

MICROFILMED
OCT 19 1987

DESIGN DESIGNATION

CURRENT (1985) ADT	=	3350	360
DESIGN YEAR (2005) ADT	=	4020	550
DHV	=	400	55
D	=	50%	50%
T	=	8%	6%
V	=	50 MPH	50 MPH

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

WAY-3-9.15 (PART 1)
WAY-95-0.79 (PART 2)

PLAIN & WOOSTER TOWNSHIPS
WAYNE COUNTY

WAY-3-9.15	OHIO	1
WAY-95-0.79	FHWA REGION 5	32
BRF-20(63)	BRS-475(3)	FEDERAL PROJECT

BRF - 20(63)

BRS - 475(3)

CONVENTIONAL SIGNS

County Line	-----	Limited Access (only)	-----	LA
Township Line	-----	Right of Way (only)	-----	RW
Section Line	-----	Limited Access & Right of Way	-----	LA & RW
Corporation Line	----- or -----	Existing Right of Way	-----	
Fence Line (existing) - x - (proposed) - x -		Property Line - R - (in existing fence) - x - R -		
Center Line	----- 352 ----- 353 -----	Railroad	----- or -----	
Trees, Stumps, (to be removed)	---X---	Guardrail (existing) - a - a - (proposed) - a - a -		
Utility Poles: Telephone ϕ , Power ϕ , Light ϕ				

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RIGHT OF WAY	32

LINE DATA

	PROJECT	WORK
PART 1 (WAY-3-9.15)		
BEGIN	STA. 482+65.65	STA. 480+57
END	STA. 483+58.35	STA. 485+65
LENGTH	92.70 LIN. FT.	508.00 LIN. FT.
PART 2 (WAY-95-0.79)		
BEGIN	STA. 239+25	STA. 239+25
END	STA. 242+35	STA. 243+25
LENGTH	310.00 LIN. FT.	400.00 LIN. FT.
TOTAL PROJECT LENGTH	402.70 LIN. FT.	908.00 LIN. FT.
OR	0.076 MILES	0.172 MILES

UNDERGROUND UTILITIES
TWO WORK DAYS
BEFORE YOU DIG
Call 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

Portion to be improved
State & Federal Routes
Other Roads

SCALES

Plan
Profile: Horizontal Vertical
Cross Section: Horizontal Vertical

SUPPLEMENTAL SPECIFICATIONS	
824	10-8-82
836	3-12-75
847	10-17-83
861	9-9-83
947	10-17-83
961	9-9-83

Approved *Nancy M. Pinn*
Date 12/20/84 District Deputy Director of Transportation

Approved *Walter J. Geringer son*
Date 1-18-85 Engineer, Bureau of Bridges and Structural Design

Approved *Wayne H. Kauble*
Date 6-3-85 Chief Engineer, Planning & Design

Approved *Warren J. Smith*
Date 6-3-85 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR

DATE

Project: WAY-3-9.15 WAY-95-0.79
Date of Letting 19, Contract No.
SHAFER, JOHNSTON, LICHTENWALTER
& ASSOCIATES, INC.
(STRUCTURE PLANS)

SEAL

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS			
BP-5	7-16-81	MC-9A	5-1-81
		MC-10	5-1-76
		MC-11	8-1-78
GR-1	2-5-82		
GR-2B	2-5-82	LA-1	6-1-79
GR-3	2-5-82		
GR-4	2-5-82	AS-1-81	11-27-81
GR-4A	1-30-84		
HW-4A	4-1-80	DBR-2-73	4-10-73
		CS-2-73	4-10-73
MC-4	7-26-76		

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OCT 19 1987

NOTE: Telephone aerial across
channel & underground
each way from poles.

CURVE DATA
 P.I. 239+10.37
 $\Delta = 9^{\circ} 03' 26''$
 $T = 453.81'$
 $L = 905.72'$
 $D = 1^{\circ} 00'$
 $R = 5729.578'$
 $E = 17.94'$

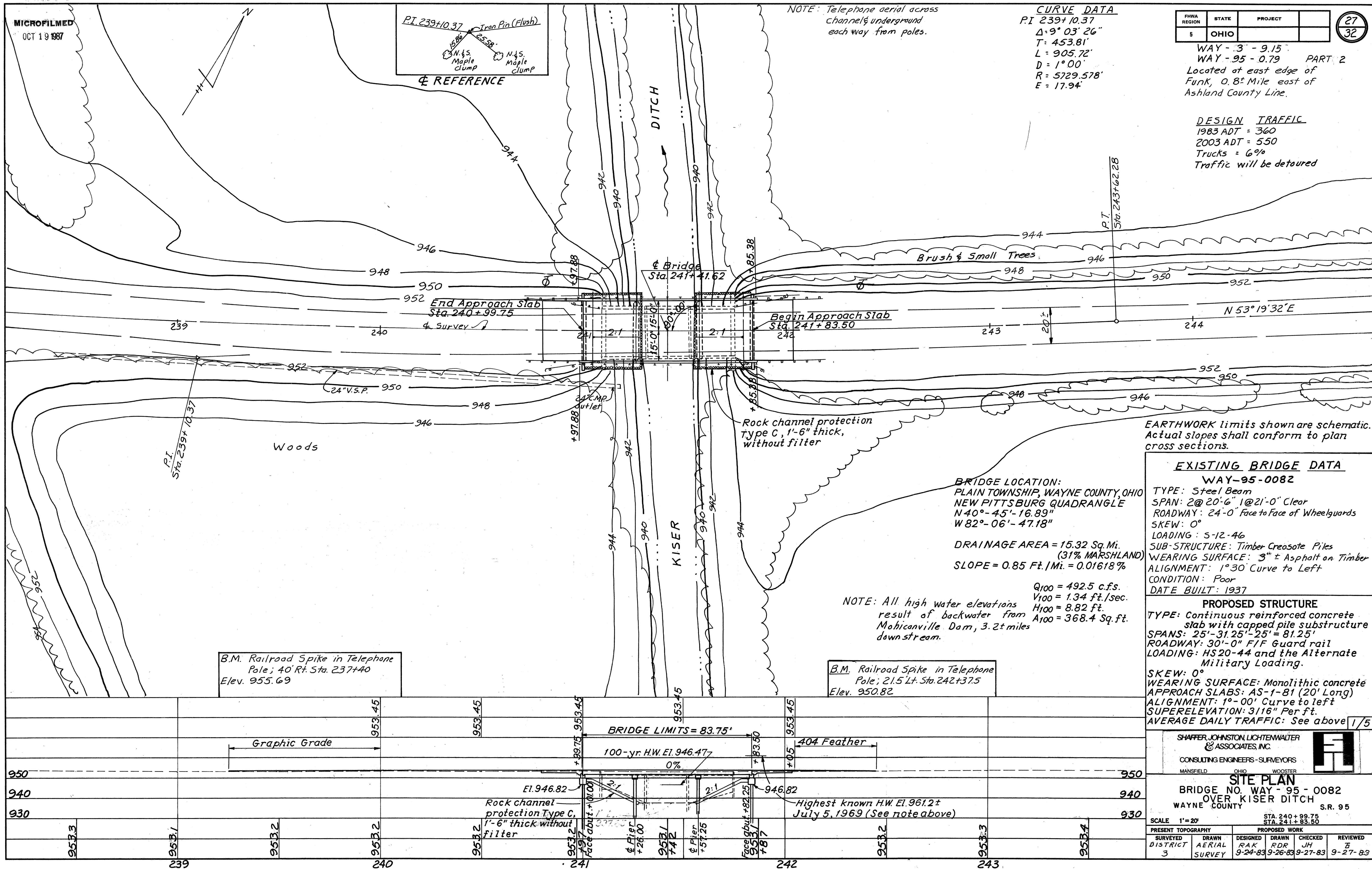
FHWA REGION	STATE	PROJECT	
5	OHIO		

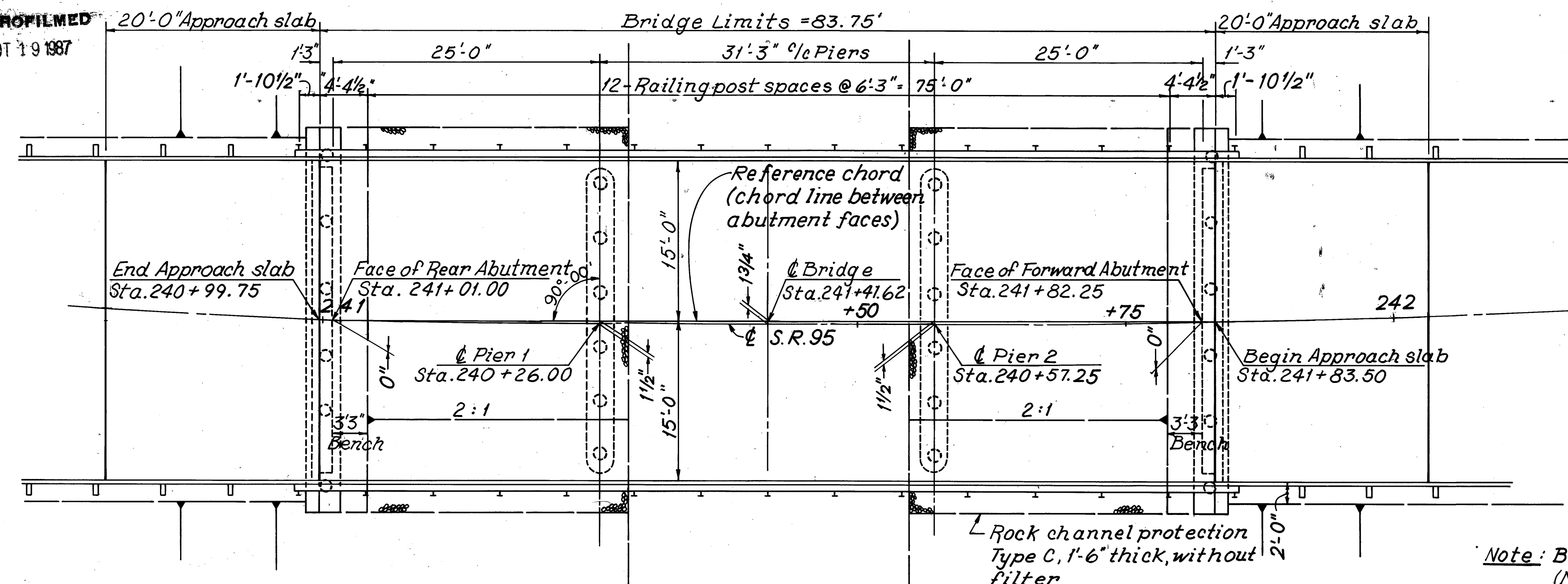
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32

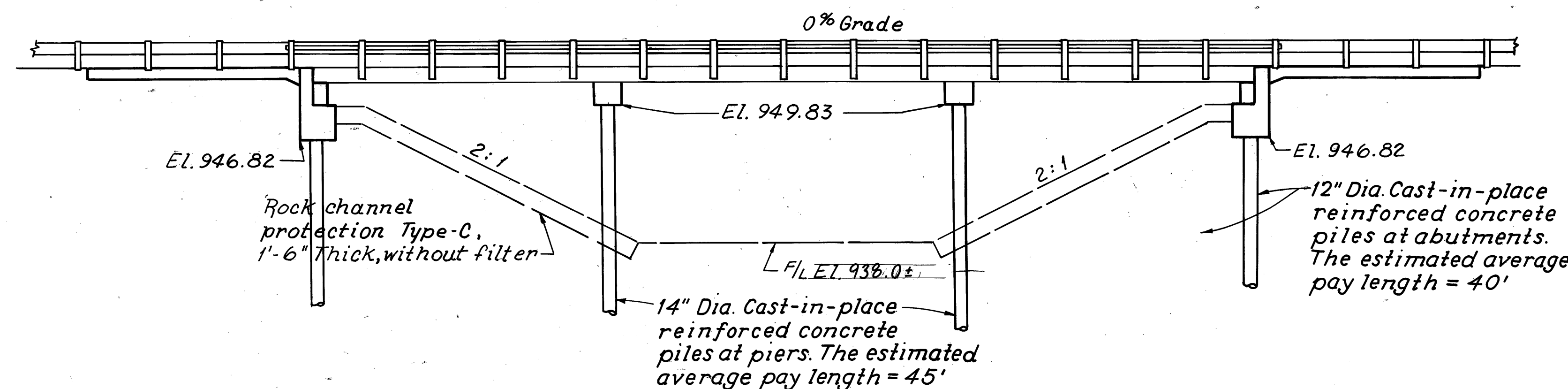
WAY - 3 - 9.15
WAY - 95 - 0.79 PART 2
Located at east edge of
Funk, 0.8¹ Mile east of
Ashland County Line.

DESIGN TRAFFIC
1983 ADT = 360
2003 ADT = 550
Trucks = 6%
Traffic will be detoured





GENERAL PLAN



GENERAL ELEVATION

		ESTIMATED QUANTITIES		BRS - 475 (3)			
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUTS.	PIERS	GEN'L.
202	Lump	Lump	Structures Removed				
503	Lump	Lump	Unclassified Excavation		Lump		
505	Lump	Lump	Pile Driving Equipment Mobilization				
507	480	Lin.Ft.	12" Dia. Cast-in-place reinforced concrete piles, as per plan		480		
507	540	Lin.Ft.	14" Dia. Cast-in-place reinforced concrete piles, as per plan			540	
509	22,128	Lbs.	Reinforcing Steel	16,533	4,184	1,411	
511	130	Cu.Yds.	Class S Concrete, Superstructure, As Per Plan	130			
511	11	Cu.Yds.	Class C Concrete, Pier Caps, As Per Plan			11	
511	37	Cu.Yds.	Class C Concrete, Abutments, As Per Plan		37		
517	175.00	Lin.Ft.	Railing (Deep beam rail with steel tubular backup and Type 2 steel Posts and bolts)	175.00			
518	14	Cu.Yds.	Porous Backfill		14		
824	9942	Lbs.	Epoxy coated reinforcing steel	8926		1016	
Special	35	Sq.Yd.	Sealing of Concrete Surfaces (See Proposal Note)	35			

For additional General Notes, See Sheet 22A.

For Pile Plan: See sheet 3/5

QUANTITIES CALC. RAK 11-16-83
QUANTITIES CK'D. JH 1-5-84

FHWA REGION	STATE	PROJECT
5	OHIO	

WAY - 3 - 9.15
WAY - 95 - 0.79 PART 2

GENERAL NOTES

REFERENCE: shall be made to Standard Drawings

AS-1-81 (dated 11-27-81)
DBR-2-73 (dated 4-10-73)
CS-2-73 (dated 4-10-73)
and to Supplemental Specifications
824 (dated 10-8-82)
836 (dated 3-12-75)

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway and Transportation Officials, 1977 including the 1978, 1979, 1980, 1981 and 1982 Interim Specifications and the Ohio "Supplement" to these specifications

DESIGN DATA:

Design Loading - HS-20-44 and the alternate Military Loading
Concrete Class S - Unit stress 1500 P.S.I. (Superstructure).
The slab design is based on class C concrete. (See Standard Drawing CS-2-73 for design data)
Concrete Class C - Unit stress 1333 P.S.I. (Substructure)
Reinforcing Steel ASTM A615, A616, A617 - Grade 40 - unit stress 20,000 p.s.i.
Deck Protection Method - epoxy coated reinforcing steel (top mat only)

MONOLITHIC WEARING SURFACE is assumed, for design purposes, to be 1" thick.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Suitable waste masonry may be placed as bank protection as directed by the Engineer.

UTILITY LINES: All expense involved in relocating the affected utility lines shall be borne by the owners. The Contractor and Owners are requested to cooperate by arranging their work in such a manner that inconvenience to either will be held to a minimum.

EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade to the Work Limits back of the abutments. Excavation may then be made for the abutments and for the benches and piles driven.

PILE DESIGN LOADS: The design load for the abutment piles is 23 tons per pile and the design load for the pier piles is 34 tons per pile.

PILE HAMMER: The pile hammer used to install the cast-in-place reinforced concrete piles shall have a States Energy Rating of not less than 14,000 foot-pounds. This requirement does not relieve the Contractor from 108.05 which states that the Contractor is to provide sufficient equipment for prosecuting the required work. Refer to ODOT's "Manual for Structures" to obtain the States Energy Rating.

12 INCH PRECAST PRESTRESSED CONCRETE PILES: may be substituted for the 12 inch cast-in-place reinforced concrete piles shown on these plans. Drawings showing details of and specifications for prestressed concrete piles are available from the Director (Bureau of Bridges). If the prestressed pile alternate is chosen, the method of measurement and basis of payment shall be the same as for cast-in-place reinforced concrete piles per 507.

SHAFFER, JOHNSTON, LICHTENWALTER
& ASSOCIATES, INC.
CONSULTING ENGINEERS - SURVEYORS
MANSFIELD OHIO WOOSTER

GENERAL PLAN, ELEVATION,
NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. WAY - 95 - 0082
OVER BRANCH OF KISER DITCH
WAYNE COUNTY S. R. 95
STA. 240+99.75 TO STA. 241+83.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RDR	AF	RAK	JH	1-5-84	

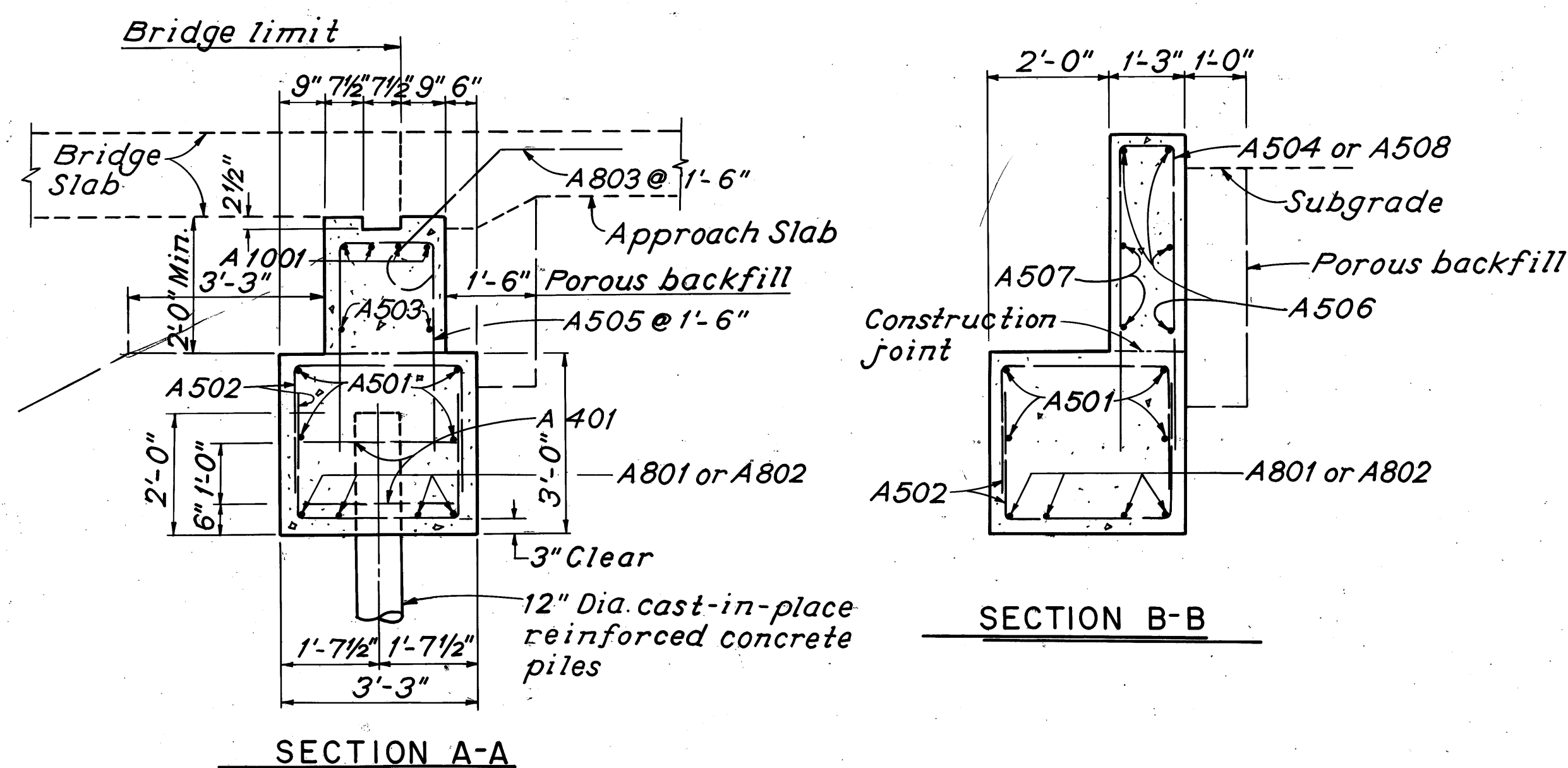
JOB NO. EM-943 SHEET OF

PILE CASINGS NOTE: See sheet 4/5



NOTATION:
FF- Front Face
RF- Rear Face

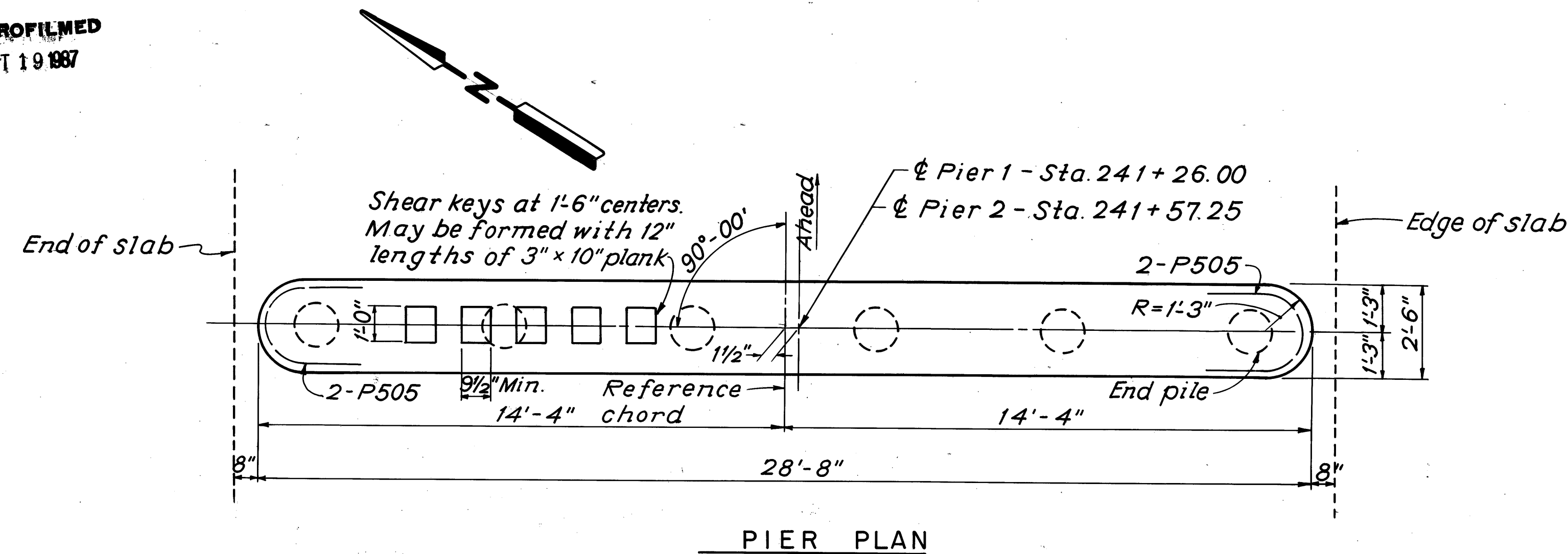
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JOB NO EM-943				SHEET OF		



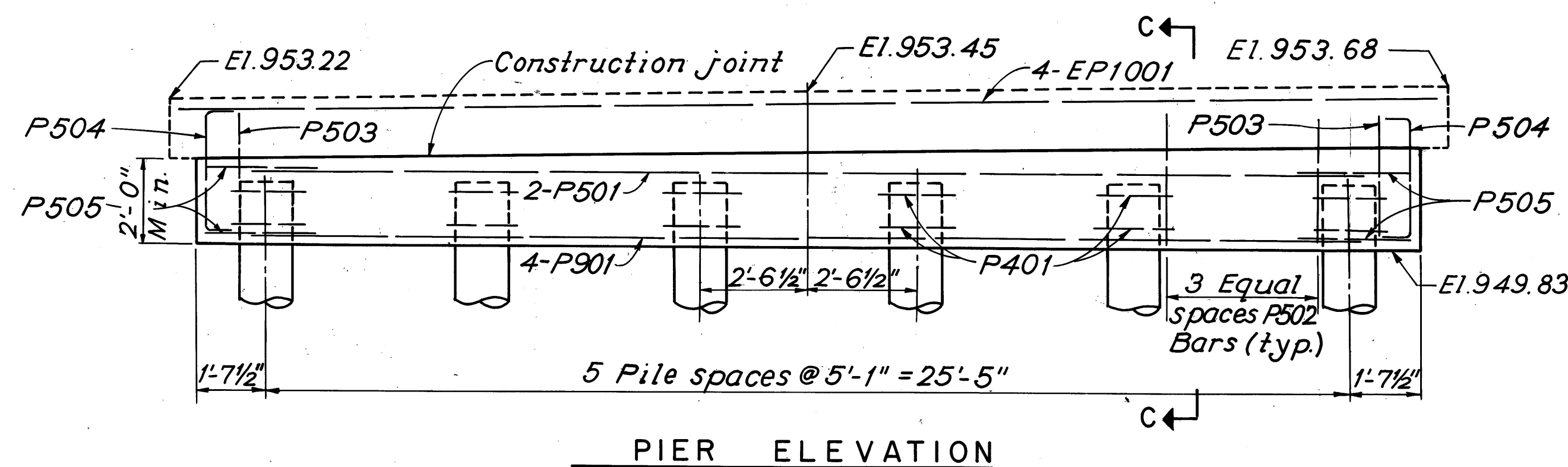
NOTES:

FALSEWORK SUPPORT: Attachment of falsework support members to pier piles will be permitted, if the attachment is made to that portion of pile encased in the pier cap.

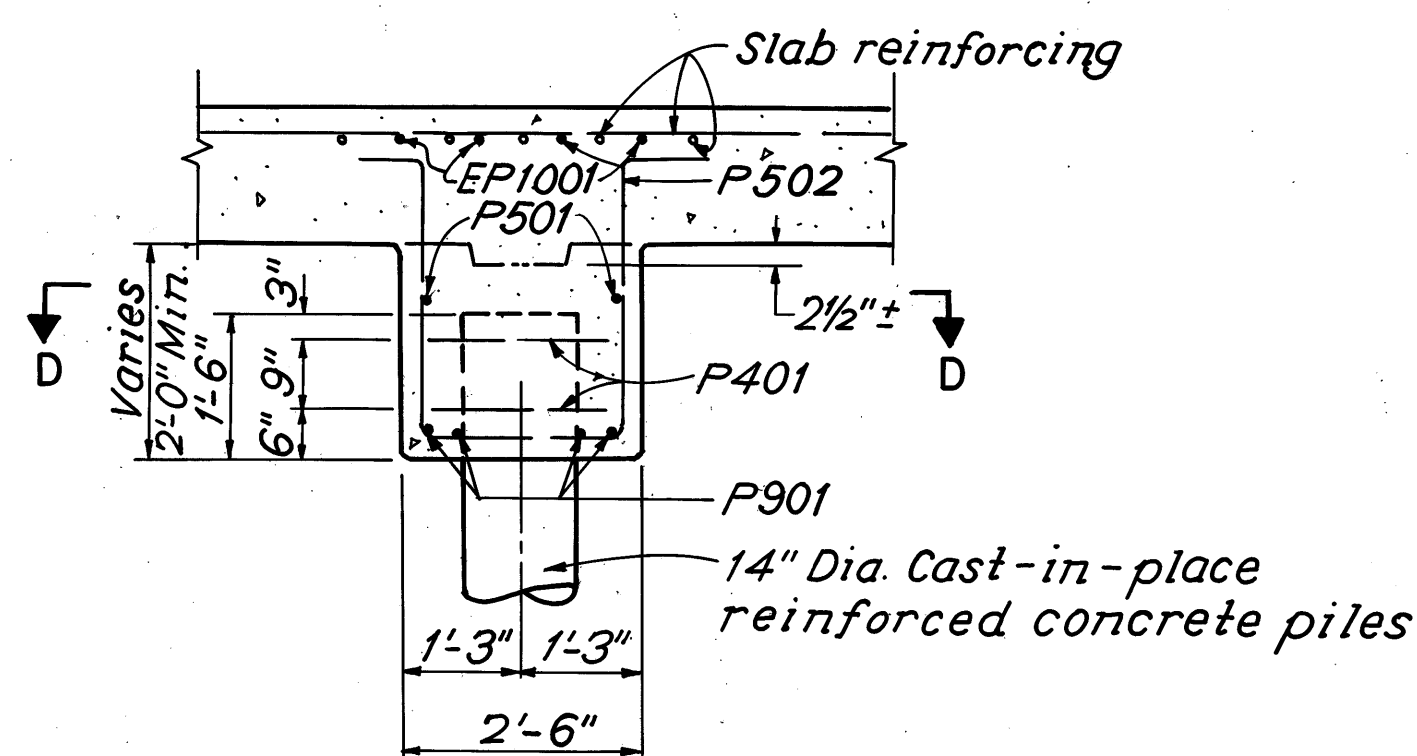
PILE CASINGS: The casings of cast-in-place reinforced concrete piles shall be of the type that is left in place and is designed to resist both direct compression and bending. The portion above the proposed surface of the ground shall be of uniform diameter (not tapered) and shall have a thickness of metal not less than 0.179 inches.



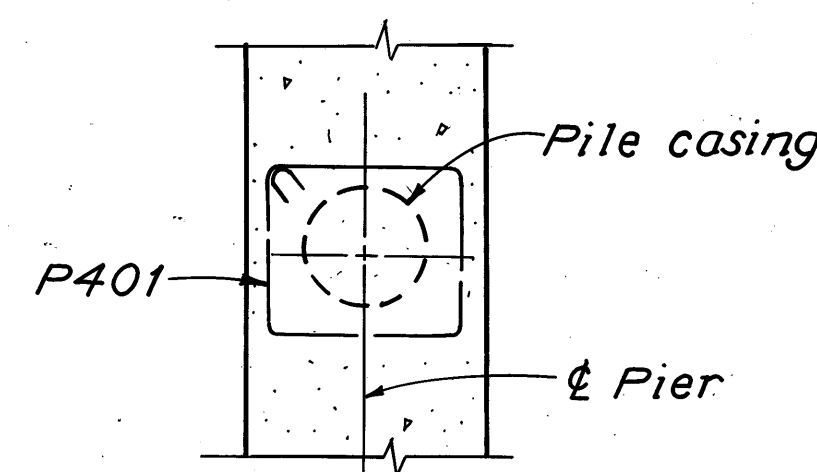
PIER PLAN



PIER ELEVATION



SECTION C-C



SECTION D-D

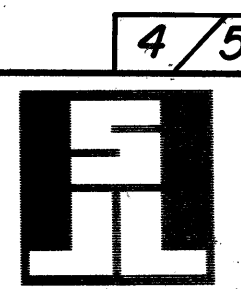
REINFORCING STEEL - PIERS

MARK	NO.	LENGTH	WEIGHT	SHAPE	PIER 1	PIER 2	BENDING DIAGRAMS
P401	24	8'-0"	128	BT.	12	12	
P501	4	26'-2"	109	S	2	2	
P502	40	8'-7"	358	BT.	20	20	
P503	4	8'-5"	35	BT.	2	2	
P504	4	3'-10"	16	BT.	2	2	
P505	8	6'-4"	53	BT.	4	4	
P901	8	26'-2"	712	S	4	4	
TOTAL WEIGHT			1411				

EPOXY COATED REINFORCING STEEL - PIERS

MARK	NO.	LENGTH	WEIGHT	SHAPE	PIER 1	PIER 2	BENDING DIAGRAMS
EP1001	8	29'-6"	1016	S	4	4	
TOTAL WEIGHT			1016				

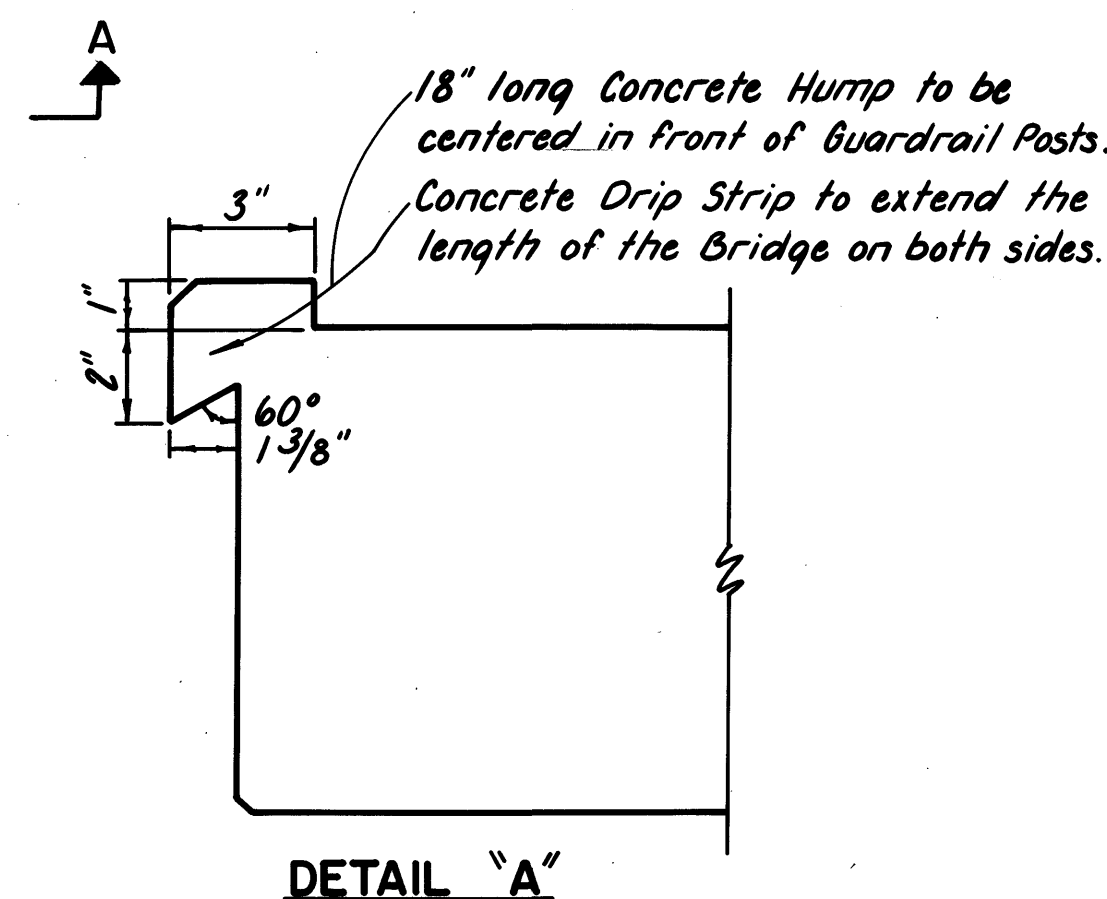
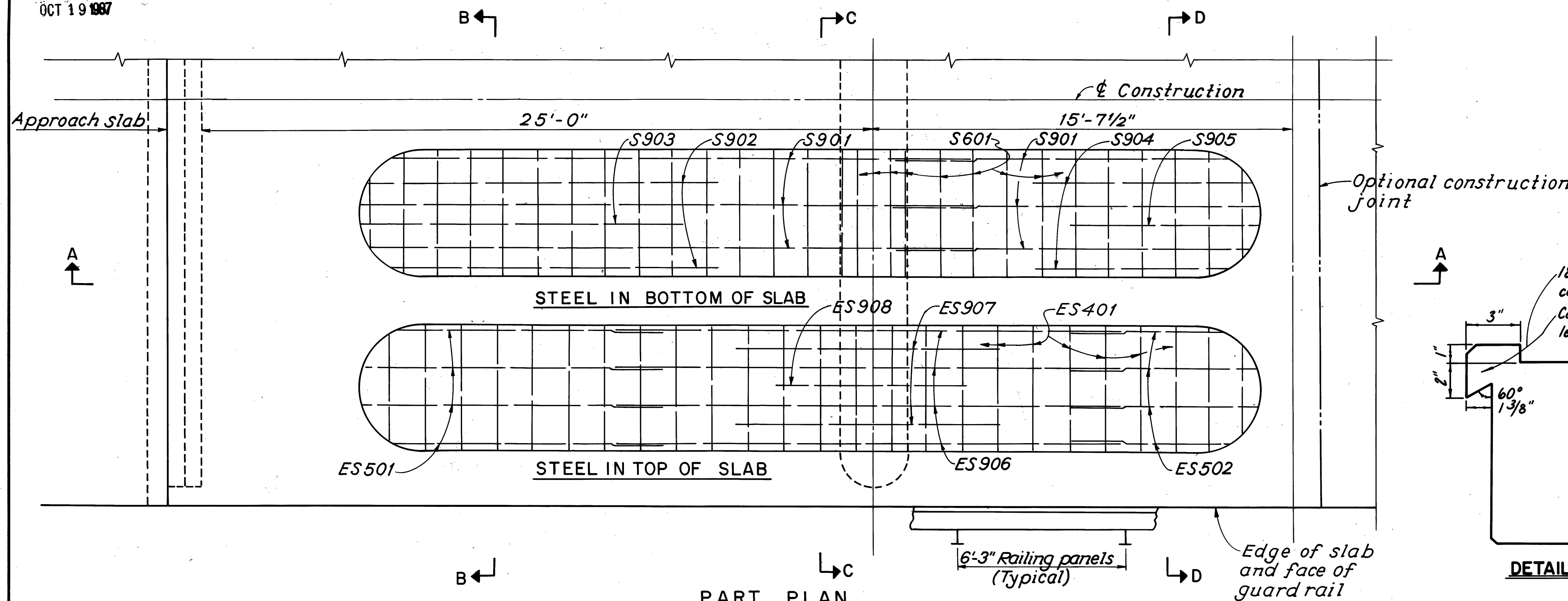
SHAFER, JOHNSTON, LICHTENWALTER
& ASSOCIATES, INC.
CONSULTING ENGINEERS - SURVEYORS
MANSFIELD OHIO WOOSTER



PIERS

BRIDGE NO. WAY - 95 - 0082
OVER BRANCH OF KISER DITCH
WAYNE COUNTY S.R. 95
STA. 240+99.75 TO STA. 241 + 83.50

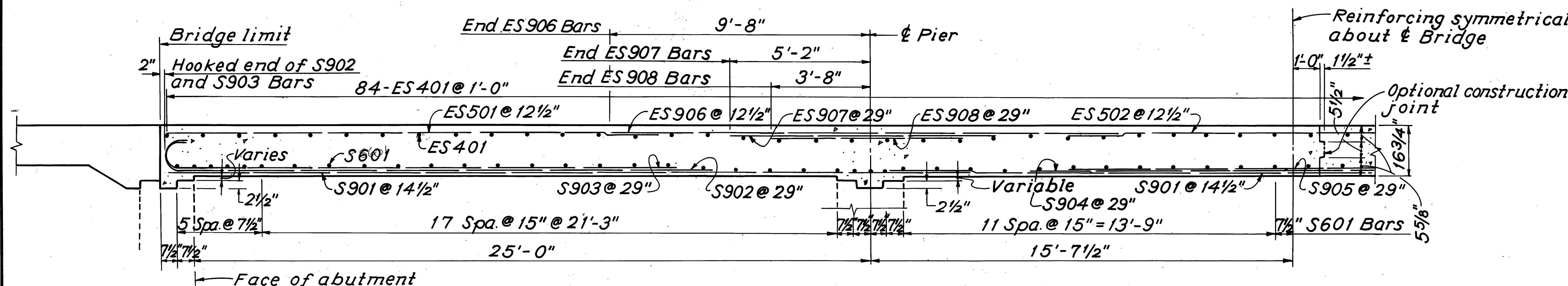
DESIGNED RAK	DRAWN RDR	TRACED RAK	CHECKED RAK	REVIEWED JH	DATE 1-5-84	REVISED
JOB NO. EM-943						SHEET OF

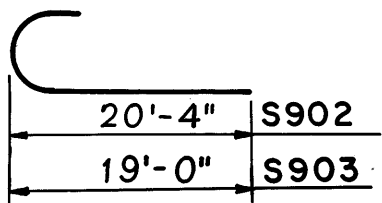


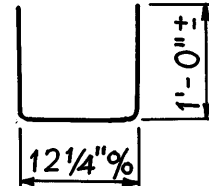
NOTES:
DEEP BEAM BRIDGE GUARD RAIL WITH TUBULAR BACKUP:
See Std. Dwg. DBR-2-73. Use Type 2 posts.

CAMBER of $\frac{3}{8}$ " in each end span and $\frac{1}{2}$ " in the middle span shall be provided (in addition to that required for conformance with the horizontal curve of the highway) to allow for dead load deflection. This is the amount of camber required before falsework is released. To obtain this, proper allowance shall be made for the deflection of falsework members.

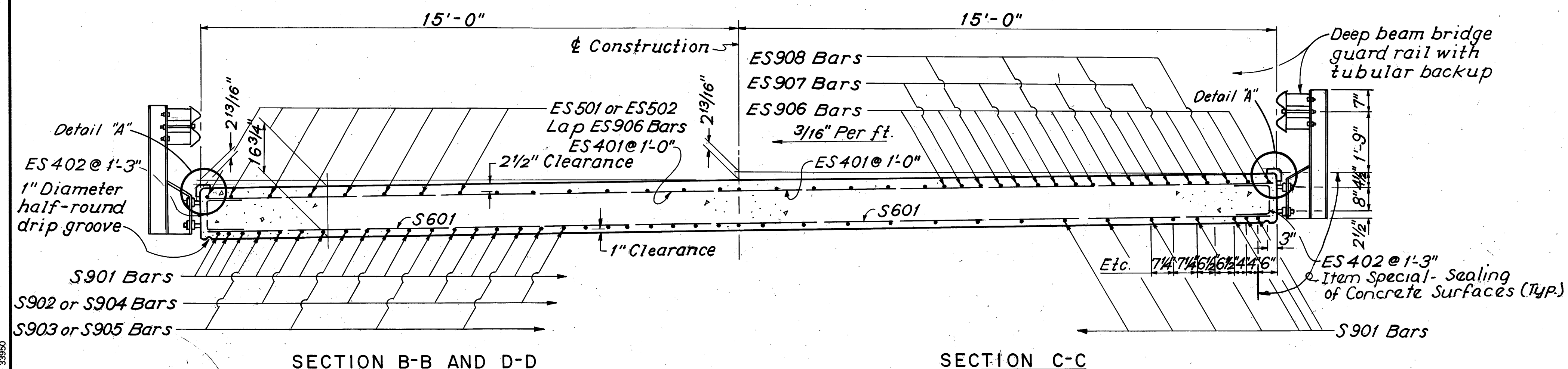
CONSTRUCTION JOINTS: One construction joint in bridge slab may be placed on transverse centerline of middle span or 1'-0" $\pm$ off transverse centerline if necessary to miss railing posts and transverse reinforcing bars. One longitudinal joint will be permitted, on centerline of construction.



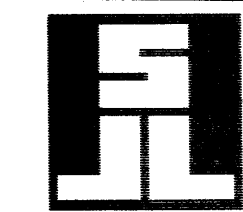
REINFORCING STEEL - SUPERSTRUCTURE					
MARK	NO.	LENGTH	WEIGHT	SHAPE	BENDING DIAGRAMS
S601	76	29'-6"	3367	S	
S901	84	29'-9"	8497	S	
S902	22	21'-7"	1614	BT.	
S903	24	20'-3"	1652	BT.	
S904	11	19'-5"	726	S	
S905	12	16'-7"	677	S	
TOTAL WEIGHT			16,533		

EPOXY COATED REINFORCING STEEL - SUPERSTRUCTURE					
MARK	NO.	LENGTH	WEIGHT	SHAPE	BENDING DIAGRAMS
ES401	84	29'-6"	1655	S	 ES402
ES402	136	2'-10"	257	BT	
ES501	60	18'-3"	1142	S	
ES502	30	16'-7"	519	S	
ES906	60	18'-10"	3842	S	
ES907	26	9'-11"	877	S	
ES908	26	7'-2"	634	S	
TOTAL WEIGHT			8926		

NOTE:
Refer to C.M.S. Sections 106.03, 700, 709.01 through 709.05 and 709.08. Sufficient additional reinforcing steel shall be provided for sampling. Random samples shall be replaced in the structures by additional steel, spliced in accordance with 509.08.



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SUPERSTRUCTURE
BRIDGE NO. WAY - 95 - 0082
OVER BRANCH OF KISER DITCH
WAYNE COUNTY S.R. 95
STA. 240+99.75 TO STA. 241+83.50

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RAK	RDR		RAK	JH	1-6-84	
JOB NO. EM-943				SHEET OF		