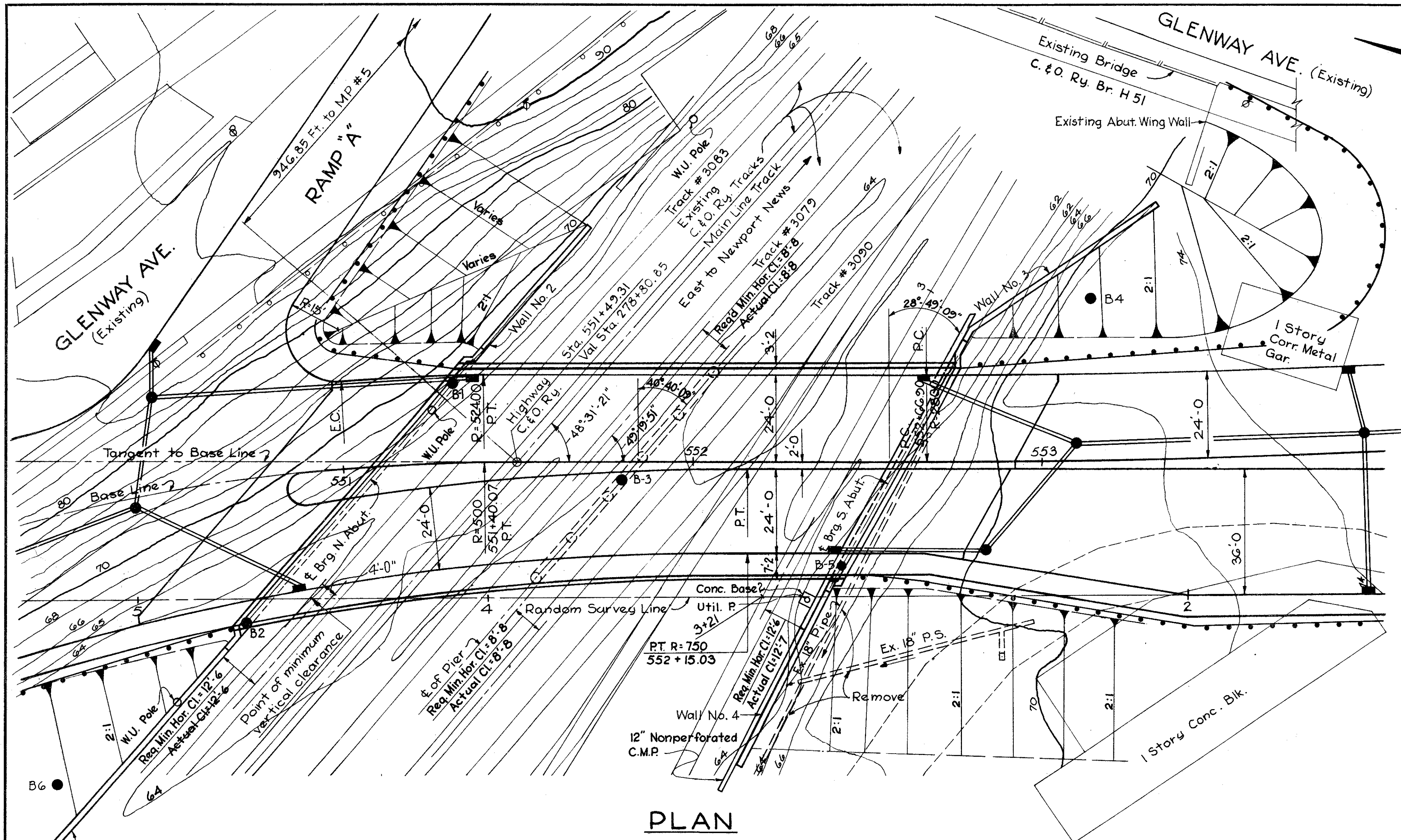
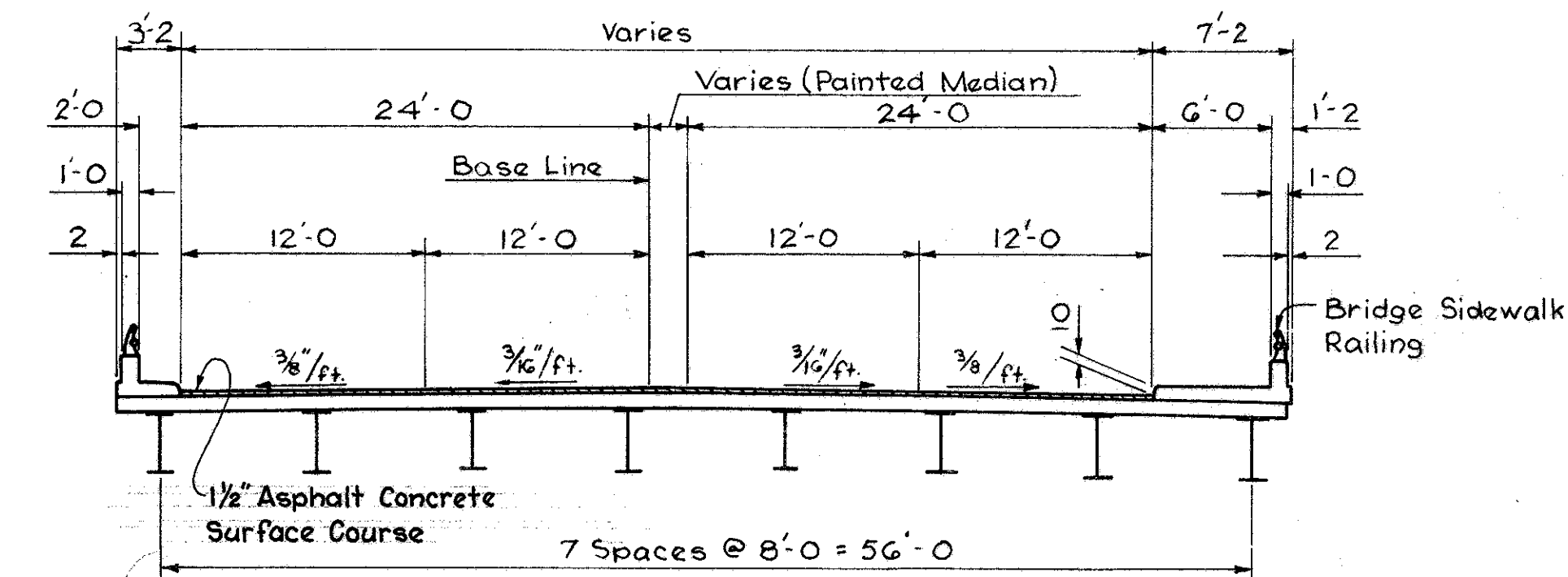


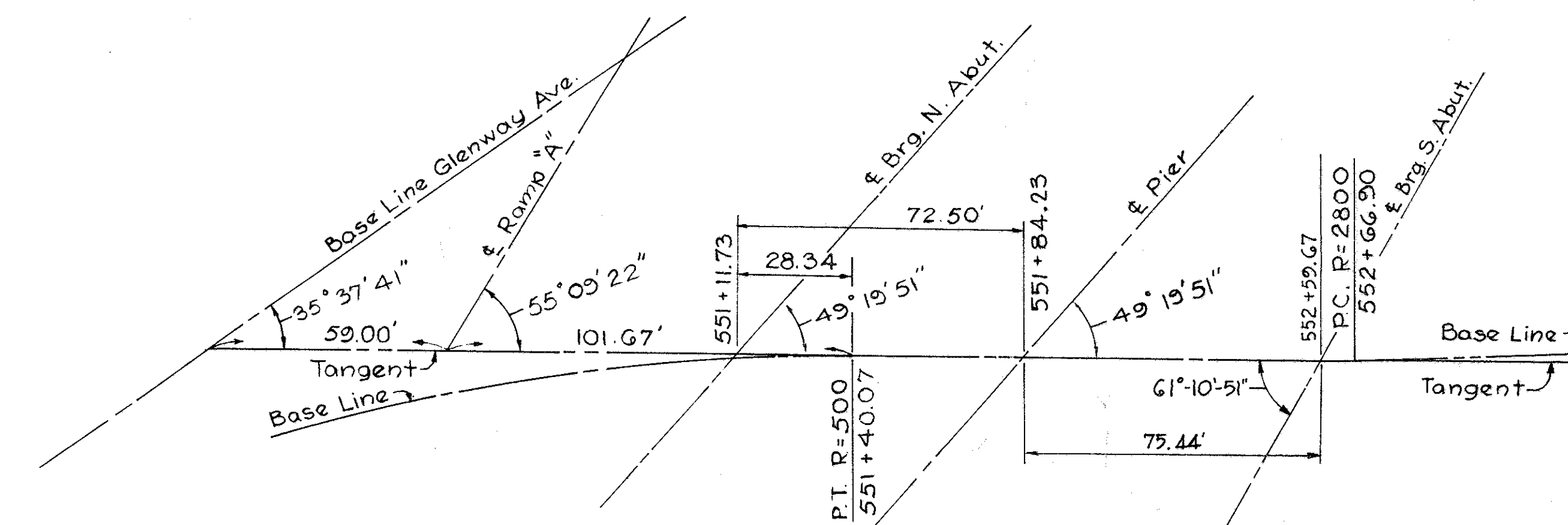
HAM-264-09.41



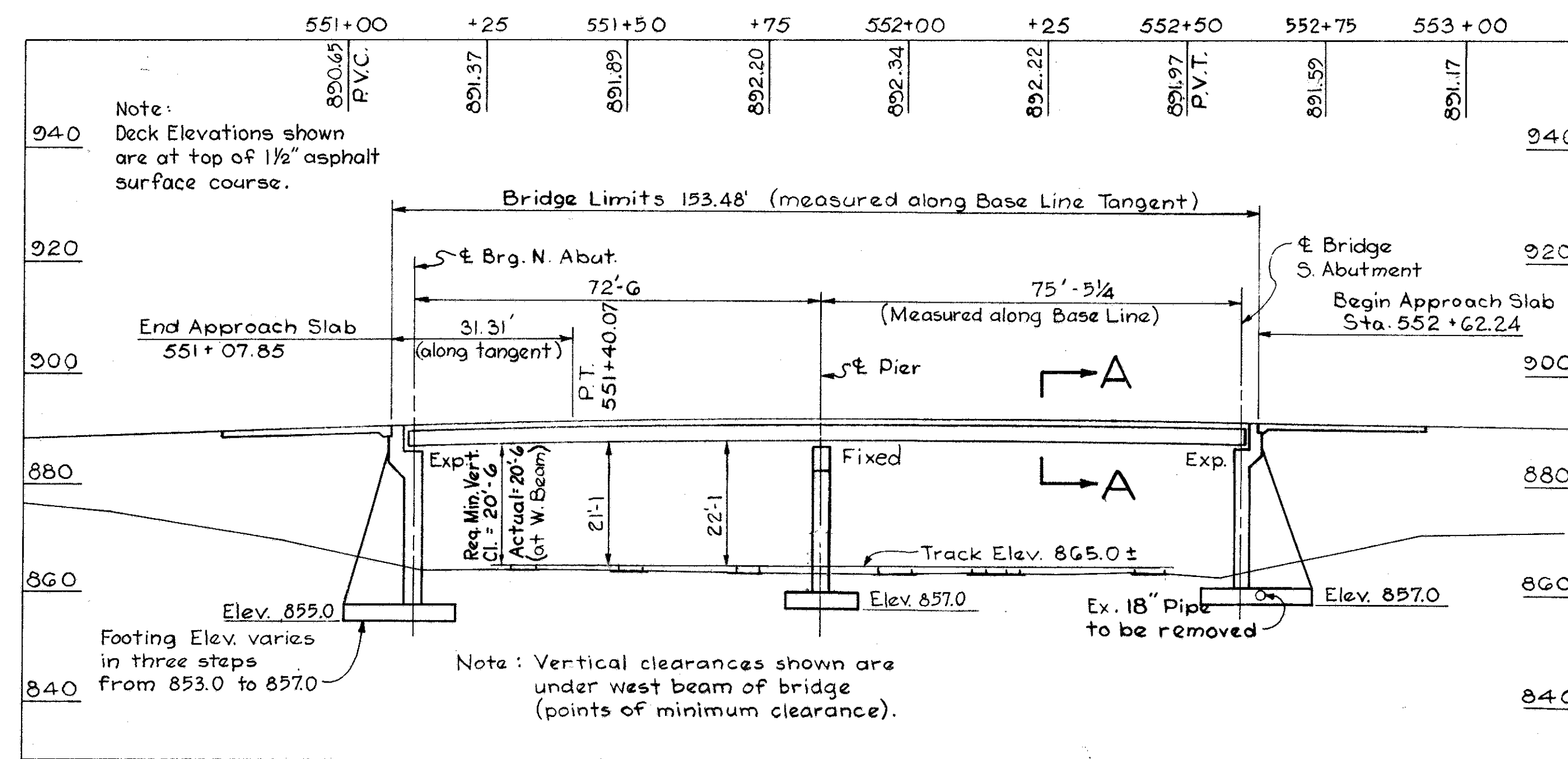
PLAN



SECTION A-A



PIER AND ABUTMENT LOCATION DIAGRAM



PROFILE
ON BASE LINE

CURVE DATA

BASE LINE

P.I. Sta. 549+89.83
P.C. Sta. 548+29.16
P.T. Sta. 551+40.07
 $\Delta = 35^\circ 37' 41''$
 $D = 11^\circ 27' 33''$
 $R = 500.00'$
 $L = 310.91'$
 $T = 160.67'$

P.I. = 554+14.19
P.C. = 552+66.90
P.C.C. = 555+61.20
 $\Delta = 6^\circ 01' 20''$
 $D = 2^\circ 02' 47''$
 $R = 2800.00'$
 $L = 294.30'$
 $T = 147.29'$

WEST CURB LINE

P.I. 551+14.99
P.T. 552+15.03
 $\Delta = 15^\circ 11' 45''$
 $D = 7^\circ 38' 22''$
 $R = 750.00'$
 $L = 198.91'$
 $T = 100.04'$

EAST CURB LINE

P.I. Sta. 551+19.86
P.T. Sta. 551+40.07
 $\Delta = 4^\circ 25' 02''$
 $D = 10^\circ 56' 04''$
 $R = 524.00'$
 $L = 40.40'$
 $T = 20.21'$

P.I. Sta. 553+65.63
P.C. Sta. 552+66.90
P.C.C. Sta. 554+64.27
 $\Delta = 4^\circ 04' 25''$
 $D = 2^\circ 03' 50''$
 $R = 2776.00'$
 $L = 197.37'$
 $T = 98.73'$

NOTE:

B.● - Symbol denotes Test Boring

Earthwork limits shown are schematic.
Actual slopes shall conform to plan cross-sections.

PROPOSED STRUCTURE

TYPE: Two span continuous wide flange beams with reinforced concrete deck and substructure.
SPANS: 72.50', 75.44' along Base Line
ROADWAY: Varies with 2'-0" safety curb along the east side and 6'-0" sidewalk along the west side.
LIVE LOADING: HS 20-44
SKEW: 40° 40' 09" L.F., 28° 49' 09" L.F.
WEARING SURFACE: 1 1/2" Asphalt Concrete
APPROACH SLAB: AS-1-72 (30'-0" long) modified
ALIGNMENT: Base Line 11° 27' 33" Right, Tangent, 2° 02' 47" Left,
West Curb Line 7° 38' 22" Right and Tangent,
East Curb Line 11° 09' 43" Right, Tangent, 2° 03' 50" Left.

C. & O. RAILWAY DESIGNATION BRIDGE FH 52

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

SITE PLAN
BRIDGE No. HAM-264-10 4 4
GLENWAY AVE. BRIDGE
OVER C.O. RAILWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.	N.K.	G.C.H.	W.W.	8-17-72	

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APR 16 1985

HAMILTON COUNTY
HAM-264-0941

ESTIMATED QUANTITIES

MG-1E01(2)

[illegible]

GENERAL NOTES

REFERENCE. SHALL BE MADE TO STANDARD DRAWINGS BR-2-67 REVISED 10-15-71, RB-1-55 REVISED 2-2-59, SD-1-69 DATED 6-12-69 AND TO SUPPLEMENT SPECIFICATIONS 808 DATED 1-1-71 AND 836 DATED 3-12-75.

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF HIGHWAY OFFICIALS, 1969 INCLUDING THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.

DESIGN DATA: DESIGN LOADING - HS20-44

CONCRETE CLASS C - UNIT STRESS 1200 P.S.I. FOR SUPERSTRUCTURE
UNIT STRESS 1333 P.S.I. FOR SUBSTRUCTURE

STRUCTURAL STEEL - ASTM A36 - UNIT STRESS 20,000 P.S.I.

REINFORCING STEEL - ASTM A615, A616 or A617 - UNIT STRESS 20,000 P.S.I. SPIRAL REINFORCEMENT MAY BE PLAIN BARS ASTM A82 OR A615.

EMBANKMENT
CONSTRUCTION: BEFORE THE BACKWALL IS CONSTRUCTED, THE EMBANKMENT SHALL BE CONSTRUCTED UP TO THE LEVEL OF THE SUBGRADE WITH A 1:1 SLOPE FROM THE BRIDGE SEAT TO THE SUBGRADE, FOR A MINIMUM DISTANCE OF 200 FEET BACK OF THE ABUTMENT.

FOUNDATION
BEARING PRESSURE: PIER, ABUTMENTS AND WINGWALLS ARE DESIGNED FOR A MAXIMUM BEARING PRESSURE
OF $3\frac{1}{2}$ TONS PER SQ. FT.

UTILITY LINES: ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) THE AFFECTED UTILITY LINES SHALL BE BORNE BY THE OWNER(S). THE CONTRACTOR AND OWNER(S) ARE REQUESTED TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WOULD BE HELD TO A MINIMUM.

CONSTRUCTION
CLEARANCE OF 18'-6" VERTICALLY ABOVE THE TOP OF THE RAILROAD RAILS AND 8'-0" HORIZONTALLY FROM THE CENTER OF TRACKS SHALL BE MAINTAINED AT ALL TIMES.

RAILROAD AERIAL
LINES WILL BE RELOCATED BY THE RAILROAD. THE CONTRACTOR WILL USE ALL PRECAUTIONS
NECESSARY TO SEE THAT THE LINES ARE NOT DISTURBED DURING THE CONSTRUCTION
STAGE AND SHALL COOPERATE WITH THE RAILROAD IN THE RELOCATION OF THESE LINES.
THE COST OF THE RELOCATION SHALL BE INCLUDED IN THE RAILROAD FORCE ACCOUNT
WORK.

FOOTING
CONSTRUCTION THE TOE OF WINGWALL AND ABUTMENT FOOTINGS SHALL BE POURED AGAINST UNDISTURBED EARTH.

FOUNDATIONS ALL FOOTINGS ARE TO BE SEATED IN THE WEATHERED SHALE
AT THE ELEVATIONS SHOWN.

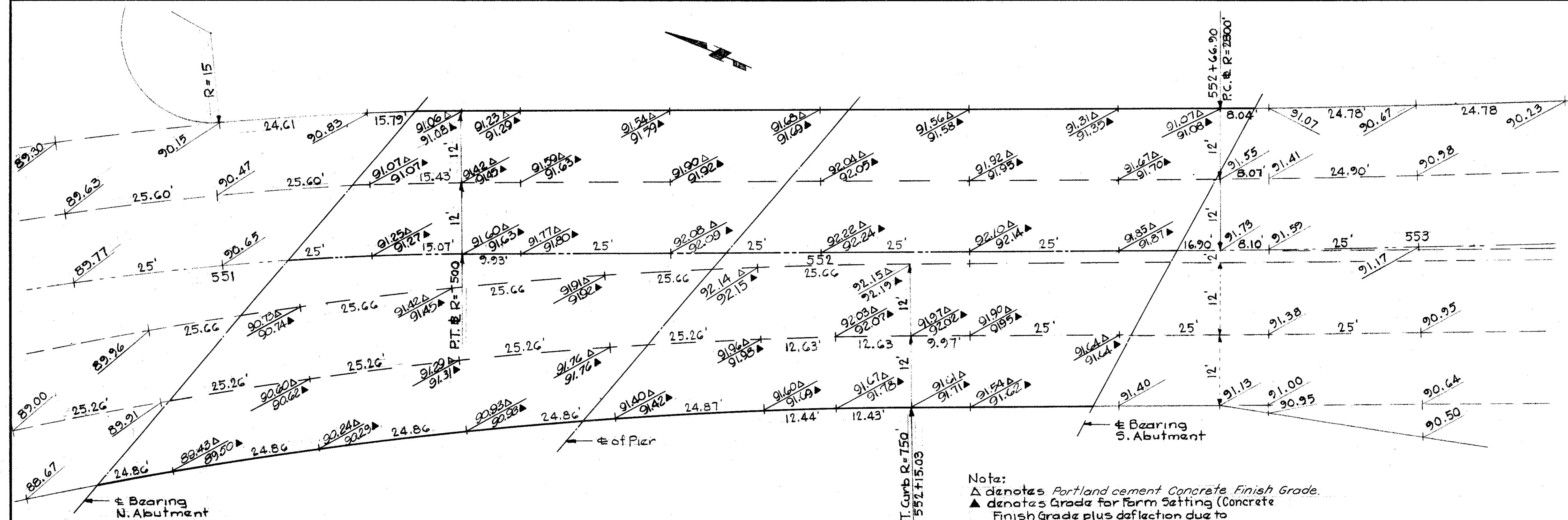
The foundation information is available from the Bureau of Bridges, 25 S. Front St., Columbus, Ohio or the Division 8 Office, Lebanon, Ohio.

BRIDGE TERM-
INAL ASSEMBLY Bridge terminal assemblies at all four corners shall be type A without wheel guards, as per Std. Dwg. GR-3. Guard rail connections, brackets and anchor bolts, as shown on Std. Dwg. BR-2-67 shall not be provided.

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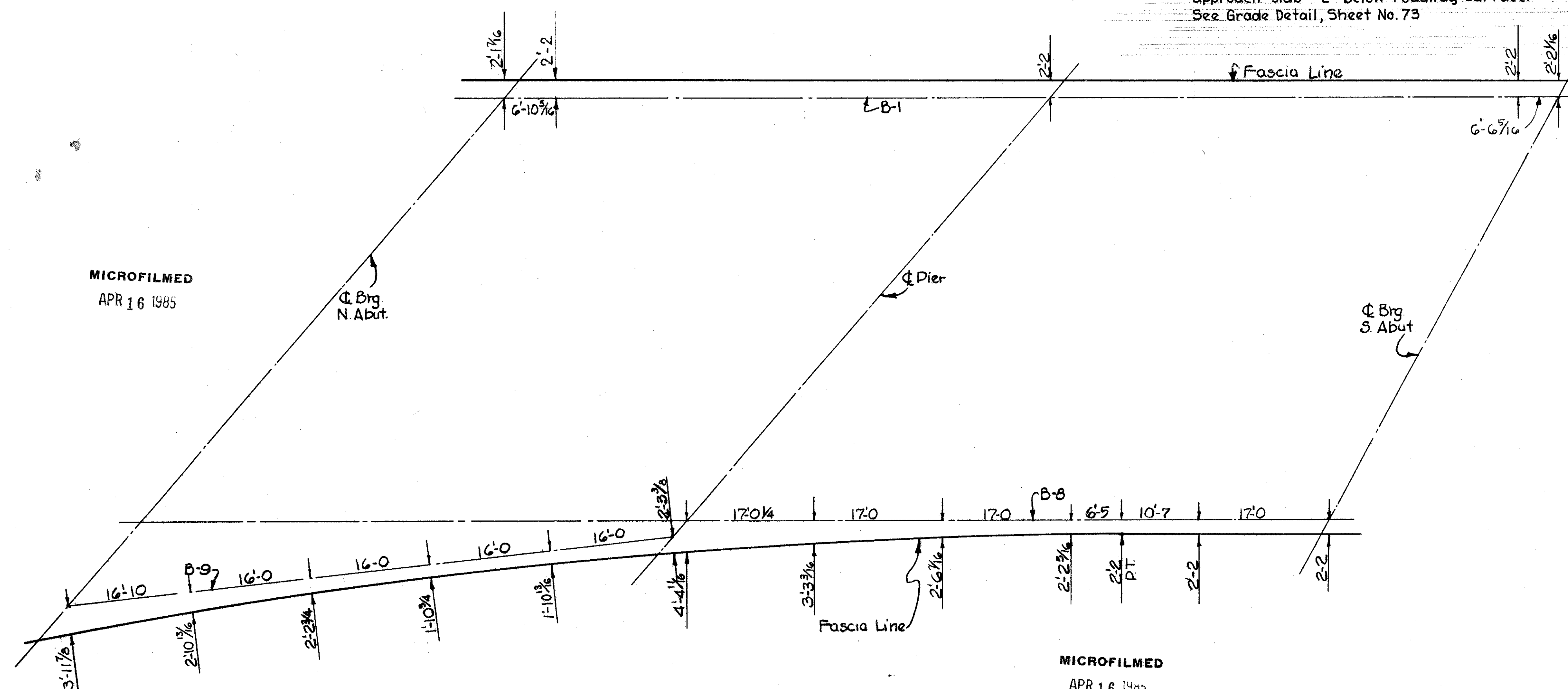
APR 16 1985

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING					2/22	
ESTIMATED QUANTITIES AND GENERAL NOTES BRIDGE NO. HAM-264-1044 GLENWAY AVE. BRIDGE OVER C. & O. RAILWAY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W. W.	W. W.		G. C. H.	W. W.	8-18-72	4-13-76



GRADE DETAIL

Note:
 ▲ denotes Portland cement Concrete Finish Grade.
 ▲ denotes Grade for Form Setting (Concrete Finish Grade plus deflection due to weight of concrete)
 Top of asphalt concrete surface course Finish Grade on the bridge. The elevations shown on the approaches are top of asphalt concrete roadway surface. Top of reinforced concrete approach slab = 2" below roadway surface.
 See Grade Detail, Sheet No. 73



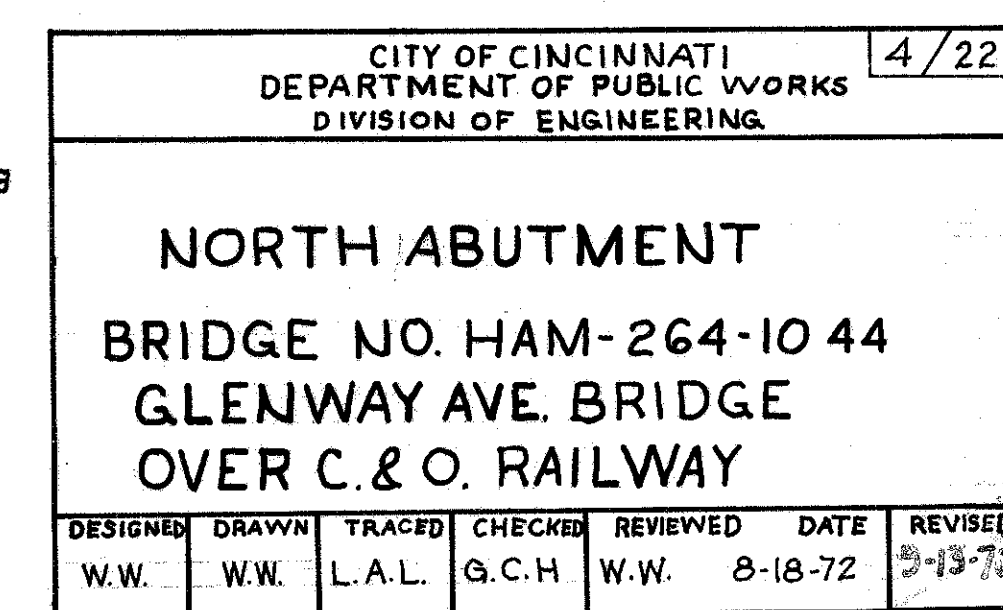
FASCIA OFFSETS

MICROFILMED
APR 16 1985

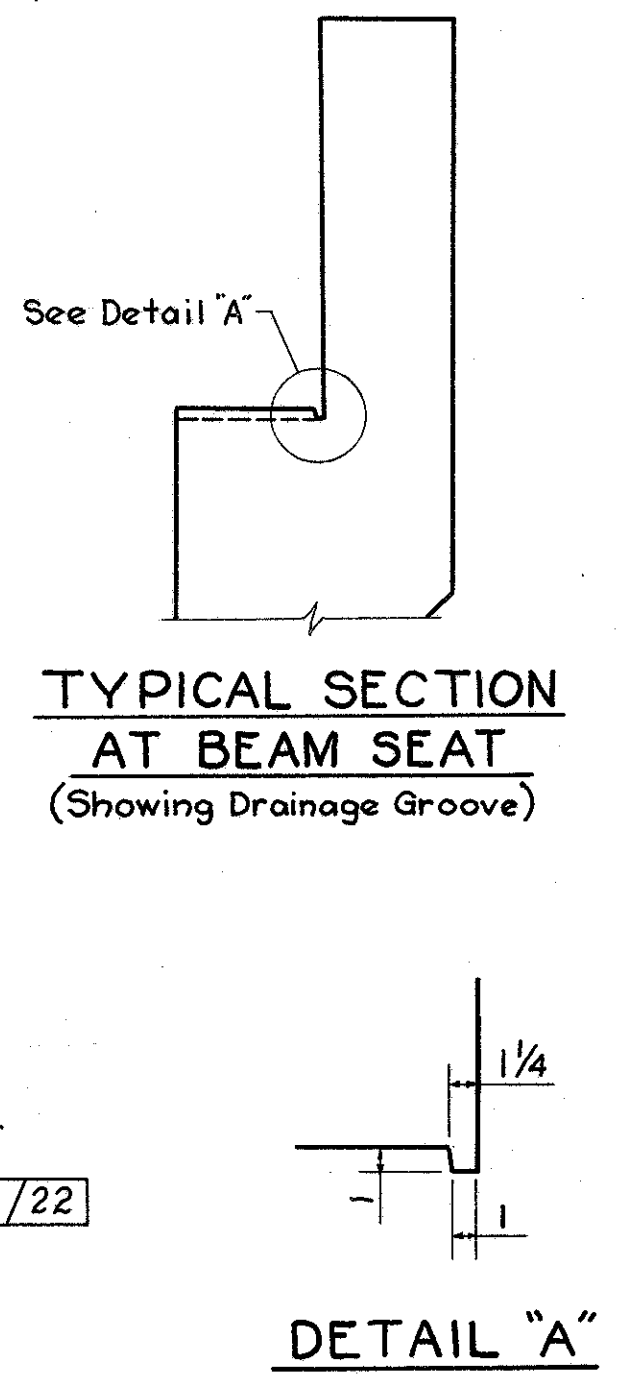
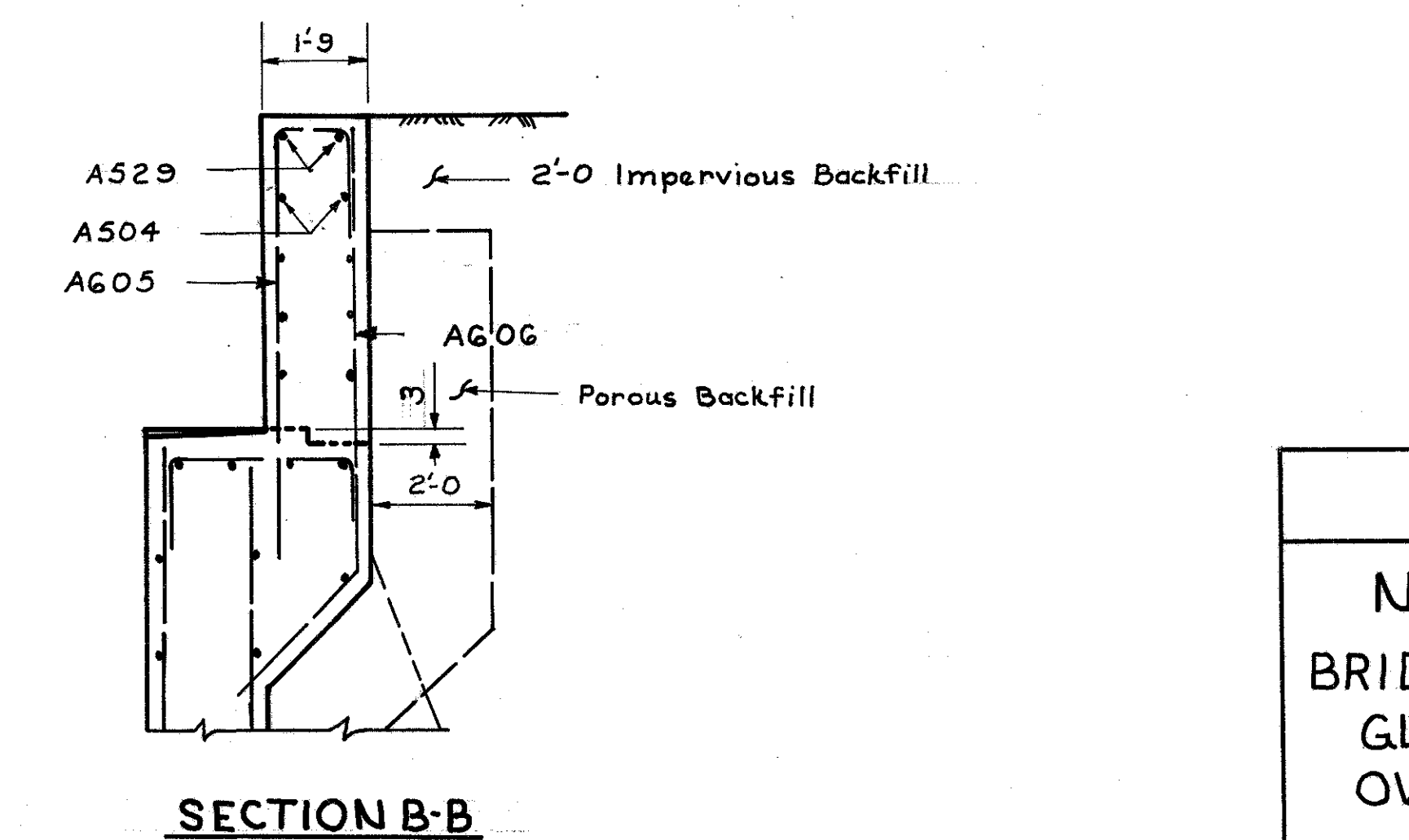
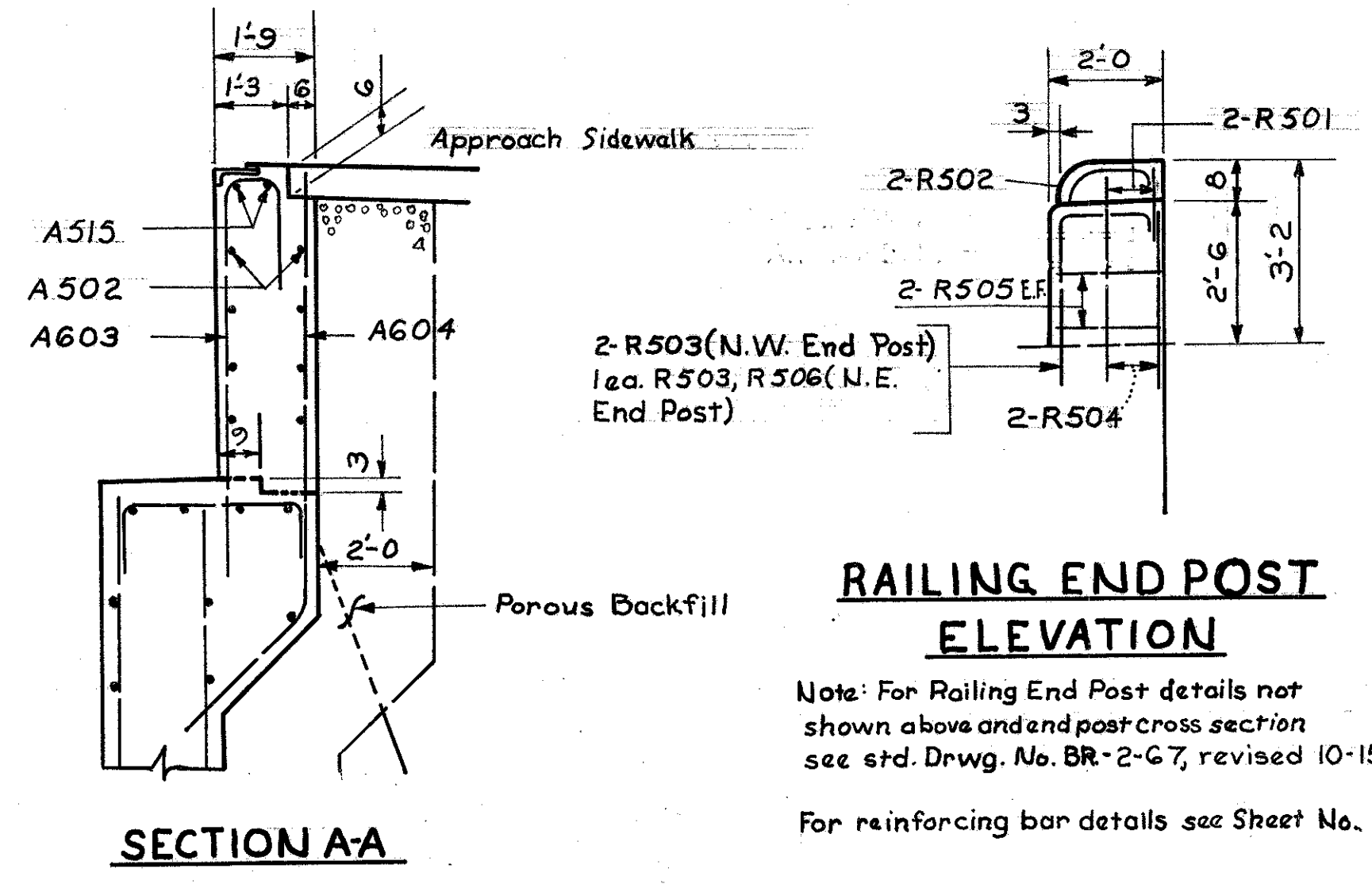
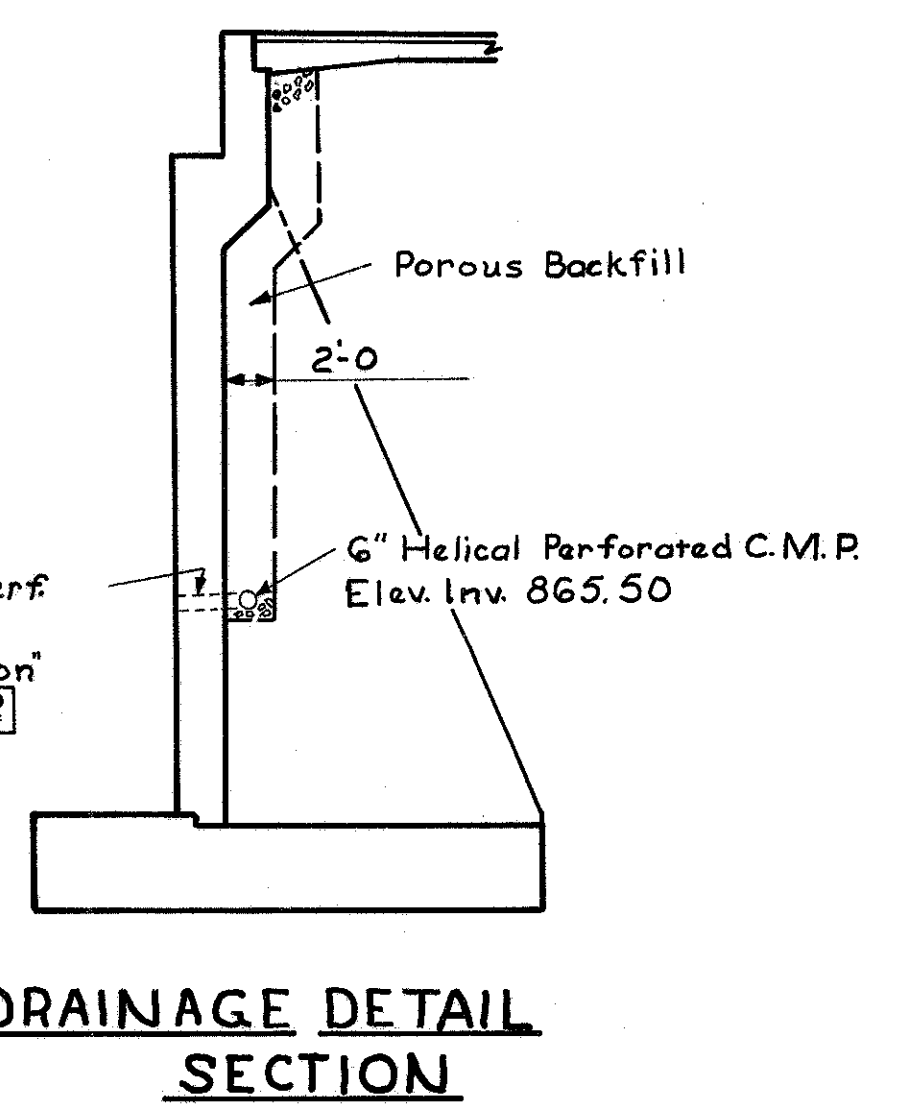
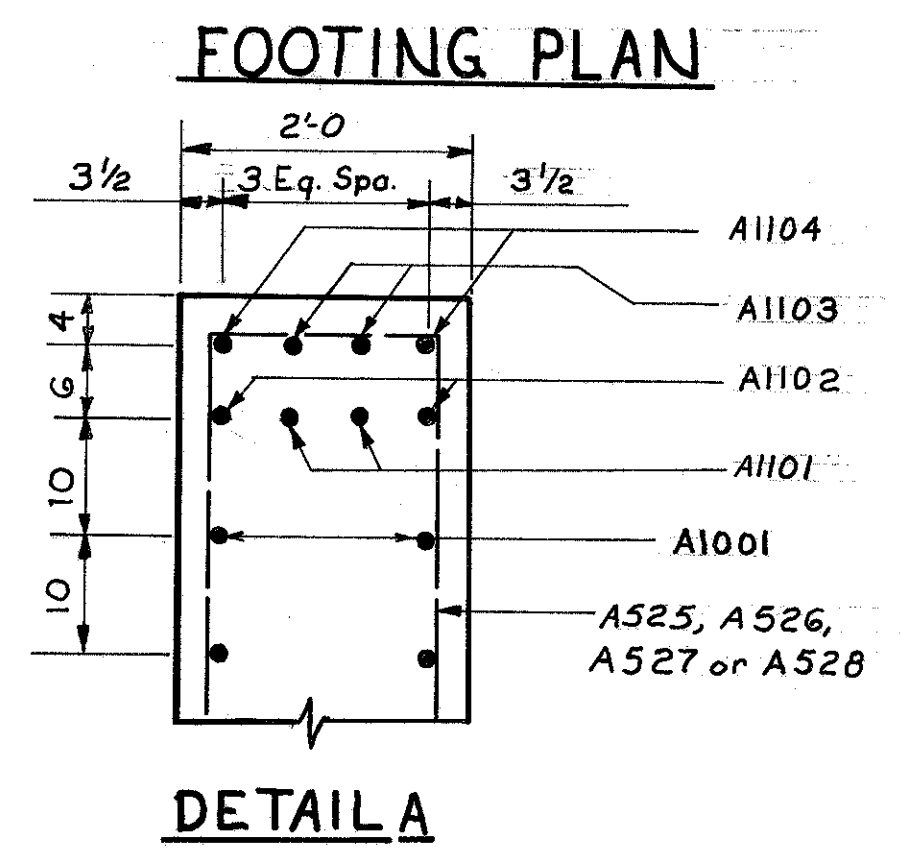
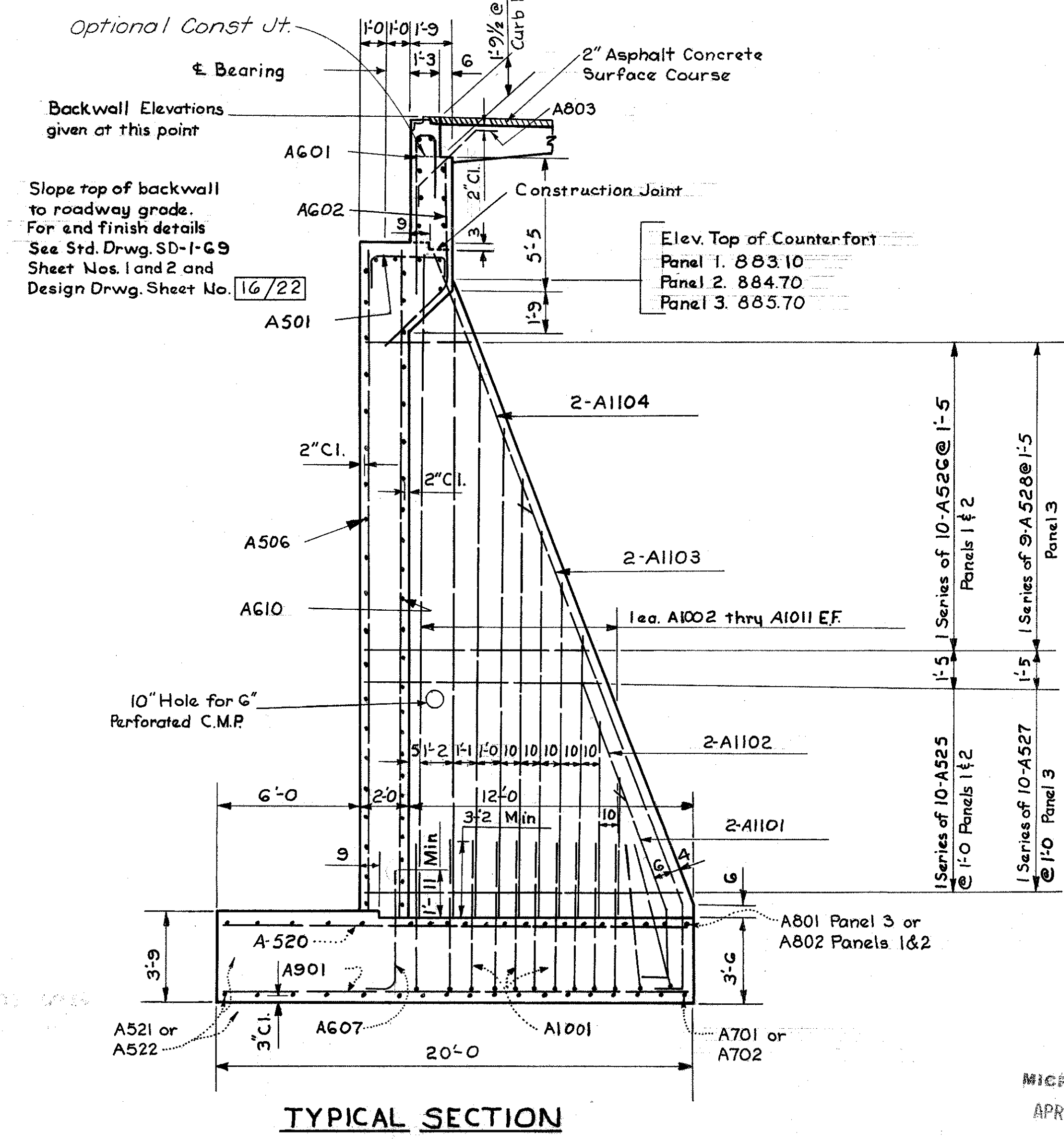
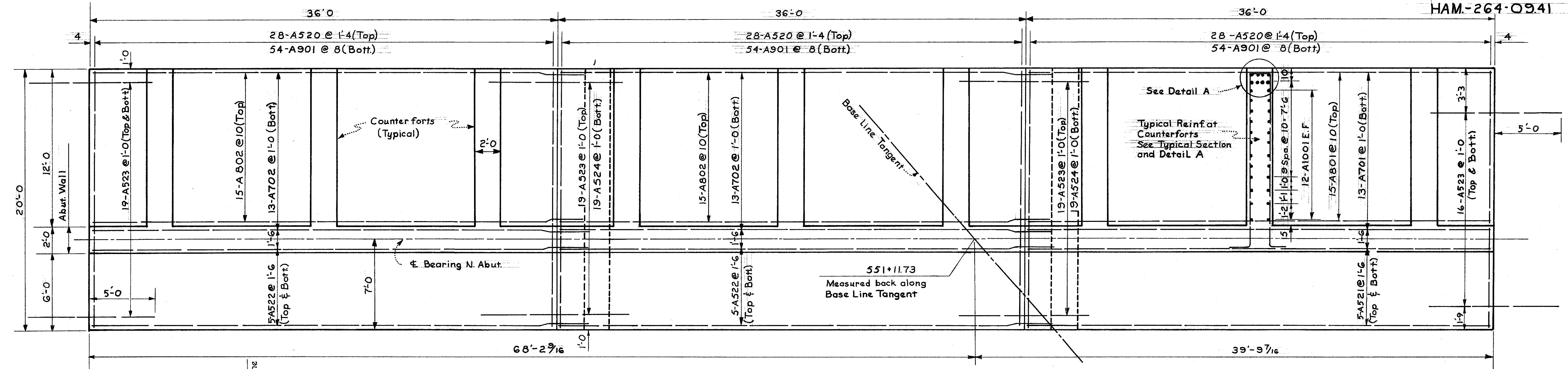
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APR 16 1985

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING						
GRADE DETAILS AND FASCIA OFFSETS BRIDGE NO. HAM-264-1044 GLENWAY AVE. BRIDGE OVER C.&O. RAILWAY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.		P.E.T.	W.W.	8-18-72	

HAM.- 264-0941

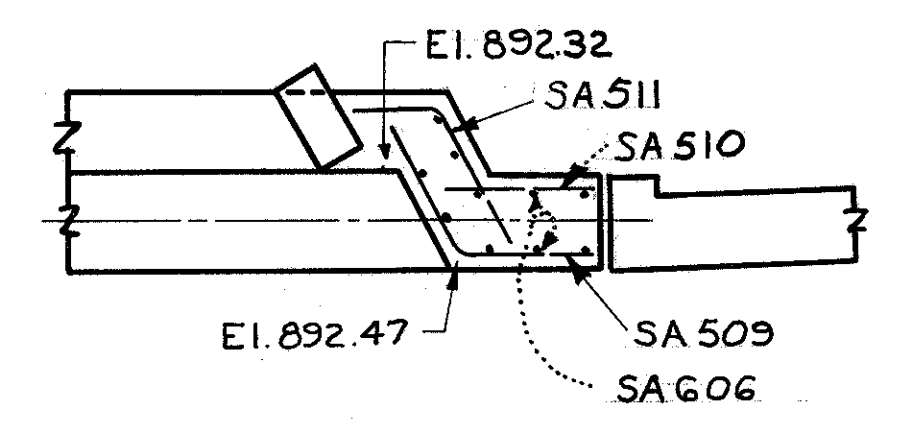


HAMILTON COUNTY
HAM-264-0941



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APR 18 1985

HAMILTON COUNTY
HAM-264-03.41

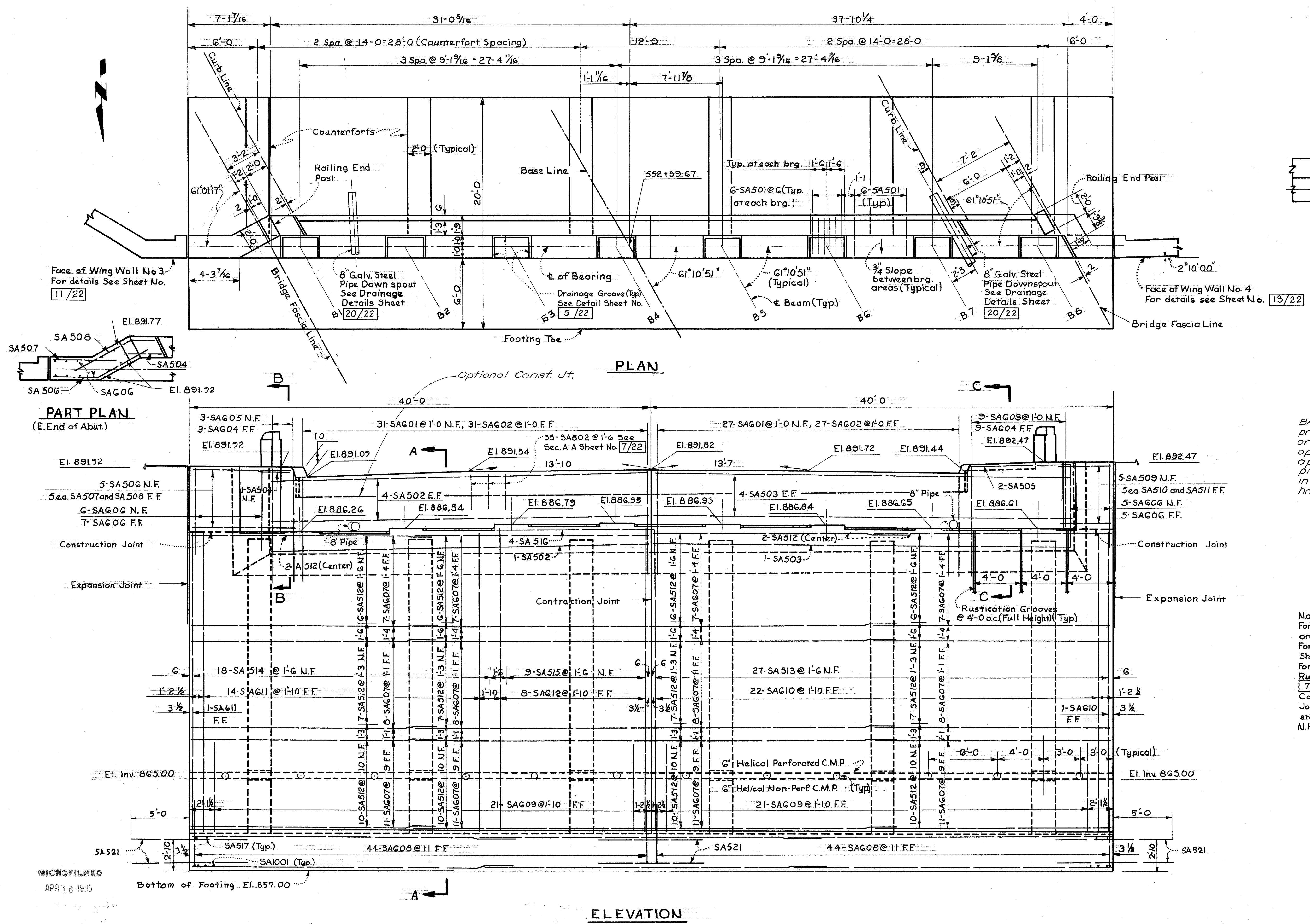


PART PLAN
(W. End of Abut.)

BACKWALL CONCRETE: In addition to the provisions of 511.08, backwall concrete or backwall concrete above the approach slab seat shall not be placed until after the deck concrete in the span adjacent to the abutment has been placed.

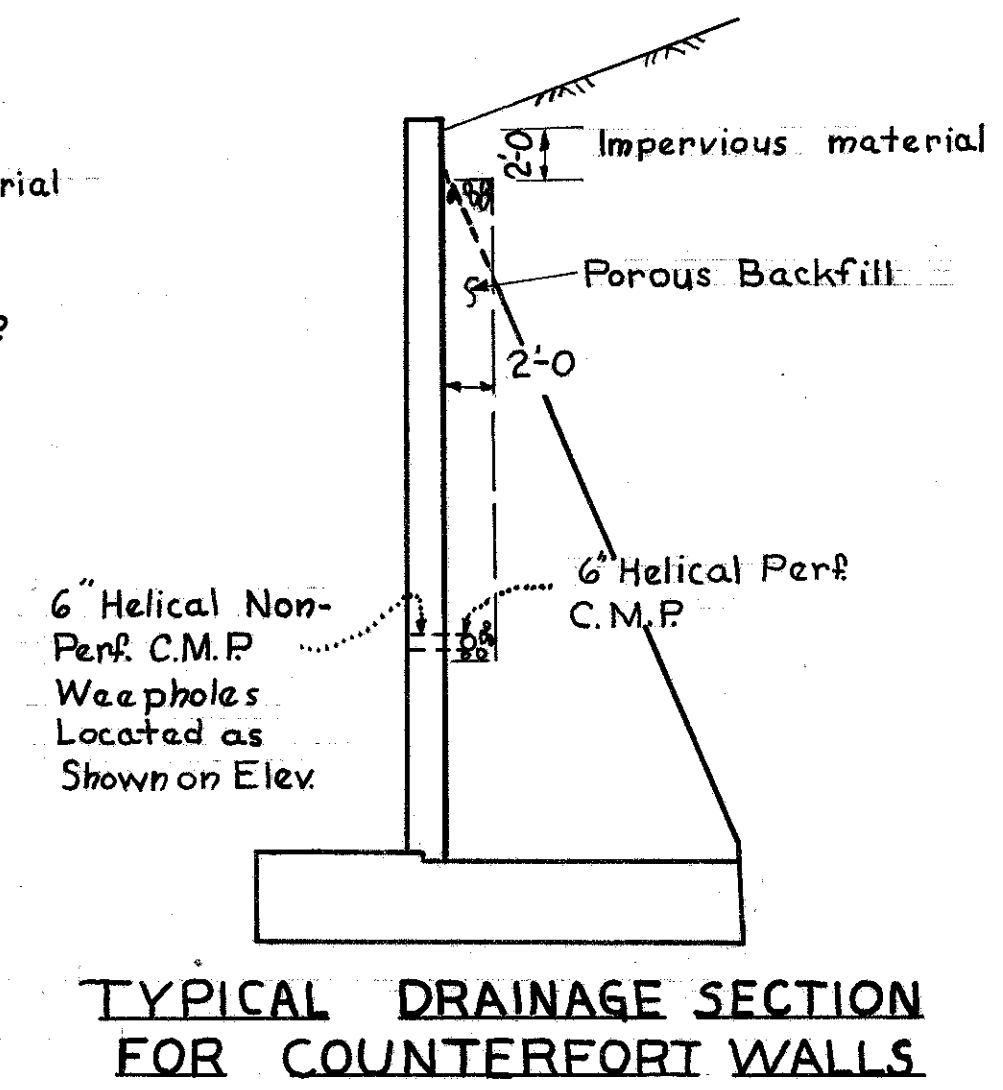
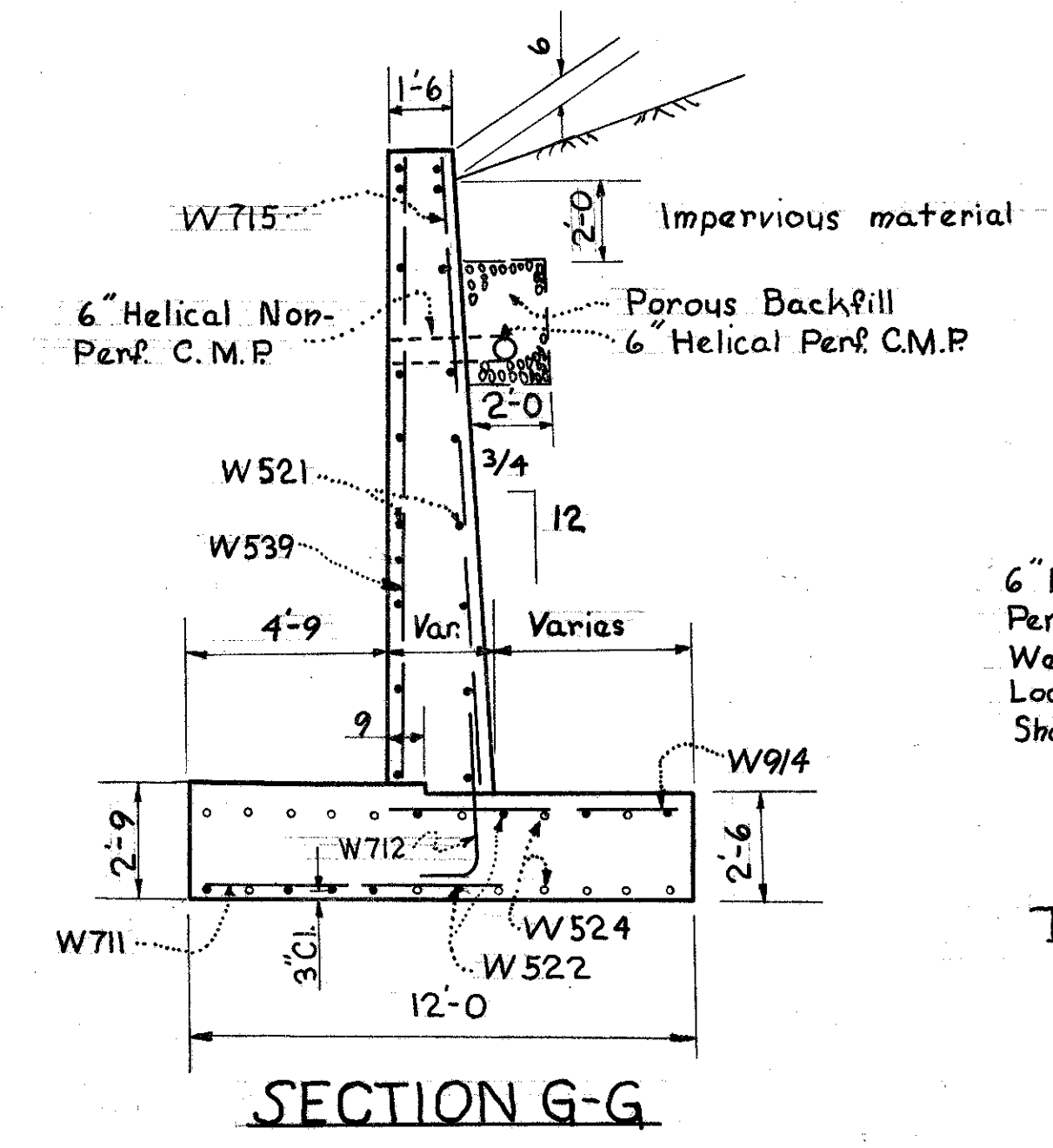
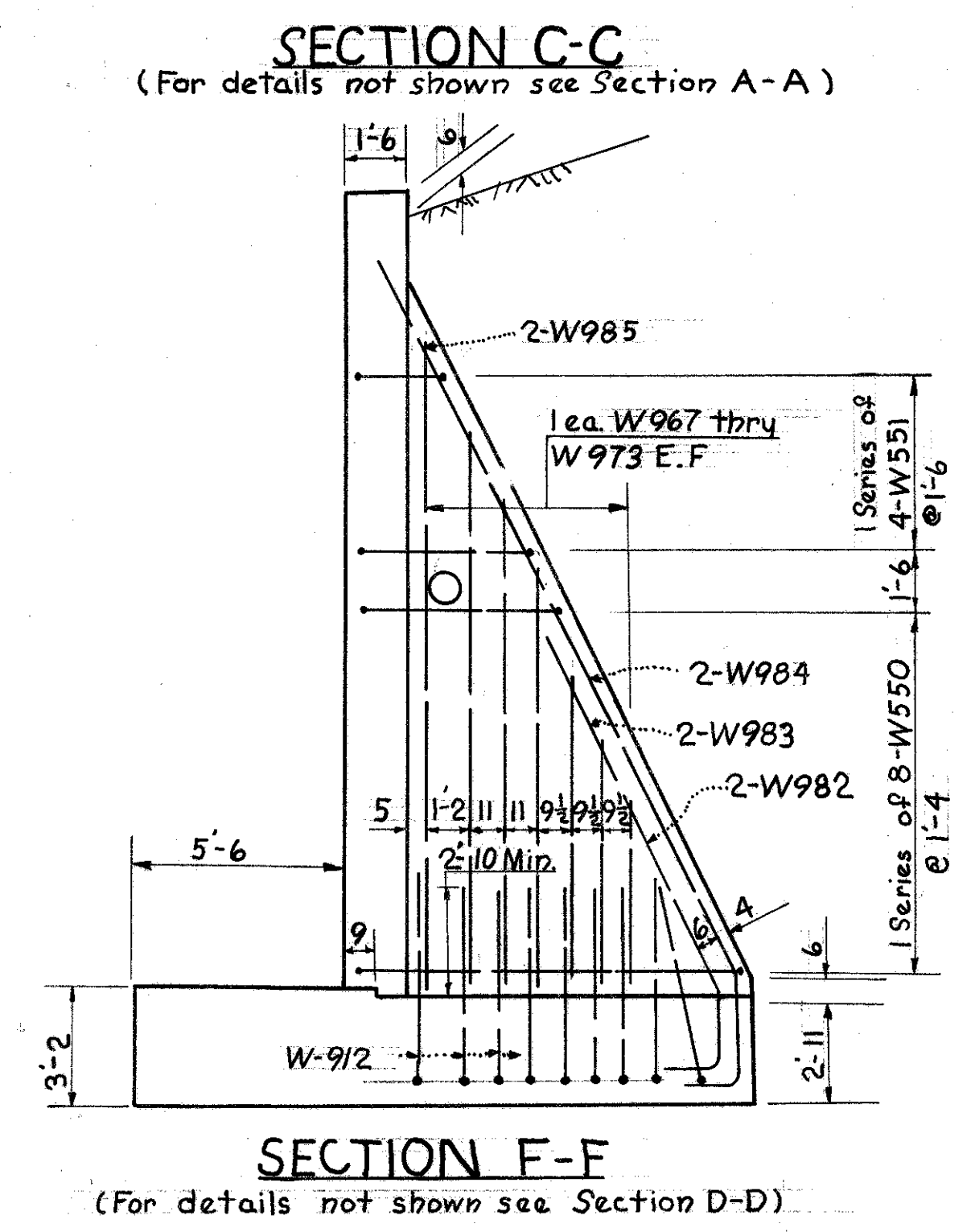
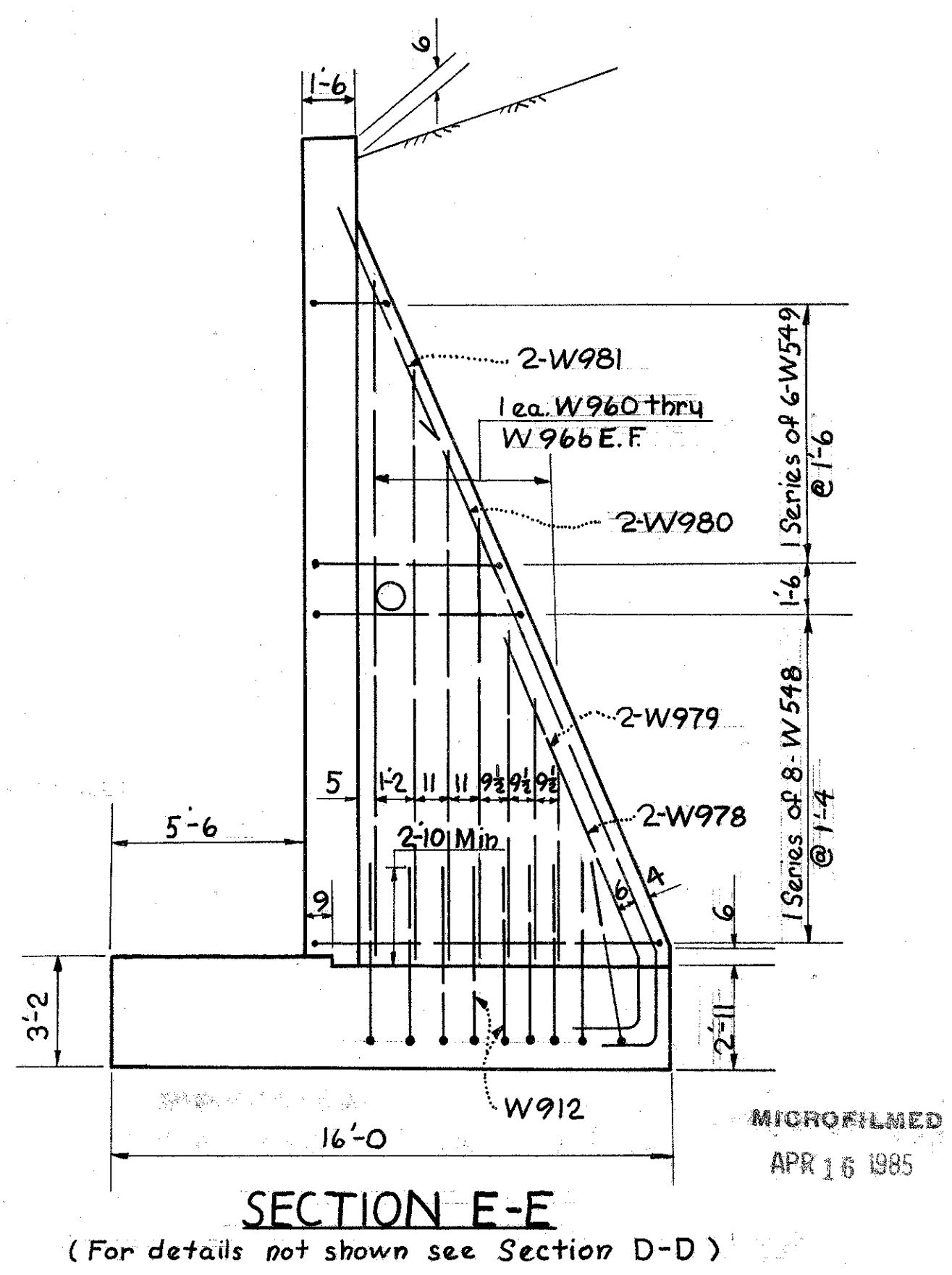
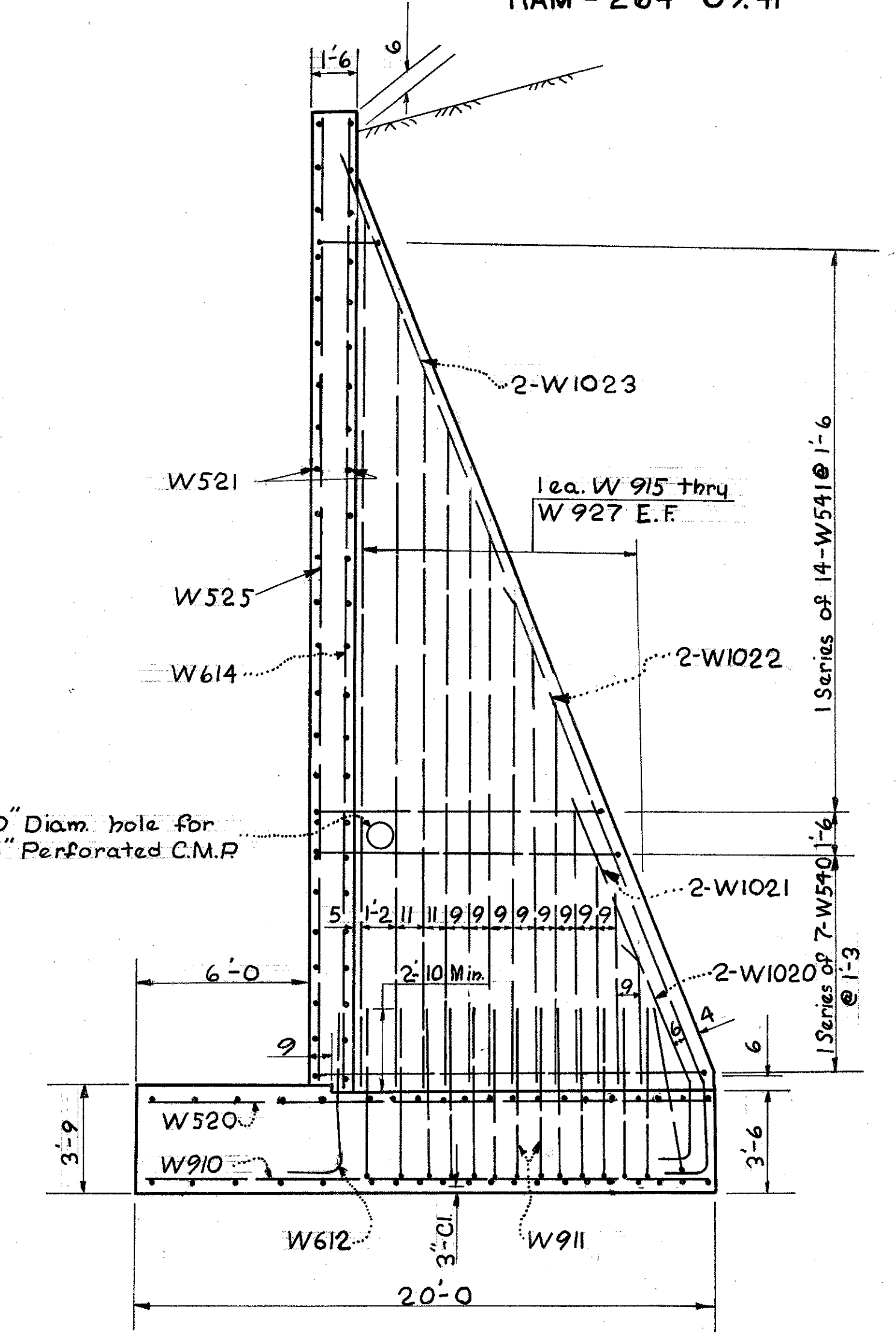
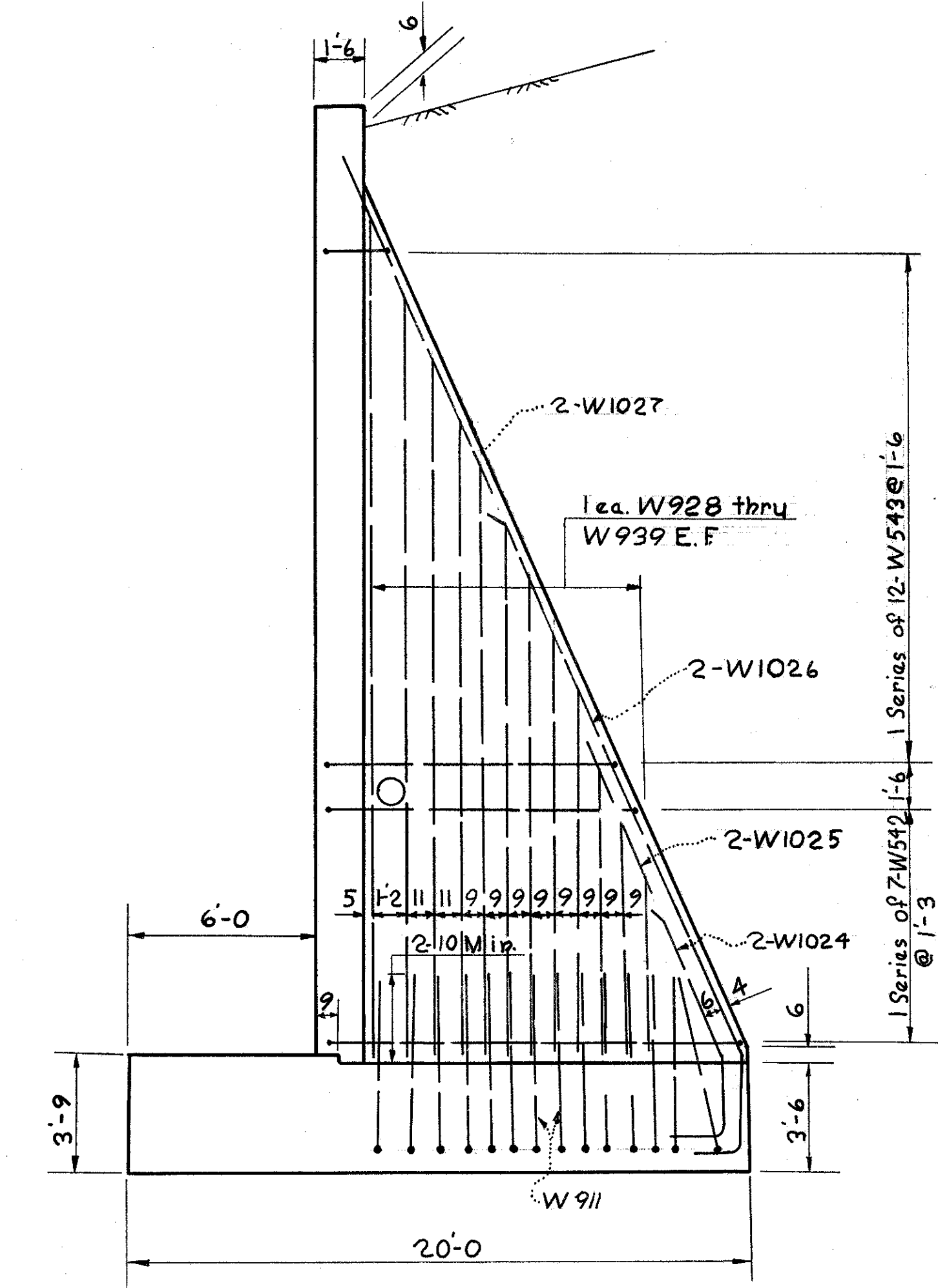
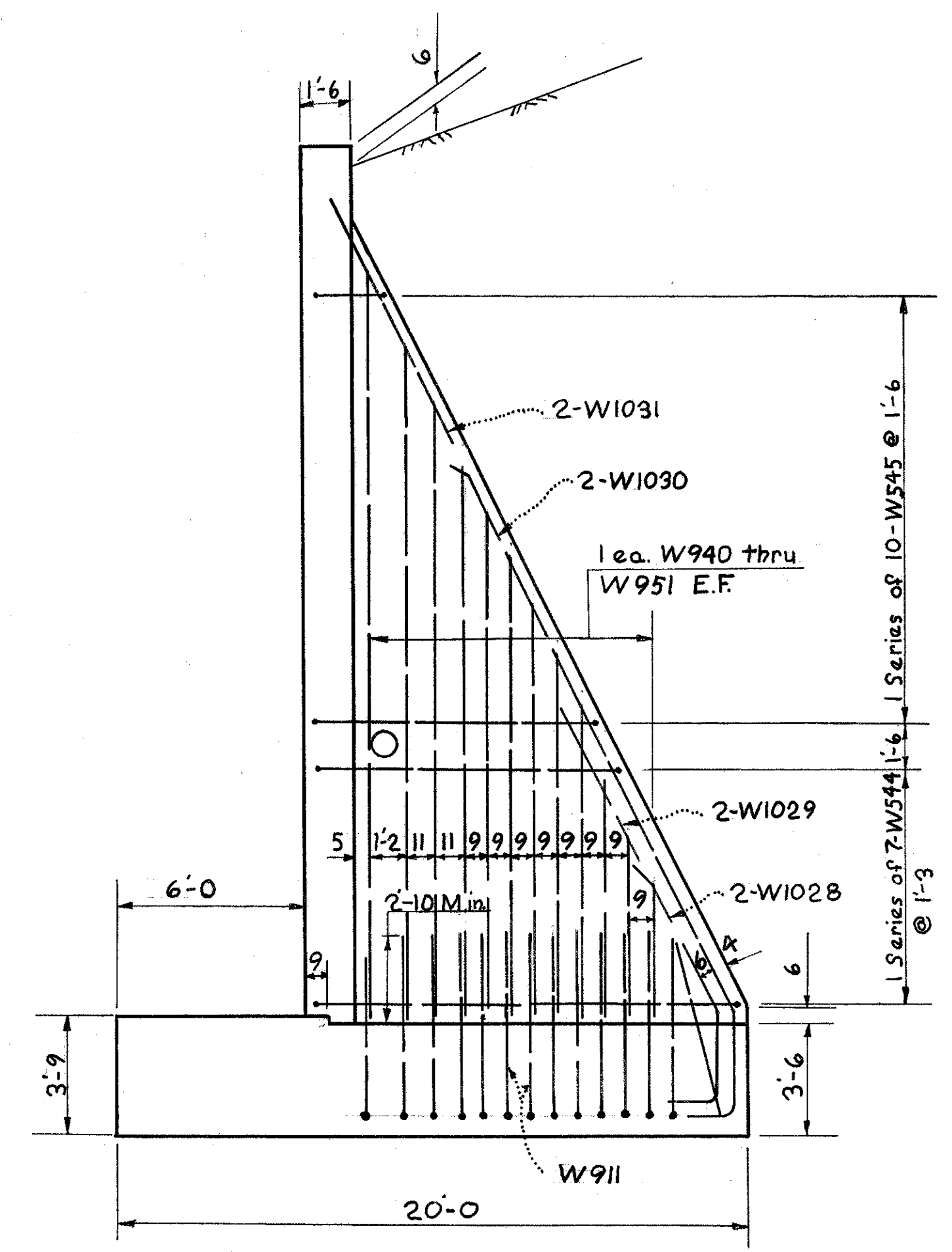
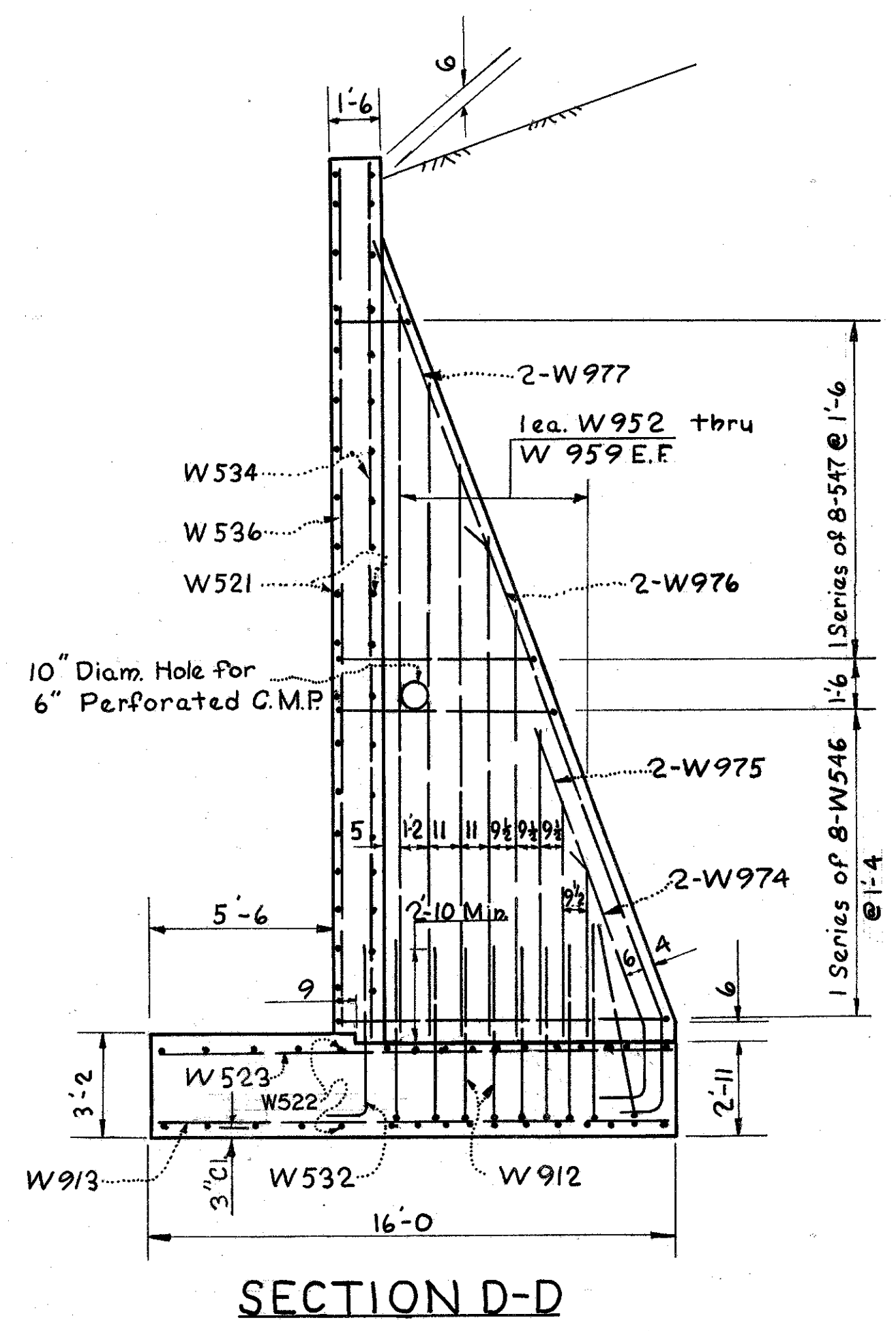
Notes:
For Footing Plan, Sections A-A, B-B and C-C and Railing End Post Detail see Sheet No. 11/22
For End Dam Details see Std. Drwg. SD-1-C9 Sheet Nos. 1 and 2, and Sheet No. 16/22
For Expansion Joint, Contraction Joint and Rustication Groove Details see Sheet No. 7/22
Concrete above bridge seat construction joint shall be placed after structural steel is in place.
N.F. = Near Face, F.F. = Far Face, E.F. = Each Face.

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING						
SOUTH ABUTMENT						
BRIDGE NO. HAM-264-1044						
GLENWAY AVE. BRIDGE						
OVER C & O RAILWAY						
DESIGNED W.W.	DRAWN W.W.	TRACED L.A.L.	CHECKED G.C.H.	REVIEWED W.W.	DATE 8-18-72	REVISD



MICROFILMED
APR 18 1985

HAMILTON COUNTY
HAM-264-09.41



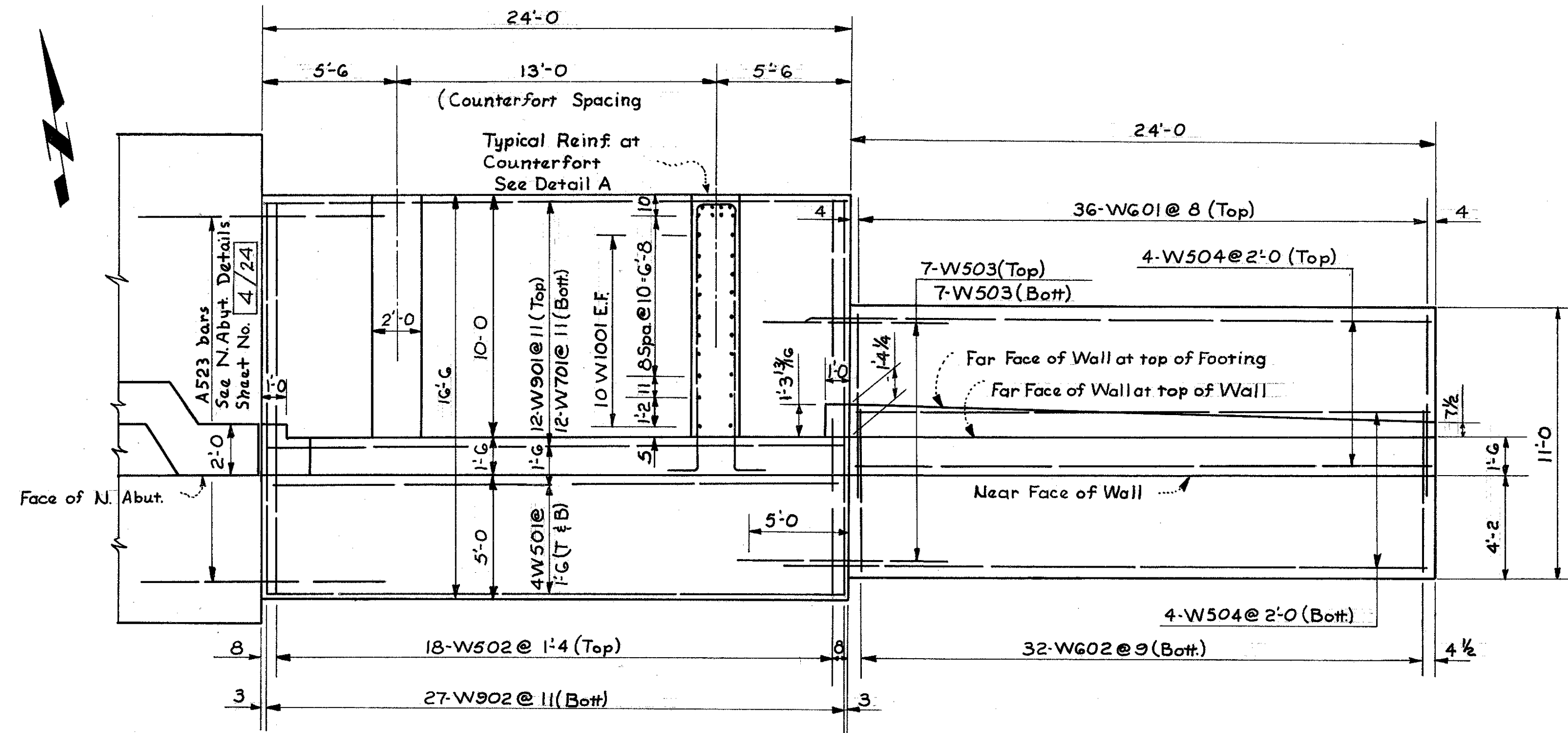
9/22

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

WINGWALL NO. 1
BRIDGE NO HAM-264-1044
GLENWAY AVE. BRIDGE
OVER C & O RAILWAY

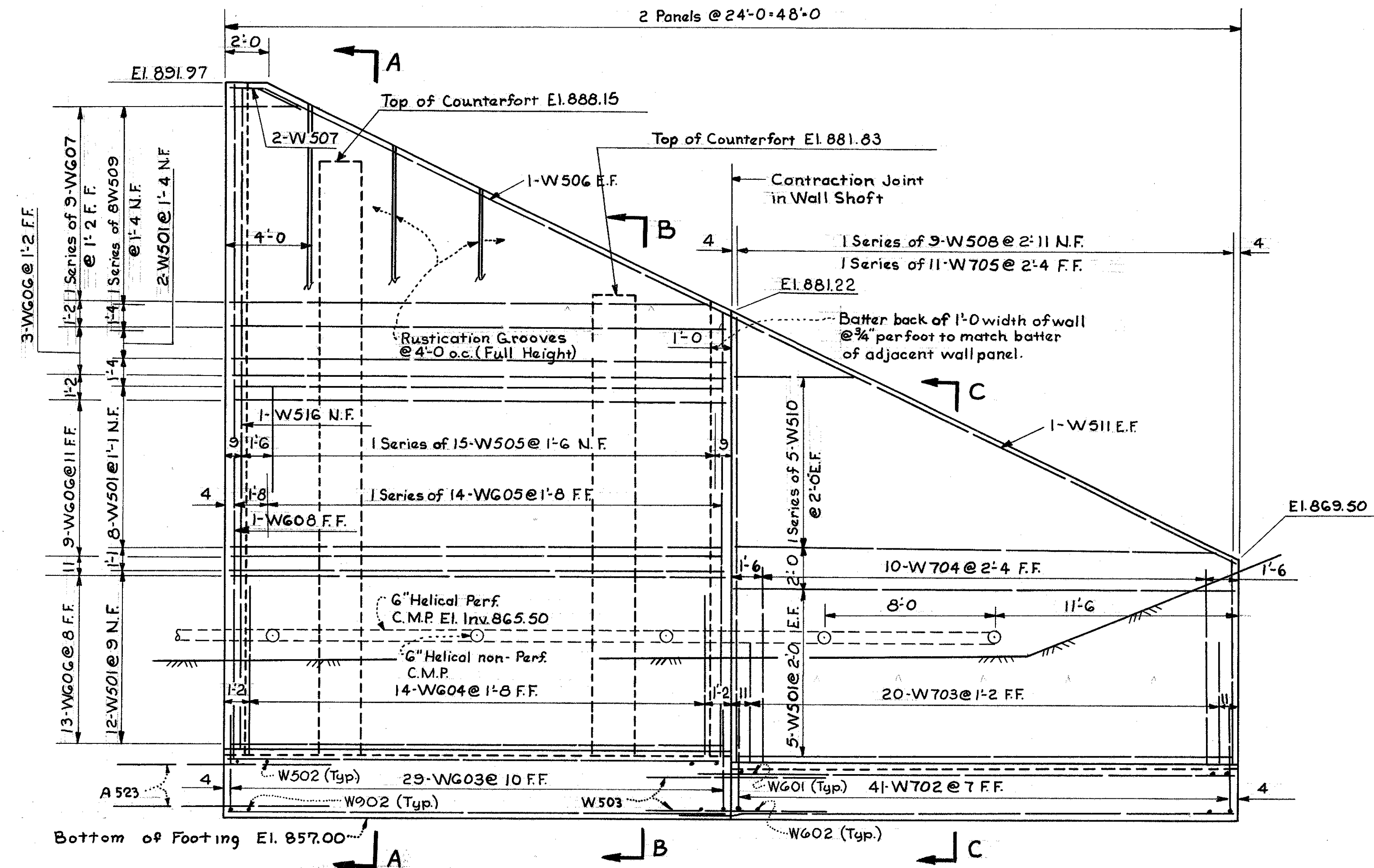
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.	L.A.L.	G.C.H.	W.W.	8-18-72	

HAMILTON COUNTY
HAM-264-09.41



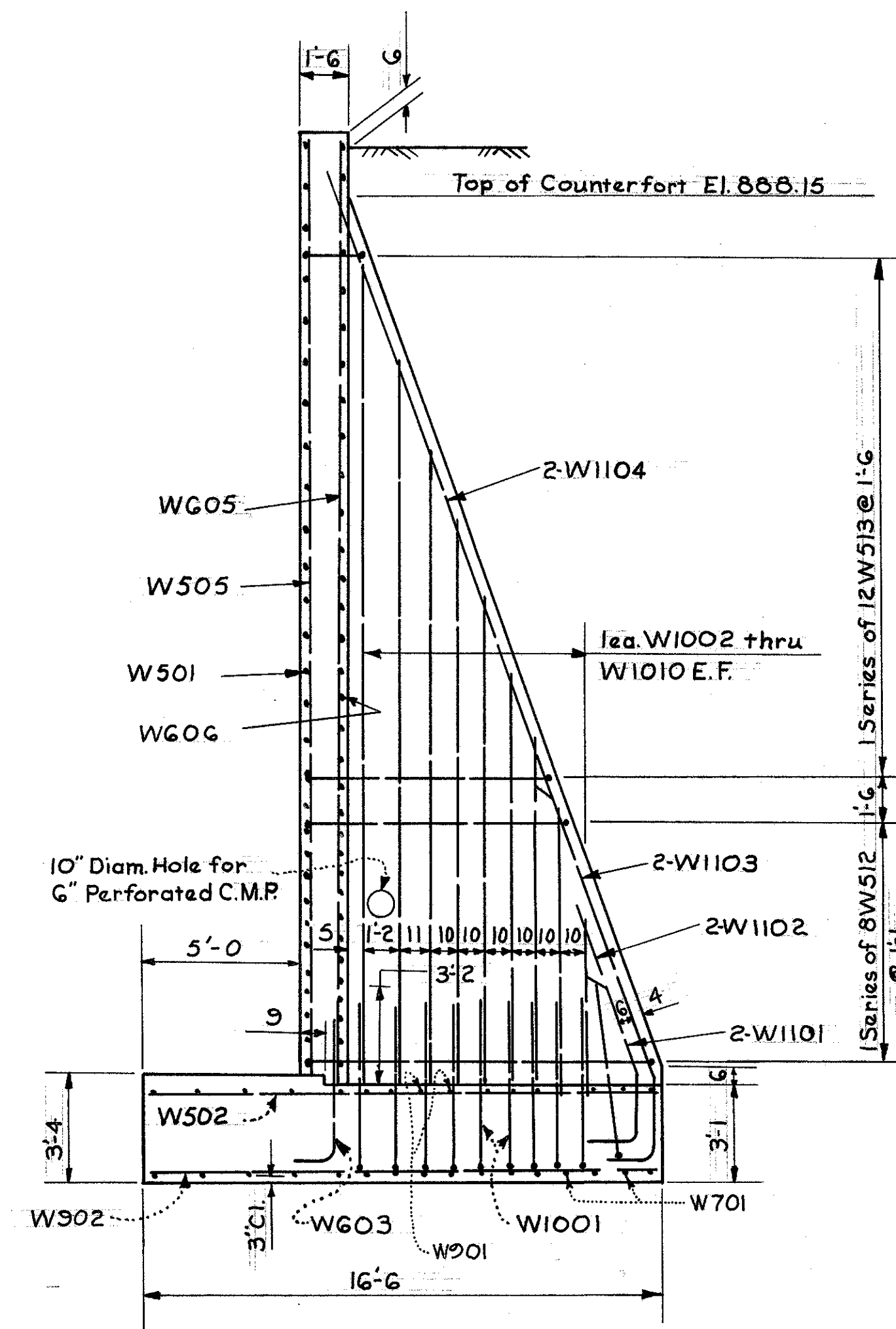
PLAN
(Showing footing reinf.)

2 Panels @ 24'-0" = 48'-0"

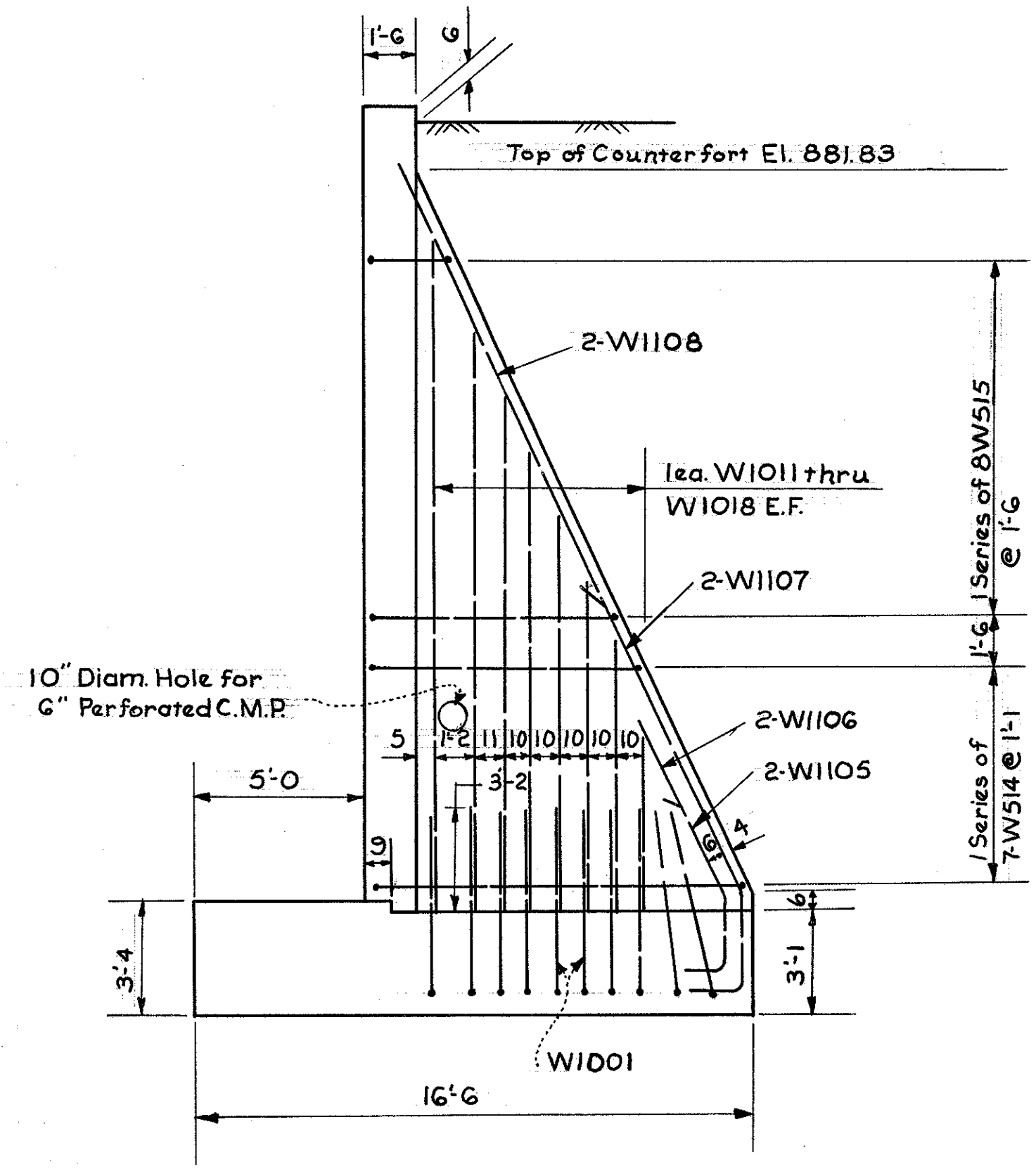


ELEVATION

APR 16 1985

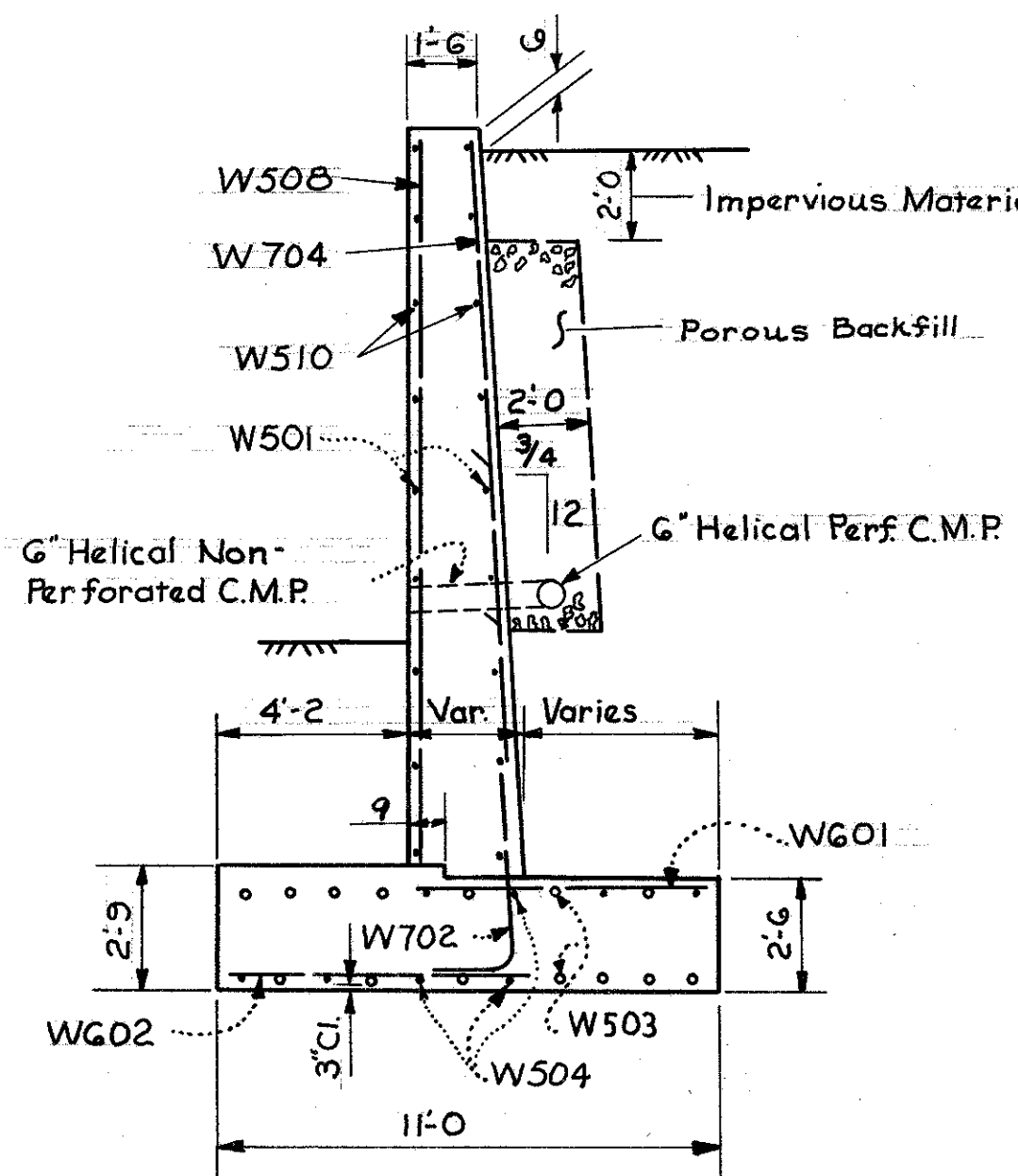


SECTION A-A

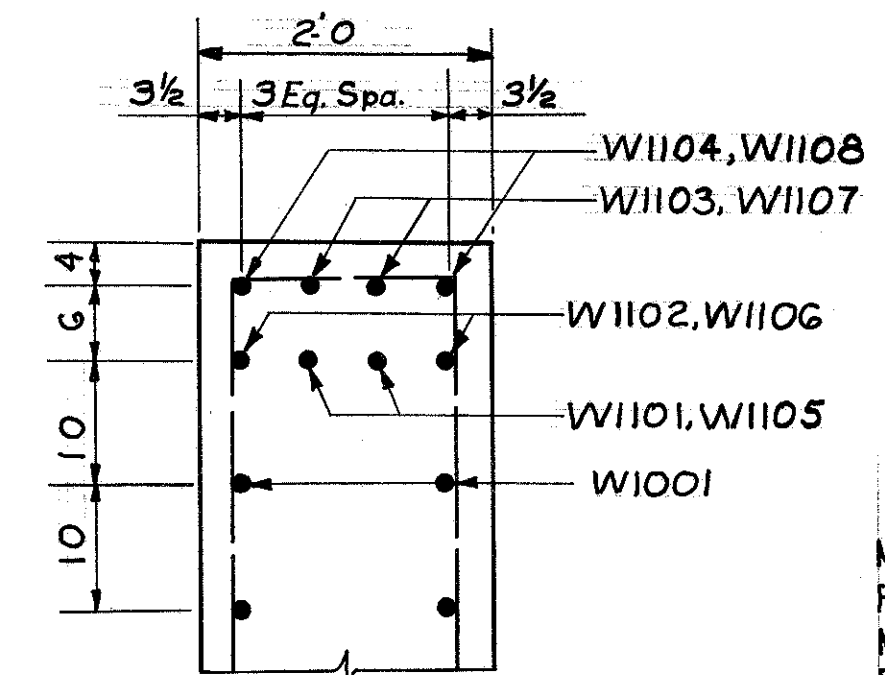


SECTION B-B

(For details not shown see Section A-A)



SECTION C-C



DETAIL A

Notes:

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

W 503 bars in footing are centered under contraction joint in stem.

For details of Expansion Joint, Contraction Joint and Rustication Grooves see Sheet No. 7 / 22

See Typical Drainage for Counterfort Walls,
Sheet No. 9/22

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

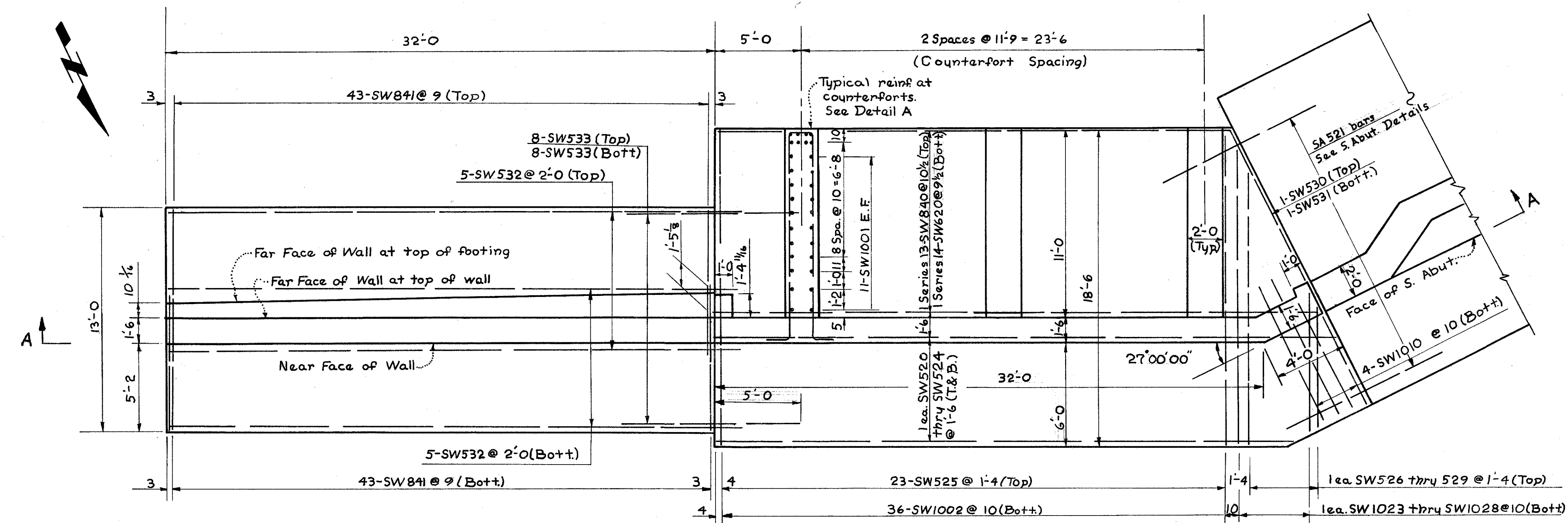
WING WALL NO.2

BRIDGE NO. HAM-264-1044

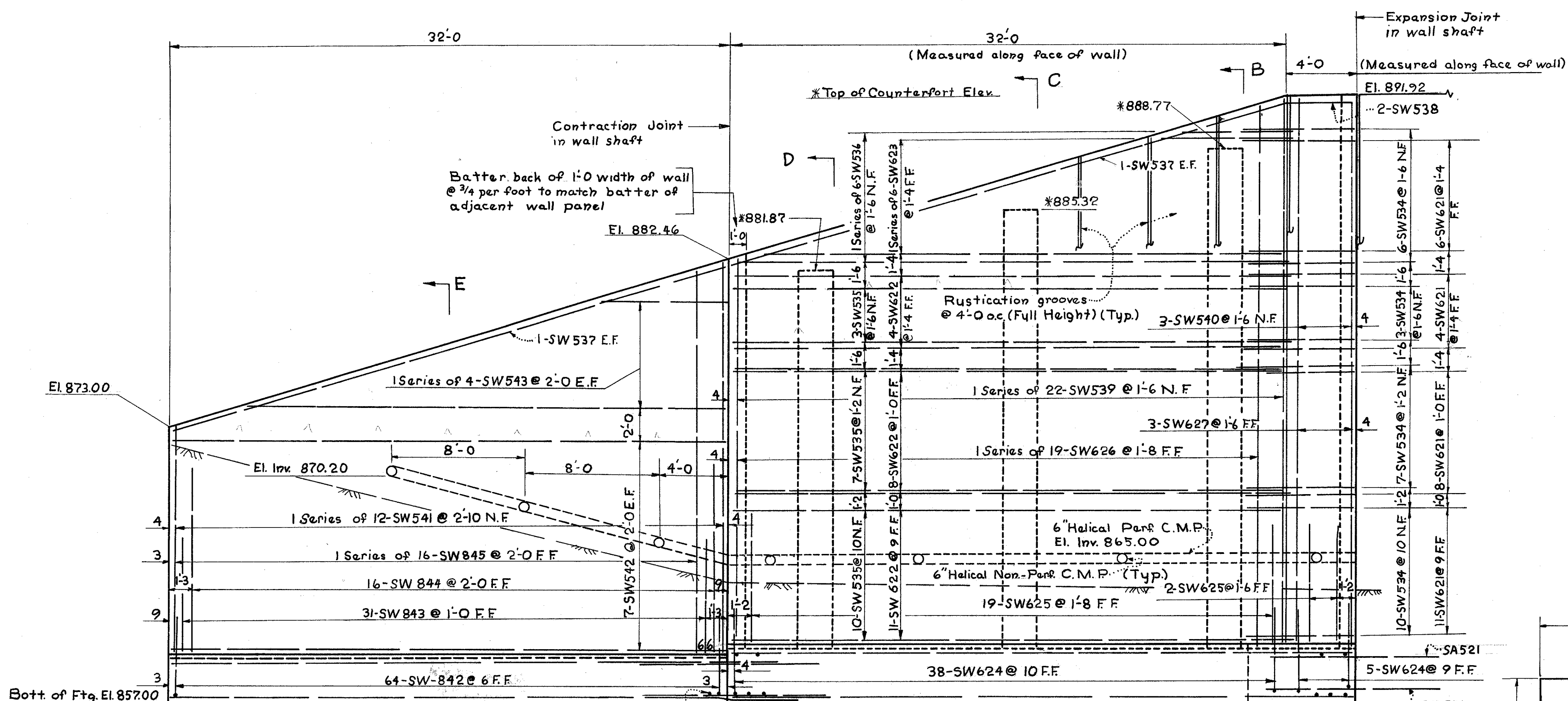
GLENWAY AVE. BRIDGE
OVER C. & O. RAILWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.	L.A.L.	G.C.H.	W.W.	8-18-72	

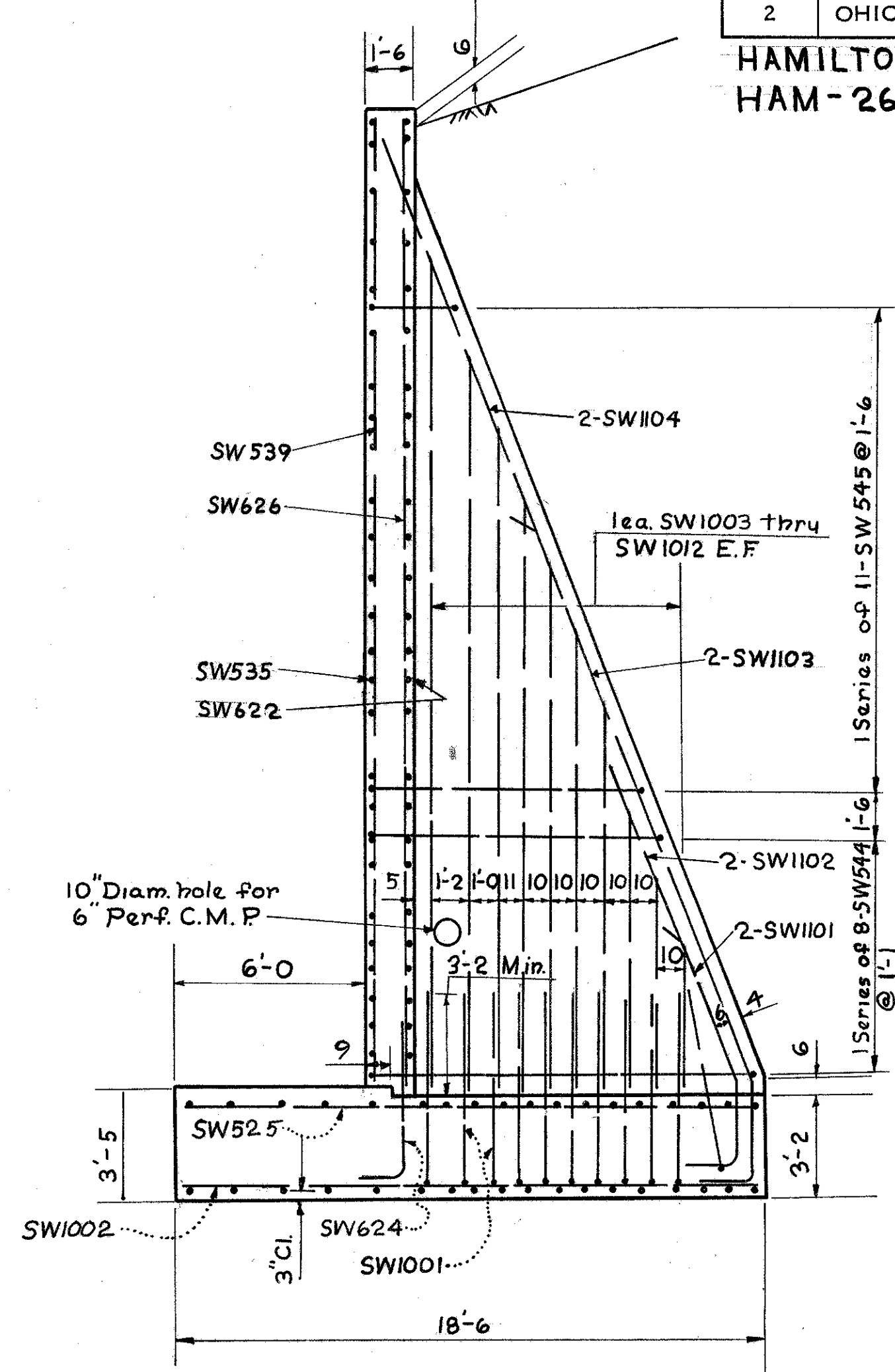
HAMILTON COUNTY
HAM-264-09.41



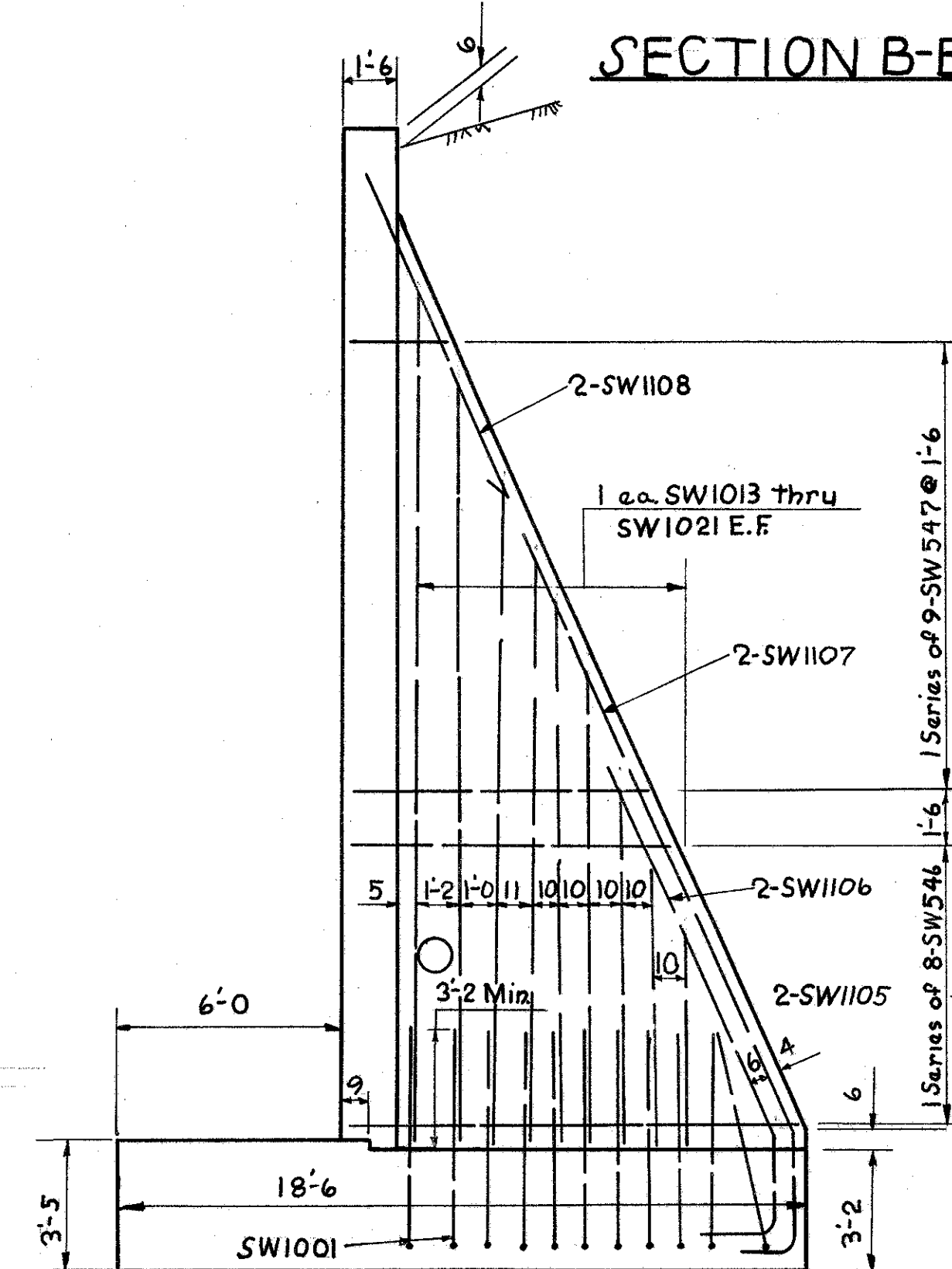
PLAN
(Showing footing reinf.)



ELEVATION A-A



SECTION B-B



SECTION C-C

(For details not shown see Section B-B)

Notes
For Sections D-D and E-E and detail A see
Sheet No. 12/22

For details of Expansion Joint, Contraction Joint, and Rustication Grooves see Sheet No. 7/22.

For drainage details behind counterfort walls see Typical Drainage Section For Counterfort Walls Sheet No. 9/22

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

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

11

WING WALL NO. 3

BRIDGE NO. HAM-264-1044

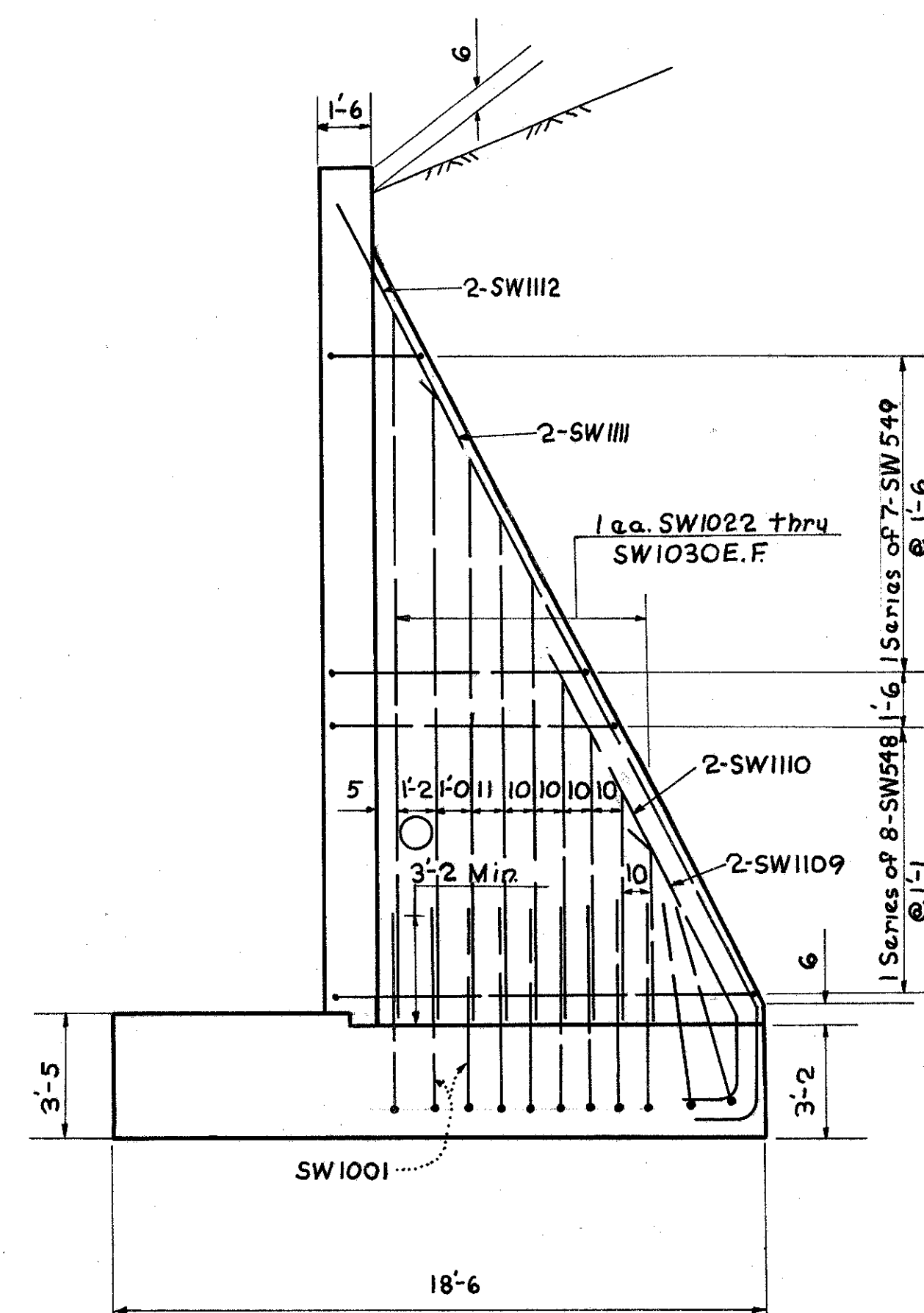
GLENWAY AVE BRIDGE
OVER C & O RAILWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W. W.	W. W.	L. A. L.	G. C. H.	W. W.	8-24-72	

FED. RD. DIVISION	STATE	PROJECT	FISCAL YEAR
2	OHIO		

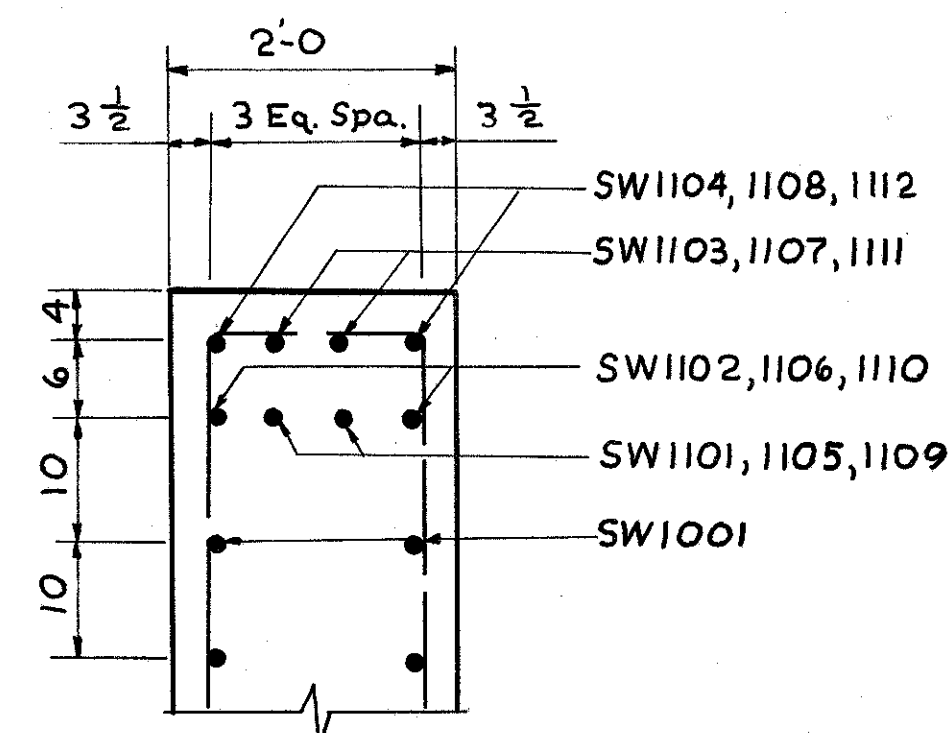
91
273

HAMILTON COUNTY
HAM-264-09.41

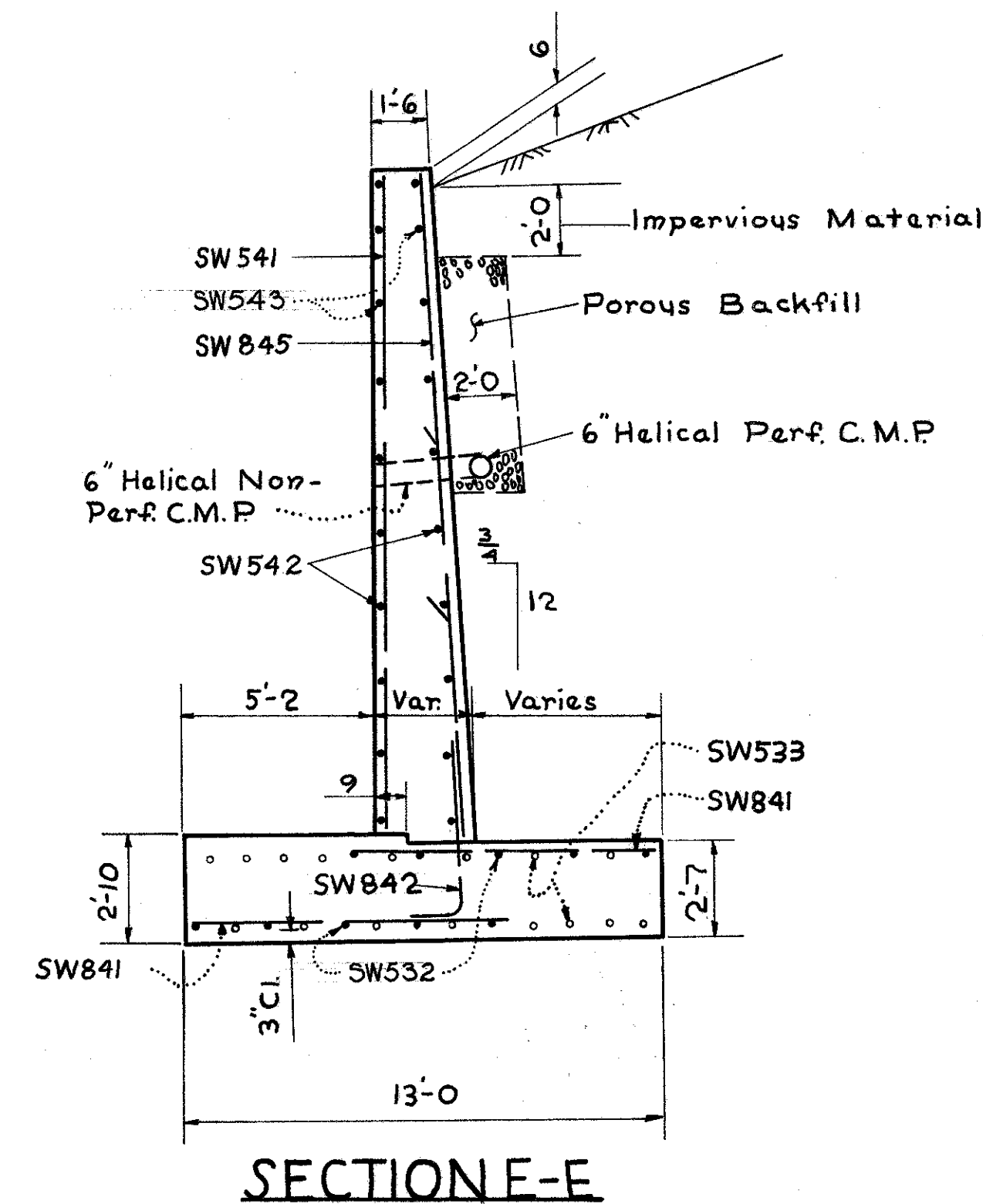


SECTION D-D

(For details not shown see Section B-B Sheet No. 11/22)



DETAIL A

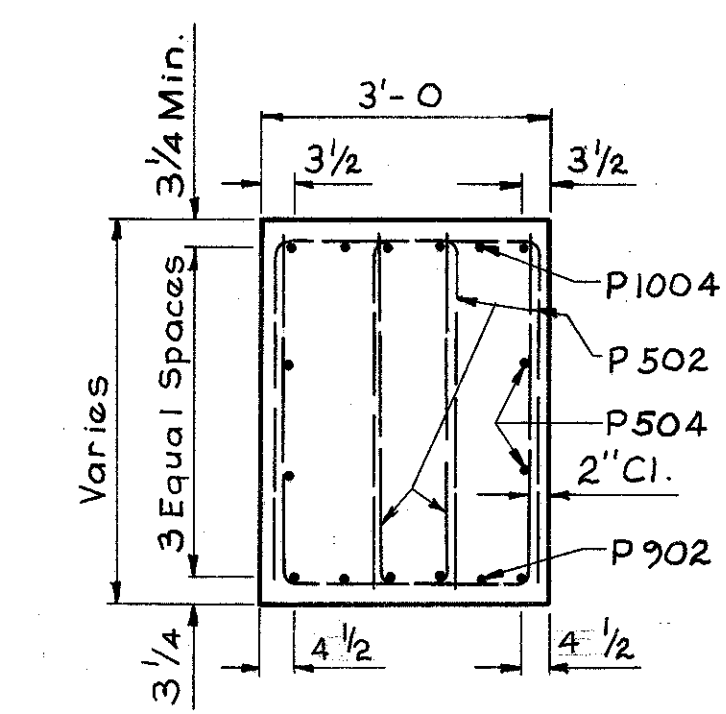


SECTION E-E

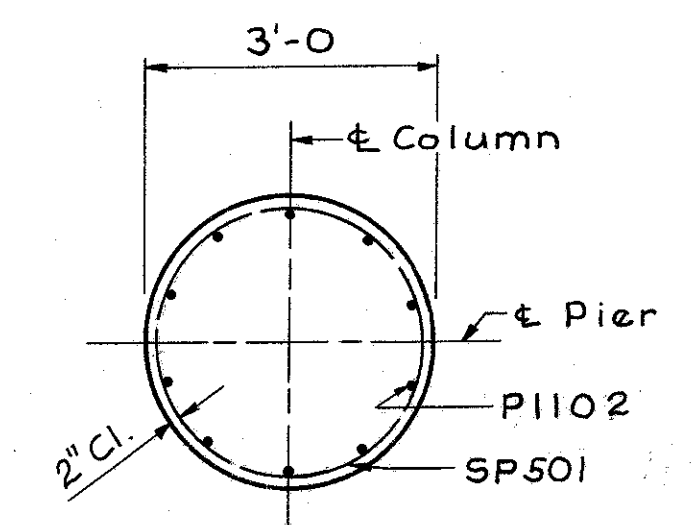
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APR 18 1985

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING						
WING WALL NO. 3 BRIDGE NO. HAM-264-1044 GLENWAY AVE BRIDGE OVER C & O RAILWAY						
DESIGNED W.W.	DRAWN W.W.	TRACED L.A.L.	CHECKED G.C.H.	REVIEWED W.W.	DATE 8-24-72	REVISED

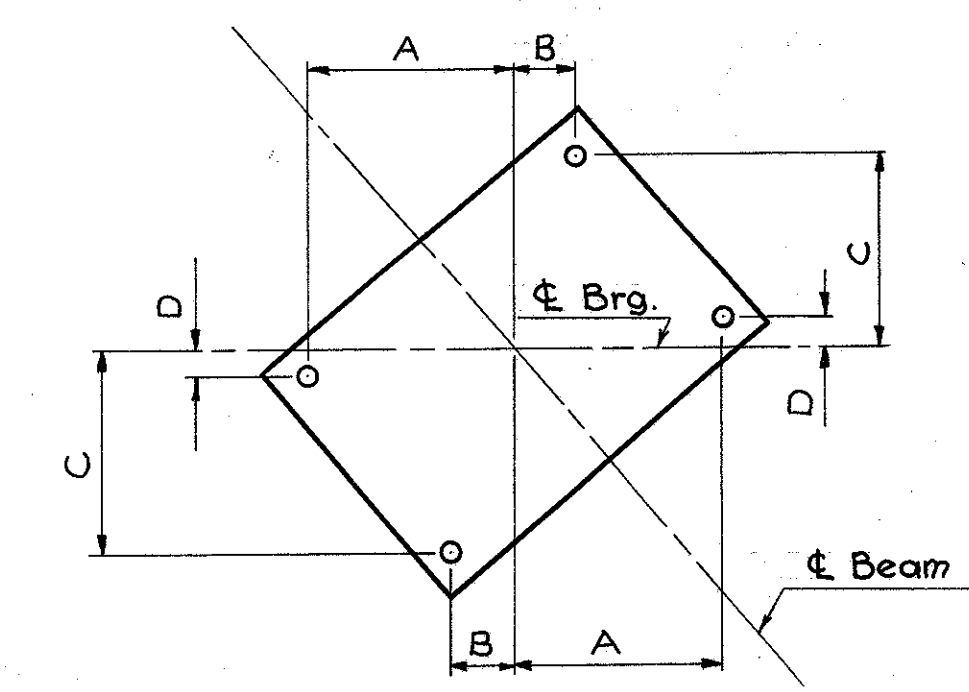
HAMILTON COUNTY
HAM-264-09.41



SECTION A-A



SECTION B-B



Beam	Bolster	Dimension			
		A	B	C	D
B1 thru B8	B225	1'-0 3/16	3 3/4	11 3/4	1' 5/16
B9	B100	7 7/16	2 7/8	7 7/16	3 7/16

ANCHOR BOLT LAYOUT

TYPICAL SECTION

Notes:
Special care shall be taken in placing reinforcing steel in pier cap so as to avoid interference with the drilling of anchor bolt holes.
E. F. denotes Each Face.

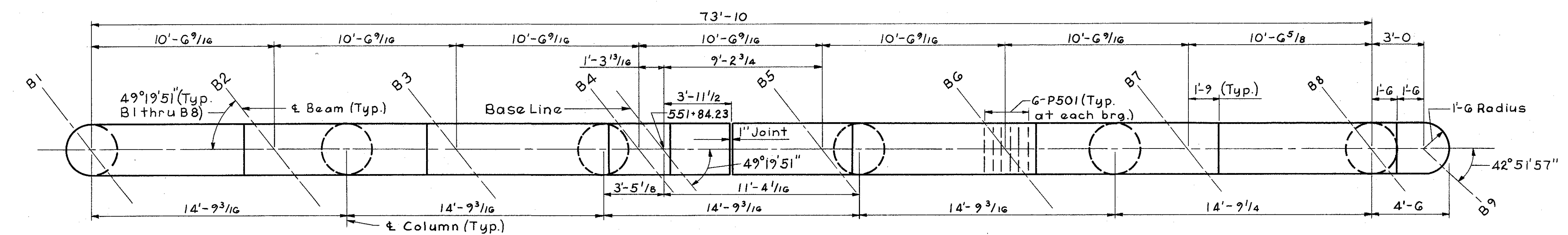
14/22

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

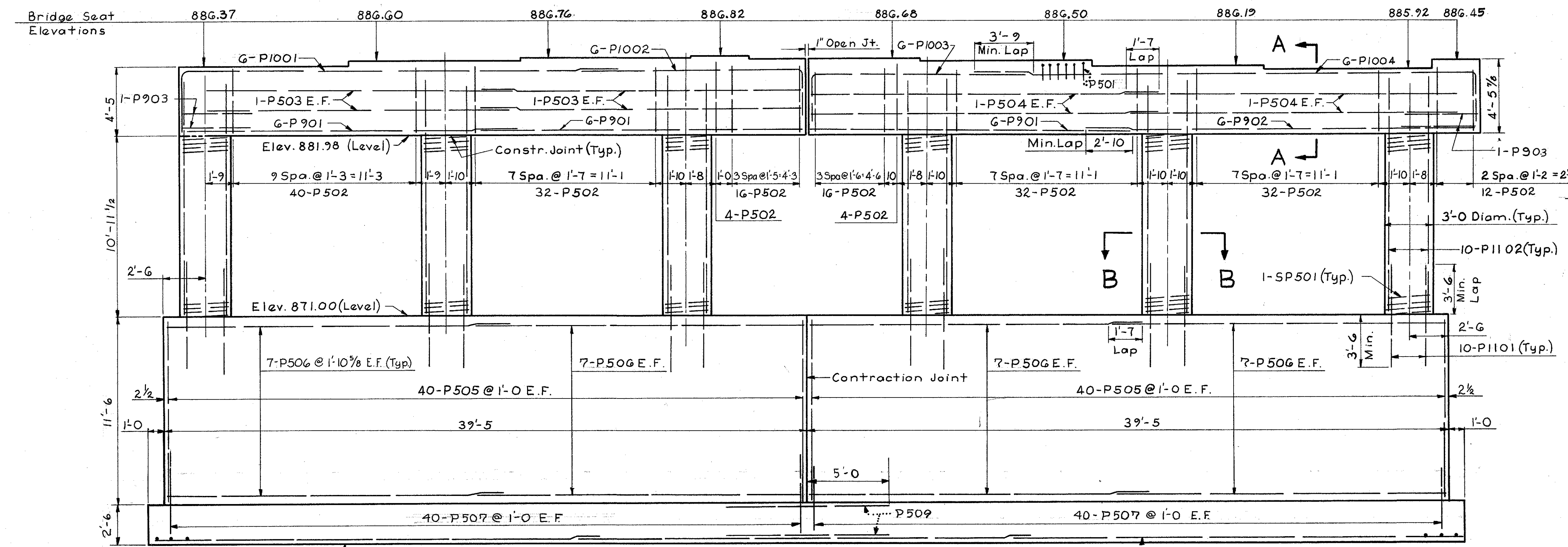
PIER DETAILS

BRIDGE NO. HAM-264-1044
GLENWAY AVE. BRIDGE
OVER C.&O. RAILWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W. W.	W. W.	P. R. M.	I. J. L. G. C. H.	W. W.	8-24-72	

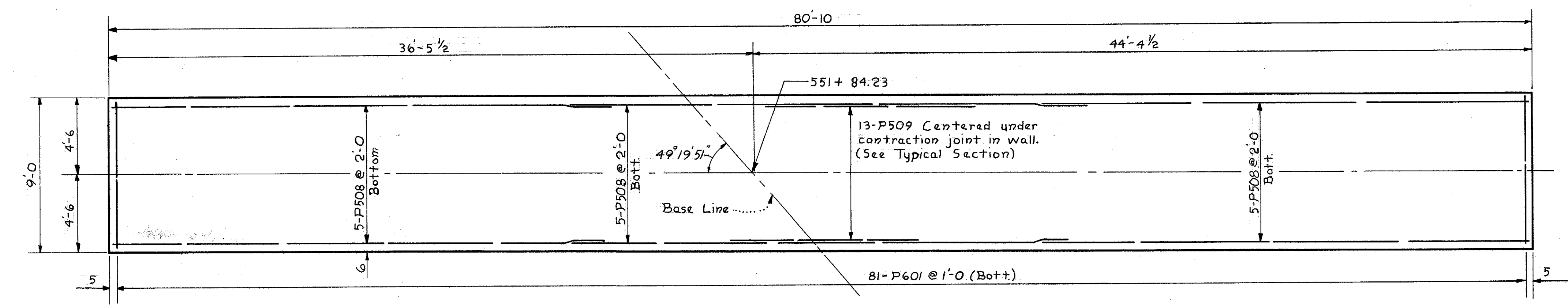


CAP PLAN



ELEVATION

Bottom of footing Elev 857.00



FOOTING PLAN

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APR 16 1985

Notes:

For Rocker and Bolster Details see Std. Drwg. RB-1-55, Revised 2-2-59.

For Beam Splice Details see Std. Drwg. SD-1-69, Sheet No. 4, and the data below.

For Roadway and Sidewalk End Dam Details see Std. Drwg. SD-1-69, Sheets Nos. 1 and 2, and Sheet No. 16/22.
For welding of moment plates to WF see Std. Drwg. SD-1-69 Sheet No. 3.

For Inlet Details see Sheet No. 20/22

For location of inlets see Sheet No. 17&18/22

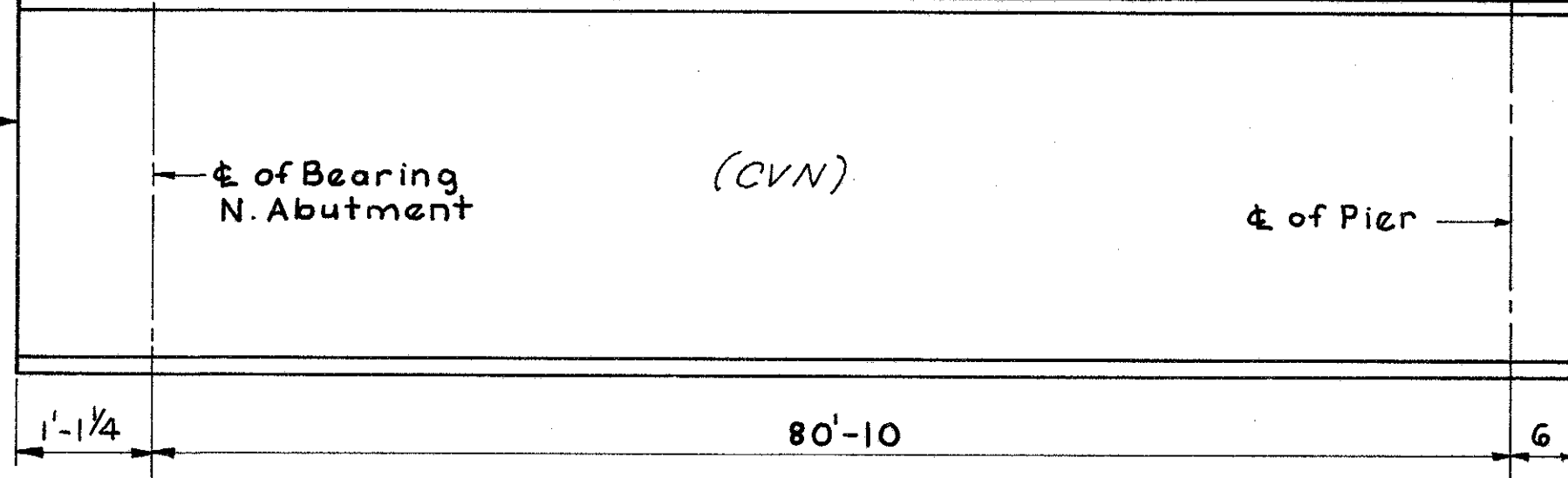
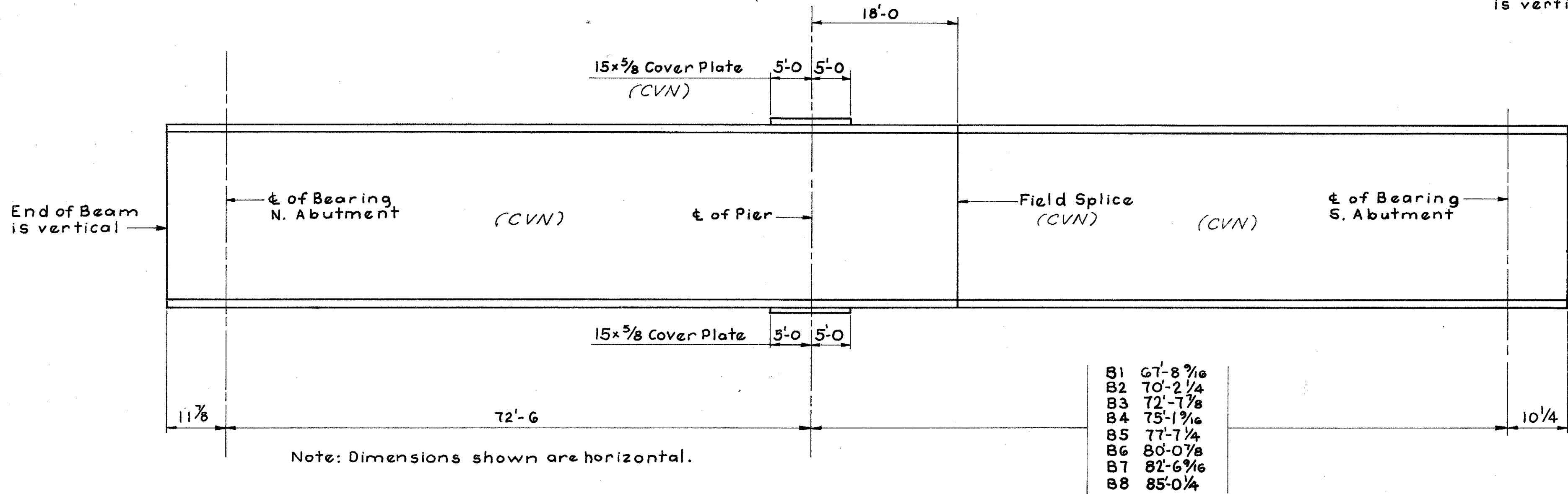
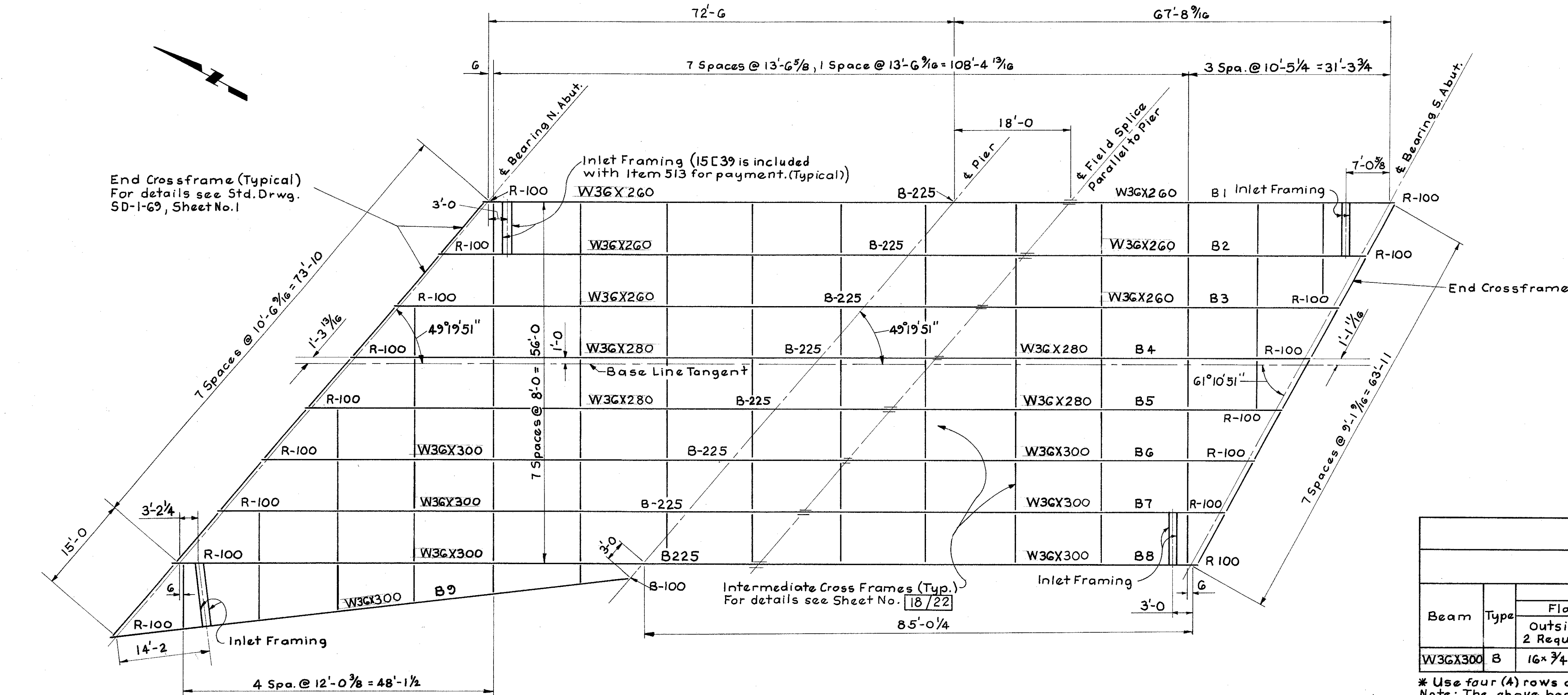
Work this sheet with Sheet No. 16/22

BEAM SPLICE DATA
DETAILS

Beam	Type	Flange Splice									Web Splice		
		Flange Plates		Flange Bolts						Type	Web Plates	Web Bolts	
		Outside 2 Required	Inside 4 Required	No.	No.	Dimensions(inches)	Spa.	Pitch	A				B
W36X300	B	16×¾×6'-3	6½×¾×6'-3	80	9	3¾	2½	3	6½	B*	25½×½×2'-7	70	

* Use four (4) rows of bolts on each side of splice.
Note: The above beam splice data is supplemental to that shown on Std. Drwg. SD-1-69 Sheet No. 4.

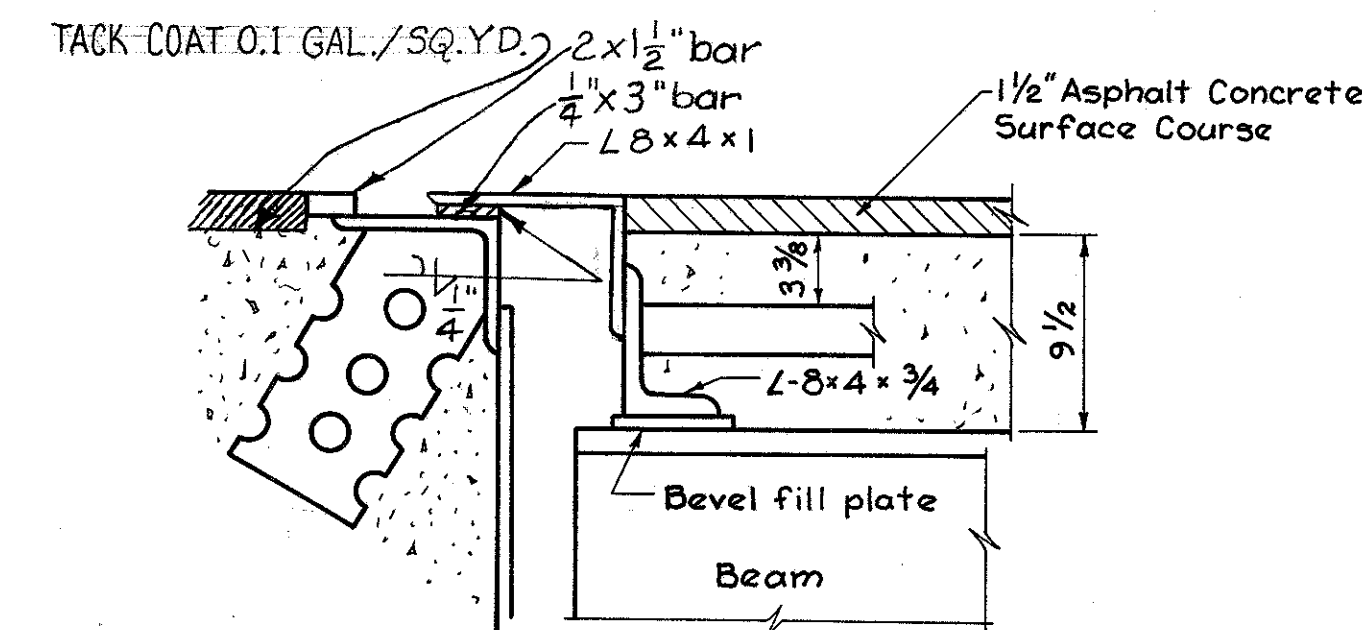
FRAMING PLAN



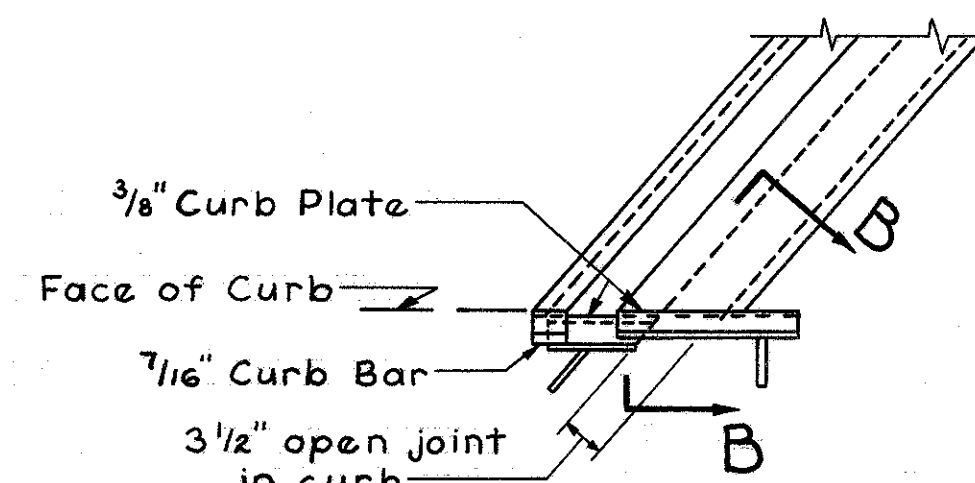
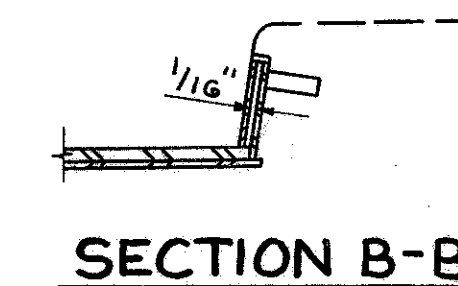
BEAM ELEVATION B9

Where "CVN" is shown on the shape or plate size, the material shall meet specified minimum notch toughness requirements. The fabricator shall submit to the Director a procedure designed for positive identification of material through all phases of fabrication. No material shall be fabricated until the Director has approved the procedure.

HAMILTON COUNTY
HAM-264-09.41



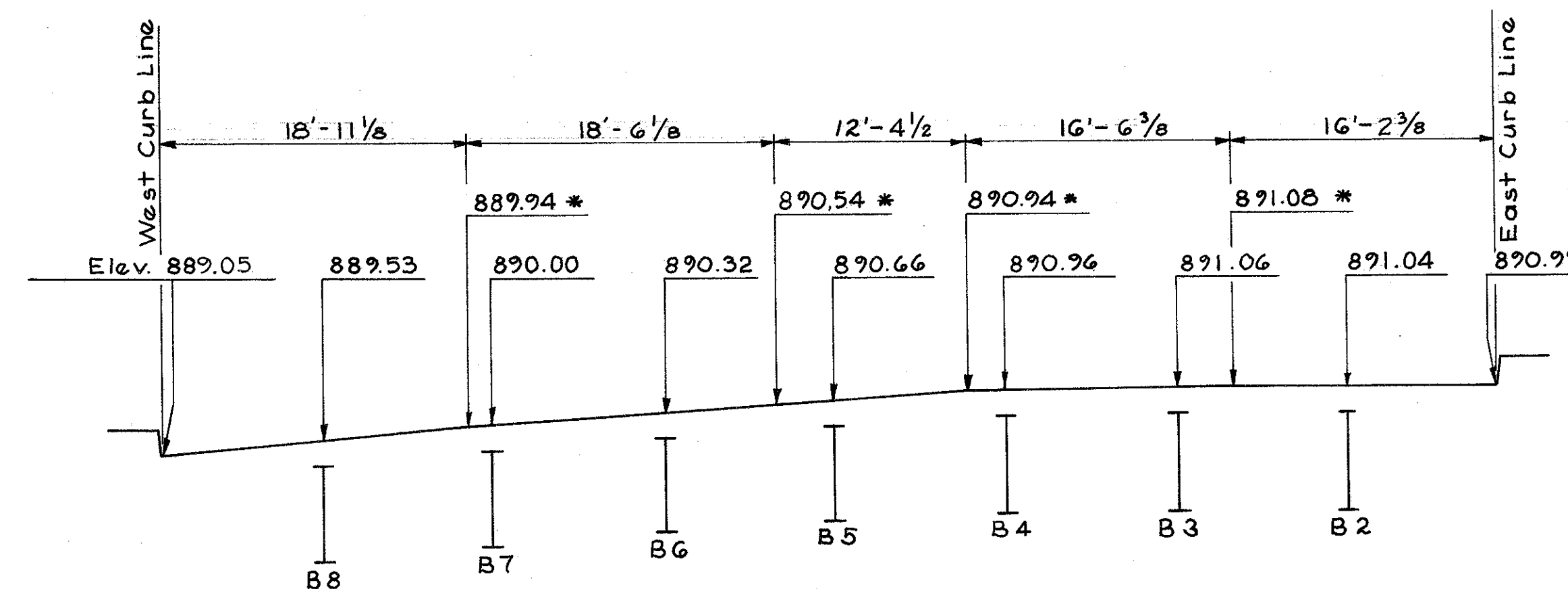
TYPICAL SECTION
ROADWAY END DAM



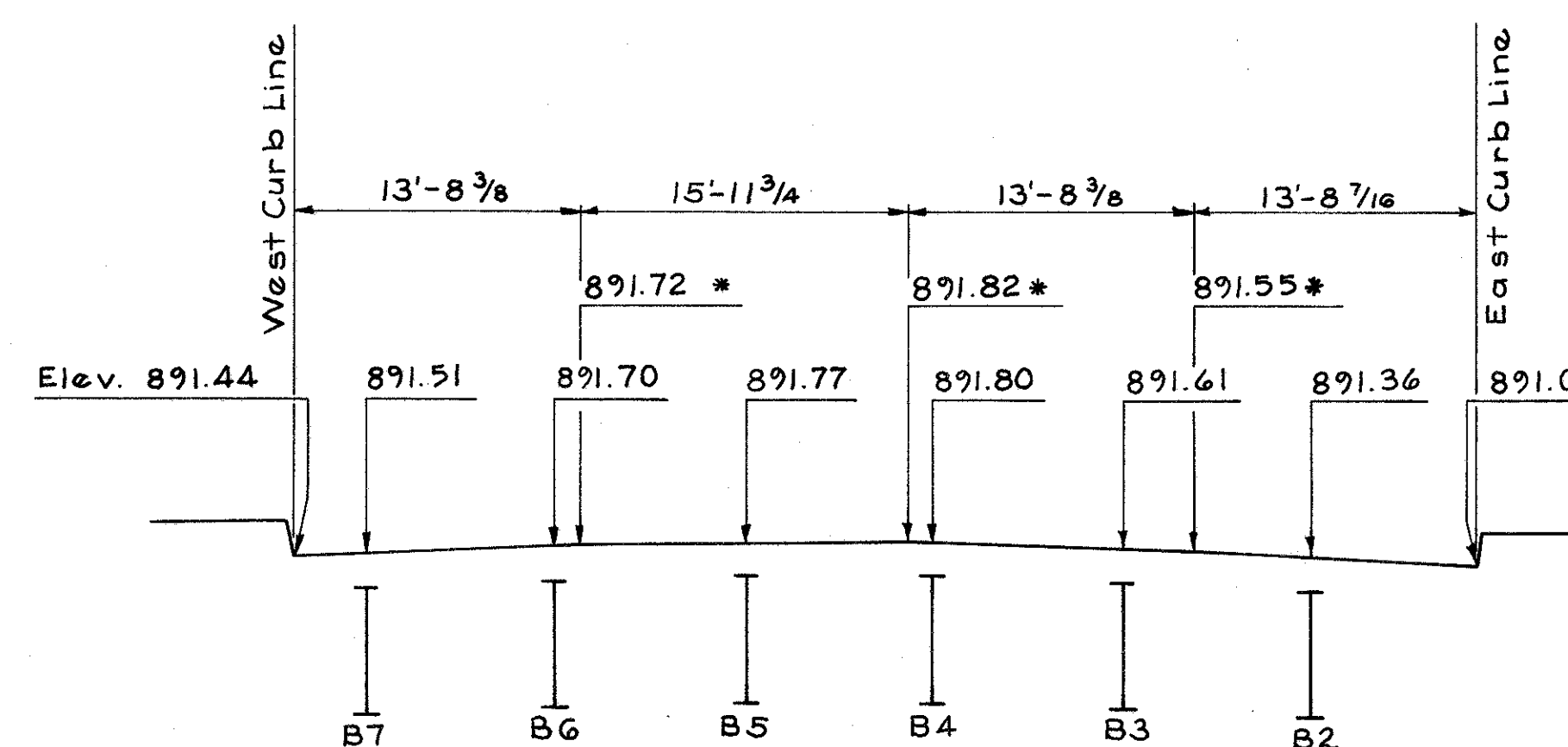
PART DECK PLAN
AT N.W. CORNER OF BRIDGE

CURB PLATE DETAILS

For details not shown see Std. Drwg.
SD-1-G9, Sheet No. 2.



END DAM PROFILE
(North End of Bridge)



END DAM PROFILE

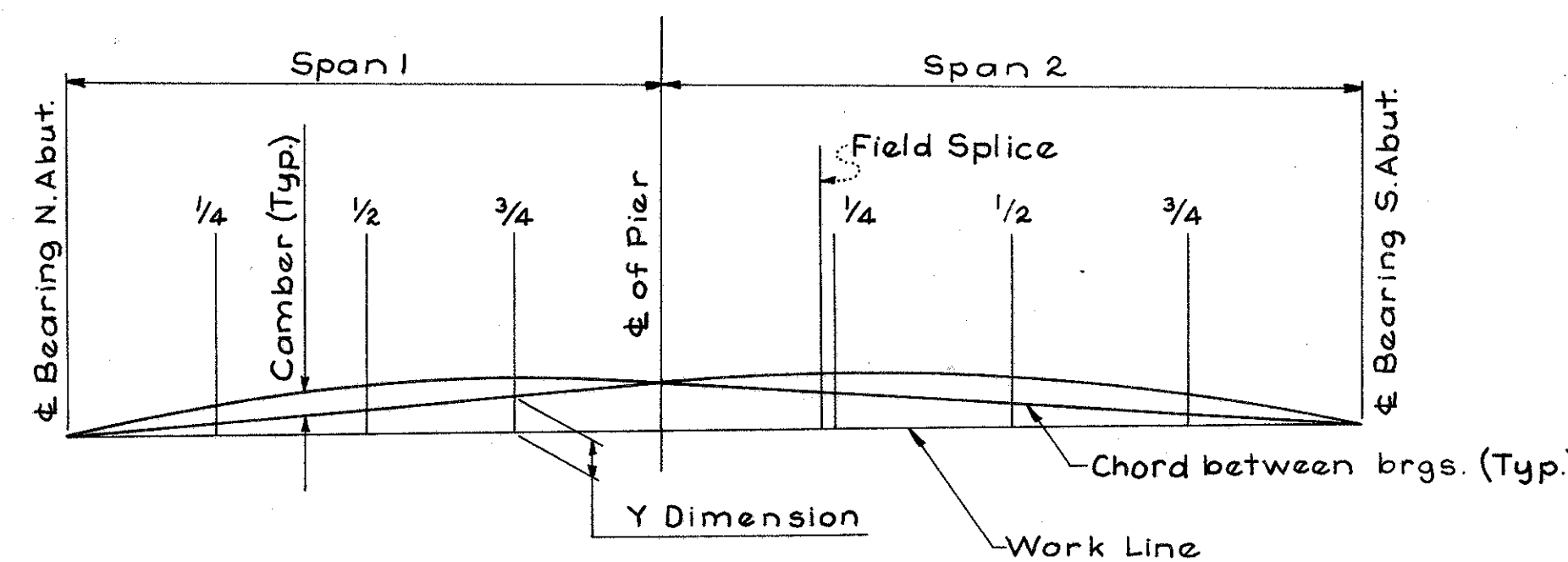
(South End of Bridge)

Note: Elevations given above are along back of L-8x4x1.
For details of end dam see Std. Drwg. SD-1-G9, Sheet No. 1
and the Typical Section, this sheet.
* Elevations with asterisk are at breaks in grade.

Steel End Dams (roadway, sidewalk, curb) shall be
galvanized in accordance with 711.02. Included with
Item 513, Structural Steel for payment.

All locations on the galvanized end dam which are field welded,
shall be prepared and field painted as required by Item 514.
The surface, a minimum of 2" from each weld, shall be pre-
pared for field painting using Porter No. 45 Galvaprep or
approved equal, and then primed with Porter No. 299 gal-
vanized metal primer or an approved equal with a dry film
thickness of 2.0 mils.

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING						
STRUCTURAL STEEL DETAILS						
BRIDGE NO. HAM-264-1044						
GLENWAY AVE. BRIDGE						
OVER C.&O. RAILWAY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.	P.R.M.	P.E.T.	W.W.	8-24-72	



CAMBER DIAGRAM

Y DIMENSION									
Beam	1/4 Pt.	1/2	3/4	Pier	Splice	1/4	1/2	3/4	
B1	2 1/16	4 3/16	6 1/4	8 3/8	6 1/8	6 1/4	4 3/16	2 1/16	
B2	2 5/16	4 11/16	7 1/16	9 3/8	6 15/16	7 1/16	4 11/16	2 5/16	
B3	2 7/16	4 7/8	7 5/16	9 3/4	7 5/16	7 5/16	4 7/8	2 7/16	
B4	2 1/2	5	7 1/2	10	7 7/16	7 1/2	5	2 1/2	
B5	2 11/16	5 5/16	8	10 11/16	8 3/16	8	5 5/16	2 11/16	
B6	2 7/8	5 1/16	8 1/2	11 3/8	8 7/8	8 1/2	5 1/16	2 7/8	
B7	2 3/4	5 1/2	8 3/16	10 13/16	8 5/8	8 3/16	5 1/2	2 3/4	
B8	2 3/16	5 5/8	8 3/8	11 3/16	8 7/8	8 3/8	5 5/8	2 3/16	
B9	0	0	0						

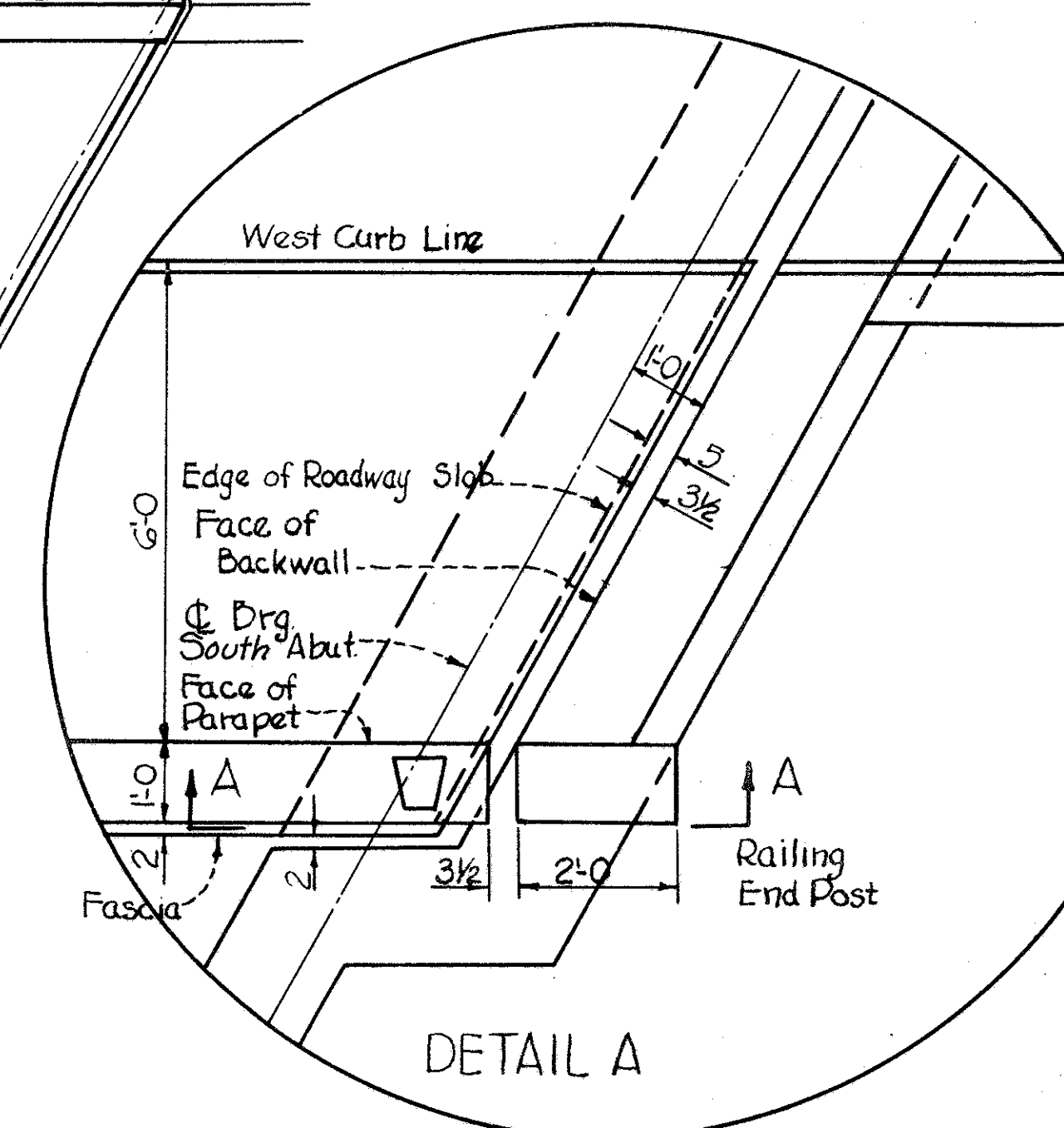
DEFLECTION AND CAMBER									
	SPAN 1					SPAN 2			
	Beam	1/4 Pt.	1/2	3/4	Field Splice	1/4	1/2	3/4	
Deflection due to Steel Weight.	B1	1/8	1/8	1/16	1/16	1/16	1/16	1/16	
	B2	1/8	1/8	1/16	1/16	1/16	1/8	1/8	
	B3	1/8	1/8	1/16	1/16	1/16	1/8	1/8	
	B4	1/8	1/8	1/16	1/16	1/16	3/16	1/8	
	B5	1/8	1/8	1/16	1/8	1/8	3/16	3/16	
	B6	1/8	1/8	1/16	1/8	1/8	1/4	3/16	
	B7	1/16	1/8	1/16	1/8	1/8	1/4	3/16	
	B8	1/16	1/16	0	3/16	3/16	5/16	1/4	
	B9	3/16	1/2	3/8					
Deflection due to Remaining Dead Load.	B1	3/8	3/4	3/8	3/16	3/16	1/2	7/16	
	B2	3/8	1/2	1/4	1/8	1/8	3/8	5/16	
	B3	3/8	7/16	3/16	3/16	3/16	7/16	3/8	
	B4	5/16	3/8	3/16	1/4	1/4	7/16	7/16	
	B5	5/16	3/8	1/8	1/4	1/4	9/16	7/16	
	B6	1/4	5/16	1/8	5/16	5/16	5/8	1/2	
	B7	3/16	1/8	1/16	5/8	5/8	1	7/8	
	B8	1/8	1/16	-1/8	1 1/16	1 1/16	1 3/16	1 7/16	
	B9	1 3/4	2 7/16	1 11/16					
Superelev. and Vertical Curve Correction.	B1	1 13/16	2 3/16	1 11/16	1 3/16	1 1/16	1 5/16	1 5/16	
	B2	2 1/16	2 1/4	1 11/16	1 1/16	1 1/16	1 7/16	1 3/16	
	B3	2 1/4	2 3/8	1 13/16	1 9/16	1 11/16	2 1/16	1 9/16	
	B4	1 15/16	2 5/8	1 11/16	2 3/16	2 3/16	2 3/8	1 11/16	
	B5	1	2 3/8	1 15/16	2 1/4	2 1/2	3	2 1/16	
	B6	1 7/16	2 1/4	1 13/16	2 1/4	2 1/2	3 1/8	1 15/16	
	B7	1 3/16	1 13/16	1 5/16	1 15/16	2 1/4	3 5/8	2 1/4	
	B8	5/8	1 5/16	1 3/16	2 1/2	2 3/4	4 3/16	2 7/8	
	B9	1 7/16	2 3/8	1 13/16					
Required Shop Camber.	B1	2 9/16	3 1/16	2 1/8	1 7/16	1 5/16	1 7/8	1 7/16	
	B2	2 9/16	2 7/8	2	1 1/4	1 1/4	1 15/16	1 5/8	
	B3	2 3/4	2 15/16	2 1/16	1 13/16	1 15/16	2 3/8	2 1/16	
	B4	2 3/8	3 1/8	1 15/16	2 1/2	2 1/2	3	2 1/4	
	B5	1 7/16	2 7/8	2 1/8	2 7/8	2 7/8	3 3/4	2 11/16	
	B6	1 13/16	2 11/16	2	2 11/16	2 15/16	4	2 5/8	
	B7	1 7/16	2 1/16	1 7/16	2 1/16	3	4 1/8	3 5/16	
	B8	1 13/16	1 11/16	1 1/16	3 3/4	4	6 5/16	4 9/16	
	B9	3 9/16	5 5/16	3 7/8					

MICROFILMED

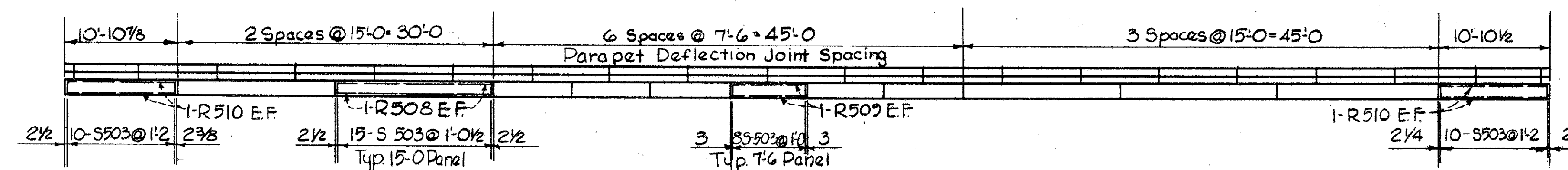
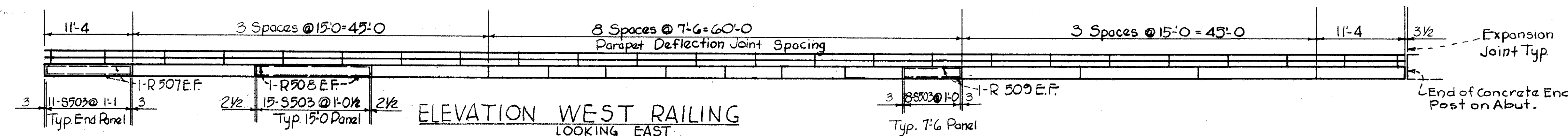
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HAMILTON COUNTY
HAM-264-09.41



NOTE:
For details not shown see Std. Drwg BR-2-67
The location of the railing posts and
reinforcing steel is measured along the
C of the parapet.
Railing shall be continuous through end posts
For Parapet Details see sheet No. 18/22



PREFORMED EXPANSION JOINT FILLER in the railing parapet deflection joints may be either 1/4" gray sponge rubber, Item 705.03 or 1/4" gray cellular polyvinyl chloride (PVC) sponge, Item 711.28.

MICROFILMED
APR 16 1985

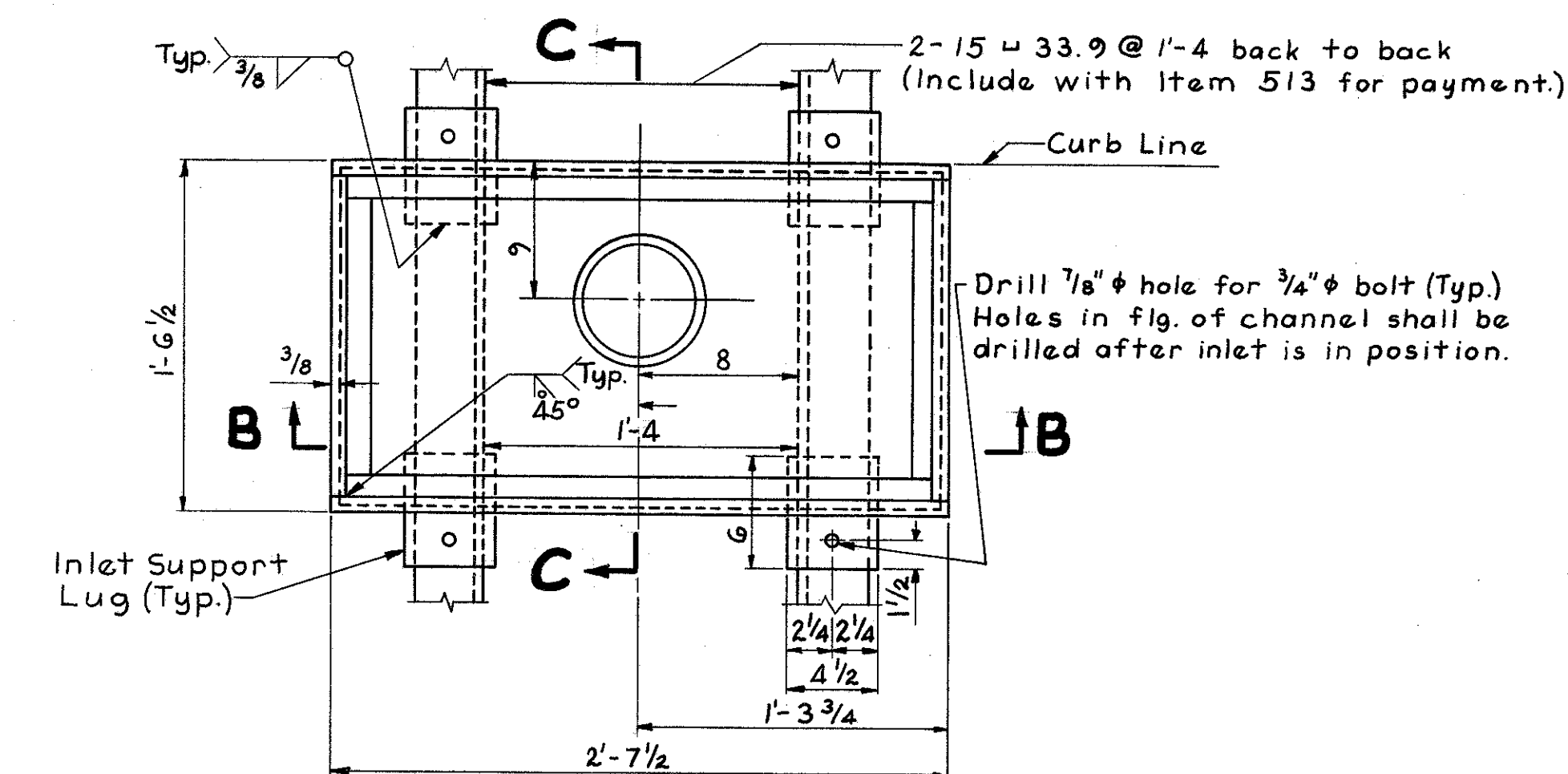
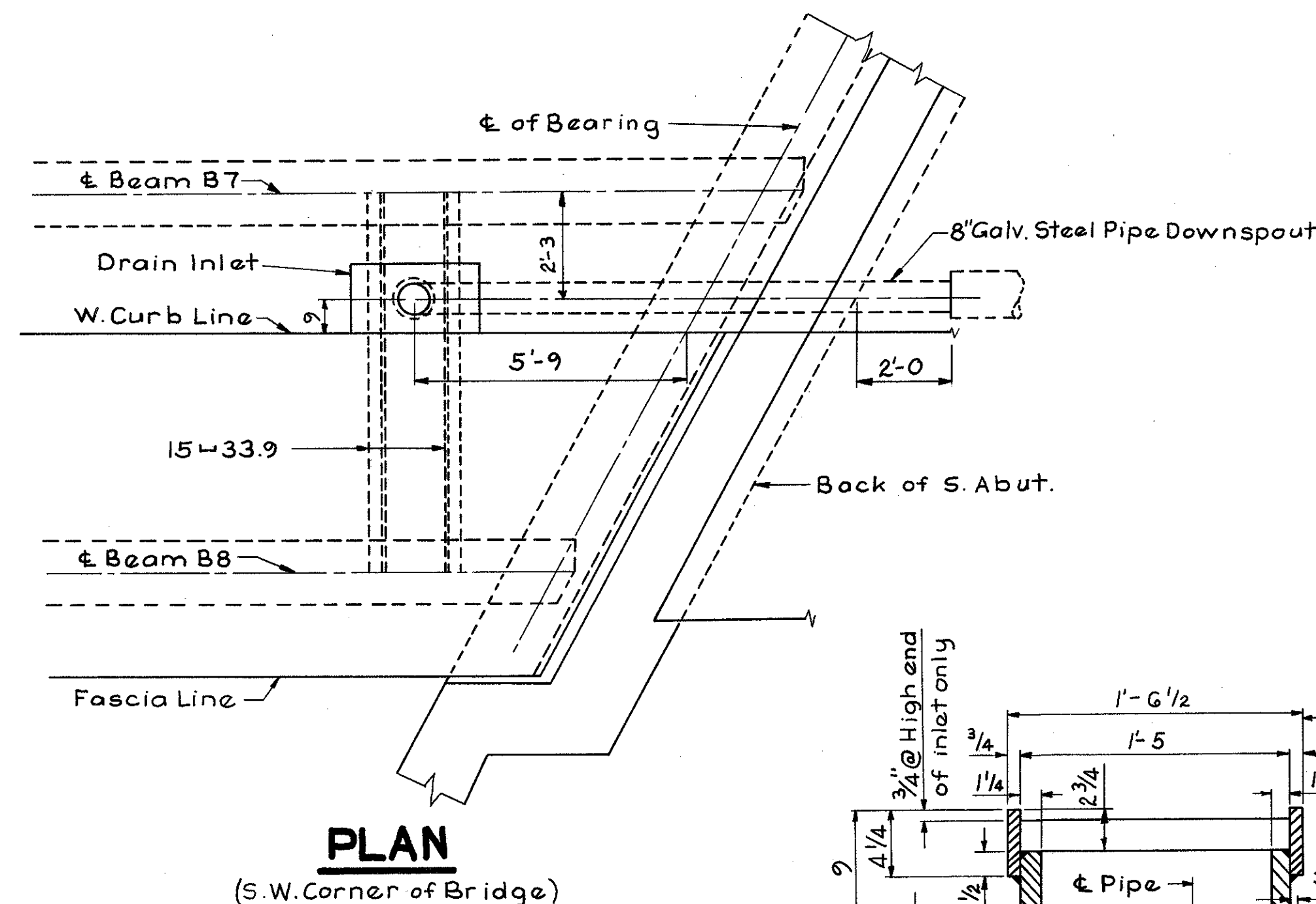
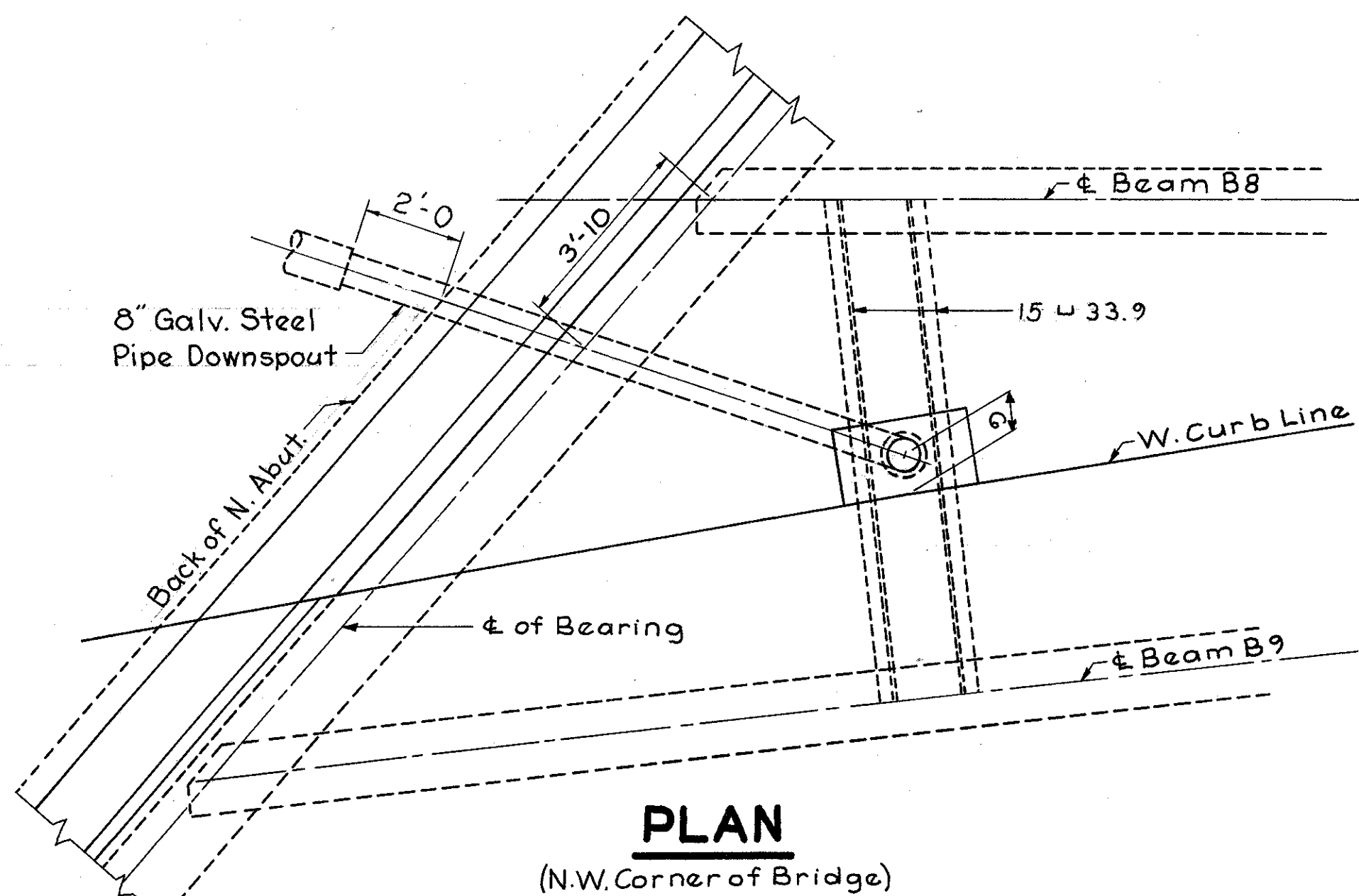
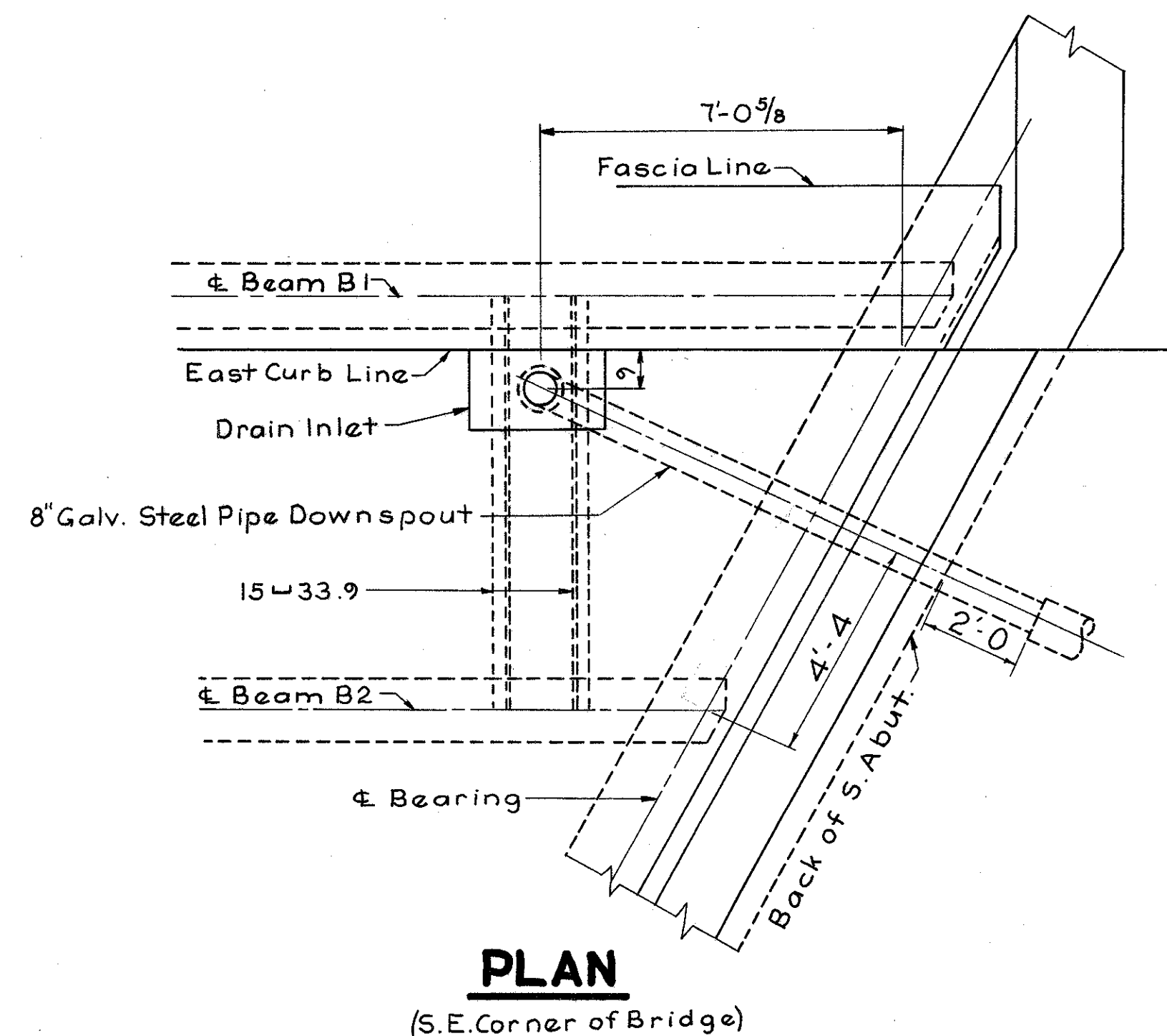
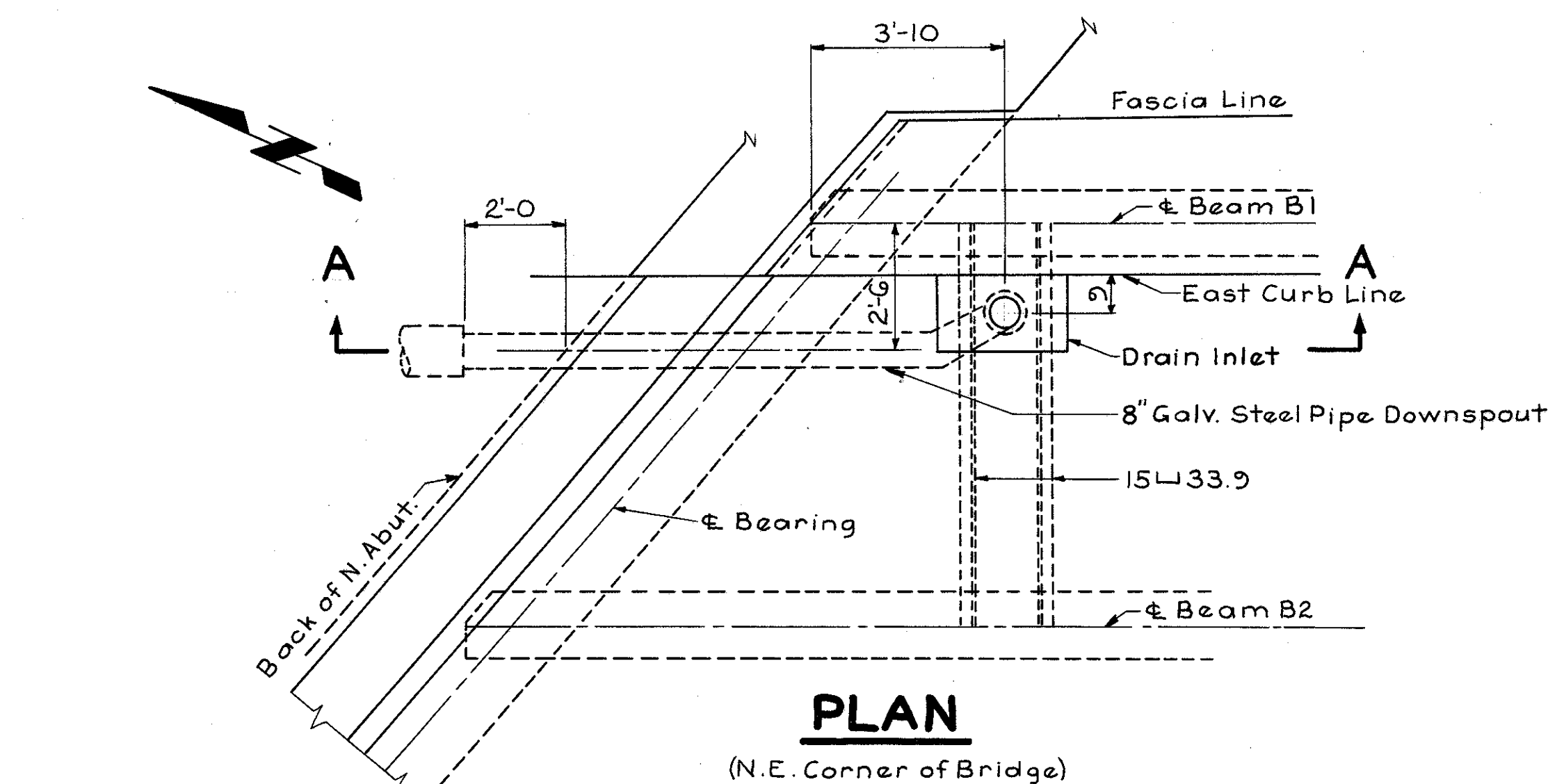
ELEVATION EAST RAILING
LOOKING WEST

CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

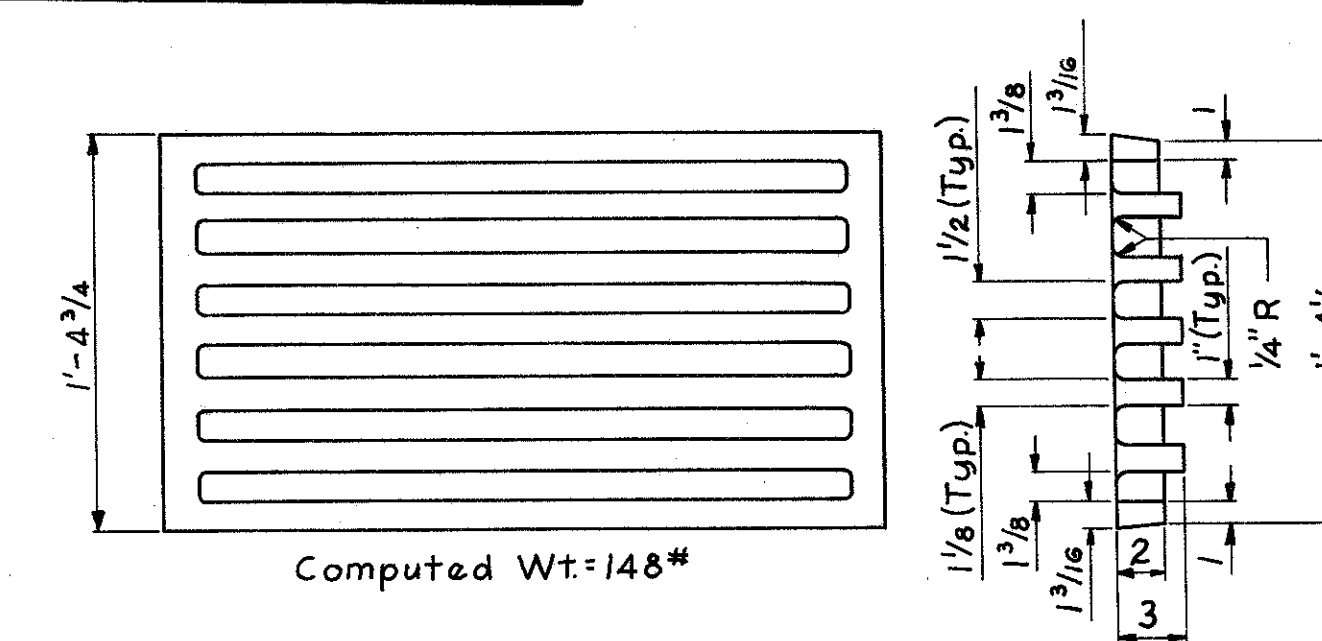
RAILING DETAILS
BRIDGE NO. HAM-264-1044
GLENWAY AVE. BRIDGE
OVER C. & O. RAILWAY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
JDA	JGK		W.W.	W.W.	8-24-72	

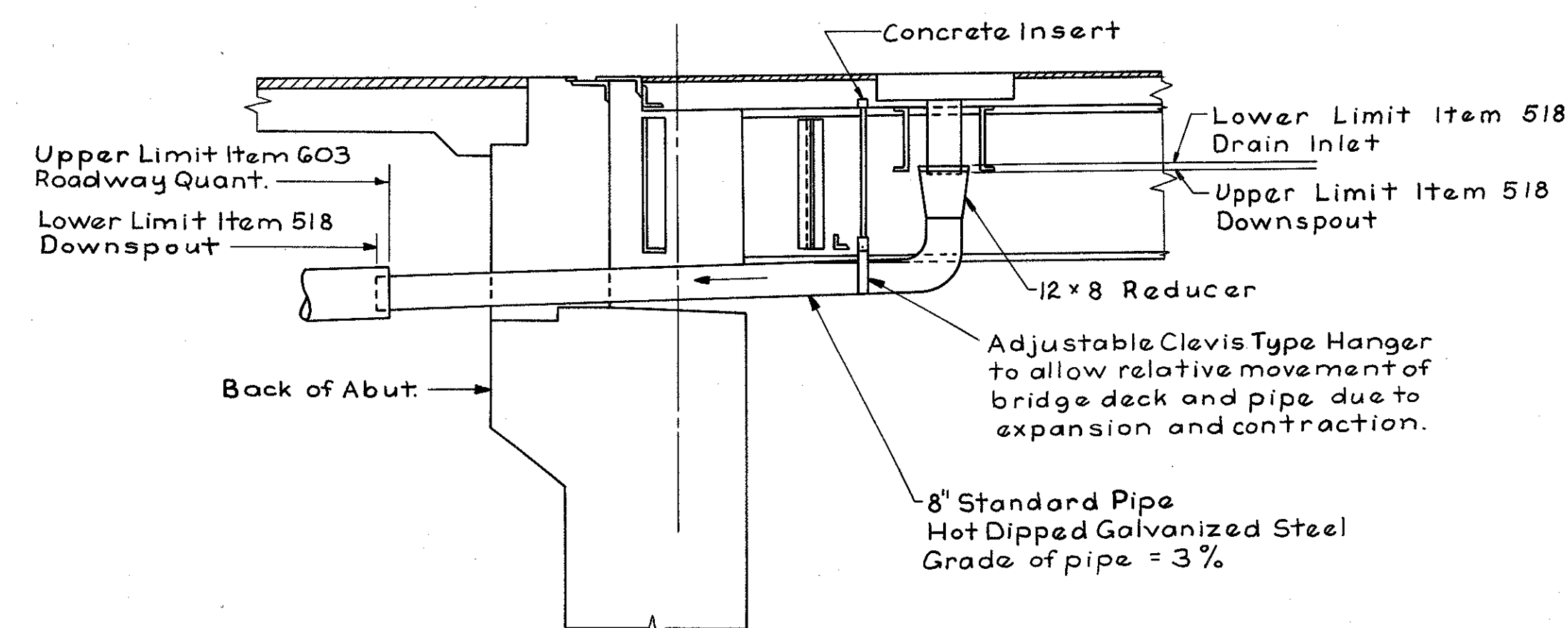
HAMILTON COUNTY
HAM - 264-09.41



INLET FRAME

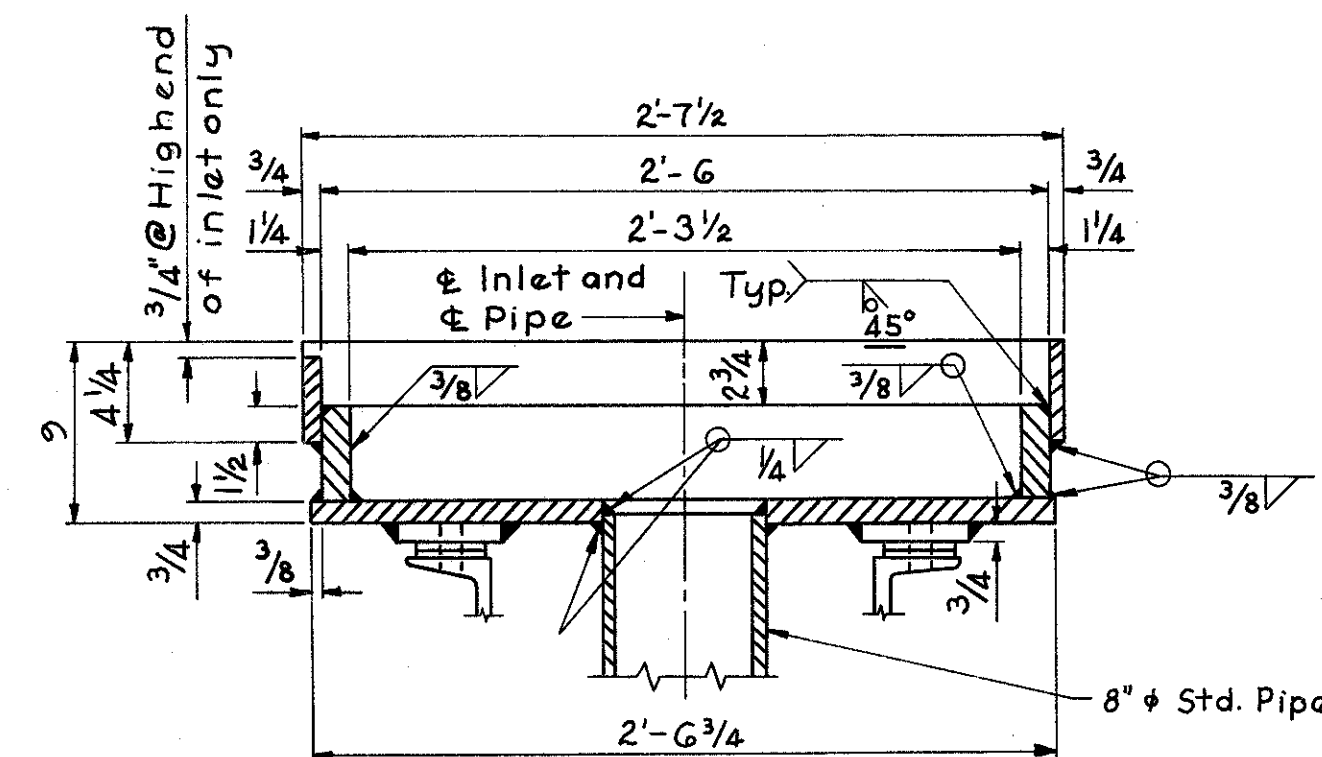


INLET GRATING

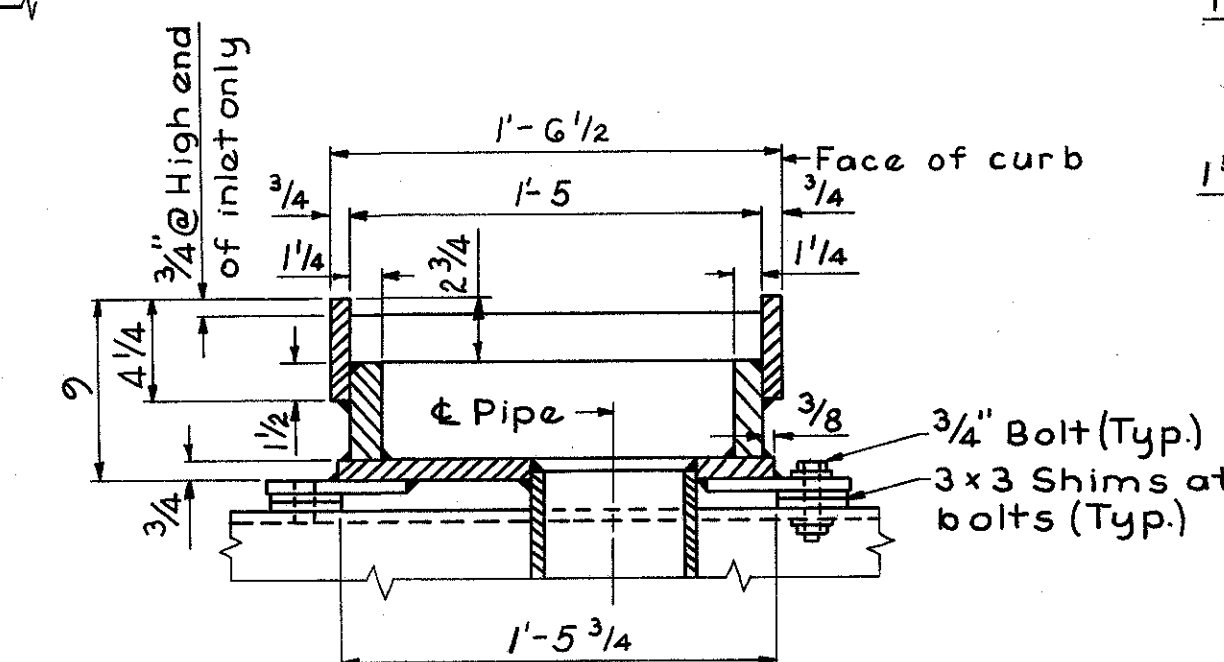


ELEVATION A-A

Note: Downspout installation at all inlets on bridge is similar to that shown above. Two pipe support hangers shall be installed at the N.W. corner of bridge @ 5'-0" o.c.



SECTION B-B



SECTION C-C

Note: Inlet grating shall meet the requirements of Sec. 711.12 of the Material Specifications of the State of Ohio Department of Highways.

Grating and inlet shall be fitted to each other without rattling, by grinding grating casting as necessary.

Inlet frame to be welded structural steel plates and standard steel pipe, galvanized after fabrication.

Weld channels to beam with 5/16 continuous fillet weld. Weld to beam web only.

Space lugs on inlet to permit bolting to supporting channels.

Cope channels so that top of channel is flush with top of beam.

Place top of inlet 1/4" below top of wearing surface.

Drain inlets shall be galvanized in accordance with 711.02.

CITY OF CINCINNATI DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING						
20/22						
DRAINAGE DETAILS						
BRIDGE NO. HAM-264-1044						
GLENWAY AVE. BRIDGE						
OVER C.&O. RAILWAY						
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
W.W.	W.W.	P.R.M.	P.E.T.	W.W.	8-24-72	

Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight
NORTH ABUTMENT					SA508	Bt.	7'-0	5	37	SUPERSTRUCTURE					SG39	Str.	25'-6	1	38	W925	Str.	7'-7	2	52	W505	Str.	20'-11 to 31'-1	1 Series of 15	407
A501	Bt.	5'-2	121	652	SA509	Bt.	5'-6	5	29	SA401	Str.	30'-0	445	8918	SG40		18'-6	1	28	W926		5'-9	2	39	W506	Str.	24'-3	2	51
A502	Str.	3'-4	11	359	SA511	Bt.	3'-0	5	16	SA402		2'-1	5	7	SG41		30'-6	1	46	W927		3'-11	2	27	W507	Bt.	3'-2	2	7
A503		35'-8	8	298	SA512	Str.	20'-8	26	2069	SA403		3'-1	5	10	SG42		20'-0	1	30	W928		26'-6	2	180	W508	Str.	9'-8 to 21'-0	1 Series of 9	144
A504		31'-9	11	364	SA513		26'-2	27	737	SA404		4'-2	5	14	SG43		19'-6	1	29	W929		23'-11	2	163	W509	Str.	3'-6 to 22'-9	1 Series of 8	110
A505		25'-2	24	630	SA514		25'-6	18	479	SA405		5'-2	5	17	SG44		7'-0	1	11	W930		21'-11	2	149	W510	Str.	5'-10 to 22'-10	2 Series of 5	149
A506		35'-8	62	2306	SA515		26'-1	9	245	SA406		6'-3	5	21	SG45		7'-6	1	11	W931		19'-10	2	135	W511		26'-4	2	55
A507		26'-2	14	382	SA516		13'-1	4	55	SA407		7'-3	5	24	SG46		31'-11	3	144	W932		18'-2	2	124	W512	Bt.	19'-10 to 25'-4	1 Series of 8	188
A508		26'-10	10	280	SA517		19'-8	74	1518	SA408		8'-3	5	28	SG47		32'-0	1	48	W933		16'-6	2	112	W513		6'-8 to 18'-8	1 Series of 12	159
A509		27'-1	17	480	SA518		27'-8	30	866	SA409		9'-4	5	31	SG48		31'-5	1	47	W934		14'-10	2	101	W514		19'-2 to 25'-4	1 Series of 7	162
A510		27'-9	7	203	SA519	Bt.	23'-4 to 30'-2	6 Series of 10	1674	SA410		10'-4	5	35	SG49		30'-10	1	46	W935		13'-1	2	89	W515		7'-10 to 17'-8	1 Series of 8	106
A511		9'-9	4	41	SA520	Bt.	11'-4 to 22'-4	6 Series of 11	1159	SA411		11'-4	5	38	SG50		30'-3	1	45	W936		11'-5	2	78	W516	Str.	31'-3	1	33
A512	Bt.	8'-5	5	44	SA521	Str.	10'-0	76	793	SA412		12'-5	5	41	Total Superstructure 81,339 Lbs.					W937		6'-7	2	58	WG01		6'-4	36	342
A513	Str.	4'-0	5	21	SA601	Bt.	9'-4	58	813	SA413		13'-5	5	45	WING WALL NO.1					W938		6'-10	2	46	WG02		6'-6	32	312
A514	Bt.	5'-2	5	27	SA602		9'-10	58	857	SA414		14'-6	5	48	W520	Str.	19'-8	19	390	W939		5'-2	2	35	WG03	Bt.	5'-6	29	240
A515	Str.	10'-0	2	21	SA603		8'-4	9	113	SA415		15'-8	6	63	W521		27'-8	117	3376	W940		23'-9	2	162	WG04	Str.	7'-8	14	161
A516	Bt.	6'-5	5	33	SA604		10'-8	12	192	SA416		28'-11	6	116	W522		29'-6	18	554	W941		21'-5	2	146	WG05		21'-0 to 31'-6	1 Series of 14	552
A517	Bt.	5'-2	5	27	SA605		9'-10	3	44	SA417		28'-6	2	38	W523		15'-8	19	310	W942		17'-9	2	121	WG06		23'-8	25	889
A518	Str.	3'-6	5	18	SA606	Str.	7'-4	23	253	SA418		13'-0	1	9	W524		10'-0	16	167	W943		17'-9	2	121	WG07		3'-5 to 22'-9	1 Series of 9	177
A519		14'-3	4	59	SA607	Str.	20'-10	104	3254	SA419		17'-0	1	11	W525		25'-10 to 33'-8	1 Series of 18	559	W944		16'-3	2	111	WG08		31'-6	1	47
A520		19'-8	84	1723	SA608	Bt.	5'-7	88	738	SA420		21'-0	1	14	W526		6'-3 to 23'-8	1 Series of 5	78	W945		14'-9	2	100	WG09		23'-8	12	580
A521		35'-8	10	372	SA609	Str.	7'-7	42	478	SA421		28'-6	1	19	W527		8'-8 to 23'-5	1 Series of 4	67	W946		11'-9	2	80	WG10	Str.	7'-3	21	229
A522		37'-9	20	787	SA610		26'-6	23	915	SA422		34'-0	1	23	W528		26'-11	2	56	W947		9'-2	2	62	WG11		5'-4	41	447
A523		10'-0	108 H4 1126	1189	SA611		25'-10	15	582	SA423		12'-0	1	8	W529	Bt.	3'-8	2	8	W948		7'-8	2	52	WG12	Str.	6'-0	20	245
A524	Bt.	10'-0	38	396	SA612		26'-4	8	316	SA424		19'-0	1	13	W530	Str.	5'-6 to 25'-11	1 Series of 6	98	W949		6'-2	2	42	WG13		9'-5	10	192
A525		22'-10 to 25'-10	6 Series of 10	1648	SA801		28'-3	39	2942	SA425		25'-6	1	17	W531	Str.	6'-7 to 26'-2	1 Series of 5	85	W950		4'-8	2	32	WG14		9'-11 to 21'-3	1 Series of 11	350
A526		11'-8 to 21'-8	6 Series of 10	1043	SA802	Bt.	5'-2	35	483	SA426		18'-6	1	12	W532	Bt.	5'-2	34	183	W951		22'-3	2	151	WG15		23'-8	12	966
A527		22'-6 to 29'-10	3 Series of 10	819	SA901	Str.	28'-5	48	4638	SA427		30'-6	1	20	W533	Str.	6'-6	16	108	W952		19'-1	2	130	WG16		5'-10	64	997
A528		11'-8 to 21'-2	3 Series of 10	495	SA1001		19'-8	101	8547	SA428		20'-0	1	13	W534		19'-0 to 27'-2	1 Series of 17	409	W953		14'-3	2	97	WG17		6'-5	31	531
A529	Str.	5'-10	2	12	SA1002	Bt.	7'-4	156	4922	SA429		19'-6	1	13	W535		27'-5	1	29	W954		12'-2	2	83	WG18		11'-1	16	473
AG01	Bt.	9'-6	84	1199	SA1003	Str.	25'-6	12	1317	SA430		7'-0	1	5	W536		18'-10 to 27'-1	1 Series of 19	455	W955		8'-7	2	58	WG19		13'-4 to 22'-1	1 Series of 16	756
AG02		8'-8	84	1093	SA1004		24'-0	12	1239	SA431		7'-6	1	5	W537		28'-11	4	121	W956		6'-6	2	44	WG20	Bt.	7'-3	66	2059
AG03		9'-6	9	128	SA1005		22'-6	12	1162	SA432		7'-6	1	5	W538		2'-9 to 22'-4	2 Series of 4	105	W957		4'-5	2	30	WG21	Str.	18'-2	36	2814
AG04		11'-0	9	149	SA1006		20'-3	12	1046	SA433		3'-6	94	790	W539		10'-8 to 18'-11	1 Series of 10	154	W958		19'-9	2	133	WG22		26'-3	2	226
AG05		9'-10	5	74	SA1007		18'-0	12	929	W540	Bt.	24'-2 to 30'-2	1 Series of 7	198	W541		7'-2 to 23'-0	1 Series of 14	220	W959		17'-6	2	114	WG23		15'-2	2	131
AG06		11'-0	5	83	SA1008		16'-0	12	826	W542		23'-6 to 30'-2	1 Series of 7	196	W543		7'-4 to 22'-2	1 Series of 12	185	W960		14'-8	2	100	WG24		20'-9	2	179
AG07		5'-10	108	946	SA1009		14'-2	12	731	W544		22'-8 to 30'-2	1 Series of 10	150	W545		7'-8 to 21'-2	1 Series of 7	150	W961		12'-6	2	85	WG25		18'-5	2	158
AG08	Str.	8'-0	51	613	SA1010		12'-5	12	641	W546		16'-2 to 23'-2	1 Series of 8	164	W547		7'-2 to 15'-2	1 Series of 8	93	W962		10'-7	2	64	WG26		16'-3	2	140
AG09		25'-6	19	728	SA1011		10'-7	12	546	W548		15'-2 to 23'-2	1 Series of 8	160	W549		7'-6 to 13'-10	1 Series of 6	67	W963		9'-5	2	52	WG27		14'-2	2	122
AG10		35'-8	69	3696	SA1012		7'-5	12	383	W550		13'-10 to 23'-2	1 Series of 8	154	W551		7'-10 to 12'-4	1 Series of 4	42	W964		12'-7	2	86	WG28		4'-3	2	37
AG11		26'-5	11	436	SA1013		5'-7	12	288	W552	Str.	33'-8	1	35	W552	Str.	33'-8	1	35	W965		10'-9	2	73	WG29		23'-1	2	199
AG12		27'-2	8	326	SA1101	Bt.	8'-2	12	521	SG601	Str.	30'-0	536	24152	W553		7'-10 to 12'-4	1 Series of 4	42	W966		8'-1	2	55	WG30		10'-2	2	87
AG13		27'-4	13	534	SA1102		13'-10	12	882	SG602		25'-8	8	308	W554		15'-2 to 23'-2	1 Series of 8	160	W967		14'-5	2	98	WG31		16'-2	2	133
AG14		28'-0	6	252	SA1103		19'-5	12	1238	SG603		2'-9	16	66	W555		7'-6 to 13'-10	1 Series of 6	67	W968		12'-7	2	86	WG32		4'-3	2	37
AG15		7'-4	22	242	SA1104		30'-11	12	1971	SG604		36'-10	74	4094	W556		13'-10 to 23'-2	1 Series of 8	154	W969		10'-9	2	73	WG33		23'-1	2	199
A701		35'-8	13	948	Total South Abutment 54,736 Lbs.					SG605		34'-7	74	3844	W557		13'-10 to 23'-2	1 Series of 8	154	W970		8'-1	2	55	WG34		20'-6	2	176
A702		37'-9	26	2006	PIER					SG606		33'-1	74	3677	W558		13'-10 to 23'-2	1 Series of 8	154	W971		6'-6	2	44	WG35		18'-3	2	157
AB01		35'-8	15	1428	P501	Bt.	4'-5	54	249	SG607		32'-1	74	3566	W559		13'-10 to 23'-2	1 Series of 8	154	W972		4'-11	2	33	WG36		16'-2	2	139
AB02		38'-4	30	3070	P502	Bt.	8'-5	188	1650	SG608		31'-8	80	3805	W560		13'-10 to 23'-2	1 Series of 8	154	W973		9'-1	2	62	WG37		14'-4	2	123
AB03	Bt.	5'-2	56 40 773 552		P503	Str.	19'-1	8	159	SG609		30'-10	74	4094	W561		13'-10 to 23'-2	1 Series of 8	154	W974	Bt.	9'-1	2	62	WG38		12'-5	2	107
A901	Str.	19'-8	162	10832	P504		20'-7	8	172	SG610		29'-1	6	262	W562		13'-10 to 23'-2	1 Series of 8	154	W975		13'-8	2	93	WG39		9'-4	2	80
AI001		7'-7	216	7048	P505		11'-4	160	1891	SG611		28'-6	8	381	W563		13'-10 to 23'-2	1 Series of 8	154	W976		19'-10	2	135	WG40		7'-6	2	65
AI002	Str.	25'-4	18	1962	P506		20'-5	56	1192																				

Mark	Type	Length	No. of Bars	Weight	Mark	Type	Length	No. of Bars	Weight
(Reinforcing Steel List Continued)					SW903	Bt.	22'-4	2	152
WING WALL NO. 3					SW904		35'-9	2	243
SW1103	Bt.	23'-5	2	249	SW905		10'-1	2	69
SW1104		35'-11	2	382	SW906		15'-6	2	105
SW1105		9'-1	2	97	SW907		22'-10	2	155
SW1106		15'-3	2	162	SW908		31'-3	2	213
SW1107		23'-9	2	252	SW909		10'-5	2	71
SW1108		32'-5	2	344	SW910		16'-0	2	109
SW1109		9'-3	2	98	SW911		23'-8	2	161
SW1110		15'-7	2	166	SW912	↓	27'-0	2	184
SW1111		24'-4	2	259	Total Wing Wall No. 4 14,302 Lbs.				
SW1112	↓	29'-5	2	313	Total Weight Reinforcing Steel 316,102 Lbs.				
Total Wing Wall No. 3 25,685 Lbs.									
WING WALL NO. 4					Railing Parapet and End Posts Reinf.				
SW501	Str.	27'-8	59	1703	R501	Bt.	3'-3	8	
SW502		16'-8	19	330	R502		3'-7	8	
SW503		6'-6	45	305	R503		5'-3	6	
SW504		6'-6	40	271	R504	↓	7'-7	8	
SW505		29'-6	8	246	R505	Str.	1'-8	16	
SW506		10'-0	12	125	R506	Bt.	4'-3	2	
SW507		7'-0 to 25'-0	1 Series of 7	117	R507	Str.	11'-0	8	
SW508		5'-0 to 25'-0	1 Series of 8	125	R508		14'-8	44	
SW509		31'-9	1	33	R509	↓	7'-2	56	
SW510		18'-10 to 31'-9	1 Series of 18	475	R510	↓	10'-7	8	
SW511	↓	28'-10	2	60	Note: R 5 bars shall be included in the price bid for Item 517				
SW512	Bt.	3'-8	2	8					
SW513	Str.	2'-8 to 26'-8	2 Series of 7	214					
SW514		6'-0 to 19'-5	1 Series of 10	133					
SW515	↓	30'-10	2	64					
SW516	Bt.	7'-8 to 26'-4	1 Series of 18	319					
SW517		7'-8 to 26'-4	1 Series of 15	266					
SW518	↓	8'-0 to 26'-4	1 Series of 12	215					
SW601	Str.	27'-8	13	540					
SW602	Bt.	5'-8	28	238					
SW603	Str.	7'-3	13	142					
SW604		32'-0	2	96					
SW605	↓	19'-3 to 31'-3	1 Series of 13	493					
SW606	Bt.	4'-10	48	348					
SW607	Str.	5'-3	23	181					
SW608		8'-2	10	123					
SW609		6'-8 to 19'-5	1 Series of 12	235					
SW610		7'-3	1	11					
SW611	↓	6'-1	1	9					
SW612	Str.	19'-7	1	29					
SW801	Bt.	6'-4	72	1218					
SW802	Str.	16'-8	42	1869					
SW803		26'-9	2	143					
SW804		23'-7	2	126					
SW805		21'-7	2	115					
SW806		19'-6	2	104					
SW807		17'-6	2	93					
SW808		15'-5	2	82					
SW809		13'-5	2	72					
SW810		9'-11	2	53					
SW811		7'-10	2	42					
SW812		5'-10	2	31					
SW813		22'-4	2	119					
SW814		19'-8	2	105					
SW815		17'-11	2	96					
SW816		16'-3	2	87					
SW817		14'-7	2	78					
SW818		12'-10	2	69					
SW819		9'-11	2	53					
SW820		8'-3	2	44					
SW821		6'-7	2	35					
SW822		4'-10	2	26					
SW823		17'-9	2	95					
SW824		15'-8	2	84					
SW825		14'-4	2	77					
SW826		13'-0	2	69					
SW827		10'-7	2	57					
SW828		9'-3	2	49					
SW829		7'-11	2	42					
SW830		6'-7	2	35					
SW831		5'-3	2	28					
SW832	↓	3'-10	2	20					
SW901	Bt.	9'-11	2	67					
SW902	Bt.	15'-2	2	103					

Mark	a	b	c	d
SW901	2'-8	5'-8	2'-1	6'-0
SW902	2'-8	10'-7	3'-10	11'-3
SW903	3'-3	16'-9	6'-2	17'-10
SW904	3'-3	29'-4	10'-10	31'-3
SW905	2'-8	5'-8	2'-6	6'-2
SW906	2'-8	10'-7	4'-8	11'-7
SW907	3'-3	16'-9	7'-5	18'-4
SW908	3'-3	24'-5	10'-10	26'-9
SW909	2'-8	5'-8	3'-2	6'-6
SW910	2'-8	10'-7	5'-11	12'-1
SW911	3'-3	16'-9	9'-4	19'-2
SW912	3'-3	19'-8	10'-11	22'-6
W974	2'-4	5'-2	2'-1	5'-6
W975	2'-4	9'-5	3'-7	10'-1
W976	2'-11	14'-8	5'-6	15'-8
W977	2'-11	25'-3	9'-6	27'-0
W978	2'-4	5'-2	2'-3	5'-8
W979	2'-4	9'-5	4'-1	10'-3
W980	2'-11	14'-8	6'-4	16'-0
W981	2'-11	22'-1	9'-6	24'-0
W982	2'-4	5'-2	2'-7	5'-9
W983	2'-4	9'-5	4'-9	10'-6
W984	2'-11	14'-8	7'-4	16'-5
W985	2'-11	19'-3	9'-8	21'-6
W1020	2'-11	4'-8	1'-11	5'-1
W1021	2'-11	10'-2	4'-1	10'-11
W1022	3'-6	16'-9	6'-9	18'-1
W1023	3'-6	32'-4	13'-1	34'-10
W1024	2'-11	4'-8	2'-0	5'-1
W1025	2'-11	10'-2	4'-5	11'-1
W1026	3'-6	16'-9	7'-3	18'-3
W1027	3'-6	28'-11	12'-5	31'-6
W1028	2'-11	4'-8	2'-4	5'-3
W1029	2'-11	10'-2	5'-1	11'-5
W1030	3'-6	16'-9	8'-5	18'-9
W1031	3'-6	25'-11	13'-0	29'-0
A1101	3'-0	4'-10	1'-11	5'-2
A1102	3'-0	10'-1	4'-0	10'-10
A1103	3'-6	17'-1	7'-2	18'-6
A1104	3'-6	25'-1	10'-5	27'-2
SA1101	2'-9	3'-11	1'-8	4'-3
SA1102	2'-9	9'-2	3'-9	9'-11
SA1103	3'-3	13'-10	5'-9	15'-0
SA1104	3'-3	24'-6	10'-1	26'-6
W1101	2'-6	3'-8	1'-4	3'-11
W1102	2'-6	9'-0	3'-3	9'-7
W1103	3'-1	15'-10	5'-9	16'-10
W1104	3'-1	28'-2	10'-3	30'-0
W1105	2'-6	3'-8	1'-9	4'-1
W1106	2'-6	9'-0	4'-3	9'-11
W1107	3'-1	15'-10	7'-5	17'-6
W1108	3'-1	21'-9	10'-3	24'-0
SW1101	2'-8	4'-10	1'-11	5'-2
SW1102	2'-8	10'-5	4'-1	11'-2
SW1103	3'-3	17'-8	6'-11	19'-0
SW1104	3'-3	29'-4	11'-6	31'-6
SW1105	2'-8	4'-10	2'-2	5'-3
SW1106	2'-8	10'-5	4'-8	11'-5
SW1107	3'-3	17'-8	7'-11	19'-4
SW1108	3'-3	25'-7	11'-5	28'-0
SW1109	2'-8	4'-10	2'-6	5'-5
SW1110	2'-8	10'-5	5'-5	11'-9
SW1111	3'-3	17'-8	9'-2	19'-11
SW1112	3'-3	22'-2	11'-6	25'-0

Mark	a	Increment
A525	9'-10 to 13'-4	4'-1/2
A526	4'-3 to 9'-3	6'-1/2
A527	9'-8 to 13'-4	4'-3/8
A528	4'-3 to 9'-0	7
SA519	10'-1 to 13'-6	4'-1/2
SA520	4'-1 to 9'-7	6'-3/8
W512	8'-4 to 11'-1	4'-3/4
W513	1'-9 to 7'-9	6'-1/2
W514	8'-0 to 11'-1	6'-3/4
W515	2'-4 to 7'-3	8'-1/2
W540	10'-6 to 13'-6	6
W541	2'-0 to 9'-11	7'-3/4
W542	10'-2 to 13'-6	6'-1/2
W543	2'-1 to 9'-6	8'-3/8
W544	9'-9 to 13'-6	7'-1/2
W545	2'-3 to 9'-0	9
W546	6'-6 to 10'-0	6
W547	2'-0 to 6'-0	6'-3/8
W548	6'-0 to 10'-0	6'-3/8
W549	2'-2 to 5'-4	7'-3/8
W550	5'-4 to 10'-0	8
W551	2'-4 to 4'-7	9
SW516	2'-3 to 11'-7	6'-3/8
SW517	2'-3 to 11'-7	8
SW518	2'-5 to 11'-7	10
SW544	9'-1 to 12'-0	5
SW545	2'-7 to 8'-6	7'-3/8
SW546	8'-8 to 12'-0	5'-3/4
SW547	2'-7 to 8'-0	8'-3/8
SW548	8'-1 to 12'-0	6'-3/4
SW549	2'-7 to 7'-4	9'-1/2

Mark	a	b	c
S501	7	1'-8	7
S502	7	2'-6	7
S504	7	1'-9	7
S505	7	6'-6	7
A501	1'-0	3'-4	1'-0
AG01	6'-6	11	2'-4
AG03	7'-4	11	1'-6
AG05	6'-9	1'-5	1'-11
SA501	1'-0	3'-4	1'-0
SA601	6'-4	11	2'-4
SA603	7'-2	11	1'-6
SA605	6'-11	1'-5	1'-11
P501	1'-0	2'-8	1'-0
P502	3'-5	1'-10	3'-5

Mark	a	b
S506	7	6'-6
S507	7	2'-6
AG07	1'-0	5'-0
A1001	1'-6	6'-4
SA608	1'-0	4'-9
SA1002	1'-6	6'-1
W532	1'-0	4'-3
W603	1'-6	4'-2
W612	1'-0	5'-2
W712	1'-0	4'-6
W911	1'-6	6'-0
W912	1'-6	5'-5
W1001	1'-6	5'-11
SW602	1'-0	4'-10
SW606	1'-0	4'-0
SW624	1'-0	4'-9
SW801	1'-3	5'-4
SW842	1'-3	4'-9
SW1001	1'-6	6'-0
P507	1'-0	3'-10
P1001	3'-11	27'-7
P1002	3'-11	14'-2
P1003	3'-6	14'-2
P1004	3'-6	30'-8
W702	1'-0	4'-6

Mark	a	b	c	d
A512	4'-8	3'-9	2'-4	2'-11
A514	3'-6	1'-8	1'-0	1'-4
A516	3'-9	2'-8	1'-9	2'-0
A517	3'-6	1'-8	1'-1	1'-3
A524	5'-0	5'-0	3'-6	3'-6
AG02	5'-2	3'-6	2'-6	2'-6
AG04	7'-6	3'-6	2'-6	2'-6
AG06	7'-6	3'-6	2'-6	2'-6
SA506	4'-0	4'-10	4'-3	2'-4
SA508	5'-0	2'-0	1'-9	1'-0
SA509	2'-9	2'-9	1'-4	2'-5
SA511	3'-3	1'-5	8	1'-3
SA602	4'-10	3'-6	2'-6	2'-6
SA604	7'-2	3'-6	2'-6	2'-6
W507	1'-7	1'-7	1'-5	8
W529	1'-10	1'-10	1'-9	7
SW512	1'-10	1'-10	1'-8	10
SW534	3'-7	1'-8	1'-6	9

