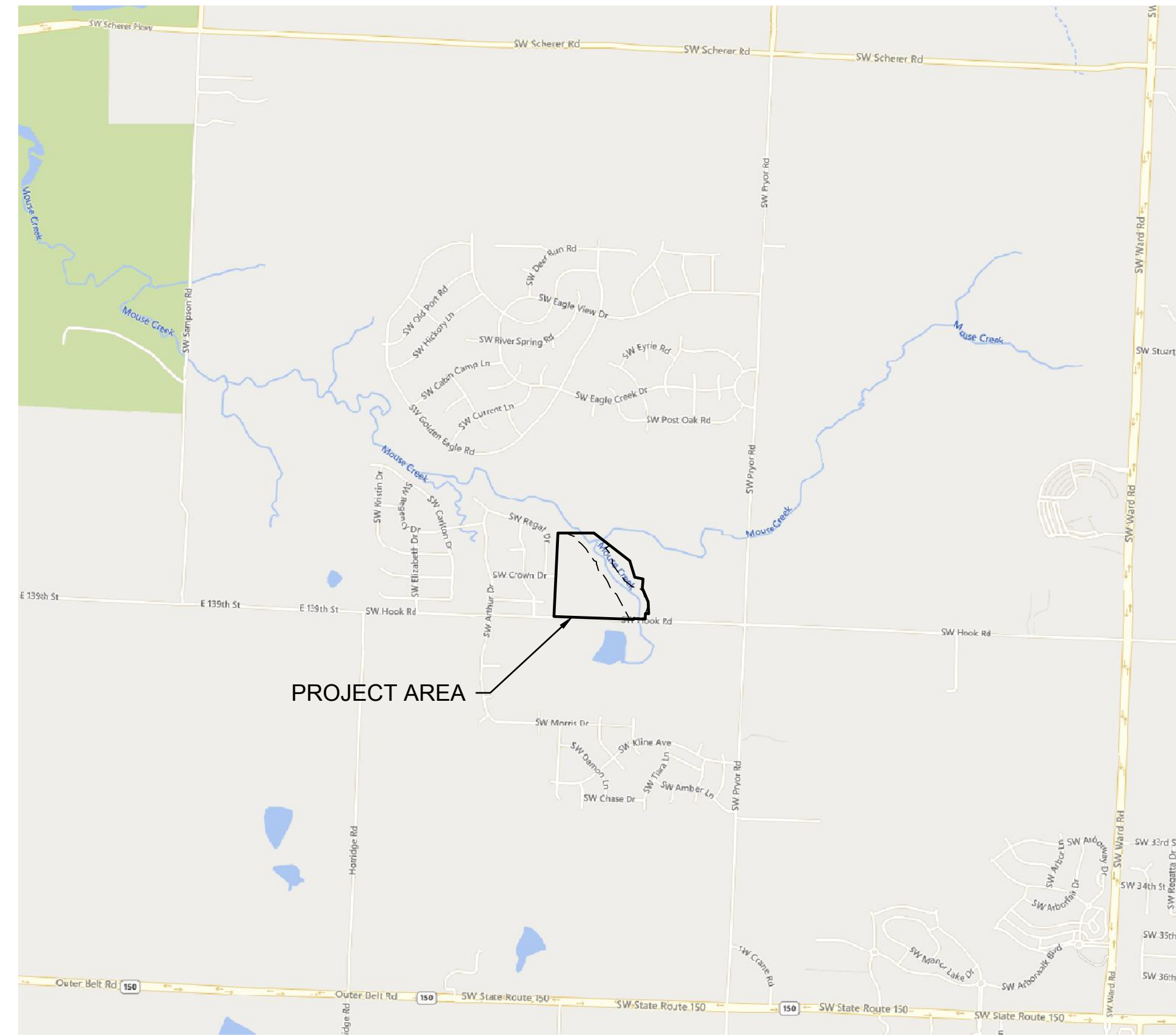
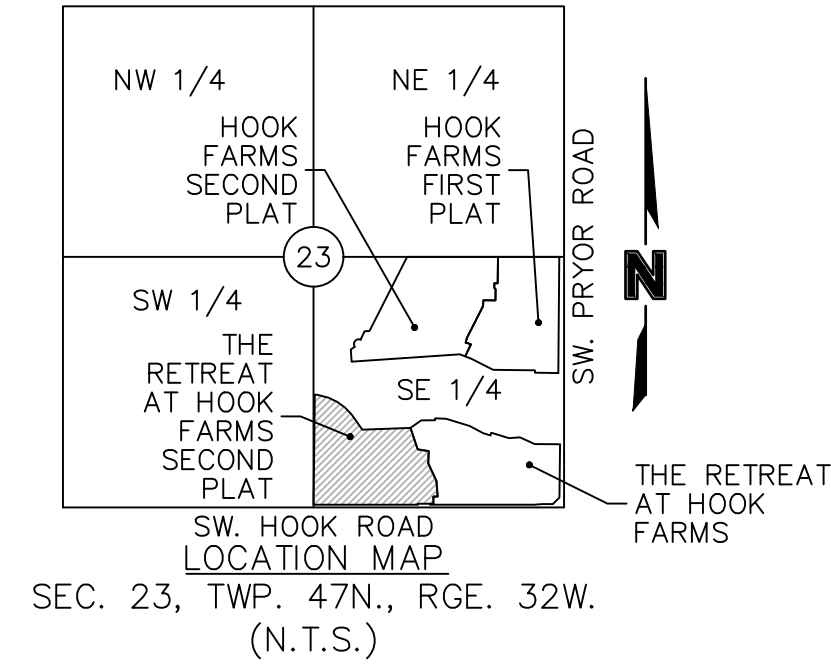


THE RETREAT AT HOOK FARMS SECOND PLAT WATER MAIN EXTENSION PLANS

SECTION 23, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MO



| SHEET LIST | |
|------------|------------------------------------|
| NUMBER | TITLE |
| C301 | TITLE SHEET |
| C302 | GENERAL NOTES |
| C303 | GENERAL LAYOUT |
| C304 | WATER MAIN PLAN & PROFILE (LINE 1) |
| C305 | WATER MAIN PLAN & PROFILE (LINE 1) |
| C306 | WATER MAIN PLAN & PROFILE (LINE 1) |
| C307 | WATER MAIN PLAN & PROFILE (LINE 2) |
| C308 | WATER MAIN PLAN & PROFILE (LINE 2) |
| C309 | WATER MAIN PLAN & PROFILE (LINE 3) |
| C310 | DETAIL SHEET |
| C311 | DETAIL SHEET |

| PROJECT TEAM & UTILITY CONTACT LIST | |
|--|---|
| OWNER / DEVELOPER HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.455.2500 | UTILITY SERVICE NUMBERS NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800 NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940 NAME: SPIRE (MGE) PHONE: 314-342-0500 NAME: AT&T PHONE: 800-286-8313 NAME: EVERGY PHONE: 816-471-5275 NAME: SPECTRUM (TWC) PHONE: 877-772-2253 NAME: GOOGLE FIBER PHONE: 877-454-6959 |
| ENGINEER OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E. SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSSELLERS@OLSSON.COM | |
| SURVEYOR OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, P.L.S. PHONE: 816.361.1177 EMAIL: JROUDEBOUSH@OLSSON.COM | |

| | |
|--------------------------|---------------------------|
| <input type="checkbox"/> | NOT FOR CONSTRUCTION |
| <input type="checkbox"/> | REVIEWED FOR CONSTRUCTION |

PROPERTY DESCRIPTION

A TRACT OF LAND IN THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47 NORTH, RANGE 32 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED BY OR UNDER THE DIRECT SUPERVISION OF JASON S. ROUDEBUSH, P.L.S. 2002014092 AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 87°58'53" WEST, ON THE SOUTH LINE OF SAID SOUTHEAST QUARTER, 2,651.35 FEET TO THE SOUTHEAST CORNER OF MONARCH VIEW 1ST PLAT, A SUBDIVISION OF LAND IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 98169637 IN BOOK 62 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE SOUTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°43'00" EAST, ON THE WEST LINE OF SAID SOUTHEAST QUARTER, ALSO BEING THE EAST LINE OF SAID MONARCH VIEW 1ST PLAT, 30.00 FEET TO THE NORTHWEST CORNER OF SW HOOK ROAD AS ESTABLISHED BY RIGHT-OF-WAY DEED RECORDED AS INSTRUMENT NUMBER 199910077639 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE NORTH 02°43'00" EAST, ON SAID WEST AND EAST LINES, AND ALSO BEING EAST LINE OF MONARCH VIEW 2ND PLAT, A SUBDIVISION OF LAND IN SAID LEE'S SUMMIT, RECORDED AS INSTRUMENT NUMBER 200010047892 IN BOOK 167 AT PAGE 87 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, 1,163.24 FEET; THENCE LEAVING SAID WEST AND EAST LINES, SOUTH 87°16'25" EAST, 25.54 FEET; THENCE SOUTH 73°15'30" EAST, 121.46 FEET; THENCE SOUTH 62°39'56" EAST, 102.90 FEET; THENCE SOUTH 52°04'22" EAST, 102.90 FEET; THENCE SOUTH 41°28'48" EAST, 102.90 FEET; THENCE SOUTH 33°05'07" EAST, 195.12 FEET; THENCE NORTH 90°00'00" EAST, 510.19 FEET TO A POINT ON THE WESTERLY LINE OF PROPOSED THE RETREAT AT HOOK FARMS; THENCE SOUTH 16°31'39" EAST, ALONG SAID WESTERLY LINE, 238.84 FEET; THENCE SOUTH 78°36'20" EAST, ALONG SAID WESTERLY LINE, 118.51 FEET; THENCE SOUTH 04°39'35" WEST, ALONG SAID WESTERLY LINE, 128.06 FEET; THENCE SOUTH 23°04'06" EAST, ALONG SAID WESTERLY LINE, 206.79 FEET; THENCE SOUTH 02°38'45" EAST, ALONG SAID WESTERLY LINE, 164.78 FEET; THENCE NORTH 87°58'48" WEST, ALONG SAID WESTERLY LINE, 45.85 FEET; THENCE SOUTH 01°54'56" WEST, ALONG SAID WESTERLY LINE, 76.13 FEET; THENCE NORTH 87°58'53" WEST, ALONG SAID WESTERLY LINE, 38.61 FEET TO A POINT ON THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF SW HOOK ROAD, AS ESTABLISHED BY RIGHT OF WAY DEED RECORDED AS INSTRUMENT NUMBER 2007E0016663 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE LEAVING SAID WESTERLY LINE, CONTINUING NORTH 87°58'53" WEST, ALONG SAID EXISTING NORTHERLY RIGHT-OF-WAY LINE, 125.00 FEET; THENCE SOUTH 02°01'07" WEST, ALONG SAID EXISTING NORTHERLY RIGHT-OF-WAY LINE, 10.00 FEET; THENCE NORTH 87°58'53" WEST, ALONG SAID EXISTING NORTHERLY RIGHT-OF-WAY LINE, 853.20 FEET TO THE NORTHWEST CORNER OF SAID RIGHT-OF-WAY DEED, ALSO BEING THE NORTHEAST CORNER OF SW HOOK ROAD, AS ESTABLISHED BY SAID RIGHT-OF-WAY DEED INSTRUMENT NUMBER 199910077639; THENCE CONTINUING NORTH 87°58'53" WEST ALONG THE EXISTING NORTHERLY RIGHT-OF-WAY LINE OF SAID SW HOOK ROAD, 252.00 FEET TO THE POINT OF BEGINNING. CONTAINING 1,085,519 SQUARE FEET OR 24.92 ACRES, MORE OR LESS.

BENCHMARK

JA-74
 ELEVATION: 1058.10
 N: 978461-2779
 E: 2809447-9650
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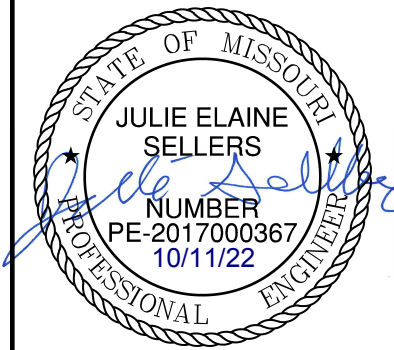
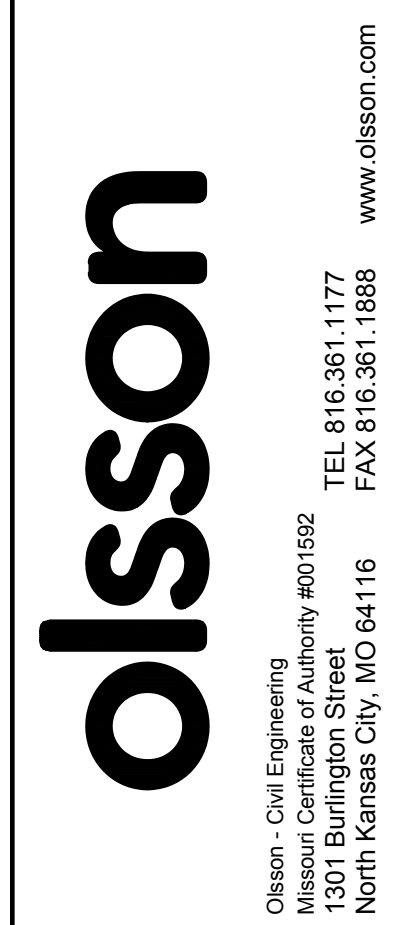
AS BUILT

DATE SURVEYED: 2022-06-17

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

JULIE E. SELLERS, P.E.
 CIVIL ENGINEER
 MO # PE-2017000367

10/11/22
 DATE



| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

| | |
|--|------|
| TITLE SHEET | 2021 |
| WATER MAIN EXTENSION PLANS | |
| THE RETREAT AT HOOK FARMS SECOND PLAT | |
| LEE'S SUMMIT, MO | |

| | |
|--------------|-------------|
| drawn by: | B.M.W./A.A. |
| checked by: | B.M.W. |
| designed by: | B.M.W./A.A. |
| QA/QC by: | J.E.S. |
| project no.: | A19-4056 |
| date: | 05-05-2021 |

SHEET
C301

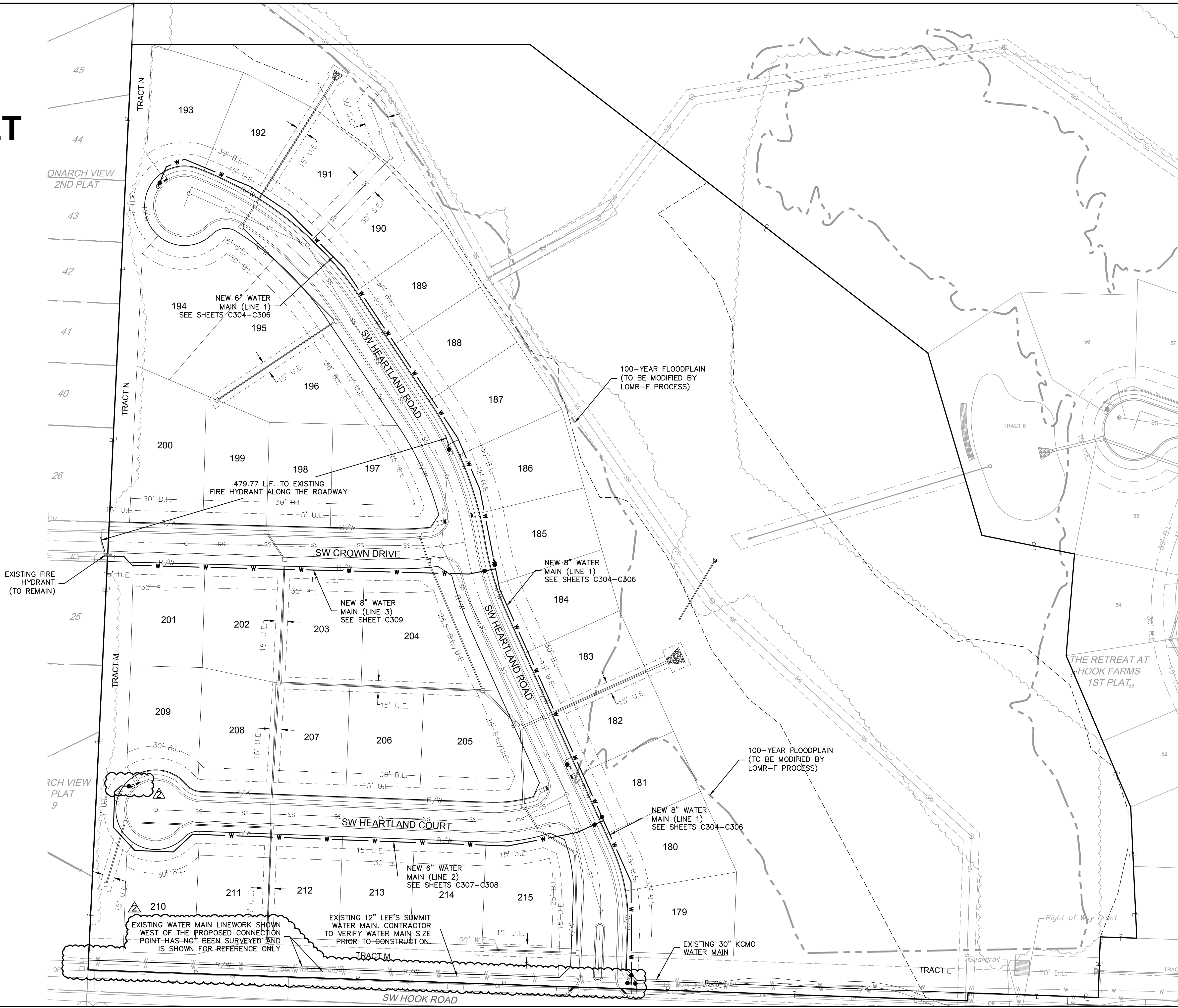
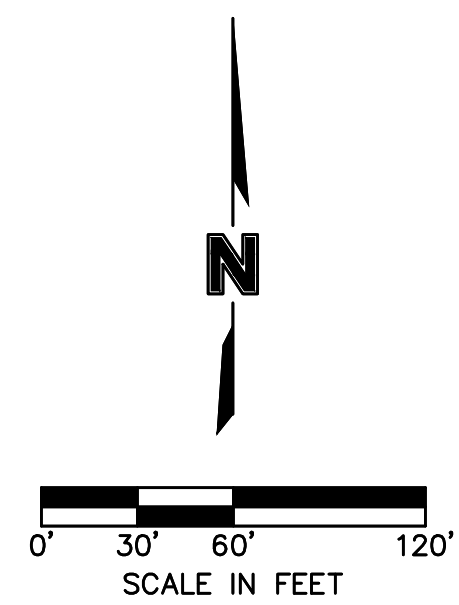
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NOT AS BUILT

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 TEL 816.361.1177
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| REV. NO. | DATE | REVISIONS DESCRIPTION | BY |
|----------|------------|---------------------------|----|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS | |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS | |

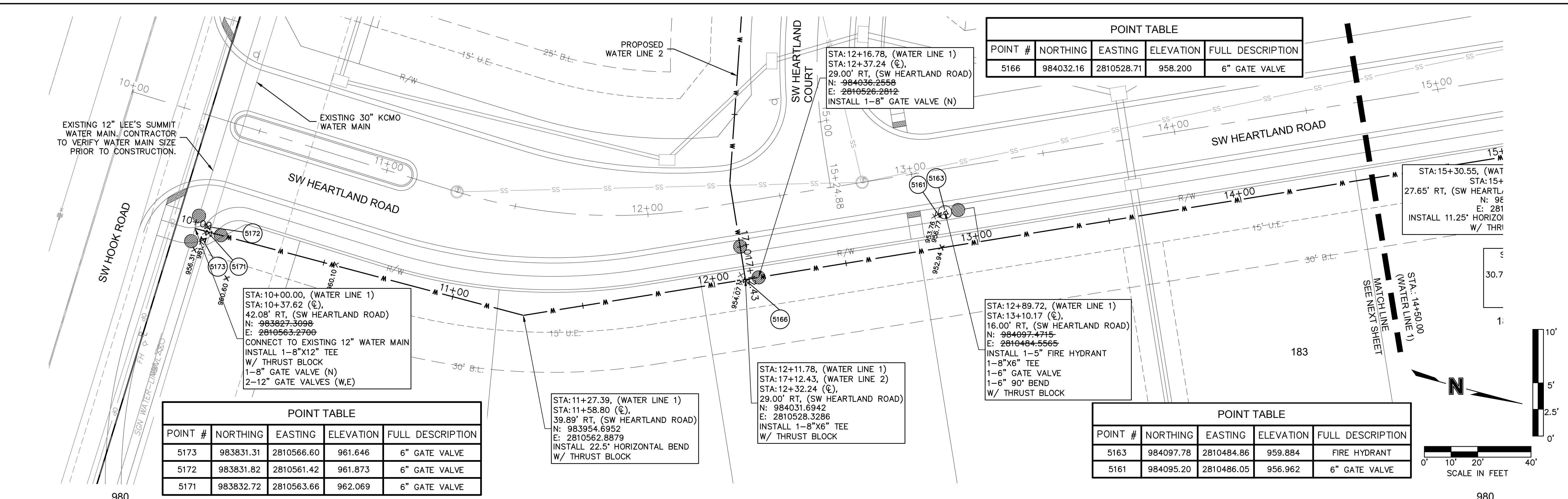
GENERAL LAYOUT
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT

2021

REVISIONS

drawn by: B.M.W./A.A.
 checked by: B.M.W./A.A.
 designed by: B.M.W./A.A.
 QA/QC by: J.E.S.
 project no.: A19-4059
 date: 05-05-2021

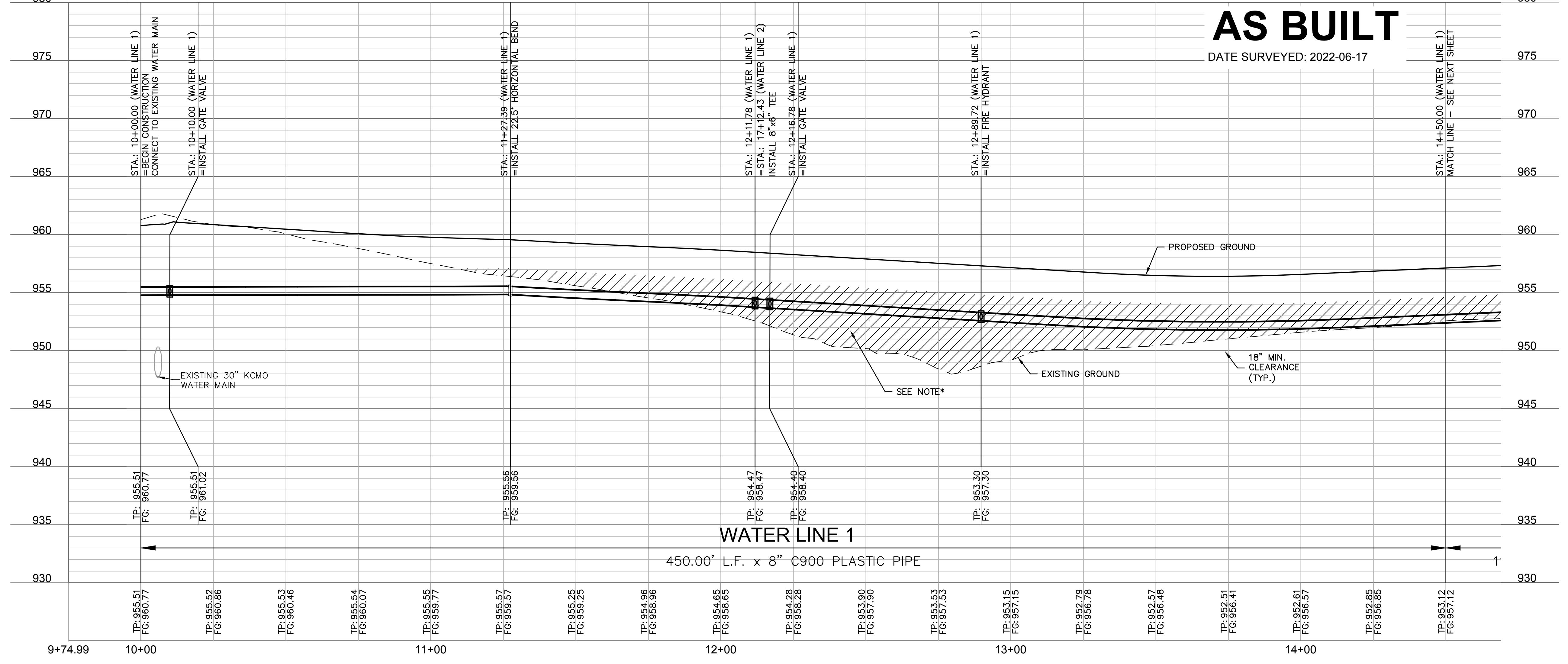
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 USER: gsmith



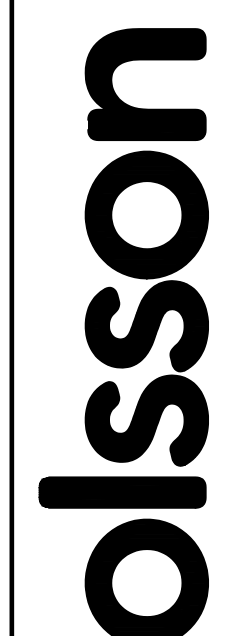
| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5173 | 983831.31 | 2810566.60 | 961.646 | 6" GATE VALVE |
| 5172 | 983831.82 | 2810561.42 | 961.873 | 6" GATE VALVE |
| 5171 | 983832.72 | 2810563.66 | 962.069 | 6" GATE VALVE |

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5166 | 984032.16 | 2810528.71 | 958.200 | 6" GATE VALVE |

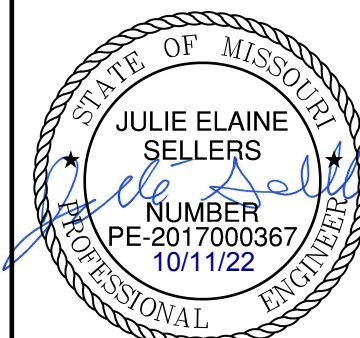
| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5163 | 984097.78 | 2810484.86 | 959.884 | FIRE HYDRANT |
| 5161 | 984095.20 | 2810486.05 | 956.962 | 6" GATE VALVE |



*NOTE:
 CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE



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JULIE ELAINE SELLERS
 NUMBER PE-2017000367
 10/11/22

| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

BY _____

DATE _____

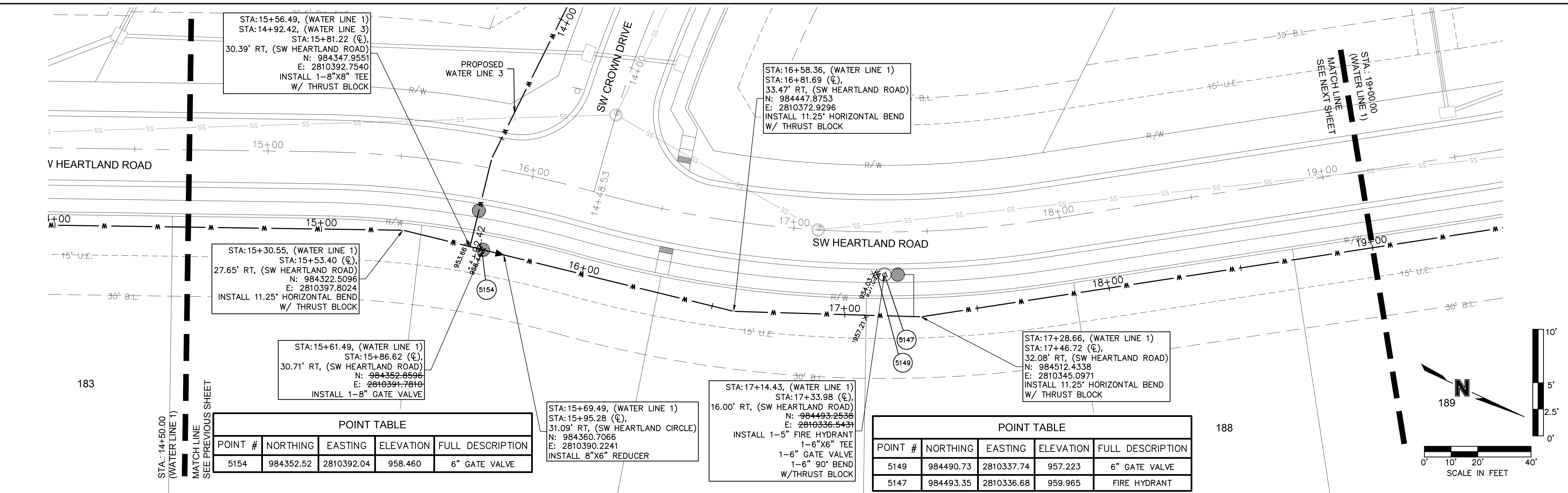
PROJECT: WATER MAIN PLAN & PROFILE (LINE 1)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT
 LEE'S SUMMIT, MO

2021

drawn by: B.M.W./A.A.
 checked by: B.M.W./A.A.
 designed by: B.M.W./A.A.
 QA/QC by: J.E.S.
 project no.: A19-4059
 date: 05-05-2021

SHEET C304

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 USER: gsmith



POINT TABLE

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5154 | 984352.52 | 2810392.04 | 958.460 | 6" GATE VALVE |

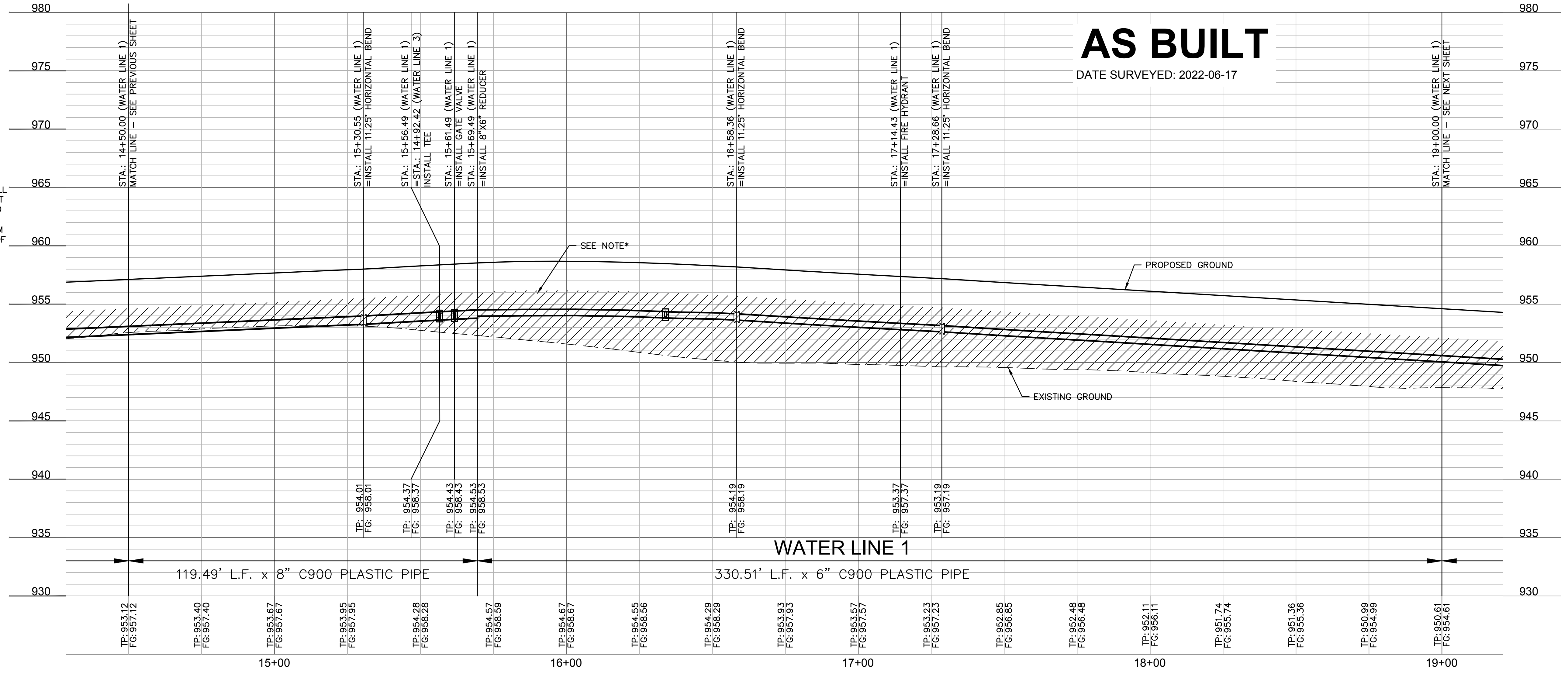
POINT TABLE

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5149 | 984490.73 | 2810337.74 | 957.223 | 6" GATE VALVE |
| 5147 | 984493.35 | 2810336.68 | 959.965 | FIRE HYDRANT |

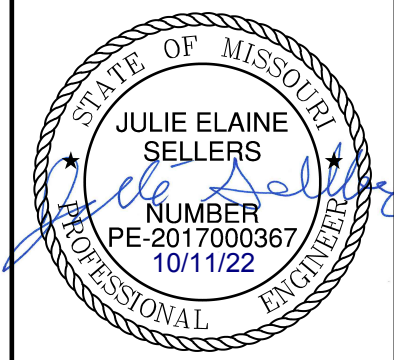
POINT TABLE

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5149 | 984490.73 | 2810337.74 | 957.223 | 6" GATE VALVE |
| 5147 | 984493.35 | 2810336.68 | 959.965 | FIRE HYDRANT |

*NOTE:
 CONTRACTOR SHALL
 FILL AND COMPACT
 TO 95% STANDARD
 DENSITY TO A
 POINT 18" MINIMUM
 ABOVE THE TOP OF
 PIPE PRIOR TO
 EXCAVATION FOR
 THE PIPE



AS BUILT
 DATE SURVEYED: 2022-06-17

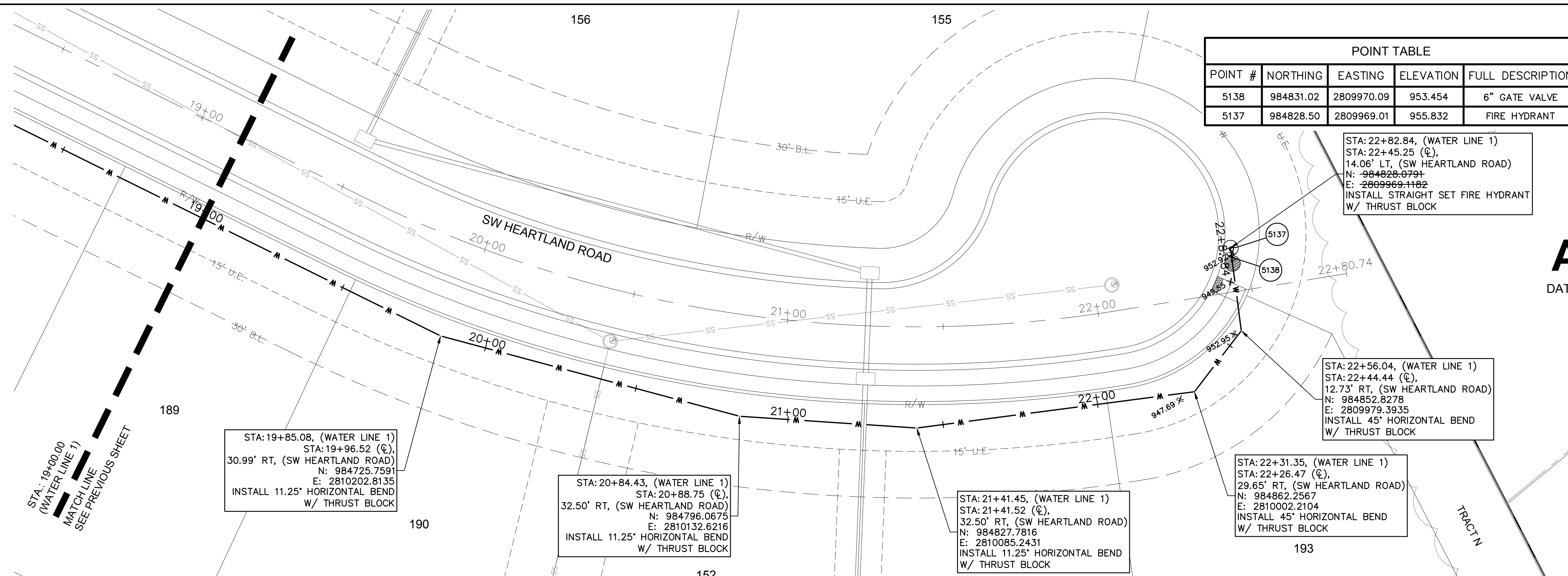


| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

BY: _____
 WATER MAIN PLAN & PROFILE (LINE 1)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT
 2021
 LEE'S SUMMIT, MO

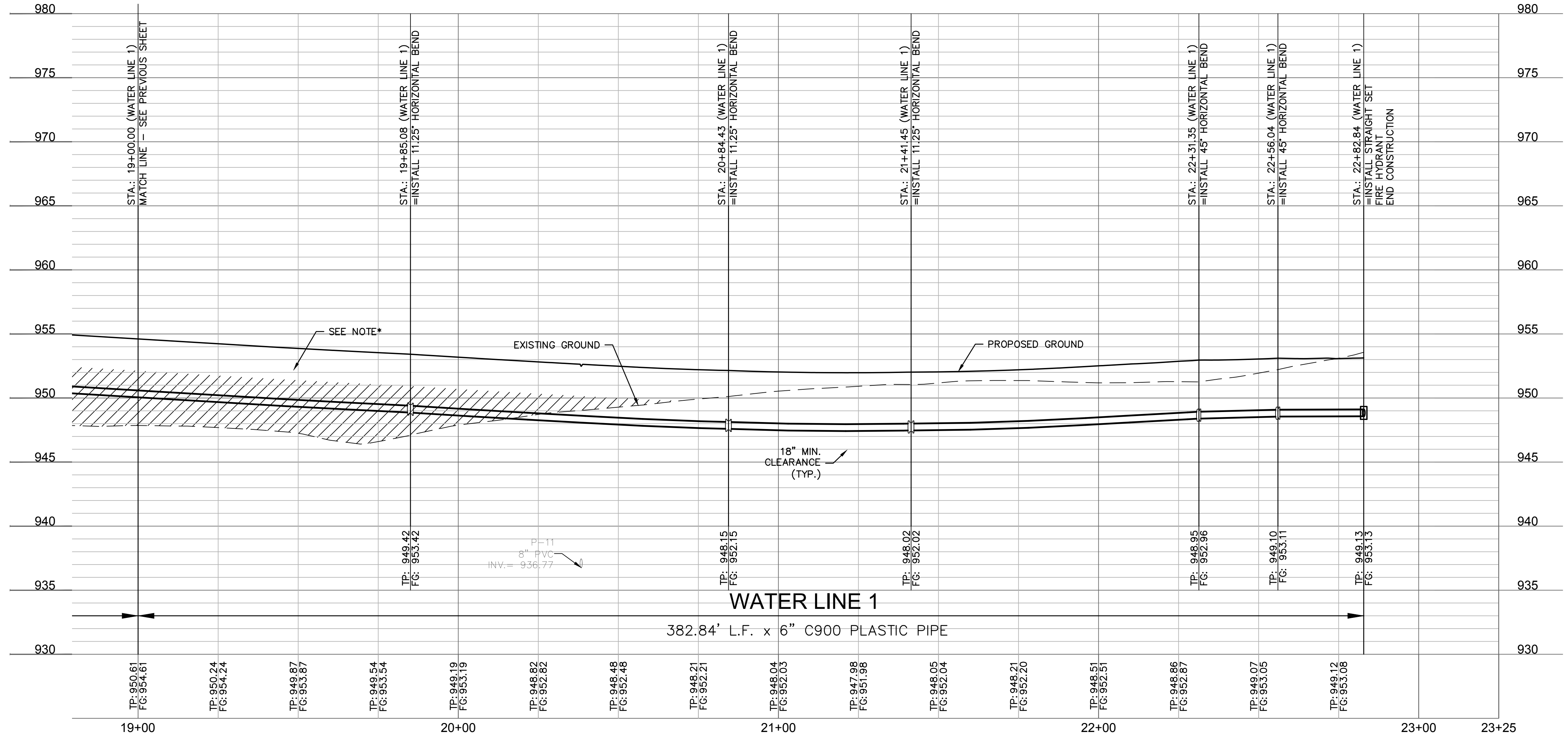
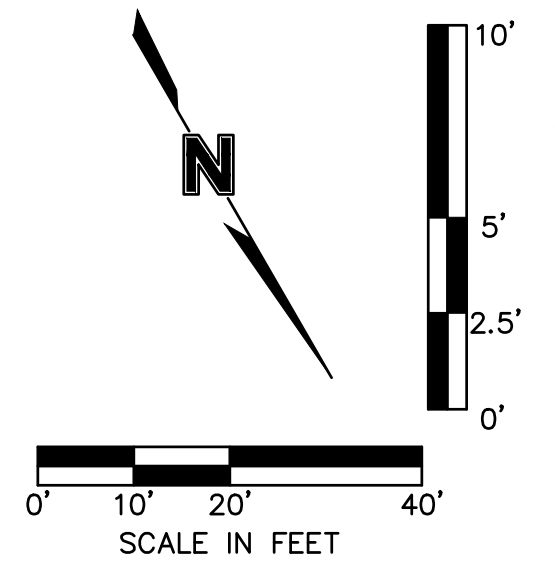
drawn by: B.M.W./A.A.
 checked by: B.M.W./A.A.
 designed by: B.M.W./A.A.
 QA/QC by: J.E.S.
 project no.: A19-4059B
 date: 05-05-2021

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| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5138 | 984831.02 | 2809970.09 | 953.454 | 6" GATE VALVE |
| 5137 | 984828.50 | 2809969.01 | 955.832 | FIRE HYDRANT |

AS BUILT
 DATE SURVEYED: 2022-06-17



*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE

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| REVISIONS | |
|-----------|--------------------------------------|
| REV. NO. | DESCRIPTION |
| 1 | 08-26-2021 REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 REVISED PER CITY COMMENTS |

WATER MAIN PLAN & PROFILE (LINE 1)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT

2021

drawn by: B.M.W./A.A.

checked by: B.M.W.

designed by: B.M.W./A.A.

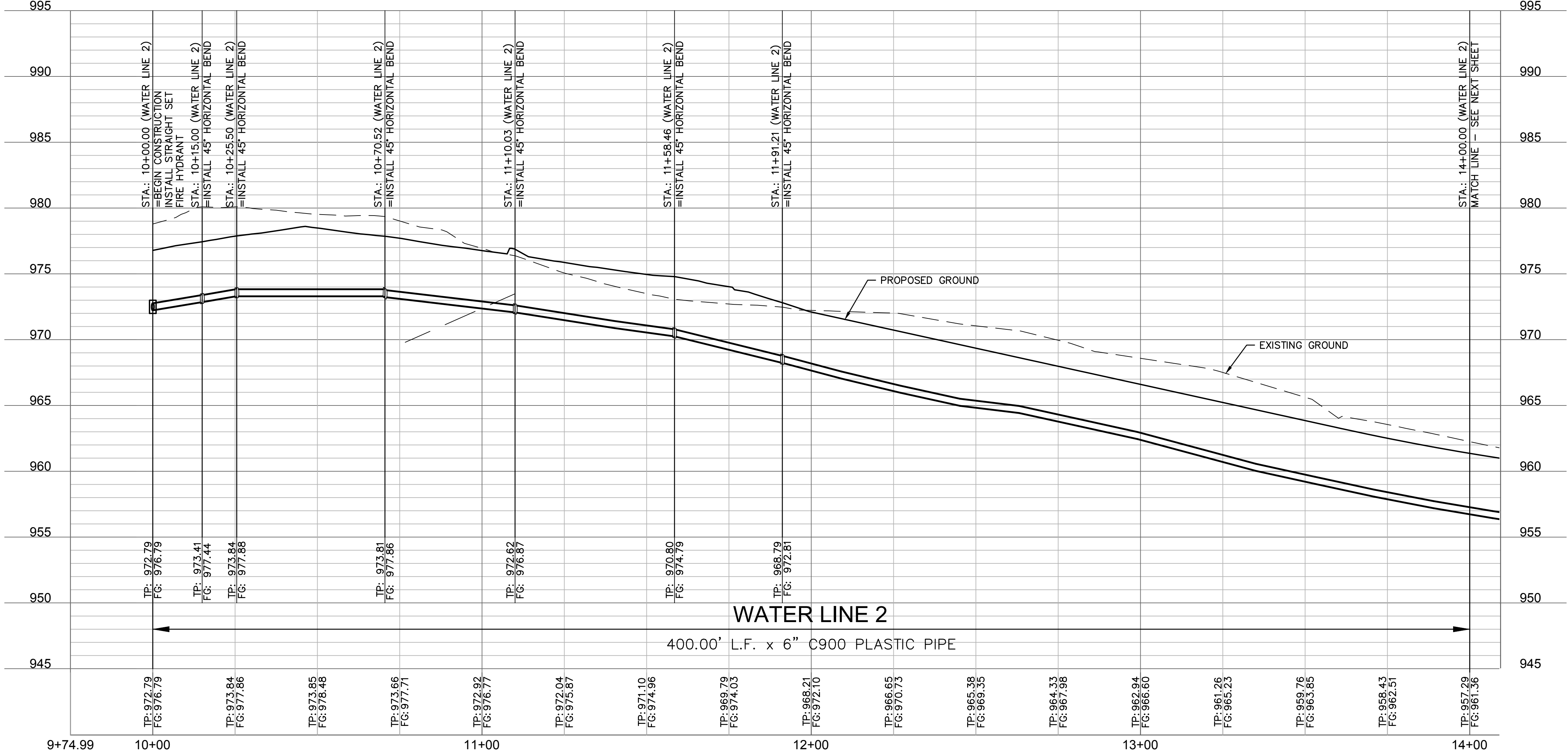
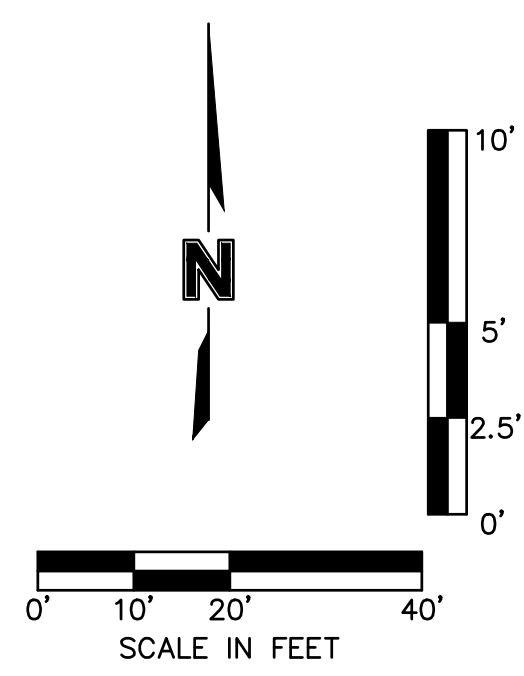
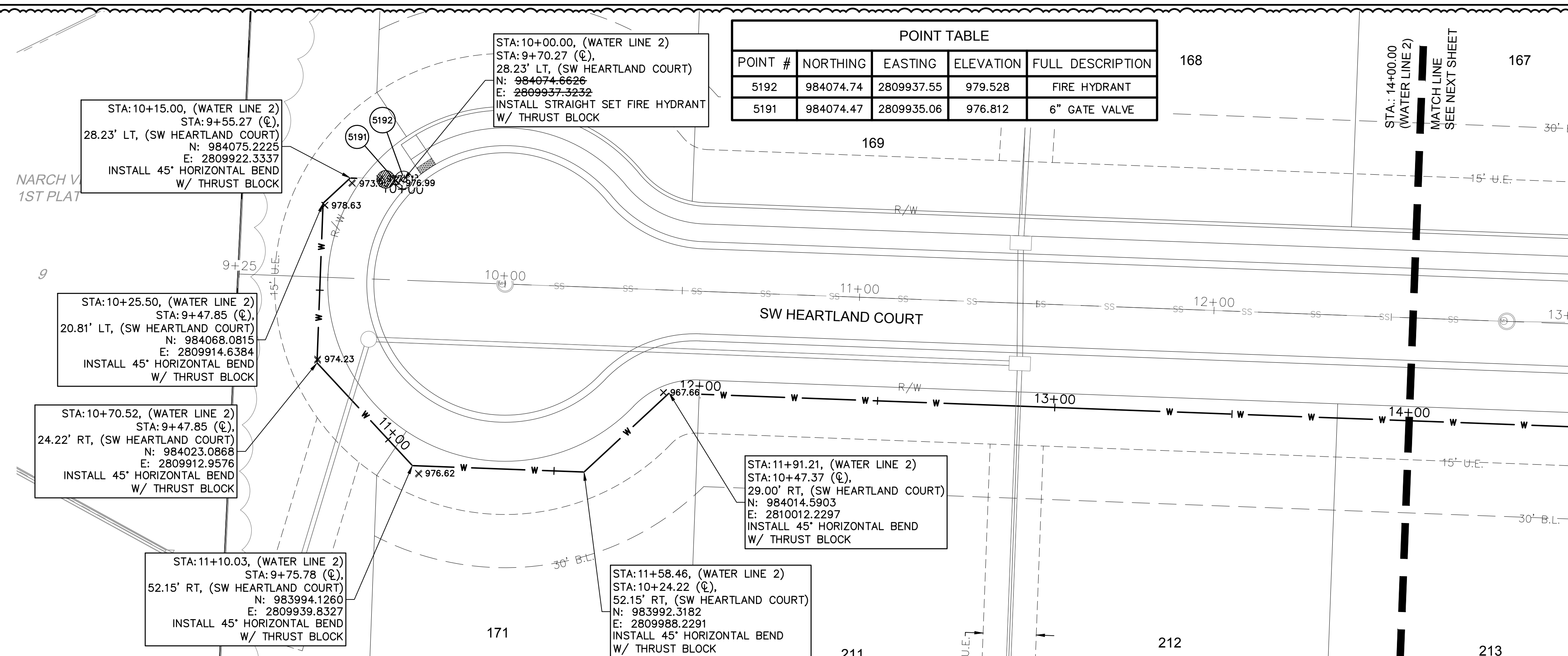
QA/QC by: J.E.S.

project no.: A19-4059B

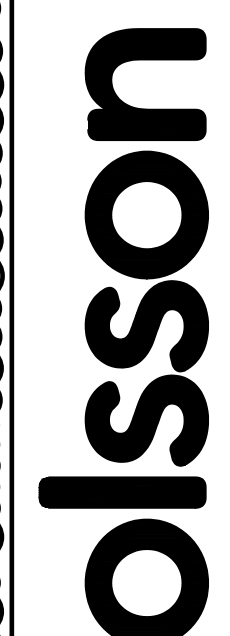
date: 05-05-2021

SHEET
C306

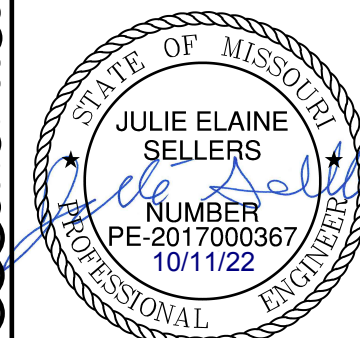
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AS BUILT
 DATE SURVEYED: 2022-06-17



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| REV. NO. | DATE | REVISIONS DESCRIPTION |
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| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
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BY: _____

DATE: _____

REVISIONS

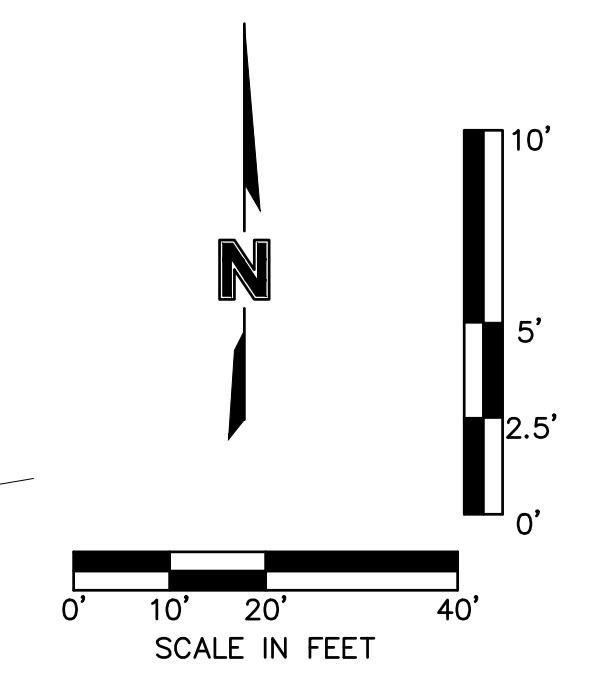
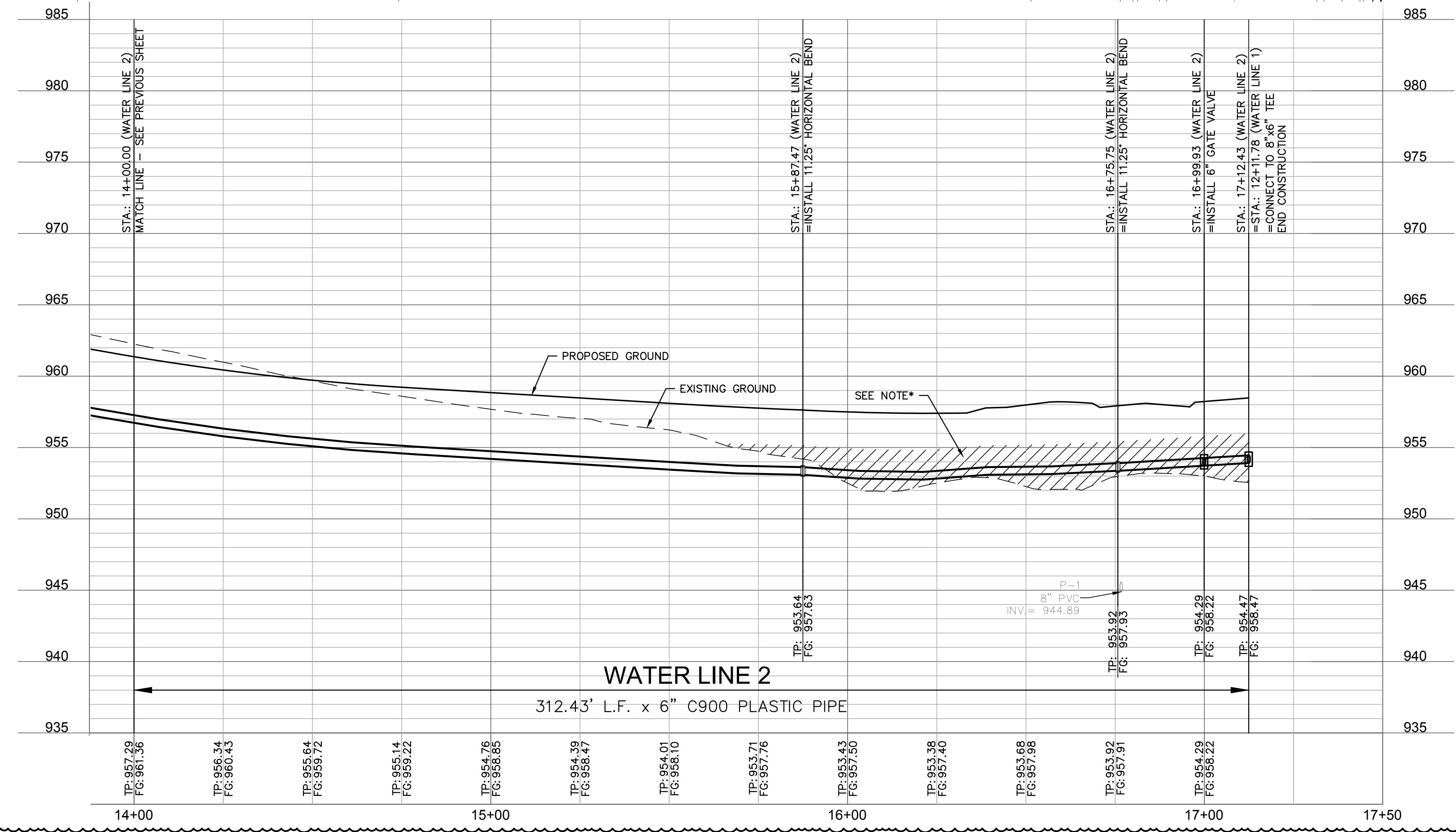
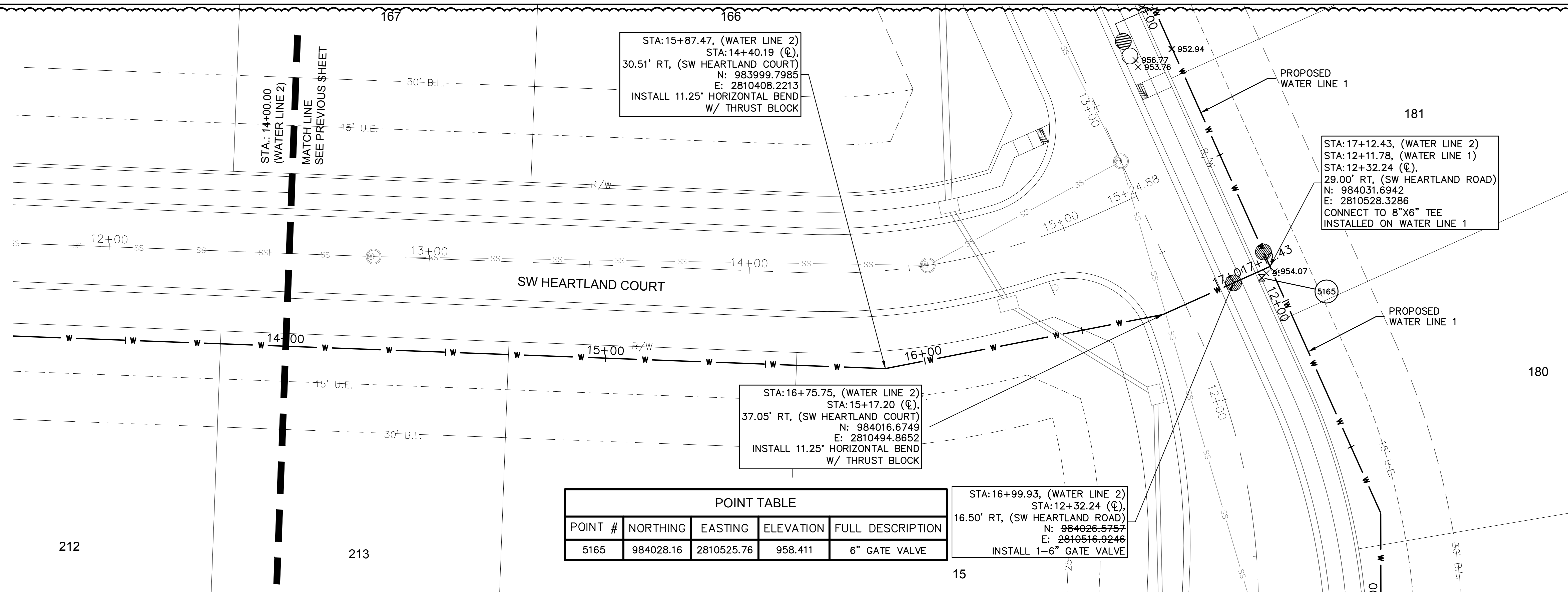
2021

WATER MAIN PLAN & PROFILE (LINE 2)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT
 LEE'S SUMMIT, MO

drawn by: _____ B.M.W./A.A.
 checked by: _____ B.M.W./A.A.
 designed by: _____ B.M.W./A.A.
 QA/QC by: _____ J.E.S.
 project no.: A19-4059B
 date: 05-05-2021

SHEET
 C307

DWG: F:\2019\4001-4500\019-4059-a\40-design\AutoCAD\final plans - asbuilts\Sheets\GNCV\Water Main Extension Plans\C_WAT01_A194059.dwg
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 USER: gsmith C:\XBASE_A194059



*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE

AS BUILT
 DATE SURVEYED: 2022-06-17

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 Missouri Certificate of Authority #001592
 1301 Burlington Street
 North Kansas City, MO 64116
 TEL 816.361.1177
 FAX 816.361.1888
 www.olsson.com

STATE OF MISSOURI
 JULIE ELAINE
 SELLERS
 NUMBER
 PE-2017000367
 10/11/22
 PROFESSIONAL ENGINEER

| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

| BY | REVISIONS |
|----|-----------|
| | |

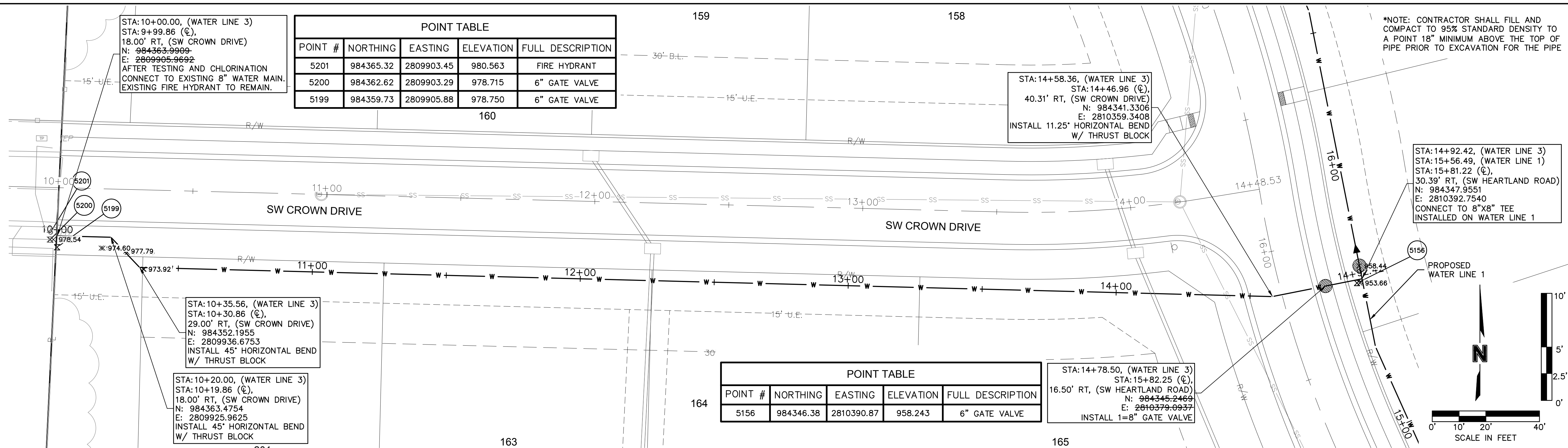
WATER MAIN PLAN & PROFILE (LINE 2)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT
 LEE'S SUMMIT, MO

2021

SHEET
C308

drawn by: B.M.W./A.A.
 checked by: B.M.W./A.A.
 designed by: B.M.W./A.A.
 QA/QC by: J.E.S.
 project no.: A19-4059
 date: 05-05-2021

DWG: F:\2019\4001-4500\019-4059-a\40-design\AutoCAD\final plans - asbuilts\Sheets\GNCV\Water Main Extension Plans\C_WAT01_A194059.dwg
 DATE: Oct 11, 2022 3:48pm
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 USER: gsmith C_PIBLK_A194059

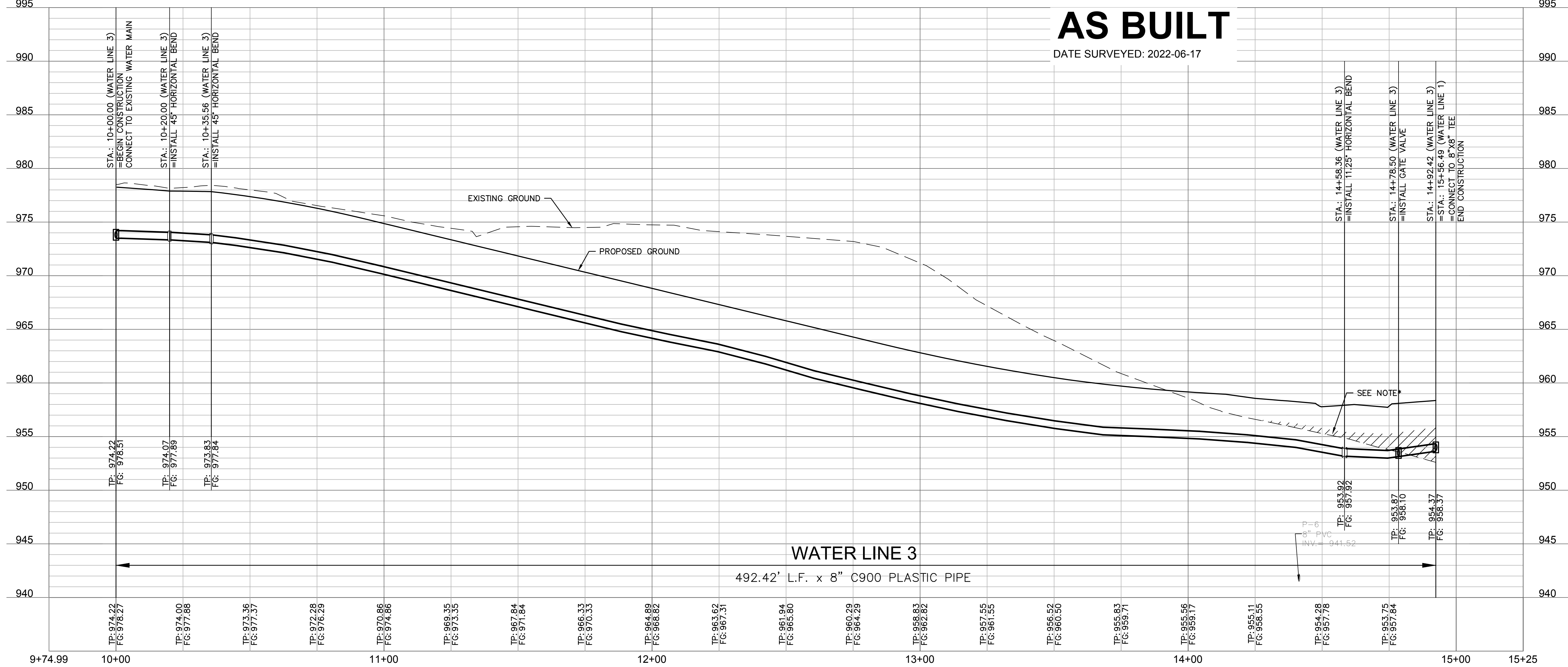


*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-----------|------------|-----------|------------------|
| 5156 | 984346.38 | 2810390.87 | 958.243 | 6" GATE VALVE |

| POINT # | NORTHING | EASTING | ELEVATION | FULL DESCRIPTION |
|---------|-------------|--------------|-----------|-------------------------|
| 5158 | 984345.2469 | 2810379.0937 | 958.243 | INSTALL 1=8" GATE VALVE |

AS BUILT
 DATE SURVEYED: 2022-06-17



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STATE OF MISSOURI
 JULIE ELAINE SELLERS
 NUMBER
 PE-2017000367
 10/11/22
 PROFESSIONAL ENGINEER

| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

| BY | DATE | REVISIONS |
|----|------|-----------|
| | | |

WATER MAIN PLAN & PROFILE (LINE 3)
 WATER MAIN EXTENSION PLANS
 THE RETREAT AT HOOK FARMS
 SECOND PLAT
 LEE'S SUMMIT, MO

SHEET
 C309

| | |
|--|-------------------|
| drawn by: B.M.W./A.A. checked by: B.M.W./A.A. designed by: B.M.W./A.A. QA/QC by: J.E.S. project no.: A19-4059B date: 05-05-2021 | 2021 REVISIONS |
|--|-------------------|

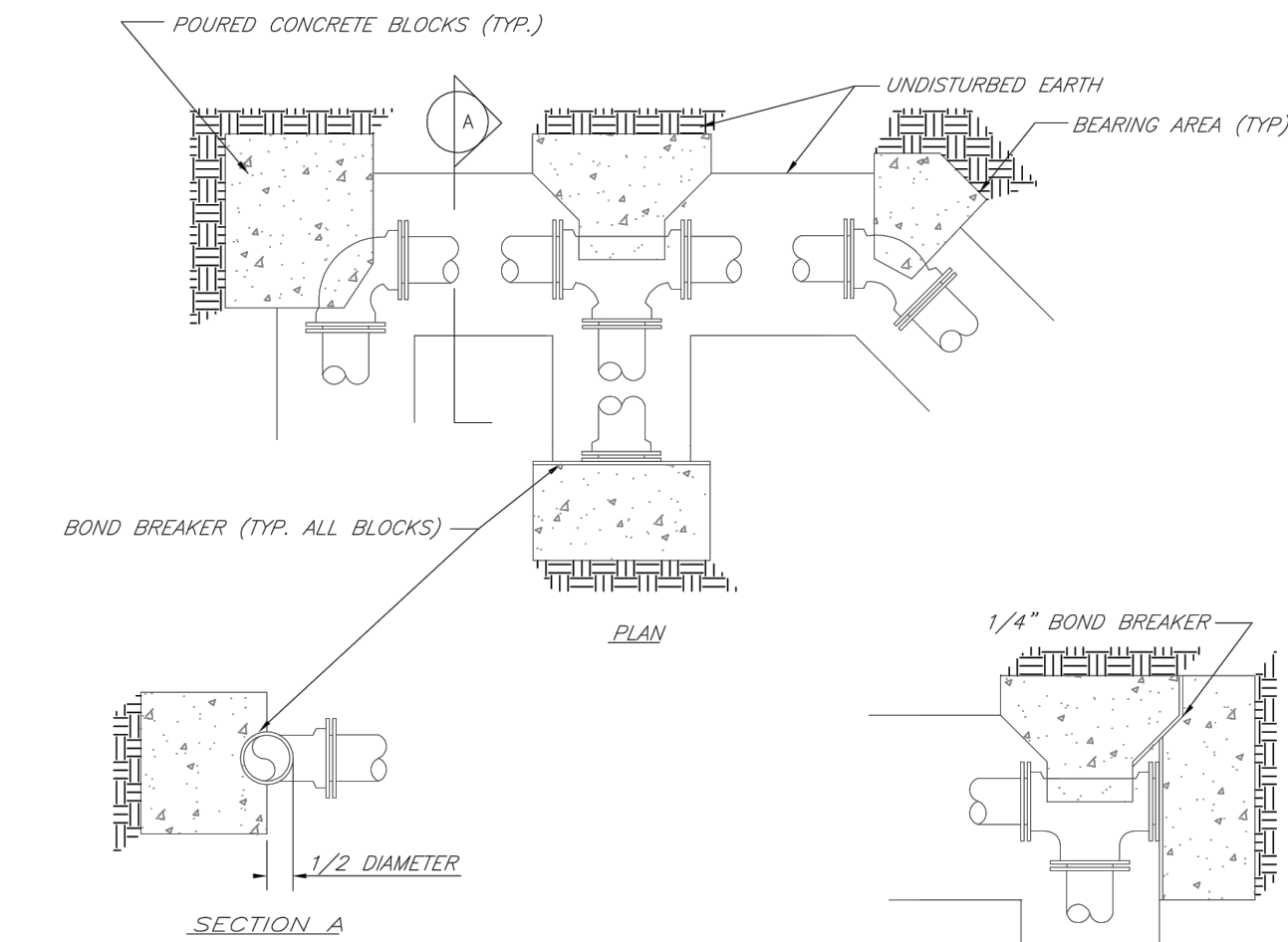
NOT AS BUILT

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

| NOM. DIA. (INCHES) | TEE, FLUG | BEND | 45 BEND | 22.5 BEND | 11.25 BEND |
|--------------------|-----------|-----------|-----------|-----------|------------|
| 6 | 4.7 | 6.7 | 4.0 | 4.0 | 4.0 |
| 8 | 8.4 | 11.8 | 6.4 | 4.0 | 4.0 |
| 10 | 13.1 | 18.5 | 10.0 | 5.1 | 4.0 |
| 12 | 18.8 | 26.7 | 14.4 | 7.4 | 4.0 |
| 14 | 25.7 | 36.3 | 19.6 | 10.0 | 5.0 |
| 16 | 33.5 | 47.4 | 25.6 | 13.1 | 6.6 |
| 18 | 42.4 | REST. JT. | 32.5 | 16.5 | 8.3 |
| 20 | REST. JT. | REST. JT. | 40.1 | 20.4 | 10.3 |
| 24 | REST. JT. | REST. JT. | REST. JT. | 29.4 | 14.8 |

NOTES:

1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING AREA MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HORIZONTAL THRUST BLOCKS

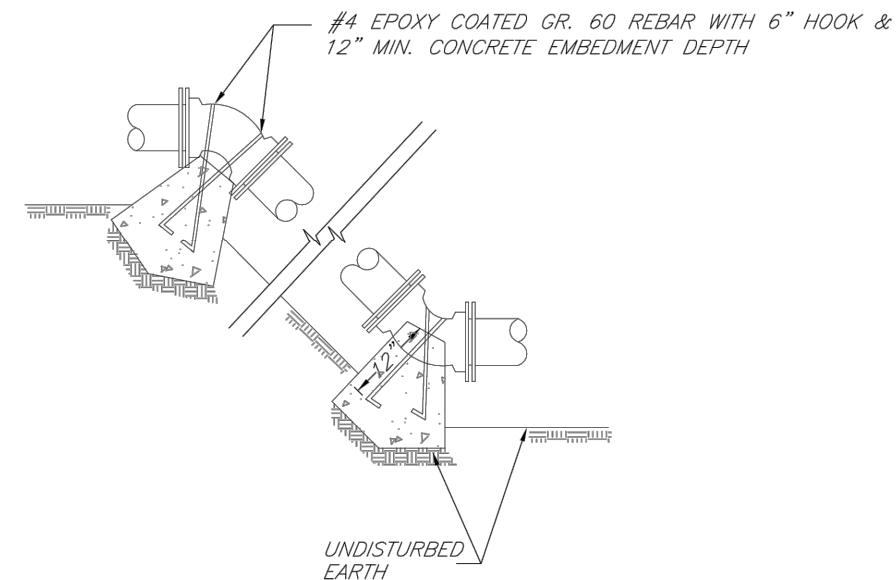
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-1
Rev: 1/14

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

| NOM. DIA. (INCHES) | TEE, FLUG | BEND | 45 BEND | 22.5 BEND | 11.25 BEND |
|--------------------|-----------|-----------|-----------|-----------|------------|
| 6 | 50.5 | 71.4 | 36.6 | 19.7 | 9.9 |
| 8 | 89.8 | 126.9 | 68.7 | 35.0 | 17.6 |
| 10 | 140.2 | 198.3 | 107.3 | 54.7 | 27.5 |
| 12 | 202.0 | REST. JT. | 154.6 | 78.8 | 39.6 |
| 14 | REST. JT. | REST. JT. | 210.4 | 107.3 | 53.9 |
| 16 | REST. JT. | REST. JT. | REST. JT. | 140.1 | 70.4 |
| 18 | REST. JT. | REST. JT. | REST. JT. | 177.3 | 89.1 |
| 20 | REST. JT. | REST. JT. | REST. JT. | REST. JT. | 110.0 |
| 24 | REST. JT. | REST. JT. | REST. JT. | REST. JT. | 158.4 |

NOTES:

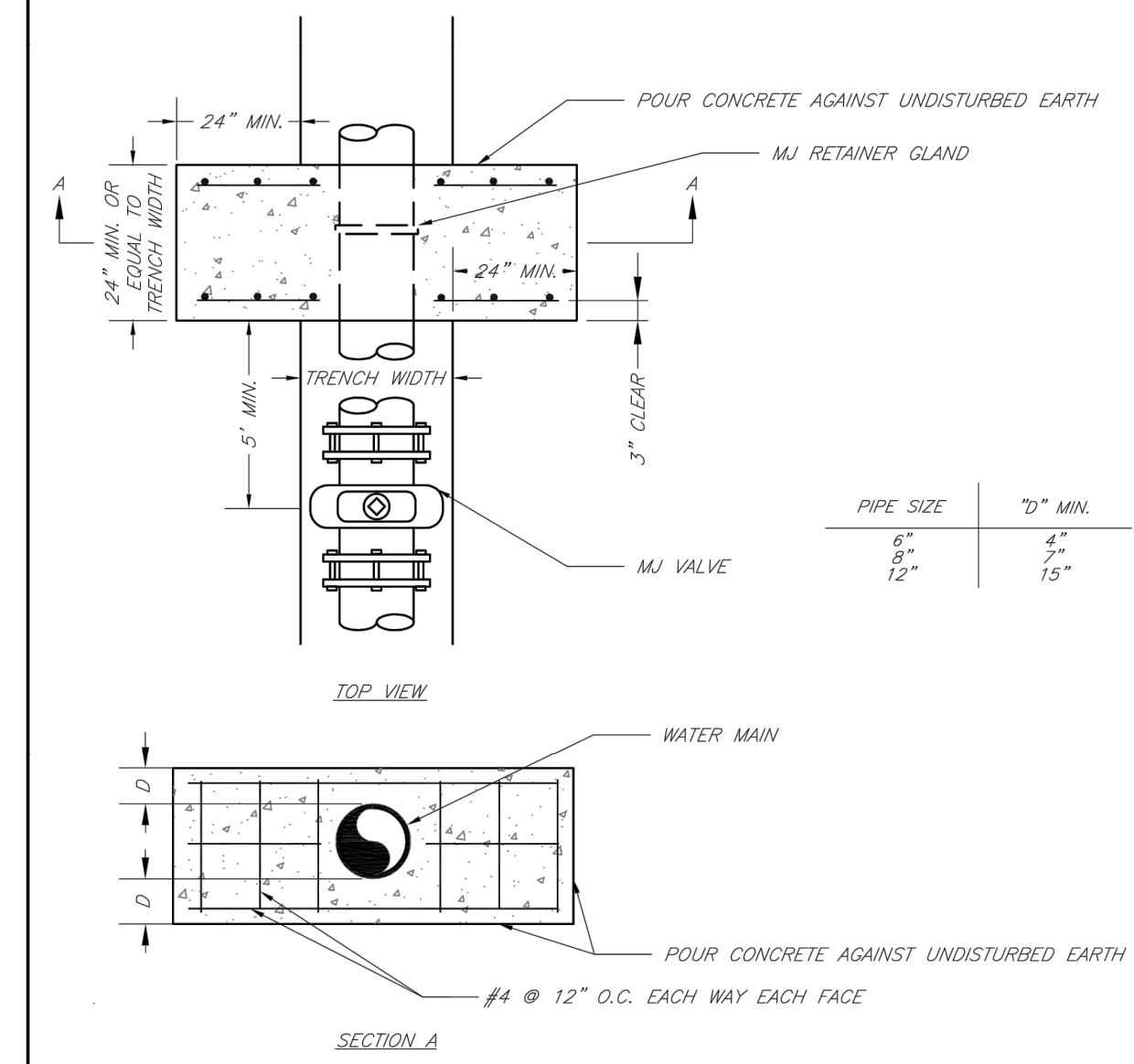
1. ALL BENDS WITHOUT RESTRAINED JOINTS SHALL HAVE CONCRETE THRUST BLOCKS INSTALLED FOR RESTRAINT.
2. MEGA LUGS MAY BE USED ONLY IN CONJUNCTION WITH CONCRETE THRUST BLOCKING.
3. BEARING MUST BE AGAINST UNDISTURBED SOIL.
4. DO NOT COVER JOINTS OR BOLTS (WHERE APPLICABLE) WITH CONCRETE.



LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

VERTICAL THRUST BLOCKS

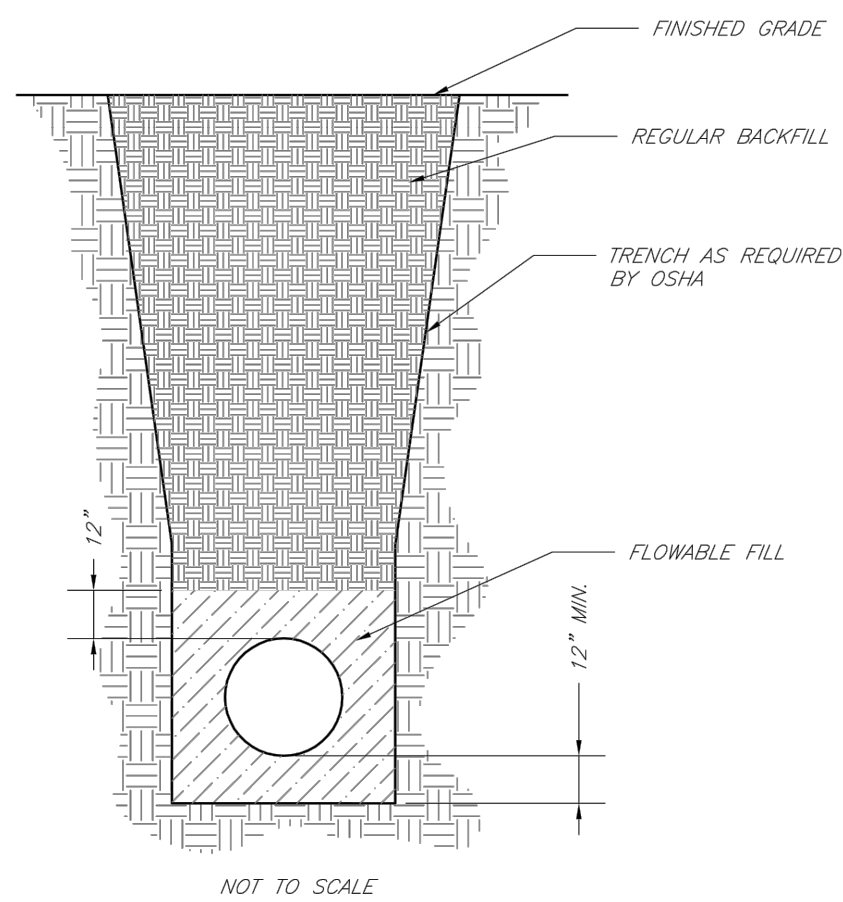
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-2
Rev: 1/14



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PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

STRADDLE BLOCK

Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-3
Rev: 1/14



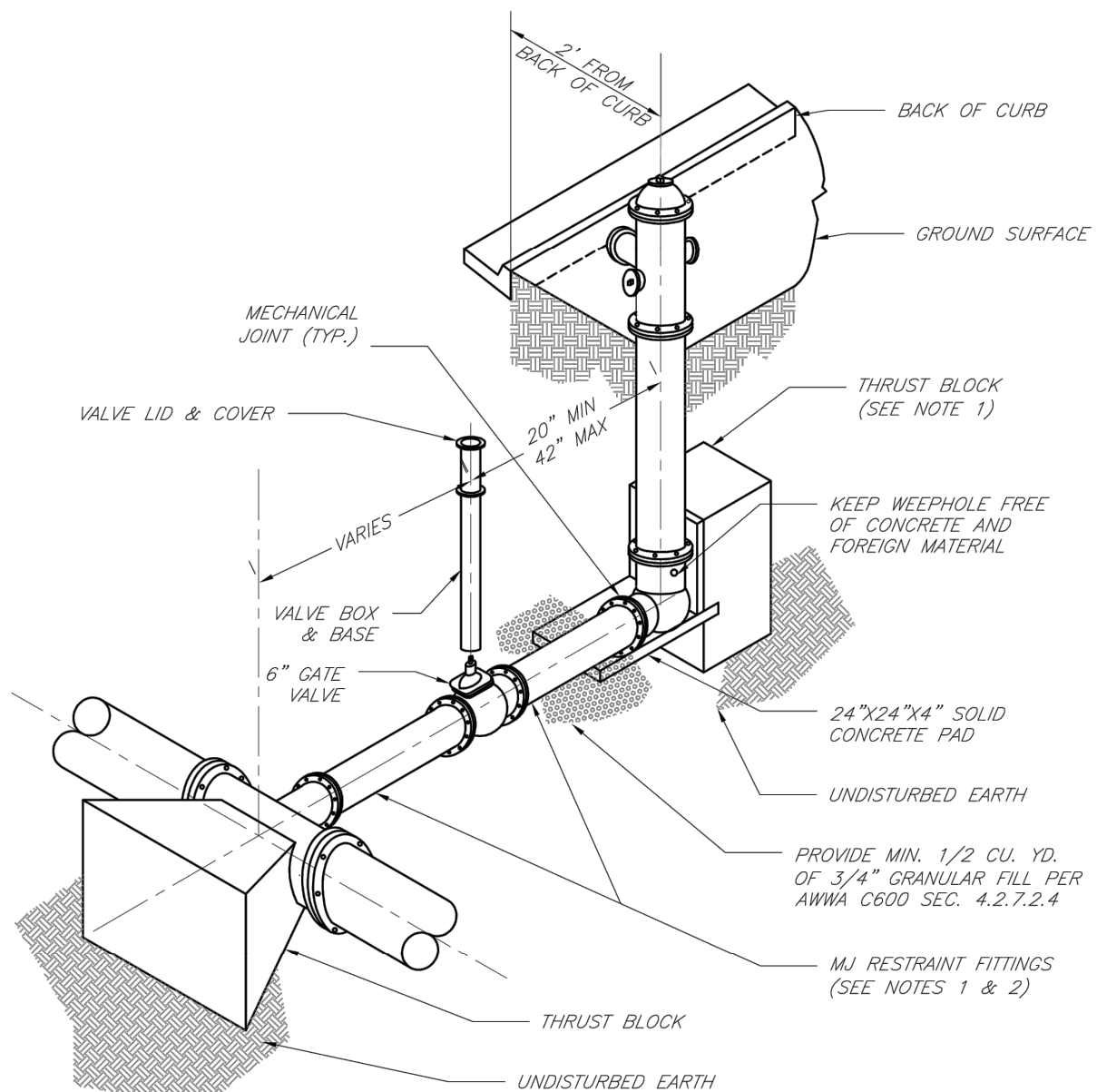
NOTES:

1. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL.
2. REGULAR BACKFILL ABOVE THE TRENCH CHECK SHALL BE FREE OF DEBRIS, ORGANIC MATTER, AND STONES > 6\"/>

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

TRENCH CHECK

Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-6
Rev: 1/14



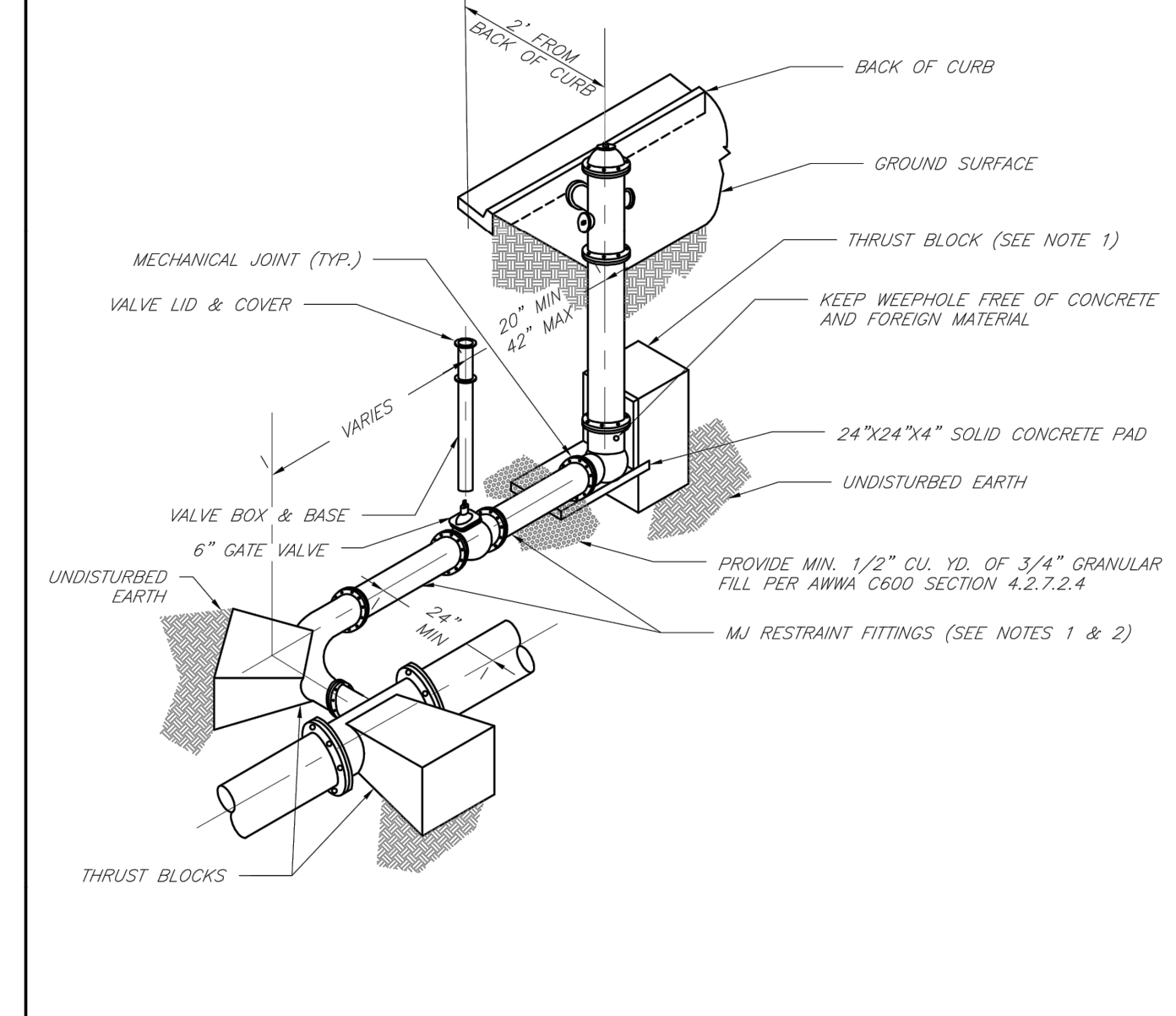
NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2\"/>

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT INSTALLATION - STRAIGHT SET

Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-7
Rev: 1/14



NOTES:

1. WHEN RETAINER GLANDS ARE USED IN LIEU OF MECHANICAL JOINT (MJ) RESTRAINT FITTINGS, HORIZONTAL THRUST BLOCKS ARE REQUIRED.
2. GATE VALVE MAY BE BOLTED DIRECTLY TO MJ RESTRAINT TEE.
3. SEE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR FIRE HYDRANT, VALVES, VALVE BOX LID, AND COVER.
4. BOTTOM HYDRANT FLANGE SHALL BE 2\"/>

LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

HYDRANT WITH 90 DEGREE BEND

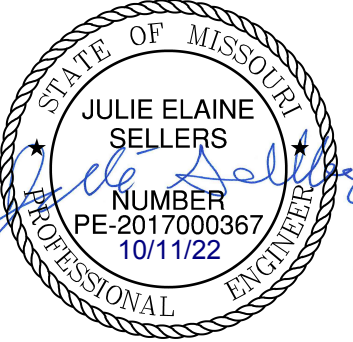
Date: 02/13
Drawn By: JN
Checked By: DL
File: WAT-8
Rev: 1/14

USER: gsmith

DWG: F:\2019\4001-4500\019-4059-a\40-design\AutoCAD\final plans - osbuilts\Sheets\GNCV\Water Main Extension Plans\C_DTL01_A194059.dwg
DATE: Oct 11, 2022 3:49pm XREFS: C_PTBK_A194059

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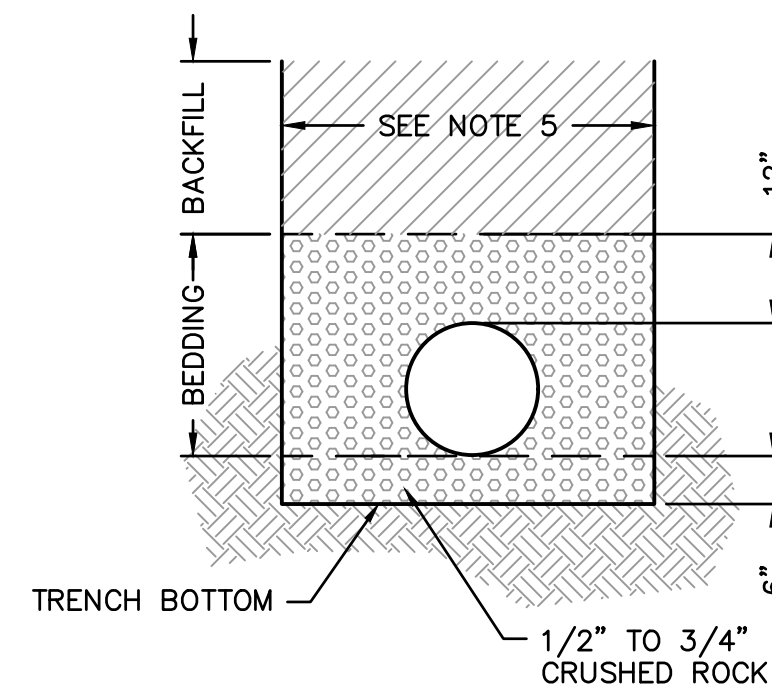
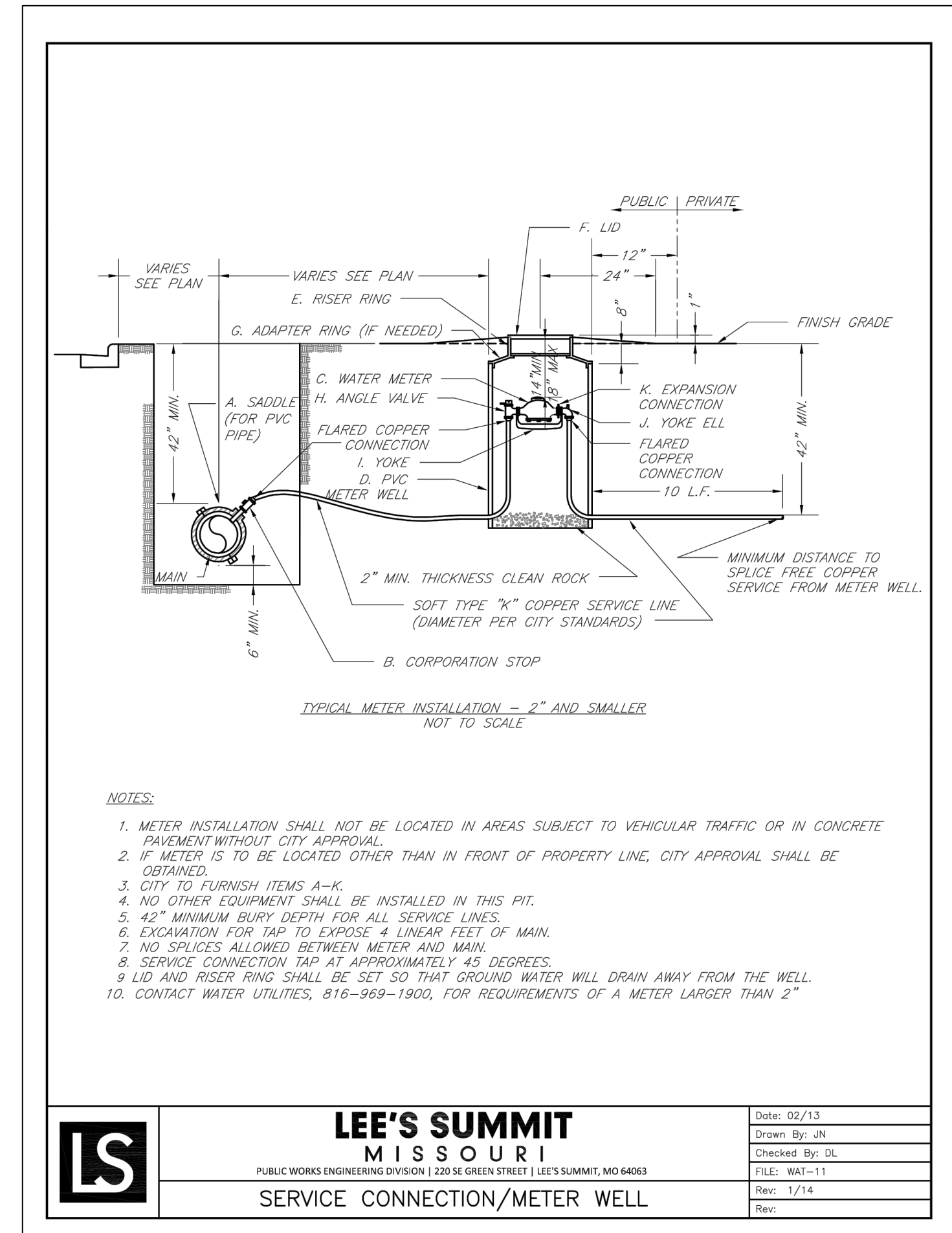
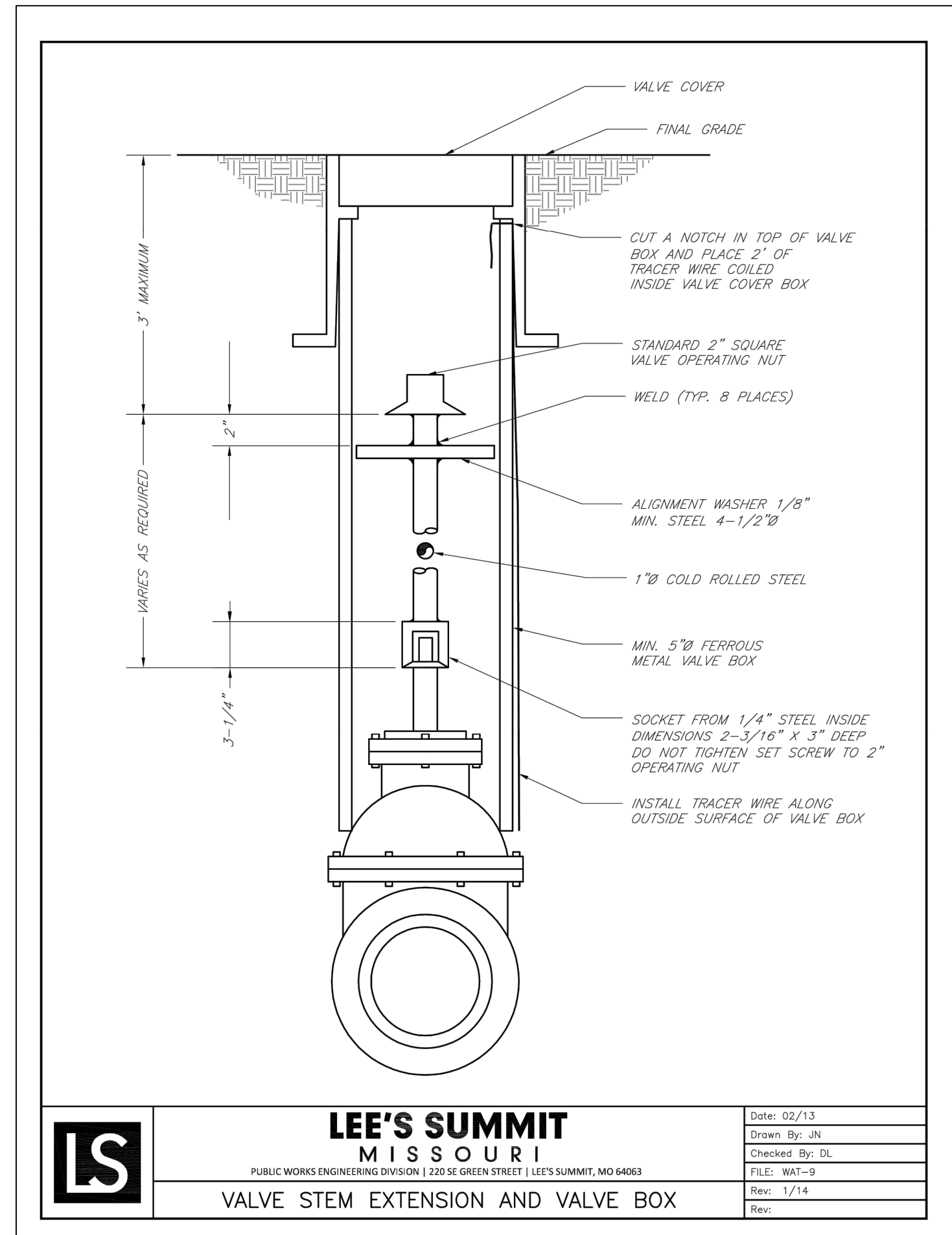
| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------------|---------------------------|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS |

DETAIL SHEET
WATER MAIN EXTENSION PLANS
THE RETREAT AT HOOK FARMS
SECOND PLAT

LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.
checked by: B.M.W.
designed by: B.M.W./A.A.
QA/QC by: J.E.S.
project no.: A19-4059
date: 05-05-2021

SHEET C310



NOTES:

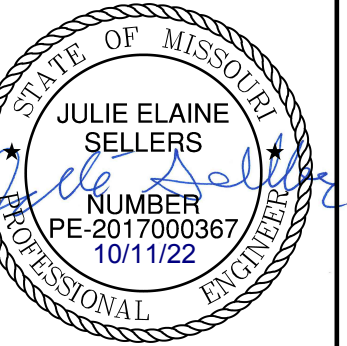
- BELL HOLES SHALL BE DUG SO THAT NO PART OF THE BELL SHALL BE IN CONTACT WITH THE TRENCH BOTTOM.
- BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 12 INCHES ABOVE THE TOP OF THE PIPE AS SHOWN ABOVE.
- BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
- TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
- MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

UNDERGROUND PIPE INSTALLATION FOR WATER PIPING
 NOT TO SCALE

NOT AS BUILT

olsson

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 FAX 816.361.1888
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| REV. NO. | DATE | REVISIONS DESCRIPTION | BY |
|----------|------------|---------------------------|----|
| 1 | 08-26-2021 | REVISED PER CITY COMMENTS | |
| 2 | 10-29-2021 | REVISED PER CITY COMMENTS | |

| | |
|----------------------------|------|
| DETAIL SHEET | 2021 |
| WATER MAIN EXTENSION PLANS | |
| THE RETREAT AT HOOK FARMS | |
| SECOND PLAT | |
| LEE'S SUMMIT, MO | |

drawn by: B.M.W./A.A.
 checked by: B.M.W.
 designed by: B.M.W./A.A.
 QA/QC by: J.E.S.
 project no.: A19-4059
 date: 05-05-2021

SHEET C311

REVISIONS