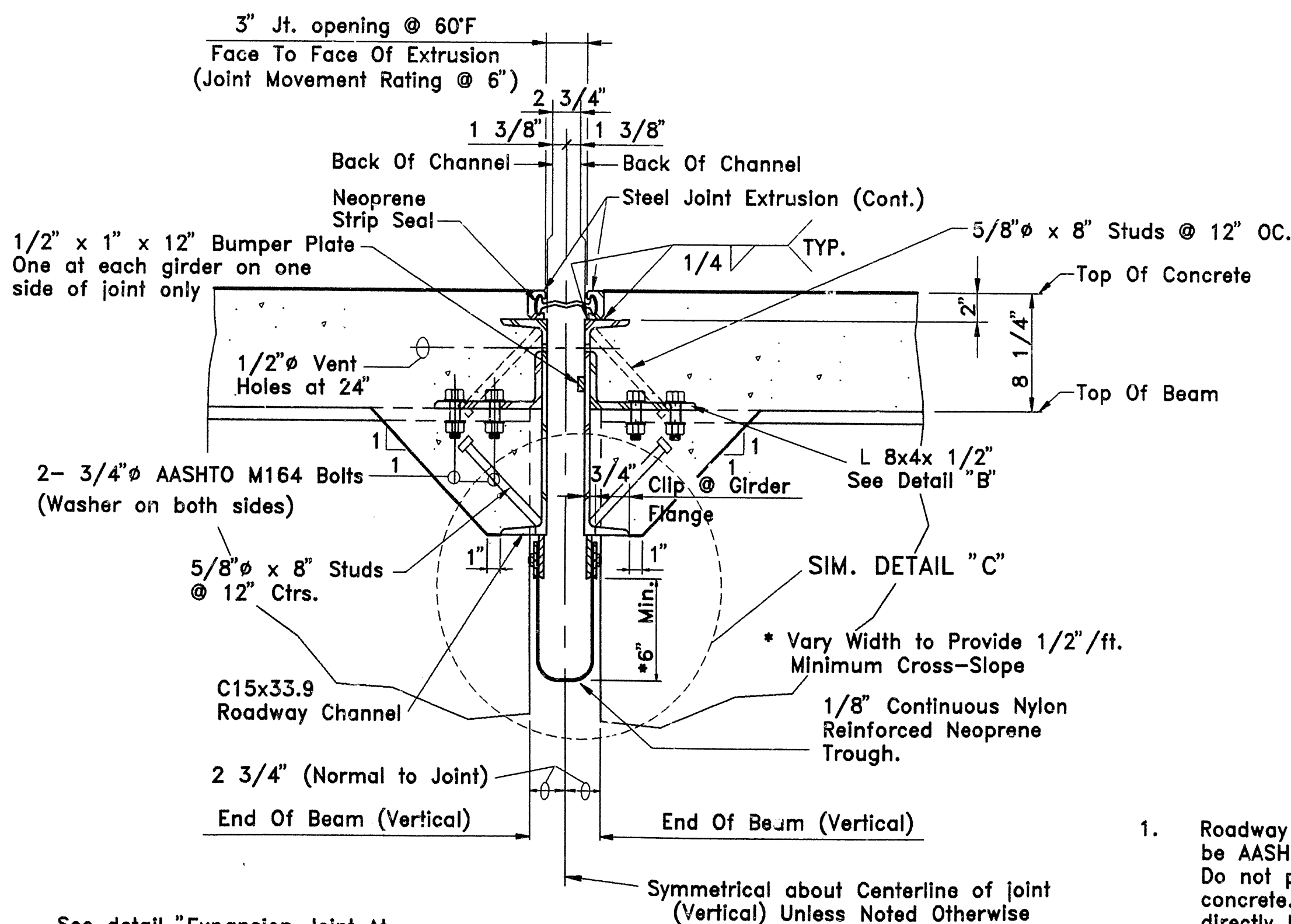
DRAWING NO. 35746

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	66	92	
				3724 A & B FRAMING DTLS				35747



EXPANSION JOINT AT END BENT

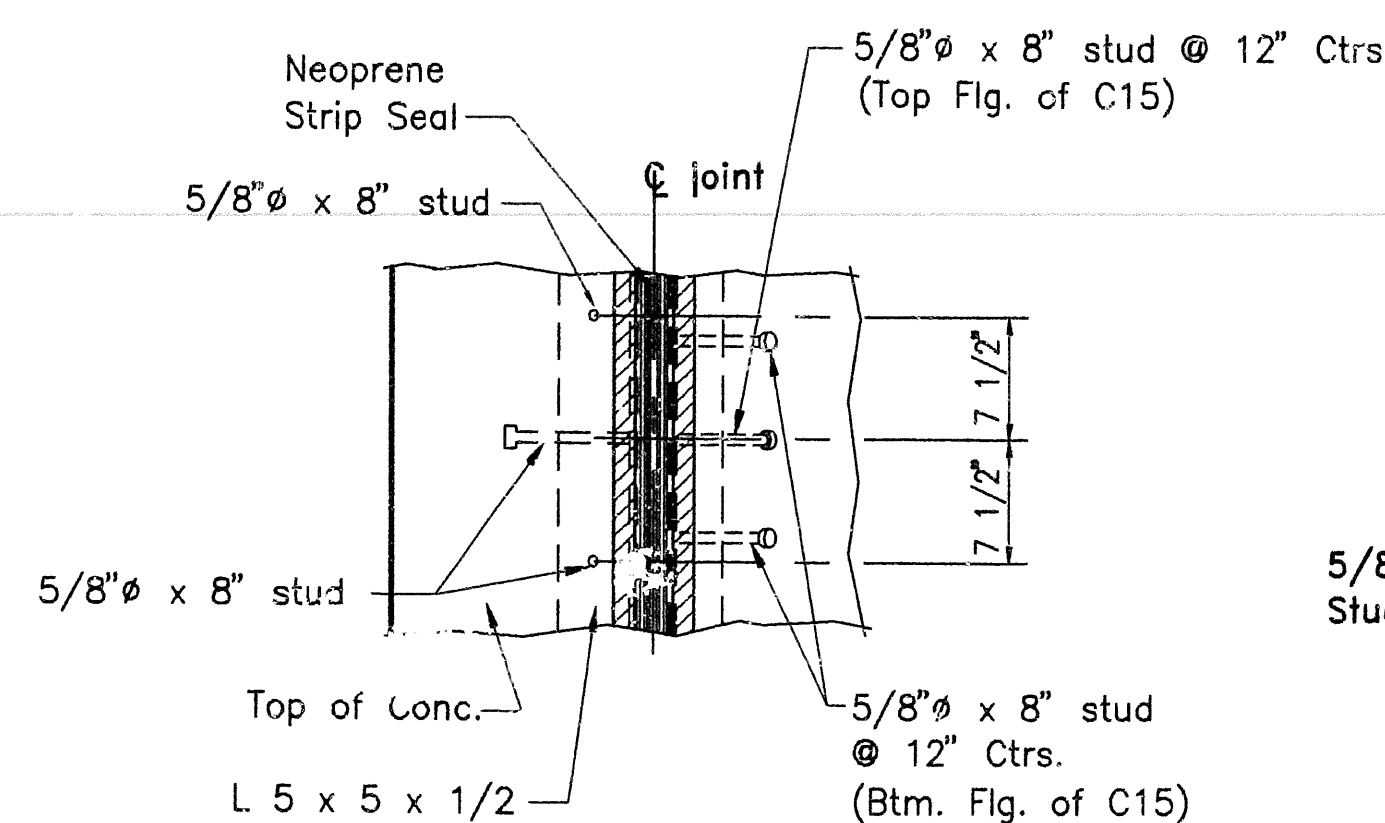
Scale: 1 1/2" = 1'-0"



EXPANSION JOINT AT INTERMEDIATE BENT

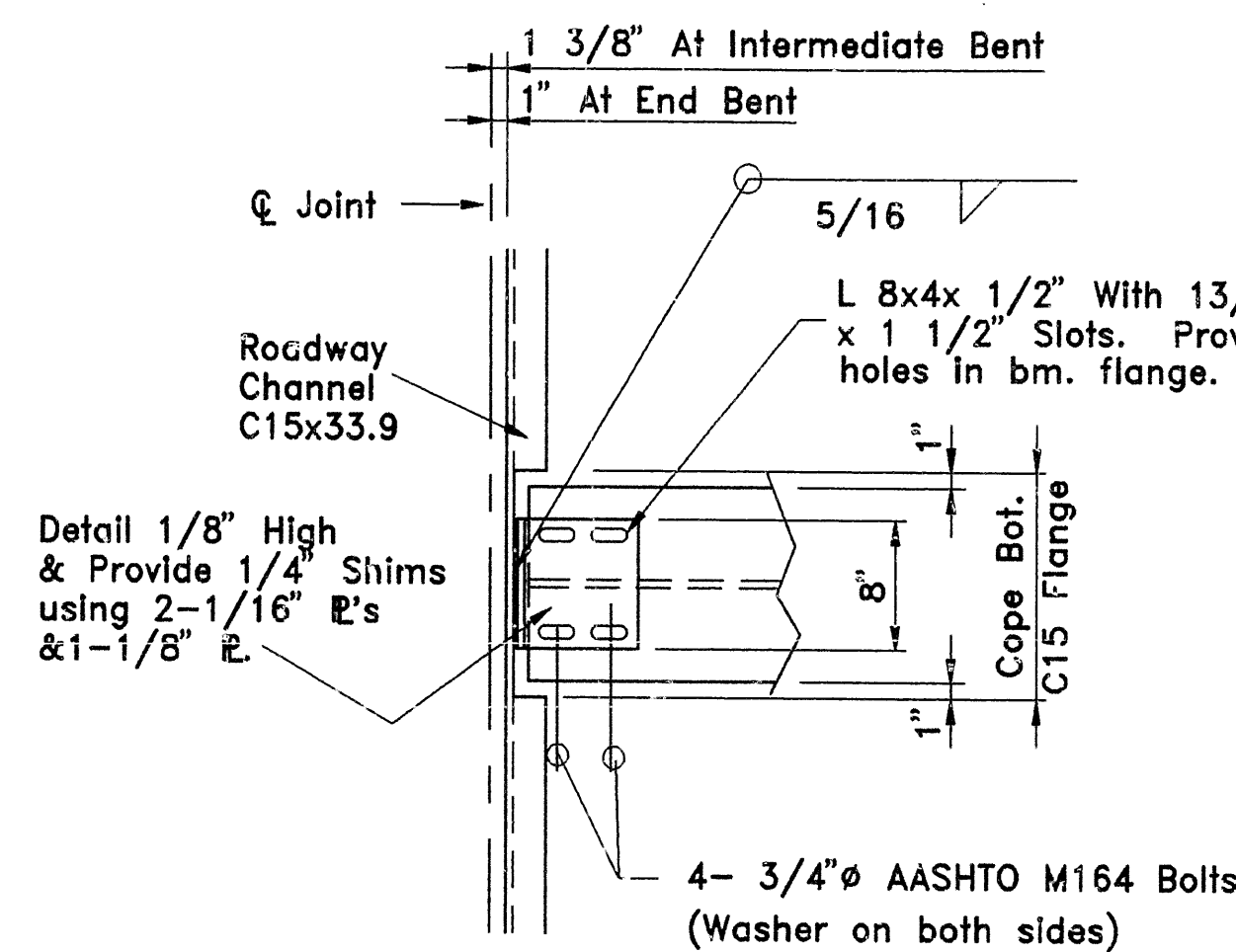
Scale: 1 1/2" = 1'-0"

See detail "Expansion Joint At End Bent" for additional notes.



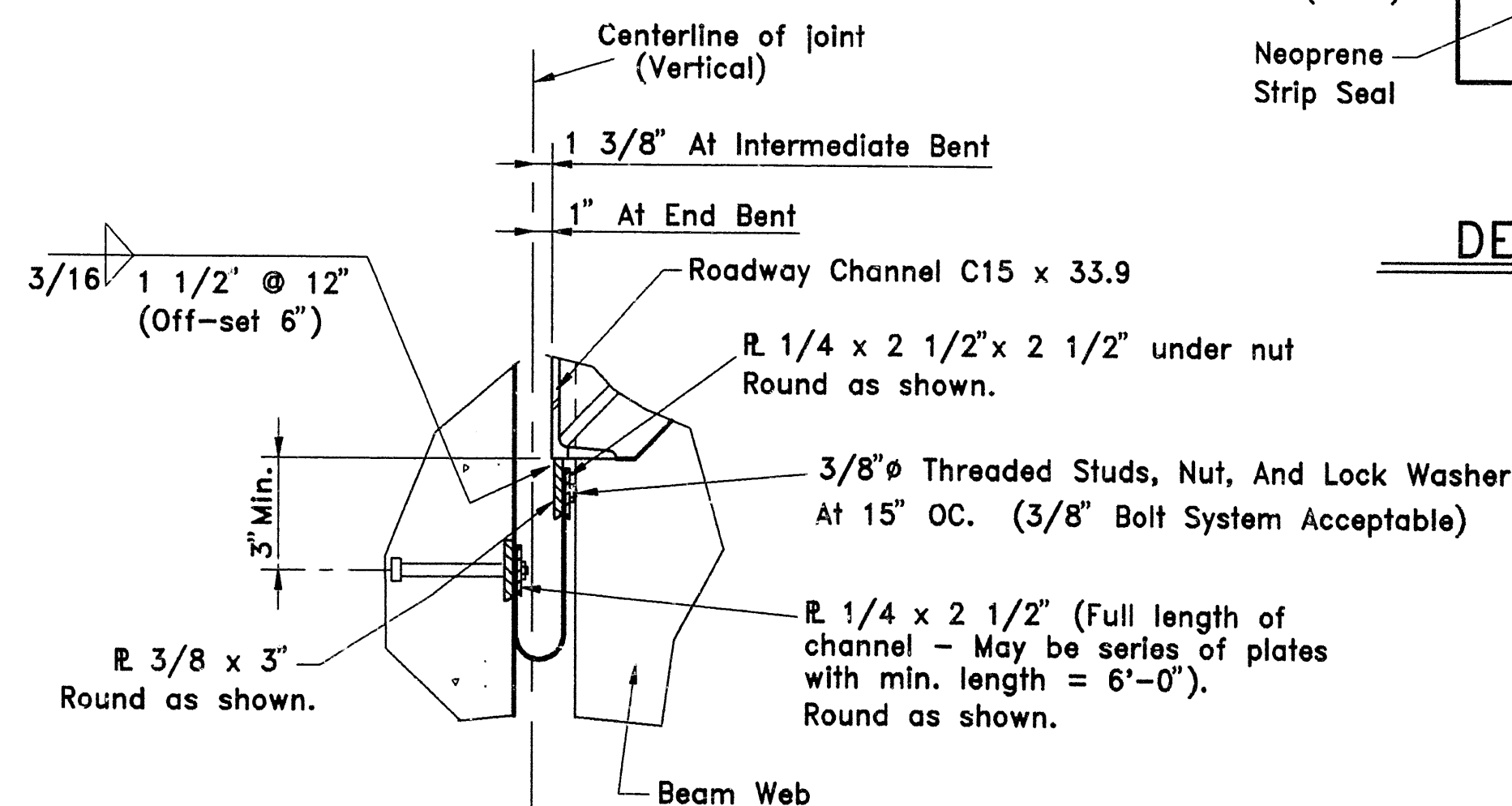
SECTION A-A

Scale: 1" = 1'-0"



DETAIL "B"

Scale: 1" = 1'-0"

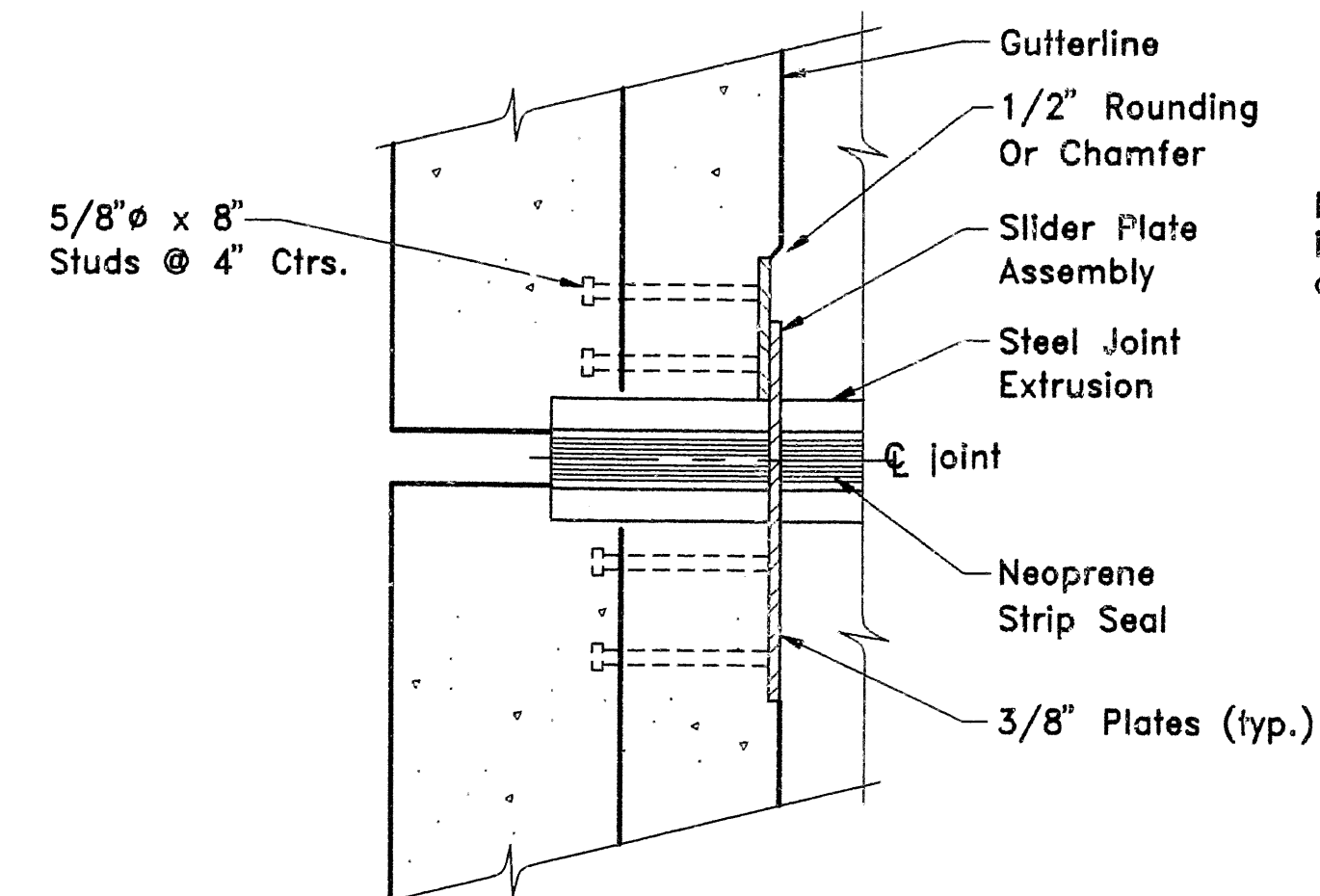


DETAIL "C"

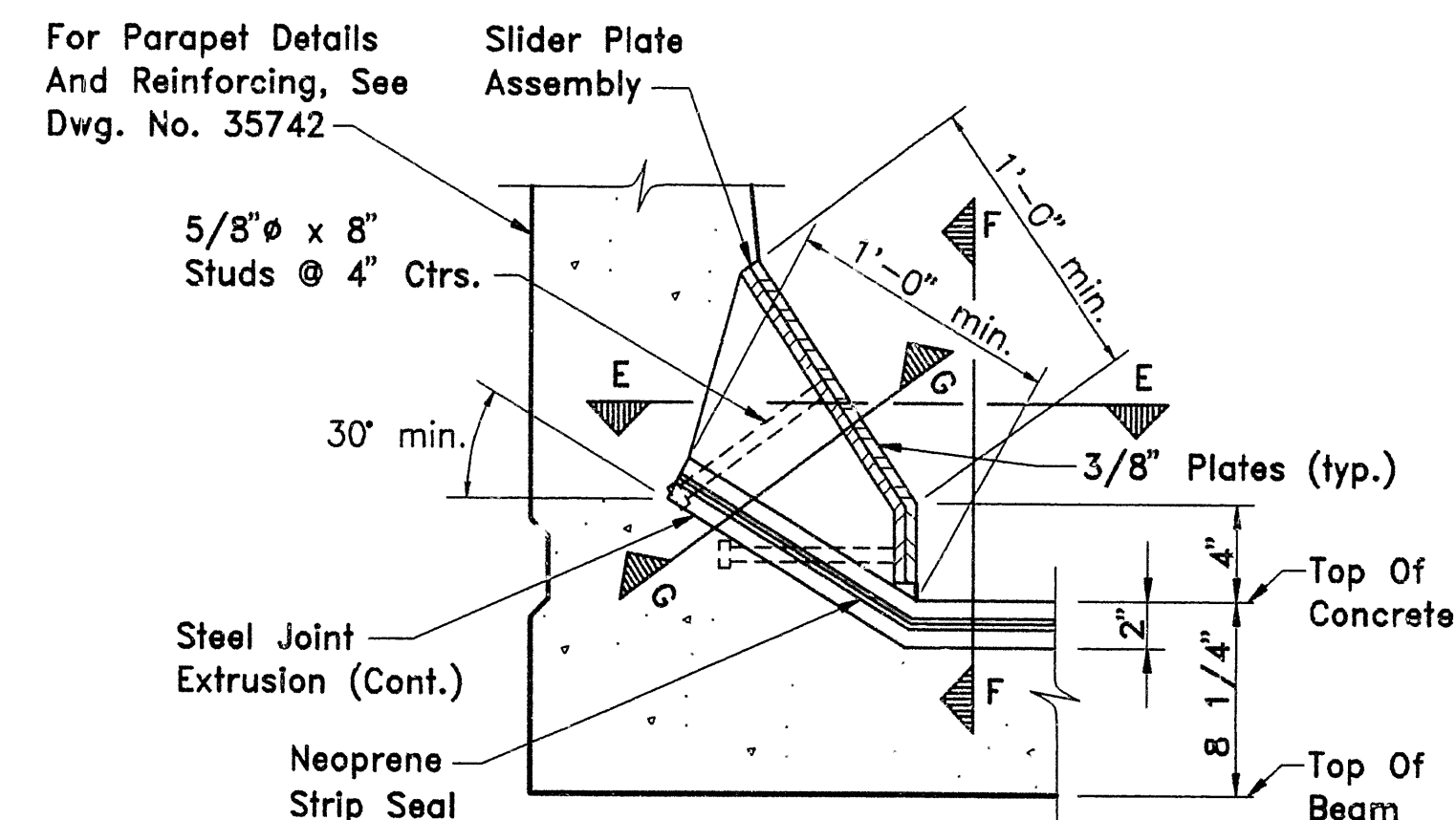
Scale: 1 1/2" = 1'-0"

NOTES:

- Roadway Channel and Embedded \bar{R} s and Angles to be AASHTO M270, GR.36 Material and to be painted. Do not paint areas in contact with or embedded in concrete. Material and painting will not be paid for directly but will be considered subsidiary to the Item Structural Steel in Beam Spans (AASHTO M270, GR.50W). Paint According To Section 638.
- 1/8" Continuous Nylon Reinforced Neoprene Trough material to meet subsection 807.20 of the Standard Specifications. Payment will be considered subsidiary to the Item of "Structural Steel in Beam Spans (AASHTO M270, GR.50W)".



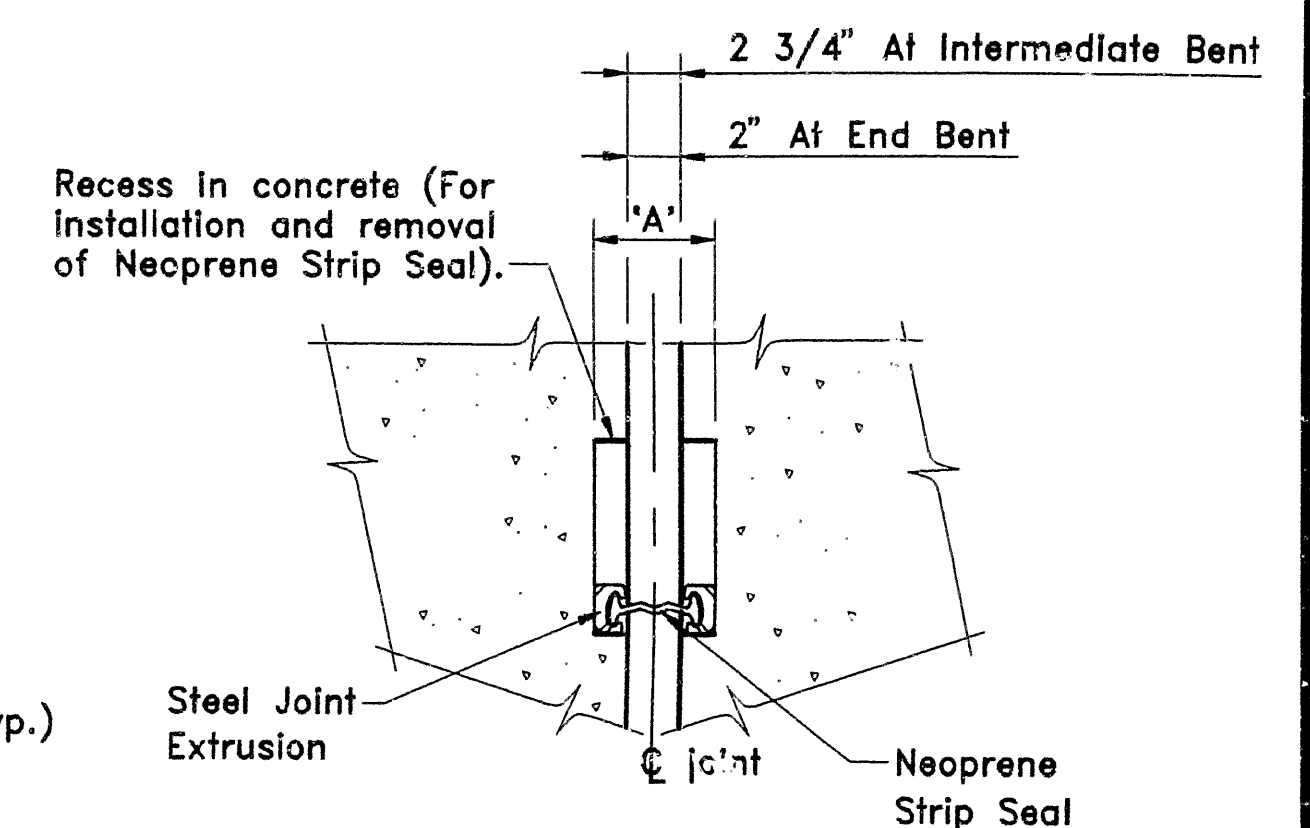
SECTION E-E



DETAIL "D"

JOINT DETAILS AT PARAPET

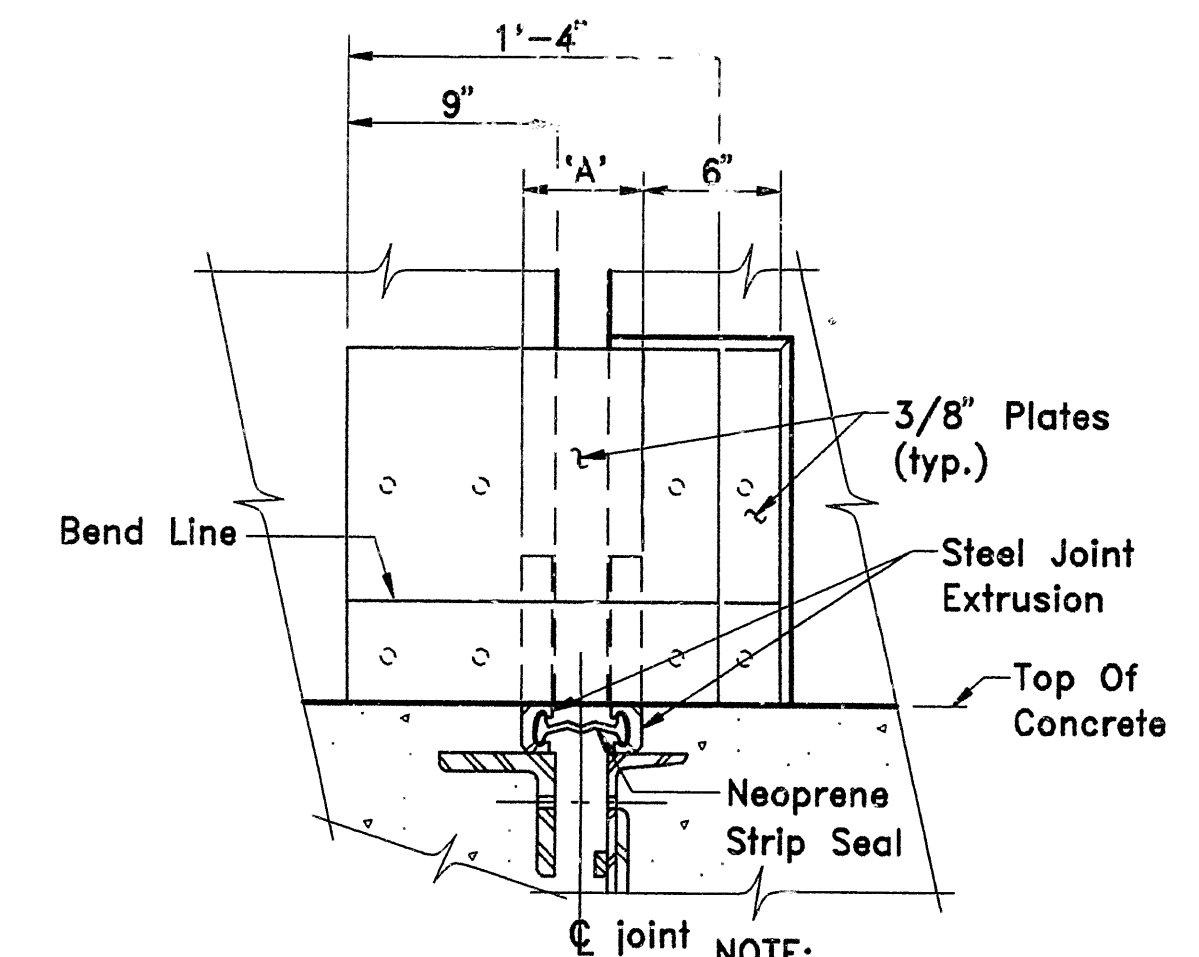
1 1/2" = 1'-0"



SECTION G-G

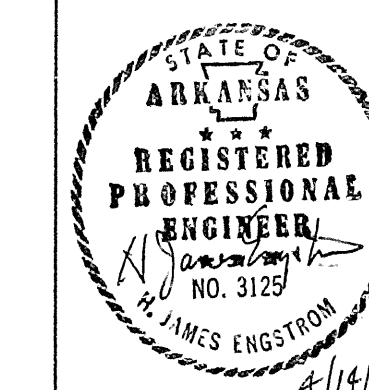
NOTE:

Dimension 'A' equals the width of opening in parapet at curb to allow for removal or repair of joint.



SECTION F-F

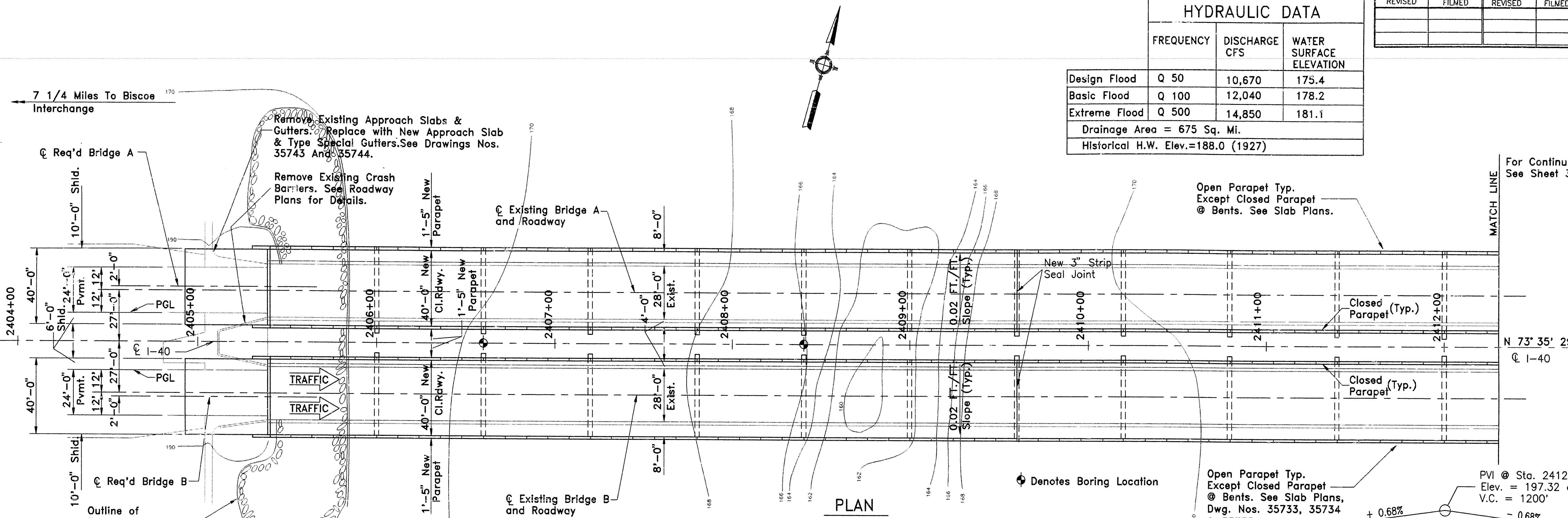
NOTE: Details at Int. Joints with Strip Seal are similar.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
FRAMING DETAILS 2 OF 2	
BRIDGE 3724 OVER BAYOU DEVIEW	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43	
ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: GE	DATE: 3/96
CHECKED BY: CDE	DATE: 4/97
DESIGNED BY: CDE	DATE: 9/94
SCALE: As Shown	
BRIDGE NO. 3724 A & B	DRAWING NO. 35747

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
						JOB NO. R10085	67	92
						3724 A & B LAYOUT		35748

HYDRAULIC DATA		
FREQUENCY	DISCHARGE CFS	WATER SURFACE ELEVATION
Design Flood Q 50	10,670	175.4
Basic Flood Q 100	12,040	178.2
Extreme Flood Q 500	14,850	181.1
Drainage Area = 675 Sq. Mi.		
Historical H.W. Elev.=188.0 (1927)		



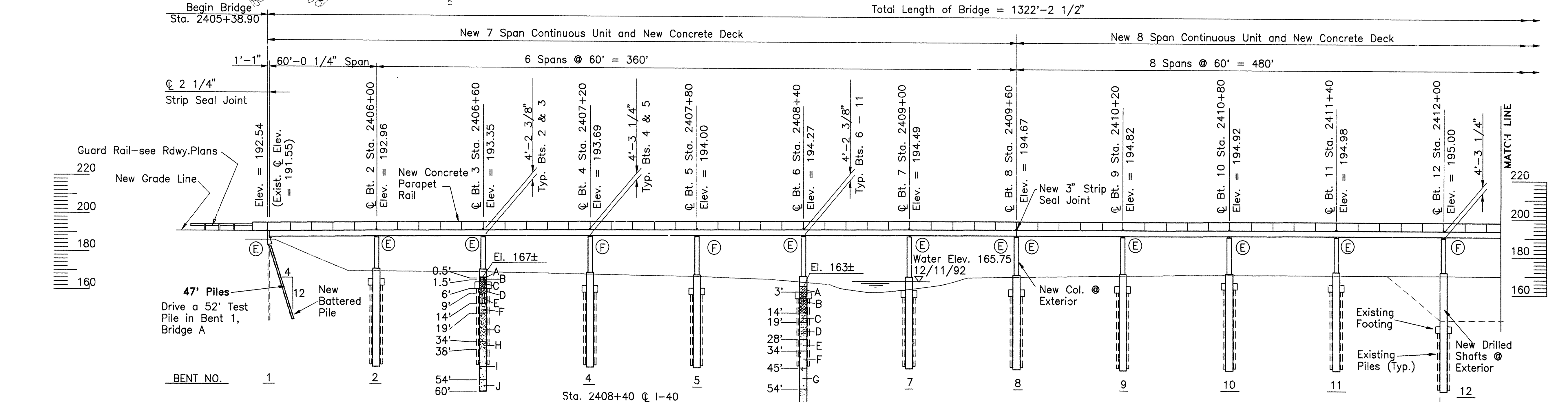
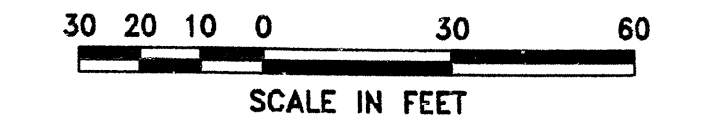
BORING LOG - Sta. 2406+60

- A-Loose brown silty sand
- B-Firm gray & brown silty clay with sand.
- C-Stiff tan & gray silty clay with ferrous stains & nodules.
- D-Stiff tan & gray clay with silt pockets & ferrous nodules.
- clayey sand layer, 8.5 to 9 ft.
- E-Loose gray silty fine sand.
- F-Medium-dense gray fine to medium sand with trace fine to coarse gravel.
- G-Dense below 19'.
- H-Medium dense, 34 to 38 ft.
- I-Dense gray fine to medium sand with trace fine to coarse gravel.
- J-With coarse sand below 54'.

BORING LOG - Sta. 2408+40

- A-Stiff brown sandy clay with roots & sand seams & pockets.
- B-Loose tan to gray clayey fine sand with silty clay seams.
- C-Medium dense gray fine sand with occasional clay seams.
- D-Dense below 19'.
- E-Dense grayish brown fine to medium sand with trace fine gravel.
- F-Medium-dense, 34 to 54 ft.
- G-Dense to medium-dense grayish brown fine to medium sand.
- H-Dense below 54 ft.
- I-Increasing fine gravel.
- J-Dense gray sandy fine to coarse gravel.

- Note:
- Stations & Dimensions Based Upon Existing Plans.
 - (E) Indicates Expansion Bearing.
 - (F) Indicates Fixed Bearing.
 - Bridge A & B are the Same Except as Noted.
 - Roadway Elevations Shown are at New Bridges.
 - Vertical Dimensions are from Bridge to top of Low Riser.
 - For General Notes See Drawing 35717.
 - For Additional Data and Continuation of Bridge See Drawing 35749.



BENT NO.	1	2	3	4	5	6	7	8	9	10	11	12
Sta. 2406+60 @ I-40												
14'-15'-N=21												
19'-20'-N=34												
24'-25'-N=33												
29'-30'-N=40												
34'-35'-N=27												
39'-40'-N=34												
44'-45'-N=31												
49'-50'-N=72												
54'-55'-N=33												
59'-60'-N=42 (10" Bounce)												

ELEVATION		BRIDGE "A" & "B"	
2405+00	2406+00	2407+00	2408+00
0.5'-1.5'-N=11			
4'-5'-N=5			
9'-10'-N=9			
14'-15'-N=14			
19'-20'-N=39			
24'-25'-N=48			
29'-30'-N=39			
34'-35'-N=15			
39'-40'-N=24			
44'-45'-N=24			
49'-50'-N=28			
54'-55'-N=44			
59'-60'-N=56			
64'-65'-N=74			
69'-70'-N=43			
74'-75'-N=30			
79'-80'-N=43			
84'-85'-N=43			
89'-90'-N=41			
94'-95'-N=50/6"			

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

STRUCTURE PLAN & ELEVATION
1 of 2 ALT. C.
BRIDGE 3724 OVER BAYOU DEVIEU

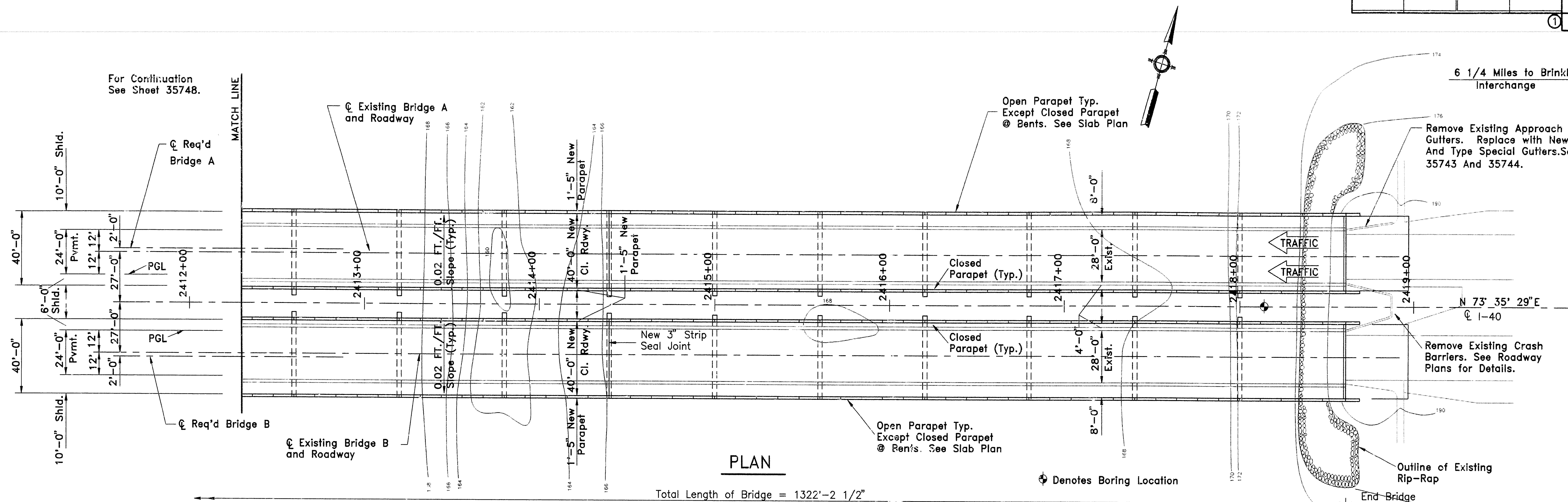
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 8-94

BRIDGE NO. 3724 A & B DRAWING NO. 35748

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085		68	92

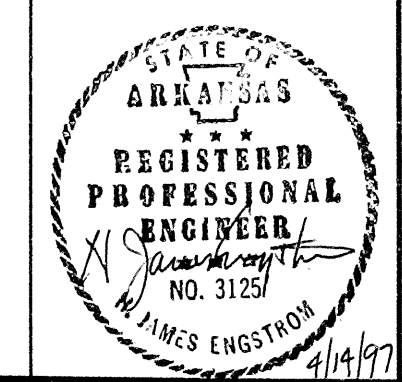
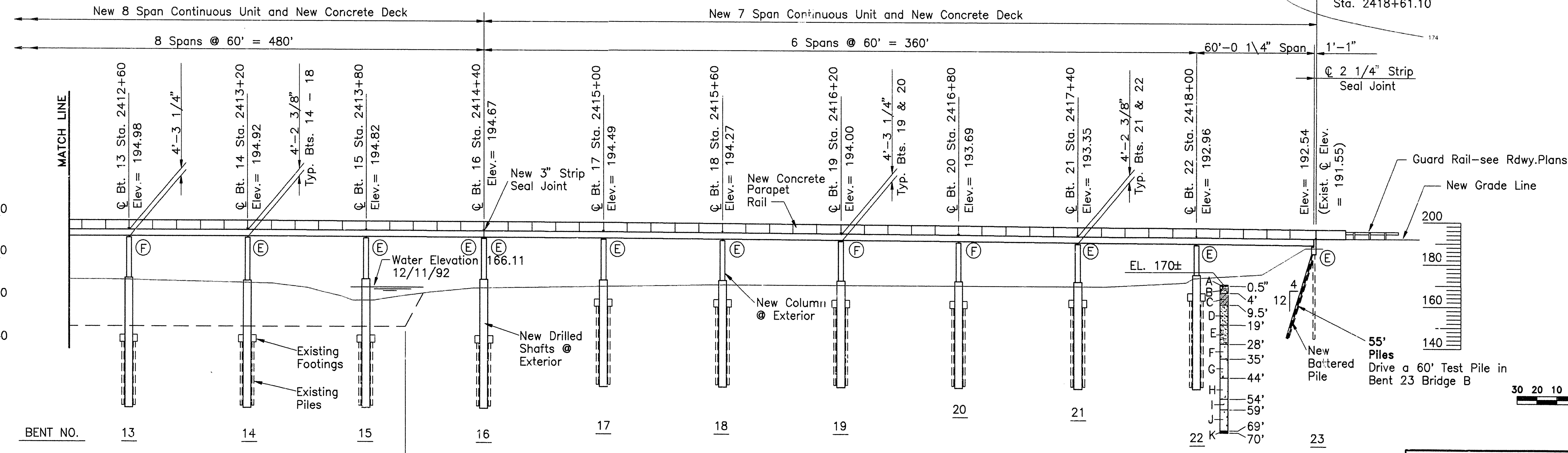
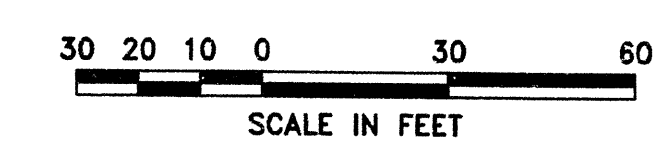
① 3724 A & B LAYOUT 35749



BORING LOG - Sta. 2418+14

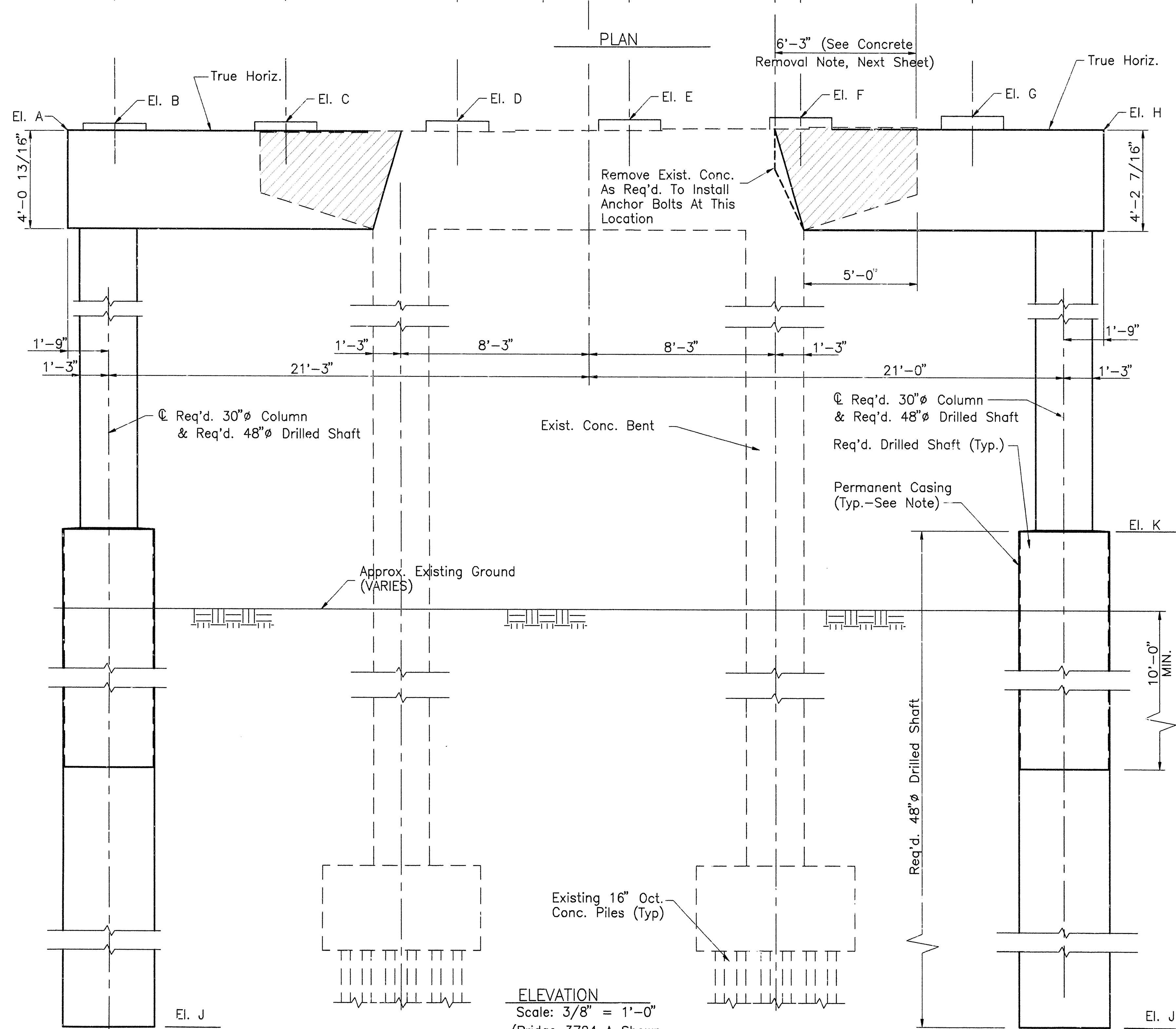
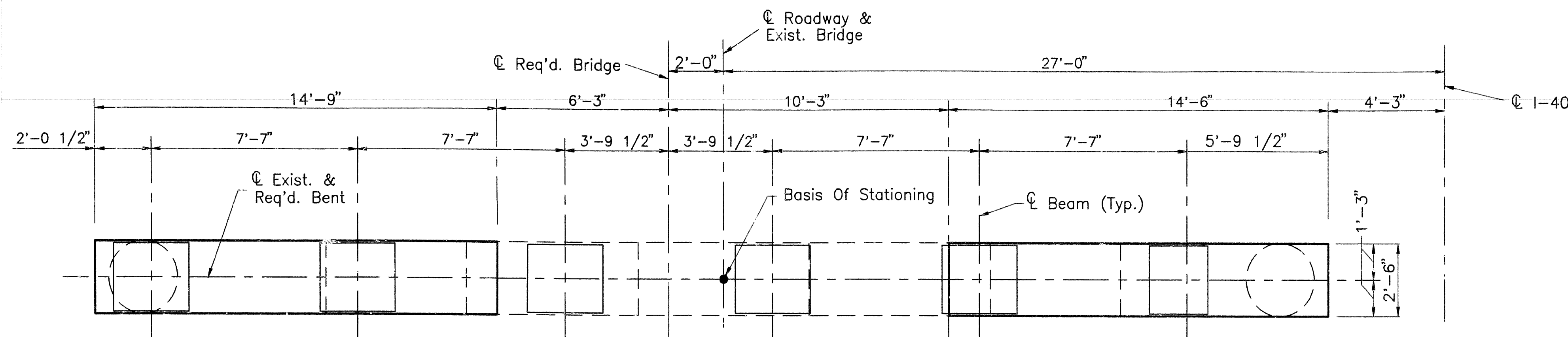
- A-Brown sandy clay with gravel & concrete (fill).
- B-Stiff reddish tan sandy clay.
- C-Firm to stiff gray silty clay with ferrous nodules & roots.
- D-Loose tan & gray fine sand with ferrous stains.
- E-medium-dense, wet below 19 feet.
- F-Dense gray fine to medium sand with trace gravel.
- G-Dense tan fine to medium sand with trace gravel.
- H-medium-dense to dense below 44 feet.
- I-loose, 54 to 59 feet.
- J-medium-dense to dense
- K-Dense gray coarse sand with fine gravel.

- Note:
1. Stations & Dimensions Based Upon Existing Plans.
 2. (E) Indicates Expansion Bearing.
 3. (F) Indicates Fixed Bearing.
 4. Bridge A & B are the Same Except as Noted.
 5. Roadway Elevations Shown are at New Bridges.
 6. Vertical Dimensions are from @ Bridge to top of Low Riser.
 7. For General Notes See Drawing 35717.
 8. For Additional Data and Continuation of Bridge See Drawing 35748.



ENGSTROM/MODJESKI AND MASTERS CONSULTING ENGINEERS	
STRUCTURE PLAN & ELEVATION 2 of 2 ALT. C. BRIDGE 3724 OVER BAYOU DEVIEU	
MONROE COUNTY INTERSTATE ROUTE 40 SEC. 43 ARKANSAS STATE HIGHWAY COMMISSION LITTLE ROCK, ARK.	
DRAWN BY: JHS DATE: 3/96 CHECKED BY: CDE DATE: 4/97 DESIGNED BY: CDE DATE: 8-94	SCALE: 1" = 30'-0"
BRIDGE NO. 3724 A & B	DRAWING NO. 35749

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		R10085	71	92
				① 3724 A & B	BENT	35752		



Bridge 3724 A										
Table Of Variables										
Bent	2	3	4	5	6	7	8	9	10	11
Sta.	2406+00	2406+60	2407+20	2407+80	2408+40	2409+00	2409+60	2410+20	2410+80	2411+40
A	187.95	188.30	188.67	189.28	189.25	189.50	189.69	189.78	189.88	189.97
B	188.76	189.15	189.42	189.73	190.07	190.29	190.47	190.62	190.72	190.78
C	188.91	189.30	189.57	189.88	190.22	190.44	190.62	190.77	190.87	190.93
D	189.06	189.45	189.72	190.03	190.37	190.59	190.77	190.92	191.02	191.08
E	189.21	189.60	189.87	190.18	190.52	190.74	190.92	191.07	191.17	191.23
F	189.36	189.75	190.02	190.33	190.67	190.89	191.07	191.22	191.32	191.38
G	189.51	189.90	190.17	190.48	190.82	191.04	191.22	191.37	191.47	191.53
H	188.05	188.50	188.78	189.48	189.41	189.64	189.78	189.96	190.03	190.11
J	120	120	120	120	120	120	120	120	120	120
K	172	170	170	170	170	170	170	170	170	170
*L	140	138	138	135	134	135	135	138	143	137

Bridge 3724 B										
Table Of Variables										
Bent	2	3	4	5	6	7	8	9	10	11
Sta.	2406+00	2406+60	2407+20	2407+80	2408+40	2409+00	2409+60	2410+20	2410+80	2411+40
A	187.92	188.31	188.68	188.94	189.26	189.44	189.68	189.83	189.85	189.76
B	188.76	189.15	189.42	189.73	190.07	190.29	190.47	190.62	190.72	190.78
C	188.91	189.30	189.57	189.88	190.22	190.44	190.62	190.77	190.87	190.93
D	189.06	189.45	189.72	190.03	190.37	190.59	190.77	190.92	191.02	191.08
E	189.21	189.60	189.87	190.18	190.52	190.74	190.92	191.07	191.17	191.23
F	189.36	189.75	190.02	190.33	190.67	190.89	191.07	191.22	191.32	191.38
G	189.51	189.90	190.17	190.48	190.82	191.04	191.22	191.37	191.47	191.53
H	188.07	188.45	188.75	189.10	189.36	189.59	189.80	189.93	190.02	190.08
J	120	120	120	120	120	120	120	120	120	120
K	172	170	170	170	170	170	170	170	170	170
*L	140	138	138	135	134	135	135	138	141	137

Bridge 3724 A						
Table Of Variables						
Bent	17	18	19	20	21	22
Sta.	2415+00	2415+60	2416+20	2416+80	2417+40	2418+00
A	189.49	189.26	188.99	188.68	188.31	187.95
B	190.29	190.07	189.73	189.42	189.15	188.76
C	190.44	190.22	189.88	189.57	189.30	188.91
D	190.59	190.37	190.03	189.72	189.45	189.06
E	190.74	190.52	190.18	189.87	189.60	189.21
F	190.89	190.67	190.33	190.02	189.75	189.36
G	191.04	190.82	190.48	190.17	189.90	189.51
H	189.62	189.40	189.15	188.83	188.47	188.08
J	120	120	120	120	120	120
K	170	170	170	170	170	172
*L	134	134	134	134	135	138

Bridge 3724 B						
Table Of Variables						
Bent	17	18	19	20	21	22
Sta.	2415+00	2415+60	2416+20	2416+80	2417+40	2418+00
A	189.45	189.24	189.00	188.69	188.32	187.91
B	190.29	190.07	189.73	189.42	189.15	188.76
C	190.44	190.22	189.88	189.57	189.30	188.91
D	190.59	190.37	190.03	189.72	189.45	189.06
E	190.74	190.52	190.18	189.87	189.60	189.21
F	190.89	190.67	190.33	190.02	189.75	189.36
G	191.04	190.82	190.48	190.17	189.90	189.51
H	189.60	189.36	189.17	188.80	188.43	188.05
J	120	120	120	120	120	120
K	170	170	170	170	170	172
*L	134	134	134	134	135	138

NOTES

1. Drilled Shaft Loads Are 140 Tons Each.
2. *L= Average Existing Pile Tip Elevation.
At Minimum, Req'd. Drilled Shafts Shall
Extend To This Elevation. Ref. Grubbs,
Garner, & Hoskyns Geotechnical Report
Dated November 1993.

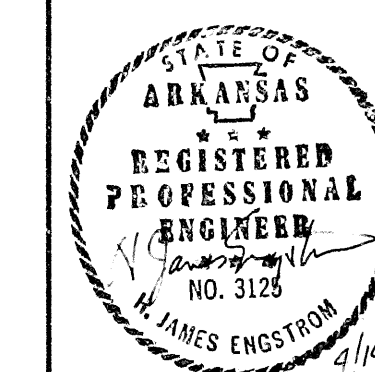
Exist. Bent Modifications & Repairs

All Exist. Anchor Bolts On Cap To Remain Shall Be Cut To 2 Inches Below The Top Of Exist. Cap. Holes Shall Be Completely Filled With Portland Cement Grout Or An Approved Non-Shrink Grout Prior To Construction Of Risers.

Notes:

1. For Details Of Risers And Anchor Bolts, See Dwg. No. 35731.
2. Permanent Casing Shall Be 48"ø, 1/2" Wall Pipe Conforming To ASTM A252, Grade 1. Permanent Casing Length May Be Increased As Directed By The Engineer.
3. For Repair Of Existing Bents See Dwg. No. 35750 & 35751.

In Lieu Of Permanent Casing Shown On The Plans, The Contractor May Use A Galvanized Corrugated Steel Pipe With A 48" Inside Dia. The Proposed Corrugated Pipe And Construction Procedure Must Be Approved By The Engineer.



ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

EXISTING BENT MODIFICATIONS
BENTS 2-11 & 17-22 ALT. C.
BRIDGE 3724 OVER BAYOU DEVUE

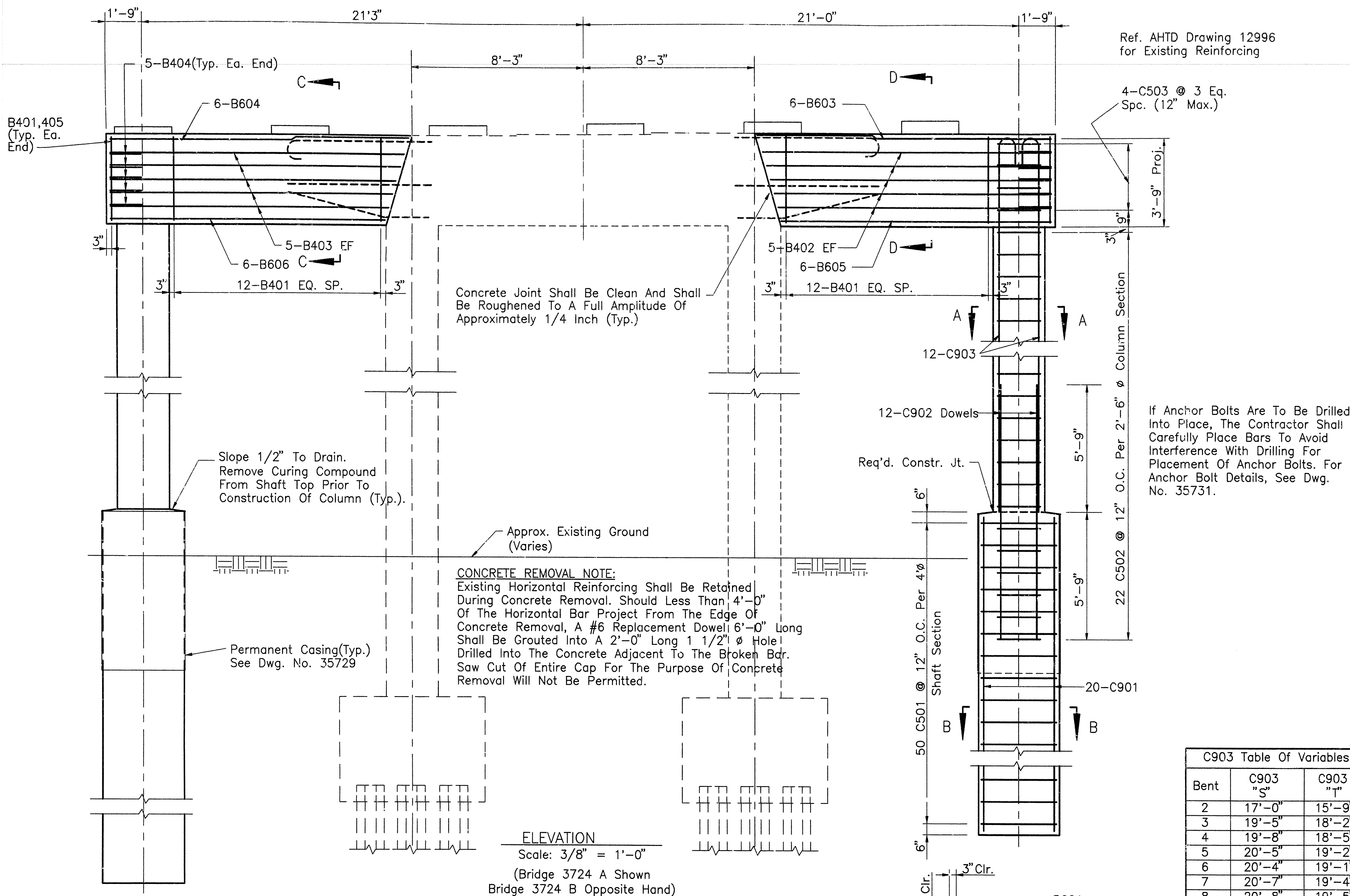
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

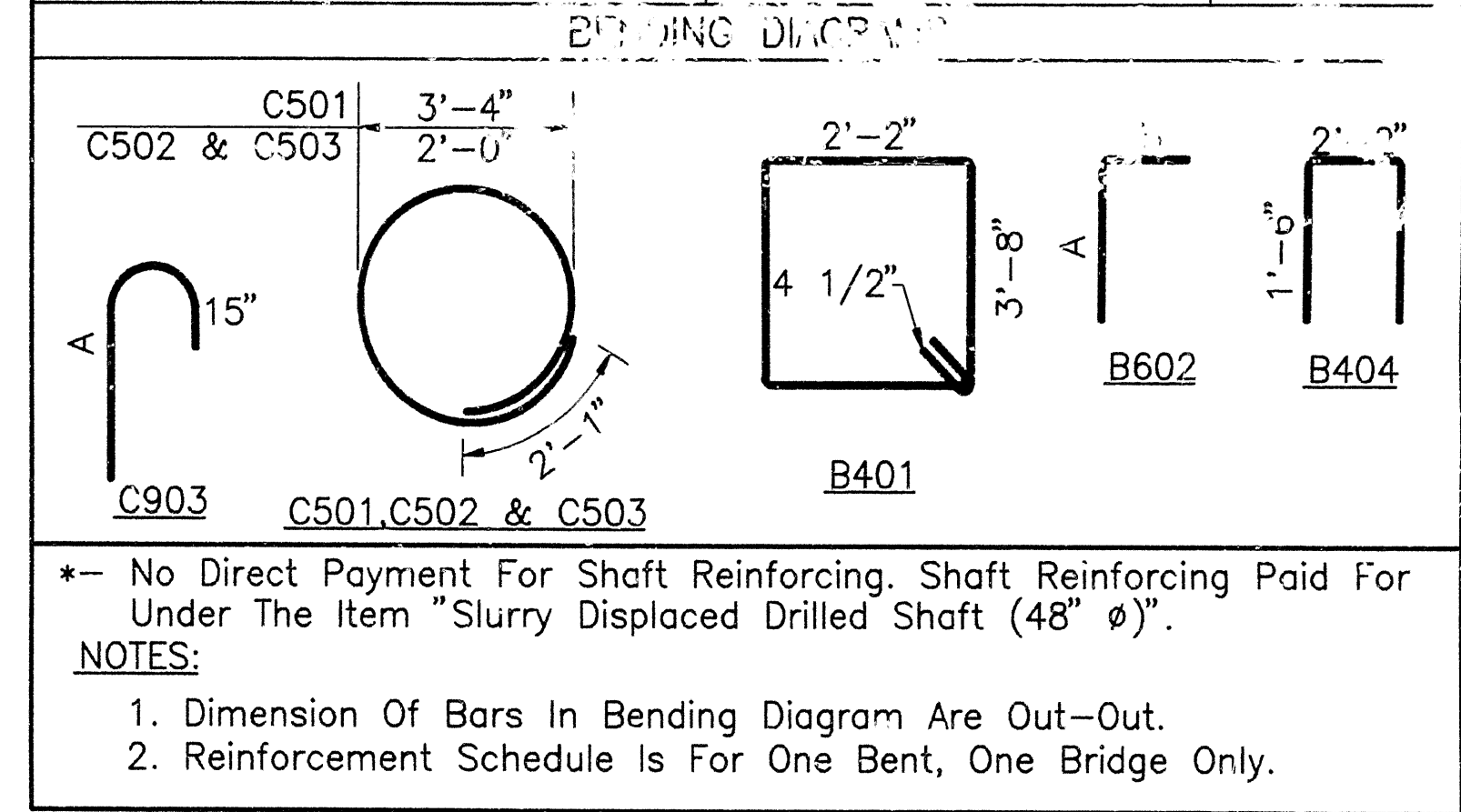
SCALE: $3/8" = 1'-0"$

BRIDGE NO. 3724 A & B	DRAWING NO. 35752
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DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	R10085	72	92	
				3724 A & B	BENT		35753	



REINFORCEMENT SCHEDULE									
MARK	NO.	LENGTH	PIN DIA.	A	B	C			
* C501	100	12'-6 1/2"		See Diagram					
C502	44	8'-4 1/2"		See Diagram					
C503	8	8'-4 1/2"		See Diagram					
* C901	40	49'-6"	Str.						
C902	24	11'-6"	Str.						
C903	24	"S"	9 1/2"	"T"					
B401	26	12'-5"	2"						
B402	10	2 Sets of 5	Str.	13'-2" to 13'-11"	Step 2 1/4"				
B403	10	2 Sets of 5	Str.	13'-5" to 14'-2"	Step 2 1/4"				
B404	10	5'-2"	2"						
B405	2	3'-8"	Str.						
B601	24	2'-6"	Str.						
B602	48	4'-9"	4 1/2"	2'-11"	1'-10"				
B603	6	14'-2"	Str.						
B604	6	14'-5"	Str.						
B605	6	12'-11"	Str.						
B606	6	13'-2"	Str.						



- NOTES:
1. Dimension Of Bars In Bending Diagram Are Out-Out.
 2. Reinforcement Schedule Is For One Bent, One Bridge Only.

C903 Table Of Variables		
Bent	C903 "S"	C903 "T"
2	17'-0"	15'-9"
3	19'-5"	18'-2"
4	19'-8"	18'-5"
5	20'-5"	19'-2"
6	20'-4"	19'-1"
7	20'-7"	19'-4"
8	20'-8"	19'-5"
9	20'-11"	19'-8"
10	20'-11"	19'-8"
11	21'-0"	19'-9"
17	20'-6"	19'-3"
18	20'-4"	19'-1"
19	20'-1"	18'-10"
20	19'-9"	18'-6"
21	19'-4"	18'-1"
22	17'-0"	15'-9"

- NOTES:
1. For Bent Layout, See Dwg. No. 35752.
 2. For Details Of Permanent Casing, See Dwg. No. 35752.

ENGSTROM/MODJESKI AND MASTERS
CONSULTING ENGINEERS

EXISTING BENT MODIFICATIONS
REINF. BENTS 2-11 & 17-22 ALT. C.
BRIDGE 3724 OVER BAYOU DEVUE

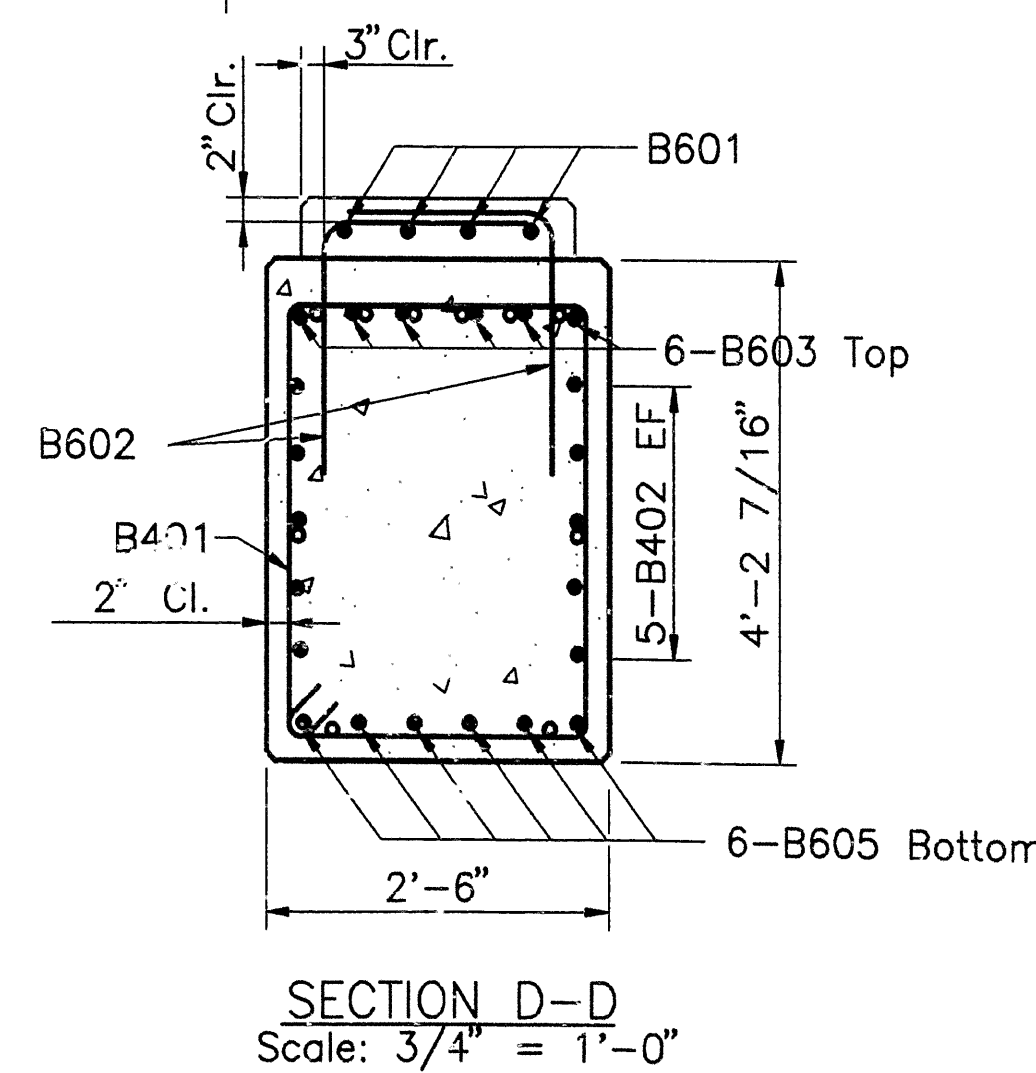
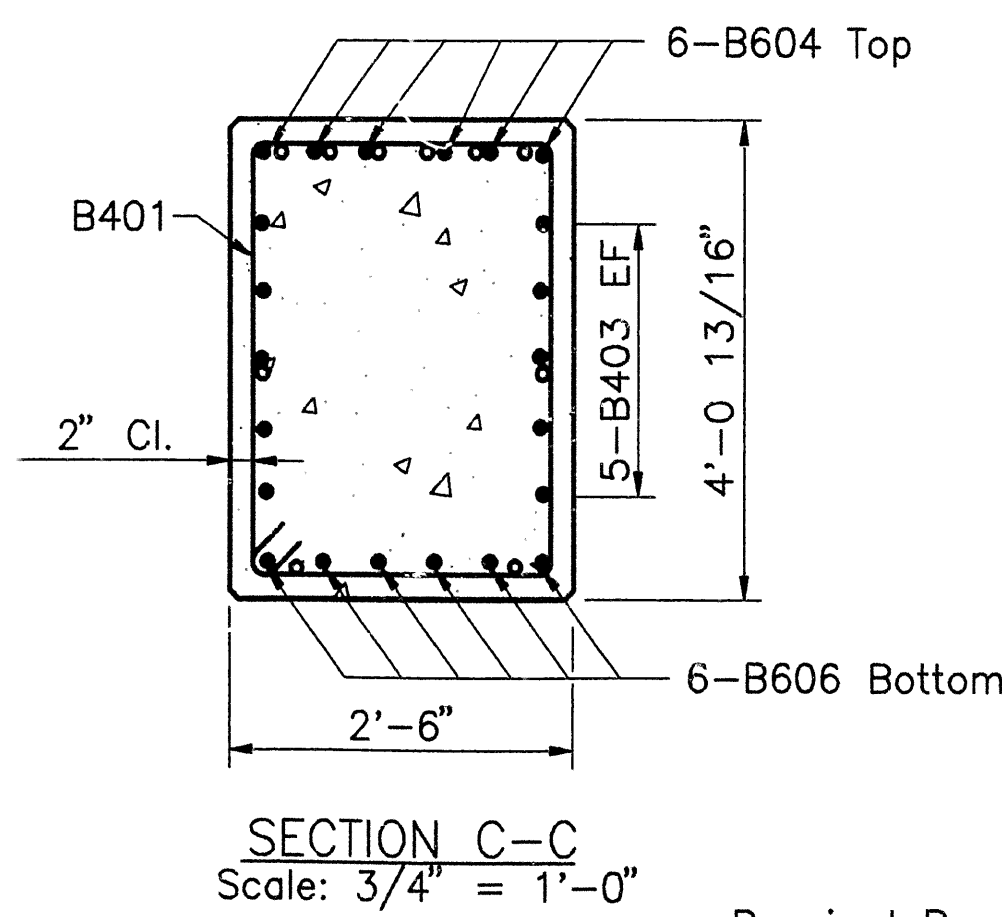
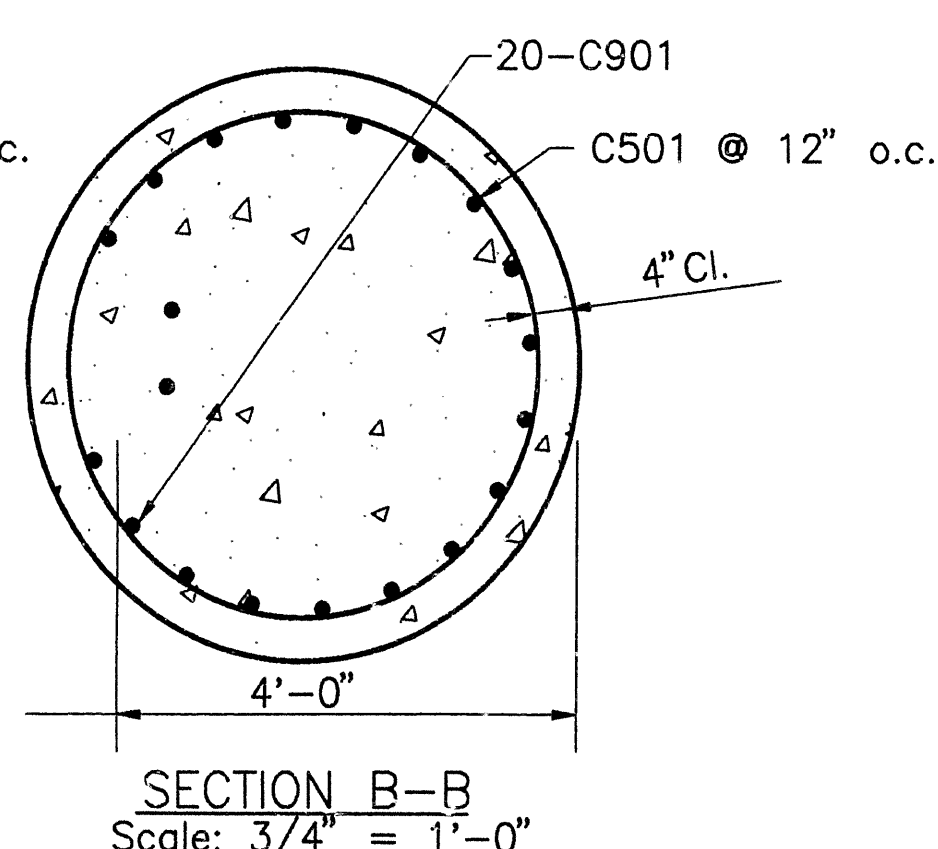
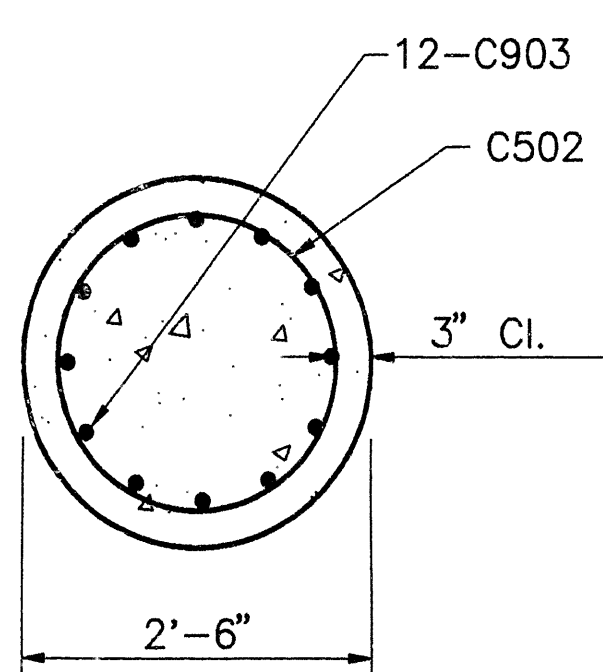
MONROE COUNTY
INTERSTATE ROUTE 40 SEC. 43
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: JHS DATE: 3/96
CHECKED BY: CDE DATE: 4/97
DESIGNED BY: CDE DATE: 9/94

BRIDGE NO. 3724 A & B

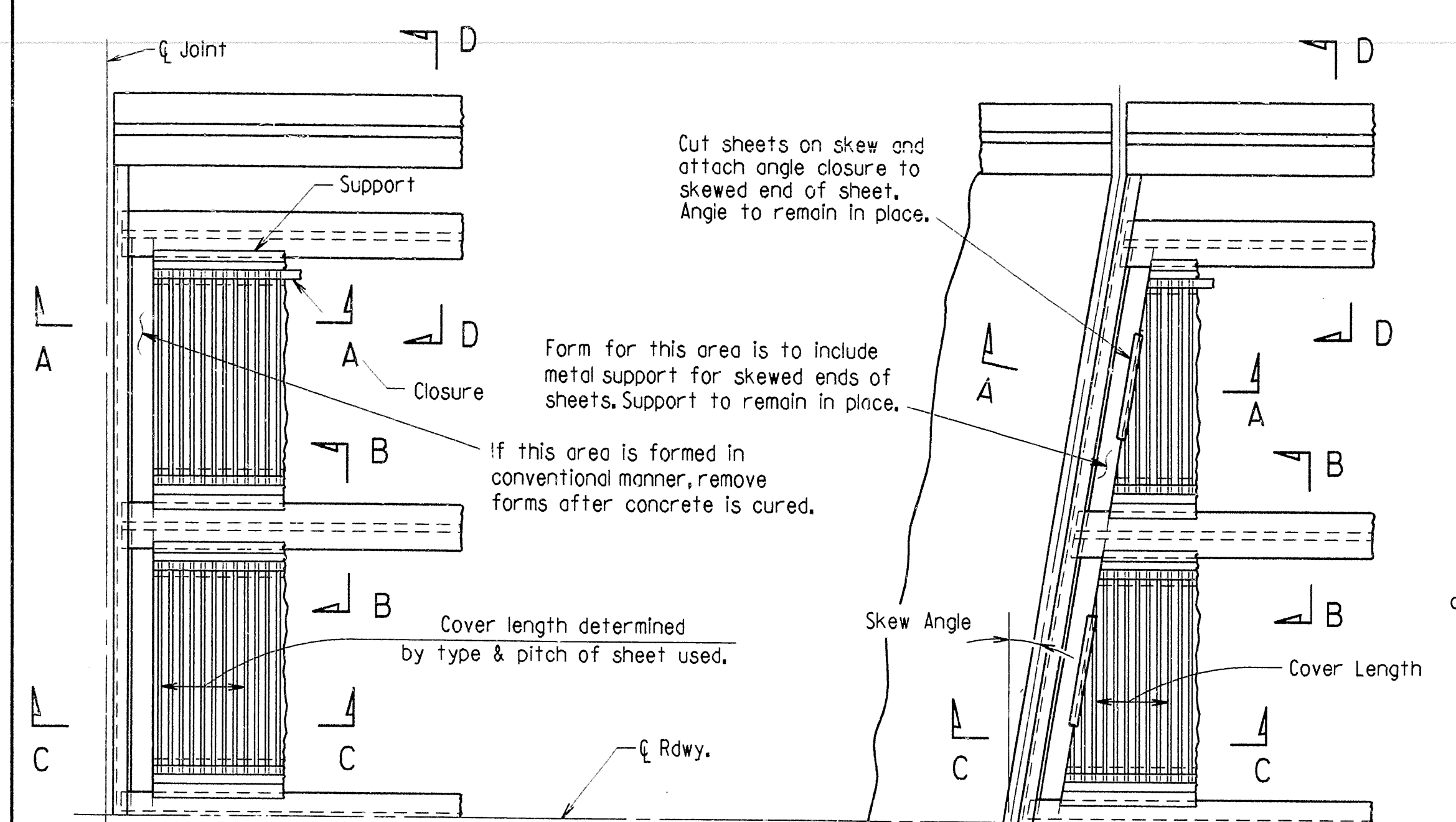
SCALE: 3/8" = 1'-0"

DRAWING NO. 35753



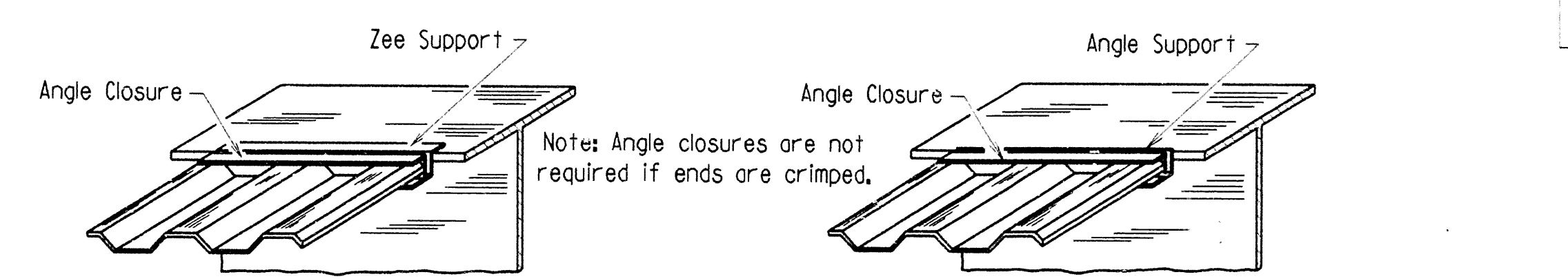
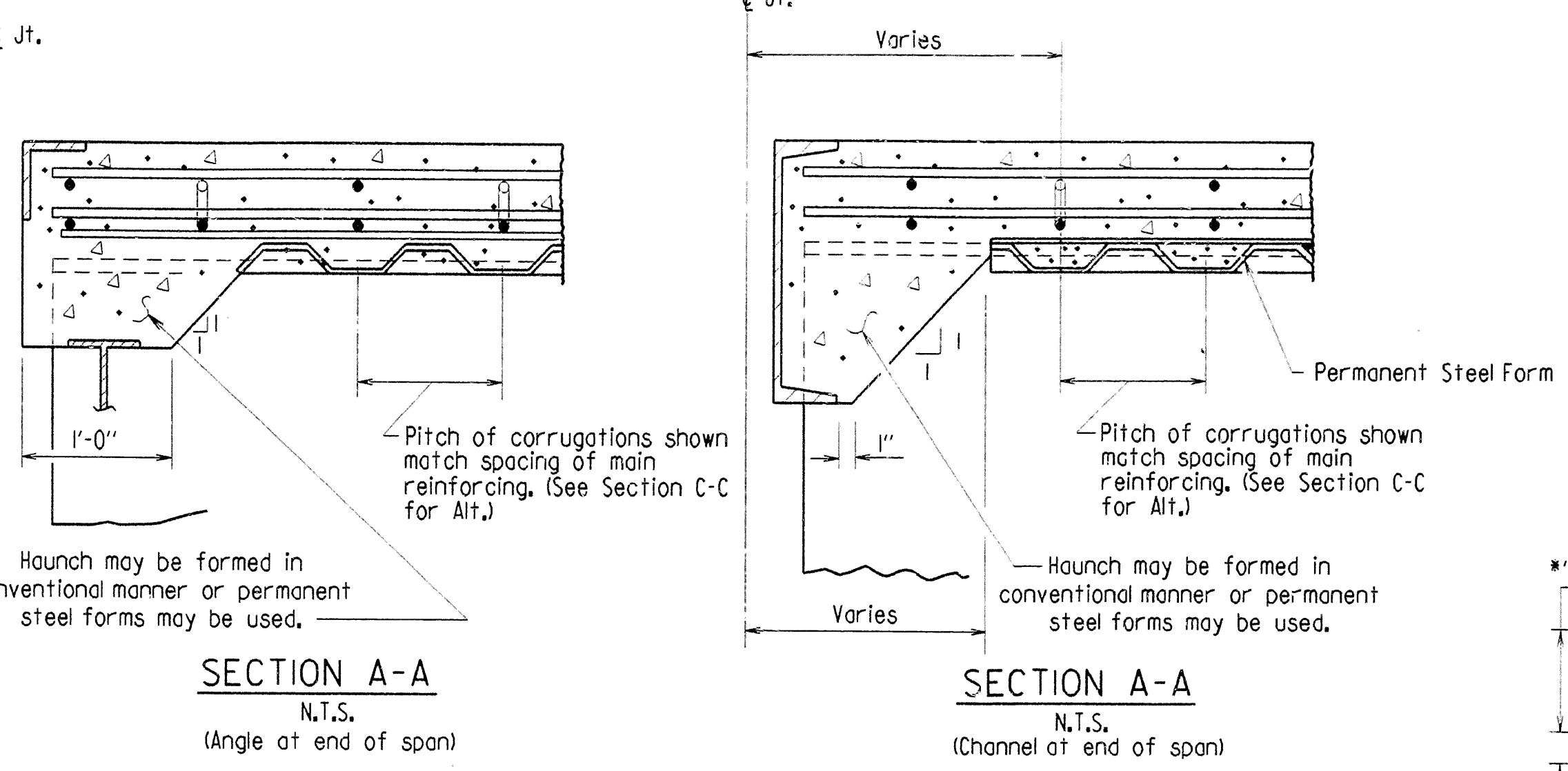
- Required Bars
- Exist. Bars To Remain (See Concrete Removal Note)

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
5-25-90	5-25-90	11-11-92	11-11-92	11-27-96	11-27-96	6	ARK.		73	
9-6-90	9-17-90	4-1-93	4-1-93							
11-2-90	11-5-90	7-18-96	7-18-96							
						JOB NO.			73	
						BR. DECK FORMS 14991				

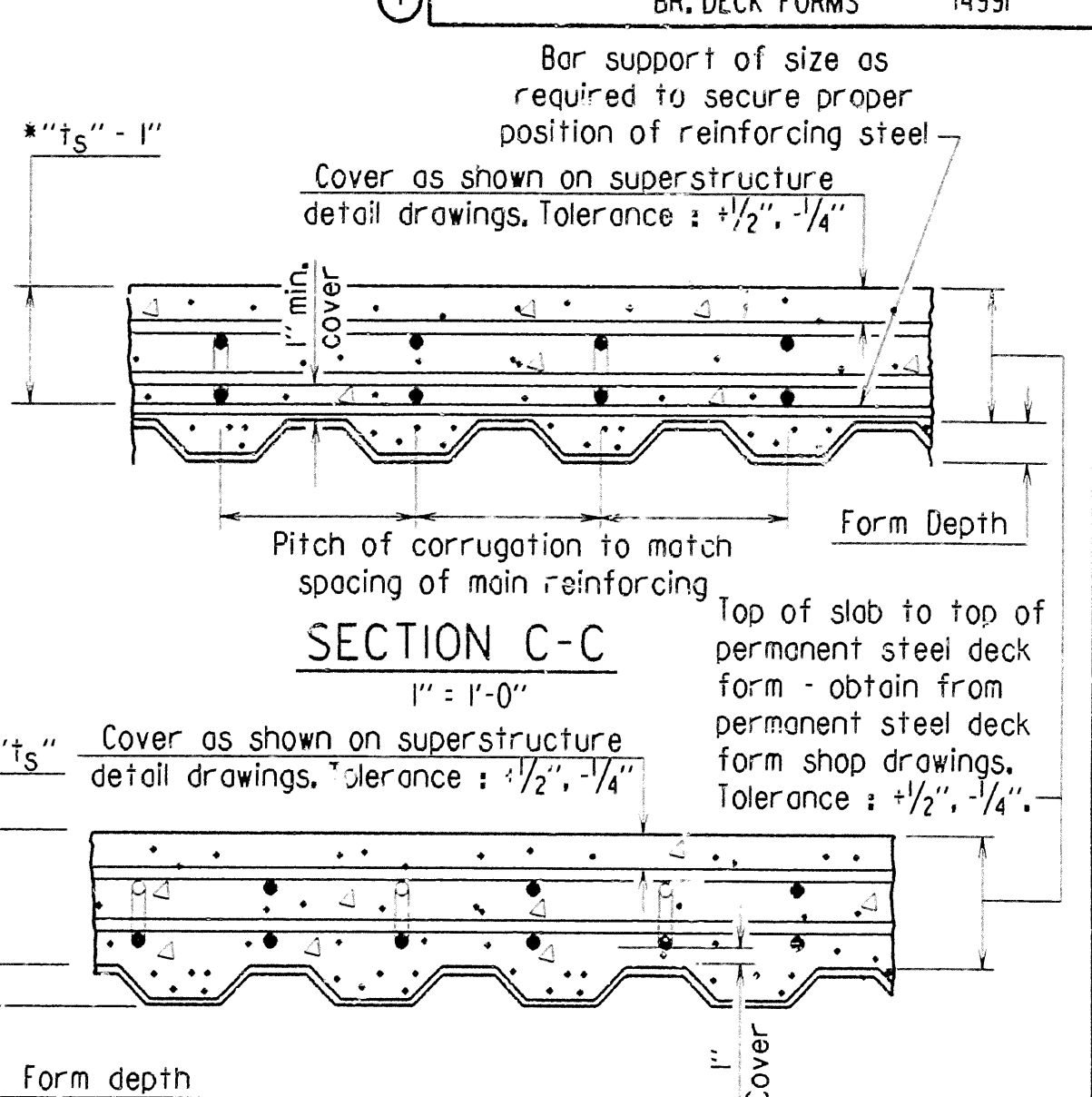


PART PLAN - SQUARE SPAN
3/8" = 1'-0"

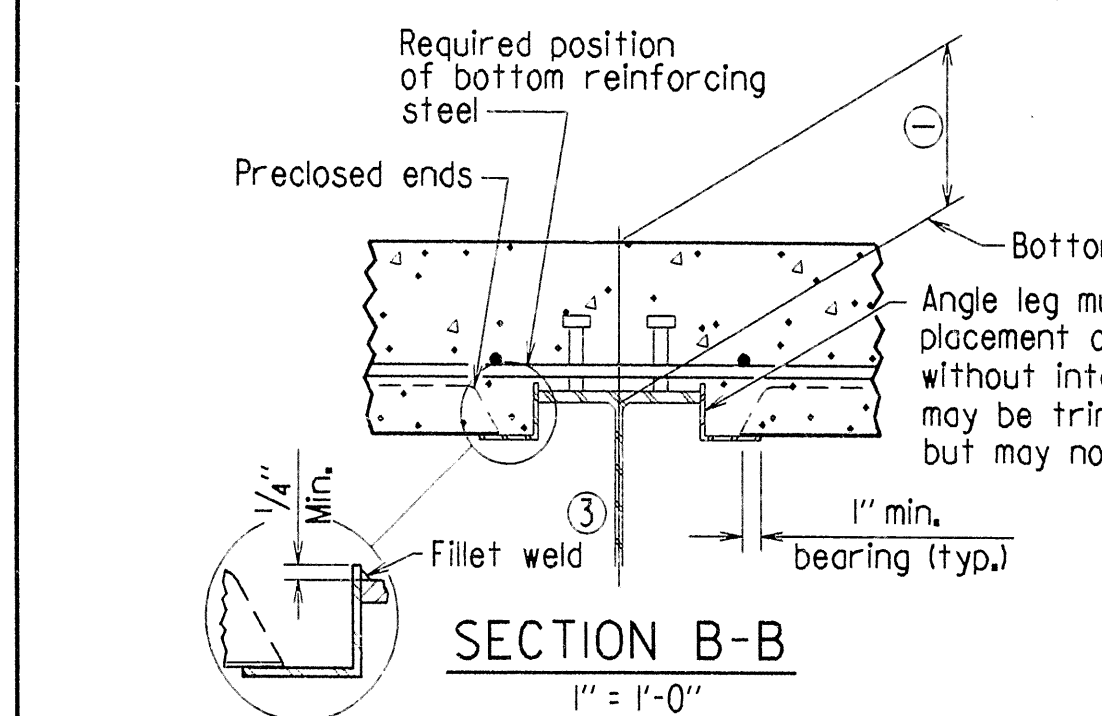
PART PLAN - SKEWED SPAN
3/8" = 1'-0"



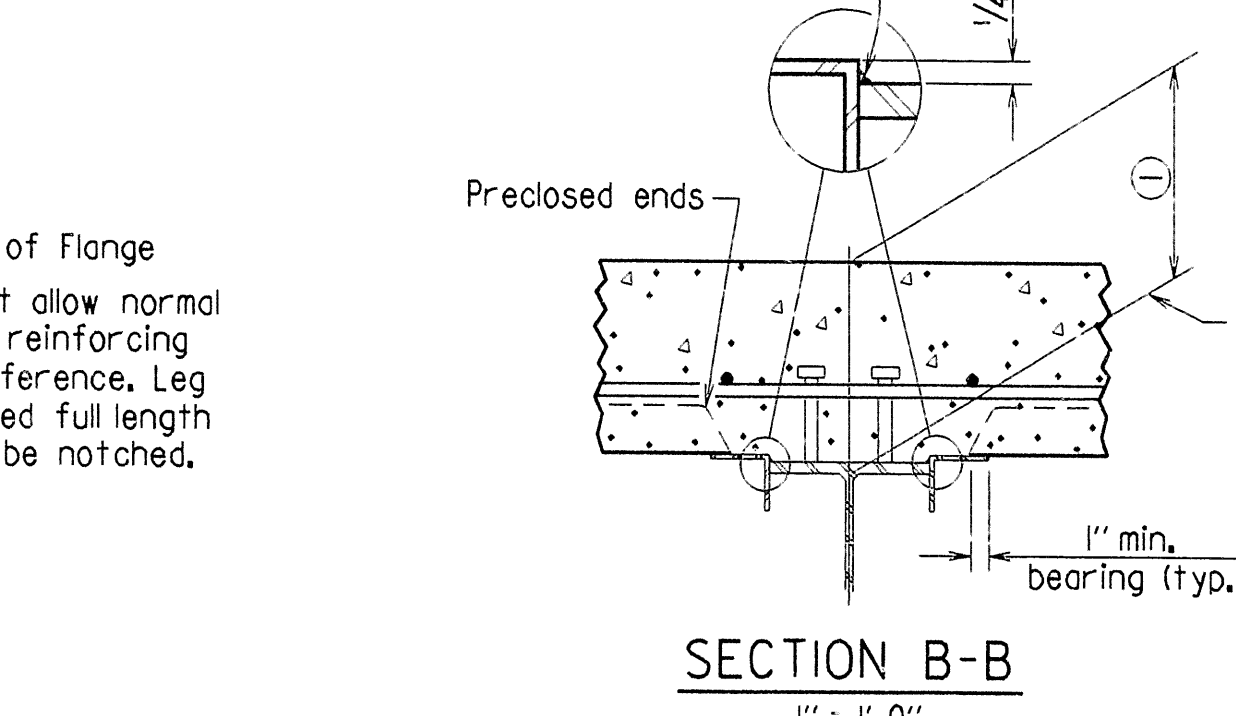
SKETCH OF PERMISSIBLE SUPPORTS
N.T.S.



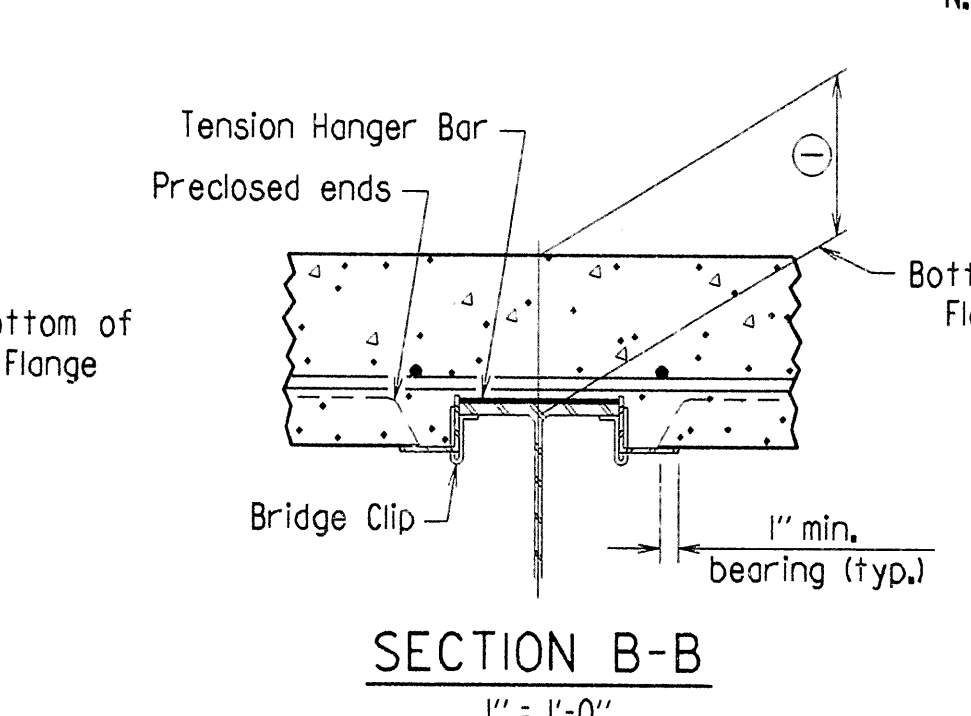
SECTION C-C - ALTERNATE
1" = 1'-0"
(Applicable when corrugations do not match spacing of main reinforcement)
*t_s = slab thickness as shown on superstructure detail drawings.



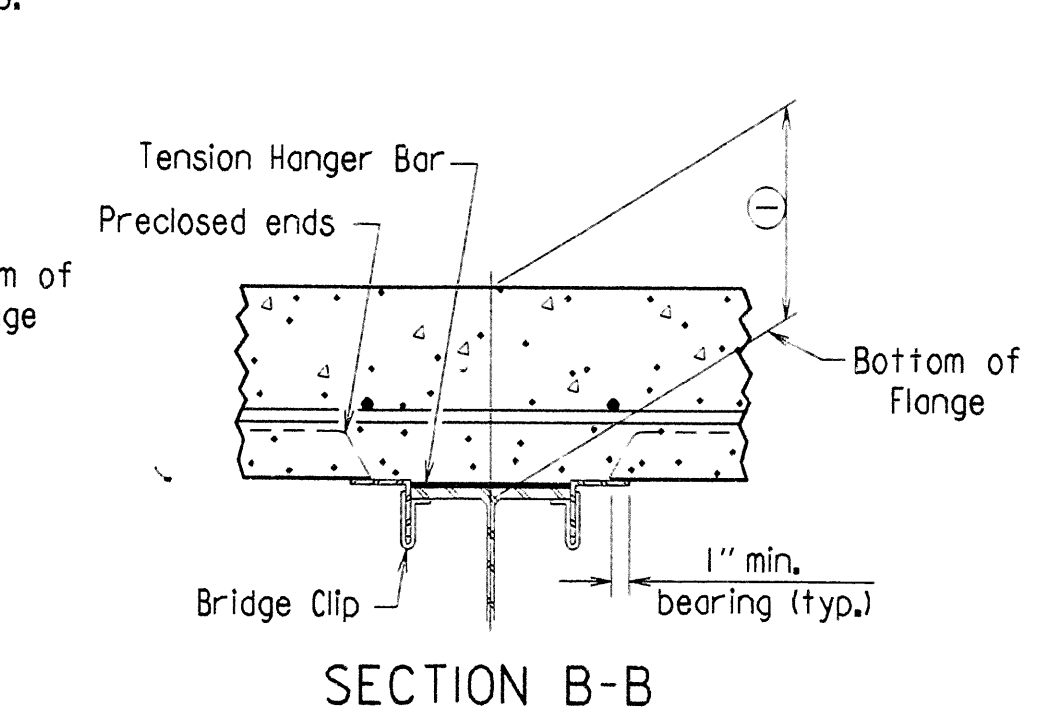
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used, and for all compression flanges)



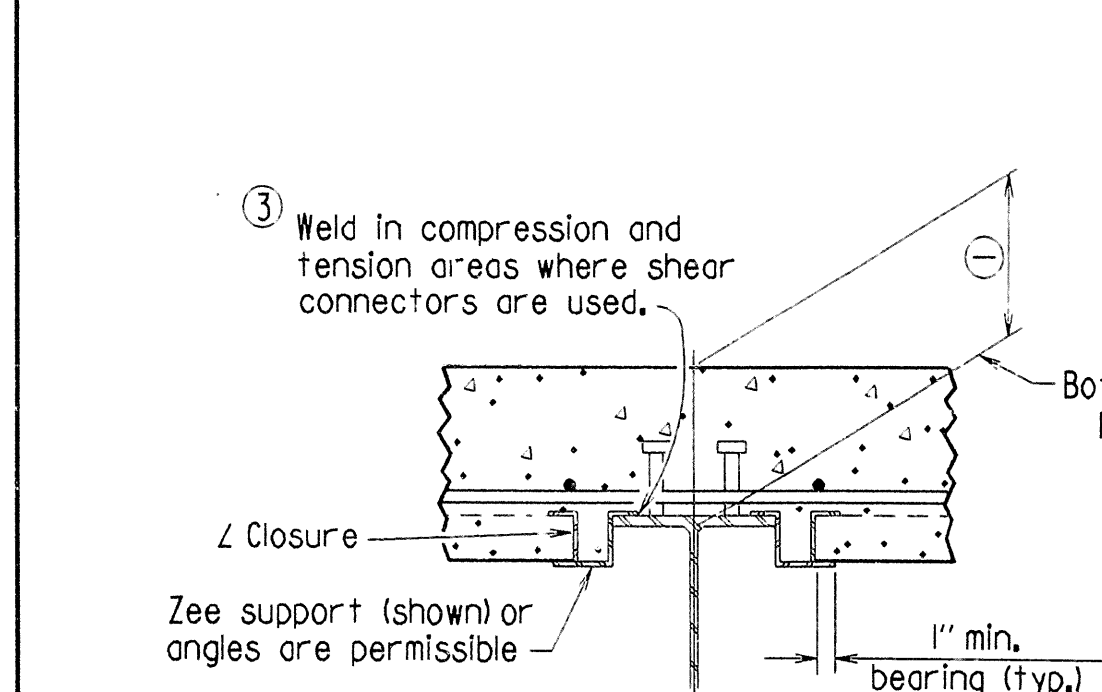
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are used and for all compression flanges)



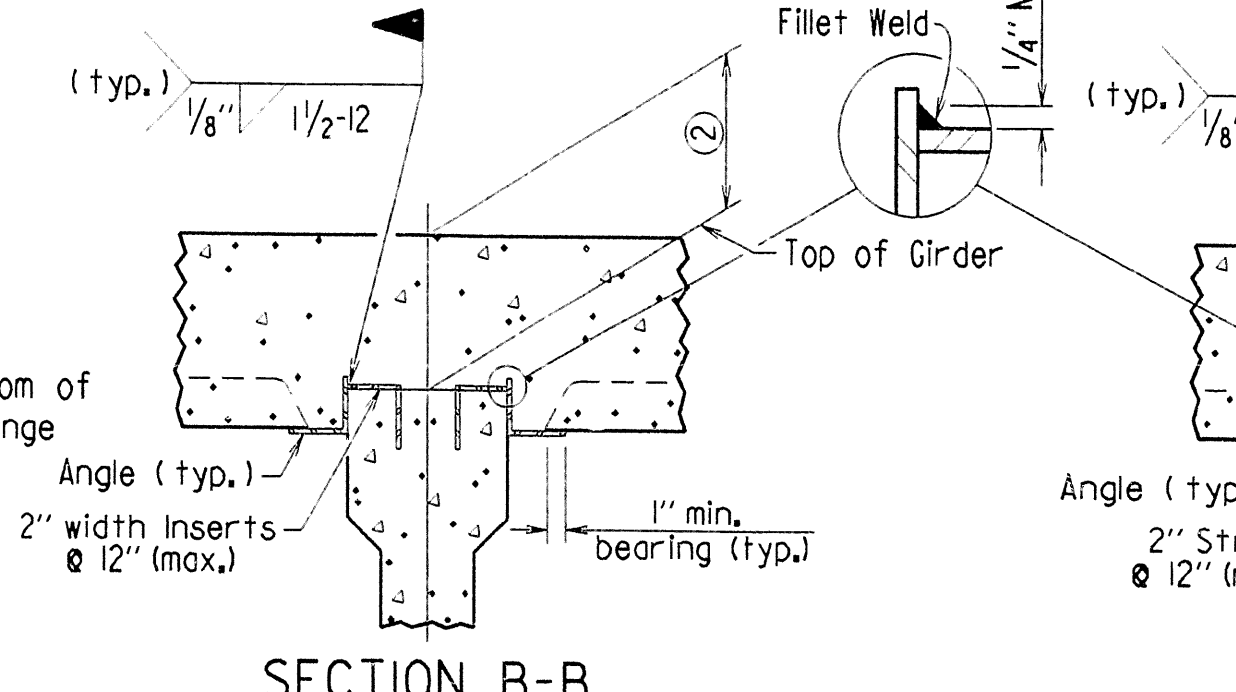
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



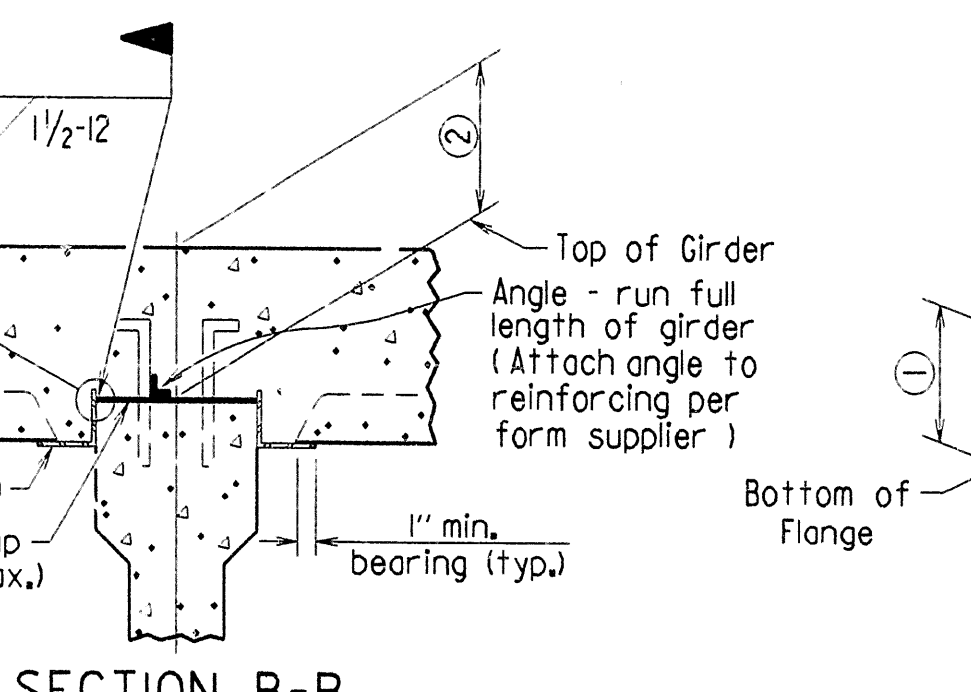
SECTION B-B
1" = 1'-0"
(Showing permissible support for tension flange where shear connectors are not used)



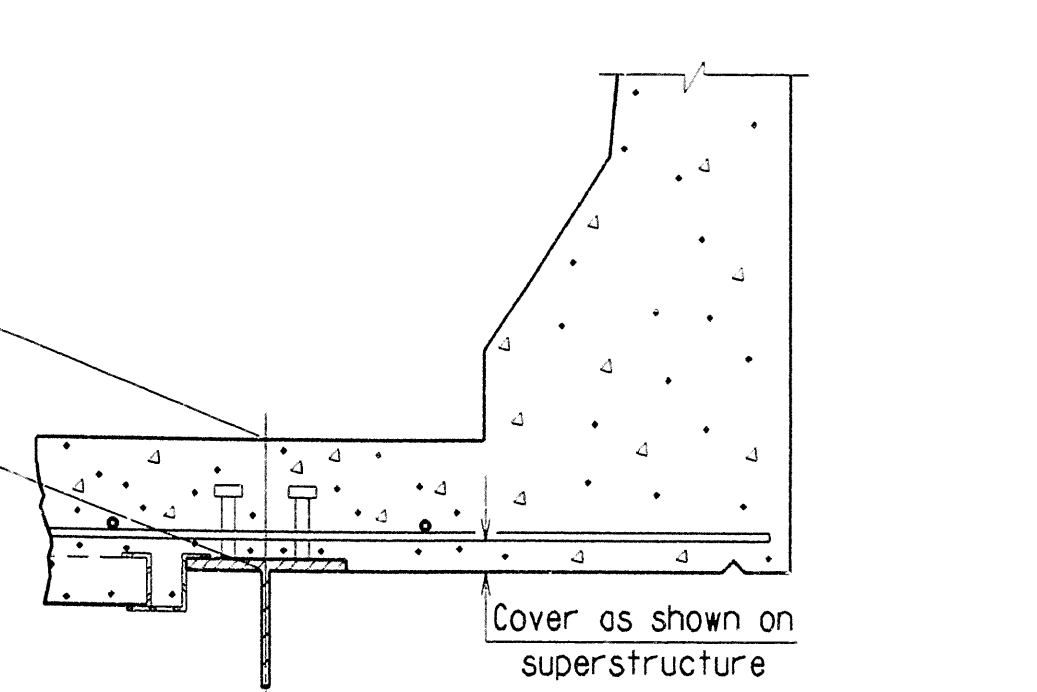
SECTION B-B
1" = 1'-0"
(Showing Z Closure)



SECTION B-B (FOR CONCRETE GIRDERS)
1" = 1'-0"
(Showing support by Insert cast in girder)

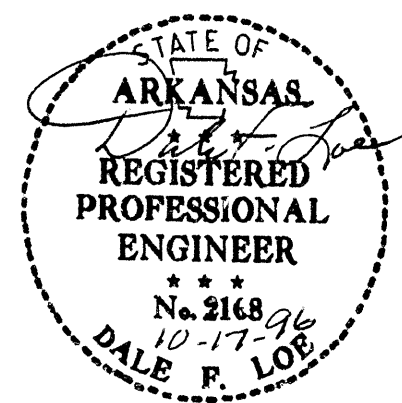


SECTION B-B (FOR CONCRETE GIRDERS)
1" = 1'-0"
(Showing support by Strap)



SECTION D-D
1" = 1'-0"
Note: Only Bottom Reinforcing is shown.

REVISIONS
MAY 19 1997

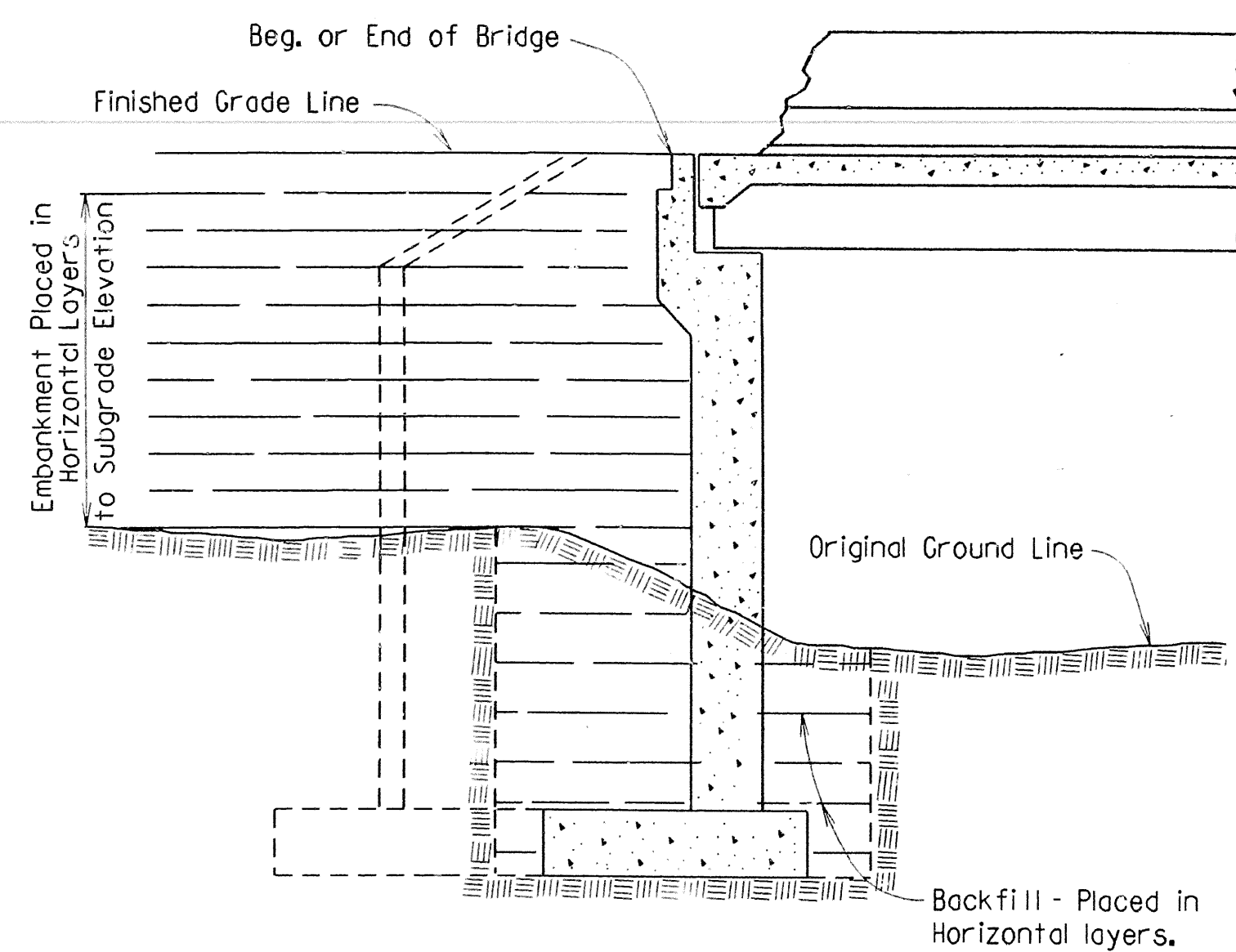


**DETAILS OF PERMISSIBLE TYPE
PERMANENT STEEL BRIDGE DECK FORMS
FOR STEEL & CONCRETE GIRDER SPANS**

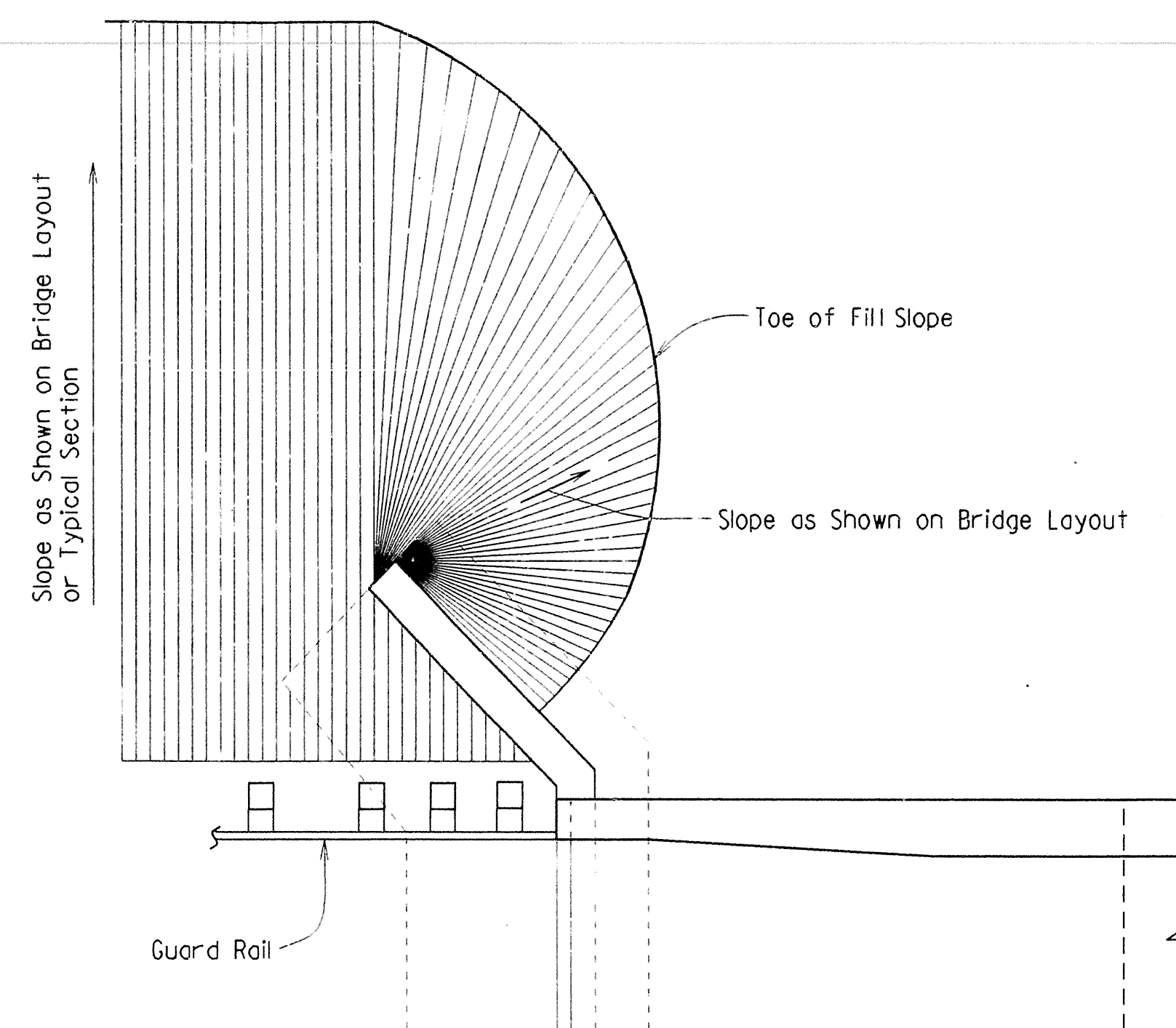
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: MJT DATE: 10-17-96
CHECKED BY: CPB DATE: 10/17/96
DESIGNED BY: DATE: SCALE: as noted
BRIDGE NO. DRAWING NO. 14991

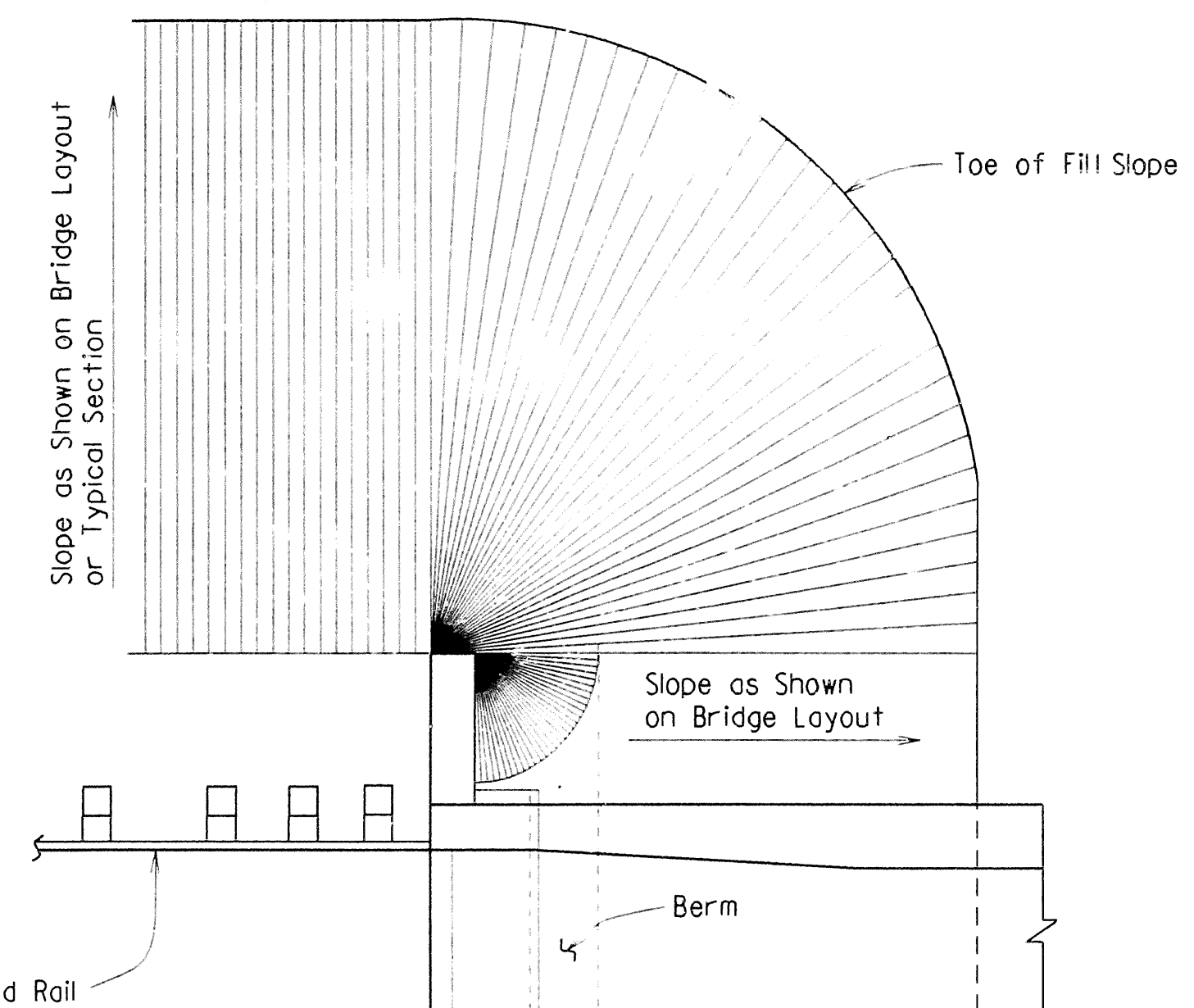
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
#5 10-12-95 7-18-96	10-12-95 7-18-96			6	ARK.		74	
JOB NO.								EMBANKMENT & BACKFILL 1888A



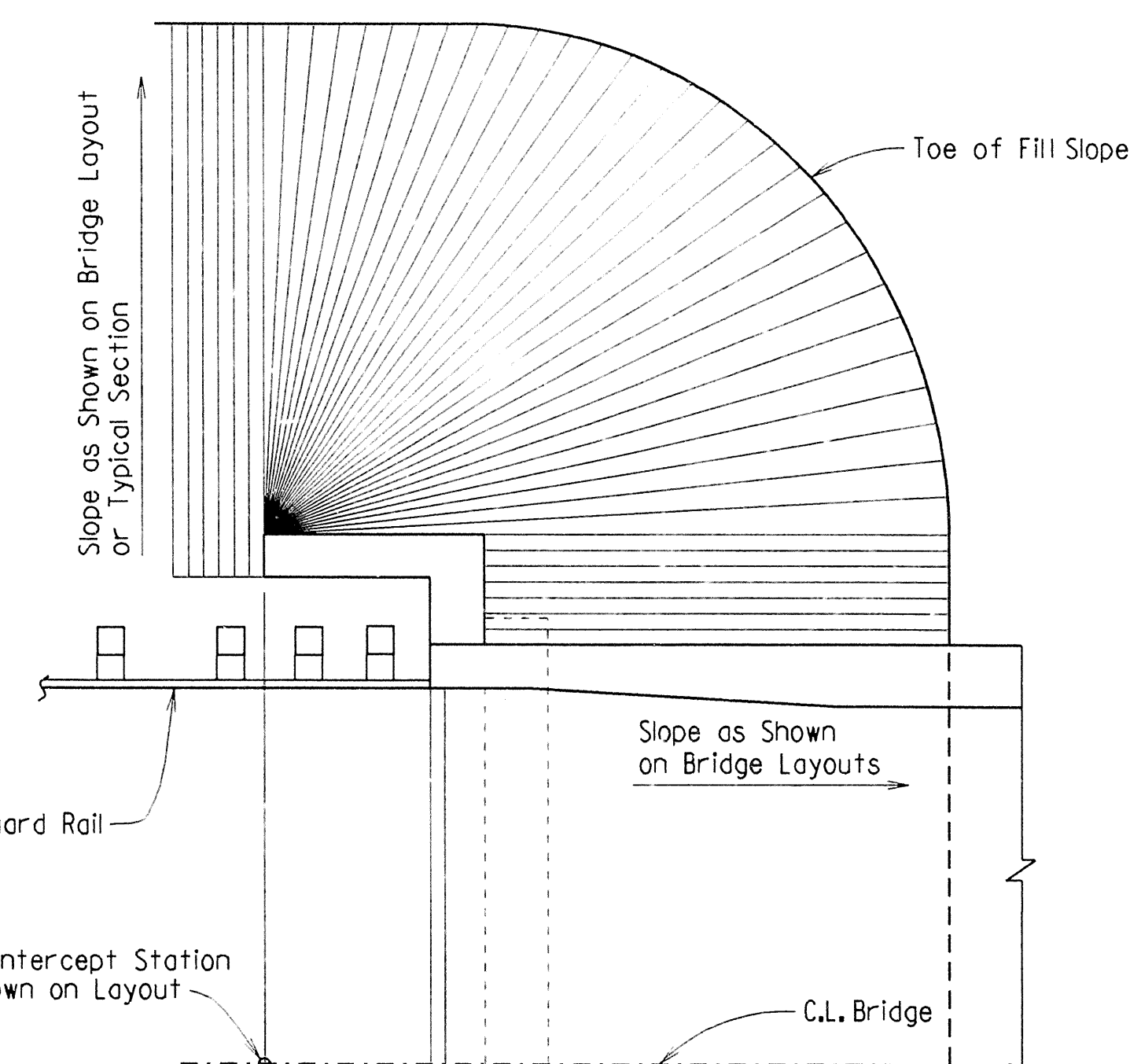
EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT VERTICAL WALL ABUTMENTS



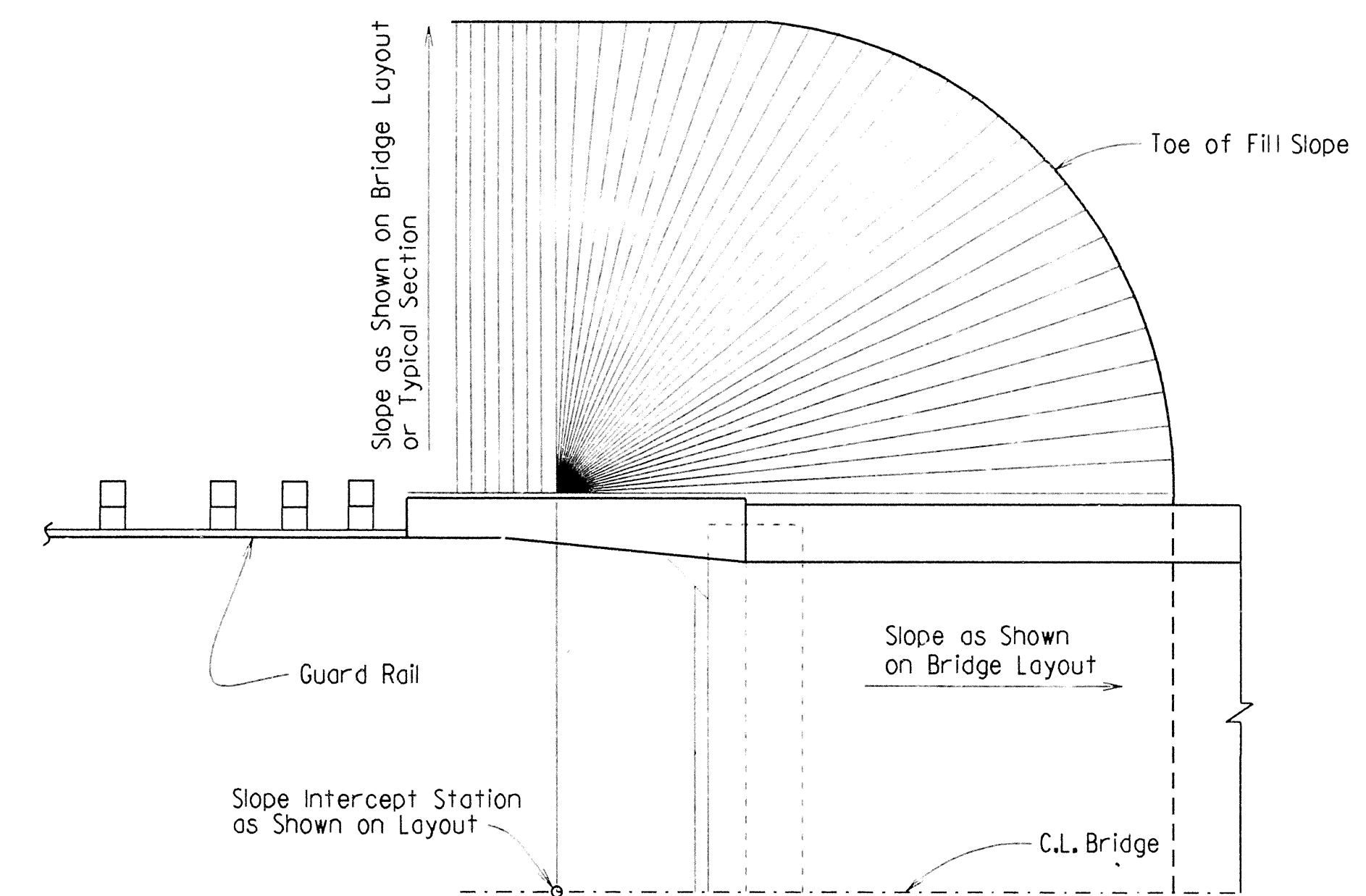
VERTICAL WALL ABUTMENTS



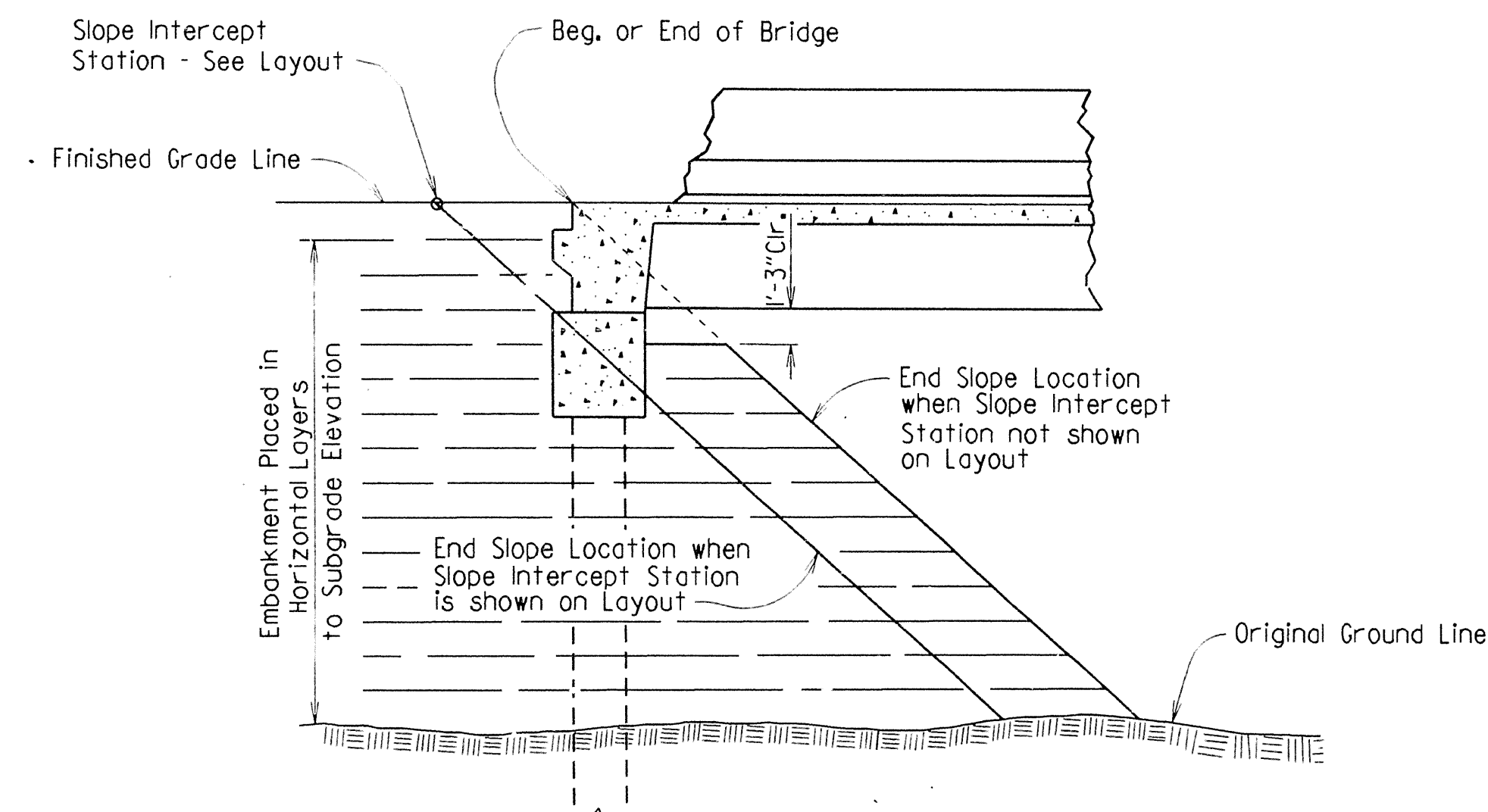
SPILL-THROUGH END BENTS WITH STUB WING



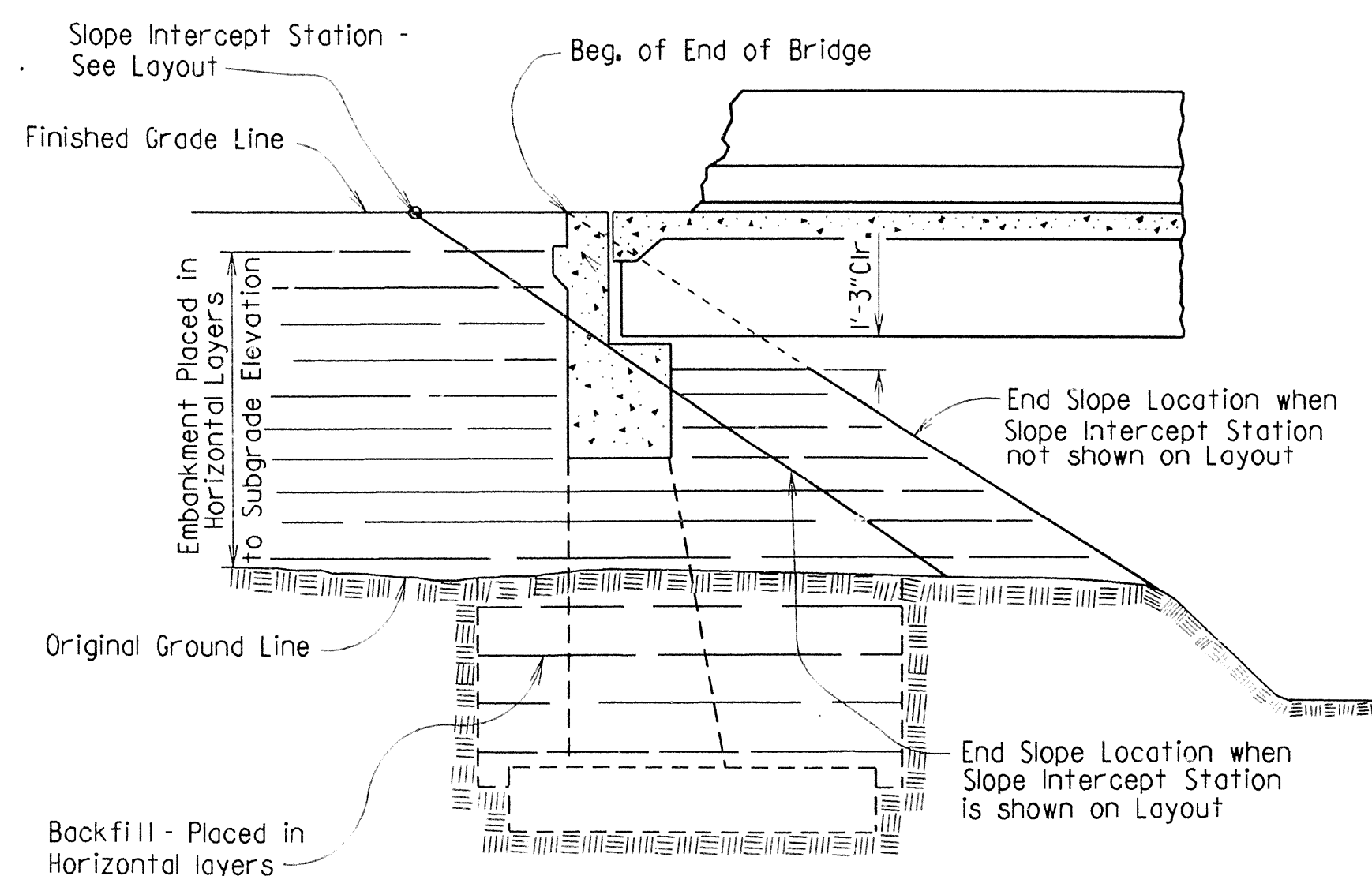
SPILL-THROUGH END BENTS WITH TURNBACK WING



SPILL-THROUGH END BENTS WITH TRANSITION WING



EMBANKMENT CONSTRUCTION AT SPILL-THROUGH PILE END BENTS



EMBANKMENT CONSTRUCTION AND FOOTING BACKFILL AT SPILL-THROUGH END BENTS

GENERAL NOTES

The Bridge End Embankment shall be defined as a section of embankment, not less than 20 feet long adjacent to the bridge end, together with the side slopes and slopes under the bridge end including around the end of wingwalls. Embankment adjacent to structures shall be constructed in 4 inch horizontal layers (loose measure) and compacted by the use of mechanical equipment to the satisfaction of the Engineer. Refer to subsections 21C.09, 21D.10 and 801.08 of the Specifications for construction requirements.

1 Add DFL Seal MJT 7-18-96
Ckd. By C.P.B.

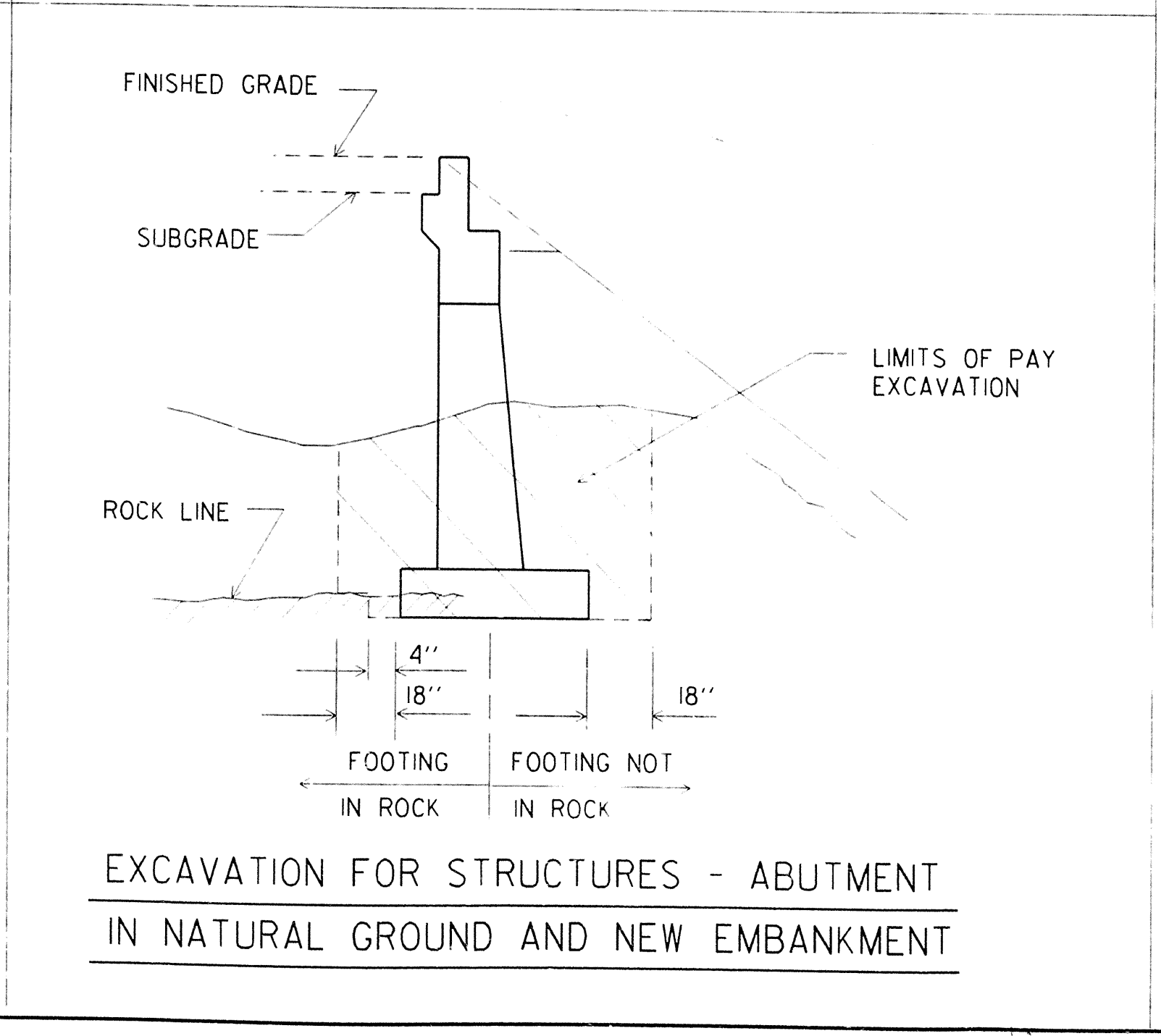
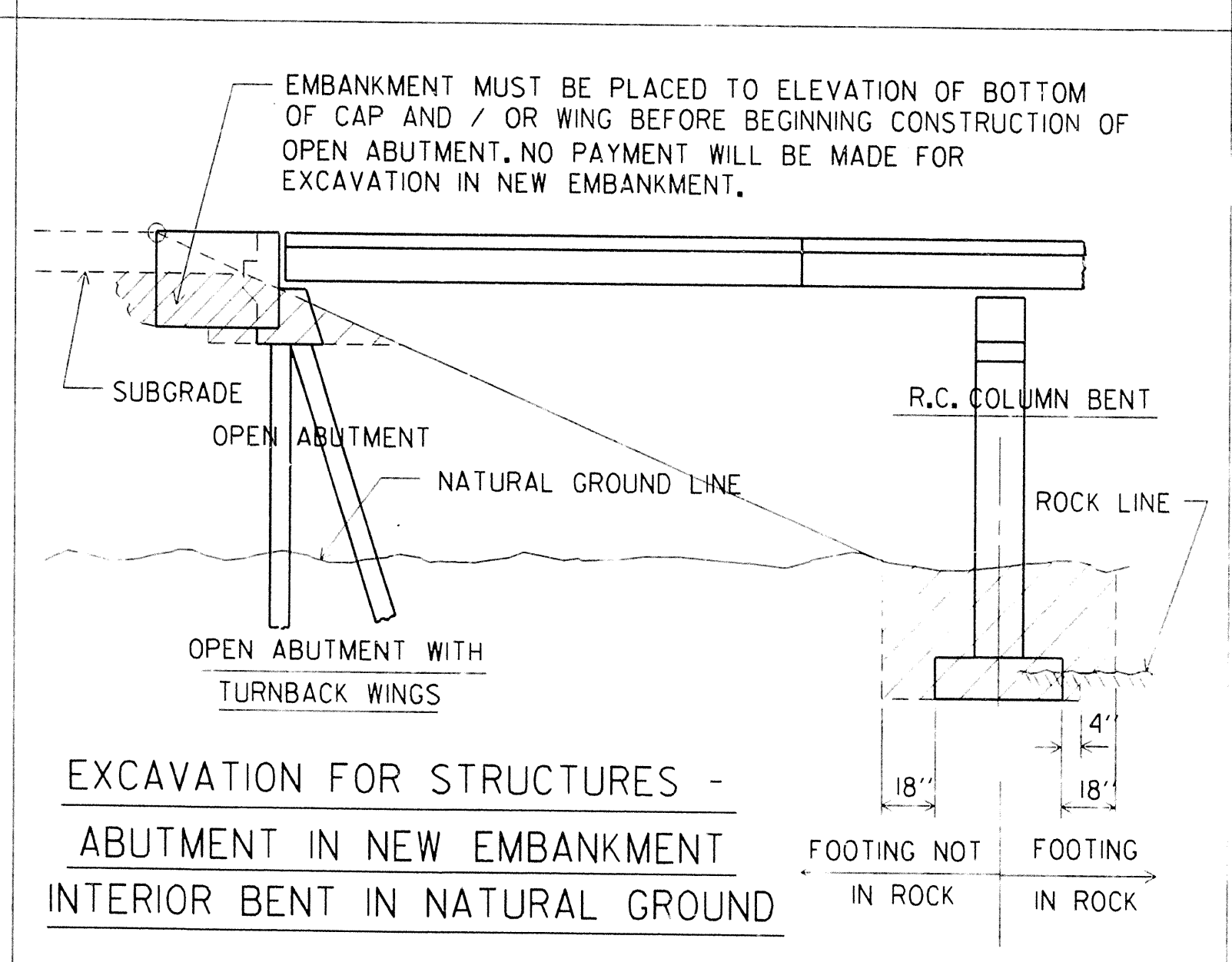
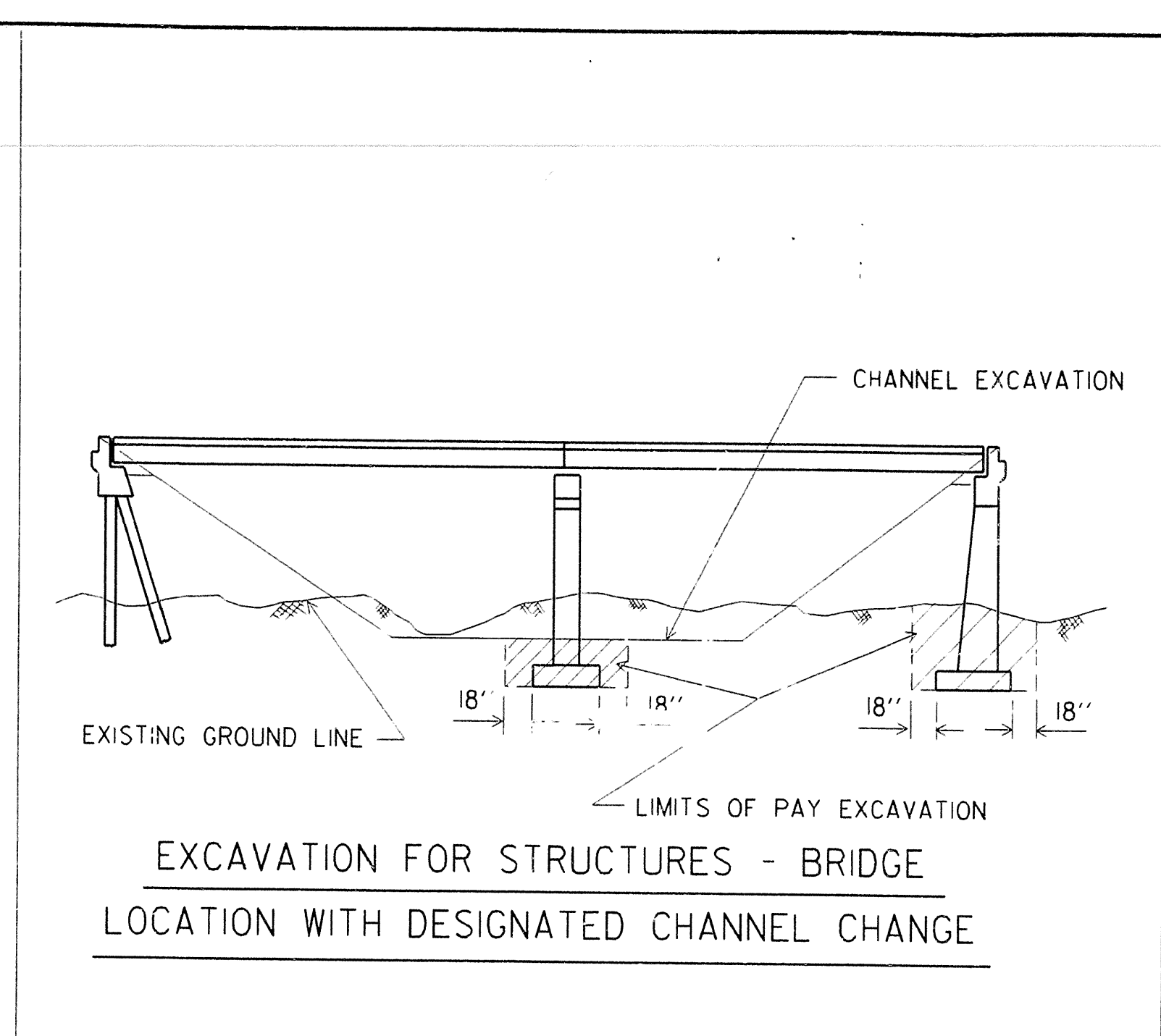
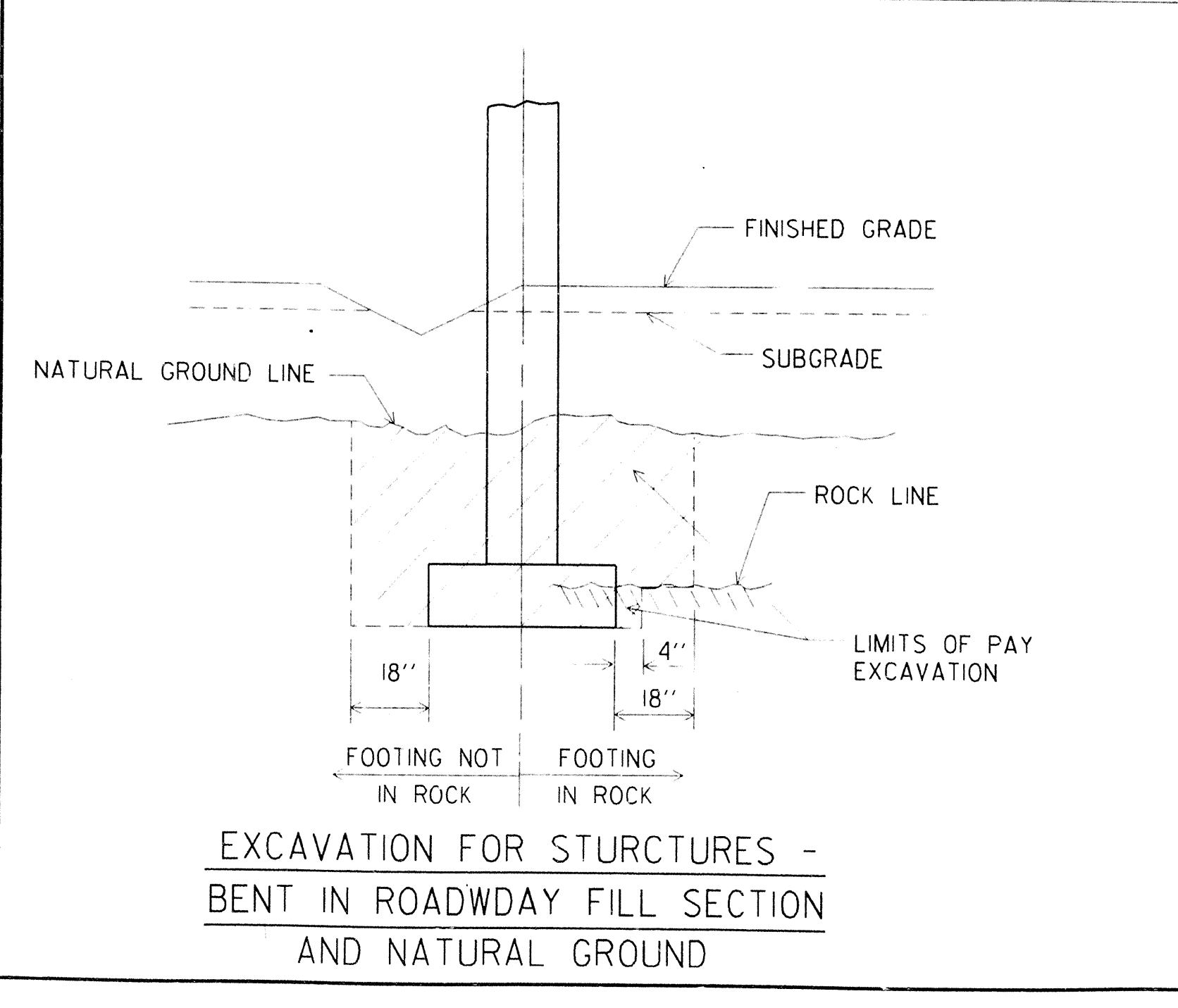
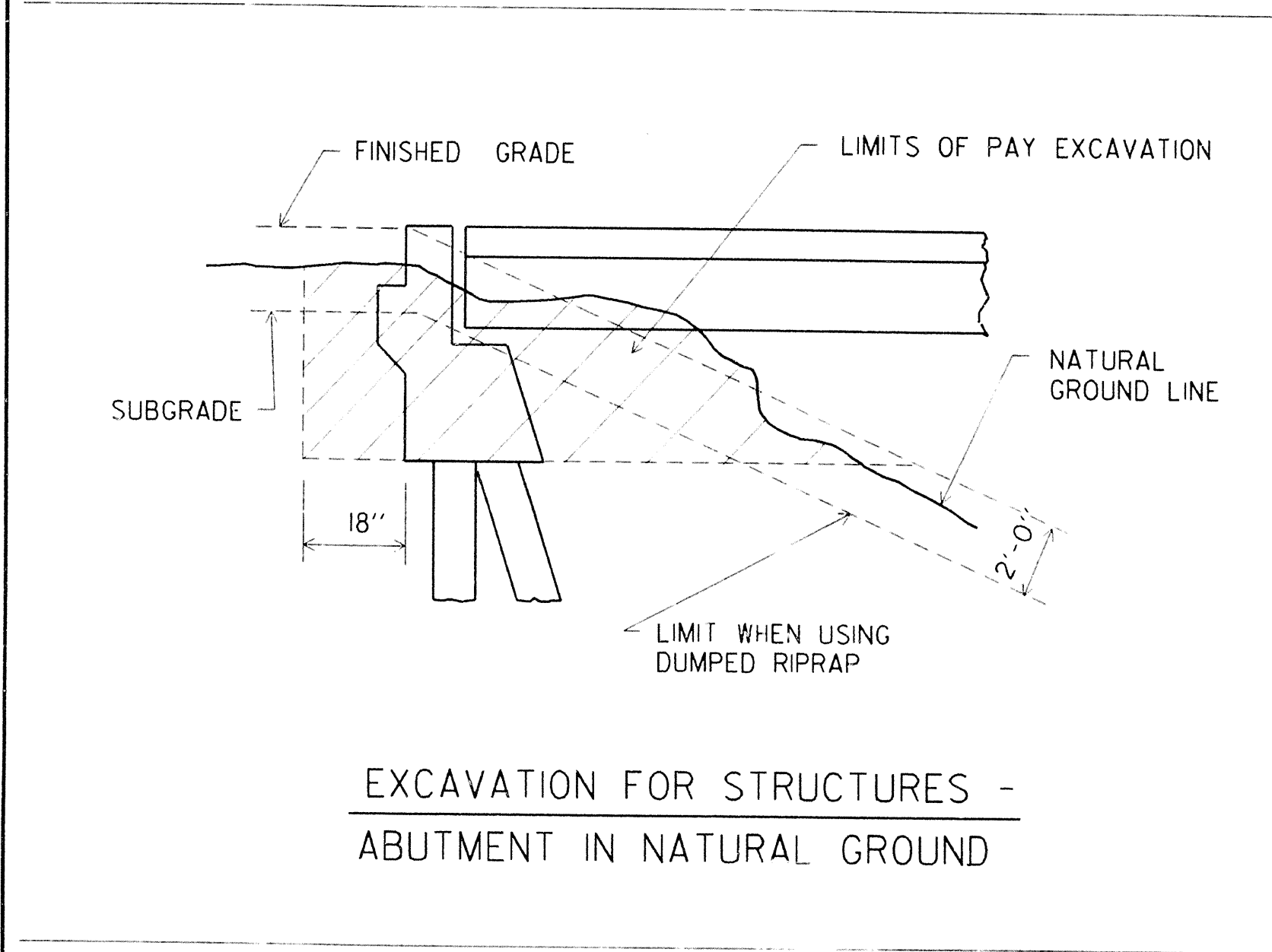
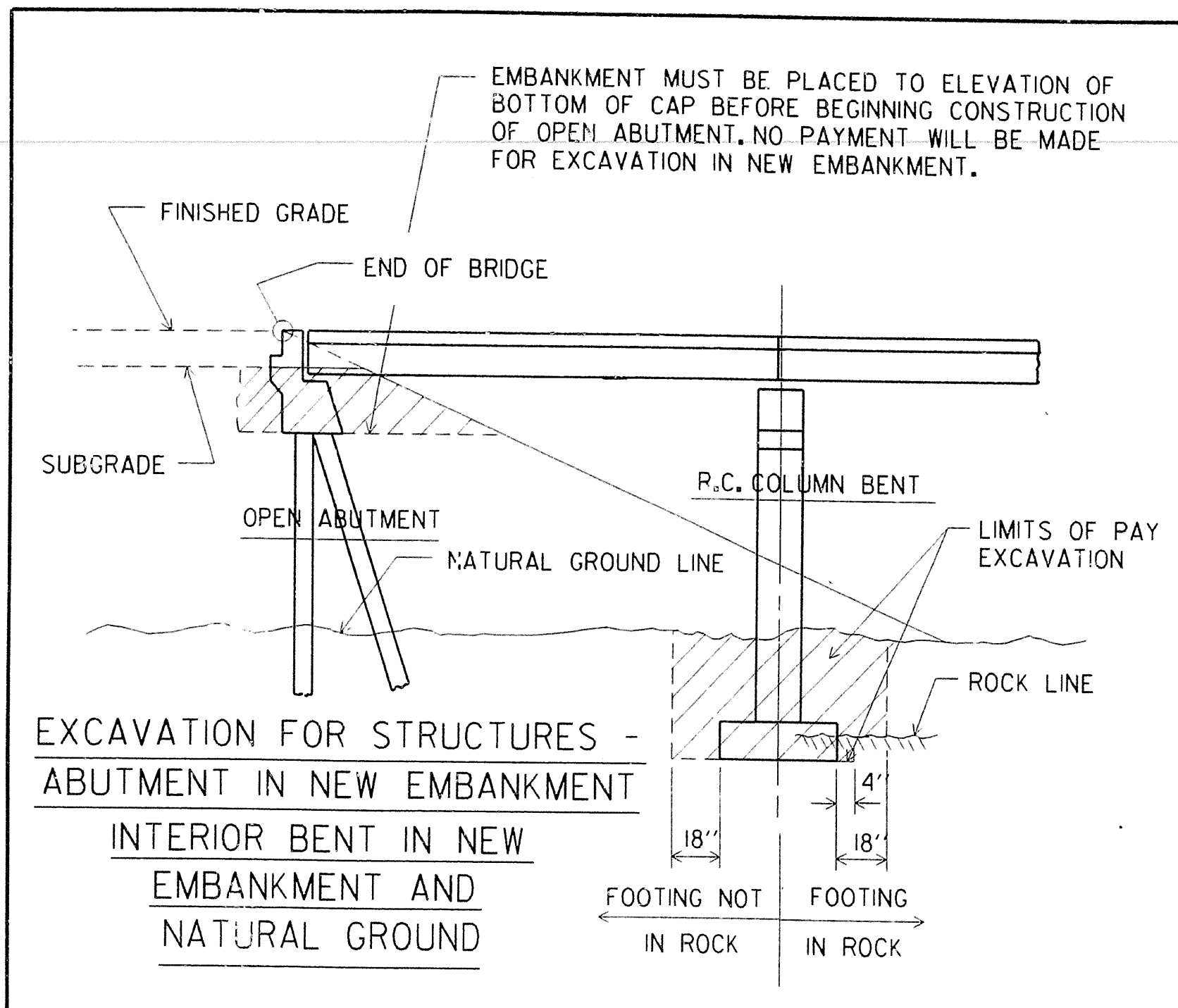
METHOD OF DETERMINING FILL SLOPE LOCATION AT BRIDGE ENDS



BRIDGE ENGINEER

EMBANKMENT CONSTRUCTION AND BACKFILL AT BRIDGE ENDS

ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: LDF DATE: 10-12-95
CHECKED BY: DHP DATE: 10-12-95
DESIGNED BY: STD. DATE: NO SCALE
BRIDGE NO. DRAWING NO. 1888A



DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
11-5-87	552-11-5-87	7-18-96	7-18-96	6	ARK.			
7-15-88	547-7-15-88							
11-11-92	11-11-92							

JOB NO. 1891F

RIP. & EXCAV.

BEG. BRIDGE

WIDTH OF CHANNEL EXCAVATION OUTSIDE RIPRAP

BERME

1'-3" CLEAR

WIDTH OF CHANNEL EXCAVATION IN RIPRAP AREA

CHANNEL BOTTOM

ELEVATION OF RIPRAP BERME WITH RIPRAP

BEG. BRIDGE

BERME

1'-3" CLEAR

WIDTH OF CHANNEL EXCAVATION OUTSIDE RIPRAP

WIDTH OF CHANNEL EXCAVATION IN RIPRAP AREA

CHANNEL BOTTOM

ELEVATION OF RIPRAP BERME WITHOUT RIPRAP

RIPRAP

2 OR FLATTER

3'-9"

3'-3"

90°

CHANNEL BOTTOM

EXCAVATION FOR TOES IS NOT A PAY ITEM

SECTION A-A (TOE EXCAVATION IN SOIL)

SECTION B-B

THEORETICAL BEGIN OF SLOPE

BEG. BRIDGE

WIDTH OF CHANNEL EXCAVATION OUTSIDE RIPRAP

WIDTH OF CHANNEL EXCAVATION IN RIPRAP AREA

CHANNEL BOTTOM

OPEN ABUTMENT WITH TURNBACK WINGS

EXCAVATED CHANNEL WIDTH

RIPRAP AREA

DETAIL C

NOTE: USE THIS TYPE OF TOE WHEN ROCK IS ENCOUNTERED WHICH IS IN A STABLE CONDITION.

NOTE: IN LIEU OF AN AGGREGATE FILTER BLANKET, A SYNTHETIC FIBER GEOTEXTILE FABRIC COMPLYING WITH THE REQUIREMENTS OF SUBSECTION 816.02(e) MAY BE USED.

NOTE: DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES ARE INCLUDED FOR INFORMATION AS TO HOW PLAN QUANTITIES WERE CALCULATED AND FOR USE WHEN ADJUSTING QUANTITIES WHEN CHANGING FOOTING ELEVATION.

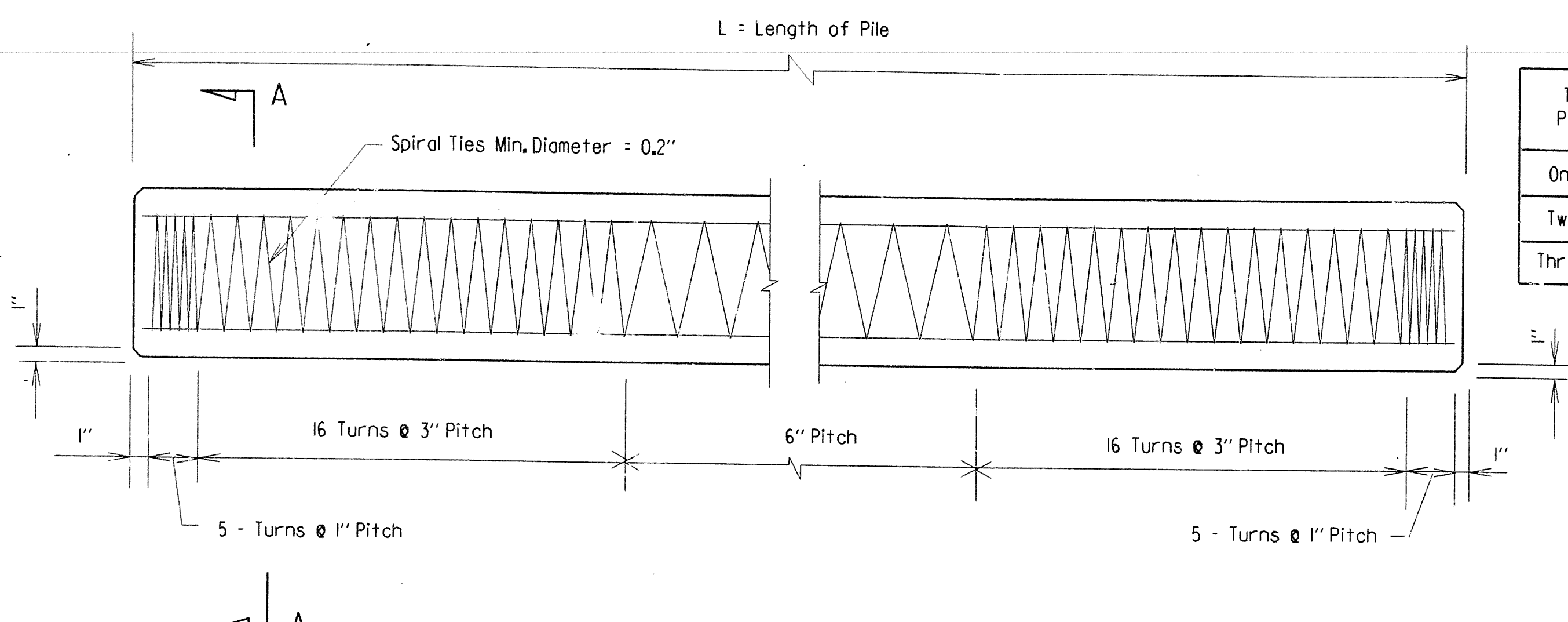
STATE OF ARKANSAS
REGISTERED PROFESSIONAL ENGINEER
No. 2168
DALE P. LOE
BRIDGE ENGINEER

DETAILS FOR DUMPED RIPRAP AND FILTER BLANKET AND DETAILS FOR COMPUTING EXCAVATION FOR STRUCTURES

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

DRAWN BY: J.P.S. DATE: 10-6-87
CHECKED BY: DATE: SCALE: NO SCALE
DESIGNED BY: DATE:
BRIDGE NO. DRAWING NO. 1891F

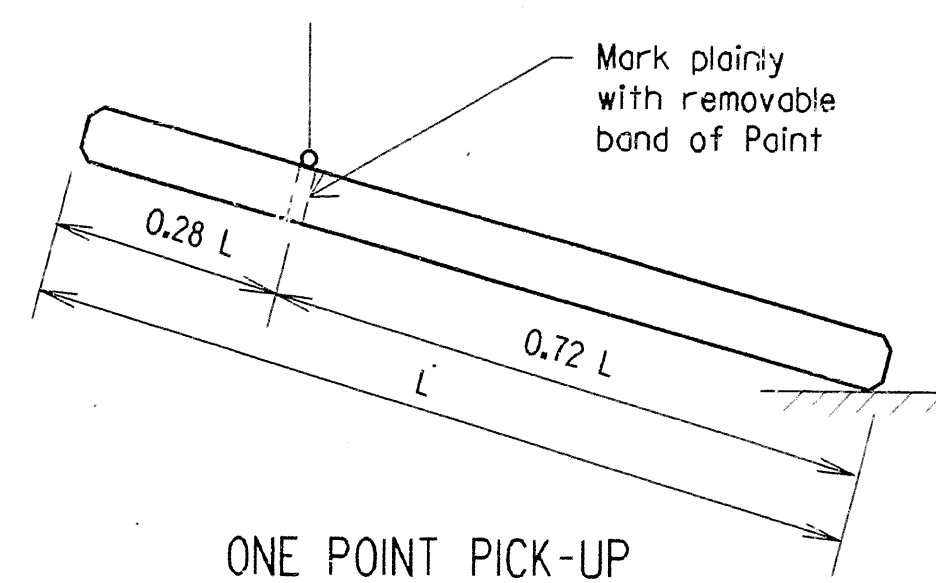
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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7-15-88	554-7-15-88	11-2-90	11-5-90					
1-16-89	561-1-16-89	11-11-92	11-11-92					
				JOB NO.			76	
				CONC. PILES			2383	



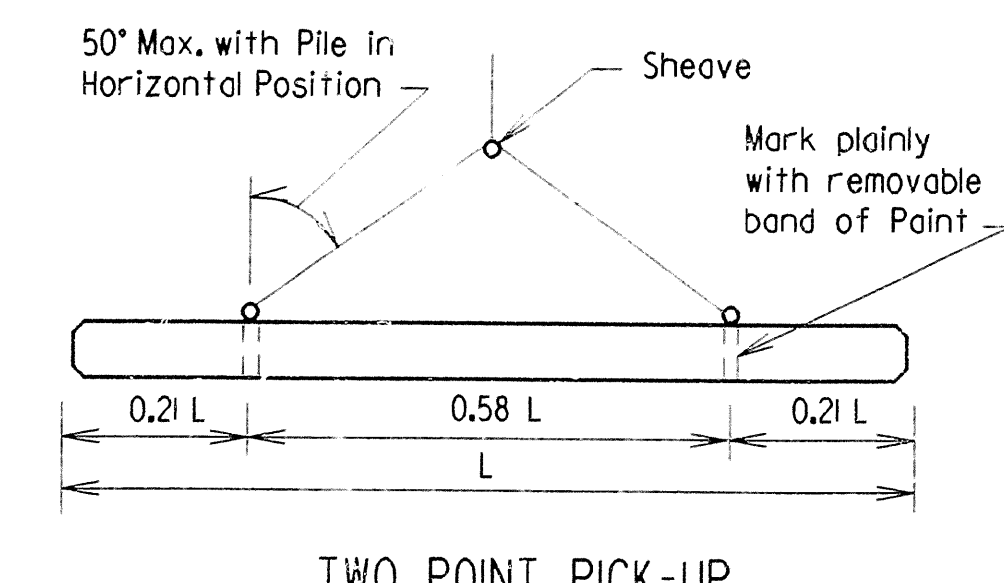
PLAN OF PILE SHOWING SPIRAL TIE SPACING

MAXIMUM PICKUP LENGTHS L

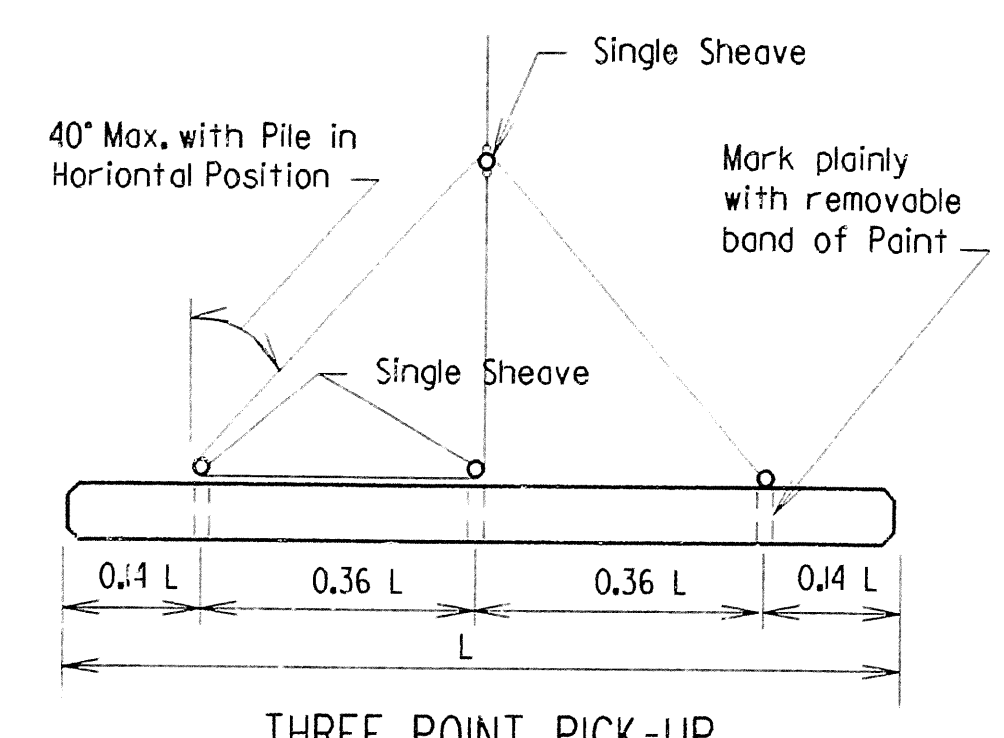
Type of Pick - Up	Prestressed		Precast	Prestressed			Precast		
	16" Oct.	18" Oct.	16" or 18" Oct.	14" Sq.	16" Sq.	18" Sq.	14" Sq.	16" Sq.	18" Sq.
One - Point	52'	55'	46'	55'	59'	63'	52'	51'	55'
Two - Point	75'	80'	67'	79'	84'	90'	75'	74'	79'
Three - Point	105'	112'	93'	110'	117'	126'	104'	103'	111'



ONE POINT PICK-UP

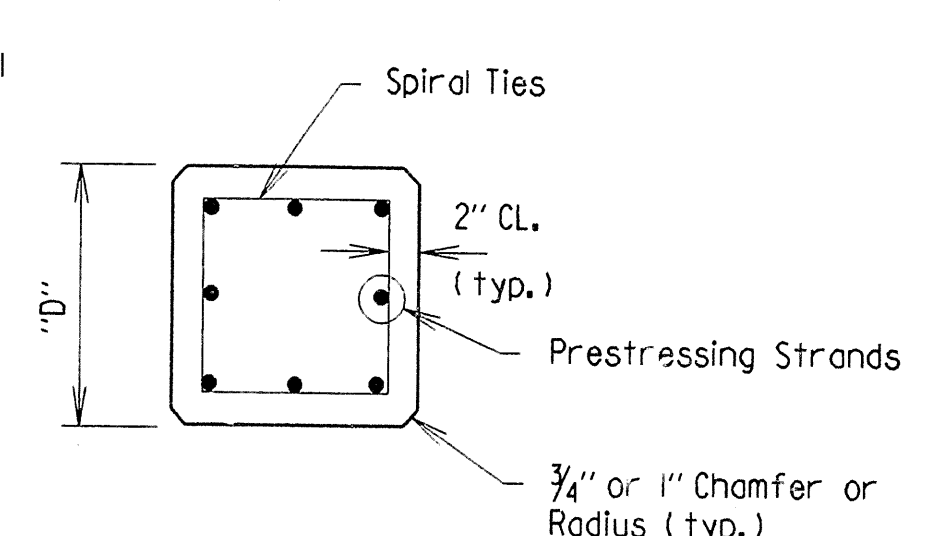


TWO POINT PICK-UP

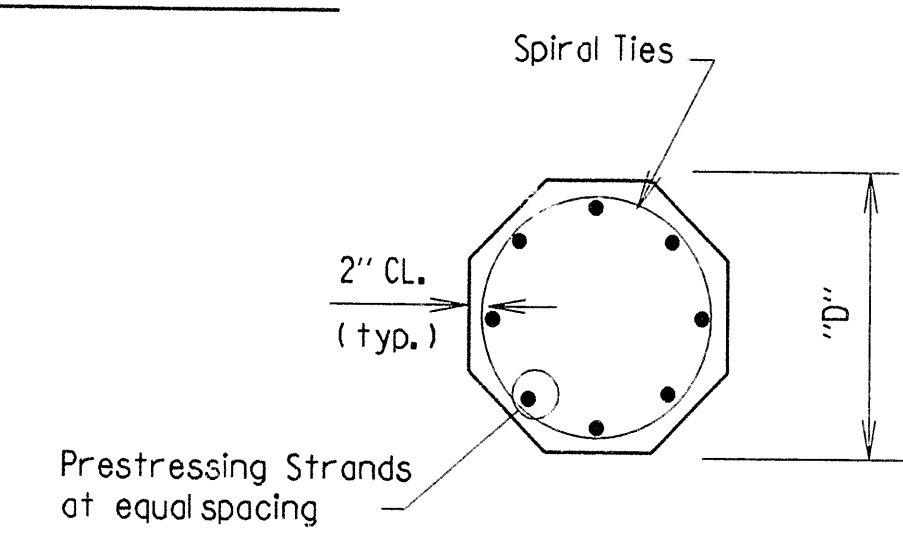


THREE POINT PICK-UP

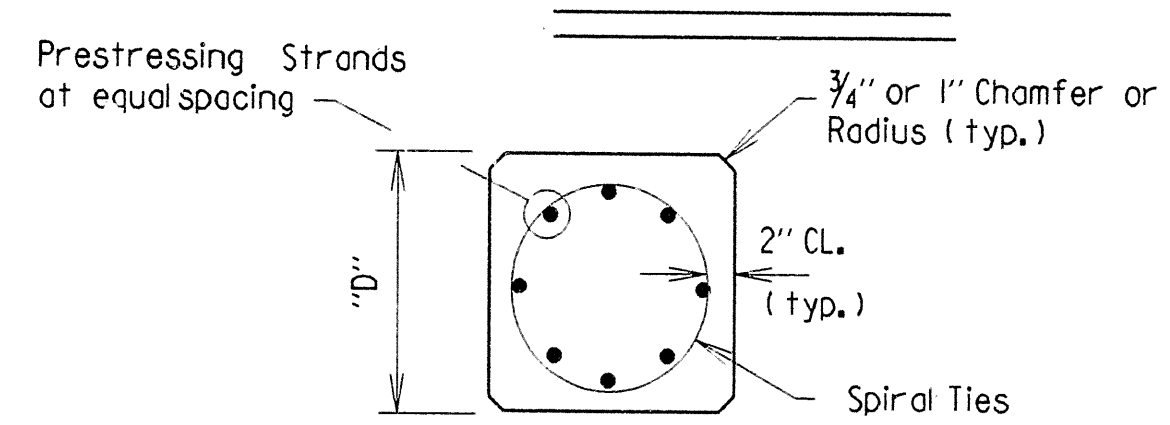
Note: Strand location shall be symmetrical about the axis of the pile with no more than one strand difference between any two adjacent sides. Circular spiral ties are required for odd number of strands.



SECTION A-A
SQUARE PILE

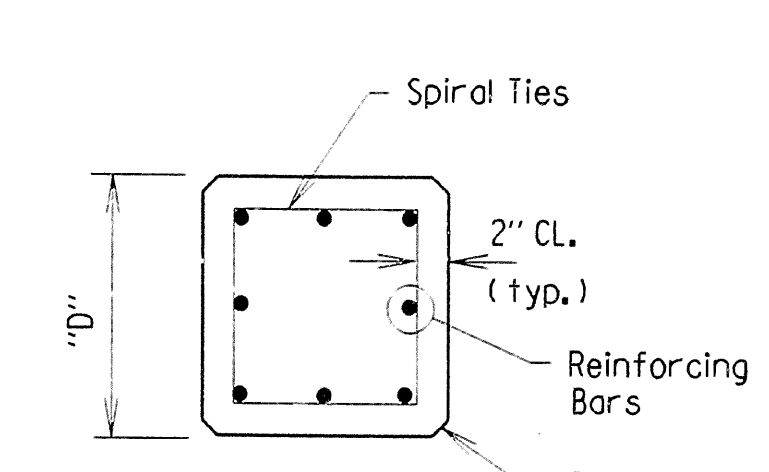


SECTION A-A
OCTAGONAL PILE

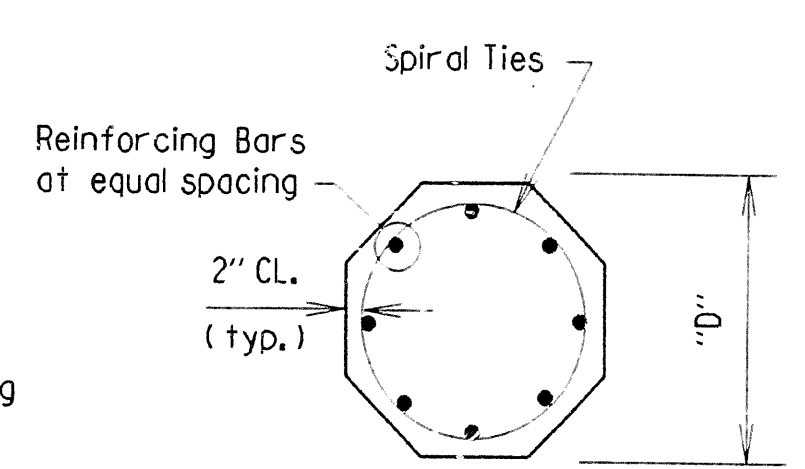


PRECAST PILE REINFORCING

Pile Size	No. Req'd.	Bar Size
16" Oct.	8	# 7
18" Oct.	8	# 7
14" Sq.	8	# 7
16" Sq.	8	# 7
18" Sq.	8	# 8



SECTION A-A
SQUARE PILE



SECTION A-A
OCTAGONAL PILE

PRECAST CONCRETE PILES

PRESTRESSED PILE PROPERTIES

	Grade	Strand Diameter	Number of Strands per Size "D"					Minimum Ultimate Tensile Strength Per Strand (lbs.)	Initial Prestressing Force Per Strand (lbs.)
			16" Oct.	18" Oct.	14" Sq.	16" Sq.	18" Sq.		
Stress-Relieved	250	7/16"	11	13	10	12	16	27,000	18,900
		1/2"	8	10	8	10	12	36,000	25,200
	270	7/16"	9	11	8	12	14	31,000	21,700
		1/2"	7	9	6	8	10	41,300	28,900
Low Relaxation	250	7/16"	9	11	8	11	13	27,000	20,200
		1/2"	7	8	6	8	10	36,000	27,000
	270	7/16"	8	10	7	9	11	31,000	23,300
		1/2"	6	7	5	7	9	41,300	31,000

1 3 4 5 6

Construction Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1996 edition, with applicable Supplemental Specifications and Special Provisions.

Design Specification: AASHTO 1996 with Current Interims

Concrete: Concrete in the Precast Prestressed Piles shall be Class S (AE) and shall have a Minimum Compressive Strength (f'c) of 5000 psi at 28 days. Compressive Strength at transfer of the Prestressing Force shall be not less than 4000 psi. Concrete in Build-Ups shall have a minimum Compressive Strength (f'c) of 4000 psi.

Prestressing Reinforcement: Seven wire stress relieved or low relaxation strands shall conform to the general requirements of AASHTO M203. Broken wires within individual strands will be permitted up to 2% of the total number of wires in each pile, providing that there is not more than one broken wire per strand. Two or more broken wires per strand will be cause for replacement of the strand, even though the two broken wires are within the 2% limitation.

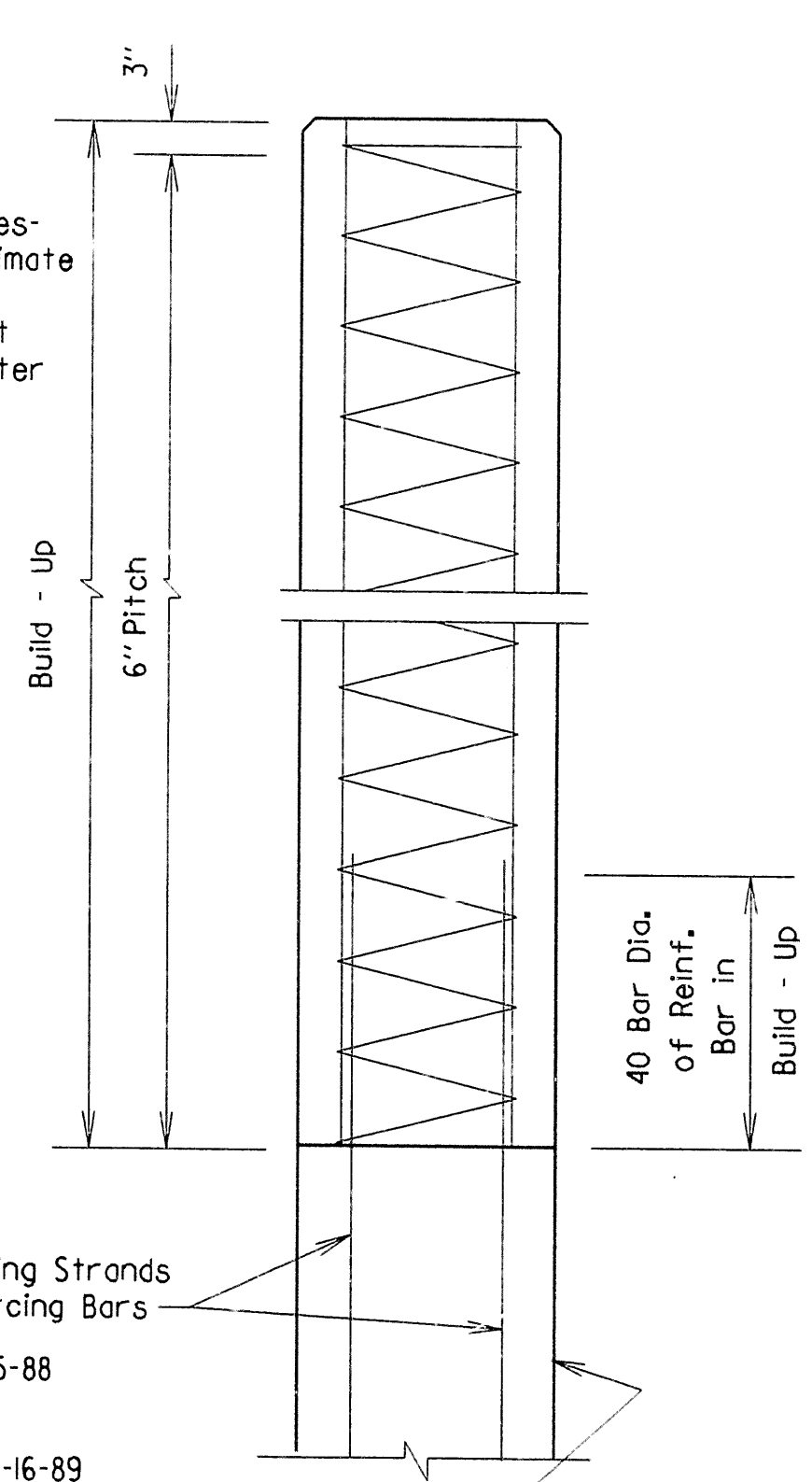
Build-Ups: To provide for Build-Ups of Piles where authorized by the Engineer, concrete shall be cut back to expose the strands for a distance sufficient to provide a lap of 40 diameters of the reinforcing bars required for Build-Up. Reinforcing of Build-Ups shall have a minimum area equal to 1 1/2% of the gross section of pile. Placement of bars shall be in a symmetrical pattern of not less than four bars. See Section 805.1(b) of the Standard Specifications.

Forms: For forming exterior of piles, the use of steel forms on concrete founded casting beds is required, unless otherwise approved by the Engineer. Side forms may have a maximum drift on each side not exceeding 1/4" per foot.

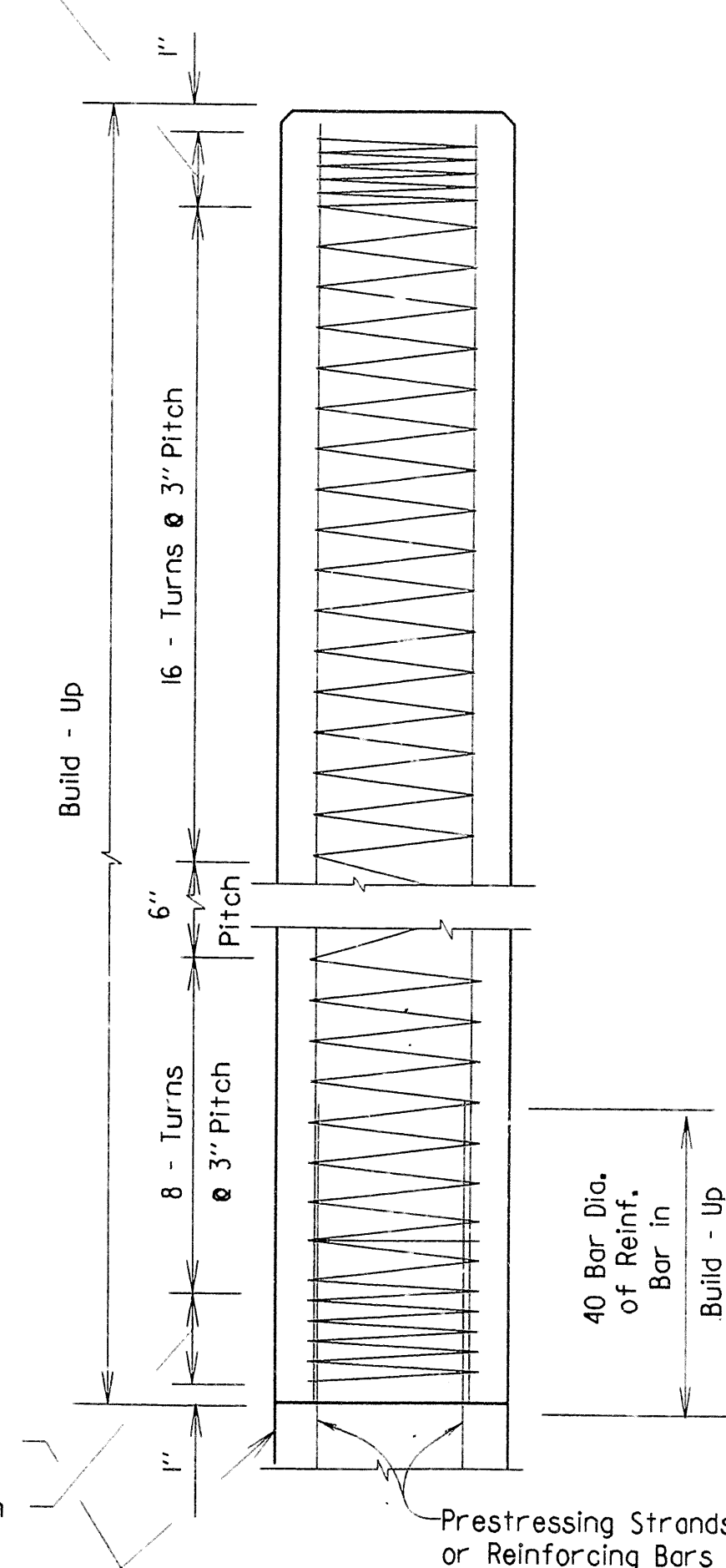
Tolerances: Pile ends shall be plane surfaces and perpendicular to axis of pile with a maximum tolerance of 1/8" per foot transversely.

* Number based on initial prestress force of "B" x Ultimate Tensile Stress, Prestress Losses, and min. 700 psi Unit Prestress on concrete after Losses.

"B" 0.75 Low Relaxation
0.70 Stress-Relieved



BUILD - UP
WITHOUT DRIVING



BUILD - UP
WITH DRIVING

1 3 6

GENERAL NOTES

The maximum sweep (deviation from straightness measured along two perpendicular faces of the pile, while not subject to bending forces) shall not exceed 1/8" in 10 ft. of its length.

General: Shipment of piles from the plant site or pile driving will not be permitted until the required minimum compressive strength is reached, and in no case less than 10 days after pouring the concrete. Piles may be removed from casting bed to a nearby storage any time after transfer of stress.

Spiral Reinforcing: Spiral reinforcing shall be steel wire meeting the requirements of AASHTO M32 with a minimum diameter of 0.2" or shall be plain round steel bars meeting the requirements of AASHTO M31 or M53, Gr. 60 with a minimum diameter of 0.25".

Manufacture, Transportation and Storage: See Section 802 "Concrete for Structures" of the Standard Specifications.

Installation, Measurement and Payment: See Section 805 "Piling" of the Standard Specifications. Precast Prestressed Concrete Piling will be paid for at the contract unit price per Linear Foot bid for "Concrete Piling".

The Contractor may elect to use a Precast Concrete Pile in lieu of the Prestressed Concrete Pile. The following notes apply to Precast Concrete Piles:

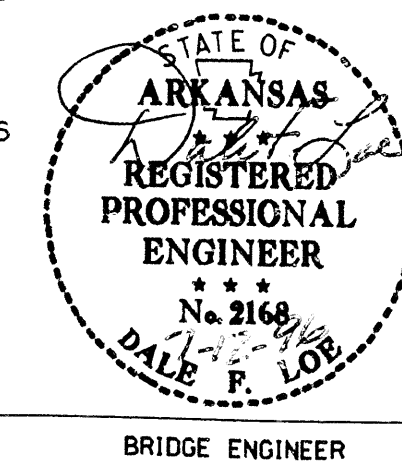
All concrete shall be Class S (AE) and shall have a minimum compressive strength (f'c) of 4000 psi at 28 days.

All longitudinal reinforcing bars shall be deformed bars of AASHTO M31 or M53, Gr. 60.

All spiral reinforcing shall be the same as that shown for prestressed concrete.

DETAILS OF STANDARD CONCRETE PILES

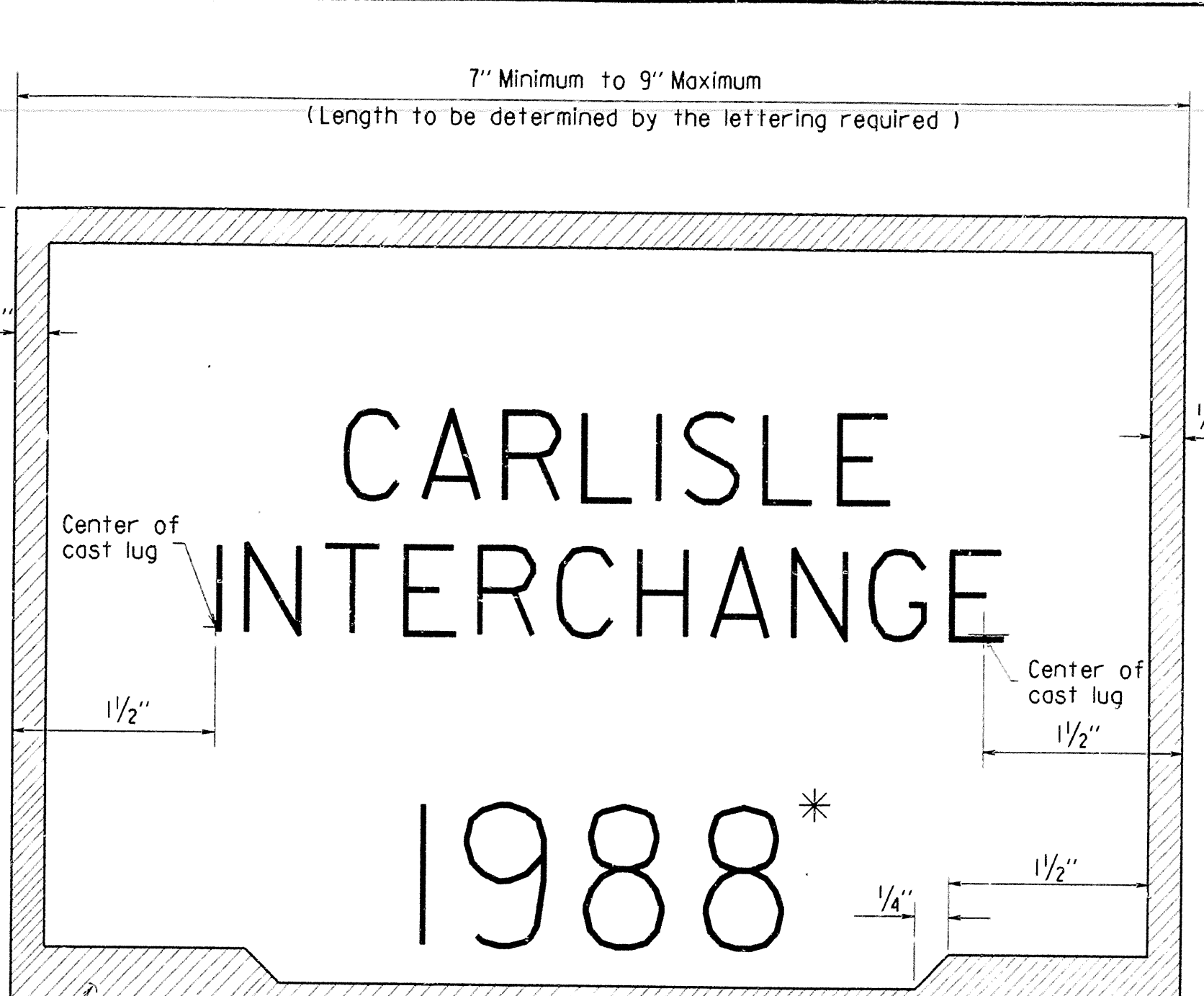
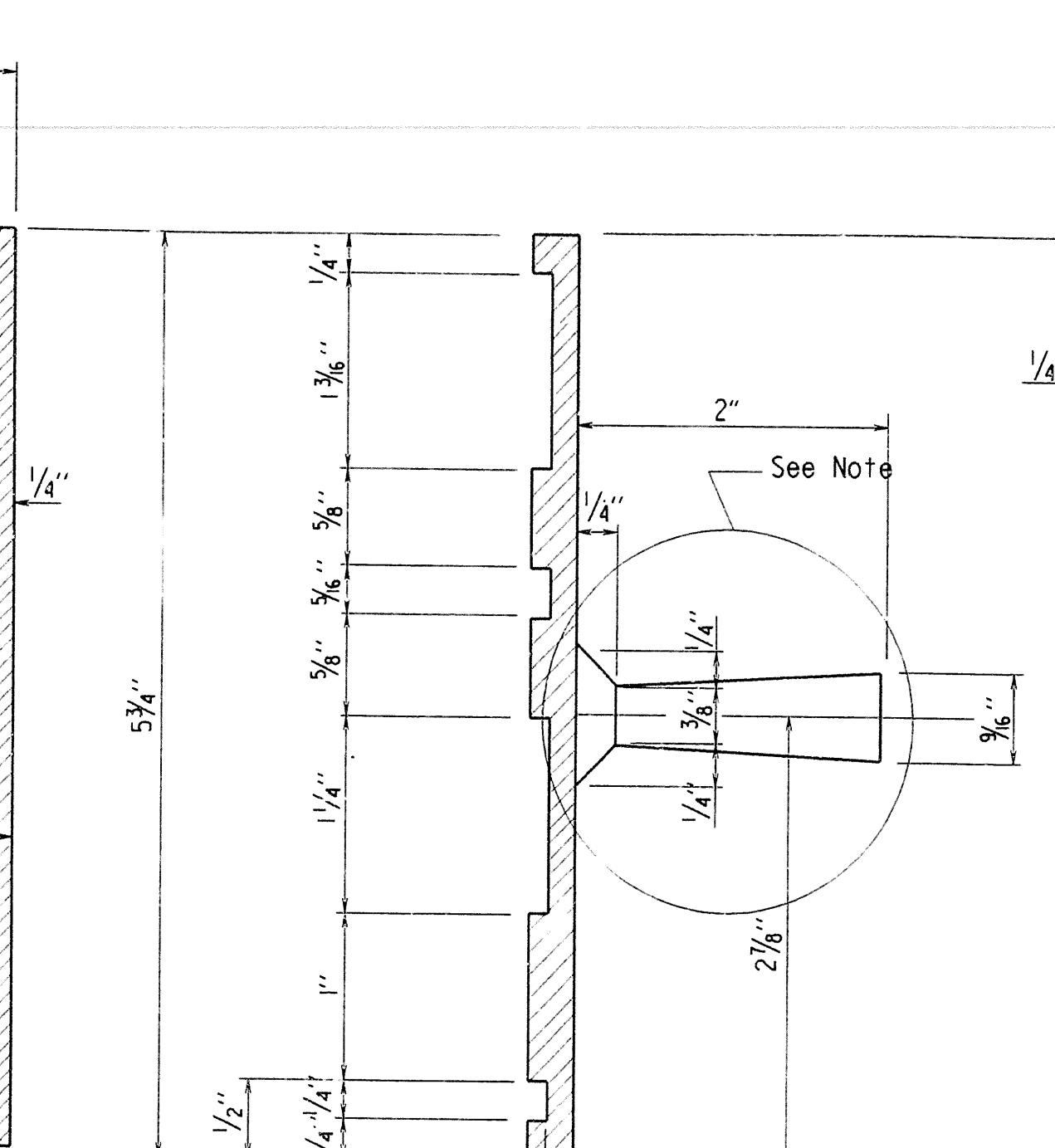
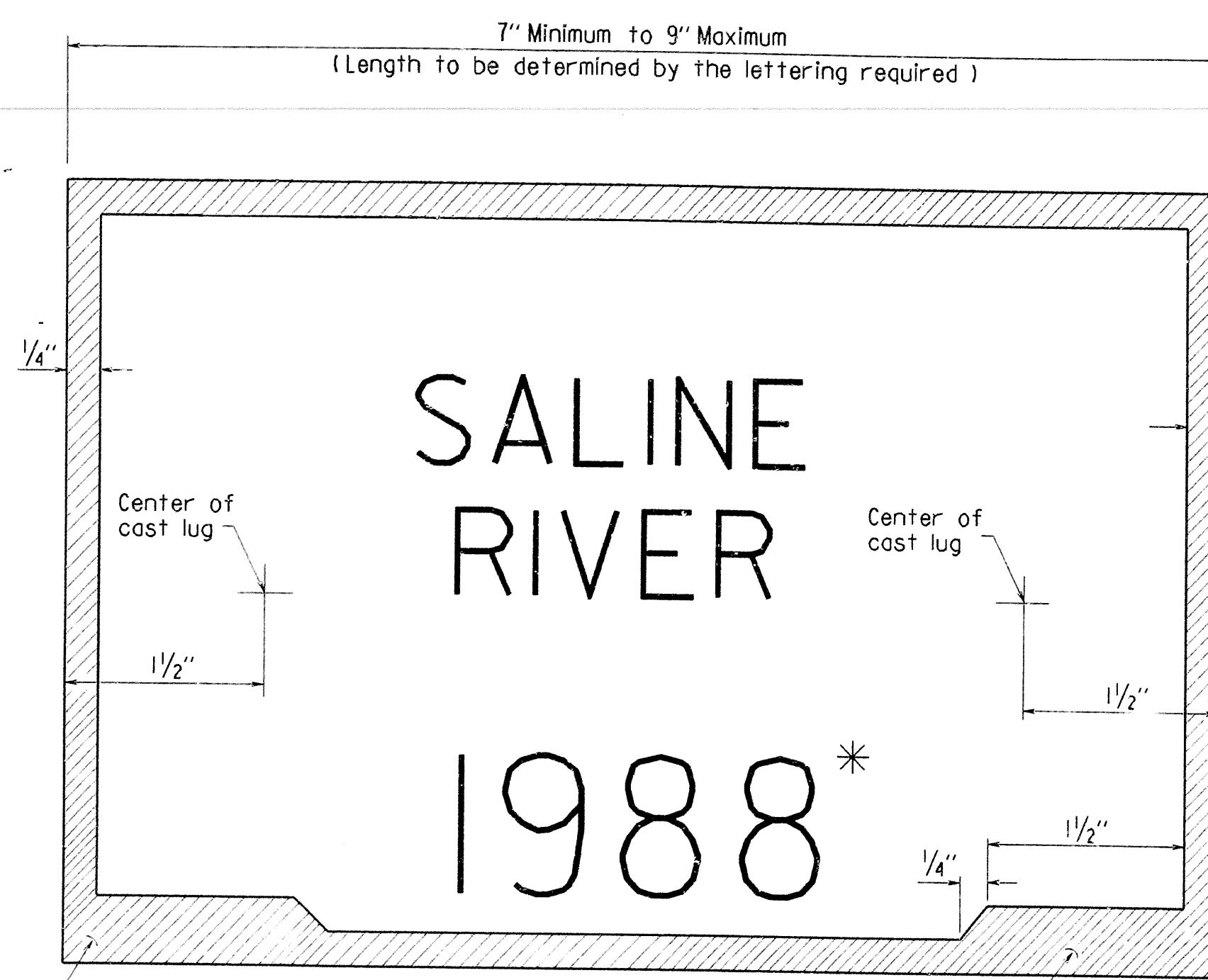
ROUTE SEC.
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.



DRAWN BY: J.P.S. DATE: 10-13-87
CHECKED BY: MEC DATE: 1-6-89
DESIGNED BY: DFL DATE: 7-24-75
BRIDGE NO. DRAWING NO. 2383

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
1-16-89	500-1-16-89	7-18-96	7-18-96	6	ARK.			
11-2-90	11-15-90							
11-11-92	11-11-92							

1 NAME PLATES 2389A



GENERAL NOTES

△ Name plates shall be either cast aluminum or bronze and shall meet the material requirements as specified in section 812 of the standard specifications.

Body of plate shall be $\frac{3}{16}$ " thick and shall include two tapering cone lugs $\frac{3}{8}$ " to $\frac{1}{16}$ " x 2" long. The border and all lettering shall be raised $\frac{1}{8}$ " above the face of plate and shall be polished.

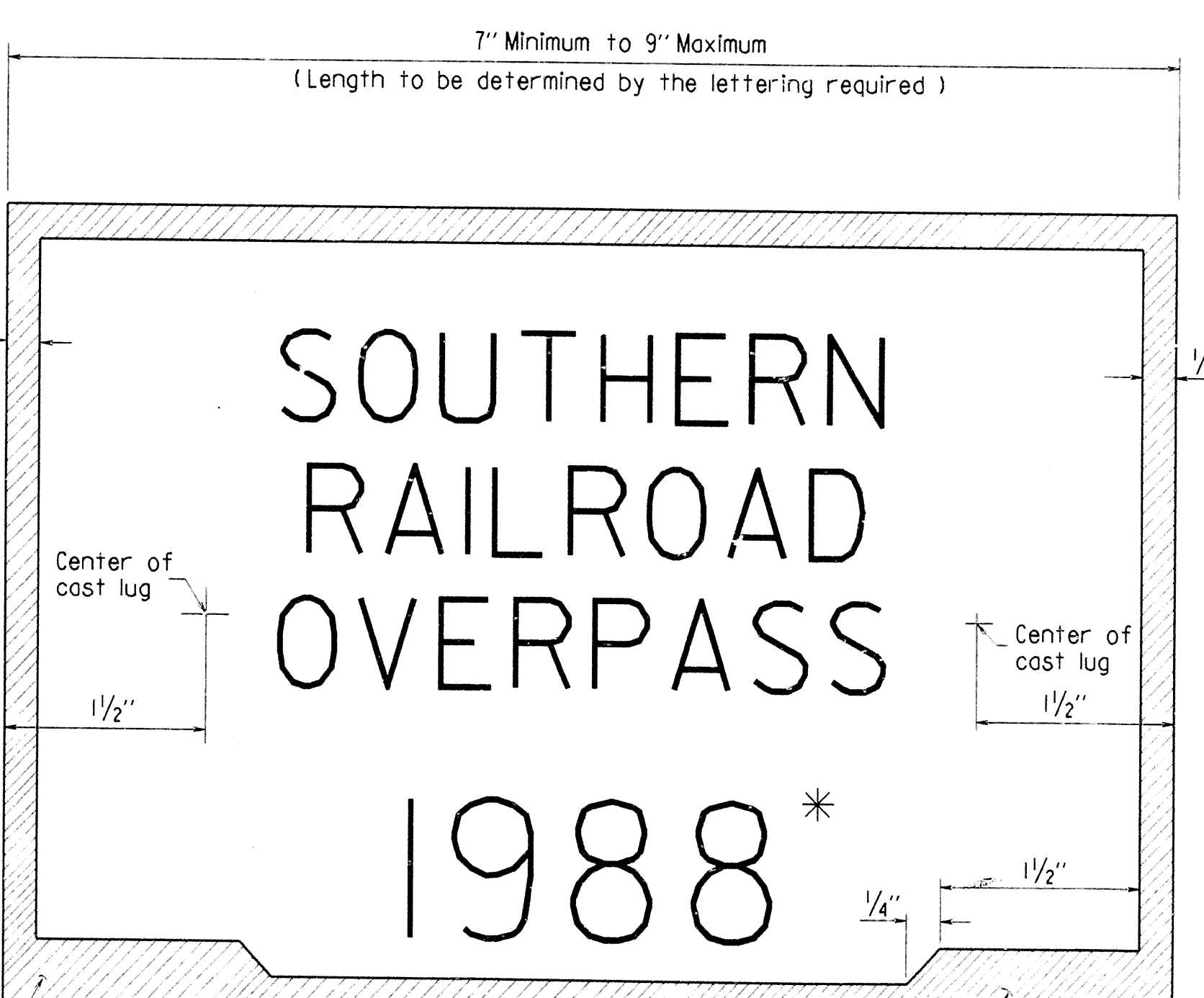
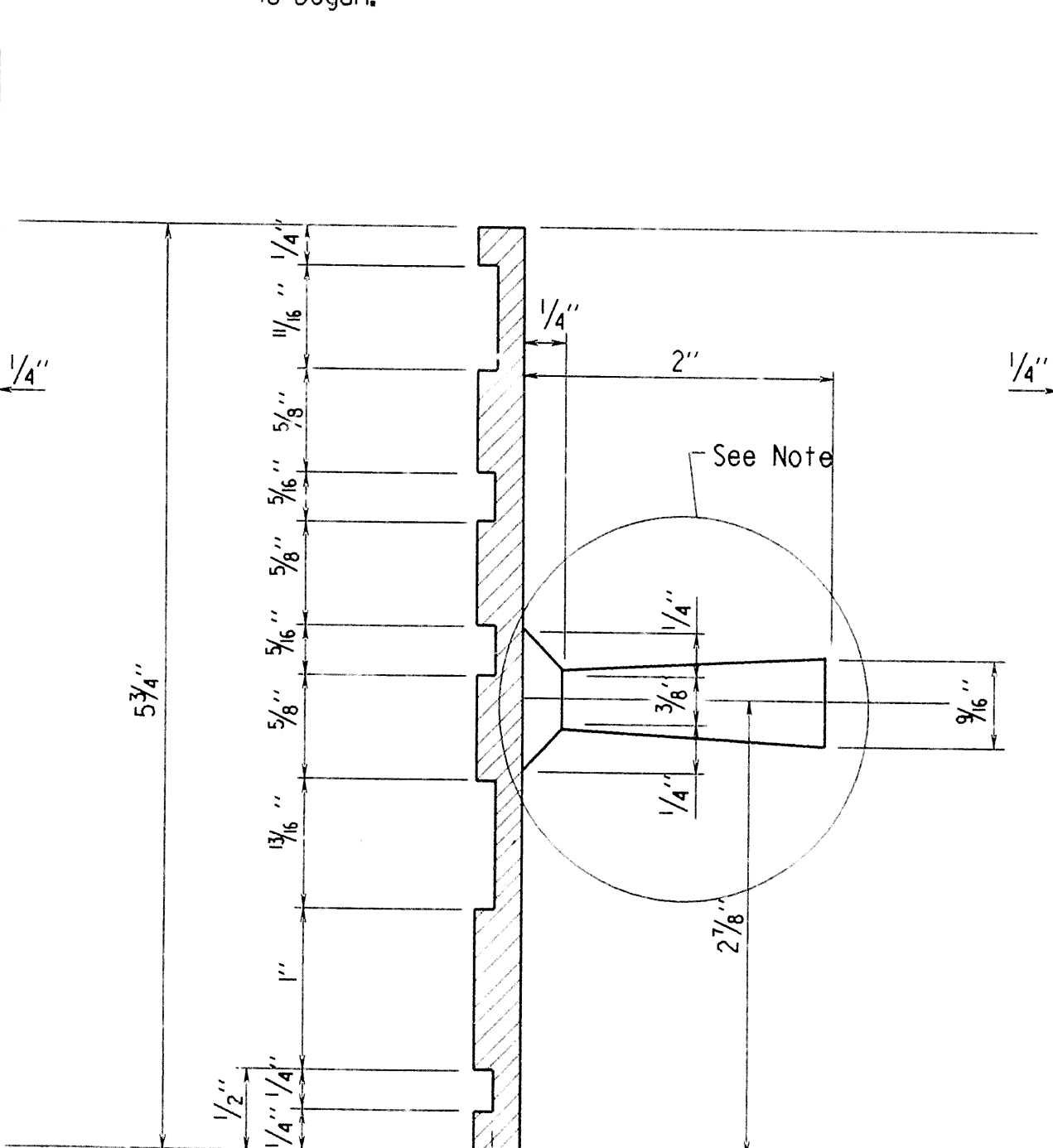
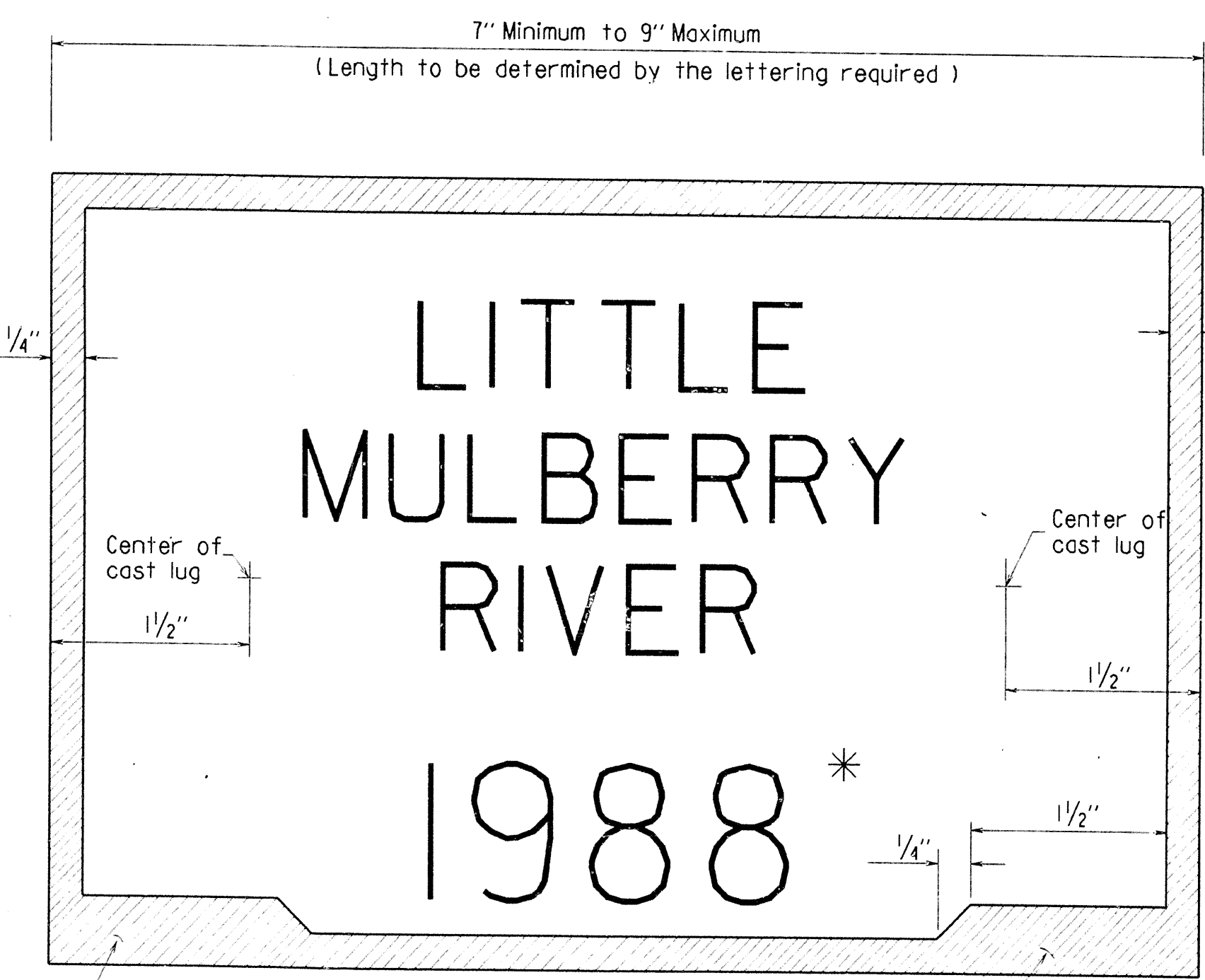
All lettering shall be plain gothic, square cut and not tapered.

The number of plates required and the location and name on the plate for each bridge shall be as designated on the plans.

Specifications: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, 1996 Edition, with applicable Supplemental Specifications and Special Provisions.

TYPICAL BRIDGE NAME PLATE-STYLE 1-FULL SIZE
STREAM CROSSINGS

TYPICAL BRIDGE NAME PLATE-STYLE 3-FULL SIZE
GRADE SEPARATION STRUCTURES

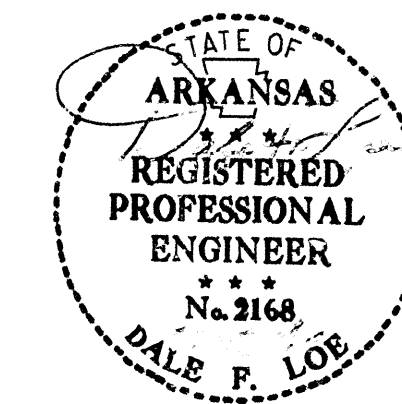


- △ Revised for 1996 Specs. and added DFL Seal. KMG 7-18-96. Chk. By: *DFL*
- △ Rev. General Notes 11-11-92 CRHart
- △ Rev. General Notes, 11-2-90, W.Maj.
- △ Revised notes, 1-16-89, LM

*Year in which contract is awarded.

TYPICAL BRIDGE NAME PLATE-STYLE 2-FULL SIZE
STREAM CROSSINGS

TYPICAL BRIDGE NAME PLATE-STYLE 4-FULL SIZE
GRADE SEPARATION STRUCTURES



DETAILS OF STANDARD
TYPE C BRIDGE NAME PLATES

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

DRAWN BY: LDF DATE: 6-16-88
CHECKED BY: CPB DATE: 6-16-88
DESIGNED BY: _____ DATE: _____

BRIDGE NO. _____ DRAWING NO. 2389A