

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF TRANSPORTATION

HARRISBURG 17120  
(717) 787-6934  
April 13, 1982

ORIGINAL



APR 15 2 50 PM '82

RECEIVED  
SECRETARY'S OFFICE  
PUBLIC UTILITY  
COMMISSION

IN REPLY REFER TO

Allegheny County  
L. R. 736 Ext., Sec. 39  
Thompson Run Bridge  
City of Duquesne  
PUC. C. 18922

Mr. Jerry Rich, Secretary  
Public Utility Commission  
Harrisburg, PA 17120

Dear Mr. Rich:

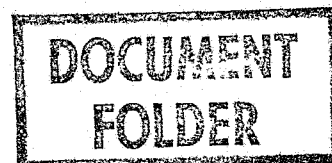
Reference Paragraph 3 of the Commission's Order NISI in the subject proceeding issued on March 12, 1982, and becoming final and absolute on April 19, 1982.

In accordance with above reference, attached is a copy of the complete, approved construction plans and structure drawings (S-14185). The construction plans were approved by the Governor on February 10, 1982 and the structure drawings were approved by the Chief Bridge Engineer on January 5, 1982.

A copy of this letter together with a copy of the plans and structure drawings are being furnished to the parties of interest listed below:

Union Railroad Company, Mike Rougas, P. E., Chief Engineer, P. O. Box 471,  
Greenville, PA 16125  
The Bell Telephone Company of Pennsylvania, R. M. Hilliard, Manager, Govern-  
ment and Municipal, 201 Stanwix St., Pittsburgh, PA 15222  
Carnegie Natural Gas Company, J. C. Webster, Assistant Chief Engineer,  
3904 Main Street, Munhall, PA 15120  
Equitable Gas Company, Martin M. Mlinarich, Supt., Distribution Engineering  
Division, 420 Blvd. of the Allies, Pittsburgh, PA 15219  
City of Duquesne, Leo E. Zabelsky, Mayor, 12 South Second St., Duquesne, PA 15110  
Duquesne Light Company, Raymond J. Wiehagen, Governmental Representative,  
435 Sixth Avenue, Pittsburgh, PA 15219  
County of Allegheny, Tom Foerster, Chairman, Courthouse, Room 119, Pittsburgh, PA 15219

-more-



Mr. Rich, Secretary  
PUC. C. 18922

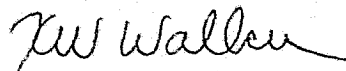
-2-

April 13, 1982

This project was let on February 25, 1982. Award of the contract will take place sometime at the end of March 1982. Notice to proceed with construction is anticipated immediately thereafter.

Prompt approval by the Commission will be appreciated.

Very truly yours,



For: Alfred F. Lyng, P. E.  
Chief Highway Engineer

Attachment

COMMONWEALTH OF PENNSYLVANIA



DEPARTMENT OF TRANSPORTATION

DRAWINGS FOR CONSTRUCTION OF

LEG. ROUTE 736 EXT SECTION 39

IN ALLEGHENY COUNTY

From Sta. 37 + 36.00 To Sta. 52 + 40.00 Length 1,504.32 Ft. 0.285 Mi.

P.U.C. COMPLAINT DOCKET NO. 18922

FED. PROJ. NO. BH-F-19(12)

FCB	DISTRICT	COUNTY	CITY	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
11	ALLEGHENY	DUQUESNE			736 EXT	39	20
STATE PROJECT NUMBER							
S/S	I.R. or W.O.	SPUR PMA	SECTION	DIST.	CO.		
3	7	3	6	X	0	7	3
							M
							I

- ALSO INCLUDES:
- 29 SHEETS OF STRUCTURE PLAN S-14185
  - 2 SHEETS OF HIGHWAY LIGHTING PLAN
  - 4 SHEETS OF MAINTENANCE & PROTECTION OF TRAFFIC
  - 1 SHEET OF PAVEMENT MARKING
  - 1 SHEET OF WATERLINE
  - 21 SHEETS OF CROSS SECTIONS (UPON REQUEST)

ORIGINAL

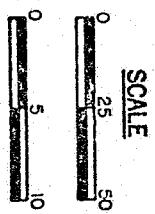
RECEIVED

APR 15 1982

SECRETARY OF TRANSPORTATION  
Public Utility Commission

DOCUMENT FOLDER

POCKETED  
APR 30 1982



DESIGN DESIGNATION

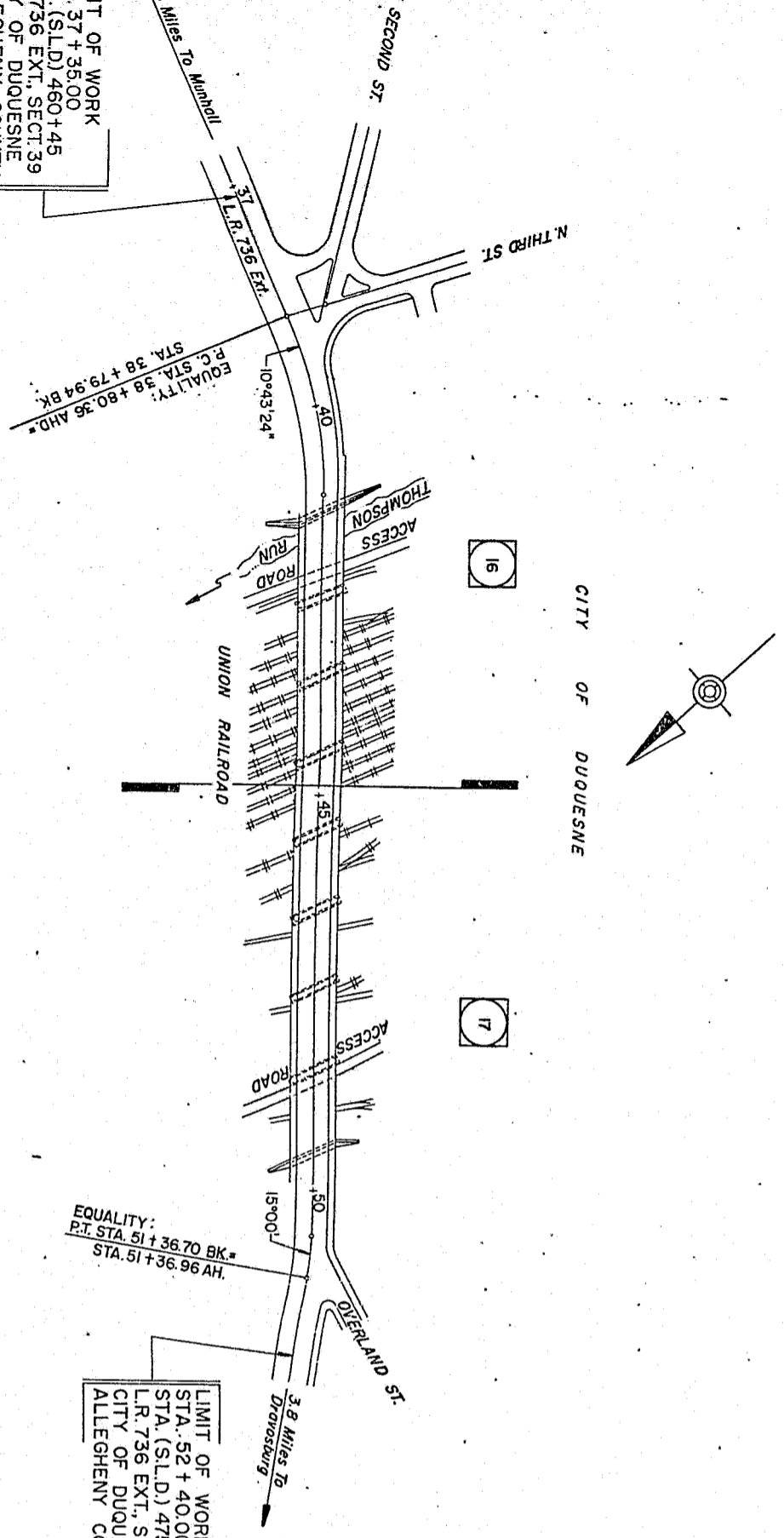
CLASS OF HIGHWAY - MAJOR ARTERIAL A.D.T. - 20,520 (1982)  
DESIGN SPEED - 40 MPH. A.D.T. - 27,360 (2000)  
PAVEMENT SECTION - VARIES 54' TO 48'

PREPARED BY  
SALVUCCI AND ASSOCIATES INC.  
CONSULTING ENGINEERS  
PITTSBURGH, PENNA.  
DATE 4/15/82  
REG. PROF. ENGR. PA. 14890-E

RECOMMENDED: [Signature] DISTRICT ENGINEER  
APPROVED: [Signature] DEPUTY SEC FOR HIGHWAY ADMINISTRATION  
APPROVED: [Signature] SECRETARY OF TRANSPORTATION  
APPROVED: [Signature] GOVERNOR

**RECORD OF EXISTING ROAD TYPES**

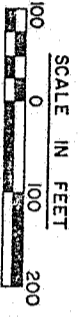
LIMIT OF WORK	ADJACENT TO S.L.D. STA.	ROAD TYPE
Adjacent To S.L.D. Sta. 460 + 65	50' R.C.C. Pavement On Special Subgrade	
S.L.D. Sta. 460+65 To Sta. 464+55	50' To 39' R.C.C. Pavement On Special Subgrade	
S.L.D. Sta. 464+55 To Sta. 472+60	39' Bit Surf ID-2 On Bit Conc. On Conc. Base Bridge Deck	
S.L.D. Sta. 472+60 To Sta. 475+50	39' Bit. Conc. On Brick Pav't. On Conc. Base	
Adjacent To S.L.D. Sta. 475+50	38' Bit. Conc. On Brick Pav't. On Conc. Base	



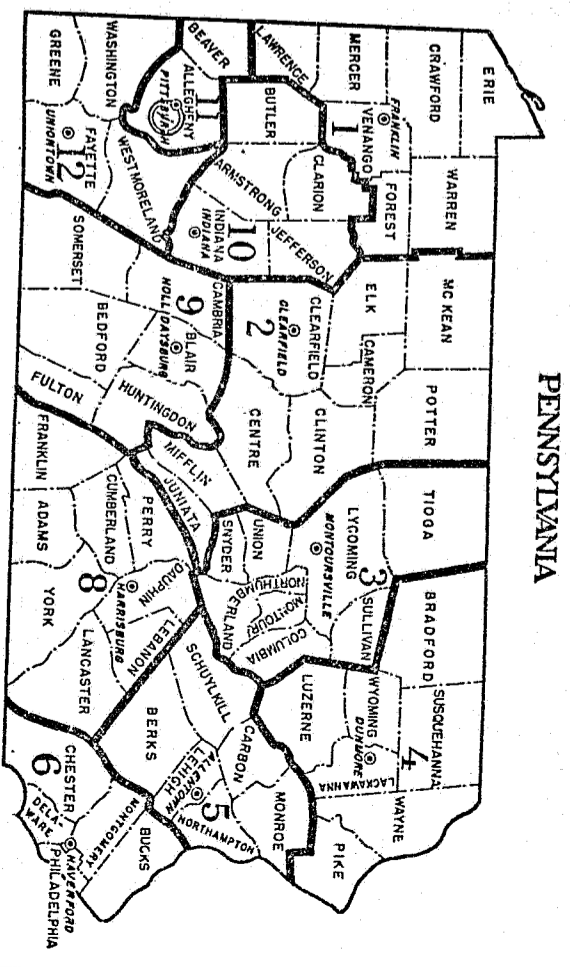
**LEGEND**

PLAN AND PROFILE

SHEET NO.



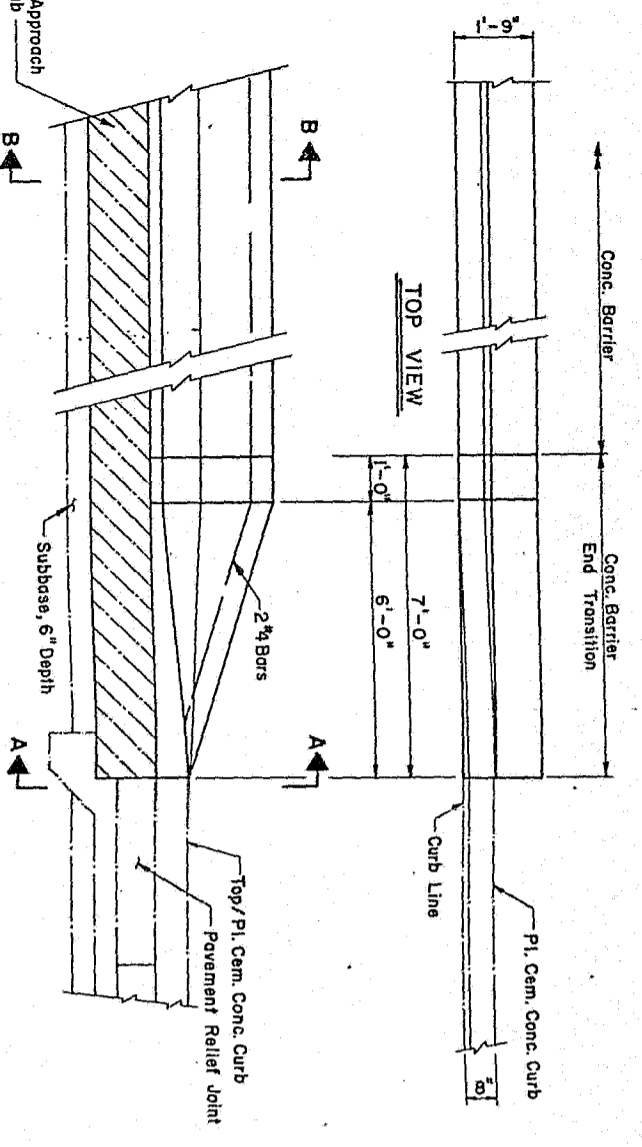
INDEX MAP



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	736 EXT.	39	2 OF 20
REVISION NUMBER	REVISIONS	DATE	BY	

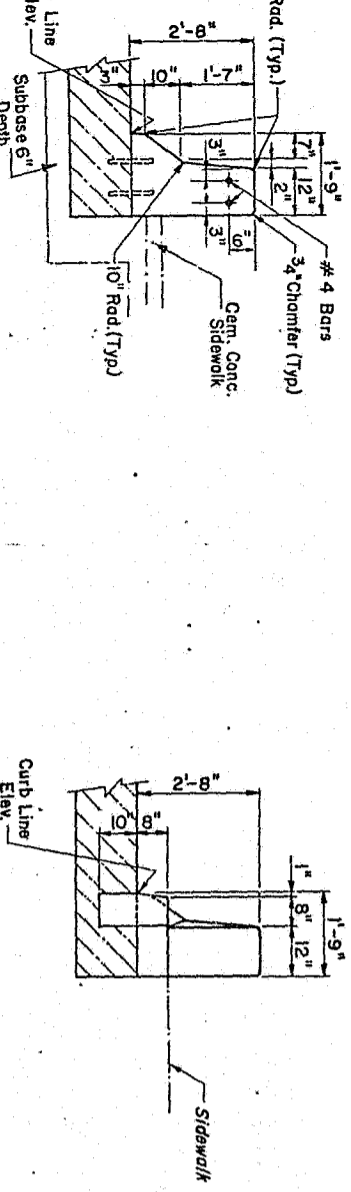


DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	736 EXT.	39	4 OF 20
REVISION NUMBER	CITY OF DUQUESNE		DATE	BY



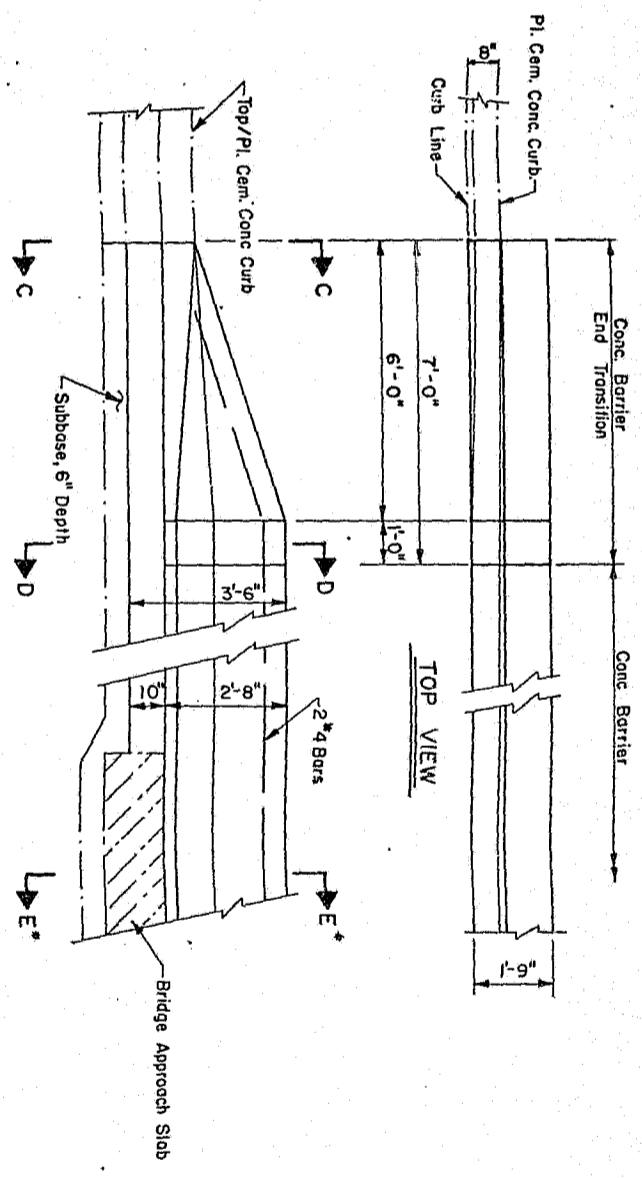
ELEVATION

TOP VIEW



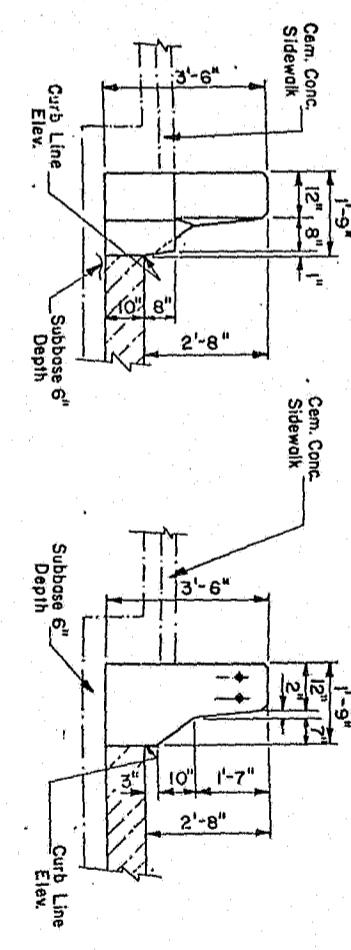
SECTION B-B

DETAIL - CONG. BARRIER AND END TRANSITION  
STA. 49+38 TO 49+76.37 LT.



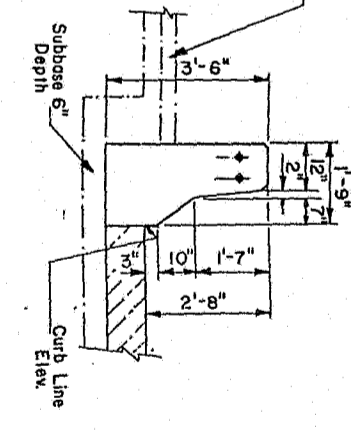
ELEVATION

TOP VIEW



SECTION C-C

DETAIL - CONG. BARRIER AND END TRANSITION  
STA. 40+00.37 TO 41+34 LT.

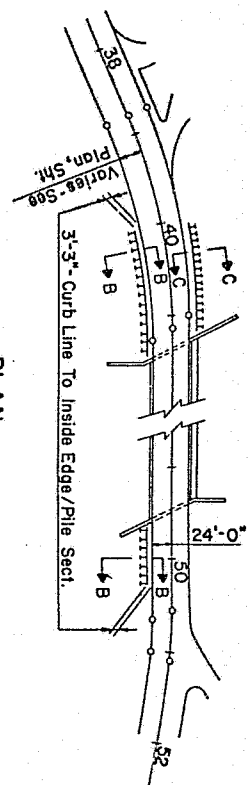


SECTION D-D

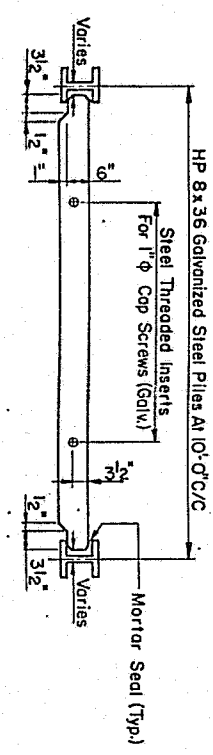
(See Section B-B for Details not shown)

\* Section E-E same as Section B-B, only opposite hand.

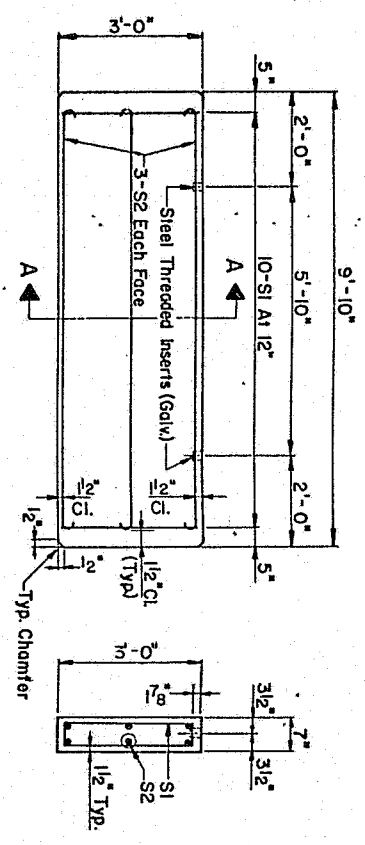
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	736 EXT.	39	5 OF 20
REVISION NUMBER	CITY OF DUQUESNE		REVISIONS	DATE



PLAN

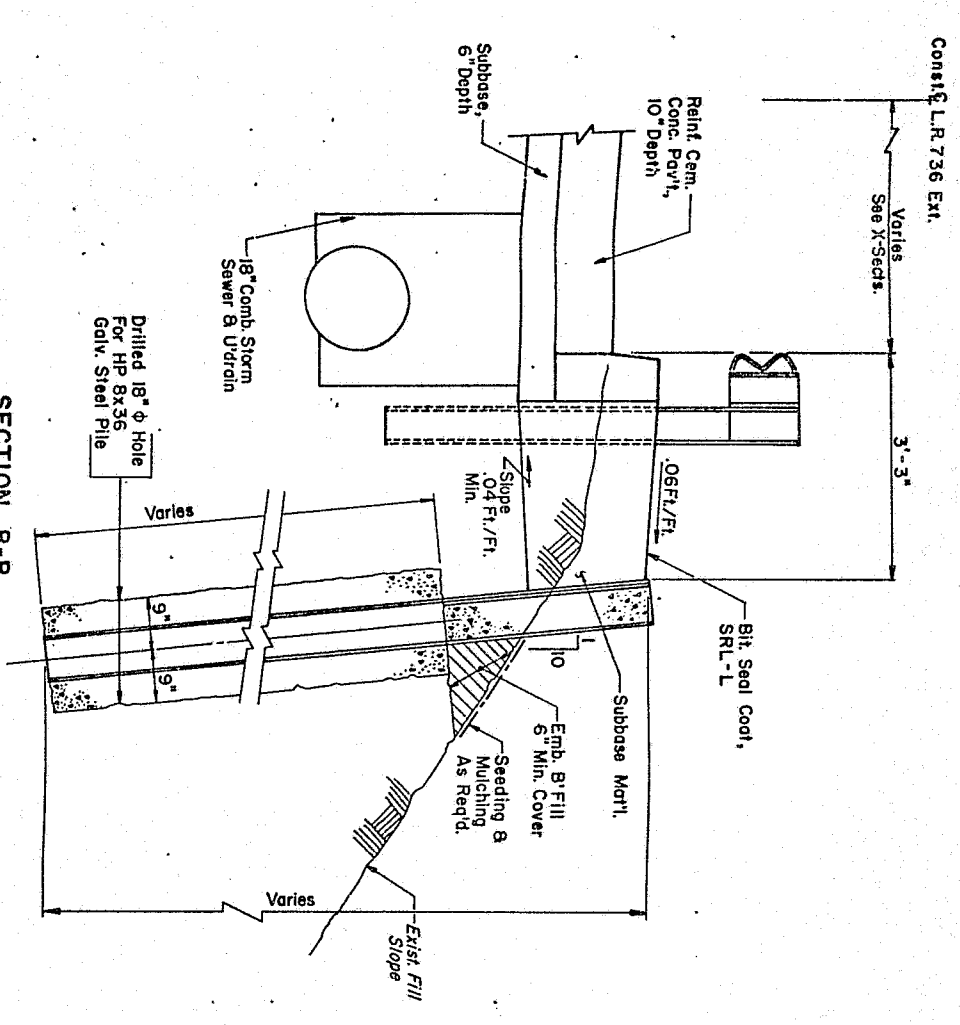


TYPICAL PLAN

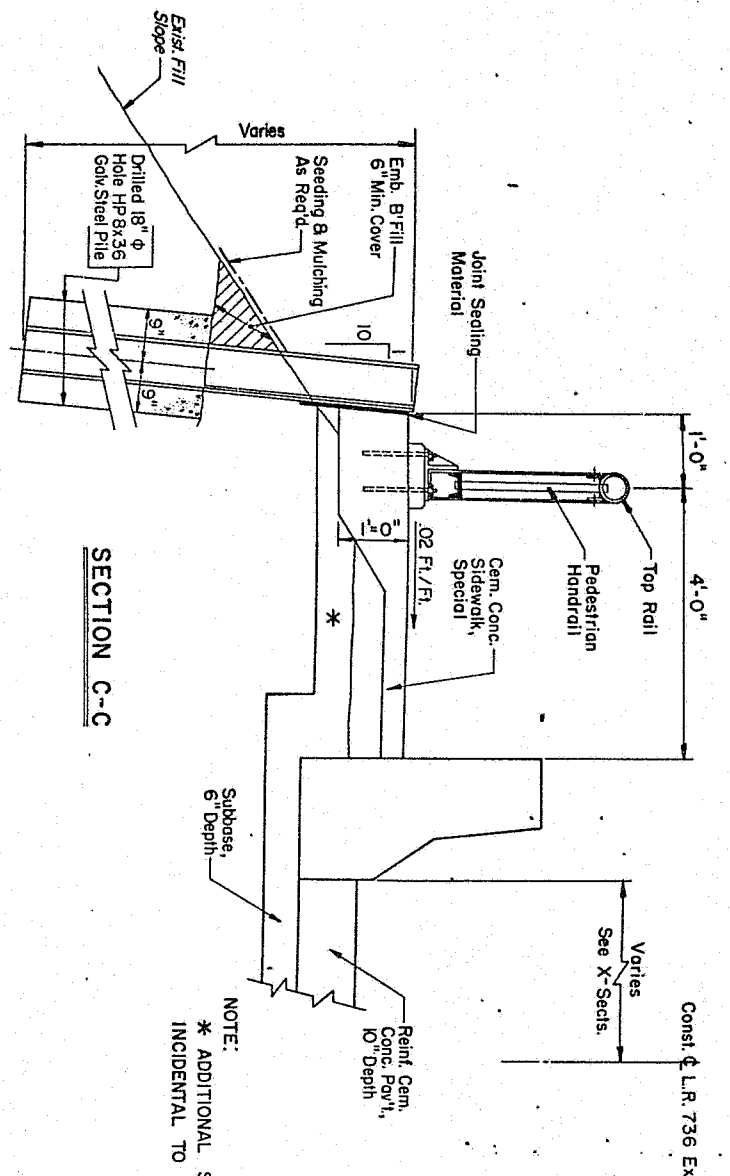


TYPICAL ELEVATION-PRECAST PLANK

SECTION A-A



SECTION B-B



SECTION C-C

- GENERAL PROCEDURE**
1. DRILL 18"  $\phi$  HOLES FOR PILES.
  2. POSITION PILES IN HOLES.
  3. POUR CONCRETE IN HOLES UP TO THE ELEVATION OF THE BOTTOM OF THE LOWEST CONCRETE PLANK FOR EACH PILE.
  4. EXCAVATE AND PLACE CONCRETE PLANKS.
  5. BACKFILL BEHIND WALL WITH SUBBASE MATERIAL.

**GENERAL NOTES**

MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH SPECIFICATION FORMS 408/76, 409/73 AND THE SPECIAL PROVISIONS OF THIS CONTRACT.

STRUCTURAL STEEL SHALL CONFORM TO ASTM DESIGNATION A-36.

DESIGN SPECIFICATIONS:

DESIGN DIVISION OF 1975 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

CLASS AA CEMENT CONCRETE SHALL BE USED IN PRECAST PLANKS.

CLASS C CEMENT CONCRETE SHALL BE USED FOR PLACING OF PILES.

ENTIRE SURFACE OF ALL PRECAST CONC. PLANKS SHALL BE TREATED WITH PROTECTIVE COATING IN ACCORDANCE WITH SECTION 1019, FORM 408/76.

STEEL PILES SHALL BE SPACED SO AS NOT TO INTERFERE WITH UNDERGROUND UTILITIES.

Mark	Size	Type	Length	Remarks
SI	3	II	6'-8"	10 Per Plank
S2	4	I	10'-7"	6 Per Plank

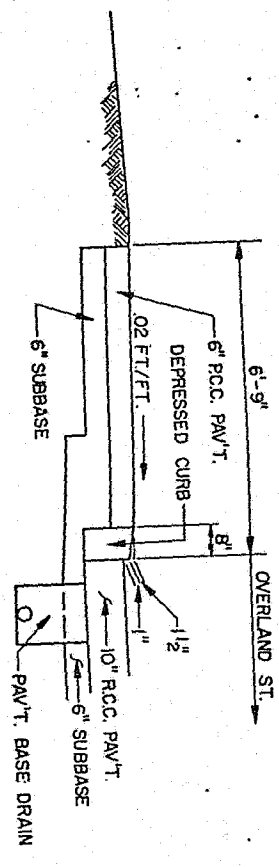
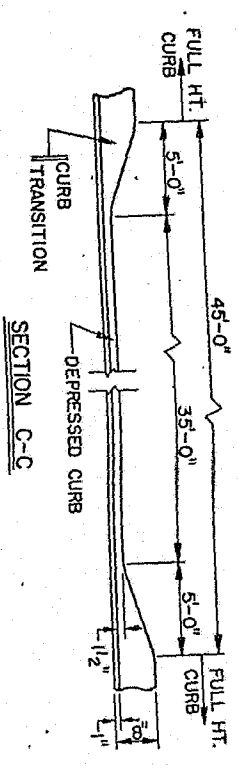
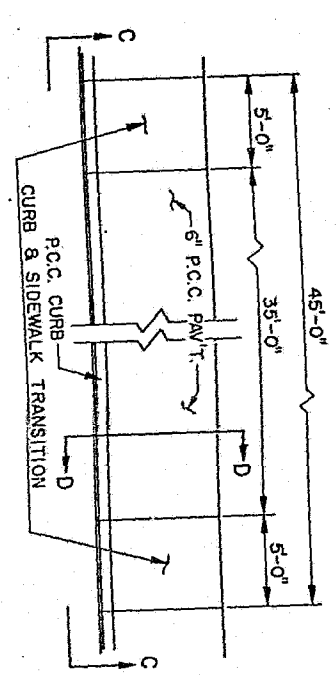
  

**FILL SHOULDER WIDENING**

STA. 39 + 93 TO STA. 41 + 53 - RT.  
 STA. 40+0037 TO STA. 41 + 30 - LT.  
 STA. 49 + 67 TO STA. 50 + 47 - RT.

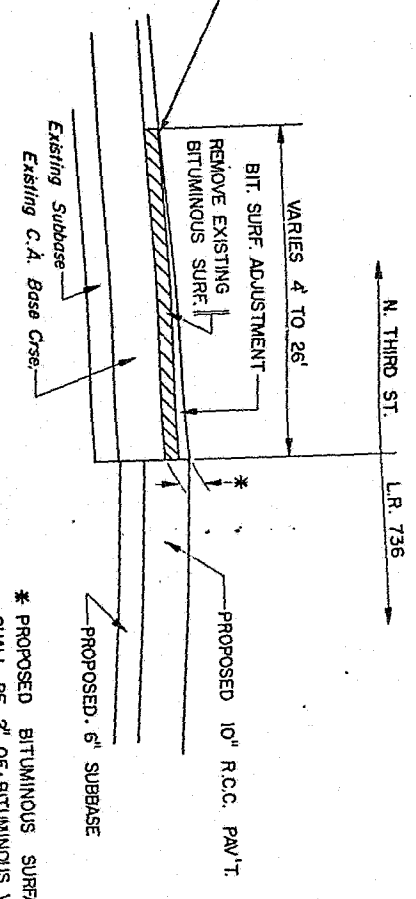
NOTE:  
 \* ADDITIONAL SUBBASE INCIDENTAL TO SUBBASE, 6" DEPTH

PROJECT	11-0	ALLEGHENY	736 EXT.	39	5	0	20
CITY	CITY OF DUQUESNE						
REVISIONS							
DATE							
BY							



DEPRESSED CURB DETAILS  
STA. 0+42 TO 0+77 LT. (OVERLAND ST.)

SAWCUT FULL DEPTH OF BITUMINOUS - INCIDENTAL TO REMOVAL OF EXIST. BITUMINOUS.



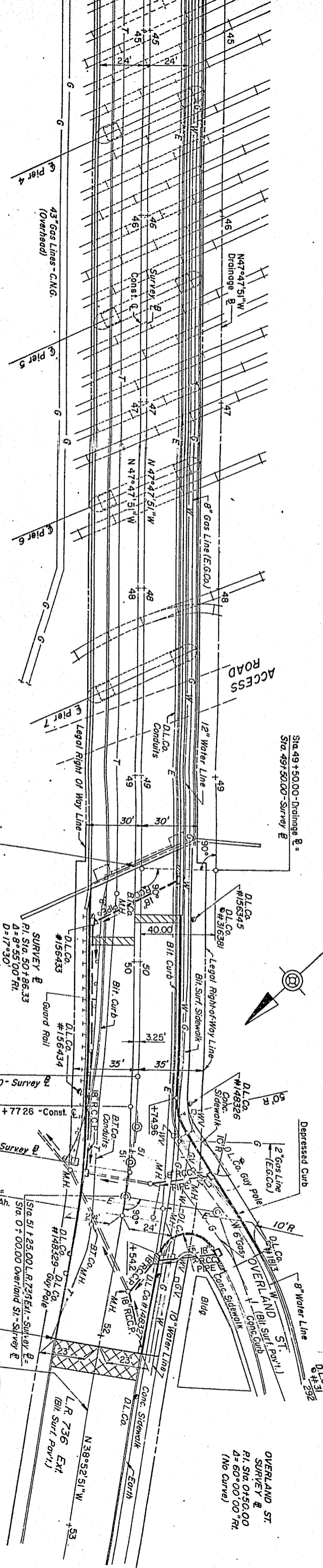
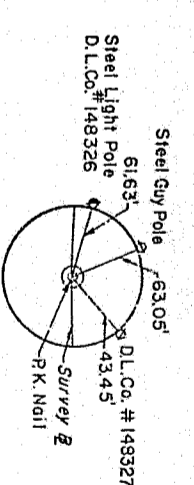
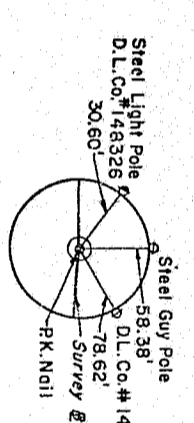
\* PROPOSED BITUMINOUS SURFACE SHALL BE 2" OF BITUMINOUS WEARING COURSE 10-2, SRL-H, REMAINING DEPTHS WILL VARY & SHALL BE FILLED WITH BITUMINOUS BINDER COURSE 10-2, (TONS).



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	736 EXT	39	17 OF 20
CITY OF DUQUESNE				
REVISION NUMBER	DATE	BY		

P1. Sta. 50+86.33

P.O.T. Sta. 51+25.00



NOTE:  
FOR DETAILS OF DRAINAGE  
UNDER STRUCTURE  
SEE SHEETS 18 & 19.

NOTE:  
FILL SHOULDER WIDENING  
AT: STA. 49+67 TO STA. 50+47-RT.  
FOR DETAILS SEE SHEET 5

LEGEND  
BIT. SURF. ADJ.  
PAV'T. RELIEF JT.

LIMIT OF WORK  
STA. 52+40.00  
STA. (S.L.D.) 475+50  
L.R. 736 EXT., SEC. 39  
CITY OF DUQUESNE  
ALLEGHENY COUNTY

STA. 52+06.96  
END ROADWAY.  
RECONSTRUCTION

R.V.I. STA. 51+78.28  
ELEV. 857.73  
V.C. 50'  
M.O. 0.069

CONST. E  
P.I. Sta. 51+07.04  
A = 8°55'00" R.I.  
D = 15'00'  
T = 29.78'  
L = 59.44'  
R = 381.94'  
Superelevation .02 F.I./F.I.  
Runout 70'

CONST. E  
P.I. Sta. 50+86.33  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+77.26  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+60.80  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+49.07  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+36.70  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+25.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+11.75  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

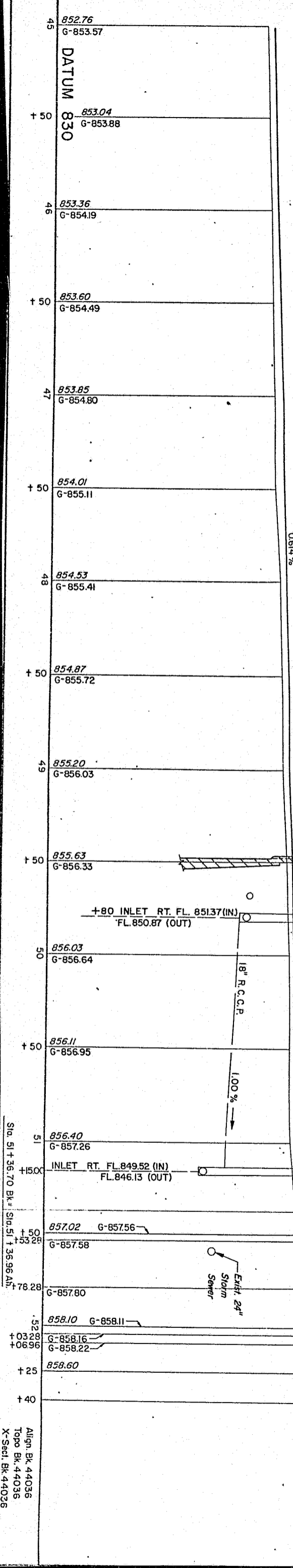
CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'

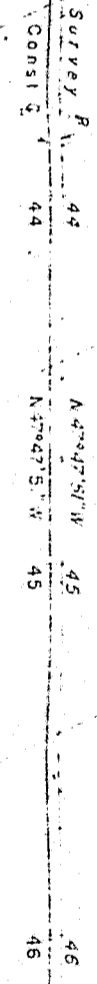
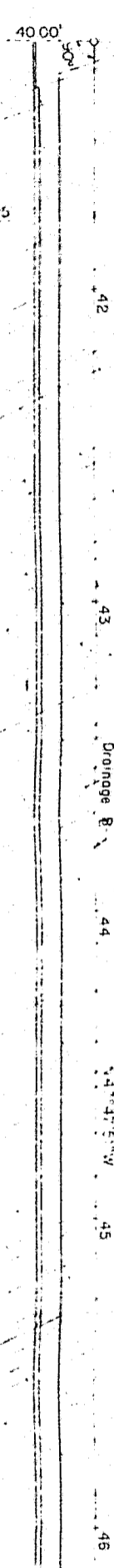
CONST. E  
P.I. Sta. 50+00.00  
A = 8°55'00" R.I.  
D = 17'30'  
T = 25.33'  
L = 50.95'  
R = 327.40'



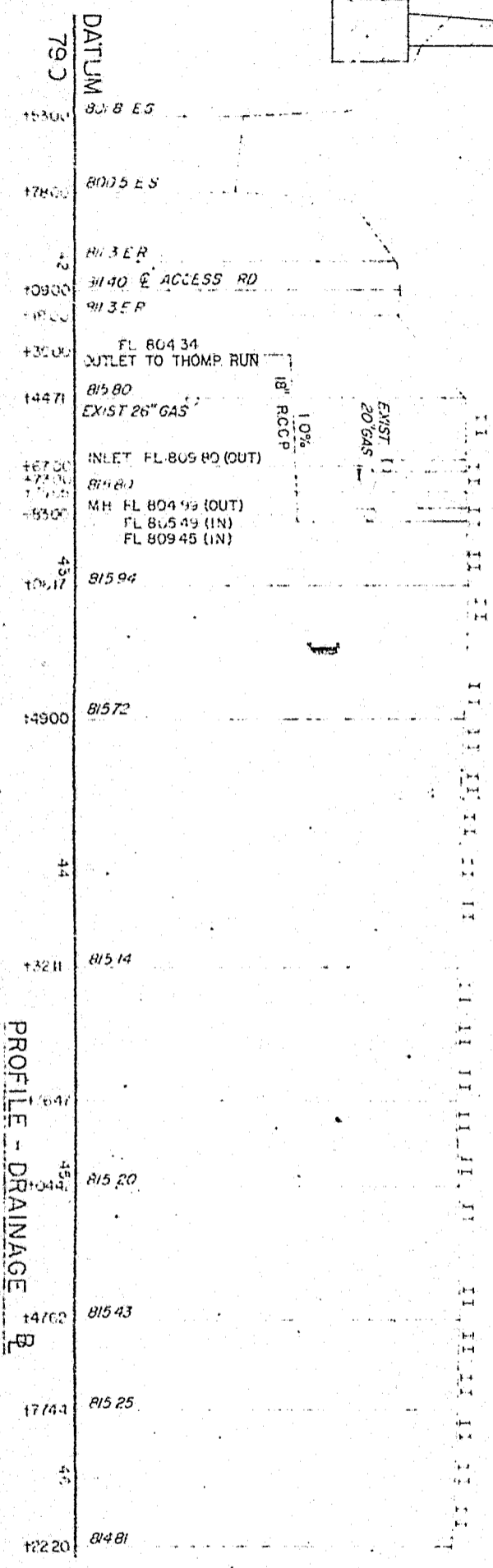
Align. Bk. 44036  
Topo. Bk. 44036  
X- Sect. Bk. 44036

Sta 41 + 20' to Drainage B =  
Sta 41 + 20'00 Survey E

20" Gas Line  
20" Gas Line



NOTE  
FOR DETAILS OF INLET  
INSTALLATION SEE  
SHEET 20



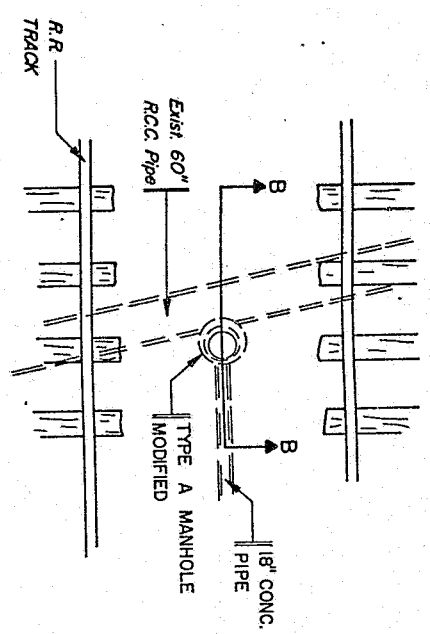
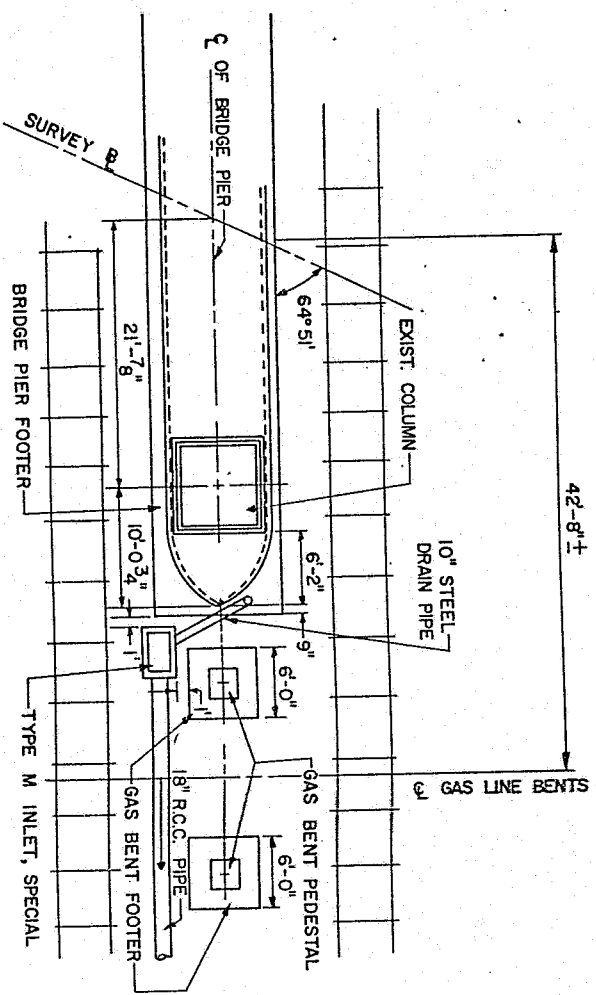
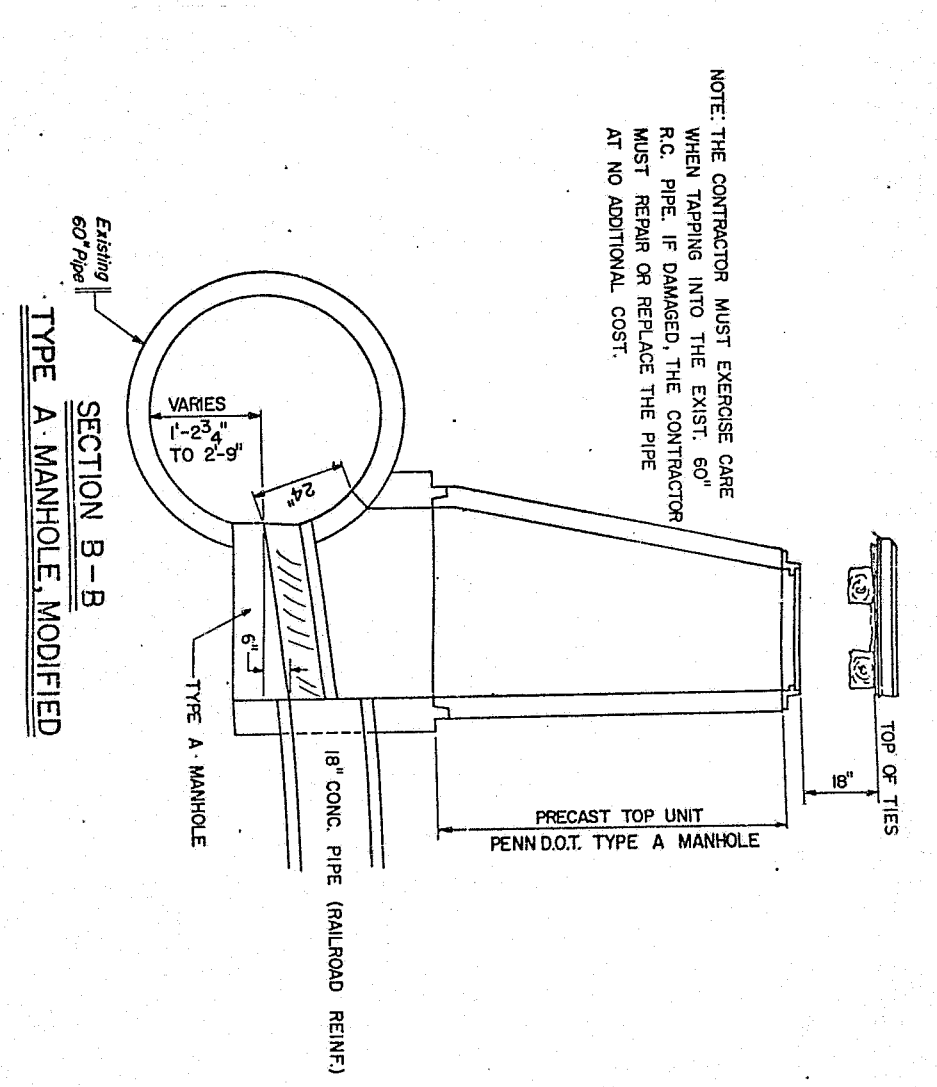
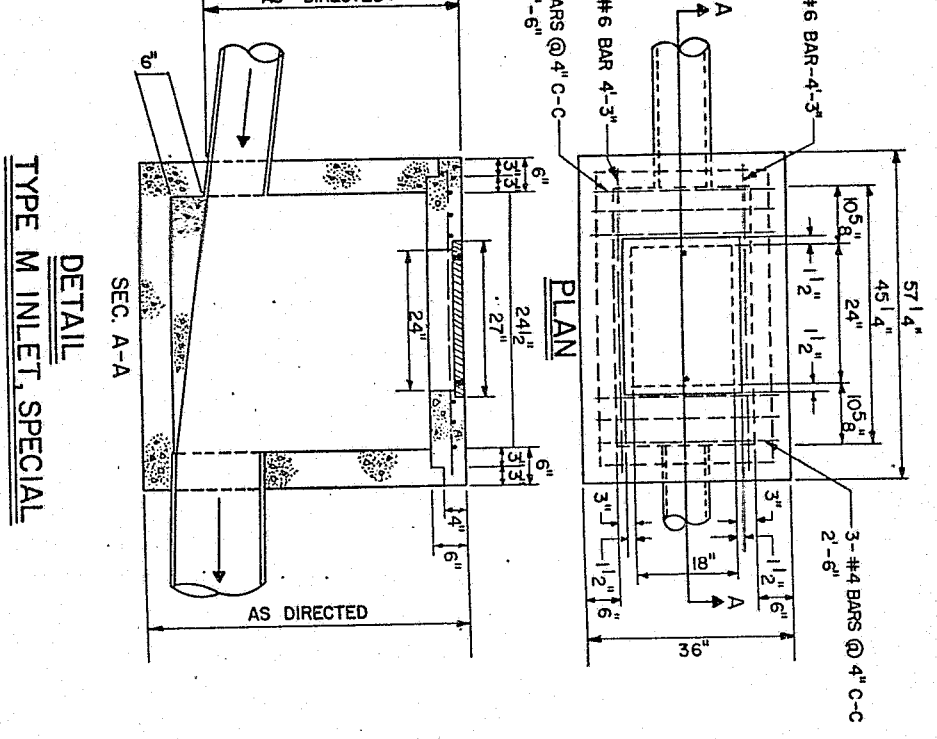
DATUM  
79.0  
17900 8005 ES  
17800 8005 ES  
17700 8113 ER  
17600 3140 E ACCESS RD  
17500 8113 ER  
17400 FL 80434  
OUTLET TO THOMP RUN  
17300 81580  
EXIST 26" GAS  
17200 INLET FL 80580 (OUT)  
81480  
17100 MH FL 80499 (OUT)  
FL 80549 (IN)  
FL 80945 (IN)  
17000 81594  
16900 81572  
16800  
16700 81514  
16600  
16500 81520  
16400 81543  
16300 81525  
16200 81481

PROJECT	ALLEHENY	736 EXT	39	18 OCT 20
CITY OF	PROJEN			
REVISIONS				
DATE				
BY				



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	736 EXT	39	20 OF 20
PROJECT NUMBER	CITY OF DUQUESNE			
REVISIONS				
DATE				
BY				

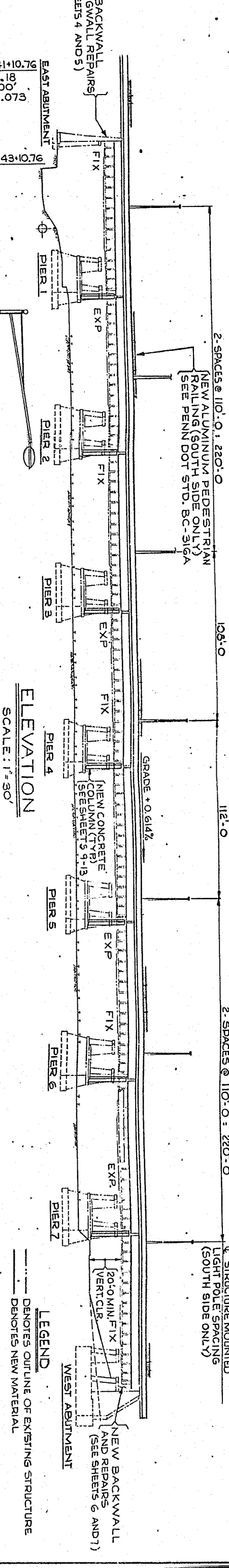
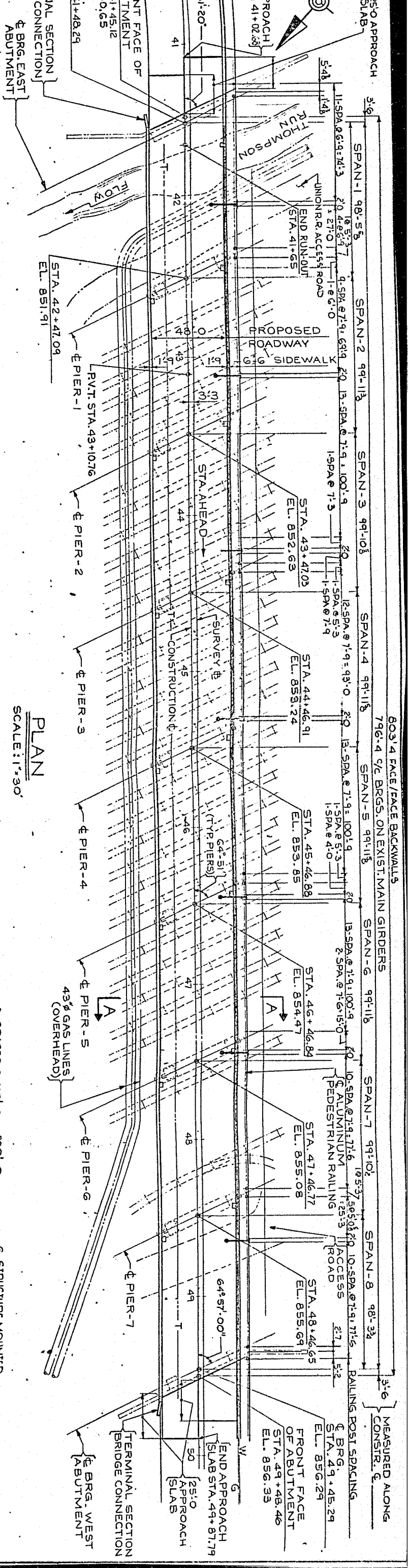
NOTE: THE CONTRACTOR MUST EXERCISE CARE WHEN TAPPING INTO THE EXIST. 60" R.C. PIPE. IF DAMAGED, THE CONTRACTOR MUST REPAIR OR REPLACE THE PIPE AT NO ADDITIONAL COST.



SEE PLAN SHEETS FOR LOCATION OF INLETS AT PIERS 1, 6, 8, 7.

**DETAIL**  
**LOCATION OF TYPE M INLET, SPECIAL**  
AT BASE OF PIERS 2, 3, 4, 8, 5.

**LOCATION OF TYPE A MANHOLE, MODIFIED**



**CRITICAL CURVE DATA**  
P.I. STA. 41+10.76  
P.V. STA. 43+10.76  
+0.614%  
+0.614%  
2.76%

**SURVEY DATA**  
P.I. STA. 40+00.00  
A = 23°.40'.09"  
D = 10°.00'  
T = 120.06'  
L = 236.69'  
R = 572.96'

**HORIZONTAL CURVE DATA**  
RELEVATE .04 FT/FT  
OUT 100'

**SECTION ~ A-A**  
SCALE: 1/8" = 1'-0"

DESCRIPTION	DATE	BY	CHK'D	APP'D	DATE
REG. PROF. ENGR. PA.	12/4/87				

PREPARED BY  
SALVUCCI AND ASSOCIATES INC.  
CONSULTING ENGINEERS  
PITTSBURGH, PENNA.  
DATE 12/4/87

DESCRIPTION	DATE	BY	CHK'D	APP'D	DATE
REG. PROF. ENGR. PA.	12/4/87				

**Commonwealth of Pennsylvania**  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN  
ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
GENERAL PLAN AND ELEVATION

APPROVED  
BRIDGE ENGINEER

SHEET 1 OF 29  
+SUPPLEMENTALS  
DRAWINGS  
S-14135

## GENERAL NOTES

1. MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH SPECIFICATION FORMS 408/76, 409/73, AND THE SPECIAL PROVISIONS.
2. STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM - A36 EXCEPT WHERE NOTED OTHERWISE.
3. DESIGN SPECIFICATIONS: DESIGN DIVISION OF 1977 AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES (INCLUDING 1978, 1979, 1980 INTERIM SPECIFICATIONS) AND AS SUPPLEMENTED BY THE DEPARTMENTS CURRENT DESIGN MANUAL, PART 4, STRUCTURES.
4. LIVE LOAD: HS - 20-44 LOADING
5. 2" CONCRETE COVER SHALL BE PROVIDED ON REINFORCEMENT BARS EXCEPT WHERE NOTED OTHERWISE.
6. CLASS A CEMENT CONCRETE (L.S.) SHALL BE USED IN THE DECK SLAB, HAUNCHES, CURB BARRIERS, AND SIDEWALK. CLASS A CEMENT CONCRETE (C.Y.) SHALL BE USED IN REBUILDING PORTIONS OF THE EXISTING ABUTMENT BACKWALLS AND WINGWALLS. CLASS A CEMENT CONCRETE, SPECIAL SHALL BE USED TO REPAIR SPALLED AREAS IN THE PIERS, ABUTMENTS AND WINGWALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. CLASS A CEMENT CONCRETE SHALL BE USED IN THE NEW COLUMNS AT THE PIERS AND ABUTMENTS.
7. EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 1x1" EXCEPT AS NOTED
8. REMOVABLE DECK FORMS SHALL BE USED IN PLACING THE CONCRETE DECK SLAB
9. EPOXY RESIN ADHESIVE SHALL BE USED IN ADHERING NEW CONCRETE TO OLD IN AREAS TO BE REPAIRED. SEE SPECIAL PROVISIONS FOR SPECIFICATIONS FOR THIS MATERIAL
10. THE ENGINEER MAY DELETE ANY ITEM, IN WHOLE OR PART, OR ADD TO ANY ITEM. COMPENSATION WILL BE BASED ON UNIT PRICE BID AND ACTUAL QUANTITY OF THE ITEM USED.
11. THE CONTRACTOR SHALL VERIFY ALL NECESSARY DIMENSIONS AND ELEVATIONS OF THE EXISTING STRUCTURE, REQUIRED TO PERFORM HIS WORK PRIOR TO CONSTRUCTION.
12. THE ORIGINAL SHOP DRAWINGS OF THE SUBJECT STRUCTURE ARE AVAILABLE AT THE OFFICE OF DISTRICT 11-0 UPON REQUEST.
13. NEW FASTENERS SHALL BE A.S.T.M. A325 HIGH STRENGTH BOLTS (FRICTION TYPE CONNECTIONS) OR AS NOTED ON THE DRAWINGS. ALL HIGH STRENGTH BOLTS SHALL BE INSTALLED IN ACCORDANCE WITH FORM 409/73 SECTION 105.3.18 (D). FASTENERS SHALL BE 7/8"  $\phi$  UNLESS NOTED OTHERWISE.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROTECT ALL REINFORCEMENT BARS THAT WILL BE USED IN THE NEW CONSTRUCTION AND MAKE NECESSARY ADJUSTMENTS OF NEW REINFORCING TO INSURE THAT THE NEW IS STRUCTURALLY SOUND. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THIS WORK.
15. NEW STEELWORK SHALL BE BRACED (FIXED) IN ITS LONGITUDINAL AND LATERAL DIRECTIONS UNTIL MEMBERS ARE IN STABLE (FINAL BRACED) CONDITION.
16. THE DEPARTMENT DOES NOT GUARANTEE THE LOCATION, QUANTITY OR DESIGNATION OF CONTRACT ITEMS AS SHOWN AND/OR REFERRED TO ON THE PLANS. NOR DOES THE DEPARTMENT GUARANTEE THAT ALL DEFECTS ARE SHOWN. THE QUANTITIES AND LOCATIONS SHOWN ARE FOR THE CONTRACTOR'S GUIDANCE ONLY AND SHALL NOT BE HELD AS BINDING IN ANY WAY. THE CONTRACTOR SHALL CONFIRM ALL QUANTITIES, LOCATIONS AND DESIGNATION OF CONTRACT ITEMS PRIOR TO FABRICATION.
17. CLEANING OF STEELWORK DURING REPAIR: CONTACT SURFACES OF EXISTING STEELWORK WHICH ARE TO BE ENCLOSED OR COVERED BY REPAIR OR REINFORCING MATERIAL SHALL BE CLEANED OF PAINT, DIRT, RUST AND OTHER FOREIGN MATTER BY BLAST CLEANING METHOD 1, IN ACCORDANCE WITH FORM 409/73, SECTION 1073.01(b)
18. HOLES: FIELD HOLES MAY BE DRILLED OR SUB-PUNCHED AND REAMED IN THE FIELD
19. ALL NEW AND EXISTING STEEL TO BE IN CONTACT WITH CONCRETE SHALL BE CLEANED BY BLAST CLEANING IN ACCORDANCE WITH FORM 409 AND BE GIVEN ONE COAT DULL ORANGE PRIMER, COLOR NO. 1.
20. SHOP AND FIELD CONTACT SURFACES SHALL NOT BE PAINTED.
21. ALL SHOP PAINTING SHALL BE IN ACCORDANCE WITH FORM 409 AND BULLETIN NO. 26 DULL ORANGE PRIMER, COLOR NO. 1, SHALL BE USED.
22. EXPOSED SURFACES OF EXISTING STRUCTURAL STEEL WHERE PAINT HAS BEEN REMOVED DUE TO REPAIR, AND UNPAINTED AREAS OF NEW STRUCTURAL STEEL WHICH ARE TO BE PAINTED, SHALL RECEIVE A FIELD PRIME COAT OF DULL ORANGE PRIMER, COLOR NO. 1 AS THE BASE COAT, BEFORE VISIBLE RUSTING OCCURS, IN ACCORDANCE WITH FORM 409
23. BEARING AREAS SHALL BE PREPARED AS SPECIFIED IN SECTION 1054.04 (a) OF FORM 409 UNLESS OTHERWISE SHOWN ON THE DRAWINGS
24. FOR STEEL REPAIR NOTES AND LEGEND SEE SHEETS 15, 16, 17.
25. FOR NOTES RELATED TO CONCRETE REPAIRS, SEE SHEET 12.
26. THE FINAL FIELD COAT OF PAINT SHALL BE SEA MIST GREEN, MATCHING STANDARD COLOR NO. 19 IN ACCORDANCE WITH BULLETIN NO. 26
27. SCUPPERS, DOWNSPOUTING AND RELATED DRAINAGE MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH SECTION 1052.17.
28. FOR ADDITIONAL STRUCTURAL STEEL NOTES, SEE SHEETS 20 AND 21.

## WELDING NOTES

- A. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS/D1.1 - REV. 2-77 AND THE AASHTO STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, 1977. NO FIELD WELDING WILL BE PERMITTED ON ANY PART OF THE EXISTING BRIDGE EXCEPT FOR THAT SHOWN ON THE DRAWINGS, WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- B. WELDING OF EXISTING STRUCTURAL STEEL: USE SHIELDED METAL ARC PROCESS AND E7018 ELECTRODES
- C. TACK WELDS SHALL BE MADE WITH THE SAME TYPE ELECTRODE AS THE FINAL WELD.
- D. NO WELDING WILL BE ALLOWED WHEN SURFACES TO BE WELDED ARE WET OR EXPOSED TO RAIN, SNOW OR WIND. OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL HAMPER GOOD WORK.
- E. NO WELDING OR BURNING WILL BE ALLOWED WHEN THE TEMPERATURE IS BELOW 0°F. WHERE THE TEMPERATURE OF THE METAL IS BETWEEN 0°F AND 30°F, THE METAL SHALL BE PREHEATED TO AT LEAST 70°F AND MAINTAINED AT THIS TEMPERATURE DURING WELDING OR BURNING. THE AREA TO BE HEATED SHALL EXTEND 3" BEYOND THE WELD IN ALL DIRECTIONS.
- F. ANY MOISTURE PRESENT AT POINT OF WELD SHALL BE REMOVED BY HEAT. WIND BREAKS SHALL BE PROVIDED FOR PROTECTION FROM DIRECT WIND.
- G. ELECTRO SLAG WELDING WILL NOT BE PERMITTED
- H. PORTIONS OF NEW AND EXISTING SURFACES TO RECEIVE WELDS SHALL BE CLEANED THOROUGHLY OF ALL FOREIGN MATTER, INCLUDING PAINT FILM, FOR A DISTANCE OF 2" FROM EACH SIDE OF THE OUTSIDE LINES OF WELD.

## SHEET INDEX

SHEET NO.	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES & SHEET INDEX
3	DECK SECTION
4	EAST ABUTMENT REPAIRS
5	EAST ABUTMENT DETAILS
6	WEST ABUTMENT REPAIRS
7	WEST ABUTMENT DETAILS
8	ABUTMENT DETAILS
9	PIERS 1 AND 2, REPAIRS
10	PIERS 3 AND 4, REPAIRS
11	PIERS 5 AND 6, REPAIRS
12	PIER 7 AND CONCRETE REPAIR DETAILS
13	PIER DETAILS
14	EXISTING FRAMING PLAN
15	FRAMING PLAN - SPANS 1 THRU 4
16	FRAMING PLAN - SPANS 5 THRU 8
17	GIRDER REPAIRS
18	FLOOR BEAM REPAIRS - FB1
19	FLOOR BEAM REPAIRS - FB41
20	NEW FLOOR BEAM DETAILS
21	NEW GIRDERS
22	STEEL DETAILS
23	FIXED AND EXPANSION JOINT DETAILS
24	DECK PLAN
25	SIDEWALK, BARRIER & PARAPET PLAN
26	SCUPPER DETAILS
27	REINFORCEMENT BAR SCHEDULE
28	REINFORCEMENT BAR SCHEDULE
29	CONTOUR PLAN, DECK ELEV. & STRESS TABLE
2A	SUMMARY OF QUANTITIES

Mark	Description	By	CHK'D	APP'D	Date
	REVISIONS				

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39

L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
GENERAL NOTES AND SHEET INDEX

APPROVED \_\_\_\_\_ SHEET 2 OF 29

BRIDGE ENGINEER

S-14185

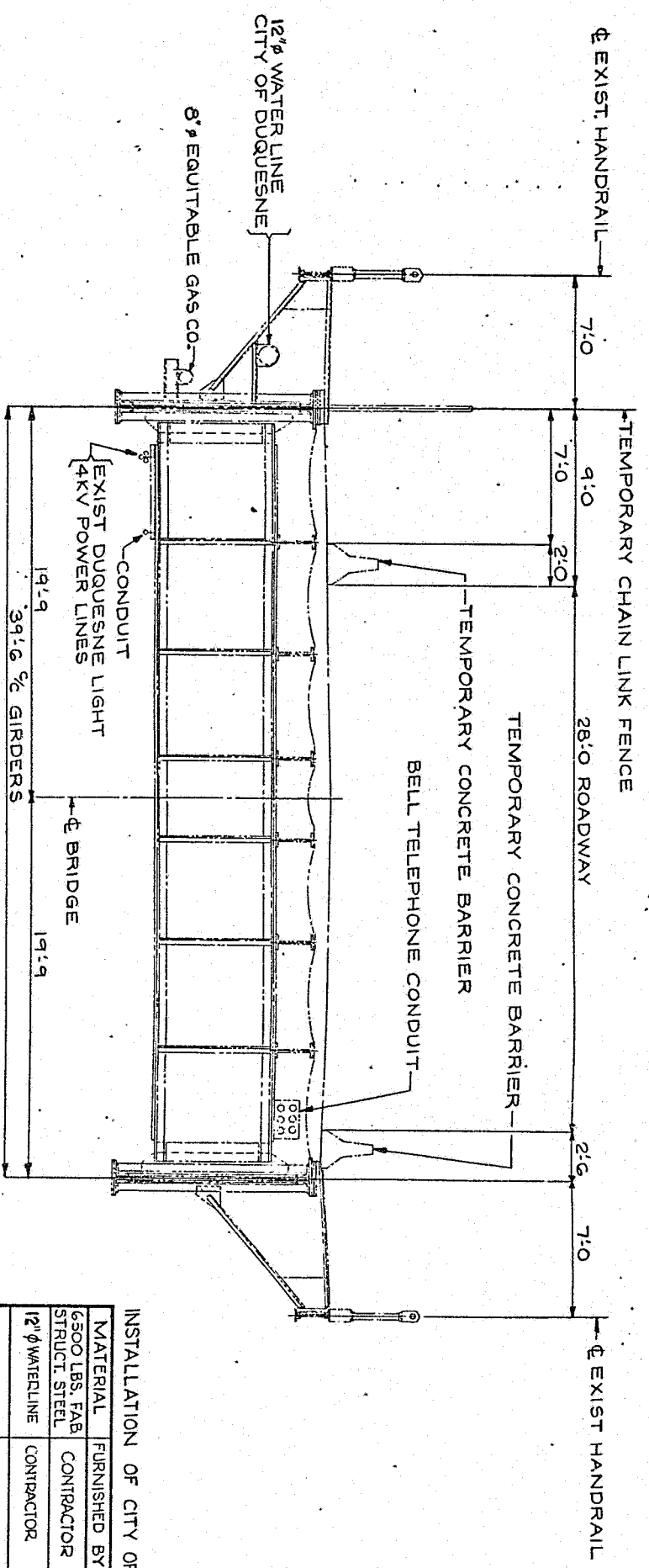
SUMMARY OF QUANTITIES

NO.	QTY.	UNIT	DESCRIPTION
00	845	C.Y.	CLASS 3 EXCAVATION
50	—	L.S.	SELECTED BORROW EXC. STRUCTURE B'FILL STA. 45+46.00 (APPROX. 952 C.Y.)
01	240	C.Y.	CL. AA CEM. CONC.
02	225	C.Y.	CL. A CEM. CONC.
00	—	L.S.	CL. AA CEM. CONC. STA. 45+46.00 (APPROX. 2330 C.Y.)
01	26,300	LBS.	REINFORCEMENT BARS
02	—	L.S.	REINFORCEMENT BARS, STA. 45+46.00 (APPROX. 266,000 LBS.)
54	—	L.S.	REINFORCEMENT BARS, EPOXY COATED STA. 45+46.00 (APPROX. 201,000 LBS.)
05	100	EA.	DOWEL HOLES, 12" DEPTH.

ITEM NO.	QTY.	UNIT	DESCRIPTION
1003-0011	215	EA.	DOWEL HOLES, 24" DEPTH.
1003-0014	315	EA.	DOWEL HOLES, 30" DEPTH.
1012-0001	926	L.F.	PEDESTRIAN RAILING
1018-0050	—	L.S.	REMOVAL OF PORTION OF EXIST. BRIDGE, STA. 45+46.00 (A)
1019-0002	6300	S.Y.	PROTECTIVE COATING FOR REINFORCED CONC. SURFACES
1021-0003	332	L.F.	ARMORED PREFORMED NEOPRENE COMPRESSION DAM, 1/2" MOVEMENT
2056-0001	—	L.S.	* FABRICATED STRUCTURAL STEEL (APPROX. 932,500 LBS.) STA. 45+46.00 (A)
910-5255	820	L.F.	2" CONDUIT IN STRUCTURE
1056-0350	800	L.F.	DOWNSPROUTING
1056-0565	16	EA.	SCUPPER, SPECIAL

ITEM NO.	QTY.	UNIT	DESCRIPTION
1075-0001	—	L.S.	PAINTING EXIST. BRIDGE, STA. 45+46.00
1090-0074	4	EA.	RESET FIXED BEARING (A)
1090-0100	—	L.S.	JACKING BRIDGE SUPERSTRUCTURE (A)
1090-0203	15	C.F.	EPOXY RESIN MORTAR (A)
1090-0300	600	L.F.	CRACK REPAIR (A)
1090-0600	1000	C.F.	CL. AA CEM. CONC. REPAIRS (A)
2000-0001	265	L.F.	ELASTOMERIC EXPANSION JOINT SEAL, 2 1/2" MOVEMENT (A)
2000-0002	1700	EA.	REPLACE RIVETS WITH HIGH STRENGTH BOLTS (A)
2000-0003	—	L.S.	REPLACE EXISTING WATERLINE (A)

\* APPROX. 597,500 LBS. A36 STEEL  
 APPROX. 335,000 LBS. A572 STEEL  
 (A) SEE SPECIAL PROVISIONS



EXISTING TYPICAL SECTION

(LOOKING WEST)  
 SCALE: 1/4"=1'-0"

INSTALLATION OF CITY OF DUQUESNE FACILITIES

MATERIAL	FURNISHED BY	INSTALLED BY	REMARKS
6500 LBS. FAB STRUCT STEEL	CONTRACTOR	CONTRACTOR	
12" φ WATERLINE	CONTRACTOR	CONTRACTOR	

Mark	Description	By	CHK'd	App'd	Date
	REVISIONS				

Commonwealth of Pennsylvania  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DESIGN

ALLEGHENY COUNTY  
 L.R. 736 EXT. SEC. 39

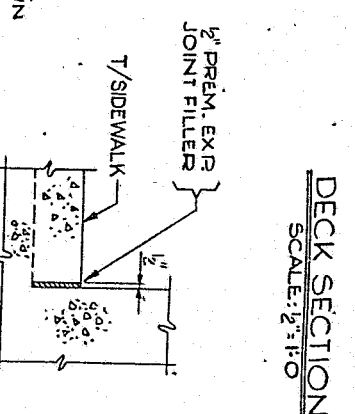
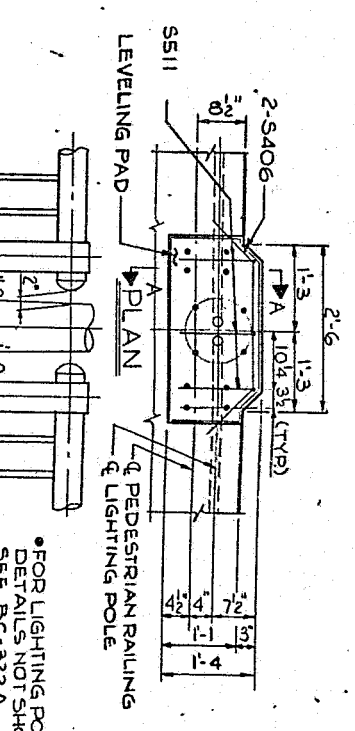
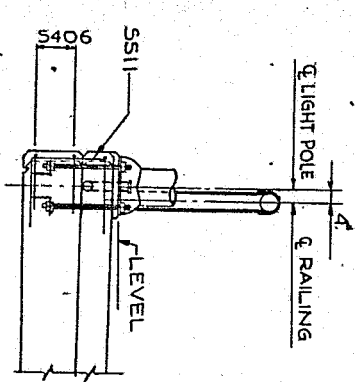
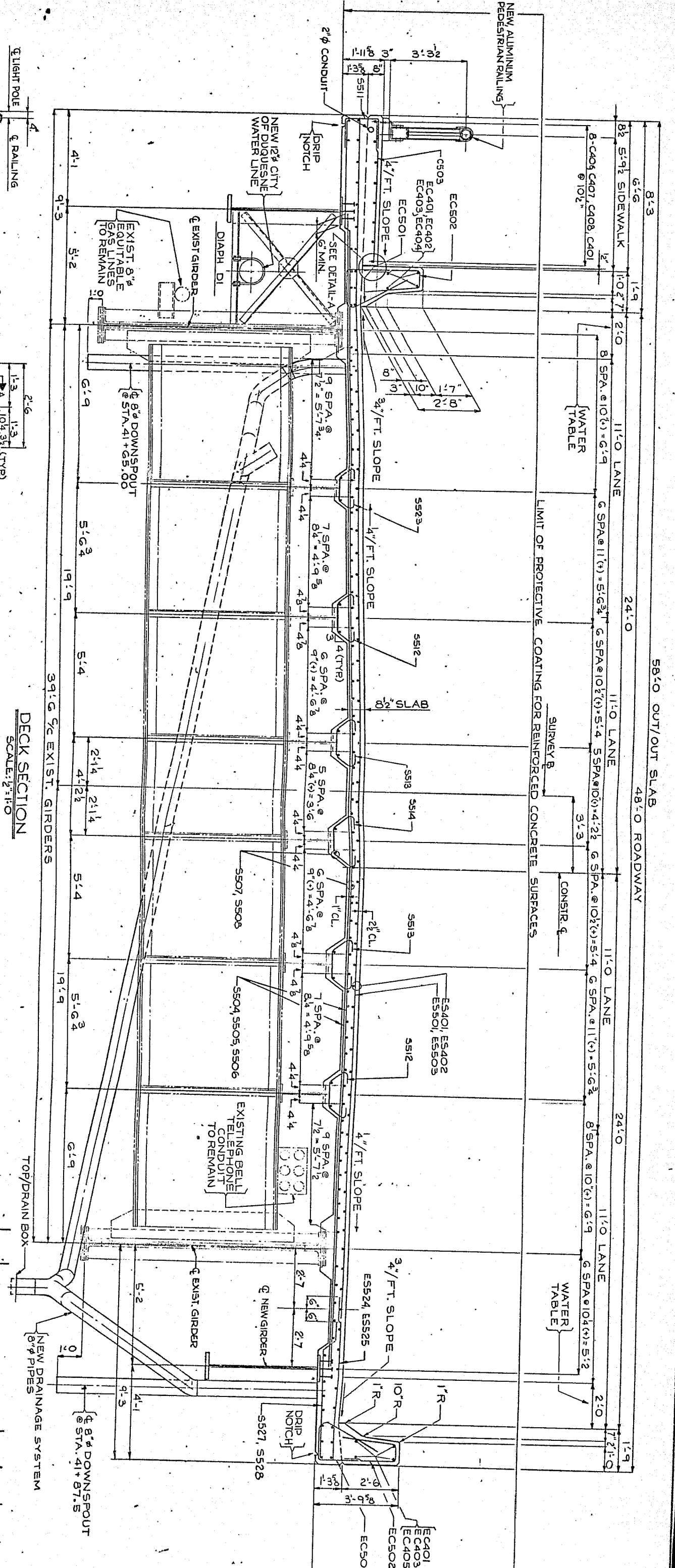
OVER L.R. 736 EXT. STA. 45+46.00  
 UNION R.R. & THOMPSON RUN  
 REHABILITATION OF  
 8-SPAN STEEL DECK GIRDER BRIDGE  
 SUMMARY OF QUANTITIES

APPROVED \_\_\_\_\_

BRIDGE ENGINEER

SHEET 2A OF 29

S-14185



- NOTES**
- FOR GENERAL NOTES, SEE SHEET 2
  - FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1
  - FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 27 & 28
  - FOR TABLE OF DECK ELEVATIONS, SEE SHEET 29
  - FOR ESTIMATE OF QUANTITIES, SEE SHEET 2A
  - FOR DECK PLAN, SEE SHEET 2A
  - FOR PARAPET BARRIER, SIDEWALK PLAN, SEE SHEET 25
  - FOR ARMORED PREFORMED NEOPRENE COMPRESSION SEAL, SEE SHEET 23
  - FOR FRAMING PLAN, SEE SHEET 15 & 16
  - ALL BAR MARKS PREFIXED WITH THE LETTER 'E' ARE EPOXY COATED BARS

Mark	Description	BY	CHK'D.	APP'D.	Date
	REVISIONS				

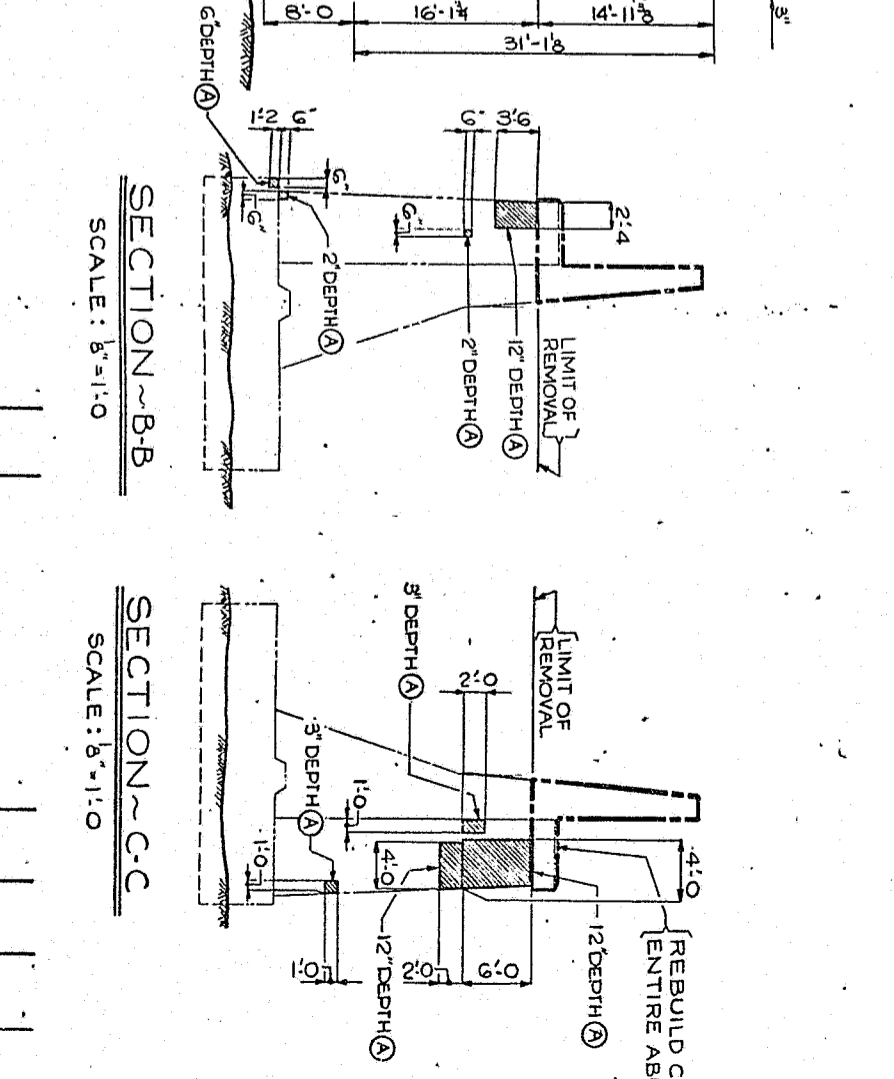
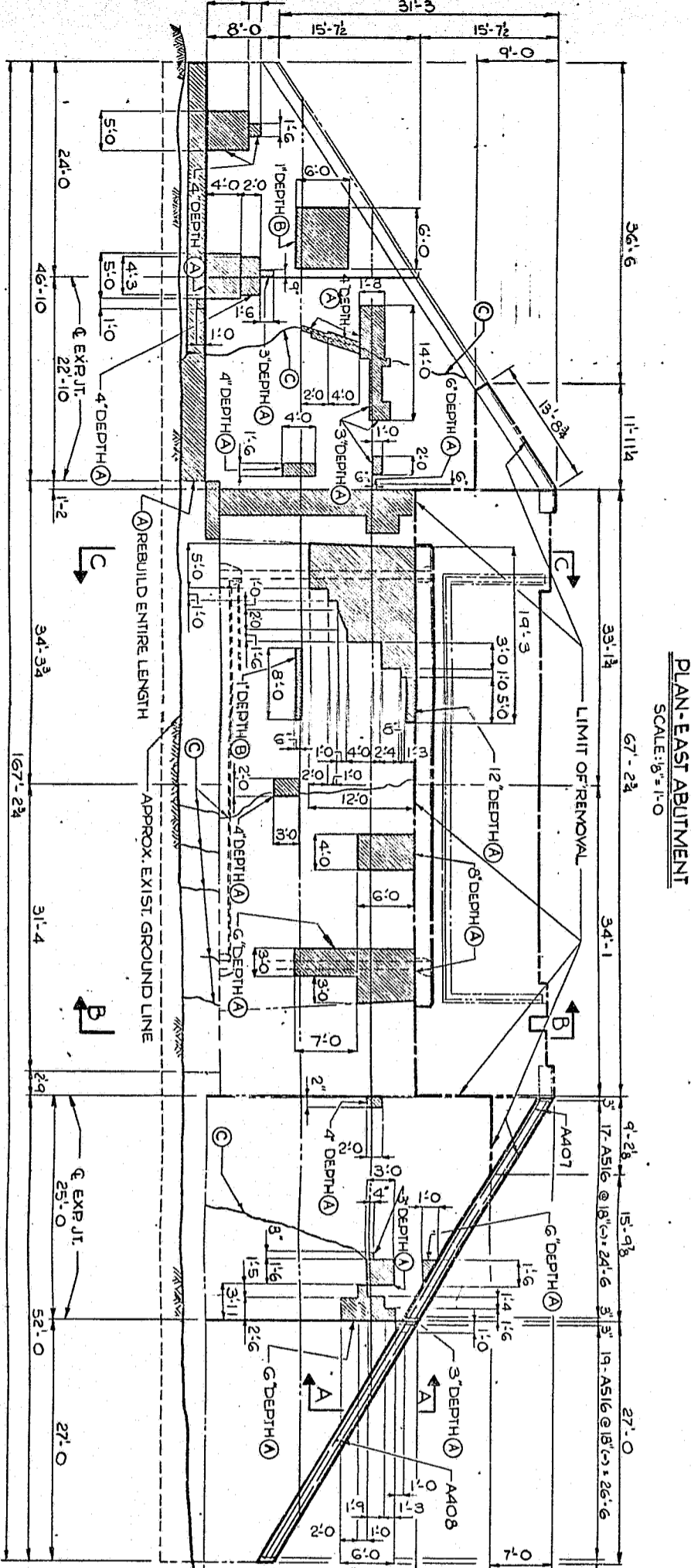
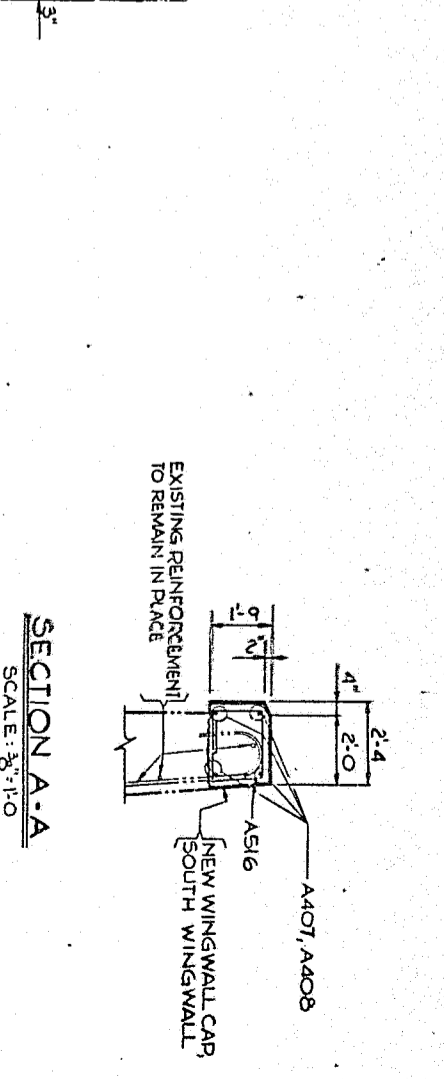
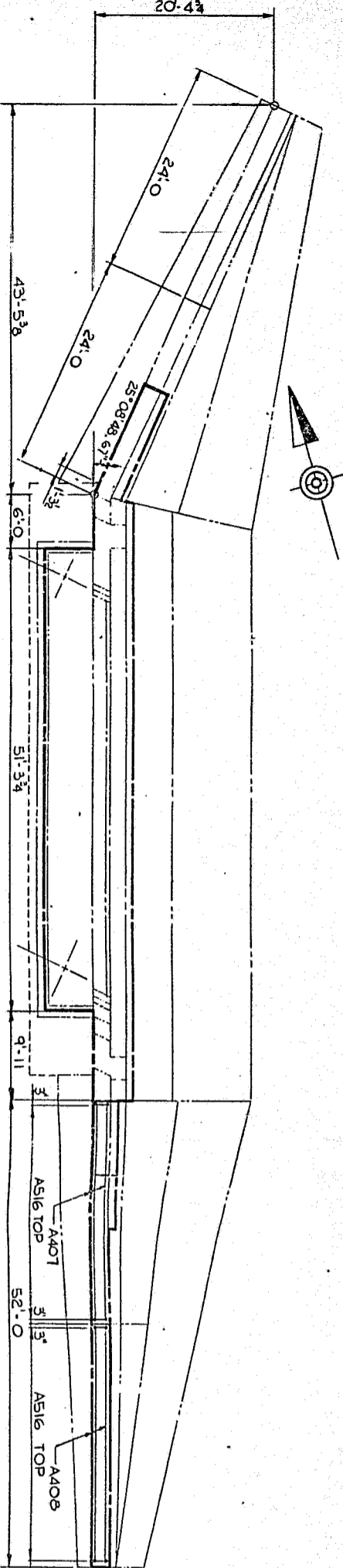
Commonwealth of Pennsylvania  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DESIGN

ALLEGHENY COUNTY  
 L.R. 736 EXT. SEC. 39  
 OVER UNION R.R. & THOMPSON RUN  
 REHABILITATION OF  
 8-SPAN STEEL DECK GIRDER BRIDGE  
 DECK SECTION

APPROVED \_\_\_\_\_  
 BRIDGE ENGINEER

SHEET 3 OF 29

DESIGNED BY \_\_\_\_\_  
 DRAWN BY \_\_\_\_\_



- NOTES**
- FOR NEW BACKWALL AND ADDITIONAL WINGWALL REPAIRS, SEE SHEET 5
  - FOR WEST ABUTMENT, SEE SHEETS 6 AND 7
  - FOR PIER REPAIRS, SEE SHEETS 9-13
  - FOR ESTIMATE OF QUANTITIES, SEE SHEET 2A
  - AFTER THE REPAIRS HAVE BEEN COMPLETED, CLEAN AND COAT ALL EXTERIOR EXPOSED CONCRETE SURFACES WITH EPOXY PROTECTIVE COATING.
  - CLEAN OUT AND EXPOSE EXISTING WEEP HOLES.

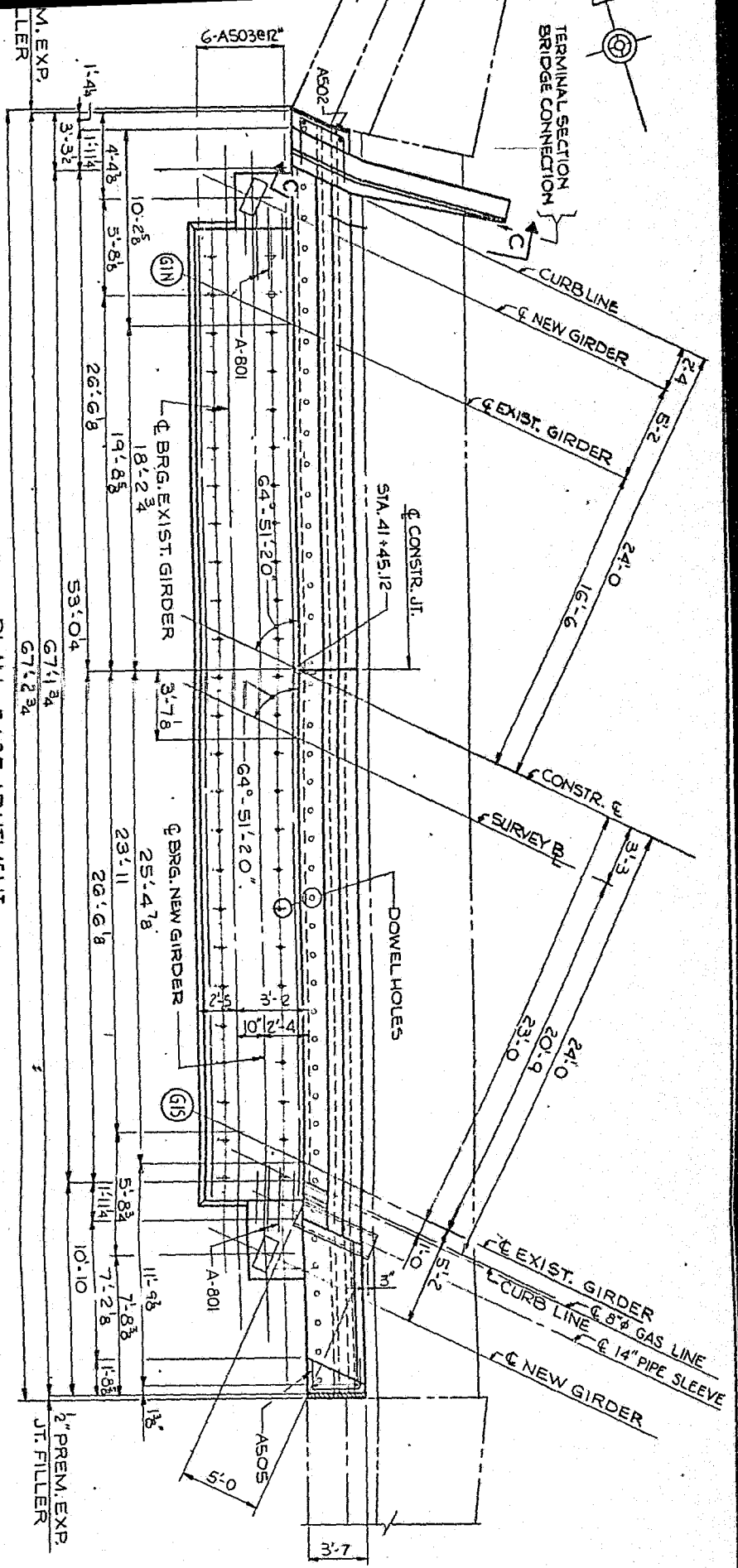
- LEGEND**
- DENOTES OUTLINE OF EXISTING ABUTMENT
  - DENOTES LIMIT OF REMOVAL
  - DENOTES AREAS TO BE REPAIRED
  - DENOTES CONCRETE REPAIR PROCEDURE, NOTE (A)
  - OR (B) AS DESIGNATED, FOR CONCRETE REPAIR PROCEDURES, SEE SHEET 12
  - DENOTES NEW MATERIAL
  - DENOTES CRACKS

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
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Mark	Description	By	Chk'd	App'd	Date

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
EAST ABUTMENT REPAIRS

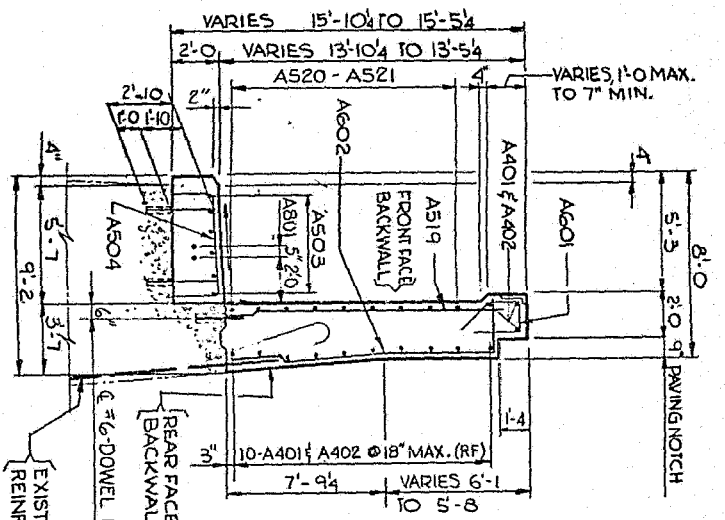
APPROVED \_\_\_\_\_ SHEET 4 OF 29  
BRIDGE ENGINEER \_\_\_\_\_ S-



PLAN EAST ABUTMENT

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

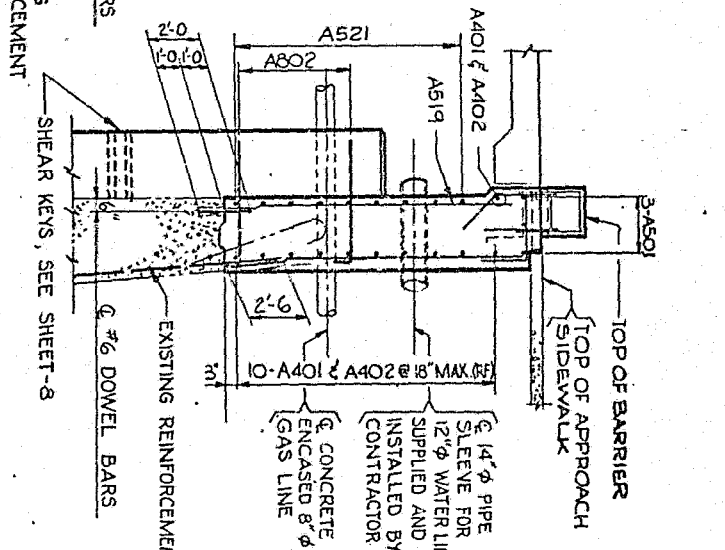
KEYED CONSTR. JT. STOP KEY  
1'-0" BELOW TOP/BACKWALL



SECTION A-A

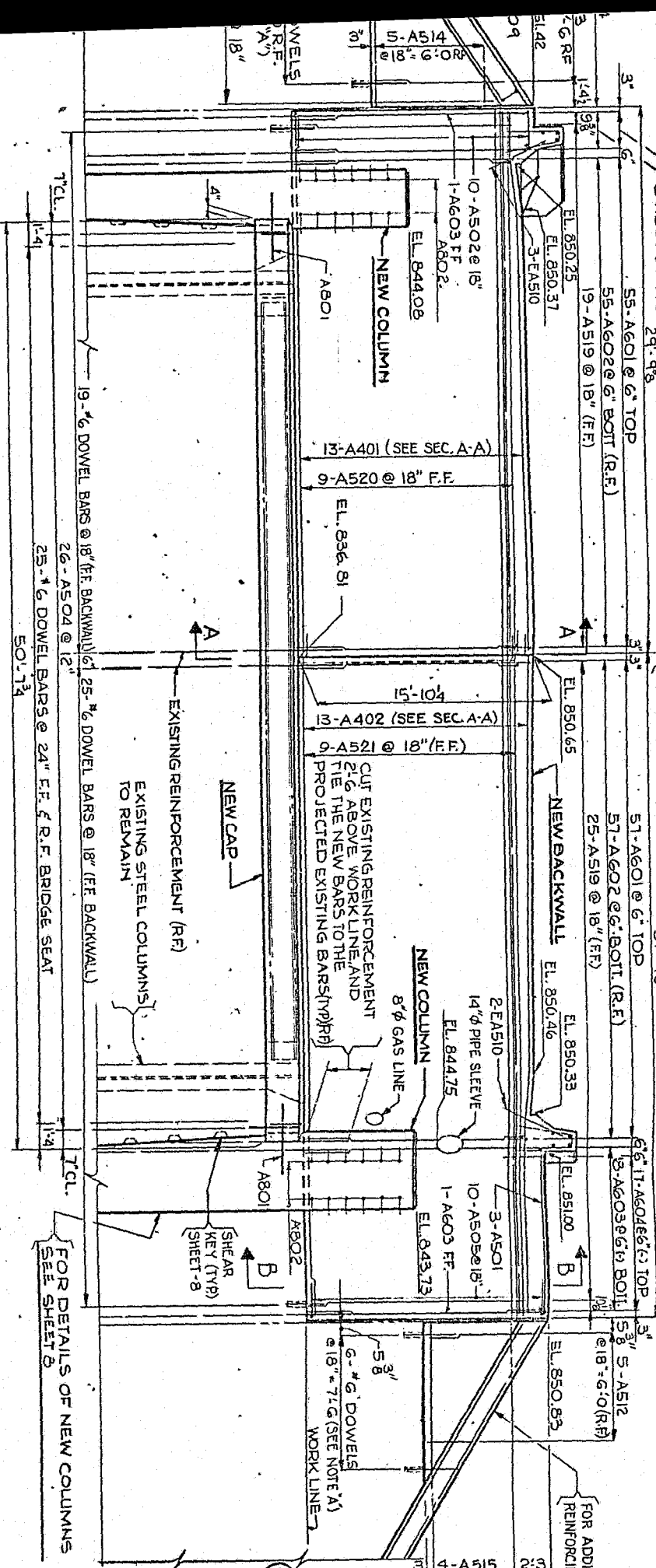
SCALE: 1/4" = 1'-0"

NOTE "A"  
FOR DOWEL BARS - DRILL 2" HOLES  
1'-0" DEPTH, FILL HOLES WITH NON-SHRINK  
GROUT, AND INSERT #6 DOWEL BARS.



SECTION B-B

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



ELEVATION - EAST ABUTMENT

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

LEGEND  
RF DENOTES REAR FACE  
GF DENOTES GIRDER MARK  
FF DENOTES FRONT FACE

- NOTES
- FOR NEW CONCRETE COLUMNS, SEE SHEET-8
  - ALL BARS PREFIXED "E" ARE EPOXY COATED
  - FOR GENERAL PLAN-ELEVATION, SEE SHEET-1
  - FOR GENERAL NOTES, SEE SHEET-2
  - FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS-21 & 28
  - FOR ESTIMATE OF QUANTITIES, SEE SHEET-2A
  - FOR EXPANSION DAM DETAILS, SEE SHEET-23
  - FOR SECTION C-C, SEE SHEET-8
  - FOR ADDITIONAL ABUTMENT REPAIRS, SEE SHEET-8
  - CUT OR BEND REINFORCING BARS TO CLEAR UTILITIES.

Mark	Description	By	CHK'd	App'd	Date
REVISIONS					

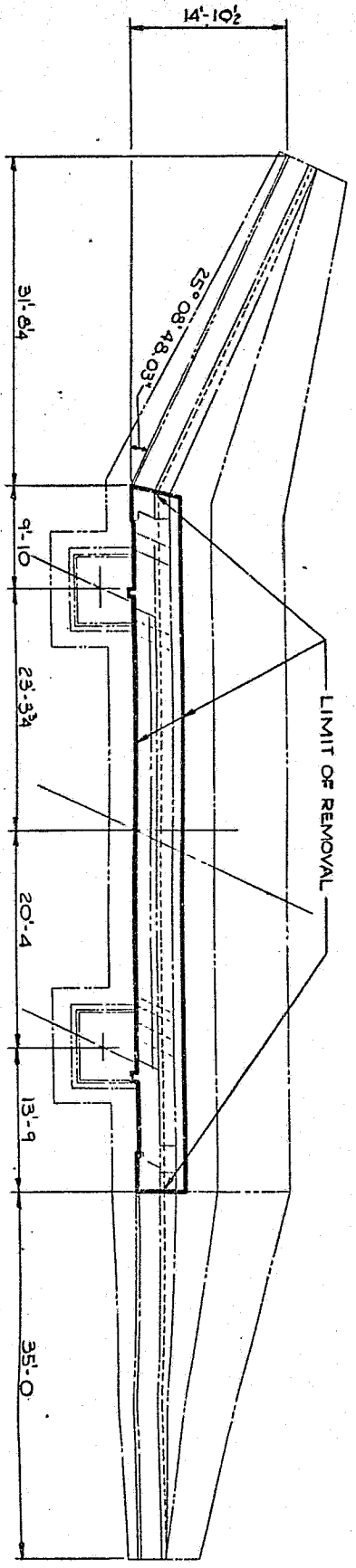
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ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39

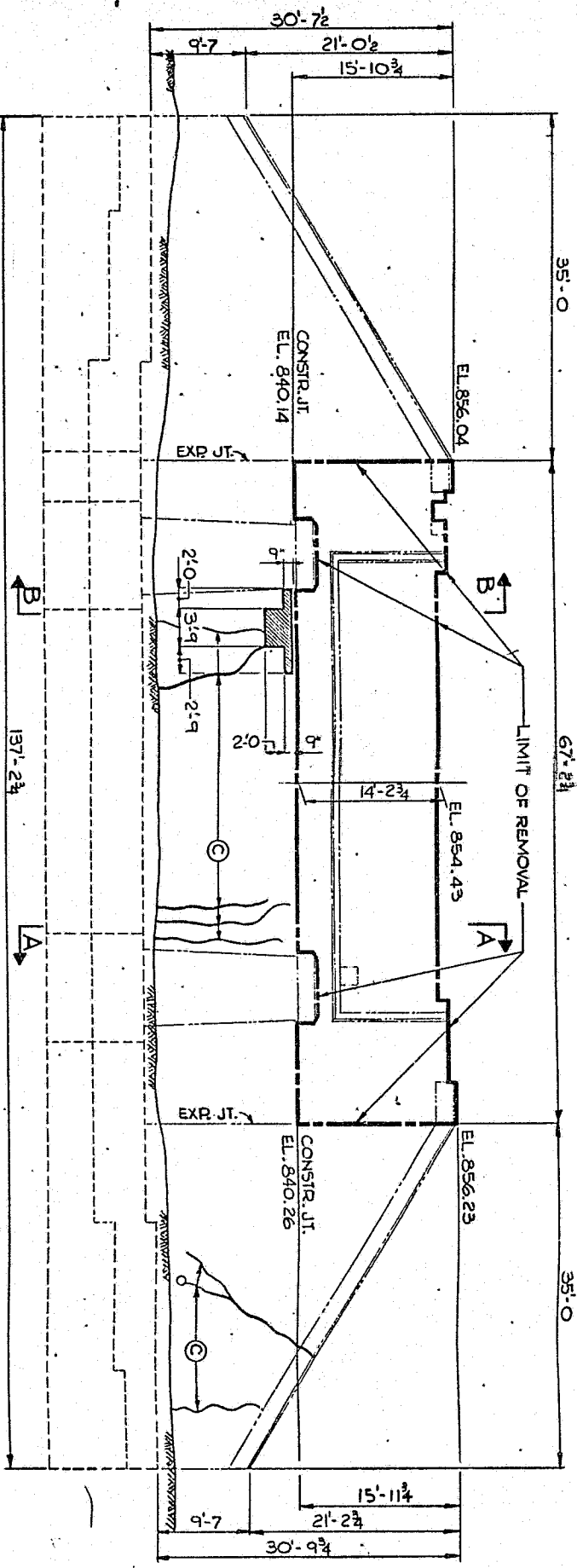
L.R. 736 EXT. STA. 4574600  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
EAST ABUTMENT DETAILS

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

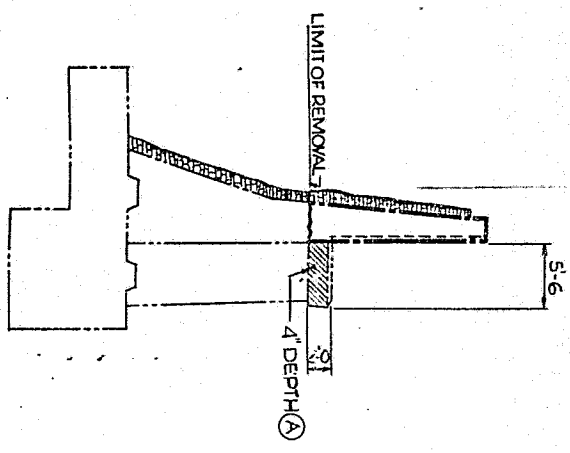
SHEET 5 OF 29  
S-14185



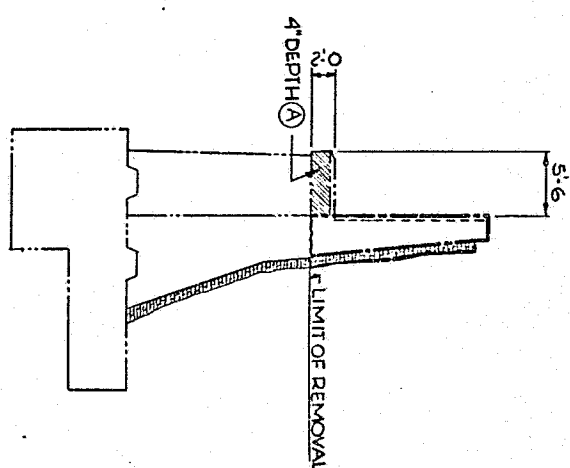
**PLAN - WEST ABUTMENT**  
SCALE: 1/8" = 1'-0"



**ELEVATION - WEST ABUTMENT**  
SCALE: 1/8" = 1'-0"



**SECTION A-A**  
SCALE: 1/8" = 1'-0"



**SECTION B-B**  
SCALE: 1/8" = 1'-0"

- LEGEND**
- DENOTES OUTLINE OF EXISTING ABUTMENT
  - - - DENOTES LIMIT OF REMOVAL
  - ▨ DENOTES AREAS TO BE REPAIRED
  - Ⓐ DENOTES CONCRETE REPAIR PROCEDURE, NOTE 1
  - Ⓑ OR Ⓒ AS DESIGNATED, FOR CONCRETE REPAIR PROCEDURES, SEE SHEET 12
  - Ⓢ DENOTES CRACKS

- NOTES:**
- FOR NEW BACKWALL REPAIRS, SEE SHEET 7
  - FOR EAST ABUTMENT, SEE SHEETS 4 AND 5
  - FOR PIER REPAIRS, SEE SHEETS 9 - 13
  - FOR ESTIMATE OF QUANTITIES, SEE SHEET 2A
  - AFTER THE REPAIRS HAVE BEEN COMPLETED, CLEAN AND COAT ALL EXTERIOR EXPOSED CONCRETE SURFACES WITH EPOXY PROTECTIVE COATING.
  - CLEAN-OUT AND EXPOSE EXISTING WEEP HOLES.

REVISIONS		
Mark	Description	By

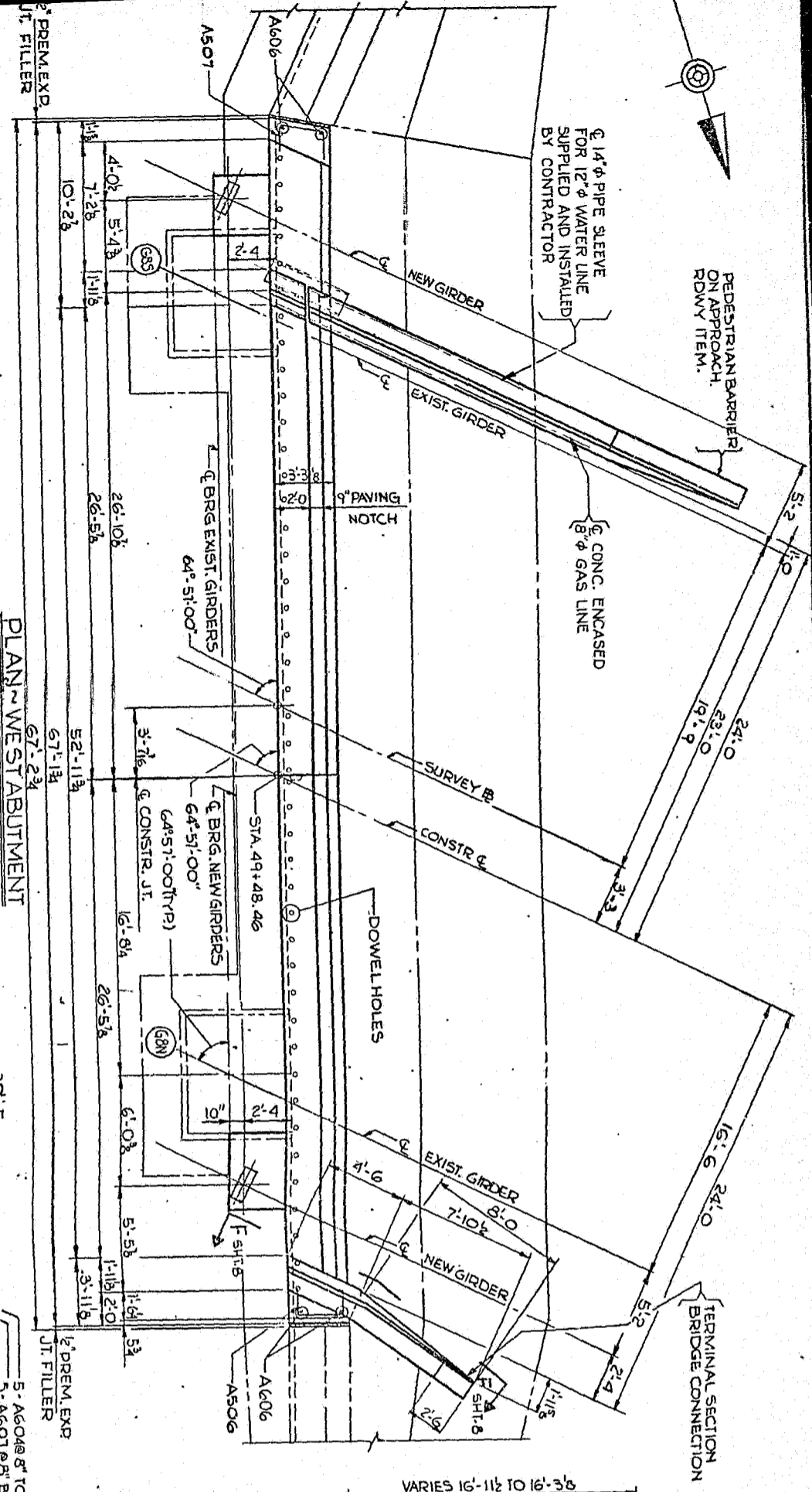
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ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 45+46:00  
OVER UNION R.R. & THOMPSON  
REHABILITATION OF  
8 - SPAN STEEL DECK GIRDER  
WEST ABUTMENT REPAIRS

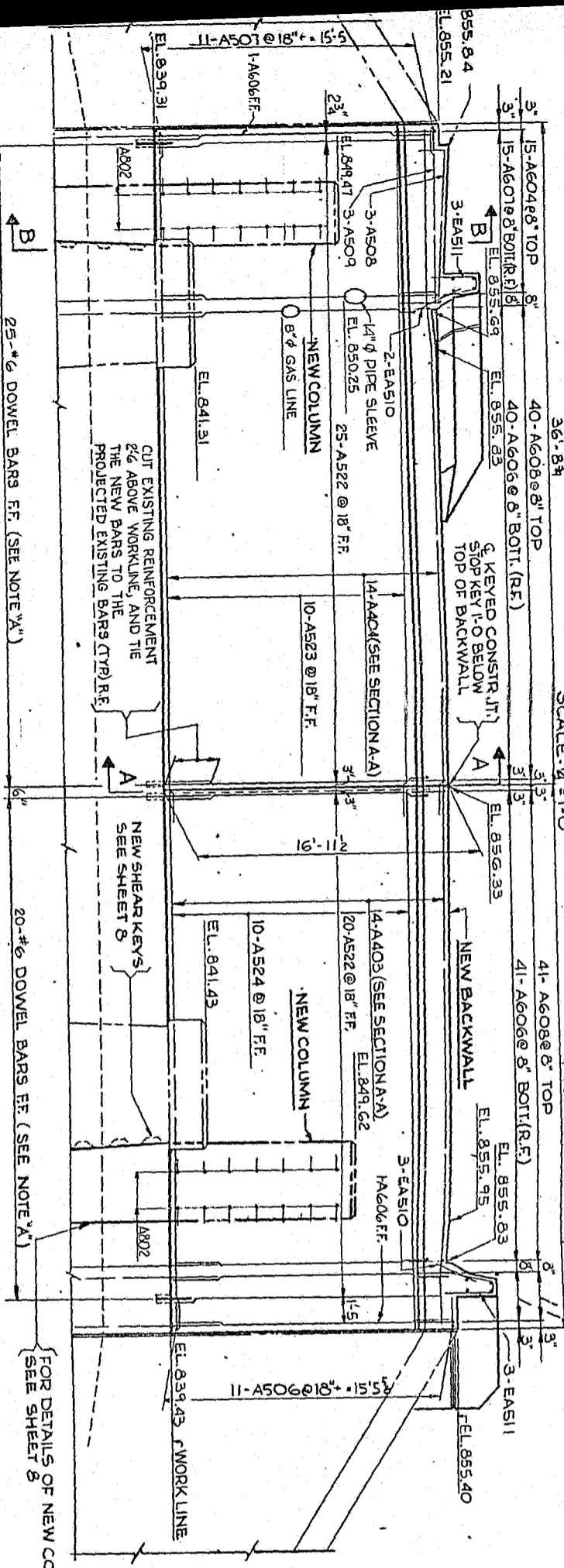
APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

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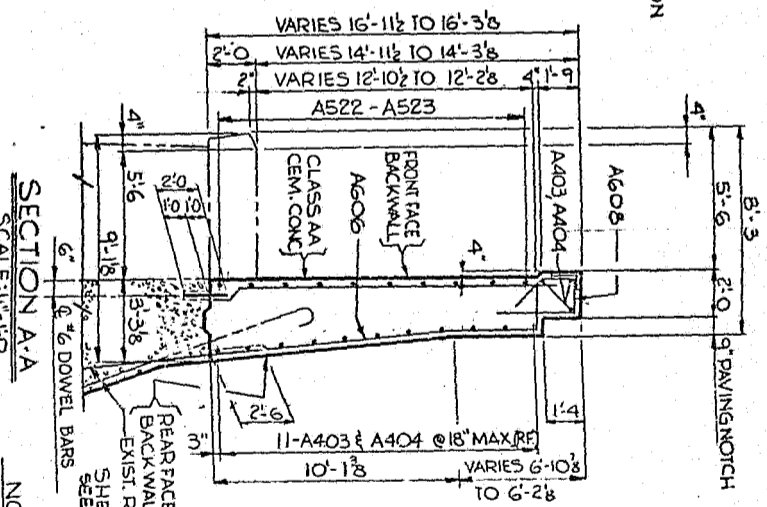
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_



**PLAN - WEST ABUTMENT**  
SCALE: 1/4" = 1'-0"

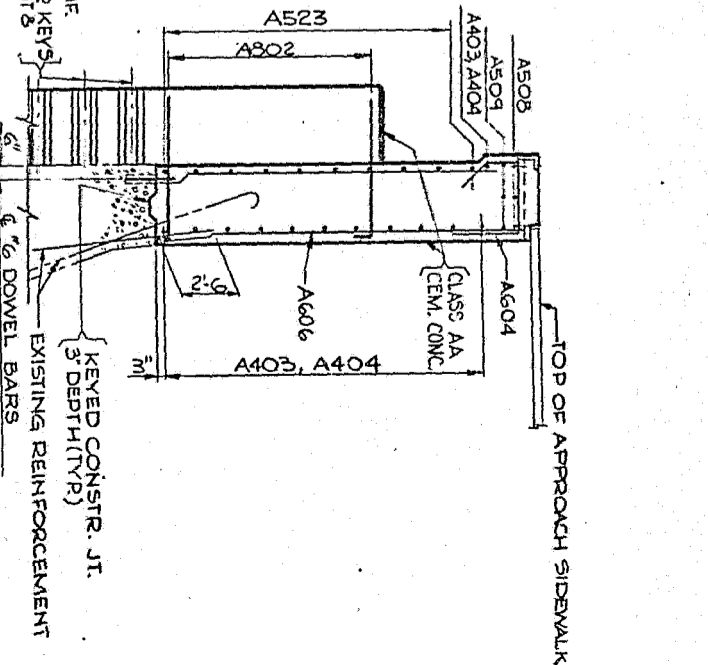


**ELEVATION - WEST ABUTMENT**  
SCALE: 1/4" = 1'-0"



**SECTION A-A**  
SCALE: 1/4" = 1'-0"

**NOTE "A"**  
FOR DOWEL BARS - DRILL 2" HOLES 1'-0" DEPTH, FILL HOLES WITH NON-SHRINK GROUT, AND INSERT #6 DOWEL BARS.



**SECTION B-B**  
SCALE: 1/4" = 1'-0"

**LEGEND**  
RF DENOTES FRONT FACE  
RF DENOTES GIRDER MARK  
FF DENOTES FRONT FACE

- NOTES**
- FOR NEW CONCRETE COLUMNS, SEE SHEET-8.
  - FOR GENERAL PLAN AND ELEVATION, SEE SHEET-8.
  - FOR GENERAL NOTES, SEE SHEET-2.
  - FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS-21 & 22.
  - FOR ESTIMATE OF QUANTITIES, SEE SHEET-2A.
  - FOR EXPANSION DAM DETAILS, SEE SHEET-23.
  - FOR SECTION F-F, SEE SHEET-8.
  - FOR ADDITIONAL ABUTMENT REPAIRS, SEE SHEET-8.
  - ALL BAR MARKS PREFIXED "E" ARE EPOXY COATED BARS.
  - ALL OR BEND REINFORCING BARS TO CLEAR UTILITIES THRU BACKWALL.

Mark	Description	By	Chk'd	App'd	Date
REVISIONS					

**Commonwealth of Pennsylvania**  
**DEPARTMENT OF TRANSPORTATION**  
BUREAU OF DESIGN

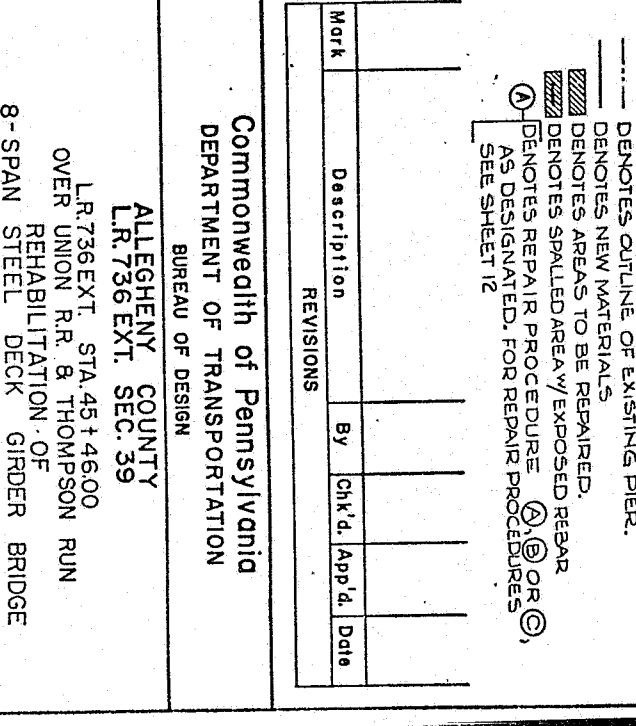
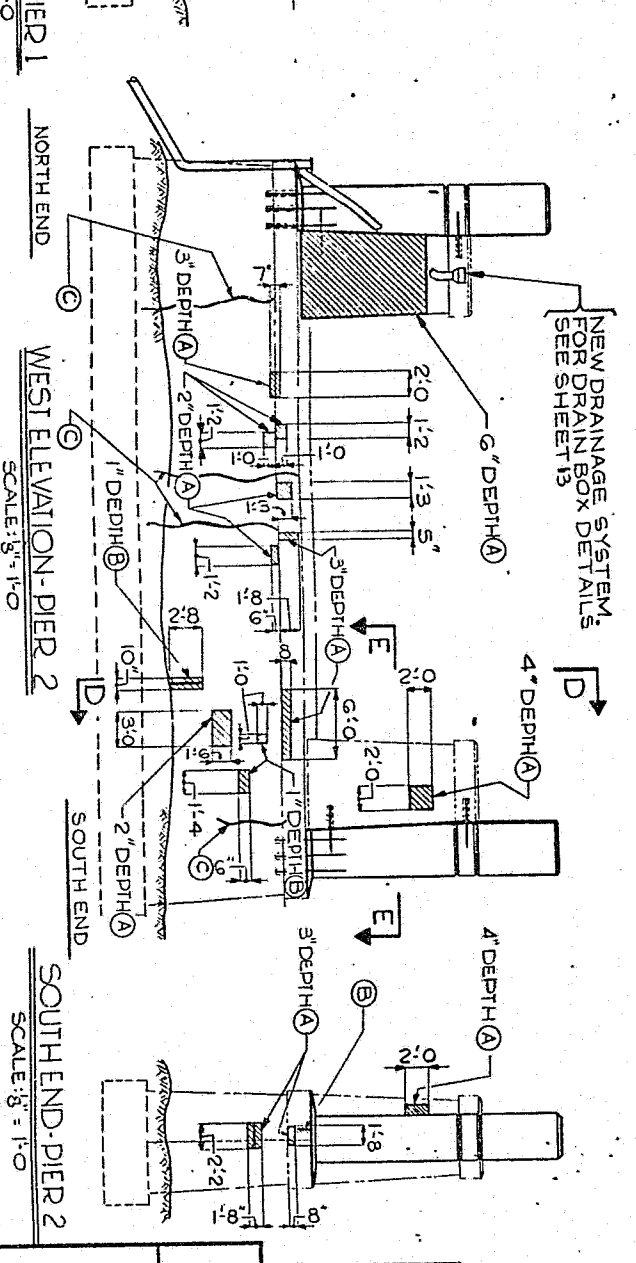
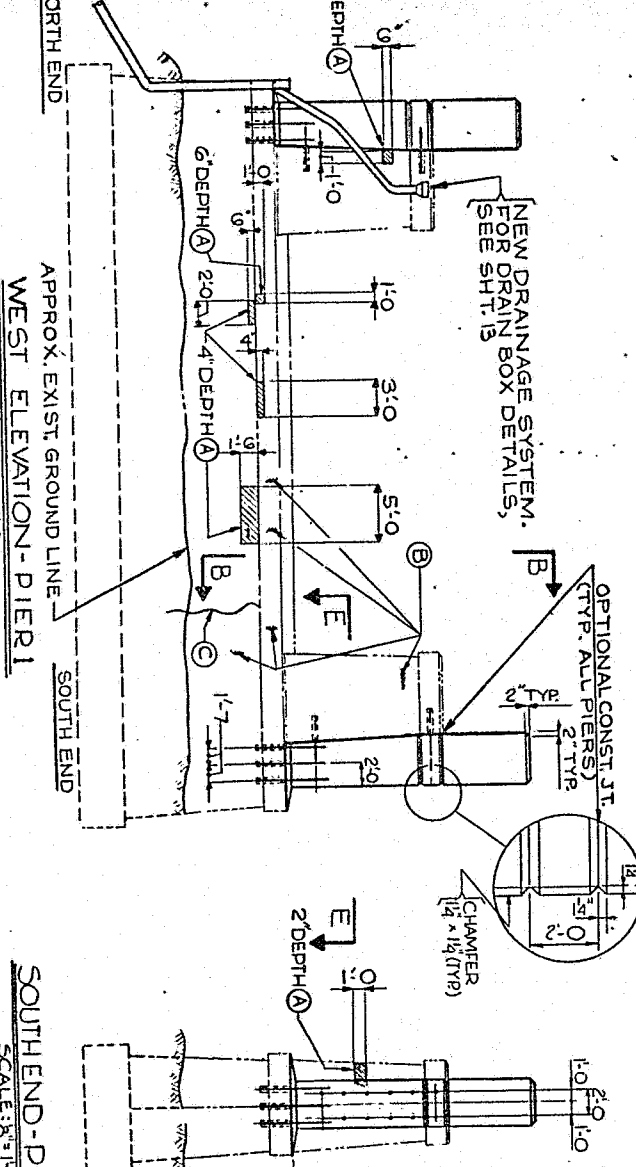
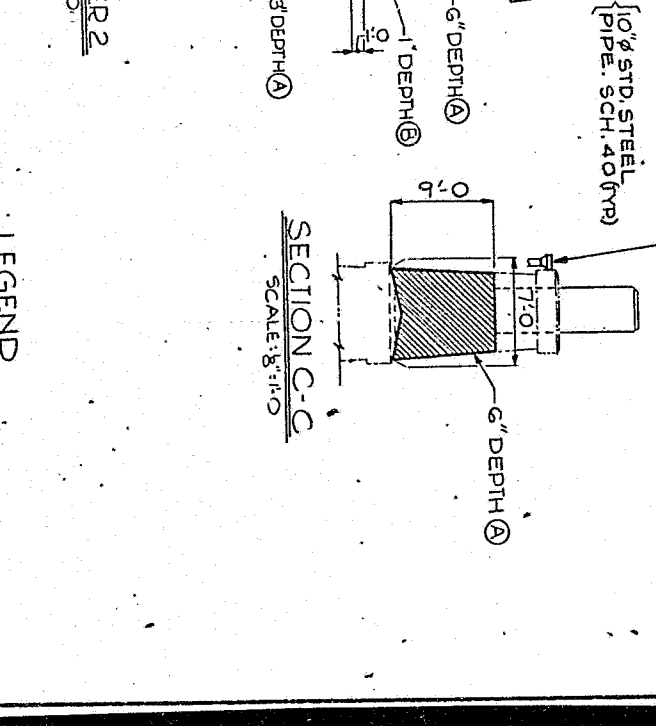
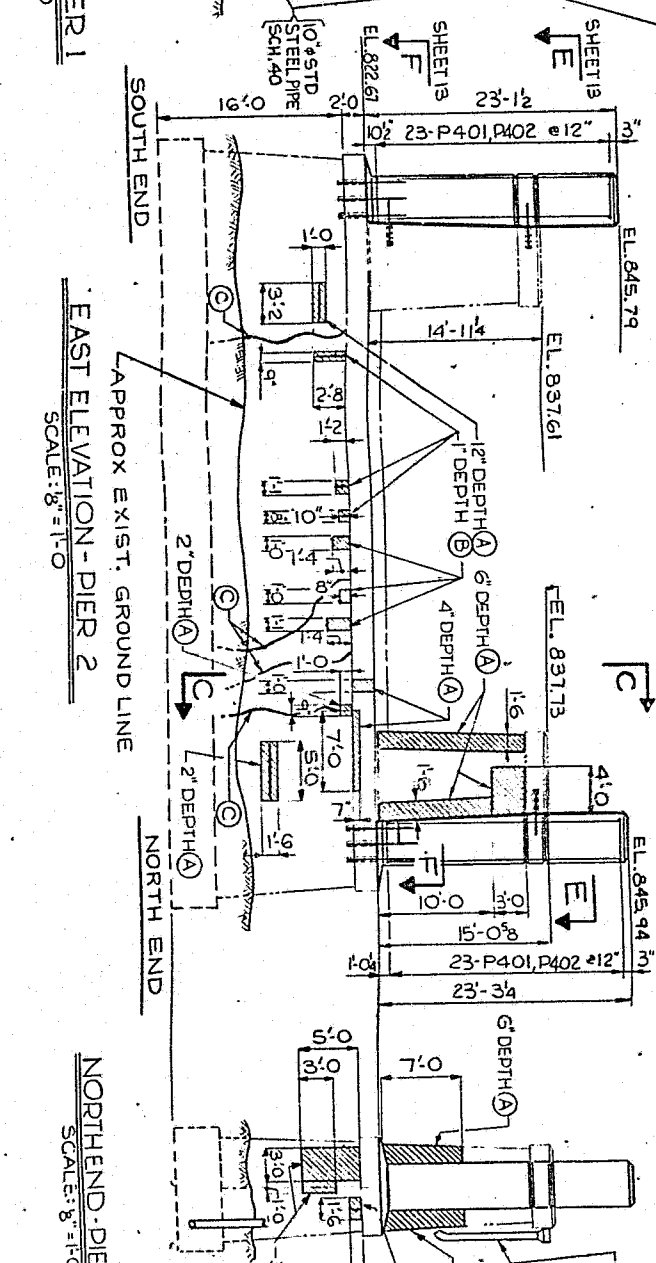
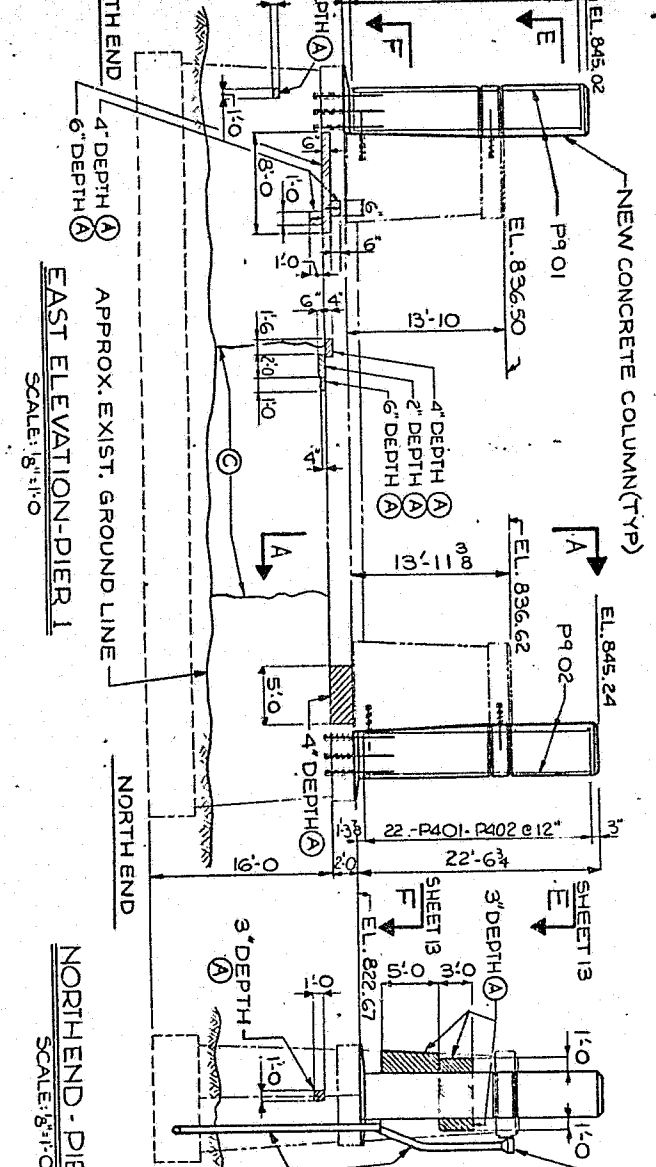
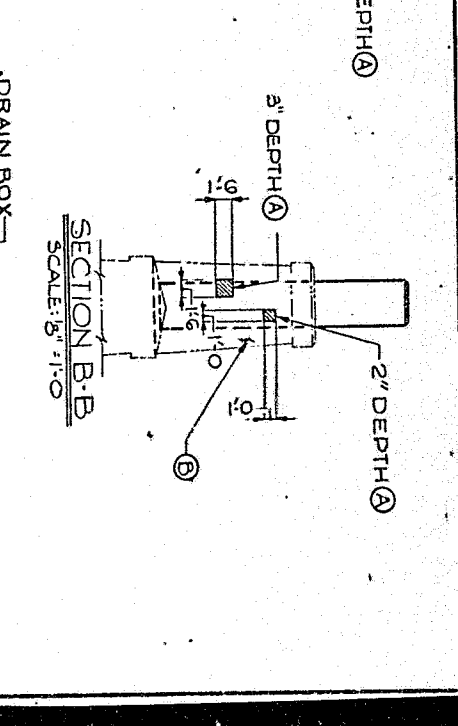
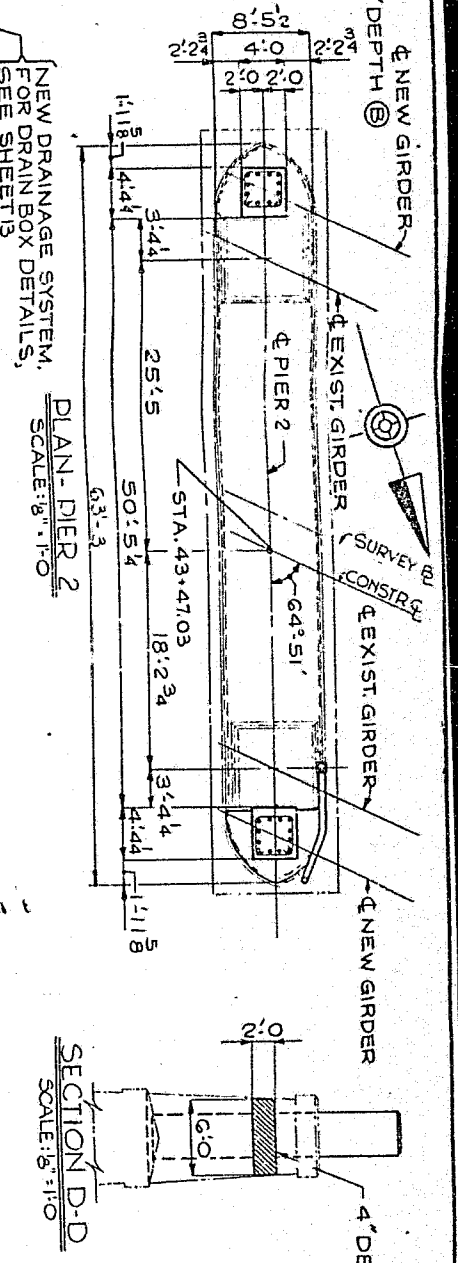
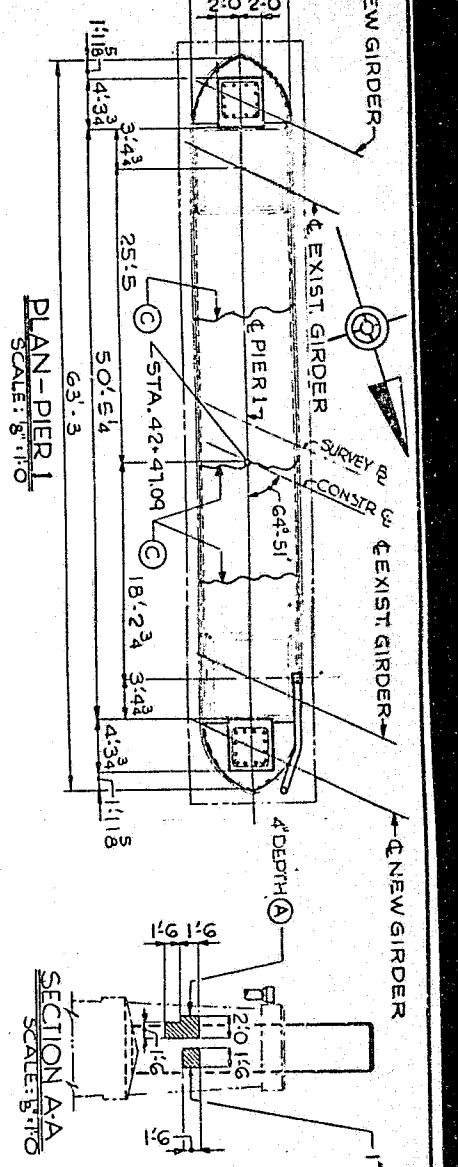
**ALLEGHENY COUNTY**  
L.R. 736 EXT. SEC. 39

L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
WEST ABUTMENT DETAILS

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

SHEET 7 OF 29  
S-14185





**LEGEND**

- DENOTES OUTLINE OF EXISTING PIER.
- DENOTES NEW MATERIALS.
- /// DENOTES AREAS TO BE REPAIRED.
- /// DENOTES SPALLED AREA w/ EXPOSED REBAR.
- ⓐ DENOTES REPAIR PROCEDURE AS DESIGNATED. FOR REPAIR PROCEDURES SEE SHEET 12.
- ⓑ OR ⓒ AS DESIGNATED. FOR REPAIR PROCEDURES SEE SHEET 12.

Mark	Description	By	Chk'd	App'd	Date

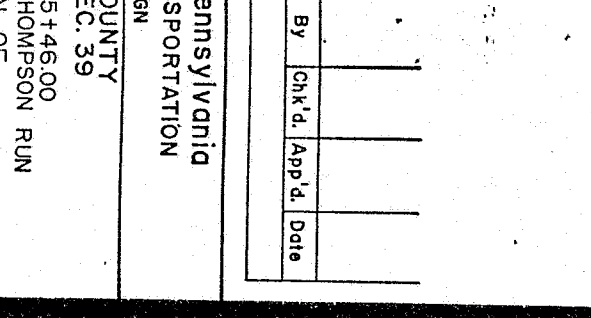
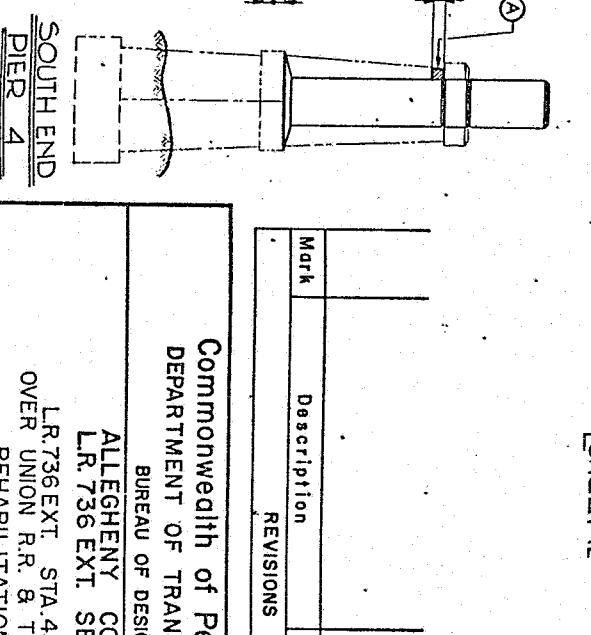
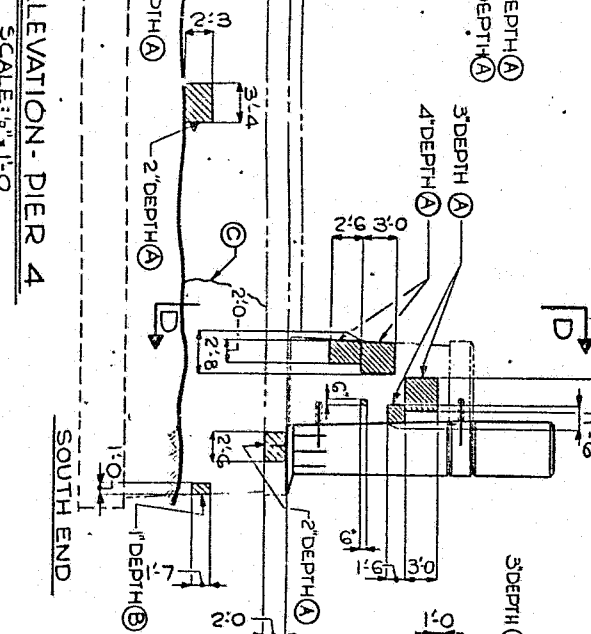
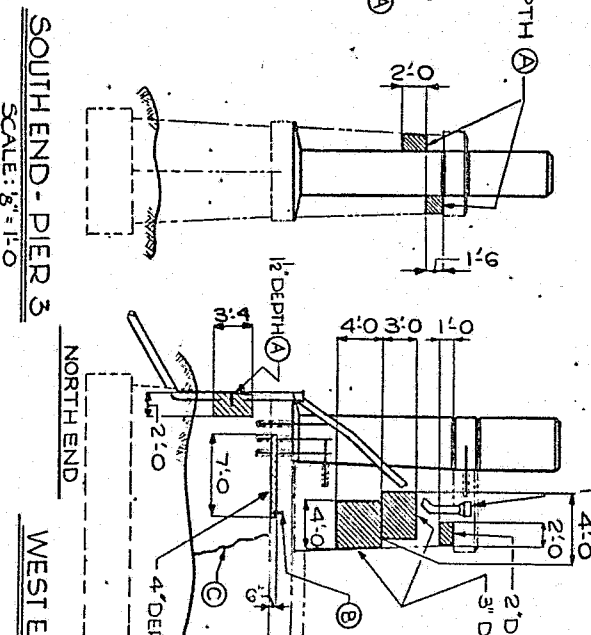
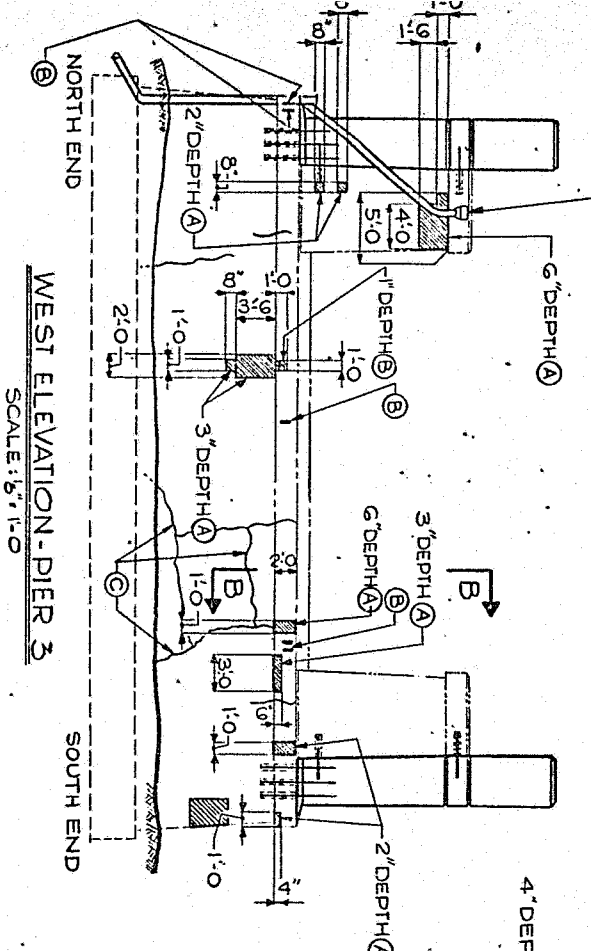
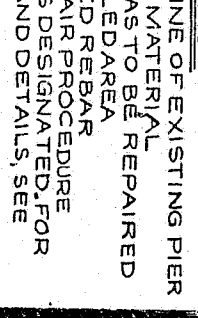
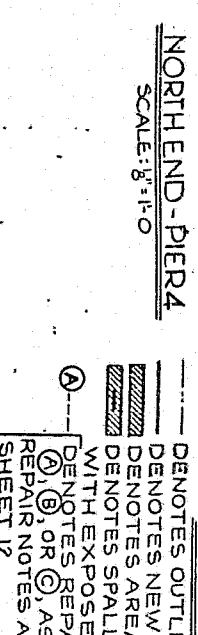
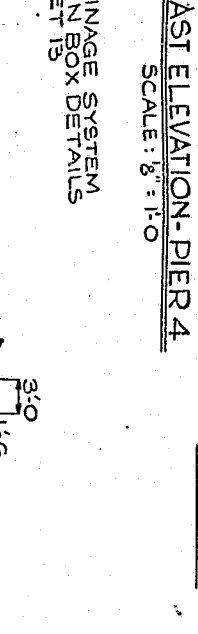
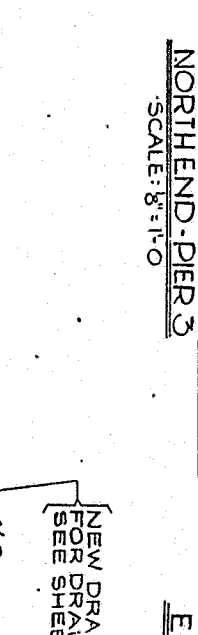
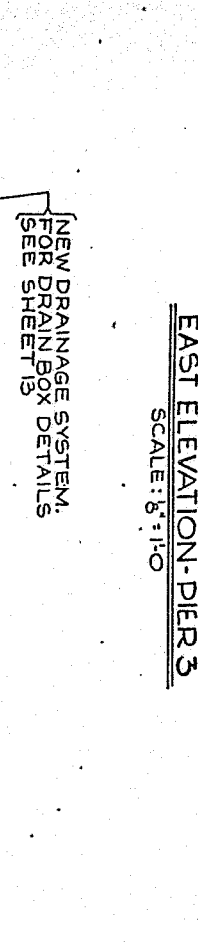
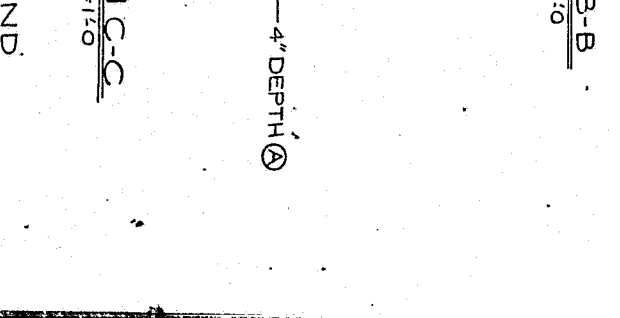
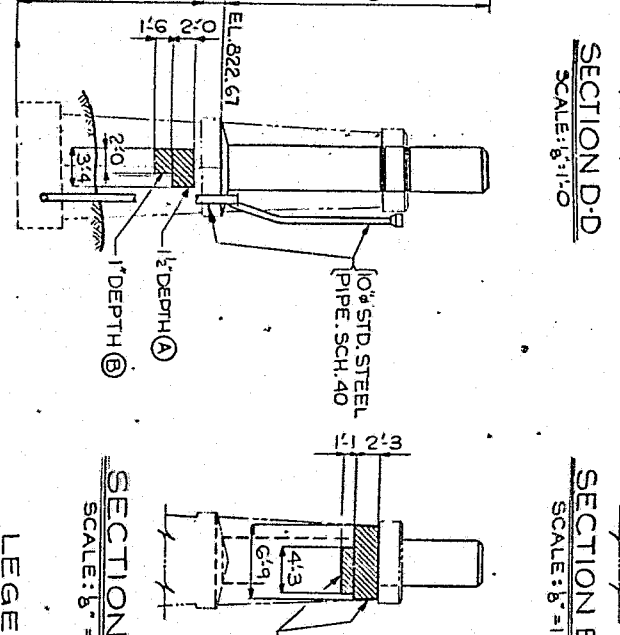
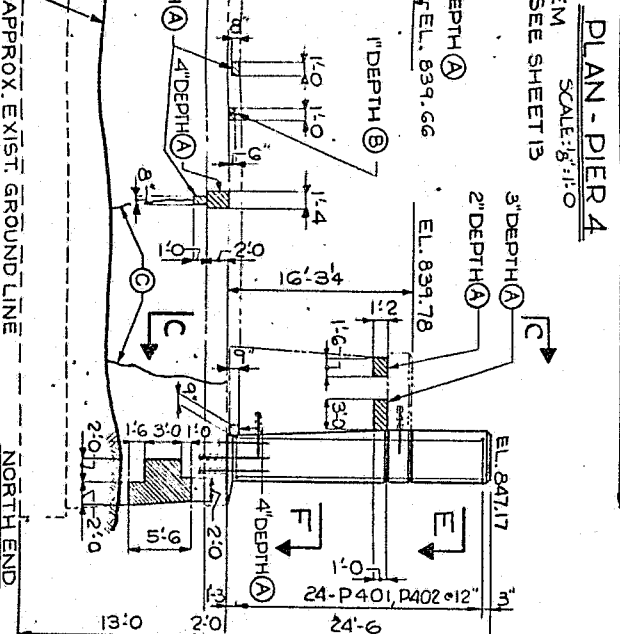
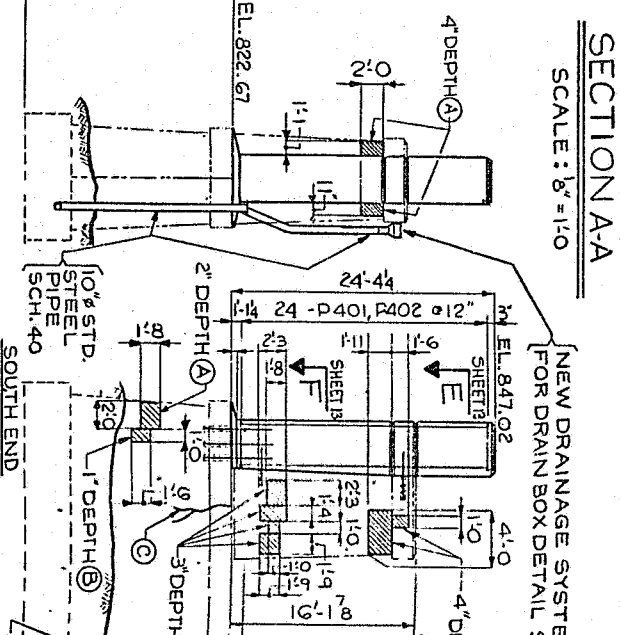
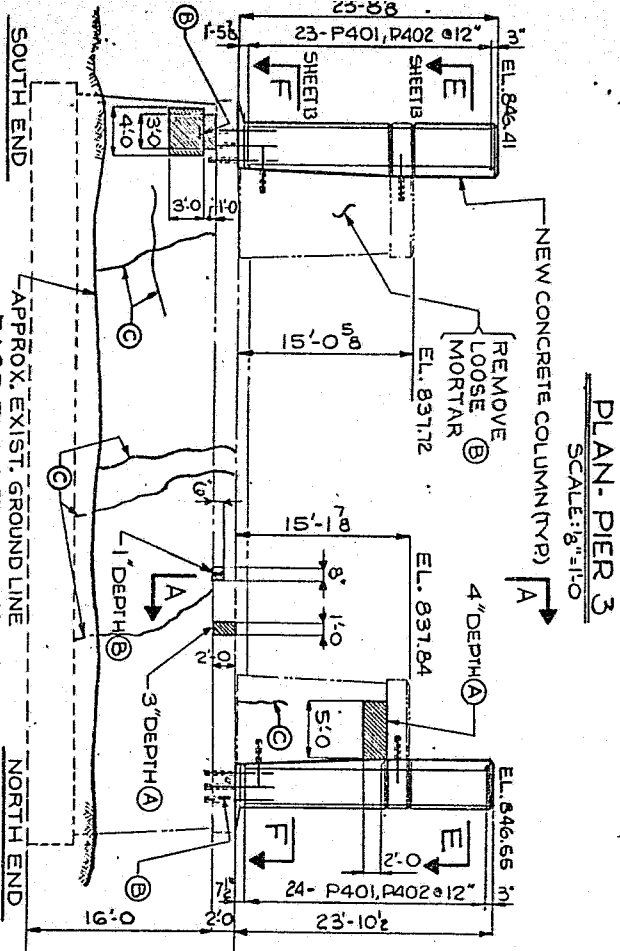
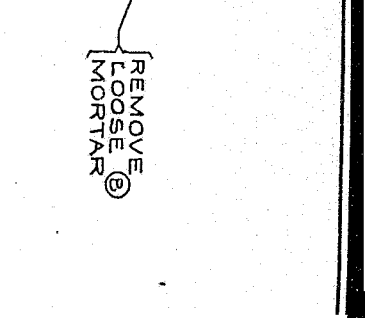
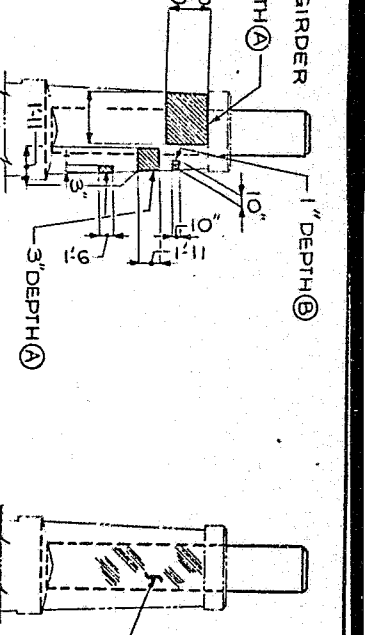
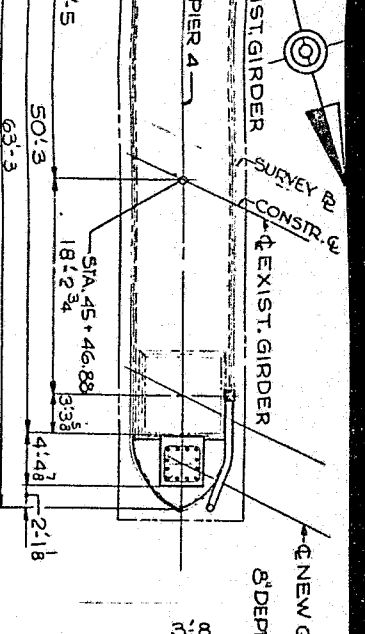
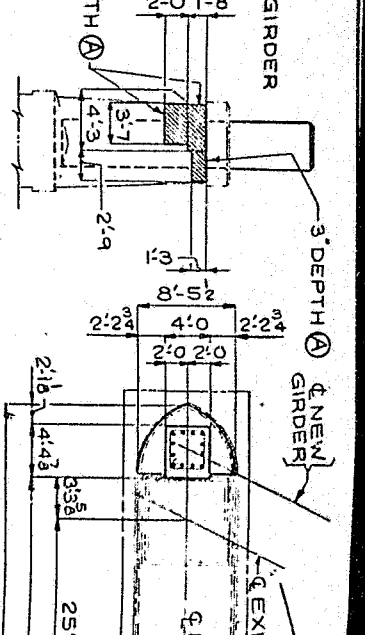
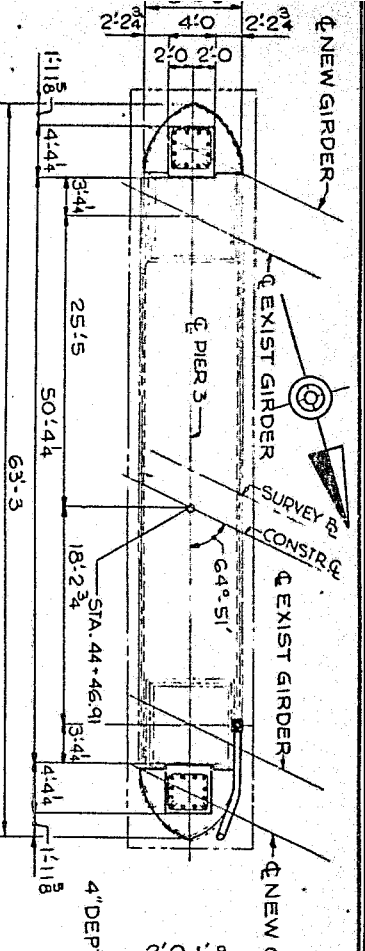
Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
PIERS 1 AND 2, REPAIRS

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

SHEET 9 OF 29  
S-14185

- NOTES:**
- FOR PIER DETAILS, SEE SHEET 13
  - FOR PIERS 3 & 4, SEE SHEET 10
  - FOR PIERS 5 & 6, SEE SHEET 11
  - FOR PIER 7, SEE SHEET 12
  - FOR DRAINAGE DETAILS, SEE SHEET 13
  - FOR CONCRETE REPAIR PROCEDURES AND DETAILS, SEE SHEET 12



**LEGEND**

- DENOTES OUTLINE OF EXISTING PIER
- ██ DENOTES NEW MATERIAL
- ▨ DENOTES AREAS TO BE REPAIRED
- ▩ DENOTES SPALLED AREA WITH EXPOSED REBAR
- DENOTES REPAIR PROCEDURE (A), (B), OR (C) AS DESIGNATED FOR REPAIR NOTES AND DETAILS, SEE SHEET 12

Mark	Description	By	Chk'd	App'd	Date
	REVISIONS				

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
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ALLEGHENY COUNTY  
LR 736 EXT. SEC. 39

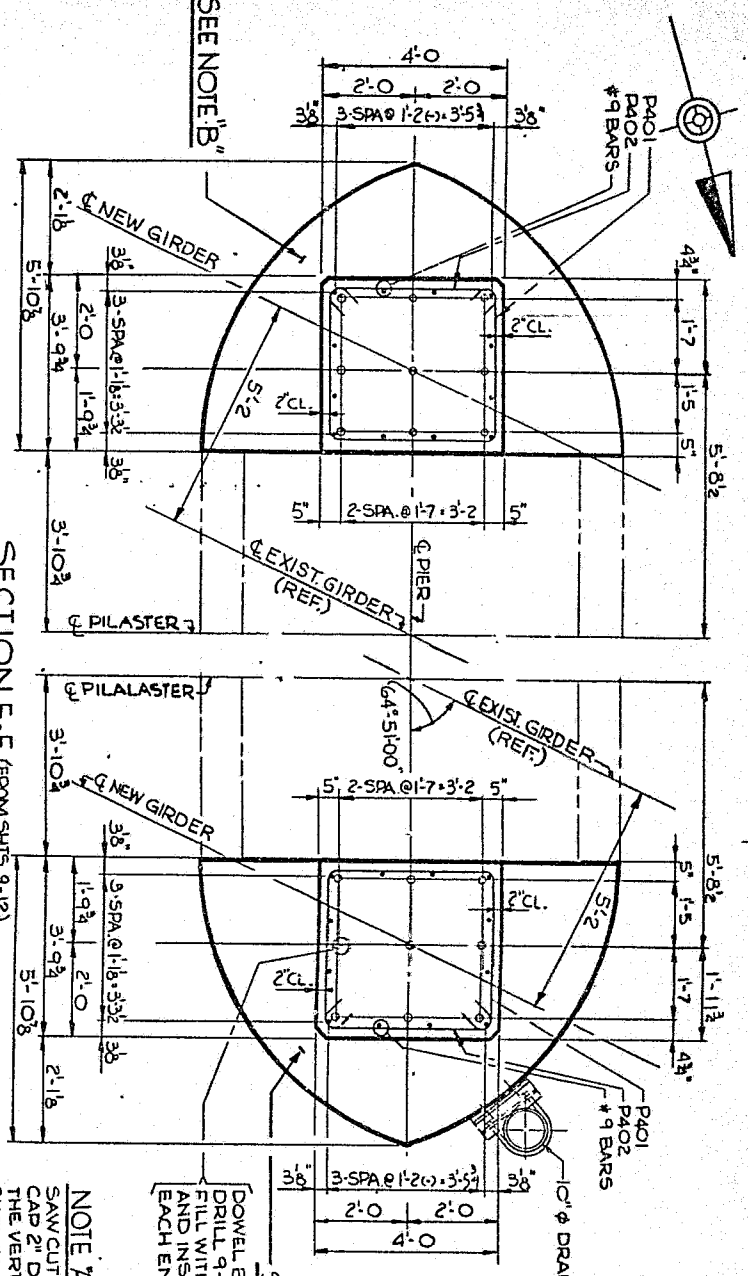
LR 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
PIERS 3 AND 4, REPAIRS

APPROVED: \_\_\_\_\_  
BRIDGE ENGINEER

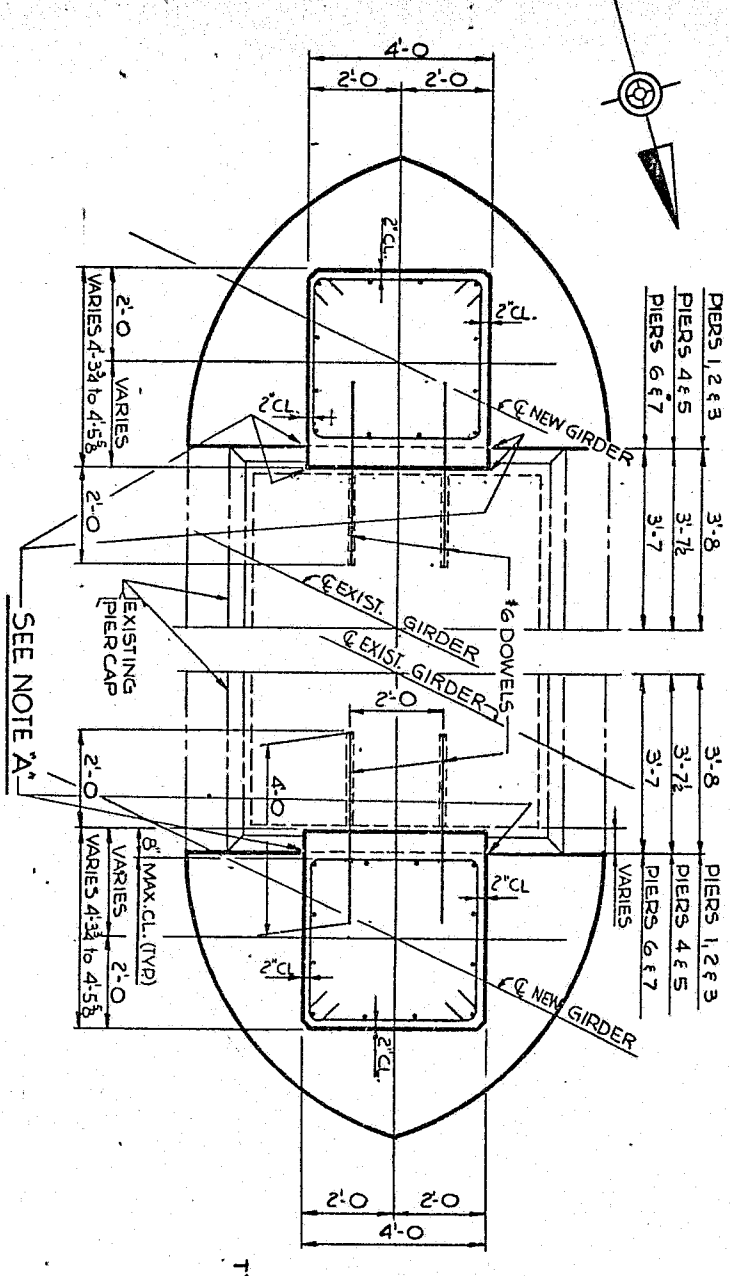
SHEET 10 OF 29  
S-14185







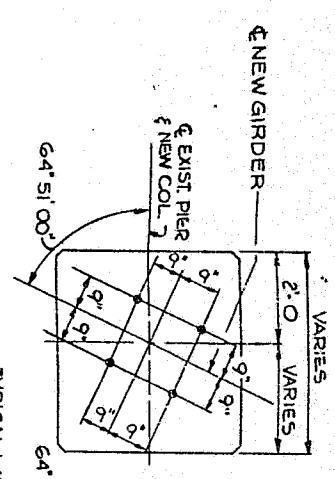
SECTION E-E (FROM SHTS. 9-12)  
SCALE: 1/2" = 1'-0"



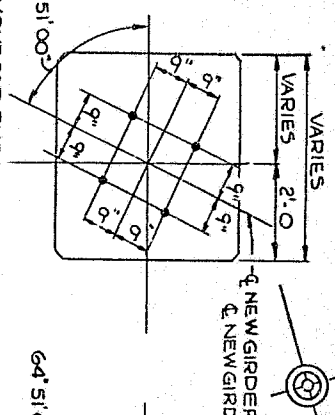
SECTION E-E (FROM SHTS. 9-12)  
SCALE: 1/2" = 1'-0"

**NOTE "A"**  
SAW CUT EXISTING PILASTER CAP 2" DEPTH ALONG THE VERTICAL FACE AS SHOWN, AND WITHIN THE DESIGNATED LIMITS, REMOVE THE EXISTING CONCRETE FROM BETWEEN THE SAW CUT LINES.

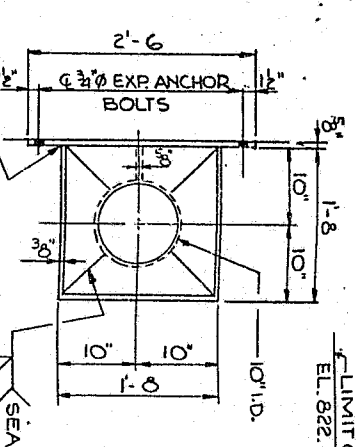
**NOTE "B"**  
DOWEL BARS - #9 DOWELS X 6'-0" LG. DRILL 9'-2" Ø HOLES X 2'-6" DEPTH, FILL WITH NON-SHRINK GROUT AND INSERT DOWEL BARS, EACH END OF PIER.



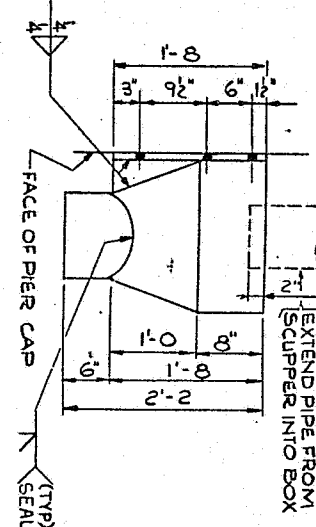
TYPICAL LAYOUT FOR PIERS 2, 4, 6. EXP. BRGS. II F MARK RIGID



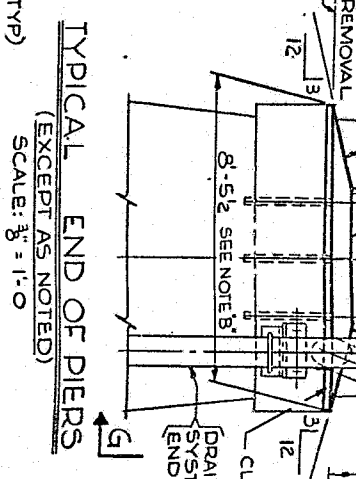
TYPICAL LAYOUT FOR PIERS 1, 3, 5, 7. EXP. BRGS. III E MARK RIGID



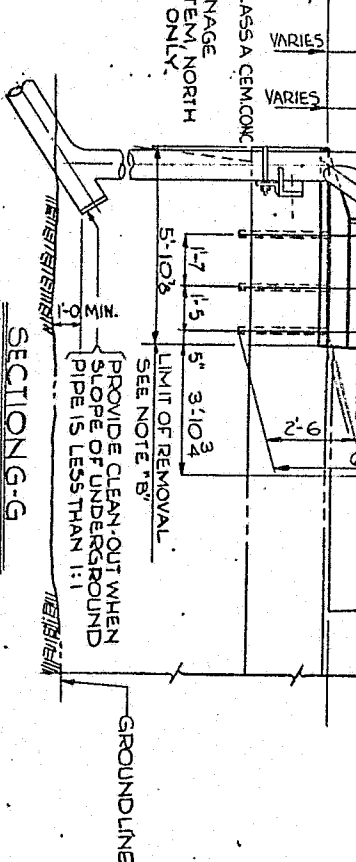
PLAN - DRAIN BOX  
SCALE: 1/2" = 1'-0"



SIDE ELEVATION - DRAIN BOX  
SCALE: 1/2" = 1'-0"



TYPICAL END OF PIERS (EXCEPT AS NOTED)  
SCALE: 3/8" = 1'-0"



SECTION G-G  
SCALE: 3/8" = 1'-0"

**NOTE "A"**  
REMOVE EXISTING CONCRETE FROM THE PIER BASE CAP WITHIN THE LIMITS SHOWN. DRILL 9'-2" Ø HOLES X 2'-6" DEPTH. APPLY EPOXY BONDING COMPOUND TO SURFACES WHERE NEW CONCRETE WILL BE PLACED, AND CONSTRUCT A PAD AS SHOWN. (NEW PAD)

**NOTE "B"**  
CLASS A CEM. CONC. APPLY EPOXY BONDING COMPOUND

7 - #6 DOWELS @ 24" PIERS 1, 2, 3 (EACH FACE)  
8 - #6 DOWELS @ 24" PIERS 4, 5, 6, 7 (EACH FACE)

10" Ø STD. STL. PIPE  
DRILL 2" Ø HOLES X 2'-0" DEPTH, FILL WITH NON-SHRINK GROUT, AND INSERT # 6 DOWEL BARS.  
3" Ø U-BOLT  
L6 x 4 x 2  
L6 x 6 x 2

**NOTES**

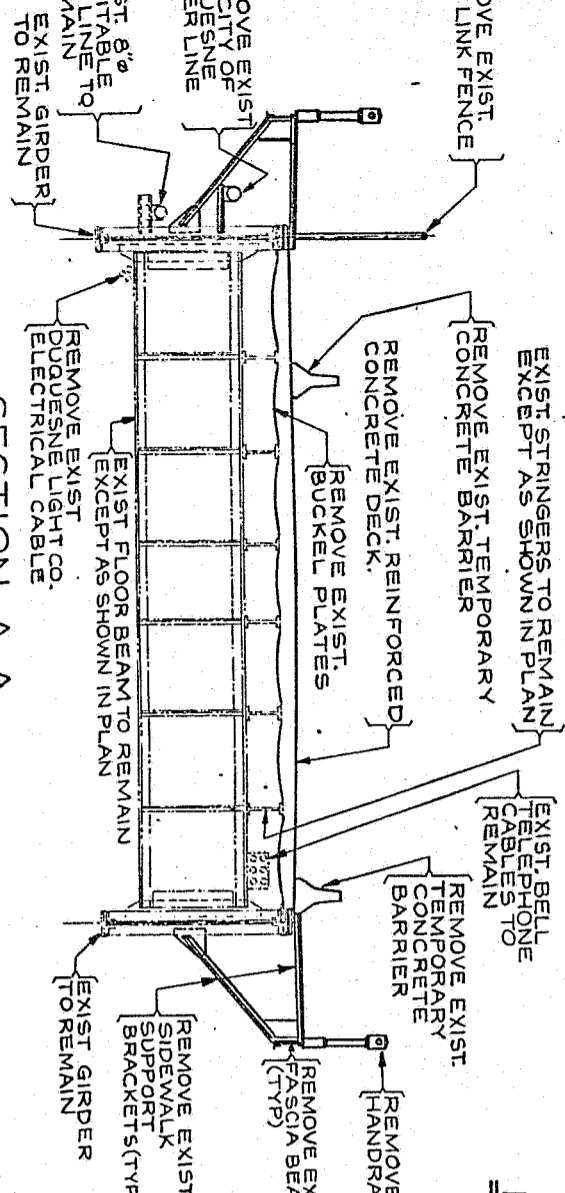
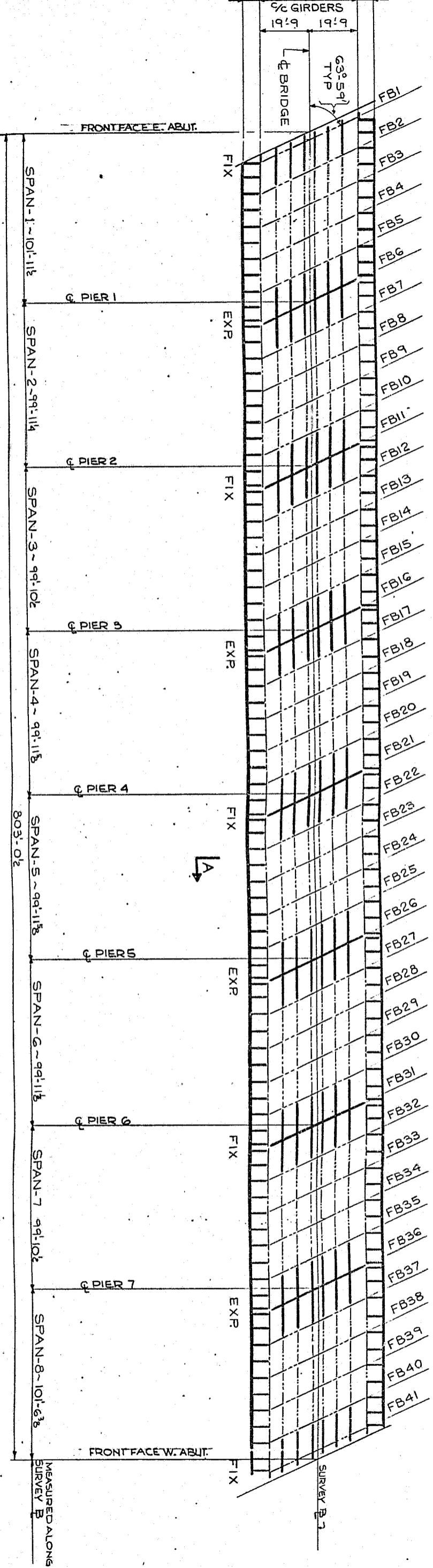
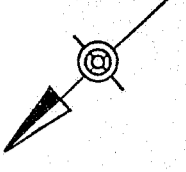
- SPALLED AREAS ON THE EXISTING PIERS IN THE AREAS WHERE NEW CONCRETE IS TO BE PLACED, SHALL BE TREATED BY REMOVING ALL UNSOUND CONCRETE - THOROUGHLY CLEANING THE AREA(S) OF REMOVAL, AND PRIOR TO PLACING THE NEW CONCRETE, APPLYING EPOXY BONDING COMPOUND.
- FOR PIERS 1 AND 2, SEE SHEET 9
- FOR PIERS 3 AND 4, SEE SHEET 10
- FOR PIERS 5 AND 6, SEE SHEET 11
- FOR PIERS 7 AND CONCRETE REPAIR PROCEDURES, SEE SHEET 12
- FOR EAST ABUTMENT, SEE SHEETS 4 & 5
- FOR WEST ABUTMENT, SEE SHEETS 6 & 7
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 27 & 28
- FOR FRAMING PLAN, SEE SHEETS 15 & 16
- FOR BEARING DETAILS, SEE B.C. 355A
- REMOVE EXIST. CONCRETE FROM THE EXIST. PIER CAP PAID UNDER ITEM 1018-0050 REMOVE PORTION OF EXIST. BRIDGE.

Mark	Description	By	chk'd.	App'd.	Date

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ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39

L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
PIER DETAILS



SECTION A-A  
SCALE: 3/16" = 1'-0"

**EXISTING FRAMING PLAN**

HORIZONTAL SCALE: 1" = 30'  
VERTICAL SCALE: 1" = 20'

**NOTES**

- REMOVE ENTIRE BRIDGE DECK, INCLUDING EXISTING SIDEWALK BRACKETS, DESIGNATED FLOOR BEAMS, AND STRINGERS, - GIRDER EXTENSIONS, BUCKLE PLATES, BUCKLE PLATE SUPPORT CHANNELS, HANDRAIL AND CHAIN LINK FENCE.
- REMOVE EXISTING LIGHTING SYSTEM, INCLUDING LIGHT POLES, LUMINAIRES, CONDUITS, AND WIRES. (PAID UNDER ITEM 910-7600, REMOVE EXISTING LIGHTING SYSTEM)
- REMOVE EXISTING 12" CITY OF DUQUESNE WATERLINE (PAID UNDER ITEM 2000-0003, REPLACE EXISTING WATERLINE.
- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1
- FOR GENERAL NOTES, SEE SHEET 2
- FOR NEW FRAMING PLAN, SEE SHEETS 15 & 16
- DENOTES MATERIALS TO BE REMOVED

Mark	Description	By	Chk'd.	App'd.	Date
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REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
EXISTING FRAMING PLAN

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

SHEET 14 OF 29  
S-14185

MARK	RECOMMENDED FIELD REPAIRS	DETAIL SHEET
1	REPAIR DESCRIPTION REMOVE SPECIFIED LENGTH OF MAIN GIRDER STIFF ANGLE. REPLACE WITH NEW ANGLE.	1 17
2	REMOVE SPECIFIED LENGTH OF DESIGNATED BEARING STIFF ANGLE. REPLACE WITH NEW ANGLE.	2 17
3	REPLACE STIFF ANGLE	3 17
4	REMOVE SPECIFIED LENGTH OF DESIGNATED BEARING STIFF ANGLE. REPLACE WITH NEW ANGLE	4 17
5	REPLACE SOLE PLATE ATTACHING BOLTS (4 REQ'D)	5-5 22
6	REPLACE FLOOR BEAM	20
7	REPLACE BRACKET	3 17 AND 19
8	REPAIR FLOOR BEAM	18

**NOTES**

- FOR RIVET REPLACEMENTS, SEE TABLE OF GIRDER RIVET REPLACEMENTS, SHT. 17
- FOR EXISTING FRAMING PLAN, SEE SHT. 14
- FOR NEW GIRDER ELEVATION AND DETAILS, SEE SHT. 21
- FOR DECK SECTION SEE SHEET 3
- FOR ROADWAY DRAINAGE DETAILS SEE SHT. 26

**LEGEND**

- DENOTES NEW MEMBER
- - - DENOTES EXISTING MEMBER
- ⊕ MARK
- ⊕ LENGTH OF REPAIR
- ⊕ GIRDER DESIGNATION

Mark	Description	By	CHK'D, App'd	Date

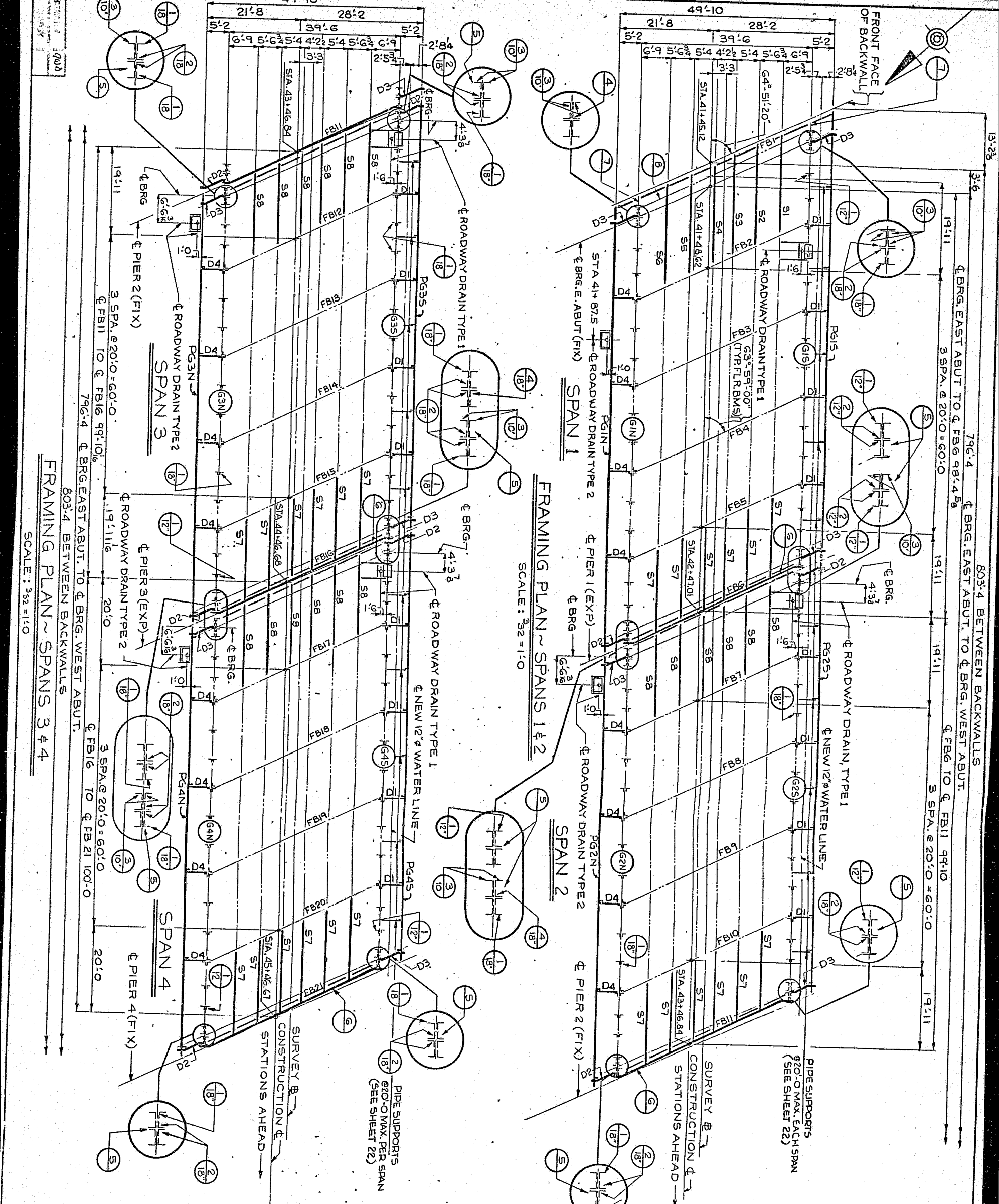
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ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39

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OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
FRAMING PLAN-SPANS 1 THRU 4

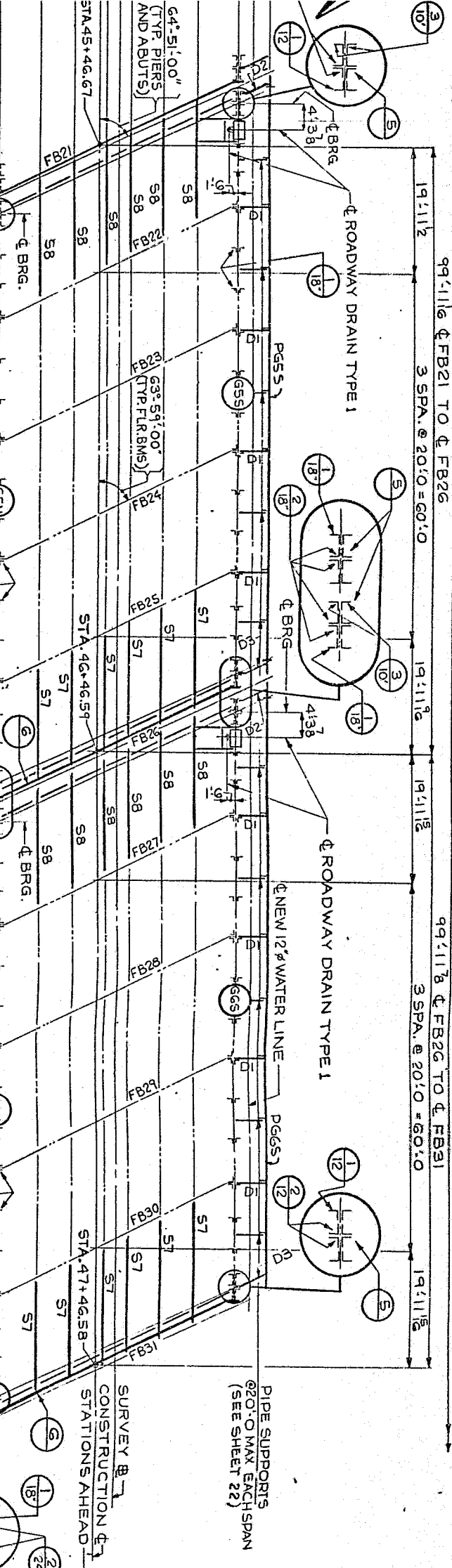
APPROVED \_\_\_\_\_ SHEET 15 OF 29  
BRIDGE ENGINEER

S-11102

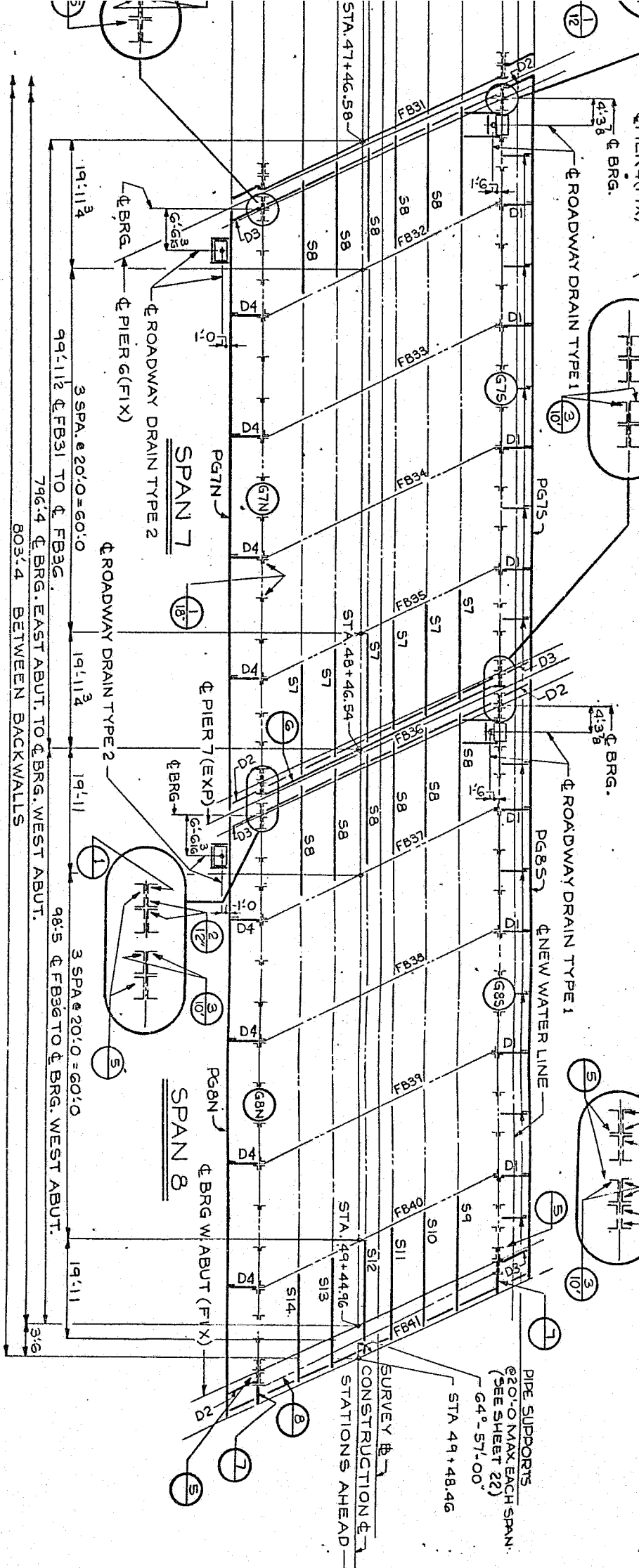


**FRAMING PLAN ~ SPANS 3 & 4**

SCALE: 3/32 = 1' = 0



FRAMING PLAN - SPANS 5 & 6  
SCALE: 3/32" = 1'-0"



FRAMING PLAN - SPANS 7 & 8  
SCALE: 3/32" = 1'-0"

MARK	RECOMMENDED FIELD REPAIRS	DETAIL SHEET
1	REMOVE SPECIFIED LENGTH OF MAIN GIRDER STIFF ANGLE. REPLACE WITH NEW ANGLE.	17
2	REMOVE SPECIFIED LENGTH OF DESIGNATED BEARING STIFF ANGLE. REPLACE WITH NEW ANGLE.	17
3	REPLACE STIFF ANGLE	17
4	REMOVE SPECIFIED LENGTH OF DESIGNATED BEARING STIFF ANGLE. REPLACE WITH NEW ANGLE.	17
5	REPLACE SOLE PLATE ATTACHING BOLTS (4 REQ'D)	SECT 5-5 22
6	REPLACE FLOOR BEAM	20
7	REPLACE GIRDER EXTENSION	3 17 AND 18
8	REPAIR FLOOR BEAM	19

- NOTES**
- FOR RIVET REPLACEMENTS, SEE "TABLE OF GIRDER RIVET REPLACEMENTS", SHT. 17
  - FOR EXISTING FRAMING PLAN, SEE SHT. 14
  - FOR NEW GIRDER ELEVATION AND DETAILS, SEE SHT. 21
  - FOR DECK SECTION SEE SHT. 3
  - FOR ROADWAY DRAINAGE DETAILS, SEE SHEET 26

- LEGEND**
- DENOTES NEW MEMBERS
  - DENOTES EXISTING MEMBERS
  - MARK
  - LENGTH OF REPAIR
  - (S8) GIRDER DESIGNATION

Mark	Description	By	Chk'd.	App'd.	Date
	REVISIONS				

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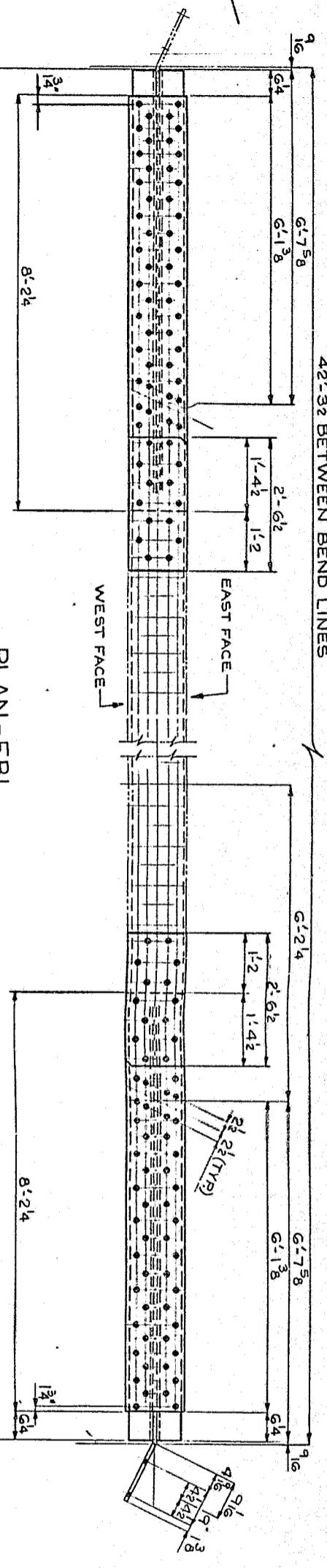
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L.R. 736 EXT. STA. 45+46.00  
OVER UNION RR. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
FRAMING PLAN-SPANS 5 THRU 8

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

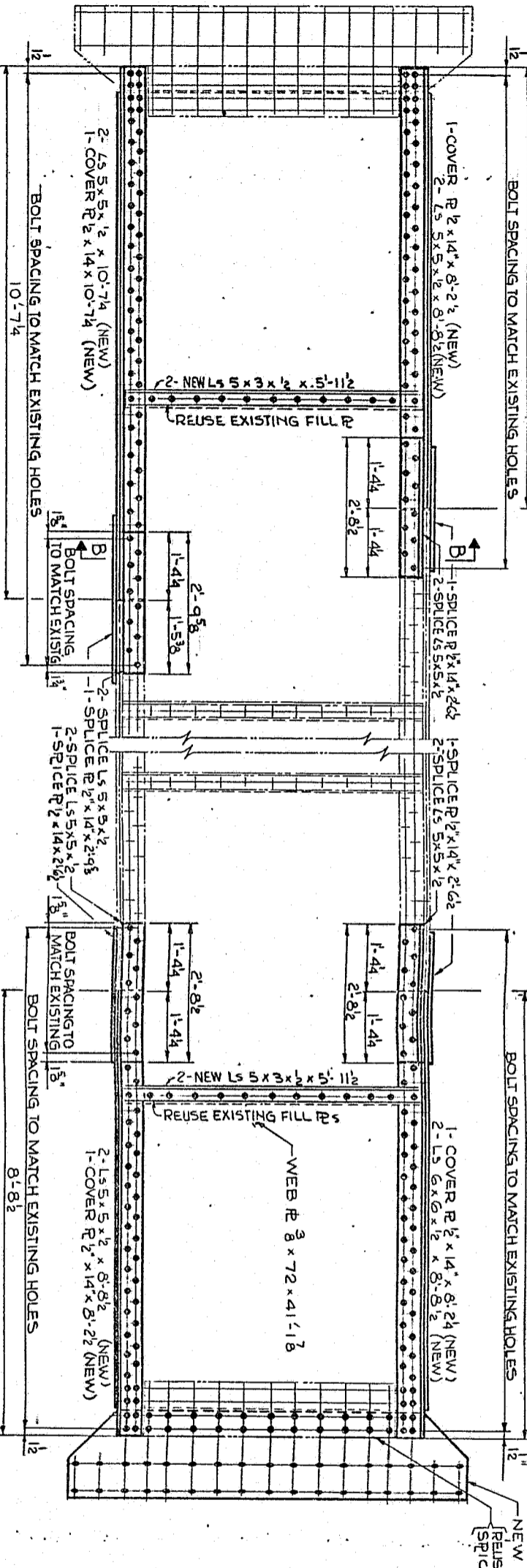
SHEET 16 OF 29  
S-14185



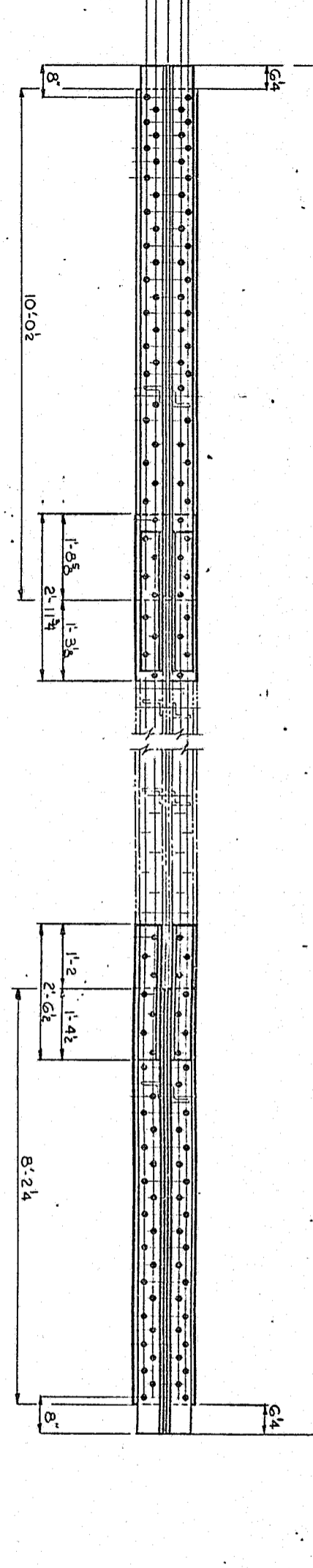
42'-32" BETWEEN BEND LINES



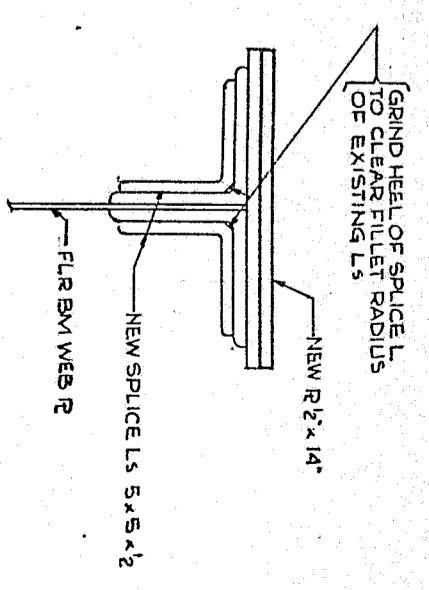
PLAN - FBI  
SCALE: 3/4" = 1'-0"



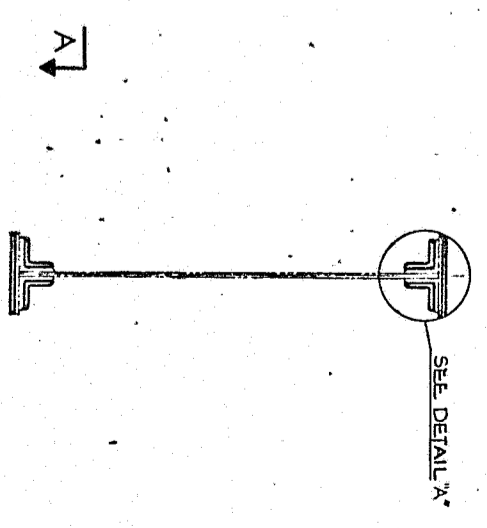
ELEVATION - FBI - VIEWING EAST  
SCALE: 3/4" = 1'-0"



SECTION A-A  
SCALE: 3/4" = 1'-0"



DETAIL 'A'  
SCALE: 3/4" = 1'-0"



SECTION B-B  
SCALE: 3/4" = 1'-0"

NOTE  
FOR FRAMING PLAN SEE SHEETS 15 & 16

Mark	Description	By	Chk'd.	App'd.	Date
REVISIONS					

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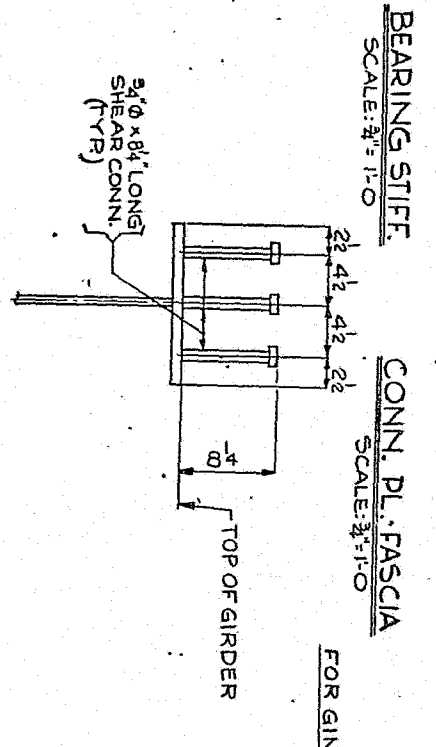
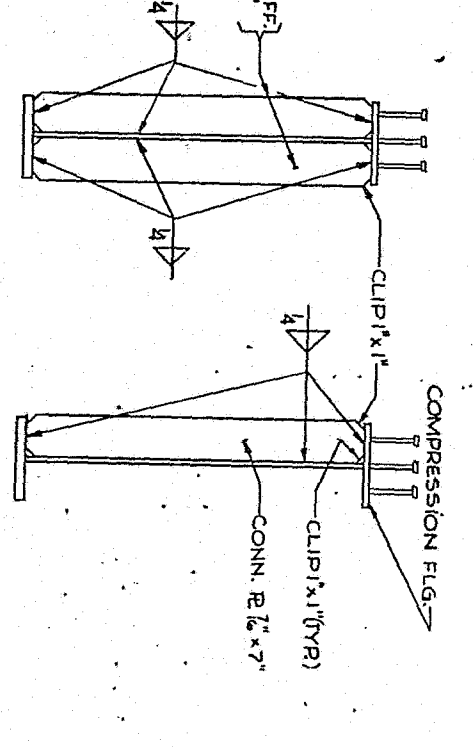
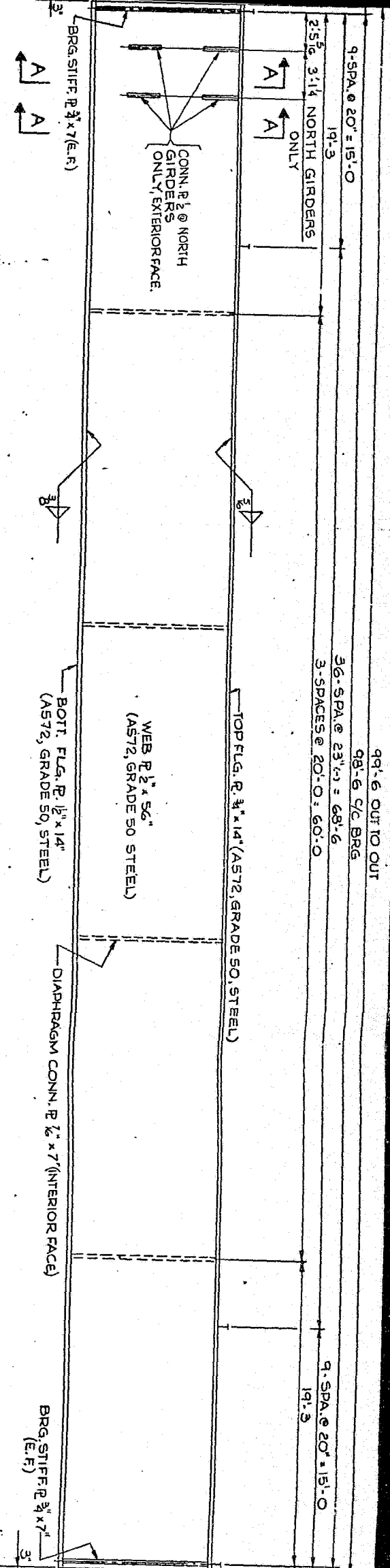
ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
FLOOR BEAM REPAIRS-FBI

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

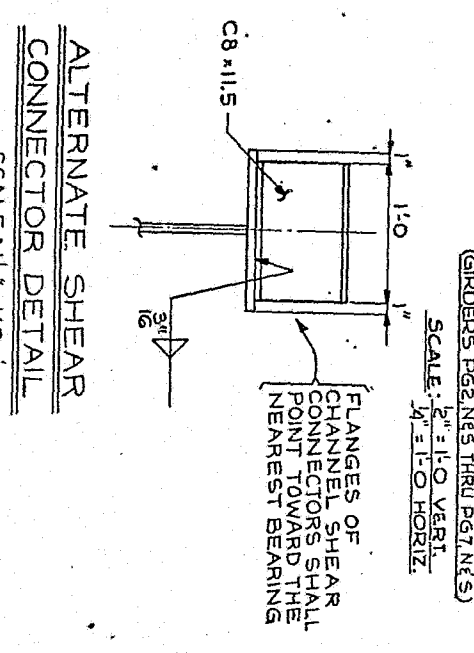
SHEET 18 OF 29  
S-14185



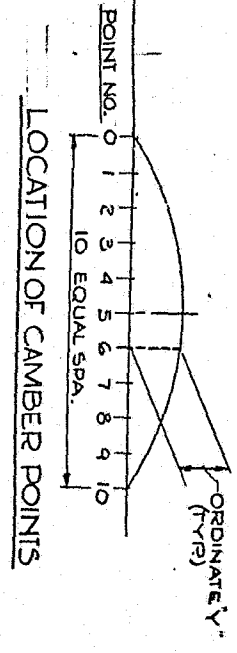
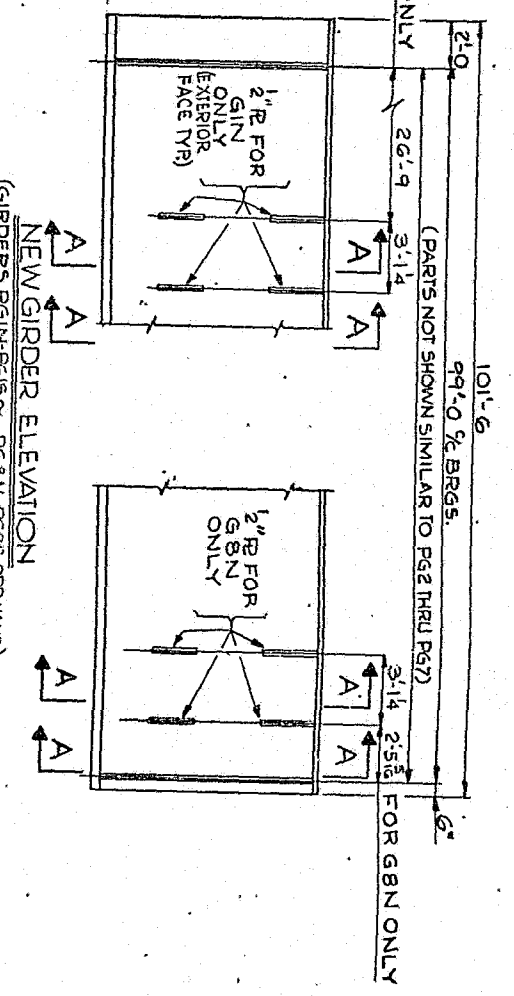




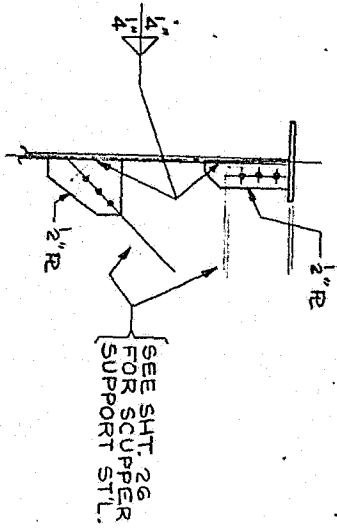
SHEAR CONNECTOR DETAIL  
SCALE: 1/2" = 1'-0"



ALTERNATE SHEAR CONNECTOR DETAIL  
SCALE: 1/2" = 1'-0"



NOTE:  
N/A DENOTES NOT APPLICABLE  
NEW FLOOR BEAM DOES NOT  
NEED TO BE CAMBERED.



SECTION A-A (SCUPPER SUPPORT)  
SCALE: 3/4" = 1'-0"

- NOTES
- ALL FASTENERS SHALL BE 3/8" Ø ASTM DESIGNATION A325 HIGH STRENGTH BOLTS.
  - SHEAR CONNECTORS SHALL CONFORM TO PENNDOT SPECIFICATIONS
  - ALL DIMENSIONS SHOWN ON THE PLAN ARE HORIZONTAL AND ARE GIVEN AT 68°F.
  - TACK WELDS SHALL BE REMOVED AND GROUND FLUSH UNLESS INCORPORATED IN THE FINAL WELD.
  - WELDING PROCEDURES AND DETAILS SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP DRAWINGS.
  - GIRDERS SHALL BE CAMBERED AS SHOWN. AFTER ERECTION THE CAMBER SHALL BE CHECKED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO ERECTING DECK FORMS. FORMS SHALL BE BUILT TO COMPENSATE FOR APPROVED IRREGULARITIES IN GRADE AND CROSS SECTION BY VARYING THE DISTANCE FROM THE BOTTOM OF DECK SLAB TO TOP OF GIRDER AND STRINGERS SUCH THAT THE FINISHED GRADE AND CROSS-SLOPE WILL CONFORM TO THESE CONTRACT DRAWINGS.
  - FOR ADDITIONAL STRUCTURAL STEEL REQUIREMENTS SEE THE GENERAL NOTES, SHEET 2, THE SPECIAL PROVISIONS, AND PENNDOT STANDARD DWG. BC-353.
  - FOR FRAMING PLAN SEE SHEETS 15 & 16
  - GIRDER WEB & FLANGES SHALL BE ASTM DESIGNATION A572, GRADE 50 AS NOTED
  - ALL OTHER STEEL SHALL BE A36.

CAMBER ORDINATES, Y INCHES

MEMBER	POINT NUMBER										
	1	2	3	4	5	6	7	8	9		
NEW GIRDER		.165	.311	.426	.500	.594	.500	.426	.311	.165	0.0
NEW FUR.BM.											0.0
NEW GIRDER	.860	1.627	2.227	2.609	2.739	2.609	2.227	1.627	.860	0.0	
NEW FUR.BM.											0.0
NEW GIRDER	.046	.087	.119	.139	.146	.139	.119	.087	.046	0.0	
NEW FUR.BM.											0.0
NEW GIRDER	1.07	2.03	2.77	3.25	3.41	3.25	2.77	2.03	1.07	0.0	
NEW FUR.BM.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
TOTAL											0.0

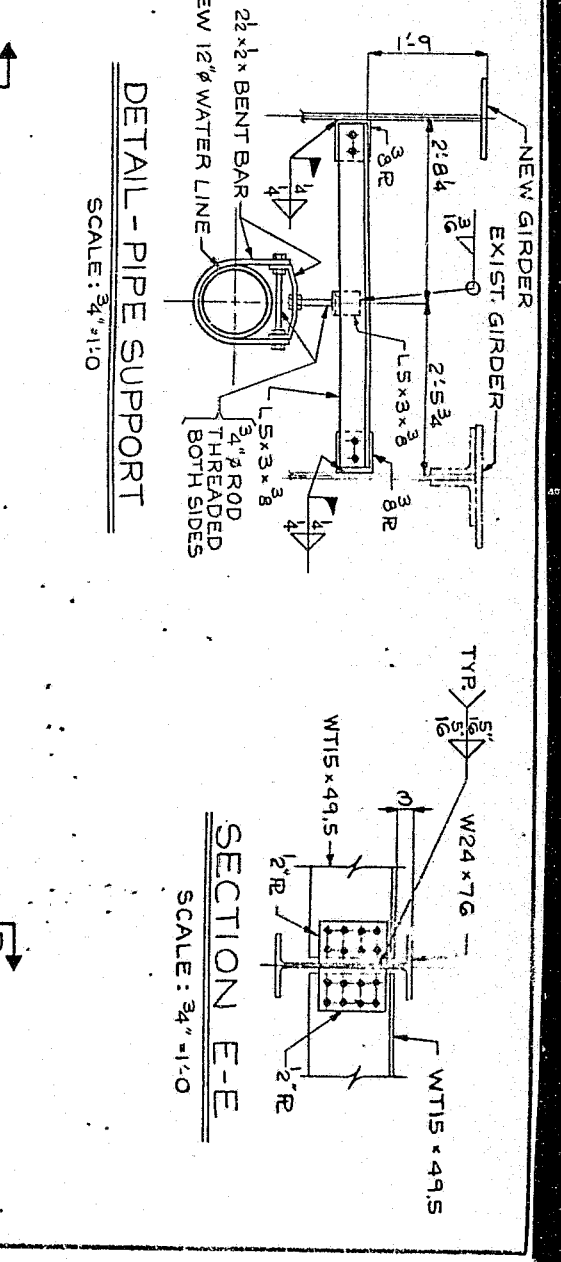
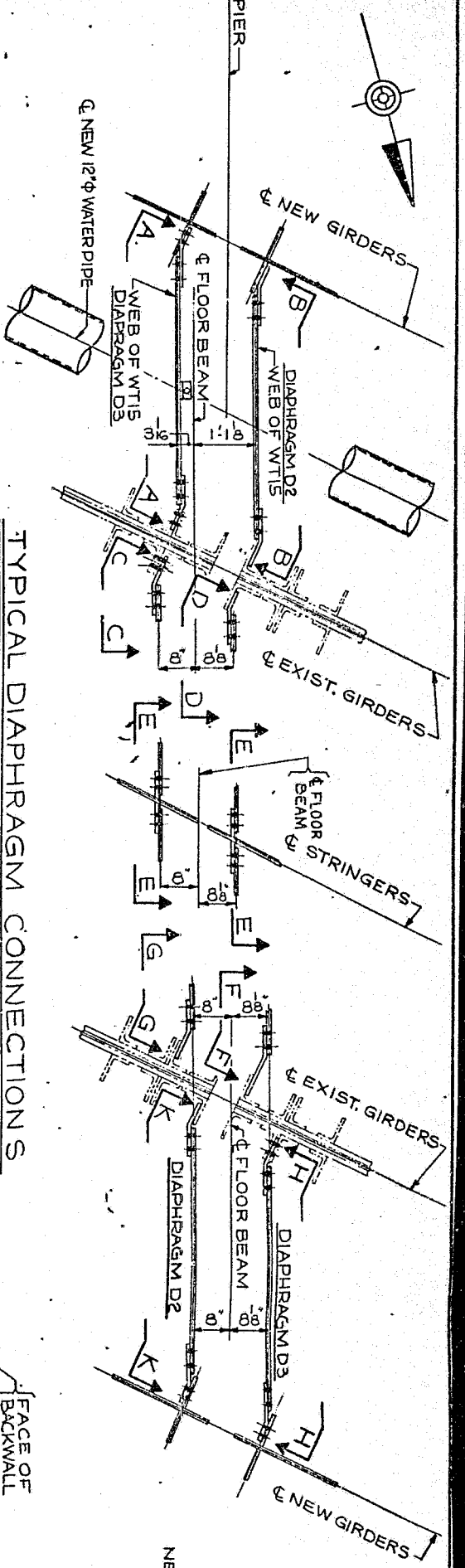
Mark	Description	By	Chk'd	App'd	Date
	REVISIONS				

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 451+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
NEW GIRDERS

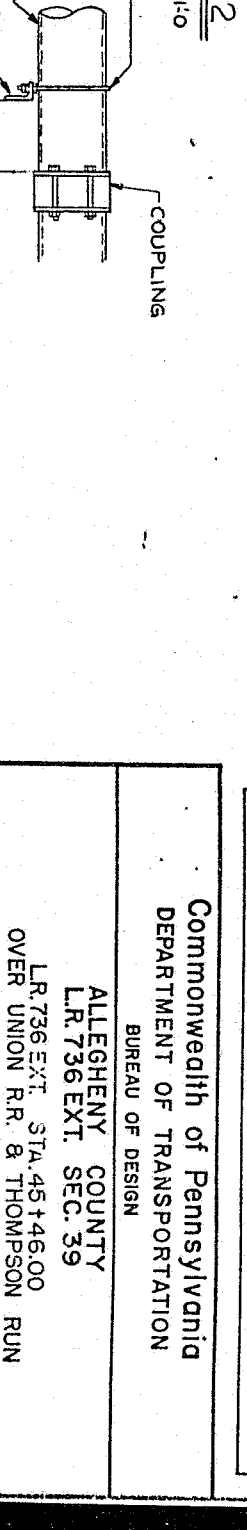
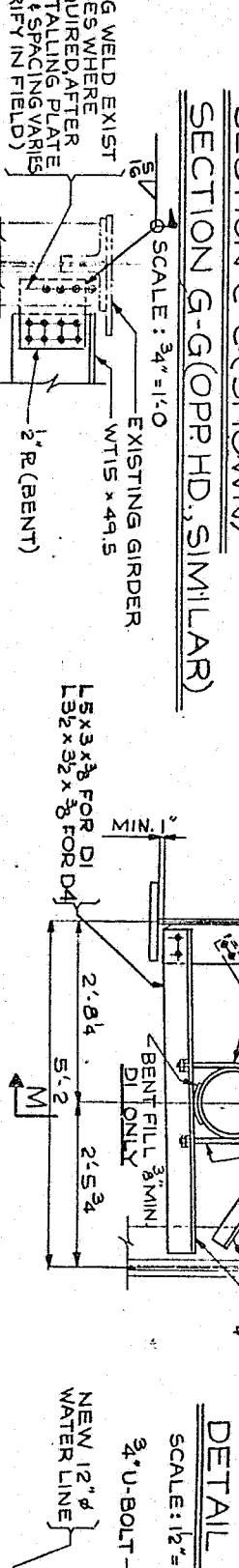
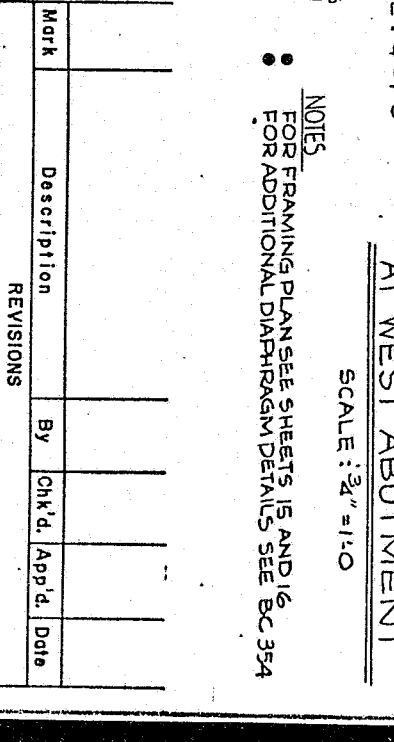
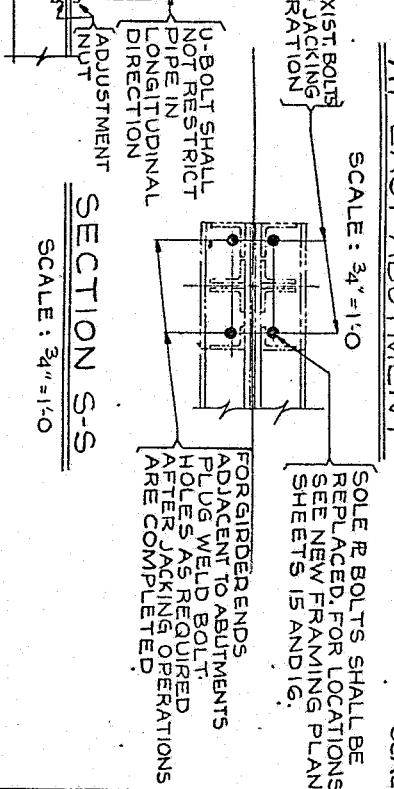
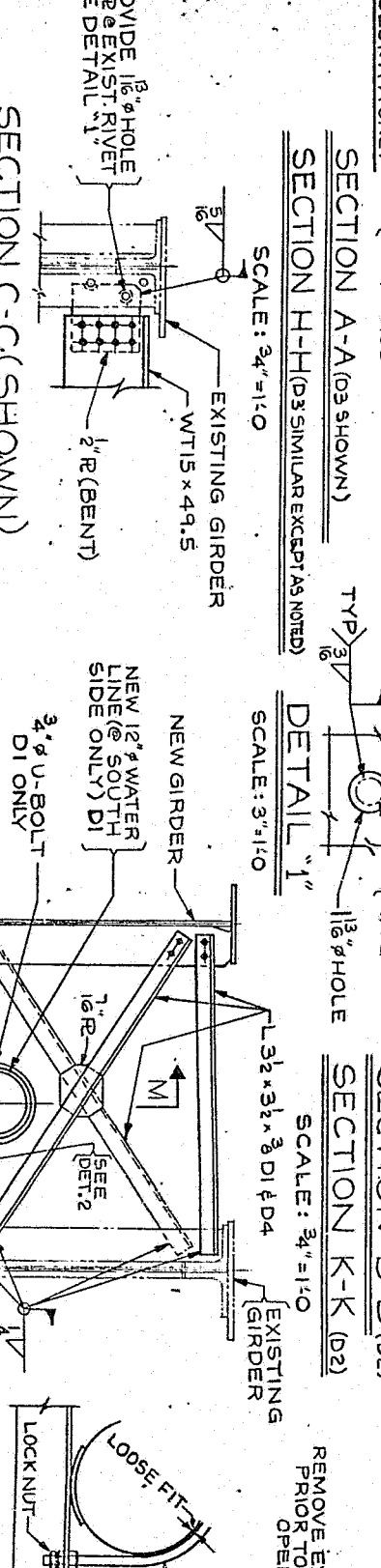
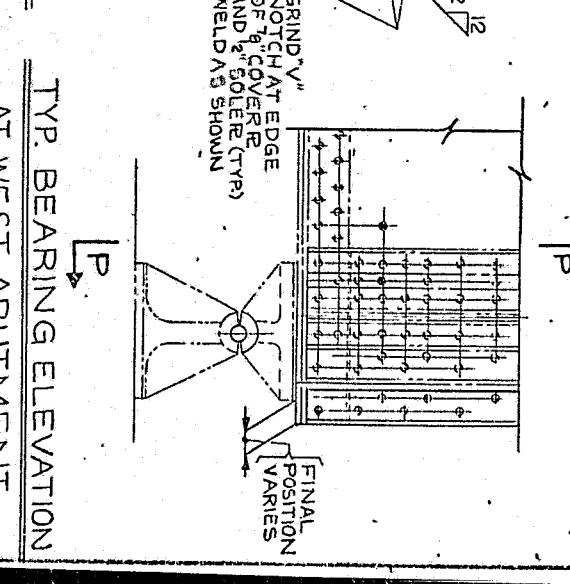
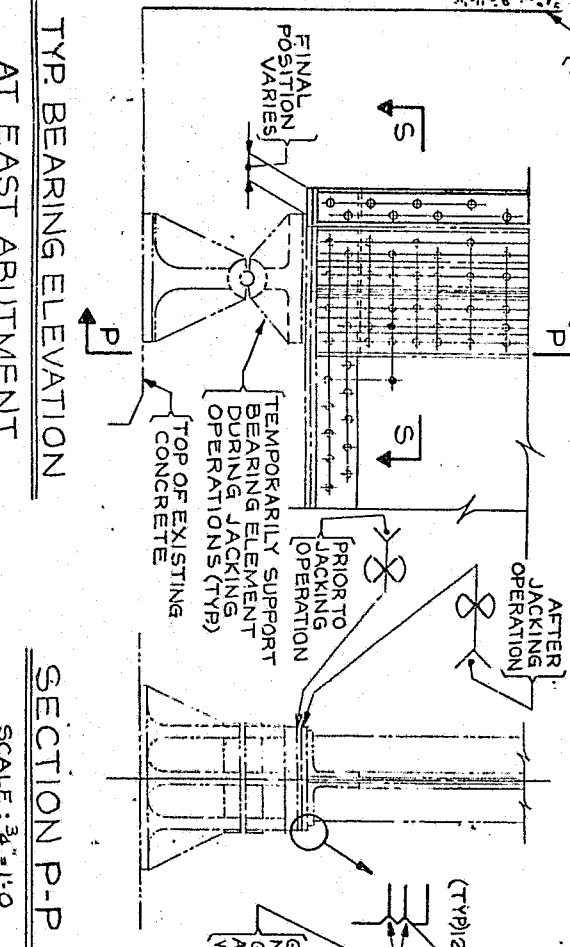
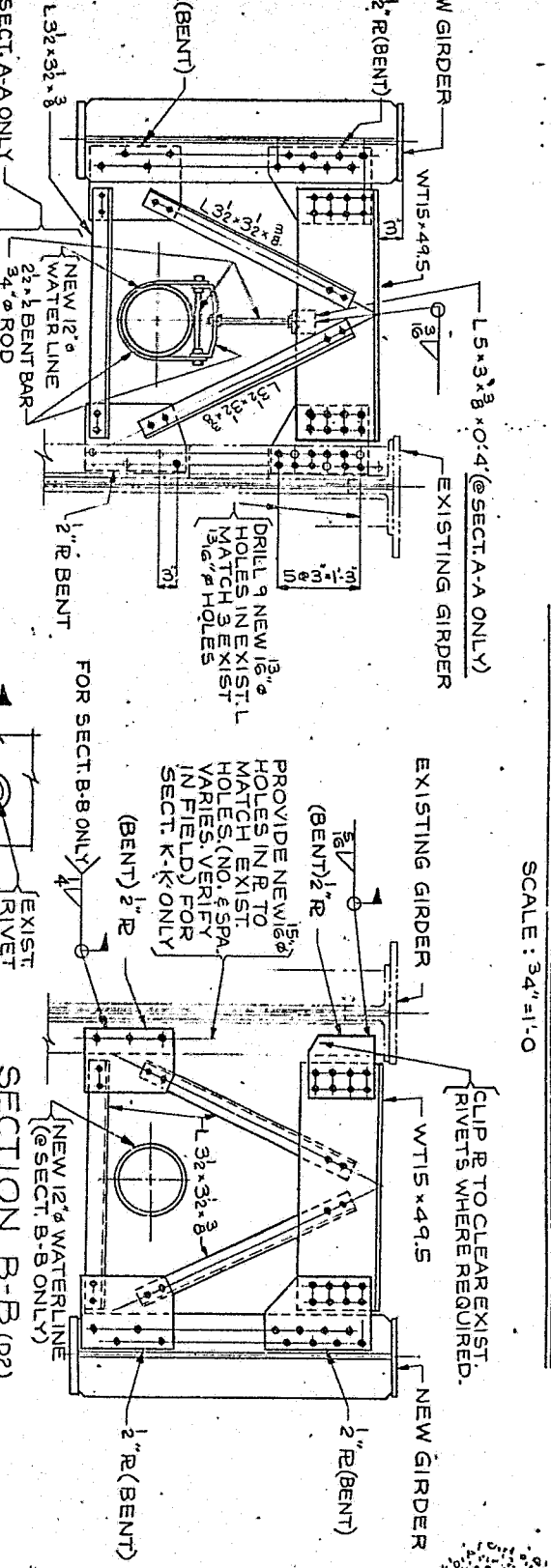
APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

SHEET 21 OF 29  
C-11105



TYPICAL DIAPHRAGM CONNECTIONS

SCALE: 3/4" = 1'-0"



NOTES

FOR FRAMING PLAN SEE SHEETS 15 AND 16

FOR ADDITIONAL DIAPHRAGM DETAILS SEE BC 354

Mark	Description	By	Chk'd	App'd	Date

Commonwealth of Pennsylvania

DEPARTMENT OF TRANSPORTATION

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ALLEGHENY COUNTY

L.R. 736 EXT. STA. 45+146.00

L.R. 736 EXT. SEC. 39

OVER UNION R.R. & THOMPSON RUN

REHABILITATION OF 8-SPAN STEEL GIRDER BRIDGE

STEEL DETAILS

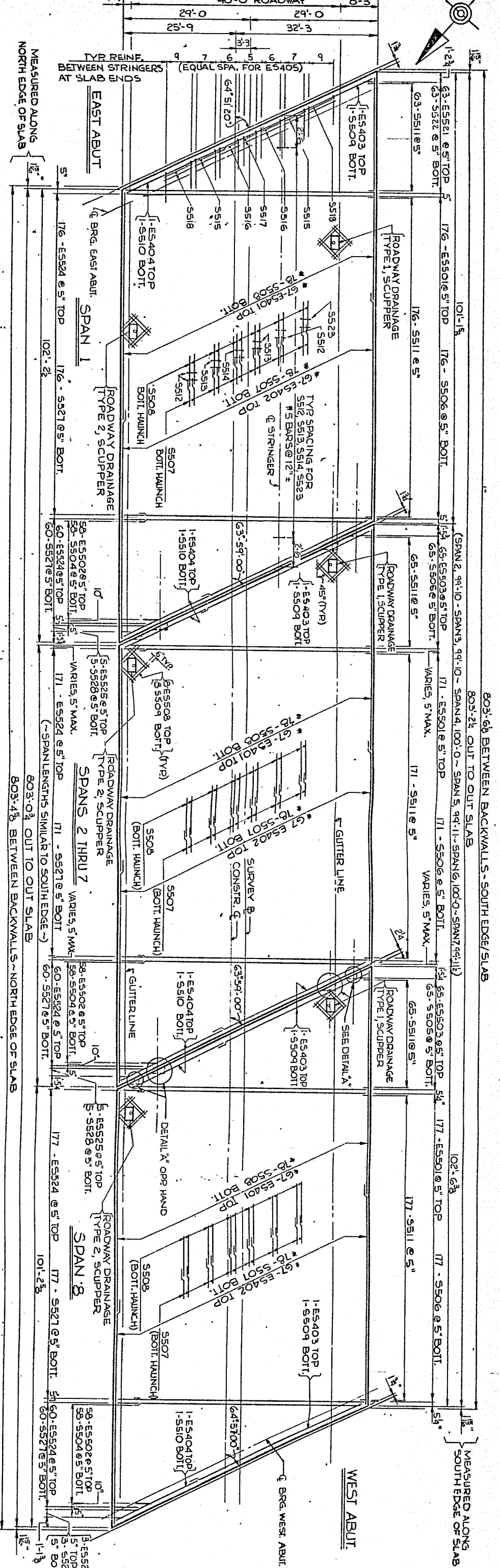
APPROVED

BRIDGE ENGINEER

SHEET 22 OF 29

S-14185





DETAIL @ ABUTMENTS  
EAST ABUT SHOWN - WEST ABUT. OPPOSITE HAND  
SCALE: 3/4" = 1'-0"

DETAIL @ FIXED PIER  
SCALE: 3/4" = 1'-0"

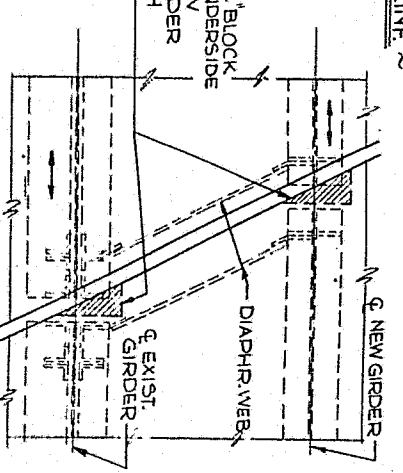
DETAIL @ EXP. PIER  
SCALE: 3/4" = 1'-0"

DECK PLAN  
SCALE: 3/4" = 1'-0"

TRANSVERSE REINF. ~  
BOT. MATT  
N/S.

THE CONTRACTOR SHALL BLOCK OUT AN AREA ON THE UNDERSIDE OF THE DECK TO ALLOW CLEARANCE FOR GIRDER MOVEMENTS AT EACH DECK JOINT.

DETAIL 'A'



NOTES

- ALL BAR MARKS PREFIXED 'E', DENOTE EPOXY COATED BAR.
- CUT OR BEND SLAB REINFORCEMENT TO CLEAR ROADWAY DRAIN.
- FOR SIDEWALK, PED. BARRIER & PARAPET, SEE SHEET 25
- FOR GENERAL NOTES 5, SEE SHEET 2
- FOR GENERAL PLAN AND ELEVATION, SEE SHEET 1
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 27 & 28
- FOR FIXED AND EXPANSION DAMP DETAILS, SEE SHEET 23
- FOR FRAMING PLAN, SEE SHEETS 15 & 16
- FOR TYPICAL SECTION, SEE SHEET 3
- \* DENOTES, SEE TYPICAL SECTION FOR BAR SPACING

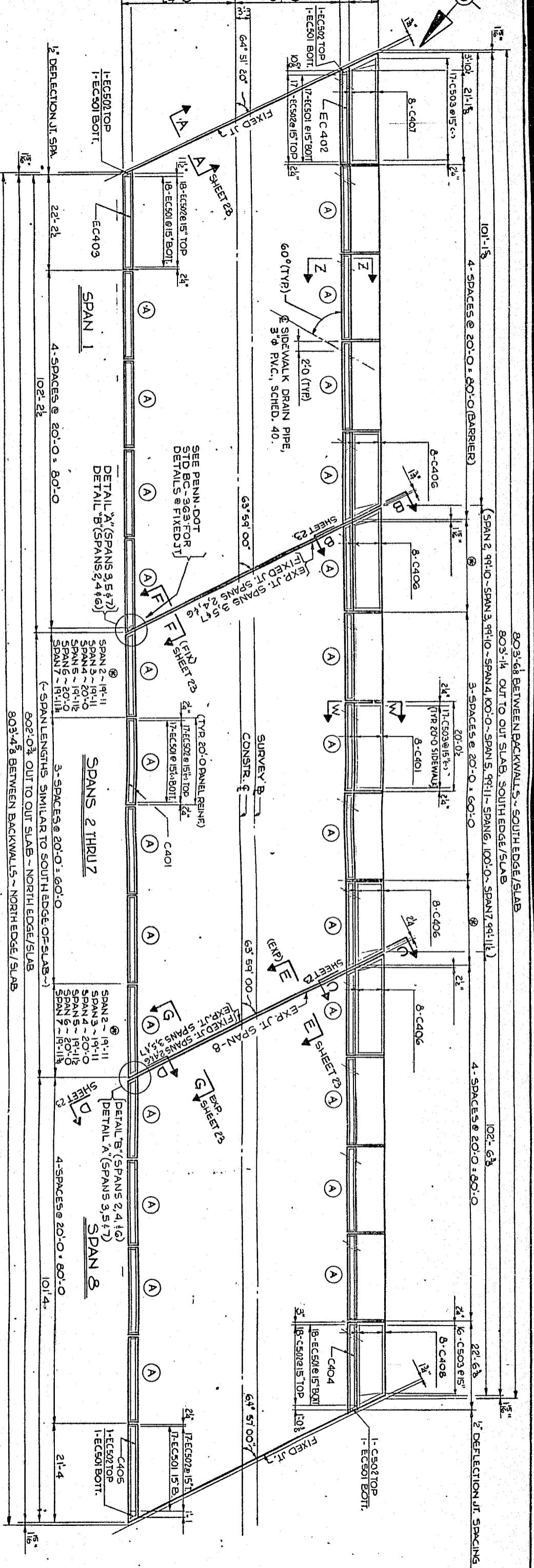
Mark	Description	By	Chk'd.	App'd.	Date
	REVISIONS				

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

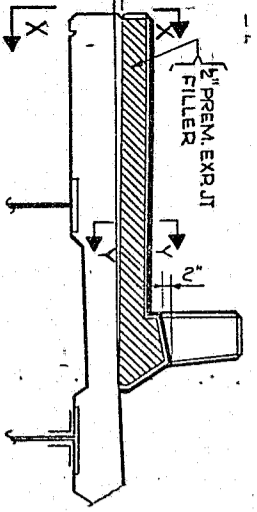
ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 45+46.00  
OVER UNION RR. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
DECK PLAN

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

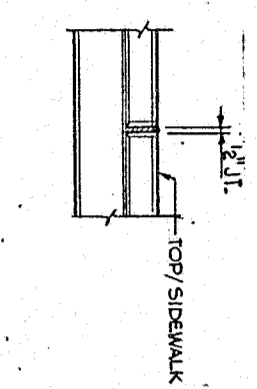
SHEET 24 OF 29  
S-14185



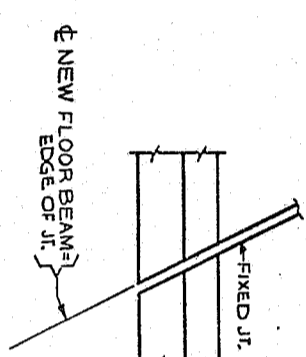
PARAPET-BARRIER-SIDEWALK PLAN  
SCALE: 3/32" = 1'-0"



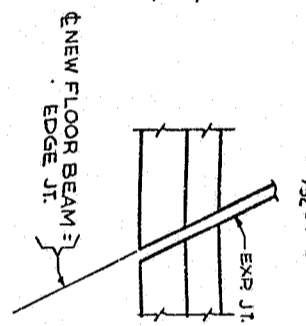
SECTION W-W  
SCALE: 1/2" = 1'-0"



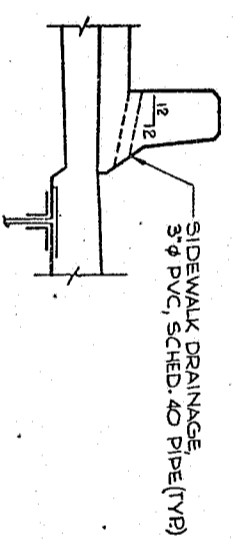
SECTION X-X  
SCALE: 1/2" = 1'-0"



DETAIL 'A'  
SCALE: 1/2" = 1'-0"



DETAIL 'B'  
SCALE: 1/2" = 1'-0"



SECTION Y-Y  
NTS

SECTION Z-Z  
SCALE: 1/2" = 1'-0"

•FOR NOTES SEE SHEET 24

Mark	Description	By	Chk'd	App'd	Date
	REVISIONS				

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39

LR. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
SIDEWALK, BARRIER & PARAPET PLAN

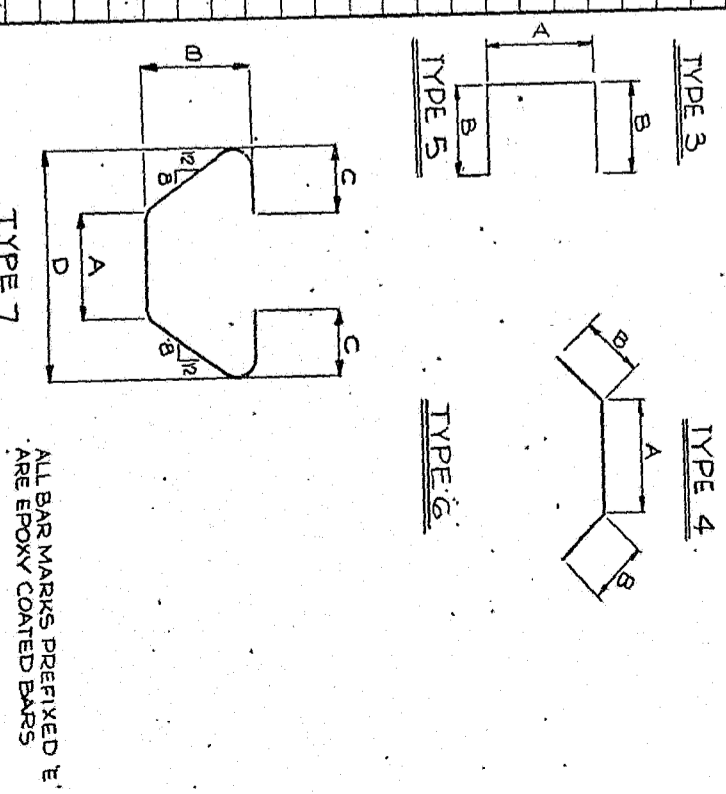
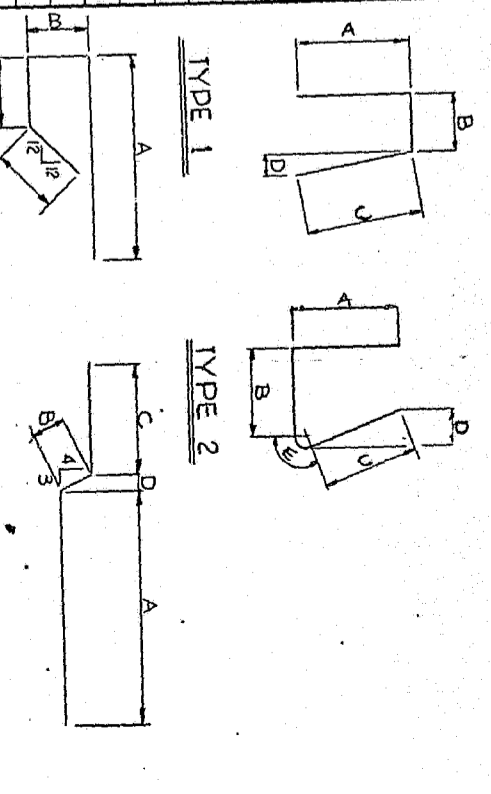
APPROVED \_\_\_\_\_  
BRIDGE ENGINEER

SHEET 25 OF 29  
S-14185



# REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	EPOXY COATED NO.	UNCOATED NO.	TYPE	REMARKS					MARK	SIZE	LENGTH	EPOXY COATED NO.	UNCOATED NO.	TYPE	REMARKS				
						A	B	C	D	E							A	B	C	D	E
PARAPET ~ BARRIER ~ SIDEWALK																					
EC401	4	19'-8"		496	STR																
EC402	4	20'-9"			STR																
EC403	4	21'-10"			STR																
EC404	4	22'-1"			STR																
EC405	4	21'-0"			STR																
C406	4	22'-10" TO 14'-8"			STR																
C407	4	22'-8" TO 14'-8"			STR																
C408	4	22'-3" TO 14'-2"			STR																
DECK SLAB																					
ES401	4	50'-0"		536	STR																
ES402	4	51'-3"		536	STR																
ES403	4	38'-5"		16	STR																
ES404	4	26'-7"		16	STR																
ES405	4	7'-7"		896	STR																
ES406	4	4'-9"			STR																
ES501	5	57'-8"		1379	STR																
ES502	5	47'-9" TO 2'-0"		464	STR																
ES503	5	55'-0" TO 2'-0"		455	STR																
ES504	5	47'-9" TO 2'-0"		464	STR																
ES505	5	55'-0" TO 2'-0"		455	STR																
ES506	5	53'-6"		1379	STR																
ES507	5	51'-11"		632	STR																
ES508	5	50'-0"		632	STR																
ES509	5	26'-7"		16	STR																
ES510	5	38'-11"		16	STR																
ES511	5	4'-10"		897	STR																
ES512	5	2'-9"		1044	STR																
ES513	5	3'-0"		1044	STR																
ES514	5	3'-2"		522	STR																
ES515	5	5'-0"		64	STR																
ES516	5	4'-10"		64	STR																
ES517	5	3'-8"		32	STR																
ES518	5	6'-3"		64	STR																
ES519	5	6'-0"																			
ES520	5	6'-0"																			
ES521	5	55'-0" TO 2'-0"		63	STR																
ES522	5	55'-0" TO 2'-0"		63	STR																
ES523	5	2'-2"		522	STR																
ES524	5	7'-0"		1865	STR																
ES525	5	5'-5" TO 2'-0"		35	STR																
ES526	5	5'-5" TO 2'-0"		35	STR																
NEW PIER COLUMNS																					
P401	4	11'-3"		337	STR																
P402	4	4'-5"		337	STR																
P403	9	22'-4"			STR																
P404	9	22'-8"			STR																
P405	9	23'-0"			STR																
P406	9	23'-1"			STR																
P407	9	23'-6"			STR																
P408	9	23'-9"			STR																
P409	9	24'-3"			STR																
P410	9	24'-4"			STR																
P411	9	24'-10"			STR																
P412	9	24'-11"			STR																
P413	9	25'-5"			STR																
P414	9	25'-7"			STR																
DECK SLAB (CONT.)																					
D401	6	4'-0"		196	STR																
D402	9	6'-0"		153	STR																



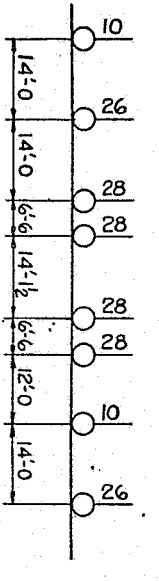
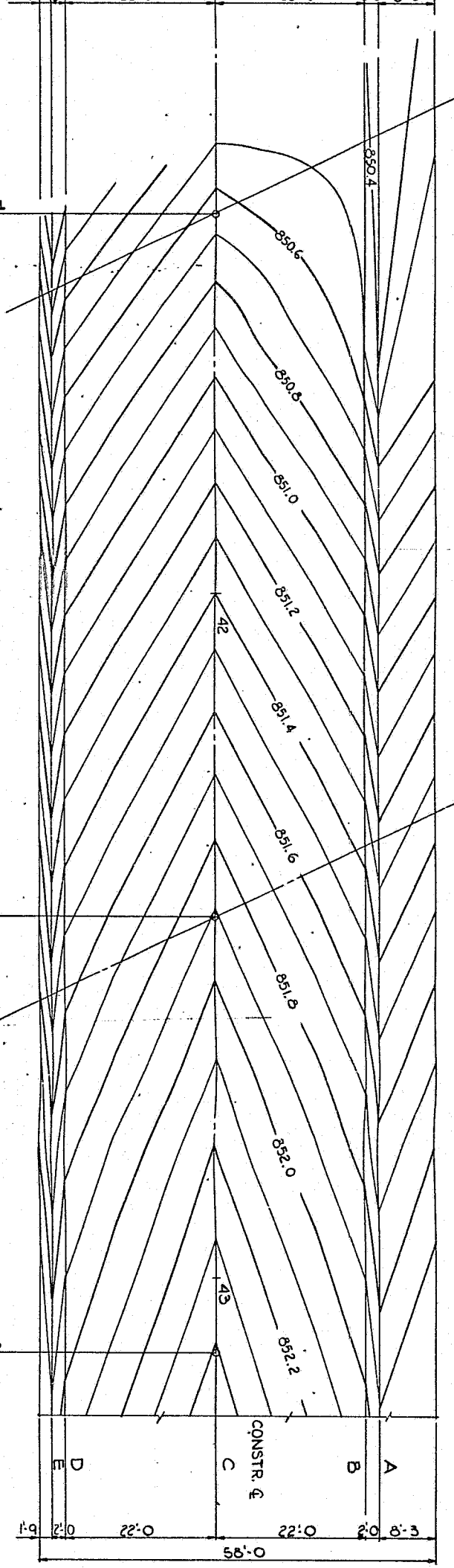
Mark	Description	By	Chk'd	App'd	Date

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. STA. 45+46.00  
L.R. 736 EXT. SEC. 39

REHABILITATION OF  
8-SPAN STEEL DECK GIRDER BRIDGE  
OVER UNION R.R. & THOMPSON RUN  
REINFORCEMENT BAR SCHEDULE

APPROVED \_\_\_\_\_  
BRIDGE ENGINEER



ALL LOADS ARE AXLE LOADS IN 1000 LB. UNITS  
 EXISTING LOADING DIAGRAM (ORIGINAL DESIGN)  
 REFERENCE : ALLEGHENY COUNTY DEPT. OF PUBLIC WORKS  
 BUREAU OF BRIDGES  
 DRAWING NO. 10331

**CONTOUR PLAN**  
 SCALE: 1" = 10'

NOTE: CONTOUR LINES FOR PARADET. BARRIER & SIDEWALK NOT SHOWN.

TABLE OF DECK ELEVATIONS - STA. 41+00 TO STA. 43+20

STATION	LEFT GUTTER - A	LEFT EDGE LANE - B	CONSTR. G - C	RIGHT EDGE LANE - D	RIGHT GUTTER - E
43 + 20	851.91	852.05	852.47	852.03	851.91
+ 10%	851.85	851.97	852.41	851.97	851.85
+ 10	851.84	851.96	852.40	851.96	851.84
43 + 00	851.78	851.90	852.34	851.90	851.78
+ 90	851.71	851.83	852.27	851.83	851.71
+ 30	851.63	851.75	852.19	851.75	851.63
+ 70	851.55	851.67	852.11	851.67	851.55
+ 60	851.47	851.59	852.03	851.59	851.47
+ 50	851.38	851.50	851.94	851.50	851.38
+ 40	851.28	851.40	851.84	851.40	851.28
+ 30	851.18	851.30	851.74	851.30	851.18
+ 20	851.07	851.19	851.63	851.19	851.07
+ 10	850.96	851.08	851.52	851.08	850.96
42 + 00	850.84	850.96	851.40	850.96	850.84
+ 90	850.72	850.84	851.28	850.84	850.72
+ 80	850.59	850.71	851.15	850.71	850.59
+ 70	850.45	850.57	851.01	850.57	850.45
+ 65	850.38	850.50	850.94	850.50	850.38
+ 60	850.38	850.50	850.87	850.43	850.31
+ 56.34	850.37	850.49	850.82	850.38	850.26
+ 50	850.37	850.49	850.73	850.29	850.17
+ 45.12	850.35	850.47	850.65	850.21	850.09
+ 40	850.35	850.47	850.58	850.14	850.02
+ 33.86	850.33	850.45	850.48	850.04	849.92
+ 30	850.32	850.44	850.42	849.98	849.86
+ 20	850.31	850.41	850.26	849.82	849.70
+ 10	850.31	850.38	850.09	849.65	849.53
41 + 00	850.34	849.92	849.48	849.36	

**STRESS SUMMARY**

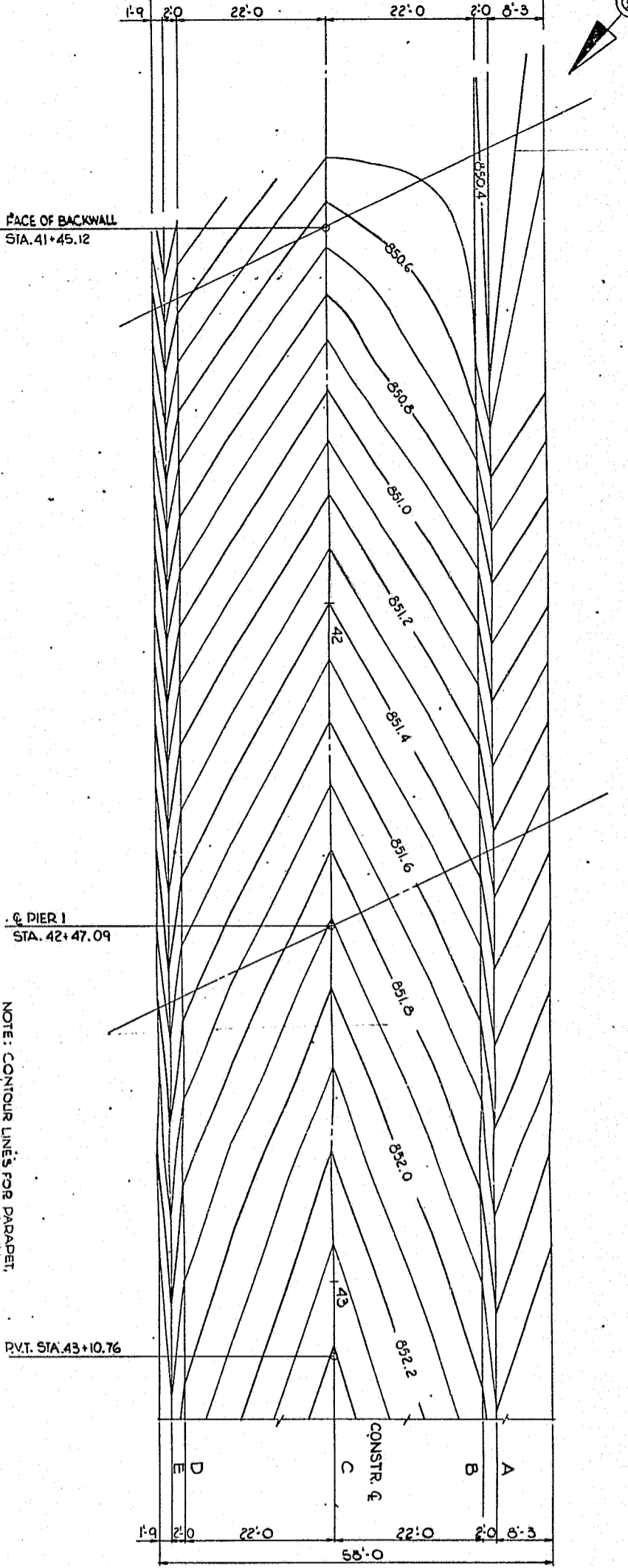
MEMBER	EXIST. INTER. FLR. BM		EXIST. END FLR. BM		EXIST. STRINGER		EXIST. MAIN GIRDER		NEW OUTSIDE GIRDER		NEW FLOOR BEAM		NEW STRINGERS	
	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED
DL	53.12	71.9	41.4	8.3	13.1	7.1	12.7	236.3	236.8	82.2	71.9	13.1		
LL	54.4	58.5	58.5	22.5	32.9	31.5	25.0	134.9	104.1	35.9	58.5	32.9		
I	31.2	17.6	17.6	15.0	9.9	12.6	7.5	40.7	31.2	7.9	17.6	9.9		
TOTAL	143.7	154.0	117.5	48.8	55.9	51.2	45.2	416.8	372.1	126.0	154.0	55.9		
DL	617.1	1044.1	548.3	40.8	65.5	34.4	63.5	646.0	645.9	203.0	1044.1	65.5		
LL	814.0	166.4	166.4	108.4	81.6	134.6	74.2	3667.0	2896.6	876.0	166.4	84.6		
I	428.0	230.0	230.0	63.8	26.9	63.3	23.7	1178.0	719.0	182.0	230.0	26.9		
TOTAL	1859.1	2040.5	1544.7	213.0	182.0	232.3	166.4	11305.0	9571.5	3042.0	2040.5	182.0		
ON	FIG. P. 14+2, FIG. L. 6+6, WEBR 72.3		FIG. R. 4+2, FIG. L. 6+6, WEBR 72.3		24CB70		24CB70		10' x 56" B. FIG. R. 13+14, 8' CONC. WEBR 70.2, B.F.I.G. 146, FIG. 1+18		1490.4 IN <sup>3</sup>		W 24 x 76	
MODULUS	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	162.8 IN <sup>3</sup>	145.3 IN <sup>3</sup>	182.0 IN <sup>3</sup>	157.1 IN <sup>3</sup>	10' x 56" B. FIG. R. 13+14, 8' CONC. WEBR 70.2, B.F.I.G. 146, FIG. 1+18	5940 IN <sup>3</sup>	5940 IN <sup>3</sup>	21.0	200	20.0
ALLOW	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	25.6	16.4	16.4	16.4	12.4
ACTUAL	16.4	18.0			15.7	15.0	15.3	12.7	15.2	94.8	82.6	82.6	82.6	62.0
%	102	112			93.1	93.9	95.7	74.4	94.8	80.3	94.8	82.6	82.6	62.0

Commonwealth of Pennsylvania  
 DEPARTMENT OF TRANSPORTATION  
 BUREAU OF DESIGN

ALLEGHENY COUNTY  
 L.R. 736 EXT. SEC. 39  
 L.R. 736 EXT. STA. 45+46.00  
 OVER UNION R.R. & THOMPSON RUN  
 REHABILITATION OF  
 8-SPAN STEEL DECK GIRDER BRIDGE  
 CONTOUR PLAN, DECK ELEV. & STRESS TABLE

APPROVED: \_\_\_\_\_  
 BRIDGE ENGINEER

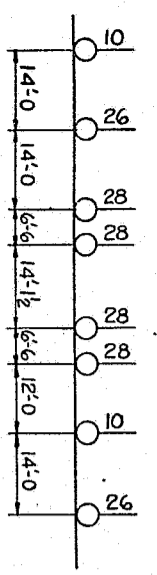
SHEET 29 OF 29  
**S-14185**



CONTOUR PLAN  
SCALE: 1" = 1'-0"

NOTE: CONTOUR LINES FOR PARADET, BARRIER & SIDEWALK NOT SHOWN.

ALL LOADS ARE AXLE LOADS, IN 1000 LB. UNITS  
\* EXISTING LOADING DIAGRAM (ORIGINAL DESIGN)  
REFERENCE: ALLEGHENY COUNTY DEPT. OF PUBLIC WORKS  
BUREAU OF BRIDGES  
DRAWING NO. 10331



STRESS SUMMARY

SECTION	EXIST. INTER. FLR. BM		EXIST. END FLR. BM		EXIST. STRINGER		EXIST. STRINGER		EXIST. MAIN GIRDER		NEW OUTSIDE GIRDER		NEW FLOOR BEAM		NEW STRINGERS	
	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	EXISTING	CALCULATED	CALCULATED	CALCULATED	CALCULATED	CALCULATED	CALCULATED	
LENGTH	42'-3 3/8"		42'-3 3/8"		20'		20'		91'-8"		99'		41'-1 1/2"		20'	
DL	53.12	71.9	41.4	41.4	8.3	13.1	7.1	12.7	236.3	236.8	82.2	71.9	13.1	13.1		
LL	59.4	53.5	53.5	53.5	22.5	32.9	31.5	25.0	139.9	104.1	35.9	58.5	32.9	32.9		
I	31.2	17.6	17.6	17.6	15.0	9.9	12.6	7.5	40.7	31.2	7.9	17.6	9.9	9.9		
TOTAL	143.7	154.0	117.5	117.5	48.8	55.9	51.2	45.2	416.8	372.1	126.0	154.0	55.9	55.9		
DL	617.1	1044.1	548.3	548.3	40.8	65.5	34.4	63.5	6460.0	6455.9	2033.0	1044.1	65.5	65.5		
LL	814.0	766.4	766.4	766.4	108.4	84.6	134.6	79.2	3667.0	2966.6	826.0	766.4	84.6	84.6		
I	428.0	230.0	230.0	230.0	63.8	26.9	63.3	23.7	1178.0	719.0	162.0	230.0	26.9	26.9		
TOTAL	1859.1	2040.5	1544.7	1544.7	213.0	182.0	232.3	166.4	11305.0	9511.5	3042.0	2040.5	182.0	182.0		
MODULUS	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	1363.1 IN <sup>3</sup>	162.8 IN <sup>3</sup>	145.3 IN <sup>3</sup>	182.0 IN <sup>3</sup>	157.1 IN <sup>3</sup>	8940 IN <sup>3</sup>	8940 IN <sup>3</sup>	5395 IN <sup>3</sup>	1490.4 IN <sup>3</sup>	200	176.0 IN <sup>3</sup>	200	
ALLOW	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	21.0	20.0	20.0	20.0	20.0	
ACTUAL	16.4	18.0	13.6	13.6	15.7	15.0	15.3	12.7	15.2	12.85	25.6	16.4	12.4	12.4	12.4	
%	102	112	85.0	85.0	98.1	93.9	95.7	79.4	94.8	80.3	94.8	82.6	62.0	62.0	62.0	

TABLE OF DECK ELEVATIONS - STA. 41+00 TO STA. 43+70

STATION	LEFT GUTTER-A	LEFT EDGE LANE-B	CONSTR. G - C	RIGHT EDGE LANE-D	RIGHT GUTTER-E
43 + 20	851.91	852.03	852.47	852.03	851.91
+ 1076	851.65	851.97	852.41	851.97	851.85
+ 10	851.84	851.96	852.40	851.96	851.84
43 + 00	851.78	851.90	852.34	851.90	851.78
+ 90	851.71	851.83	852.27	851.83	851.71
+ 80	851.63	851.75	852.19	851.75	851.63
+ 70	851.55	851.67	852.11	851.67	851.55
+ 60	851.47	851.59	852.03	851.59	851.47
+ 50	851.38	851.50	851.94	851.50	851.38
+ 40	851.28	851.40	851.84	851.40	851.28
+ 30	851.18	851.30	851.74	851.30	851.18
+ 20	851.07	851.19	851.63	851.19	851.07
+ 10	850.96	851.08	851.52	851.08	850.96
42 + 00	850.84	850.96	851.40	850.96	850.84
+ 90	850.72	850.84	851.28	850.84	850.72
+ 80	850.59	850.71	851.15	850.71	850.59
+ 70	850.45	850.57	851.01	850.57	850.45
+ 65	850.38	850.50	850.94	850.50	850.38
+ 60	850.36	850.50	850.87	850.43	850.31
+ 56.39	850.37	850.49	850.82	850.38	850.26
+ 50	850.37	850.49	850.73	850.29	850.17
+ 45.12	850.35	850.47	850.65	850.21	850.09
+ 40	850.35	850.47	850.58	850.14	850.02
+ 33.66	850.33	850.45	850.48	850.04	849.92
+ 30	850.32	850.44	850.42	849.98	849.86
+ 20	850.32	850.41	850.26	849.82	849.70
+ 10	850.32	850.38	850.09	849.65	849.53
41 + 00	850.34	849.92	849.48	849.36	

Commonwealth of Pennsylvania  
DEPARTMENT OF TRANSPORTATION  
BUREAU OF DESIGN

ALLEGHENY COUNTY  
L.R. 736 EXT. SEC. 39  
L.R. 736 EXT. STA. 45+46.00  
OVER UNION R.R. & THOMPSON RUN  
REHABILITATION OF  
8-SPAN STEEL GIRDER BRIDGE  
CONTOUR PLAN, DECK ELEV. & STRESS TABLE

APPROVED \_\_\_\_\_ SHEET 29 OF 29  
BRIDGE ENGINEER S-14185

Mark	Description	By	Chk'd.	App'd.	Date
	REVISIONS				