FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	70ER1563(3)	

56
82

PIKE COUNTY
PIK-335-19.96
4.0± Mi. East of Waverly

Drive

End Appr. Slab
Sta. 1091+97.63

C.S. 1089+00.46

P.T. 1092+50.46

45° Skew

Curve Data
P.I. Sta. 1087+31.10
Δ = 77°-36' Lt. Dc = 9°-00'
Ls = 350' Θs = 15.75°
Lc = 512.22 R = 636.62'

Flow

601.08 Rock Channel Protection
Type A, 3' thick.

Begin Appr. Slab.
Sta. 1098+52.48

Fill to Elev. 574.0 ± and slope to drain

Q25 = 120,000 cfs
¾ of discharge flows thru main channel and ¼ thru overflow bridge.

Clears Assumed 25yr. H.W. 579±

Sta. 1091+97.63

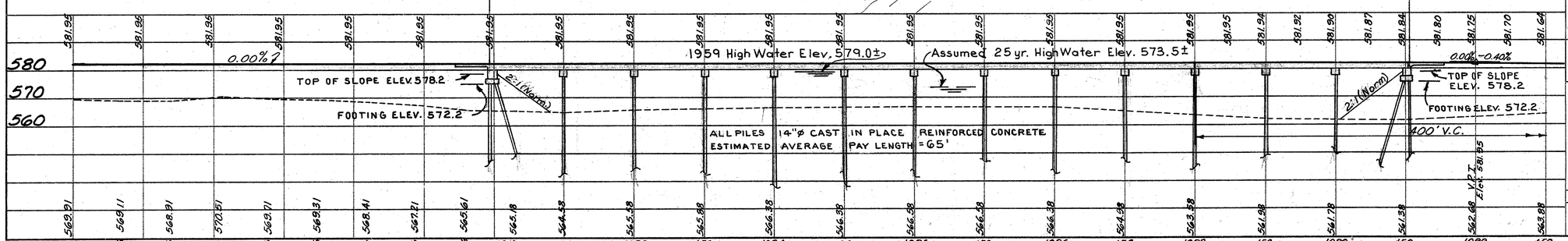
BRIDGE LIMITS = 654.85'

Sta. 1098+52.48

Ex. Twp. Rd. # T-824

Metal Storage Bins
Fr. Garage
Fr. Shelter
28' Metal Bin

1988 ADT = 665
DRAINAGE AREA = 5717 SQ. MI.



PROPOSED STRUCTURE

TYPE: Composite prestressed box beam deck with capped pile abutments & piers
SPANS: 13 @ 50'-0" substructure units.
ROADWAY: 36'-0" f/f guard rails.
LOADING: HS 20-44
SKEW: 45° L.F.
WEARING SURFACE: 1" Monolithic Concrete
APPROACH SLABS: AS-1-67 (25' long)
ALIGNMENT: Spiral to tangent
SUPERELEVATION: Varies

1/9

STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

SITE PLAN

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

PIKE CO
S.R. 335
STA. 1091+97.41
1098+52.59

SEC. 1" = 20' VERT.
SCALE 1" = 40' HORZ.

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
AERIAL SURVEY	AERIAL SURVEY	B.D.H.	B.D.H.	D.H.S.	P.E.S.

09692

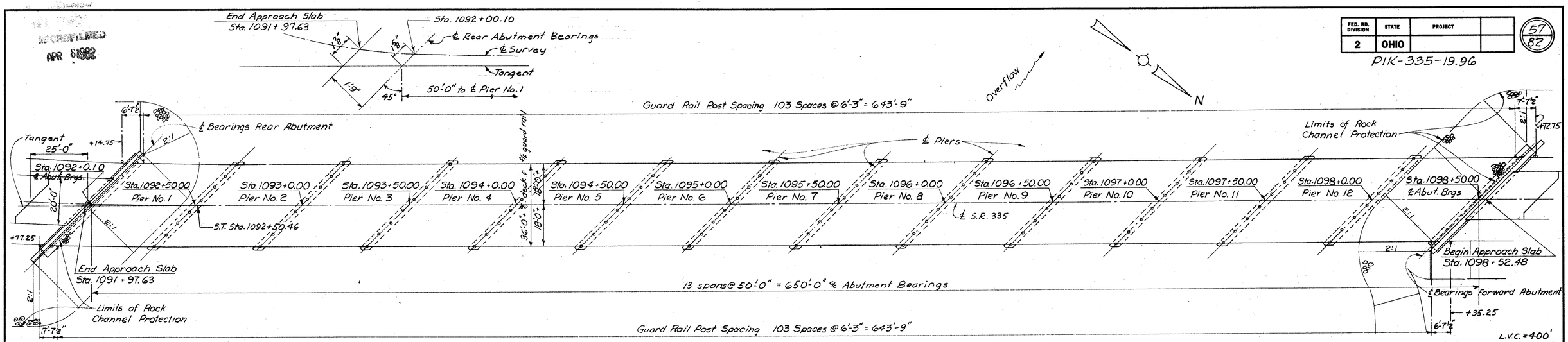
BFG 5-5-70 Rev. 12-16-70

RECEIVED
APR 8 1971

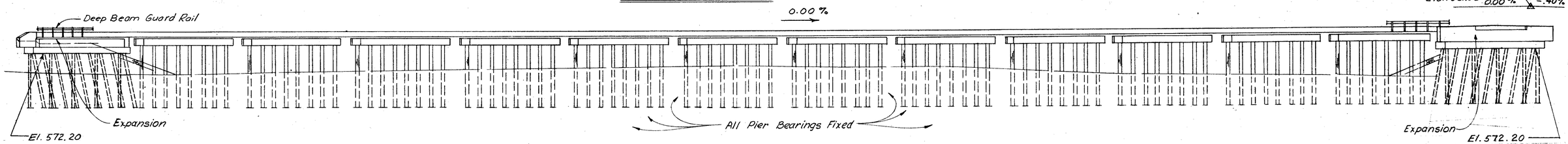
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

57
82

PIK-335-19.96



GENERAL PLAN



ELEVATION

All PILES are 14" cast-in-place reinforced concrete.

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super.	Abuts.	Piers	Gen'l.
503	230	Cu. yd.	Unclassified excavation		230		
505	Lump	Sum	Test pile				Lump
506	Lump	Sum	First pile test load				Lump
506	1	Ea.	Subsequent pile test load				1
507	7800	Lin. ft.	14" cast-in-place reinforced concrete piles		1560	6240	
509	96.050	Lb.	Reinforcing steel	39.074	9.602	47.374	
510	144	Each	Dowel holes			144	
511	386	Cu. yd.	Class C concrete, superstructure	386			
515	117	Each	Prestressed concrete bridge members, CB21-48	117			
516	14,000	Lb.	Structural expansion and contraction joints	14,000			
516	165	Sq. ft.	½" thick elastomeric bearing pads, Grade 50, 60, or 70			165	
517	1309.70	Lin. ft.	Railing (two deep beam rails with steel posts and bolts)	1309.70			
518	60	Cu. yd.	Porous backfill		60		
518	131	Lin. ft.	6" perforated, helical corrugated metal pipe including specials, 707.01		131		
518	40	Lin. ft.	6" non-perforated helical corrugated metal pipe, 707.01		40		
601		cu.yds.	Rock channel protection, Type A, 3' thick				
808	386	Units	Chemical Admixture for concrete, Type A, B, or D	386			
838	3	Hour	Special pile tests				3
511	150	Cu.yd.	Class C concrete, abutments		150		
511	175	Cu.yd.	Class C concrete, pier caps			175	
516	20	Each	Abutment bearing devices		20		
516	14	Sq. ft.	¼" Thick elastomeric bearing pad shims Grade 50, 60 or 70		6	8	

REFERENCE shall be made to Supplemental Specifications 808 dated 11-14-69, 836 dated 1-1-71, and 838 dated 3-18-70.

DESIGN SPECIFICATIONS: This structure conforms to "Standard Specifications for Highway Bridges" adopted by the American Association of State Highway Officials 1969, including the Ohio "Supplement" to these specifications.

DESIGN DATA:
Design Loading HS20-44

Concrete, Prestressed Concrete Beams - unit stress 2200 p.s.i. compression, 222 p.s.i. tension.

Concrete, Class C - unit stress 1200 p.s.i. for superstructure, 1333 p.s.i. for substructure

Prestressing Strands ASTM A416 f_s = 268,000 p.s.i.
Working load stress = 0.60 f_s

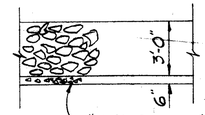
Reinforcing Steel ASTM A615, A616, A617
unit stress 20,000 p.s.i.

EMBANKMENT CONSTRUCTION: The embankments shall be constructed to the level of the subgrade for a minimum distance of 200 feet back of the abutments. Excavation shall then be made for the abutments and piles driven at the abutments and Piers 1 and 12.

PILES shall be driven to a minimum bearing capacity of 45 tons per pile for the abutments and 45 tons per pile for the piers.

BEAM ERECTION may begin with the beam at the ℄ roadway or with an exterior beam. If erection is begun with an exterior beam, that beam shall be placed with its fascia 18'-3" normal to the ℄ roadway (the 3" being an estimated allowance for fit-up) in order that the center beam may be centered as nearly as possible on the ℄ roadway. Final location of each bearing shall be with respect to the actual joint location.

¼" THICK ELASTOMERIC BEARING PAD SHIMS shall be placed on top of bearings at corners of beams at the rear abutment and Piers 1 and 2 where required for proper bearing, to accommodate difference in slope of bridge seats. The number required shall be determined as

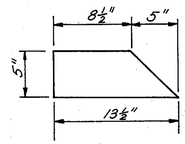


6" Bed of No. 3 or 4 Coarse Aggregate

Thickness of 3'-6" used for computing quantity of Item 601, Rock Channel Protection.

DETAIL OF ROCK CHANNEL PROTECTION

beams are placed, but not more than three layers at the rear abutment and Pier 1, and not more than one layer at Pier 2 shall be used.



¼" Thick Elastomeric Shim

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

2 / 9

GENERAL PLAN, ELEVATION, NOTES, & ESTIMATED QUANTITIES

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJJ	B.E.B.		J.D.R.	BFG	5-5-70	1-28-71

Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

58/82

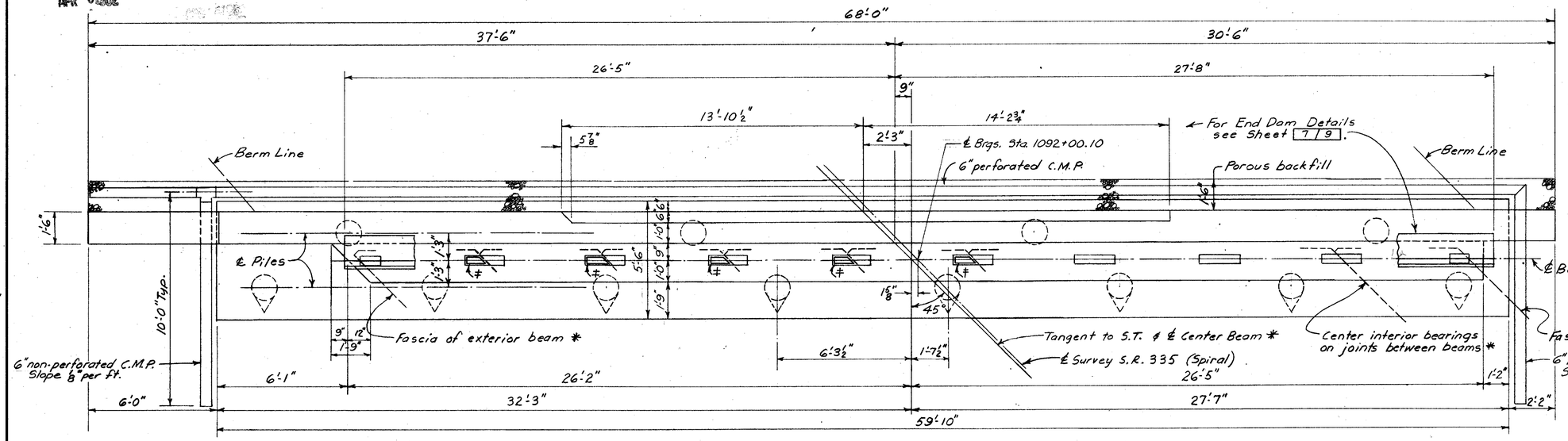
PIK-335-19.96

N

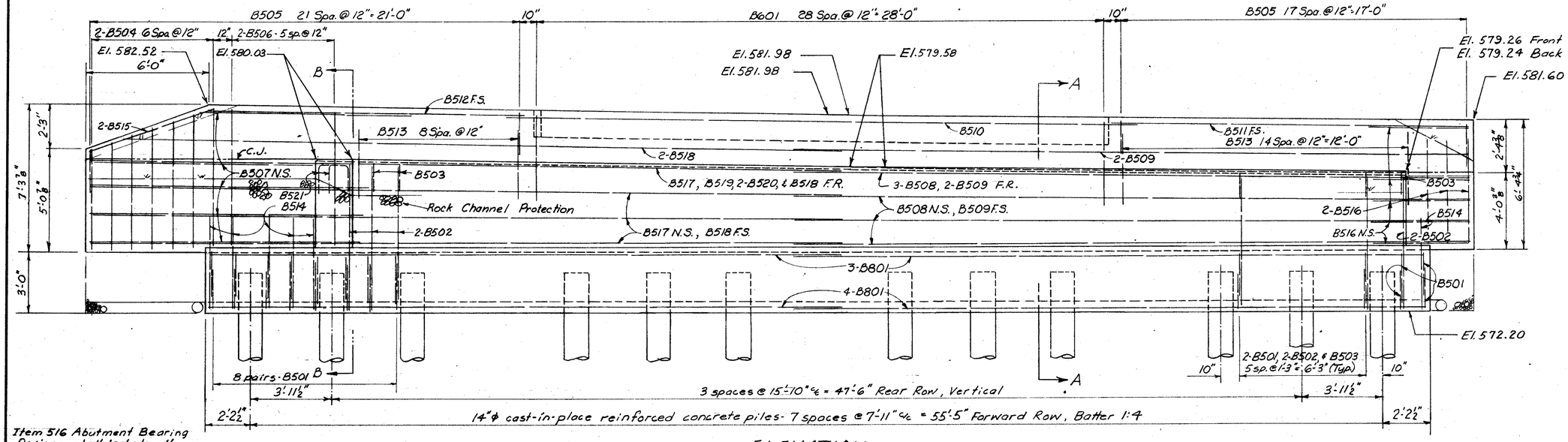
1/4" thick elastomeric shims as req'd. See note, Sheet 2/9.
* See BEAM ERECTION note, General Notes.

Indicates direction of 1:4 pile batter.

POROUS BACKFILL, 1'-6" thick full length of abutment and wings, shall extend up to the approach slab and to the finished ground surface.



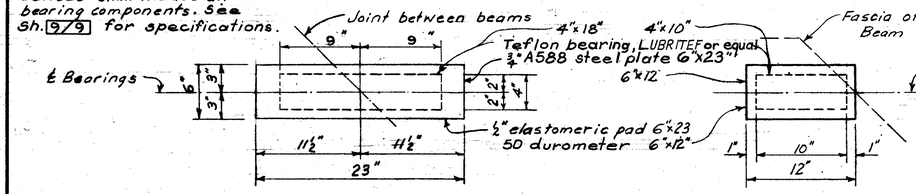
PLAN



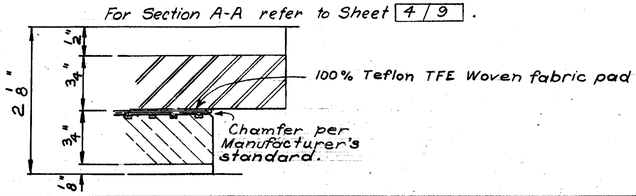
ELEVATION

C.J. - Construction Joint
F.R. - Front to Rear
N.S. - Near Side
F.S. - Far Side

Item 516 Abutment Bearing Devices shall include all bearing components. See Sh. 5/9 for specifications.



For Section A-A refer to Sheet 4/9.



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

3/9

REAR ABUTMENT DETAILS

BRIDGE NO. PIK-335-2064 OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W	W B.E.B.		J.D.R.	BFG	5-5-70	

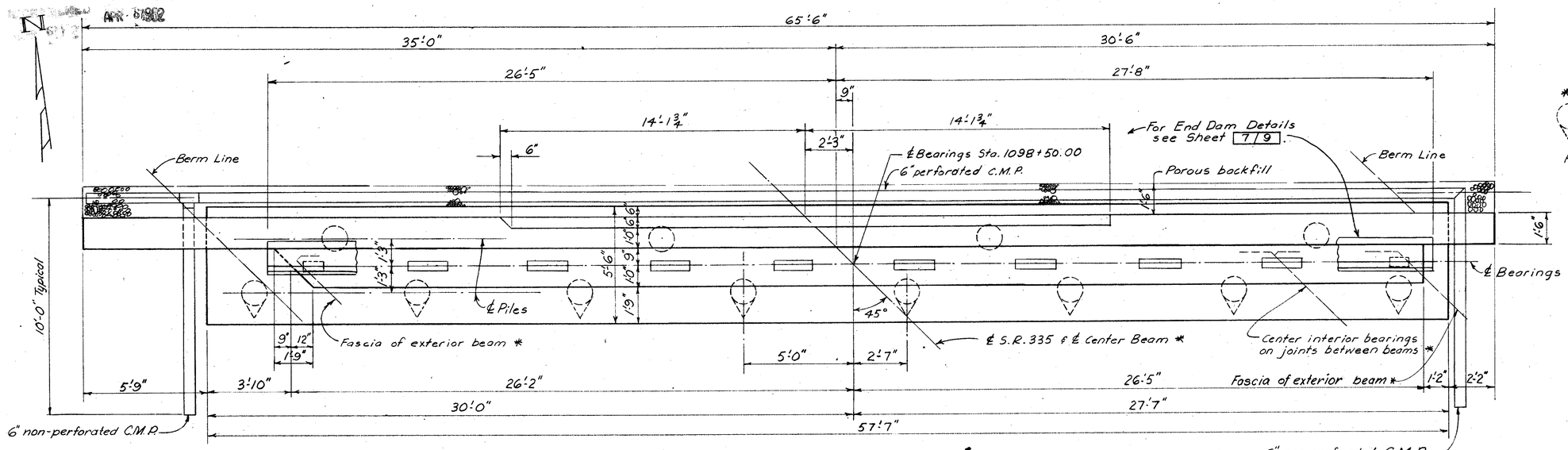
Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

5-9
82

PIK-335-19.96

APR. 81982

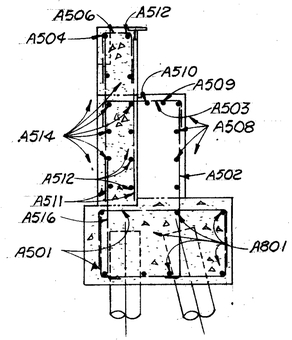


PLAN

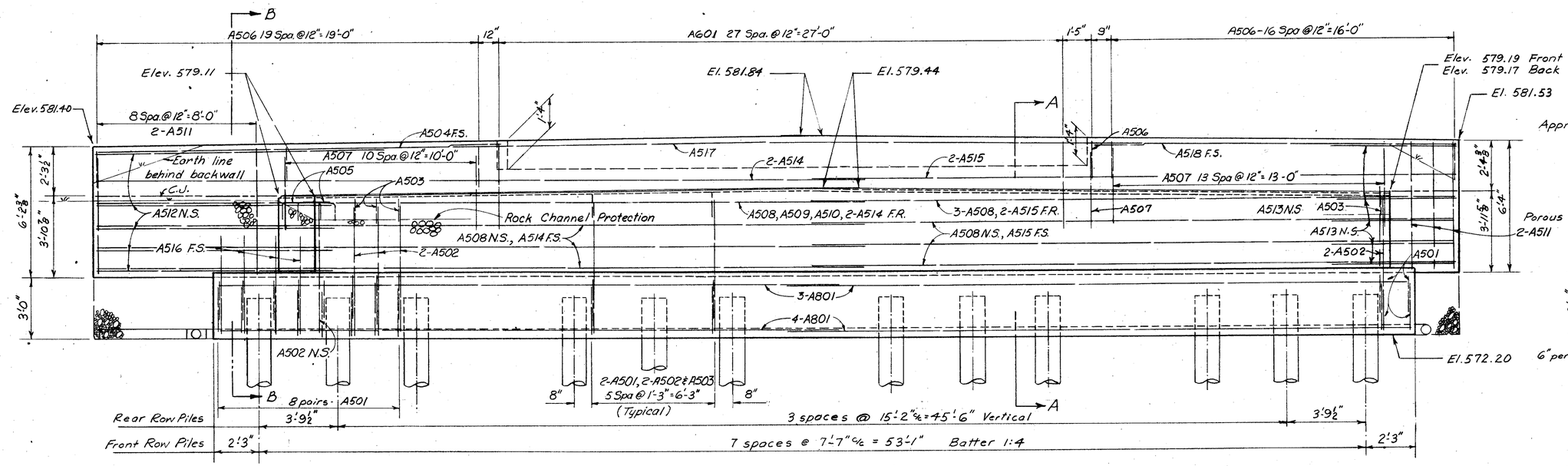
* See BEAM ERECTION note, General Notes.

Indicates direction of 1:4 pile batter.

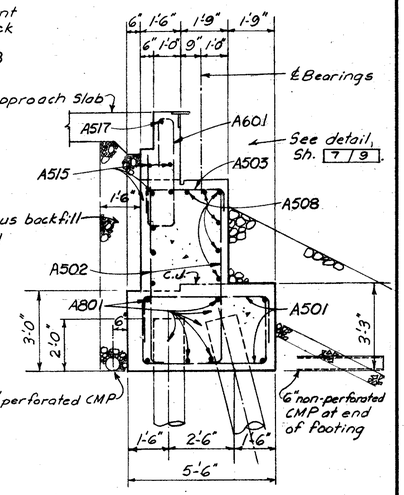
POROUS BACKFILL: See note, Sheet 3/9.



SECTION B-B



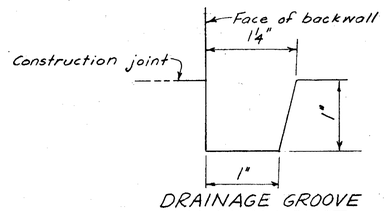
ELEVATION



SECTION A-A

For bearing details see Sh. 3/9.

F.R. ~ Front to Rear
N.S. ~ Near Side
F.S. ~ Far Side



DRAINAGE GROOVE IN BEAM SEAT

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

4/9

FORWARD ABUTMENT DETAILS

BRIDGE NO. PIK-335-2064 OVER SCIOTO RIVER OVERFLOW

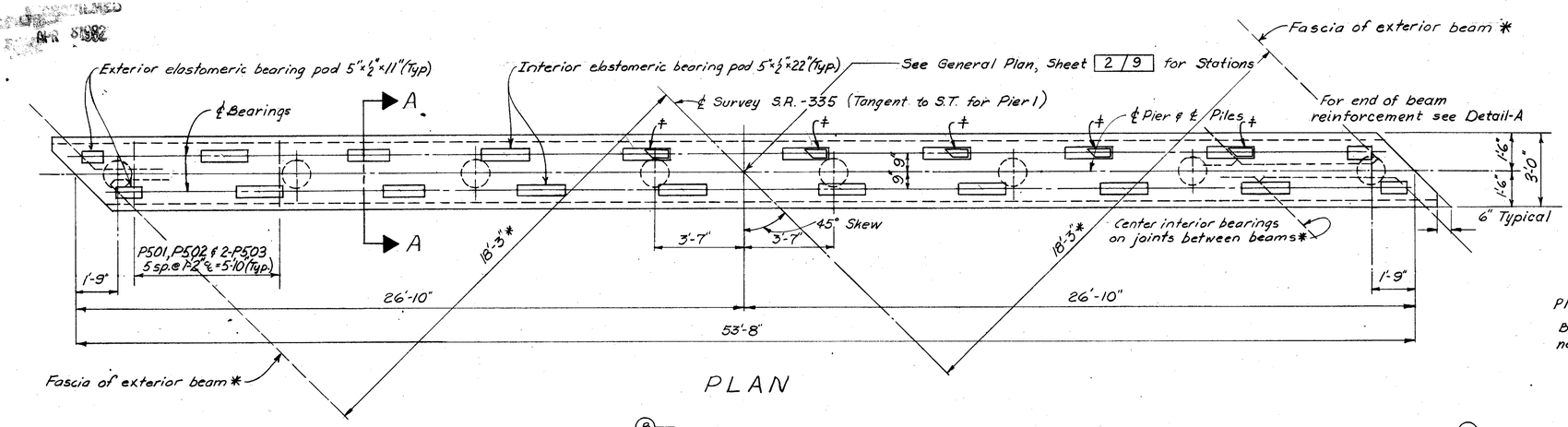
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
wjf	wjf BEB		J.D.R	BFG	5-5-70	

Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

60
82

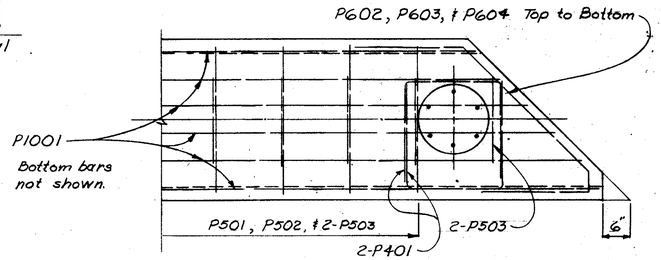
PIK-335-19.96



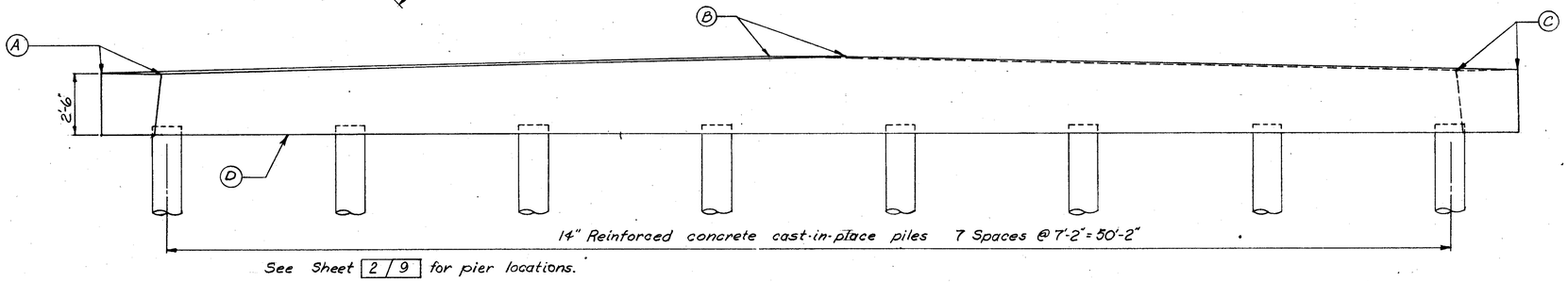
PLAN

* See BEAM ERECTION note, General Notes.

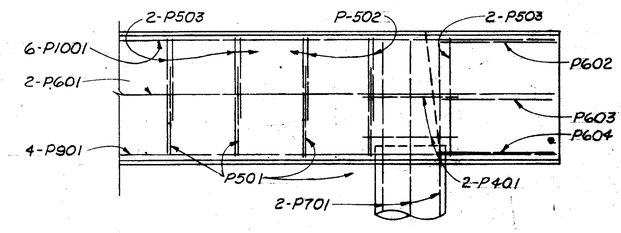
\# ¼" thick elastomeric shims as req'd. at Piers 1 and 2 only. See note, Sheet 2/9.



PLAN



ELEVATION



ELEVATION

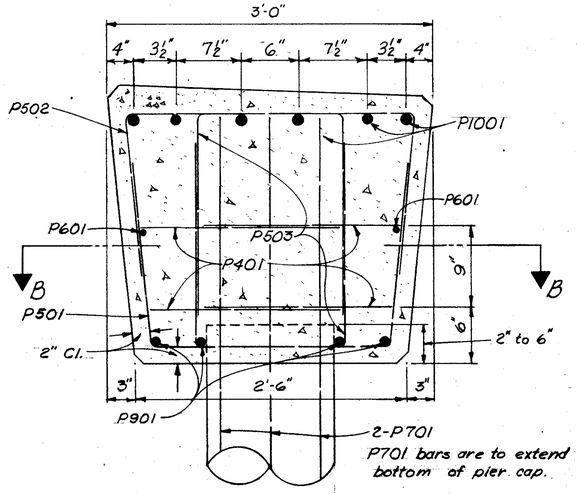
DETAIL-A

.179"

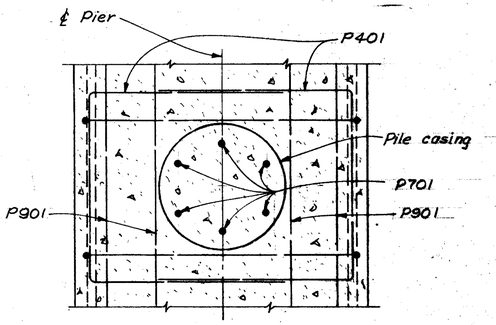
Pile Casings shall be of the type that is left in place and is designed to resist both direct compression and bending. The tapered portion, if any, of pier piles shall not extend above the proposed ground surface. Pile casings shall have a thickness of metal not less than 0.179 inches. Painting of the piles shall extend to at least one foot below the surface of the ground.

Payment For Piles: The elevation of cut-off, as per 507.13, shall be considered as 4" above the bottom of the concrete cap.

TABLE OF PIER ELEVATIONS					
Elevation	Pier 1	Pier 2	Piers 3 thru 10	Pier 11	Pier 12
A	579.39	579.39	579.39	579.38	579.33
B	579.69	579.69	579.69	579.68	579.64
C	579.83	579.54	579.39	579.40	579.37
D	576.89	576.89	576.89	576.88	576.83



SECTION A-A



SECTION B-B

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

5/9

PIER DETAILS

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVISIONS	DATE	REVISIONS
W.H.	B.E.D.		J.D.R.	DFG	5-5-70	

C.F.J.

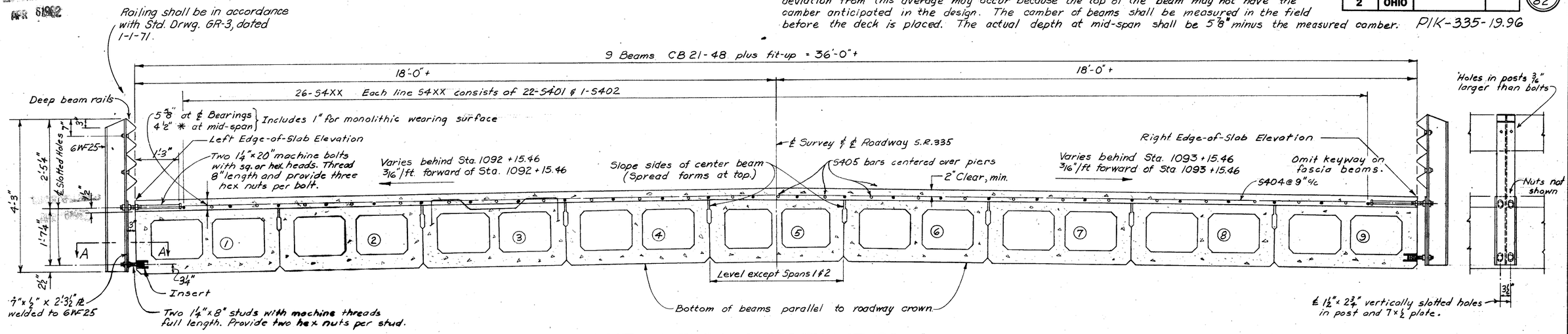
FILED
APR 5 1972

* This is the nominal dimension. The pay quantity of superstructure concrete shall be based on the average of this dimension and the depth at beam bearings even though deviation from this average may occur because the top of the beam may not have the camber anticipated in the design. The camber of beams shall be measured in the field before the deck is placed. The actual depth at mid-span shall be 5'8" minus the measured camber.

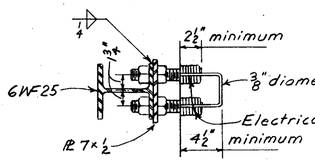
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

(01 82)

PIK-335-19.96



TRANSVERSE SECTION THRU SUPERSTRUCTURE



SECTION A-A

EDGE OF SLAB ELEVATIONS #	Left	Right
Rear Abut.	581.66	582.42
℄ Span 1	581.68	582.30
Pier 1	581.66	582.11
℄ Span 2	581.68	581.94
Pier 2	581.66	581.81
℄ Span 3	581.68	581.72
Piers 3 thru 10	581.66	581.66
℄ Span 4 thru 10	581.68	581.68
℄ Span 11	581.67	581.68
Pier 11	581.64	581.66
℄ Span 12	581.64	581.67
Pier 12	581.59	581.63
℄ Span 13	581.58	581.63
Forward Abut.	581.52	581.58

These are the elevations required before placing the concrete slab. They include an allowance for deflection due to the weight of the concrete.

PART PLAN OF SUPERSTRUCTURE

See Sheet 7/9 for Sections B-6 and C-6.

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

6/9

SUPERSTRUCTURE DETAILS

BRIDGE NO. PIK-335-2064 OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
wjf	B.E.B wjf		J.D.R.	BFG	5-5-70	1-28-71

Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

62/82

PIK-335-19.96

① PL 13×1 ② Bar 4×1 ③ Bar 4×1 ④ Bar 5×1

⑤ Bar 7×1 ⑥ Bar 2×1

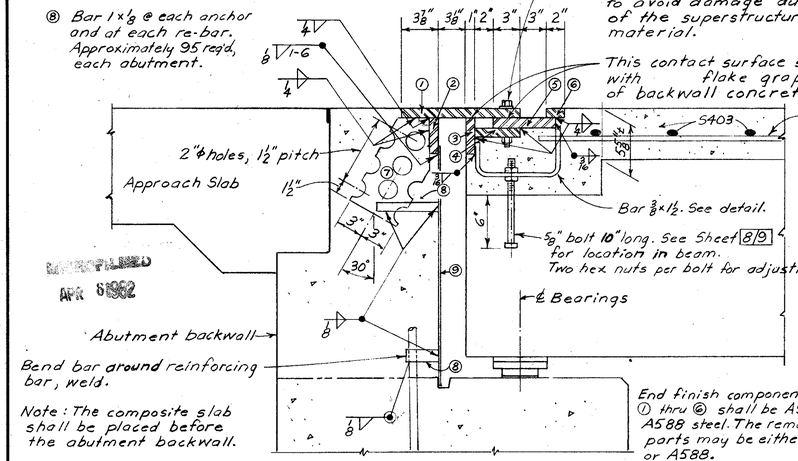
⑦ 6"×½"×12" anchor plates spaced at approximately 15" c/c. Holes may be burned in plate.

⑧ Bar 1×⅛ @ each anchor and at each re-bar. Approximately 95 req'd, each abutment.

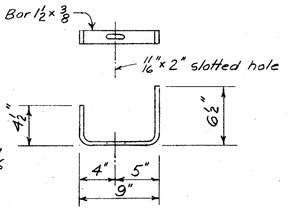
⅝" x 3½" bolts at not more than 2'-0" c/c with nuts tack welded to under side of bottom plate. 1⅛" holes in top plate. Center ⅝" bolts in 1⅛" holes. Apply flake graphite between washers and angle. Turn bolts and release one-half turn. Remove bolts as soon as concrete in backwall has set, preferably within two hours after placing, to avoid damage due to expansion and contraction of the superstructure. Fill holes with bituminous material.

This contact surface shall be cleaned and lubricated with flake graphite immediately prior to placing of backwall concrete.

⑨ ⅛" backwall form plate. Provide in lengths not to exceed 6'-0". Joints between lengths shall be tightly butted. Notch plates to fit around anchor plate. Include with abutment concrete for payment.



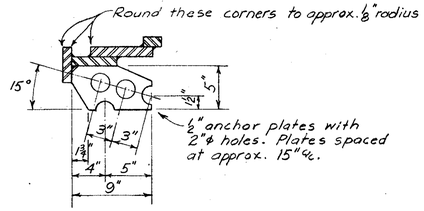
SECTION B-6 - AT ABUTMENT
(Anchors for superstructure end finish are not shown.)



End finish components ① thru ⑥ shall be ASTM A588 steel. The remaining parts may be either A36 or A588.

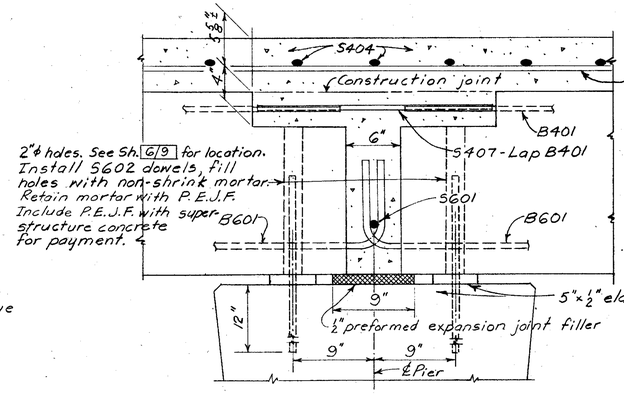
END DAM SUPPORT BAR
36 required

Portions of reinforcing bars which interfere with installation of end finish support bar or with end finish anchors may be removed.

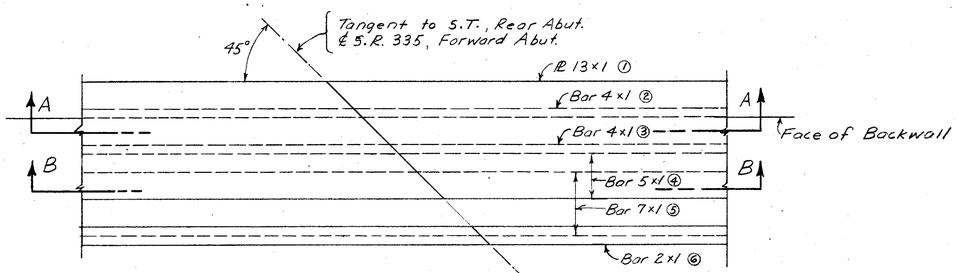


ANCHORS FOR SUPERSTRUCTURE PORTION OF END FINISH

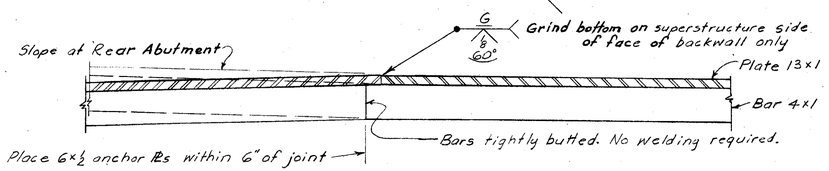
Note: Slope of beam seats due to skew is not shown.



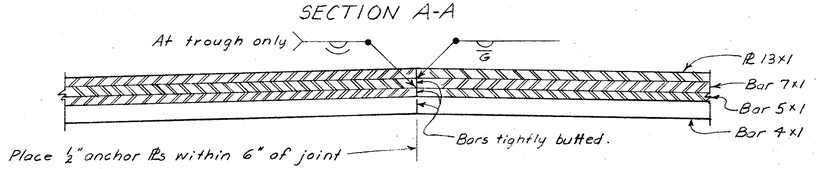
SECTION C-6 - AT PIERS
(TYPICAL - ALL PIERS)



PART PLAN OF END FINISH

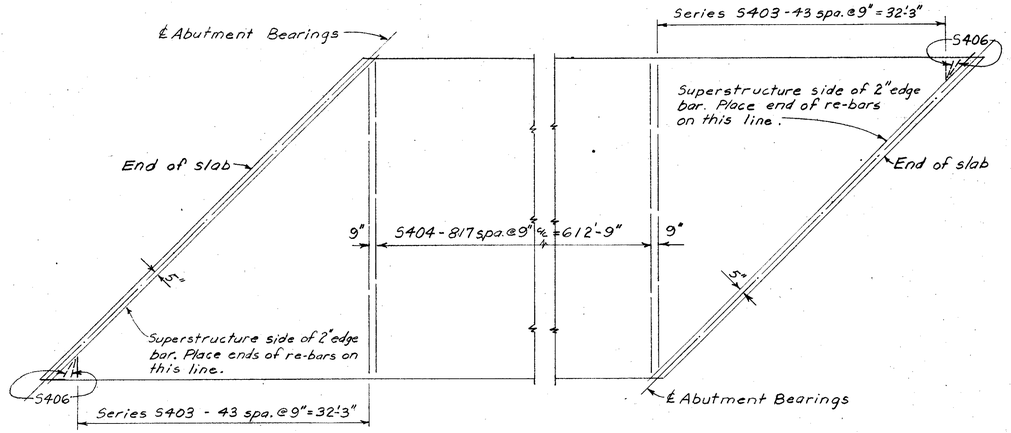


SECTION A-A



SECTION B-B

See Abutment Details, Sheets 3/9 & 4/9 for end finish lengths.



TRANSVERSE SLAB REINFORCING BARS

See Sheet 3/9 for Abutment Bearings.

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

7/9

SUPERSTRUCTURE DETAILS
BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
wgg	wgg		J.D.R.	BFG	5-5-70	

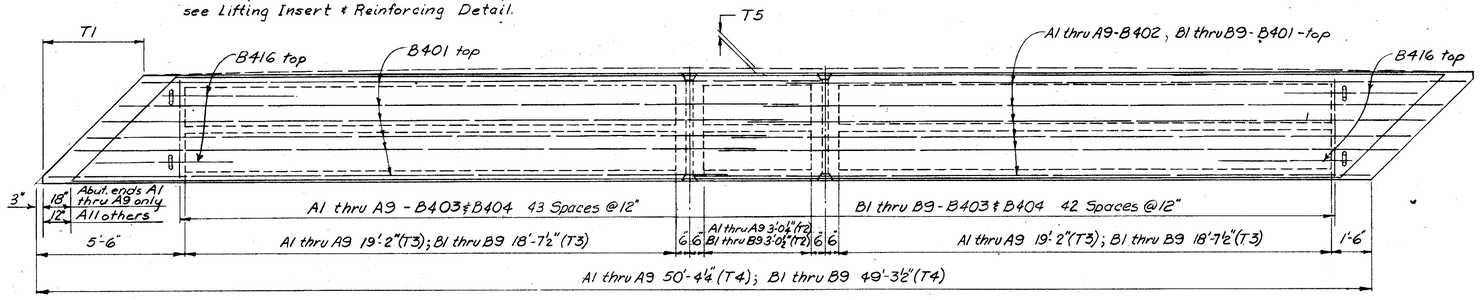
Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

63 / 82

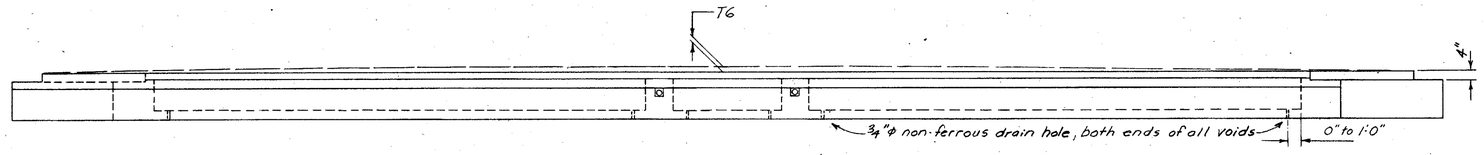
PIK-335-19.96

Note: Beams A1, A9, B1, and B9 require only one diaphragm. See Sheet 69. The diaphragm which is not required may be omitted.



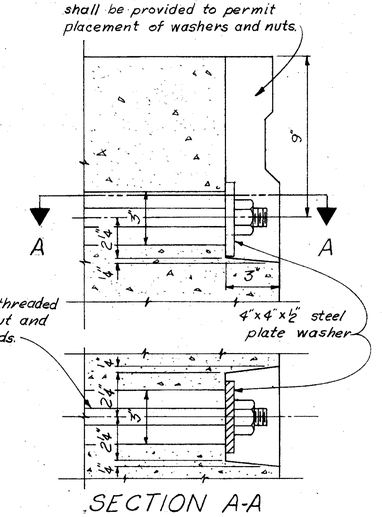
Beams A1 thru A9 are end span beams - 18 req'd. Beams B1 thru B9 are intermediate span beams - 99 req'd.

CB21-48 PLAN



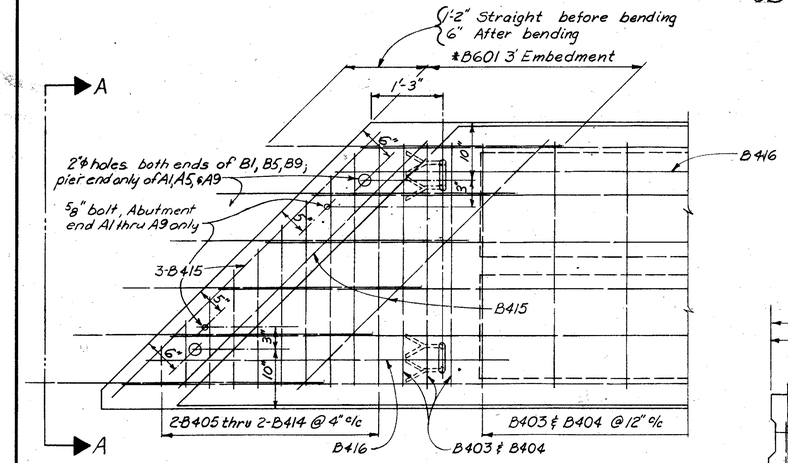
CB21-48 ELEVATION

Access holes the same shape as recesses shown in Section A-A shall be provided to permit placement of washers and nuts.

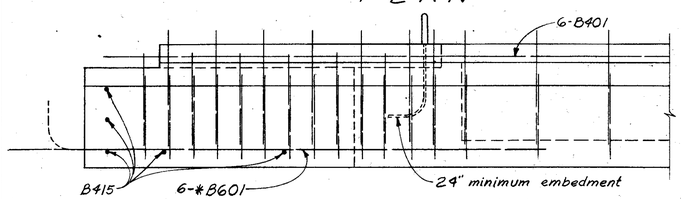


SECTION A-A

RECESS FOR TRANSVERSE TIE ROD ANCHOR



PLAN



ELEVATION

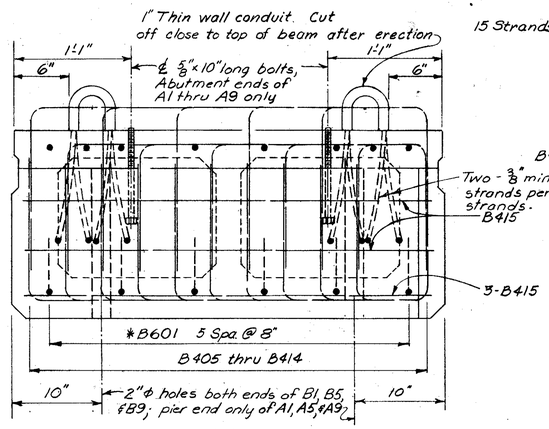
LIFTING INSERT & REINFORCING DETAIL

*B601 bars may be bent before or after casting of beam. Omit B601 bars at abutment ends of Beams A1 thru A9.

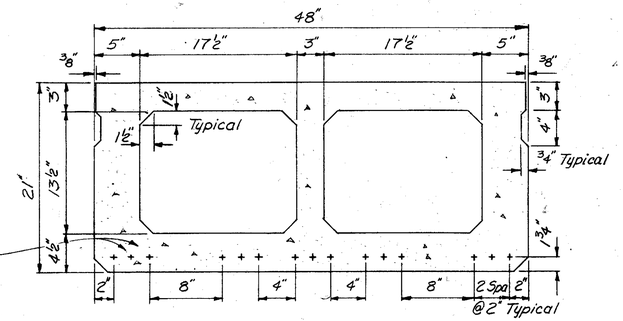
Lifting inserts of the Contractor's design may be used if approved by the Engineer.

All lifting inserts must be uniformly engaged during handling.

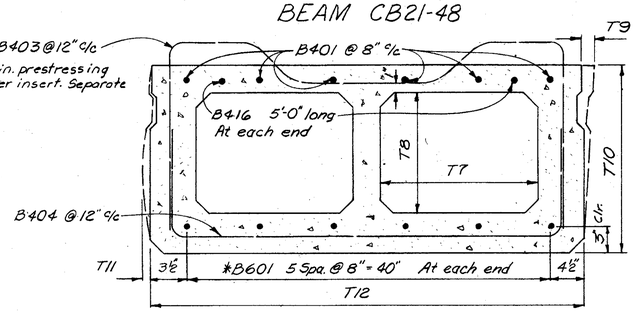
Shift lifting inserts slightly where necessary to clear reinforcement.



VIEW A-A



BEAM CB21-48



BEAM CB21-48

Prestressed Concrete Beams: Minimum concrete strength at 28 days = 5500 psi. Minimum concrete strength at release of prestress = 4000 psi. Prestressing strands shall be ½" uncoated seven wire stress-relieved strand, 270K, with an initial tension of 28,900 pounds per strand.

Shear Key Surfaces shall be roughened by application of an approved retarder to the forms prior to casting the beams or by sand blasting after removal of the forms.

Transverse Tie Rods shall be 1" diameter steel rods of A36 steel, threaded both ends and with nut and washer at both ends. Threads may be cut or rolled. If rolled threads are used, minimum diameter of rod at root of thread shall be 0.838". Tension may be applied by a torque of approximately 250 foot-pounds. After tie rods are tightened the recess in the outside beams shall be filled with non-shrinking mortar of the same color as the beams.

Mortaring Of Shear Keys: After the transverse tie rods have been tightened shear keys shall be filled with non-shrink mortar. Before mortaring, the roughened keyway surfaces shall be wetted, but no free water shall be allowed to remain in the keyways. Mortar shall then be tamped into the keyways in a manner that insures complete and solid filling.

Non-Shrinking Mortar shall be made with portland cement and an approved additive or with an approved proprietary product.

Cleaning Prior To Placement Of Composite Slab: Before placement of the slab concrete, the tops of all beams shall be thoroughly cleaned of all dirt, dust, or other foreign mater. The surface shall be flushed with clear water and shall be wet, without free water, when the concrete is placed.

Construction Joints perpendicular to the ℄ Roadway may be placed near the center of a span. However, composite slab pours shall be as long as practicable.

Galvanizing: All anchor bolts, studs, inserts, tie rods, nuts, and washers shall be galvanized per 711.02.

Table of Beam Dimensional Tolerances	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12
	±¾"	±½"	±0"-½"	±¾"	±½"	±½"	±½"	±½"	±⅛"	±⅛"	⅛" max.	±¼"

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

8 / 9

SUPERSTRUCTURE DETAILS

BRIDGE NO. PIK-335-2064
OVER SCIOTO RIVER OVERFLOW

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJ	B.E.B.		J.D.R.	BFG	5-5-70	

Rev. 12-16-70

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

64
82

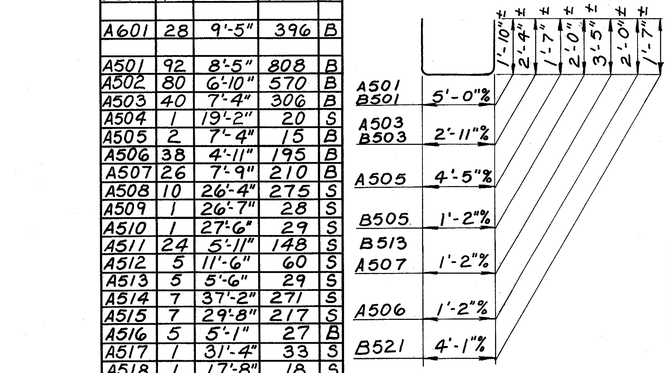
PIK-335-19.96

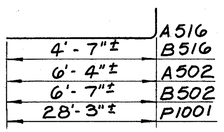
REINFORCING STEEL LIST

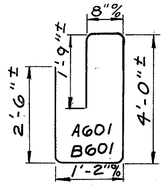
Mark	No.	Length	Weight	Shp
Forward Abutment				
A801	14	29'-10"	1115	S
A601	28	9'-5"	396	B
A501	92	8'-5"	808	B
A502	80	6'-10"	570	B
A503	40	7'-4"	306	B
A504	1	19'-2"	20	S
A505	2	7'-4"	15	B
A506	38	4'-11"	195	B
A507	26	7'-9"	210	B
A508	10	26'-4"	275	S
A509	1	26'-7"	28	S
A510	1	27'-6"	29	S
A511	24	5'-11"	148	S
A512	5	11'-6"	60	S
A513	5	5'-6"	29	S
A514	7	37'-2"	271	S
A515	7	29'-8"	217	S
A516	5	5'-1"	27	B
A517	1	31'-4"	33	S
A518	1	17'-8"	18	S
Rear Abutment				
B801	14	30'-11"	1156	S
B601	28	9'-5"	396	B
B501	92	8'-5"	808	B
B502	80	7'-1"	591	B
B503	39	7'-4"	298	B
B504	2 series of 1	4'-9" to 6'-9"	84	S
B505	40	4'-11"	205	B
B506	6	6'-6"	41	S
B507	5	13'-6"	70	S
B508	6	29'-8"	186	S
B509	7	34'-0"	248	S
B510	1	31'-2"	33	S
B511	1	17'-6"	18	S
B512	1	15'-6"	16	S
B513	24	7'-9"	194	B
B514	6	5'-1"	32	B
B515	2	6'-2"	13	S
B516	6	5'-6"	34	S
B517	4	23'-3"	97	S
B518	6	35'-3"	221	S
B519	1	23'-9"	25	S
B520	2	24'-6"	51	S
B521	2	7'-0"	15	B
Piers				
P1001	144	29'-4"	18,176	B
P901	96	28'-1"	9166	S
P701	576	4'-0"	4709	S

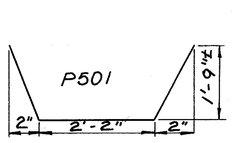
Varies by 4"

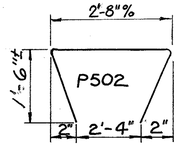
Bending Diagrams

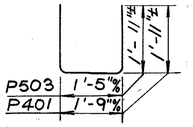


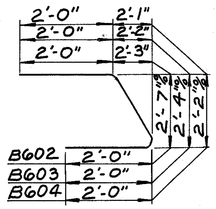




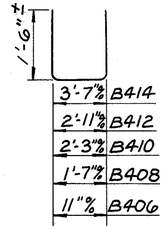


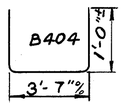


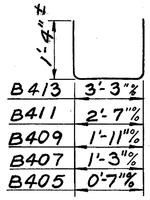


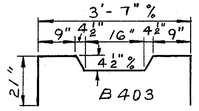


* Included with prestressed concrete bridge members for payment.









BAR SIZE is indicated in the bar mark. The first digit where three digits are used, and the first two digits where four digits are used, indicate the bar size number. For example, A700 is a No. 7 size bar and A1014 is a No. 10 size.

* May be bent before or after casting into beams.

Mark	No.	Length	Weight	Shp
Piers Cont.				
P601	48	27'-6"	1983	S
P602	24	7'-3"	261	B
P603	24	7'-2"	258	B
P604	24	7'-0"	252	B
P501	504	5'-5"	2847	B
P502	504	5'-5"	2847	B
P503	1056	5'-0"	5507	B
P401	384	5'-4"	1368	B
Superstructure				
S601	24	26'-3"	946	S
S602	144	2'-0"	433	S
S401	572	30'-0"	11,463	S
S402	26	18'-6"	321	S
S403	2 series of 44	2'-9" to 35'-0"	1110	S
S404	818	35'-8"	19489	S
S405	300	20'-0"	4008	S
S406	4	2'-0"	5	S
S407	648	3'-0"	1299	S
Beams				
* B601	1296	4'-2"	#	B
B401	1296	25'-3"	#	S
B402	108	26'-3"	#	S
B403	5751	7'-0"	#	B
B404	5751	5'-3"	#	B
B405	468	3'-0"	#	B
B406	468	3'-8"	#	B
B407	468	3'-8"	#	B
B408	468	4'-4"	#	B
B409	468	4'-4"	#	B
B410	468	5'-0"	#	B
B411	468	5'-0"	#	B
B412	468	5'-8"	#	B
B413	468	5'-8"	#	B
B414	468	6'-4"	#	B
B415	1170	4'-10"	#	S
B416	468	5'-0"	#	S
Replacement Bars				
RE1001	1	8'-2"	-	S
RE901	1	7'-10"	-	S
RE801	1	7'-6"	-	S
RE701	1	4'-0"	-	S
RE601	1	6'-11"	-	S
RE501	1	6'-7"	-	S
RE401	2	6'-3"	-	S

SPECIFICATIONS FOR ABUTMENT BEARING DEVICES

(A) MATERIALS

1. Teflon Bearing Surface: A fabricated sheet of 100% TFE (tetrafluorethylene) fiber in the form of a woven mat. The addition of any foreign material or fillers shall be prohibited.

2. Substrate: The bronze alloy employed in the manufacture of these bearings shall be in strict accordance with Alloy B of Standard Specification for Bronze Castings for Bridges and Turntables, ASTM Designation B22.

3. Sole Plate: Shall be of ASTM A588 steel, unpainted, with a mating surface ground or faced to a finish of USASI 125 or better.

4. Elastomeric pad, 50 durometer. CMS 711.23 The elastomeric pad shall be bonded to the steel plate by the bearing manufacturer.

5. Preformed bearing pad or sheet lead. CMS 711.21 or 711.19.

(B) MANUFACTURE OF TEFLON BEARINGS

Teflon bearings, LUBRITEF or equal, shall be a product approved by the Engineer and produced by a reputable manufacturer having a successful record in similar applications. The manufacturer shall have proven capabilities of producing the bearings to the exacting requirements of the drawings and specifications, while insuring close supervision over materials, quality, and workmanship.

(C) FASTENING

The TFE fiber mat shall be compressed into a recessed geometric grid to provide mechanical interlocking. This interlock shall be capable of preventing lateral movement due to the shear forces exerted.

(D) DIMENSIONS AND FINISHES

The bearing shall be furnished machined as required to the sizes specified on the drawings and shall not be further machined after assembly.

(E) FRICTION COEFFICIENT

The static coefficient of friction between the bearing surfaces shall not exceed .03 when subjected to unit loadings of 3500 p.s.i. and speeds of .001"/minute.

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

9 / 9

REINFORCING STEEL LIST,
ABUTMENT BEARING SPECIFICATIONS
BRIDGE No. PIK-335-2064
OVER Scioto River Overflow

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
WJJ		G.F.J.	J.O.R.	BFG	5-5-70	

Rev. 12-16-70