

*MWalaan@pgh2o.com
Direct Dial: 412.255.2289*

November 13, 2025

VIA ELECTRONIC FILING

Matt Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building, 2nd Floor
Harrisburg, PA 17120

Re: Public Utility Municipal Contract –Reimbursement Agreement between The City of Pittsburgh and The Pittsburgh Water and Sewer Authority d/b/a Pittsburgh Water related to the Utility Adjustment in connection with the Liberty Avenue HSIP Project

Dear Secretary Homsher:

Please be advised that the above-reference Public Utility Municipal Contract (dated November 8, 2025) (“Agreement”) between The Pittsburgh Water and Sewer Authority (“Pittsburgh Water”) and The City of Pittsburgh was filed with the Commission by Pittsburgh Water on November 13, 2025.

Should you have any questions regarding the enclosed Public Utility Municipal Contract, please contact me at 412-255-2289.

Very truly yours,

/s/ Monica Walaan
Monica Walaan, Esquire
PA Attorney ID. #318624

Enclosures

cc: Darryl Lawrence, Office of Consumer Advocate
NazAarah Sabree, Office of Small Business Advocate
Allison Kaster, Bureau of Investigation and Enforcement

Penn Liberty Plaza I | 1200 Penn Avenue | Pittsburgh, PA 15222

Phone: 412.255.2423 | **Fax:** 412.255.2475 | **Email:** info@pgh2o.com | **Visit:** www.pgh2o.com



**REIMBURSEMENT AGREEMENT
BETWEEN THE CITY OF PITTSBURGH AND THE PITTSBURGH WATER AND SEWER
AUTHORITY FOR UTILITY ADJUSTMENT IN CONNECTION WITH THE
LIBERTY AVENUE HSIP PROJECT**

THIS AGREEMENT, made and entered into as of

11/8/2025

by and between the

THE CITY OF PITTSBURGH, a Municipal Corporation existing under the laws of the Commonwealth of Pennsylvania (the “CITY”),

A
N
D

THE PITTSBURGH WATER AND SEWER AUTHORITY D/B/A PITTSBURGH WATER, a municipal authority organized and existing under the laws of the Commonwealth of Pennsylvania and having a principal place of business located at Penn Liberty Plaza 1, 1200 Penn Avenue, Pittsburgh PA 15222, (“PITTSBURGH WATER”).

WITNESSETH:

WHEREAS, the CITY is advancing the Liberty Avenue HSIP project, which will consist of traffic signal upgrades, installation of one new traffic signal and one new rectangular rapid flashing beacon, a road diet in the form of a reduction from four lanes to three lanes, installation of curb bump-outs and new ADA ramps, updated stormwater management, as well as milling and resurfacing, in the City’s Strip District, Polish Hill and Lower Lawrenceville neighborhoods, (“PROJECT”); and

WHEREAS, the CITY is about to construct the PROJECT; and

WHEREAS, the PITTSBURGH WATER owns and/or leases and operates a water and sewer system in City of Pittsburgh; and

WHEREAS, Pursuant to Resolution No. 296 of 2025, the Council of the CITY has authorized the Mayor and the Director of the Department of Mobility and Infrastructure, on behalf of the CITY, to enter into a Reimbursement Agreement with PITTSBURGH WATER for certain utility adjustment work in connection with the PROJECT; and

WHEREAS, this PROJECT is being made under the terms of an Agreement to be entered into between the CITY and Commonwealth of Pennsylvania, Department of Transportation, which provides, *inter alia*, that the Pennsylvania Department of Transportation (“PENNDOT”) is acting as an agent of the Federal Highway Administration in the design and construction of the PROJECT; and

WHEREAS, a portion of the construction cost is to be provided by the Federal Highway Administration and by the Commonwealth of Pennsylvania; and

WHEREAS, the PROJECT construction will require the adjustment, transfer and/or reconstruction of certain of the PITTSBURGH WATER’s infrastructure, as described in the Utility Relocation Clearance Report and PennDOT ECMS Special Provision documents, attached as Exhibit A (“Infrastructure”), located 100% in public right of way; and 0% of which are presently located outside the existing public right of way; and,

WHEREAS, any such Infrastructure transferred to or remaining at a location within the right of way of a Federally aided highway will be accommodated in accordance with the provisions of the current 23 Code of Federal Regulations, Part 645, Subpart B, Accommodation of Utilities; and,

WHEREAS, the CITY will include certain work within CITY’s construction contract, to accommodate the relocation or adjustment of the Infrastructure by the CITY’s contractor; and

WHEREAS, the CITY will award the construction to the lowest responsible bidder for the PROJECT, the total cost of which will include direct and indirect costs for work described in Paragraph 1 and Exhibits A and B; and

WHEREAS, CITY has agreed to pay costs for work to be performed by the CITY’s contractor, in order to accommodate the relocation or adjustment of Infrastructure by the CITY’s contractor, as more fully described hereunder, and PITTSBURGH WATER has agreed to provide reimbursement of actual expenses in an amount estimated to be One Hundred Forty Thousand Dollars and Zero Cents (\$140,000.00) necessary for the performance of work. Upon completion of the work contemplated by this Agreement, as itemized in Exhibit C, the CITY shall provide to PITTSBURGH WATER the final invoice for such reimbursement.

WHEREAS, this agreement outlines the respective duties and entitlements of both the CITY and the PITTSBURGH WATER.

NOW THEREFORE, in consideration of the mutual promises and intending to be legally bound, the parties agree as follows:

1. **SCOPE OF SERVICES:** The parties will adjust, transfer, relocate, and/or reconstruct certain Infrastructure within the public right-of-way, as further described and defined in the attached Exhibit A. All Incorporated Work (as defined in Exhibit A) will be performed by CITY, through contract. All work will be performed in accordance with PennDOT and PITTSBURGH WATER standards and specifications that are part of the CITY’s construction contract. Any proposed changes to the PROJECT’s Incorporated Work as defined in Exhibit A must be mutually agreed upon and follow applicable PennDOT project scope change procedures. The special provisions relating to PITTSBURGH WATER facilities are attached and made part of this agreement as Exhibit B. PWSA

will provide Medium Extension Gate (MEG) valve boxes to rebuild PWSA Water Box. 30 days minimum notice shall be provided to confirm availability of product.

2. **MAINTENANCE:** Upon CITY's completion of the installation of the Infrastructure in accordance with the standards and specifications as set forth in this Agreement, PITTSBURGH WATER, at its sole cost and expense, shall be responsible for the maintenance and operation of the Infrastructure.

3. **TERM OF AGREEMENT:** Subject to applicable provisions of the Pennsylvania Public Utility Code, the term of this Agreement will commence on the earliest date allowed under the applicable law and will continue until the work described herein is complete.

4. **TERMINATION OF AGREEMENT:**

- a. CITY may terminate this Agreement if PITTSBURGH WATER fails to perform any of the terms, conditions or provisions of this Agreement or due to cancellation of the PROJECT as set forth in Section 5 by delivery of notice to PITTSBURGH WATER. Such termination shall become effective upon the expiration of fifteen (15) calendar days following delivery of notice to PITTSBURGH WATER or such later date designated by the notice.
- b. PITTSBURGH WATER may terminate this Agreement upon CITY's breach of any of the terms of, or its obligations under, this Agreement if such breach continues without cure for a period of thirty (30) days after written notification from PITTSBURGH WATER to CITY of such breach.
- c. This Agreement may be terminated at any time by written mutual agreement between the parties.
- d. If the Agreement is terminated by PITTSBURGH WATER pursuant to this Section, the parties understand that it may be impractical and/or unsafe to immediately stop the Incorporated Work. In such instance the CITY may continue to perform the Incorporated Work until it has reached a point where it may reasonably and/or safely suspend the Incorporated Work. PITTSBURGH WATER shall reimburse CITY pursuant to this Agreement for all Incorporated Work completed at the time of suspension.

5. **CANCELLATION OF PROJECT:** If for any reason, the PROJECT referred to herein should be cancelled, abandoned, or revised in such a manner that the work described in Paragraph 1 of this Agreement should no longer be required, then PITTSBURGH WATER shall be responsible only for reimbursement of the work actually completed at the time of notification, per Section 4.a., by the CITY of said cancellation, abandonment, or revision.

6. **MODIFICATION OR AMENDMENT:** This Agreement contains all terms and conditions agreed upon by the parties hereto, and no other agreement, oral or otherwise, regarding the subject matter of this Agreement, will be deemed to exist or to bind any of the parties hereto. Also, this Agreement may not be changed, modified, discharged or extended except by written amendment, duly executed by the parties.

7. **ASSIGNMENT:** PITTSBURGH WATER may not assign, subcontract or otherwise delegate its duties under this Agreement except as permitted by this Agreement or as may be consented, in writing, by the CITY.

8. **NOTICES:** All notices required to be given pursuant to the terms and provisions of this Agreement shall be in writing, sent by certified mail, return receipt requested, prepaid, and shall be addressed as follows:

TO CITY: City of Pittsburgh Department of Mobility and Infrastructure
301 City-County Building
414 Grant Street
Pittsburgh, PA 15219
ATTENTION: Kim Lucas, Director

TO PITTSBURGH WATER: The Pittsburgh Water and Sewer Authority
Penn Liberty Plaza 1
1200 Penn Avenue
Pittsburgh, PA 15222
ATTENTION: William J. Pickering, Chief Executive Officer

Or such other address as either party shall subsequently advise the other. Notices shall be deemed delivered two (2) business days following deposit into the mail.

9. **SUCCESSORS AND ASSIGNS:** All covenants and obligations of the parties under this Agreement will bind their successors, whether or not expressly assumed by successors.

10. **GOVERNING LAW:** The validity, interpretation and performance of this Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Pennsylvania. The provisions of this Agreement shall be deemed severable and if any portion shall be held invalid, illegal or unenforceable for any reason, the remainder of this Agreement shall be effective and binding upon the parties.

11. **MONITORING AND EVALUATION:** The CITY shall provide an opportunity for the PITTSBURGH WATER or its authorized representative to monitor and evaluate the services provided. Upon request, CITY will endeavor in good faith, subject to applicable law, to provide the PITTSBURGH WATER with any additional information and data required by federal authorities, state authorities, or the PITTSBURGH WATER.

12. **PITTSBURGH WATER ESTIMATED COSTS:** Upon completion of the work set forth in this agreement, the CITY shall certify the actual and related indirect costs to the PWSA, in accordance with the current 23 Code of Federal Regulations, Part 645, Subpart A. The costs shall include the right of way costs, if any. The CITY will then invoice the PWSA for said costs and the PWSA shall pay to the CITY 100 percent of the actual costs, which is estimated to be One Hundred Forty Thousand Dollars and Zero Cents (\$140,000.00).

13. **CITY AUTHORIZING RESOLUTION:** This agreement is entered into by the CITY pursuant to Resolution No. 296 of 2025, approved May 19, 2025, effective May 21, 2025.

14. **PITTSBURGH HOME RULE CHARTER; LIABILITY OF CITY:** This agreement is subject to the provisions of the Pittsburgh Home Rule Charter, and the liability of CITY hereunder is limited to the sum of Zero Dollars (\$0.00).

15. PITTSBURGH WATER AUTHORIZATION: PITTSBURGH WATER's authorization is conditioned upon the approval of this Agreement by the Pennsylvania Public Utilities Commission ("PUC"), if legally required; PITTSBURGH WATER agrees that it will submit this Agreement for PUC review and/or approval, as the same may be legally required, and that PITTSBURGH WATER will take all good-faith actions needed to obtain such approval from the PUC as promptly as possible.

[THE REMAINDER OF THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK.]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement on the day and year first above written.

THE PITTSBURGH WATER AND SEWER AUTHORITY

By: William J. Pickering
Name: William J. Pickering
Title: Chief Executive Officer
Date: 10/21/2025

Edward Barca
Edward Barca, Director of Finance for PITTSBURGH WATER

Approved as to Form:

Megan Thiessen
Legal Counsel for PITTSBURGH WATER

CITY OF PITTSBURGH

DocuSigned by:
Ed Gainey
AA1F670B64C14EA...

Mayor

Signed by:
Jeff Skalican
15B79A1234B247B...

Director, Department of Mobility and Infrastructure

EXAMINED BY: Forrest Paul
44C9F3BD29F548B...
Assistant City Solicitor

APPROVED AS TO FORM: Jesse Cyrino
1EE36093229A40F...
City Solicitor

COUNTERSIGNED: Francesca Huston
F185D3537092479...
City Controller

AUTHORIZING
LEGISLATION(S)



City of Pittsburgh

510 City-County Building
414 Grant Street
Pittsburgh, PA 15219

Legislation Details (With Text)

File #: 2025-1798 **Version:** 1

Type: Resolution **Status:** Passed Finally

File created: 5/2/2025 **In control:** Committee on Intergovernmental and Educational Affairs

On agenda: 5/6/2025 **Final action:** 5/19/2025

Enactment date: 5/19/2025 **Enactment #:** 296

Effective date: 5/21/2025

Title: Resolution providing for a Reimbursement Agreement or Agreements with Pittsburgh Water for costs associated with the Liberty Avenue HSIP project where Pittsburgh Water would be responsible for paying 100% of the actual expenses involved in certain work to be described in the Agreement(s).

Sponsors:

Indexes: AGREEMENTS

Code sections:

Attachments: 1. 2025-1798 Cover Letter-Liberty Ave HSIP - Pittsburgh Water Letter - signed, 2. Summary 2025-1798

Date	Ver.	Action By	Action	Result
5/21/2025	1	Mayor	Signed by the Mayor	
5/19/2025	1	City Council	Passed Finally	Pass
5/14/2025	1	Standing Committee	Affirmatively Recommended	Pass
5/6/2025	1	City Council	Read and referred	

Resolution providing for a Reimbursement Agreement or Agreements with Pittsburgh Water for costs associated with the Liberty Avenue HSIP project where Pittsburgh Water would be responsible for paying 100% of the actual expenses involved in certain work to be described in the Agreement(s).

Be it resolved by the Council of the City of Pittsburgh as follows:

Section 1. The Mayor and the Director of the Department of Mobility and Infrastructure, on behalf of the City of Pittsburgh, are hereby authorized to enter into a Reimbursement Agreement or Agreements with Pittsburgh Water for costs associated with the Liberty Avenue HSIP project where Pittsburgh Water would be responsible for paying 100% of the actual expenses involved in certain work to be described in the Reimbursement Agreement(s).

Funding for reimbursable utility work will be deposited to:

JDE JOB NO.	JDE FUND	BUDGET YEAR	SOURCE
6090100525	40114	2025	Pittsburgh Water

Fiscal Impact Statement
Updated 1/29/2020 to satisfy City Code §219.07

<i>Department</i>	Mobility and Infrastructure
<i>Preparer</i>	Jeannine Opie
<i>Standing Committee Representative</i>	Kimberly Lucas
<i>Type of Legislation</i>	Contract Authorization

Description of Legislation

Legislation authorizing an agreement with Pittsburgh Water for costs associated with the Liberty Avenue HSIP project, where Pittsburgh Water would be 100% responsible for all expenses involved.

<i>Total Cost</i>	\$0		
<i>Frequency of Expenditure</i>	<input checked="" type="checkbox"/> One-Time	<input type="checkbox"/> Multi-Year	
<i>Funding Source</i>	<input type="checkbox"/> Operating	<input checked="" type="checkbox"/> Capital	<input type="checkbox"/> Grant <input type="checkbox"/> Trust Fund
<i>Is this item budgeted?</i>	<input checked="" type="checkbox"/> Yes		<input type="checkbox"/> No

JDE Account Information

JDE JOB NO.	JDE FUND	BUDGET YEAR	SOURCE
6090100525	40114	2025	Pittsburgh Water

If the resolution authorizes a professional services contract, complete this page:

Method of Procurement <i>Select one.</i>	<input type="checkbox"/> RFP	<input type="checkbox"/> Signed Waiver from OMB	<input type="checkbox"/> Amendment to Existing Contract <i>Do not fill out the rest of the form.</i>
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Name of Vendor and Award Justification

List the name of the awarded vendor and its qualifications.

Other Respondents

List the other respondents. If there were none, clearly state that.

Selection Criteria

Selection Committee Representation

Waiver Justification

If a waiver was granted, explain the justification.

EORC Synopsis

Date Presented at EORC: Insert date.	<input type="checkbox"/> Approved	<input type="checkbox"/> Not Approved
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*Per §219.07 of the City Code, you **must** include an electronic copy of the solicitation or your signed waiver with your submission to the Office of Management and Budget.*

Attachments

- *Please attach any additional documents and/or exhibits.*

ED GAINNEY
MAYOR



KIMBERLY LUCAS
DIRECTOR

CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY & INFRASTRUCTURE
CITY-COUNTY BUILDING

April 25, 2025

President and Members of City Council
City of Pittsburgh

**RE: Pittsburgh Water Cost Share
Agreement**

Dear Members of City Council:

Enclosed is a proposed Resolution providing for an Agreement or Agreements with Pittsburgh Water for costs associated with the Liberty Avenue HSIP project where Pittsburgh Water would be responsible for paying 100% of the actual expenses involved in certain work to be described in the Agreement(s).

Your favorable consideration of the attached proposed Resolution is hereby requested.

Sincerely,


Kimberly Lucas (Apr 25, 2025 14:59 EDT)

Kimberly Lucas
Director

KL/JS/jo

Liberty Ave HSIP - Pittsburgh Water Letter

Final Audit Report

2025-04-25

Created:	2025-04-25
By:	Jeannine Opie (jeannine.opie@pittsburghpa.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAAhZRxOQSfrkPnCajRXBq027C_WTGZvg4Z

"Liberty Ave HSIP - Pittsburgh Water Letter" History

-  Document created by Jeannine Opie (jeannine.opie@pittsburghpa.gov)
2025-04-25 - 5:51:04 PM GMT
-  Document emailed to Evan Gross (evan.gross@pittsburghpa.gov) for approval
2025-04-25 - 5:51:08 PM GMT
-  Email viewed by Evan Gross (evan.gross@pittsburghpa.gov)
2025-04-25 - 5:57:19 PM GMT
-  Document approved by Evan Gross (evan.gross@pittsburghpa.gov)
Approval Date: 2025-04-25 - 5:57:26 PM GMT - Time Source: server
-  Document emailed to Zachary Workman (zachary.workman@pittsburghpa.gov) for approval
2025-04-25 - 5:57:28 PM GMT
-  Email viewed by Zachary Workman (zachary.workman@pittsburghpa.gov)
2025-04-25 - 5:58:12 PM GMT
-  Document approved by Zachary Workman (zachary.workman@pittsburghpa.gov)
Approval Date: 2025-04-25 - 5:58:31 PM GMT - Time Source: server
-  Document emailed to Kimberly Lucas (kimberly.lucas@pittsburghpa.gov) for signature 2025-04-25 - 5:58:32 PM GMT
-  Email viewed by Kimberly Lucas (kimberly.lucas@pittsburghpa.gov)
2025-04-25 - 6:59:23 PM GMT
-  Document e-signed by Kimberly Lucas (kimberly.lucas@pittsburghpa.gov)
Signature Date: 2025-04-25 - 6:59:36 PM GMT - Time Source: server
-  Agreement completed.
2025-04-25 - 6:59:36 PM GMT

EXHIBIT A
Utility Clearance Report
And
Draft Anticipated Utility Impacts

D-4181-UC (6-18)

**UTILITY RELOCATION
CLEARANCE REPORT
INSTRUCTIONS**

- State Route – Identify the state route for the proposed facilities.
- Station to Station or Segment & Offset to Segment & Offset – Identify the location of the proposed facilities.
- RT/LT – Identify if the proposed facilities are right or left of the highway centerline.
- Brief Description of the Adjustment – Identify the type of work required for the relocation/adjustment (i.e., install new pole, relocate gas line, etc.).
- Type of Relocation - Each Location – Identify the type of relocation for each location. See the definitions for the different types of relocations on the form.
- Describe Conditional Restrictions or Time Requirements for Coordinated Work – Identify any conditional restrictions or time requirements for the utility work, including sequencing of utility work. See the definitions for the different types of relocations on the form.
- Calendar Days Required or Date of Completion – Identify how many calendar days are required to complete the work for each location. For PRIOR work, give the anticipated or actual completion date.
 - If applicable, the utilities should also include time to order material, the sequencing of operations between utilities and scheduling crews and outages.
- Sign and Date the form.
- If needed, attach additional sheets to list additional information.

D-4181-UC (6-18)



UTILITY RELOCATION CLEARANCE REPORT

COUNTY Allegheny County
 CITY, BORO, TWP City of Pittsburgh
 ROUTE & SECTION Liberty Avenue HSIP
 FEDERAL PROJ. NO _____

Appendix A

Utility Pittsburgh Water & Sewer Authority
 Date 08/29/2025
 Prepared by Zachary Rinker
 Phone 724-516-9636
 Construction Contact Zachary Rinker
 Phone 724-516-9636

TYPE OF RELOCATION WORK (REF: DESIGN MANUAL PART 5)

1. **PRIOR:** Anticipated completion of work before the highway contractor's Notice to Proceed is issued. Use actual or anticipated completion date.
2. **RESTRICTIVE:** To be completed by the UTILITY before highway contractor can operate without restriction. Number of calendar days required AFTER THE DATE OF NOTICE TO PROCEED AND AFTER CONTRACTOR NOTIFIES UTILITIES.
3. **CONCURRENT:** Simultaneous with, but not restricting, the highway contractor's operation. Number of calendar days required.
4. **COORDINATED:** Phasing with a specific construction operations and/or phasing with the operations of other utilities. Number of calendar days required AFTER COMPLETION OF SPECIFIC CONSTRUCTION OPERATIONS (e.g.: clearing & grubbing, rough grading, pipe hangers).
5. **NOT AFFECTED:** Identifies UTILITY with facilities in the construction area not anticipated to be affected. Specific information may be provided by the UTILITY.
6. **INCORPORATED:** Utility relocation work to be included into the prime highway construction contract to be completed by the highway contractor.

CONDITIONAL RESTRICTIONS AND TIME REQUIREMENTS: Identify conditions affecting the utility's ability to perform work, i.e.: certain times of the day, week or year that a facility cannot shutdown, acquisition of R/W by the State, demolition of buildings, relocation of other utilities, etc. Show number of calendar days.

LIST EACH AREA OF INVOLVEMENT BELOW

ROUTE	STATION TO STATION OR SEG. & OFFSET TO SEG. & OFFSET	RT./LT.	BRIEF DESCRIPTION OF ADJUSTMENT	TYPE OF RELOCATION EACH AREA (SEE ABOVE)	DESCRIBE CONDITIONAL RESTRICTIONS OR TIME REQUIREMENTS SPECIFY CONTRACTOR'S OPERATION FOR COORDINATED WORK. SEE NOTES ABOVE	CALENDAR DAYS REQ'D OR DATE OF COMPLETION
Liberty <input type="checkbox"/>	103+00.00 TO 203+00.00	RT/LT	(U/G) Underground Facilities To Remain <input type="checkbox"/>	5 <input type="checkbox"/>		
Liberty <input type="checkbox"/>	103+00.00 TO 203+00.00	RT/LT	(U/G) Grade Adjustment of Fifty-One (51) Existing Valve <input type="checkbox"/>	6 <input type="checkbox"/>		
			(U/G) Grade Adjustment of Eighteen (18) Existing Facility Hole			
Liberty <input type="checkbox"/>	127+09.00 <input type="checkbox"/>	LT <input type="checkbox"/>	(U/G) Rebuild PWSA Water Box <input type="checkbox"/>	6 <input type="checkbox"/>		
Liberty <input type="checkbox"/>	160+96.00 <input type="checkbox"/>	LT <input type="checkbox"/>	(U/G) Fire Hydrant Relocation <input type="checkbox"/>	6 <input type="checkbox"/>		
Liberty <input type="checkbox"/>	176+53.00 <input type="checkbox"/>	LT <input type="checkbox"/>	(U/G) Water Line Crossing <input type="checkbox"/>	5 <input type="checkbox"/>	Protect-in-Place with Shoring <input type="checkbox"/>	
Liberty <input type="checkbox"/>	181+49.00 <input type="checkbox"/>	LT <input type="checkbox"/>	(U/G) Fire Hydrant Relocation <input type="checkbox"/>	6 <input type="checkbox"/>		
Liberty <input type="checkbox"/>	196+77.00 <input type="checkbox"/>	RT <input type="checkbox"/>	(U/G) Rebuild PWSA Water Box <input type="checkbox"/>	6 <input type="checkbox"/>		

The proposed adjustments described above are the necessary relocation adjustments to be undertaken by the above named utility to accommodate the construction of the above listed highway project. Contingent upon the approval of a necessary occupancy permit and/or execution of a reimbursement agreement and upon notice to proceed by the Department of Transportation, the above named utility agrees to proceed with these adjustments.

BY Zach Rinker Digitally signed by Zach Rinker
DN: cn=Zach Rinker, ou=Engineering
Date: 2025.08.22 07:28:48 -0400
 (Signature)

 TITLE

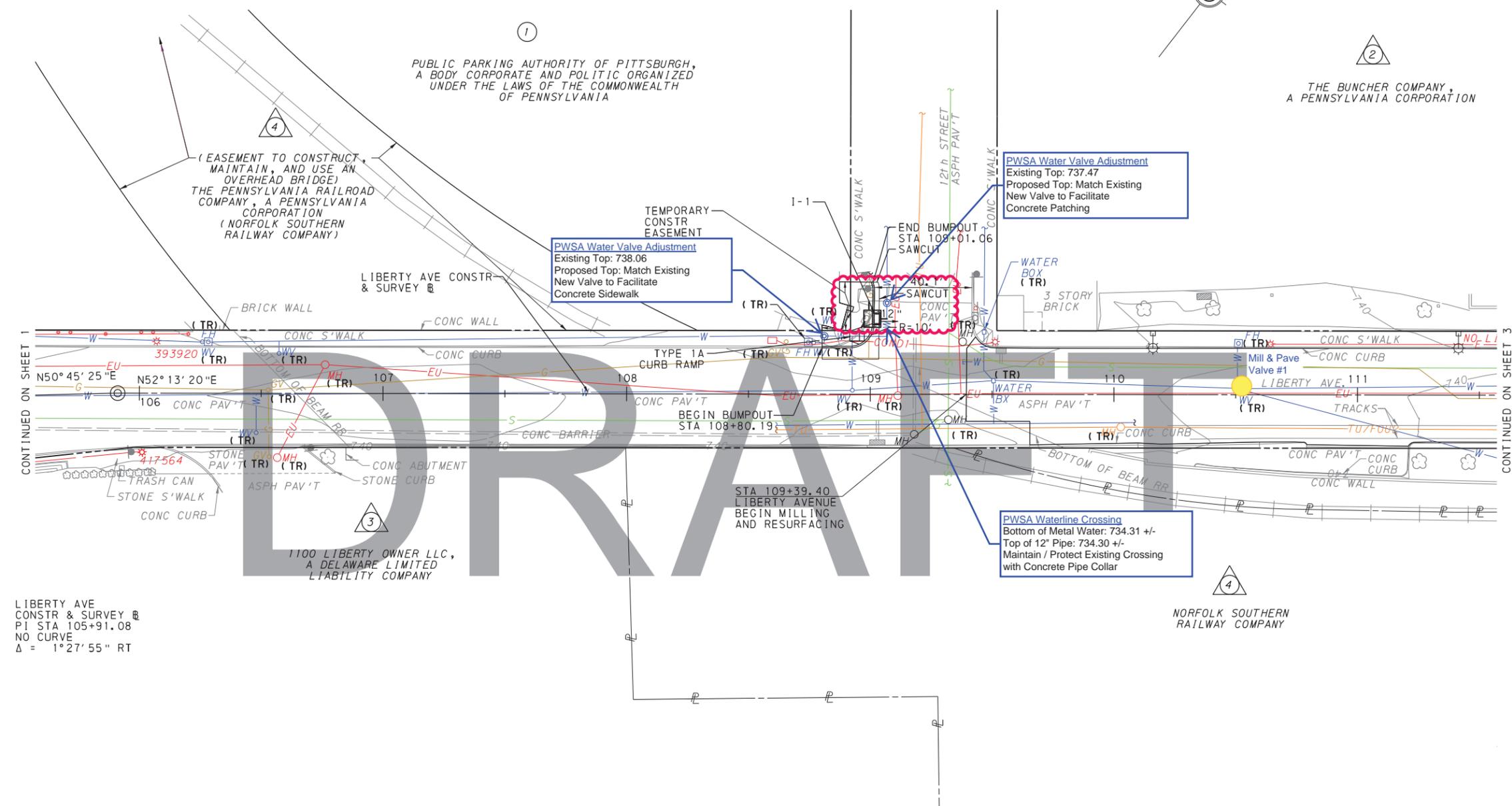
Publication 16 (DM-5)
 Figure A-1100
 Page 2 of 3
 (06/18)

8/27/2025

PLOTTED:

OPERATOR: USM0904599
FILE NAME: p:\wsp-us-pw-bentley.com\wsp-us-pw-02\Documents\PA Transportation\Other\City of Pittsburgh\22008-Liberty Avenue HSIP\Utility Plans\Utility Plans\Utility Avenue_R0p1_02.dgn

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	2 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



LIBERTY AVE
CONSTR & SURVEY
PI STA 105+91.08
NO CURVE
 $\Delta = 1^{\circ}27'55''$ RT

LEGEND

- (TR) - TO REMAIN
- ☼ - HIGHWAY LIGHTING LUMINAIRE
- ▨ - PIPE TRENCH AND PAVEMENT REPLACEMENT
- - GRADE ADJUST VALVE / MANHOLE
- / — - UTILITY INVESTIGATION LIMITS



ANTICIPATED UTILITY IMPACTS
FOR INFORMATION ONLY

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

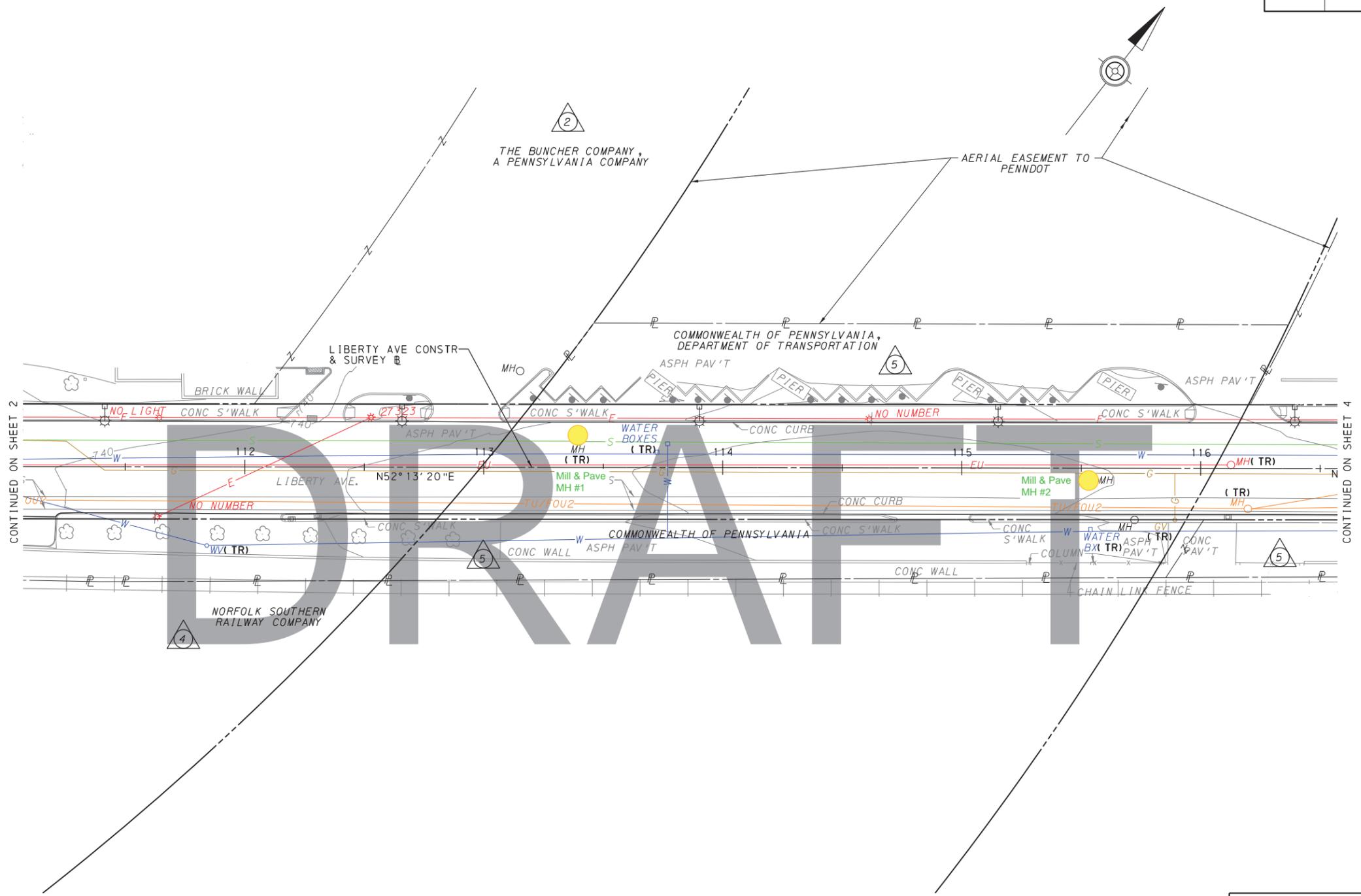
**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
DATE: 8/27/2025 CASE NO. _____

8/27/2025 PLOTTED: H:\P\HWY\Utility Plans\U.L Liberty Avenue_R0p1_03.dgn

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	3 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- (TR) - TO REMAIN

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

SCALE



**ANTICIPATED UTILITY IMPACTS
 FOR INFORMATION ONLY**

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

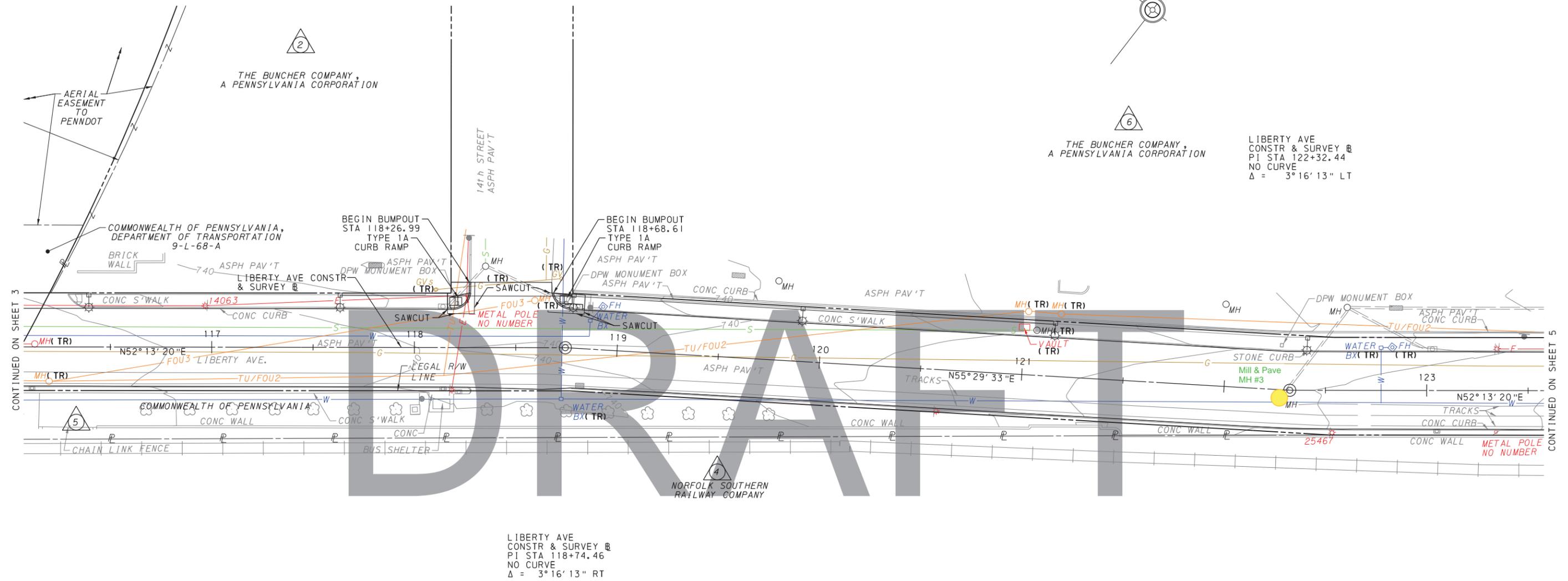
**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

OPERATOR: USW0094599
 FILE NAME: pwa\wsp-us-pw-bentley.com\wsp-us-pw-02\Documents\PA Transportation\Other\City of Pittsburgh\22008-Liberty Avenue HSIP\Utility Plans\Utility Plans\04.dgn
 PLOTTED: 8/27/2025

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	4 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



LIBERTY AVE
 CONSTR & SURVEY
 PI STA 118+74.46
 NO CURVE
 $\Delta = 3^{\circ}16'13''$ RT

LIBERTY AVE
 CONSTR & SURVEY
 PI STA 122+32.44
 NO CURVE
 $\Delta = 3^{\circ}16'13''$ LT

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- (TR) - TO REMAIN

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

SCALE



ANTICIPATED UTILITY IMPACTS
 FOR INFORMATION ONLY

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

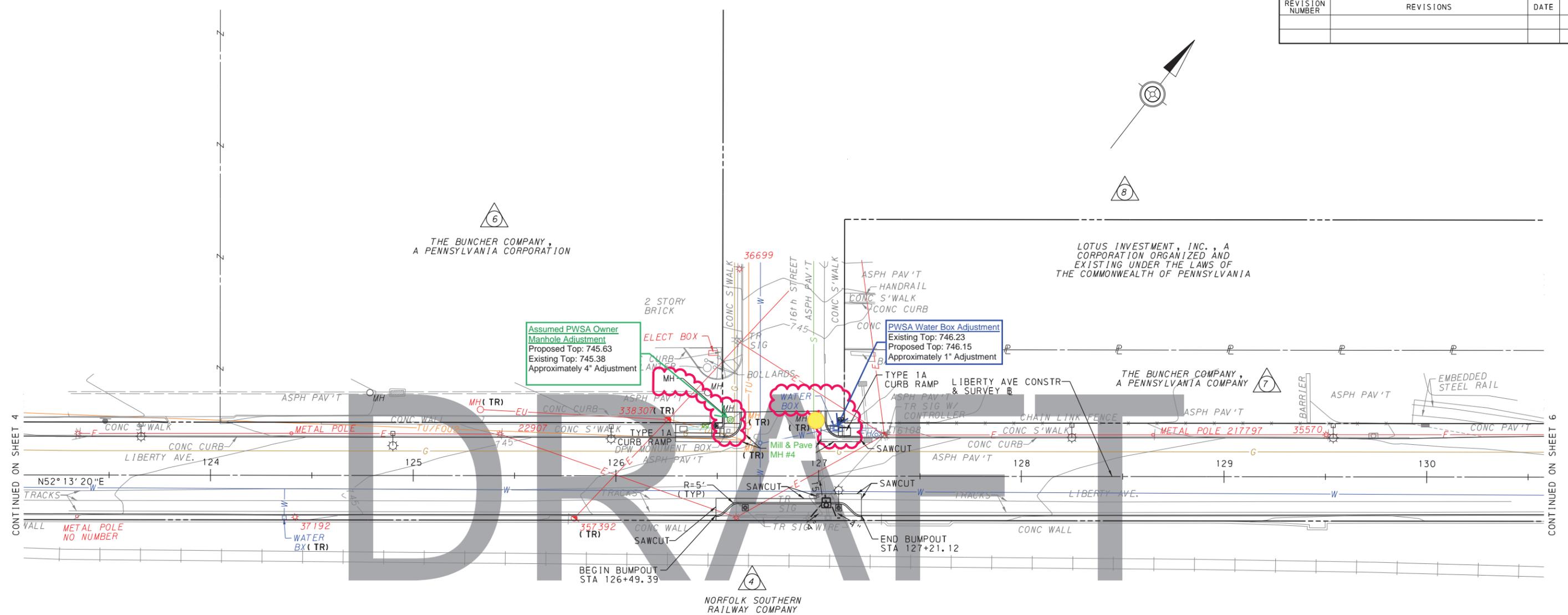
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 DATE: 8/27/2025 CASE NO. _____

8/27/2025

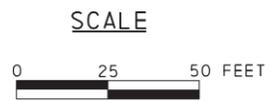
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PA Transport\ion\Other\City of Pittsburgh\22008-Liberty Avenue HSIP\Utility Plans\Utility Plans\Utility Avenue_RDP_L_05.dgn

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	5 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



- LEGEND**
- ⊙ - HIGHWAY LIGHTING LUMINAIRE
 - - POLE
 - - POLE / PEDESTAL
 - - JUNCTION BOX
 - ⊠ - CONTROLLER ASSEMBLY
 - (TR) - TO REMAIN
 - - GRADE ADJUST WATER / JUNCTION BOX
 - ⊙ - GRADE ADJUST VALVE / MANHOLE



**ANTICIPATED UTILITY IMPACTS
FOR INFORMATION ONLY**

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

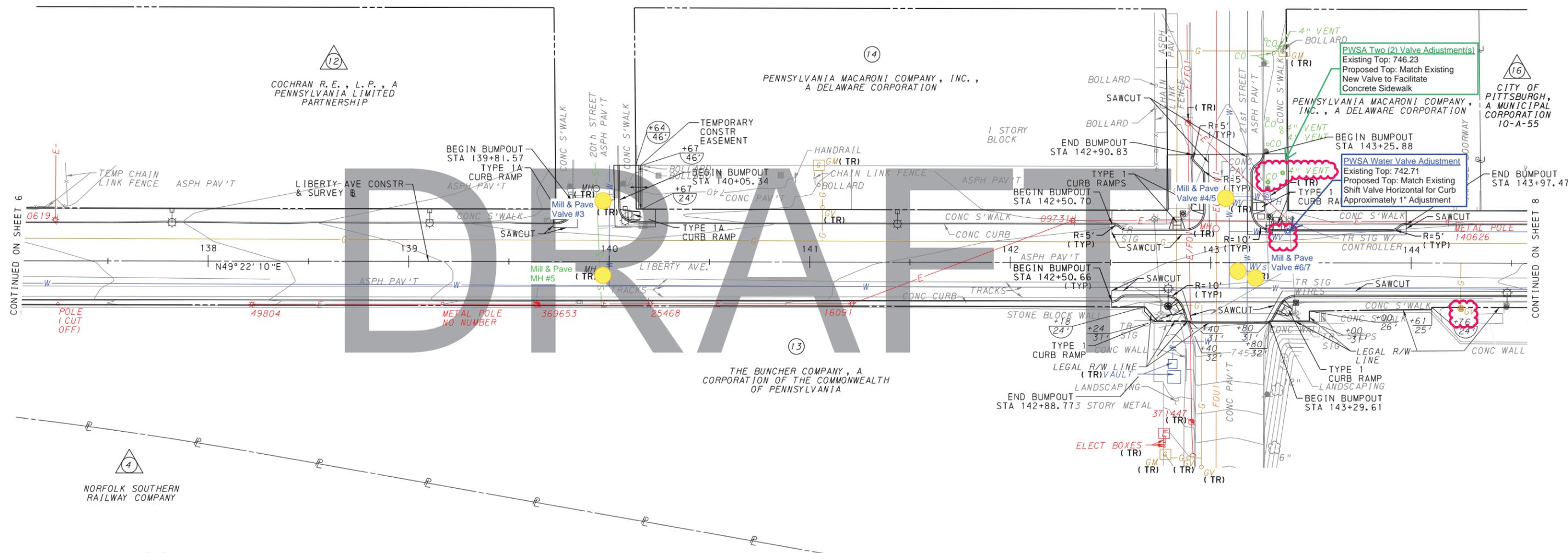
D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

CONTINUED ON SHEET 4

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	7 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 6

CONTINUED ON SHEET 8

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- POLE
- JUNCTION BOX
- CONTROLLER ASSEMBLY
- (TR) - TO REMAIN
- GRADE ADJUST VALVE / MANHOLE
- GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

SCALE



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 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

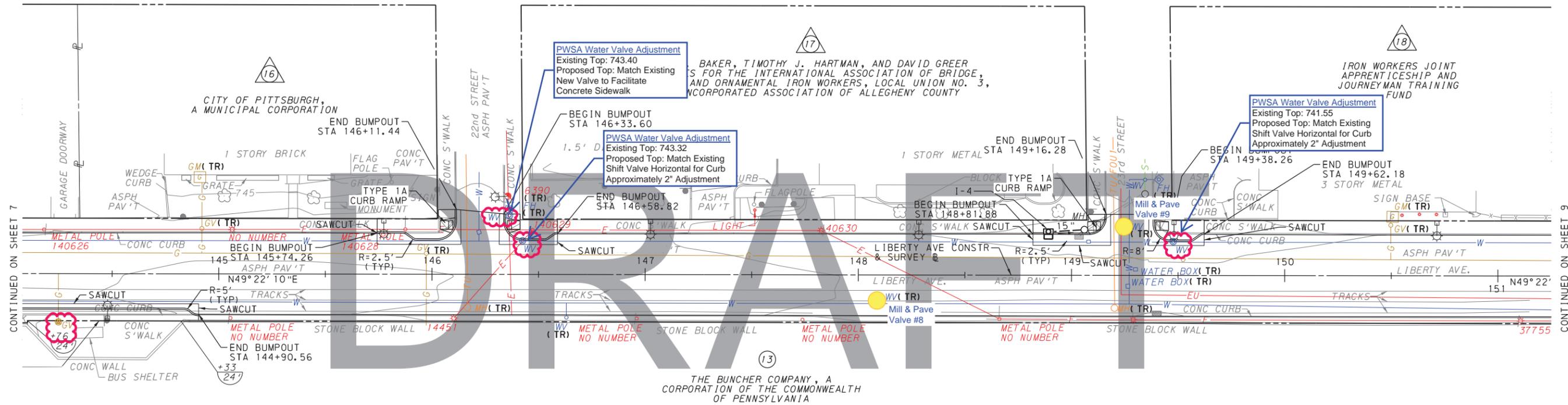
CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	8 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 7

CONTINUED ON SHEET 9

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- GRADE ADJUST VALVE / MANHOLE
- GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

SCALE



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CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____

DATE: 8/27/2025 CASE NO. _____

8/27/2025

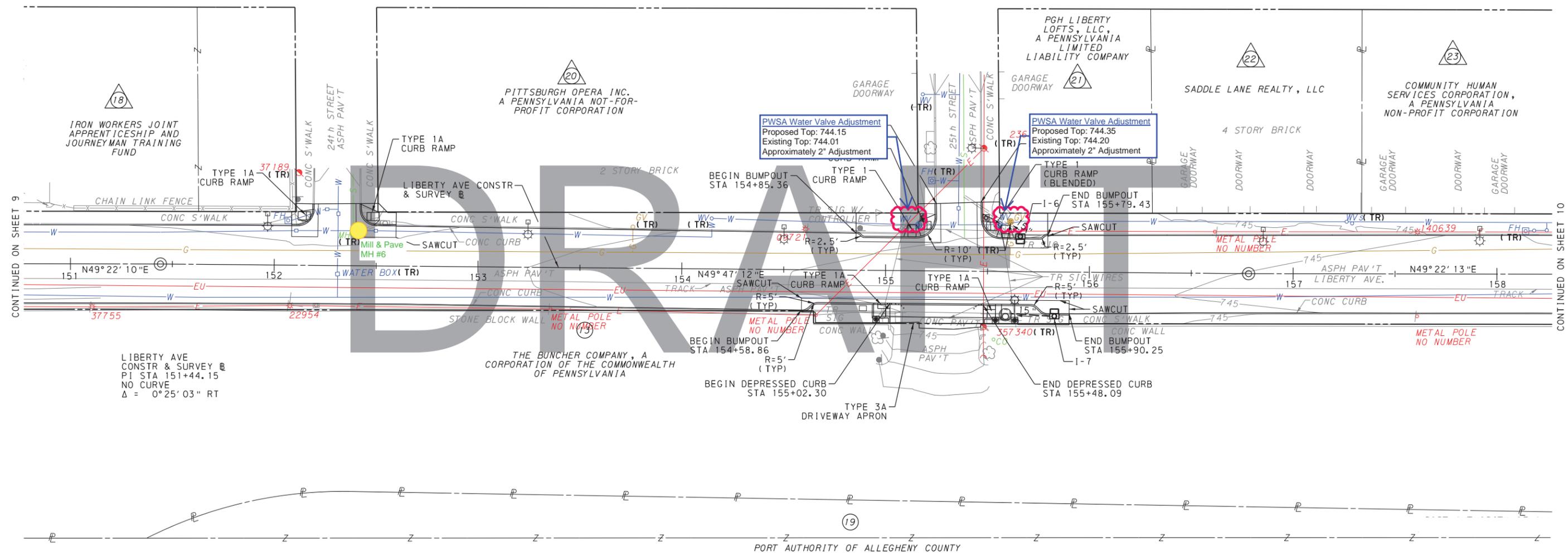
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OPERATOR: USM0904599
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	9 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



LIBERTY AVE
 CONSTR & SURVEY #
 PI STA 156+78.15
 NO CURVE
 $\Delta = 0^{\circ}24'59''$ LT

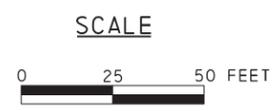


CONTINUED ON SHEET 9

CONTINUED ON SHEET 10

LIBERTY AVE
 CONSTR & SURVEY #
 PI STA 151+44.15
 NO CURVE
 $\Delta = 0^{\circ}25'03''$ RT

- LEGEND**
- HIGHWAY LIGHTING LUMINAIRE
 - POLE
 - JUNCTION BOX
 - CONTROLLER ASSEMBLY
 - FLEXIBLE DELINEATOR POST, SURFACE MOUNT, WHITE POST WITH WHITE SHEETING
 - GRADE ADJUST VALVE / MANHOLE
 - GRADE ADJUST VALVE / MANHOLE (BY OTHERS)



**ANTICIPATED UTILITY IMPACTS
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 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

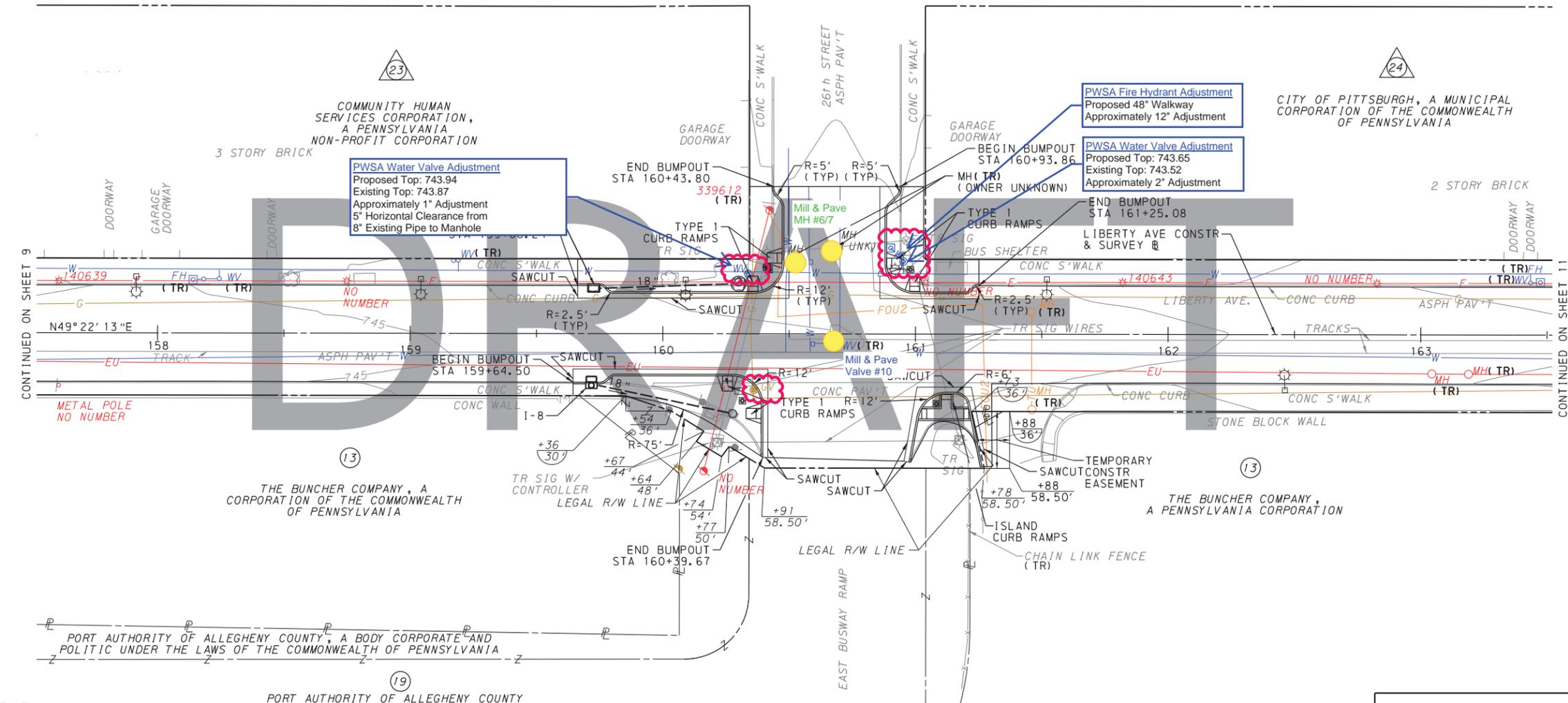
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 DATE: 8/27/2025 CASE NO. _____

8/27/2025

PLOTTED:

OPERATOR: USM0094599
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
11-0	ALLEGHENY	LIBERTY	N/A	10 OF 16	
CITY OF PITTSBURGH					
REVISION NUMBER	REVISIONS			DATE	BY



LEGEND

- ⊙ - HIGHWAY LIGHTING LUMINAIRE
- - POLE
- - JUNCTION BOX
- ⊠ - CONTROLLER ASSEMBLY
- (TR) - TO REMAIN
- - GRADE ADJUST VALVE / MANHOLE
- - GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

SCALE



ANTICIPATED UTILITY IMPACTS
 FOR INFORMATION ONLY

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

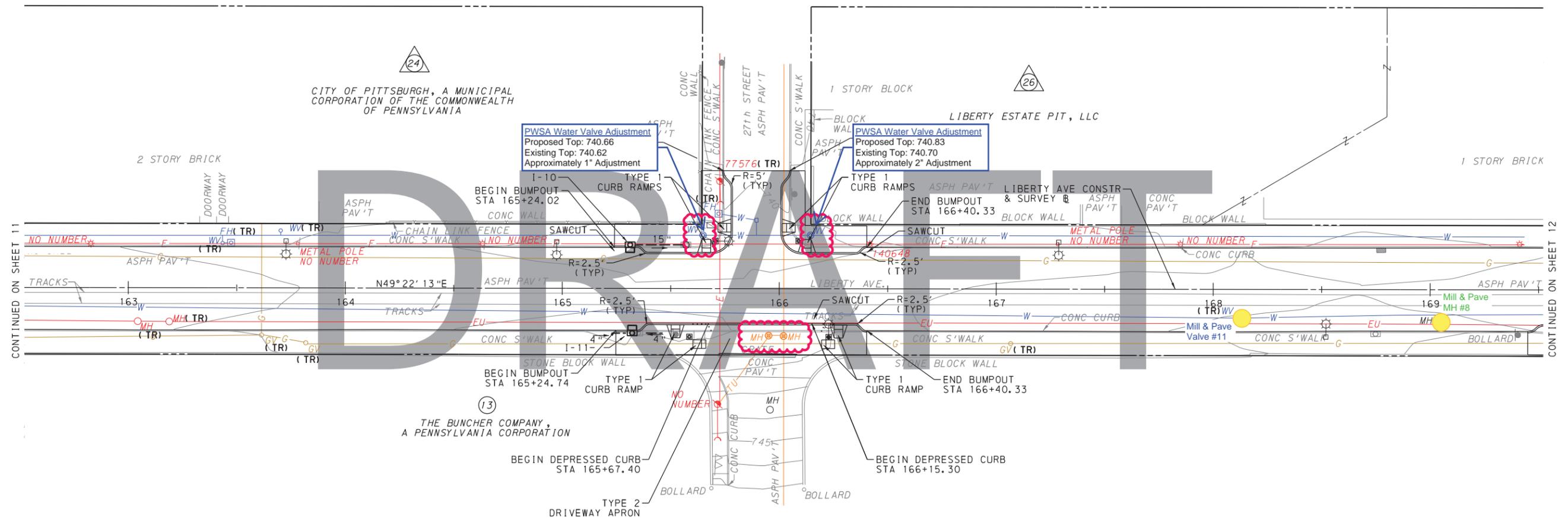
D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

CONTINUED ON SHEET 9

CONTINUED ON SHEET 11

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	11 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS			DATE



CONTINUED ON SHEET 11

CONTINUED ON SHEET 12

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- POLE
- JUNCTION BOX
- CONTROLLER ASSEMBLY
- FLEXIBLE DELINEATOR POST, SURFACE MOUNT, WHITE POST WITH WHITE SHEETING
- GRADE ADJUST VALVE / MANHOLE
- GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

SCALE



ANTICIPATED UTILITY IMPACTS FOR INFORMATION ONLY

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

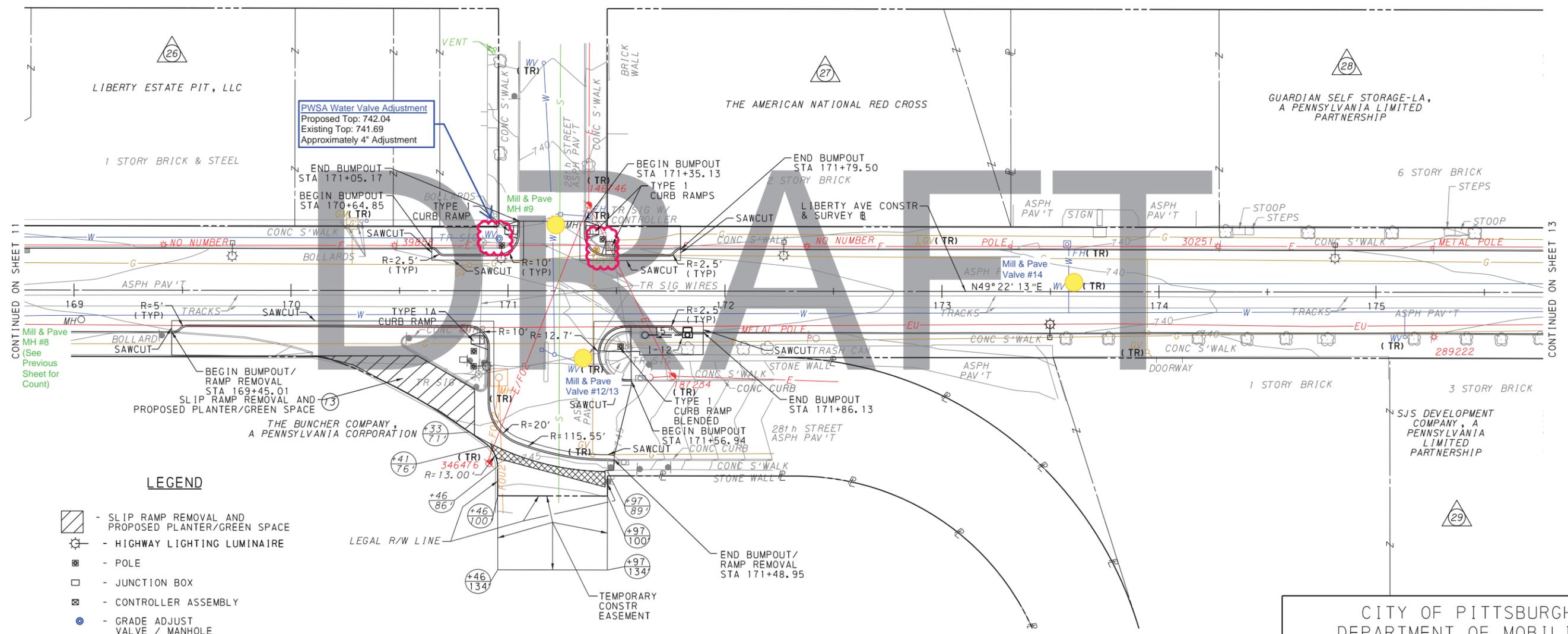
**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

OPERATOR: USM0094599
 FILE NAME: pwa\wsp-us-pw-bentley.com\wsp-us-pw-02\Documents\PA Transportation\Other\City of Pittsburgh\22008-Liberty Avenue HSIP\Utility Plans\Utility Avenue_R0p1_12.dgn
 PLOTTED: 8/27/2025

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	12 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



LEGEND

- SLIP RAMP REMOVAL AND PROPOSED PLANTER/GREEN SPACE
- HIGHWAY LIGHTING LUMINAIRE
- POLE
- JUNCTION BOX
- CONTROLLER ASSEMBLY
- GRADE ADJUST VALVE / MANHOLE
- GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

SCALE



ANTICIPATED UTILITY IMPACTS FOR INFORMATION ONLY

CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
 GRANT STREET TO
 HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

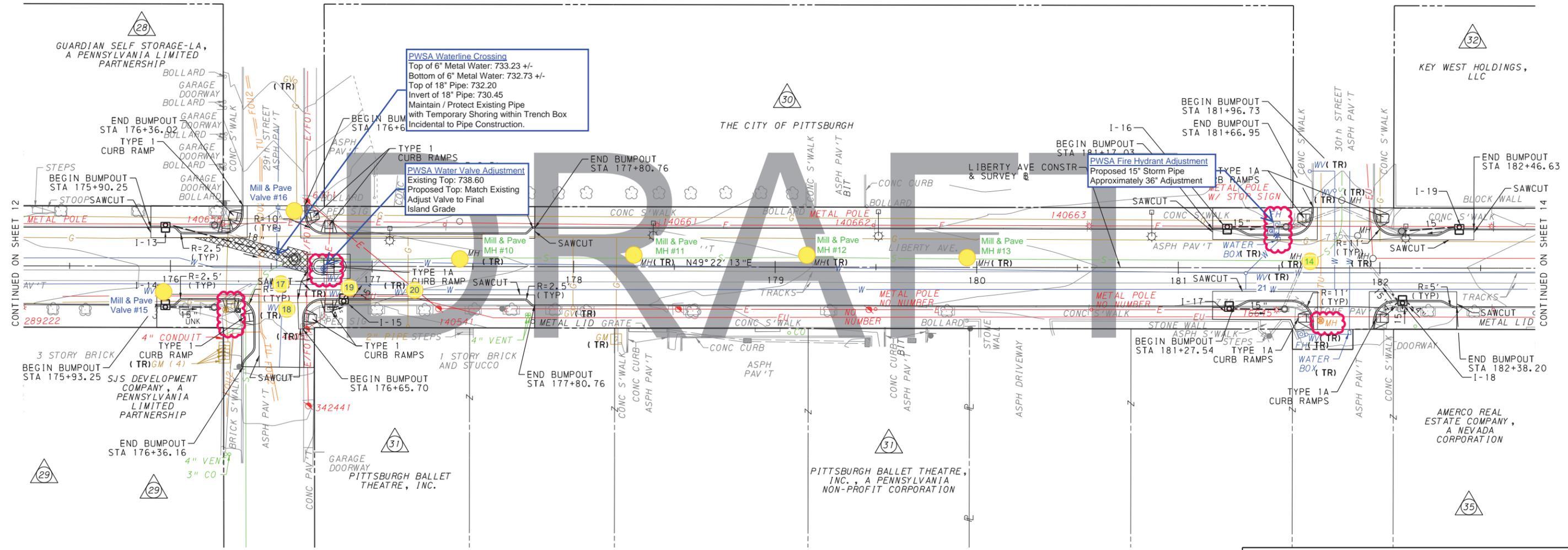
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 DATE: 8/27/2025 CASE NO. _____

CONTINUED ON SHEET 11

CONTINUED ON SHEET 13

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	13 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 12

CONTINUED ON SHEET 14

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- PIPE TRENCH AND PAVEMENT REPLACEMENT
- (TR) - TO REMAIN
- GRADE ADJUST VALVE / MANHOLE
- GRADE ADJUST VALVE / MANHOLE (BY OTHERS)

SCALE



ANTICIPATED UTILITY IMPACTS
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PA ONE CALL SYSTEM INC PHONE NO. 1-800-242-1776
 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

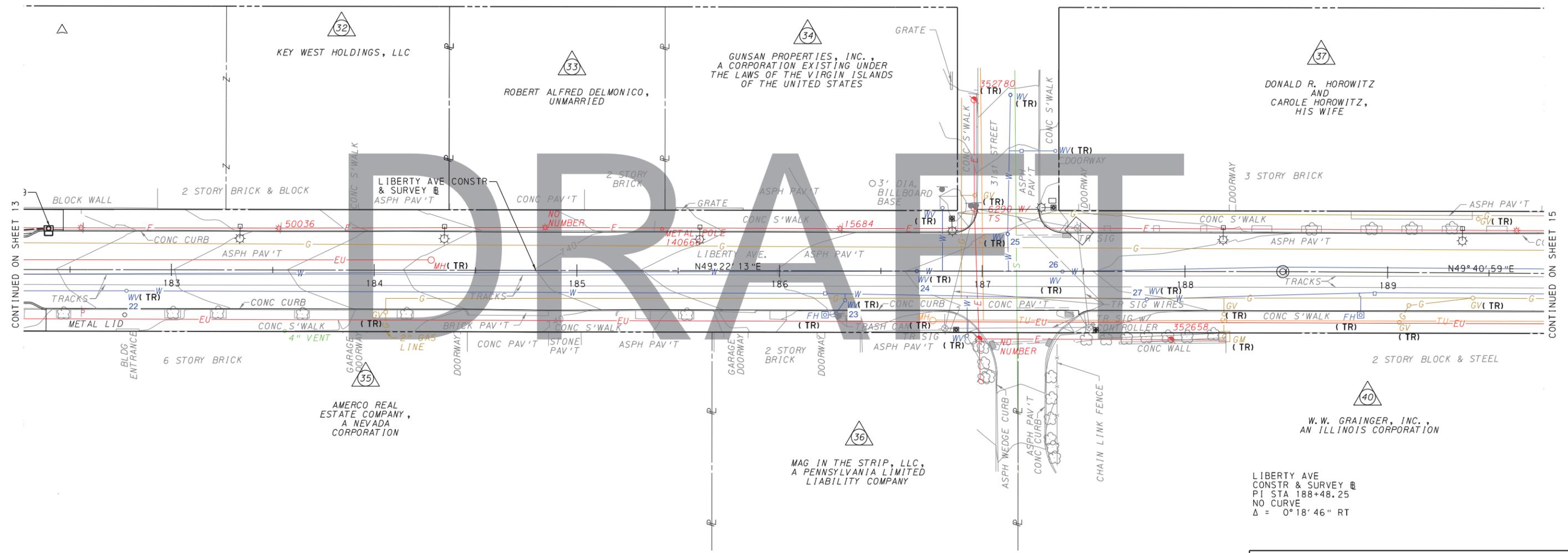
**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

OPERATOR: USM0904599
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 PLOTTED: 8/27/2025

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	14 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 13

CONTINUED ON SHEET 15

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- POLE
- JUNCTION BOX
- CONTROLLER ASSEMBLY
- (TR) - TO REMAIN

SCALE



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 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

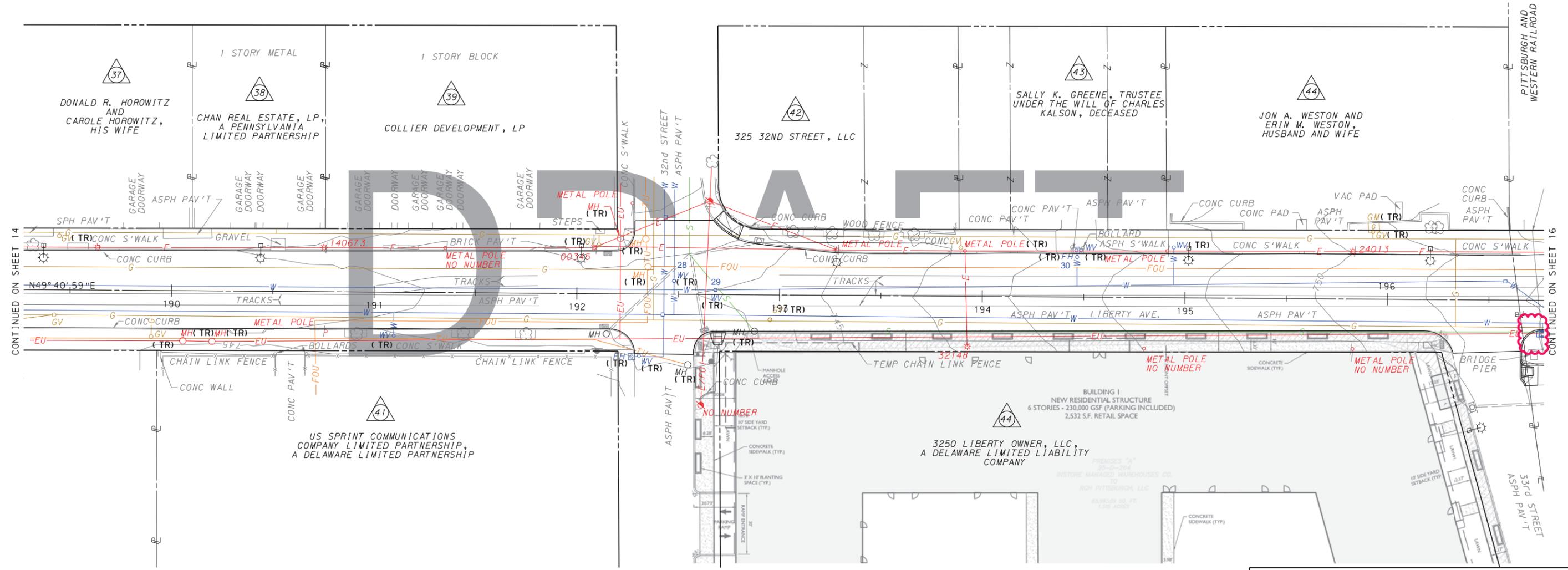
D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____

DATE: 8/27/2025 CASE NO. _____

OPERATOR: USM0094599
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 PLOTTED: 8/27/2025

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	15 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 14

CONTINUED ON SHEET 16

LEGEND

- HIGHWAY LIGHTING LUMINAIRE
- TO REMAIN
- GRADE ADJUST WATER / JUNCTION BOX

SCALE



**ANTICIPATED UTILITY IMPACTS
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 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
 SERIAL NO. 20252322134 - CITY OF PITTSBURGH

CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____

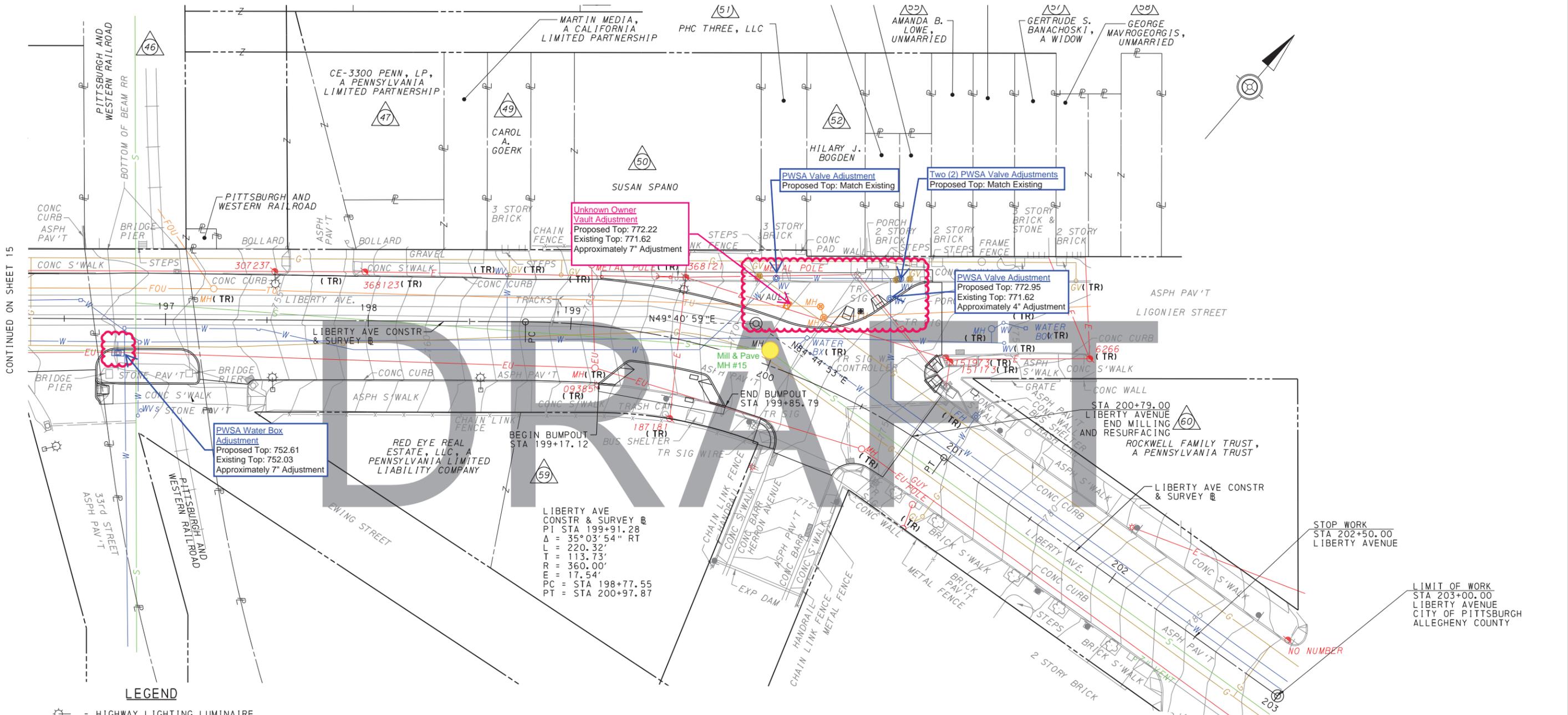
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8/27/2025

PLOTTED:

OPERATOR: USM0094599
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	LIBERTY	N/A	16 OF 16
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



CONTINUED ON SHEET 15

- LEGEND**
- HIGHWAY LIGHTING LUMINAIRE
 - CONTROLLER ASSEMBLY
 - (TR) - TO REMAIN
 - GRADE ADJUST WATER / JUNCTION BOX
 - GRADE ADJUST VALVE / MANHOLE
 - GRADE ADJUST VALVE / MANHOLE (BY OTHERS)
 - GRADE ADJUST VAULT (UNKNOWN OWNER)

SCALE

0 25 50 FEET

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 SERIAL NO. 20202690737/8 - CITY OF PITTSBURGH
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CITY OF PITTSBURGH
 DEPARTMENT OF MOBILITY
 AND INFRASTRUCTURE

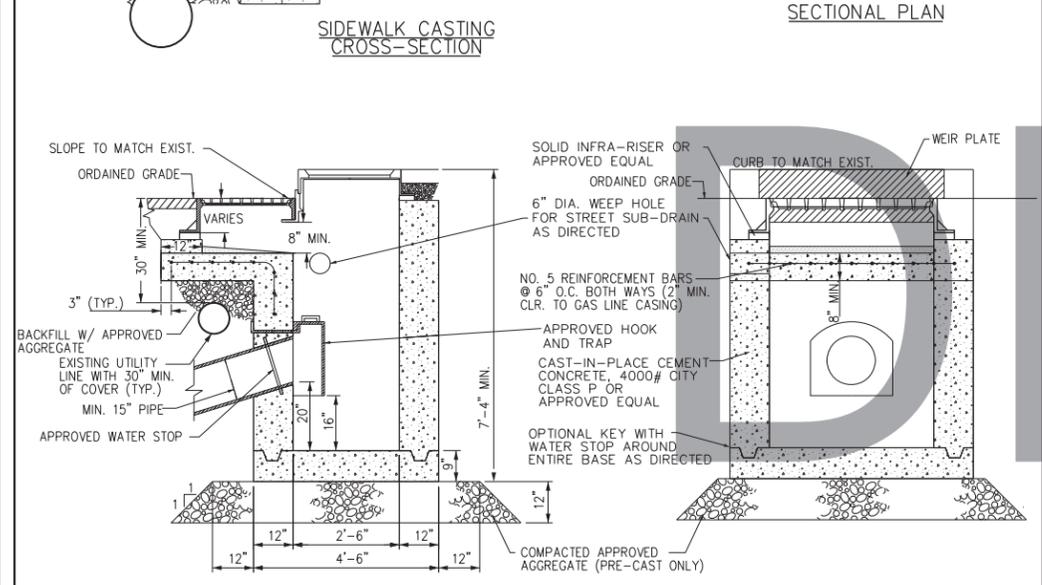
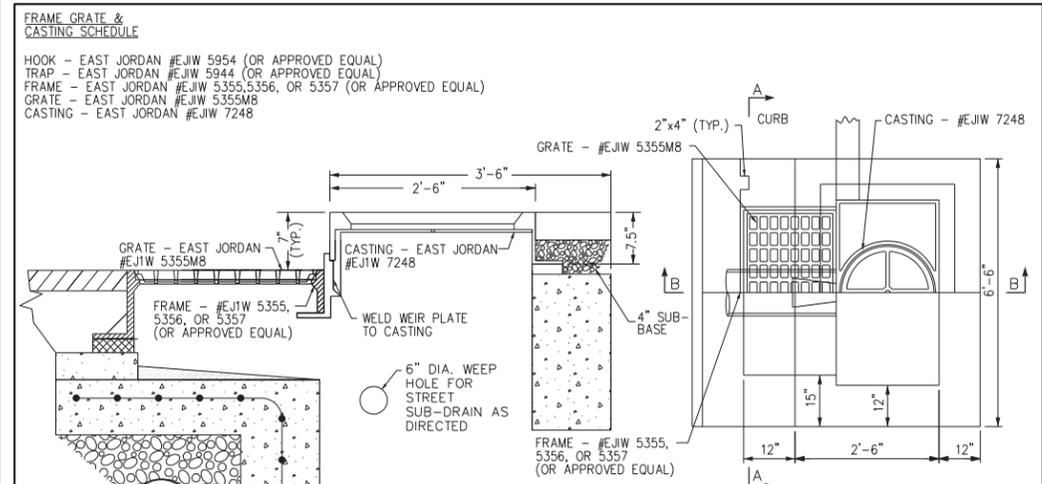
LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE

D.O.M.I. PROJECT NO.: 17501

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 8/27/2025 CASE NO. _____

8/27/2025 PLOTTED: C:\pwworkspace\Projects\18101.dgn

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	-	-	20 OF 62
CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS	DATE	BY	



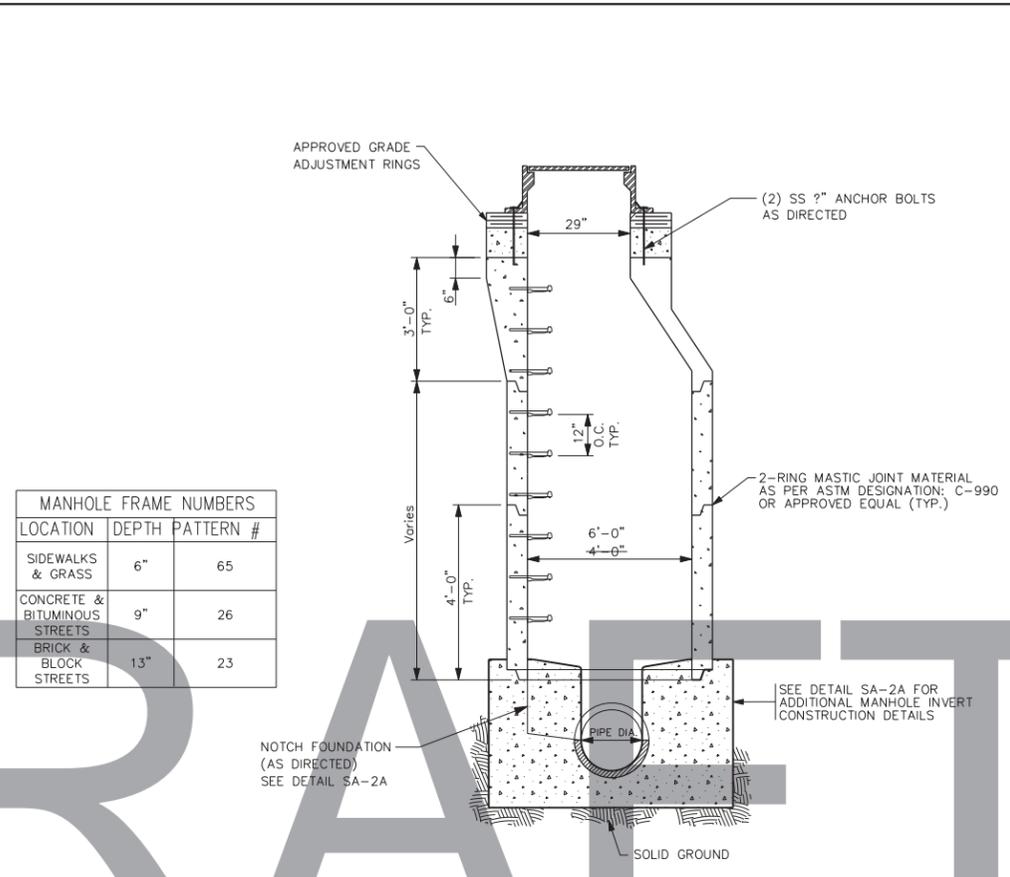
- NOTES:**
- ALL CASTINGS TO BE GRAY IRON PER ASTM A48, CLASS 35B
 - SEE SPECIFICATIONS FOR EXCAVATION, CONSTRUCTION, AND BACKFILLING WITH APPROVED AGGREGATE AND CEMENT MIXTURES.
 - CEMENT CONCRETE FOR CATCH BASIN WALL SHALL BE MIN. 4000 PSI CITY CLASS P, 12" THICK PLAIN CEMENT CONCRETE, OR 8" THICK REINFORCED CONCRETE FOR BASE AND WALLS. VERTICAL BARS FOR WALL NO. 6 REBAR AT 6" O.C.; HORIZONTAL BARS FOR WALL AND/OR BASE SLAB NO. 4 REBAR AT 12" O.C.
 - ALL OUTSIDE JOINTS TO BE STRUCK FLUSH.
 - CHAMFER ALL EXPOSED EDGES 1" MINIMUM.
 - PRECAST INLETS PERMITTED, BUT MUST BE SUBMITTED FOR PWSA APPROVAL BEFORE CONSTRUCTION.
 - HOOK AND TRAP MUST BE SEALED TO CATCH BASIN WALL AS DIRECTED.
 - IF REINFORCED CONCRETE SLAB ENCLOSED ON EXISTING UTILITY, EXISTING UTILITY SHALL BE PROTECTED AND COVERED BY APPROVED PARTIAL CASING PIPE.

R E V I S I O N S		The Pittsburgh Water and Sewer Authority CATCH BASIN TYPE 1 MODIFIED (Over Existing Utility)	Scale: N.T.S. \$FILENAME\$	Supplemental Detail Drawing: CB1M
1. DWP 4-7-05	4. JMB 8-11-15			
2. MAC 3-18-09				
3. MAC 5-19-09				
4. LRC 1-31-14				
Approved by:				

DETAIL - PWSA STORM INLET, TYPE 1 MODIFIED

NTS
(ITEM NO 9000-0021 AND MODIFIED FOR ITEM NO 9000-0022)

LIBERTY AVE			
STA 127+04.00 RT	STA 155+66.00 LT	STA 171+82.75 RT	STA 181+24.28 LT
STA 131+60.00 LT	STA 155+83.00 RT	STA 175+97.50 LT	STA 181+52.85 RT
STA 148+90.00 LT	STA 159+71.75 RT	STA 175+97.50 RT	STA 182+11.26 RT
	STA 165+31.27 RT	STA 176+86.00 RT	STA 182+39.37 LT



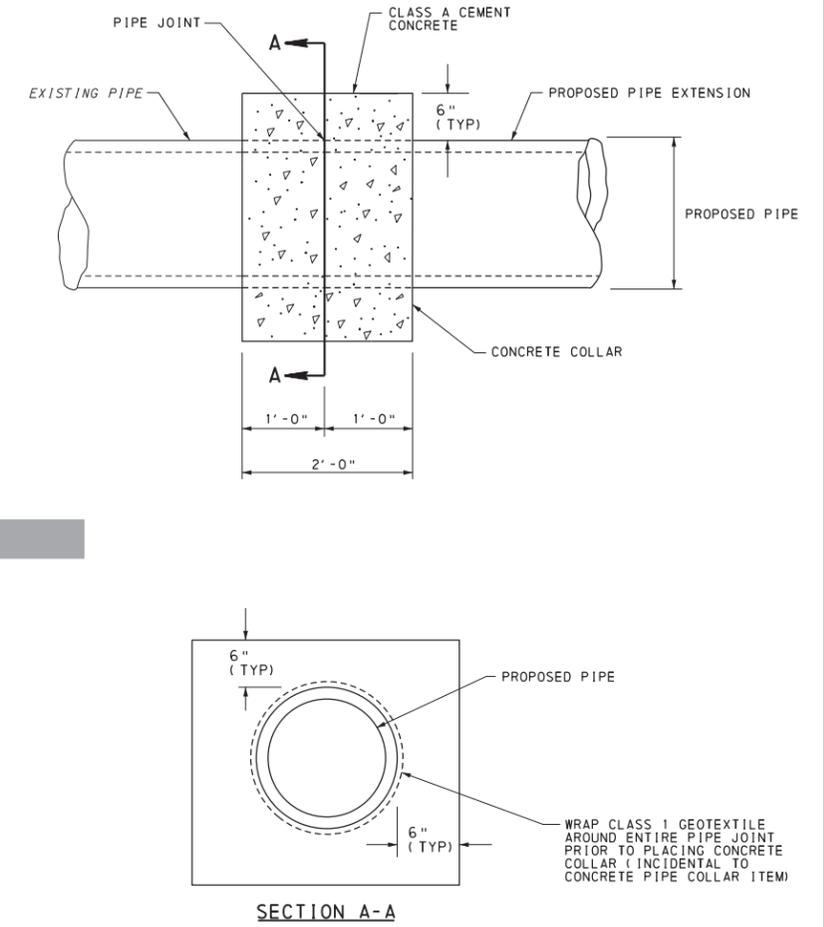
- NOTES:**
- PRECAST MANHOLE SECTIONS SHALL BE AS PER ASTM C478. LENGTHS MAY BE VARIED TO OBTAIN DESIRED DEPTH.
 - MANHOLE STEPS: No. 4 BAR GRADE 60 DEFORMED STEEL BAR, ASTM A615; COATED WITH POLYPROPYLENE PLASTIC, ASTM D4101.
 - MANHOLE FRAMES PER SECTION 02082. FINAL GRADE ADJUSTMENT RINGS PER SECTION 02281.
 - MANHOLES MUST BE WATERPROOFED ON THE EXTERIOR WITH AN APPROVED ASPHALT EMULSION FOUNDATION COATING. MATERIALS AND APPLICATION SHALL BE IN ACCORDANCE WITH ASTM D1227.

R E V I S I O N S		The Pittsburgh Water and Sewer Authority PGH₂O Pittsburgh Water & Sewer Authority	The Pittsburgh Water and Sewer Authority 48" Diameter Manhole MODIFIED	Scale: N.T.S. \$FILENAME\$	Supplemental Detail Drawing: SA-2
Approved by:					

DETAIL - PWSA 48" DIAMETER MANHOLE MODIFIED

NTS
(DIAMETER MODIFIED FOR ITEM NO 9000-0040)

LIBERTY AVE	
STA 155+59.00 RT	STA 160+29.90 LT
STA 160+29.90 LT	STA 176+61.70 LT



DETAIL - CONCRETE PIPE COLLAR

NTS
(ITEM NO 9000-0008)
LIBERTY AVE
STA 109+01.54 LT
STA 182+11.26 RT



CITY OF PITTSBURGH
DEPARTMENT OF MOBILITY
AND INFRASTRUCTURE

**LIBERTY AVENUE HSIP
GRANT STREET TO
HERRON AVENUE**

D.O.M.I. PROJECT NO.: 17501

DETAILS

SCALE: AS SHOWN ACCESSION NO. _____
 DATE: 08/27/2025 CASE NO. _____

EXHIBIT B
Special Provision Documents

SPECIAL PROVISION

106773

Project: 90005	Standard / PENNDOT Oversight Non-NHS	Post-Construction
Short Description: Liberty Avenue Highway Safety Improvement Project County: Allegheny District: 11	Concrete curb ramps, utility port. SR: 837 Group ID: 837/93rd St to Smithfield	Org Code: 1100 Section: A42 Municipality: PITTSBURGH

General Type: Project Specific	Addendum: 2 Action: Modified
--	---------------------------------

Detail Index or Category: Sequence ID: 0 Version: 0 Provision Name: c90019 Item 9000-0019 - Fire Hydrant Relocation Completed: Yes	District:
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9000-0022

Associated Items		
Item Number	Unit of Measure	Item Description
9000-0019	EACH	FIRE HYDRANT RELOCATION

Header

Provision Body

DESCRIPTION - This work is the construction of fire hydrant relocations, including furnishing and installation of **hydrants**, waterline pipes, fittings and associated appurtenances, as shown on the drawings, as directed in the field and in accordance with the current Pittsburgh Water and Sewer Authority Standards of Construction (PWSA Standards), latest edition and the attachment entitled PWSA Water Utility Distribution Fire Hydrants.

MATERIAL - Provide materials in accordance with the PWSA Standards, the attachment entitled PWSA Water Utility Distribution Fire Hydrants, and as directed. The latest copy of the PWSA Standards are considered part of this specification. For waterline materials not specifically referenced in PWSA Standards, the applicable section of American Water Works Association (AWWA) standards, latest edition, applies. In the event of conflicting standards, the more stringent applies. For non-waterline related material items such as those required for surface restoration, the applicable sections of Publication 408 applies.

CONSTRUCTION - Construct in accordance with the PWSA Standards, the attachment entitled PWSA Water Utility Distribution Fire Hydrants, and as directed. The latest copy of the PWSA Standards are considered part of this specification. For work not specifically referenced in PWSA Standards, the applicable section of American Water Works Association (AWWA) standards, latest edition, applies. In the event of conflicting standards, the more stringent applies. For non-waterline related construction items such as those required for surface restoration, the applicable sections of Publication 408 applies.

MEASUREMENT AND PAYMENT - Each

Work under this item includes removal of existing hydrants, gate valves and appurtenances, and re-installation at new locations, including, but not limited to: saw cutting (of pavement, sidewalk, or pipe); excavation and disposal of unsuitable material (including removal and disposal of manmade objects); and providing, placing and compacting approved backfill material. Required materials and appurtenances include, but are not limited to: **fire hydrant housing, waterlines**, sand bedding, aggregate backfill, concrete, shoring, harnessing, gaskets, bolts, nuts, mechanical joint retainer glands, sheeting, fittings, painting, extensions, testing and disinfection as necessary to complete the work.

Audit Information			
Created By	Created On	Modified By	Modified On
Zachary M Kaczmarek/PennDOT	12/09/2019 04:22:23 PM	Zachary M Kaczmarek/PennDOT	12/09/2019 05:14:10 PM

SPECIAL PROVISION

106773

Project: 416000	Municipal / PENNDOT Oversight Non-NHS	Construction
Short Description: Liberty Avenue Highway Safety Improvement Project Concrete Curb Ramps		Org Code: 1100
County: Allegheny	SR: 0000	Section: LOC
District: 11	Group ID: North Avenue Signals & Safety	Municipality: PITTSBURGH

General	Type: Standard	Addendum: 0
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Detail Index or Category: Item Related Sequence ID: 6061 Version: A	District: 11
Provision Name: c96061 D11 Item 9000-6061 - Grade Adjustment of Municipality's Existing Valve Box, Adjustment Only Completed: Yes	

Associated Items		
Item Number	Unit of Measure	Item Description
9000-6061	EACH	GRADE ADJUSTMENT OF MUNICIPALITY'S EXISTING VALVE BOX, ADJUSTMENT ONLY

Header

Provision Body

In accordance with Section 606 except as follows:

Section 606.2 MATERIAL - Revise by adding the following:

(d) Supplied Material. Valve box risers or adapters may be provided by the local municipality, water or sanitary authority, or utility company. Three weeks before performing any adjustments, contact the facility owner to make arrangements for the delivery of the materials and notify the Representative that arrangements were made.

Section 606.4 MEASUREMENT AND PAYMENT - Revise to read:

Each. For adjustment only. Install either the material supplied by the facility owner or if the facility owner cannot supply the material, then the material will be paid for separately under Item 9000-6062.

Due to the contingent or unpredictable nature of the work being performed, the provisions of Section 110.02(d) are not applicable to this item.

Project Specific Details

Audit Information			
Created By	Created On	Modified By	Modified On
Paula B Demski/PennDOT	05/02/2024 01:58:08 PM	Austin D Checco/PennDOT	05/17/2024 07:43:20 AM

You are currently logged in as **Chad Smedley Mr.**

SPECIAL PROVISION

106773

Project: ~~99995~~ Standard / PENNDOT Oversight Non-NHS Post-Construction

Short Description: Liberty Avenue Highway Safety Improvement Project ~~Concrete curb ramps, utility support.~~
County: Allegheny **SR:** ~~637~~
District: 11 **Group ID:** ~~837/33rd St to Smithfield~~ **Org Code:** 1100
Section: ~~A42~~ **Municipality:** PITTSBURGH

General

Type: Standard **Addendum:** 2
Action: Modified

Detail

Index or Category: Item Related **District:** 11
Sequence ID: 6062
Version: A

Provision Name: c90662 D11 Item 9000-6062 - Grade Adjustment of Municipality's Existing Valve Box, Material Only
Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
9000-6062	SET	GRADE ADJUSTMENT OF MUNICIPALITY'S OR AUTHORITY'S EXISTING VALVE BOXES, MATERIAL ONLY

Header

Provision Body

In accordance with Section 606 except as follows:

Section 606.2 MATERIAL - Revise by adding the following:

Valve box risers or adapters may be provided by the local municipality, water or sanitary authority, or utility company. Contact the facility owner as specified under Item 9000-6061 prior to ordering the material. Purchase all required material not provided by the facility owner, as directed.

For PWSA owned water valves and boxes, purchase all required material, as indicated and shown on the attachment entitled, PWSA Water Utility Distribution Valves, and as directed. **Any existing "square" style PWSA water valve box that needs to be grade adjusted shall be replaced with the current "Medium Extension Gate (MEG)" style valve box.**

Section 606.4 MEASUREMENT AND PAYMENT - Revise to read:

Set. For material only. Installation will be paid for separately under Item 9000-6061.

Due to the contingent or unpredictable nature of the work being performed, the provisions of Section 110.02(d) are not applicable to this item.

Project Specific Details

Audit Information

Created By	Created On	Modified By	Modified On
Zachary M Kaczmarek/PennDOT	12/09/2019 04:49:11 PM	Zachary M Kaczmarek/PennDOT	12/09/2019 04:49:11 PM



SPECIAL PROVISION

106773

Project: ~~106470~~ Standard / Non - Federal (100% State) Construction

Short Description: Liberty Avenue Highway Safety Improvement Project

County: Allegheny SR: ~~19~~ Org Code: 1400

District: 11 Group ID: -- Section: ~~A84~~ Municipality: PITTSBURGH

General

Type: Standard Addendum: 0

Detail

Index or Category: Item Related District: 11

Sequence ID: 6063

Version: A

Provision Name: c96063 Item 9000-6063 - Grade Adjustment of Municipality's Existing Facility Hole, Labor Only

Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
9000-6063	EACH	GRADE ADJUSTMENT OF MUNICIPALITY'S OR AUTHORITY'S EXISTING FACILITY HOLE, LABOR ONLY

Header

Provision Body

In accordance with Section 606 except as follows:

Section 606.2 MATERIAL - Revise by adding the following:

(d) Supplied Material. Facility hole extension materials may be provided by the local municipality, water or sanitary authority, or utility company. As specified or three weeks before performing any adjustments, contact the facility owner to make arrangements for the delivery of the materials and notify the Department's Representative that arrangements were made.

Section 606.4 MEASUREMENT AND PAYMENT - Revise to read:

Each. For adjustment only. Install either the provided material supplied by the facility owner or if the facility owner cannot supply the material, then the material will be paid for separately under Item 9000-6064.

Due to the contingent or unpredictable nature of the work being performed, the provisions of Section 110.02(d) are not applicable to this item.

Project Specific Details

Audit Information

Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	03/28/2022 11:28:35 AM	Justin A Smith/PennDOT	04/07/2022 09:28:49 AM

You are currently logged in as **Anonymous**.



SPECIAL PROVISION

106773

Project: ~~108470~~ Standard / Non - Federal (100% State) Construction

Short Description: Liberty Avenue Highway Safety Improvement Project

County: Allegheny SR: ~~19~~ Org Code: 1100

District: 11 Group ID: -- Section: ~~A84~~ Municipality: PITTSBURGH

General

Type: Standard Addendum: 0

Detail

Index or Category: Item Related District: 11

Sequence ID: 6064

Version: A

Provision Name: c96064 Item 9000-6064 - Grade Adjustment of Municipality's Existing Facility Hole, Material Only

Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
9000-6064	SET	GRADE ADJUSTMENT OF MUNICIPALITY'S OR AUTHORITY'S EXISTING FACILITY HOLE, MATERIAL ONLY

Header

Provision Body

In accordance with Section 606 except as follows:

Section 606.2 MATERIAL - Revise by adding the following:

Facility hole extension materials may be provided by the local municipality, water or sanitary authority, or utility company. Contact the facility owner as specified under Item 9000-6063 prior to ordering the material. Purchase all required material not provided by the facility owner, as directed.

Section 606.4 MEASUREMENT AND PAYMENT - Revise to read:

Set. For material only. Installation will be paid for separately under Item 9000-6063.

Due to the contingent or unpredictable nature of the work being performed, the provisions of Section 110.02(d) are not applicable to this item.

Project Specific Details

Audit Information

Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	04/04/2022 11:52:56 AM	Justin A Smith/PennDOT	04/05/2022 01:37:50 PM

You are currently logged in as **Anonymous**.

SPEC 106773 VISION

Project: ~~110000~~ Municipal / PENNDOT Oversight Non-NHS Construction

Short Description: Design Activities Limited to: Concrete Curb Ramps
 County: Allegheny SR: 0000
 District: 11 Group ID: ~~North Avenue Signals & Safety~~ Municipality: PITTSBURGH
 Org Code: 1100 Section: LOC

General
 Type: Project Specific Addendum: 0

Detail
 Index or Category: District:
 Sequence ID: 0
 Version: 0
 Provision Name: c99607 Item 9607-0101 - Rebuild PWSA Water Box
 Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
9607-0101	EACH	REBUILD PWSA WATER BOX

Header

Provision Body

DESCRIPTION - In accordance with Section 607.1 and as follows:
 This work is to REBUILD PWSA WATER BOX as shown on the drawings, as described herein, as directed in the field and in accordance with the current City of Pittsburgh and The Pittsburgh Water and Sewer Authority Standards for Construction and Standard Specifications.

MATERIAL - In accordance with Section 607.2 and as follows:
 Subject to review and approval by Pittsburgh Water and Sewer Authority prior to installation and in accordance with the Pittsburgh Water and Sewer Authority current standard specifications and policies, and Section 606.2 for vertical heights less than 4 inches, and Section 607.2 for vertical heights greater than 4 inches.

PWSA will supply materials for the work as follows:
 1. Medium Extension Gate (MEG) valve box, cast iron, three-piece adjustable. Lid shall bear the letters "WATER".
 2. Other type of box depending on conditions encountered.

Provide PWSA with adequate notice for ordering of materials. Lead time will be up to six calendar weeks. Complete PWSA order forms as supplied by PWSA or PWSA's representative. Indicate requested delivery date and time and location. Delivery location shall be within 25-mile radius of PWSA's main office address of 1200 Penn Avenue, Pittsburgh, PA 15222. Supply all labor, materials and/or equipment to unload material.

MATERIALS NOT SUPPLIED BY PWSA - Subject to review and approval by PWSA prior to installation, in accordance with applicable sections of the Specifications and as follows:
 1. Mortar Setting Bed (if any). ASTM C270, Type M Mortar, with latex polymer additive.
 2. Brick. City of Pittsburgh Specifications, Section 169 entitled, "Common Masonry Brick," and revisions (optional) and ASTM C32.

CONSTRUCTION - In accordance with Section 607.3 Construction and as follows:
 Work performed under this item is subject to inspection by the PWSA or its authorized representative.

MEASUREMENT AND PAYMENT - Delete Section 607.4, and replace with the following:
 Item 9607-0201 - Each

Furnish all labor, materials, tools and equipment to REBUILD PWSA WATER BOX as indicated. This item includes, but is not limited to: sawcutting, removal and disposal of pavement, sidewalks or curbs to the required limits; unclassified excavation; protection of active utility lines or removal of abandoned utility lines and obstructions; normal rock excavation; removal, hauling and disposal of all excavated materials; sheeting, shoring, bracing and trench boxes; temporary plating and excavation protection; dewatering and pumped water control; sawcutting of concrete or brick masonry, furnishing and installing rebar, cast-in place concrete, manhole steps, precast risers, brick, mortar, cones, adjustment rings, frame and cover; aggregate backfill and compaction; coal-tar pitch; and cleanup and disposal of all debris and surplus materials.

Audit Information

Created By	Created On	Modified By	Modified On
Paula B Demski/PennDOT	05/02/2024 02:00:39 PM	Austin D Checco/PennDOT	05/17/2024 07:44:08 AM

You are currently logged in as Chad Smedley Mr..

SPECIAL PROVISION

106773

Project: ~~03917~~ Municipal / PENNDOT Oversight Non-NHS Construction

Short Description: Liberty Avenue Highway Safety Improvement Project ~~Concrete curb ramps~~

County: Allegheny SR: 7456

District: 11 Group ID: ~~Kenmare Ave Ramp~~ Municipality: ~~RANKIN~~ Pittsburgh

Org Code: 1100 Section: LOC

General

Type: Project Specific Addendum: 0

Detail

Index or Category: District:

Sequence ID: 0

Version: 0

Provision Name: c06052 Item 4605-2850 - Standard Inlet Box, Height

Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
4605-2850	EACH	STANDARD INLET BOX, HEIGHT < / = 10' HOOK AND TRAP ASSEMBLY

Header

Provision Body

In accordance with Section 605 and as follows:

Section 605.1 DESCRIPTION - Revise the first sentence to read as follows:

This work is the construction of inlet structures with hook and trap assemblies.

605.2 (f) Other Material - Revise by adding the following:

- Hook and Trap Assembly - From a manufacturer approved by the PWSA Representative.

205.3 (a) Construction of Drainage Structures - Revise by adding the following:

Seal hook and trap to inlet wall, with an approved sealer, in accordance with manufacturer's instructions and as directed.

Audit Information

Created By	Created On	Modified By	Modified On
Paula B Demski/PennDOT	06/09/2023 12:21:58 PM	Crystal J Magrino/PennDOT	06/28/2023 02:59:35 PM

You are currently logged in as Chad Smedley Mr..

SPECIAL PROVISION

106773

Project: 03917	Municipal / PENNDOT Oversight Non-NHS	Construction
Short Description: Liberty Avenue Highway Safety Improvement Project		Org Code: 1100
County: Allegheny	SR: 7456	Section: LOC
District: 11	Group ID: Kenmare Ave Ramp	Municipality: RANKIN Pittsburgh

General	Type: Project Specific	Addendum: 0
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Detail	District:
Index or Category:	
Sequence ID: 0	
Version: 0	
4605-2862 Type 6	
Provision Name: c06052 Item 4605-2850 Standard Inlet Box, Height	
Completed: Yes	

Associated Items		
Item Number	Unit of Measure	Item Description
4605-2862	EACH	STANDARD Type 6 INLET BOX, HEIGHT < / = 10' HOOK AND TRAP ASSEMBLY

Header

Provision Body

In accordance with Section 605 and as follows:

Section 605.1 DESCRIPTION - Revise the first sentence to read as follows:

This work is the construction of inlet structures with hook and trap assemblies.

605.2 (f) Other Material - Revise by adding the following:

- Hook and Trap Assembly - From a manufacturer approved by the PWSA Representative.

205.3 (a) Construction of Drainage Structures - Revise by adding the following:

Seal hook and trap to inlet wall, with an approved sealer, in accordance with manufacturer's instructions and as directed.

Audit Information			
Created By	Created On	Modified By	Modified On
Paula B Demski/PennDOT	06/09/2023 12:21:58 PM	Crystal J Magrino/PennDOT	06/28/2023 02:59:35 PM

You are currently logged in as **Chad Smedley Mr.**

SPECIAL PROVISION

106773

Project: 00005		Standard / PENNDOT Oversight Non-NHS	<u>Post-Construction</u>
Short Description: Liberty Avenue Highway concrete curb ramps, utility Safety Improvement Project rt.		Org Code: 1100	
County: Allegheny	SR: 037	Section: A42	
District: 11	Group ID: 037/03rd St to Smithfield	Municipality: PITTSBURGH	

General	
Type: Project Specific	Addendum: 0

Detail	
Index or Category: Sequence ID: 0 Version: 0	District:
Provision Name: c90024 Item 9000-0027 Rebuild Existing Catch Basin With Manhole Top Completed: Yes	

Associated Items		
Item Number	Unit of Measure	Item Description
9000-0027	EACH	REBUILD EXISTING CATCH BASIN WITH MANHOLE TOP

Header

Provision Body

In accordance with Section 605 and as indicated, except as follows:

Section 605.1 DESCRIPTION - Revise to read:

This work is to rebuild an existing inlet box with manhole top.

Contractor to verify existing catch basin dimensions to ensure fit.

Section 605.4 MEASUREMENT AND PAYMENT - Revise by adding the following:

(j) Rebuild Inlet Box with Manhole Top. Each

Audit Information			
Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	05/24/2018 01:46:18 PM	Pasqualina Hamilton/PennDOT	11/06/2019 10:22:06 AM

You are currently logged in as Chad Smedley Mr..

SPECIAL PROVISION

106773

Project: ~~105003~~ Municipal / PENNDOT Oversight Non-NHS Construction

Short Description: ~~Liberty Avenue Highway~~ ~~crete curb ramps, radio~~
Safety Improvement Project
 County: Allegheny SR: 0000 Org Code: 1100
 District: 11 Group ID: --- Section: LOC
 Municipality: PITTSBURGH

General

Type: Project Specific Addendum: 0

Detail

Index or Category: District:
 Sequence ID: 0
 Version: 0
 Provision Name: ~~c90021 Items 9000-0021/0022/0024 - PWSA 3-Flange Frame~~ **9000-0028 PWSA STORM INLET, TYPE 1 MODIFIED**
 Completed: Yes

Associated Items

Item Number	Unit of Measure	Item Description
9000-0021	EACH	PWSA 3-FLANGE FRAME, TYPE 13 CATCH BASIN
9000-0022	EACH	PWSA 3-FLANGE FRAME, TYPE 13 STORM INLET
9000-0028	EACH	PWSA STORM INLET, TYPE 1 MODIFIED

Header

Provision Body

DESCRIPTION - This work is the furnishing of all labor, materials, and equipment necessary to complete the installation of a ~~PWSA Type 13 Catch Basin, PWSA Type 13 Inlet, and PWSA Storm Inlet, Type 1 Modified~~ as shown on the contract drawings, as described herein, as directed in the field, in accordance with Publication 408, current edition, Section 605, and in accordance with current Pittsburgh Water and Sewer Authority (PWSA) Standards.

MATERIAL - Materials provided as part of this item are subject to review and approval by Pittsburgh Water and Sewer Authority prior to installation.

Section 605.2, add the following:

Cast iron grate shall be in accordance with PWSA standard detail "CB 2005", and have 72 rectangular openings measuring 2-1/4 inches x 4 inches. Grate shall be imprinted with two trout logos with corresponding lettering, 1/2 inch high, "DUMP NO WASTE DRAINS TO WATERWAY". Grate shall be listed as "bicycle safe" by the manufacturer.

Cast iron frame shall be three sided, suitable for installation against a concrete deep curb. Frame and grate shall have two coats of coal-tar pitch applied, and be of certified domestic manufacture.

Manhole Steps, conforming to the Pittsburgh Water and Sewer Authority Standards Drawing No. A2h (see Appendix D), which details plastic-coated steel reinforced steps.

Mortar. Conforming to the City of Pittsburgh Specifications, Section 544, titled, "Portland Cement Mortar."

Reinforcing Steel. ASTM A615, GR60, domestic manufacture.

CONSTRUCTION - All work performed under this item is subject to inspection by the Pittsburgh Water and Sewer Authority or their authorized representative.

Section 605.3, add the following:

Excavate 1 foot beyond the side dimensions shown at the locations indicated.

Form the base and walls of the catch basin, both inside and outside, and provide reinforcement to meet the specifications and dimensions shown on the Pittsburgh Water and Sewer Authority and City of Pittsburgh Standards.

Construct catch basins in accordance with City of Pittsburgh Specifications, Section 529, and set to the proper line and grade as shown on the contract drawings.

Catch basins that are over 7 feet deep will require installing plastic-coated steel steps at no additional cost.

The Contractor may elect to substitute brick masonry for the reinforced concrete as the construction material for the walls. Submit a request, in writing, to PWSA for approval to substitute materials.

If abandoned utility lines are within excavated trench, remove at no additional payment.

MEASUREMENT AND PAYMENT -

~~Item 9000-0021 - PWSA Type 13 Catch Basin. Each~~

~~Item 9000-0022 - PWSA Type 13 Inlet. Each~~

Item **9000-0028** PWSA Storm Inlet, Type 1 Modified. Each

Furnish all labor, materials, tools, and equipment to install the ~~PWSA Type 13 Catch Basin, PWSA Type 13 Inlet, and PWSA Storm Inlet, Type 1 Modified~~ as indicated. This item includes, but is not limited to: removal and disposal of pavement, sidewalks or curbs to the required limits; unclassified excavation; protection of active utility lines or removal of abandoned utility lines and obstructions; normal rock excavation; removal, hauling and disposal of all excavated materials; sheeting, shoring, bracing and trench boxes; temporary plating and excavation protection; dewatering and pumped water control; sewer bypass pumping; furnishing and installing rebar, forming, steps, cleaning castings, grate and frame, concrete, brick, and masonry; connecting existing or proposed sewers to manhole; water stops and gaskets; aggregate backfill and compaction; grade adjustments due to the construction phasing; concrete curing; coal-tar pitch, temporary blocking, supports, caps and plugs; and cleanup and disposal of all debris and surplus materials.

Audit Information

Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	10/15/2021 10:37:50 AM	Michael R Adomaitis/PennDOT	12/21/2021 11:09:19 AM

You are currently logged in as **Chad Smedley Mr.**

SPECIAL PROVISION

106773

Project: 105003		Municipal / PENNDOT Oversight Non-NHS		Construction
Short Description: Liberty Avenue Highway Safety Improvement Project			Org Code: 1100	
County: Allegheny	SR: 0000	Section: LOC		
District: 11	Group ID: ---	Municipality: PITTSBURGH		

General	Type: Project Specific	Addendum: 0
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Detail	Index or Category:	District:
	Sequence ID: 0	
	Version: 0	
Provision Name: c90021 Items 9000-0029 PWSA STORM INLET, TYPE 1 MODIFIED WITH 10' LONG BOX		
Completed: Yes		

Associated Items		
Item Number	Unit of Measure	Item Description
9000-0021	EACH	PWSA 3-FLANGE FRAME, TYPE 13 CATCH BASIN
9000-0022	EACH	PWSA 3-FLANGE FRAME, TYPE 13 STORM INLET
9000-0029	EACH	PWSA STORM INLET, TYPE 1 MODIFIED WITH 10' LONG BOX

Header

Provision Body

DESCRIPTION - This work is the furnishing of all labor, materials, and equipment necessary to complete the installation of a ~~PWSA Type 13 Catch~~ PWSA STORM INLET, TYPE 1 MODIFIED WITH 10' LONG BOX as shown on the contract drawings, as described herein, as directed in the field, in accordance with Publication 408, current edition, Section 605, and in accordance with current Pittsburgh Water and Sewer Authority (PWSA) Standards.

MATERIAL - Materials provided as part of this item are subject to review and approval by Pittsburgh Water and Sewer Authority prior to installation.

Section 605.2, add the following:

Cast iron grate shall be in accordance with PWSA standard detail "CB 2005", and have 72 rectangular openings measuring 2-1/4 inches x 4 inches. Grate shall be imprinted with two trout logos with corresponding lettering, 1/2 inch high, "DUMP NO WASTE DRAINS TO WATERWAY". Grate shall be listed as "bicycle safe" by the manufacturer.

Cast iron frame shall be three sided, suitable for installation against a concrete deep curb. Frame and grate shall have two coats of coal-tar pitch applied, and be of certified domestic manufacture.

Manhole Steps, conforming to the Pittsburgh Water and Sewer Authority Standards Drawing No. A2h (see Appendix D), which details plastic-coated steel reinforced steps.

Mortar. Conforming to the City of Pittsburgh Specifications, Section 544, titled, "Portland Cement Mortar."

Reinforcing Steel. ASTM A615, GR60, domestic manufacture.

CONSTRUCTION - All work performed under this item is subject to inspection by the Pittsburgh Water and Sewer Authority or their authorized representative.

Section 605.3, add the following:

Excavate 1 foot beyond the side dimensions shown at the locations indicated.

Form the base and walls of the catch basin, both inside and outside, and provide reinforcement to meet the specifications and dimensions shown on the Pittsburgh Water and Sewer Authority and City of Pittsburgh Standards.

Construct catch basins in accordance with City of Pittsburgh Specifications, Section 529, and set to the proper line and grade as shown on the contract drawings.

Catch basins that are over 7 feet deep will require installing plastic-coated steel steps at no additional cost.

The Contractor may elect to substitute brick masonry for the reinforced concrete as the construction material for the walls. Submit a request, in writing, to PWSA for approval to substitute materials.

If abandoned utility lines are within excavated trench, remove at no additional payment.

MEASUREMENT AND PAYMENT -

~~Item 9000-0021 - PWSA Type 13 Catch Basin - Each~~

~~Item 9000-0022 - PWSA Type 13 Inlet - Each~~

Item 9000-0029 PWSA STORM INLET, TYPE 1 MODIFIED WITH 10' LONG BOX

Furnish all labor, materials, tools, and equipment to install the ~~PWSA STORM INLET, TYPE 1 MODIFIED WITH 10' LONG BOX~~ Inlet, Type 1 Modified as indicated. This item includes, but is not limited to: removal and disposal of pavement, sidewalks or curbs to the required limits; unclassified excavation; protection of active utility lines or removal of abandoned utility lines and obstructions; normal rock excavation; removal, hauling and disposal of all excavated materials; sheeting, shoring, bracing and trench boxes; temporary plating and excavation protection; dewatering and pumped water control; sewer bypass pumping; furnishing and installing rebar, forming, steps, cleaning castings, grate and frame, concrete, brick, and masonry; connecting existing or proposed sewers to manhole; water stops and gaskets; aggregate backfill and compaction; grade adjustments due to the construction phasing; concrete curing; coal-tar pitch, temporary blocking, supports, caps and plugs; and cleanup and disposal of all debris and surplus materials.

Audit Information

Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	10/15/2021 10:37:50 AM	Michael R Adomaitis/PennDOT	12/21/2021 11:09:19 AM

You are currently logged in as Chad Smedley Mr..

SPECIAL PROVISION

Project: 98085		Standard / PENNDOT Oversight Non-NHS	Post-Construction
Short Description: Liberty Avenue Highway concrete curb ramps, utility Safety Improvement Project rt.		Org Code: 1100	
County: Allegheny	SR: 897	Section: A42	
District: 11	Group ID: 837/33rd St to Smithfield	Municipality: PITTSBURGH	

General	Type: Project Specific	Addendum: 0
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Detail	Index or Category:	District:
	Sequence ID: 0	
	Version: 0	
	Provision Name: c90031 Item 9000-0031 - Remove Existing Inlet/Catch Basin	
	Completed: Yes	

Associated Items		
Item Number	Unit of Measure	Item Description
9000-0031	EACH	REMOVE EXISTING INLET/CATCH BASIN

Header

Provision Body

DESCRIPTION - This work is removal of existing inlet/catch basins.

MATERIAL - Materials provided as part of this item are subject to review and approval by Pittsburgh Water and Sewer Authority prior to installation.

Backfill. Section 703.3, crushed stone or gravel aggregate conforming to gradation #2A.

CONSTRUCTION - All work performed under this item is subject to inspection by the Pittsburgh Water and Sewer Authority or their authorized representative.

Sawcut existing pavement surrounding structure to be removed. Carefully remove pavement surrounding existing casting to minimize damage. Store salvaged frame/grate on-site and load on City vehicles as directed. Remove remaining buried structure in accordance with Section 204.

Follow OSHA regulations for excavation and provide shoring, sheeting or bracing of trench.

Backfill with approved material, hand compacted in 6 inch lifts to strict subgrade elevation.

Maintain existing flows by approved methods at all times.

MEASUREMENT AND PAYMENT - Each

This item includes, but is not limited to: sawcutting, removal and disposal of pavement, sidewalks or curbs to the required limits; unclassified excavation to the limits required for removal of the box structure; protection of active utility lines or removal of abandoned utility lines and obstructions in the trench zone; normal rock excavation; removal, hauling and disposal of all excavated materials; sheeting, shoring, bracing and trench boxes; temporary plating and trench protection; dewatering and pumped water control; pipe zone bedding; aggregate backfill; compaction; and cleanup and disposal of all debris and surplus materials.

Temporary support as per OSHA requirements is considered incidental to this item of work and at no additional payment.

Audit Information			
Created By	Created On	Modified By	Modified On
Pasqualina Hamilton/PennDOT	05/29/2018 01:00:14 PM	Pasqualina Hamilton/PennDOT	11/06/2019 10:29:01 AM

SPECIAL PROVISION

106773

Project: 00005		Standard / PENNDOT Oversight Non-NHS	Post-Construction
Short Description: Liberty Avenue Highway Safety Improvement Project concrete curb ramps, utility rt.		Org Code: 1100	
County: Allegheny	SR: 097	Section: A42	
District: 11	Group ID: 037/03rd St to Smithfield	Municipality: PITTSBURGH	

General	
Type: Project Specific	Addendum: 0

Detail	
Index or Category: Sequence ID: 0 Version: 0	District:
Provision Name: c90039 Item 9000-0040 - PWSA 72" Diameter Manhole Completed: Yes	

Associated Items		
Item Number	Unit of Measure	Item Description
9000-0040	EACH	PWSA 72" DIAMETER MANHOLE
9000-0040	EACH	PWSA REINFORCED CONCRETE BOX MANHOLE

Header

Provision Body

DESCRIPTION - This work is the furnishing of all labor, materials, and equipment necessary to complete the installation of a PWSA 72" Diameter Manhole ~~Or Pwsa Reinforced Concrete Box Manhole~~, as shown on the contract drawings, as described herein, as directed in the field, in accordance with ASTM C-478, in accordance with current City of Pittsburgh Standards, and in accordance with current Pittsburgh Water and Sewer Authority Standards.

MATERIAL - Materials provided as part of this item are subject to review and approval by Pittsburgh Water and Sewer Authority prior to installation.

- a. Precast concrete barrel sections and cone sections shall conform to American Society for Testing and Materials (ASTM) Specification C-478 except as may be otherwise shown on the Standard Details. Also the outside diameter of the top of the conical section that receives the manhole frame shall be 48 inches with an opening of 27 inches diameter.
- b. City Class PP Concrete. Conforming to the requirements of the City of Pittsburgh Specifications titled, "Specifications for Concrete Pavement and Base Course," revised March 1978 and any supplements thereto.
- c. Manhole Steps. Conforming to the Pittsburgh Water and Sewer Authority Standard Drawing No. A-2b (attached) which details plastic coated steel reinforced steps.
- d. Brick Masonry (optional). Conforming to ASTM C32 City of Pittsburgh Specifications, Section 169, titled, "Common Masonry Brick," and revisions.
- e. Frame and Lid Castings. Conforming to the Pittsburgh Water and Sewer Authority Standard Casting Numbers 26 and 25V, respectively. Frame and lid casting shall have two coats of coal-tar pitch applied.
- f. Manhole frame and cover shall provide a 29 inch diameter clear opening. The cover shall have the word "PWSA STORM" in 2 inch high lettering for storm sewer manholes and "PWSA SEWER" for sanitary sewer manholes. The frames shall be furnished with the flange drilled for two 3/4 inch anchor bolts.
- g. Mortar. Conforming to the City of Pittsburgh Specifications, Section 544, titled, "Portland Cement Mortar."
- h. Reinforcing Steel. ASTM A615. GR-60.
- i. Approved bituminous joint gasket (pre-cast manhole).

j. Sanitary sewer manholes shall be waterproofed on the exterior with an approved asphalt emulsion foundation coating. Materials and application rate shall be in accordance with ASTM D-1227.

CONSTRUCTION - All work performed under this item is subject to inspection by the Pittsburgh Water and Sewer Authority or their authorized representative.

Construct manholes in accordance with the Pittsburgh Water and Sewer Authority Specifications. Supply and set castings to the proper line and grade adjusting with brick and mortar only, as shown on the contract drawings, in such a manner so as to allow for grade adjustments of ± 6 inches. Also, final casting must be within 3/16 inches of finished grade. Grade adjust with brick and mortar only. Use precast sections to construct the manholes, in accordance with The Pittsburgh Water and Sewer Authority Standards for Construction, with the following exceptions:

- a. Bases are cast-in-place using City Class PP Cement Concrete,
- b. Inverts are constructed per the Pittsburgh Water and Sewer Authority Specifications, Supplemental Drawing Detail No. A-2A entitled "Manhole Invert" Detail.

Manhole depth is measured from lowest invert elevation to final lid elevation.

Reconstructing flow lines of existing manholes is considered incidental to the various sewer items and is to be completed at no additional payment.

PVC pipes entering manhole walls shall have a watertight seal to eliminate leaks. Connect PVC pipes to manhole by elastomeric water stops or gaskets or a method approved by the Pittsburgh Water and Sewer Authority. Do not concrete encase PVC pipe at manhole. Concrete will not adhere to PVC pipe.

Vacuum test of manholes refer to Leakage Test or Optional Leakage Test in the Technical Specifications.

Grade adjustment may be necessary due to the construction phasing of the project. This adjustment will be considered incidental to the manhole items at no additional payment.

MEASUREMENT AND PAYMENT -

PWSA ~~72" Diameter Manhole~~ or ~~PWSA Reinforced Concrete Box Manhole~~ - Each

Furnish all labor, materials, tools, and equipment to install PWSA ~~72" Diameter Manhole~~ or ~~PWSA Reinforced Concrete Box Manhole~~ as indicated. This item includes, but is not limited to: removal and disposal of pavement, sidewalks or curbs to the required limits; unclassified excavation; protection of active utility lines or removal of abandoned utility lines and obstructions; normal rock excavation; removal, hauling and disposal of all excavated materials; sheeting, shoring, bracing and trench boxes; temporary plating and excavation protection; dewatering and pumped water control; sewer bypass pumping; furnishing and installing rebar, cast-in place concrete base, manhole steps, precast risers, cones, adjustment rings, frame and cover; connecting existing or proposed sewers to manhole; water stops and gaskets; aggregate backfill and compaction; grade adjustments due to the construction phasing; coal-tar pitch, temporary blocking, supports, caps and plugs; vacuum testing; and cleanup and disposal of all debris and surplus materials.

Audit Information

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SECTION 02085

WATER UTILITY DISTRIBUTION VALVES

Revision Log

Revision Date	Part	Revision
10/18/2023	Full	Addition of Line Stops.

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Valves.
2. Valve boxes.
3. Line Stops.

B. Related Sections:

1. Section 02060 – Aggregates for Earthwork
2. Section 02082 – Public Manholes and Structures
3. Section 02086 – Water Utility Fire Hydrants
4. Section 02324 – Trenching, Backfilling and Compaction
5. Section 02513 – Public Water Distribution Piping
6. Section 02515 – Water Service Connections
7. Section 02516 – Flushing, Disinfection, and Dechlorination of Water Pipelines
8. Section 03300 – Cast-In-Place Concrete

1.2 MEASUREMENT AND PAYMENT

- A. See Section 01200 – Price and Payment Procedures.

1.3 REFERENCES

A. ASTM International (ASTM):

1. ASTM A276 – Standard Specification for Stainless Steel Bars and Shapes.
2. ASTM A307 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60000 PSI Tensile Strength.
3. ASTM B584 – Standard Specification for Copper Alloy Sand Castings for General Applications.
4. ASTM B763 – Copper Alloy Sand Castings for Valve Applications.
5. ASTM F593 – Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.

B. American Water Works Association (AWWA):

1. AWWA C111 – Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
2. AWWA C500 – Metal-Seated Gate Valves for Water Supply Service.

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3. AWWA C509 – Resilient-Seated Gate Valves for Water-Supply Service.
4. AWWA C515 – Reduced-Wall, Resilient Seated Gate Valves for Water Supply Service.
5. AWWA C550 – Protecting Epoxy Interior Coating for Valves and Hydrants.
6. AWWA C600 – Installation of Ductile-Iron Water Mains and Their Appurtenances.

- C. National Sanitation Foundation/American National Standard Institute (NSF/ANSI):
1. NSF/ANSI 61 – Drinking Water System Components.

1.4 SUBMITTALS

- A. See Section 01330, Submittal Procedures: Requirements for submittals.
- B. Shop Drawing:
1. Submit manufacturer’s shop drawings showing valves, operators, gear ratios, design flows and pressure differential, performance charts, and parts list for all valves 16-inch and larger.
 2. Installation Plan: Submit description of proposed installation.
- C. Design Data: Submit manufacturer's latest published literature including illustrations, installation instructions, maintenance instructions, and parts lists.
- D. Manufacturer’s Certificates: Submit Statement of Compliance, supporting data, from material suppliers attesting that valves and accessories provided meet or exceed AWWA Standards and specification requirements.
1. Submit Certified test reports for tests specified in the referenced standards for valves 16-inches and larger.
 2. Submit Certified test reports for tests performed on valves and valve operators for valves 16-inches and larger.
- E. Submit vendor cut sheets, procedures, and detailed plan for all Line Stops.

1.5 CLOSEOUT SUBMITTALS

- A. See Section 01700, Execution Requirements: Requirements for submittals.
- B. Project Record Documents: Record actual locations of valves.
- C. Provide Operation and Maintenance Data for valves.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with referenced standards and OWNER standards.
- B. Temporary Line Stops shall only be installed by vendor personnel or CONTRACTOR personnel trained and certified by the Line Stop vendor.

1.7 QUALIFICATIONS

- A. Manufacturer: company specializing in manufacturing Products specified in this section with minimum 3 years documented experience.

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- B. Installer: Company specializing in performing Work of this Section with minimum 3 years documented experience.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01600, Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Prepare valves and accessories for shipment according to AWWA Standards and seal valve and ends to prevent entry of foreign matter into product body.
- C. Deliver and store valves in shipping containers with labeling in place.
- D. Store products in areas protected from weather, moisture, or possible damage; do not store products directly on ground; handle products to prevent damage to interior or exterior surfaces.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. See Section 01600, Product Requirements: Environmental conditions affecting products on Site.
- B. Conduct operations not to interfere with, interrupt, damage, destroy, or endanger integrity of surface or subsurface structures or utilities, and landscape in immediate or adjacent areas.

1.10 COORDINATION

- A. See Section 01300, Administrative Requirements: Requirements for coordination.
- B. Coordinate Work with City of Pittsburgh, Allegheny County, Pennsylvania Department of Transportation (PennDOT), and OWNER.

1.11 MAINTENANCE MATERIALS

- A. See Section 01700, Execution Requirements: Requirements for maintenance materials.

PART 2 PRODUCTS

2.1 GATE VALVES LARGER THAN 12-INCH DIAMETER

- A. Resilient Wedge Gate Valves: AWWA C509 or AWWA C515; iron body, bronze, or ductile iron; including the manufacturer's name, pressure rating, and year of fabrication cast into valve body.
 - 1. Resilient seats.
 - 2. Stem.
 - a. Non-rising stem.
 - b. Minimum tensile strength: 60,000 pounds per square inch.
 - c. Manganese bronze per ASTM B584/ASTM B763 or Type 304 or 316 Stainless Steel per ASTM A276.
 - 3. Seals: O-ring stem seals.

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4. Operator:
 - a. Direct Bury: Operating Nut: 2-inch square; open clockwise unless in treatment plant or pump station.
 - b. Valve Vault or above grade: Handwheel: Open clockwise unless in treatment plant or pump station.
5. Ends:
 - a. Direct Bury: Restrained Joints
 - 1) MEGALUG Series 1100 with Grade 304 Stainless Steel Bolts/Nuts and Fusion Bonded Epoxy Coating.
 - 2) Flex-Ring Joint by American or boltless positive joint restraint equal to the Flex-Ring Joint by American.
 - 3) Or Equal.
 - b. Valve Vault or above grade: Flanged with Type 306 Stainless Steel nuts and bolts.
6. Coating: AWWA C550; interior/exterior epoxy.
7. Sizes 16-inch diameter and larger: 150 pounds per square inch gauge.
 - a. Valve must have built-in bypass in areas expected to reach working pressures in excess of 100 pounds per square inch.
 - b. Valves 16-inch diameter and greater shall be installed horizontally with bevel gearing or vertically without gearing.
8. Bolts, Hex Cap Screws, and Studs: Stainless Steel per ASTM F593.

B. Manufacturers:

1. Mueller Company.
2. Clow Eddy – Iowa.
3. American Flow Control.
4. Or Equal.

2.2 GATE VALVES 3-INCH THROUGH 12-INCH DIAMETER

- A. Resilient Wedge Gate Valves: AWWA C509 or AWWA C515; iron body, bronze, or ductile iron; including the manufacturer's name, pressure rating, and year of fabrication cast into valve body.
 1. Resilient seats.
 2. Stem:
 - a. Non-rising stem.
 - b. Minimum tensile strength: 60,000 pounds per square inch.
 - c. Manganese bronze per ASTM B584/ASTM B763 or Type 304 or 316 Stainless Steel per ASTM A276.
 3. Seals: O-ring stem seals.
 4. Operator:
 - a. Direct Bury: Operating Nut: 2-inch square; open clockwise unless in treatment plant or pump station.
 - b. Valve Vault or above grade: Handwheel: Open clockwise unless in treatment plant or pump station.
 5. Ends:
 - a. Direct Bury: Mechanical Joint with gaskets per AWWA C111 and low alloy steel bolts per ASTM A307.
 - 1) Restrain end to pipe with Mechanical Joint Restraint Gland conforming to Section 02513, Public Water Distribution Piping.

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- b. Valve Vault or above grade: Flanged with Type 306 Stainless Steel nuts and bolts.
- 6. Coating: AWWA C550; interior/exterior epoxy.
- 7. Sizes 12-inch diameter and smaller: 250 pounds per square inch gauge.
- 8. Bolts, Hex Cap Screws, and Studs: Stainless Steel per ASTM F593.

- B. Manufacturers:
 - 1. Mueller Company.
 - 2. Clow Eddy - Iowa.
 - 3. American Flow Control.
 - 4. Or Equal.

2.3 MEDIUM EXTENSION GATE VALVE BOXES

- A. Underground valves installed at a depth of 6 feet or less to the operating nut shall be equipped with an MEG. MEGs shall be made of cast iron and have an internal diameter of 5 1/4-inches. The base, top and lid shall be round, and shall have "WATER" cast on the lid.
- B. 12-inch diameter Valves and smaller: Domestic cast iron, three-piece, screw type; round base. Internal Diameter of 5 1/4-inches, with Cast iron lid marked "WATER."

2.4 MANHOLES

- A. See Section 02082, Public Manholes and Structures.
- B. Valves 16-inches in diameter and greater shall be installed horizontally with bevel gearing. Operating mechanism shall be centered in manhole per Contract Documents, unless otherwise noted.
- C. If field conditions do not allow the installation of the horizontal valve with manhole, based on underground utility conflicts at the valve location, valve may be installed vertically without gearing at OWNER'S discretion. Operating mechanism shall be centered in manhole per Contract Documents.
- D. Prior to procuring valve assembly, CONTRACTOR shall perform exploratory excavations necessary to determine clearances required for valve and manhole installation.
- E. If field conditions do not allow the installation of the manhole on a horizontal nor vertical valve, based on underground utility conflicts at the valve location, OWNER shall determine if an MEG can be placed upon the valve at the particular location in lieu of the manhole structure.

2.5 ACCESSORIES

- A. Concrete for Thrust Restraints: Concrete type specified in Section 03300, Cast-In-Place Concrete.
- B. Valve Box Aligner: High-strength, plastic device designed to automatically center valve box base and prevent valve box base from shifting off center during backfilling.
- C. Polyethylene wrap specified in Section 02513, Public Water Distribution Piping.

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2.6 LINE STOPS

- A. Line stops are to be used where specified to temporarily stop water line water flow without depressurizing the entire line. The line stop parts and installation equipment are to be rated at a minimum of 150 pounds per square gauge working pressure unless otherwise specified.
- B. Materials and Construction:
1. Tapping saddles shall have 360 degrees clamping on the main.
 2. Main sizes 4-inch to 8-inch to be fabricated of Grade 304 Stainless Steel.
 3. Main sizes 10-inch and greater to be fabricated Carbon Steel with 2556.11 5/99 epoxy coating.
 4. All bolts and fasteners are to be Grade 304 Stainless Steel and the saddle shall be installed with Buna-N or neoprene rubber full facing gasket.
 5. The stopping device attaching nozzle to be manufacturer's standard with connecting threads or flange face, and the nozzle internal diameter to be machine with a shelf to provide a position stop for the closure plug.
 6. The closure plug is to be fabricated carbon steel, ductile iron, or malleable iron with at least one Buna-N or neoprene O-Ring seal on the outside diameter.
 7. Corrosion Resistant Coatings:
 - a. Non-Stainless Steel permanently installed parts to have manufacturer's standard red or black water base epoxy coating.
 8. Connection Tapping saddle shall be fabricated with dimensions to fit on concrete, steel, polyvinyl chloride pipe, cast iron, and ductile iron main as specified.
 9. Manufacturers:
 - a. Hydra-Stop, Inc.
 - b. International Piping Services Co. (IPSCO).
 - c. JCM 440.
 - d. Or Equal.

PART 3 EXECUTION

3.1 EXAMINATION

- A. See Section 01300, Administrative Requirements: Verify existing conditions before starting Work.
- B. Determine exact location and size of valves from Contract Documents; obtain clarification and directions from OWNER prior to execution of Work.
- C. Verify invert elevations of Work prior to excavation and installation of valves.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Locate, identify, and protect utilities to remain from damage.

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- C. Do not interrupt existing utilities without permission and without making arrangements to provide temporary utility services.
 - 1. OWNER not less than 3 days in advance of proposed utility interruption.
 - 2. Do not proceed without written permission from the OWNER.
- D. Perform trench excavation, backfilling, and compaction in accordance with Section 02324, Trenching, Backfilling and Compaction.

3.3 INSTALLATION

- A. Valves 16-inches and larger shall be installed per Contract Documents.
- B. Install valves in conjunction with pipe laying; set valves plumb.
- C. Provide buried valves with valve boxes installed flush with finished grade.
- D. Wrap valves with polyethylene wrap in accordance Section 02513, Public Water Distribution Piping.

3.4 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

- A. Flush and disinfect system in accordance with Section 02516, Flushing, Disinfection, and Dechlorination of Water Pipelines.

3.5 LINE STOP INSTALLATION

- A. Temporary Line Stops shall only be installed by vendor personnel or CONTRACTOR personnel trained and certified by the Line Stop vendor.

3.6 FIELD QUALITY CONTROL

- A. See Section 01400, Quality Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Pressure test system in accordance with AWWA C600 and the following:
 - 1. Test Pressure: Not less than 150 pounds per square inch or 50 pounds per square inch in excess of maximum working pressure, whichever is greater.
 - 2. Conduct hydrostatic test for at least a 2-hour duration.
 - 3. Fill section to be tested with water slowly, expel air from piping at high points. Install corporation cocks at high points. Close air vents and corporation cocks after air is expelled. Raise pressure to specified test pressure.
 - 4. Observe joints, fittings, and valves under test. Remove and renew cracked pipe, joints, fittings, and valves showing visible leakage. Retest.
 - 5. Correct visible deficiencies and continue testing at same test pressure for additional 2-hours to determine leakage rate. Maintain pressure within plus or minus 5 pounds per square inch gauge of test pressure. Leakage is defined as quantity of water supplied to piping necessary to maintain test pressure during period of test.
 - 6. Compute maximum allowable leakage by the following formula:

$L = (SDP^{0.5})/C$

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L = testing allowance, in gallons per hour
S = length of pipe tested, in feet
D = nominal diameter of pipe, in inches
P = average test pressure during hydrostatic test, in psig
C = 148,000
When pipe under test contains sections of various diameters, calculate allowable leakage from sum of computed leakage for each size.

7. When test of pipe indicates leakage greater than allowed, locate source of leakage, make corrections and retest until leakage is within allowable limits. Correct visible leaks regardless of quantity of leakage.

END OF SECTION

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SECTION 02086

WATER UTILITY FIRE HYDRANTS

Revision Log

Revision Date	Part	Revision

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 1. Fire hydrants.
 2. 2-inch blowoffs.

- B. Related Sections:
 1. Section 02060 – Aggregates for Earthwork
 2. Section 02324 – Trenching, Backfilling, and Compaction
 3. Section 02085 – Water Utility Distribution Valves
 4. Section 02513 – Public Water Distribution Piping
 5. Section 02515 – Water Service Connections
 6. Section 02516 – Flushing, Disinfection, and Dechlorination of Water Pipelines
 7. Section 03300 – Cast-In-Place Concrete

1.2 MEASUREMENT AND PAYMENT

- A. See Section 01200 – Price and Payment Procedures.

1.3 REFERENCES

- A. American Water Works Association (AWWA):
 1. AWWA C502 – Dry-Barrel Fire Hydrants.
 2. AWWA C550 – Protecting Epoxy Interior Coating for Valves and Hydrants.
 3. AWWA C600 – Installation of Ductile-Iron Water Mains and Their Appurtenances.

- B. National Fire Protection Association:
 1. NFPA 281 – Recommended Practice for Fire Flow Testing and Marking of Hydrants.

- C. National Sanitation Foundation/American National Standard Institute (NSF/ANSI):
 1. NSF/ANSI 61 – Drinking Water System Components.

1.4 SUBMITTALS

- A. See Section 01330, Submittal Procedures: Requirements for submittals.

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- B. Shop Drawing:
 - 1. Installation Plan: Submit description of proposed installation.
- C. Design Data: Submit manufacturer's latest published literature; include illustrations, installation instructions, maintenance instructions and parts lists.
- D. Manufacturer's Certificates: Submit Statement of Compliance, supporting data, from material suppliers attesting that hydrants and accessories provided meet or exceed AWWA Standards and specification requirements.

1.5 CLOSEOUT SUBMITTALS

- A. See Section 01700, Execution Requirements: Requirements for submittals.
- B. Project Record Documents: Record actual locations of fire hydrants.
- C. Provide Operation and Maintenance Data for fire hydrants.

1.6 QUALITY ASSURANCE

- A. Provide uniform color scheme for fire hydrants in accordance with this Section.
- B. Perform Work in accordance with City of Pittsburgh, Allegheny County, and Pennsylvania Department of Transportation (PENNDOT), and OWNER standards.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing Products specified in this Section with minimum 3 years documented experience.
- B. Installer: Company specializing in performing Work of this Section with minimum 3 years documented experience.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. See Section 01600, Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Prepare hydrants and accessories for shipment according to AWWA Standards and seal hydrant and ends to prevent entry of foreign matter into product body.
- C. Store products in areas protected from weather, moisture, or possible damage; do not store products directly on ground; handle products to prevent damage to interior or exterior surfaces.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. See Section 01600, Product Requirements: Environmental conditions affecting products on Site.

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- B. Conduct operations not to interfere with, interrupt, damage, destroy, or endanger integrity of surface or subsurface structures or utilities, and landscape in immediate or adjacent areas.

1.10 COORDINATION

- A. See Section 01300, Administrative Requirements: Requirements for coordination.

PART 2 PRODUCTS

2.1 FIRE HYDRANTS

- A. Manufacturers:
 - 1. Kennedy Valve – Guardian Type K81.
 - 2. American Flow Control – American Darling Type B-84-B-5.
 - 3. Mueller Co. – Super Centurion - 250 Type A-423.
 - 4. No substitutions.
- B. Dry-barrel Break-away Type: AWWA C502; cast-iron body, compression type valve.
 - 1. Bury Depth: Minimum 4-feet.
 - 2. Inlet Connection: 6-inches.
 - 3. Valve Opening: 5 1/4-inches diameter.
 - 4. Ends: Mechanical Joint.
 - a. Restrain end to pipe with Mechanical Joint Restraint Gland conforming to Section 02513, Public Water Distribution Piping.
 - 5. Bolts and Nuts: Galvanized steel Stainless steel Bronze.
 - 6. Coating: AWWA C550; interior.
 - 7. Direction of Opening: Clockwise unless otherwise indicated.
 - 8. Operating Stem Nut: 1 1/2-inch pentagonal.
- C. One steamer (pumper), two hose nozzles.
 - 1. Hose: 2 1/2-inch with thread design per Contract Documents.
 - 2. Steamer (Pumper): 4 1/2-inch threaded to meet NFPA No. 194.
 - 3. Attach nozzle caps by separate chains.
- D. Finish
 - 1. Below Grade: 2 coats approved asphaltum paint.
 - 2. Above Grade: Primer and two coats of enamel.
 - 3. Color: Safety Red No. 97-601.

2.2 2-INCH BLOW-OFFS

- A. 2-inch Blow-Off Hydrant shall be 3-feet bury, with 2-inch vertical FIP inlet.
- B. 2-inch Blow-Off Hydrant shall be non-freezing and self-draining.
- C. 2-inch Blow-Off Hydrant shall be operated by turning a top-mounted 9/16-inch square operating nut counterclockwise to open, clockwise to close.

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- D. 2-inch Blow-Off Hydrant must seal the drain outlet in all positions from 1/4 open to fully open. All internal working parts, the inlet and outlet shall be low-lead brass.
- E. All working parts shall be serviceable from above with no digging required.
- F. All wear parts (O-rings and valve seat) shall be of commonly available dimensions and materials, and none may be of vendor-unique design.
- G. Manufacturers:
 - 1. Kupferle Foundry Company, TF500 Truflo Blow-Off Hydrant.
 - 2. Water Plus Corporation, Valve Box Flushing Hydrant VB2000B.
 - 3. Or Equal.

2.3 ACCESSORIES

- A. Concrete for Thrust Restraints: Concrete type specified in Section 03300, Cast-In-Place Concrete.
- B. Aggregate: Type A3 for hydrant drainage as specified in Section 02060, Aggregates for Earthwork.

PART 3 EXECUTION

3.1 EXAMINATION

- A. See Section 01300, Administrative Requirements: Verification of existing conditions before starting Work.
- B. Determine exact location and size of hydrants from Contract Documents. Obtain clarification and directions from OWNER prior to execution of Work.
- C. Verify invert elevations of existing work prior to excavation and installation of fire hydrants.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Locate, identify, and protect utilities to remain from damage.
- C. Do not interrupt existing utilities without permission and without making arrangements to provide temporary utility services.
 - 1. Notify OWNER not less than 3 days in advance of proposed utility interruption.
 - 2. Do not proceed without written permission from the OWNER.
- D. Perform trench excavation, backfilling, and compaction in accordance with Section 02324, Trenching, Backfilling, and Compaction.

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3.3 INSTALLATION

- A. Refer to Contract Documents.
- B. Install fire hydrants; provide support blocking and drainage gravel; do not block drain hole.
- C. Set hydrants plumb with pumper nozzle facing roadway; set hydrants with centerline of pumper nozzle 18-inches above finished grade and safety flange not more than 6-inches nor less than 2-inches above grade.
- D. After hydrostatic testing, flush hydrants, and check for proper drainage.

3.4 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

- A. Flush and disinfect system in accordance with Section 02516, Flushing, Disinfection, and Dechlorination of Water Pipelines.

3.5 FIELD QUALITY CONTROL

- A. See Section 01400, Quality Requirements and 01700, Execution Requirements: Field inspecting, testing, adjusting, and balancing.
- B. See Section 02513, Public Water Distribution Piping.

END OF SECTION

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SECTION 02281

MANHOLE AND CATCH BASIN GRADE ADJUSTMENT

Revision Log

Revision Date	Part	Revision

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Raising manhole frames and covers.
 - 2. Replacing manhole frames and covers.

- B. Related Sections:
 - 1. Section 02082 – Public Manholes and Structures
 - 2. Section 02539 – Public Sanitary and Storm Sewer Piping
 - 3. Section 02740 – Asphalt Pavement
 - 4. Section 02750 – Concrete Pavement
 - 5. Section 03300 – Cast-In-Place Concrete

1.2 MEASUREMENT AND PAYMENT

- A. See Section 01200 – Price and Payment Procedures.

1.3 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C478 – Standard Specification for Circular Precast Reinforced Concrete Manhole Sections.
 - 2. ASTM C990 – Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
 - 3. ASTM F593 – Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.

1.4 SUBMITTALS

- A. See Section 01330, Submittal Procedures: Requirements for submittals.

- B. Product Data: Submit manhole covers and riser rings construction, features, configuration, and dimensions.

- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

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D. Qualifications listed in paragraph 1.7, Qualifications.

1.5 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual grade adjustment elevation of manhole.

1.6 QUALITY ASSURANCE

A. Perform Work in accordance with City of Pittsburgh, Allegheny County, and Pennsylvania Department of Transportation (PENNDOT), and OWNER standards.

1.7 QUALIFICATIONS

A. Installer: Company specializing in performing work of this section with minimum 3 years documented experience.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Accept materials on site in undamaged, unopened containers, bearing Manufacturer's original labels. Inspect for damage.

B. Protect materials from damage by storage in secure location.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

PART 2 PRODUCTS

2.1 MANHOLE FRAMES AND COVERS

A. Conform to Section 02082, Public Manholes and Structures.

2.2 GRADE ADJUSTMENT RISERS

A. Rubber Adjustment Riser (Adjustment of 3-inch total thickness and less):

1. Flat or tapered.
2. Circular or rectangular.
3. Manufacturer:
 - a. Infra Riser by East Jordan.
 - b. Pro-ring by Cretex.
 - c. Or Equal.

B. Reinforced Concrete Grade Adjustment Ring (Adjustment from 3-inch to 12-inch total thickness):

1. Non-tapered ring only.
2. Design meets the requirements of ASTM C478.
3. Minimum concrete compressive strength: 4,000 psi at 28 days.

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4. Free from cracks, voids, and other defects.
 5. Width to accommodate manhole frame and allow frame to fastened to the grade ring with a minimum of 2 bolts.
 6. Provide bolt holes to accommodate frame anchor bolts. No field drilling of holes shall be permitted.
 7. Inside diameter: To match manhole frame and cover.
 8. To minimize the number of joints, grade adjustment shall be made using the minimum number of grade adjustment rings possible.
- C. Adjustment by brick and mortar is prohibited.
- D. Accessories:
1. Joint Sealant: Polyurethane Joint Sealant/Adhesive conforming to ASTM C990.
 2. Bolts:
 - a. Stainless Steel, ASTM F593.
 - b. 3/4-inch Diameter.
 - c. Embedded Depth: 2-inch minimum.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify and locate manholes requiring grade adjustment.

3.2 EXISTING WORK

- A. Saw cut existing paving.
- B. Excavate.
- C. Clean manholes.
- D. Remove existing manhole frames and covers.
- E. Repair waterproofing.

3.3 RAISING MANHOLE FRAMES AND COVERS

- A. Locate and raise manholes to grade as indicated on Contract Documents.
1. Adjustment 12-inch or less:
 - a. Use materials listed in paragraph 2.2, Grade Adjustment Risers.
 2. Adjustment greater than 12-inch:
 - a. For Pre-Cast Concrete Manholes:
 - 1) Remove top cone section of manhole.
 - 2) Install new pre-cast concrete manhole barrel section of appropriate length, conforming to Section 02082, Public Manholes and Structures.
 - 3) Reinstall or replace top cone section.
 - 4) Perform final (small) adjustment as necessary.

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- b. For Brick Manholes:
 - 1) See Contract Documents.
 - 2) Adjustments greater than 4-foot in depth shall be approved by the OWNER and conform to Contract Documents.

B. Use flat or tapered rubber manhole rings to achieve elevation indicated for frame and cover.

C. Do not adjust elevation more than 3-inches with rubber manhole rings.

D. Apply two, 1/2-inch continuous beads of sealant between manhole, grade rings, and frame.

E. Reinstall removed manhole frame and cover.

3.4 REPLACING MANHOLE FRAMES AND COVERS

A. Remove existing manhole frames and covers to enable reuse.

B. Deliver removed manhole frames and covers to OWNER as maintenance materials.

C. Install new frames and covers for manholes as indicated on Contract Documents. Adjust to match finished grade as indicated on Contract Documents. Seal joints between manholes and manhole frames. Apply two, 1/2-inch continuous beads of sealant between manhole, grade rings, and frame.

3.5 PAVING RESTORATION

A. Restore paving areas in accordance Section 02740, Asphalt Pavement and Section 02750, Concrete Pavement and applicable Contract Documents.

END OF SECTION

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SECTION 02630
STORM DRAINAGE

Revision Log

Revision Date	Part	Revision
5/1/2024	Part 2	Revised manufacturer product and model numbers.

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cleanouts.
2. Inlets.
3. Catch Basins.
4. Water Quality Inserts.

B. Related Sections:

1. Section 02060 – Aggregates for Earthwork
2. Section 02230 – Site Clearing
3. Section 02281 – Manhole and Catch Basin Grade Adjustment
4. Section 02324 – Trenching, Backfilling, and Compaction
5. Section 02539 – Public Sanitary and Storm Sewer Piping
6. Section 02952 – Sewer and Manhole Testing
7. Section 02750 – Concrete Pavement
8. Section 03300 – Cast-In-Place Concrete
9. Section 03600 – Grout

1.2 MEASUREMENT AND PAYMENT

- A. See Section 01200 – Price and Payment Procedures.

1.3 REFERENCES

A. American Association of State Highway Transportation Officials (AASHTO):

1. AASHTO M306 – Drainage Structure Castings.

B. American Concrete Institute (ACI):

1. ACI 530/530.1 – Building Code Requirements and Specification for Masonry Structures and Companion Commentaries.

C. ASTM International (ASTM):

1. ASTM A48/A48M – Standard Specification for Gray Iron Castings.
2. ASTM A123/A123M – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.

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3. ASTM C76 – Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
4. ASTM C361 – Standard Specification for Reinforced Concrete Low-Head Pressure Pipe.
5. ASTM C443 – Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets
6. ASTM C478 – Standard Specification for Precast Reinforced Concrete Manhole Sections.
7. ASTM C497 – Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile.
8. ASTM C913 – Standard Specification for Precast Concrete Water and Wastewater Structures.
9. ASTM C923 – Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals.

1.4 SUBMITTALS

- A. Section 01330, Submittal Procedures: Requirements for submittals.
- B. Shop Drawings: Indicate structure locations.
- C. Product Data: Submit frames and grates, component construction, features, configuration, dimensions.
- D. Qualifications listed in paragraph 1.6.
- E. Manufacturer's installation instructions and certificate for water quality inserts.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with the more stringent requirements of the City of Pittsburgh, Allegheny County, Pennsylvania Department of Transportation (PennDOT), and the OWNER.
- B. Shop Inspection:
 1. All materials furnished by the CONTRACTOR shall be certified by the supplier for compliance with the pertinent specifications. Shop inspections and testing may be required. The cost of shop testing shall be borne by the supplier or the CONTRACTOR.
- C. Field Inspection:
 1. All materials furnished shall be tested for defects in material and/or workmanship in the manner specified and in the presence of and as approved by the OWNER.
 2. Verify that received water quality inserts will fit the catch basin and inlets.
- D. Source Quality Control:
 1. Maintain uniform quality of products and component compatibility by using the products of one manufacturer in the case of precast reinforced concrete catch basins and inlets.
 2. Obtain certificate of construction compliance with ASTM C478 from the precast reinforced concrete catch basin and inlet manufacturer.
 3. Obtain sworn certification from manufacturer that structures were constructed using Type II Portland cement. No payment for catch basins or inlets will be approved until such certificate has been submitted.

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4. Obtain certificate of material compliance with ASTM A48, Class 30 tensile strength from the frame, grate, and casting manufacturer. Furnish certification that tensile test bars were from same pour as castings.
5. Obtain certification from manufacturer that all components meet or exceed AASHTO HS-20 highway loading requirements.
6. Sections shall be steam cured and shall not be shipped until at least five days after having been cast.
7. Mark inside of each precast structure by indentation or waterproof paint showing date of manufacture, manufacturer, and identifying symbols and numbers shown on Contract Documents to indicate its intended use.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum 3 years documented experience.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Comply with Section 01600, Product Requirements: Product storage and handling requirements.
- B. Comply with precast concrete manufacturer's instructions and ASTM C913 for unloading, storing, and moving precast structures.
- C. Store precast concrete catch basins and inlets to prevent damage to OWNER's property or other public or private property. Repair property damaged at CONTRACTOR's expense.
- D. Store water quality inserts in a cool, dry location out of direct sunlight and not in contact with petroleum products.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. See Section 01600, Product Requirements.
- B. Cold Weather Requirements: ACI 530/530.1.
- C. In no instance set or construct catch basin or inlet bases on subgrade containing frost.
- D. To improve workability of Preformed Plastic Sealing Compound during cold weather, store such at temperature above 70 degrees Fahrenheit or artificially warm compound in a manner satisfactory to the OWNER.

PART 2 PRODUCTS

2.1 GENERAL

- A. Catch Basins and inlets shall consist either of precast or poured in-place concrete box, cast iron frame and bicycle safe grate, all necessary risers, and cast iron curb inlet casting (Type 13 Modified only).

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2.2 MANHOLE FRAMES AND COVERS

- A. Conform to Section 02082, Public Manholes and Structures.

2.3 STORMWATER INLET AND CATCH BASIN STRUCTURES

A. Catch Basin and Inlet Structure Sections:

1. Concrete shall be minimum 4,000 psi at 28-days.
 - a. Class AA.
 - b. Or Equal.
2. H-20 Live Load Rating
3. Reinforced precast concrete shall be in accordance with ASTM C478 with gaskets in accordance with ASTM C923.
4. Wall Thickness: 8-inch (Reinforced Concrete), 12-inch (Non-Reinforced Concrete)
 - a. Vertical Rebar - #6 Rebar, 6-inch center to center.
 - b. Horizontal Rebar - #4 Rebar, 12-inch center to center.
5. Base Thickness: 8-inch (Reinforced Concrete), 12-inch (Non-Reinforced Concrete)
 - a. Rebar - #4 Rebar, 12-inch center to center.
6. Aggregate Base: For precast only, compacted, 12-inch thick.
7. Dimensions per Contract Documents.
8. Invert: 20-inch above the bottom of the structure.

B. Hook and Trap for Catch Basins:

1. Hook:
 - a. East Jordan EJIW 593479.
 - b. Neenah Foundry 3711-0003 and 3711-400
 - c. Or Equal.
2. Trap:
 - a. East Jordan EJIW 595475.
 - b. Neenah Foundry R-3701
 - c. Or Equal.
3. Bottom of Hook and Trap to be 16-inch above the bottom of the structure.

2.4 CATCH BASIN FRAME AND GRATE

A. Cast Iron, conforming to ASTM A48.

1. Class 30 Minimum Strength.
2. Cast Iron or Gray Iron.

B. Manufacturers:

1. Frame:
 - a. East Jordan Iron Works:
 - 1) EJIW 535713 (3-Flange) – Type 13 & Type 13 Modified.
 - 2) EJIW 535711 (4-Flange) – Type 9.
 - 3) EJIW 535711 – Type 10
 - 4) EJIQ 649611 – Type 5
 - b. Neenah Foundry:
 - 1) NF –3572-2304 (3-Flange) – Type 13 & Type 13 Modified.
 - 2) NF - 3572-2303 (4-Flange) – Type 9.

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- c. Or Equal.
- 2. Grate:
 - a. East Jordan:
 - 1) EJIW 535571.
 - 2) EJIW 535571 – Type 10 Grate
 - 3) EJIW 649631 – Type 5 Grate
 - 4) EJIW 535571 – High Flow Grate
 - b. Neenah Foundry:
 - 1) NF – 3574-3000.
 - 2) NF 9994-6003 – Type 5 Grate
 - 3) NF 3573-3000 – High Flow Grate
 - c. Or Equal.

2.5 WATER QUALITY INSERTS

A. Bag Type Inlet Filter Inserts

- 1. Corrosion resistant frame and replicable bag designed to fit standard inlet and/or catch basin castings. Specified type shall be per Contract Documents,
 - a. Manufacturers:
 - 1) Flexstorm Pure with PC or PC+ bag by Advance Drainage Systems.
 - 2) Stormsack by Fabco Industries Inc.
 - 3) Or Equal.

B. Cartridge Type Inlet Filter Inserts

- 1. Corrosion resistant frame and replicable bag designed to fit standard inlet and/or catch basin castings. Specified type and cartridge type(s) shall be per Contract Documents,
 - a. Manufacturers:
 - 1) Stormbasin by Fabco Industries Inc.
 - 2) Or Equal.

2.6 BEDDING AND BACKFILL MATERIALS

- A. Bedding and Backfill Materials shall conform to Section 02324, Trenching, Backfilling, and Compaction.

PART 3 EXECUTION

3.1 EXAMINATION

- A. See Section 01300, Administrative Requirements: Verification of existing conditions before starting Work.
- B. Verify items provided by other sections of Work are properly sized and located.
- C. Verify built-in items are in proper location and ready for roughing into Work.
- D. Verify correct size of excavation.

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3.2 PREPARATION

- A. Perform bypass pumping in accordance with Section 01510, Bypass Pumping.
- B. Coordinate placement of inlet and outlet pipe or duct sleeves required by other sections.
- C. A waterstop gasket and approved clamp assembly shall be installed around the pipe when entering and leaving a catch basin or inlet wall.
- D. Do not install catch basins or inlets where site conditions induce loads exceeding structural capacity of structures.
- E. Inspect precast structures immediately prior to placement in excavation to verify manholes and structures are internally clean and free from damage. Remove and replace damaged units.
- F. The excavation shall be properly dewatered while placing bedding material and pouring the concrete.

3.3 INSTALLATION - GENERAL

- A. Excavation and Backfill:
 - 1. Excavate for catch basins and inlets in accordance with Section 02324, Trenching, Backfilling, and Compaction. Provide clearance around sidewalls of catch basin and inlet for construction operations, granular backfill, and, if required, placement of geotextile filter fabric.
 - 2. When groundwater is encountered, prevent accumulation of water in excavations. Place structure in dry trench.
- B. Set catch basins and inlets in the proper location at the invert elevations indicated on the Contract Documents with rim at the proper elevation. Set structure plumb and true on aggregate base (compacted aggregate for pre-cast structures only). Under no condition remove a portion of the structure for adjustment purposes.
- C. Install catch basins and inlets in a manner to ensure watertight construction.
- D. Install catch basins and inlets to preclude sediment from any tributary areas from entering the structure until such areas have been stabilized.
- E. Place sections plumb and level, trim to correct elevations, and anchor to foundation slab, as applicable.
- F. Backfill excavations for structures in accordance with Section 02324, Trenching, Backfilling and Compaction.

3.4 PRECAST CONCRETE INLET AND CATCH BASIN INSTALLATION

- A. Lift precast inlet or catch basin at lifting points designated by Manufacturer.

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- B. When lowering inlet or catch basin into excavations and joining pipe to units, take precautions to ensure interior of pipeline and structure remains clean.
- C. Set precast inlet or catch basin firmly and fully on 12-inches of compacted Type A1 crushed stone bedding, consolidated in accordance with provisions of Section 02324, Trenching, Backfilling, and Compaction.
- D. Remove foreign materials from joint surfaces and verify sealing materials are placed properly.
- E. Verify inlet or catch basin structures installed satisfy required alignment and grade.
- F. Remove knockouts without creating openings larger than required to receive pipe. Fill annular space in accordance with Section 03600, Grout.
- G. Cut pipe to finish flush with interior wall.
- H. Damaged curb shall be sawcut in accordance with Section 02230, Site Clearing.
- I. Form and replace damaged curb in accordance with Section 02750, Concrete Pavement.

3.5 CAST-IN-PLACE CONCRETE INLET AND CATCH BASIN INSTALLATION

- A. Prepare crushed stone bedding or other support system shown on Standard Details, to receive foundation slab as specified for precast manholes and structures.
- B. Erect and brace forms against movement in accordance with Section 03300, Cast-In-Place Concrete.
- C. If CONTRACTOR elects to install an 8-inch wall thickness, install reinforcing steel as indicated on Contract Documents and in accordance with Section 03300, Cast-In-Place Concrete.
- D. Place and cure concrete in accordance with Section 03300, Cast-In-Place Concrete.
- E. Damaged curb shall be sawcut in accordance with Section 02230, Site Clearing.
- F. Form and replace damaged curb in accordance with Section 02750, Concrete Pavement.

3.6 CAST-IN-PLACE CONCRETE INLET AND CATCH BASIN WITH PRECAST CONCRETE BASE INSTALLATION

- A. Set precast base firmly and fully on 12-inches of compacted Type A1 crushed stone bedding, consolidated in accordance with provisions of Section 02324, Trenching, Backfilling, and Compaction.
- B. Erect and brace forms against movement in accordance with Section 03300, Cast-In-Place Concrete.
- C. If CONTRACTOR elects to install an 8-inch wall thickness, install reinforcing steel as indicated on Contract Documents and in accordance with Section 03300, Cast-In-Place Concrete.

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- D. Install joint gaskets between precast base and cast-in-place sections in accordance with manufacturer's recommendations and Contract Documents. Lower, set level, and firmly position base section before placing or casting additional sections.
- E. Place and cure concrete in accordance with Section 03300, Cast-In-Place Concrete.
- F. Damaged curb shall be sawcut in accordance with Section 02230, Site Clearing.
- G. Form and replace damaged curb in accordance with Section 02750, Concrete Pavement.

3.7 FRAME, GRATE, AND CASTING INSTALLATION

- A. Frames shall be set into 2 rings of elastomeric sealant and secured with a minimum of 2, 3/4-inch Stainless Steel anchor bolts.
- B. Any casting set more than 3/16-inch above or below the finished surface of the adjoining concrete, brick, block, stone, or bituminous surface, as determined by a 10-foot straight edge, shall be reset by the CONTRACTOR and at the CONTRACTOR's expense.
- C. Provide for adjustment of frames using solid rubber composite or adjustable risers conforming to Section 02281, Manhole and Catch Basin Grade Adjustment, with a cement mortar or non-shrink grout to close the opening between the frame and structure.
- D. Set top of frame flush with the ordained (original) street grade. Provide for adjustment of grates to finished street grade using precast steel leveling rings.

3.8 WATER QUALITY INSERT INSTALLATION

- A. Remove the grate from the casting or drainage structures. Clean the ledge (lip) of the casting or drainage structure to ensure it is free of dirt and stone. Drop in the water quality filter insert through the clear opening and rest the suspension hangers firmly on the inside ledge (lip) of the casting or drainage structure. Replace the grate and confirm it is not elevated more than an 1/8-inch.
- B. For curb box inlet filters refer to the Manufacture's installation instructions.

3.9 FIELD QUALITY CONTROL

- A. See Section 01400, Quality Requirements.
- B. See Section 01700, Execution Requirements.
- C. Test cast-in-place concrete in accordance with Section 03300, Cast In-Place Concrete.

END OF SECTION

THE PITTSBURGH WATER AND SEWER AUTHORITY
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EXHIBIT C
Construction Cost Estimate

CONSTRUCTION
COST ESTIMATE
 for
Liberty Avenue HSIP
PWSA Items

ITEM NO.	ITEM	UNIT	UNIT PRICE	QTY.	ITEM PRICE
9000-0022	Fire Hydrant Relocation	Each	\$18,000.00	2	\$36,000
9000-6061	Grade Adjustment of Municipality's or Authority's Existing Valve Box Risers or Adapters, Adjustment Only	Each	\$500.00	51	\$25,500
9000-6062	Grade Adjustment of Municipality's or Authority's Existing Valve Box Risers or Adapters, Material Only	Set	\$100.00	51	\$5,100
9000-6063	Grade Adjustment of Municipality's or Authority's Existing Facility Hole, Adjustment Only	Each	\$1,500.00	18	\$27,000
9000-6064	Grade Adjustment of Municipality's or Authority's Existing Facility Hole, Material Only	Set	\$500.00	18	\$9,000
9607-0101	Rebuild PWSA Water Box	Each	\$900.00	2	\$1,800

SUBTOTAL		\$104,400
CONTINGENCY	20%	\$20,880
	SUBTOTAL	\$125,280
2026 ESCALATION	4%	\$130,291

COST ESTIMATE	\$140,000
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CERTIFICATE OF SERVICE

I hereby certify that I served a copy of the foregoing Public Utility Municipal Contract – Reimbursement Agreement between The City of Pittsburgh and The Pittsburgh Water and Sewer Authority related to the Utility Adjustment in connection with the Liberty Avenue HSIP Project - upon the persons listed below in the manner indicated in accordance with the requirements of 52 Pa. Code Section 1.54.

Via Email Only (due to the current pandemic emergency)

Darryl Lawrence
Office of Consumer Advocate
ra-oca@paoca.org

NazAarah Sabree
Office of Small Business Advocate
nsabree@pa.gov
ra-sba@pa.gov

Allison Kaster
Bureau of Investigation and Enforcement
akaster@pa.gov

Dated: November 13, 2025

/s/ Monica Walaan _____
Monica Walaan, Esq.
Chief Legal Officer
The Pittsburgh Water and Sewer Authority
d/b/a Pittsburgh Water