



# City of Muscatine

ITEM NUMBER 2026-0090

## AGENDA ITEM SUMMARY

DATE: 3/3/2026

### STAFF

---

Kevin Coon, City Engineer  
Brian Stineman, Public Works Director

### SUBJECT

---

Request to Approve Change Order Number 1 to the West Hill Sewer Separation Project Phase 6D in the Amount of \$89,180.80.

### EXECUTIVE SUMMARY

---

Presented for Council consideration is change order number 1 to the West Hill Sewer Separation Phase 6D Project in the amount of \$89,180.80. This change order covers a multitude of items including changes in materials, rock excavation, working days, and added water main work.

### STAFF RECOMMENDATION

---

Staff recommends approval of the request.

### BACKGROUND/DISCUSSION

---

This change order is a culmination of multiple small scale items that have occurred throughout the project thus far and serves as overall documentation for those items. The changes are as follows:

- A no-cost change from 15" PVC Truss Pipe to solid wall SDR-35 PVC due to the lack of availability of pre-formed wye connections for the truss style pipe.
- A no-cost change from 6" standard curb to a 4" roll curb around the culdesac of Hagerman Drive in order to better serve both the property owners and the city maintenance crews.
- A cost savings of \$3,919.20 for switching from pre-cast 8' diameter storm manholes to rectangular 8'x5' manholes. This change was a request from the contractor and resulted in a net cost savings for the city.
- The addition of two rock excavation items due to unforeseen rock shelves being found in the trench area of the sanitary sewer. These items have a total cost of \$5,000.00 but could vary

wildly depending on how much rock is encountered as work progresses. The location of the rock shelves in this area has not followed typical patterns.

- The addition of 341 feet of water main replacement on Logan Street and all related items. This cost is \$88,100.00 and the water main was added at the request of Muscatine Power and Water due to the age and condition of the water main on Logan Street.

- The addition of 35 working days to the contract. This is due a supply chain delay that caused 15 days of missed work along with another 20 day delay caused by critical activities in the West Hill Phase 6C contract that cut off access for construction equipment on Hagerman Drive.

A further breakdown of the individual items and costs can be seen in the attached change order.

**CITY FINANCIAL IMPACT**

---

Funds for the city portion of the change order (\$1,080.80) is available through the State Revolving Fund Loan on the project. Funding for the water main portion of the project (\$88,100.00) is non-participating with the State Revolving Fund and will be initially paid through the Local Option Sales Tax which will then be reimbursed by Muscatine Power and Water.

**ATTACHMENTS**

---

1. 2026-0090 West Hill Ph 6D CO-1 (2)

# CONTRACT MODIFICATION

		Non-	Non-
	Part	Part	Part
Non-Substantial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Substantial	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No: CO 1

Concurrence Date \_\_\_\_\_

Contract ID: West Hill Phase 6D

County: Muscatine

Accounting ID: \_\_\_\_\_

Project No: N/A

Kind of Work: Sewer Separation

Date Prepared: 2/23/25

Contractor: KE Flatwork Inc.

You are hereby authorized to make the following changes to the contract documents.

**A – Description of changes to be made or extra work to be done:**

This change order is meant to formalize multiple minor field changes to the project as well as establish pricing for rock excavation, and add a non-participating scope for water main replacement on Logan Street.

-15" truss pipe is being switched to SDR-35 solid wall PVC as a no-cost approved equal product. This change was due to the fact that pre-formed wye connections for 15" truss are no longer manufactured, but are available for the SDR-35. This is done in accordance with SUDAS Division 1 Section 1060 - 1.02 - E.

-The curb line on the culdesac bulb at the end of Hagerman Drive is being changed to a 4" roll curb in lieu of a standard 6" curb in order to accomodate access into the rear ravine area for both City and private land owner use. This is a no-cost change.

- At the contractors request, storm structures ST 2, 3, & 4 were changed from SW-401 round structures to SW-402 rectangular structures. St 1 was also changed from an SW-401 style structure to an SW-404 rectangular structure. This is done in accordance with SUDAS Division 1 Section 1060 - 1.02 - E and results in a total cost savings of \$3,919.20. The breakdown of which can be seen on the following pages. The project items are to be adjusted as follows:

Item 72, SW-401 8' Dia, Reduce item quantity by 3 at a unit cost of \$12,000.00, for a total change of -\$36,000.00.

Item 73, SW-401 8' Dia With 4' Riser, Reduce item quantity by 1 at a unit cost of \$12,354.00 for a total change of -\$12,354.00

Add Item, SW-402 8'x5', with a proposed item quantity of 3 at a unit cost of \$10,957.80, for a total change of \$32,876.40

Add Item, SW-404 8'X5' With 5' Riser, with a proposed item quantity of 1 at a unit cost of \$11,558.40, for a total change of \$11,558.40

- Rock shelves have been observed during excavation on the project at an elevation to conflict with sewer installation. In anticipation of this two items are being added, one for the use of pneumatic hammering, and one for the use of mechanical excavation. The quantities shown are just to establish a price and will vary depending on use. Further details for the items can be seen in attached ITC 2.

Add Item, Rock Excavation (Pneumatic Hammer), with a quantity of 20 CY at a unit cost of \$150.00 for a total cost of \$3,000.00

Add Item, Rock Excavation (weathered rock disposal), with a quantity of 20 CY at a unit cost of \$100.00 for a total cost of \$2,000.00

Contract Time Adjustment:  No Time Added  Time Added 35 Working Days  To be determined later

When authorized, contractor agrees to perform the work outlined above in accordance with provisions of the contract documents.

Agreed: [Signature]  
Contractor

3/5/26 Recommended: \_\_\_\_\_  
Date Site Staff Date

Approved: Kevin Coon  
Kevin Coon (Mar 4, 2026 10:42:52 CST)  
City Engineer

Mar 4, 2026  
Date

Approved: [Signature]  
Brian Stineman (Mar 4, 2026 14:15:47 CST)  
Public Works Director Date

Federal Participation  Approved  Not Eligible

City of Muscatine [Signature]  
Brad Bark (Mar 4, 2026 17:40:45 CST)  
Mayor (if required) Date

**CONTRACT MODIFICATION**

No: CO 1

		Non-
	Part	Part
Non-Substantial	<input type="checkbox"/>	<input type="checkbox"/>
Substantial	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Concurrence Date \_\_\_\_\_

Contract ID: West Hill Phase 6D

County: Muscatine

Accounting ID: \_\_\_\_\_

Project No: N/A

Kind of Work: Sewer Separation

Date Prepared: 2/23/25

Contractor: KE Flatwork Inc.

You are hereby authorized to make the following changes to the contract documents.

A – Description of changes to be made or extra work to be done:

- A non-SRF participating portion of water main replacement has been requested to be added into the project by the city's water utility. The plans are attached and the below item changes incorporate this replacement.

- Item 129, Water Main C-900 PVC 6", Increase item by 341 LF at a unit price of \$170.00 for a total increase of \$57,970.00
- Item 134, Water Service Adjustment 1", Increase item by 10 EA at a unit price of \$1,700.00 for a total increase of \$17,000.00
- Item 135, Water Main Abandonment, Increase item by 351 LF at a unit price of \$30.00 for a total increase of \$10,530.00
- Add Item, Gate Valve 6" Mechanical, Add 1 EA at a unit price of \$1,750.00 for a total increase of \$1,750.00
- Add Item, Fittings Tee 6", Add 1 EA at a unit price of \$850.00 for a total increase of \$850.00

- Due to supply chain delays with some of the above changes, a total of 15 working days were lost. An additional 20 working days were lost due to activities taking place on the previous phase preventing the contractor from working. Thus, an additional 35 working days will be added onto the completion date of the project and all subsequent milestone dates.

Total non-participating cost added this change order is \$88,100.00  
 Total participating cost added this change order is \$1,080.80  
 Total working days added is 35.

Contract Time Adjustment:  No Time Added  Time Added 35 Working Days  To be determined later

When authorized, contractor agrees to perform the work outlined above in accordance with provisions of the contract documents.

Agreed: \_\_\_\_\_ Date \_\_\_\_\_ Recommended: \_\_\_\_\_ Date \_\_\_\_\_  
Contractor Site Staff

Approved: Kevin Coon Mar 4, 2026 Approved: Brian Stineman Mar 4, 2026  
Kevin Coon (Mar 4, 2026 10:42:52 CST) Date Date  
City Engineer Public Works Director

Federal Participation  Approved  Not Eligible City of Muscatine Brad Bark Mar 4, 2026  
Date Date  
Mayor (if required)

Muscatine 6D Change order request  
 Description-- Changing Round Manholes to Square Manholes

**KE Flatwork Inc.**

ITEM NO.	ITEM DESCRIPTION	UNITS	QUANTITY	UNIT COST	EXTENDED PRICE
ST 1	Round to a Rectangle 8' by 5" W/5' riser	LS	1	-795.60	\$ (795.60)
ST 2	Round to a Rectangle 8' by 5"	LS	1	-1,138.80	\$ (1,138.80)
ST 3	Round to a Rectangle 8' by 5"	LS	1	-1,057.80	\$ (1,057.80)
ST 4	Round to a Rectangle 8' by 5"	LS	1	-927.00	\$ (927.00)
	<b>Credit Back to City</b>			Total	<b>\$ (3,919.20)</b>



## INSTRUCTION TO CONTRACTOR

West Hill Area Sanitary and Storm Sewer Separation  
Project

Project No. 17660.60.00

KE Flatwork, Inc  
Contractor

Contract No. Phase 6D

Phase 6D  
Contract Description

Instruction No. 02

Date December 17, 2025

This instruction is issued to:

- Clarify drawings, specifications, or procedures.
- Request a proposal.
- Transmit drawings or documents for incorporation into the work.
- Other

### **ITC NO. 01 SUBJECT: Rock Excavation on Hagerman Drive**

**Background:** Contractor has encountered both weathered and solid rock within the pipe trench during installation of sanitary sewer on Hagerman Drive. It was reported to Stanley Consultants that rock trench excavation was occurring on 11-24-2025, including hammering out the rock.

The Phase 6D contract does not include a separate pay item for Rock Excavation. All trench excavation digging and hauling and disposal is included in the Pipe pay items, 26 thru 36; 39 thru 44; 45 thru 53, and Structure pay items 67 thru 81 as detailed in the Estimate Reference Notes on sheets C.02 thru C.08.

Rock trench excavation was not anticipated as stated in the Project Manual Special Provisions Section 00 75 00 on page 9.

SUDAS Section 3010 2.01B defines Rock Excavation as “Boulders or sedimentary deposits that cannot be removed in trenches without continuous use of pneumatic tools or blasting”.

Soil borings were not performed prior to project bidding by the design team and soil boring logs were not included in the Contract Documents. To the City’s knowledge none of the bidders or KE Flatwork performed any subsurface investigations before submitting their bid.

*(continued next page)*

---

IF, IN YOUR OPINION, THIS INSTRUCTION INVOLVES WORK WHICH CHANGES THE CONTRACT PRICE OR TIME, YOU MUST SUBMIT A PROPOSAL OR NOTICE AS REQUIRED IN THE CONTRACT DOCUMENTS.

---

Prepared By: Stanley Consultants, Karmen Heim, PE

City Approved By: 



## INSTRUCTION TO CONTRACTOR

*(ITC 02 continued from previous page)*

The City and Design Engineer agree that Rock Excavation is an unforeseen subsurface condition. SUDAS specifications 3010, 1.08B list pay item, Rock Excavation, to include measurement and payment of rock excavation by the cubic yards of rock removed. This unit price item includes, but is not limited to, furnishing the equipment and labor to break up, remove, and properly dispose of rock encountered in the trench.

**Instruction:** Contractor shall continue trench excavation through the rock to install the sanitary or storm sewer as shown on the plans. As needed, Contractor shall dig through the rock or use pneumatic tools to break up the rock to be excavated.

Contractor and City shall measure all rock quantity removed with excavator or pneumatic tools separately. Measurement shall include measuring the width, height and length of rock removed from the pipe trench in feet and converting it to cubic yards. (1 cubic yard = 27 ft<sup>3</sup>). Payment for rock excavation will be made by cubic yards.

Contractor and City to track the amount of time pipe excavation activities are impacted by rock excavation efforts. In accordance with General Provisions Section 1040, 1.09 and 1080, 1.09 B., Contractor shall request a time extension in writing for unforeseen conditions.

### **Contract Changes:**

Contractor has proposed a price in the 11-25-2025 email indicating:

- Rock Excavation (pneumatic excavation/hammering) = \$150.00 / CY
- Rock Excavation (excavated weathered rock disposal) = \$50.00/ CY

The following items shall be added to the Contract:

- Item 128 - Rock Excavation (pneumatic excavation/hammering) – Refer to Section 3010, 1.08 B. Item includes, but is not limited to furnishing the equipment and labor to break up, remove, and properly dispose of rock that requires continuous use of pneumatic tools and hammering of rock from the trench.
- Item 129 - Rock Excavation (excavated weathered rock disposal) – Item includes the transport and disposal of weathered excavated rock that can be removed from the pipe trench without continuous use of pneumatic tools or blasting. Excavation of this weathered broken rock is included in with the cost of the sewer pipe installation.

### **Estimated Costs:**

If rock excavation with pneumatic tools is required for the remainder of Hagerman Drive to Logan Street, the estimated length impacted is 2315'. Assuming rock excavation removal for a width of 3' and height of 3', a total cubic yard estimate is 772 cubic yards. At \$150/cy, the potential added cost could be up to \$115,750.

*(continued next page)*

---

IF, IN YOUR OPINION, THIS INSTRUCTION INVOLVES WORK WHICH CHANGES THE CONTRACT PRICE OR TIME, YOU MUST SUBMIT A PROPOSAL OR NOTICE AS REQUIRED IN THE CONTRACT DOCUMENTS.

---

Prepared By:

Stanley Consultants, Karmen Heim, PE

City Approved By:

---



# INSTRUCTION TO CONTRACTOR

*(ITC 02 continued from previous page)*

**Time:**

Time to perform the added rock excavation will be tracked and submitted by the contractor for consideration.

**Drawing Revisions:** No drawings are revised with this ITC 02.

**Attachment:** November 25, 2025 email from KE Flatwork with proposed pricing.

I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

*Karmen K. Heim*

12-17-2025

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(date)

Printed or typed name: Karmen K Heim

License number: P17381

My license renewal date is: December 31, 2026

Pages or sheets covered by this seal:  
ITC 02



---

IF, IN YOUR OPINION, THIS INSTRUCTION INVOLVES WORK WHICH CHANGES THE CONTRACT PRICE OR TIME, YOU MUST SUBMIT A PROPOSAL OR NOTICE AS REQUIRED IN THE CONTRACT DOCUMENTS.

---

Prepared By:

Stanley Consultants, Karmen Heim, PE

City Approved By:

\_\_\_\_\_

## Heim, Karmen

---

**From:** Clint Albrecht <clintalb@gmail.com>  
**Sent:** Tuesday, November 25, 2025 8:38 AM  
**To:** Kevin Coon; Heim, Karmen  
**Cc:** Lucas Kluever  
**Subject:** Bedrock

**\*\*\* EXTERNAL EMAIL - Use caution and verify authenticity before trusting any contents. \*\*\***

Good morning,

We would like to start the conversation about rock excavation on 6D.

We have been in bedrock now for a few days. Early on the rock was incredibly weathered and we were able to dig through it, now we have to hammer it out to get to grade.

I believe that there needs to be 2 prices. One for rock we can dig through and one that we have to hammer. The rock that we are digging through wouldn't be an issue if it wasn't for the fact that it is over 3' thick in some places. We have to separate this material off because our dump site owner doesn't want it, requiring us to find another place to dump it. And then obviously rock removed with a hydraulic hammer is slow going.

I am proposing a price of \$ 50.00 per CY for rock ex that can be dug out and \$ 150.00 per CY for hammered rock.

Let me know your thoughts and how you would like to proceed. I don't recall a soil boring log with this project. This seems to be an unforeseen and no way to know how long this will be an issue.

Clint Albrecht  
KE Flatwork INC  
563-940-1982 Cell

# LEGEND

— W —	PROPOSED WATER MAIN
— W <sub>x</sub> —	EXISTING WATER MAIN
— G <sub>x</sub> —	NATURAL GAS
— FO <sub>x</sub> —	EXISTING FIBER OPTIC
— OE —	OVERHEAD ELECTRIC
— ES <sub>x</sub> —	BURIED ELECTRIC
— — —	PROPERTY LINE
— SS <sub>x</sub> —	EXISTING SANITARY SEWER
— SS —	SANITARY SEWER
— SD <sub>x</sub> —	EXISTING STORM SEWER
— SD —	STORM SEWER
— — —	PERIMETER EROSION BARRIER
— VV —	VALVE
	HYDRANT
	CURB STOP AND BOX
	REDUCER
	SANITARY MANHOLE
	STORM MANHOLE
	AREA LIGHT
	STREET LIGHT
	UTILITY POLE
	CONTROL POINTS
	PROPERTY CORNER
	TREE

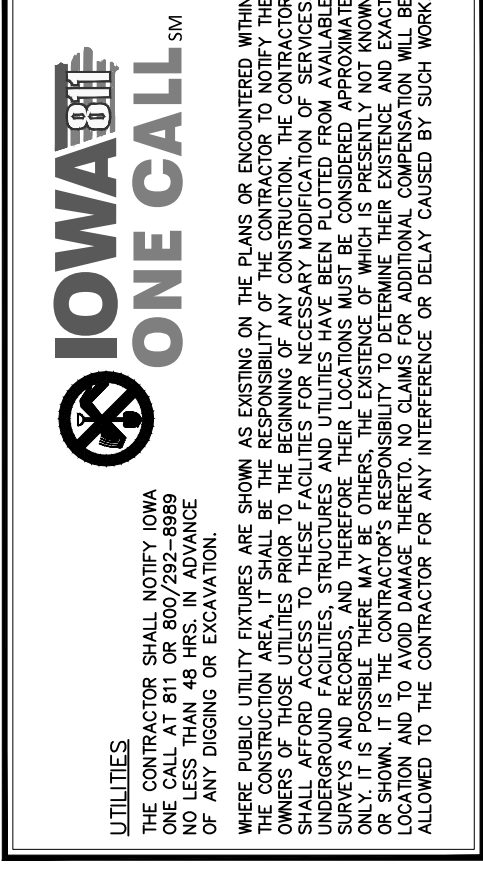
# ABBREVIATIONS

APPROX	APPROXIMATE
AVE	AVENUE
DI	DUCTILE IRON
DR	DRIVE
EXST	EXISTING
INV	INVERT
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
N	NORTH
PH	PHASE
S	SOUTH
SAN	SANITARY
ST	STREET
STA	STATION
TYP	TYPICAL

# WEST HILL AREA SEWER SEPARATION - PHASE 6D WATER MAIN PROJECT CITY OF MUSCATINE MUSCATINE, IOWA

## DRAWING INDEX

SHEET NUMBER	TITLE	REVISION NUMBER
MPW A.01	COVER SHEET	0
MPW B.01	DETAILS	0
MPW C.01	QUANTITIES, ERN, AND TABULATIONS	0
MPW M.01	WATER SHEETS	0
MPW M.02	WATER SHEETS	0
MPW M.03	WATER SHEETS	0



## IOWA ONE CALL UTILITY CONTACTS

**ALLIANT ENERGY**  
 Contact Name : Alliant Energy Field Engineer  
 Contact Phone: 8002554268 Contact Email: [locate IPL@alliantenergy.com](mailto:locate IPL@alliantenergy.com)

**CENTURYLINK**  
 Contact Name : SADIE HULL  
 Contact Phone: 9185470147  
 Contact Email: [sadie.hull@lumen.com](mailto:sadie.hull@lumen.com)

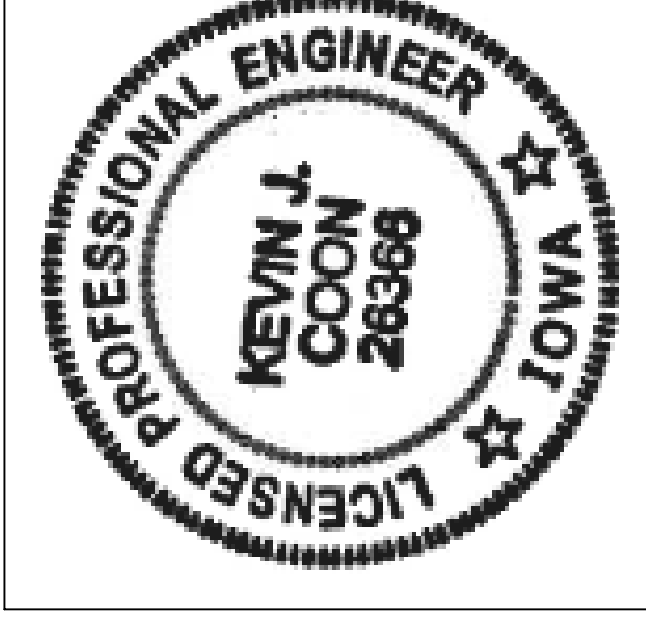
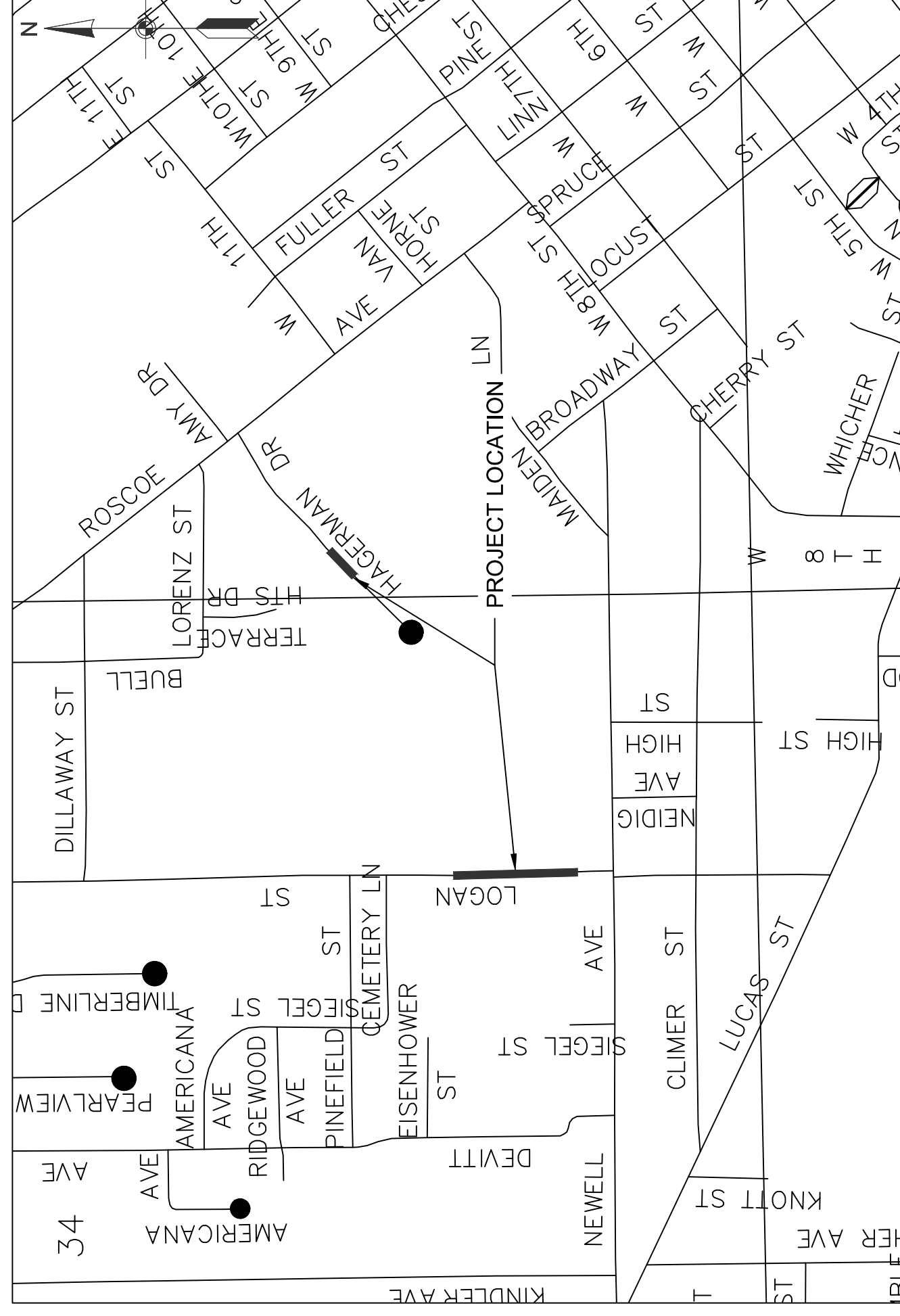
**MUSCATINE POWER AND WATER**  
 Contact Name : Gabriel Jones / Mark Nelson  
 Contact Phone: 5632623298 Contact Email: [designinfo@mpw.org](mailto:designinfo@mpw.org)

**CITY OF MUSCATINE**  
 Contact Name : Office  
 Contact Phone: 5632638933  
 Contact Email: [sewerlocates@muscatineiowa.gov](mailto:sewerlocates@muscatineiowa.gov)

## GENERAL NOTES

1. CONSTRUCT ACCORDING TO MUSCATINE POWER AND WATER STANDARD SPECIFICATIONS FOR WATER DISTRIBUTION SYSTEM IMPROVEMENTS, 2023.
2. ALL BURIED UTILITY LOCATIONS ARE APPROXIMATE AND SHALL BE FIELD LOCATED PRIOR TO EXCAVATION. SEWER, NATURAL GAS, IRRIGATION, TELECOM, AND OTHER HOUSE SERVICE LINES ARE NOT SHOWN ON PLANS. THERE MAY BE OTHER EXISTING UTILITY LINES, STRUCTURES, AND SERVICE CONNECTIONS NOT KNOWN AND NOT SHOWN ON THE DRAWINGS. IN ADDITION, CONTRACTOR SHALL USE POTHOLES OR OTHER METHODS AT KNOWN UTILITY CROSSINGS FOR VISUAL CLEARANCE CHECK DURING DIRECTIONAL DRILLING OPERATIONS.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, DRIVES, STREETS AND OTHER ITEMS TO REMAIN, INCLUDING ANY NOT SPECIFICALLY SHOWN IN THE DRAWINGS. DAMAGE TO EXISTING UTILITIES, DRIVES, STREETS AND OTHER ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.
4. CONTRACTOR SHALL COORDINATE WITH RESIDENTS REGARDING CONTINUATION OF TRASH REMOVAL, MAIL BOXES AND MAIL DELIVERIES, AND ACCESS TO THEIR DRIVEWAYS DURING CONSTRUCTION.
5. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF ANY CONFLICTS BETWEEN THE DRAWINGS AND EXISTING FEATURES.
6. CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY OF UNEXPECTED SUB-SURFACE CONDITIONS. DISCONTINUE WORK IN AREA UNTIL NOTIFIED BY OWNER TO RESUME WORK.
7. CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONSTRUCTION LAYOUT FOR ALL GRADES AND FEATURES.

## LOCATION MAP



I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

*Kevin J. Coon*  
 Signature  
 Kevin J. Coon  
 License Number 26368  
 Date: 2/9/2026  
 My license renewal date is December 31, 2027  
 Sheets covered by this seal: MPW A.01, MPW B.01, MPW C.01, MPW M.01, MPW M.02, AND MPW M.03

COVER SHEET



**CITY OF MUSCATINE**  
 MUSCATINE, IOWA 52761  
 (563) 263 8933  
[www.muscatineiowa.gov](http://www.muscatineiowa.gov)

Date Revision

**MPW WHSSP6D  
WATER MAIN**

**WEST HILL AREA SEWER  
AND SANITARY SEPARATION  
CITY OF MUSCATINE  
IOWA**

**ENGINEERING DEPARTMENT**

Date:	2/3/2026
Designed by:	AAE
Field Book No:	
Drawn by:	AAE
Scale:	
Checked by:	KJC
Sheet No:	MPW A.01
Project No:	WHSSP6



## PROJECT QUANTITIES

ITEM NO.		SUDAS	DESCRIPTION	PROJECT QUANTITIES	UNIT	ESTIMATED QUANTITIES
201	5010-A1		WATER MAIN, TRENCHED, C-900 PVC, RESTRAINED JOINT 6"		LF	438
202	5010-C1		FITTINGS, TEE, 6"		EA	1
203	5010-C1		FITTINGS, 90 DEGREE ELBOW, 6"		EA	1
204	5010-C1		FITTINGS, 45 DEGREE ELBOW, 6"		EA	6
205	5010-E		WATER SERVICE ADJUSTMENT, COPPER, 3/4" (REF. NOTE 1)		EA	2
206	5010-E		WATER SERVICE ADJUSTMENT, COPPER, 1" (REF. NOTE 2)		EA	11
207	5010-F		WATER MAIN ABANDONMENT		LF	436
208	5010-F		WATER MAIN ABANDONMENT, CAP		EA	2
209	5010-XX		CUT-IN-CONNECTION, 6"		EA	2
210	5020-B1		TAPPING SLEEVE AND VALVE, 6"		EA	2
211	5020-B2		VALVE, GATE VALVE, MECHANICAL JOINT, 6"		EA	1

## ESTIMATE REFERENCE NOTES

ITEM NO.	SUDAS	UNIT	DESCRIPTION	ESTIMATE REFERENCE NOTES
201	5010-A1	LF	<p><b>WATER MAIN, TRENCHED, C-900 PVC, RESTRAINED JOINT</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES TRENCHING HAULING OFF EXCAVATED SOIL TO AN APPROVED LOCATION, INSTALLATION OF PIPE APPURTENANCES, PLACEMENT OF BEDDING AND BACKFILL MATERIAL, COMPACTION TRACER SYSTEM, TESTING AND DISINFECTION.</p> <p>B. BEDDING CLASS SHALL BE P-1 AS SHOWN ON B.01 TESTING AND DISINFECTION SHALL BE COMPLETED BY THE CONTRACTOR IN ACCORDANCE WITH SPECIFICATIONS. AFTER COMPLETION OF DISINFECTION THE HIGHLY CHLORINATED WATER MUST BE DECHLORINATED TO LESS THAN 3 PPM CHLORINE.</p> <p><b>FITTINGS</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES INSTALLATION OF FITTINGS, RESTRAINTS, THRUST BLOCKS, AND POLYETHYLENE WRAP OR HIGHSTRENGTH LOW ALLOY CORTEN BLUE.</p>	
202-204	5010-C1	EA	<p><b>WATER SERVICE ADJUSTMENT, COPPER, 3/4", (REFERENCE NOTE 1)</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES THE REPLACEMENT OR ADJUSTMENT OF 1" TYPE K COPPER SERVICE LINE TO PROVIDE CLEARANCE FOR PROPOSED SEWER, UP TO 10 LF OF TYPE K COPPER SERVICE LINE, AND RECONNECTION TO EXISTING SERVICE.</p> <p><b>WATER SERVICE CONNECTION, COPPER, 1", (REFERENCE NOTE 2)</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES THE INSTALLATION OF A 1" SERVICE SADDLE WITH CORP STOP, UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE, AND RECONNECTION TO EXISTING WATER SERVICE.</p>	
205	5010-E	EA	<p><b>WATER MAIN ABANDONMENT, CAP</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES TRENCHING, HAULING OFF EXCAVATED SOIL TO AN APPROVED LOCATION, PIPE CUTTING, REMOVAL AND DISPOSAL OF PIPE, DISPOSAL OF TRENCH WATER, INSTALLATION OF CAP WITH THRUST RESTRAINT, PLACEMENT OF BEDDING AND BACKFILL MATERIAL AND COMPACTION.</p> <p>B. THIS ITEM REQUIRES THE INSTALLATION OF TWO CAPS AND DRY BLOCKING BETWEEN CAPS.</p> <p>C. ALL CAPS SHALL BE MECHANICAL JOINT. ALL BOLTS, NUTS, AND WASHERS SHALL BE STAINLESS STEEL OR HIGH STRENGTH LOW ALLOY CORTEN BLUE.</p> <p>D. THE CONTRACTOR SHALL CONFIRM OUTSIDE DIAMETER OF WATER MAIN PRIOR TO THE OUTAGE FOR CAPS (WATERMAIN IN THIS AREA MAY BE CAST IRON SIZE PIPE). THE LENGTH OF CUT AND CAP TIME SHALL BE KEPT TO A MINIMUM.</p> <p>E. CONTRACTOR SHALL PROVIDE MPW WITH MINIMUM 3 DAYS NOTICE PRIOR TO ANY CUSTOMER OUTAGE.</p>	
207-208	5010-F	LF	<p><b>CUT-IN-CONNECTION</b></p> <p>MEASUREMENT &amp; PAYMENT BY EACH CUT-IN CONNECTION MADE. THE UNIT PRICE FOR EACH ITEM INCLUDES, BUT IS NOT LIMITED TO ADVANCED COORDINATION WITH MUSCATINE POWER AND WATER FOR REQUIRED CUSTOMER NOTICES AND OUTAGES; MEASURING, CUTTING, AND REMOVING SECTION OF EXISTING WATER PIPE, PLUG, OR FITTING; DEWATERING AND CLEANING EXISTING WATER PIPE; FURNISHING AND USING ALL TEMPORARY PLUGS AND DISINFECTANT TO PREVENT CONTAMINATION OF EXISTING WATER PIPE; POLYETHYLENE WRAP; FURNISHING AND INSTALLING COUPLING, SLEEVE (S), GASKETS, MECHANICAL JOINT GLAND, RESTRAINING DEVICES; LEAK TESTING; BRACING; CONNECTING NEW WATER PIPE TO EXISTING WATER PIPE, FITTING, OR VALVE; EXCAVATION; BACKFILL; COMPACTION; AND FURNISHING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO COMPLETE WORK.</p>	
209	5010-XX	EA	<p><b>TAPPINGS SLEEVE AND VALVE</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.01 FOR TABULATION. THIS ITEM INCLUDES, BUT IS NOT LIMITED TO, TAPPING SLEEVE, TAPPING VALVE, THE TAP, VALVE BOX AND COVER, VALVE BOX EXTENSION, AND VALVE STEM EXTENSION.</p> <p>B. THE TAPPING VALVE AND SLEEVE MUST MEET MPW'S MATERIAL SPECIFICATIONS.</p>	
210	5020-B1	EA	<p><b>VALVE, GATE VALVE, MECHANICAL JOINT</b></p> <p>A. REFER TO SHEETS MPW M.01 THRU MPW M.03 FOR LAYOUT AND SHEET MPW C.02 FOR TABULATION. THIS ITEM INCLUDES THE INSTALLATION OF THE VALVE WITH RESTRAINING GLANDS ON NEW WATER MAIN PIPE AND INSTALLATION OF THE VALVE BOX.</p> <p>B. THIS PAY ITEM EXCLUDES VALVES ON TAPPING SLEEVES AND VALVES ON HYDRANT ASSEMBLIES.</p>	

## REFERENCE NOTES

- INSTALL 3/4" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 3/4" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- INSTALL 1" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- REFER TO PROPOSED SEWER PLANS FOR LOCATION AND ELEVATION. SEWERS ARE SHOWN ON WATER PLANS FOR REFERENCE ONLY.

## TABLATIONS

NO.	ALIGNMENT	VALVE		
		APPROX. STATION	APPROX. ELEVATION	TYPE
1	LOGAN	500+03.99'	665.55'	MJ GATE VALVE, 6"
2	LOGAN	504+19.84'	668.45'	MJ GATE VALVE, 6"
3	LOGAN	504+24.42'	668.55'	MJ GATE VALVE, 6"

WATER MAIN FITTINGS				
NO.	ALIGNMENT	APPROX. STATION	APPROX. ELEVATION	TYPE
1	HAGERMAN	400+09.69'	622.39'	45 DEGREE VERTICAL ELBOW, 6" MJ
2	HAGERMAN	400+17.31'	618.55'	45 DEGREE VERTICAL ELBOW, 6" MJ
3	HAGERMAN	400+25.21'	618.53'	45 DEGREE VERTICAL ELBOW, 6" MJ
4	HAGERMAN	400+32.25'	622.22'	45 DEGREE VERTICAL ELBOW, 6" MJ
5	LOGAN	500+02.58'	665.55'	6" TAPPING SLEEVE
6	LOGAN	500+11.05'	664.82'	90 DEGREE ELBOW, 6" MJ
7	LOGAN	500+13.64', 8.5' RIGHT	665.25'	6" CAP ON EXISTING MAIN
8	LOGAN	500+57.99'	662.26'	45 DEGREE ELBOW, 6" MJ
9	LOGAN	500+63.58'	662.19'	45 DEGREE ELBOW, 6" MJ
10	LOGAN	504+20.85', 3.1' RIGHT	668.59'	6" CAP ON EXISTING MAIN
11	LOGAN	504+22.85'	668.52'	MJ TEE, 6"X6"
12	LOGAN	504+22.85'	668.52'	6" CAP ON NEW TEE
13	LOGAN	504+25.92'	668.55'	6" TAPPING SLEEVE

WATER SERVICE ADJUSTMENTS					
NO.	ALIGNMENT	APPROX STATION	SIDE	ADDRESS	EXISTING MATERIAL
1	HAGERMAN	400+28.87'	LEFT	538 HAGERMAN ST	ADJUSTMENT COPPER, 3/4"
2	HAGERMAN	400+29.99'	LEFT	542 HAGERMAN ST	ADJUSTMENT COPPER, 1"
3	LOGAN	500+70.26'	RIGHT	1224 LOGAN ST	ADJUSTMENT COPPER, 3/4"
4	LOGAN	500+87.05'	LEFT	1223 LOGAN ST	ADJUSTMENT COPPER, 1"
5	LOGAN	501+42.55'	LEFT	1219 LOGAN ST	ADJUSTMENT COPPER, 1"
6	LOGAN	501+71.12'	RIGHT	1220 LOGAN ST	ADJUSTMENT COPPER, 1"
7	LOGAN	501+91.17'	LEFT	1215 LOGAN ST	ADJUSTMENT COPPER, 1"
8	LOGAN	502+50.10'	RIGHT	1216 LOGAN ST	ADJUSTMENT COPPER, 1"
9	LOGAN	502+60.56'	LEFT	1211 LOGAN ST	ADJUSTMENT COPPER, 1"
10	LOGAN	502+97.13'	RIGHT	1210 LOGAN ST	ADJUSTMENT COPPER, 1"
11	LOGAN	503+31.71'	LEFT	1207 LOGAN ST	ADJUSTMENT COPPER, 1"
12	LOGAN	503+80.72'	LEFT	1205 LOGAN ST	ADJUSTMENT COPPER, 1"
13	LOGAN	503+87.74'	RIGHT	1204 LOGAN ST	ADJUSTMENT COPPER, 1"

WATER MAIN						
NO.	ALIGNMENT	APPROX. START STATION	APPROX. END STATION	SIZE (IN)	TYPE	APPROX LENGTH (FT)
1	HAGERMAN	400+09.69'	400+32.25'	6	C-900 PVC	22.6
2	LOGAN	500+01.80'	504+26.71'	6	C-900 PVC	424.9



CITY OF MUSCATINE

MUSCATINE, IOWA 52761  
(563) 263 8933

www.muscatineiowa.gov

Date

Revision

MPW WHSSP6D  
WATER MAIN

WEST HILL AREA SEWER  
AND SANITARY SEPARATION  
CITY OF MUSCATINE  
MUSCATINE  
IOWA

ENGINEERING DEPARTMENT

Date:

2/3/2026

Designed by: AAE Field Book No:

Drawn by: AAE Scale:

Checked by: KJC Sheet No:

Project No: MPW C.01

WHSSP6



**CITY OF MUSCATINE**  
 MUSCATINE, IOWA 52761  
 (563) 263 8933  
 www.muscatineiowa.gov

Date \_\_\_\_\_ Revision \_\_\_\_\_

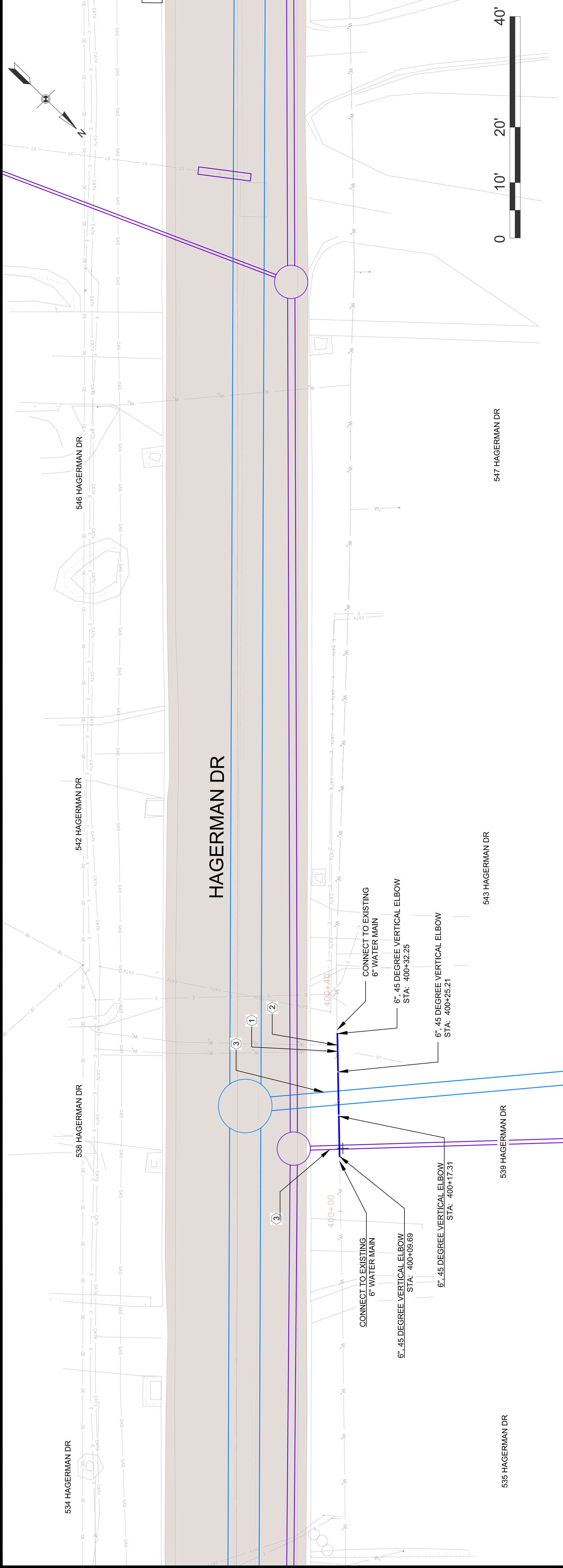
# MPW WHSSP6D WATER MAIN

**WEST HILL AREA SEWER  
 AND SANITARY SEPARATION  
 CITY OF MUSCATINE  
 IOWA**

**ENGINEERING DEPARTMENT**

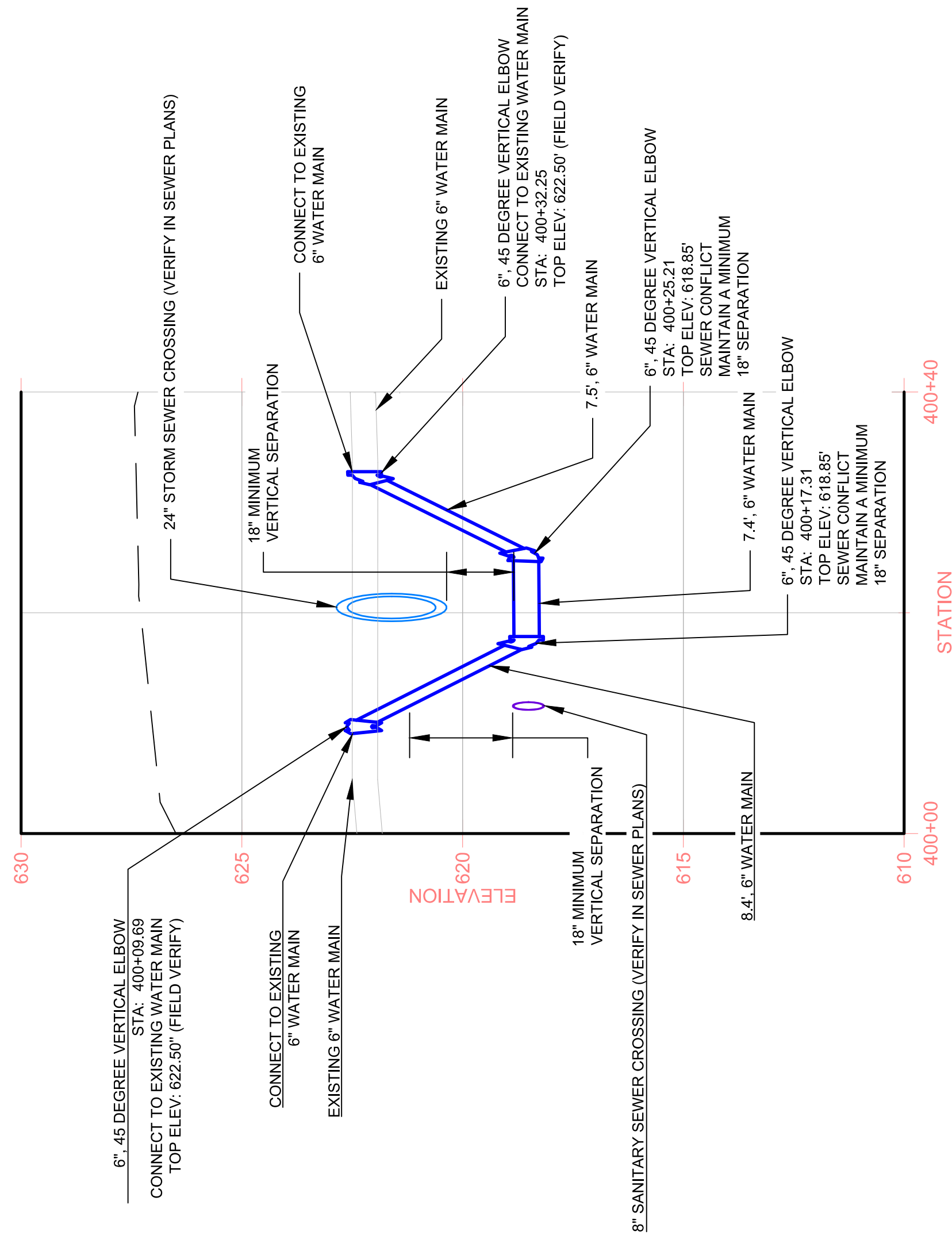
Date: **2/3/2026**

Designed by:	AAE	Field Book No:	
Drawn by:	AAE	Scale:	1" = 10'
Checked by:	KJC	Sheet No:	MPW M.01
Project No:	WHSSP6		



### REFERENCE NOTES

- ① INSTALL 3/4" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 3/4" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- ② INSTALL 1" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- ③ REFER TO PROPOSED SEWER PLANS FOR LOCATION AND ELEVATION. SEWERS ARE SHOWN ON WATER PLANS FOR REFERENCE ONLY.





**CITY OF MUSCATINE**  
 MUSCATINE, IOWA 52761  
 (563) 263 8933  
 www.muscatineiowa.gov

Date \_\_\_\_\_ Revision \_\_\_\_\_

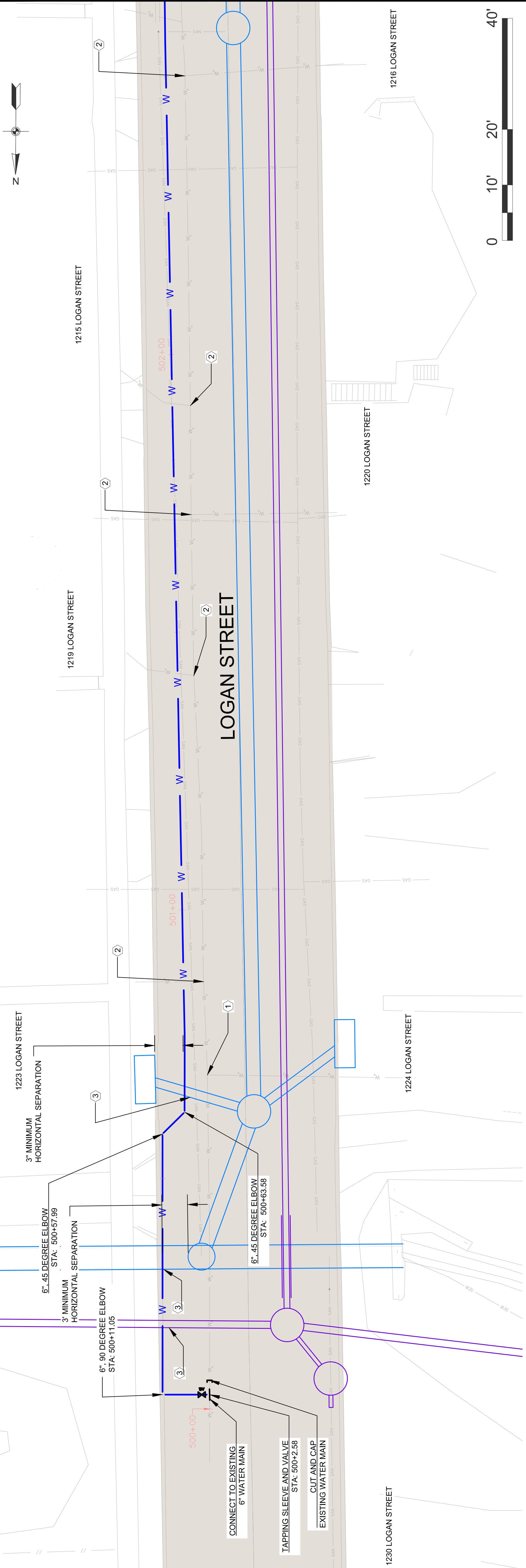
# MPW WHSSP6D WATER MAIN

**WEST HILL AREA SEWER  
 AND SANITARY SEPARATION  
 CITY OF MUSCATINE  
 IOWA**

**ENGINEERING DEPARTMENT**

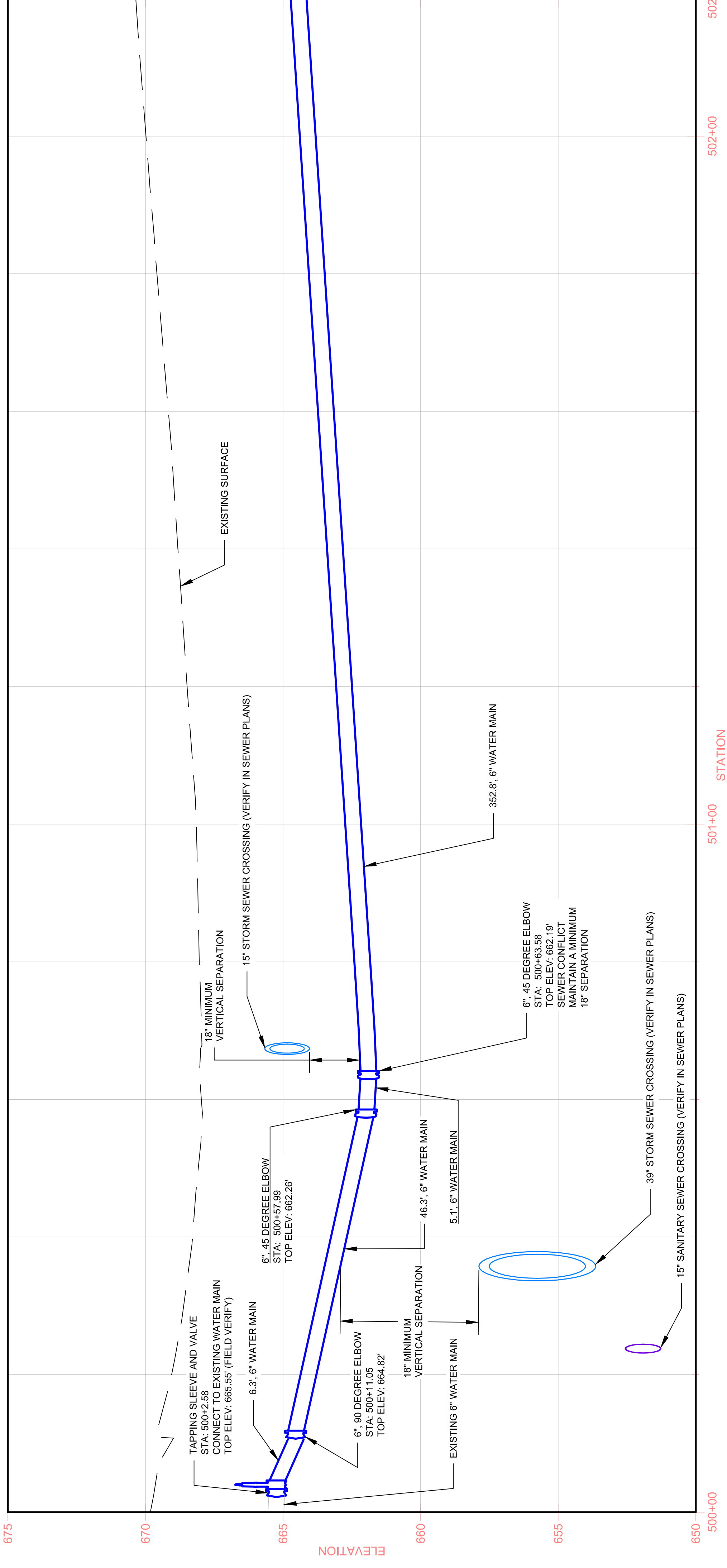
Date: **2/3/2026**

Designed by:	AAE	Field Book No.:	
Drawn by:	AAE	Scale:	1" = 10'
Checked by:	KJC	Sheet No.:	MPW M.02
Project No.:	WHSSP6		



### REFERENCE NOTES

- INSTALL 3/4" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 3/4" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- INSTALL 1" SERVICE SADDLE WITH CORP STOP. INSTALL UP TO 10 LF OF 1" TYPE K COPPER SERVICE LINE. RECONNECT TO EXISTING WATER SERVICE.
- REFER TO PROPOSED SEWER PLANS FOR LOCATION AND ELEVATION. SEWERS ARE SHOWN ON WATER PLANS FOR REFERENCE ONLY.



502+20      502+00      501+00      STATION      500+00

ELEVATION

