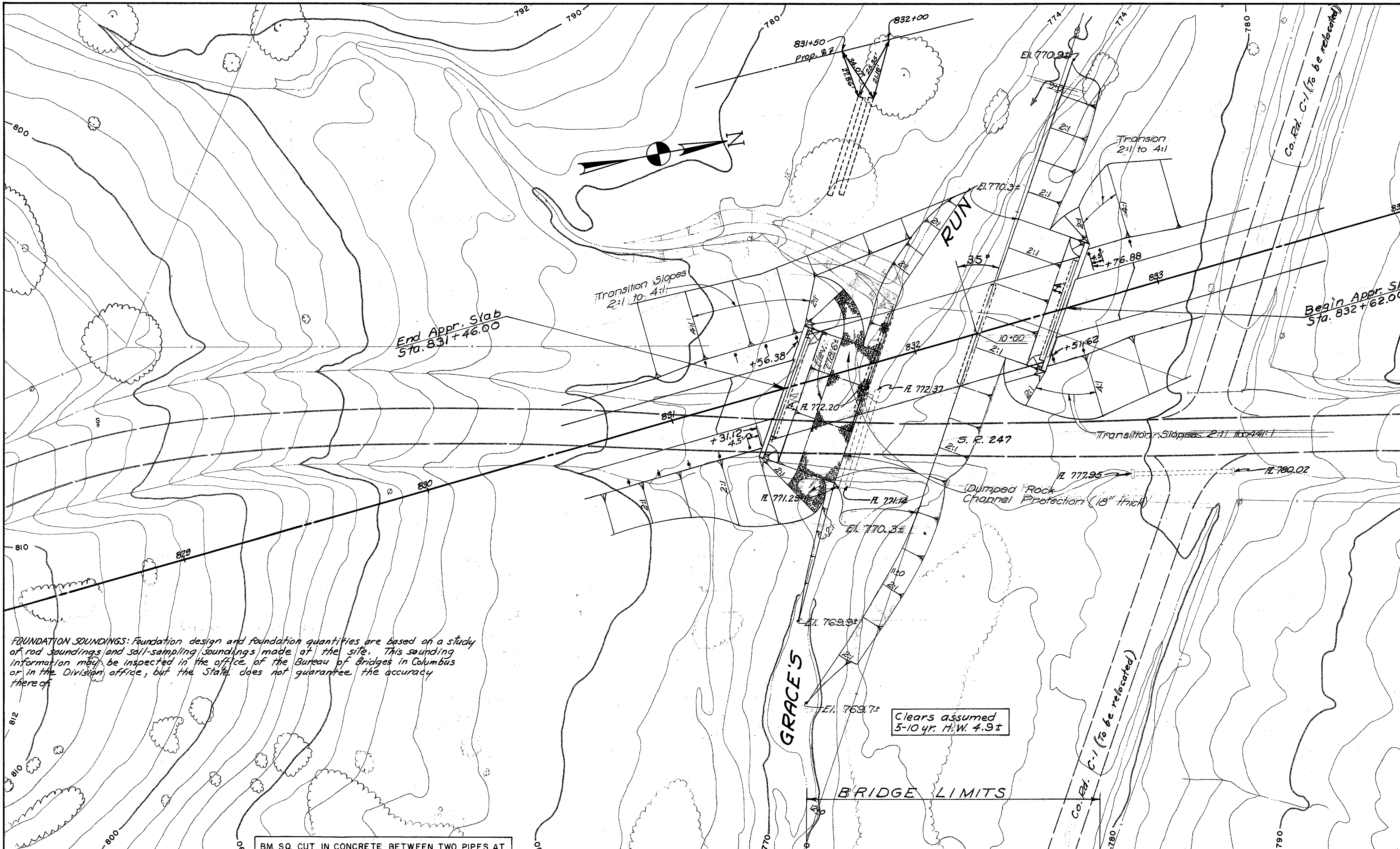


**ADAMS COUNTY**  
**ADA-247-(8.95)(14.20)**  
 1.4± mi. South of Seaman Corp.



FOUNDATION SOUNDINGS: Foundation design and foundation quantities are based on a study of rod soundings and soil-sampling soundings made at the site. This sounding information may be inspected in the office of the Bureau of Bridges in Columbus or in the Division office, but the State does not guarantee the accuracy thereof.

BM SQ. CUT IN CONCRETE BETWEEN TWO PIPES AT OUTLET END OF STR. ADA-247-1578 ELEV. 772.82

Clears assumed 5-10 yr. H.W. 4.9±

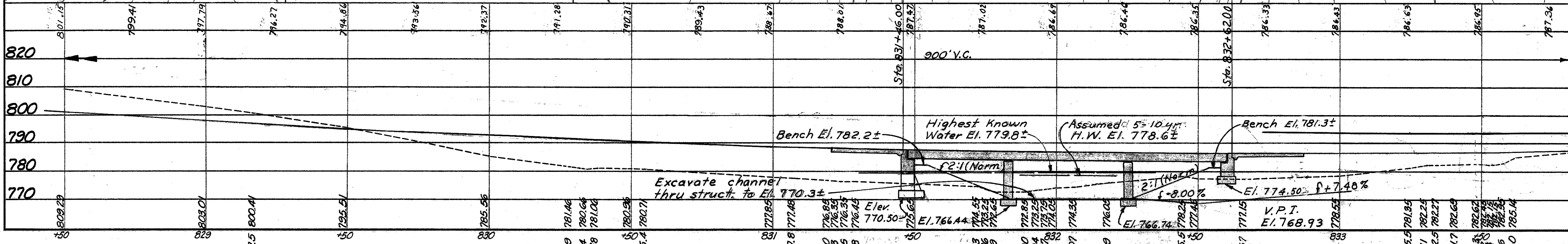
EXISTING BRIDGE DATA	
Bridge No.	ADA-247-1578
Type	C. I. P.
Span	2-24' x 40'
Roadway	17'
Slew	16° L.F.

DRAINAGE AREA = 60 AC.

**PROPOSED STRUCTURE**  
 TYPE: Continuous steel beam with reinforced concrete deck and reinforced concrete substructure.  
 SPANS: 34'-42.5'-34' g.brgs.  
 ROADWAY: 36'-0" w/ guard rails.  
 LOAD FREQUENCY: CF=130(57).  
 SKEW: 35° L.F.  
 WEARING SURFACE: 3" monolithic concr.  
 APPROACH SLABS: AS-1-54 (25' long)  
 ALIGNMENT: Tangent.

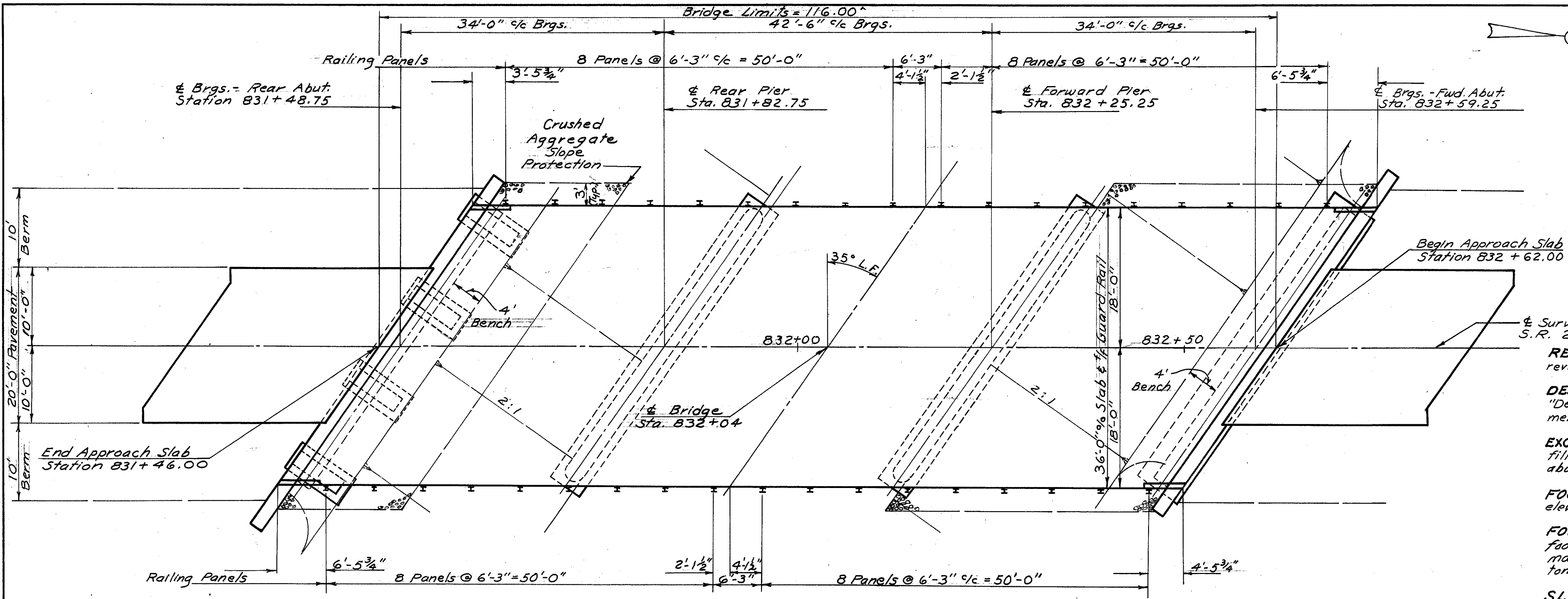
STATE OF OHIO  
 DEPARTMENT OF HIGHWAYS  
 BUREAU OF BRIDGES

**SITE PLAN**  
 BRIDGE NO. ADA-247-1578  
 over GRACE RUN  
 ADAMS CO. SR-247



SEC.	STA. 831+46.00 TO 832+62.00
SCALE	1" = 20'
PRESENT TOPOGRAPHY	PROPOSED WORK
SURVEYED	DRAWN
Aerial Survey	Aerial Survey
DESIGNED	CHECKED
DGM	B.D.H.
DRAWN	REVIEWED
DGM	P. E. S.

ADAMS COUNTY  
ADA-247(8.95)(14.20)



REFERENCE shall be made to Standard Drawing CSB-1-55 sheets 1, 2 and 6, revised 2-2-59.

DESIGN SPECIFICATIONS: This structure conforms to the requirements of "Design Specifications for Highway Structures" of the State of Ohio, Department of Highways, dated 9-1-57 together with current revisions thereof.

EXCAVATION QUANTITY for the rear abutment includes the removal of fill material between the top of the earth bench and the bottom of the abutment crossbeam.

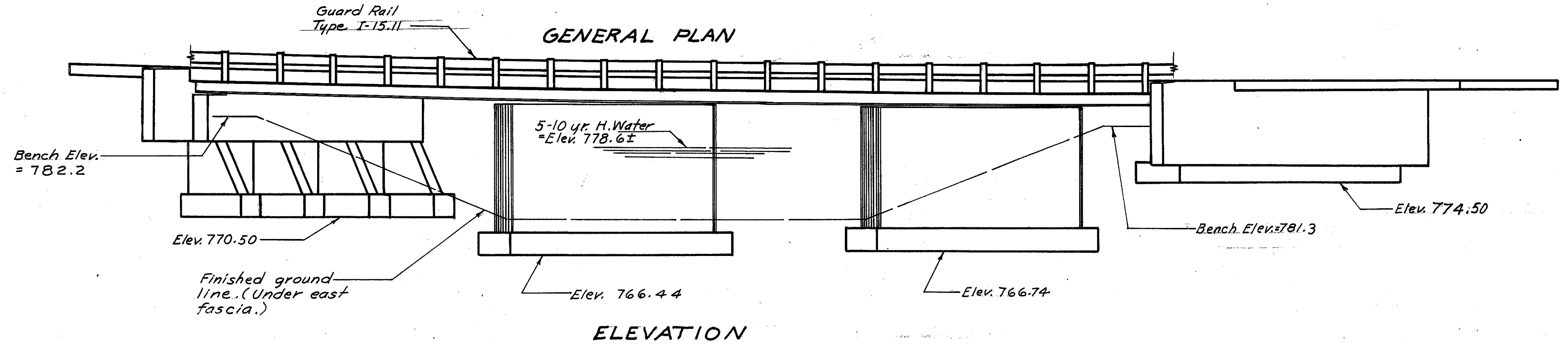
FOOTINGS shall extend a minimum of 3" into solid rock or to the elevation shown, whichever is lower.

FOUNDATION BEARING PRESSURE: Rear abutment footings, pier footings and forward abutment footing are designed for a maximum bearing pressure of 4.5 tons, 3.0 tons and 2.5 tons per sq. ft. respectively.

SLAB THICKNESS is 7 1/4" which includes 3/4" for monolithic wearing surface.

CRUSHED AGGREGATE SLOPE PROTECTION as per Section I-10.04 shall extend from the face of the rear abutment down to elev. 778.6± and from the face of the forward abutment down to the flow line of the channel.

MACHINE FINISH: At the Contractor's option, the concrete bridge deck may be finished by the use of a finishing machine.



ESTIMATED QUANTITIES							
Item	Total	Unit	Description	Super.	Abuts.	Piers	Gen'l.
E-2	Lump	Sum	Cofferdams, cribs and sheeting				Lump
E-2	114	Cu. yds.	Unclassified excavation		95	19	
E-2	64	Cu. yds.	Rock excavation		18	46	
E-3	1118	Cu. yds.	Channel excavation				1118
S-1	102	Cu. yds.	Class "C" concrete, superstructure	102			
S-1	109	Cu. yds.	Class "E" concrete, abutments above footing		109		
S-1	114	Cu. yds.	Class "E" concrete, pier walls			114	
S-1	72	Cu. yds.	Class "E" concrete, footings		35	37	
S-4	39,886	Lbs.	Reinforcing steel	27,614	7,488	4,784	
S-7	69,400	Lbs.	Structural steel	69,400			
S-8	69,400	Lbs.	Field painting of structural steel	69,400			
S-14	232.00	Lin. ft.	Railing (Type I-15.11 with galvanized steel posts and bolts)	232.00			
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	34	Cu. yds.	Porous backfill		34		
I-10	234	Sq. yds.	Crushed aggregate slope protection				234
I-10	150	Cu. yds.	Dumped rock channel protection				150

STATE OF OHIO  
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DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**GENERAL PLAN & ELEVATION  
NOTES & QUANTITIES**

BRIDGE No. ADA-247-1578  
over GRACE RUN  
Sta. 831+46.00  
Sta. 832+62.00  
ADAMS COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	N.L.D.	J.D.R.	BFG	1-23-61	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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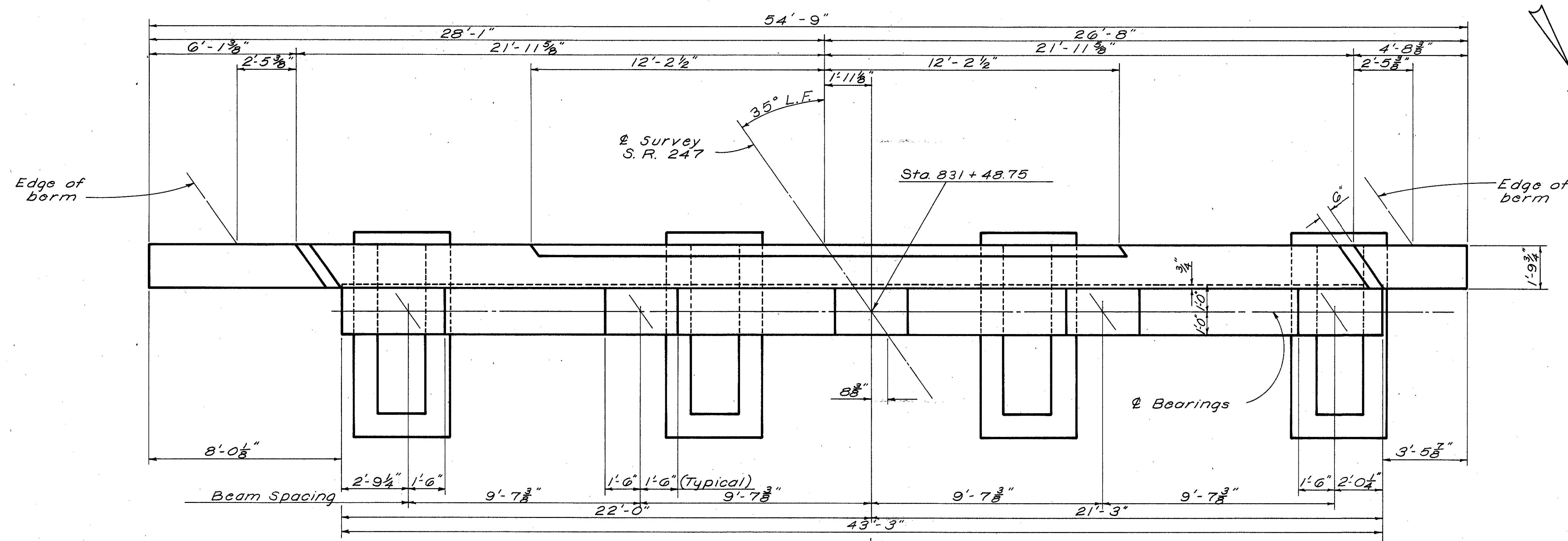
ADAMS COUNTY  
ADA-247(8.95)(14.20)

**EMBANKMENT PROCEDURE:** After the pedestals are placed the earth fill shall be made to the height of the earth bench and the excavation made for the crossbeam.

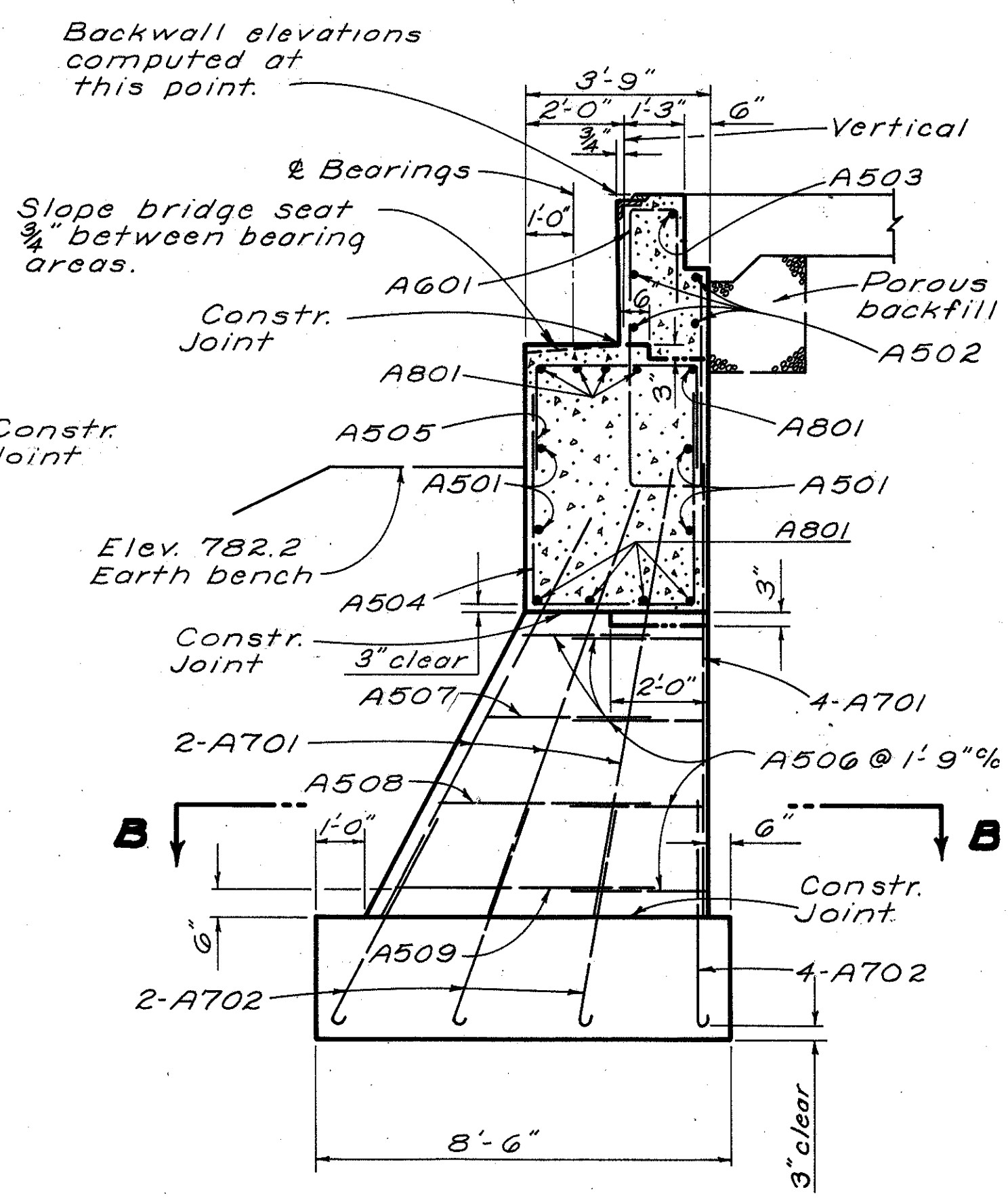
**POROUS BACKFILL,** 2 ft. thick, shall extend upward to the approach slab or to the surface of the earth shoulders, and outward to the surface of the embankment slopes. The bottom of the porous backfill shall vary from elev. 784.1 at & Survey to elev. 783.1 at the wing extremities.

Excavation in excess of that required for construction of the abutment shall be considered as paid for in the unit price paid for porous backfill.

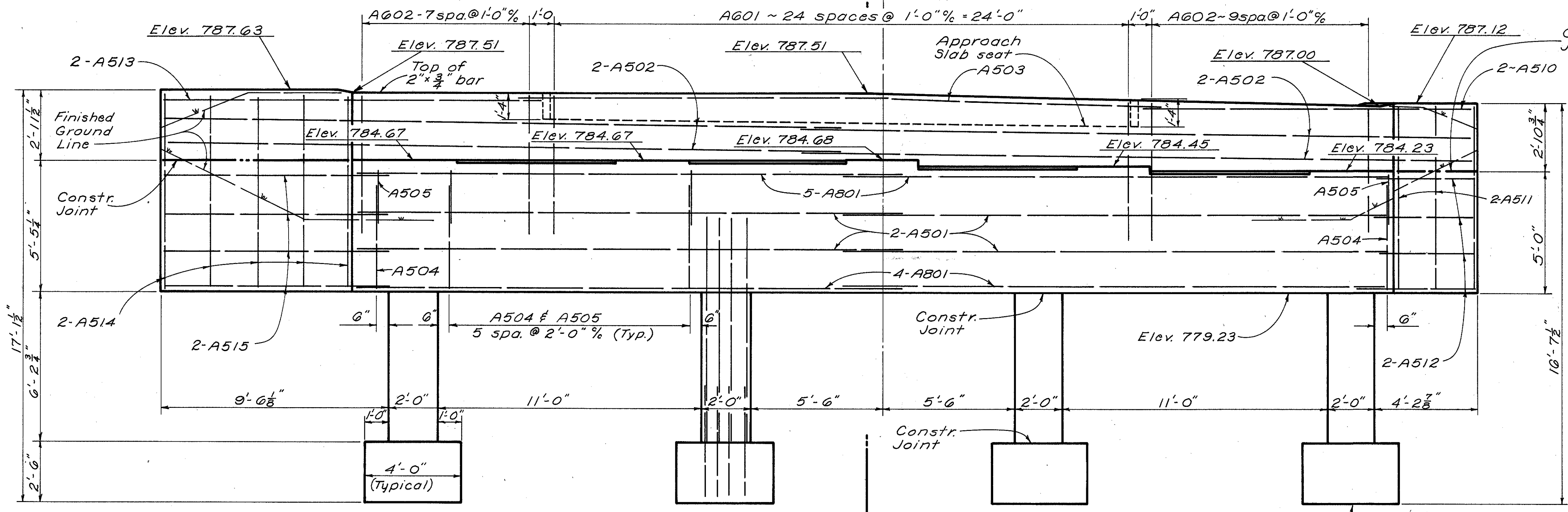
**CONCRETE** shall be Class "E".



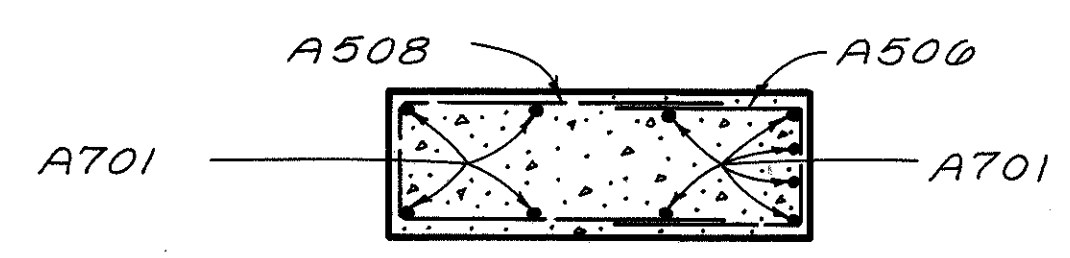
**PLAN**



**SECTION A-A**



**REAR ABUTMENT ELEVATION**



**SECTION B-B**

NOTE: The Contractor shall space the reinforcing bars in the bridge seat to insure clearance for the bearing anchor bars.

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

**REAR ABUTMENT DETAILS**  
BRIDGE NO. ADA-247-1578  
Over Grace Run  
Sta. 831+46.00  
Sta. 832+62.00

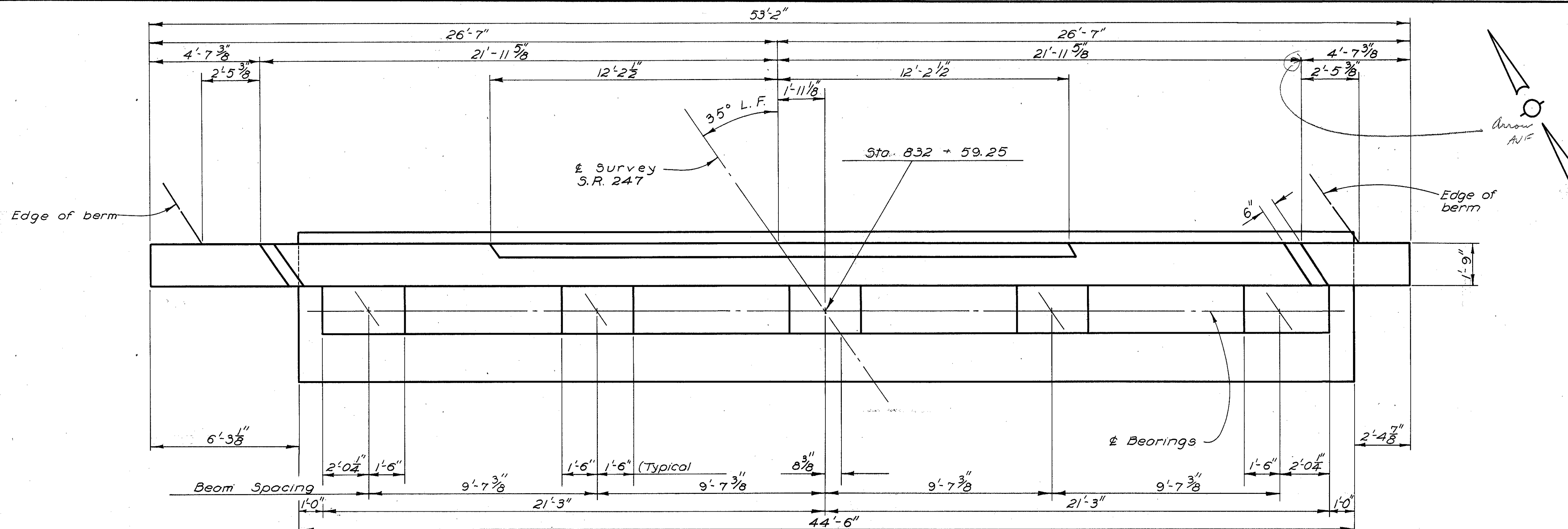
Adams County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	peneyl	J.D.R.	BFG	1-23-61	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

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ADAMS COUNTY  
ADA-247(8.95)(14.20)

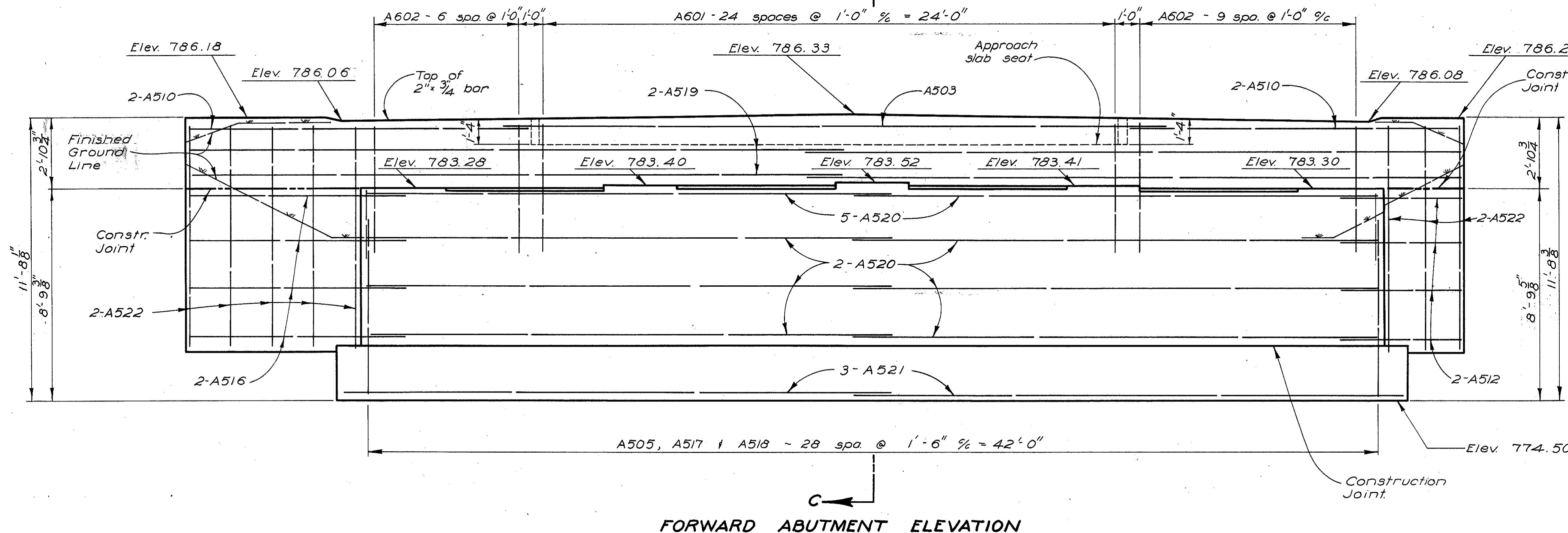


**POROUS BACKFILL**, 2 ft. thick, shall extend upward to the approach slab or to the surface of the earth shoulders, and outward to the surface of the embankment slopes. The bottom of the porous backfill shall vary from elevation 783.0 at the  $\pm$  Survey, to elevation 782.0 at the wing extremities. Excavation in excess of that required for construction of the abutment shall be considered as paid for in the unit price paid for porous backfill.

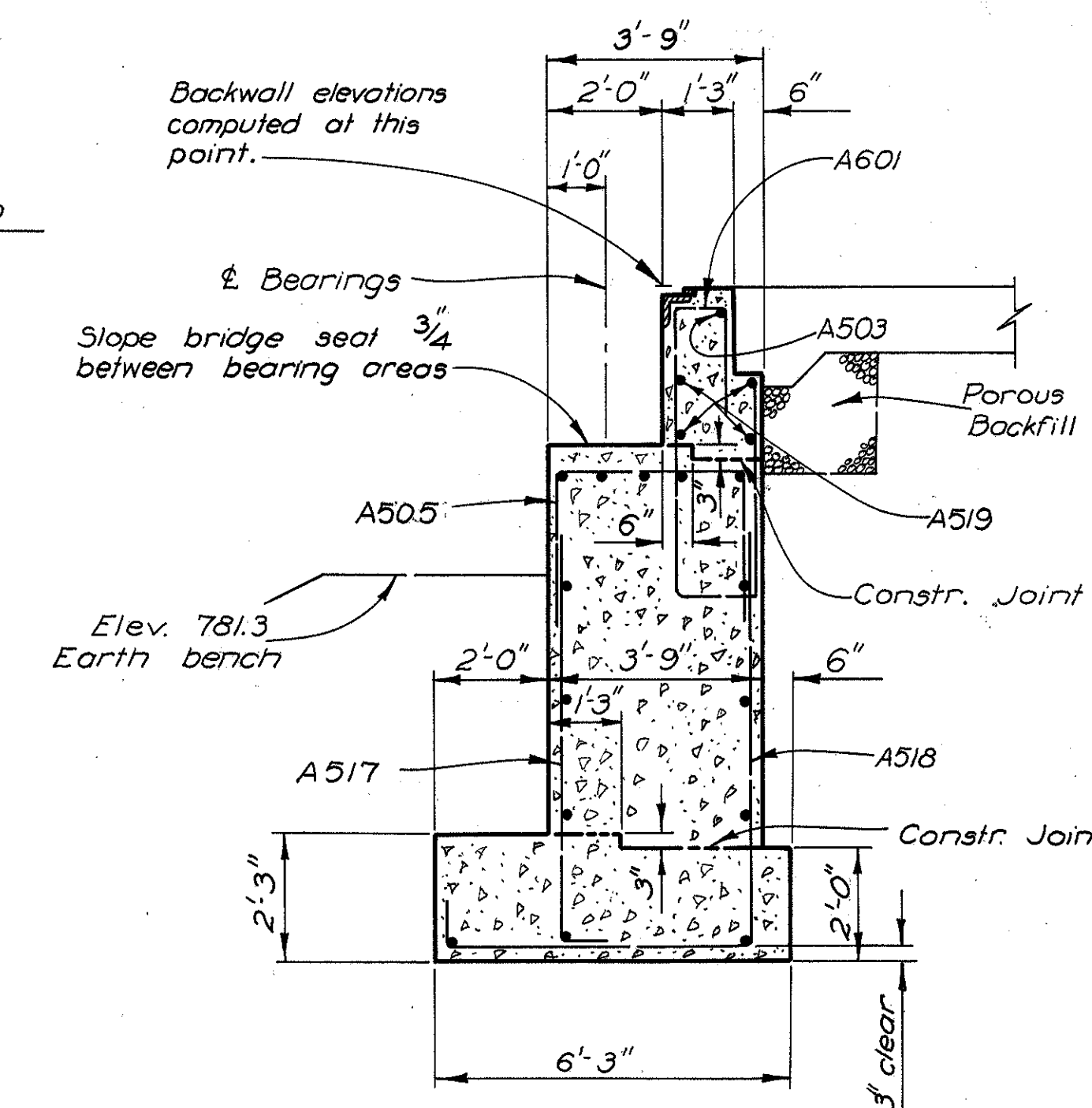
**CLEARANCE:** The Contractor shall space the reinforcing bars in the bridge seat to insure clearance for the bearing anchor bars.

**CONCRETE** shall be Class "E".

PLAN



FORWARD ABUTMENT ELEVATION



SECTION C-C

Longitudinal bars not marked:  
In Footing: A521  
All others: A520

STATE OF OHIO  
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DIVISION OF DESIGN AND CONSTRUCTION  
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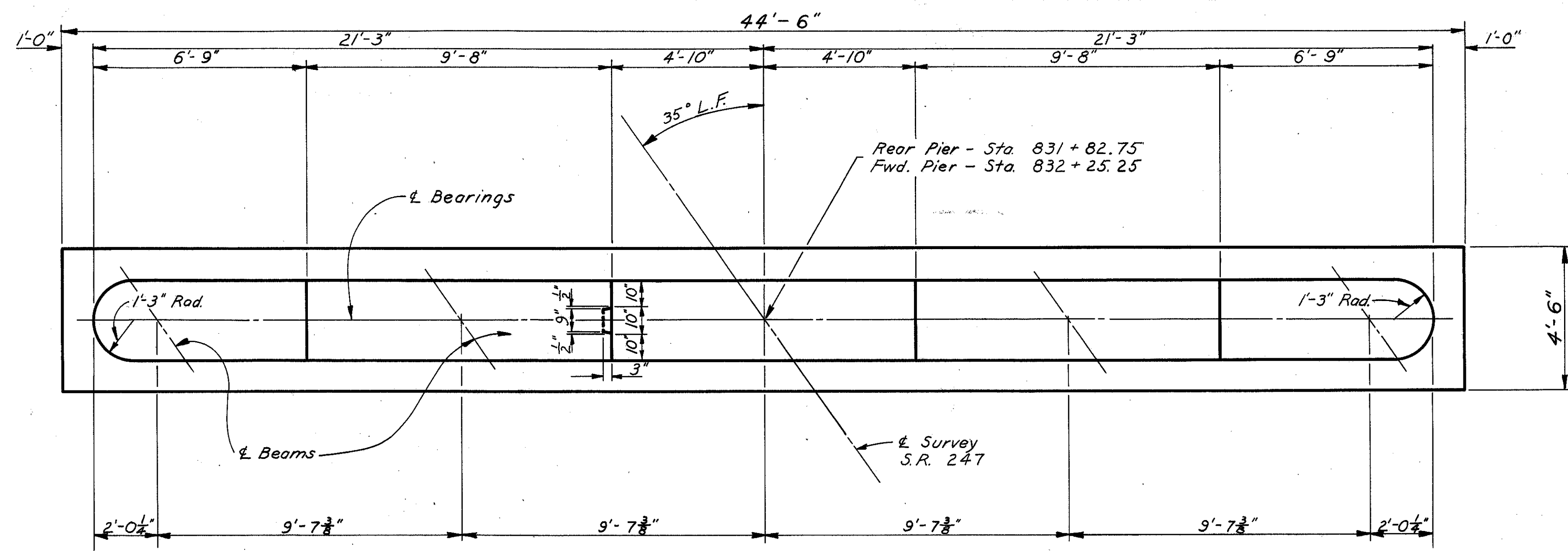
**FORWARD ABUTMENT  
DETAILS**  
BRIDGE No. ADA-247-1578  
Over Grace Run  
Sta. 831 + 46.00  
Sta. 832 + 62.00  
Adams County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	GP.G.	J.D.R.	BFG	1-23-61	

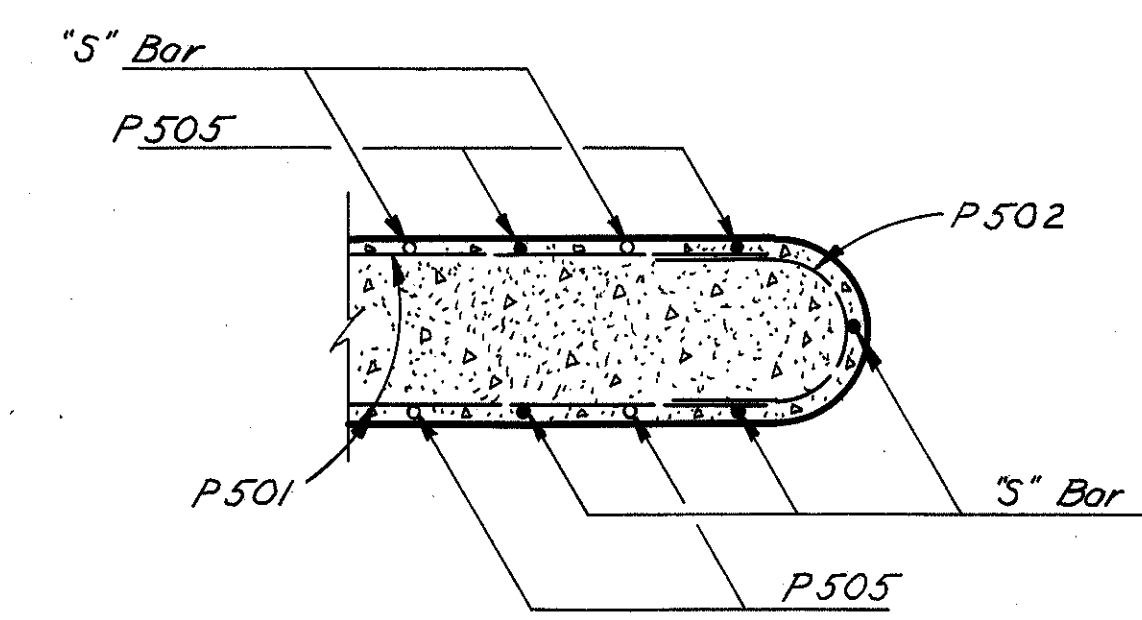
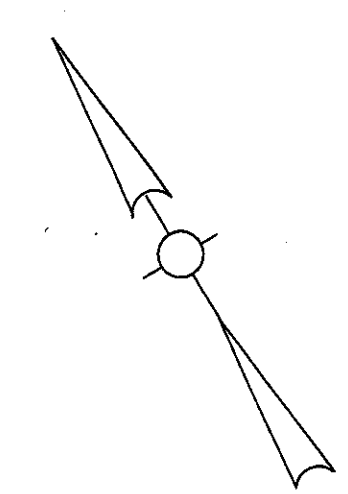
FED. NO. DIVISION	STATE	PROJECT
2	OHIO	

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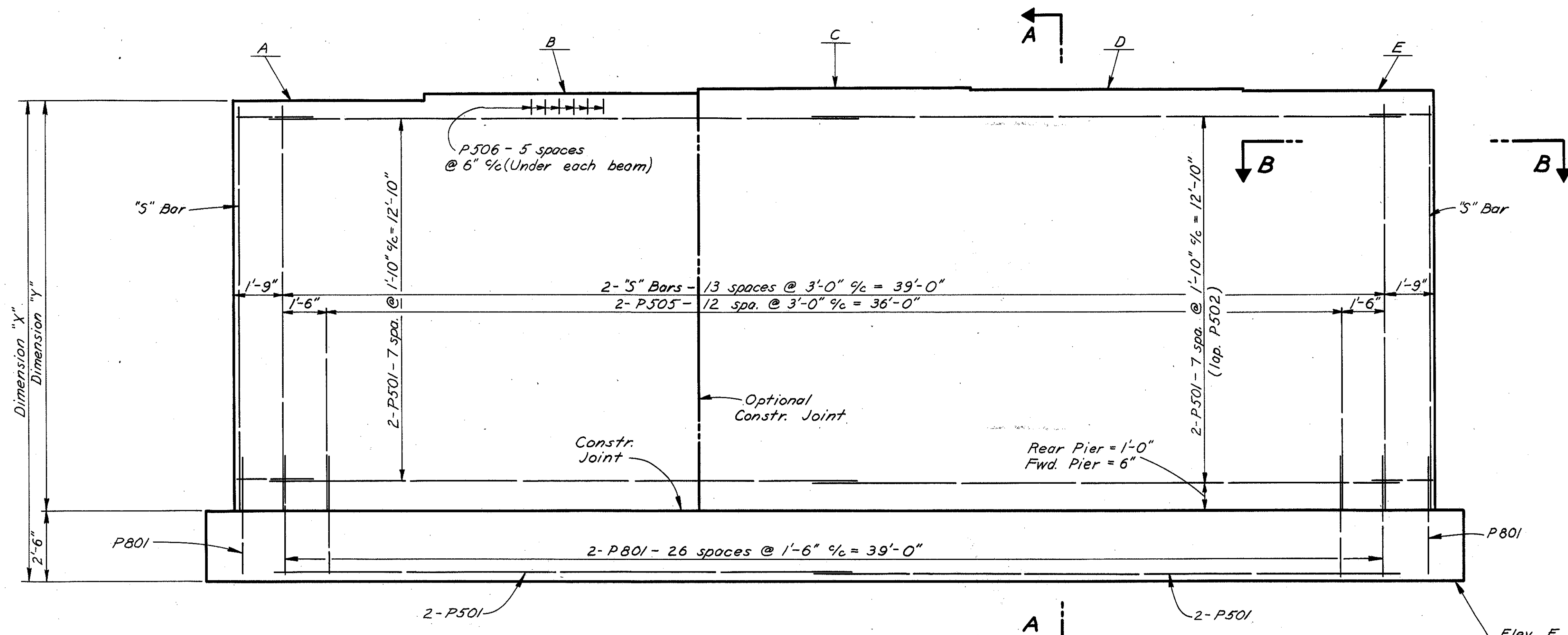
ADAMS COUNTY  
ADA-247(8.95)(14.20)



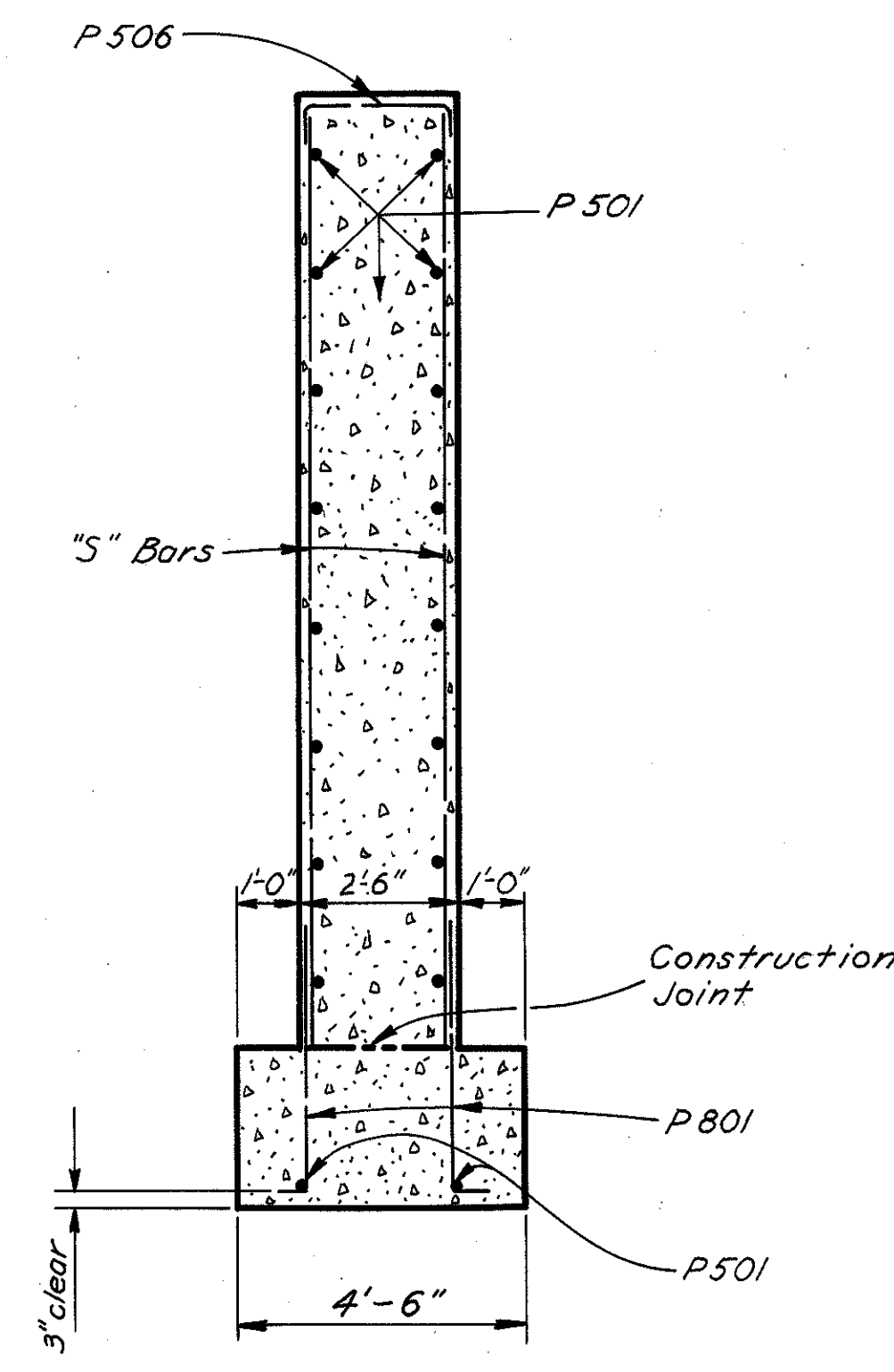
PLAN



SECTION B-B



ELEVATION



SECTION A-A

Note: The Contractor shall space the reinforcing steel in the bridge seat to insure clearance for the bearing anchor bars.

CONCRETE shall be Class "E"

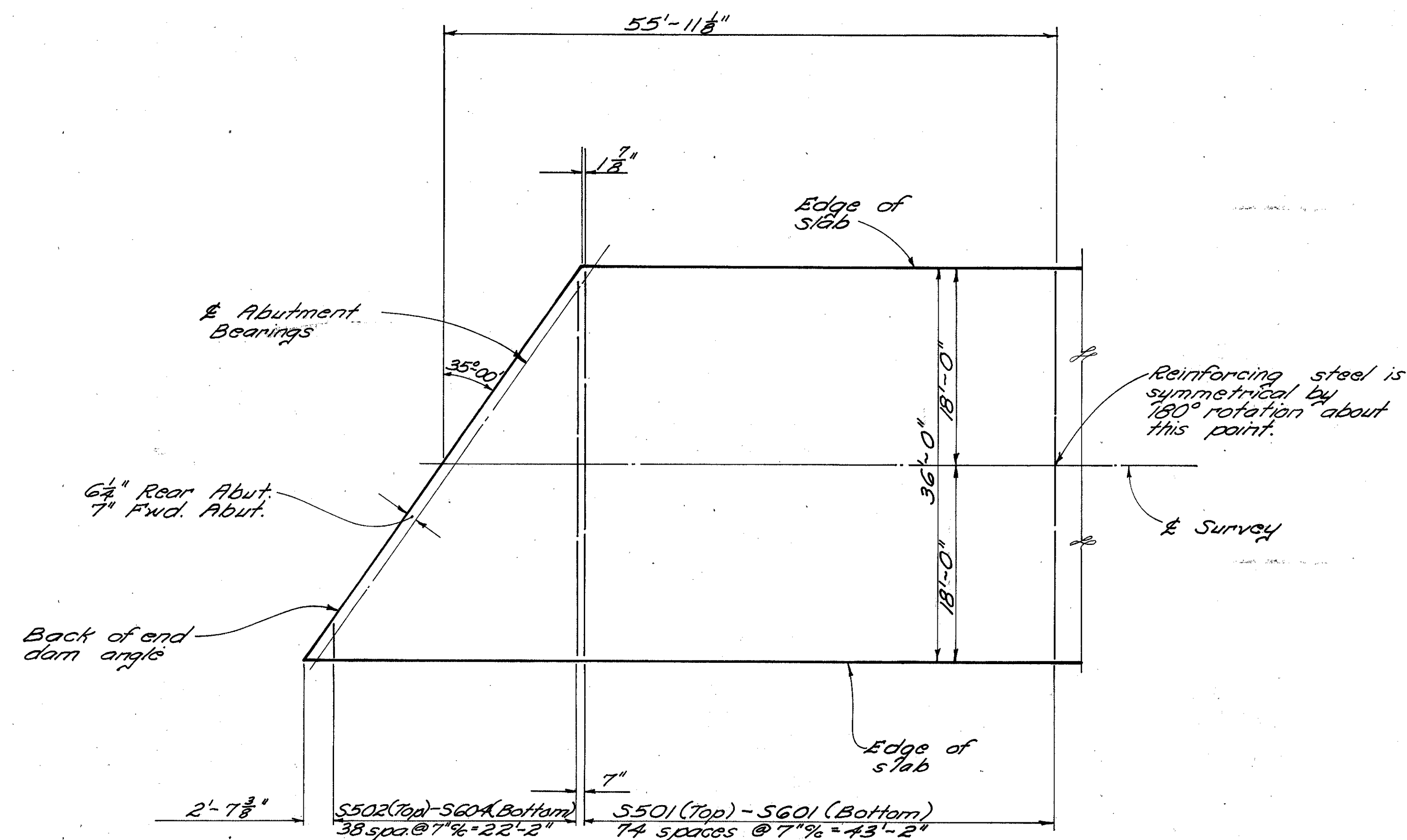
Elevations	A	B	C	D	E	F	Dim. "X"	Dim. "Y"	"S" Bars
Rear Pier	783.77	783.97	784.17	784.12	784.09	766.44	17'-4"	14'-10"	P503
Fwd. Pier	783.32	783.48	783.64	783.55	783.48	766.74	16'-7"	14'-1"	P504

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
DIVISION OF DESIGN AND CONSTRUCTION  
BUREAU OF BRIDGES

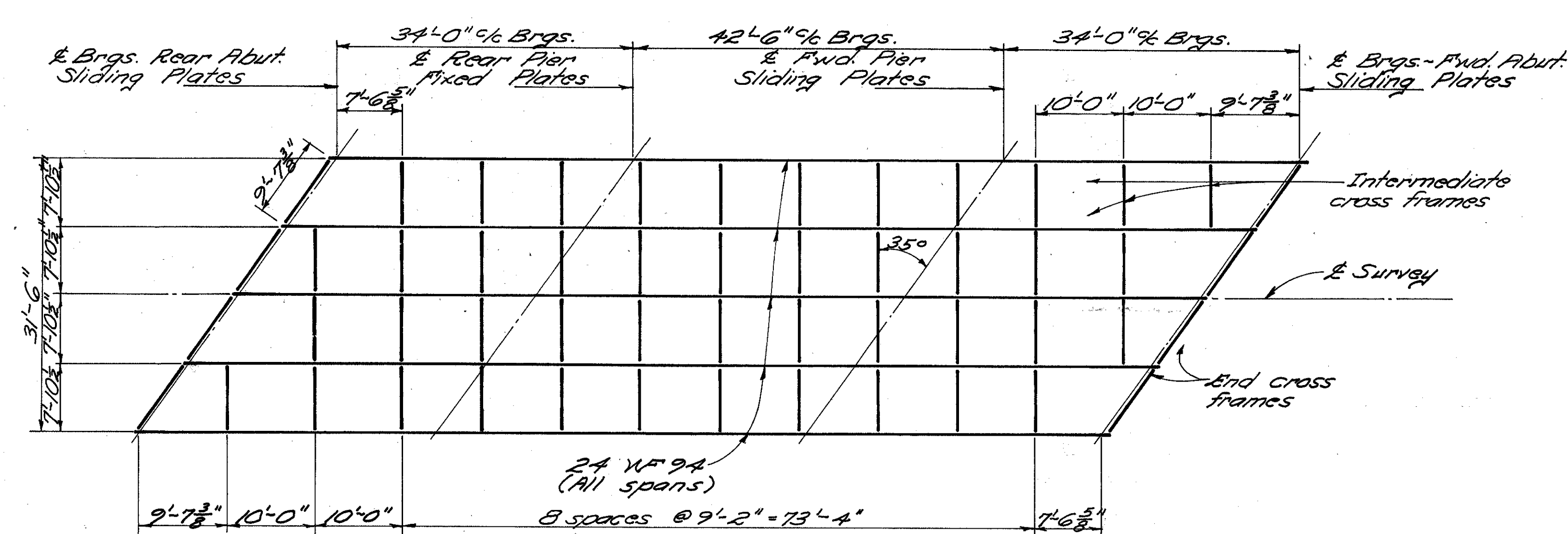
**PIER DETAILS**  
BRIDGE No ADA-247-1578  
Over Groce Run  
Sta. 831 + 46.00  
Sta. 832 + 62.00  
Adams County

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	AAK	J.D.R.	BFG	9/7/23-61	

ADAMS COUNTY  
ADA-247(8.95)(14.20)



**PARTIAL PLAN OF SLAB**  
Showing transverse reinforcing



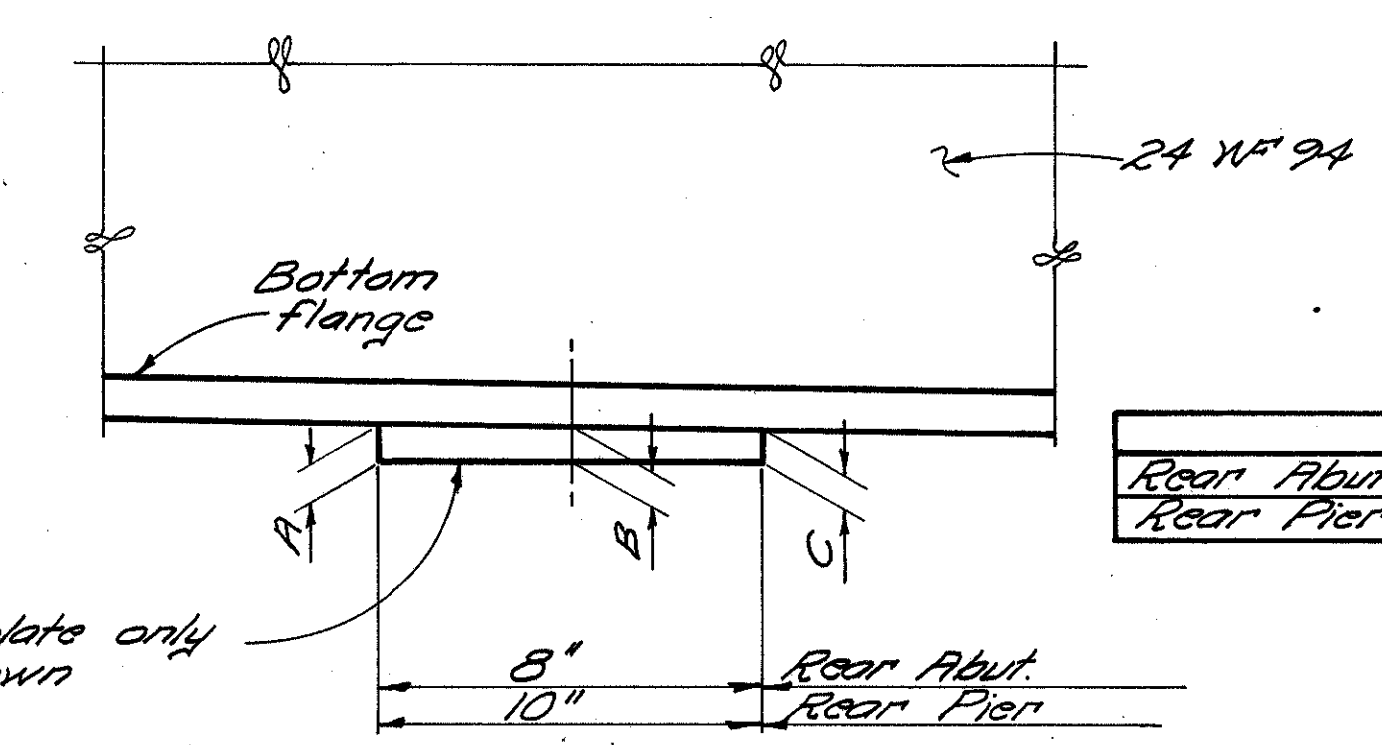
**STEEL FRAMING PLAN**

REINFORCING STEEL LIST					BENDING DIAGRAMS				
MARK	NO.	LENGTH	WEIGHT	SHA					
<b>ABUTMENTS</b>					<b>PIERS</b>				
A801	18	22'-9"	1,093	S	A702	112	5'-2"	1,520	B
A701	40	9'-3"	756	S	P501	72	20'-10"	1,564	S
A702	40	5'-7"	456	B	P502	32	6'-2"	206	B
A601	50	13'-4"	1,001	B	P503	30	14'-8"	459	S
A602	35	11'-1"	583	B	P504	30	13'-11"	435	S
A501	8	22'-3"	186	S	P505	52	7'-5"	402	S
A502	8	28'-0"	234	S	P506	60	3'-2"	198	B
A503	2	27'-9"	58	B	<b>SUPERSTRUCTURE</b>				
A504	20	12'-2"	254	B	SG01	149	35'-8"	7,982	S
A505	49	7'-4"	375	B	SG02	159	39'-6"	9,194	S
A506	20	6'-9"	141	B	SG03	44	17'-0"	1,123	S
A507	4	8'-7"	36	B	2 series 3'-2" of 39 to * 2,226 S				
A508	4	10'-5"	43	B	bars 34'-10"				
A509	4	12'-3"	51	B	S501	149	35'-8"	5,543	S
A510	6	14'-0"	88	S	2 series 3'-2" of 39 to * 1,546 S				
A511	6	7'-5"	46	S	bars 34'-10"				
A512	16	5'-0"	83	S	* Varies by 10" increments				
A513	2	15'-8"	33	S	<b>REPLACEMENT BARS</b>				
A514	10	7'-11"	83	S	REB01	1	6'-6"	-	S
A515	8	9'-8"	81	S	RE701	1	6'-2"	-	S
A516	8	8'-11"	74	S	RE601	2	5'-11"	-	S
A517	29	8'-8"	262	B	RE501	1	5'-7"	-	S
A518	29	14'-0"	423	B					
A519	8	27'-3"	227	S					
A520	22	21'-11"	503	S					
A521	6	22'-11"	143	S					
A522	16	9'-3"	154	S					

\*\* Bend in field.

**BAR SIZE** is indicated in the bar mark. The first digit indicates the bar size number. For example A801 is a number 8 size bar.

**REPLACEMENT BARS:** If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. 5-A02 need not be furnished and replacement bars will not be required.



**DETAIL OF BEVELED BEARING PLATE**

Note: Forward pier and abutment plates are not to be beveled.

	A	B	C
Rear Abut.	1 1/2"	3/4"	1/2"
Rear Pier	1 1/2"	1 1/4"	1 1/2"

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
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BUREAU OF BRIDGES

**SUPERSTRUCTURE DETAILS AND STEEL LIST**  
BRIDGE No ADA-247-1578  
OVER GRACE RUN  
STA. 831+46.00  
STA. 832+62.00  
ADAMS COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.J.S.	E.J.S.	Med	J.D.R.	BFG	9/27/23	6/1