

RECORD DRAWINGS
WORK AS CONSTRUCTED

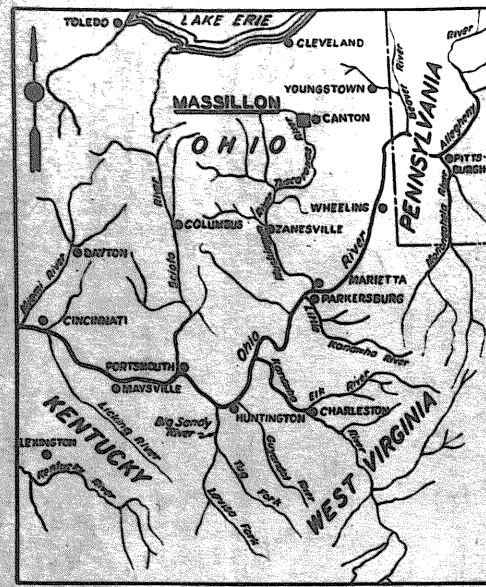
MASSILLON, OHIO
CONSTRUCTION OF LOCAL PROTECTION PROJECT
CONSTRUCTION OF TWO PRESSURE CONDUITS

CORPS OF ENGINEERS

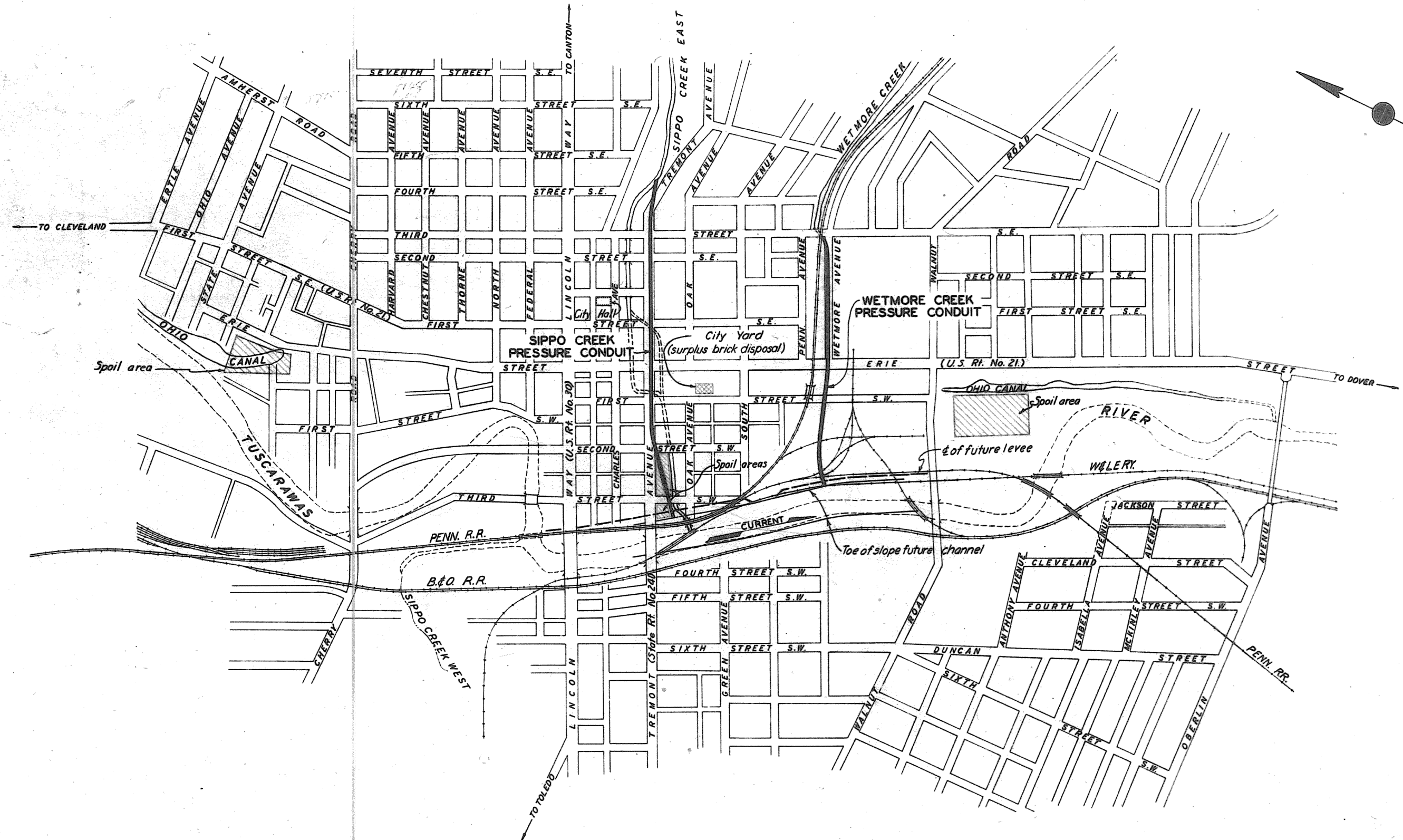
U. S. ARMY

HUNTINGTON DISTRICT

#4



VICINITY MAP
0 1 2 3 4
SCALE IN MILES



SHEET NO.	FILE NO.	DESCRIPTION	SHEET NO.	FILE NO.	DESCRIPTION
1	027i-PM-82/1	Site Map & Index			
2	82/2	Plan & Profile	10	027i-PM-82/10	Plan & Profile
3	82/3	Plan & Profile	11	82/11	Plan & Profile
4	82/4 & 82/4A	Typical Conduit Sections & Inlet Structure	12	82/12	Typical Conduit Sections & Outlet Structure
5	82/5	First Street Siphon-Plan & Profile	13	82/13	Erie Street Siphon-Details
6	82/6	First Street Siphon-Details	14	82/14	Miscellaneous Details
7	82/7	Junction Chamber & Miscellaneous Details	15	82/15	Cross Sections
8	82/8	Miscellaneous Details			
9	82/9	Sewer Profiles			

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUITS
SIPPO & WETMORE CREEKS
SITE MAP & INDEX**

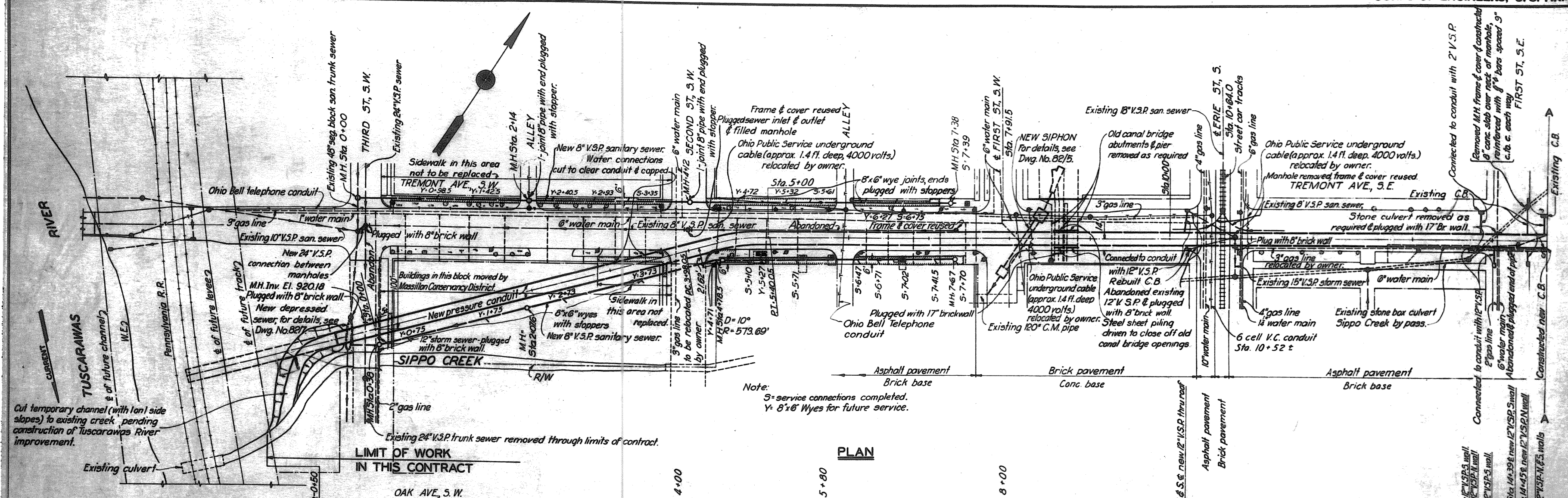
IN 15 SHEETS SHEET NO. 1 SCALE 1"=400'

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

SUBMITTED: *[Signature]* APPROVED: *[Signature]*
DRAWN BY: L. S. H. ENGINEER
CHECKED BY: H. L. H. FILE NO. 027i-PM-82/1 DATED: *[Date]*

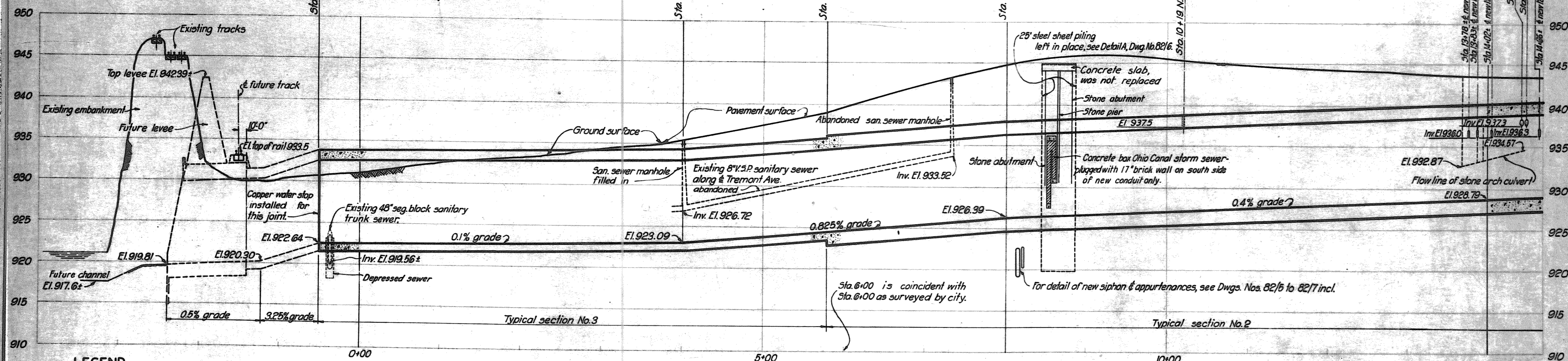
BY DATE	CHARACTER
REVISIONS	

WORK AS CONSTRUCTED



Note:
S=service connections completed.
Y=8" x 6" Wyes for future service.

PLAN



LEGEND

- R/W line
- Tree
- Existing manhole
- New manhole
- Existing catch basin
- New catch basin
- Utility pole
- Fire hydrant
- Street light standard
- Coal chute hole
- Water valve
- Ohio Bell telephone conduit
- Street R/W line
- Curb & sidewalk line
- Water & gas lines
- Underground power transmission lines
- V.S.P. vitrified sewer pipe
- Approx. limits of sidewalk or curb to be removed & replaced

GENERAL NOTES

All concrete sidewalks were replaced 4" thick and conforming in width and jointing to that of existing walk, except at driveways where a 6" thickness was used.
All water mains are approx. 5 ft. deep.
Ohio Bell telephone conduit is approx. 3 ft. deep except conduit in Erie St. S. which is approx. 4.5 ft. deep.
Unless otherwise indicated existing water and gas pipes, sewers, electric and telephone conduits were shared, supported or removed and replaced where necessary during construction by the contractor.
All gas lines are approx. 3 ft. deep.
For profile of new 8" sanitary sewer, see Dwg. No. 82/9.

PROFILE

NOTES

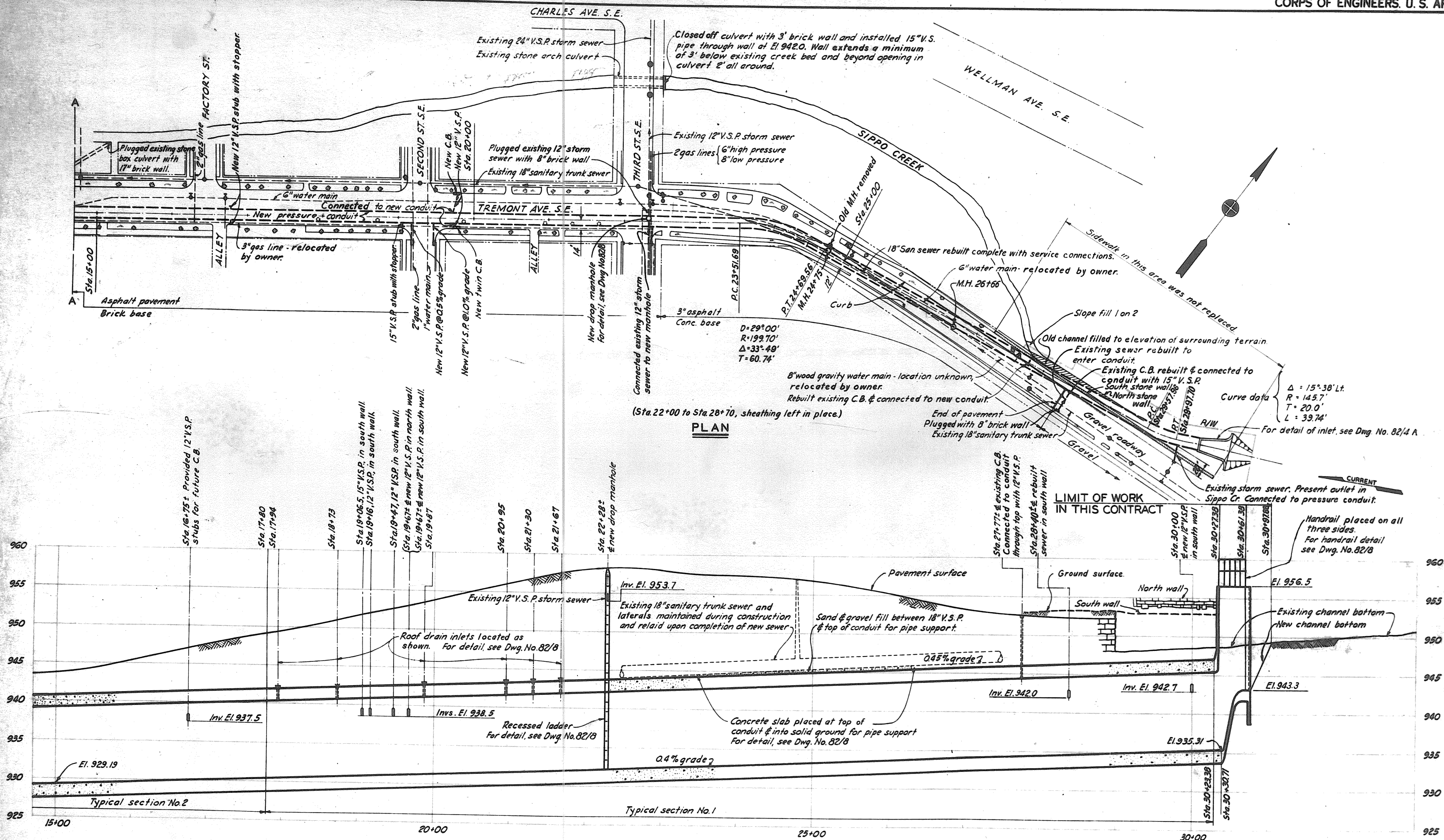
For miscellaneous sewer details, see Dwg. No. 82/8.
For typical conduit sections, see Dwg. No. 82/4.
R/W coincides with street R/W lines, except as shown.
Area bounded by Oak Ave., S.W., Penn. R.R. R/W, Tremont Ave. S.W. and Third St. S.W. was used for construction purposes.
For profile of new 8" V.S.P. sanitary sewers, see Dwg. No. 82/9.

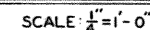
BY	DATE	CHARACTER
S.F.B.	4/25/41	REVISED AS CONSTRUCTED
DATE	8/13/40	SIDEWALK REPLACEMENT NEAR SECOND STREET DELETED.
BY	DATE	CHARACTER
REVISIONS		

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT - SIPPO CREEK
PLAN & PROFILE**

10 15 SHEETS
SHEET NO. 2
SCALE: HOR. 1" = 50'
VERT. 1" = 5'-0"
U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940
SUBMITTED: *Wm. J. Fisher*
APPROVED: *Wm. J. Fisher*
DRAWN BY: G.O.S.
CHECKED BY: H.E.C.
CORRECTED BY: H.L.H.
FILE NO. 0271-PM-82/2
DATE: 1940
TRANSMITTED WITH LETTERS

WORK AS CONSTRUCTED





Bar numbers indicate sizes and lengths thus: the first digit indicates the size in eighths of an inch (except $\frac{1}{2}$, $1\frac{1}{4}$, $1\frac{3}{4}$), the next two or three digits indicate the length in fourths of a foot. Thus a bar marked 643 means $\frac{6}{8}$ or $\frac{3}{4}$ " and $\frac{43}{4}$ = 10.75 or 10'-9"; if a letter is suffixed a bent bar is indicated and is detailed in the bending diagram and schedule.

1 for $1''$	4 for $\frac{1}{2}''$	8 for $1''$
2 for $\frac{1}{2}''$	5 for $\frac{3}{8}''$	9 for $1\frac{1}{8}''$
3 for $\frac{3}{8}''$	6 for $\frac{3}{4}''$	0 for $1\frac{1}{4}''$
	7 for $\frac{7}{8}''$	



NOTES

For general notes, see Dwg. No. 82/2
For plans & profiles, see Dwg. Nos. 82/24, 82/3.
For miscellaneous details, see Dwg. No. 82/8.
Copper water stop installed in all conduit
monolith joints. Monoliths not to exceed 40 lin.ft.
All main reinforcing steel spaced a clear
distance from concrete surfaces as shown.
All bends were made to a radius of 4 bar
diameters (inside) unless otherwise noted.
All splices of reinforcing steel provided a
lap of 40 bar diameters, unless otherwise shown
or noted.
Provided 1" chamfer on all exposed corners,
unless otherwise shown or noted.
For typical conduit joint, see Dwg. No. 82/8

Note:

* This quantity was increased by the amount shown in schedule on Dwg. No. 82/4A
** Deleted.

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
TYPICAL SECTION NO. 1-40'						
500	$\frac{5}{8}" \phi$	2880		-	1.043	3004
561	$\frac{5}{8}" \phi$	15'-3"		80	15.91	1273
650	$\frac{3}{4}" \phi$	12'-6"		107	18.78	2009
668A	$\frac{3}{4}" \phi$	17'-0"		53	25.53	1353
863A	1" ϕ	15'-9"		80	42.05	3364
872B	1" ϕ	18'-0"		53	48.06	2547
873A	1" ϕ	18'-3"		40	48.73	1949
163A	1" ϕ	15'-9"		80	53.55	4284
061	$\frac{1}{2}" \phi$	15'-3"		40	81.02	3241
				Sub-total = 23,024		
TYPICAL SECTION NO. 2-40'						
500	$\frac{5}{8}" \phi$	2880		-	1.043	3004
550	$\frac{5}{8}" \phi$	12'-6"		107	13.04	1395
558A	$\frac{5}{8}" \phi$	14'-6"		80	15.12	1210
567A	$\frac{5}{8}" \phi$	16'-3"		40	17.47	699
569A	$\frac{5}{8}" \phi$	17'-3"		80	17.99	1439
571A	$\frac{5}{8}" \phi$	17'-9"		53	18.51	981
861	1" ϕ	15'-3"		53	40.72	2158
863A	1" ϕ	15'-9"		80	42.05	3364
172A	1" ϕ	18'-0"		40	61.20	2448
				Sub-total = 16,698		
TYPICAL SECTION NO. 3-40'						
500	$\frac{5}{8}" \phi$	2960		-	1.043	3087
546	$\frac{5}{8}" \phi$	11'-6"		80	11.89	959
559	$\frac{5}{8}" \phi$	14'-9"		107	15.39	1646
568A	$\frac{5}{8}" \phi$	17'-0"		53	17.73	940
656A	$\frac{3}{4}" \phi$	14'-0"		160	21.03	3385
669A	$\frac{3}{4}" \phi$	17'-3"		53	25.91	1373
759	$\frac{3}{8}" \phi$	14'-9"		53	30.15	1598
				Sub-total = 12,968		
INLET STRUCTURE						
422A	$\frac{1}{2}" \phi$	5'-6"		38	3.67	139
* 500	$\frac{5}{8}" \phi$	2250'		-	1.043	2347
* 516A	$\frac{5}{8}" \phi$	4'-0"		26	4.17	108
520A	$\frac{5}{8}" \phi$	5'-0"		17	5.22	89
540B	$\frac{5}{8}" \phi$	10'-0"		13	10.43	136
* 544B	$\frac{5}{8}" \phi$	11'-0"		27	11.47	310
550A	$\frac{5}{8}" \phi$	12'-6"		13	13.04	170
* 558B	$\frac{5}{8}" \phi$	14'-6"		52	15.12	786
560A	$\frac{5}{8}" \phi$	15'-0"		60	15.65	939
510A	$\frac{5}{8}" \phi$	26'-0"		3	27.12	81
763	$\frac{3}{8}" \phi$	15'-9"		24	32.19	773
* 800	1" ϕ	6200		-	2.670	16,554
184A	1" ϕ	21'-10"		4	71.40	286
1101A	1" ϕ	25'-3"		4	85.85	343
1140	1" ϕ	35'-0"		8	119.00	952
				Sub-total = 24,013		

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO**

**PRESSURE CONDUIT — SIPPO CREEK
TYPICAL CONDUIT SECTIONS & INLET STRUCT.**

100 15 SHEETS

SUNSET NO. 4 SCALE: 1" = 1'-0"

U. S. ENGINEER OFFICE. HUNTINGTON, W. VA. MARCH, 1940

SUBMITTED: Harry J. Krebs
PRINCIPAL ENGINEER

APPROVED: J. F. Keenan
LT. COL. CORPS OF ENGINEERS

DRAWN BY M. C. S.
TRACED BY C. C. B.
CHECKED BY H. L. H.

TRANSMITTED WITH LETTER
FILE NO 027i-PM-82/4

WORK AS CONSTRUCTED

Reinforcing steel in this schedule is additional reinforcement required for Change Order No. 2.
See Dwg. 82/4 for reinforcing steel schedule.

NOTES

For general notes, see Dwg. No. 82/2.
For plans & profiles, see Dwg. Nos. 82/2 & 3.
For miscellaneous details, see Dwg. No. 82/3.
Copper water stops were installed in all conduit
manolith joints.
All main reinforcing steel was spaced a clear dis-
tance from concrete surfaces as shown.
All bends were made to a radius of 4 bar dia-
meters (inside) unless otherwise noted.
All splices of reinforcing steel provide a lap of 40
bar diameters, unless otherwise shown or noted.
Provided 1" chamfer on all exposed corners unless
otherwise shown or noted.
For sections B-B and C-C, see Dwg. No. 82/4.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT - SIPPO CREEK
INLET STRUCTURE**

IN 005575 SHEET NO. SCALE 1"=0'

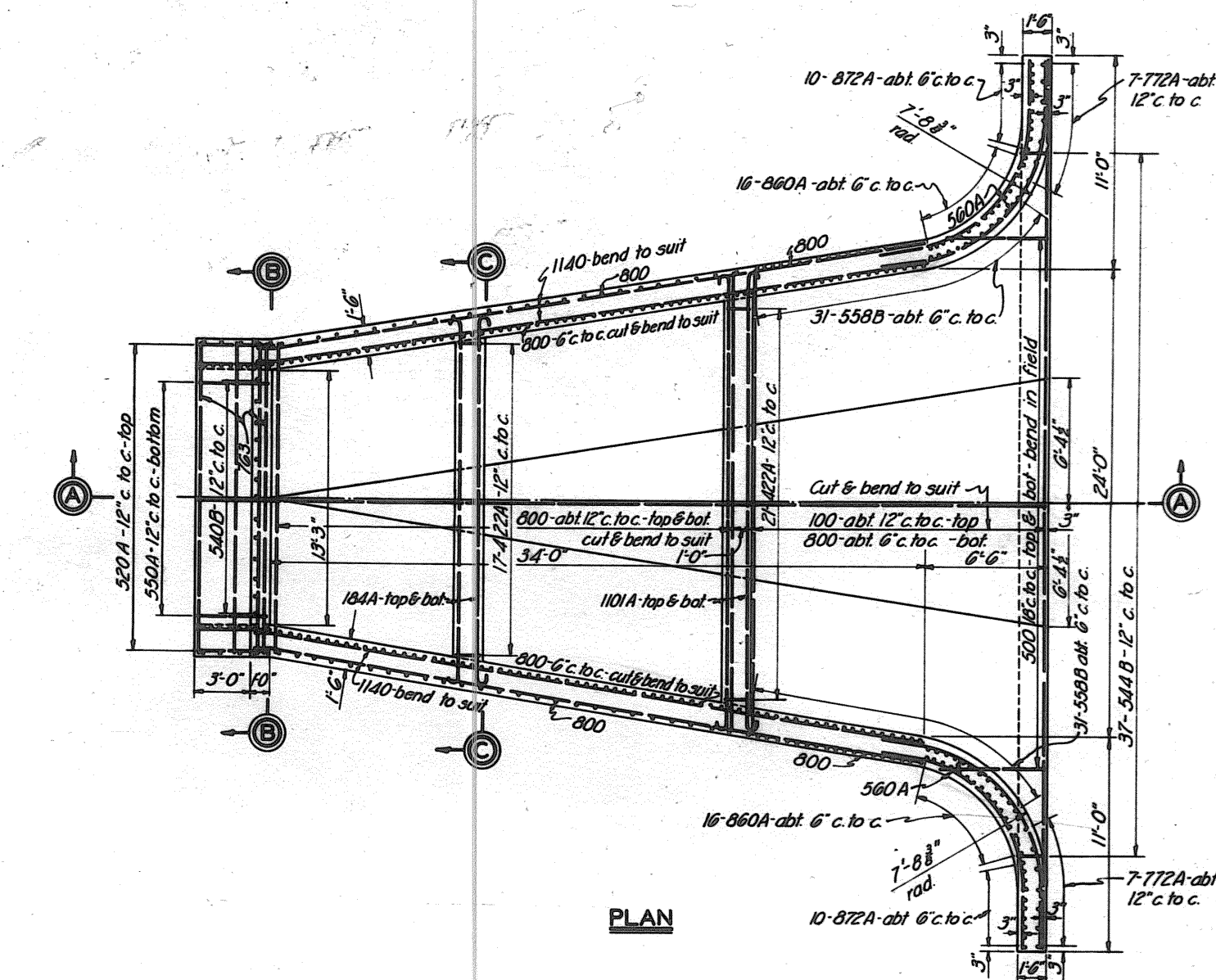
12' 0' 2' 4' 6' 8' 10'

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA. NOV. 1944

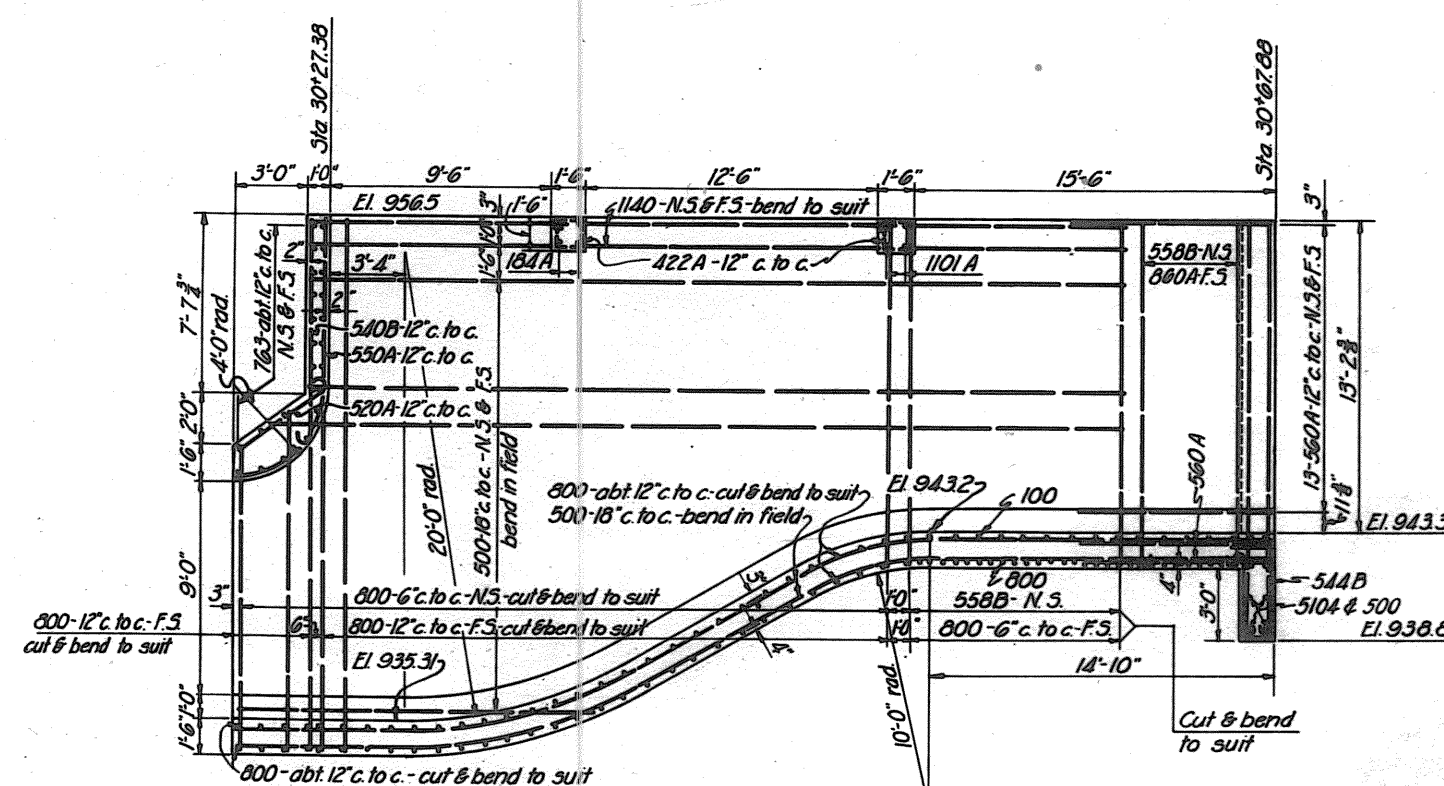
SUBMITTED: *Harry Jackson* APPROVED: *W. H. Hall*
PERSONAL ENGINEER CHIEF, CORPS OF ENGINEERS

DESIGNED BY C. E. G. TRANSMITTED WITH LETTERS
IN M. M. S. F. B.
CHECKED BY FILE NO 0271-PM-824A

WORK AS CONSTRUCTED



PLAN

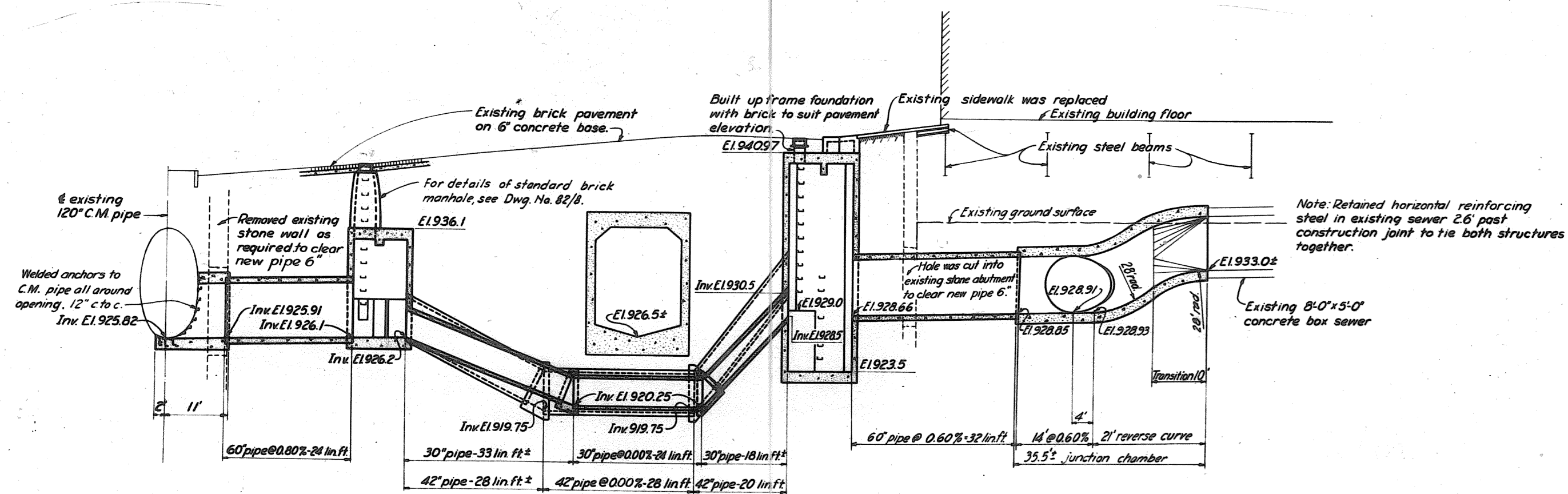
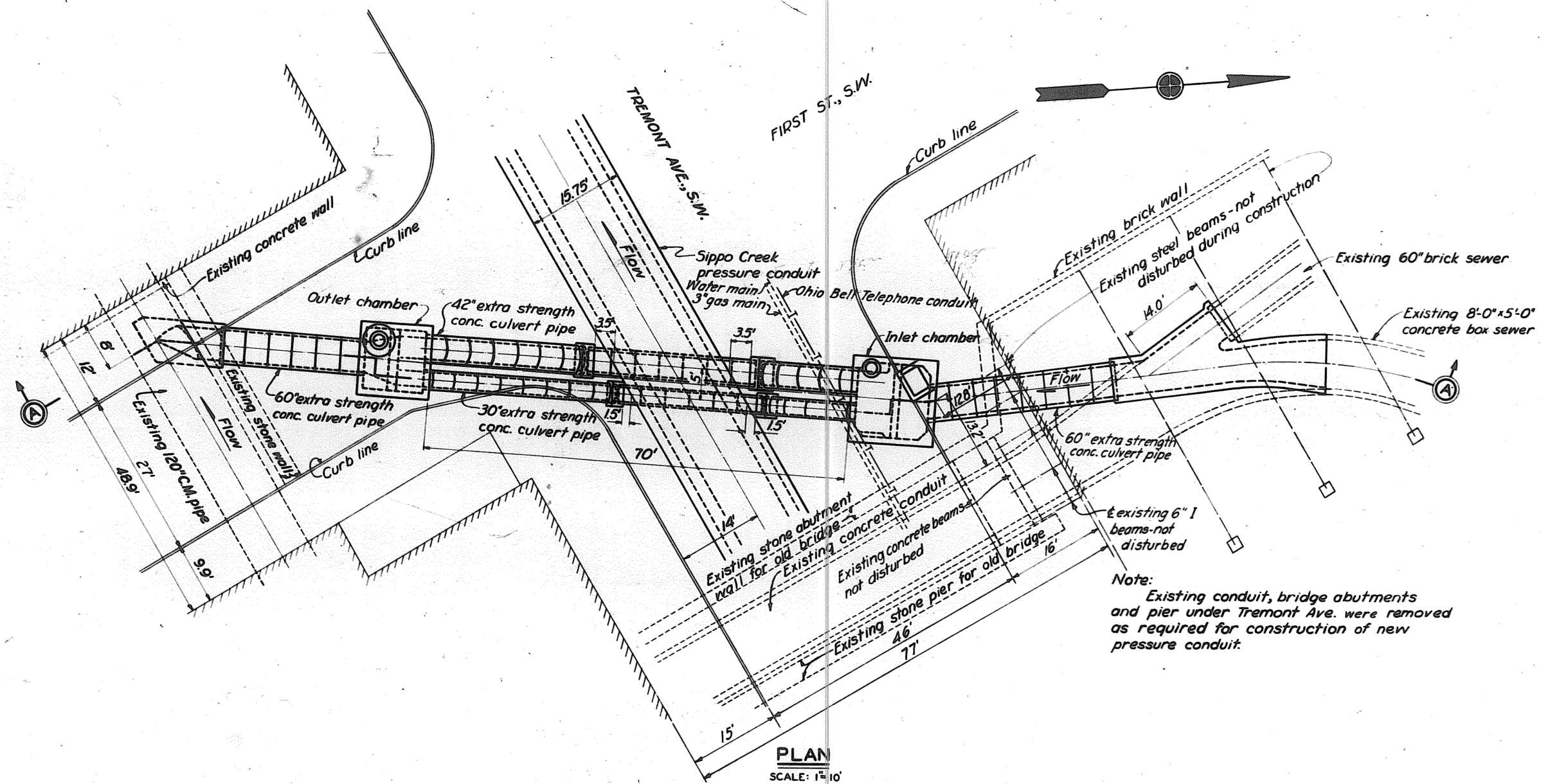


SECTION A-A

INLET STRUCTURE

SCALE: $\frac{1}{2}'' = 1'-0''$

S.F.D.	4-14-41	REVISED AS CONSTRUCTED
BY	DATE	CHARACTER
		REVISIONS



NOTES

For details of inlet and outlet chambers, see Dwg. No. 82/6.
For details of pipe elbows and connection to existing 120" C.M. pipe, see Dwg. No. 82/7.
For details of junction chamber, see Dwg. No. 82/7.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT — SIPPO CREEK
FIRST STREET SIPHON - PLAN & PROFILE**

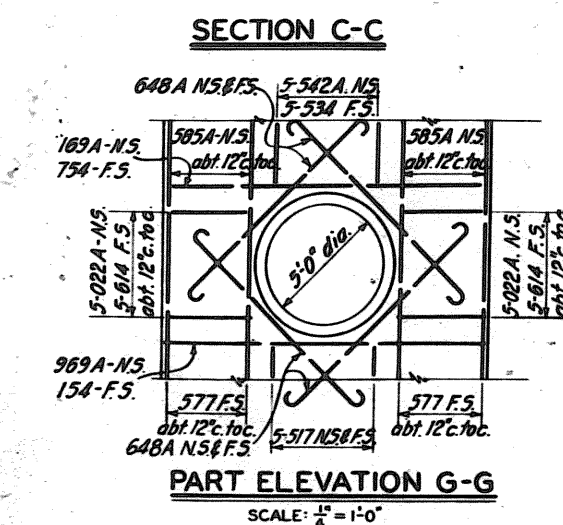
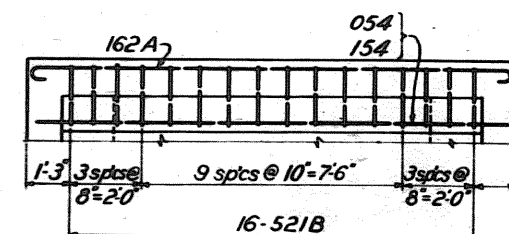
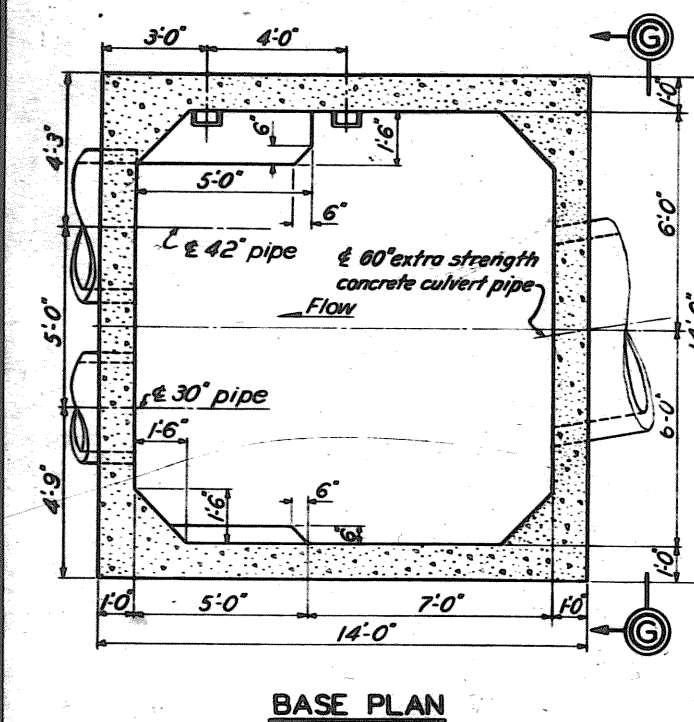
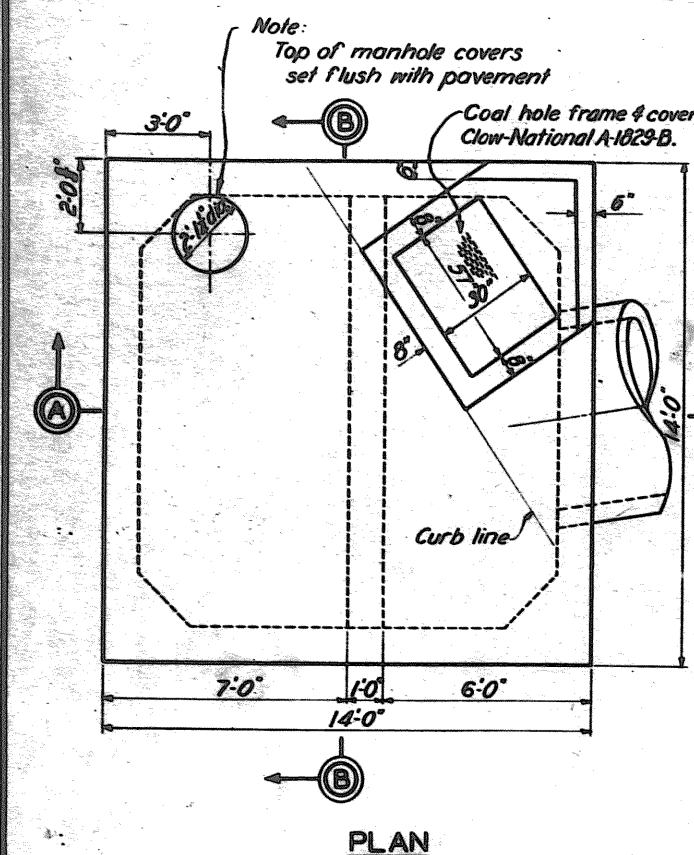
10 15 008670 0087 00. 5 008670 AS SHOWN

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

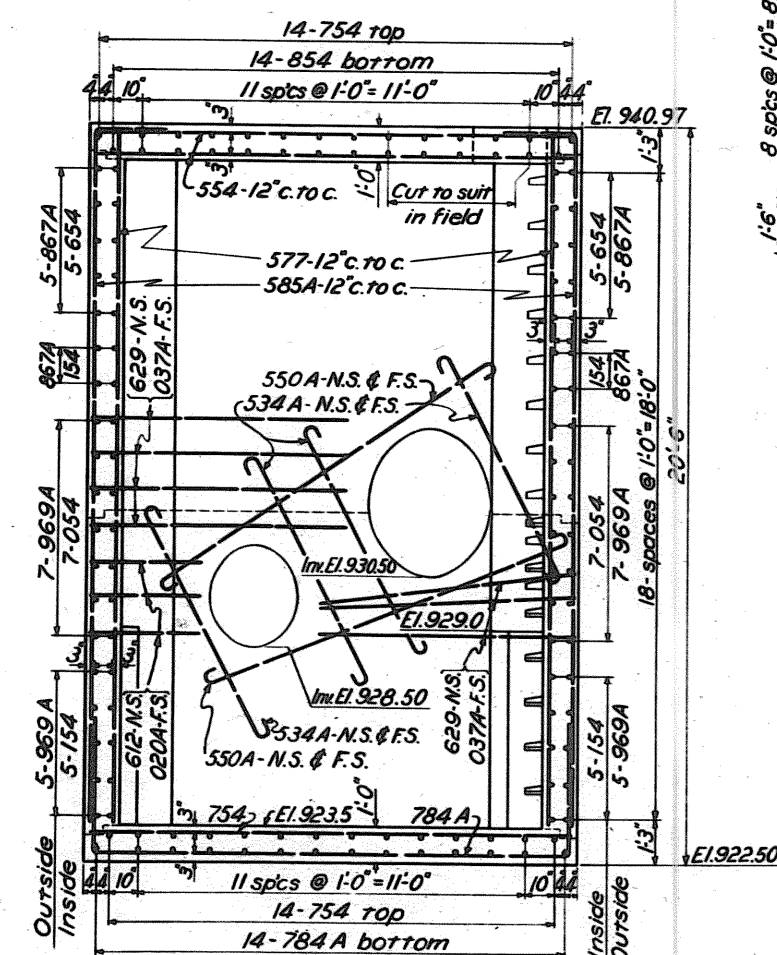
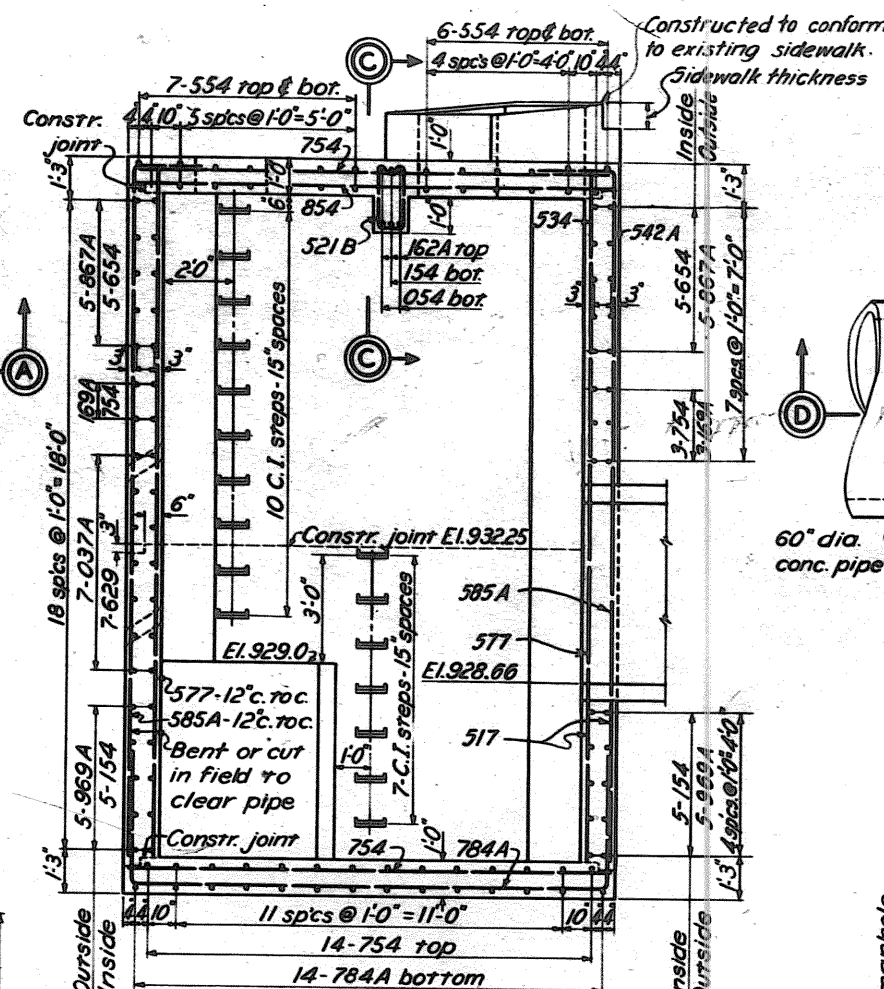
SUBMITTED: *Harry Jackson* APPROVED: *John H. ...*
DESIGNED BY H.W.B. TRANSMITTED BY G.O.S. CHECKED BY H.L.H. FILE NO. 0271-PM-825 DATED

BY	DATE	REVISIONS

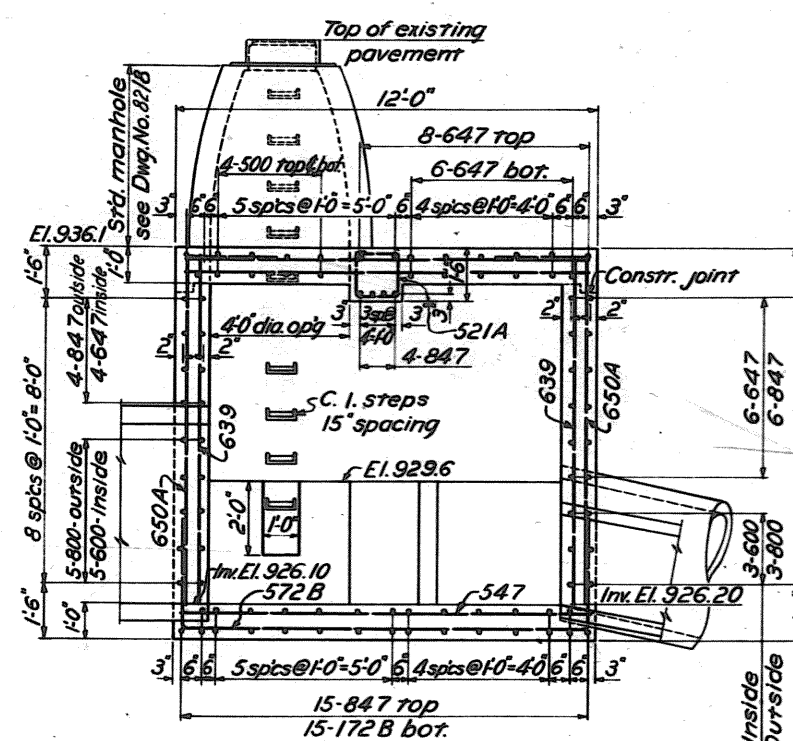
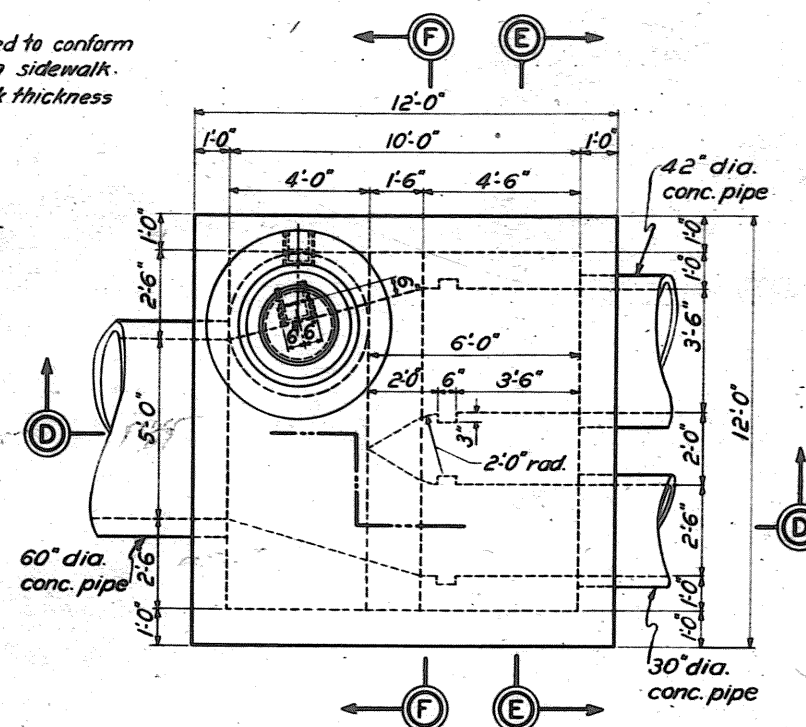
WORK AS CONSTRUCTED



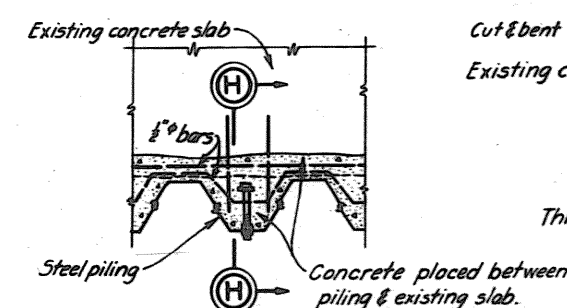
INLET CHAMBER



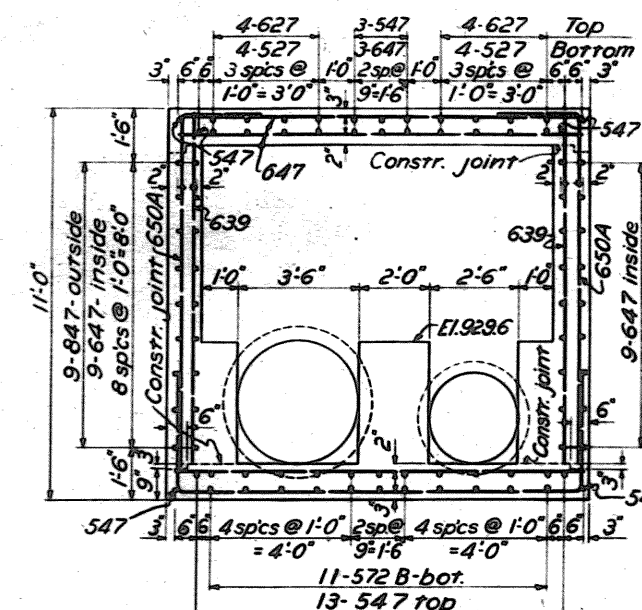
SECTION B-B



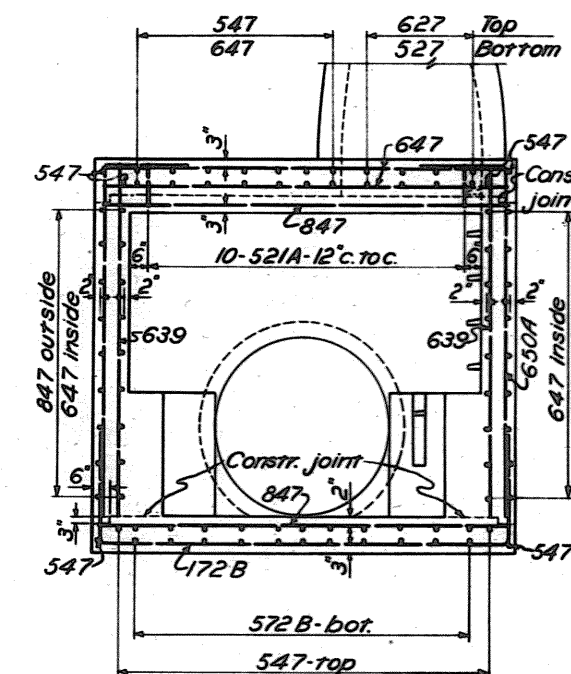
SECTION D-D



DETAIL A



SECTION E-E



SECTION F-F

OUTLET CHAMBER

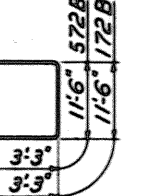
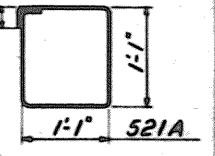
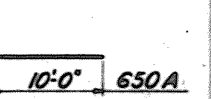
SECTION H-H

REINFORCING SCHEDULE

INLET CHAMBER

MARK	SIZE	LGTH	BENDING DIAGRAM	NO.	UNIT WT.	TOTAL WT.
521B	1/2"	5'-3"		16	5.48	88
542A	1/2"	10'-6"		5	10.95	55
517	1/2"	4'-3"		10	4.43	44
534	1/2"	8'-6"		5	8.87	44
534A	1/2"	8'-6"		8	8.87	71
550A	1/2"	12'-6"		4	13.04	32
554	1/2"	13'-6"		26	14.08	366
577	1/2"	19'-3"		46	20.08	924
585A	1/2"	21'-3"		46	22.16	1019
612	1/2"	3'-0"		3	4.51	14
629	1/2"	7'-3"		7	10.89	76
654	1/2"	18'-6"		20	20.28	406
614	1/2"	3'-6"		10	5.26	53
648A	1/2"	12'-0"		8	18.02	144
754	1/2"	13'-6"		47	27.59	1297
784A	1/2"	21'-0"		28	42.92	1202
854	1/2"	13'-6"		14	36.05	505
867A	1/2"	16'-9"		24	44.72	1073
154	1/2"	13'-6"		25	45.90	1148
162A	1/2"	15'-6"		3	52.70	158
169A	1/2"	17'-3"		5	58.65	293
969A	1/2"	17'-3"		34	74.23	2528
022A	1/2"	5'-6"		10	29.22	292
020A	1/2"	5'-0"		3	26.57	80
037A	1/2"	9'-3"		7	49.15	344
054	1/2"	13'-6"		16	71.73	1148
Total						13,400

OUTLET CHAMBER

500	8'-9"	12'-6"				1.08	12	
521A	8'-9"	5'-3"				10	5.48	55
527	8'-9"	6'-9"				4	7.04	28
547	8'-9"	11'-9"				26	12.26	319
572B	8'-9"	18'-0"				11	18.77	206
								
600	8'-9"	75'-6"				1.50	113	
627	8'-9"	6'-9"				4	10.14	41
639	8'-9"	9'-9"				52	14.64	761
647	8'-9"	11'-9"				51	17.65	900
650A	8'-9"	12'-6"				52	18.78	977
								
800	1'-9"	75'-6"				2.67	200	
847	1'-9"	11'-9"				47	31.37	1474
								
172B	1'-9"	18'-0"				15	61.20	918
Total:							6,004	

NOTES

- For plan and profile of storm siphon, see Dwg. No. 82/5.
For details of junction chamber, see Dwg. No. 82/7.
For miscellaneous metal details, see Dwg. No. 82/8.
For explanation of reinforcing steel code, see Dwg. No. 82/4.
For general reinforcing notes, see Dwg. No. 82/4.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT - SIPPO CREEK
FIRST STREET SIPHON - DETAILS**

15 SHEETS SHEET NO. 6 SCALE: $\frac{1}{8}'' = 1'-0''$

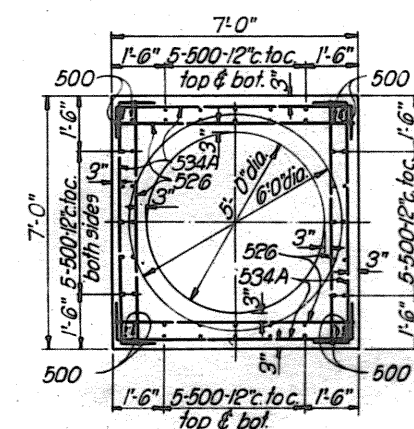
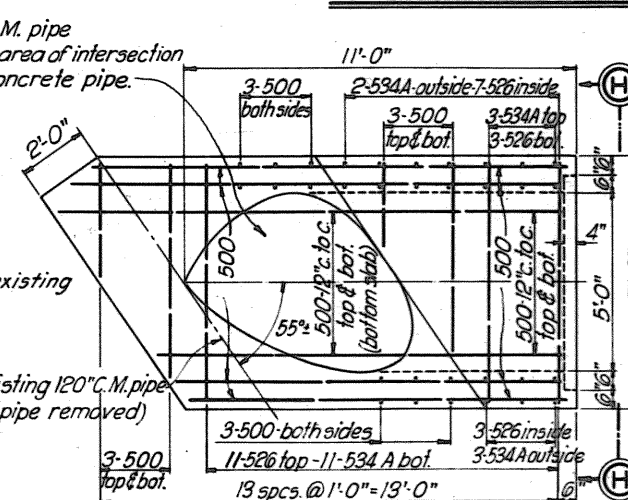
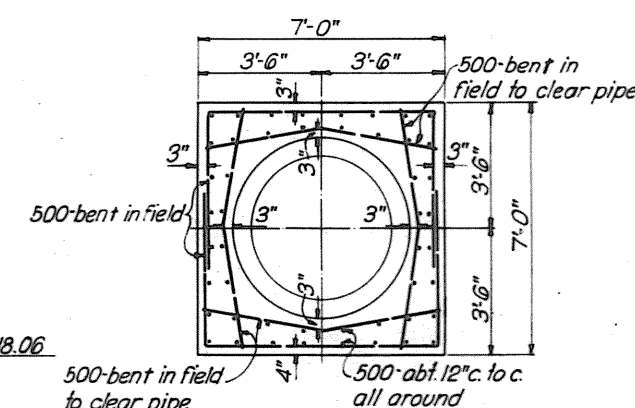
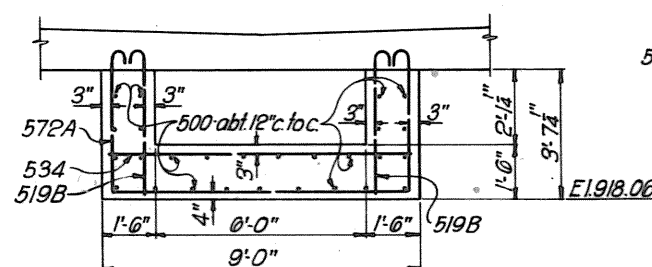
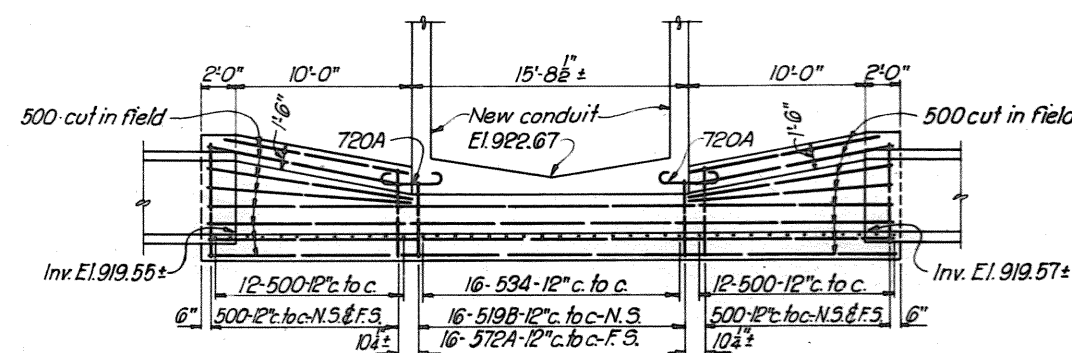
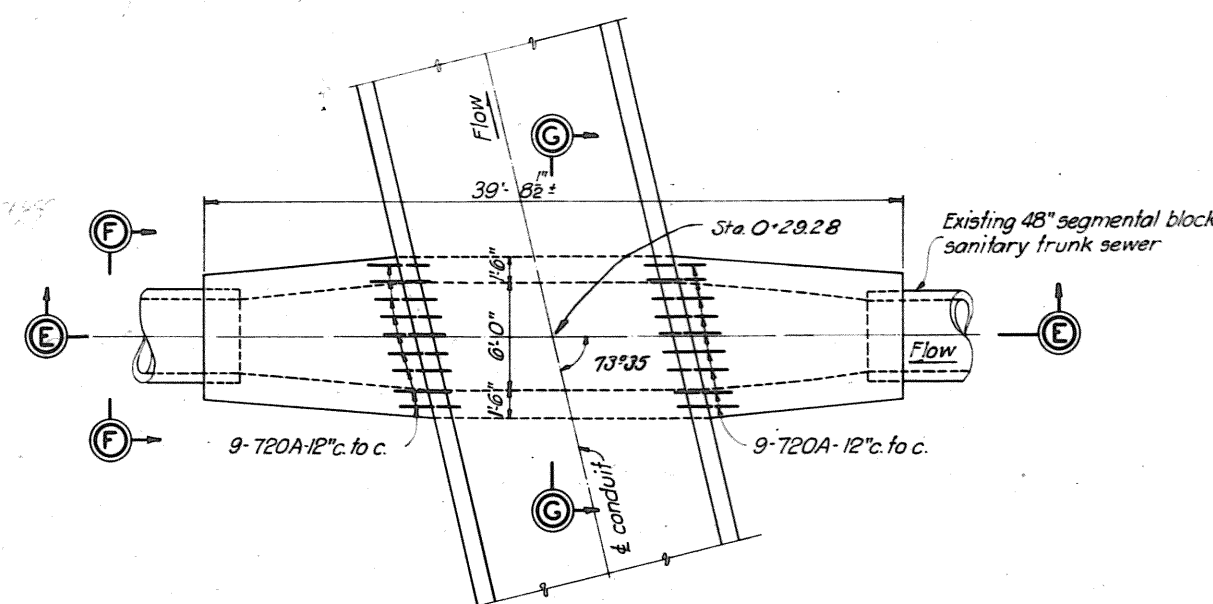
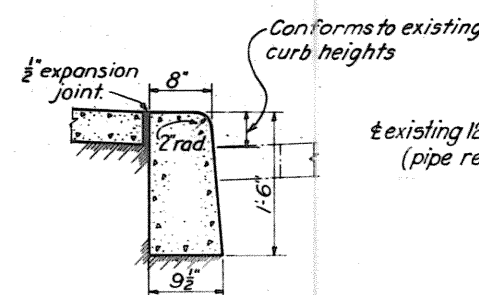
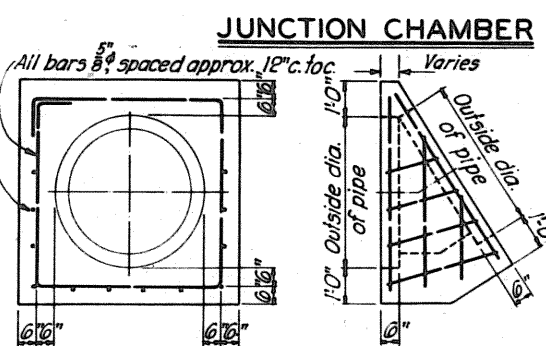
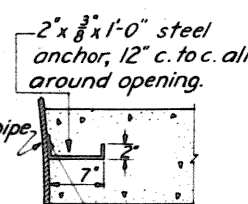
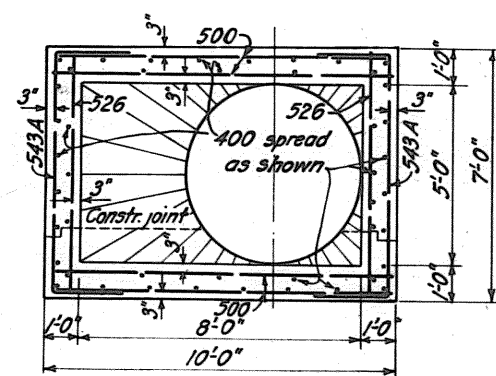
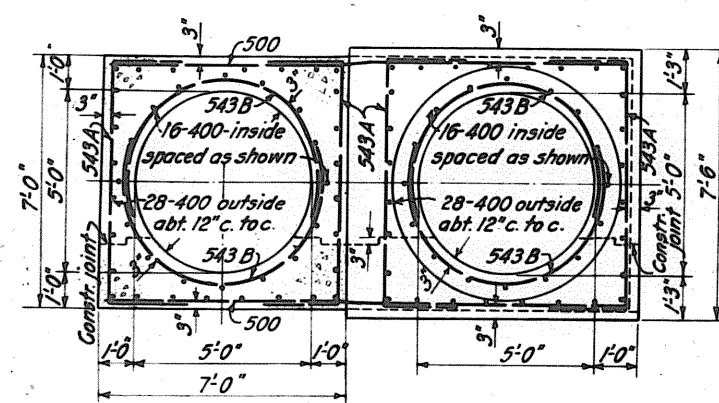
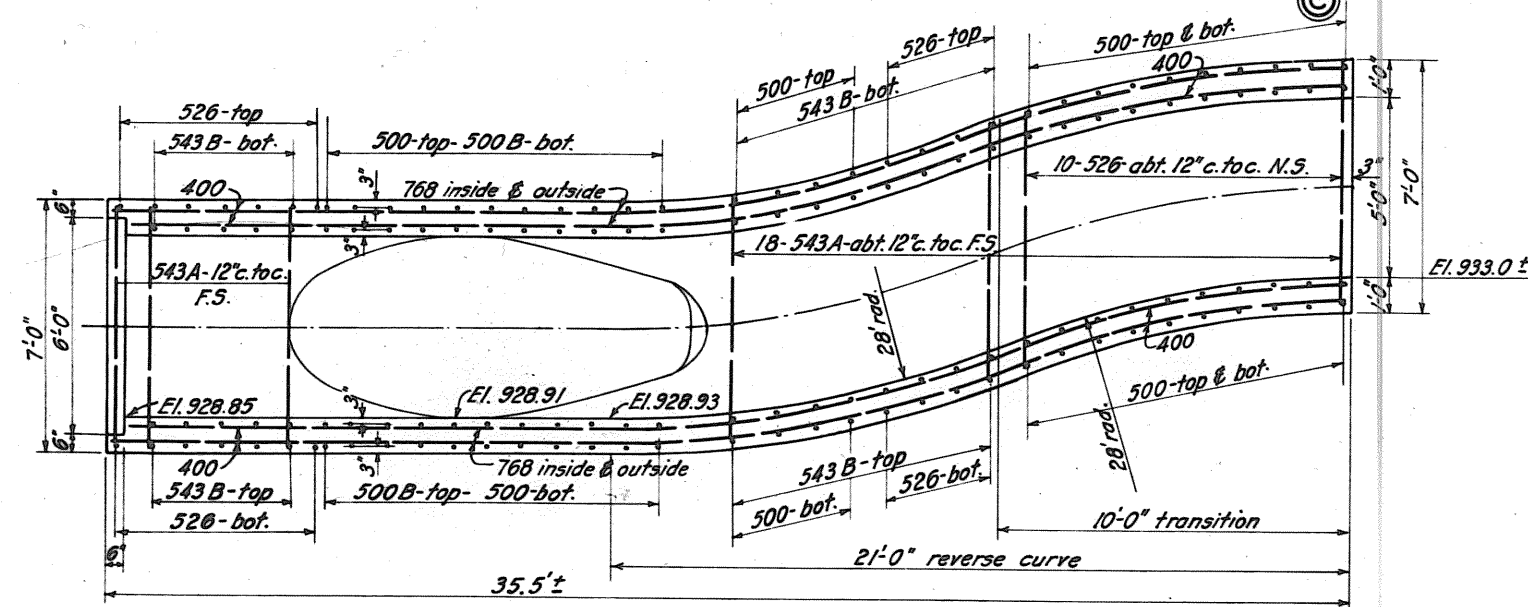
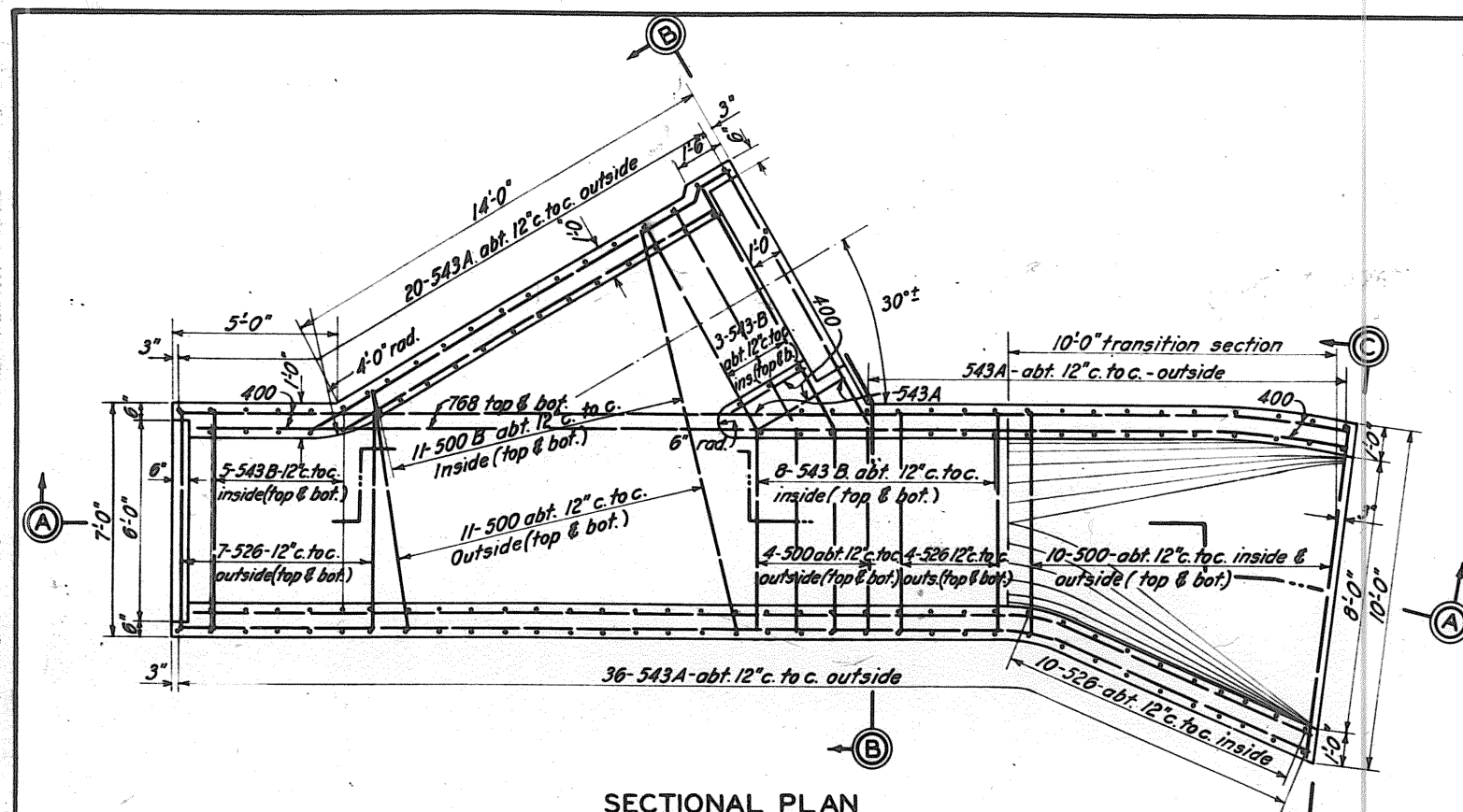
U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

SUBMITTED: *Wm. J. Baker* APPROVED: *Wm. J. Baker*

DRAWN BY: R. L. R. TRANSMITTED WITH LETTER

DESIGNED BY: A. J. T. CHECKED BY: H. L. H. FILE NO. 0271-PM-82/6

WORK AS CONSTRUCTED



REINFORCING SCHEDULE				NO.	UNIT WT.	TOTAL WT.
MARK	SIZE	LGTH	DIAGRAM			
JUNCTION CHAMBER & TRANSITION SECTION						
400	$\frac{1}{2}" \phi$	18'0"		-	0.668	1202
500	$\frac{3}{8}" \phi$	67'5"		-	1.043	704
500B	$\frac{3}{8}" \phi$	35'0"		-	1.043	365
526	$\frac{3}{8}" \phi$	6'-6"		42	6.78	285
543A	$\frac{3}{8}" \phi$	10'-9"		76	11.21	852
543B	$\frac{3}{8}" \phi$	10'-9"		32	11.21	359
768	$\frac{3}{8}" \phi$	17'-0"		8	34.75	278
Total						4045
PIPE ELBOWS						
500	$\frac{3}{8}" \phi$	47'5"		-	1.043	495
Total						495
48" DEPRESSED SEWER						
500	$\frac{3}{8}" \phi$	2,800'		-	1.043	2920
519B	$\frac{3}{8}" \phi$	4'-9"		32	4.95	158
534	$\frac{3}{8}" \phi$	8'-6"		16	8.87	142
572A	$\frac{3}{8}" \phi$	18'-0"		16	18.77	900
720A	$\frac{3}{8}" \phi$	5'-0"		18	10.22	184
Total						3,704
CONNECTION TO 120" PIPE						
500	$\frac{3}{8}" \phi$	45'0"		-	1.043	469
526	$\frac{3}{8}" \phi$	6'-6"		24	6.78	163
534A	$\frac{3}{8}" \phi$	8'-6"		24	8.87	213
Total						845

NOTES

For plan & profile of storm sewer siphon, see
Dwg. No. 82/5.
For plan & profile of 48" sewer crossing, see
Dwg. No. 82/2.
For explanation of reinforcing steel code, see
Dwg. No. 82/4.
For general reinforcing notes, see Dwg. No. 82/4.
For location of sections B-B & C-C, see Dwg. No. 82/5.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO**

**PRESSURE CONDUIT — SIPPO CREEK
JUNCTION CHAMBER & MISC. DETAILS**

IN 15 SHEETS SHEET NO. 7 SCALE: $\frac{1}{8}'' = 1'-0''$

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

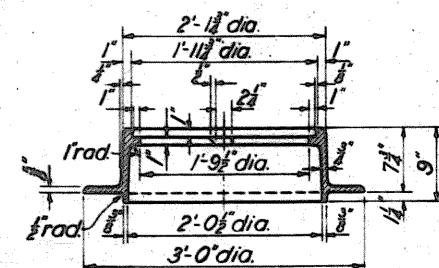
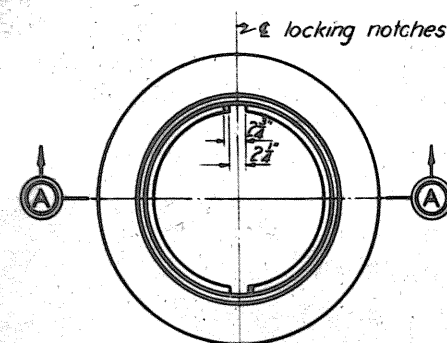
SUBMITTED: *Helen Barkow*
PRINCIPAL ENGINEER

APPROVED: *[Signature]*
C. COL. CORP OF ENG.

DRAWN BY M.C.S. TRANSMITTED WITH LETTER
 CHECKED BY H.E.C.
 FILE NO 027i-PM-82/7 DATED

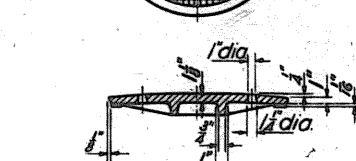
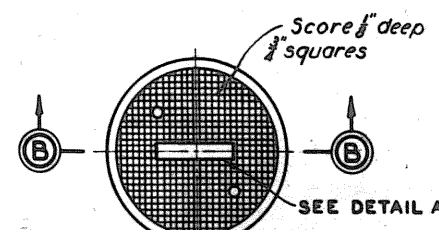
WORK AS CONSTRUCTED

SFB	4-28-61	REVISED AS CONSTRUCTED
BY	DATE	CHARACTER
REVISIONS		



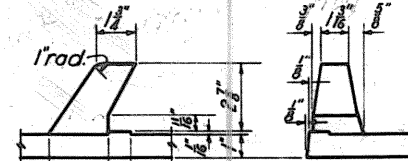
SECTION A-A

FRAME

CAST IRON
SCALE: 1"=1'-0"

SECTION B-B

COVER

CAST IRON
SCALE: 1"=1'-0"

ELEVATION C-C

SCALE: 3"=1'-0"

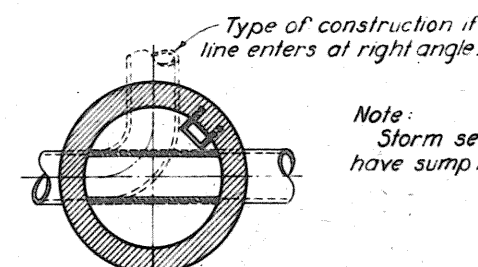
SAN. SEWER

STM. SEWER

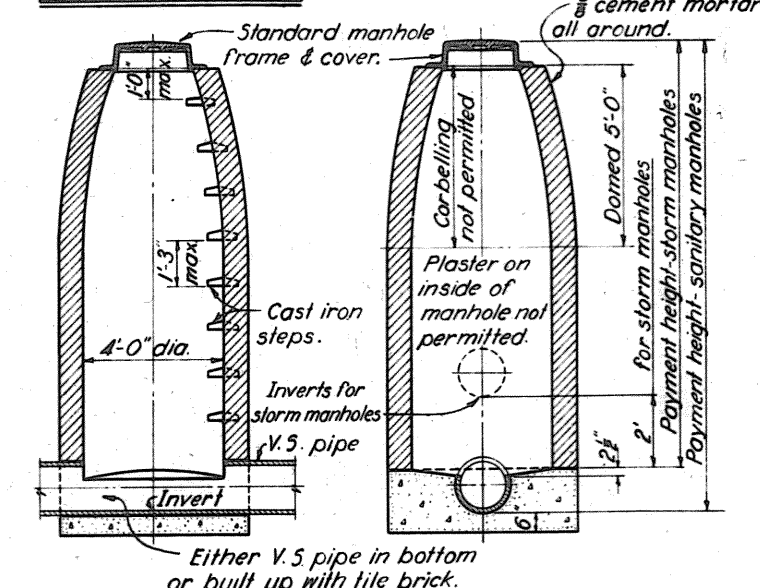
Name indicates type of sewer.

DETAIL A

SCALE: 3"=1'-0"



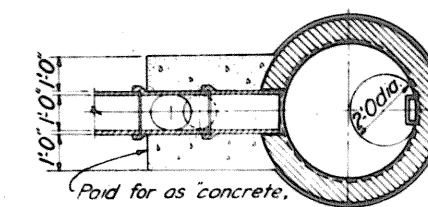
SECTIONAL PLAN



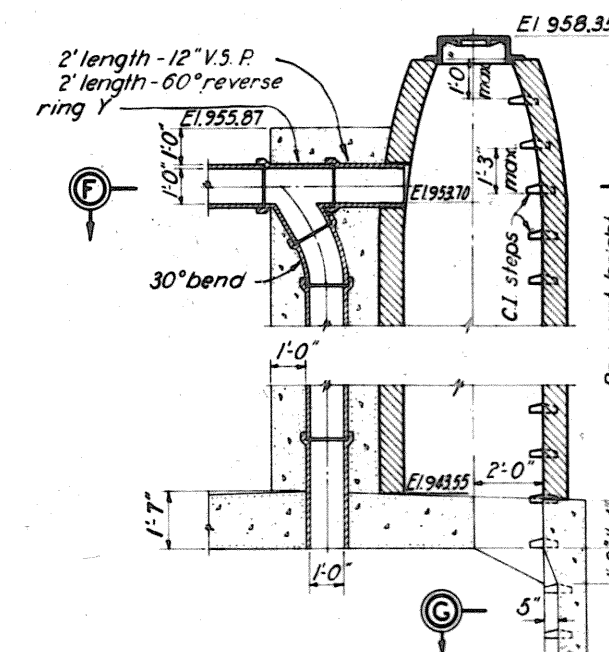
TYPICAL MANHOLE

MANHOLE DETAILS

SCALE: 3"=1'-0"



SECTION F-F



MANHOLE AT THIRD ST. S.E.

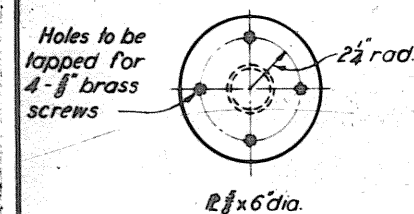
SECTION G-G

SCALE: 3"=1'-0"

TABLE OF WALL THICKNESS

MANHOLE DEPTH	BRICK
From 0 to 16 feet	8 1/2 inches
From 16 to 22 feet	13 inches
Over 22 feet	18 inches

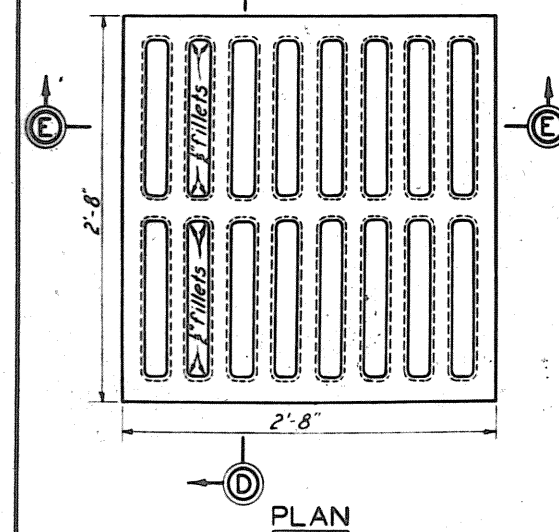
Backfill thoroughly compacted around all manholes.



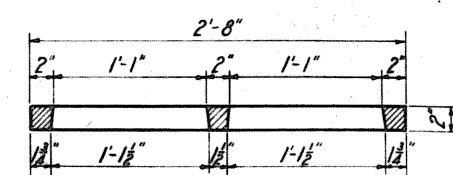
RAIL POST ANCHOR

STEEL PIPE
13 REQD.
SCALE: 3"=1'-0"

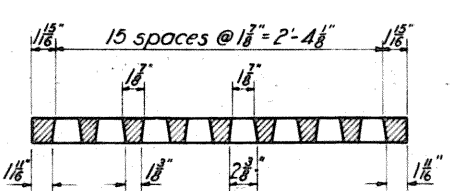
HANDRAILING

STEEL PIPE
86.75 LIN. FT. REQD.-INLET STRUCTURE
SCALE: 1"=1'-0"

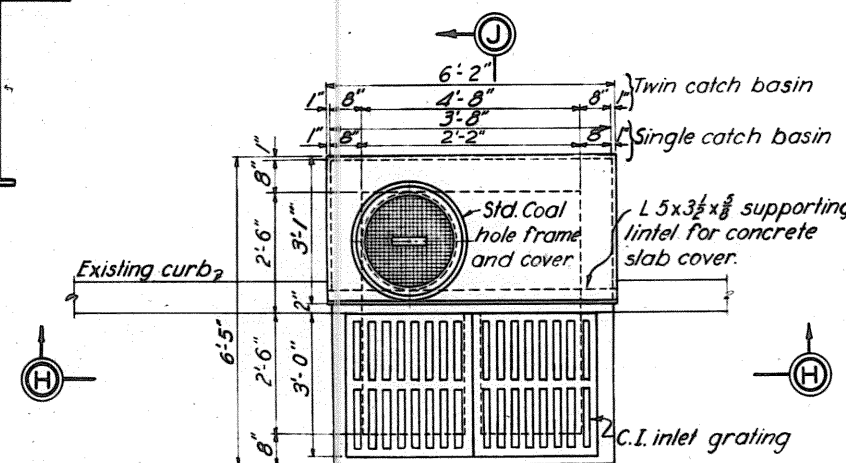
INLET GRATING

CAST IRON
MAKE 14 WT. 300 LBS.
SCALE: 1 1/2"=1'-0"
(FURNISHED BY THE UNITED STATES)

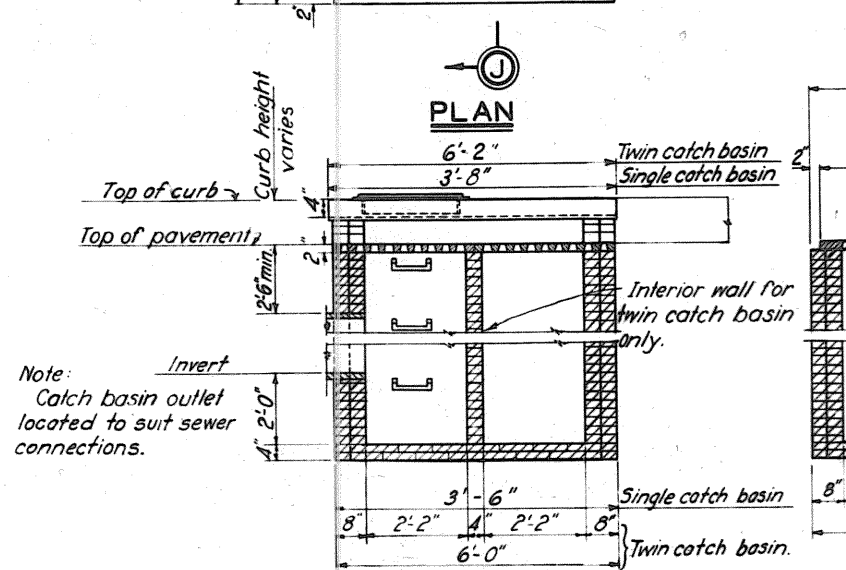
SECTION D-D



SECTION E-E



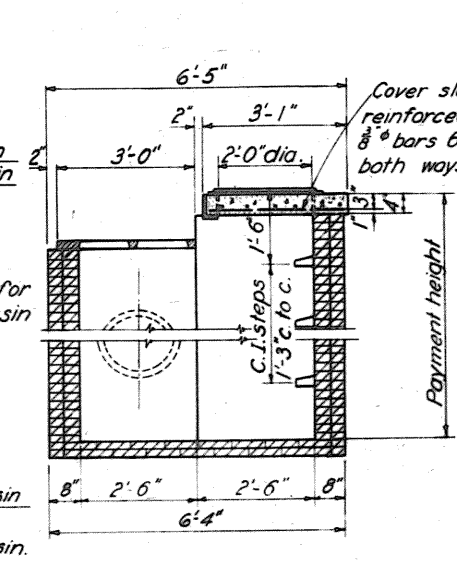
PLAN



SECTION H-H

DETAIL OF TYPICAL CATCH BASIN

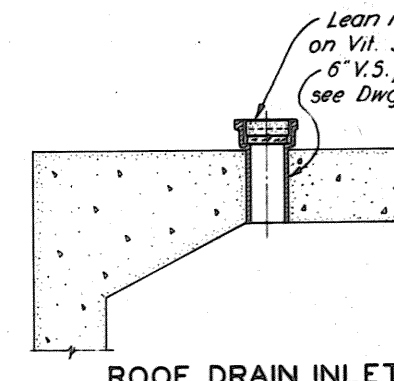
SCALE: 3"=1'-0"



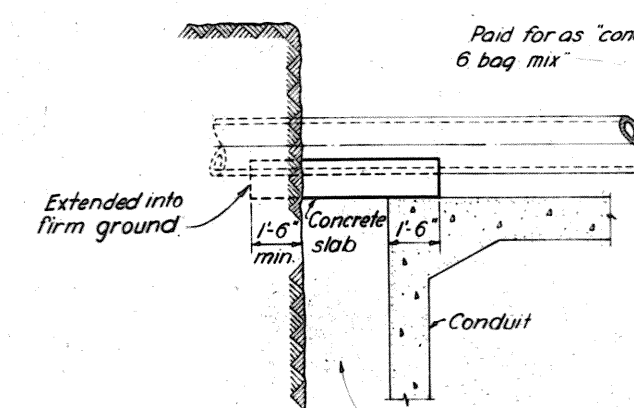
SECTION J-J

DETAIL OF TYPICAL CATCH BASIN

SCALE: 3"=1'-0"



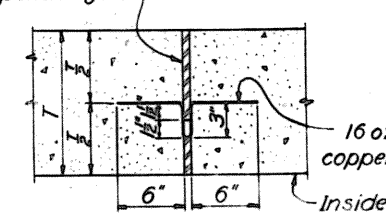
ROOF DRAIN INLET



TREATMENT OF SEWERS PASSING OVER CONDUIT

SCALE: 3"=1'-0"

TYPICAL CONDUIT JOINT



TYPICAL CONDUIT JOINT

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

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO**
PRESSURE CONDUIT - SIPPO CREEK
MISCELLANEOUS DETAILS

18 15 SHEETS

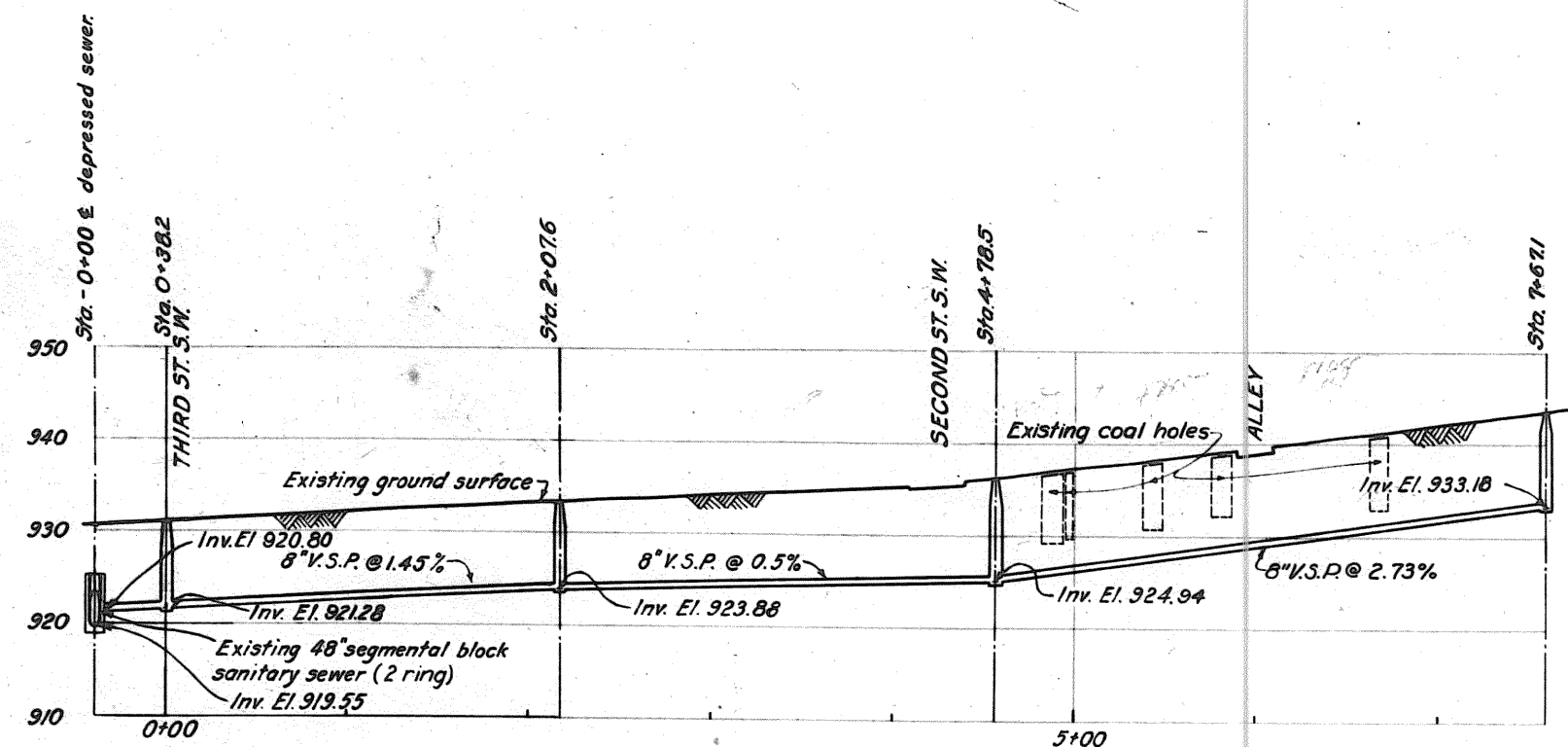
SHEET NO. 8

SCALE AS SHOWN

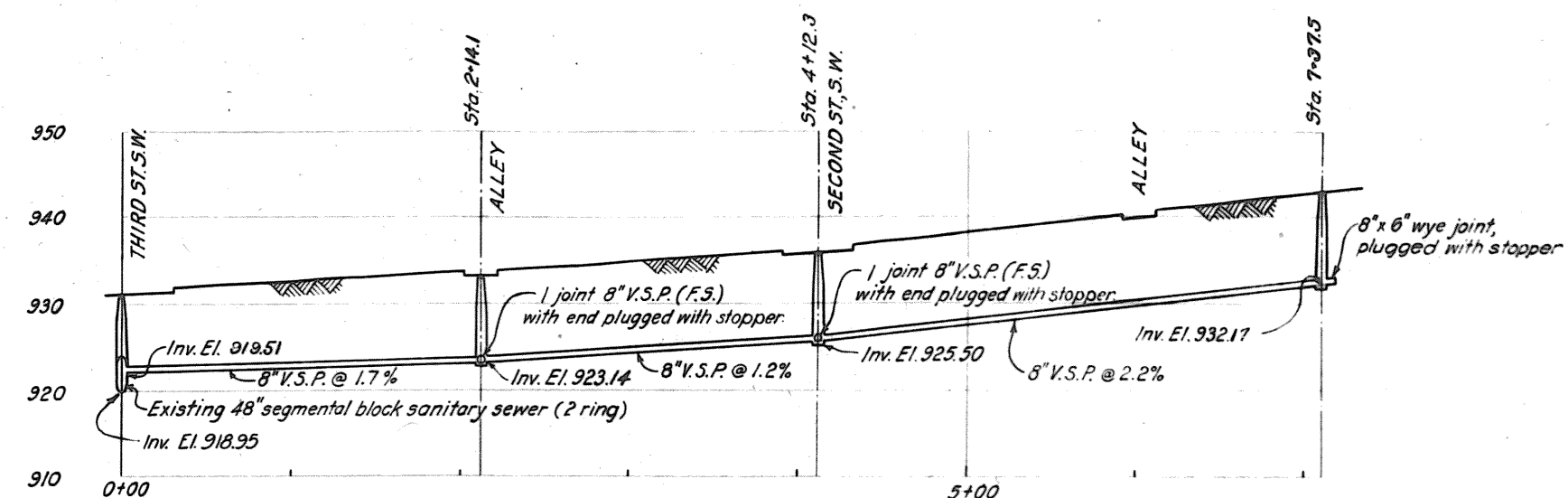
U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

REVISIONS
BY DATE CHARACTER
REVISIONS

WORK AS CONSTRUCTED



SEWER PROFILE
SOUTH SIDE TREMONT AVENUE S.W.
FROM THIRD ST. S.W. TO FIRST STREET S.W.



SEWER PROFILE
NORTH SIDE TREMONT AVENUE S.W.
FROM THIRD ST. S.W. TO FIRST STREET S.W.

Note:
Installed 8"x6" wye & 6" vitrified stopper with oak wye poles projecting from wye to within 12" of ground surface at points indicated on Dwg. No. 82/2.
Connected all existing building services by use of 8"x6" wyes & such fittings or specials that were required.

NOTES
For locations of sewers, see Dwg. No. 82/2.
For details of typical manhole, see Dwg. No. 82/3.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT — SIPPO CREEK
SEWER PROFILES**

10 15 SHEETS SHEET NO. 9 SCALE: HOR. 1"=50' VERT. 1"=10'

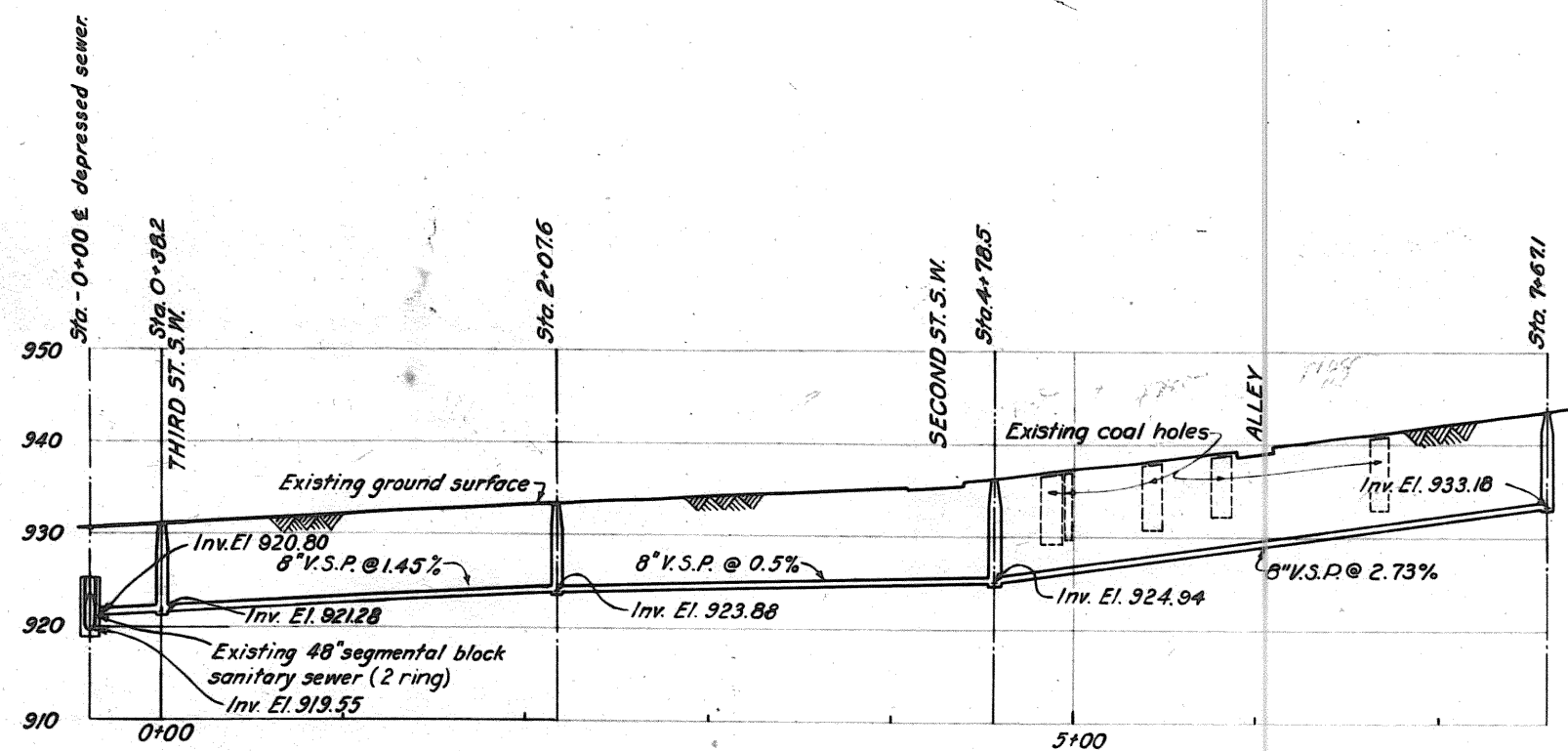
U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

SUBMITTED: *[Signature]* APPROVED: *[Signature]*
BY DATE CHARACTER

DRAWN BY: L. S. H.
TRACED BY: V. S. V.
CHECKED BY: H. L. H. FILE NO. 0271-PM-82/9 DATED

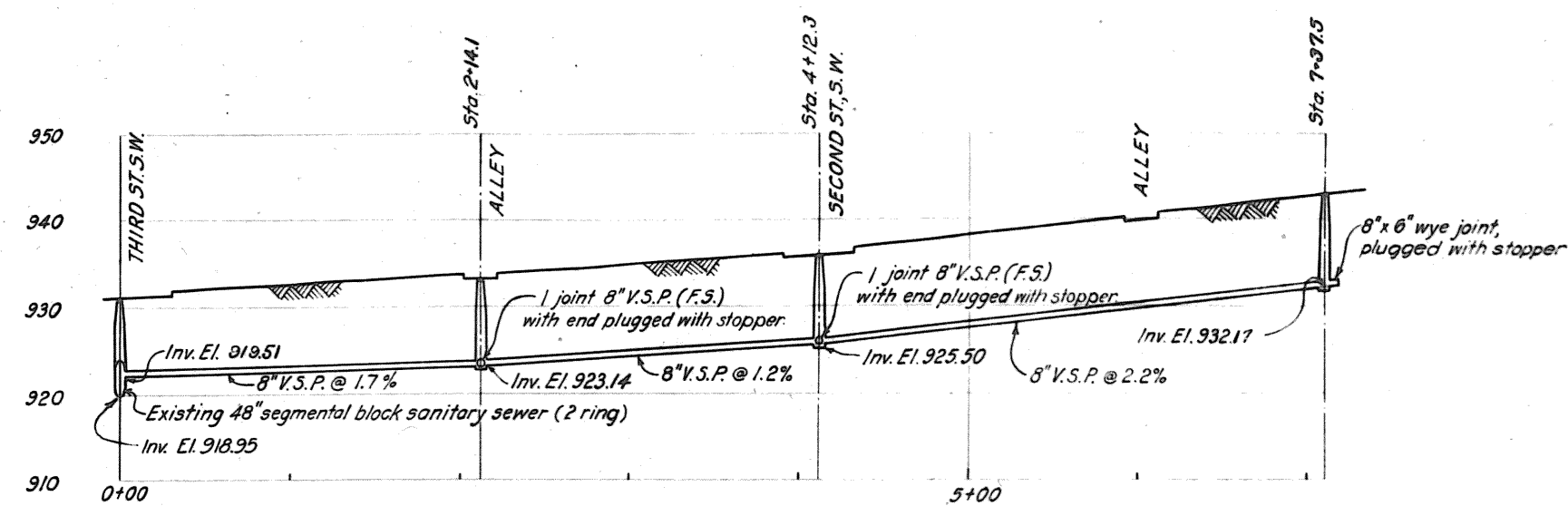
WORK AS CONSTRUCTED

S.F.B.	4/25/41	REVISED AS CONSTRUCTED
BY	DATE	CHARACTER
REVISIONS		

**SEWER PROFILE**

SOUTH SIDE TREMONT AVENUE S.W.
FROM THIRD ST. S.W. TO FIRST STREET S.W.

Note:
Installed 8"x6" wye & 6" vitrified stopper with oak wye poles projecting from wye to within 12' of ground surface at points indicated on Dwg. No. 82/2.
Connected all existing building services by use of 8"x6" wyes & such fittings or specials that were required.

**SEWER PROFILE**

NORTH SIDE TREMONT AVENUE S.W.
FROM THIRD ST. S.W. TO FIRST STREET S.W.

NOTES

For locations of sewers, see Dwg. No. 82/2.
For details of typical manhole, see Dwg. No. 82/8.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT - Sippo Creek
SEWER PROFILES**

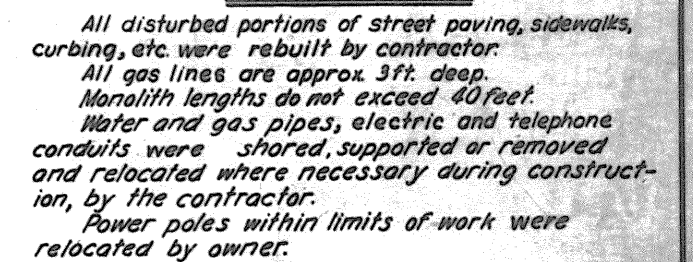
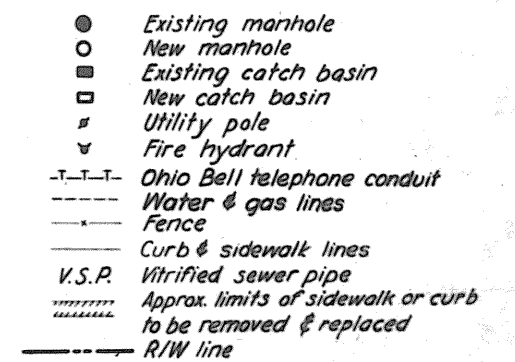
10 15 SHEETS SHEET NO. 9 SCALE: HOR. 1"=50' VERT. 1"=10'

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

SUBMITTED: *[Signature]* APPROVED: *[Signature]*
BY DATE CHARACTER

DRAWN BY: L. S. H. TRANSMITTED WITH LETTER
CHECKED BY: V. S. V. FILE NO. 0271-PM-82/9 DATED

WORK AS CONSTRUCTED



IN 15 QUESTO SHEET NO. 10 SCALE HOR. 1" = 50'
VERT. 1" = 50'

50' 25' 0' 100'

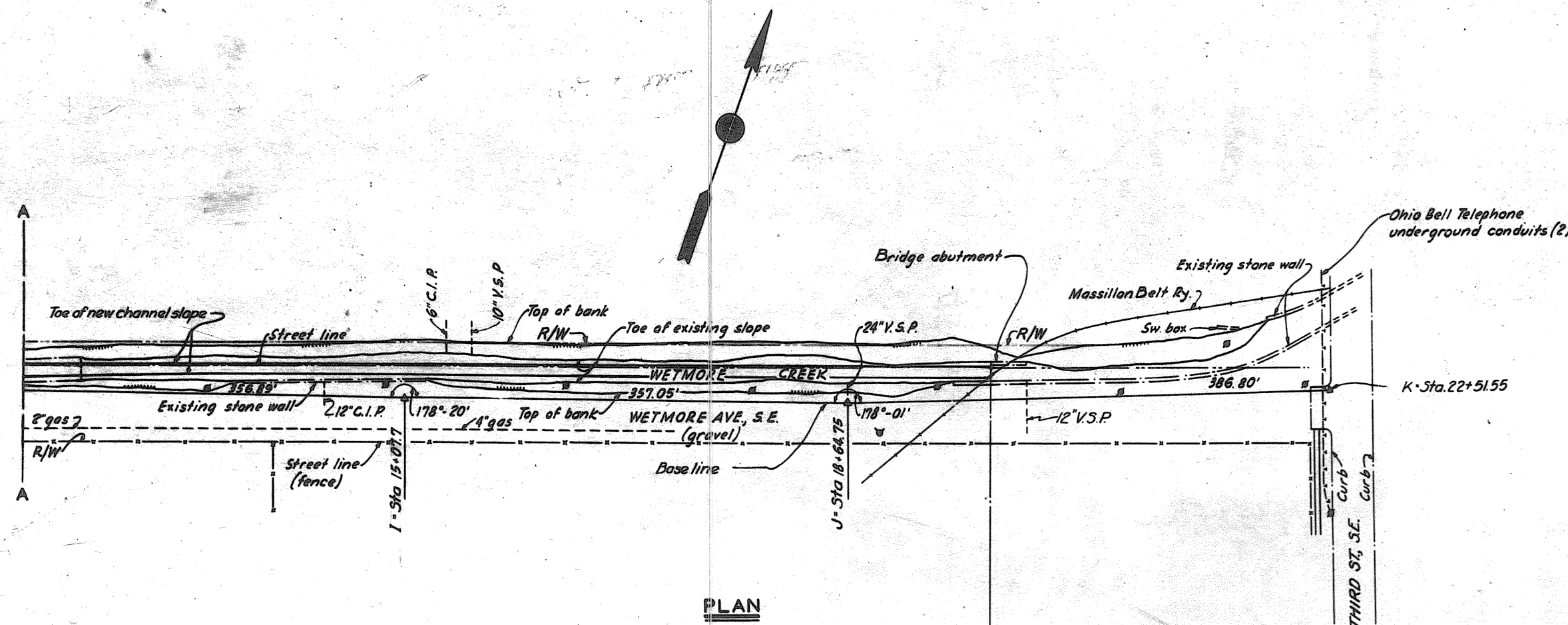
U. S. ENGINEER OFFICE, MONTINGTON, W. VA., MARCH, 1940

SUBMITTED *Wm. S. Jones* APPROVED *W. S. Jones*
Principal Engineer 1st. COL. CORPS OF ENGINEERS

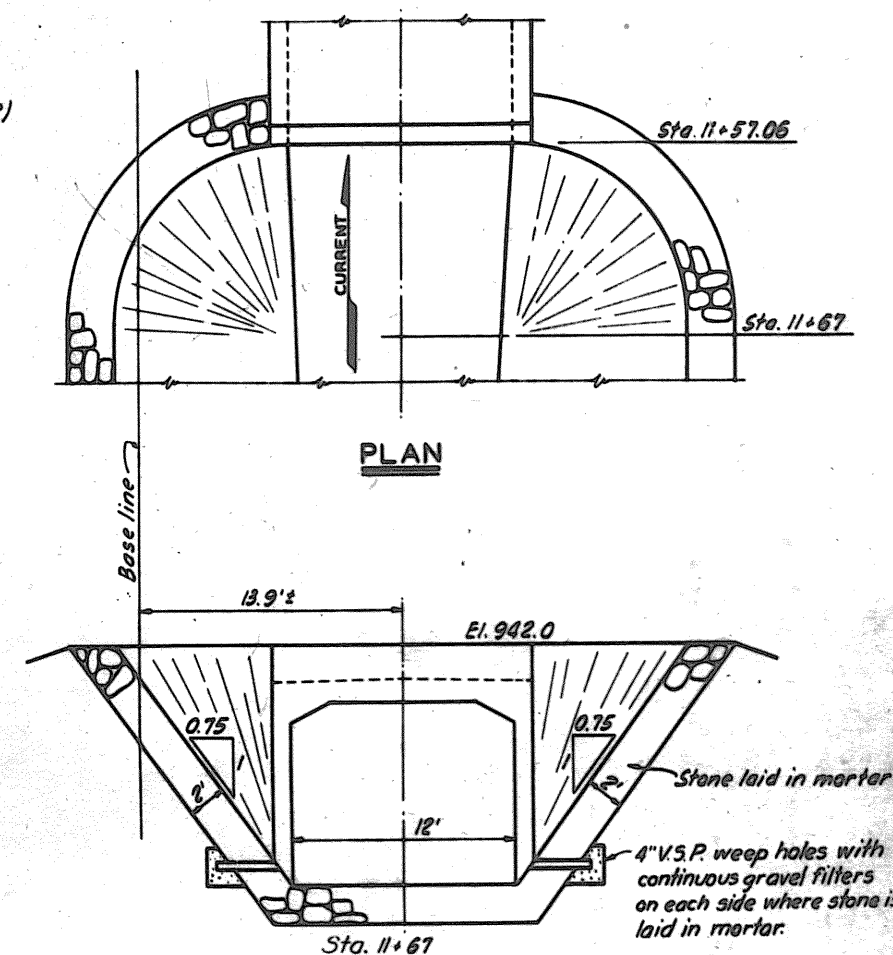
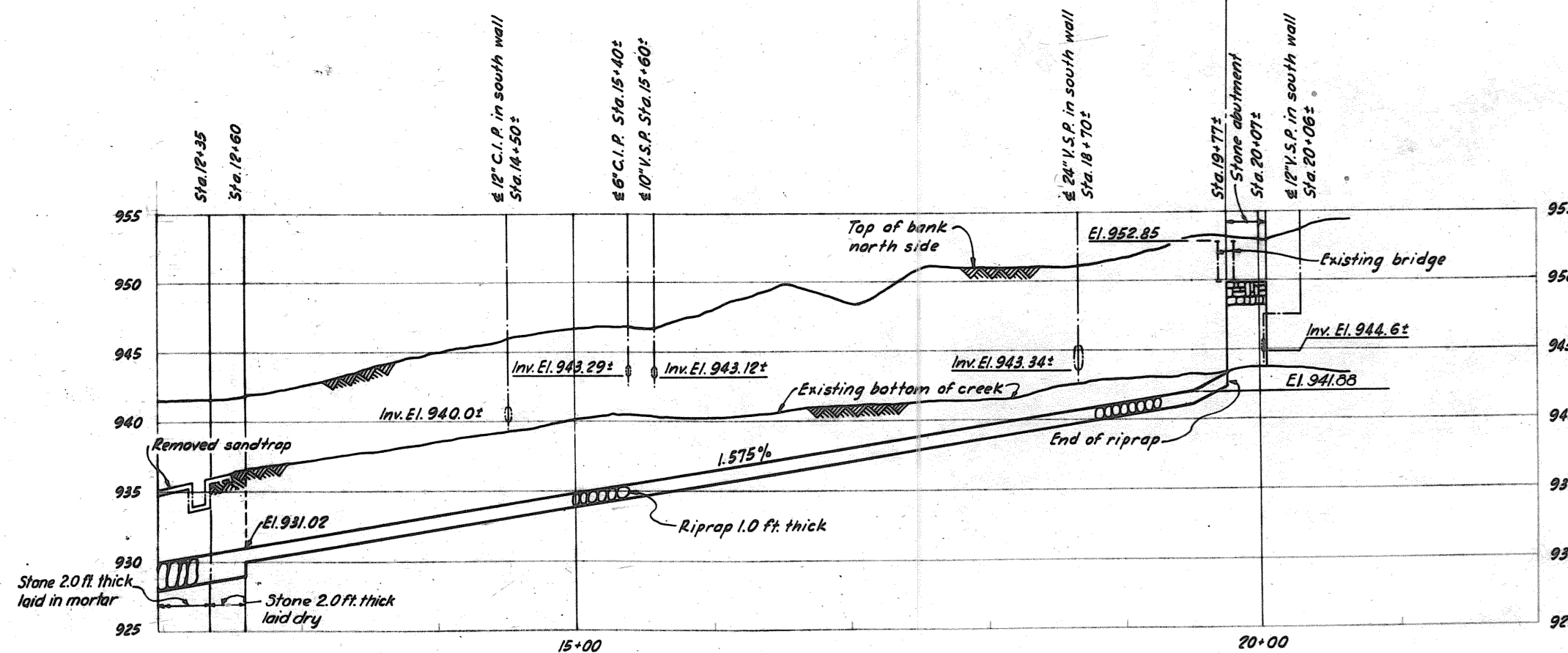
DRAWN BY R. G. C. TRANSMITTED WITH LETTERS
CHECKED BY J. M. D. FILE NO. 0271-PM-82/10
CORRECTED BY H. L. H. DATED

WORK AS CONSTRUCTED

S.F.B.	4/25/41	REVISED AS CONSTRUCTED
BY	DATE	CHARACTER
		REVISIONS



LIMIT OF WORK IN THIS CONTRACT



NOTES

For general notes, see Dwg. No. 82/10.
For legend, see Dwg. No. 82/10.
For cross sections, see Dwg. No. 82/15

TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON OHIO
PRESSURE CONDUIT - WETMORE CREEK
PLAN & PROFILE

10 15 000000 25 50 100' HORIZ. SCALE: 1" = 50'

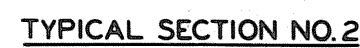
U. S. ENGINEER OFFICE HUNTINGTON, W. VA. MAY 1940

SUBMITTED: *Harry Fisher* APPROVED: *John C. ...*

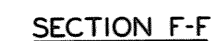
DRAWN BY: E. A. S. CHECKED BY: A. S. DESIGNED BY: H. L. H. FILE NO. 0271-PM-82/11

BY	DATE	REVISIONS
		REVISED AS CONSTRUCTED
		CHARACTER

WORK AS CONSTRUCTED



SECTIONAL PLAN









60" SEWER JUNCTION

SCALE: $\frac{3}{8}'' = 1' - 0''$

NOTES

For general notes, see Dwg. No. 82/10.
All main reinforcing steel spaced a clear distance from concrete surfaces as shown.
All bends were made to a radius of 4 bar diameters (inside), unless otherwise noted.
All splices of reinforcing steel provide a lap of 40 bar diameters, unless otherwise shown or noted.
1" chamfer provided on all exposed corners, unless otherwise shown or noted.
Copper water stops were installed in all conduit monolith joints. Monoliths not to exceed 40 lin. feet.

REINFORCING SCHEDULE

MARK	SIZE	LGTH	BENDING DIAGRAM	NO	UNIT WT	TOTAL WT.
TYPICAL SECTION NO. 1-40						
500	8" φ	2400'			1043	2503
538	8" φ	9' 6"		80	9.91	793
554	8" φ	13' 6"		80	14.08	1126
152A	1" φ	13' 0"		80	44.20	3536
154	1" φ	13' 6"		40	45.90	1836
164A	1" φ	16' 0"		80	54.40	4352
954	1 1/2" φ	13' 6"		40	58.09	2324
Total						16470

TYPICAL SECTION NO.2-20

500	3" 0"	110' 0"			1,049	1147
556	3" 6"	14' 0"			40	14.60
540	3" 8"	10' 0"			80	15.02
800	1" 0"	18' 0"				2,670
955A	13" 0"	13' 9"			54	59.17
956	13" 2"	14' 0"			14	60.24
968A	13" 2"	17' 0"			14	73.15
056	14" 2"	14' 0"			14	74.98
069A	14" 2"	17' 3"			14	91.65
					Total	10,800

TYPICAL SECTION NO.3-60

500	3/4"	38'40"				1,019	400.5
554	1"	13' 6"				120	14.08
754	3/4"	13' 6"				60	27.59
763A	3/8"	15' 9"				120	32.18
800	1"	30'00"					2.67
854	1"	13' 6"				60	36.05
						Total	21,386

HEADWALL AT INLET

529A	3'0"	7'3"	14	7.56	106
554	8'0"	13'6"	4	14.08	56
				Total	162

OUTLET STRUCTURE

500	600'			1,043	627
522A	51'6"			5.74	80
541A	51'9"			10.69	150
556	14'0"			14.80	277
566	16'6"			17.21	69
800	400'			267	1068
				Total	2,271

60" SEWER JUNCTION

500	90'5"					1.04	317
523A	5'9"					0.00	54
526A	6'6"					0.78	61
528	7'0"					730	131
538	9'6"					8	79
545A	11'3"					9	11.73
546	11'6"					2	11.99
							24
						Total	772

Bar numbers indicate sizes and lengths thus: The first digit indicates the size in eighths of an inch (except $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 and $1\frac{1}{2}$); the next 2 or 3 digits indicate the length in fourths of a foot. Thus a bar marked @43 means $\frac{3}{8}$ or $\frac{1}{4}$ and $4\frac{3}{4}$ = 10.75' or 10'-9" long; if a letter is suffixed a bent bar is indicated and is detailed in the bending diagram and schedule.

1 for 1 st	4 for 2 nd	8 for 1 st
2 for 2 nd	5 for 3 rd	9 for 1 st
3 for 3 rd	6 for 4 th	0 for 1 st
	7 for 5 th	

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO**

PRESSURE CONDUIT - WETMORE CREEK
 TYPICAL CONDUIT SECTIONS & INLET STRUCT.

ID 15 OBJECTS ONCEY NO. 12 SCALE: $\frac{3}{8}'' = 1' - 0''$

U. S. ENGINEER OFFICE. HUNTINGTON. W. VA. MAY. 1940

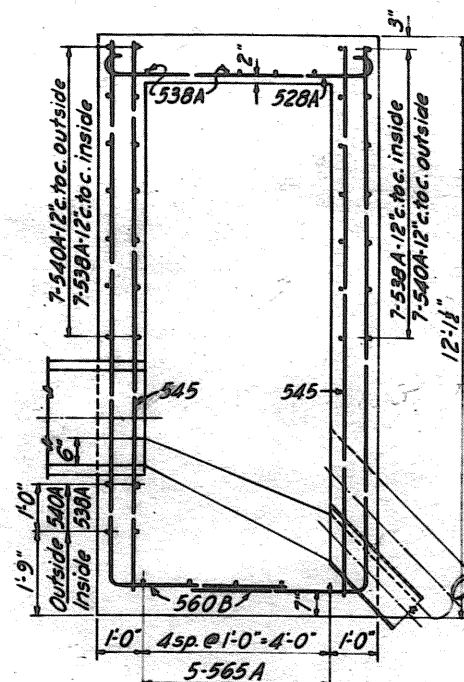
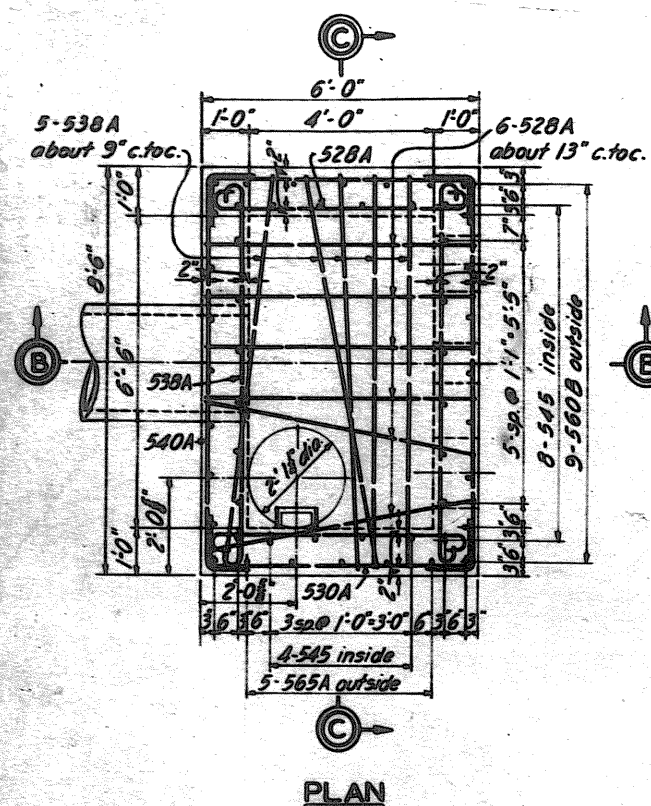
SUBMITTED: Harry Perkins APPROVED: [Signature]

DRAWN BY M.C.S.
 REPROD BY M.C.C. TRANSMITTED WITH LETTER

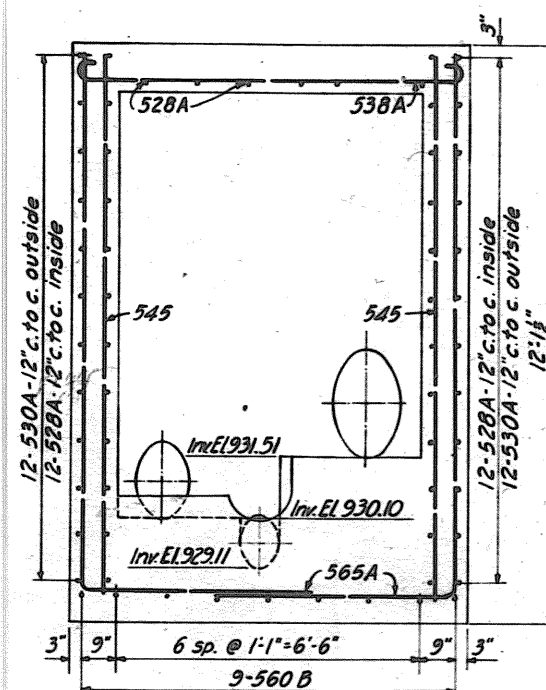
TRACED BY H.E.C.
CHECKED BY H.L.H. FILE NO 027i-PM-82/12 DATED

WORK AS CONSTRUCTED

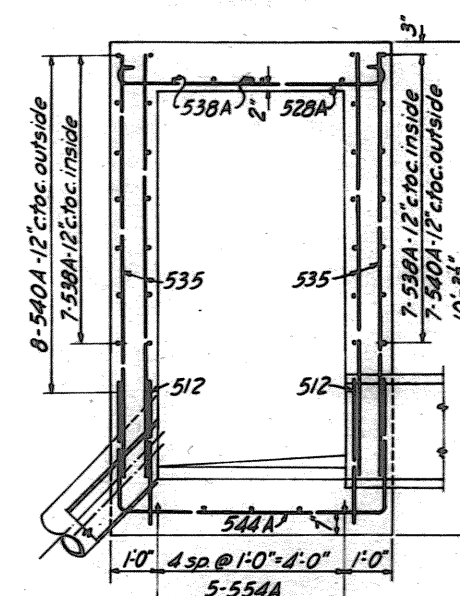
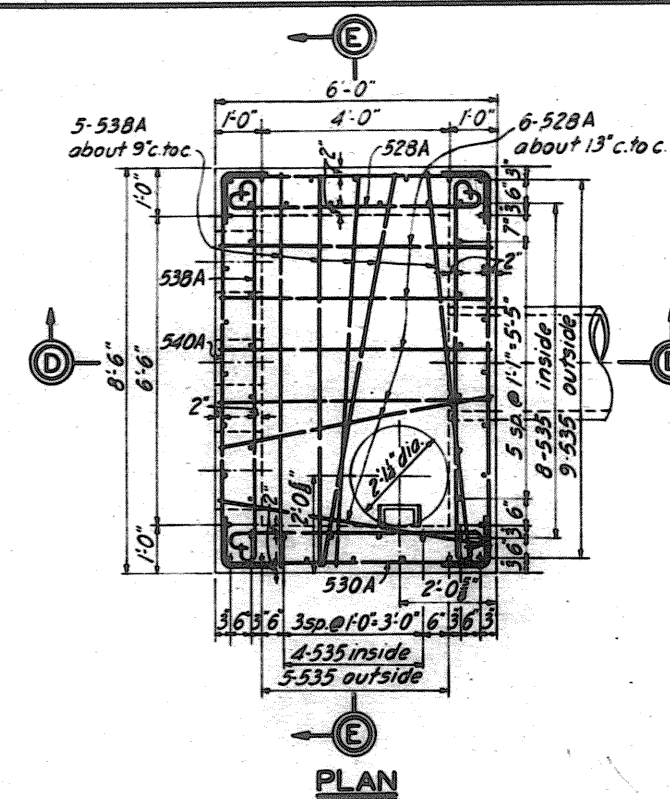
WORK AS CONSTRUCTED



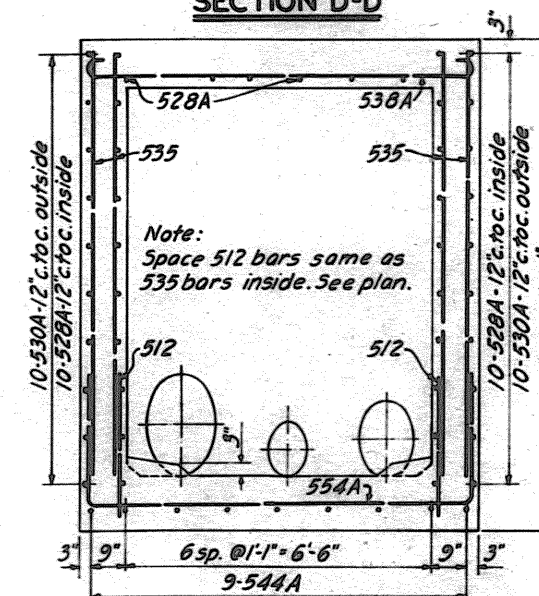
MANHOLE NO. 1



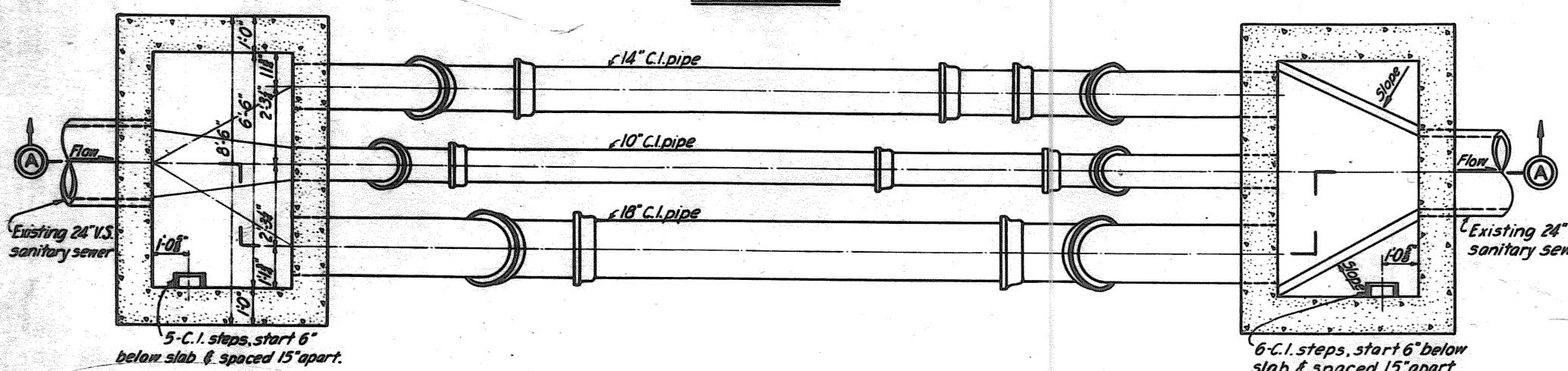
MANHOLE NO. 1



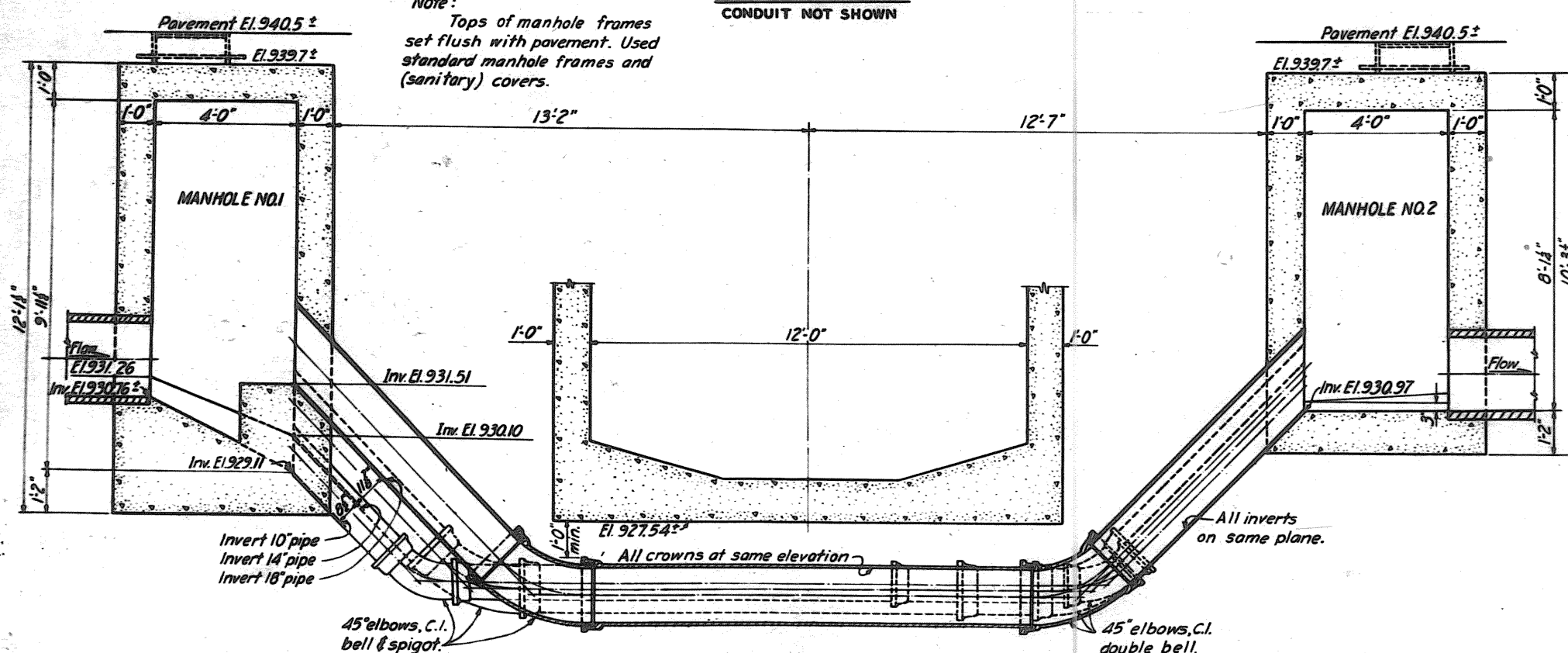
MANHOLE NO. 2



MANHOLE NO. 2



CONDUIT NOT SHOWN



SIPHON

REINFORCING SCHEDULE

MARK	SIZE	LENG	BENDING DIAGRAMS	NUMBER NO.1	NO.2	UNIT	TOTAL
512	8"	3'-0"		-	24	313	75
528A	8"	7'-0"		30	26	730	409
530A	8"	7'-0"		24	20	782	344
535	8"	8'-9"		-	52	913	475
538A	8"	9'-6"		21	19	991	396
540A	8"	10'-0"		16	15	1043	323
544A	8"	11'-0"		-	9	1147	103
545	8"	11'-3"		24	-	1173	282
554A	8"	13'-6"		-	5	1408	70
560B	8"	15'-0"		18	-	1565	282
565A	8"	16'-3"		10	-	1695	170
Total							2929

NOTES

- For location, see Dwg. No. 82/10.
 For general notes, see Dwg. No. 82/10.
 For explanation of reinforcing steel code, see Dwg. No. 82/12.
 All main reinforcing steel spaced a clear distance from surfaces as shown.
 All bends were made to a radius of 4 bar diameters (inside) unless otherwise noted.
 Cut or bent reinforcing steel in field to clear sewer pipes.

**TUSCARAWAS RIVER
 LOCAL PROTECTION PROJECT
 MASSILLON, OHIO
 PRESSURE CONDUIT - WETMORE CREEK
 ERIE STREET SIPHON - DETAILS**

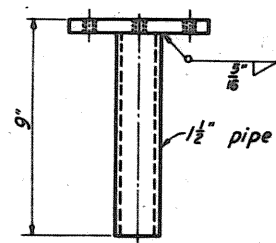
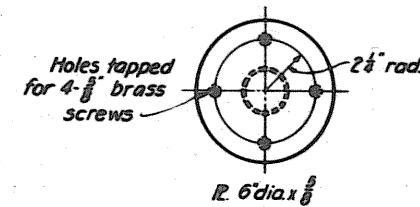
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U. S. ENGINEER OFFICE, HUNTINGTON, W. VA., MARCH, 1940

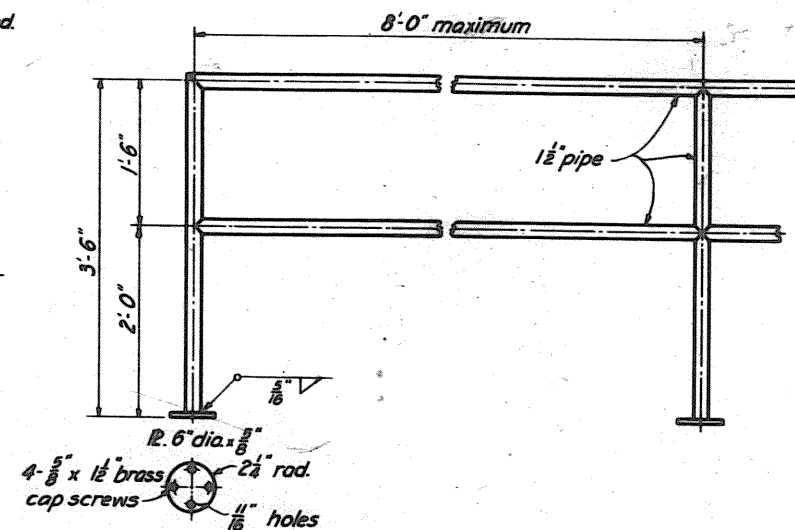
SUBMITTED: *[Signature]* APPROVED: *[Signature]*

DESIGNED BY: R.L.R. CHECKED BY: H.M.N. FILE NO. 0271-PM-82/13

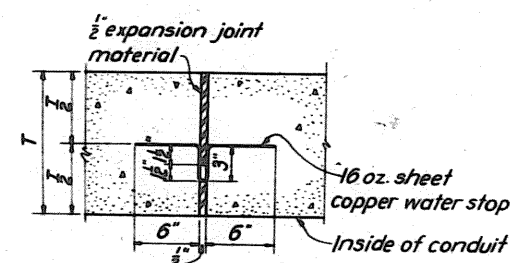
WORK AS CONSTRUCTED

**RAIL POST ANCHOR**

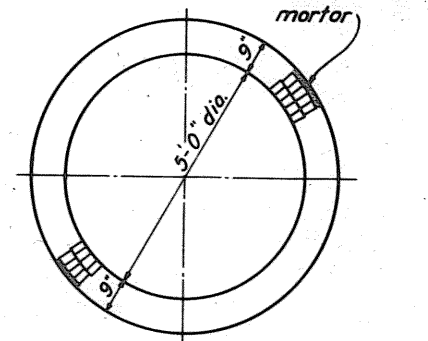
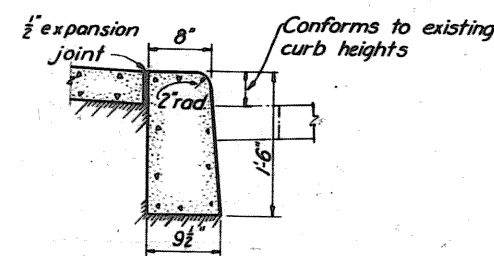
STEEL PIPE
3 REQ'D
SCALE: 3/4" = 1'-0"

**HANDRAILING**

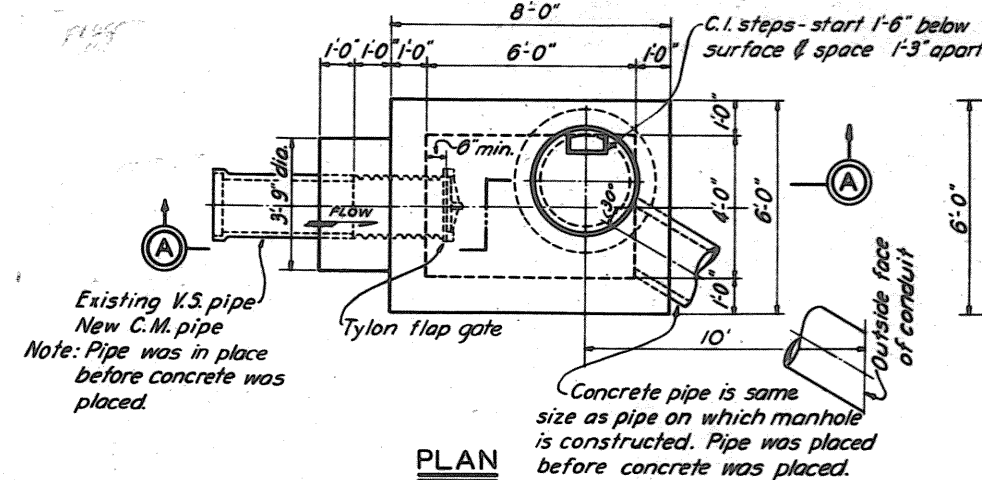
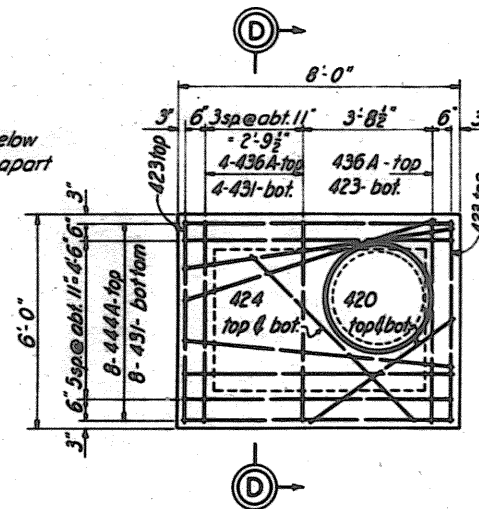
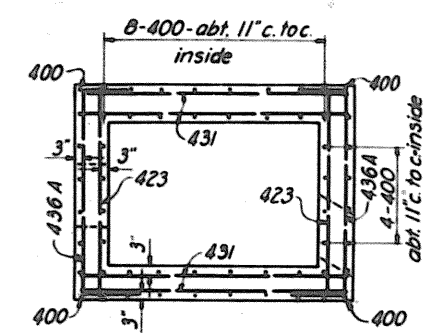
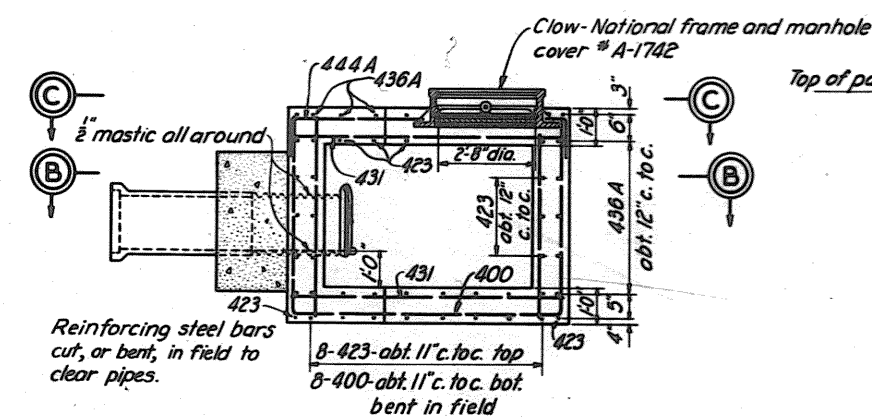
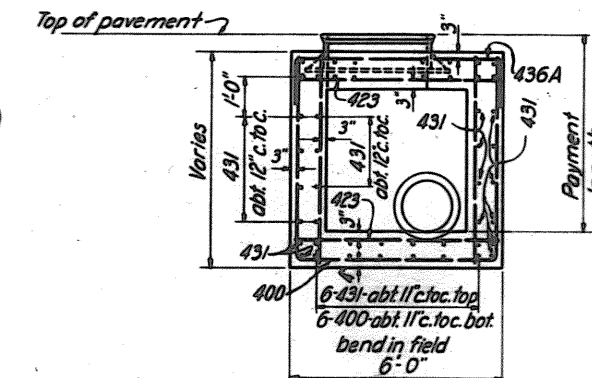
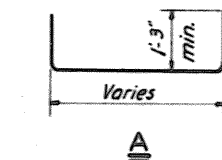
STEEL PIPE
13 L.I.N. FT. REQ'D HEADWALL
SCALE: 1 1/4" = 1'-0"

**TYPICAL EXPANSION JOINT**

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

**TYPICAL SECTION
BRICK SEWER****TYPICAL CURB DETAIL**

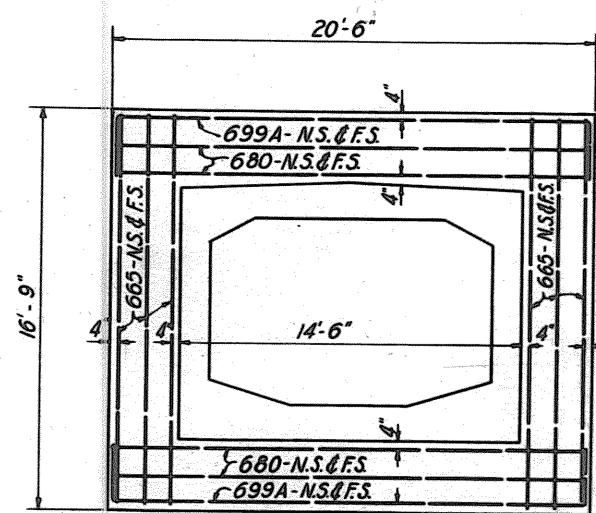
SCALE: 1" = 1'-0"

**PLAN****PLAN C-C****SECTION B-B****SECTION A-A****SECTION D-D****BENDING DIAGRAM**

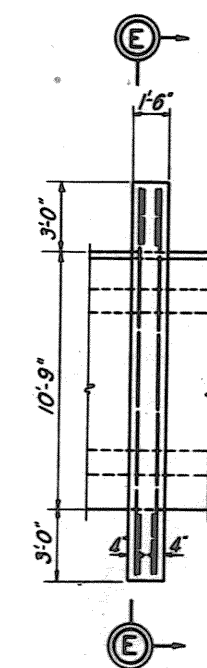
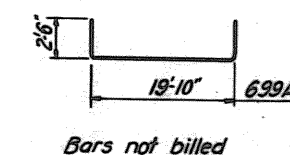
Note:
Bars not billed.

WATERTIGHT MANHOLES

A, B, C & D
SCALE: 3/8" = 1'-0"

**SECTION E-E****DETAIL OF SEEP RING**

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

**ELEVATION**

Bars not billed

NOTES

Unless otherwise noted, all main reinforcing steel is spaced a clear distance of 2" from surface.
All bends made to a radius of 4 bar diameters (inside) unless otherwise noted.
For explanation of reinforcing steel code see Dwg. No. 82/12.

**TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON, OHIO
PRESSURE CONDUIT - WETMORE CREEK
MISCELLANEOUS DETAILS**

15 000070 000070 14 000070 AS SHOWN

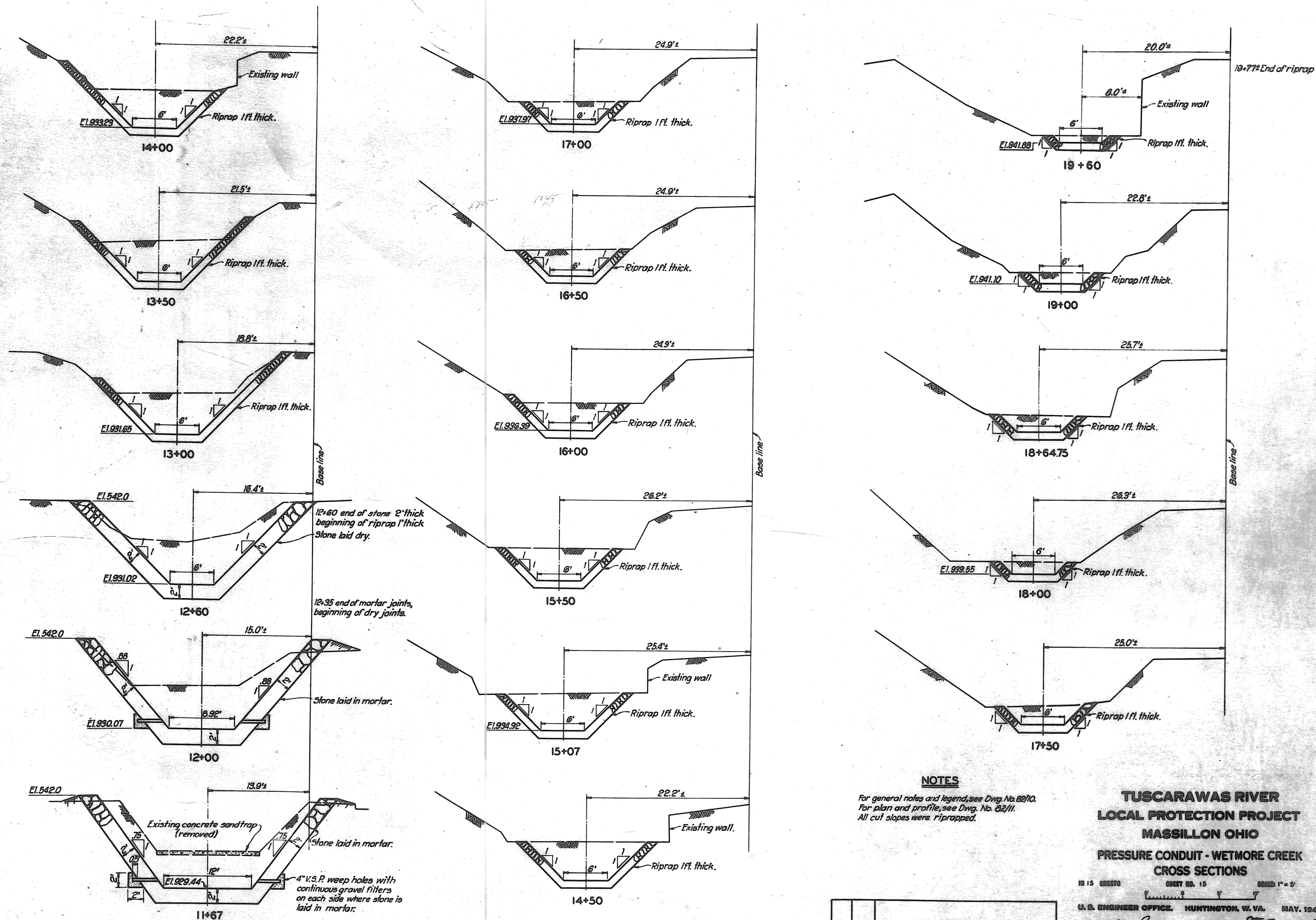
U. S. ENGINEER OFFICE, HUNTINGTON, W. VA. MAY, 1940

SUBMITTED: *[Signature]* APPROVED: *[Signature]*
BY: *[Signature]* DATE: *[Signature]*

DESIGNED BY: J. S. CHECKED BY: H. L. H. FILE NO. 027i-PM-82/14 DATED

WORK AS CONSTRUCTED

REV.	DATE	REVISIONS
1	5-20-41	REVISED AS CONSTRUCTED



NOTES

For general notes and legend, see Dwg. No. 82/10.
For plan and profile, see Dwg. No. 82/11.
All cut slopes were riprapped.

TUSCARAWAS RIVER
LOCAL PROTECTION PROJECT
MASSILLON OHIO
PRESSURE CONDUIT - WETMORE CREEK
CROSS SECTIONS

NO. 15 CROSS SECTION NO. 15 SCALE 1" = 5'

U. S. ENGINEER OFFICE, HUNTINGTON, W. VA. MAY, 1940

SUBMITTED: *[Signature]* APPROVED: *[Signature]*

DRAWN BY: L. H. TRACED BY: H. C. CHECKED BY: H. L. H.

FILE NO. 0271-PM-82/15

BY	DATE	REVISIONS

WORK AS CONSTRUCTED