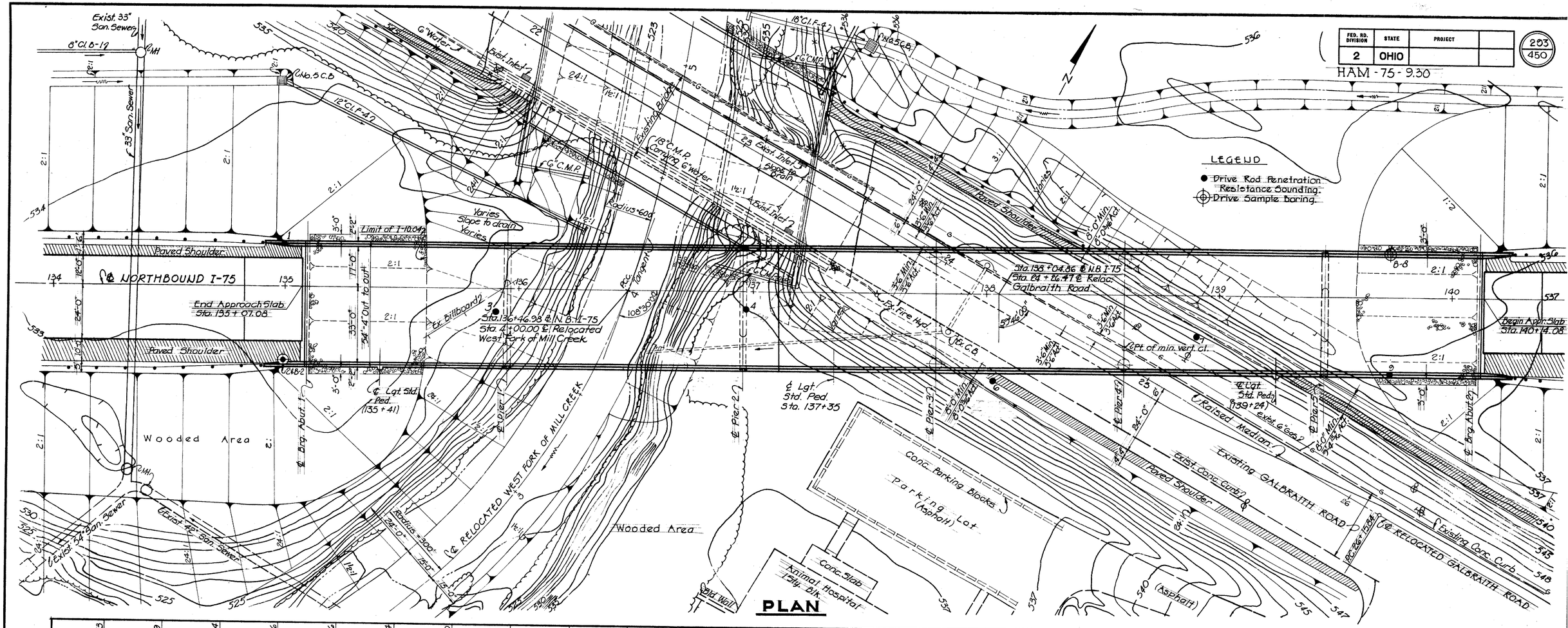
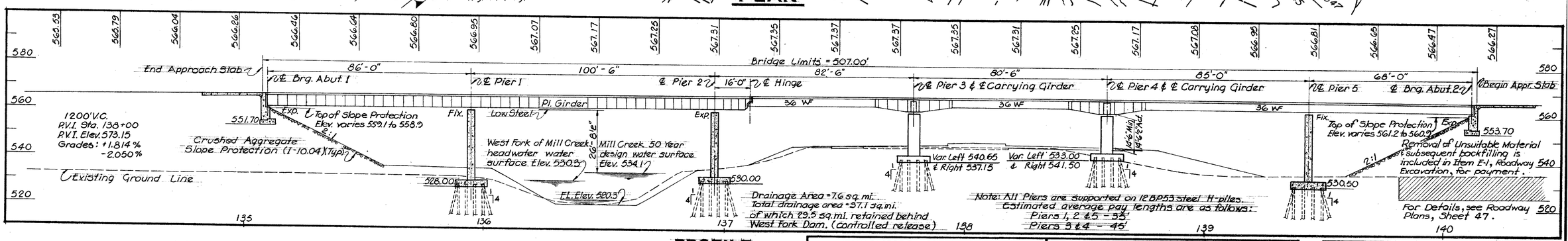
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

203
450

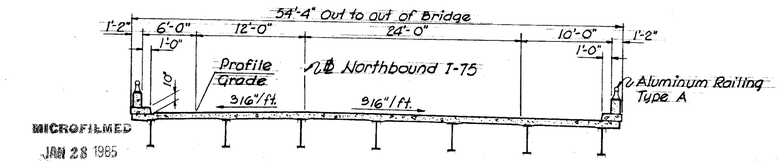
HAM - 75 - 9.30



PLAN



PROFILE



TYPICAL SECTION

B.M. ME-10
Elev. 549.063
R.R. Spike in Pole
Sta. 139+10, 80' Rt. ℄ NORTHBOUND I-75

EXISTING UPSTREAM STRUCTURE DATA

TYPE: Reinforced concrete superstructure and substructure.
SPANS: 40'-0", 50'-0", 40'-0"
ROADWAY: 39.2' face to face of parapets.
SKEW: 20°00' R.F.
WEARING SURFACE: Bituminous over concrete slab.
CONDITION: Excellent except curbs and sidewalks show severe spalling.

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam and welded plate girder with reinforced concrete deck and substructure.
SPANS: 86'-0", 100'-6", 82'-6", 80'-6", 85'-0", 68'-0"
ROADWAY: 52'-0" face to face of parapets
LOAD FREQUENCY: CF = 2000 (57), adequate for A.A.S.H.O. alternate loading.
SKEW: 0°00'
WEARING SURFACE: 1" monolithic concrete
APPROACH SLABS: A3-1-54 (25' long)
ALIGNMENT: Tangent
ADT. = 40,000 (1975)

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

BRIDGE No. HAM-75-1056
NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH RD.
HAMILTON COUNTY STA. 135 + 07.08
STA. 140 + 14.08

PRESENT TOPOGRAPHY		PROPOSED WORK				
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS	
AERIAL	S.T.C.	C.E.S	G.K.	C.F.L.		

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

HAM-75-9.30

294

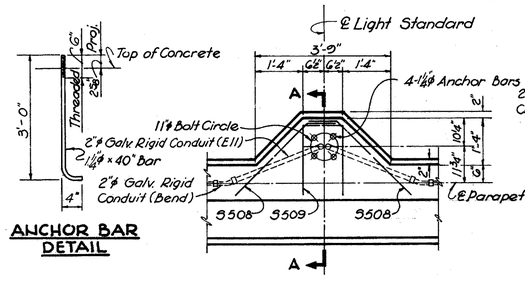
ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E - 2		Lump Sum.	Cofferdams, Cribs and Sheeting.						
E - 2	843	Cu. Yds.	Unclassified Excavation.	337	506				
S - 1	810	Cu. Yds.	Class "C" Concrete - Superstructure.			810			
S - 1	352	Cu. Yds.	Class "C" Concrete - Piers above footings.		352				
S - 1	156	Cu. Yds.	Class "E" Concrete - Abutments above footings.	156					
S - 1	282	Cu. Yds.	Class "E" Concrete - Piers & Abutment footings.	62	220				
S - 3	20	Lin. Ft.	Waterproofing, Premolded, Sealing Strip.	20					
S - 4	342,145	lbs.	Reinforcing Steel.	12,420	79,387	250,338			
S - 7	1,023,100	lbs.	Structural Steel.			1,023,100			
S - 8	1,023,100	lbs.	Field painting of Structural Steel.			1,023,100			
S - 14	1063.92	Lin. Ft.	Railing (Type "A" aluminum rail and supports and concrete parapet).	56.67		1,007.25			
S - 18	6,520	Lin. Ft.	Steel piles 12 BP53		6,520				
* S - 25			Lighting System.						
S - 29	60	Cu. Yds.	Porous Backfill.	60					
S - 29	30	Each	Scuppers, including supports.			30			
S - 29	93	Lin. Ft.	6" Perforated helical C.M.P. M-6.4(h) including specials.	93					
S - 29	101	Lin. Ft.	6" Helical C.M.P M-6.4(h) non-perforated.	101					
S -101	810	Each	Water reducing set-retarding admixture.			810			
I - 10	749	Sq. Yds.	Crushed aggregate slope protection.				749		
I -127	2	Each	Delineator bracket, mounted, type A-1.			2			
S-16		Lump Sum	First Test Pile						

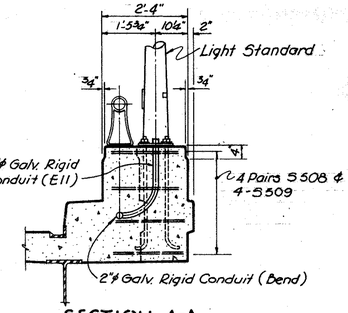
Materials in approach slabs are not included in the above estimated quantities.

Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in item S-14 for payment.

* See Summary of Bridge Lighting Quantities, Sheet No. 265, for Details, Description, Unit & Quantity.



ANCHOR BAR DETAIL



SECTION A-A

LIGHT STANDARD PEDESTAL

Anchor bars are included with item S-25 for payment.

For additional details, see sh. 262.

GENERAL NOTES

REFERENCE shall be made to the following:

Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
SD-1-63, Sheet 1, 2, 3, & 4 of 4, dated 11-12-63
FSB-1-62, revised 1-15-63

Supplemental Specifications : S-101, dated 7-12-62
S-307, dated 8-23-60

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 includes the removal of fill material required for construction of the abutments.

DESIGN LOADING -CF 2,000 (57)

CONCRETE CLASS "C" -Basic unit stress 1,333 p. s. i.
CONCRETE CLASS "E" -Basic unit stress 1,133 p. s. i.

STRUCTURAL STEEL -ASTM A36, basic unit stress 20,000 p. s. i. (ASTM A7 and A373 steel not permitted) (Except Piling)

REINFORCING STEEL - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p. s. i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p. s. i.

FOUNDATION BEARING PRESSURE: Abutment footings are designed for a maximum bearing pressure of 2.5 tons per sq. ft.

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

Item S-7.10, High-Strength Steel Bolts, Nuts and Washers, paragraph two (2), shall be completely revised and the last sentence of paragraph four (4), revised to read as follows:
"In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner."

"Bolt lengths determined by the use of Table No. 1 shall be adjusted to the next 1/4 inch length increment."

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop. Class "B" welds are shown thus: B>—

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. S-7.12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of checking the fit-up of welds joint preparation, only two adjacent beams need be shop assembled at a time in their correct unloaded positions. All beams shall be assembled and match marked.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of safety curbs and roadways
b. The entire surface of piers and abutments except seats, backwalls and the face of spill-through abutments between outside beams or girders.

MACHINE FINISH: The concrete bridge deck shall be finished by the use of a finishing machine.

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.

Embankments shall be in place and compacted to subgrade elevation for a distance of 200 feet back of abutments for a minimum period of 90 days prior to beginning construction of the abutments.

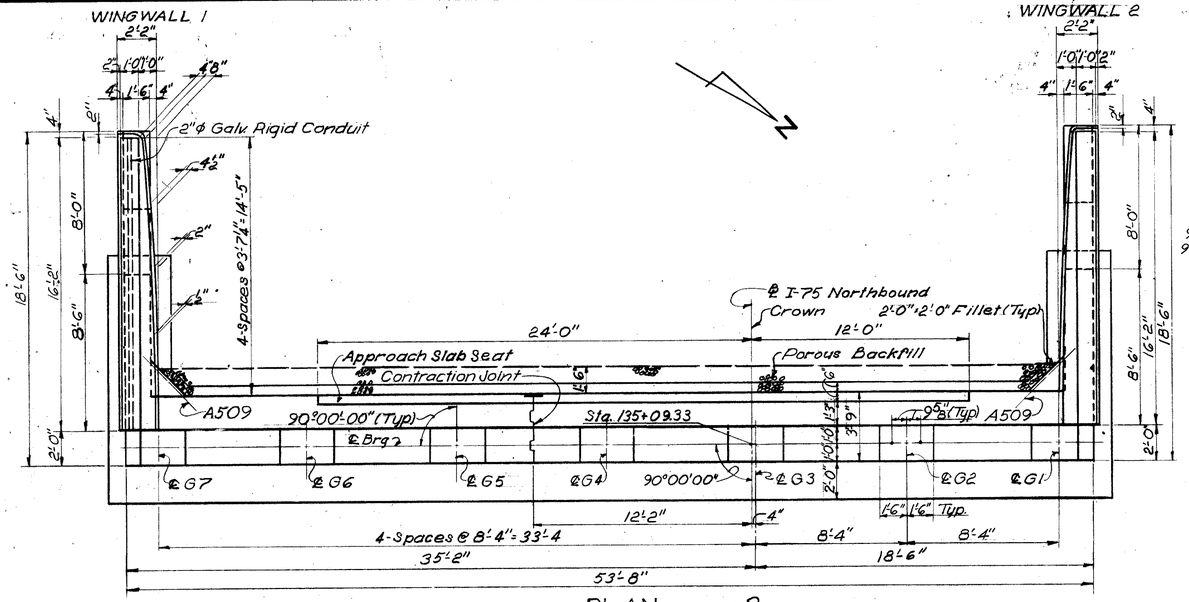
VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. HAM-75-1056
NORTHBOUND I-75 Over WESTFORK OF MILL CREEK & GALBRAITH ROAD
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

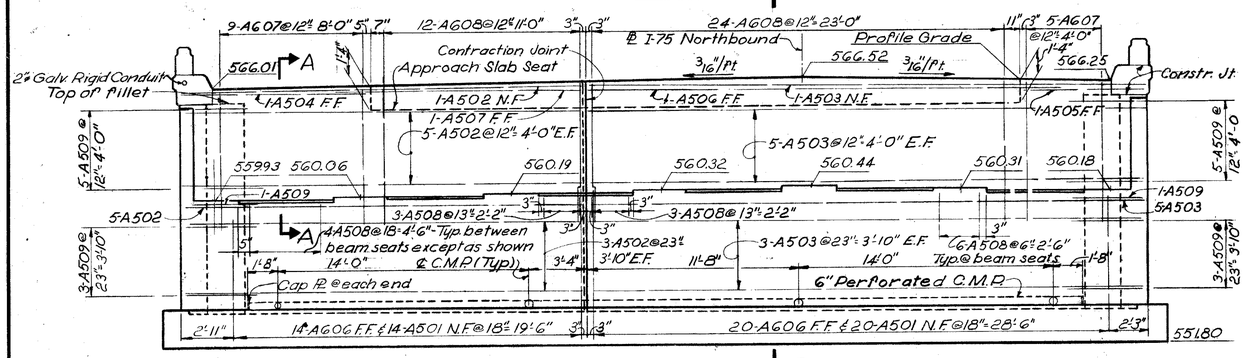
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W.	J.A.D.	7-25-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

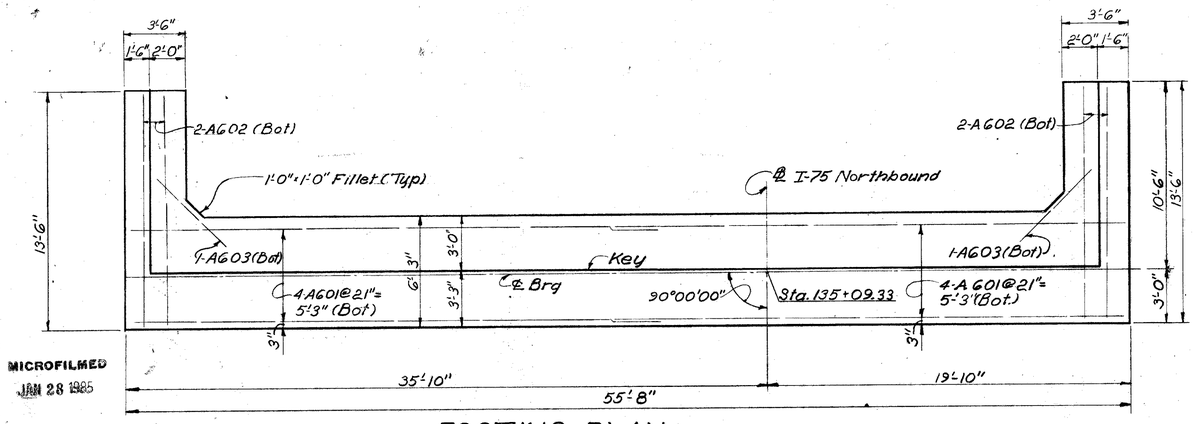
BAM-75-9.30



PLAN



ELEVATION



FOOTING PLAN

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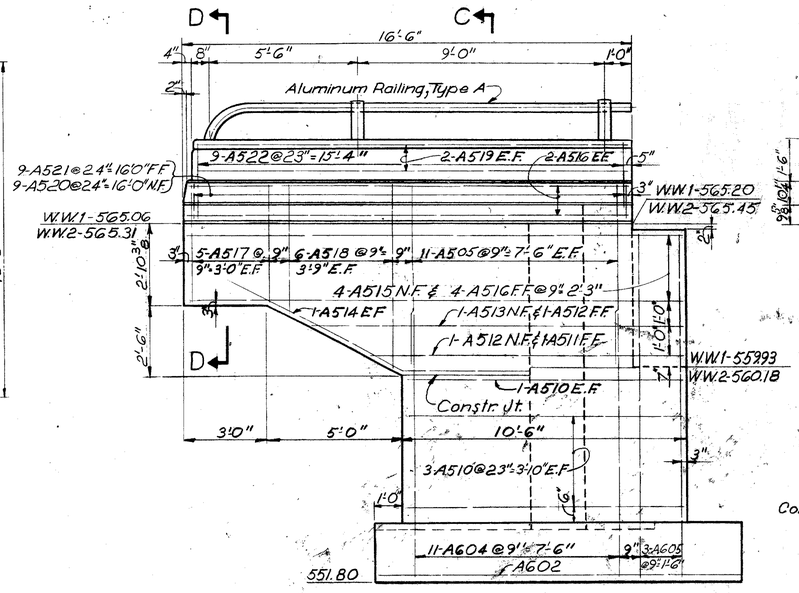
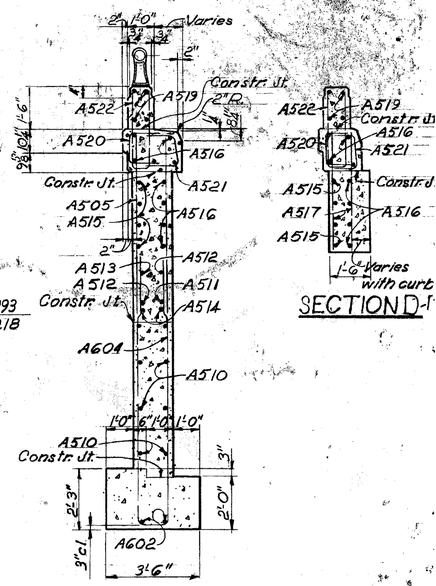


WINGWALL ELEVATION

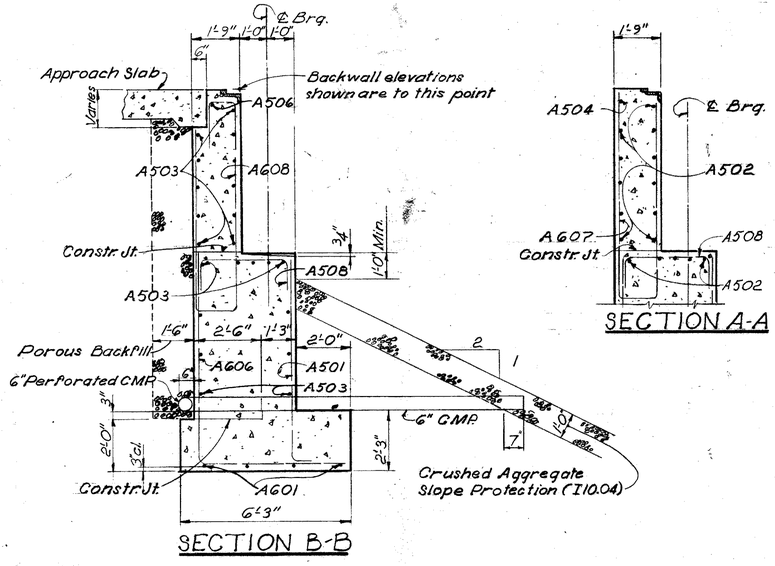
Wingwall 1 shown; Wingwall 2 similar



SECTION C-C

NOTES

1. The embankment shall be place compacted up to the finished spi slope and to the level of the su for a distance of 200 feet bac abutments. Following a 90-day period, excavation shall be mad
2. Porous backfill, 1'-6" thick and of the abutment, shall extend bottom of approach slab or p der. Excavation therefor, in ex required for construction of ment, shall be considered as the bid price per cubic yard porous backfill.
3. Special care shall be taken reinforcing steel in the vicin bridge seat so as to avoid with the drilling of anchor r
4. Aluminum railing shall be c full length of wingwalls.
5. For Contraction Joint Deta
6. For end dam details, see SL 11-12-63, Sh. 2 & 4.
7. For REINFORCING STEEL L
8. For lighting details, see -



SECTION B-B

SECTION A-A

LEGEND

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face
W.W. = Wingwall

VOGT, IVERS, & ASS
ENGINEERS
CINCINNATI

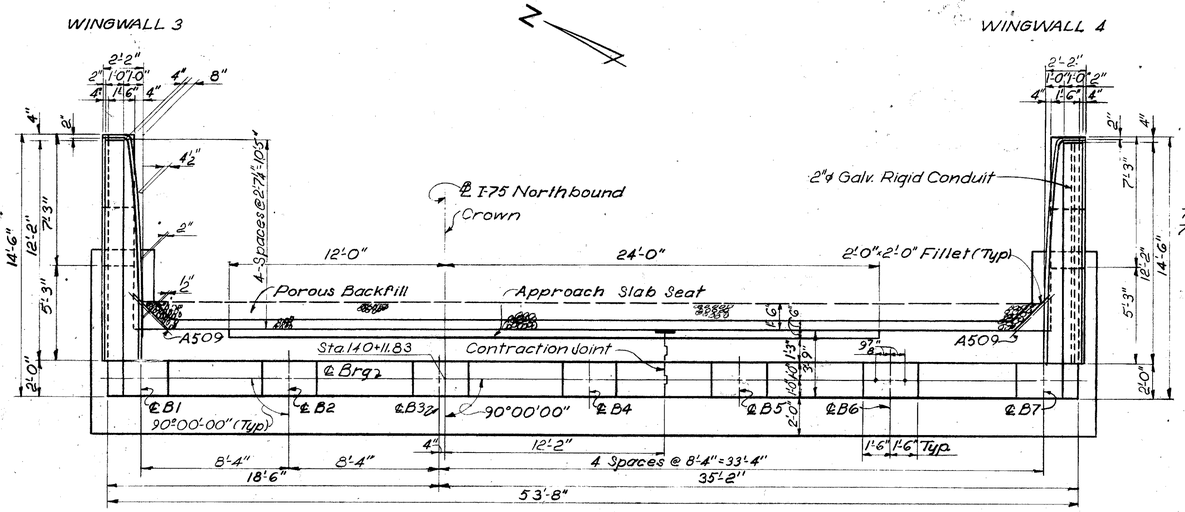
ABUTMENT
BRIDGE No. HA
NORTHBOUND I-75 ove
OF MILL CREEK & GALE

HAMILTON COUNTY STA.
STA.

DESIGNED	DRAWN	TRACED	CHECKED	REVI
ME	GJW	~	C.J.F.	JA

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM-75-9.30



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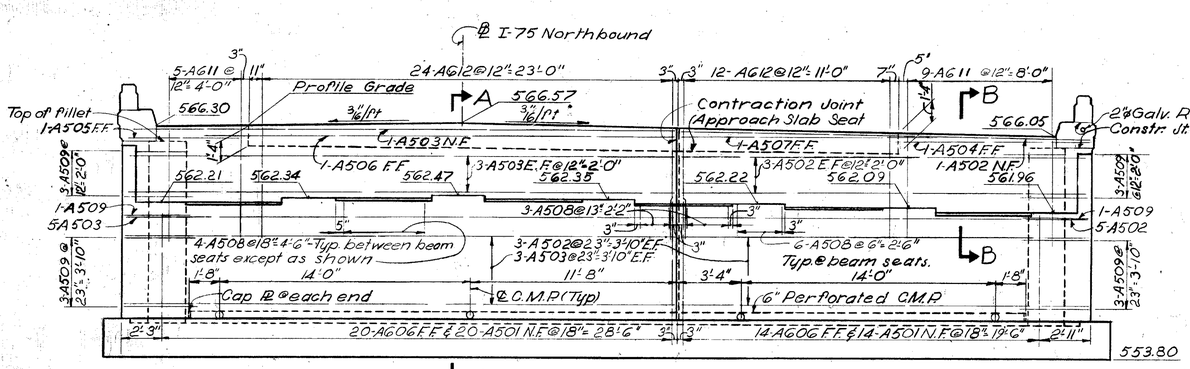
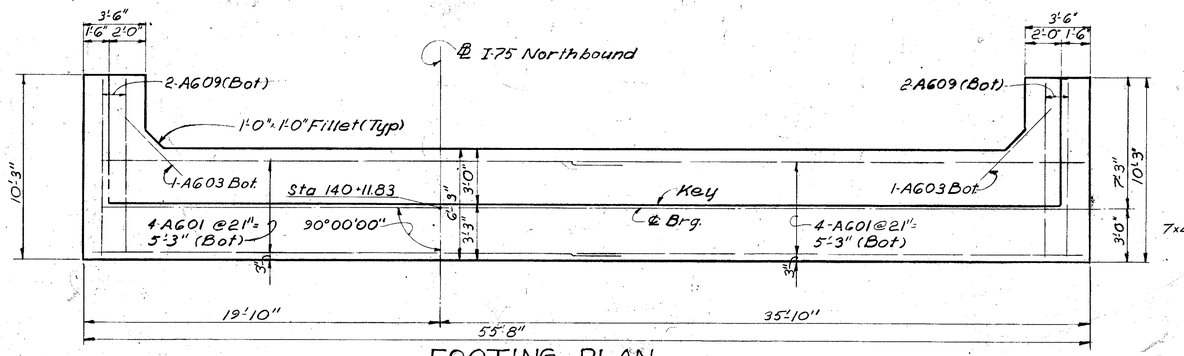
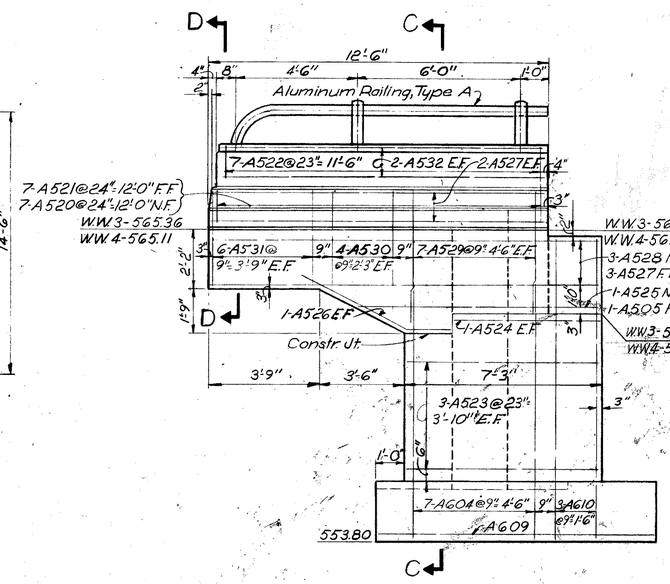


ELEVATION

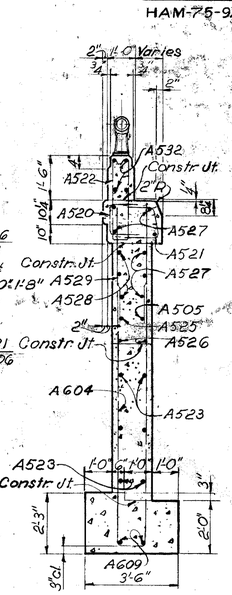


FOOTING PLAN

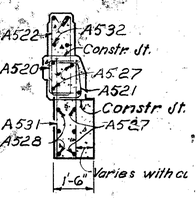


WINGWALL ELEVATION

Wingwall 3 shown, Wingwall 4 similar



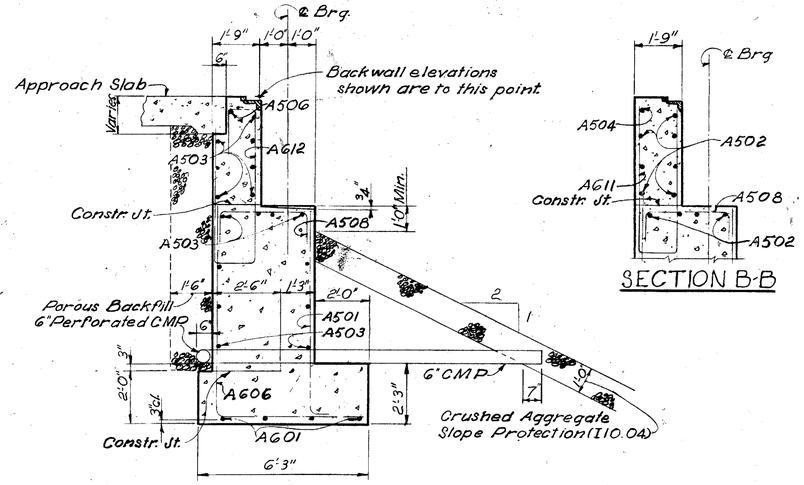
SECTION C-C



SECTION D-D

NOTES

1. For Notes see Abutm Sheet 299.

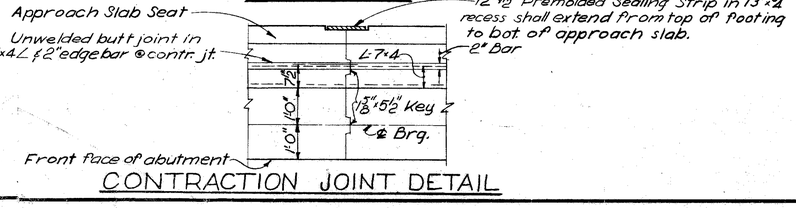


SECTION A-A

SECTION B-B

LEGEND

E.F. = Each Face
F.F. = Far Face
N.F. = Near Face
W.W. = Wingwall



CONTRACTION JOINT DETAIL

VOGT, IVERS, & ASSOCI
ENGINEERS AR
CINCINNATI

ABUTMENT 2
BRIDGE No. HAM-7
NORTHBOUND I-75 O
OF MILL CREEK & G
HAMILTON COU

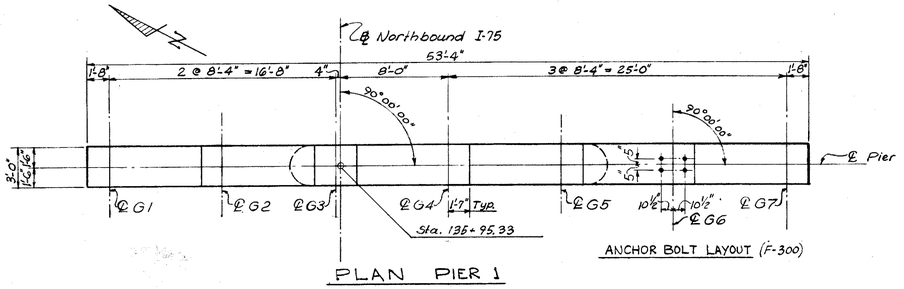
DESIGNED	DRAWN	TRACED
M.E.	GJW	~

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

301/450

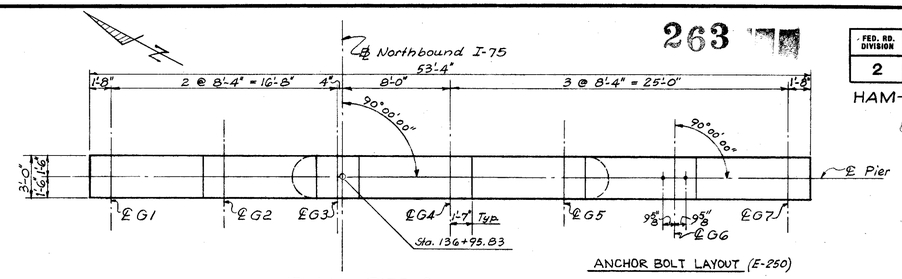
HAM-75-9.30

263 Red 301-400



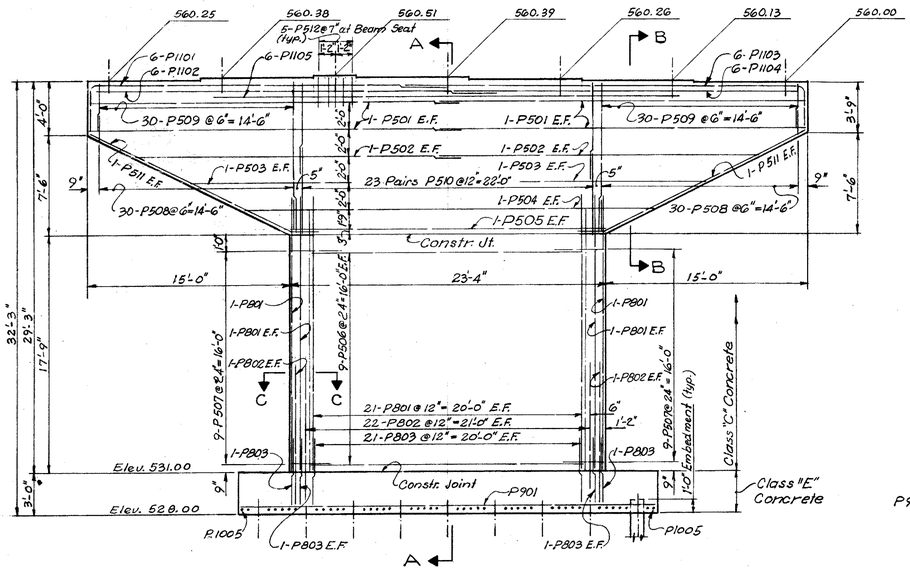
PLAN PIER 1

ANCHOR BOLT LAYOUT (F-300)

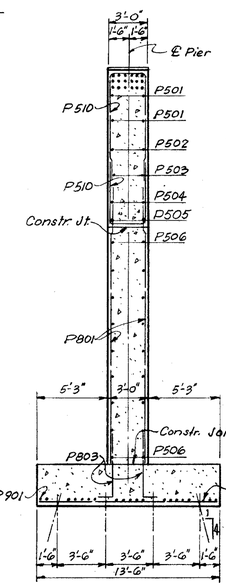


PLAN PIER 2

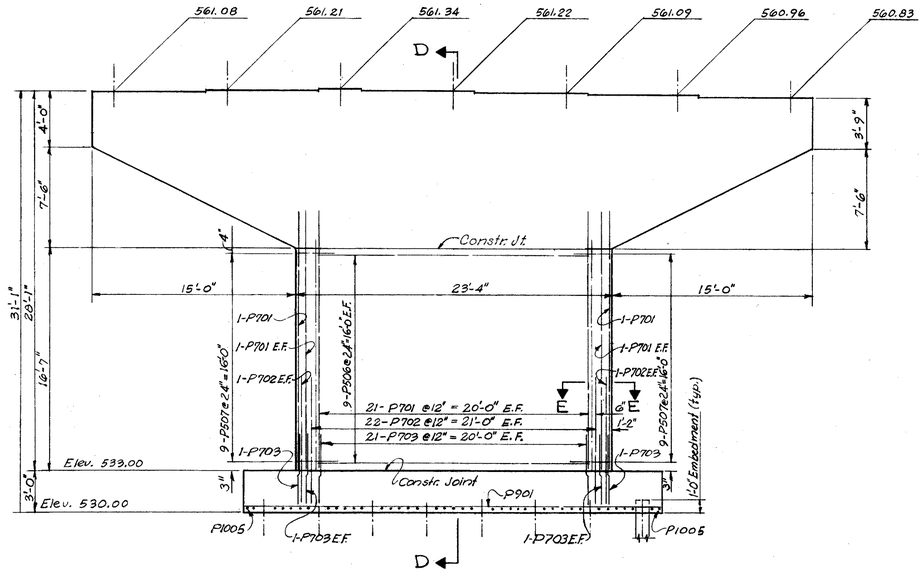
ANCHOR BOLT LAYOUT (E-250)



ELEVATION PIER 1

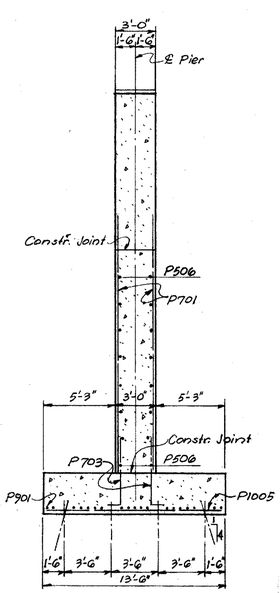


SECTION A-A

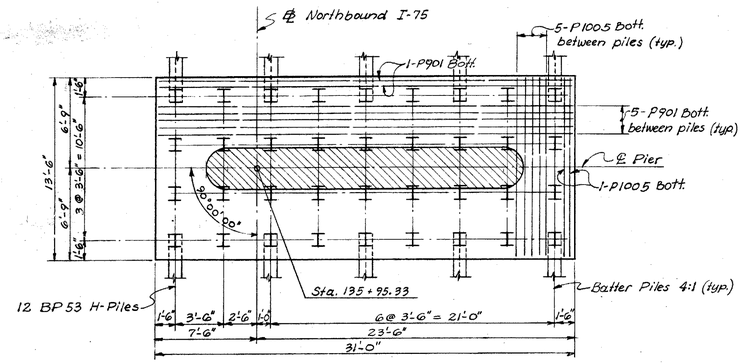


ELEVATION PIER 2

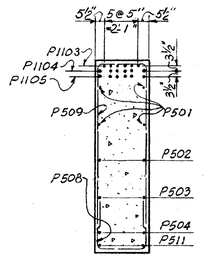
Reinforcing same as for Pier 1, except as shown.



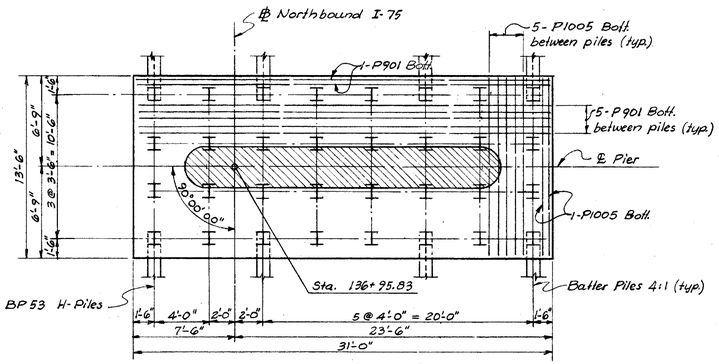
SECTION D-D



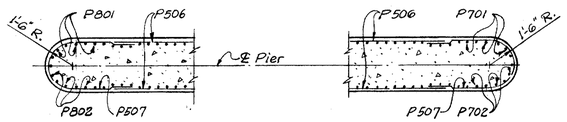
FOOTING PLAN PIER 1



SECTION B-B



FOOTING PLAN PIER 2



SECTION C-C

SECTION E-E

NOTES

1. Place reinforcing in pier cap so as not to interfere with the drilling of the anchor bolt holes.
2. "E.F." denotes "Each Face
3. ELECTRICAL GROUNG, per sht. EG Install in Pier 2 (right end)

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

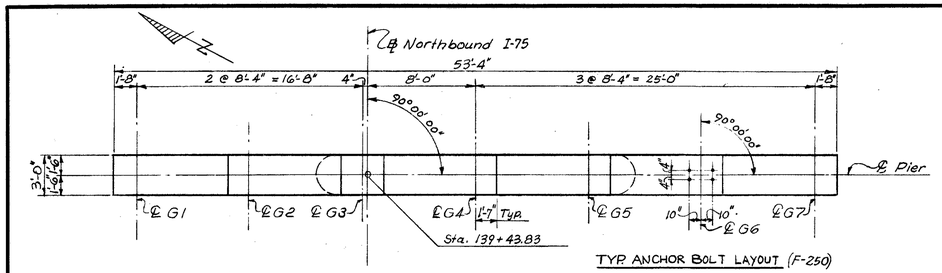
PIERS 1 AND 2

BRIDGE NO. HAM-75-1056

NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH ROAD

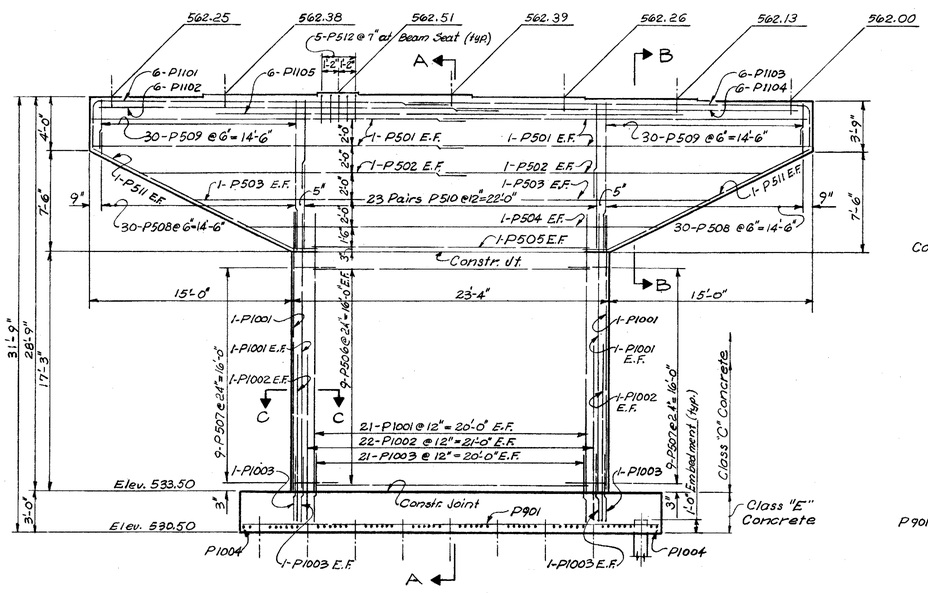
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.S.	E.E.S.	~	M.P.S.	JAD	7-23-64	

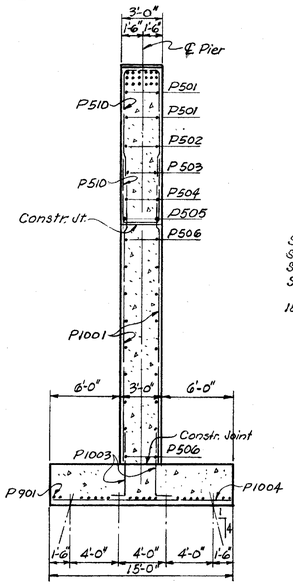


TYP. ANCHOR BOLT LAYOUT (F-250)

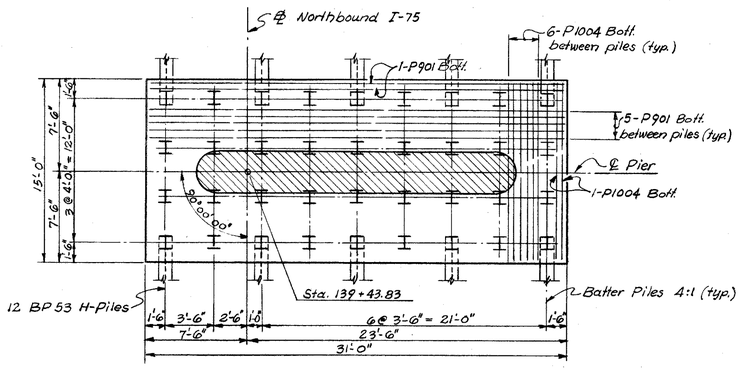
PLAN PIER 5



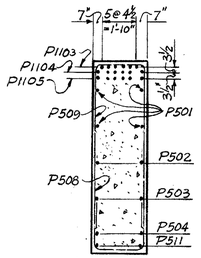
ELEVATION PIER 5



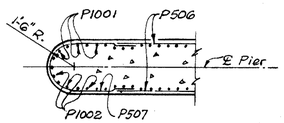
SECTION A-A



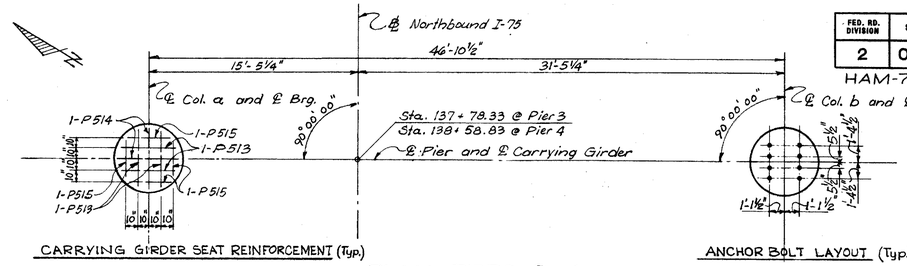
FOOTING PLAN PIER 5



SECTION B-B



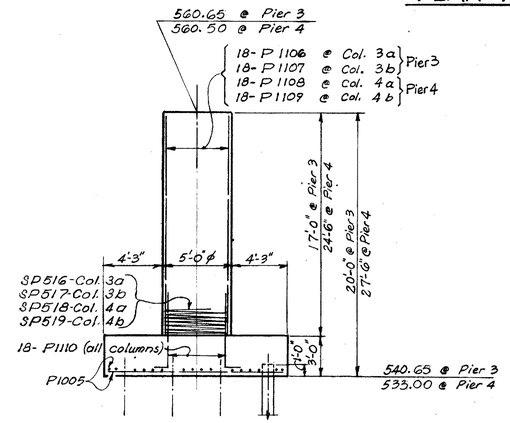
SECTION C-C

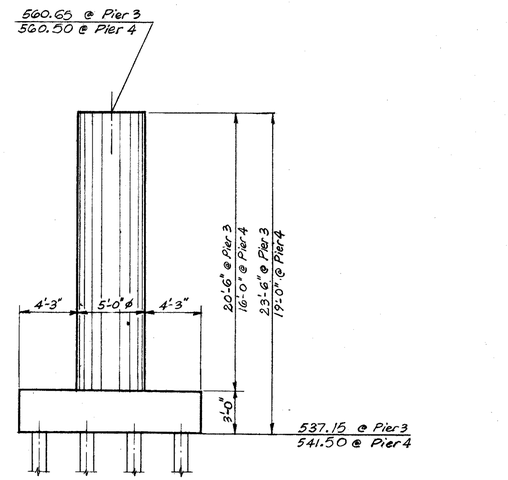


CARRYING GIRDER SEAT REINFORCEMENT (Typ.)

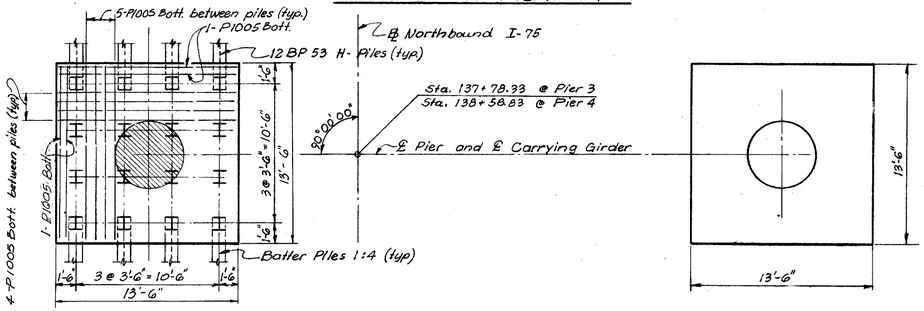
ANCHOR BOLT LAYOUT (Typ.)

PLAN PIERS 3 & 4





ELEVATION PIERS 3 & 4



FOOTING PLAN PIERS 3 & 4

NOTES:

1. Place the reinforcing in pier cap and columns so as not to interfere with the drilling of the anchor bolt holes.
2. "E.F." denotes "Each Face".
3. ELECTRICAL GROUND, per sht. 260 install in right end of Pier 5

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 3, 4, AND 5

BRIDGE NO. HAM-75-1056

NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH ROAD

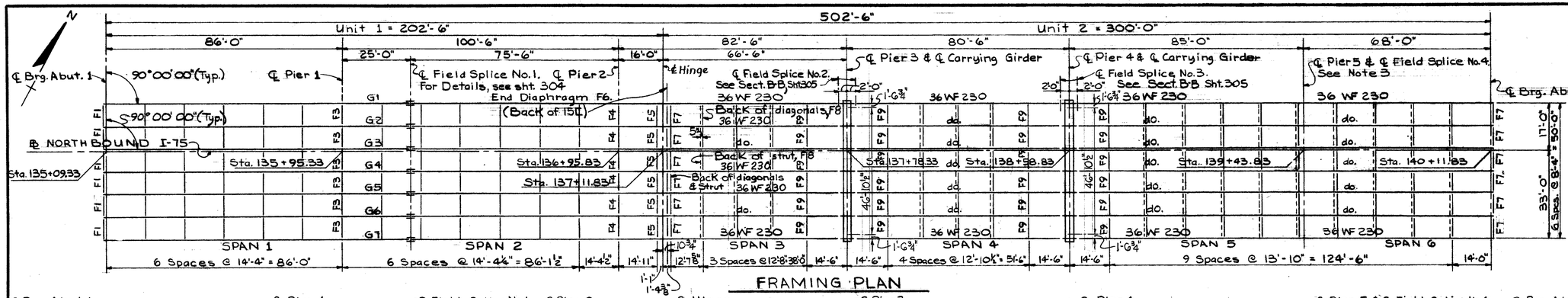
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.S.	E.E.S.	~	M.P.S.	J.A.D.	7-23-64	

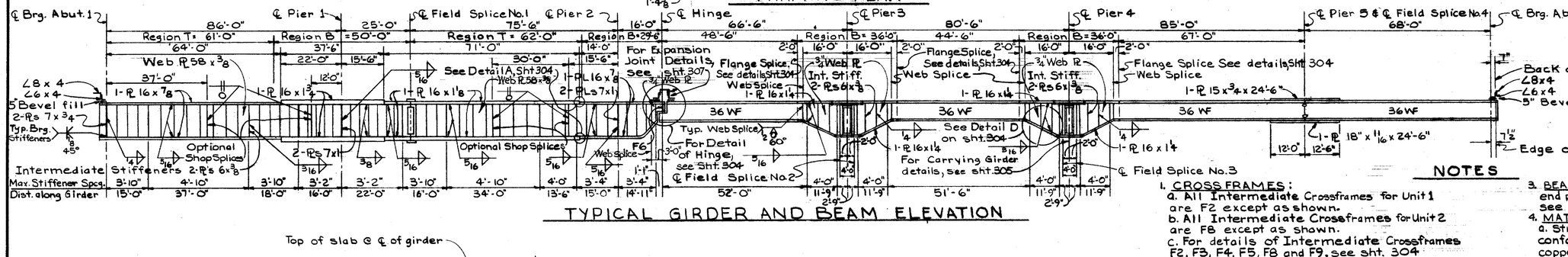
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

303
450

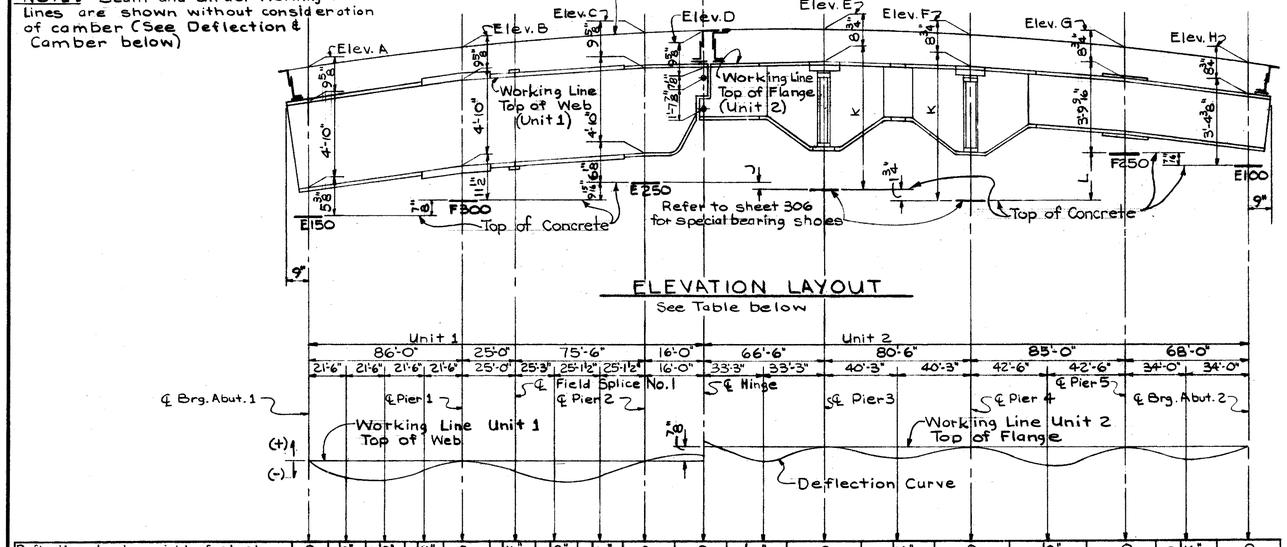
HAM-75-9.30



FRAMING PLAN



TYPICAL GIRDER AND BEAM ELEVATION



ELEVATION LAYOUT

See Table below

Deflection due to weight of steel	0	-⅛"	-⅛"	-1/16"	0	-1/16"	-⅛"	-1/16"	0	0	-1/16"	0	-1/16"	0	-⅛"	0	-1/16"	0
Deflection due to remaining D.L.	0	-3/8"	-7/16"	-3/16"	0	-¼"	-½"	-⅜"	0	+1/16"	-⅜"	0	-¼"	0	-7/16"	0	-5/16"	0
Camber for deflection only	0	-½"	-9/16"	-¼"	0	-5/16"	-⅝"	-7/16"	0	+1/16"	-7/16"	0	-5/16"	0	-⅜"	0	-⅜"	0
Convexity required for Vertical Curve.	0	-¼"	-⅜	-¼"	0	-3/8"	-¼"	-⅜"	0	-3/16"	-5/16"	0	-⅜"	0	-¼"	0	-¼"	0
Sum of Deflection and Convexity	0	-¾"	-1/16"	-½"	0	-11/16"	-1/8"	-13/16"	0	-⅛"	-¾"	0	-⅝"	0	-⅝"	0	-⅝"	0
Total camber required	0	+¾"	+5/16"	+½"	0	+11/16"	+1/8"	+13/16"	0	+⅛"	+¾"	0	0	0	+1/16"	0	0	0

DEFLECTION & CAMBER

Girder	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E	Elev. F	Elev. G	Elev. H	Dim. J	Dim. K	Dim. L
G1	566.26	566.84	567.22	567.25	567.29	567.15	566.77	566.30	5 3/16"	5'-11"	1'-8⅛"
G2	566.39	566.97	567.35	567.39	567.42	567.28	566.90	566.43	6 3/16"	6'-0 1/16"	1'-10 7/16"
G3	566.52	567.10	567.48	567.52	567.55	567.41	567.03	566.56	8 1/16"	6'-2⅛"	2'-0"
G4	566.40	566.98	567.36	567.40	567.43	567.29	566.91	566.44	6 1/8"	6'-0 1/16"	1'-10 5/16"
G5	566.27	566.85	567.23	567.27	567.30	567.16	566.78	566.31	5 3/16"	5'-11⅛"	1'-9"
G6	566.14	566.72	567.10	567.14	567.17	567.03	566.65	566.18	3 3/16"	5'-9 15/16"	1'-7 7/16"
G7	566.01	566.59	566.97	567.00	567.04	566.90	566.52	566.05	2 3/16"	5'-8"	1'-5⅞"

MICROFILMED
JAN 28 1985

NOTES

1. CROSS FRAMES:
   a. All Intermediate Crossframes for Unit 1 are F2 except as shown.
   b. All Intermediate Crossframes for Unit 2 are F8 except as shown.
   c. For details of Intermediate Crossframes F2, F3, F4, F5, F8 and F9, see sht. 304
   d. For details of End Crossframe F1 and End Diaphragm F6, see sht. 304
   e. For details of End Crossframe F7, see Std. Dwg. SD-1-63, sht. 2 of 4 dated 11-12-63.
2. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedure for this structure which shall, in general, conform to the following sequence:
   a. Erect girder spans 1 and 2 with sufficient crossframes bolted in place to ensure stability.
   b. Set and brace carrying girders in position at Piers 3 and 4.
   c. Erect beams in spans 3, 4, 5 and 6 with erection bolts at carrying girders, providing adequate clamps and blocking to prevent movement at the hinge adjacent to Pier 2 during this phase, and installing sufficient temporary bracing to ensure stability.
   d. Butt weld beam flanges and webs at field splice points adjacent to carrying girders using the following sequence: make two passes on the web, then two on each flange; repeat, using one or two passes at each location, until welds are completed.
   e. Raise the abutment end of the beams in Span 6 1⅛" and butt weld beam flanges and webs at Pier 5 using the sequence given in step d.
   f. Weld top and bottom moment plates at Pier 5.
   g. Lower end of beams at abutment 2.
   h. Remove temporary clamps and blocking at the hinge.
   i. Complete installation of crossframes and remove temporary bracing at the beams.
3. BEAM SPLICE: For beam splice details and end preparation of rolled beams for field welding, see Std. Dwg. SD-1-63 sht. 1 of 4 dated 11-12-63.
4. MATERIALS:
   a. Structural steel for hinge plates & pin plates shall conform to the requirements of ASTM A36, copper bearing.
   b. Structural steel for hinge pins shall conform to the requirements of ASTM Designation A-108.
5. WELDING: Butt welds shall be radiographically examined in accordance with Supplemental Specification No. S-307 dated 8-23-60.
6. SCUPPERS AND BULB ANGLE GUTTERS: For details, see Std. Dwg. SD-1-63, sheet 3 of 4 dated 11-12-63.
7. SCUPPERS: For location, see sht. 307
8. CURB PLATES: See sht. 307 for details.
9. FIXED AND SLIDING BEARINGS: For details of bearings at Piers 1, 2, 5 and Abutments 1 and 2, see Std. Dwg. FSB-1-62, revised 1-15-63. For details of bearings at Piers 3 and 4, see sht. 306
10. STIFFENERS: Intermediate stiffeners shall have contact bearing with the top flange within Region T, but may have a clearance not exceeding ⅛" at the bottom flange. Within Region B, intermediate stiffeners shall have contact bearing with the bottom flange and ⅜" maximum clearance at the top flange. Adequate care in shop painting all junctions of intermediate stiffeners and flanges, where contact bearing is not provided, shall be exercised to make certain that paint is forced through such openings from one side to the other. Bearing stiffeners shall be placed vertically.
11. END DAMS: For details of end dams at abutments 1 & 2, see Std. Dwg. SD-1-63, sht. 2 of 4 dated 11-12-63.
12. EXPANSION JOINT AT HINGE: For details, see sht. 307
13. BEVEL FILL: For additional details see Detail D, Std. Dwg. SD-1-63 sht. 2 of 4 dated 11-12-63.
14. For additional details and Notes, see shts. 304, 305 and 306.
15. For GENERAL NOTES, see sht. 294.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN BRIDGE NO. HAM-75-1056 NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH RD

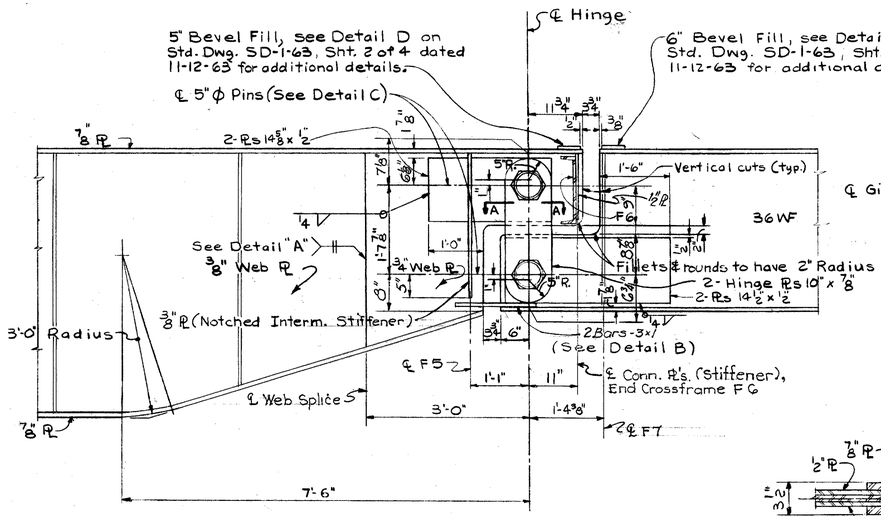
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EPA	DHW	~	RLS	JAD	7-23-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

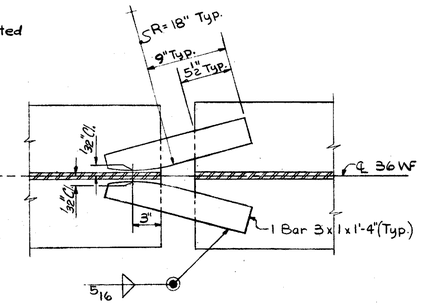
304
450

HAM - 75 - 9.30

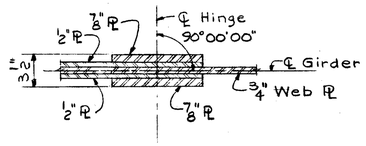


Note: All crossframes shown here shall be vertical. The width of the exp. Jt. shall be set @ 3 3/4" @ 60° F.

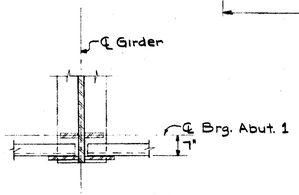
DETAIL OF HINGE



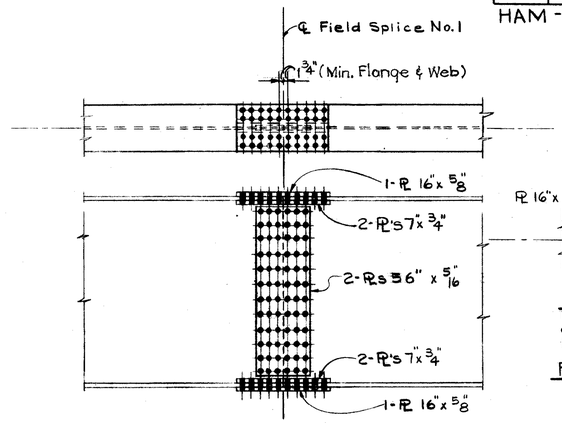
DETAIL B



SECTION A-A



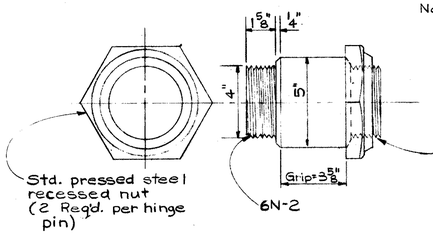
SECTION B-B



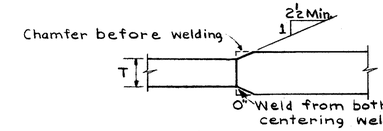
FLANGE SPLICE DETAIL

DETAIL OF FIELD SPLICE NO. 1

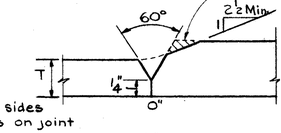
Note: Use 7/8"ϕ High Strength Bolts, 15/16" ϕ Holes in Field Splice Connections.



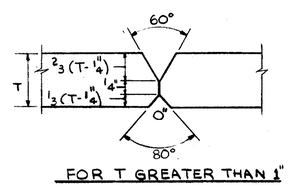
DETAIL C



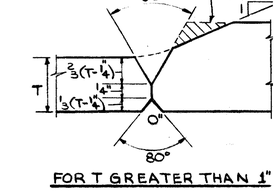
T 1/2" OR LESS



T OVER 1/2" TO 1" INCL.



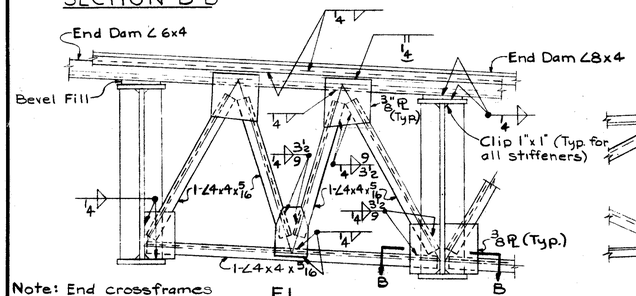
FOR T GREATER THAN 1"



FOR T GREATER THAN 1"

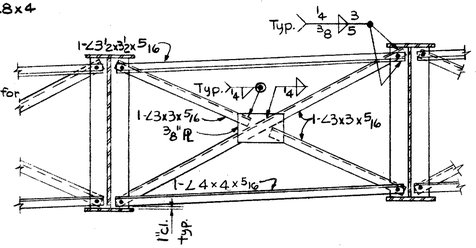
DETAIL A

Notes:
1. All of the full penetration welds shall be back-gouged and welded after welding for side.
2. Butt welds on girder and beam flange plates shall be ground flush, the finish grinding being parallel to the ℄ of girder or beam.

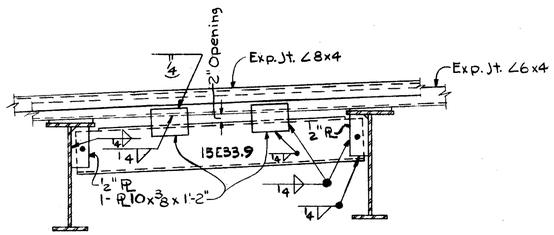


Note: End crossframes shall be placed vertical.

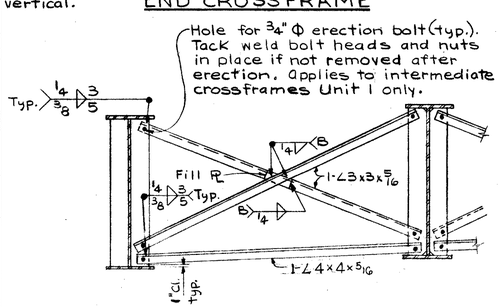
F1
END CROSSFRAME



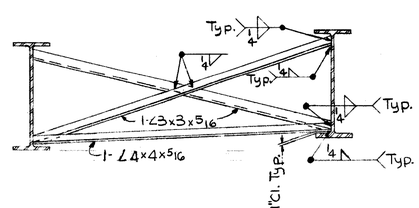
F4
INTERMEDIATE CROSSFRAME



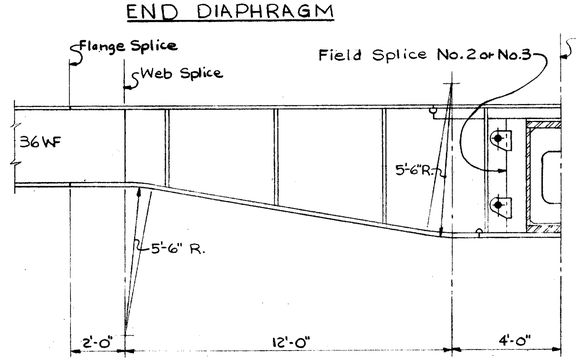
F6
END DIAPHRAGM



F2 F3 F5 F9
INTERMEDIATE CROSSFRAMES



F8
INTERMEDIATE CROSSFRAME



DETAIL D

For NOTES, see sht. 303

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

STEEL DETAILS

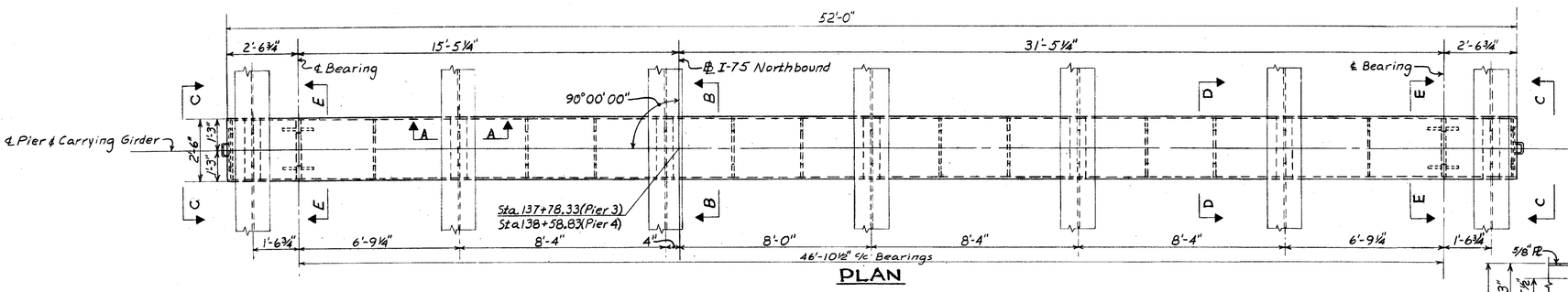
BRIDGE NO. HAM-75-1056
NORTHBOUND I-75 OVER WEST FOR
OF MILL CREEK AND GALBRAITH R
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EPA	DHW	~	RLS	JAD	7-2364	

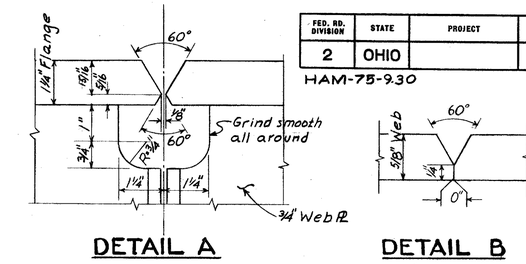
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

305
450

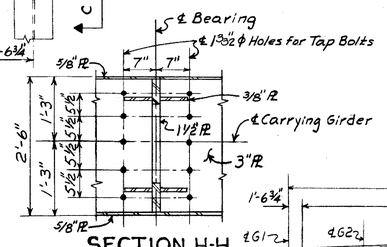


PLAN

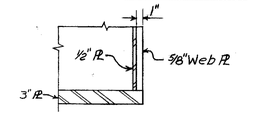


DETAIL A

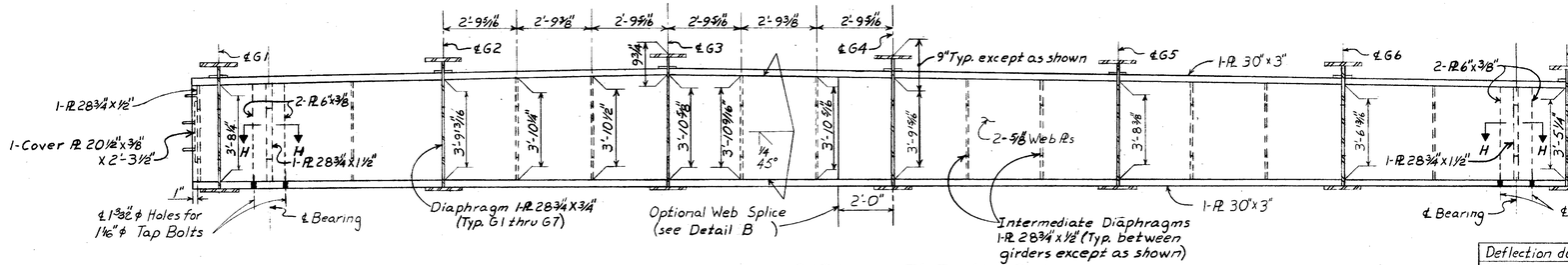
DETAIL B



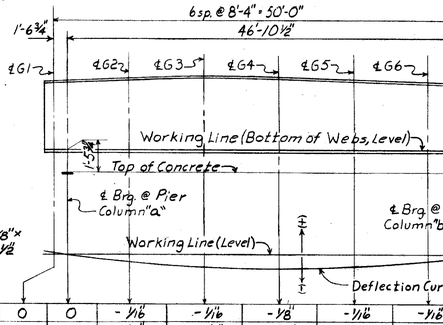
SECTION H-H



SECTION G-G



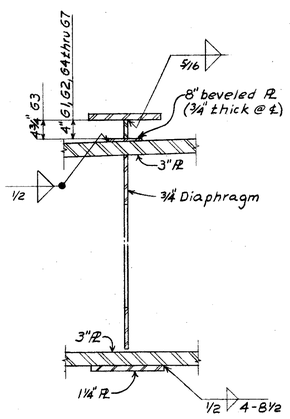
GIRDER ELEVATION



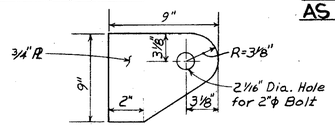
Deflection due to weight of steel ♦	0	0	- 1/16"	- 1/16"	- 1/8"	- 1/16"	- 1/16"	0	0
Deflection due to remaining dead load	0	0	- 1/8"	- 1/4"	- 5/16"	- 1/4"	- 1/8"	0	0
Total dead load deflection	0	0	- 3/16"	- 5/16"	- 7/16"	- 5/16"	- 3/16"	0	0
Camber required	0	0	+ 3/16"	+ 5/16"	+ 7/16"	+ 5/16"	+ 3/16"	0	0

♦ Weight of steel includes longitudinal girders, crossframes, etc., as well as the carrying girders.

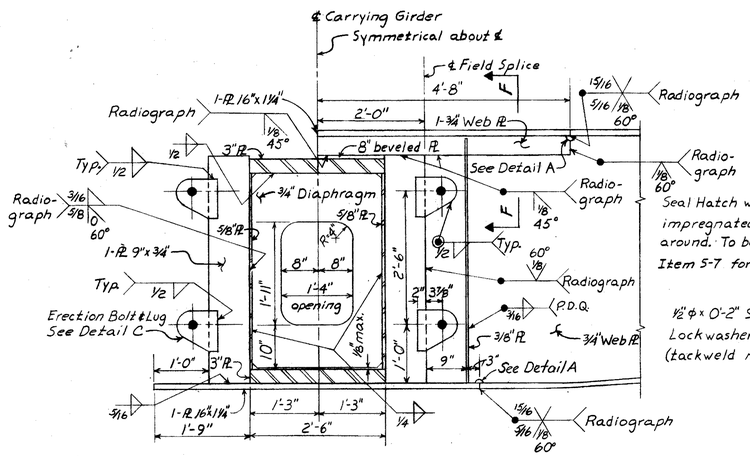
ELEVATION LAYOUT, DEFLECTION & CAMBER



SECTION A-A

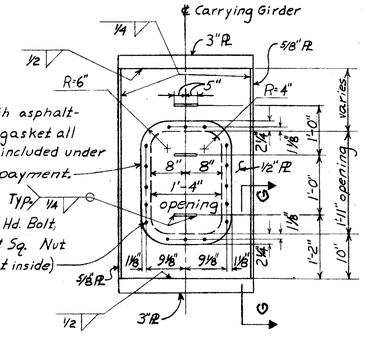


DETAIL C

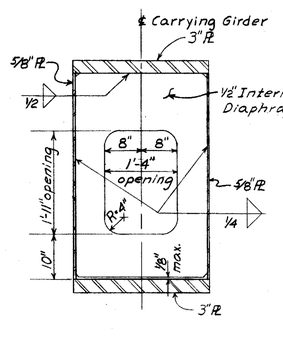


HALF SECTION AS DELIVERED

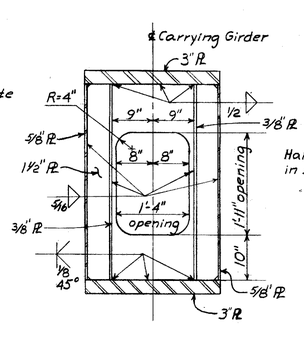
HALF SECTION SPLICE ASSEMBLED



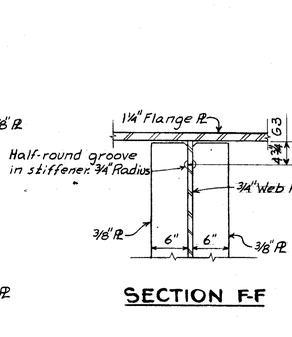
VIEW C-C



SECTION D-D



SECTION E-E



SECTION F-F

SECTION B-B

Applies to Field Splice Nos. 2 & 3

NOTES

1. All diaphragms shall be vertical, and have contact bearing against the top flange.
2. For details of bearings, see Sheet 306.
3. Butt welds shall be radiographically examined in accordance with Supplemental Specification No. S-307, dated 8-23-60.
4. All of the full penetration welds shall be back-gouged and welded after welding far side.
5. Butt welds on girder flange plates shall be ground flush, the finish grinding being parallel to the ℄ of girder.
6. For additional NOTES, see Sheet 303.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

CARRYING GIRDERS AT PIERS 3 & 4

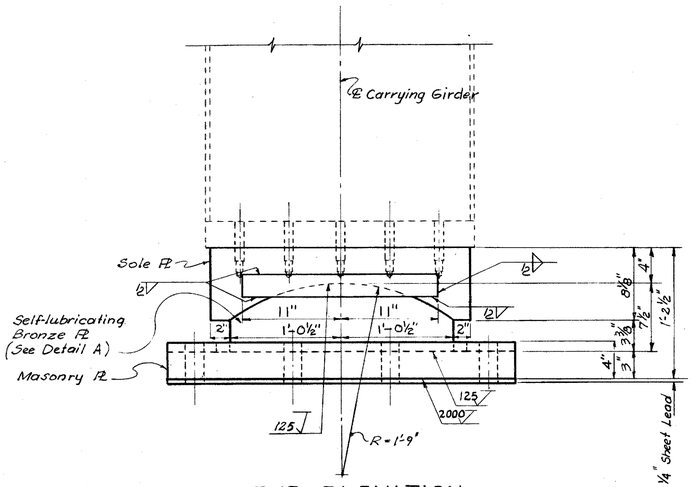
BRIDGE NO. HAM-75-1056
NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH RO
HAMILTON COUNTY STA. 135+0708 to STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	GRH	~	RLS	JAD	7-23-64	

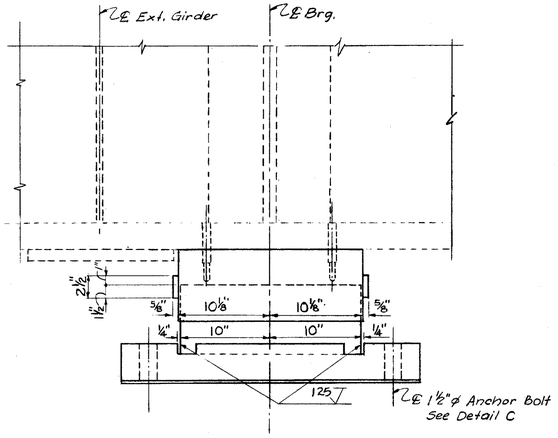
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

306
450

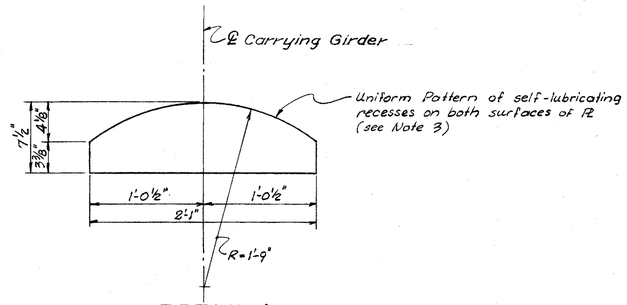
HAM-75-9.30



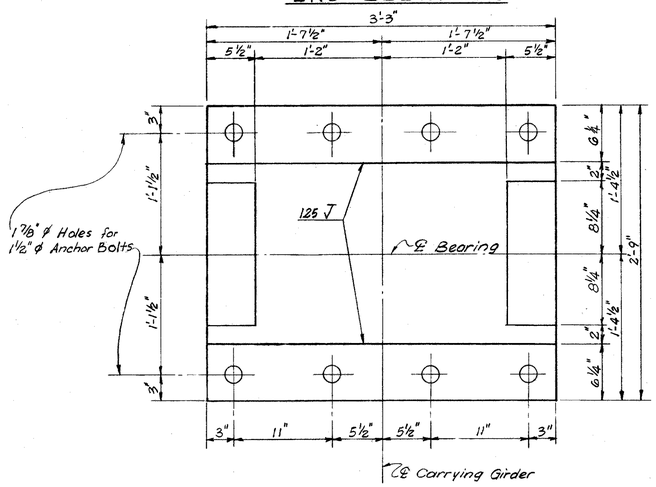
END ELEVATION



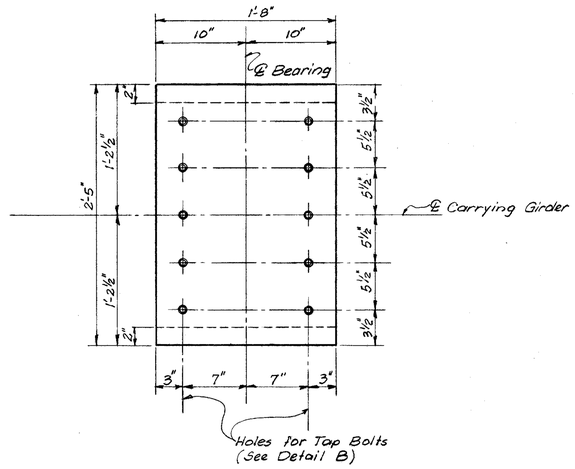
SIDE VIEW



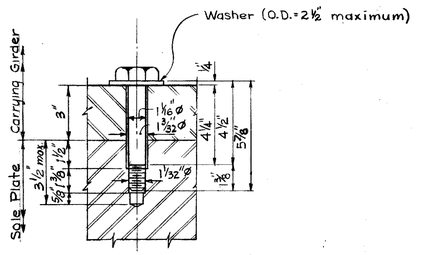
DETAIL A
SELF-LUBRICATING BRONZE PL.



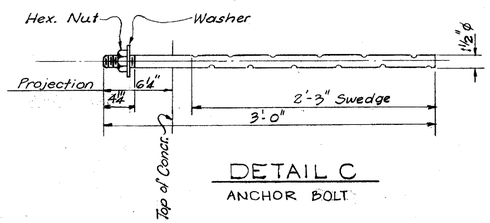
PLAN
MASONRY PLATE



PLAN
SOLE PLATE



DETAIL B
TAP BOLT



DETAIL C
ANCHOR BOLT

NOTES

1. Before final assembly the upper and lower surfaces of the bronze plate and the opposing steel plate shall be coated with a lubricant similar to that in the recesses. The three parts shall be banded together for shipment.
2. For Carrying Girder details, see sh. 305
3. For Framing Plan, see sh. 303
4. Specification for Self-Lubricating Bronze Bearing Plates, Std. Dwg. FSB-1-6 (Rev. 1-15-63) applies except for the following:
   Change Paragraph (a.) to read:
   Cast Phosphor Bronze shall conform to Sec. M-7.11 of the Construction and Material Specifications, ASTM Designation B22, Alloy E, and shall have an allowable Unit Stress of 3500 psi. in compression.
   Change Paragraph (C.) to read:
   The recesses for the lubricant shall consist of annular rings with or without central circular recesses with a depth at least equal to the width of the ring or diameter of hole.
5. Steel: Plates and rods shall conform to ASTM Designation A36-62T.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BEARINGS FOR CARRYING GIRDER AT PIER 3 AND PIER 4

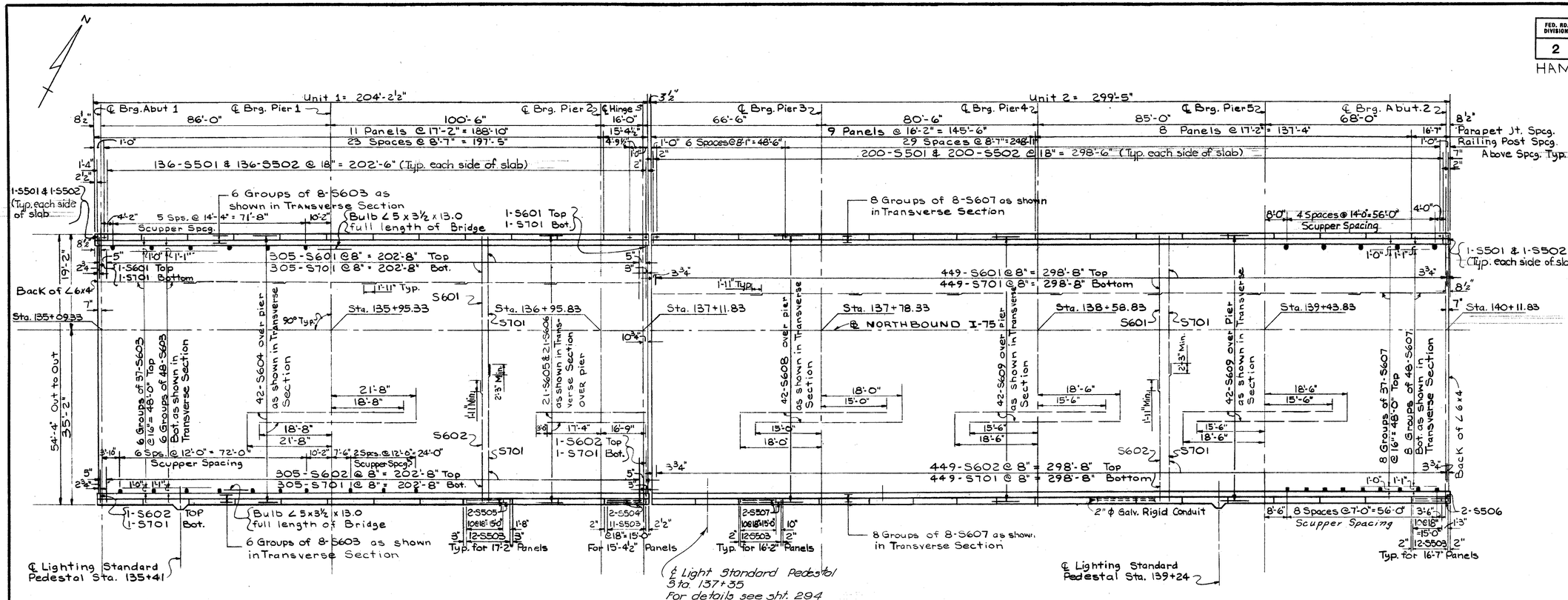
BRIDGE NO. HAM-75-1056
NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH ROAD
HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	RKS	EES	RLS	J.A.D	7-23-64	

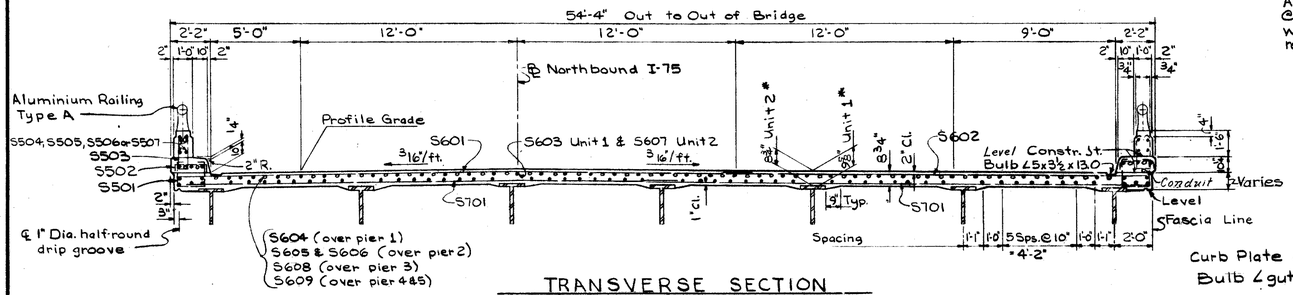
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

307/450

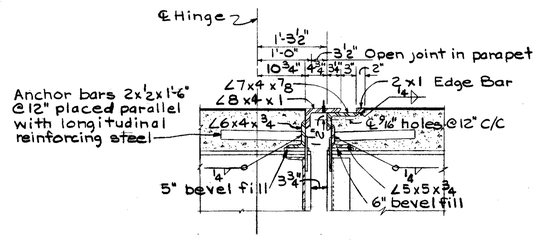
HAM-75-9.30



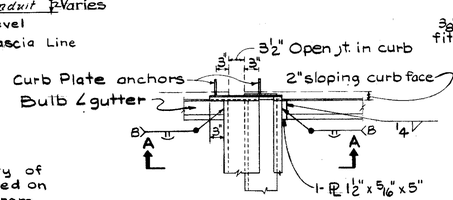
PLAN



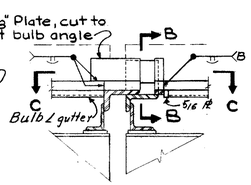
TRANSVERSE SECTION



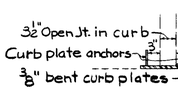
EXPANSION JOINT DETAIL



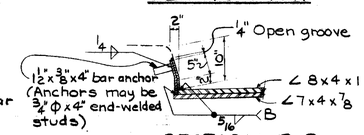
PART DECK PLAN



SECTION A-A



SECTION C-C



SECTION B-B

CURB PLATE DETAILS AT HINGE

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the girders & beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12", except that the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.

* These are nominal dimensions. The quantity of deck concrete to be paid for shall be based on these dimensions, even though deviation from them may be necessary because the top flange of the beam or girder may not have the exact camber or conformation required to place it parallel to the finished grade.

MICROFILMED JAN 28 1985

PAVEMENT ELEVATIONS

STATION	PROFILE GRADE	BASE LINE	CURB 17'L. OF ℄	CURB 33'R. OF ℄
135+00	566.26	566.45	566.18	565.9
135+25	566.46	566.65	566.38	566.1
135+50	566.64	566.83	566.56	566.3
135+75	566.80	566.99	566.72	566.4
136+00	566.95	567.14	566.87	566.6
136+25	567.07	567.26	566.99	566.7
136+50	567.17	567.36	567.09	566.8
136+75	567.25	567.44	567.17	566.9
137+00	567.31	567.50	567.23	566.9
137+25	567.35	567.54	567.27	567.0
137+50	567.37	567.56	567.29	567.0
137+75	567.37	567.56	567.29	567.0
138+00	567.35	567.54	567.27	567.0
138+25	567.31	567.50	567.23	566.9
138+50	567.25	567.44	567.17	566.9
138+75	567.17	567.36	567.09	566.8
139+00	567.08	567.27	567.00	566.7
139+25	566.95	567.14	566.87	566.6
139+50	566.81	567.00	566.73	566.4
139+75	566.65	566.84	566.57	566.3
140+00	566.47	566.66	566.39	566.1
140+25	566.27	566.46	566.19	565.9

NOTES:

1. Slab thickness includes 1" monolithic wearing surface.
2. Spread or cut longitudinal reinforcing steel in slab to clear scuppers.
3. For scupper and gutter details, see Std. Dwg. SD-1-63, Sht. 3 of 4. All scuppers are type II.
4. For railing and parapet joint details, see Std. Dwg. AR-1-57.
5. For Abutment end dam details, see Std. Dwg. SD-1-63, Sht. 2 & 4 of 4.
6. For light standard pedestal, see detail, sht. 294.
7. Parapet concrete and S504, S505, S506 and S507 are to be included with Item S-14 for payment.
8. For curb plate details at Abutments, see Std. Dwg. SD-1-63, Sht. 4 of 4.
9. Delineator bracket, type A-1, shall be mounted on the aluminum railing to the right of NB I-75 baseline at Station 136+39 & Station 138+39.
10. Provide for expansion in the 2" galv. rigid conduit at all expansion joints in the roadway slab similar to Detail - Conduit Through Wingwall, as shown on sht. 26

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SUPERSTRUCTURE
ROADWAY SLAB
BRIDGE NO. HAM-75-1056

NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH R

HAMILTON COUNTY STA. 135+07.08
STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVISED DATE	REVISED
DHW	DHW	~	LPM	JAD 7-23-84	

ABUTMENT					PIERS					SUPERSTRUCTURE					REPLACEMENT BARS				
MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT
A 501	68	8'-2"	Bt.	579	P501	24	27'-6"	Str.	688	S 501	676	4'-11"	Bt.	3467	RE 5	1	5'-7"	Bt.	—
A 502	40	22'-4"	Str.	932	P502	12	23'-10"	Str.	298	S 502	676	2'-6"	Bt.	1763	RE 5	2	5'-7"	Str.	—
A 503	40	30'-8"	Str.	1279	P503	12	19'-10"	Str.	248	S 503	718	5'-7"	Bt.	4181	RE 6	9	5'-11"	Str.	—
A 504	2	10'-8"	Str.	22	P504	6	30'-0"	Str.	188	*S 504	8	15'-0"	Str.	——	RE 7	5	6'-3"	Str.	—
A 505	48	6'-8"	Str	334	P505	6	23'-6"	Str.	147	*S 505	152	16'-10"	Str.	——	RE 8	1	6'-6"	Str.	—
A 506	2	25'-9"	Str.	54	P506	54	20'-0"	Str.	1126	*S 506	8	16'-3"	Str.	——	RE 8	1	6'-10"	Str.	—
A 507	2	13'-5"	Str.	28	P507	54	8'-10"	Bt.	498	*S 507	72	15'-10"	Str.	——	RE 10	2	* 7'-3"	Str.	—
A 508	136	6'-4"	Bt.	898	P508	180	9'-5"	Bt.	1,768	S 508	24	3'-8"	Bt.	122	RE 11	2	7'-7"	Str.	—
A 509	32	5'-0"	Str.	167	P509	180 (6ea.)	Varies 6'-7" to 21'-1" by 6".	Bt.	2,589	S 509	12	4'-9"	Bt.	79					
A 510	16	10'-2"	Str.	170	P510	138	15'-5"	Bt.	2219										
A 511	2	9'-8"	Str.	20	P511	12	18'-5"	Bt.	231										
A 512	4	11'-8"	Str.	49	P512	105	4'-1"	Bt.	447										
A 513	2	13'-8"	Str.	29	P513	16	6'-0"	Bt.	100	S 601	756	32'-0"	Str.	36,336					
A 514	4	11'-2"	Bt.	47	P514	8	5'-11"	Bt.	49	S 602	756	23'-8"	Str.	26874					
A 515	8	18'-2"	Str.	152	P515	16	4'-5"	Bt.	74	S 603	606	35'-7"	Str.	32,388					
A 516	16	16'-0"	Str.	267	SP516	1	17'-0"	Bt.	1052	S 604	42	40'-4"	Str.	2544					
A 517	20	4'-1"	Str.	85	SP517	1	20'-6"	Bt.	1,257	S 606	21	34'-1"	Str.	1075					
A 518	24(4ea)	4'-6" to 6'-7" by 5"	Str.	139	SP518	1	24'-6"	Bt.	1496	S 606	21	37'-1"	Str.	1170					
A 519	8	15'-10"	Str.	——	SP519	1	16'-0"	Bt.	991	S 607	808	39'-1"	Str.	47432					
A 520	32	3'-1"	Bt.	103	P701	48	19'-8"	Str.	1930	S 608	42	33'-0"	Str.	2,082					
A 521	32	2'-11"	Bt.	97	P702	48	10'-8"	Bt.	1,047	S 609	84	34'-0"	Str.	4290					
A 522	32	6'-9"	Bt.	225	P 703	48	5'-11"	Bt.	580										
A 523	12	6'-11"	Str.	87															
A 524	4	5'-5"	Str.	23															
A 525	2	8'-9"	Str.	18						S-701	1512	28'-0"	Str.	86,535					
A 526	4	6'-5"	Bt.	27	P801	48	20'-7"	Str.	2,638										
A 527	14	12'-0"	Str.	175	P802	48	11'-9"	Bt.	1,506										
A 528	6	14'-2"	Str.	89	P803	48	6'-3"	Bt.	801										
A 529	28	4'-9"	Str.	139															
A 530	16(4ea)	3'-10" to 5'-1" by 5"	Str.	74															
A 531	24	3'-6"	Str.	88															
A 532	8	11'-10"	Str.	——															
					P 901	57	30'-8"	Str.	5,943										
					P1001	48	20'-1"	Str.	4,148										
					P1002	48	15'-2"	Bt.	3,133										
A 601	16	28'-8"	Str.	689	P1003	48	7'-4"	Bt.	1,515										
A 602	4	13'-2"	Str.	79	P1004	52	14'-8"	Str.	3,282										
A 603	4	5'-0"	Str.	30	P1005	216	13'-2"	Str.	12,236										
A 604	36	20'-10"	Bt.	1127															
A 605	6	21'-4"	Bt.	192															
A 606	68	12'-11"	Bt.	1319															
A 607	14	16'-7"	Bt.	349															
A 608	36	18'-1"	Bt.	978	P 1101	18	30'-0"	Bt.	2,869										
A 609	4	9'-11"	Str.	60	P 1102	18	30'-3"	Str.	2893										
A 610	6	19'-4"	Bt.	174	P 1103	18	33'-4"	Bt.	3,188										
A 611	14	12'-7"	Bt.	265	P 1104	18	26'-8"	Str.	2,550										
A 612	36	14'-1"	Bt.	762	P 1105	18	34'-6"	Str.	3,299										
					P 1100	18	16'-10"	Str.	1,610										
					P 1107	18	20'-4"	Str.	1,945										
					P 1108	18	24'-4"	Str.	2,327										
					P 1109	18	15'-10"	Str.	1,514										
					P 1110	72	7'-9"	Bt.	2,965										

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

308
450

HAM-75-9.30

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FO ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14 RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SH IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) O THE TOP OF COLUMN FOR PIERS WITHOUT CA TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HA DEFORMATIONS, BUT SHALL IN OTHER RESPECT CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACI WEIGHING APPROXIMATELY 0.68 LB. PER LIN FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACI ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASE ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 309 FOR BENDING DETAILS.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM.-75-1056
NORTHBOUND I-75 OVER WESTFORK OF MILLCREEK AND GALBRAITH ROAD

HAMILTON COUNTY STA. 135+97.08
STA. 140+14.08

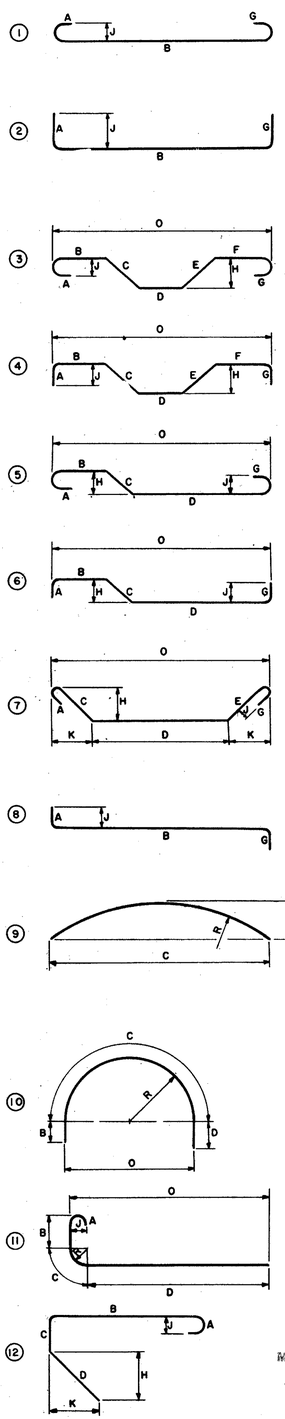
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISE
~	G.K.	~	G.R.H.	J.A.D.	7-23-64	

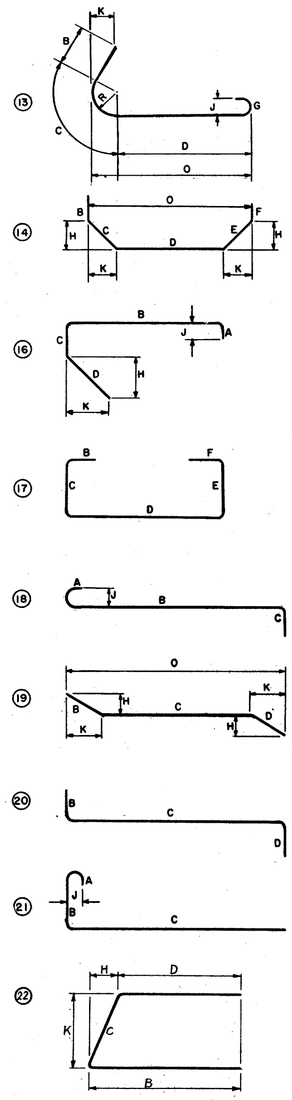
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

309
450

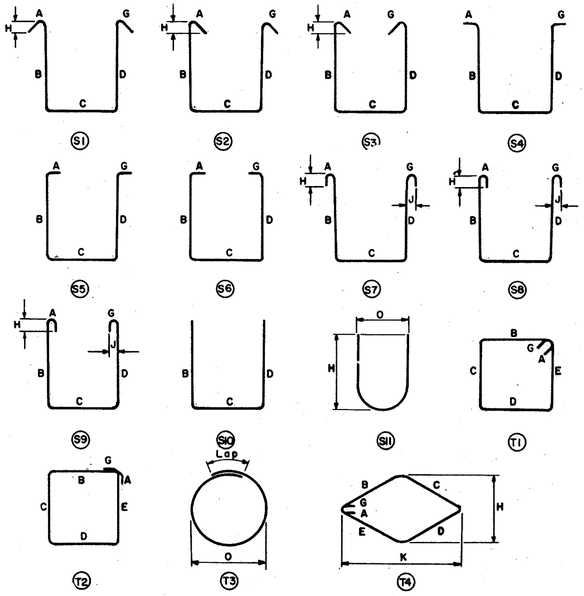
HAM-75-9.30

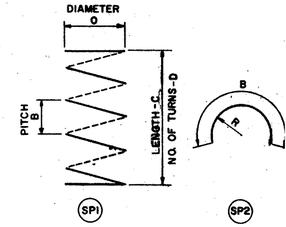
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A501	2	6"	7'-8"										
A508	17		1'-7"	3'-5"	1'-7"								
A514	16			4'-5"	6'-9"				6'-0"		3'-0"		
A520	17		1'-0"	1'-4"	1'-0"								
A521	22		1'-0"	1'-4"	10"				2"		1'-4"		
A522	S-3	5"	2'-9"	8"	2'-9"			5"					
A526	16		1'-2"	5'-3"					4'-8"		2'-4"		
A604	17		10'-0"	1'-2"	10'-0"								
A605	17		12'-9"	1'-2"	7'-9"								
A606	20		5'-4"	7'-9"									
A607	17		7'-9"	1'-5"	7'-9"								
A608	17		2'-3"	11"	7'-9"	1'-5"	6'-5"						
A610	17		10'-9"	1'-2"	7'-9"								
A611	17		5'-9"	1'-5"	5'-9"								
A612	17		2'-3"	11"	5'-9"	1'-5"	4'-5"						
P507									3'-2"				2'-8"
P508			3'-6"	2'-8"	3'-6"								
P509	S-10		Varies 2'-1" to 9'-4", Incr. 3".	2'-8".	Varies 2'-1" to 9'-4", Incr. 3"								
P510	S-10		6'-6"	2'-8"	6'-6"								
P511	19		1'-8"	16'-9"									
P512	S-10		10"	2'-8"	10"								
P513	S-10		10"	4'-4"	10"								
P514	S-10		10"	4'-6"	10"								
P515	S-10		10"	3'-0"	10"								
P702	20		1'-3"	9'-7"									
P703	20		1'-3"	4'-10"									
P802	20		1'-5"	10'-7"									
P803	20		1'-5"	5'-1"									
P1002	20		1'-10"	13'-8"									
P1003	20		1'-10"	5'-10"									
P1101	20		3'-8"	26'-8"									
P1103	20		3'-5"	30'-3"									
P1110	20		2'-0"	6'-1"									
SP516	SP1		3¼"	17'-0"	66								4'-8"
SP517	SP1		3¼"	20'-6"	79								4'-8"
SP518	SP1		3¼"	24'-6"	94								4'-8"
SP519	SP1		3¼"	16'-0"	62								4'-8"
S501	S-6	6"	1'-4"	1'-6"	1'-4"			6"					
S502	2	6"	1'-6"					6"					
S503	S-3	5"	2'-2"	8"	2'-2"			5"					
S508	19		10"	2'-10"					7"		7"		3'-5"
S509	S-10		2'-0"	1'-0"	2'-0"								
RE5	SP2		5'-7"									2'-4"	

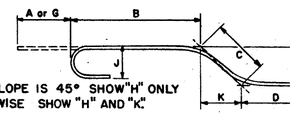




15 NOT USED







WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H" WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-4.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BAR BENDING DETAILS

BRIDGE NO. HAM.-75-1056
NORTHBOUND I-75 OVER WEST FORK OF MILL CREEK AND GALBRAITH ROAD

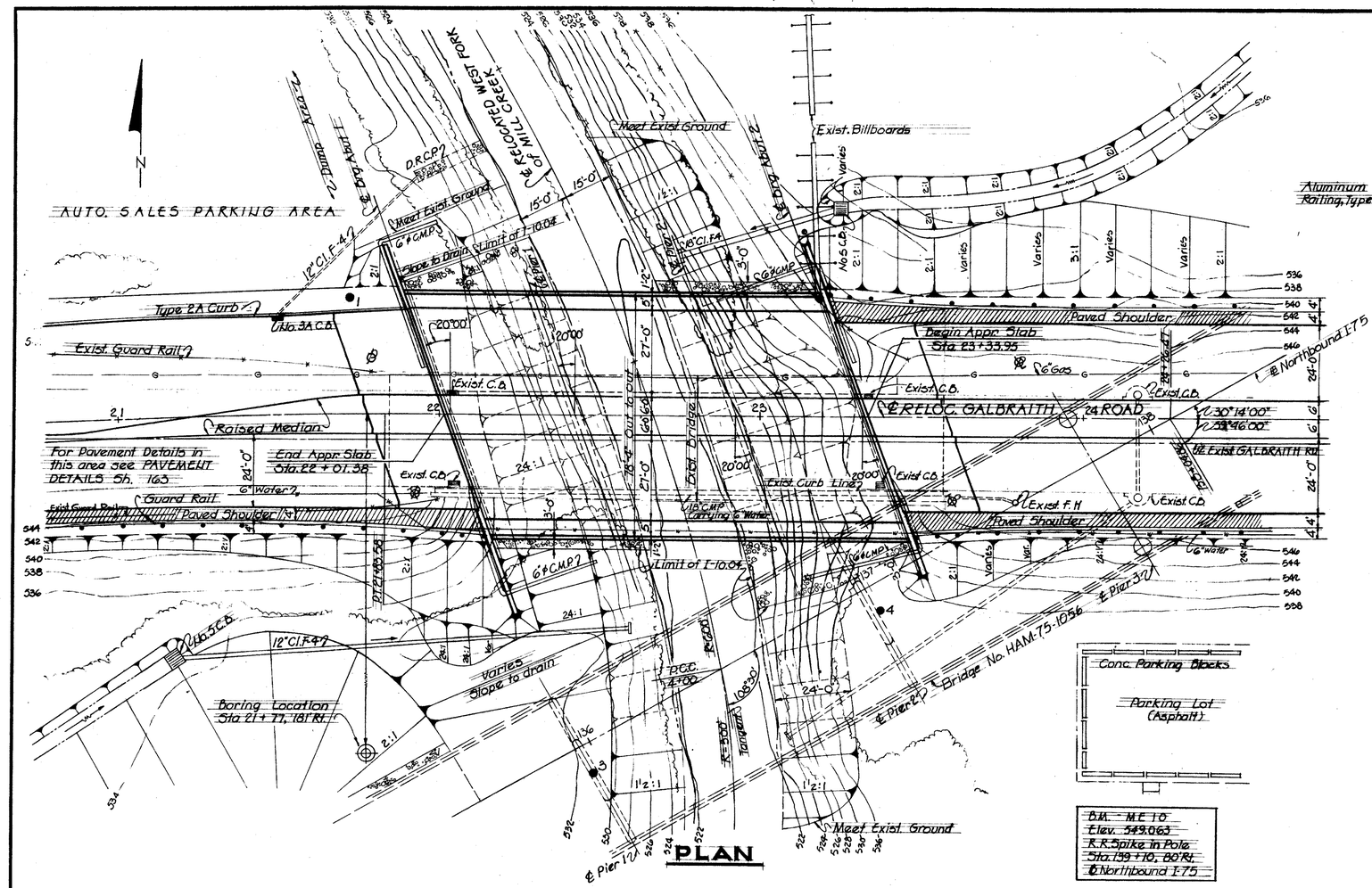
HAMILTON COUNTY STA. 135+07.08 To STA. 140+14.08

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	G.K.	~	G.R.H.	J.A.D.	7-23-84	

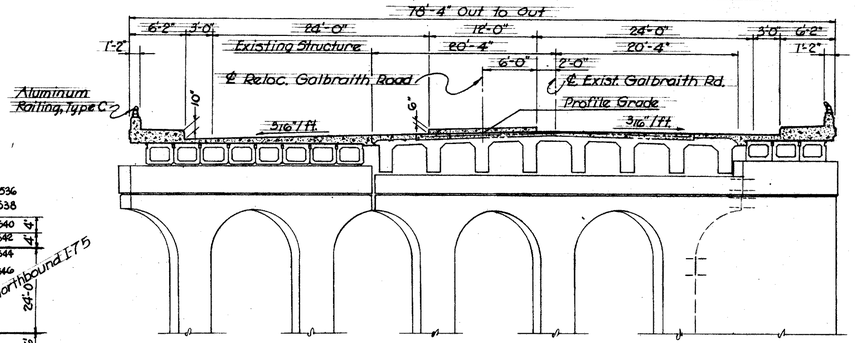
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

310/450

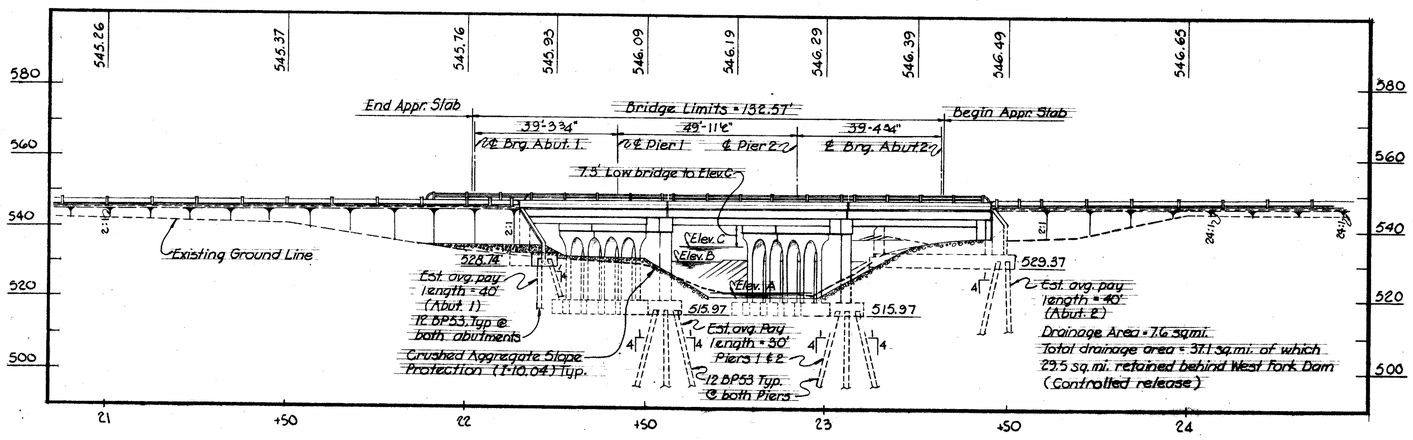
HAM-75-9.30



PLAN



TYPICAL SECTION



ELEVATION

LEGEND
- ● Denotes Rod Sounding
- ⊕ Denotes Boring

WATER ELEVATIONS
- Elev. A — Flow Elev. 520.3
- Elev. B — West Fork of Mill Creek headwater surface Elev. 530.3
- Elev. C — Mill Creek design water surface Elev. 534.1 (50 Year)

EXISTING STRUCTURE

TYPE: Reinforced concrete superstructure and substructure.
SPANS: 40'-0", 50'-0", 40'-0"
ROADWAY: 40'-8" face to face of parapets.
SKEW: 20°00' R.F.
WEARING SURFACE: Bituminous over concrete slab.
CONDITION: Excellent except curbs and sidewalks show severe spalling.

PROPOSED STRUCTURE

TYPE, WIDENED PORTION: Prestressed Box Girders with variable depth reinforced concrete slab superstructure and reinforced concrete substructure.
SPANS: 40'-0", 50'-0", 40'-0"
ROADWAY: 66'-0" face to face of 5'-0" sidewalks including 12'-0" raised median.
SKEW: 20°00' R.F.
LOAD FREQUENCY: C.F. = 2000(ST)

APPROACH SLAB: AS-1-54 (25' long modified)
ALIGNMENT: Tangent
TRAFFIC: ADT = 18,000 (1975) (Each direction)

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SITE PLAN

GALBRAITH ROAD RELOCATED
OVER WEST FORK OF MILL CREEK
HAMILTON COUNTY
STA. 22+01.38 to STA. 23+33.95

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
AERIAL	DJW	LPH-EPA	LPH & GK	RKK	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

311
450

HAM-75-9.30

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E-2		Lump Sum	Cofferdams, Cribs and Sheeting.						
E-2	580	Cu. Yds.	Unclassified Excavation.	300	280				
S-1	244	Cu. Yds.	Class "C" Concrete - Superstructure.			244			
S-1	151	Cu. Yds.	Class "C" Concrete - Piers above footing.		151.				
S-1	170	Cu. Yds.	Class "E" Concrete - Abutments above footings.	170					
S-1	210	Cu. Yds.	Class "E" Concrete - Pier & Abutment footings.	119	91.				
S-4	48966	Lbs.	Reinforcing Steel.	18,808	13,068	17,090			
S-9	482	Sq. Ft.	1" Preformed expansion joint filler.			482			
S-14	259.46	Lin Ft.	Railing (Type "C" aluminum rail and supports and concrete parapet)			259.46			
S-16		Lump Sum	First test pile.						
S-18	3500	Lin. Ft.	Steel piles 12 BP 53	1,520	1,980				
S-22		Lump Sum	Removal of portion of existing structure.						
S-23	176	Lin. Ft.	Dowel holes.	112	64				
S-29	8	Lin. Ft.	4"ø Vitrified Clay Pipe M 6.8 (a)	8					
S-29	89	Cu. Yds.	Porous Backfill.	89					
S-29	20	Each	Scuppers.			20			
S-29	110	Lin. Ft.	6" Perforated helical C.M.P. M-6.4 (h) including specials.	110					
S-29	125	Lin Ft.	6" Helical C.M.P. M-6.4 (h) non-perforated.	125					
S-101	244	Each	Water-reducing, set-retarding admixture.			244			
S-105	22	Each	Prestressed Concrete Members. (39.71' length)			22			
I-10	1,040	Sq. Yds.	Crushed aggregate Slope protection.				1,040		
Special	89	Sq. Ft.	Elastomeric bearing pads, Grade 50, Sec. M-10.29.				89		
Special		Lump Sum	Joint sealer, Sec. M-10.23 or M-10.26.						
Special		Lump Sum	Portland cement mortar, non-shrinking.						
S-105	11	Each	Prestressed Concrete Members (49.77' length)			11			

Materials in approach slabs are not included in the above estimated quantities.

Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in item S-14 for payment.

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
Supplemental Specifications: S-105, revised 1-22-62
S-101, dated 7-12-62

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 revisions dated 2-21-58, 11-15-60, 2-15-61, and other current revisions thereof.

DESIGN LOADING - S 20 - 60

CONCRETE CLASS "C"-Basic unit stress 1,333 p. s. i.
CONCRETE CLASS "E"-Basic unit stress 1,133 p. s. i.
PRESTRESSED CONCRETE - 5,500 p. s. i. at 28 days and 4,000 p. s. i. at transfer.
REINFORCING STEEL - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p. s. i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p. s. i.

PRESTRESSING STEEL - ASTM A416

PILES shall be driven to a minimum bearing capacity of 40 tons per pile for abutments and piers.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab shall be placed between transverse joints at abutments and piers without additional construction joints.

UTILITY LINES: All expenses 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.

PREPARATION OF SURFACE: Surface of existing concrete which will be in contact with new concrete masonry shall be thoroughly cleaned of all dirt, dust or other foreign materials by the use of water and/or air under pressure and such other methods as are necessary to secure satisfactory results. The surface shall then be thoroughly drenched with clean water and kept wet for a period of 2 hours before placing the new concrete masonry.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1, 22, Rubbed Finish, shall apply to the following exposed concrete surfaces:
a. The entire superstructure except the top and bottom surfaces of sidewalks and roadways.

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

REMOVAL OF PORTIONS OF EXISTING STRUCTURE: Portions of the existing abutments, wingwalls and superstructure as defined on the plans shall be removed in accordance with Item S-22 and the material shall be disposed of in accordance with Sec. E-1.06 (a).

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

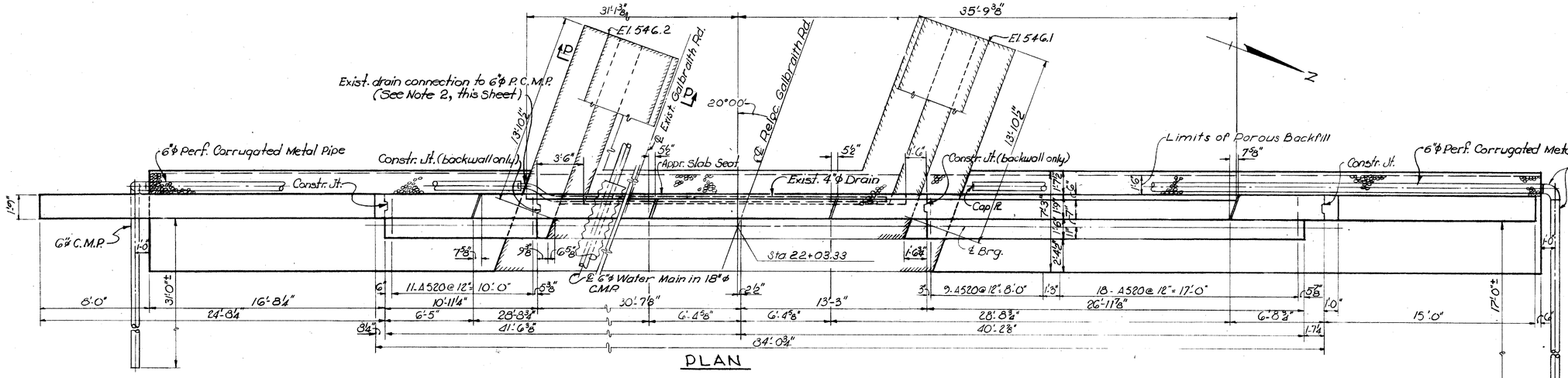
ESTIMATED QUANTITIES & GENERAL NOTES
GALBRAITH ROAD
RELOCATED Over
WEST FORK OF MILL CREEK
HAMILTON COUNTY STA. 22+01.38 to STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

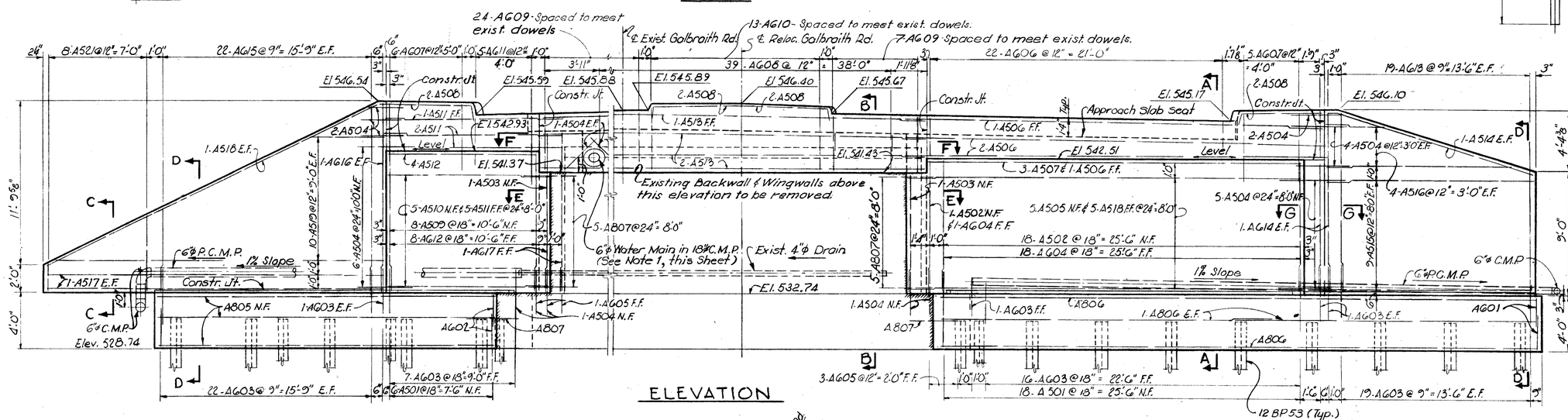
316
450

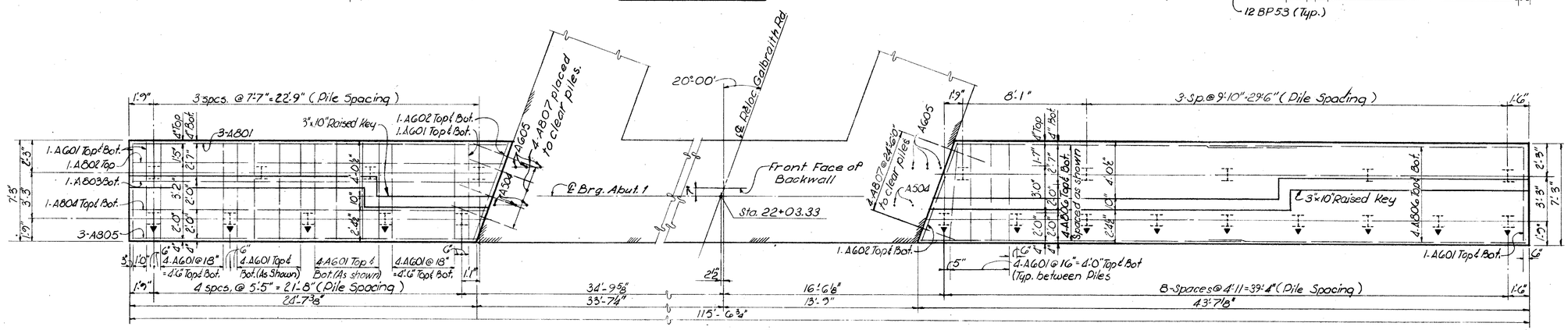
HAM-75-9.30



NOTES

1. Placement of Water Main thru abut. backwall in 18"ϕ Corrugated metal pipe carrying 6" water main to be relocated and hung in place under existing structure (as shown on Plans Sheet 320) before backwall is formed. Reinforcing steel interfering with the placement of pipe at abutment backwall may be cut or relocated in order to clear 18"ϕ Corrugated metal pipe. Plug open end of 18"ϕ C.M.P. with 3" min. thickness grout.
2. Special care shall be taken when excavating along south end of existing abutment so as to avoid damage to existing 4"ϕ tile drain. After location of drain, the Engineer shall determine in the field, a suitable method for connecting existing drain into new 6"ϕ C.M.P. Existing drain connection to be secured and grouted in place into the end of the new 6"ϕ P.C.M.P.
3. Holes drilled into existing concrete for the placement of anchor dowels shall be 2'-0" deep and be made in accordance with Sect. 523.02.
4. For General Notes & Estimated Quantities, see Sh. 311.
5. For Reinforcing Steel List & Bar Bending Diagrams, see Shs. 321 & 322.
6. Reinforcing steel in beam seat shall be placed so that it will not interfere with the drilling of anchor dowel holes.
7. All Reinforcing Steel shall have a minimum cover of 2" on concrete unless otherwise noted.
8. For Sections & Details, see Sh. 317A.
9. Porous Backfill 2'-3" thick behind existing backwall and 1'-6" thick behind backwall extensions and wingwalls, shall be placed to the ends of the footing and extend up to the underside of the approach slab and sidewalk and to 2'-0" below the finished grade behind wingwalls.





LEGEND

N.F. Indicates Near Face
F.F. Indicates Far Face
E.F. Indicates Each Face
Indicates Existing Substructure
← Indicates Batter 4 Vertical to 1 Horizontal in direction shown

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1
GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK

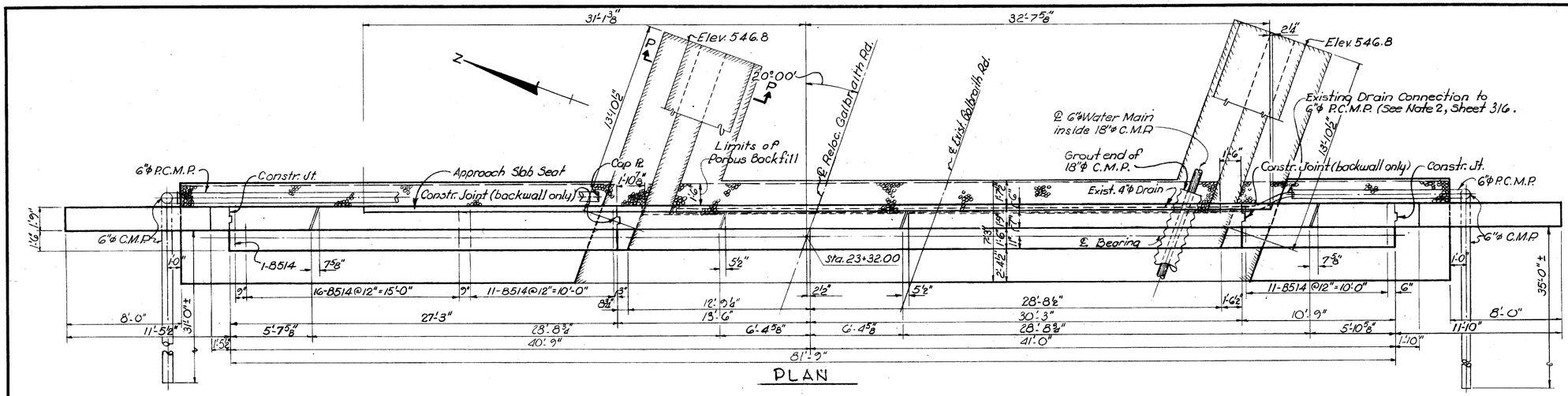
HAMILTON COUNTY STA. 22+01.38 TO STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
LPM	LPH	~	E.E.S	JAD	7-8-64	

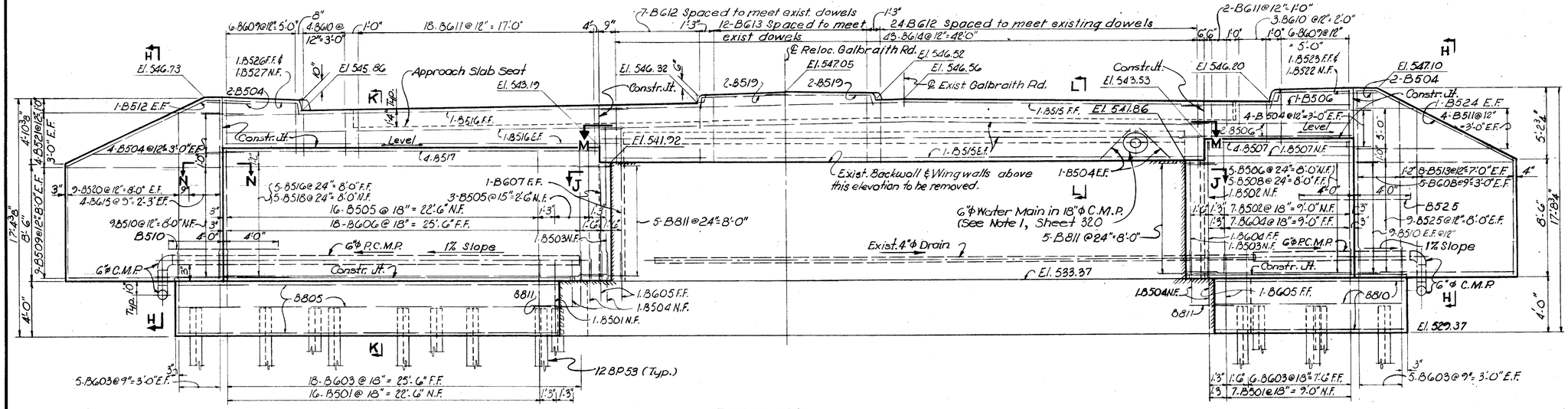
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

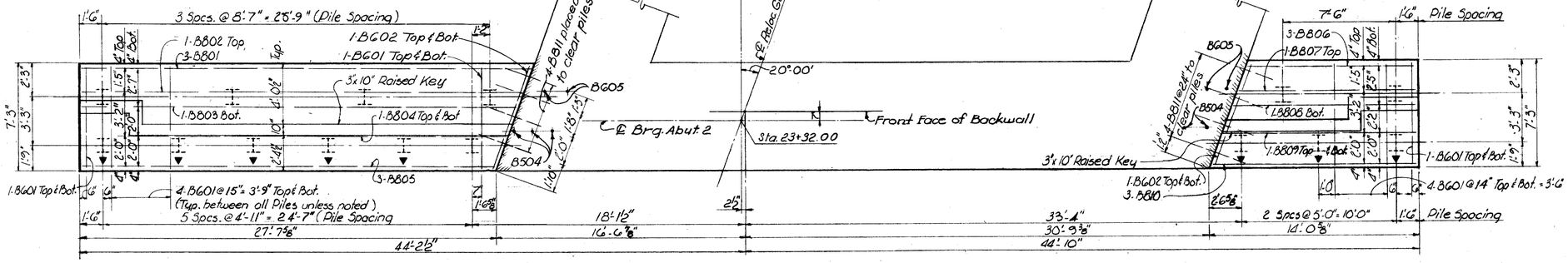
317
450



PLAN



ELEVATION



FOOTING PLAN

LEGEND

N.F. Indicates Near Face
F.F. Indicates Far Face
E.F. Indicates Each Face
Indicates Existing Sub-structure
←--Indicates Batter 4 vertical to 1 horizontal in direction shown

NOTES

For Notes, see Abutment 1 Sheet 316.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2
GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK

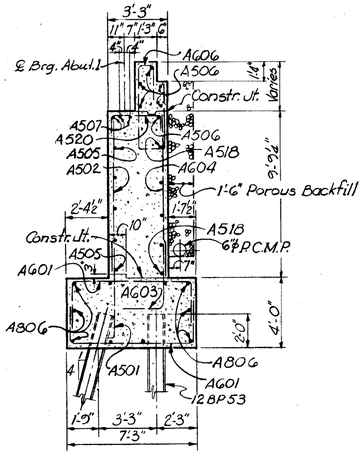
HAMILTON COUNTY STA. 22+01.38 TO STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
LPM	LPH	~	E.E.S.	JAD	7-8-64	

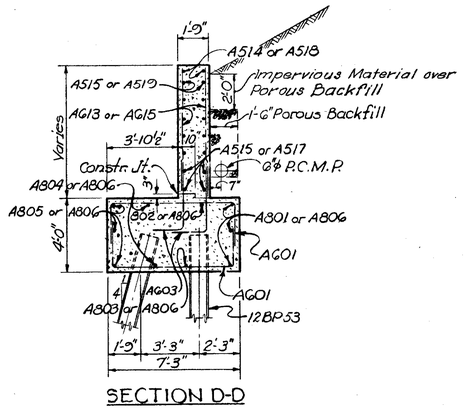
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

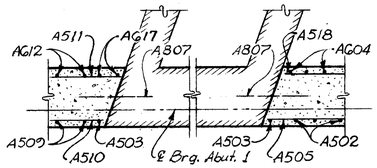
317A
450



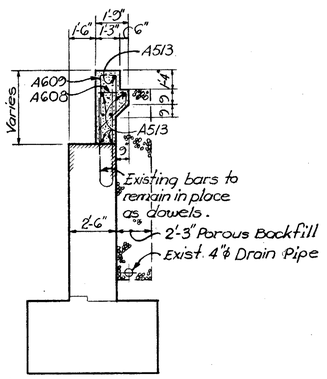
SECTION A-A



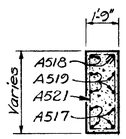
SECTION D-D



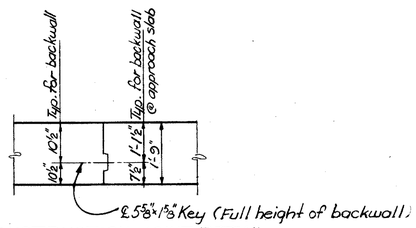
SECTION E-E



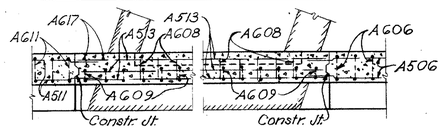
SECTION B-B



SECTION C-C



CONSTRUCTION JOINT DETAIL



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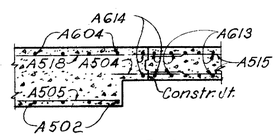

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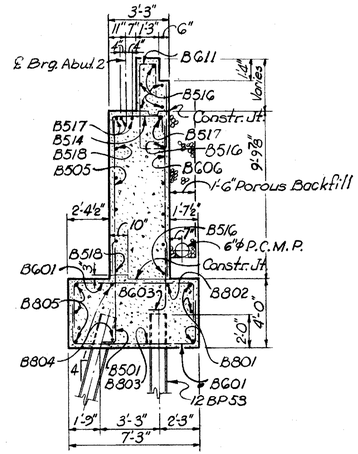

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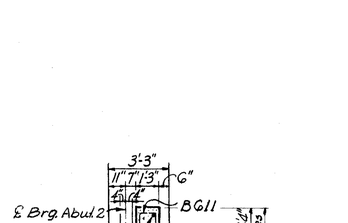
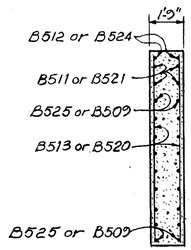


SECTION L-L

Existing 4"ϕ Drain at base of Porous Backfill Same as in Sect. B-B, Abut. 1.



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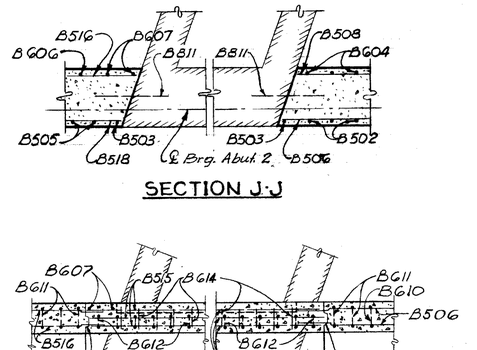
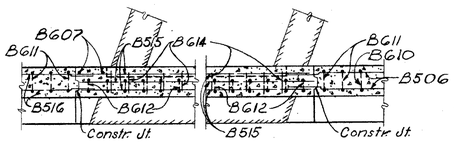
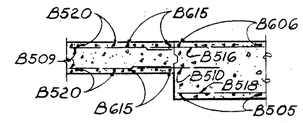


SECTION J-J



SECTION M-M



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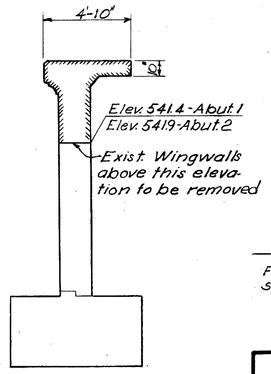


SECTION P-P

NOTES

For Notes and additional information see shts. 316 & 317.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT DETAILS
GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK

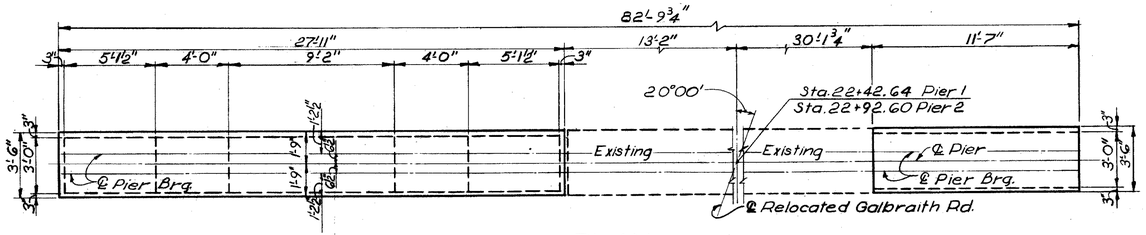
HAMILTON COUNTY STA. 22+01.38 TO STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.P.M.	L.P.H.	~O	E.E.S.	JAD	7-8-64	

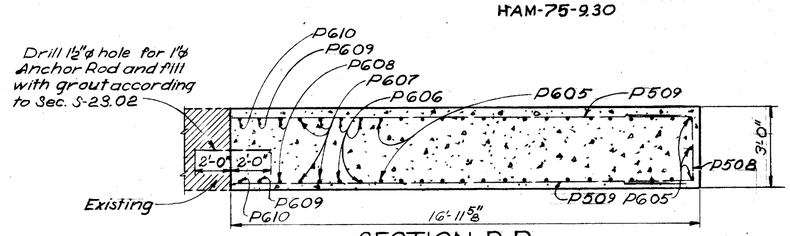
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

318
450

HAM-75-9.30



PLAN



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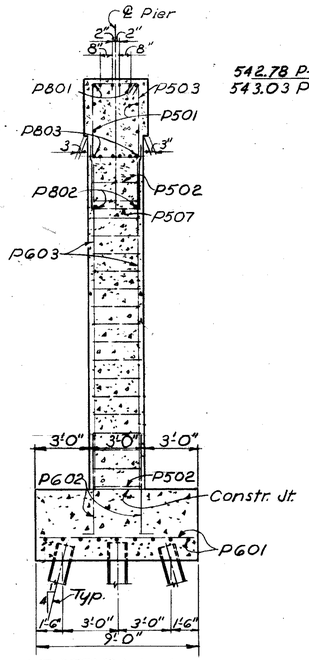
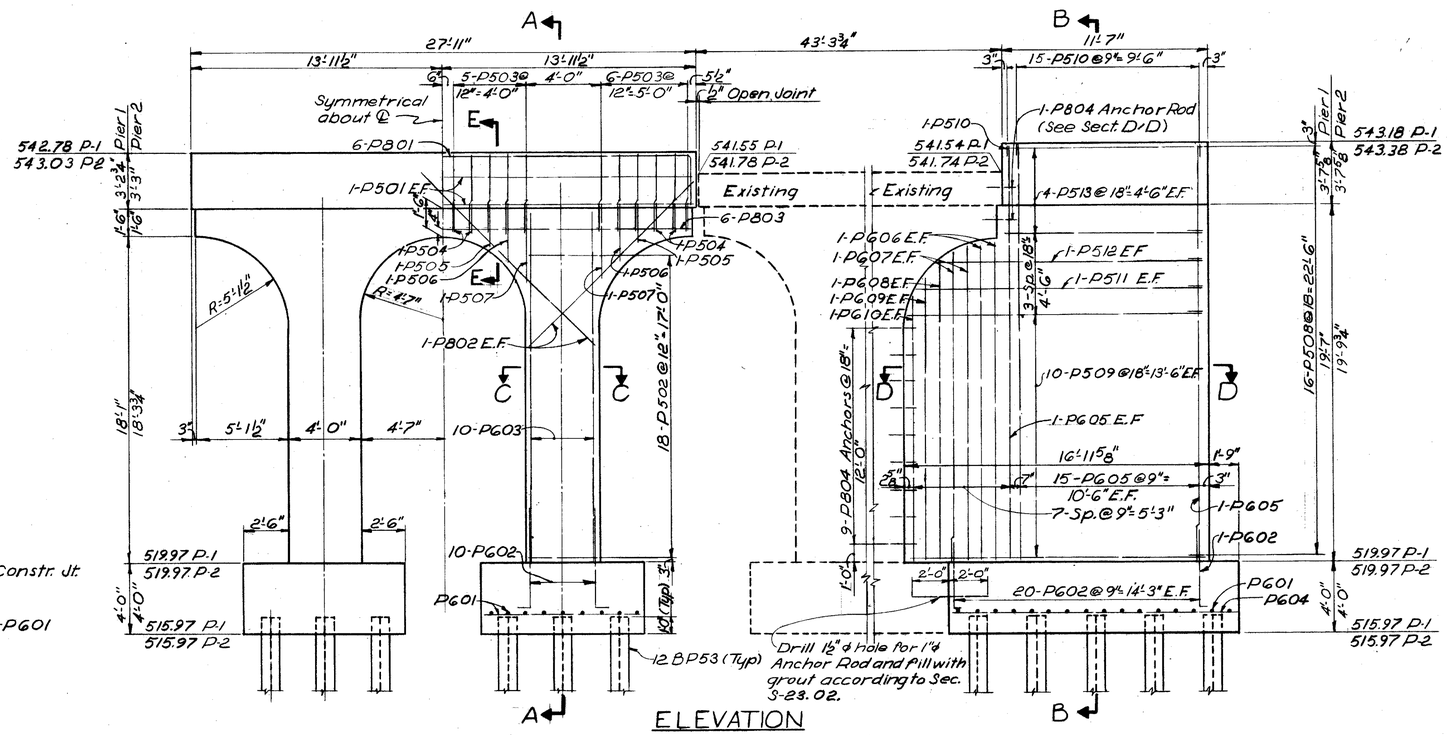
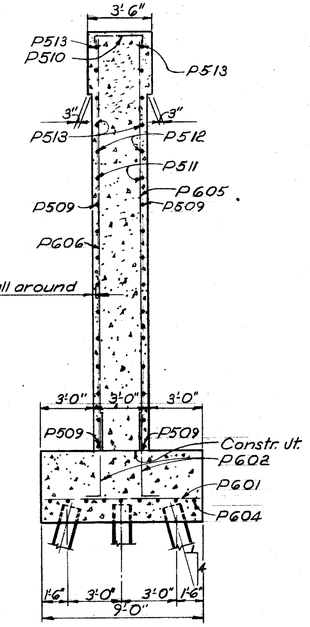


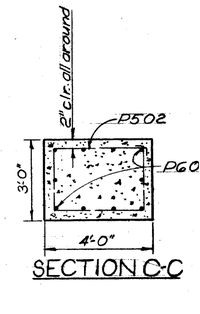
SECTION A-A



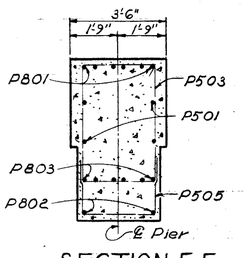
ELEVATION



SECTION B-B



SECTION C-C



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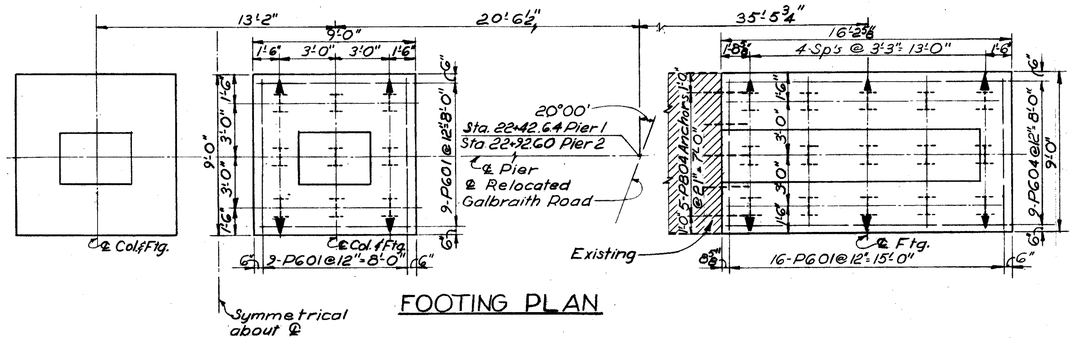


FOOTING PLAN

NOTES

1. Special care shall be taken in placir reinforcing steel so as to avoid inter ference with the drilling of anchor dowel holes.
2. For Reinforcing Steel List and Bar Bending Diagrams, see Shs. 321 & 3
3. For General Notes and Estimated Quantities, see Sh. 311.
4. See Sh. 319 for Girder Bearing Det

LEGEND

"E.F." denotes Each Face.
← Indicates batter 4 vertical to 1 horizontal in direction shown.
P-1 denotes Pier 1
P-2 denotes Pier 2

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

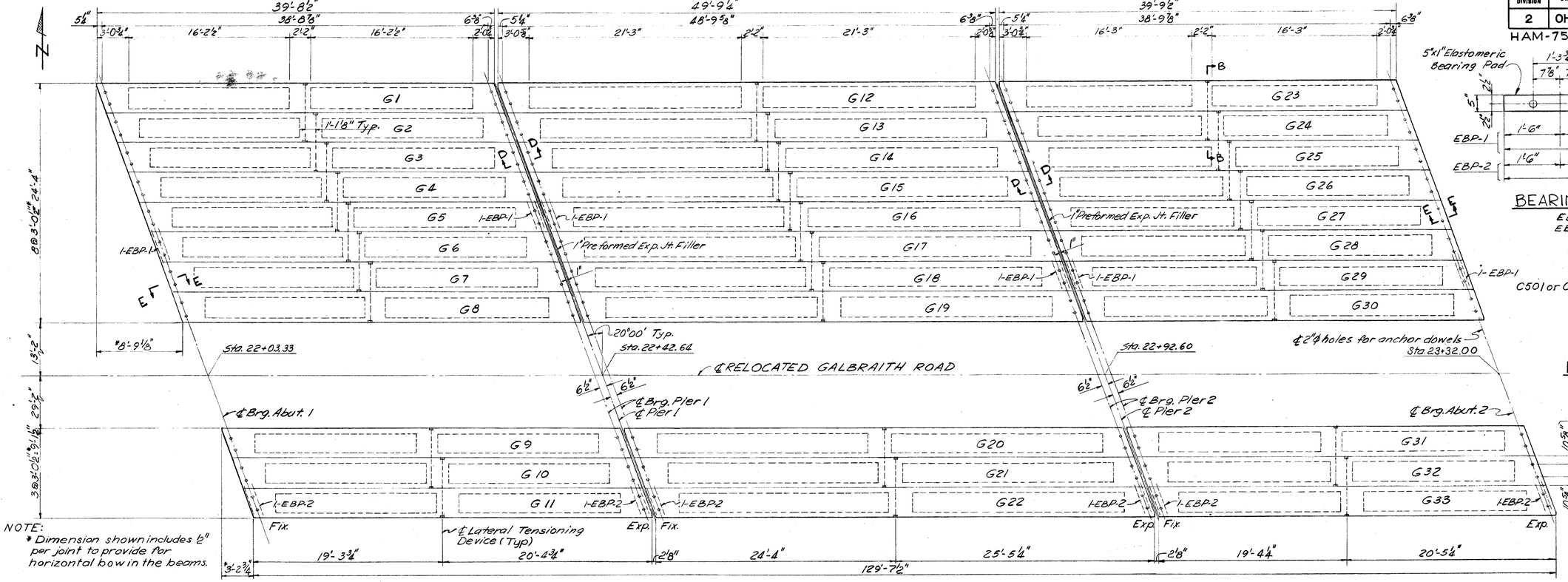
PIERS 1 & 2
GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK
HAMILTON COUNTY STA. 22+01.38 to STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.P.M.	B.G.C. G.J.W.	~	E.E.S.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

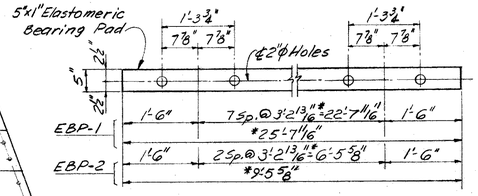
319
150

HAM-75-9.30



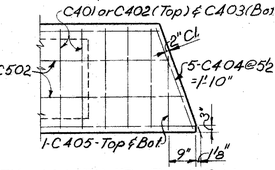
NOTE:
* Dimension shown includes ½" per joint to provide for horizontal bow in the beams.

PLAN



BEARING PAD DETAIL

EBP-1 6 Required
EBP-2 6 Required



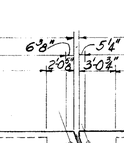
PLAN-END BLOCK REINFORCEMENT

SECTION A-A
(Prestressing strands not shown)

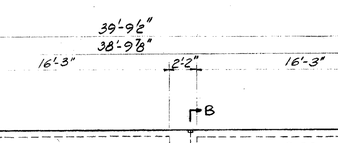
GIRDER ELEVATION

G12 thru G22 G1 thru G11 & G23 thru G33

PRESTRESSING STRANDS
(Reinforcing not shown)



Tolerance for placement of holes for anchor dowels and tie rods = ±½"



PLAN

Variation in camber of adjacent beams shall not be more than ½"

ELEVATION

BEAM DIMENSIONAL TOLERANCES

2" holes. Fill with portland cement mortar at fixed end and joint filler at expansion end after the grouting of anchor dowels. (See Note 7)

REINFORCING STEEL LIST				
MARK	NO.	LENGTH	TYPE	WEIGHT
C401	1111	6'-7"	Bt.	4886
C402	1111	6'-7"	Bt.	4886
C403	396	4'-5"	Bt.	1168
C404	330	2'-10"	Str.	625
C405	132	5'-3"	Bt.	463
C501	44	49'-5"	Str.	2268
C502	88	39'-4"	Str.	3151
C503	130	6'-4"	Bt.	859

BENDING DIAGRAMS

SECTION D-D

SECTION E-E

NOTES

1. TRANSVERSE TIERODS shall be provided through the diaphragms in the positions indicated. Each tie shall be equivalent to a 1" ϕ mild steel rod, as per Sec. M-7.4, tightened to 18,000 pounds. Tension may be applied by a torque of approximately 300 foot-pounds with the threads lubricated.
2. MORTARING OF SHEAR KEYS: After transverse tie rods have been placed and tightened, shear keys between the beams shall be filled with low-slump non-shrinking portland cement mortar. Mortar shall be tamped into the keyway in a manner that insures complete and solid filling.
3. SHEAR KEYS on the exterior face of G1, G11, G12, G22, G23 & G33 may at the option of the Contractor be eliminated.
4. ELASTOMERIC BEARING PADS of 50 hardness shall conform to ASTM requirements referred to in Sec. M-10.29. Pads shall be furnished with 2" ϕ holes accurately positioned for anchor dowels.
5. GALVANIZING: All tie rods, inserts and nuts shall be galvanized as per Sec. M-7.4 (d).
6. INITIAL TENSIONING before transfer, shall be 14,000 lbs. per strand.
7. Drill 1½" ϕ holes for dowels after transverse tie rods are placed. Grout dowels in bridge seat according to Sec. S-23.02.
8. HOLES FOR 1" ϕ TIE RODS may at option of the Contractor be 2½" ϕ.
9. NON FERROUS DRAIN ¾" ϕ shall be provided at each end of all voids.
10. For Section B-B and additional details, see Sh. 320.
11. PRESTRESSING STANDS are ⅜" uncoated seven wire stress-relieved strand with an initial tension of 14,000 pounds per strand.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SUPERSTRUCTURE PRESTRESSED BOX GIRDERS GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK

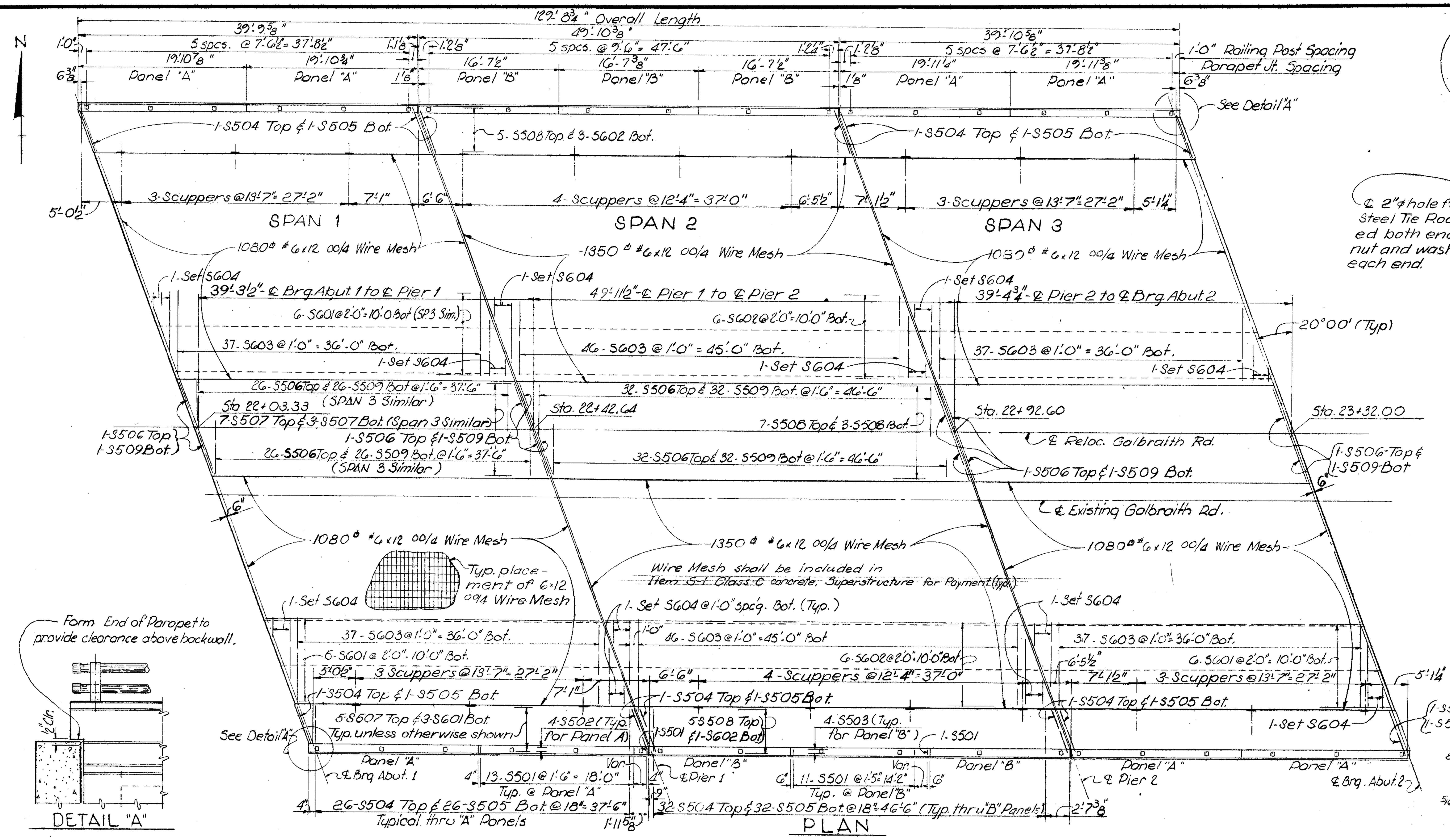
HAMILTON COUNTY STA. 22+01.38 to STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.P.M.	E.P.A.	—	E.E.S.	JAD	7-8-64	

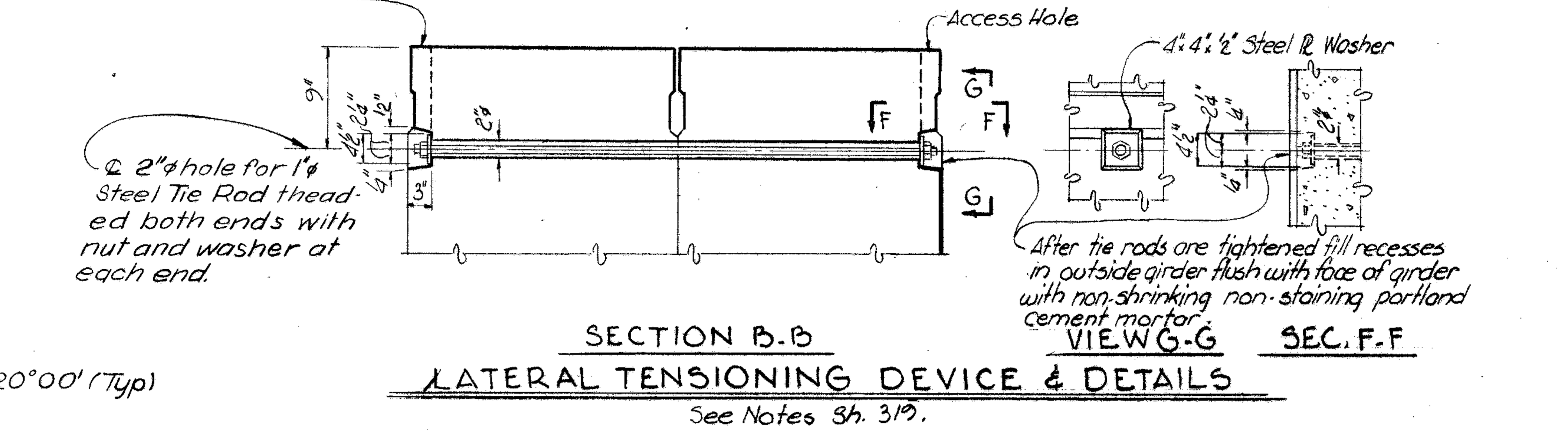
FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

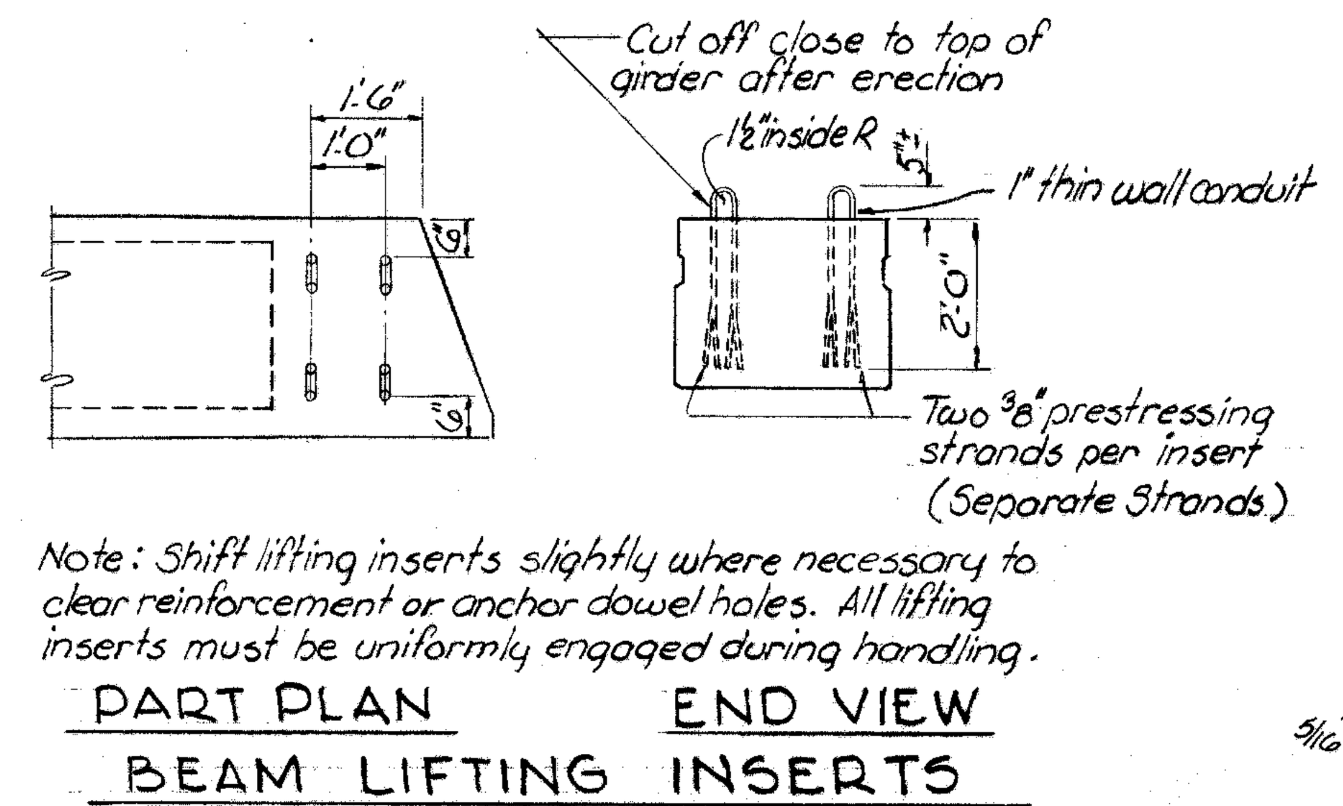
HAM - 75 - 9.30

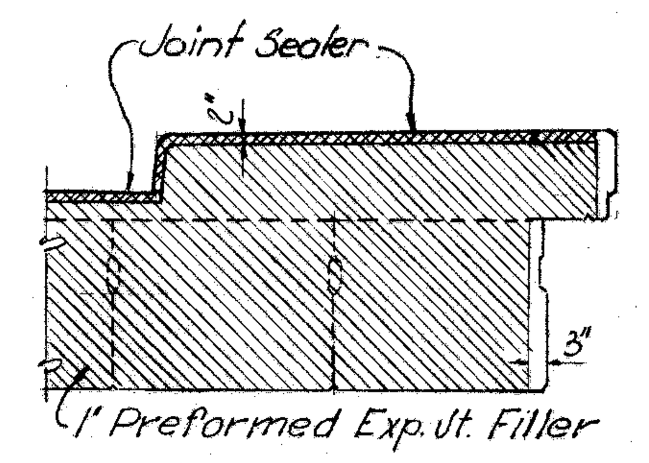
320 / 450

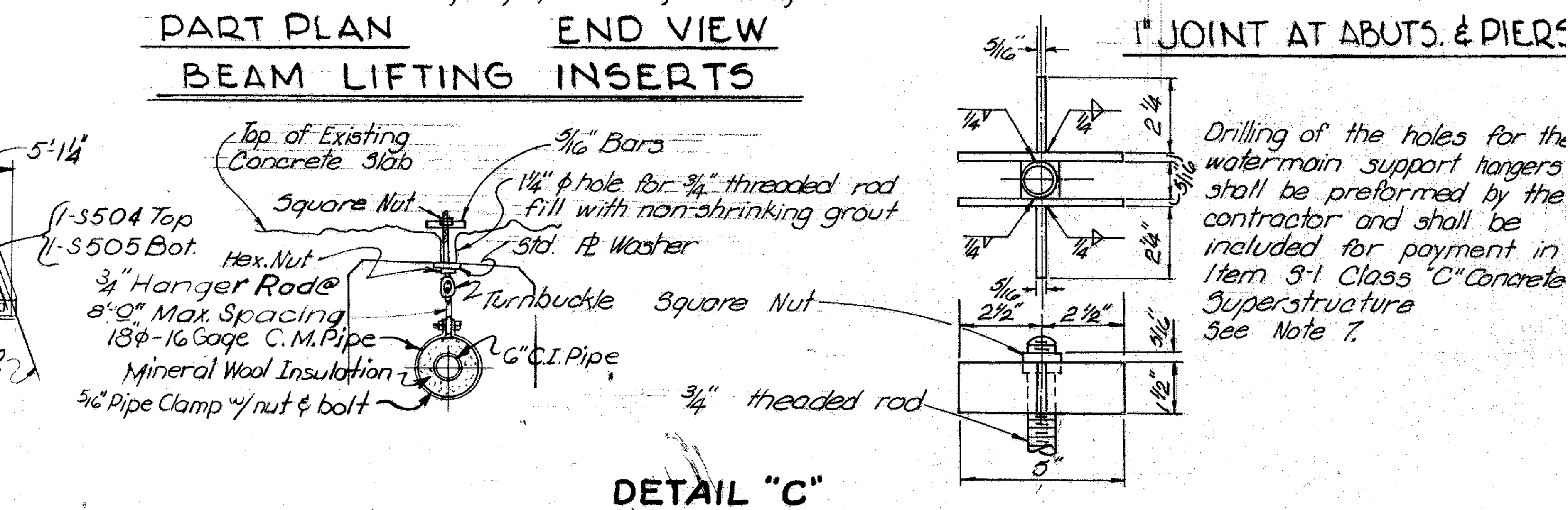


ACCESS HOLES shall be provided as required to permit placement of washers and nuts. If the Contractor elects to thread beams over rods projecting from beams previously placed, access holes will not be required. When used, holes shall be same shape as recess as shown on Section F-F.

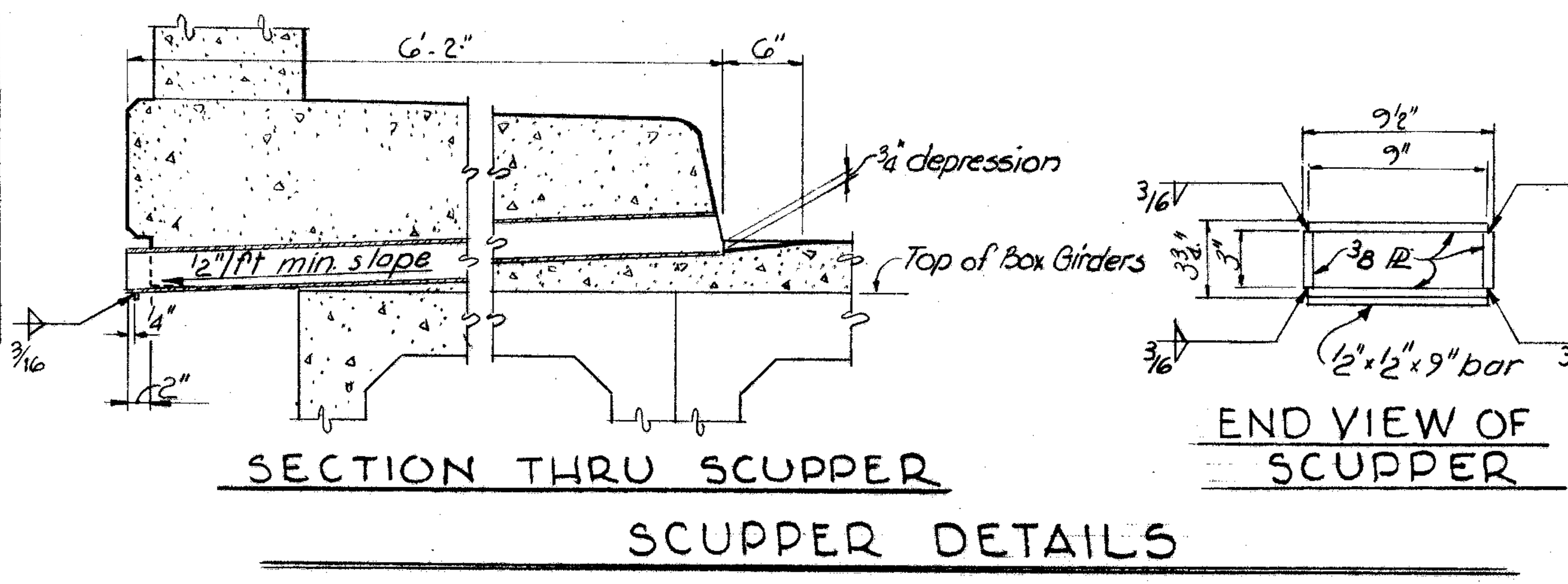








DECK ELEVATIONS						
STATION	PROFILE GRADE	ELEV. "A"	ELEV. "B"	ELEV. "C"	ELEV. "D"	ELEV. "E"
22+00.00	545.76	545.24	———	———	———	545.88
+25.00	545.93	545.41	545.84	546.02	545.66	546.05
+50.00	546.09	545.57	546.00	546.18	545.82	546.21
+75.00	546.19	545.67	546.10	546.28	545.92	546.31
23+00.00	546.29	545.77	546.20	546.38	546.02	546.41
+25.00	546.39	———	546.30	546.48	546.12	546.51
+50.00	546.49	———	———	———	———	546.61



NOTES

1. Use 18"φ Corrugated Metal Pipe to carry 6"φ relocated Water Main under Structure. 18"φ C.M.P. to be hung in accordance with the details shown. The 6"φ watermain to be centered within 18"φ C.M.P. on metal chairs spaced 12" c to c.
2. Wool insulation shall be carefully packed around 6"φ watermain filling all voids and shall meet the requirements set forth by the Cincinnati Waterworks.
3. Upon completion of Pipe installation and the erection of the backwall grout the exposed ends of 18"φ C.M.P. extended beyond rear face of backfill.
4. Remove existing 4" concrete wearing surface and existing integral curbs as shown in Typical Transverse Section. Clean surface and remove loose material before placing concrete.
5. Reinforcing steel which interferes with the placement of scuppers shall be cut in the field.
6. ** Asterisks indicate that the distance shown is a nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary.
7. All labor and materials required for the removal and disposal of the existing watermain and installation of the new watermain, hangers, and encasement as shown in detail C shall be included in the unit price bid for Item Special, Laying 6" Cast Iron Pipe for Bridge Crossing As Per Plan. Quantity Carried on Sheets 52 and 30
8. For Reinforcing Steel List and Bar Bending Diagrams, see Sh's. 321 & 322.
9. For additional details, see Sh. 319.
10. For General Notes and Estimated Quantities, see Sh. 3

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SLAB PLAN & DETAILS

GALBRAITH ROAD RELOCATED OVER WEST FORK OF MILL CREEK

HAMILTON COUNTY STA. 22+01.38 TO STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
L.P.M.	L.P.H.	~	E.E.S.	JAD	7-8-64	9-29-64

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
A501	24	5'- 10"	Bt.	146
A502	19	9'- 5"	Str.	187
A503	2	8'- 4"	Str.	17
A504	31	4'- 0"	Str.	129
A505	5	28'- 4"	Str.	148
A506	6	30'- 0"	Str.	188
A507	3	26'- 9"	Str.	84
A508	8	7'- 1"	Bt.	59
A509	8	9'- 10"	Str.	82
A510	5	11'- 6"	Str.	60
A511	11	11'- 0"	Str.	126
A512	4	10'- 9"	Str.	45
A513	7	43'- 6"	Str.	318
A514	2	15'- 1"	Bt.	32
A515	18	14'- 9"	Str.	277
A516	8(2 each)	4'-0" to 12'-3" by 2'-9"	Str.	68
A517	4	24'- 5"	Str.	102
A518	7	30'- 4"	Str.	221
A519	20(2 each)	5'-0" to 23'-9" by 2'-1"	Str.	300
A520	38	4'- 0"	Bt.	158
A521	8	6'-11" to 13'-11" by 1'-0"	Bt.	81
A601	104	11'- 2"	Bt.	1745
A602	4	11'- 8"	Bt.	70
A603	112	4'- 7"	Bt.	770
A604	19	9'- 7"	Str.	273
A605	6	4'- 0"	Str.	36
A606	22	13'- 2"	Bt.	435
A607	12	11'- 0"	Bt.	198
A608	39	3'- 1"	Bt.	180
A609	31	8'- 9"	Bt.	407
A610	13	10'- 1"	Bt.	197
A611	5	8'- 6"	Bt.	64
A612	8	10'- 0"	Str.	120
A613	38(2 each)	8'-6" to 13'-0" by 3"	Str.	614
A614	4	13'- 3"	Str.	80
A615	44(2 each)	5'-7" to 13'-5½" by 4½"	Str.	629
A616	2	13'- 6"	Str.	41
A617	2	11'- 5"	Str.	34
A801	3	26'- 9"	Str.	214
A802	1	26'- 2"	Str.	70
A803	1	25'- 9"	Str.	69
A804	2	29'- 0"	Str.	154
A805	3	24'- 3"	Str.	194
A806	20	22'- 6"	Str.	1202
A807	18	4'- 0"	Str.	192
B501	24	5'- 10"	Bt.	146
B502	8	9'- 8"	Str.	81
B503	2	8'- 1"	Str.	17
B504	29	4'- 0"	Str.	121
B505	19	9'- 4"	Str.	185
B506	10	12'- 0"	Str.	125
B507	5	10'- 5"	Str.	54
B508	10	10'- 10"	Str.	113
B509	18	11'- 2"	Str.	210
B510	36	8'- 0"	Str.	300
B511	8(2 each)	4'-3" to 9'-9" by 1'-10"	Str.	58
B512	2	12'- 7	Bt.	26
B513	16(2 each)	8'-3" to 11'-9" by 6"	Str.	167
B514	39	4'- 0"	Bt.	163
B515	7	43'- 6"	Str.	318
B516	10	28'- 9"	Str.	300
B517	4	26'- 11"	Str.	112
B518	5	27'- 9"	Str.	145
B519	4	8'- 1"	Bt.	34
B520	18(2 each)	8'-3" to 12'-3" by 6"	Str.	192
B521	8(2 each)	3'-3" to 9'-6" by 2'-1"	Str.	53
B522	1	6'- 8"	Bt.	7
B523	1	6'- 1"	Bt.	6
B524	2	12'- 11"	Bt.	27
B525	18	11'- 7"	Str.	217
B526	1	7'- 1"	Bt.	7
B527	1	6'- 5"	Bt.	7
B601	62	11'- 0"	Bt.	1024
B602	4	11'- 7"	Bt.	70
B603	44	4'- 7"	Bt.	305
B604	8	9'- 11"	Str.	119
B605	4	4'- 0"	Str.	24
B606	18	9'- 7"	Str.	259
B607	2	11'- 5"	Str.	34
B608	10(2 each)	12'-6" to 13'-6" by 2½"	Str.	194
B609	12	11'- 11"	Bt.	215
B610	7	10'- 3"	Bt.	108
B611	20	12'- 5"	Bt.	373
B612	31	6'- 8"	Bt.	311
B613	12	7'- 8"	Bt.	138
B614	43	3'- 1"	Bt.	199
B615	8(2 each)	12'-3" to 13'-0" by 3"	Str.	152

PIERS

MARK	NO.	LENGTH	TYPE	WEIGHT
P501	8	27'- 7"	Str.	230
P502	72	13'- 5"	Bt.	1008
P503	44	11'- 1"	Bt.	508
P504	8	5'- 9"	Bt.	48
P505	8	6'- 7"	Bt.	55
P506	8	8'- 7"	Bt.	72
P507	8	10'- 7"	Bt.	88
P508	32	5'- 5"	Bt.	181
P509	40	16'- 6"	Str.	688
P510	32	4'- 5"	Bt.	148
P511	4	15'- 9"	Str.	66
P512	4	14'- 5"	Str.	60
P513	16	11'- 3"	Str.	188
P601	104	8'- 8"	Str.	1354
P602	122	5'- 2"	Bt.	947
P603	40	19'- 5"	Str.	1167
P604	18	15'- 10"	Str.	428
P605	66	23'- 0"	Str.	2280
P606	8	18'- 1"	Str.	217
P607	8	17'- 4"	Str.	208
P608	4	16'- 7"	Str.	100
P609	4	15'- 6"	Str.	93
P610	4	14'- 4"	Str.	86
P801	12	32'- 7½"	Bt.	1045
P802	16	13'- 6"	Str.	571
P803	12	27'- 7"	Str.	884
P804	32	4'- 0"	Str.	342

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
S501	184	6'- 0"	Bt.	1152
S502 *	32	19'- 9"	Str.	—
S503 *	24	16'- 3"	Str.	—
S504	180	7'- 1"	Bt.	1329
S505	180	8'- 1"	Bt.	1517
S506	180	7'- 6"	Bt	1408
S507	40	39'- 6"	Str.	1648
S508	20	49'- 6"	Str.	1033
S509	180	8'- 4"	Str.	1564
S601	36	39'- 6"	Str.	2136
S602	18	49'- 6"	Str.	1338
S603	240	10'- 3"	Str.	3695
S604	36(2 each)	2'-6" to 7'-6" by 2'-6"	Str.	270

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE	WEIGHT
RE5	1	5'-7"	Str.	—
RE6	2	5'-11"	Str.	—
RE8	1	6'-6"	Str.	—

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

321
450

HAM-75-9.30

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOU ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14, RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SHOW IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAP TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACER WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 322 FOR BENDING DETAILS.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE No. HAM-IR 75-9.30
GALBRAITH RD. RELOCATED OVER WEST FORK OF MILL CREEK

HAMILTON COUNTY STA. 22+01.38
STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	BC	wbc	RKK	JAD 7-8-64	

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A501	2	6"	5'-4"					—					
A508	19		1'-0½"	6'-0"	—				1'-0"		2"		6'-2"
A514	19		10"	14'-3"	—				4"		1'-0"		15'-3"
A520	17		9"	2'-9"	9"	—	—						
A521	T1	6"	1'-5"	1'-9"to 5'-3" by 6"	1'-5"	1'-9"to 5'-3" by 6"		6"					
A601	17		2'-3"	6'-11	2'-3"	—	—						
A602	17		2'-3"	7'-5"	2'-3"	—	—						
A603	2	8"	3'-11"					—					
A606	17		2'-10"	11"	4'-11"	1'-5"	3'-6"						
A607	17		4'-11"	1'-5"	4'-11"	—	—						
A608	12	—	1'-3"	6"	1'-6"				1'-0¾"				
A609	17		4'-0"	1'-0"	4'-0"	—	—						
A610	17		4'-8"	1'-0"	4'-8"	—	—						
A611	17		3'-9"	1'-3"	3'-9"	—	—						
B501	2	6"	5'-4"					—					
B512	19		1'-4"	11'-3"					7"		1'-2"		12'-5"
B514	17		9"	2'-9"	9"	—	—						
B519	19		1'-0½"	7'-0"	—				1'-0"		2"		7'-2"
B522	19		1'-0½"	5'-7"	—				10"		2"		5'-9"
B523	19		1'-0½"	5'-0"	—				10"		2"		5'-2"
B524	19		1'-8"	11'-3"	—				9"		1'-6"		12'-9"
B526	19		1'-0½"	6'-0"	—				10"		2"		6'-2"
B527	19		1'-0½"	5'-4"	—				10"		2"		5'-6"
B601	17		2'-3"	6'-11"	2'-3"	—	—						
B602	17		2'-3"	7'-5"	2'-3"	—	—						
B603	2	8"	3'-11"					—					
B609	S10		5'-5"	1'-5"	5'-5"								
B610	S10		4'-7"	1'-5"	4'-7"								
B611	17		2'-10"	1'-5"	4'-6"	11"	3'-6"						
B612	17		2'-1"	11"	4'-0"	—	—						
B613	17		2'-7"	11"	4'-6"	—	—						
B614	12	—	1'-3"	6"	1'-6"				1'-0¾"				
P502	T2	6"	3'-8"	2'-8"	3'-8"	2'-8"		6"					
P503	T1	6"	4'-4"	2'-8"	4'-4"	2'-8"		6"					
P504	S10		1'-8"	2'-8"	1'-8"								
P505	S10		2'-1"	2'-8"	2'-1"								
P506	S10		3'-1"	2'-8"	3'-1"								
P507	S10		4'-1"	2'-8"	4'-1"								
P508	S10		1'-6"	2'-8"	1'-6"								
P510	S10		1'-0"	2'-8"	1'-0"								
P602	2	6"	4'-8"					—					
P801	17		—	2'-9"	27'-7	2'-9	—						
S501	S3	6"	2'-3"	9"	2'-3"			6"					
S504	2	9"	5'-10"					9"					
S505	17		—	7'-3"	1'-0"	—	—						
S506	19	—	9"	6'-9"	—				8¾"		2"		6'-11"

① A, J, G, B

② A, J, G, B

③ O, B, J, C, E, F, H, G, A, D

④ O, B, A, J, C, E, F, H, G, D

⑤ O, B, H, C, J, G, A, D

⑥ O, B, A, H, C, J, G, D

⑦ O, C, H, E, J, G, A, K, D, K

⑧ A, J, B, G

⑨ H, R, C

⑩ C, R, B, D, O

⑪ O, B, J, A, C, D

⑫ B, J, A, C, D, H, K

⑬ K, B, R, C, J, G, D, O

⑭ O, B, F, C, E, H, H, D, K, K

⑯ B, J, A, C, D, H, K

⑰ B, F, C, E, D

⑱ A, J, B, C

⑲ O, K, B, H, C, D, K, H

⑳ B, C, D

㉑ A, J, B, C

⑮ NOT USED

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

322
450

HAM-75-9.30

S1 S2 S3 S4

S5 S6 S7 S8

S9 S10 (Lap) S11 T1

T2 T3 T4

DIAMETER O

SP1 SP2

WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K."

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-4.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

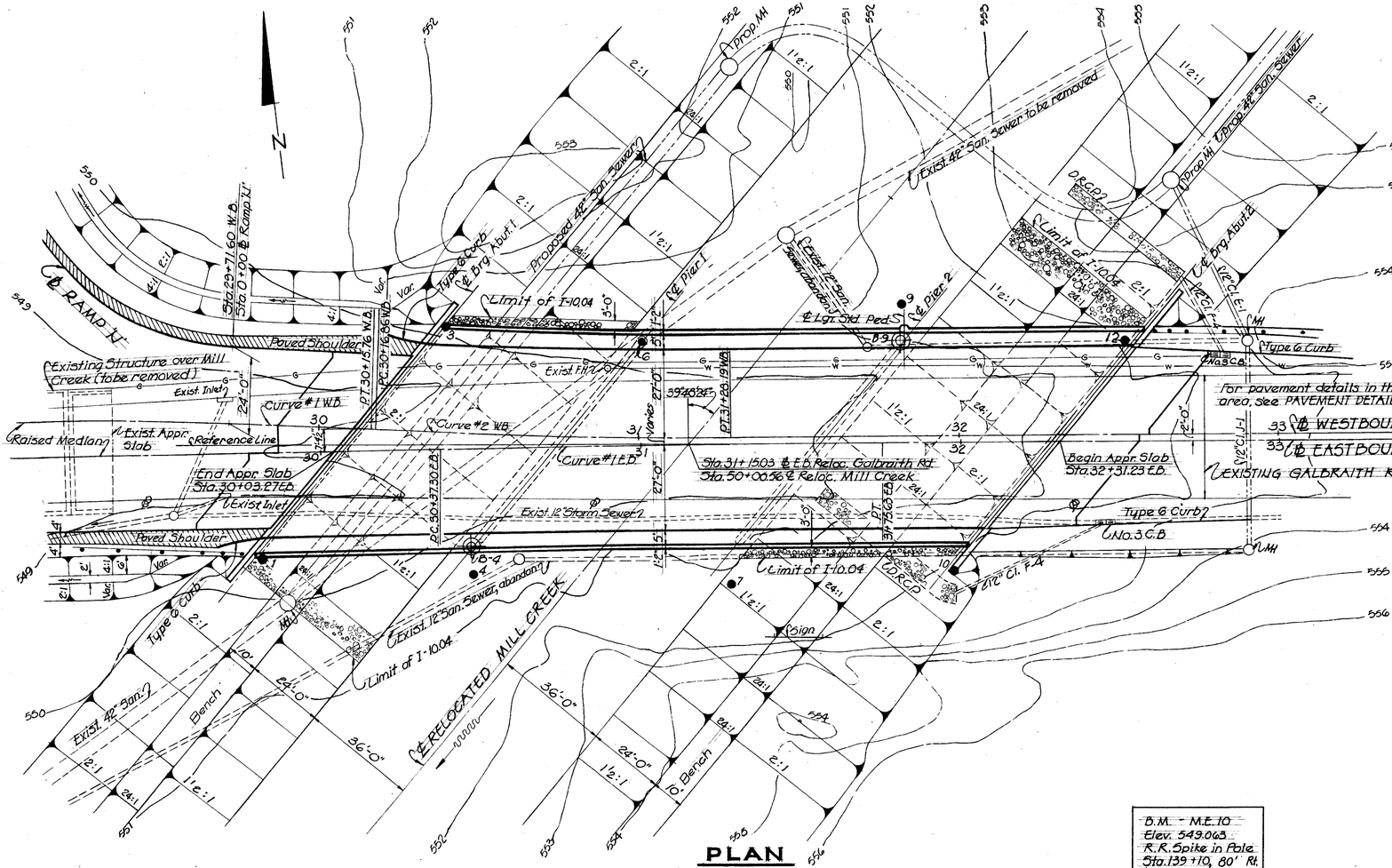
VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BAR BENDING DETAILS

BRIDGE No. HAM-1R75-9.30
GALBRAITH RD. RELOCATED OVER
WEST FORK OF MILL CREEK

HAMILTON COUNTY STA. 22+01.38
STA. 23+33.95

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	BC	wbc	RKK	JAD 7-8-64	



FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-930

PLAN

SECTION THRU BRIDGE

CURVE DATA		
CURVE No. 1 WB	CURVE No. 2 W.B.	CURVE No. 1 E.B.
P.I. Sta. 29+46.34	P.I. Sta. 30+72.54	P.I. Sta. 31+06.47
Δ = 4°10'00"	Δ = 2°47'00"	Δ = 1°23'00"
Dc = 3°00'00"	Dc = 2°30'00"	Dc = 1°00'00"
R = 1909.86'	R = 2291.83'	R = 5729.58'
Lc = 138.89'	Lc = 111.33'	Lc = 138.33'
T = 69.48'	T = 55.68'	T = 69.17'
E = 1.26'	E = 0.68'	E = 0.42'

REFERENCE LINE LAYOUT

PROFILE ALONG E.B. BASELINE OF GALBRAITH ROAD

EXISTING STRUCTURE
OVER MILLCREEK WEST OF PROP. STRUCT.

TYPE: Existing Bridge is reinforced concrete superstructure and substructure. (To Be Removed)
SPANS: 38'-6", 50'-0", 38'-6"
ROADWAY: 40'-8" Out to out of Parapet
SKEW: None
WEARING SURFACE: Bituminous over concrete slab.
CONDITION: Excellent except curbs & sidewalks show severe spalling.

PROPOSED STRUCTURE

TYPE: Continuous rolled beam with reinforced concrete deck and substructure.
SPANS: 66'-0", 82'-0", 72'-0"
ROADWAY: Varies, 56'-0" min. face to face of 5'-0" sidewalks.
LOAD FREQUENCY: C.F. = 2,000 (57), adequate for A.A.S.H.O. alternate loading.
SKEW: 39°48'24" L.F.
WEARING SURFACE: 1" monolithic concrete.
APPROACH SLABS: AS-1-54 (25' long)
ALIGNMENT: Varies.
TRAFFIC: ADT = 18,000 (1975) (Each direction)

LEGEND

- ● Denotes Rod Sounding
- ⊕ Denotes Boring

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN
RELOCATED GALBRAITH ROAD
OVER
RELOCATED MILL CREEK
HAMILTON COUNTY STA. 30+03.27 E.B. to
STA. 32+31.23 E.B.

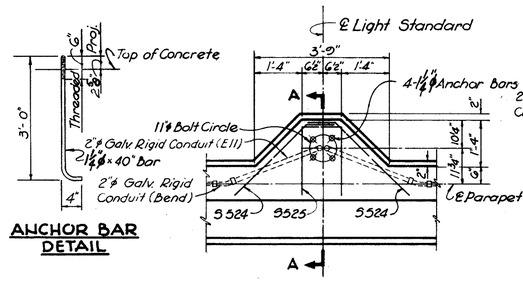
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
AERIAL	E.P.A.	E.P.A.	EPA/GK.	R.K.K.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

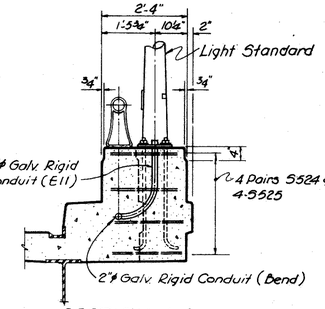
HAM-75-9.30

ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL		
E-2		Lump Sum	Cofferdams, Cribs and Sheeting.						
E-2	972	Cu. Yds.	Unclassified Excavation.	429	543				
S-1	520	Cu. Yds.	Class "C" Concrete - Superstructure.			520			
S-1	530	Cu. Yds.	Class "E" Concrete - Piers above footings.		530				
S-1	181	Cu. Yds.	Class "E" Concrete - Abutment above footings.	181					
S-1	310	Cu. Yds.	Class "E" Concrete - Piers & Abutment footings.	146	164				
S-3	29	Lin. Ft.	Waterproofing, premolded, Sealing Strip.	29					
S-4	191,528	Lbs.	Reinforcing Steel.	18,909	28,378	144,241			
S-7	541,150	Lbs.	Structural Steel.			541,150			
S-8	541,150	Lbs.	Field painting of Structural Steel.			541,150			
S-9	166	Sq. Ft.	1" Preformed expansion joint filler.		166				
S-14	442.77	Lin. Ft.	Railing (Type "C" aluminum rail and supports and Concrete parapet)			442.77			
S-16		Lump Sum	First test pile.						
S-18	3,185	Lin. Ft.	Steel piles 12 BP 53.	1,595	1,590				
* S-25			Lighting System.						
S-29	104	Cu. Yds.	Porous Backfill.	104					
S-29	19	Each	Scuppers, including supports.			19			
S-101	520	Each	Water-reducing, Set-retarding admixture.			520			
I-10	1431	Sq. Yds.	Crushed aggregate slope protection.				1431		
I-10	29	Cu. Yds.	Dumped Rock Channel Protection.				29		
S-15		Lump Sum	Temporary runaround, bridges, approach earthwork, and concrete pavement as per plan						
S-24		Lump Sum	Removal of existing structure				Lump		



ANCHOR BAR DETAIL



SECTION A-A

LIGHT STANDARD PEDESTAL

Anchor bars are included with item S-25 for payment.

For additional details, see sh. 262.

Materials in approach slabs are not included in the above estimated quantities.

Aluminum rail and supports, concrete papapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in item S-14 for payment.

* See Summary of Bridge Lighting Quantities, Sheet No. 265, for Details, Description, Unit & Quantity.

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
SD-1-63, Sheet 1, 2, 3, & 4 of 4, dated 11-12-63
FSB-1-62, revised 1-15-63
Supplemental Specifications: S-101, dated 7-12-62
S-307, dated 8-23-60

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 includes the removal of fill material required for construction of the abutments.

DESIGN LOADING -CF 2,000 (57)

CONCRETE CLASS "C"-Basic unit stress 1,333 p. s. i.
CONCRETE CLASS "E"-Basic unit stress 1,133 p. s. i.

STRUCTURAL STEEL - ASTM A36, basic unit stress 20,000 p. s. i. (ASTM A7 and A373 steel not permitted) (Except Piling)

REINFORCING STEEL - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p. s. i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p. s. i.

Piles shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and piers.

WELDING of structural sheel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop. Class "B" welds are shown thus: B >—

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. S-7.12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of ckecking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct, unloaded positions. All beams shall be assembled and match marked.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

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

UTILITY LINES: All expenses 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.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ESTIMATED QUANTITIES
& GENERAL NOTES
RELOCATED GALBRAITH RD.
Over RELOCATED MILL CREEK

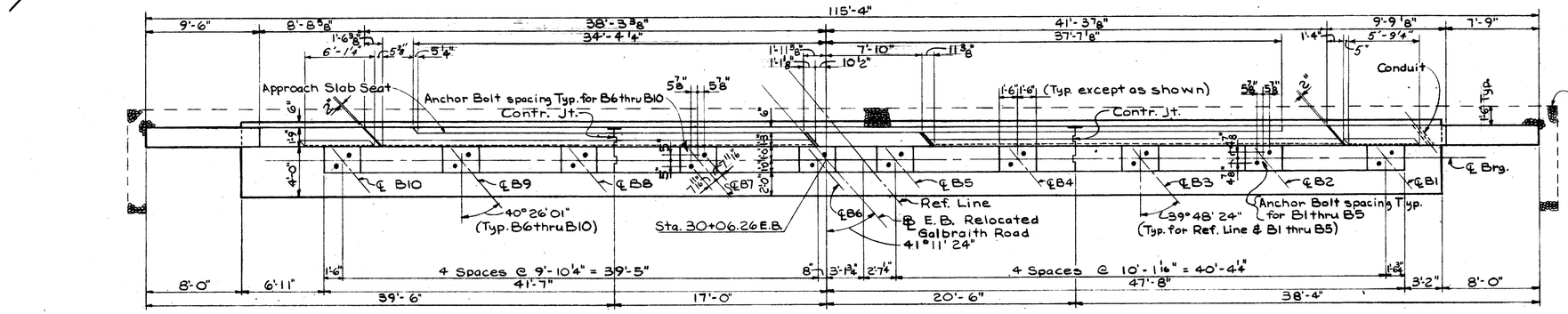
HAMILTON COUNTY STA. 30+03.27 E.B. to STA. 32+31.23 E.B.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W.	J.A.D.	7-8-64	

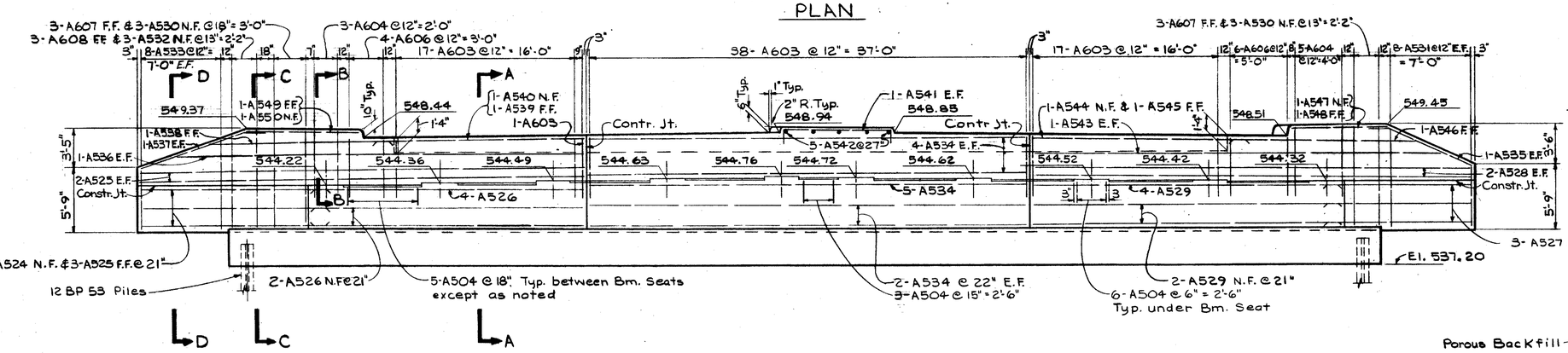
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

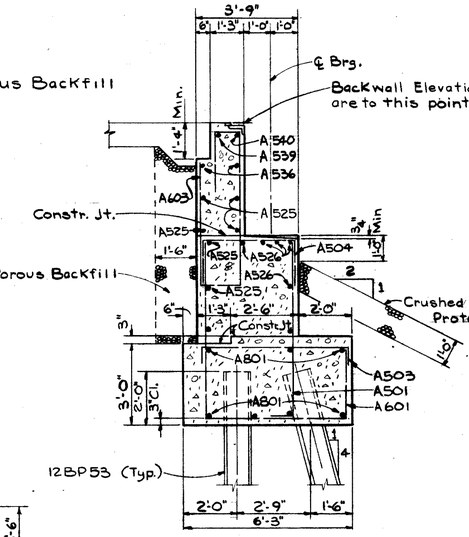
329
450

HAM-75-9.30



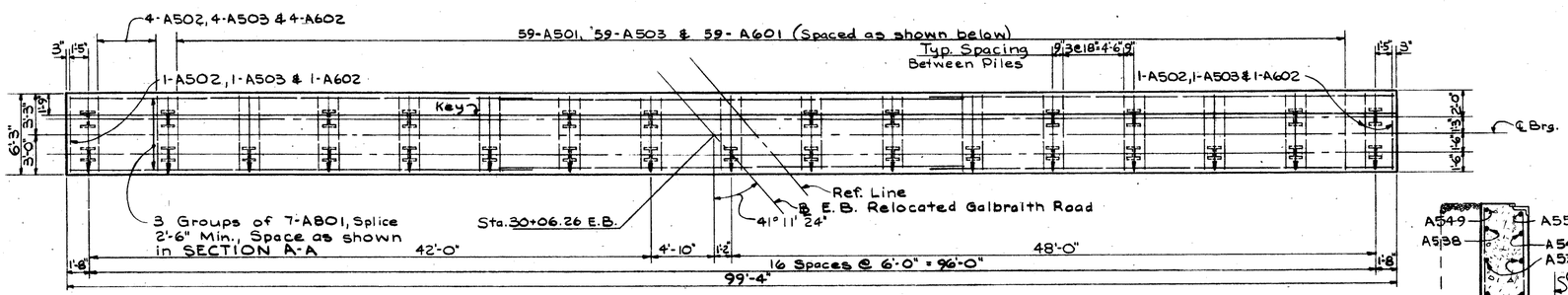
PLAN



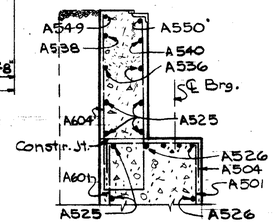


SECTION A-A

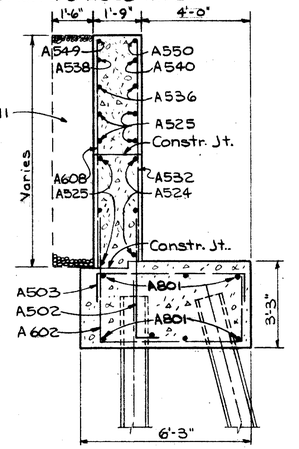
ELEVATION



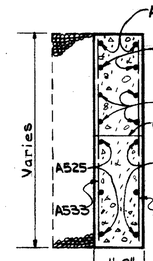
FOOTING PLAN



SECTION B-B



SECTION C-C



SECTION D-D

LEGEND

- Batter Piles (Batter 4:1 in direction of arrow)
- E.F. = Each Face
- N.F. = Near Face
- F.F. = Far Face

NOTES

1. Porous backfill shall extend upward to the bottom of approach slab or to the surface of the earth shoulders, and outward to the surface of embankment slopes. Excavation therefore, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.
2. Special care shall be taken in placing reintorcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
3. For end dam details see SD-1-63 sheets 2&4 of 4 dated 11-12-63. Unwelded butt joints shall be provided in the abutment end dam at the contraction joints.
4. For reintoring steel list see sheet 335.
5. For reference line layout see sheet 323.
6. For Contraction Joint detail see sheet 330.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1
RELOCATED GALBRAITH RD. OVER RELOCATED MILL CREEK

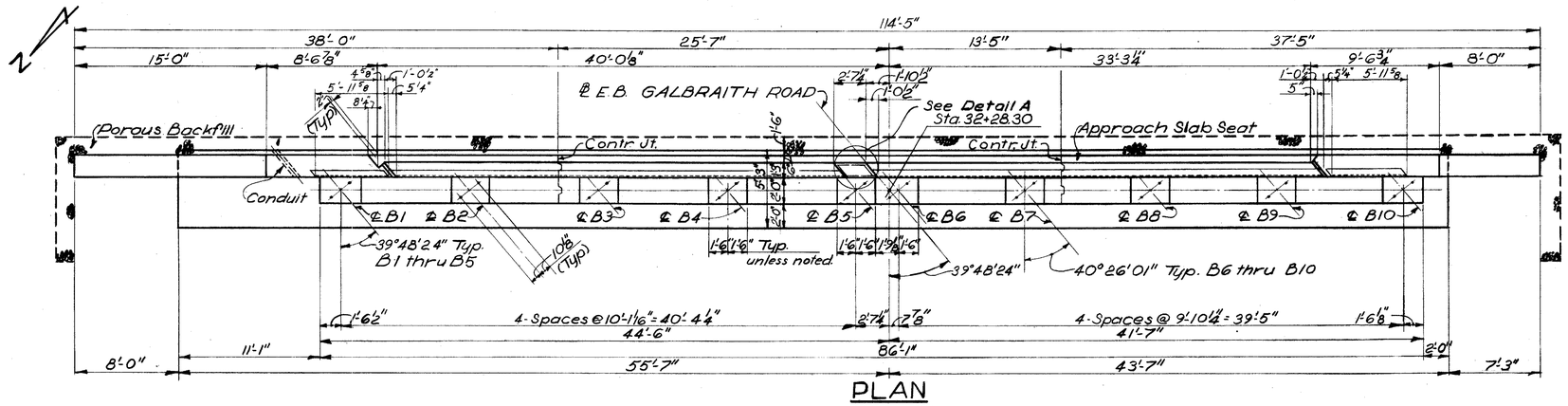
HAMILTON COUNTY STA. 30+03.27 E.
TO STA. 32+31.23 E.

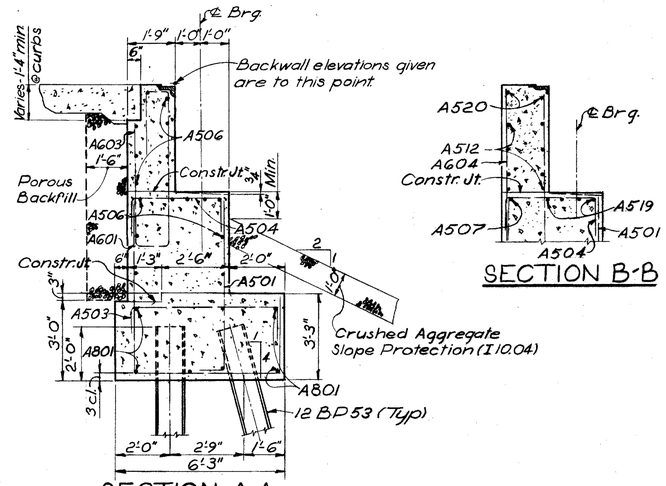
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DJF	DHW	~	LPM	JAD	7-8-64	

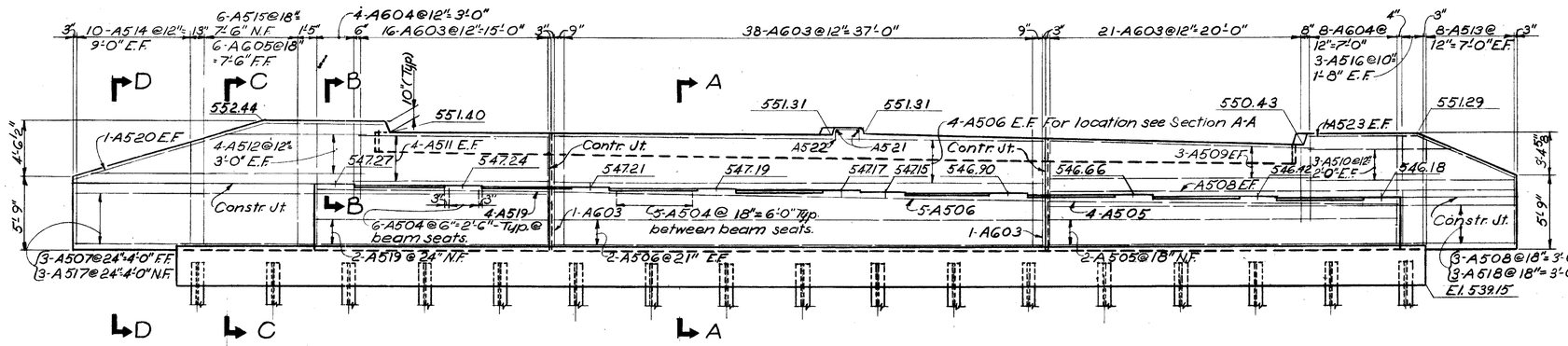
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

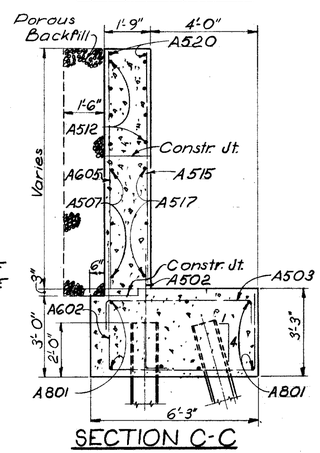
330
450

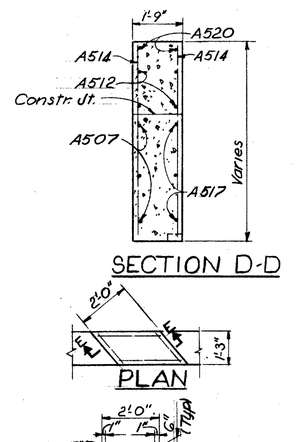
HAM-75-9.30

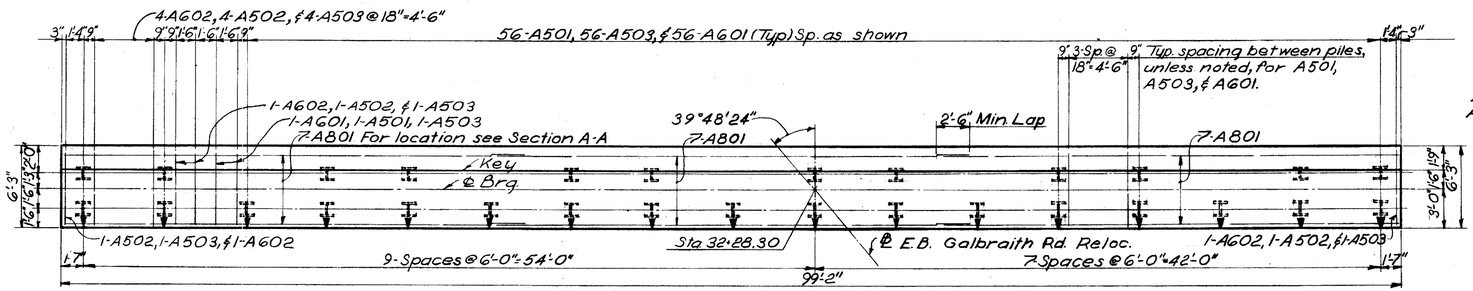




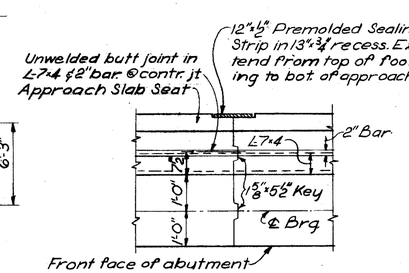








Symbol indicates pile to be battered 3on12 in the direction of the arrow.



NOTES

1. For Notes see Abutment 1, Sh.
2. For REINFORCING STEEL LIST see Sh.

LEGEND

E.F. = Each Face
N.F. = Near Face
F.F. = Far Face

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 2
RELOCATED GALBRAITH ROAD OVER RELOCATED MILL CREEK

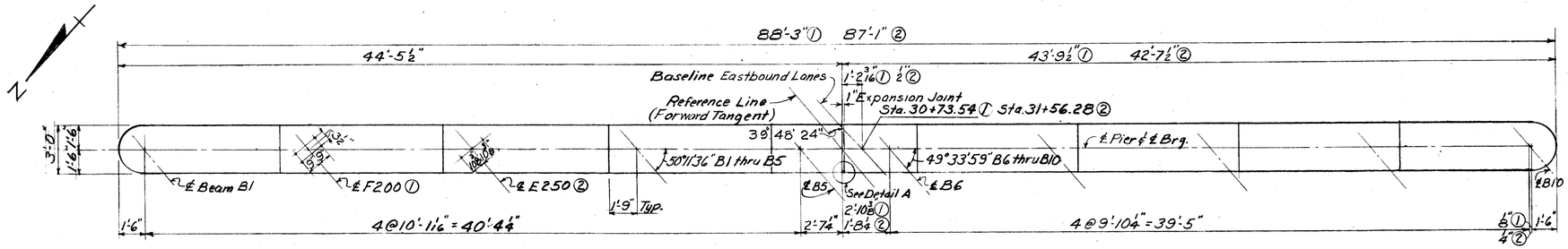
HAMILTON COUNTY STA. 30+03.27 to STA. 32+31.23

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DWF	GJW	~	LPM	JAD	July 63	

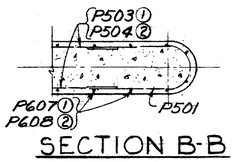
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

331
450

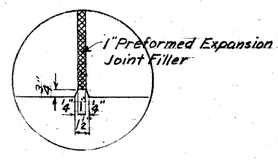
HAM-75-9.30



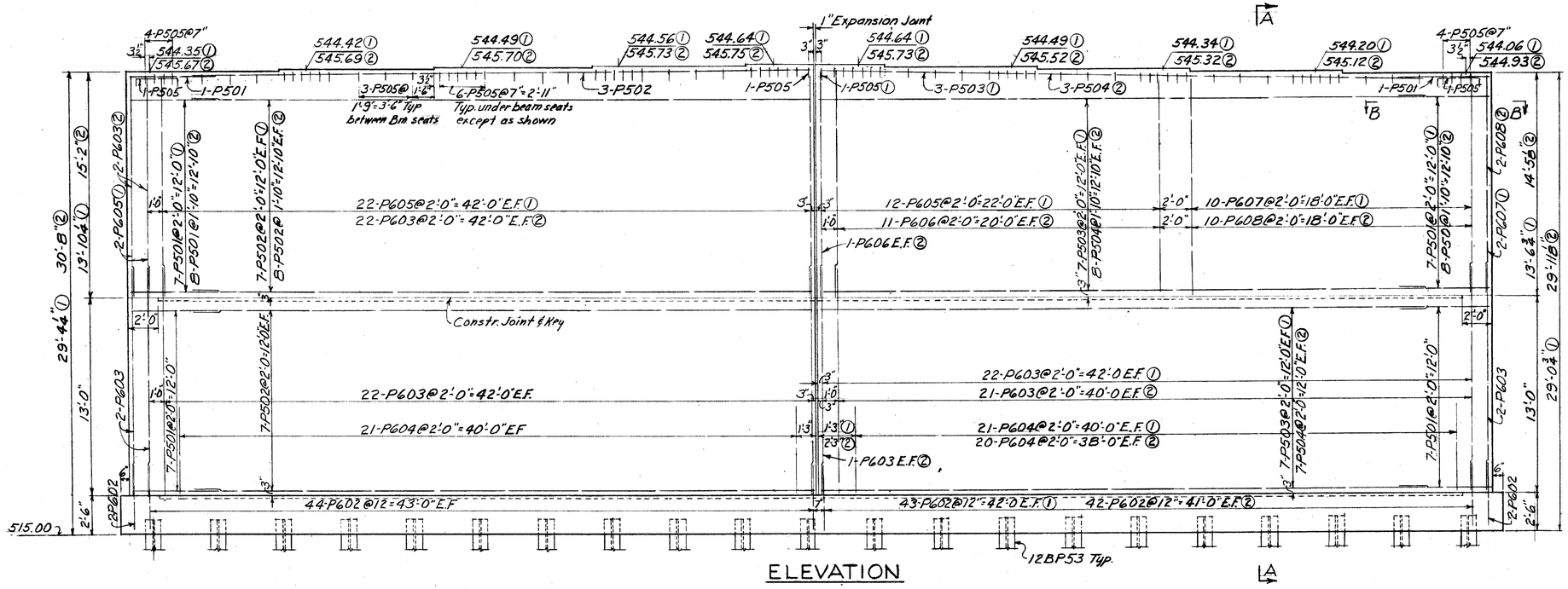
PLAN



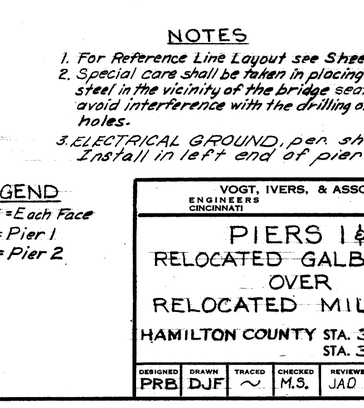
SECTION B-B



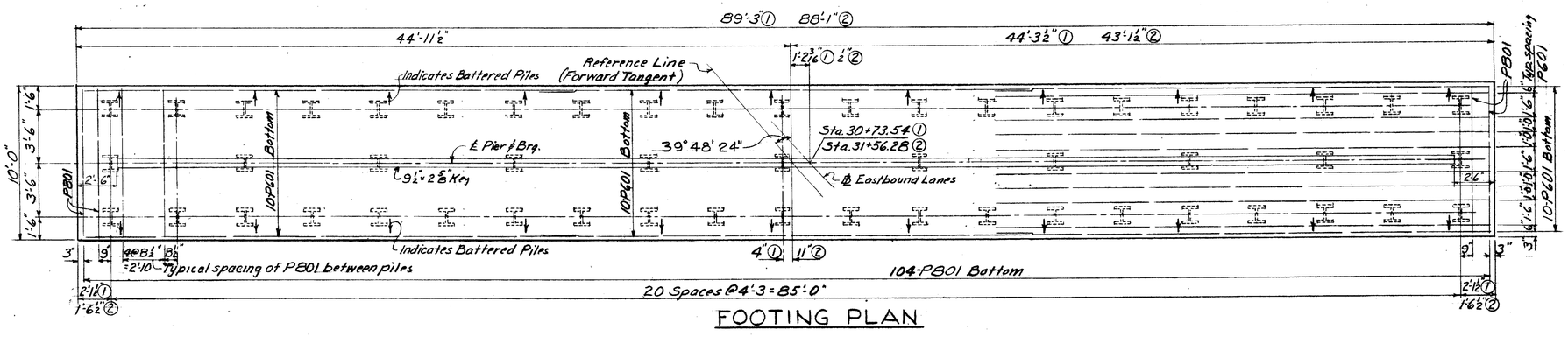
DETAIL A



ELEVATION



SECTION A-A



FOOTING PLAN

NOTES

1. For Reference Line Layout see Sheet ①
2. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
3. ELECTRICAL GROUND, per sht. 26 Install in left end of pier 1

LEGEND

E.F = Each Face
① = Pier 1
② = Pier 2

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1 & 2
RELOCATED GALBRAITH RD
OVER
RELOCATED MILL CREEK

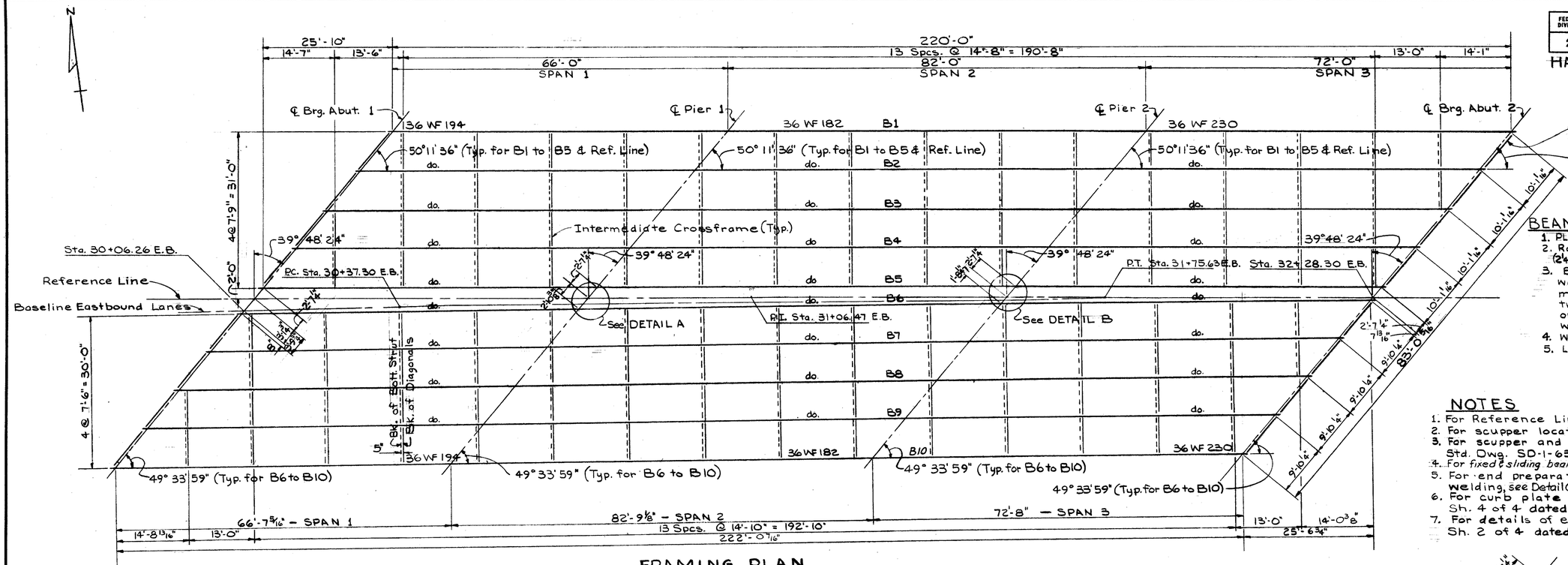
HAMILTON COUNTY STA. 30+03.27 E.B.
STA. 32+31.23 E.B.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
PRB	DJF	~	M.S.	JAO	7-8-64	

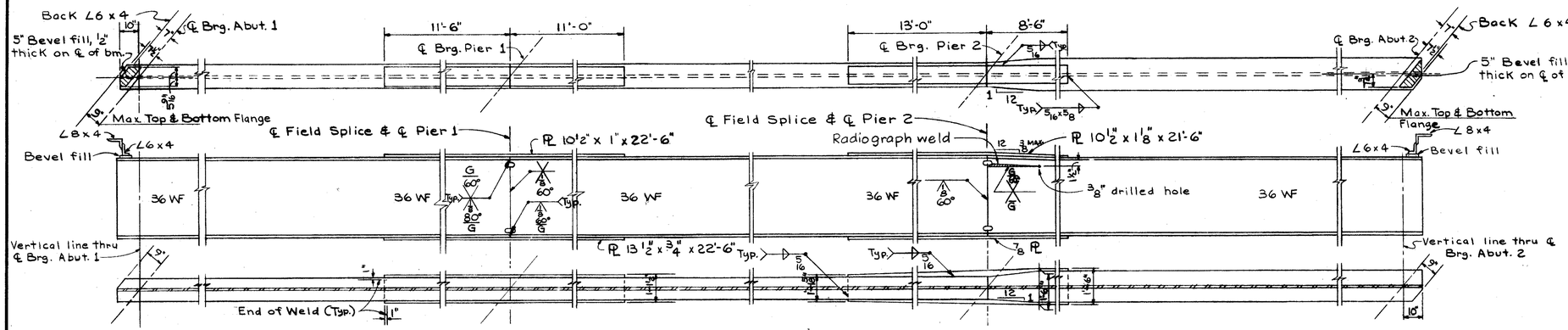
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

332
450

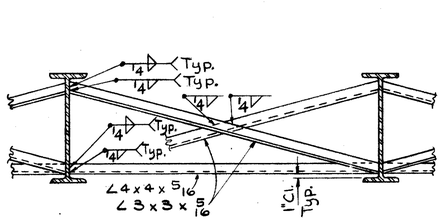
HAM-75-9.30



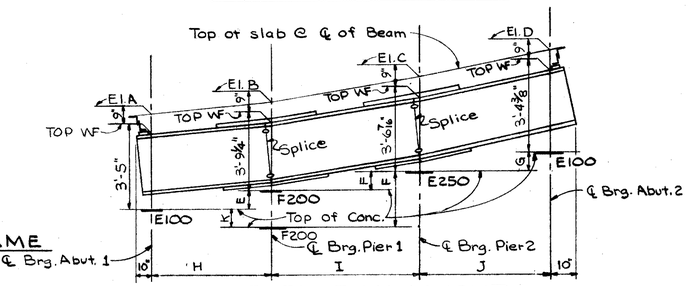
FRAMING PLAN



BEAM DETAILS



TYPICAL INTERMEDIATE CROSS FRAME



ELEVATION LAYOUT

* Beam lies outside the curb line at this point; elevation given is the theoretical extension of the roadway surface.

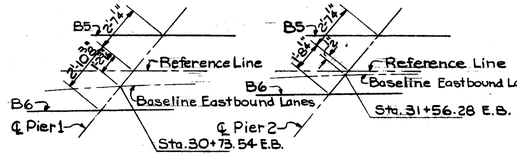
BEAM	Elev. A	Elev. B	Elev. C	Elev. D	Dim. E	Dim. F	Dim. G	Dim. H	Dim. I	Dim. J	Dim. K
B1	*548.49	*548.87	*549.92	*551.39	5/16"	1'-3 3/8"	1'-7 3/4"	66'-0"	82'-0"	72'-0"	—
B2	548.59	548.94	549.93	551.36	-	1'-2 3/4"	1'-7 3/16"	66'-0"	82'-0"	72'-0"	1/8"
B3	548.69	549.01	549.95	551.33	-	1'-2 3/16"	1'-6 5/8"	66'-0"	82'-0"	72'-0"	7/16"
B4	548.79	549.08	549.98	551.31	-	1'-1 9/16"	1'-6 1/16"	66'-0"	82'-0"	72'-0"	3/4"
B5	*548.89	*549.16	550.00	551.29	-	1'-0 15/16"	1'-5 1/2"	66'-0"	82'-0"	72'-0"	1 1/16"
B6	548.93	549.16	549.98	551.27	-	1'-0 9/16"	1'-4 15/16"	66'-7 5/16"	82'-9 1/8"	72'-8"	1 9/16"
B7	548.80	549.01	549.77	551.02	-	11 15/16"	1'-5 1/16"	66'-7 5/16"	82'-9 1/8"	72'-8"	1 3/4"
B8	548.66	548.86	549.57	550.77	-	11 5/16"	1'-4 1/2"	66'-7 5/16"	82'-9 1/8"	72'-8"	1 7/8"
B9	548.53	548.72	549.37	550.53	-	10 5/8"	1'-3 15/16"	66'-7 5/16"	82'-9 1/8"	72'-8"	1 15/16"
B10	*548.39	*548.58	*549.18	*550.29	-	10"	1'-3 3/8"	66'-7 5/16"	82'-9 1/8"	72'-8"	2"

BEAM SPLICE WELDING PROCEDU

1. Place beams in spans 1, 2 and 3.
2. Raise end of beams at Abutment 1 (24") and Abutment 2 (3").
3. Butt-weld the beam flanges and web, using the following sequence: make two passes on the web, then two on each flange; repeat, using o or two passes at each location, unti welds are complete.
4. Weld the bottom and top moment pla
5. Lower the beam ends to final positi

NOTES

1. For Reference Line Layout, see Sht. 323
2. For scupper location, see Sht. 333
3. For scupper and bulb angle gutter details, see Std. Dwg. SD-1-63, Sh. 3 & 4 of 4 dated 11-12-63.
4. For fixed & sliding bearings, see Std. Dwg. FSB-1-62 rev. 1-15-63.
5. For end preparation of rolled beams for field welding, see Detail C, Std. Dwg. SD-1-63, Sh. 1 of 4 dated 11-12-
6. For curb plate details, see Std. Dwg. SD-1-63 Sh. 4 of 4 dated 11-12-63.
7. For details of end dam, see Std. Dwg. SD-1-63, Sh. 2 of 4 dated 11-12-63.



DETAIL A

DETAIL B

DEFLECTION & CAMBER			
BEAMS	B1 THRU B		
SPANS	1	2	3
Deflection due to weight of steel	1 1/16"	1 1/16"	1
Deflection due to remaining dead load	7/16"	7/16"	1
Vertical Curve Correction	- 1/4"	- 15/16"	-
Sum of Deflection and V.C. correction	1/4"	- 7/16"	-
Shop camber required.	0	0	0

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN
RELOCATED GALBRAITH RD.
OVER
RELOCATED MILL CREEK

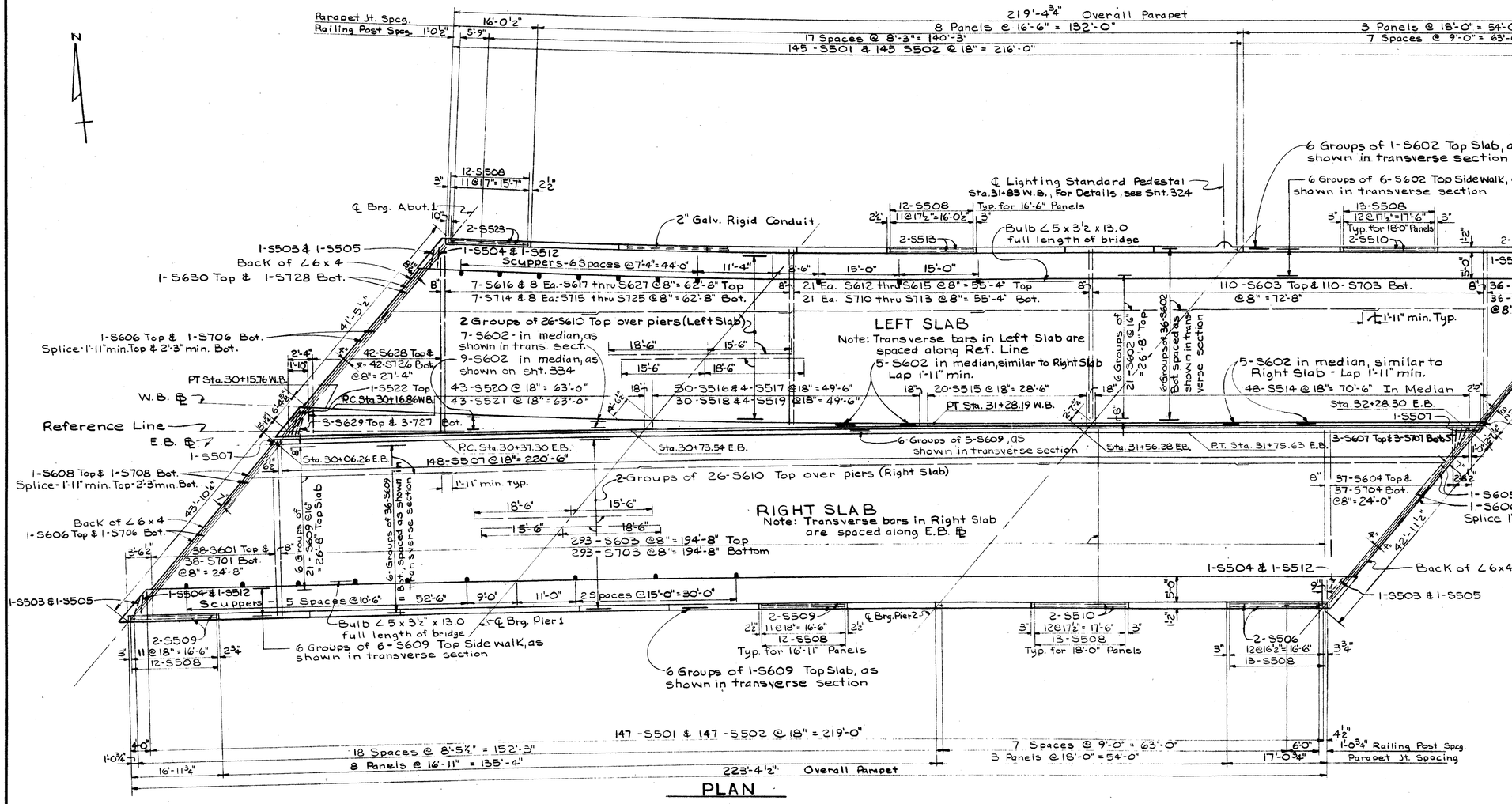
HAMILTON COUNTY STA. 30 + 03.27 E
TO STA. 32 + 31.23 E

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CEC	DHW	~	GRH	JAD	7-8-64	

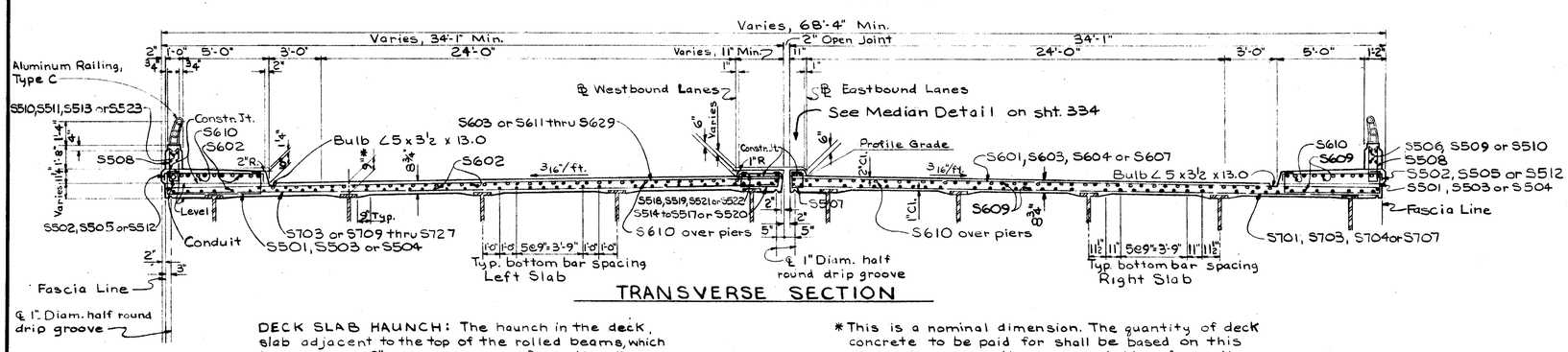
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

333
450

HAM-75-9.30



PLAN



TRANSVERSE SECTION

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the rolled beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12", except that the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.

*This is a nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension, even though deviation from it may be necessary because the top flange of the rolled beam may not have the exact camber or conformation required to place it parallel to the finished grade.

PAVEMENT ELEVATIONS

STATION	RIGHT SLAB FASCIA CURB	RIGHT SLAB MEDIAN CURB	LEFT SLAB FASCIA CURB	LEFT SLAB MEDIAN CURB
—	—	—	—	—
30+00 E.B.	548.50	—	—	—
30+25 E.B.	548.58	549.00	—	548.90
30+50 E.B.	548.65	549.08	548.58	549.00
30+75 E.B.	548.77	549.19	548.72	549.14
31+00 E.B.	548.95	549.37	548.91	549.33
31+25 E.B.	549.20	549.62	549.16	549.58
31+50 E.B.	549.50	549.92	549.47	549.89
31+75 E.B.	549.87	550.29	549.84	550.24
32+00 E.B.	550.30	550.72	550.27	550.65
32+25 E.B.	—	551.22	550.76	551.19
32+50 E.B.	—	—	551.32	—

NOTES

1. Slab thickness includes 1" monolithic wearing surface.
2. Spread or cut longitudinal reinforcing steel in slab to clear scuppers.
3. For railing and parapet joint details, see Std. Dwg. AR-1-57
4. For end dam details, see Std. Dwg. SD-1-63, Sht. 2 & 4 of 4.
5. Parapet concrete and S509, S510, S511, S513, S506 and S523 are to be included with Item S-14 for payment.
6. For light standard pedestal, see detail, sheet 324.
7. See sht. 334 for additional details.
8. For Scuppers and Bulb ∠ Gutter details, see Std. Dwg. SD-1-63, Sh. 3 of 4. All scuppers shall be Type I scuppers, and shall be supported on the deck form by Cone Nut Assemblies similar to those shown in Gutter Support B.
9. Parapet and railing dimensions are measured along the fascia line.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE
ROADWAY SLAB
RELOCATED GALBRAITH RD.
OVER
RELOCATED MILL CREEK

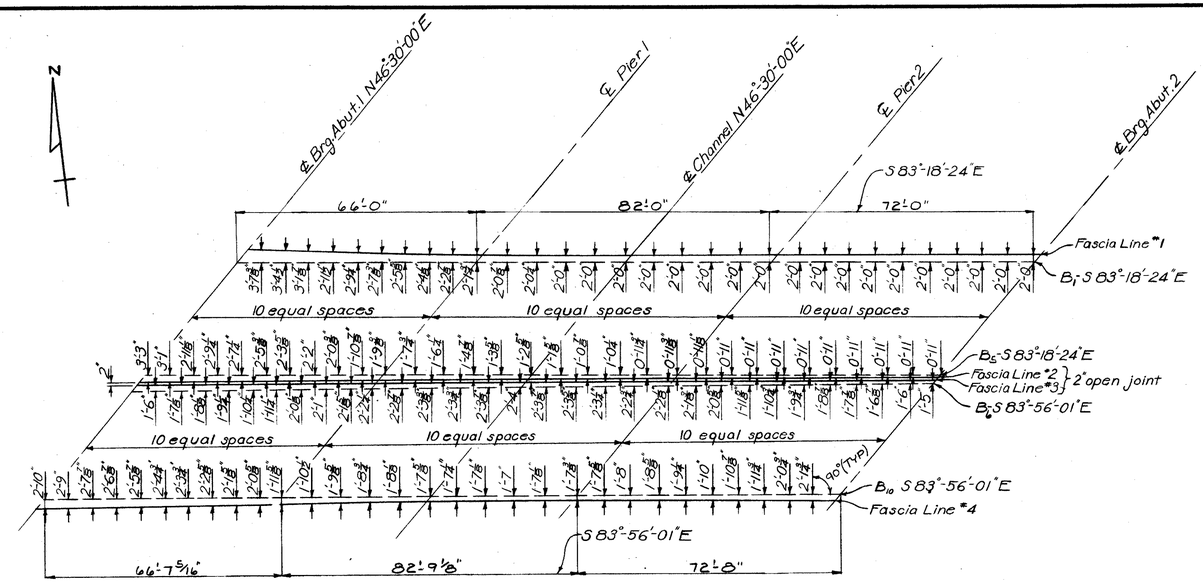
HAMILTON COUNTY STA. 30+03.27 E.B.
STA. 32+31.23 E.B.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DHW	DHW	~	GRH	J.A.D.	7-8-64	

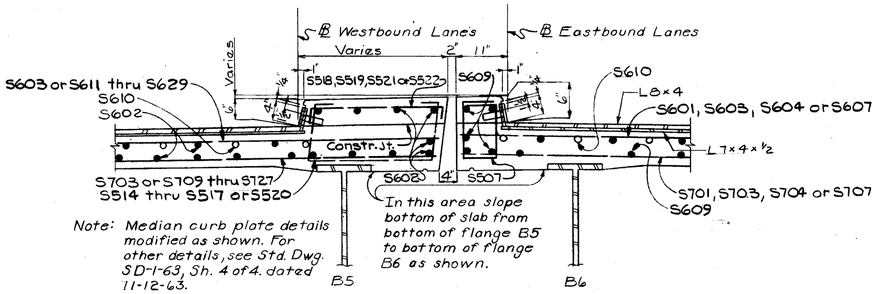
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

334
450

HAM-75-9.30



OFFSETS - EXTERIOR BEAM TO SLAB FASCIA



Note: Median curb plate details modified as shown. For other details, see Std. Dwg. SD-1-63, Sh. 4 of 4. dated 11-12-63.

MEDIAN CURB PLATE & SLAB DETAILS

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SUPERSTRUCTURE SLAB DETAILS RELOCATED GALBRAITH RD OVER RELOCATED MILL CREEK

HAMILTON COUNTY STA. 30+03.27 E.B.
STA. 32+31.23 E.B.

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DHW	DHW	CJF	GRH	J.A.D. 7-8-64	

ABUTMENT					PIERS					SUPERSTRUCTURE					REPLACEMENT BARS				
MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT
A501	117	7'-1"	Bt.	864	P501	62	12'-10"	Bt.	830	S501	292	8'-11"	Bt.	2717	RE 5	2	5'-7"	Str.	—
A502	15	5'-1"	Bt.	80	P502	64	40'-0"	Str.	2,610	S502	292	6'-6"	Bt.	1980	RE 6	6	5'-11"	Str.	—
A503	132	6'-5"	Bt.	883	P503	31	39'-3"	Str.	1,269	S503	4	9'-9"	Bt.	41	RE 7	3	6'-3"	Str.	—
A504	203	6'-8"	Bt.	1412	P504	33	38'-1"	Str.	1,311	S504	4	9'-1"	Bt.	38	RE 8	1	6'-6"	Str.	—
A505	6	27'-10"	Str.	174	P505	167	3'-8"	Bt.	639	S505	4	7'-4"	Bt.	31					
A506	17	38'-8"	Str.	686						S506*	4	16'-8"	Str.	—					
A507	3	37'-8"	Str.	118						S507	150	3'-4"	Bt.	521					
A508	5	37'-1"	Str.	193						S508	319	6'-1"	Bt.	2023					
A509	6	21'-5"	Str.	134	P601	60	30'-11"	Str.	2,786	S509*	36	16'-7"	Str.	—					
A510	6 (2ea)	11'-11"+to16'-7" by 2"	Str.	89	P602	354	4'-10"	Str.	2,570	S510*	24	17'-8"	Str.	—					
A511	8	16'-9"	Str.	140	P603	2336	15'-0"	Str.	5,317	S511*	4	17'-0"	Str.	—					
A512	8 (2ea)	11'-8"+to21'-5" by 3"	Str.	138	P604	166	6'-0"	Str.	1,496	S512	4	6'-8"	Bt.	28					
A513	16 (2ea)	5'-6"+to8'-5" by 5"	Str.	116	P605	72	13'-8"	Str.	1,478	S513*	32	16'-2"	Str.	—					
A514	20 (2ea)	5'-5"+to8'-3" by 3 3/4"	Str.	143	P606	24	14'-8"	Str.	529	S514	49	3'-5"	Bt.	175					
A515	6 (1ea)	8'-5"+to9'-10" by 3 3/8"	Str.	57	P607	22	13'-4"	Str.	441	S515	20 (4ea)	2'-6"+to3'-10" by 1"	Bt.	76					
A516	6 (2ea)	8'-7"+to8'-9" by 1"	Str.	54	P608	22	14'-3"	Str.	471	S516	30 (5ea)	3'-11"+to4'-9" by 2"	Bt.	136					
A517	3	20'-8"	Str.	65						S517	4	4'-11"	Bt.	20					
A518	3	10'-10"	Str.	34						S518	30 (5ea)	2'-1"+to2'-11" by 2"	Bt.	78					
A519	6	18'-7"	Str.	116						S519	4	3'-1"	Bt.	13					
A520	2	23'-5"	Bt.	49	P801	208	11'-10"	Bt.	6571	S520	43 (1ea)	5'-0"+to8'-6" by 1"	Bt.	303					
A521	2	1'-3"	Str.	3						S521	43 (1ea)	3'-2"+to6'-8" by 1"	Bt.	221					
A522	2	4'-10"	Bt.	10						S522	1	8'-8"	Bt.	9					
A523	2	17'-8"	Bt.	37						S523*	4	15'-8"	Str.	—					
A524	3	16'-6"	Str.	52						S524	8	3'-8"	Bt.	31					
A525	7	39'-2"	Str.	286						S525	4	4'-9"	Bt.	20					
A526	6	84'-3"	Str.	152															
A527	3	12'-9"	Str.	40															
A528	7	38'-0"	Str.	277															
A529	6	26'-10"	Str.	168						S601	30 (1ea)	4'-8"+to32'-10" by 9/8"	Str.	1070					
A530	6	8'-9"	Str.	55						S602	420	38'-6"	Str.	24287					
A531	16 (2ea)	5'-6"+to8'-8" by 5 1/2"	Str.	118						S603	403	33'-7"	Str.	20926					
A532	3 (1ea)	8'-5"+to8'-9" by 3"	Str.	87						S604	37 (1ea)	4'-8"+to33'-5" by 9/8"	Str.	1058					
A533	16 (2ea)	5'-6"+to8'-0" by 4 1/4"	Str.	113						S605	2	15'-9"	Str.	47					
A534	17	37'-2"	Str.	659						S606	8	30'-0"	Str.	360					
A535	2	10'-1"	Bt.	21						S607	3	4'-0"	Str.	18					
A536	2	36'-4"	Str.	76						S608	2	16'-8"	Str.	50					
A537	2	11'-8"	Bt.	24						S609	414	39'-0"	Str.	24251					
A538	1	15'-6"	Str.	16						S610	104	34'-0"	Str.	5311					
A539	1	19'-0"	Str.	20						S611	36 (1ea)	4'-3"+to32'-4" by 9/8"	Str.	989					
A540	1	32'-10"	Str.	34						S612	21	34'-3"	Str.	1080					
A541	2	11'-11"	Bt.	25						S613	21	34'-0"	Str.	1072					
A542	5	1'-3"	Str.	7						S614	21	33'-9"	Str.	1064					
A543	2	35'-6"	Str.	74						S615	21	33'-7"	Str.	1059					
A544	1	32'-11"	Str.	34						S616	7	37'-1"	Str.	390					
A545	1	18'-9"	Str.	20						S617	8	36'-10"	Str.	442					
A546	1	15'-10"	Str.	17						S618	8	36'-7"	Str.	440					
A547	1	8'-3"	Str.	9						S619	8	36'-4"	Str.	436					
A548	1	9'-3"	Str.	10						S620	8	36'-1"	Str.	434					
A549	1	8'-6"	Str.	9						S621	8	35'-10"	Str.	430					
A550	1	9'-8"	Str.	10						S622	8	35'-7"	Str.	428					
										S623	8	35'-4"	Str.	424					
										S624	8	35'-1"	Str.	422					
										S625	8	34'-10"	Str.	418					
A601	117	14'-6"	Bt.	2548						S626	8	34'-7"	Str.	416					
A602	15	12'-7"	Bt.	284						S627	8	34'-4"	Str.	412					
A603	150	15'-0"	Bt.	3380						S628	42 (1ea)	4'-7"+to36'-5" by 9/8"	Str.	1288					
A604	20	15'-1"	Bt.	453						S629	3	3'-6"	Str.	16					
A605	6 (1ea)	8'-8"+to10'-1" by 3/8"	Str.	84						S630	2	21'-4"	Str.	64					
A606	10	13'-7"	Bt.	204						S631	2	15'-10"	Str.	48					
A607	6	9'-0"	Str.	81															
A 608	3 (1ea)	8'-6"+to9'-0" by 3"	Str.	39															
										S701	38 (1ea)	4'-8"+to32'-10" by 9/8"	Str.	1456					
										S702	2	16'-2"	Str.	66					
										S703	403	33'-7"	Str.	27661					
A801	42	34'-8"	Str.	3888						S704	37 (1ea)	4'-8"+to33'-5" by 9/8"	Str.	1440					
										S705	2	16'-1"	Str.	66					
										S706	8	30'-0"	Str.	490					
										S707	3	4'-0"	Str.	24					
										S708	2	17'-0"	Str.	70					
										S709	36 (1ea)	4'-3"+to32'-4" by 9/8"	Str.	1346					
										S710	21	34'-3"	Str.	1470					
										S711	21	34'-0"	Str.	1459					
										S712	21	33'-9"	Str.	1449					
										S713	21	33'-7"	Str.	1441					
										S714	7	37'-1"	Str.	330					
										S715	8	36'-10"	Str.	602					
										S716	8	36'-7"	Str.	598					
										S717	8	36'-4"	Str.	594					
										S718	8	36'-1"	Str.	590					
										S719	8	35'-10"	Str.	586					
										S720	8	35'-7"	Str.	582					
										S721	8	35'-4"	Str.	578					
										S722	8	35'-1"	Str.	574					
										S723	8	34'-10"	Str.	570					
										S724	8	34'-7"	Str.	565					
										S725	8	34'-4"	Str.	561					
										S726	42 (1ea)	4'-7"+to36'-3" by 9/8"	Str.	1755					
										S727	3	3'-6"	Str.	22					
										S728	2	21'-4"	Str.	87					

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

335
450

HAM-75-9.30

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14, RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 336 FOR BENDING DETAILS.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI · ARCHITECTS CHICAGO

REINFORCING STEEL LIST
RELOCATED GALBRAITH ROAD OVER RELOCATED MILL CREEK

HAMILTON COUNTY STA. 30+03.27 to STA. 32+31.23

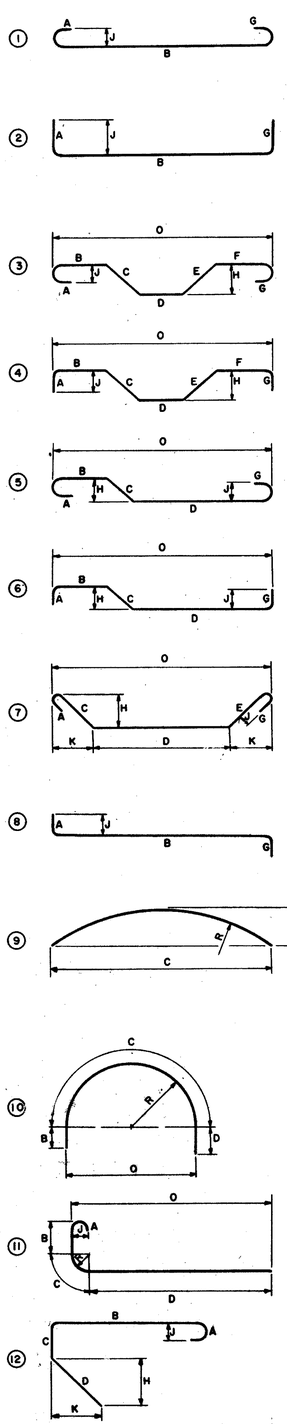
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	D.J.W.		GRH	JAD	7-8-64	

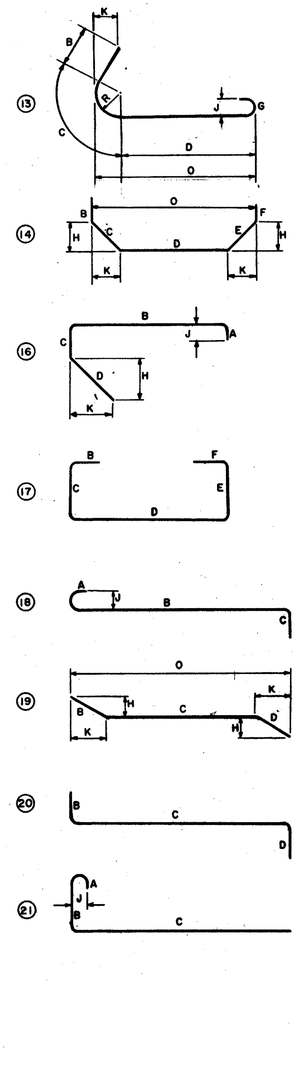
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM.-75-9.30

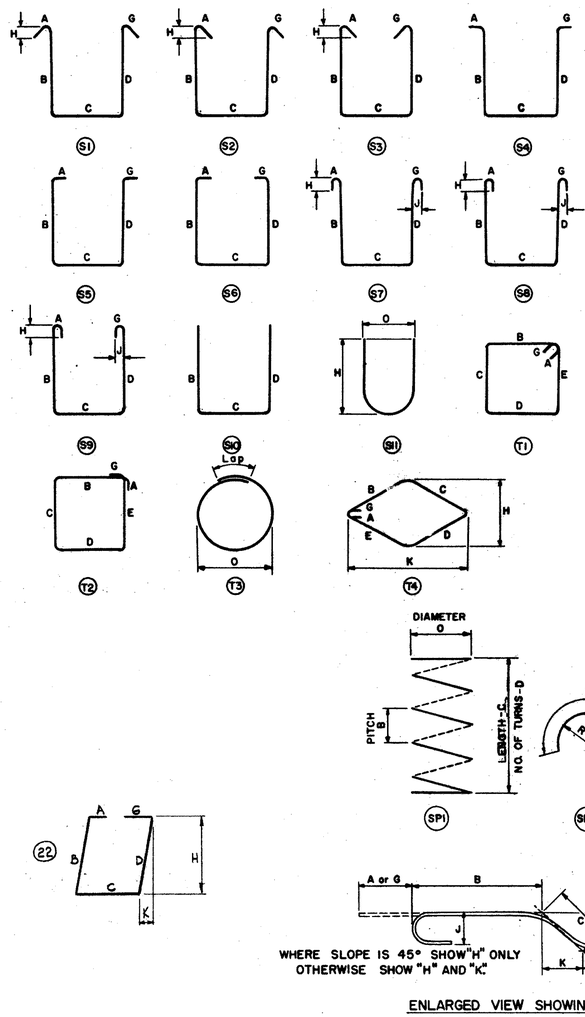
336
450

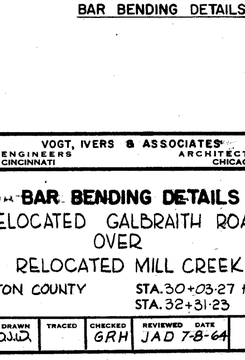
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A501	2	6"	6'7"					—		—			
A502	2	6"	4'7"					—		—			
A503	2	6"	5'5"					—		—			
A504	17		—	1'-9"	3'-5"	1'-9"							
A520	19		15'-8"	7'-9"	—				4'-7"		15'-0"		—
A522	17		—	1'-6"	2'-1"	1'-6"	—						
A523	19		8'-8"	9'-0"	—				3'-5"		8'-0"		—
A535	19		—	8'-4"	1'-9"				9"		1'-7"		—
A537	19		—	9'-11"	1'-9"				7"		1'-8"		—
A541	17		—	1'-6"	9'-2"	1'-6"	—						
A601	17		—	6'-7"	5'5"	2'10"	—						
A602	17		—	4'-8"	5'5"	2'10"	—						
A603	17		4'-5"	1'5"	6'-2"	11"	2'-9"						
A604	17		—	7'-0"	1'5"	7-0"	—						
A606	17		—	6'-3"	1'-5"	6'-3"	—						
P501	10		4'5"	4'0"	4'5"							1'3¼"	2'6'2"
P505	2	6"	2'8"					6"		—			
P602	2	8"	4'2"					—		—			
P801	1	1'1"	3'8"					1'1"		—			
S501	56	6"	1'4"	5'6"	1'4"			6"					
S502	2	6"	5'6"					6"		—			
S503	56	6"	1'4"	6'4"	1'4"			6"					
S504	56	6"	1'4"	5'8"	1'4"			6"					
S505	2	6"	6'4"					6"		—			
S507	56	6"	1'-0"	7"	1'-0"			6"					
S508	53	5"	2'5"	8"	2'5"			5"	—				
S512	2	6"	5'8"					6"		—			
S514	22	6"	1'0"	7"	1'0"			6"	1'0"		2"		
S515	22	6"	1'0"	Varies 8'to12", Incs.1"	1'0"			6"	1'0"		2"		
S516	22	6"	1'0"	" 1'1"to1'11" " 2"	1'0"			6"	1'0"		2"		
S517	22	6"	1'0"	2'1"	1'0"			6"	1'0"		2"		
S518	2	6"	Varies 1'1"to1'11" Incs.2"					—		—			
S519	2	6"	2'1"					6"		—			
S520	22	6"	1'0"	Varies 2'2"to5'8" Incs.1"	1'0"			6"	1'0"		2"		
S521	2	6"	Varies 2'2"to 5'8" Incs.1"					6"		—			
S522	2	6"	7'8"					6"		—			
S524	19		10"	2'10"	—				7"		7"		3'5"
S525	510		2'0"	1'0"	2'0"								





⑮ NOT USED

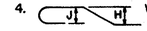




WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4.  WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-405 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BAR BENDING DETAILS

RELOCATED GALBRAITH ROAD
OVER
RELOCATED MILL CREEK

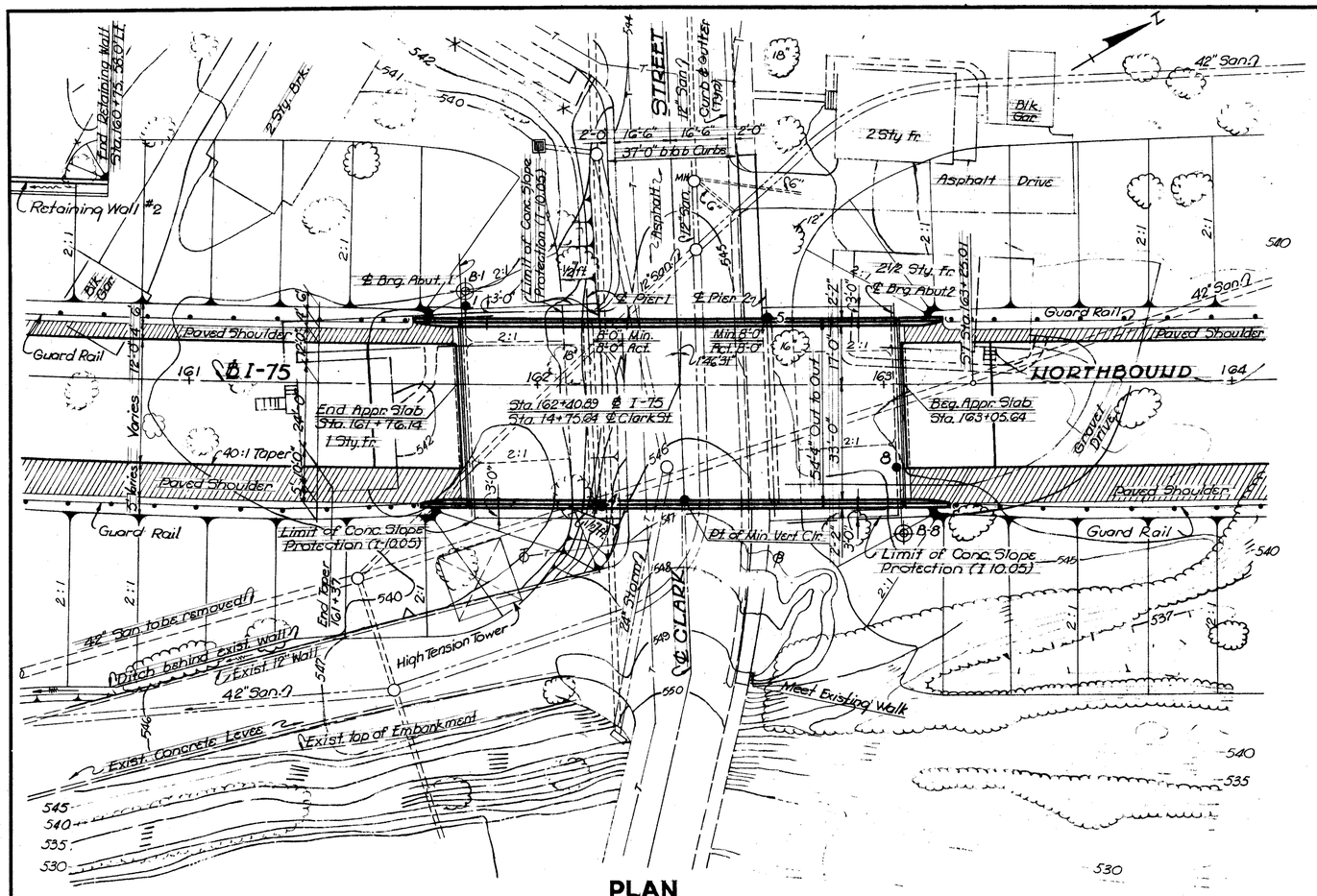
HAMILTON COUNTY — STA. 30+03.27 to STA. 32+31.23

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
	DJD		GRH	JAD 7-8-64	

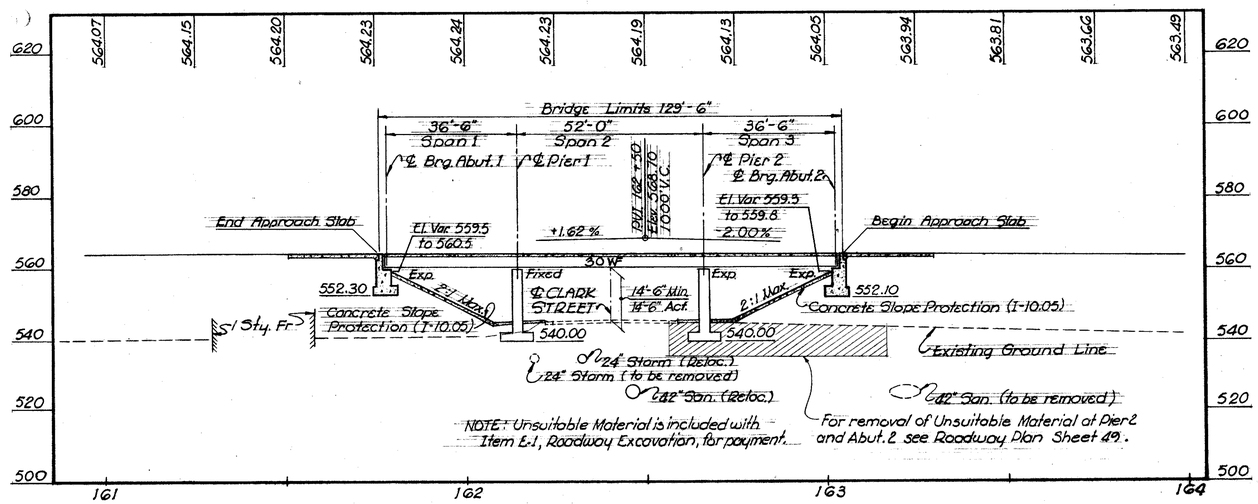
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

337
450

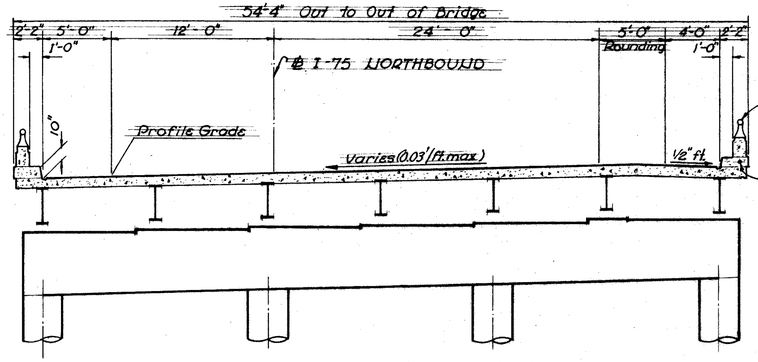
HAM-75-9.30



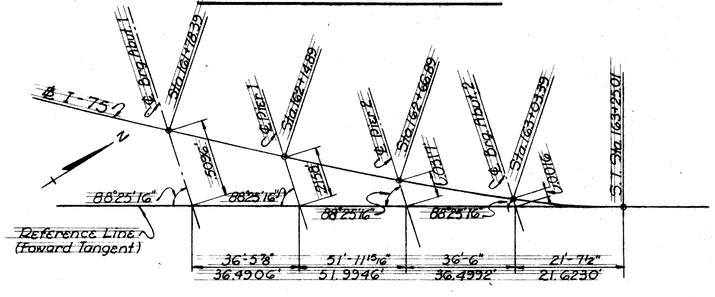
PLAN



PROFILE



TYPICAL SECTION



REFERENCE LINE LAYOUT

I-75 NORTHBOUND
CURVE DATA
P.I. Sta. 154+60.90
Δ = 32° 56' 43" Lt.
θ_s = 5° 37' 30"
Dc = 2° 30' 00"
Rc = 2291.83'
T_s = 903.70'
Ls = 450'
Lc = 867.81'

BENCH MARK ME-13 Elev. 545.138
R.R. Spike in Pole #R18-95 E, 55' Lt. Sta 162+00

NOTES

Drive Rod Penetration Resistance Sounding
Drive Sample Boring

MICROFILMED
JAN 28 1985

PROPOSED STRUCTURE

TYPE: Continuous rolled steel beam with reinforced concrete deck and substructure
SPANS: 36'-6", 52'-0", 36'-6"
ROADWAY: 52'-0" face to face of parapets.
LOAD FREQUENCY: C.F.=2000(57), adequate for AASHO alternate loading.
SKEW: 1"46'31" R.F.
WEARING SURFACE: 1" monolithic concrete.
ALIGNMENT: Spiral (L_s=450, Dc=2°30')
APPROACH SLABS: AS-1-54 (25' long)
SUPERELEVATION: Varies
A.D.T. = 60,000 (1975)

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-75-1107
I-75 NORTHBOUND
OVER CLARK STREET
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	E.P.A.	EPA & GK.	LPH.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

336
450

HAM-75-9.30

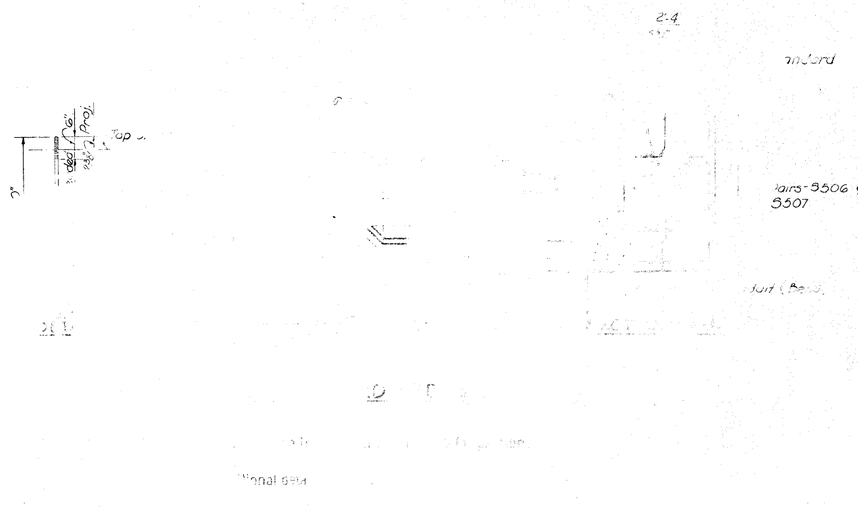
ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E-2	512	Cu. Yds.	Unclassified Excavation.	315	197				
S-1	204	Cu. Yds.	Class "C" Concrete - Superstructure.			204			
S-1	75	Cu. Yds.	Class "C" Concrete - Piers above footings.		75				
S-1	142	Cu. Yds.	Class "E" Concrete - Abutments above footings.	142					
S-1	148	Cu. Yds.	Class "E" Concrete - Pier & Abutment footings.	59	89				
S-3	18	Lin. Ft.	Waterproofing, Premolded, sealing strip.	18					
S-4	105,516	Lbs.	Reinforcing Steel.	11,045	30,881	63,590			
S-7	150,900	Lbs.	Structural Steel.			150,900			
S-8	150,900	Lbs.	Field painting of Structural Steel.			150,900			
S-14	299.49	Lin. Ft.	Railing (Type "A" aluminum rail and supports and concrete parapet).	46.66		252.83			
* S-25			Lighting System.						
S-29	91	Lin. Ft.	6" perforated helical C.M.P. M-6.4 (h) including special.	91					
S-29	117	Lin. Ft.	6" helical C.M.P. M-6.4 (h) non-perforated.	117					
S-29	48	Cu. Yds.	Porous Backfill.	48					
S-29	8	Each	Scuppers, including supports.			8			
S-101	204	Each	Water-reducing set-retarding admixture.			204			
I-10	527	Sq. Yds.	Concrete Slope Protection				527		
I-127	1	Each	Delineator, bracket-mounted, type C-2.			1			
S-9	60	Sq. Ft.	½" Preformed expansion joint filler				60		

Materials in approach slabs are not included in the above estimated quantities.

Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in item S-14 for payment.

* See Summary of Bridge Lighting Quantities, Sheet No. 265, for Details, Description, Unit & Quantity.



GENERAL NOTES

REFERENCE shall be made to the following-
Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
SD-1-63, Sheet 1, 2, 3, & 4 of 4, dated 11-12-63
FSB-1-62, revised 1-15-63
Supplemental Specifications: S-307 dated 8-23-60
S-101 dated 7-12-62

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 includes the removal of fill material required for construction of the abutments.

DESIGN LOADING -CF 2,000 (57)

CONCRETE CLASS "C"-Basic unit stress 1,333 p. s. i.
CONCRETE CLASS "E" -Basic unit stress 1,133 p. s. i.

STRUCTURAL STEEL - ASTM A36, basic unit stress 20,000 p. s. i. (ASTM A7, and A373 steel not permitted)

REINFORCING STEEL - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000p. s. i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p. s. i.

FOUNDATION BEARING PRESSURE: Abutment and Pier footings are designed for a maximum bearing pressure of 2.0 tons per sq. ft.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor, be made in the shop. Class B welds are shown thus: B>—

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. S-7.12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of checking the fit-up weld preparation, only two adjacent beams need be shop assembled at a time in their correct, unloaded positions. All beams shall be assembled and match marked.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections, between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22, Rubbed Finish, shall apply to the following exposed concrete surfaces:

A. The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
B. The entire surface of piers and abutmenst except bridge seats, backwalls and the face of spill-through abutments between outside beams.

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

UTILITY LINES: All expenses invloved 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.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

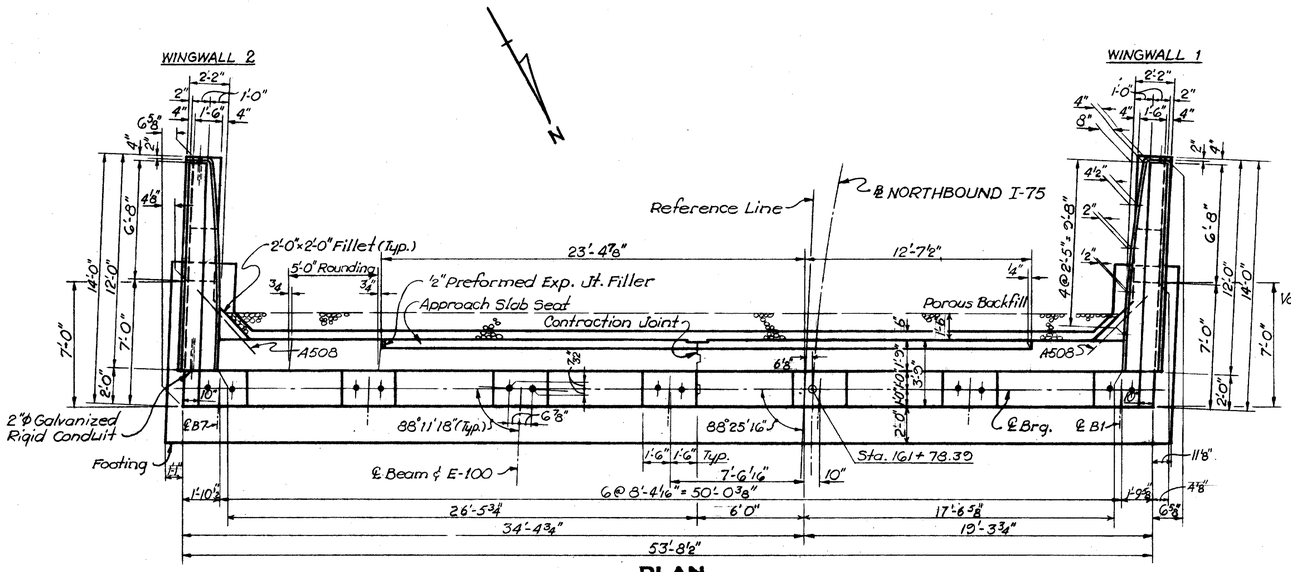
ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE No. HAM-75-1107
I-75 NORTHBOUND Over CLARK STREET
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W	J.A.D.	7-8-64	

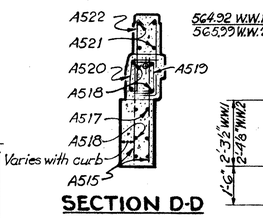
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM. 75-9.30

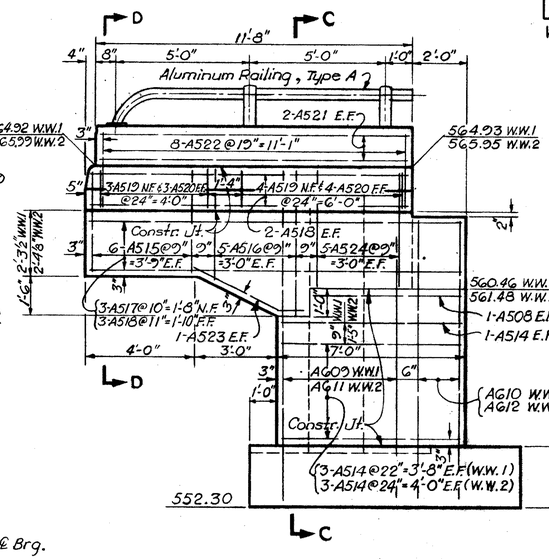
343
450



PLAN

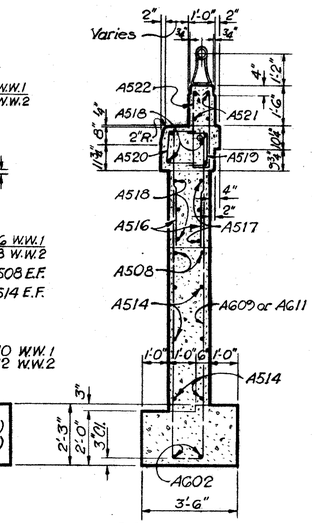


SECTION D-D

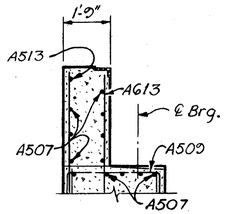


ELEVATION - WINGWALL 2

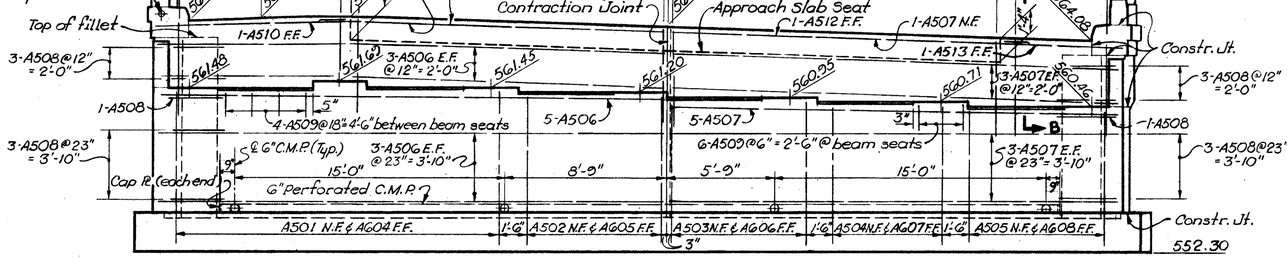
Wingwall 1 similar



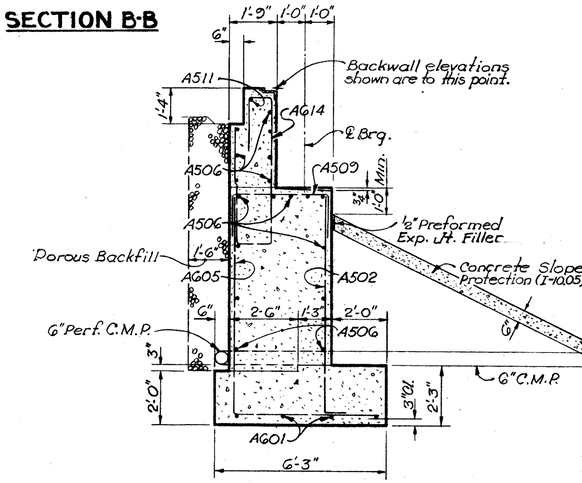
SECTION C-C



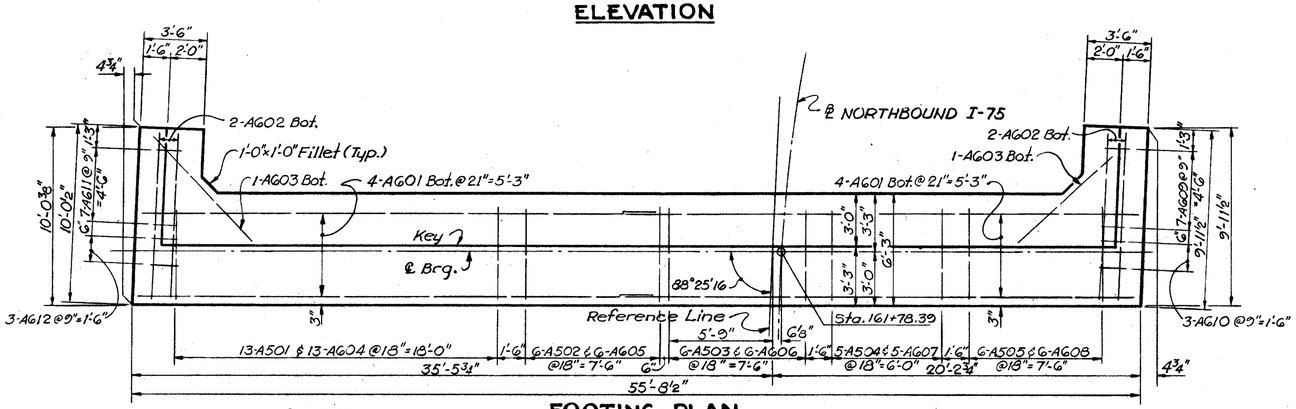
SECTION B-B



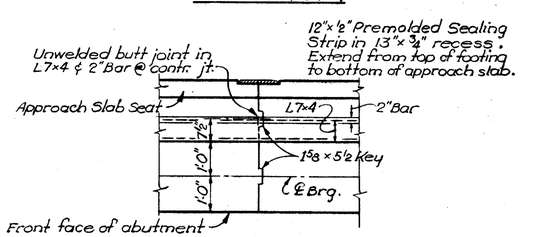
ELEVATION



SECTION A-A



FOOTING PLAN



CONTRACTION JOINT DETAIL

NOTES

1. For reference line layout, see Sh. 337.
2. Porous backfill, 1'-6" thick, full length of abutment, shall extend up to the bottom of approach slab or paved shoulder. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cubic yard paid for porous backfill.
3. The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance 200 feet back of the abutment, after which excavation shall be made.
4. Special care shall be taken in placing reinforcing steel in vicinity of bridge seat so as to avoid interference with the drilling of anchor rod holes.
5. Aluminum railing shall be continuous for the full length of wingwalls.
6. For end dam details, see Std. Dwg. SD-1-63 Sh. 2 of 4.
7. For Lighting Details, see Sh. 338.
8. Legend:

N.F. = Near Face
F.F. = Far Face
E.F. = Each Face
W.W. = Wingwall

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1

BRIDGE NO. HAM-75-1107
NORTHBOUND I-75
OVER CLARK STREET

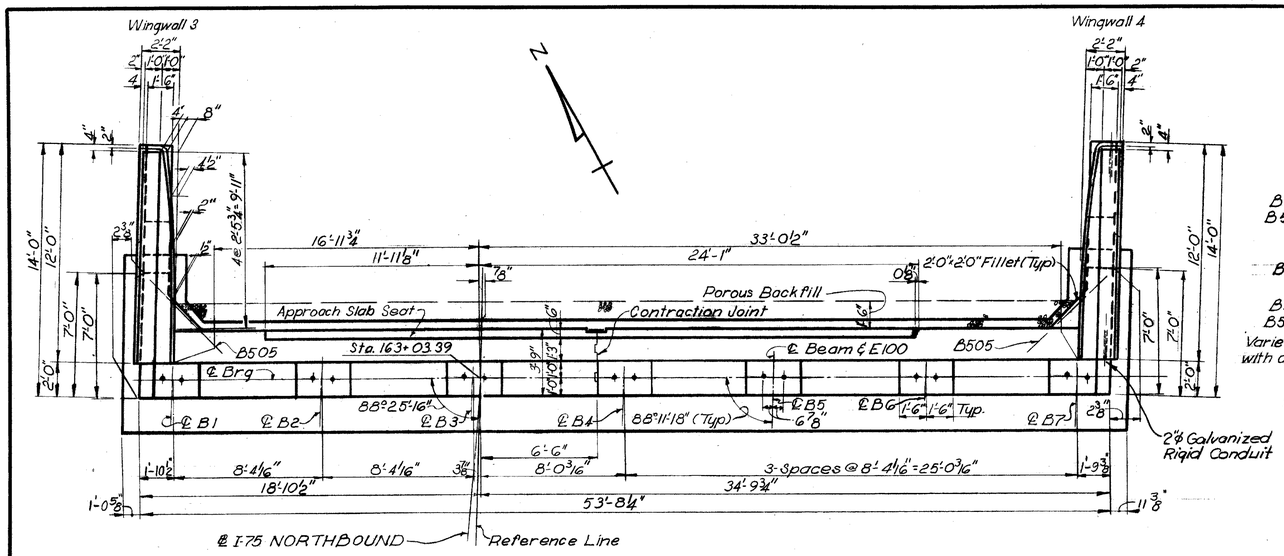
HAMILTON COUNTY — STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	J.C.H.	~	G.R.H.	J.A.D.	7-8-64	

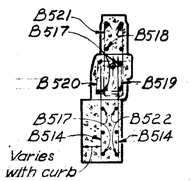
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

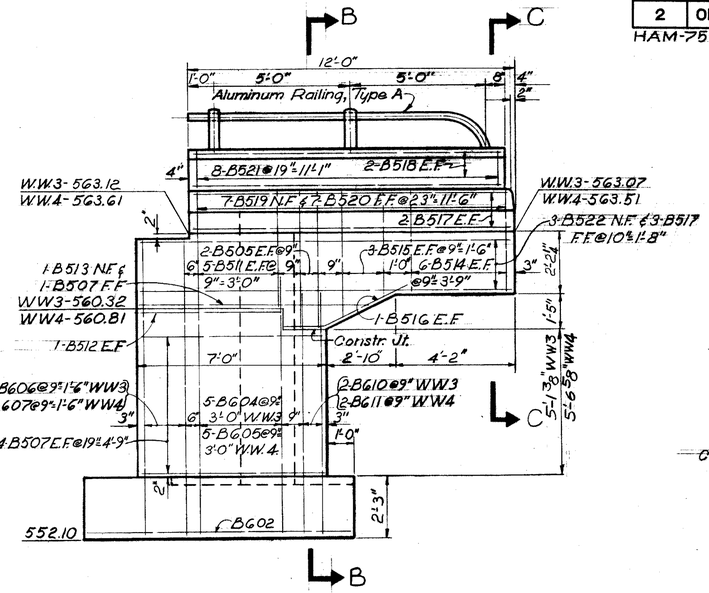
344
450



PLAN

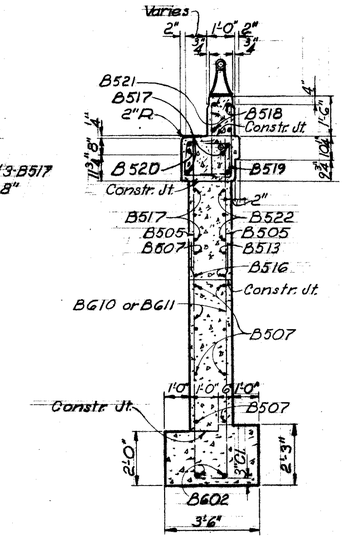


SECTION C-C

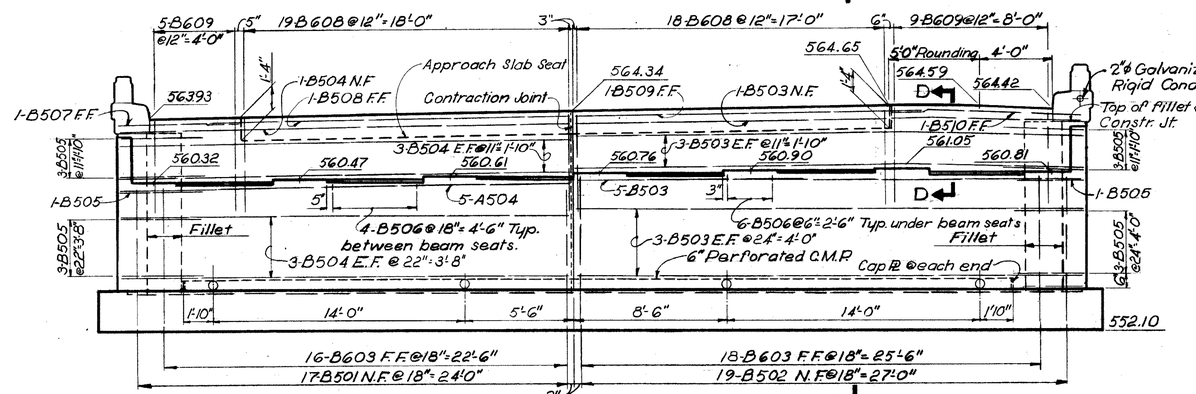


ELEVATION—WINGWALL 4

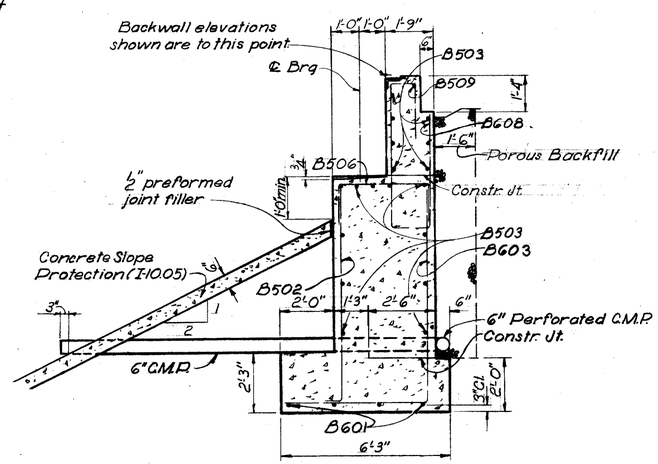
Wingwall 3 similar



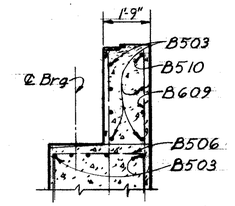
SECTION B-B



ELEVATION



SECTION A-A



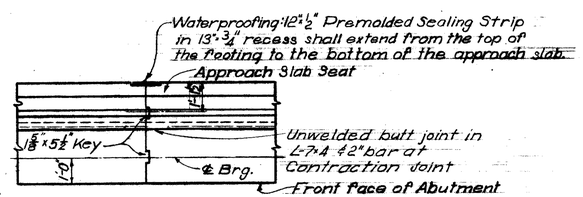
SECTION D-D

NOTES:

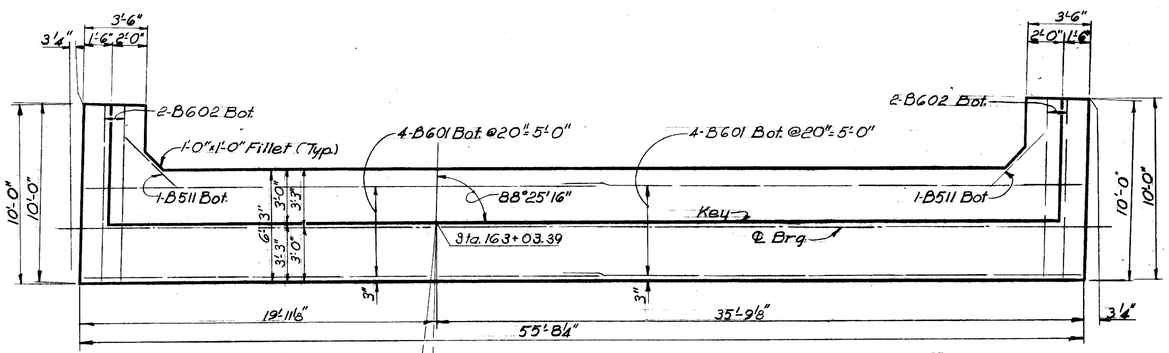
See notes 1,2,3,4,5,6,&7 of Abutment 1, Sheet 343

LEGEND:

N.F. = Near Face
F.F. = Far Face
E.F. = Each Face
W.W. = Wingwall



CONTRACTION JOINT DETAIL



FOOTING PLAN

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ABUTMENT 2

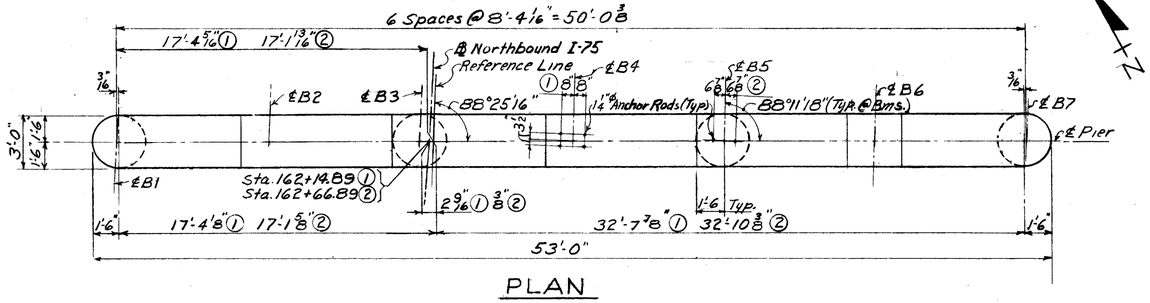
BRIDGE NO. HAM-75-1107
NORTHBOUND I-75
OVER CLARK STREET
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
CJF	CJF	GJW	M.E.	JAD	7-8-64	

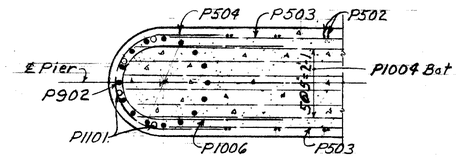
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

345
450

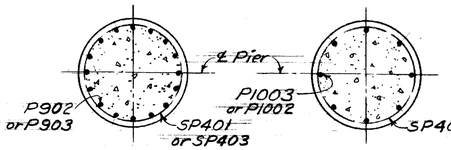
HAM. 75-9.30



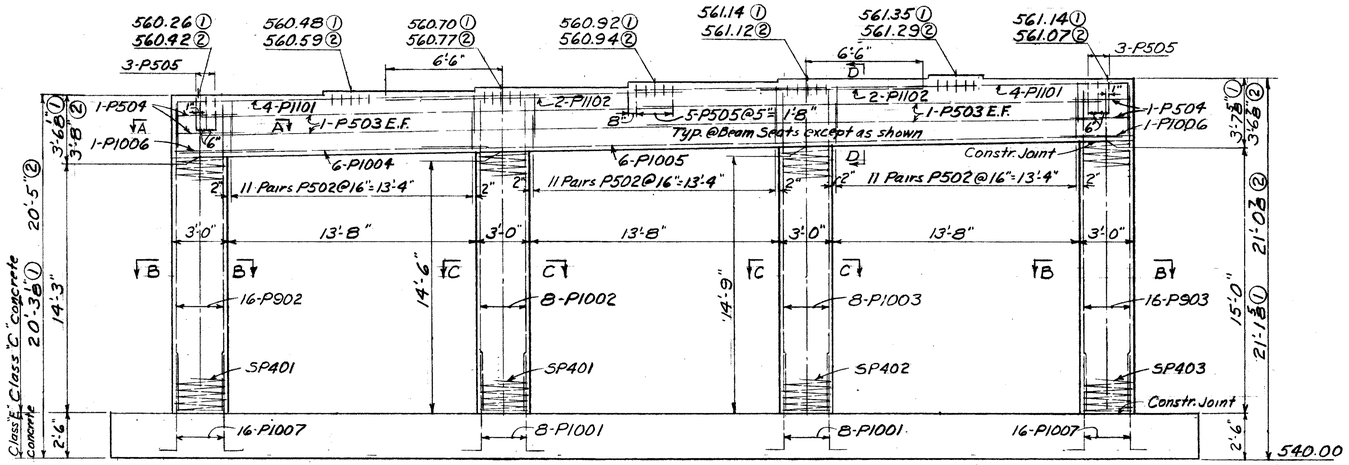
PLAN



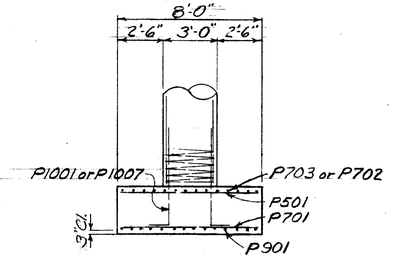
SECTION A-A



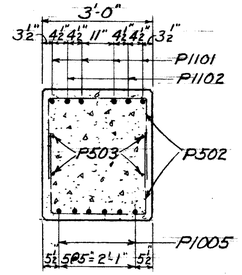
SECTION B-B SECTION C-C



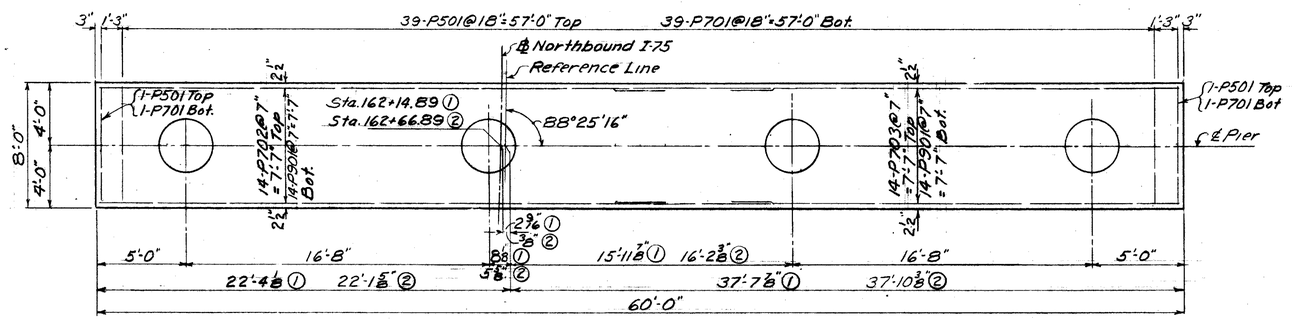
ELEVATION



PART END VIEW



SECTION D-D



FOOTING PLAN

NOTES

Place reinforcing in pier cap so as not to interfere with drilling of anchor rod holes.

For Reference Line Layout see Sheet 337.

ELECTRICAL GROUND, per sheet 26, install in right end of pier 1.

LEGEND:

E.F. Denotes "Each Face"
① Denotes "Pier 1
② Denotes "Pier 2

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1 & 2
BRIDGE NO. HAM-75-1107
NORTHBOUND I-75
OVER CLARK STREET

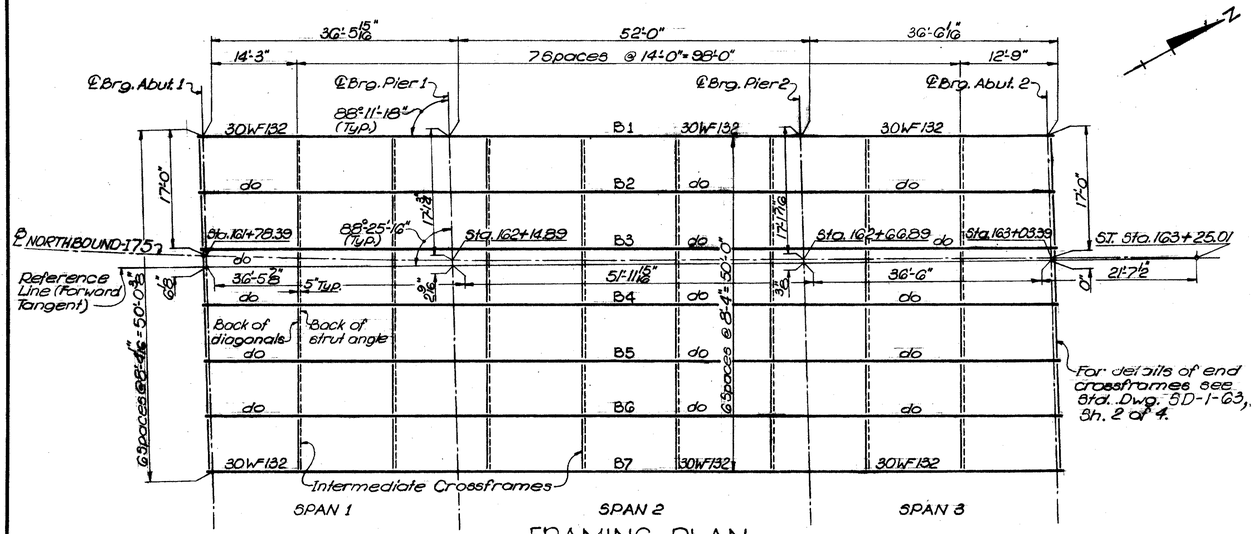
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DJF	DJF	~	G.R.H.	JAD	7-8-64	

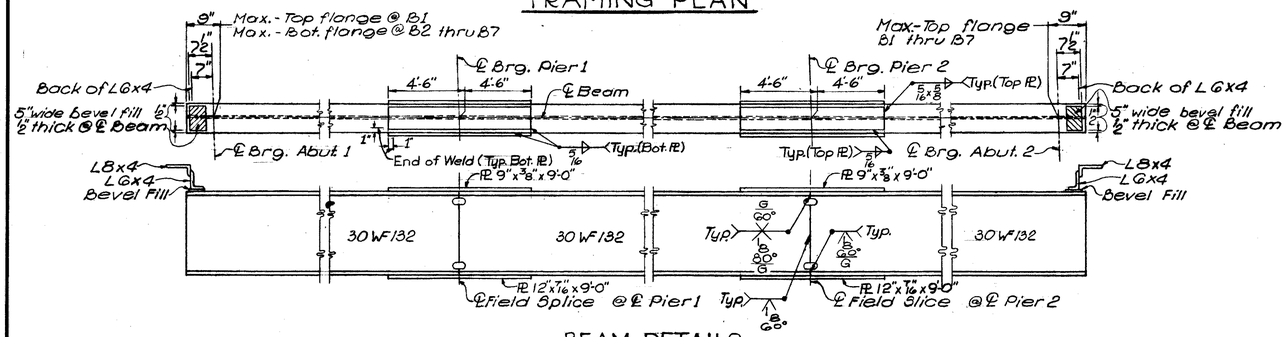
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

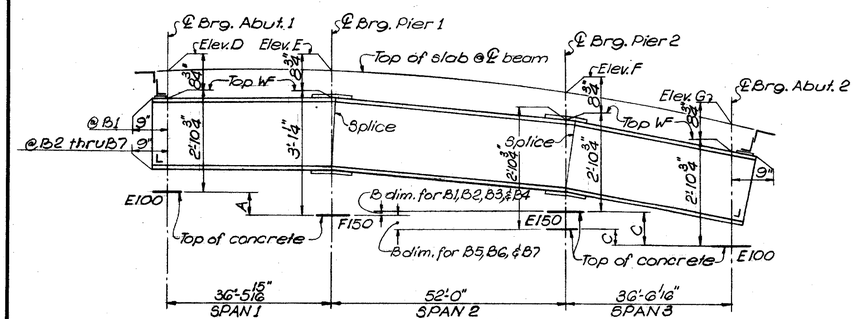
346
450



FRAMING PLAN



BEAM DETAILS

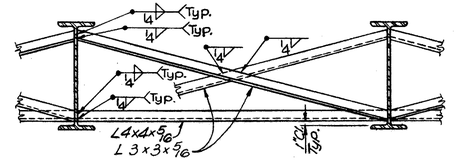


ELEVATION LAYOUT

DEFLECTION & CAMBER		
ITEM	B1 Thru B7	
	SPAN 1 & 3	SPAN 2
Deflection due to weight of steel	0"	1/16"
Deflection due to remaining dead load	1/16"	1/4"
Convexity required for Vertical curve	1/16"	3/16"
Sum of deflections and convexity	1/8"	1/2"
Shop camber required	0"	0"

BEAM	DIM. A	DIM. B	DIM. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G
B1	2 3/8"	1 7/8"	1 1/4"	564.08	*564.10	*564.04	563.94
B2	2 3/4"	1 5/8"	1 1/2"	564.33	564.32	564.22	564.09
B3	3"	1 3/8"	1 5/8"	564.58	564.53	564.39	564.24
B4	3 3/8"	1/4"	2 1/8"	564.83	564.75	564.57	564.38
B5	3 3/4"	1/4"	2 5/8"	565.08	564.97	564.74	564.53
B6	4 1/8"	3/4"	2 3/8"	565.32	565.18	564.92	564.67
B7	4 1/8"	7/8"	3 1/8"	565.10	564.97	564.69	*564.43

*Beam lies outside the curb line at this point; elevation given is the theoretical extension of roadway surface.



INTERMEDIATE CROSSFRAME DETAIL

BEAM SPLICE WELDING PROCEDURE

1. No raise required at the ends of beams.
2. Butt-weld the beam flanges and web, using the following sequence: make two passes on the web, then two on each flange; repeat, using one pass at each location, until welds are completed.
3. Any roughness from burning shall be removed by grinding.

NOTES:

1. For Reference Line Layout, see Sh. 337.
2. For end dam details, see Std. Dwg. SD-1-63, Sh. 2 of 4.
3. For scupper locations, see Sh. 347.
4. For scupper and bulb angle gutter details, see Std. Dwg. SD-1-63, Sh. 3 of 4.
5. For Fixed and Sliding bearing details, see Std. Dwg. FBB-1-62, Revised 1-15-63.
6. For curb plate details see Std. Dwg. SD-1-63, Sh. 4 of 4.
7. For end preparation of rolled beams for field welding, see Detail C, Std. Dwg. SD-1-63, Sh. 1 of 4.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN

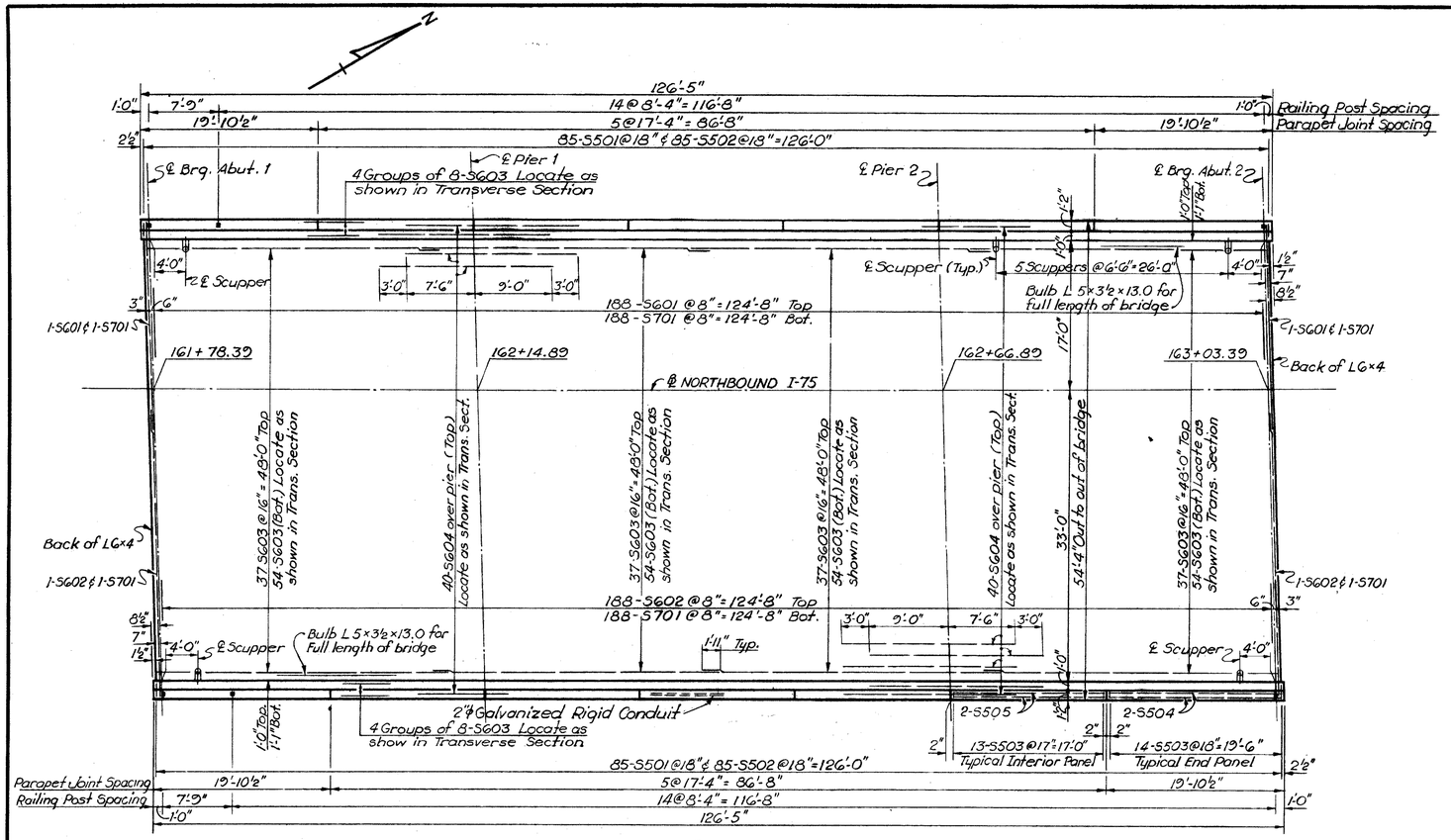
BRIDGE NO. HAM-75-1107
NORTHBOUND I-75
OVER CLARK STREET
HAMILTON COUNTY STA. 161+76.14
STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.P.A.	J.T.	~	D.J.F.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

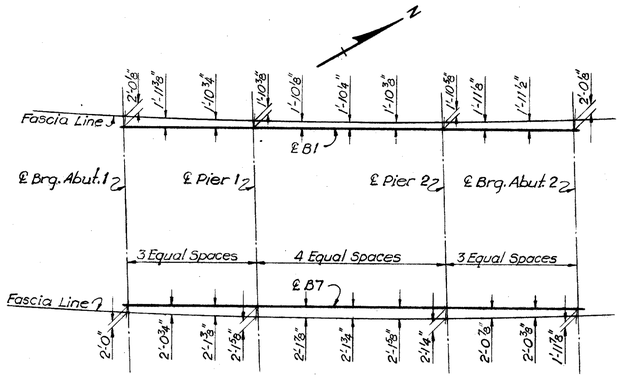
HAM. 75-9.30

347
450



PLAN

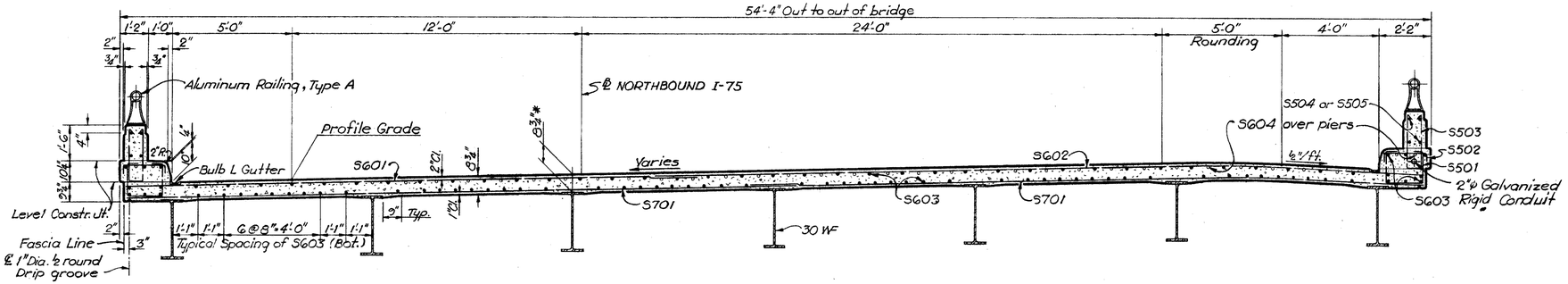
NOTE: Offset dimensions to fascia line are perpendicular to exterior beam.



OFFSETS - EXTERIOR BEAM TO SLAB FASCIA

PAVEMENT ELEVATIONS

STATION	PROFILE GRADE	LEFT CURB	℄ N.B. I-75	24' RIGHT ℄	29' RIGHT ℄	RIGHT CURB
161+75	564.23	564.08	564.59	565.31	565.28	565.12
162+00	564.24	564.10	564.57	565.23	565.20	565.03
162+25	564.22	564.10	564.53	565.13	565.09	564.92
162+50	564.19	564.07	564.46	565.01	564.96	564.79
162+75	564.13	564.02	564.37	564.86	564.81	564.64
163+00	564.04	563.95	564.26	564.69	564.63	564.47
163+25	563.94	563.86	564.13	564.50	564.44	564.27



TRANSVERSE SECTION

DECK SLAB HAUNCH: The haunch in the deck slab adjacent to the top of the steel beams, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12", except that the maximum slope shall not exceed 3 inches per foot. Payment for deck slab concrete shall be based on the 9" width.

* This is a nominal dimension. The quantity of deck concrete to be paid for shall be based on this dimension even though deviation from it may be necessary because the top flange of the beam may not have the exact camber or conformation required to place it parallel to the finished grade.

NOTES

1. Slab thickness includes 1" monolithic wearing surface.
2. Spread or cut longitudinal reinforcing steel in slab to clear scuppers.
3. For scupper and gutter details, see SD-1-63, Sheet 3.
4. For railing and parapet joint details, see Std. Dwg. AR-1-57.
5. For end dam details, see SD-1-63, Sheets 2 & 4.
6. Delineator bracket, type C-2, shall be mounted on the aluminum handrail right of ℄ Northbound I-75 at Sta. 162+43.

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SUPERSTRUCTURE ROADWAY SLAB

BRIDGE NO. HAM-75-1107
NORTHBOUND I-75
OVER CLARK STREET
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	J.C.H.	~	D.J.F.	J.A.D.	7-8-64	

ABUTMENTS					PIERS					SUPERSTRUCTURE					REPLACEMENT BARS				
MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT	MARK	NO.	LENGTH	TYPE	WEIGHT
A501	13	9'-2"	Bt.	124	P501	82	7'-8"	Str.	656	S501	170	4'-11"	Bt.	872	RE4	1	5'-3"	Bt.	–
A502	6	8'-11"	Bt.	56	P502	132	7'-1"	Bt.	977	S502	170	2'-8"	Bt.	473	RE5	1	5'-7"	Str.	–
A503	6	8'-8"	Bt.	54	P503	116	25'-9"	Str.	429	S503	186	5'-7"	Bt.	1083	RE6	2	5'-11"	Str.	–
A504	5	8'-5"	Bt.	44	P504	8	7'-3"	Bt.	61	S504*	16	19'-6"	Str.	—	RE7	2	6'-3"	Str.	–
A505	6	8'-2"	Bt.	51	P505	62	3'-8"	Bt.	239	S505*	40	17'-0"	Str.	—	RE8	–	–	–	–
A506	18	27'-11"	Str.	524											RE9	1	6'-10"	Str.	–
A507	18	25'-1"	Str.	471											RE10	1	7'-3"	Str.	–
A508	18	5'-5"	Str.	102											RE11	1	7'-7"	Str.	–
A509	66	6'-6"	Bt.	448	P701	82	7'-8"	Str.	1285	S601	190	23'-8"	Str.	6754					
A510	1	10'-5"	Str.	11	P702	28	37'-0"	Str.	2118	S602	190	32'-0"	Str.	9132					
A511	1	18'-10"	Str.	20	P703	28	24'-10	Str.	1421	S603	428	32'-10½"	Str.	21,139					
A512	1	19'-10"	Str.	21						S604	80	12'-6"	Str.	2343					
A513	1	6'-5"	Str.	7															
A514	16	6'-8"	Str.	111															
A515	24	3'-7"	Str.	90	P901	56	31'-2"	Str.	5934										
A516	4 Set of 5	Varies 3'-10½" to 5'-2" Incr 4"	Str.	94	P902	32	17'-4"	Str.	1889	S701	380	28'-0"	Str.	21,748					
					P903	32	18'-2"	Str.	1977										
A517	6	13'-8"	Str.	86															
A518	14	11'-7"	Str.	169															
A519	14	3'-1"	Bt.	45															
A520	14	2'-11"	Bt.	43	P1001	32	6'-7"	Bt.	906										
A521*	8	11'-4"	Str.	—	P1002	16	17'-9"	Str.	1221										
A522	16	6'-10"	Bt.	114	P1003	16	18'-2"	Str.	1251										
A523	4	4'-5"	Bt.	18	P1004	12	15'-2"	Str.	785										
A524	20	4'-3"	Str.	87	P1005	12	40'-1"	Str.	2070										
					P1006	4	9'-9"	Bt.	168										
					P1007	64	8'-1"	Bt.	2226										
B501	17	8'-3"	Bt.	146															
B502	19	8'-8"	Bt.	172															
B503	18	27'-10"	Str.	522	P1101	16	30'-9"	Bt.	2614										
B504	18	24'-11"	Str.	468	P1102	8	11'-0"	Str.	466										
B505	22	5'-0"	Str.	115															
B506	66	6'-4"	Bt	436															
B507	19	6'-8"	Str.	132															
B508	1	20'-0"	Str.	21	SP401	4	14'-3"	Bt.	1074										
B509	1	19'-0"	Str.	20	SP402	2	14'-7½"	Bt.	550										
B510	1	10'-7"	Str.	11	SP403	2	15'-0"	Bt.	564										
B511	22	4'-2"	Str.	96															
B512	4	5'-5"	Str.	23															
B513	2	8'-8"	Str.	18															
B514	24	3'-6"	Str.	88															
B515	4 Set of 3	Varies 3'-11" to 4'-7", 4" incr.	Str.	53															
B516	4	4'-9"	Bt.	20															
B517	14	11'-8"	Str.	170															
B518*	8	11'-4"	Str	—															
B519	14	3'-1"	Bt.	45															
B520	14	2'-11"	Bt.	43															
B521	16	6'-11"	Bt.	115															
B522	6	13'-8"	Str.	86															
A601	8	28'-7"	Str.	344															
A602	4	9'-7"	Str.	58															
A603	2	8'-0"	Str.	24															
A604	15	14'-0"	Bt.	274															
A605	6	13'-9"	Bt.	124															
A606	6	13'-6"	Bt.	122															
A607	5	13'-3"	Bt	100															
A608	6	13'-0"	Bt.	117															
A609	7	20'-6"	Bt	216															
A610	3	18'-11"	Bt	85															
A611	7	22'-6"	Bt.	237															
A612	3	21'-0	Bt.	95															
A613	16	12'-1"	Bt.	290															
A614	37	13'-3"	Bt.	736															
B601	8	28'-8"	Str.	344															
B602	4	9'-6"	Str.	57															
B603	34	12'-11"	Bt.	660															
B604	5	20'-6"	Bt.	154															
B605	5	21'-0"	Bt.	161															
B606	3	19'-2"	Bt.	86															
B607	3	20'-0"	Bt.	90															
B608	37	12'-11"	Bt.	718															
B609	14	11'-9"	Bt.	247															
B610	2	18'-10"	Bt.	57															
B611	2	19'-8"	Bt.	59															

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

348
450

HAM-75-9.30

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14, RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 349 FOR BENDING DETAILS.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-75-1107
I-75 NORTHBOUND
OVER CLARK STREET
HAMILTON COUNTY STA. 1G1+76.14 to STA. 1G3+05.64

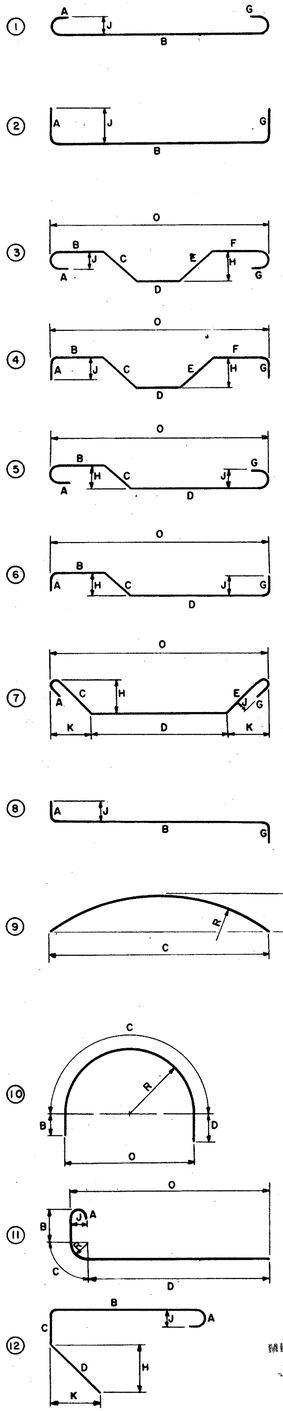
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	GK		GRH	J.A.D.	7-8-64	

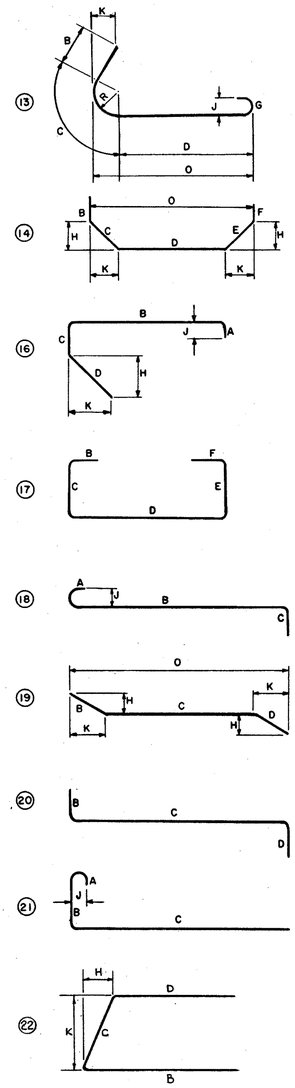
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

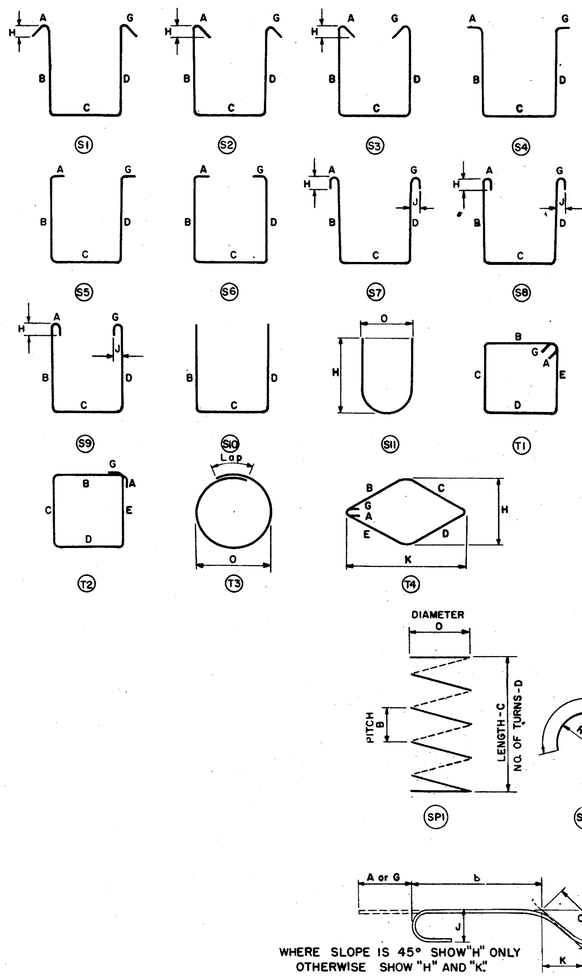
349
450

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A501	2	6"	8'-8"										
A502	2	6"	8'-5"										
A503	2	6"	8'-2"										
A504	2	6"	7'-11"										
A505	2	6"	7'-8"										
A509	17		1'-8"	3'-5"	1'-8"								
A519	17		1'-0"	1'-4"	1'-0"								
A520	22		1'-0"	1'-4"	1'-0"				2"		1'-4"		
A522	S3	5"	2'-10"	8"	2'-10"			5"					
A523	14		1'-1"	3'-4"					3'-0"		1'-6"		
B501	2	6"	7'-9"										
B502	2	6"	8'-2"										
B506	17			1'-7"	3'-5"	1'-7"							
B516	16			1'-0"	3'-5"				3'-4"		1'-8"		
B519	17			1'-0"	1'-4"	1'-0"							
B520	22		1'-0"	1'-4"	10"				2"		1'-4"		
B521	S3	5"	2'-10"	8"	2'-10"			5"					
AG04	17		8'-8"	5'-5"									
AG05	17		8'-5"	5'-5"									
AG06	17		8'-2"	5'-5"									
AG07	17		7'-11"	5'-5"									
AG08	17		7'-8"	5'-5"									
AG09	17		9'-10"	1'-2"	9'-10"								
AG10	17		7'-5"	1'-2"	10'-4"								
AG11	17		10'-10"	1'-2"	10'-10"								
AG12	17		8'-9"	1'-2"	11'-4"								
AG13	17		5'-6"	1'-5"	5'-6"								
AG14	17		4'-2"	1'-5"	5'-6"	11"	1'-11"						
BG03	17			5'-5"	7'-8"								
BG04	17			9'-10"	1'-2"	9'-10"							
BG05	17			10'-4"	1'-2"	10'-4"							
BG06	17			10'-6"	1'-2"	7'-10"							
BG07	17			10'-11"	1'-2"	8'-3"							
BG08	17		2'-0"	10"	5'-4"	1'-5"	4'-0"						
BG09	17				5'-4"	1'-5"	5'-4"						
BG10	17			9'-0"	1'-2"	9'-0"							
BG11	17			9'-5"	1'-2"	9'-5"							
S501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
S502	2	6"	1'-8"					6"					
S503	S3	5"	2'-2"	8"	2'-2"			5"					
S506	19		10"	2'-10"	-				7"		7"		3'-5"
S507	S10		2'-0"	1'-0"	2'-0"								
P502	17		2'-4"	2'-8"	2'-4"								
P504	10		1'-7"	4'-2"	1'-7"							1'-4"	2'-8"
P505	2	6"	2'-8"					6"					
P1001	2	1'-1"	5'-6"										
P1006	10		3'-3"	3'-5"	3'-3"								
P1007	2	1'-1"	7'-0"										
P1101	17		28'-0"	3'-1"									
SP401	SP1		4'2"	14'-3"	41								2'-8"
SP102	SP1		4'2"	14'-7½"	42								2'-8"
SP403	SP1		4'2"	15'-0"	43								2'-8"
RE 4	SP2		5'-3"									1'-4"	



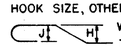


⑮ NOT USED



ENLARGED VIEW SHOWING BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4.  WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-405 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BAR BENDING DETAILS

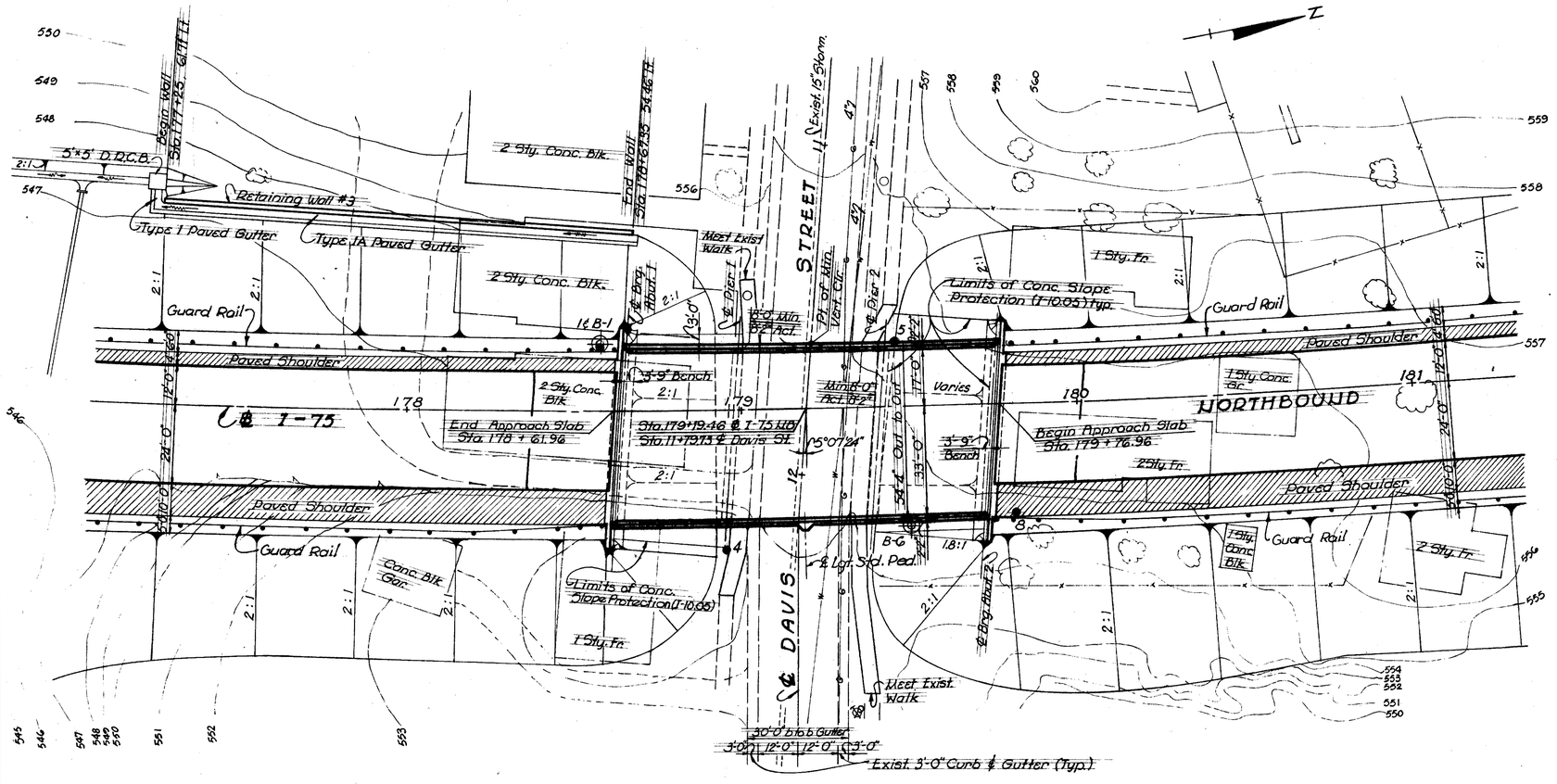
~~BRIDGE NO. HAM-75-1107~~
~~I-75 NORTHBOUND~~
~~OVER CLARK STREET~~
HAMILTON COUNTY STA. 161+76.14 to STA. 163+05.64

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	GK		GRH	J.A.D.	7-8-64	

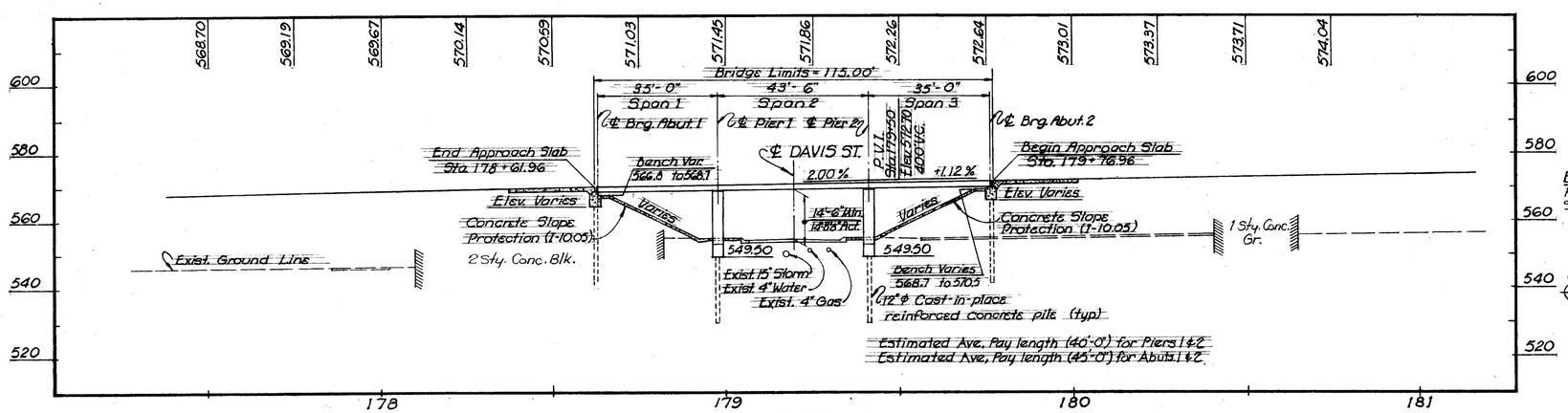
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

350
450

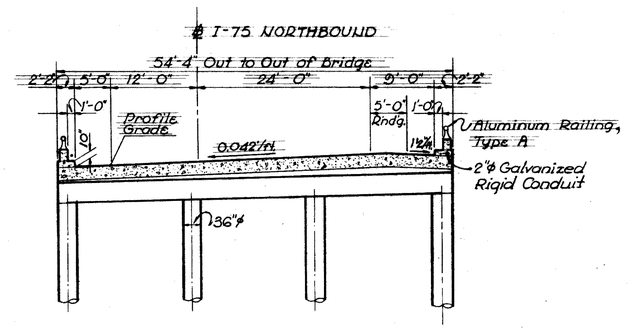
HAM - 75 - 9.30



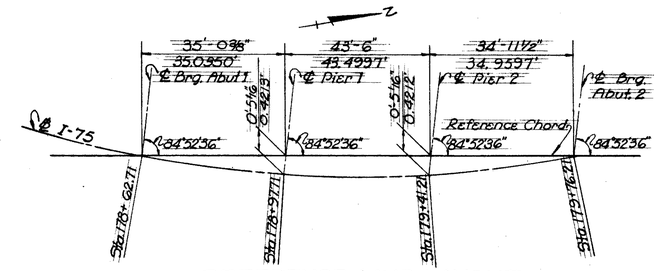
PLAN



PROFILE



TYPICAL SECTION



REFERENCE LINE LAYOUT

℄ I-75 NORTHBOUND CURVE DATA

P.I. Sta. 180 + 15.27
Δ = 40°00'30" Lt.
D_c = 1°45'00"
R_c = 3274.04'
L_c = 1936.13'
θ_s = 3°03'45"
L_s = L_{s_2} = 350'
T_L = T_2 = 1367.98'

BENCH MARK ME-15 Elev. 554.209
R.R. Spike in Pole North side of Davis St., 93' Rt. Sta. 179+33

NOTES

- Drive Rod Penetration Resistance Sounding
- Drive Sample Boring

PROPOSED STRUCTURE

TYPE: Continuous reinforced concrete, slab bridge, with reinforced concrete substructure.
SPANS: 35'-0", 43'-6", 35'-0"
ROADWAY: 52'-0" face to face of parapets.
LOAD FREQUENCY: C.F. = 2000 (57)
Adequate for AASHO alternate loading.
SKEW: 5°07'24" L.F.
WEARING SURFACE: 1" Monolithic concrete.
APPROACH SLABS: AS-1-54 (25' Long).
ALIGNMENT: 725' Curve left.
SUPERELEVATION: 0.042'/ft.
A.D.T. = 55,000 (C.V. ≈ 7%).

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SITE PLAN

BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND Over
DAVIS STREET
HAMILTON COUNTY STA. 178 + 61.96 to STA. 179 + 76.96

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISION
Aerial	Aerial	A.Y.	D.J.V. & G.K.	L.P.H.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

351
450

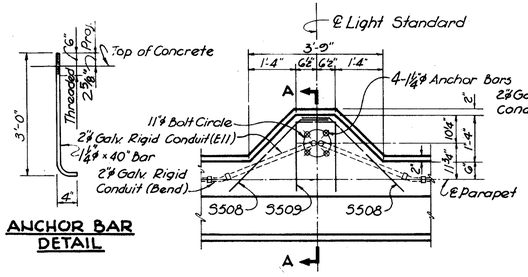
ESTIMATED QUANTITIES

ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER-STRUCTURE	GENERAL		
E - 2	250	Cu. Yds.	Unclassified Excavation.	136	114				
S - 1	388	Cu. Yds.	Class "C" Concrete - Superstructure.			388			
S - 1	56	Cu. Yds.	Class "C" Concrete - Piers above footings.		56				
S - 1	64	Cu. Yds.	Class "E" Concrete - Abutments.	64					
S - 1	44	Cu. Yds.	Class "E" Concrete - Pier footings.		44				
S - 4	131,142	Lbs.	Reinforcing Steel.	7,436	30,107	93,599			
S - 9	12	Sq. Ft.	½" Preformed expansion joint filler.	12					
S - 14	230	Lin. Ft.	Railing (Type "A" aluminum rail and supports and concrete parapet)			230			
S - 16		Lump Sum	First test pile.						
S - 18	2,350	Lin. Ft.	12" Cast-in-place reinforced concrete piles.	990	1,360				
* S - 25			Lighting System.						
S - 29	29	Cu. Yds.	Porous Backfill.	29					
S - 29	16	Each	Scuppers. 6" dia. W.I. pipe			16			
S - 101	388	Each	Water reducing set-retarding admixture.			388			
T - 10	512	Sq. Yds.	Concrete Slope Protection.				512		

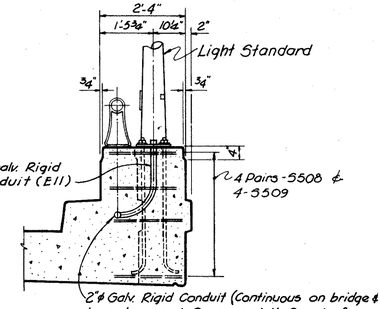
Materials in approach slabs are not included in the above estimated quantities.

Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in item S-14 for payment.

* See Summary of Bridge Lighting Quantities, Sheet No. 265, for Details, Description, Unit & Quantity.



ANCHOR BAR DETAIL



SECTION A-A

LIGHT STANDARD PEDESTAL

Anchor bars are included with item S-25 for payment.

For additional details, see sh. 262.

GENERAL NOTES

REFERENCE shall be made to the following-

Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
A-2-54, revised 12-1-54
CS-2-54, Sheets 1&2 of 2, revised 2-2-59

Supplemental Specifications: S-101, dated 7-12-62

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.

DESIGN LOADING ~CF 2,000 (57)

CONCRETE CLASS "C"-Basic unit stress 1,333 p. s. i.
CONCRETE CLASS "E"-Basic unit stress 1,133 p. s. i.

REINFORCING STEEL - ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20,000 p. s. i. Except, spiral reinforcement may be plain, Structural Grade with basic unit stress of 18,000 p. s. i.

EXCAVATION QUANTITY includes the removal of fill material required for construction of the abutments.

UTILITY LINES: All expenses 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.

PILES shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and piers.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1.22 Rubbed Finish, shall apply to the following exposed concrete surfaces:

a. The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
b. The entire surface of piers and the exposed surface of abutment wing walls.

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

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

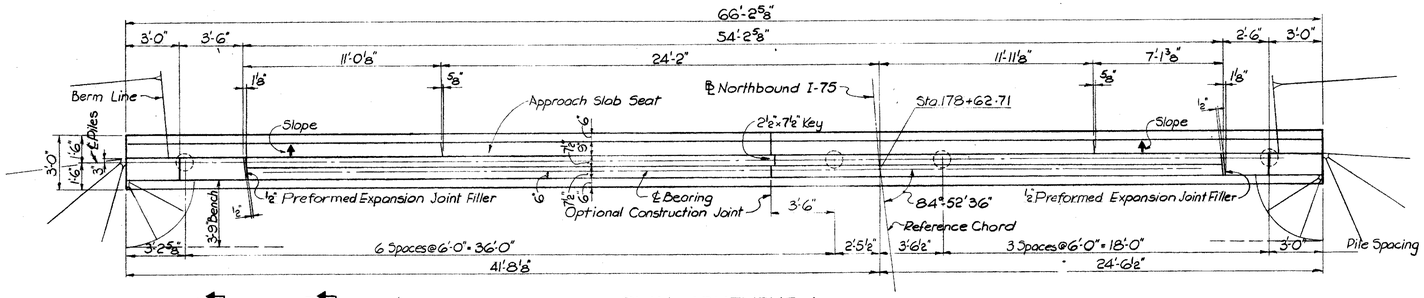
ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND Over DAVIS STREET
HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W.	J.A.D.	7-8-64	

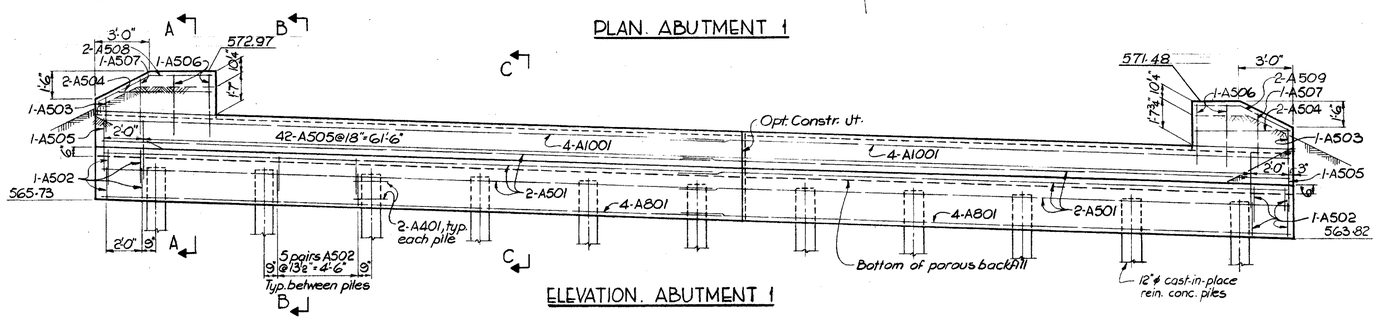
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

356
450

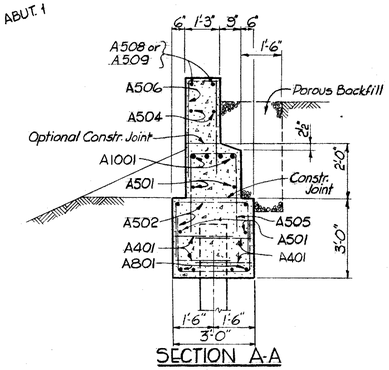
HAM.-75-9.30



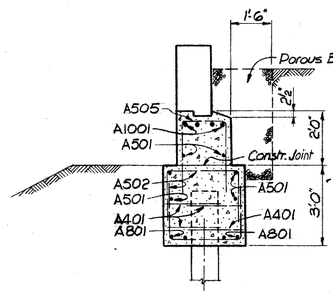
PLAN. ABUTMENT 1



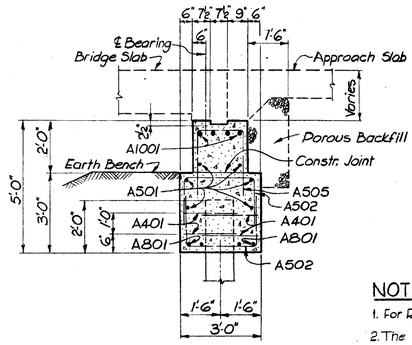
ELEVATION. ABUTMENT 1



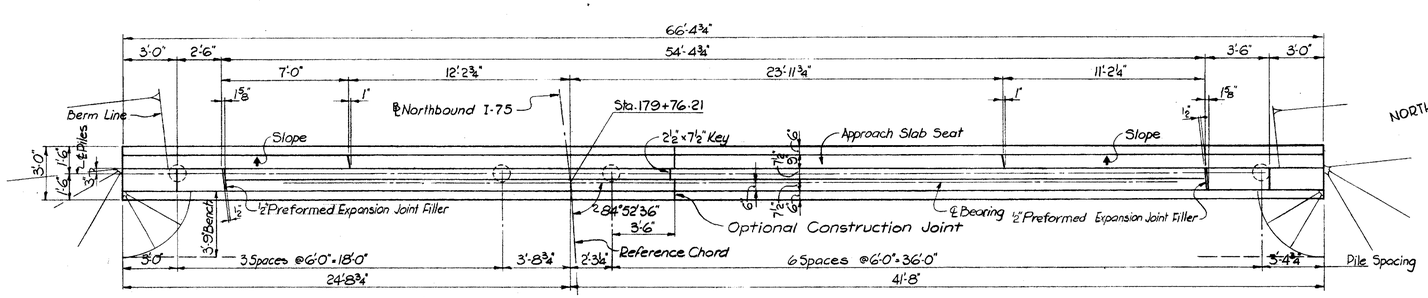
SECTION A-A



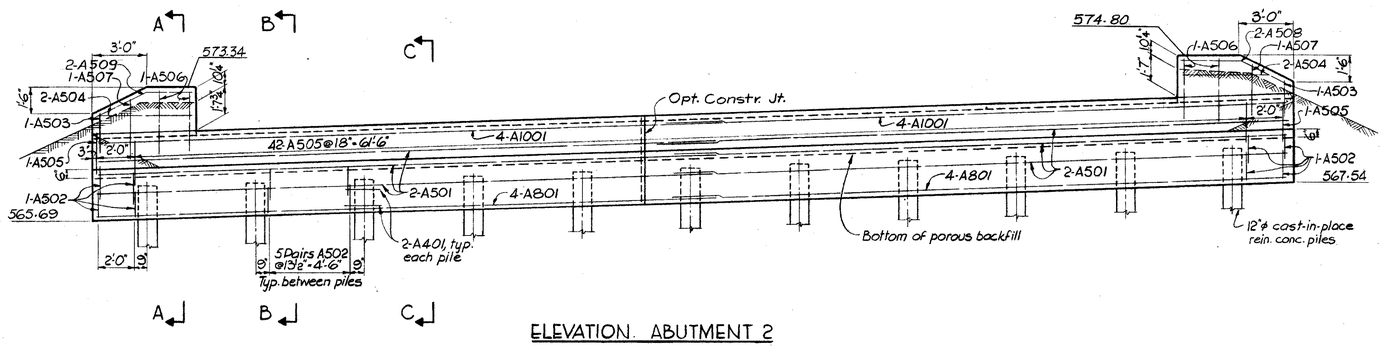
SECTION B-B



SECTION C-C



PLAN. ABUTMENT 2



ELEVATION. ABUTMENT 2

NOTES:

1. For Reference Chord Layout, see Sheet No. 350
2. The embankment shall be placed and compacted up to the finished spill-thru slope and to the level of the subgrade for a distance of 200 feet back of the abutments, after which excavation shall be made for the abutment and for the earth bench.
3. Porous Backfill shall extend upwards to the approach slab and the paved shoulders, and to the surface of earth beyond paved shoulders, and outwards to the surface of the embankment slopes. Excavation therefor, in excess of that required for construction of the footing, shall be considered as paid for in the bid price per cubic yard paid for porous backfill.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENTS 1 & 2
BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND
OVER DAVIS STREET

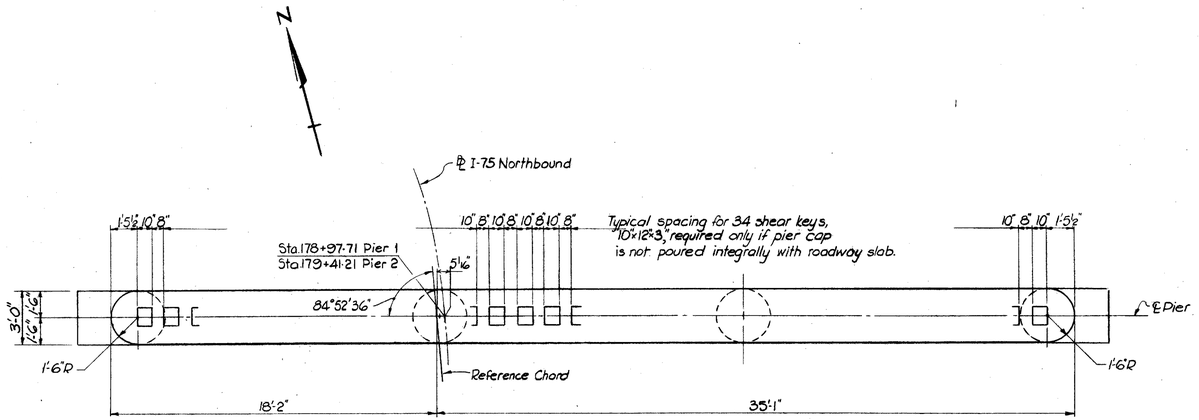
HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.K.K	D.J.F.	D.J.W	R.K.K.	J.A.D.	7-8-64	

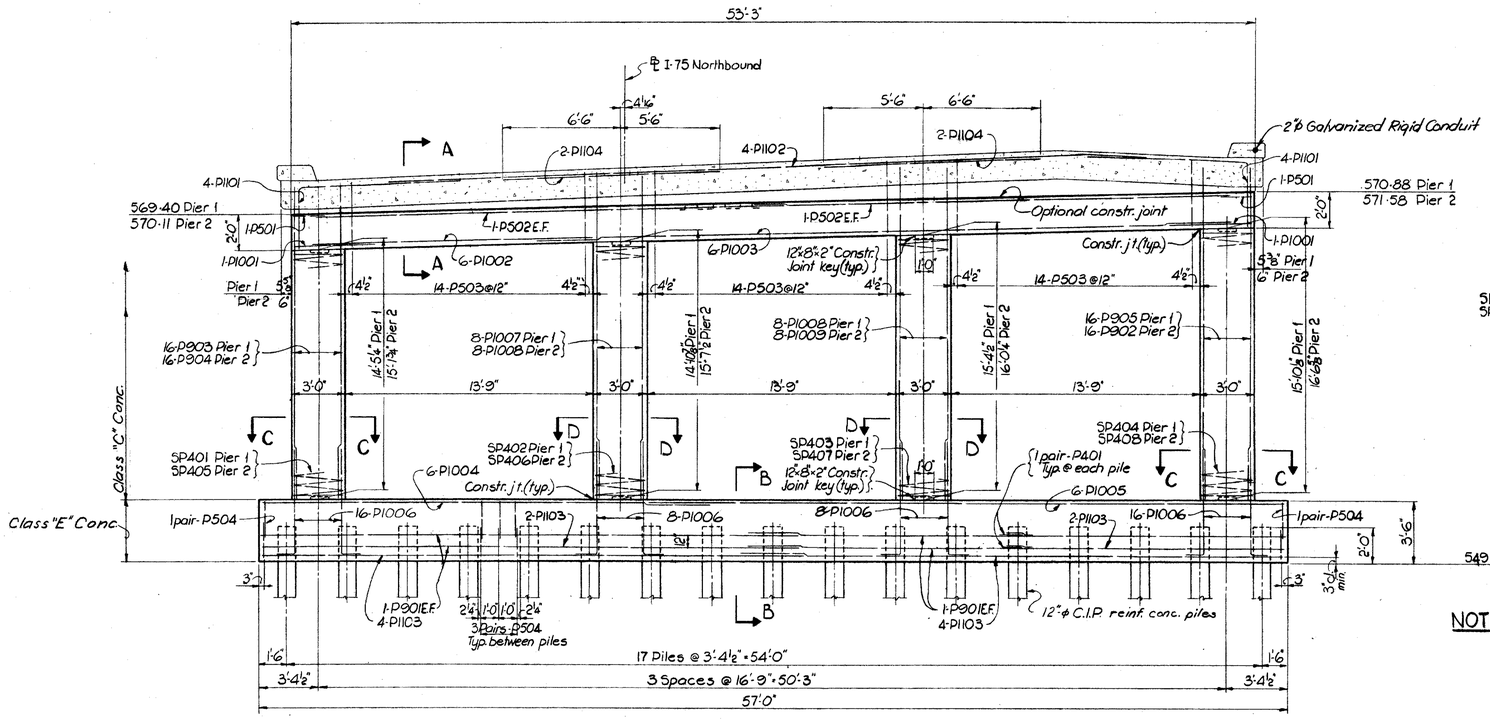
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

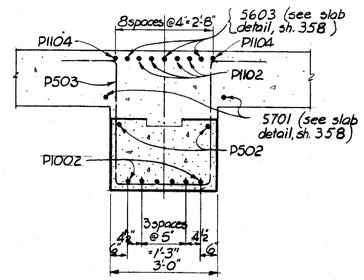
357
450



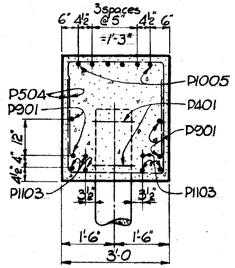
PLAN



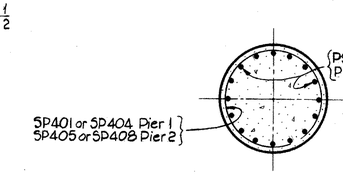
ELEVATION



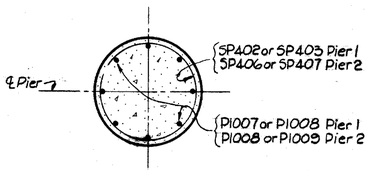
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

ELECTRICAL GROUND, per sht. 26
Install in right end of Pier 2.

NOTES:

E.F. = Each Face

For Reference Chord Layout, see Sheet 350

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 1 & 2
BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND OVER DAVIS STREET

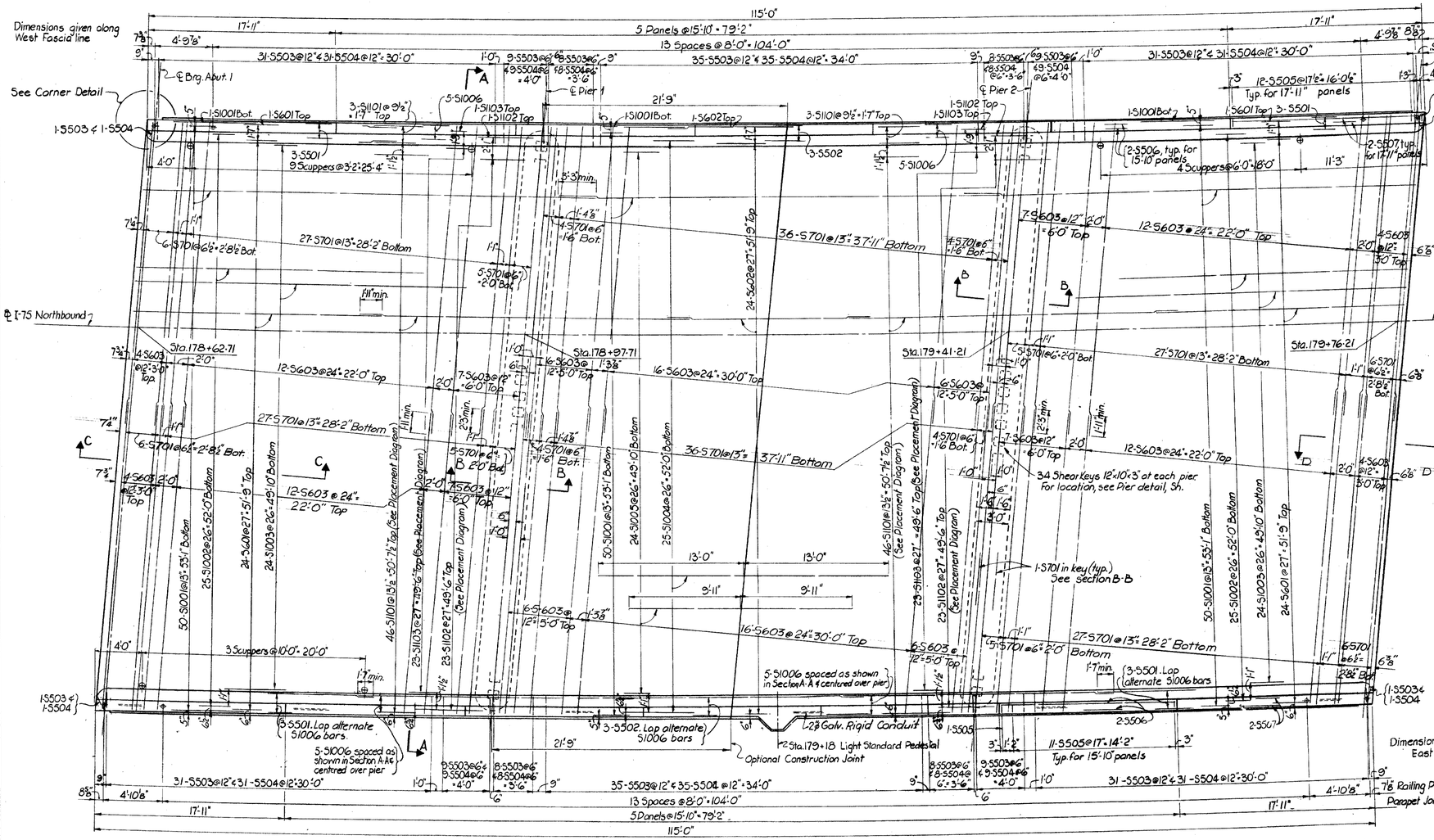
HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	D.J.W.	~	G.R.H.	JAD	7-8-64	

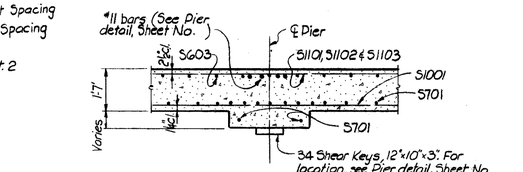
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

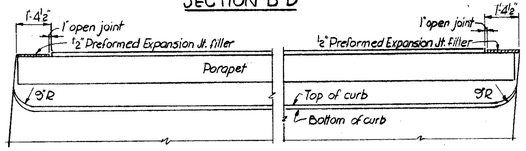
358
450



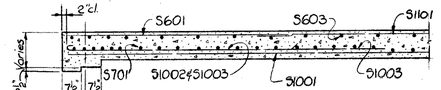
PLAN



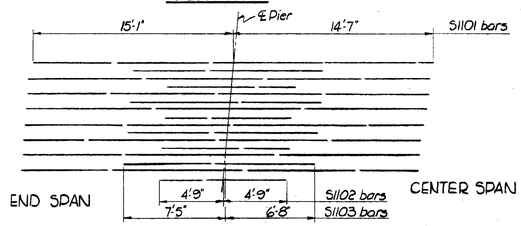
SECTION B-B



TYPICAL CORNER DETAILS



SECTION C-C
SECTION D-D

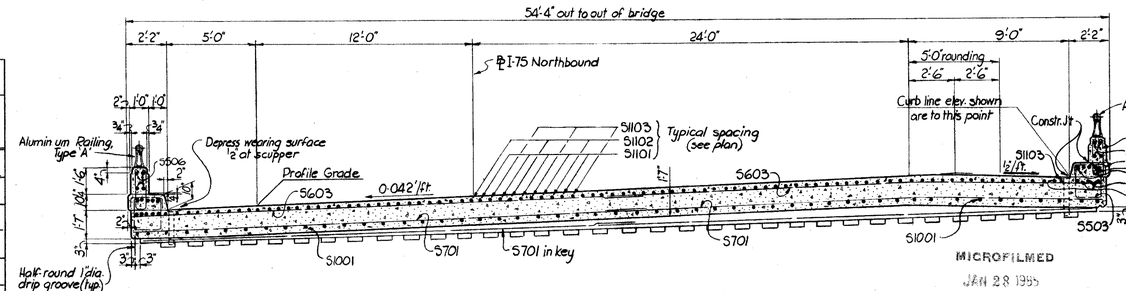


PLACEMENT DIAGRAM
S1101, S1102 & S1103 bars at piers

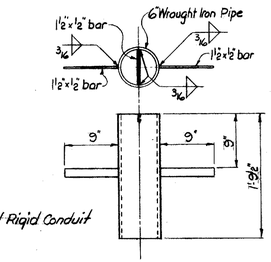
NOTES :

1. Slab thickness includes 1" monolithic wearing surface.
2. For Railing & Parapet Joint details, see Std. Dwg. AR-1-57, revised 4-2-62.
3. For Reinforcing Steel List see Sheet Nos. 359 & 360
4. Parapet Concrete & S506, S507, S508 & S509 bars are to be included with Item S-14 for payment.
5. Adjust scupper spacing to clear reinforcing steel.
6. For Light Standard Pedestal, see detail, Sheet No. 351

PAVEMENT ELEVATIONS					
STATION	PROFILE GRADE	WEST CURB 17'-0" from ℄	ROUNDING 24'-0" from ℄	ROUNDING 29'-0" from ℄	EAST CURB 33'-0" from ℄
178+75	571.03	570.82	572.54	572.54	572.37
179+00	571.45	571.24	572.96	572.96	572.79
+25	571.86	571.65	573.37	573.37	573.20
+50	572.26	572.05	573.77	573.77	573.60
179+75	572.64	572.43	574.15	574.15	573.98



SECTION A-A



SCUPPER DETAIL

MICROFILMED
JAN 28 1965

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ROADWAY SLAB
BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND
OVER DAVIS STREET

HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.W.	D.J.W.	~	R.K.K.	J.A.D.	7-8-64	

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
A401	88	5'-5"	Bt.	319
A501	24	33'-9"	Str.	845
A502	216	6'-7"	Bt.	1482
A503	4	5'-4"	Bt.	22
A504	8	9'-2"	Str.	43
A505	88	7'-11"	Bt.	727
A506	8	8'-4"	Bt.	70
A507	4	6'-8"	Bt.	28
A508	4	6'-6"	Bt.	27
A509	4	5'-6"	Bt.	23
A801	16	34'-3"	Str.	1463
A1001	16	34'-8"	Str.	2387

PIERS

MARK	NO.	LENGTH	TYPE	WEIGHT
P401	136	5'-5"	Bt.	491
P501	4	7'-6"	Bt.	32
P502	8	26'-0"	Str.	217
P503	84	9'-10"	Bt.	861
P504	200	7'-1"	Bt.	1477
P901	16	29'-9"	Str.	1619
P902	16	19'-7"	Str.	1065
P903	16	17'-6"	Str.	952
P904	16	13'-2"	Str.	888
P905	16	18'-9"	Str.	1020
P1001	4	10'-8"	Bt.	184
P1002	12	15'-9"	Str.	813
P1003	12	40'-1"	Str.	2070
P1004	12	24'-8"	Str.	1275
P1005	12	35'-5"	Str.	1820
P1006	96	7'-7"	Bt.	3133
P1007	8	18'-2"	Str.	625
P1008	16	18'-10"	Str.	1297
P1009	8	19'-3"	Str.	664
P1101	16	13'-2"	Bt.	1119
P1102	8	40'-6"	Str.	1700
P1103	24	30'-2"	Str.	3847
P1104	8	12'-0"	Str.	510
SP401	1	14'-5"	Bt.	272
SP402	1	14'-11"	Bt.	281
SP403	1	15'-5"	Bt.	289
SP404	1	15'-10"	Bt.	297
SP405	1	15'-2"	Bt.	285
SP406	1	15'-8"	Bt.	294
SP407	1	16'-0"	Bt.	300
SP408	1	16'-7"	Bt.	310

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
S501	12	24'-8"	Str.	309
S502	6	22'-0"	Str.	138
S503	266	6'-0"	Bt.	1605
S504	266	2'-6"	Bt.	694
S505	172	5'-7"	Bt.	1002
S506*	40	15'-4"	Str.	—
S507*	16	17'-5"	Str.	—
S508	8	3'-8"	Bt.	31
S509	4	4'-9"	Bt.	20
SG01	50	22'-5"	Str.	1683
SG02	25	18'-2"	Str.	682
SG03	148	28'-0"	Str.	6224
S701	248	28'-2"	Str.	14278
S1001	153	40'-5"	Str.	26609
S1002	50	26'-3"	Bt.	5648
S1003	48	29'-11"	Bt.	6179
S1004	25	26'-0"	Str.	2797
S1005	24	19'-10"	Str.	2048
S1006	20	24'-9"	Str.	2130
S1101	98	29'-8"	Str.	15447
S1102	48	9'-6"	Str.	2423
S1103	48	14'-1"	Str.	3592

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE	WEIGHT
RE4	1	5'-3"	Bt.	—
RE5	1	5'-7"	Str.	—
RE6	1	5'-11"	Str.	—
RE7	1	6'-3"	Str.	—
RE8	1	6'-6"	Str.	—
RE9	1	6'-10"	Str.	—
RE10	3	7'-3"	Str.	—
RE11	2	7'-7"	Str.	—

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

359
450

HAM-75-9.30

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14, RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SHOWN IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAPS, TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACERS WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 360 FOR BENDING DETAILS.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

REINFORCING STEEL LIST

BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND
OVER DAVIS STREET
HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

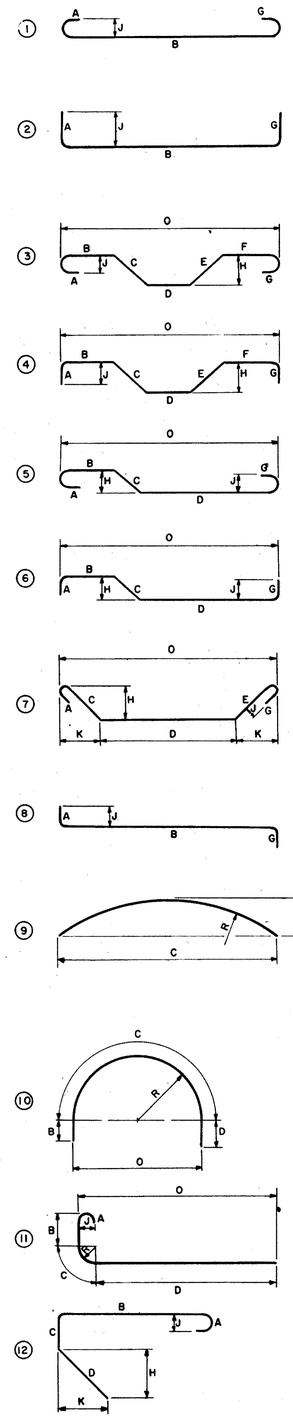
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	RKK		GRH	JAD	7-84	

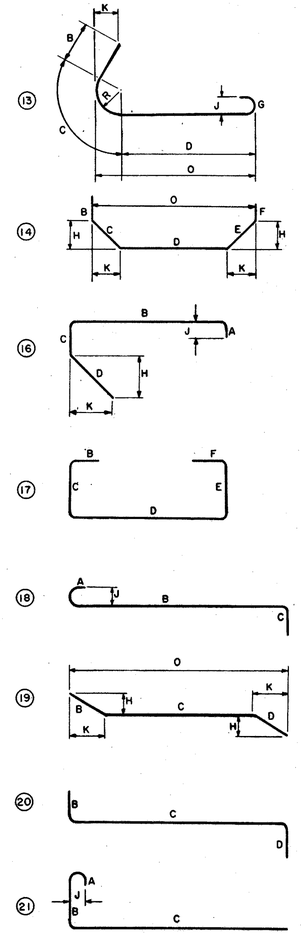
FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

360/450

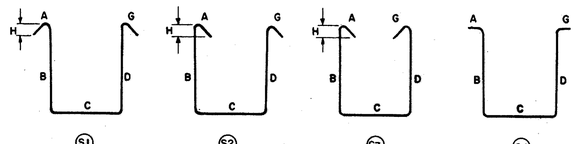
HAM-75-9.30

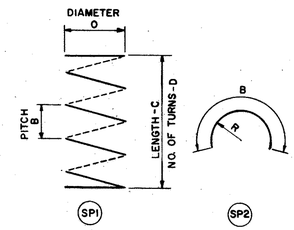
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
A401	17		1'-11"	1'-9"	1'-11"	–	–						
A502	17		2'-1"	2'-8"	2'-1"	–	–						
A503	17		2'-4"	11"	2'-4"	–	–						
A505	17		3'-3"	1'-8"	3'-3"	–	–						
A506	17		3'-10"	11"	3'-10"	–	–						
A507	17		3'-0"	11"	3'-0"	–	–						
A508	19		3'-2"	3'-4"	–				1'-5"		2'-10"		
A509	19		3'-2"	2'-4"	–				1'-5"		2'-10"		
P401	17		1'-11"	1'-9"	1'-11"								
P501	10		1'-8"	4'-2"	1'-8"							1'-4"	2'-8"
P503	S4	6"	3'-4"	2'-8"	3'-4"			6"					
P504	17		2'-4"	2'-8"	2'-4"								
P1001	10		3'-3"	4'-2"	3'-3"							1'-4"	2'-8"
P1006	20		1'-1"	6'-6"									
P1101	19		10'-0"	3'-6"					10'-0"		2"		3'-8"
S503	S6	6"	2'-1"	1'-5"	2'-1"	–	–	6"					
S504	2	8"	1'-5"					8"		–			
S505	S3	5"	2'-2"	8"	2'-2"			5"	2'3¼"				
S508	19		10"	2'-10"	–				7"		7"		3'-5"
S509	S10		2'-0"	1'-0"	2'-0"								
S1002	1	1'-5"	24'-10"					–		–			
S1003	1	1'-5"	28'-6"					–		–			
SP401	SP1		4½"	14'-5"	41								2'-8"
SP402	SP1		4½"	14'-11"	42								2'-8"
SP403	SP1		4½"	15'-5"	44								2'-8"
SP404	SP1		4½"	15'-10"	45								2'-8"
SP405	SP1		4½"	15'-2"	43								2'-8"
SP406	SP1		4½"	15'-8"	44								2'-8"
SP407	SP1		4½"	16'-0"	45								2'-8"
SP408	SP1		4½"	16'-7"	47								2'-8"
RE4	SP2		5'-3"									1'-4"	

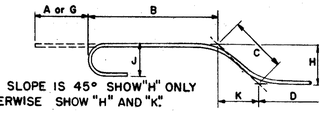




⑮ NOT USED







WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H". WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11 TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-4.05 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

BAR BENDING DETAILS

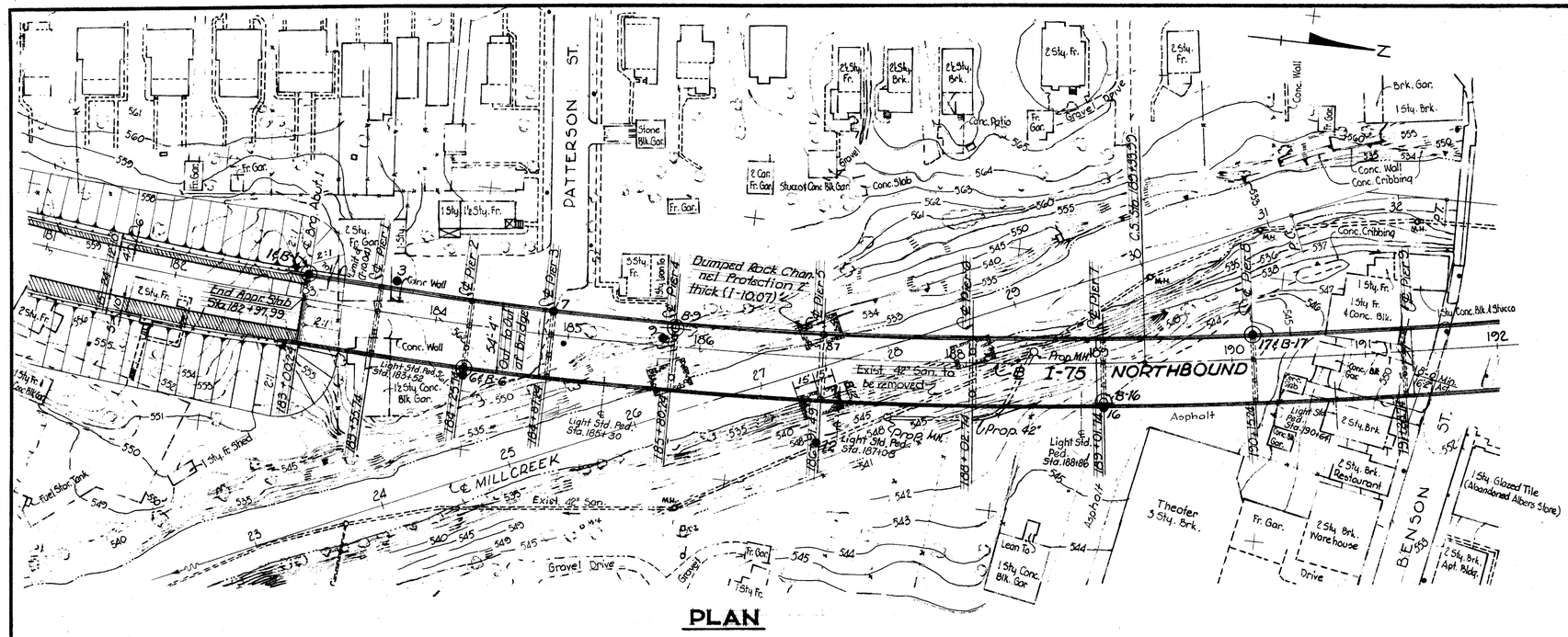
BRIDGE NO. HAM-75-1138
I-75 NORTHBOUND
OVER DAVIS STREET
HAMILTON COUNTY STA. 178+61.96 to STA. 179+76.96

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	RKK		GRH	JAD	7-8-64	

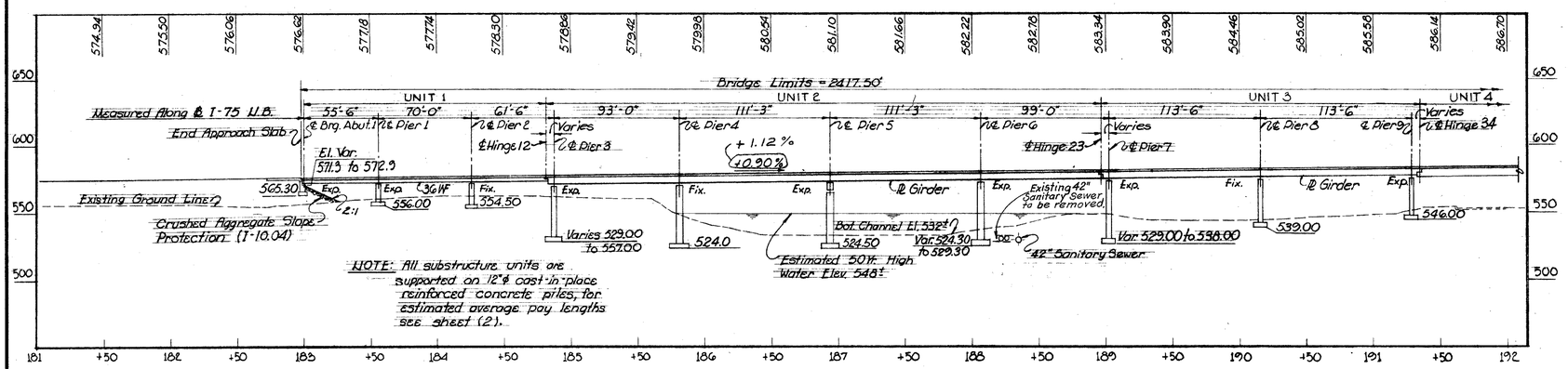
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

361
450

HAM - 75 - 9.30

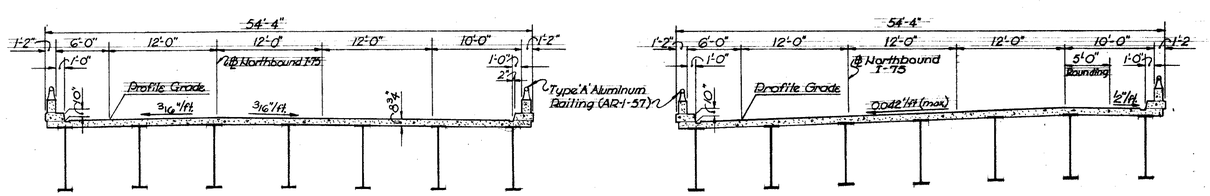


PLAN



NOTE: All substructure units are supported on 12"ϕ cast-in-place reinforced concrete piles, for estimated average pay lengths see sheet (2).

PROFILE



NORMAL SUPERELEVATED

TYPICAL SUPERSTRUCTURE SECTIONS

MICROFILMED
JAN 28 1985

NORTBOUND I-75
CURVE DATA

T.S. Sta. 166 + 47.79
S.C. Sta. 169 + 97.79
P.I. Sta. 180 + 15.27
C.S. Sta. 189 + 33.99
S.T. Sta. 192 + 83.99

Δ = 40° 00' 00" Lt.
Dc = 1° 45' 00"
R = 3274.04'
Lc = 1936.19'
$T_1 = T_2$ = 1367.48'
$L_{S1} = L_{S2}$ = 350.00'
E = 211.87'
Θ_S = 3° 08' 45"

BENCH MARK NO. 1.68, Hamilton County Survey, 206'E of Central Ave. in Reading. Mark is in the E. end of the N. arch of the concrete bridge over the E. Fork of Mill Creek. Mark is in the center of the concrete arch 1.7'W. of E. end and 4' above the concrete walk. Elev. 558.409 (1948)

NOTES

1. For continuation of bridge and reference line layout, see Sheet 362
2. ● Drive Rod Penetration Resistance Sounding
   ⊕ Drive Sample Boring
3. ⫩ Indicates location of light standard pedestal

EXISTING STRUCTURE - COLUMBIA AVE.

TYPE: Rolled steel beam with reinforced concrete deck.
SPAN: 63'-6" clear.
ROADWAY: 28.3'
SKEW: 0°
WEARING SURFACE: Concrete.
CONDITION: Good.

EXISTING STRUCTURE - DAVIS ST.

TYPE: Steel through truss with reinf. conc. deck
SPAN: 103'-0" c/c pins.
ROADWAY: 24'-0"
SKEW: 0°
WEARING SURFACE: Concrete.
CONDITION: Poor.

EXISTING STRUCTURE - BENSON ST.

TYPE: Reinforced concrete arch with reinforced concrete deck.
SPAN: 72.2' clear.
ROADWAY: 31'-0"
SKEW: 0°
WEARING SURFACE: Bituminous.
CONDITION: Fair

PROPOSED STRUCTURE

TYPE: Continuous rolled beam and welded plate girder with reinforced concrete deck and substructure.
SPANS: 55'-6"-70'-0"-61'-6"; 93'-0"-111'-3"-111'-3"-99'-0"; 113'-6"-113'-6"; 126'-0"-145'-9"-156'-0"-124'-0"; 120'-0"-145'-9"-156'-0"-118'-0"; 89'-0"-105'-0"-129'-0"-100'-0"-70'-0"
ROADWAY: 50'-0" face to face of 1'-0" safety curbs.
LOAD FREQUENCY: C.F. = 2000 (57) adequate for A.A.S.H.O. alternate loading.
SKEW: 0°
WEARING SURFACE: 1" Monolithic concrete
ALIGNMENT: 1°45' curve to left, 350'-0" spiral & Tangent.
APPROACH SLABS: AS-1-54 (25' long)

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.

HAMILTON COUNTY STA. 182 + 97.99 to STA. 207 + 15.49

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	C.E.S.	C.E.S. & G.K.	P.R.B & L.P.H.	2-25-85

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

362/450

PLAN

NOTE: All substructure units are supported on 12"φ cast-in-place reinforced concrete piles having estimated average pay lengths as listed at right.

Abut. 1 - 50'
Pier 1 - 40'
Pier 2 - 35'
Pier 3 - 40'
Pier 4 - 25'
Pier 5 - 25'
Pier 6 - 30'
Pier 7 - 30'
Pier 8 - 35'
Pier 9 - 40'
Pier 10 - 35'
Pier 11 - 40'
Pier 12 - 40'
Pier 13 - 35'
Pier 14 - 45'
Pier 15 - 45'
Pier 16 - 40'
Pier 17 - 45'
Pier 18 - 35'
Pier 19 - 40'
Pier 20 - 40'
Pier 21 - 40'
Abut. 2 - 50'

PROFILE

REFERENCE LINE LAYOUT

Note: For additional information, see Sh. 3

MICROFILMED
JAN 28 1965

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SITE PLAN
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILLCREEK
BENSON ST., NYCRR & SHEPHERD AVE
HAMILTON COUNTY STA. 182 + 97.99 to
STA. 207 + 15.49

PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVISIONS
Aerial	Aerial	C.E.S.	C.E.S. & G.K.	P.R.B. & L.P.H.	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

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450

ESTIMATED QUANTITIES

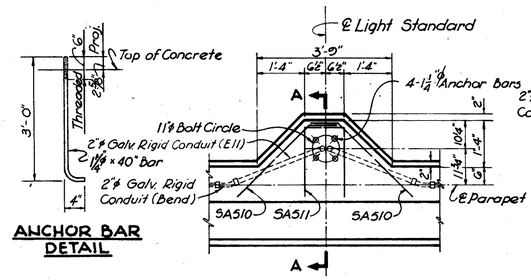
ITEM	TOTAL	UNIT	DESCRIPTION	ABUTMENTS	PIERS	SUPER STRUCTURE	GENERAL		
E-2		Lump Sum	Cofferdams, Cribs and Sheeting.						
E-2	4964	Cu. Yds.	Unclassified Excavation.	295	4669				
S-1	4008	Cu. Yds.	Class "C" Concrete - Superstructure.			4008			
S-1	1562	Cu. Yds.	Class "C" Concrete - Piers above footings.		1562				
S-1	125	Cu. Yds.	Class "E" Concrete - Abutments above footings.	125					
S-1	1357	Cu. Yds.	Class "E" Concrete - Pier & Abutment footings.	88	1269	(582,511			
S-3	17	Lin. Ft.	Waterproofing, Premolded, Sealing strip.	17	(583,398)	583,075)			
S-4	(1,821,479	Lbs.	Reinforcing Steel.	15,332	583,249)	1,222,838			
S-7	5,617,300	Lbs.	Structural Steel.			5,617,300			
S-8	5,617,300	Lbs.	Field painting of Structural Steel.			5,617,300			
S-9	30	Sq. Ft.	1/2" Preformed expansion joint filler.				30		
S-14	4,887.53	Lin. Ft.	Railing (Type "A" aluminum rail and supports and concrete parapet).	57.66		4829.86			
S-16		Lump Sum	First test pile.						
S-17		Lump Sum	Pile test load. (First)						
S-18	34,875	Lin. Ft.	12" Cast-in-place reinforced concrete piles.	2050	32,825				
* S-25			Lighting System.						
S-29	92	Lin. Ft.	6" Perforated helical C.M.P. M-64 (h) including specials.	92					
S-29	76	Lin. Ft.	6" Helical C.M.P. M-64 (h) non-perforated.	76					
S-29	47	Cu. Yds.	Porous Backfills.	47					
S-29	160	Each	Scuppers, including Supports.			160			
S-29	2608	Lin. Ft.	6" Wrought iron or galvanized steel pipe horizontal conductors, including specials			2608			
S-29	477	Lin. Ft.	6" Std. pipe downspout, wrought iron or galvanized steel, including specials.			477			
S-29	121	Lin. Ft.	8" Std. pipe downspout, wrought iron or galvanized steel, including specials.			121			
S-101	4008	Each	Water-reducing, set-retarding admixture.			4008			
I-10	210	Sq. Yds.	Crushed aggregate Slope Protection.				210		
I-10	267	Cu. Yds.	Dumped rock channel protection.		267				
I-10	210	Sq. Yds.	Concrete Slope Protection.				210		
I-127	12	Each	Delineator bracket, mounted, type A-1.			12			
S-17	1	Each	Subsequent Pile Test Load						

(1,821,628
1,821,303
1,820,741

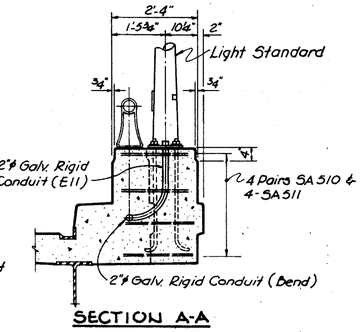
Materials in approach slabs are not included in the above estimated quantities.

* See Summary of Bridge Lighting Quantities, Sheet No. 265, for Details, Description, Unit & Quantity.

Aluminum rail and supports, concrete parapet, reinforcing bars wholly within the concrete parapet and sponge rubber for parapet joints shall be included in Item S-14 for payment.



ANCHOR BAR DETAIL



SECTION A-A

LIGHT STANDARD PEDESTAL

Anchor bars are included with item S-25 for payment.

For additional details, see sh. 262.

GENERAL NOTES

REFERENCE shall be made to the following:
Standard Drawings: AR-1-57, revised 4-2-62
AS-1-54, revised 7-5-62
SD-1-63, Sheet 1, 2, 3 & 4 of 4, dated 11-12-63
FSB-1-62, revised 1-15-63
RB-1-55, revised 2-2-59
Supplemental Specifications: S-307 dated 8-23-60
S-101, dated 7-12-62

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 includes the removal of fill material required for construction of the abutments.

DESIGN LOADING -CF 2, 000 (57)

CONCRETE CLASS "C"-Basic unit stress 1, 333 p. s. i.
CONCRETE CLASS "E"-Basic unit stress 1, 333 p. s. i.

STRUCTURAL STEEL-ASTM A36, basic unit stress 20, 000 p. s. i. (ASTM A 7, and A373 steel not permitted)

REINFORCING STEEL-ASTM A15, A16, A160, Deformed, Intermediate or Hard Grade. Basic unit stress 20, 000 p. s. i. Except spiral reinforcement may be plain, Structural Grade with basic unit stress of 18, 000 p. s. i.

Piles shall be driven to a minimum bearing capacity of 40 tons per pile for the abutments and piers.

PILE TEST LOAD shall be according to Item S-17 except that the maximum load required shall be 120 tons. First pile test load shall be applied to one of the piles at the West footing of Pier 16.

SHEETING AND BRACING: Before construction is started, eight sets of prints showing details of the sheeting and bracing to be used for excavation adjacent to the railroad track shall be submitted to the Director for approval by the Department of Highways and by the Railroad Company.

CONSTRUCTION CLEARANCE of 20'-0" vertically above top of the railroad rails and 8'-0" horizontally from the center of tracks shall be maintained at all times.

WELDING of structural steel shall be Class "A" except as otherwise shown. Welds shown as field welds may, at the option of the Contractor be made in the shop. Class "B" welds are shown thus: B>—

CONTINUOUS BEAM SHOP ASSEMBLY: Reference paragraph 4, Sec. S-7. 12 of the Construction and Material Specifications, if rolled beams are field spliced only at supports, for the purpose of checking the fit-up of weld joint preparation, only two adjacent beams need be shop assembled at a time in their correct, unloaded positions. All beams shall be assembled and match marked.

CONCRETE DECK PLACING: In order to facilitate water curing of the concrete of the deck slab, the placing of concrete shall progress upgrade. The slab may be placed in sections between transverse construction joints which are parallel to transverse reinforcing steel and are located near the center of any span.

SURFACE FINISH OF CONCRETE: The requirements of Sec. S-1. 22 Rubbed Finish, shall apply to the following exposed concrete surfaces:
a. The entire superstructure except the top and bottom surfaces of safety curbs and roadways.
b. The entire surface of piers and abutments except bridge seats, backwalls and the face of spill-through abutments between outside beams or girders.

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

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.

ALIGNING RAILTOAD TRACKS: After the Contractor has completed all excavation and backfill adjacent to the railroad tracks in compliance with Sec. E-2. 08 of the Construction and Material Specifications, subject to the Supervision of the Railroad Company, nothing in Sec. E-2. 04, E-2. 08 or G-8. 07 of the specifications shall be construed to hold the Contractor liable for aligning and resurfacing the railroad tracks.

Item S-7. 10, High-Strength Steel Bolts, Nuts and Washers, paragraph two (2), shall be completely revised and the last sentence of paragraph four (4), revised to read as follows:
"In the final assembly of the parts to be bolted, drift pins shall be placed in a sufficient number of holes (not less than 25 percent for field erection) to provide and maintain accurate alignment of holes and parts, and sufficient bolts shall be installed and brought to a snug tight condition to bring the parts into complete contact. Bolts shall then be installed in any remaining open holes and tightened to a snug tight fit, after which all bolts shall be tightened completely by calibrated wrenches or by the turn-of-nut method. Drift pins shall then be replaced with bolts, tightened in the same manner."

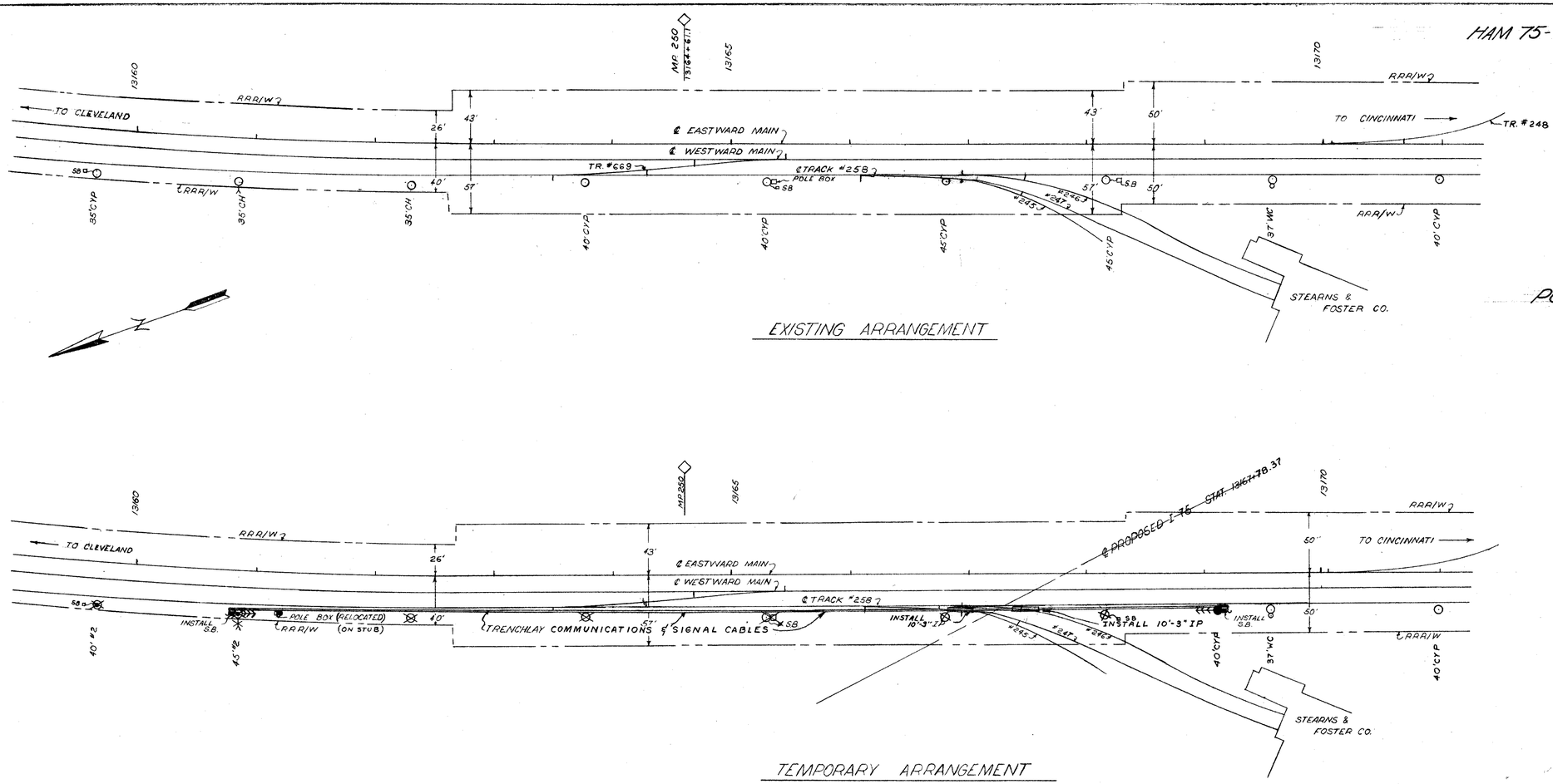
"Bolt lengths determined by the use of Table No. 1 shall be adjusted to the next 1/4 inch length increment."

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

ESTIMATED QUANTITIES & GENERAL NOTES
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.RR. & SHEPHERD AVE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

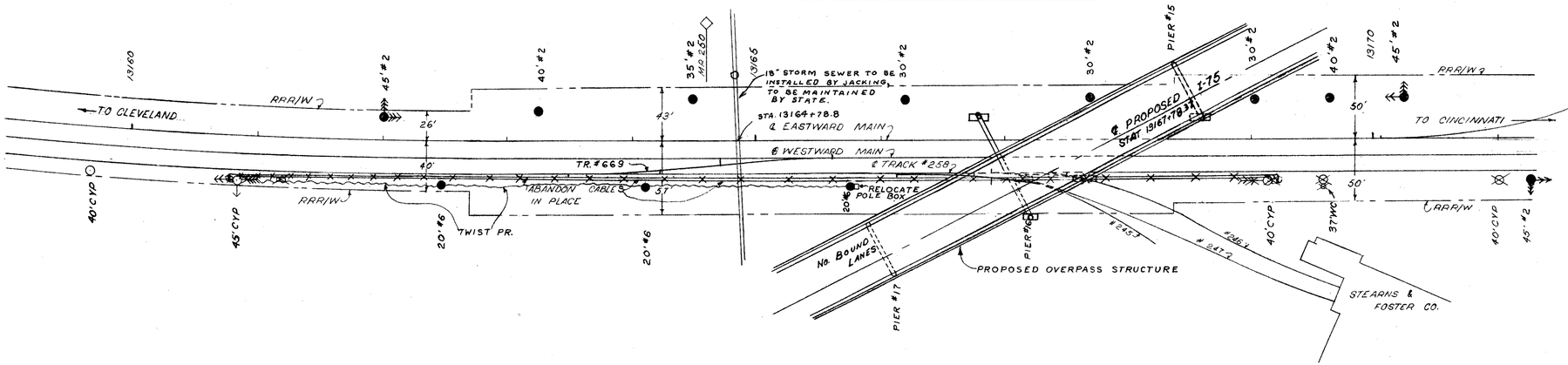
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
H.D.J.	G.K.		D.H.W.	J.A.D.	7-8-64	12-17-64 12-22-64 4-2-65

HAM 75-9.30



EXISTING ARRANGEMENT

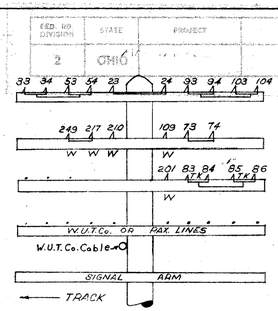
TEMPORARY ARRANGEMENT



PERMANENT ARRANGEMENT

ED. 10 DIVISION	STATE	PROJECT	
2	OHIO		

364
450



EXISTING & PERMANENT
NO SCALE

POLE LINE ARRANGEMENT

W - WESTERN UNION TEL. CO.
S - SIGNAL LINES

LEGEND

- EXISTING POLE
- NEW POLE
- EXISTING POLE TO BE REMOVED
- EXISTING POLE TO BE REPLACED
- EXISTING GUY & ANCHOR
- EXISTING GUY & ANCOR TO BE REMOVED
- GUY & ANCHOR TO BE INSTALLED

NOTE

ALL LABOR AND THE FURNISHING OF MATERIAL IN CONNECTION WITH CHANGES AS SHOWN ON THIS SHEET AND CALLED FOR IN THE ESTIMATE WILL BE PERFORMED BY THE NEW YORK CENTRAL RAILROAD EXCEPT AS NOTED.

NOTE: THE WESTERN UNION TELEGRAPH CO. WILL HANDLE THE REMOVAL AND REINSTALLATION OF ITS AERIAL CABLE.

Highway Bridge No. HAM-75-1147

DRAWN: DJG		CHECKED: MJP
REVISIONS		
DATE	BY	DESCRIPTION

NYC SYSTEM	OFFICE OF CHIEF ENGINEER	CHICAGO, ILL.

BRIDGE NO. 335-C — STATION 13167+78.37

PROPOSED OVERHEAD GRADE SEPARATION
INTERSTATE NO. 75
(NORTHBOUND LANES)
AT
LOCKLAND, OHIO

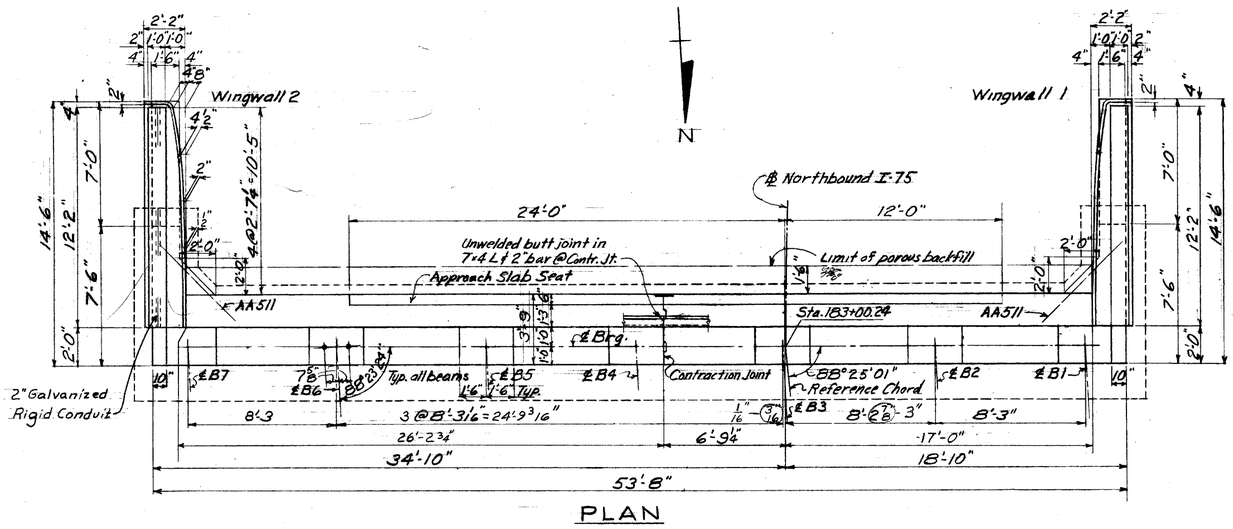
PROPOSED CHANGES TO COMMUNICATIONS AND SIGNAL LINES

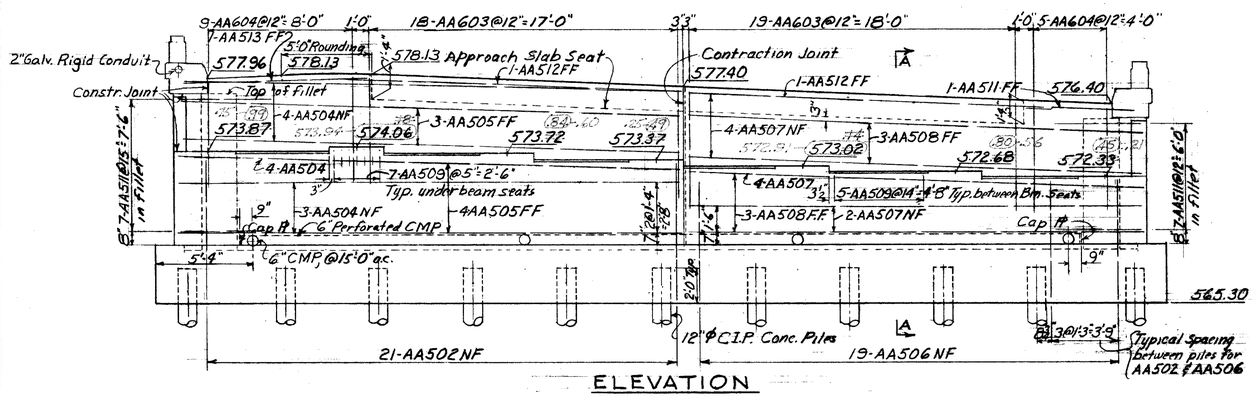
SOUTHERN DIST.	IND. DIVISION CINCINNATI TERM. DIST.		PLAN NO. 7559
SCALE 1" = 50'	MAY 6, 1964	V.S. 26	FILE NO. 132-38

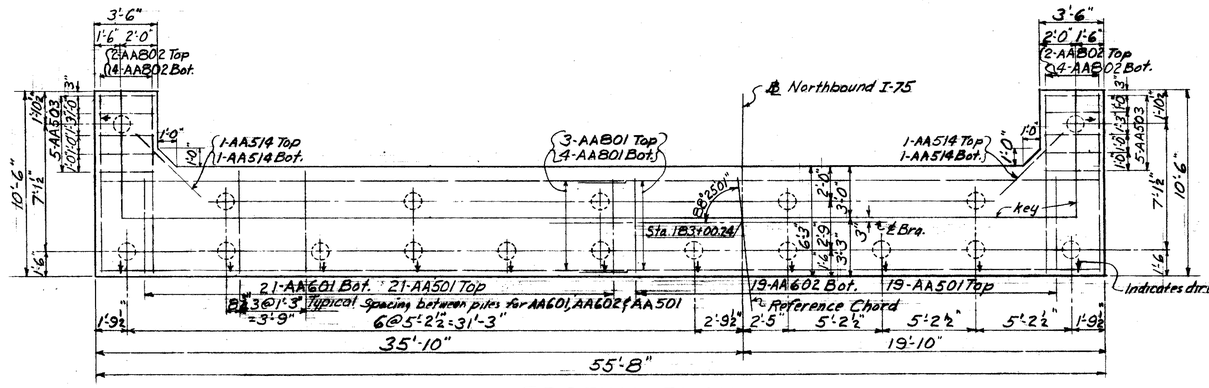
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

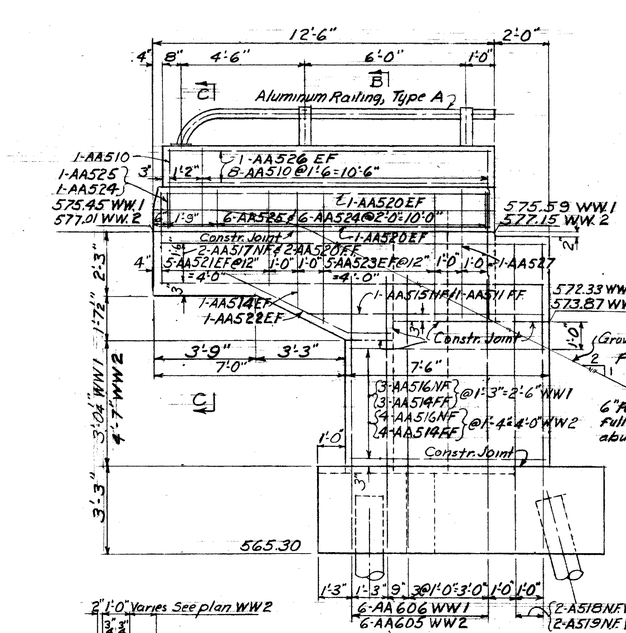
374/450

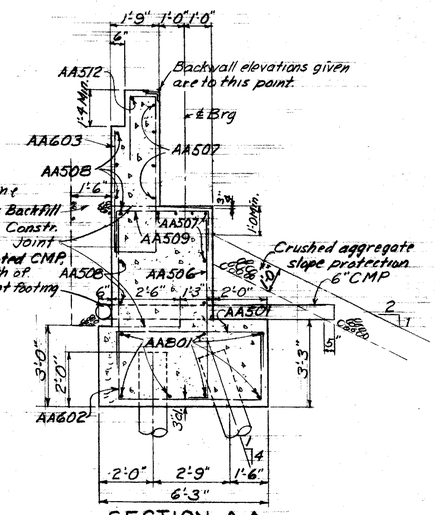
HAM-75-9.30

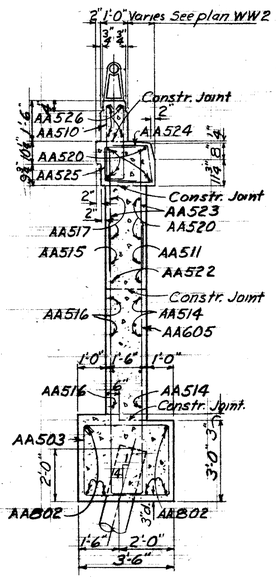


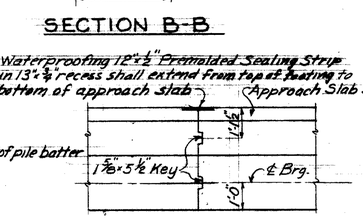


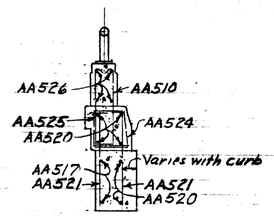












NOTES:

1. For Reference Line ~~Layout see Sh.~~ 362
2. Porous Backfill 1'-6" thick, full length of abutment shall extend up to the bottom of approach slab or paved shoulder. Excavation therefor, in excess of that required for construction of the abutment, shall be considered as paid for in the bid price per cu. yd. paid for porous backfill.
3. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
4. The embankment shall be placed and compacted up to the finished spill thru slope and to the level of the subgrade for a distance of 200 feet back of the abutment after which excavation shall be made for the abutment and piles driven.
5. Aluminum Railing tube ~~shall be~~ continuous for full length of wingwall. For railing ~~details~~, see Std. Dwg. AR-1-57.
6. For end dam details see Std. Dwg. SD-1-63 Shts. 2 & 4, dated 11-12-63

LEGEND:

NF = Near Face
FF = Far Face
EF = Each Face
WW = Wingwall

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

ABUTMENT 1

BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST, N.Y.C.R.R. & SHEPHERD AVE

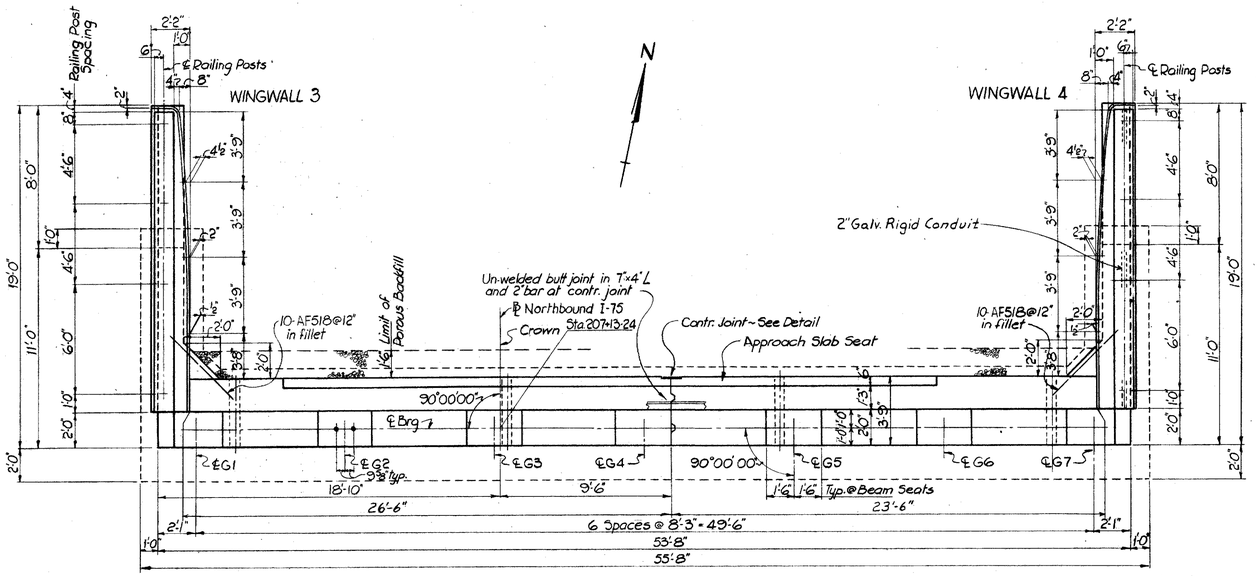
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DJF	DJF	~	GRH	JAO	7-84	12-17-84

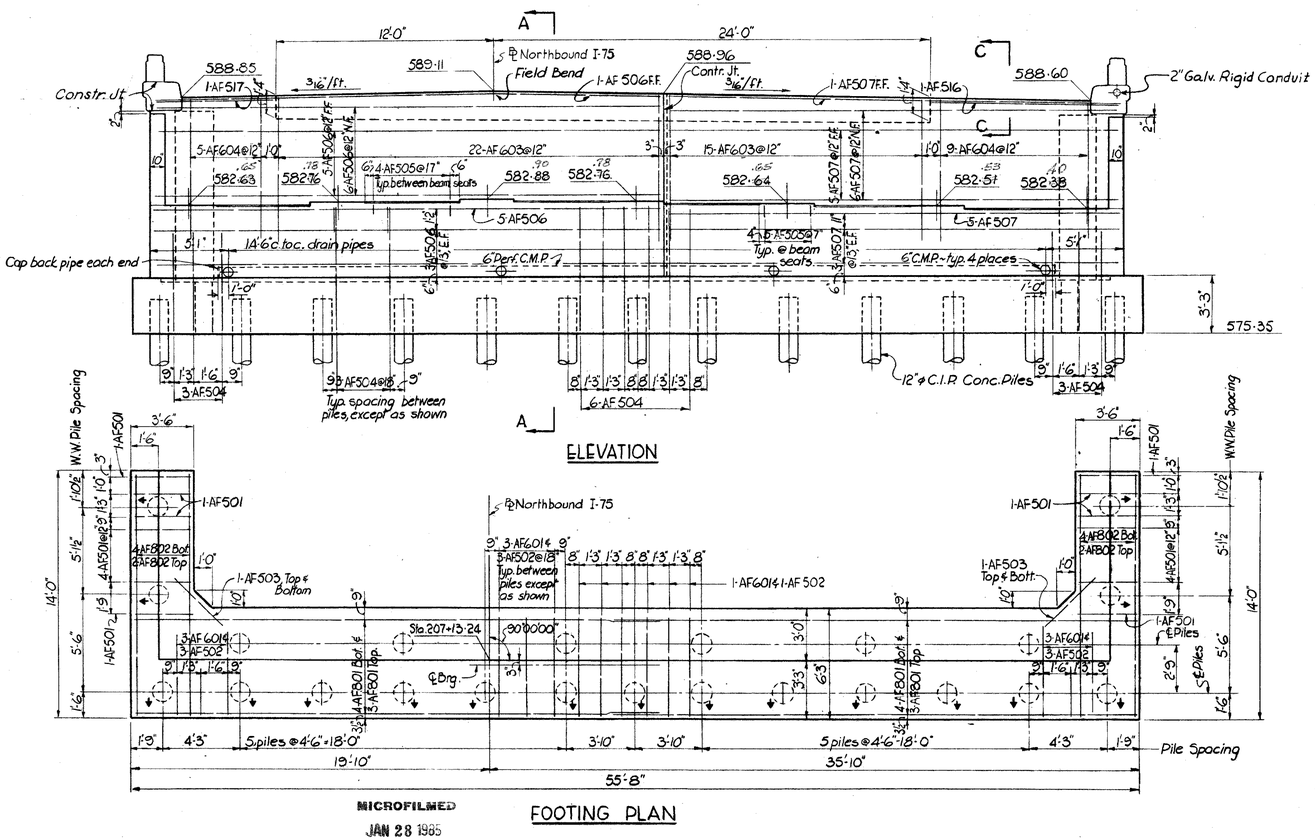
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

375
450



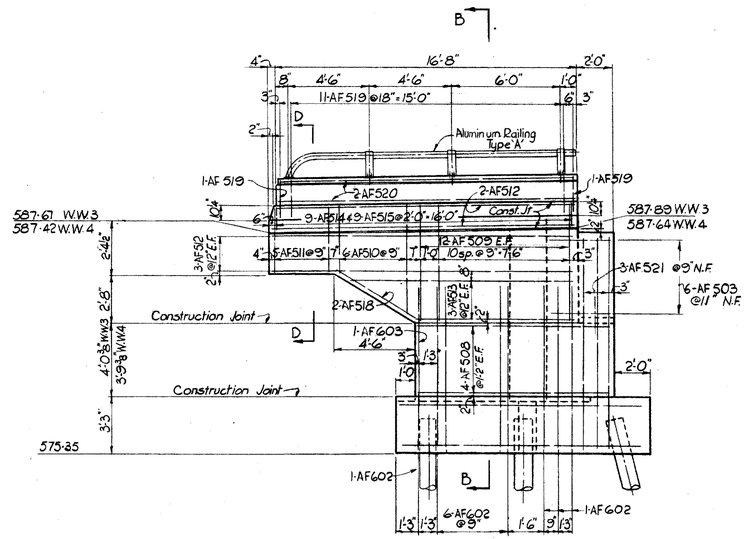
PLAN



ELEVATION

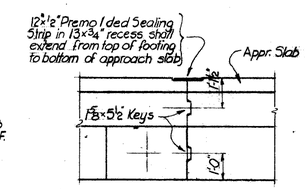
FOOTING PLAN

MICROFILMED
JAN 28 1985

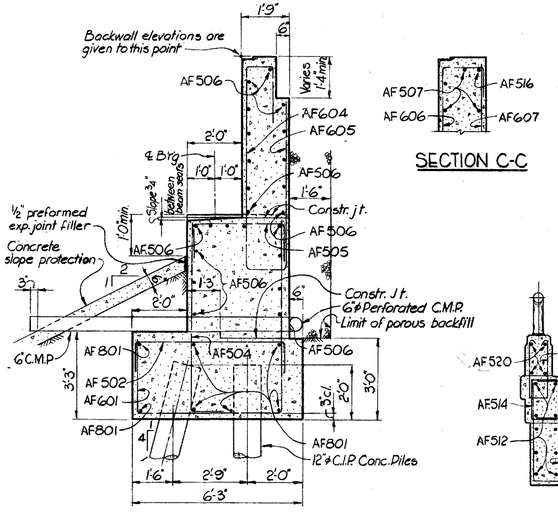


WINGWALL ELEVATION

Wingwall 3 shown. Wingwall 4 similar, except as dimensioned.



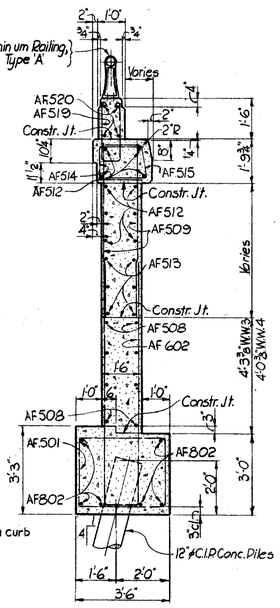
CONTRACTION JOINT DETAIL



SECTION A-A

SECTION C-C

SECTION D-D



SECTION B-B

NOTES:

Legend : N.F. = Near Face
F.F. = Far Face
E.F. = Each Face
W.W. = Wingwall

Batter Piles 1 in 4 in direction of arrows ~

For Notes, see Abutment 1, Sh. 374

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

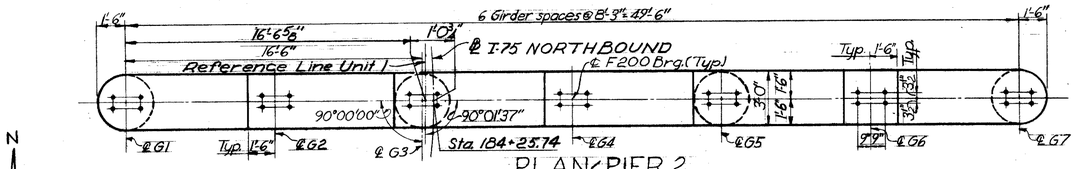
ABUTMENT 2
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., NYC R.R. & SHEPHERD AVE.

HAMILTON COUNTY — STA. 182+97.99 to STA. 207+15.49

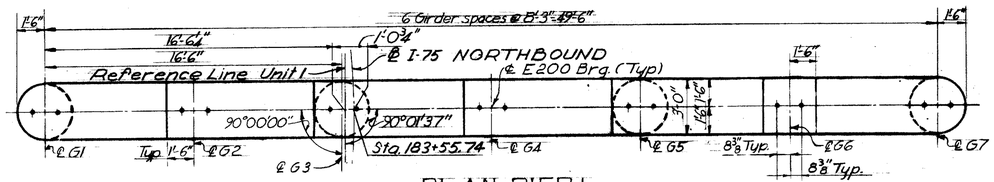
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	D.J.W.	~	G.R.H.	JAO	7-8-64	8-18-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

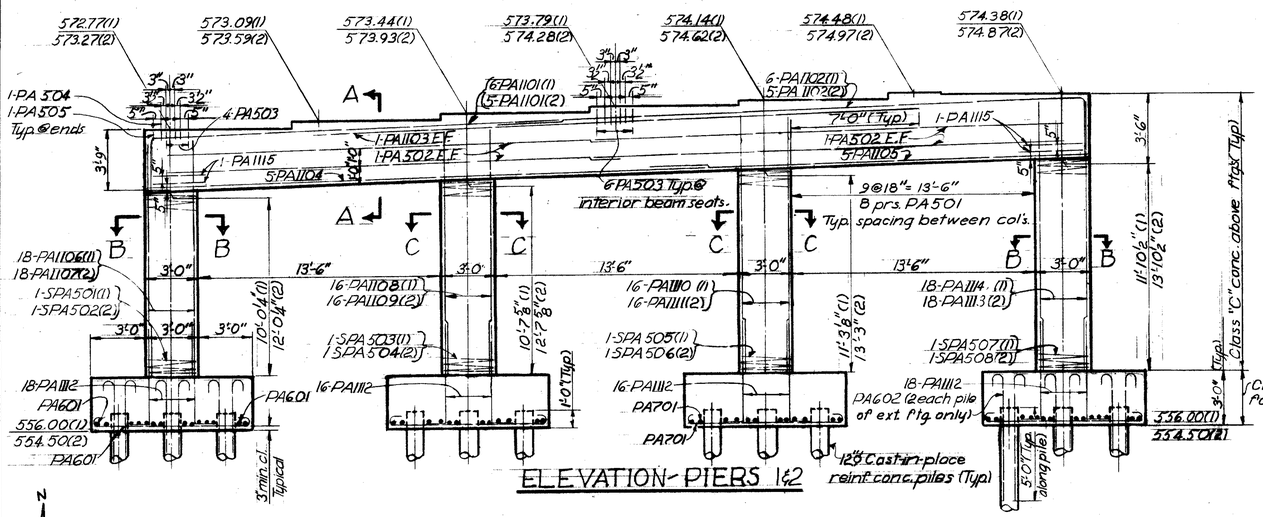
376
450



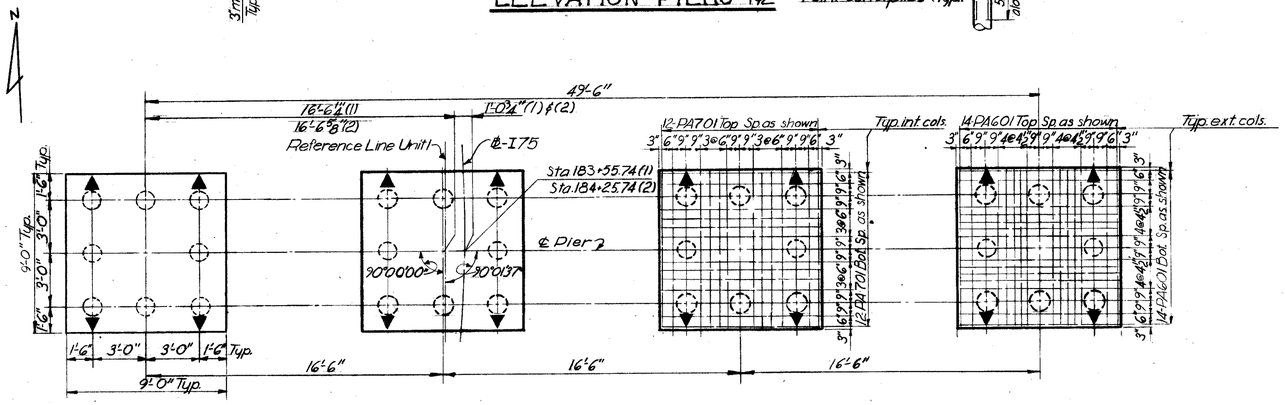
PLAN-PIER 2



PLAN-PIER 1

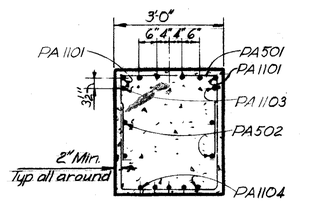


ELEVATION - PIERS 1&2

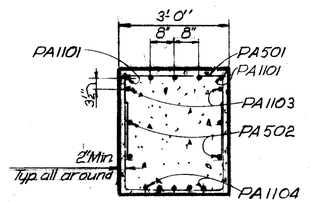


Symbol indicates pile to be battered 3 on 12 in the direction of the arrow.

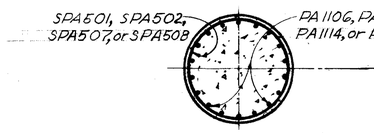
FOOTING PLAN-PIERS 1&2



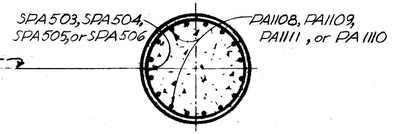
SECTION A-A
PIER 1



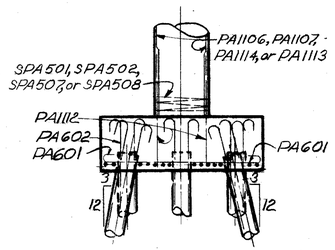
SECTION A-A
PIER 2



SECTION B-B



SECTION C-C



PART END ELEVATION

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
   (1)-Designates Pier 1
   (2)-Designates Pier 2
3. The PA602 reinforcing shall be placed only in the exterior footings.
4. For REINFORCING STEEL LIST see Sheet No. 415 thru 419.
5. ELECTRICAL GROUND, per sht. 26 Install in right end of Pier 2.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIERS 1&2
BRIDGE NO HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R., & SHEPHERD AVE.

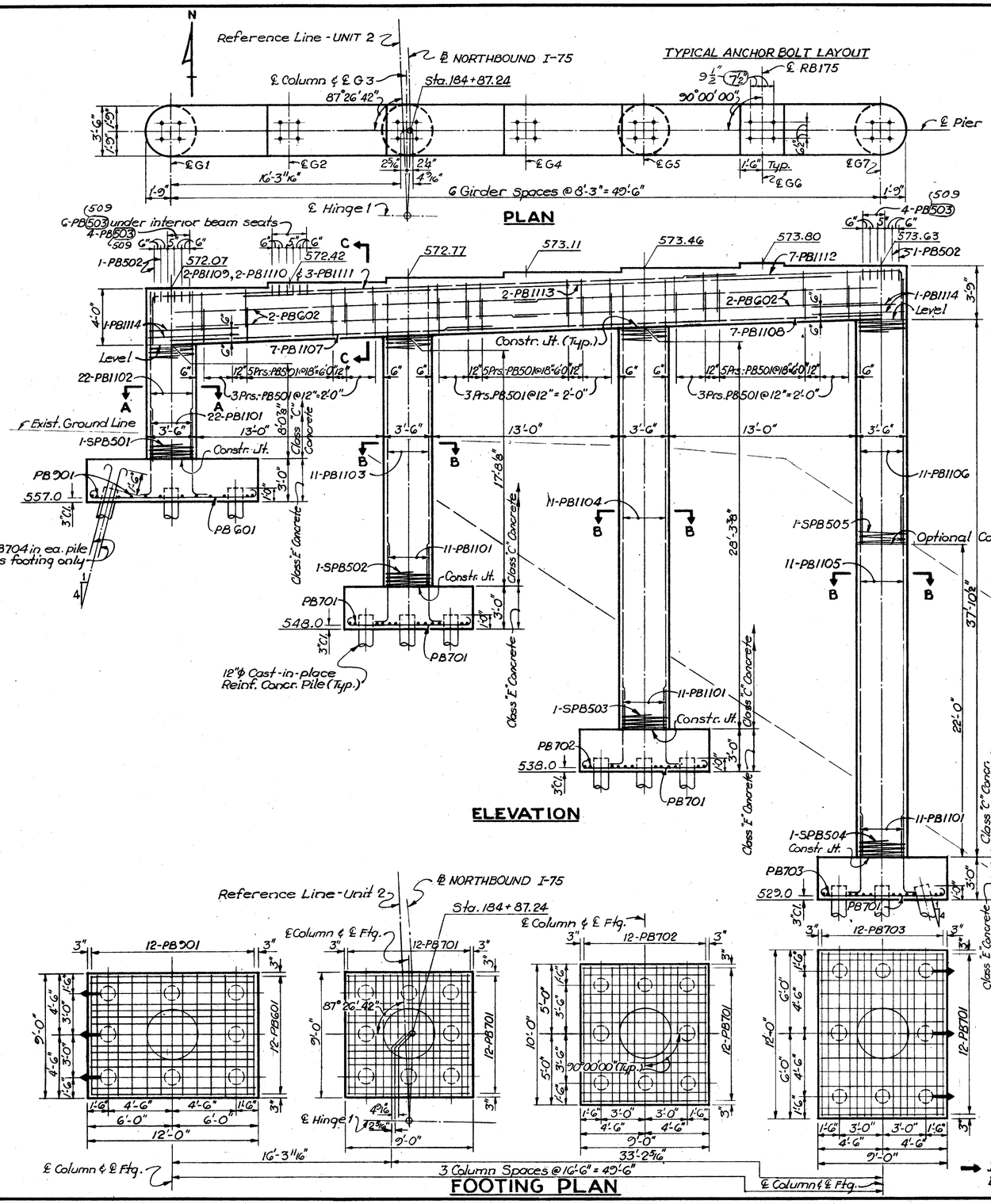
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

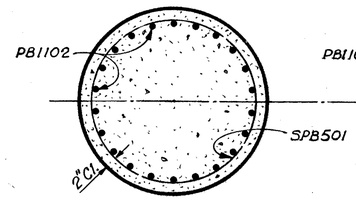
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.S.	G.J.W.	~	C.E.C.	JAD	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

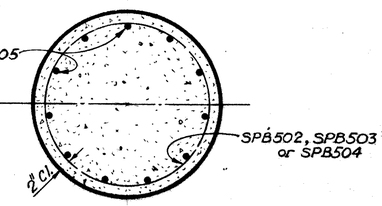
377
450

HAM-75-9.30

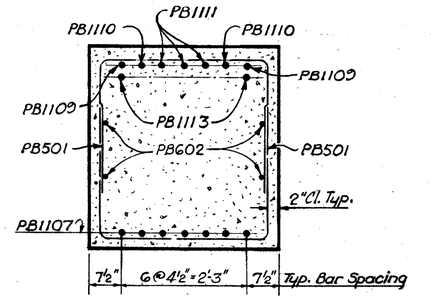




SECTION A-A



SECTION B-B



SECTION C-C

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.
2. For reinforcing steel list, see Sheets 415 thru 419.

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

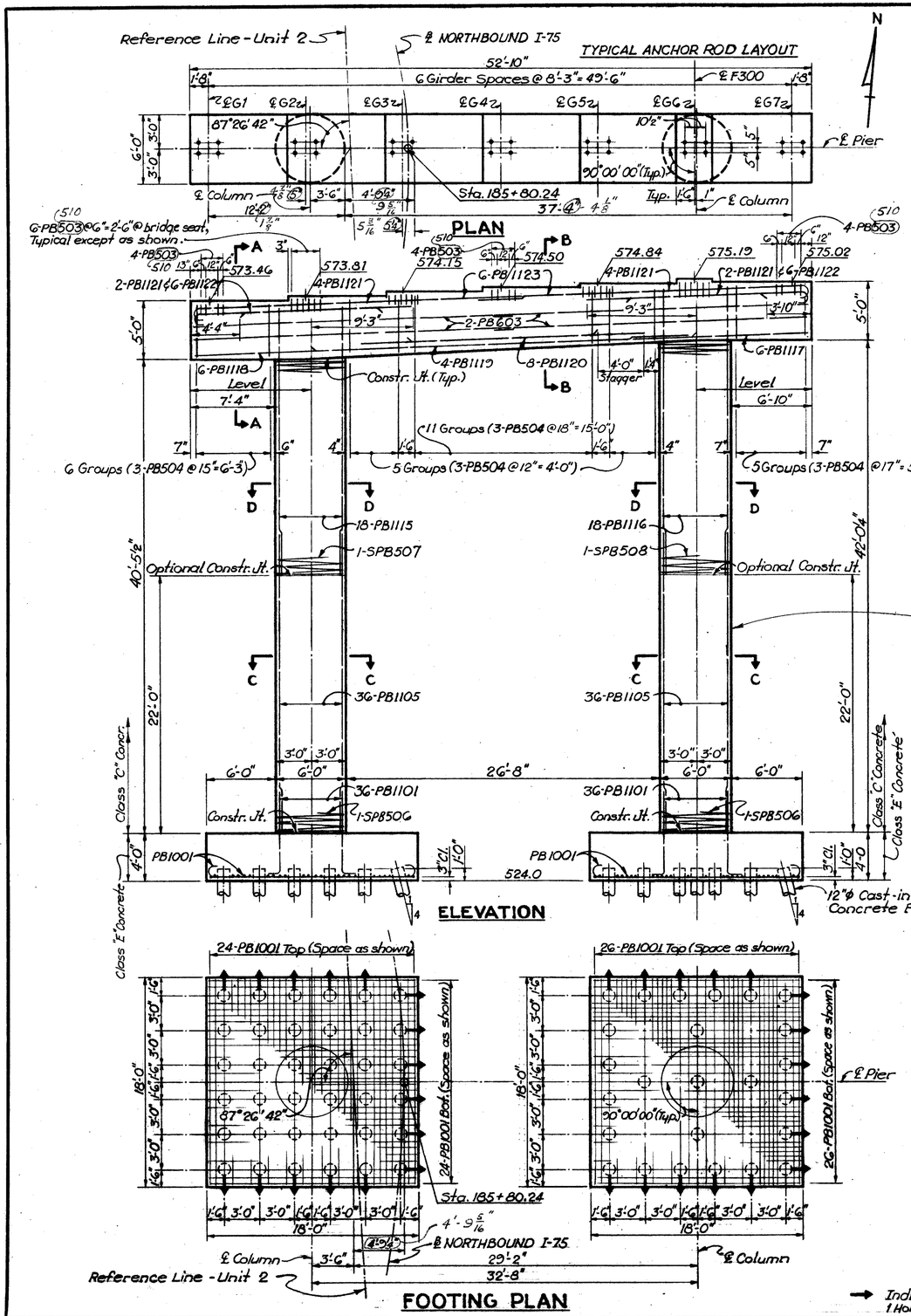
PIER 3

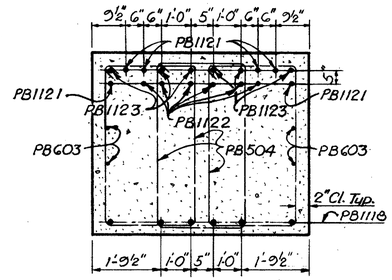
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

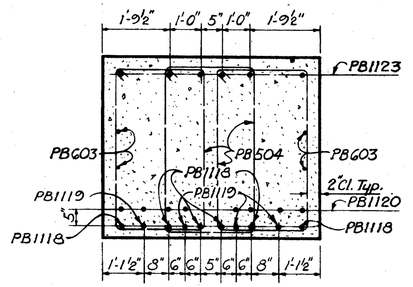
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.S.	J.C.H.	~	B.C.	J.A.D.	7-8-64	12-17-64 2-25-65

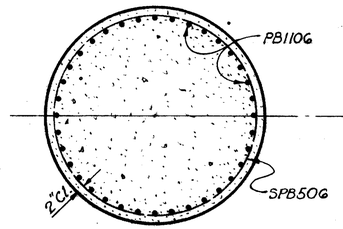
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

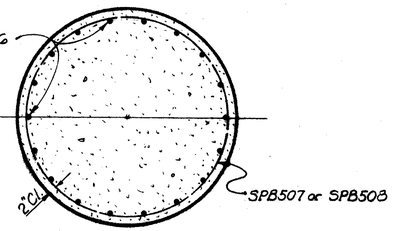
HAM-75-9.30











NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. For reinforcing steel list, see Sheets 415 thru 419.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 4

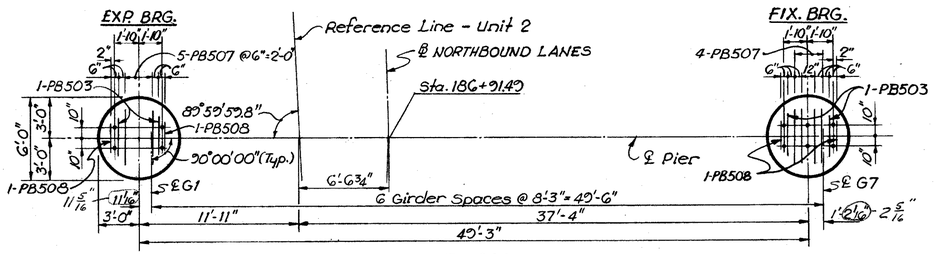
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

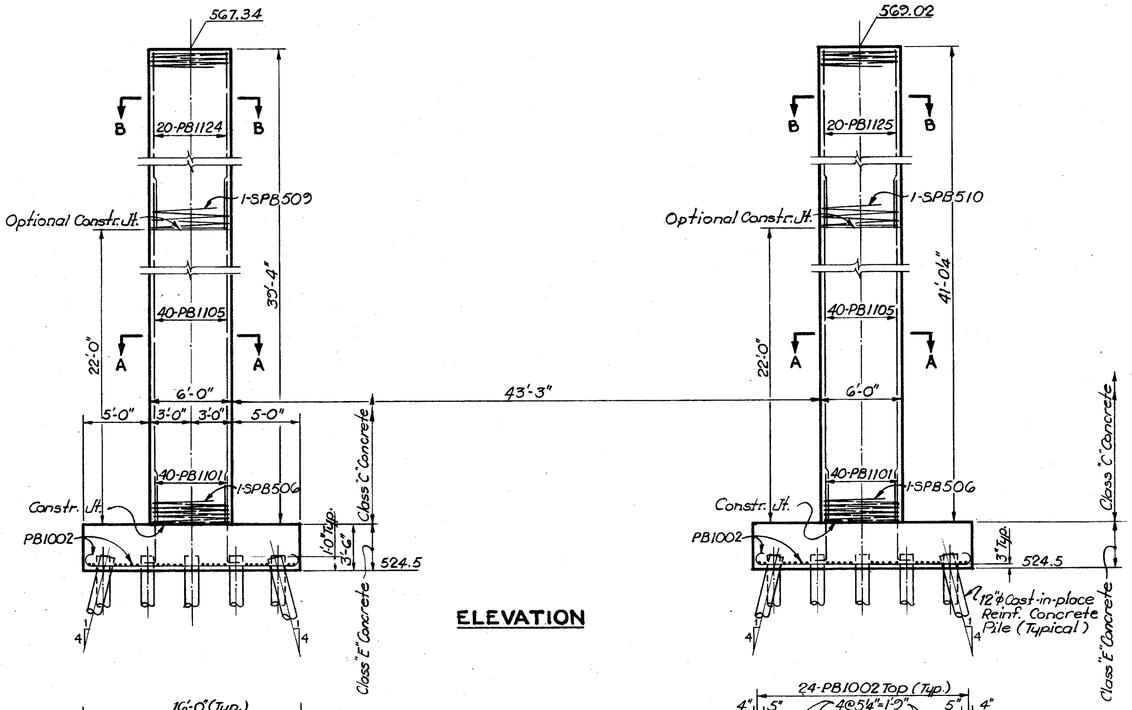
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
A.Y.	J.C.H.	~	B.C.	J.A.D.	7-8-64	12-7-64

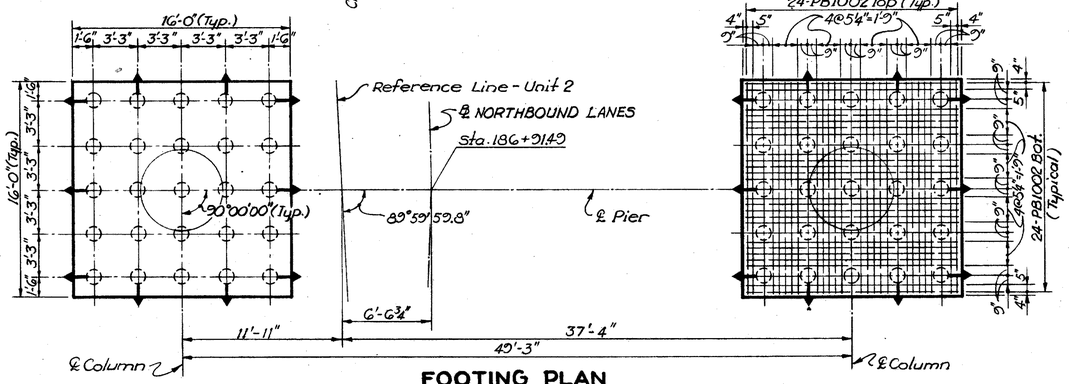
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

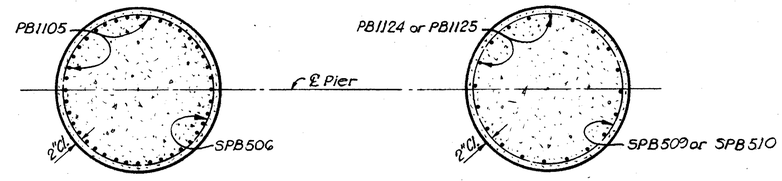
379
450

HAM-75-9.30









NOTES

1. For carrying girder details, see Sheet 403.
2. For Expansion & Fixed bearing details, see Sheet 403.
3. Special care shall be taken in placing reinforcing steel at top of column so as to avoid interference with the drilling of anchor rod holes.
4. For reinforcing steel list, see Sheets 415 thru 419.

← Indicates Batter 4 Vertical to 1 Horizontal in direction shown.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 5

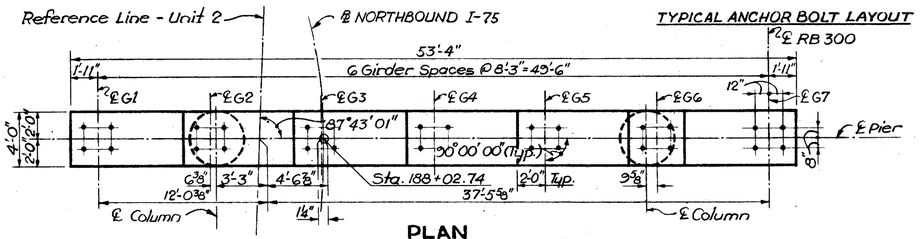
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AV
HAMILTON COUNTY STA. 182+97.99 to
STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	J.C.H.	~	B.C.	J.A.D.	7-8-64	12-17-69

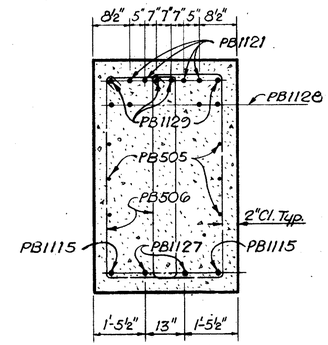
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

380
450

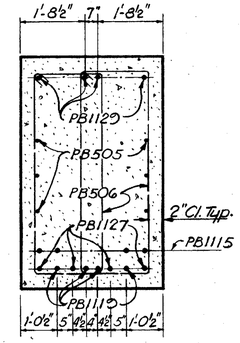
HAM-75-9.30



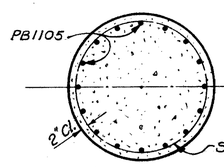
← Indicates Batter 4 Vertical to 1 Horizontal in direction shown.



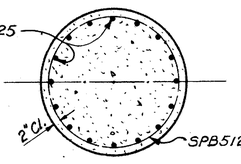
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor bolt holes.
2. For additional details of RB300, see Std. Dwg. RB-1-55 & Sheet 400.
3. For reinforcing steel list, see Sheets 418 thru 419.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 6

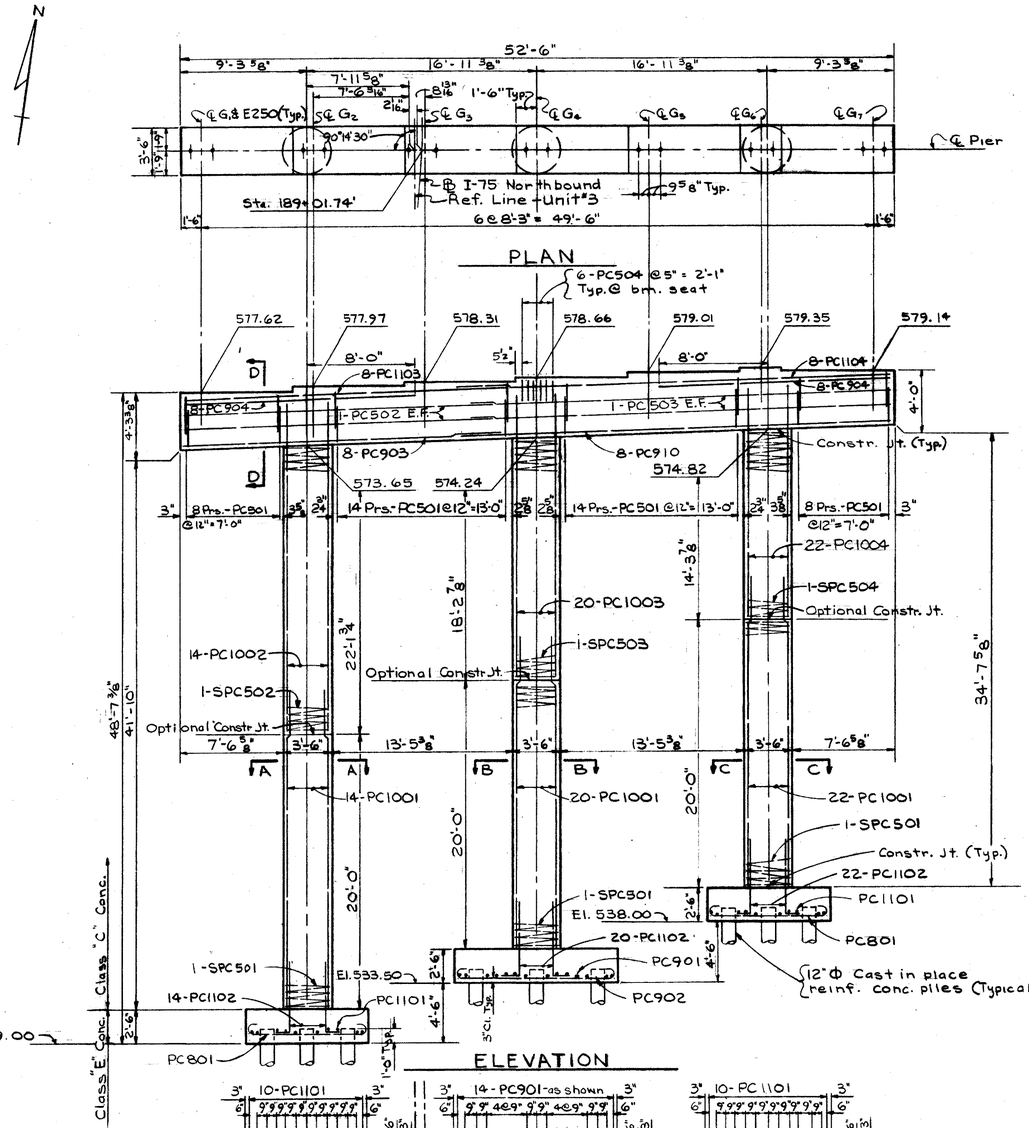
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

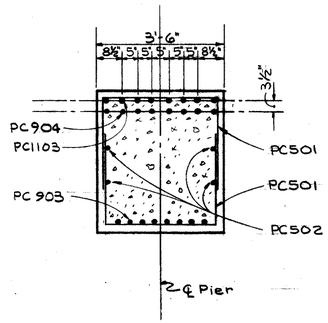
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	J.C.H.	~	B.C.	J.A.D.	7-8-64	12-17-64 4-2-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

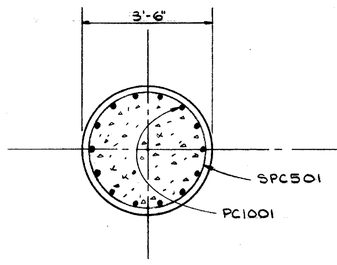
381
450

HAM-75-9.30

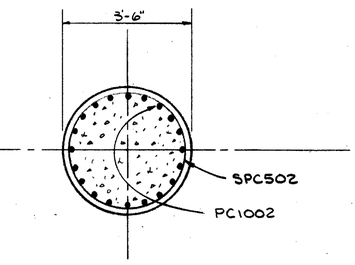




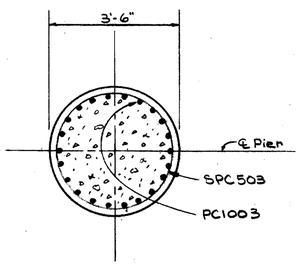
SECTION D-D



SECTION A-A



SECTION B-B



SECTION C-C

NOTES

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face.
3. Place dowels in footing to insure correct spacing of main column steel.
4. For REINFORCING STEEL LIST see sheet no. 415 thru 419

LEGEND

- Vertical Piles
- Batter Piles (Batter 12 vertical to 3 horizontal in direction of arrow)

MICROFILMED
JAN 28 1965

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 7
BRIDGE NO. HAM-75-1147

NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE

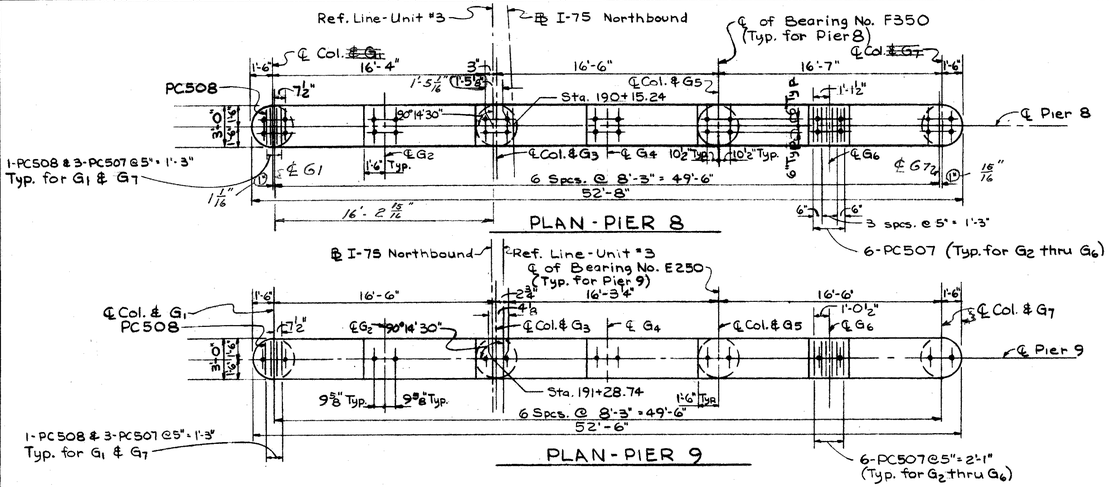
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

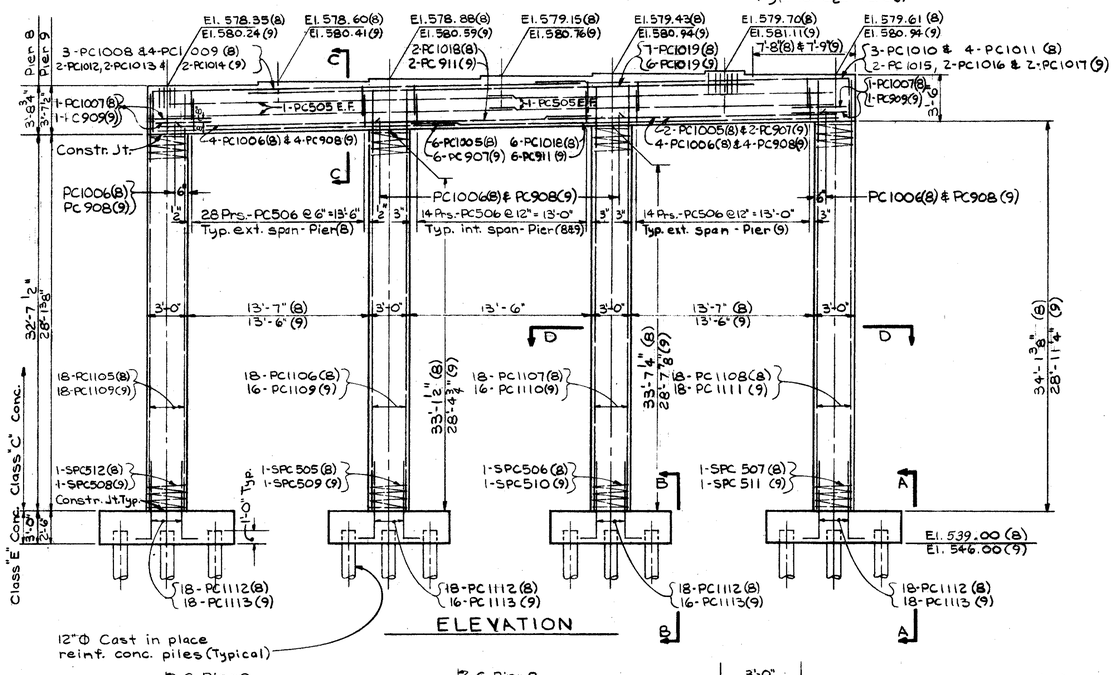
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
RKS	DHW	~	CEC	JAD. 7-8-64	

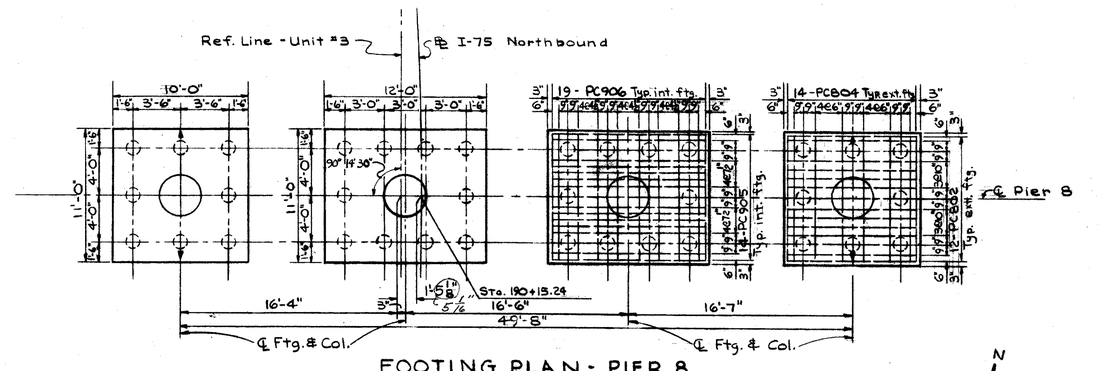
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

382
450

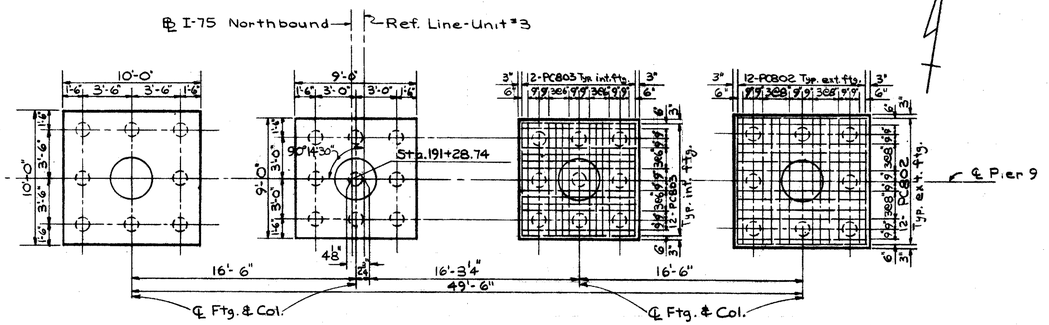
HAM -75 - 9.30







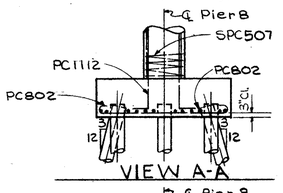
FOOTING PLAN - PIER 8

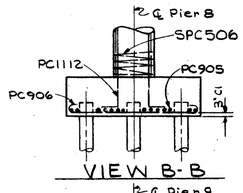


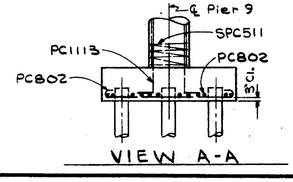
FOOTING PLAN - PIER 9

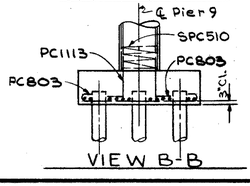
NOTES

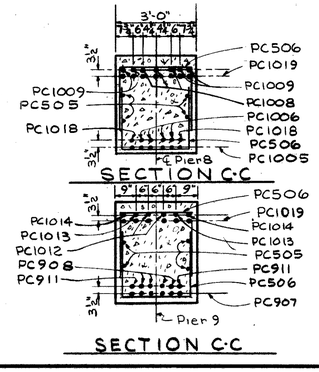
1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
3. Place dowels in footing to insure correct spacing of main column steel.
4. For REINFORCING STEEL LIST see sheet no. 415 thru 419
5. *ELECTRICAL GROUND, per sht. 26. Install in right end of Pier 8*

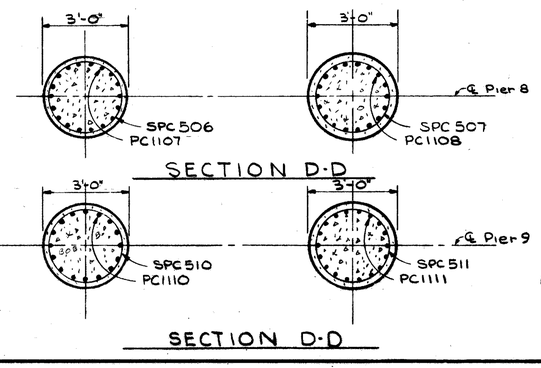












LEGEND

- Vertical Piles
- Batter Piles (Batter 12 vertical to 3 horizontal in direction of arrow)

RECEIVED
JAN 28 1965

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 8 & 9
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AV.

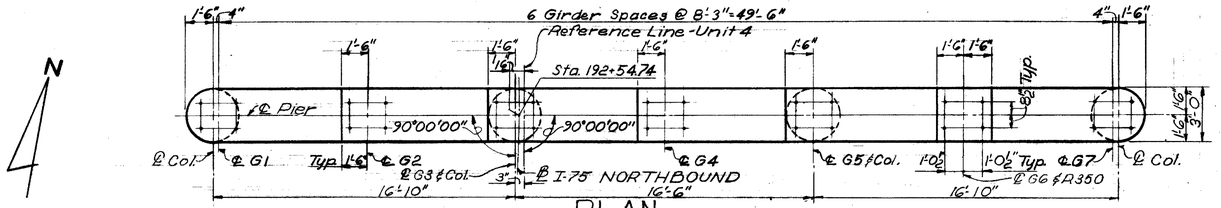
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
E.E.S.	DHW	~	BC	J.A.D.	7-8-64	12-17-64

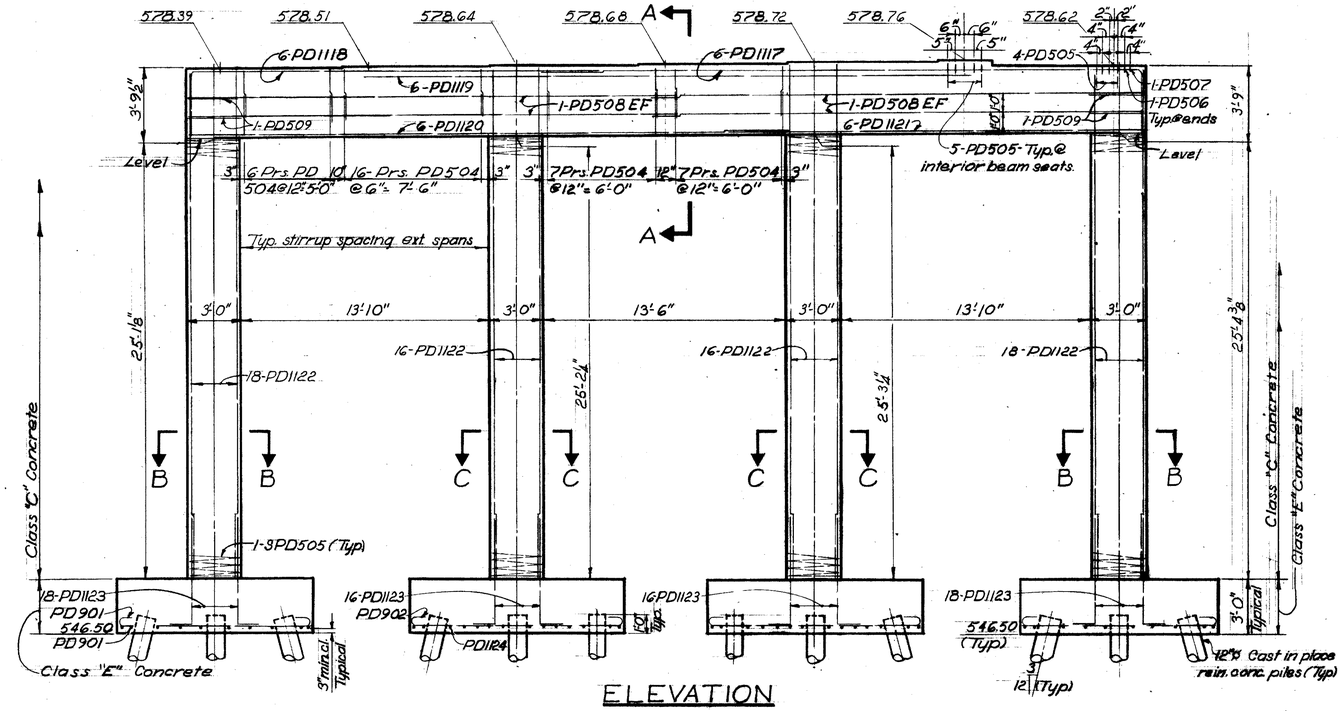
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

383
450

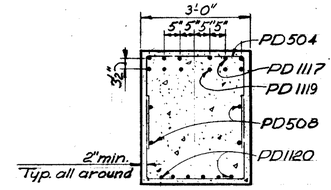
HAM-75-9.30



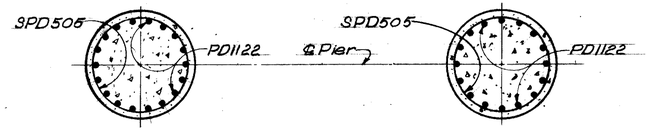
PLAN



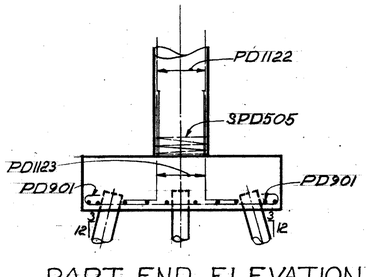
ELEVATION



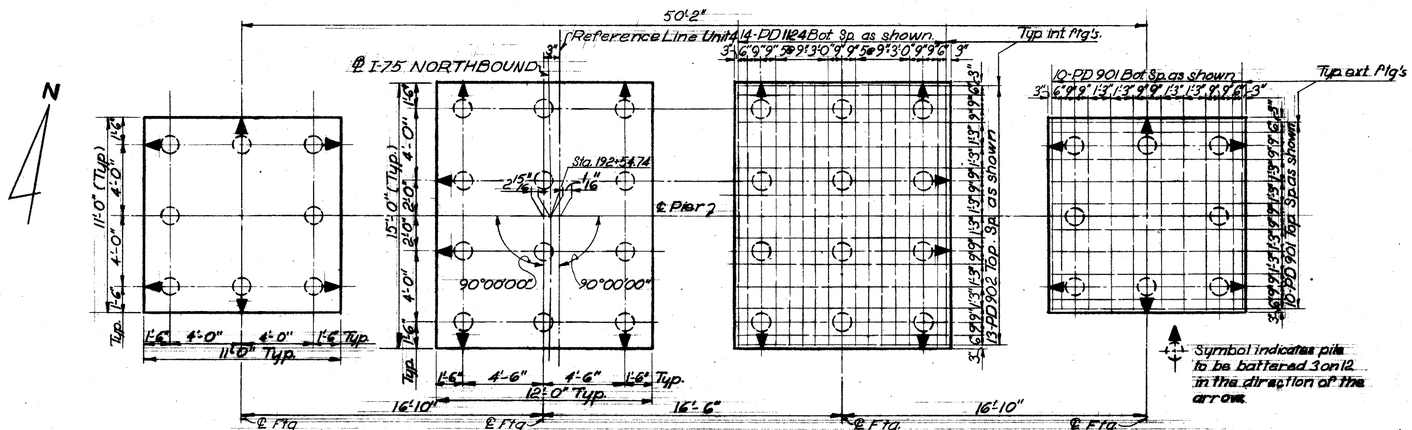
SECTION A-A



SECTION B-B SECTION C-C



PART END ELEVATION



FOOTING PLAN

NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F.=Each Face
3. For REINFORCING STEEL LIST see Sheet No. 415 → 419

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 10
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK, BENSON ST., N.Y.C.R.R., & SHEPHERD AVE.

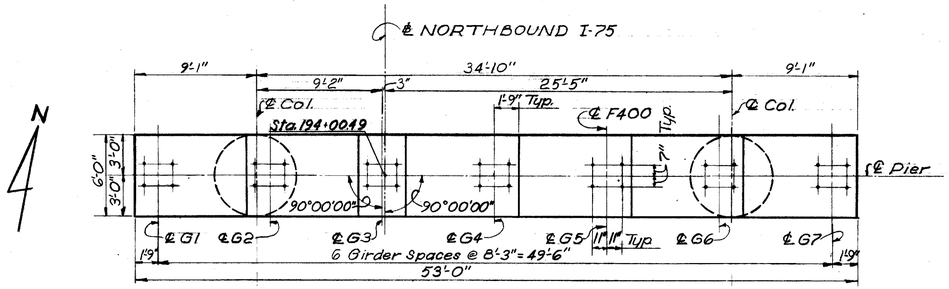
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
P.R.B.	G.J.W.	~	B.C.	J.A.D	7-8-64	

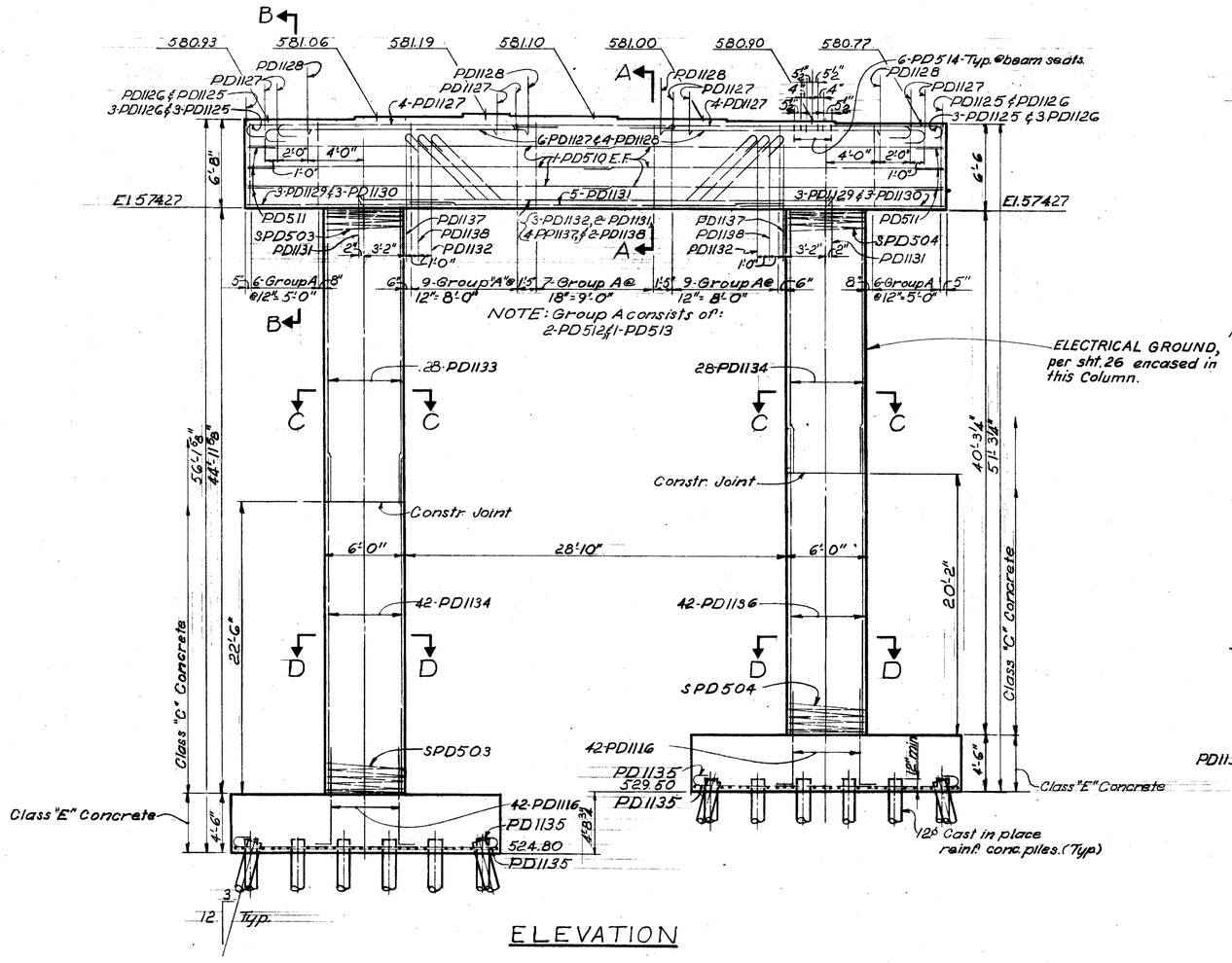
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

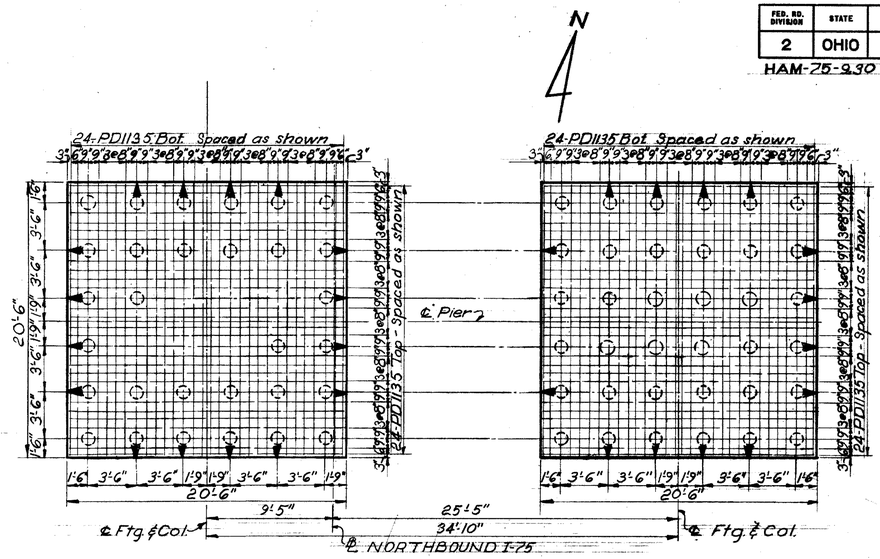
384
450



PLAN

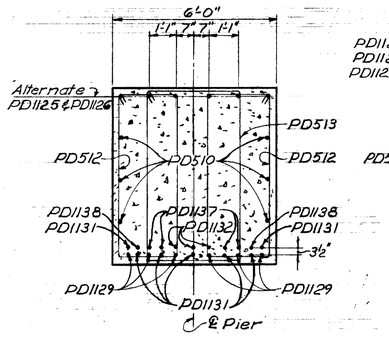


ELEVATION

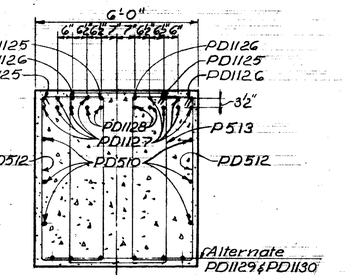


FOOTING PLAN

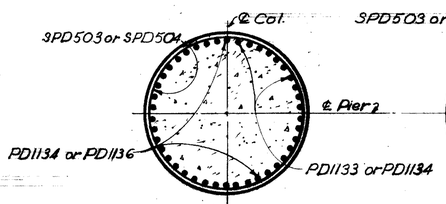
Symbol indicates pile to be battered 3 on 12 in the direction of the arrow.



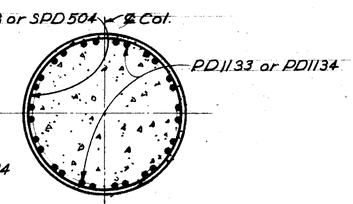
SECTION A-A



SECTION B-B



SECTION D-D



SECTION C-C

NOTES:

1. Special care shall be taken in placing reinforcing steel in the vicinity of the brige seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
3. For REINFORCING STEEL LIST see Sheet No. 415 thru 419

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

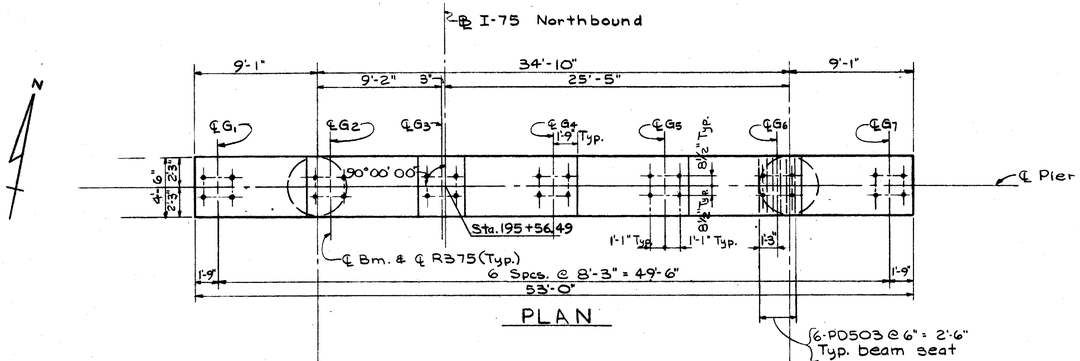
PIER II
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AVE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.R.B.	G.J.W.	~	B.C.	J.A.D.	7-8-64	

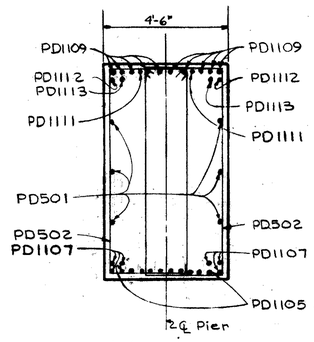
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

385
450

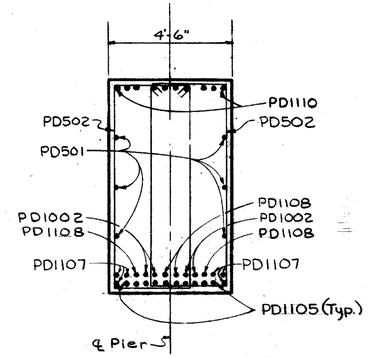
HAM-75-9.30



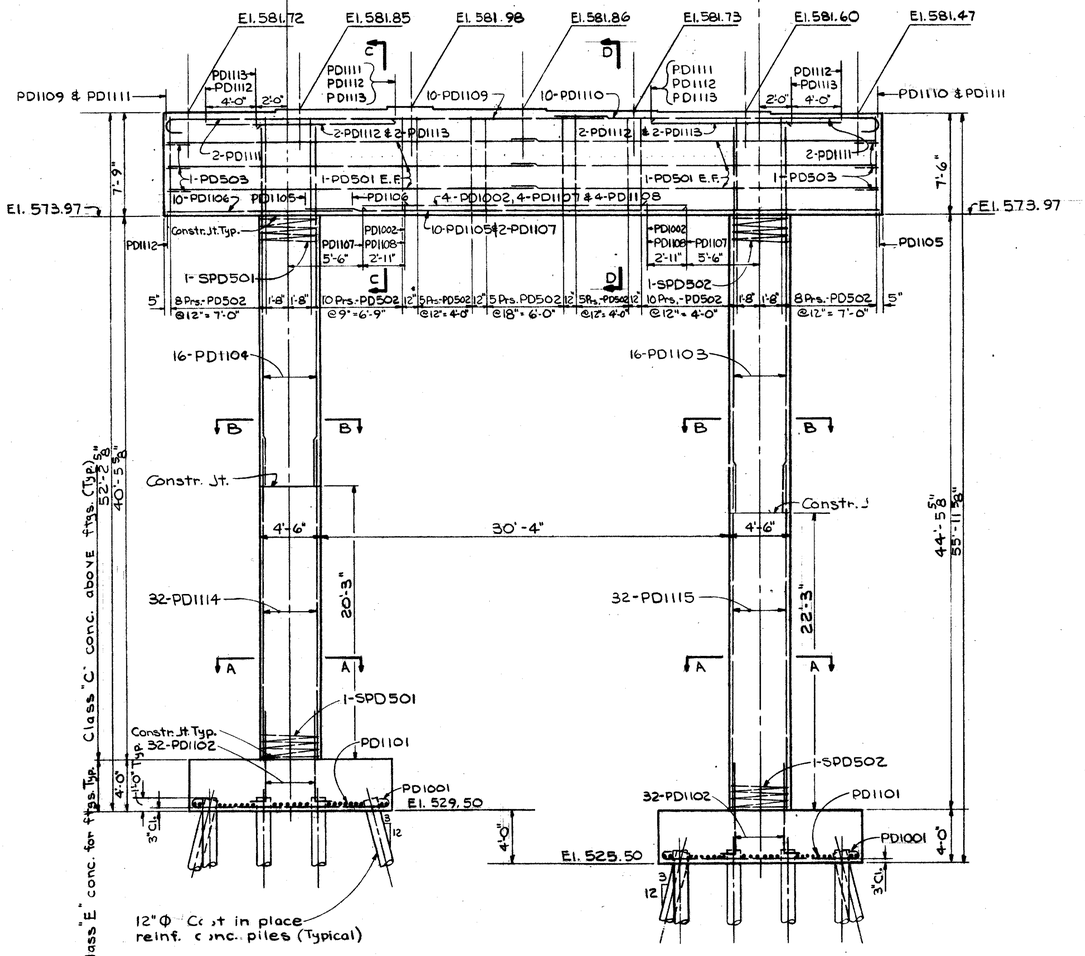
PLAN



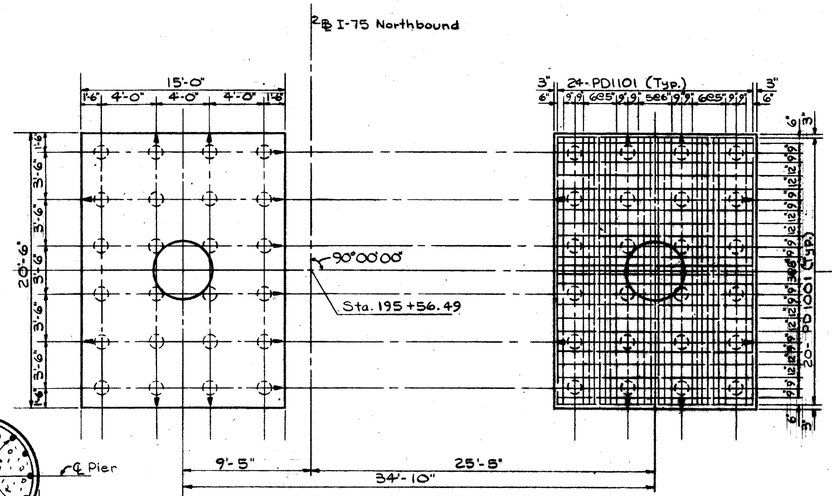
SECTION C-C



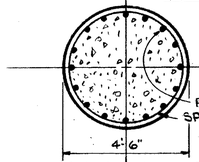
SECTION D-D



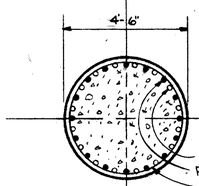
ELEVATION



FOOTING PLAN



SECTION B-B



SECTION A-A

NOTES

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
3. Place dowels in footing to insure correct spacing of main column steel.
4. For REINFORCING STEEL LIST see sheet no. 415 thru 419

LEGEND

- Vertical Piles
- Batter Piles (Batter 12 vertical to 3 horizontal in direction of arrow.)

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIER 12
BRIDGE NO. HAM-75-1147

NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AV

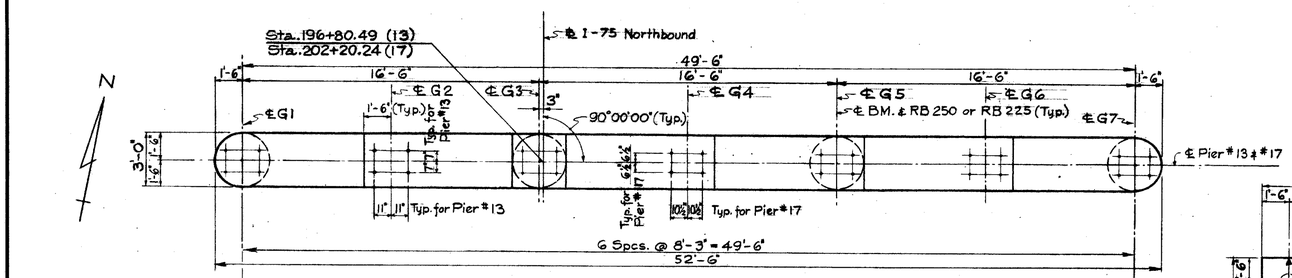
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
P.R.B.	DHW	~	BC	J.A.D. 7-8-64	

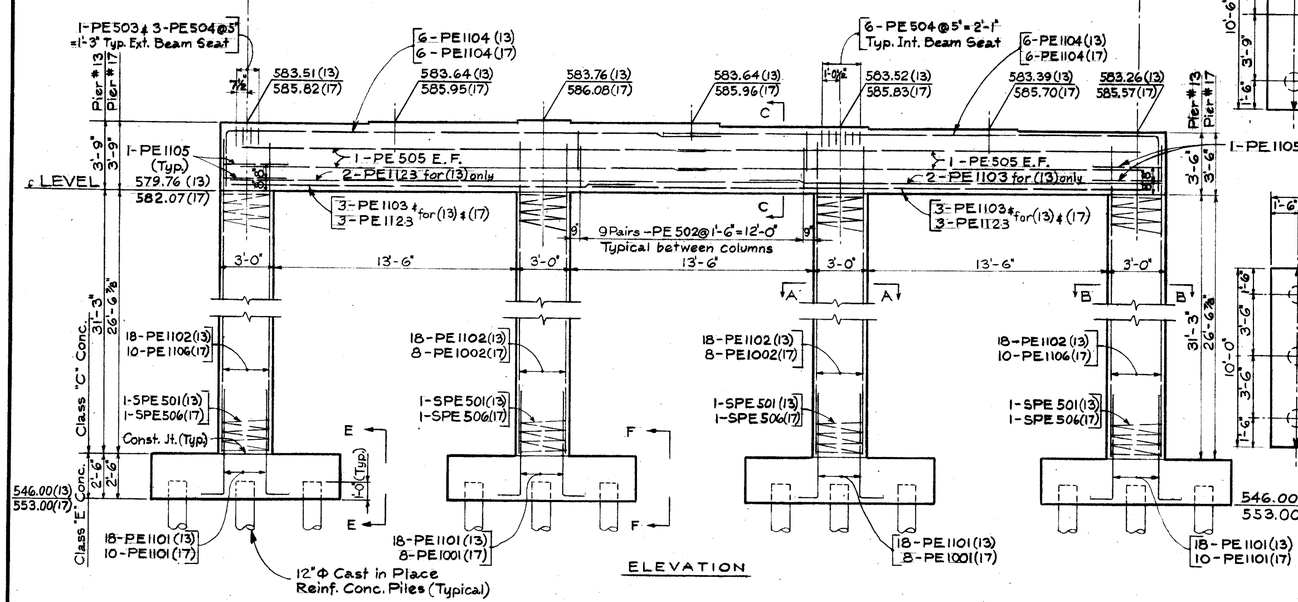
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

386/450

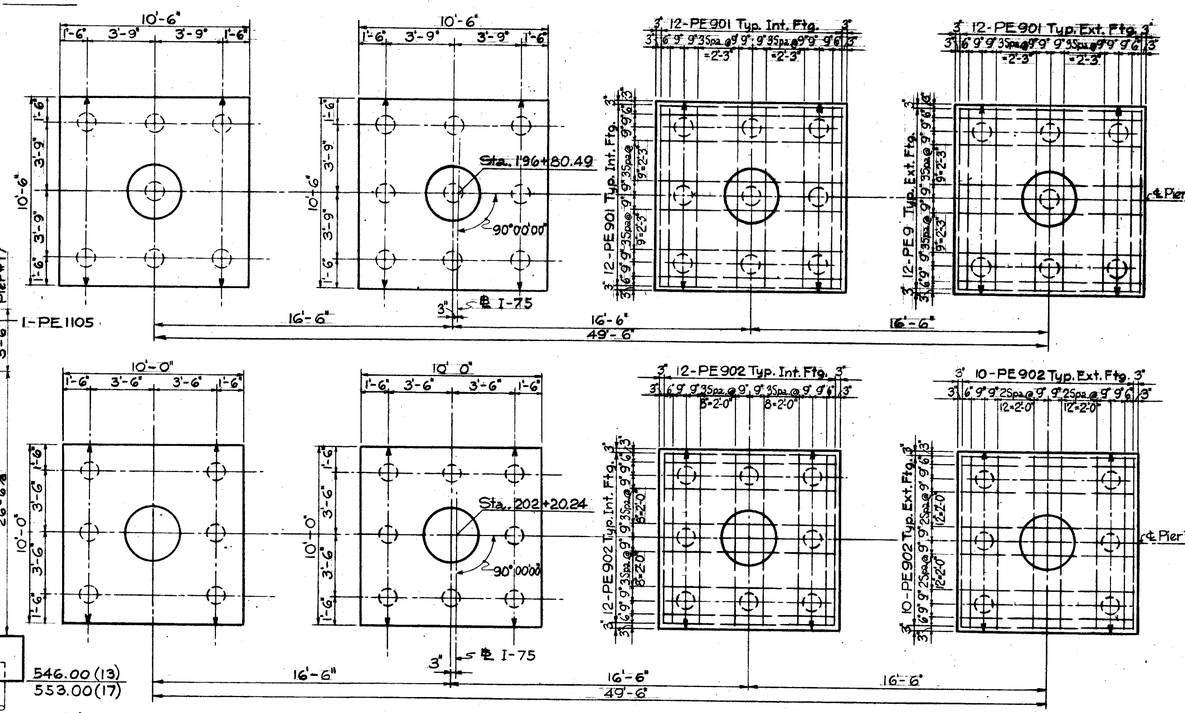
HAM-75-9.30



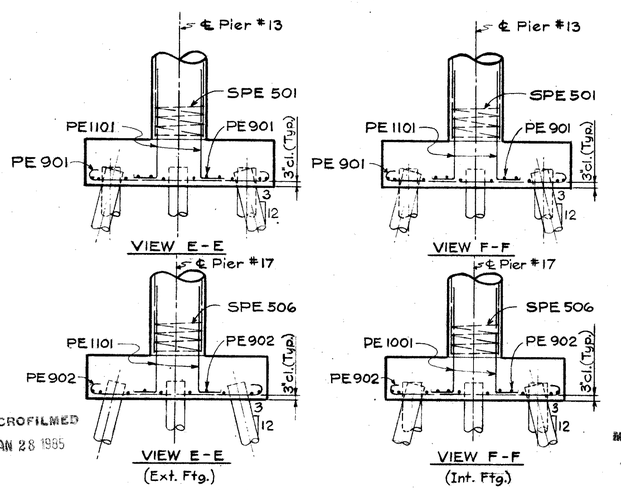
PLAN OF CAP-PIERS #13 & #17

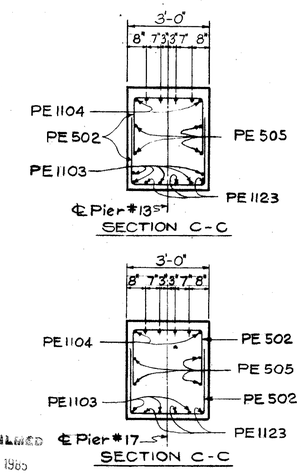


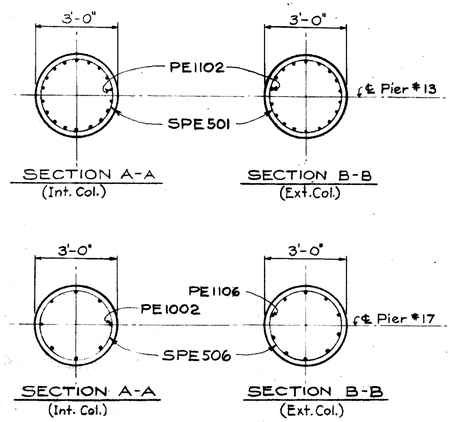
ELEVATION



PLAN OF FOOTINGS







LEGEND:

E.F. = Each Face

Vertical Piles

Batter Piles (Batter 3:12 in direction of arrow)

NOTES:

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. For Reinforcing Steel List, see Sh. 415 thru Sh. 419

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

PIERS 13 & 17
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.

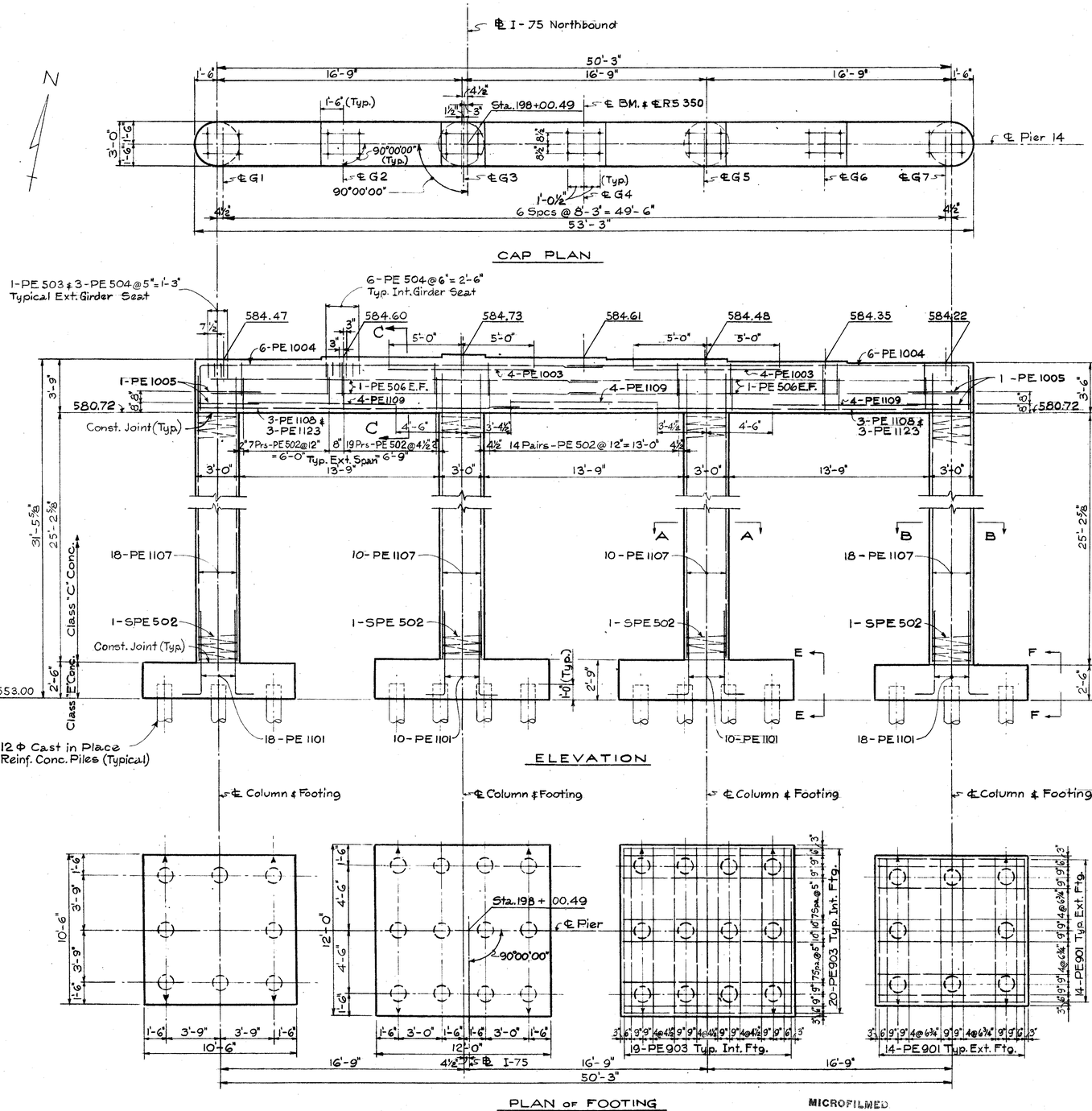
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

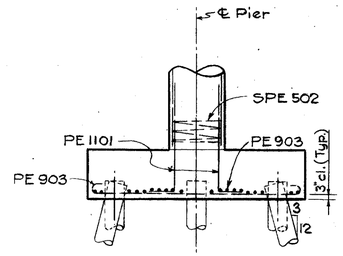
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.Y.	M.P.S.		B.C.	J.A.D. 7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

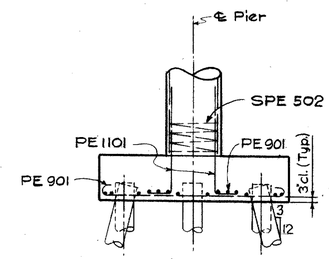
387/450

HAM-75-9.30

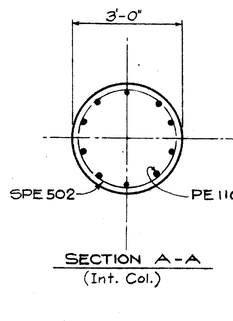




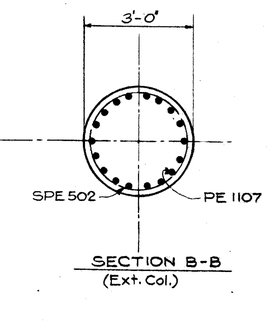
VIEW E-E
(Int. Ftg.)



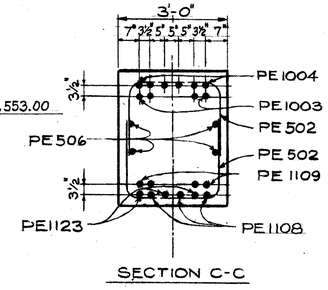
VIEW F-F
(Ext. Ftg.)



SECTION A-A
(Int. Col.)



SECTION B-B
(Ext. Col.)



SECTION C-C

NOTES:

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. For Reinforcing Steel List, see Sh. 415 thru Sh. 419

LEGEND:

- Vertical Piles
- Batter Piles (Batter 3:12 in direction of arrow)

E. F. = Each Face

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

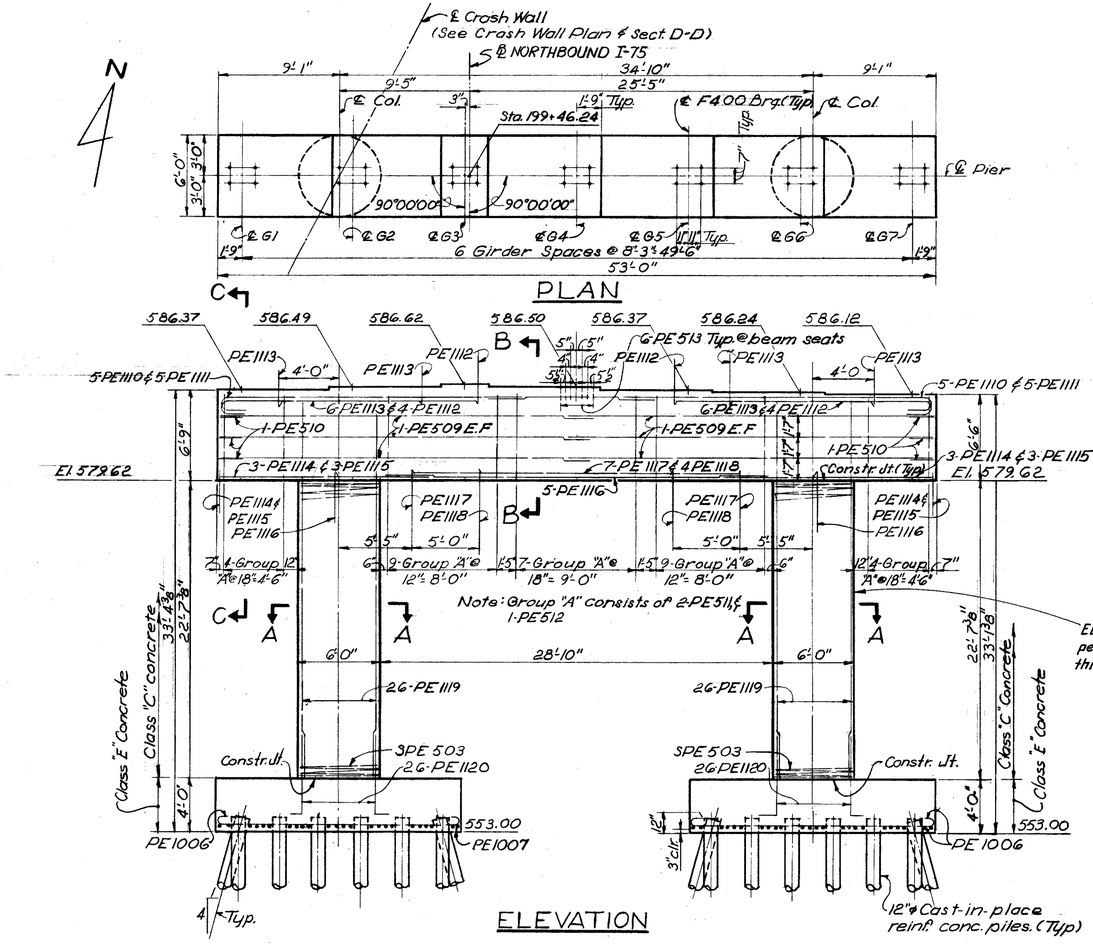
PIER 14
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

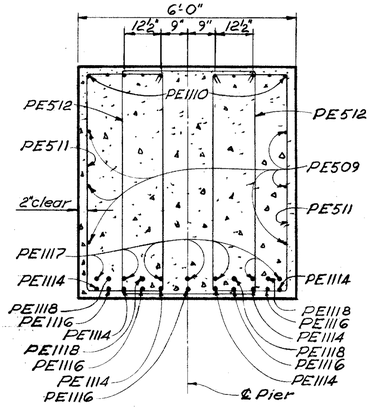
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
A.Y.	MPS		BC	J.A.D. 7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

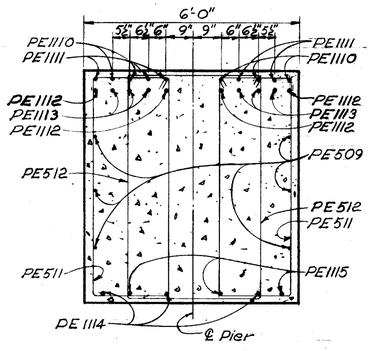
388
450

HAM-75-9.30

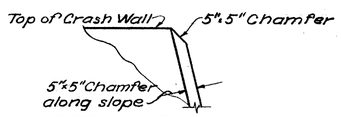




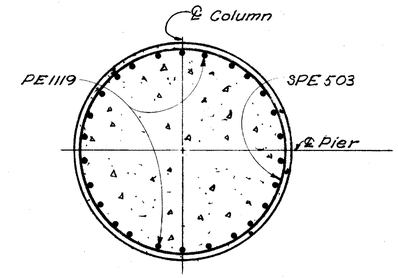
SECTION B-B



SECTION C-C



DETAIL E



SECTION A-A

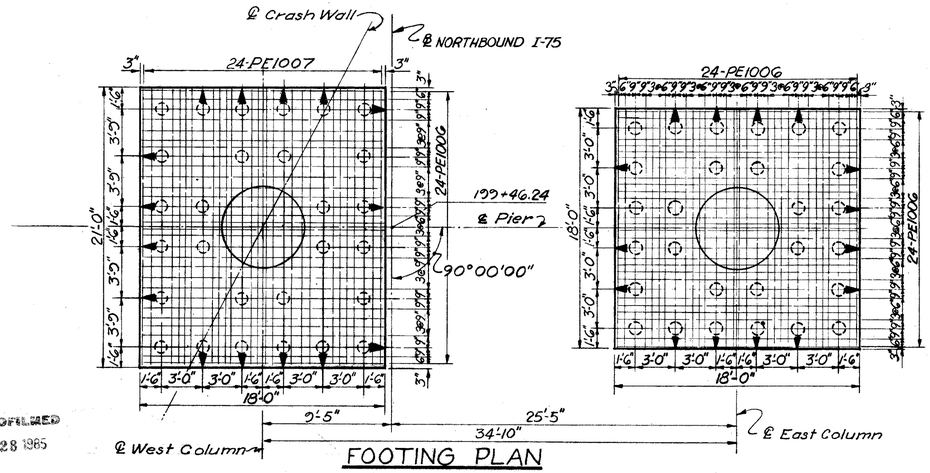
NOTES

1. Special care shall be taken in placing reinforcing steel in the vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. For REINFORCING STEEL LIST, see Sheets 415 thru 419.

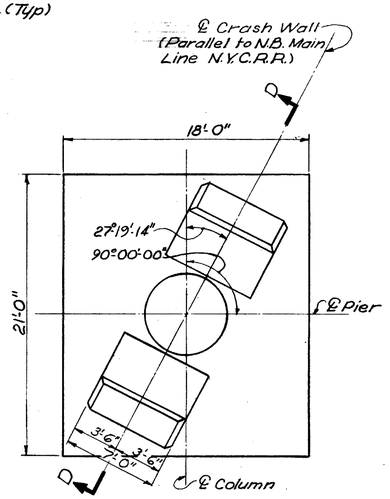
LEGEND

E.F. denotes Each Face

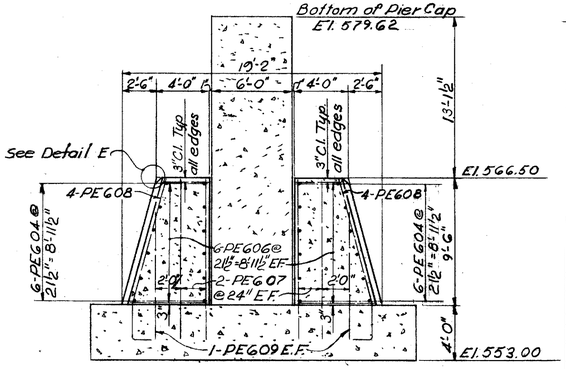
Indicates Batter 4 Vertical to 1 Horizontal in the direction of the arrow.



FOOTING PLAN



CRASH WALL PLAN
FOR WEST COLUMN ONLY



SECTION D-D

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 15
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK, BENSON ST., N.Y.C.R.R., & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

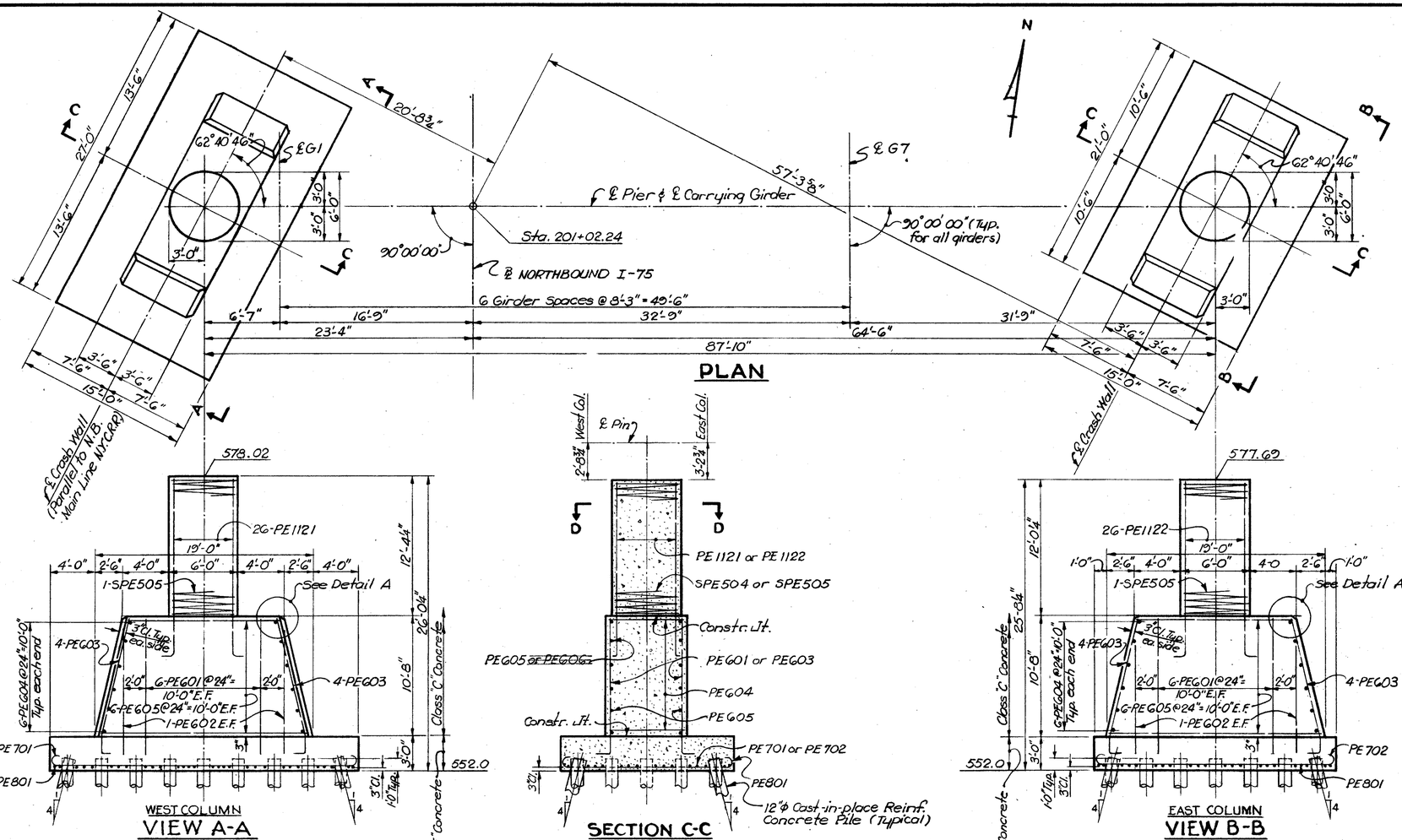
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.F.	G.J.W.	~	B.C.	J.A.D.	7-8-64	

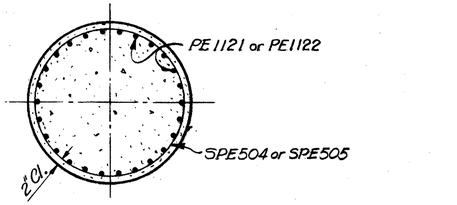
28

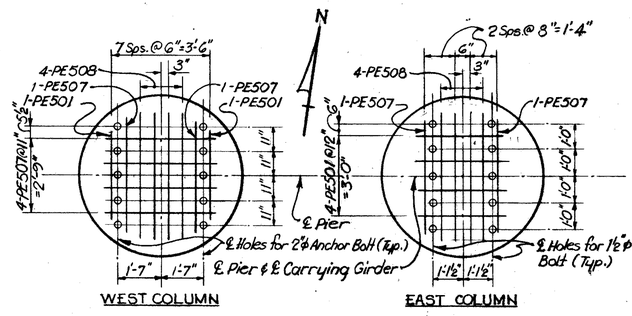
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

389
450

HAM-75-9.30







NOTES

1. For reinforcing steel list, see Sheets 415 thru 419.
2. For carrying girder details, see Sheets 404 & 405.

LEGEND

← Indicates Batter 4 Vertical to 1 Horizontal in direction shown

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 16

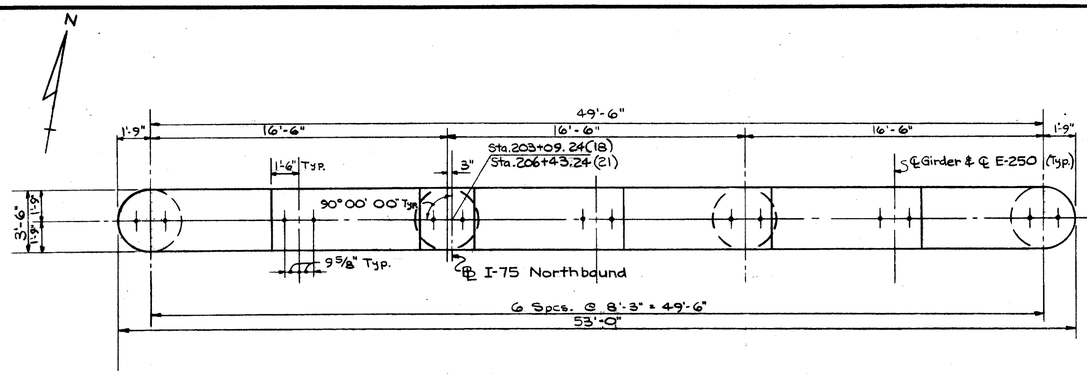
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+07.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.K.S.	J.C.H.	~	B.C.	J.A.D.	7-8-64	12-22-6

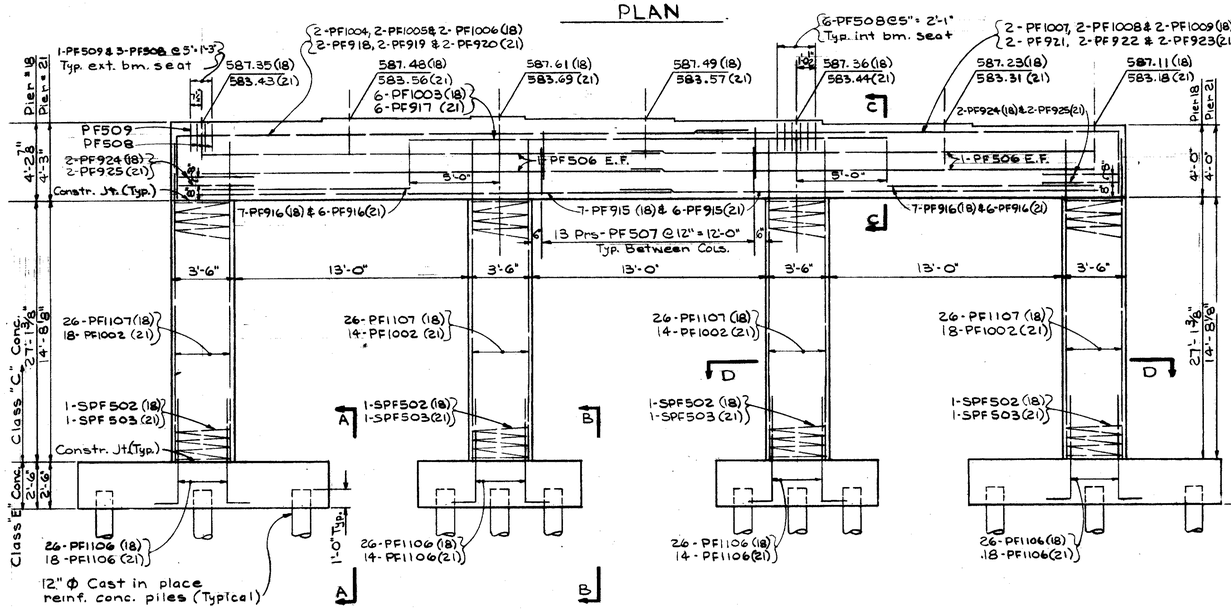
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

390
450

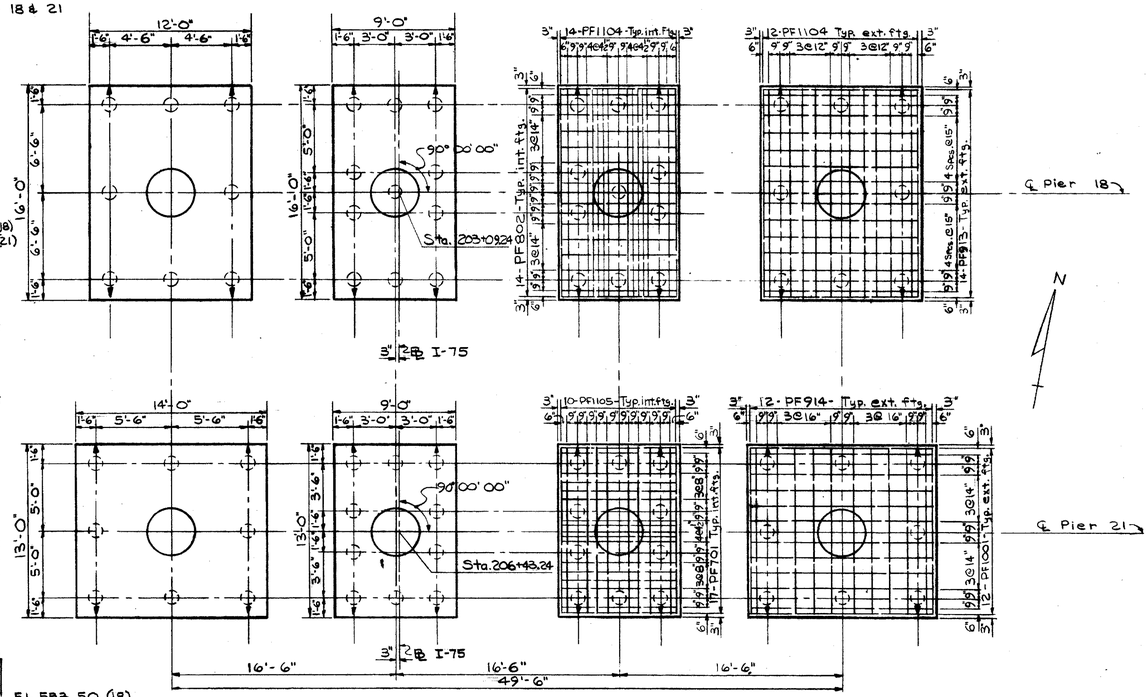
HAM-75-9.30



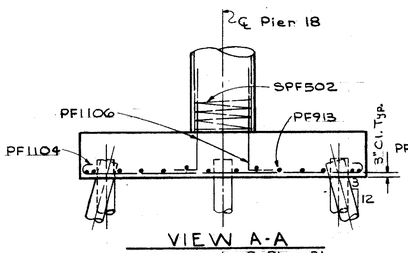
PLAN



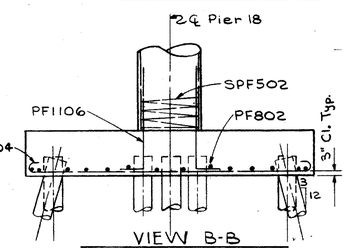
ELEVATION



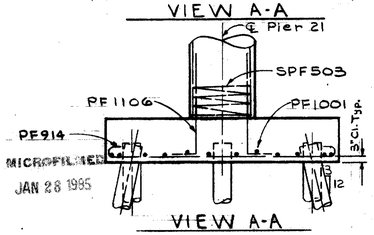
PLAN OF FOOTINGS



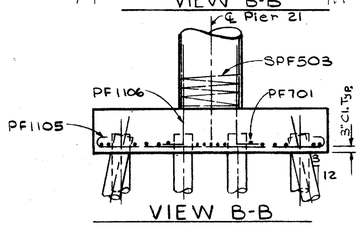
VIEW A-A



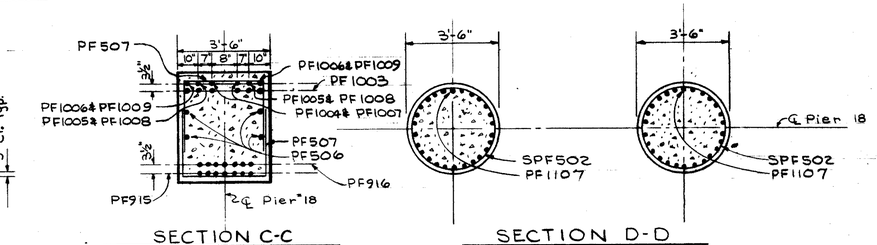
VIEW B-B



VIEW A-A

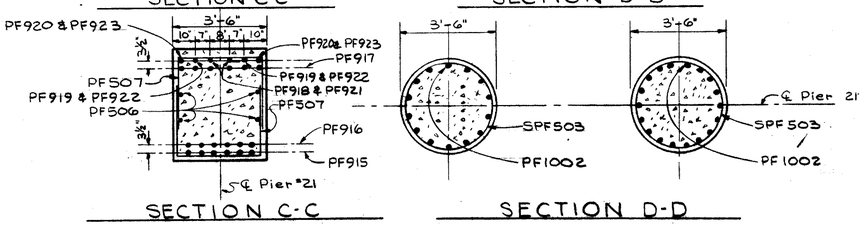


VIEW B-B



SECTION C-C

SECTION D-D



SECTION C-C

SECTION D-D

NOTES

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
3. Place dowels in footing to insure correct spacing of main column steel.
4. For REINFORCING STEEL LIST, see sheet no. 415 thru 419

LEGEND

- Vertical Piles
- Batter Piles (Batter 12 vertical to 3 horizontal in direction of arrow)

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

PIER 18 & 21
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AV

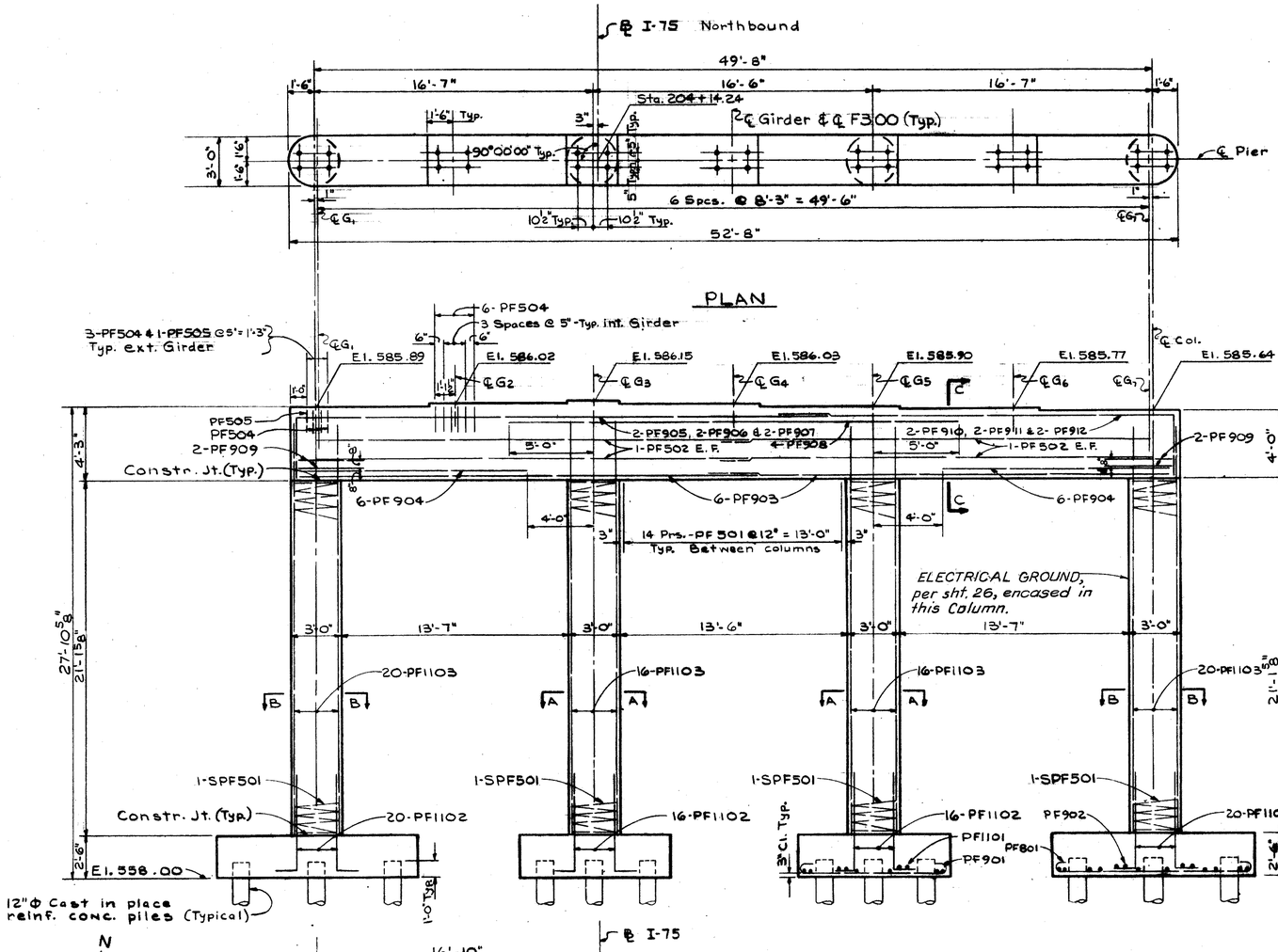
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

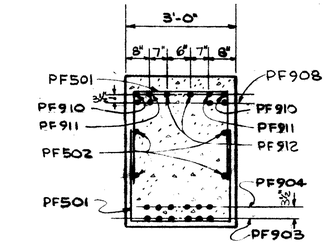
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	DHW	~	CEC	JAD.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

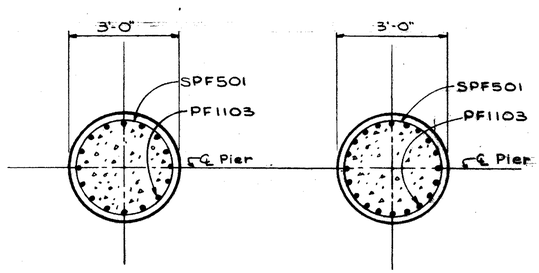
391
450

HAM-75-9.30



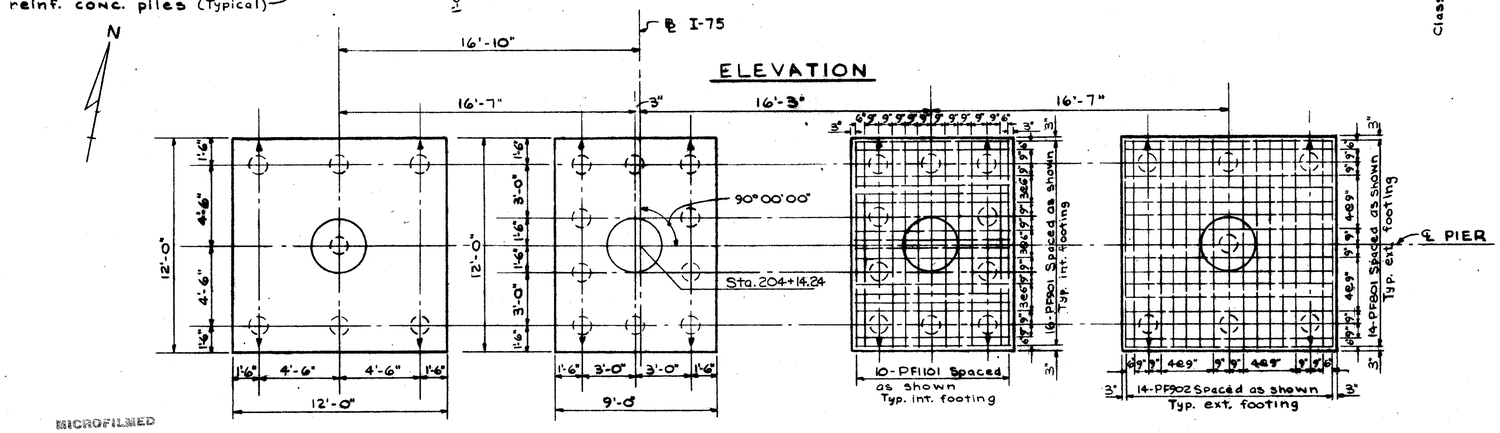


SECTION C-C



SECTION A-A

SECTION B-B



NOTES

1. Special care shall be taken in placing reinforcing steel in vicinity of the bridge seat so as to avoid interference with the drilling of anchor rod holes.
2. E.F. = Each Face
3. Place dowels in footing to insure correct spacing of main column steel.
4. For REINFORCING STEEL LIST, see sheet No. 415 thru 419

LEGEND

Vertical Piles

Batter Piles (Batter 12 vertical to 3 horizontal in direction of arrow)

MICROFILMED
JAN 28 1965

MICROFILMED
JAN 28 1965

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

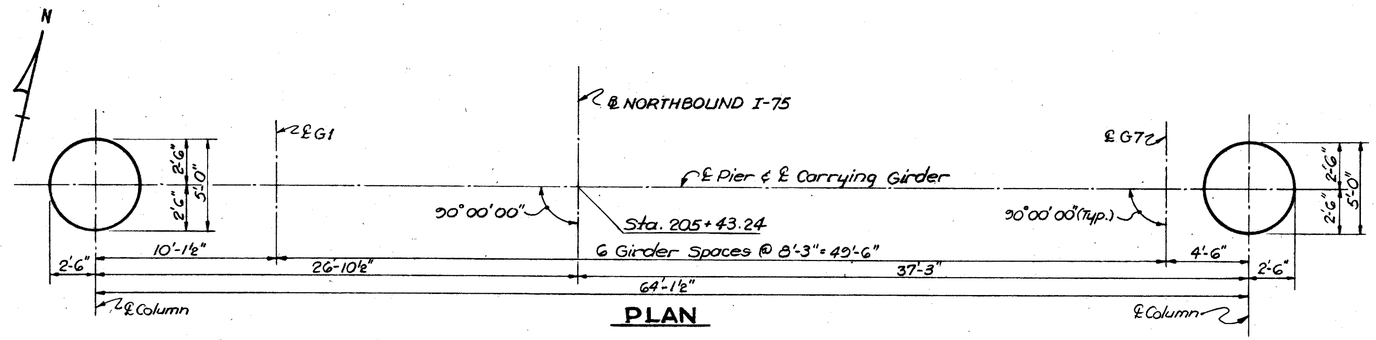
PIER 19
BRIDGE NO. HAM-75-114
NORTHBOUND I-75 OVER MILL CREE
BENSON ST., N.Y.C.R.R. & SHEPHERD A
HAMILTON COUNTY STA. 182+97.99 TO
STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	DHW	~	CEC	J.A.D.	7-8-64	

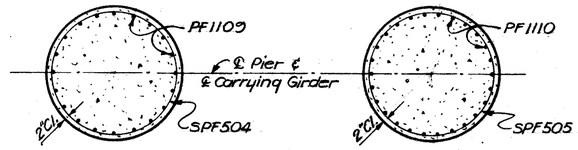
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-0330

392
450

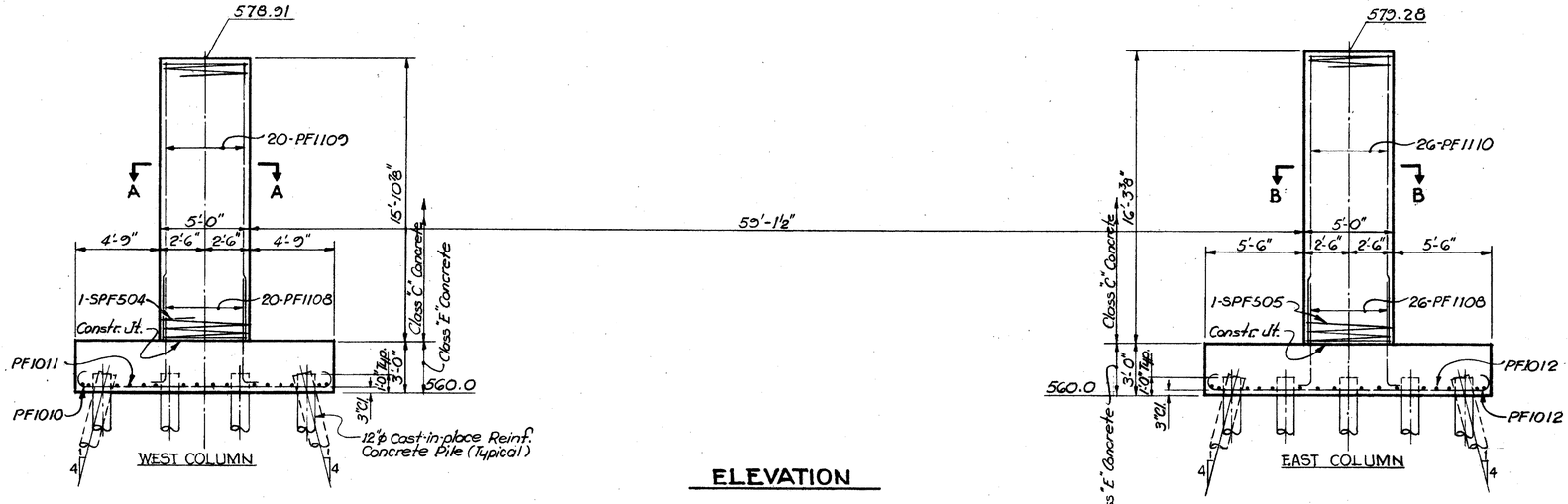


PLAN

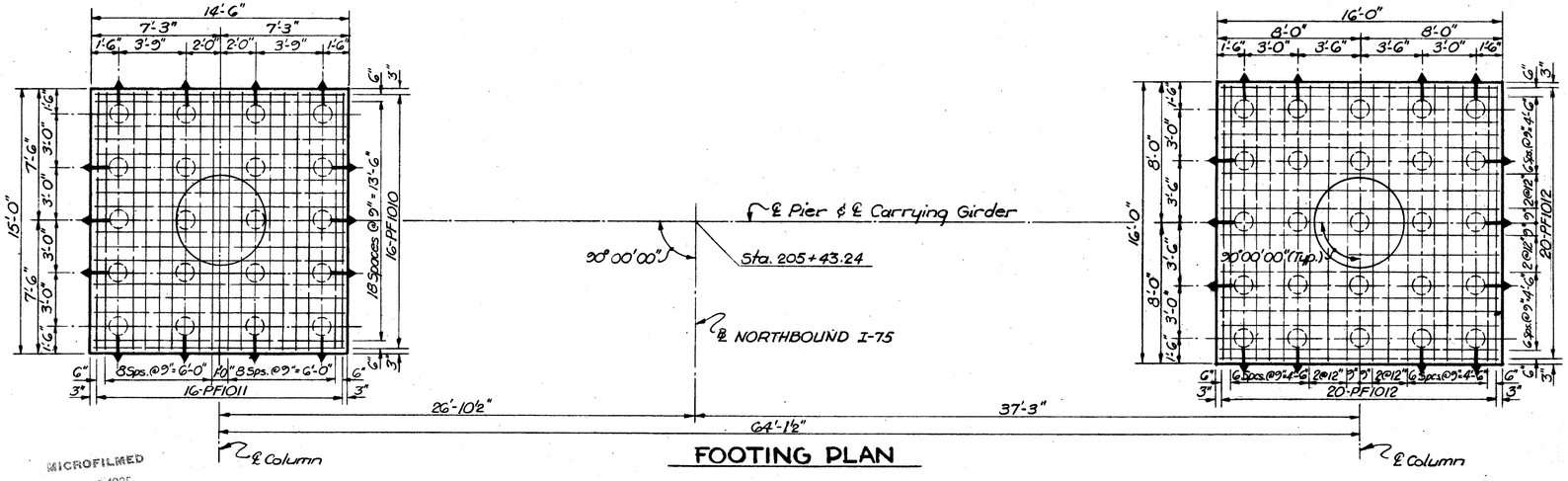


SECTION A-A

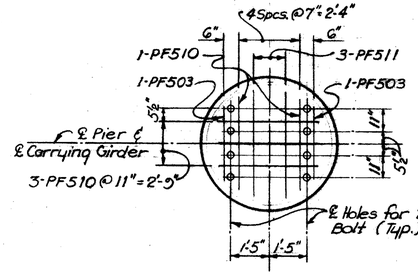
SECTION B-B



ELEVATION



FOOTING PLAN



TYPICAL ANCHOR BOLT LAYOUT
Showing Reinforcement

NOTES

1. For reinforcing steel list, see Sheets 415 thru 419.
2. For carrying girder details, see Sheets 406 & 407.

LEGEND

← Indicates Batter 4 Vertical to 1 Horizontal in direction shown

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

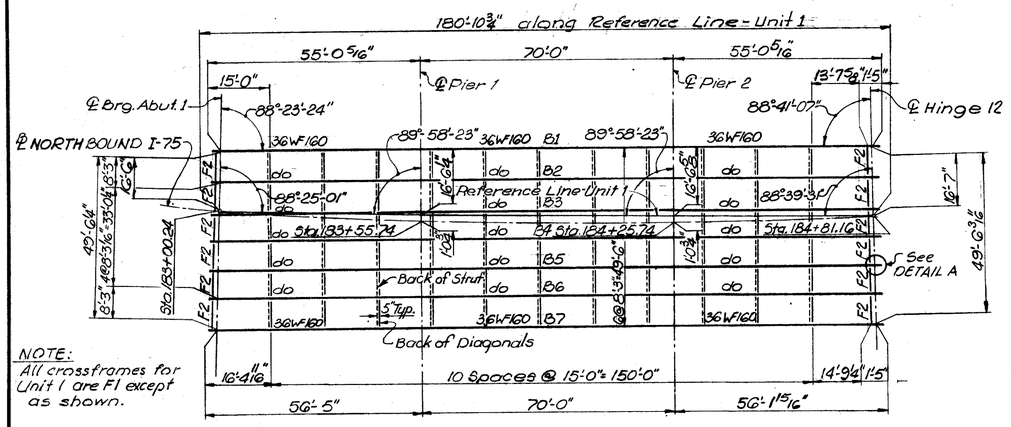
PIER 20

BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
R.K.S.	J.C.H.	~	B.C.	J.A.D 7-8-64	

FED. RD. DIVISION	STATE	PROJECT		393 / 450
2	OHIO			

HAM-75-9.30

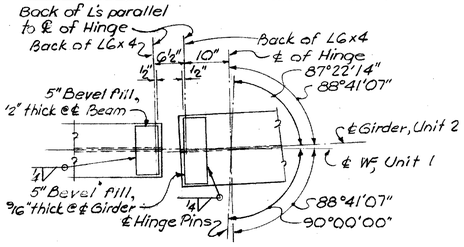


NOTE:
All crossframes for Unit 1 are F1 except as shown.

FRAMING PLAN

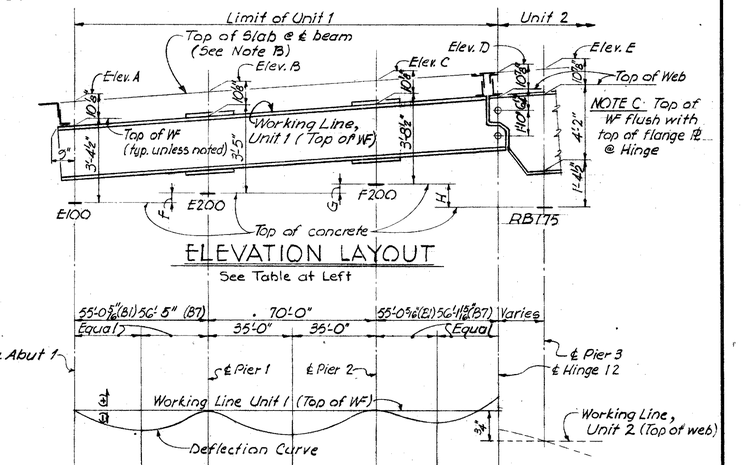
NOTE B The mark ◀ indicates that the elevation so marked is at the level construction joint between deck and safety curb (see TRANSVERSE SECTION, Sh. 408.

	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E	F	G	H
B1	576.43	577.03◀	577.82◀	578.46	578.52	6 11/16"	6"	1'-2 3/8"
B2	576.78	577.36	578.14	578.80	578.87	6 3/8"	5 15/16"	1'-2 1/16"
B3	577.13	577.70	578.49	579.15	579.21	6 3/8"	5 7/8"	1'-2"
B4	577.47	578.05	578.83	579.50	579.56	6 7/16"	5 7/8"	1'-2"
B5	577.82	578.40	579.18	579.84	579.91	6 7/16"	5 7/8"	1'-1 15/16"
B6	578.16	578.75	579.52	580.18	580.25	6 1/2"	5 13/16"	1'-2"
B7	577.97◀	578.64	579.42	580.00	580.08	7 9/16"	5 7/8"	1'-2 13/16"



DETAIL A
TOP OF FLANGES AT HINGE 12

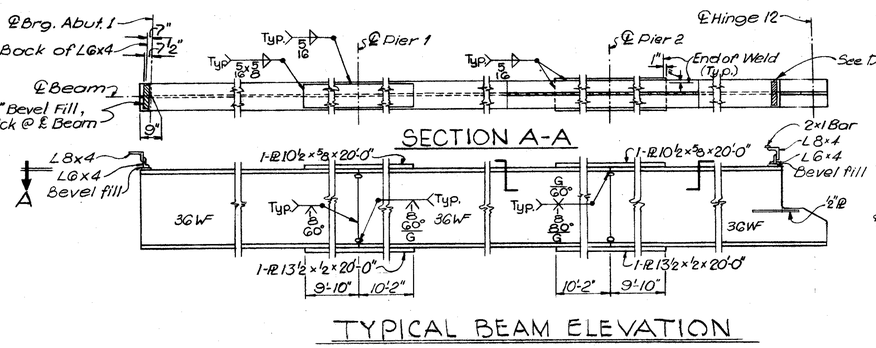
NOTE A Beam and girder working lines are shown without consideration of camber (see DEFLECTION & CAMBER).

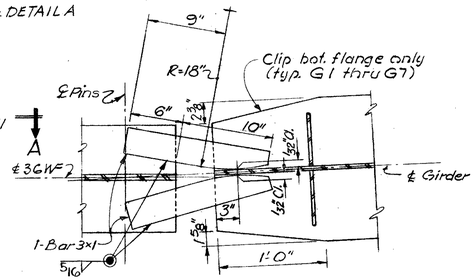


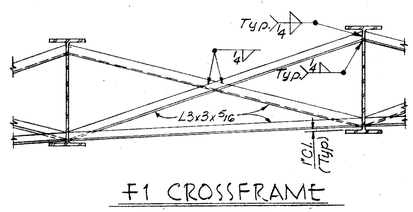
Deflection due to weight of steel	0	- 1/16"	0	- 1/16"	0	- 1/16"	+ 1/16"	0	
Deflection due to remaining D.L.	0	- 3/16"	0	- 1/4"	0	- 3/16"	+ 1/8"	0	
Total D.L. deflection	0	- 1/4"	0	- 5/16"	0	- 1/4"	+ 3/16"	0	
Camber required	0	0	0	0	0	0	0	0	

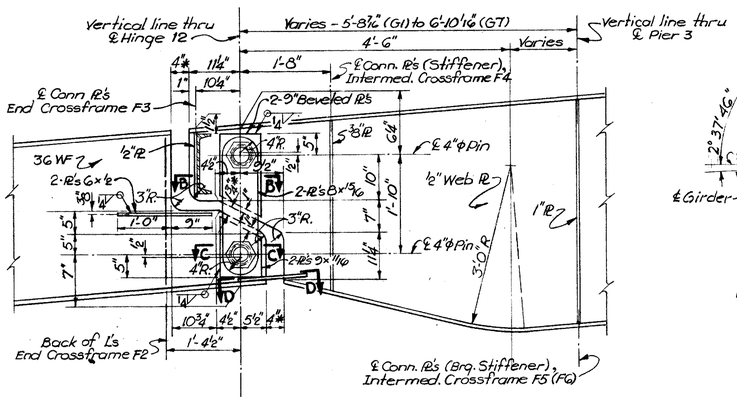
NOTE Deflections given in this column are produced by Unit 2. Camber shown for WF

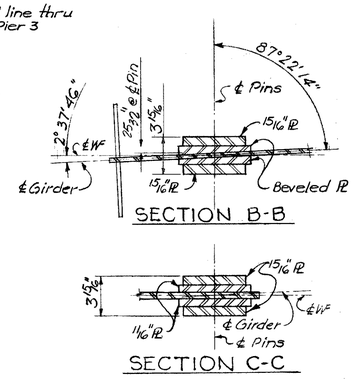
DEFLECTION & CAMBER











NOTES

1. For Bridge Framing Notes, see Sheet 402
2. For Details of End Crossframe F2, see Std. Dwg. SD-1-63, Sheets 2 & 4 of 4.
3. For End Preparation of Rolled Beams for Field Welding, see Std. Dwg. SD-1-63 Sh. 1 of 4.
4. For Details of Bearings E100, E200 and F200, see Std. Dwg. FSB-1-62, Rev. 1-15-63.
5. For Details of Bearing RB175, see Sheet 398.
6. For Details of Hinge Pins and Recessed Nuts, see Sheet 398.
7. For Details of End Crossframe F3, see Sheet 398.
8. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedure for this Unit, which shall be co-ordinated with the erection procedures for all other Superstructure Units of this bridge and which shall incorporate the following items:
   a) Erection of Beams in Unit 1 may begin following the erection of girders in Unit 2 between Piers 3 and 4 with sufficient crossframes bolted in place to insure stability and connections made to Fixed Bearings at Pier 4.
   b) Erect Beams in Unit 1 providing adequate clamps and blocking to prevent movement at Hinge 12 adjacent to Pier 3 during this phase.
   c) Raise the end of Beams in the middle span of this Unit at Pier 1, 1½ inches.
   d) Butt weld Beam flanges and web at Pier 2 using the following sequence: make two passes on the web, then two on each flange; repeat, using one or two passes at each location, until welds are completed.
   e) Weld top and bottom moment plates at Pier 2.
   f) Lower end of Beam to final position at Pier 1.
   g) Make splice at Pier 1 in the same manner; raising the end of the Beams 1½ inches at Abutment 1.
   h) Install cross bracing and remove temporary clamps and blocking at the Hinge.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI · ARCHITECTS CHICAGO

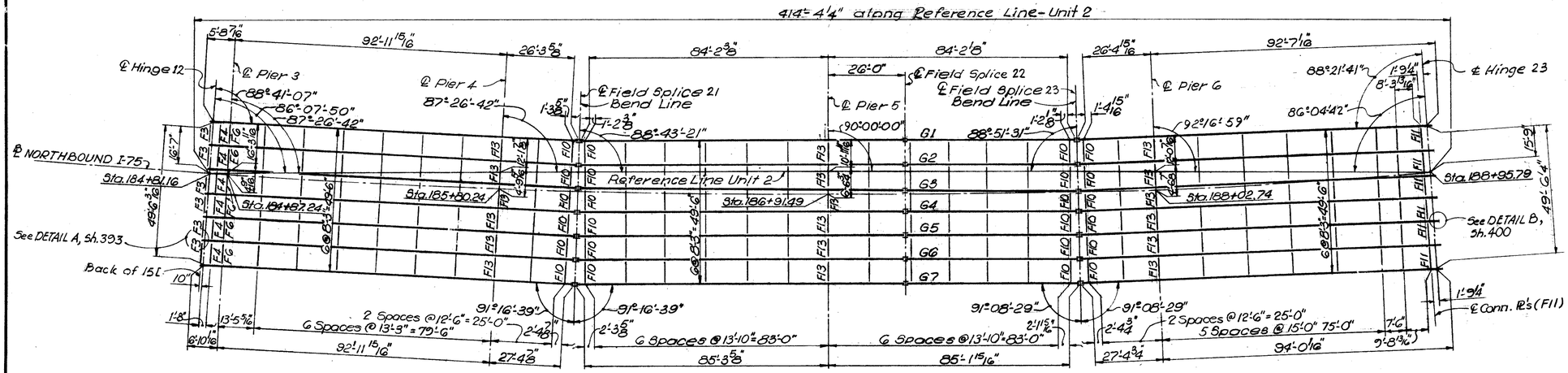
FRAMING PLAN
UNIT 1
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST, N.Y.C.RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 To STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
GRH	JT-TEC	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

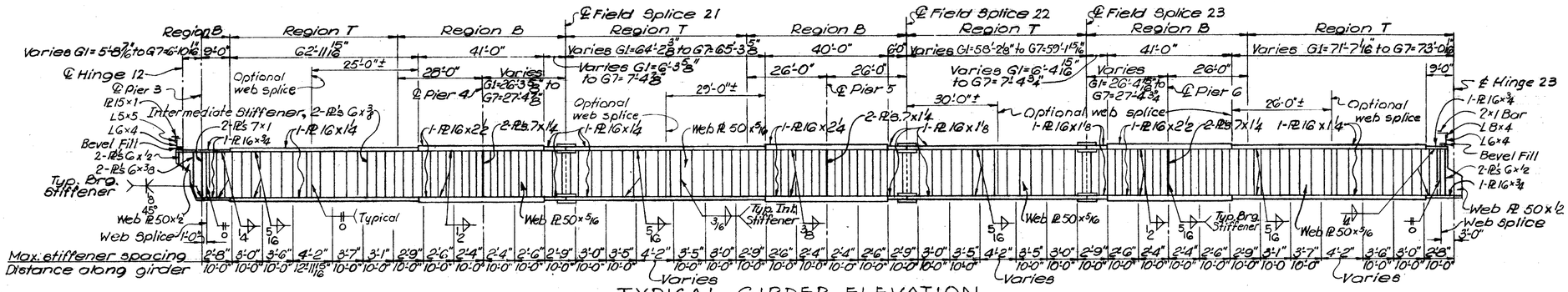
394
450

HAM-75-9.30

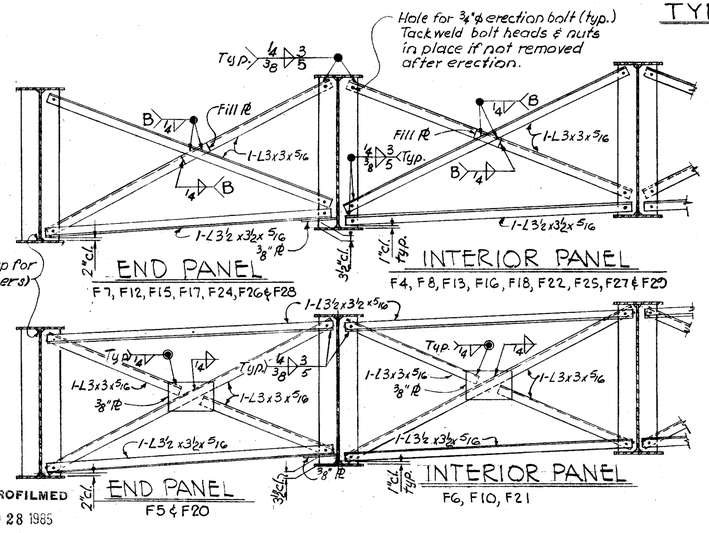


Intermediate Crossframes shall be F8 unless otherwise shown or noted.

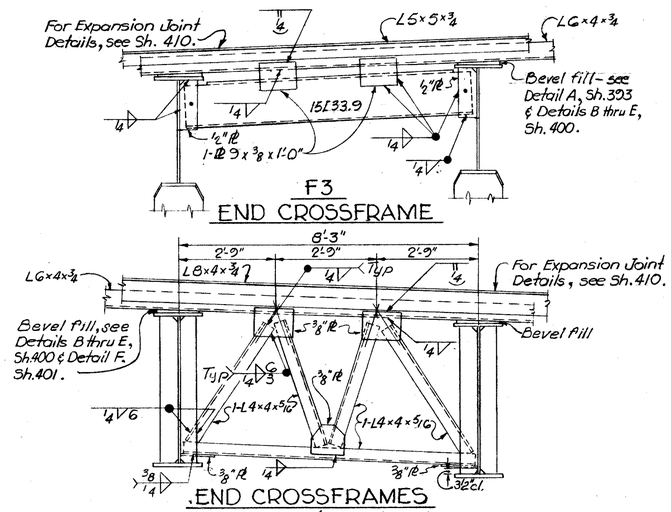
FRAMING PLAN



TYPICAL GIRDER ELEVATION

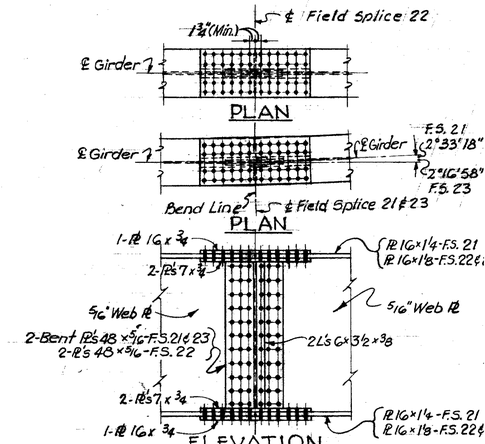


INTERMEDIATE CROSSFRAMES



NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Elevation Layout, see Sheet 395.
3. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedure for this Unit which shall be coordinated with the erection procedures for all other Superstructure Units of this bridge and which shall incorporate the following item: Girders shall not be erected between Piers G & 7 until the girders in Unit 3 are erected and adequately braced.
4. For Detail of Hinge 12, see Sheet 393.
5. For Detail of Hinge 23, see Sheet 396.
6. For location of crossframes detailed on this sheet, see Framing Plans for Units 2 thru 6.
7. For location of Field Splices 31 & 32, see Sh. 396
8. For Details of Carrying Girder at Pier 5, see Sheet 395.



VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN
UNIT 2

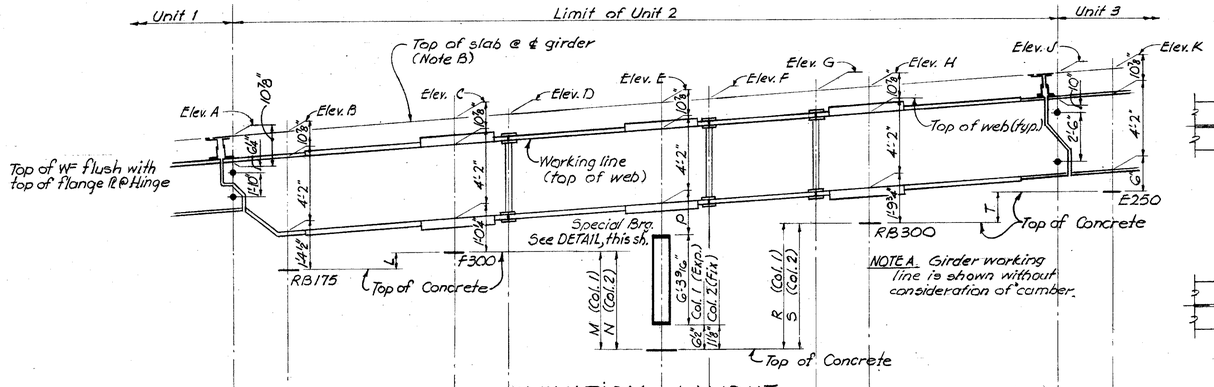
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 To STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY	JT-TEC	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

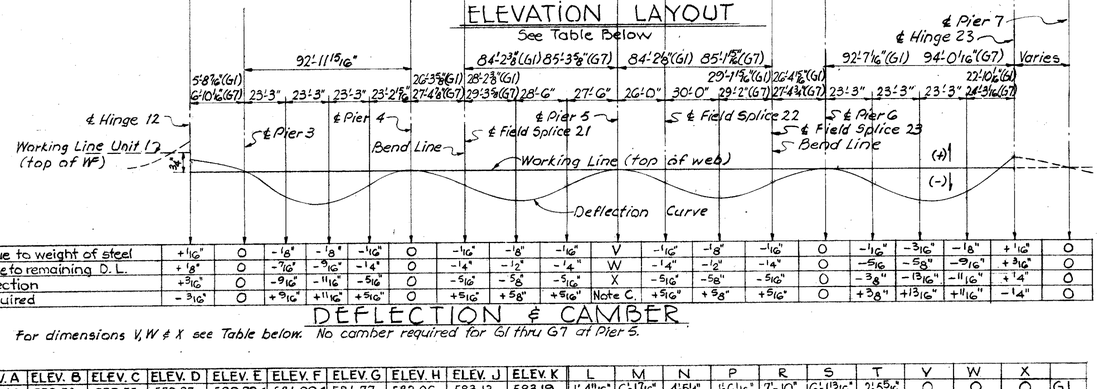
395/450

HAM-75-9.30



ELEVATION LAYOUT

See Table Below



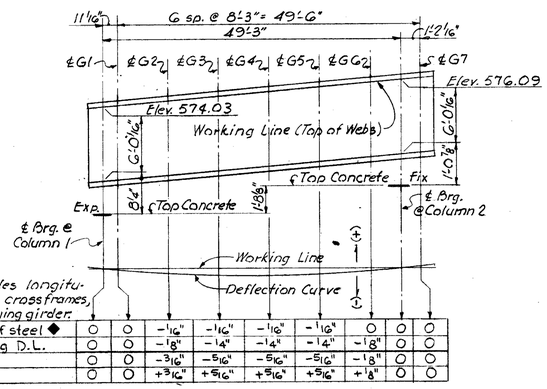
Deflection due to weight of steel	+1/16"	0	-1/8"	-1/8"	-1/16"	0	-1/16"	-1/8"	-1/16"	V	-1/16"	-1/8"	-1/16"	0	-1/16"	-3/16"	-1/8"	+1/16"	0
Deflection due to remaining D. L.	+1/8"	0	-7/16"	-9/16"	-1/4"	0	-1/4"	-1/2"	-1/4"	W	-1/4"	-1/2"	-1/4"	0	-5/16"	-5/8"	-9/16"	+3/16"	0
Total deflection	+3/16"	0	-9/16"	-11/16"	-5/16"	0	-5/16"	-5/8"	-5/16"	X	-5/16"	-5/8"	-5/16"	0	-3/8"	-13/16"	-11/16"	+1/4"	0
Camber required	-3/16"	0	+9/16"	+11/16"	+5/16"	0	+5/16"	+5/8"	+5/16"		+9/8"	+5/16"	0	+3/8"	+13/16"	+11/16"	-1/4"	0	

DEFLECTION & CAMBER

NOTE C. For dimensions V, W & X see Table below. No camber required for G1 thru G7 at Pier 5.

	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	ELEV. H	ELEV. J	ELEV. K	L	M	N	P	R	S	T	V	W	X	
G1	578.46	578.52	579.55	579.87	580.79◄	581.09◄	581.77	582.06	583.13	583.19	1'-4 11/16"	G'-1 7/16"	4'-5 1/4"	1'-5 1/16"	7'-10"	G'-11 3/16"	2'-5 5/16"	0	0	0	G1
G2	578.80	578.87	579.90	580.21	581.12	581.42	582.12	582.40	583.48	583.54	1'-4 11/16"	G'-5 9/16"	4'-9 1/16"	1'-5 13/16"	8'-2 7/8"	6'-6"	2'-5 7/8"	-1/16"	-1/8"	-3/16"	G2
G3	579.15	579.21	580.24	580.56	581.47	581.76	582.46	582.75	583.83	583.89	1'-4 5/8"	G'-9 3/4"	5'-1 9/16"	1'-5 13/16"	8'-6 5/16"	G'-10 5/8"	2'-5 7/8"	-1/16"	-1/4"	-5/16"	G3
G4	579.50	579.56	580.59	580.91	581.81	582.11	582.81	583.10	584.18	584.24	1'-4 5/8"	7'-1 7/8"	5'-5 1/16"	1'-5 13/16"	8'-10 1/16"	7'-2 5/16"	2'-5 7/16"	-1/16"	-1/4"	-5/16"	G4
G5	579.84	579.91	580.94	581.25	582.16	582.45	583.15	583.44	584.52	584.59	1'-4 5/16"	7'-6"	5'-9 7/8"	1'-5 13/16"	9'-2 5/8"	7'-6 1/16"	2'-5 7/16"	-1/16"	-1/4"	-5/16"	G5
G6	580.18	580.25	581.28	581.59	582.50	582.80	583.49	583.78	584.85	584.92	1'-4 5/8"	7'-10 3/16"	G'-2 3/4"	1'-5 13/16"	9'-6 5/8"	7'-10 1/2"	2'-5 7/16"	0	-1/8"	-1/8"	G6
G7	580.00	580.08	581.12	581.40	582.39	582.68	583.29◄	583.60	584.64◄	584.72◄	1'-4 3/4"	7'-8 3/16"	G'-0 1/16"	1'-0 3/8"	9'-4 9/16"	7'-8 3/8"	2'-5 1/8"	0	0	0	G7

NOTE B. The mark ◄ indicates that the elevation so marked is at the level construction joint between deck and safety curb (see TRANSVERSE SECTION, Sh. 408.)



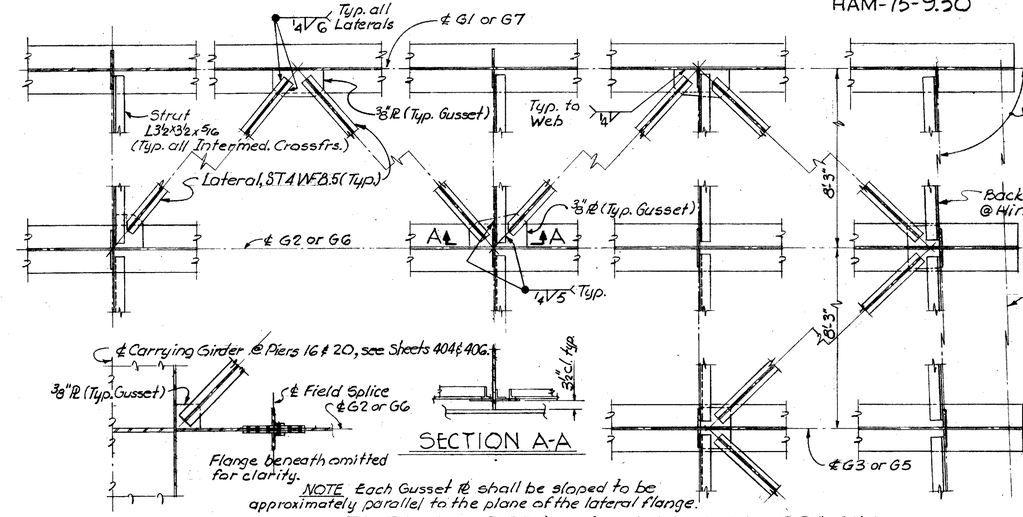
◆ Weight of steel includes longitudinal girders, bearings, crossframes, etc., as well as the carrying girder.

Deflection due to weight of steel ◆	0	0	-1/16"	-1/16"	-1/16"	-1/16"	0	0	0
Deflection due to remaining D.L.	0	0	-1/8"	-1/4"	-1/4"	-1/4"	-1/8"	0	0
Total deflection	0	0	-3/16"	-5/16"	-5/16"	-5/16"	-1/8"	0	0
Camber required	0	0	+3/16"	+5/16"	+5/16"	+5/16"	+1/8"	0	0

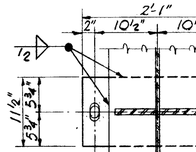
CARRYING GIRDER @ PIER 5

ELEVATION LAYOUT, DEFLECTION & CAMBER

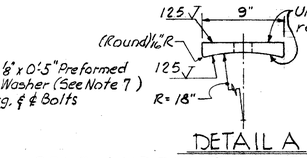
MICROFILMED JAN 28 1985



TYPICAL DETAILS - LATERAL BRACING BOTTOM FLANGE

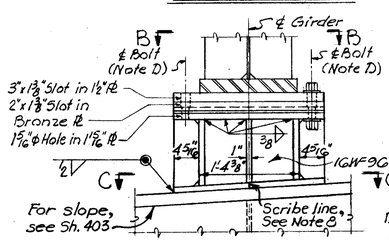


SECTION B-B

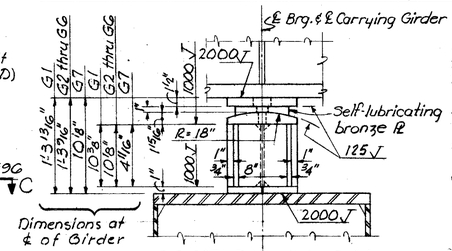


DETAIL A

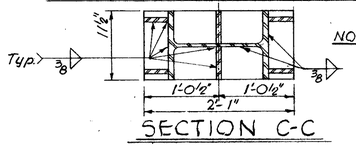
SELF-LUBRICATING BRONZE PLATE



SECTION ACROSS LONGITUDINAL GIRDER



SECTION ACROSS CARRYING GIRDER



NOTE D. 1¼"ϕ Hex Hd. Bolt with Lock Washer and Hex Nut. Nut to be drawn up finger tight then backed off ⅛ turn and threads of bolt burred at face of nut.

SECTION C-C

DETAIL OF SPECIAL EXPANSION BEARINGS @ PIER 5

NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Framing Plan - Unit 2, see Sheet 394.
3. For Details of Bearings RB175 & RB300, see Sheet 398.
4. For Details of Bearings F300 and E250, see Std. Dwg. FSB-1-62, Rev. 1-15-63.
5. For Details of Carrying Girder at Pier 5, see Sheet 403.
6. For location of Laterals, see Framing Plans Units 3 thru 6.
7. Preformed Fabric Washers shall conform to the requirements of Sec. M-10.11, Construction and Materials Specifications, and shall be included for payment with Item S-7, Structural Steel.
8. Scribe centerlines on all four edges of bottom plate to match centerlines scribed on top flange of carrying girder for control of setting Shoes in the field. See Sheet 403.

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SUPERSTRUCTURE DETAILS UNIT 2

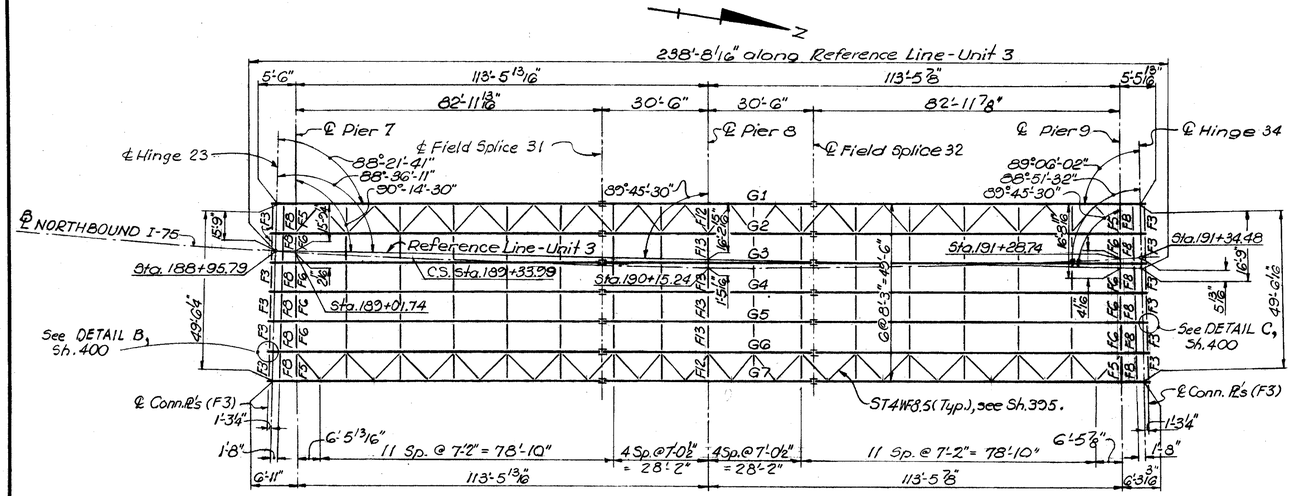
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. R.R. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY	TEC	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

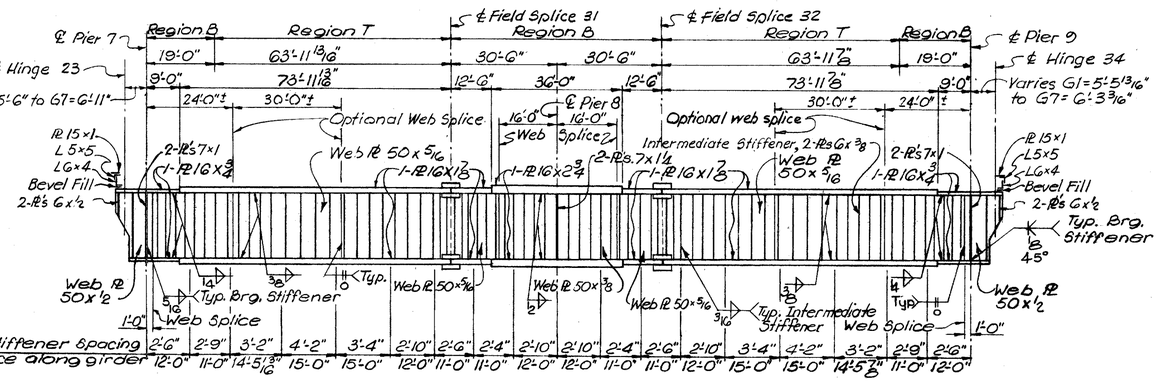
396
450

HAM-75-9.30

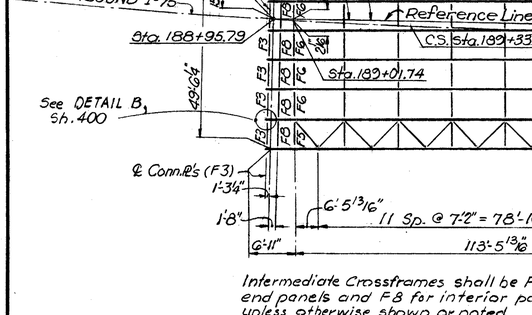


Intermediate Crossframes shall be F7 for end panels and F8 for interior panels, unless otherwise shown or noted.

FRAMING PLAN



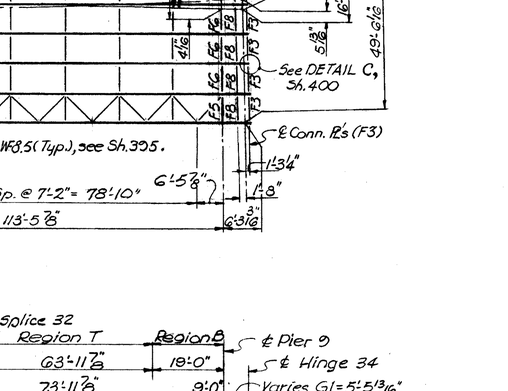
TYPICAL GIRDER ELEVATION



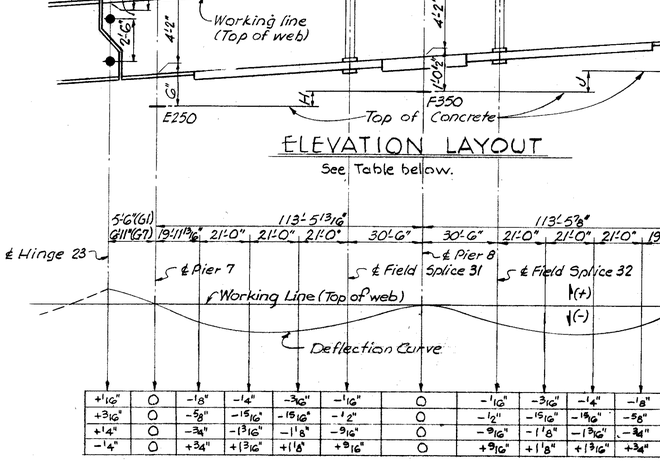
SECTION C-C
Section F-F similar

SECTION A-A
Section D-D similar, except as shown

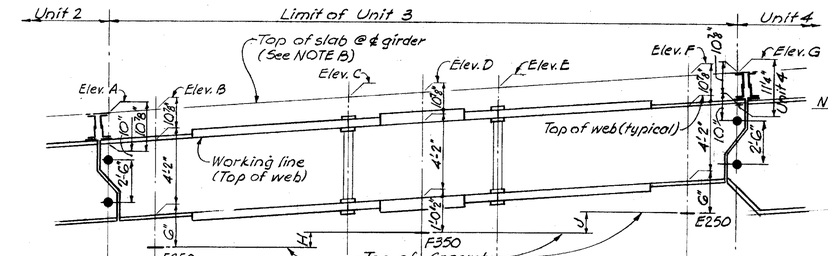
SECTION B-B
Section E-E similar, except as noted.



DETAIL OF HINGE 23
* To be provided at 60° Fahrenheit



DETAIL OF HINGE 34
* To be provided at 60° Fahrenheit



ELEVATION LAYOUT

See Table below.

DEFLECTION & CAMBER

+1/16"	0	-1/8"	-1/4"	-3/16"	-1/16"	0	-1/16"	-3/16"	-1/4"	-1/8"	0	+1/16"	Deflection due to weight of steel
+3/16"	0	-5/8"	-15/16"	-15/16"	-1/2"	0	-1/2"	-15/16"	-15/16"	-5/8"	0	+3/16"	Deflection due to remaining D.L.
+1/4"	0	-3/4"	-1 3/16"	-1 1/8"	-9/16"	0	-9/16"	-1 1/8"	-1 3/16"	-3/4"	0	+1/4"	Total D.L. Deflection
-1/4"	0	+3/4"	+1 3/16"	+1 1/8"	+9/16"	0	+9/16"	+1 1/8"	+1 3/16"	+3/4"	0	-1/4"	Camber required

	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	H	J
G1	583.13	583.19	584.11◀	584.46◀	584.82◀	585.81	585.88	8 13/16"	1-10 11/16"
G2	583.48	583.54	584.39	584.72	585.05	585.99	586.05	7 5/8"	1-9 3/4"
G3	583.83	583.89	584.69	584.99	585.30	586.16	586.22	6 13/16"	1-8 1/2"
G4	584.18	584.24	584.99	585.27	585.55	586.34	586.39	5 7/8"	1-7 5/16"
G5	584.52	584.59	585.30	585.54	585.80	586.51	586.56	5"	1-6 1/8"
G6	584.85	584.92	585.60	585.82	586.05	586.68	586.73	4 5/16"	1-4 7/8"
G7	584.64◀	584.72◀	585.49	585.72	585.94	586.51◀	586.56◀	5 1/2"	1-4"

NOTE B The mark ◀ indicates that the elevation so marked is at the level construction joint between deck and safety curb (See TRANSVERSE SECTION, Sh. 408.)

NOTES

1. For Bridge Framing Notes, see Sheet 400.
2. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedures for this Unit which shall be co-ordinated with the erection procedures for all other Superstructure Units of this bridge.
3. For Details of Hinge Pin & Recessed Nuts, see Sheet 398.
4. For Details of Field Splices 31 & 32, see Sh. 397.
5. For Details of Bearings E250 and F350, see Std. Dwg. FSB-1-62, Rev. 1-15-63

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

FRAMING PLAN UNIT 3

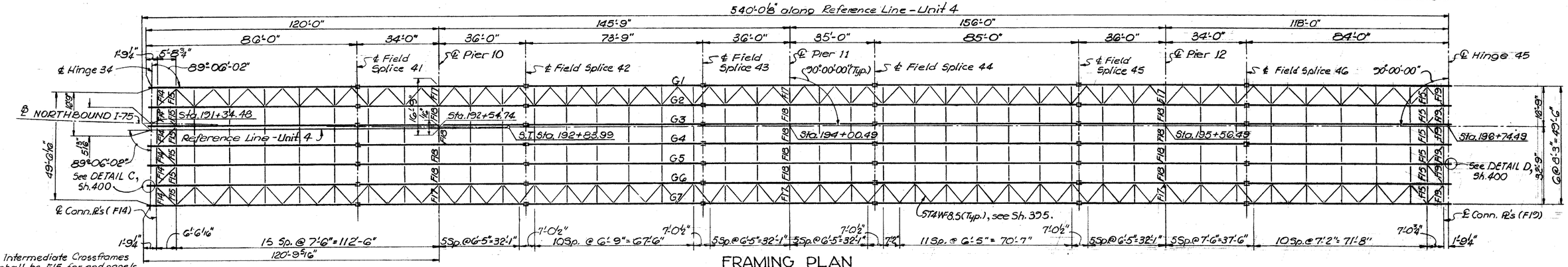
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVENUE
HAMILTON COUNTY
STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY	JT-TEC	~	C.F.L.	J.A.D.	7-8-64	

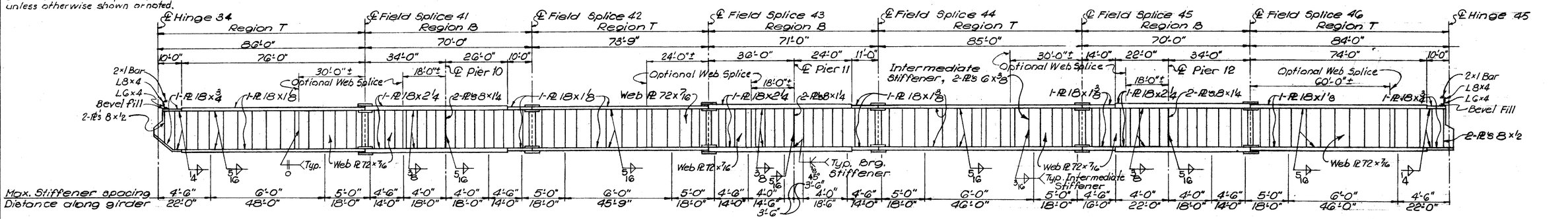
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

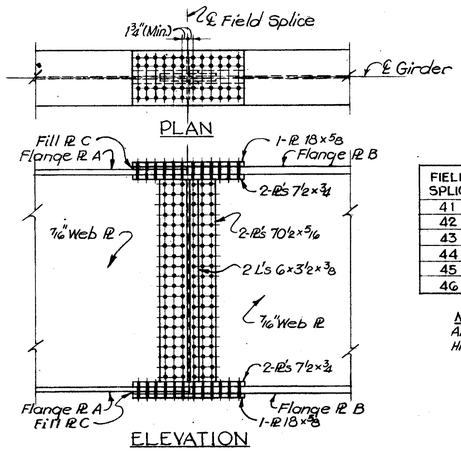
397
450



FRAMING PLAN



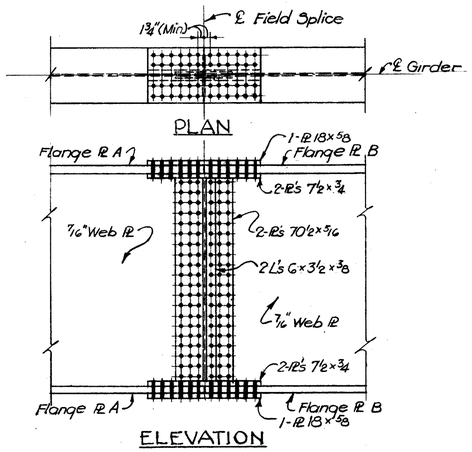
TYPICAL GIRDER ELEVATION



FIELD SPLICES 41, 43 & 46

FIELD SPLICE	FLANGE P A	FLANGE P B	FILL P C
41	18×1⅛	18×2¼	18×1⅛
42	18×1⅛	18×1⅛	
43	18×1⅛	18×2¼	18×1⅛
44	18×1⅜	18×1⅜	
45	18×1⅜	18×1⅜	
46	18×1⅛	18×2¼	18×1⅛

Note: All holes 15/16"ϕ for ⅞"ϕ High Strength Bolts.



FIELD SPLICES 42, 44 & 45

NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Elevation Layout, see Sheet 398.
3. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedure for this Unit which shall be co-ordinated with the erection procedures for all other Superstructure Units of this bridge and which shall incorporate the following item: Girders shall not be erected between Piers 9 & 10 nor between Piers 12 & 13 until the girders in the adjacent spans in Units 3 & 5 have been erected and adequately braced.
4. For Detail of Hinge 34, see Sheet 396.
5. For Detail of Hinge 45, see Sheet 399.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

FRAMING PLAN
UNIT 4

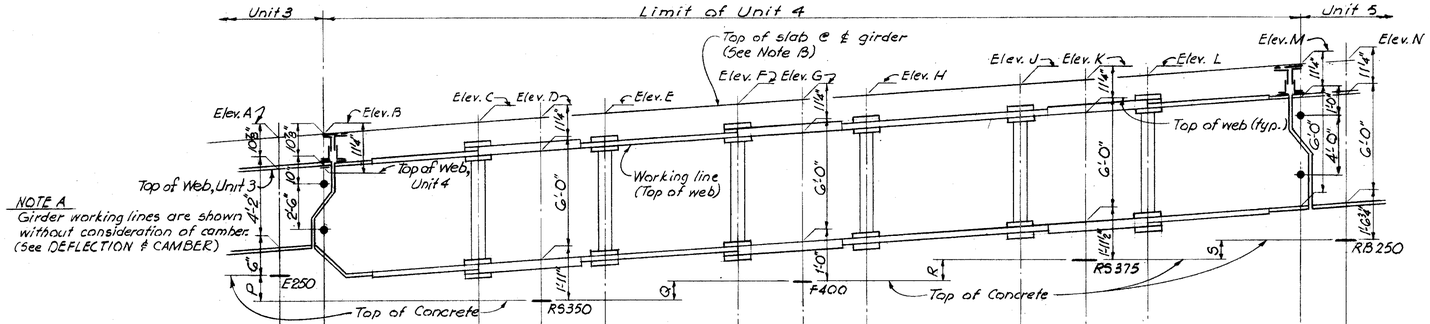
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
JRKS	TEC	~	C.F.L.	J.A.D. 7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

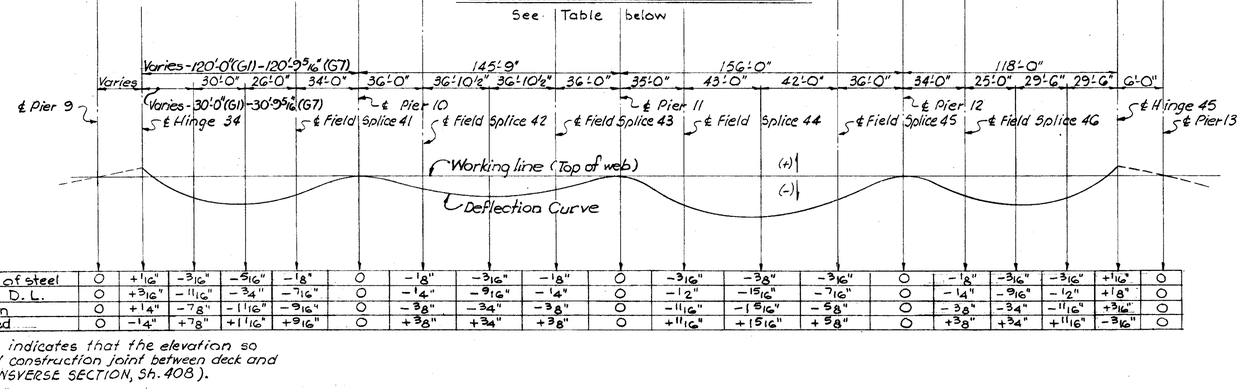
HAM-75-9.30

398
450



ELEVATION LAYOUT

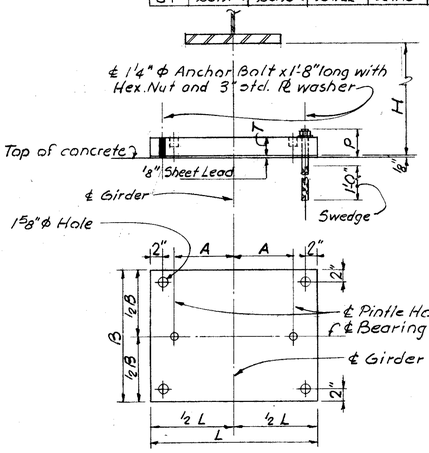
See Table below



Deflection due to weight of steel	0	+1/16"	-3/16"	-5/16"	-1/8"	0	-1/8"	-3/16"	-1/8"	0	-3/16"	-3/8"	-3/16"	0	-1/8"	-3/16"	-3/16"	+1/16"	0
Deflection due to remaining D. L.	0	+3/16"	-11/16"	-3/4"	-7/16"	0	-1/4"	-9/16"	-1/4"	0	-1/2"	-15/16"	-7/16"	0	-1/4"	-9/16"	-1/2"	+1/8"	0
Total deflection	0	+1/4"	-7/8"	-11/16"	-9/16"	0	-3/8"	-3/4"	-3/8"	0	-11/16"	-15/16"	-5/8"	0	-3/8"	-3/4"	-11/16"	+3/16"	0
Camber required	0	-1/4"	+7/8"	+11/16"	+9/16"	0	+3/8"	+3/4"	+3/8"	0	+11/16"	+15/16"	+5/8"	0	+3/8"	+3/4"	+11/16"	-3/16"	0

NOTE B The mark ◀ indicates that the elevation so marked is at the level construction joint between deck and safety curb (See TRANSVERSE SECTION, Sh. 408).

	ELEV. A	ELEV. B	ELEV. C	ELEV. D	ELEV. E	ELEV. F	ELEV. G	ELEV. H	ELEV. J	ELEV. K	ELEV. L	ELEV. M	ELEV. N	P	Q	R	S	
G1	585.81	585.88	586.86	587.24	587.64	588.47	588.87	589.26	590.21	590.62	591.00	591.94	592.01	1'-10 1/4"	2'-6 5/16"	9 7/16"	1'-9 7/16"	G1
G2	585.99	586.05	586.99	587.37	587.77	588.60	589.00	589.39	590.34	590.75	591.13	592.07	592.14	1'-10 13/16"	2'-6 9/16"	9 7/16"	1'-9 7/16"	G2
G3	586.16	586.22	587.12	587.50	587.90	588.73	589.13	589.52	590.47	590.88	591.26	592.20	592.26	1'-11 3/8"	2'-6 9/16"	9 7/16"	1'-9 7/16"	G3
G4	586.34	586.39	587.20	587.54	587.90	588.66	589.04	589.40	590.35	590.76	591.14	592.08	592.14	2'-0 5/16"	2'-5"	9 1/8"	1'-9 7/16"	G4
G5	586.51	586.56	587.28	587.57	587.89	588.59	588.94	589.27	590.22	590.63	591.01	591.95	592.02	2'-2 5/8"	2'-3 5/16"	8 7/16"	1'-9 7/16"	G5
G6	586.68	586.73	587.36	587.61	587.89	588.52	588.84	589.14	590.09	590.50	590.88	591.82	591.89	2'-4 1/4"	2'-1 11/16"	8 7/16"	1'-9 7/16"	G6
G7	586.51 ◀	586.56 ◀	587.22	587.48	587.75	588.39	588.71	589.01	589.96	590.37	590.75	591.69	591.76	2'-3 13/16"	2'-1 3/4"	8 7/16"	1'-9 7/16"	G7



SPECIAL ROCKER BASE ℄ DETAIL FOR ROCKERS RB 175, RB225, RB250 & RB300

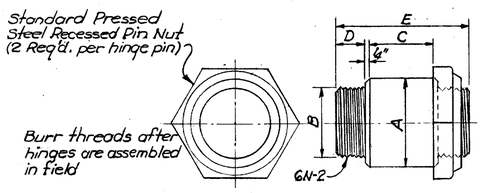
MICROFILMED JAN 28 1985

For dimensions A, B, H, L, P & T see TABLE A. Rockers RB 175, RB 225, RB250 & RB300 differ only in details shown here from Rockers R175, R225, R250 & R300 as shown on Std. Dwg. RB-1-55 Rev. 2-2-59.

TABLE A

DIMENSION	RB175	RB225	RB250	RB300
A	7 1/2	8 1/2	9	10
B	17	17	18	20
H	15 5/8	17 1/8	17 1/8	19 1/8
L	23	25	26	28
P	4 1/4	4 1/4	4 1/2	4 3/4
T	2 1/2	2 1/2	2 3/4	3

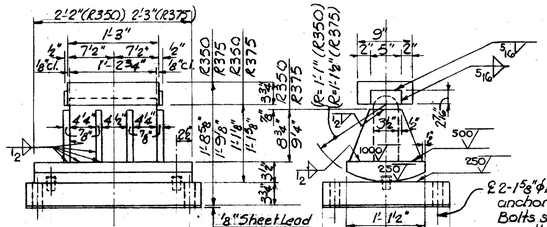
NOTE All dimensions in inches



DETAIL OF HINGE PIN & RECESSED NUTS

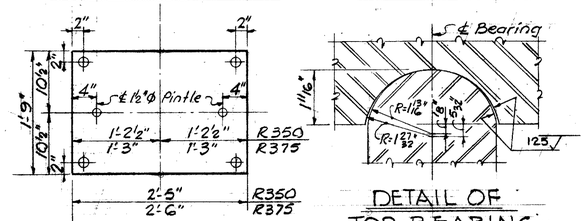
PIN TABLE

HINGE	A	B	C	D	E
12	4"ϕ	3"ϕ	4 1/16"	1 3/8"	7 5/16"
23	5"ϕ	4"ϕ	5 1/8"	1 5/8"	8 7/8"
34	5"ϕ	4"ϕ	5 1/16"	1 5/8"	8 13/16"
45	5"ϕ	4"ϕ	5 1/16"	1 5/8"	8 13/16"
56	5"ϕ	4"ϕ	4 9/16"	1 5/8"	8 5/16"



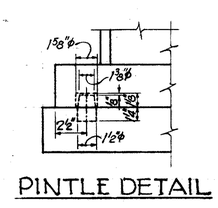
END ELEVATION

SIDE VIEW



PLAN OF BASE PLATE

DETAIL OF TOP BEARING



PINTLE DETAIL

SPECIAL ROCKER DETAILS FOR ROCKERS RS 350 & RS 375

NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Location of Rockers detailed on this Sheet, see Elevation Layout, Sheets 393, 395, 398, 400 & 402.
3. For location of Hinge Pins detailed on this sheet, see Sheets 393, 396 & 399.
4. For Framing Plan-Unit 4, see Sheet 397.
5. For Details of Bearings E250 & F400, see Std. Dwg. FSB-1-62, Rev. 1-15-63.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SUPERSTRUCTURE DETAILS UNIT 4

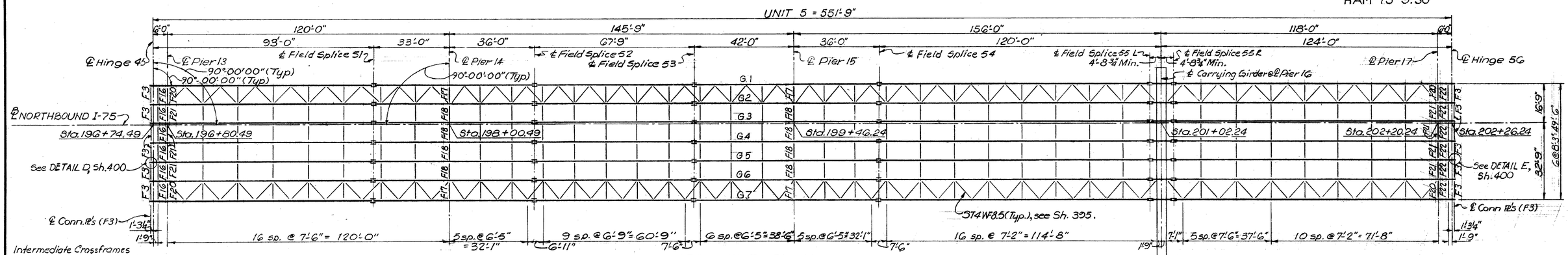
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C.R.R. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	TEC	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

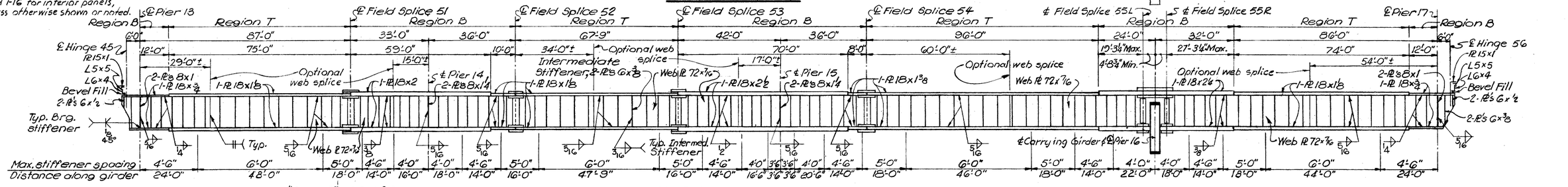
399
450

HAM-75-9.30

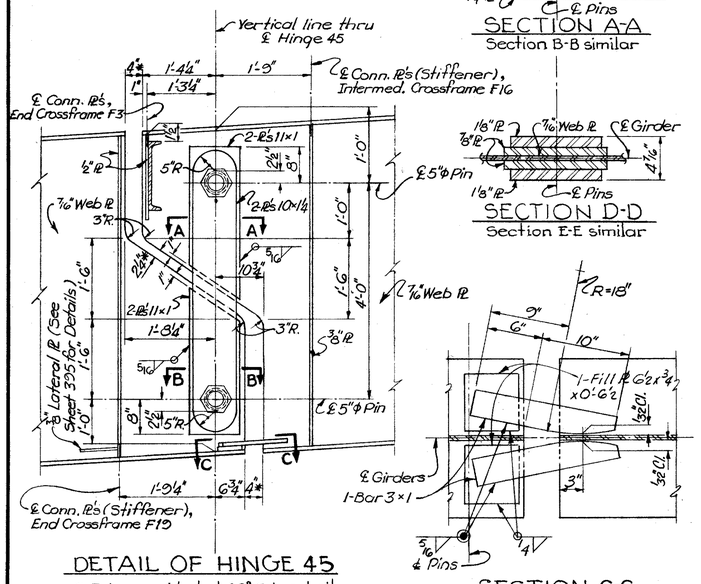


Intermediate Crossframes shall be F15 for end panels and F16 for interior panels, unless otherwise shown or noted.

FRAMING PLAN



TYPICAL GIRDER ELEVATION



DETAIL OF HINGE 45

* To be provided at 60° Fahrenheit

SECTION A-A

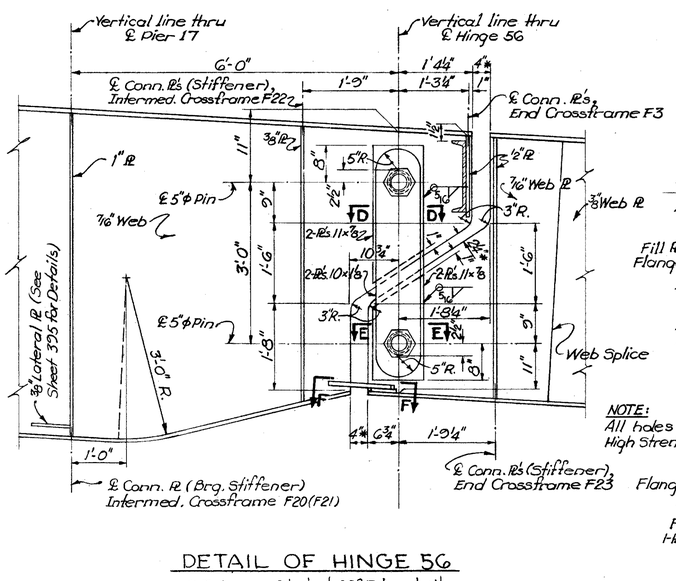
Section B-B similar

SECTION D-D

Section E-E similar

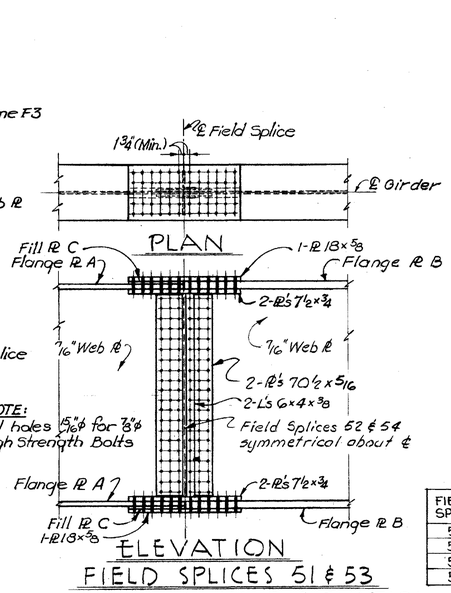
SECTION C-C

Section F-F similar



DETAIL OF HINGE 56

* To be provided at 60° Fahrenheit



NOTE: All holes 15/16"ϕ for ⅞"ϕ High Strength Bolts

ELEVATION FIELD SPLICES 51 & 53

HALF ELEVATION FIELD SPLICE 52 & 54

FIELD SPLICE	FLANGE PL A	FLANGE PL B	FILL PL C
51	18"x1⅛	18"x2	18"x⅝
52	18"x1⅛	18"x1⅛	
53	18"x1⅛	18"x2½	18"x⅜
54	18"x⅜	18"x⅜	

NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Elevation Layout, see Sheet 400.
3. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedur for this Unit which shall be co-ordinated with the erection procedures for all other Super-structure Units of this bridge and which sha incorporate the following item: The Carryi Girder at Pier 16 shall be blocked to prevent rotation or longitudinal movement until girders in both adjacent spans have been erected and adequately braced.
4. For Details of Hinge Pins and Recessed Nut see Sheet 398.
5. For Details of Field Splices 55L & R, see Sh. 40
6. For Details of Carrying Girder at Pier 16, see Sheet 404.

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

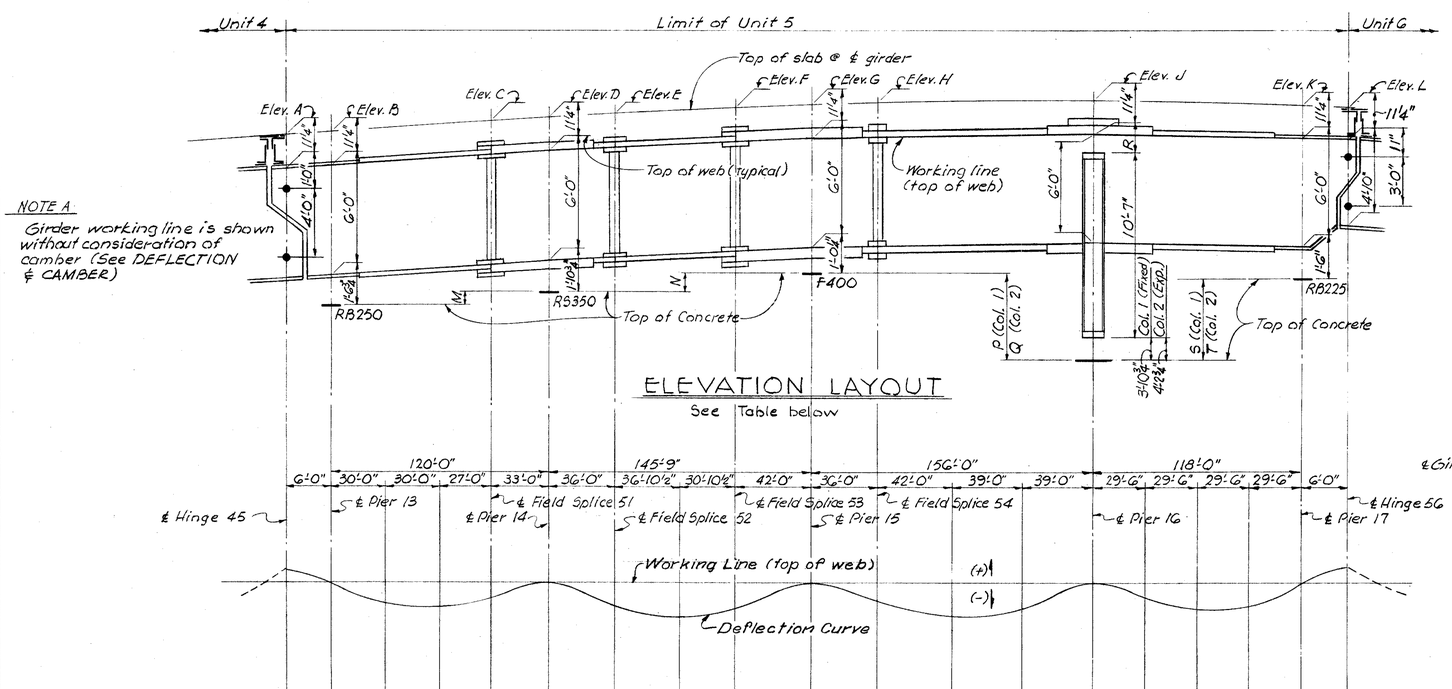
FRAMING PLAN UNIT 5

BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. R.R. & SHEPHERD AVEN
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.K.S	J.T-T.E.C.	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

HAM-75-9.30



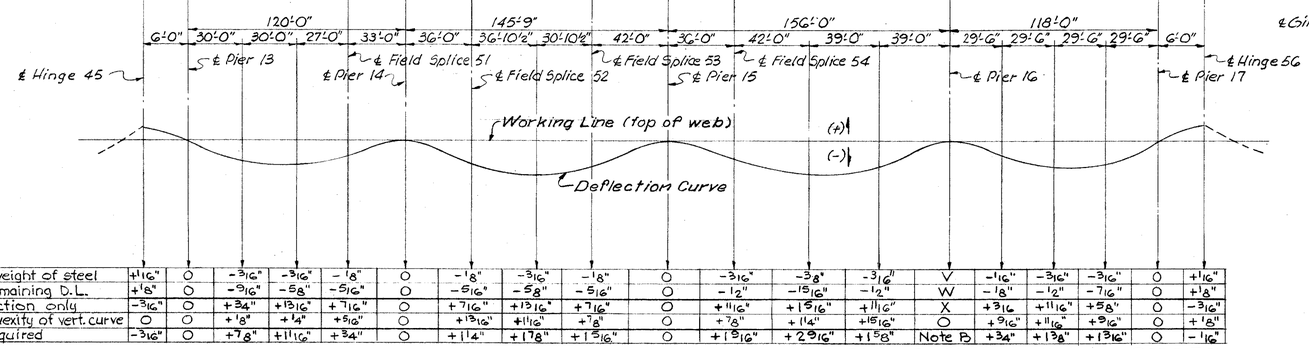
NOTE A

Girder working line is shown without consideration of camber (See DEFLECTION & CAMBER)

ELEVATION LAYOUT

See Table below

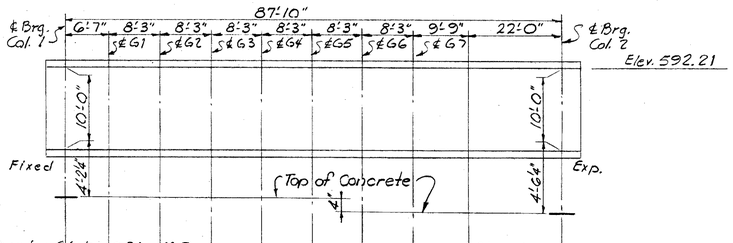
	Elev. A	Elev. B	Elev. C	Elev. D	Elev. E	Elev. F	Elev. G	Elev. H	Elev. J	Elev. K	Elev. L	M	N	P	Q	R	S	T	
G1	591.94	592.01	592.98	593.31	593.63	594.11	594.32	594.46	594.60	594.26	594.23	11'-5"	1'-10 11/16"	8'-4 1/8"	8'-8 1/8"	1'-2"	7'-9 5/8"	8'-1 5/8"	G1
G2	592.07	592.14	593.11	593.44	593.76	594.23	594.46	594.59	594.73	594.39	594.36	11'-5 1/8"	1'-10 11/16"	8'-5 11/16"	8'-9 11/16"	1'-3 9/16"	7'-11 3/16"	8'-3 5/16"	G2
G3	592.20	592.26	593.23	593.57	593.88	594.36	594.58	594.72	594.86	594.52	594.49	11'-5 1/8"	1'-10 11/16"	8'-7 1/4"	8'-11 1/4"	1'-5 1/16"	8'-0 3/4"	8'-4 3/4"	G3
G4	592.08	592.14	593.11	593.44	593.76	594.24	594.46	594.60	594.74	594.40	594.37	11'-5"	1'-10 11/16"	8'-5 3/8"	8'-9 3/8"	1'-3 3/8"	7'-11 5/16"	8'-3 5/16"	G4
G5	591.93	592.02	592.98	593.32	593.63	594.11	594.33	594.47	594.61	594.27	594.24	11'-4 7/8"	1'-10 11/16"	8'-4 1/4"	8'-8 1/4"	1'-2 5/8"	7'-9 3/4"	8'-1 3/4"	G5
G6	591.82	591.89	592.86	593.19	593.51	593.98	594.20	594.34	594.48	594.14	594.11	11'-4 5/8"	1'-10 11/16"	8'-2 11/16"	8'-6 11/16"	1'-0 11/16"	7'-8 3/16"	8'-0 3/16"	G6
G7	591.69	591.76	592.73	593.06	593.38	593.86	594.07	594.21	594.35	594.01	593.98	11'-4"	1'-10 11/16"	8'-1 5/8"	8'-5 5/8"	11"	7'-6 5/8"	7'-10 5/8"	G7



Deflection due to weight of steel	+1 1/16"	0	-3/16"	-3/16"	-1/8"	0	-1/8"	-3/16"	-1/8"	0	-3/16"	-3/8"	-3/16"	V	-1/16"	-3/16"	-3/16"	0	+1 1/16"
Deflection due to remaining D.L.	+1/8"	0	-9/16"	-5/8"	-9/16"	0	-9/16"	-5/8"	-5/16"	0	-1/2"	-15/16"	-1/2"	W	-1/8"	-1/2"	-7/16"	0	+1/8"
Camber for deflection only	-3/16"	0	+3 4"	+1 3/16"	+7/16"	0	+7/16"	+1 3/16"	+7/16"	0	+1 1/16"	+1 5/16"	+1 1/16"	X	+3/16	+1 1/16"	+5/8"	0	-3/16"
Correction for convexity of vert. curve	0	0	+1/8"	+1/4"	+5/16"	0	+3/16"	+1/16"	+7/8"	0	+7/8"	+1 1/4"	+1 5/16"	O	+9/16"	+1 1/16"	+9/16"	0	+1/8"
Total camber required	-3/16"	0	+7 8"	+1 1/16"	+3 4"	0	+1 1/4"	+1 7/8"	+1 5/16"	0	+1 5/16"	+2 9/16"	+1 5/8"	Note B	+3 4"	+1 3/8"	+1 3/16"	0	-1/16"

DEFLECTION & CAMBER

NOTE B For Dimensions V, W & X, see DEFLECTION & CAMBER for Carrying Girder, this sheet. No camber required for G1 thru G7 at Pier 16.

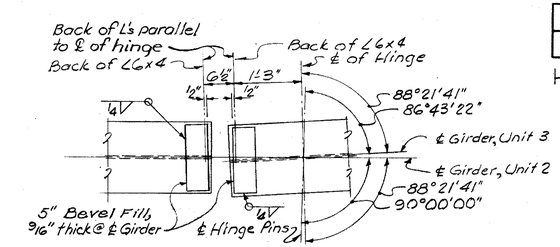


◆ Weight of steel includes longitudinal girders, splice material, cross frames, etc., as well as the carrying girder.

Deflection due to weight of steel ◆	0	-1/16"	-1/8"	-3/16"	-1/4"	-1/4"	-1/4"	-5/16"	-3/16"	0	(V)
Deflection due to remaining D.L.	0	-1/8"	-1/4"	-5/16"	-7/16"	-7/16"	-7/16"	-3/8"	-5/16"	0	(W)
Total Deflection	0	-3/16"	-3/8"	-1/2"	-11/16"	-11/16"	-11/16"	-9/16"	-1/2"	0	(X)
Camber required	0	+3/16"	+3/8"	+1/2"	+11/16"	+11/16"	+11/16"	+9/16"	+1/2"	0	

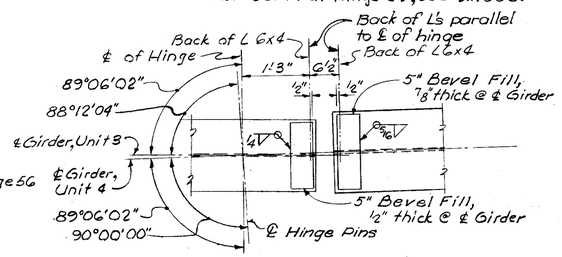
ELEVATION LAYOUT, DEFLECTION & CAMBER
CARRYING GIRDER AT PIER 16

MICROFILMED
JAN 28 1985



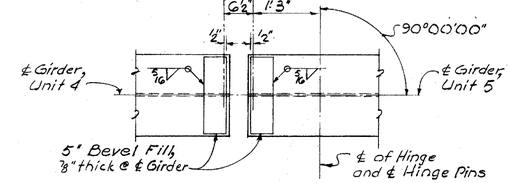
DETAIL B
TOP OF FLANGES AT HINGE 23

For detail of Hinge 23, see Sh. 396.



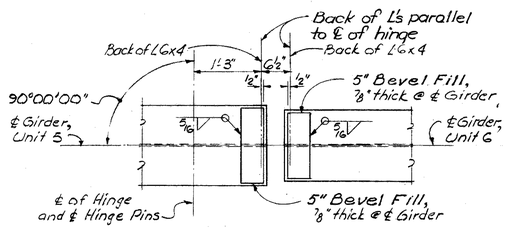
DETAIL C
TOP OF FLANGES AT HINGE 34

For detail of Hinge 34, see Sh. 396.



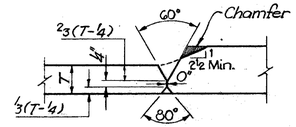
DETAIL D
TOP OF FLANGES AT HINGE 45

For detail of Hinge 45, see Sh. 399.



DETAIL E
TOP OF FLANGES AT HINGE 56

For detail of Hinge 56, see Sh. 399.



NOTE: Butt welds on girder flange plates shall be ground flush; the finish grinding being parallel to the center line of girder.

DETAIL OF WELDED FLANGE SPLICE

NOTES

1. For Bridge Framing Notes, see Sheet 402
2. For Framing Plan - Unit 5, see Sheet 399.
3. For Details of Bearing F400, see Std. Dwg. FSB-1-62, Rev. 1-15-63.
4. For Details of Bearings RB225, RB250 and RS350, see Sheet 398.
5. For Details of Carrying Girder at Pier 16, see Sheet 404.
6. For Details of Bearings at Carrying Girder see Sheet 405.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

SUPERSTRUCTURE DETAILS
UNIT 5

BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILLCREEK
BENSON ST., N.Y.C. RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

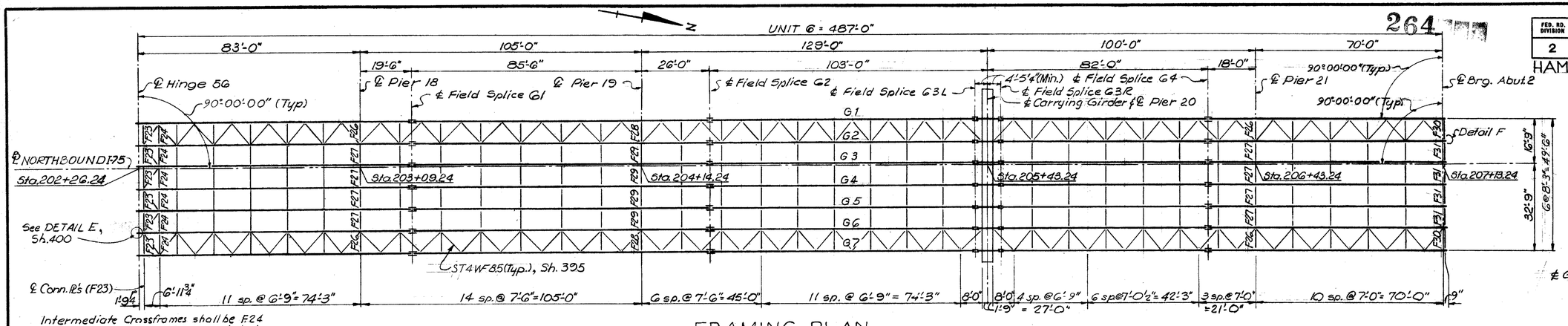
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RKS	TEC	~	C.F.L.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

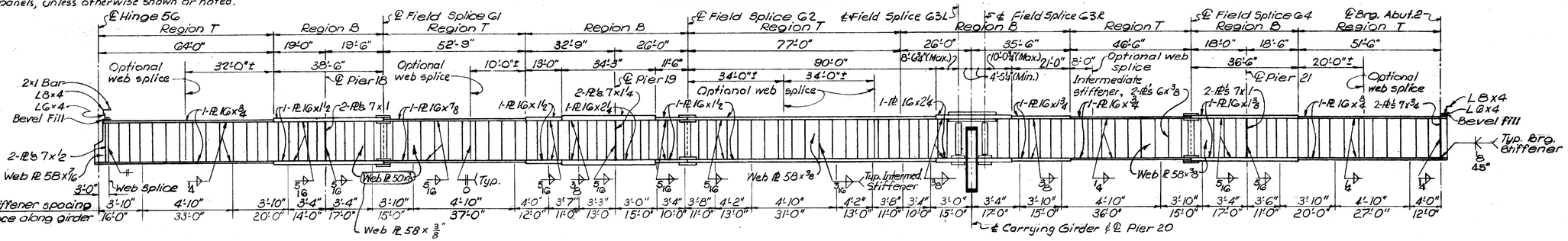
401 / 450

HAM-75-9.30

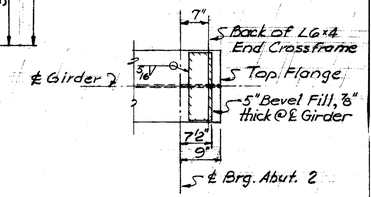
264 Red
~~401-450~~
~~Plus Sort Prints~~
401-428



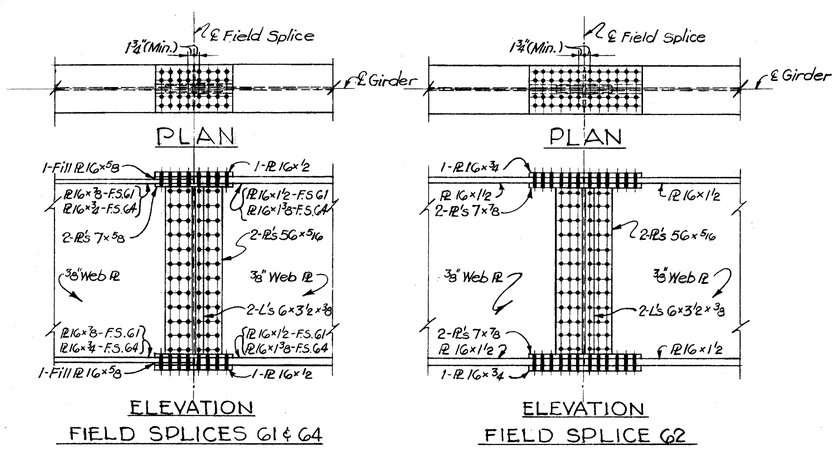
FRAMING PLAN



TYPICAL GIRDER ELEVATION



DETAIL F



All holes 15/16"Φ for ⅞"Φ High Strength Bolts.

NOTES

1. For Bridge Framing Notes, see Sheet 402.
2. For Elevation Layout, see Sheet 402.
3. ERECTION PROCEDURE: The Contractor shall submit to the Director for approval, 3 prints showing proposed erection procedure for this Unit which shall be co-ordinated with the erection procedures for all other Superstructure Units of this bridge and which shall incorporate the following items:
   a) The Carrying Girder at Pier 20 shall be blocked to prevent rotation or longitudinal movement until girders in both adjacent spans have been erected and adequated braced.
   b) Girders shall not be erected between Piers 17 & 18 until the girders in the adjacent span of Unit 5 have been erected and adequately braced.
4. For Detail of Hinge 5G, see Sheet 399.
5. For Details of Field Splices G3 L & R, see Sheet 406.
6. For Details of Carrying Girder at Pier 20, see Sheet 406.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

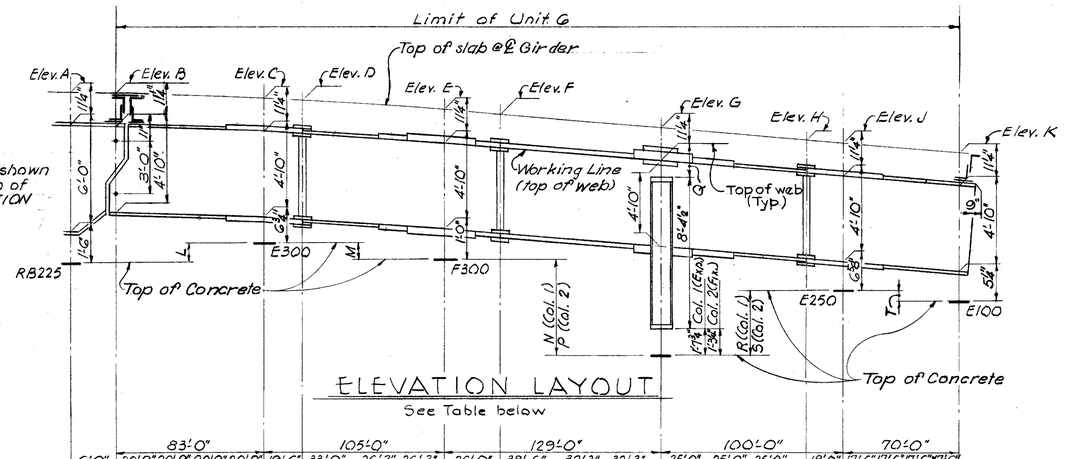
FRAMING PLAN
UNIT G
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. R.R. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EPA	JT TEC	~	C.F.L.	J.A.D.	7-8-64	2-25-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

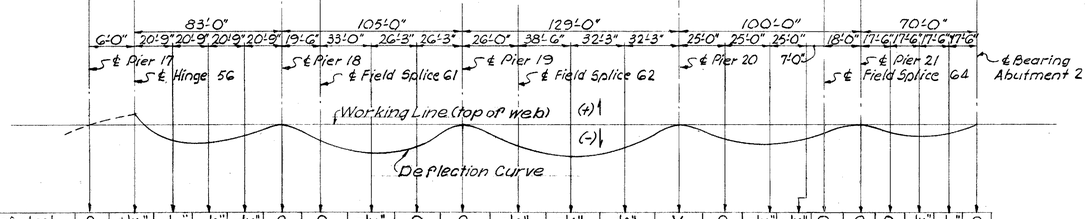
402/450

HAM-75-9.30



ELEVATION LAYOUT

See Table below



DEFLECTION & CAMBER

	Elev. A	Elev B	Elev C	Elev D	Elev E	Elev F	Elev G	Elev H	Elev J	Elev K	L	M	N	P	Q	R	S	T	
G1	594.26	594.23	593.69	593.53	592.66	592.35	591.03	589.98	589.75	588.86	1'-6 3/8"	1'-5 9/16"	6'-11 13/16"	6'-7 5/16"	1'-2"	4'-6 1/4"	4'-1 3/4"	9 3/8"	G1
G2	594.39	594.36	593.82	593.65	592.79	592.48	591.16	590.11	589.88	588.99	1'-6 3/8"	1'-5 9/16"	7'-1 5/16"	6'-8 13/16"	1'-3 9/16"	4'-7 13/16"	4'-3 5/16"	9 3/8"	G2
G3	594.52	594.49	593.95	593.78	592.92	592.61	591.29	590.24	590.01	589.11	1'-6 3/8"	1'-5 9/16"	7'-2 7/8"	6'-10 3/8"	1'-5 1/8"	4'-9 3/8"	4'-4 7/8"	9 3/8"	G3
G4	594.40	594.37	593.82	593.66	592.80	592.49	591.17	590.12	589.89	588.99	1'-6 3/8"	1'-5 9/16"	7'-1 7/16"	6'-8 5/16"	1'-3 5/8"	4'-7 7/8"	4'-3 3/8"	9 3/8"	G4
G5	594.27	594.24	593.70	593.53	592.67	592.36	591.04	589.99	589.76	588.86	1'-6 3/8"	1'-5 9/16"	6'-11 7/8"	6'-7 3/8"	1'-2 1/8"	4'-6 3/8"	4'-1 7/8"	9 3/8"	G5
G6	594.14	594.11	593.57	593.41	592.54	592.23	590.91	589.86	589.63	588.74	1'-6 3/8"	1'-5 9/16"	6'-10 3/8"	6'-5 7/8"	1'-0 9/16"	4'-4 13/16"	4'-0 5/16"	9 3/8"	G6
G7	594.01	593.98	593.44	593.28	592.41	592.10	590.78	589.73	589.50	588.61	1'-6 3/8"	1'-5 9/16"	6'-8 15/16"	6'-4 5/16"	11"	4'-3 1/4"	3'-10 3/4"	9 3/8"	G7

NOTE B -

For dimensions V, W & X see Deflection & Camber for Carrying Girder this sheet. No camber required for G1 thru G7 at Pier 20.

Deflection due to weight of steel	0	+1/16"	-1/16"	-1/8"	-1/16"	0	0	-1/16"	0	0
Deflection due to remaining D.L.	0	+1/8"	-7/16"	-1/2"	-1/4"	0	-1/16"	-3/16"	-1/16"	0
Camber for deflection only	0	-3/16"	+1/2"	+5/8"	+5/16"	0	+1/16"	+1/4"	+1/16"	0
Correction for convexity of vert. curve	0	+1/8"	+5/16"	+3/8"	+5/16"	0	+5/16"	+9/16"	+7/16"	0
Total camber required	0	-1/16"	+13/16"	+1"	+5/8"	0	+3/8"	+13/16"	+1/2"	0

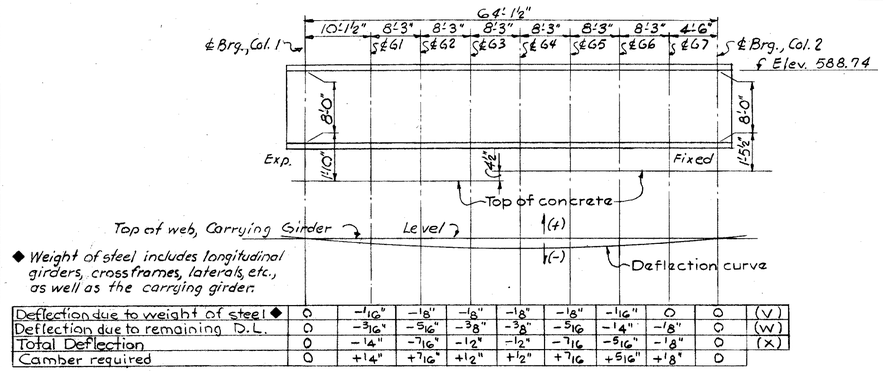
Deflection due to weight of steel	0	-1/8"	-1/4"	-1/8"	W	0	-1/16"	-1/16"	0	0
Deflection due to remaining D.L.	0	-7/16"	-15/16"	-9/16"	W	-1/16"	-3/16"	-1/8"	-1/16"	0
Camber for deflection only	0	+9/16"	+1 3/16"	+1 1/16"	X	+1/16"	+1/4"	+3/16"	+1/16"	0
Correction for convexity of vert. curve	0	+3/16"	+1/8"	+1/16"	0	0	0	0	0	0
Total camber required	0	+3/4"	+1 5/16"	+3/4"	Note B	+1/16"	+1/4"	+3/16"	+1/16"	0

Deflection due to weight of steel	0	+1/16"	-1/16"	-1/8"	-1/8"	0	0	-1/16"	0	0
Deflection due to remaining D.L.	0	+1/8"	-7/16"	-1/2"	-1/4"	0	-1/16"	-3/16"	-1/8"	-1/16"
Camber for deflection only	0	-3/16"	+1/2"	+5/8"	+5/16"	0	+1/16"	+1/4"	+3/16"	+1/16"
Correction for convexity of vert. curve	0	+1/8"	+5/16"	+3/8"	+5/16"	0	+5/16"	+9/16"	+7/16"	0
Total camber required	0	-1/16"	+13/16"	+1"	+5/8"	0	+3/8"	+13/16"	+1/2"	0

Deflection due to weight of steel	0	-1/16"	-1/8"	-1/8"	-1/8"	0	-1/16"	0	0	(V)
Deflection due to remaining D.L.	0	-3/16"	-5/16"	-3/8"	-3/8"	-5/16	-1/4"	-1/8"	0	(W)
Total Deflection	0	-1/4"	-7/16"	-1/2"	-1/2"	-7/16	-5/16"	-1/8"	0	(X)
Camber required	0	+1/4"	+7/16"	+1/2"	+1/2"	+7/16	+5/16"	+1/8"	0	

ELEVATION LAYOUT, DEFLECTION & CAMBER

CARRYING GIRDER AT PIER 20



◆ Weight of steel includes longitudinal girders, crossframes, laterals, etc., as well as the carrying girder.

BRIDGE FRAMING NOTES

1. For GENERAL NOTES, see Sh. 363.
2. For REFERENCE LINE LAYOUT, see Sheet 362.
3. PIER CENTERLINES are in every case perpendicular to centerlines of beams or girders directly supported by the pier.
4. WELDING shall be Class A unless otherwise noted. Class B welds are shown thus: B
5. WELDED FLANGE SPLICE details for plate girders are shown on Sheet 400.
6. CROSSFRAMES All intermediate crossframes shall be perpendicular to the beam or girder webs and may be perpendicular to the flanges, except as shown or noted on the Plans. End crossframes shall be parallel either to centerline bearing at Abutment or to centerline Hinge at Hinges, and shall be vertical. For details of end and intermediate crossframes for Units 2 thru 6, see Sheet 394. For end crossframe details not shown, see Std. Dwg. SD-1-63, Sheets 2 & 4 of 4.
7. LATERALS For typical details of lateral bracing for Units 3 thru 6, see Sheet 395.
8. BEARING STIFFENERS shall be placed vertically.
9. WEB SHOP SPLICES at locations other than those shown on the Plans shall require the approval of the Director before fabrication.
10. BUTT WELDS shall be radiographically examined in accordance with Supplemental Specification S-307, dated 8-23-63.
11. INTERMEDIATE STIFFENERS shall have contact bearing with the top flange within Region T, but may have a clearance not exceeding ⅛" at the bottom flange. Intermediate stiffeners shall have contact bearing with the bottom flange within Region B, but may have a clearance not exceeding ⅛" at the top flange. Adequate care shall be exercised, in shop painting all junctions of intermediate stiffeners and flanges, where contact bearing is not provided, to make certain that paint is forced thru such openings from one side to the other.
12. END DAMS For details of deck and sidewalk end dams, see Std. Dwg. SD-1-63, Sheets 2, 3 & 4 of 4, except as modified by details shown on the Plans; in particular, Sheet 410.
13. SCUPPERS & GUTTERS For locations of scuppers, see Sheets 412 thru 414. For details of standard scuppers and bulb angle gutters, see Std. Dwg. SD-1-63, Sheets 3 & 4 of 4. For details of special scuppers and deck drainage collector system, see Sheets 412 thru 414.
14. BEARING ASSEMBLY Before final assembly, the trepanned surfaces of the bronze bearing plate and the opposing surfaces of adjacent steel plates shall be coated with a lubricant similar to that in the recesses.
15. SOLE PLATES need not be beveled unless the gradient of the girder flange is 4% or more, or unless shown on the Plans.
16. MATERIALS
    a) Structural Steel for Hinge Plates and Fill Plates of Hinge Details, see Sheets 393, 396 & 399; shall conform to the requirements of ASTM A36, copper-bearing Hinge Pins shall conform to the requirements of ASTM A-108.
    b) Structural Steel for Plates, WF Section Bars, Turned Bolts, Anchor Rods and Anchor Bolts used in bearing assemblies shall conform to the requirements of ASTM A36. Bearing Pins shall conform to the requirements of ASTM A-10
    c) Self-lubricating bronze bearing plates and lubricant therefor shall conform to all requirements set forth on Std. Dwg. FSB-1-62, Rev. 1-15-63, unless otherwise shown or noted on the Plans

NOTES

1. For Framing Plan - Unit G, see Sheet 40
2. For Details of Bearings E100, E250, E30 and F300, see Std. Dwg. FSB-1-62, Rev. 1-15
3. For Details of Bearing RB225, see Sheet 39
4. For Details of Carry Girder at Pier 20, see Sheet 406.
5. For Details of Bearings for Carrying Girde see Sheet 407.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE DETAILS UNIT G

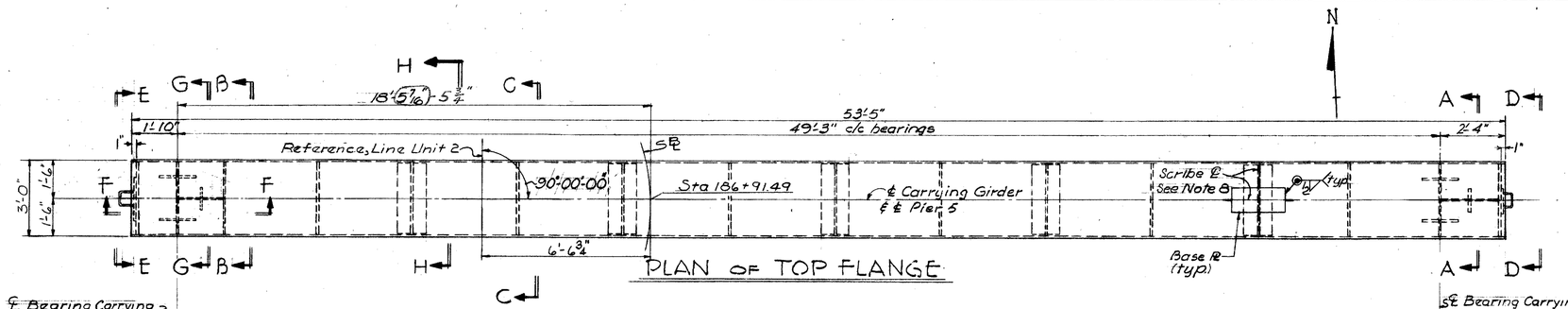
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

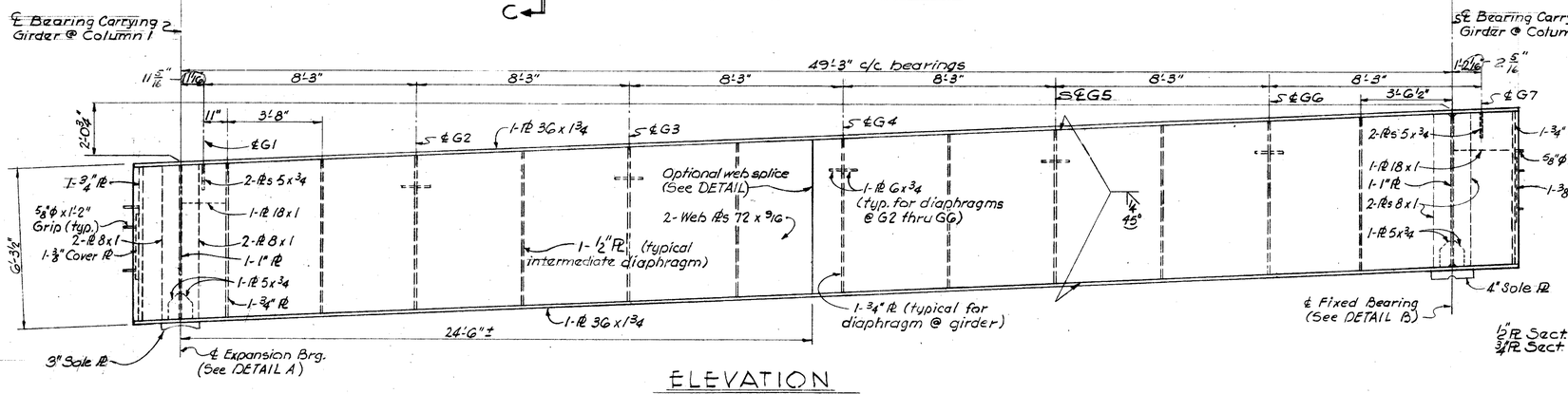
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EPA	TEC	~	CFL	JAD	7/8/64	

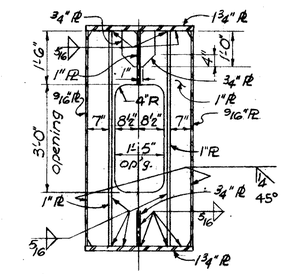
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

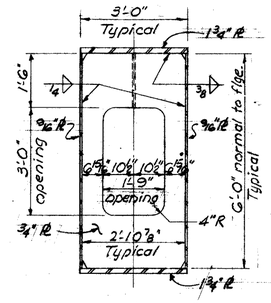
403
450

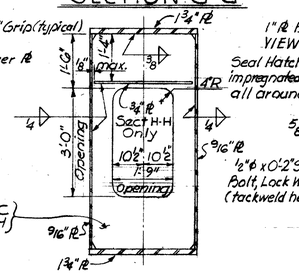
HAM-75-9.30

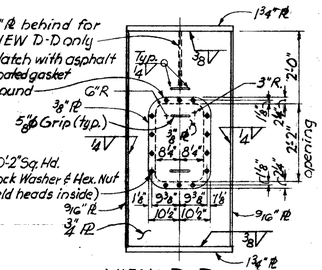


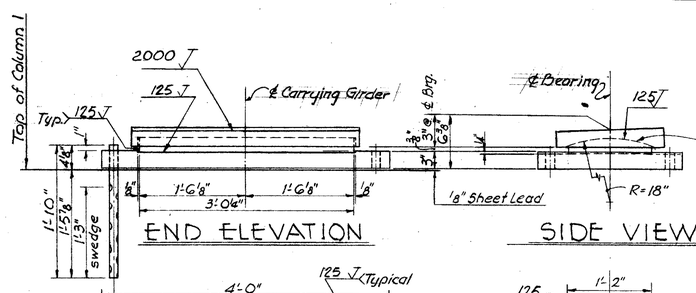


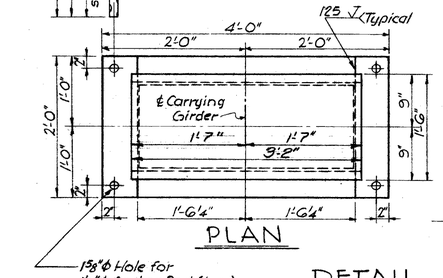


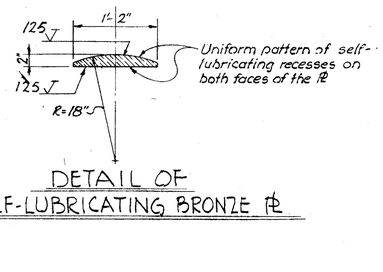


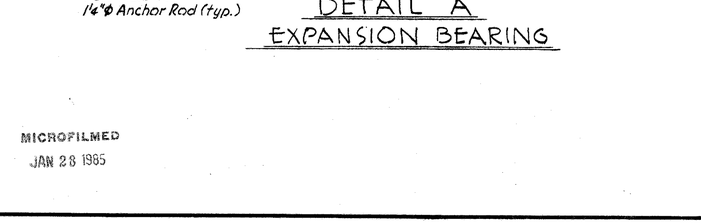


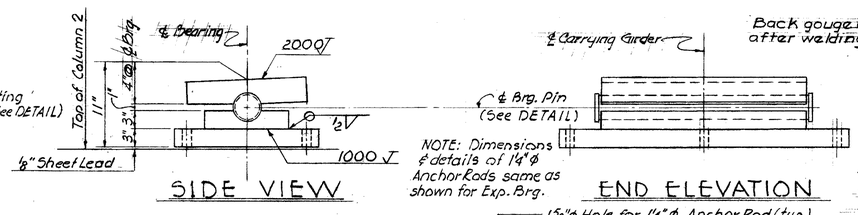


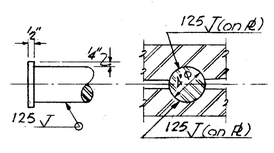


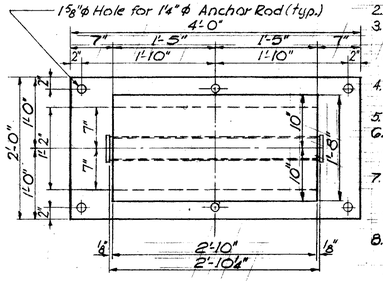


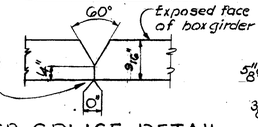












NOTES

1. For BRIDGE FRAMING NOTES, see Sh. 402.
2. For FRAMING PLAN, Unit 2, see Sh. 394.
3. All diaphragms and stiffeners shall be vertical and have contact bearing against the top of flange, unless, welding to flange is required.
4. Sole ℞s shipped on girder must be protected against damage in transit.
5. For Deflection and Camber, see Sh. 395.
6. Butt welds on girder flange plates shall be ground flush, the finish grinding being parallel to the direction of stress.
7. Butt welds shall be radiographically examined in accordance with Supplemental Specifications No. S-307, dated 8-23-60.
8. Scribe center-lines of carrying girder and longitudinal girders to extend beyond edges of shoes for control of setting shoes in the field. See Sh. 395.

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VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

CARRYING GIRDER AT PIER 5
UNIT 2

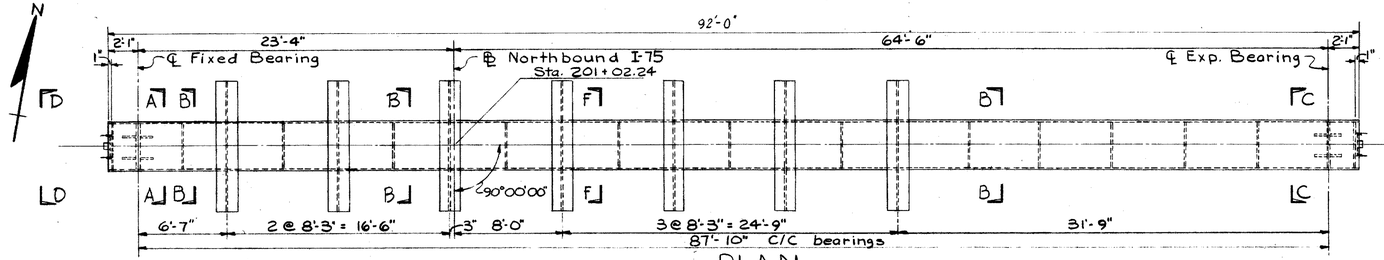
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
AY	TEC	~	I.M.Y.	J.A.D.	7-8-64	12-17-64

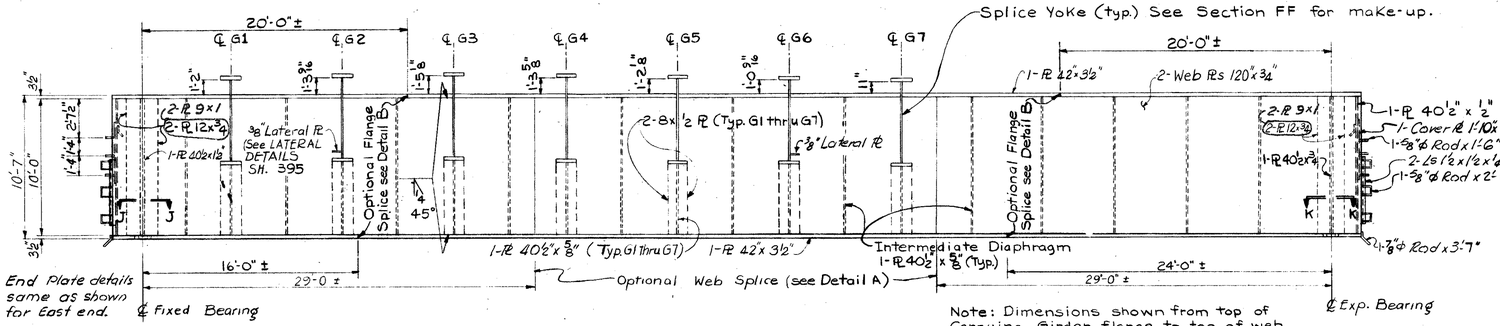
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

404
450

HAM-75-9.30

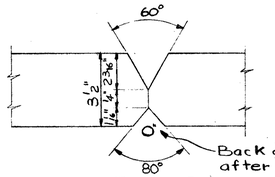


PLAN

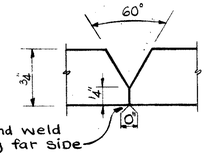


GIRDER ELEVATION

Note: Dimensions shown from top of Carrying Girder flange to top of web of Splice Yoke are measured at ℄ of Carrying Girder.

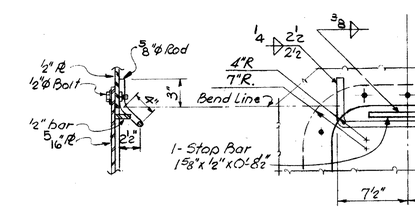


DETAIL B
FLANGE SPLICE DETAIL

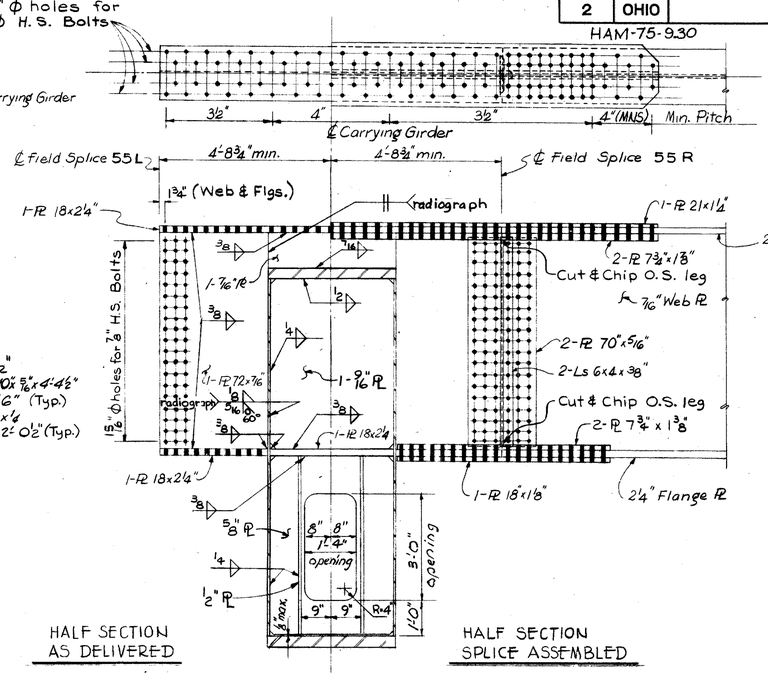


DETAIL A
WEB SPLICE

Note: Butt welds on girder flange plates shall be ground flush, the finish grinding being parallel to the direction of stress.



DETAIL C
INSIDE OF HATCH SHOWN

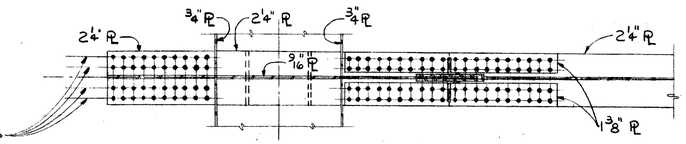


HALF SECTION AS DELIVERED

HALF SECTION SPLICE ASSEMBLED

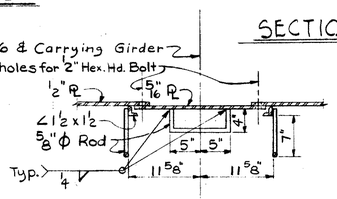
All half sections Symmetrical about ℄ Carrying Girder

SECTION FF

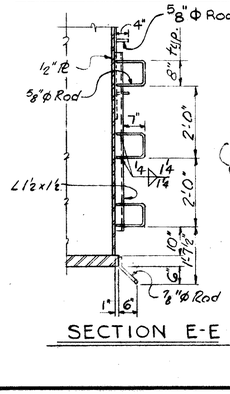


HALF SECTIONS AT BOTTOM FLANGE

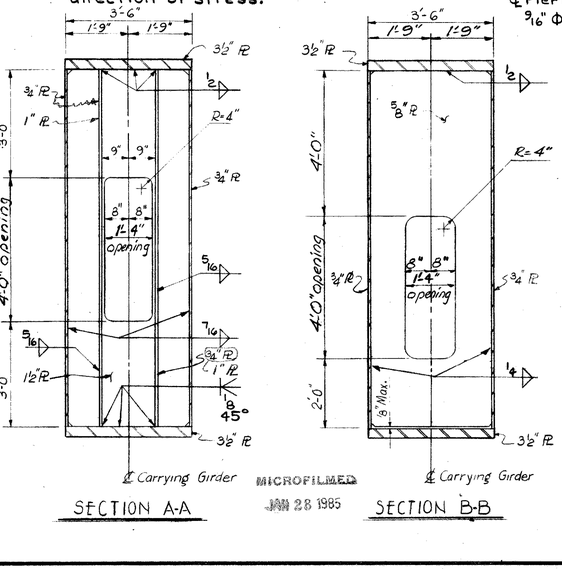
SECTION G-G



SECTION H-H

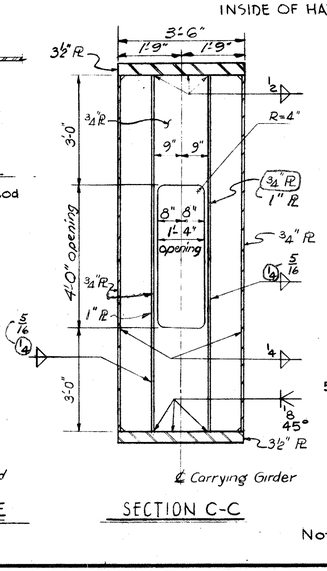


SECTION E-E

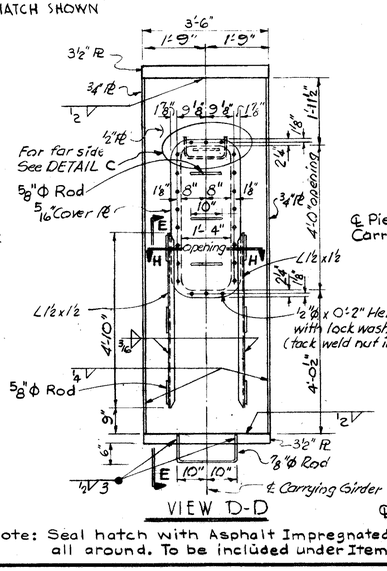


SECTION A-A

SECTION B-B



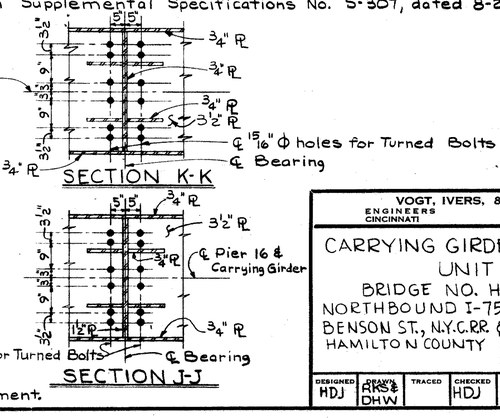
SECTION C-C



VIEW D-D

Note: Seal hatch with Asphalt Impregnated Gasket all around. To be included under Item S-7 for payment.

NOTES:
1. For BRIDGE FRAMING NOTES, see sht. 402
2. For FRAMING PLAN Unit 5, see sht. 399
3. For Deflection and Camber, see sht. 400
4. For details of Bearings, see sht. 405
5. Butt welds shall be radiographically examined in accordance with Supplemental Specifications No. S-307, dated 8-23-60.



VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

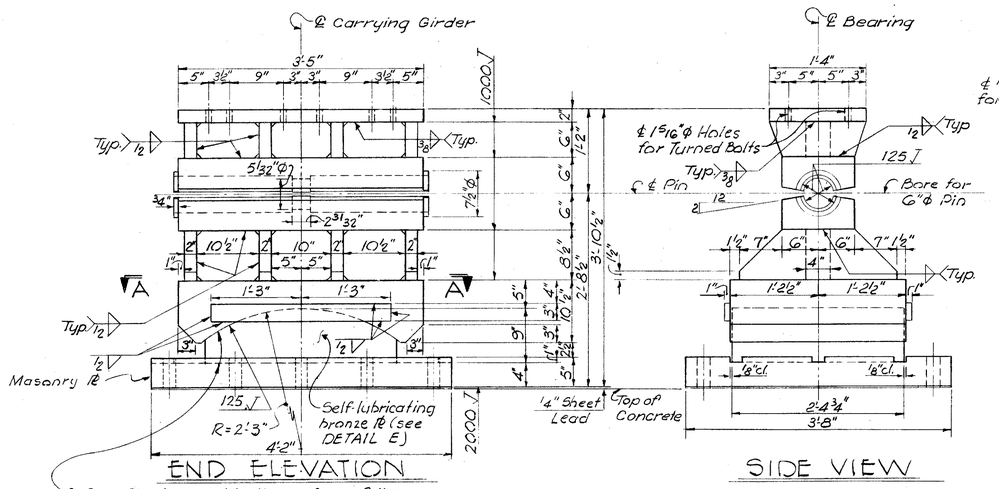
CARRYING GIRDER AT PIER 16
UNIT 5
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILLCREEK
BENSON ST., N.Y.C.RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
HDJ	RKS & DHW		HDJ	JAD	7-8-64	2-25-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

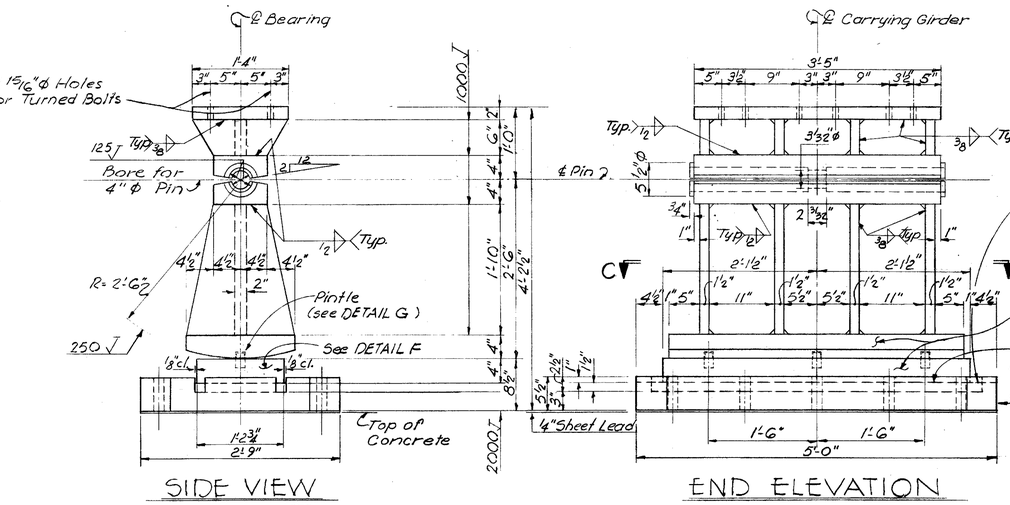
405
450

HAM-75-9.30



FIXED BEARING

Before final assembly the surface of the bronze plate and the and the opposing steel plates shall be coated with a lubricant similar to that in the recesses. The three parts shall be banded together for shipment.



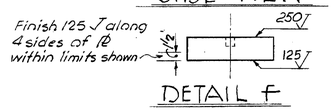
EXPANSION BEARING

Before final assembly the upper surface of the bronze plate and the opposing steel plate shall be coated with a lubricant similar to that in the recesses. The three parts shall be banded together for shipment.

ASTM A441 High Strength Structural Steel

Self-lubricating bronze ℞ (See SECTION D-D)

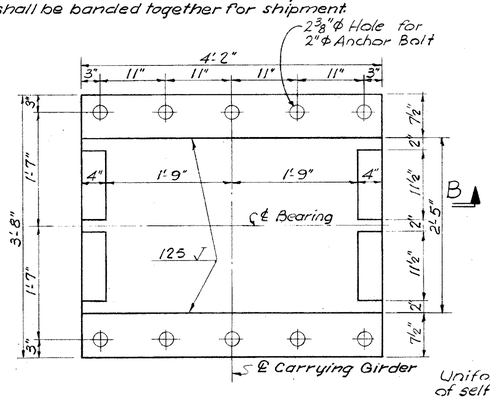
Masonry ℞



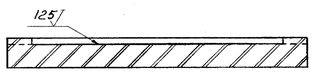
DETAIL F

NOTES

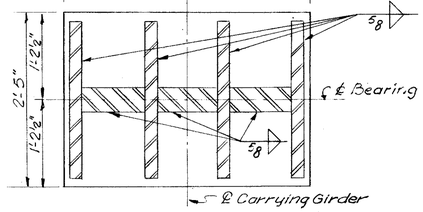
1. For BRIDGE FRAMING NOTES see Sh. 402.
2. For location of Bearings and for details of Carrying Girder see Sh. 404.
3. "Specifications for Self-Lubricating Bronze Bearing Plates," Std. Dwg. FS 1-62, Rev. 1-15-63 shall apply with the following revisions:
   Change Paragraph a) to read: Cast phosphar bronze shall conform to Sec. M-7.11 of the Construction & Materials Specifications. ASTM Designation B22, Alloy B with an allowable unit stress of 2,500 p.s.i. in compression shall be used for Expansion Bearing. ASTM Designation B22, Alloy E with an allowable unit stress of 3,500 p.s.i. in compression shall be used for Fixed Bearing.
   Change Paragraph c) to read: "The recesses for the lubricant shall consist of annular rings with or without a central circular recess, with a depth at least equal to the width of the ring or diameter of hole.
4. Steel: Plates and bolts shall conform to ASTM Designation A36-62T, except as shown, and pins to ASTM A-108.



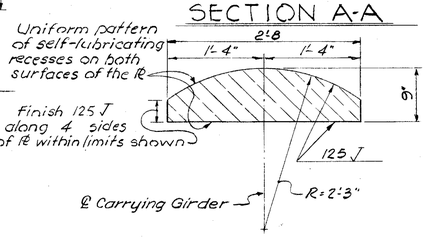
PLAN OF MASONRY PLATE
FIXED BEARING



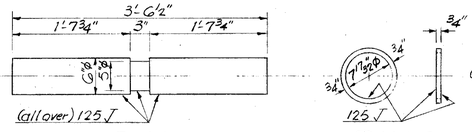
SECTION B-B



SECTION A-A

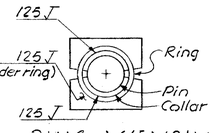


DETAIL E
SELF-LUBRICATING BRONZE PLATE



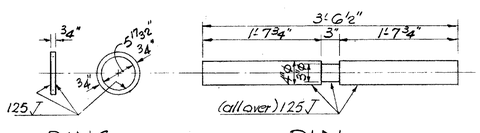
PIN
FIXED BEARING

RING

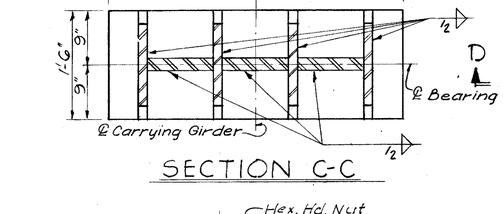


RING ASSEMBLY
END VIEW

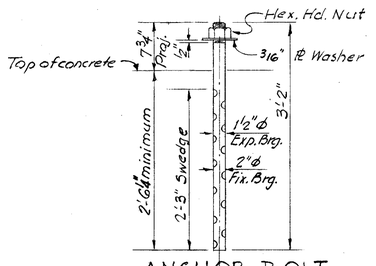
Typical for both bearings Each end of pin



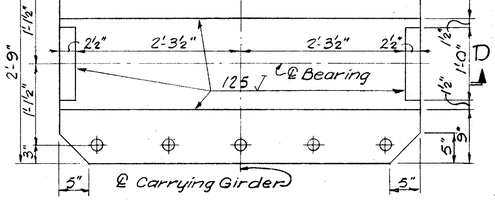
RING
PIN
EXPANSION BEARING



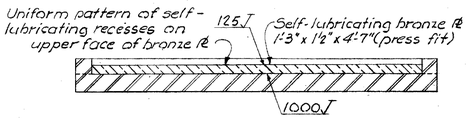
SECTION C-C



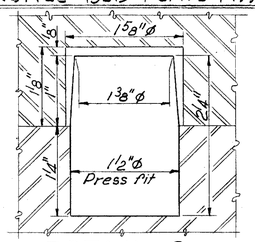
ANCHOR BOLT
10 REQ'D. EACH BRG.



PLAN OF MASONRY PLATE
EXPANSION BEARING



SECTION D-D
(BRONZE BED PLATE ASSEMBLED)



DETAIL G
PINTLE

MICROFILMED
JAN 28 1985

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

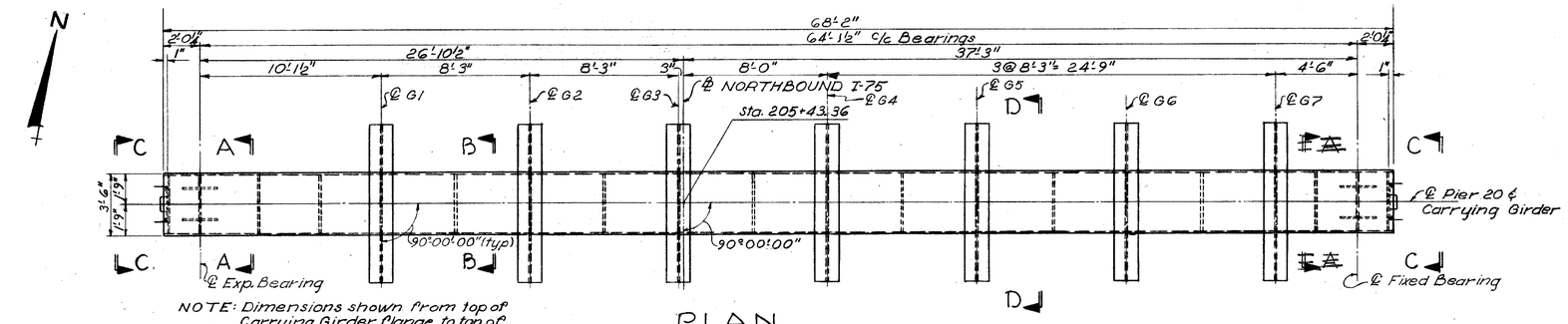
BEARINGS FOR CARRYING GIRDER
AT PIER 16 UNIT 5
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., NYC.RR. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
JAD ERH	TEC	~	H.D.J.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

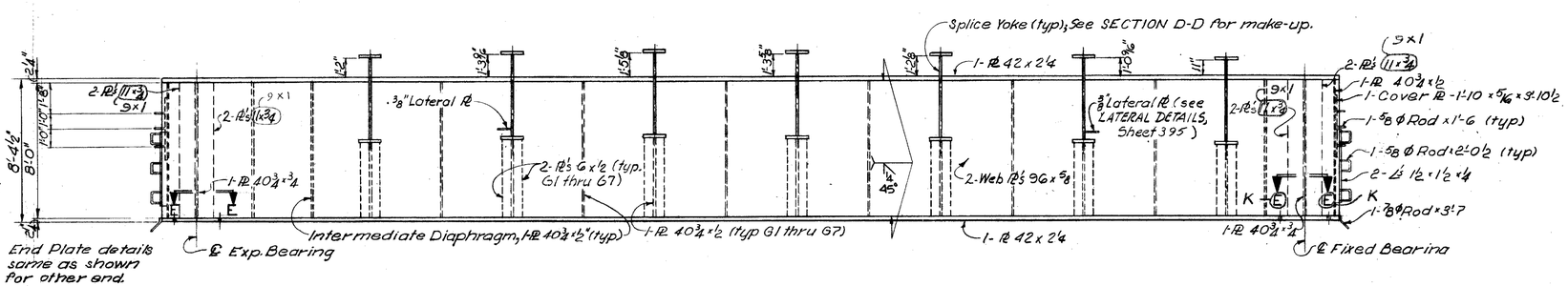
406/450

HAM-75-9.30

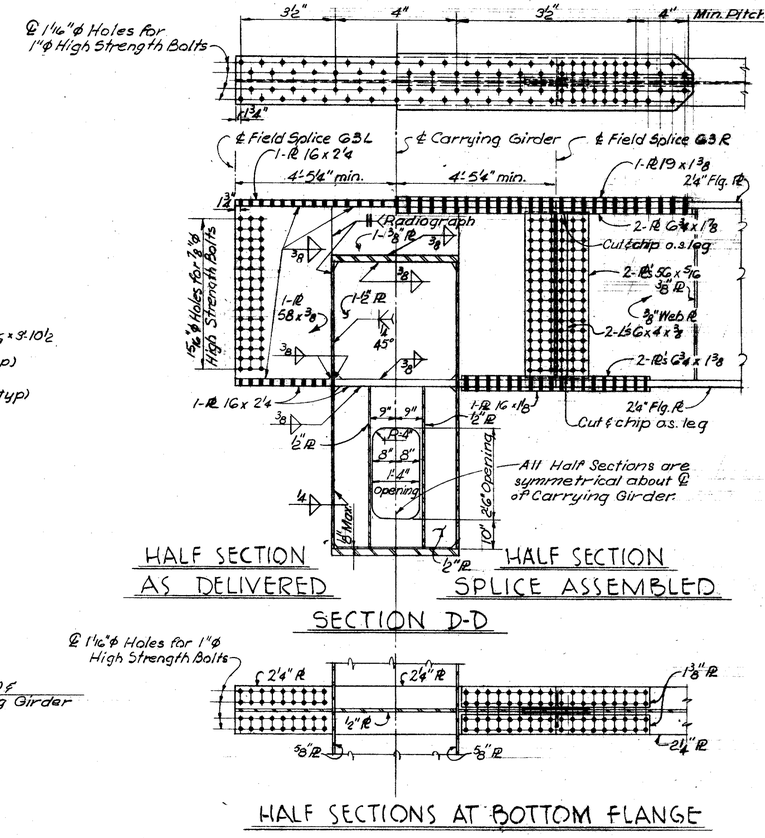


NOTE: Dimensions shown from top of Carrying Girder flange to top of Web of Splice Yoke are measured @ ℄ of Carrying Girder.

PLAN

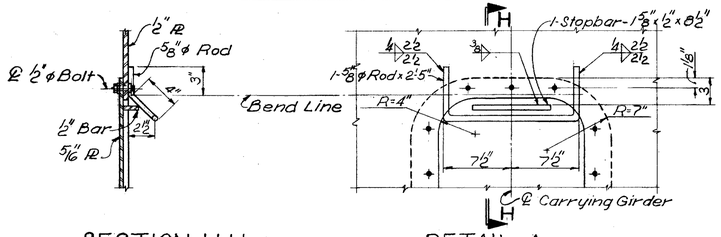


GIRDER ELEVATION



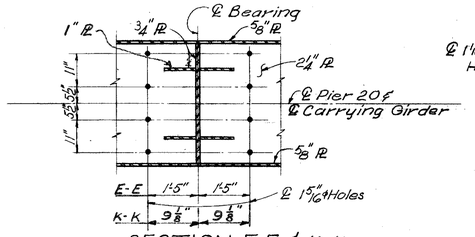
SECTION D-D

HALF SECTIONS AT BOTTOM FLANGE

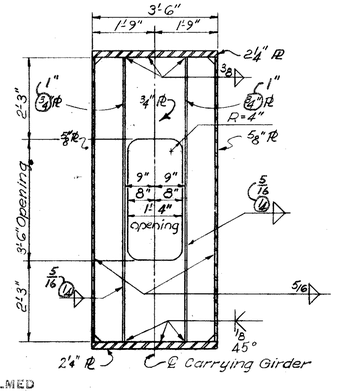


SECTION H-H

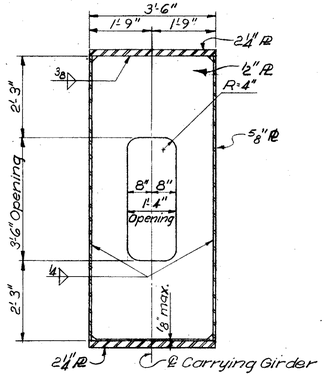
DETAIL A
INSIDE OF HATCH SHOWN



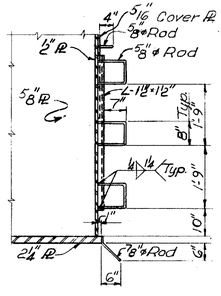
SECTION E-E & K-K



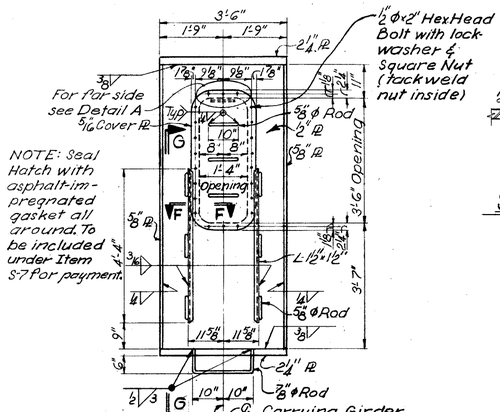
SECTION A-A



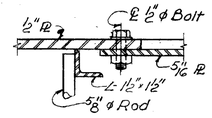
SECTION B-B



SECTION G-G



VIEW C-C



SECTION F-F

NOTES

1. For BRIDGE FRAMING NOTES see Sh. 402.
2. For FRAMING PLAN, Unit G, see Sh. 401.
3. For DEFLECTION & CAMBER see Sh. 402.
4. For details of Bearings see Sh. 407
5. Butt welds shall be radiographically examined in accordance with Supplemental Specifications No. S-307, dated 8-23-60.

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

CARRYING GIRDER AT PIER 20
UNIT G
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C.R.R. & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 TO STA. 207+15.49

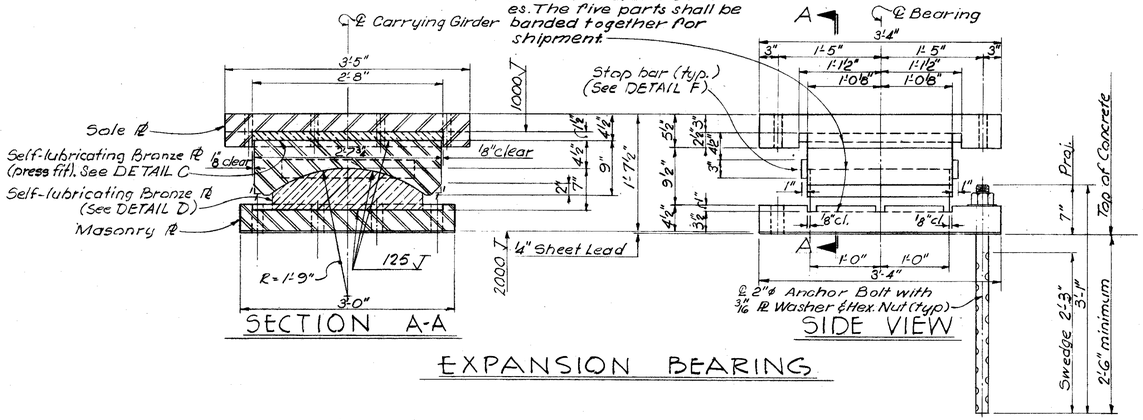
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EPA	TEC	~	RKS.	JAD	7-8-64	2-25-65

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

407
450

HAM-75-9.30

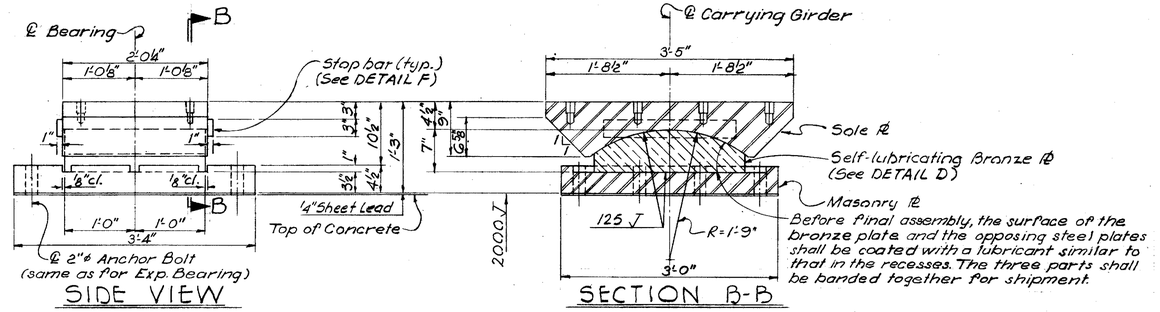
Before final assembly, the surfaces of the bronze plates indicated below and the opposing steel plates shall be coated with a lubricant similar to that in the recesses. The five parts shall be banded together for shipment.



SECTION A-A

SIDE VIEW

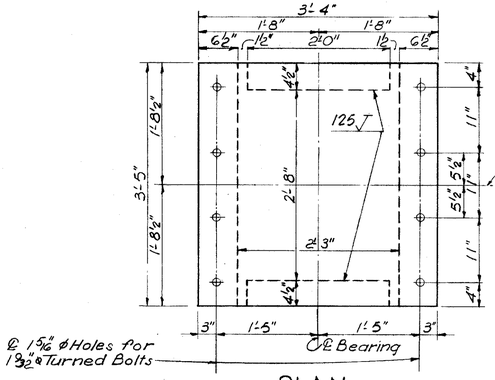
EXPANSION BEARING



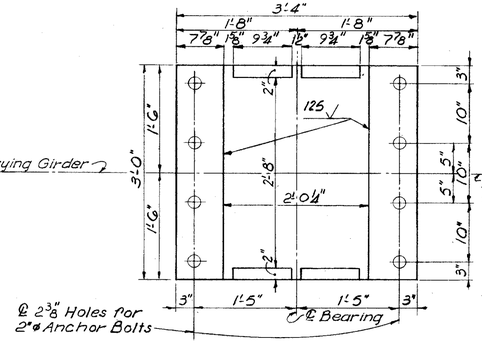
SIDE VIEW

SECTION B-B

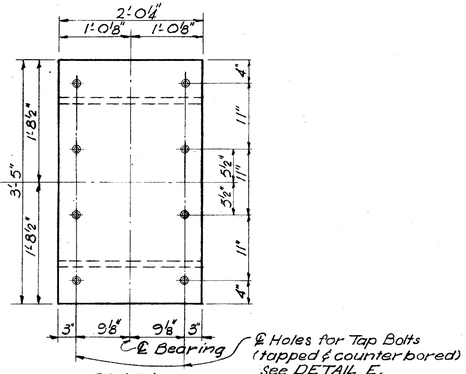
FIXED BEARING



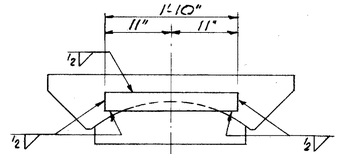
PLAN
SOLE PLATE
EXPANSION BEARING



PLAN
MASONRY PLATE



PLAN
SOLE PLATE
FIXED BEARING

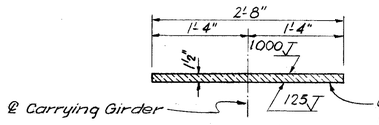


DETAIL F

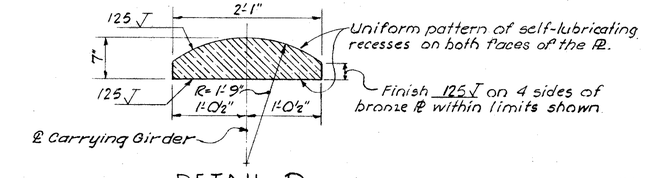
Stop Bar for Fixed Bearing shown.
Stop Bar for Expansion Bearing similar.

NOTES

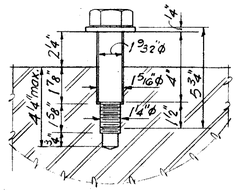
1. For BRIDGE FRAMING NOTES see Sh. 406.
2. For location of bearings and for details of Carrying Girder see Sh. 406.
3. "Specifications for Self-Lubricating Bronze Bearing Plates," Std. Dwg. FSB-1-63, Rev. 1-15-63, shall apply, with the following revisions:
   Change Paragraph a) to read:
   ..."Cast Phosphor Bronze shall conform to Section M-7-11 of the Construction and Material Specifications, ASTM Designation B 22, Alloy E, and shall have an allowable unit stress of 3500 P.S.I. in compression."
   Change Paragraph c) to read:
   The recesses for the lubricant shall consist of annular rings with or without a central circular recess, with a depth at least equal to the width of the ring or diameter of the hole.
4. Steel: All steel parts (including bolts) shall conform to ASTM Designation A36-62T



DETAIL C
SELF-LUBRICATING BRONZE PLATE
EXPANSION BEARING



DETAIL D
SELF-LUBRICATING BRONZE PLATE



DETAIL E
TAP BOLT
FIXED BEARING

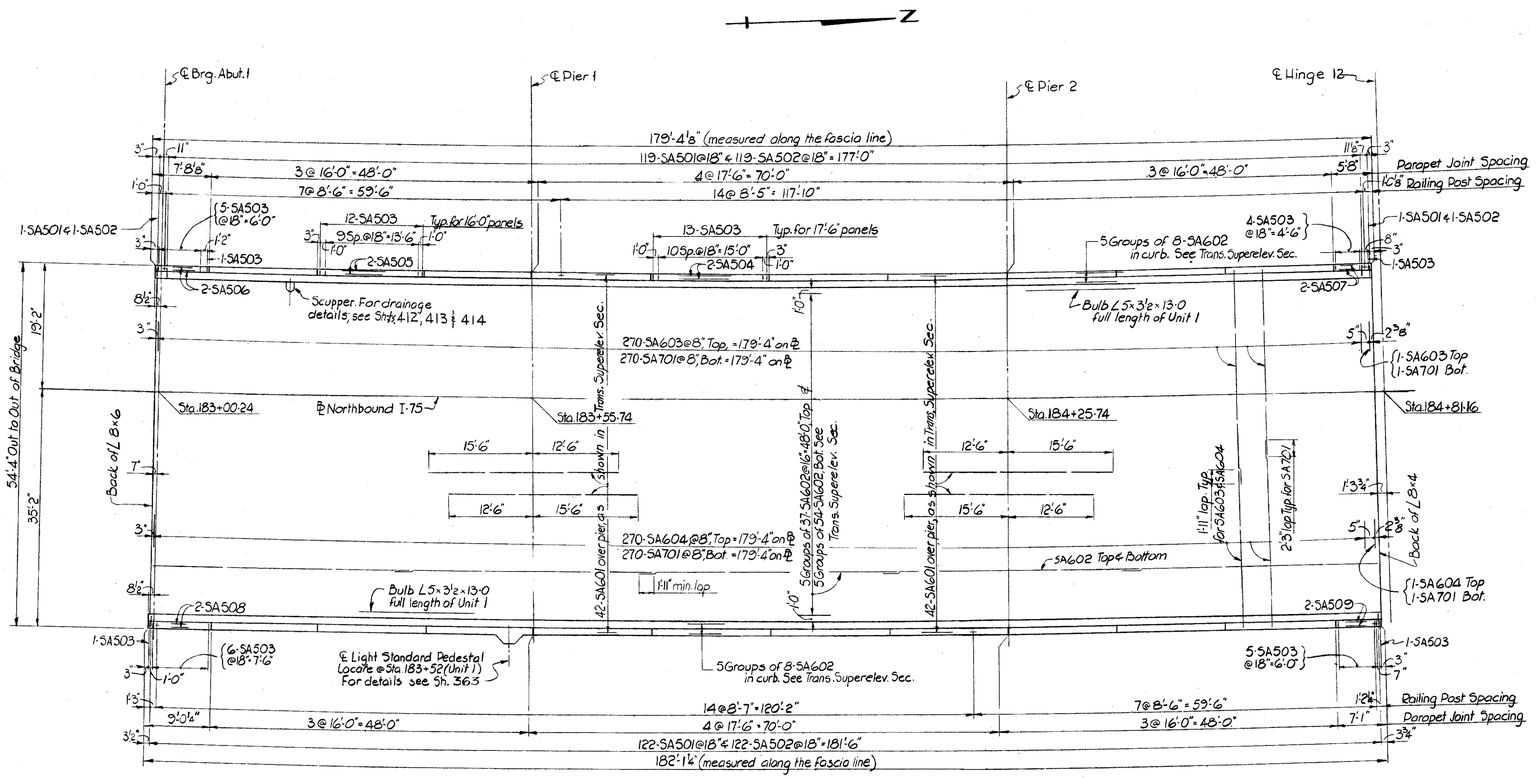
MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BEARINGS FOR CARRYING GIRDER AT PIER 20 UNIT G

BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, PENSON ST., N.Y.C. RR & SHEPHERD AVENUE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
ERH	TEC	~	R.K.S.	JAD	7-8-64	

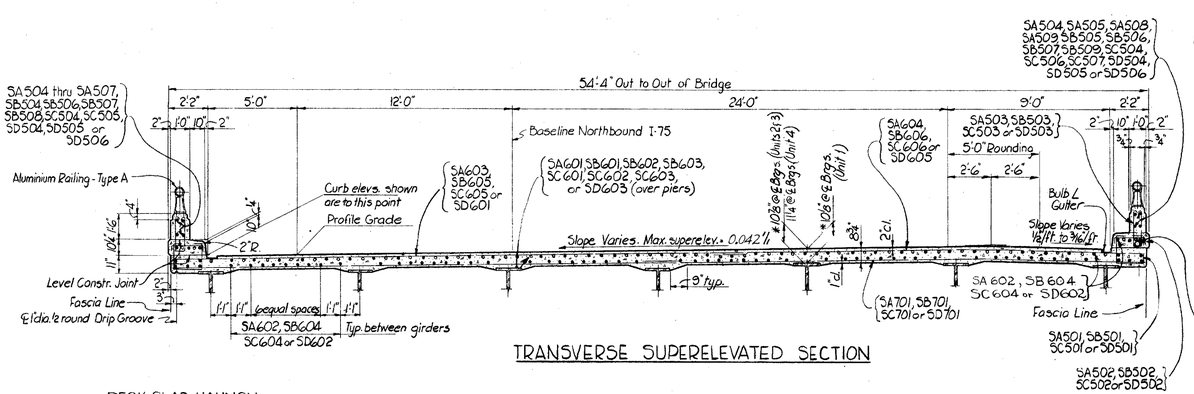


PLAN-UNIT 1

PAVEMENT ELEVATIONS						
Station	Profile Grade	Base Line	Curb 17'L. of ℄	24'R. of ℄	29'R. of ℄	Curb 33'R. of ℄
182 +75	576·34	576·84	—	577·85	—	—
183 +00	576·62	577·12	576·41	578·13	578·13	577·97
+25	576·90	577·40	576·69	578·41	578·41	578·25
+50	577·18	577·68	576·97	578·69	578·69	578·53
+75	577·46	577·96	577·25	578·97	578·97	578·81
184 +00	577·74	578·24	577·53	579·25	579·25	579·09
+25	578·02	578·52	577·81	579·53	579·53	579·37
+50	578·30	578·80	578·09	579·81	579·81	579·65
+75	578·58	579·08	578·37	580·09	580·09	579·93
185 +00	578·86	579·36	578·65	580·37	580·37	580·21

NOTES:

1. Slab thickness includes 1" monolithic wearing surface.
2. For railing and parapet joint details see Std. Dwg. AR-1-57.
3. Parapet concrete and longitudinal reinforcing bars in parapet are to be included with Item S-14 for payment.
4. For end dam & curb plate details at the abutments, see Std. Dwg. SD-1-63, Shts 2 & 4 of 4 dated 11-12-63
5. For light standard pedestal details, see Sht. 363
6. For scupper and bridge drainage details, see Shts. 412, 413 & 414
7. Spread or cut reinforcing steel in slab to clear scuppers as necessary.
8. Parapet joint spacing & railing post spacing is measured along the fascia line.
9. For expansion joint details and curb plate details at the hinges, see Sht. 410
10. For reinforcing steel list, see Sht. 415 & 419
11. Delineator bracket, type A-1, shall be mounted on the aluminum railing to the right of the Baseline NB I-75 at the following locations: Sta. 184+22, Sta. 186+20, Sta. 188+20, Sta. 190+18, Sta. 192+22, Sta. 194+20, Sta. 196+18, Sta. 198+20, Sta. 200+20, Sta. 202+20, Sta. 204+20, & Sta. 206+20.
12. Provide for expansion in the 2" galv. rigid conduit at all expansion joints in the roadway slab similar to Detail-Conduit Through Wingwall, as shown on Sht. 262.

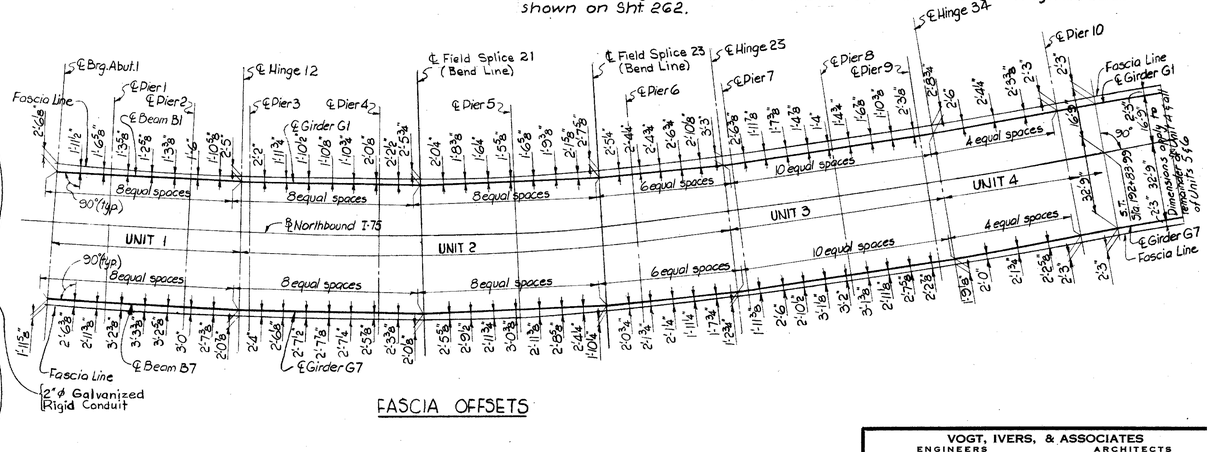


TRANSVERSE SUPERELEVATED SECTION

DECK SLAB HAUNCH:

The haunch in the superelevated deck slab adjacent to the top of steel beams or girders, which is shown as 9" wide, may vary from this dimension between the limits of 6" and 12" on the low side, and between 9" & 12" on the high side. Except on the high side, the maximum slope shall not exceed 3" per foot. Payment for deck slab concrete will be based on the 9" width.

* These are nominal dimensions. The quantity of deck concrete to be paid for will be based on these dimensions, even though deviations from them may be necessary because the top flange of the beams or girders may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. S-1.25 of the Construction & Material Specifications.



FASCIA OFFSETS

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

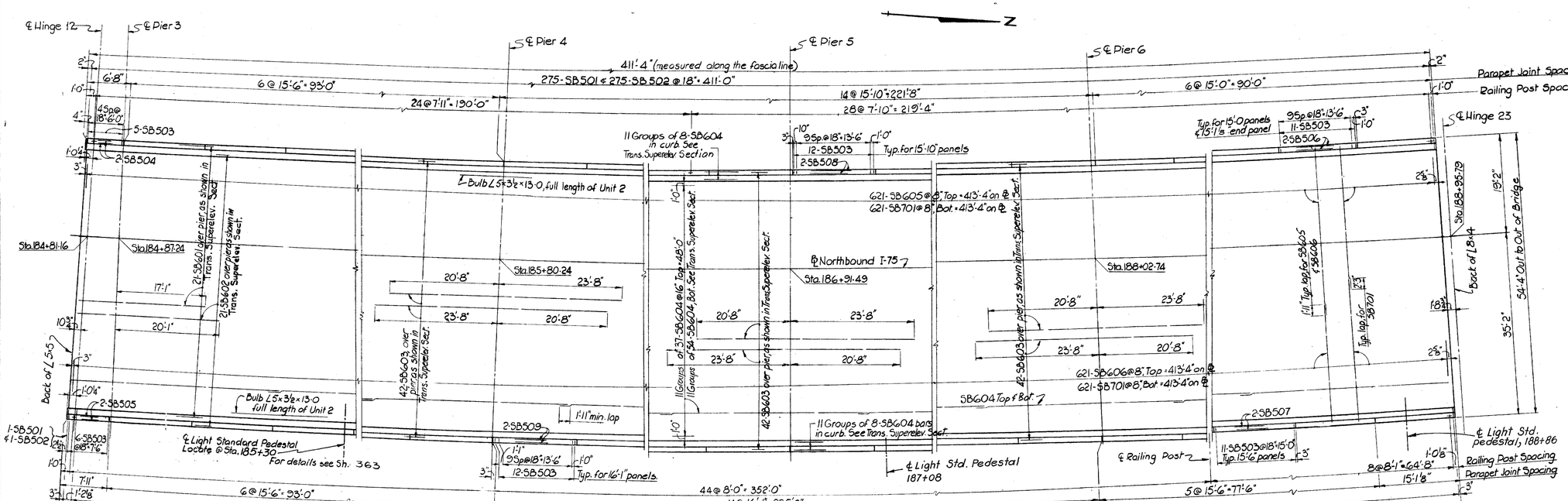
SUPERSTRUCTURE - ROADWAY SLAB
UNIT 1
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C. R.R. & SHEPHERD AVE
HAMILTON COUNTY
STA. 182+97·99 to
STA. 207+15·49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
DJW	DJW / RLS	~	RLS / BC	J.A.D. 7-8-64	

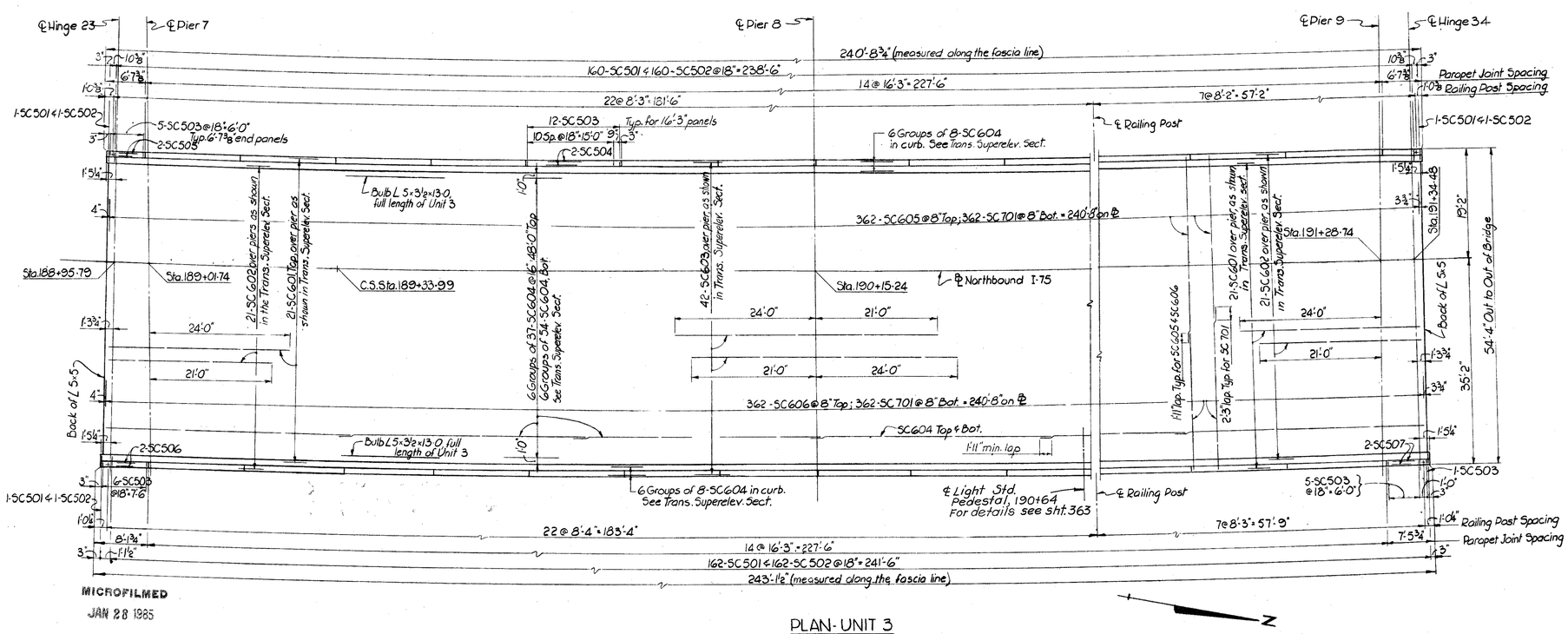
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

409
450

HAM.-75-9.30



PLAN - UNIT 2



PLAN - UNIT 3

NOTES :

For Notes see Sheet No. 408
For Transverse Superelevated Section, see Sheet No. 408

PAVEMENT ELEVATIONS

Station	Profile Grade	Base Line	Curb 17'L of ℄	24'R of ℄	29'R of ℄	Curb 35'R of ℄
184 + 75	578.58	579.08	578.37	580.09	580.09	579.5
185 + 00	578.86	579.36	578.65	580.37	580.37	580.2
+ 25	579.14	579.64	578.93	580.65	580.65	580.4
+ 50	579.42	579.92	579.21	580.93	580.93	580.7
+ 75	579.70	580.20	579.49	581.21	581.21	581.0
186 + 00	579.98	580.48	579.77	581.49	581.49	581.3
+ 25	580.26	580.76	580.05	581.77	581.77	581.6
+ 50	580.54	581.04	580.33	582.05	582.05	581.8
+ 75	580.82	581.32	580.61	582.33	582.33	582.1
187 + 00	581.10	581.60	580.89	582.61	582.61	582.4
+ 25	581.38	581.88	581.17	582.89	582.89	582.7
+ 50	581.66	582.16	581.45	583.17	583.17	583.0
+ 75	581.94	582.44	581.73	583.45	583.45	583.2
188 + 00	582.22	582.72	582.01	583.73	583.73	583.5
+ 25	582.50	583.00	582.29	584.01	584.01	583.8
+ 50	582.78	583.28	582.57	584.29	584.29	584.1
+ 75	583.06	583.56	582.85	584.57	584.57	584.4
189 + 00	583.34	583.84	583.13	584.85	584.85	584.6
+ 25	583.62	584.12	583.41	585.13	585.13	584.9
+ 50	583.90	584.38	583.70	585.35	585.35	585.1
+ 75	584.18	584.63	583.99	585.54	585.54	585.3
190 + 00	584.46	584.88	584.28	585.72	585.72	585.5
+ 25	584.74	585.13	584.58	585.91	585.91	585.7
+ 50	585.02	585.38	584.87	586.09	586.09	585.9
+ 75	585.30	585.63	585.16	586.28	586.28	586.1
191 + 00	585.58	585.87	585.46	586.46	586.46	586.3
+ 25	585.86	586.12	585.75	586.65	586.65	586.4
+ 50	586.14	586.37	586.04	586.83	586.83	586.6

MICROFILMED
JAN 28 1985

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

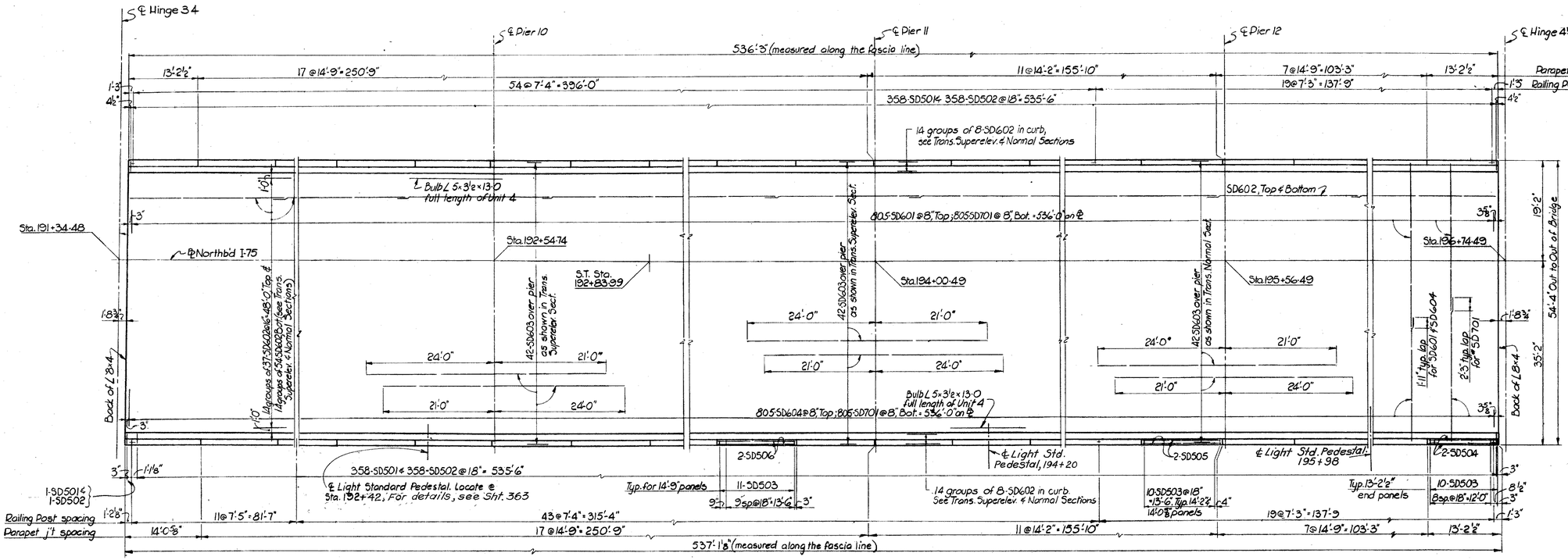
SUPERSTRUCTURE - ROADWAY SLAB
UNITS 2 & 3
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. RR. & SHEPHERD AVE.
HAMILTON COUNTY
STA. 182 + 97.99 to
STA. 207 + 15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED DATE	REVISED
D.J.W.	D.J.W. / R.L.S.	—	R.L.S. / B.C.	J.A.D. 28-64	

FED. RD. DIVISION	STATE	PROJECT		
2	OHIO			

410
450

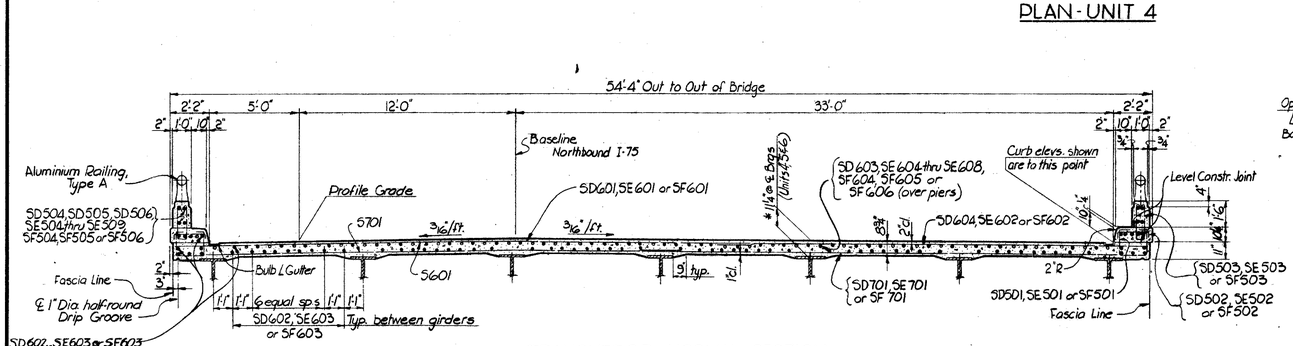
HAM.-75-9.30



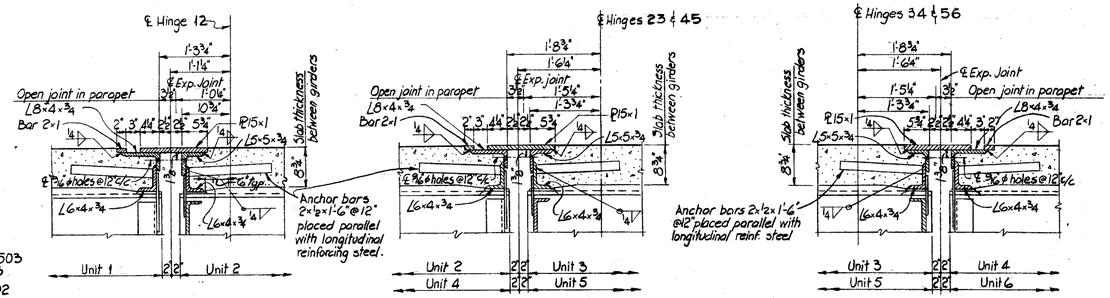
PAVEMENT ELEVATIONS

Station	Profile Grade	Base Line	Curb 17'L of ℄	24'2 of ℄	29'2 of ℄	Curb 33'2 of ℄
191 +25	585.86	586.12	585.75	586.65	586.65	586.4
+50	586.14	586.37	586.04	586.83	586.83	586.6
+75	586.42	586.62	586.34	587.01	587.01	586.7
192 +00	586.70	586.89	586.62	587.20	587.20	587.0
+25	586.98	587.17	586.90	587.39	587.39	587.2
+50	587.26	587.45	587.18	587.57	587.57	587.4
+75	587.54	587.73	587.46	587.76	587.76	587.6
193 +00	587.82	588.01	587.74	587.97	587.96	587.8
+25	588.10	588.29	588.02	588.18	588.16	588.0
+50	588.38	588.57	588.30	588.40	588.37	588.2
+75	588.66	588.85	588.58	588.62	588.57	588.4
194 +00	588.94	589.13	588.86	588.84	588.78	588.7
+25	589.22	589.41	589.14	589.05	588.98	588.9
+50	589.50	589.69	589.42	—	—	589.1
+75	589.78	589.97	589.70	—	—	589.4
195 +00	590.06	590.25	589.98	—	—	589.7
+25	590.34	590.53	590.26	—	—	590.0
+50	590.62	590.81	590.54	—	—	590.3
+75	590.90	591.09	590.82	—	—	590.5
196 +00	591.18	591.37	591.10	—	—	590.8
+25	591.46	591.65	591.38	—	—	591.1
+50	591.74	591.93	591.66	—	—	591.4
+75	592.02	592.21	591.94	—	—	591.6

PLAN - UNIT 4



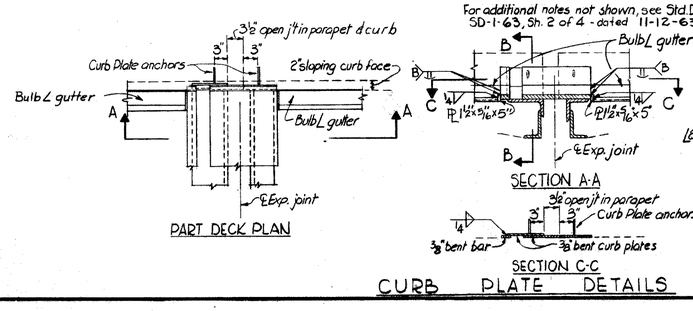
TRANSVERSE NORMAL SECTION



Note: Use ⅞" bevel fill under 6x4 ∠ for units 4, 5 & 6

EXPANSION JOINT DETAILS

For additional notes not shown, see Std. Dwg. SD-1-63, Sh. 2 of 4 - dated 11-12-63



CURB PLATE DETAILS

DECK SLAB HAUNCH:

The haunch in the normal deck slab adjacent to the top of steel girders, which is shown as 9" wide, may vary from this dimension between the limits of 6" & 12", except that the maximum slope, shall not exceed 3" per foot. Payment for deck slab concrete shall be based on the 9" width.

* This is a nominal dimension. The quantity of deck concrete to be paid for will be based on this dimension, even though deviations from it may be necessary because the top flange of the girders may not have the exact camber or conformation required to place it parallel to the finished grade. Deduction shall be made for volume of encased steel plates as per Sec. 5-1.25 of the Construction & Material Specifications.

For NOTES, see Sheet No. 408

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI
ARCHITECTS CHICAGO

SUPERSTRUCTURE - ROADWAY SLAB UNIT 4
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK
BENSON ST., N.Y.C. R.R. & SHEPHERD AVE.

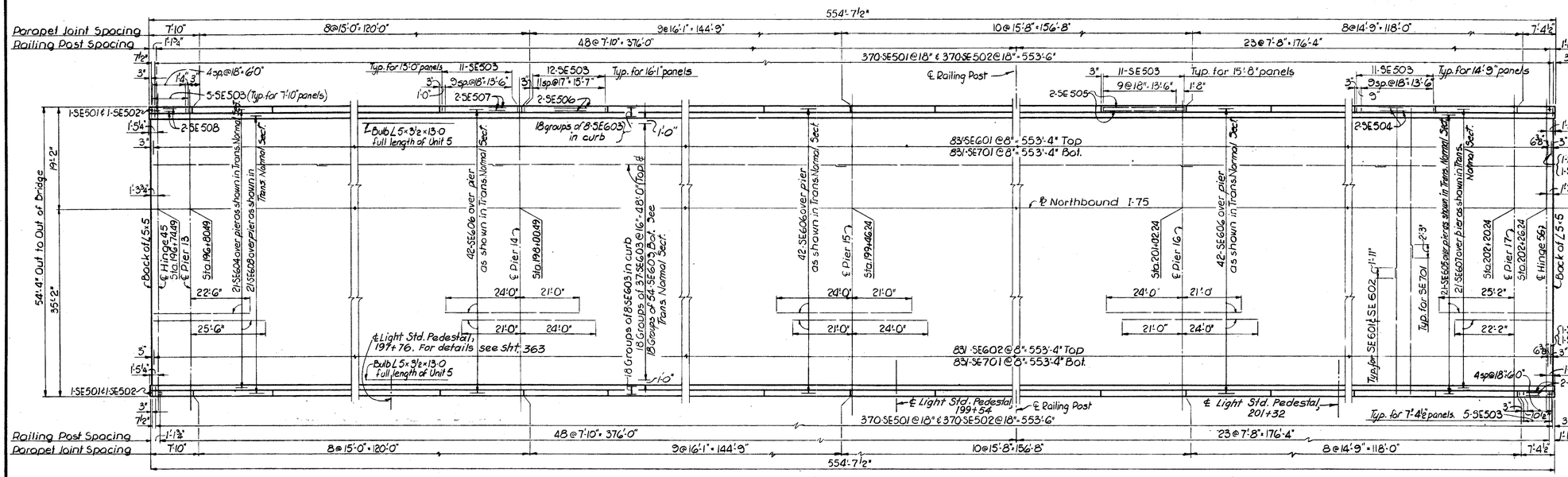
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
D.J.W.	D.J.W. R.L.S.	~	R.L.S. B.C.	J.A.D.	7-8-64	

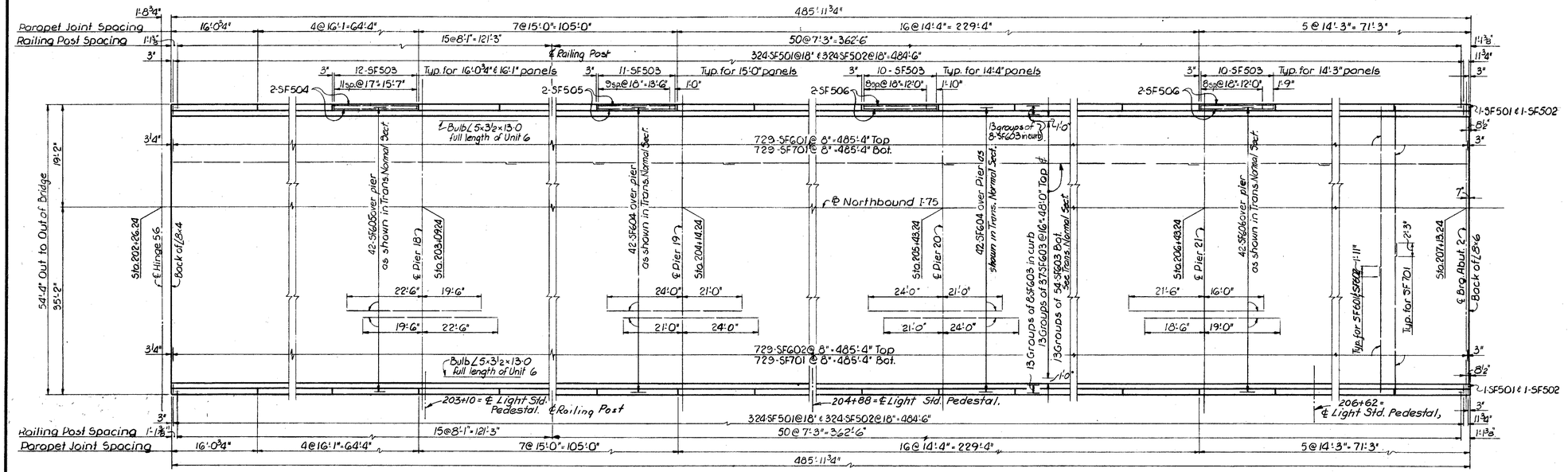
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

411
450



PLAN-UNIT 5



PLAN-UNIT 6

MICROFILMED
JAN 28 1985

PAVEMENT ELEVATIONS

Station	Profile Grade	Base Line	Curb 17'L of ℄	Curb 33'R of ℄
196+50	591·74	591·93	591·66	591·41
+75	592·02	592·21	591·94	591·69
197+00	592·30	592·49	592·22	591·97
+25	592·58	592·77	592·50	592·25
+50	592·86	593·05	592·78	592·53
+75	593·13	593·32	593·05	592·80
198+00	593·38	593·56	593·30	593·05
+25	593·60	593·79	593·53	593·28
+50	593·81	594·00	593·73	593·48
+75	593·99	594·18	593·91	593·66
199+00	594·15	594·34	594·08	593·83
+25	594·29	594·48	594·22	593·97
+50	594·41	594·60	594·34	594·09
+75	594·51	594·70	594·43	594·18
200+00	594·59	594·78	594·51	594·26
+25	594·64	594·83	594·57	594·32
+50	594·68	594·86	594·60	594·35
+75	594·69	594·88	594·61	594·36
201+00	594·68	594·87	594·60	594·35
+25	594·65	594·84	594·57	594·32
+50	594·60	594·78	594·52	594·27
+75	594·52	594·71	594·45	594·20
202+00	594·43	594·62	594·35	594·10
+25	594·31	594·50	594·23	593·98
+50	594·17	594·36	594·10	593·85
+75	594·01	594·20	593·94	593·69
203+00	593·83	594·02	593·76	593·51
+25	593·63	593·82	593·55	593·30
+50	593·41	593·60	593·33	593·08
+75	593·16	593·35	593·09	592·84
204+00	592·90	593·08	592·82	592·57
+25	592·61	592·80	592·53	592·28
+50	592·30	592·49	592·22	591·97
+75	591·98	592·17	591·90	591·65
205+00	591·66	591·85	591·58	591·33
+25	591·34	591·53	591·26	591·01
+50	591·02	591·21	590·94	590·69
+75	590·70	590·89	590·62	590·37
206+00	590·38	590·57	590·30	590·05
+25	590·06	590·25	589·98	589·73
+50	589·74	589·93	589·66	589·41
+75	589·42	589·61	589·34	589·09
207+00	589·10	589·29	589·02	588·77
+25	588·78	588·97	—	—

NOTES :-
For Notes, see Sheet No. 408
For Transverse Normal Section, see Sheet No. 410

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

SUPERSTRUCTURE-ROADWAY SLAB
UNITS 5 & 6
BRIDGE NO. HAM-75-1147
NORTHBOUND I-75 OVER MILL CREEK, BENSON ST., N.Y.C. R.R. & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
I.G.V.	I.G.V.	~	R.L.S. B.C.	J.A.D.	7-8-64	

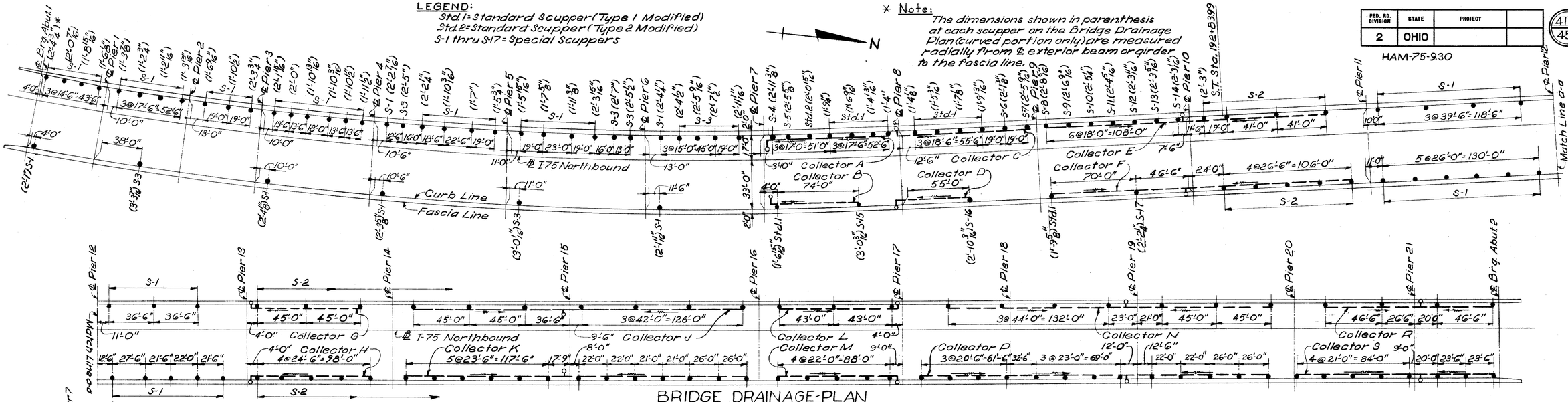
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

412
450

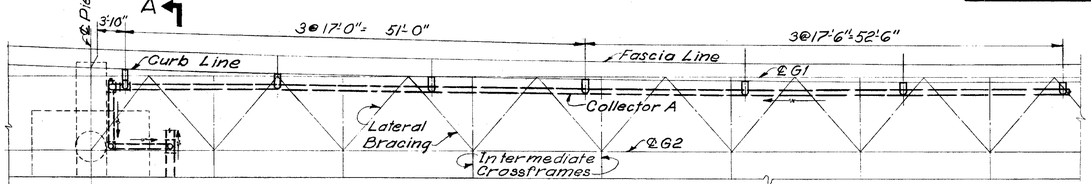
HAM-75-930

LEGEND:
Std 1 = Standard Scupper (Type 1 Modified)
Std 2 = Standard Scupper (Type 2 Modified)
S-1 thru S-17 = Special Scuppers

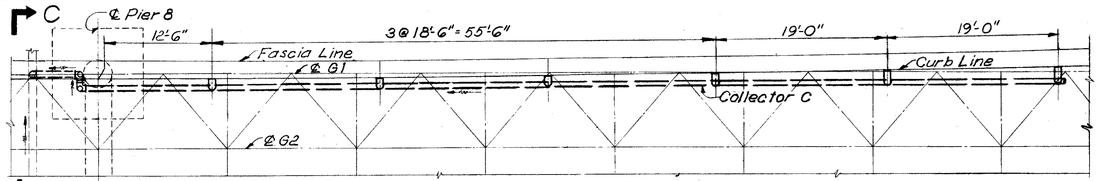
* Note:
The dimensions shown in parenthesis at each scupper on the Bridge Drainage Plan (curved portion only) are measured radially from ℄ exterior beam or girder to the fascia line.



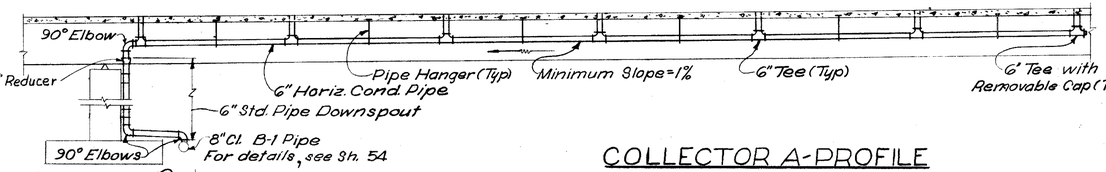
BRIDGE DRAINAGE-PLAN



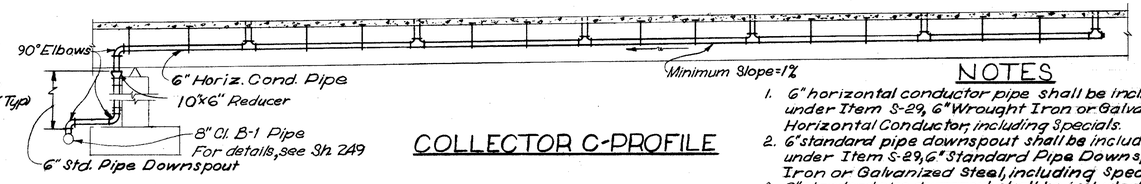
COLLECTOR A-PLAN



COLLECTOR C-PLAN



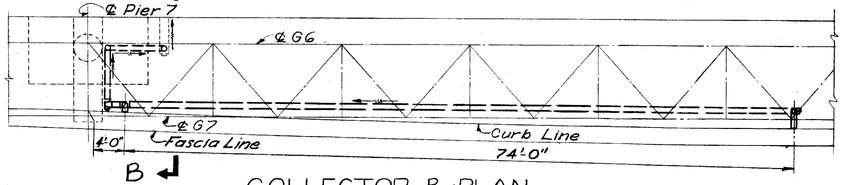
COLLECTOR A-PROFILE



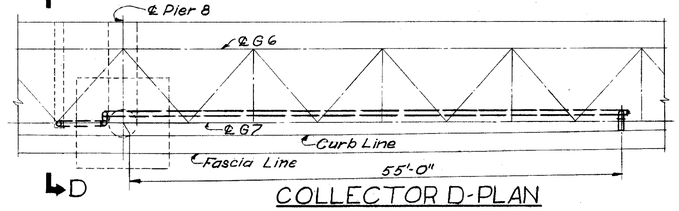
COLLECTOR C-PROFILE

NOTES

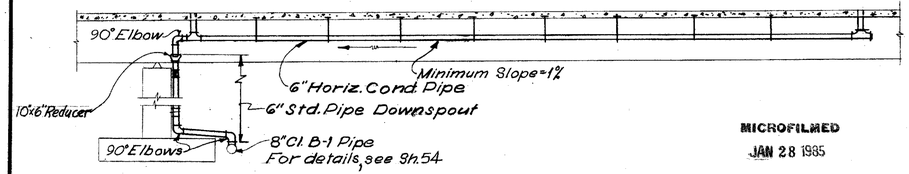
1. 6" horizontal conductor pipe shall be included for payment under Item S-29, 6" Wrought Iron or Galvanized Steel Pipe Horizontal Conductor, including Specials.
2. 6" standard pipe downspout shall be included for payment under Item S-29, 6" Standard Pipe Downspout, Wrought Iron or Galvanized Steel, including Specials.
3. 8" standard pipe downspout shall be included for payment under Item S-29, 8" Standard Pipe Downspout, Wrought Iron or Galvanized Steel, including Specials.
4. All scuppers shall be included in Item S-29 for payment.
5. For Special Scupper details, see Sh 414.
6. For details of Standard Scupper (Type 1 & Type 2 Modified), see Sh. 413.
7. For Pipe Hanger & Support details, see Sh 414.
8. For Sections A-A thru D-D, see Sh 414.



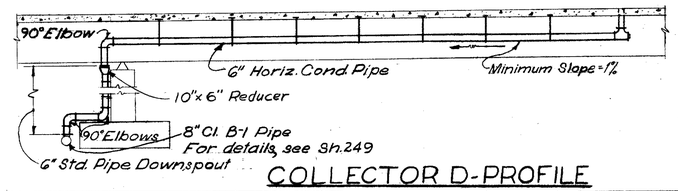
COLLECTOR B-PLAN



COLLECTOR D-PLAN



COLLECTOR B-PROFILE



COLLECTOR D-PROFILE

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

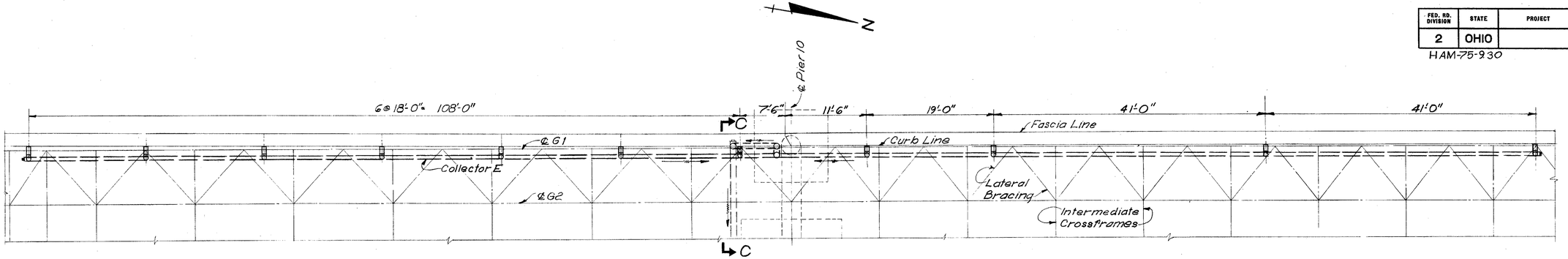
DRAINAGE DETAILS
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK, BENSON ST., N.Y.C.R.R., & SHEPHERD AVE
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RLS	GJW	~	B.C.	J.A.D.	7-8-64	

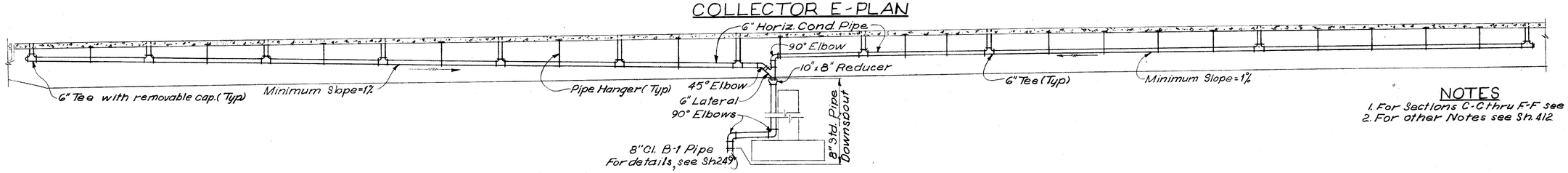
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

HAM-75-9.30

413
450

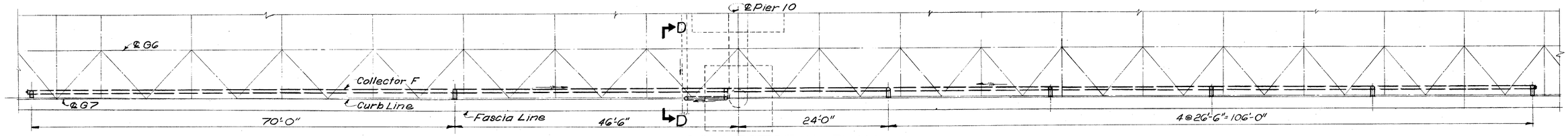


COLLECTOR E - PLAN

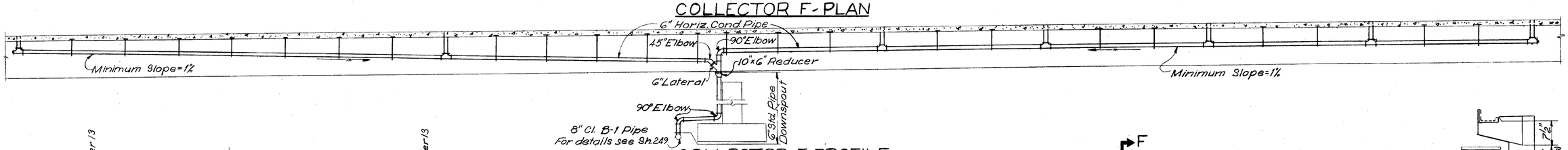


NOTES
1. For Sections C-C thru F-F see Sh. 414
2. For other Notes see Sh. 412

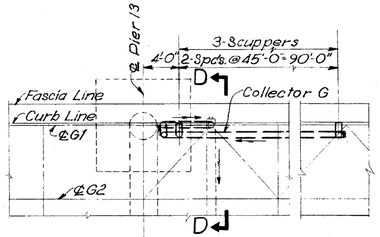
COLLECTOR E - PROFILE



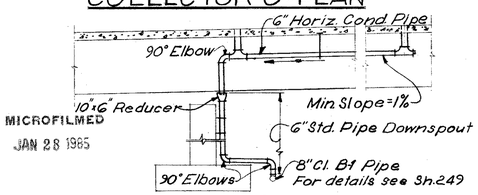
COLLECTOR F - PLAN



COLLECTOR F - PROFILE

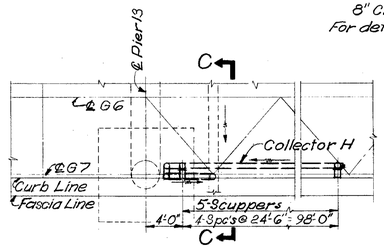


COLLECTOR G - PLAN

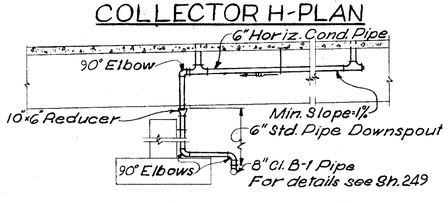


MICROFILMED
JAN 28 1985

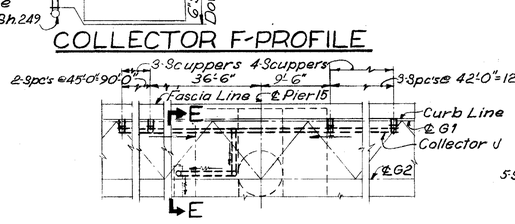
COLLECTOR G - PROFILE



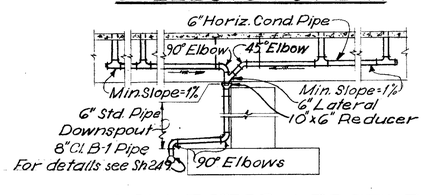
COLLECTOR H - PLAN



COLLECTOR H - PROFILE



COLLECTOR J - PLAN



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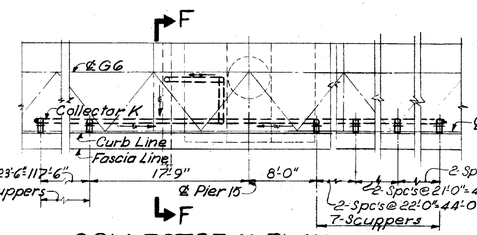
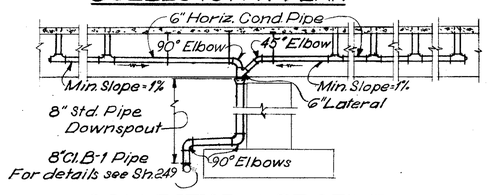


COLLECTOR K - PLAN



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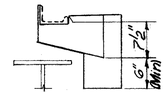


STANDARD SCUPPER
TYPE 1 & TYPE 2 MODIFIE

NOTE: For other scupper & gut
support details, see Std.
Dwg. SD-1-63, Sheet 30 of 4,
dated 11-12-63.

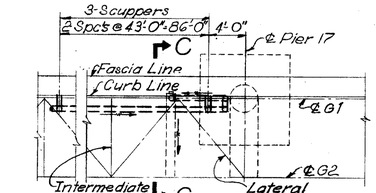
VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

DRAINAGE DETAILS
BRIDGE No. HAM-75-1147

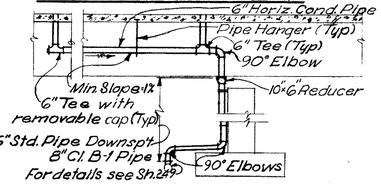
NORTHBOUND I-75 over MILL CREEK, BENSON ST, N.Y.C.R.R., & SHEPHERD AVE

HAMILTON COUNTY — STA. 187+92.99 to STA. 207+15.49

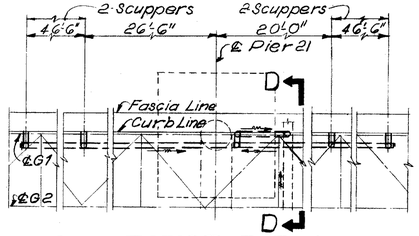
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
RLS	GJW	~	B.C.	J.A.D.	7-8-64	



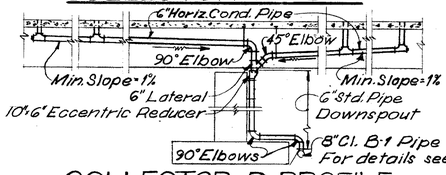
COLLECTOR L-PLAN



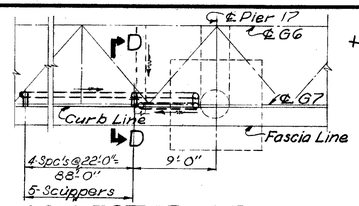
COLLECTOR L-PROFILE



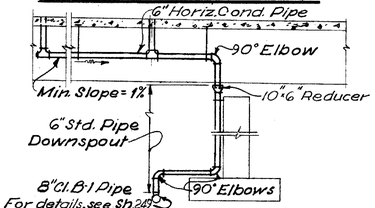
COLLECTOR R-PLAN



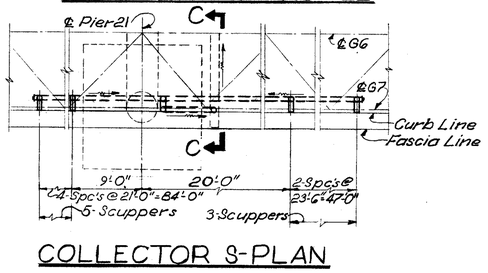
COLLECTOR R-PROFILE



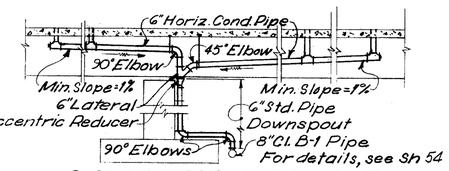
COLLECTOR M-PLAN



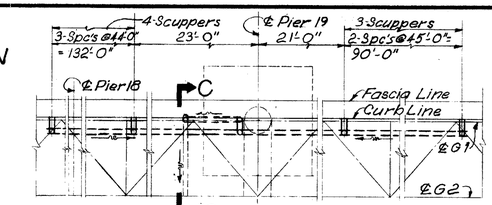
COLLECTOR M-PROFILE



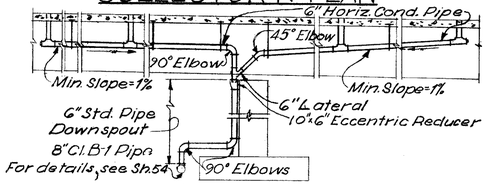
COLLECTOR S-PLAN



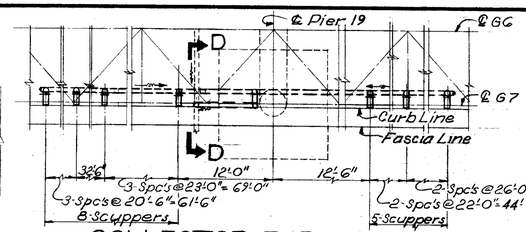
COLLECTOR S-PROFILE



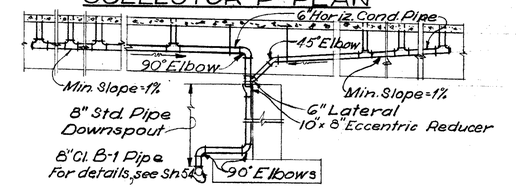
COLLECTOR N-PLAN



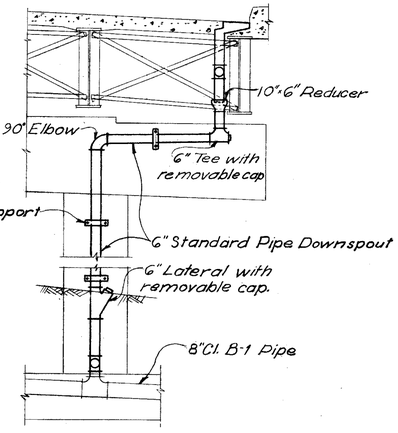
COLLECTOR N-PROFILE



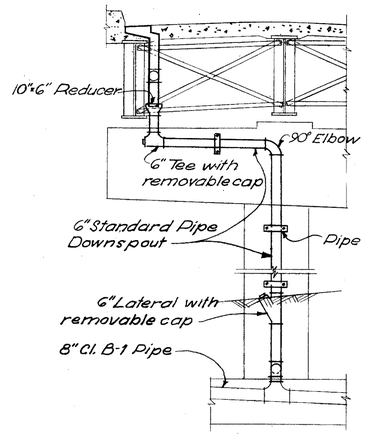
COLLECTOR P-PLAN



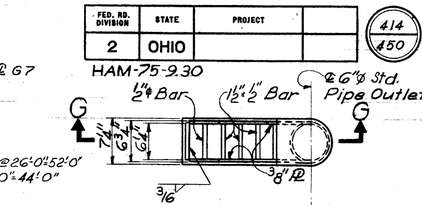
COLLECTOR P-PROFILE

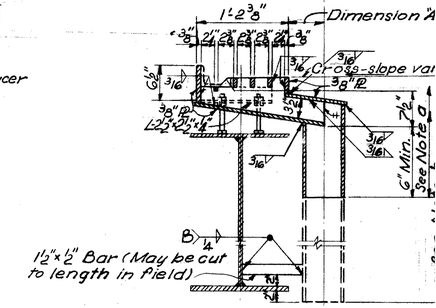


SECTION A-A



SECTION B-B



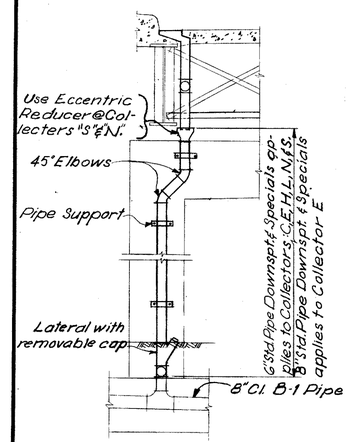


SPECIAL SCUPPERS S-1 THRU S-17

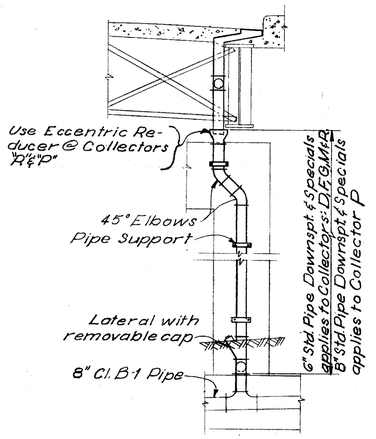
NOTES:

a. Applies to Scupper S-2, & S-4 thru S-17.
b. Applies to Scupper S-1 & S-3.
c. For other scupper & gutter support details, see Std. Dwg. SD-1-64, Sheet 3 of 4, dated 11-12-64.

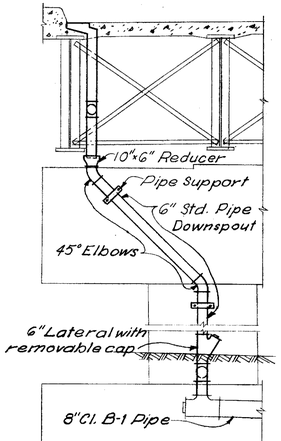
Special Scupper	Dimension "A"
S-1	2 5/8"
S-2	2 5/8"
S-3	1'-3"
S-4	10 1/16"
S-5	4 5/16"
S-6	1/16"
S-7	4 1/4"
S-8	8"
S-9	6 1/4"
S-10	4 15/16"
S-11	4"
S-12	3 3/8"
S-13	3"
S-14	2 3/4"
S-15	10 7/8"
S-16	8 7/8"
S-17	1 15/16"



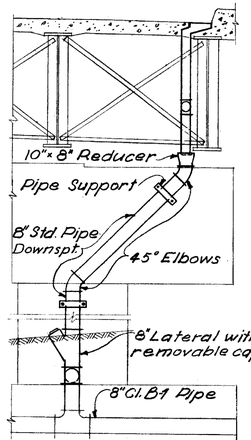
SECTION C-C



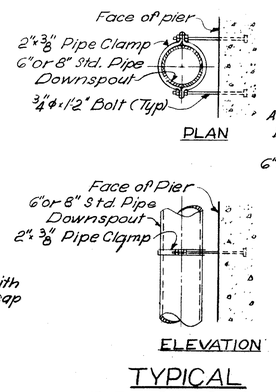
SECTION D-D



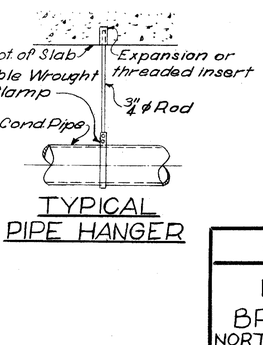
SECTION E-E



SECTION F-F



TYPICAL PIPE SUPPORT



TYPICAL PIPE HANGER

VOGT, IVERS, & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

DRAINAGE DETAILS
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREE
BENSON ST., N.Y.C.R.R., & SHEPHERD AV
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
R.L.S.	G.J.W.	~	B.C.	J.A.D.	7-8-64	

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

415/450

HAM-75-9.30

ABUTMENTS

MARK	NO.	LENGTH	TYPE	WEIGHT
AA501	40	6'-5"	Bt.	268
" 502	21	8'-2"	Bt.	179
" 503	10	11'-11"	Bt.	124
" 504	11	27'-8"	Str.	317
" 505	7	26'-3"	Str.	192
" 506	19	7'-1"	Bt.	140
" 507	10	25'-2"	Str.	262
" 508	6	23'-9"	Str.	149
" 509	79	6'-6"	Bt.	536
" 510	18	6'-11"	Bt.	130
" 511	17	6'-0"	Str.	106
" 512	2	19'-0"	Str.	40
" 513	1	9'-3"	Str.	10
" 514	15	4'-3"	Str.	66
" 515	2	8'-9"	Str.	18
" 516	7	7'-2"	Str.	53
" 517	4	14'-2"	Str.	59
" 518	2	10'-2"	Bt.	21
" 519	2	11'-9"	Bt.	25
" 520	12	12'-1"	Str.	151
" 521	20	3'-6"	Str.	73
" 522	4	6'-2"	Bt.	26
" 523	20	4'-8"	Str.	97
" 524	14	3'-4"	Bt.	49
" 525	14	3'-2"	Bt.	46
" 526*	8	11'-10"	Str.	—
" 527	4	10'-3"	Bt.	43
AA601	21	15'-4"	Bt.	484
" 602	19	14'-3"	Bt.	407
" 603	37	14'-0"	Bt.	778
" 604	14	12'-7"	Bt.	265
" 605	6	21'-4"	Bt.	192
" 606	6	18'-2	Bt.	164
AA801	14	28'-11"	Str.	1081
" 802	12	10'-1"	Str.	323
				6,898
AF501	14	12'-0"	Bt.	175
" 502	36	8'-6"	Bt.	319
" 503	16	3'-9"	Str.	63
" 504	36	8'-2"	Bt.	307
" 505	59	6'-6"	Bt.	400
" 506	23	27'-10"	Str.	668
" 507	23	25'-0"	Str.	600
" 508	16	10'-8"	Str.	178
" 509	48	6'-6"	Str.	325
" 510	2 Sets of 6	Varies 8'-7" to 13'-7" by 1'-0"	Bt.	139
" 511	10	8'-5"	Bt.	88
" 512	20	16'-7"	Str.	346
" 513	4 Sets of 3	Varies 8'-8" to 12'-4" by 1'-10"	Str.	131
" 514	18	3'-3"	Bt.	61
" 515	18	3'-3"	Bt.	61
" 516	1	10'-0"	Str.	10
" 517	1	6'-0"	Str.	6
" 518	24	5'-6"	Str.	138
" 519	26	5'-9"	Bt.	156
" 520*	8	16'-3"	Str.	—
" 521	6	11'-6"	Str.	72
AF601	36	14'-6"	Bt.	784
" 602	20	18'-10"	Bt.	566
" 603	37	18'-0"	Bt.	1000
" 604	14	19'-8"	Bt.	414
AF801	14	28'-10"	Str.	1078
" 802	12	13'-6"	Str.	433

PIERS UNIT 1

MARK	NO.	LENGTH	TYPE	WEIGHT
PA501	96	7'-2"	Bt.	718
" 502	16	25'-6"	Str.	426
" 503	76	3'-10"	Bt.	304
" 504	4	3'-9"	Bt.	16
" 505	4	3'-7"	Bt.	15
PA601	112	10'-0"	Bt.	1682
" 602	64	7'-5"	Bt.	713
PA701	96	10'-4"	Bt.	2028
PA1101	11	27'-2"	Bt.	1588
" 1102	11	33'-11"	Bt.	1982
" 1103	4	33'-6"	Str.	712
" 1104	10	31'-3"	Str.	1660
" 1105	10	24'-6"	Str.	1302
" 1106	18	12'-11"	Str.	1235
" 1107	18	14'-11"	Str.	1427
" 1108	16	13'-0"	Str.	1105
" 1109	16	15'-0"	Str.	1275
" 1110	16	14'-0"	Str.	1190
" 1111	16	15'-9"	Str.	1339
" 1112	136	7'-5"	Bt.	5359
" 1113	18	16'-6"	Str.	1578
" 1114	18	14'-5"	Str.	1379
" 1115	8	10'-5"	Bt.	443
SPA501	1	10'-0"	Bt.	376
" 502	1	12'-0"	Bt.	443
" 503	1	10'-8"	Bt.	396
" 504	1	12'-8"	Bt.	471
" 505	1	11'-4"	Bt.	424
" 506	1	13'-3"	Bt.	490
" 507	1	11'-11"	Bt.	442
" 508	1	13-11	Bt.	510
				32,769

PIERS UNIT 2

MARK	NO.	LENGTH	TYPE	WEIGHT
PB501	66	10'-1"	Bt.	694
" 502	4	2'-7"	Bt.	11
" 503	(120) 4	3'-10"	Bt.	16 (480)
" 504	96	15'-3"	Bt.	1527
" 505	12	27'-3"	Str. (Bt)	341
" 506	82	17'-11"	Bt.	1533
" 507	9	4'-8"	Bt.	44
" 508	4	3'-0"	Bt.	13
" 509	38	4'-2"	Bt.	165
" 510	36	6'-6"	Bt.	244
" 511	42	4'-8"	Bt.	204
PB601	12	12'-10"	Bt.	231
" 602	8	25'-6"	Str.	306
" 603	8	27'-3"	Str.	327
PB701	48	10'-2"	Bt.	997
" 702	12	11'-2"	Bt.	274
" 703	12	13'-2"	Bt.	323
" 704	16	7'-4"	Bt.	240
PB901	12	11'-0"	Bt.	449
" 902	86	17'-0"	Bt.	4970
PB1001	100	20'-4"	Bt.	8749
" 1002	96	18'-4"	Bt.	7573
PB1101	239	8'-0"	Bt.	10,159
" 1102	22	11'-7"	Str.	1354
" 1103	11	21'-3"	Str.	1242
" 1104	11	31'-10"	Str.	1860
" 1105	195	25'-7"	Str.	26505
" 1106	11	19'-2"	Str.	1120
" 1107	7	22'-10"	Str.	849
" 1108	7	30'-3"	Str.	1125
" 1109	2	42'-10"	Bt.	455
" 1110	2	43'-9"	Bt.	465
" 1111	3	44'-1"	Bt.	703
" 1112	7	18'-1"	Bt.	673
" 1113	2	31'-6"	Str.	335
" 1114	4	16'-10"	Bt.	358
" 1115	26	22'-0"	Str.	3039
" 1116	18	23'-7"	Str.	2255
" 1117	6	16'-0"	Str.	510
" 1118	6	40'-0"	Str.	1275
" 1119	8	32'-9"	Str.	1392
" 1120	8	24'-0"	Str.	1020
" 1121	20	20'-1"	Bt.	2132
" 1122	12	12'-0"	Str.	765
" 1123	12	29'-5"	Bt.	1875
" 1124	20	17'-2"	Str.	1824
" 1125	36	18'-10"	Str.	3602
" 1126	16	22'-5"	Str.	1906
" 1127	4	34'-7"	Str.	735
" 1128	8	13'-0"	Str.	553
" 1129	8	31'-1	Bt.	1322
SPB501	1	8'-1"	Bt.	362
" 502	1	17'-8"	Bt.	755
" 503	1	28'-3"	Bt.	1189
" 504	1	22'-0"	Bt.	933
" 505	1	15'-11"	Bt.	684
" 506	4	22'-0"	Bt.	6477
" 507	1	18'-6"	Bt.	1368
" 508	1	20'-0"	Bt.	1478
" 509	1	17'-2"	Bt.	1276
" 510	1	18'-10"	Bt.	1395
" 511	2	22'-0"	Bt.	2138
" 512	1	18'-5"	Bt.	903
" 513	1	14'-11"	Bt.	737

PIERS UNIT 3

MARK	NO.	LENGTH	TYPE	WEIGHT
PC501	88	8'-3"	Bt.	758
" 502	4	22'-10"	Str.	95
" 503	4	31'-1"	Str.	130
" 504	42	5'-11"	Bt.	259
" 505	16	25'-8"	Str.	428
" 506	224	7'-3"	Bt.	1694
" 507	72	5'-5"	Bt.	407
" 508	4	5'-2"	Bt.	22
PC801	35	10'-10"	Bt.	1012
" 802	72	11'-10"	Bt.	2275
" 803	48	10'-10"	Bt.	1388
" 804	28	12'-10"	Bt.	959
PC901	14	15'-2"	Bt.	722
" 902	12	14'-2"	Bt.	578
" 903	8	23'-5"	Str.	637
" 904	16	17'-2"	Str.	934
" 905	28	14'-2"	Bt.	1349
" 906	38	13'-2"	Bt.	1701
" 907	(16)-8	22'-2" 603	Str.	(1206)
" 908	8	14'-6"	Str.	394
" 909	4	8'-6"	Bt.	116
" 910	8	31'-9"	Str.	864
" 911	8	32'-10"	Str.	893
PC1001	56	23'-3"	Str.	5603
" 1002	14	25'-4"	Str.	1526
" 1003	20	21'-6"	Str.	1850
" 1004	22	17'-6"	Str.	1657
" 1005	8	22'-8"	Str.	780
" 1006	8	14'-7"	Str.	501
" 1007	4	9'-4"	Bt.	161
" 1008	3	35'-1"	Bt	452
" 1009	4	34'-10"	Bt.	600
" 1010	3	26'-8"	Bt.	344
" 1011	4	26'-5"	Bt.	455
" 1012	2	34'-11"	Bt.	301
" 1013	2	34'-9"	Bt.	300
" 1014	2	34'-4"	Bt.	296
" 1015	2	26'-7"	Bt.	229
" 1016	2	26'-5"	Bt.	228
" 1017	2	26'-0"	Bt.	224
" 1018	8	32'-11"	Str.	1133
" 1019	13	37'-4"	Str.	2088
PC1101	20	15'-10"	Bt.	1682
" 1102	56	7'-0"	Bt.	2083
" 1103	8	23'-10"	Str.	1013
" 1104	8	32'-1"	Str.	1364
" 1105	18	35'-9"	Str.	3419
" 1106	18	36'-0"	Str.	3443
" 1107	18	36'-6"	Str.	3491
" 1108	18	37'-2"	Str.	3554
" 1109	34	31'-3"	Str.	5645
" 1110	16	31'-6"	Str.	2678
" 1111	18	32'-0"	Str.	3060
" 1112	72	7'-6"	Bt	2869
" 1113	68	7'-0"	Bt.	2530
SPC501	3	20'-0"	Bt.	2558
" 502	1	22'-1"	Bt.	942
" 503	1	18'-3"	Bt.	786
" 504	1	14'-4"	Bt.	620
" 505	1	33'-1"	Bt.	1181
" 506	1	33'-7"	Bt.	1198
" 507	1	34'-1"	Bt.	1216
" 508	1	28'-1"	Bt.	1006
" 509	1	28'-4"	Bt.	1015
" 510	1	28'-7"	Bt.	1024
" 511	1	28-10"	Bt.	1032
" 512	1	32'-8"	Bt.	1163

PIERS UNIT 4

MARK	NO.	LENGTH	TYPE	WEIGHT
PD501	12	27'-2"	Str.	340
" 502	102	20'-5"	Bt.	2173
" 503	48	7'-1"	Bt.	354
" 504	116	7'-3"	Bt.	877
" 505	33	3'-7"	Bt.	123
" 506	2	3'-4"	Bt.	7
" 507	2	2'-10"	Bt.	6
" 508	8	22'-10"	Str.	191
" 509	4	9'-2¼"	Bt.	38
" 510	12	27'-2"	Str.	340
" 511	6	8'-5"	Bt.	53
" 512	74	17'-5½"	Bt.	1348
" 513	37	19'-10½	Bt.	767
" 514	42	6'-8"	Bt.	292
PD901	40	13'-2"	Bt.	1791
" 902	26	14'-2"	Bt.	1252
PD1001	40	17'-6"	Bt.	3012
" 1002	4	18'-0"	Str.	310
PD1101	48	23'-4"	Bt.	5950
" 1102	64	8'-6"	Bt.	2890
" 1103	16	29'-1"	Str.	2472
" 1104	16	27'-1"	Str.	2302
" 1105	10	42'-0"	Str.	2232
" 1106	10	14'-4"	Str.	762
" 1107	6	23'-10"	Str.	760
" 1108	4	18'-0"	Str.	382
" 1109	10	33'-11"	Bt.	1802
" 1110	10	25'-8"	Bt.	1364
" 1111	4	18'-6"	Bt.	393
" 1112	4	14'-0"	Str.	298
" 1113	4	10'-0"	Str.	213
" 1114	32	23'-10"	Str.	4051
" 1115	32	25'-10"	Str.	4392
" 1116	84	8'-9"	Bt.	3905
" 1117	6	35'-4"	Bt.	1126
" 1118	6	27'-5"	Bt.	874
" 1119	6	33'-6"	Str.	1068
" 1120	6	32'-2"	Str.	1025
" 1121	6	24'-3"	Str.	773
" 1122	68	28'-3"	Str.	10,206
" 1123	68	7'-3"	Bt.	2619
" 1124	28	17'-10"	Bt.	2653
" 1125	6	34'-10"	Bt.	1110
" 1126	6	24'-7"	Bt.	784
" 1127	20	19'-1"	Bt.	2027
" 1128	8	17'-0"	Str.	723
" 1129	6	39'-11"	Str.	1272
" 1130	6	16'-4"	Str.	521
" 1131	7	35'-2"	Str.	1307
" 1132	3	31'-10"	Bt.	507
" 1133	28	28'-6"	Str.	4240
" 1134	70	26'-1"	Str.	9699
" 1135	96	23'-4"	Bt.	11,901
" 1136	42	23'-9"	Str.	5300
" 1137	4	35'-10"	Bt.	762
" 1138	2	33'-10	Bt.	360
SPD501	2	20'-3"	Bt.	2403
" 502	2	22'-3"	Bt.	2633
" 503	2	22'-6"	Bt.	3581
" 504	2	20'-2"	Bt.	3221
" 505	4	25'-3"	Bt.	3632

PIERS UNIT 5

MARK	NO.	LENGTH	TYPE	WEIGHT
PE501	(2)-6	4'-6"	Bt.	27(9)
" 502	240	6'-9"	Bt.	1690
" 503	6	5'-2	Bt.	32
" 504	108	5'-5"	Bt.	611
" 505	16	26'-0"	Str.	434
" 506	8	26'-0"	Str.	217
" 507	(4)-8	5'-0"	Bt.	42(21)
" 508	8	5'-9"	Bt.	48
" 509	12	27'-2"	Str.	340
" 510	6	8'-5"	Bt.	54
" 511	66	17'-0"	Bt.	1170
" 512	33	20'-2"	Bt.	694
" 513	42	6'-8"	Bt.	292
PE601	24	12'-8"	Bt.	457
" 602	8	11'-8"	Bt.	140
" 603	16	13'-0"	Bt.	312
" 604	48	7'-(6)-8"	Bt. (Str)	(480)
" 605 18'-6	4 Sets of 6	Varies (19'-6) to 13'-6 (24-6) by 1'-0"	Str.	553 (793) 577
" 606	4 Sets of 6	Varies 3'-6" to (16) 6' 0" by 6"	Str.	(351) 171
" 607	8	12'-0"	Bt.	144
" 608	8	11'-8"	Bt.	140
" 609	4	9'-8"	Bt.	58
PE701	16	28'-2"	Bt.	921
" 702	16	22'-2"	Bt.	725
PE801	52	16'-8"	Bt.	2314
PE901	152	12'-8"	Bt.	6546
" 902	88	12'-2"	Bt.	3641
" 903	78	14'-2"	Bt.	3758
PE1001	16	6'-6"	Bt.	447
" 1002	16	29'-10"	Str.	2054
" 1003	8	10'-0"	Str.	344
" 1004	12	30'-9"	Bt.	1588
" 1005	4	10'-8"	Bt.	184
" 1006	72	20'-6"	Bt.	6351
" 1007	24	23'-6"	Bt.	2427
PE1101	148	7'-2"	Bt.	5638
" 1102	72	34'-6"	Str.	13,197
" 1103	14	23'-0"	Str.	1711
" 1104	24	30'-6"	Bt.	3890
" 1105	8	11'-2"	Bt.	475
" 1106	20	29'-10"	Str.	3170
" 1107	56	28'-6"	Str.	8480
" 1108	6	23'-2"	Str.	738
" 1109	12	10'-0"	Str.	638
" 1110	10	33'-10"	Bt.	1798
" 1111	10	25'-7"	Bt.	1359
" 1112	8	20'-7"	Bt.	874
" 1113	12	10'-0"	Str.	638
" 1114	6	38'-5"	Str.	1224
" 1115	6	17'-10"	Str.	568
" 1116	5	34'-10"	Str.	925
" 1117	7	24'-0"	Str.	893
" 1118	4	14'-0"	Str.	298
" 1119	52	28'-2"	Str.	7784
" 1120	52	8'-3"	Bt.	2279
" 1121	26	16'-11"	Bt.	2337
" 1121	26	16'-6"	Bt.	2279
" 1123	20	33'-0"	Str.	3507
SPE501	4	31'-3"	Bt.	4464
" 502	4	25'-3"	Bt.	3630
" 503	2	22'-0"	Bt.	3240
" 504	1	12'-2"	Bt.	994
" 505	1	11'-10"	Bt.	970
" 506	4	26'-7"	Bt.	3820

PIERS UNIT 6

MARK	NO.	LENGTH	TYPE	WEIGHT
PF501	84	7'-9"	Bt.	679
" 502	8	25'-8"	Str.	214
" 503	4	3'-9"	Bt.	16
" 504	36	5'-5"	Bt.	203
" 505	2	5'-2"	Bt.	11
" 506	16	25'-7"	Str.	427
" 507	156	8'-3"	Bt.	1342
" 508	72	5'-11"	Bt.	444
" 509	4	5'-8"	Bt.	24
" 510	10	4'-6"	Bt.	47
" 511	6	5'-0"	Bt.	31
PF701	34	10'-4"	Bt.	718
PF801	28	13'-10"	Bt.	1034
" 802	28	10'-10"	Bt.	798
PF901	32	11'-2"	Bt.	1215
" 902	28	14'-2"	Bt.	1349
" 903	12	27'-1"	Str.	1105
" 904	12	12'-7"	Str.	513
" 905	2	34'-9"	Bt.	236
" 906	2	35'-1"	Bt.	239
" 907	2	35'-3"	Bt.	240
" 908	4	26'-6"	Str.	360
" 909	4	8'-5"	Bt.	115
" 910	2	26'-6"	Bt.	180
" 911	2	26'-10"	Bt.	183
" 912	2	27'-0"	Bt.	184
" 913	28	14'-2"	Bt.	1349
" 914	24	15'-2"	Bt.	1238
" 915	26	26'-4"	Str.	2328
" 916	26	11'-6"	Str.	1017
" 917	6	26'-6"	Str.	541
" 918	2	35'-5"	Bt.	241
" 919	2	35'-2"	Bt.	239
" 920	2	34'-7"	Bt.	235
" 921	2	27'-2"	Bt.	185
" 922	2	26'-11"	Bt.	183
" 923	2	26'-4"	Bt.	179
" 924	4	9'-6"	Bt.	129
" 925	4	9'-8"	Bt.	132
PF1001	24	16'-6"	Bt.	1704
" 1002	64	18'-1"	Str.	4980
" 1003	6	26'-6"	Str.	684
" 1004	2	35'-7"	Bt.	306
" 1005	2	35'-4"	Bt.	304
" 1006	2	34'-9"	Bt.	299
" 1007	2	27'-4"	Bt.	235
" 1008	2	27'-1"	Bt.	233
" 1009	2	26'-6"	Bt.	228
" 1010	16	17'-0"	Bt.	1170
" 1011	16	17'-6"	Bt.	1205
" 1012	40	18'-6"	Bt.	3184
PF1101	20	14'-10"	Bt.	1576
" 1102	72	7'-0"	Bt.	2678
" 1103	72	24'-7"	Str.	9404
" 1104	52	18'-10"	Bt.	5203
" 1105	20	15'-10"	Bt.	1683
" 1106	168	7'-0"	Bt.	6248
" 1107	104	30'-6"	Str.	16,853
" 1108	46	7'-2"	Bt.	1752
" 1109	20	15'-8"	Str.	1665
" 1110	26	16'-1"	Str.	2224
SPF501	4	21'-2"	Bt.	3598
" 502	4	27'-1"	Bt.	4569
" 503	4	14'-8"	Bt.	2532
" 504	1	15'-8"	Bt.	1047
" 505	1	16'-1"	Bt.	1074

SUPERSTRUCTURE

MARK	NO.	LENGTH	TYPE	WEIGHT
SA501	243	4'-11"	Bt.	1246
" 502	243	2'-7"	Bt.	655
" 503	272	5'-7"	Bt.	1584
*" 504	32	17'-2"	Str.	—
*" 505	48	15'-8"	Str.	—
*" 506	4	7'-4"	Str.	—
*" 507	4	5'-4"	Str.	—
*" 508	4	8'-8"	Str.	—
*" 509	4	6'-9"	Str.	—
" 510	112	3'-8"	Bt	520
" 511	56	4'-9"	Bt	337
SA601	84	28'-0"	Str.	3533
" 602	535	37'-10"	Str.	30402
" 603	271	32'-0"	Str.	13025
" 604	271	23'-8"	Str.	9633
SA701	542	28'-0"	Str.	31020
SB501	555	4'-11"	Bt.	2846
" 502	555	2'-7"	Bt.	1495
" 503	611	5'-7"	Bt.	3556
*" 504	4	6'-4"	Str.	—
*" 505	4	7'-7"	Str.	—
*" 506	28	14'-8"	Str.	—
*" 507	68	15'-2"	Str.	—
*" 508	56	15'-6"	Str.	—
*" 509	56	15'-9"	Str.	—
SB601	21	23'-6"	Str.	741
" 602	21	26'-6"	Str.	836
" 603	126	44'-4"	Str.	8390
" 604	1177	39'-9"	Str.	70272
" 605	621	32'-0"	Str.	29848
" 606	621	23'-8"	Str.	22075
SB701	1242	28'-0"	Str.	71082
SC501	325	4'-11'	Bt.	1667
" 502	325	2'-7"	Bt.	876
" 503	358	5'-7"	Bt.	2085
*" 504	112	15'-11"	Str.	—
*" 505	8	6'-3"	Str.	—
*" 506	4	7'-10"	Str.	—
*" 507	4	7'-2"	Str.	—
SC601	42	30'-8"	Str.	1935
" 602	42	27'-8"	Str.	1745
" 603	42	45'-0"	Str.	2839
" 604	642	42'-0"	Str.	40500
" 605	362	32'-0"	Str.	17399
" 606	362	23'-8"	Str.	12868
SC701	724	28'-0"	Str.	41436
SD501	717	4'-11"	Bt.	3677
" 502	717	2'-7"	Bt.	1932
" 503	788	5'-7"	Bt.	4589
*" 504	12	12'-11"	Str.	—
*" 505	92	13'-9"	Str.	—
*" 506	192	14'-5"	Str.	—
SD601	805	32'-0"	Str.	38692
" 602	1498	40'-1"	Str.	90,187
" 603	126	45'-0"	Str.	8516
" 604	805	23'-8"	Str.	28616
SD701	1610	28'-0"	Str.	92,144
SE501	742	4'-11"	Bt.	3805
SE502	742	2'-7"	Bt	1999
" 503	808	5'-7"	Bt.	4705
* 504	64	14'-5"	Str.	—
*" 505	80	15'-4"	Str.	—
*" 506	72	15'-9"	Str.	—
*" 507	64	14'-8"	Str.	—
*" 508	8	7'-6"	Str.	—
* 509	8	7'-0"	Str.	—
SE601	832	32'-0"	Str.	39989
SE602	832	23'-8"	Str.	29575
" 603	1926	32'-7"	Str.	94259
" 604	21	29'-8"	Str.	936
" 605	21	32'-4"	Str.	1020
" 606	126	45'-0"	Str.	8516
" 607	21	29'-4"	Str.	925
" 608	21	32'-8"	Str.	1030
SE701	1664	28'-0"	Str.	95234
SF501	650	4'-11'	Bt.	3333
" 502	650	2'-7"	Bt.	1751
" 503	694	5'-7"	Bt.	4041
*" 504	40	15'-9"	Str.	—
*" 505	56	14'-8"	Str.	—
*" 506	168	14'-0"	Str.	—
SF601	729	32'-0"	Str.	35039
" 602	729	23'-8"	Str.	25914
" 603	1391	39'-2"	Str.	81830
" 604	84	45'-0"	Str.	5678
" 605	42	42'-0"	Str.	2650
" 606	42	37'-6"	Str.	2366
SF701	1458	28'-0"	Str.	83444

NOTES

1. BAR SIZE IS INDICATED IN THE BAR MARK. THE FIRST DIGIT WHERE THREE DIGITS ARE USED AND THE FIRST TWO DIGITS WHERE FOU ARE USED, INDICATE THE BAR SIZE NUMBER.
2. BARS MARKED WITH AN ASTERISK TO BE INCLUDED FOR PAYMENT UNDER ITEM S-14, RAILING.
3. SPIRAL REINFORCING BARS: THE "LENGTH" SHOW IN THE STEEL LIST FOR THE SPIRAL BARS IS THE DISTANCE FROM TOP OF THE FOOTING TO THE BOTTOM OF CAP, OR TO WITHIN 2" (±) OF THE TOP OF COLUMN FOR PIERS WITHOUT CAP TO THE NEAREST INCH.

   SPIRAL REINFORCING BARS SHALL NOT HAVE DEFORMATIONS BUT SHALL IN OTHER RESPECTS CONFORM TO ITEM S-4.

   FOUR STEEL CHANNEL, TEE OR ANGLE SPACER WEIGHING APPROXIMATELY 0.68 LB. PER LIN. FT. OF SPACER SHALL BE PROVIDED FOR EACH SPIRAL UNIT. THEY SHALL BE EQUALLY SPACED ALONG THE PERIPHERY OF THE COIL. THE NUMBER OF POUNDS OF THESE SPACERS, BASED ON 0.68 LB. PER LIN. FT., WILL BE PAID FOR AS REINFORCING STEEL AND IS INCLUDED IN THE TABULATED QUANTITY OF SPIRAL BARS.
4. SEE SHEET 416, 417, 418, 419 FOR BENDING DETAILS.

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JAN 28 1985

REPLACEMENT BARS

MARK	NO.	LENGTH	TYPE	WEIGHT
RE5	2	5'-7"	Bt.	—
RE5	4	5'-7"	Str.	—
RE6	39	5'-11"	Str.	—
RE7	22	6'-3"	Str.	—
RE8	1	6'-6"	Str.	—
RE9	3	6'-10"	Str.	—
RE10	4	7'-3"	Str.	—
RE11	18	7'-7"	Str.	—
RE5A	3	5'-7"	Bt.	—

VOGT, IVERS & ASSOCIATES
ENGINEERS — ARCHITECTS
CINCINNATI — CHICAGO

REINFORCING STEEL LIST
BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREE
BENSON ST. NY.C.RR & SHEPHERD AV

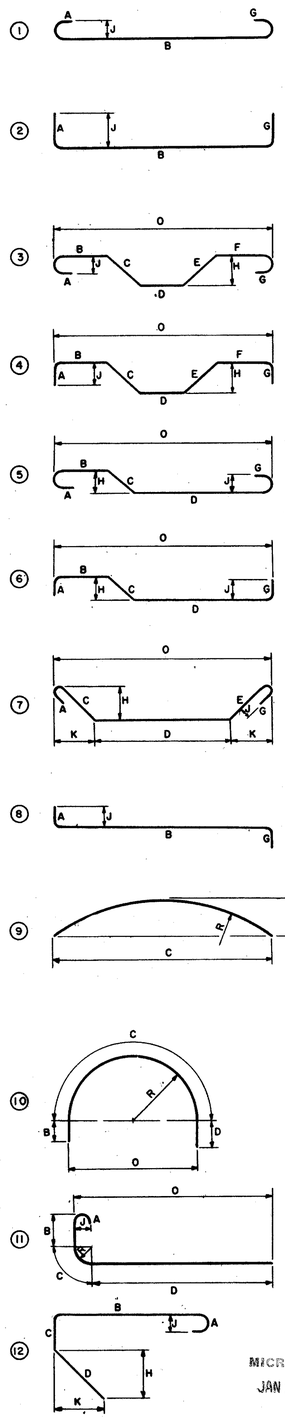
HAMILTON COUNTY STA. 182 + 97.99 to
STA. 207 + 15.49

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	G.K.	~	BC / RLS	JAD	7-8-64	12-17-6 12-22-6 4-2-65

FED. RD. DIVISION	STATE	PROJECT		416 / 450
2	OHIO			

HAM-75-9.30

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
AA501	2	6"	5'-5"					6"					
" 502	2	6"	7'-8"										
" 503	T1	5"	3'-2"	2'-7"	3'-2"	2'-7"		5"					
" 506	2	6"	6'-7"										
" 509	17		1'-8"	3'-5"	1'-8"								
" 510	S3	5"	2'-10"	8"	2'-10"			5"					
" 518	2	6"	9'-8"										
" 519	2	6"	11'-3"										
" 522	14		4'-8"	1'-6"									
" 524	22		1'-1"	1'-5"	1'-1"				2"		1'-5"		
" 525	17		11"	1'-5"	1'-1"								
" 527	17		4'-8"	1'-2"	4'-8"								
AA601	17		2'-7"	5'-5"	7'-8"								
" 602	17		2'-7"	5'-5"	6'-7"								
" 603	17		2'-0"	11"	5'-9"	1'-5"	4'-6"						
" 604	17		5'-9"	1'-5"	5'-9"								
" 605	17		10'-3"	1'-2"	10'-3"								
" 606	17		8'-8"	1'-2"	8'-8"								
AF501	T1	5"	3'-2"	2'-7"	3'-2"	2'-7"		5"					
" 502	17		1'-8"	5'-5"	1'-8"								
" 504	20		1'-8"	6'-8"									
" 505	17		1'-8"	3'-5"	1'-8"								
" 510	17		3'-10" to 6'-4" by 6	1'-2"	3'-10" to 6'-4" by 6								
" 511	17		3'-9"	1'-2"	3'-9"								
" 514	17		1'-1"	1'-4"	1'-1"								
" 515	22		1'-0"	1'-4"	1'-2"				2"		1'-4"		
" 519	53	5"	2'-2"	8"	2'-2"			5"					
AF601	17		2'-9"	5'-5"	6'-8"								
" 602	17		9'-0"	1'-2"	9'-0"								
" 603	17		2'-0"	11"	7'-10"	1'-5"	6'-4"						
" 604	17		2'-0"	1'-5"	7'-10"	1'-5"	7'-6"						
PA501	S10		2'-5"	2'-8"	2'-5"								
" 503	2	7"	2'-8"					7"					
" 504	2	7"	2'-7"					7"					
" 505	2	7"	2'-5"					7"					
PA601	1	8"	8'-8"					8"					
" 602	1	8"	6'-9"										
PA701	1	10"	8'-8"					10"					
PA1101	18		24'-6"	3'-0"									
" 1102	18		31'-3"	3'-0"									
" 1112	2	1-2"	6'-3"										
" 1115	10		4'-0"	2'-7"	4'-0"							10"	1'-8"
SPA501	SP1		3¼"	10'-0"	40								2'-8"
" 502	SP1		3¼"	12'-0"	47								2'-8"
" 503	SP1		3¼"	10'-8"	42								2'-8"
" 504	SP1		3¼"	12'-8"	50								2'-8"
" 505	SP1		3¼"	11'-4"	45								2'-8"
" 506	SP1		3¼"	13'-3"	52								2'-8"
" 507	SP1		3¼"	11'-11"	47								2'-8"
" 508	SP1		3¼"	13'-11"	54								2'-8"
PB511	2	6"	3'-8"					6"					
PB501	S10		3'-7"	3'-2"	3'-7"								
" 502	2	6"	1'-7"					6"					
" 503	2	6"	2'-10"					6"					
" 504	T1	5"	2'-9"	4'-8"	2'-9"	4'-8"		5"					
~~" 505~~	~~2~~	~~6"~~	~~5'-6"~~					~~6"~~					
" 506	T1	5"	2'-2½"	6'-4"	2'-2½"	6'-4"		5"					
" 507	2	6"	3'-8"					6"					
" 508	2	6"	2'-0"					6"					
" 509	2	6"	3'-2"					6"					
" 510	2	6"	5'-6"					6"					
PB601	1	8"	11'-6"					8"					
PB701	1	10"	8'-6"					10"					
" 702	1	10"	9'-6"					10"					
" 703	1	10"	11'-6"					10"					
" 704	1	10"	6'-6"										
PB901	1	1'-3"	8'-6"					1'-3"					
" 902	1	1'-3"	14'-6"					1'-3"					
PB1001	1	1'-5"	17'-6"					1'-5"					
" 1002	1	1'-5"	15'-6"					1'-5"					



NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
5. "H" DIMENSION ON STIRRUPS TO BE SHOWN WHERE NECESSARY TO RESTRICT HOOKS.
6. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL, EXCEPT STIRRUPS S11, TIES T3, SPIRALS SP1 AND WHERE RADIUS "R" IS INDICATED.
7. RADIUS, DIMENSION "R" IS TO OUTSIDE OF BAR.
8. THE LENGTH OF BENT BARS IS MEASURED ALONG THE CENTERLINE.
9. FOR STANDARD HOOK DIMENSIONS, SEE SECT. S-405 OF THE SPECIFICATIONS.
10. FOR BAR TYPE SP1, THE NO. OF TURNS "D" IS THE LENGTH "C" DIVIDED BY THE PITCH "B", PLUS 3 TURNS (TOTAL NUMBER OF CLOSED COILS), EXPRESSED AS THE NEAREST WHOLE NUMBER. 1½ CLOSED COILS SHALL BE PROVIDED AT THE ENDS OF EACH SPIRAL UNIT.

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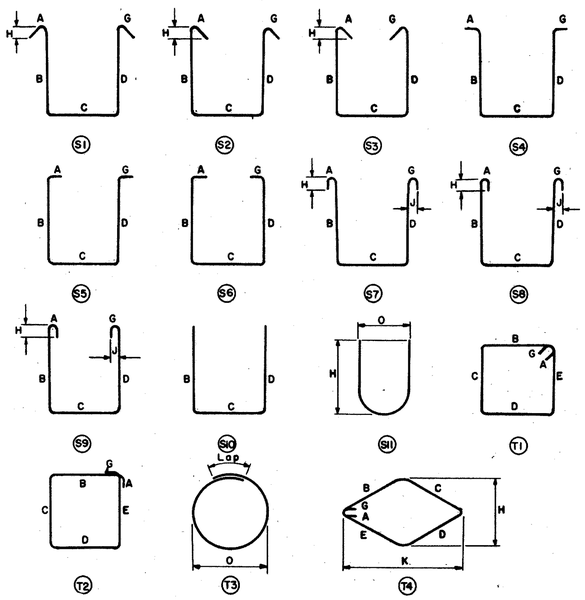
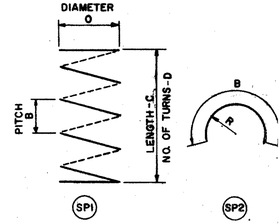
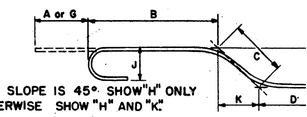
JAN 28 1985

⑮ NOT USED







WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

MICROFILMED
JAN 28 1985

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI — ARCHITECTS CHICAGO

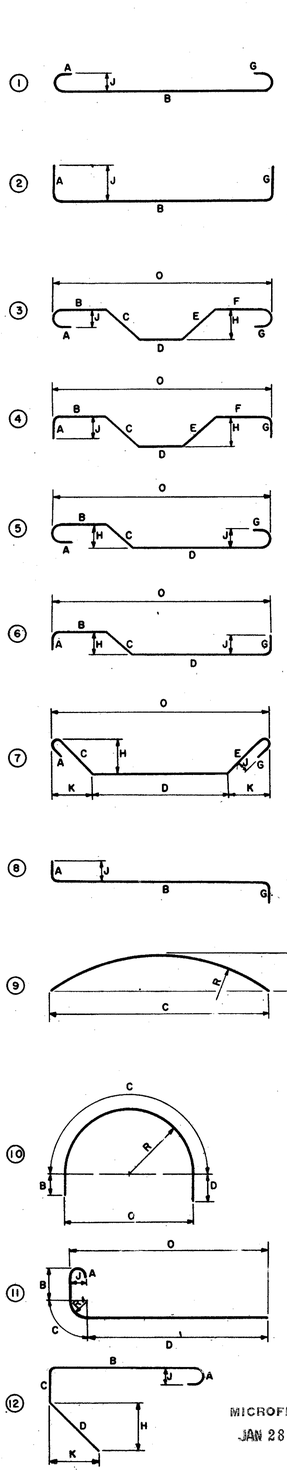
BAR BENDING DETAILS

BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILLCREE
BENSON ST NYCRR & SHEPHERD AV

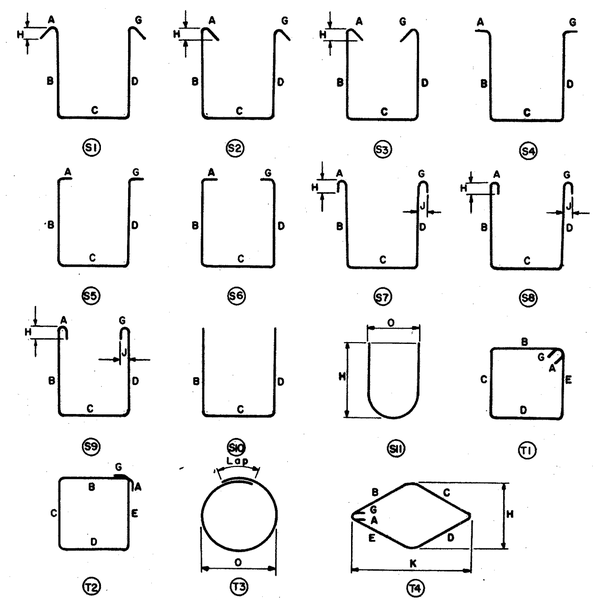
HAMILTON COUNTY STA. 182 + 97.99 to
STA. 207 + 15.49.

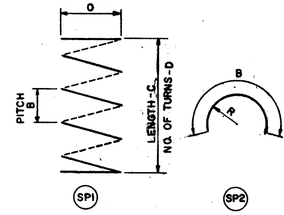
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
~	G.K.	~	BC	JAD	7-8-64	12-7-64

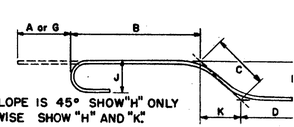
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
PB1101	2	1'-2"	6'-10"										
" 1109	17		3'-5"	39'-9"									
" 1110	17		3'-5"	40'-8"									
" 1111	17		3'-5"	41'-0"									
" 1112	17		3'-5"	15'-0"									
" 1114	10		5'-0"	6'-10"	5'-0"							1'-1½"	2'-3"
" 1121	1	1'-7"	18'-6"										
" 1123	1	1'-7"	21'-10"										
" 1129	1	1'-7"	29'-6"										
SP8501	SP1		3¼"	8'-1"	38								3'-2"
" 502	SP1		3¼"	17'-8"	68								3'-2"
" 503	SP1		3¼"	26'-3"	107								3'-2"
" 504	SP1		3¼"	22'-0"	84								3'-2"
" 505	SP1		3¼"	15'-11"	62								3'-2"
" 506	SP1		3¼"	22'-0"	84								5'-8"
" 507	SP1		3¼"	18'-6"	71								5'-8"
" 508	SP1		3¼"	20'-0"	77								5'-8"
" 509	SP1		3¼"	17'-2"	66								5'-8"
" 510	SP1		3¼"	18'-10"	73								5'-8"
" 511	SP1		3¼"	22'-0"	84								3'-8"
" 512	SP1		3¼"	18'-5"	71								3'-8"
" 513	SP1		3¼"	14'-11"	58								3'-8"
PC501	S10		2'-8"	3'-2"	2'-8"								
" 504	S10		1'-6"	3'-2"	1'-6"								
" 506	S10		2'-5"	2'-8"	2'-5"								
" 507	S10		1'-6"	2'-8"	1'-6"								
" 508	S10		1'-6"	2'-5"	1'-6"								
PC801	1	1'-1"	8'-8"					1'-1"					
" 802	1	1'-1"	9'-8"					1'-1"					
" 803	1	1'-1"	8'-8"					1'-1"					
" 804	1	1'-1"	10'-8"					1'-1"					
PC901	1	1'-3"	12'-8"					1'-3"					
" 902	1	1'-3"	11'-8"					1'-3"					
" 905	1	1'-3"	11'-8"					1'-3"					
" 906	1	1'-3"	10'-8"					1'-3"					
" 909	10		2'-10"	3'-0"	2'-10"							11½"	1'-11"
PC1007	10		3'-3"	3'-0"	3'-3"							11½"	1'-11"
" 1008	17			3'-5"	32'-0"								
" 1009	17			3'-5"	31'-9"								
" 1010	17			3'-3"	23'-9"								
" 1011	17			3'-3"	23'-6"								
" 1012	17			3'-4"	31'-11"								
" 1013	17			3'-4"	31'-9"								
" 1014	17			3'-4"	31'-4"								
" 1015	17			3'-3"	23'-8"								
" 1016	17			3'-3"	23'-6"								
" 1017	17			3'-3"	23'-1"								
PC1101	1	1'-7"	12'-8"					1'-7"					
" 1102	2	1'-2"	5'-10"					-					
" 1112	2	1'-2"	6'-4"					-					
" 1113	2	1'-2"	5'-10"					-					
SPC501	SP1		3¼"	20'-0"	77								3'-2"
" 502	SP1		3¼"	22'-1"	85								3'-2"
" 503	SP1		3¼"	18'-3"	70								3'-2"
" 504	SP1		3¼"	14'-4"	56								3'-2"
" 505	SP1		3¼"	33'-1"	121								2'-8"
" 506	SP1		3¼"	33'-7"	123								2'-8"
" 507	SP1		3¼"	34'-1"	125								2'-8"
" 508	SP1		3¼"	28'-1"	107								2'-8"
" 509	SP1		3¼"	28'-4"	108								2'-8"
SPC510	SP1		3¼"	28'-7"	109								2'-8"
" 511	SP1		3¼"	28'-10"	110								2'-8"
" 512	SP1		3¼"	32'8"	120								2'-8"
PD502	T1	5"	2'-10"	1'-2"	2'-10"	1'-2"		5"					
" 503	S10		1'-7"	4'-2"	1'-7"								
" 504	S10		2'-5"	2'-8"	2'-5"								
" 505	2	6"	2'-7"					6"					
" 506	2	6"	2'-4"					6"					
" 507	2	6"	1'-10"					6"					
" 509	10		2'-6"	4'-2¼"	2'-6"							1'-4"	2'-8"
" 511	S10		1'-6"	5'-8"	1'-6"								
" 512	T1	5"	2'-4"	6'-2"	2'-4"	6'-2"		5"					
" 515	T1	5"	3'-6½"	6'-2"	3'-6½"	6'-2"		5"					
" 514	2	6"	5'-8"					6"					
PD901	1	1'-3"	10'-8"					1'-3"					
" 902	1	1'-3"	11'-8"					1'-3"					
PD1001	1	1'-5"	14'-8"					1'-5"					



15 NOT USED







WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K."

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
4. WHERE "J" IS NOT SHOWN "J" WILL BE KEPT EQUAL TO OR LESS THAN "H." WHERE "J" CAN EXCEED "H" IT SHOULD BE SHOWN.
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MICROFILMED
JAN 28 1985

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

417
450

HAM-75-9.30

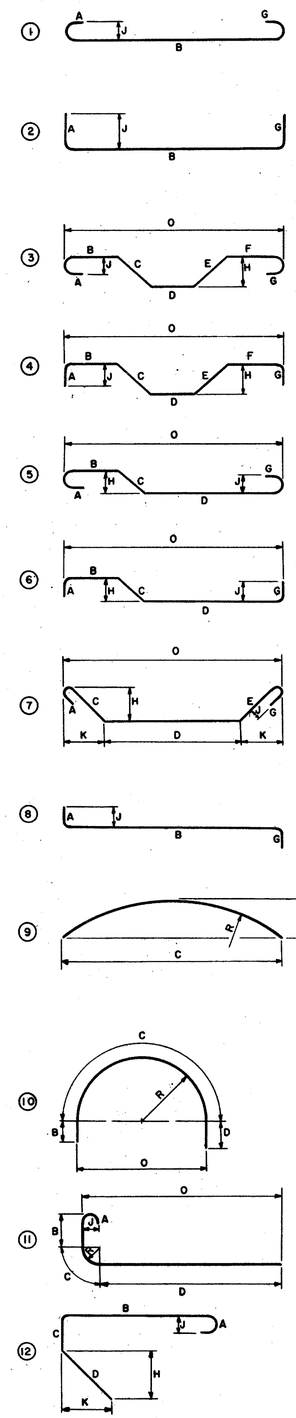
VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

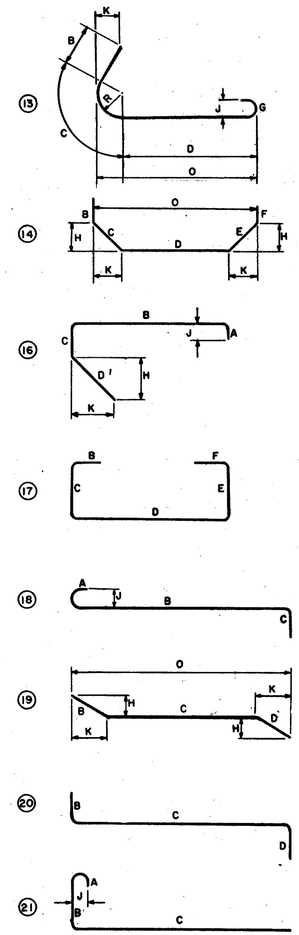
BAR BENDING DETAILS

BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK
BENSON ST. NYC.RR & SHEPHERD AVE.
HAMILTON COUNTY STA. 182+97.99 to STA. 207+15.49.

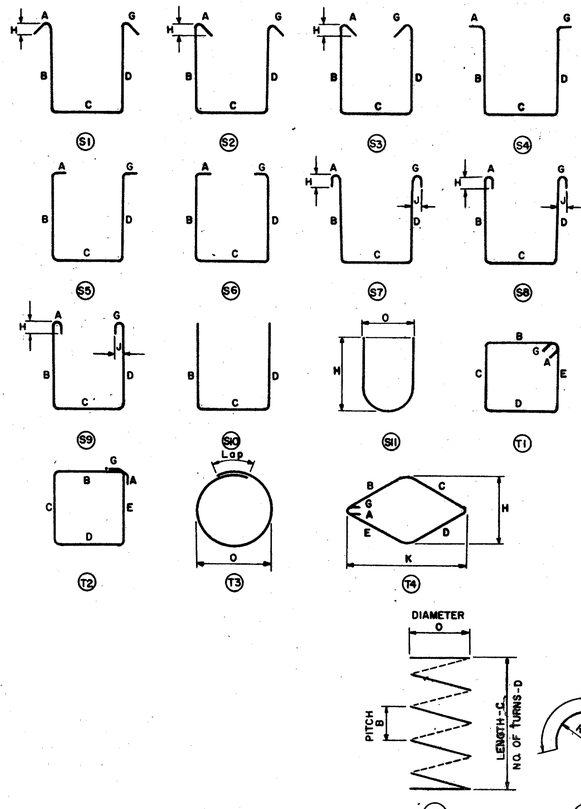
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	GK.		B.C.	JAD	7-8-64	

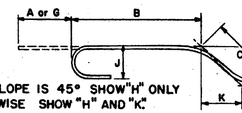
MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
PD1101	1	1'-7"	20'-2"					1'-7"					
" 1102	2	1'-2"	7'-4"										
" 1109	1	1'-7"	32'-4"										
" 1110	1	1'-7"	24'-1"										
" 1111	1	1-7"	16'-11"										
" 1116	2	1'-2"	7'-7"										
" 1117	2	3'-6"	32'-2"										
" 1118	2	3'-6"	24'-3"										
" 1123	2	1'-2"	6'-1"										
" 1124	1	1'-7"	14'-8"					1'-7"					
" 1125	1	1'-7"	33'-3"										
" 1126	1	1-7"	23'-0"										
" 1127	1	1-7"	17'-6"										
" 1135	1	1'-7"	20'-0½"					1'-7"					
" 1137	7	1'-7"		7'-1"	18'-6"	7'-1"		1'-7"	5'-0"	11"	5'-0"		28'-6"
" 1138	7	1'-7"		7'-1"	16'-6"	7'-1"		1'-7"	5'-0"	11"	5'-0"		26'-6"
SPD501	SP1		3"	20'-3"	83								4'-2"
" 502	SP1		3"	22'-3"	91								4'-2"
" 503	SP1		3"	22'-6"	93								5'-8"
" 504	SP1		3"	20'-2"	84								5'-8"
" 505	SP1		3¼"	25'-3"	96								2'-8"
PD1132	7	1'-7"		7'-1"	14'-6"	7'-1"		1'-7"	5'-0"	11"	5'-0"		24'-6"
PE604	2	8"	6'-8"					8"					
PE501	2	6"	3'-6"					6"					
" 502	S10		2'-2"	2'-8"	2'-2"								
" 505	S10		1'-6"	2'-5"	1'-6"								
" 504	S10		1'-6"	2'-8"	1'-6"								
" 507	2	6"	4'-0"					6"					
" 508	2	6"	4'-9"					6"					
" 510	S10		1'-6"	5'-8"	1'-6"								
" 511	T1	5"	2'-1½"	6'-2"	2'-1½"	6'-2"		5"					
" 512	T1	5"	3'-8½"	6'-2"	3'-8½"	6'-2"		5"					
" 513	2	6"	5'-8"					6"					
PE601	2	8"	12'-0"										
PE602	2	8"	11'-0"										
PE603	4	8"	1'-6"	10'-11"					2'-6"				
" 607	2	8"	11'-4"										
" 608	4	8"	1'-6"	9'-6"				2'-6"	2'-6"				
" 609	2	8"	9'-0"										
PE701	1	10"	20'-6"					10"					
" 702	1	10"	20'-6"					10"					
PE801	1	1'-1"	14'-6"					1'-1"					
PE901	1	1'-3"	10'-2"					1'-3"					
" 902	1	1-3"	9'-8"					1'-3"					
" 903	1	1-3"	11'-8"					1'-3"					
PE1001	2	1-2"	5'-4"										
" 1004	17			3'-3"	27'-10"								
" 1005	10			3'-6"	4'-2"	3'-6"						1'-2"	2'-4"
" 1006	1	1'-5"	17'-8"					1'-5"					
" 1007	1	1'-5	20'-8"					1'-5"					
PE1101	2	1'-4"	5'-10"										
" 1104	17			3'-3"	27'-7"								
" 1105	10			3'-6"	4'-2"	3'-6"						1'-4"	2'-8"
" 1110	1	1'-7"	32'-3"										
" 1111	1	1'-7"	24'-0"										
" 1112	1	1'-7"	19'-0"										
" 1120	2	1'-2"	7'-1"										
" 1121	2	1'-2"	15'-9"										
" 1122	2	1'-2"	15'-4"										
SPE501	SP1		3¼"	31'-3"	118								2'-8"
" 502	SP1		3¼"	25'-3"	96								2'-8"
" 503	SP1		3¼"	22'-0"	84								5'-8"
" 504	SP1		3"	12'-2"	50								5'-8"
" 505	SP1		3"	11'-10"	49								5'-8"
" 506	SP1		3¼"	26'-7"	101								2'-8"
PF501	S10		2'-8"	2'-8"	2'-8"								
" 503	2	6"	2'-3"					6"					
" 504	S10		1'-6"	2'-8"	1'-6"								
" 505	S10		1'-6"	2'-5"	1'-6"								
" 507	S10		2'-8"	3'-2"	2'-8"								
" 508	S10		1'-6"	3'-2"	1'-6"								
" 509	S10		1'-6"	2'-11"	1'-6"								
" 510	2	6"	3'-6"					6"					
" 511	2	6"	4'-0"					6"					
PF701	1	10"	8'-8"					10"					
PF801	1	1'-1"	11'-8"					1'-1"					
" 802	1	1-1"	8'-8"					1'-1"					
PF901	1	1'-3"	8'-8"					1'-3"					
" 902	1	1'-3"	11'-8"					1'-3"					
" 905	17			3'-9"	31'-3"								
" 906	17			3'-9"	31'-7"								
" 907	17			3'-9"	31'-9"								
" 909	10		2'-10"	2'-11"	2'-10"							11"	1'-10"
" 910	17			3'-9"	23'-0"								
" 911	17			3'-9"	23'-4"								





⑮ NOT USED





ENLARGED VIEW SHOWING BAR BENDING DETAILS

MICROFILMED JAN 28 1985

NOTES

1. FIGURES IN CIRCLES SHOW BAR TYPES.
2. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
3. "J" DIMENSION ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
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MICROFILMED JAN 28 1985

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

418
450

HAM-75-9.30

VOGT, IVERS & ASSOCIATES
ENGINEERS CINCINNATI ARCHITECTS CHICAGO

BAR BENDING DETAILS

BRIDGE No. HAM-75-1147
NORTHBOUND I-75 over MILL CREEK
BENSON ST. N.Y.C.RR. & SHEPHERD AV
HAMILTON COUNTY STA. 182 + 97.99 to STA. 207 + 15.49

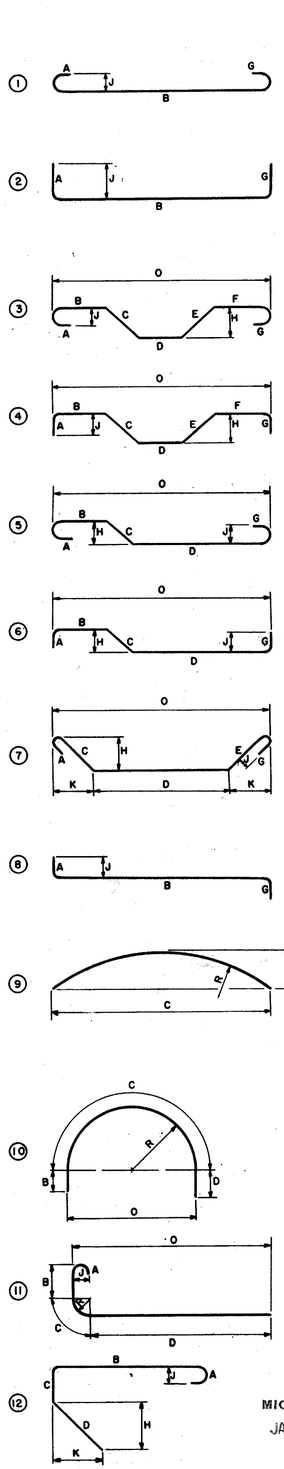
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	G.K.		S.C.	J.A.D.	7-8-64	12-22-64 12-28-64

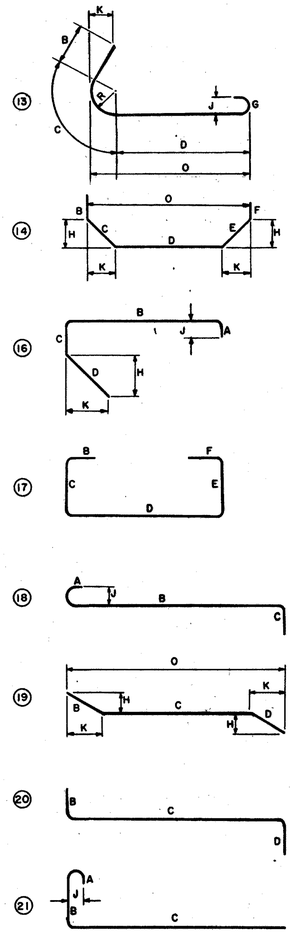
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

419
450

HAM-75-9.30

MARK	TYPE	DIMENSIONS FOR BENDING											
		A	B	C	D	E	F	G	H	J	K	R	O
PF912	17		-	5'-9"	23'-6"	-	-						
" 913	1	1'-3"	11'-8"					1'-5"					
" 914	1	1'-3"	12'-8"					1'-3"					
" 918	17		-	3'-9"	31'-11"	-	-						
" 919	17		-	3'-9"	31'-8"	-	-						
" 920	17		-	3'-9"	31'-1"	-	-						
" 921	17		-	3'-9"	23'-8"	-	-						
" 922	17		-	3'-9"	23'-5"	-	-						
" 923	17		-	3'-9"	22'-10"	-	-						
" 924	10		3'-3"	3'-2"	3'-3"							1'-0"	2'-0"
" 925	10		5'-0"	3'-10"	3'-0"							1-2½"	2'-5"
PF1001	1		1'-5"	13'-8"				1'-5"					
" 1004	17		-	3'-9"	32'-2"	-	-						
" 1005	17		-	3'-9"	31'-11"	-	-						
" 1006	17		-	3'-9"	31'-4"	-	-						
" 1007	17		-	3-9"	23'-11"	-	-						
" 1008	17		-	3-9"	23'-8"	-	-						
" 1009	17		-	3'-9"	23'-1"	-	-						
" 1010	1	1'-5"	14'-2"					1'-5"					
" 1011	1	1'-5"	14'-8"					1'-5"					
" 1012	1	1'-5"	15'-8"					1'-5"					
PF1101	1	1'-7"	11'-8"					1'-7"					
" 1102	2	1'-2"	5'-10"					-					
" 1104	1	1'-7"	15'-8"					1'-7"					
" 1105	1	1'-7"	12'-8"					1'-7"					
" 1106	2	1'-2"	5'-10"					-					
" 1108	2	1'-4"	5'-10"										
SPF501	SP1		3½	21'-2"	82								2'-8"
" 502	SP1		3½	27'-1"	103								3'-2"
" 503	SP1		3½	14'-8"	57								3-2"
" 504	SP1		3	15'-8"	64								4'-8"
" 505	SP1		3	16'-1"	66								4'-8"
SA501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
" 510	19		10"	2'-10"	—				7"		—		3'-5"
" 511	S10		2'-0"	1'-0"	2'-0"								
SB501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
SC501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
SD501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
SE501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
SF501	S6	6"	1'-4"	1'-6"	1'-4"			6"					
" 502	2	6"	1'-7"					6"					
" 503	S3	5"	2'-2"	8"	2'-2"			5"	—				
RE 5	SP2		5'-7"									1'-4"	
RE 5A	SP2		5'-7"									2'-10"	





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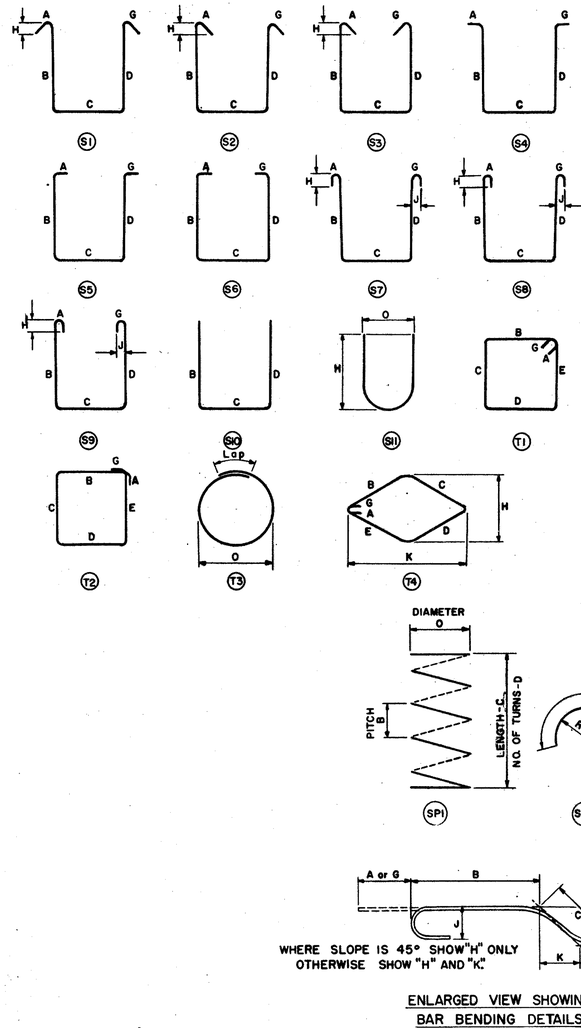

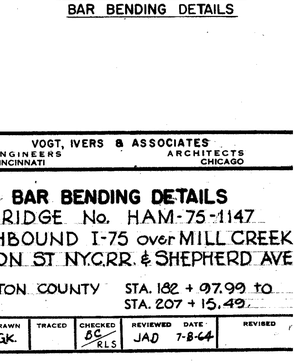

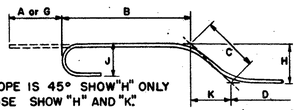

WHERE SLOPE IS 45° SHOW "H" ONLY
OTHERWISE SHOW "H" AND "K"

ENLARGED VIEW SHOWING
BAR BENDING DETAILS

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NORTHBOUND I-75 over MILL CREEK
BENSON ST N.Y.C.R.R. & SHEPHERD AVE
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DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	GK.		DC RLS	JAD	7-8-64	