

# Memorandum

NOVEMBER 09, 2023

CONTRACT NO. 1795

INVERTED SIPHON CLEANING 2024

ADDENDUM NO. 1

All bidders bidding Contract No. 1795 shall read and take note of this Addendum No. 1. The Contract Documents for **Contract No. 1795 – INVERTED SIPHON CLEANING 2024** are hereby revised and/or clarified as stated below.

**Acknowledgement of Contract No. 1795; Addendum No. 1**

The Acknowledgement attached to Addendum No. 1 is to be signed and returned immediately via email to **Kathleen Uniatowski** at [contract.clerks@alcosan.org](mailto:contract.clerks@alcosan.org) and acknowledged with Bidder's Proposal.

Michael Lichte, P.E.

Director – Regional Conveyance

**ACKNOWLEDGEMENT OF  
CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024  
ADDENDUM NUMBER 1**

**FIRM NAME:** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_

**TITLE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**NOVEMBER 09, 2023**

**CONTRACT NO. 1795**

**INVERTED SIPHON CLEANING 2024**

**ADDENDUM NO. 1**

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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This Addendum 1 consists the following attachments:

Attachment A – Revised Article 1

Attachment B – Revised Article 2

Attachment C – Revised Article 4

Attachment D – Revised Technical Specification Section 01010 – Summary of Work

Attachment E – Revised Technical Specification Section 02080 – Bypass Pumping

Attachment F – Revised Technical Specification Section 02650 – Cleaning

Attachment G – Revised Technical Specification Section 02651 – Television and Sonar Inspection  
of Sewers

Attachment H – Contract Maps/Drawings (with Additional Areas of Work)

**ATTENTION BIDDERS**

The following additions to and modifications of the Procurement Contract Documents will be included in and become part of the Contract for the Allegheny County Sanitary Authority (ALCOSAN) – **INVERTED SIPHON CLEANING 2024**. Bidders are instructed to take the following into account in rendering any Bid for this work.

The Bidder is responsible for verifying that he/she has received and reviewed all of the pages of the Procurement Contract Documents as well as all of the pages and attachments of all addenda. The Bidder shall verify all pages with the table of contents in the Procurement Contract Documents and the first page of all Addenda. Receipt of this Addendum 1 must be noted on the Bid Form. These items modify the portions of the documents specifically noted; all other provisions of the Procurement Contract Documents shall remain in effect.

**THIS ADDENDUM 1 SHALL BE FASTENED TO THE PROCUREMENT CONTRACT DOCUMENTS AND SUBMITTED WITH THE BID FOR WORK INCLUDED UNDER THIS CONTRACT.**

1. **CHANGES TO THE FRONT END SPECIFICATIONS**

- 1.1 In BID FORM, Article 1-8 TOTAL BASE BID, Page 1-2, **DELETE** Bid Tabulation table in its entirety and **ADD** new Bid Tabulation table located in Attachment A of this Addendum 1.
- 1.2 In BID FORM, Article 1-8 TOTAL BASE BID, Page 1-6, **DELETE** “**TOTAL BASE BID (Total Items 1 through 27, plus Contingent Items C-28 through C-42)**” and **ADD** “**TOTAL BASE BID (Total Items 1 through 31, plus Contingent Items C-32 through C-46)**” located in Attachment A of this Addendum 1.
- 1.3 In Article 2, Table of Contents, Page i, **DELETE** Article 2 Table of Contents in its entirety and **ADD** new Article 2 Table of Contents located in Attachment B of this Addendum 1.
- 1.4 In Article 2, Section 2.3, Page 2-2, **ADD** to the end of the first sentence “as well as inspection and, as directed, cleaning of specified pipe segments in the Upper Monongahela Interceptor.” located in Attachment B of this Addendum 1.
- 1.5 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, ITEM NO. 1 - MOBILIZATION / DEMOBILIZATION, BONDS AND INSURANCE (NOT TO EXCEED 5% OF TOTAL BID PRICE), **DELETE** “**Item No. 1 – 27** and contingent Item No. **C-28 – C-42**” and **ADD** “**Item No. 1 – 31** and contingent Item No. **C-32 – C-46**” located in Attachment B of this Addendum 1.
- 1.6 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **ADD** “**ITEM NO. 28-30: INSPECTION OF UPPER MONONGAHELA, ALL DIAMETER**”

The unit price for “INSPECTION OF UPPER MONONGAHELA, ALL DIAMETER” item shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of these pipes shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under **Item 2**.

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the pipes traversed and inspected.

The CONTRACTOR will be paid for lengths actually inspected and meeting the inspection requirements. No payment will be made for subsequent inspections.”

This is located in Attachment B of this Addendum 1.

- 1.7 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **ADD “ITEM NO. 31: SONAR INSPECTION OF RIVER CROSSING M-34”**

The unit price for “SONAR INSPECTION OF RIVER CROSSING M-34, ALL DIAMETER” item shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item. This work includes five initial passes with a jetter.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of this river crossing shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under **Item 2** .

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the river crossing traversed and inspected.

The CONTRACTOR will be paid for lengths actually inspected by sonar and meeting the inspection requirements. No payment will be made for subsequent sonar inspections.

Payment shall be PER LINEAR FOOT (LF).”

This is located in Attachment B of this Addendum 1.

- 1.8 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE “ITEM NO. C-28”** and **ADD “ITEM NO. C-32”** located in Attachment B of this Addendum 1.
- 1.9 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE “ITEM NO. C-29”** and **ADD “ITEM NO. C-33”** located in Attachment B of this Addendum 1.
- 1.10 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE “ITEM NO. C-30 – POST SIPHON PIPE SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED”** and **ADD “ITEM NO. C-34 – POST-CLEANING SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED”** located in Attachment B of this Addendum 1.
- 1.11 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **ITEM NO. C-34 - POST-CLEANING SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED, DELETE** “The unit price for “POST-CLEANING SIPHON PIPE SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED” and **ADD** “The unit price for “POST-CLEANING

SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED” located in Attachment B of this Addendum 1.

- 1.12 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-31” and **ADD** “ITEM NO. C-35” located in Attachment B of this Addendum 1.
- 1.13 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-32” and **ADD** “ITEM NO. C-36” located in Attachment B of this Addendum 1.
- 1.14 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-33” and **ADD** “ITEM NO. C-37” located in Attachment B of this Addendum 1.
- 1.15 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-34” and **ADD** “ITEM NO. C-38” located in Attachment B of this Addendum 1.
- 1.16 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-35” and **ADD** “ITEM NO. C-39” located in Attachment B of this Addendum 1.
- 1.17 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-36” and **ADD** “ITEM NO. C-40” located in Attachment B of this Addendum 1.
- 1.18 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-37” and **ADD** “ITEM NO. C-41” located in Attachment B of this Addendum 1.
- 1.19 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-38” and **ADD** “ITEM NO. C-42” located in Attachment B of this Addendum 1.
- 1.20 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-39” and **ADD** “ITEM NO. C-43” located in Attachment B of this Addendum 1.
- 1.21 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-40” and **ADD** “ITEM NO. C-44” located in Attachment B of this Addendum 1.
- 1.22 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-41–INTERNAL SPLIT SCREEN CCTV/SONAR INSPECTION” and **ADD** “ITEM NO. C-45 - INTERNAL SPLIT SCREEN CCTV/SONAR INSPECTION, AS DIRECTED” located in Attachment B of this Addendum 1.
- 1.23 In DESCRIPTION OF BID ITEMS, Article 2, Section 2.4, **DELETE** “ITEM NO. C-42” and **ADD** “ITEM NO. C-46” located in Attachment B of this Addendum 1.
- 1.24 In DESCRIPTION OF BID ITEMS, Article 2, Section 2 ITEM NO. C-46 - CHAIN-LINK FENCE GATE REPLACEMENT AND INSTALLATION, INDUSTRIAL GRADE UP TO 10-FEET HIGH WITH BARBED WIRE, INCLUDING ALL HARDWARE - COMPLETE, AS DIRECTED, DELETE “Incidental Traffic Control” as described in items C-33 through

C-35” and **ADD** “Incidental Traffic Control” as described in items C-37 through C-39” located in Attachment B of this Addendum 1.

- 1.25 In CONTRACT AGREEMENT, Article 4, Section 2, **DELETE** “within **One Hundred and Fifty (150)** Calendar Days” and **ADD** “within **Two Hundred and Forty (240)** Calendar Days” located in Attachment C of this Addendum 1.
- 1.26 In CONTRACT AGREEMENT, Article 4, Section 3, **DELETE** Construction Milestone / Liquidated Damages table in its entirety and **ADD** new Construction Milestone / Liquidated Damages table located in Attachment C of this Addendum 1.

## **2. CHANGES TO THE TECHNICAL SPECIFICATIONS**

- 2.1 In Section 01010, Summary of Work, Page 01010-1, Item 1.1.A, **DELETE** “The work included in this project is the sonar inspection and cleaning, as required, of the Allegheny County Sanitary Authority (ALCOSAN) siphons located along the Chartiers Creek and Saw Mill Run Interceptors in several municipalities and the City of Pittsburgh.” And **ADD** “The work included in this project is primarily sonar inspection and cleaning, as required, of the Allegheny County Sanitary Authority (ALCOSAN) siphons located along the Chartiers Creek and Saw Mill Run Interceptors in several municipalities and the City of Pittsburgh. Additional work includes inspection and cleaning located in the Upper Monongahela Interceptors.” located in Attachment D of this Addendum 1.
- 2.2 In Section 01010, Summary of Work, Page 01010-2, Item 1.2.B.2, **ADD** list item “e. Complete inspections of designated pipe segments in the Upper Monongahela Interceptors.” Revise the subsequent list item numbering under Item 1.2.B.2 to be “f-i.” located in Attachment D of this Addendum 1.
- 2.3 In Section 02080, Bypass Pumping, Page 02080-1, Item 1.2.A, **DELETE** “The intent of this contract is to complete sonar inspections and cleaning, as required, of the ALCOSAN siphons which are located in the Chartiers and Saw Mill Run Interceptors.” And **ADD** “The intent of this contract is to complete sonar inspections and cleaning, as required, of the ALCOSAN siphons which are located in the Chartiers and Saw Mill Run Interceptors, and to complete inspection and cleaning, as required, of the designated pipe segments in the Upper Monongahela Interceptor.” located in Attachment E of this Addendum 1.
- 2.4 In Section 02080, Bypass Pumping, Page 02080-1, Item 1.2.A, **DELETE** “In the case that ALCOSAN determines that bypass pumping is required, it may be requested using the contingent unit price in Contract Item C-36.” And **ADD** “In the case that ALCOSAN determines that bypass pumping is required, it may be requested using the contingent unit price in Contract Item C-40.” located in Attachment E of this Addendum 1.



- 2.5 In Section 02650, Pipeline Cleaning, Page 02650-1, Section 1.2.A, **DELETE** “Contract No. 1795 is a siphon-specific cleaning contract which has 27 specific siphons identified for inspection and cleaning, as required. All initial sonar inspections shall be completed prior to any cleaning work beginning as directed by OWNER. All post sonar inspections shall be completed as directed by OWNER after siphon is cleaned.”, and **ADD** “Contract No. 1795 is primarily a siphon cleaning contract which has 26 specific siphons identified for inspection and cleaning, as required. All initial sonar inspections of the siphons shall be completed prior to any cleaning work beginning as directed by OWNER. All post sonar inspections shall be completed as directed by OWNER after siphon is cleaned. The additional pipe segments in the Upper Monongahela Interceptor shall also be inspected prior to any cleaning work beginning as directed by OWNER, and all post inspections shall be completed as directed by OWNER following cleaning.” located in Attachment F of this Addendum 1.
- 2.6 In Section 02650, Pipeline Cleaning, Page 02650-2, Section 1.2.E.4, **DELETE** “If the Construction Manager determines that additional cleaning should occur, the Contractor is responsible for additional passes (up to the maximum five passes) and shall complete final sonar inspection (within the unit prices bid for both pipes to be cleaned and for pipes to receive lining, as applicable) or sonar inspection (without additional compensation)”, and **ADD** “If the Construction Manager determines that additional cleaning should occur, the Contractor is responsible for additional passes (up to the maximum five passes) and shall complete final televising or sonar inspection (within the unit prices bid for both pipes to be cleaned and for pipes to receive lining, as applicable) or televising or sonar inspection (without additional compensation).” located in Attachment F of this Addendum 1.
- 2.7 In Section 02650, Pipeline Cleaning, Page 02650-3, Section 1.2.E.5, **DELETE** “In the event the Contractor concludes based on the post-cleaning sonar inspection of the line that more than five passes with hydraulic cleaning equipment will be necessary to achieve acceptable results, the Contractor shall consult the Construction Manager for a determination”, and **ADD** “In the event the Contractor concludes based on the post-cleaning televising or sonar inspection of the line that more than five passes with hydraulic cleaning equipment will be necessary to achieve acceptable results, the Contractor shall consult the Construction Manager for a determination.” located in Attachment F of this Addendum 1.
- 2.8 In Section 02651, Television and Sonar Inspection of Sewers, Page 02651-1, Section 1.2.A **DELETE** “The intent of this contract is to conduct sonar inspections, and cleaning as required, of the ALCOSAN siphons. It is not the intent of this contract to conduct bypass pumping. In areas where debris exceeds 25% of the pipe diameter as determined by the OWNER, cleaning will be required, as directed, as described in Section 02650. If there is cementitious material or large debris blocking flow, ALCOSAN may request additional cleaning using the contingent unit prices in the Contract. Post-cleaning sonar inspections will be required for siphons that required cleaning.”, and **ADD** “The intent of this contract is to conduct sonar inspections, and cleaning as required, of the ALCOSAN siphons, and to conduct inspections, and cleaning as required, of the designated pipe segments in the Upper

Monongahela Interceptor. It is not the intent of this contract to conduct bypass pumping. In areas where debris exceeds 25% of the pipe diameter as determined by the OWNER, cleaning will be required, as directed, as described in Section 02650. If there is cementitious material or large debris blocking flow, ALCOSAN may request additional cleaning using the contingent unit prices in the Contract. Post-cleaning sonar inspections will be required for siphons that required cleaning. Post-cleaning inspections will be required for Upper Monongahela pipe segments that required cleaning.” located in Attachment G of this Addendum 1.

- 2.9 In Section 02651, Television and Sonar Inspection of Sewers, Page 02651-1, Section 1.2.B **DELETE** “contingent item C-30”, and **ADD** “contingent item C-34” located in Attachment G of this Addendum 1.
- 2.10 In Section 02651, Television and Sonar Inspection of Sewers, Page 02651-1, Section 1.2.C **ADD** list Item 2 “Inspection of pipe segments in the Upper Monongahela Interceptor defined in the bid items. (In the event that cleaning is found to be required based on the initial inspection, a post-cleaning inspection will also be required to demonstrate cleaning to a satisfactory level.)” located in Attachment G of this Addendum 1.

### 3. **CHANGES TO MAPS AND DRAWINGS**

- 3.1 Replace “Maps/Drawings” in its entirety with the revised Attachment H in this addendum.

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment A – Revised Article 1 – Bidding Documents

**ARTICLE 1**

**BIDDING DOCUMENTS**

**ARTICLE 1  
BIDDING DOCUMENTS**

BID FORM ..... 1-1

BID BOND ..... 1-15

CERTIFICATE OF MINORITY AND WOMEN’S  
BUSINSS ENTERPRISE PARTICIPATION ..... 1-23

NON-COLLUSION AFFIDAVIT..... 1-28

CERTIFICATE OF COMPLIANCE WITH THE  
PENNSYLVANIA STEEL PRODUCTS PROCUREMENT ACT..... 1-30

CONTRACTOR'S QUALIFICATIONS STATEMENT ..... 1-32

CERTIFICATION OF SAFETY PROCEDURES COMPLIANCE..... 1-34

**BID FORM**

This Bid is submitted to the Allegheny County Sanitary Authority, herein called the Owner or the Authority, acting through its chairman, which advertised for sealed bids for **CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024** by:

Bidder's Name and Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Attention: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

1. **BIDDER'S DECLARATION AND UNDERSTANDING.**

- 1.1 This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.
- 1.2 In submitting this Bid, Bidder certifies Bidder is qualified to do business in the Commonwealth of Pennsylvania as required by laws, rules, and regulations or, if allowed by statute, covenants to obtain such qualification prior to contract award.

2. **CONTRACT EXECUTION AND BONDS.**

- 2.1 The undersigned Bidder agrees, if this Bid is accepted, to enter into an Agreement with Owner on the form included in the Bidding Documents to perform and furnish Work as specified or indicated in the Bidding Documents for the Contract Price derived from the Bid and within the Contract Times indicated in the Agreement and in accordance with the other terms and conditions of the Bidding Documents.
- 2.2 Bidder accepts the terms and conditions of the Bidding Documents.

3. **INSURANCE.**

- 3.1 Bidder further agrees that the Bid amount(s) stated herein includes specific consideration for the specified insurance coverages.

4. CONTRACT TIMES.

4.1 Bidder agrees to accept Contract Times set forth in **Article 4**, Contract Agreement.

5. LIQUIDATED DAMAGES.

5.1 Bidder accepts the provisions in **Article 4**, Contract Agreement as to liquidated damages.

6. ADDENDA.

6.1 Bidder hereby acknowledges that it has received Addenda Numbers:

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_,  
(Bidder shall insert number of each Addendum received) and agrees that Addenda issued are hereby made part of the Bidding Documents, and Bidder further agrees that this Bid includes impacts resulting from said Addenda.

7. SUBCONTRACTORS.

7.1 Bidder agrees to submit within **5 days** of Owner's request, a listing of subcontracting firms or businesses that will be awarded subcontracts for portions of Work as described in the Instructions to Bidders.

8. TOTAL BASE BID.

The total base bid will be the comparative cost basis for the purposes of award of this contract.

Bidder further proposes to accept as full payment for the Unit Price work proposed herein the amounts computed under the provisions of the Bidding Documents and based on the following lump sum and/or unit price amounts, it being expressly understood that the lump sum and/or unit prices are independent of the exact quantities involved. Bidder agrees that the unit prices represent a true measure of the labor, materials, and services required to furnish and install the item, including all allowances for overhead and profit for each type and unit of Work called for in these Bidding Documents.

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**IN ACCORDANCE WITH THE CONTRACT DOCUMENTS  
BID ITEMS**

<b>Item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Bid \$\$</b>	<b>Total \$\$</b>
1	Mobilization /Demobilization, Bonds and Insurance (Not to Exceed 5% of Total Bid Price)	1	LS		
2	Sewer Pipe Cleaning and Debris Removal, All Pipes and Sizes	30	TN		
3	Inspection of Siphon C-08-RG to C-08-02	270	LF		
4	Inspection of Siphon C-13-12 to C-13-10	310	LF		
5	Inspection of Siphon C-13A to C-13-20	155	LF		
6	Inspection of Siphon C-21-RG to C-21-02	380	LF		
7	Inspection of Siphon C-26-RG to C-26-02	290	LF		
8	Inspection of Siphon C-30-08 to C-C-30-06	340	LF		
9	Inspection of Siphon C-31-RG to C-31-02	410	LF		
10	Inspection of Siphon C-34A-RG to C-34A-02	330	LF		
11	Inspection of Siphon C-35-RG to C-35-02	290	LF		
12	Inspection of Siphon C-36-02 to C-35-04	190	LF		



13	Inspection of Siphon C-38-08 to C-38-06	220	LF		
14	Inspection of Siphon C-41-RG to C-41-02	290	LF		
15	Inspection of Siphon C-42-RG to C-42-02	290	LF		
16	Inspection of Siphon C-44-12 to C-44-10	225	LF		
17	Inspection of Siphon C-45B-00 to C-45B-02	430	LF		
18	Inspection of Siphon C-46-RG to C-46-02	320	LF		
19	Inspection of Siphon C-47-06 to C-47-04	205	LF		
20	Inspection of Siphon C-48A to C-48A-02	290	LF		
21	Inspection of Siphon C-49-02 to C-48A-18	235	LF		
22	Inspection of Siphon C-50-02 to C-50-04	310	LF		
23	Inspection of Siphon C-50A-10 to C-50A-08	185	LF		
24	Inspection of Siphon C-50B to C-50B-02	220	LF		
25	Inspection of Siphon C-54-14 to C-54-12	140	LF		
26	Inspection of Siphon S-03A to MH-S02	480	LF		
27	Inspection of Siphon SMR44S-2 to SMR44S-1	630	LF		

28	Inspection of Sewers from M-38 to M-41	1860	LF		
29	Inspection of Sewers from M-3 to M-33	715	LF		
30	Inspection of Sewers from M-33 to M-36	1665	LF		
31	Sonar Inspection of M-34 River Crossing	643	LF		
<b>CONTINGENT ITEMS</b>					
C-32	Additional Cleaning - Hydrovac/Jetter Truck – 12 Yard Debris Capacity, 1500 Gallon Water Tanks, 2500 psi Water Pressure High-Velocity Jetter at 120 gpm, 1500 Feet of 1-¼” I.D. Jetter Hose, Vacuum Capability of 6000 cfm at 15” Hg	200	Hourly Rate w/ Operator & Laborer		
C-33	Inspection of Siphon RG102419301 to C-45B-08	590	LF		
C-34	Post-cleaning Sonar Inspection, All Diameters, as Directed	5000	LF		
C-35	Bucket Machine with Scrapers, Buckets and Swabs	20	HR		
C-36	CCTV Inspection Equipment with a Pipe Locator	20	HR		
C-37	Flag Person	60	HR		
C-38	Off-Duty Officer	30	HR		
C-39	Flashing Arrow Board Device	30	HR		
C-40	Bypass-Pumping with an 8” Pump and Hoses	100	HR		
C-41	Additional Fused Pipe, Valves and Fittings	100	LF		
C-42	Laborer with Compressor, Utility Truck and Miscellaneous Tools	20	HR		
C-43	Miscellaneous Work for a Full-Time Crew	40	HR		
C-44	Internal CCTV Inspection, as Directed	40	HR		

C-45	Internal Split Screen CCTV/Sonar Inspection	40	HR		
C-46	Chain Link Fence Replacement and Installation, Industrial Grade up to 10 Feet High with Barbed Wire, Including New Posts and All Hardware Complete, as Directed	500	SF		

**TOTAL BASE BID (Total Items 1 through 31, plus Contingent Items C-32 through C-46)**

\_\_\_\_\_ **dollars and**  
**(words)**

\_\_\_\_\_ **cents**  
**(words)**

\$ \_\_\_\_\_  
**(figures)**

The Authority is exempt from the payment of Commonwealth of Pennsylvania Selective Sales and Use tax. The Bidder should disregard such tax in calculating its bid.

The undersigned Bidder agrees to take notice of and shall be responsible for any local or state taxes levied and applicable, and the costs for same are included as part of this Bid. Certain of the Bidder's tax obligations are described in more detail in the Contract Provisions Section entitled "Sales and Use Tax."

It is understood that the Authority reserves the right to waive any informality in or reject any or all bids and to withhold the awarding of the Contract for **sixty (60)** calendar days after the date of actual opening of the bids.

If this Bid shall be accepted by the Authority, and the undersigned shall fail to enter into a formal Contract as aforesaid (or fail to provide all other documents or materials as described in the Contract Documents), within **ten (10)** calendar days (not including Sundays or legal holidays) from the date of receipt of notice from the Authority to the undersigned, at the address given herewith, that the Contract is ready for signature, then the Authority may procure the required work for **CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024** from others, in which event the undersigned shall be liable to the Authority for the difference between the amount specified in this Bid and the amount which the Authority expends to procure such service from others, and the undersigned agrees that its liability shall not be limited to the amount specified in the Bid Security which accompanies this Bid.

The undersigned Bidder agrees that the Contract, if awarded to this undersigned Bidder, shall be entered into, under and pursuant to the laws of the Commonwealth of Pennsylvania and shall in all respects be construed in accordance with the laws of said Commonwealth.

Should the Bidder change the wording of the language employed in the Contract

Documents including the Bid so as to alter, modify or change the Contract Documents in any degree or manner the Authority will reject the Bid. The Authority may, in its discretion, accept the Bid if it determines that the alteration, modification or change represents an informality, non-material change or clarification. The same applies to any letter, printed form or other document inserted in the Contract Documents accompanying the Bid. **In general, alterations, modifications or changes to the Contract Documents will not be entertained by the Authority and will cause the Authority to reject the Bid.** Any changes must be agreed to in writing by the Owner to be binding against the Owner. See the Information for Bidders Sections entitled "Alterations of Bids and Documents" and "Approved Equal/Alternates" for more details. The successful bidder shall be legally bound to comply strictly with the provisions of the Authority's Contract Documents exactly as accepted by the Authority.

IN WITNESS WHEREOF, the undersigned Bidder has executed this Bid on the attached signature pages on the date set forth below.

9. SURETY.

9.1 If Bidder is awarded a construction contract from this Bid, the surety who provides the Performance and Payment Bond(s) shall be:

\_\_\_\_\_ whose address is

\_\_\_\_\_  
Street City State Zip

9.2 The bidder further certifies that the surety listed as providing the Performance Bond and the Payment Bond is listed on the Treasury Department's most current list (Circular 570 as amended) and is authorized to transact business in the Commonwealth of Pennsylvania.

10. BIDDER.

An Individual

By \_\_\_\_\_  
(Individual's name and signature)

A Partnership

By \_\_\_\_\_  
(Partnership name)

\_\_\_\_\_  
(Name and signature of general partner)

\_\_\_\_\_  
(Title)

A Corporation

By \_\_\_\_\_  
(Corporation name)

\_\_\_\_\_  
(State of incorporation)

By \_\_\_\_\_  
(Name and signature of person authorized to sign)

\_\_\_\_\_  
(Title)

(Corporate Seal)

A Joint Venture

By \_\_\_\_\_  
(Business name)

\_\_\_\_\_  
(Name and signature of person authorized to sign)

By \_\_\_\_\_  
(Business name)

\_\_\_\_\_  
(Name and signature of person authorized to sign)

(Each joint venturer must sign. The manner of signing each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Name, Phone Number, and Address for receipt of official communications and for additional information on this Bid:

\_\_\_\_\_  
\_\_\_\_\_

SUBMITTED ON: \_\_\_\_\_, 20\_\_\_\_

**CORPORATION COMPLETE THIS PAGE**

\_\_\_\_\_ is a corporation organized and existing under the laws of \_\_\_\_\_ with principal place of business at \_\_\_\_\_ and, if a  
(Street Address) (City, State and Zip Code)

non-Pennsylvania corporation [has] / [has not] been granted a certificate of authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, as amended, 15 Pa. C.S.A. §§ 4101 et seq.

ATTEST: \_\_\_\_\_  
(Name of Corporation)

\_\_\_\_\_  
(Signature of Certifying Officer)

\_\_\_\_\_  
(Signature of Authorized Officer)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Typed name of Authorized Officer)

(AFFIX CORPORATE SEAL)

\* The corporation shall make certain that the secretary or assistant secretary certifies the official character and authority of the person or persons executing this Bid for the Contractor according to the form attached hereto. In lieu of such certificate, attach to the Bid copies of the records of the corporation that show the official character and authority of the officer signing. The records shall be duly certified to be true copies by the secretary or assistant secretary under corporate seal.

**CORPORATION COMPLETE THIS PAGE  
CERTIFICATE AS TO CORPORATE OFFICER**

I, \_\_\_\_\_, certify that I am [secretary]/ [assistant secretary] of the corporation executing the within Bid; that \_\_\_\_\_ who signed the said Bid; on behalf of the corporation was then \_\_\_\_\_ of said corporation; that I know his signature and his signature thereto is genuine; and that said Bid was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

Dated: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Signature of secretary (or assistant secretary))

(AFFIX CORPORATE SEAL)



**PARTNERSHIP COMPLETE THIS PAGE**

\_\_\_\_\_ is a partnership trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. ‘‘ 301 et seq.

\_\_\_\_\_  
(Fictitious or assumed name)

WITNESS:

\_\_\_\_\_

\_\_\_\_\_  
(Partner trading as above) \*(SEAL)

\_\_\_\_\_  
(Partner trading as above) \*(SEAL)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City, State and Zip Code)

\* If the executing party is a partnership, the document must be signed in the name of the partnership by at least two general partners, and the names and addresses of all the partners must be listed on the attached Certificate. The partnership must also attach Certificate of registration under the provisions of the Fictitious Names Act.

**PARTNERSHIP COMPLETE THIS PAGE  
CERTIFICATE AS TO PARTNERSHIP**

I, a partner of \_\_\_\_\_, the partnership named as Contractor in the within Bid, certify that the following are the names and addresses of all the partners of said partnership:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Signature of Certifying Partner)

**INDIVIDUAL COMPLETE THIS PAGE  
(WHEN THE PRINCIPAL IS AN INDIVIDUAL DOING BUSINESS UNDER  
A FIRM NAME)**

\_\_\_\_\_ is an individual trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. " 301 et seq.

\_\_\_\_\_  
(Fictitious or assumed name)

WITNESS:

By: \_\_\_\_\_ (SEAL)  
(Individual doing business as above)

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**(WHEN THE PARTY IS AN INDIVIDUAL DOING BUSINESS IN HIS/HER  
INDIVIDUAL NAME)**

\_\_\_\_\_  
(Individual Name)

WITNESS:

By: \_\_\_\_\_ (SEAL)  
(Individual)

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_,

\_\_\_\_\_ as Principal, and \_\_\_\_\_, a corporation duly organized under the laws of the State of \_\_\_\_\_, as Surety, are held and firmly bound unto the Allegheny County Sanitary Authority, herein called the "Authority", its attorneys, successors or assigns in the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_ ) lawful money of the United States of America, for payment of which sum well and truly to be made, we bind ourselves, our heirs, legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying Bid for **CONTRACT No. 1795, INVERTED SIPHON CLEANING 2024.**

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that (1) if the Principal shall not withdraw said Bid within the period specified in the Information for Bidders, and shall within the period therein specified therefor [or, if no time is specified, within **Ten (10) calendar days** (not including Sundays or Legal Holidays) after the prescribed forms are presented to it for execution] enter into a written Contract with the Authority in accordance with the Bid as required, for the faithful performance of such Contract and for the payment of labor and materials and execute and deliver to the Authority all bonds and other instruments required to be executed and delivered by the Principal in accordance with the Contract Documents, or (2) in the event of the unauthorized withdrawal of said Bid, or the failure to enter into such Contract and give such bonds within the time specified and execute and deliver to the Authority all bonds and other instruments required to be executed and delivered by the Principal in accordance with the Contract Documents, if the Principal shall pay the Authority the difference between the amount specified in said Bid and the amount for which the Authority may procure the required work or supplies or both, if the latter amount be in excess of former together with all other loss, damage or expense suffered by the Authority thereby, then, in either such case, the above obligation shall become void and of no effect; otherwise it shall remain in full force and effect.

Said Surety, for value received, hereby stipulates and agrees that the obligation of said Surety under this Bond shall in no way be impaired or affected by an extension of the time within which said Bid may be accepted and said Surety does hereby waive notice of any such extension.

Said Surety agrees that its liability hereunder shall be absolute regardless of any liability of the Principal hereunder whether by reason of any irregular or unauthorized execution of or failure to execute this Bond or otherwise.

This Bond is entered into, under and pursuant to the laws of the Commonwealth of Pennsylvania and shall in all respects be construed in accordance with the laws of said Commonwealth.

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

**SURETY COMPLETE THIS PAGE**

\_\_\_\_\_  
(Corporate Surety)

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City, State and Zip Code)

ATTEST:

By: \_\_\_\_\_ \*  
(Signature)

\_\_\_\_\_

\_\_\_\_\_  
(Title)

Date: \_\_\_\_\_, 20\_\_

(AFFIX CORPORATE SEAL)

\* The Surety should attach to the Bid Bond a currently certified Power of Attorney which should be dated, sealed and executed by a live (not facsimile) signature showing that the person signing the Bid Bond for the Surety has the current authority to do so.

**CORPORATION COMPLETE THIS PAGE**

\_\_\_\_\_ is a corporation organized and existing under the laws of \_\_\_\_\_ with principal place of business at \_\_\_\_\_

(Street Address)

(City, State and Zip Code)

and, if a non-Pennsylvania corporation [has] / [has not] been granted a certificate of authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, as amended, 15 Pa. C.S.A. " 4101 et seq.

ATTEST:

\_\_\_\_\_  
(Name of Corporation)

\_\_\_\_\_  
(Signature of Certifying Officer)

\_\_\_\_\_  
(Signature of Authorized Officer)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Typed Name of Authorized Officer)

(AFFIX CORPORATE SEAL)

\* The corporation shall make certain that the secretary or assistant secretary certifies the official character and authority of the person or persons executing this Bid Bond for the Principal according to the form attached hereto. In lieu of such certificate, attach to the Bid Bond copies of the records of the corporation that show the official character and authority of the officer signing. The records shall be duly certified to be true copies by the secretary or assistant secretary under corporate seal.

**CORPORATION COMPLETE THIS PAGE  
CERTIFICATE AS TO CORPORATE OFFICER**

I, \_\_\_\_\_, certify that I am [secretary]/[assistant secretary] of the corporation executing the within Bid Bond; that \_\_\_\_\_ who signed the said Bid Bond; on behalf of the corporation was then \_\_\_\_\_ of said corporation; that I know his signature and his signature thereto is genuine; and that said Bid Bond was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

Dated: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
Signature of secretary (or assistant secretary)

(AFFIX CORPORATE  
SEAL)



**PARTNERSHIP COMPLETE THIS PAGE**

\_\_\_\_\_ is a partnership trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. " 301 et seq.

\_\_\_\_\_  
(Fictitious or assumed name)

WITNESS:

\_\_\_\_\_  
(Partner trading as above) \*(SEAL)

\_\_\_\_\_

\_\_\_\_\_  
(Partner trading as above) \*(SEAL)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City, State and Zip Code)

\* If the executing party is a partnership, the document must be signed in the name of the partnership by at least two general partners, and the names and addresses of all the partners must be listed on the attached Certificate. Principal must also attach Certificate of registration under the provisions of the Fictitious Names Act.

**PARTNERSHIP COMPLETE THIS PAGE  
CERTIFICATE AS TO PARTNERSHIP**

I, a partner of \_\_\_\_\_, the partnership named as Contractor in the within Bid Bond, certify that the following are the names and addresses of all the partners of said partnership:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Signature of Certifying Partner)

**INDIVIDUAL COMPLETE THIS PAGE  
(WHEN THE PRINCIPAL IS AN INDIVIDUAL DOING BUSINESS UNDER A FIRM NAME)**

\_\_\_\_\_ is an individual trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A " 301 et seq.

WITNESS:

\_\_\_\_\_  
(Fictitious or assumed name)

By: \_\_\_\_\_ (SEAL)  
(Individual doing business as above)

\_\_\_\_\_

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**(WHEN THE PARTY IS AN INDIVIDUAL DOING BUSINESS IN HIS/HER  
INDIVIDUAL NAME)**

WITNESS:

\_\_\_\_\_  
(Individual Name)

By: \_\_\_\_\_ (SEAL)  
(Individual)

\_\_\_\_\_

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**CERTIFICATE OF MINORITY AND  
WOMEN’S BUSINESS ENTERPRISE PARTICIPATION**

**CONTRACT NO. 1795, INVERTED SIPHON CLEANING CONTRACT 2024**

The undersigned Bidder certifies that they have read and understand the Information for Bidders Section entitled “Minority and Women’s Business Enterprise and Labor Surplus Area Policy”, and further understand and agree to the minority participation goal applicable to this Contract and shall strive to expend from **ten to twenty-five percent (10-25%)** of the total cost of the Contract for minority and women’s business enterprise participation.

The Bidder further certifies that they understand that they are required to submit, as part of their Bid, a specific proposal indicating the manner in which it will attempt to comply with this requirement.

Failure of the Bidder to attempt to comply with these conditions or failure to submit with the Bid the proposal described above, or failure to sign and submit this Certificate with the Bid may disqualify the Bid as being nonresponsive.

Name of Bidder \_\_\_\_\_

Signed \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**ALLEGHENY COUNTY SANITARY AUTHORITY**

Failure to complete this form and submit it with bid will be sufficient cause for rejection of bid.

Note: Each sheet must be returned.

<b>SOLICITATION AND COMMITMENT STATEMENT</b>						
<b>MINORITY (MBE) AND FEMALE (WBE) OWNED BUSINESS ENTERPRISES</b>						
CONTRACT NO.	NAME OF BIDDER	ADDRESS		PHONE		
1795						
<b>List below all MBE/WBE's that were solicited - whether or not a commitment was obtained -- Copy this form as necessary</b>						
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED BY PHONE BY MAIL		COMMITMENT MADE YES (IF YES, GIVE DATE ) NO	GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME						
ADDRESS			QUOTE RECEIVED YES NO		AMOUNT COMMITTED DOLLAR AMOUNT \$	
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %	
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED BY PHONE BY MAIL		COMMITMENT MADE YES (IF YES, GIVE DATE ) NO	GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME						
ADDRESS			QUOTE RECEIVED YES NO		AMOUNT COMMITTED DOLLAR AMOUNT \$	
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %	
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	DATE SOLICITED BY PHONE BY MAIL		COMMITMENT MADE YES (IF YES, GIVE DATE ) NO	GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME						
ADDRESS			QUOTE RECEIVED YES NO		AMOUNT COMMITTED DOLLAR AMOUNT \$	
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %	

Prepared by: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

NOTE: It is recommended that Certification and letters of intent for each MBE/WBE commitment accompany this Solicitation and Commitment Statement.

**MBE/WBE SOLICITATION AND COMMITMENT STATEMENT**

**BIDDER'S FIRM:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**TELEPHONE:** \_\_\_\_\_

**CONTACT PERSON:** \_\_\_\_\_

**PROPOSAL AND BID FOR:** \_\_\_\_\_

LIST BELOW ALL CONTRACTS WITH THE ALLEGHENY COUNTY SANITARY AUTHORITY DURING THE PAST THREE YEARS AND THE MBE AND WBE PARTICIPATION OBTAINED					
CONTRACT TITLE	CONTRACT DATE	AMOUNT	% PARTICIPATION		COMMENTS
			MBE	WBE	

Prepared by: \_\_\_\_\_ Title: \_\_\_\_\_

**MBE/WBE SOLICITATION AND COMMITMENT STATEMENT**

Additional Information

The bidder presents the following as additional and supplemental information to its MBE/WBE Solicitation and Commitment Statement

Prepared by: \_\_\_\_\_ Title: \_\_\_\_\_ Phone: \_\_\_\_\_

Websites that provide certified MBE/WBE companies:

[www.dgs.state.pa.us](http://www.dgs.state.pa.us)

[www.paucp.com](http://www.paucp.com)

Larry Crouser  
ALCOSAN DBE Coordinator  
(412) 734-8737



NON-COLLUSION AFFIDAVIT

State of \_\_\_\_\_:

S.S.

County of \_\_\_\_\_:

I state that I am \_\_\_\_\_ of  
(Title)

\_\_\_\_\_ and that I am  
(Name of Firm)

authorized to make this Affidavit on behalf of my firm and its owners, directors, and officers. I am the person responsible for the price(s) and the amount of this Bid.

I further state that:

- (1) The price(s) and amount of this Bid have been arrived at independently and without consultation, communication or agreement with any other contractor, bidder or potential bidder.
- (2) Neither the price(s) nor the amount of this Bid, and neither the approximate price(s) nor approximate amount of this Bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the bid opening.
- (3) No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this Bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
- (4) My firm's Bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.

(5) \_\_\_\_\_,  
(Name of Firm)

its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows (Either provide an explanation or type N/A if not applicable):

I state that \_\_\_\_\_  
(Name of Firm)

understands and acknowledges that the above representations are material and important, and will be relied on by:

**THE ALLEGHENY COUNTY SANITARY AUTHORITY**

in awarding the Contract(s) for which this Bid is submitted. I understand and my firm understands that any misstatement in this Affidavit is and shall be treated as fraudulent concealment from:

**THE ALLEGHENY COUNTY SANITARY AUTHORITY**

of the true facts relating to the submission of bids for this contract.

\_\_\_\_\_  
(Name and Company Position)

SWORN TO AND SUBSCRIBED BEFORE ME

THIS \_\_\_\_\_ DAY of \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Notary Public)

\_\_\_\_\_  
(My Commission Expires)

**CERTIFICATE OF COMPLIANCE WITH THE  
PENNSYLVANIA STEEL PRODUCTS PROCUREMENT ACT**

This Certificate is supplied by \_\_\_\_\_

("Contractor") to the Allegheny County Sanitary Authority ("ALCOSAN") this \_\_day of \_\_\_\_\_, 20\_\_.

**W I T N E S S E T H:**

WHEREAS, Contractor wishes to contract with ALCOSAN relative to **CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024** (the "Contract"); and

WHEREAS, The Pennsylvania Steel Products Procurement Act, 72 P.S. ' 1881 et. seq. ("Steel Procurement Act") requires that if a product contains foreign and United States steel, such product shall be determined to be a United States steel product only if at least 75% of the cost of the articles, materials, and supplies have been mined, produced or manufactured, as the case may be, in the United States; and

WHEREAS, Contractor has represented to ALCOSAN that any and all products Contractor will supply to ALCOSAN pursuant to the Contract will be United States steel products as defined in Steel Procurement Act and Contractor does and will in all fashion and manner comply with the Steel Procurement Act and the Contract in performance of the Contract.

NOW, THEREFORE, INTENDING TO BE LEGALLY BOUND HEREBY, Contractor does represent and promise to ALCOSAN as follows:

1. The above recitals are binding between the parties and are legally enforceable as if set forth in their entirety herein.
2. Contractor will, pursuant to the Contract, meet the definition of United States steel products as set forth in the Steel Procurement Act and will in all manner and fashion otherwise comply with the Steel Procurement Act and the Contract.
3. Contractor acknowledges that its representations and promises are a material consideration to ALCOSAN with regard to considering Contractor for and possibly awarding the Contract to Contractor.

4. Contractor does hereby promise to indemnify and save harmless the Authority, its officers, agents, servants, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorney's fees resulting from the breach of any representation, covenant or promise contained in this Certificate.

Intending to be legally bound hereby Contractor does hereby supply this

Certificate the \_\_\_\_\_ day of, \_\_\_\_\_ 20\_\_.

ATTEST:

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



10. Attach a financial statement, preferably audited, including your organization’s latest balance sheet and income statement showing the following items:

- Current Assets (e.g. cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses)
- Net Fixed Assets
- Other Assets
- Current liabilities (e.g. accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries, and accrued payroll taxes)
- Other liabilities (e.g. capital, capital stock, authorized and outstanding shares par values, earned surplus, and retained earnings)
- Name and address of firm preparing attached financial statement and date thereof.

11. Is the attached financial statement for the identical organization named on page one? \_\_\_\_\_. If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g. parent-subsidiary)

Dated: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

being duly sworn deposes and says that the information herein is true and sufficiently complete so as not to be misleading.

SUBSCRIBED AND SWORN BEFORE ME  
THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2023.

Notary Public: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

**CERTIFICATION OF SAFETY PROCEDURES COMPLIANCE**

I, \_\_\_\_\_, as \_\_\_\_\_ of  
(Typed Name) (Title or Office)  
\_\_\_\_\_, a \_\_\_\_\_,  
(Name of Corporation/Partnership) (Type of Entity)

hereby certify that I have read and understand the Safety Procedure as enumerated in the Contract Provisions Section entitled "Compliance with Health, Safety and Environmental Laws" of \_\_\_\_\_, **CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024** and that all Work will be conducted in accordance with OSHA standards and other applicable safety precautions.

Date: \_\_\_\_\_

By: \_\_\_\_\_

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment B – Revised Article 2 – Information for Bidders



**ARTICLE 2**  
**INFORMATION FOR BIDDERS**



**ARTICLE 2  
INFORMATION FOR BIDDERS**

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## 2.1 DEFINED TERMS

The terms used in this Information for Bidders have the meanings assigned to them in **Article 3**, General Contract Conditions (the "General Conditions").

Certain additional terms used in the Bidding Documents have the meanings indicated below which are applicable to both the singular and plural thereof.

- A. APPARENT LOW BIDDER is the responsible, responsive bidder whose bid as offered in the bid form represents the lowest total as determined by the Base Bid.
- B. BASE BID is the total of the Bid for the Lump Sum Work, plus the amount for any Unit Price Work if applicable. No consideration will be given to additive or deductive alternates or other credits in determining the Base Bid.
- C. BID refers to all materials, items and documents included in the Bidder's response to the Owner submitted pursuant to the Contract Documents.
- D. BIDDER is one who submits a Bid to the Owner as distinct from a sub-bidder, who submits a Bid to a Bidder.
- E. CONSENT DECREE is the legal Consent Decree as approved by ALCOSAN, United States Environmental Protection Agency (EPA), Commonwealth of Pennsylvania Department of Environmental Protection (PaDEP), and the Allegheny County Health Department and entered on January 23, 2008.
- F. SUCCESSFUL BIDDER is the lowest, responsible and responsive Bidder to whom the Owner (based on the Owner's evaluation as hereinafter provided) makes an award.

## 2.2 GENERAL

The information contained in this **Article 2** of the Contract Documents describes the proper form and method for submitting Bids and the accompanying security to the Allegheny County Sanitary Authority (hereinafter referred to as the "Owner") and provides certain general information regarding the award of the Contract.

Certain provisions throughout this Article may reference certain consultants retained by the Owner such as the Construction Manager, the Consulting Engineer or Final Design Consultant and the Engineering Program Manager and to certain of their duties and responsibilities.

It is a condition to the Owner's evaluation of the Bid and possible award of the Contract that the Bidder carefully examine all of the Contract Documents and completely satisfy itself as to the nature and location of the Work and all Job Site conditions that may affect performance of the Work. Submission of the Bid by the Bidder is a representation by the Bidder that it has satisfied itself with respect to the foregoing.

Unless all Bids are rejected, and except as otherwise provided by law, award will be made to the lowest responsive and responsible Bidder. The Owner reserves the right to award by item or on a total Lump Sum Price basis, whichever is deemed most advantageous to the Owner. In cases of discrepancies in prices, the unit price will be binding. In any discrepancy between words and figures, the words will take precedence. For Lump Sum Bids that include an itemized breakdown, the low Bid will be based on the stated Lump Sum Price and the Owner is not required to consider the total value of the itemized breakdown.

The Contract Documents shall be interpreted, construed and enforced in accordance with all applicable laws and regulations of the Commonwealth of Pennsylvania.

2.3 LOCATION AND DESCRIPTION OF WORK

The Work to be done as specified here in **CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024**, (referred to as the "Work) specifically includes sonar inspection and, as directed, cleaning of specified siphons, as well as inspection and, as directed, cleaning of specified pipe segments in the Upper Monongahela Interceptor. The detailed scope of work can be found in **Section 01010** Summary of Work.

2.4 DESCRIPTION OF BID ITEMS

The following is a general description of the tasks to be completed under this Contract.

All prospective bidders are advised that access to the various sites is for information only, and the bidder should make any investigation necessary to satisfy himself/herself of the existing conditions. Furthermore, the successful bidder will be responsible for providing the means necessary to access the sites to accommodate his operations at no additional cost to the Owner.

Work needs may necessitate the need for more than one inspection rig or Hydrovac truck with a large CFM capability. The contractor will be required to dewater all collected debris material prior to taking it to an approved landfill and this will require temporary facilities and sealed containers for storage. Arrangements should be made to keep stored debris material separate from materials collected for any other work. The debris containers must be available for material inspection by the CM and the Owner.

The actual amount of work completed for each pay item may be more or less than the quantity estimated in the Bid Form. Payment will be made according to the quantity of work completed at the respective unit price provided in the Bid Form unless otherwise described below.

Items identified with a "C" prefix (e.g., C-7, C-8, etc.) are contingent items to be used as needed, and the Owner makes no guarantee as to the fulfillment of these contingent items' quantities. These items shall be performed without any per use minimum quantities.

**ITEM NO. 1 – MOBILIZATION / DEMOBILIZATION, BONDS AND INSURANCE (NOT TO EXCEED 5% OF TOTAL BID PRICE)**

The amount for “MOBILIZATION / DEMOBILIZATION, BONDS AND INSURANCE” shall be bid on a LUMP SUM (LS) basis not to exceed 5% of the sum of the total base bid price for **Item No. 1 – 31** and contingent **Item No. C-28 – C-42**. Mobilization / Demobilization shall consist of costs associated with providing initial services required to mobilize for, commence work and demobilize for each siphon on this project, as described in the Contract Documents. Associated costs include, but are not limited to, obtaining all required insurance, bonds and permits; preparatory work and operations necessary for the movement of personnel, equipment, supplies, labor and other incidentals to the work; preparation of construction schedules; sample reports; submittals; health and safety plan; and all other work which must be performed, or cost incurred prior beginning work.

The Contractor may request payment for up to 25% of the Mobilization/Demobilization cost in the first invoice; 60% over the remaining invoices based on the percentage of work completed, excluding the final invoice; and 15% on the final invoice. The total payment amount for this Bid Item will only be made for 5% of the total work completed.

**ITEMS NO. 2 SEWER PIPE CLEANING AND DEBRIS REMOVAL, ALL PIPES AND SIZES**

The unit price for “SEWER PIPE CLEANING AND DEBRIS REMOVAL, ALL PIPES AND SIZES” shall include all necessary labor, equipment, and materials required to clean sewer lines, capturing and collecting debris for disposal at an approved disposal site. Each load disposed shall be accompanied by an executed manifest and weigh slip. This item is applicable to all cleaning efforts as specified in this Contract, and shall be performed in accordance with SECTION 02650 – SANITARY PIPELINE CLEANING.

Measurement for payment of this item shall be based on the weight of debris at the disposal site scale, subject to a paint filter test and certified weigh slips from an approved disposal site. An estimate of 10 tons has been set aside for the quantity of debris removal. The tonnage of debris removed may be more and will be paid at the unit price rate; the amount of debris removed, however, may be less than the 10-ton amount set aside. No further compensation will be paid for debris that does not satisfy the quantity.

This item includes all labor, materials, equipment, and all other incidental work necessary to mobilize to the sites, conduct step-cleaning as heavy or light cleaning, remove the debris from the pipes, haul debris to disposal site, and then demobilize.

Any roll off boxes, storage sites, hauling services, disposal fees, other labor, equipment and/or materials shall be considered incidental. The Contractor shall be responsible for keeping debris separated from debris not part of this work, particularly if the debris is stored somewhere other than the worksite.

Payment shall be based on the unit price PER TON (TONS).

**ITEM NO. 3-27: SONAR INSPECTION OF SIPHONS IN CHARTIERS CREEK AND SAW MILL RUN, ALL DIAMETER**

The unit price for “SONAR INSPECTION OF SIPHONS IN CHARTIERS CREEK AND SAW MILL RUN, ALL DIAMETER” item shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item. This work includes five initial passes with a jetter.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of these siphon pipes shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under **Item 2** .

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the siphon pipes traversed and inspected.

The CONTRACTOR will be paid for lengths actually inspected by sonar and meeting the inspection requirements. No payment will made for subsequent sonar inspections.

Payment shall be PER LINEAR FOOT (LF).

**ITEM NO. 28-30: INSPECTION OF UPPER MONONGAHELA, ALL DIAMETER**

The unit price for “INSPECTION OF UPPER MONONGAHELA, ALL DIAMETER” item shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of these pipes shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under **Item 2**.

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the pipes traversed and inspected.



The CONTRACTOR will be paid for lengths actually inspected and meeting the inspection requirements. No payment will be made for subsequent inspections.

**ITEM NO. 31: SONAR INSPECTION OF RIVER CROSSING M-34**

The unit price for “SONAR INSPECTION OF RIVER CROSSING M-34, ALL DIAMETER” item shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item. This work includes five initial passes with a jetter.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of this river crossing shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under **Item 2** .

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the river crossing traversed and inspected.

The CONTRACTOR will be paid for lengths actually inspected by sonar and meeting the inspection requirements. No payment will be made for subsequent sonar inspections.

Payment shall be PER LINEAR FOOT (LF).

**ITEM NO. C-32 – ADDITIONAL CLEANING - HYDROVAC/JETTER TRUCK – 12 YARD DEBRIS CAPACITY, 1500 GALLON WATER TANKS, 2500 PSI WATER PRESSURE HIGH-VELOCITY JETTER AT 120 GPM, 1500 FEET OF 1-1/4” I.D. JETTER HOSE, VACUUM CAPABILITY OF 6000 CFM AT 15” HG**

The unit price for “HYDROVAC/JETTER TRUCK – 12 YARD DEBRIS CAPACITY, 1500 GALLON WATER TANKS, 2500 PSI WATER PRESSURE HIGH VELOCITY JETTER AT 120 GPM, 1500 FEET OF 1-1/4” I.D. JETTER HOSE, VACUUM CAPABILITY OF 6000 CFM AT 15” HG” shall include all superintendence, labor, materials, equipment to perform the work onsite, as directed. The minimum crew shall consist of a trained operator and a laborer. Any other incidental costs associated with this bid item shall be included in the unit price bid. No payment will be made for travel time. The hydrovac/jetter truck shall be a combination cleaning truck and shall meet the requirements specified in technical specifications section 02650 – 2.2 EQUIPMENT: 12 CY debris tank capacity, 1,800-Gallon water tank capacity, high velocity sewer jetter capable of pumping 120 GPM at 2,000 PSI; 1,500 feet of dual fused 1 ¼-in diameter jetter hose; vacuum capable of 6,000 CFM at 15” Hg.

Work performed shall be performed as referenced in the specifications. Work under this item is subject to approval of the OWNER or OWNER’s representative in the

field. The use of this item may be requested for sites other than those specified above in the base contract work and in varying quantities.

Payment shall be PER HOUR (HR) of actual operation on job site.

**ITEM NO. C-33: SONAR INSPECTION OF SIPHONS RG102419301 to C-45B-08**

The unit price for “SONAR INSPECTION OF SIPHONS **RG102419301 to C-45B-08**” Site shall include all superintendence, labor, materials, equipment, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item. This work includes five initial passes with jetter.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of these siphon pipes shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment. Any cleaning or debris removal shall be under Item 2.

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the siphon pipes traversed and inspected. Locating buried underground manholes shall be considered incidental to this work.

The CONTRACTOR will be paid for lengths actually inspected by sonar and meeting the inspection requirements. No payment will made for subsequent sonar inspections.

**ITEM NO. C-34 – POST SIPHON PIPE SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED**

The unit price for “POST-CLEANING SIPHON PIPE SONAR INSPECTION, ALL DIAMETERS, AS DIRECTED” items shall include all superintendence, labor, materials, equipment, pipeline cleaning, debris removal, traffic control, and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item.

The inspection of pipes will be completed one segment at a time, beginning and ending at the center of each manhole. The inspection of these siphon pipes shall be performed without any dewatering to ensure a full pipe. Record observations and adapt them to PACP coding for pipe condition assessment.

Payment quantities for this bid item shall be determined based on the total horizontal in-place measurement of the siphon pipes traversed and inspected. Locating buried underground manholes shall be considered incidental to this work.

The CONTRACTOR will be paid for lengths actually inspected by sonar and meeting the inspection requirements. No payment will be made for subsequent sonar inspections required due to incomplete cleaning work. Additionally, any pre-cleaning inspection work performed by the CONTRACTOR to establish equipment needs, site conditions, preliminary quantities, etc. shall be considered incidental.

Payment shall be PER LINEAR FOOT (LF).

**ITEM NO. C-35 – BUCKET MACHINES WITH SCRAPERS, BUCKETS, AND SWABS**

The unit price for “BUCKET MACHINES WITH SCRAPERS, BUCKETS, AND SWABS” shall include all superintendence, labor, materials, and equipment to perform the work onsite, as directed. Any other incidental costs associated with this bid item shall be included in the unit price bid. No payment will be made for travel time. Work performed shall be performed as referenced in the specifications. Work under this item is subject to approval of the Owner’s Field Representative.

The following shall be available as part of this item: Scrapers 18” to 48”, Buckets 8” to 30”, Swabs 4” to 30”; sufficient power to operate attachments on 1500 feet of cable. This item shall include a pair of bucket machines to operate as a system for the unit price bid.

Payment shall be PER HOUR (HR) of actual operation on job site.

**ITEM NO. C-36 – INTERNAL CCTV PIPE INSPECTION EQUIPMENT WITH A PIPE LOCATOR**

The unit price for “INTERNAL CCTV PIPE INSPECTION EQUIPMENT WITH A PIPE LOCATOR” item shall include all superintendence, labor, materials, and equipment to perform the work onsite, as directed. Any other incidental costs associated with this bid item shall be included in the unit price bid. No payment will be made for travel time or standby time onsite. Work performed shall be performed as directed and as referenced in the specifications.

Work shall include finding and identifying with orange marking paint on the ground surface, the location of a buried manholes, Level 4 and 5 pipe defects, and any other feature as directed. Work under this item is subject to approval of the DIRECTOR or DIRECTOR’s representative in the field.

Payment shall be PER HOUR (HR) of actual operation on job site.

**ITEM NO. C.37 – TRAFFIC CONTROL, FLAGPERSON**

This item shall include providing a uniformed flag person in accordance with contract specifications, when required as a condition of the road occupancy or railroad permit, and/or as directed by the Owner.

Payment shall be based on the unit price PER HOUR.

**ITEM NO. C.38 – TRAFFIC CONTROL, OFF-DUTY POLICE OFFICER**

This item shall include providing off-duty uniformed Police Officers to direct and control traffic during construction as required by the approved Maintenance and Protection of Traffic Plan, obstruction permit or as required by the Owner’s Field Representative.

Measurement for payment shall be based on: 1) the actual number of man hours provided when the occurrence is greater than four hours; 2) a value of four hours when the hours of service are four hours or less per occurrence.

Payment shall be based on the unit price PER HOUR.

**ITEM NO. C.39 – TRAFFIC CONTROL, FLASHING ARROW BOARD DEVICE**

This item shall include furnishing and maintaining electronic Arrow Board Devices in accordance with PENNDOT Publications 408 and 203 and at locations required by the approved Maintenance and Protection of Traffic Plan, obstruction permit or designated by the Owner’s Field Representative.

This item shall also include supplying and maintaining any and all signage, cones, barrels, channeling devices that are required to comply with the approved MPT plan.

Payment shall be based on the unit price bid. Measurement for payment shall be based on the number of actual operating hours per device necessary to complete the work.

Payment shall be based on the unit price PER HOUR.

**ITEM NO. C-40 - BYPASS PUMPING WITH UP TO 8” PUMP AND HOSES**

Payment for “BYPASS PUMPING WITH UP TO 8” PUMP AND 1000-FT HOSES” shall include all labor, equipment, materials, as directed.

All superintendence, labor, materials, equipment, maintenance and monitoring of pumps and piping, clearing, grubbing and restoration, incidental traffic control, filing and acquisition of permits, permit fees, training, and services described in the specifications or otherwise required to entirely complete all contract work associated with this item shall be considered incidental to this Bid Item.

Payment shall be based on the unit price PER HOUR (HR).

**ITEM NO. C.41 – ADDITIONAL FUSED PIPE, VALVES AND FITTINGS**

The unit price for “ADDITIONAL FUSED PIPE, VALVES AND FITTINGS” shall include all superintendence, labor, materials, and equipment to provide and construct additional fused pipe, valves, and fittings at locations approved by the DIRECTOR or DIRECTOR’s representative in the field. All work under this item shall be in accordance with the contract specifications.

Payment shall be PER LINEAR FOOT (LF) of fused piping provided and installed.

**ITEM NO. C-42 – LABORER WITH COMPRESSOR, UTILITY TRUCK AND MISCELLANEOUS TOOLS**

The unit price for “LABORER WITH COMPRESSOR, UTILITY TRUCK AND MISCELLANEOUS TOOLS” shall include all superintendence, required equipment, operator and labor for this bid item, as directed. No payment will be made for travel time or standby time onsite. Any other incidental costs associated with this bid item shall be included in the unit price bid. Work under this item is subject to approval of the DIRECTOR or DIRECTOR’s representative in the field.

Payment shall be PER HOUR (HR) on job site.

**ITEM NO. C-43 – MISCELLANEOUS WORK FOR A FULL-TIME CREW**

The unit price “MISCELLANEOUS WORK FOR A FULL-TIME CREW” shall include time spent onsite for a full crew(s); labor and equipment cost for work and/or time spent onsite which is not defined by any other contract unit prices. A full crew is defined to consist of (2) laborers, (2) operators, camera truck (with pipe locator), Hydrovac/Jetter truck, and foreman. This item shall cover all expenses involved in having a crew of workers and equipment at a site performing work, not specifically part of the pipe televising process, as directed.

Should the actual crew be comprised of less workers than the “full” crew as defined above, then payment for this item shall be adjusted and prorated based on the actual number of workers in the crew times their respective rate classifications.

Delays which are usual and a customary part of sewer televising WILL NOT BE PAID FOR UNDER THIS ITEM and are considered incidental to the work of televising. No payment shall be made for delays due to Acts of God.

Payment shall be PER CREW HOUR (HR) on job site.

**ITEM NO. C.44– INTERNAL CCTV INSPECTION, AS DIRECTED**

Payment for “INTERNAL CCTV INSPECTION, AS DIRECTED, shall be made PER LINEAR FOOT, regardless location of the sewer access point, and shall include all labor, equipment, materials, and other incidental work necessary to perform closed circuit television (CCTV) inspection services, as directed. No payment will be made for inspection submissions that are rejected by the Construction Manager or Owner for not conforming to the Contract Documents.

Length shall be determined on the basis of the horizontal, in-place measurement of the sewer lines actually televised. All superintendence, labor, materials, equipment, clearing, grubbing and restoration, incidental traffic control, filing and acquisition of permits, permit fees, training, and services described in the specifications or otherwise required to entirely complete all contract work associated with this item shall be considered incidental to this Bid Item. Note that some work may occur within existing railroad rights-of-ways.

Any pre-televising done by the Contractor to establish equipment needs or preliminary quantities shall be considered incidental to this Bid Item.

“Incidental Traffic Control” includes traffic controls that require simple traffic control measures such as traffic cones, barrels, channelizers, and minor signage to guide traffic around Contractor vehicles and personnel. Cost for these traffic control measures associated with this item shall be considered incidental to this Bid Item.

Prior to commencing work ALCOSAN will provide a sample PACP database for the contractor’s reference, and the contractor will in turn submit a sample PACP database for approval.

**ITEM NO. C-45 – INTERNAL SPLIT SCREEN CCTV/SONAR INSPECTION**

Payment for “INTERNAL SPLIT SCREEN CCTV/SONAR INSPECTION” shall include all labor, materials, equipment, all other incidental work to allow for the deployment of multi-sensor inspection equipment in conjunction with a sonar inspection platform, as directed. This will include the simultaneous use of CCTV, Laser and H2S Gas Detection equipment.

This item will not be applicable to fully submerged portions of pipe. Compensation shall only be made for the acceptable footage of pipe inspected with these technologies. Approval for use of this Contingent Item must be received prior to use of the Item. One or more components may be specified independently for use by the Owner or Construction Manager.

Work under this item shall be in accordance with the Contract documents and the specifications in Section 02651.

Payment shall be based on the unit price PER LINEAR FOOT (LF).

**ITEM NO. C-46 – CHAIN-LINK FENCE GATE REPLACEMENT AND INSTALLATION, INDUSTRIAL GRADE UP TO 10-FEET HIGH WITH BARBED WIRE, INCLUDING ALL HARDWARE - COMPLETE, AS DIRECTED**

The unit price for the “CHAIN-LINK FENCE GATE REPLACEMENT AND INSTALLATION, INDUSTRIAL GRADE UP TO 10-FEET HIGH WITH BARBED WIRE, INCLUDING ALL HARDWARE - COMPLETE, AS DIRECTED” bid item shall include all superintendence, labor, materials, and equipment to perform work under this bid item. This item shall include the removal and disposal of existing and/or damaged fencing, posts, hardware and appurtenances to be replaced and the installation of new replacement gate materials along with any new posts and hardware, as needed or directed. The materials used shall be industrial grade and matching the existing materials when performing replacements. Measurement for payment shall be determined based on the actual square feet in place of chain-link fence gate installed.

“Incidental Traffic Control” as described in items C-37 through C-39 and services described in the specifications or otherwise required to entirely complete all contract work associated with this bid item shall be included in the unit price bid. No payment will be made for travel time. Any other incidental costs associated with this bid item shall be included in the unit price bid. Work under this item is subject to approval of the DIRECTOR or DIRECTOR’s representative in the field.

All work for this bid item shall be performed in accordance with SECTION 02820 – CHAIN-LINK FENCE AND GATES.

Payment for this item will be PER SQUARE FOOT (LF) of gate installed.

2.5 BYPASS-PUMPING

The **CONTRACTOR**, may be required to bypass-pump to control flow levels to  $\leq 30\%$  of pipe diameter per pipe segment to facilitate CCTV inspections, or as directed to complete repairs, mitigate a sewer overflow, etc.

The **CONTRACTOR**, at any time, must be prepared to mobilize bypass-pumping equipment in response to emergency conditions not related to the base contract work, described in the preceding paragraph. The **OWNER** will notify the **CONTACTOR** by telephone or fax as to when mobilization is to occur. If the **CONTRACTOR** does not mobilize within 36 hours, liquidated

**damages of \$1000 per workday shall begin to accrue. This work will be paid using the bid price in Item No. C-36.**

Bypass-pumping (when applicable) - The contractor shall supply the pumps, conduits, and other equipment necessary to divert the flow of sewage around the pipe segment(s) and diversion chamber in which work is to be performed. The bypass system shall be of sufficient capacity to reduce the flows to acceptable levels. The contractor will be responsible for furnishing all necessary labor and supervision to set up and operate the bypassing system including provisions for traffic control, if required. When flow in a sewer line is bypass-pumped, sufficient precautions shall be taken by the contractor to protect the sewer lines from damage that might result from sewer surcharging. Further, precautions must be taken to ensure that sewer flow-control operations do not cause flooding or damage to public or private property served by the sewers involved. In no case shall bypass-pumping of a line result in either a direct or an indirect discharge from the sewer.

2.6 DEBRIS DISPOSAL

Grit, sludge or other sewer debris from the work shall be disposed of at the following locations, or other locations approved by Owner:

- A. Republic Services (formerly Allied Waste), Route 980, 11 Boggs Road, Imperial PA 15126. Contact for Imperial Landfill is Bernie Wilson and her number is (724) 695-4422. ALCOSAN's grit profile number is 5083Y24767.
- B. Waste Management Landfills. Contact is Scott Dellinger at 412-475-2808 or [sdelling@wm.com](mailto:sdelling@wm.com)
  - i. Monroeville Landfill, 600 Thomas Street, Monroeville PA 15146. ALCOSAN's sludge/grit profile number is 1.
  - ii. Kelly Run Landfill, 1500 Hayden Blvd., Elizabeth, PA 15037. ALCOSAN's sludge/grit profile number is 1013.
  - iii. Arden Landfill, Arden Station Road, Washington PA 15301. ALCOSAN's sludge/grit profile number is 30.
  - iv. South Hills Landfill, 3100 Hill Road, Library, PA 15129. ALCOSAN's sludge/grit profile number is 5939.
  - v. Valley Landfill, Pleasant Valley Road, Irwin, PA 15642. ALCOSAN's sludge/grit profile number is 6336.

Contractors are responsible to set up a separate account for billing, confirm landfill hours of operation, capacity limitations as well as obtain appropriate waste manifests for hauling with ALCOSAN-specific profile numbers listed. ALCOSAN or its designated agent will sign the contractor's waste



manifests. The contractor will forward all paperwork related to disposal to ALCOSAN's designated representative.

## 2.7 SUBMISSION AND OPENING OF BIDS

Bids shall be submitted on the Bid Form which is attached hereto and shall state the proposed price of the Work (typewritten or in ink), both in words and in figures. Bids must be signed in ink. Bids that are not so priced and signed may be rejected.

The Bid must be submitted intact, sealed and delivered in the envelope, which accompanied these Contract Documents, addressed to the Allegheny County Sanitary Authority, Director of Regional Conveyance, 3300 Preble Avenue, Pittsburgh, PA 15233. The Bidder's name and address shall be marked in the upper left-hand corner and the words "**SEALED BID FOR CONTRACT NO. 1795, INVERTED SIPHON CLEANING 2024**", shall be clearly marked in the lower left-hand corner of the sealed envelope. Hand-delivered Bids shall be delivered to the Contract Clerks at the Owner's Engineering Department. Bids delivered via courier service (USPS, UPS, Fed Ex, etc.) shall be clearly marked with the above information on the outermost surface of the package. The envelope shall also clearly bear notation to indicate all Addenda received by its identifying numbers and dates received. It is the responsibility of each Bidder to make sure that the Owner receives its Bid prior to the date and time set for opening of the Bids. Upon Bidder's failure to comply with the foregoing, the Owner may treat the Bid as "nonresponsive" and return it to the Bidder unopened. Bids will be received at the office of the Owner until **11:00 A.M.** prevailing time, on **Friday, December 1, 2023**, at which time and place said Bids will be opened publicly and read aloud.

Bids must be firm. **If a Bid is submitted with conditions or exceptions or not in conformance with the terms and conditions of the Contract Documents, it may be rejected.** The Bid may also be rejected if the product or Work offered by the Bidder is determined by the Owner not to be in substantial conformance with the Contract Documents including the Specifications.

Bidder shall not detach and submit Bid pages separately but shall submit their Bids bound with the complete volume of Contract Documents, including all pages correctly assembled.

The Bid should be properly executed and accompanied by all Bonds, Certificates, Questionnaire Forms and other supporting information and documents, as described in the Bid Form.

## 2.8 SUPPLEMENTARY INFORMATION PACKAGE

- A. After the Bid opening, upon request of the Owner, the Apparent Low Bidder shall be required to submit, prior to the award of the contract, quadruplicate copies of a Supplementary Information Package as described in this Section. The request shall be made solely for the purposes of the Owner's

evaluation and review of all proposed materials, equipment, and items of work and determination of conformance with the Contract Documents.

- B. The Supplementary Information Package shall include all such documentation as may be required elsewhere in the Contract Documents and all data and information deemed appropriate by the Bidder to completely describe its respective offering including but not necessarily limited to the following items:
1. The information requested in the Information for Bidders **Section 2.26** entitled "Qualifications and Experience of Bidders."
  2. List of all Subcontractors, with information also demonstrating compliance with **Section 2.26** and this **Section 2.8**, as applicable.
  3. Applicable Cleaning Experience to include References (Names, Entity, Address, Contract Name/Value, and Phone Numbers)
  4. Qualifications and Licensures of the Engineering Professional conducting bypass-pumping layout and calculations.
  5. Sewer Cleaning Equipment (Vactor and Jetting Equipment, Containers) and Experience (see **Section 2.26**). Vactor Equipment shall have the specifications necessary (vacuum, CFM, hose and reel length necessary to conduct such as challenging cleaning effort)
  6. Bypass-Pumping Equipment or Subcontractor (s) to include pump equipment listing, prior local experience and References (Names, Entity, Address, Contract Name/Value, and Phone Numbers).
- C. Upon failure to provide all the supplemental information requested in the Contract Documents, the Owner may (at its discretion) treat the Bid as nonresponsive and the Bid may be rejected for this reason alone.
- D. The Contractor shall clearly demonstrate his approach to cleaning prior to award.

2.9 SPARE PARTS AND SPECIAL TOOLS

(This section intentionally omitted from this Contract.)

2.10 AWARD, CONTRACT EXECUTION AND NOTICE TO PROCEED

The Owner may reject all Bids. The Owner may, solely in its own discretion, award the Contract to the lowest responsive and responsible Bidder within **sixty (60)** calendar days from the date of Bid opening. A time extension may be made by the written mutual consent of the Owner and the Apparent Low Bidder.

All Bids will remain open for acceptance by Owner for **Sixty (60)** calendar days after the Bid opening.

In the event a Bidder fails, refuses, or neglects to provide any requested information or documents within the time stated in the Contract Documents, the Owner will have the right to reject its Bid as nonresponsive.

The Notice to Proceed will be made by registered letter mailed to the Awarded Bidder and shall be effective the date of receipt of the mailing. The Owner will endeavor to issue the Notice to Proceed within **Ninety (90)** calendar days of the Bid opening and **Thirty (30)** calendar days after the Contract is awarded. Any delays caused by the Awarded Bidder's failure to provide any required documents within the specified time may, at the Owner's option, cause an equivalent number of days to be added to these timeframes. The Awarded Bidder will commence performance immediately upon receipt of the Notice to Proceed. The Awarded Bidder should not order any materials or equipment or make any financial commitments concerning this Contract until receiving the Notice to Proceed. Awarded Bidders that do Work or prepare to do Work prior to receiving the Owner's Notice to Proceed are proceeding at their own risk.

2.11 CONTRACT DOCUMENTS

Contract Documents may be obtained at the office of the Allegheny County Sanitary Authority, 3300 Preble Avenue, Pittsburgh, PA 15233. A fee of **\$100.00** (delivered by check or money order, no cash will be accepted) shall be required for each set of Contract Documents obtained. If the Owner is requested to mail the Contract Documents, the above fee as well as a check or money order or the like (no cash will be accepted) must be submitted to the Owner in advance to cover delivery charges ("Cost Advance"). In such case, delivery instructions must be included in the request and only the amount received in excess of the **\$100.00** fee will be applied to delivery charges. If the Cost Advance is insufficient, the Bidder should anticipate that the Owner will not transmit the Contract Documents. No part of the Cost Advance will be refunded.

Submission of a Bid constitutes a representation by the Bidder to the Owner that the Bidder has reviewed the Contract Documents in their entirety and has analyzed all applicable provisions, terms, conditions and sections and related information in preparation of its Bid. This representation is a material inducement for the Owner's consideration of the Bidder for this Contract.

2.12 "OR-EQUAL" ITEMS

Whenever a product is defined in the Contract documents by trade name and catalogue number of a manufacturer or vendor, the term "or-equal," if not inserted therewith, shall be implied. Any reference to a particular manufacturer's product either by trade name or by limited description is solely for the purpose of more clearly indicating the minimum standard of quality desired, except where a "no substitute" is requested. When a "no substitute" is requested, the Owner will consider Bids for the referenced product only. The term "or-equal" is defined as meaning any other make which, in the sole opinion of the Owner, is of such character, quality and performance equivalence as to meet the standard of quality

and performance of the products specified and is such that offering the "or-equal" will not, in the Owner's opinion, constitute a change of the Project.

2.13 ALTERNATE ITEMS

Alternates are optional and are not in lieu of furnishing a Base Bid for the actual Work specified. During the Bid review procedure, the Alternate will not be considered in determining the low responsive, responsible Bidder. The review of the Bids will be based upon the specified Work. The Owner may, but need not, analyze the Alternate for acceptability until after the award of the Contract. The decision of the Owner with regard to the acceptability shall be final.

2.14 QUESTIONS REGARDING CONTRACT DOCUMENTS/ERRORS

In general, no answer will be given to prospective Bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Contract Documents, or the equality or use of products other than those designated or described in the Contract Documents. Any information received by Bidders other than by means of the Contract Documents or by Addenda, as described herein, is given informally, for the information and convenience of the Bidder only and is not guaranteed, is without legal effect and may not be used to bind or otherwise obligate the Owner. The Bidder agrees that such information shall not be used as a basis of, nor will the giving of any such information entitle the Bidder to assert, any claim or demand against the Owner.

To receive consideration, any question, inquiry or request for interpretation or clarification shall be submitted to the Construction Manager in writing, at least ten (10) calendar days prior to the advertised date for receipt of Bids. The Owner will review all such questions or requests and may issue Addenda, which will become a part of the Contract Documents, to provide interpretation, clarification or to answer issues or questions so raised which, in the opinion of the Owner, require formal responses. Copies of all Addenda will be delivered or sent, prior to the advertised date for receipt of Bids, to all prospective Bidders known to have received the Contract Documents. Addenda will be delivered by messenger or sent by certified mail, return receipt requested, to prospective Bidders or their designated agents, at the addresses given by them. At its option, the Owner may transmit Addenda by facsimile.

If any alleged errors are noted in the Contract Documents, Bidder should immediately notify, in writing, the Construction Manager and, if confirmed, Addenda will be sent to all prospective Bidders known to have received the Contract Documents.

2.15 REFERENCE INFORMATION

All information given in the Reference Information or in the Contract Documents relating to existing conditions is from the sources presently available to the Owner. All such information is furnished for the information and convenience of Bidders

and is not guaranteed. All prospective Bidders agree that as a condition for Owner's review of its Bid that said information shall not be used as a basis for asserting any claims or demands against the Owner. It is understood by all prospective Bidders that they shall be responsible for determining the exact conditions prior to bidding and that they shall not be compensated for what they may feel is extra work because of their failure to discover conditions they could have discovered upon investigation.

2.16 BIDDERS TO INVESTIGATE

Bidders are required to submit their Bids upon the following express conditions, which will apply to and be deemed a part of every Bid received:

- A. Bidders must satisfy themselves, by personal examination of the Job Site and by such other means as may be necessary or helpful as to the actual and exact conditions existing, the character and requirements of the Work and the difficulties attendant upon its execution and analyze all laws and regulations which may affect the Work. On written advance request, the Construction Manager will provide each Bidder reasonable access to the Job Site to conduct such explorations and tests (at Bidder's own expense) for submission of a Bid. Bidder shall fill all holes and clean up and restore the Job Site to its former condition upon completion of such explorations.
- B. If any discrepancies should be found between existing conditions and the Contract Documents, prospective Bidders shall report these discrepancies to the Construction Manager for clarification prior to submitting a Bid. Failure of the Bidder to recognize Job Site conditions that affect the Work shall not be considered sufficient cause for an increase in the Contract Price.
- C. The submission of a Bid will constitute an incontrovertible representation of Bidder that Bidder has and will comply with every term, condition and requirement of the Contract Documents and that the Contract Documents are sufficient in scope to convey all terms, conditions and requirements for performance and furnishing of the Work.

2.17 APPROXIMATE ESTIMATE OF QUANTITIES

Any estimate of quantities of Work to be done and Materials to be furnished in these Contract Documents is an approximation and is given only as a basis of calculation upon which to determine the lowest Bidder. The Owner does not assume any responsibility for the quantities. The Bidder specifically agrees not to plead misunderstanding or deception because of such estimates, or of the character of Work or location, or other condition pertaining thereto.

By executing this contract, Contractor agrees that:

- A. Quantities. The quantities given on the contract plans or in the supplemental specifications for the various items of Work are approximate estimates of

the amount required to complete this contract, with the exception of certain items designated as contingent items on the contract plans or supplemental specifications for which the extent and location could not be approximately ascertained prior to the commencement and actual progress of the Work and for which nominal quantities are given in unit prices under which Contractor shall do the Work to the extent and in the location ordered, subject to the limitations stipulated in this Section.

- B. Estimates. Contractor is satisfied with the estimates given on the contract plans or on supplemental specifications for determining the prices for which it agrees to do the Work required by this contract. Contractor will not at any time dispute or complain of such estimates nor assert that there was any misunderstanding in regard to the nature of the Work. Contractor further agrees that the extent and location indicated on the contract plans for the several items of the Work are approximate only with the exception of contingent items which are nominal and that it will do the Work under the several items included in this contract in conformity with orders given by the Owner regardless of changes in extent or location, subject however to the limitations and qualifications hereinafter in paragraphs (c) and (d) of this section and that payment made at respective unit prices bid for work performed in conformity therewith shall be full compensation.
- C. Quantity of Contingent Items. Contingent items of Work shall be done when ordered by the Engineer and shall be paid for at the contract unit bid price. The purpose of the contract's items designated in the bid form as "C" is to establish unit prices for work not included in other bid items. The Engineer has the right to order that contingent work be provided in smaller or larger quantities than the estimated quantity indicated in the Bid Form. The Contractor shall not have any right to demand payment for, and will not be paid for, any costs associated with the item, including, but not limited to overhead and profit, due to the fact that the item was not used in the work or was used in smaller or larger quantities than those indicated in the bid form. The Contract Sum shall be subject to adjustment according to final measured quantities and the unit prices in the bid will apply to such final quantities. These items shall be performed without any per use minimum quantities.
- D. Diminished, Extra Work and Omissions. The Owner shall have the right to order extra Work and alterations including but not limited to, alterations in alignment, grade, arrangement, plans, details, quantity and quality of the Work or materials as required by the Contract Documents or to omit any part thereof. All such alterations, extra Work or omissions shall be ordered in writing by the Owner. The Owner, however, need not issue a written order to partially or entirely eliminate contingent items of work.

2.18 ACKNOWLEDGMENT OF ADDENDA

Bidders shall acknowledge receipt of all Addenda and signify same by attaching signed copies of each Addendum to the Contract Documents submitted along with their Bid, and by noting each Addendum received, by its identifying number and date received, on the face of its sealed Bid envelope.

2.19 RISK OF LOSS/BID PRICES

All prices quoted shall include material delivered or obtained by the Bidder to or for the Owner F.O.B. at the Job Site. All transportation charges shall be prepaid, and the risk of injury, damage or loss in transit shall be borne by the Successful Bidder.

Such injury, damage or loss shall not release the Successful Bidder from any contractual obligations imposed in the Contract Documents. For Owner-Furnished Equipment to be installed under this Contract, prices quoted shall include materials, equipment and labor to load, transport and unload such items from the Owner's storage area to the Job Site, including all risks for damage of this equipment from the time these items are turned over to the Successful Awarded Bidder until the completion of the Contract.

2.20 TAX EXEMPTIONS

The Bidders shall take notice of and shall be responsible for any local or State taxes levied and applicable, and the costs for the same shall be included as part of this Bid. Sales to the Owner may be exempt from Pennsylvania Selective Sales and Use Taxes. Certain of the Bidder's tax obligations are described in more detail in **Section 3.22** of the **General Conditions** entitled, "**Sales and Use Tax.**"

2.21 BID SECURITY/CONTRACT EXECUTION

Bids shall be accompanied by a Certified Check or properly executed Bid Bond on the form included herein, with corporate surety approved to do business in the Commonwealth of Pennsylvania and satisfactory to the Owner and with valid Power of Attorney attached, in the amount of not less than **Ten percent (10%)** of the total Lump Sum Price quoted under the Bid, payable to the Allegheny County Sanitary Authority, as security that the Bidder, if awarded the Contract, shall enter into a written Contract with the Owner, on the form included herein, and supply to the Owner all required Bonds and all other documents, materials or items required to be executed, delivered or supplied by it.

Upon failure on the part of such Bidder to enter into a written Contract with the Owner (and return all required documents to the Owner, including Performance and Payment Bonds and Insurance Certificates, etc., after proper execution) within **Ten (10)** calendar days (not including Sundays or Legal Holidays) from the date of mailing of such Contract to it at the address given in its Bid, such defaulting Bidder

and its Surety shall be liable to the Owner for the damages sustained by the Owner by reason of such default. In such event, the Bidder's liability shall not be limited to the amount of the Bid security which accompanied its Bid. If the Bid security were a certified check, such check shall be cashed by the Owner and deposited forthwith to the Owner's account. If the Owner's actual damages are less than the amount deposited, the excess shall be returned to the defaulting Bidder. No allowance for interest or the like shall be paid or payable by the Owner on any Bid security.

The Bid security of any Bidder that the Owner believes may receive the award may be retained by the Owner until the earlier of the tenth calendar day after the Effective Date of the Contract or the sixty-first calendar day after the Bid opening.

## 2.22

## WITHDRAWAL OR MODIFICATION OF BIDS

The attention of Bidders is directed to the fact that, in submitting its Bid, the Bidder agrees that it will not withdraw it within **Sixty (60)** calendar days after the actual date of opening of Bids or for **one hundred twenty (120)** calendar days if so permitted under applicable law, or for such longer period as may be agreed to by the Bidder. Upon submission of a proper request to the Owner, in writing, and identification of the one making the request, a Bid may be withdrawn, at any time prior to the designated time for the opening of Bids. Certain Bids may be withdrawn after the Bid opening if in compliance with the Act of January 23, 1974, P.L. 9 No. 4 §1 et seq. 73 P.S. §1601 et seq. entitled, "Public Contracts - Withdrawal of Bids" (for purposes of this Section, the "Act") subject to the limitations and conditions contained therein. Included in the provisions of the Act is a requirement that the Bidder present credible evidence to the Owner within Two (2) working days after opening the Bids of a clerical mistake, as opposed to a judgment mistake, that was actually due to an unintentional and substantial arithmetical error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the Bid.

Unless a Bid has been formally withdrawn as provided above, it shall be deemed open for acceptance until the Contract Agreement has been executed by both the Bidder and the Owner or until the Owner manifests that it does not intend to accept the Bid. Notice of acceptance of any one Bid shall not constitute rejection of any other Bid or a manifestation that Owner does not intend to accept any other Bid.

Any Bidder may modify its Bid by telegraphic or facsimile communication at any time prior to the scheduled closing time for receipt of Bids, provided that such telegraphic or facsimile communication is received by the Owner prior to such closing time and, further, provided that a written confirmation of the telegraphic or facsimile communication, over the signature of the Bidder, was postmarked prior to such closing time. Telegraphic or facsimile modifications shall not reveal the Bid price but shall provide the amount(s) to be added to, subtracted from, or other modifications necessary to be made to the prices or terms of the Bid, so that the final prices or terms will not be known to the Owner until the sealed Bid is opened. If the required written confirmation is not received by the Owner within Two (2)



calendar days (excluding Sundays or Legal Holidays) from the closing time, the Owner may, at its option, refuse to consider or give legal effect to such telegraphic or facsimile communication.

2.23 MORE THAN ONE BID

If more than one Bid is offered by any one Bidder in its own name or in the name of his agent, partner, or other person, then all but the lowest of such Bids will be rejected.

2.24 ALTERATION OF BIDS AND DOCUMENTS

No alteration, erasure, addition or omission of required information, or any change of the Contract Documents is permitted, except in accordance with the provisions of **Section 2.14** hereof entitled, "Questions Regarding Contract Documents/Errors."

2.25 RIGHT TO REJECT OR ACCEPT BIDS

The Owner reserves the right, which is understood and agreed to by all Bidders, to reject any or all Bids; to waive any informality, nonmaterial change or clarification in any part or provision of the submitted Contract Documents; or to accept any Bid, should the Owner determine that it is in its best interest to do so. The Owner's decision on the qualification of any Bidder or the adequacy, responsiveness, propriety or timeliness of the Bid and/or its decision to reject any or all Bids or to accept any Bid shall be final, binding and uncontestable as to the Bidder.

Any part of the Bid submitted by the Bidder which is unintelligible, or which exhibits any erasure or other manipulation, or is not properly signed or otherwise made up, will, at the discretion of the Owner, be considered nonresponsive and may be rejected for that reason alone.

The Owner may consider the qualifications and experience of subcontractors, suppliers, and other persons and organizations proposed for those portions of the Work as for which the identity of subcontractors, suppliers, and other persons and organizations is requested in the Contract Documents or made by the Bidder.

2.26 QUALIFICATIONS AND EXPERIENCE OF BIDDERS

Each Bidder must be regularly engaged in and have at least **five (5)** years of experience in, the cleaning and maintenance of interceptor systems. The Contractor shall supply a complete record of experience for the following:

- A. Foreman Qualifications – Foreman of the crew shall have at least **Five (5)** years of experience.
- B. The Company performing the work must certify that it has not less than **Ten (10)** years of experience in interceptor cleaning experience. **The Contractor shall submit a detailed record of experience to the Director within Ten days of the bid opening date.**

No award will be made to any Bidder who cannot warrant, and upon request cannot demonstrate, that it possesses the knowledge, experience, skill, capital, financial capacity, charters, licenses, permits, patents and personnel necessary to satisfactorily enable it to prosecute and complete the Work successfully and perform the Work within the Time For Completion as set forth in the Contract Provisions. The Owner's decision or judgment on these matters will be final, conclusive and binding. The Owner may make such investigations as it deems necessary and the Bidder shall furnish to the Owner, under oath if so required, all such information and data for this purpose as the Owner may request.

2.27

#### MINORITY AND WOMEN'S BUSINESS ENTERPRISE AND LABOR SURPLUS AREA POLICY

It is the policy of the Owner to award a fair share of contracts to minority and women's businesses. The goal of the Authority is that **Ten to Twenty-Five (10% to 25%)** percent of all dollars relating to its contracts be awarded to minority or women's business enterprises. The Owner will make every effort to meet that goal in its contracts as well as encourage that goal among its contractors, suppliers and their subcontractors.

The Owner uses affirmative steps to assure that minority and women's businesses are used when possible as sources of supplies, equipment, construction, and services. The Owner encourages its contractors and suppliers to take the same measures when recruiting Subcontractors. Affirmative steps include the following:

- A. Including minority and women's businesses on solicitation lists and contacting them whenever they are potential sources.
- B. Use of area newspapers that serve minority or women's groups for advertising for contracts when work permits. A statement of this policy will be included in the ad text.
- C. Use of minority or women's business associations to contact businesses of this type. A list of these organizations is maintained at the Authority.
- D. Dividing total requirements when economically feasible into small tasks or quantities to permit maximum participation of minority and women's businesses.
- E. Establishing delivery schedules when the requirements of the Work permit that will allow these businesses to participate.
- F. Requiring each party to a sub-agreement to take the affirmative steps listed above.
- G. Procuring goods and services from labor surplus area firms. Further information concerning this matter may be obtained from the Owner.

2.28 FICTITIOUS NAME REGISTRATION

Where the Bid is made by an individual or individuals doing business under a fictitious name, there shall be attached to the Bid, Certificates from the Office of the Secretary of the Commonwealth and from the Prothonotary 's Office showing that each individual or individuals are fully registered under the Fictitious Names Act of the Commonwealth of Pennsylvania 1982, Dec. 16, P.L. 1309, No. 295 § 2, 54 Pa. C.S.A. § 301, et. seq. Additional Certificates, in as many copies as may be required shall be furnished to the Owner by the successful Bidder prior to the execution of the Contract.

2.29 NON-PENNSYLVANIA CORPORATIONS

Attention is directed to the fact that if the Bidder is a non-Pennsylvania corporation, it shall obtain a Certificate of Authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, No. 177 § 103 amended, 1990, Dec. 19, P.L. 834, No. 198, § 102, 15 Pa. C.S.A. § 4121.

2.30 PRE-BID CONFERENCE

A Pre-Bid Conference will be held at the ALCOSAN O&M Building, Room 106, 3300 Preble Avenue, Pittsburgh, Pennsylvania 15233 at **10:00 A.M. prevailing time, on Tuesday, November 14, 2023. Meeting attendance is mandatory.**

2.31 PATENTS AND PROPRIETARY RIGHTS

Prior to bidding, the Bidder shall acquire through assignment, purchase, license, or other means, all rights required to fully utilize all technology, know-how, trade secrets, inventions, processes, articles, procedures, equipment, apparatus, devices, or any part thereof, and any and all things or matters that are to be used in pursuance of its performance under the terms and conditions of this Contract. Under no circumstances may the Bidder infringe on any patent or any other proprietary rights of third parties in its performance under the terms and conditions of this Contract.

In the event that the Owner shall have any reason to believe that any Bid or performance of this Contract will in any way infringe on any patent or proprietary rights of third parties, the Owner may, at its sole discretion, reject any such Bid or take such other measures that it deems to be in its best interest (including requiring the Bidder to post security). The Bidder will defend, indemnify and save harmless Owner, and all persons acting for or on behalf of Owner, from all claims and liability of any nature or kind, including costs and expenses, arising from or occasioned by any infringement or alleged infringement of patent or proprietary rights on any technology, know-how, trade secret, invention, process, article, procedure, equipment, apparatus, device, or any part thereof, to be furnished, utilized or installed by said Bidder, or arising from or occasioned by the use or

manufacture thereof, including their use by the Owner. Patents and Proprietary Rights are discussed in more detail in the Contract Provisions.

2.32 MATERIALS

Submittals of a Bidder constitutes a representation by the Bidder that all specified materials and equipment will be available in time for the timely completion of this Contract. The Awarded Bidder is responsible for making sure that the progress of the Work is orderly and timely. The Awarded Bidder's duties and responsibilities are discussed in more detail in the General Contract Conditions.

2.33 LIST OF MAJOR SUBCONTRACTORS/SUPPLIERS

The Bidder shall submit for approval a list of all subcontractors employed on the Work, whose work to be performed is anticipated to be in excess of **One Hundred Thousand Dollars (\$100,000.00)**, or **five percent (5%)** of the Lump Sum Price, whichever is greater, with a list of Work they are to perform. Bidders are advised that they must submit a complete list of subcontractors, as requested. Failure to provide this information will, at the Owner's election, make the Bid nonresponsive or constitute a breach of the awarded Contract. The Bidder is also cautioned that should the Contract be awarded to it, it must use the subcontractor named in its list of subcontractors for each of the items listed, unless otherwise directed in writing by the Owner.

2.34 NEW OR REMANUFACTURED EQUIPMENT

(This section intentionally omitted from this Contract.)

2.35 ALCOSAN CONSENT DECREE

Bidders are advised that **Contract No. 1795** is being completed in accordance with all terms and conditions of the legal Consent Decree as approved by Allegheny County Sanitary Authority (ALCOSAN), United States Environmental Protection Agency (EPA), Commonwealth of Pennsylvania Department of Environmental Protection (PaDEP) and the Allegheny County Health Department. The Bidder, if awarded the Contract, will be acting as an Agent of ALCOSAN and as such will be legally bound to the terms, conditions and provisions as set forth in the Consent Decree.

2.36 SAFETY: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS

IN THE EXECUTION OF THIS CONTRACT, ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH FEDERAL OCCUPATIONAL SAFETY AND HEALTH STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (PL 91-596) AND UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (PL 91-54).

The Authority will not be liable for any citations received by the Contractor from OSHA. It is the sole responsibility of the Contractor to comply with OSHA Standards.

2.37            CONFINED SPACE ENTRY REQUIREMENTS

Any work within existing manholes, diversion structures, and access shafts will be classified as “Confined Space” and will require complete compliance with current OSHA and ALCOSAN Standards.

2.38            ACCESS TO WORK AREAS

The Contractor is responsible for obtaining all necessary permits and the corresponding fees needed for the Work and the transporting of any equipment or material over private property and public streets. It is further the Contractor’s responsibility to obtain the necessary permits and/or permission from the various municipalities, Commonwealth of Pennsylvania, and/or owners of private properties. The cost of construction or improvement of any access route to the project site(s) shall be the responsibility of the Contractor.

At the conclusion of the Work, at the Contractor’s expense, the Contractor shall restore all access routes and all other areas disturbed due to the Work, to their original state prior to the Work.

2.39            SPECIAL NOTICE REGARDING MAINTENANCE AND PROTECTION OF TRAFFIC

Streets shall not be unnecessarily obstructed, and the Contractor shall take such measures as may be necessary to keep the street or road open and safe for traffic. The Contractor shall be responsible for obtaining all necessary permits and the fees associated with these permits.

2.40            COMPLIANCE WITH LAWS

The Contractor shall comply with the regulations of all regulatory agencies having jurisdiction including, but not limited to, EPA, PaDEP, OSHA regulations, US Army Corps of Engineers, US Coast Guard, ACHD, and the Allegheny County Soil Conservation District regulations. No bypassing of sewage, as a result of the Contractor’s operations, shall be allowed. Also, in order to perform the obligations set forth in the Contract and the Work, the Contractor shall be responsible for becoming familiar with the obligations and requirements of the Consent Decree and shall perform the Work in a manner so as not to cause the Owner to fail to perform, violate, or untimely perform, any obligation or requirement of the Consent Decree. Also, from time to time, the Contractor may be requested to, and shall, provide the Owner with verifications and/or other documents which relate to the Work, and

which may be required by, and/or necessary for, the Consent Decree, and/or to attest to and/or verify the accuracy and/or completeness of the Work or documents or submittals provided in regard to the Work.

2.41 ACCESS TO MANHOLES AND DIVERSION STRUCTURES

Where access to the various manholes and diversion structures must be cleared of heavy vegetation, the Contractor shall perform the clearing of pathways to facilitate mobilization of his equipment. Any vegetation or other debris cleared by the Contractor shall be removed and disposed of properly by the Contractor.

2.42 PROPERTY CLEANING

Immediately upon completion of any work, it shall be the Contractor's responsibility to clean the entire area of all debris. All debris is to be disposed of properly.

2.43 CONTRACTOR NOT TO OPERATE EXISTING VALVES AND/OR OTHER EXISTING SYSTEM APPURTENANCES

The Contractor shall schedule, maintain, and coordinate all activities and shall cooperate with the Owner's personnel so that a minimum of interruption results. The Contractor shall not operate existing system valves, sluice gates, controls, or other appurtenances at any time, but when the same is needed to facilitate and accommodate activities, he shall request such operation from the Owner. The Contractor shall provide the Owner with reasonable advance notice for such assistance.

2.44 SPECIAL NOTICE REGARDING WATER USE

All bidder's attention is drawn to the fact that the Contractor shall be responsible for all use and obtainment and payment for all permits and payments required for such use in order to acquire water for cleaning and construction purposes on this project. Owner makes no representations regarding the availability of source water, or any other utilities required for this project.

2.45 PROJECT LABOR AGREEMENT AND LETTER OF ASSENT

A Project Labor Agreement, which includes a letter of Assent, is included herein.

The Bidder shall, when executing the Contract Agreement, acknowledge that it will abide by the Project Labor Agreement by signing and submitting a Letter of Assent in the format given in Attachment A.

The Contractor shall also require each Subcontractor to execute a copy of the Letter of Assent. The Contractor must be sure that each of its Subcontractors has furnished an executed copy of the Letter of Assent to the CM before the Subcontractor starts work on the Project. The Contractor shall abide by and ensure that each Subcontractor abides by the terms of the Project Labor Agreement.

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment C – Revised Article 4 – Contract Agreement



**ARTICLE 4**  
**CONTRACT AGREEMENT**

**CONTRACT AGREEMENT**

This CONTRACT AGREEMENT ("Agreement"), executed in the County of Allegheny, in the Commonwealth of Pennsylvania, this \_\_\_\_ day of \_\_\_\_\_, 20\_\_ by and between the ALLEGHENY COUNTY SANITARY AUTHORITY (hereinafter called the "Authority" or "Owner," acting through its Chairman, who acts herein solely for the Authority and without personal liability to himself) and \_\_\_\_\_ of \_\_\_\_\_ (hereinafter called the "Contractor.")

WITNESSETH:

WHEREAS, the Authority, pursuant to authority vested in it by Acts of Assembly of the Commonwealth of Pennsylvania, did, by advertisement heretofore made in accordance with the provisions of said Acts, invite bids for **CONTRACT NO. 1795, Inverted Siphon Cleaning 2024.**

WHEREAS, in accordance with said advertisement and the Information for Bidders prepared by the Authority and submitted to Bidders, the Contractor submitted to the Authority a Bid for the materials or services herein described and a Contract was duly awarded by the Authority to the Contractor, for the materials or services to be furnished under **CONTRACT NO. 1795** for the price specified in the Bid. Said Bid and all related Contract Documents are hereby made a part of this Agreement, whether or not hereto attached and are hereinafter referred to as the "Contract"; and,

WHEREAS, the Bid includes the following quoted amounts:

**TOTAL CONTRACT PRICE**

\_\_\_\_\_ Dollars  
(Words)  
and \_\_\_\_\_ Cents      \$ \_\_\_\_\_  
(Words) (Figures)

NOW, THEREFORE, in consideration of their mutual covenants and agreements and intending to be legally bound thereby, the Authority and the Contractor agree as follows:

1. The Contractor agrees to provide any and all labor, supervision, materials, supplies, services (including detailed engineering), equipment, tools, transportation, facilities and appurtenances thereto, whether temporary or permanent, and such other items as indicated, required or implied by the Contract Documents and as necessary for a complete, functional and operational **CONTRACT NO. 1795, Inverted Siphon Cleaning 2024** (the "Work").

2. The Contractor further agrees and acknowledges that time is of the essence of the Contract and that Contractor shall commence the Work immediately upon receipt of the Notice to Proceed and shall prosecute the Work diligently to completion within **Two Hundred and Forty (240)** Calendar Days (Contract Time) and as specified for Substantial Completion of the entire Work.
  
3. Owner and Contractor recognize that Owner will suffer financial loss if the Work is not completed within the Contract Time specified in paragraph 2 above, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delay, expense, and difficulty involved in proving, in a court action or other dispute resolution proceeding, the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Owner at the daily rate indicated below for each day that expires after the Contract Time specified in paragraph 2 above, plus any extensions thereof allowed in accordance with the General Conditions, until the Substantial Completion of the entire Work, as the case may be, is achieved.

<b>CONSTRUCTION MILESTONE</b>	<b>LIQUIDATED DAMAGES</b>
Completion of Contract Items 1-27 within <b>150 Days</b> after NTP.	\$500/day
Substantial Completion of Contract No. <b>1795</b>	\$500/day

4. The Owner shall, as provided in the Contract documents pay to the Contractor for the Work the firm lump sum of \_\_\_\_\_ as such amount may be increased or decreased pursuant to the Contract Documents (the “Contract Sum”).
  
5. The Contractor by executing this Agreement represents and warrants that it has read, and fully understands, each and every clause in each of the Contract Documents, including:
  1. Legal Notice
  2. Bid Form and Bid Bond
  3. Supplementary Information Package (if any)
  4. Certificate of M & WBE Participation
  5. Non-Collusion Affidavit
  6. Certificate of Compliance with the Pennsylvania Steel Products Procurement Act
  7. Experience Questionnaire
  8. Information for Bidders
  9. General Contract Conditions
  10. Certificate of Safety Procedures Compliance
  11. Contract Agreement
  12. Bonds, Certificates and Statements

13. Technical Specifications and Appendices, if any
  14. Prevailing Minimum Wage Determination
  15. Addenda issued prior to the opening of bids, if any
  16. Contract Drawings
  17. Exceptions submitted by the Bidder and accepted in writing by the Owner
6. In order to induce the Owner to enter into this Agreement, Contractor further represents and warrants as follows:
1. Contractor has familiarized itself with the nature and extent of the Contract Documents, the Work, site, locality, general nature of work to be performed by Owner or others at the site that relates to the Work required by the Contract Documents, local conditions, and federal, state, and local laws and regulations that in any manner may affect cost, progress, performance, or furnishing of the Work.
  2. Contractor has studied carefully reports of explorations and tests of subsurface conditions and drawings of physical conditions available at the project site. Contractor acknowledges that such reports and drawings are not Contract Documents.
  3. Contractor has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) examinations, investigations, explorations, tests, and studies (in addition to or to supplement those referred to above) which pertain to the conditions (subsurface or physical) at or contiguous to the site or otherwise and which may affect the cost, progress, performance, or furnishing of the Work as Contractor deems necessary for the performance and furnishing of the Work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents, and no additional or supplementary examinations, investigations, explorations, tests, reports, or similar information or data are or will be required by Contractor for such purposes.
  4. Contractor has reviewed and checked information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the site and has included appropriate costs.
  5. Contractor has correlated information known to Contractor and results of such observations, familiarizations, examinations, investigations, explorations, tests, and studies with the Contract Documents.
  6. Contractor has given the Owner written notice of conflicts, errors, ambiguities, or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by Owner is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of the terms and conditions for performing and furnishing the Work.

- 7. This Contract is entered into under and pursuant to the laws of the Commonwealth of Pennsylvania and will in all respects be construed in accordance with the laws of said Commonwealth.
- 8. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation monies that may become due and monies that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9. Owner and Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives with respect to all covenants, agreements, and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, the parties hereto have executed this instrument in Allegheny County, Pennsylvania under their several seals on the date of this Agreement, the name and corporate seal of each corporate party being hereto affixed, and these presents duly signed by its undersigned representative, pursuant to the authority of its governing body.

ALLEGHENY COUNTY SANITARY AUTHORITY

By: \_\_\_\_\_  
Arletta Scott Williams,  
Executive Director

(Seal of Authority)

ATTEST:

\_\_\_\_\_  
Mira Praytor,  
Executive Assistant

\_\_\_\_\_  
Date

**CORPORATION COMPLETE THIS PAGE**

\_\_\_\_\_ is a corporation organized and existing under the laws of \_\_\_\_\_ with principal place of business at \_\_\_\_\_

(Street Address)

(City, State and Zip Code)

and, if a non-Pennsylvania corporation [has] / [has not] been granted a certificate of authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, as amended, 15 Pa. C.S.A. §§ 4101 et seq.

ATTEST:

\_\_\_\_\_  
(Name of Corporation)

\_\_\_\_\_  
(Signature of Certifying Officer)

\_\_\_\_\_  
(Signature of Authorized Officer)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Typed name of Authorized Officer)

(AFFIX CORPORATE SEAL)

\* The Corporation shall make certain that the secretary or assistant secretary certifies the official character and authority of the person or persons executing this Contract Agreement for the Contractor according to the form attached hereto. In lieu of such certificate, attach to the Contract Agreement copies of the records of the corporation that show the official character and authority of the officer signing. The records shall be duly certified to be true copies by the secretary or assistant secretary under corporation seal.

**CORPORATION COMPLETE THIS PAGE  
CERTIFICATE AS TO CORPORATE OFFICER**

I, \_\_\_\_\_, certify that I am [secretary]/[assistant secretary] of the corporation executing the within Contract Agreement; that \_\_\_\_\_ who signed the said Contract Agreement on behalf of the corporation was then \_\_\_\_\_ of said corporation; that I know his signature and his signature thereto is genuine; and that said Contract Agreement was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body.

Dated: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Signature of secretary  
(or assistant secretary))

(AFFIX CORPORATE SEAL)

**PARTNERSHIP COMPLETE THIS PAGE**

\_\_\_\_\_ is a partnership trading under a fictitious or assumed name and [has]/[has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. §§ 301 et seq.

\_\_\_\_\_  
(Fictitious or assumed name)

WITNESS:

\_\_\_\_\_.\*(SEAL)  
(Partner trading as above)

\_\_\_\_\_.\*(SEAL)  
(Partner trading as above)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
City, State and Zip Code)

\* If the executing party is a partnership, the document must be signed in the name of the partnership by all partners, and the names and addresses of all the partners must be listed on the attached Certificate. By executing this Contract Agreement the partners agree that two general partners are authorized to act to bind the partnership with regard to all matters under this Contract. The partnership must also attach Certificate of registration under the provisions of the Fictitious Names Act.



**PARTNERSHIP COMPLETE THIS PAGE  
CERTIFICATE AS TO PARTNERSHIP**

I, a partner of \_\_\_\_\_, the partnership named as Contractor in the within Contract Agreement, certify that the following are the names and addresses of all partners of said partnership:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(City, State and Zip Code)

\_\_\_\_\_  
(City, State and Zip Code)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(Signature of Certifying Partner)

**INDIVIDUAL COMPLETE THIS PAGE  
(WHEN THE PRINCIPAL IS AN INDIVIDUAL DOING BUSINESS UNDER  
A FIRM NAME)**

\_\_\_\_\_ is an individual trading under a  
fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of  
Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. §§  
301 et seq.

WITNESS:

\_\_\_\_\_  
(Fictitious or assumed name)

By: \_\_\_\_\_ \*(SEAL)  
(Individual doing business as above)

\_\_\_\_\_

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**(WHEN THE PARTY IS AN INDIVIDUAL DOING BUSINESS IN  
HIS/HER INDIVIDUAL NAME)**

\_\_\_\_\_  
(Individual Name)

WITNESS:

By: \_\_\_\_\_ \*(SEAL)  
(Individual)

\_\_\_\_\_

\_\_\_\_\_  
(Street Address)

Date: \_\_\_\_\_, 20\_\_

\_\_\_\_\_  
(City, State and Zip Code)

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment D – Revised Technical Specification Section 01010 – Summary of Work

**SECTION 01010  
SUMMARY OF WORK**

**PART 1                    GENERAL**

**1.1      GENERAL**

A.      The work included in this project is primarily sonar inspection and cleaning, as required, of the Allegheny County Sanitary Authority (ALCOSAN) siphons located along the Chartiers Creek and Saw Mill Run Interceptors in several municipalities and the City of Pittsburgh. Additional work includes inspection and cleaning located in the Upper Monongahela Interceptors. This Contract will be constructed by a single Prime Contractor to meet the requirements of the Contract Documents. The following organizations may be present at the Job Site and have responsibilities described generally in Article 3, General Contract Conditions:

1.      Construction Manager (CM) (to be determined)
2.      Contractor(s)
3.      Supplier(s)
4.      Owner (ALCOSAN)

B.      The Owner may be identified as the responsible entity for certain actions in the sections of Divisions 1 through 16. The Owner may elect to delegate certain of these respective duties and responsibilities to the aforementioned organizations.

C.      All contact between the Contractor and the remaining aforementioned parties shall be through the Construction Manager.

**1.2      WORK COVERED BY CONTRACT DOCUMENTS**

A.      The following is a general description of the work to be done under this Contract, unless noted otherwise, and is in no way meant to limit or restrict the Work required under this Contract. See Article 2 for a description of the bid items.

B.      Scope of Work

The following scope of work applies to this Contract.

1.      The following is a general description of the work to be done under this Contract, unless noted otherwise, and is in no way meant to limit or restrict the Work required under this Contract. Refer to the Reference Drawings and the remainder of the Specifications for additional detail on the scope of the Work. See Article 2.4 for a narrative of the Work to be done.

2. The following scope of work applies to this Contract.
  - a. Obtain necessary permits from applicable regulatory agencies and permissions from property owners.
  - b. Mobilize to the site and facilitate access for the Work.
  - c. Determine locations of manholes and sewers.
  - d. Complete Sonar Inspections of designated siphons.
  - e. Complete inspections of designated pipe segments in the Upper Monongahela Interceptors.
  - f. Complete Pipe cleaning and debris removal (dewatered and disposed at an approved dumpsite), as applicable.
    - i. This item shall be used as conditions necessitate.
    - ii. Post-cleaning internal Sonar inspections are to be completed if cleaning has occurred.
  - g. Bypass-pumping is reserved for use as conditions necessitate, as directed.
  - h. Delivery of inspection files, media and other required documents.
  - i. Site restoration, as required.
  
3. Contractor shall perform all other work related to the items listed above to provide a complete and restored project site.

### 1.3 DESCRIPTION OF RESPONSIBILITIES

#### A. CONTRACTOR: As described in these Contract Documents and as follows:

1. Project Manager/Site Superintendent: On site at all times when Work in individual Contract is proceeding. The Owner reserves the right to approve the Contractor's proposed Project Manager and Site Superintendent. **If at any time during the execution of the Contract the Owner determines that the Contractor's Project Manager and/or Site Superintendent are not executing the work in conformance with the Contract Documents, the Owner may request in writing that they be replaced.** Contractor's Project Manager / Site Superintendent shall not be replaced without written notice to Construction Manager except under extraordinary circumstances. The Superintendent will be the Contractor's representative at the site and shall have authority to act on behalf of the Contractor. All communications to the Superintendent shall be as binding as if given to the Contractor. If at any time during the Project the Superintendent leaves the Project site while Work is in progress, the Construction Manager shall be notified and provided with the name of the Contractor's representative having responsible charge.
  
2. Quality Control Representative: Responsible for Contractor's quality control program while Work is in progress. Notify the Construction Manager of any

change in quality control assignment.

3. Safety and Protection:

- a. Initiate, maintain, and supervise all safety precautions and programs in connection with the Work. Take all necessary precautions for the safety of, and provide the necessary protection to prevent damage, injury, or loss to:
  - 1) All persons on the work site or who may be affected by the Work;
  - 2) All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and
  - 3) Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- b. Comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury, or loss.
- c. Before any work at the site is started, the Contractor shall prepare a written Project-specific Safety Plan (including precautions and programs) and submit to the Construction Manager for review and record as received. The Contractor shall correct any deficiencies identified by the Construction Manager prior to the start of the Work. Review of the Contractor's Safety Plan and the Contractor's field work activities by the Construction Manager does not relieve the Contractor for any omissions or errors in the Contractor's Safety Plan. Per Article 3.67 of the General Contract Conditions, the Owner may direct work determined to be unsafe to stop until the unsafe conditions have been corrected. The Construction Manager may act as the Owner's Representative in directing unsafe work to be corrected.
- d. Contractor shall revise the Contractor's Safety Plan at appropriate times to reflect changes in construction conditions, the Work, Contractor's means, methods, techniques, and sequences and procedures of construction. All revised Contractor Safety Plans will be submitted to the Construction Manager for record.
- e. Safety Representative: The Contractor shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. The

Safety representative shall be trained in First Aid and CPR. These qualifications shall be submitted to the Construction Manager prior to beginning work on site.

- f. Confined Space Supervisor: The Contractor shall designate a qualified and experienced confined space supervisor to ensure compliance with the requirements identified in the Contractor's Safety Plan and Article 3.67 of the General Contract Conditions. One copy of the daily Confined Space Record will be submitted to the Construction Manager by the work day following the work day where a confined space entry is required.
- g. Emergencies: In emergencies affecting the safety or protection of persons or the work or property at the site or adjacent thereto, each Contractor, without special instruction or authorization from Owner or Construction Manager, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give the Construction Manager prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If the Construction Manager determines that a change in the Contract Documents is required because of the action taken by the Contractor in response to such an emergency, the Construction Manager will proceed in accordance with Article 3, General Contract Conditions.

B. Owner (ALCOSAN):

- 1. Enter into legal contract with Contractor for completion of the Work.
- 2. Approve contract amendments, progress payments, and make final acceptance of the Work.
- 3. Participate in coordination of site construction activity.

C. Construction Manager (CM):

- 1. Assist the Contractor's coordination of on-site construction activities with private property owners, adjacent property owners to public property, and assist the Contractor in obtaining applicable permits.
- 2. Construction Contract Administration.
- 3. Construction inspection services.

**PART 2 PRODUCTS (Not Used)**

**PART 3 EXECUTION (Not Used)**

END OF SECTION



**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment E – Revised Technical Specification Section 02080 – Bypass Pumping

**SECTION 02080  
BYPASS PUMPING**

**PART 1 GENERAL**

1.1. RELATED DOCUMENTS

- A. The Bid and General Provisions of the Contract Documents, General Specifications and requirements of all Division 1 Sections of the Specifications apply to all work of this section.

1.2. DESCRIPTION OF WORK

- A. The intent of this contract is to complete sonar inspections and cleaning, as required, of the ALCOSAN siphons which are located in the Chartiers and Saw Mill Run Interceptors, and to complete inspection and cleaning, as required, of the designated pipe segments in the Upper Monongahela Interceptor. It is not the intent of this contract to conduct bypass pumping. In the case that ALCOSAN determines that bypass pumping is required, it may be requested using the contingent unit price in Contract Item C-40.
- B. The Contractor shall provide all plant, supervision, labor and materials necessary to implement temporary pumping systems to divert existing sanitary and/or storm flow around a specific work area where necessary to facilitate the Contractor's construction operations. These sanitary and/or storm flows must be conveyed to the ALCOSAN interceptor.
- C. The design, installation and operation of the temporary bypass pumping systems and the related costs are assigned to the specific Contract Item number. These costs shall include but not be limited to all equipment, materials, and labor to install, operate, dismantle the bypass system, and to restore all the disturbed facilities and surfaces, in accordance with the applicable sections of the specification, to a condition equal to or better than that which existed prior to being disturbed.
- D. The Contractor shall demonstrate experience in the setup and operation of temporary bypass pumping systems. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- E. Normal sewage flows for each connector or interceptor pipe segment may include contributions from infiltration or inflow that may exist at the time of the work. The Contractor shall design the bypass system for sanitary and/or storm flows to have sufficient capacity to pump the peak dry weather flow capacity of the pipe.
- F. The Contractor shall comply with the regulations of all regulatory agencies having jurisdiction including but not limited to OSHA, US Army Corps of Engineers,

PADEP, and the Allegheny County Soil Conservation District regulations. No discharge of sewage, as a result of the Contractor's operations, shall be allowed. **The Contractor will be responsible to pay any and all fines associated with sewage discharges and/or any violations of the ALCOSAN Consent Decree as a result of the Contractor's activities.**

## PART 2 PRODUCTS

### 2.1 SUBMITTALS:

- A. Bypass Pumping Qualifications: The Contractor shall submit bypass pumping qualification documentation which shall demonstrate:
1. Ten (10) years experience as a business engaged in construction activities that required bypass pumping of public sanitary sewer systems.
  2. At least five (5) projects of with bypass pumping systems of sanitary systems performed by the Contractor within the last five (5) years.
  3. For each project submitted to meet the experience requirements, indicate the following:
    - a. Name and location of project
    - b. Project Contact (Owner name, address, and telephone number)
    - c. Bypass pumping system pumps and piping system used
    - d. Amount of contract
    - e. Date of completion
  4. Résumé of project supervisor demonstrating a minimum of five (5) years experience in supervising public sanitary sewer bypass operations.
- B. When directed, the Contractor shall prepare a detailed Bypass Pumping Plan for any structures where sanitary and/or storm flows will be bypassed to facilitate cleaning. The Contractor must submit the Bypass Pumping Plan at least 30 calendar days prior to the scheduled work start date, and must obtain the Construction Manager's approval of the Bypass Pumping Plan at least 14 calendar days prior to starting work. No construction will be allowed to begin without a Bypass Pumping Plan approved by the Construction Manager.
- C. The Contractor's Bypass Pumping Plan shall include the following:
1. Detailed plans and descriptions of the bypass pumping system to include the method of protecting the stream access, bypass pumping location, and discharge locations. Facilities must be protected from damage by erosion or contamination due to the discharge flows.

2. The plan must specify the methods (including the complete sequence of the operation with a sketch showing all equipment components) to be used for the bypass pumping system.
3. The Bypass Pumping Plan must also:
  - a. Outline all provisions and precautions to be taken by the Contractor regarding the handling of existing wastewater flows.
  - b. Identify the sanitary segment involved in the construction operations, and upstream/downstream structures to be utilized in pumping the existing sanitary and/or storm flows. The Contractor is responsible for evaluating the piping route (to include any property owner coordination, permitting and protection measures), and accessibility and system connectivity of each structure to be utilized during the bypass pumping operations.
4. This plan must be specific and complete, including such items as:
  - a. Detailed schedules of the sequenced activities to include mobilization, site protection requirements (erosion & sedimentation, MPT, etc.), system installation, start-up, testing & inspection, and maintenance of bypass pumping pumps, hoses and generating equipment.
  - b. Dimensioned sketch of the site layout (showing arrangement, spacing and proximity of all systems) including:
    - i. Locations of existing structures to be used,
    - ii. Staging areas for pumps & other equipment, bypass pumping hoses and routing,
    - iii. Identification of public and private property, existing structures, and any pedestrian or vehicle crossings within the pumping area.
  - c. Condition documentation of public and private property, existing structures, verification of property owner coordination and permission, and any pedestrian or vehicle crossings within the pumping area.
  - d. Copies of applicable permits.
  - e. Equipment to be used including pumps, hoses, power supply, and standby pumps/power supply.
  - f. Capacities of equipment and materials to include:
    - i. Number, size, material, location, elevation of pump intake and method of installation of suction piping to include pipe depth,
    - ii. Number, size, material, location, elevation and method of installation of discharge piping,
    - iii. Bypass pump sizes, capacity, number of each size on site and power requirements, and main piping type & size
    - iv. Sewer plugging method and types of plugs.

- v. Pumps and bypass lines of adequate capacity to handle the sewage flows at the applicable pipe segment shall be provided and operated by the Contractor.
- vi. Professional Engineer sealed calculations demonstrating adequacy of the proposed bypass pumping system based on the planned system layout, anticipated flows and equipment data including static lift, friction losses, flow velocity (pump curve showing pump operating range and operating point), pump size and capacity, and intake/discharge locations and elevations,
- vii. Methods to address lateral connections within the segment to be bypassed, and temporary control measures of these lateral sewage flows.
- viii. Power generator and standby generator size and location,
- ix. Any temporary bypass piping supports and anchoring required,
- x. Set points, showing operating ranges at the suction end.
- xi. Method of noise control for each pump and/or generator, and
- xii. All other incidental items necessary and/or required to insure proper protection of the facilities.

- 5. Compliance with the requirements specified in the contract documents and any other regulatory permit requirements.

D. Equipment.

- 1. Pumps: All pumps used shall be fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps may be electric or diesel powered. All pumps used must be constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows and be capable of passing 3 inch solids. The Contractor shall provide the necessary stop/start controls for each pump. The Contractor shall include one stand-by pump of each size to be maintained on site. Back-up pumps shall be on-line, isolated from the primary system by valves.
- 2. Discharge Piping. In order to prevent the accidental spillage of flows all discharge systems shall be temporarily constructed of rigid pipe with positive, restrained joints. Under no circumstances will aluminum "irrigation" type piping or glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the Owner or Owners Representative.

**PART 3 EXECUTION**

3.1. GENERAL

A. Bypass Pump System Design Requirements:

1. Bypass pumping systems shall have sufficient capacity to pump the maximum full flow capacity of the downstream receiving pipe at the distance and head set forth by the bypass pump configuration. The Contractor shall provide all pipeline plugs, pumps of adequate size to handle peak flow, and temporary discharge piping to ensure that the total flow of the main can be safely diverted around the section to be inspected and cleaned. Bypass pumping system will be required to be operated 24 hours per day.
2. The Contractor shall have adequate standby equipment available and ready for immediate operation and use in the event of an emergency or breakdown. One back-up pump shall be at the sewer line flow bypassing location, ready for use in the event of primary pump failure.
3. Bypass pumping system shall be capable of bypassing the flow around the work area and of releasing any amount of flow up to full available flow into the work area as necessary for satisfactory performances of work.
4. The Contractor shall make all arrangements for bypass pumping during the time when the main is shut down for any reason. System must overcome any existing force main pressure on discharge.

B. Bypass Pump System Performance Requirements:

1. It is essential to the operation of the existing sewerage system that there is no interruption in the flow of sewage throughout the duration of the Project. The Contractor shall provide, maintain and operate all temporary facilities such as dams, plugs, pumping equipment (both primary and back-up units as required), conduits, all necessary power, and all other labor and equipment necessary to intercept sewage flows before they reach the point where it interferes with work operations, carry it past ongoing work and return it to the existing sewer downstream of work operations.
2. The design, installation and operation of the temporary pumping system shall be the Contractor's responsibility. The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
3. The Contractor shall provide all necessary means to safely convey storm and sanitary flows past the work area. The Contractor will not be permitted to stop or impede the main flow under any circumstances.
4. The Contractor shall maintain sewer flow around the work area in a manner that will not cause surcharging of sewers, damage to sewers and that will protect public and private property from damage and flooding.
5. The Contractor shall protect water resources, wetlands and other natural resources.

### 3.2. FIELD QUALITY CONTROL AND MAINTENANCE

- A. Test: Contractor shall perform leakage and pressure tests of the bypass pumping discharge piping using clean water prior to actual operation. The Owner and Owners representative will be given 48-hour notice prior to testing.
- B. Pressure testing of HDPE pipe shall be conducted in accordance with ASTM F 2164, Field Leak Testing of Polyethylene Pressure Piping Systems Using Hydrostatic Pressure. The HDPE pipe shall be filled with water, raised to test pressure and allowed to stabilize. The test pressure shall be 1.5 times the operating pressure at the lowest point in the system. In accordance with section 9.8, the pipe shall pass if the final pressure is with 5% of the test pressure for 1 hour.
- C. Inspection: Contractor shall inspect bypass pumping system every 30 minutes to ensure that the system is working correctly.
- D. Maintenance Service: Contractor shall insure that the temporary pumping system is properly maintained and a responsible operator shall be on hand at all times when pumps are operating.
  - 1. Spare parts for pumps and piping shall be kept on site as required.
  - 2. Adequate hoisting equipment for each pump and accessories shall be maintained on the site.

### 3.3. PREPARATION PRECAUTIONS

- A. It is the Contractor's responsibility to locate and verify connectivity of existing manholes that the Contractor plans to use for bypass pumping of sewage. The Contractor is responsible for removal and re-installation (upon bypass pumping completion) of manhole lids and manhole sections that were removed to facilitate pumping equipment and hoses.
- B. Contractor is responsible for locating any existing utilities in the area the Contractor selects to locate the bypass pipelines. The Contractor shall locate his bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the Owner and Construction Manager. All costs associated with relocating utilities and obtaining all approvals shall be paid by the Contractor and be included in the unit price bid for the various items of work.
- C. During all bypass pumping operations, the Contractor shall not be permitted to stop or impede the existing sanitary sewer flows under any circumstances. The Contractor shall protect the existing sanitary sewer and all local sewer lines from damage inflicted by any equipment. The Contractor shall be responsible for all physical damage to any local sewer lines caused by human or mechanical failure.

### 3.4. INSTALLATION AND REMOVAL

- A. In no case will bypass pumping be permitted at times other than during hours of investigation and rehabilitation of structures.
- B. After receiving approval of the Bypass Pumping Plan by the Construction Manager and having met all other coordination, permitting and bypass system requirements, the Contractor shall remove manhole sections or make connections to the existing sewer and construct temporary bypass pumping structures only at the access location as may be required to provide adequate suction conduit.
- C. Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. When plugging or blocking is no longer needed for performance and acceptance of work, it is to be removed in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.
- D. When working inside confined spaces, the Contractor shall exercise caution and comply with OSHA requirements for working in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces.
- E. The Contractor shall be responsible for obtaining any approvals for placement of the temporary pipeline within public ways from the appropriate governing agencies. All equipment, piping and appurtenances shall be on-site and ready for installation prior to commencing any installation work.
- F. The installation of the bypass pipelines is prohibited in all wetland areas. The pipeline must be located off streets and sidewalks and on shoulders of the roads. When the bypass pipeline crosses local streets and private driveways, the contractor must place the bypass pipelines in trenches and cover with temporary pavement.
- G. Bypass pumping shall continue until the particular item of work which is being performed in the section of the ALCOSAN sewer system has been completed.
- H. Upon completion of the bypass pumping operations, and after the receipt of written permission from the Owner, the Contractor shall remove all the piping, restore all property to preconstruction condition and restore all pavement. The Contractor is responsible for obtaining all approvals for placement of the temporary pipeline within public ways from the respective municipalities and PENNDOT, if applicable.

### 3.5. BYPASS PUMPING SYSTEMS

- A. The Contractor shall provide equipment and systems consistent with the approved Bypass Pumping Plan. Mobilized equipment must include stand-by pumps of the same size as the primary pumps to maintain the bypass pumping operation in the



event that a pump fails. Spare parts for pumps and piping shall be kept on site along with adequate hoisting equipment for pumps.

- B. Bypass pumping will be conducted by fused HDPE pipe or Owner-approved equal. Glued PVC pipe will not be allowed. Flexible discharge hoses will only be allowed in short sections. Leakage and pressure testing of the bypass pumping discharge piping shall utilize clean water prior to actual operation. The Engineer will be given 24 hours notice prior to testing.
- C. Bypass pumping must be operated and monitored continuously by the Contractor while in operation.

### 3.6. PROTECTION OF PROPERTY

- A. Bypass pumping shall consist of flow diversion as necessary to prevent back-ups creating damage or nuisance to public and private property, and at the area where investigation and rehabilitation of structures is in progress.
- B. The Contractor is responsible for monitoring weather conditions continuously during the bypass pumping operations. If the combined storm and sanitary sewer flows exceed the pumping system's capabilities at any time during the bypass pumping operations, to include increased flows due to storm or snow melt runoff, the Contractor must be prepared to remove plugging devices and restore the normal sewer system to operation. Appropriate time extensions will be considered by the Owner under such circumstances. Any Contractor costs that are a result of high flows or unsuitable weather conditions will not be reimbursed by the Owner, to include de-mobilization and re-mobilization.
- C. Raw sewage spillage caused by equipment malfunction shall be cleaned and disinfected by the Contractor using disinfectants approved by the Construction Manager. Under no circumstances shall the Contractor allow the discharge of raw sewage onto private or public property, into the existing storm drain system, onto the ground, into streams, water courses, ditches, streets, or in any other location other than a sanitary sewer.
- D. The Contractor shall be liable for all damages which result from sewage flows not properly maintained during the progress of the work, including all damages to private property which occur as a direct or indirect result of inadequate control of the sewage flow while the bypass operation is ongoing.
- E. Final inspection and acceptance in regard to cleanup, site restoration and pollution control measure areas shall be made in the presence of the Owner and/or other authorities having jurisdiction. The Contractor shall notify the Owner in writing of the readiness of the work for final inspection.

END OF SECTION

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment F – Revised Technical Specification Section 02650 – Cleaning

**SECTION 02650  
PIPELINE CLEANING**

**PART 1      GENERAL**

1.1      RELATED DOCUMENTS

- A.      The Bid and General Provisions of the Contract Documents, General Specifications and requirements of all Division 1 Sections of the Specifications apply to all work of this section.
  
- B.      The existing contract drawings, which are included “**For Reference Only**” in Appendix C, are issued to indicate the relative location, size, surroundings, and orientation of the siphons, interceptors, and manholes and are for reference only. The material contained on the drawings is furnished for the information and convenience of the Bidders and is not guaranteed.
  
- C.      The Contractor shall comply with the regulations of all regulatory agencies having jurisdiction including but not limited to OSHA regulations, US Army Corps of Engineers and PADEP regulations, and the Allegheny County Soil Conservation District regulations. No discharge of sewage, as a result of the Contractor’s operations, shall be allowed. **The Contractor will be responsible to pay any and all fines associated with sewage discharges and/or any violations of the ALCOSAN Consent Decree as a result of the Contractor’s activities.**
  
- D.      The Contractor is responsible for obtaining all necessary permits and the corresponding fees needed for the Work and the transporting of any equipment or material over private property and public streets. It is further the Contractor’s responsibility to obtain the necessary permits and/or permission from the various municipalities, Commonwealth of Pennsylvania, and/or owners of private properties. The cost of construction or improvement of any access route to the project site(s) shall be the responsibility of the Contractor.

1.2      SCOPE

- A.      Contract No. 1795 is primarily a siphon cleaning contract which has 26 specific siphons identified for inspection and cleaning, as required. All initial sonar inspections of the siphons shall be completed prior to any cleaning work beginning as directed by OWNER. All post sonar inspections shall be completed as directed by OWNER after siphon is cleaned. The additional pipe segments in the Upper Monongahela Interceptor shall also be inspected prior to any cleaning work beginning as directed by OWNER, and all post inspections shall be completed as directed by OWNER following cleaning.

- B. Unless otherwise approved, all solids capture and decanting shall be performed on-site using a **closed container system** where solids are settled and retained with the liquid discharged to the ALCOSAN interceptor system. Any spillage from the container system is not allowed. Any off-site decanting methods or storage locations shall be submitted for approval by the OWNER.
- C. As identified in the Contract Scope, the Contractor shall furnish all labor, tools, equipment, materials and incidentals required for performing high velocity jetting, rodding, brushing, bucketing and flushing of designated sewer lines and manholes prior to final internal inspection by sonar.
- D. The intent of cleaning is to remove foreign material such as bricks, rocks, dirt, grease, sand, grit, solids, roots, and other debris in order to restore the interceptor to a minimum of **95 percent** of its original dimensions, unless otherwise approved by the Owner. Types of cleaning methods may include light cleaning, heavy cleaning and water jetting. In bidding this work, the Contractor assumes all responsibility in cleaning to a minimum of 95 percent of the original interceptor dimensions. Reductions in productivity shall not be accepted as a justification for ceasing cleaning operations unless approved by the OWNER.
- E. Additional Cleaning (as directed) shall be paid using the appropriate contingent item identified in the contract. Additional cleaning is defined as the removal of settled and attached debris within sewer lines using high velocity jetting, as directed. The use of hydraulic cutting equipment and bucket machine equipment will be paid under the appropriate bid item and only as approved by the OWNER.
1. One pass shall be considered as the use of the step-cleaning method to work through the entire length of the pipe in increments that remove debris in a segmented and controlled manner throughout the full length of the pipe to be cleaned or lined. Cleaning shall include the use of a Combination Hydrovac/ Jetter truck to remove the debris as it is pulled from the cleaning manhole. Debris shall be paid on a per ton basis, for material complying with the Paint Filter Test Method 9095 (to be conducted by the authorized facility receiving debris).
  2. Cleaning shall consist of a minimum of three passes of debris removal.
  3. After three passes of debris removal, the Contractor shall evaluate if the sewer line is adequately cleaned to justify televising or sonar inspection as completed work, or if additional cleaning passes should occur.
  4. If the Contractor determines the line is adequately cleaned after three or four passes of debris removal, televising or sonar inspection prior to completion of the five maximum passes shall be at the Contractor's risk. If the Construction Manager determines that additional cleaning should occur, the Contractor is responsible for additional passes (up to the maximum five passes) and shall complete final televising or sonar inspection (within the unit prices bid for both pipes to be cleaned and for pipes to receive lining,

as applicable) or televising or sonar inspection (without additional compensation).

5. In the event the Contractor concludes based on the post-cleaning televising or sonar inspection of the line that more than five passes with hydraulic cleaning equipment will be necessary to achieve acceptable results, the Contractor shall consult the Construction Manager for a determination. The Construction Manager may authorize additional cleaning to be paid at an hourly rate per the contingent bid items.

**F. For the areas which are determined to require cleaning by the OWNER under Contract No. 1795, the Contractor shall accept payment for cleaning based exclusively on the tonnage of material removed (Bid Item No. 2) and not the linear feet of sewer jetted or time spent performing the work. Debris disposal is incidental to the tonnage unit price. Be advised that many factors, including the contractor's capture efficiency, impact the final tonnage quantity. No additional claims shall be made for final tonnage under that specified in the Contract No. 1795 Bid Quantities.**

G. Should additional cleaning be identified by the OWNER in areas other than those specifically identified in the Contract, payment shall be made using the appropriate contingent item hourly rate identified. The Contractor shall continue cleaning until the line has been restored to 95% of its original dimensions.

H. The Contractor shall not discharge into the ALCOSAN interceptor system any water containing silt, mud or any other concentrated settleable material.

### 1.3 RELATED WORK SPECIFIED ELSEWHERE

A. SECTION 02651: TELEVISION & SONAR INSPECTION OF SEWERS

## PART 2 SUBMITTALS

### 2.1 EXPERIENCE

A. The Contractor shall submit documentation for Owner approval to demonstrate the following experience as a business engaged in the cleaning of sewer lines:

1. A minimum of ten (10) years experience in the field of sewer cleaning and pipeline inspection by means of closed circuit television.
2. Demonstration that within the past five (5) consecutive years prior to the bid, as a prime contractor, the Contractor has successfully performed in a timely manner at least five (5) projects similar in scope and type to the required work.

3. For each project submitted to meet the experience requirements, indicate the following:
  - Name and location of project
  - Name, address, and telephone number of Authority or Authority's representative
  - Brief description of work
  - Amount of contract
  - Date of Completion – state if project was completed on time
  
- B. The Contractor shall submit documentation to demonstrate the following experience of the staff proposed for this project for Owner approval:
  1. Inspection shall be conducted by NASSCO PACP Certified Operator; the Contractor shall provide operator certification documentation.
  2. Documentation of supervisors and operators training certifications, listing of completed projects, and a minimum of five (5) years experience in the field of sewer cleaning and internal video inspection of sewers.

## 2.2 EQUIPMENT

- A. Provide documentation of Contractor equipment and back-up equipment for Owner approval as listed in this section, 2.2 EQUIPMENT.
  
- B. At a minimum, the Contractor shall provide documentation of availability of the following equipment (or equivalent) for this project with the bid documents:
  1. High-flow Combination Hydrovac/Jetter: 120 gpm @ 2,000 psi; Minimum hose reel spool capability of 1500 feet of dual fused 1 ¼ in diameter jetter hose; 1,500-gallon water tank capacity; Articulating boom; 50' of 6" to 10" vacuum pipe; 6000 cfm @ 15-in Hg; Vacuuming capability of not less than 40 feet vertical.
  2. Mobile TV Studios: Color; computer aided; capable of both conventional self-propelled and pull-through cameras; low lux pan and tilt cameras.
  3. Jetting nozzles and floor skids designed specifically for the size ranges specified in the relevant Bid Items. Demonstrate availability of appropriate heads for the various work requirements.
  4. Cutting heads: demonstrate the availability of appropriate heads for the various solid waste cutting work requirements (roots, mud, grease, scaling) to include spare cutting heads.
  5. Bucket Machines: 4 cylinder; four speed; 25-ton drag; 1500' of ½" wire cable; slip disk clutch; all necessary buckets, scrapers, pipe and pulley makeups for up to 100' depths.
  6. Water tight debris boxes with decant system designed for a minimum of 25 CY of debris.

7. CCTV camera equipped with a locating sonde (designed for locating deep utilities and sewers, 25 feet or greater.
8. Generators and Air compressors.
9. Approved backflow preventer for drawing water from a hydrant.

C. Hydraulic Sewer Cleaning Equipment

1. The equipment used shall be of a movable dam type and be constructed so that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be the same diameter as the pipe being cleaned and shall provide a flexible scraper around the outer periphery to ensure total removal of grease.
2. If sewer cleaning balls or other such equipment which cannot be collapsed instantly are used, special precautions against flooding of the sewers and public or private property shall be taken.

D. High Velocity Jetter (Hydro-cleaning) Equipment

1. All high velocity jetter sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more velocity nozzles. The nozzles shall be capable of producing a high velocity scouring action from 15 to 45 degrees in all size lines to be cleaned. Equipment shall also include a high velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a long distance solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps and hydraulically driven hose reel. All controls shall be located so the equipment can be operated above ground.
2. Cleaning equipment must be capable of cleaning lengths up to 2,500 feet shall be provided. Equipment must be able to clean this length with vehicular access to one structure only. Cleaning shall be of the entire reach between structures. If cleaning of an entire section cannot be successfully performed from a structure, the equipment shall be set up on the other structure and cleaning again attempted without additional compensation.

E. Mechanical Cleaning Equipment

1. If authorized by the Owner, bucket machines shall be in pairs and with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive which could cause damage to the pipe shall not be acceptable.

**PART 3 EXECUTION**

3.1 PREPARATION

- A. It shall be the responsibility of the Contractor to locate the proposed manholes by use of a CCTV camera with a locator or by survey. No additional payment will be due for the Contractor's inability to locate the existing interceptor.
1. Determination of the cleaning technique proposed by the Contractor must meet the contract requirements and requires approval of the Owner and the Construction Manager.
  2. Clean line sections by the procedure proposed by the Contractor and approved by the Owner and the Construction Manager, i.e., jetting. Properly dispose of all material (debris, etc.) removed from the sections at an approved disposal site to include applicable disposal fees, and provide a copy of the manifest to the Construction Manager. Payment for debris removal hauled to the approved dump site, that passes the paint filter test, will be made on a per ton basis. The Owner will not accept any material removed from the line sections at its wastewater treatment plant.
  3. Once any phase of the contract is started, work shall continue in a timely manner, until all sections are cleaned and televised. Complete internal inspection immediately after the pipe section has been cleaned.
- B. Where access to the various interceptor sections must be cleared of heavy vegetation, the Contractor shall perform the clearing of pathways to facilitate mobilization of cleaning and internal inspection equipment. Any vegetation or other debris cleared by the Contractor shall be removed and disposed of properly by the Contractor, and the site restored by the Contractor as an incidental cost of the work.
- C. The Contractor shall schedule, maintain, and coordinate all activities and shall cooperate with the Owner's personnel such that a minimum of interruption to the services results. The Contractor shall not operate existing system valves, sluice gates, controls, or other appurtenances at any time, but when the same is needed to facilitate and accommodate activities, he shall request such operation from the Owner. The Contractor shall provide the Owner with reasonable advance notice for such assistance.
- D. The Contractor is hereby made aware that the sewer lines to be cleaned and inspected is an interceptor sewer or connector pipe and no flow shall be discharged to the river, streams, banks, or any other storm outlet during cleaning or inspection operations. Additionally, no sewage shall be permitted to surcharge to the point that it overflows to any of the above or back into private buildings through lateral connections. Any damage or fines resulting from such occurrences are the sole responsibility of the Contractor.**
- E. The Contractor shall notify the Construction Manager 72 hours prior to mobilizing for internal inspection or cleaning activities.



- F. During all cleaning operations, precautions shall be taken to protect the interceptor from damage. Any damage to the sewer caused by the use of cleaning equipment, regardless of the cleaning method, shall be repaired by the Contractor at no additional cost to the Owner and to the satisfaction of the Engineer.

### 3.2 PERFORMANCE

- A. All cleaning shall commence with the most upstream sections of the sewer lines to be cleaned and end with the most downstream sections of the sewer line to be cleaned regardless of the method chosen to clean the sections. Cleaning shall include the trapping and removal of all sediments and residual wastes from successive manholes as the cleaning progresses at no additional cost to the Owner.
1. Suitable weirs or dams shall be constructed as necessary in the downstream manholes in such a manner that the solids are trapped. No silts, sand, gravel, debris, etc., shall be allowed to pass these dams.
  2. Under no circumstances shall sewage or solids removed from the interceptor be dumped onto streets, catch basins, storm drains, or receiving waters.
  3. All materials removed shall be properly disposed at a landfill licensed to receive the applicable wastes, shall pass the paint filter test, and documented by paint filter test results and Owner-provided manifests (copies to be provided by the Contractor to the Construction Manager).
- B. Each designated sewer manhole section shall be cleaned using the Owner-approved method. The equipment selected for cleaning shall be capable of removing dirt, grease, rocks, sand and other deleterious materials and obstructions from the sewer lines and manholes.
1. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted.
  2. **Blockages or Overflows, if any, shall be reported to the Construction Manager immediately.**
- C. During all sewer cleaning operations, satisfactory precautions shall be taken to protect the sewer lines from damage that might be inflicted by the improper use of cleaning equipment. Whenever hydraulically propelled cleaning tools which depend upon water pressure to provide their cleaning force or any tools which retard the flow of water in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not cause any damage or flooding to public or private property being served by the manhole section involved.

1. When additional quantities of water from fire hydrants are necessary to avoid delay in normal working procedures, prior coordination will be required with the owner of the hydrant. The cost of the hydrant permit, water meter rental, water consumption and any other related costs shall be paid by the Contractor and considered incidental to the work. Water shall be conserved and not used unnecessarily.
  2. During winter months, when hydrants are not being operated, Contractor shall make provisions for water supply.
  3. No fire hydrant shall be obstructed so as to prevent its use in case of a fire in the area served by the hydrant, nor shall a hydrant be used for the purpose described unless a vacuum break is provided.
- D. Roots shall be removed in the designated sections where root intrusion is a problem. Special precautions should be exercised during the cleaning operation to assure virtually complete removal of visible roots from the joint area. Procedures may include the use of mechanical devices such as rodding machines, expanding root cutters, and porcupines; hydraulic procedures such as high velocity jet cleaners; or chemical root treatment.
- E. During heavy cleaning by bucket machines, bucket machines shall be pulled upstream from the lower manhole to the upper manhole and debris shall be contained and collected in the lower manhole. Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe shall not be allowed.
1. In the case of river crossings, river connections, and sections of limited access, the Contractor may present alternative cleaning methods for Owner approval. These methods must be capable of obtaining a minimum of 95% of the sewer lines original dimensions with no damage to the facilities. Such methods, if approved by the Owner, shall be utilized at the Contractor's risk.
  2. No payment will be made until the inspection is completed and the effectiveness of the cleaning has been verified to be 95% of the sewer lines original dimensions.
- F. To aid in the removal of roots, pipeline and manhole sections which have root intrusion may be treated with an approved label herbicide by the Contractor. The application of the herbicide to the roots shall be done in strict accordance with the manufacturer's recommendations and product specifications in such a manner to preclude any damage to the surrounding vegetation.
1. Vegetation damaged for whatever reason shall be replaced with identical vegetation.
  2. All safety precautions recommended by the manufacturer shall be strictly adhered to concerning handling and application of the herbicide.

3. The herbicide technical data and the Contractor's plan for use must be submitted for Owner approval, and will be considered an alternative of the convenience of the Contractor.
  4. No additional payment will be provided to the Contractor for the herbicide application.
- G. All sludge, dirt, sand, rocks, grease and other solid or semi-solid residue, debris, and material resulting from cleaning operations shall be removed at the downstream manhole of the section of sewer being cleaned. Passing material from manhole section to manhole section which could cause line stoppages, accumulations of sand in wet wells, or damage to pumping equipment shall not be permitted.
- H. The Contractor shall be responsible for daily transporting the removed material from the work site and the proper disposal of the removed material at an approved disposal site. The material will not be accepted by ALCOSAN for disposal.
1. All debris, residue and other materials resulting from cleaning operations shall be removed from the site no less often than at the end of each workday and shall be disposed of in an approved manner. Under no circumstances will the accumulation of debris, residue, etc, be left at the work site overnight, unless prior written authorization is given for storage in totally enclosed containers.
  2. Any estimates of material in the pipe line sections are for reference only. Such estimates are not to be utilized for bid quantities.
  3. Landfill reports must be submitted, and payment will only be approved by ton for debris removal which passes the paint filter test.
- I. Contractor is responsible for monitoring weather conditions continuously during the cleaning operations. If the combined storm and sanitary sewer flows exceed the pumping system's capabilities or disrupt the cleaning operation at any time Work, to include increased flows due to storm or snow melt runoff, the Contractor must be prepared to remove plugging devices and restore the normal sewer system to operation. Appropriate time extensions will be considered by the Owner under such circumstances. Any Contractor costs that are a result of high flows or unsuitable weather conditions will not be reimbursed by the Owner, to include de-mobilization and re-mobilization.
- J. Immediately upon completion of work, it shall be the Contractor's responsibility that the entire area shall be cleaned of all debris and all debris disposed of properly. Documentation of the inspection results shall be as follows:
1. Television/sonar inspection database records and image files. Data records shall be compiled by the Contractor and will clearly show the location in relation to an adjacent manhole of all service connections, pipe defects, and

other points of significance such as infiltration sources, roots, and other discernible features.

2. Portable Hard Drive Recordings. The Contractor shall supply portable hard drives with files that correspond with Manhole and Diversion Structure ID provided by ALCOSAN GIS maps. The purpose of the digital movies shall be to supply a visual and data record of observations such as connections, manholes, and the NASSCO PACP Pipeline defects that may be replayed and reported.
3. All files on the drive shall be in color and shall be at the same speed that it was recorded. All video recordings shall have a continuous on-screen display indicating sewer section identification and distance from entering manhole. Footage counter must reset to zero for each manhole to manhole section. ALL VIDEO FILES SHALL BE PROVIDED IN PACP FORMAT AS MANHOLE TO MANHOLE.

All videos shall have on screen display identifying laterals and pipe defects which shall be coordinated with the written logs. Files shall be in MP or windows compatible format with copies supplied to the Construction Manager. Each data drive shall be permanently labeled with the following information:

- Project Name and Contract Number
- Manhole & Pipe Sections
- Tape Number
- Date Televised
- Contractor's Name
- Indication of Initial or Final TV Inspection

4. Labeled photographs of any and all observed pipe defects and legible records of debris removed by weight.
5. Inspection Logs- Written logs shall be kept and provided by the Contractor showing the location, in relation to adjacent manholes of: each infiltration point, laterals, services, joints, voids, unusual conditions, roots, deposits, scale, corrosion, changes in pipe (material size shape, slope), and other discernible features. The logs will be put into a final report. Three copies of the final report shall be submitted to the Construction Manager.

END OF SECTION

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment G – Revised Technical Specification Section 02651 – Television and Sonar Inspection  
of Sewers

**SECTION 02651  
TELEVISION AND SONAR INSPECTION OF SEWERS**

**PART 1 GENERAL**

1.1. RELATED DOCUMENTS

- A. The Bid and General Provisions of the Contract Documents, General Specifications and requirements of all Division 1 Sections of the Specifications apply to all work of this section.

1.2. DESCRIPTION OF WORK

- A. The intent of this contract is to conduct sonar inspections, and cleaning as required, of the ALCOSAN siphons, and to conduct inspections, and cleaning as required, of the designated pipe segments in the Upper Monongahela Interceptor. It is not the intent of this contract to conduct bypass pumping. In areas where debris exceeds 25% of the pipe diameter as determined by the OWNER, cleaning will be required, as directed, as described in Section 02650. If there is cementitious material or large debris blocking flow, ALCOSAN may request additional cleaning using the contingent unit prices in the Contract. Post-cleaning sonar inspections will be required for siphons that required cleaning. Post-cleaning inspections will be required for Upper Monongahela pipe segments that required cleaning.
- B. For bidding purposes, contingent item C-34 reflects the estimated quantity for siphons requiring a post-cleaning sonar inspection.
- C. Furnish all necessary labor, materials, equipment, services and incidentals required and visually inspect by means of closed-circuit television or sonar equipment, including, but not limited to, all recording and playback equipment, materials and supplies such as DVDs and hard drives, for the following areas of work:
1. Sonar inspection of siphons defined in the bid items. (In the event that cleaning is found to be required based on the initial inspection, a post-cleaning sonar inspection will also be required to demonstrate cleaning to a satisfactory level.)
  2. Inspection of pipe segments in the Upper Monongahela Interceptor defined in the bid items. (In the event that cleaning is found to be required based on the initial inspection, a post-cleaning inspection will also be required to demonstrate cleaning to a satisfactory level.)
- D. All inspections shall be witnessed by the Construction Manager.

- E. Video recordings shall be made of the sonar and/or television inspections and copies of both the recordings and printed inspection logs shall be supplied to the Construction Manager. All hard drives and digital data records shall reference and correspond to the ALCOSAN GIS maps for each pipeline segment to be cleaned in Appendix B.

1.3. RELATED WORK SPECIFIED ELSEWHERE

- A. SECTION 02080: BYPASS PUMPING
- B. SECTION 02650: PIPELINE CLEANING

1.4. DEFINITIONS

- A. CCTV Inspection: Operation necessary to complete a high-definition, true-color audio-visual inspection for verification of existing internal sewer pipe conditions.
- B. Sonar Inspection: Operation necessary to provide a sonar scan of the submerged portion of an asset to identify interior pipe conditions
- C. MPEG: MPEG, Moving Picture Expert Group, is the acronym given to a family of international standards used for coding audio-visual information in a digitally compressed format.
- D. DVD: Digital Video Disk, for the purposes of this specification, DVDs shall be written or “burned” in accordance with the ISO-9660 Level 2 Specifications.
- E. NASSCO: National Association of Sewer Service Companies developed the Pipeline Assessment Certification Program (PACP) standard, for which closed circuit television inspections of sewer pipelines in the Contract are to comply according to the latest version of the reference manual.

1.5. SUBMITTALS

- A. Submit in accordance with the Contract Documents
- B. Contractor to submit the following prior to pre-construction meeting
  - 1. Submit a written description of procedures to be used to the Construction Manager, including product literature for all digital CCTV or sonar equipment including, but not limited to cabling, camera, monitor, footage counter, digital video titling device, and recorder demonstrating their capability and resolution.
  - 2. Submit an Emergency Plan that outlines proposed methods for recovering in-line inspection equipment that has become lodged, lost, or uncontrollable

within the sewer. This plan should also include provisions for providing replacement MH covers and steel plating to protect exposed or damaged MH or open excavations.

3. Submit a sample written/printed copy of CCTV or sonar inspection logs to the Construction Manager. Logs shall record defects according to NASSCO's Pipeline Assessment and Certification Program (PACP).
- C. The Contractor shall submit Sample Inspection Reports for review during pre-construction meeting to ensure quality and conformity requirements of this contract.
1. Submit a sample report of each CCTV or sonar inspection, including digital MPEG DVD-R video recordings, and electronic NASSCO PACP exported database files, of an actual sewer inspection performed by each device.
  2. Submit a report suggesting the CCTV camera or sonar make, model and serial number on each video. Demonstrate the resolution of each camera using the recording resolution specified.
  3. Submit documentation of NASSCO PACP certification for all operators, database, and software intended to be used.
  4. Submit a sample report of a multi-sensor (CCTV and sonar combination) inspection report which will contain all reported inspections as detailed, in addition to CCTV inspections report.
- D. Use the report submission accepted by the Construction Manager as a benchmark for review and approval of subsequent inspection report submissions.
- E. No inspection work is to be performed until the sample inspection report has been accepted by the Construction Manager.
- F. Data submittals are to satisfy the following requirements:
1. Submittals shall include a cover letter in both hard copy and electronic format that describes the contents of each submittal including the number and type of inspections provided (CCTV, sonar, structure inspections, structure GPS, etc.). The cover letter should also document any other relevant information included that is pertinent to the inspections such as maps, diagrams, and/or descriptions of conditions encountered that prevent a complete inspection of a given pipe segment.
  2. Submittals shall include a completed CCTV Contractor Data Submittal and QA Review Report.
  3. Submit inspection database files and related information on a weekly basis and within 10 working days of the inspection. Submittals shall include only new inspections or previously rejected inspections that have been corrected. Data that has previously been accepted or rejected without correction shall not be resubmitted with each new data submittal. The Contractor shall



submit any GPS and/or structure confirmation data prior to, or in conjunction with, CCTV inspection records collected for the pipes to be inspected. Information shall be provided on a single portable hard drive. Multiple hard drives containing MH or CCTV data should not be made.

4. Failure to comply with any of these requirements may result in the rejection of the entire submittal. If rejected, the submittal shall be corrected by the Contractor and resubmitted to the Construction Manager at no additional cost. The Construction Manager and ALCOSAN reserve the right to withhold payment for work completed in the event of data submittal rejection.

- G. The Contractor will include a Project Status Report with each Pay Requisition submitted. A Project Status Report template is included at the end of this Section for reference. The Construction Manager will provide the Contractor with an electronic version of the Report template prior to the start of work.

#### 1.6. QUALITY ASSURANCE

- A. Comply with the requirements of Contract Documents
- B. Comply with all codes, laws, ordinances, and regulations of governmental authorities having jurisdiction over this part of the work.
- C. The inspections shall be performed one pipe segment at a time.
- D. Inspection shall be performed in accordance with most current NASSCO's Pipeline Assessment and Certification Program (PACP).
- E. Ensure each operator is fully trained and certified in all aspects of sewer inspection and capable of making accurate observations and coding / recording all conditions that may be encountered in the sewers.
- F. Coding accuracy will be a function of the number of defects or construction features not recorded or omitted as well as of the correctness of the coding and classifications recorded. Coding accuracy is to satisfy the following requirements:
  1. Header accuracy: 95%.
  2. Detail / defect coding accuracy: 85%.

Inspections failing to meet these criteria will be rejected, re-inspected if required, recoded, and resubmitted at no additional cost.

- G. Contractor shall implement a formal coding accuracy verification system before starting the Work.

1. Verify coding accuracy on a random basis on a minimum of 10% of the inspection reports. Submit coding accuracy checks with the corresponding video recording. The Contractor shall complete the CCTV Contractor Data Submittal and QA Review Report, attached separately, and include it with each respective data submission.
  2. Perform a minimum of two accuracy verifications for each operator for each week in which work is performed and submit the results to the Construction Manager for review.
  3. Recode inspections not satisfying the accuracy requirements and verify the accuracy of the inspection immediately preceding and immediately following the non-compliant inspection. Repeat the process until the proceeding and subsequent inspections meet the accuracy requirements.
- H. The Contractor shall provide the Construction Manager with a complete list of Subcontractors whom the Contractor proposes to engage at least two (2) business days prior to the commencement of Work.
- I. Operators failing to meet the accuracy requirements on two occasions will not be permitted to perform inspections on the remainder of the contract until Contractor can demonstrate to the Construction Manager that they can code in accordance with the requirements of the Contract Documents.
- J. The Contractor shall maintain an up to date Progress Log that tracks the progress of the work and status of inspections. The Construction Manager should be provided with this information upon request. The log should document the following information at a minimum
1. Segment ID
  2. Date of inspection
  3. Date of data submission
  4. Status of data acceptance / rejection
  5. Date of data acceptance / rejection
  6. Date of segment re-inspection (as required)
  7. Date of data resubmittal (as required)
  8. Date of resubmitted data acceptance (as required)

## 1.7 EXPERIENCE

- A. The Contractor shall submit documentation for Construction Manager approval to demonstrate the following experience as a business engaged in the CCTV or sonar inspection of sewer lines as per contract documents.
1. The Contractor shall be in good standing under local contracting requirements or otherwise properly registered, licensed or permitted by law to carry on business within the State of Pennsylvania, County of Allegheny

- throughout the term of the Contract, and shall provide the Construction Manager with evidence thereof as per contract documents.
2. At any time during the term of the Contract, the Construction Manager may, at its sole discretion and acting reasonably, request updated evidence of good standing. A Contractor, who fails to provide satisfactory evidence, will not be permitted to continue to perform any Work.
- B. The Contractor and/or any proposed Subcontractor, for the portion of the Work proposed to be contracted to them, shall:
1. Have a minimum of ten (10) years of experience in the field of sewer pipeline inspection by means of CCTV or sonar and have the required capital, organization, and equipment to perform the Work in strict accordance with the terms and provisions of the Contract Documents.
  2. Have successfully carried out work similar in nature, scope and value to the Work and demonstrate that within the past five (5) consecutive years prior to the bid, as a prime Contractor, the Contractor has successfully performed in a timely manner at least five projects similar in scope and type to the required work that totals 10,000 feet of previous CCTV or sonar inspection on sewers of 8” to 96” in diameter for condition assessment purposes. Inspection of new infrastructure for acceptance purposes shall not be deemed as representative experience. For each project submitted to meet the experience requirements, indicate the following:
    - a. Name and location of project.
    - b. Name, address, and telephone number of Owner or Construction Manager.
    - c. Brief description of work to include length and diameter of pipelines inspected.
    - d. Amount of contract.
    - e. Date of Completion – state if project was completed on time.
  3. Be fully capable of performing the Work required in strict accordance with the terms and provisions of the Contract Documents.
- C. The Contractor shall submit, for Construction Manager approval, documentation to demonstrate the following experience of the staff proposed for this project:
1. Operator certification documentation of each CCTV or sonar operator’s NASSCO Pipeline Assessment and Certification Program (PACP) certificate. The PACP certificate for all Operators performing work on this project shall be current on the day of the Contractor’s submission and shall remain current throughout the performance of this work.
  2. Documentation of supervisors’ and operators’ training certifications, listing of completed projects, and a minimum of five years of experience in the internal CCTV inspection of sewers.

## PART 2 PRODUCTS

### 2.1. GENERAL

- A. The Construction Manager reserves the right to stop the work when, in the Construction Manager's judgment, the Contractor's work or activities are threatening the health and safety of the public; including Contractor, Construction Manager, ALCOSAN, municipal staff or visitors to the work site; or endangering the environment. Work shall not proceed until a satisfactory resolution has been achieved, as determined in the sole and unfettered opinion of the Construction Manager.

### 2.2. EQUIPMENT

- A. The Contractor shall submit a list describing all equipment to be used for review and approval of the Construction Manager.
- B. CCTV: A complete closed circuit color television system, including a camera, lighting, electronic footage counter, television monitor, mobile television studio, and digital / DVD video recorder/player used for the televising operations shall be specifically designed and constructed for sanitary or combined sewer inspections. Video inspection is to consist of the following:
  - 1. The inspection equipment shall be capable of inspecting a minimum 2,000 linear feet of sewer line without access to a manhole in between.
  - 2. The inspection equipment shall be capable of clearly televising the interior of 8-inch diameter and larger sewer sizes.
  - 3. The camera should be specifically designed and constructed for such sewer inspections and shall have above ground control for forward and backward movement in the sewer.
  - 4. CCTV camera equipped with a locating sonde, designed for locating deep utilities and sewers, 25 feet or greater or buried structures and junctions that cannot be located or accessed from ground surface.
  - 5. Video camera shall be capable of panning 360 degrees and tilting 270 degrees with optimum picture quality provided by focus and iris adjustment. Focal range to be adjustable from 3-inches to infinity.
  - 6. The camera, television monitor and other components of the video system shall be capable of producing a minimum 720(x) by 480(y) pixel, 740 line resolution video pictures at 30 frames per second.
  - 7. Lighting for the camera shall be waterproof and suitable to allow a clear picture of the entire periphery of the pipe. The camera shall be operative and provide a clear picture in 100 percent humidity conditions. Lighting shall be adjustable to allow an even distribution of light around the sewer perimeter without loss of contrast, flare out of picture, or shadowing. Lighting shall illuminate the sewer or manhole ahead

of the camera to be able to determine general condition, features and upcoming defects.

- a. An unclear picture due to the lack of lighting or the presence of fog, steam, or excessive humidity will be considered unsatisfactory. The Contractor is responsible for identifying and implementing corrective actions to obtain suitable video quality, such as using fans or ventilation systems to dissipate the fog or by the heating of incoming air to mitigate fog.
  - b. The Contractor is responsible for presenting issues regarding questionable video quality immediately to the attention of the Construction Manager.
  - c. Light heads shall be changed upon the request of the Construction Manager.
8. Picture quality and definition shall be to the satisfaction of the Construction Manager and if unsatisfactory, equipment shall be removed and no payment shall be made.
  9. Video overlay equipment capable of superimposing a minimum of 15 lines with up to 30 characters per line of alphanumeric information onto the video recording.
  10. Sewers of 36 inches or greater shall be inspected using an in-line inspection platform, which shall:
    - a. Be capable of inspecting a minimum 2,000 linear feet of sewer line without access to a manhole in between.
    - b. Have independently controlled drive tracks that enable the platform to maneuver around bends and climb over debris up to 12-inches in height.
    - c. Be operable under partially or fully submerged flow conditions.
    - d. Be operable in sewers of various cross-sections, and constructed of standard pipe materials including, but not limited to, brick, clay, concrete, PVC, HDPE, and steel.
    - e. Be tethered to facilitate extraction of the platform from the sewer, without causing damage to the sewer infrastructure, in the event the equipment fails or otherwise becomes uncontrollable within the sewer.
    - f. Be equipped with sufficient high intensity lighting to illuminate the sewer for visual inspection.
    - g. Have capability for simultaneous data collection from multiple inspection sensors/technologies including, but not limited to, CCTV video inspection and sonar scanning.
  11. Minimum requirements of in-line inspection sensors / technologies: CCTV video inspection equipment shall conform to the requirements of the Contract Documents, and as modified herein:
    - a. Equipment shall be capable of continuously capturing digital video from first generation recordings with no frame loss, regardless of the progression of the inspection.

- b. Equipment shall be used to acquire continuous digital video images of the sewer for the entire length being inspected.
  - c. Incorporate a suitable distance-reading device to measure the location of the equipment in the pipe, to an accuracy of  $\pm 0.5\%$  of the length of the inspection.
- C. SONAR: Sonar scanning inspection equipment shall conform to the requirements of the Contract Documents, and as modified herein:
- 1. The Contractor's equipment must be capable of operating under full-pipe flow conditions, with the pipe in continuous service, and with the pipe velocities associated with continuous service.
  - 2. Sonar software shall be configurable to allow for changes in pipe shape and size without requiring removal of the sonar from the pipe system
  - 3. The Scanning Unit shall provide real-time continuous scanning for the entire duration of the inspection. The equipment shall be capable of providing real-time continuous images of the conditions encountered in the sewer line. The images must be continuously displayed on a color monitor and must be stored on a DVD disk or portable hard drive. The stored images must be able to be post analyzed for cursors to be overlaid and measurements to be taken. The stationing along the inspected Sewer Line shall appear on all video images. The stationing origin (Sta.0+00) shall be identified in the written report for each inspected section. Manholes and structures must correspond to the reference drawings.
  - 4. The system shall be capable of inspecting full lengths of up to 2,000 feet due to the typically limited number of access sites along pipes of this type.
  - 5. Sonar scanning equipment shall accurately measure the depth to sediment or pipe surface below the fluid level at regular intervals throughout the inspection.
  - 6. Sonar equipment must be programmable multi-frequency profiling sonar specifically adapted to using sound waves to locate and map subaqueous sewer irregularities by creating continuous sonar images recorded in "real time" mode.
  - 7. The sonar shall be digital, multi-frequency profiling sonar that supports a range of frequencies from 600 kHz to 2.0 MHz to minimize noise. The sonar shall be tunable across the full frequency range in 5 kHz steps.
  - 8. The range resolution measurement error shall be no greater than 0.08-inch from distances of 3 to 12 feet, and no greater than 0.4-inch from distances of beyond 16.5 feet.
  - 9. The minimum detectable range for the sonar unit shall be 6-inches.
  - 10. Error tolerances for sediment volume quantification shall be a minimum 92% accuracy for pipelines between 36-inch and 54-inch diameter inclusive, and a minimum of 95% accuracy for pipelines of greater than 54-inch diameter.
  - 11. The equipment must allow the accurate quantification of solids accumulation, sectional area loss, joint separation, and other structural flaws that may exist. The equipment must allow the accurate location of all encountered problems and defects along the interceptor system, and where sediment and gravel has accumulated. Sediment/debris calculations shall be accurate to minimum 95% for pipes over 54-inch diameter.

- D. An electronic footage counter shall accurately measure the exact distance of the CCTV or sonar inspection equipment from the centerline of the starting manhole. This measurement shall be displayed on the monitor and recorded on the video at all times. The importance of accurate distance measurements is emphasized.
- E. In areas where a self-propelled track-mounted platform is not possible to use during the inspections, the inspections shall be performed using a float system. The Contractor shall notify the Construction Manager prior to the use of the float platform.

## **PART 3 EXECUTION**

### **3.1. PROCEDURE**

- A. Each siphon will be inspected via sonar. If that inspection indicates debris at a level requiring cleaning to be completed as determined by the OWNER, a post-cleaning inspection will be required as well to confirm adequate debris removal. Payment for this cleaning shall be made as indicated in the Contract Documents.
  - 1. If the post-cleaning inspection reveals that the sewers are not sufficiently clean per paragraph 1.2D of Specification Section 02650, PIPELINE CLEANING, to conduct an inspection in accordance with these specifications, or with NASSCO guidelines, the cleaning operation shall be repeated until the sewers are sufficiently cleaned. After the completion of re-cleaning, the lines shall then be re-televised. Cleaning upstream of previously inspected segments shall trigger a mandatory re-inspection of the adjacently affected segments at any time that it occurs. The additional televising shall be done at the expense of the Contractor, along with any televising conducted to survey cleaning progress.
  - 2. Jetting: Use of a high-velocity water jetter continuously during inspection to lower the water level will not be permitted, except for specific instances that are approved in writing by the Construction Manager; inspections not in accordance with the Contract Documents will be rejected.
  - 3. CCTV or sonar inspection of a pipe segment shall be completed within five days after the segment has been cleaned. The Construction Manager reserves the right to direct the Contractor to reclean segments not inspected within this time frame at no additional cost.
- B. The entire length of sewer shall be televised by the use of a closed circuit color television or sonar system, as applicable, to provide a visual and audio digital data record of the conditions of the interior of the sewer line that can be replayed, analyzed, mapped, and reported.
- C. Perform inspections in accordance with most current NASSCO PACP guidelines and the following:

1. With the direction of flow unless a reverse set up is required.
2. From the center of the start manhole to the center of the finish manhole. Inspections will terminate at a manhole regardless of whether or not the manhole is mapped or located during the structure inspection / GPS work. Mapped blind junctions with another sewer segment, exclusive of lateral connections, will terminate an inspection. A new inspection will start at the mapped blind junction and will continue to the next manhole, structure or mapped blind junction. The contractor will not terminate an inspection at an unmapped junction. The unmapped junction will be noted in the observations and the inspection will continue to, and terminate at the next manhole or mapped junction.
3. Begin inspections generally with the upstream sewer in the system and proceed downstream in a consecutive manner.
4. Schedule the inspection of downstream sewers after the contributing upstream sewers have been cleaned.
5. Ensure the face of the start manhole is clearly visible at the start of the sewer inspection.
6. Position the center of the camera lens in the center of circular and egg shaped sewers and manhole risers, or as directed by the Construction Manager.
7. The camera must be properly oriented to observe conditions in an upright condition, and will pan across all NASSCO Grade 4 or 5 defects and any connections, including residential and commercial taps, that are observed. All NASSCO Grade 4 or 5 defects shall include a pan and tilt photo of the defect as well as a photo of the defect taken down the long axis of the pipe. The Contractor is responsible to ensure the Operator checks and measures the ovality of the pipe at these points of NASSCO Grade 4 or 5 defects.
8. The travel speed of the television inspection camera through the sewer shall be uniform and shall not exceed the maximum speed of *30 feet per minute* under any conditions.
9. For cable calibration of the television inspection platform, record the distance from the center of the manhole to the cable calibration location at the start of the inspection and adjust the distance reading so that zero is at the pipe and manhole interface. This distance is known as the cable calibration distance. The cable calibration location is the intersection point between the camera's widest horizontal viewing angle and the pipe's side periphery (03 or 09 o'clock) when the camera is level and looking forward.
10. Indicate on the monitor screen an accurate automatic distance measurement that begins to move immediately as the camera moves. Ensure measurement is accurate from the cable calibration point to the center of the finish manhole.
11. Manual winches, power winches, powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line.



- D. Reverse Set-Up Inspection: If inspection of an entire section cannot be successfully performed from one manhole, perform a reverse setup from the opposite manhole of the segment to obtain a complete television inspection.
- E. Termination or abandonment of a survey will not be acceptable if the contractor runs out of CCTV camera tether. The Contractor is responsible to properly plan the work such that manhole to manhole segment inspections are complete unless there is a NASSCO structural, O&M or construction defect that prevents the Contractor from completing the inspection. The exception to this will be in the instance where a segment inspection cannot be completed because the distance between access points is greater than the specified length of CCTV inspection cable. This may be caused by a manhole that is not constructed as shown on the mapping, is buried or otherwise reasonably inaccessible, or due to the actual distance between access points.
- F. Obstructions:
1. If, during the inspection operation, the television camera will not pass through the entire sewer line section, the equipment shall be removed and repositioned in a manner so that the inspection can be performed from the opposite manhole.
  2. If, again, the camera fails to pass through the entire pipe section, the Contractor shall attempt to make a determination as to the reason for this failure. The Contractor shall notify the Construction Manager of the failure and immediately (within one work day) submit a DVD or portable hard drive of digital data record and the hardcopy inspection report to the Construction Manager with the Contractor's determination for the failure.
  3. Within two working days from receipt of the digital video data and the related inspection report, the Construction Manager will advise the Contractor if:
    - a. The complete cleaning will occur and only post-cleaning video inspection will be required or
    - b. The section(s) is to be cleaned immediately so that the initial televising can proceed.
  4. The Contractor shall not receive any additional compensation for work delays, re-mobilization or the re-scheduling of the work due to obstructions that prevent televising from being completed.
  5. If the Construction Manager determines that the failure is due to a structural consideration (i.e., crushed or collapsed pipe, protruding break-in connection), the inspection shall be considered complete. No additional inspection or cleaning work will be required in this case, and reimbursement to the Contractor for this line segment shall only consist of the bid item unit price.

6. If the Construction Manager and Owner determine that cleaning of the line section is not required, the section shall be considered complete and no additional inspection or cleaning work will be required. Reimbursement to the Contractor for this line segment shall only consist of the cleaning bid item unit price.

G. Removal of Equipment That Becomes Stuck in a Sewer

1. Per Contractor's emergency plan, advise the Construction Manager immediately if equipment becomes lodged, lost, or uncontrollable within the sewer. Contractor shall initially attempt to remove such equipment, using whatever legal and safe means are necessary, for at least 4 hours. Following this initial attempt, advise the Construction Manager if the equipment cannot be freed and mark the position on the surface over the sewer where the equipment is lodged or lost. Accuracy of the measurement shall be attained by use of a surveyor wheel, walking meter, roll tape, or other suitable and calibrated device.
2. The Construction Manager will communicate to ALCOSAN that the equipment cannot be freed and the need to arrange to have an excavation made to the top of the sewer where the equipment is lodged or lost. The Contractor will be responsible for coordinating recovery efforts with the owner of the sewer and the Construction Manager.
3. The Contractor will arrange to have an excavation made to the top of the sewer where the equipment is lodged or lost within 12 hours of the time the equipment became lodged or lost.
4. Construction Manager shall be present during the excavation, and once the top of the sewer is exposed and the excavation is secured, Contractor shall remove the top of the sewer pipe and retrieve the equipment lodged or lost in the sewer.
5. The Contractor will arrange to have the sewer repaired and site restored after removal of the equipment that was stuck.
6. Contractor will pay costs, including bypass pumping, associated with excavating down to the top of the sewer pipe, repairing the sewer after inspection equipment has been removed, backfilling the excavation and restoring the surface. Backfilling, sewer repair, and surface restoration work will be completed in a manner that complies with the construction standards of the Municipality, Authority, or Agency that owns the sewer and / or the surface features disturbed during the work. Repair, backfill, and surface restoration will be completed in the same day.
7. The Contractor shall not receive any additional compensation for equipment recovery / replacement costs, other incidental costs, work delays, re-mobilization or the re-scheduling of the work should the equipment become stuck.

8. Contractor shall repeat inspection and cleaning of the sewer in accordance with the Contract Documents to remove backfill and debris that may have entered the sewer during removal of the equipment and subsequent repair of the sewer.
9. No payment or extra time will be given for equipment downtime and attempted or completed equipment retrieval.

#### H. Observed Failures During Inspections

1. Notification of emergency conditions: Inspection crews shall immediately notify Construction Manager and on-site representative of any defects or site conditions posing imminent danger to the public, such as missing lids, covers with existing fractures, covers broken during the work, severely deteriorated structures, sink holes, etc.; structural defects that could lead to collapse of the pipe including collapsed pipe, broken pipe, deformed pipe, holes with exposed soil or voids, etc.; and any observed O&M defects such as root masses, debris, grease accumulation, etc. blocking 50% of the pipe that could cause pipe blockages, flooding or potential overflow conditions. The Construction Manager should be notified of missing MH access covers even if an internal cover access cover is present.
2. The Contractor shall take at least two photographs of the defect or site condition and provide it to the Construction Manager or on-site representative. As necessary, the contractor and on-site representative will coordinate to provide related information to the Construction Manager. The Construction Manager will be responsible for notifying the municipality of the defect or site condition. The Contractor will accompany the Construction Manager or on-site representative to the local municipality as required to discuss the defect and possible remedies to address and fix the defect.
3. Contractor shall, on a daily basis, notify the Construction Manager of all NASSCO Grade 4 or 5 defects and provide a digital pan and tilt photo (CCTV inspection) or image (sonar) of the defect as well as a digital photo or image of the defect taken down the long axis of the pipe. The Contractor shall ensure the Operator checks and measures the ovality of the pipe at the locations of NASSCO Grade 4 or 5 defects. Stop the camera and position it to provide a steady two (2) second perpendicular view of connections, junctions, major branches and major defects including deformed sewers, displaced bricks, holes, large displaced joints, missing bricks, missing mortar, obstructions, and large open joints.
4. The camera must be properly oriented to observe conditions in an upright condition, and will pan across all NASSCO Grade 4 or 5 defects and any connections, including residential and commercial taps, that are observed. Once NASSCO Grade 4 or 5 defects and/or connections have been reviewed, the camera must pan to its neutral head-on position prior to continuing the segment inspection. Under no circumstances should the inspection platform

- continue while the camera is in the panned position, otherwise the inspection may be rejected by the Construction Manager.
5. Capture digital photograph (CCTV inspection) or digital images (sonar) as required by the Contract Documents, and notify the Construction Manager immediately when a flow disparity, clear water infiltration, hole or missing bricks, collapse, void or deformation >10% is observed during the sewer or manhole inspection. Provide the captured images to the Construction Manager at the end of each work day.
  6. The Construction Manager will communicate, to the owner of the sewer, that NASSCO Grade 4 or 5 defects have been discovered and there exists a need for the performance of emergency sewer or manhole repairs as soon as possible if the inspection cannot be completed or the sewer or manhole condition poses an immediate operational or safety concern.
  7. The owner of the sewer will arrange for protection of the site and the performance of emergency sewer or manhole repairs of pre-existing defects, if required, as soon as possible if the inspection cannot be completed or the sewer or manhole condition poses an immediate operational or safety concern.
  8. The Contractor will be responsible to protect the site and perform emergency repairs for any defects or damage caused by the Contractor to municipal infrastructure during the execution of the work. The Contractor should terminate work at that specific site so that protection of the site and emergency repairs can be completed immediately. No additional payment or schedule extensions shall be made for the completion of repairs of defects or damage to municipal infrastructure caused by Contractor.
  9. Carry out inspection of other sewers not affected by the observed failure. Complete inspection of the sewer when notified by the Construction Manager that it is permissible to do so.
  10. Repeat inspection and cleaning of the sewer in accordance with the Contract Documents if required to remove backfill and debris that may have entered the sewer during emergency repairs.
- I. Pre-cleaning and progress internal CCTV inspections are not required and considered incidental to the pipe cleaning bid item unit costs.
  - J. Work should not be completed during wet-weather events and will not be initiated until at least 24-hours after a wet weather event occurs.
  - K. Whenever non-remote powered and controlled winches are used to pull the television camera through the line, telephones, radios, or other suitable means of communication shall be set up between the two manholes of the sewer line being inspected to ensure that good communications exist between members of the crew.
  - L. Measurement for location of defects shall be above ground by means of a meter device. Marking on cable, or the like, which would require interpolation for depth

of manhole, shall not be allowed. Measurement meters shall be accurate to two tenths of a foot over the length of the sewer line section being inspected. Accuracy of the measurement meters shall be checked daily by use of a walking meter, roll tape, or other suitable device.

- I. The Contractor shall use a CCTV camera mounted locating sonde to identify the location of buried, unmapped, or unlocated manholes with surface access or mapped pipe junctions without surface access. Unmapped pipe junctions will not be located using the locating sonde

The contractor will mark the pavement and / or ground surface with paint, or otherwise record the location of the signal so that the manhole or junction can be inspected and / or GPS located.

- M. Sonar Inspection: This is appropriate when the pipes will remain in continuous, uninterrupted service at all times during the inspections and will be completely full of wastewater. Some interceptors – including siphon pipes – cannot be dewatered to make visual inspections. . Sonar equipment may be used in conjunction with an internal CCTV inspection for partially full pipes, at the direction of the OWNER. The Contractor’s equipment must be capable of operating under full-pipe conditions, with the interceptor in continuous service, and with the pipe velocities associated with continuous service. These interceptors will not be dewatered, nor will the operation of the interceptors be disrupted to facilitate the inspections. All ancillary equipment, labor, and appurtenances required for execution of the Work shall be provided.

1. The Scanning Unit shall provide real-time continuous scanning for the entire duration of the inspection. The system shall be capable of lengths over 2,500 feet to provide the extended range required because of the limited number of access sites along the interceptor system.
2. The sonar shall be digital, multi-frequency profiling sonar that supports a range of frequencies from 600 kHz to 1.0 MHz for example. The sonar shall be tunable across the full frequency range in 5 kHz steps.
3. Sonar Software shall be configurable to allow for changes in pipe shape and size without requiring removal of the sonar from the pipe system.
4. The equipment shall be capable of providing real-time continuous images of the conditions encountered in the interceptors. The images must be continuously displayed on a color monitor and must be stored on a DVD disk or portable hard drive. The stored images must be able to be post analyzed for cursors to be overlaid and measurements to be taken. The stationing along the inspected interceptor pipe shall appear on all video images. The stationing origin (Sta.0+00) shall be identified in the written

report for each inspected section. Manholes and structures must correspond to the ALCOSAN reference drawings.

5. The equipment must allow the accurate quantification of solids accumulation, sectional area loss, joint separation, and other structural flaws that may exist. The equipment must allow the accurate location of all encountered problems and defects along the interceptor system, and where sediment and gravel has accumulated. The equipment must allow for the accurate measurement of debris levels or obstruction dimensions from the inside diameter of the pipe.

### 3.2. RECORDING OF FIELD OBSERVATIONS

- A. All digital data records shall reference and correspond to the mapping and naming conventions provided by the Construction Manager for each pipeline segment to be cleaned and inspected. Recordings shall be made of the inspections and copies of both the recordings, digital NASSCO PACP exported database, and printed inspection logs shall be supplied to the Construction Manager.
- B. CCTV/Sonar Inspections
  1. Software: The Contractor shall use WinCan VX or similar PACP Certified NASSCO V 7.0 software and shall submit complete literature for other proposed pipeline televising inspection software for review and approval of the Construction Manager prior to its use.
  2. Reports: Prepare a television inspection report covering the television inspection work and the information acquired.
  3. Report sewer defects in accordance with the National Association of Sewer Service Companies (NASSCO) program known as Pipeline Assessment and Certification Program (PACP). The Construction Manager reserves the right to refuse any inspection report that does not comply with the reporting requirements.
    - a. Contractor should identify ground water infiltration into service laterals in the comments section for each lateral identified. The infiltration should be identified in the comments as "LGWI, Lateral Groundwater Infiltration."
  4. CCTV video header information will be recorded for each pipe segment video and will be displayed for a minimum of 30 seconds at the start of all inspections. Inspection of the sewer shall not proceed while the information screen is displayed. The data must be presented in a format with white text on a black background. The following information will be provided in the video header.
    - a. Contract Number: 1795
    - b. Date: Date inspection was completed. Format: MM-DD-YYYY.

- c. Time: Time survey was initiated. Format: 24-hr military, HH:MM:SS.
  - d. Surveyed By: Name of PACP certified inspection operator conducting the inspection.
  - e. Survey Number: NASSCO certificate number of the operator conducting the inspection.
  - f. Company: Name of company completing the inspection.
  - g. Start MH ID: ID number of the MH where the inspection is initiated.
  - h. Finish MH ID: ID number of the MH where the inspection is ended.
  - i. Street: Street in which a majority of the sewer being inspected is located. Enter "ROW, (Street Name)" if sewer is not in the road but is in close proximity to a readily identifiable street. Enter "ROW" if sewer is not in close proximity to a readily identifiable street.
  - j. Start Location: Physical address, intersection or nearest landmark that can be used to readily identify the location of the start MH.
  - k. Survey Direction: Direction of inspection in relation to flow in the sewer; Upstream or Downstream
  - l. Material: Material composition of sewer being inspected. Format: NASSCO PACP code.
  - m. Height: Nominal sewer dimensions. Pipe diameter if circular, height if non-circular.
  - n. Width: Nominal sewer dimensions. Maximum width if non-circular.
5. Inspection form header and detail sections shall comply with NASSCO PACP guidelines. The following additional information will be included in the inspection form header.
- a. Time: Time survey was initiated. Format: 24-hr military, HH:MM:SS.
  - b. Length Surveyed: Actual length of sewer inspected.
  - c. Media Label: The name of the video file for the sewer inspection.

- d. Empty Header: Reason why the inspection could not be performed.
6. Inspection forms shall be completed and submitted for all pipe sections requiring inspection, including those for which an actual inspection cannot be initiated. Inspections that are not initiated will be confirmed with the Construction Manager. Reasons for non-initiation of an inspection include sewers that the contractor cannot gain access or when the Contractor is directed not to conduct an inspection.
- a. An “empty header” or “0-ft MSA” inspection should be completed for segments that cannot be inspected for reasons such high flow, depths or velocities, inaccessibility to the sewer due to inaccessible or unlocated access structures, heavy debris, Construction Manager or ALCOSAN direction, etc. A CCTV inspection report header will be created according to the project specifications. The contractor will abandon the survey at a distance of 0-ft inspected and provide a general comment that describes the reason that the inspection cannot be conducted.
  - b. An “empty header” should also be created for reversal inspections that cannot be completed. Contractor should record at least one photo documenting conditions preventing the inspection of the pipe segment.
7. Recordings: The purpose of digital recording shall be to supply a visual and audio record of full, manhole to manhole, sewer segments that will identify all defects. The recordings may be replayed, analyzed, mapped, and reported by the Construction Manager using the WinCan software.
- a. Playback shall be at the same speed that it was recorded. Slow motion or stop motion playback features shall not be permitted under this contract.
  - b. Digital Format Video Recordings will be captured and issued in digital format in color from the live video source on digital video discs, DVD-R format to the following minimum requirements and later transferred to adequately sized portable hard-drives for submission. Adjust requirements as required to achieve the specified lines of resolution.
  - c. XSVD MPEG-2 format.
  - d. Data/Bit Rate: MPEG-2 @ 3.0 M-bits/sec.
8. Obtain digital video inspections from first generation recordings using video capture equipment capable of capture with no frame loss.
9. Submit one complete single digital file for each inspection. Produce the final file in one of the following ways:
- a. Capture the original recording continuously using a computer system and video capture card regardless of the progress of the inspection. Edit the original raw digital file before submission to remove the pauses where inspection progress is not continuous. or



- b. Capture the original recording intermittently using a computer system and video capture card. Edit the original raw digital file before submission to form one continuous file. or
  - c. Capture original recording with specialized video recording equipment capable of pausing and resuming live recording to produce a single file for submission.
  - d. Edit digital videos using non-linear video editing software. Do not recompress edited digital files.
  - e. Each digital file shall be a single structure to structure sewer segment inspection. Multiple segment inspections will not be submitted in a single file. Video files containing more than one segment inspection will be rejected and reinspected at no additional cost.
10. Provide file names containing up to a maximum of 64 characters for each digital video and photographs files as follows:
- a. Video:  
AssetID\_StartingMH\_US/DS\_MMDDYYYY\_HHMM.VideoExtension
  - b. Photo:  
AssetID\_MMDDYYYY\_HHMM\_ObservationPosition\_DefectCode.PhotoExtension
  - c. Database:  
Contract\_Operator\_Package\_MMDDYYYY.DatabaseExtension

Where:

AssetID: ALCOSAN’s name for the pipe or manhole, as provided to the Contractor in the GIS shapefiles.

StartingMH: ID number of the MH where the inspection is initiated.

US/DS: Direction of inspection in relation to flow in the sewer; Upstream (US) or Downstream (DS)

MMDDYYYY: Date inspection was completed. 2-digit month; 2-digit day; 4-digit year. For example, June 20, 2015 is 06202015.

HHMM: Military format time survey was initiated. 2-digit hour; 2-digit minute. For example: 2:53 PM is 1453.

VideoExtension: Type of video file (.mpg; .vlc etc.)

ObservationPosition: Clock position of the defect being described.

DefectCode: NASSCO PACP code applied to the defect being described.

PhotoExtension: Type of photograph or image file (.jpg; .bmp etc.)

Contract: Contract number of the inspection project. 1711

Operator: NASSCO certificate number of the operator conducting the inspection.

Package: Relates to the unique package of pipes created by ALCOSAN, to which the database applies.

DatabaseExtension: Type of database file (.mdb etc.).

11. Within 10 working days of the inspection, submit digital files of the original video inspections, the corresponding database, and required supplemental information to the Construction Manager on a portable hard drive. The data submittal will not be considered officially submitted until the information listed in this specification is provided to the Construction Manager and determined to be administratively complete.
12. Ensure that the entire inspection, including reverse inspections, of a particular sewer is contained on the same portable hard drive. Record reverse set-up inspections of a sewer immediately after the original inspection where possible. Provide explanation to Construction Manager where a reversal is not immediately possible.
13. The Contractor shall be required to have all recordings and necessary playback equipment readily accessible for review by the Construction Manager during the project.
14. The Contractor shall furnish all of the original recordings to the Construction Manager and ALCOSAN.
15. The Contractor shall keep a copy of the recordings for 120 days after the completion of the project, at which time the recordings may be erased at the Contractor's option.

### 3.3 ACCEPTANCE OF INSPECTIONS

- A. All final deliverables shall be submitted to the Construction Manager no later than 60 days from completion of sewer inspection activities.
- B. The Construction Manager and / or ALCOSAN will review inspection reports and video recordings to ensure compliance with the specifications within fifteen working days of submission. The Construction Manager may adjust the frequency of reviews based on the results of previous reviews.

- C. The Contractor shall submit a formal Inspection Report, in Digital, NASSCO PACP exported database formats, that summarizes all inspection activities and includes all inspection data in their raw format (unmodified NASSCO PACP exported database), logs, electronics reports, etc. noting defects and observations encountered during the inspection.
- D. The Sonar Inspection Report shall include the following information:
  - 1. Sonar Scanning inspection:
    - a. Graphical summaries of sediment thickness and cumulative sediment volumes in the trough of the pipe below the water line versus pipe location, and pipe capacity depicting actual versus original theoretical storage capacity.
    - b. Statistical average, minimum, and maximum values of sediment accumulation along the sewer, where appropriate, as determined by calculating the portion of the pipe obstructed by sediment and presented as a percentage of the pipe area.
    - c. Video file of sonar data in AVI file format.
    - d. An accompanying NASSCO PACP exported database separate from any CCTV database. The sonar database shall include all appropriate header information and any other discernable observations. In addition, “sonar” should be entered in the remarks field. Alternative database formats may be considered and approved by the Construction Manager.
- E. Re-perform preparatory cleaning and sewer inspections, at no additional cost to the Owner, where the Construction Manager or ALCOSAN has determined the requirements of the specification have not been satisfied.
- F. Correct non-compliant inspection submissions and resubmit the corrected inspections, or provide a Corrective Action Plan to address rejected or non-compliant data, at no additional cost, to the Construction Manager within ten working days of receiving comments regarding the acceptance or compliance of the submitted data, or as coordinated with the Construction Manager.
- G. Repeat the process, at no additional cost until the inspection submissions are accepted by the Construction Manager and ALCOSAN. The Contractor will not be paid for preparatory cleaning or inspection submissions that are not accepted by the Construction Manager or ALCOSAN.

END OF SECTION

**ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA**

**CONTRACT NO. 1795  
INVERTED SIPHON CLEANING 2024**

**ADDENDUM 1  
November 09, 2023**

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Attachment H – Contract Maps/Drawings with Additional Areas of Work

**ALLEGHENY COUNTY SANITARY AUTHORITY**

**PITTSBURGH, PENNSYLVANIA**

**CONTRACT DOCUMENTS**

**Including**

**MAPS /DRAWINGS**

**For**

**CONTRACT NO. 1795**

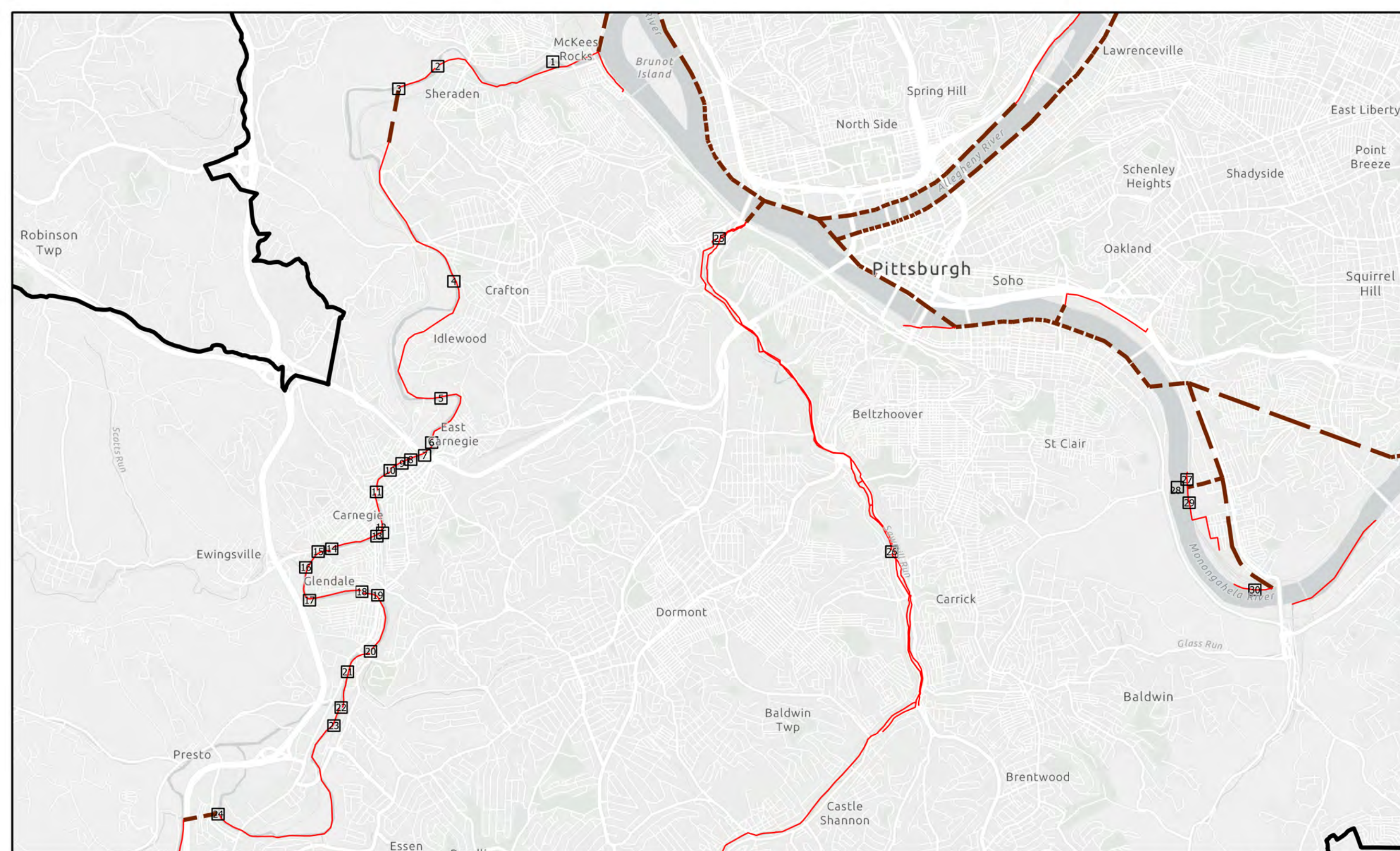
**Inverted Siphon Cleaning 2024**

**October 2023**

### Siphon Information Table

Siphon	Barrel Type/Count	Length (FT)	Diameter (IN)
C-08-RG to C-08-02	Double	270	14
C-13-12 to C-13-10	Single	310	36
C-13A to C-13-20	Single	155	36
C-21-RG to C-21-02	Double	380	8
C-26-RG to C-26-02	Double	290	10
C-30-08 to C-30-06	Single	340	42
C-31-RG to C-31-02	Double	410	8
C-34A-RG to C-34A-02	Double	330	12
C-35-RG to C-35-02	Double	290	10
C-36-02 to C-35-04	Single	190	42
C-38-08 to C-38-06	Single	220	42
C-41-RG to C-41-02	Double	290	8 to 12
C-42-RG to C-42-02	Double	290	8
C-44-12 to C-44-10	Single	225	42
C-45B-00 to C-45B-02	Double	430	10
C-46-RG to C-46-02	Double	320	8
C-47-06 to C-47-04	Single	205	42
C-48A to C-48A-02	Double	290	12
C-49-02 to C-48A-18	Single	235	42
C-50-02 to C-50-04	Double	310	10
C-50A-10 to C-50A-08	Single	185	42
C-50B-RG to C-50B-02	Double	220	8
C-54-14 to C-54-12	Single	140	24
S-03A to MH-S02	Triple	480	27 to 30
SMR44S-2 to SMR44S-1	Triple	630	24 to 36
RG102419301 to C-45B-08	Triple	590	4 to 8

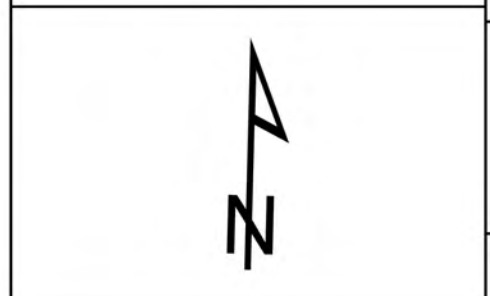
NOTES:  
 Influent Sewer Line to MH C-54-11 is now owned by ALCOSAN (Sheet 24)



# Locations of ALCOSAN Siphons for Cleaning

## Overall Siphon Cleaning Plan Legend

- ALCOSAN Siphon Cleaning Location
- ALCOSAN Service Area
- ALCOSAN Deep Tunnel Interceptor Sewer
- ALCOSAN Shallow-cut Interceptor Sewer



## CONTRACT 1795 INVERTED SIPHON CLEANING 2024

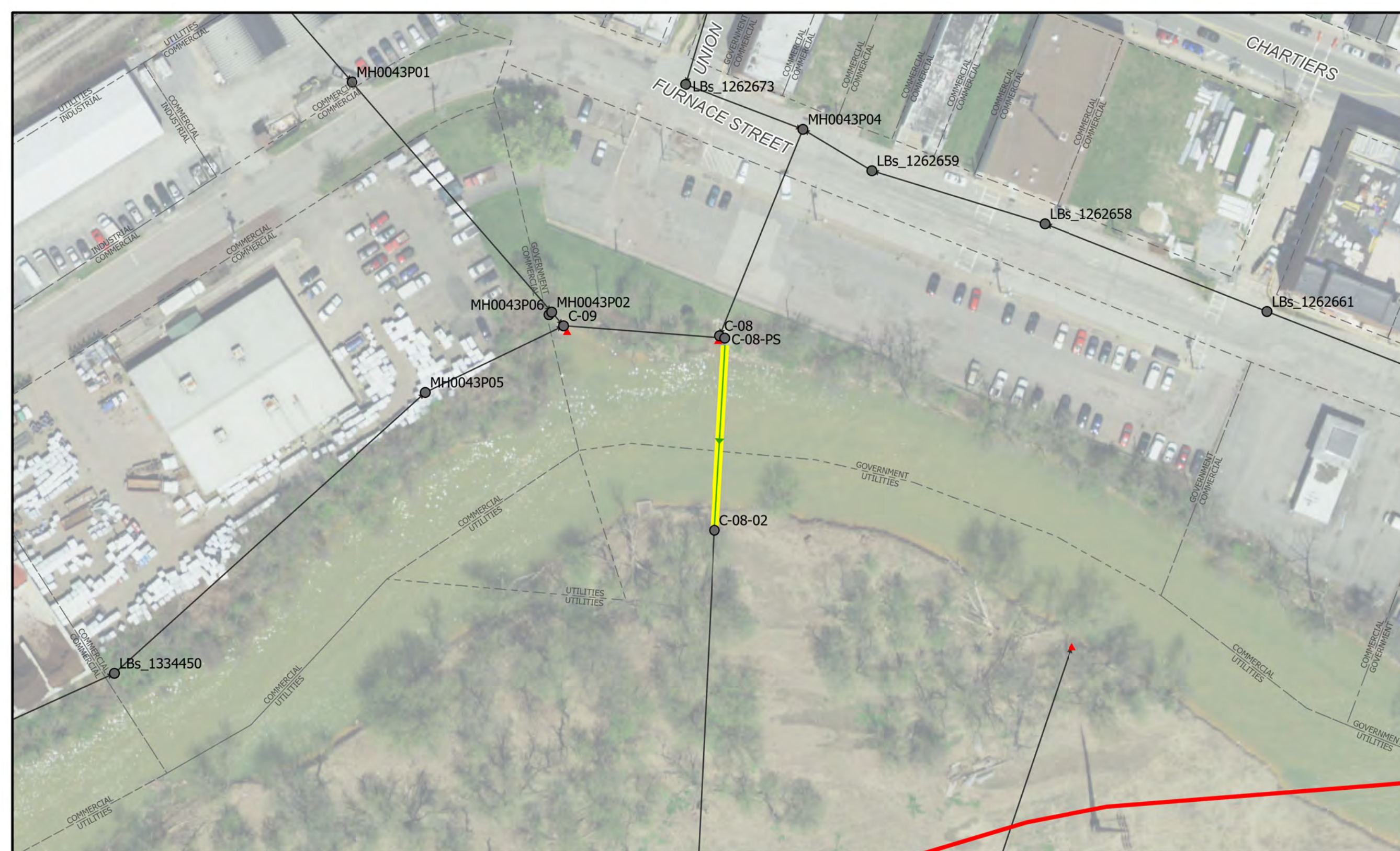
**CHARTIERS CREEK,  
 SAW MILL RUN,  
 &  
 MONONGAHELA RIVER**



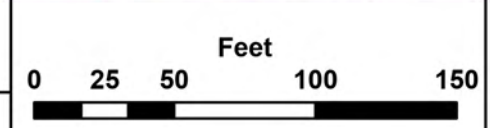
10/31/2023

OVERALL PLAN

NOTES:  
Double-Barrel, 8" x2, CAS



# C-08 Regulator to C-08-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**

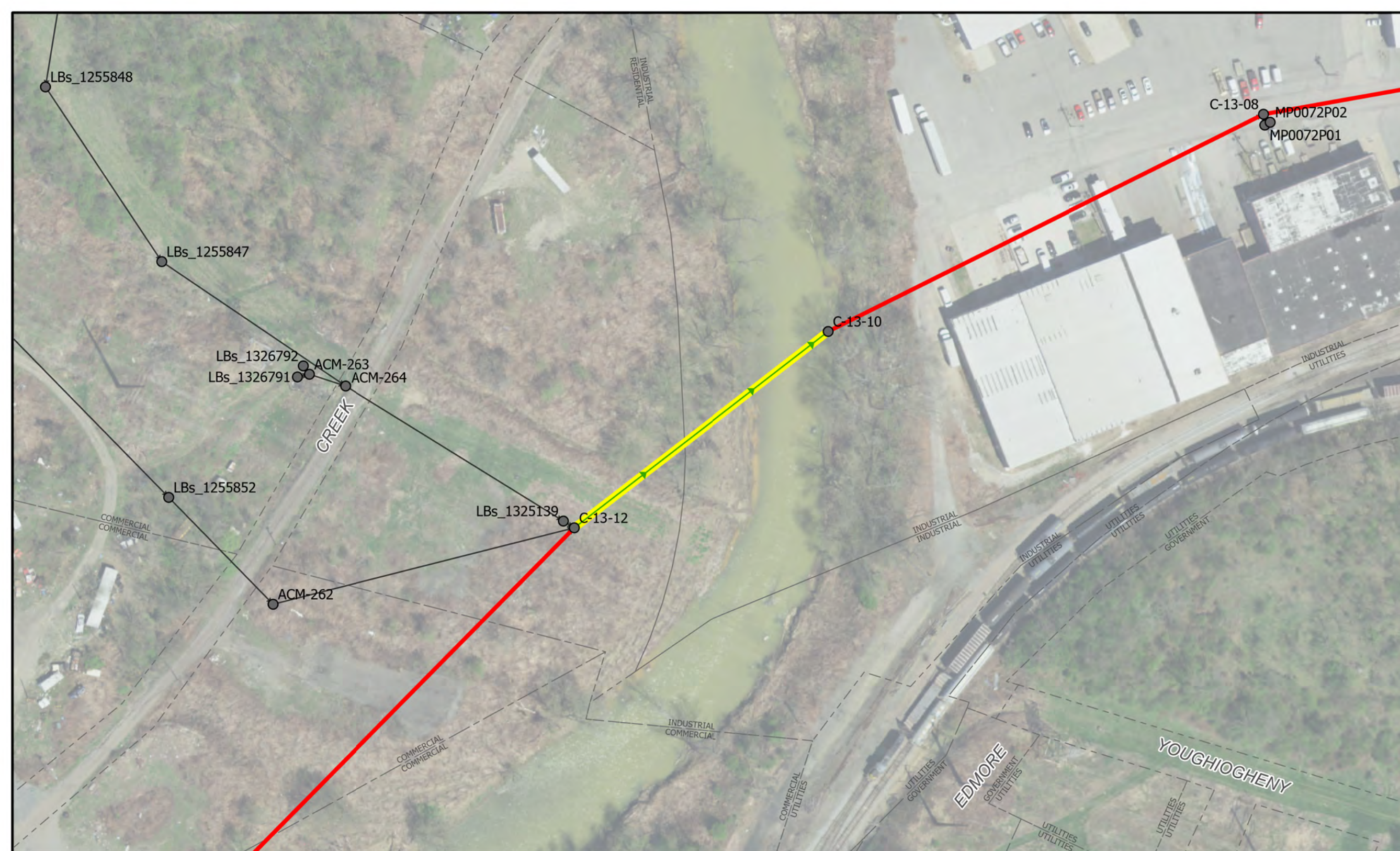


10/12/2023

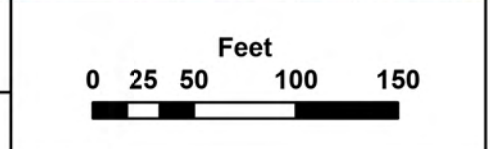
SHEET 1



NOTES:  
Single-Barrel, 36", RCP



# C-13-12 to C-13-10



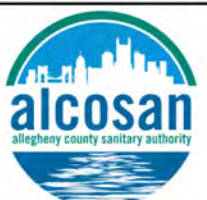
## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



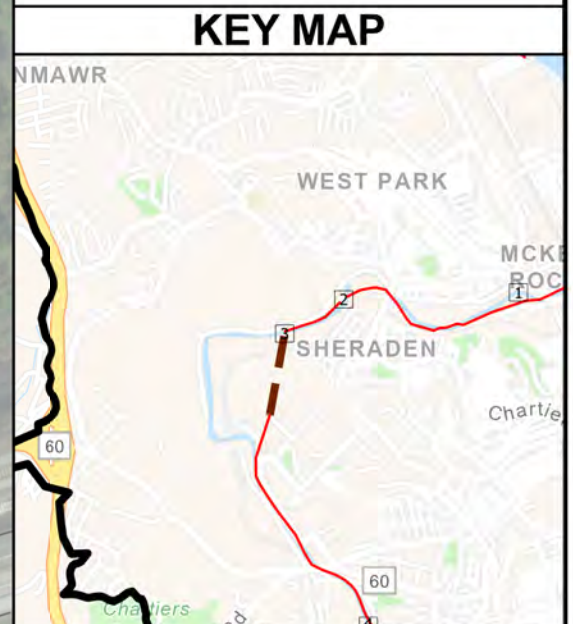
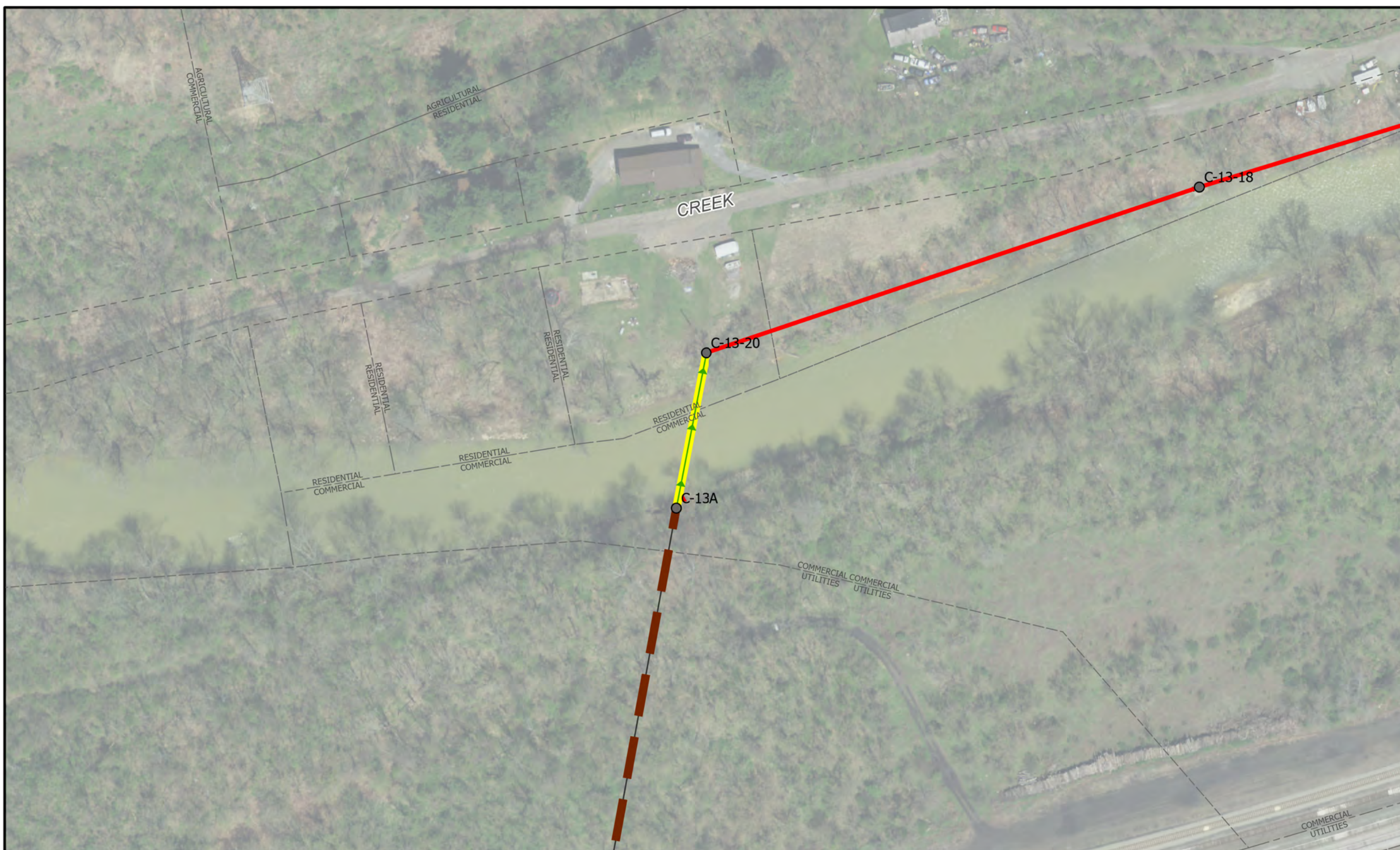
**CHARTIERS CREEK & SAW MILL RUN**



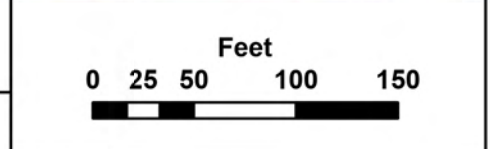
10/2/2023

SHEET 2

NOTES:  
Single-Barrel, 36", RCP

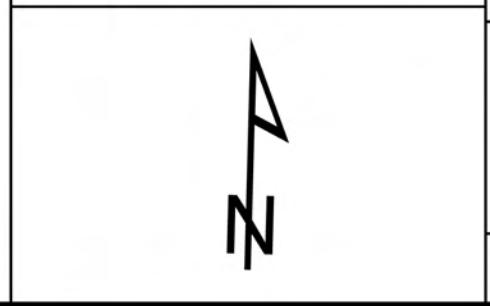


# C-13A to C-13-20



## ALCOSAN SIPHON CLEANING PLAN

Siphon Cleaning Legend			
ALCOSAN Siphon for Inspection	Existing Sewer Manhole	ALCOSAN Shallow-cut Interceptor Sewer Line	ALCOSAN Deep Tunnel Interceptor Sewer Line
Existing Sewer Pipe/Flow Direction	Existing Sewer Outfall	Existing Property Line	



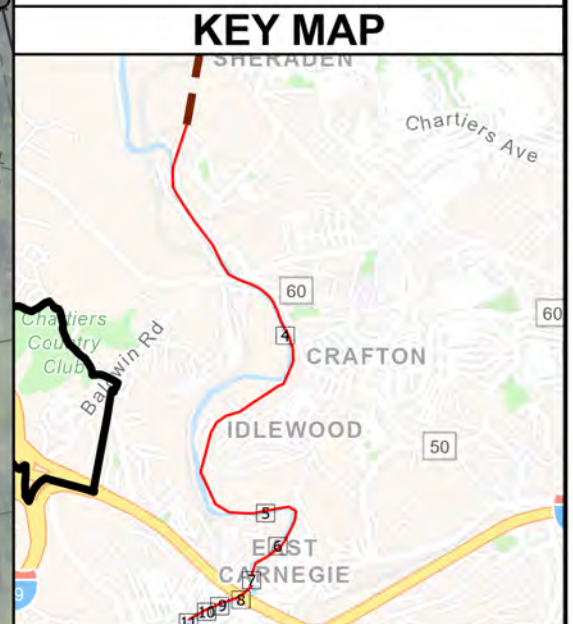
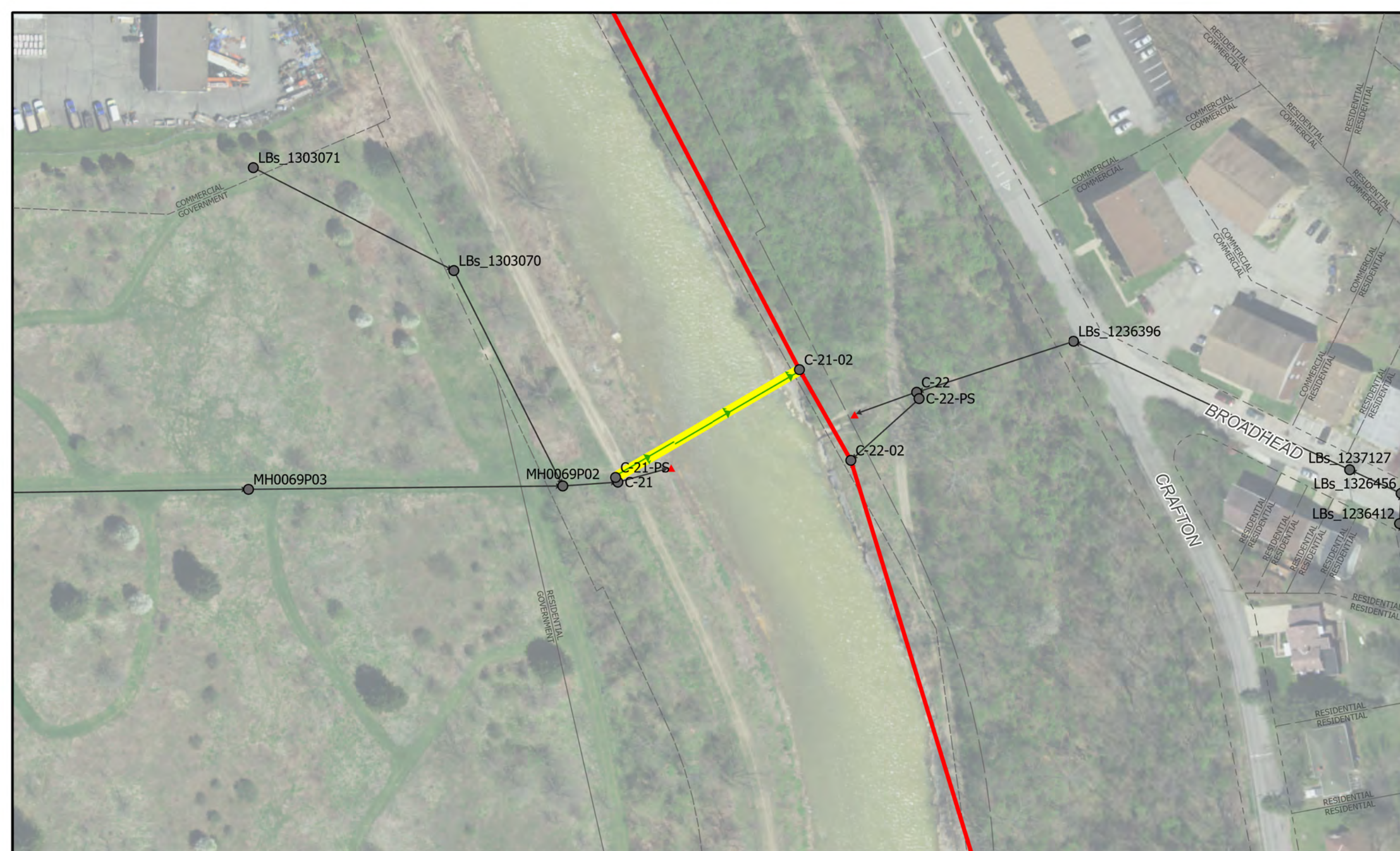
**CHARTIERS CREEK & SAW MILL RUN**



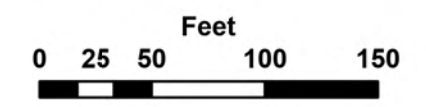
10/2/2023

SHEET 3

NOTES:  
Double-Barrel, 8" x2, CAS

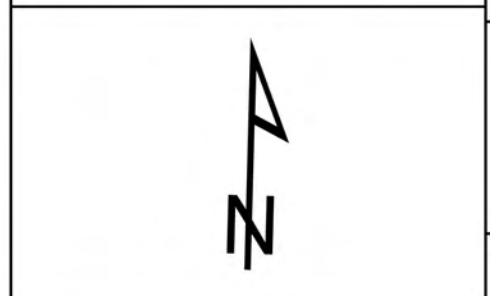


# C-21 Regulator to C-21-02



## ALCOSAN SIPHON CLEANING PLAN

Siphon Cleaning Legend			
ALCOSAN Siphon for Inspection	Existing Sewer Manhole	ALCOSAN Shallow-cut Interceptor Sewer Line	ALCOSAN Deep Tunnel Interceptor Sewer Line
Existing Sewer Pipe/Flow Direction	Existing Sewer Outfall		Existing Property Line



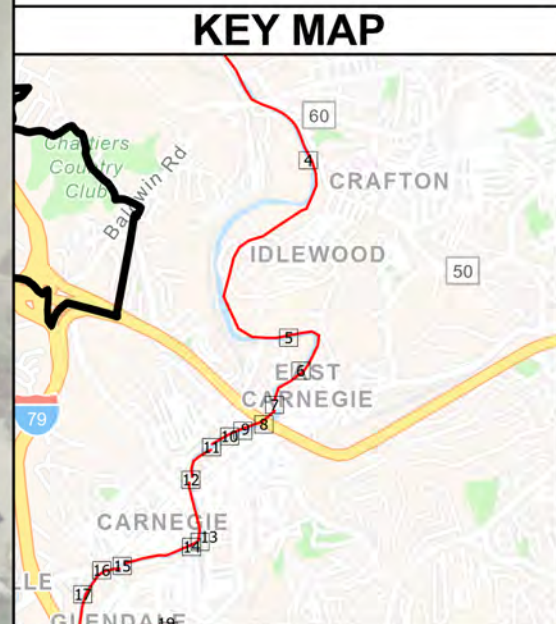
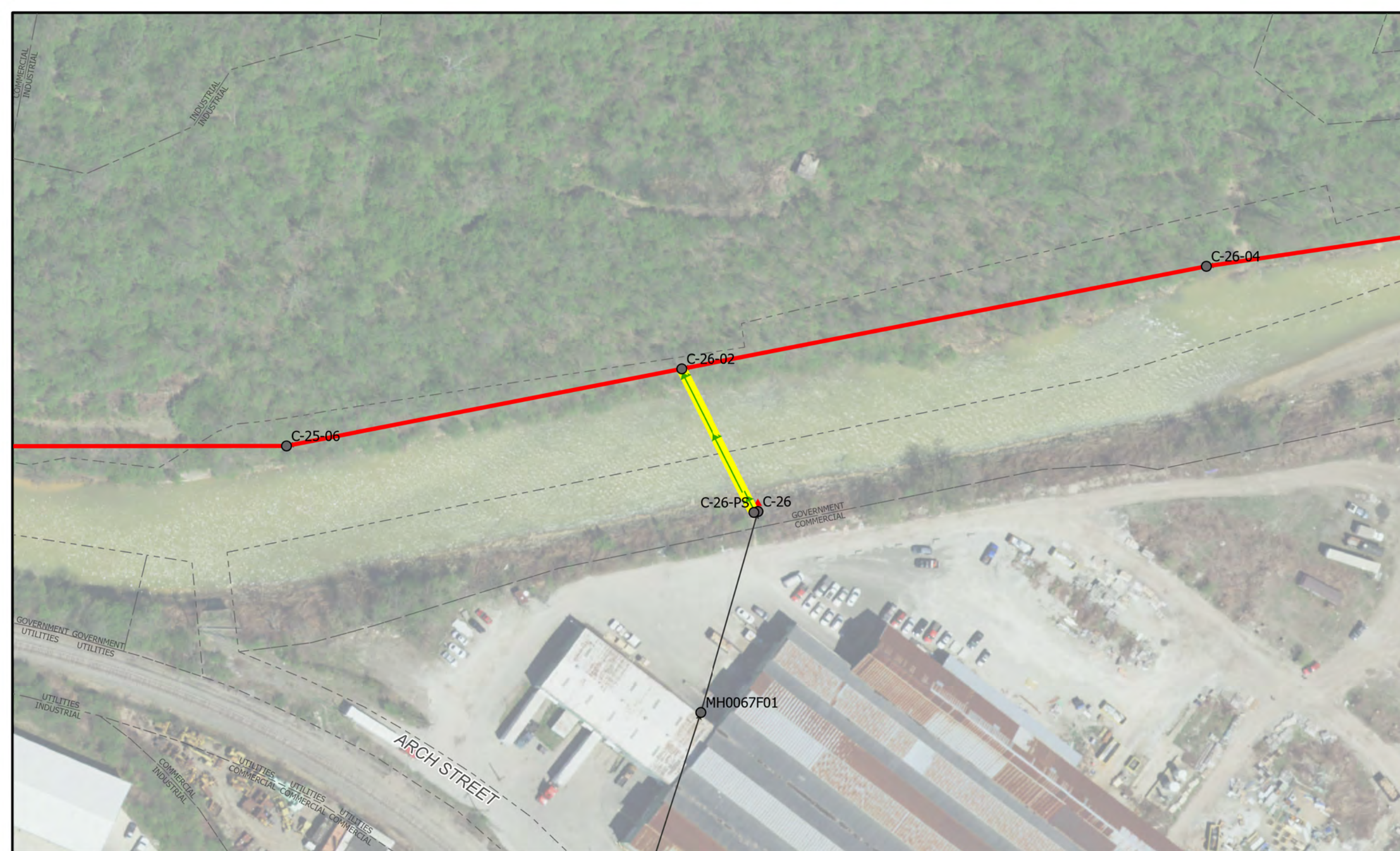
**CHARTIERS CREEK & SAW MILL RUN**



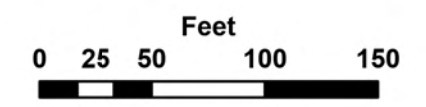
10/2/2023

SHEET 4

NOTES:  
Double-Barrel, 10" x2, CAS



# C-26 Regulator to C-26-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line



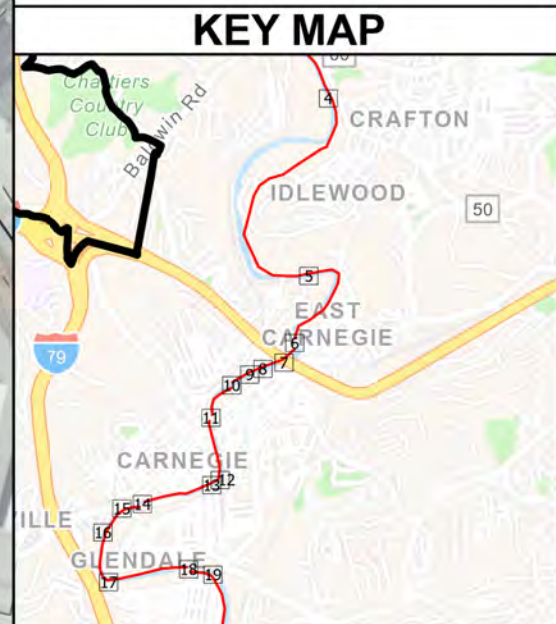
**CHARTIERS CREEK & SAW MILL RUN**



10/2/2023

SHEET 5

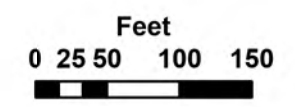
NOTES:  
Single-Barrel, 42", RCP



## C-30-08 to C-30-06

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



## ALCOSAN SIPHON CLEANING PLAN

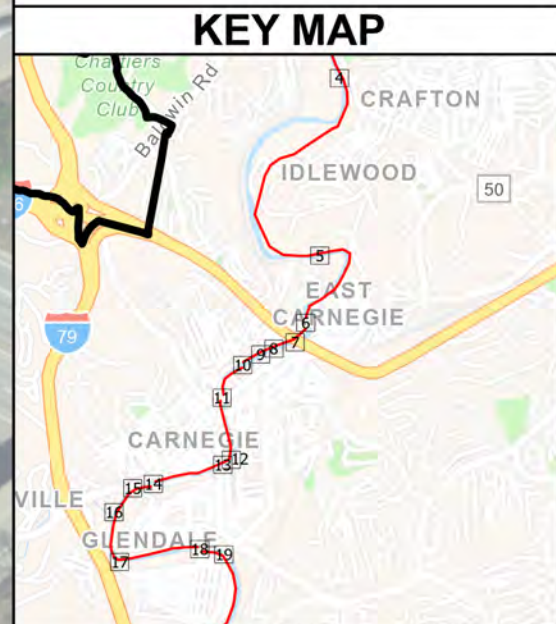
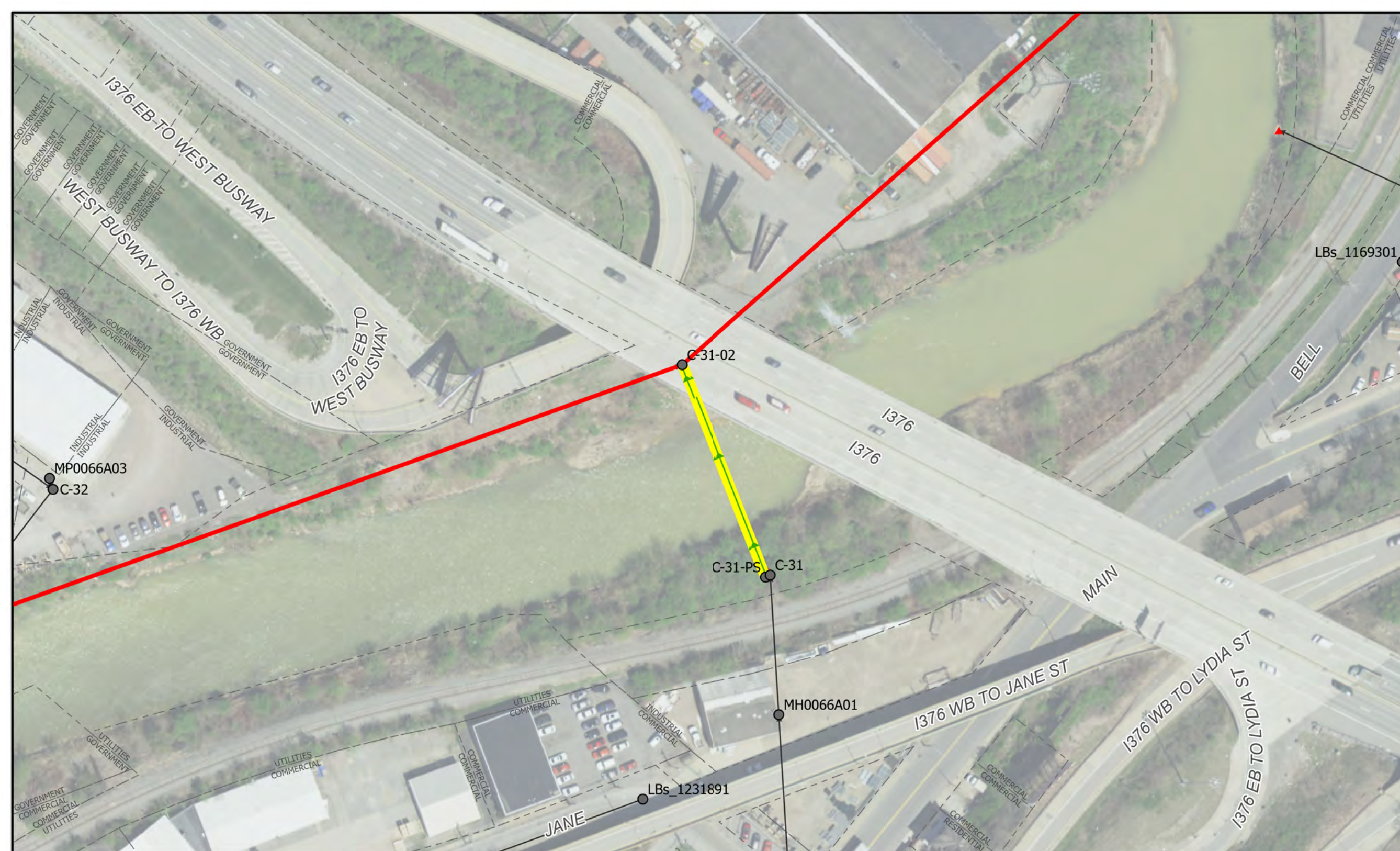
**CHARTIERS CREEK & SAW MILL RUN**



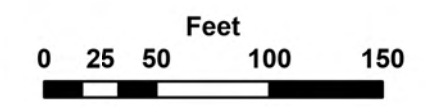
10/12/2023

SHEET 6

NOTES:  
Double-Barrel, 8" x2, CAS



# C-31 Regulator to C-31-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



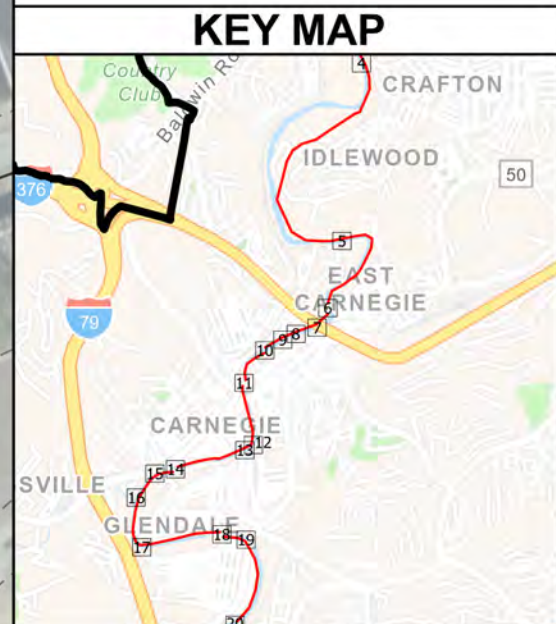
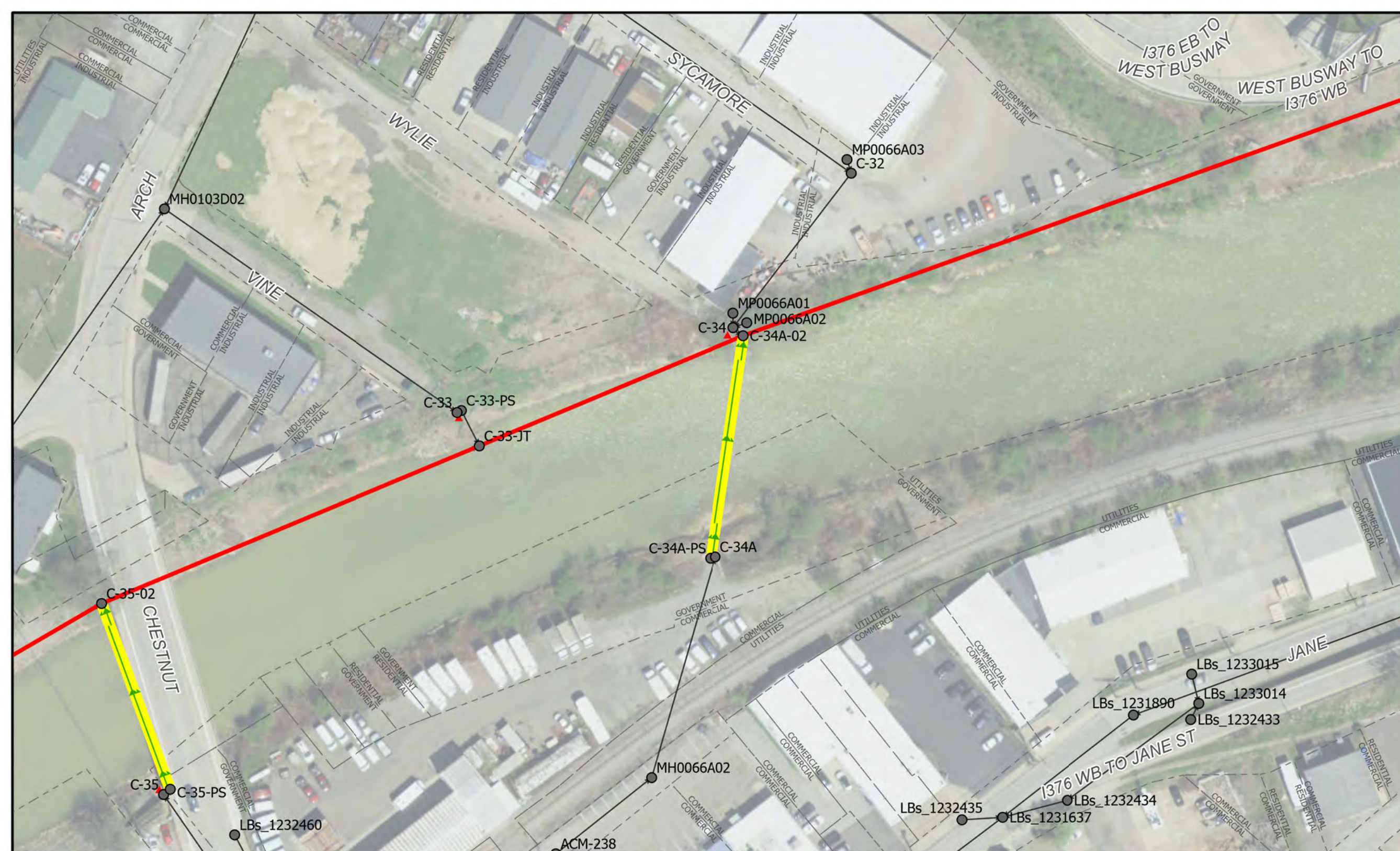
**CHARTIERS CREEK & SAW MILL RUN**



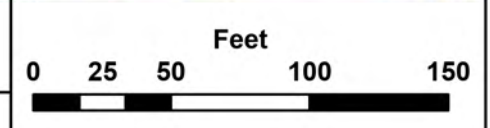
10/12/2023

SHEET 7

NOTES:  
Double-Barrel, 12" x2, CAS

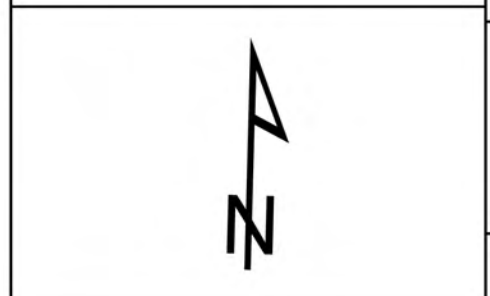


# C-34A Regulator to C-34A-02



## ALCOSAN SIPHON CLEANING PLAN

Siphon Cleaning Legend			
	ALCOSAN Siphon for Inspection		Existing Sewer Manhole
	Existing Sewer Pipe/Flow Direction		Existing Sewer Outfall
	ALCOSAN Shallow-cut Interceptor Sewer Line		ALCOSAN Deep Tunnel Interceptor Sewer Line
	Existing Property Line		



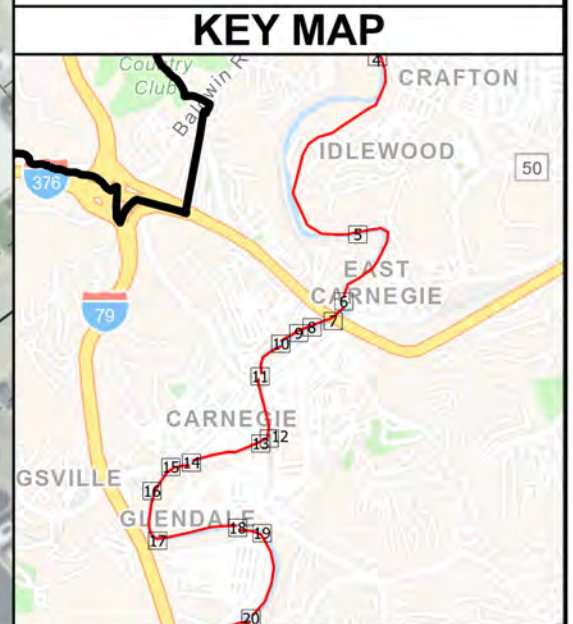
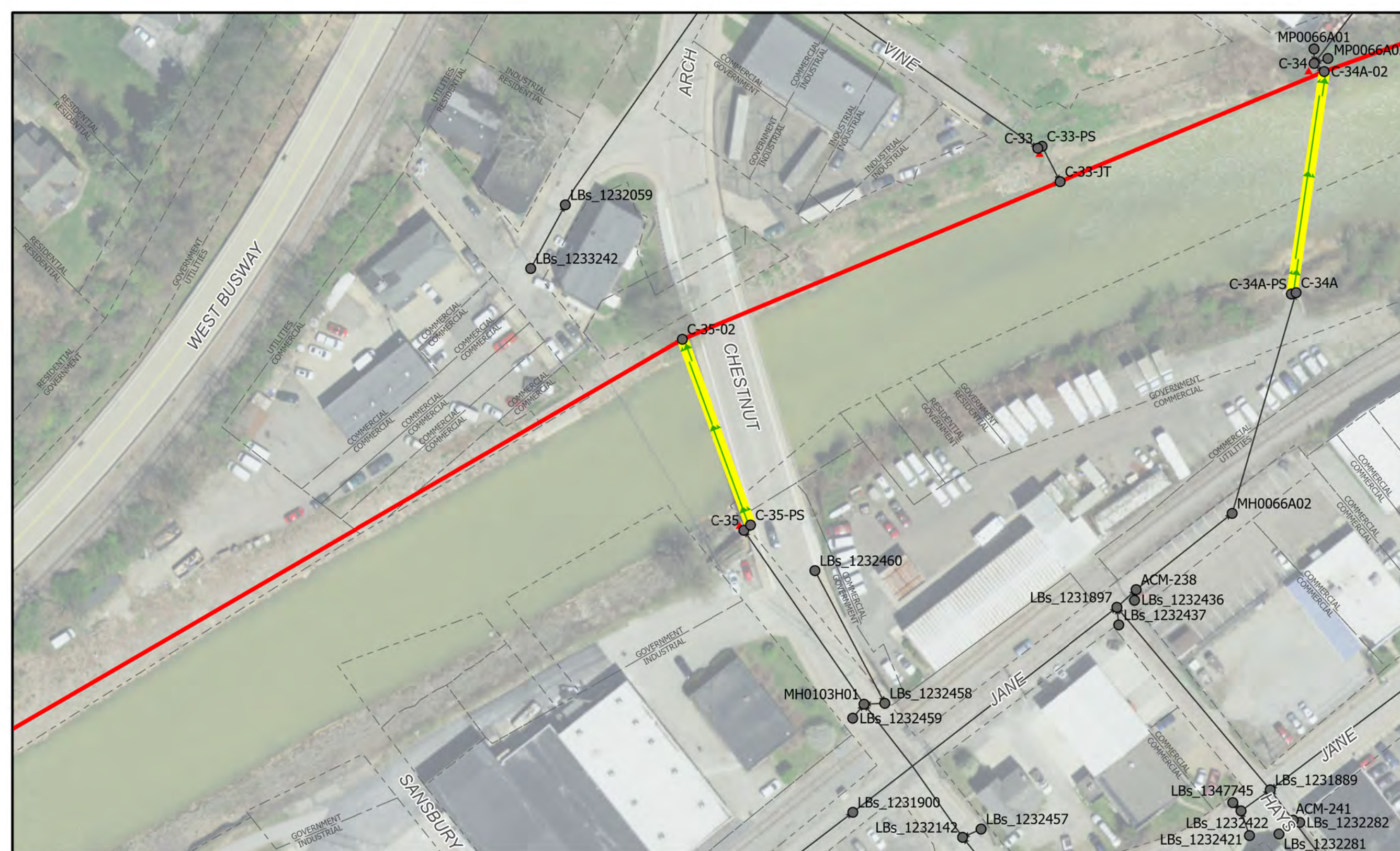
**CHARTIERS CREEK & SAW MILL RUN**



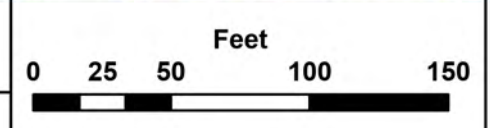
10/12/2023

SHEET 8

NOTES:  
Double-Barrel, 10" x2, CAS



# C-35 Regulator to C-35-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**

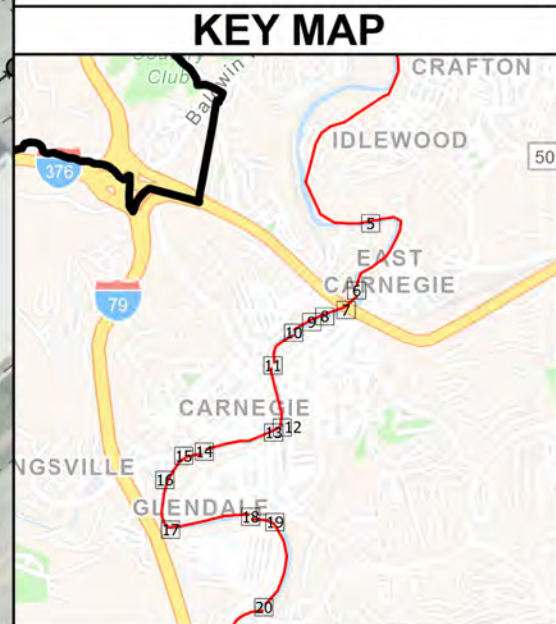
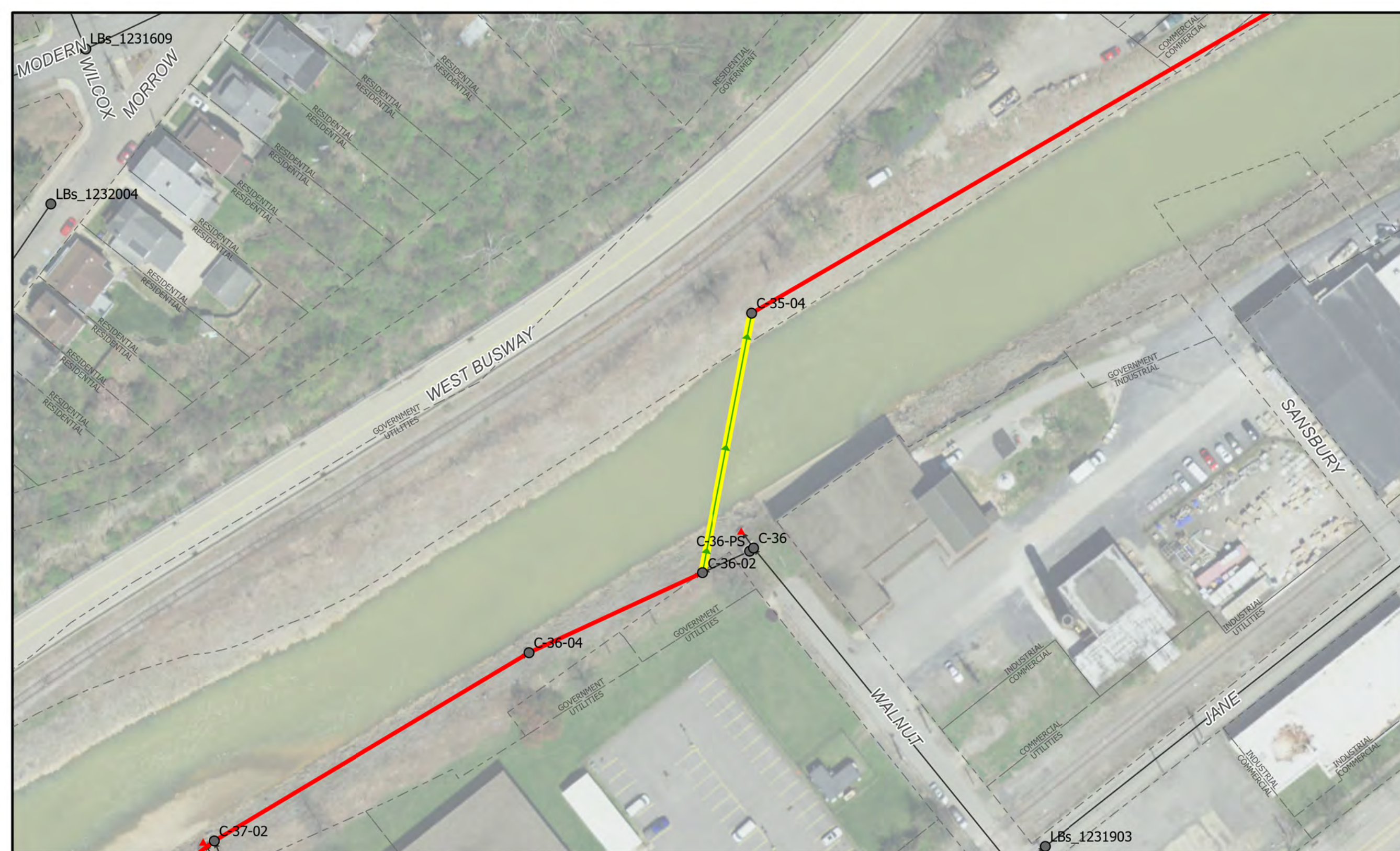


10/12/2023

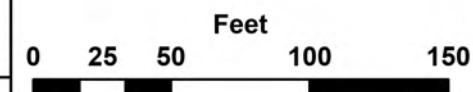
SHEET 9



NOTES:  
Single-Barrel, 42", RCP



## C-36-02 to C-35-04



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- |                                    |                        |  |  |
|------------------------------------|------------------------|--|--|
| ALCOSAN Siphon for Inspection      | Existing Sewer Manhole | ALCOSAN Shallow-cut Interceptor Sewer Line | ALCOSAN Deep Tunnel Interceptor Sewer Line |
| Existing Sewer Pipe/Flow Direction | Existing Sewer Outfall | Existing Property Line                     |  |



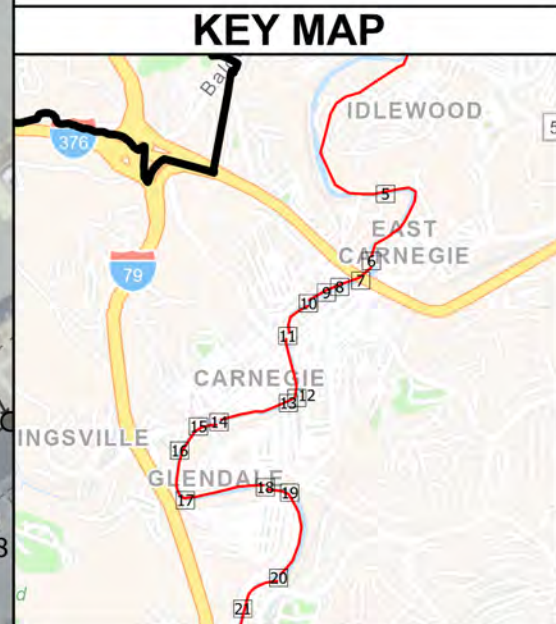
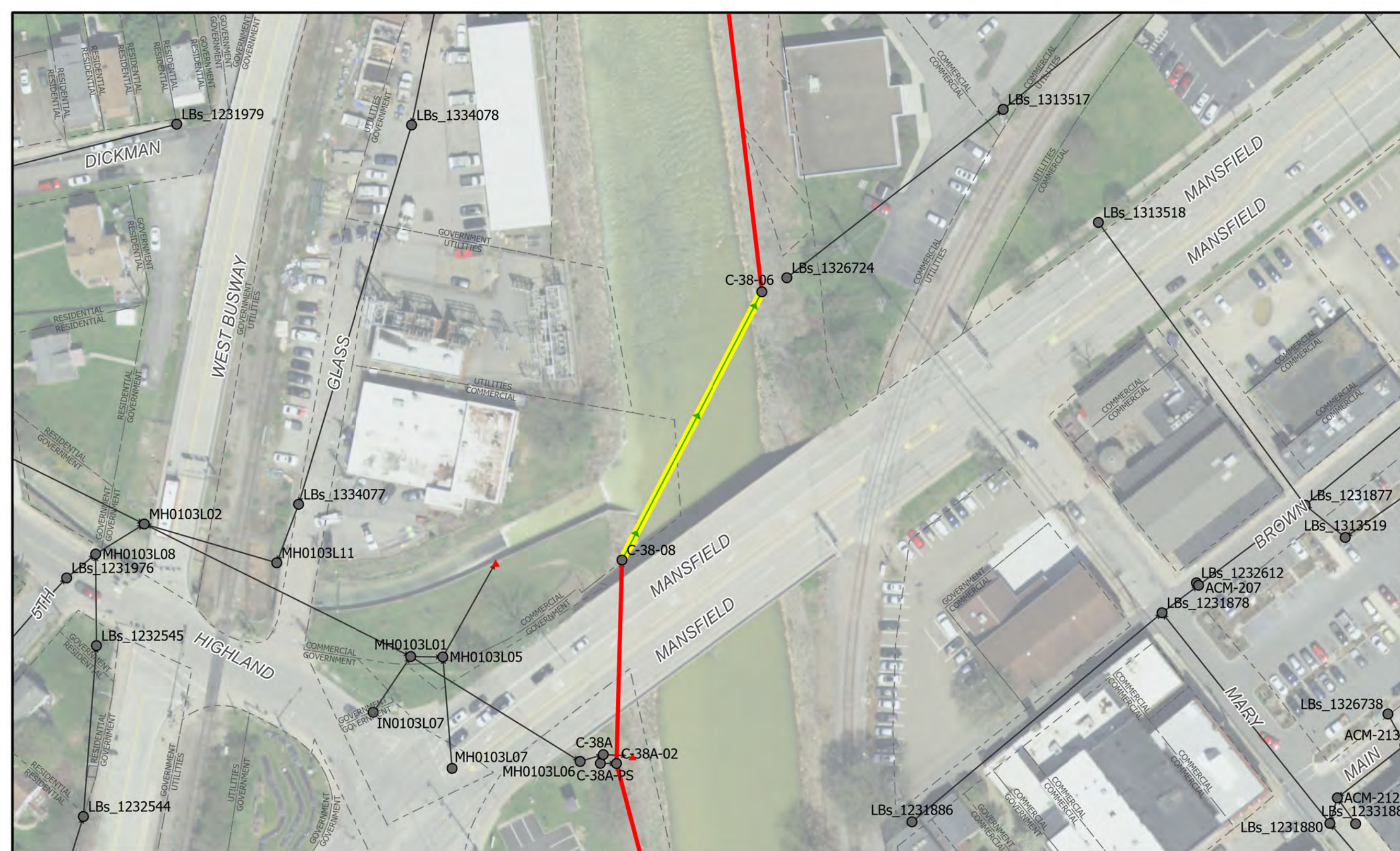
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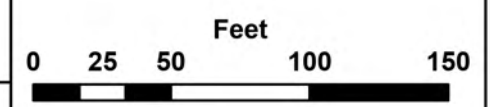
10/12/2023

SHEET 10

NOTES:  
Single-Barrel, 42", RCP



# C-38-08 to C-38-06



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



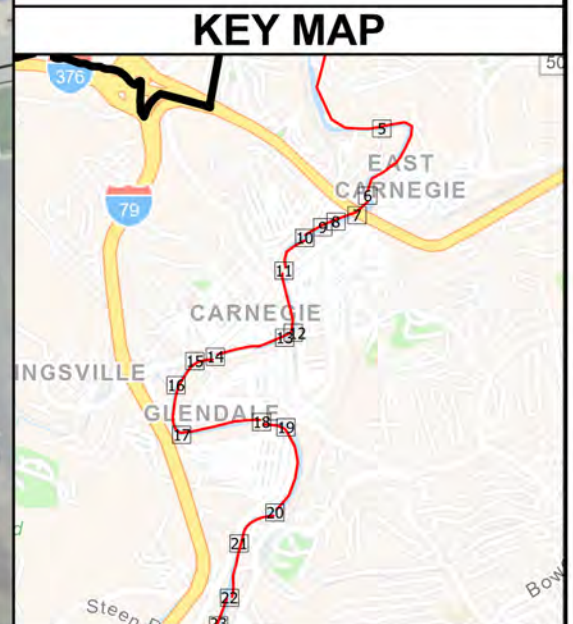
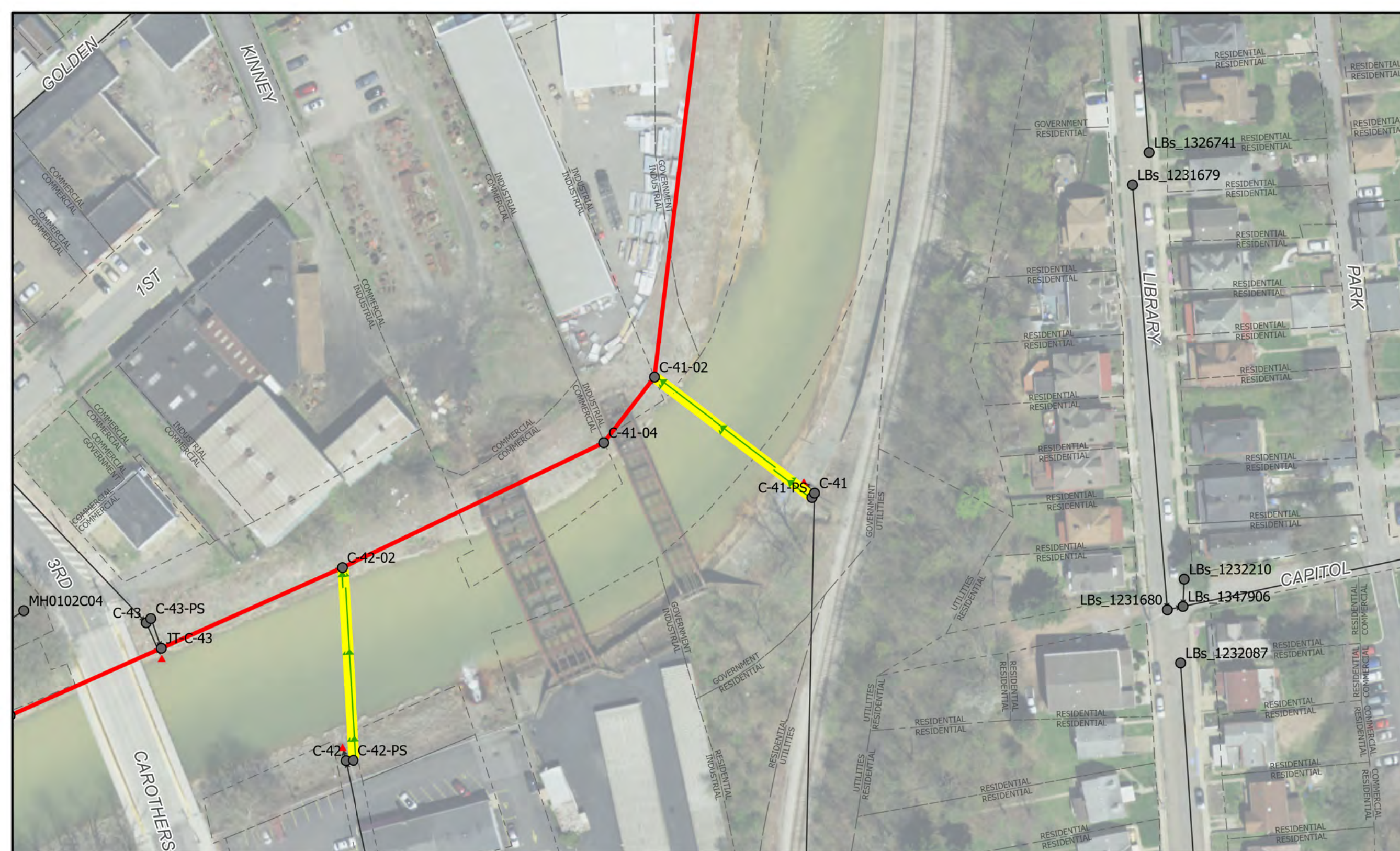
**CHARTIERS CREEK & SAW MILL RUN**



10/12/2023

SHEET 11

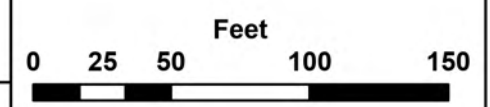
NOTES:  
 Double-Barrel, 12" x2, CAS



# C-41 Regulator to C-41-02

## Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



# ALCOSAN SIPHON CLEANING PLAN

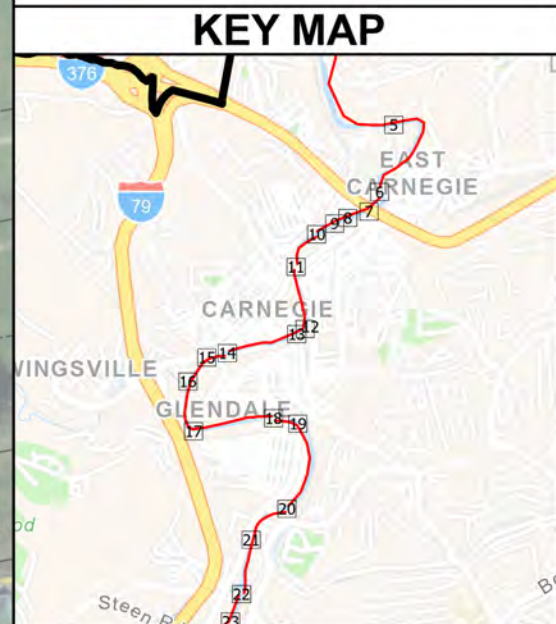
**CHARTIERS CREEK & SAW MILL RUN**



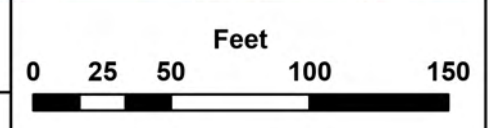
10/12/2023

SHEET 12

NOTES:  
Double-Barrel, 8" x2, CAS



# C-42 Regulator to C-42-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line



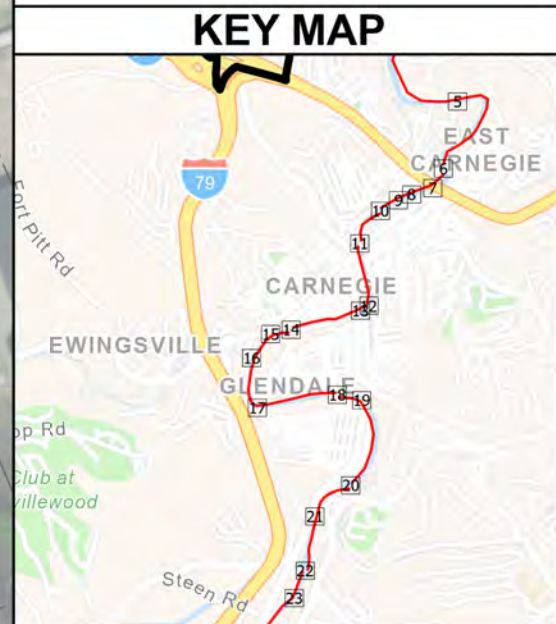
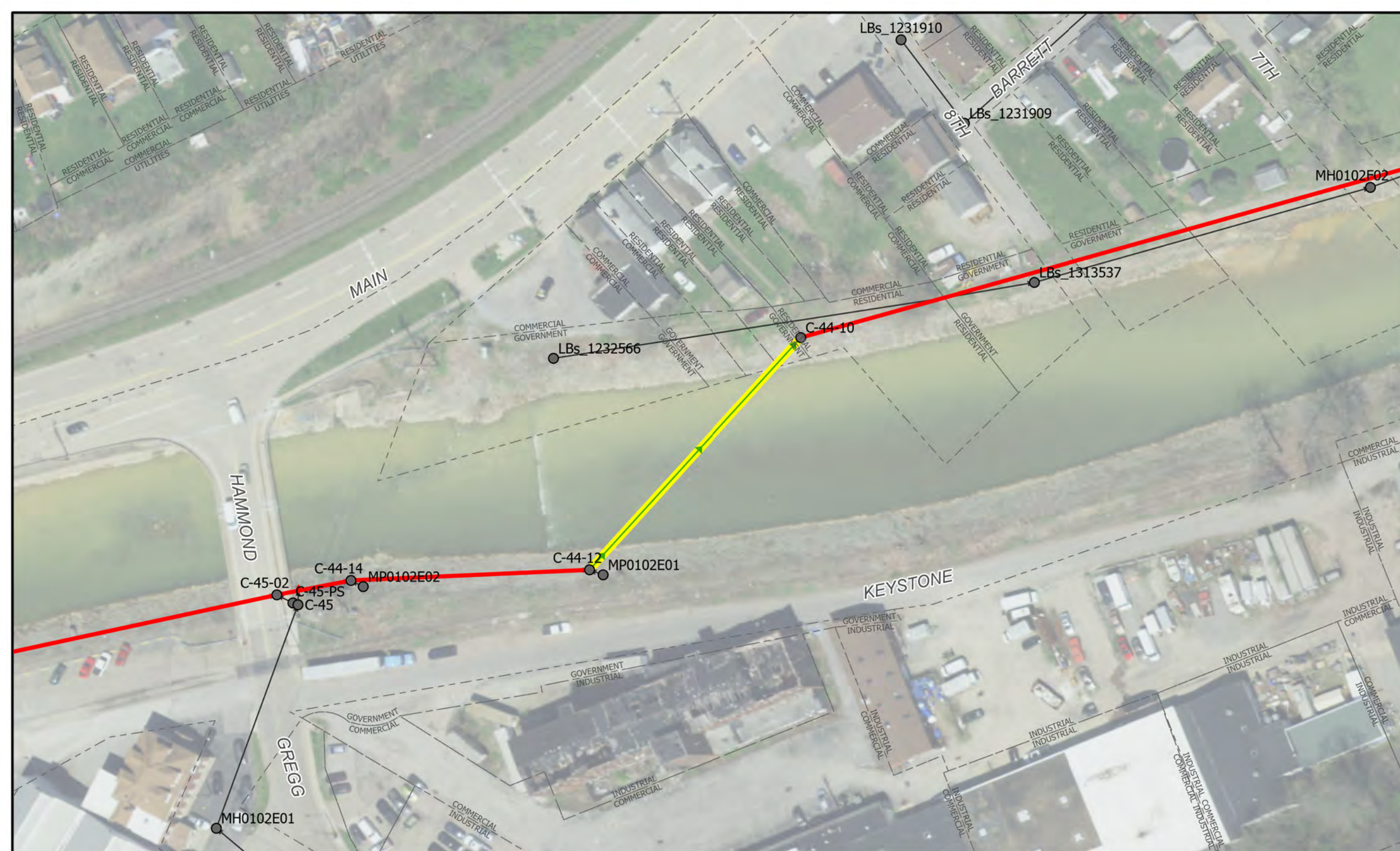
**CHARTIERS CREEK & SAW MILL RUN**



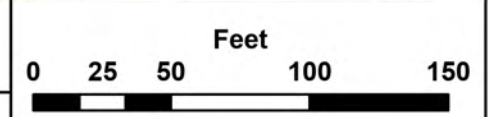
10/12/2023

SHEET 13

NOTES:  
Single-Barrel, 42", RCP



# C-44-12 to C-44-10



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



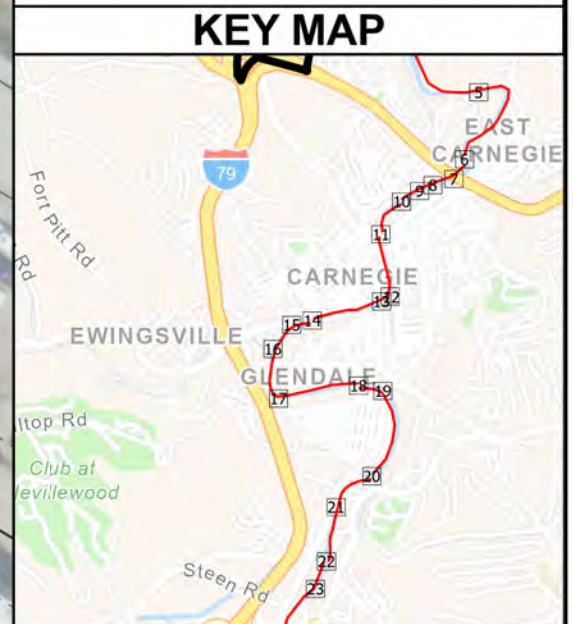
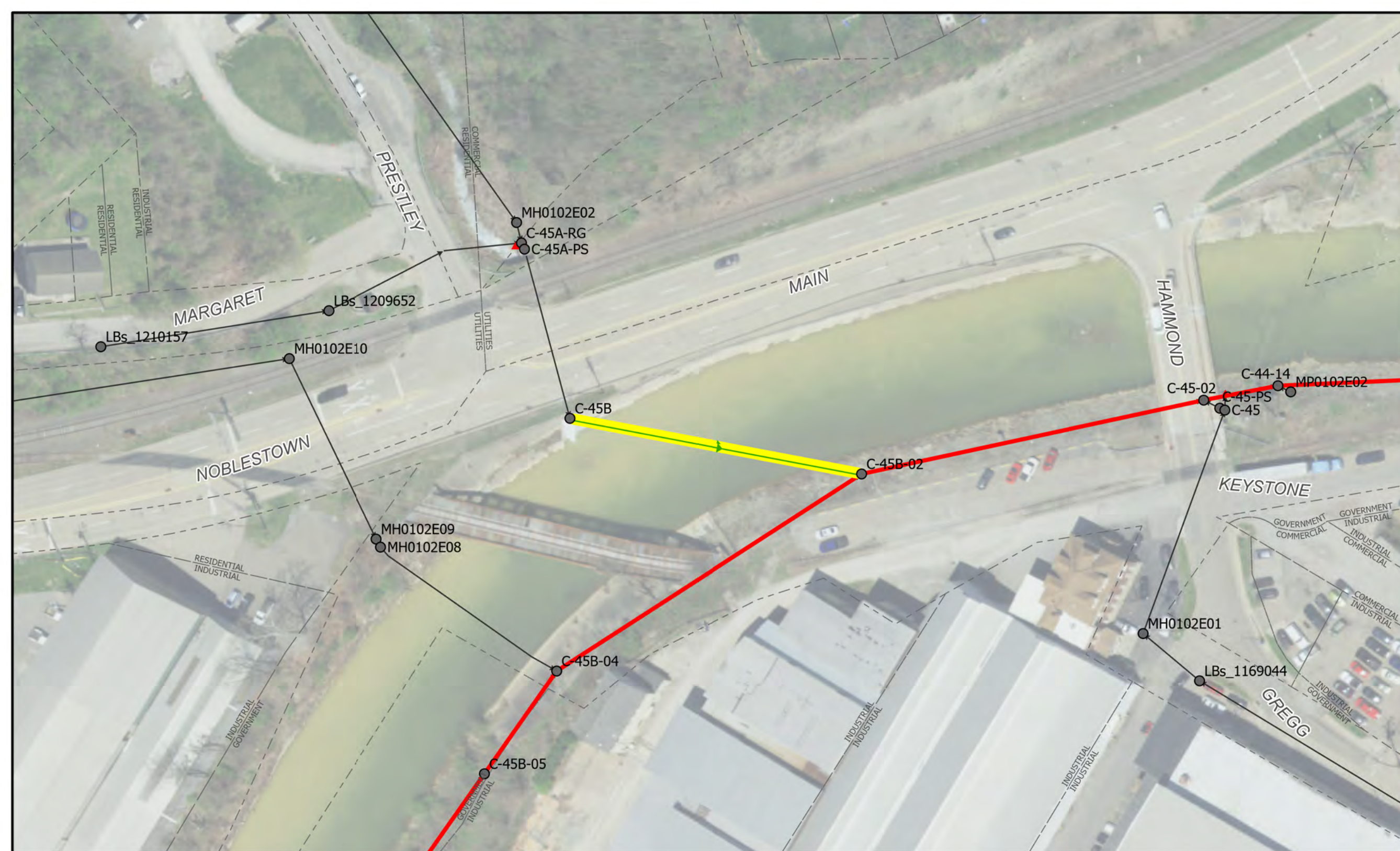
**CHARTIERS CREEK & SAW MILL RUN**



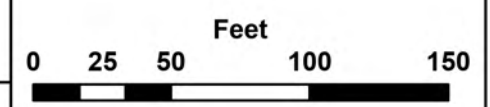
10/12/2023

SHEET 14

NOTES:  
Double-Barrel, 10" x2, CAS



# C-45B-00 to C-45B-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line

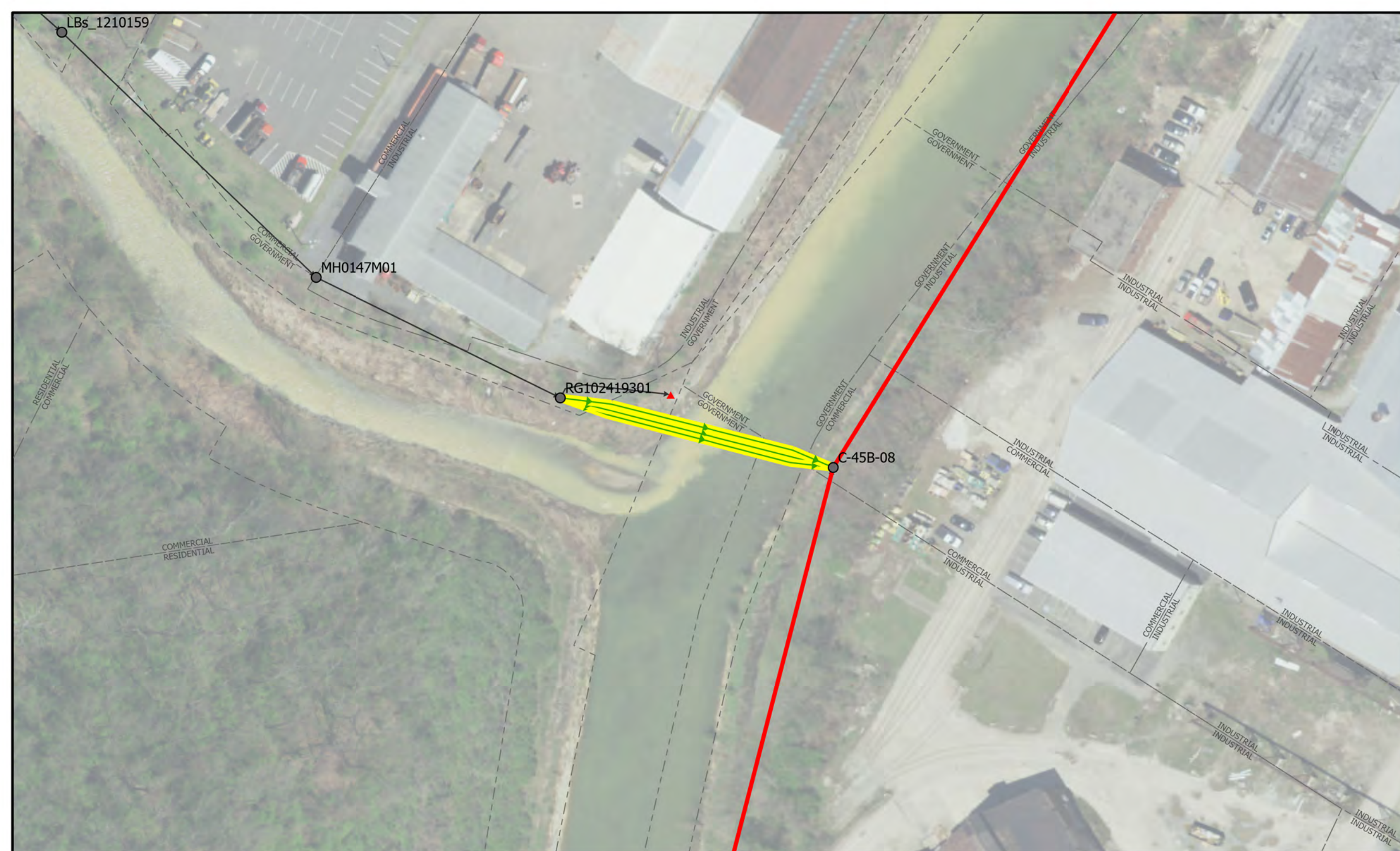


**CHARTIERS CREEK & SAW MILL RUN**



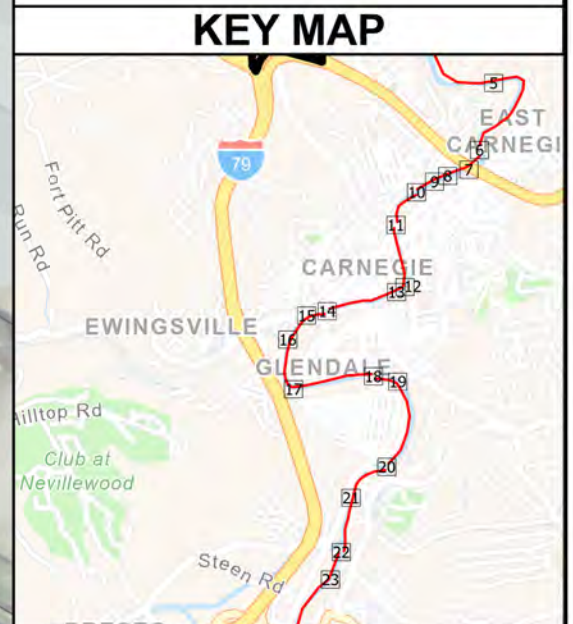
10/12/2023

SHEET 15

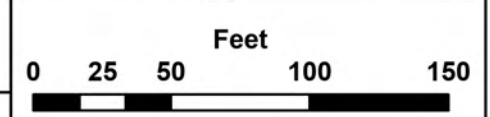


NOTES:  
 Triple-Barrel, 8", CAS  
 4", CAS  
 6", CAS

This siphon is a contingent item, as directed by owner. Refer to contract documents

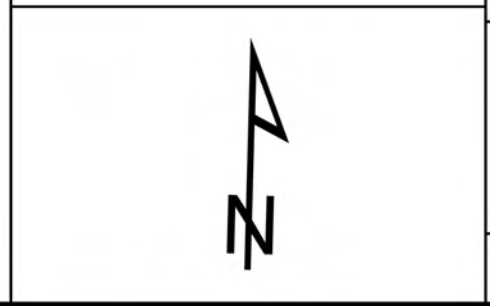


# RG102419301 to C-45B-08



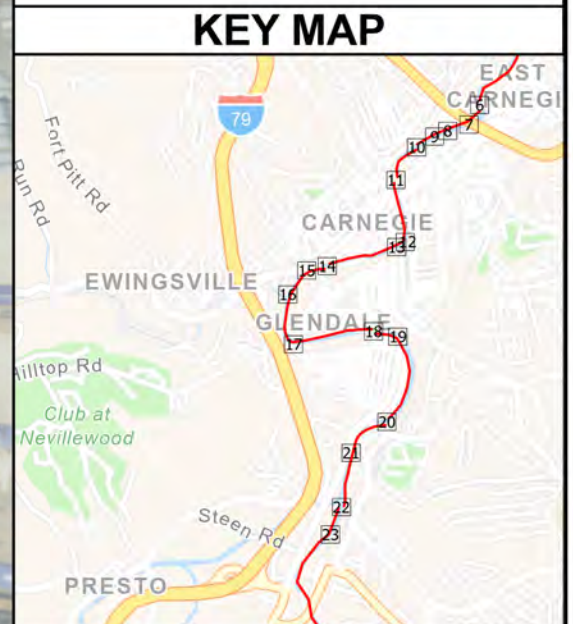
## ALCOSAN SIPHON CLEANING PLAN

Siphon Cleaning Legend			
ALCOSAN Siphon for Inspection	Existing Sewer Manhole	ALCOSAN Shallow-cut Interceptor Sewer Line	ALCOSAN Deep Tunnel Interceptor Sewer Line
Existing Sewer Pipe/Flow Direction	Existing Sewer Outfall		Existing Property Line

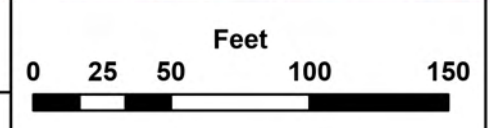


**CHARTIERS CREEK & SAW MILL RUN**

NOTES:  
Double-Barrel, 8" x2, CAS

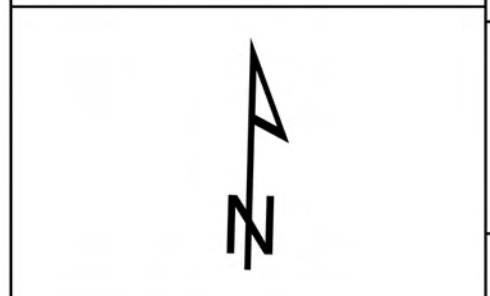


# C-46 Regulator to C-46-02



## ALCOSAN SIPHON CLEANING PLAN

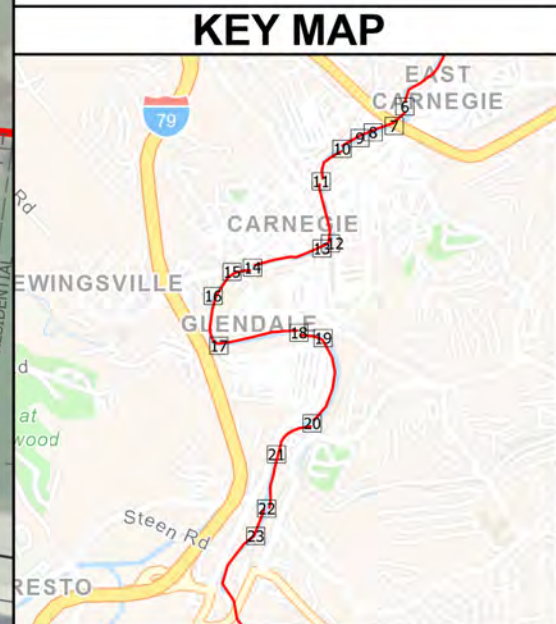
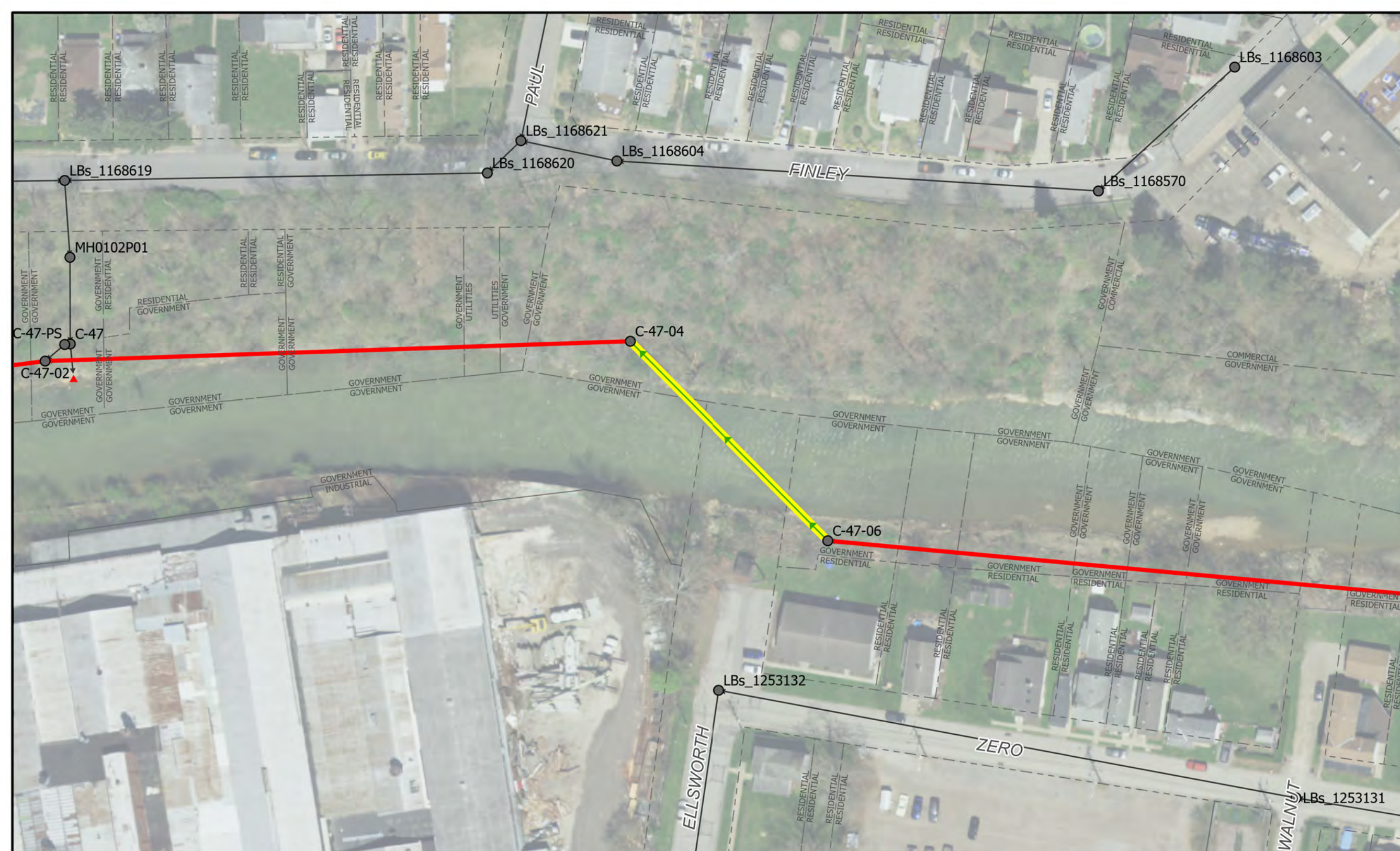
Siphon Cleaning Legend			
	ALCOSAN Siphon for Inspection		Existing Sewer Manhole
	Existing Sewer Pipe/Flow Direction		Existing Sewer Outfall
	ALCOSAN Shallow-cut Interceptor Sewer Line		ALCOSAN Deep Tunnel Interceptor Sewer Line
	Existing Property Line		



**CHARTIERS CREEK & SAW MILL RUN**



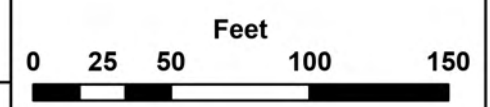
NOTES:  
Single-Barrel, 42", RCP



# C-47-06 to C-47-04

## Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- Existing Property Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- ALCOSAN Deep Tunnel Interceptor Sewer Line



# ALCOSAN SIPHON CLEANING PLAN

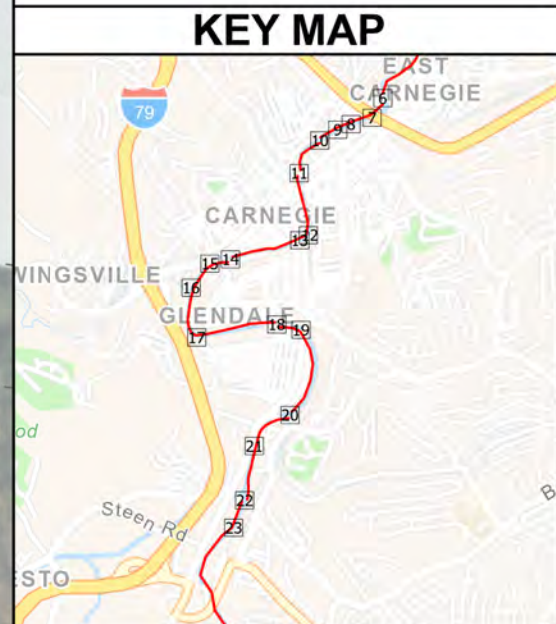
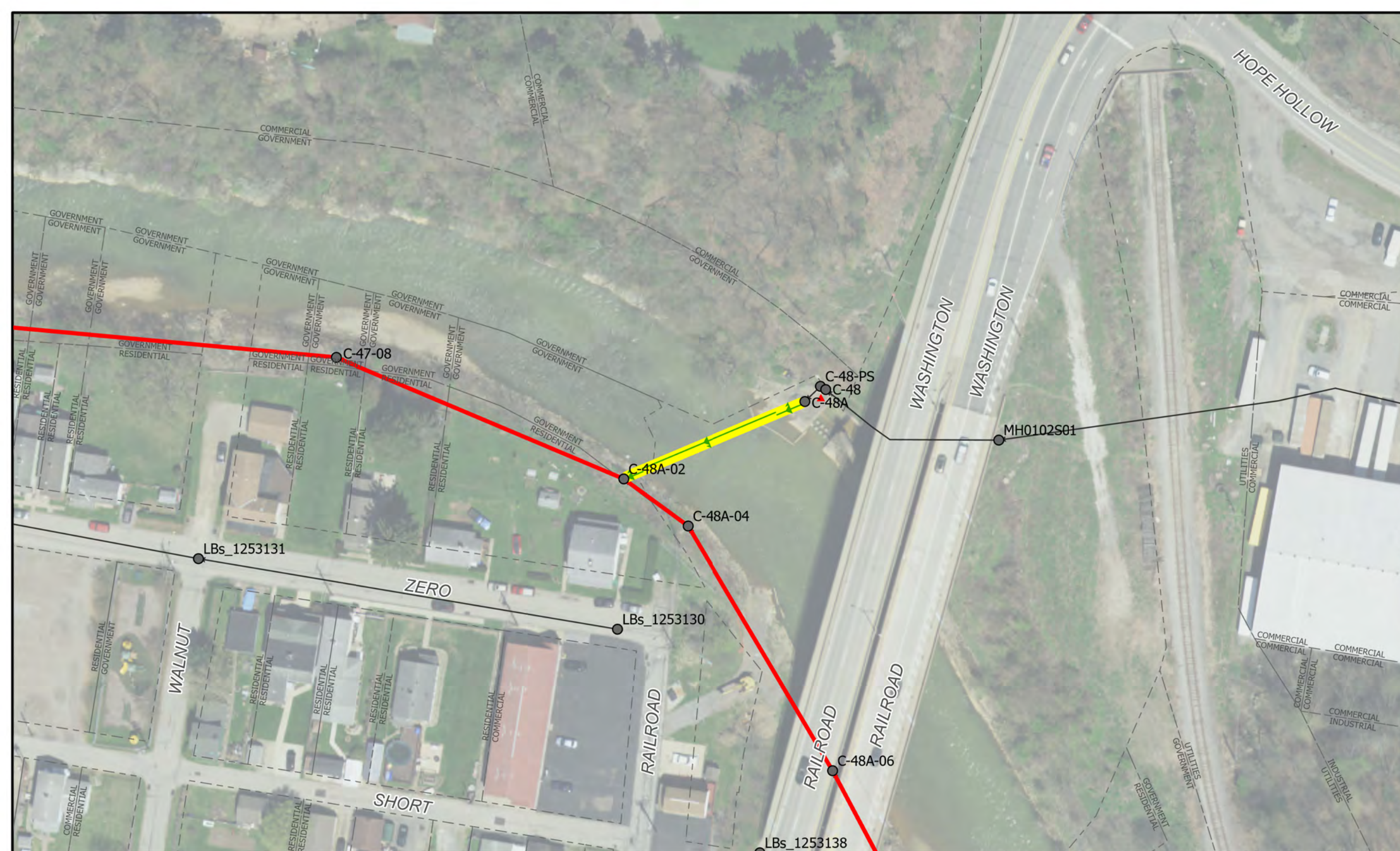
**CHARTIERS CREEK & SAW MILL RUN**



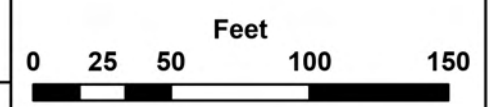
10/12/2023

SHEET 18

NOTES:  
Double-Barrel, 12" x2, CAS



# C-48A to C-48A-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



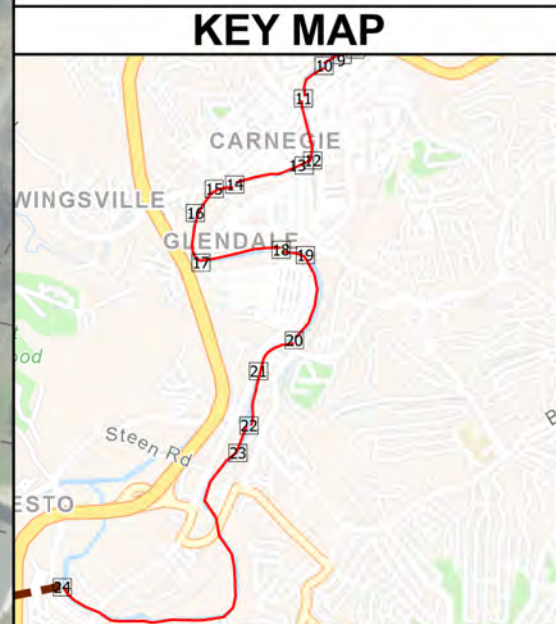
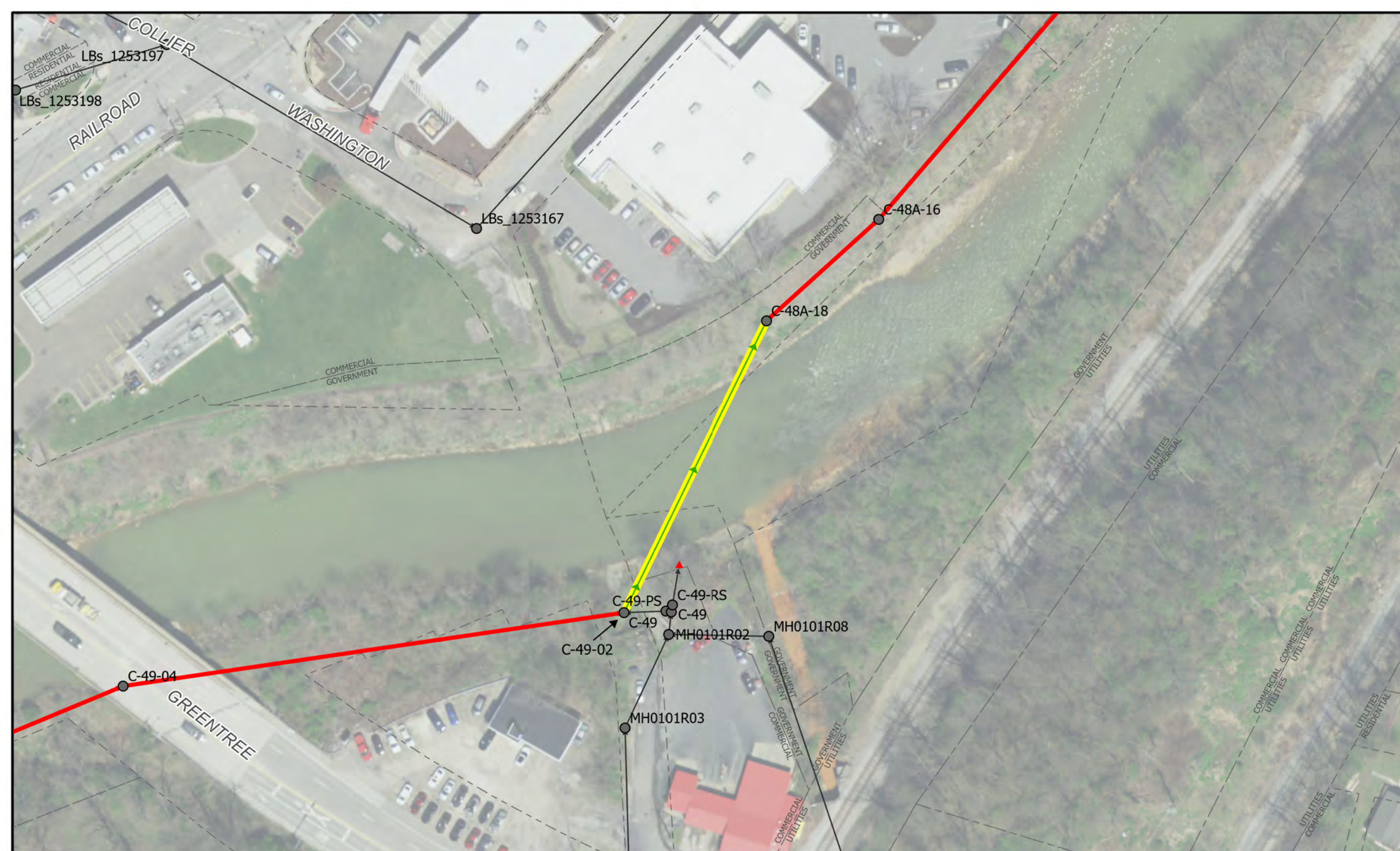
**CHARTIERS CREEK & SAW MILL RUN**



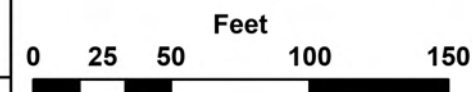
10/12/2023

SHEET 19

NOTES:  
Single-Barrel, 42", RCP



# C-49-02 to C-48A-18



## ALCOSAN SIPHON CLEANING PLAN

- Siphon Cleaning Legend**
- ALCOSAN Siphon for Inspection
  - Existing Sewer Manhole
  - ALCOSAN Shallow-cut Interceptor Sewer Line
  - ALCOSAN Deep Tunnel Interceptor Sewer Line
  - Existing Sewer Pipe/Flow Direction
  - Existing Sewer Outfall
  - Existing Property Line



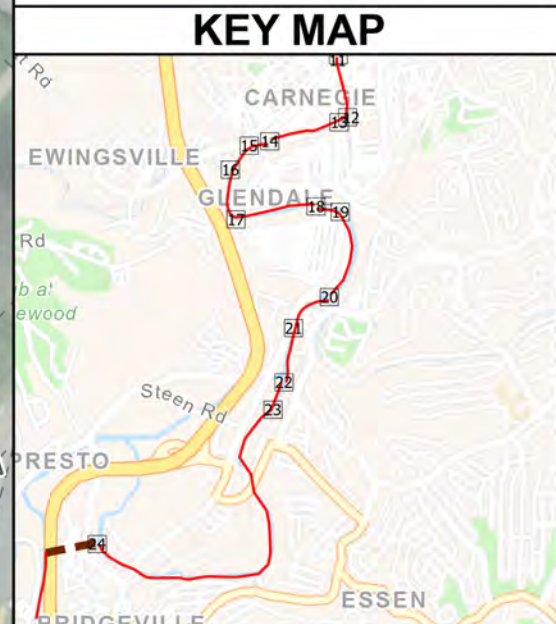
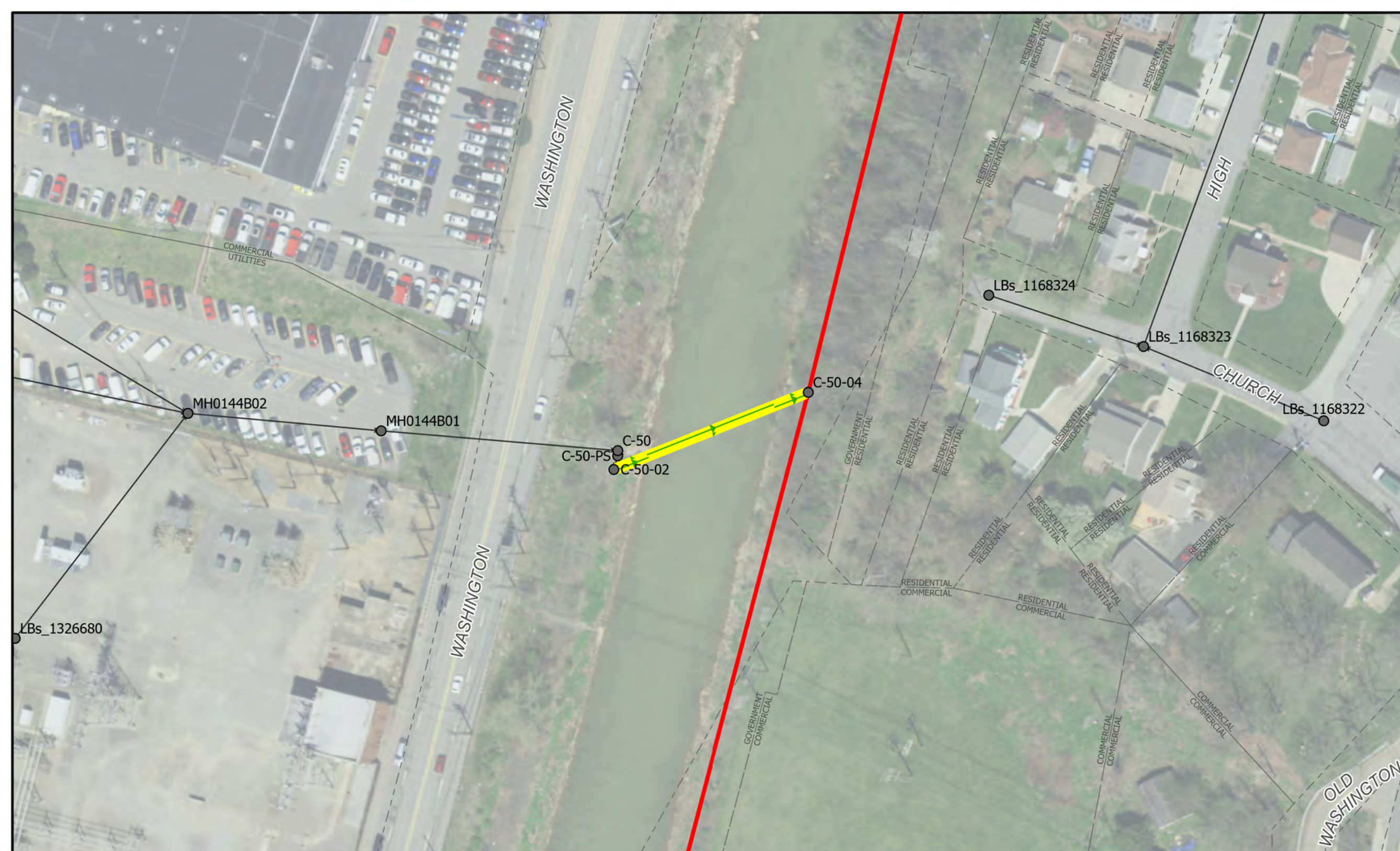
**CHARTIERS CREEK  
&  
SAW MILL RUN**



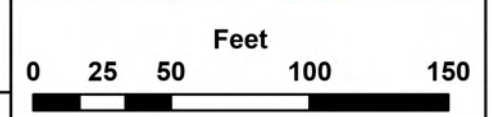
10/12/2023

SHEET 20

NOTES:  
 Double-Barrel, 10" x2, CAS



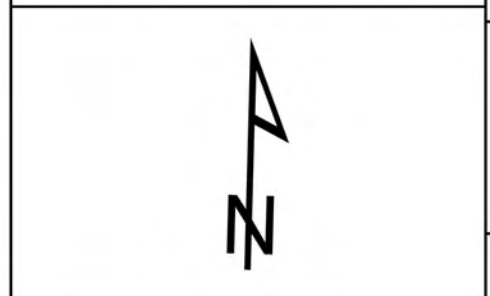
# C-50-02 to C-50-04



## ALCOSAN SIPHON CLEANING PLAN

**Siphon Cleaning Legend**

ALCOSAN Siphon for Inspection	Existing Sewer Manhole	ALCOSAN Shallow-cut Interceptor Sewer Line	ALCOSAN Deep Tunnel Interceptor Sewer Line
Existing Sewer Pipe/Flow Direction	Existing Sewer Outfall	Existing Property Line	



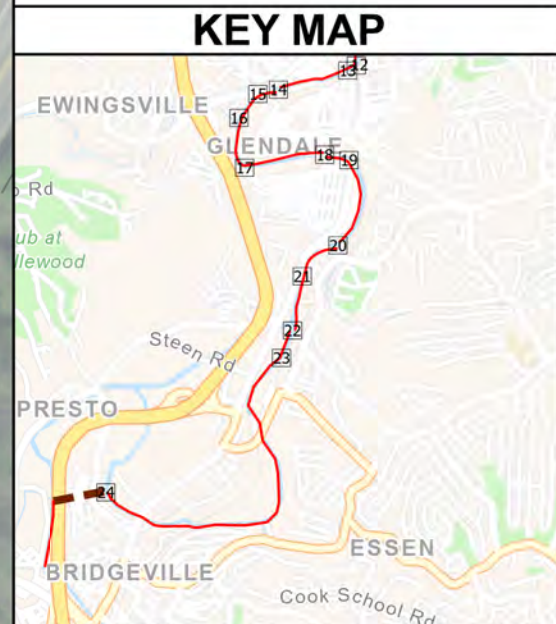
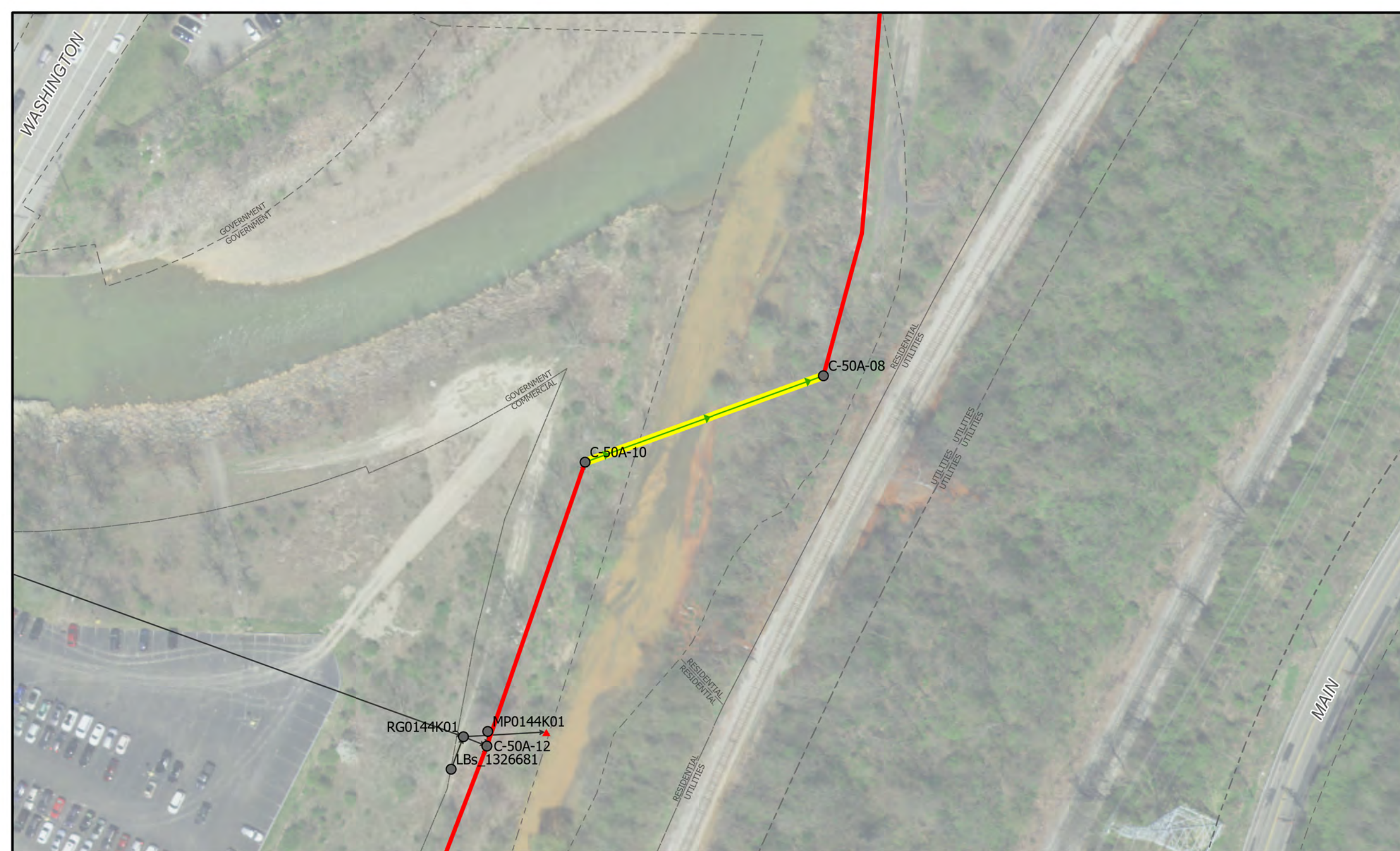
**CHARTIERS CREEK & SAW MILL RUN**



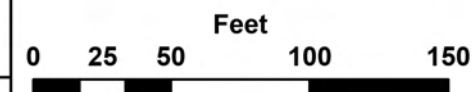
10/12/2023

SHEET 21

NOTES:  
Single-Barrel, 42", RCP



# C-50A-10 to C-50A-08



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



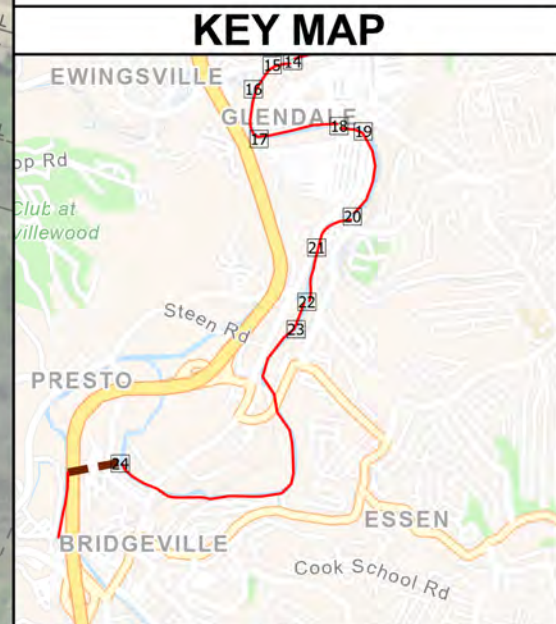
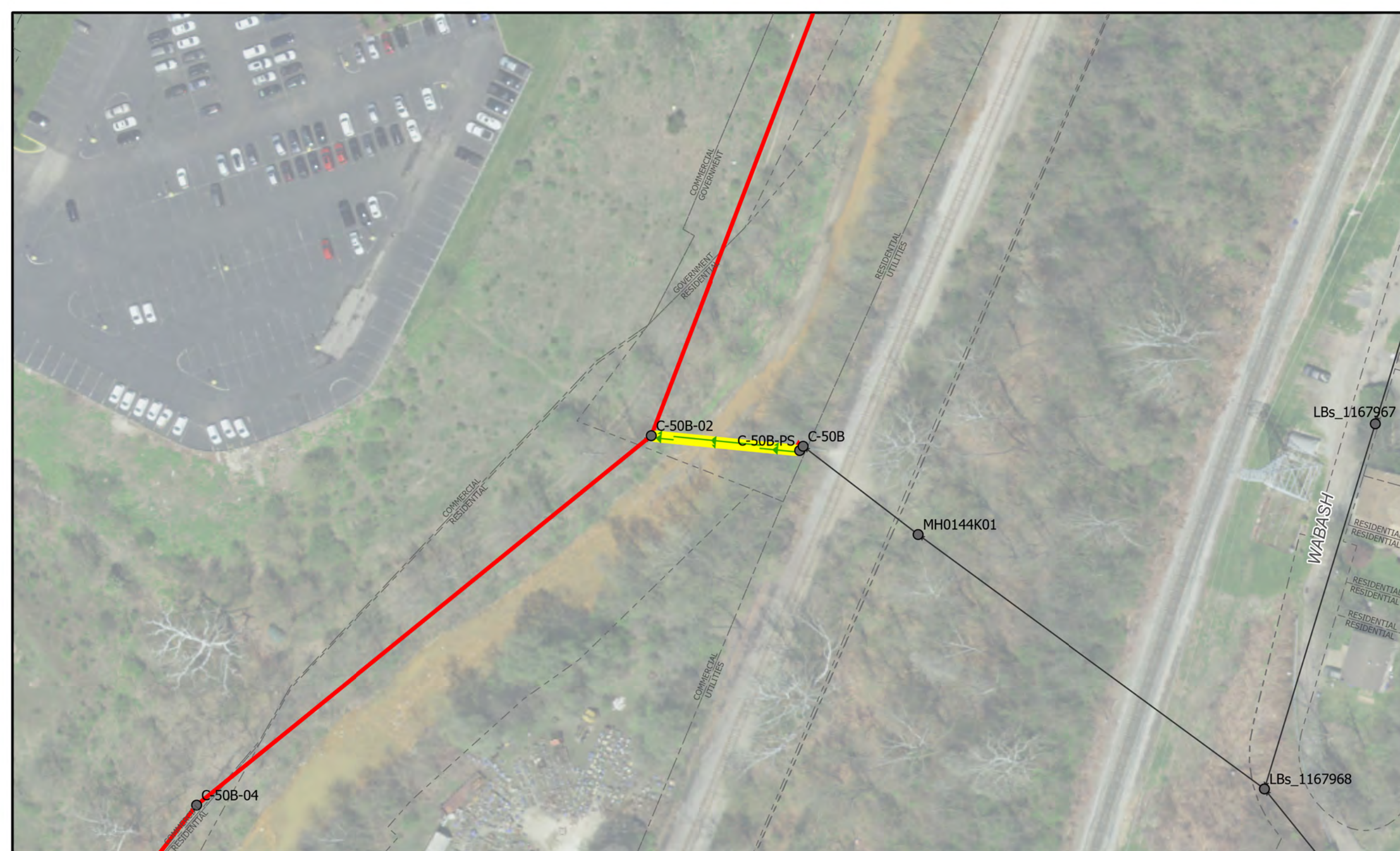
**CHARTIERS CREEK & SAW MILL RUN**



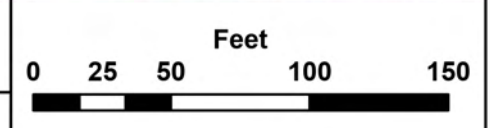
10/12/2023

SHEET 22

NOTES:  
Double-Barrel, 8" x2, CAS



# C-50B to C-50B-02



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**



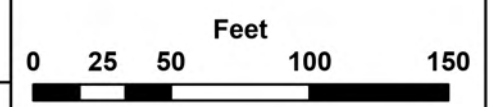
10/12/2023

SHEET 23

NOTES:  
 Single-Barrel, 24", RCP  
 Influent municipal sewer line to MH C-54-11 is now owned by ALCOSAN



# C-54-14 to C-54-12



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**

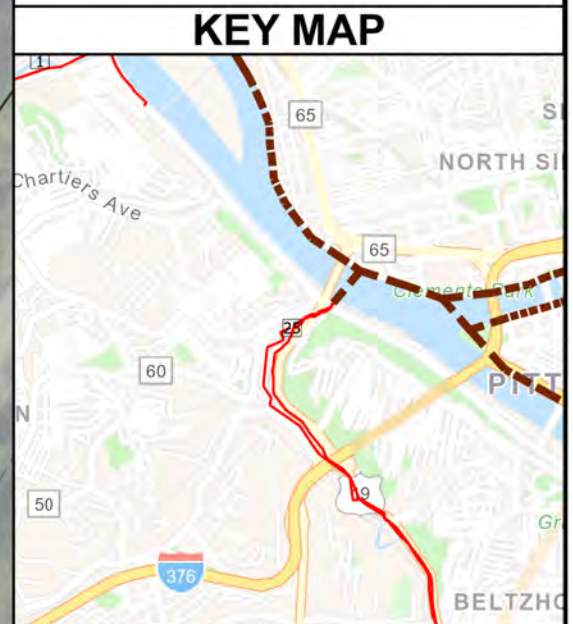


10/12/2023

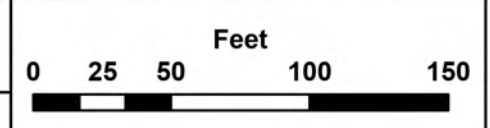
SHEET 24



NOTES:  
 Triple-Barrel: 30" x2, RCP  
 27", RCP

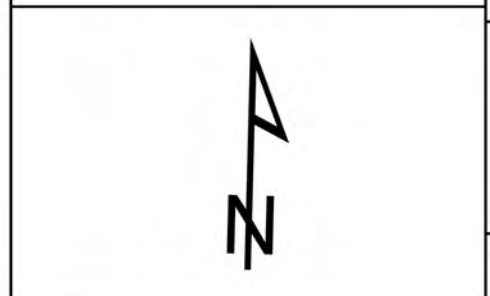


## S-03A to MH-S02



## ALCOSAN SIPHON CLEANING PLAN

Siphon Cleaning Legend			
	ALCOSAN Siphon for Inspection		Existing Sewer Manhole
	Existing Sewer		Existing Sewer Outfall
	Pipe/Flow Direction		ALCOSAN Shallow-cut Interceptor Sewer Line
			ALCOSAN Deep Tunnel Interceptor Sewer Line
			Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**

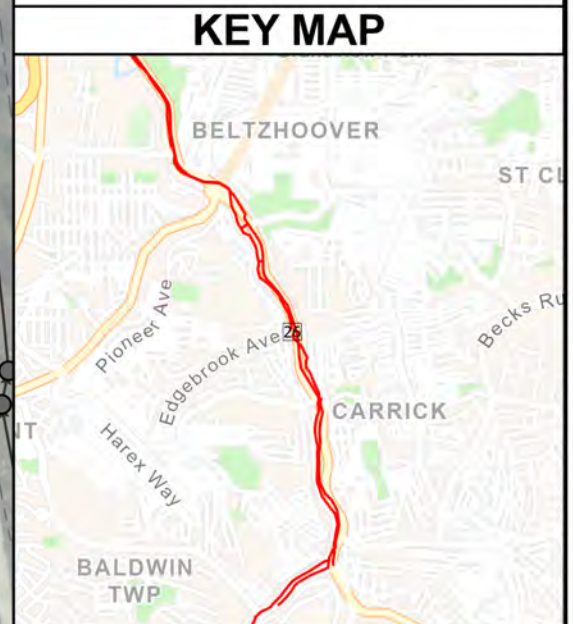
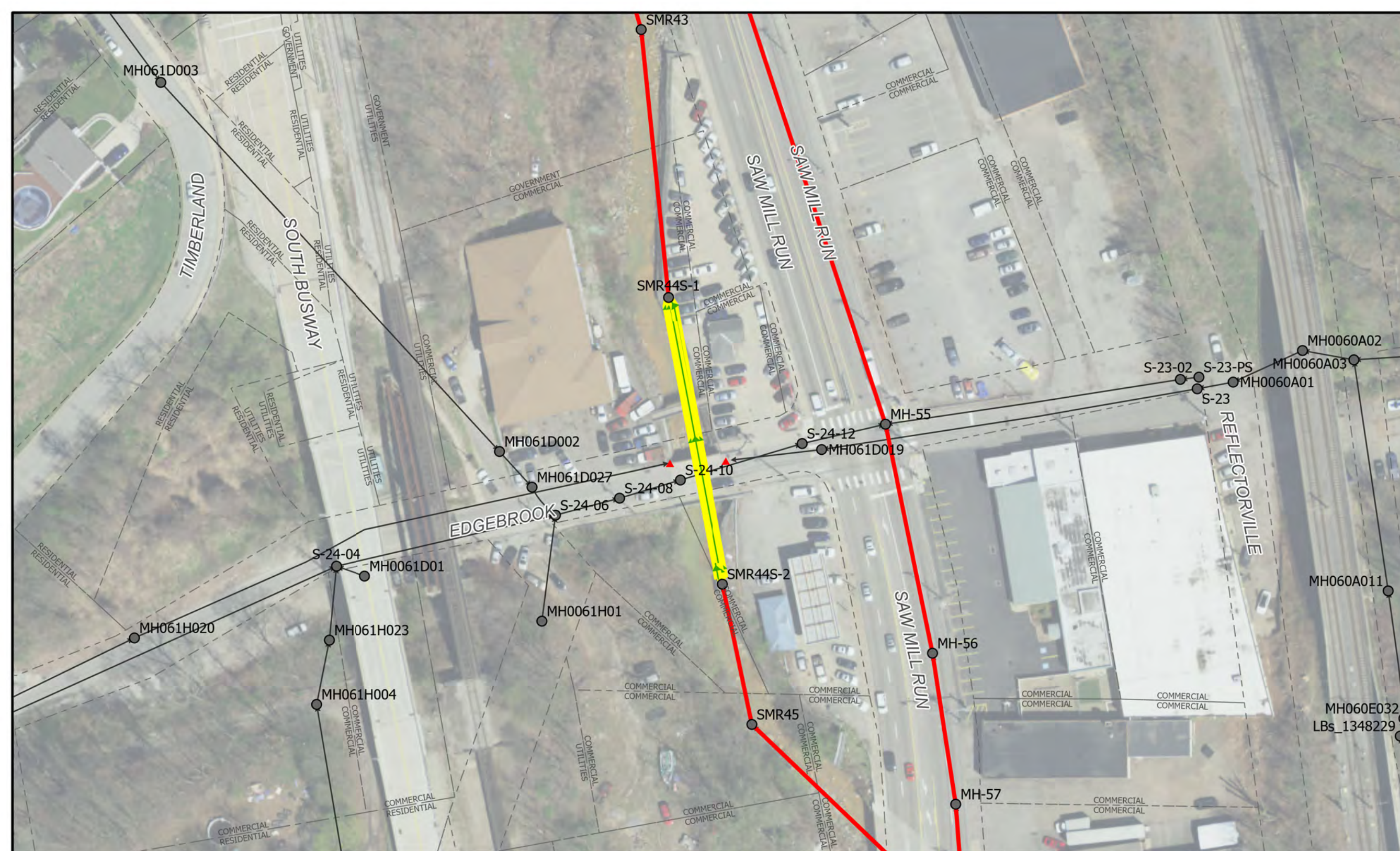


10/12/2023

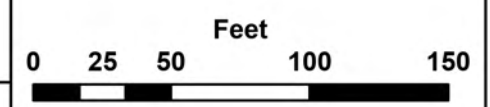
SHEET 25



NOTES:  
 Triple-Barrel: 36" x2, DIP  
 24", DIP



# SMR44S-2 to SMR44S-1



## ALCOSAN SIPHON CLEANING PLAN

### Siphon Cleaning Legend

- ALCOSAN Siphon for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line



**CHARTIERS CREEK & SAW MILL RUN**

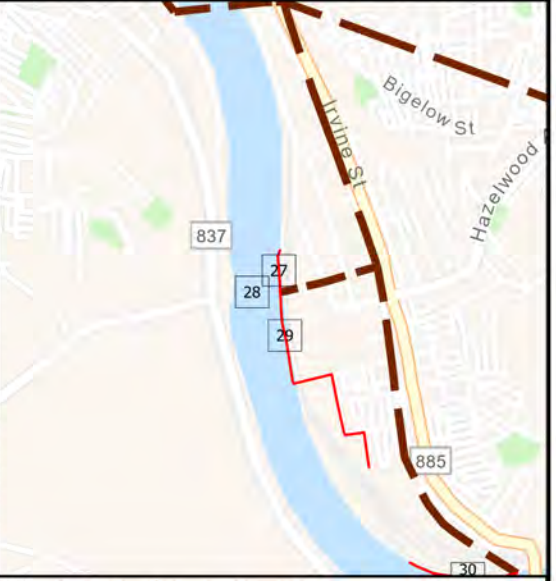


10/12/2023

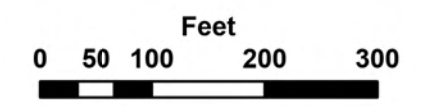
SHEET 26

NOTES:

KEY MAP



# M-32 Regulator to M-33 Regulator



## CONTRACT 1795 INVERTED SIPHON CLEANING 2024

### Siphon Cleaning Legend

- ALCOSAN Siphon/Pipe for Inspection
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Manhole
- Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Property Line

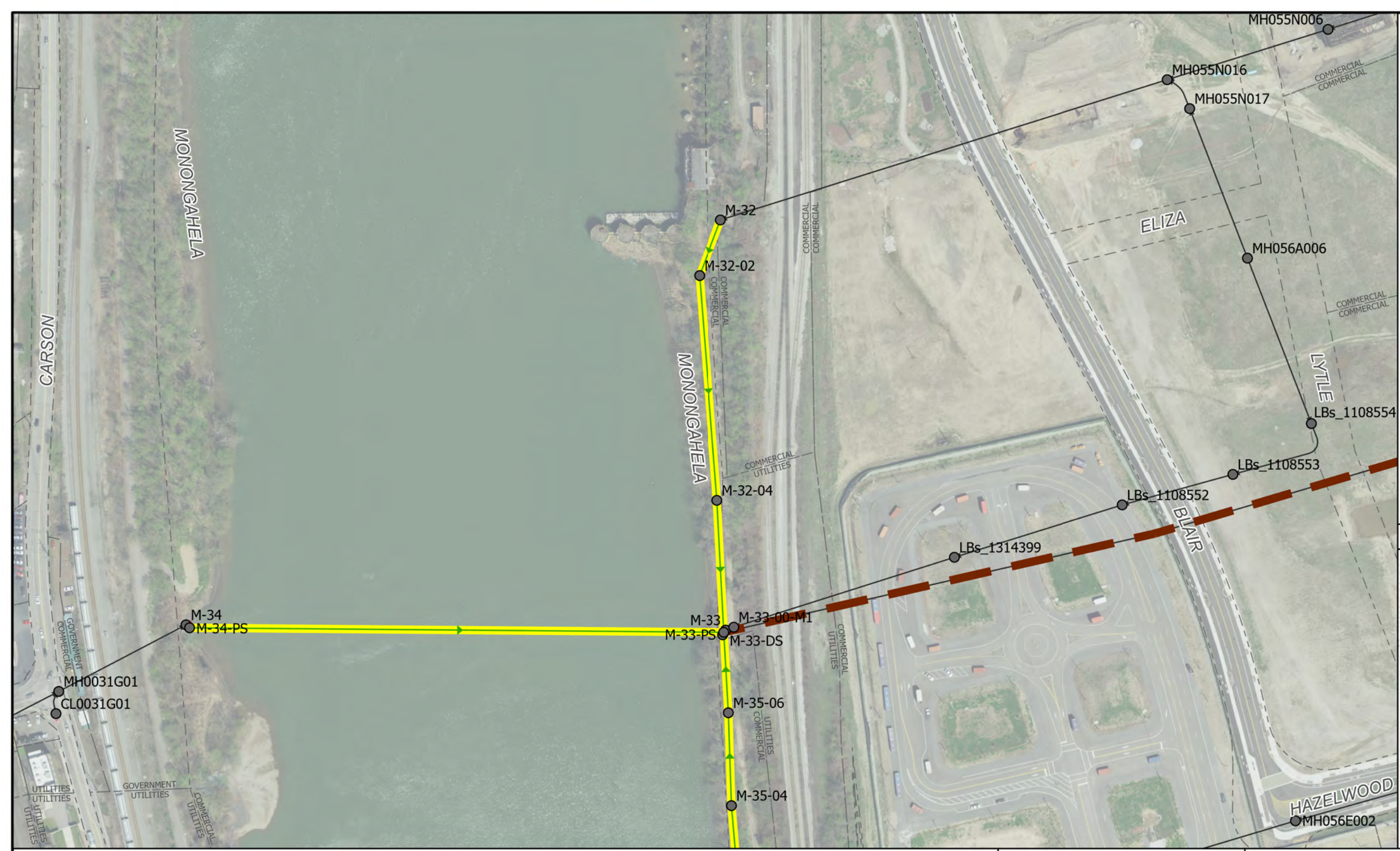


MONONGAHELA RIVER

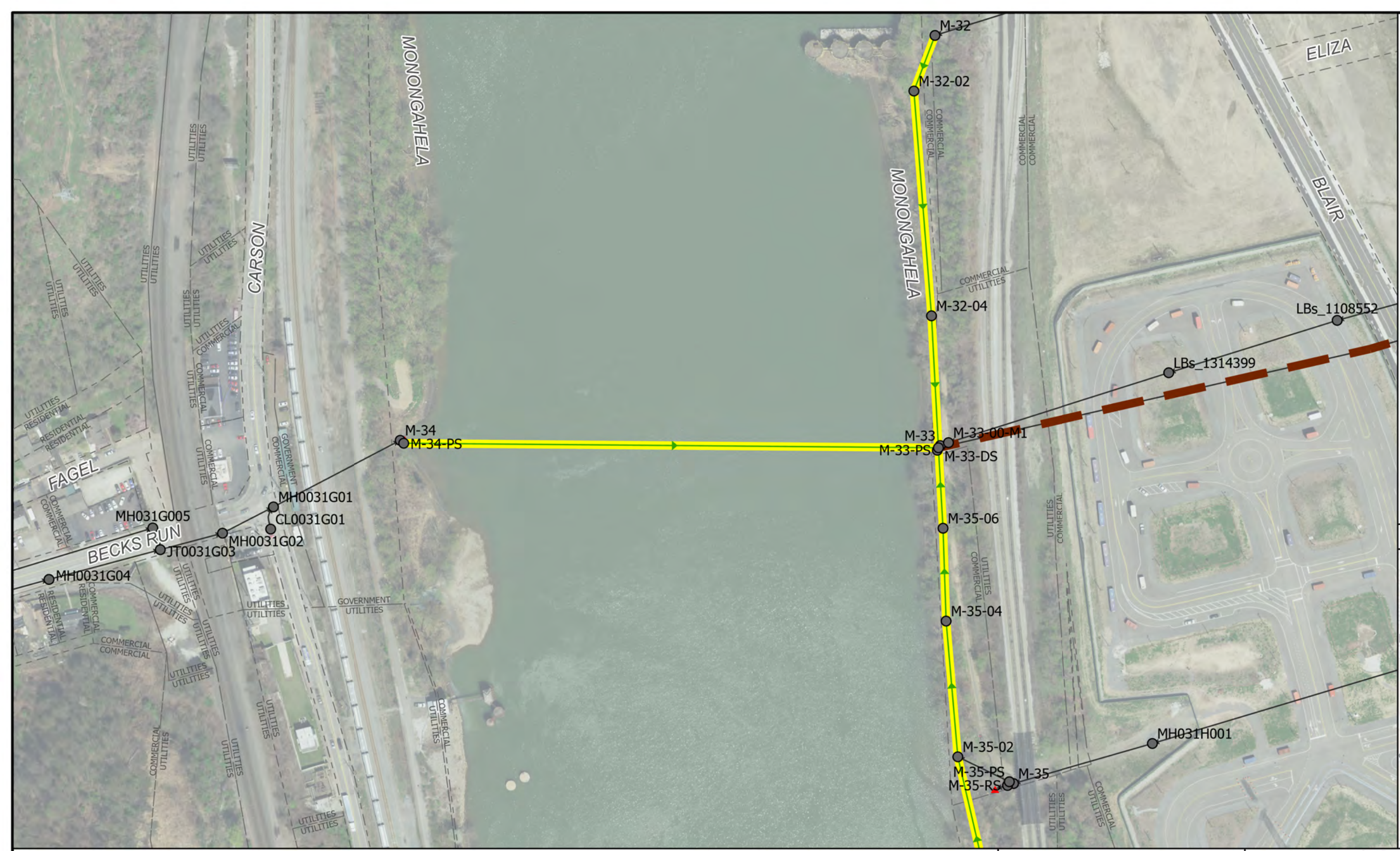


10/31/2023

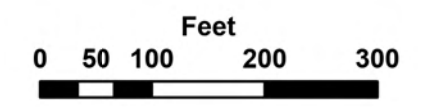
SHEET 27



NOTES:



# M-34 Regulator to M-33 Regulator



## CONTRACT 1795 INVERTED SIPHON CLEANING 2024

### Siphon Cleaning Legend

- ➡ ALCOSAN Siphon/Pipe for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- ▲ Existing Sewer Outfall
- Existing Property Line



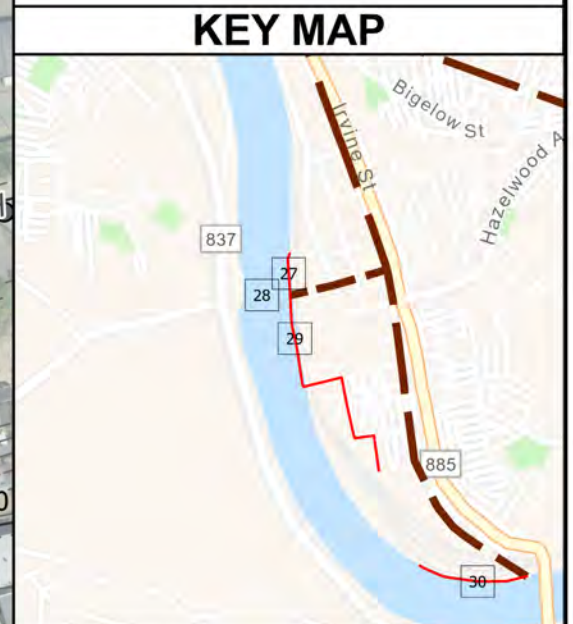
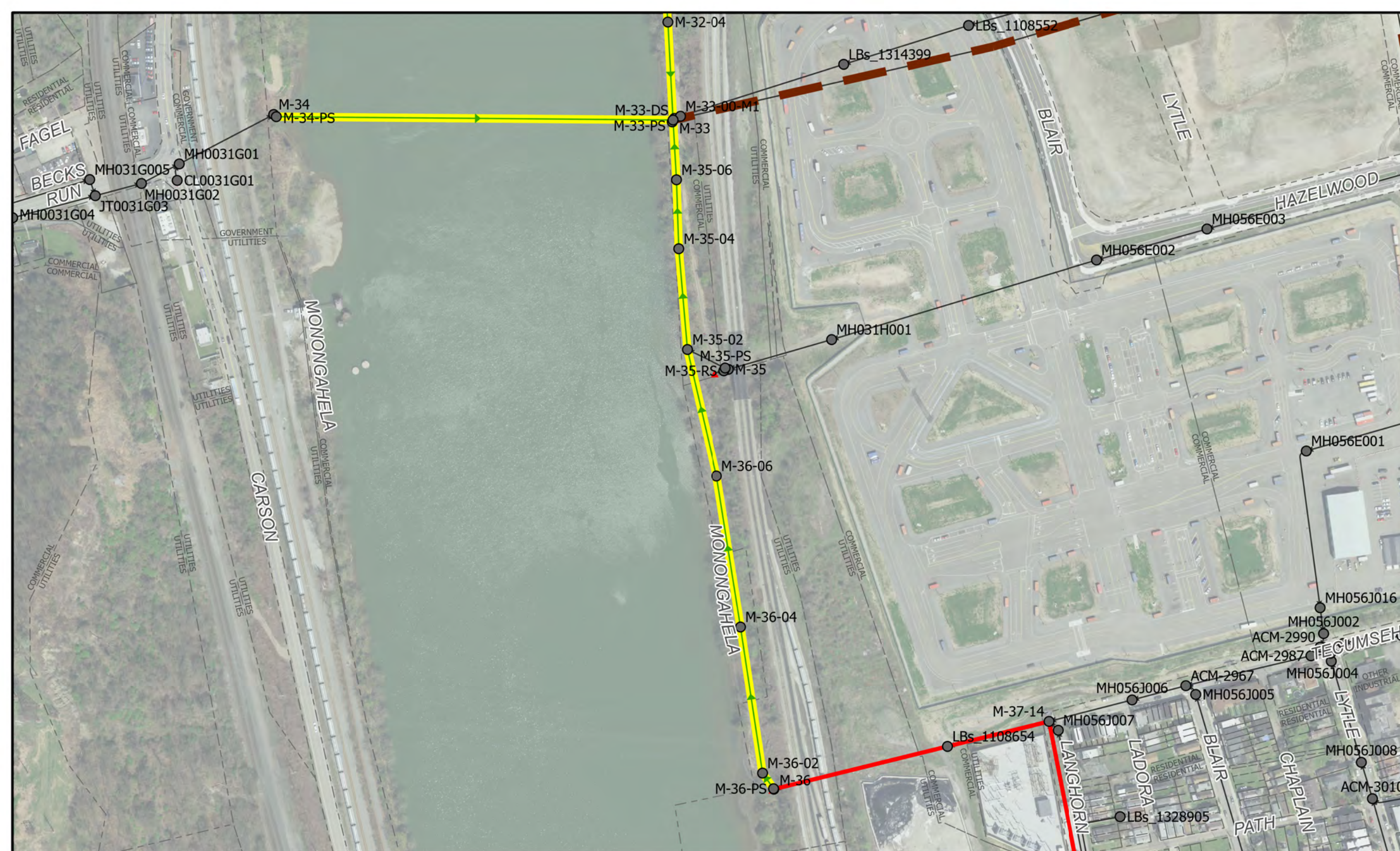
MONONGAHELA RIVER



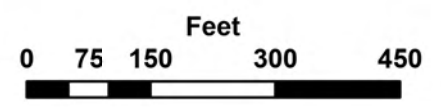
10/31/2023

SHEET 28

NOTES:



# M-33 Regulator to M-36 Regulator



## CONTRACT 1795 INVERTED SIPHON CLEANING 2024

### Siphon Cleaning Legend

- ALCOSAN Siphon/Pipe for Inspection
- Existing Sewer Manhole
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- Existing Sewer Pipe/Flow Direction
- Existing Sewer Outfall
- Existing Property Line



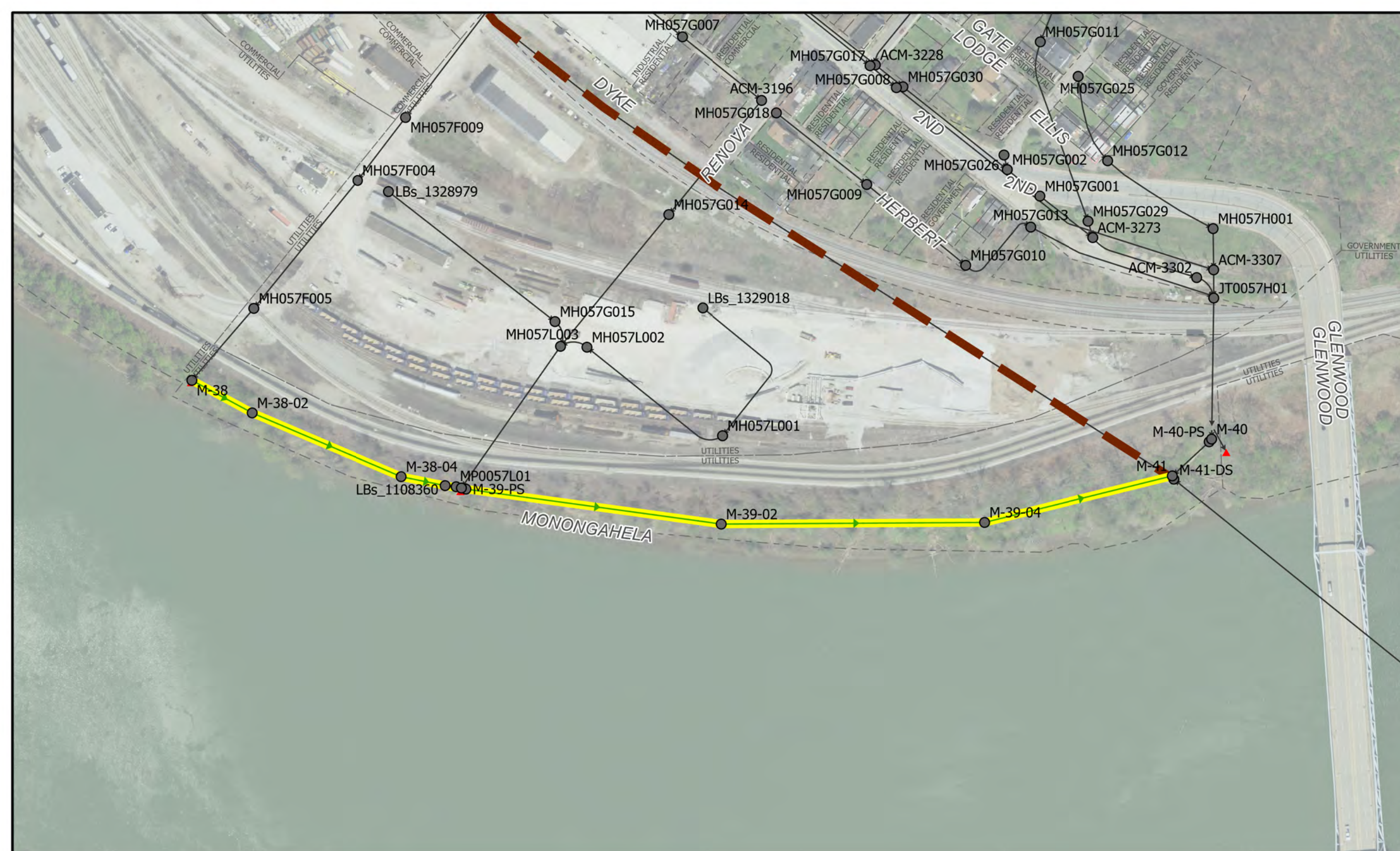
**MONONGAHELA RIVER**



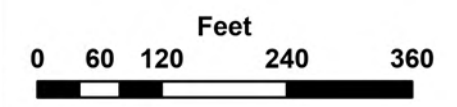
10/31/2023

SHEET 29

NOTES:



# M-38 Regulator to M-41 Access Shaft



**CONTRACT 1795  
INVERTED SIPHON  
CLEANING 2024**

**Siphon Cleaning Legend**

- ➔ ALCOSAN Siphon/Pipe for Inspection
- Existing Sewer Manhole
- Existing Sewer Pipe/Flow Direction
- ▲ Existing Sewer Outfall
- ALCOSAN Shallow-cut Interceptor Sewer Line
- ALCOSAN Deep Tunnel Interceptor Sewer Line
- ⌈ Existing Property Line



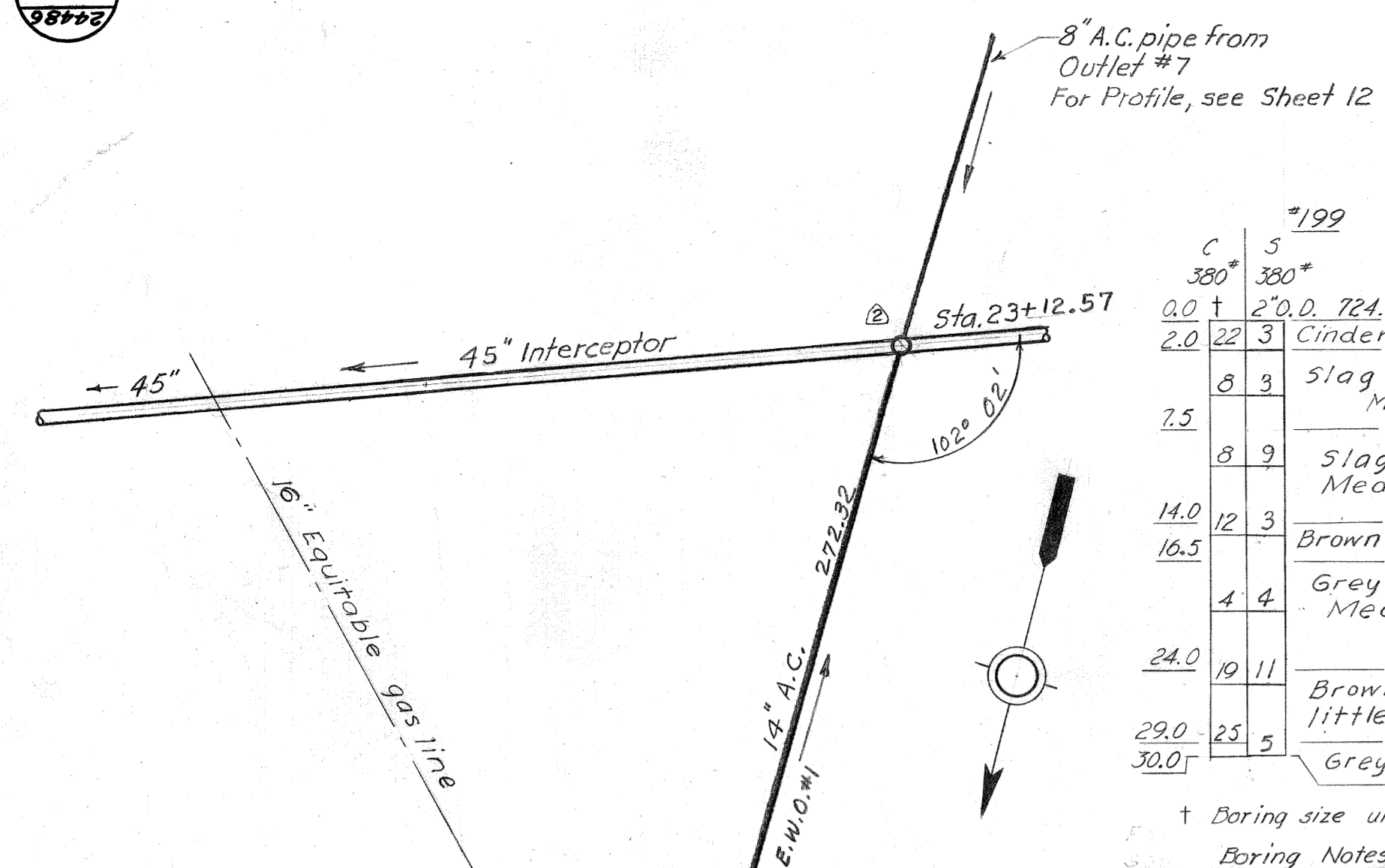
**MONONGAHELA RIVER**



10/31/2023

SHEET 30





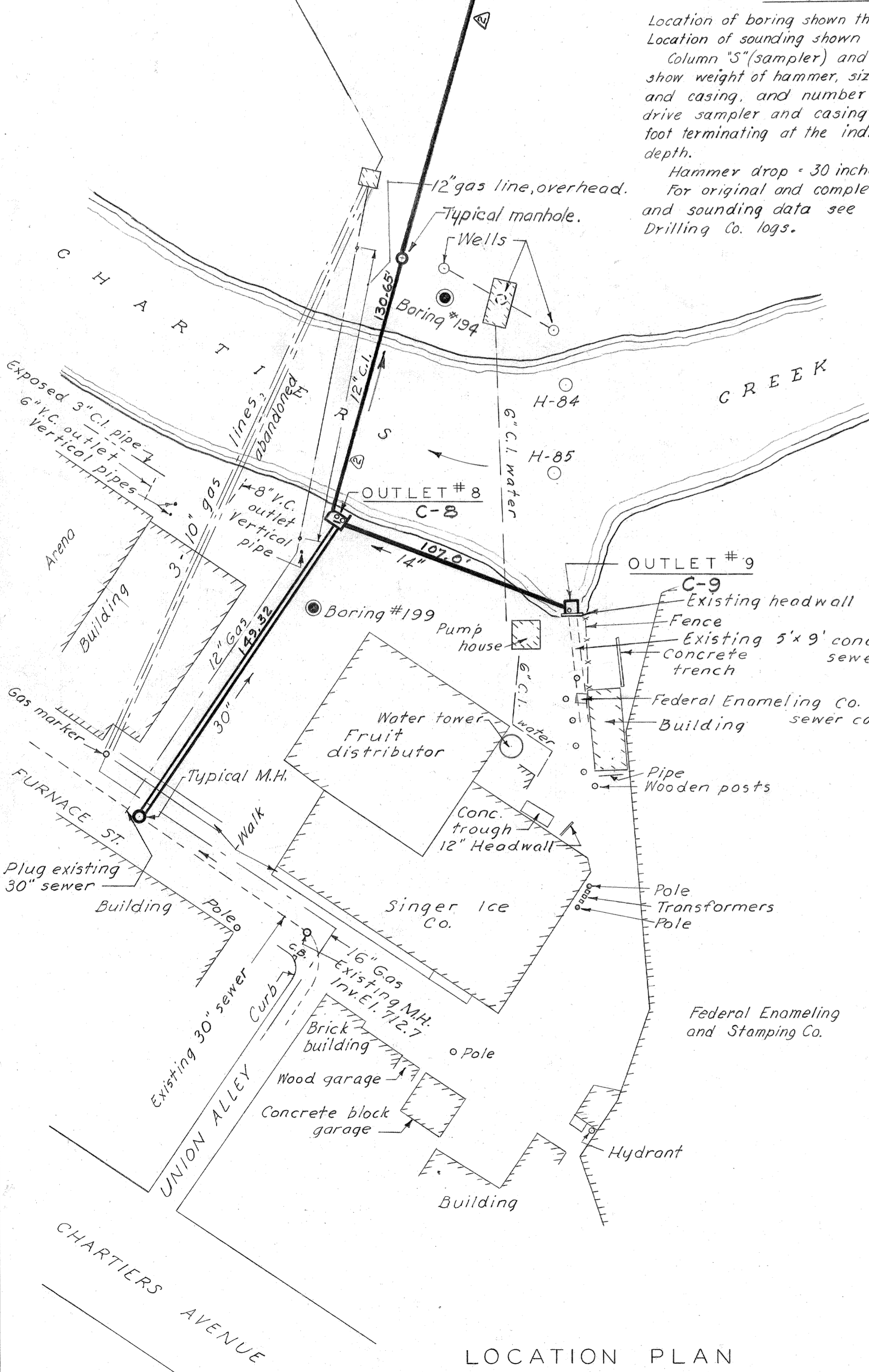
199

C	5	380*	380*
2.0	22	3	2' 0" 724.4
7.5	3	3	Cinder Fill-Medium hard
8	9	3	Slag and brick fill Medium soft
14.0	12	3	Slag fill Medium hard
16.5	3	3	Brown and grey clay-Med. soft
4	4	3	Grey sandy clay Medium soft
24.0	19	11	Brown sand and gravel, little clay-Med. hard
29.0	25	5	Grey silty clay-Med. hard
30.0			

† Boring size unknown  
Boring Notes

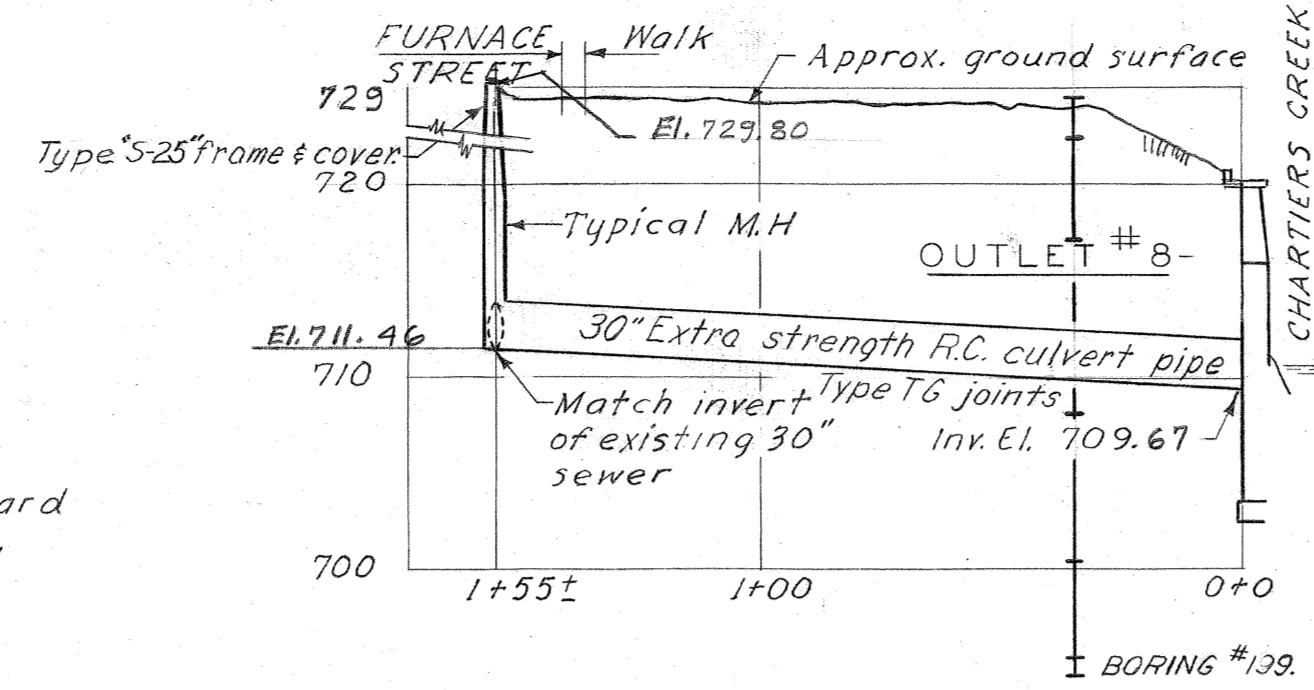
Location of boring shown thus: ●  
Location of sounding shown thus: ●  
Column "S" (sampler) and "C" (casing) show weight of hammer, size of sampler and casing, and number of blows to drive sampler and casing through 1 foot terminating at the indicated boring depth.

Hammer drop - 30 inches.  
For original and complete boring and sounding data see Penn. Drilling Co. logs.

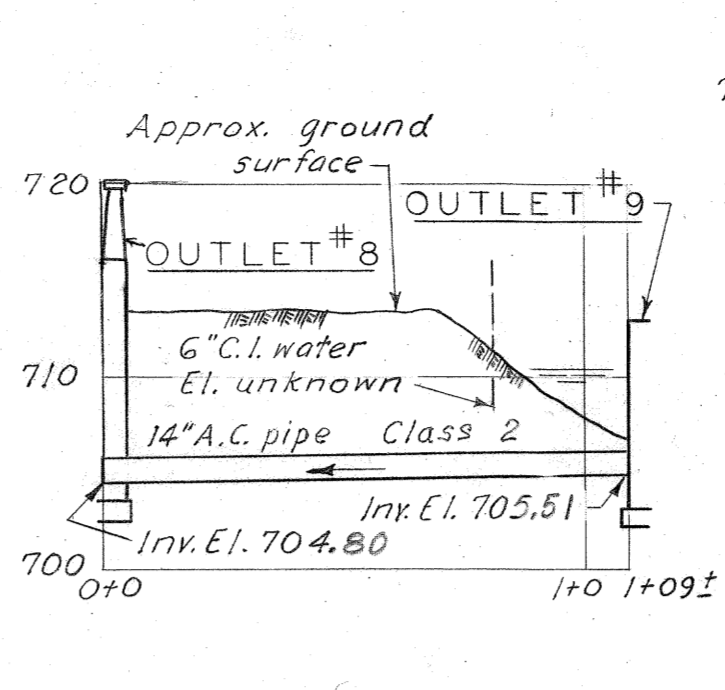


LOCATION PLAN  
SCALE IN FEET

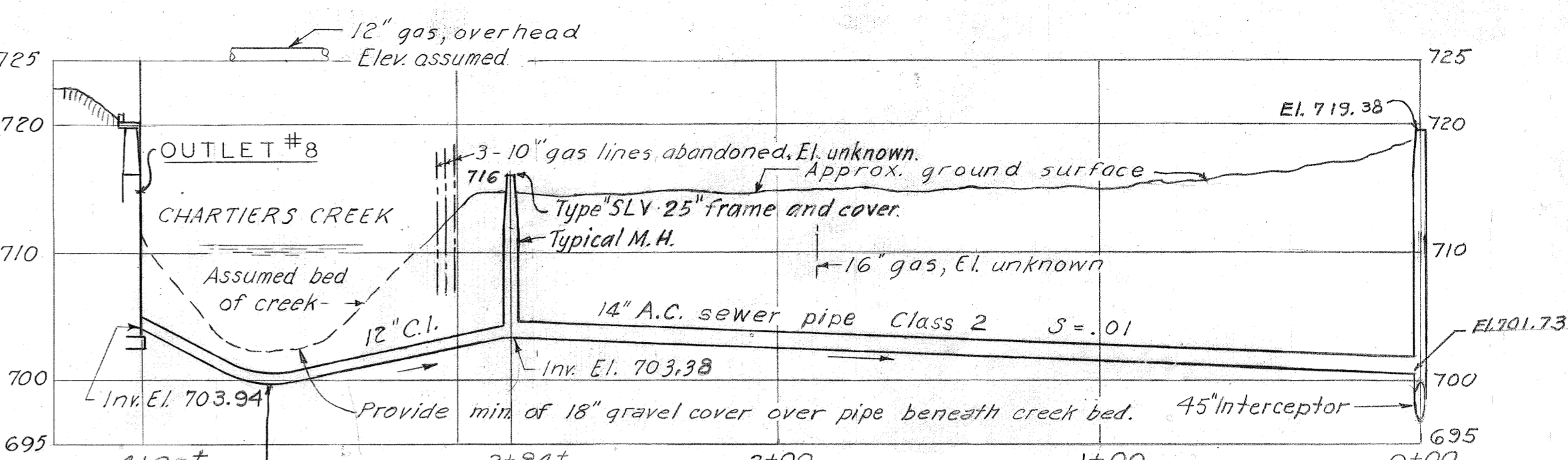
DRAWN BY WEK FCT DWN  
TRACED BY DWN  
CHECKED BY FTA



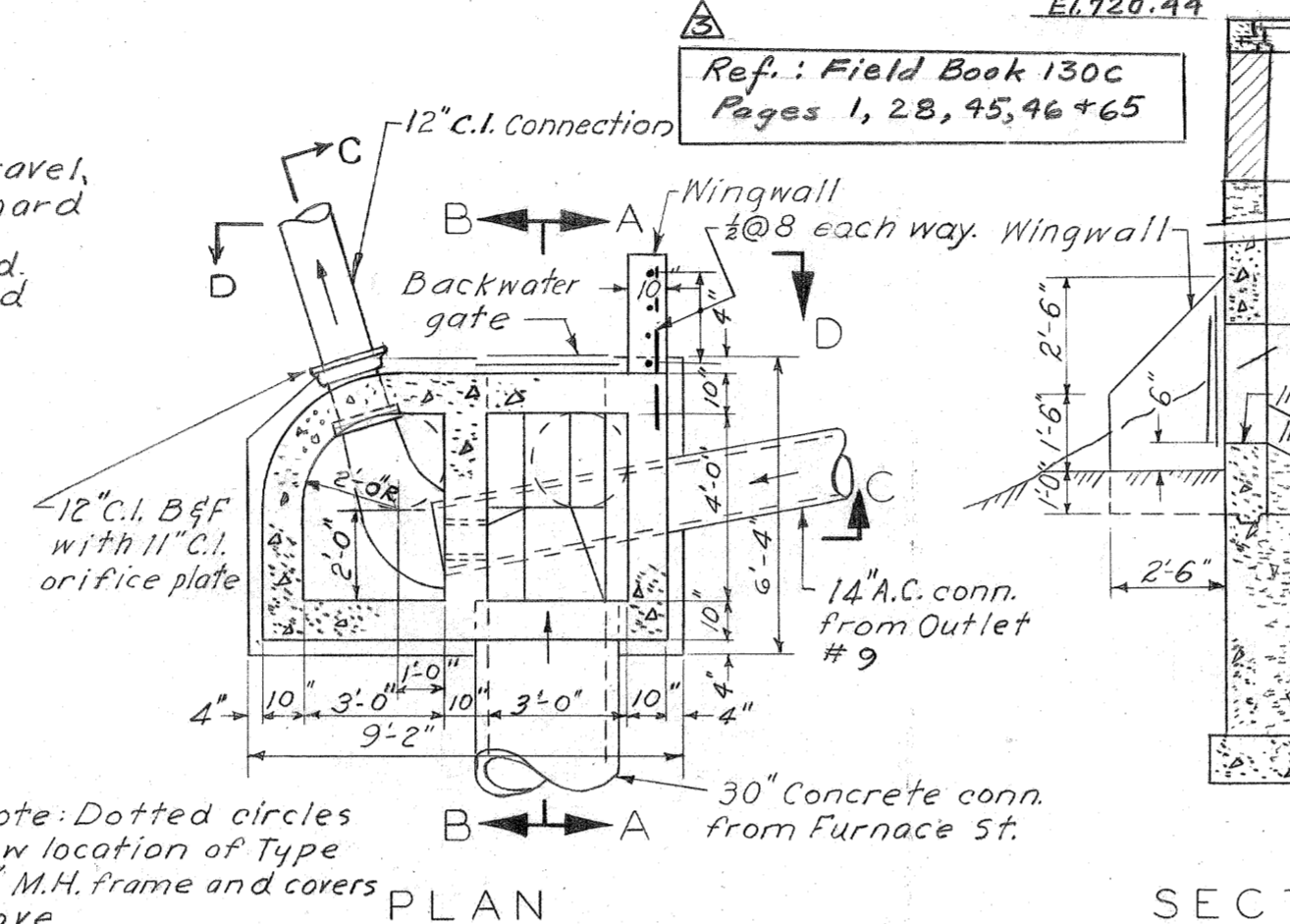
PROFILE FROM FURNACE ST. TO OUTLET NO. 8



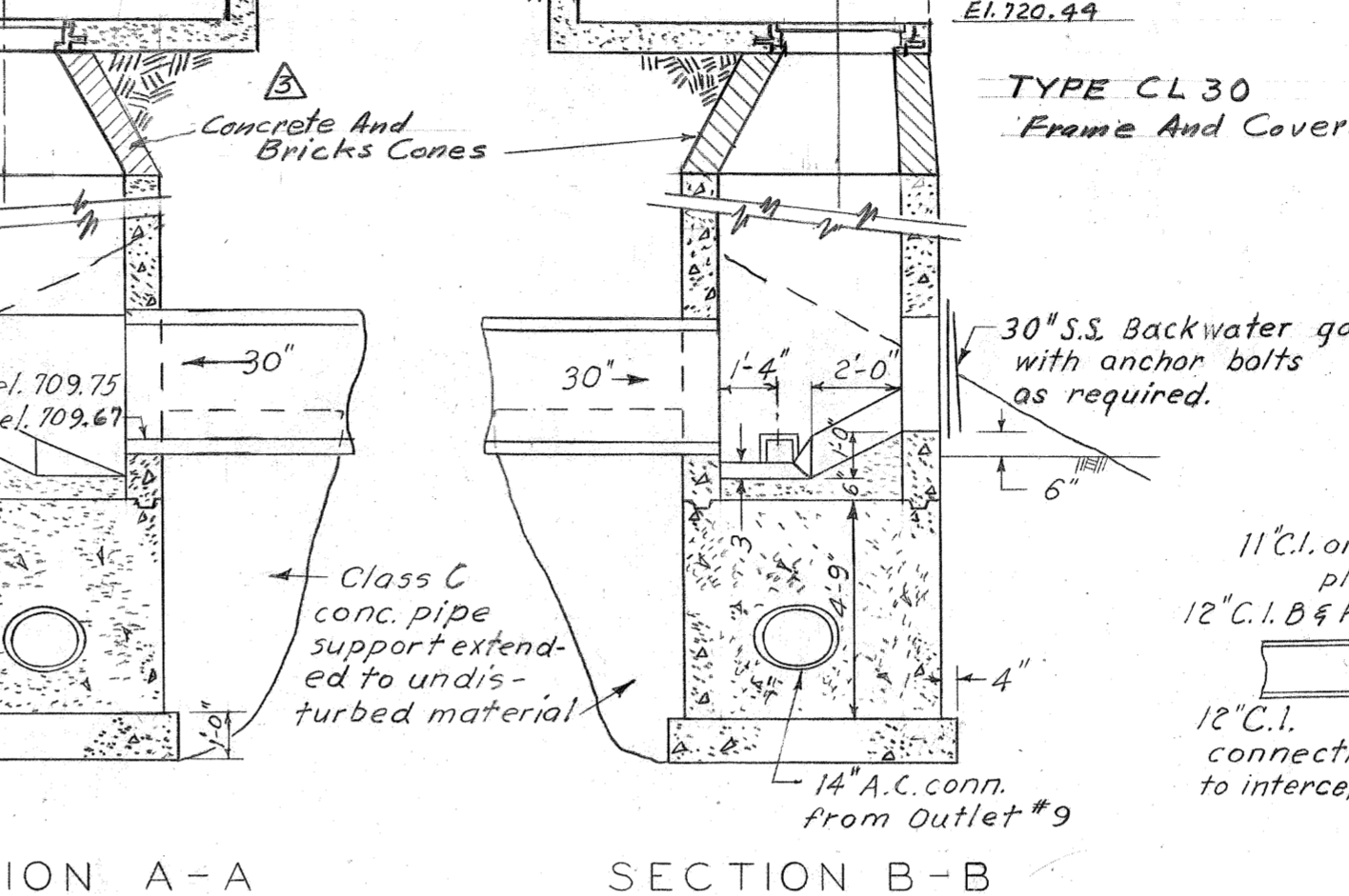
PROFILE FROM OUTLET NO. 9 TO OUTLET NO. 8



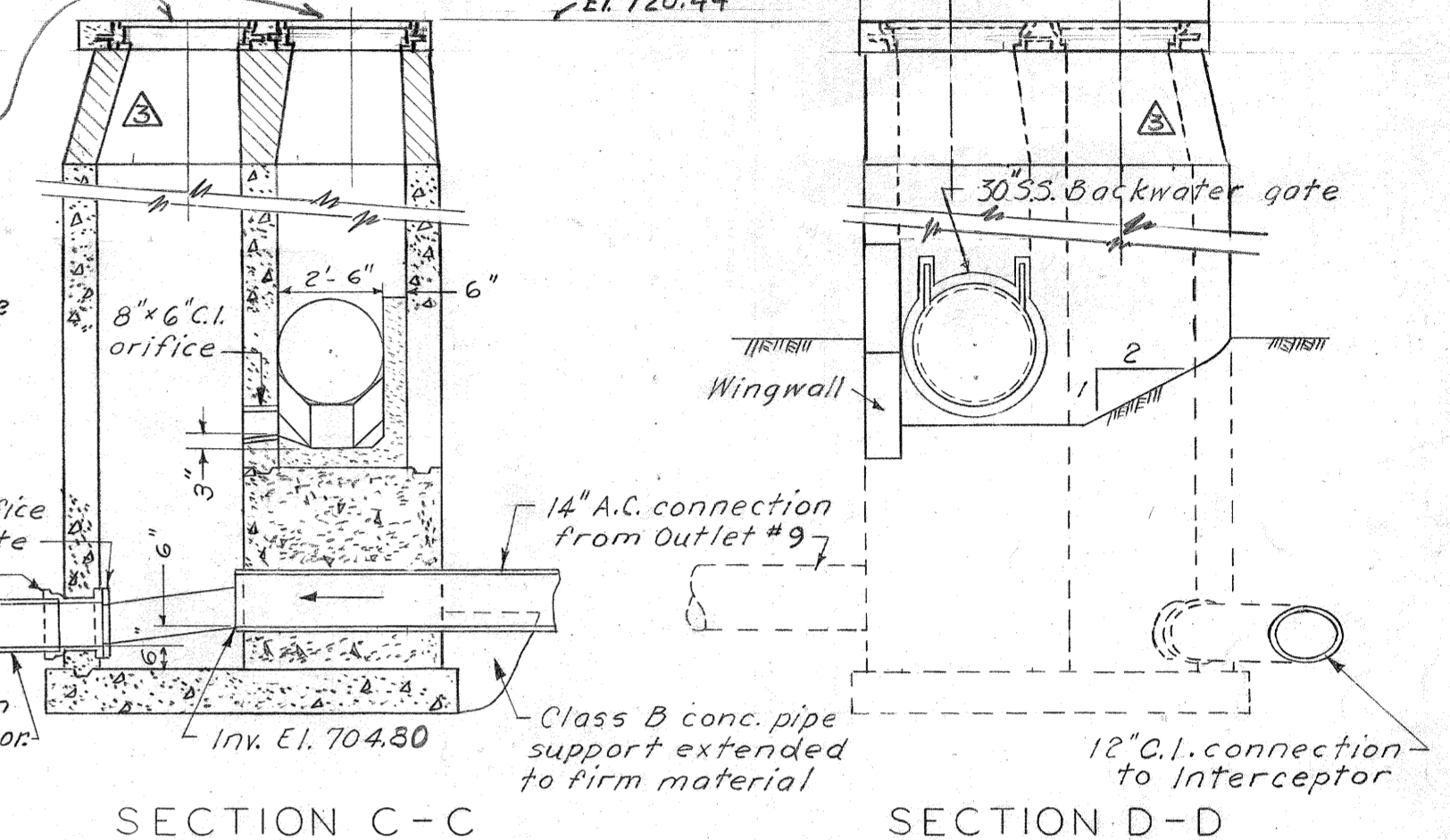
PROFILE FROM OUTLET NO. 8 TO INTERCEPTOR



SECTION A-A



SECTION B-B

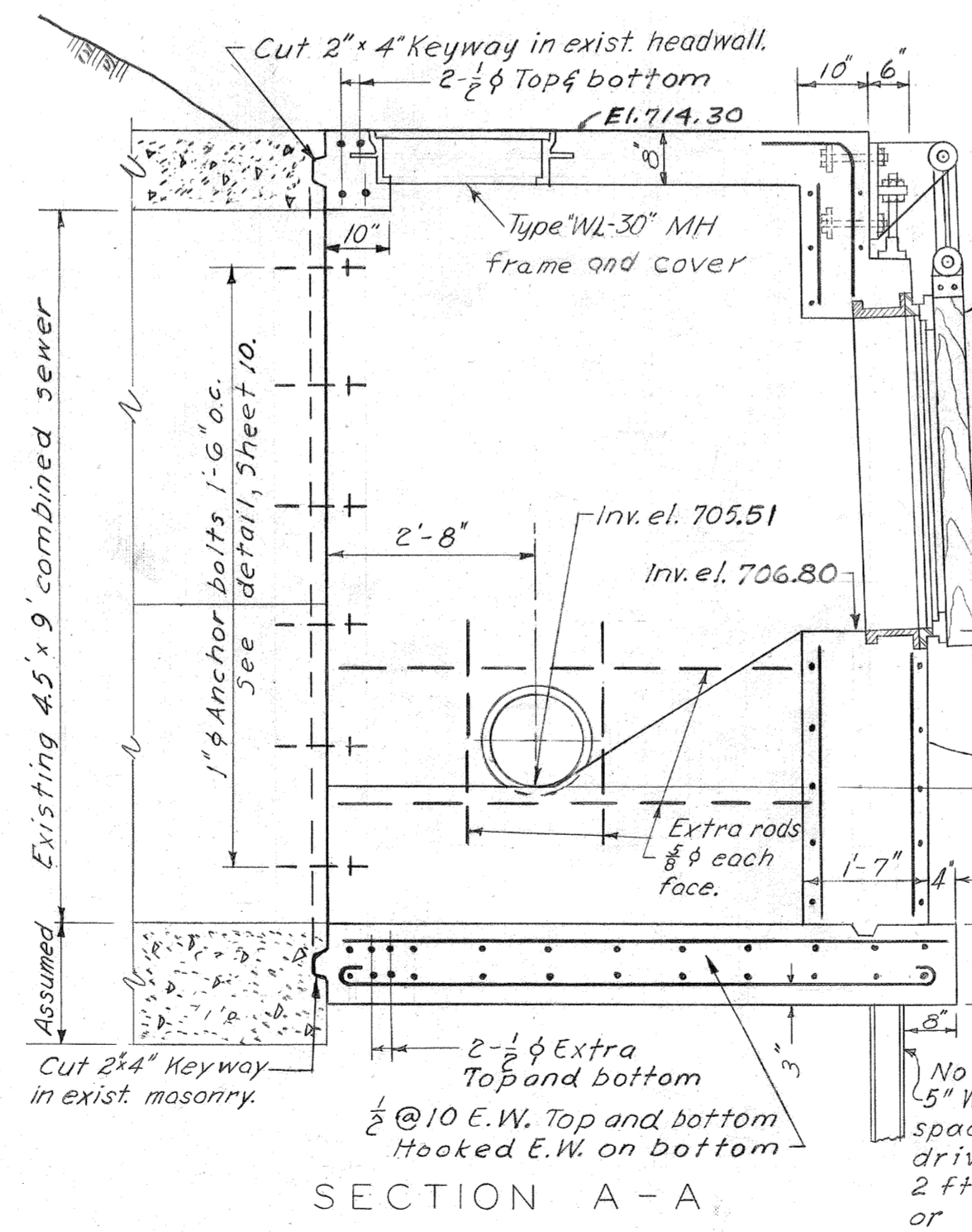


SECTION C-C

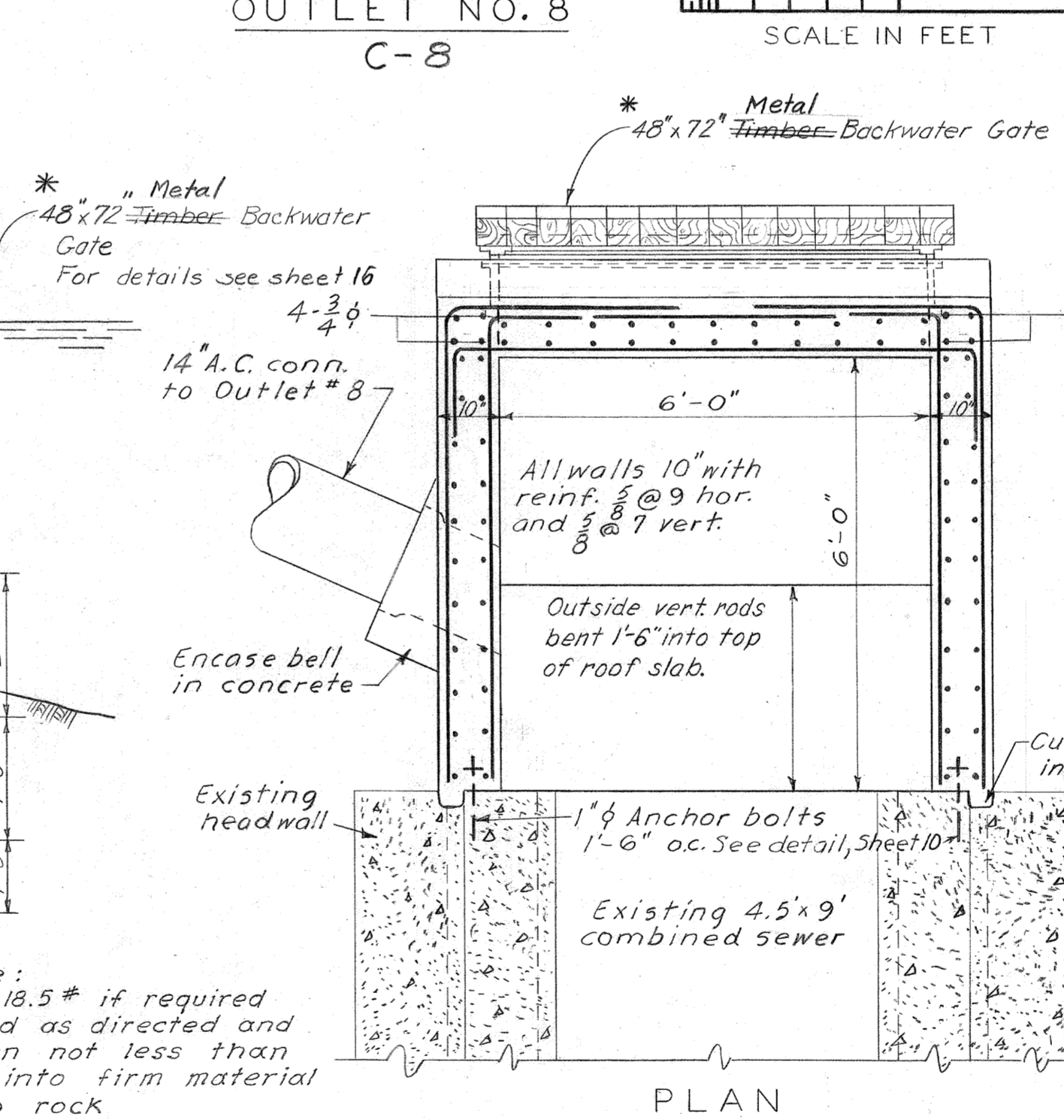
SECTION D-D

OUTLET NO. 8  
C-8  
SCALE IN FEET

Note: All manhole frames and covers, Outlets 8 and 9 are shown as though section passes through center. For typical reinforcing details see Sheet 12



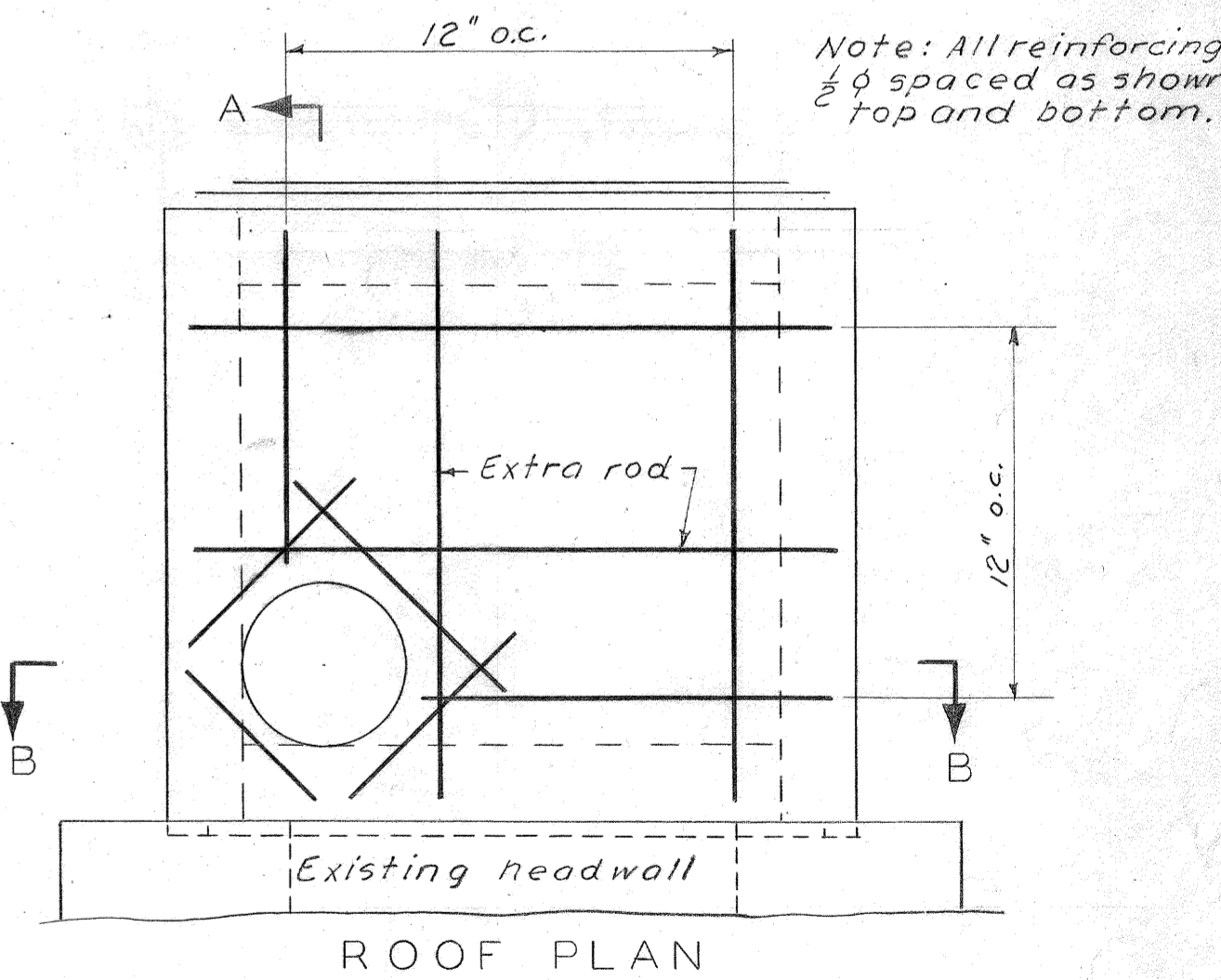
SECTION A-A



SECTION B-B

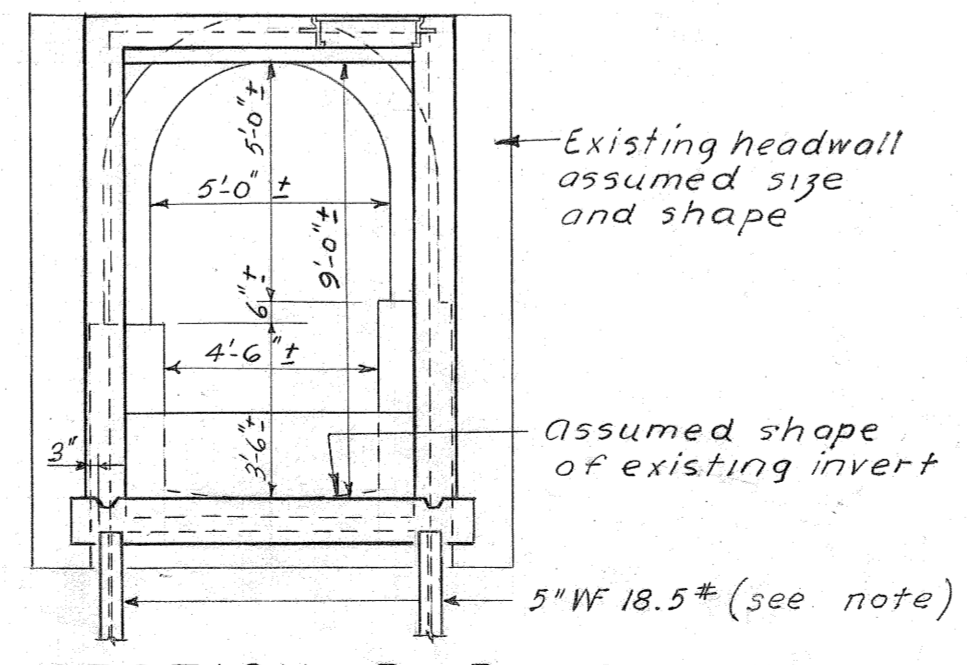
OUTLET NO. 9  
C-9  
SCALE IN FEET

\* Note: -  
Timber Flap Gate replaced with Metal Flap Gate.  
For Details See Purchase Order No. P-6809-1974  
Item No. 12 Gate Replaced 1974



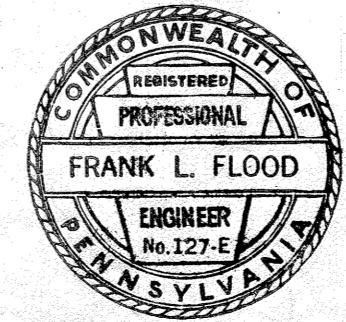
ROOF PLAN

Note: All reinforcing 1/2" spaced as shown top and bottom.



SECTION B-B

General Notes - Both Outlets  
All concrete Class A except as shown.  
For reinforcement not shown see Sheet #12  
Backwater gate anchor bolts to be set in concrete forms by template.  
For details of orifice casting and plates, M.H. frames and covers, metal backwater gates, see Typical Details.



3	3-12-34	J.R.D.	Revised M.H. to El. 920.44
2	6-19-56	M.V.R. G.T.G.	Alignment and Profile of chdn. from Outlet 8 to Sta. 23+12.57
1	9/8/55	J.F.D. J.E.L.	GENERAL REVISION
REVISION MADE BY		CHKD BY	DESCRIPTION
APPROVED			
FOR METCALF & EDDY, ENGINEERS			
Frank L. Flood		3/13/57	DATE
REG. PROF. ENGR. PA. NO. 127-E			

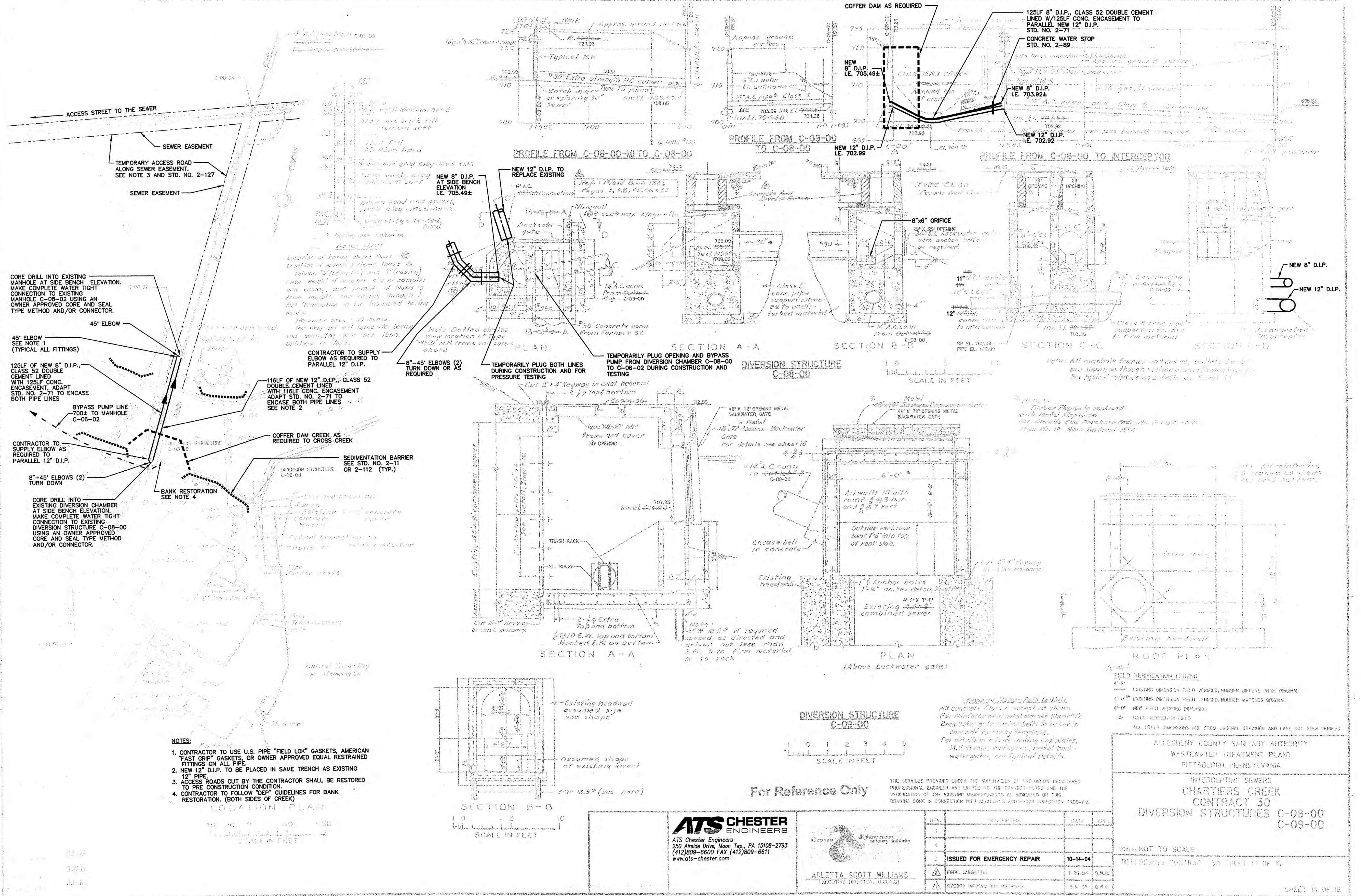
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
CHARTIERS CREEK  
OUTLETS 8, 9

SCALE: AS SHOWN  
DECEMBER, 1951

METCALF & EDDY  
ENGINEERS  
BOSTON, MASS.

24480  
H  
11566



CORE DRILL INTO EXISTING MANHOLE AT SIDE BENCH ELEVATION. MAKE COMPLETE WATER TIGHT CONNECTION TO EXISTING MANHOLE C-08-02 USING AN OWNER APPROVED CORE AND SEAL TYPE METHOD AND/OR CONNECTOR.

45° ELBOW SEE NOTE 1 (TYPICAL ALL FITTINGS)

125LF OF NEW 8" D.I.P., CLASS 52 DOUBLE CEMENT LINED WITH 125LF CONC. ENCASEMENT, ADAPT STD. NO. 2-71 TO ENCASE BOTH PIPE LINES

BYPASS PUMP LINE 700± TO MANHOLE C-08-02

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

CORE DRILL INTO EXISTING DIVERSION CHAMBER AT SIDE BENCH ELEVATION. MAKE COMPLETE WATER TIGHT CONNECTION TO EXISTING DIVERSION STRUCTURE C-08-00 USING AN OWNER APPROVED CORE AND SEAL TYPE METHOD AND/OR CONNECTOR.

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

CONTRACTOR TO SUPPLY ELBOW AS REQUIRED TO PARALLEL 12" D.I.P.

8"-45° ELBOWS (2) TURN DOWN

- NOTES:**
- CONTRACTOR TO USE U.S. PIPE "FIELD LOK" GASKETS, AMERICAN "FAST GRIP" GASKETS, OR OWNER APPROVED EQUAL RESTRAINED FITTINGS ON ALL PIPE.
  - NEW 12" D.I.P. TO BE PLACED IN SAME TRENCH AS EXISTING 12" PIPE.
  - ACCESS ROADS CUT BY THE CONTRACTOR SHALL BE RESTORED TO PRE CONSTRUCTION CONDITION.
  - CONTRACTOR TO FOLLOW "DEP" GUIDELINES FOR BANK RESTORATION. (BOTH SIDES OF CREEK)

LOCATION PLAN  
SCALE IN FEET

SECTION B-B  
SCALE IN FEET

DIVERSION STRUCTURE C-09-00  
SCALE IN FEET

For Reference Only

**ATS CHESTER ENGINEERS**  
ATS Chester Engineers  
250 Arside Drive, Moon Twp., PA 15109-2793  
(412)809-6600 FAX (412)809-6611  
www.ats-chester.com

ARLETTA SCOTT WILLIAMS  
EXECUTIVE DIRECTOR, ALLEGHENY COUNTY SANITARY AUTHORITY

REV.	DESCRIPTION	DATE	APP.
5			
4			
3	ISSUED FOR EMERGENCY REPAIR	10-14-04	
2	FINAL SUBMITTAL	7-26-04	D.M.S.
1	RECORD INFORMATION ONLY	5-14-03	D.M.S.

**FIELD VERIFICATION LEGEND**

4'-2"	EXISTING DIMENSION FIELD VERIFIED, NUMBER DIFFERS FROM ORIGINAL
4'-0"	EXISTING DIMENSION FIELD VERIFIED, NUMBER MATCHES ORIGINAL
4'-0"	NEW FIELD VERIFIED DIMENSION
4'-0"	DIM. VERIFIED IN FIELD
4'-0"	ALL OTHER DIMENSIONS ARE FROM ORIGINAL DRAWINGS AND HAVE NOT BEEN VERIFIED

ALLEGHENY COUNTY SANITARY AUTHORITY  
WASTEWATER TREATMENT PLANT  
PITTSBURGH, PENNSYLVANIA

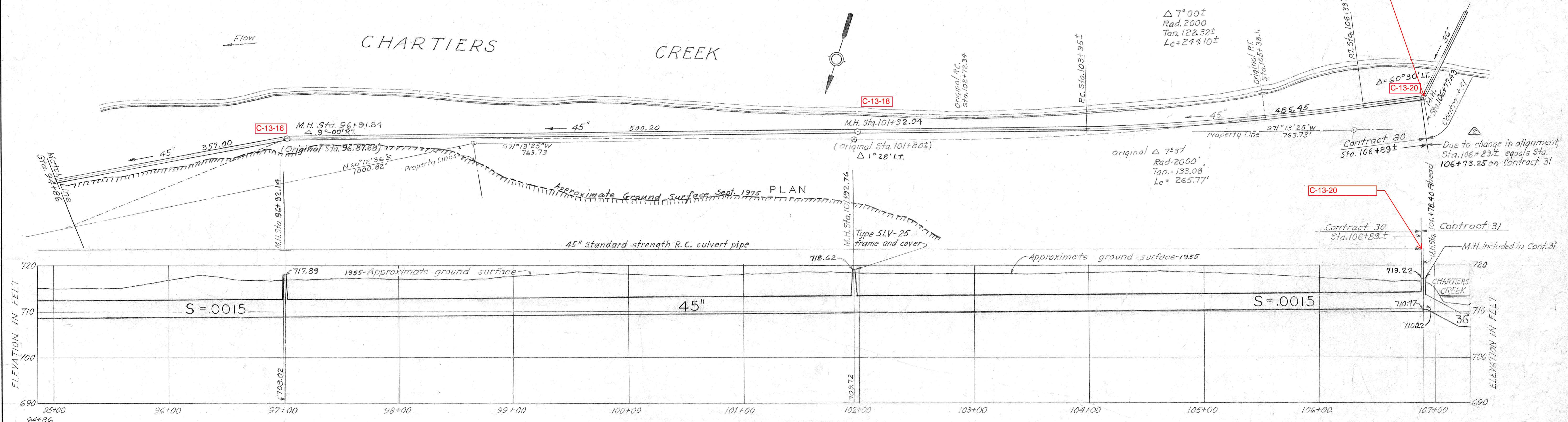
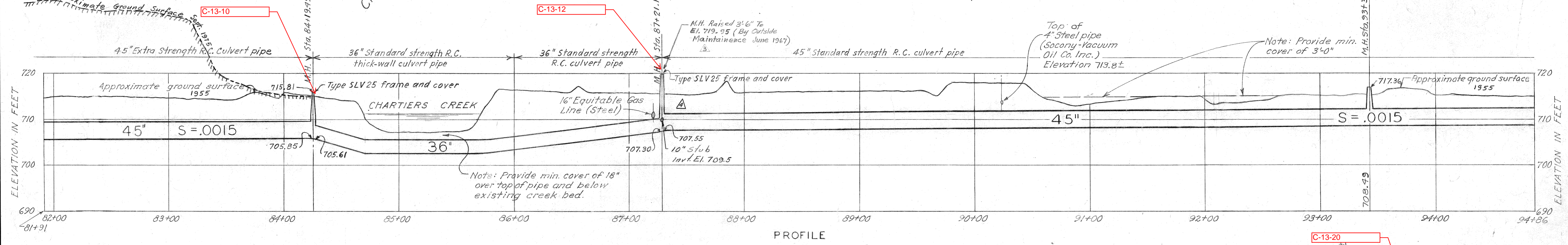
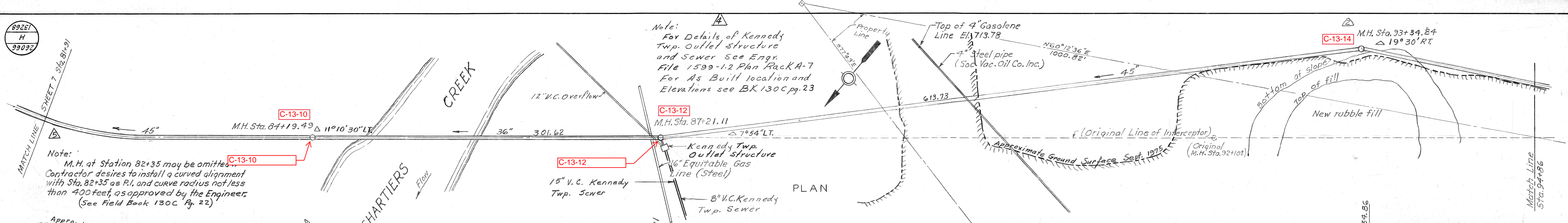
INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
CONTRACT 30  
DIVERSION STRUCTURES C-08-00  
C-09-00

SCALE: NOT TO SCALE  
REFERENCE: CONTRACT 30 SHEET 15 OF 16

SHEET 14 OF 15



89261  
H  
33037



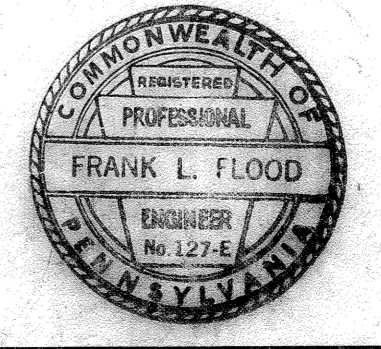
Approximate Ground Surface Sept. 1975 Field Book 130C Pgs. 59 To 64

M.H. at Sta. 82.35 eliminated and replaced with 400' radius curve.

Note: For General Notes see Sheet 5

DRAWN BY J.E.L.  
TRACED BY J.E.L.  
CHECKED BY F.T.A.-J.E.L.

REVISION	MADE BY	DATE	DESCRIPTION
5	2-25-82	J.R.D.	M.H. at 82+35 Eliminated Added Ground Surface - 1975
4	2-6-82	A.A.S.	Kennedy Twp. Outlet Structure and Sewer added Sta. 87+28
3	7-18-77	J.R.D. A.A.S.	Plan, Revised 3'4" to EL. 719.95 By Outside Maintenance
2	3-19-57	M.V.R. G.T.G. L.M.G.	ALIGNMENT CHANGED FROM STA. 87+28 TO STA. 106+89.25
1	12-13-55	M.V.R. G.T.G. L.M.G.	Alignment changed 30' Manhole added at Sta. 82+35



APPROVED  
FRANK L. FLOOD  
REG. PROF. ENGR. PA. NO. 127-E

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
CHARTIERS CREEK  
DETAIL PLAN AND PROFILE  
STA. 81+86 TO 106+73.25

HOR. SCALE: 1"=40'  
VERT. SCALE: 1"=10'  
SEPTEMBER 1955

METCALF & EDDY  
ENGINEERS  
BOSTON, MASS.

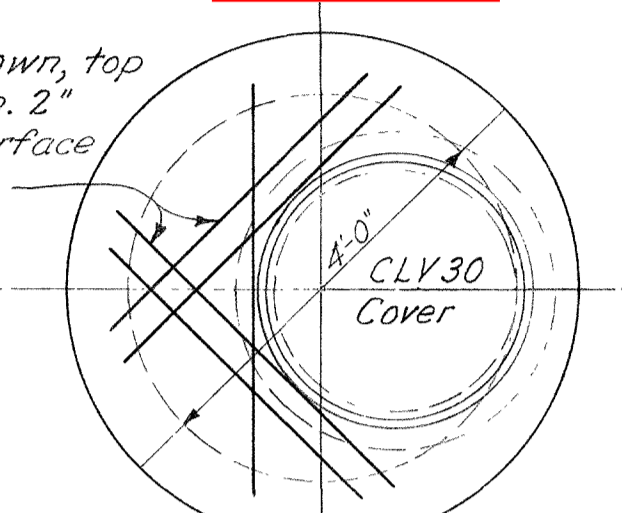
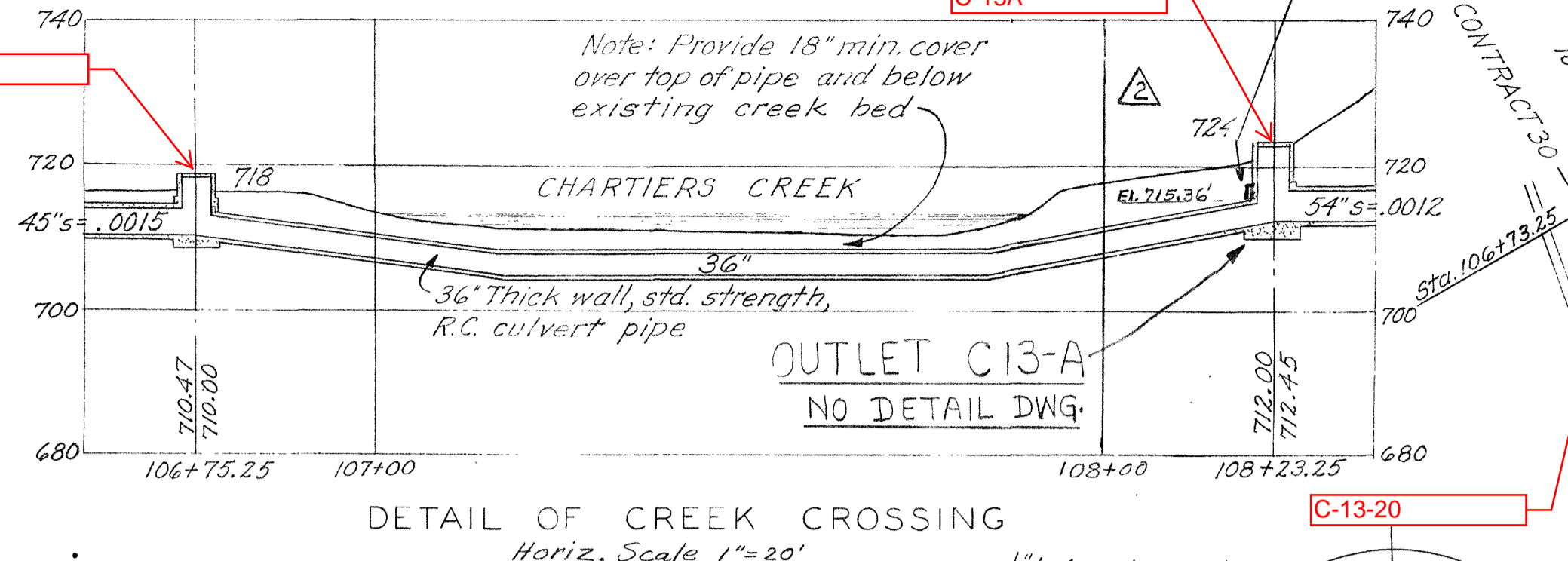
26606  
H  
13268

69911  
H  
68942

Field Book 130C Page 26  
(April 12, 1976)

#183

C	5	380"	380"
0.0	†	2'0.D.	747.5
6.0	6	2	6.0' cinders loose fill
10.5	9	4	4.5' brown sandy clay & stone, some cinders, some pcs. red brick. Firm - fill
17.5	5		8.5' gray sandy clay and stone. Firm - fill
19.0	25	6	8.0' gray clay shale Firm - fill
27.0	42	10	5.0' gray silt Firm
32.0	31	3	4.0' brown clay, fine sand & stones, traces of coal Compact
49.0	10		9.0' brown sand & gravel, some clay, some stone Compact
41.0	51	8	



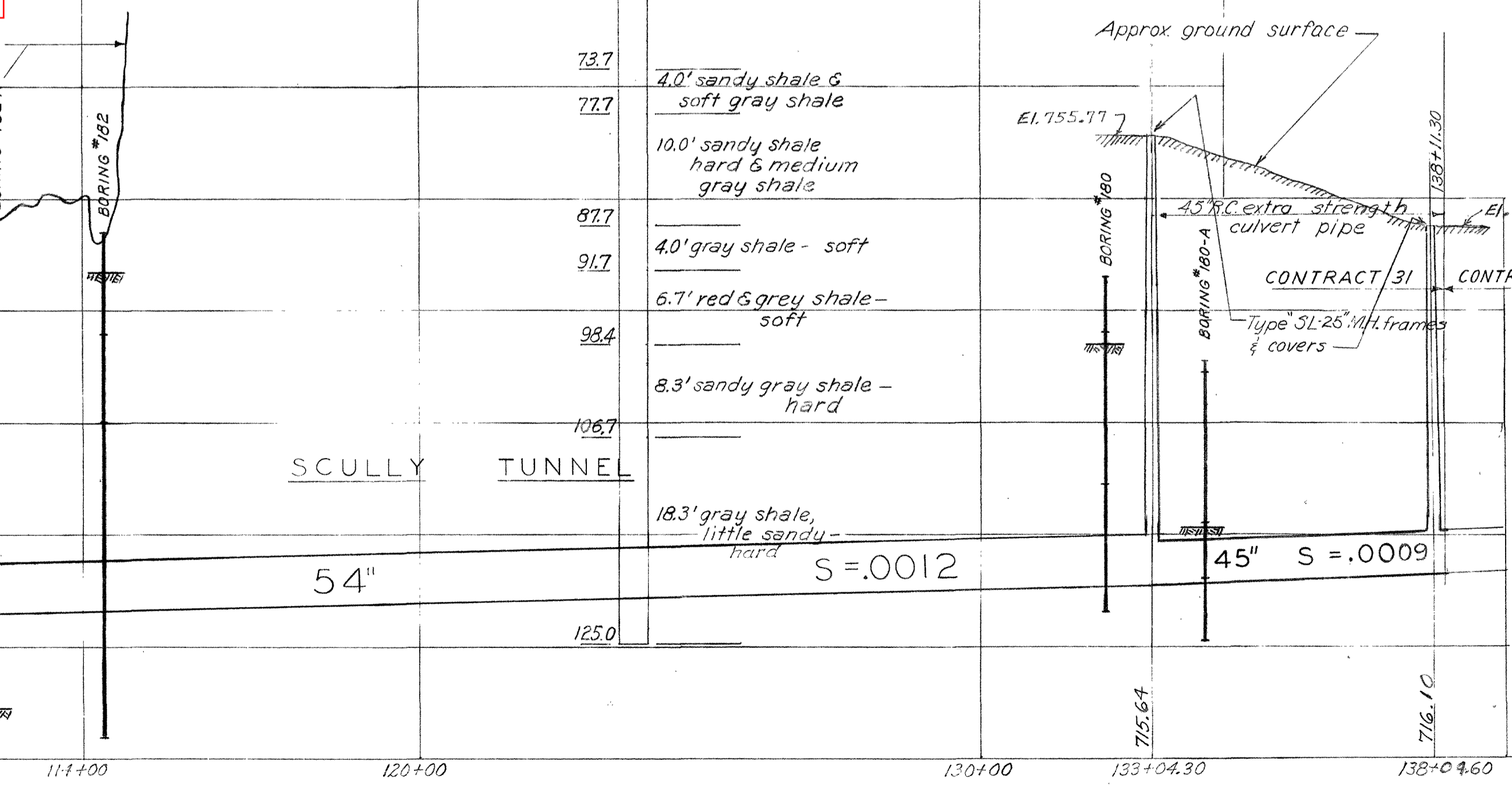
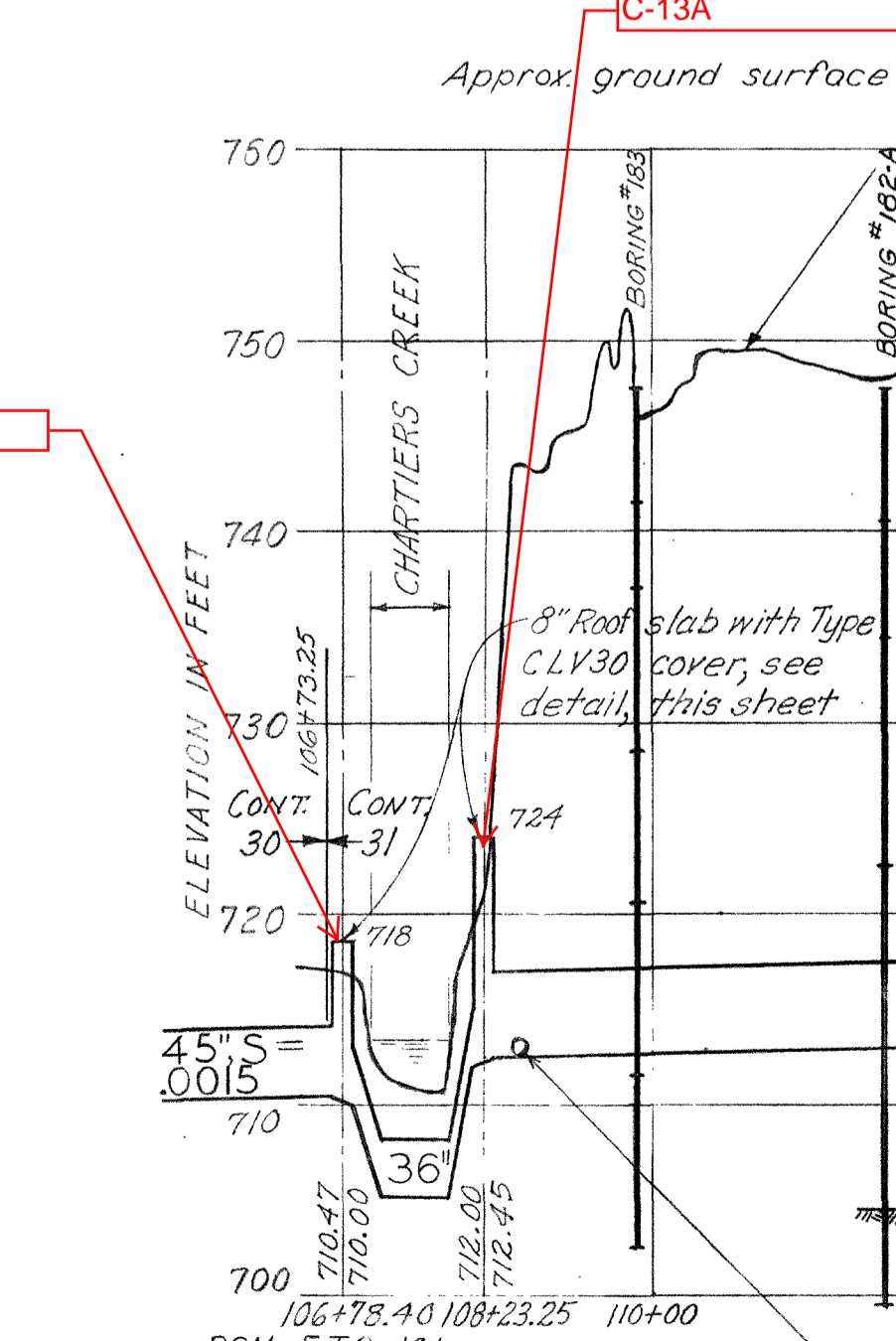
**Boring Notes**  
Location of boring shown thus: ●  
Location of sounding shown thus: ●  
Columns "S" (sampler) and "C" (casing) show weight of hammer, size of casing and sampler and casing, and number of blows to drive sampler and casing through 1 foot terminating at the indicated boring depth.  
Hammer drop = 30 inches  
For original and complete boring and sounding data see Penn. Drilling Co. records.

#182A

C	5	380"	380"
0.0	†	2'0.D.	747.5
7.0	5	2	7.0' cinders - Loose - fill
13.0	11	4	6.0' brown clay & coal, some stones - Loose - fill
25.0	5	2	12.0' gray slag - Loose - fill
32.0	31	5	7.0' brown clay Firm
43.0	7	7	11.0' sand & gravel, some clay, some stones. Fairly compact
48.0	7	6	5.0' soft gray shale with hard streaks

#181

C	5	380"	380"
0.0	†	2'0.D.	835.2
2.0	5	2	2.0' top soil - Loose
5.0	12	9	3.0' red & yellow clay - firm
15.22	15	22	9.5' variegated clay shale - firm
14.5	39	26	1.5' soft clay shale - Compact
16.0			
			16.5' very soft red clay shale
32.5	32.1		1.6' gray broken shale - water stains
			13.5' red & gray clay shale
47.6			5.1' hard gray shale
52.7			
			21.0' dark gray shale - medium



#182

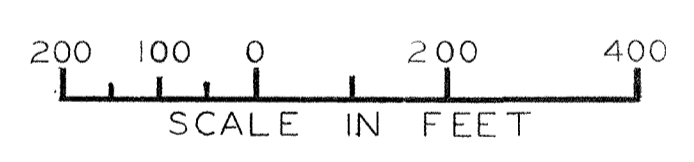
C	5	380"	380"
0.0	†	2'0.D.	746.9
3.3	70		3.5' gray clay & cinders, variegated shale - loose
9.0			5.5' variegated shale - Hard
17.0			8.0' gray sandstone - Hard
45.0			28.0' gray sandy shale

#180

C	5	380"	380"
0.0	†	2'0.D.	743.0
5.0	21	3	5.0' weathered sandstone, some clay, little sand - med. hard
6.0	44	32	10' weathered sandstone - hard Refusal
18.5			Slightly broken
			12.5' gray sandstone - hard Very broken
30.0			Med. hard
			11.5' gray shale - broken hard

#180A

C	5	380"	380"
0.0	†	2'0.D.	735.5
1.0			1.0' top soil
13.7			13.5' stones & clay, some sand - compact
14.6			
14.5			0.5' brown sandy shale
15.0	28	23	4.5' gray sandstone & broken shale
19.5			5.5' gray sandstone - hard
25.0			



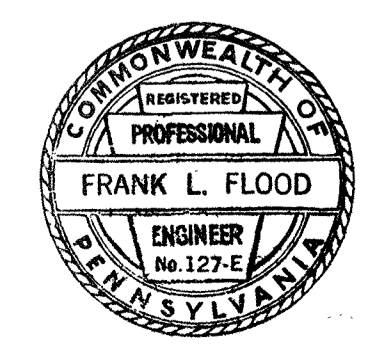
PLAN

PROFILE

DRAWN BY FCM FTQ J&L  
TRACED BY FCM  
CHECKED BY FCT

10" C.I. Water Line  
(Penna. Railroad Co.)  
At Sta. 108+65±

Field Book 130A Page 29  
(10/31/68)



2	5/31/77	J.R.D.	A.A.S.	Add 24" Dia. Overflow Grate
1	8/2/68	J.E.L.	F.T.A.	GENERAL REVISIONS
				REVISION MADE BY CHK'D BY DESCRIPTION
APPROVED				
FOR METCALF & EDDY, ENGINEERS				
Frank L. Flood				4/13/65
REG. PROF. ENGR. PA. NO. 127-E				DATE

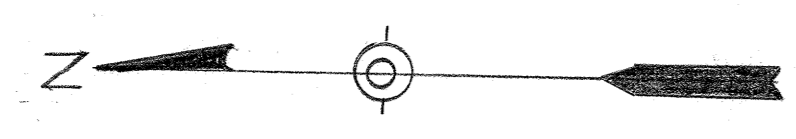
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
PLAN - PROFILE - BORINGS  
STA 106+73.25 TO 138+11.30

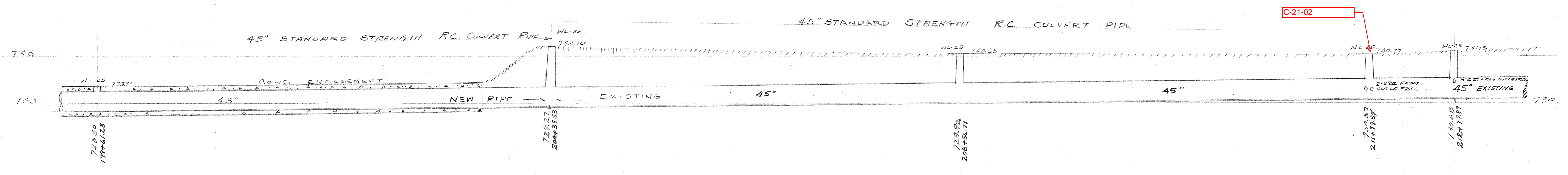
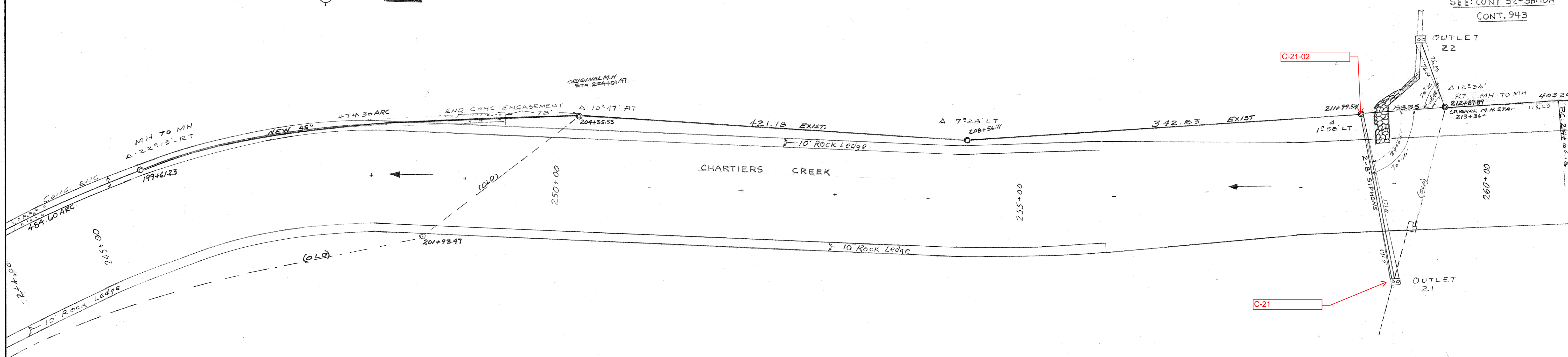
SCALE: AS SHOWN DECEMBER, 1951

METCALF & EDDY  
ENGINEERS  
BOSTON, MASS.





SEE: CONT 32-SH-18A  
CONT. 943



REF 132F Pg 15-19

DRAWN BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_

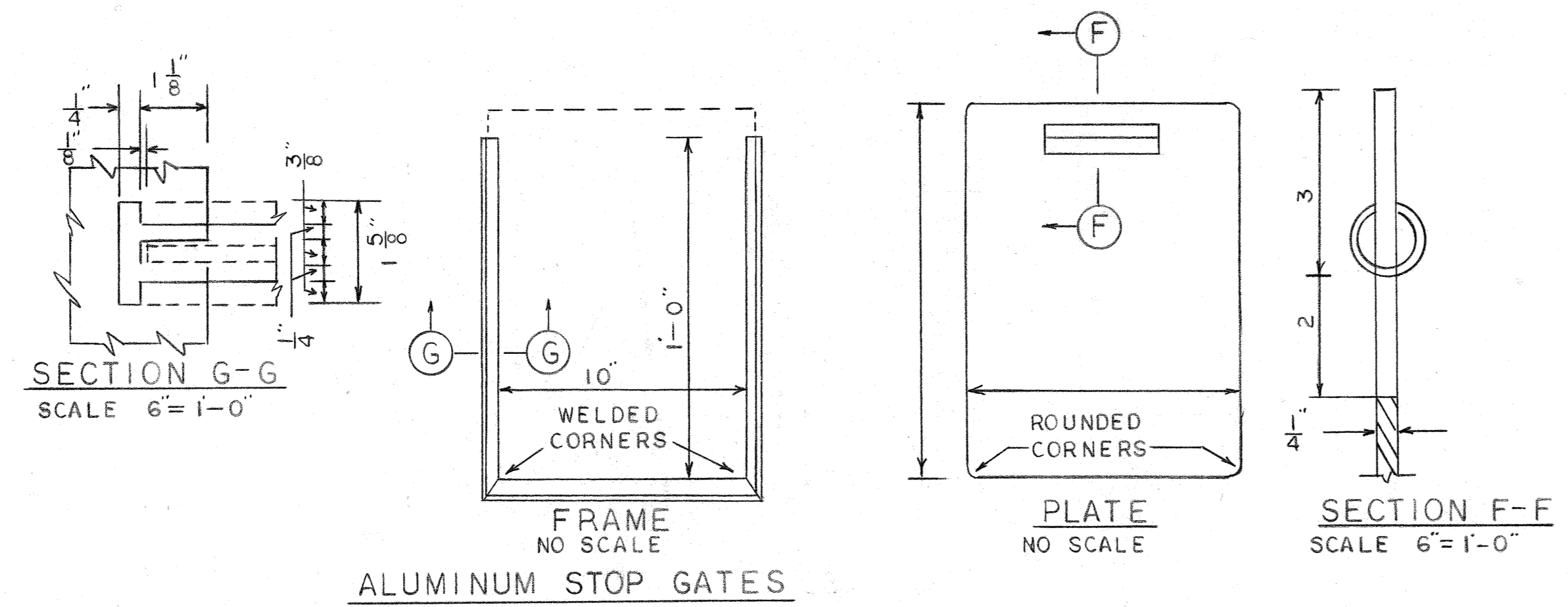
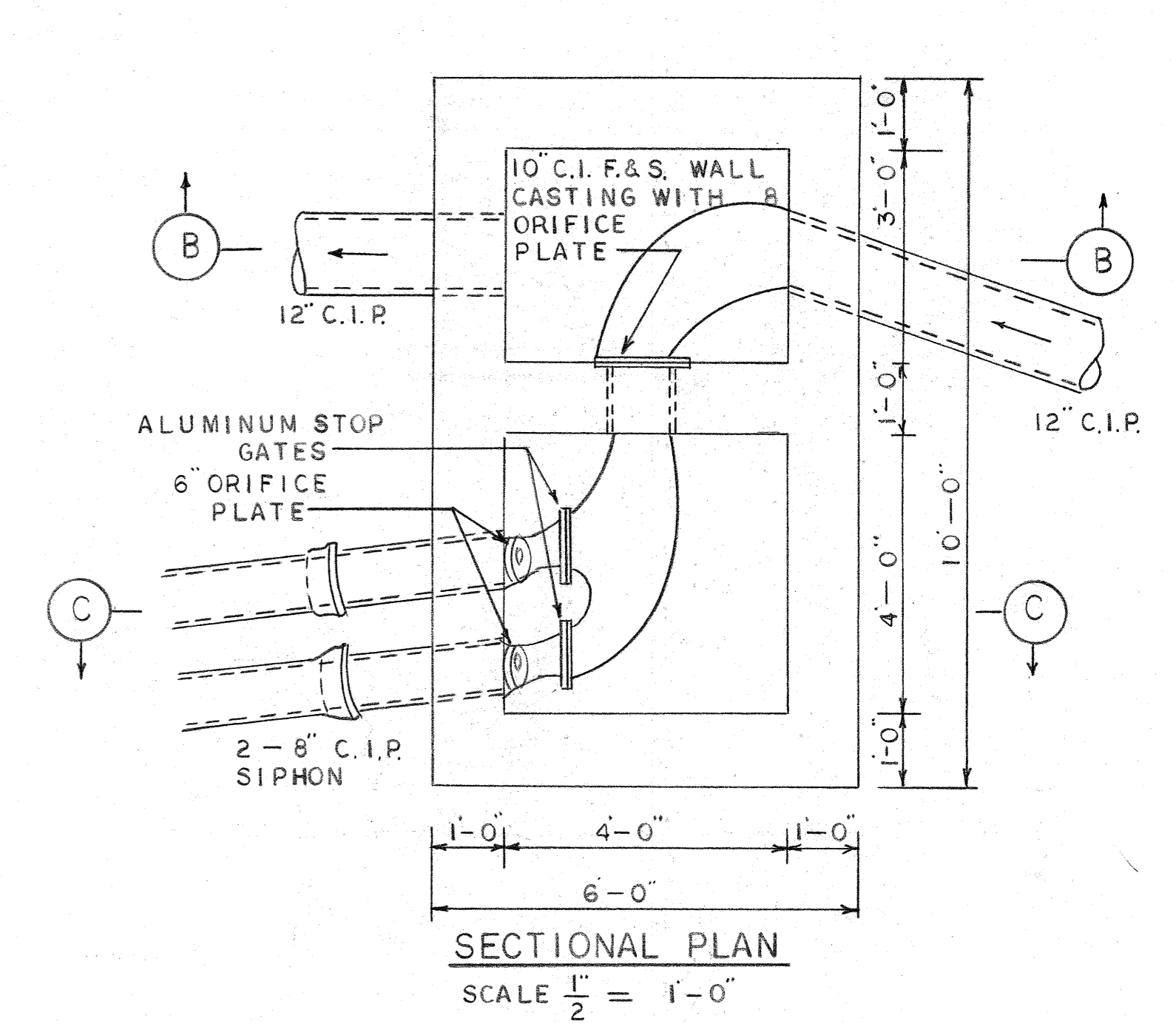
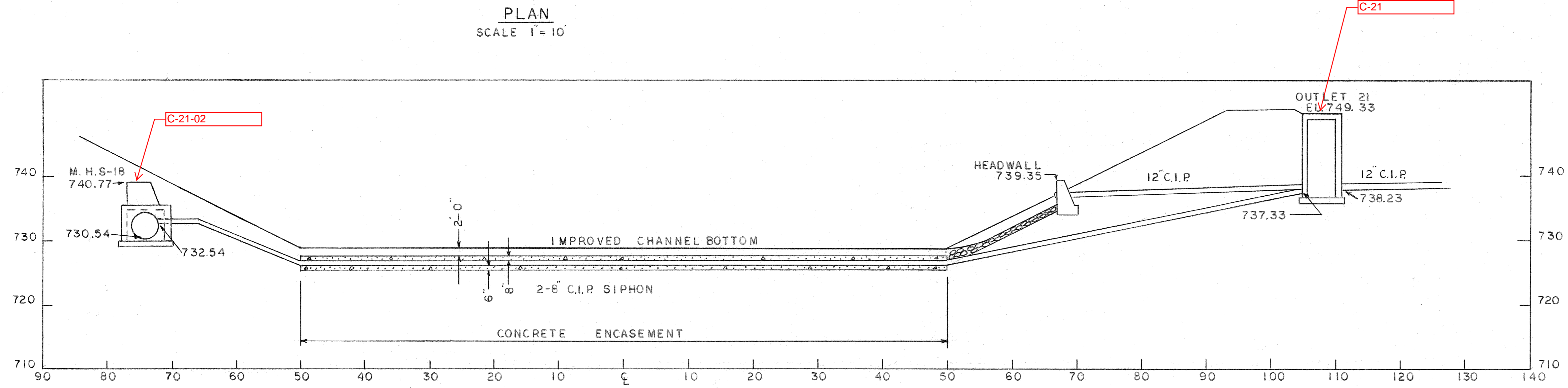
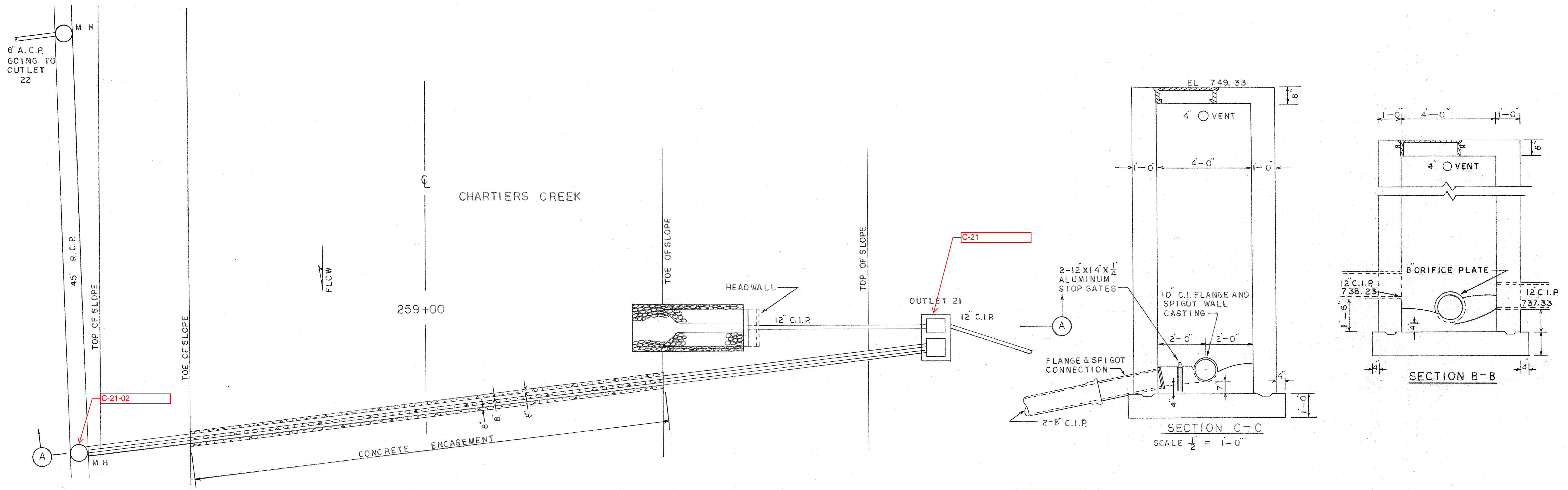
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1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
**CHARTIERS CREEK**

DETAIL PLAN AND PROFILE  
STA. 199+61.23 TO STA. 212+87.89

SCALE HOR. 1" = 50'  
VERT 1" = 10'



REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWER C-21

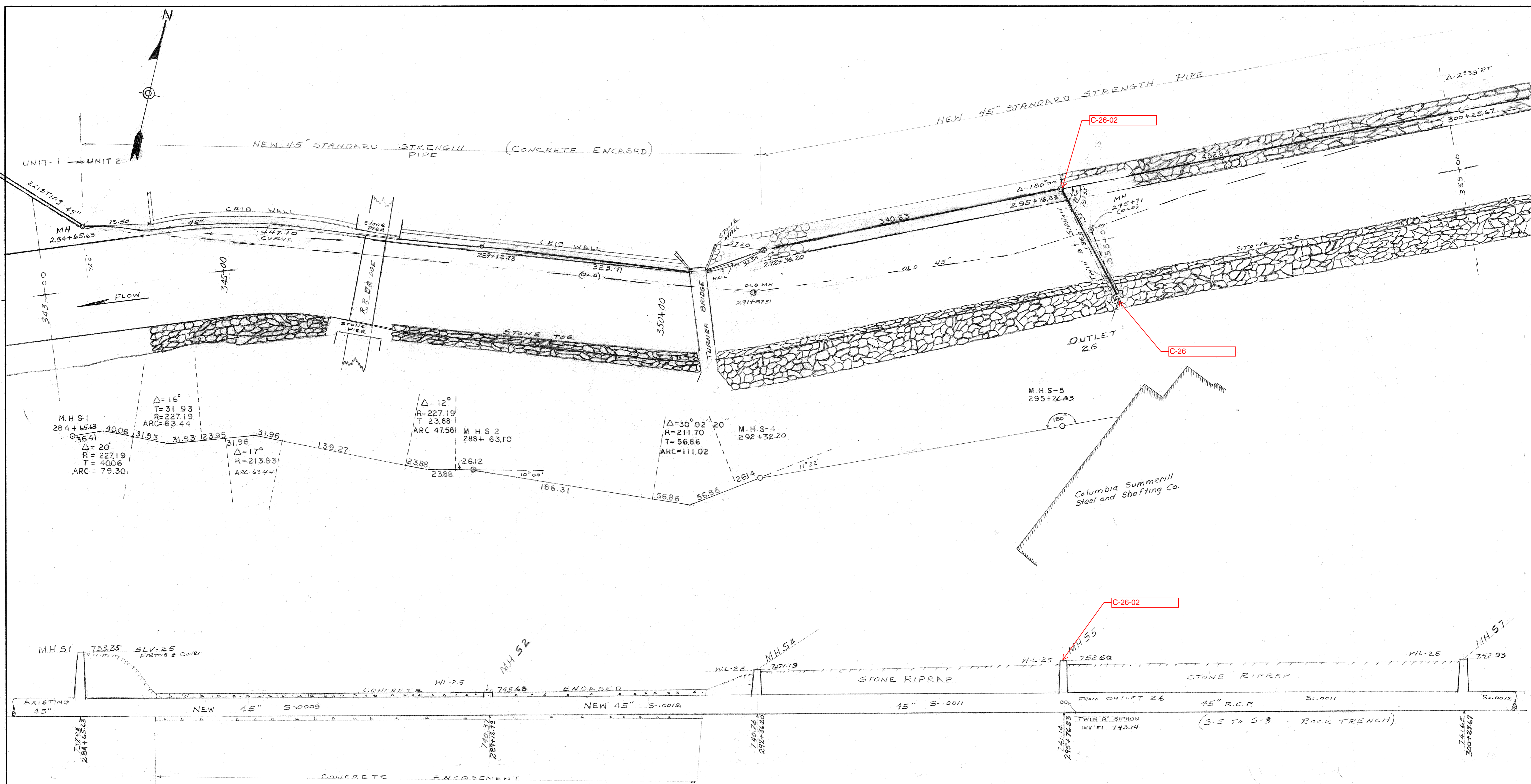
CHARTIERS CREEK

OUTLET 21

SCALE AS SHOWN

MARCH 1974

DRAWN BY \_\_\_\_\_  
TRACED BY CCS  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_



REF 132#133 As BUILT Pg 1-5

ACSA #  
1601-16.3  
CE-342-379+70

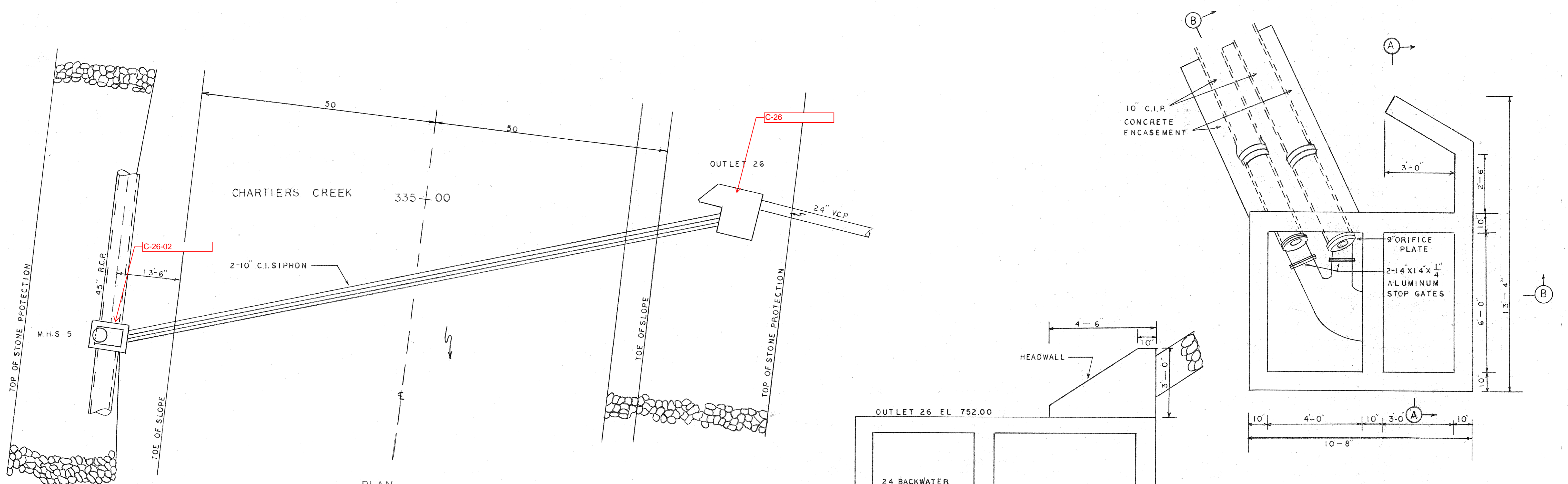
**ALLEGHENY COUNTY SANITARY AUTHORITY**  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWER  
CHARTIERS CREEK  
DETAIL PLAN AND PROFILE  
STA. 284+65.63 TO STA. 300+29.67

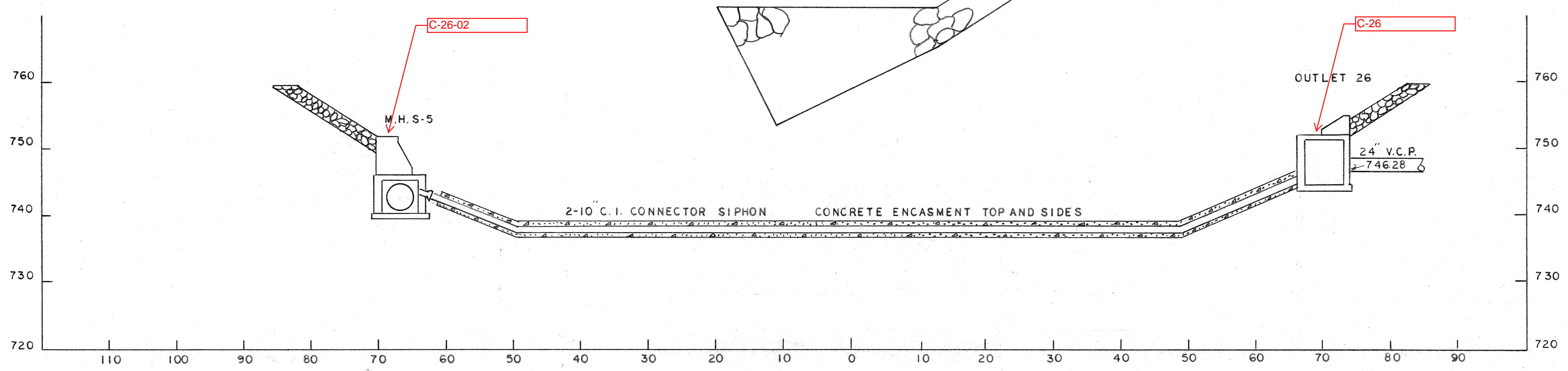
HOR. 1" = 50'  
VERT. 1" = 10'

DRAWN BY PRC  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_

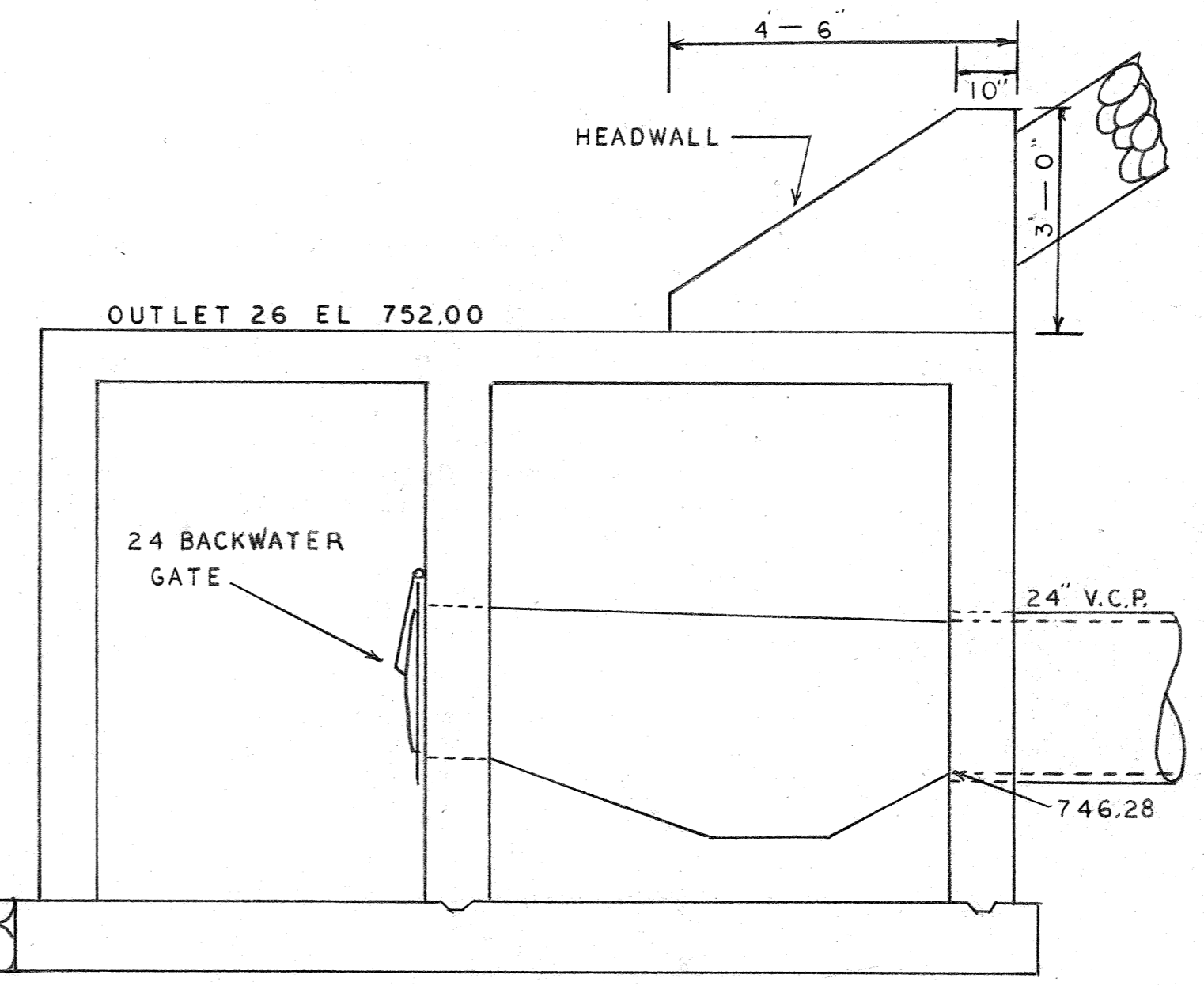
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1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____



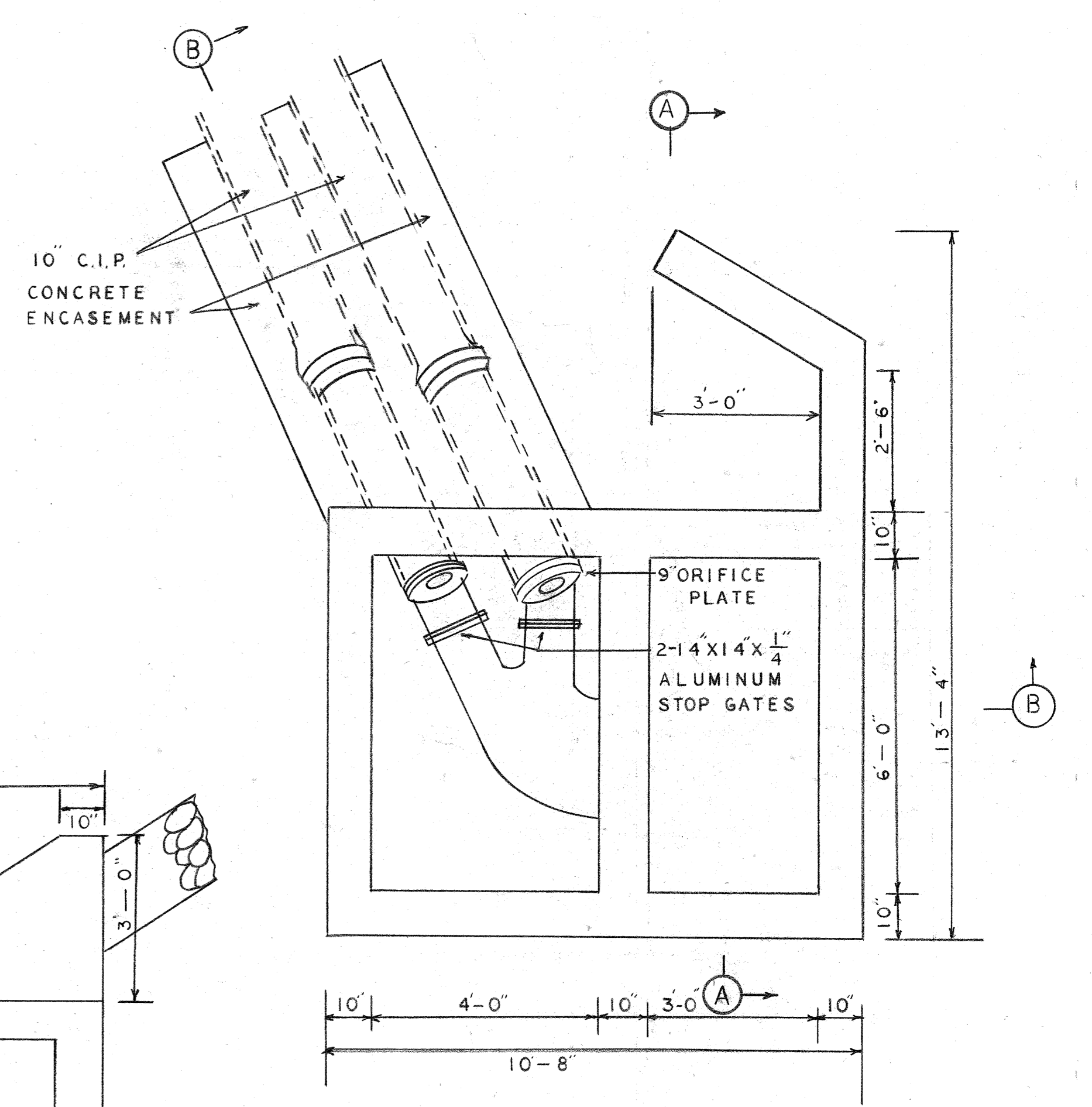
PLAN  
SCALE 1"=10'



PROFILE



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



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

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

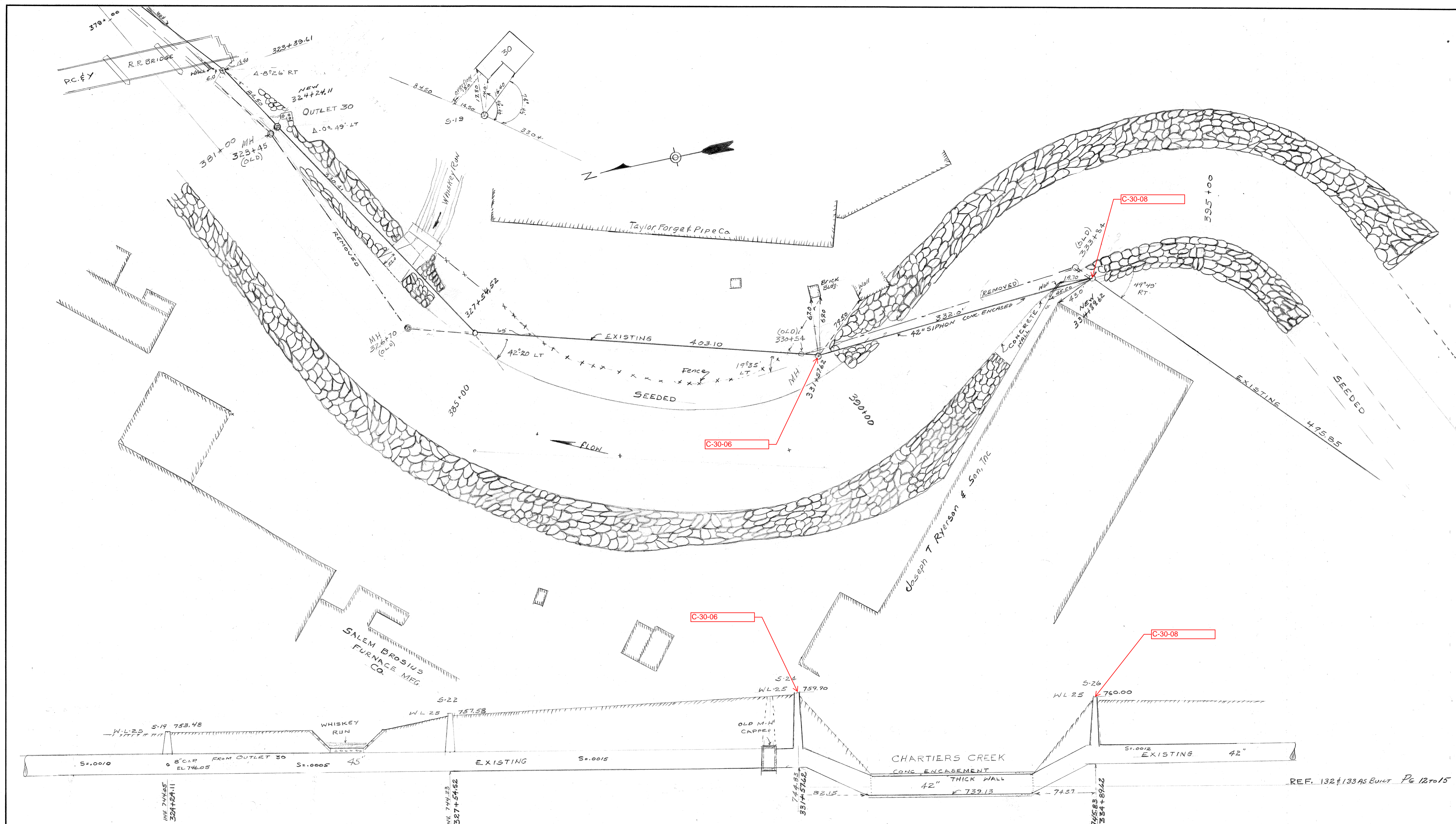
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS C-26

CHARTIERS CREEK  
OUTLET 26

SCALE AS SHOWN MARCH 1974

DRAWN BY \_\_\_\_\_  
TRACED BY C.C.S.  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_



C-30-06

C-30-08

C-30-06

C-30-08

DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

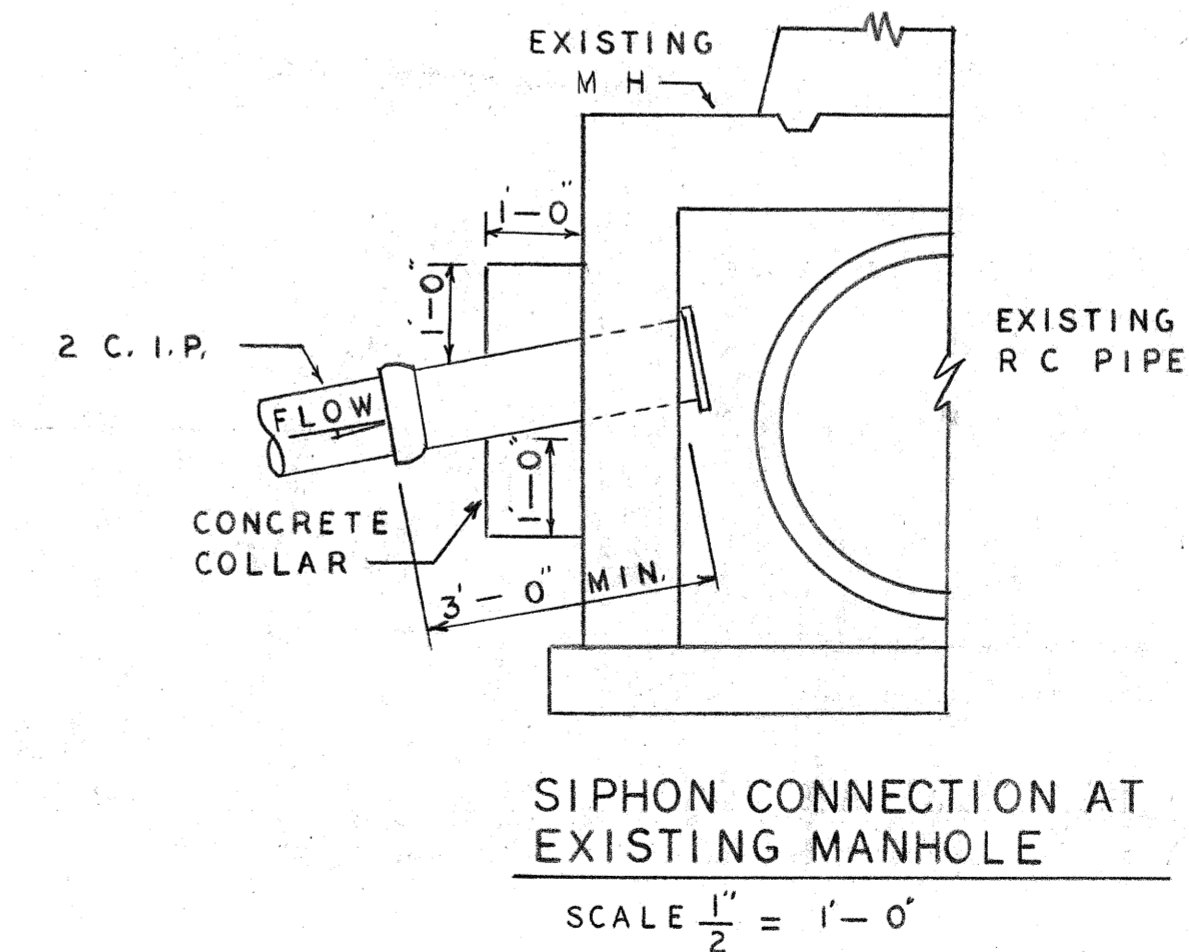
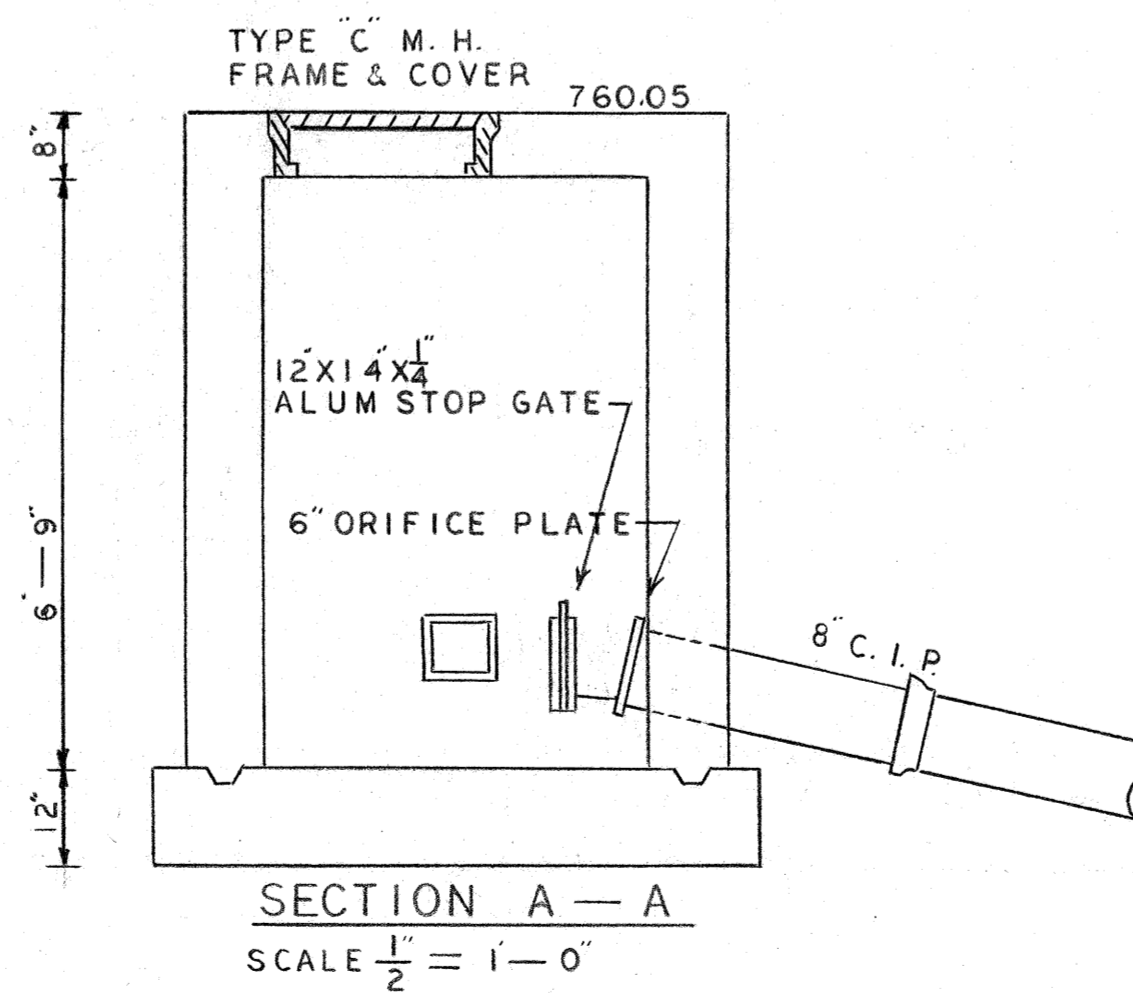
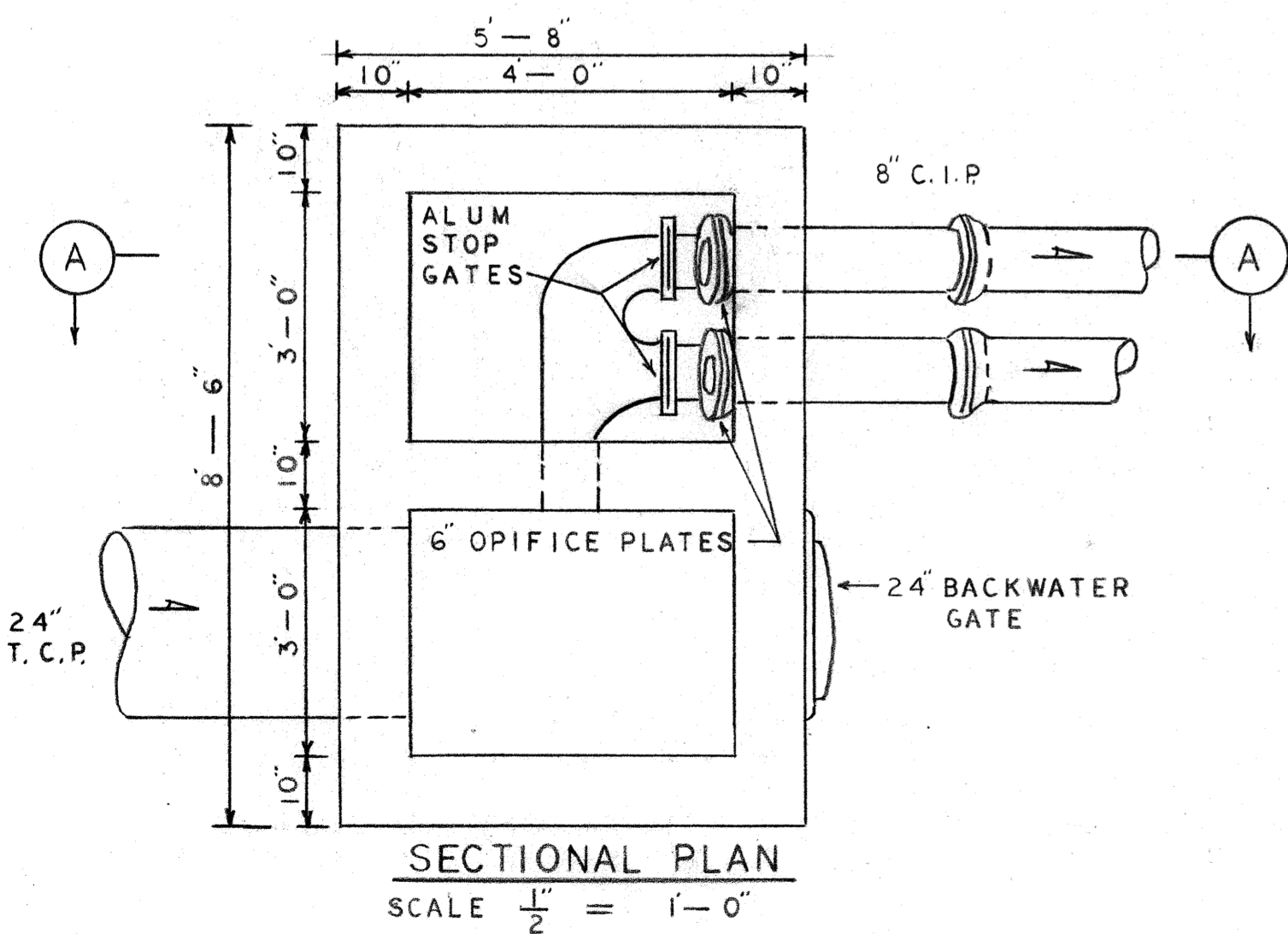
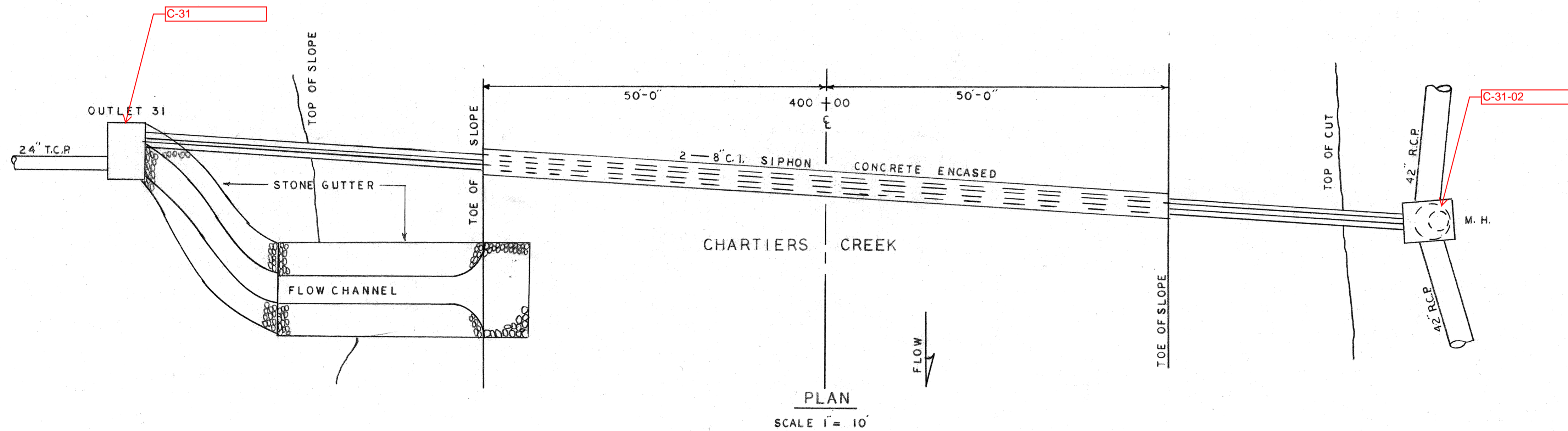
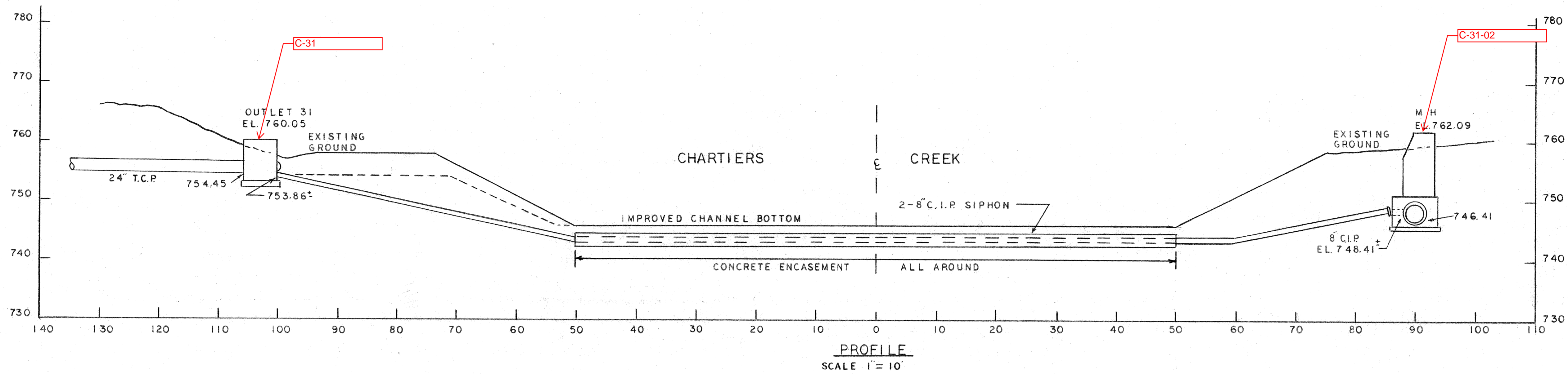
REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR DATE
3				
4				CHIEF ENGINEER REG. PROF. ENGR. PA. NO. DATE

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWER  
 CHARTIERS CREEK  
 DETAIL PLAN AND PROFILE  
 STA. 324+24.11 TO STA. 334+89.62

SCALE HOR. 1"=50'  
 VERT. 1"=10'

EL. REF. BK.  
132 H  
133 E  
PG. 31



REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				CHIEF ENGINEER _____ DATE _____
4				REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

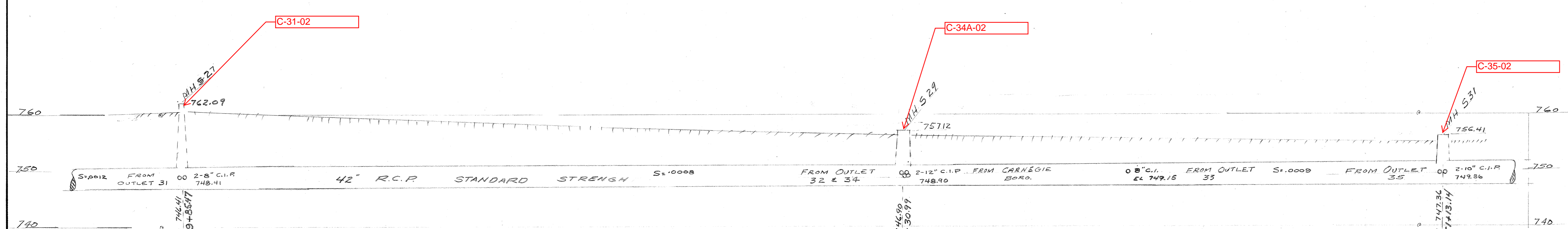
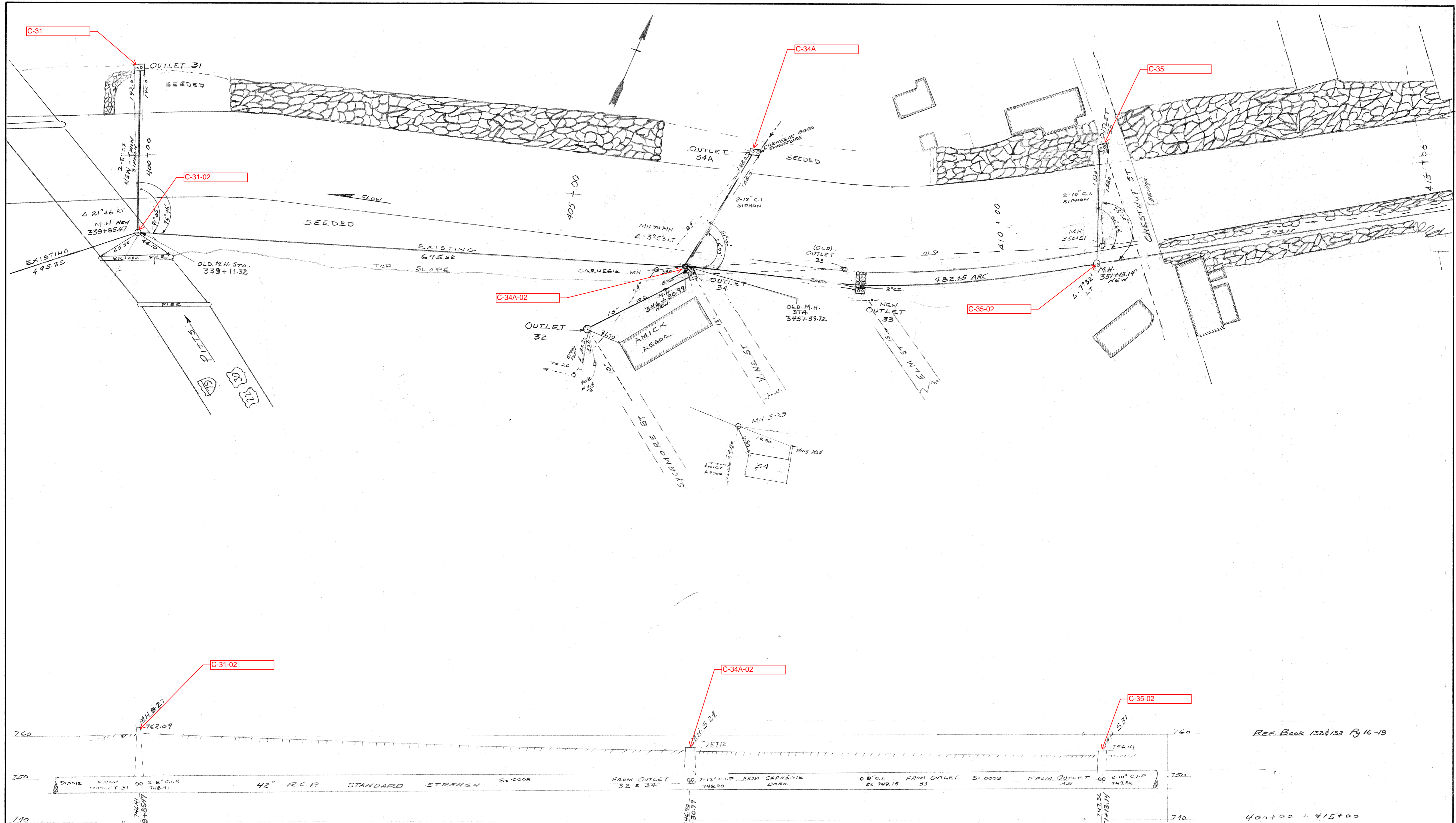
INTERCEPTING SEWERS C-31

CHARTIERS CREEK  
OUTLET 31

SCALE AS SHOWN MARCH 1974

DRAWN BY \_\_\_\_\_  
TRACED BY CCS  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_





REF. Book 132 & 133 Pg 16-19

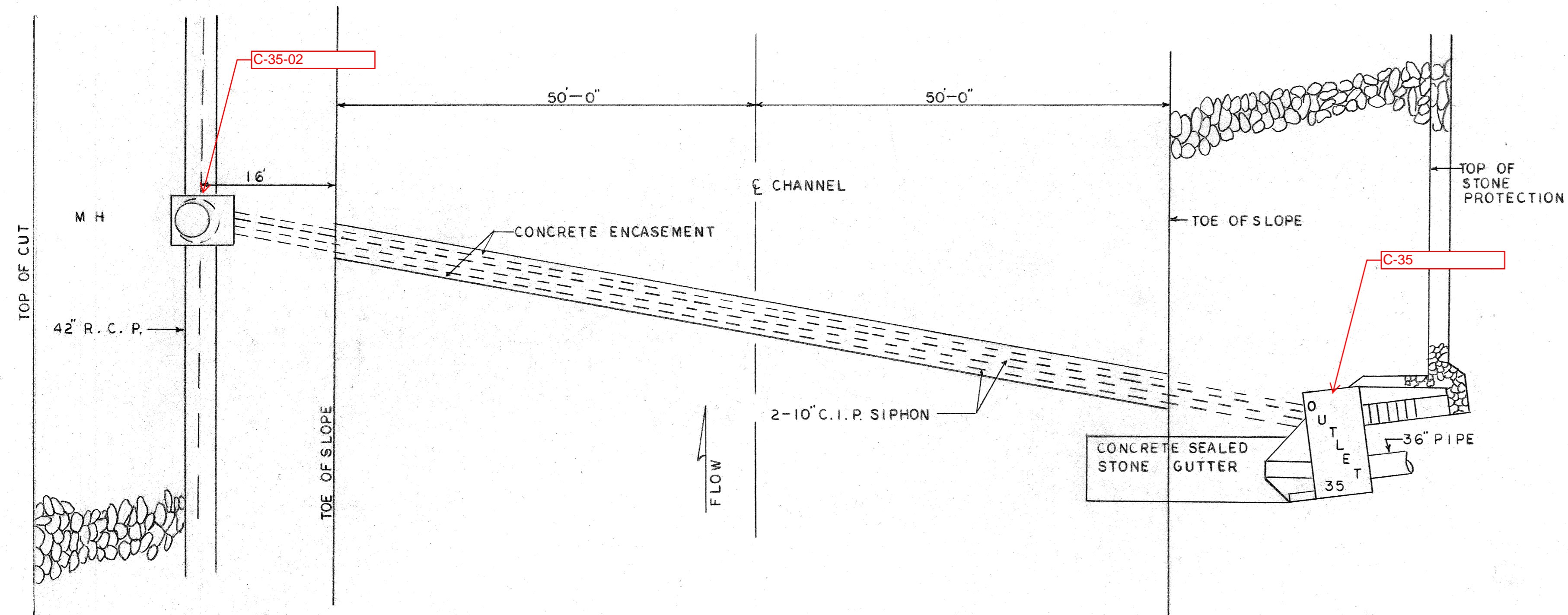
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
CHARTIERS CREEK  
DETAIL PLAN AND PROFILE  
STA. 339+85.47 TO STA. 351+13.14

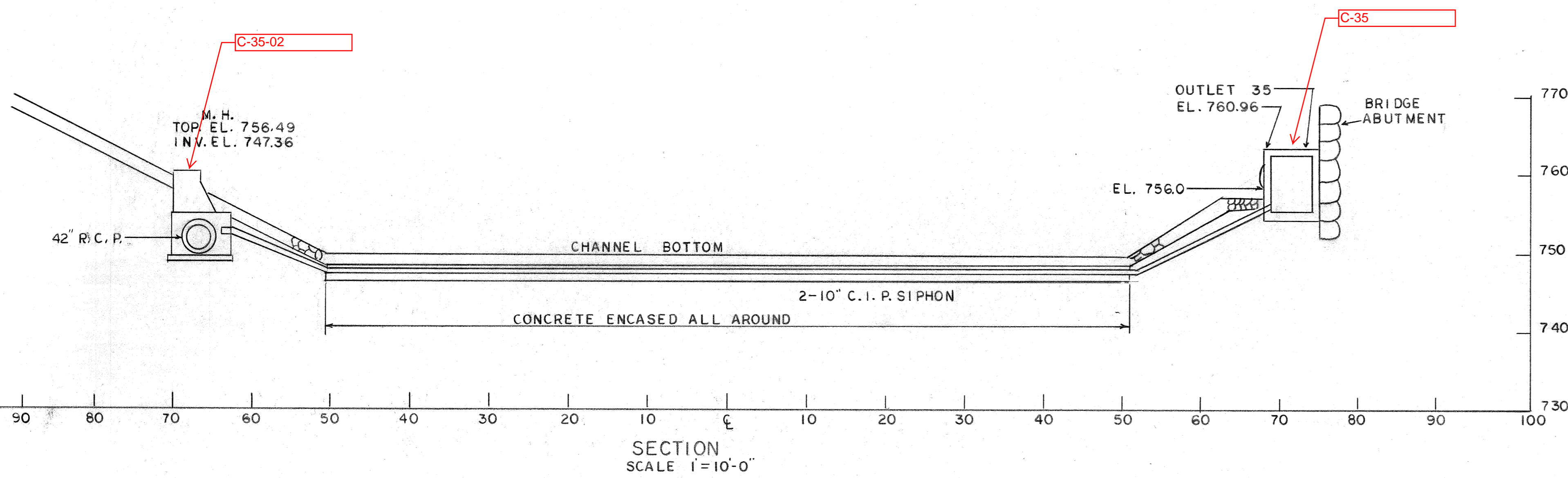
SCALE: HOR. 1" = 50'  
VERT. 1" = 10'

DRAWN BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_

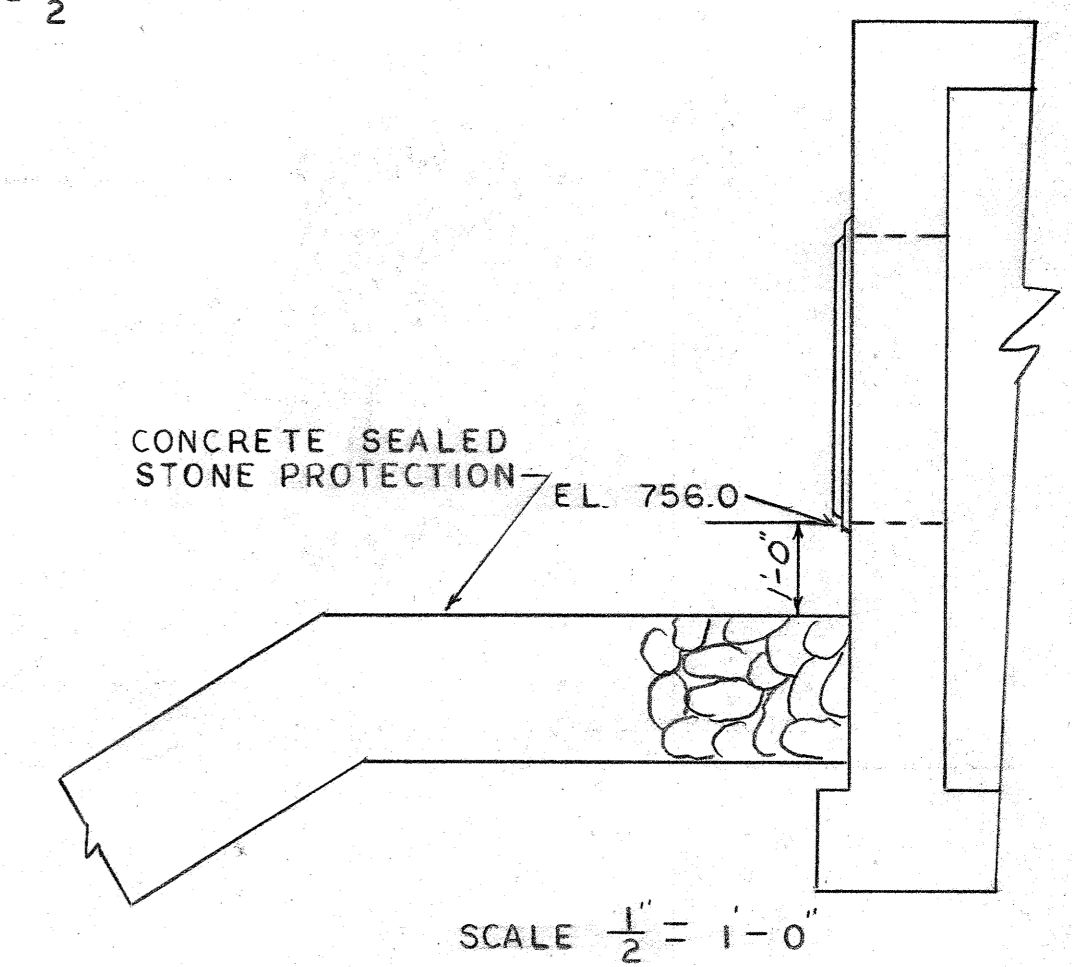
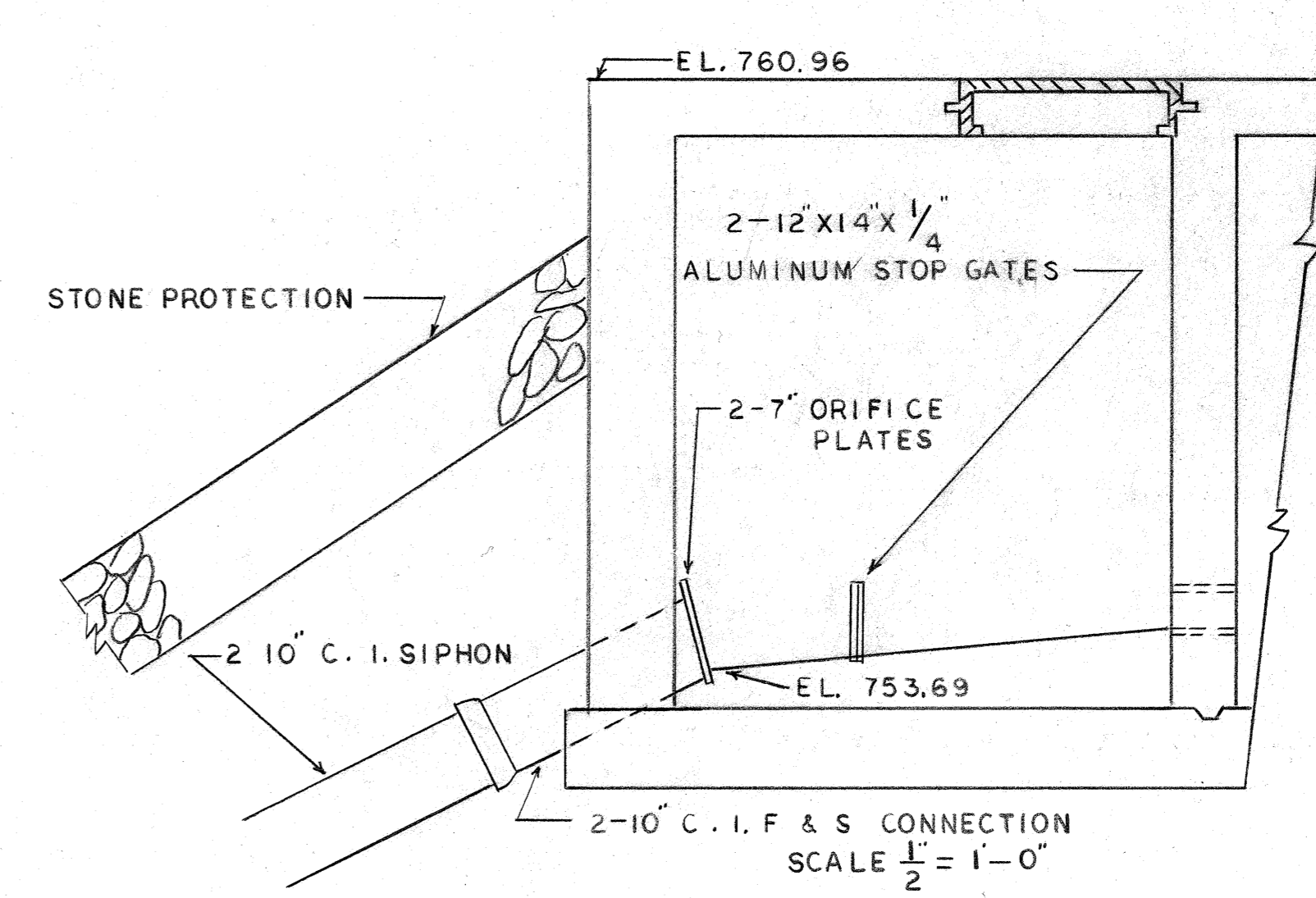
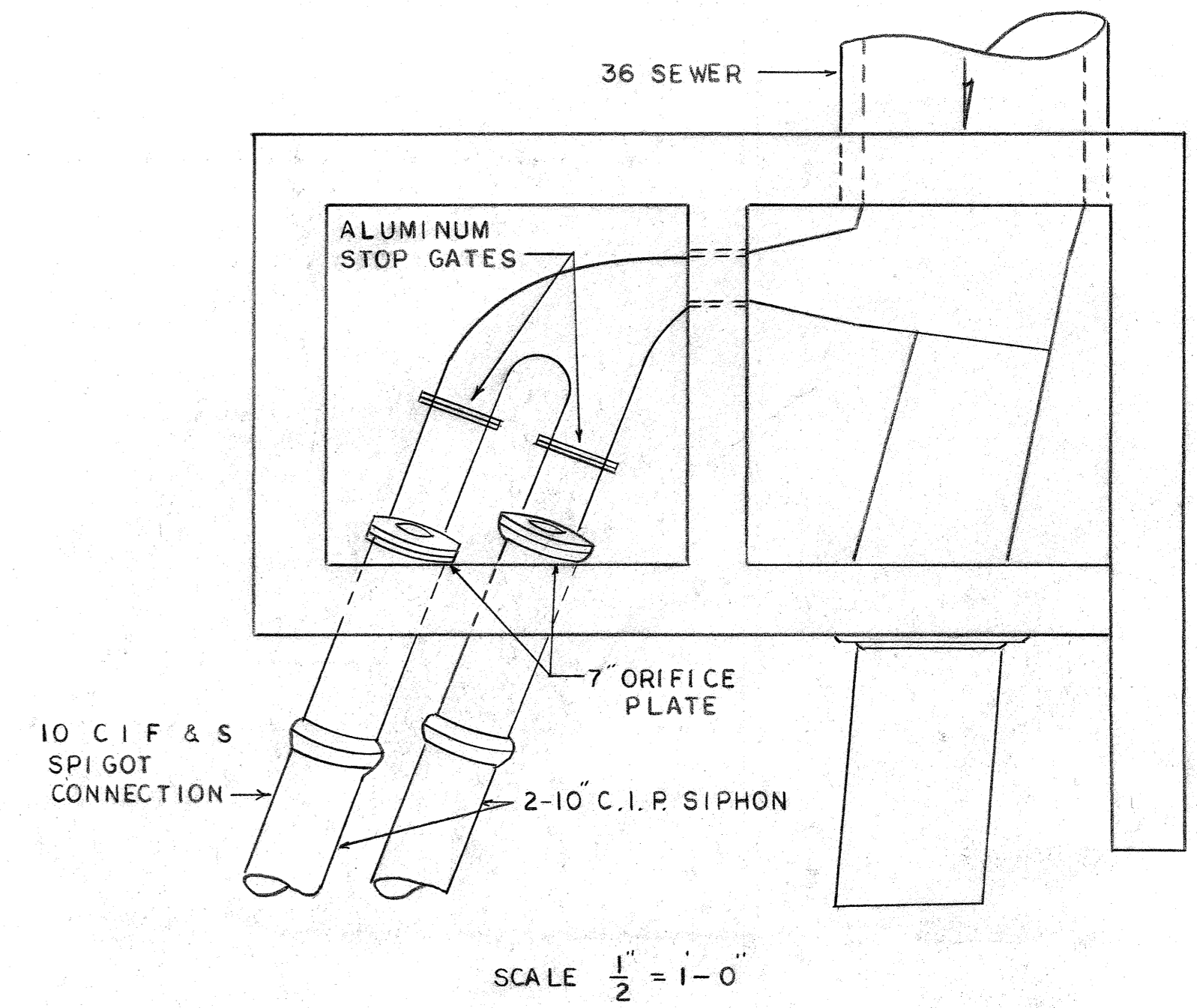
REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR DATE
3				
4				CHIEF ENGINEER DATE REG. PROF. ENGR. PA. NO.



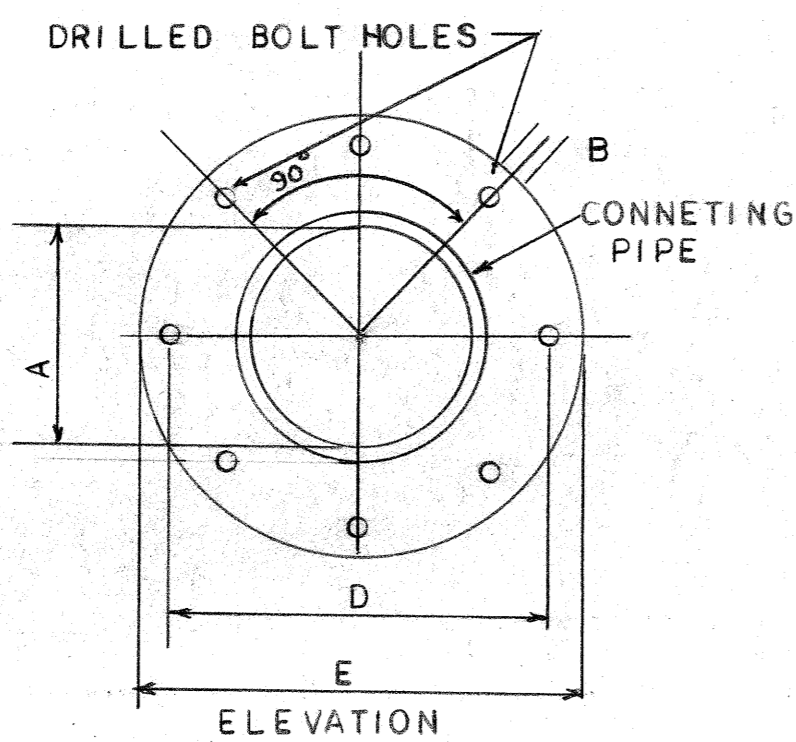
PLAN  
SCALE 1" = 10'-0"



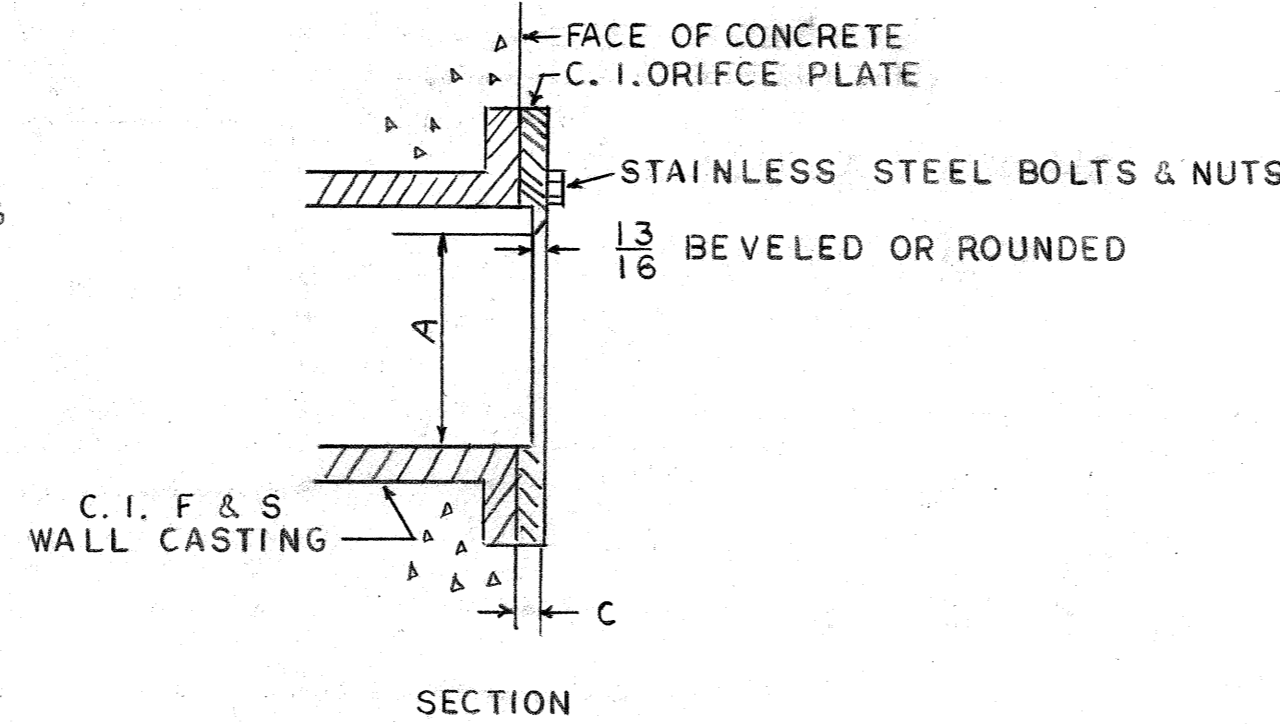
SECTION  
SCALE 1" = 10'-0"



PIPE SIZE	PLATE				
	A	B	C	D	E
8"	7 7/8"	5 5/8"	11 3/4"	13 1/2"	1 1/2"
10"	1"	3 3/4"	14 1/4"	16"	
12"	1 1/8"	7 1/8"	17"	19"	
14"	1 1/8"	1"	18 3/4"	21"	



ORIFICE PLATE DETAIL



SECTION

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTOR SEWERS

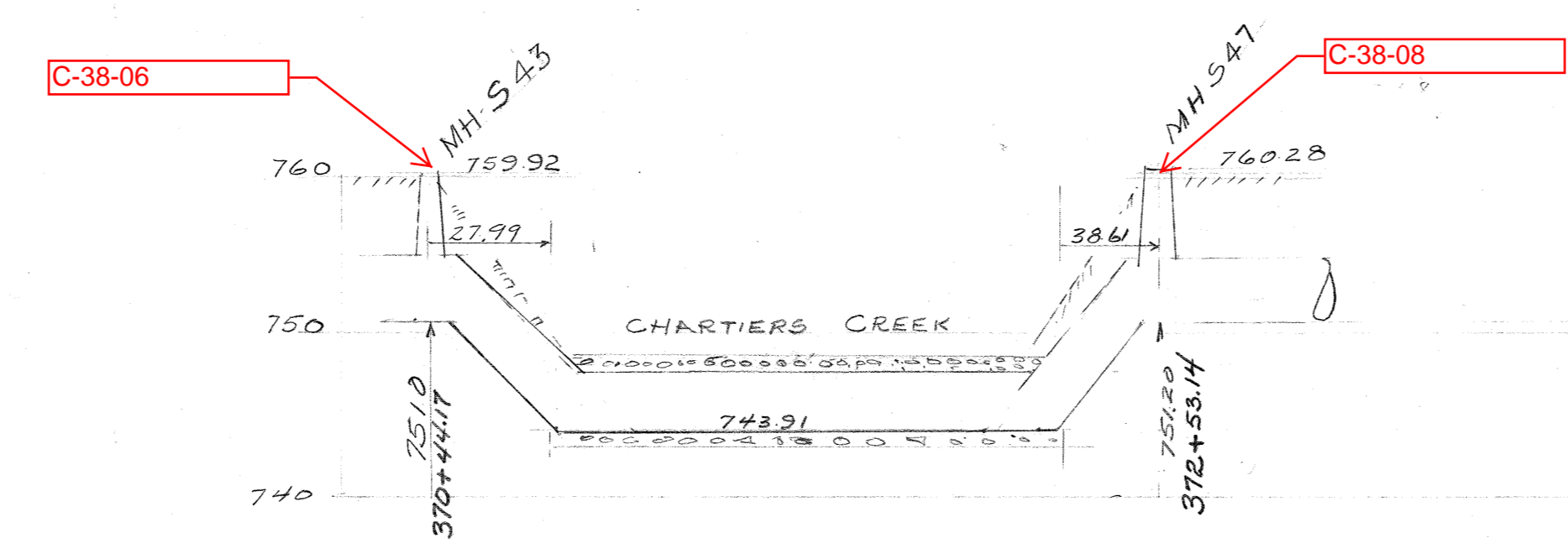
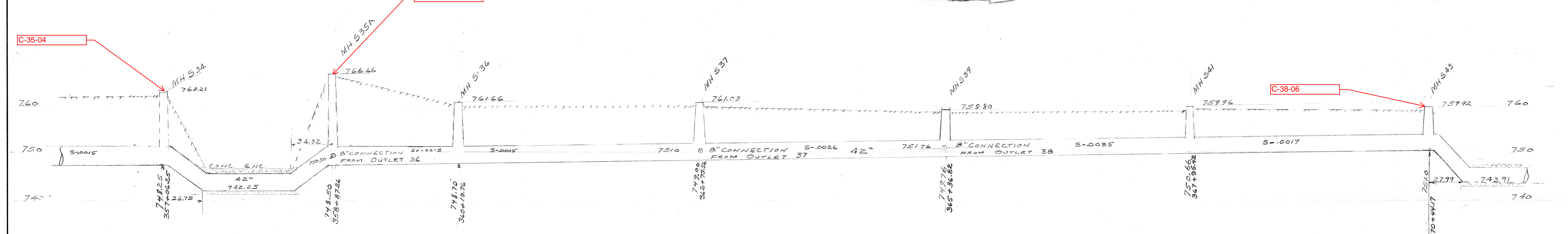
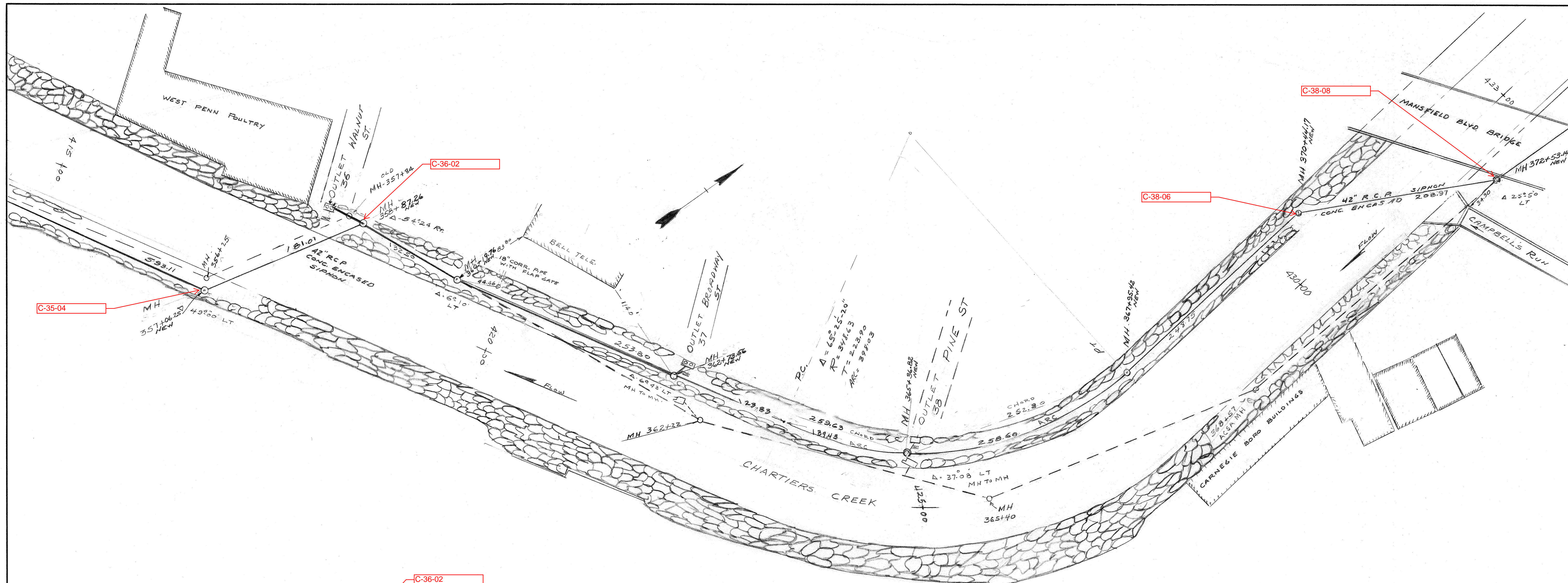
C-35

CHARTIERS CREEK  
OUTLET 35

SCALE: AS SHOWN

1974

DRAWN BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_



REF BOOK 133#133 Pg 19-25

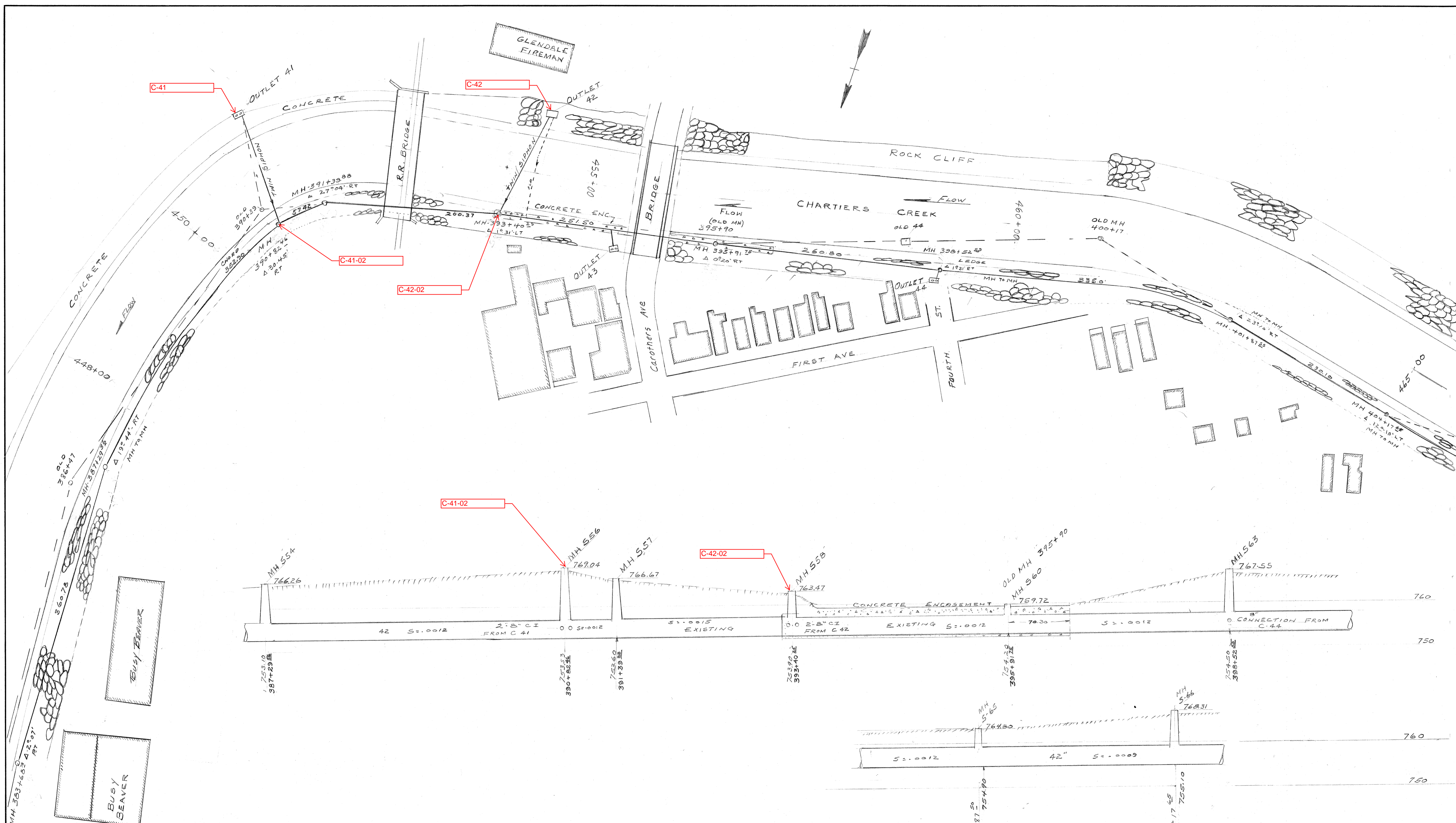
DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

**ALLEGHENY COUNTY SANITARY AUTHORITY**  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
 DETAIL PLAN AND PROFILE  
 STA. 357+06.25 TO STA. 372+53.14

SCALE: HOR. 1" = 50'  
 VERT. 1" = 10'



DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

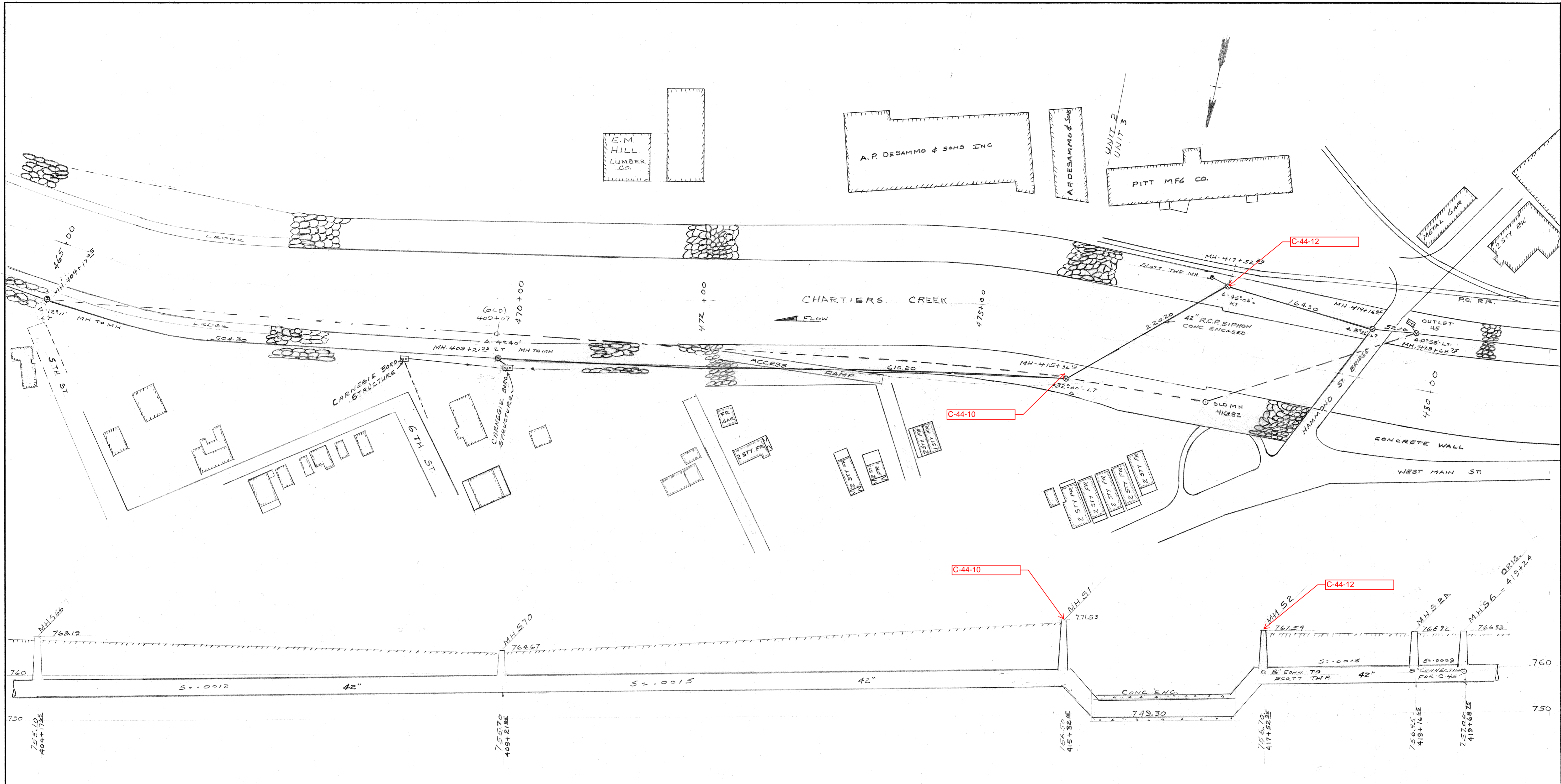
REF. BOOK 132 & 133 Pgs 32-39

**ALLEGHENY COUNTY SANITARY AUTHORITY**  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK

DETAIL PLAN AND PROFILE  
 STA. 387+295.6 TO STA. 404+176.5

SCALE: HOR. 1" = 50'  
 VERT. 1" = 10'

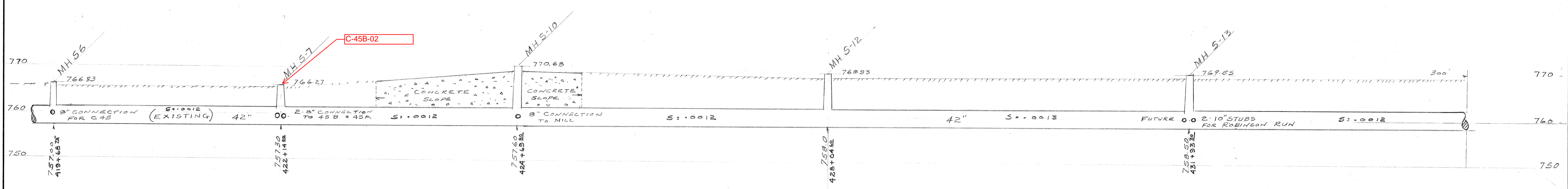
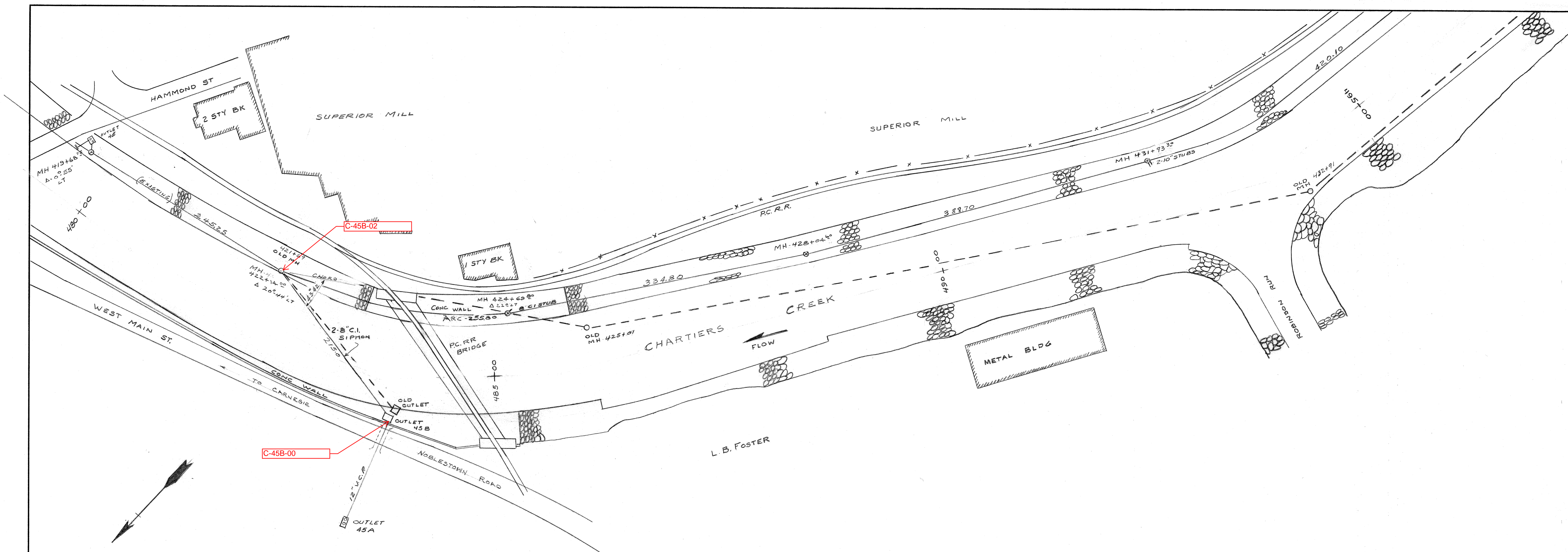


REF. Book 132-133-Pg 38-44

DRAWN BY P.R.C.  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

**ALLEGHENY COUNTY SANITARY AUTHORITY**  
 PITTSBURGH, PENNSYLVANIA  
  
 INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
 DETAIL PLAN AND PROFILE  
 STA 404+1765 TO STA 419+6875  
  
 SCALE HOR 1" = 50'  
 VERT 1" = 10'



REF. BOOK 132-133 Pg 45-48

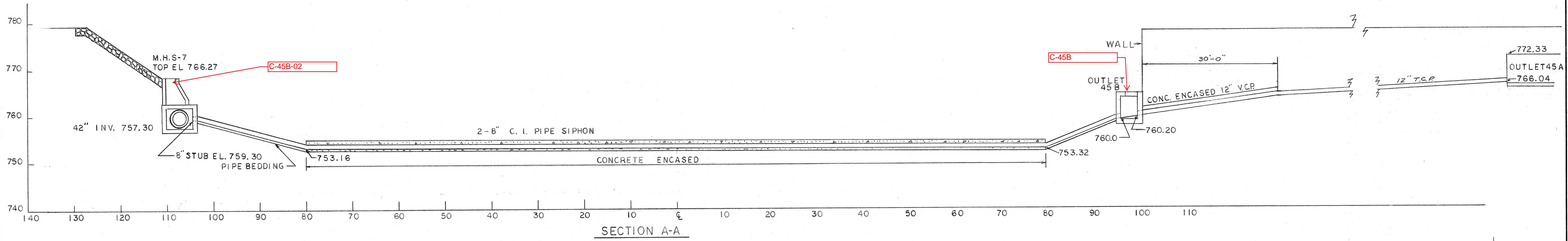
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 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

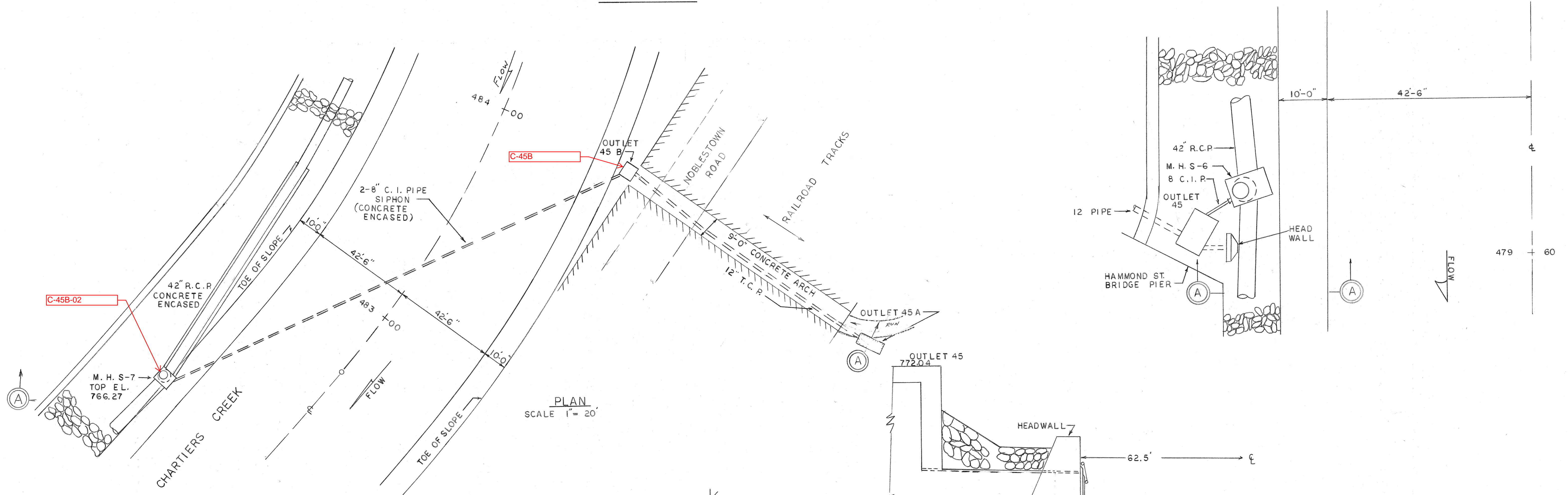
**ALLEGHENY COUNTY SANITARY AUTHORITY**  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
 DETAIL PLAN AND PROFILE  
 STA. 419+68.75 TO STA. 436+13.40

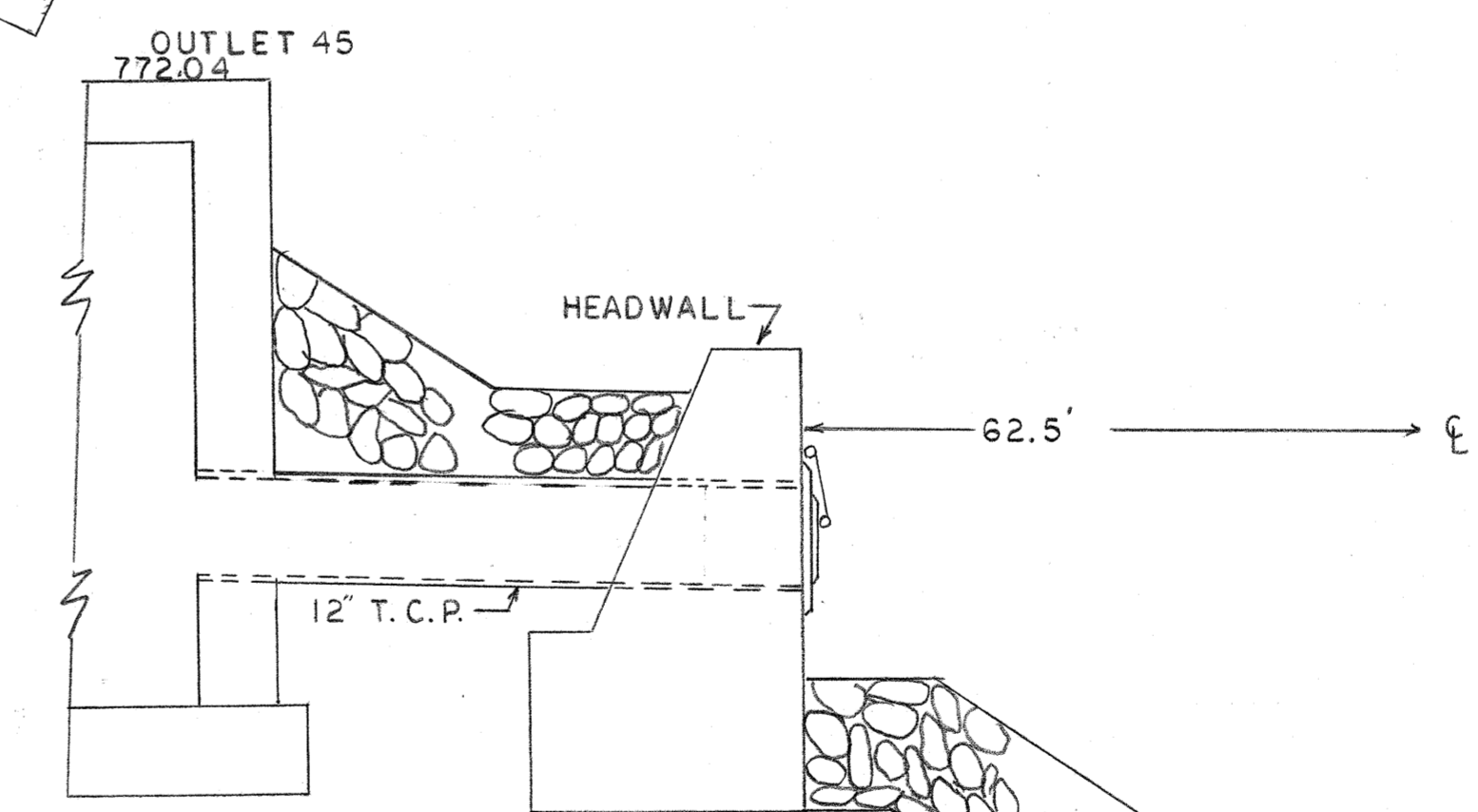
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 VERT. 1" = 10'



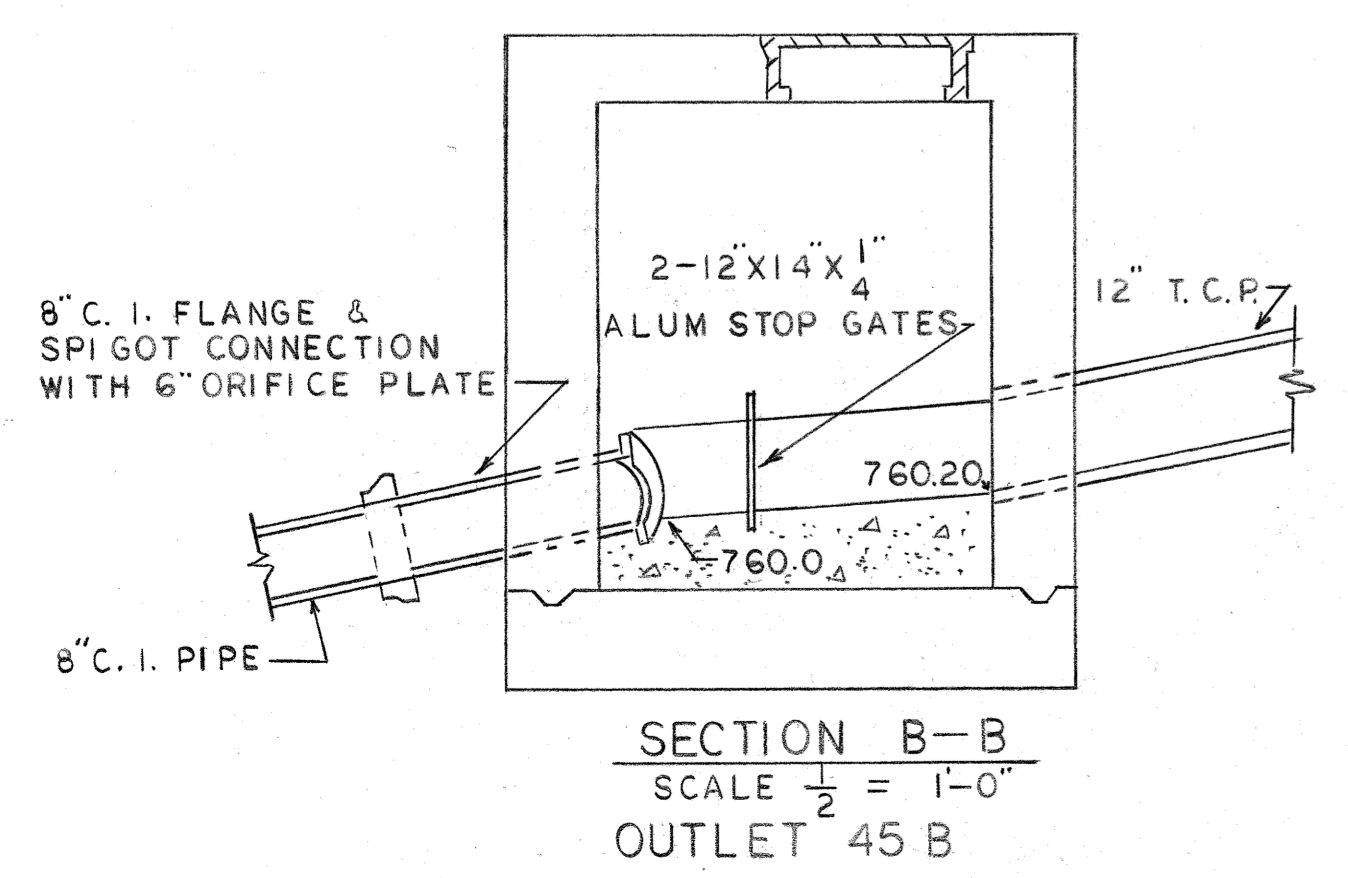
SECTION A-A



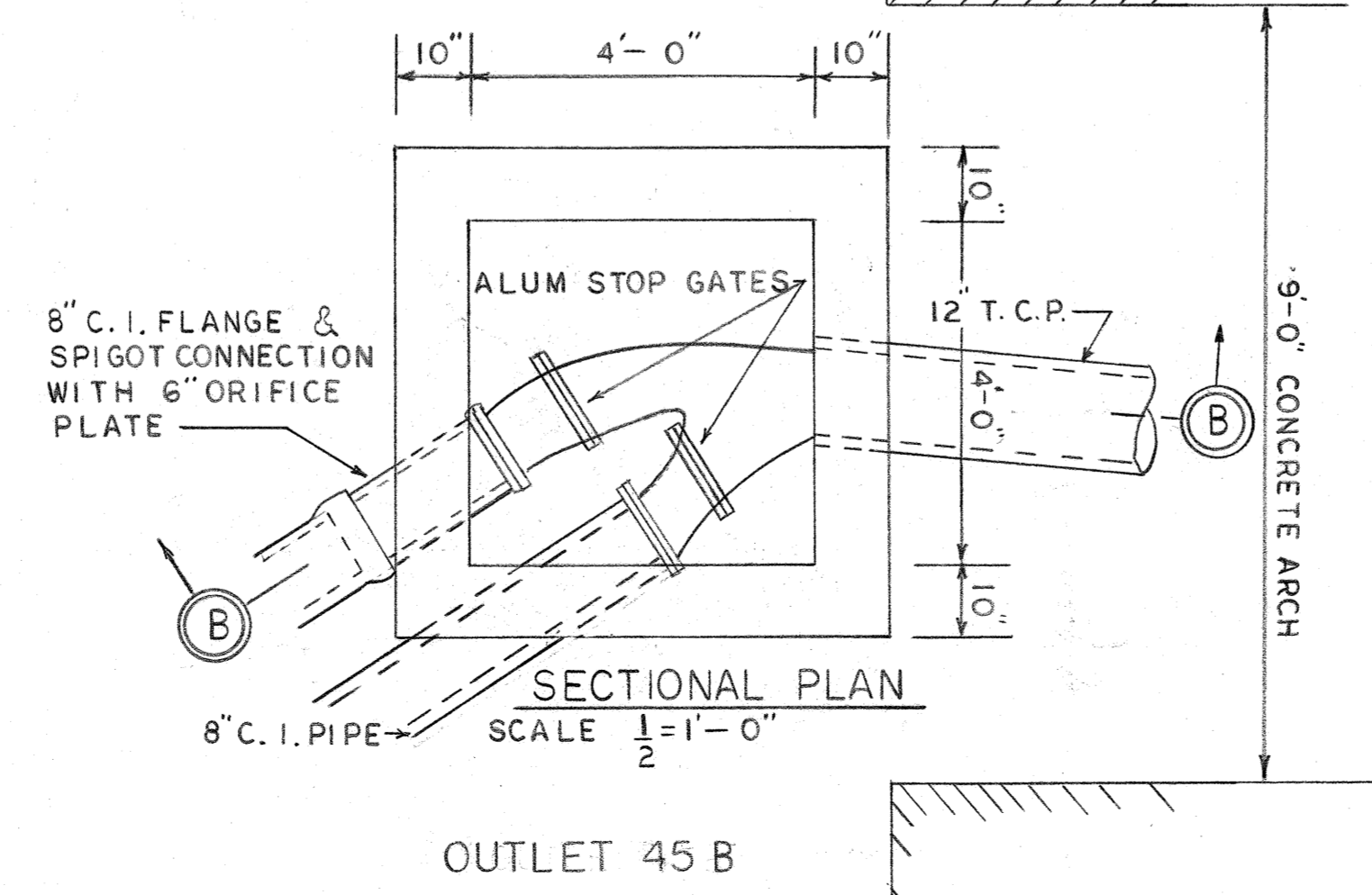
PLAN  
SCALE 1" = 20'



OUTLET 45  
A-A



SECTION B-B  
SCALE 1/2" = 1'-0"  
OUTLET 45 B



SECTIONAL PLAN  
SCALE 1/2" = 1'-0"  
OUTLET 45 B

REF. CONT. 33 SHEET 23A  
U.S.C.E. UNIT 3 SHEET 63  
DWG. NO. 036-P2-82/120

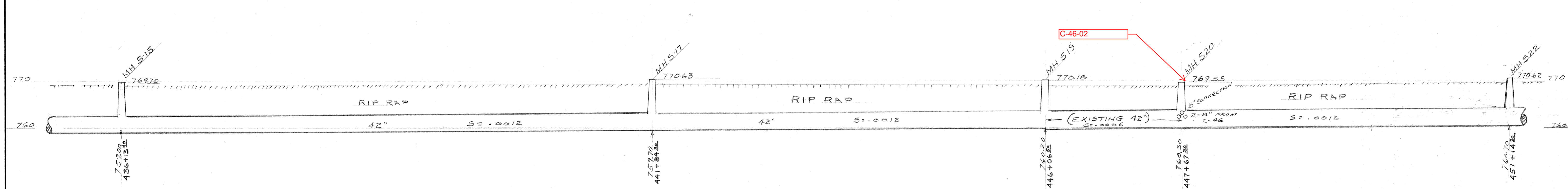
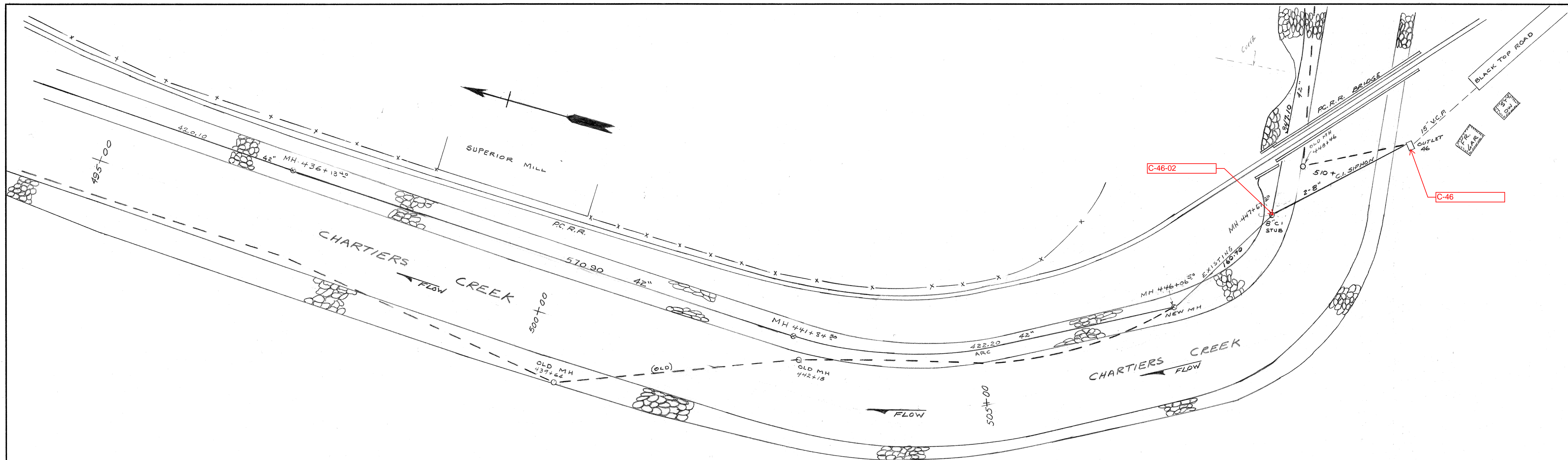
DRAWN BY: CCS  
TRACED BY: CCS  
CHECKED BY: PRC  
EXAMINED BY:

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR DATE
3				
4				CHIEF ENGINEER DATE REG. PROF. ENGR. PA. NO.

**ALLEGHENY COUNTY SANITARY AUTHORITY**  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWER C-45  
C-45A  
CHARTIERS CREEK C-45B  
OUTLET 45-45 B

SCALE AS SHOWN MAR 1974



REF. BOOK 132 & 133 Pgs 49-53

DRAWN BY PRC  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

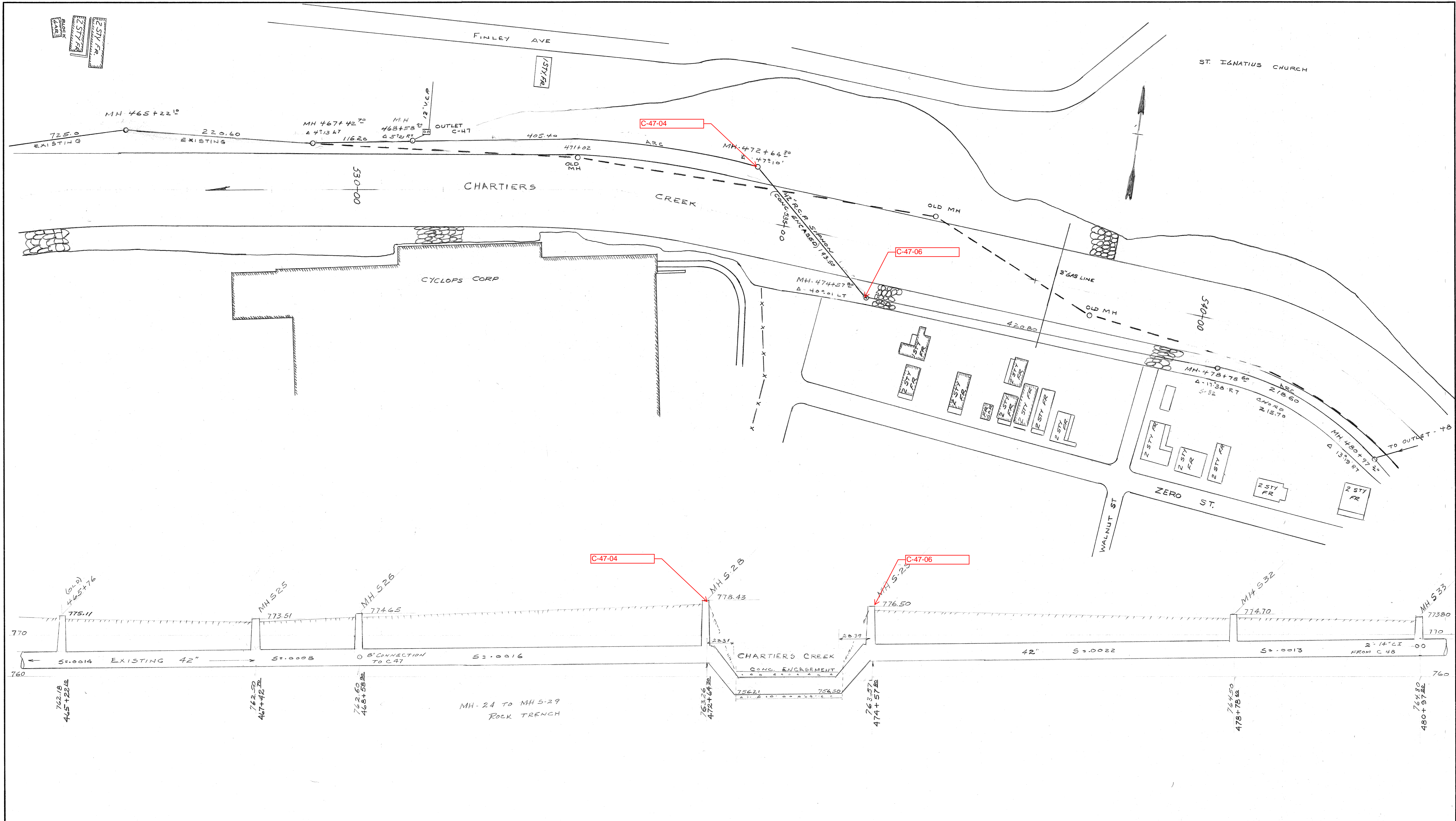
REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK  
 DETAIL PLAN AND PROFILE  
 STA. 436+13.40 TO STA. 451+14.30

SCALE: HOR. 1" = 50'  
 VERT. 1" = 10'





DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				CHIEF ENGINEER _____ DATE _____
4				REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK

DETAIL PLAN AND PROFILE  
 STA 465+22.10 TO STA 480+97

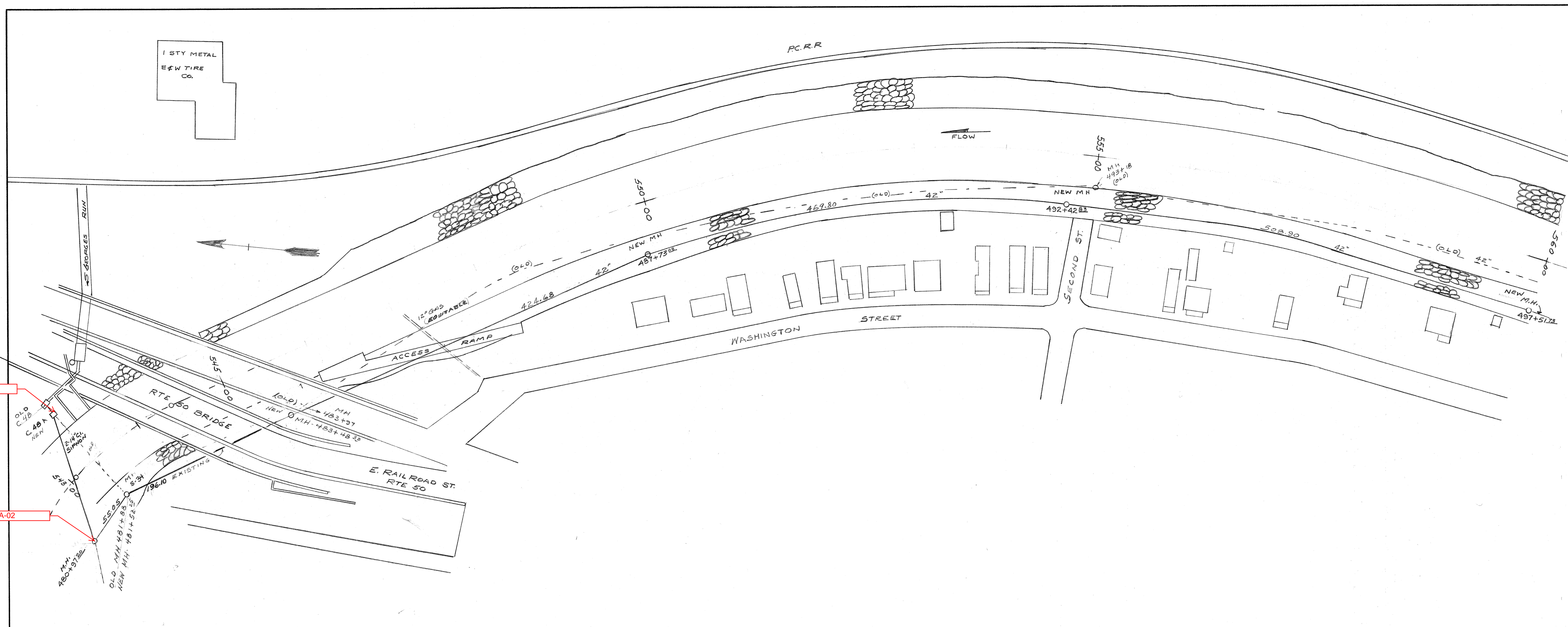
SCALE: HOR. 1" = 40'  
 VERT 1" = 10'

DEC-1976

1 STY METAL  
E & W TIRE  
CO.

P.C.R.R.

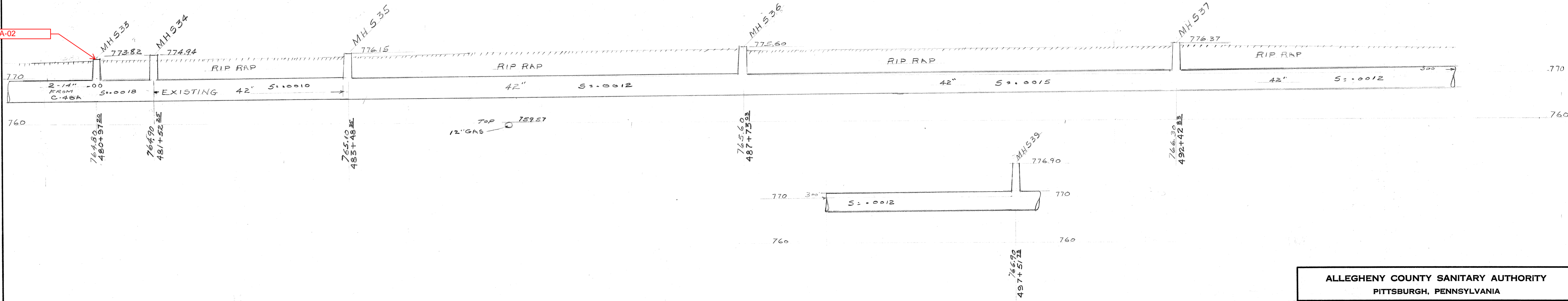
FLOW



C-48A

C-48A-02

C-48A-02



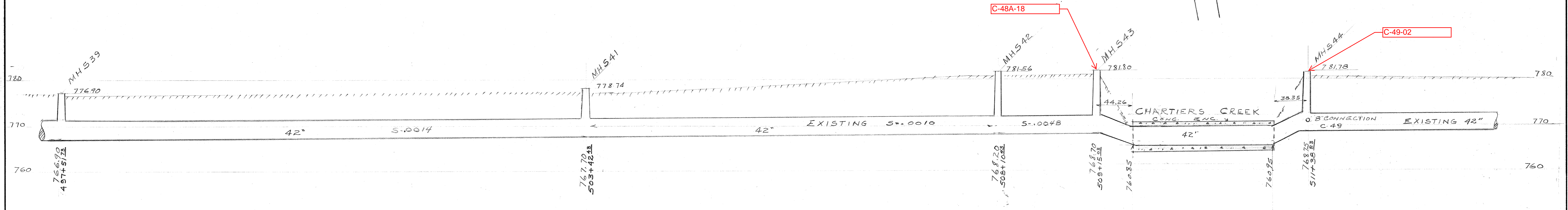
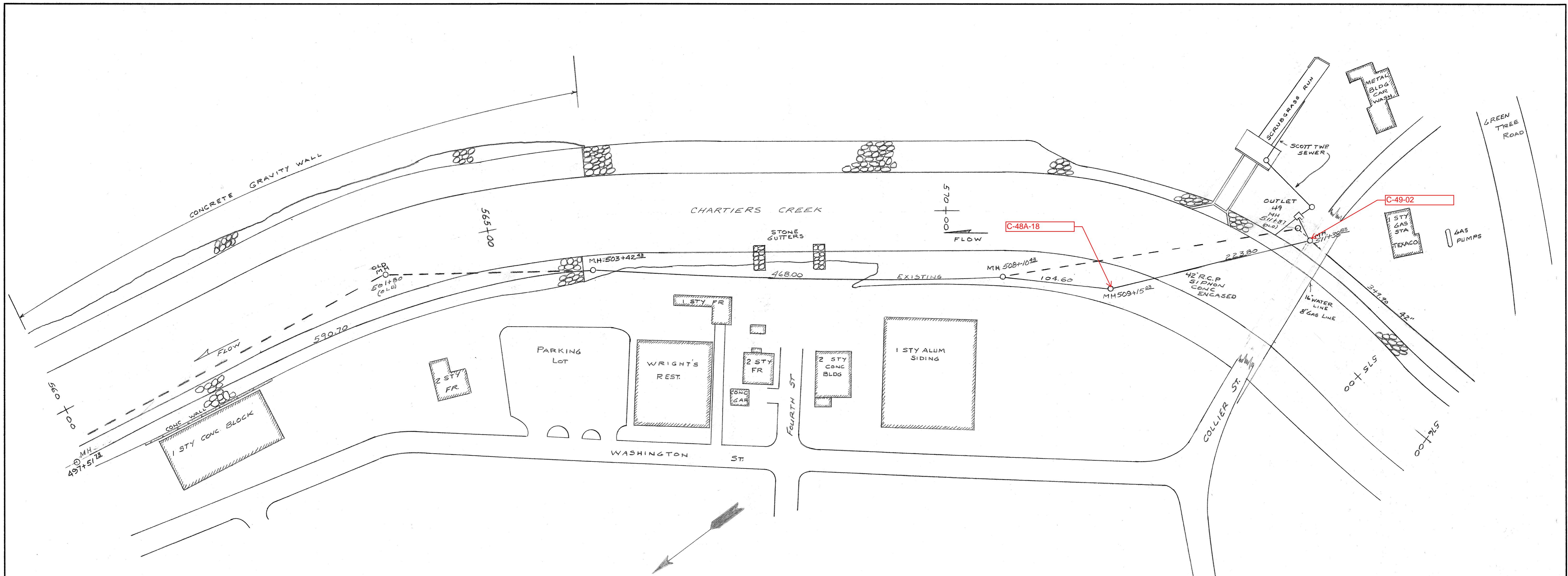
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EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
**CHARTIERS CREEK**  
DETAIL PLAN AND PROFILE  
STA 480+97 TO STA 497+51

SCALE HOR. 1"=40'  
VERT. 1"=10'



REF. BOOK 132+133 Pg 65-69

DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

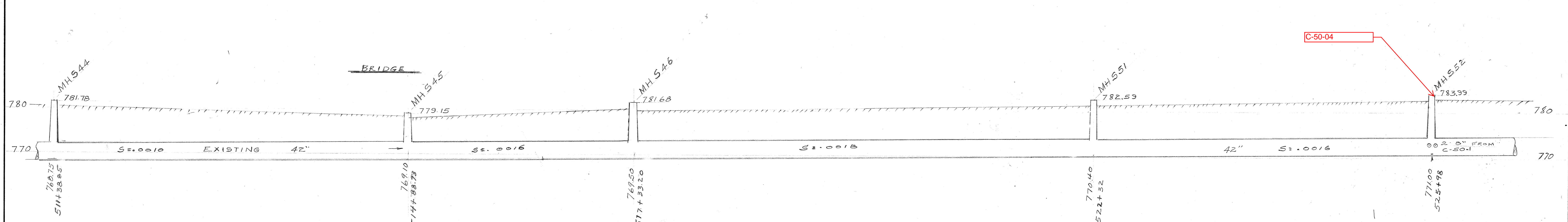
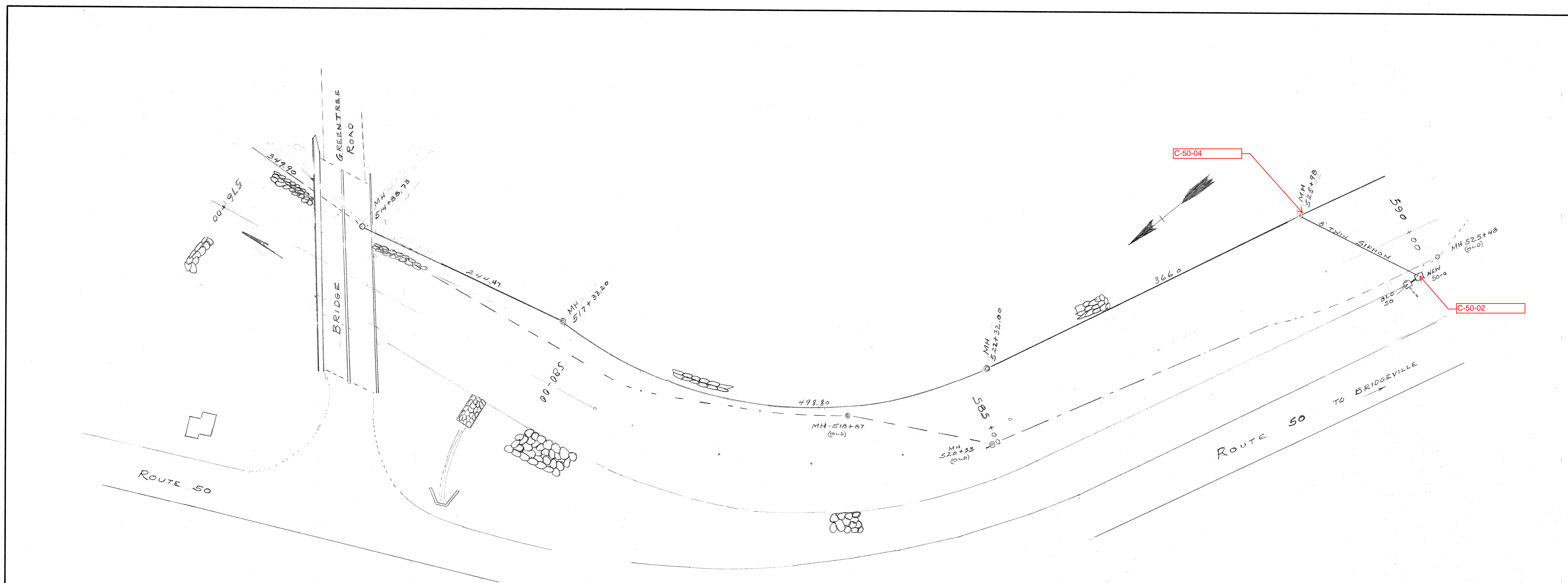
REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR DATE
3				
4				CHIEF ENGINEER DATE REG. PROF. ENGR. PA. NO.

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK  
 DETAIL PLAN AND PROFILE  
 STA. 497+51.73 TO STA. 511+38.83

SCALE HOR 1" = 50'  
 VERT 1" = 10'

FEB 1974



REF BOOK 132 & 133 PG-70-73

DRAWN BY PRC  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

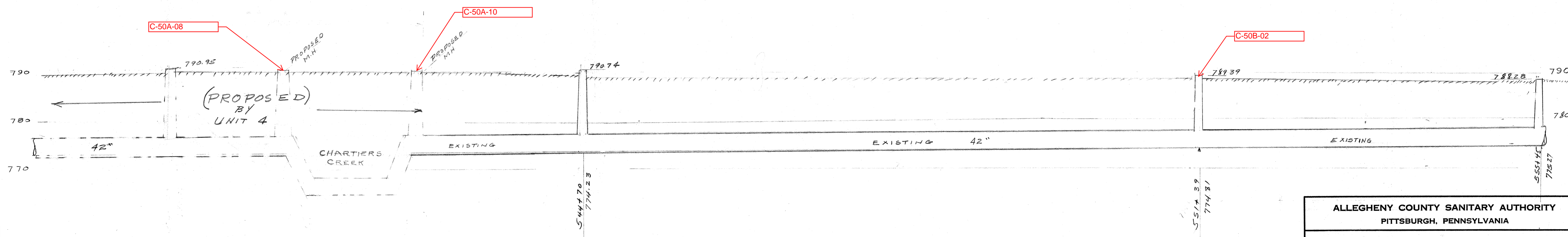
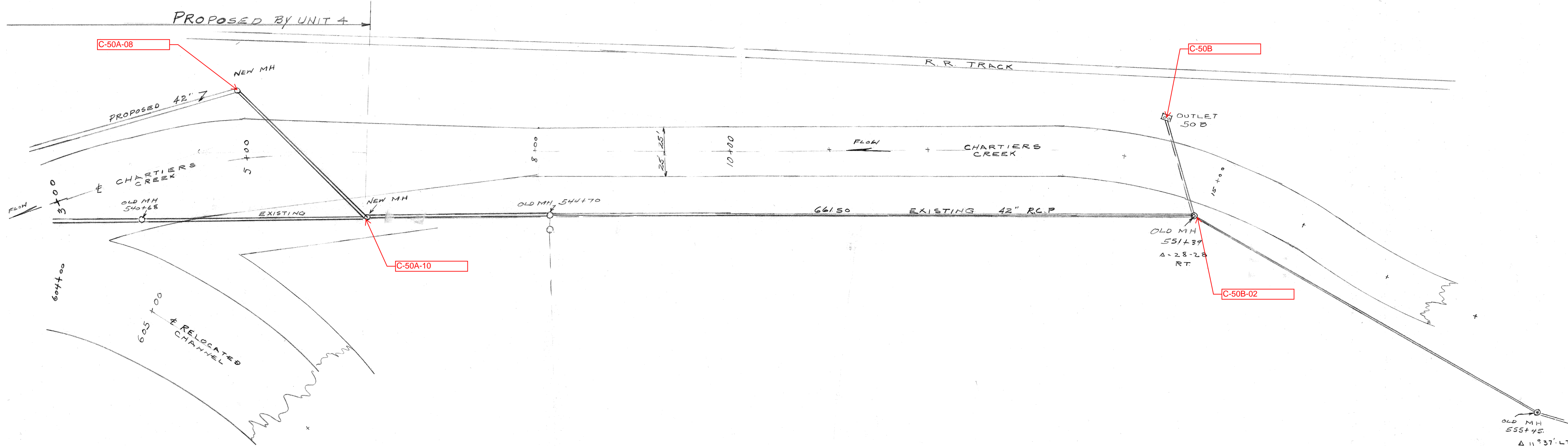
REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK  
 DETAIL PLAN AND PROFILE  
 STA 511+38 TO 525+98

SCALE HOR. 1" = 50'  
 VERT. 1" = 10'

FEB 1974



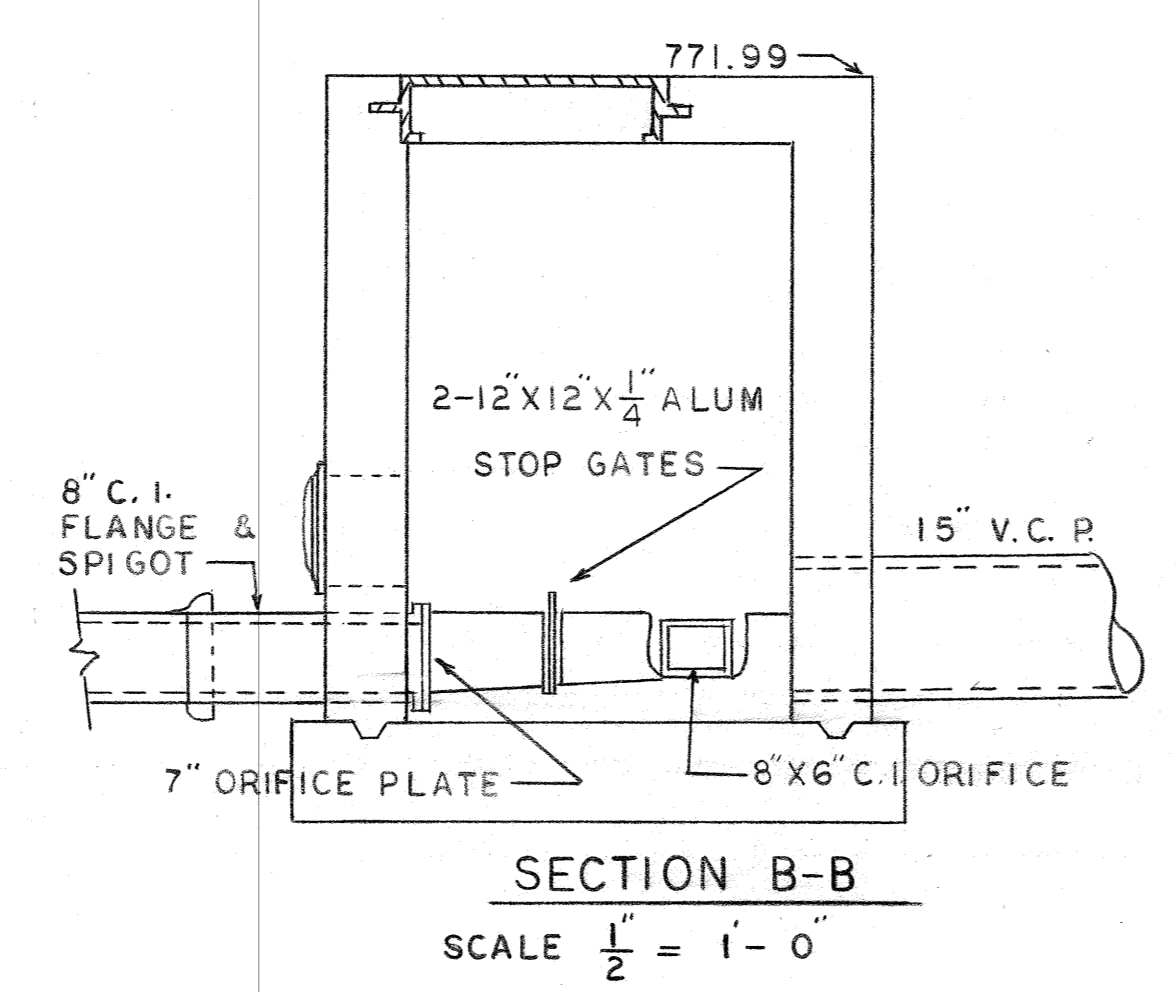
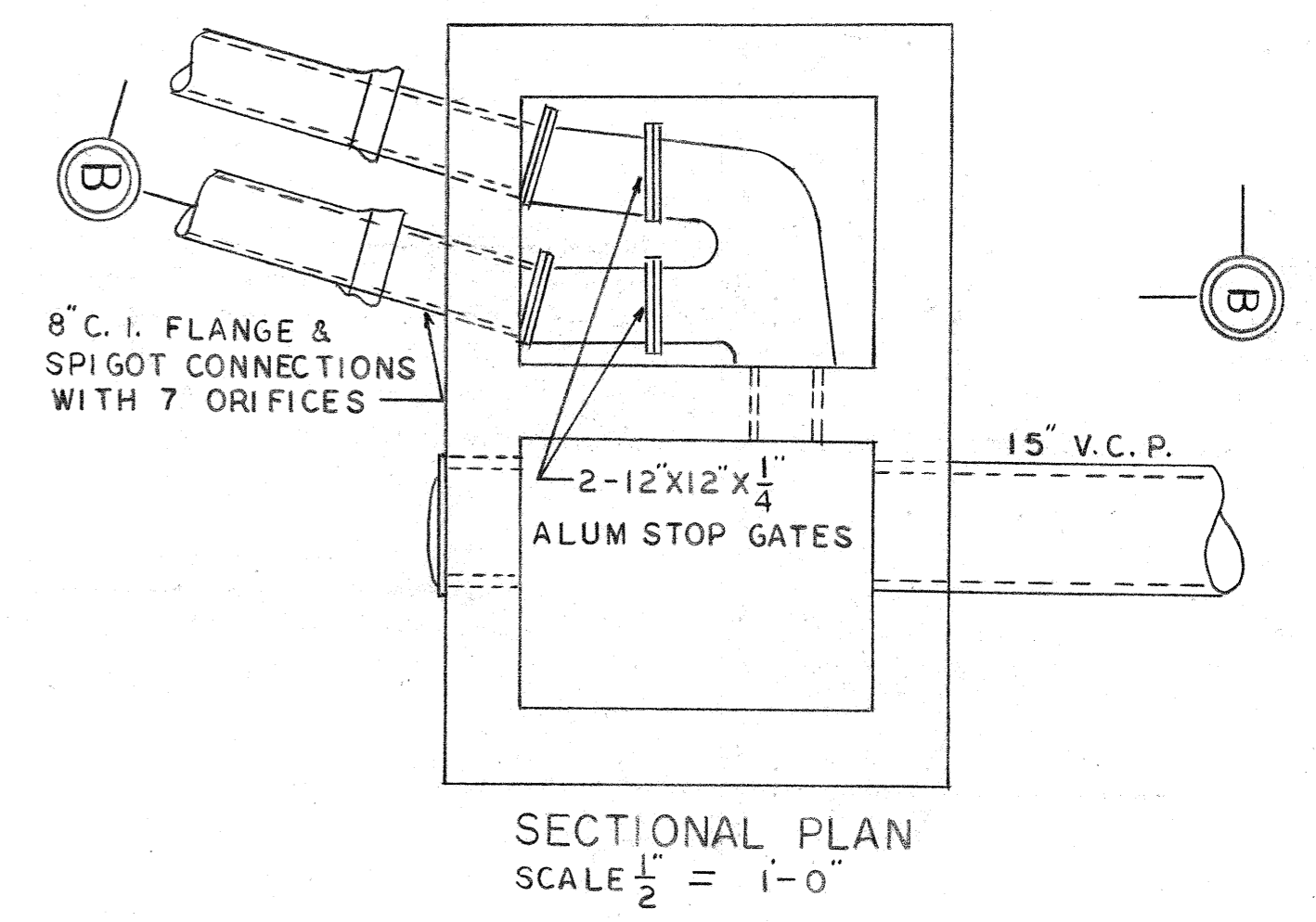
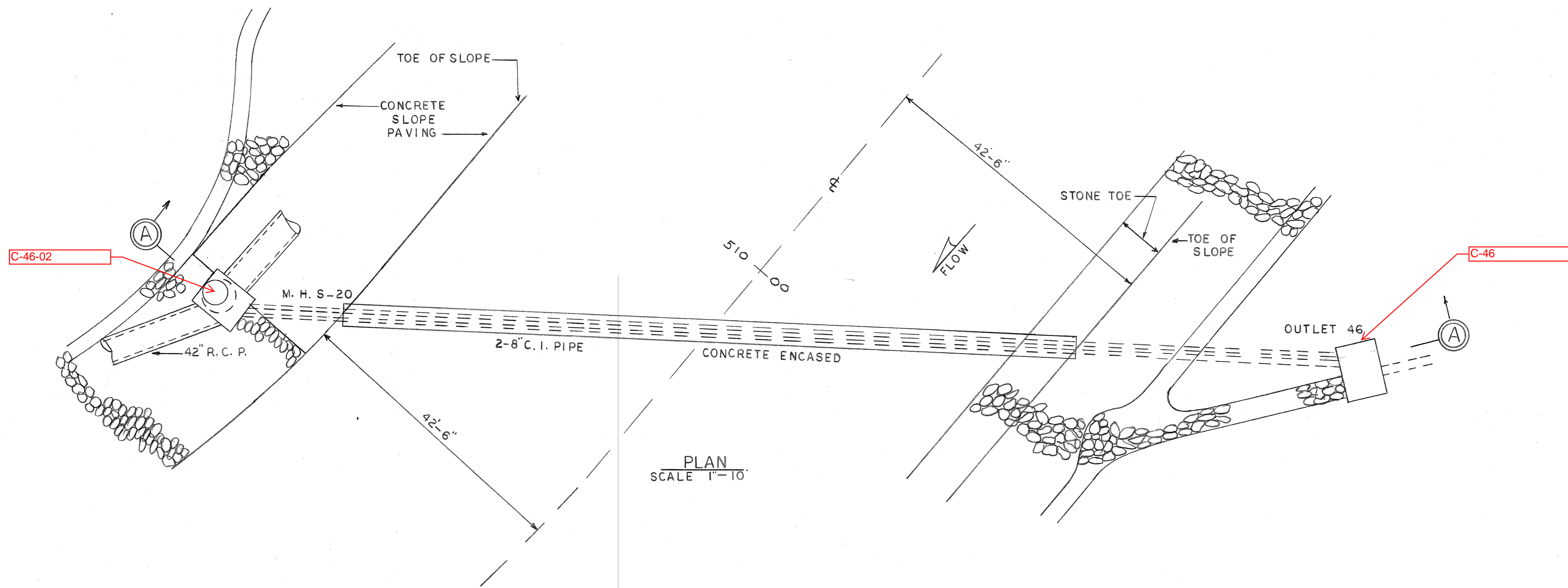
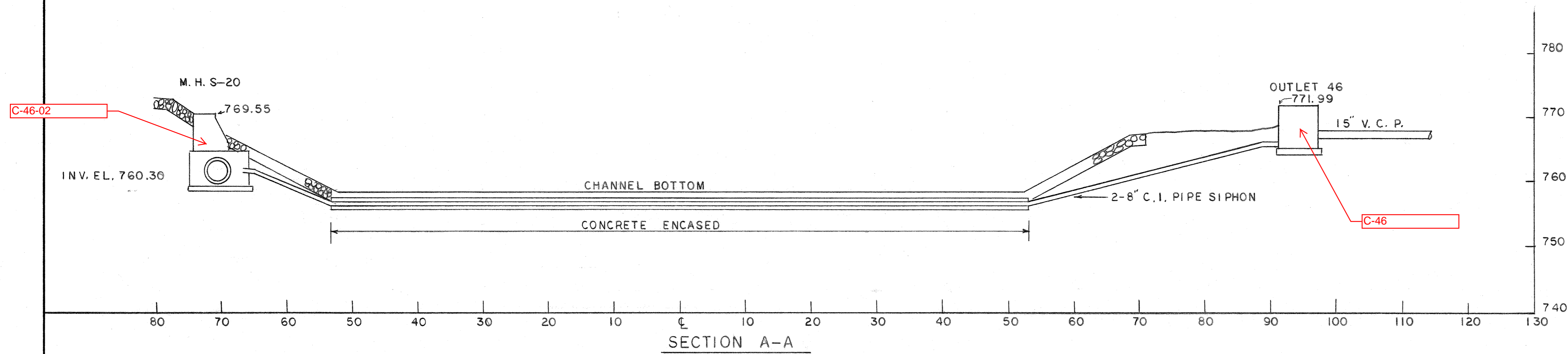
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 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS  
 CHARTIERS CREEK  
 DETAIL PLAN AND PROFILE  
 STA 534+57 TO STA 555+45

SCALE HOR 1" = 50'  
 VERT 1" = 10'



DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ <small>REG. PROF. ENGR. PA. NO.</small>

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS C-46

CHARTIERS CREEK  
 OUTLET 46

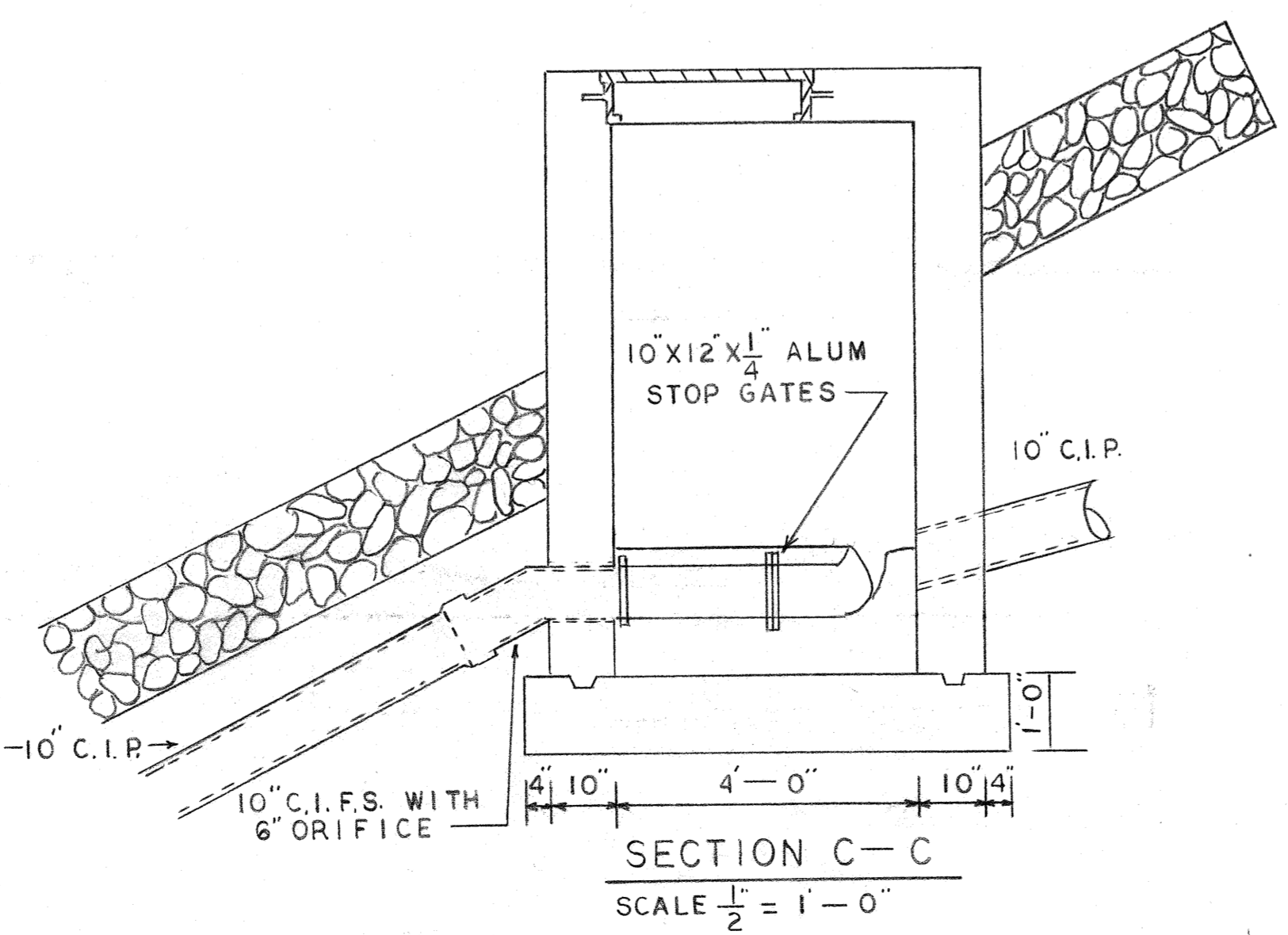
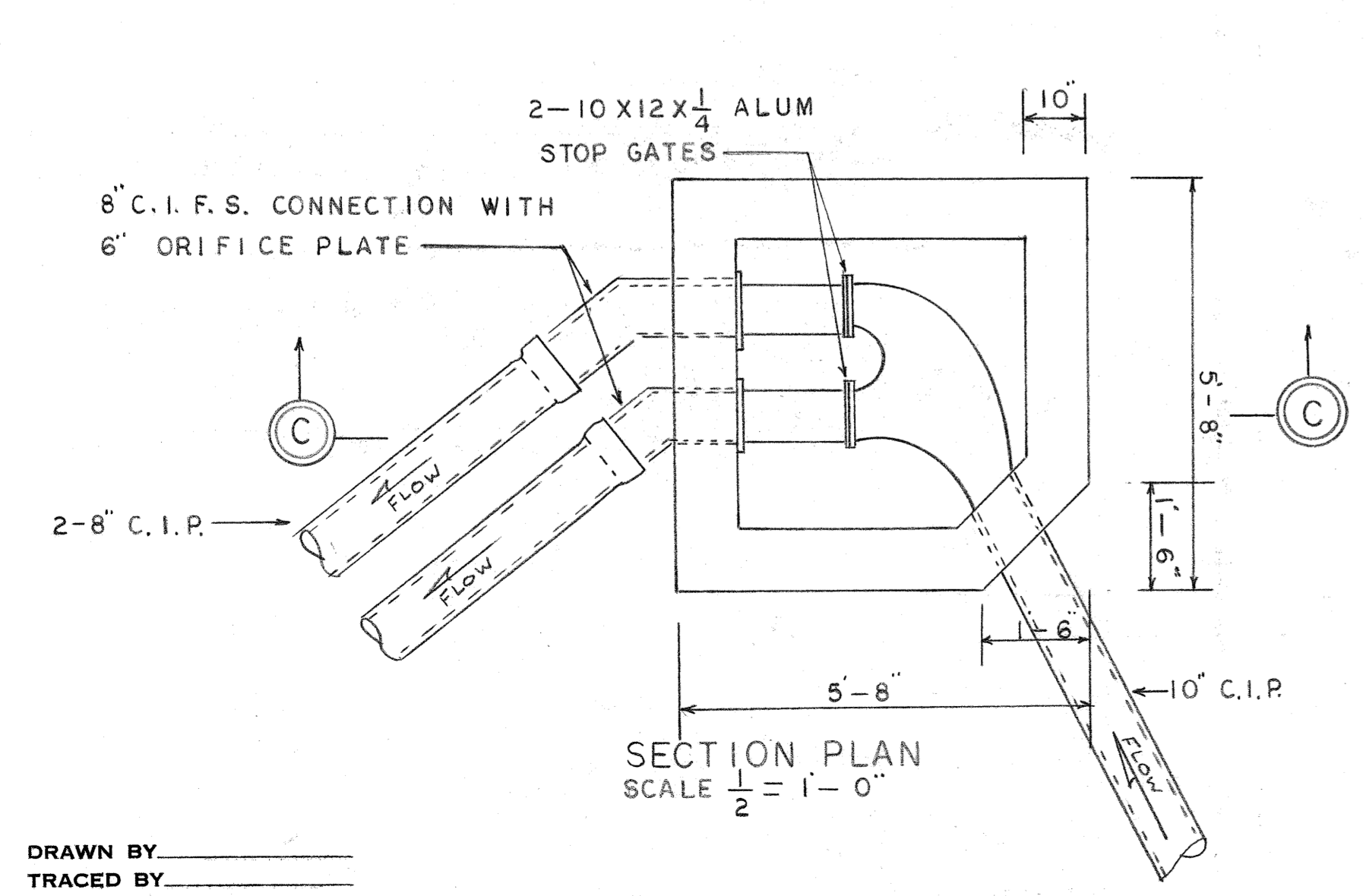
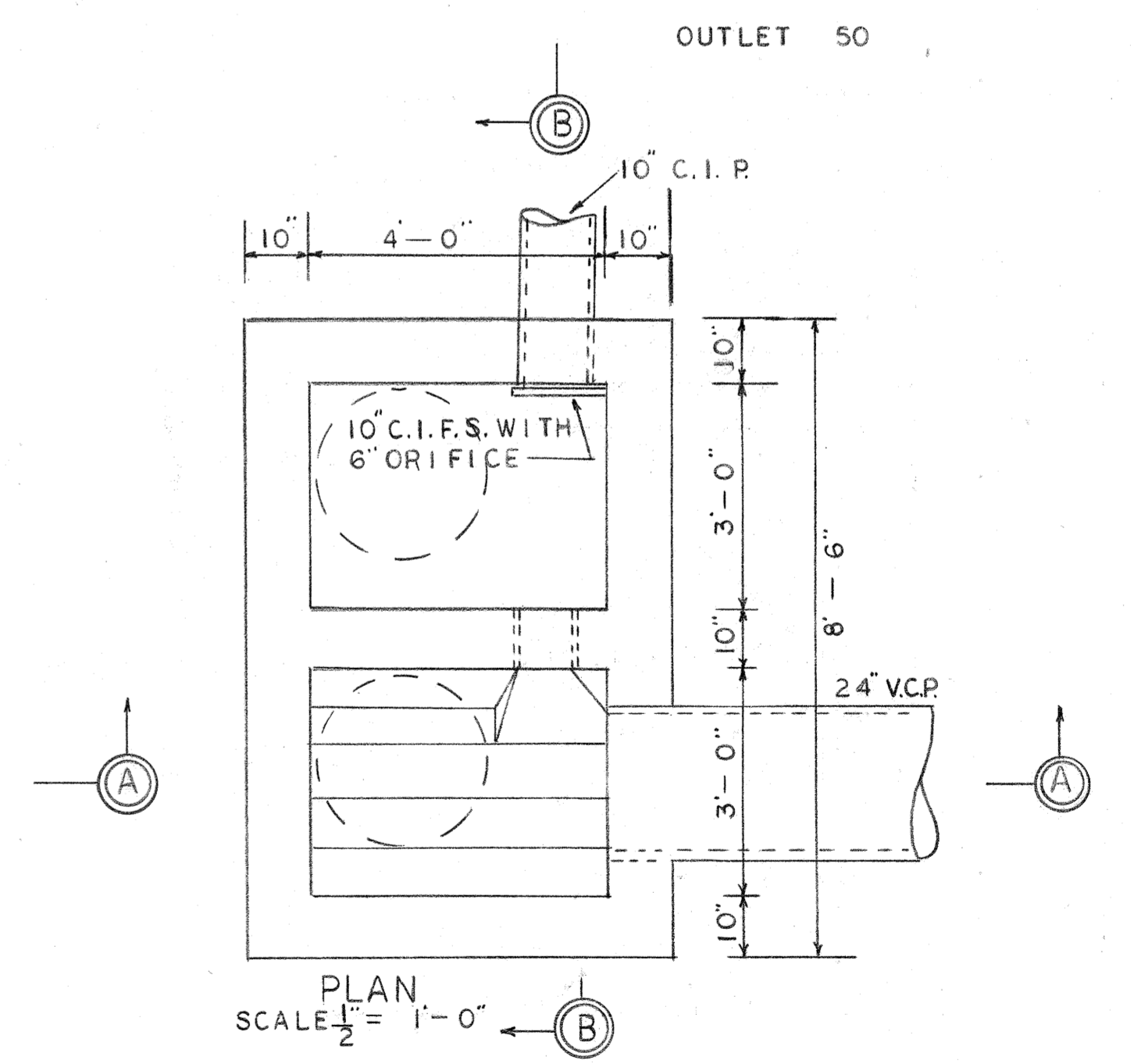
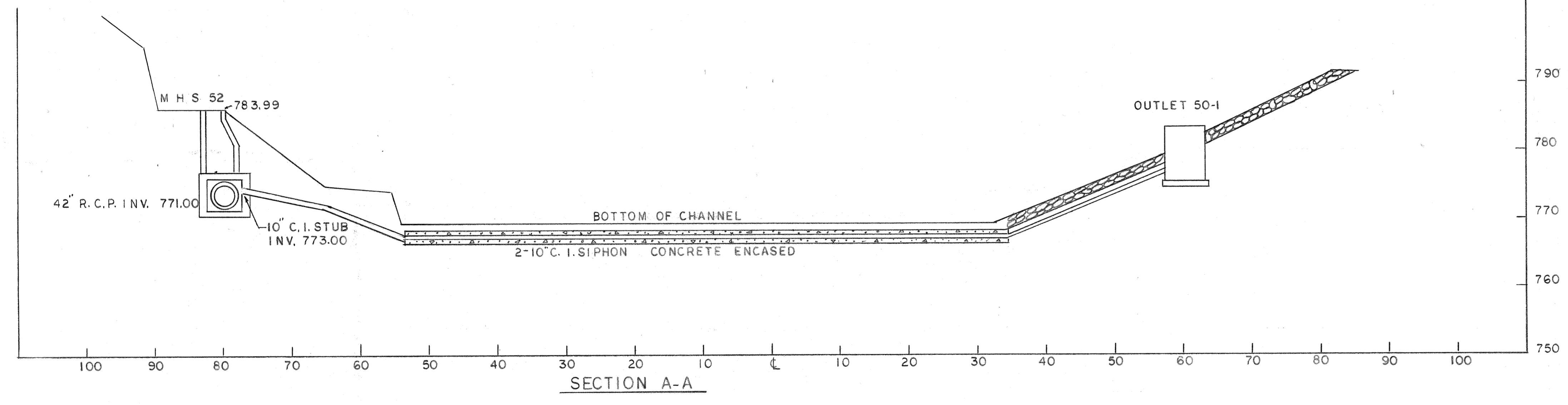
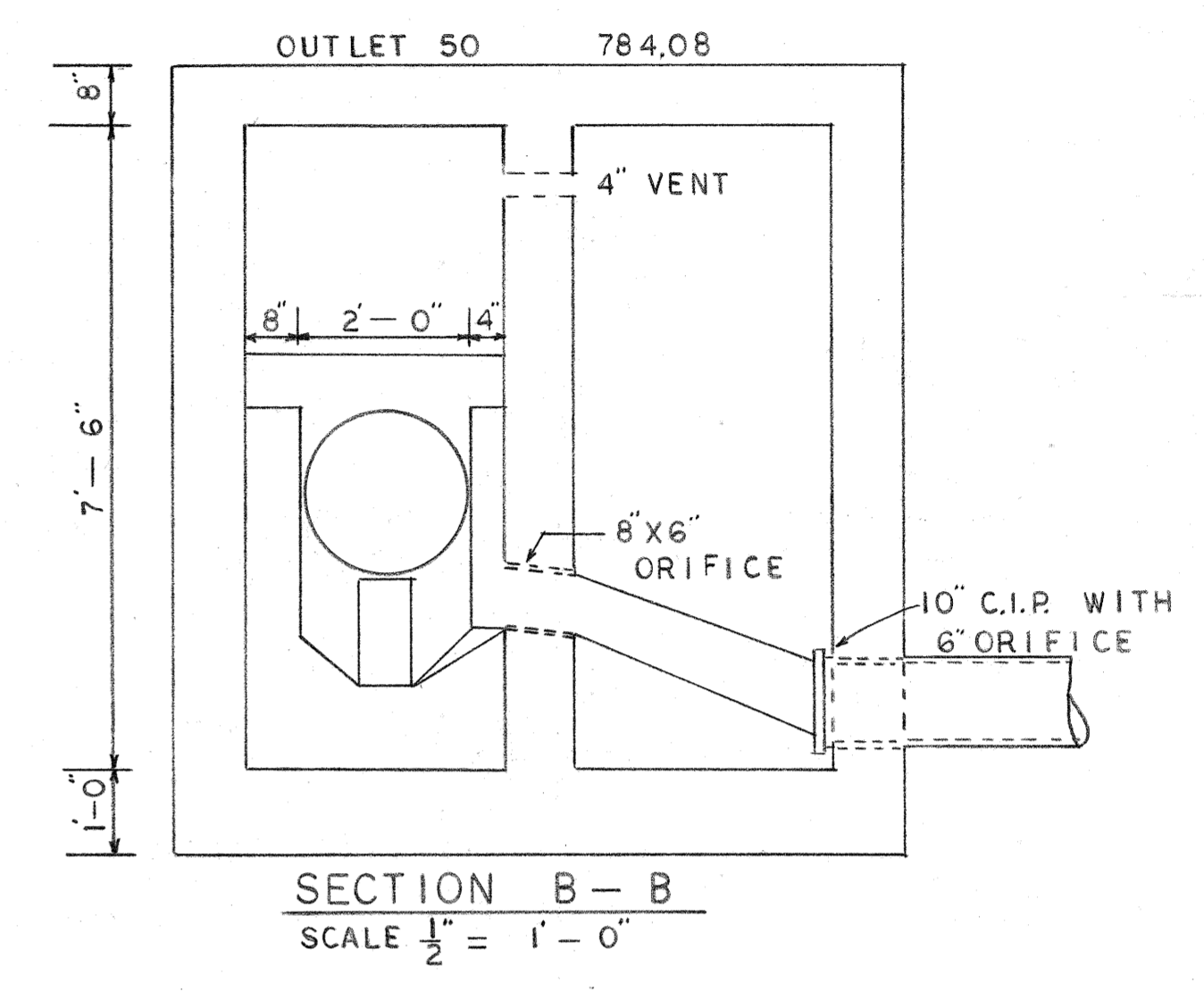
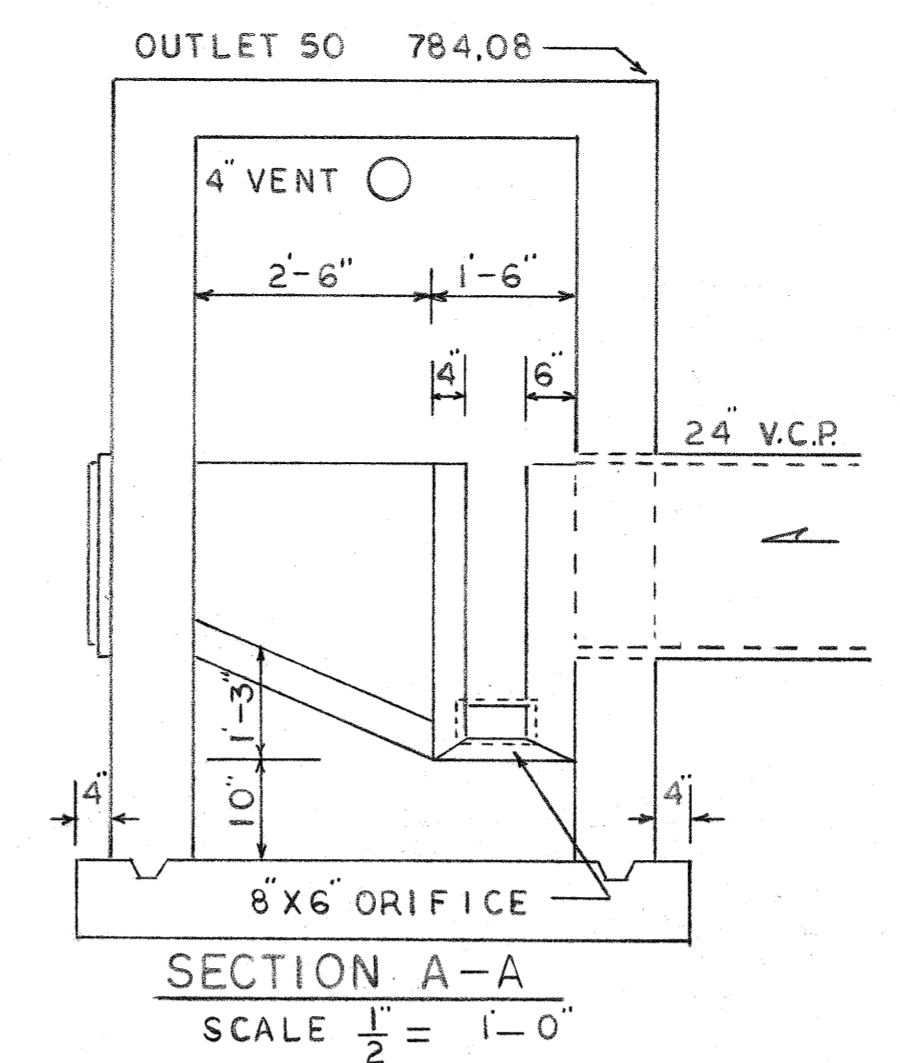
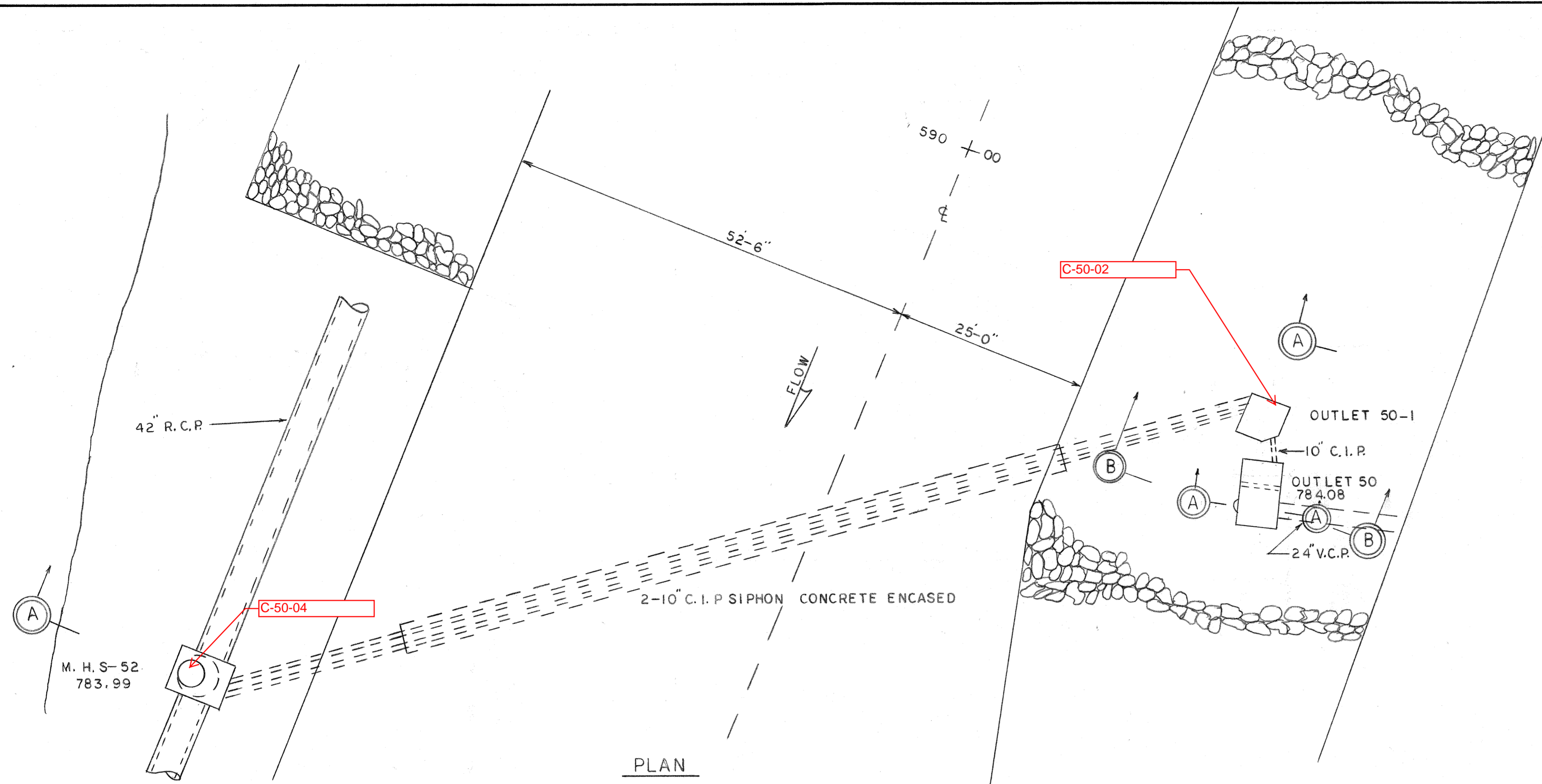
SCALE: AS SHOWN

1974









NOTE:  
FOR AS BUILT DRAWING OF OUTLET C-50  
SEE CONT. 33 SH. OF

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				EXECUTIVE DIRECTOR _____ DATE _____
3				
4				CHIEF ENGINEER _____ DATE _____ REG. PROF. ENGR. PA. NO. _____

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS C-50a

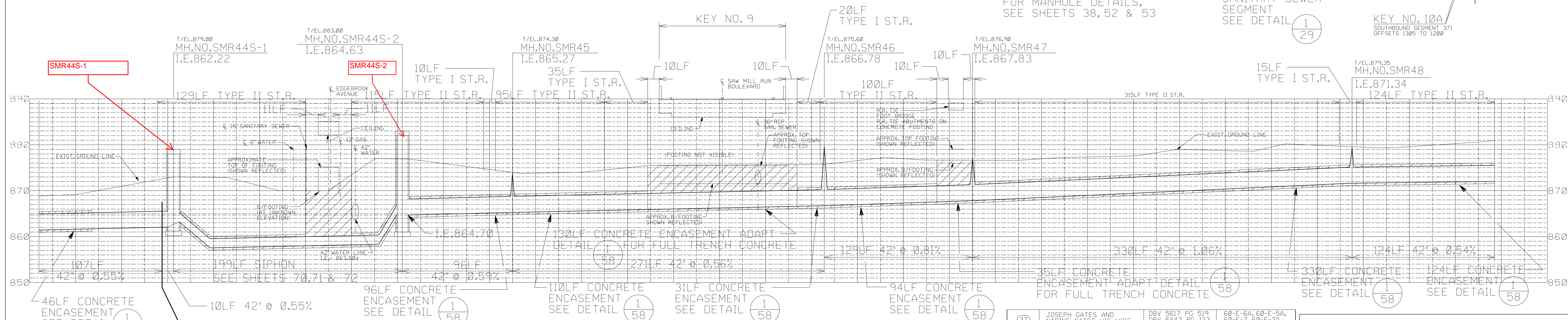
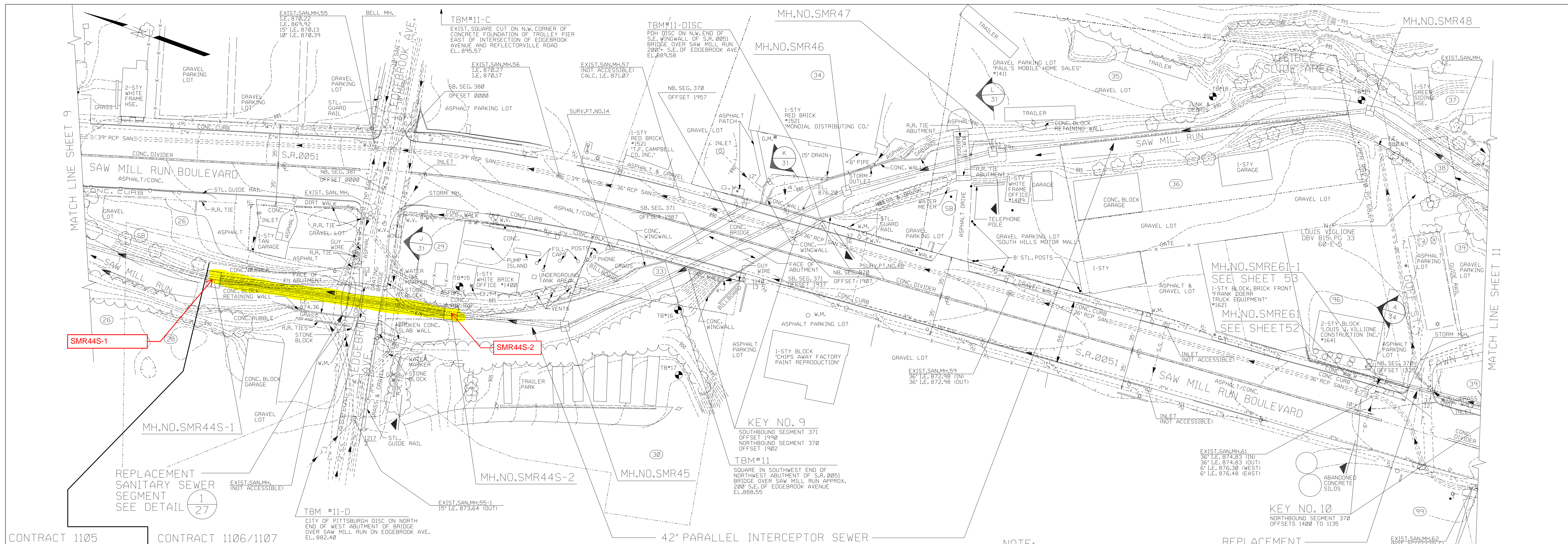
CHARTIERS CREEK  
OUTLET 50a

SCALE: AS SHOWN

1974

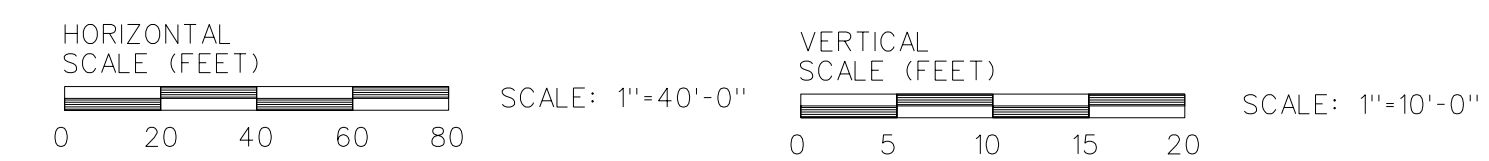
DRAWN BY \_\_\_\_\_  
TRACED BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
EXAMINED BY \_\_\_\_\_





26	CITY OF PITTSBURGH	PER PENDOT R/W DWGS	61-D-160	33	PITTSBURGH OUTDOOR ADVERTISING COMPANY	DBV 3040 PG 247	61-H-340
28	JAMES C. PANTELIS JR. CHRISTOPHER D. PANTELIS NICHOLAS A. PANTELIS	DBV 9257 PG 235	61-D-181 16-D-194	34	PAUL J. MILLER	DBV 8490 PG 249	61-H-347 61-H-351
29	ZAHID RASHAD AND SHAHNAZ ZAHID HIS WIFE AND RASHID MANZOOR	DBV 7895 PG 334	61-D-200	35	PAUL MILLER AND RICHARD F. MILLER	DBV 3568 PG 209 DBV 9178 PG 317	61-H-353,61-H-358,61-H-387
30	HOWARD A. JESSUP	DBV 8526 PG 155 DBV 8515 PG 125	61-D-196, 61-H-135, 61-H-333 PART OF 61-H-131	36	URBAN REDEVELOPMENT AUTHORITY	DBV 7234 PG 369	61-H-384,61-H-385, 61-H-386,61-H-388, 61-H-389,61-H-391A,61-H-392A
37	JOSEPH GATES AND NADINE GATES, HIS WIFE	DBV 5617 PG 519 DBV 6442 PG 123 DBV 6746 PG 237	60-E-6A, 60-E-5A, 60-E-7, 60-E-7A, 60-E-8	38	JOAN ROVANO JIAS AND JEFFREY CHARLES HRYNDA	DBV 6261 PG 916	60-E-6
39	JOAN ROVANO JIAS AND JEFFREY CHARLES HRYNDA	DBV 6187 PG 285	61-H-367, 61-H-368	96	LOUIS J. VIGLIONE & MARY A. VIGLIONE	DBV 7121 PG 411 DBV 8892 PG 385	61-H-360, 61-H-365
99	C & G AUTO GLASS	DBV 5705 PG 683 DBV 6741 PG 215	61-M-322, 61-M-324				

DRAWN BY TWF  
 CHECKED BY WJK  
 EXAMINED BY REL  
 ALCOSSAN EXAMINED BY



NOTE:  
 EDGEBROOK AVENUE BRIDGE WEIGHT LIMIT IS 13 TONS.



DWG. NO. 223267/22321013 .SIT  
 DATE \$DATE\$/\$TIME\$

REV.	DESCRIPTION	DATE	APP.	APPROVED
A	ISSUED FOR BID CONTRACT 1106/1107	11/18/97	REL	
B	RECORD DRAWING - CONTRACT 1105	11/98	REL	EXECUTIVE DIRECTOR _____ DATE _____
C	RECORD DRAWING - CONTRACT 1106/1107	06-2000	REL	DIRECTOR OF ENGR. & CONST. _____ DATE _____
				PROJECT MANAGER _____ DATE _____

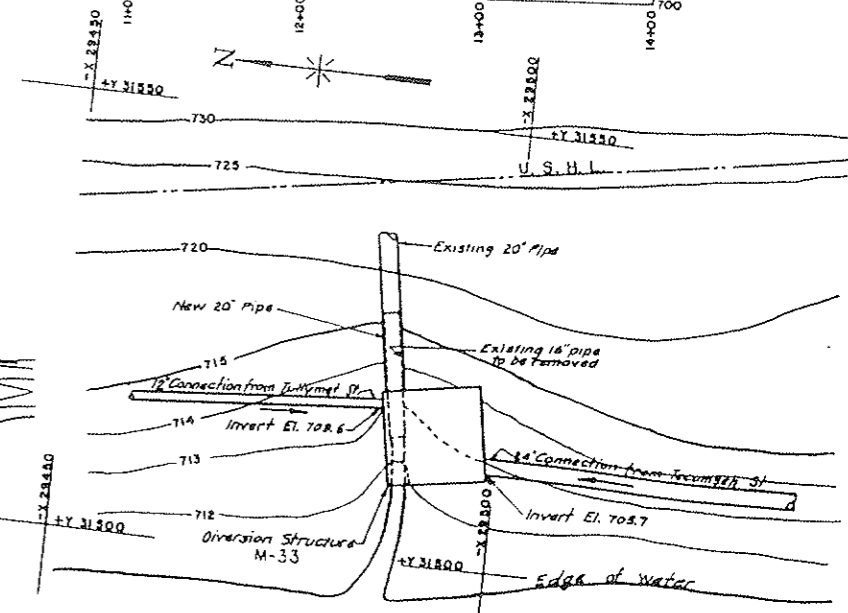
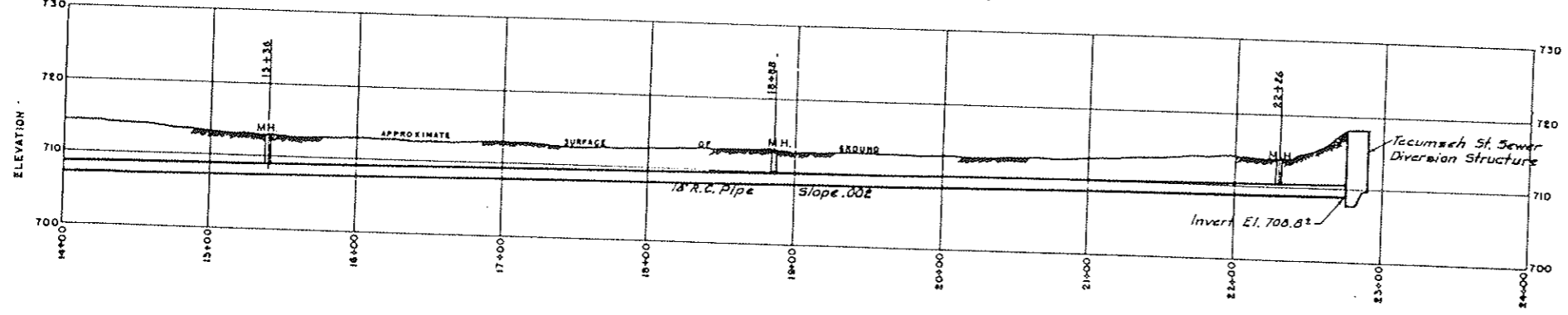
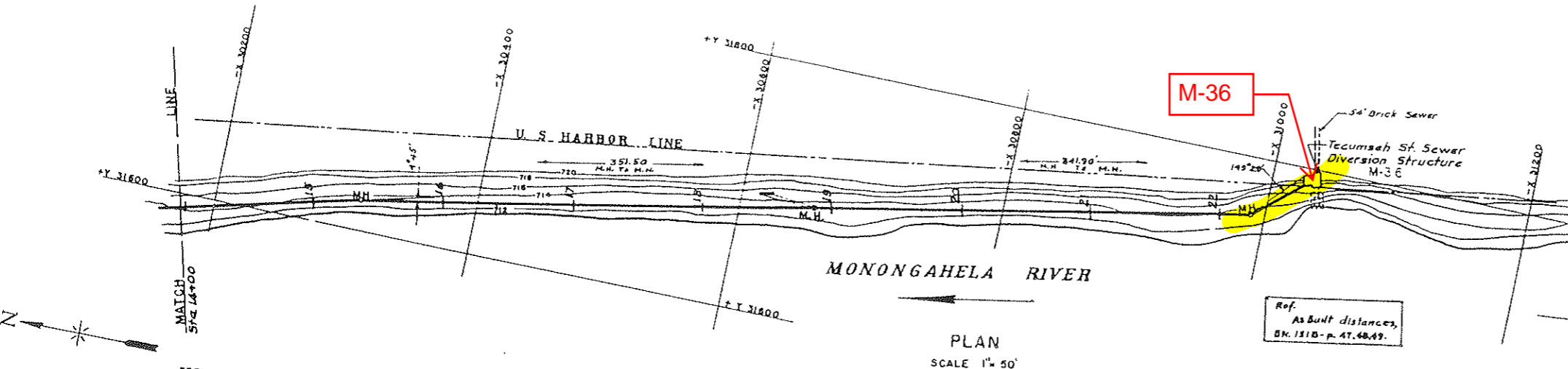
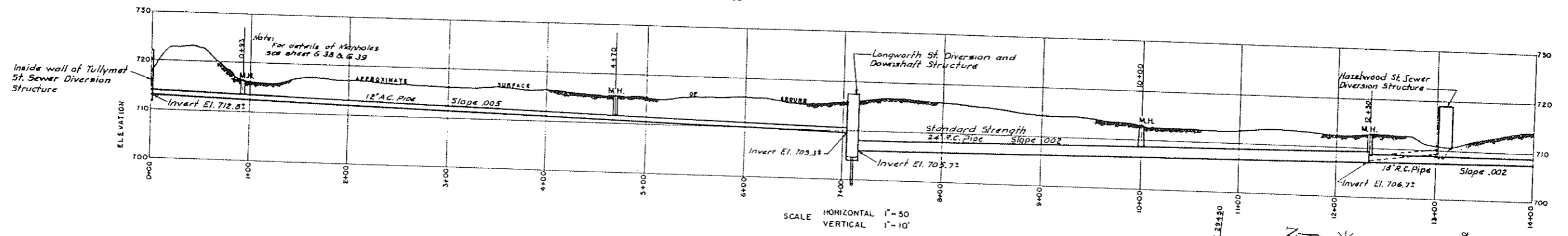
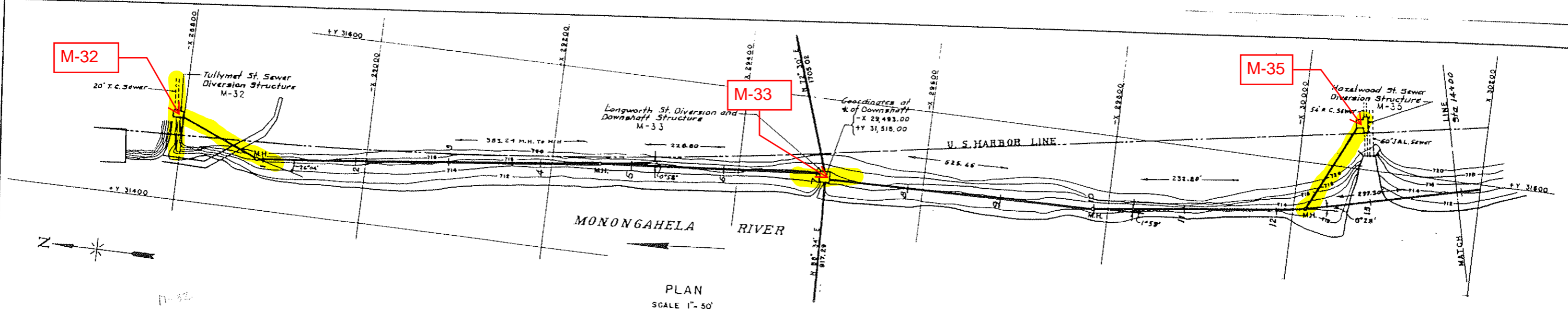
ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

EXTENSION OF THE  
 SAW MILL RUN INTERCEPTOR UPSTREAM OF  
 WOODRUFF STREET TO McNEILLY ROAD

**SAW MILL RUN  
 PARALLEL INTERCEPTOR**

PLAN AND PROFILE

HORIZ: 1"=40' 1105  
 SCALE: VERT: 1"=10' CONTRACT 1106/1107 SHEET 10



**NOT TO SCALE**

DRAWN BY K.S.G.  
TRACED BY F.K.  
CHECKED BY K.S.G.  
EXAMINED BY G.T.R.

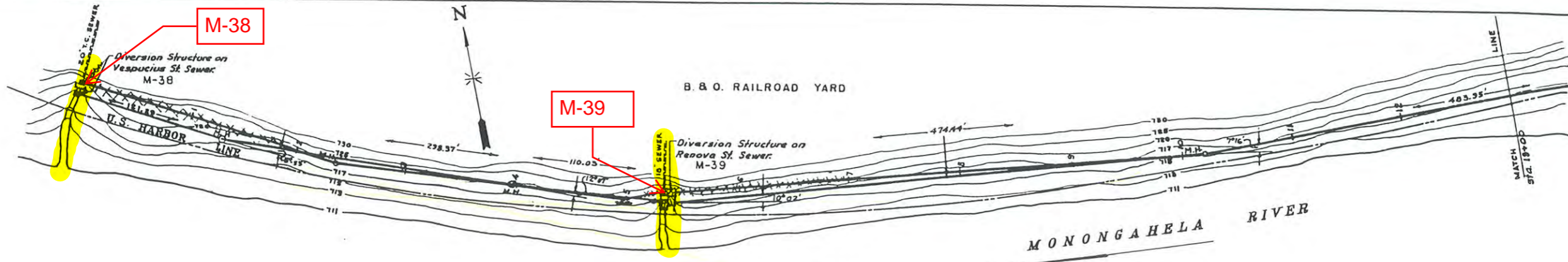
REV.	DESCRIPTION	DATE	APP.	APPROVED
1	AS BUILT DATA ADDED			
2	As Built - 1281	1-15-81	J.R.D.	<i>John F. U.</i> DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1584-E
3				
4				<i>J. A. Korman</i> CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1584-E

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

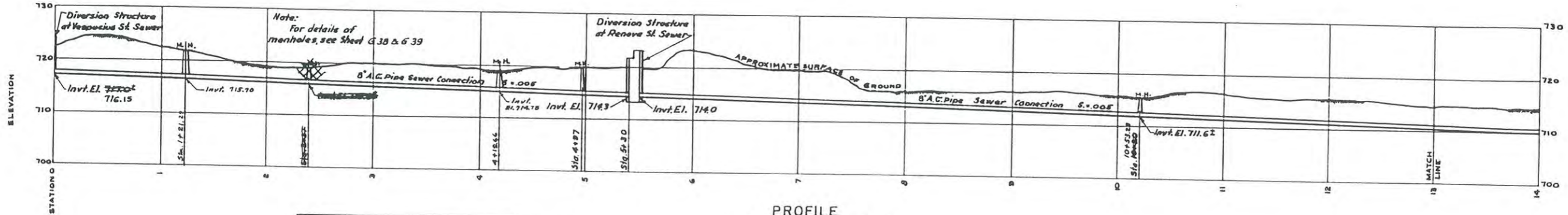
INTERCEPTING SEWERS  
MONONGAHELA RIVER  
FOUR MILE RUN TO WEST HOMESTEAD  
PLAN AND PROFILE  
BRANCH INTERCEPTOR  
TULLYMET ST. SEWER TO TECUMSEH ST. SEWER

JUNE 19, 1983  
DATE

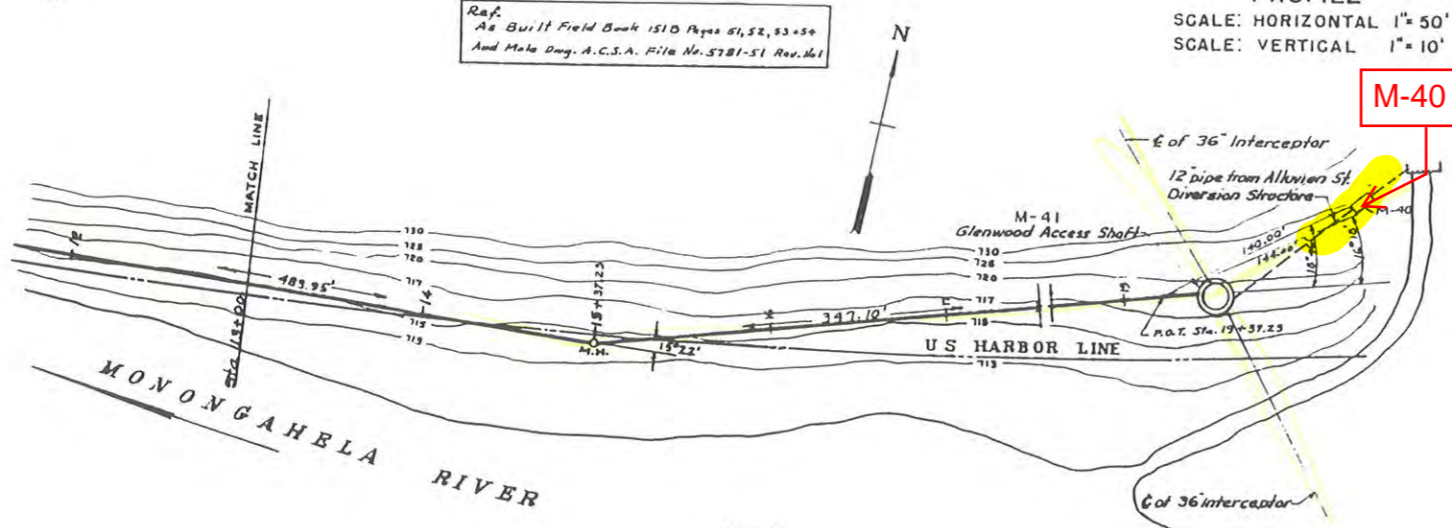
JUNE 19, 1983  
DATE



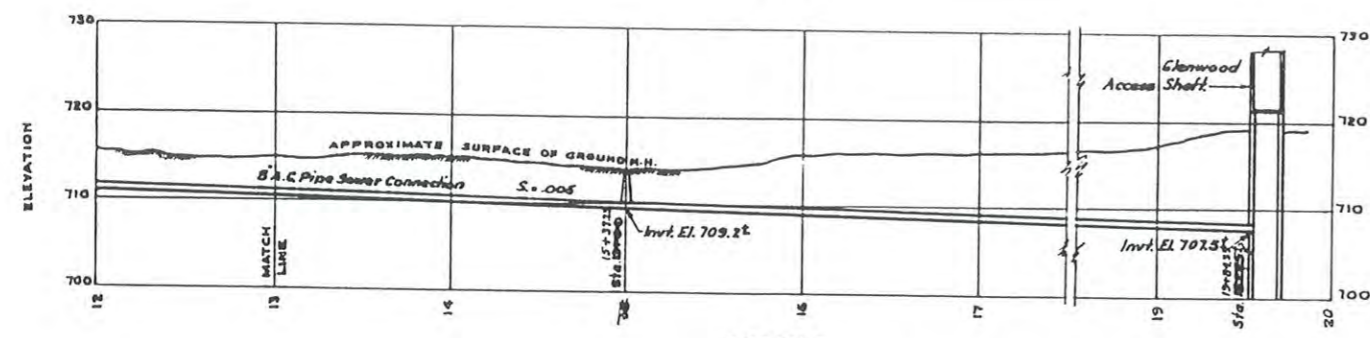
PLAN  
SCALE: 1"=50'



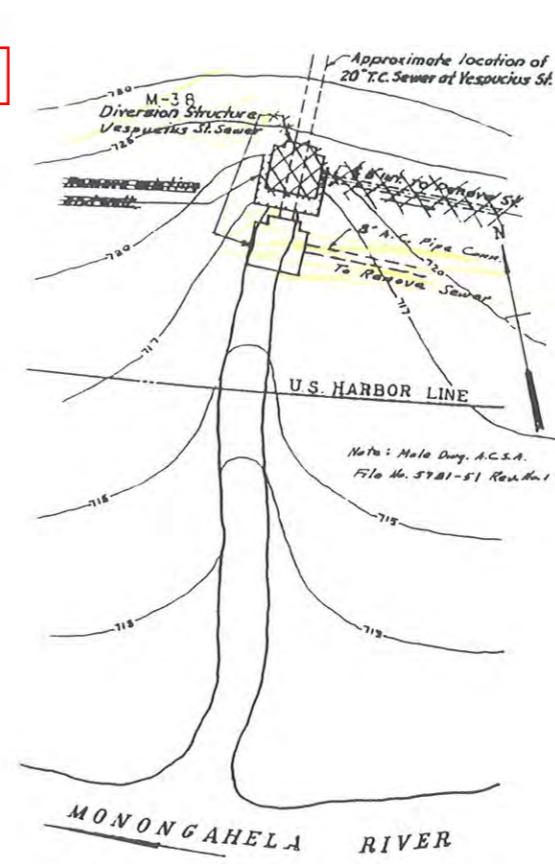
PROFILE  
SCALE: HORIZONTAL 1"=50'  
SCALE: VERTICAL 1"=10'



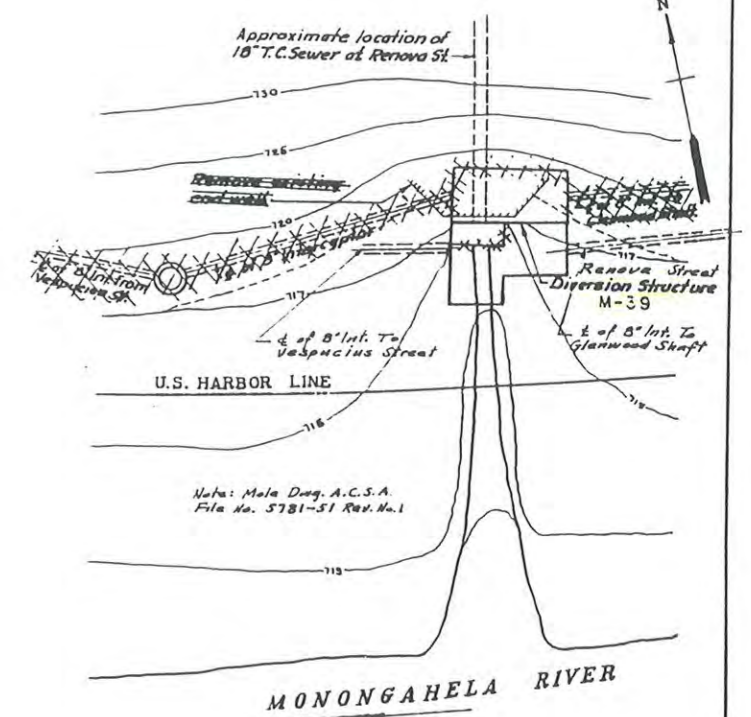
PLAN  
SCALE: 1"=50'



PROFILE  
SCALE: HORIZONTAL 1"=50'  
SCALE: VERTICAL 1"=10'



VESPUCIUS STREET  
LOCATION PLAN  
SCALE: 1"=10'-0"



RENOVA STREET  
LOCATION PLAN  
SCALE: 1"=10'-0"

**NOT TO SCALE**

DRAWN BY R.S.M.  
TRACED BY M.K.R.  
CHECKED BY K.J.G.  
EXAMINED BY G.I.G.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1	Sewer alignment revised due to re-location of Glenwood Access Shaft.	11-21-57	G.T.G.	<i>Lawrence M. Soutterman</i> NOV. 13, 1953
2	As Built - 1951	1-15-51	J.R.D.	DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1582-E DATE
3				<i>J. F. Brown</i> NOV. 13, 1953
4				CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433 DATE

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

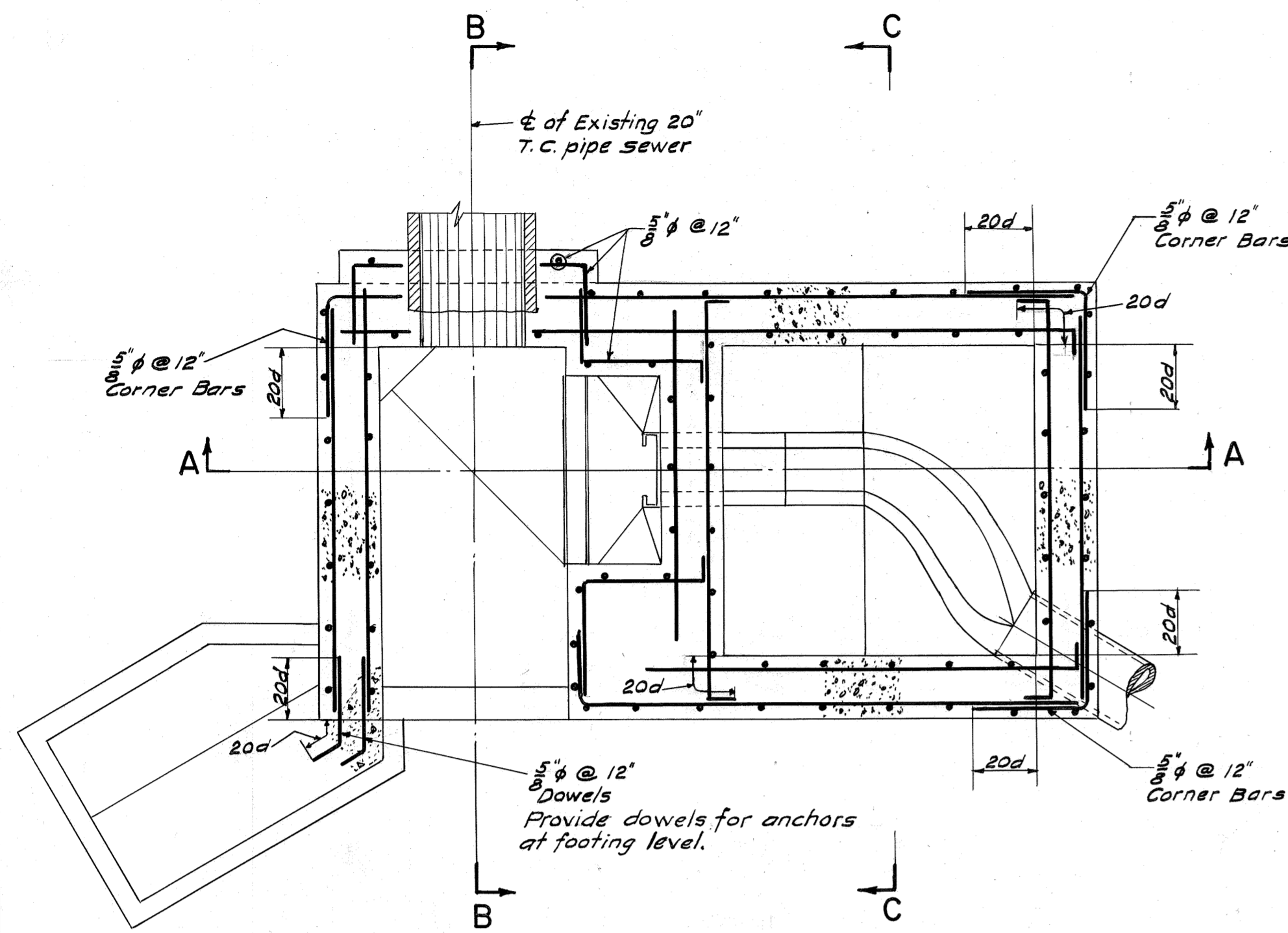
INTERCEPTING SEWERS  
MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD

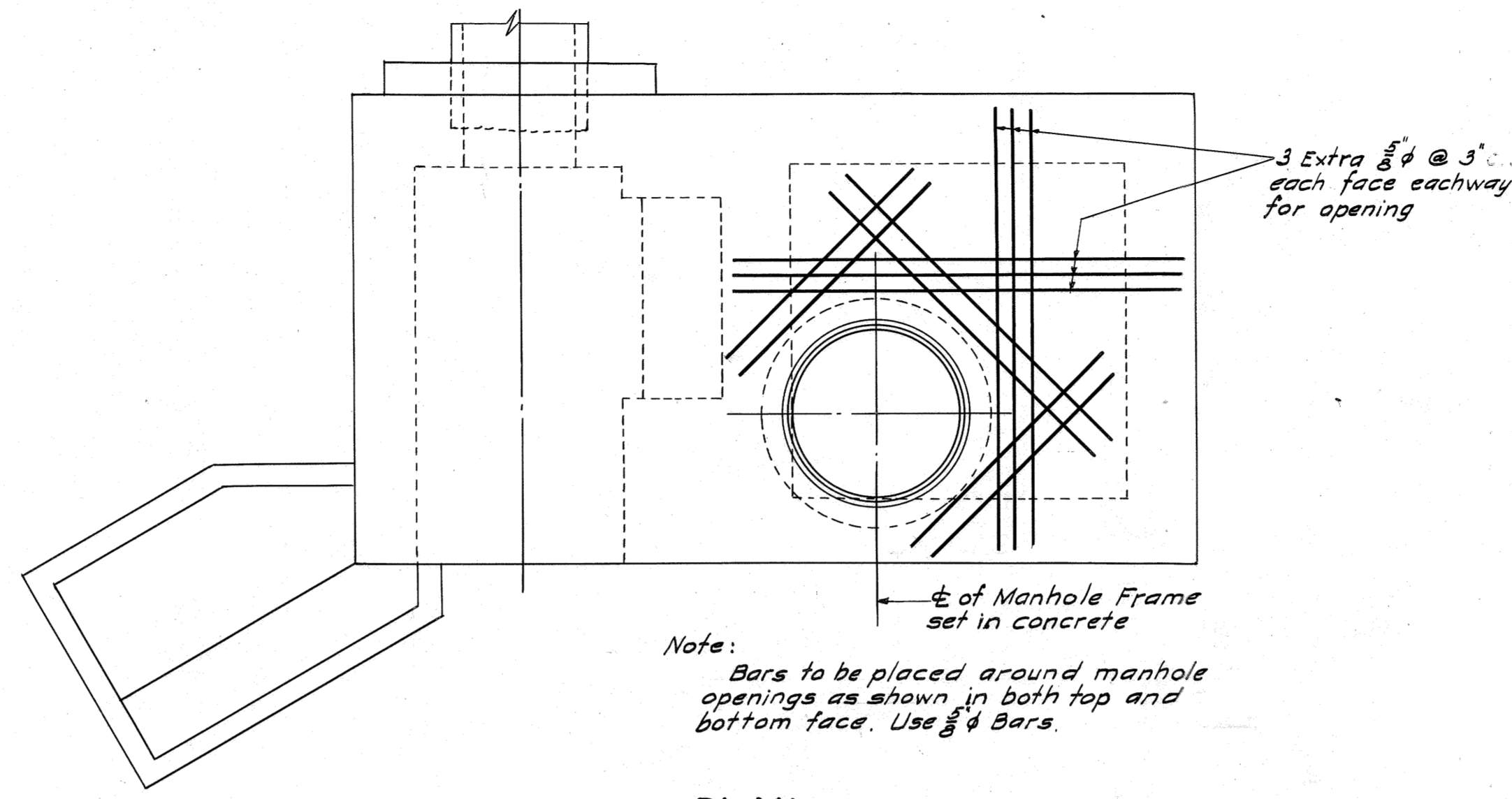
PLAN AND PROFILE  
BRANCH INTERCEPTOR  
VESPUCIUS STREET SEWER TO  
GLENWOOD ACCESS SHAFT

SCALE: AS SHOWN

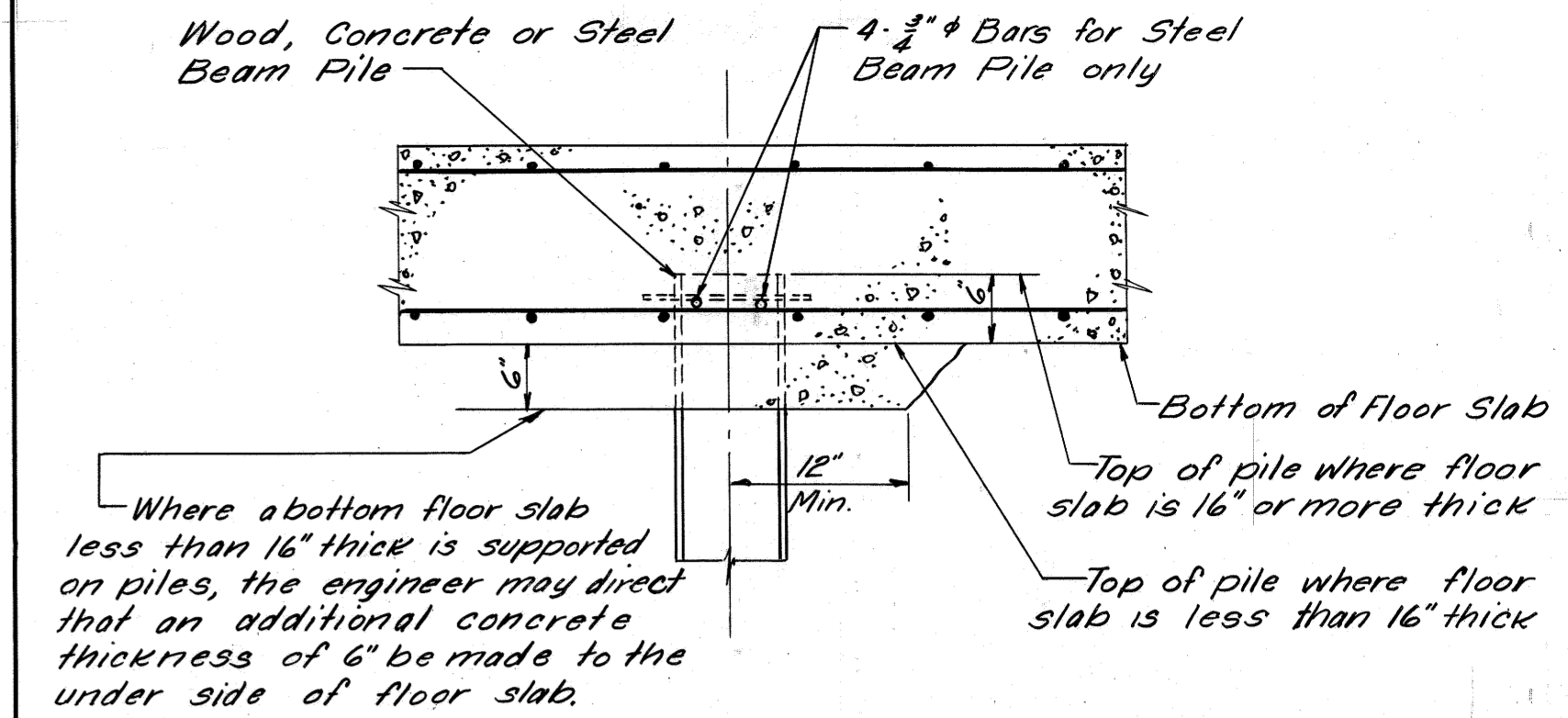




HORIZONTAL SECTION

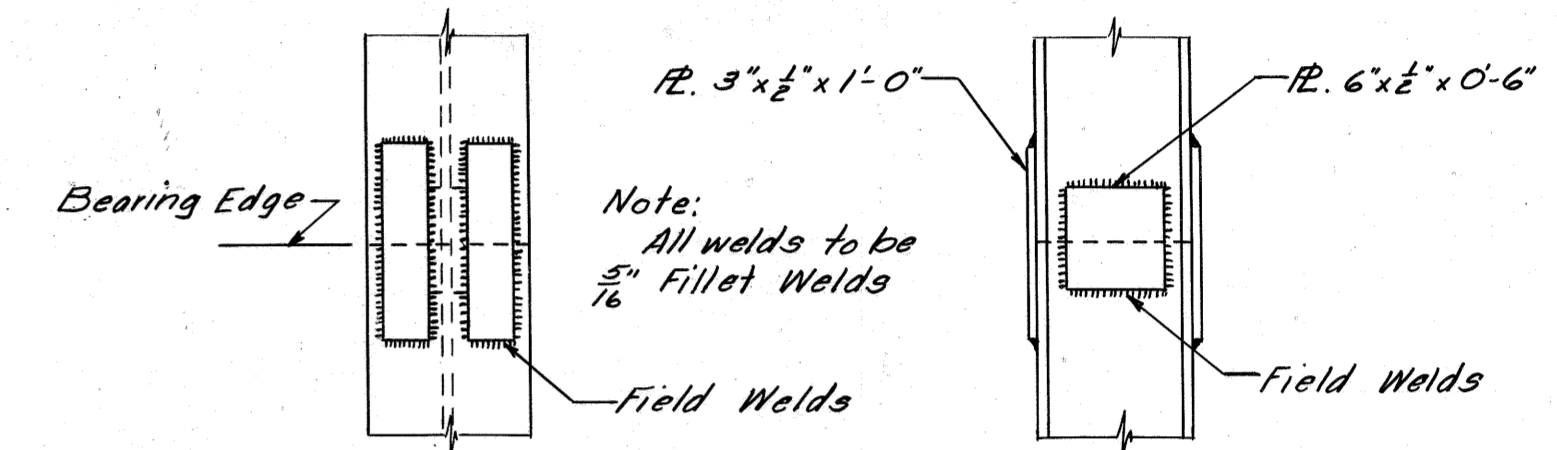


PLAN



PILE ANCHORAGE DETAIL

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

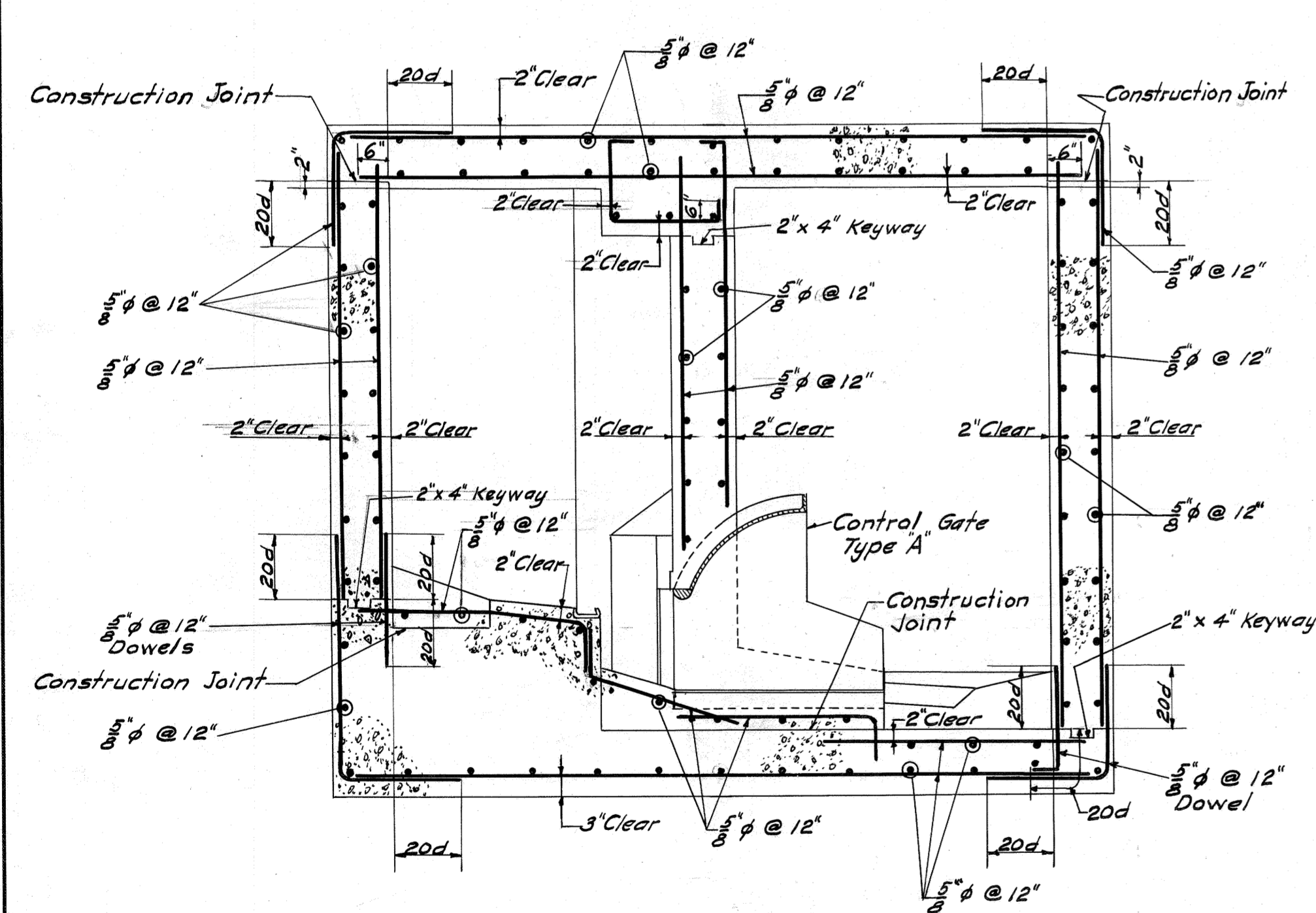


SPLICE DETAILS FOR STEEL BEAM PILE

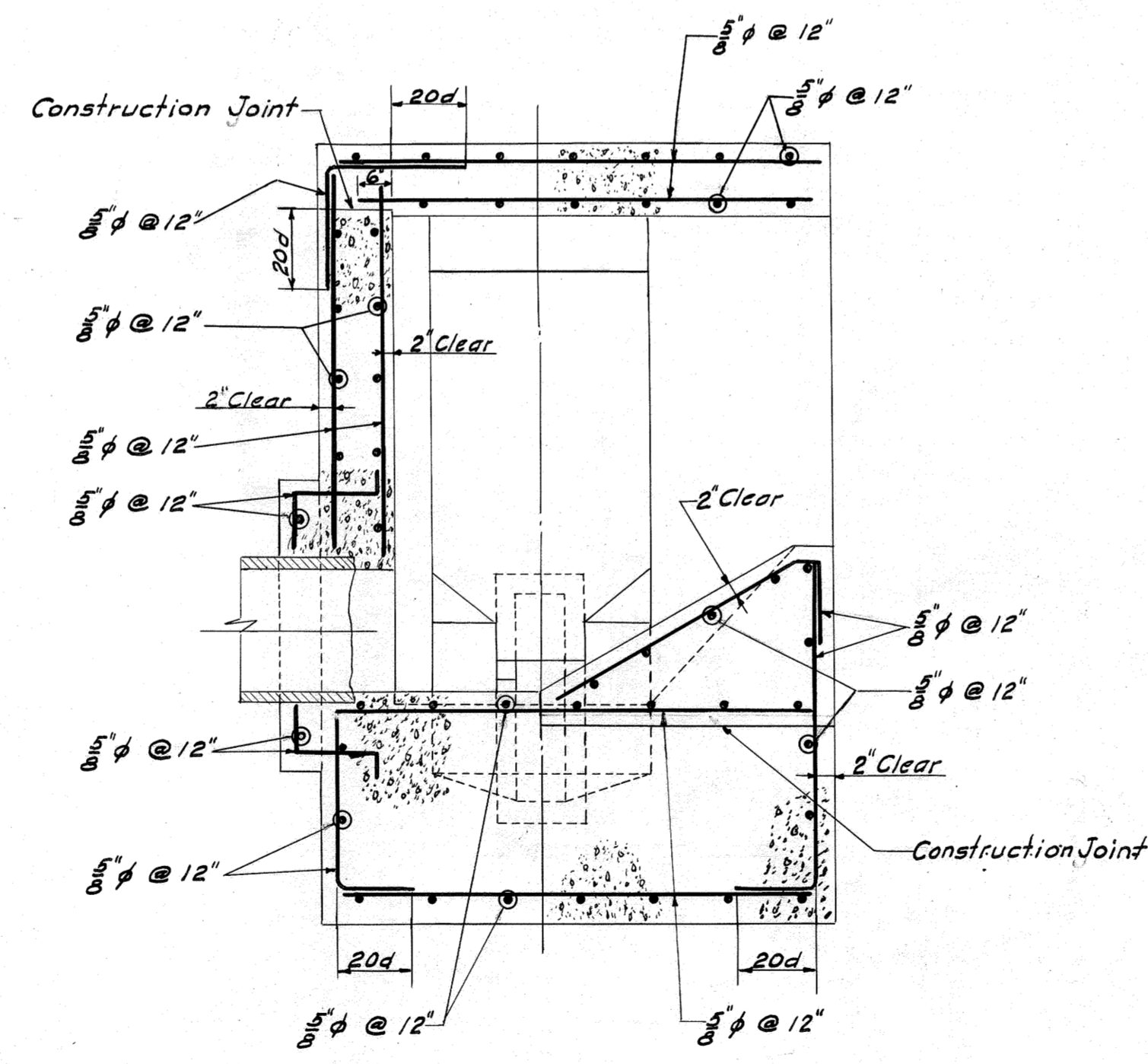
SCALE: 1" = 1'-0"

TYPICAL PILE DETAILS

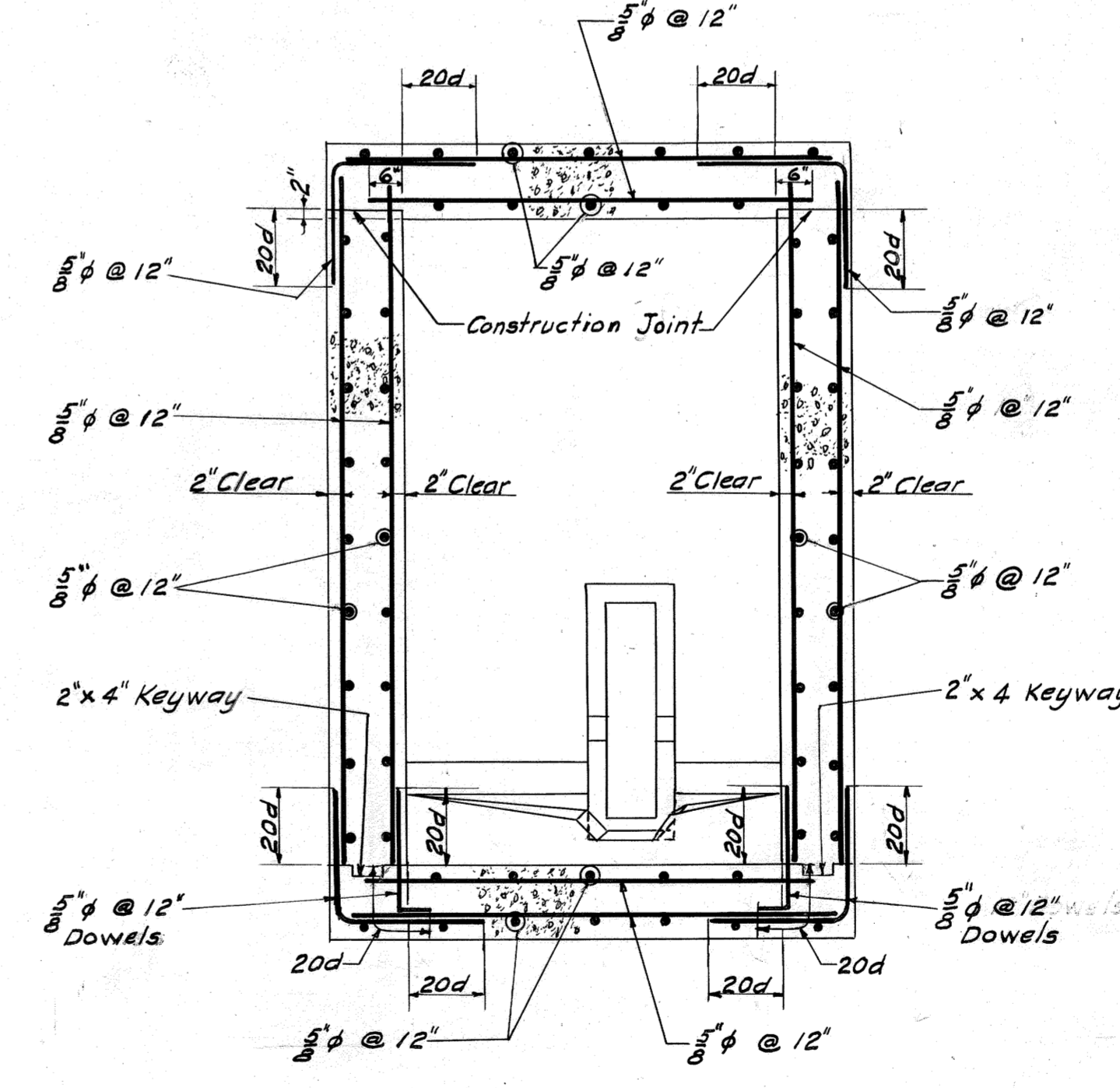
Note:  
For Pile Location Plans, see sheet 29



SECTION A-A



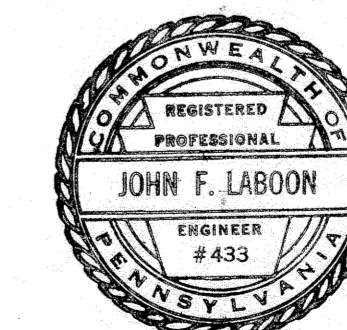
B-B



C-C

DESIGNED BY E.J.D.  
CHECKED BY W.J.G.  
DRAWN BY J.R.D.  
TRACED BY F.K.  
CHECKED BY J.R.D., W.J.G.  
EXAMINED BY F.J.M.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				Lawrence M. Sattelman DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E DEC. 15, 1954
2				DATE
3				J. F. Laboon CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433 DEC. 15, 1954
4				DATE



ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS

M-32

MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD

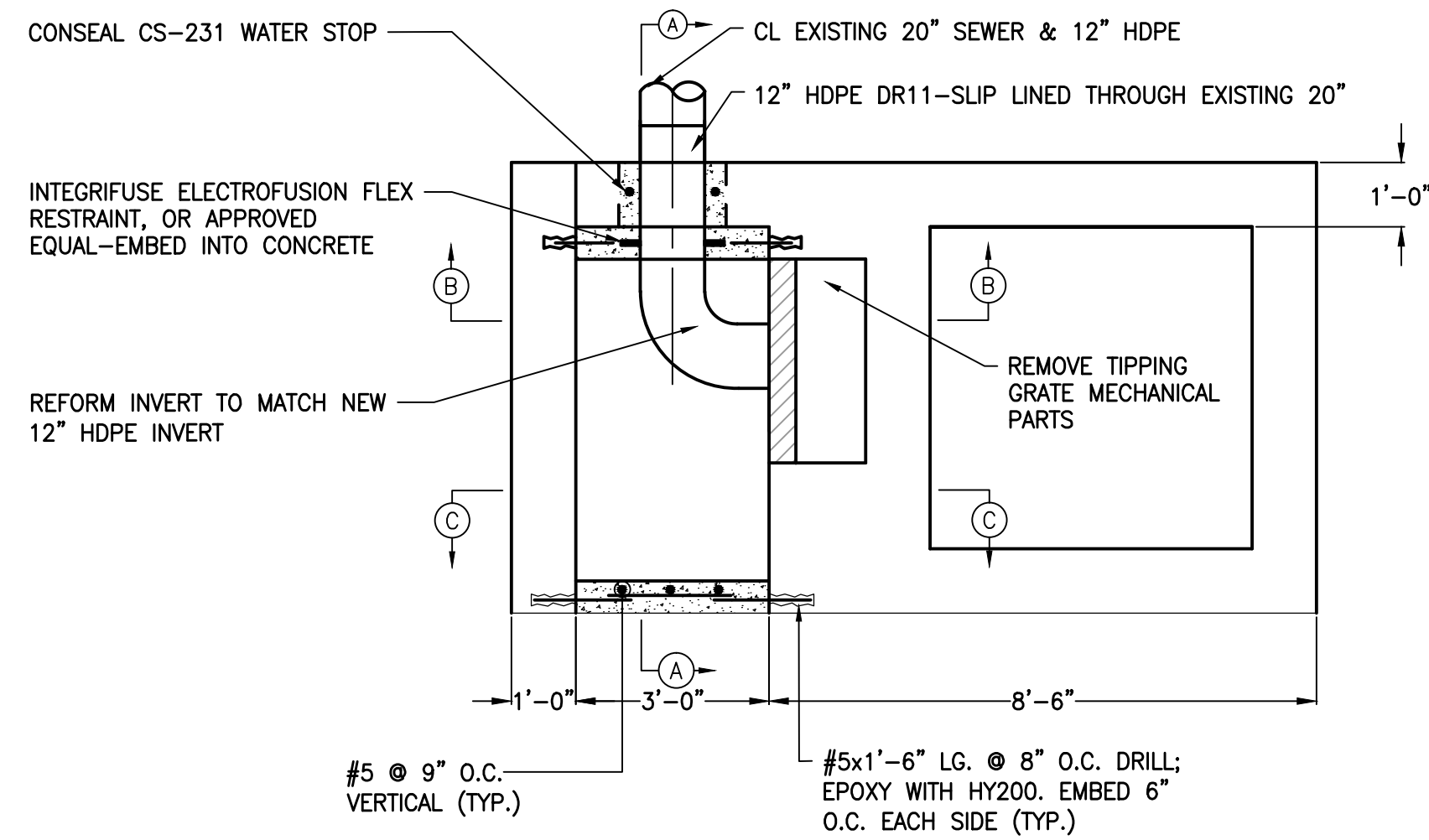
DIVERSION STRUCTURE  
ON TULLYMET STREET SEWER  
REINFORCEMENT

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

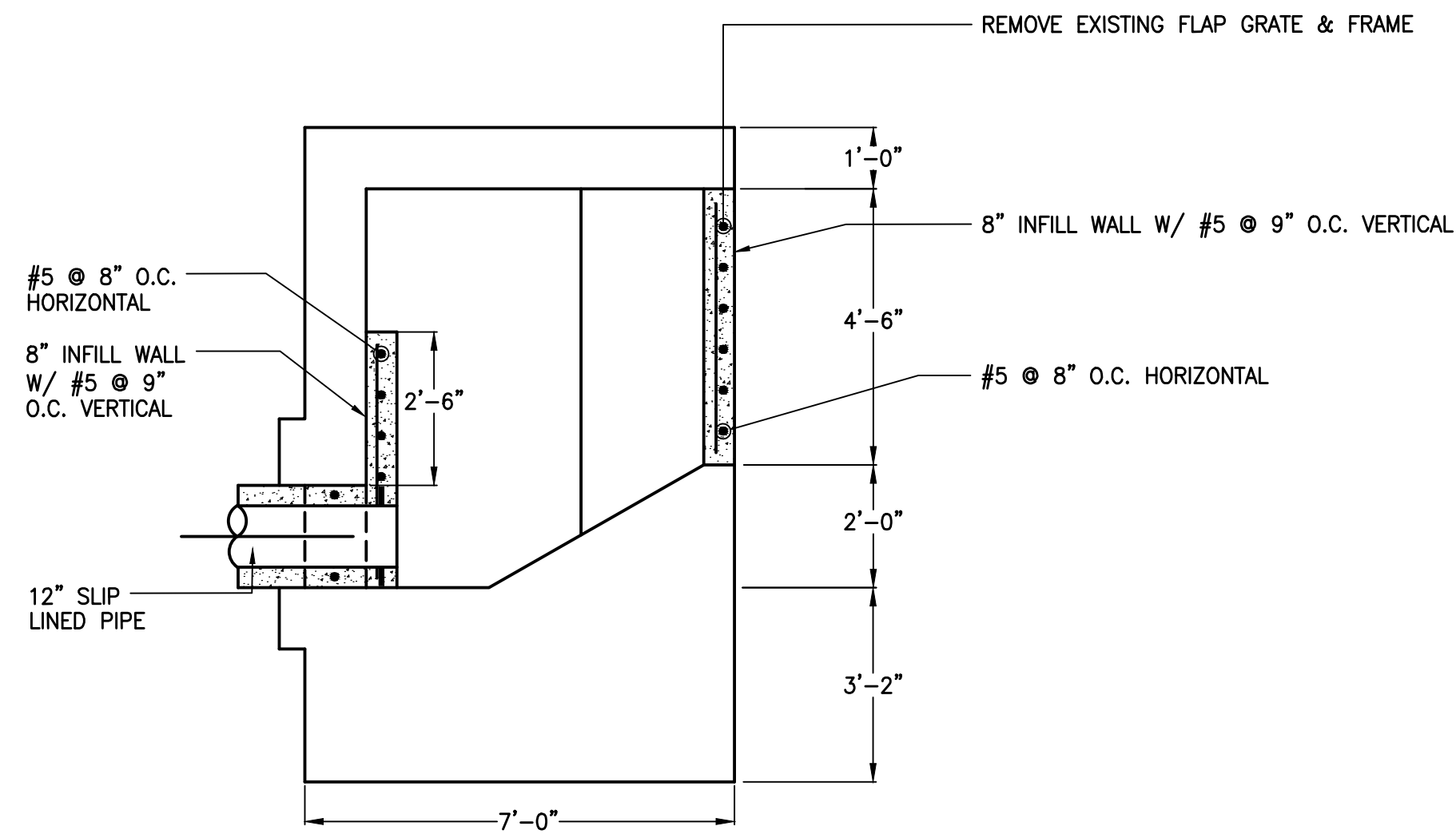
1953

CONTRACT 51

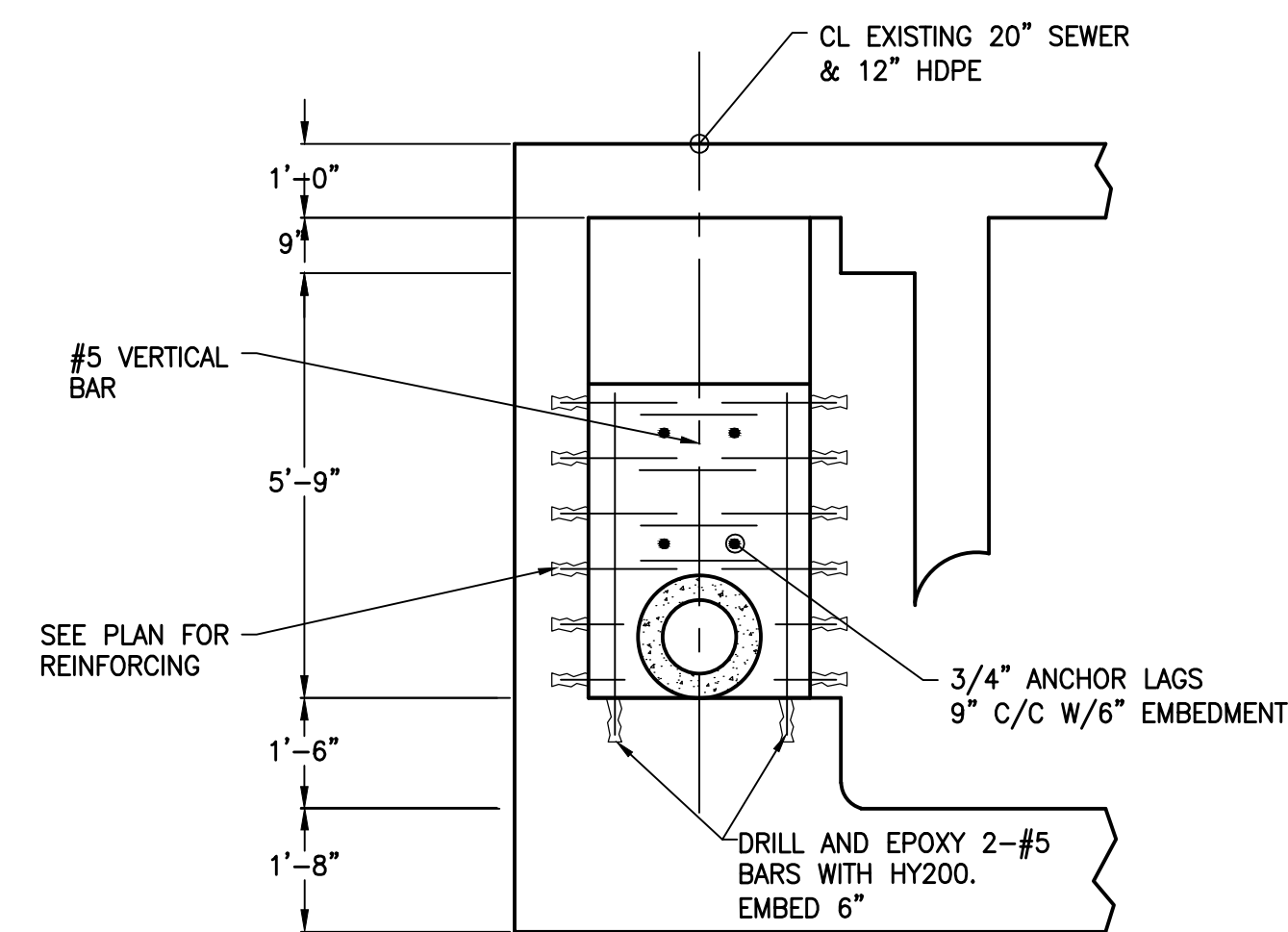
SHEET 31 OF 42



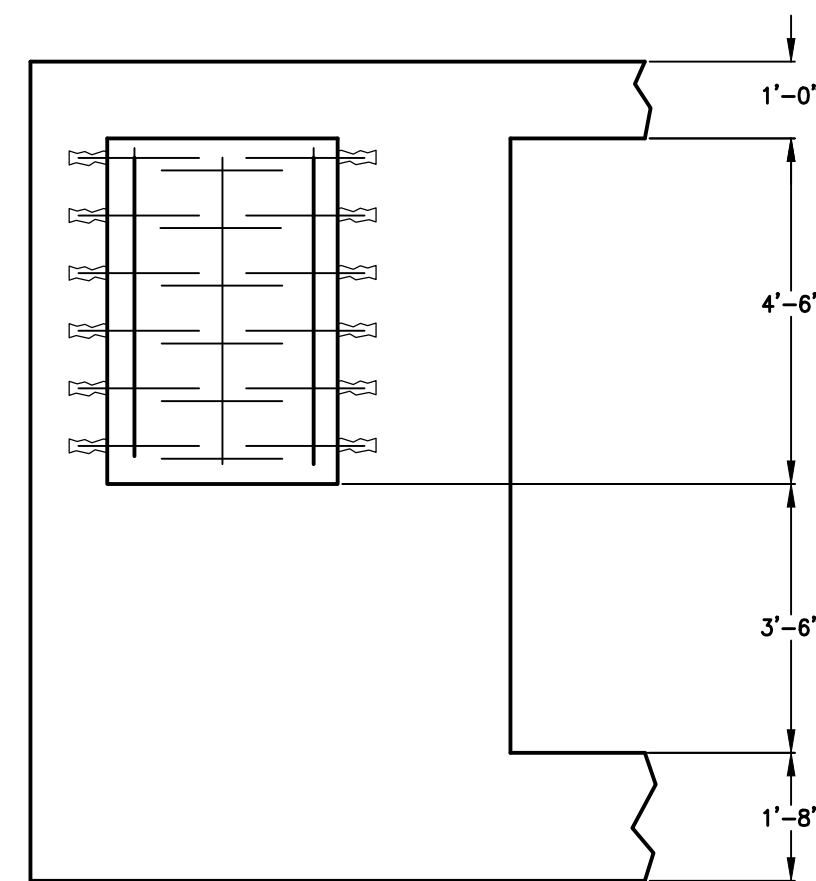
**PLAN**  
N.T.S.



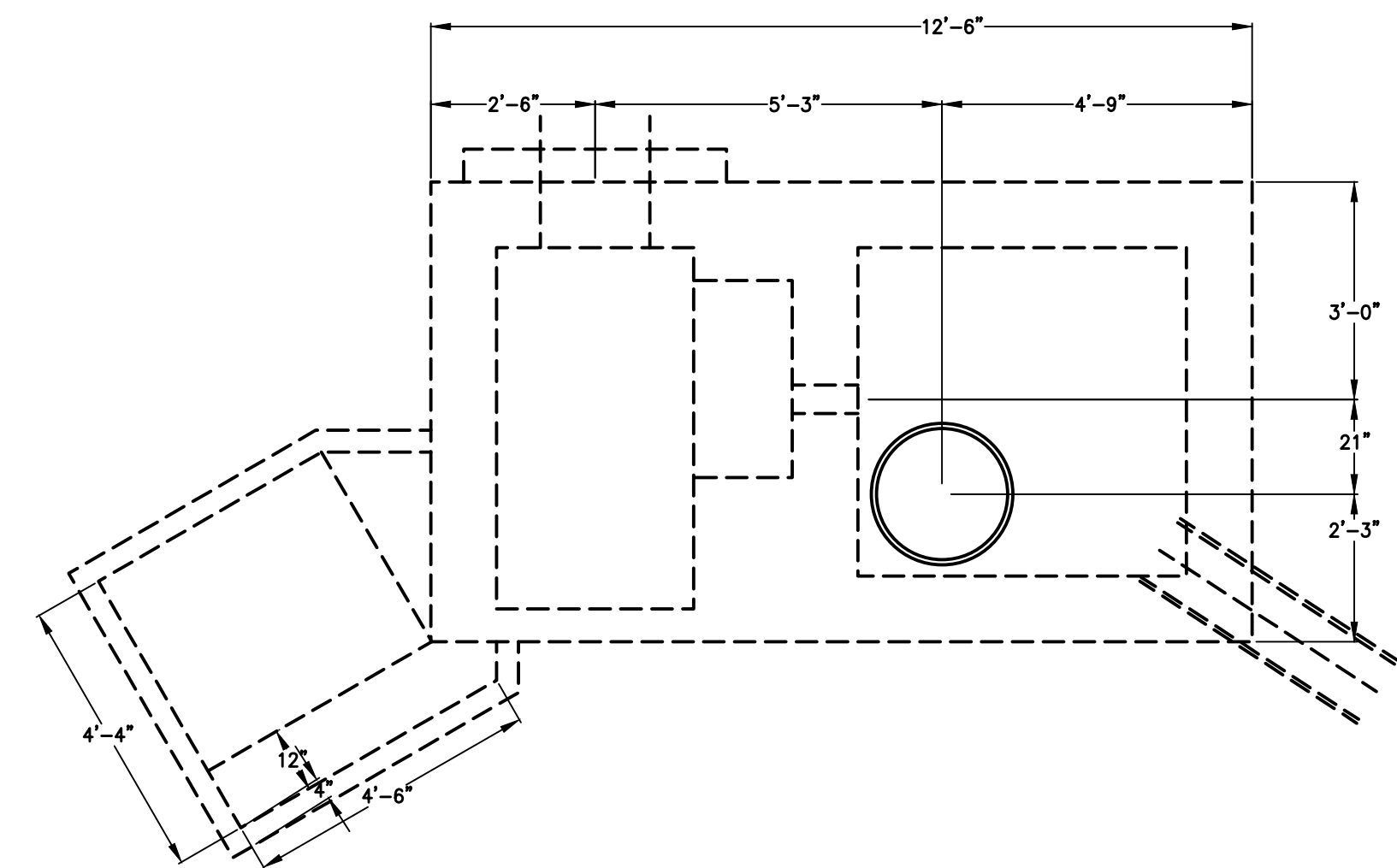
**SECTION A-A**  
N.T.S.



**SECTION B-B**  
N.T.S.



**SECTION C-C**  
N.T.S.



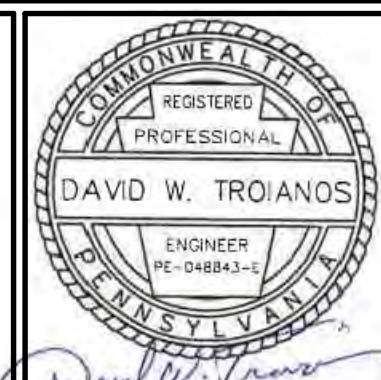
**M-32 PLAN DETAIL**  
N.T.S.

**NOTE:**

- EXISTING FLAP AND TIPPING GATES TO BE RETURNED TO ALCOSAN.

**ALCOSAN MANHOLE M-32 DETAIL**  
N.T.S.

Designed by:	REVISION		
Drawn by:	DATE	DESCRIPTION	APPV
D. MURGI			
Checked by:			
D. TROIANOS			



**alcosan** allegheny county sanitary authority

ARLETTA SCOTT WILLIAMS  
EXECUTIVE DIRECTOR, ALCOSAN

3300 PREBLE AVE.  
PITTSBURGH, PENNSYLVANIA 15233  
(412) 766-4810

www.alcosan.org

ALMONO LP  
CITY OF PITTSBURGH  
ALLEGHENY COUNTY, PENNSYLVANIA

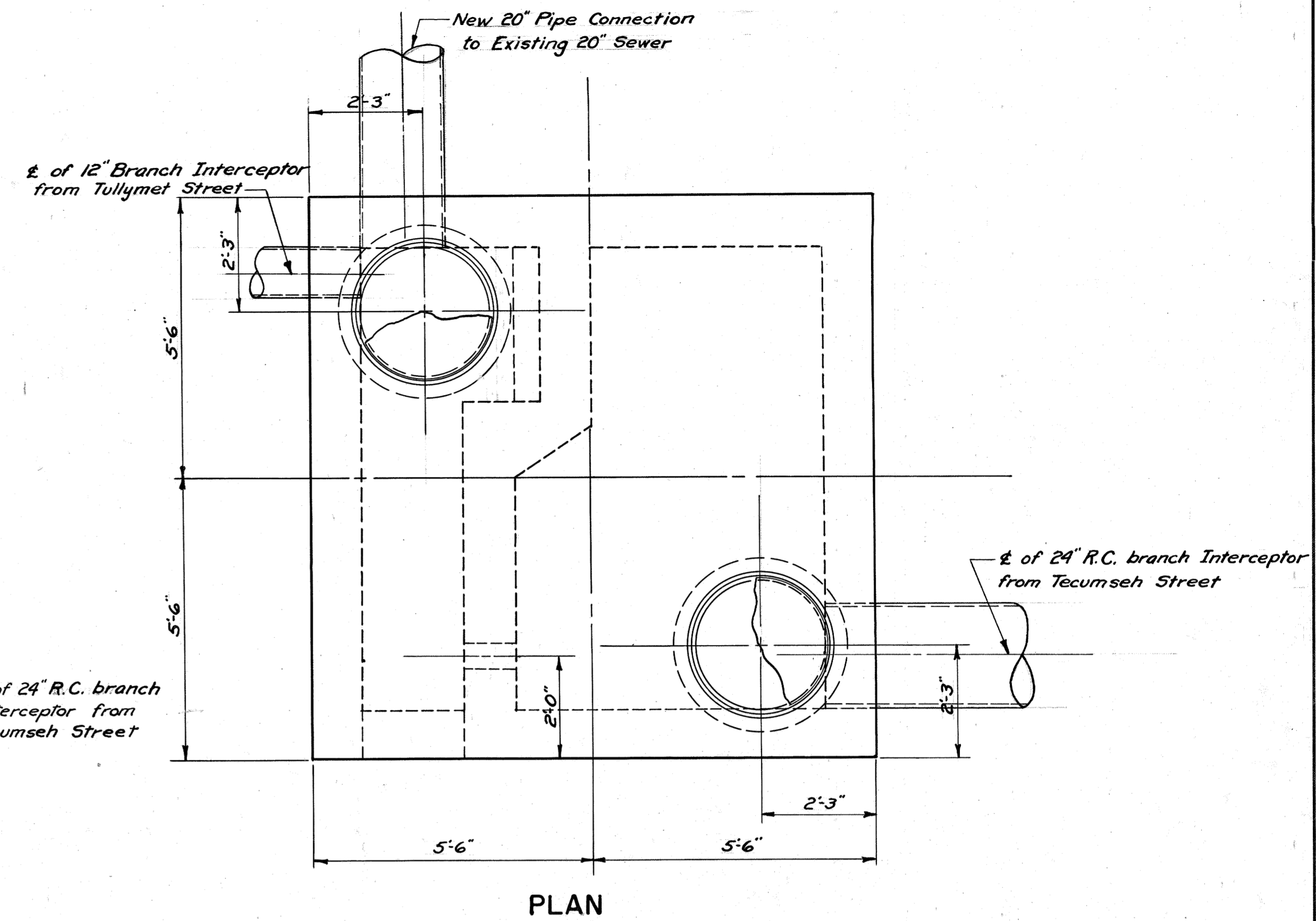
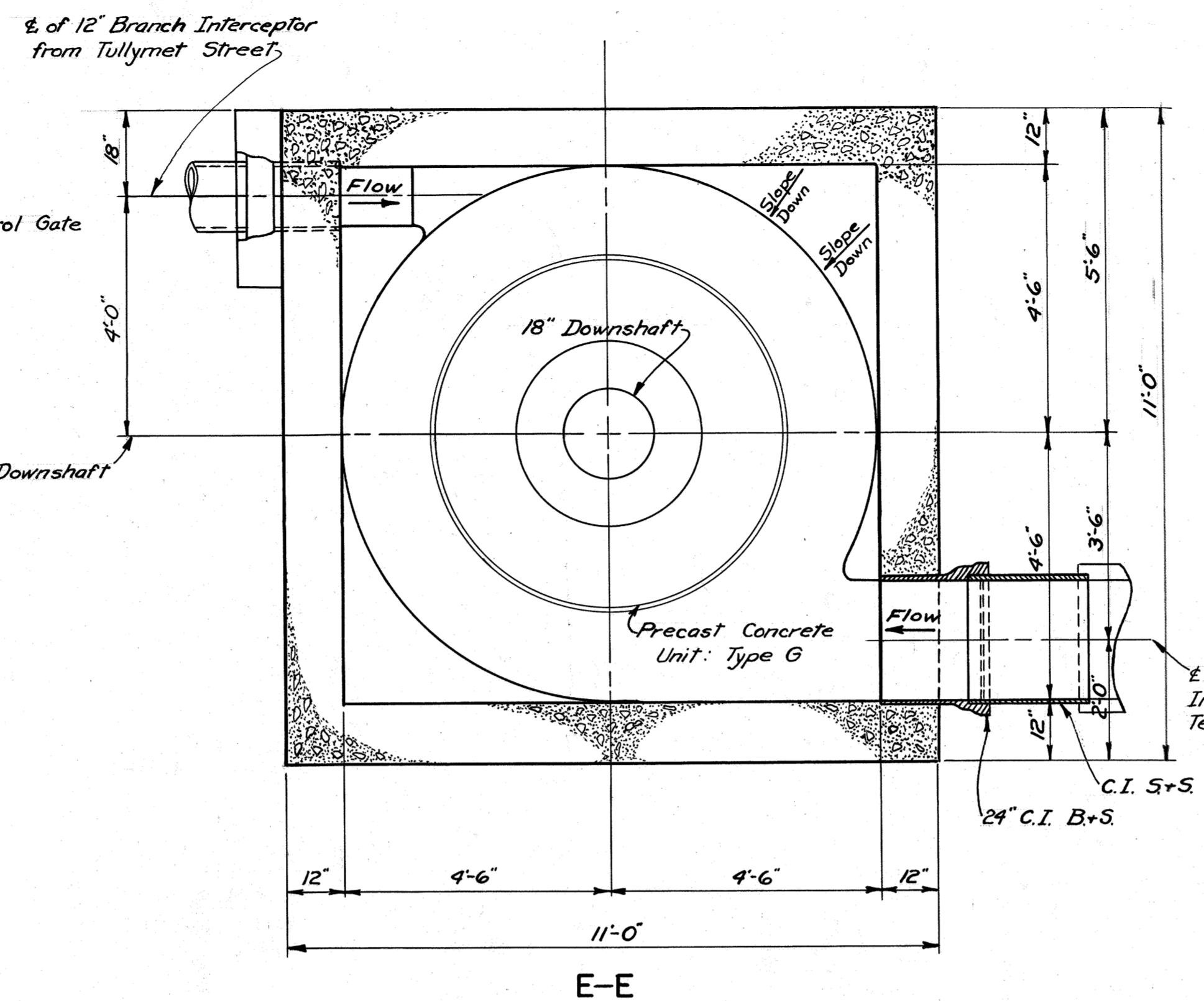
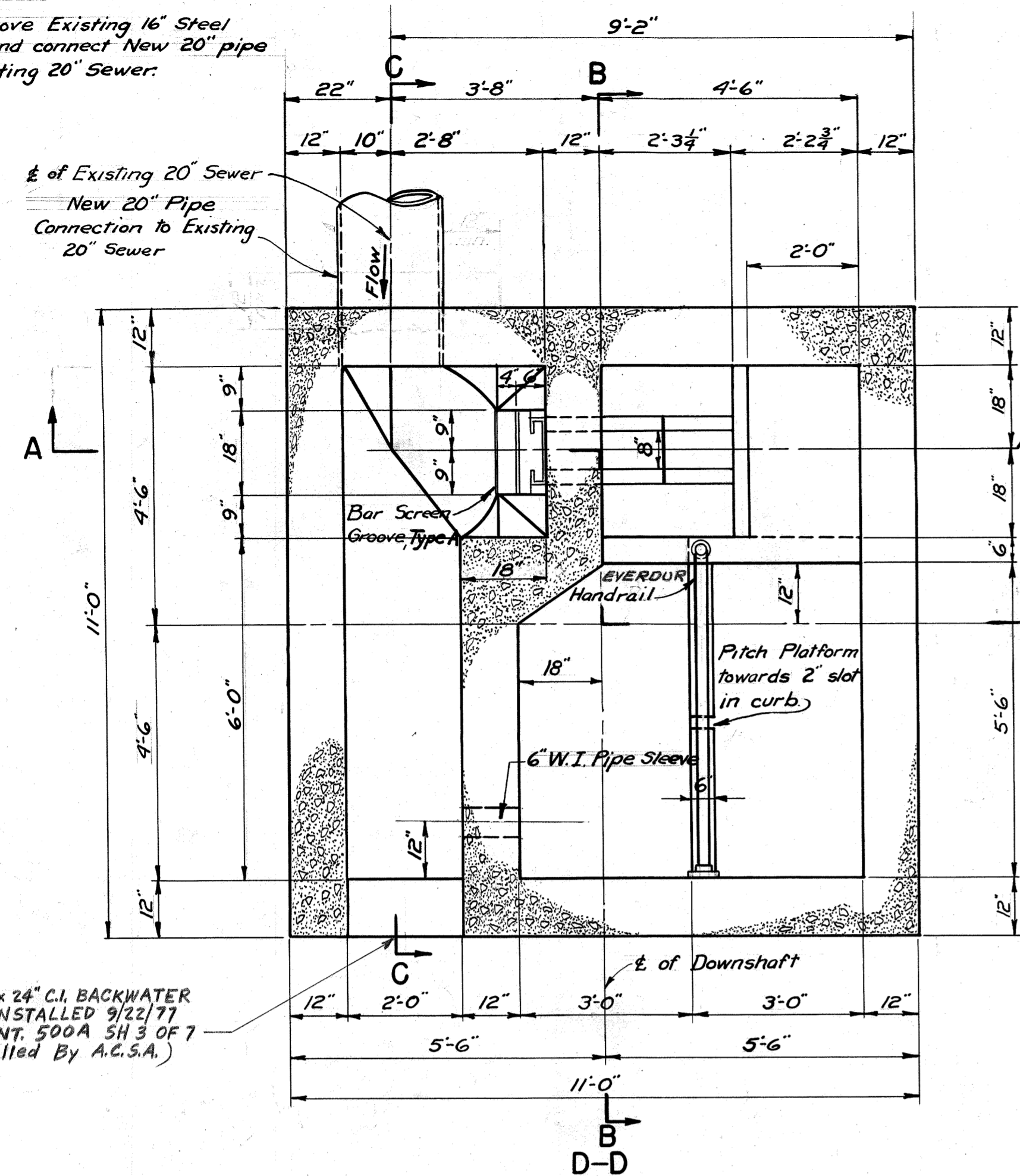
**C111151-04-150-151-C-D2-002**  
**PHASE 1 INFRASTRUCTURE**  
**FINAL DESIGN - HAZELWOOD SITE**

Contract:
CAD File Name:
Date: 4/26/2016
Sheet: 2 of 4

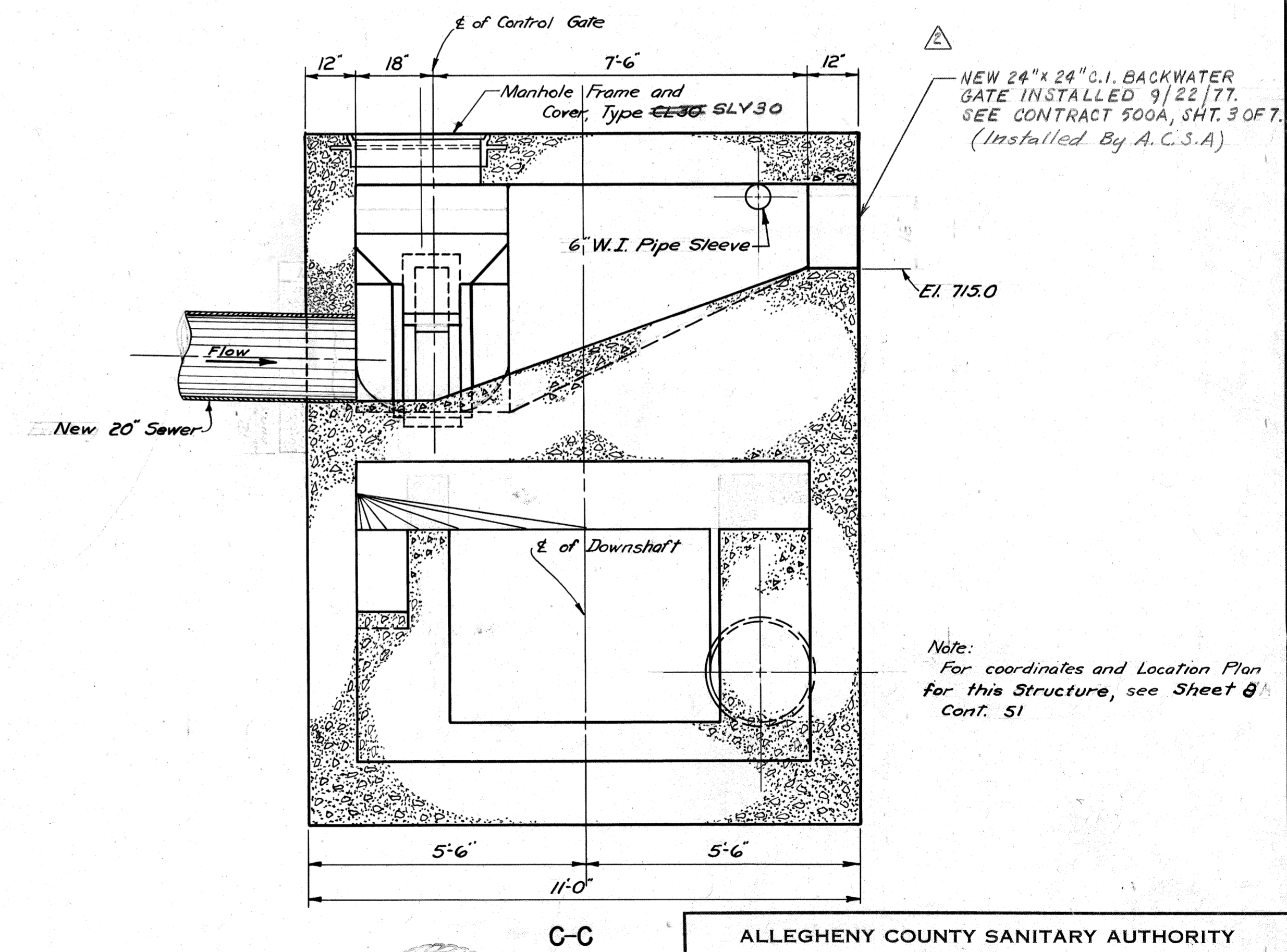
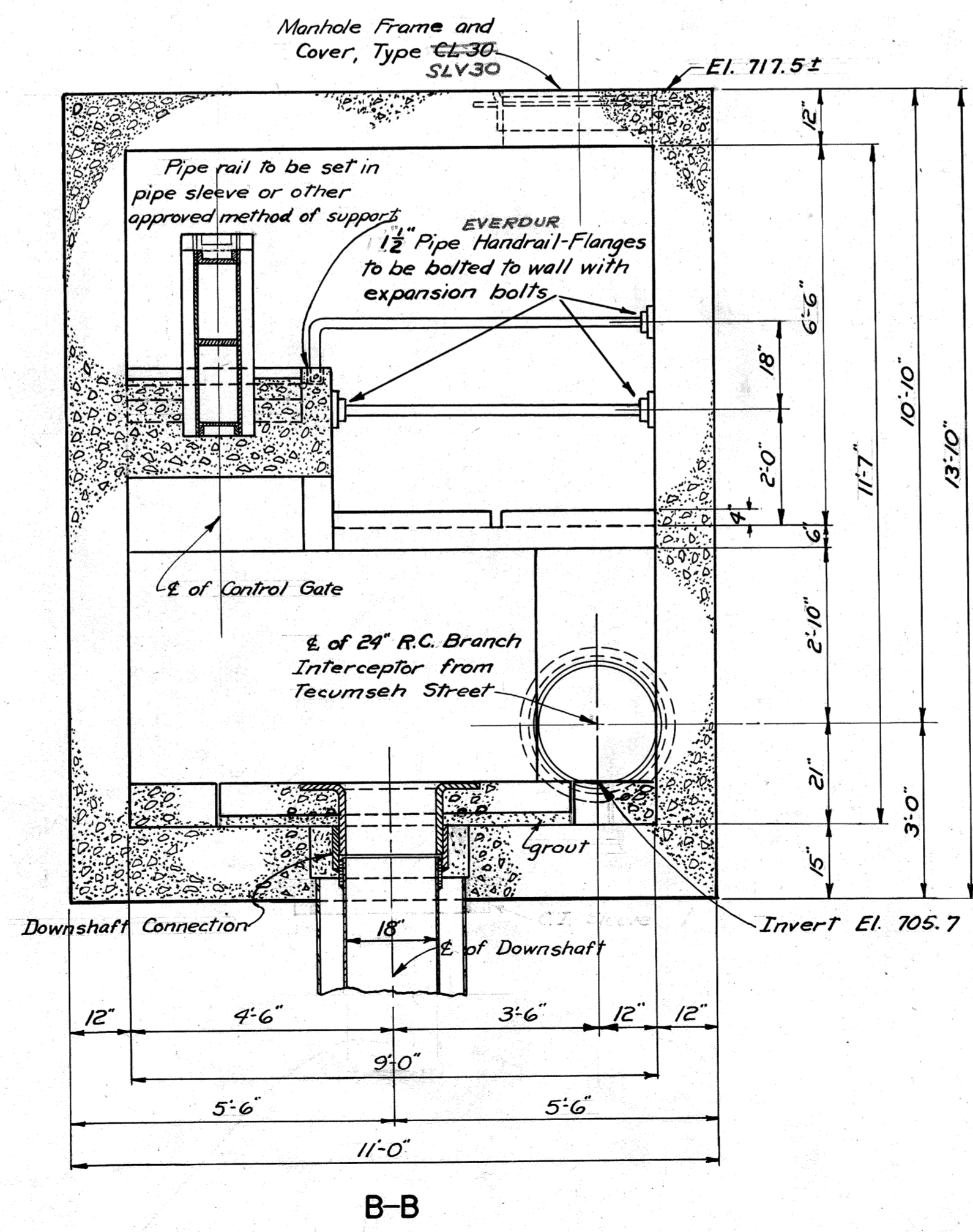
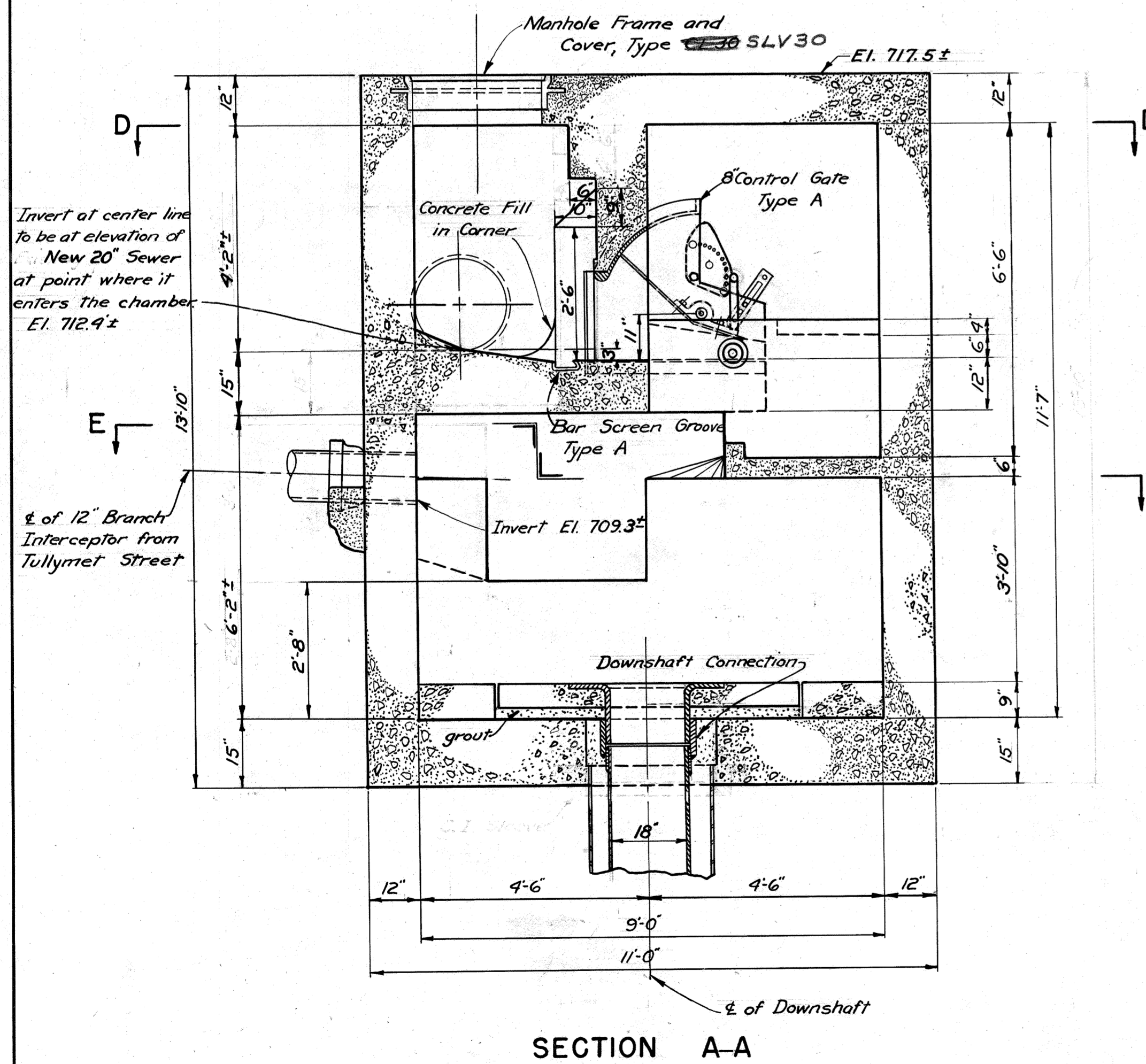




Note:  
Remove Existing 16" Steel  
pipe and connect New 20" pipe  
to Existing 20" Sewer.



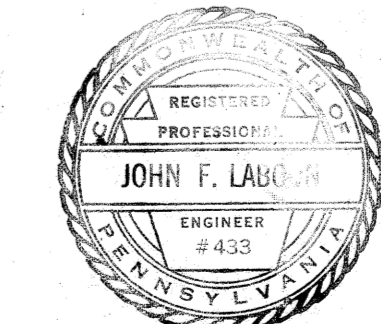
NEW 24" x 24" C.I. BACKWATER  
GATE INSTALLED 9/22/77  
SEE CONT. 500A, SHT. 3 OF 7  
(Installed By A.C.S.A.)



Note:  
For coordinates and Location Plan  
for this Structure, see Sheet 8  
Cont. 51

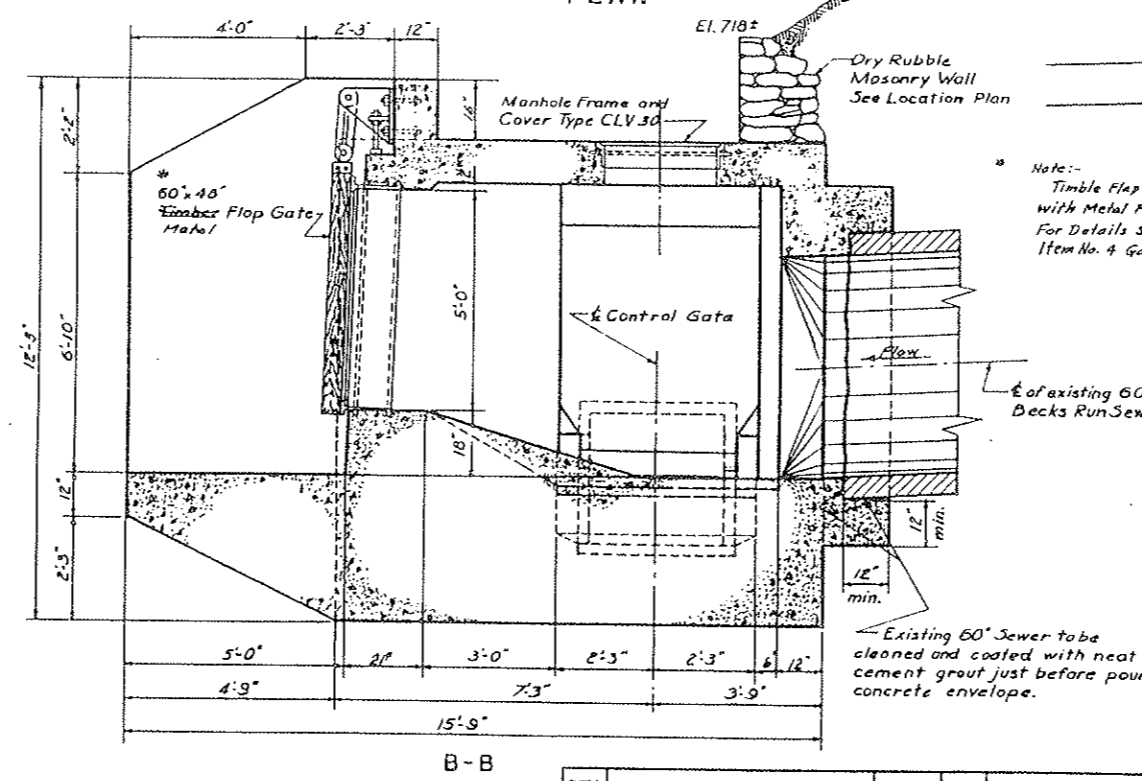
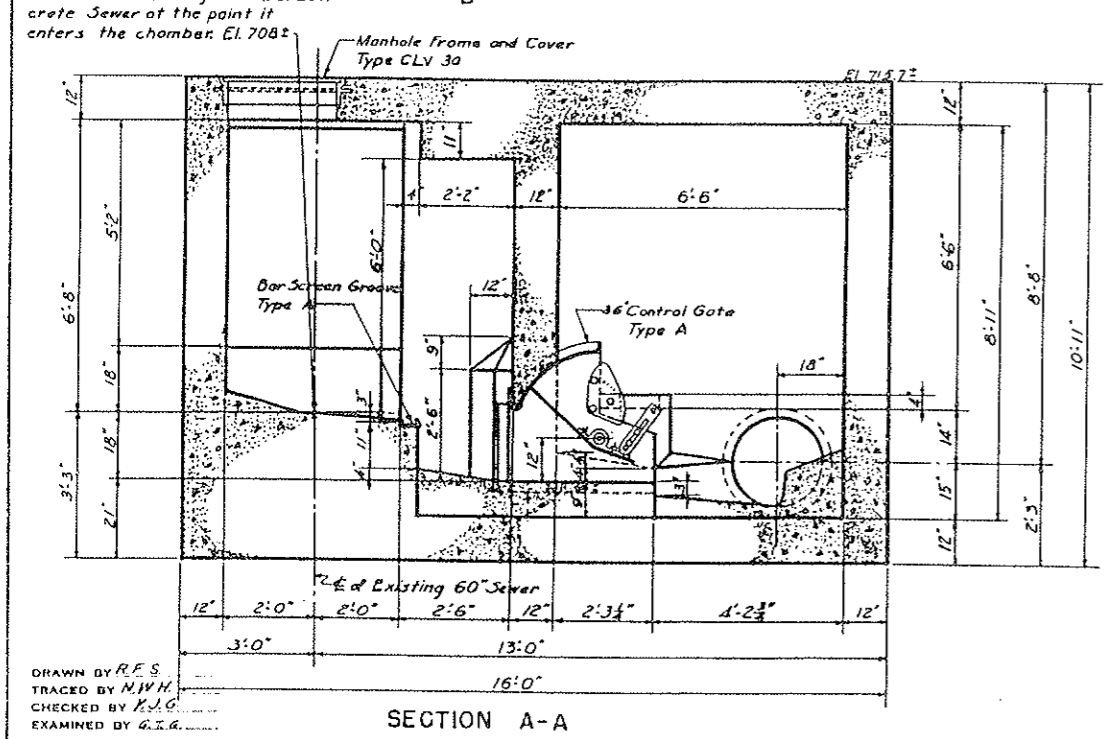
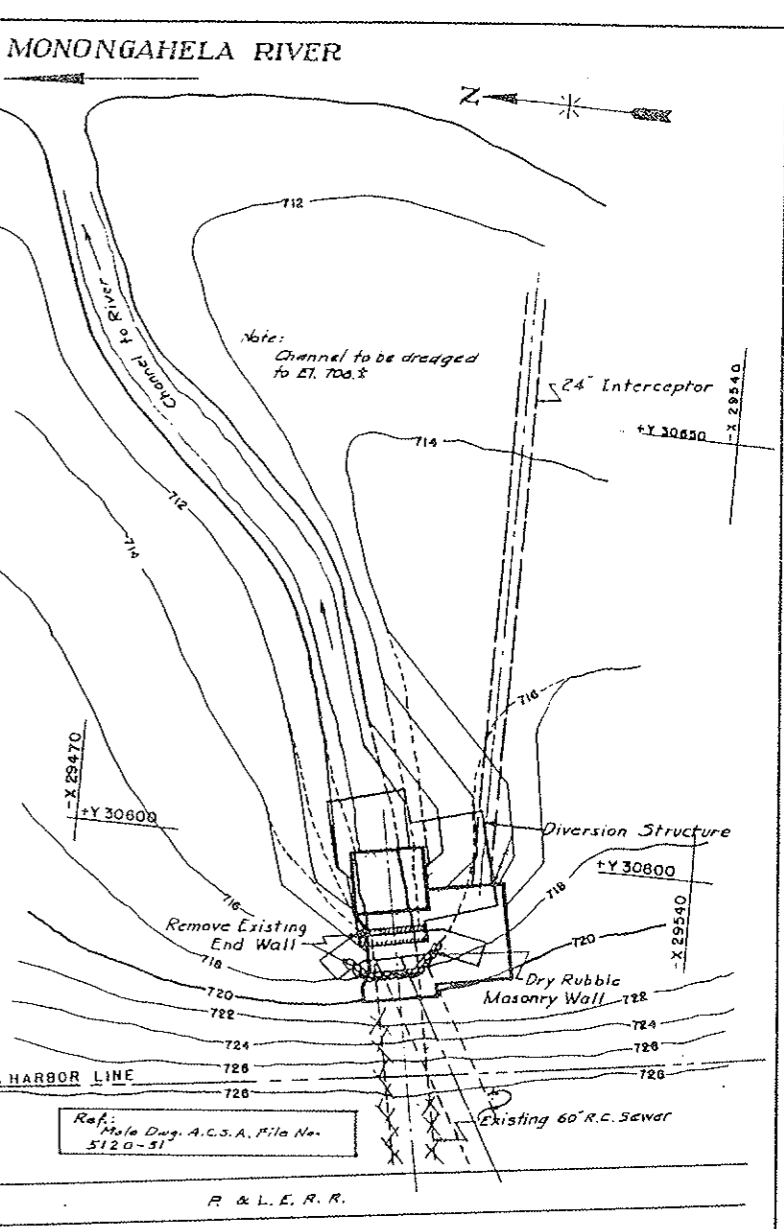
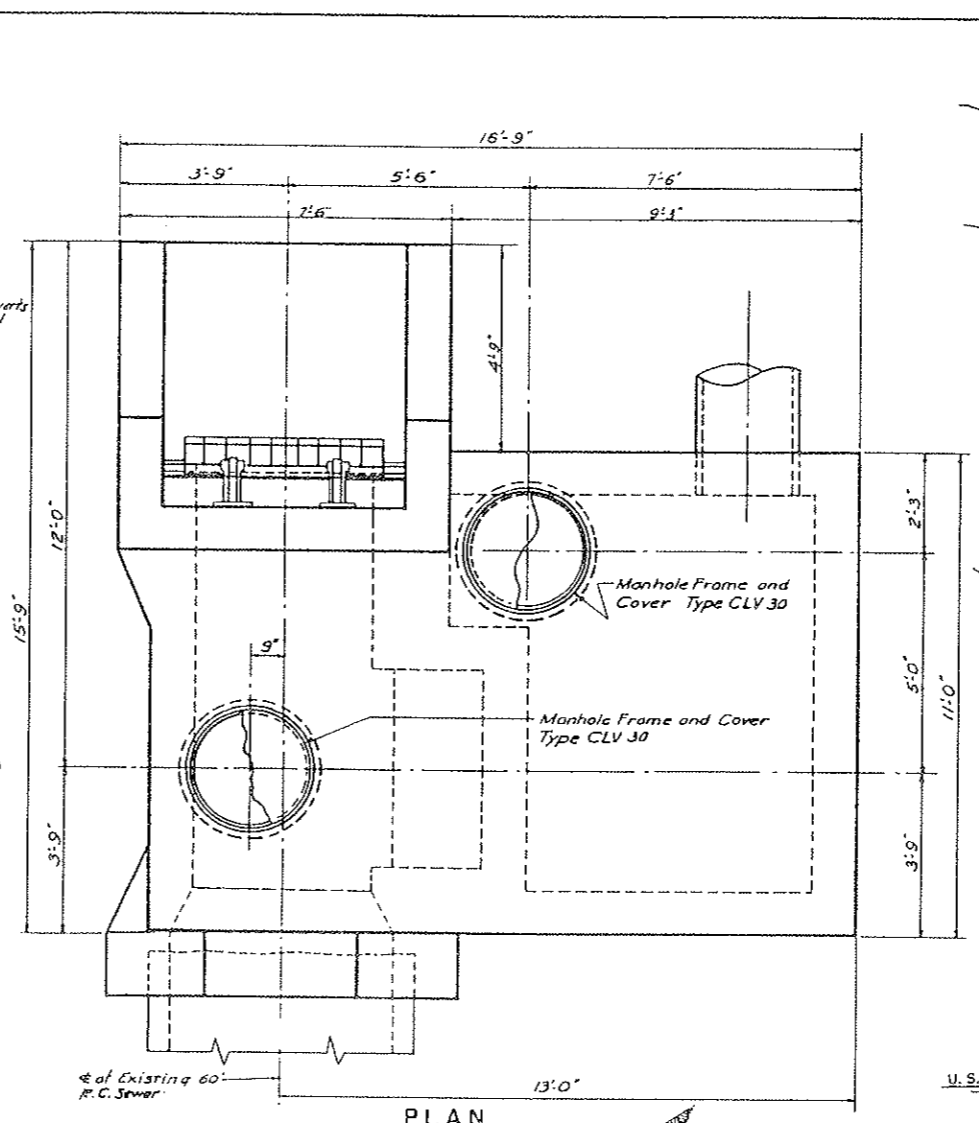
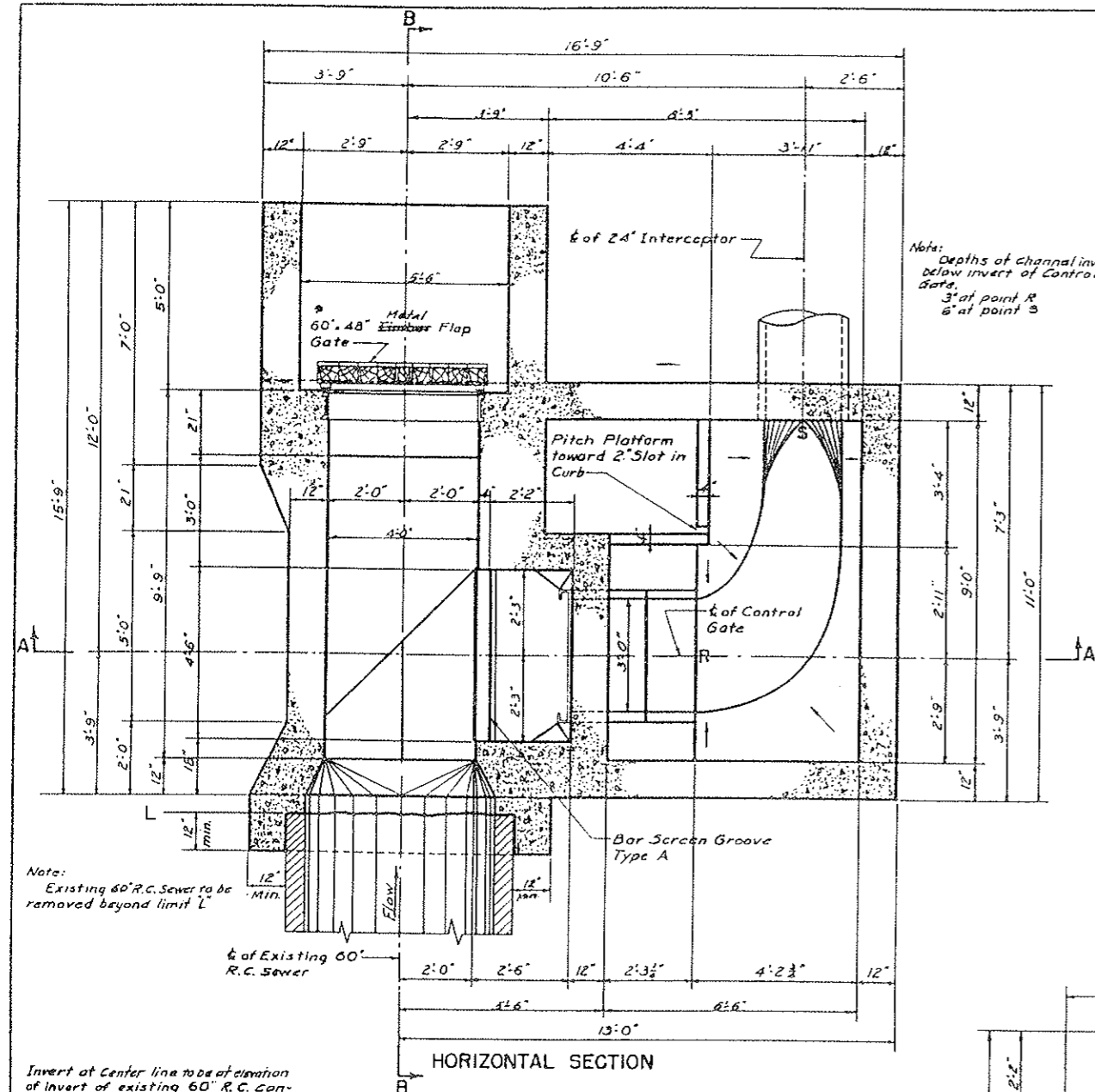
DRAWN BY J.M.M.  
TRACED BY L.T.L.  
CHECKED BY V.J.G.  
EXAMINED BY G.T.G.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1	NOTE ADDED			Lawrence M. Southern DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E JUNE 19, 1953
2	Revision As Noted	9/20/77	J.R.D.	DATE
3	As Built - 1981	1-15-81	J.R.D.	J. F. Haroon CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433 JUNE 19, 1953
4				DATE



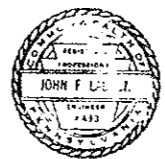
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS M-33  
MONONGAHELA RIVER  
FOUR MILE RUN TO WEST HOMESTEAD  
LONGWORTH STREET DIVERSION  
AND DOWNSHAFT STRUCTURE  
AND DOWNSHAFT STRUCTURE



Note: -  
Timble Flap Gate replaced with Metal Flap Gate  
For Details See Purchase Order No. Item No. 4 Gate Replaced 1967

**NOT TO SCALE**



REV.	DESCRIPTION	DATE	APP.	APPROVED
1	Structure Relocated - See Note			John F. DeJ. JUN 19 1963
2	As Built - 1951	1-15-61		DATE
3				DATE
4				DATE

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS M-34  
MONONGAHELA RIVER

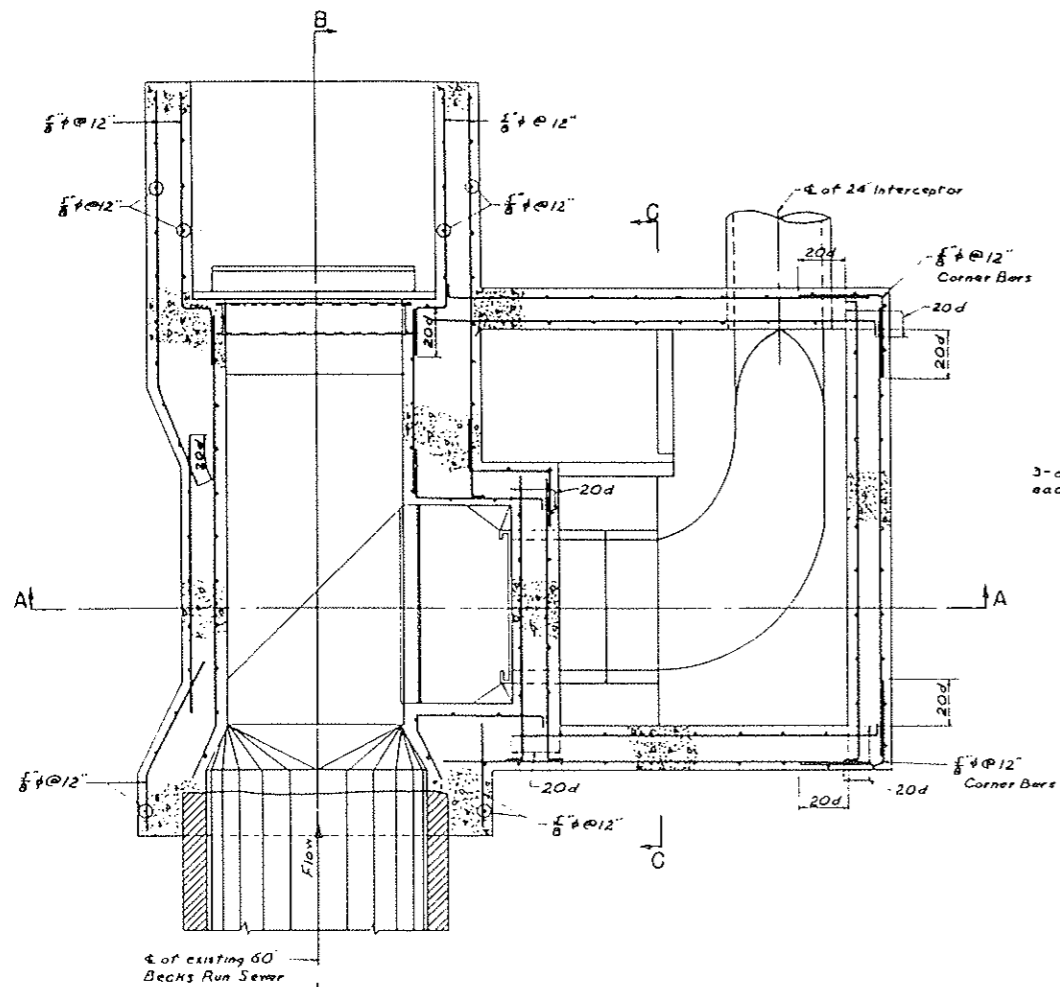
FOUR MILE RUN TO WEST HOMESTEAD

DIVERSION STRUCTURE  
ON BECKS RUN SEWER

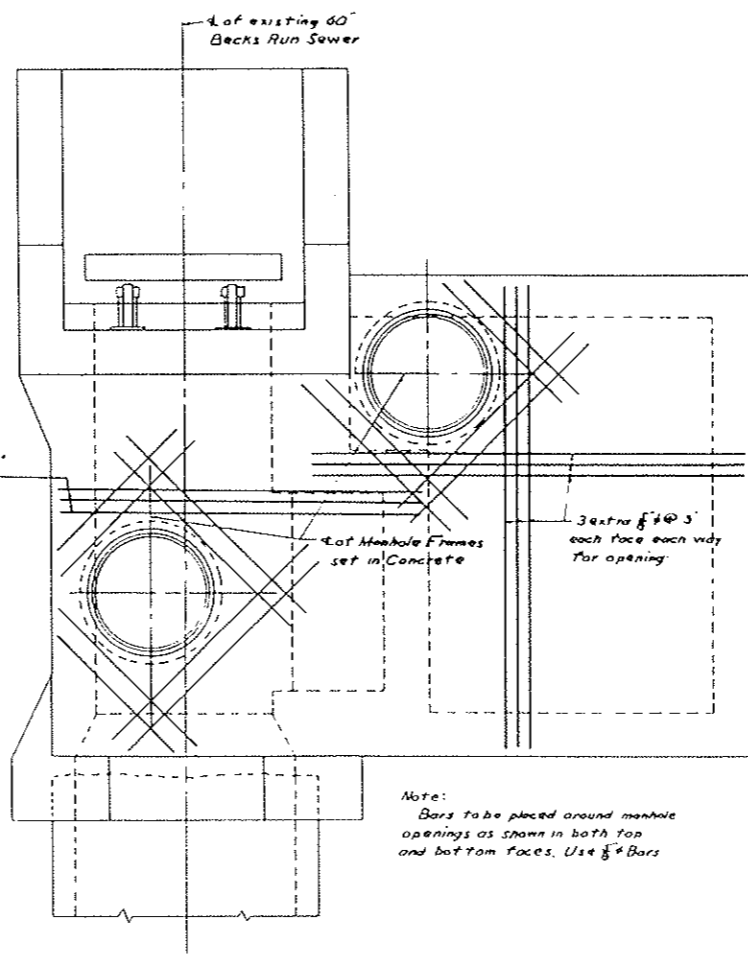
SCALE: 1/2" = 1'-0"

1953

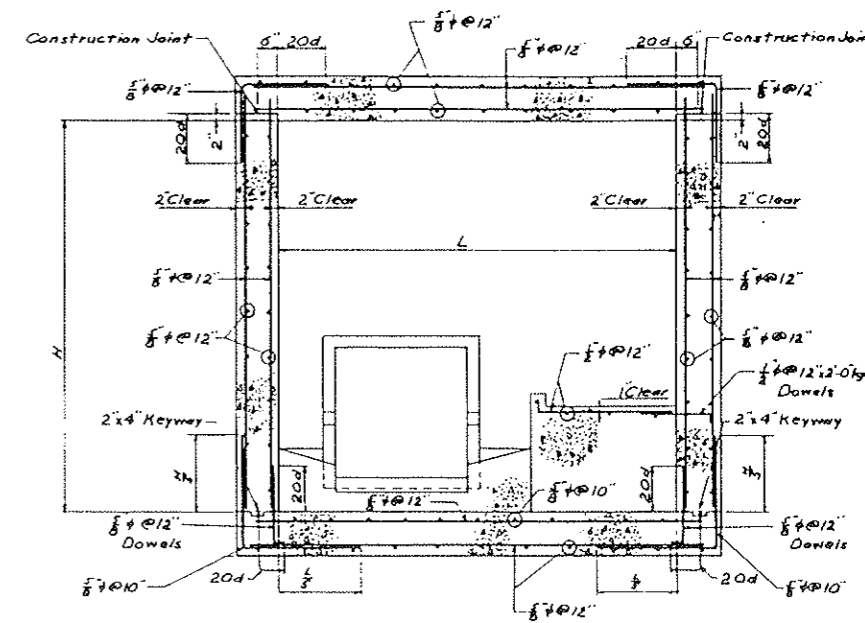
DRAWN BY R.E.S.  
TRACED BY M.W.H.  
CHECKED BY R.S.G.  
EXAMINED BY G.Z.G.



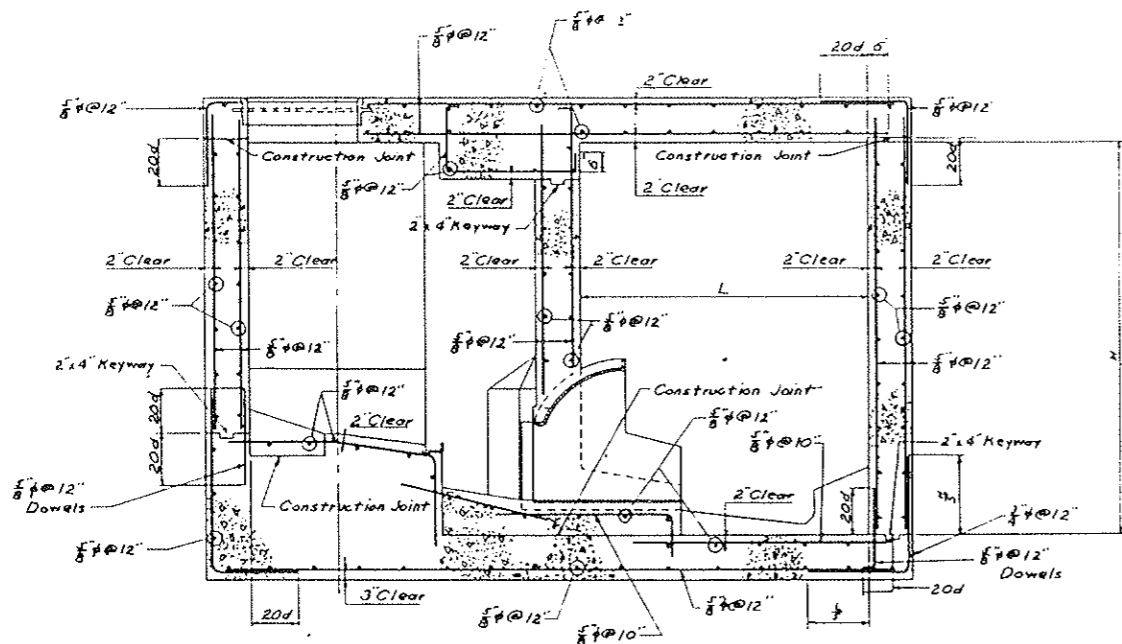
HORIZONTAL SECTION



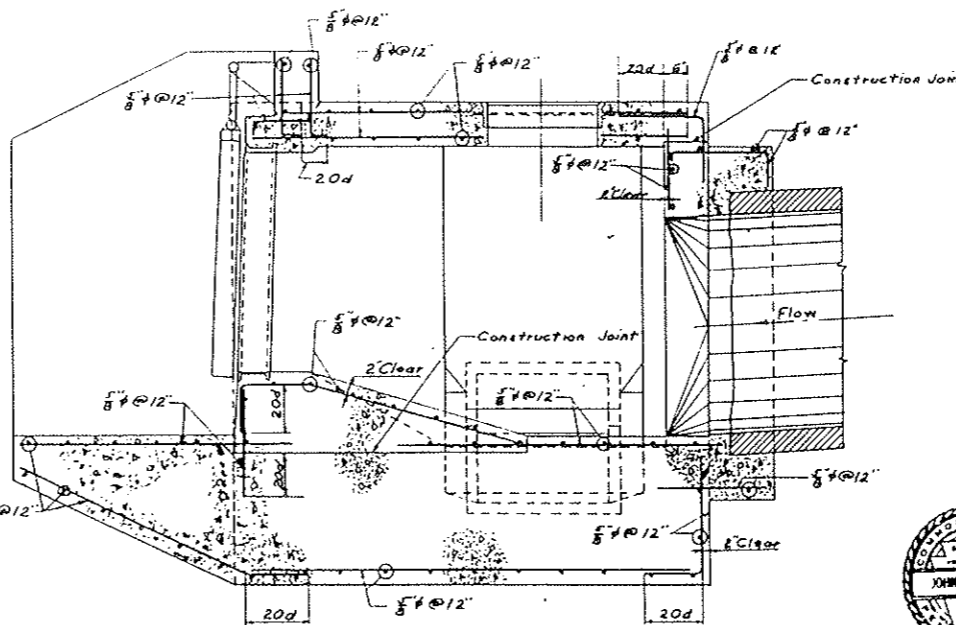
PLAN



C-C



SECTION A-A



B-B

Diversion Structure	Cont. Dwg. Sheet No.	Reinforcing Details Shop Drawings
M-31 Rutherglen Str.	30	5749-51, 5744-51, 5755-51
M-32 Tullyent Str.	31	5251-51, 5232-51
M-33 Longworth Str.	32	5311-51, 5312-51
M-34 Back Run and River Crossing	42	5227-51, 5228-51
M-35 Hazelwood Ave.	33	5717-51, 5718-51, 5719-51
M-36 Tecumseh Str.	34	5327-51, 5328-51
M-37 Ejector Structure on Malanethan Str.	35	4968-51, 4969-51
M-38 Respublicus Str.	36	5324-51
M-39 Renova Str.	36	5313-51, 5314-51
M-40 Alluvial Str.	37	5233-51
M-41 Glenwood Access Shaft	11A	5999-51
M-42 Streets Run	38	4176-51, 4181-51, 5623-51
M-43 Mastia Str.	39	3860-51, 3861-51
M-44 West Run	40	5229-51, 5230-51
M-45 Homestead Collecting Sewer	41	5225-51, 5226-51

**NOT TO SCALE**

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS

M-34

MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD

DIVERSION STRUCTURE

ON BECKS RUN SEWER

REINFORCEMENT

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

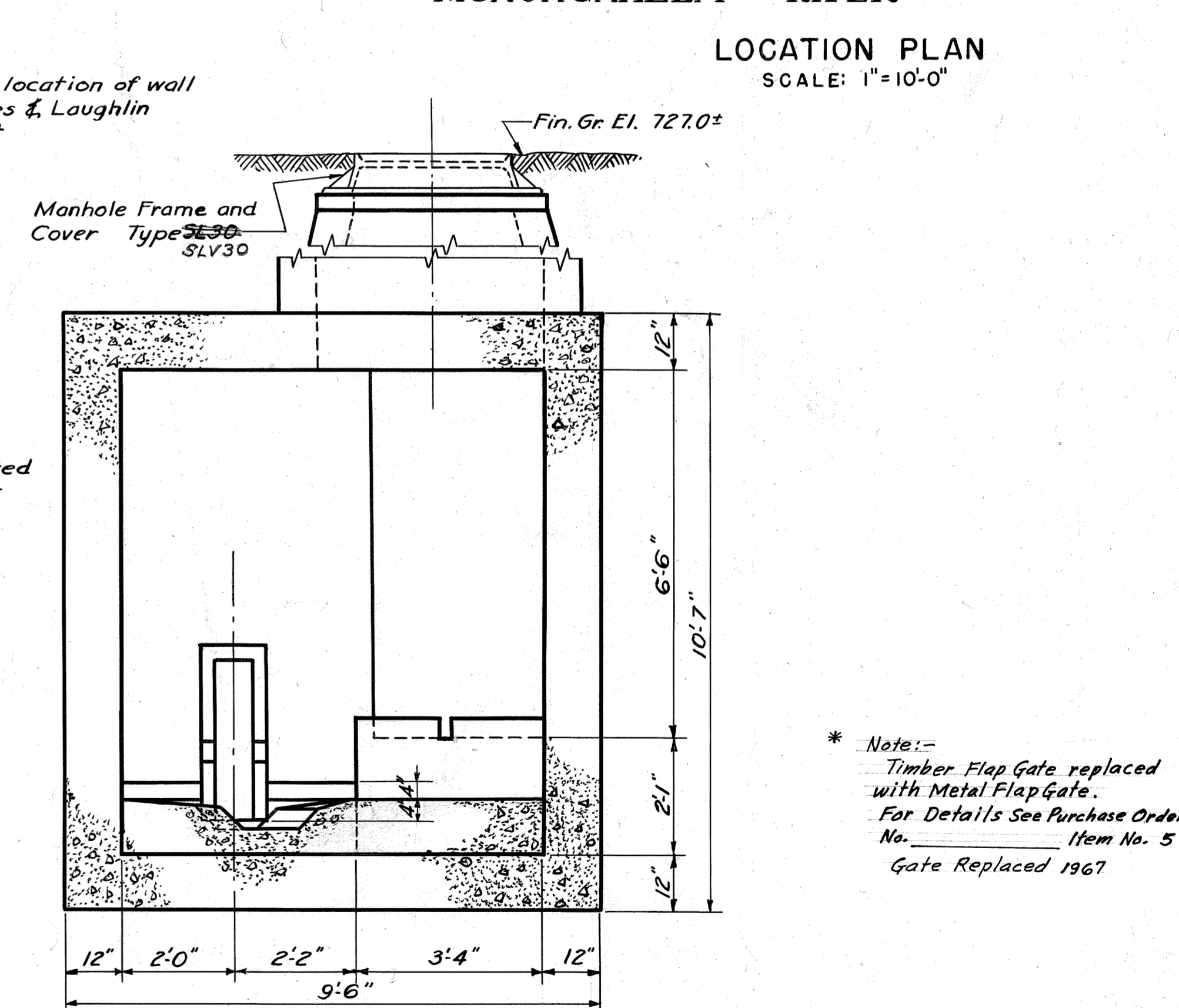
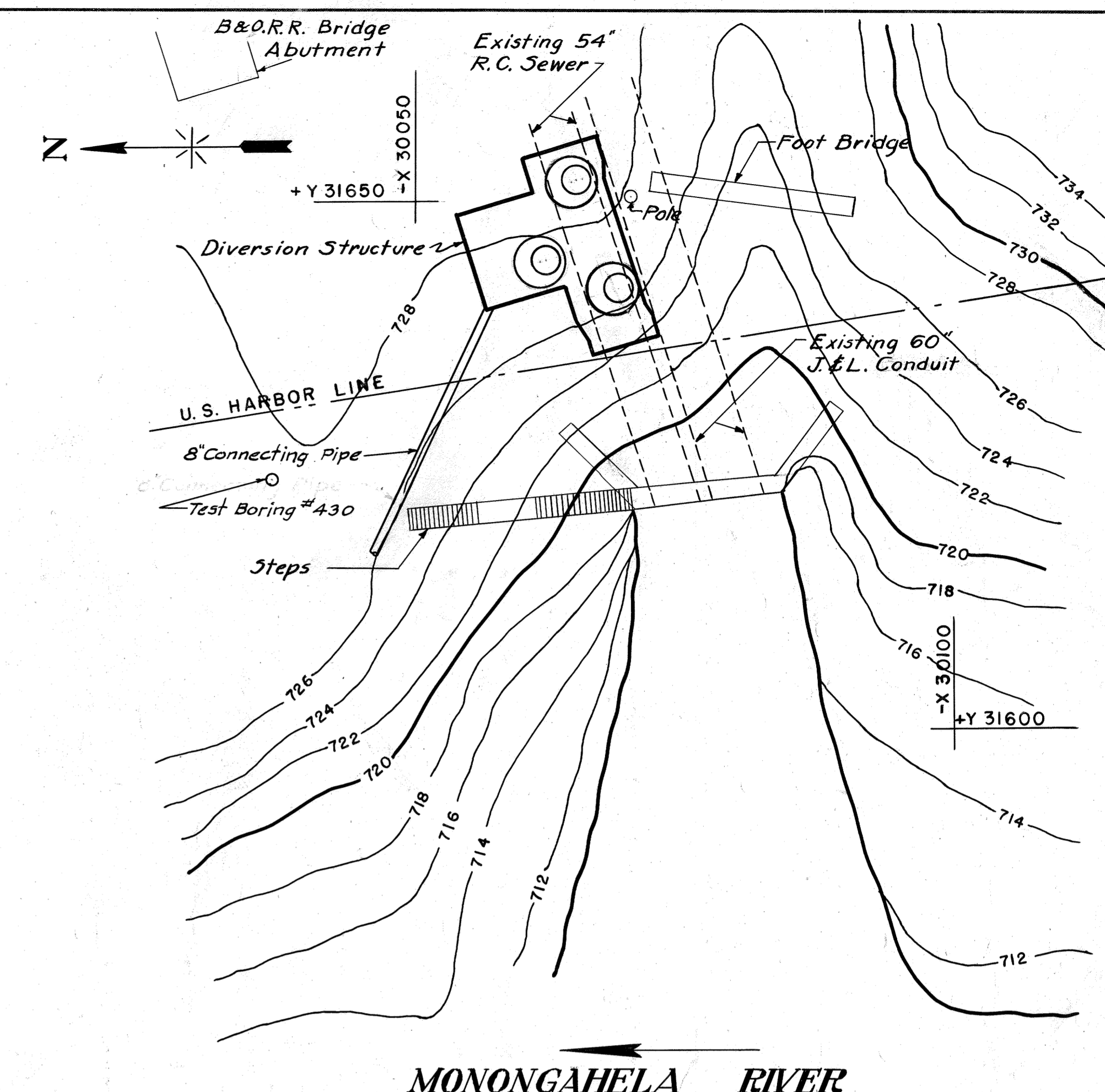
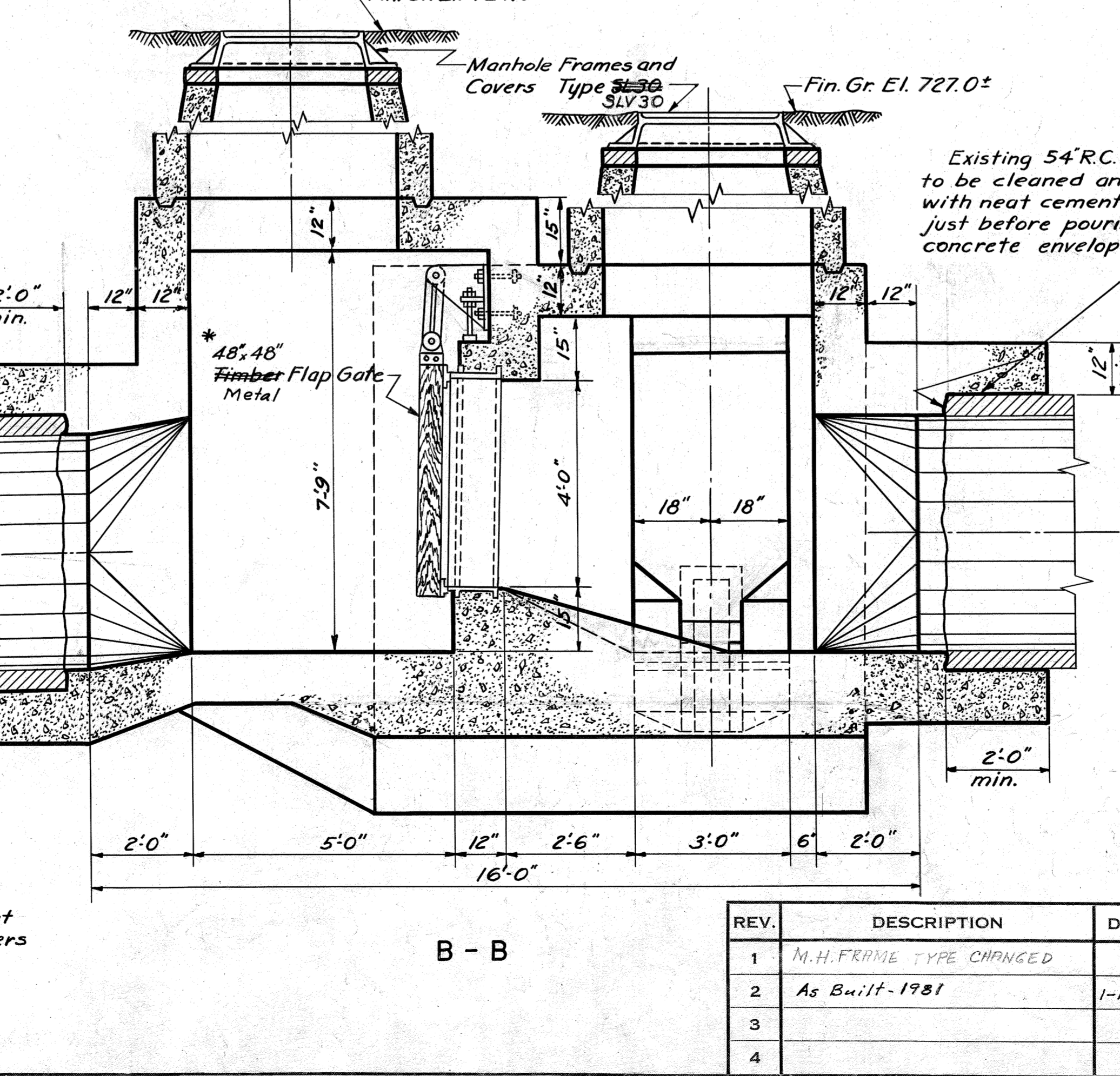
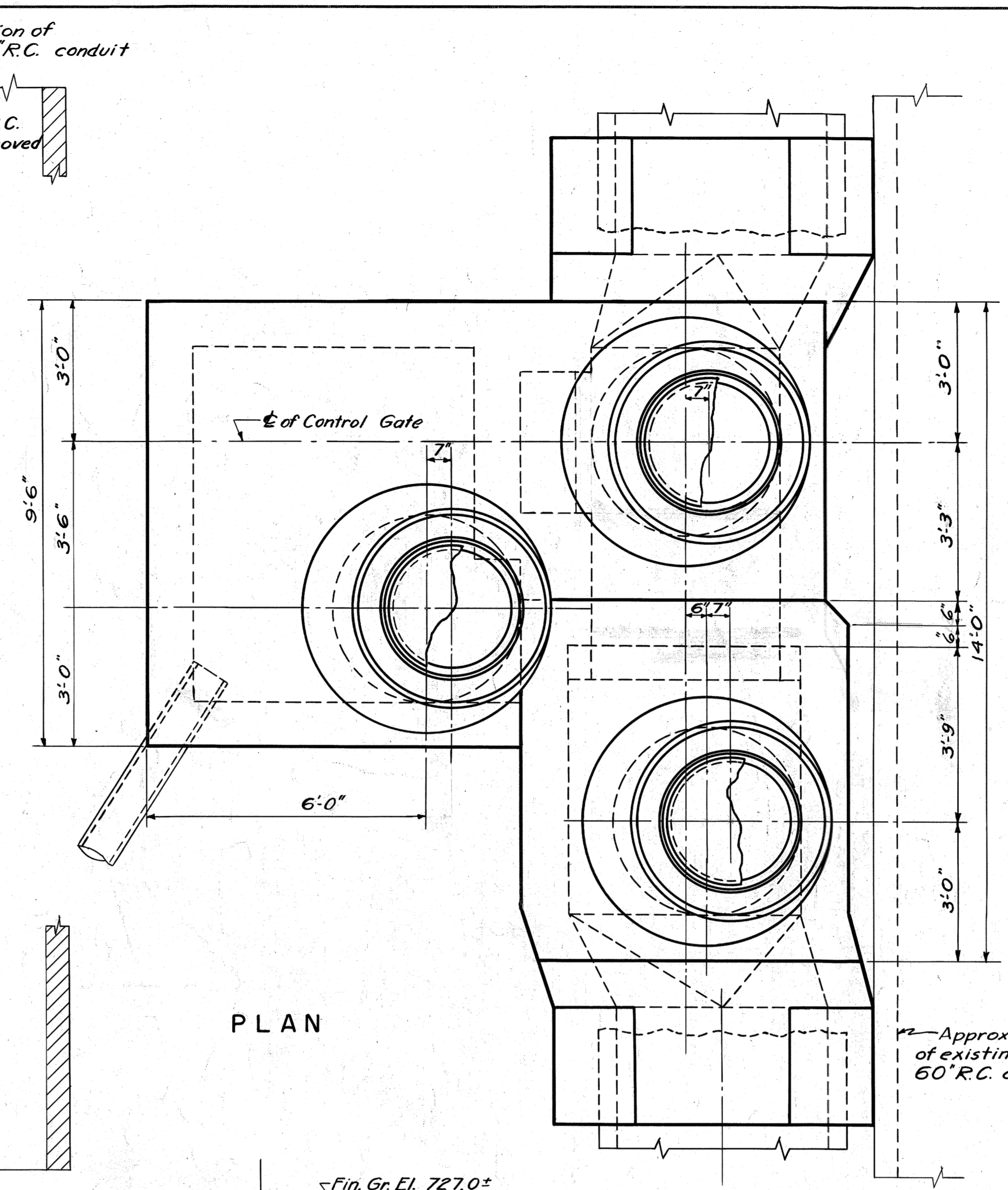
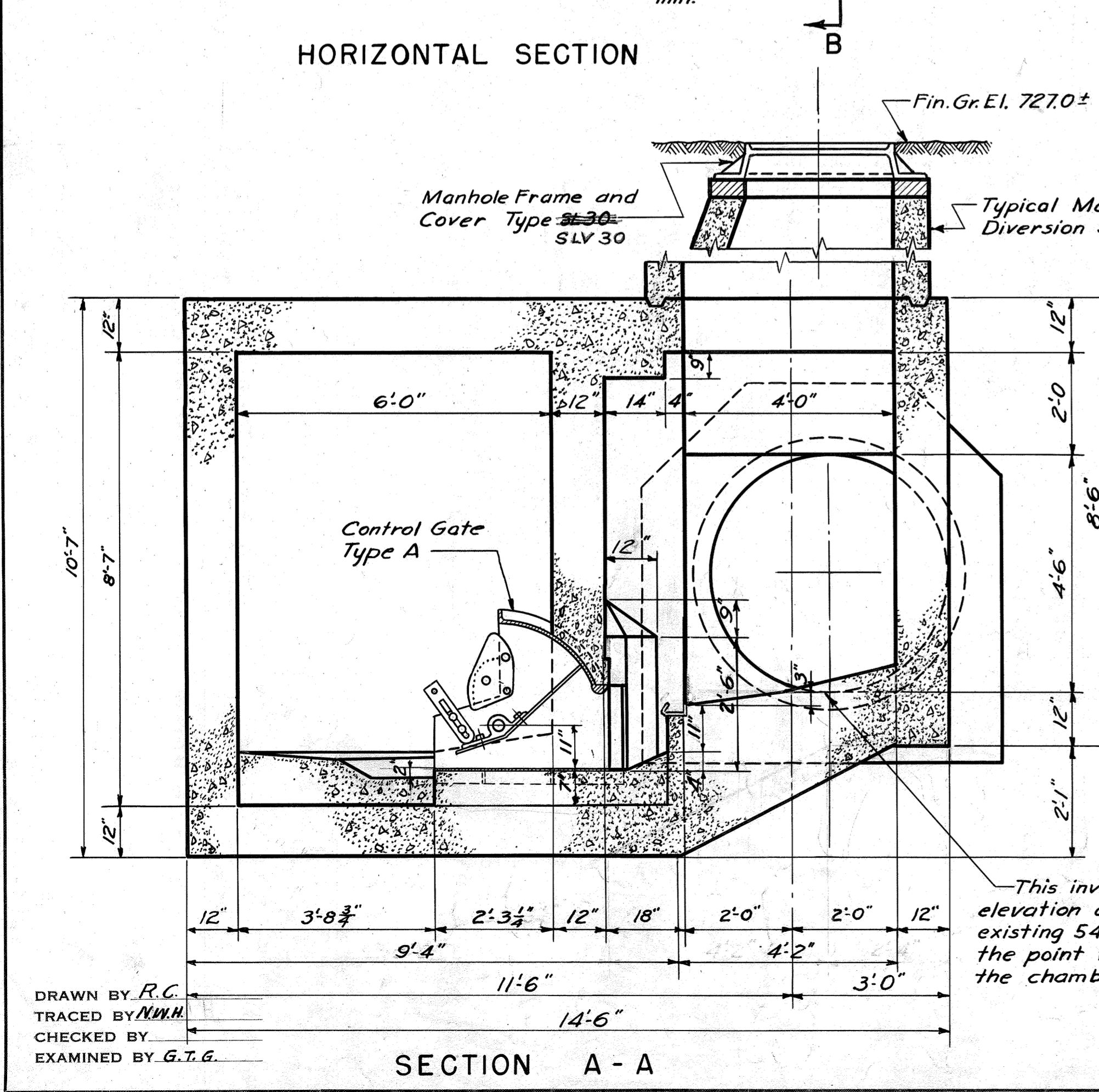
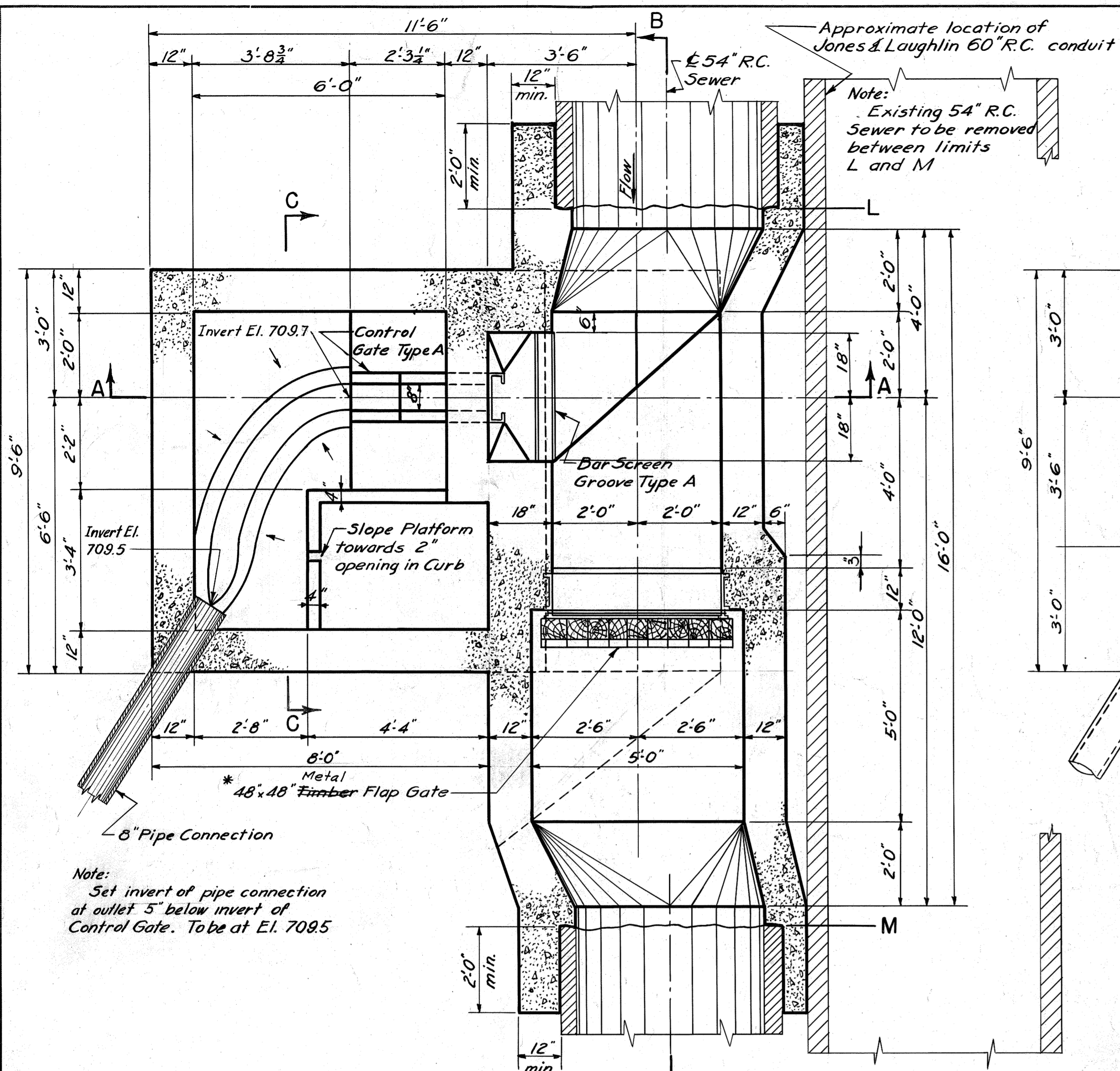
1953

DESIGNED BY F.L.D.  
CHECKED BY H.J.G.  
DRAWN BY M.M.L.R.D.  
TRACKED BY A.S.  
CHECKED BY L.R.D.M.L.G.  
EXAMINED BY F.L.M.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				
2				
3				
4				

*James M. Eastman* DEC. 15, 1954  
DEPUTY CHIEF ENGINEER  
REG. PROF. ENGR. PA. NO. 1881-E  
*J. F. Laboon* DEC. 13, 1954  
CHIEF ENGINEER  
REG. PROF. ENGR. PA. NO. 433





\* Note: -  
Timber Flap Gate replaced with Metal Flap Gate.  
For Details See Purchase Order No. \_\_\_\_\_ Item No. 5  
Gate Replaced 1967

DRAWN BY R.C.  
TRACED BY M.M.H.  
CHECKED BY  
EXAMINED BY G.T.G.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1	M.H. FRAME TYPE CHANGED			Lawrence M. Sullivan JUN 19, 1953 DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E
2	As Built - 1981	1-15-81		
3				J. F. Halverson JUN 19, 1953 CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433
4				

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS M-35  
MONONGAHELA RIVER

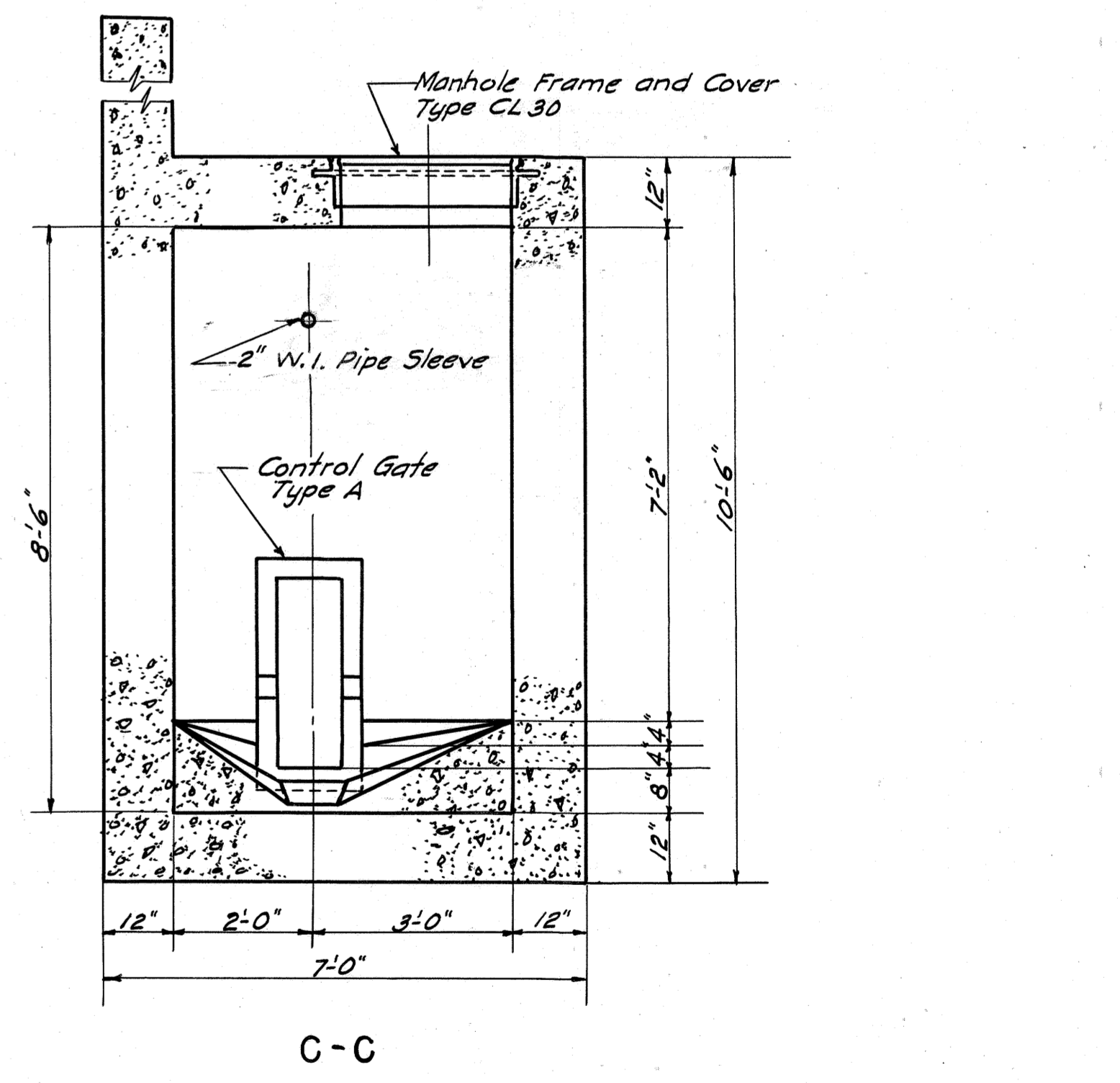
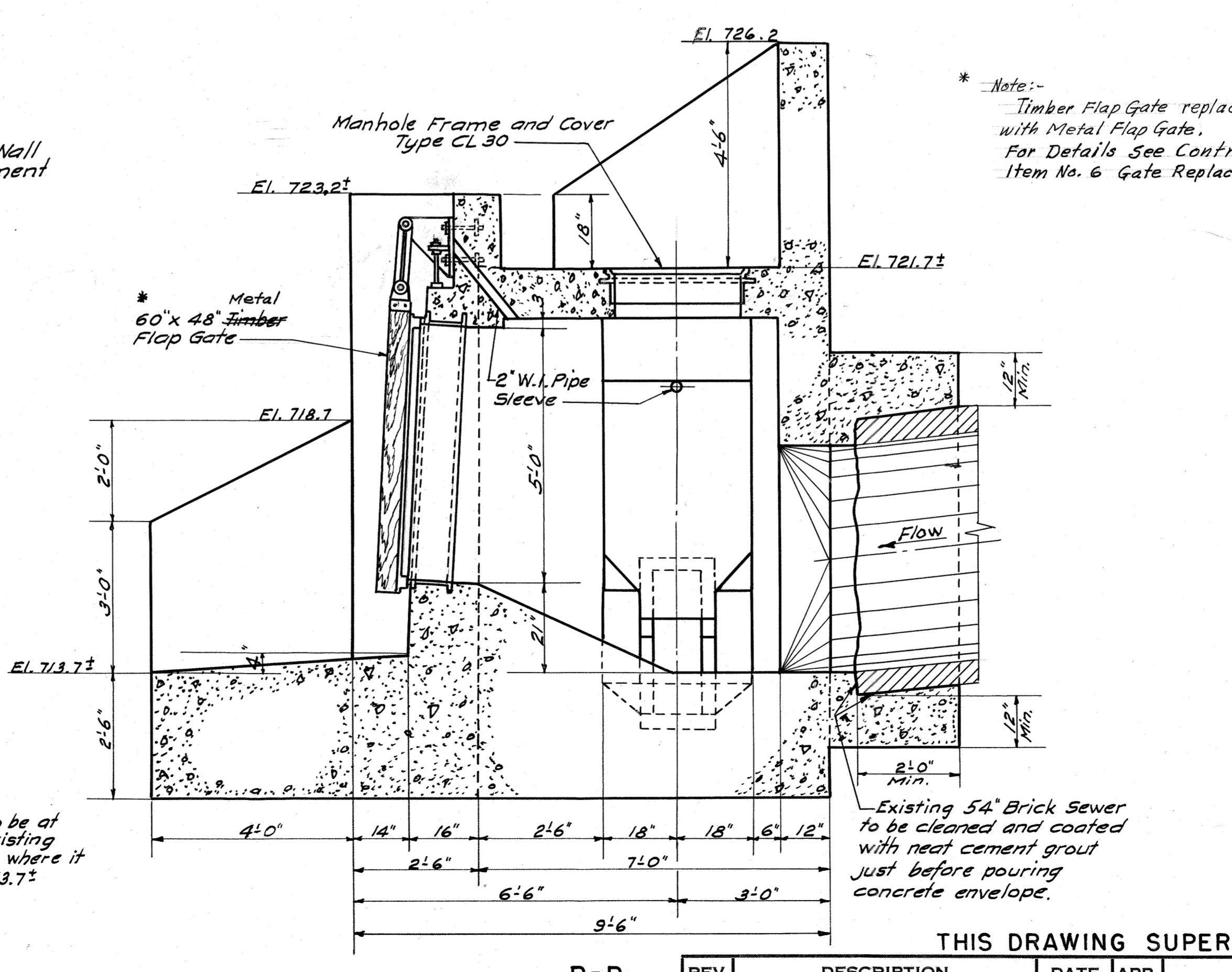
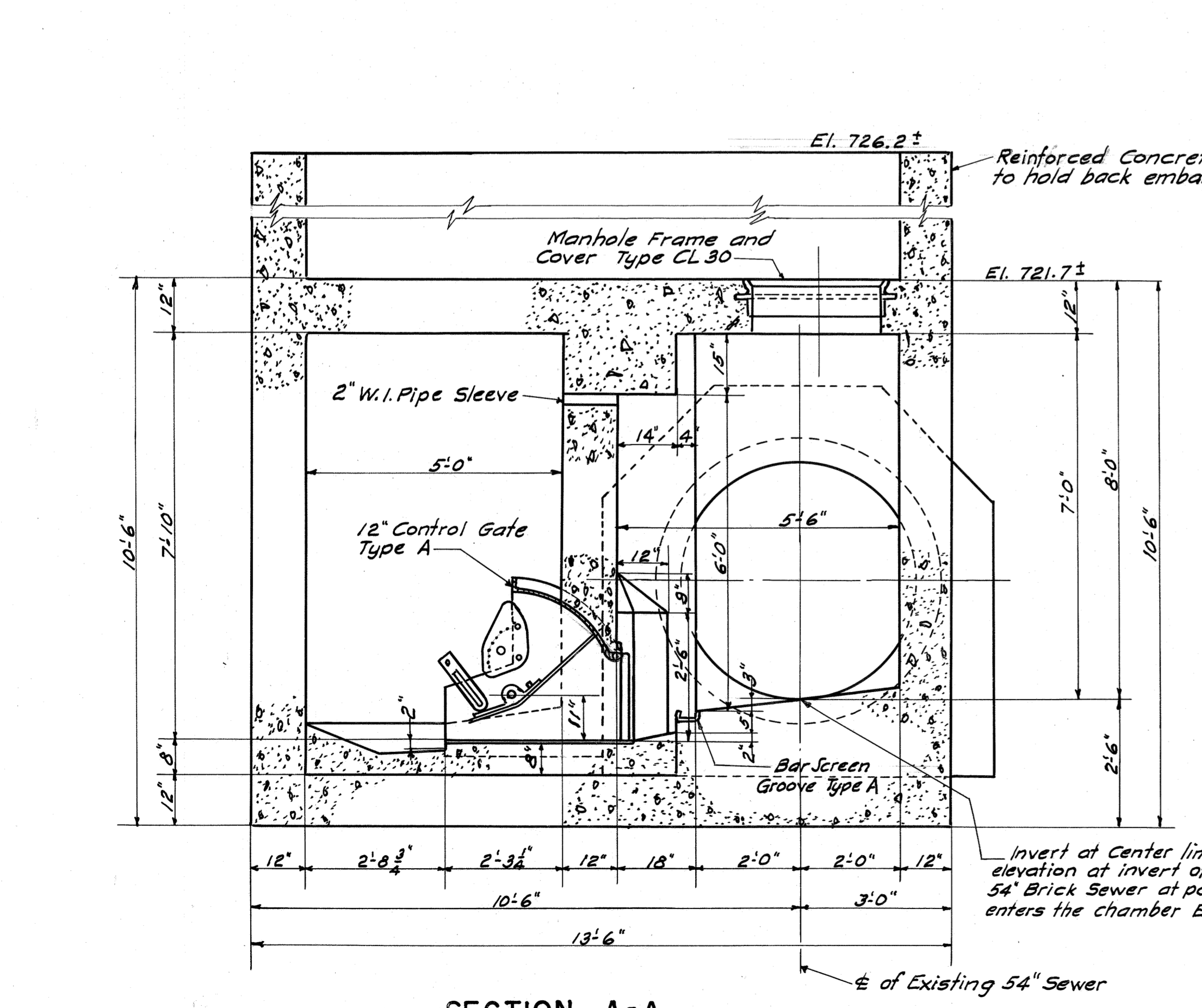
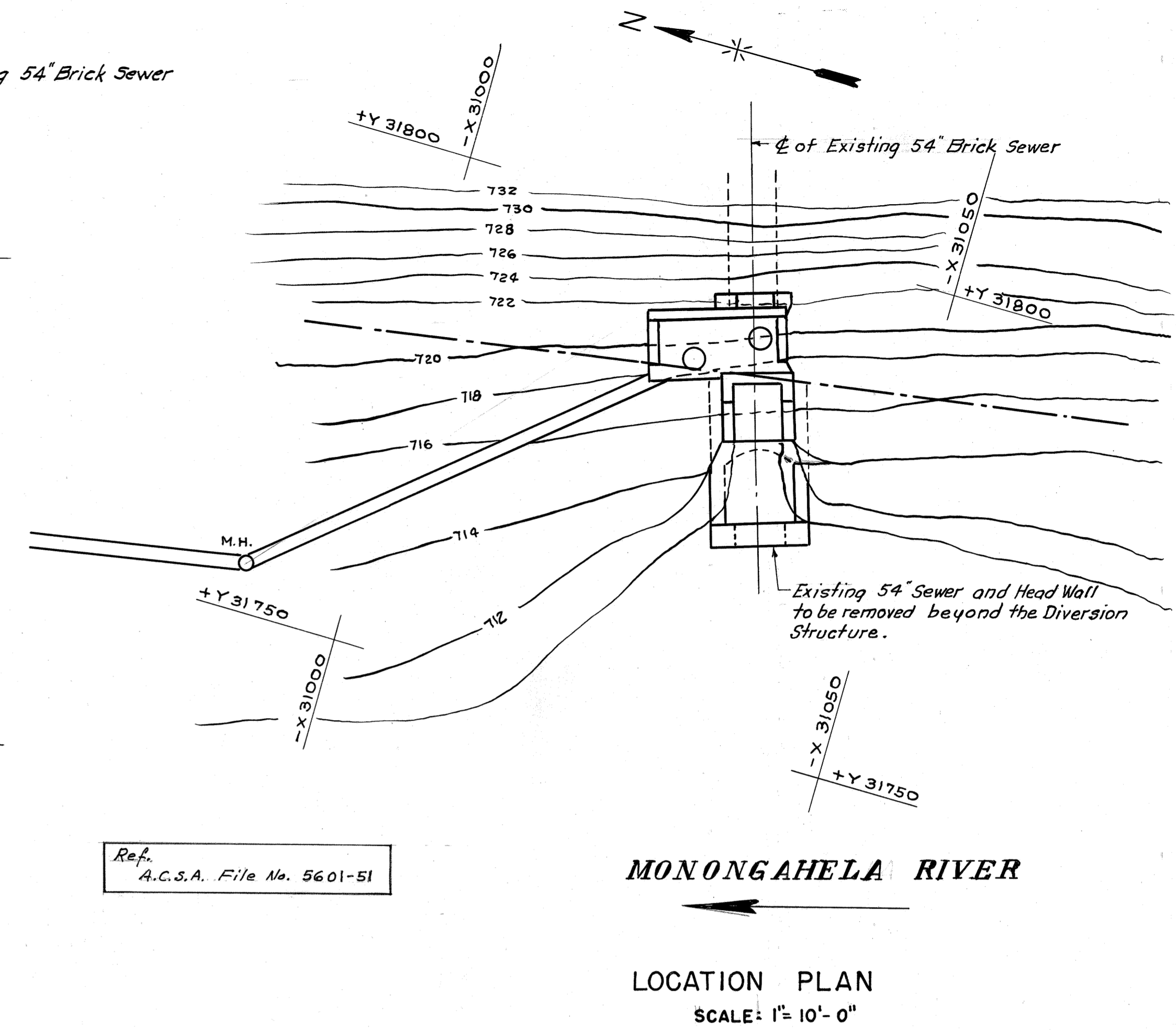
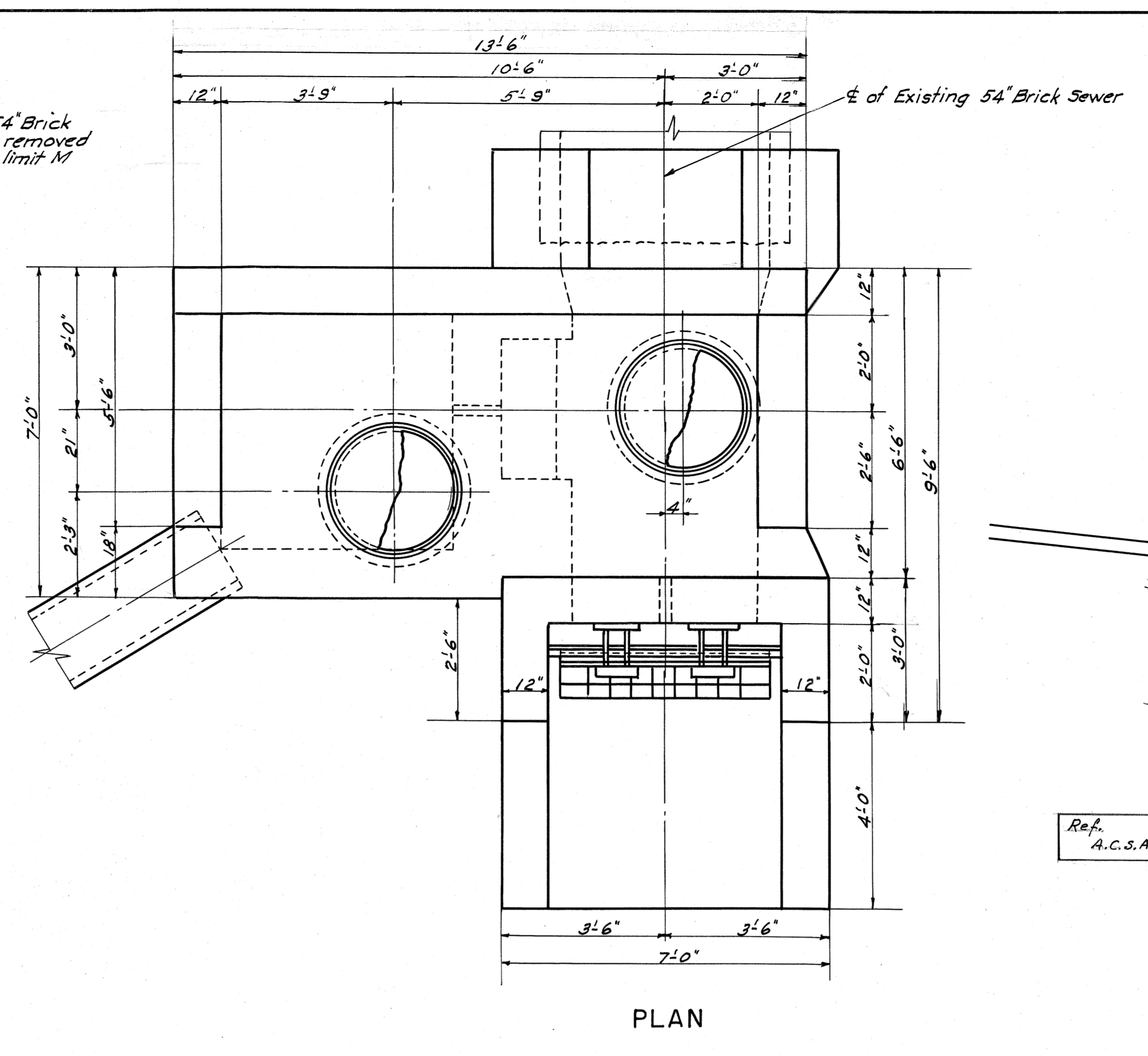
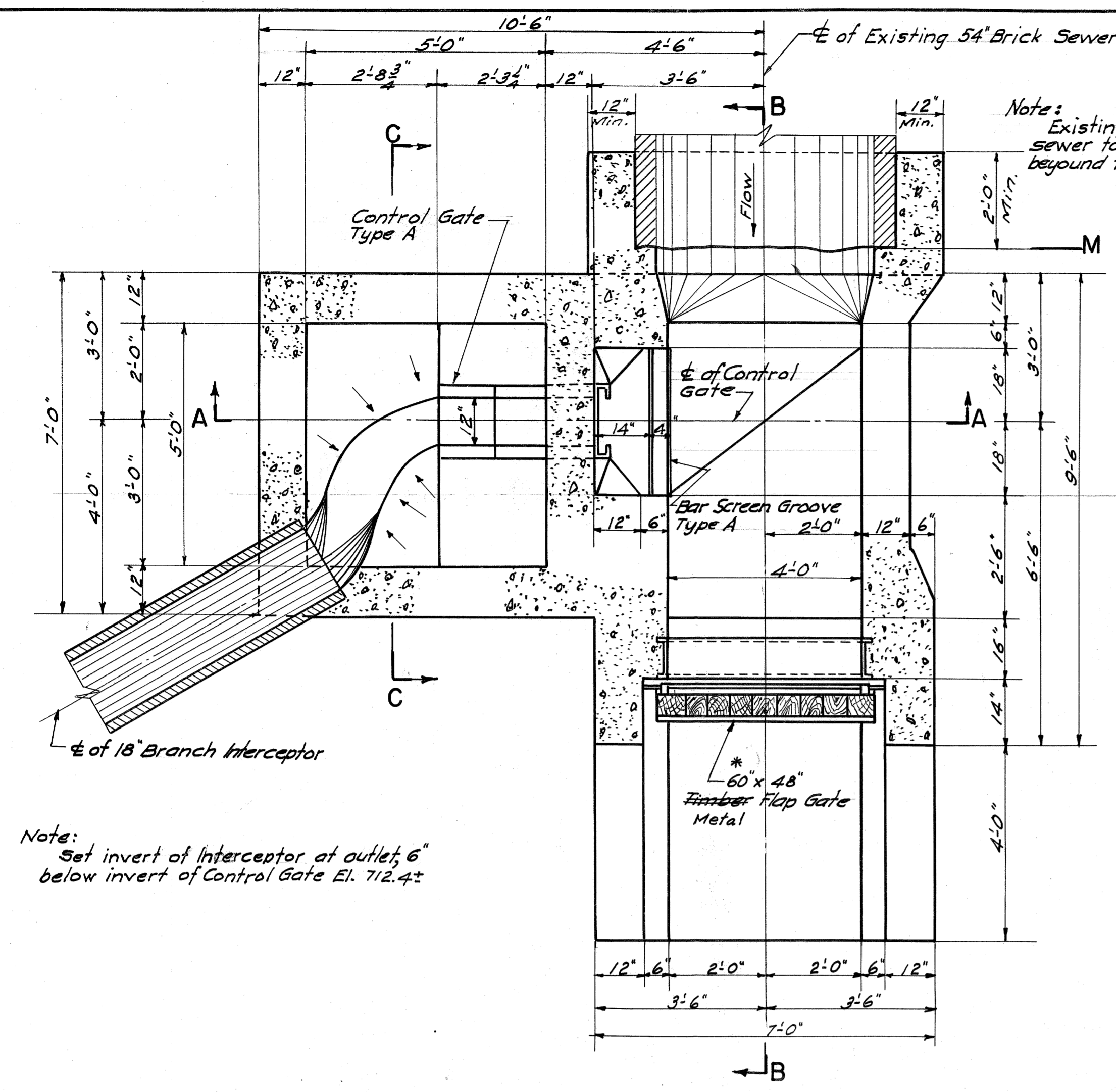
FOUR MILE RUN TO WEST HOMESTEAD

DIVERSION STRUCTURE  
ON HAZELWOOD AVENUE SEWER

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

1953





DRAWN BY \_\_\_\_\_  
 TRACED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 EXAMINED BY \_\_\_\_\_

THIS DRAWING SUPERSEDES SHEET 16

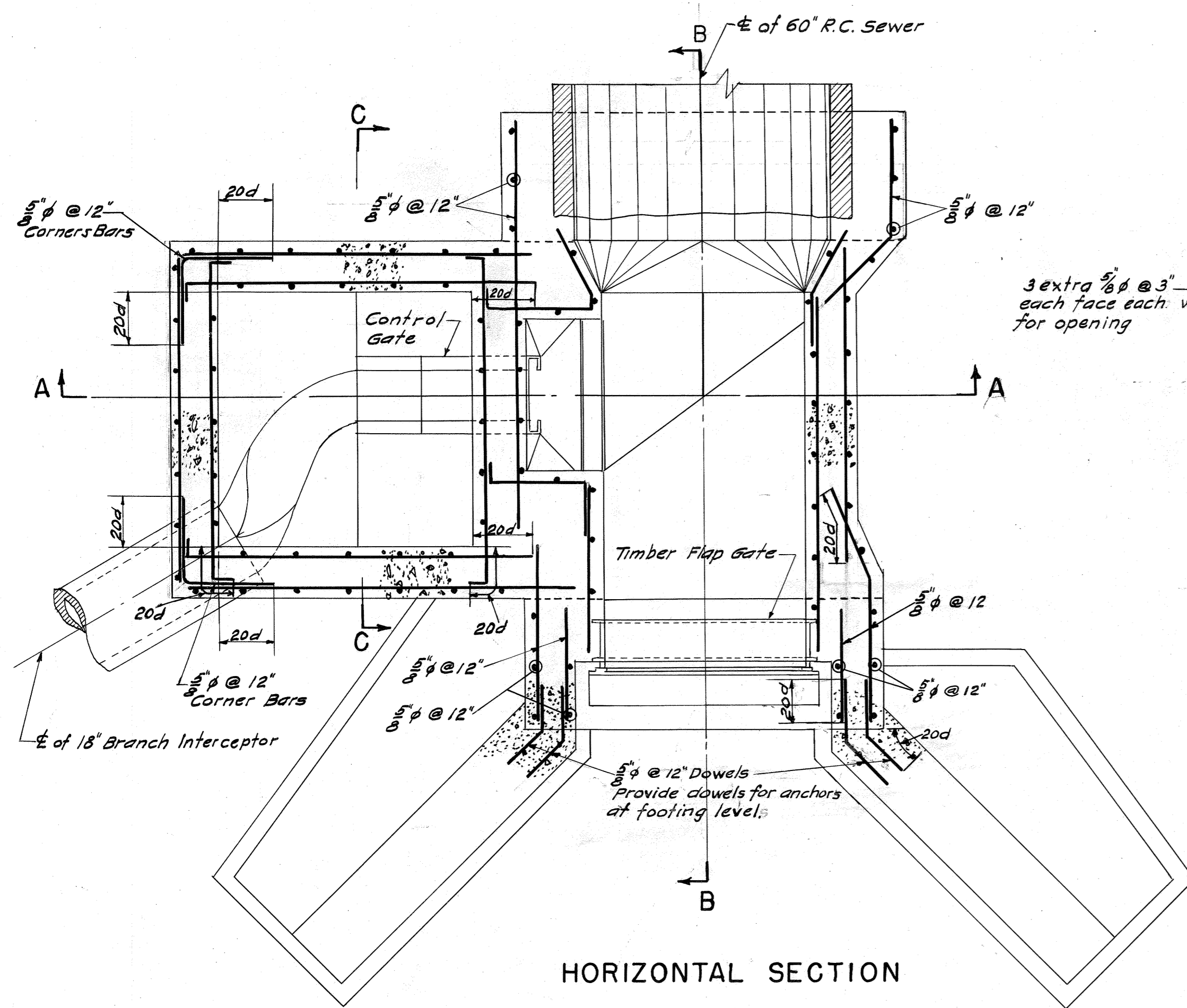
REV.	DESCRIPTION	DATE	APP.	APPROVED
1	Reference note added			
2	As Built - 1981	1-15-81	J.R.D.	DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. _____ DATE _____
3				CHIEF ENGINEER REG. PROF. ENGR. PA. NO. _____ DATE _____
4				

ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

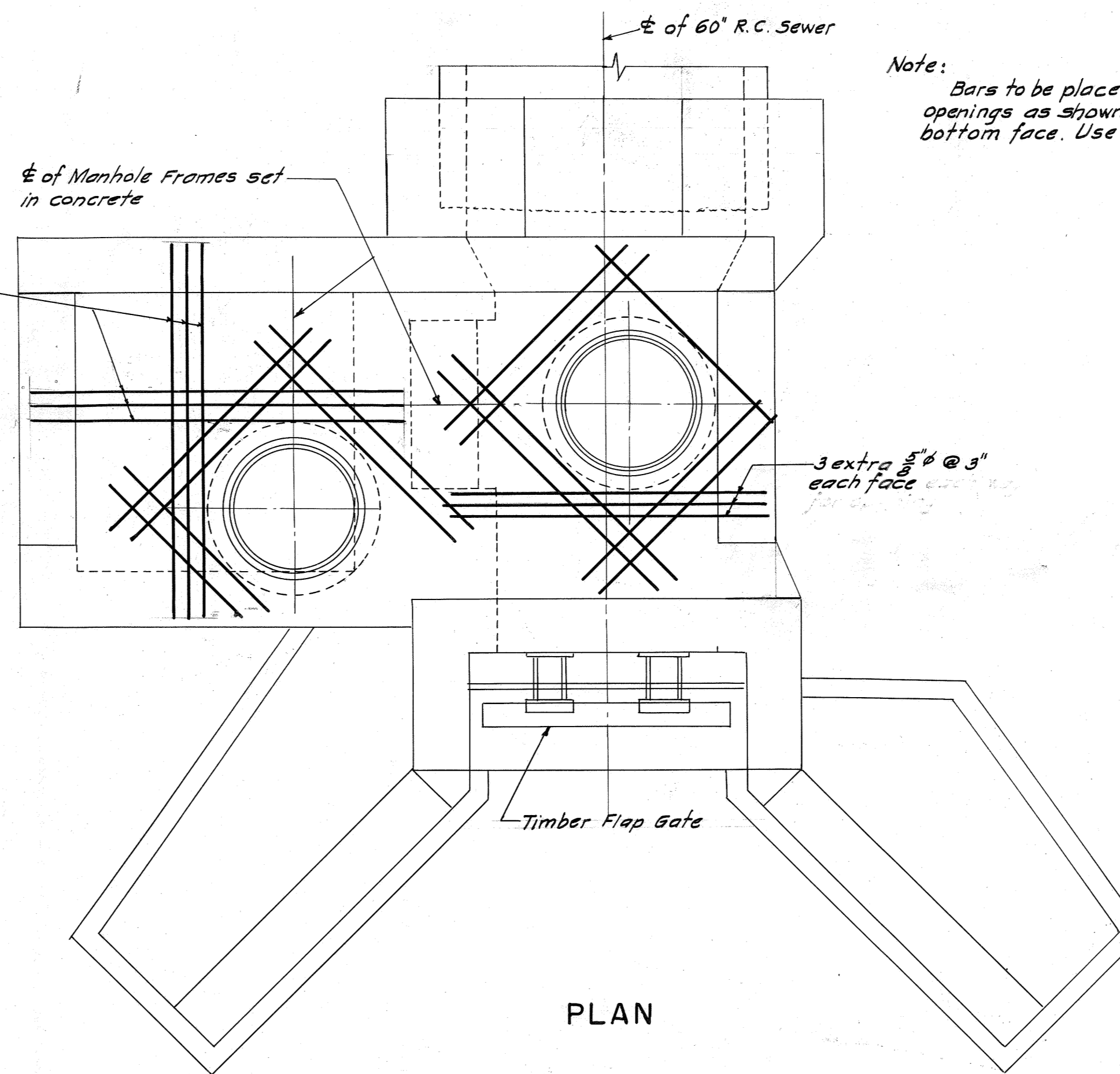
INTERCEPTING SEWERS **M-36**  
 MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD  
 DIVERSION STRUCTURE  
 ON TECUMSEH STREET SEWER

SCALE: 1/2" = 1'-0"      FEBRUARY, 1958

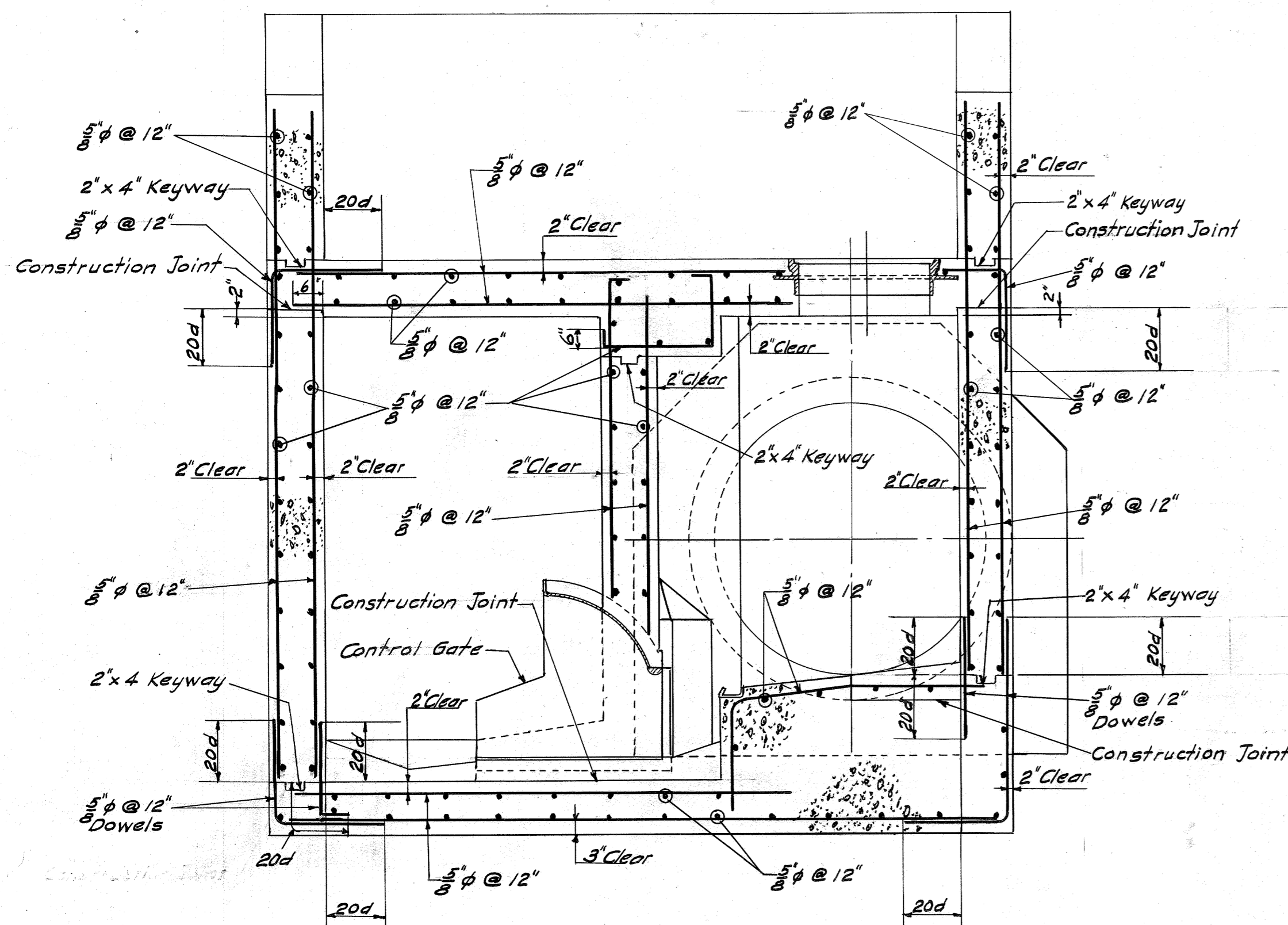


HORIZONTAL SECTION

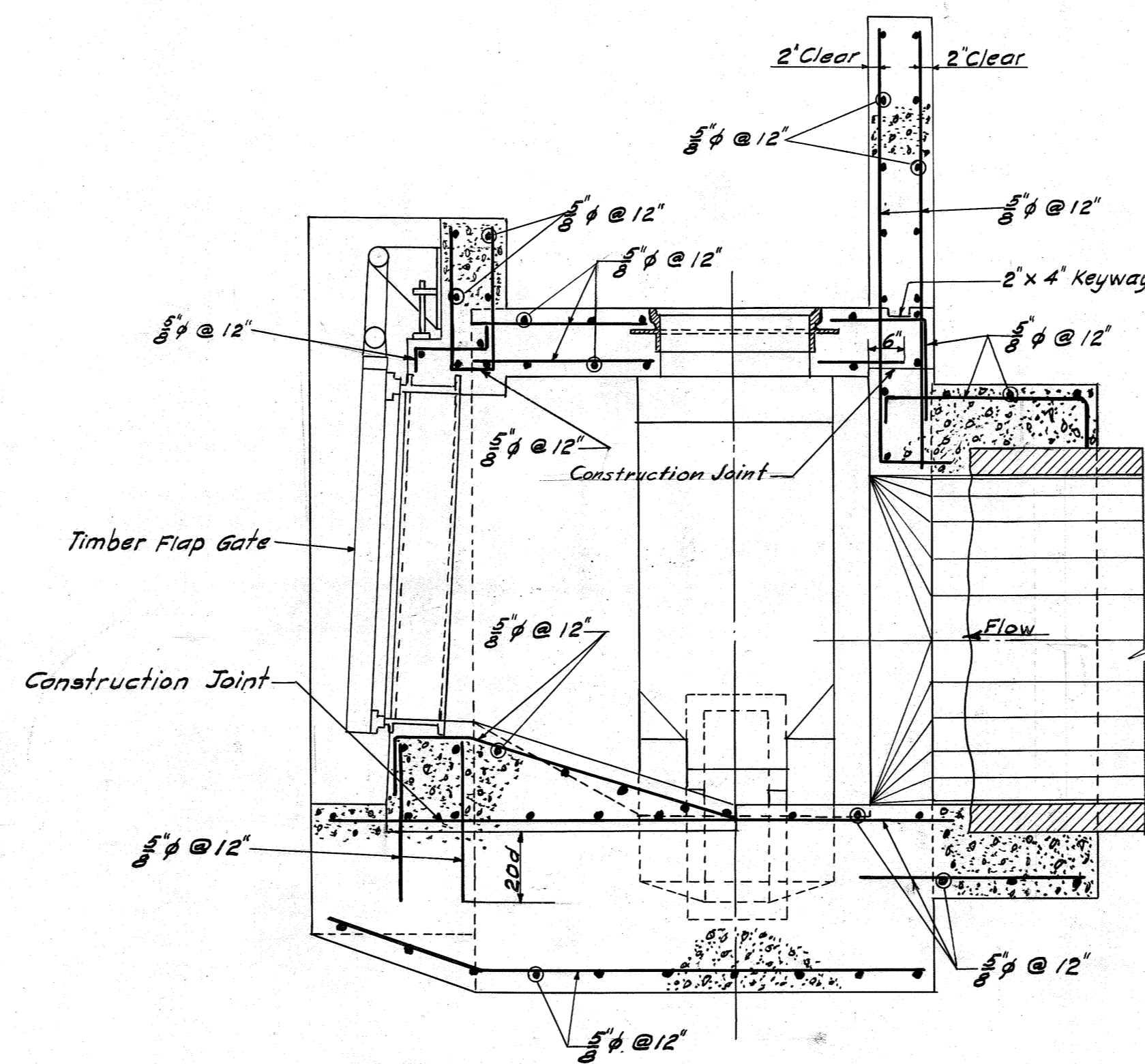


PLAN

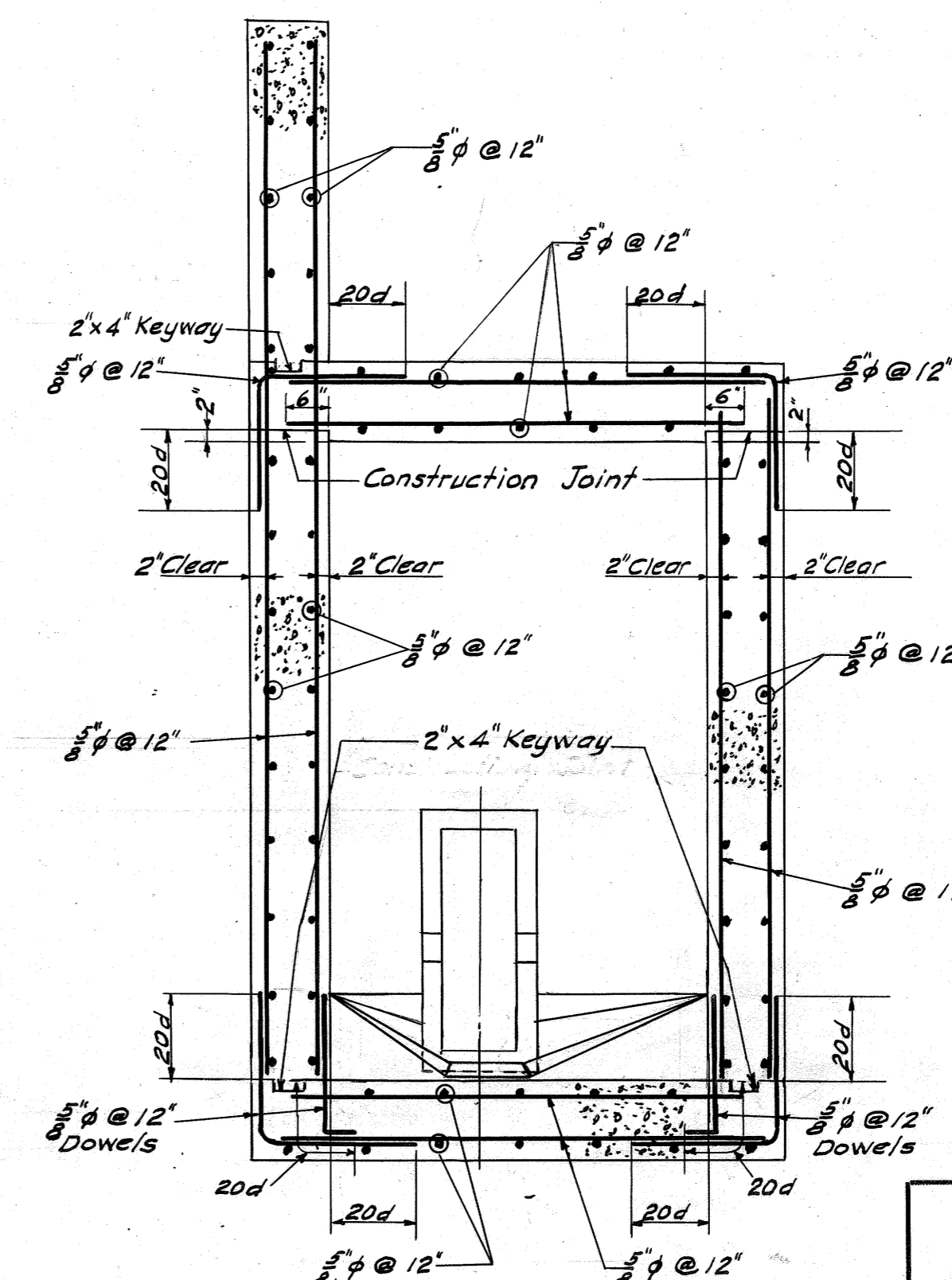
Note:  
Bars to be placed around manhole openings as shown in both top and bottom face. Use 3/8 inch diameter bars.



SECTION A-A



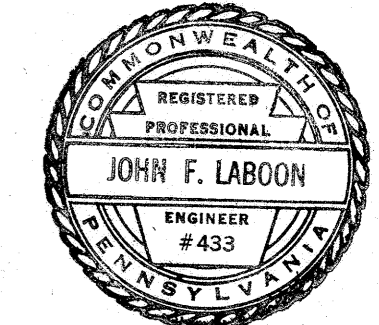
B-B



C-C

DESIGNED BY F.J.D.  
CHECKED BY M.J.G.  
DRAWN BY J.R.D.  
TRACED BY F.K.  
CHECKED BY J.R.D., M.J.G.  
EXAMINED BY F.J.M.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				Lawrence M. Gortman DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1862-E DEC. 15, 1954
2				
3				J. F. Laboon CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433 DEC. 15, 1954
4				



ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

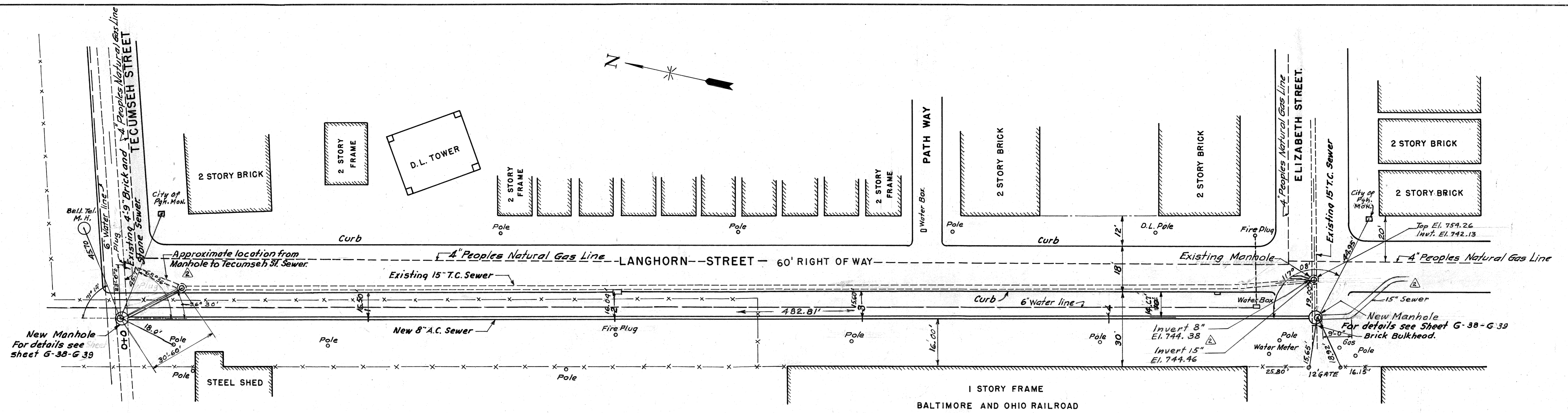
INTERCEPTING SEWERS M-36  
MONONGAHELA RIVER  
FOUR MILE RUN TO WEST HOMESTEAD

DIVERSION STRUCTURE  
ON TECUMSEH STREET SEWER  
REINFORCEMENT

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

1953



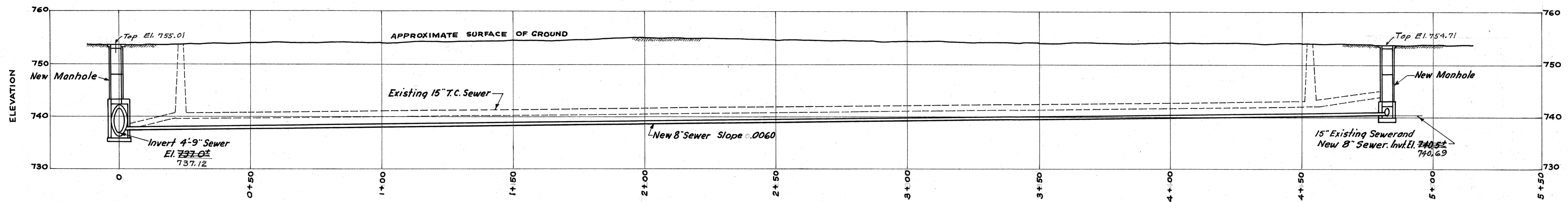


PLAN  
SCALE: 1"=20'

Ref:  
AS BUILT - Field Book 151B Page 24, 27, 28, 29

Moved 8" A.C. Sewer To Within 12'-0" of the Street Right of Way Line Approved By Mr. C. Barrett City of Pittsburgh

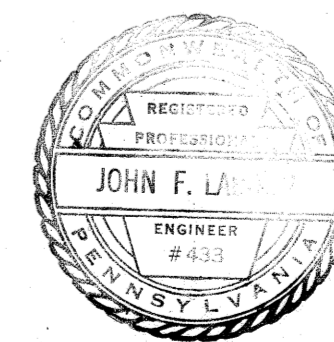
Note:  
On July 29, 1933 It Was Verified By Dye Testing That Water Entering The Existing 15" City Sewer At Langhorn And Elizabeth Streets Will Flow To Tecumseh. See Memo Dated August 1, 1933 Concerning Investigation Of Sewers In This Area.



PROFILE  
SCALE: HORIZONTAL 1"=20'  
SCALE: VERTICAL 1"=10'

DRAWN BY RC  
TRACED BY M.R.  
CHECKED BY V.J.G.  
EXAMINED BY G.T.G.

REV.	DESCRIPTION	DATE	APP.	APPROVED	DATE
1	As Built - 1931	1-15-31	J.R.D.	<i>Lawrence M. Spillman</i>	JUNE 19, 1953
2	Revised At Tecumseh St. and Elizabeth St. Sewer Lines	8-2-33	J.R.D. A.A.S.	DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E	DATE
3				<i>V. F. Rabron</i>	JUNE 19, 1953
4				CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433	DATE



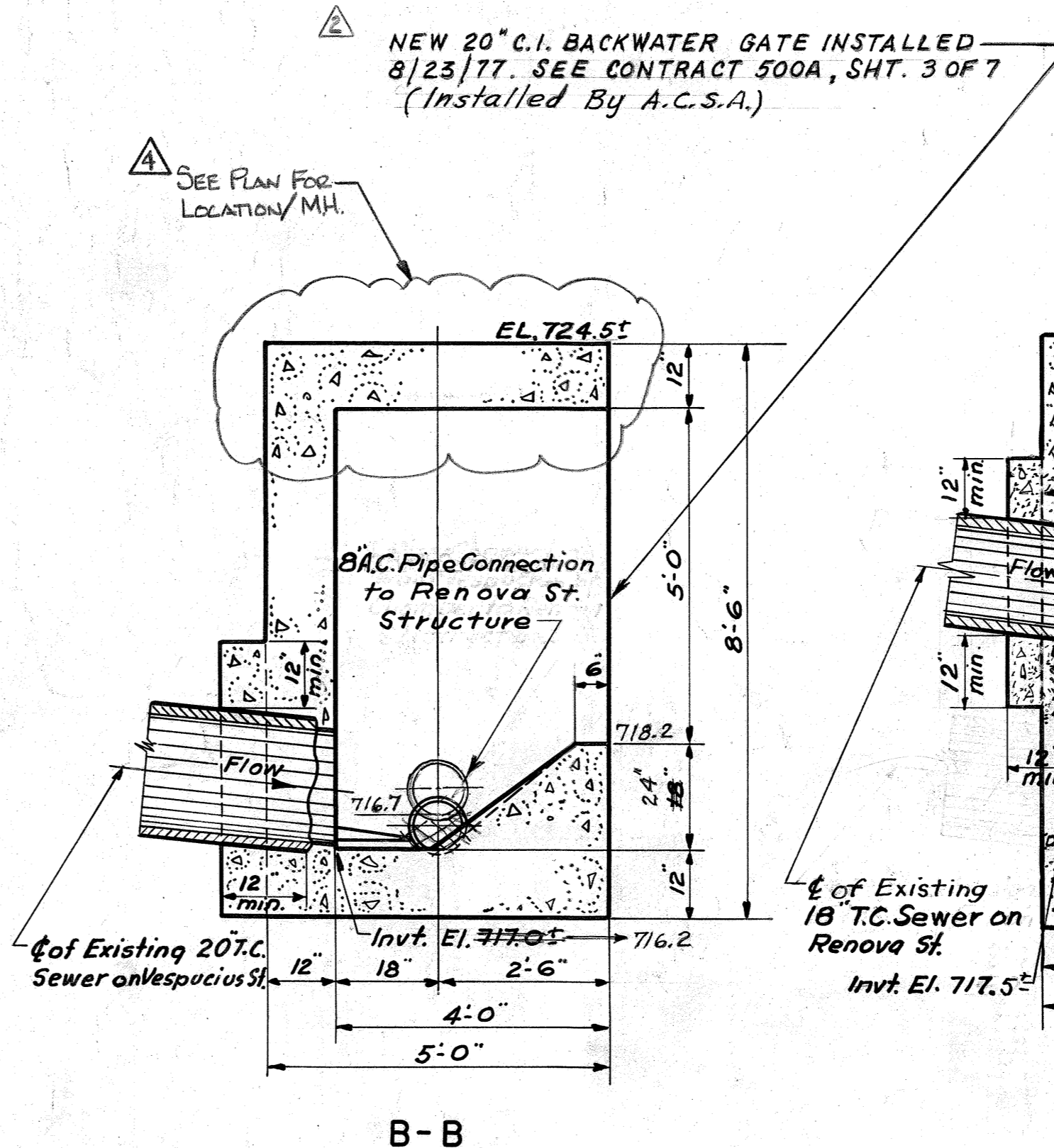
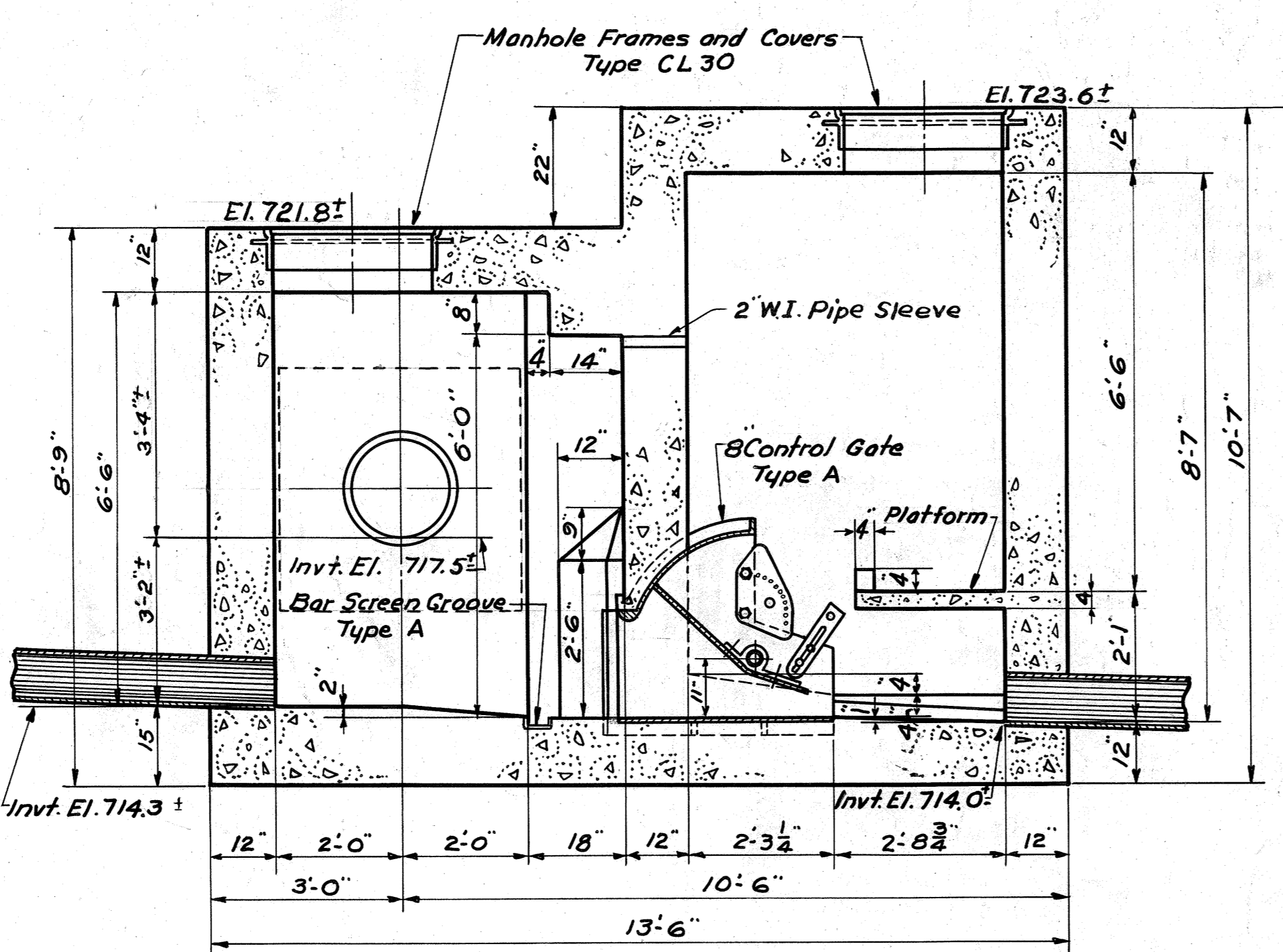
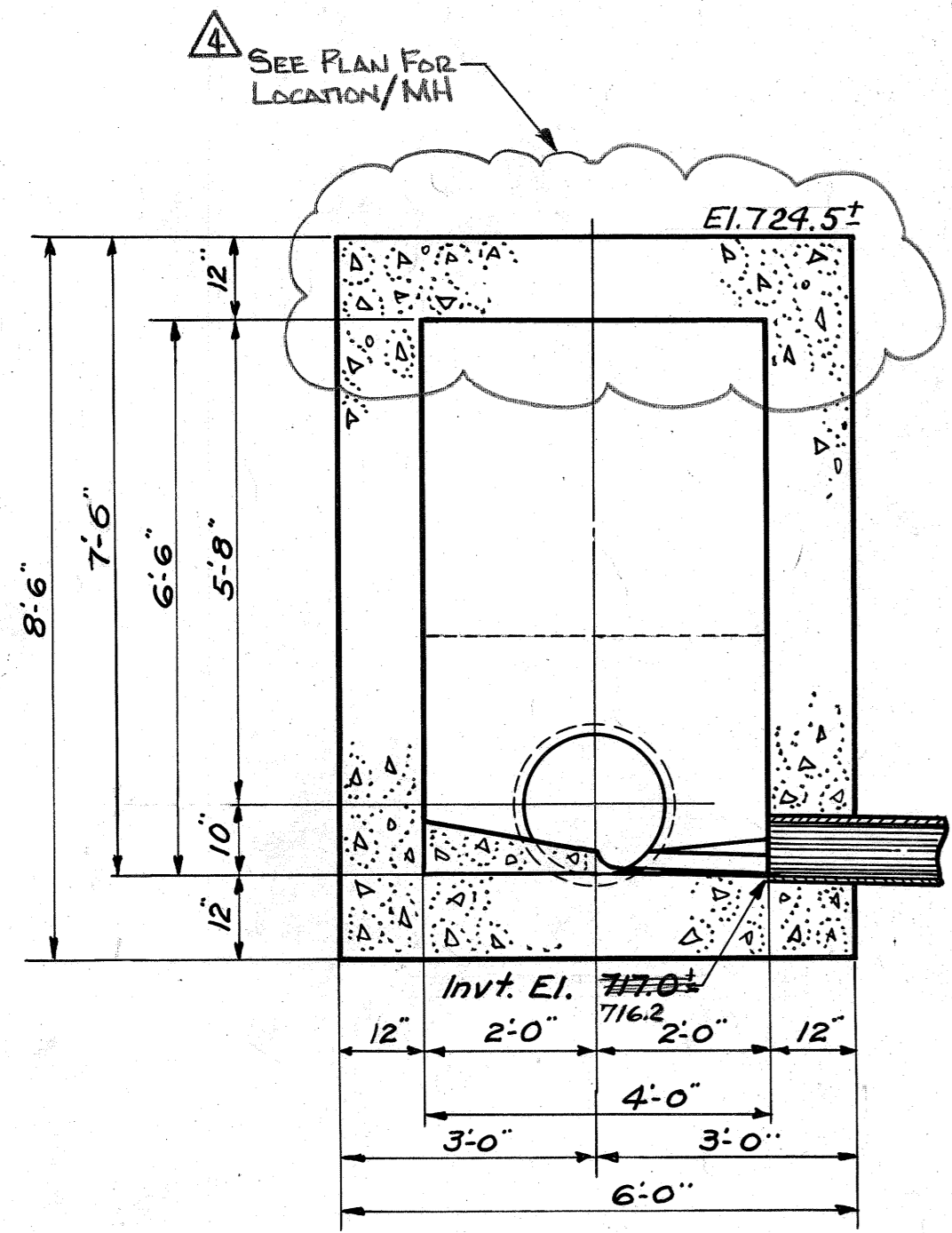
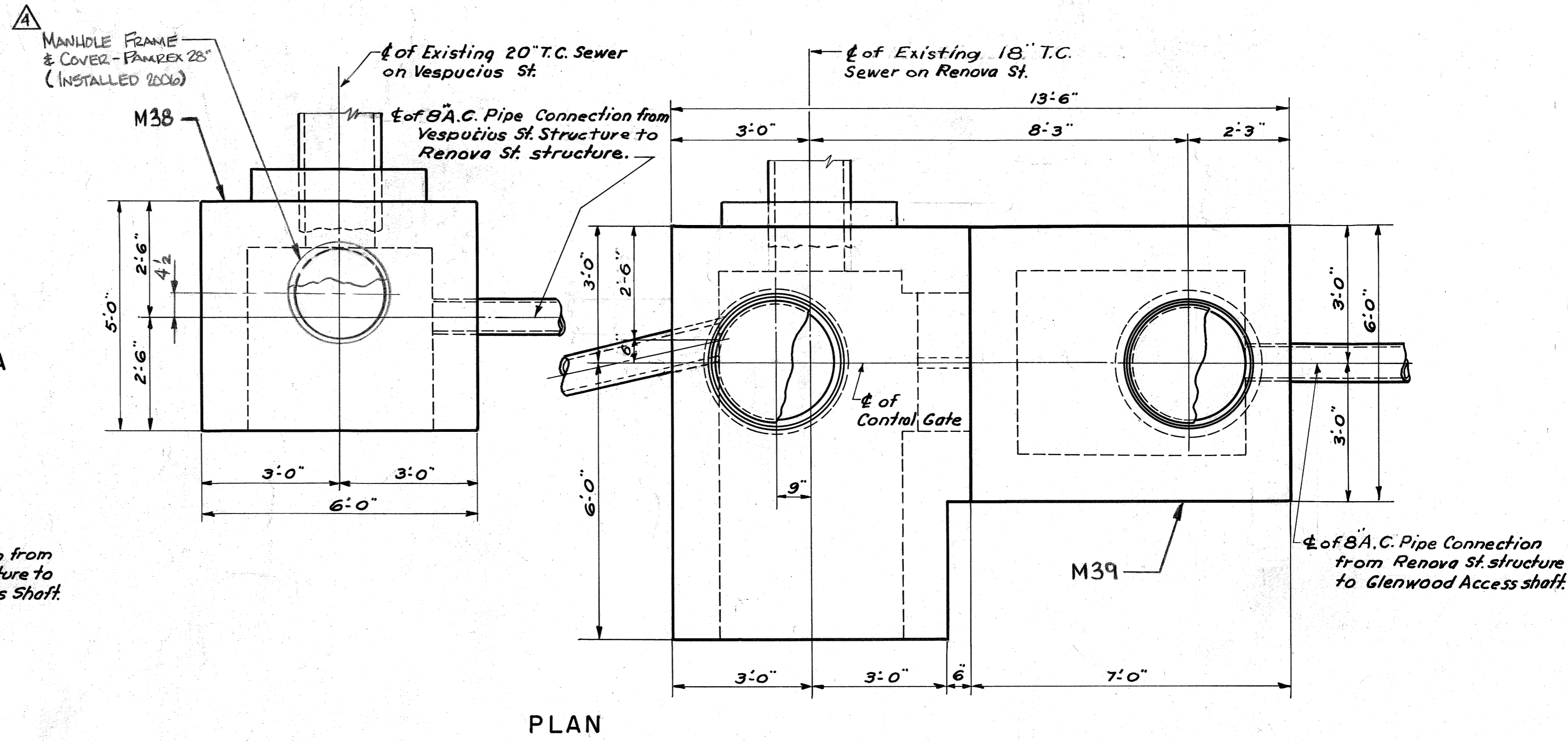
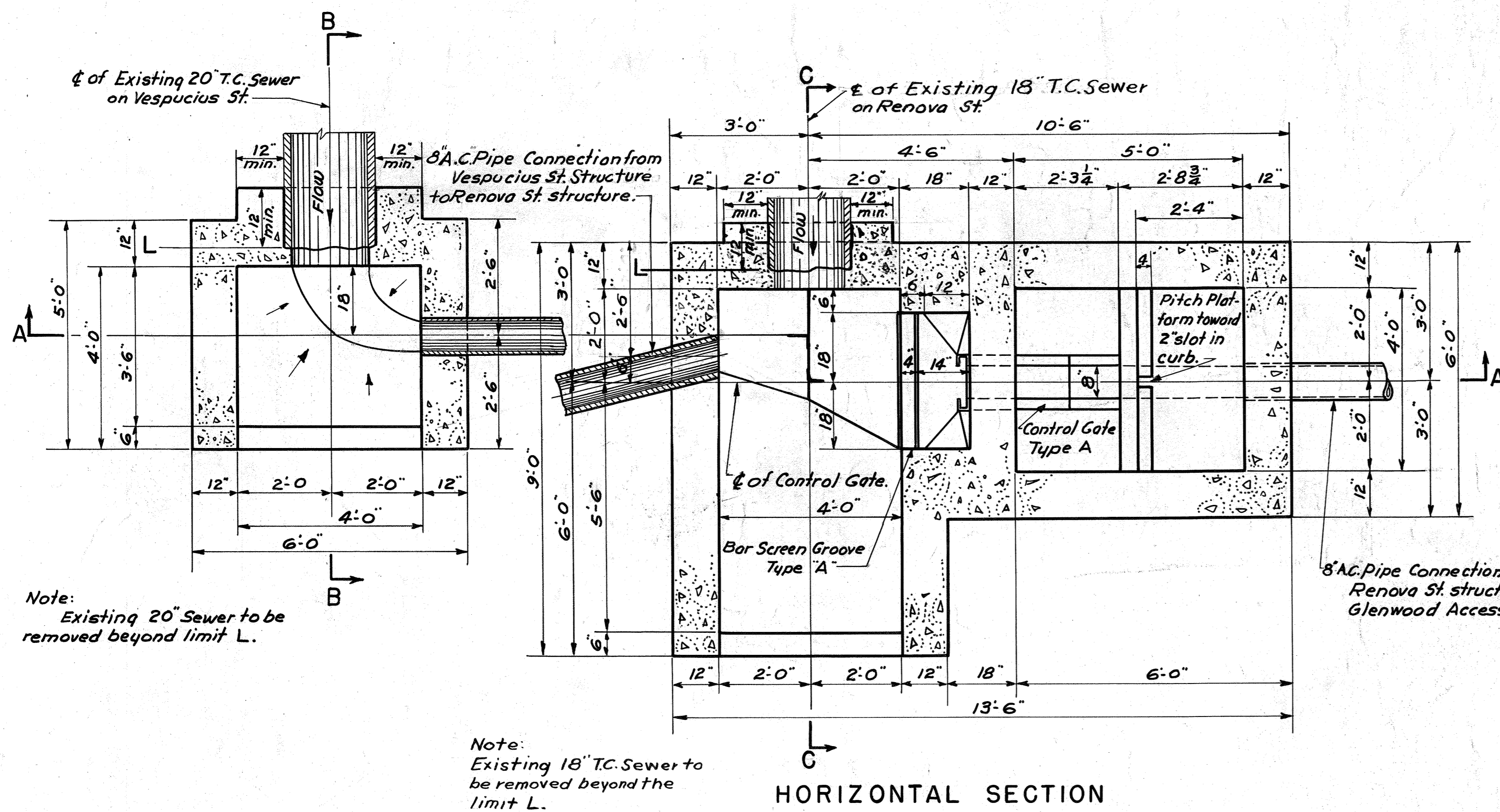
ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS M-36

MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD

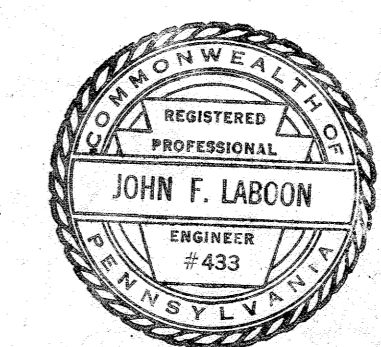
CONNECTION FROM ELIZABETH STREET  
TO TECUMSEH STREET SEWER



DRAWN BY R.S.M.  
 TRACED BY M.V.R.  
 CHECKED BY K.I.G.  
 EXAMINED BY G.I.G.

Note:  
 For location plans  
 see Sheet 9.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1	As BUILT Elev. added (per)			Lawrence M. Spillman DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E NOV. 13, 1953
2	Revision As Noted	9/21/77	J.R.D.	DATE
3	As Built-1981	1-15-81	J.R.D.	NOV. 13, 1953
4	ADDED M.H. TO M38	1-16-07	RAK	DATE CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433



ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

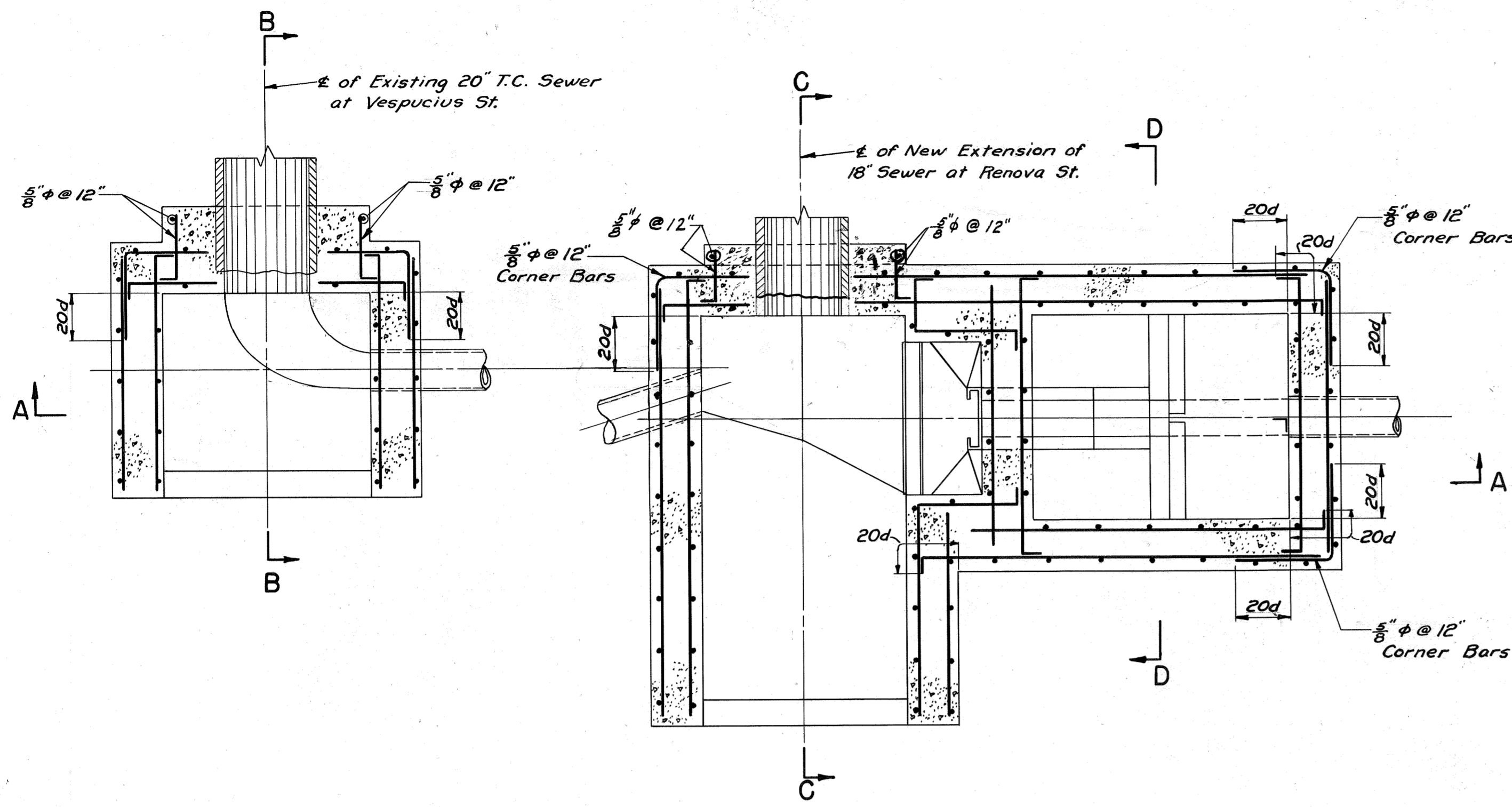
M-38 INTERCEPTING SEWERS MONONGAHELA RIVER M-39

FOUR MILE RUN TO WEST HOMESTEAD

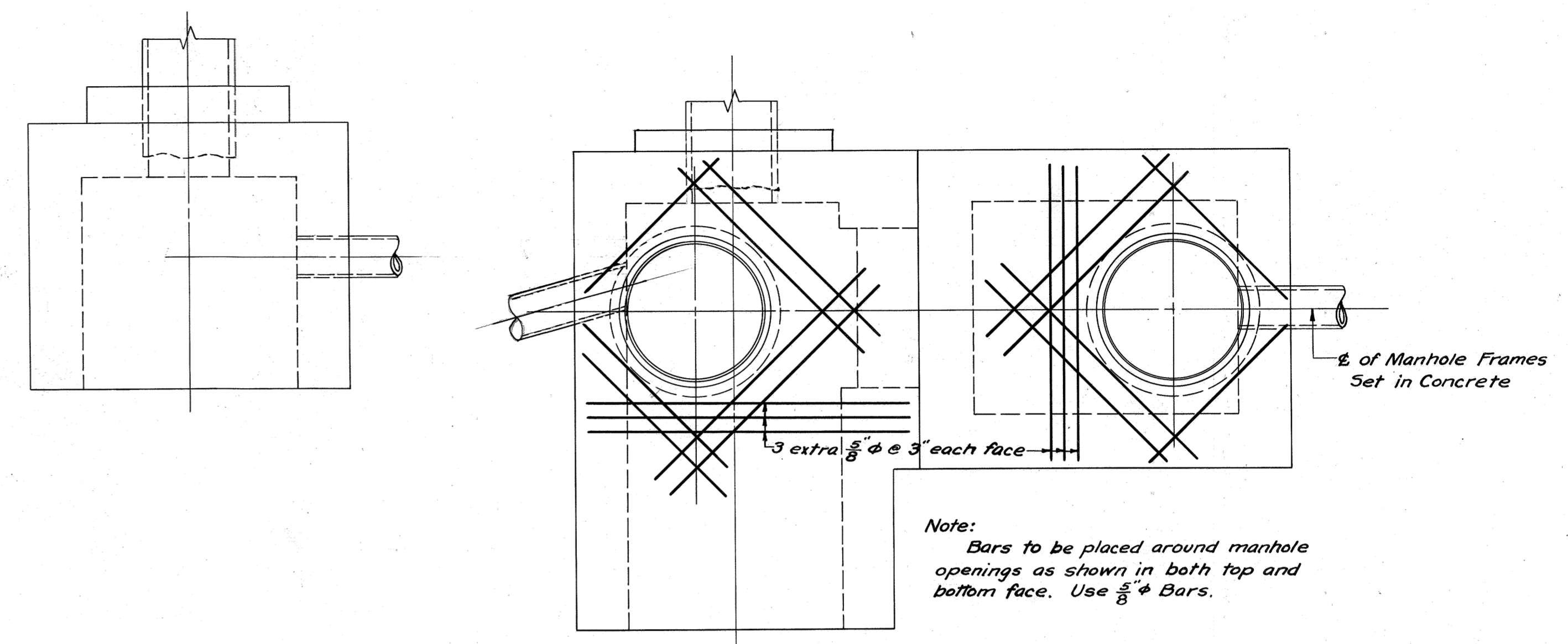
DIVERSION STRUCTURES  
 ON VESPUCCIUS STREET AND  
 RENOVA STREET SEWERS

SCALE: 1" = 1'-0"

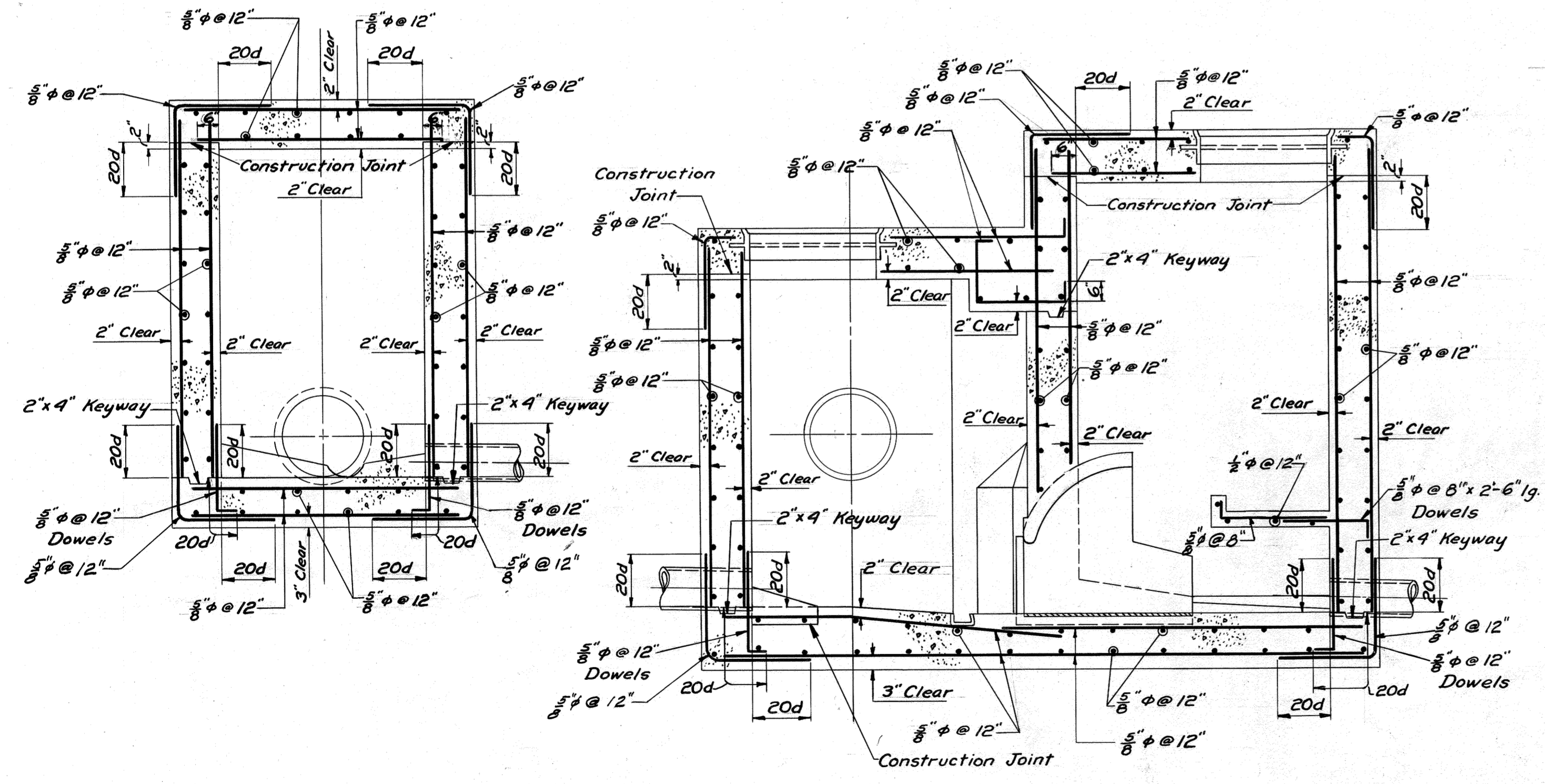
1953



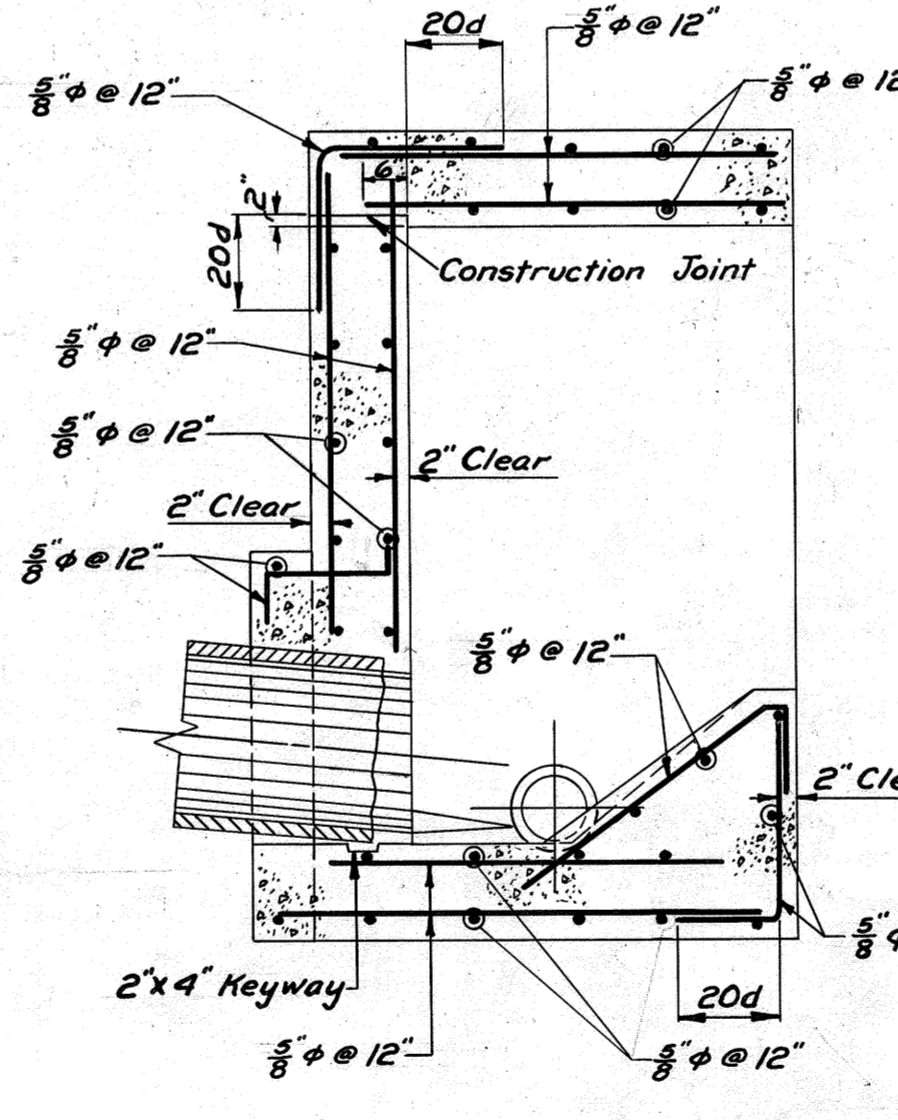
HORIZONTAL SECTION



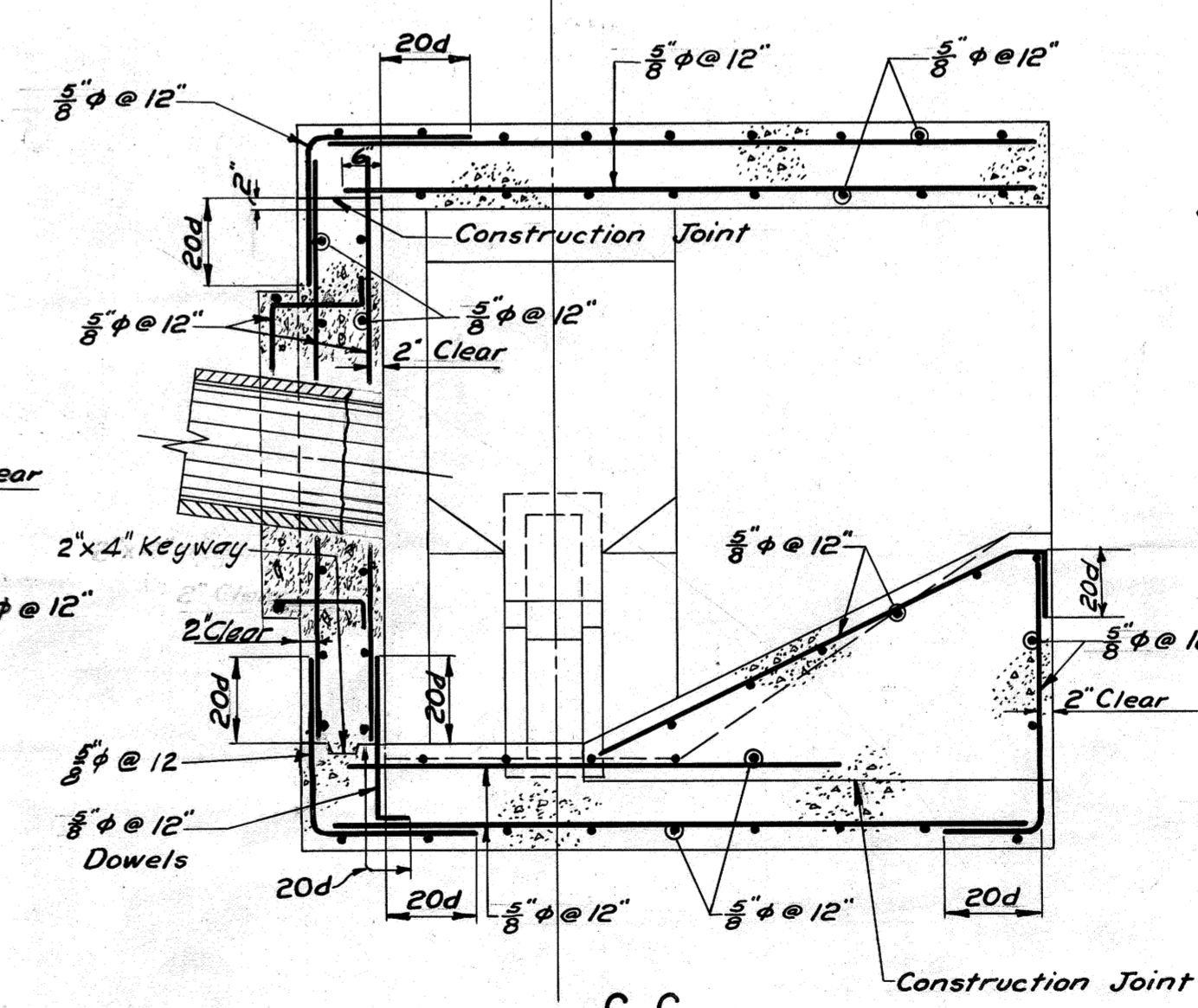
PLAN



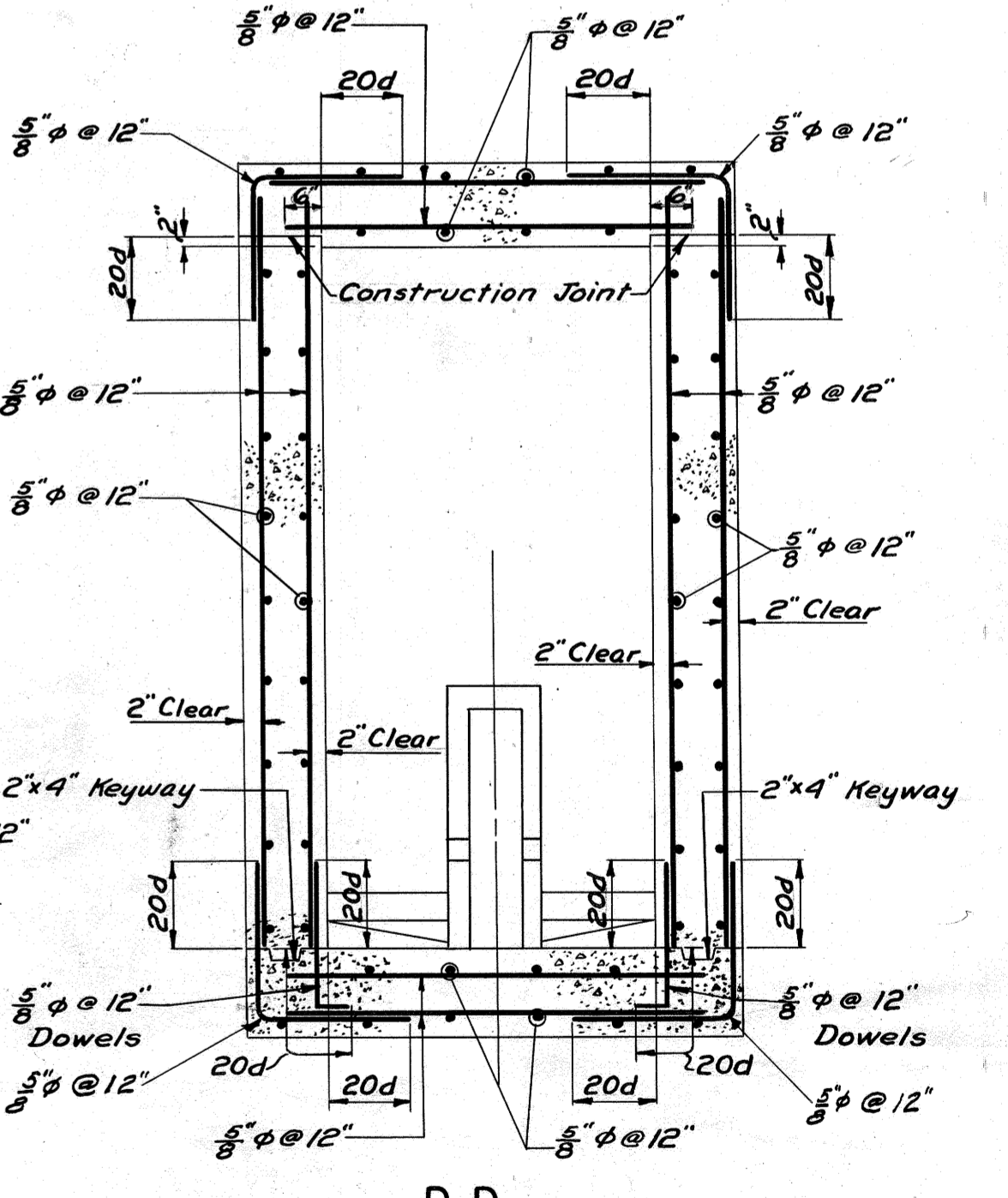
SECTION A-A



B-B



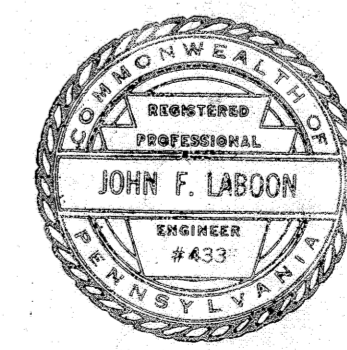
C-C



D-D

DESIGNED BY F.J.D.  
 CHECKED BY W.J.G.  
 DRAWN BY J.R.D.  
 TRACED BY L.T.L.  
 CHECKED BY J.R.D., W.J.G.  
 EXAMINED BY F.J.M.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				Lawrence M. Suttleman DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E DEC. 15, 1954
2				J. F. Wilson CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433 DATE
3				
4				

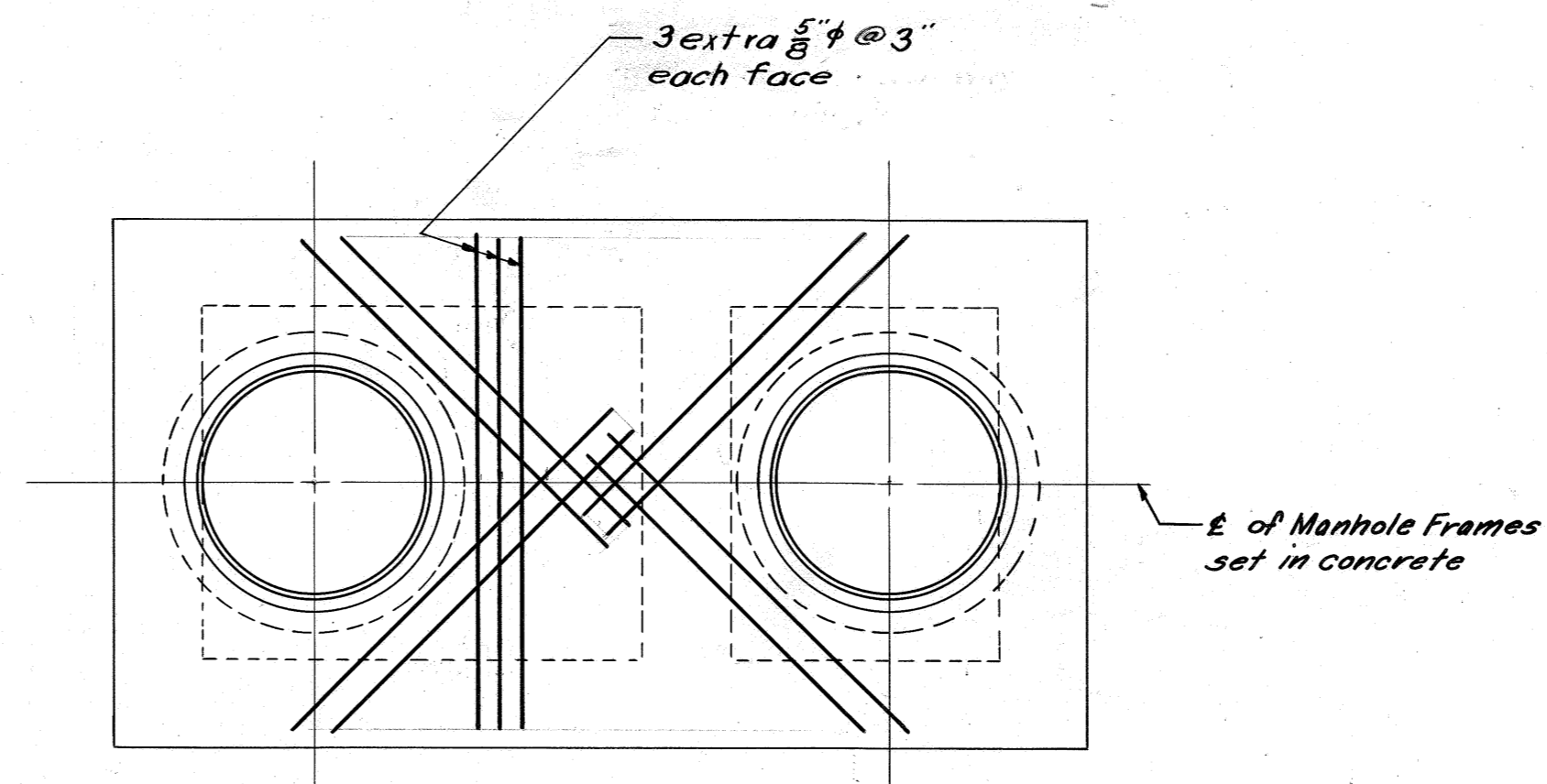
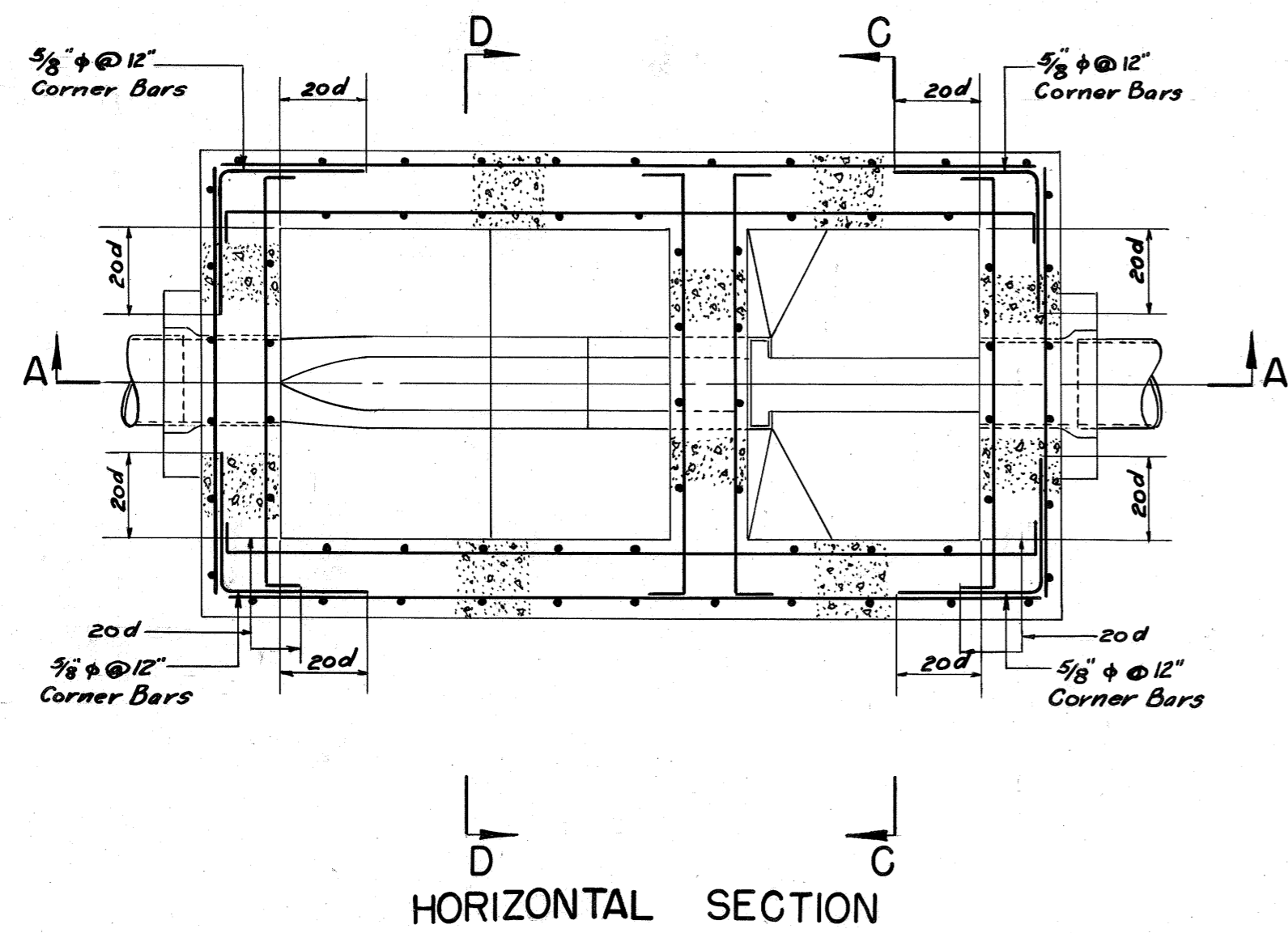


ALLEGHENY COUNTY SANITARY AUTHORITY  
 PITTSBURGH, PENNSYLVANIA

M-38 INTERCEPTING SEWERS M-39  
 MONONGAHELA RIVER  
 FOUR MILE RUN TO WEST HOMESTEAD  
 DIVERSION STRUCTURES  
 ON VESPUCCIUS ST. AND RENOVA ST. SEWERS  
 REINFORCEMENT

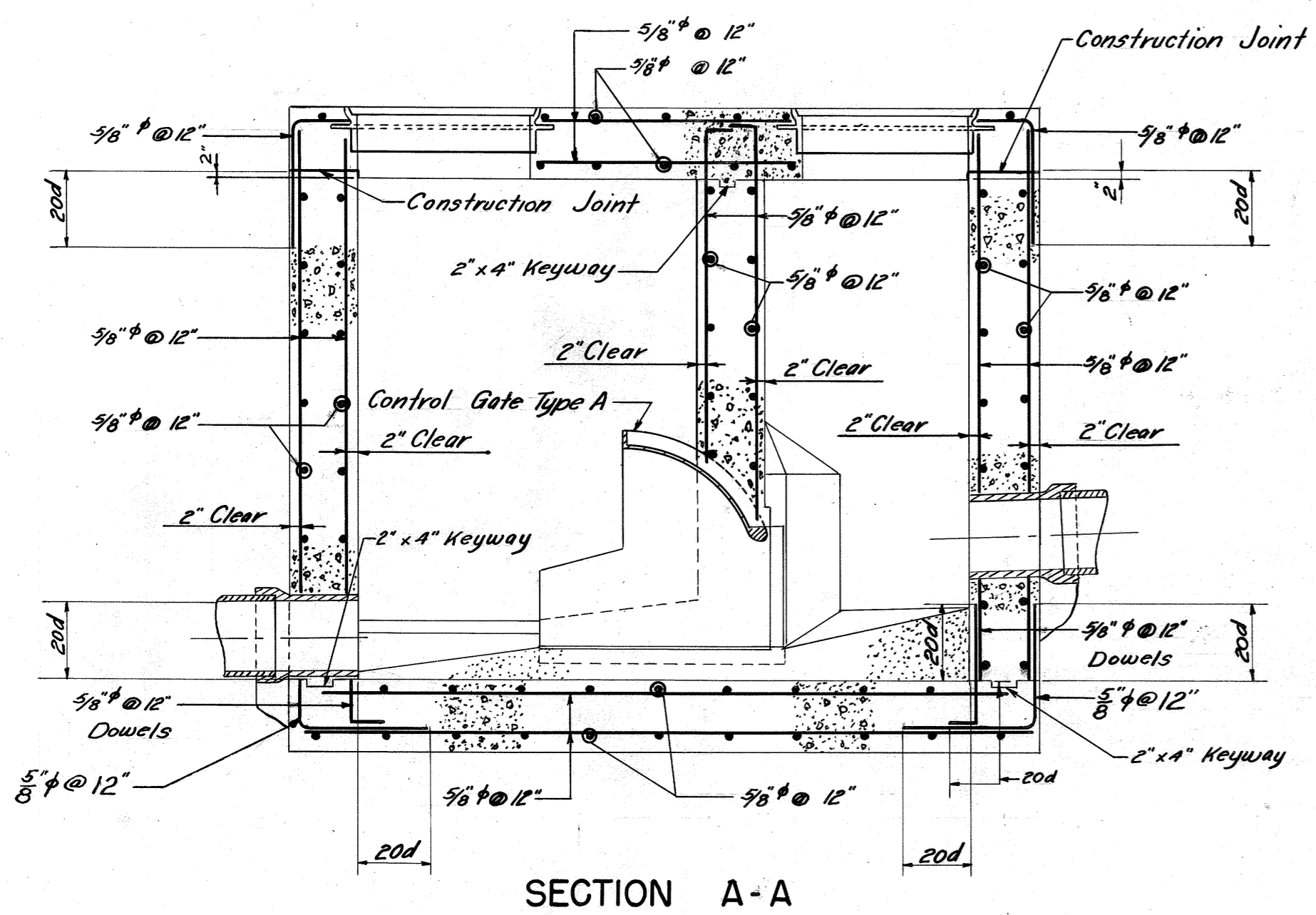
SCALE: 1/2" = 1'-0" 1953



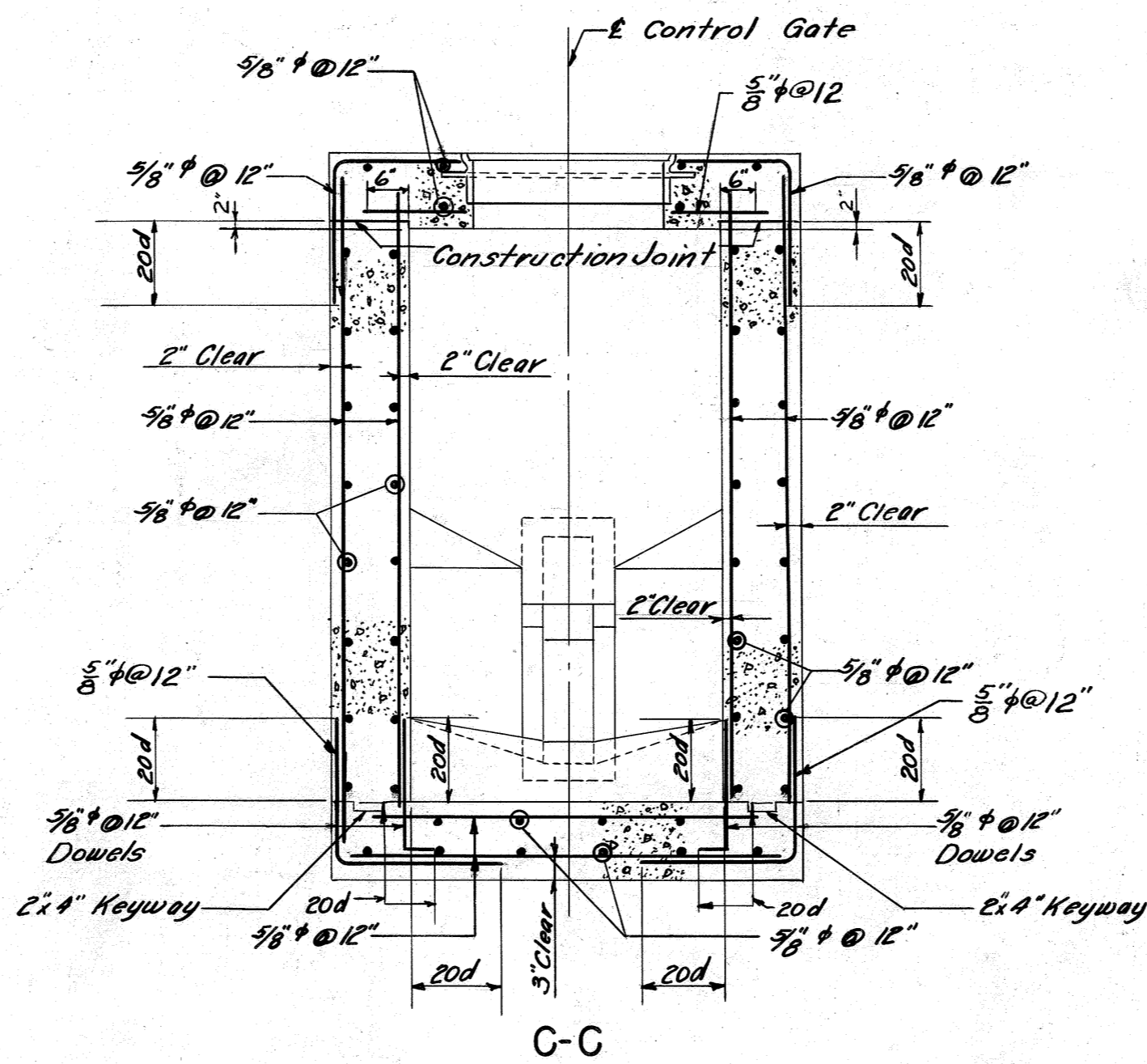


Note:  
Bars to be placed around manhole openings as shown in both top and bottom face. Use 3/8" Bars.

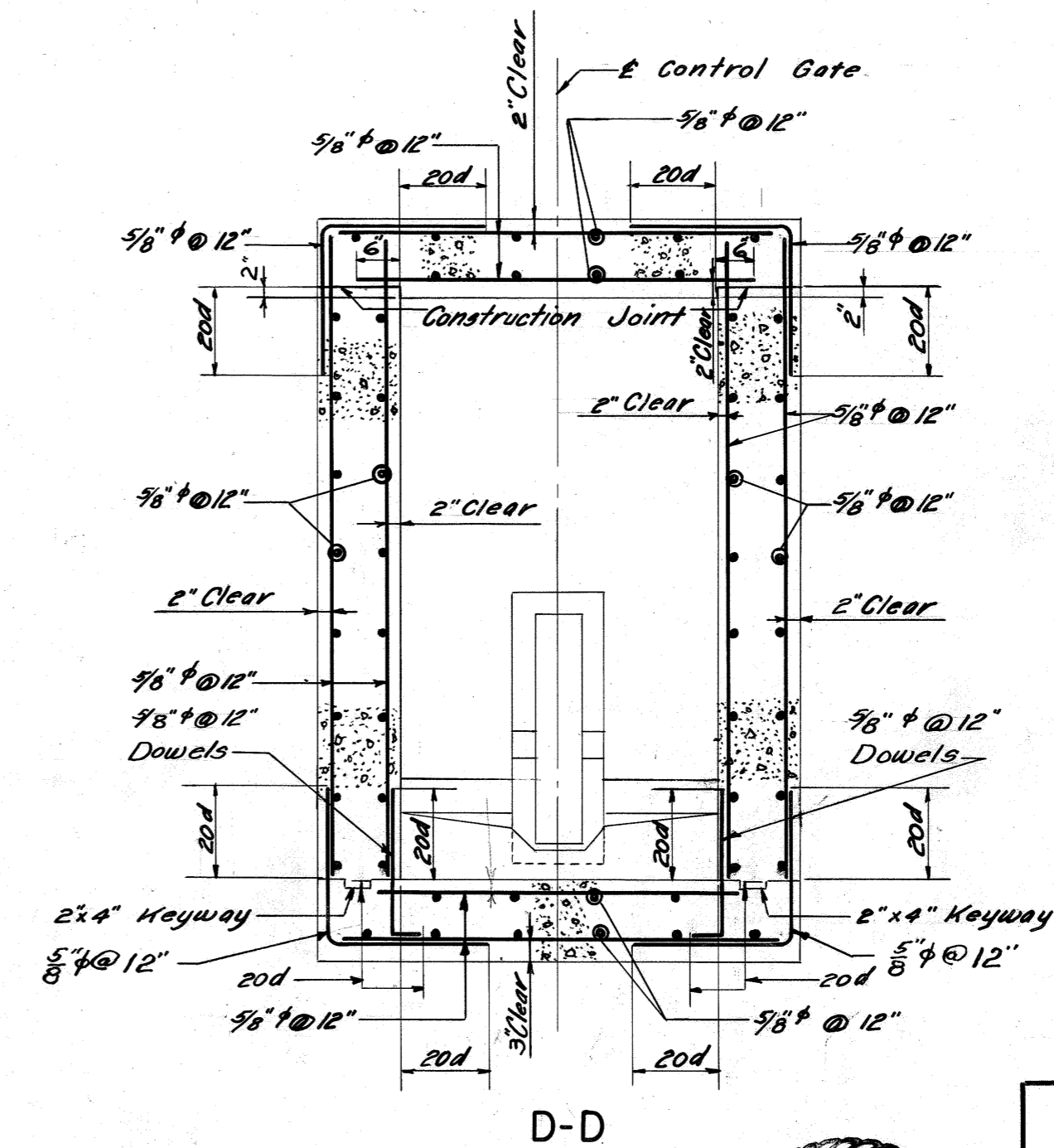
PLAN



SECTION A-A



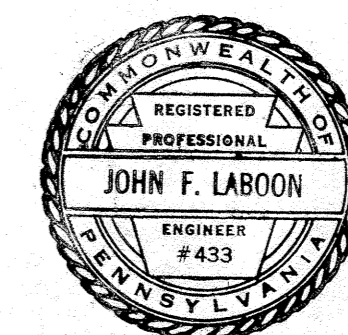
C-C



D-D

DESIGNED BY F.J.D.  
CHECKED BY W.J.G.  
DRAWN BY K.H., J.R.D.  
TRACED BY J.W.W.  
CHECKED BY J.R.D., W.J.G.  
EXAMINED BY F.J.M.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1				Lawrence M. Spillman DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E
2				J. F. Laboon CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433
3				
4				

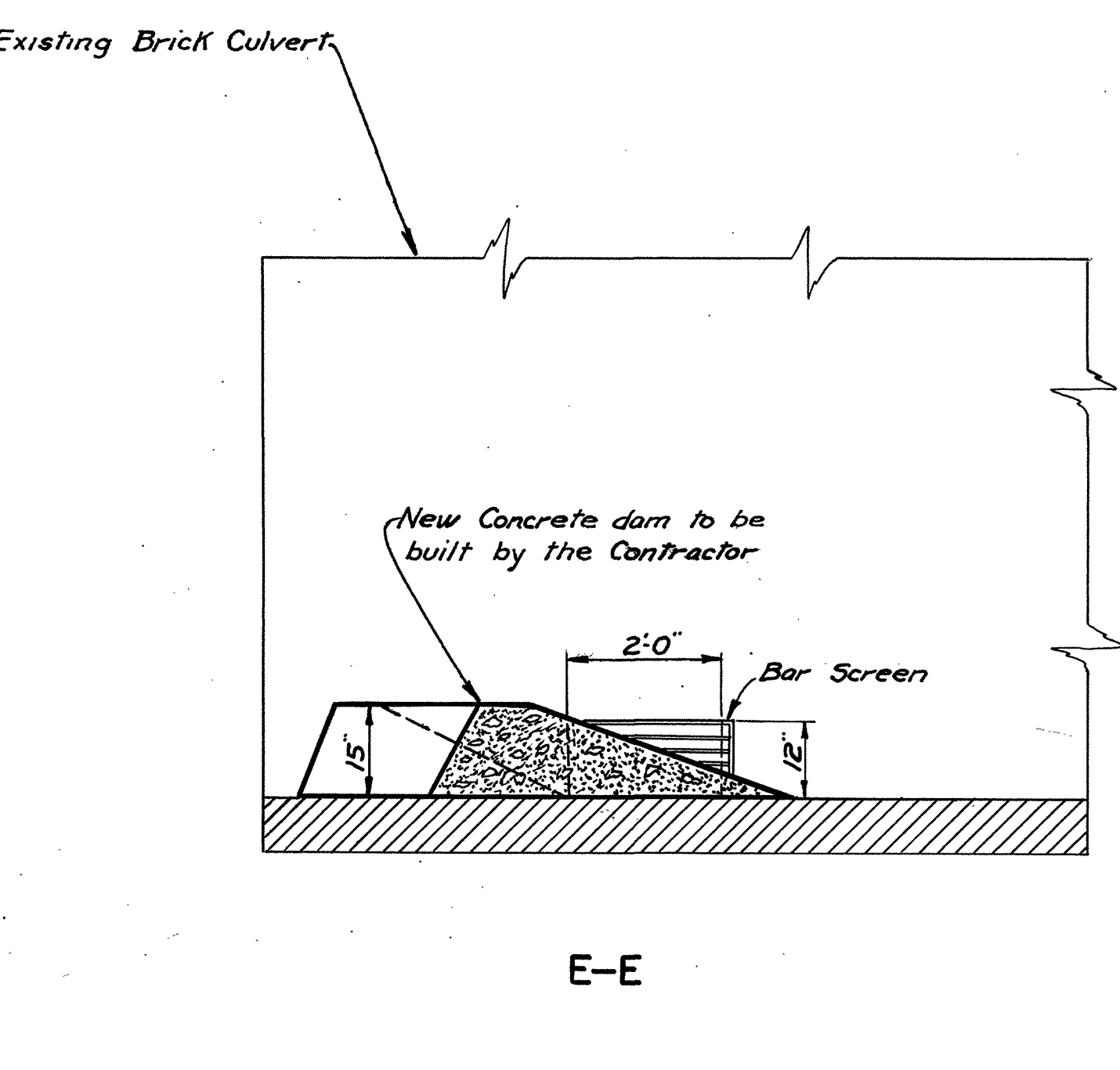
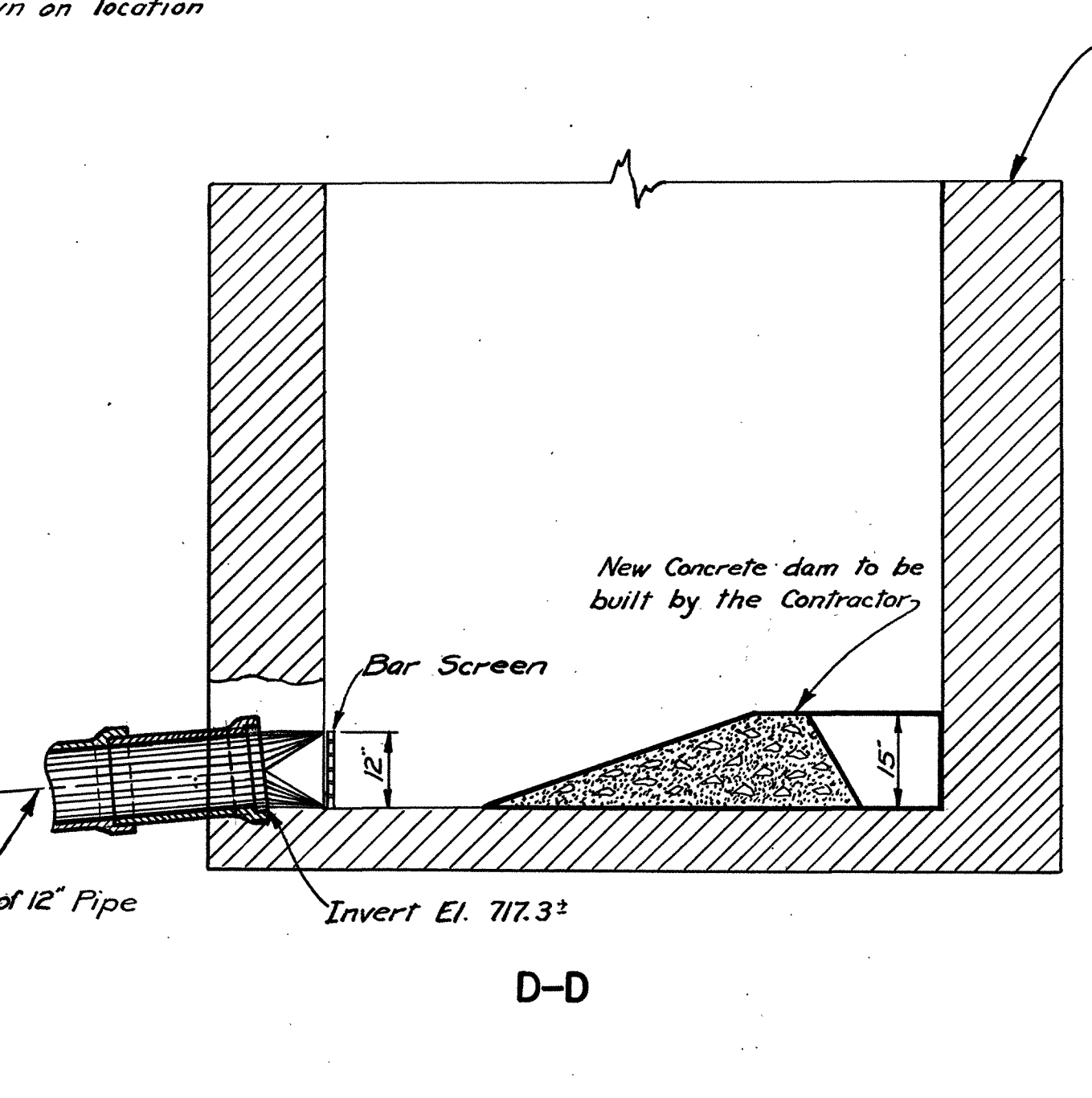
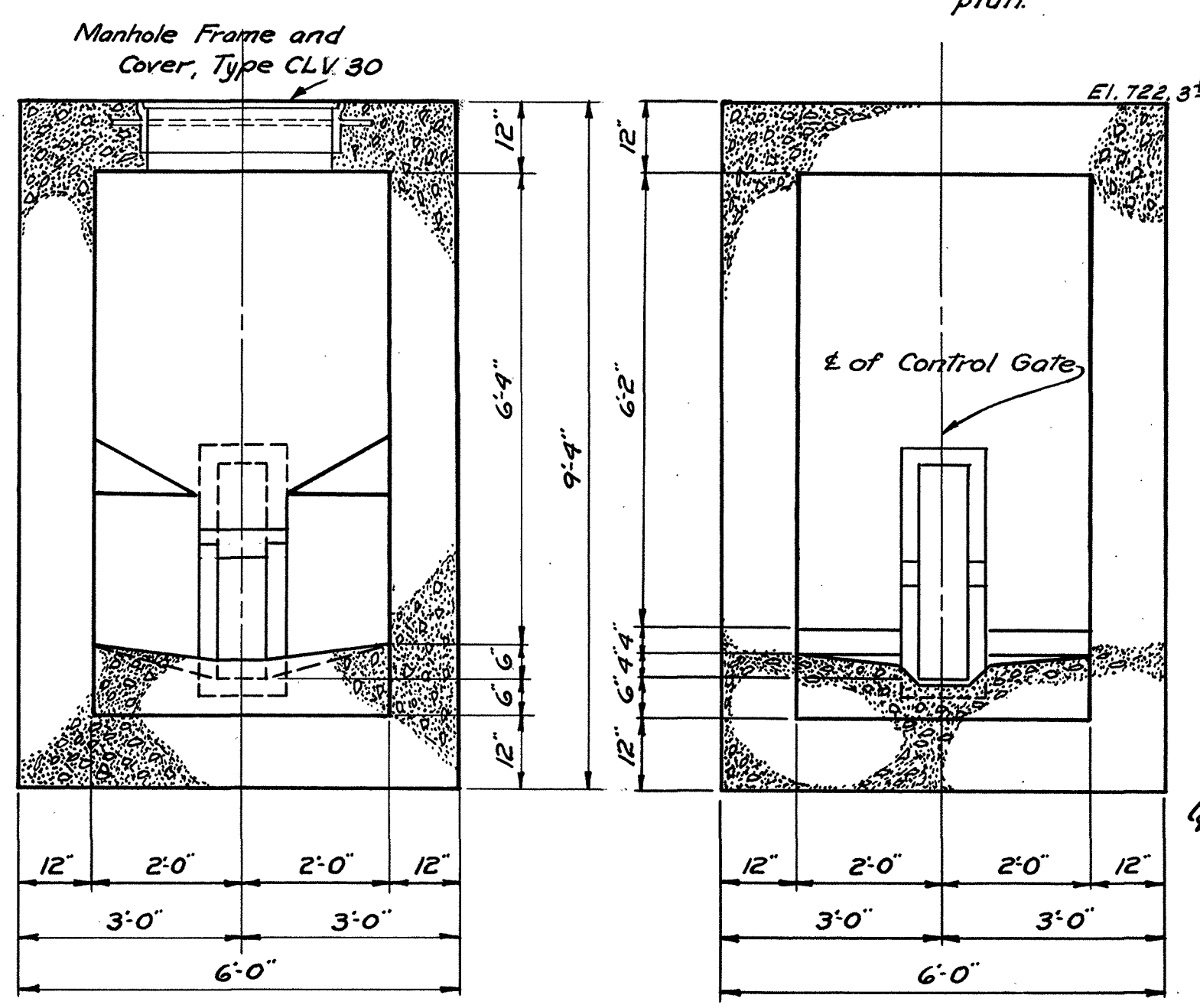
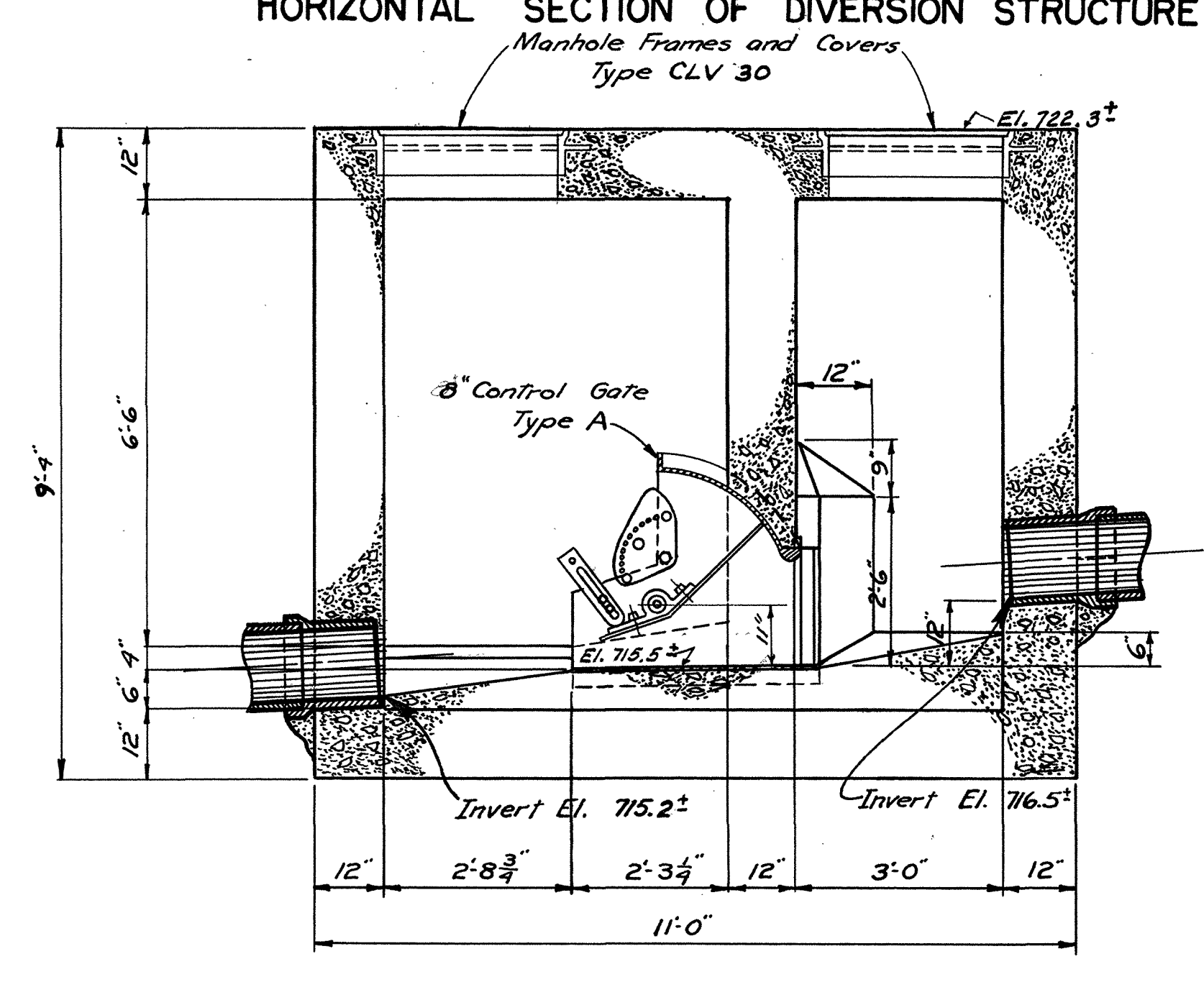
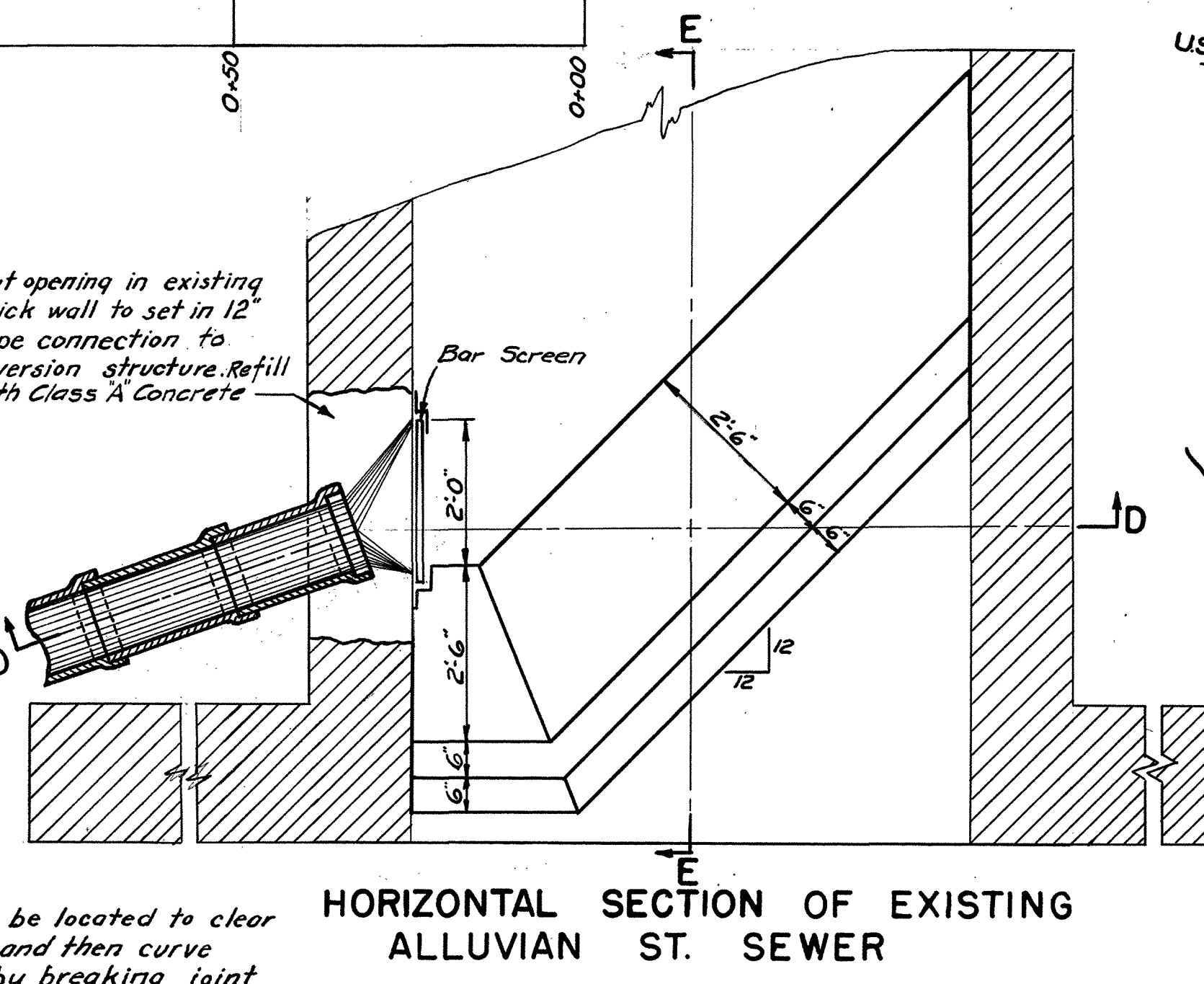
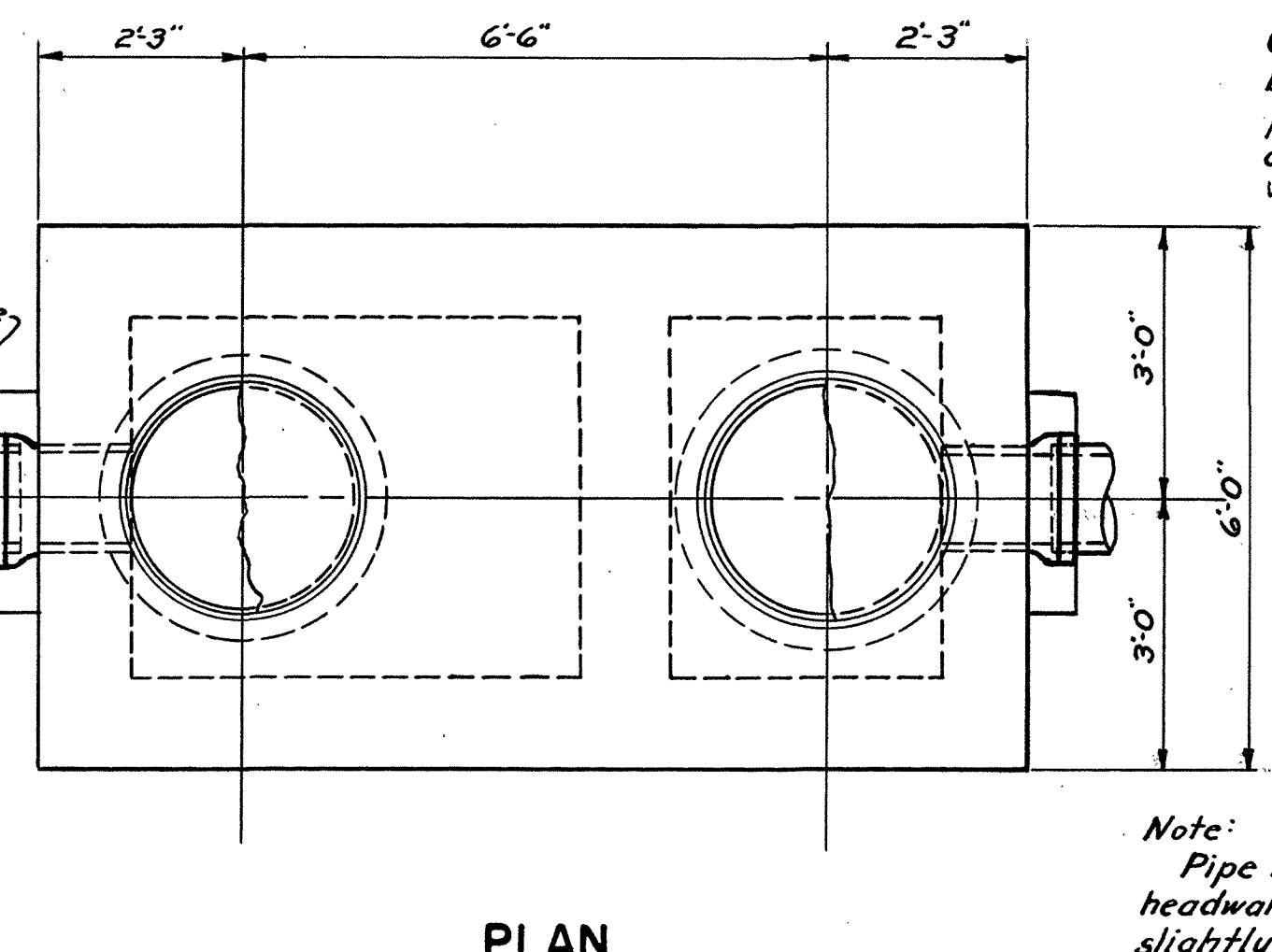
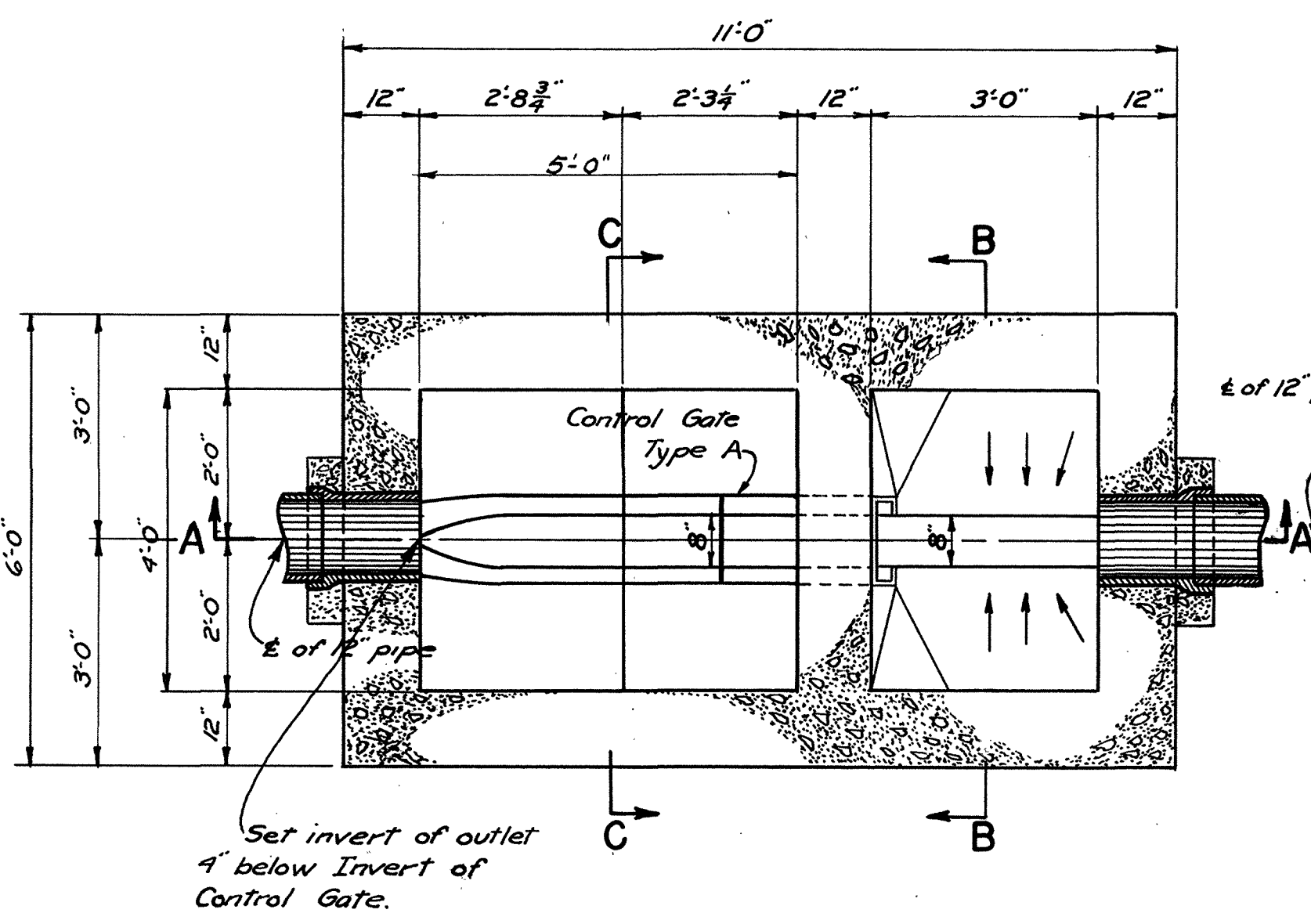
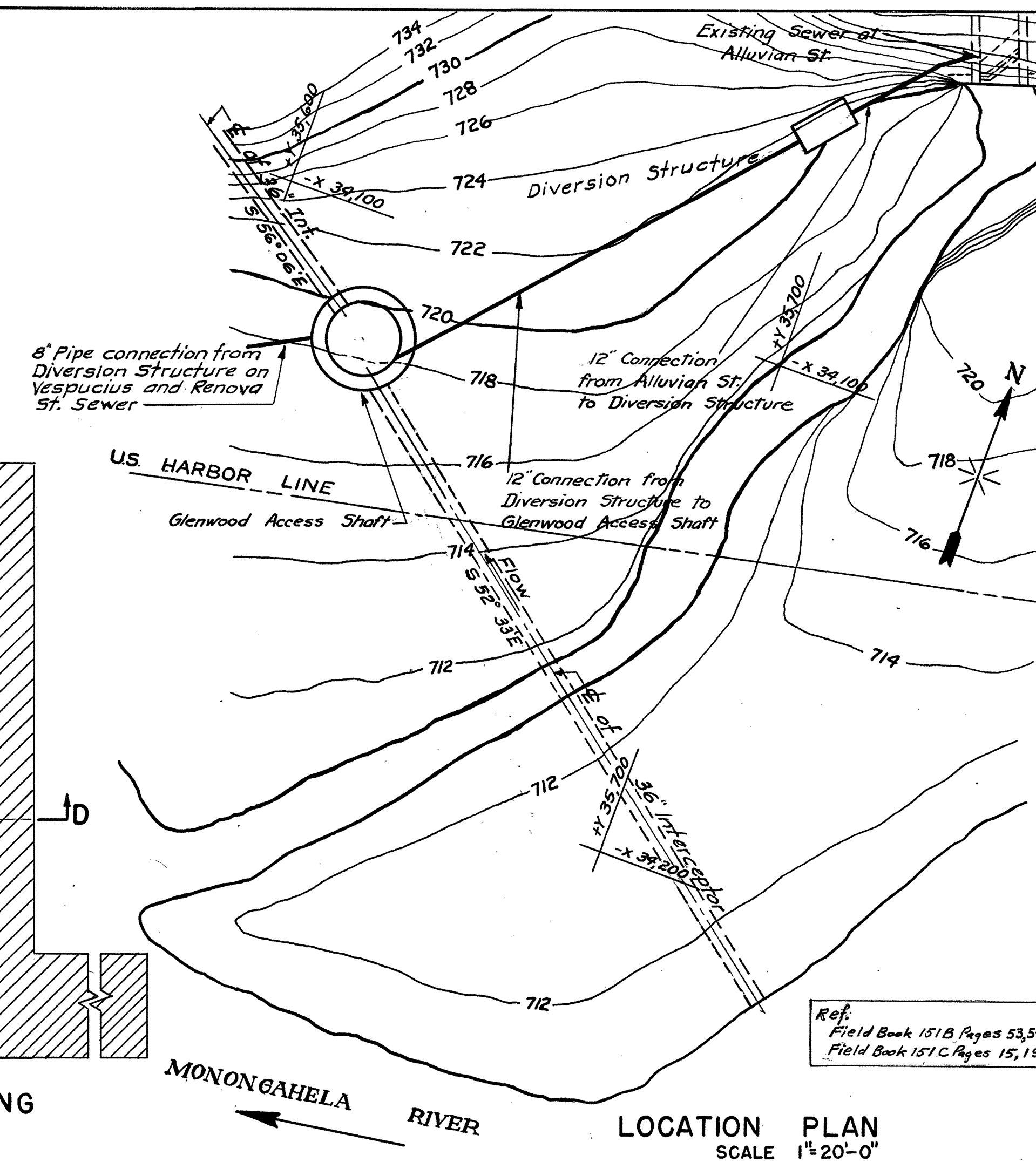
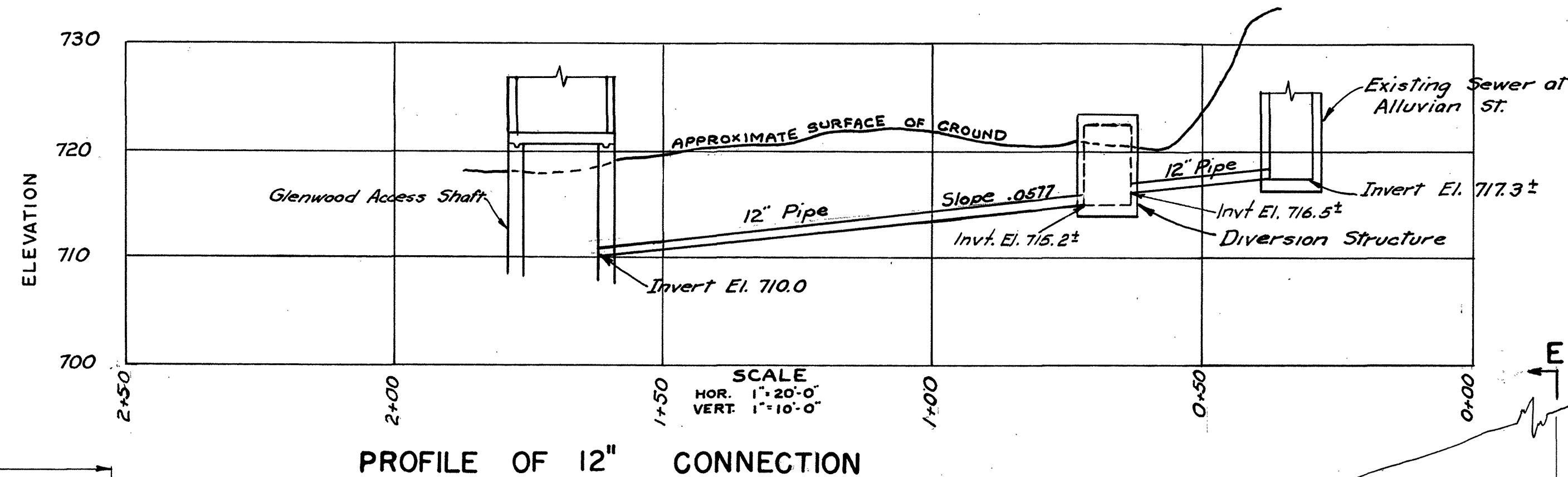


ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

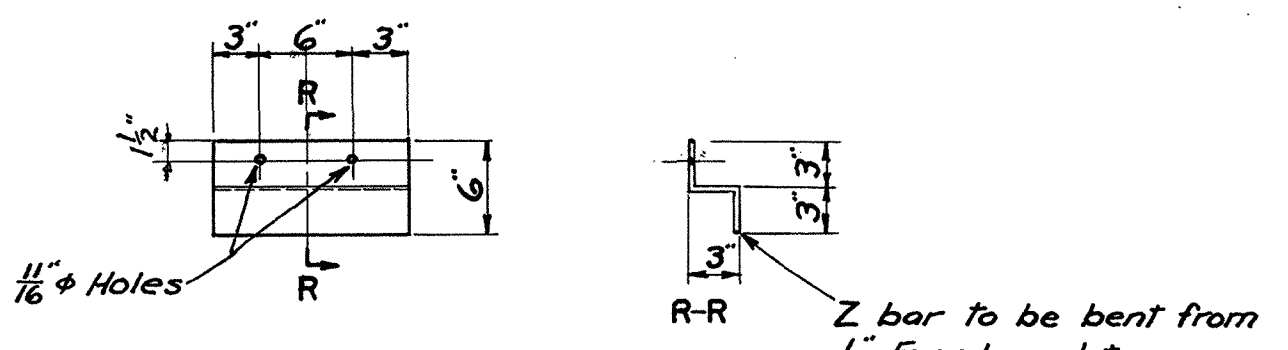
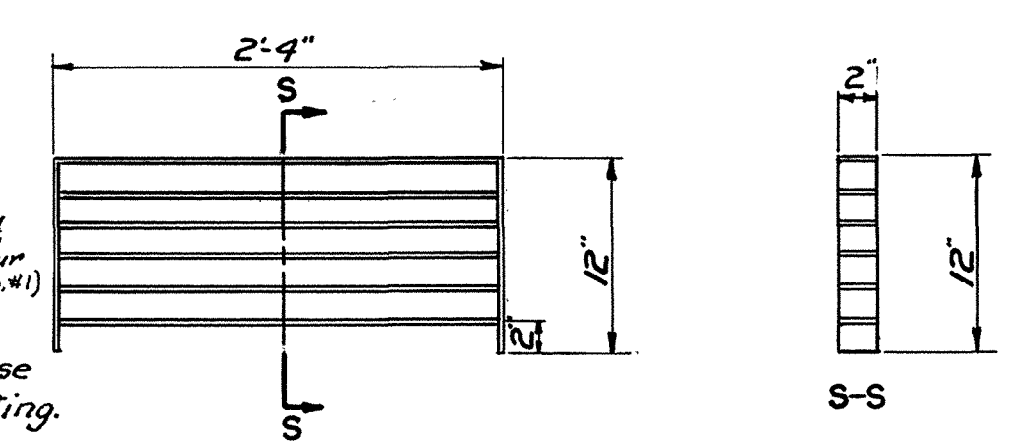
INTERCEPTING SEWERS M-40  
MONONGAHELA RIVER  
FOUR MILE RUN TO WEST HOMESTEAD  
DIVERSION STRUCTURE  
ON ALLUVIAN ST. SEWER  
REINFORCEMENT

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

1953



Notes:  
All bars in frame and cross bars to be of Everdur 2" wide x 3/8" thick. (E.W.O.W.)  
On entire Bar Screen use a heavy Bitumastic coating.



DRAWN BY L.I.L. & W.G.  
TRACED BY L.I.L.  
CHECKED BY W.J.G.  
EXAMINED BY G.T.G.

REV.	DESCRIPTION	DATE	APP.	APPROVED
1	Location Plan & Profile revised, - Glenwood Access Shaft relocated.	11-21-57	G.T.G.	Lawrence M. Gentlemen DEPUTY CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 1562-E
2	As Built - 1981	1-15-81	J.R.R.	J. J. Kalloun CHIEF ENGINEER REG. PROF. ENGR. PA. NO. 433
3				
4				

ALLEGHENY COUNTY SANITARY AUTHORITY  
PITTSBURGH, PENNSYLVANIA

INTERCEPTING SEWERS M-40

MONONGAHELA RIVER

FOUR MILE RUN TO WEST HOMESTEAD

DIVERSION STRUCTURE ON ALLUVIAN ST. SEWER

SCALE 1/2" = 1'-0"

1953