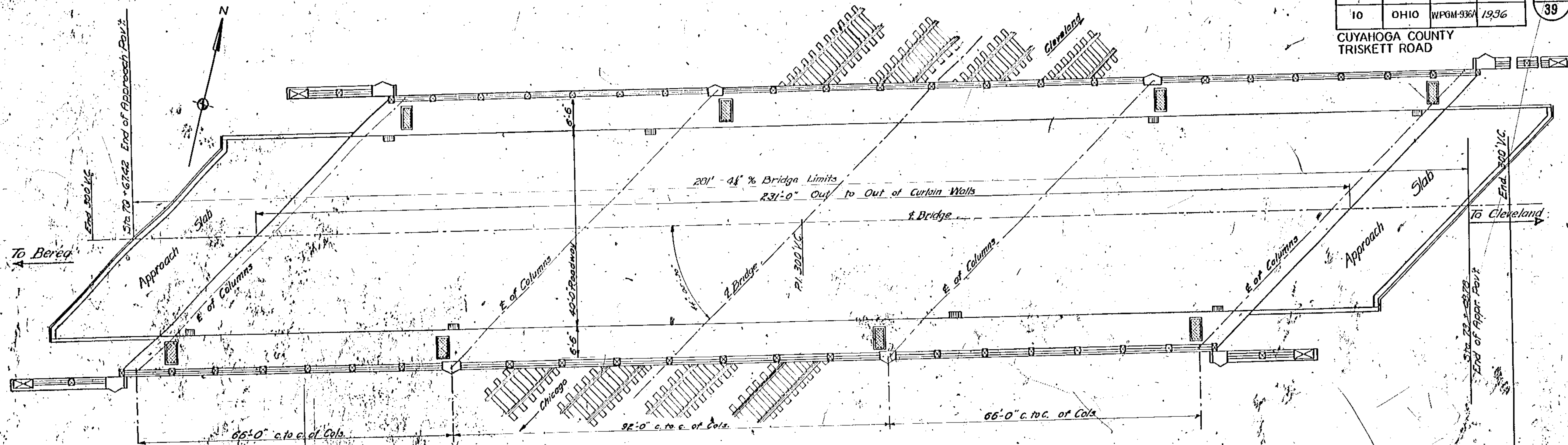
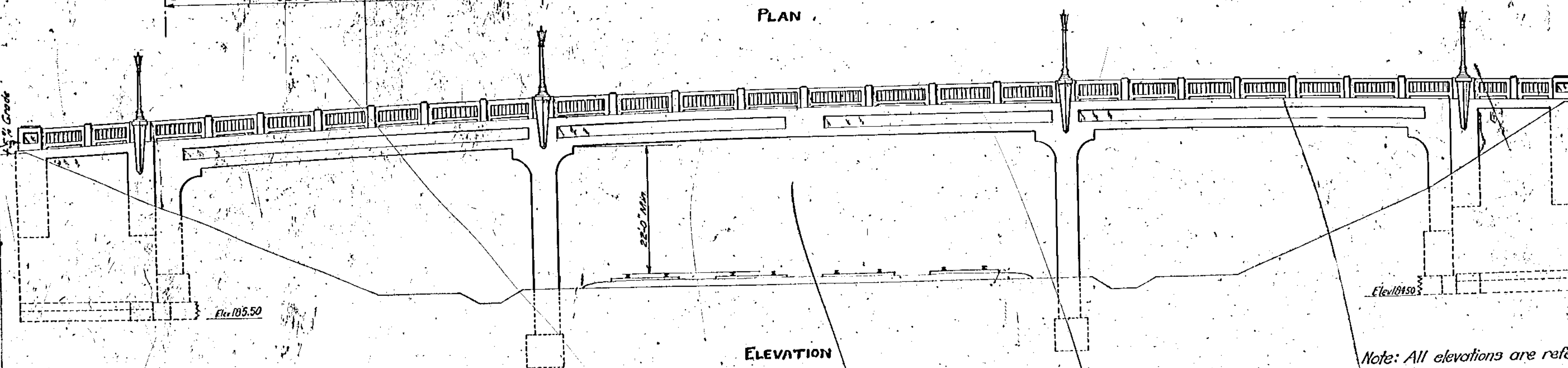


CUYAHOGA COUNTY
TRISKETT ROAD



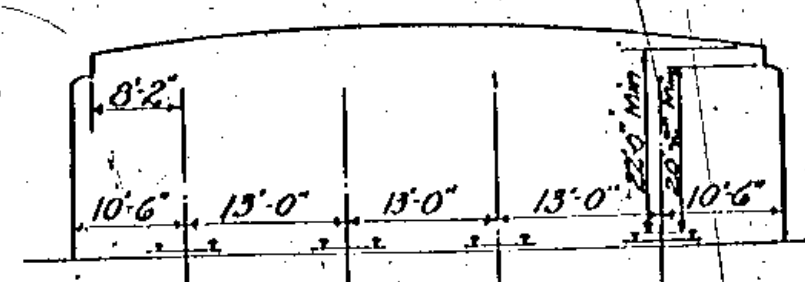
PLAN



ELEVATION

Note: All elevations are referred to NYCRR datum

Existing Structure
No. spans - 3. Kind-through truss.
182 feet 6 inches Length overall.
20 feet - width of roadway.
2 - 5'-0" plank sidewalks
Roadway surface - 3" plank.
Substructure - Sandstone abutments
and steel columns



CLEARANCE DIAGRAM
Normal to & Track

Proposed Structure

Three span steel rigid frame-
encased in concrete.
231 feet length overall.
40 feet width of roadway.
2 - 5'-6" sidewalks.
6'-9" distance c.t.c. of frames.
Concrete deck slab and substructure.
Asphaltic (T-50) surface course (3" thick).
Loading - H-20-33
Skew - 45° 54' 30" L.F.
Spans 66 ft - 92 ft - 66 ft. 1/2 brgs.
Approach Slabs - 23' long x 41' 4" wide

Note: Bridge details, sheets 2 to 27
inclusive, redrawn from original design
prepared in the office of the Chief
Engineer of the NYC.R.R. Co., Cleveland, Ohio
and entitled, "NYC.R.R. (west of Buffalo),
Proposed Reconstruction All Bridge No. 208,
Triskett Road, Cleveland, Ohio" date Sep. 5, 1930.
(last revised Oct. 30, 1931).

Original design prepared by NYC. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
GENERAL PLAN & ELEVATION					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
	D.M.N.	A.H.S.	H.H.G.		1936

SPECIFICATIONS:-

GENERAL- The Construction Material Specifications of the Department of Highways dated November 1, 1935, together with the Supplemental Specifications dated May 1, 1936, and all Special Specifications shown on these Plans and on the Proposal shall govern the construction of this project.

LOADING- This structure designed for H20-35 Loading.

MAINTENANCE OF TRAFFIC-

The contractor shall so conduct his operations as to permit the maintenance of traffic over the existing structure for the longest possible time. During the removal of the existing structure and the time required to complete the new structure, traffic will be re-routed as indicated on the Plans.

The maintenance of railroad traffic during the construction of this project is of primary importance. The contractor shall cooperate with local officials of the railroad company in order to insure the completion of this work without causing interference, obstruction or delay to railroad traffic. If such interference, obstruction or delay occurs by reason of the acts of the contractor, or his failure to comply with the Specifications, he shall be liable to the railroad company for the results of his acts or his failure to comply with the Specifications. The contractor shall provide and maintain a lateral clearance of nine feet and six inches (9'-6") from the center line of the existing track and a minimum vertical clearance of nineteen feet (19'-0") measured from the top of rail of each track, except upon the written permission of the Chief Engineer of the New York Central Railroad Company. Railroad road bed and tracks adjacent to pits excavated for piers shall be supported in a manner satisfactory to the Chief Engineer of the Railroad Company.

REMOVAL OF EXISTING STRUCTURE-

The contractor shall remove the existing superstructure and all necessary portions of the substructure. The substructure shall be removed to a depth of one foot and six inches below the finished ground line unless the construction of the new bridge requires removal to a greater depth. The bridge shall become the property of the contractor, or part payment for its removal and shall be removed from the site by him.

SERVICE LINES- The contractor shall cooperate with the public service companies in the installation of any service lines that may be approved before the completion of the structure.

FIELD OFFICE- The contractor shall provide a suitable field office, conveniently located near the site of the work, for the use of the engineers and inspectors. The office shall be equipped with suitable furniture, light, and heat, if necessary. When no longer needed the contractor shall remove the office from the site. Include in concrete for payment.

BACKFILL- Backfill against the two end curtain walls shall be carried up simultaneously. This backfill may be placed below the construction joint "A" before the slab and beam concrete are placed, if this will facilitate the placing of this concrete.

CONCRETE CLASSIFICATION- Class "A" Concrete (1-3/4 mix) shall include all concrete except that concrete in the footings, approach slabs & railings.

Class "B" Concrete (1-3/4 mix) shall include all concrete in the footings.

GENERAL CONCRETE CONSTRUCTION-

Construction joints other than those called for on the Plans will not be permitted except by special permission of the Director. No shoring or canting from the ground will be permitted to support the forms for the concrete above the construction joints marked "Construction Joints A" on the Plans. The forms for this concrete shall be supported or fastened to the structural steel so that the entire load of forms and concrete in the beams and slabs will be supported by the structural steel.

All the concrete in the beams and slab, (except that portion of the curb, sidewalk slab and coping above the construction joint marked "B" on the Plans), shall be placed as described in Supplemental Specification No. 6, C. & D. in the slab and beams will be placed in one lift. The concrete shall be set up. The grade and method of placing this concrete shall be as indicated on this sheet, and as specified.

The forms for the roadway slab shall be set up to the elevations marked "F" on Sheet No. 17.

The bottom slab reinforcing steel shall be placed one and one half inches (1 1/2") above these forms. The top reinforcing steel shall be placed five and one half inches (5 1/2") above the bottom reinforcing steel. The concrete shall be placed to a variable thickness from the forms to the finished elevations for the top of concrete given on Sheet No. 17.

The roadway surface course, the sidewalk slabs, curbs, coping above construction joints "B", and the railings shall not be placed until the beam and slab forms have been removed. See Note 1. The top of the finished surface course shall conform strictly to the profile grade and cross section given on Sheet No. 17. Any variations in the thickness of the surface course, required to meet this profile grade and cross section, shall be taken up in the binder course.

Two sets of elevations for the top of coping and curb are shown on Sheet No. 17. One set is marked with an "X". Those marked with an "X" are the grades to which the coping and curb are to be set, and those not marked are the final elevations. The difference between these two elevations is the allowance for the calculated deflections due to the placing of the sidewalk slab, curb, and copings above the construction joints "B", the roadway surface course and the railing. All concrete shall be vibrated with a power driven vibratory device.

REINFORCING STEEL-

All reinforcing steel shall be deformed and shall conform to Sec. M-71, Billet Steel of Material Details.

STRUCTURAL STEEL-

All structural steel called for on the Plans, except rivets, bolts, castings, with angles, curb angles, and manhole frames and covers, shall be structural silicon steel. This structural silicon steel shall conform to the A-S-T-M Standard Specifications for Structural Silicon Steel Designation A-36-33. The curb angles and the manhole frames and covers shall be copper bearing steel, containing not less than two tenths percent (0.2%) of copper. Certified copies of analysis and mill tests of both silicon and copper bearing steel shall be furnished. All structural steel not embedded in concrete shall be painted as per item S-8.

FED. RD DIST. NO.	STATE	U.S.W.R.C.C. PROJECT	FISCAL YEAR
10	OHIO	WPOM-936A	1936

3
39

CUYAHOGA COUNTY
TRISKETT ROAD

Original design prepared by N.Y.C. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

ESTIMATED QUANTITIES-

ITEM		
E2	Excavation for Structures (Earth)	3290. Cu.Yds.
E2	Excavation for Structures (Shale)	28.30. Cu.Yds.
E2	Porous Backfill	Lump Sum.
S-1A	GC-B, Class "A" Concrete for Structures (1-3/4 mix)	1686. Cu.Yds.
S-1	Class "B" Concrete for Structures (1-3/4 mix)	4159.412. Cu.Yds.
S3	Type "A" Waterproofing	1000. Sq.Yds.
S3	Type "B" Waterproofing	140. Sq.Yds.
S3	Type "C" Waterproofing	1067. Sq.Yds.
S4	Reinforcing Steel (Sec. M-71)	239700. Lbs.
S5	1/2" Reinf. Concrete Approach Slabs	2297. Sq.Yds.
S7	Structural Steel	13,000. Lbs.
S7	Steel Castings	28900. Lbs.
S7	Cast Iron Blast Plates	19100. Lbs.
S7 & GC-B	Structural Silicon Steel	662,000. Lbs.
S9	1" Premolded Expansion Joint Filler	370. Sq.Ft.
S14	Bridge Railing (Reinforced Concrete)	5597. Lin.Ft.
S25	Bridge Lighting System (complete except conduits)	Lump Sum.
S25	4" Galvanized Steel Conduit Complete in place	640. Lin.Ft.
S25	2" Galvanized Steel Conduit Complete in place	70. Lin.Ft.
S26	Name Plates (Bronze) (2 Required)	Lump Sum Deleted
GC-B	3" Wrought Iron Pipe (as detailed)	215. Lin.Ft.
I-4	4" V.S.P. Pipe Underdrains (Sec. M-68)	334. Lin.Ft.
I-4	10" V.S.P. Pipe Outlets for Underdrains (Sec. M-68)	160. Lin.Ft.
I-8	Junction Basins (complete as detailed)	4. Each.
I-8	Cast Iron Scuppers (Special for Roadway)	8. Units.
I-8	Cast Iron Scuppers (Special for Utility Chambers)	8. Units.
I-8 & GC-B	Brick Masonry Walls (Utility Chambers)	5. Cu.Yds.
GC-B	Paved Asphalt Joints at Abutts	1320. Gals.
T-50	Hot mixed, hot laid Asphaltic Concrete Surface Course (3" thick)	1237. Sq.Yds.
S-24	Removal of Existing Structure (incl. ditch & slope excavation)	Lump Sum.

STRUCTURAL STEEL ERECTION-

Extreme care shall be exercised in the placing of all anchorages and castings for column supports. The contractor shall provide adequate safeguards against excessive stresses in the steel ribs during handling and erection. Each rib shall be completely assembled in the shop and all field holes reamed while material is assembled, parts so assembled shall be match marked.

RIVETS- All rivets shall be seven-eighths (7/8") inches round and open holes fifteen-sixteenths (15/16") inches round, except otherwise noted.

WELDING- Welding shall be done by the electric arc process. No preheating of welds will be required for all welding shall be done by experienced welders in a manner satisfactory to the Engineer.

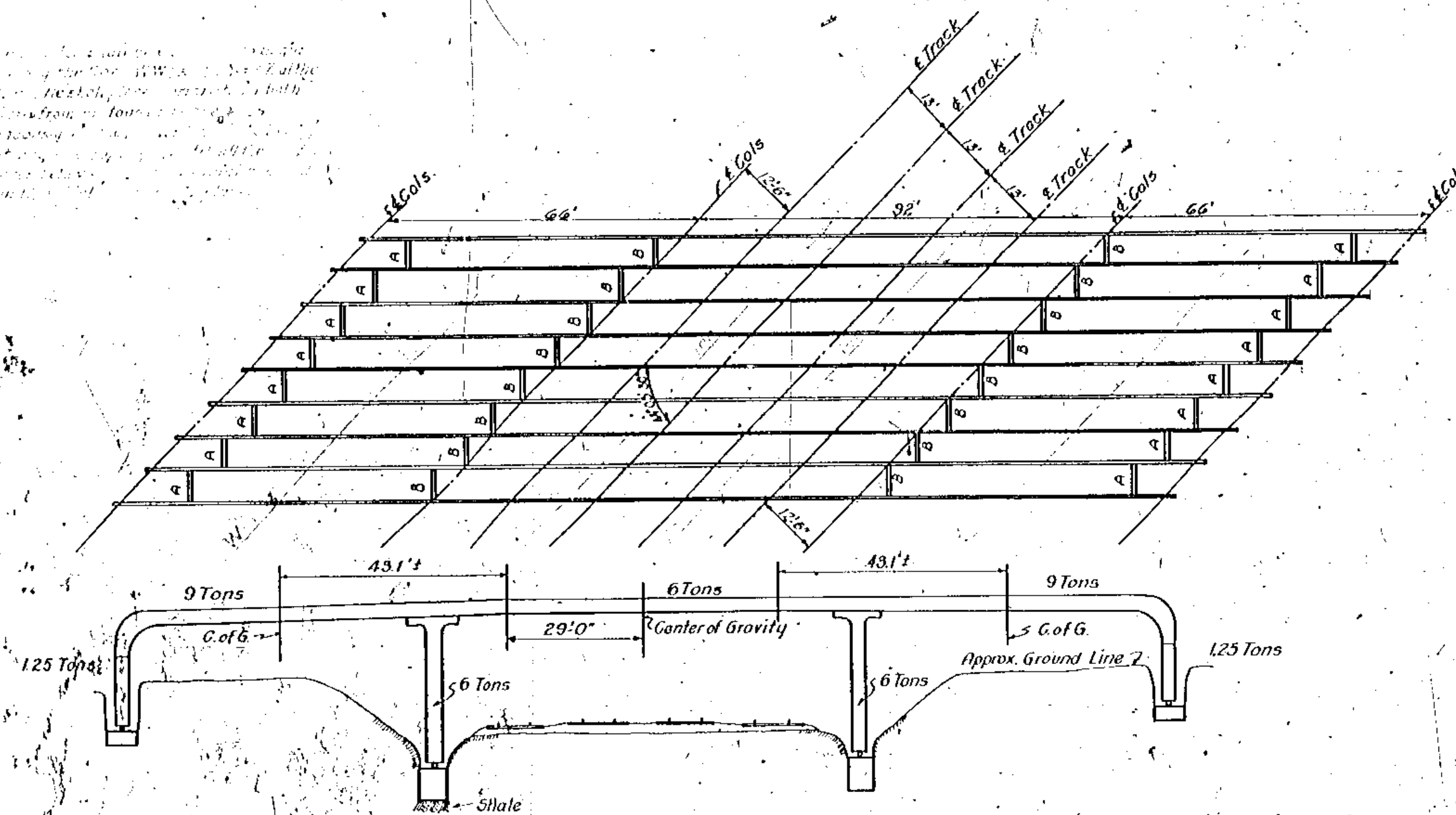
NAME PLATES-

Bronze name plates shall be furnished and placed by the contractor on the inside face of the end railing posts at the Northeast and Southwest corners of the bridge. Information for the inscriptions will be furnished by the Department of Highways on request and designs shall be approved by them before the plates are made. Plates shall be set flush with the face of the concrete and anchored from behind so that they cannot be removed.

and not before the beam and slab concrete has been in place at least 14 days.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
ERECTION SCHEME NOTES & ESTIMATED QUANTITIES TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72 + 08.10					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
	M.P.	M.P.	F.A.P.	J.L.W.	1/27/36
	W.J.W.	W.J.W.		K.W.G.	3/2/36

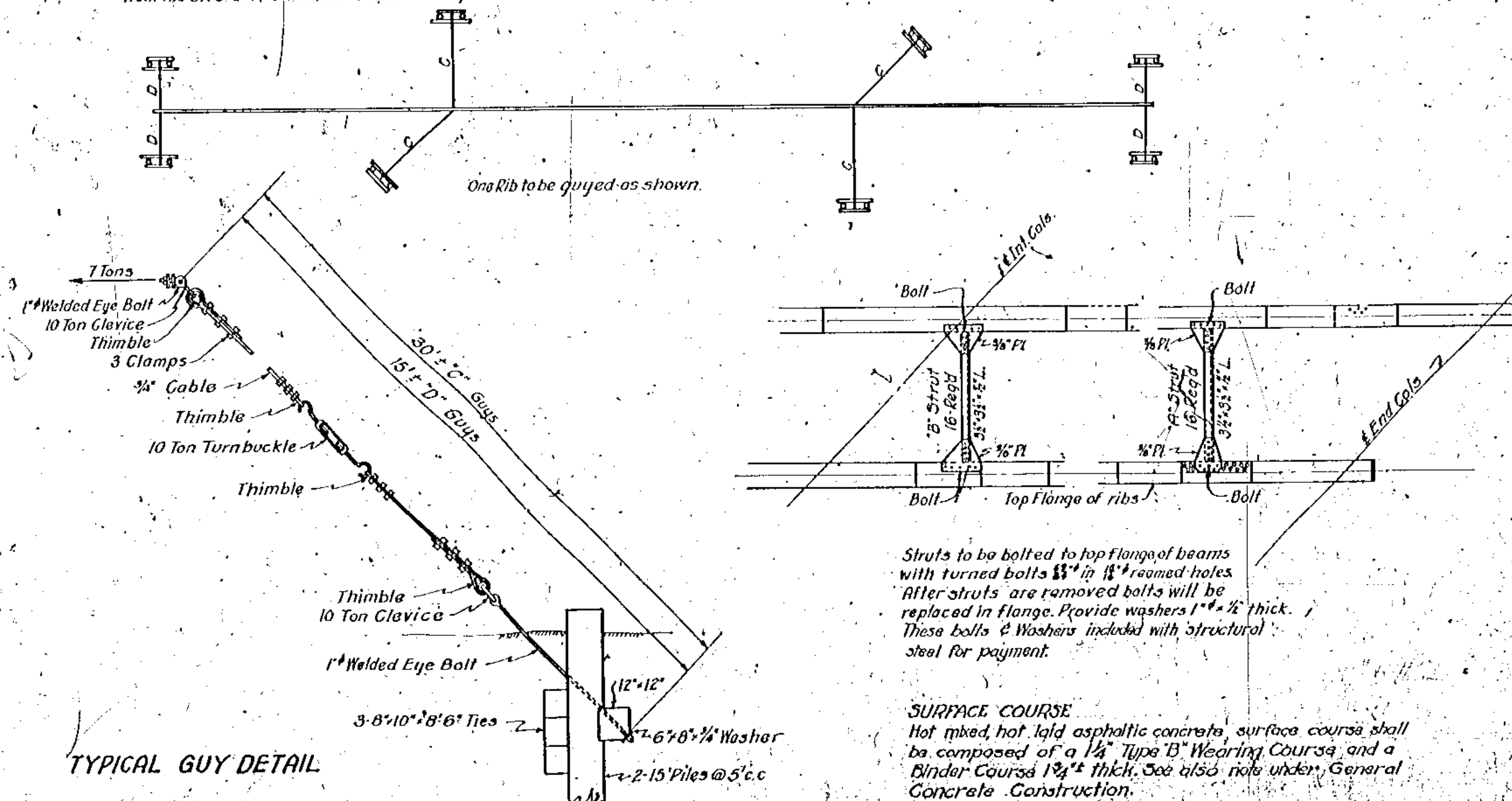
Revised As Built MAY 6 1938 E.C.N.



SUGGESTED ERECTION SCHEME

1. Assemble and bolt end spans of first rib as shown. Set in place and brace with two Cable Guys, C #10, of each column, securing the steel in a vertical plane.
2. Similarly assemble and set end spans of all other ribs bracing with Struts "A" & "B".
3. Set middle sections in place and place all field rivets.
4. Drill anchor bolt holes in masonry and set anchor bolts.
5. Erection Guys and Struts shall be removed after the end curtain walls and diaphragm walls of intermediate columns are poured below construction joint A.

The material called for in this suggested erection scheme is given for the contractors convenience only. The price for all erection material required, either under this suggested scheme or any other scheme, shall be included in the price bid for structural steel. All erection material shall be the property of the contractor and shall be removed from the site before the final estimate is paid.



Struts to be bolted to top flange of beams with turned bolts 1/2" in 1/2" reamed holes. After struts are removed bolts will be replaced in flange. Provide washers 1" x 1/2" thick. These bolts & washers included with structural steel for payment.

SURFACE COURSE

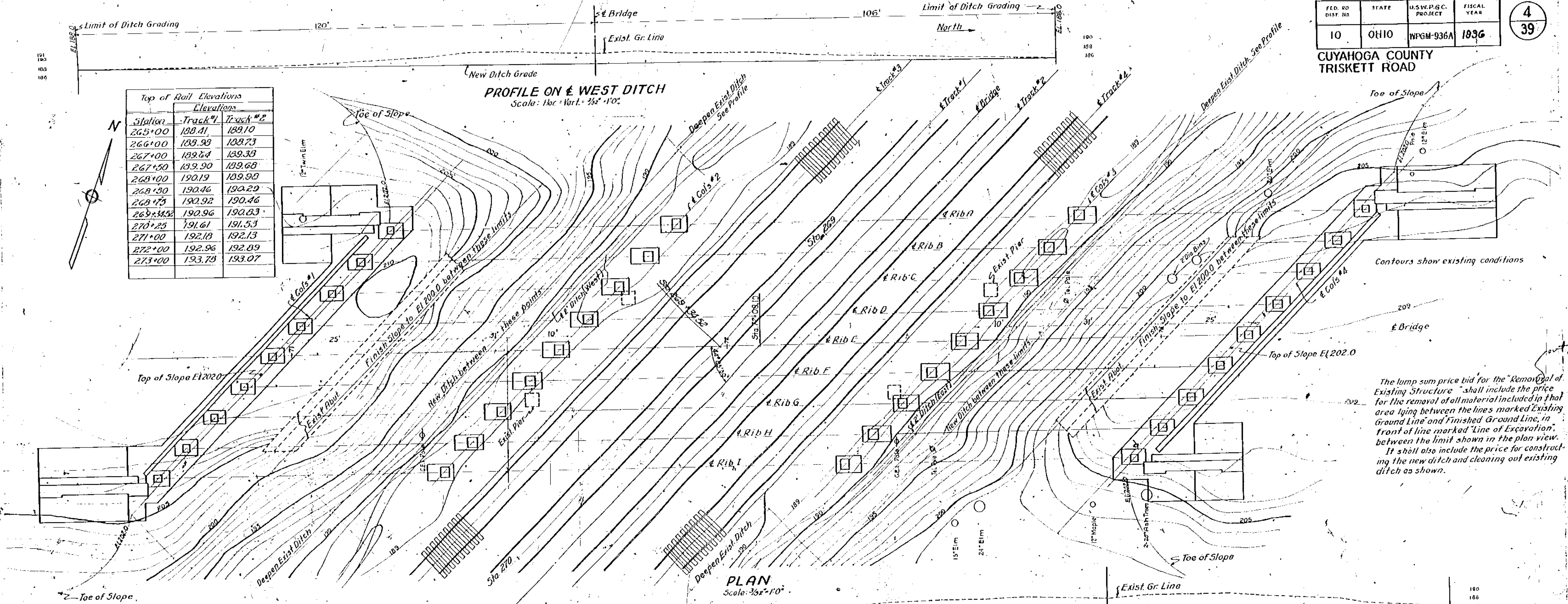
Hot mixed, hot laid asphaltic concrete surface course shall be composed of a 1/2" Type "B" Wearing Course and a Binder Course 1 1/2" thick. See also note under General Concrete Construction.

**CUYAHOGA COUNTY
TRISKETT ROAD**

Top of Rail Elevations

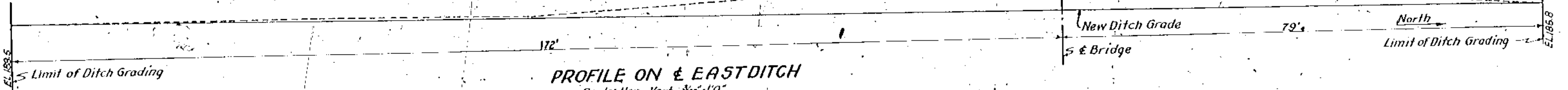
Station	Track #1	Track #2
265+00	188.41	189.10
266+00	188.99	188.73
267+00	189.64	189.38
268+00	189.90	189.68
269+00	190.19	189.90
270+00	190.46	190.29
271+00	190.92	190.46
272+00	190.96	190.83
273+00	191.61	191.53
274+00	192.18	192.13
275+00	192.96	192.09
276+00	193.79	193.07

PROFILE ON & WEST DITCH
Scale: Hor. = Vert. = 1/2" = 10'

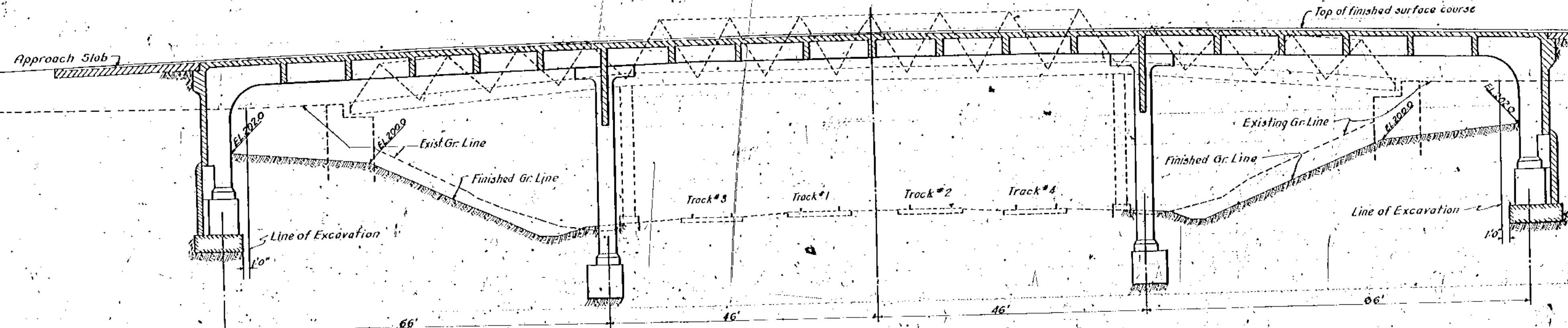


PLAN
Scale: 3/32" = 10'

PROFILE ON & EAST DITCH
Scale: Hor. = Vert. = 1/2" = 10'



PROFILE ON & OF BRIDGE
Scale: Hor. = Vert. = 3/32" = 10'



The lump sum price bid for the "Removal of Existing Structure" shall include the price for the removal of all material included in that area lying between the lines marked Existing Ground Line and Finished Ground Line, in front of line marked "Line of Excavation", between the limit shown in the plan view. It shall also include the price for constructing the new ditch and cleaning out existing ditch as shown.

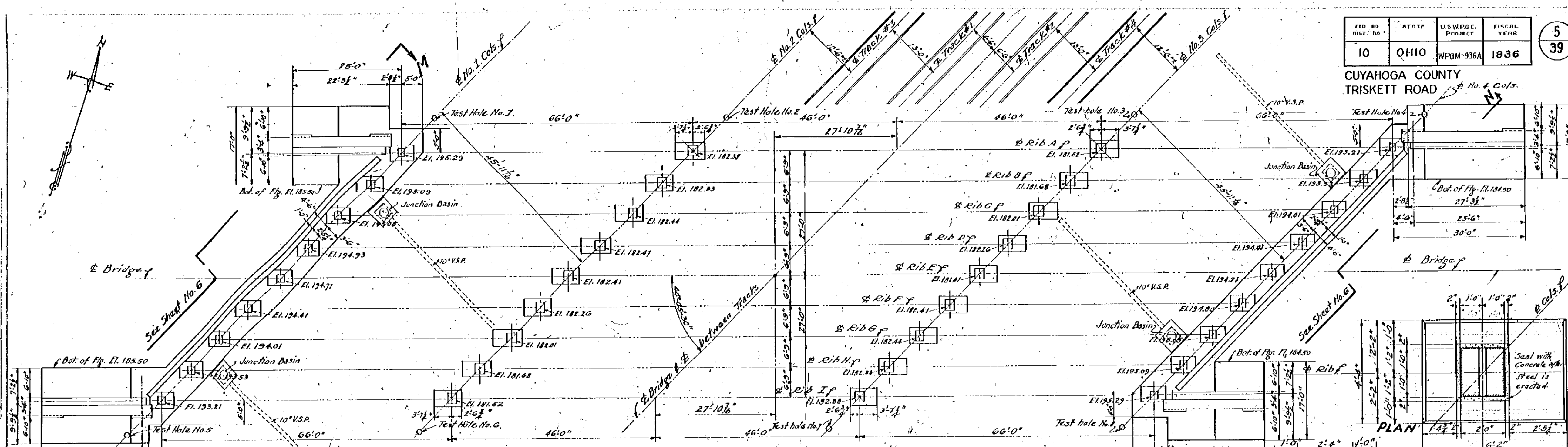
STATE OF OHIO
DEPARTMENT OF HIGHWAYS
BUREAU OF BRIDGES

**CONTOUR MAP &
CENTER LINE SECTION
TRISKETT ROAD BRIDGE
OVER NEW YORK CENTRAL RAILROAD
CUYAHOGA COUNTY STA. 72 + 08.10**

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
	M.L.P.	M.L.P.		J. C. H.	1/1/36	
				H. H. G.	1/4/36	

Original design prepared by N.Y.C. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

CUYAHOGA COUNTY
TRISKETT ROAD



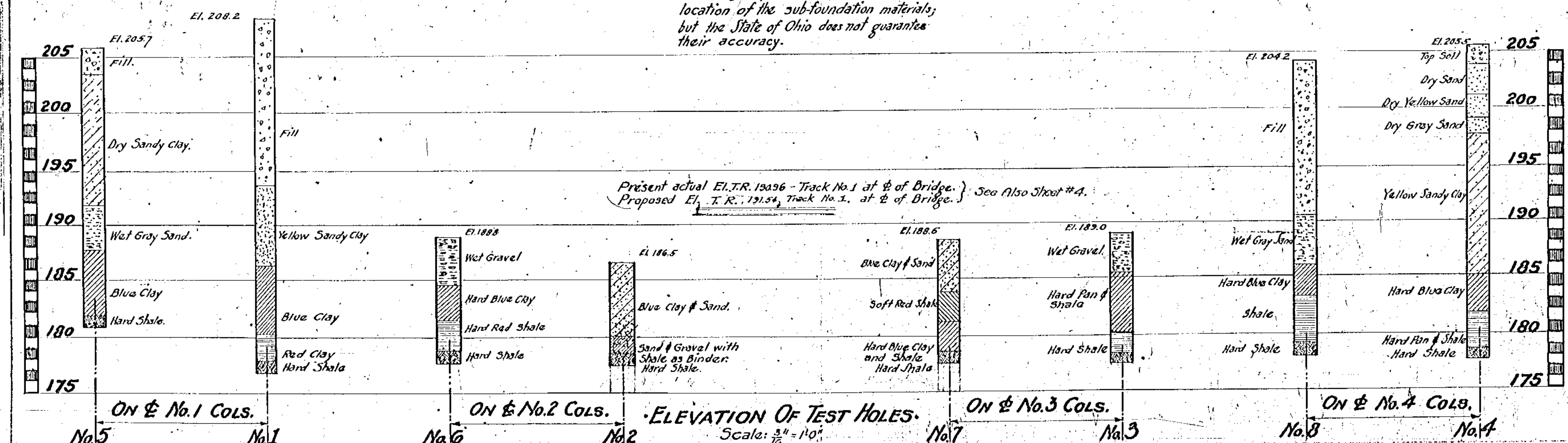
PLAN OF FOOTINGS.
Scale: $\frac{3}{32}'' = 1'-0''$

For Details of Drainage System not shown here See Sheet No's 20 and 21. Junction Basin see Sheet No. 1.

Revised As-built
CAN#2. It was necessary to lower four footings on Columns No. 3 (North end of group) requiring 3.9 cu. yd. additional Class B concrete.
CAN#3. Shale was found at a lower elevation than anticipated requiring a nonperformance of 22' cu. yd. of excavation for structures (shale).

12 - Y29 Dowels per Column to project 9". See Sh. #10 & 12 for location.

NOTE:-
These test hole data were obtained by diligent effort and are believed to correctly represent the character and location of the sub-foundation materials; but the State of Ohio does not guarantee their accuracy.



END VIEW. SIDE VIEW.
FOOTINGS FOR COLUMNS, Row No. 3
Scale: $\frac{1}{4}'' = 1'-0''$
FOOTINGS FOR COLUMNS, Row No. 2
SAME, EXCEPT AS SHOWN.

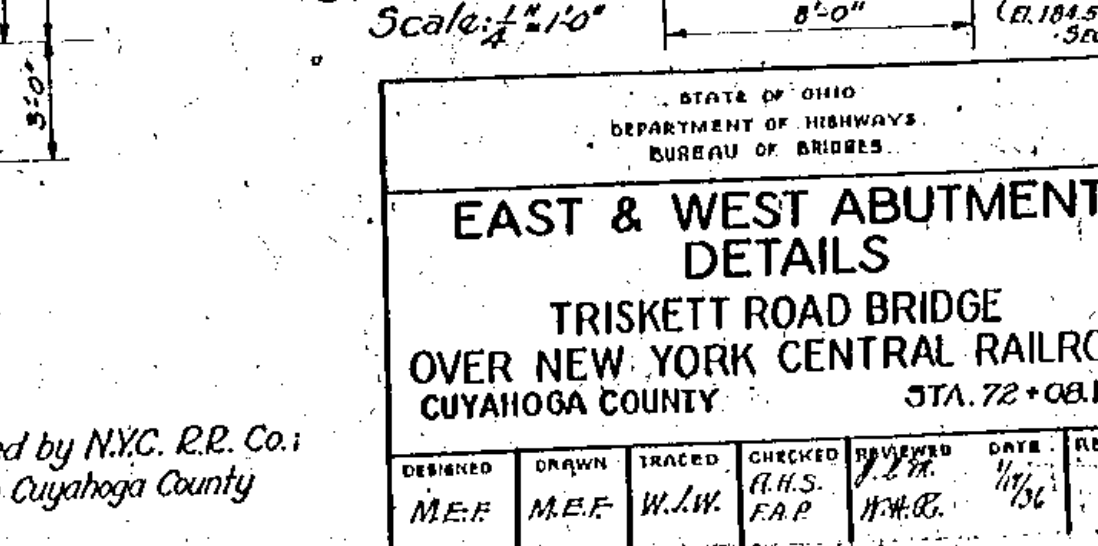
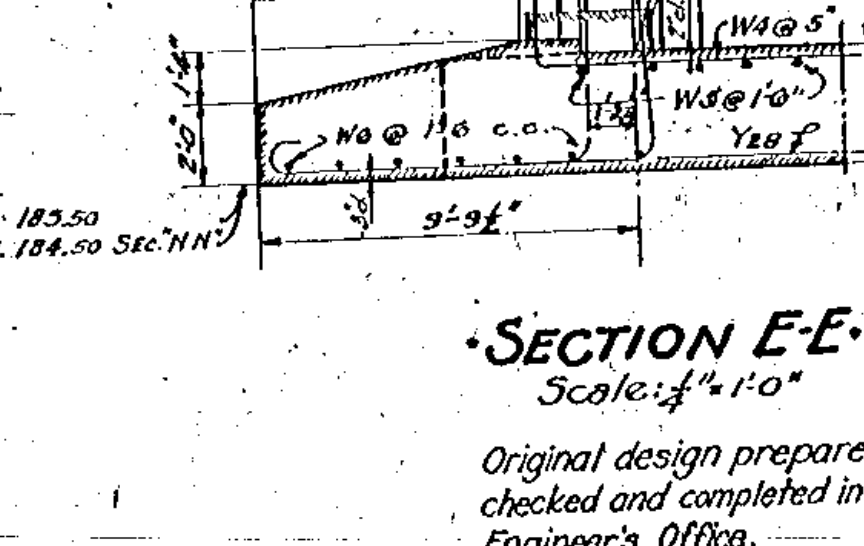
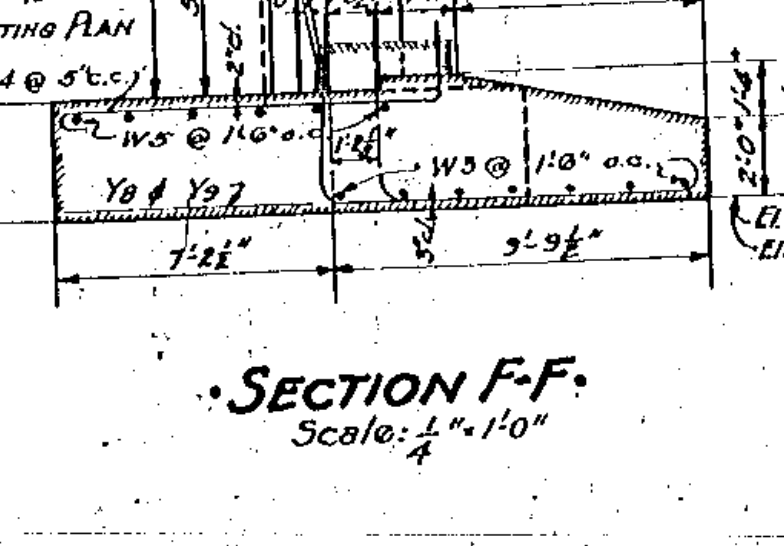
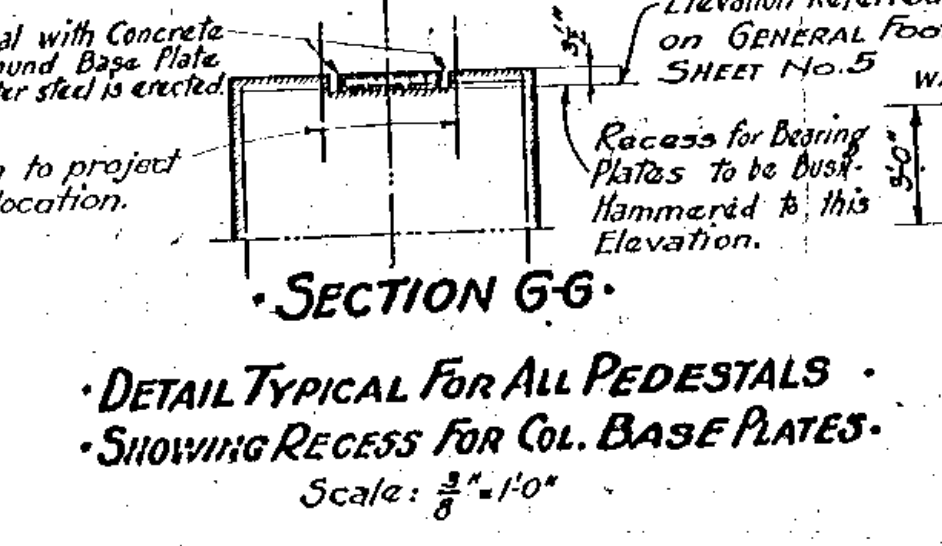
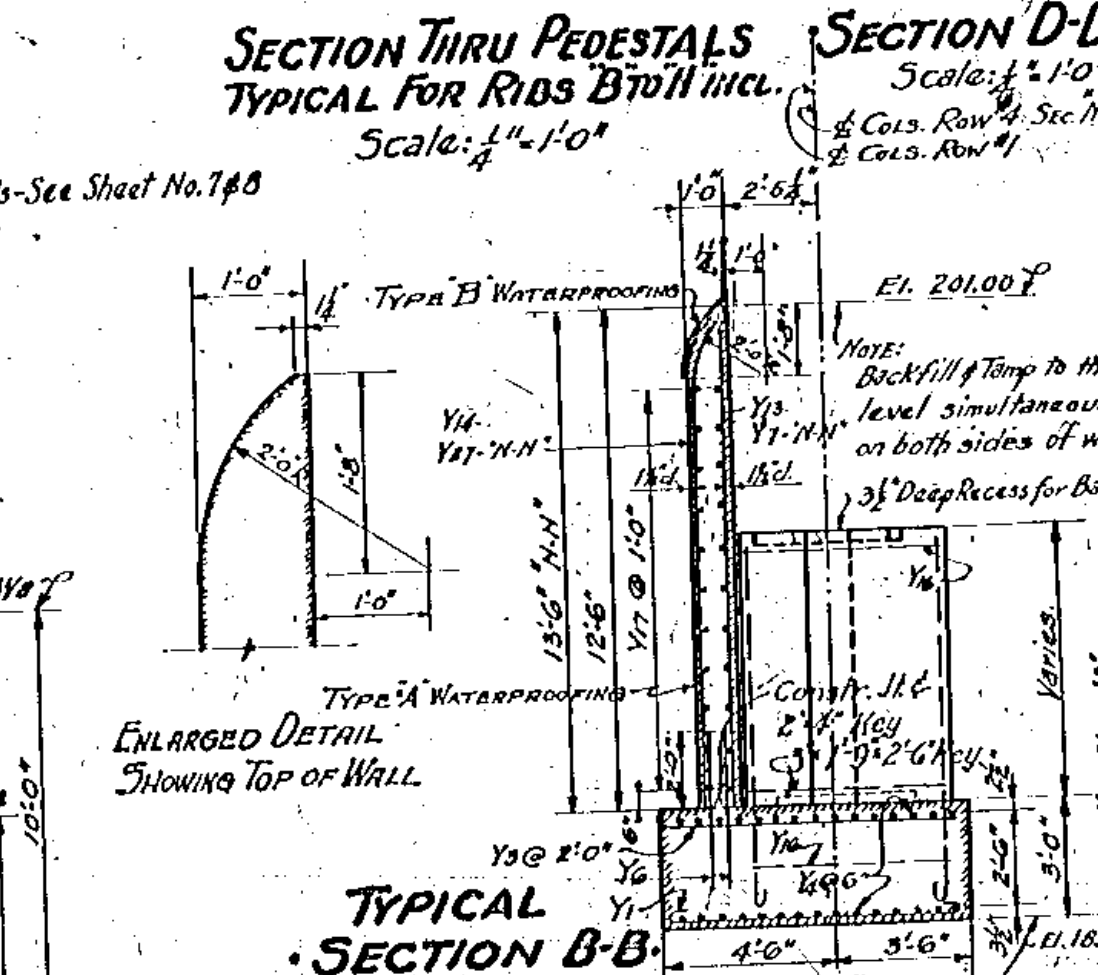
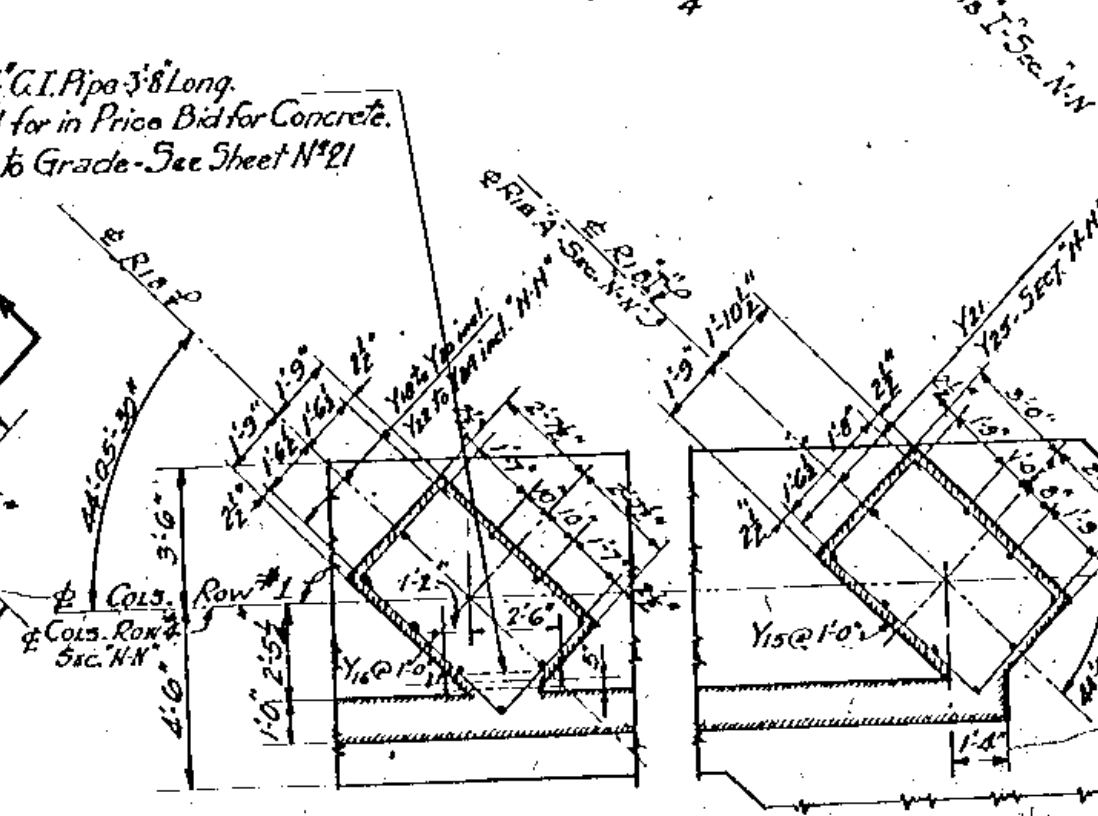
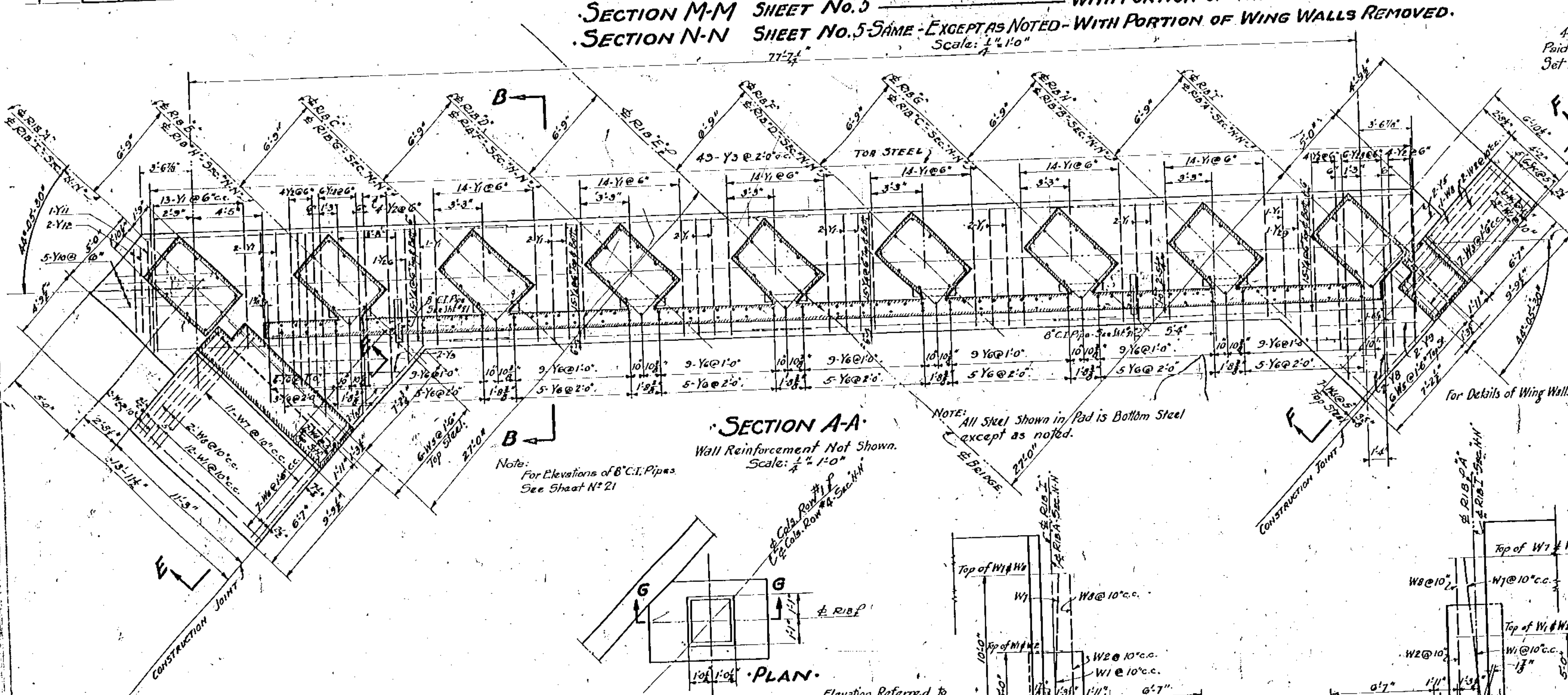
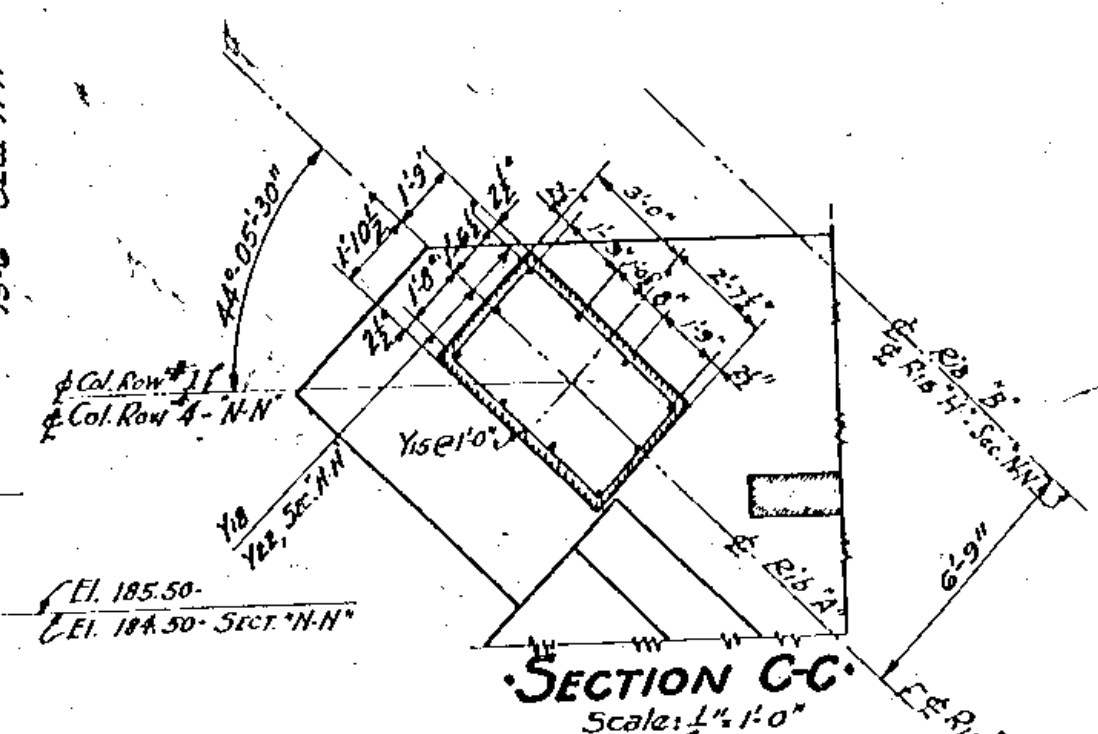
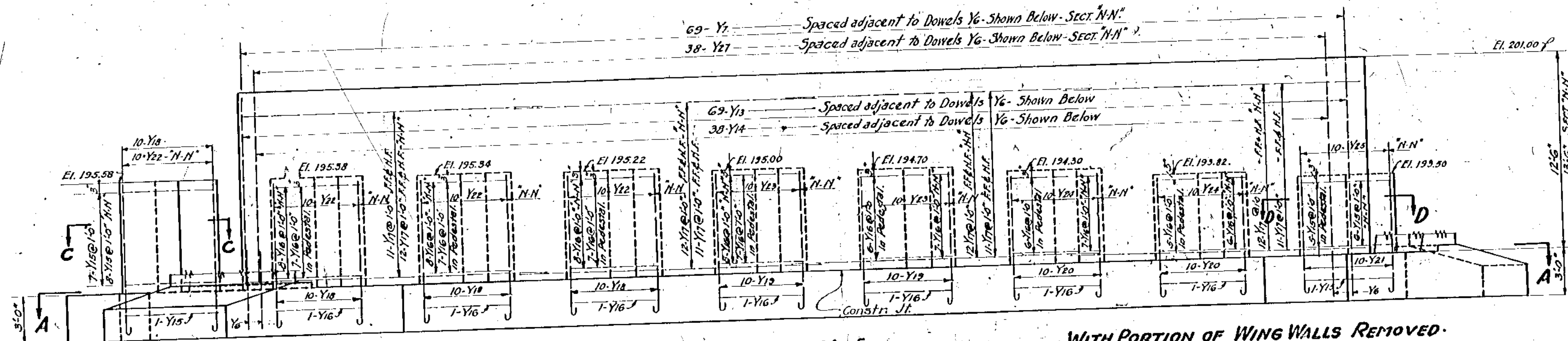
Footings for Columns No. 2 & No. 3 shall be carried to the depth shown and as much deeper as is necessary to extend 1'-0" into hard shale.
Top of shale was assumed at El. 179.50 for calculating quantities of shale excavation.

Original design prepared by N.Y.C. R.R. Co.; checked and completed in Cuyahoga County Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
FOOTING DETAILS & FOUNDATION INFORMATION					
TRISKETT ROAD BRIDGE					
OVER NEW YORK CENTRAL RAILROAD					
CUYAHOGA COUNTY STA. 72 + 08.10					
DESIGNED	DRAWN	TRACED	CHECKED	REVISED	DATE
W.J.W.	W.J.W.	A.H.S.	W.H.C.		

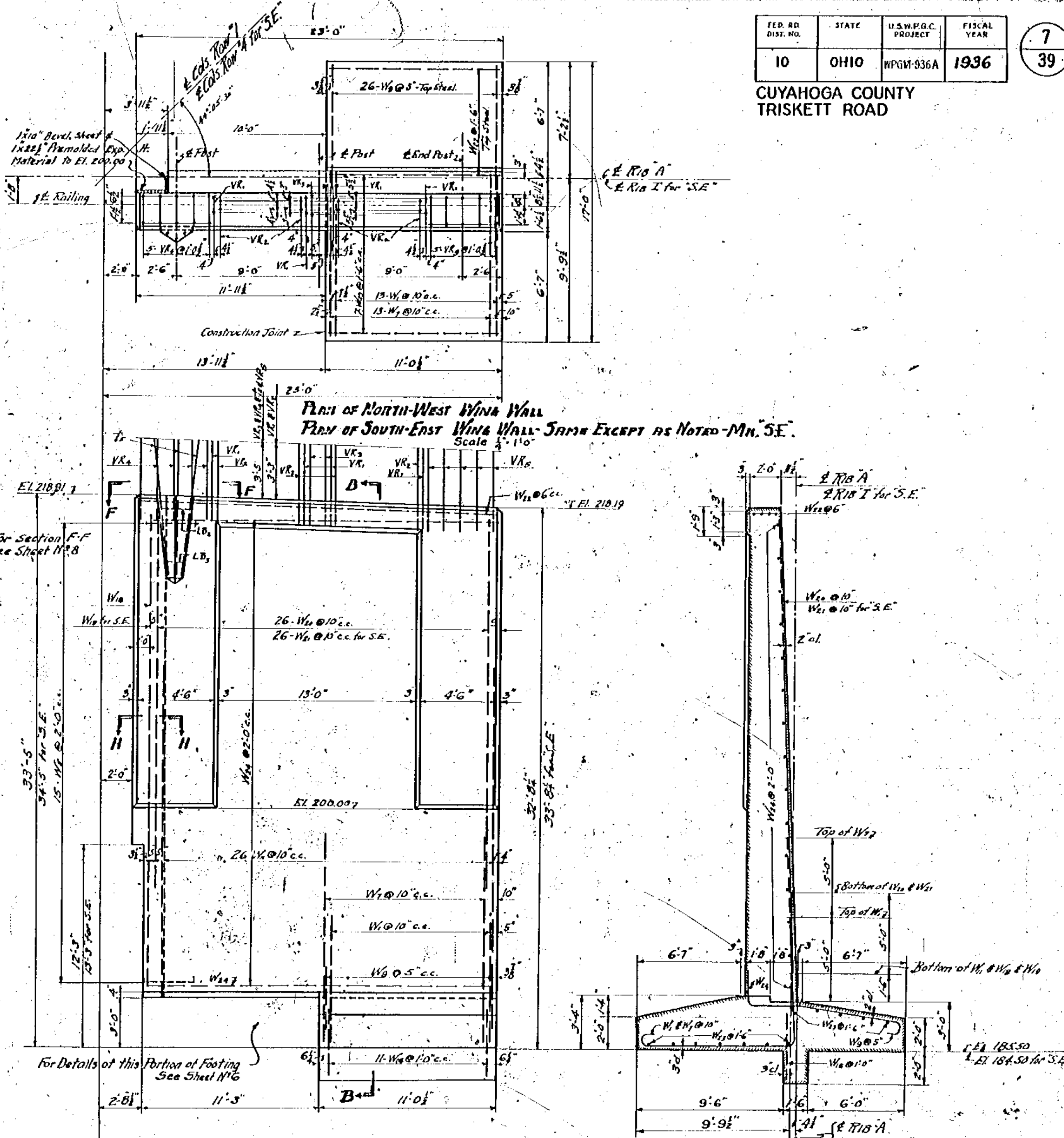
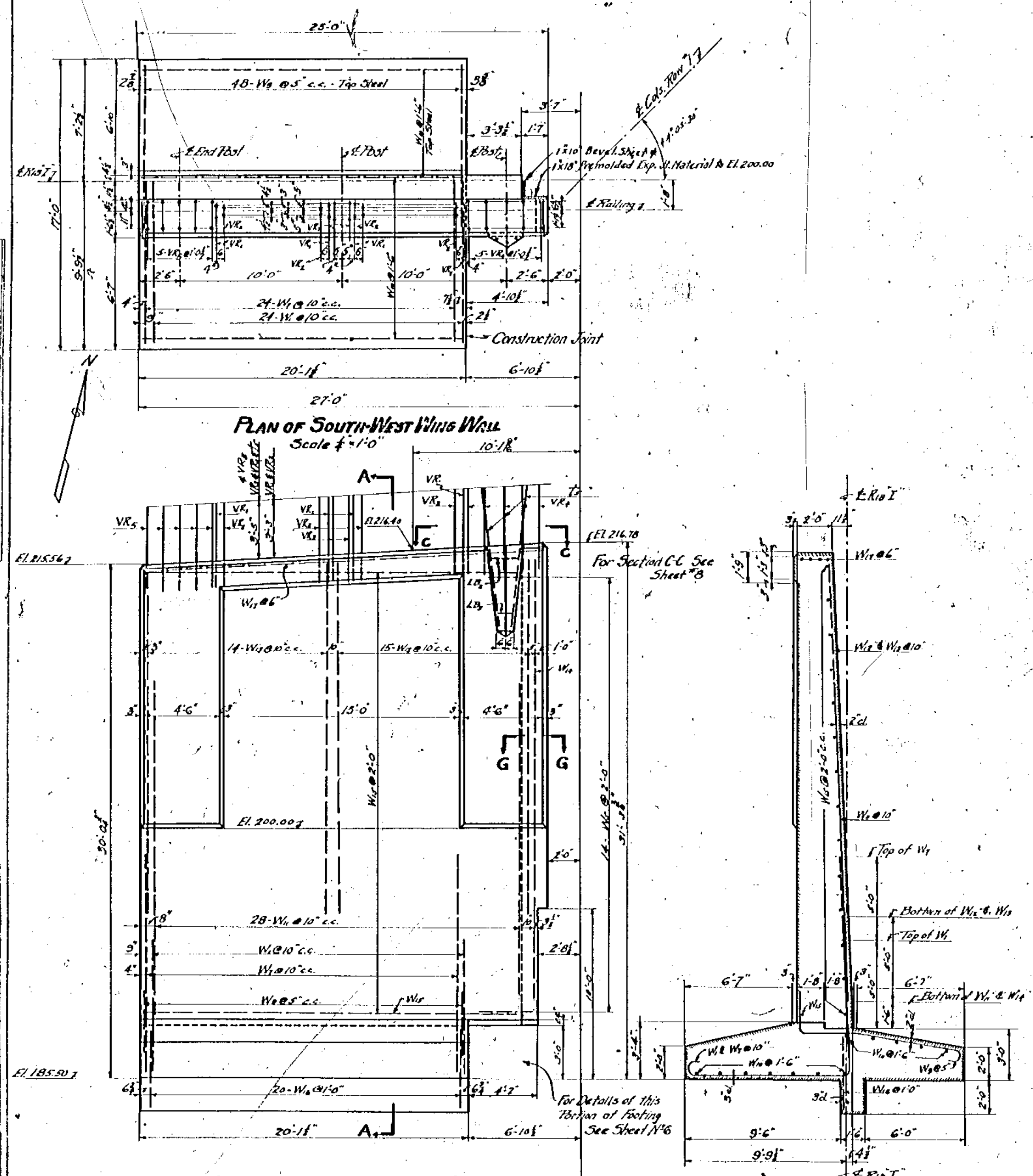
FED. RD. DIST. NO.	STATE	U.S. HIGHWAY PROJECT	FISCAL YEAR	SHEET NO.
10	OHIO	WPGM-936A	1936	39

CUYAHOGA COUNTY
TRISKETT ROAD



EAST & WEST ABUTMENT DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	DATE	REMARKS
M.E.F.	M.E.F.	W.L.W.	F.A.P.	11-2-36	

Original design prepared by NYC. R.R. Co. checked and completed in Cuyahoga County Engineer's Office.

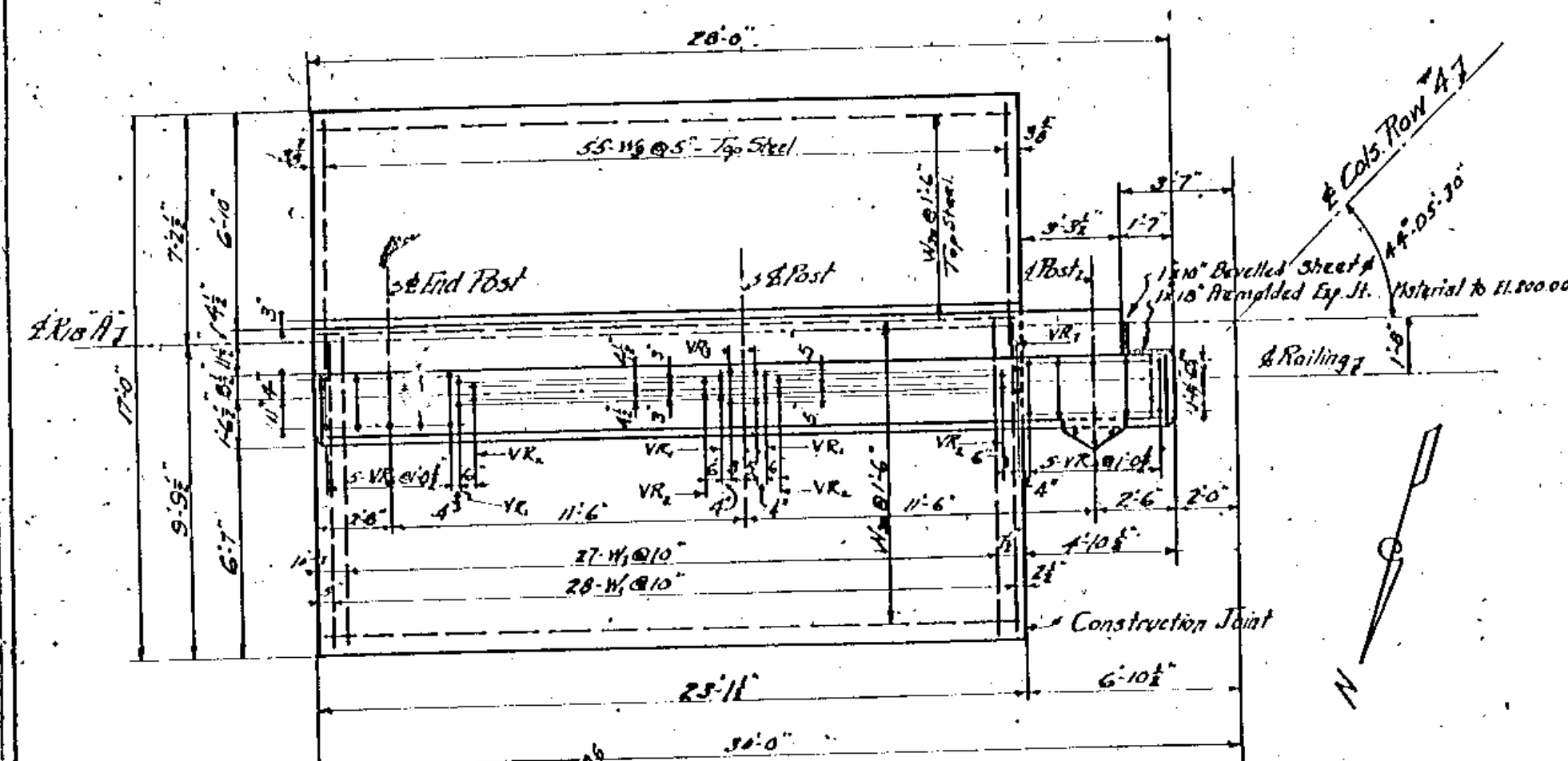


WING WALL DETAILS

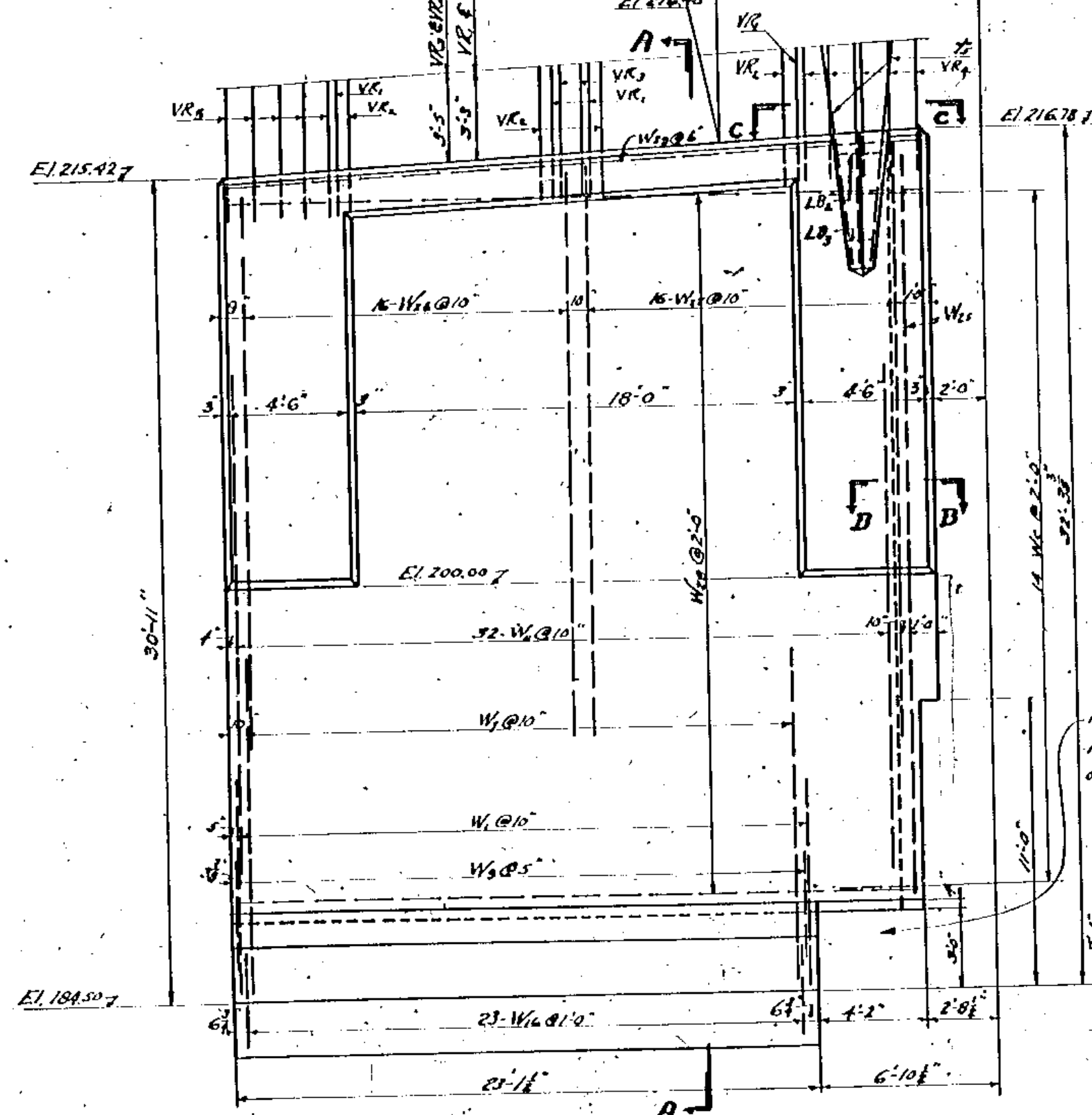
TRISKETT ROAD BRIDGE
OVER NEW YORK CENTRAL RAILROAD
CUYAHOGA COUNTY STA. 72+08.10

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REVISION
M.E.F.	M.E.F.	D.M.M.	H.S.	H.M.B.	1/7/36	

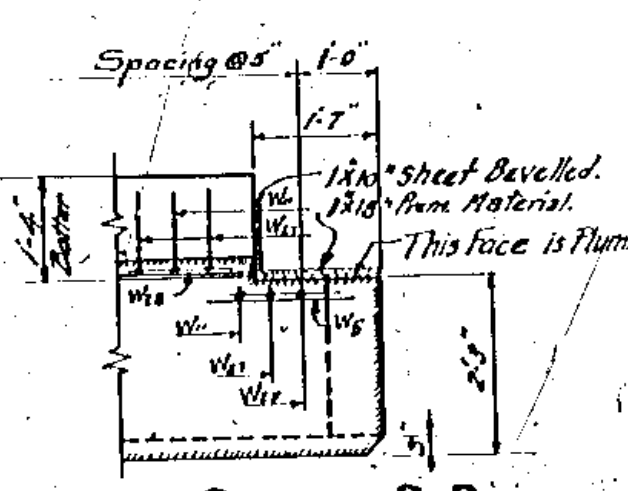
Original design prepared by NYC. R.P. Co.;
checked and completed in Cuyahoga County
Engineer's Office.



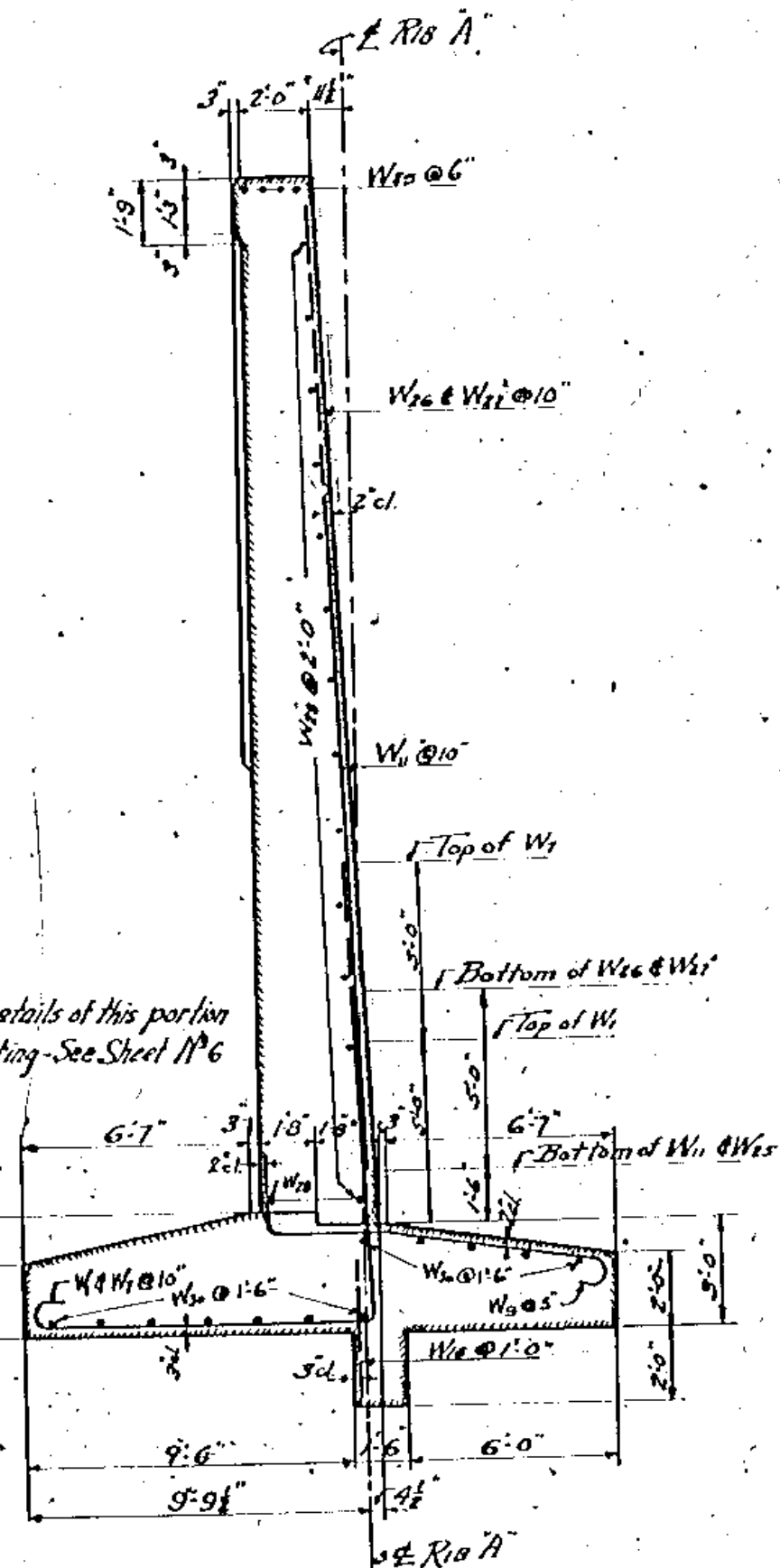
PLAN OF NORTH-EAST WING WALL
Scale 1/4" = 1'-0"



ELEVATION OF NORTH-EAST WING WALL
Scale 1/4" = 1'-0"

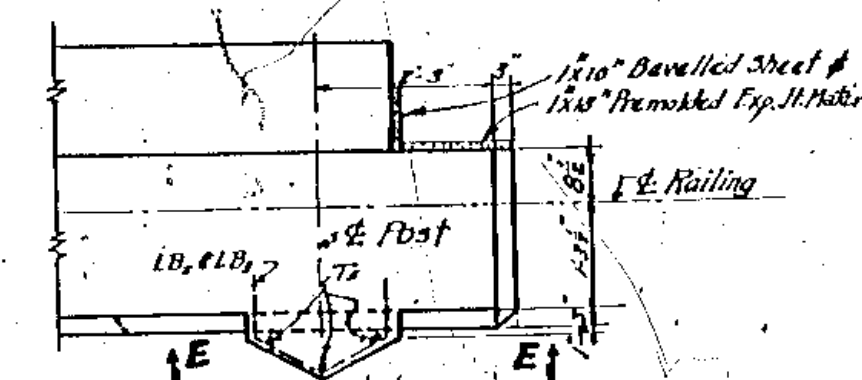


SECTION B-B
Scale 1/4" = 1'-0"

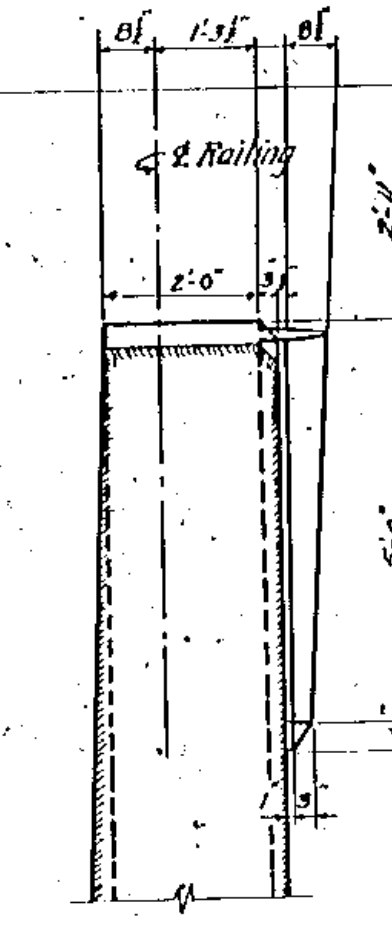


SECTION A-A
Railing Details Not Shown
Scale 1/4" = 1'-0"

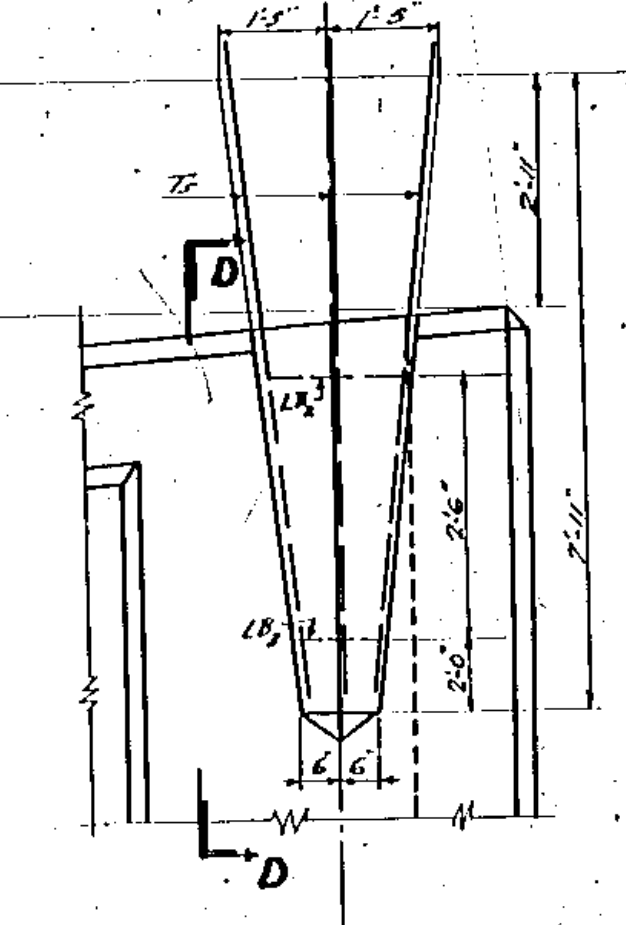
Note:
For Location of Plan C-C
See Also Sheet N-7



PLAN C-C - AS SHOWN
PLAN F-F: Opp. Hand
Railing Details Not Shown
Scale 1/4" = 1'-0"



SECTION D-D
Scale 1/4" = 1'-0"



ELEVATION E-E
Scale 1/4" = 1'-0"

FED. RD. DIST. NO.	STATE	U.S. HIGHWAY PROJECT	FISCAL YEAR
10	OHIO	WPGM 036A	1936

8
39

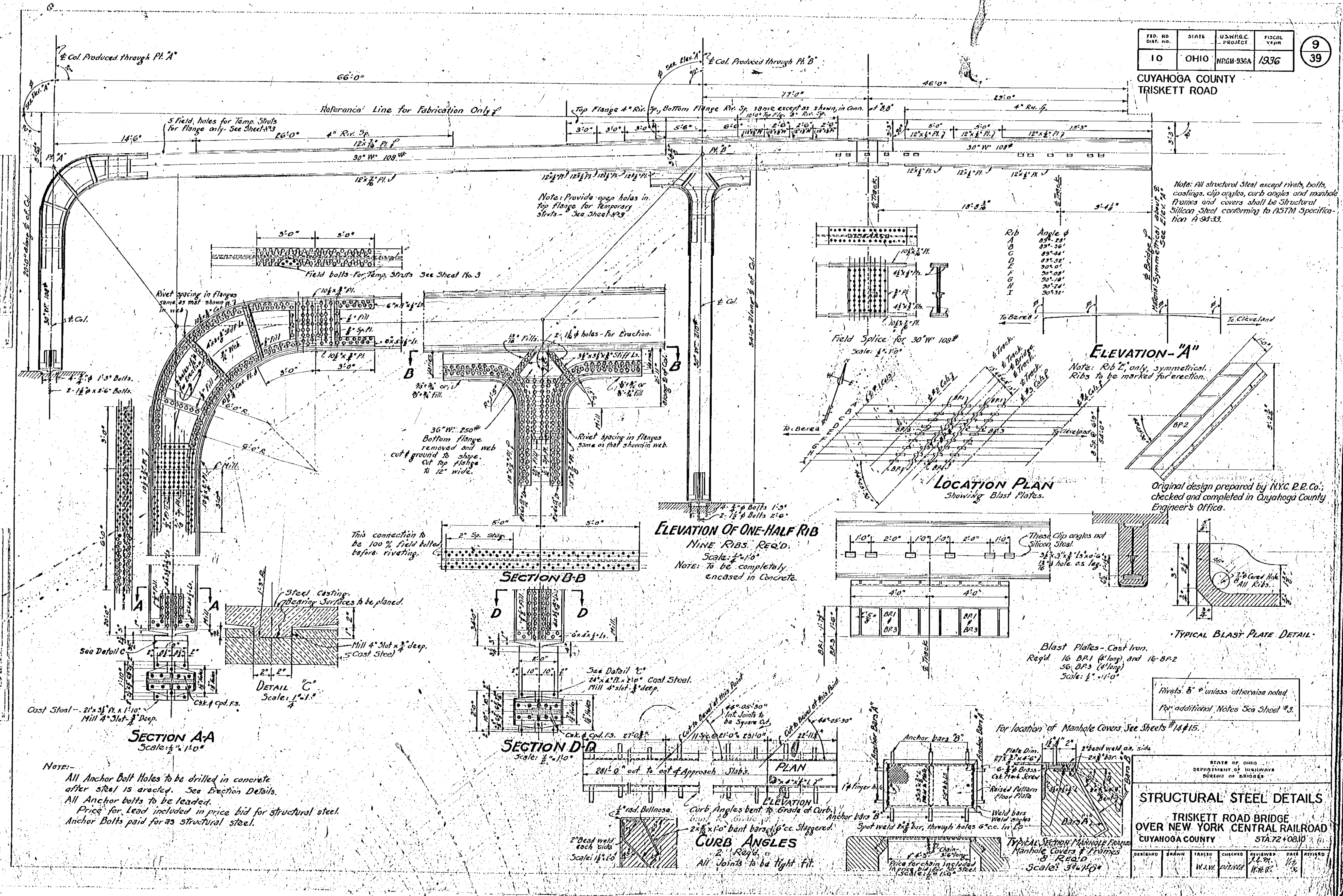
CUYAHOGA COUNTY
TRISKETT ROAD

Original design prepared by NYC. R.R. Co.
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
WING WALL DETAILS					
TRISKETT ROAD BRIDGE					
OVER NEW YORK CENTRAL RAILROAD					
CUYAHOGA COUNTY STA. 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
M.E.F.	A.E.E.	A.M.W.	A.H.S.	W.H.B.	7/1/36

FED. RD. DIST. NO.	STATE	U.S. HIGHWAY PROJECT	FISCAL YEAR	SHEET NO.
10	OHIO	WPGH-936A	1936	9

CUYAHOGA COUNTY
TRISKETT ROAD



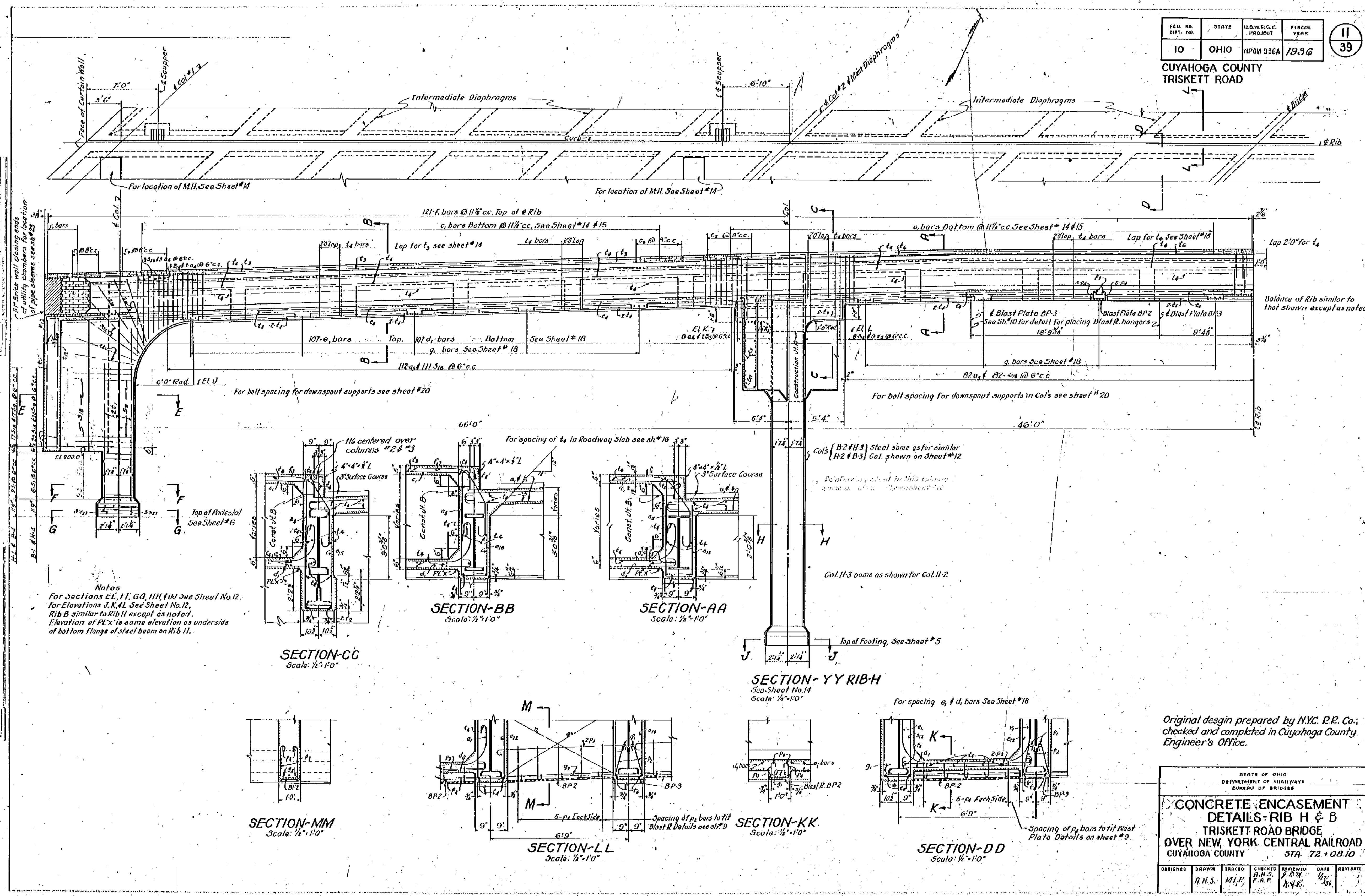
STRUCTURAL STEEL DETAILS

TRISKETT ROAD BRIDGE
OVER NEW YORK CENTRAL RAILROAD
CUYAHOGA COUNTY

DESIGNED	DRAWN	CHECKED	APPROVED	DATE
W.A.W.	W.A.W.	W.A.W.	W.A.W.	11-16-36

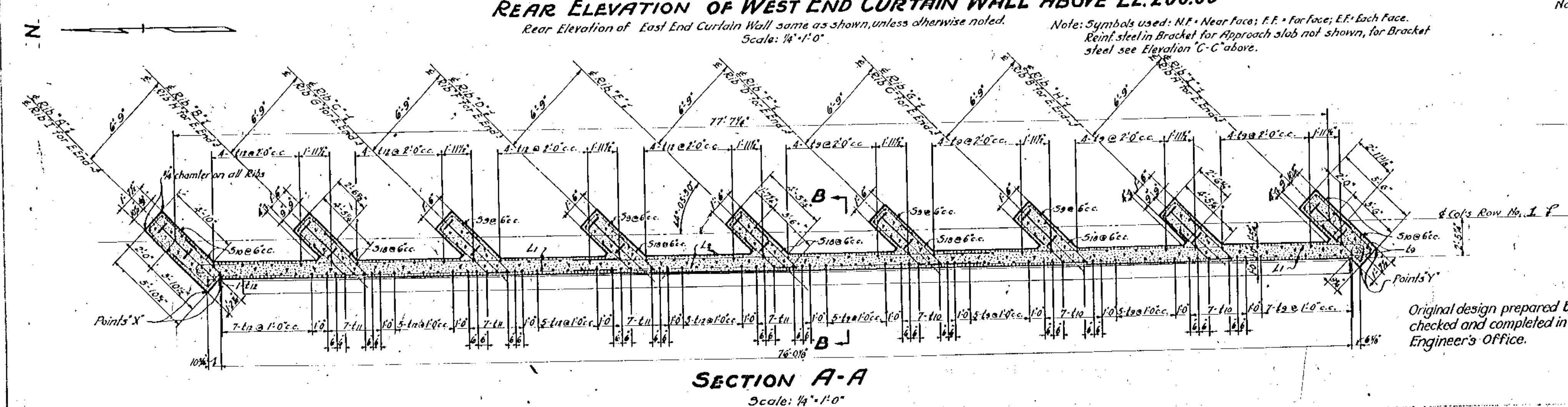
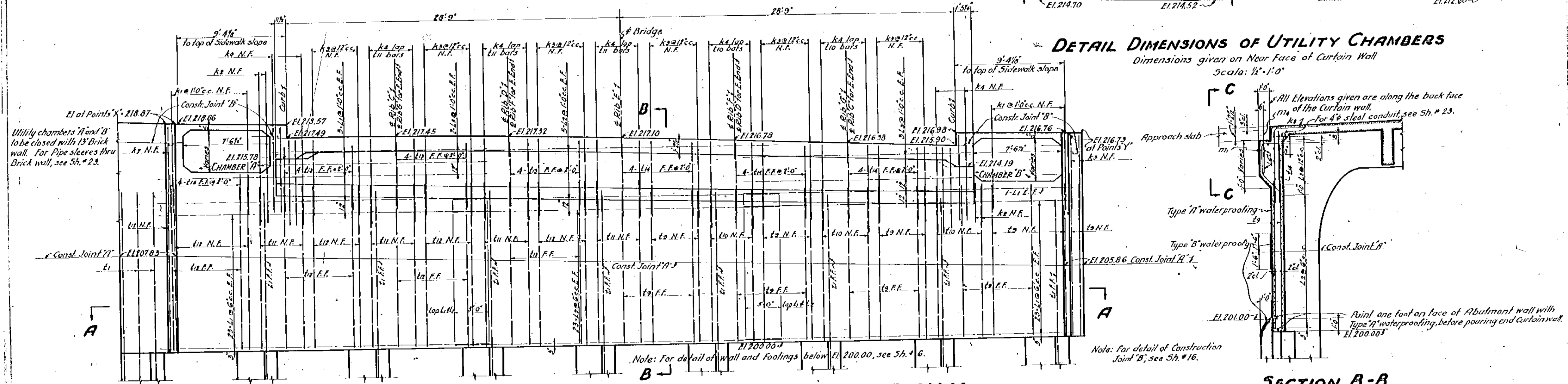
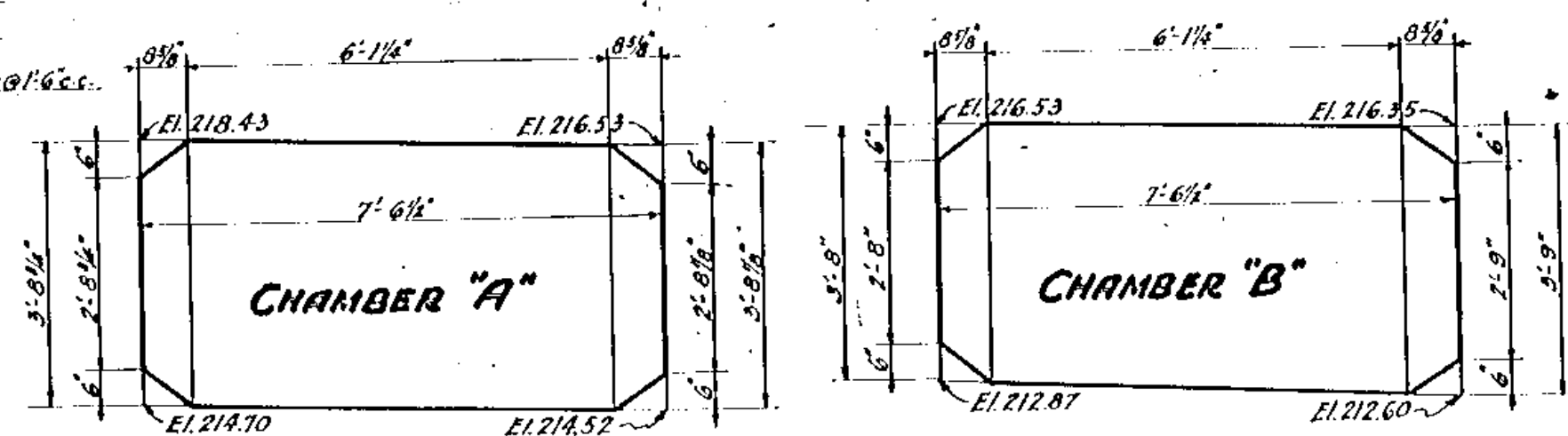
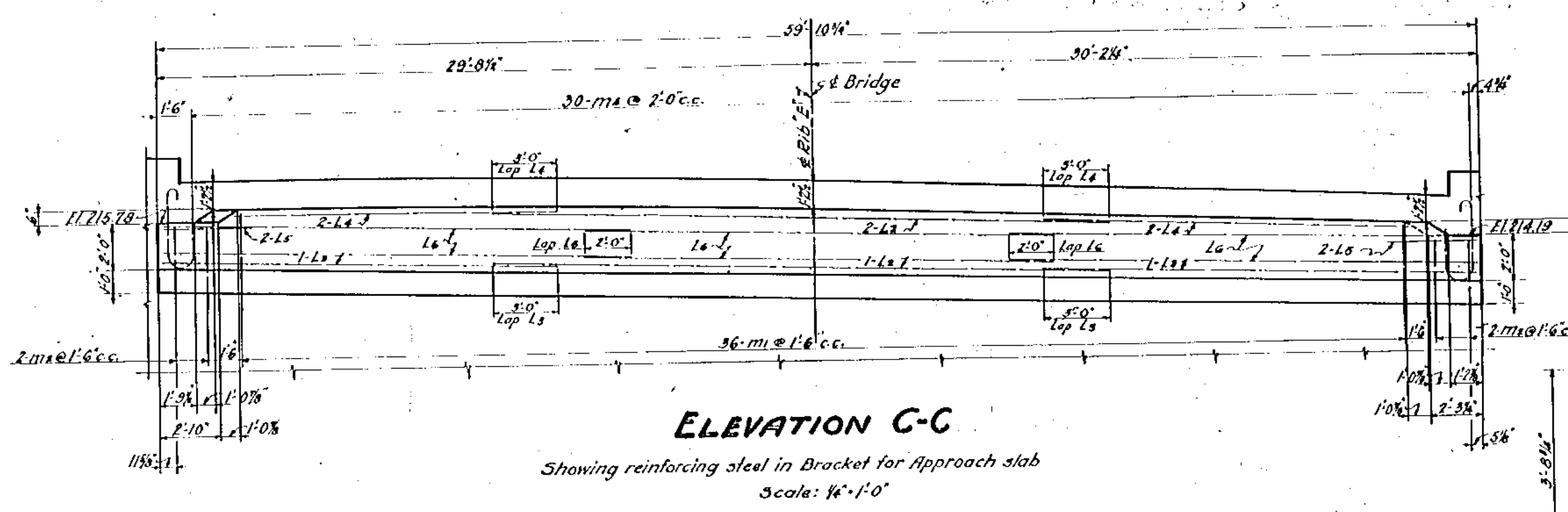
ED. NO.	STATE	U.S. DIST. CT.	PROJECT	YEAR
10	OHIO	W.P. 936A	1936	11

CUYAHOGA COUNTY
TRISKETT ROAD



Original design prepared by NYC R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
CONCRETE ENCASEMENT DETAILS - RIB H & B					
TRISKETT ROAD BRIDGE					
OVER NEW YORK CENTRAL RAILROAD					
CUYAHOGA COUNTY STA. 72+08.10					
DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
A.H.S.	M.L.P.	A.H.S.	A.H.S.	1/1/36	



SECTION B-B

Note: Type A Waterproofing shall be applied to the following surfaces:-

1. The back face of the end curtain walls and abutment walls between the top of footing and the underside of the approach slabs, except that portion of this surface covered with Type B Waterproofing.
2. The inside face of all wing walls above the top of footings.
3. The column encasement from the top of the footings to the finished ground line.

Type B Waterproofing shall be applied as follows:-

1. A strip three feet (3'-0") wide shall be applied over the construction joint 'A' in the end curtain walls.
2. A strip three feet (3'-0") wide shall be applied over the joint between the abutment walls and the end curtain walls.
3. A strip three feet (3'-0") wide shall be applied over the joint between the approach slab and the end curtain walls.

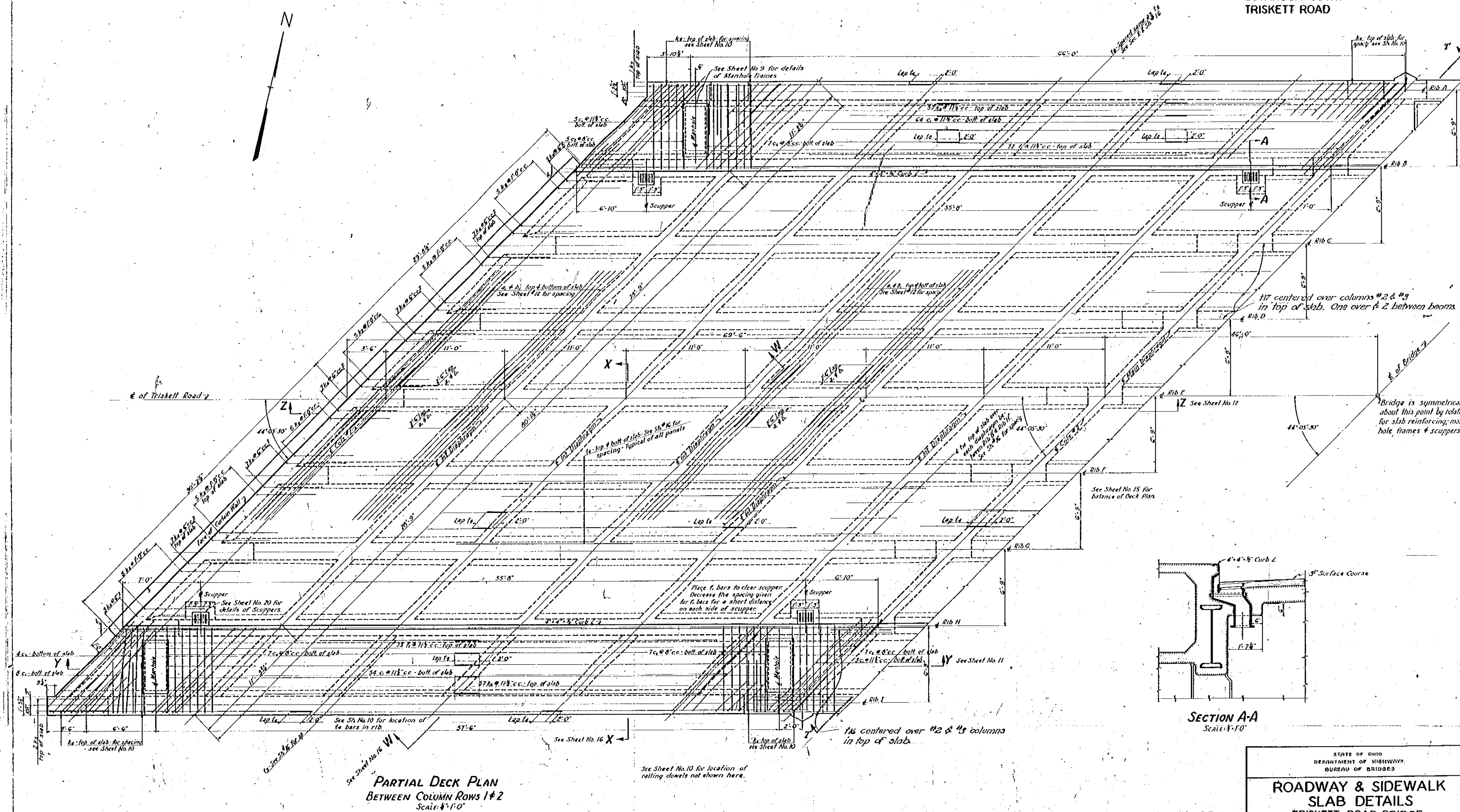
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
WEST END CURTAIN WALL DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY 571-72+08.10					
DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
E.A.W.	E.A.W.	E.A.W.	J.A.H.	1/11/36	1

Original design prepared by NYC R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

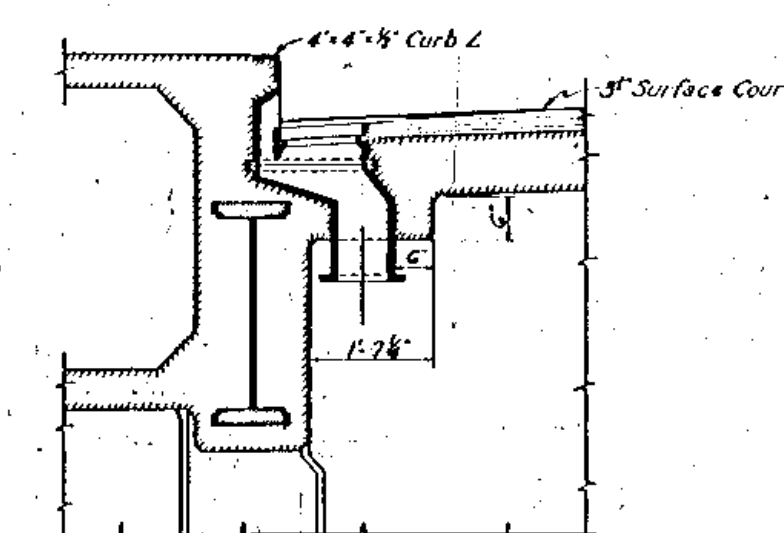
FIG. NO.	STATE	CONTRACT	FISCAL YEAR
10	OHIO	WPAH-336A	1936

14
39

CUYAHOGA COUNTY
TRISKETT ROAD



PARTIAL DECK PLAN
BETWEEN COLUMN ROWS 1 & 2
Scale 1/4"=1'-0"



SECTION A-A
Scale 1/4"=1'-0"

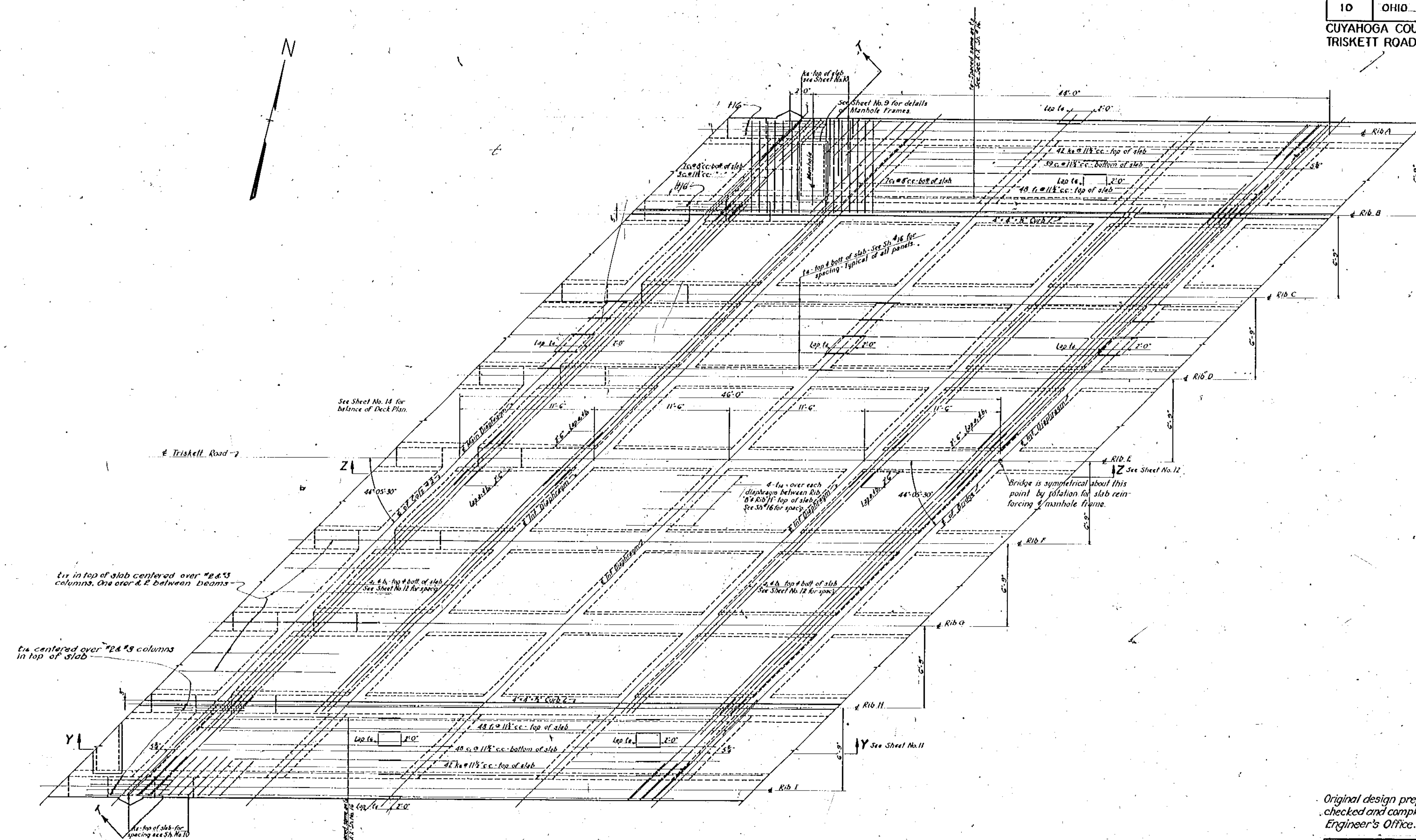
Original design prepared by NYC P.R. Co.;
checked and completed in Cuyahoga
County Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
ROADWAY & SIDEWALK SLAB DETAILS TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY					
DESIGNED	DRAWN	TRACED	CHECKED	BY	DATE
	F.A.P.	F.A.P.	H.H.S.	H.H.S.	1/26/36

FED. RD. DIST. NO.	STATE	U.S. HWY. PROJECT	FISCAL YEAR
10	OHIO	WPM 936A	1936

CUYAHOGA COUNTY
TRISKETT ROAD

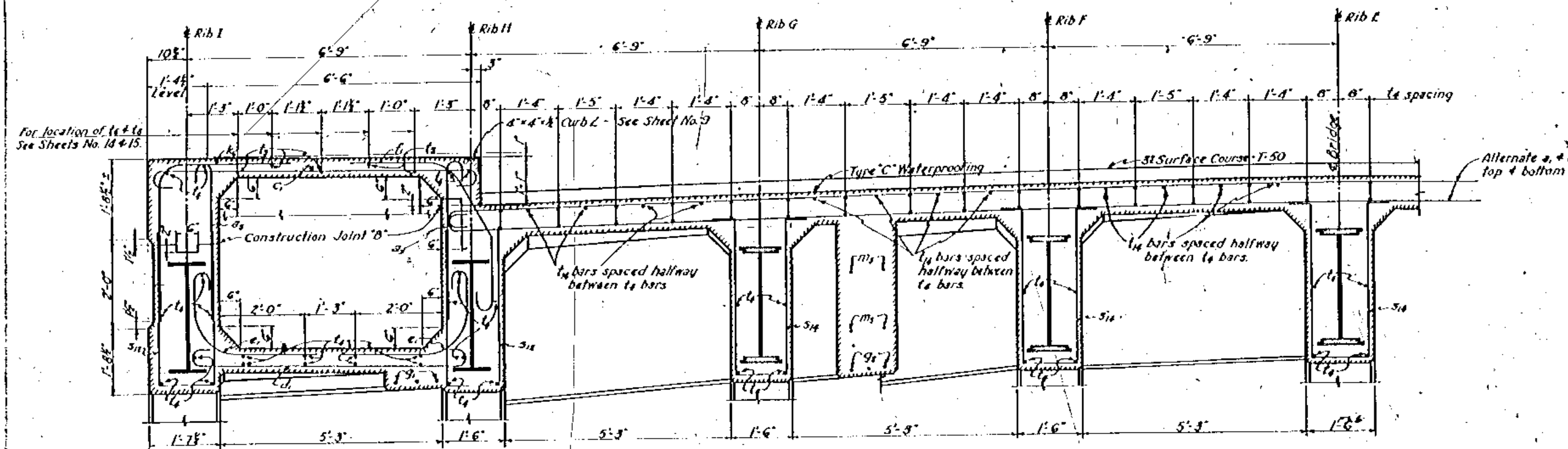
15
39



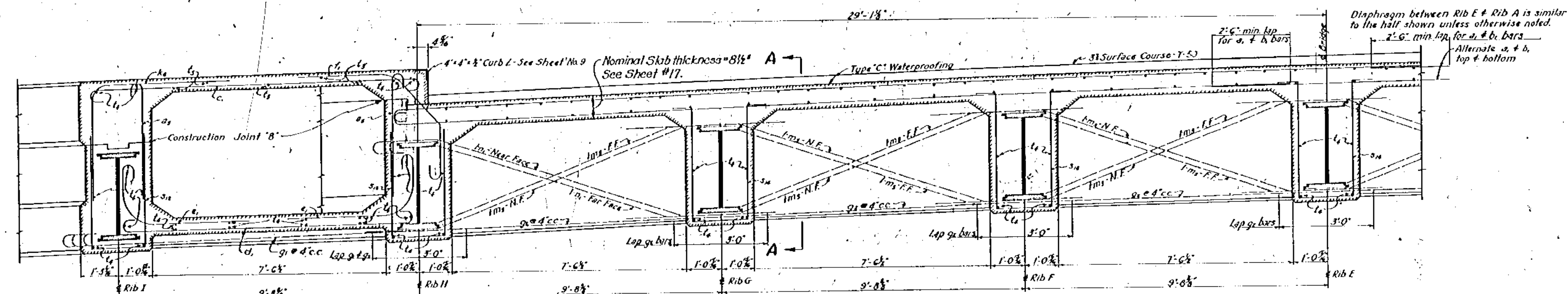
PARTIAL DECK PLAN
BETWEEN COLUMN ROW 2 & E BRIDGE
Scale: 1" = 1'-0"

Original design prepared by N.Y.C. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

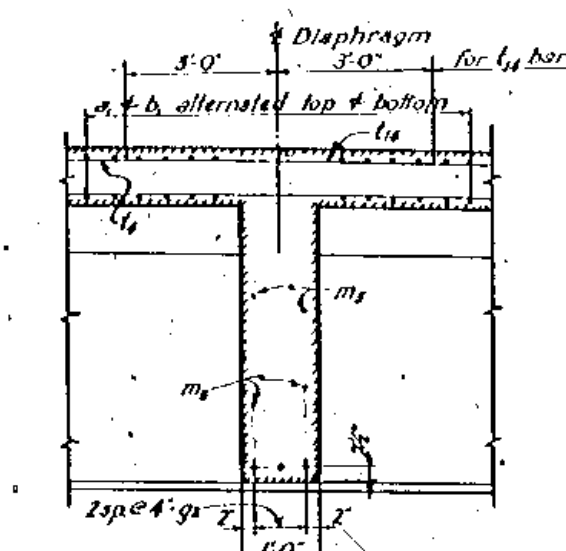
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
ROADWAY & SIDEWALK SLAB DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA 12+08.10					
DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
F.A.P.	F.A.P.	A.H.S.	F.L.R.	1/17/36	
			A.H.S.		



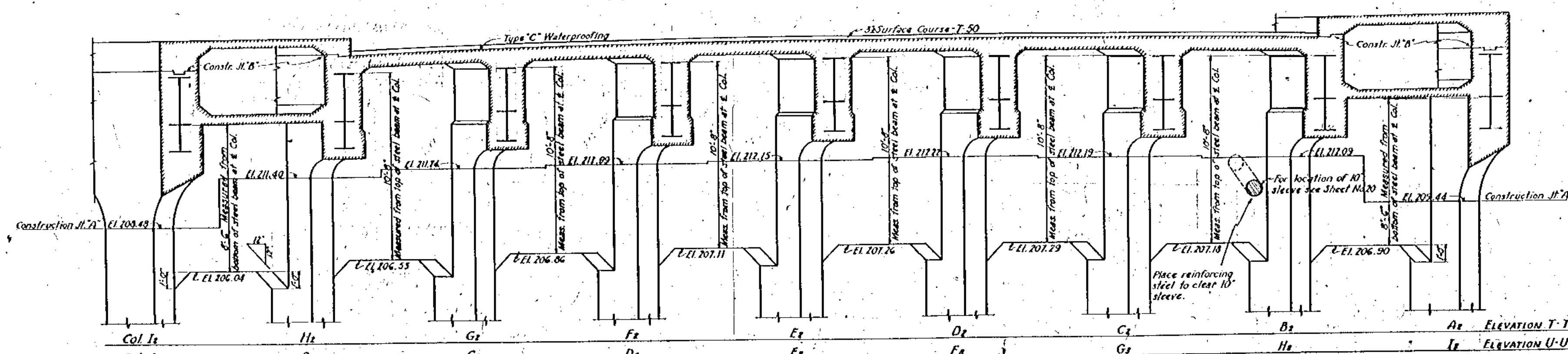
SECTION X-X
SEE SHEET No. 14
SCALE: 1/4" = 1'-0"



SECTION W-W
INTERMEDIATE DIAPHRAGM
SEE SHEET No. 14
SCALE: 1/4" = 1'-0"



SECTION A-A



ELEVATION T-T OF MAIN DIAPHRAGM AT COLUMN ROW 2 LOOKING WEST
ELEVATION U-U OF MAIN DIAPHRAGM AT COLUMN ROW 3 LOOKING EAST - SAME AS SHOWN UNLESS OTHERWISE NOTED.
SCALE: 1/4" = 1'-0"
See Sheet No. 14

Note: Type "C" Waterproofing shall be placed on deck slab & curbs on all surfaces in contact with T-50 surface course and shall extend three feet into each approach slab.

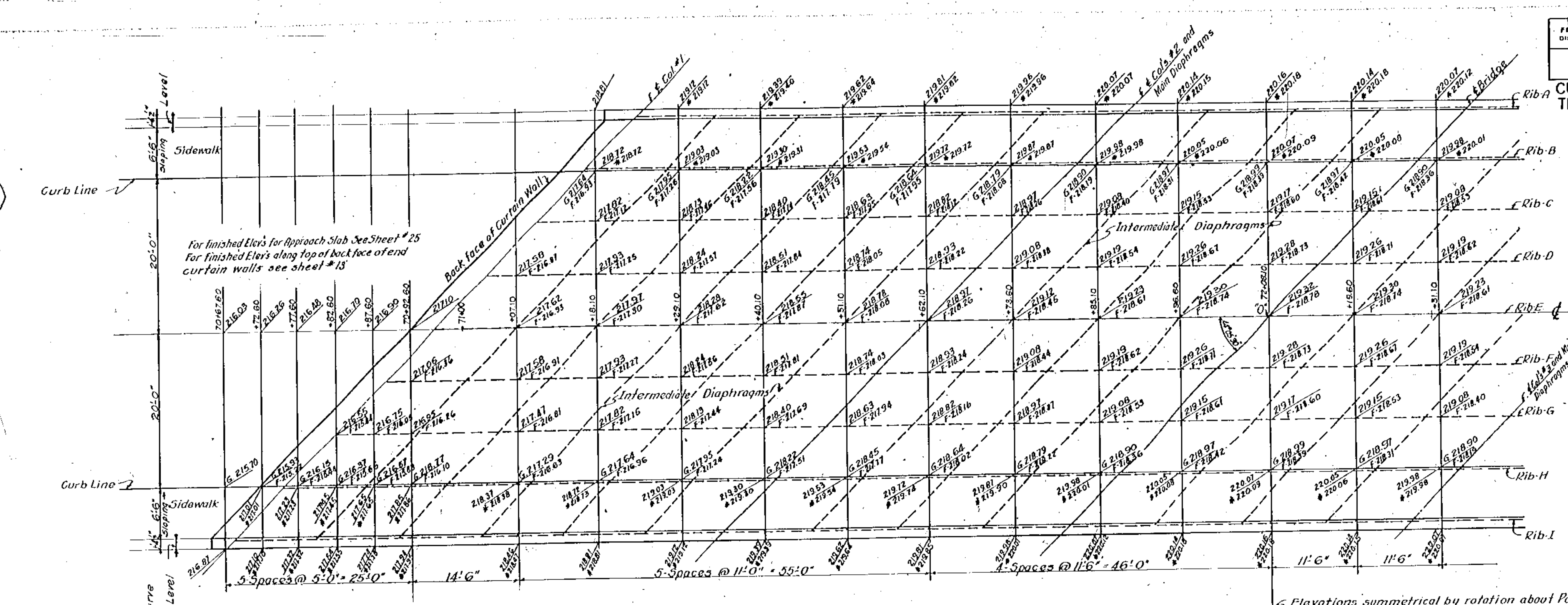
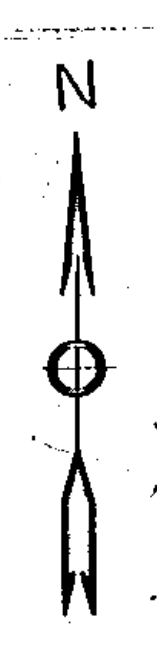
Original design prepared by N.Y.C. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES				
ROADWAY & SIDEWALK SLAB SECTIONS TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA 72+08.10				
DESIGNED	BY	CHECKED	APPROVED	DATE
F.A.P.	F.A.P.	A.H.S.	J.C.M.	1/24
			H.H.C.	

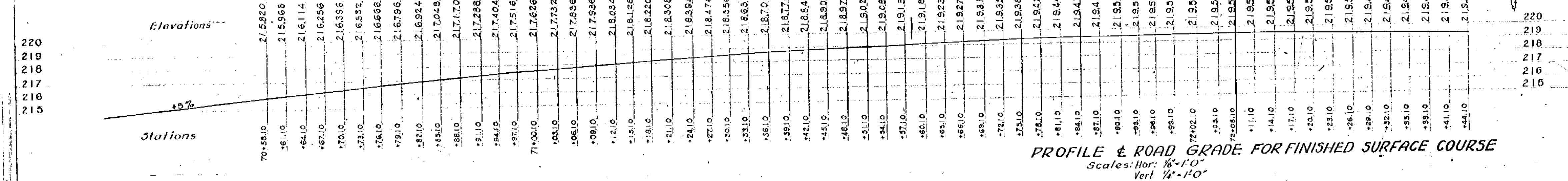
FED. RD. DIST. NO.	STATE	U.S. ROAD PROJECT	FISCAL YEAR
10	OHIO	WFOH 936A	1936

16
39

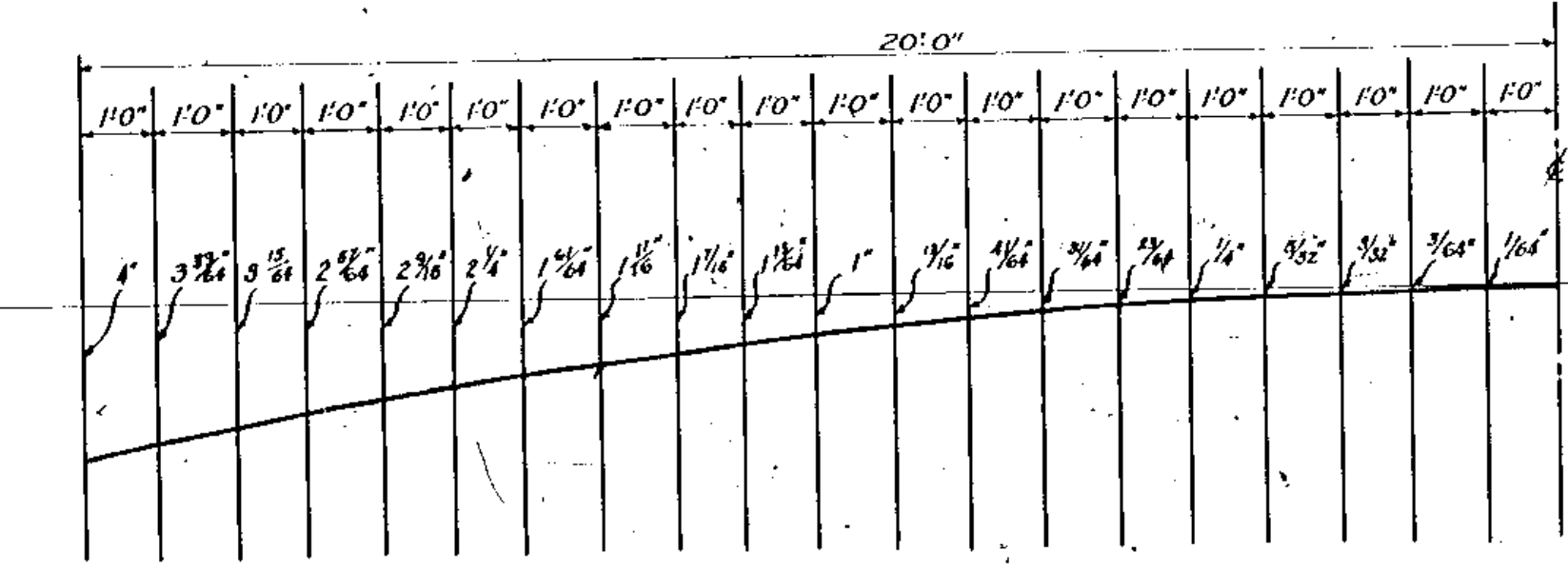
CUYAHOGA COUNTY
TRISKETT ROAD



HALF PLAN
Scale: 1/8" = 1'-0"



PROFILE & ROAD GRADE FOR FINISHED SURFACE COURSE
Scale: Hor: 1/8" = 1'-0"
Vert: 1/4" = 1'-0"



DETAIL - CROWN OF PAVEMENT
HALF SECTION

FED. RD. DIST. NO.	STATE	U.S. MPG.C. PROJECT	FISCAL YEAR
10	OHIO	WFOH 338A	1936

17
39

CUYAHOGA COUNTY
TRISKETT ROAD

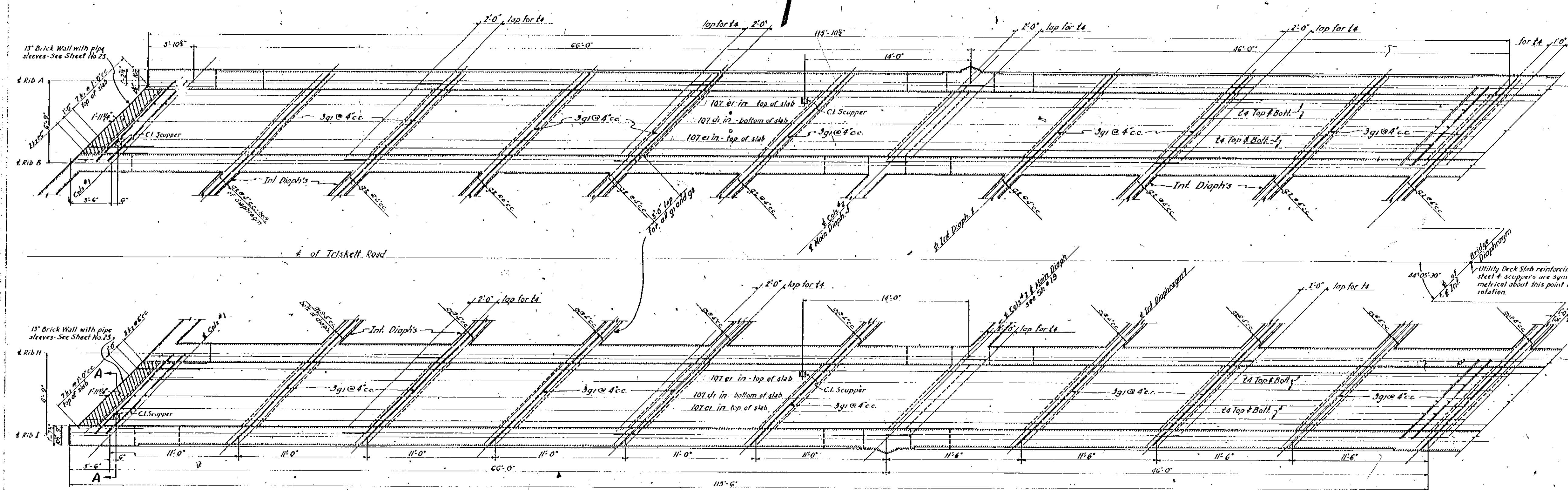
The elevations shown along the E of Ribs B to H inclusive marked 'F' are the elevations for the top of the forms for the roadway slab. Those not marked and those marked 'G' are for the finished elevations for the top of the roadway slab (6' from gutter next to curb).
Two sets of elevations for the top of coping and curb are shown. Those marked 'H' are the grades to which the coping and curb are to be set, and those not marked are the final finished elevations.
The difference between these two elevations is the allowance for the calculated deflections.

Original design prepared by NYC. R.P. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

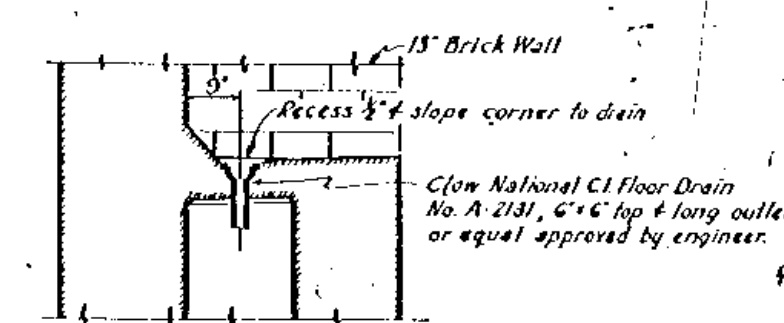
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
ROADWAY & SIDEWALK SLAB ELEVATIONS TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72+00.00					
DRAWN M.L.P.	TRACED M.L.P.	CHECKED M.L.P.	REVIEWED M.L.P.	DATE 11/18/36	REVISION

FED. RD. DIST. NO.	STATE	U.S.W.P.C. PROJECT	FISCAL YEAR	1839
10	OHIO	WPM-936A	1936	

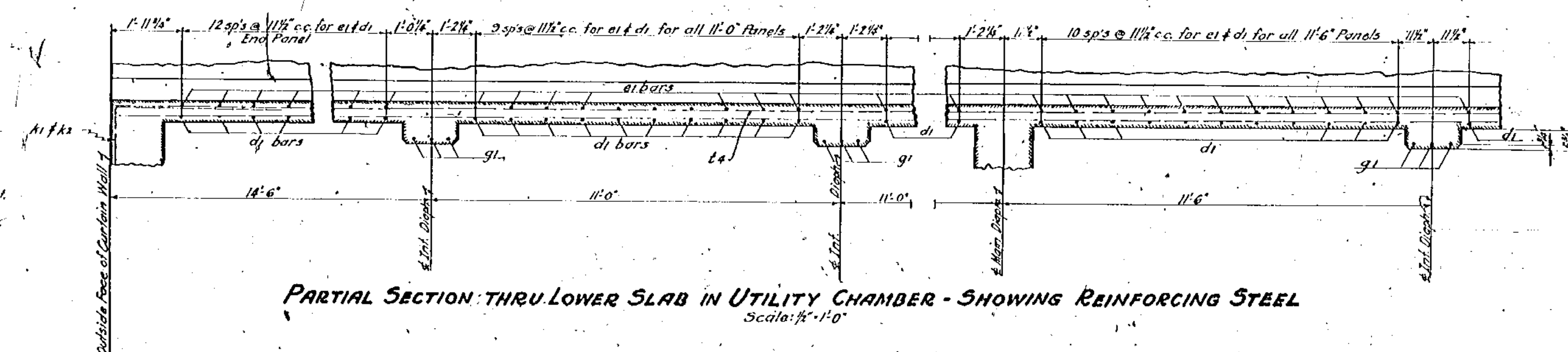
CUYAHOGA COUNTY
TRISKETT ROAD



PARTIAL SECTIONAL PLAN OF LOWER SLABS IN UTILITY CHAMBERS
Scale: 1/4" = 1'-0"



SECTION A-A
TYPICAL OF ALL FLOOR DRAINS
Scale: 1/4" = 1'-0"



PARTIAL SECTION THRU LOWER SLAB IN UTILITY CHAMBER - SHOWING REINFORCING STEEL
Scale: 1/4" = 1'-0"

Original design prepared by NYC. E.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

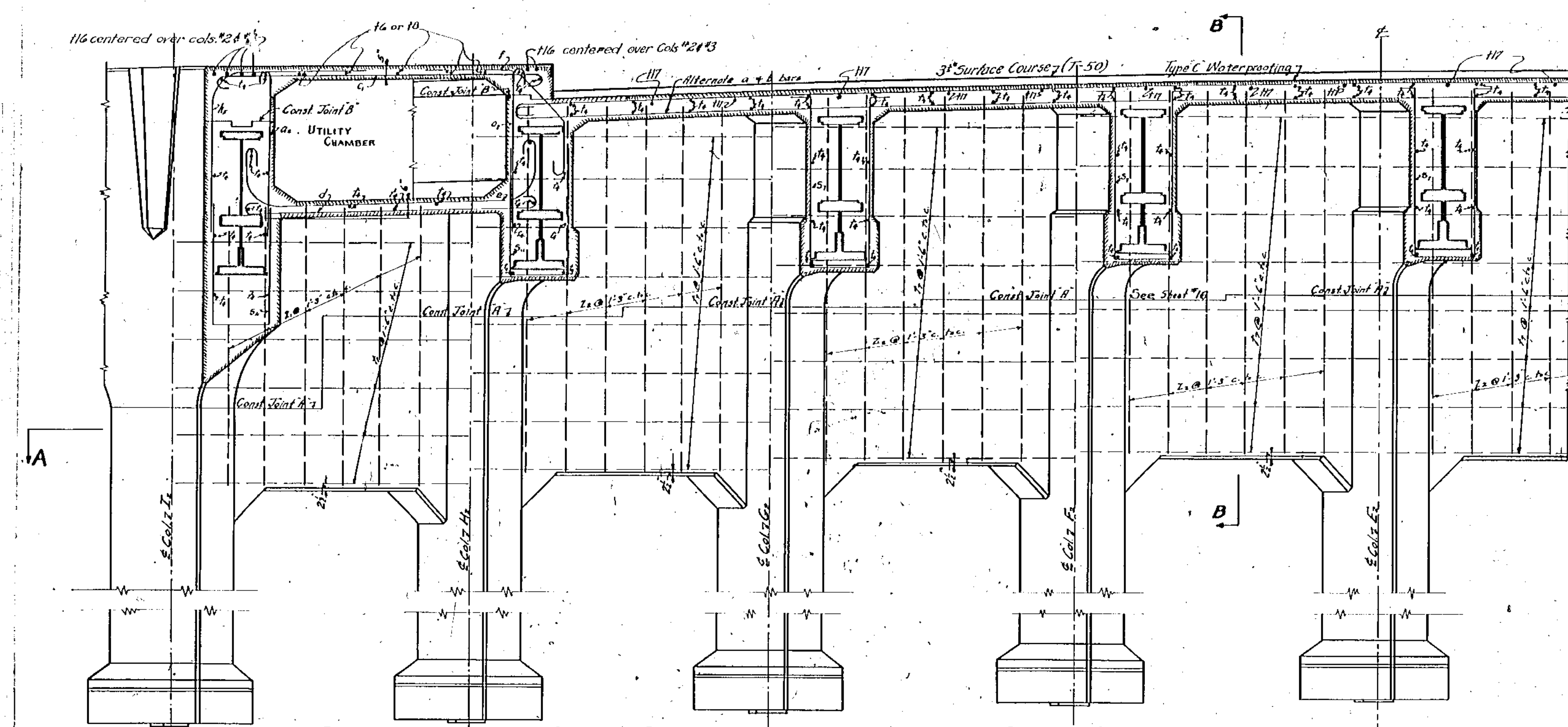
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES				
UTILITY CHAMBER SLAB PLAN				
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 12+08.10				
DESIGNED	DRAWN	TRACED	CHECKED	DATE
F.A.P.	F.A.P.	F.A.P.	F.A.P.	1/2/36

Note: Center 117 over Cols. 24 & 25

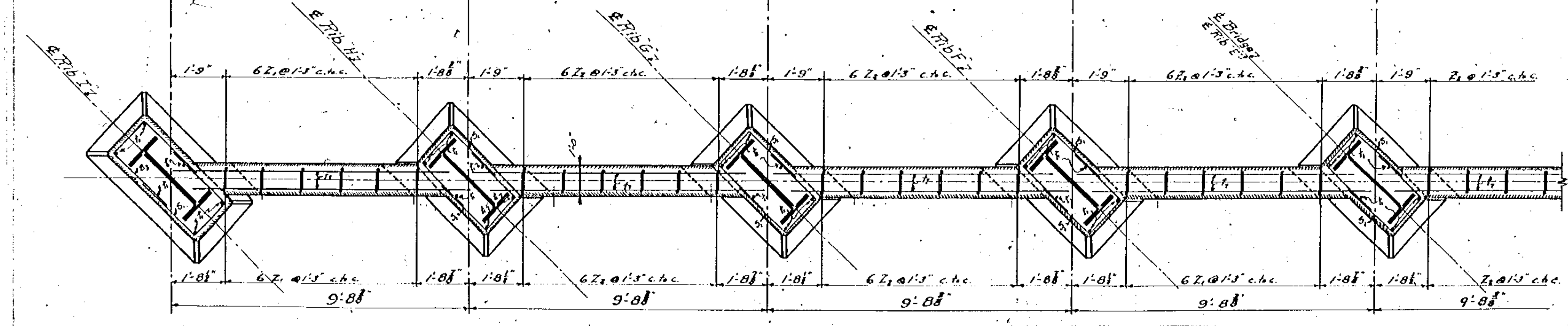
FED. RD. DIST. NO.	STATE	U.S. ROAD & C. PROJECT	FISCAL YEAR
10	OHIO	WPM-936A	1936

1939

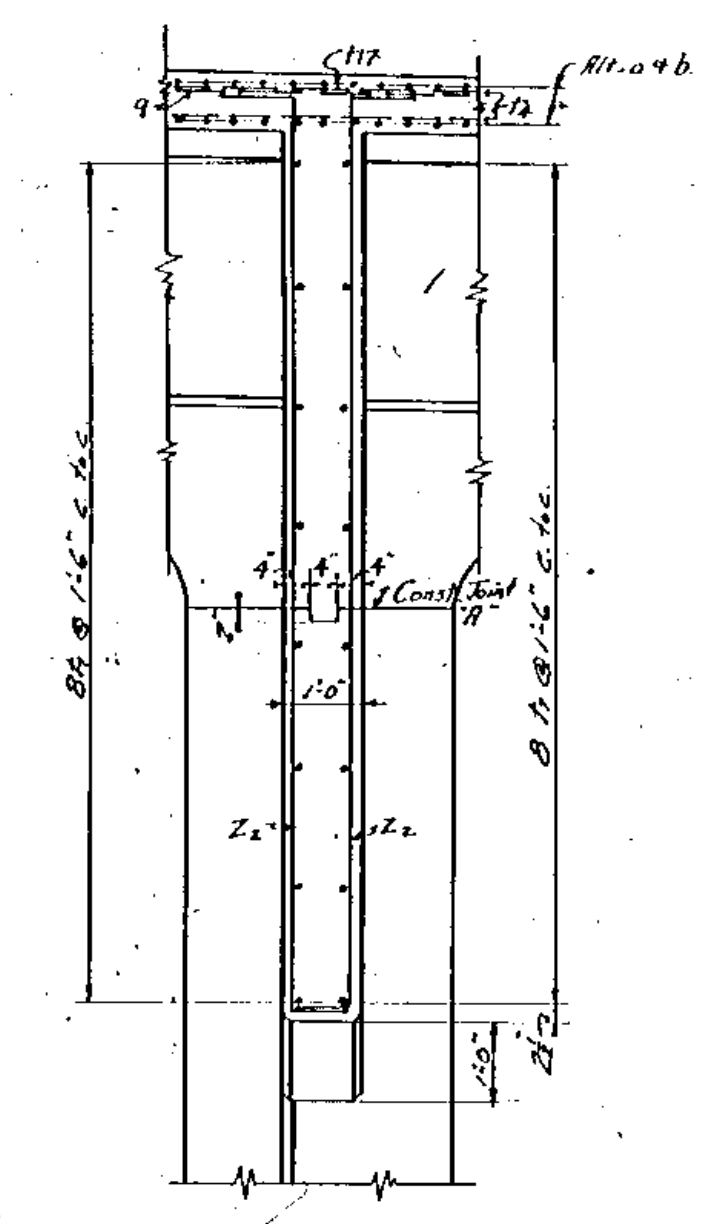
CUYAHOGA COUNTY
TRISKETT ROAD



PARTIAL ELEVATION T-T SHOWING REINFORCING STEEL IN MAIN DIAPHRAGM BETWEEN COLUMNS I₂ AND E₂
REINFORCING STEEL FOR BALANCE OF MAIN DIAPHRAGM BETWEEN COLUMNS E₂ AND A₂ SAME AS SHOWN HERE
REINFORCING STEEL FOR ELEVATION U-U SAME AS SHOWN FOR T-T
FOR DETAILS NOT SHOWN HERE SEE ELEVATION T-T ON SHEET N^o 16
FOR LOCATION OF ELEVATION U-U SEE SHEET N^o 16



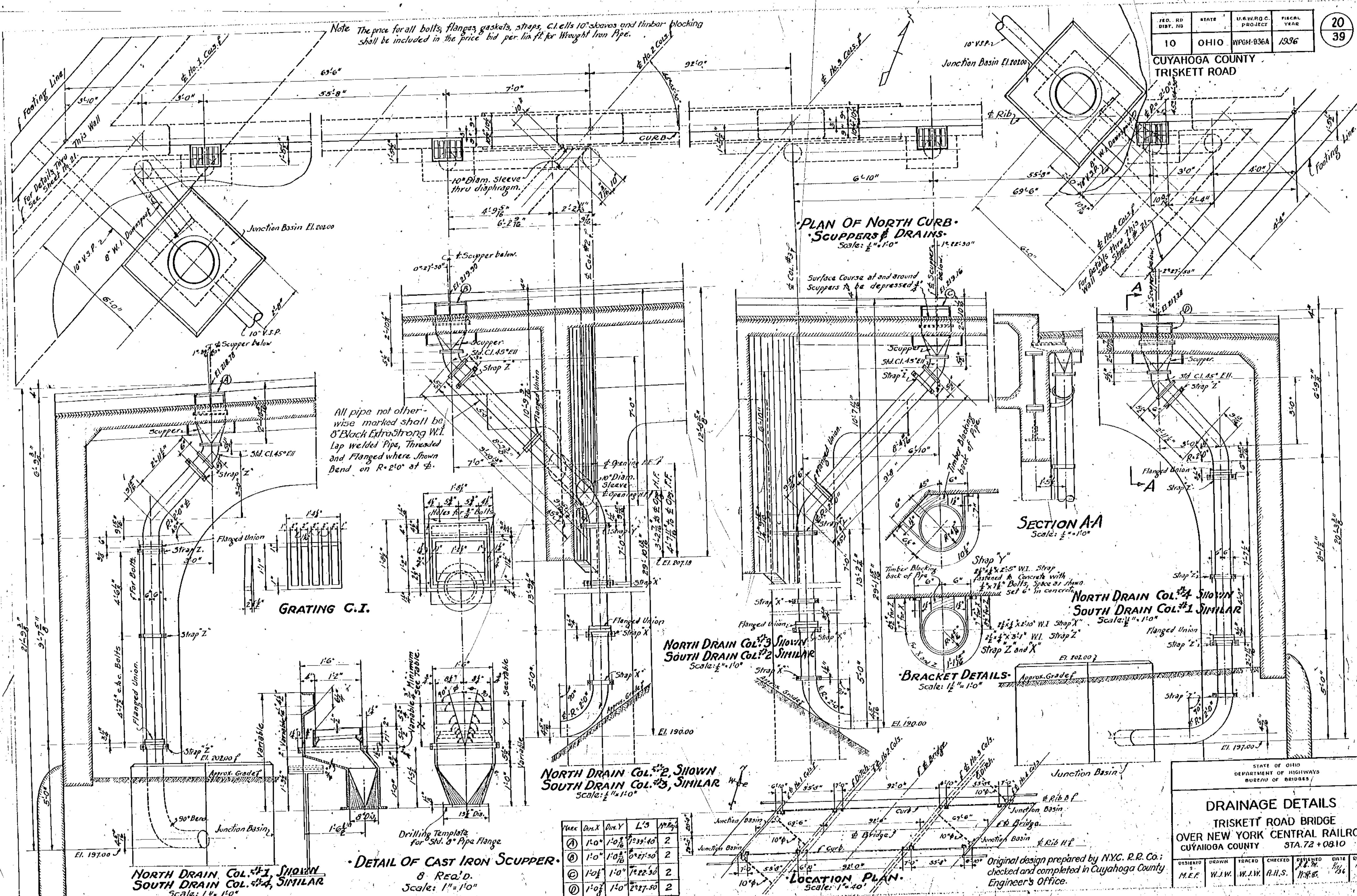
SECTION A-A
Scale 1/2" = 1'-0"



SECTION B-B
Scale 1/2" = 1'-0"

Original design prepared by NYC. R.R. Co.;
checked and completed in Cuyahoga County
Engineers' Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
DIAPHRAGM WALL DETAILS					
TRISKETT ROAD BRIDGE					
OVER NEW YORK CENTRAL RAILROAD					
CUYAHOGA COUNTY STA. 72 + 03.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
A.H.S.	D.M.M.	A.H.S.	A.H.S.	A.H.S.	1/26



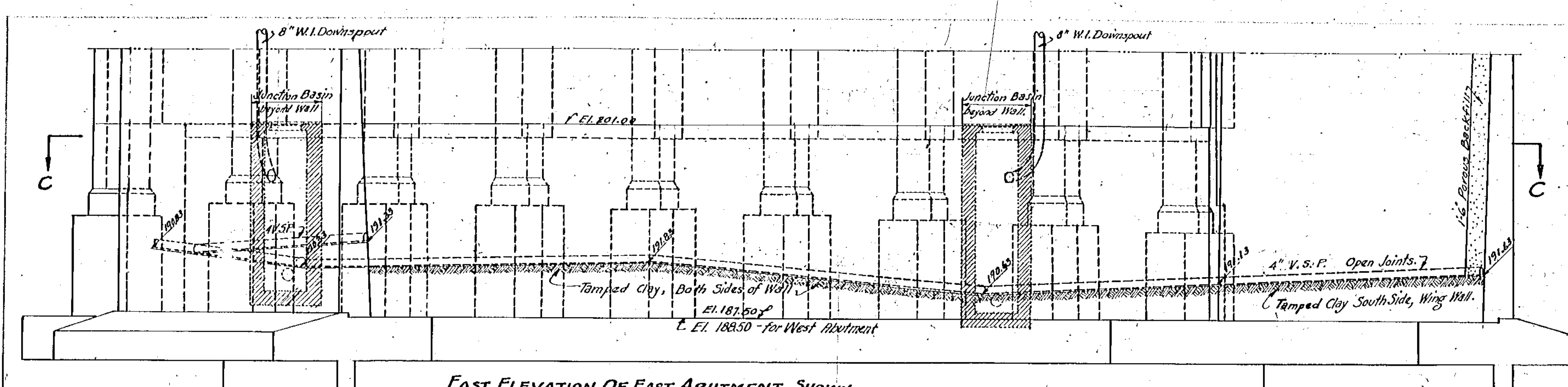
FED. RD. DIST. NO.	STATE	U.S. HIGHWAY PROJECT	FISCAL YEAR
10	OHIO	WPM-836A	1936

20
39

CUYAHOGA COUNTY
TRISKETT ROAD

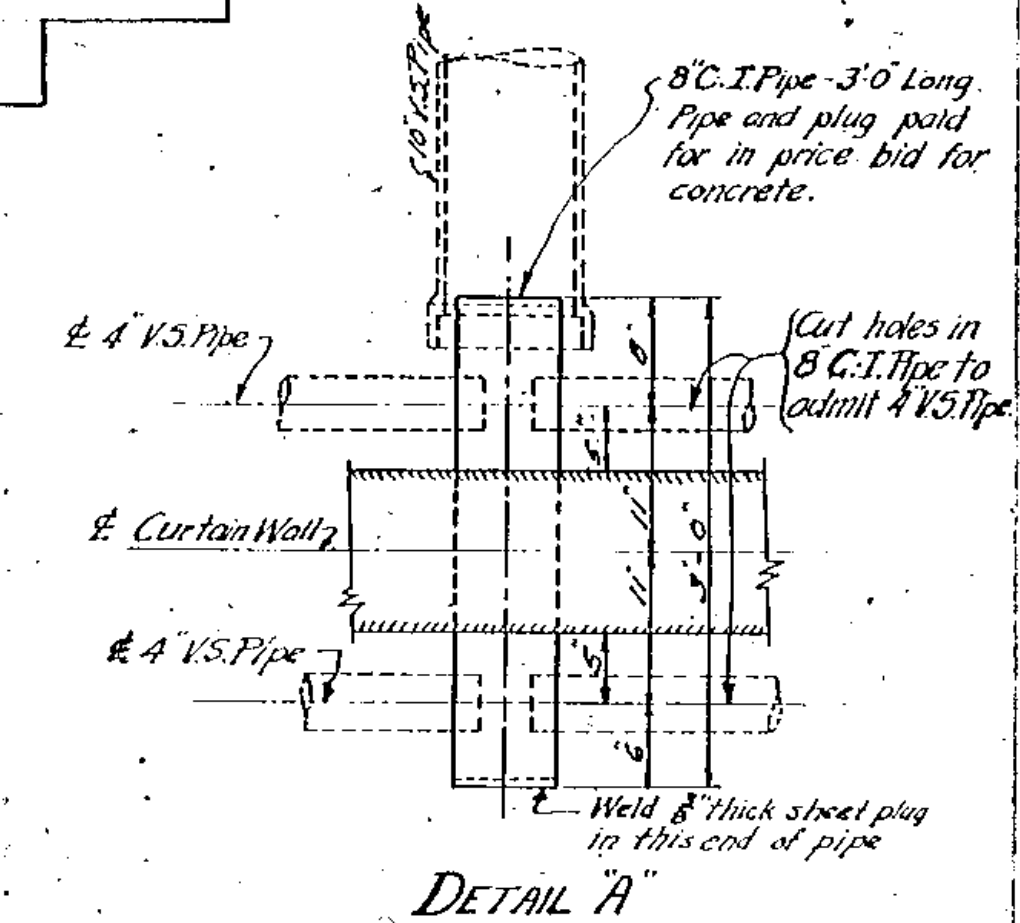
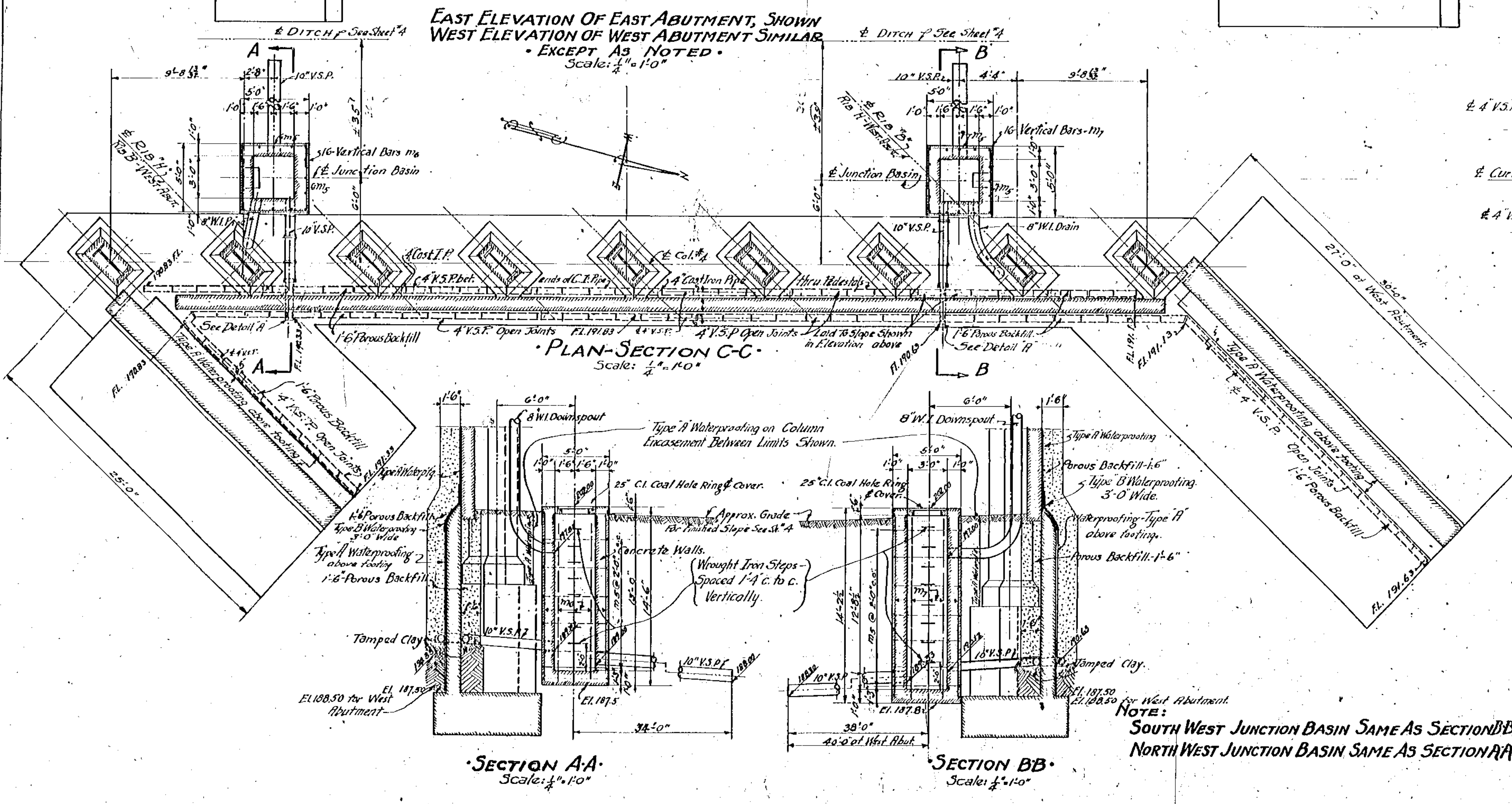
STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
DRAINAGE DETAILS TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72 + 08.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
N.E.F.	W.J.W.	W.A.W.	A.H.S.	J.H.B.	7/16/36

Original design prepared by NYC. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.



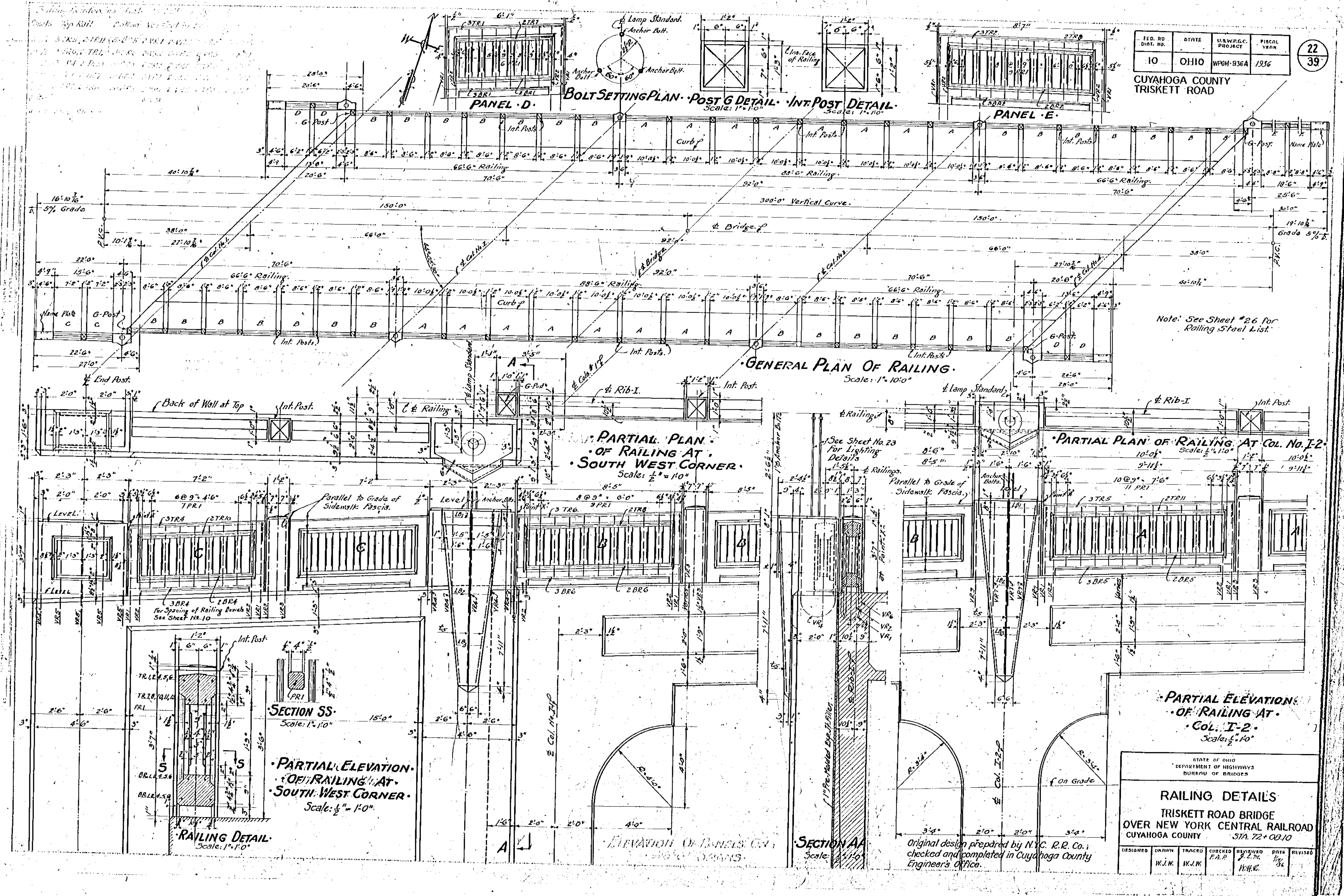
FED. RD. DIST. NO.	STATE	U.S. M.P.D.C. PROJECT	FISCAL YEAR	21 39
10	OHIO	WPM-936A	1936	

CUYAHOGA COUNTY
TRISKETT ROAD



For Details of W.I. Drains See Sheet No. 20.
Location of Junction Basins Shown on Sheet No. 5.
Original design prepared by N.Y.C. E.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
DRAINAGE DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY					
STA. 72 + 03.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
W.J.W.	W.J.W.	W.J.W.	R.H.S.	H.B.B.	7/2



FED. RD. DIST. NO.	STATE	USHWPGC PROJECT	PIECES YEAR
10	OHIO	WPM-936A	1936

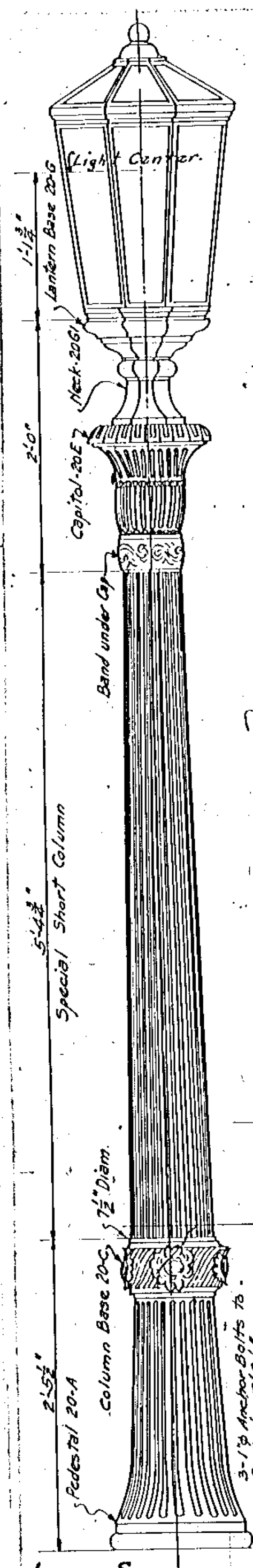
22
39

CUYAHOGA COUNTY
TRISKETT ROAD

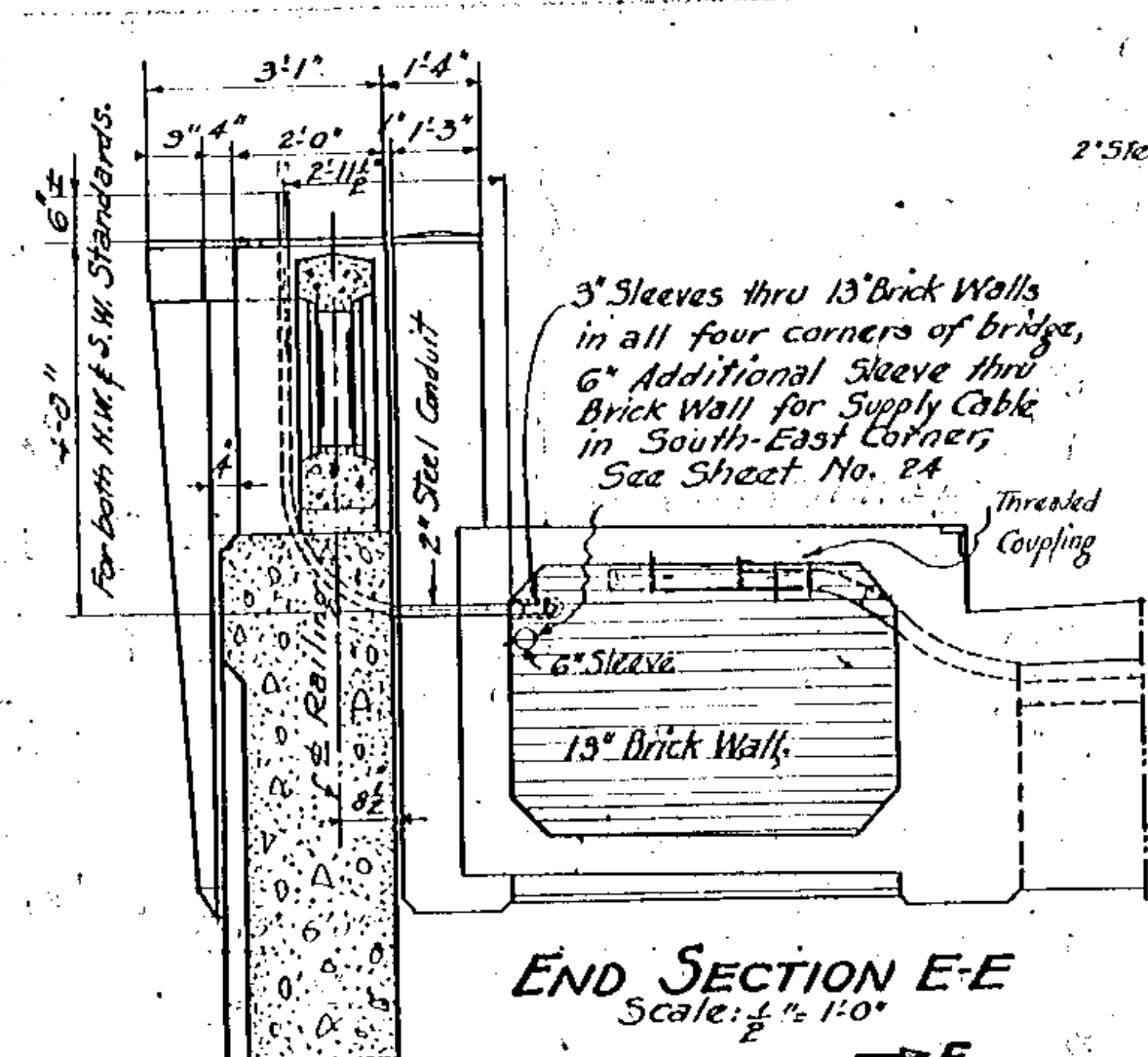
Note: See Sheet #26 for
Railing Steel List.

PARTIAL ELEVATION OF RAILING AT COL. I-2
Scale: 1" = 10' 0"

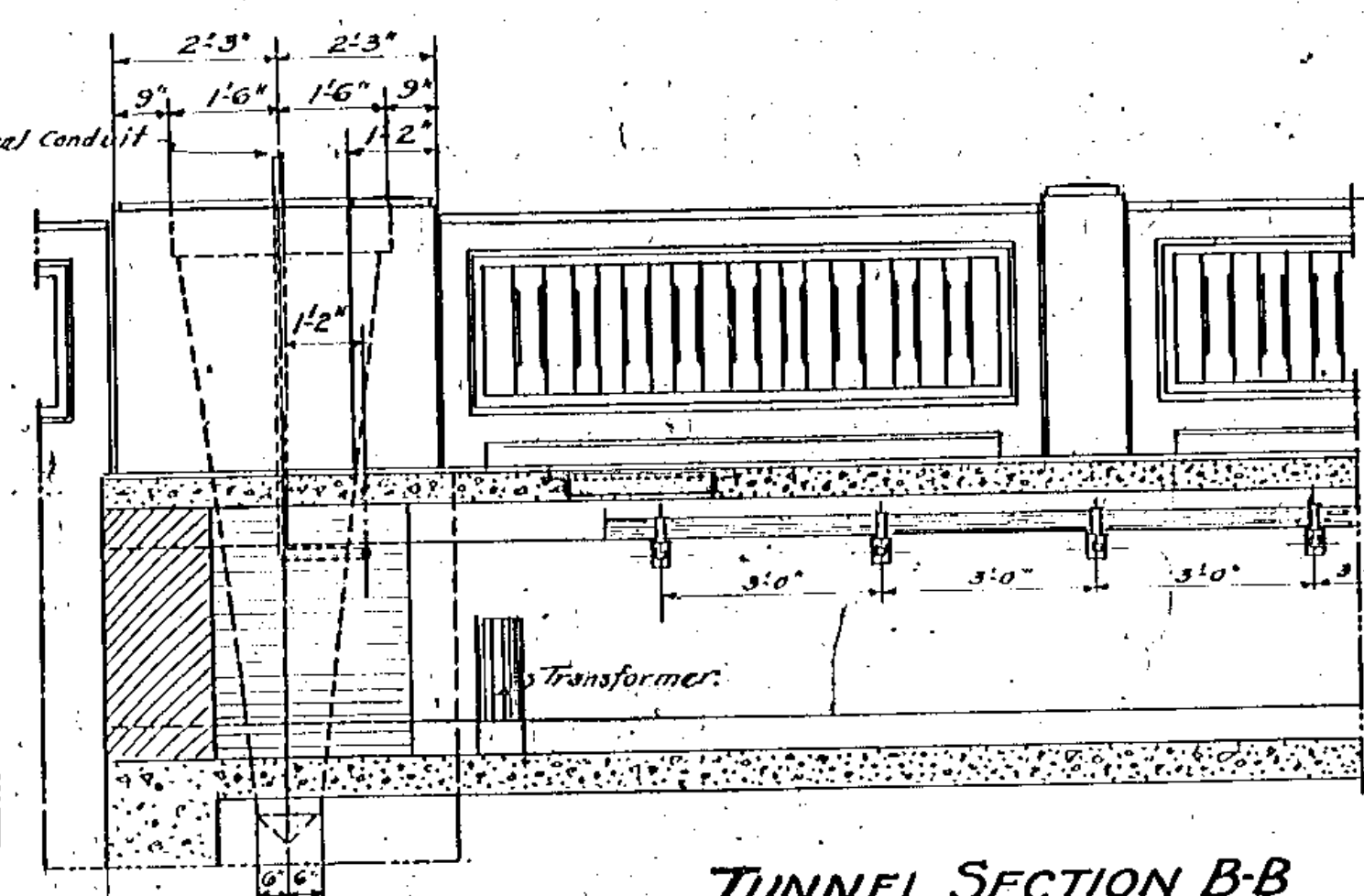
DESIGNED	DRAWN	TRACKED	CHECKED	REVIEWED	DATE	REVISION
W.J.W.	W.J.W.		F.A.R.	H.M.C.	2/23/36	36



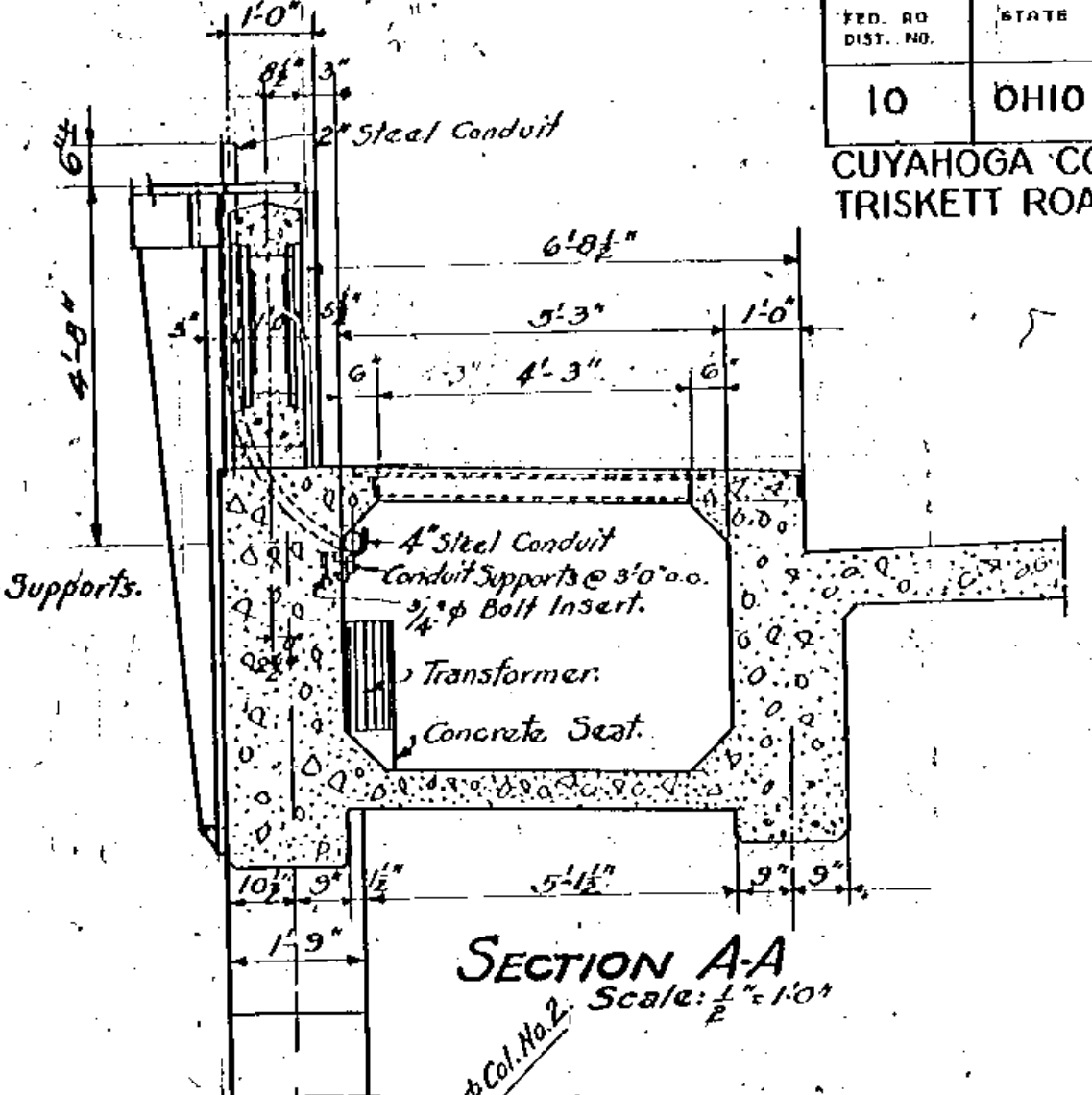
LIGHT STANDARD
8 Required, # R17
2" Steel Conduit



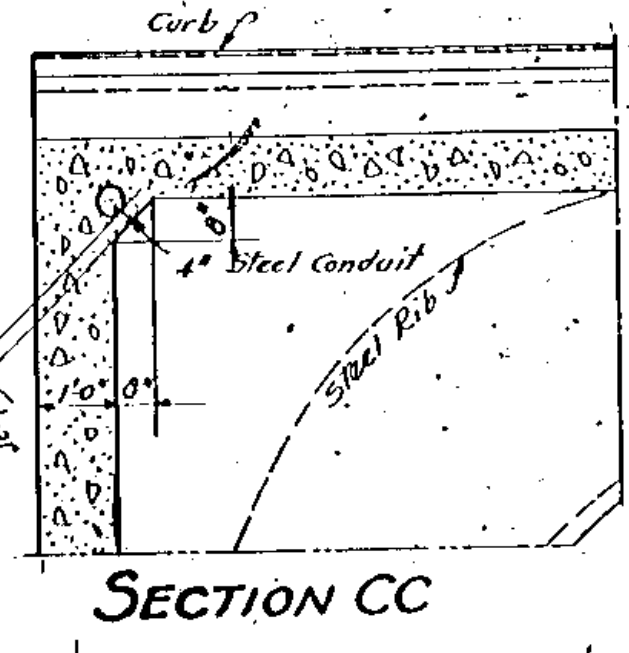
END SECTION E-E
Scale: 1/2" = 1'-0"



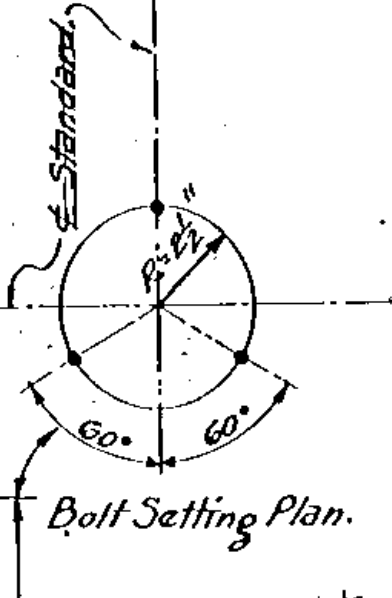
TUNNEL SECTION B-B
Scale: 1/2" = 1'-0"



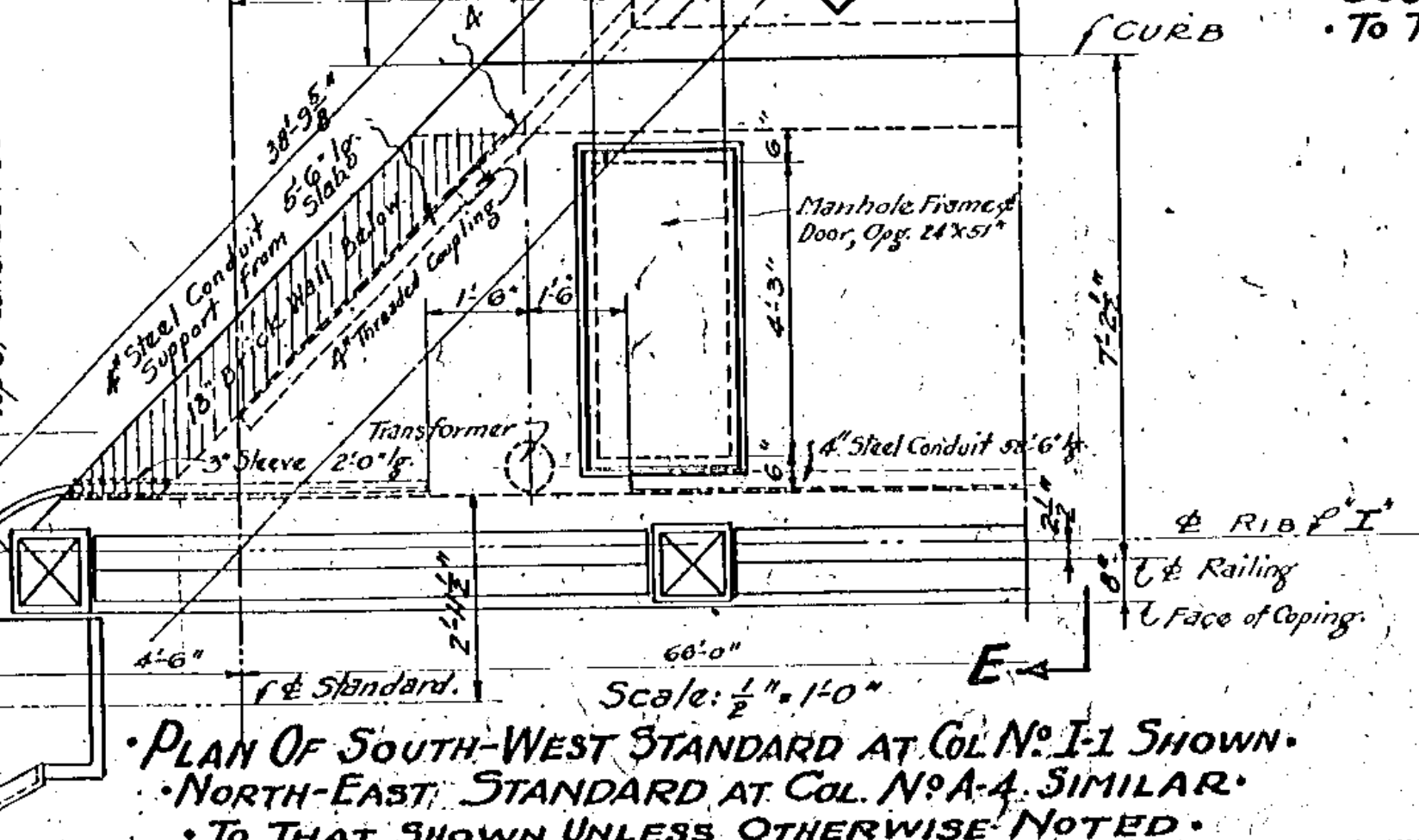
SECTION A-A
Scale: 1/2" = 1'-0"



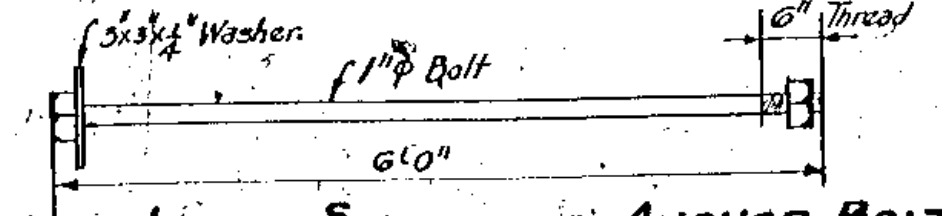
SECTION CC



Bolt Setting Plan



PLAN OF NORTH-WEST STANDARD AT COL. NO. A-1 SHOWN.
PLAN OF SOUTH-WEST STANDARD AT COL. NO. I-4 SHOWN.
PLAN OF NORTH-EAST STANDARD AT COL. NO. A-4 SIMILAR.
PLAN OF SOUTH-EAST STANDARD AT COL. NO. I-4 SIMILAR.
To THAT SHOWN UNLESS OTHERWISE NOTED.
Scale: 1/2" = 1'-0"



LIGHT STANDARD ANCHOR BOLTS.
24 REQ'D.

• **PLAN OF INTERIOR STANDARD AT COL. NO. A-2.**
• **DETAILS AT COLS. A-3, I-2 AND I-3 SIMILAR.**
• **SEE ALSO SHEET NO. 24 FOR LOCATION.**
Scale: 1/2" = 1'-0"

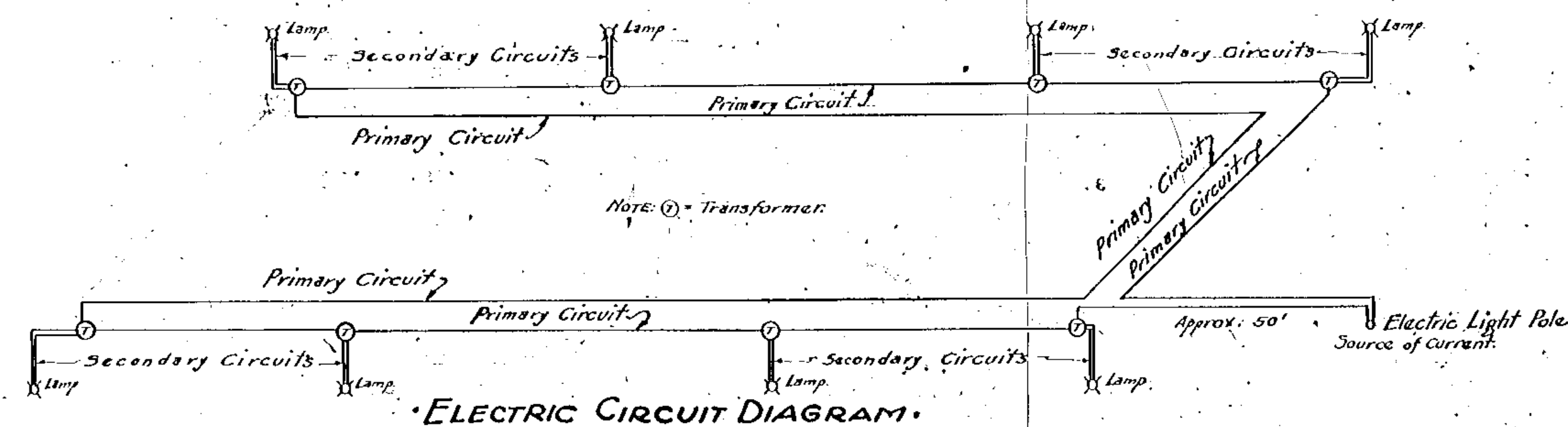
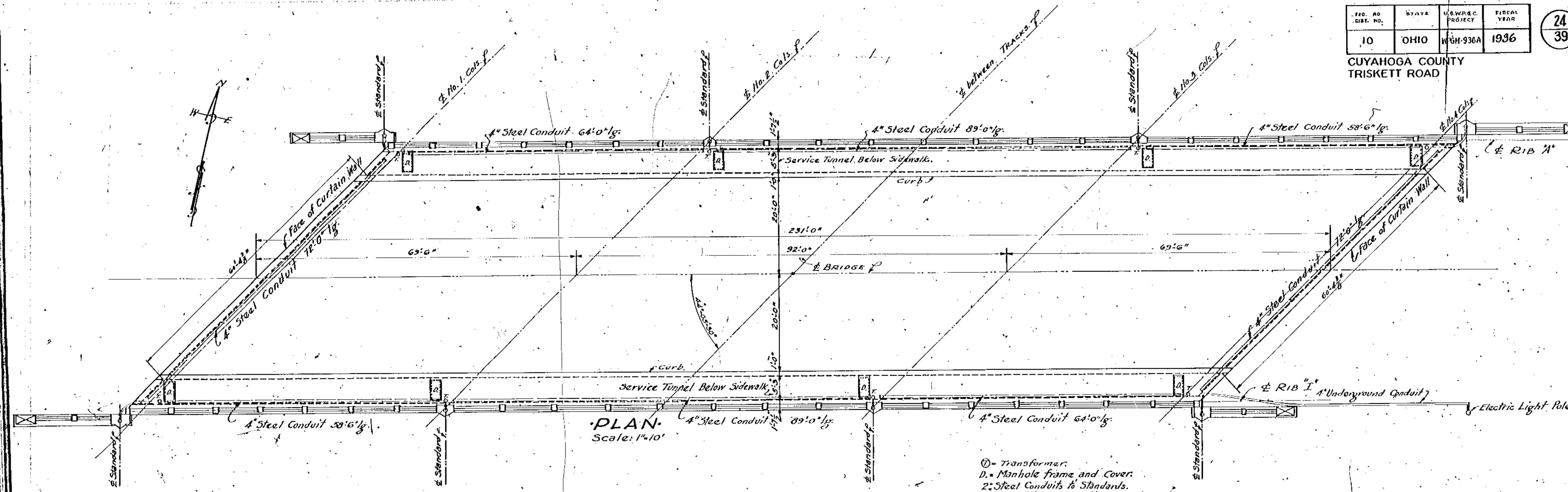
For Manhole Frame and Door Details See Sheet No. 9
for Lighting System Layout See Sheet No. 24
Price for Conduit Supports, Inserts, Bolts and
Pipe Sleeves included in price bid for conduits.
Anchor Bolts for Standards included in Lump Sum
Bid for Lighting System.

FED. RD. DIST. NO.	STATE	U.S. ROAD PROJECT	FISCAL YEAR
10	OHIO	WPMH-33CA	1936

CUYAHOGA COUNTY
TRISKETT ROAD

23
39

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
LIGHTING SYSTEM DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
	W.J.W.	W.J.W.	J.E.H.	H.H.H.	1/24



LIGHTING SPECIFICATIONS

SYSTEM—The lighting system shall be a series circuit 6.6 ampere primary (20 ampere secondary) 60 cycle as shown in diagram on the plans.

CABLES—The primary cable shall be single conductor No. 10B & 5 gauge insulated with not less than one-quarter inch (1/4") of manila hemp paper. The lead sheath covering shall not be less than one-eighth inch (1/8") thick of commercially pure lead. The secondary cable shall be two conductor No. 10B & 5 gauge, with standard 600 volt rubber insulation and lead sheath.

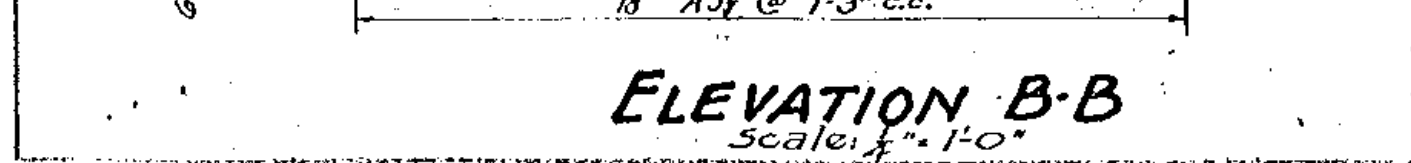
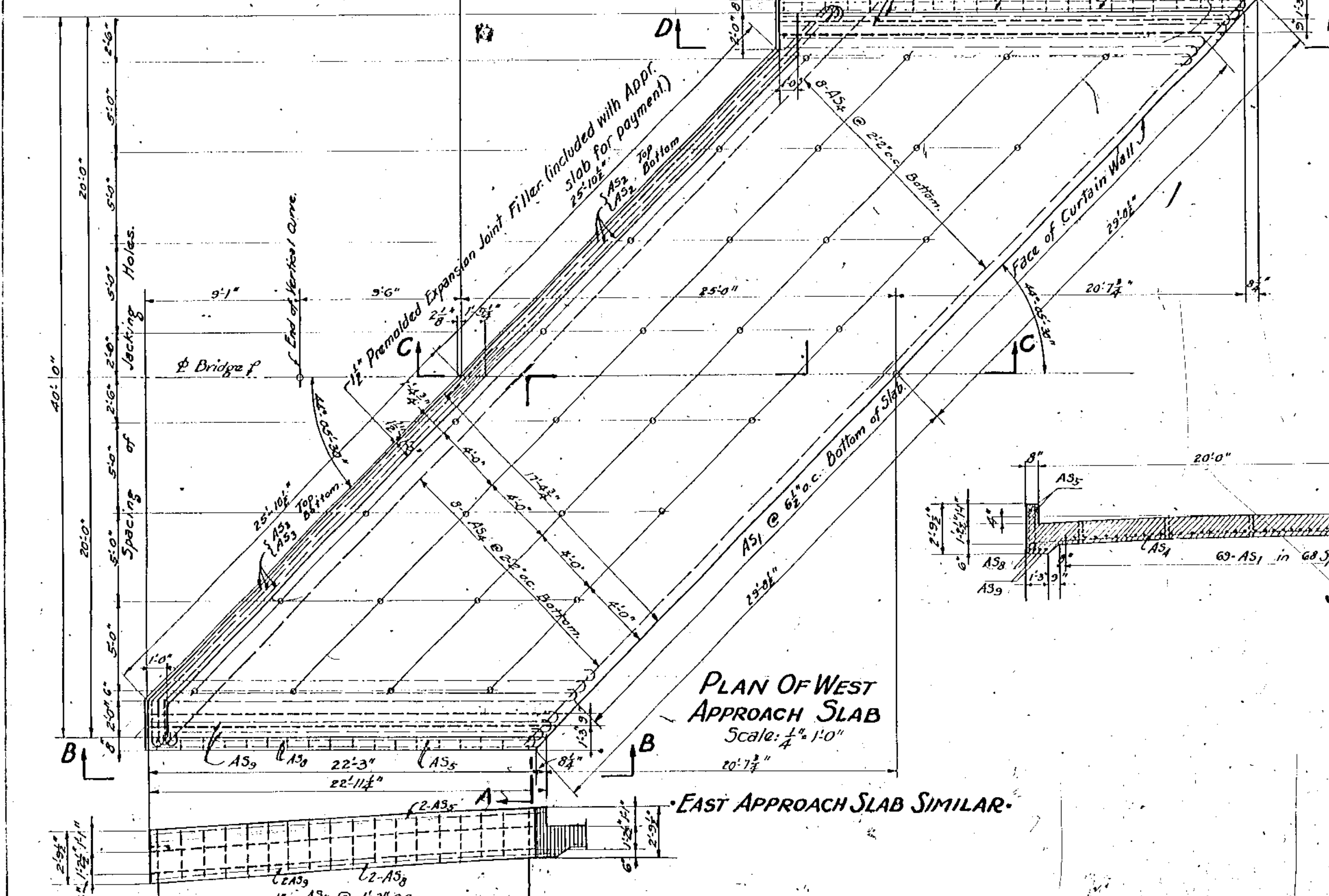
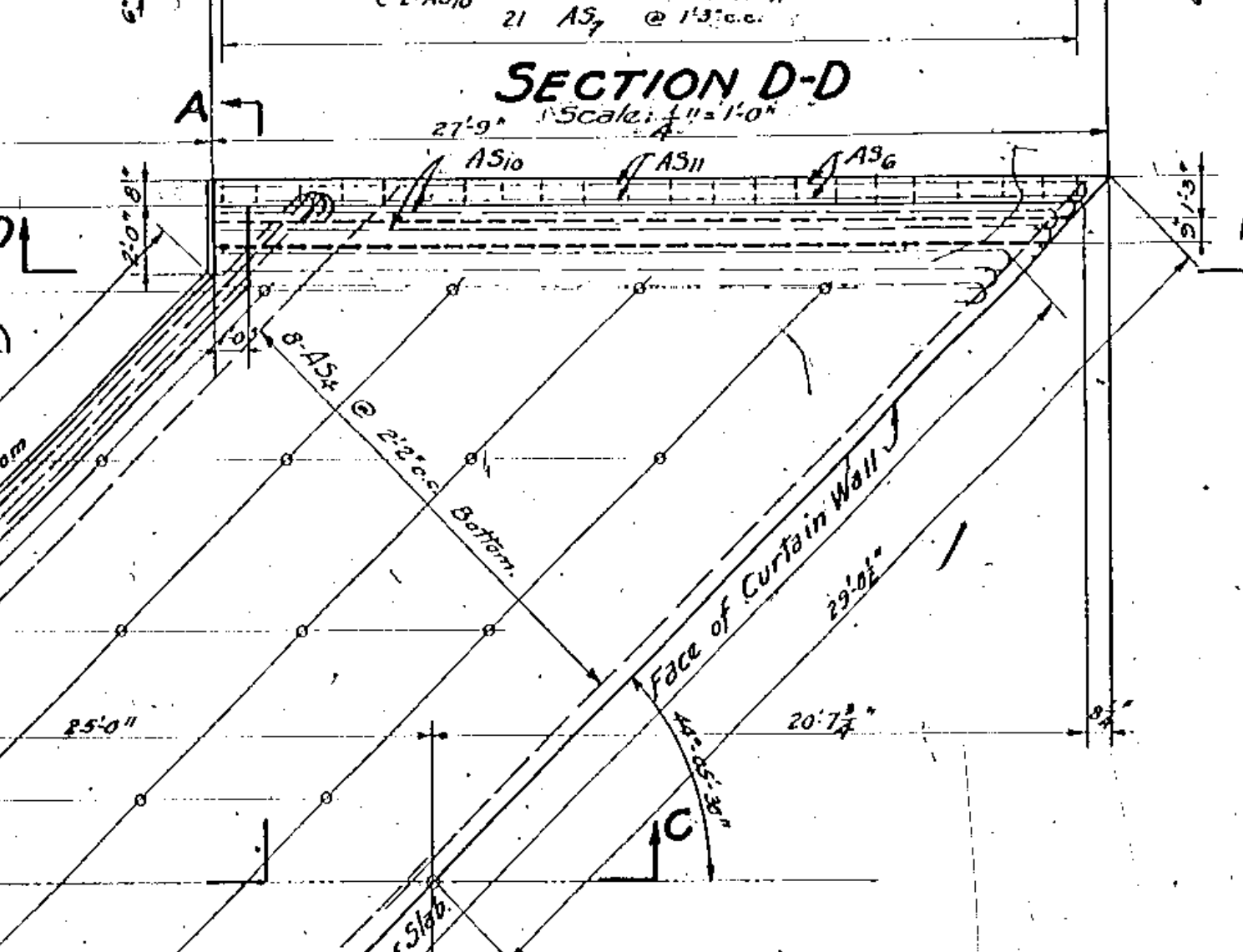
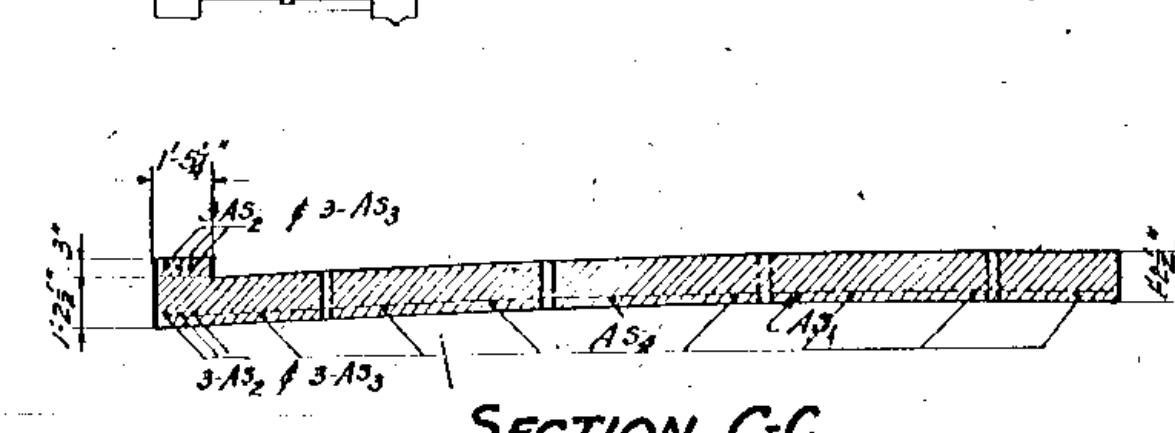
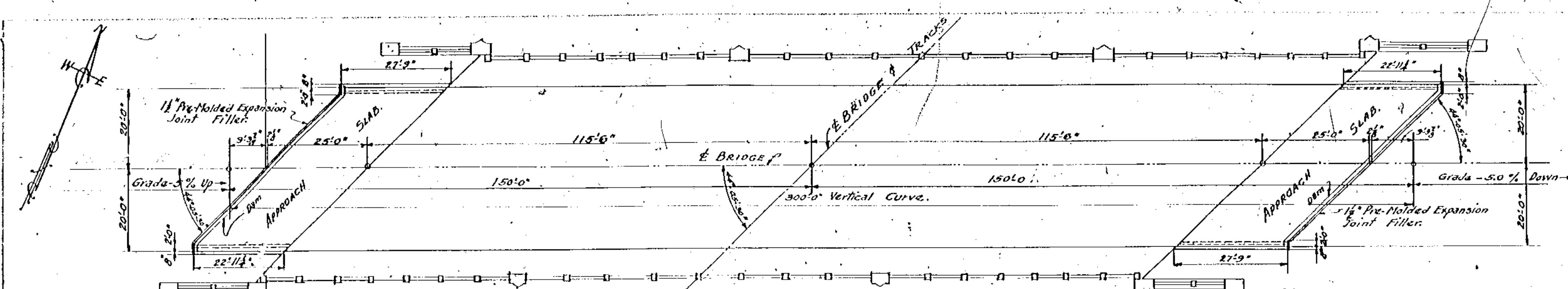
TRANSFORMERS—Each lamp shall have a GE 10,000 lumen isolating transformer (G. E. CAT. No. 4-X-568) with a 6.6 to 20 ampere ratio. The transformer shall be connected for primary and secondary circuits with sleeves and wiped joints. The transformers shall be located in the utility chambers as shown on the plans.

LIGHTING UNITS—The lighting units shall consist of eight short type Standard Cleveland White Way standards as shown on the drawing (Union Metal Manufacturing Co.) Lanterns shall be Standard Cleveland White Way Lanterns, cast aluminum split type with dome refractor and reflector.

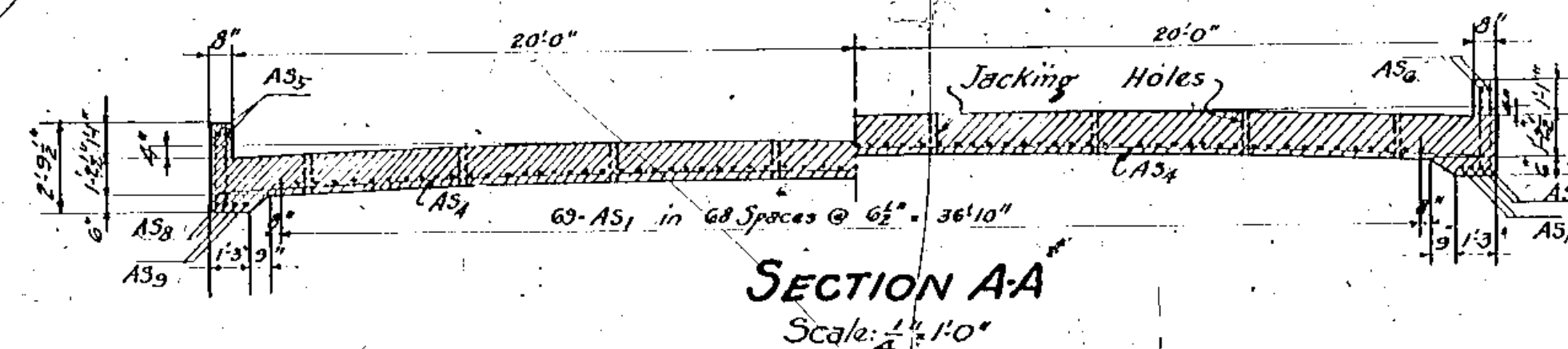
LAMPS—Lamps shall be 10,000 lumen, 20 ampere, tip down burning with multiple mogul socket and adjustable supports.

PAINTING—Finish coat on standards shall be of a color selected by the Engineer.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
LIGHTING SYSTEM DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
	H.A.W.	H.A.W.	T.C.N.	H.R.R.	7/2/36



EAST APPROACH SLAB SIMILAR.

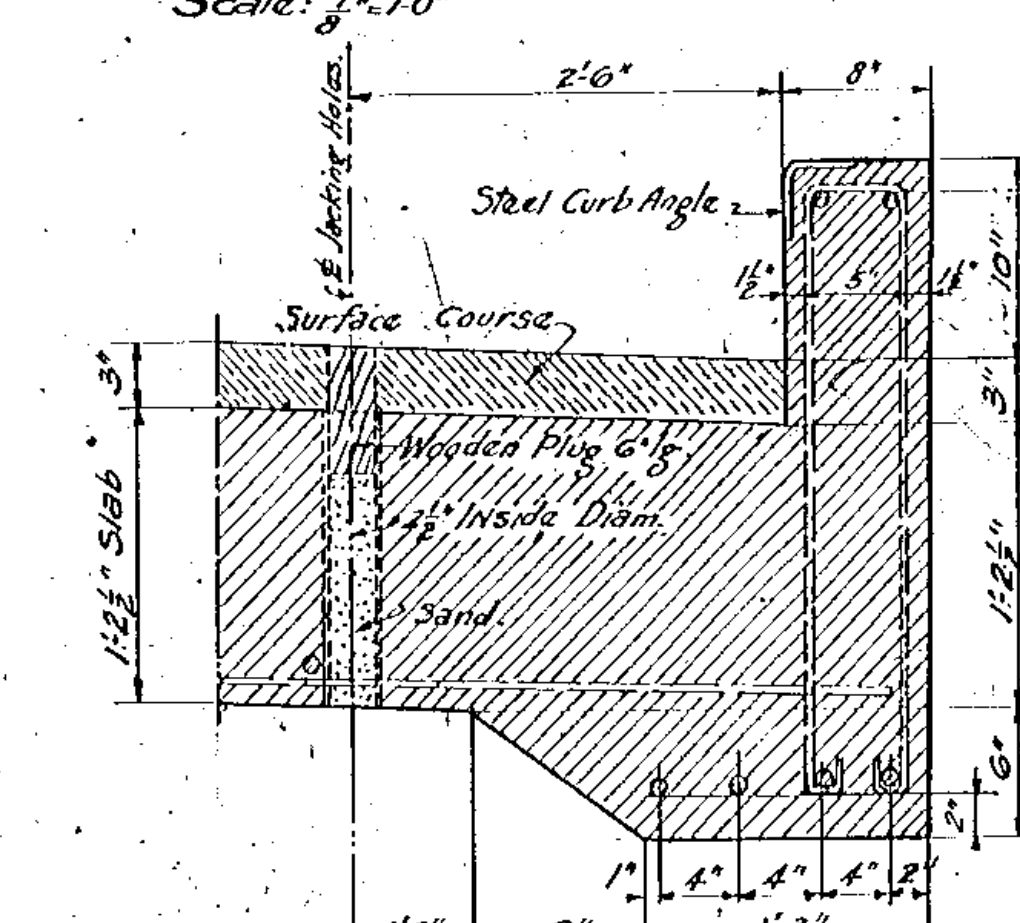
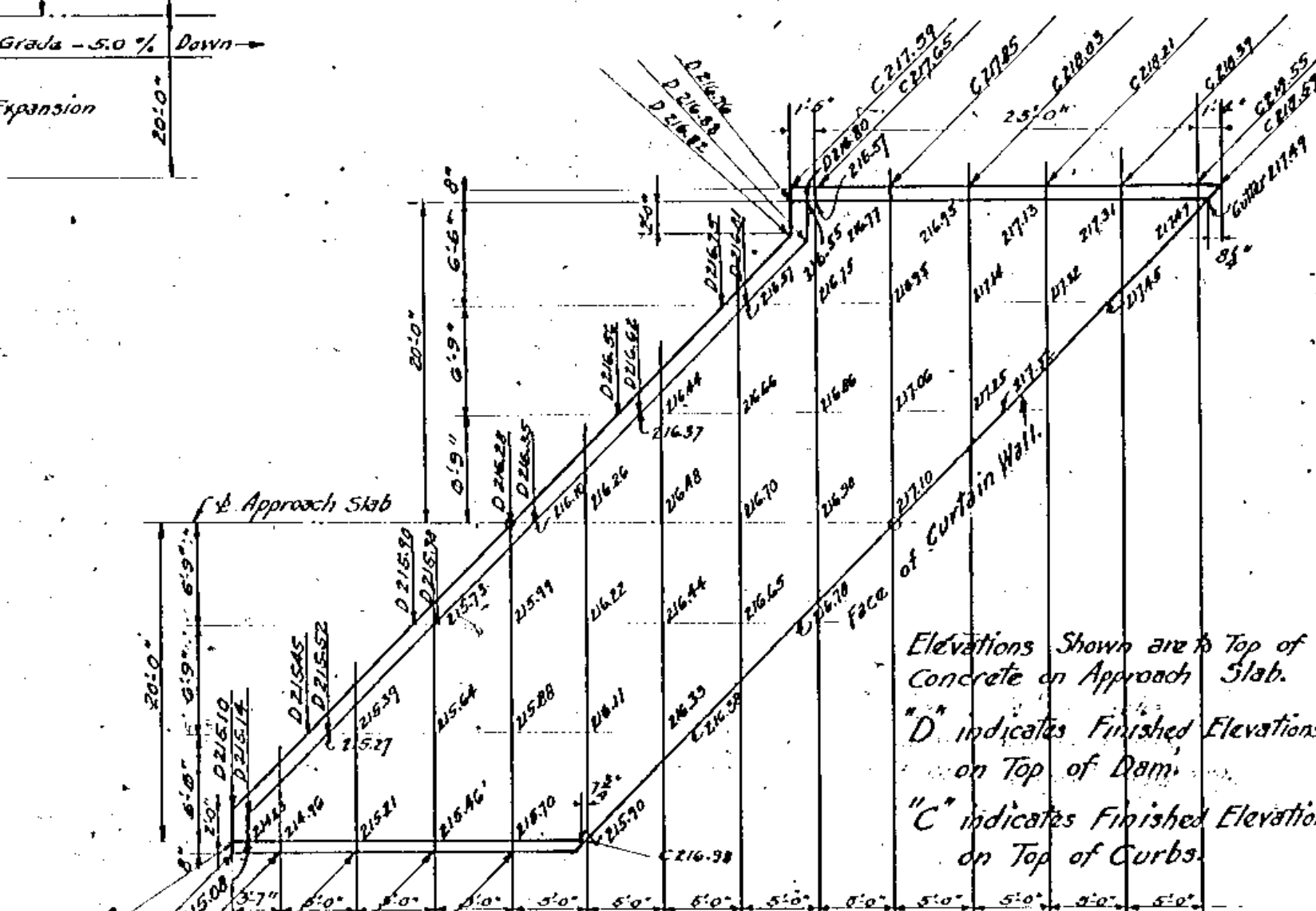


Note: All reinforcing steel called for on this sheet is included in Approach slab for payment.

FED. RD. DIST. NO.	STATE	U.S.M.P.D.C. PROJECT	FISCAL YEAR
10	OHIO	WPM-336A	1936

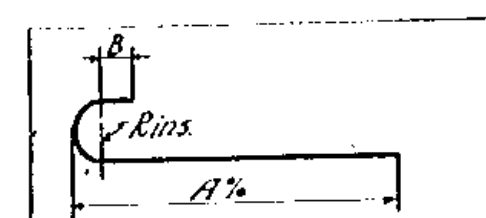
CUYAHOGA COUNTY
TRISKETT ROAD

25
39



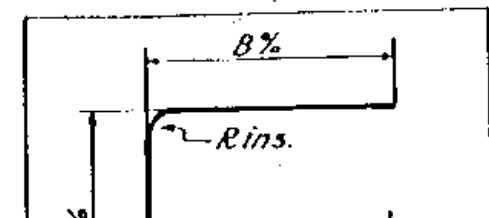
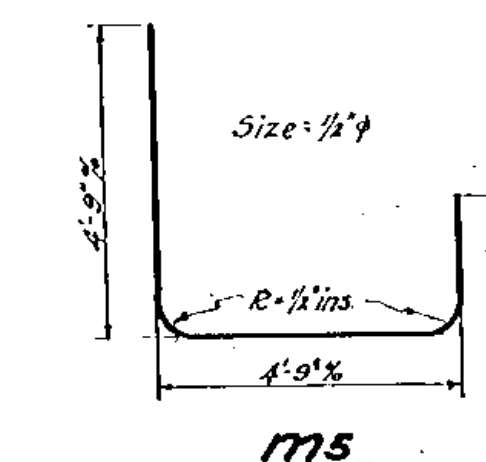
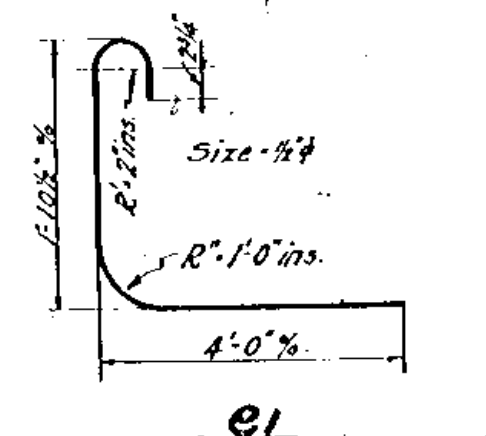
Original design prepared by NYC. R.R. Co.; checked and completed in Cuyahoga County Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
APPROACH SLAB DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA 72+08.10					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
W.A.M.	W.A.M.	R.U.S.	W.A.M.	W.A.M.	7/24



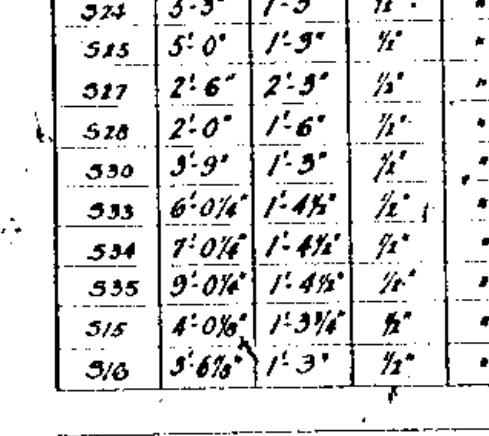
Mark	A	B	Rins	Size
ai	28'-8"	3 1/2"	2"	1/4"
ai	5'-3 1/2"	3"	2"	1/4"
ai	5'-6 1/2"	3"	2"	1/4"
ai	4'-9 1/2"	3"	2"	1/4"
ai	5'-0 1/2"	3"	2"	1/4"
ai	3'-6"	3 1/2"	2"	1/4"
ai	12'-2 1/2"	4"	3"	1/4"
ai	24'-6"	5"	4"	1/4"
ai	31'-5"	5"	4"	1/4"
ai	22'-7"	5"	4"	1/4"
ai	15'-9"	5"	4"	1/4"
ai	24'-9"	5"	4"	1/4"
ai	6'-0"	4"	4"	1/4"
ai	9'-3"	3"	3"	1/4"
ai	8'-9"	3"	3"	1/4"
ai	7'-10"	3"	3"	1/4"
ai	7'-6"	3"	3"	1/4"
ai	10'-3"	3"	3"	1/4"
ai	9'-9"	3"	3"	1/4"
ai	8'-10"	3"	3"	1/4"
ai	8'-6"	3"	3"	1/4"
ai	28'-3 1/2"	3"	3"	1/4"

Mark	A	B	Rins	Size
ci	10'-9"	3"	2"	1/4"
ci	7'-2"	3"	2"	1/4"
ci	9'-4"	3"	2"	1/4"
ci	10'-5"	4"	2"	1/4"
ci	9'-2"	4"	2"	1/4"
ci	7'-6"	3"	3"	1/4"
ci	9'-9"	3"	3"	1/4"
ci	7'-0"	3"	3"	1/4"
ci	6'-6"	3"	3"	1/4"
ci	5'-0"	3"	3"	1/4"
ci	8'-6"	3"	3"	1/4"
ci	11'-6"	3"	3"	1/4"

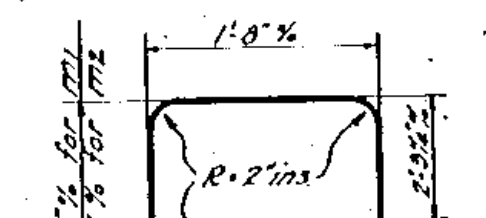


Mark	A	B	Rins	Size
ai	4'-6"	4'-6"	1'-0"	1/4"
ai	3'-6"	3'-6"	6"	1/4"

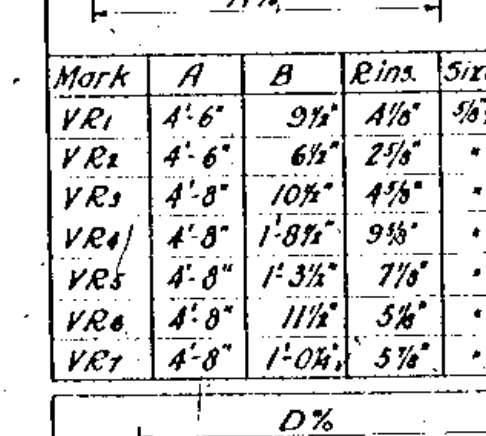
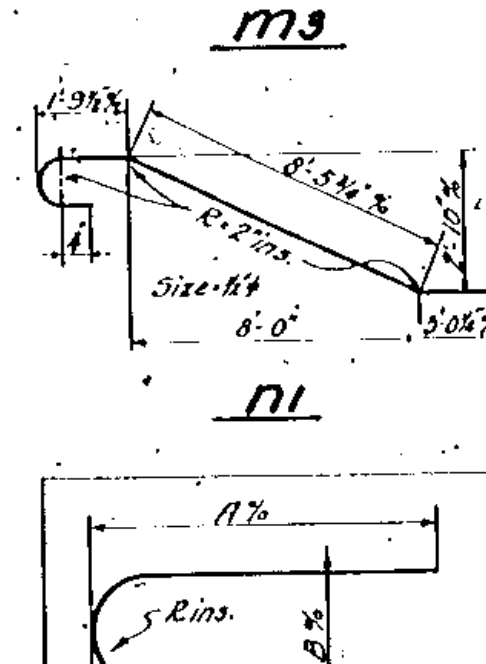
Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"



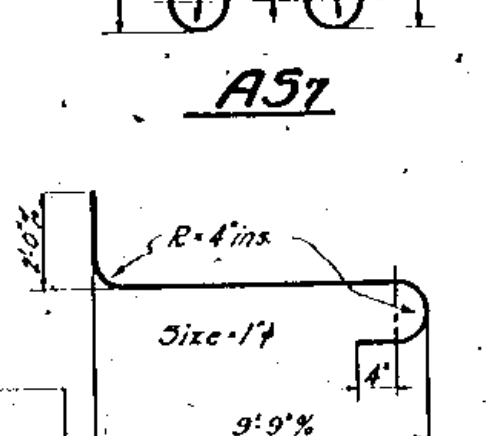
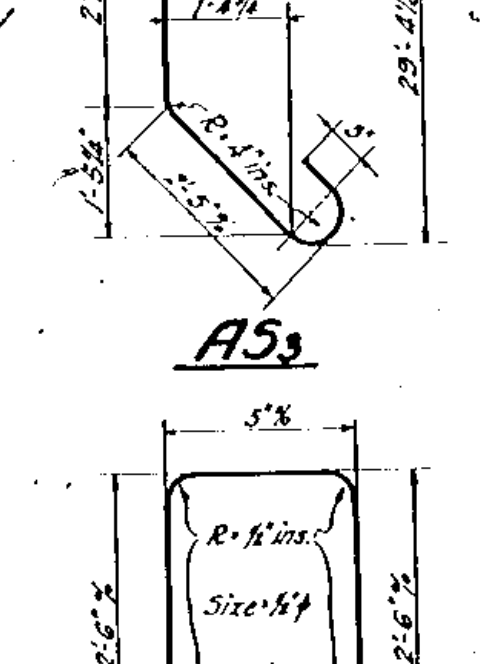
Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



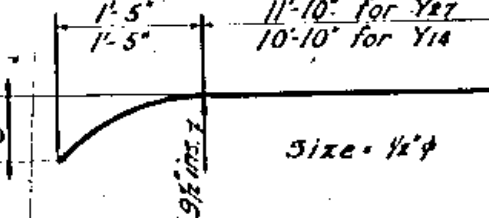
Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"



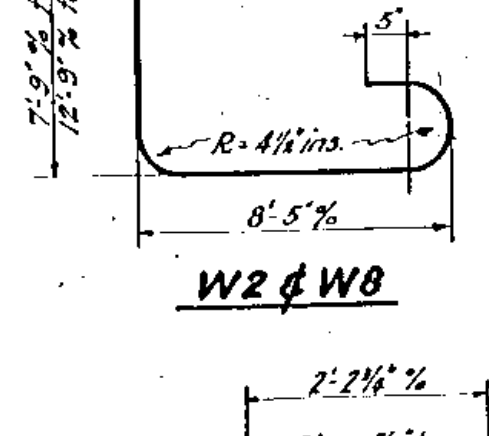
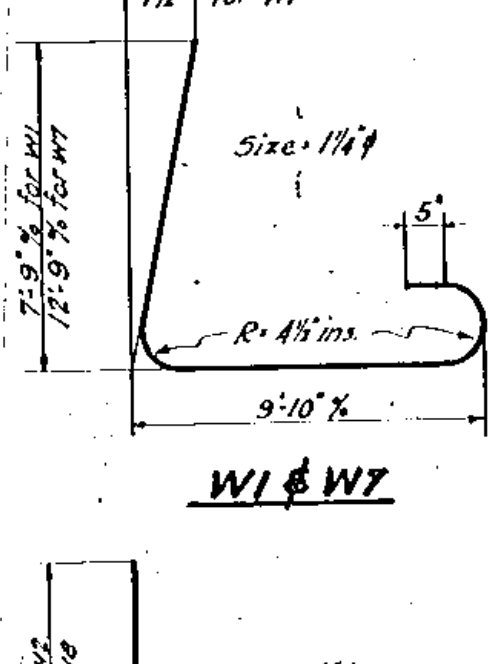
Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



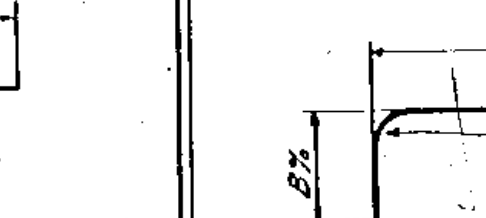
Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"



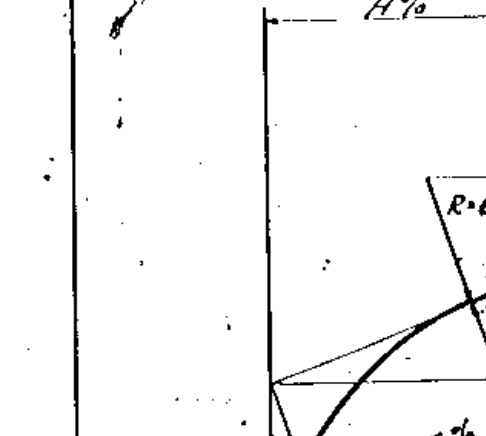
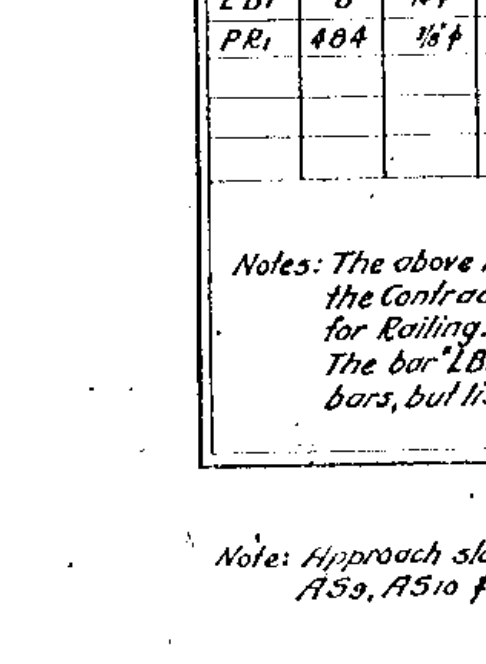
Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



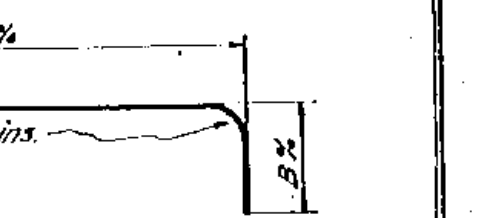
Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"



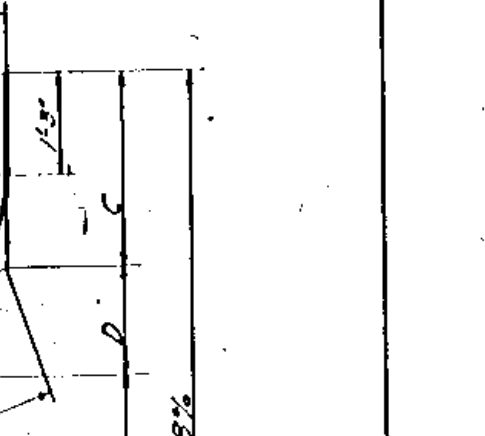
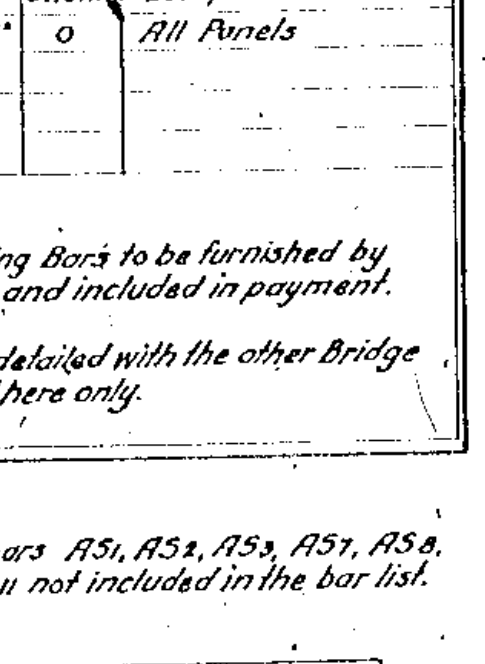
Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"



Mark	A	B	Rins	Size
ai	3'-0 1/2"	4'-6"	5"	1/4"
ai	3'-9 1/2"	4'-6"	3"	1/4"
ai	4'-3 1/2"	4'-6"	3"	1/4"
ai	7'-0 1/2"	4'-6"	3"	1/4"
ai	7'-3 1/2"	4'-6"	3"	1/4"



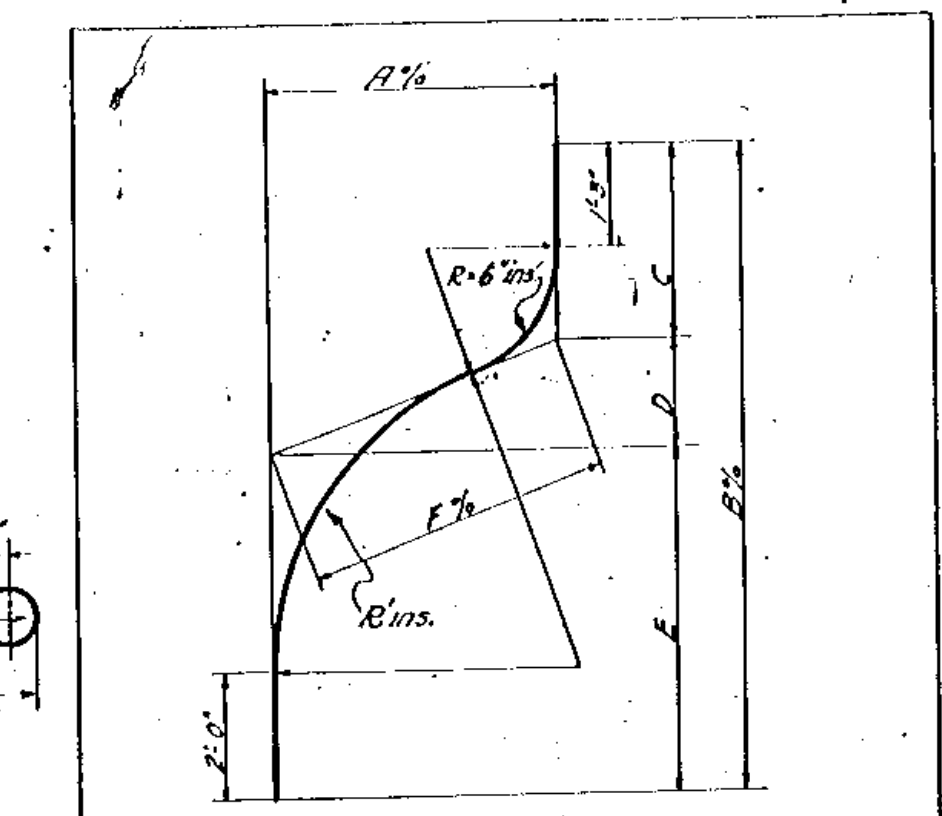
Mark	A	B	Rins	Size
ai	2'-3"	3'-6 1/2"	2"	1/4"
ai	4'-8 1/2"	6'-0"	2"	1/4"
ai	5'-8 1/2"	7'-0"	2"	1/4"

BILL OF RAILING BARS

Mark	No.	Size	Length	Bend	Location
TR	12	3/8"	7'-7"	Shown	Panel 7"
TR	6	1"	10'-1"	"	"
TR	6	1"	8'-7"	"	"
TR	48	1"	11'-5"	"	"
TR	84	1"	9'-11"	"	"
TR	8	1"	6'-10"	"	"
TR	60	1"	9'-1"	"	"
TR	4	1"	7'-7"	"	"
TR	32	1"	10'-7"	"	"
BR	20	1"	5'-10"	0	"
BR	10	1"	8'-4"	"	"
BR	10	1"	6'-10"	"	"
BR	80	1"	9'-8"	"	"
BR	140	1"	8'-2"	"	"
BR	8	1"	5'-7"	Shown	Lamp Std Bracket
PR	484	1/4"	2'-11"	0	All Panels

Notes: The above Railing Bars to be furnished by the Contractor, and included in payment for Billings.
The bar "B" is detailed with the other Bridge bars, but listed here only.

Note: Approach slab bars AS1, AS2, AS3, AS4, AS5, AS6, AS7, AS8, AS9, AS10 & AS11 not included in the bar list.



Mark	A	B	C	D	E	F	Rins	Size
TR	4'-0 1/2"	7'-9 1/2"	1'-0 1/2"	6"	5'-7 1/2"	4'-0 1/2"	4'-1 1/2"	1/4"
TR	3'-4 1/2"	7'-2 1/2"	1'-0 1/2"	6"	4'-1 1/2"	3'-5"	5'-5 1/2"	1/4"

Notes: All dimensions are given to ± of bars except where noted.
For Bar list, see Sheet #27.

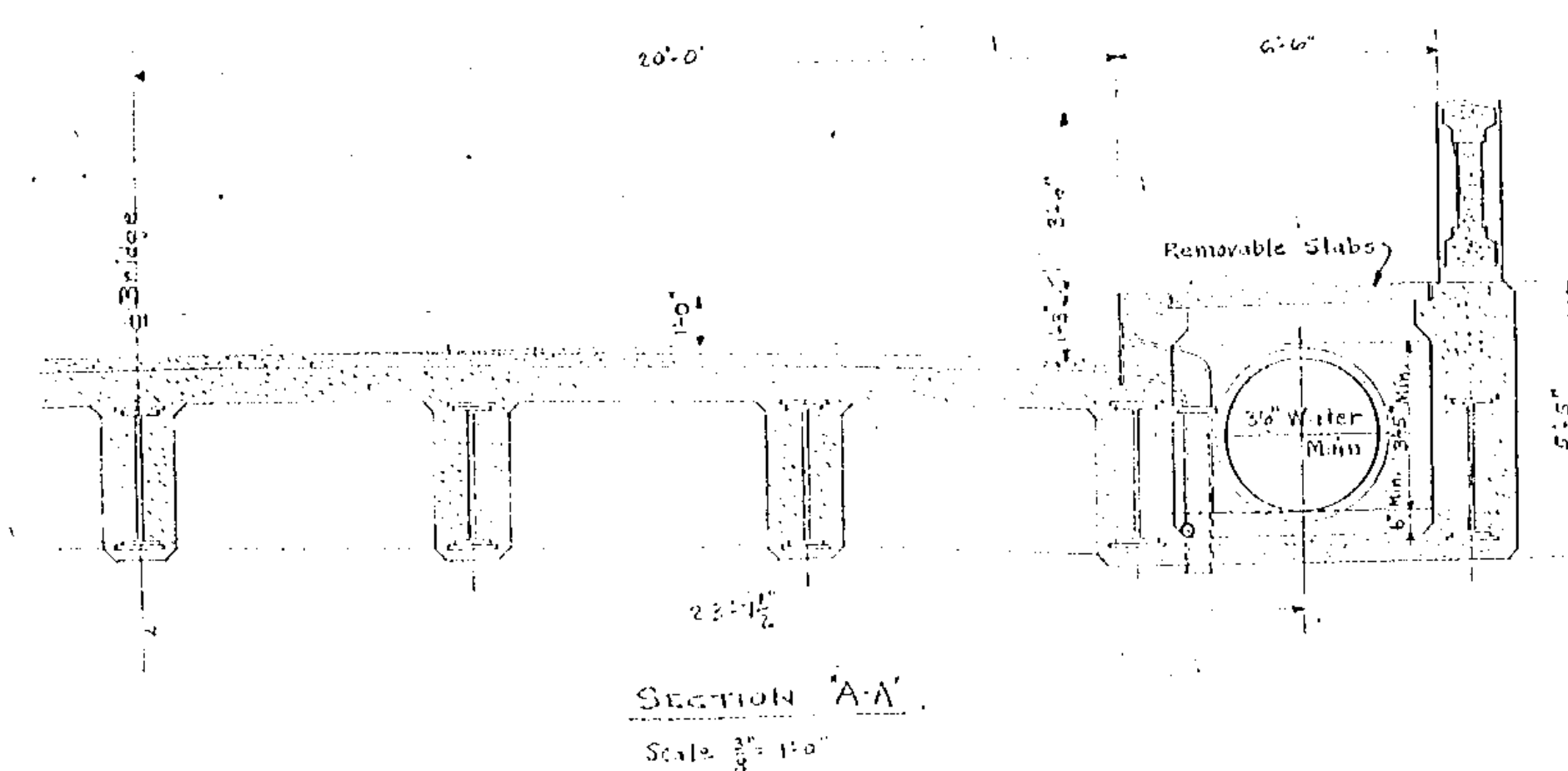
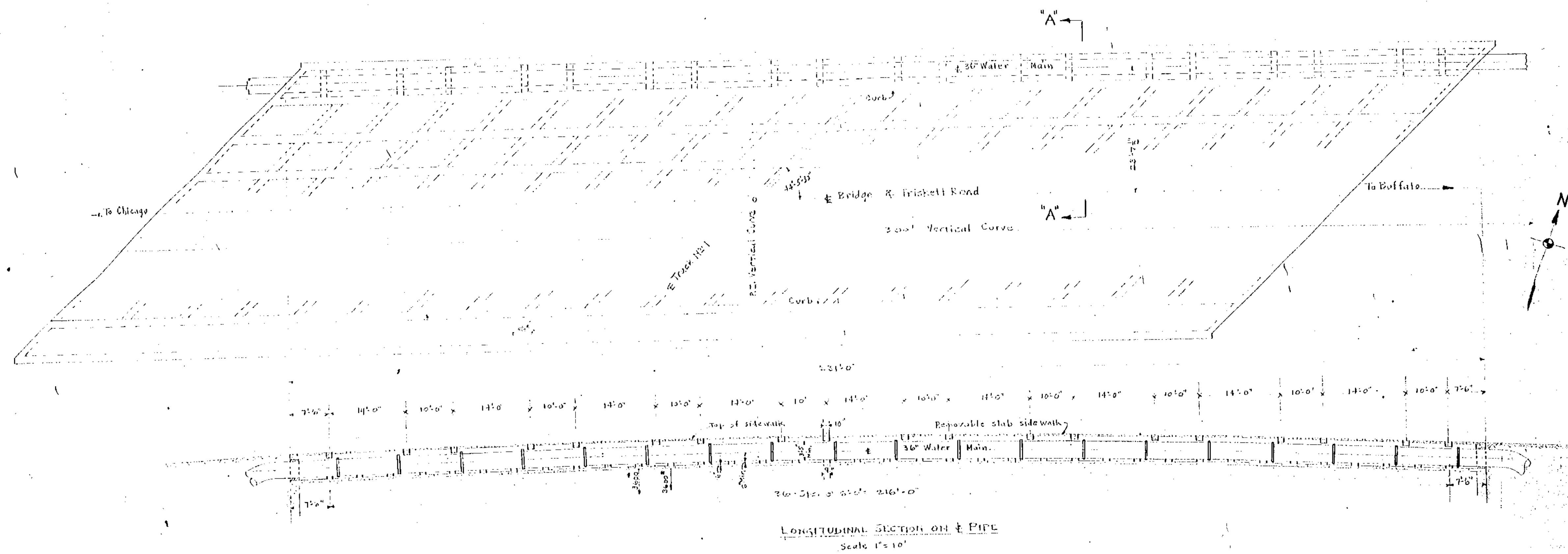
Original design prepared by NYC. R.R. Co.;
checked and completed in Cuyahoga County
Engineer's Office.

STATE OF OHIO DEPARTMENT OF HIGHWAYS BUREAU OF BRIDGES					
REINFORCING STEEL DETAILS					
TRISKETT ROAD BRIDGE OVER NEW YORK CENTRAL RAILROAD CUYAHOGA COUNTY STA. 72 + 08.10					
DESIGNED	DRAWN	TRACED	CHECKED	BY	DATE
E.A.W.	E.A.W.	E.A.W.	F.A.P.	A.W.C.	7/26

[illegible]

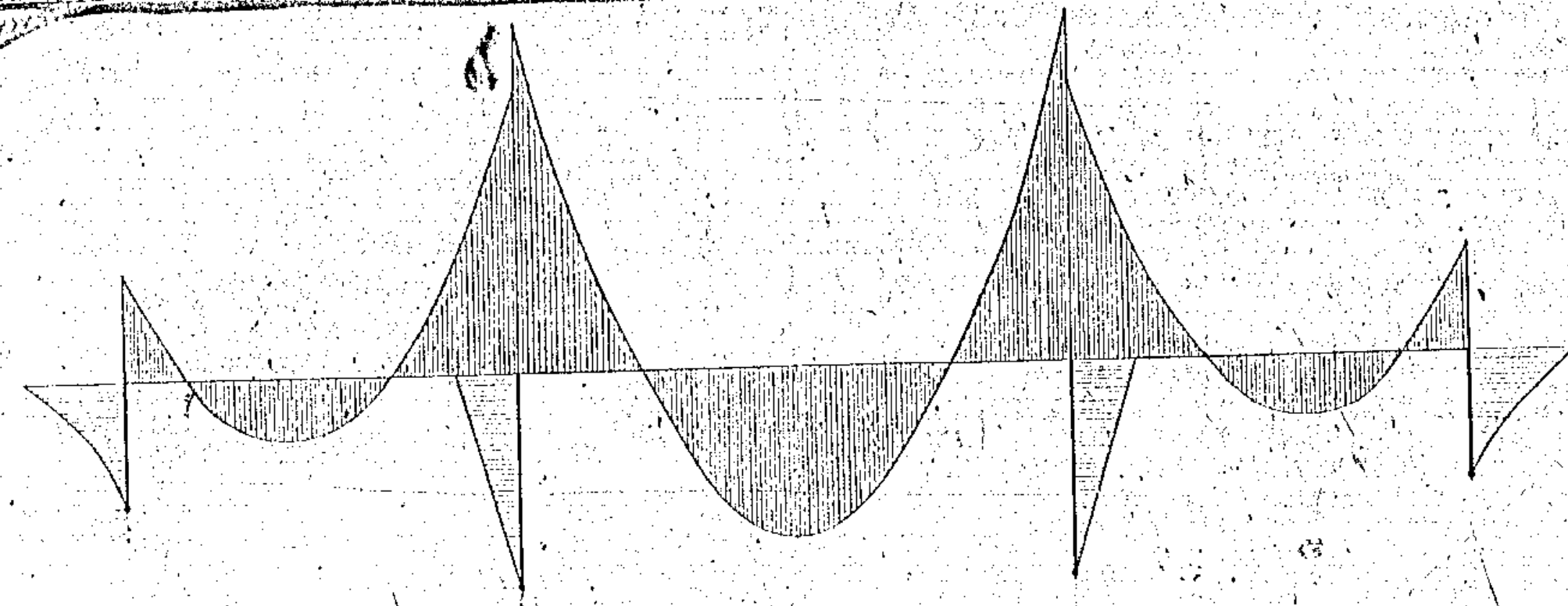
1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971) using a Shimadzu 1010 spectrophotometer.

Note: For Bending details, see Sheet #26.

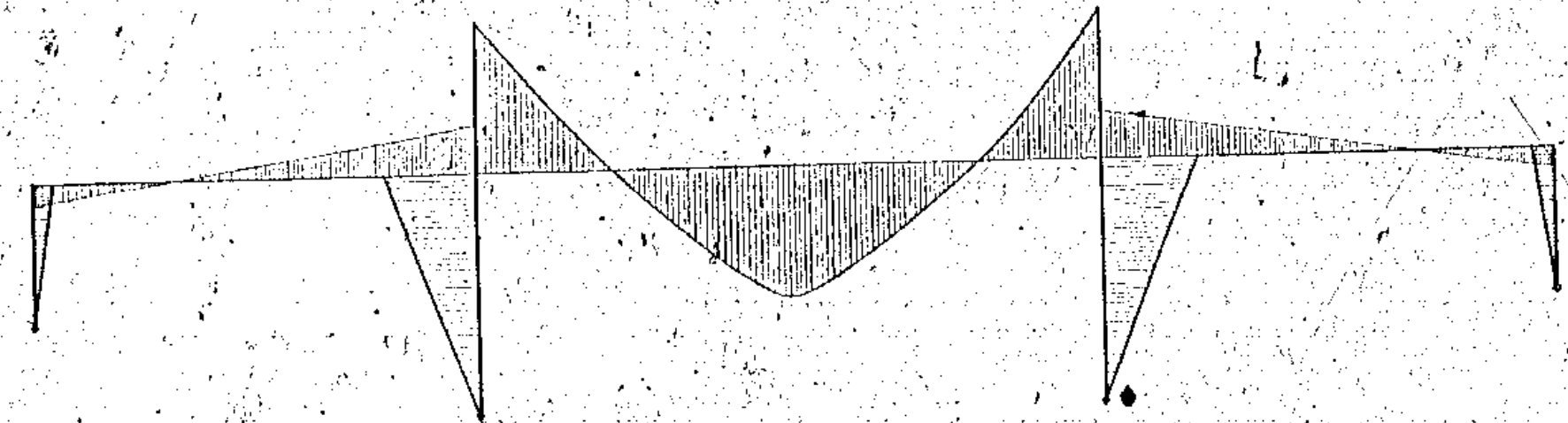


Details of bridge taken from N.Y.C.R.R. Co's drawings No. D-7-49 and B-4495 Sheets No. 1, 2 & 3.

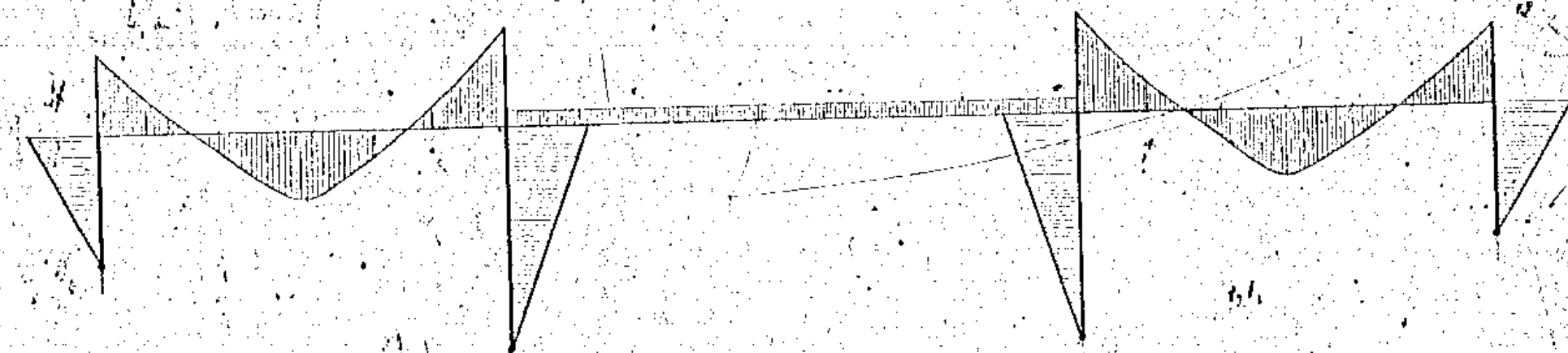
REVISIONS		1ST HIGH SERVICE DISTRICT	
		DEPARTMENT OF PUBLIC UTILITIES	
		CLEVELAND, OHIO	
DIVISION OF WATER AND HEAT		CONT. IN	
DIRECT PROPOSED LOCATION OF 36" WATER MAIN ON			
N.Y.C.R.R. OVERHEAD BRIDGE NO. 208 AT			
TRISKETT ROAD			
DESIGNED BY G.N.D.	CHECKED BY	DWG. NO. SM-462	
DATE 10-8-35	SCALE As Noted		



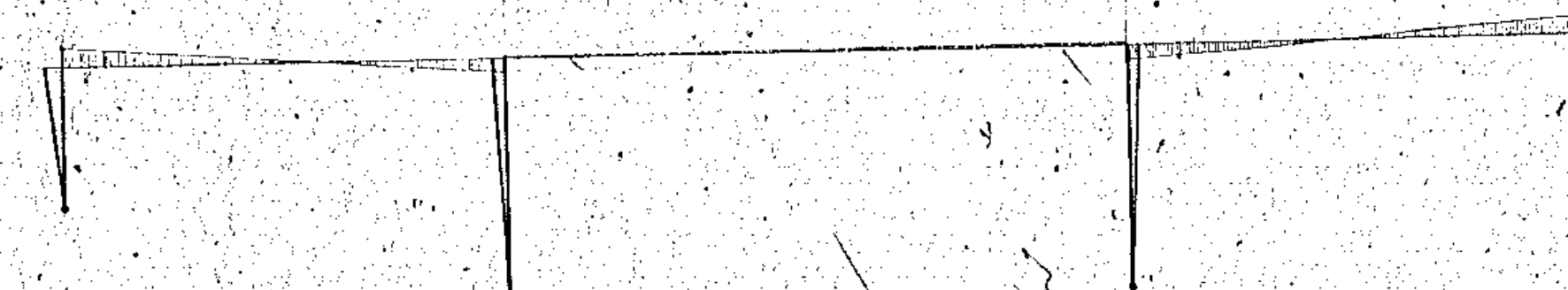
— DEAD LOAD & EARTH PRESSURE MOMENTS —



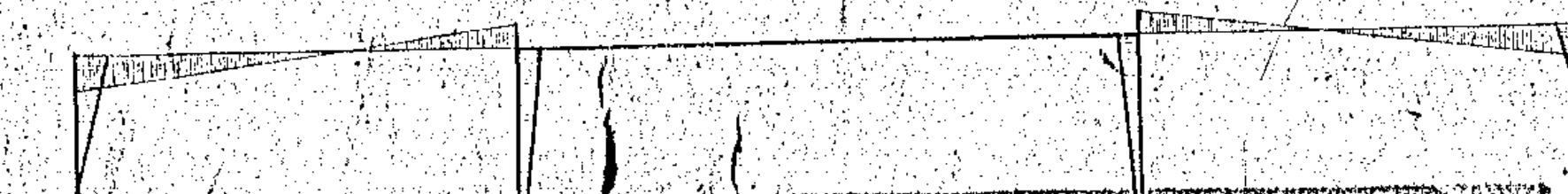
— LIVE LOAD ON CENTER SPAN - MOMENTS —



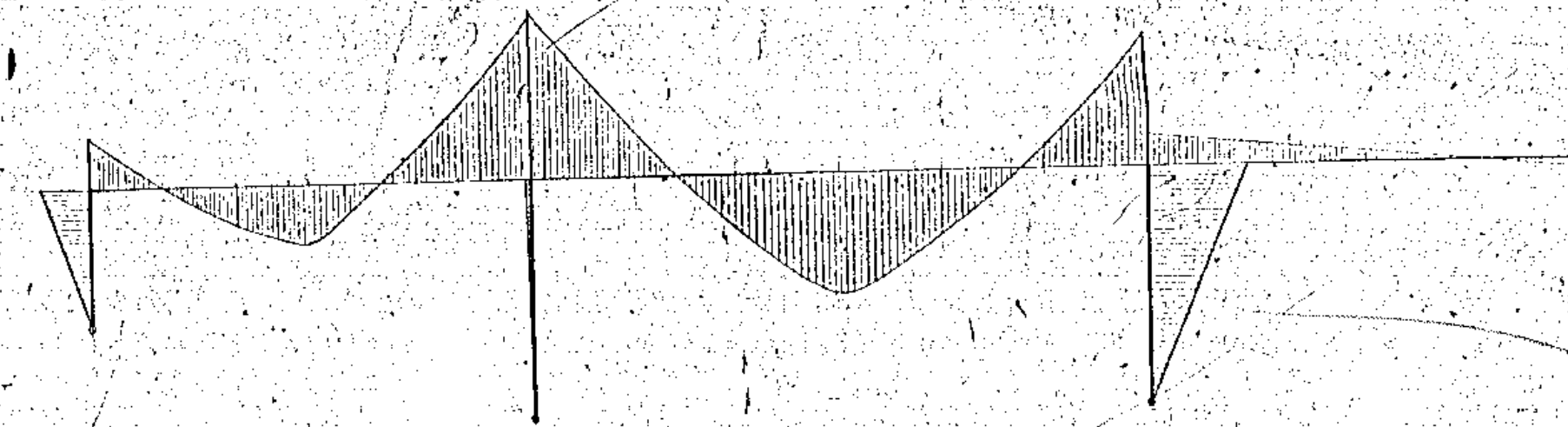
— LIVE LOAD ON BOTH SIDE SPANS - MOMENTS —



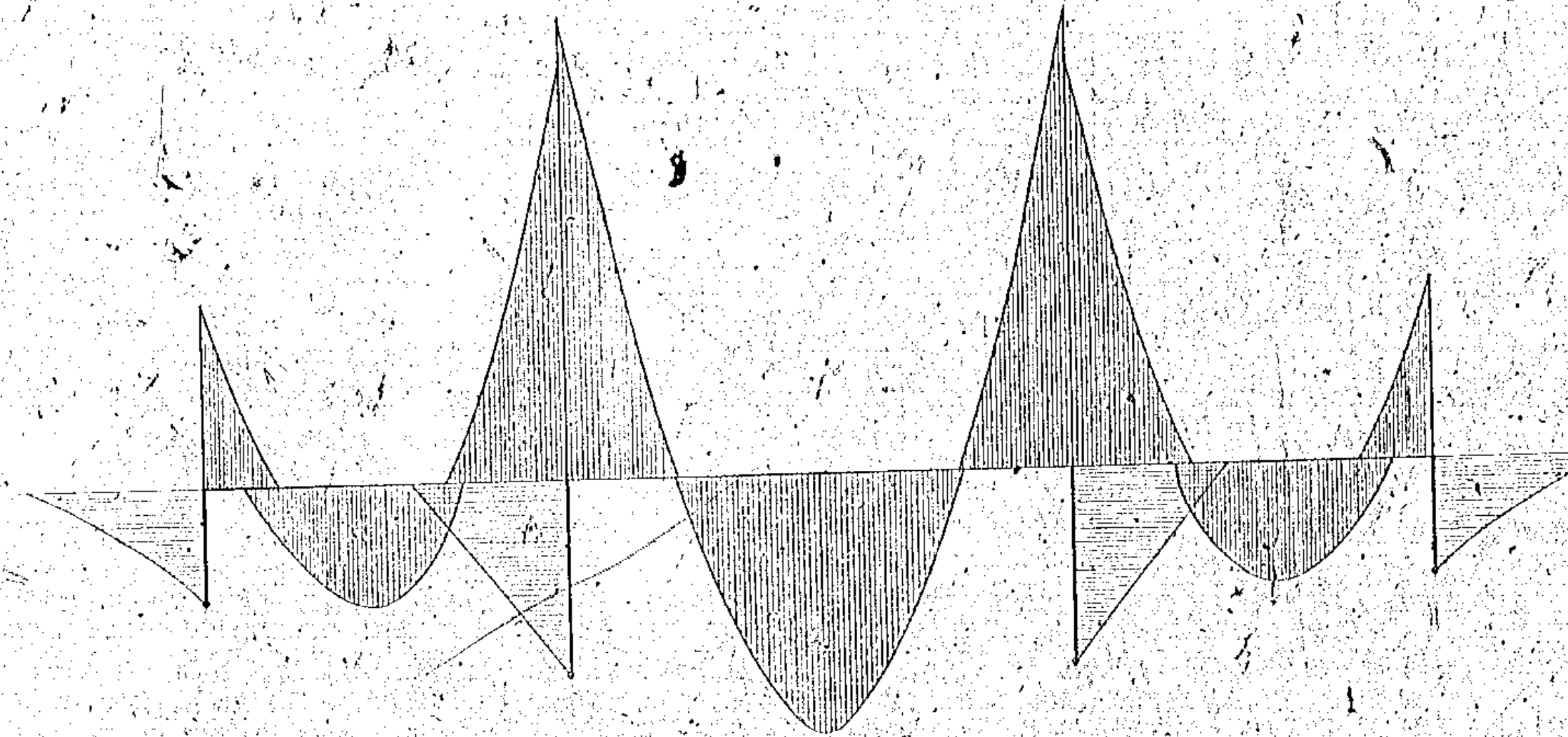
— 30° RISE IN TEMPERATURE - MOMENTS —



— 55° FALL IN TEMPERATURE - MOMENTS —

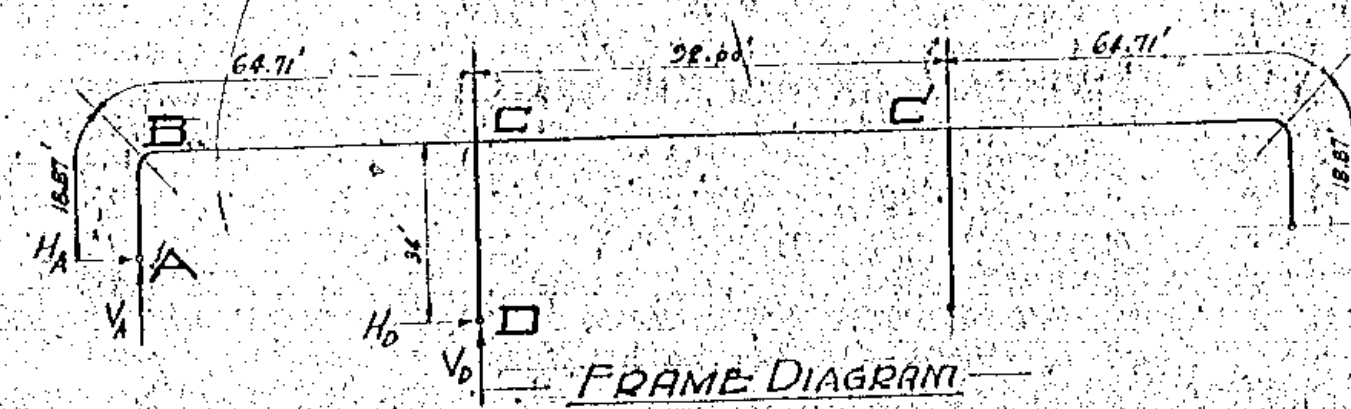


— LIVE LOAD ON LEFT SIDE SPAN & CENTER SPAN - MOMENTS —



— MAXIMUM MOMENTS —

Scales for Moment Diagrams -
Moment Scale 1"=600,000 Ft.-lbs. Frame Scale 1"=20'



— BENDING MOMENTS & REACTIONS —

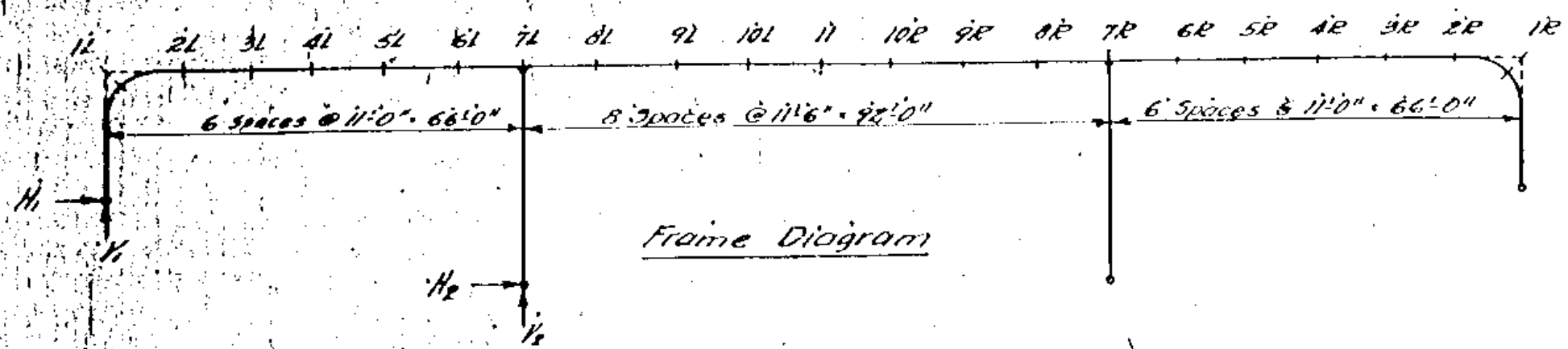
Loading	M _{DA}	M _{DB}	M _{EB}	M _{ED}	M _{ED}	H _A	V _A	H _D	V _D
Dead Load & Earth Pres.	515,000	515,000	13,125	32,450	107,690	1,450	6,400	280	13,400
L.L. on Center Span	88,500	88,500	192,800	150,000	62,600	470	4,400	12,100	42,400
L.L. on Both Side Spans	358,600	358,600	152,500	328,800	67,100	1,300	2,400	11,900	37,600
L.L. on Left Side & Center Span	210,500	210,500	70,600	20,200	72,700	1,100	2,300	600	18,100
L.L. on Right Side & Center Span	15,100	39,100	138,900	45,500	59,500	200	2,300	1,300	36,700
30° Rise in Temp.	81,100	61,100	54,500	56,100	1,200	430	2,100	1,400	7,100
55° Fall in Temp.	148,000	148,000	100,000	102,600	2,200	790	3,800	2,300	3,000
MAXIMA	254,100	254,100	2,148,500	81,560	2,405,800	3,780	23,100	24,800	277,100

Reactions -
WIND COEFFICIENTS: DOWNWIND & UPWIND
ADDITIONAL LIVE LOAD (CONC. LIVE LOAD ON COIS.)
TOTAL MAXIMUM LOAD ON FOOTINGS

Notes -
SIGN CONVENTION: USED IN TABULATION -
MOMENTS: POSITIVE MOM. ROTATE JOINTS CLOCKWISE
REACTIONS: POSITIVE WHEN ACTING IN THE
DIRECTION SHOWN IN FRAME DIAGRAM.

LIVE LOAD: STATE OF OHIO - DEPT. OF HIGHWAYS
SPECIFICATIONS - SEPT. 1933
H20 LOADING

STATE OF OHIO Department of Highways Bureau of Bridges					
STRESS SHEET					
TRISKETT RD. BRIDGE					
OVER NEW YORK CENTRAL RAILROAD					
CUYAHOGA COUNTY					
DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	BY
M.E.F.	M.E.F.				



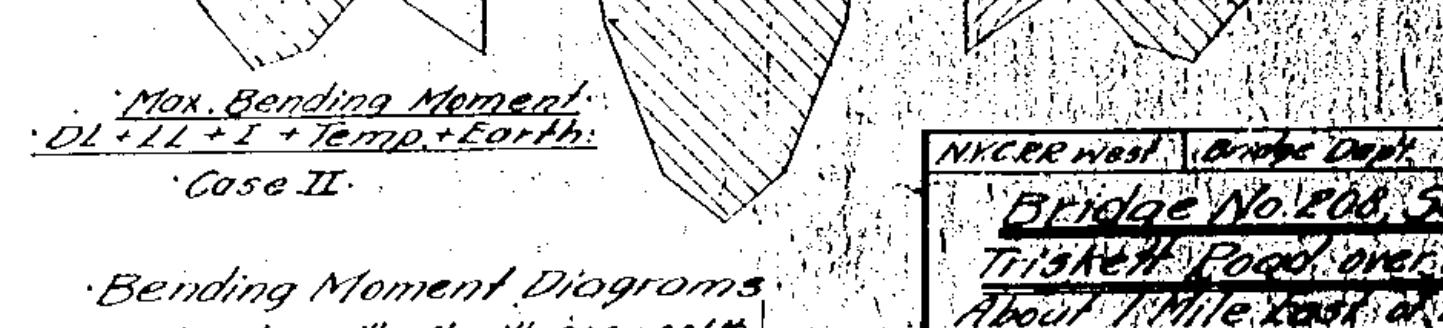
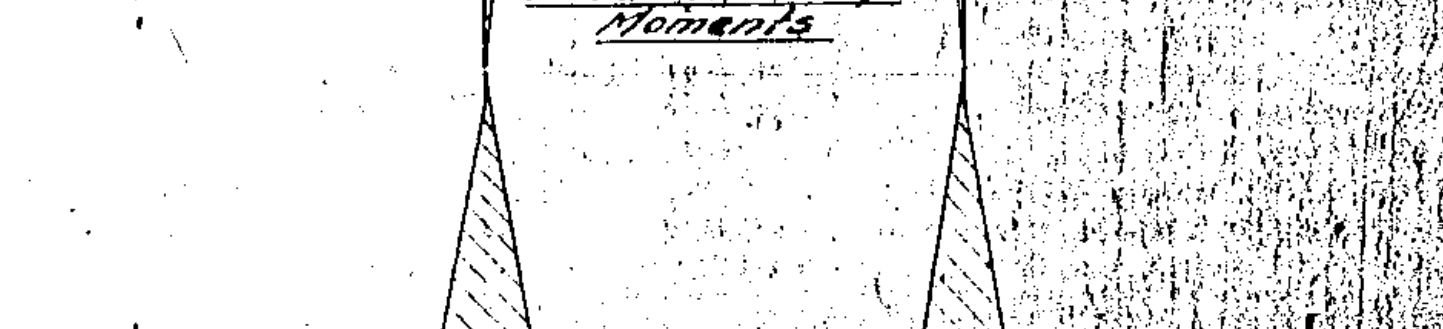
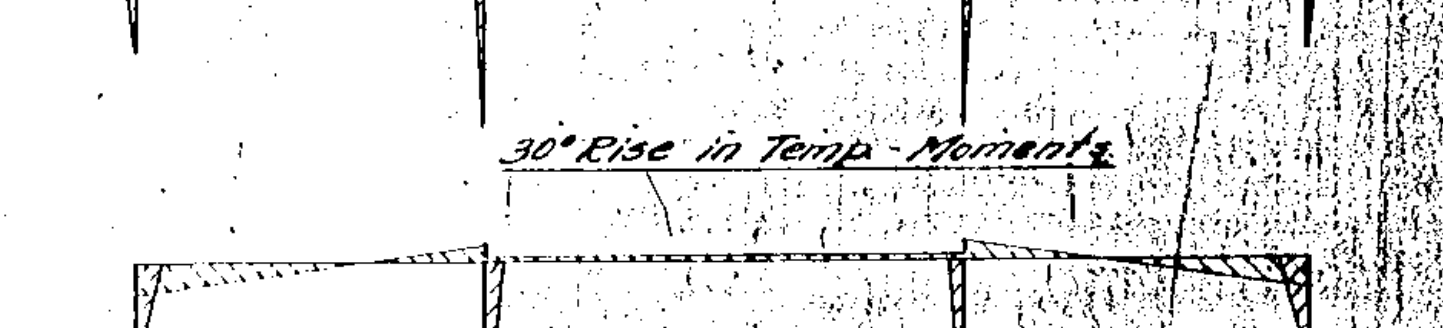
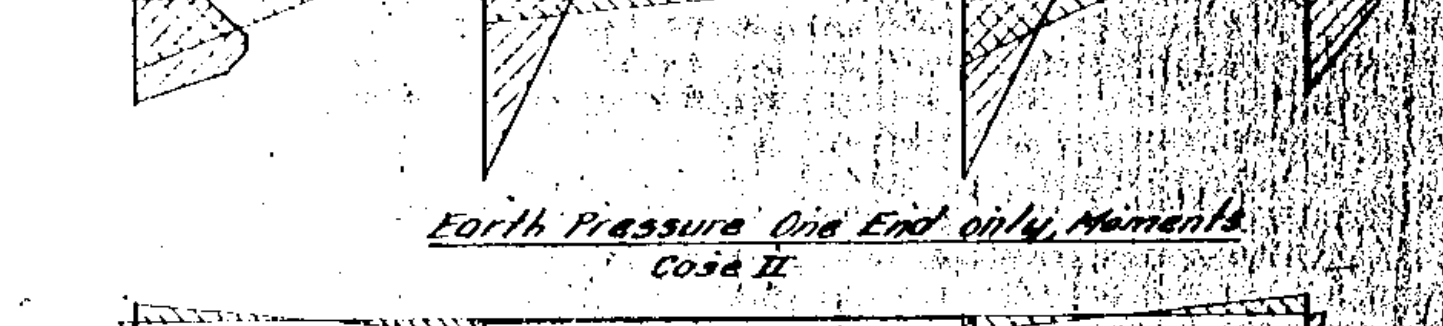
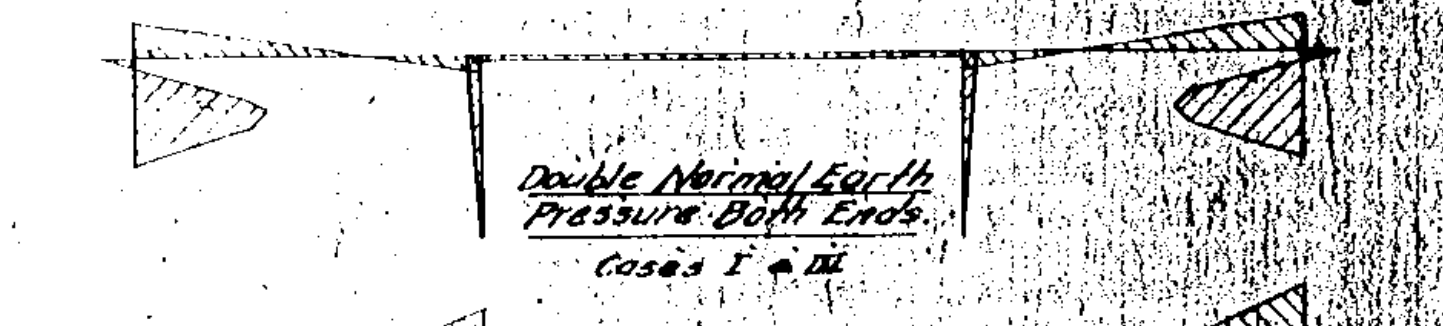
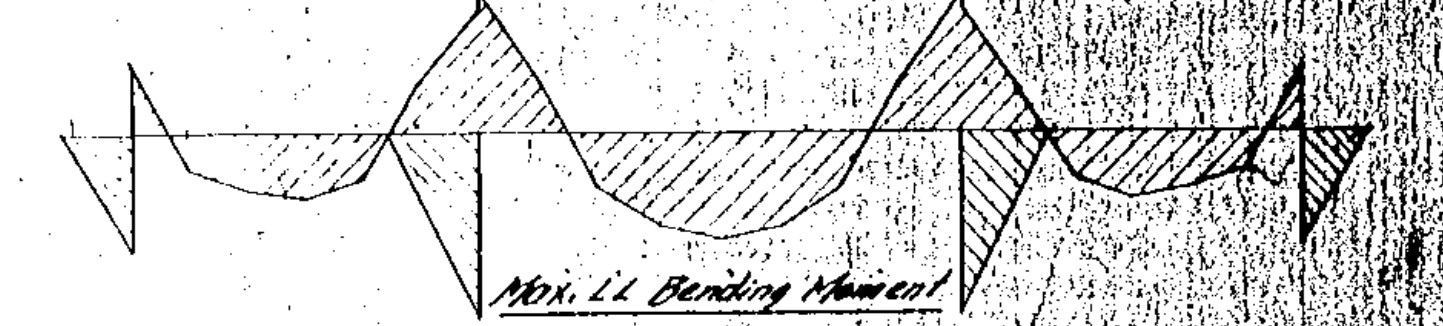
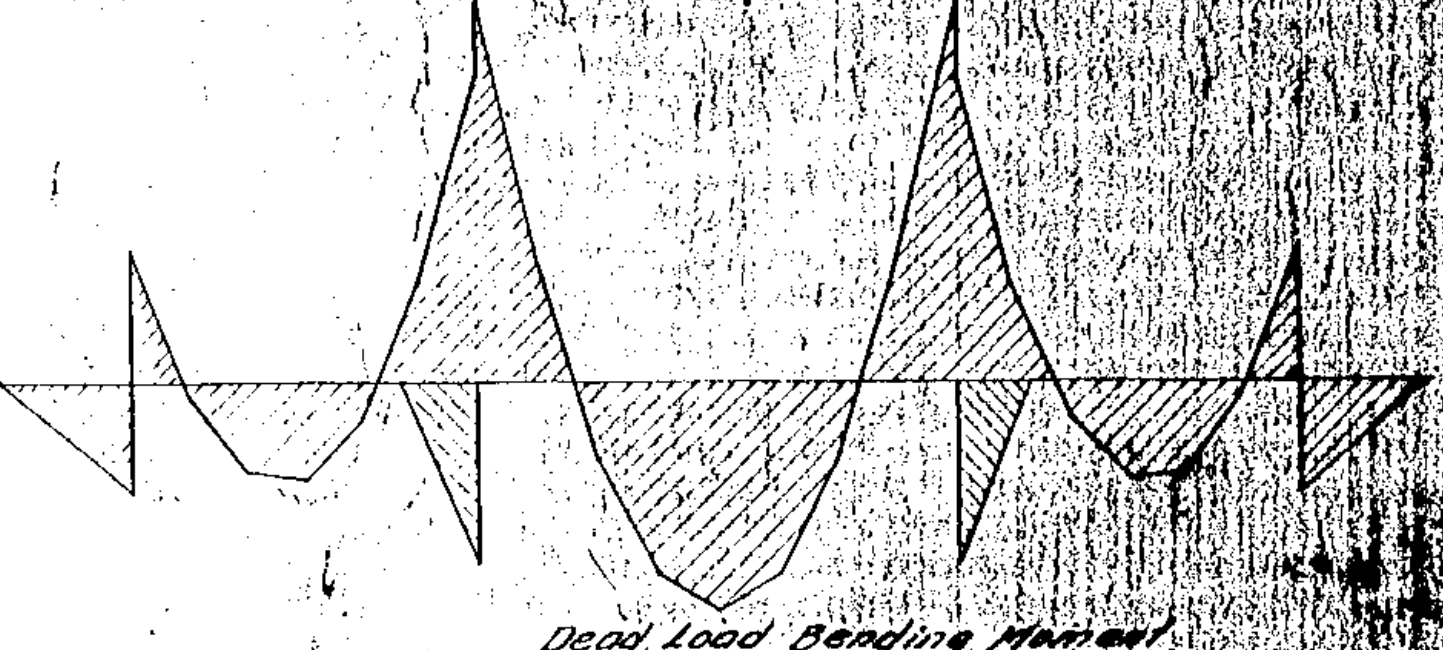
1000* Load	Foot-Pound Bending Moments of Point											Reactions			Total	
	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.	H ₁	H ₂	V ₁	V ₂	
11.	0	0	0	0	0	0	0	0	0	0	0	0	0	+1000.	0	
10.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
8.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Σ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

General Note:
Bending Moments are indicated as positive when producing tension on under side of horizontal members and as negative when producing tension on top side of vertical members.
Reactions are indicated as positive when acting in direction shown by arrows of H₁, H₂ and V₂.

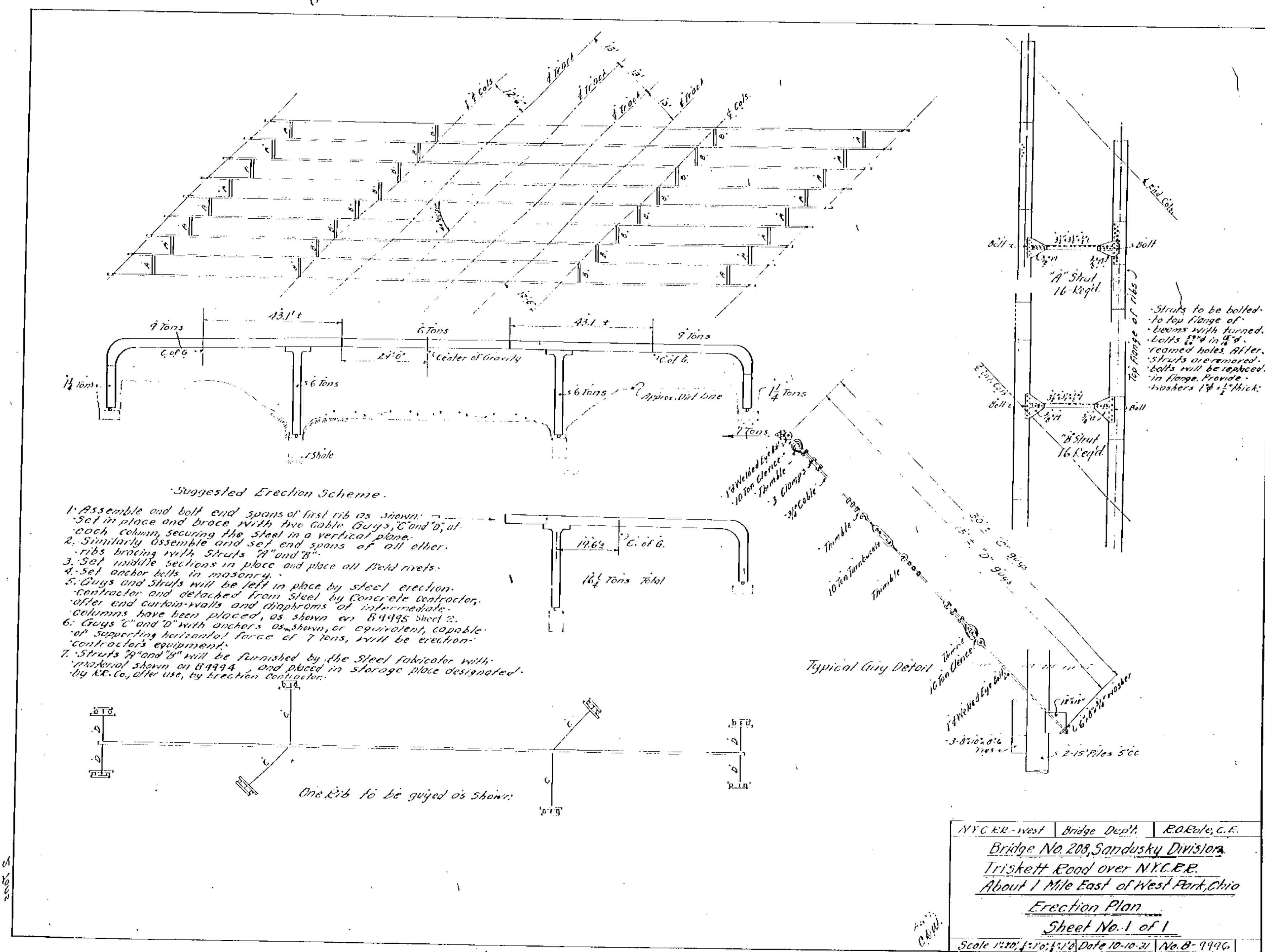
Bending Moments, Thrusts and Reactions used in Design of Frame.

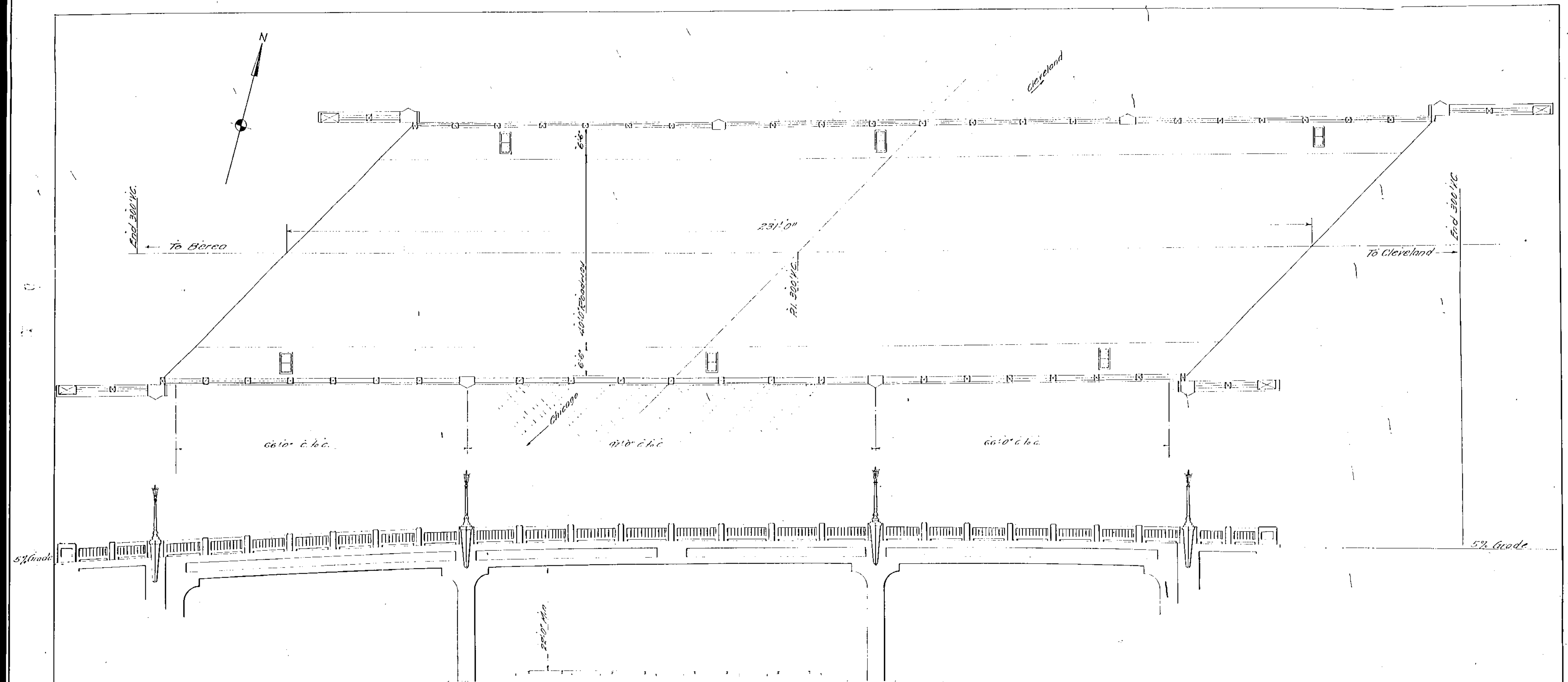
Point	Bending Moments											Thrusts		Reactions	
	11.	10.	9.	8.	7.	6.	5.	4.	3.	2.	1.	H ₁	H ₂	V ₁	V ₂
11.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Case I is combination of D.L., L.L., Imp., Temp. and earth at both ends producing maximum bending moment. Earth pressure is varied from zero to double normal pressure to obtain maximum at point considered.
Case II is combination of D.L., L.L., Imp., Temp. and earth at one end only producing maximum bending moment. Earth pressure is taken at end producing maximum at point considered.
Case III is combination of D.L., L.L., Imp., Temp. and earth at both ends producing maximum direct thrust. Earth pressure is varied from zero to double normal pressure to obtain maximum at point considered.
Direct thrusts are simultaneous with bending moments.
D.L. according to State of Ohio Department of Highways, Specifications for Design of Highway Structures, Jan. 1931, 1126 loading.



BRIDGE No. 100, SANDUSKY, OHIO
TRUCKS, ROAD, AND WIND
ABOUT 1 MILE EAST OF WEST PORT, OHIO
SIXTH STREET
SHEET No. 1 OF 1
Scale as shown Date 3-10-31



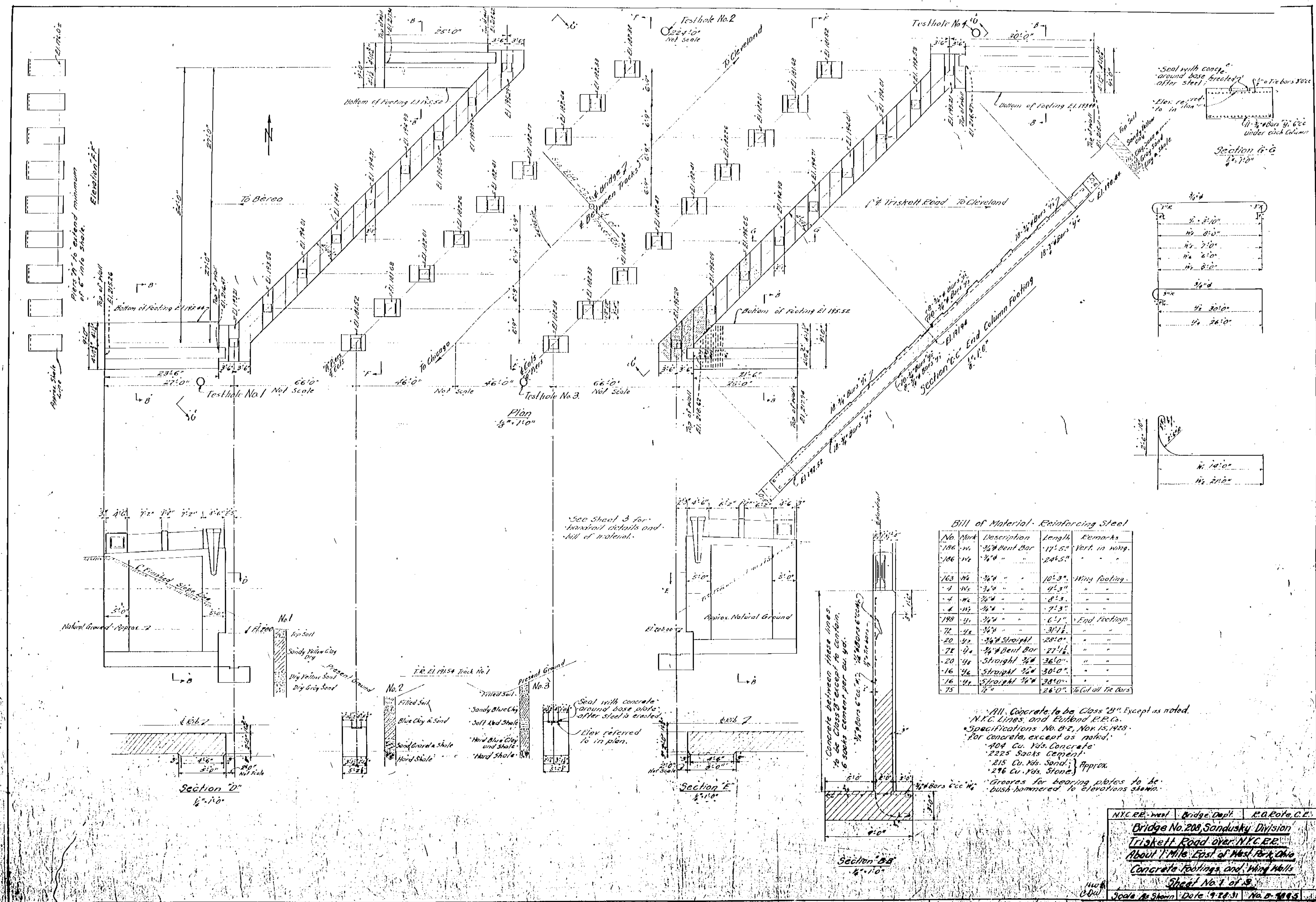


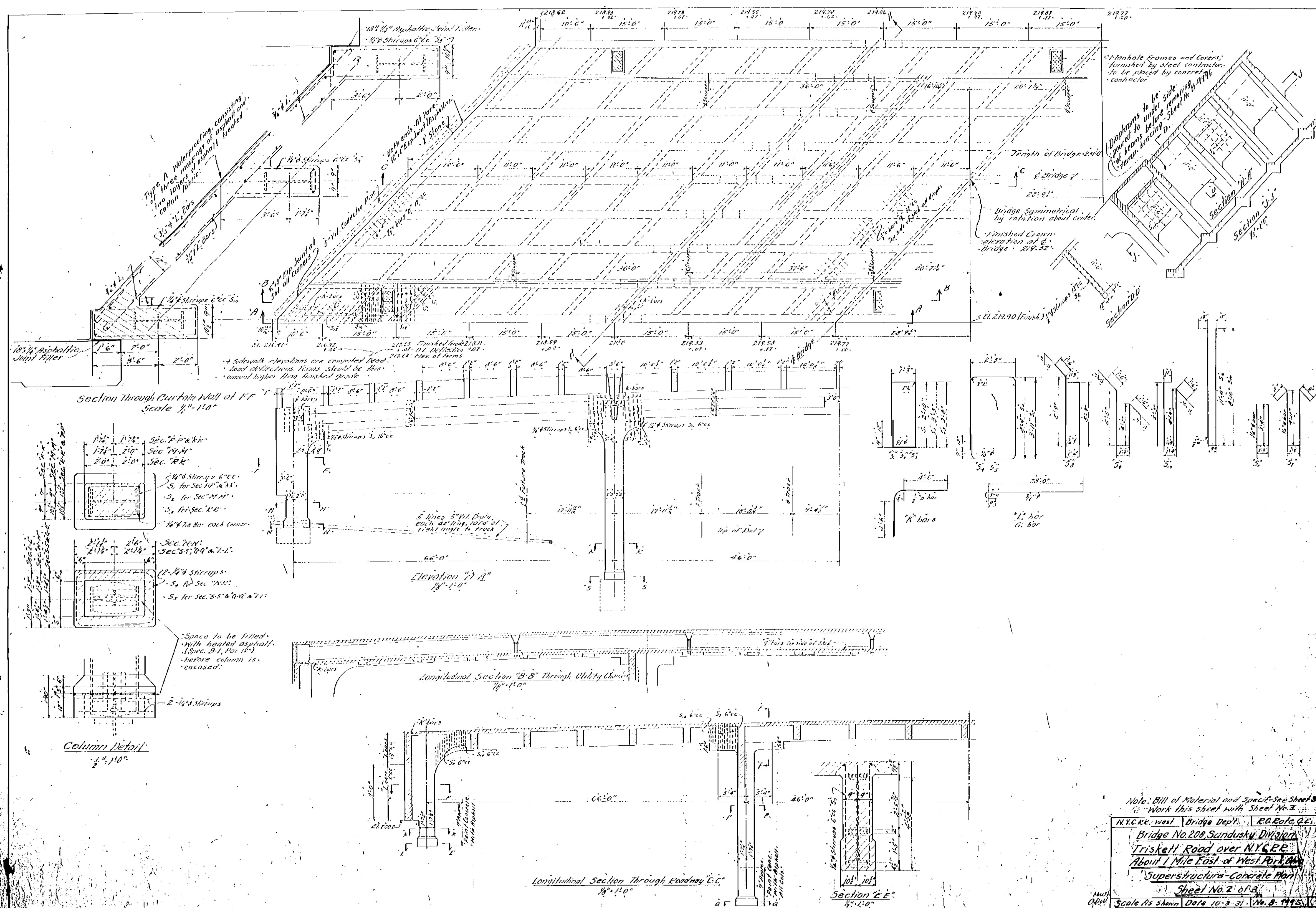
Index to Sheets

Number	Sheet	Contents
B-9993	1	General Plan and Elevation
B-9994	1	Steel
B-9995	1	Trusses and Retaining Walls
do	2	Superstructure Concrete
do	3	do
B-9996	1	Foundation

Notes:-
 This Set is as Submitted
 By THE R.R. - PRIOR TO
 CHANGES MADE BY THE COUNTY
 10/15/25

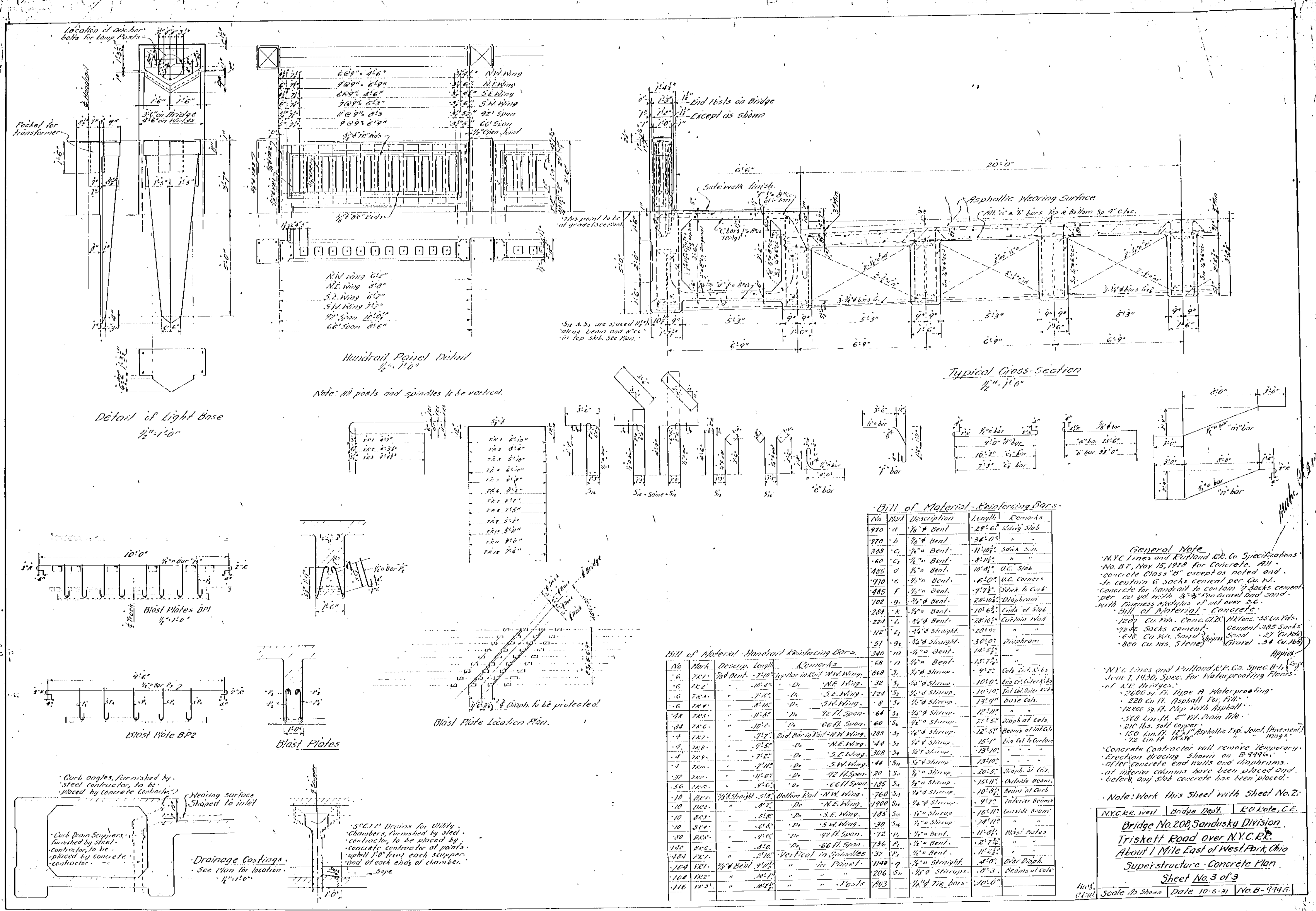
NYCER West	Bridge Dept.	E.O. Pote, C.E.
Bridge No. 200 Sandusky Div.		
Tinkett Road Over N.Y.C.R.R.		
About One Mile East of West Park, Ohio		
General Plan and Elevation		
Sheet No. 1 of 1.		
Scale 1/4" = 1'	Date 3-17-25	No. B-9993

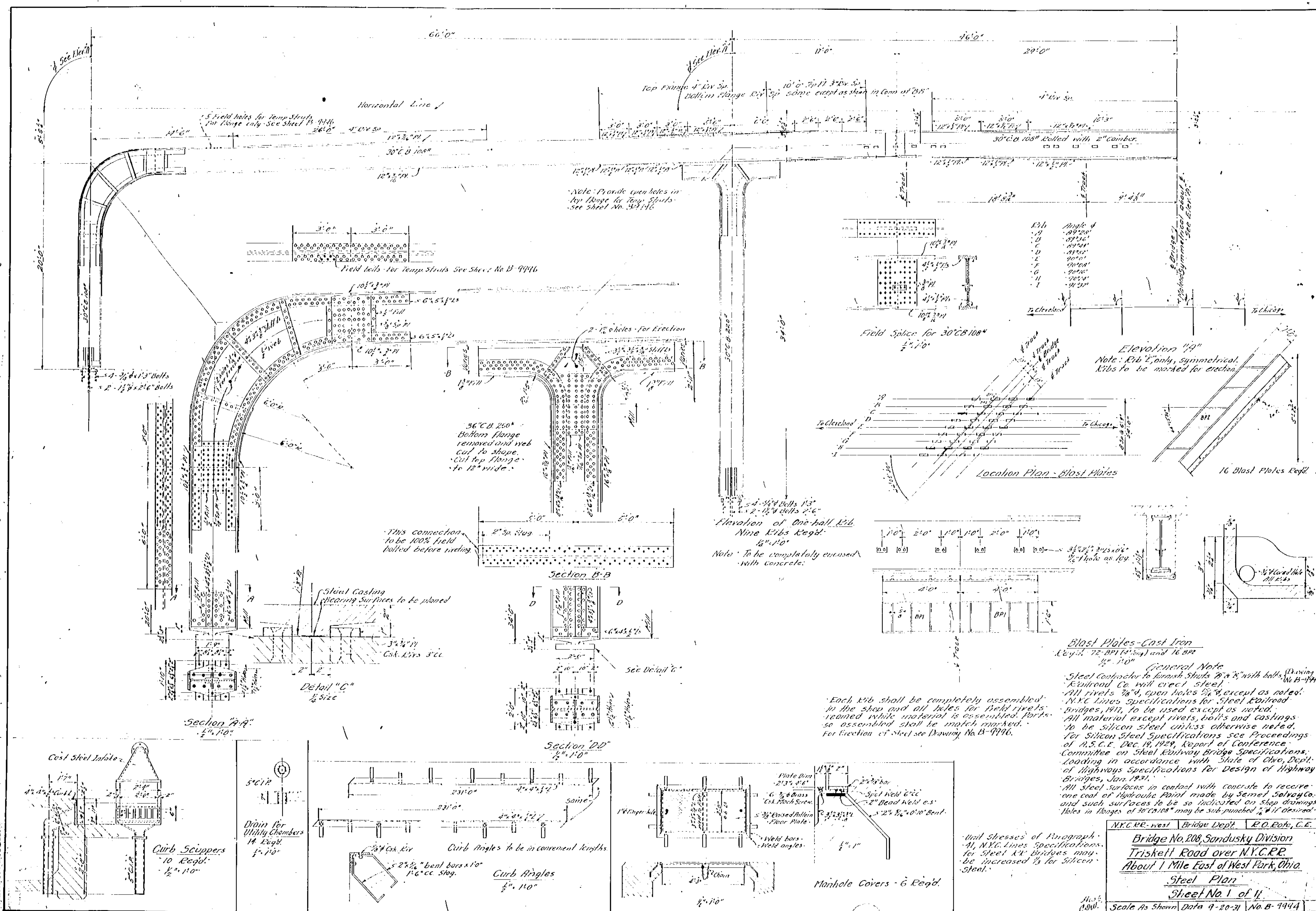


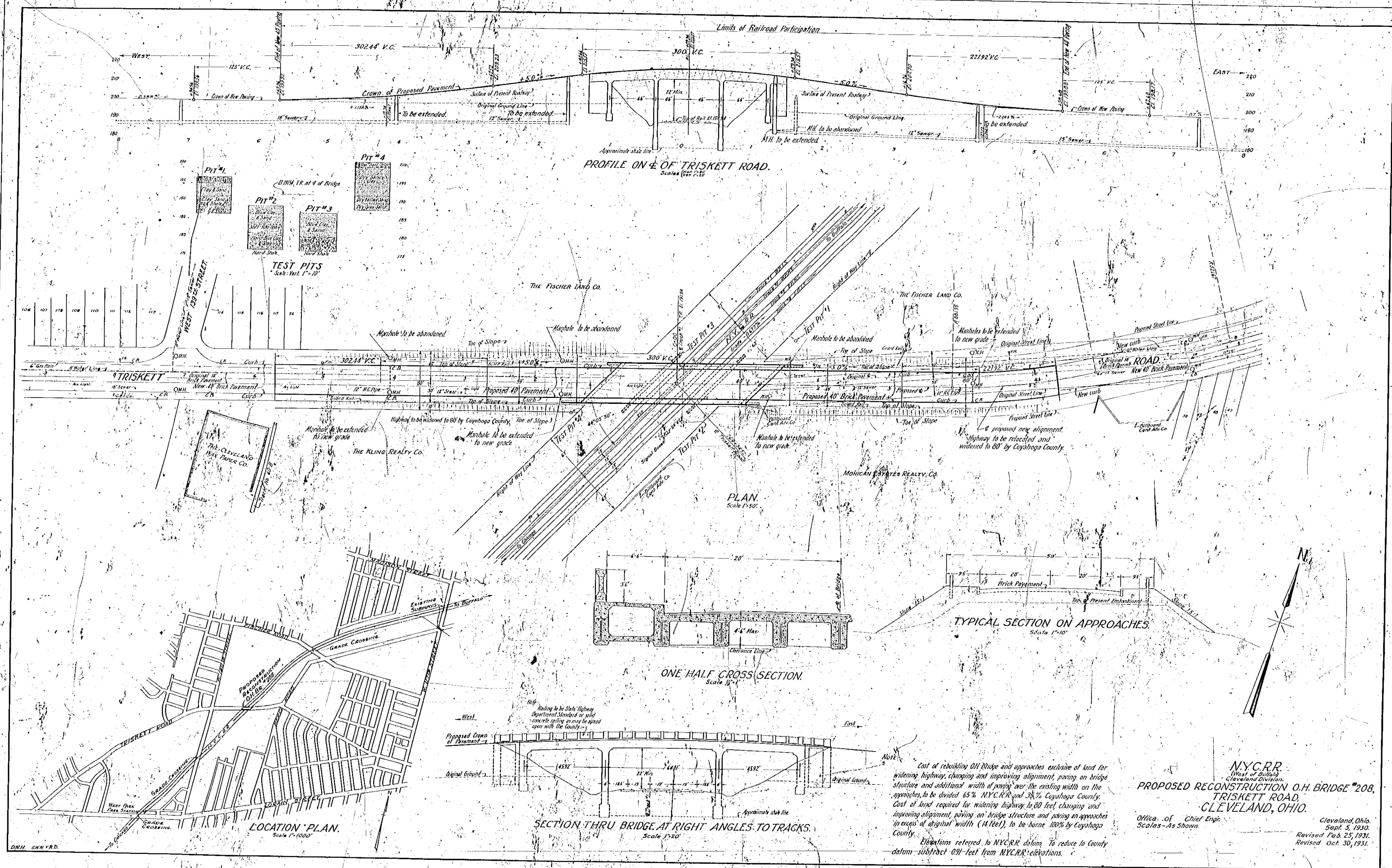


Note: Bill of Material and Specifications See Sheet 3.
 1. Work this sheet with Sheet No. 3.

NYC.R.R. West	Bridge Dept.	R.R. Co. of C.E.
Bridge No. 208 Sandusky Division		
Triskett Road over NYC.R.R.		
About 1 Mile East of West Port, N.Y.		
Superstructure-Concrete		
Sheet No. 2 of 3		
Scale As Shown	Date 10-3-31	Mr. B. H. H.







THE NUMBER OF CALENDER DAYS STIPULATED IN THE CONTRACT FOR THE COMPLETION OF THE PROJECT SHALL BE EFFECTIVE FROM THE DATE OF THE COUNTY ENGINEER'S WRITTEN NOTICE TO THE CONTRACTOR TO START THE CONSTRUCTION. ANY SUBSEQUENT LOSS OF TIME OCCASIONED BY A WRITTEN NOTICE FROM THE COUNTY ENGINEER TO SUSPEND OPERATIONS, BY REASON OF PREVAILING UNSATISFACTORY WEATHER CONDITIONS, SHALL NOT BE INCLUDED IN THE TIME STIPULATED FOR COMPLETION OF THE PROJECT.

THE STATIONS SHOWN ON THE PLANS ARE FOR CONSTRUCTION PURPOSE ONLY AND ARE NOT TO BE USED FOR RECORD.

THE CONTRACTOR SHALL CO-OPERATE WITH THE ENGINEER IN PROTECTING AND PRESERVING CORNERSTONES AND MONUMENTS THAT ARE WITHIN THE HIGHWAY AS REQUIRED BY SECTION 5519.05 OF THE REVISED CODE OF OHIO.

SPECIFICATION

THE STANDARD CONSTRUCTION AND MATERIAL SPECIFICATION OF THE STATE OF OHIO, DEPARTMENT OF HIGHWAYS DATED JANUARY 1, 1977 INCLUDING ALL CHANGES AND SUPPLEMENTAL SPECIFICATIONS THERE TO AND THE SUPPLEMENTAL CONSTRUCTION AND MATERIAL SPECIFICATIONS OF CUYAHOGA COUNTY, ARE A PART OF THE TERMS OF THE CONTRACT FOR THIS IMPROVEMENT AND SHALL APPLY TO ALL CONSTRUCTION AS CALLED FOR ON THE PLANS, OR IN THE PROPOSAL.

INDEX OF SHEETS

- 1/15-Title Sheet
- 2/15-General Summary
- 3/15-General Notes
- 4/15-General Notes
- 5/15-Memphis Rd.- Plan & Profile
- 6/15-General Plan, Elevation, & Estimated Quantities
- 7/15-Miscellaneous Details
- 8/15-Jennings Rd.- Plan & Profile
- 9/15-Expansion Joint Plan
- 10/15-Miscellaneous Details & Quantities
- 11/15-Miscellaneous Details & Notes
- 12/15-Triskett Rd.- Plan, Elevation, & Profile
- 13/15-Estimated Quantities & Misc. Details
- 14/15-Drainage Details
- 15/15-Repair Details

STANDARD DRAWINGS

GR-2A dated 5-1-77

COUNTY OF CUYAHOGA

RONALD A. STACKHOUSE

COUNTY ENGINEER

REPAIR OF STRUCTURES:

BRIDGE No. 25, Memphis Rd. over B & O Railroad.- IN THE CITY OF BROOKLYN

BRIDGE No. 80, Jennings Rd. over Big Creek.- IN THE CITY OF CLEVELAND

BRIDGE No. 195, Triskett Rd. over Conrail and
R.T.A. Tracks.- IN THE CITY OF CLEVELAND

APPROVED *Eugene A. Delapark*
Bridge Engineer
DATE 5-1-79

APPROVED *Felix A. Spittler*
Chief Engineer
DATE 5-2-79

APPROVED *Marion A. Gullett*
Chief Deputy Engineer
DATE 5-3-79

APPROVED *Ronald A. Stackhouse*
County Engineer
DATE 5-3-79

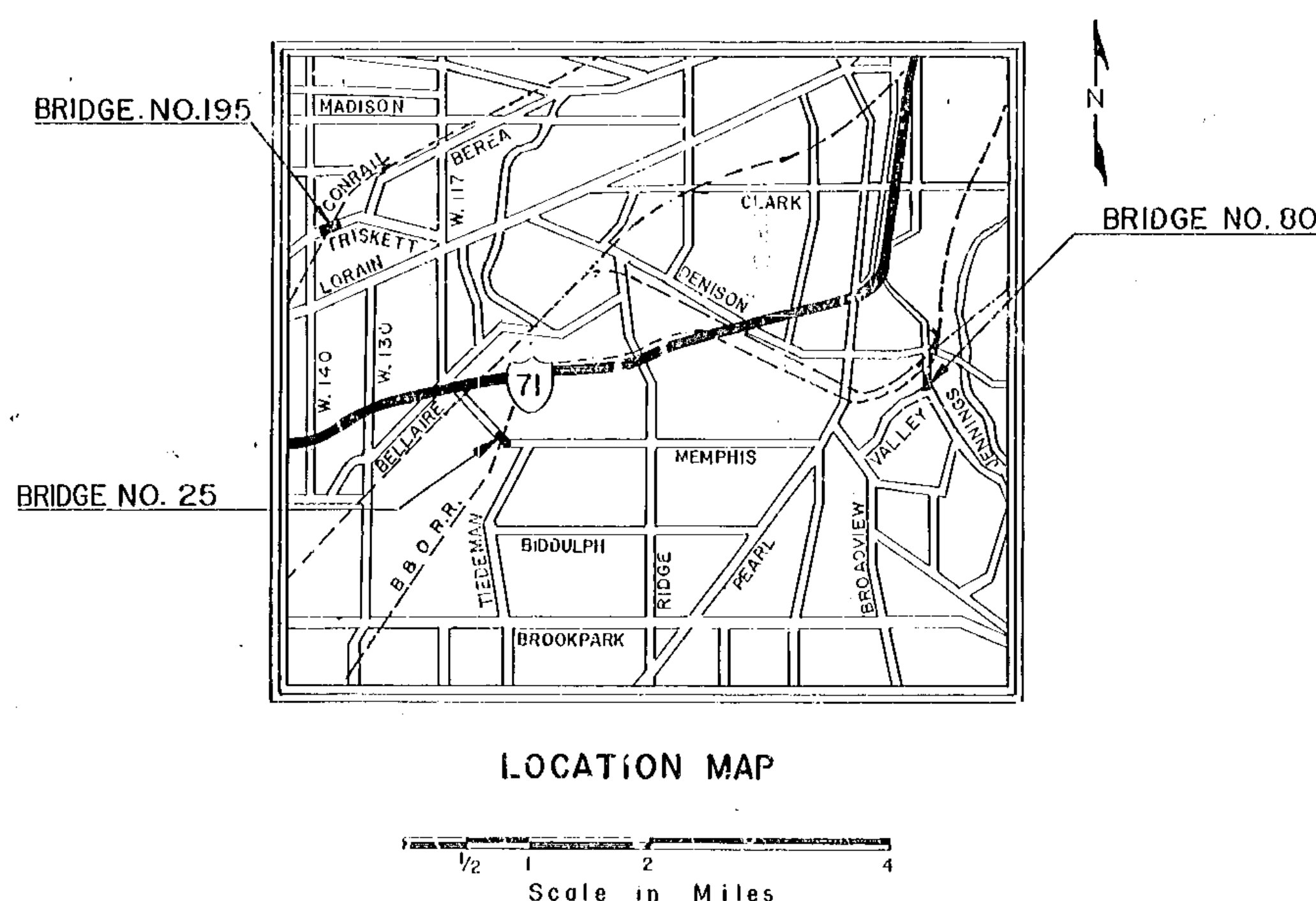
BOARD OF COMMISSIONERS

APPROVED *Robert E. Sweeney*
County Commissioner
DATE 5-10-79

APPROVED *Edward J. Higgins*
County Commissioner
DATE 5-10-79

APPROVED *Virgil E. Brown*
County Commissioner
DATE 5-10-79

JOURNAL PAGE DATE



MUNICIPALITIES

APPROVED BY THE CITY OF BROOKLYN, OHIO

ORDINANCE OF CONSENT NO. 1978-23 PASSED Oct 9, 1978

APPROVED BY THE CITY OF CLEVELAND, OHIO

TRISKETT RD.- ORDINANCE OF CONSENT NO. 152-79 PASSED Apr. 30, 1979

JENNINGS RD. -ORDINANCE OF CONSENT NO. 155-79 PASSED Apr. 30, 1979

APPROVED BY *James H. Hargrove*

DATE 5-2-79 LAND DEPUTY

GENERAL SUMMARY

2
15

REF. No.	ITEM	PROPOSAL QUANTITY	UNIT	DESCRIPTION	ESTIMATED QUANTITIES			
					BR. 25	BR. 195	BR. 80	TOTAL
1	202	3000	S.Y.	Wearing Course Removal	—	1889	1080	2969
2	202	60	C.Y.	Portions of Structures Removed (Concrete)	50	—	5	55
3	202	470	S.Y.	Wearing Course Removed (10" ± thick)	464	—	—	464
4	202	690	S.Y.	Pavement Removed (Asphalt & Brick)	689	—	—	689
5	202	195	L.F.	Curb Removed for Reuse	188	—	—	188
6	202	390	S.F.	Sidewalk Removed	—	382	—	382
7	202	470	L.F.	Existing Curb Removed	—	462	—	462
8	203	60	C.Y.	Embankment	—	51	—	51
9	301 & Sp.	5	C.Y.	3" Bituminous Aggregate Base	3	—	—	3
10	310 & Sp.	8	C.Y.	6" Subbase	5	—	—	5
11	402 & Sp.	200	C.Y.	Asphalt Concrete-Intermediate Course	74	90	27	191
12	404 & Sp.	110	C.Y.	1" Rubberized Asphalt Concrete Surface Course	34	53	15	102
13	407 & Sp.	360	Gal.	Rubberized Tack Coat	119	189	52	360
14	408	20	Gal.	Prime Coat Rt. 1, 2 or 3	13	—	—	13
15	410 & Sp.	20	C.Y.	Traffic Compacted Surface	—	—	—	20
16	411 & Sp.	8	C.Y.	6" Minimum Crushed Aggregate	5	—	—	5
17	509	5650	Lbs.	Reinforcing Steel	5595	—	—	5595
18	509	600	Lbs.	Reinforcing Steel— Replacement in Concrete Repair	300	200	100	600
19	511	70	C.Y.	Class "C" Concrete	55	—	3	58
20	511	470	L.F.	Class "C" Concrete Curb	—	462	—	462
21	512	65	S.Y.	Type "B" Waterproofing	31	27	—	58
22	512 & Sp.	1555	S.Y.	Concrete Deck Waterproofing	511	1027	—	1538
23	513	5400	Lbs.	Structural Steel	2978	—	2300	5278
24	513	13600	Lbs.	Structural Steel (Curb Plate)	5024	8471	—	13495
25	514 & Sp.	Lump	Lump	Painting Structural Steel	Lump	—	Lump	Lump
26	516	1355	L.F.	Joint Sealer, 705.01 or 705.02	418	924	—	1342
27	516	Lump	Lump	Reset Bearings	—	—	Lump	Lump
28	516	270	L.F.	Expansion Joint, as per plan	—	—	270	270
29	517	Lump	Lump	Railing Repairs	—	—	Lump	Lump
30	518	685	L.F.	Subdrainage for Wearing Course	209	462	—	671

REF. No.	ITEM	PROPOSAL QUANTITY	UNIT	DESCRIPTION	ESTIMATED QUANTITIES			
					BR. 25	BR. 195	BR. 80	TOTAL
31	605	195	L.F.	4" Shallow Pipe Underdrains 706.08	188	—	—	188
32	606	25	L.F.	Guardrail, Type 4	—	25	—	25
33	608	390	S.F.	Concrete Sidewalk	—	382	—	382
34	609	195	L.F.	Curbing, (Sandstone), 609.03	188	—	—	188
35	609	25	L.F.	Curbing, 609.04 or 609.05	—	23	—	23
36	616	5	Ton	Calcium Chloride	—	—	—	5
37	850	50	C.Y.	Dense Concrete Overlay (variable thickness)	—	—	46	46
38	Special	Lump	Lump	Clean & Repair Bridge Drainage System	—	Lump	—	Lump
39	Special	425	L.F.	Remove Concrete Encasement & Wire Mesh from Steel Beams	410	—	—	410
40	Special	43000	S.F.	Finish Coating for Concrete	20270	17780	4800	42850
41	Special	5570	S.F.	Finish Coating for Sidewalks	1569	3100	837	5506
42	Special	245	L.F.	Crack Repair	85	85	65	235
43	Special	Lump	Lump	First Grout Injection Pipes	Lump	—	—	Lump
44	Special	560	L.F.	Subsequent Grout Injection Pipes	550	—	—	550
45	Special	1475	C.F.	Soil Consolidation Grout	1455	—	—	1455
46	Special	2700	S.F.	Concrete Repair (6" and greater) in Accordance with 519	426	1978	210	2614
47	Special	3900	S.F.	Concrete Repair (Less than 6") in Accordance with 519 or 520	589	2753	458	3800
48	Special	Lump	Lump	Repair to Abutment— Wingwall Joint	—	Lump	—	Lump
49	614	Lump	Lump	Maintaining Traffic	Lump	Lump	Lump	Lump
50	619 & Sp.	Lump	Lump	Field Office	—	—	—	Lump

1. DESIGN SPECIFICATION

Standard Specifications for Highway Bridges adopted by the American Association of State Highway Officials, dated 1973 and the Ohio "Supplement" to these specifications.

The classes of concrete and the grades of structural steel and reinforcing steel, together with the working stresses for each are as follows:

Concrete Class C - Basic Unit Stress
1,333 psi
Structural Steel - ASTM A36 - Unit
Stress 20,000 psi
Reinforcing Steel - ASTM A615 - Unit
Stress 20,000 psi

2. PLANS OF EXISTING BRIDGES

Construction plans for the existing bridges are on file in the offices of the Cuyahoga County Engineer and are available for reference.

3. DIMENSIONS

Dimensions given are measured horizontally and at 60° F. unless otherwise noted. Dimensions given for the existing structures are based on field measurements and on dimensions given in the original construction plans. Some variation from plan dimensions is expected. Minor variations in member sizes shall not be construed as a basis for extra payment. Existing structural dimensions affecting new work shall be verified by field measurement.

4. CONSTRUCTION SEQUENCE

The Contractor shall submit a detailed program of the construction including proposed methods and a sequence of operations to the County Engineer for approval prior to start of work.

5. REMOVAL

A. General

The Contractor shall remove the designated portions of each structure to the limits shown on the plans or to the limits directed by the Engineer.

B. Concrete Removal

Existing reinforcing steel shall not be cut flush but shall be cut at locations shown on the plans to serve as dowels and principal reinforcement in the rebuilt structure. It is imperative that the length retained shall not be less than that shown. Care shall be taken to preserve the bond of such dowels in the existing concrete. These bars shall be cleaned of all concrete fragments and foreign matter. Pneumatic hammers shall not be placed in direct contact with the bars; hand tools shall be employed for final cleaning. Where reinforcing steel to remain is damaged, the Engineer may direct that repairs thereto or that

stress transfer be accomplished with welding. Other existing reinforcement within the replacement sections shall be removed and disposed of.

C. Disposal of Removed Material

All concrete, reinforcing steel, asphalt, etc., removed from the structure and not reused shall, unless otherwise specified, become the property of the Contractor and removed by him from the site.

Under no circumstances shall the material be permitted to remain on the premises, right of way or streets pending disposal of same or for any other purpose, unless otherwise specified by the Engineer.

6. CONCRETE REPAIR

A careful detailed visual inspection has been made of all the exposed concrete surfaces in each structure. Based on this inspection quantity estimates have been made for the areas of the structures which will require repair operations.

The Contractor shall provide all necessary equipment prior to beginning of work, to permit examination of the existing structures. The Contractor's Superintendent shall accompany the Engineer at this time in making a detailed examination of the repairs to be made. The equipment shall be furnished for whatever length of time it may be necessary to conduct this examination. No separate payment shall be made to the Contractor to cover any costs of this examination. Because complete inspection to determine the depths of the deteriorated and spalled concrete can only be made as work progresses and certain parts become accessible for inspection, special inspections of uncovered areas will be made from time to time as the work progresses. The Contractor shall cut out and remove all concrete as directed by the Engineer, and shall provide whatever is necessary in the way of platforms or staging to facilitate additional inspection as concrete is cut out.

Based on such additional inspections the Engineer will determine the additional concrete to be removed over and above that indicated by the plans, if any, the number and lengths of corroded or misplaced reinforcing bars to be cut out, and the amount of new reinforcing steel to be placed.

For the repair work involved, the plans are indicative only of the type of repairs contemplated. The extent of the work which will be necessary to remove and restore all deteriorated concrete parts cannot be accurately determined by a visual inspection. The accompanying plans show only repairs considered necessary based on inspections which have been made. As the work of removing deteriorated concrete progresses, conditions may be disclosed wherein the concrete cannot be restored by methods shown on the plans. In such cases, additional plans will be prepared by the

Engineer and the Contractor shall proceed with all work as directed.

The extent of the work which will be required to repair deteriorated areas of the existing bridge decks cannot be accurately determined at this time. After removal of existing wearing courses the Engineer shall inspect the concrete surfaces for deterioration. The Contractor shall repair the concrete at locations directed by the Engineer in accordance with the methods outlined in the plans.

Payment will be based on the unit price bid for items Special, Conc. Repair (Less than 6") or Conc. Repair (6" & Greater).

7. SPECIAL FINISH COATING FOR CONCRETE

Description- This item consists of furnishing the necessary materials, labor and equipment required to prepare surfaces and to apply two coats of finish material.

Material- The finish coating shall be a heavy base cement coating that can be applied with a brush to give a smooth uniform and pleasing appearance without requiring rubbing. The coatings are to fill and seal all pores and voids and shall adhere to the concrete adequately to resist water pressure.

The coatings are to be of materials specifically formulated for application on concrete equal to "ThoroSeal" with the admixture "Acryl-60" as manufactured by Standard Dry Wall Products Inc.

Coloring may be added to the second coat so as to match the color of concrete.

Preparation of surfaces- After existing concrete has been repaired as per plan the surface designated to be finish coated shall be thoroughly cleaned of all dirt, dust and foreign materials by the use of water, air under pressure or other methods that produce satisfactory results.

Application of finish coating- After the surfaces have been cleaned, brush apply an evenly distributed base coat at the rate of 2 pounds per square yard of surface. Then brush apply a second coat at the rate of 1 pound per square yard of surface.

Mix all materials per manufacturer's printed instructions, file copy of same with the engineer.

Test certification- If the contractor desires to use a material other than the brand named material specified herein, he shall instruct the manufacturer of the material to submit, to the testing laboratory of the county engineer, a certified laboratory test report from a reliable testing laboratory indicating that the material he proposes to furnish will meet the requirements of these specifications. In addition he shall submit in writing evidence that this material has been used on concrete surfaces of structures and has performed satisfactorily.

The manufacturer shall also submit a sample of the material to be used for finish coating to the testing laboratory of the county engineer, 2429 West Superior Ave., Cleveland Ohio 44113, at least

one month prior to the time it is expected to be used.

The county engineer reserves the right to use any additional information or perform any tests deemed necessary to determine whether or not the coating material conforms to the requirements of this specification and is suitable for the purpose intended.

Method of measurement- The quantity of finish coating to be paid for shall be the number of square feet in place and completed.

Basis of payment- The finish coating measured as above shall be paid for at the contract unit bid price per square foot which price shall be payment in full for furnishing all materials, labor and equipment for preparing the concrete surface and applying the 2 coats at the required rate.

8. SPECIAL FINISH COATING FOR SIDEWALKS

Description- This item consists of furnishing the necessary materials, labor and equipment required to prepare surfaces and to apply one coat of finish material on the sidewalk.

Material- The finish coating shall be equal to "ThoroSeal" as manufactured by Standard Dry Wall Products, Inc.

Preparation of surfaces, mixing of materials, and application of the finish coating shall be as per manufacturer's instructions. A copy of the manufacturer's instructions shall be furnished to the Engineer before the work is started.

Test certification and sample shall be as described for "Special Finish Coating for Concrete."

Method of Measurement- The quantity of sidewalk finish coating to be paid for shall be the number of square feet completed in place.

Basis of Payment- The finish coating measured as above shall be paid for at the contract unit bid price per square foot which price shall be payment in full for furnishing all materials, labor and equipment for preparing the surface and applying the sidewalk finish coating.

CUYAHOGA COUNTY ENGINEER	CLEVELAND OHIO
MEMPHIS ROAD OVER B.&O. RAILROAD	
JENNINGS ROAD OVER BIG CREEK	
TRISKETT ROAD OVER CONRAIL & R.T.A.	
GENERAL NOTES	
BRIDGE NO. 25-195	REPORT NO. 7054-7053-7055
DATE 9/20/78	
NO. B-131, B-153, B-223	
DESIGN 8/92	DRAWN 11
CHECKED WAD	REVISED TO AS BUILT

SPECIFICATIONS FOR SOIL CONSOLIDATION
by
INJECTION OF STRUCTAUT CEMENT BASE MORTAR

1. Scope of Work
- The work covered by this section consists of furnishing all supervision, labor, materials and equipment, and performing all operations in connection with consolidation of soil and rock underlying structures by injection of Structaut mortar as shown on the plans or as described herein.
- This work shall be installed by a contractor experienced in this type of work and one who has a successful record of job performance in work of a similar nature. Subcontractors shall obtain approval from the engineers before performing this work.
2. Contractor's Personnel
- a. The foundation consolidation by Structaut cement base mortar shall be performed by experienced crews, familiar with equipment and methods specified.
- b. The work shall be supervised by a full-time superintendent or technical specialist who is qualified by experience in this type of work for similar subsoil conditions.
3. General
- a. Structaut Mortar shall consist of a mixture of Portland cement and water, with or without sand or other bulk filler, together with such admixtures as may be necessary or desirable to accomplish the intent of these specifications.
- b. Foundation Consolidation shall consist of injection under pressure of Structaut mortar or equal, with or without the use of a primer solution, to fill voids or to form within a soil mass, lenses, columns or bulbs of hardened cementitious material as well as to fill voids within soil wherever possible. The placement of Structaut mortar within the soil shall act to compress and consolidate surrounding soil in such a way that lateral soil pressure against the abutment will be stabilized.
4. Materials
- a. Portland Cement shall conform to Federal Specification SS-C-192 for "Cements, Portland", or current ASTM Standards, Designation C-150.
- b. Mineral Filler shall be a finely powdered material composed essentially of compounds of amorphous silica, alumina and iron which possess the property of combining with the lime that is liberated during the process of hydration of Portland Cement. The Mineral Filler shall be such as to contribute markedly to the later-age strength and impermeability of the grout.
- c. Fluidifier shall be a compound possessing such characteristics that it will inhibit early stiffening of the Structaut mortar, tend to hold the solids constituents of the Structaut mortar in colloidal suspension, and prevent completely all setting shrinkage of the Structaut mortar. Trueid, furnished by the A.H. Products Company of Cleveland, Ohio meets these requirements.
- d. Water shall be fresh, clean and free from injurious amounts of sewage, oil, acid, alkali, salts or organic matter.
- e. Fine Aggregate or bulk fillers shall consist of sand, silt, clay or a combination of these materials so selected as to fulfill the requirements of Section 3b of these specifications when used in mixture with the materials listed in Section 4a and 4d.

5. Placing Injection Points
- In general, the split spacing method of injection point location shall be used in which primary points are first located at maximum anticipated spacing as determined by foundation conditions. After grout injection at these points has been completed, secondary points shall be located midway between primary points. Further splitting of injection point spacing may be required depending on results obtained in previous operations.
- Primary injection points shall be placed to maximum anticipated depth as determined by foundation conditions. Depth of succeeding injection points shall be dependent on results obtained at previous locations.
- In soils or embankments of unconsolidated materials, injection points may be driven, drilled, or jetted in place, but the method of placement shall not unnecessarily disturb soil structure, by consolidation or plugging voids, in such a way as to reduce grout quantities or permit undesirable relief of grouting pressure at the interface of soil and injection pipes.
- Diameter of injection pipes or drill holes shall be adequate to permit injection of the most viscous mix anticipated without undue loss of head due to hydraulic friction, but in no case shall be less than EX drill hole or 3/4" pipe.
- For all types of injection points, accurate installation records shall be kept including location and depth of injection points, method of installation and other pertinent data such as water loss during rotary drilling, difficulties encountered during drilling or pipe driving, and blow count data, if hand pipe drivers are used.
6. Structaut Mortar Injection Procedure
- In soils or unconsolidated materials, grout injection shall, in general, be started at maximum depth and continued steadily as the injection point is withdrawn to a minimum depth. Injection pressure shall be determined by grout consumption and foundation conditions, but in no case shall be great enough to cause heaving of surrounding soil or rock.
- When grout injection is proceeding near floor or surface level, pressure shall be lowered and measures taken to minimize or control uplift of the pavement.
- Accurate records shall be kept of grout mix proportions, quantities at each location and injection pressures. The actual sequence of grouting operations, proportioning of grout mixes, etc., will be as herein provided, except that these provisions may be modified by the Engineer as required by field conditions.
7. Equipment
- Structaut mortar mixing and pumping equipment shall consist of a mechanically driven mixer and a positive displacement grout pump.
- a. The mixer shall be a double tub mixer or a mixer and agitator capable of mixing Structaut mortar having water-cement ratios varying from 0.6 to 4.0 measured by volume. The mixer shall also have a suitable water measuring device consisting of a water meter or a calibrated water batching tank.
- b. The Structaut mortar pump shall be a positive displacement piston type capable of delivering material at a pressure of at least 300 psi at the pump discharge.
- c. All oil or other rust inhibitors shall be removed from the mixing drums, stirring mechanisms and other portions of the equipment in contact with the Structaut mortar before the mixers are used.

- d. The hoses connecting the mortar pump to the Structaut mortar injection pipe shall be at least 1" or of such diameter to convey the grout with a minimum amount of friction.
- e. In addition to the above equipment, provide all valves, pressure gauges, pressure hose packers, inserts, small tools, and accessories required to provide a continuous supply of Structaut mortar and accurate pressure control.

8. Mix Proportions
- All materials shall be accurately measured by volume, weight, or other approved means. Sand or bulk filler shall be added to the mixture when, in the opinion of the Engineer, the grout take is such as to warrant its use.
- The grout mix proportion shall be so adjusted for each point of injection, and from batch to batch during injection, if necessary, to obtain optimum grout take and penetration at minimum pressure, consistent with requirements of Section 3b.
9. Method of Measurement
- The quantity for the first grout injection pipe shall be one pipe in place and accepted for injection of grout. The quantity for the subsequent grout injection pipe shall be the number of lineal feet driven and withdrawn. The quantity of consolidation grout shall be the number of cubic feet injected into the soil.

10. Basis for Payment
- Payment for the first grout injection pipe shall be the contract Lump Sum.
- Payment for subsequent grout injection pipe shall be the contract price per lineal foot. Payment for the consolidation grout shall be the contract price per cubic foot.

MAINTENANCE OF TRAFFIC

Two way traffic, a minimum of one 10 foot lane in each direction, shall be maintained at all times on Jennings Road Bridge No. 80, Memphis Road Bridge No. 25, and Triskett Road Bridge No. 195.

The contractor shall submit in writing a schedule of operations to the County Engineer for approval prior to starting work on this project.

Closing of existing lanes prior to start of construction and changes in traffic flow during the construction period shall be accomplished during low volume traffic between the hours of 9:00AM and 11:00AM. The contractor shall notify the County Engineer prior to closing any existing traffic lanes and prior to making any changes in the traffic flow during construction.

All required construction traffic signs within the work limits shall be in accordance with the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways, current edition, latest revision, and shall be provided, erected and maintained by the Contractor.

The contractor shall maintain safe and satisfactory access to abutting properties and intersecting streets at all times during construction of the improvement, including the construction and removal, if necessary of temporary by-passes, bridging, crossovers, and driveways.

The contractor shall furnish and maintain all necessary safeguards such as barricades, satisfactory barriers, lighting, flagmen, temporary guard rail, and such other traffic control devices as provided in "Item 614 Maintaining Traffic" so as to avoid damage and/or injury to vehicles and persons using the roadway during construction.

Payment for labor and equipment required for the construction, maintenance and subsequent removal wherever of approaches, by-passes, crossovers, driveways, barricades, lights, signs and sign supports, shall be included in the lump sum bid for Item 614 Maintaining traffic.

ESTIMATED QUANTITIES FOR MAINTAINING TRAFFIC

Quantities of the following items are estimated and are included for use only when and in amounts as directed by the engineer. The provisions of section 104.02 will apply to these items.

Item 404 Asphalt Concrete or an approved bituminous premixed surface course for maintaining traffic

Item 410 & Special Traffic Compacted Surface (20 cu.yds.)

Item 616 Calcium Chloride (5 tons)

PRECAUTIONS AGAINST UTILITY DAMAGE

The Contractor shall take all necessary precautions, at no expense to the County, to avoid damage to existing utility lines during the project.

Any and all work required for removing, relocating and constructing of new facilities for private or public utilities will be done by and at the expense of the respective owners, unless otherwise noted on the plan.

The Contractor shall coordinate his operations with the work of the utility owners or others who may be making the relocations and shall notify the owners of the utilities of his schedule sufficiently in advance to permit them to make the necessary alterations.

PAINTING

All exposed existing structural steel and miscellaneous steel work new or existing, except surfaces to be in contact with concrete, shall be in accordance with Item 514 & Special. Existing surfaces shall be prepared for painting in accordance with Item 514.06 of the Construction and Materials Specifications. Surfaces where existing primer coat has been removed, shall be painted with a primer as specified under section 514.04 of the supplemental specifications, after which the entire structure shall be painted with two coats consisting of the second coat and the finish coat as described in 514.05.

CONSTRUCTION ADJACENT TO OR OVER RAILROAD

The contractor shall contact the B & O, Conrail, and the RTA sufficiently in advance to schedule his work so as not to interfere with the Railroads operations and to establish minimum horizontal and vertical construction clearance. All protection costs for flagmen, barricades, signs, necessary insurances, etc., shall be borne by the contractor and included in the unit bid price per Item 614 - Maintaining Traffic.

FIELD OFFICE

The contractor shall provide a suitable field office at one of the bridge sites, subject to the approval of the County Engineer, and he shall provide and maintain sanitary provisions at each of the bridge sites in accordance with Section 107.08.

CUYAHOGA	COUNTY	ENGINEER
CLEVELAND		OHIO
MEMPHIS ROAD OVER B.&O. RAILROAD		
JENNINGS ROAD OVER BIG CREEK		
TRISKETT ROAD OVER CONRAIL & R.T.A.		
GENERAL NOTES		
BRIDGE NO. ~~25~~ 80 195	REPORT NO. ~~7054~~ 7055	DATE 9/20/78
NO. B-131, B-153, B-223		
DESIGN JW	DRAWN JL	CHECKED WAD
REVISED TO AS BUILT		

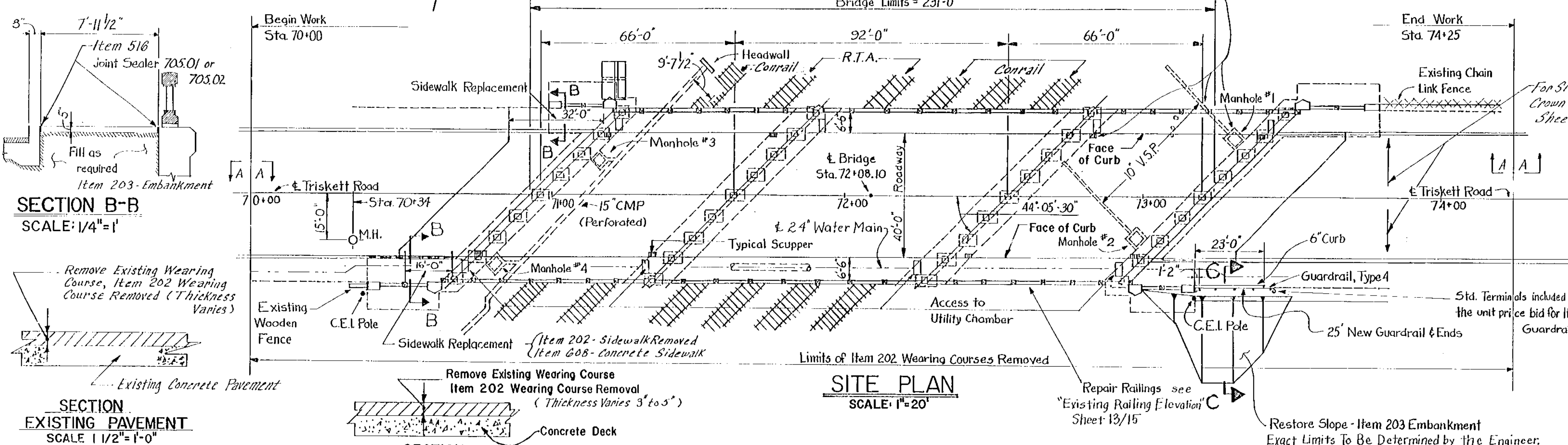
Repair cracks in piers, abutments and wingwalls.
Item Special-Crack Repair, Exact limits of
crack repair shall be determined by the Engineer.
See detail on Sheet 15/15

Repair spalled and deteriorated concrete on piers,
abutments and wingwalls, exact areas to be determined
by the Engineer. Item Special-Concrete Repair (Less than
6" & Item Special-Concrete Repair (6" & greater).
290 Sq. Ft. have been estimated for repairs less than 6"
depth. 30 Sq. Ft. have been estimated for repairs 6" depth
& greater.

Clean out all scuppers, pipes
and manholes. Payment to be
included in the unit price bid
for Item Special-Clean &
Repair of Drainage System.

Note: 1" Joint Sealer 705.03
included for payment in the
unit price bid for Item 609 -
Curing.

Note: Face of Guardrail shall
align with the back face of the
new concrete curb



PROPOSED WORK

1. Remove existing wearing surface
2. Repair deteriorated deck areas
3. Waterproof deck
4. Place subdrainage for wearing surface
5. Place new wearing surface
6. Repair curbs
7. Repair abuts, piers, wingwalls and railings
8. Restore drainage system
9. Apply Finish Coat on Concrete

EXISTING BRIDGE DATA

TYPE: STEEL RIGID FRAME, CONC. ENCASED
SKEW: 45° 54'-30"
SPANS: 66'-0", 92'-0", 66'-0"
ROADWAY: 40'-0" f/f CURBS
LOADING: H-20
CONDITION: FAIR
DATE BUILT: 1936
EXISTING BRIDGE: TO BE REPAIRED

CUYAHOGA COUNTY ENGINEER
CLEVELAND OHIO

TRISKETT ROAD
CITY OF CLEVELAND
BRIDGE OVER CONRAIL & R.T.A.

PLAN, ELEVATION & PROFILE

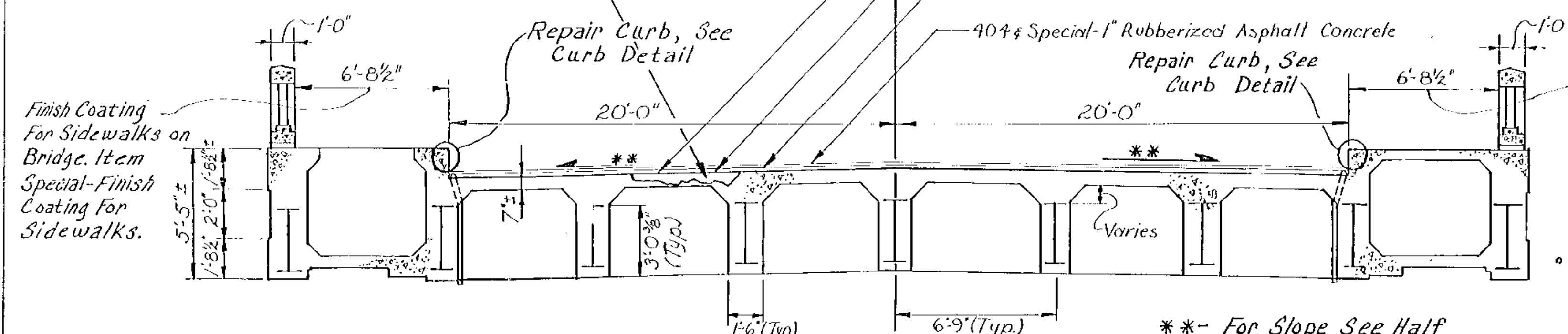
BRIDGE NO. 195 REPORT NO. 7055 DATE 9/20/78

NO. B-223

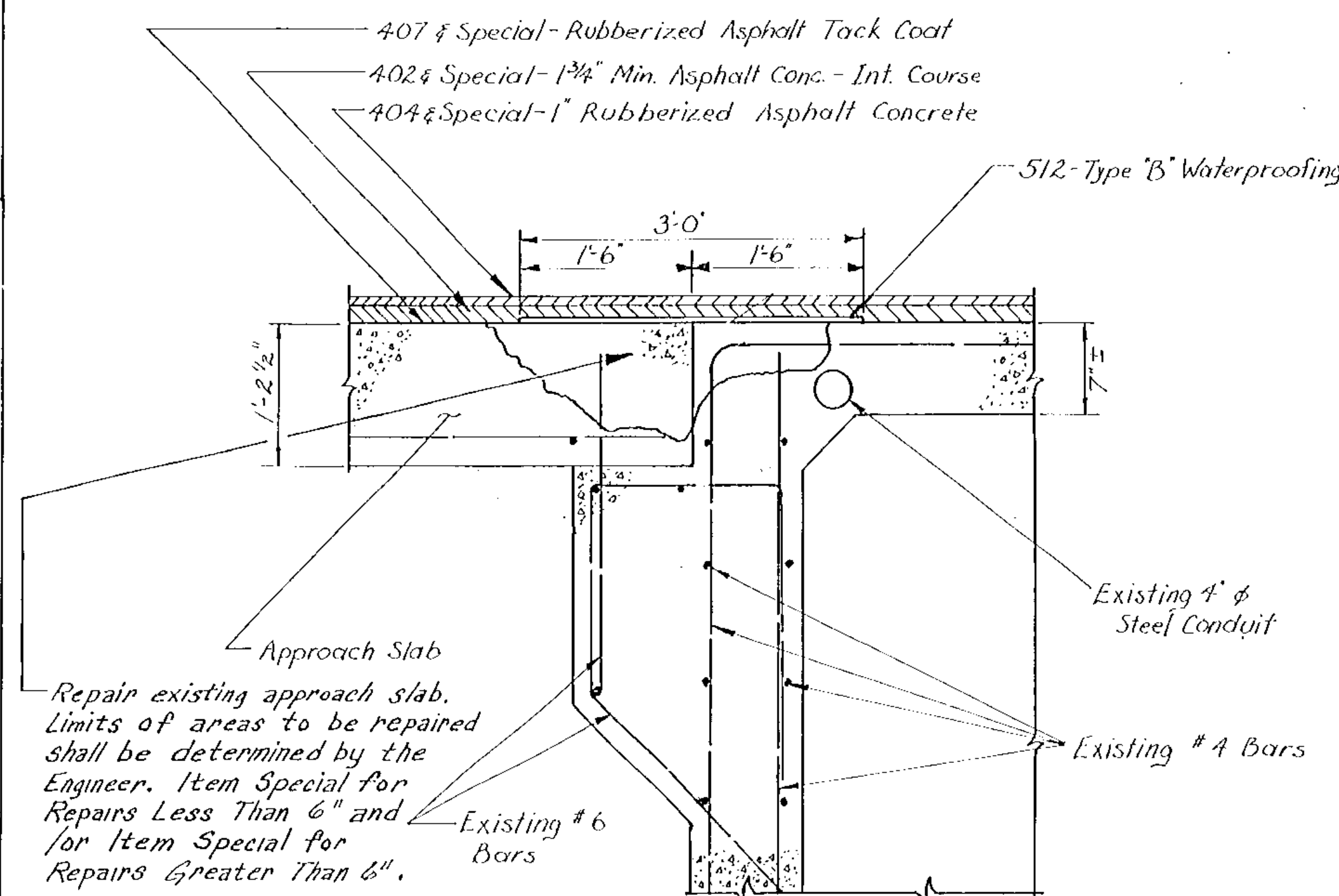
DESIGN WAD DRAWN WAD CHECKED 8/11/78 REVISED TO AS BUILT

1/3

Repair and/or replace concrete deck limits of areas to be repaired and/or replaced to be determined by the Engineer. Item Special-Concrete Repair (Less than 6" Depth). Item Special-Concrete Repair (6" Depth & Greater). For full depth repair payment shall be made under Item Special-Concrete Repair (6" Depth & Greater), 1800 Sq. Ft. have been estimated for repairs greater than 6" and full depth repair 2300 Sq. Ft. have been estimated for repairs less than 6".

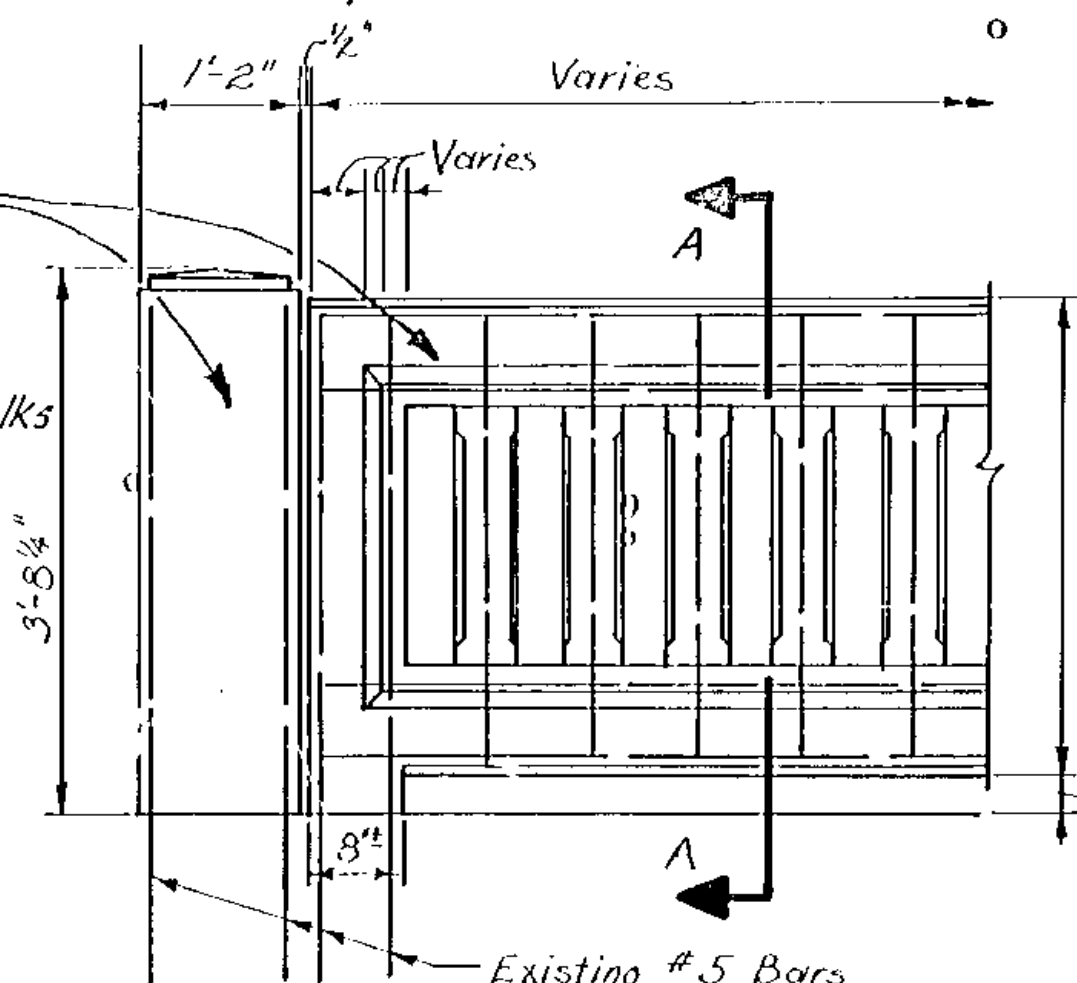


TYPICAL SECTION
SCALE: 1/4"=1'-0"

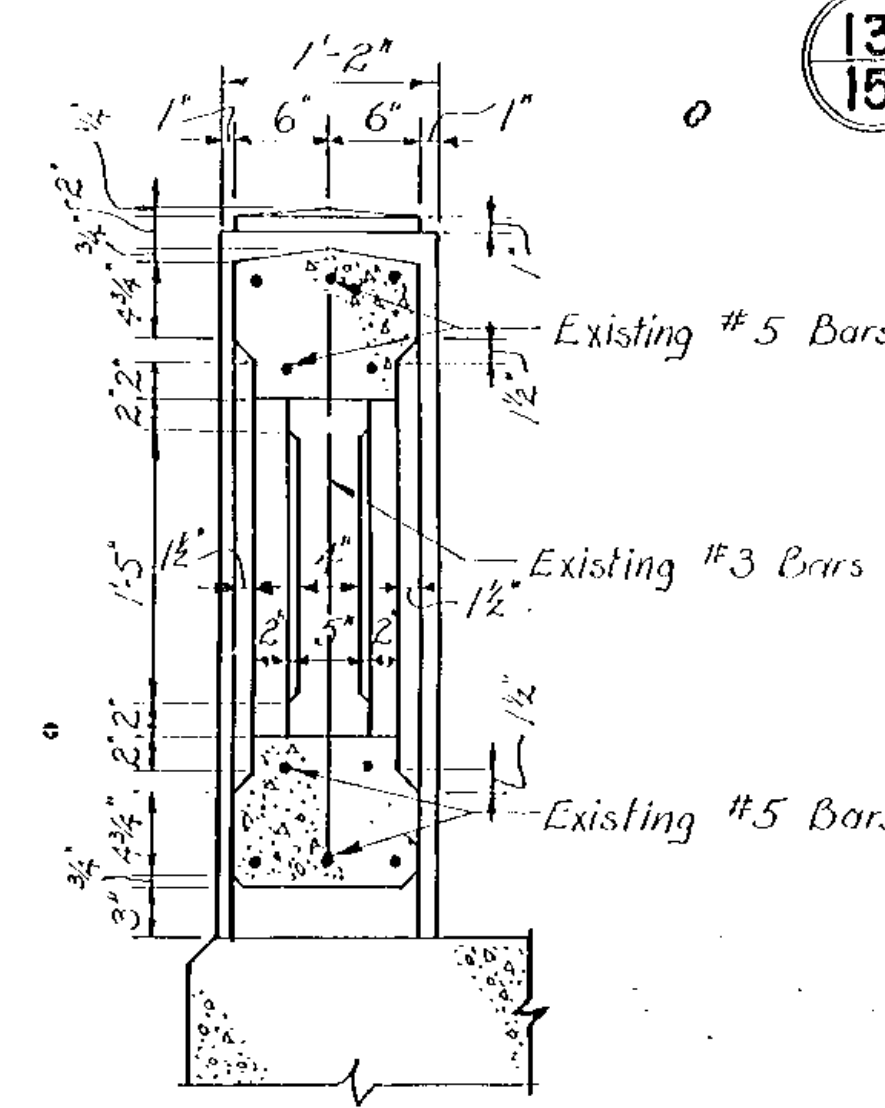


JOINT DETAIL
(AT EAST & WEST ABUTMENTS)
SCALE 1"=1'-0"

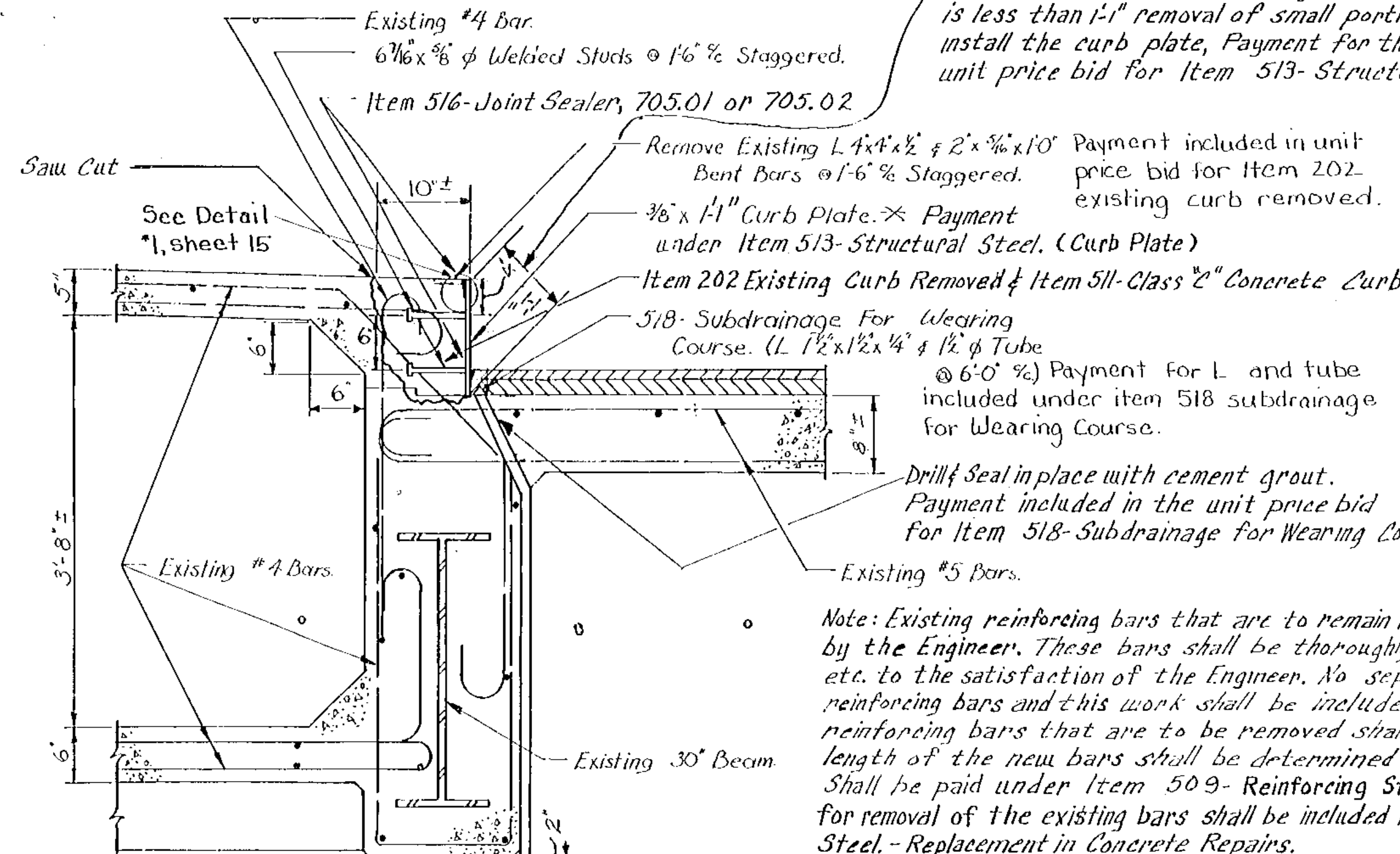
Repair existing posts and railings limits of areas to be determined by the Engineer. Item Special-Concrete Repairs (Less than 6" Depth) 150 Sq. Ft. have been estimated for these repairs.



EXISTING RAILING ELEVATION
SCALE: 3/4"=1'-0"



SECTION A-A
SCALE: 1"=1'-0"



CURB DETAIL
SCALE: 1"=1'-0"

ESTIMATED QUANTITIES

REF NO.	ITEM	PROPOSAL QUANTITIES	UNIT	DESCRIPTION	ESTIMATED QUANTITIES	REF NO.	ITEM	PROPOSAL QUANTITIES	UNIT	DESCRIPTION	ESTIMATED QUANTITIES
202			S.F.	SIDEWALK REMOVED	382	516			L.F.	JOINT SEALER 705.01 or 705.02	924
202			S.Y.	WEARING COURSE REMOVED	1,889	518			L.F.	SUBDRAINAGE FOR WEARING COURSE	462
202			L.F.	EXISTING CURB REMOVED	462	SPECIAL			LUMP	CLEAN & REPAIR BRIDGE DRAINAGE SYSTEM	1978
203			C.Y.	EMBANKMENT	51	SPECIAL			S.F.	CONCRETE REPAIR (6" DEPTH & GREATER)	2753
						SPECIAL			S.F.	CONCRETE REPAIR (LESS THAN 6" DEPTH)	2753
402 & Spl.			C.Y.	ASPHALT CONCRETE INTERMEDIATE COURSE	90	606			L.F.	GUARDRAIL, TYPE 4	25
404 & Spl.			C.Y.	1" RUBBERIZED ASPHALT CONCRETE SURFACE COURSE	53	608			S.F.	CONCRETE SIDEWALK	382
407 Spl.			Gal.	RUBBERIZED TACK COAT	189	609			L.F.	CURBING, TYPE 609.04 or 609.05	23
509			LB.	REINFORCING STEEL- Replacement in Concrete Repairs	200	SPECIAL			LUMP	REPAIR TO ABUTMENT-WINGWALL JOINT	17,780
511			L.F.	CLASS "C" CONCRETE CURB	462	SPECIAL			S.F.	FINISH COATING FOR CONCRETE	3,100
512			S.Y.	TYPE "B" WATERPROOFING	27	SPECIAL			S.F.	FINISH COATING FOR SIDEWALKS	85
512 & Spl.			S.Y.	CONCRETE DECK WATERPROOFING	1,027	SPECIAL			L.F.	CRACK REPAIR	85
513			LB.	STRUCTURAL STEEL (Curb Plate)	8,471	614			LUMP	MAINTAINING TRAFFIC	17,780

CUYAHOGA COUNTY ENGINEER
CLEVELAND OHIO

TRISKETT ROAD
CITY OF CLEVELAND
BRIDGE OVER CONRAIL & R.T.A.

ESTIMATED QUANTITIES & MISC. DETAILS

BRIDGE NO. 195 REPORT NO. 7055 DATE 9/20/78

NO. B-223

DESIGN WAD DRAW WAD CHECKED JH REVISED TO AS BUILT

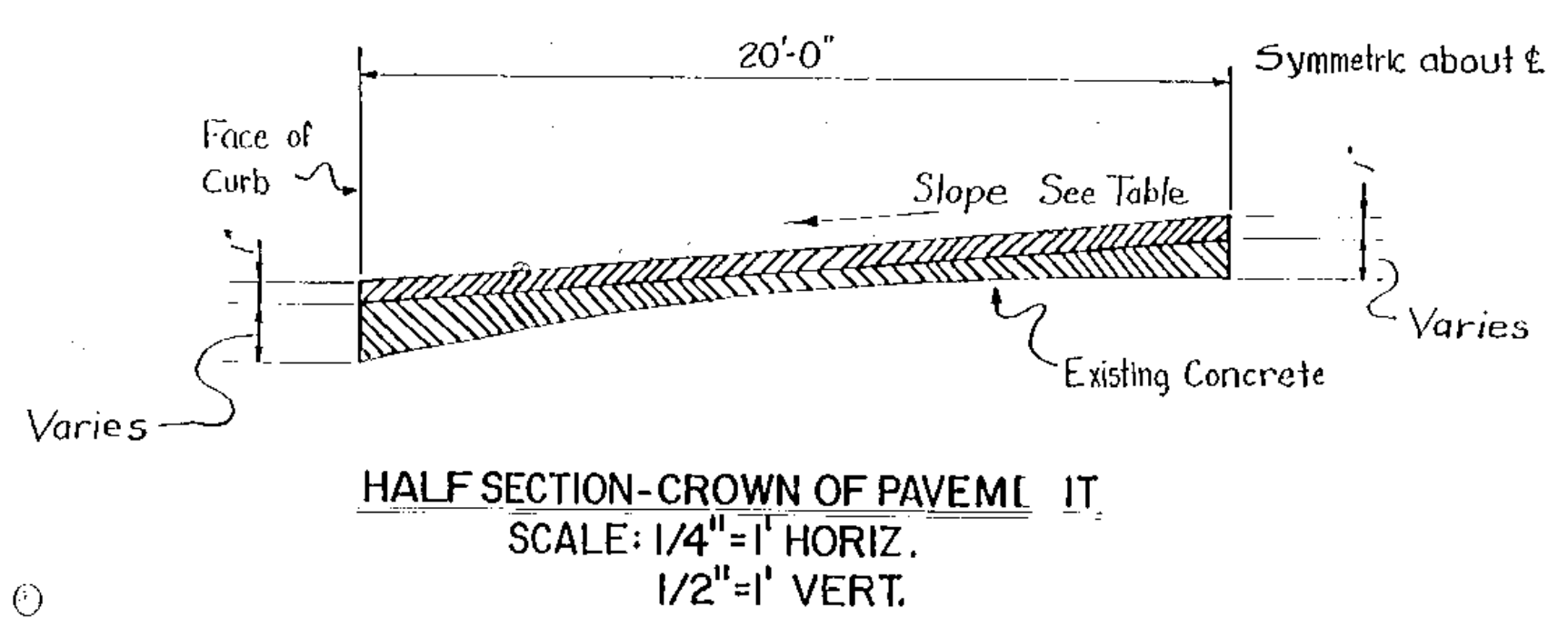
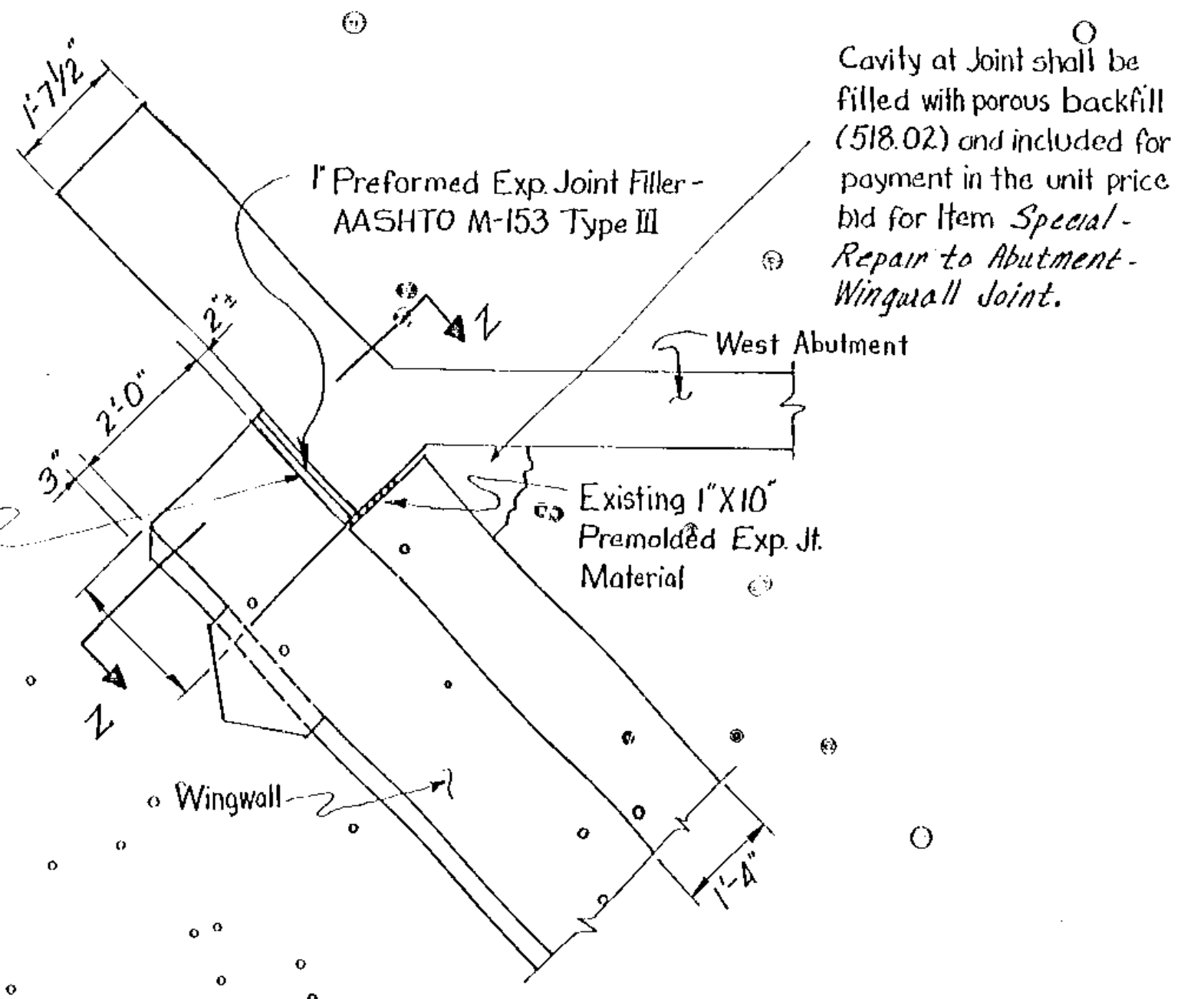
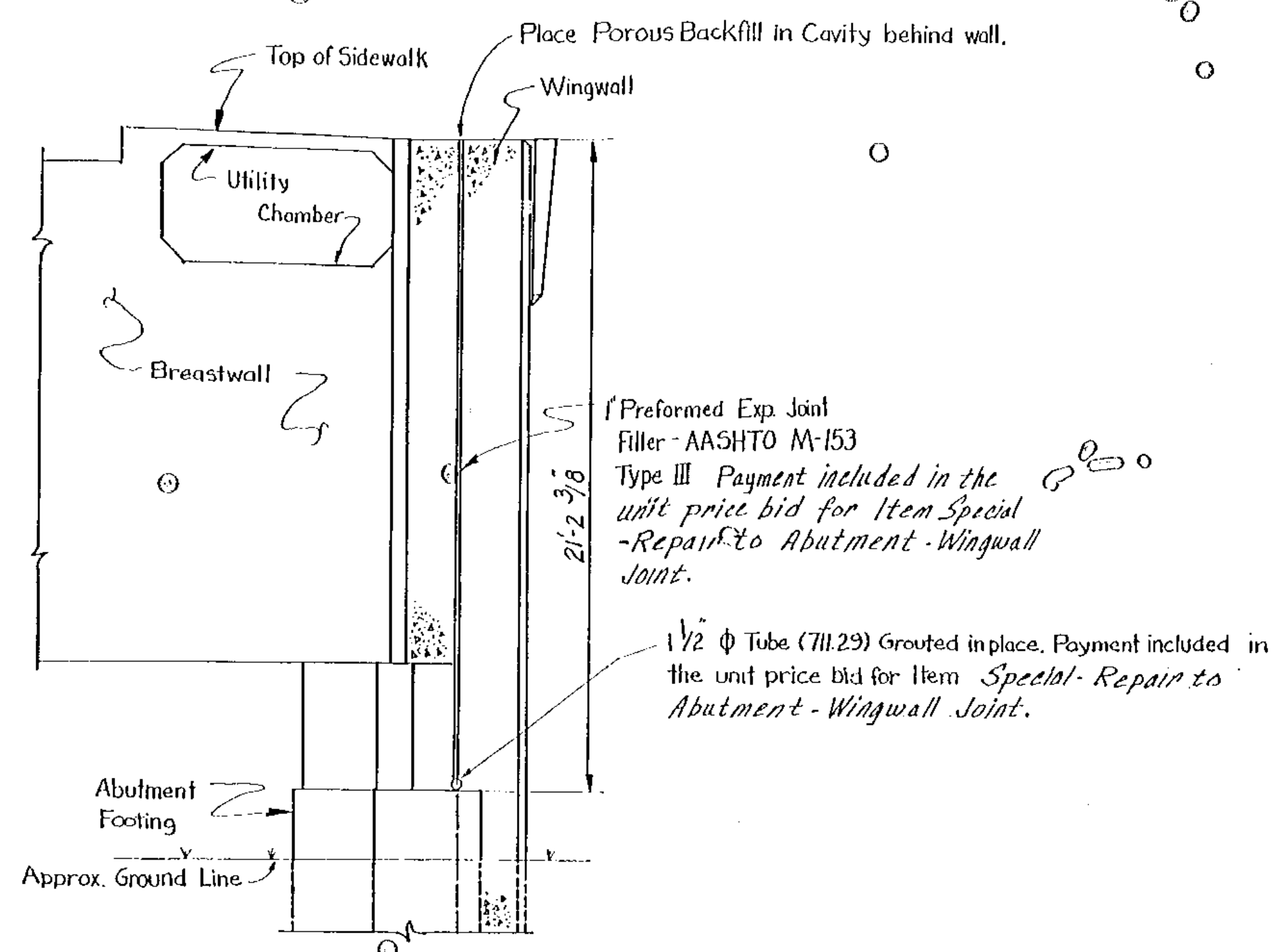


TABLE OF SLOPES		
From Sta	To Sta	Slope
70+00	70+25	Varies
70+25	70+75	1/4" / F.T.
70+75	71+00	Varies
71+00	73+00	3/16" / F.T.
73+00	73+25	Varies
73+25	74+00	1/4" / F.T.
74+00	74+25	Varies

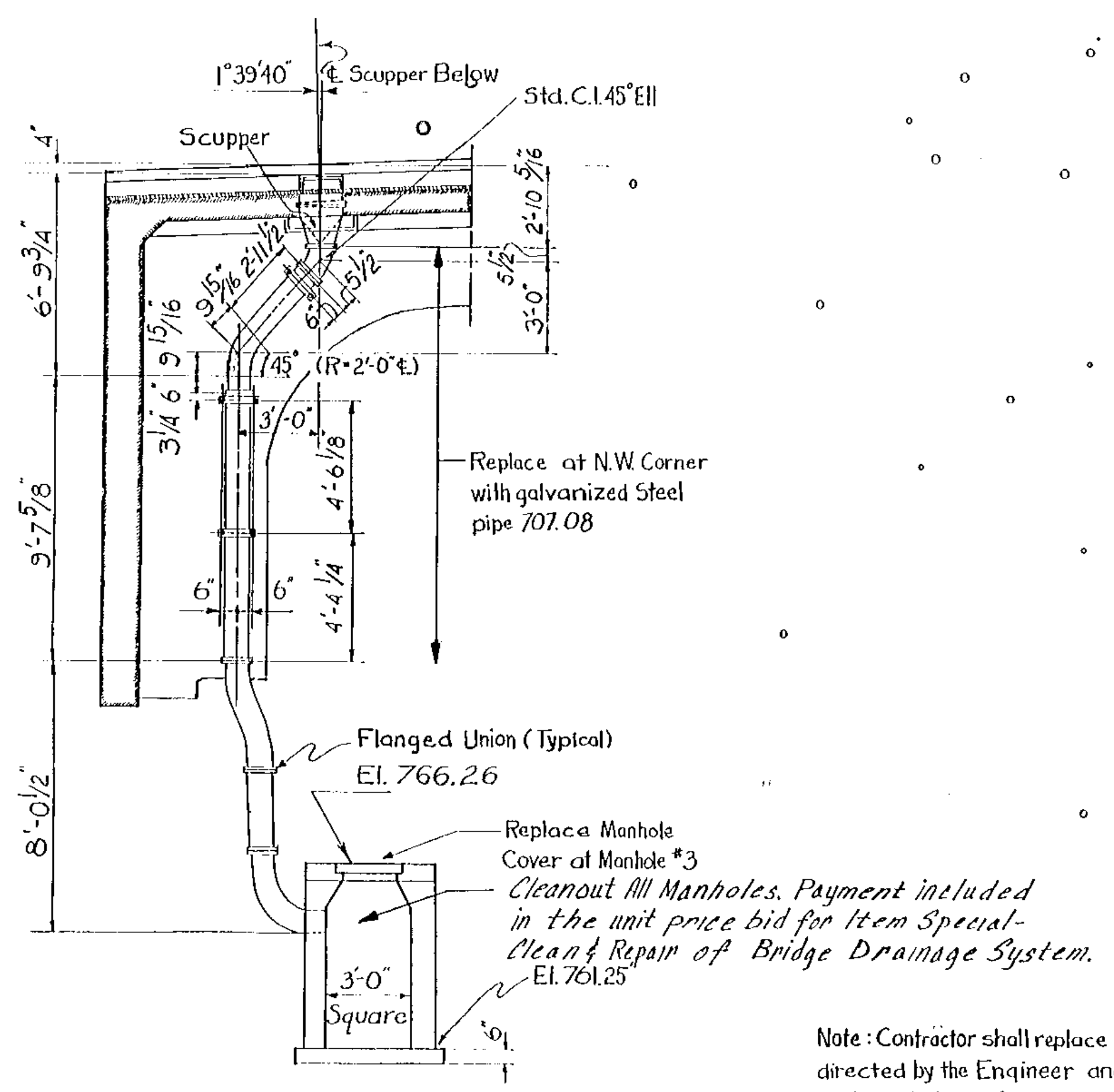
1"± Grout included for payment in the unit price bid for Item Special- Repair to Abutment- Wingwall Joint.



PLAN OF NW ABUT-WINGWALL JOINT
SCALE: 1/2"=1'

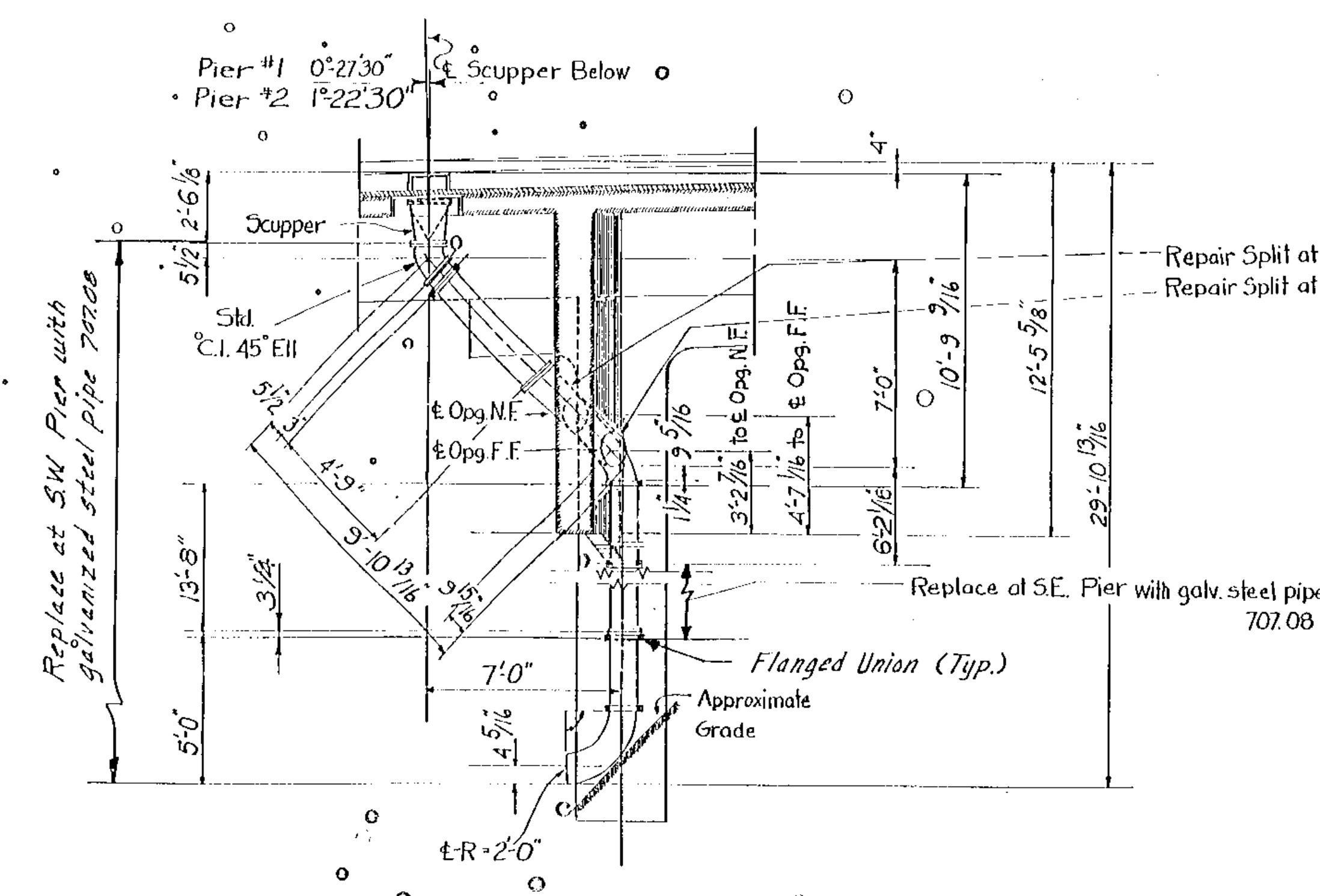


SECTION Z-Z
SCALE: 1/4"=1'



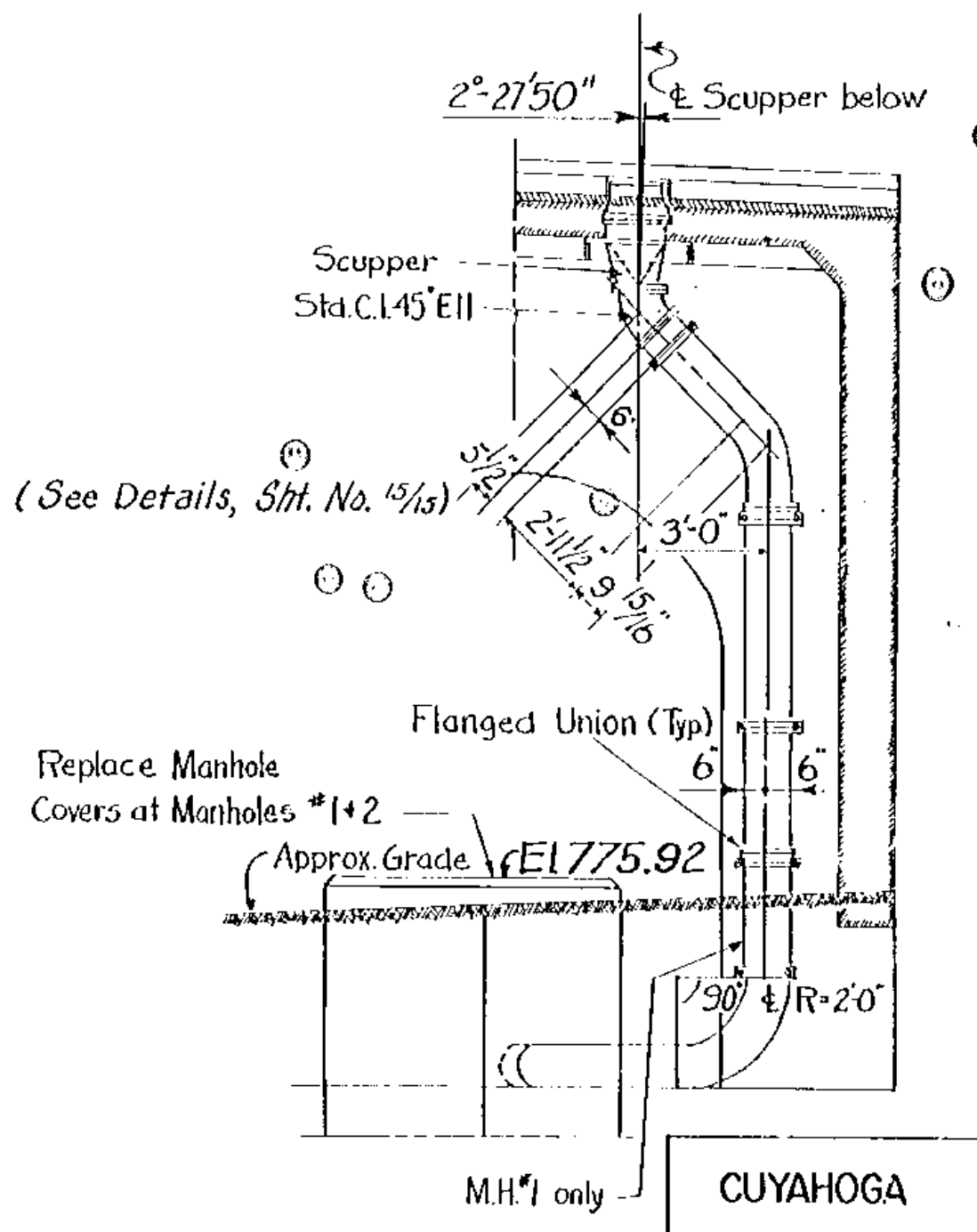
Note: Contractor shall replace other sections of pipe as directed by the Engineer and shall clean drainage system. Included for payment in the unit price bid for Item, Special- Clean and Repair of Bridge Drainage System.

Note: Replacement of Manhole Covers shall be included for payment in price bid for Item, Special- Clean and Repair of Bridge Drainage System.



DETAIL OF DRAINAGE AT PIERS
SCALE: 1/4"=1'

North Drain at Pier #1 Shown
Other Drains Similar.



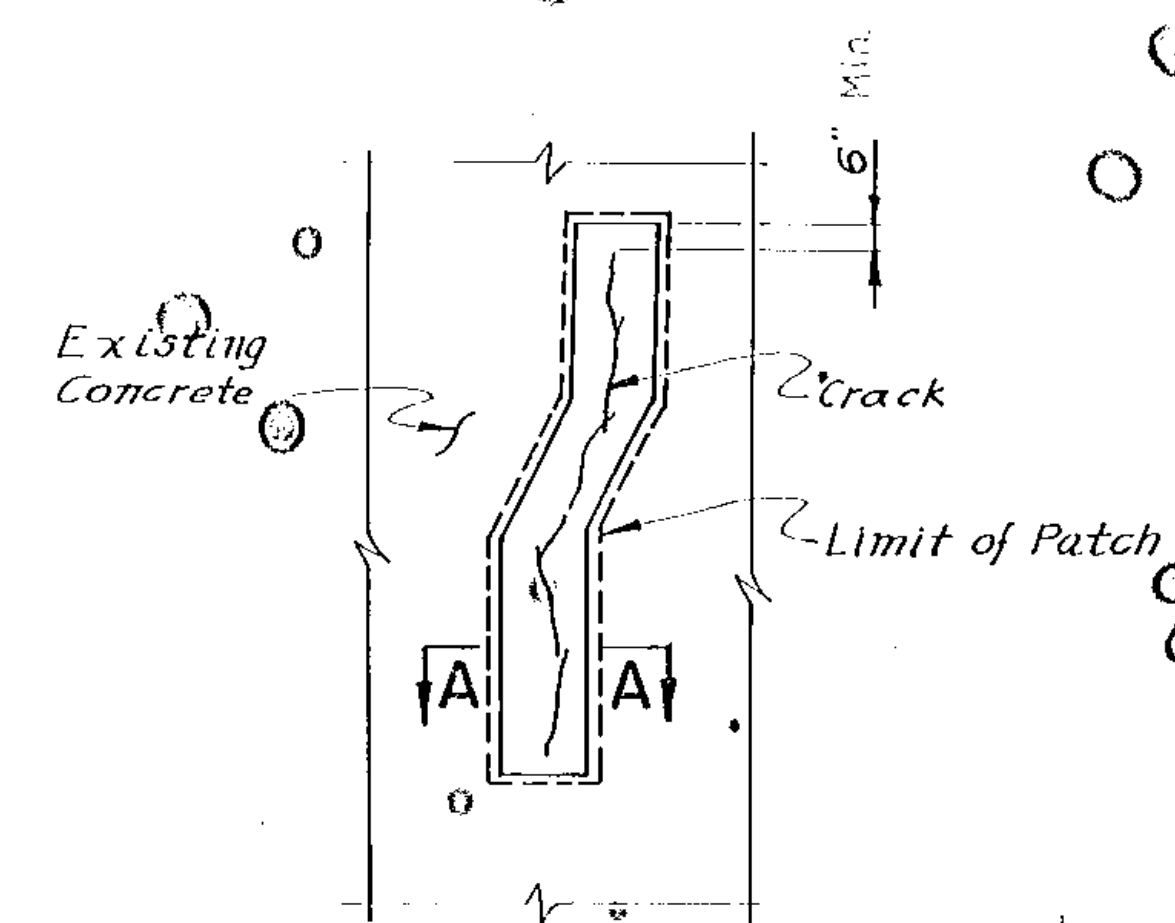
DETAIL OF DRAINAGE AT EAST ABUT.
SCALE: 1/4"=1'

Note: Paint entire drainage system including scuppers in accordance with Item 514 Special. Payment shall be included in the unit price bid for Item Special- Clean & Repair of Bridge Drainage System.

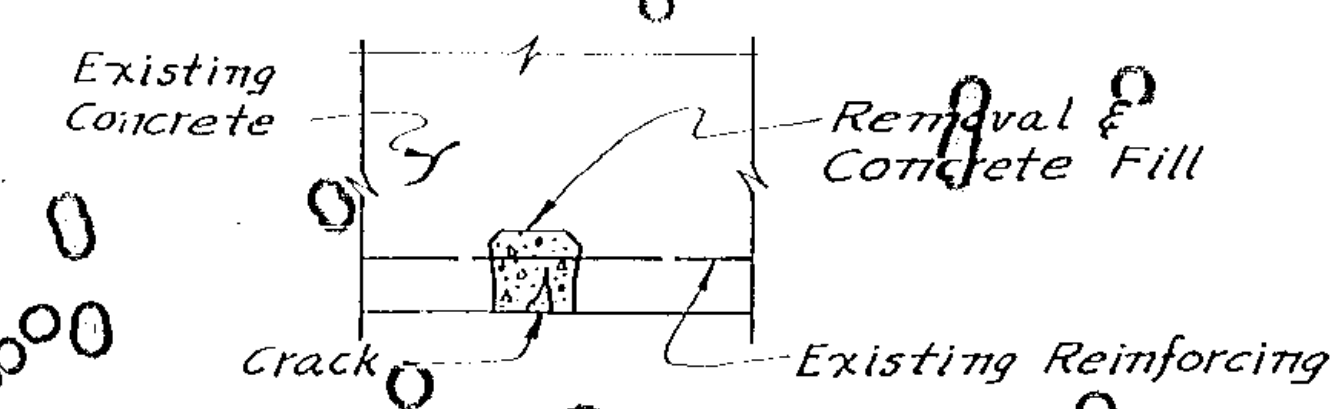
CUYAHOGA COUNTY ENGINEER	
CLEVELAND OHIO	
TRISKETT ROAD	
CITY OF CLEVELAND	
BRIDGE OVER CONRAIL & R.T.A.	
DRAINAGE DETAILS	
BRIDGE NO. 195	REPORT NO. 7055 DATE 9/20/78
NO. B-223	
DESIGN WAD	DRAWN J.L.
CHECKED RUC	REVISED TO AS BUILT

15
15

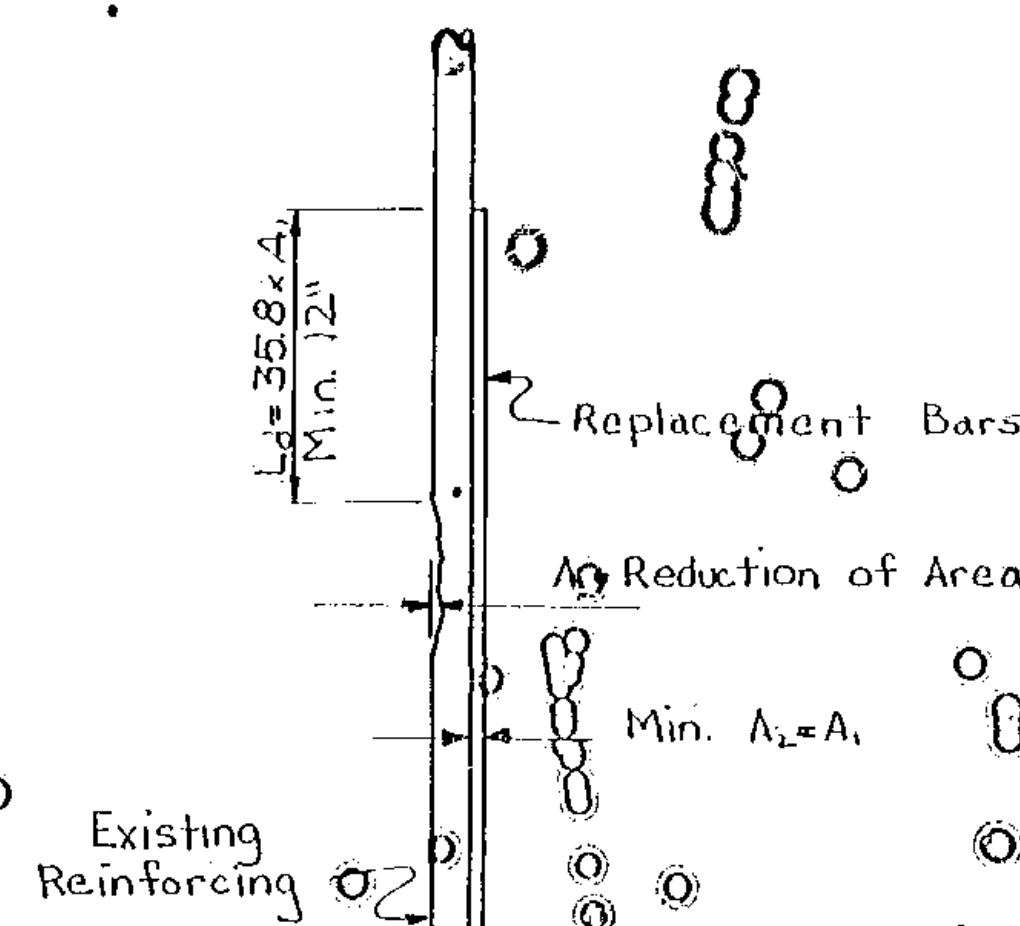
Note: The existing superstructure shall be jacked up and the expansion bearing units shall be realigned as shown. Prior to the jacking operation the contractor shall submit to the Cuyahoga County Engineer his jacking arrangement and procedure for approval. The procedure shall be such that stresses in the superstructure shall be less than the permissible limits at all times.



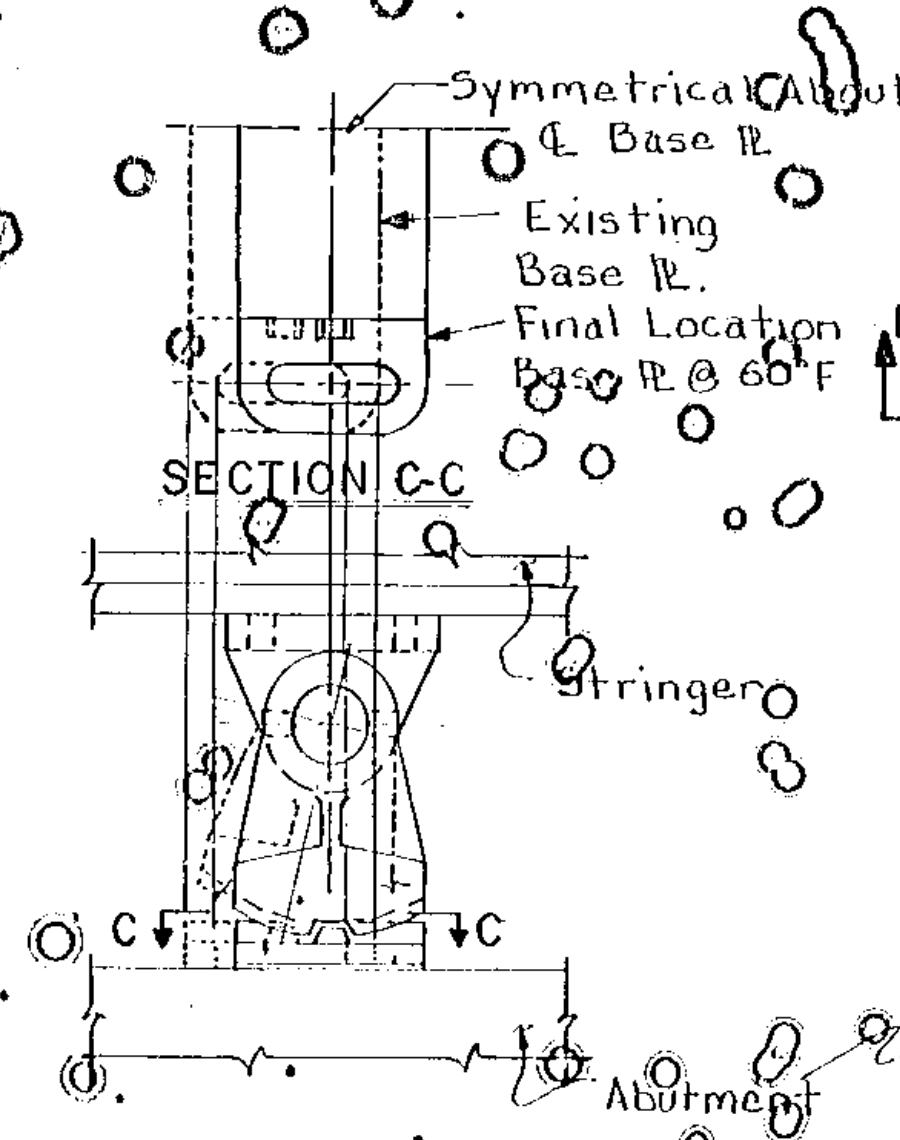
DETAIL R1
NO SCALE



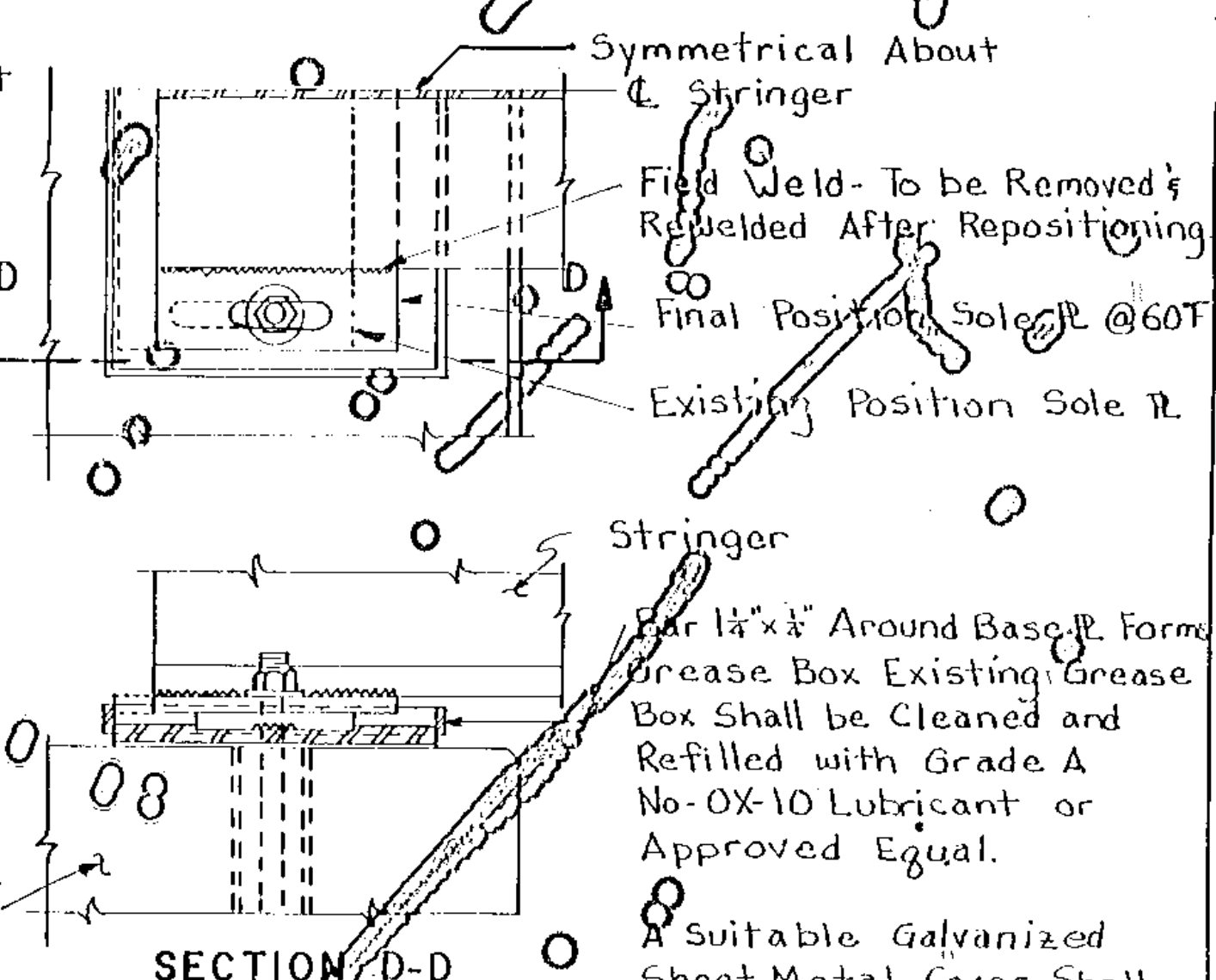
SECTION A-A
NO SCALE



TYPICAL REINFORCING BAR
REPLACEMENT
NO SCALE



ROCKER

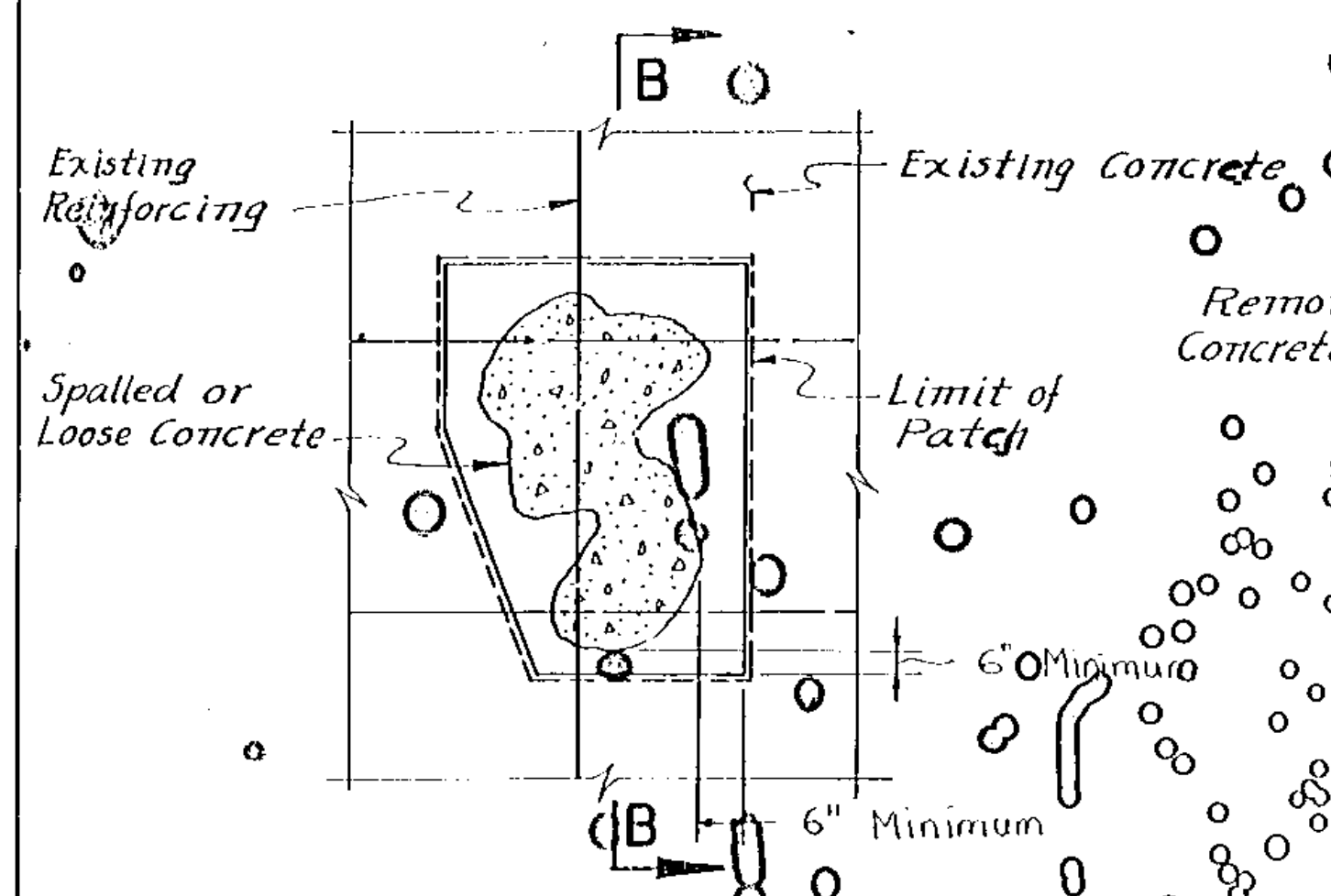


SLIDING PLATE

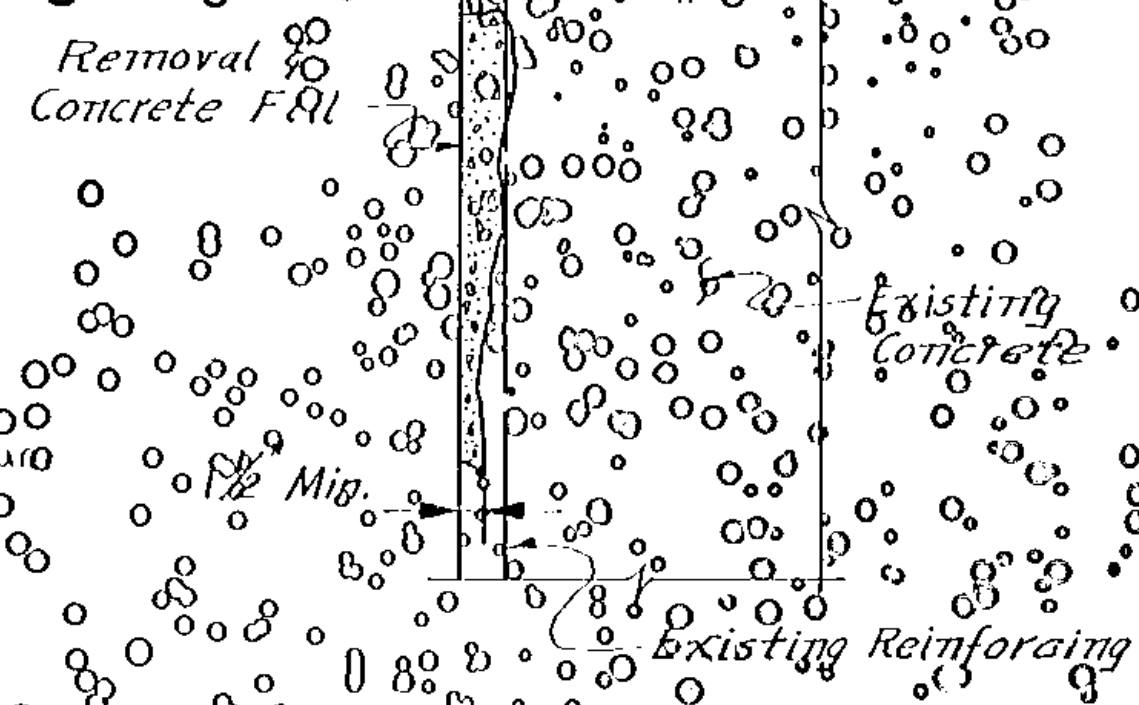
Stringer
Bar 1/4"x1/4" Around Base Plate Form
Grease Box Existing Grease
Box Shall be Cleaned and
Refilled with Grade A
No. 0X-10 Lubricant or
Approved Equal.
A Suitable Galvanized
Sheet Metal Cover Shall
be Installed on Each
Grease Box.

JENNINGS RD. EXPANSION BEARING REALIGNMENT DETAILS

SCALE 1 1/2" = 1'-0"

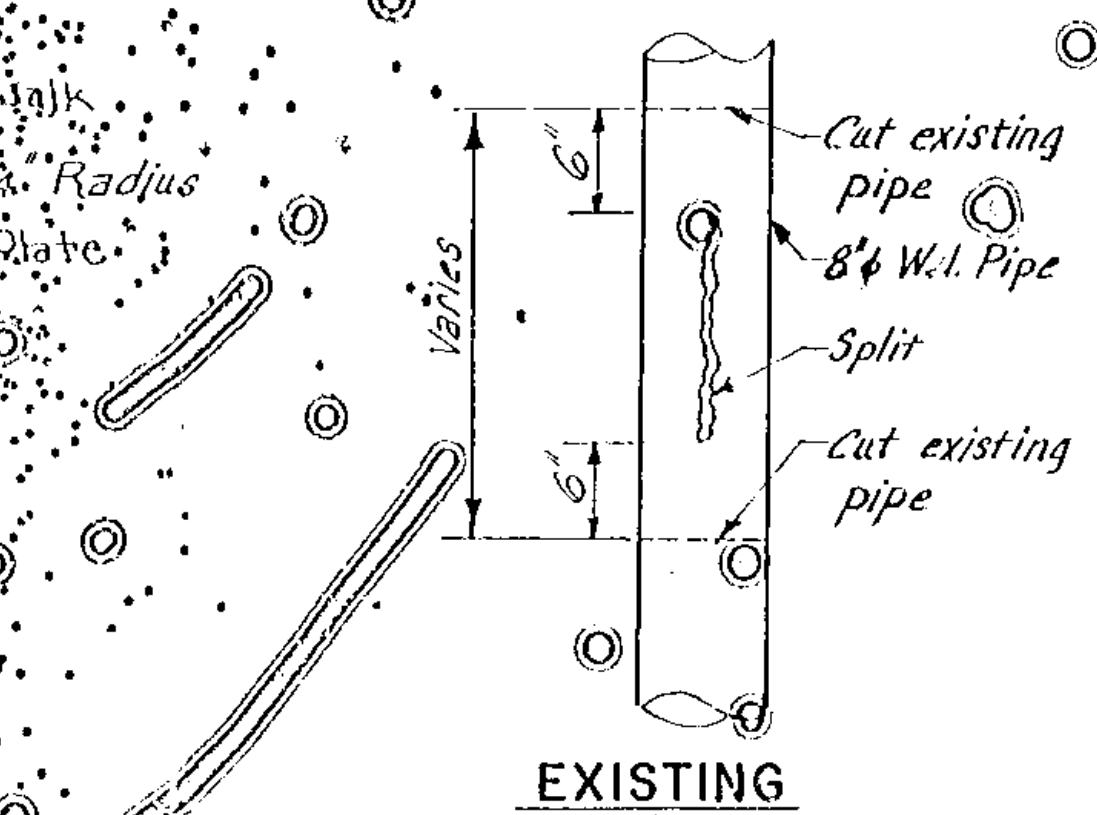


DETAIL R2
NO SCALE

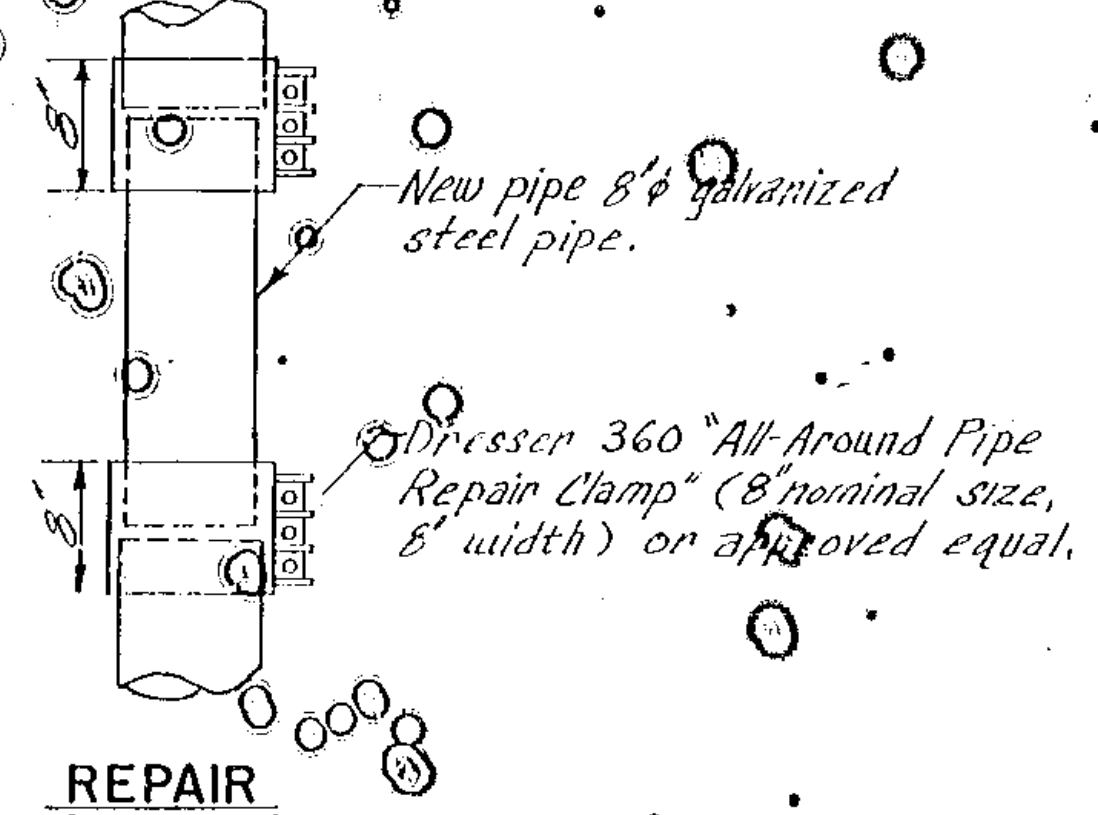


SECTION B-B
NO SCALE

SPALL REPAIR
(In accordance with Item 519 and/or 520)



EXISTING



REPAIR

DOWNSPOUT SPLIT REPAIR

SCALE 1" = 1'-0"

CUYAHOGA COUNTY ENGINEER		CLEVELAND OHIO	
MEMPHIS ROAD OVER B. & O. RAILROAD			
JENNINGS ROAD OVER BIG CREEK			
TRISKETT ROAD OVER CONRAIL & R.T.A.			
REPAIR DETAILS			
BRIDGE NO.	25 80 195	REPORT NO.	7054 7053 7055
			DATE 9/20/78
NO: B-131, B-153, B-223			
DESIGN B.M.	DRAWN R.M.	CHECKED W.M.	REVISED TO AS BUILT