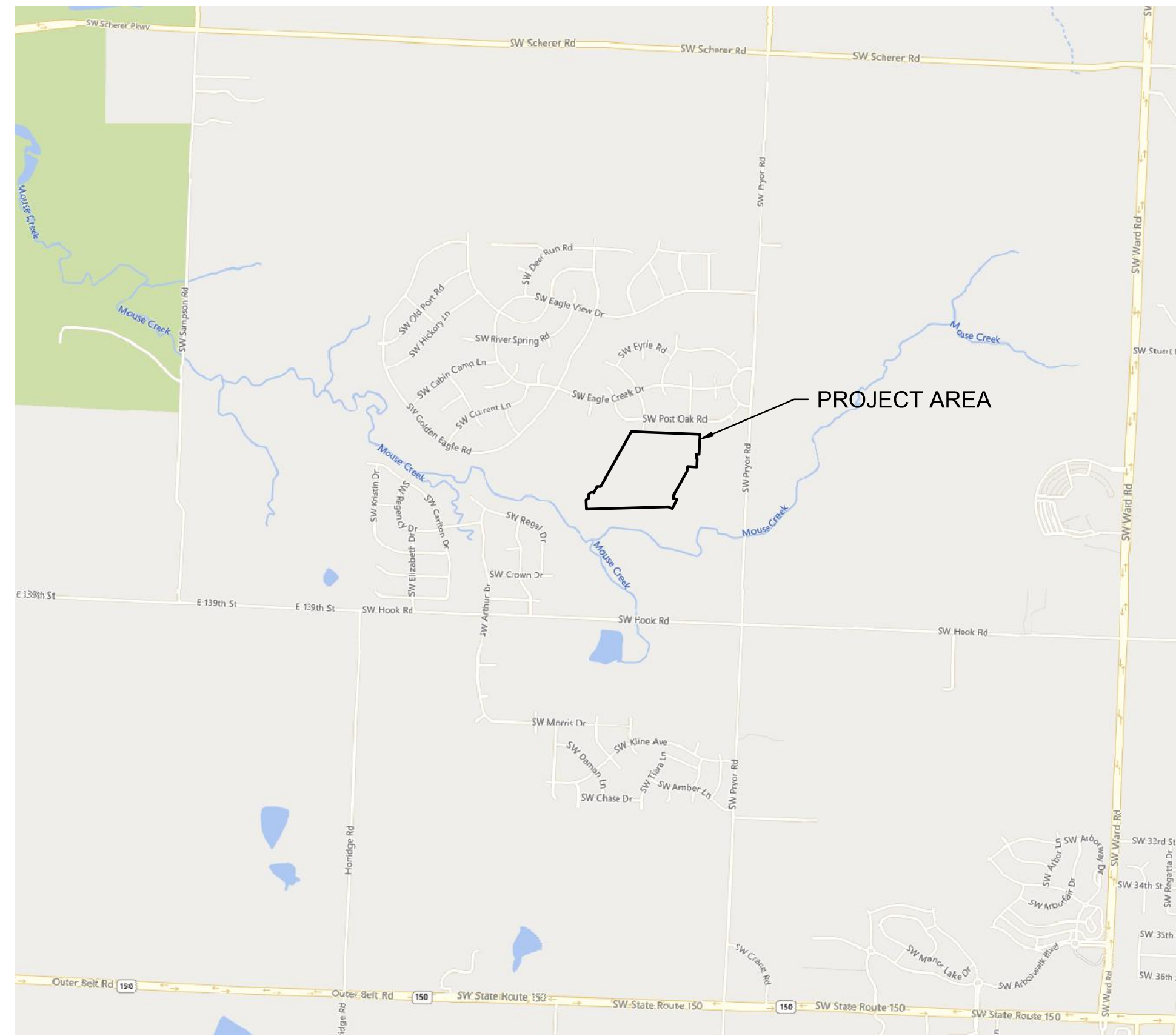
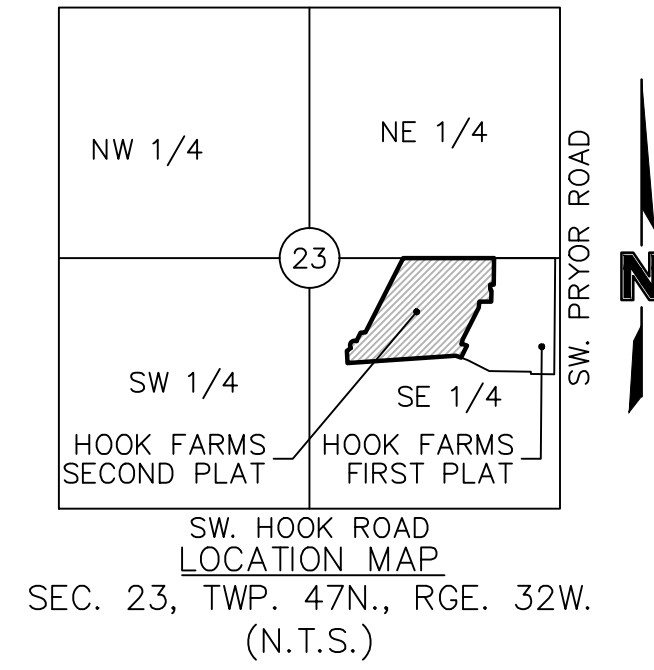


# HOOK FARMS SECOND PLAT WATER MAIN EXTENSION PLANS

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	WATER MAIN PLAN & PROFILE (LINE 4)
C311	WATER MAIN PLAN & PROFILE (LINE 4)
C312	WATER MAIN PLAN & PROFILE (LINE 5)
C313	WATER MAIN PLAN & PROFILE (LINE 5)
C314	WATER MAIN PLAN & PROFILE (LINE 6)
C315	WATER MAIN PLAN & PROFILE (LINE 6)
C316	DETAIL SHEET
C317	DETAIL SHEET

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

<input type="checkbox"/>	NOT FOR CONSTRUCTION
<input checked="" 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 02°45'34" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 2,635.08 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 87°45'24" WEST, ON THE NORTH LINE OF SAID SOUTHEAST QUARTER, 50.00 FEET TO THE SOUTHEAST CORNER OF LOT 3, EAGLE CREEK-FIRST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 110409 IN BOOK 165 AT PAGE 01 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING THE NORTHWEST CORNER OF PROPOSED HOOK FARMS FIRST PLAT; THENCE CONTINUING NORTH 87°45'24" WEST ON SAID NORTH LINE, ALSO BEING THE PROPOSED NORTH LINE OF SAID PROPOSED HOOK FARMS FIRST PLAT, ALSO BEING THE SOUTH LINE OF SAID EAGLE CREEK-FIRST PLAT, 643.83 FEET TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE LEAVING SAID NORTH AND SOUTH LINES, SOUTH 02°59'10" WEST, ALONG THE PROPOSED WESTERLY LINE OF PROPOSED HOOK FARMS FIRST PLAT, 277.38 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 36.00 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE SOUTH 42°00'50" EAST, ALONG SAID PROPOSED WESTERLY LINE, 19.80 FEET; THENCE SOUTH 02°59'10" WEST, ALONG SAID PROPOSED WESTERLY LINE, 116.00 FEET; THENCE NORTH 87°00'50" WEST, ALONG SAID PROPOSED WESTERLY LINE, 126.12 FEET; THENCE SOUTH 07°19'52" WEST, ALONG SAID PROPOSED WESTERLY LINE, 64.17 FEET; THENCE SOUTH 29°10'47" WEST, ALONG SAID PROPOSED WESTERLY LINE, 375.17 FEET; THENCE SOUTH 15°20'56" WEST, ALONG SAID PROPOSED WESTERLY LINE, 50.00 FEET; THENCE ALONG SAID PROPOSED WESTERLY LINE, EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 74°39'04" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 11°57'16" AND AN ARC DISTANCE OF 57.38 FEET; THENCE SOUTH 27°18'12" WEST, ALONG SAID PROPOSED WESTERLY LINE, 138.17 FEET; THENCE LEAVING SAID PROPOSED WESTERLY LINE, NORTH 67°11'53" WEST, 61.05 FEET; THENCE SOUTH 88°21'16" WEST, 1,139.83 FEET; THENCE NORTH 01°38'44" WEST, 128.09 FEET; THENCE NORTH 57°02'58" EAST, 49.90 FEET; THENCE NORTHEASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 32°57'02" WEST WITH A RADIUS OF 50.00 FEET, A CENTRAL ANGLE OF 150°22'53" AND AN ARC DISTANCE OF 131.23 FEET; THENCE NORTH 27°25'51" EAST, 98.75 FEET; THENCE NORTH 88°21'16" EAST, 52.12 FEET; THENCE NORTH 29°10'47" EAST, 873.51 FEET TO A POINT ON SAID NORTH LINE OF SAID SOUTHEAST QUARTER, ALSO BEING THE SOUTH LINE OF EAGLE CREEK-SECOND PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 200100058889 IN BOOK 165 AT PAGE 09 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 87°45'24" EAST, ON SAID NORTH LINE AND SAID SOUTH LINE, 682.19 FEET TO THE SOUTHEAST CORNER OF SAID EAGLE CREEK-SECOND PLAT, ALSO BEING THE SOUTHWEST CORNER OF SAID EAGLE CREEK-FIRST PLAT; THENCE SOUTH 87°45'24" EAST ON SAID NORTH LINE, AND SAID SOUTH LINE OF EAGLE CREEK-FIRST PLAT, 273.64 FEET TO THE POINT OF BEGINNING. CONTAINING 1,157,274 SQUARE FEET OR 26.57 ACRES, MORE OR LESS.

**BENCHMARK**

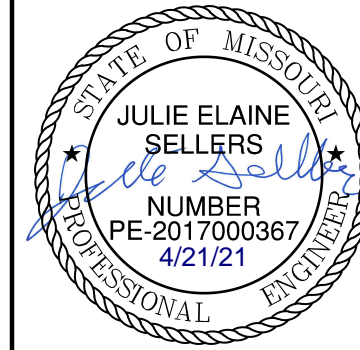
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E: 2809447-9650  
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OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

*Julie E. Sellers* \_\_\_\_\_ 4/21/21  
DATE  
JULIE E. SELLERS, P.E.  
CIVIL ENGINEER  
MO # PE-2017000367

**PRSUBD20211958  
PL2021015**

**RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI**  
10/05/2021



REV. NO.	DATE	REVISIONS DESCRIPTION	BY	
			REVISIONS DESCRIPTION	DATE
1	03-23-2021	REVISED PER CITY COMMENTS		
2	04-16-2021	REVISED PER CITY COMMENTS		

TITLE SHEET  
WATER MAIN EXTENSION PLANS  
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.: B19-408-1  
date: 01-08-2021

SHEET  
C301

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

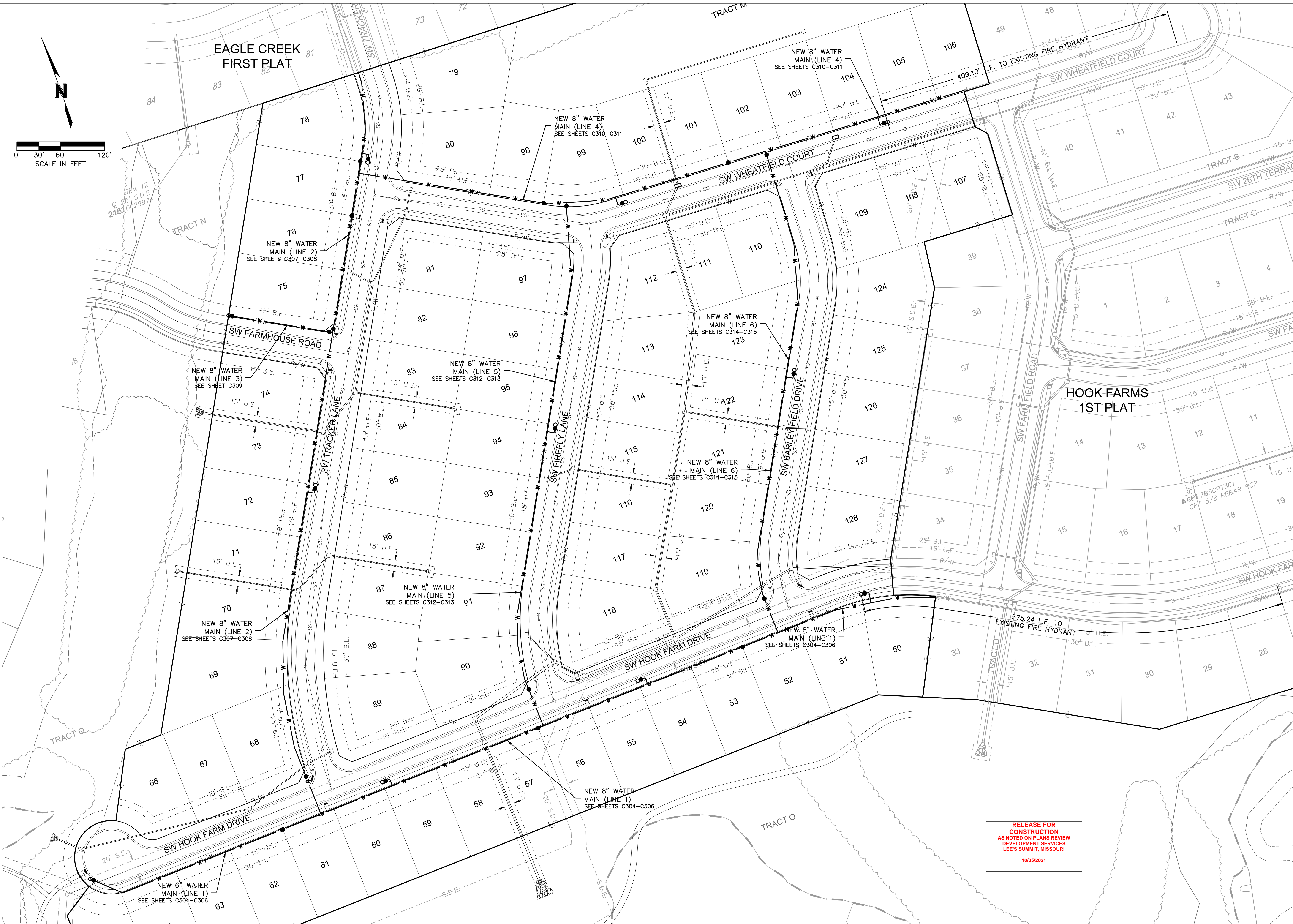
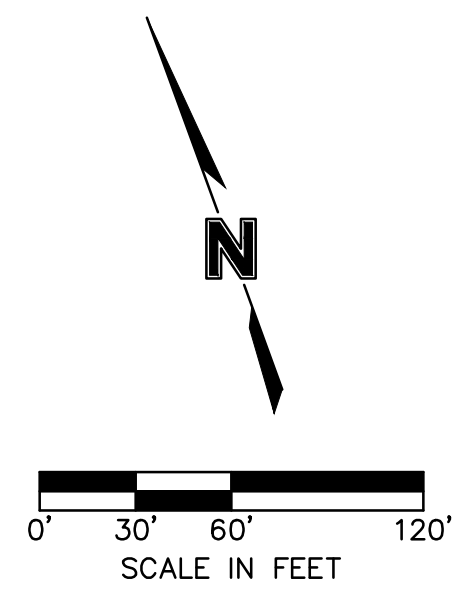
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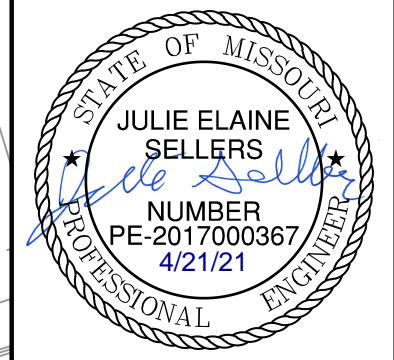


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 USER: bworthley



**RELEASE FOR CONSTRUCTION**  
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 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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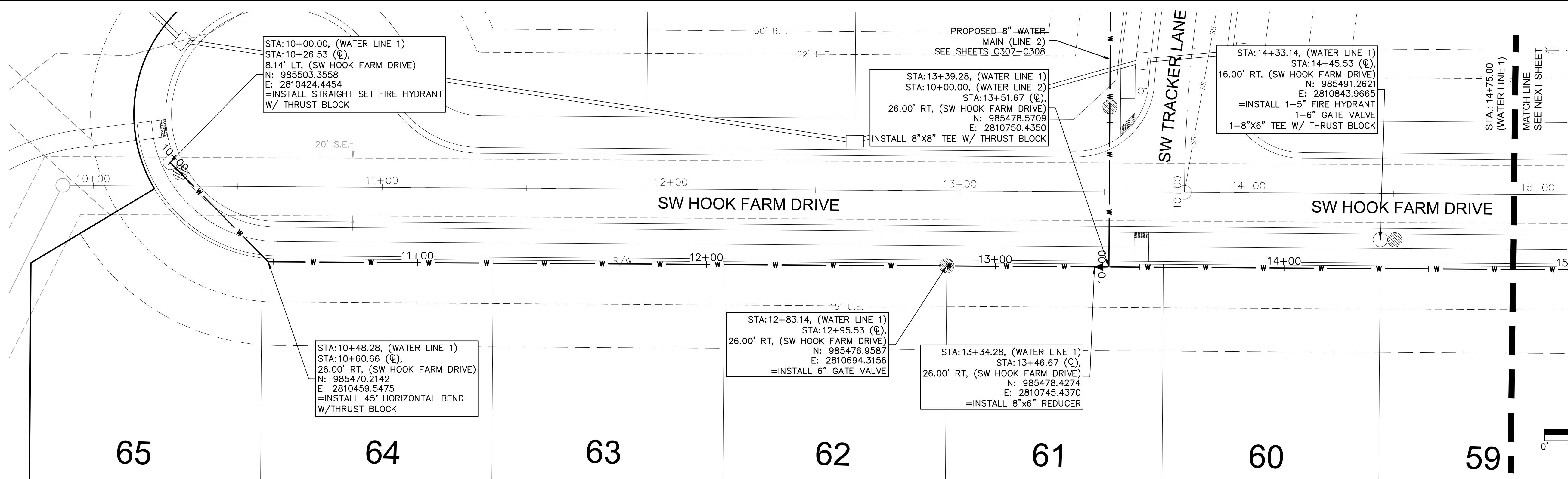
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	

**GENERAL LAYOUT**  
**WATER MAIN EXTENSION PLANS**  
**HOOK FARMS**  
**SECOND PLAT**  
 LEE'S SUMMIT, MO  
 2021

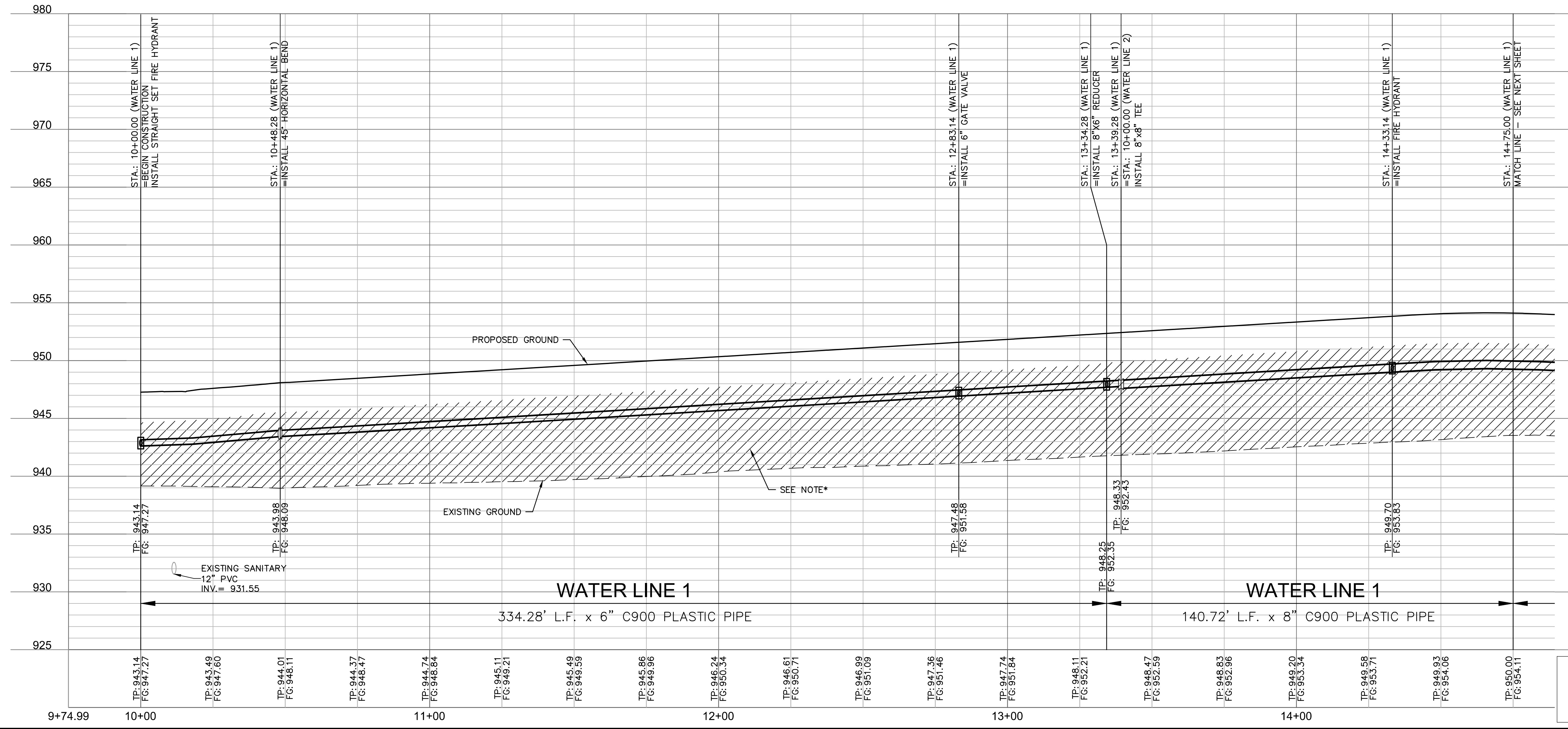
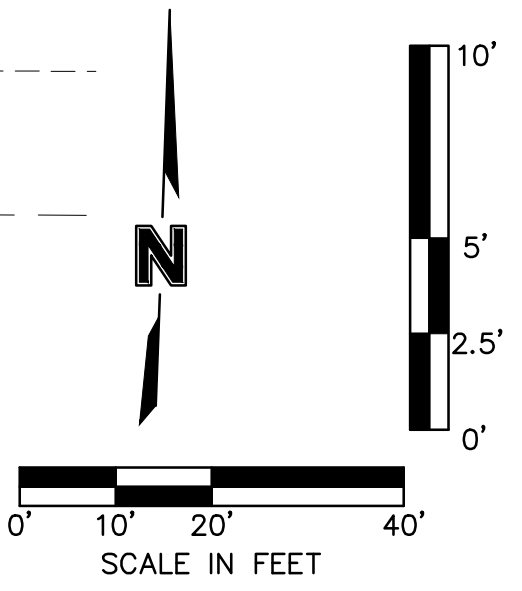
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**SHEET C303**

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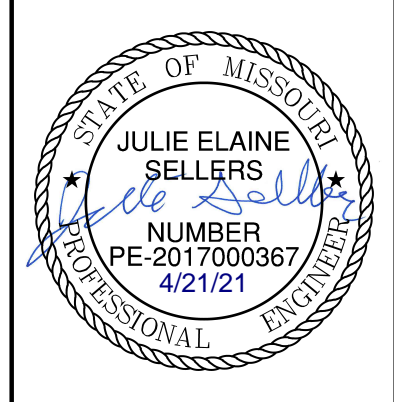


\*NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE



**RELEASE FOR CONSTRUCTION**  
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 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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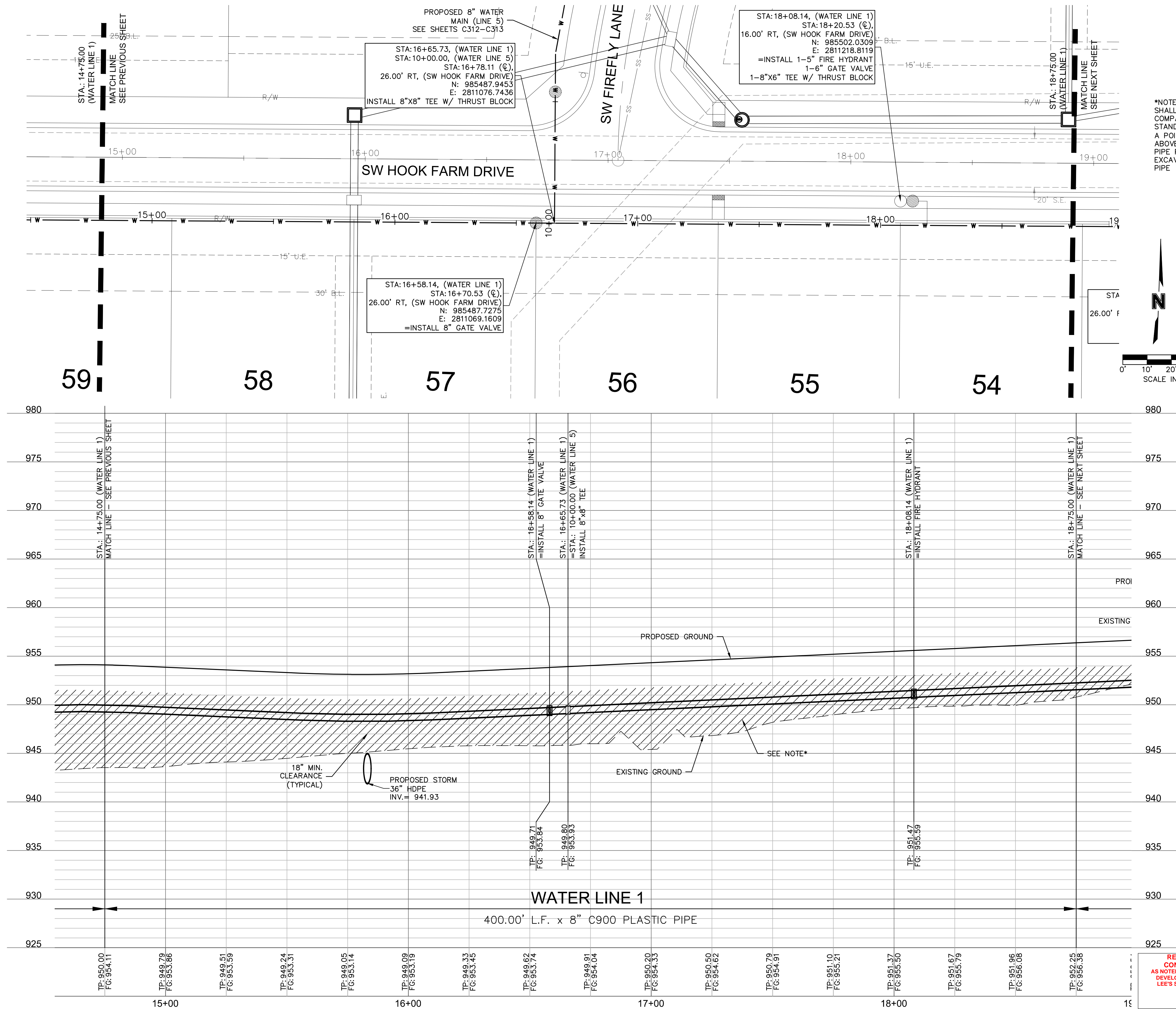


REV. NO.	DATE	REVISIONS DESCRIPTION
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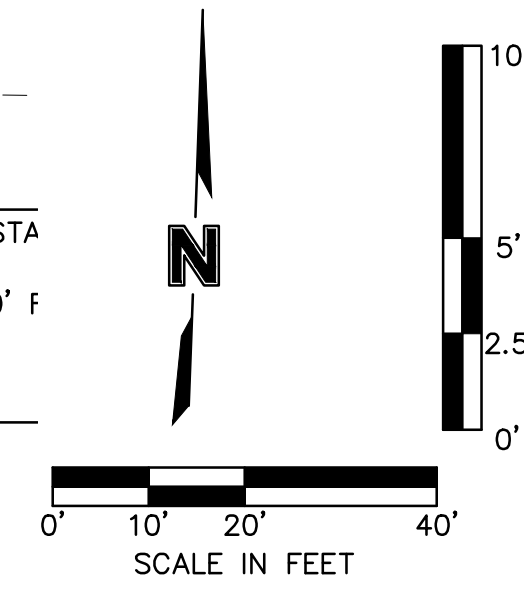
WATER MAIN PLAN & PROFILE (LINE 1)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

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.: B19-4061  
 date: 01-09-2021

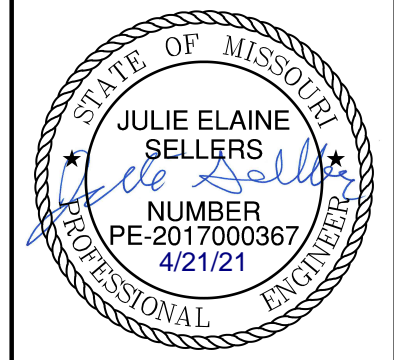
**SHEET C304**



\*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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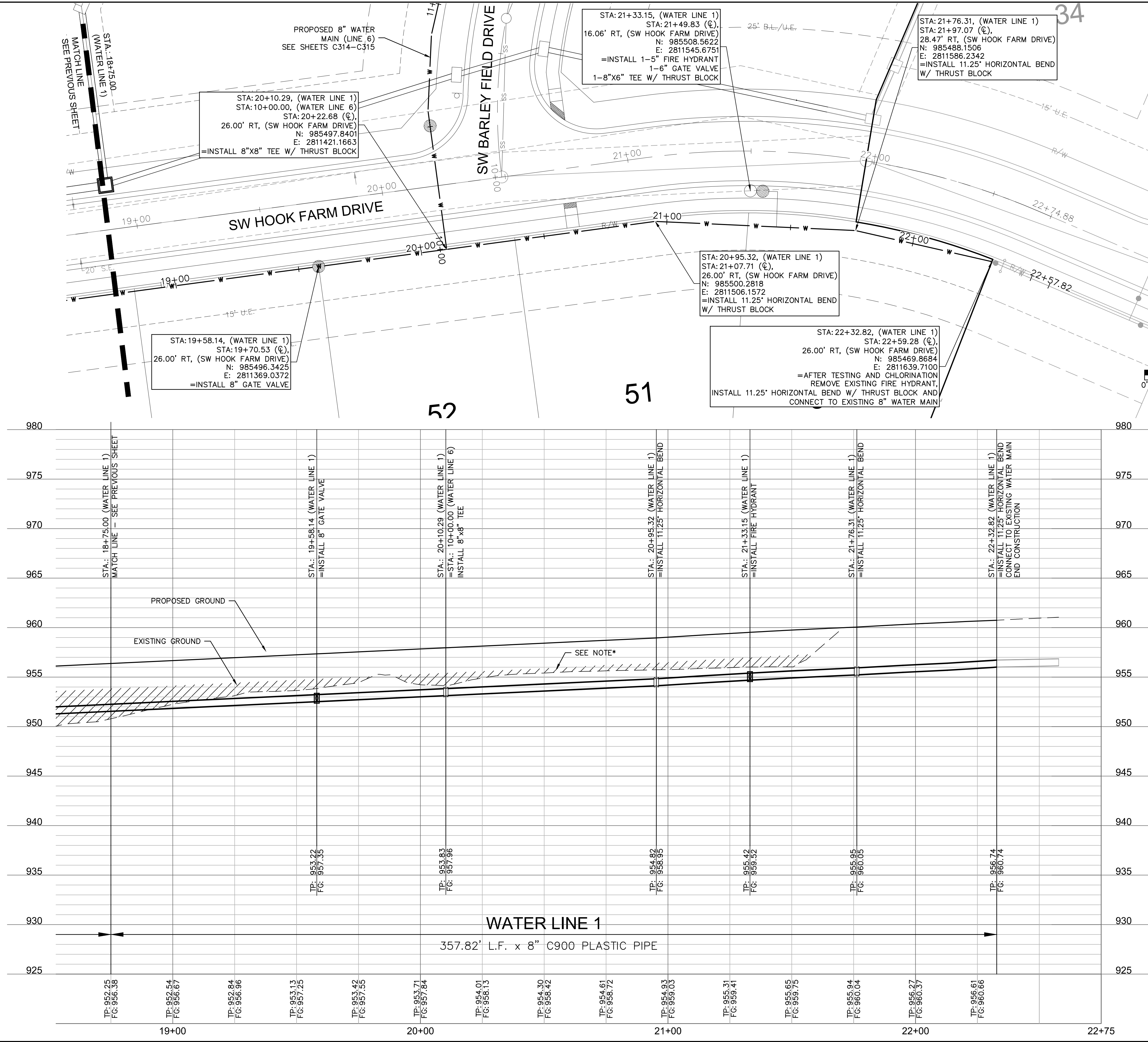
REV. NO.	DATE	REVISIONS DESCRIPTION
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WATER MAIN PLAN & PROFILE (LINE 1)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

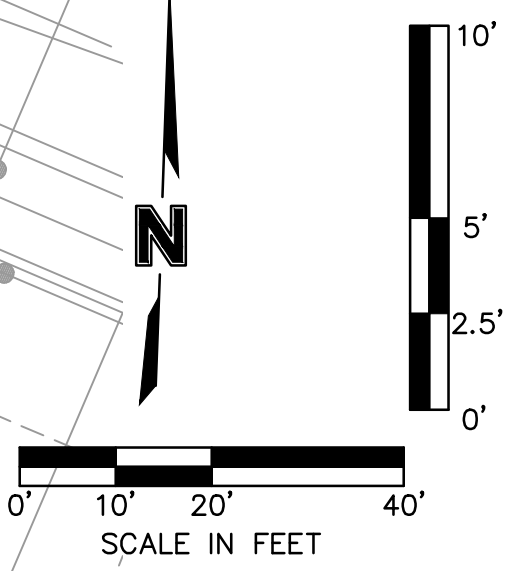
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 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

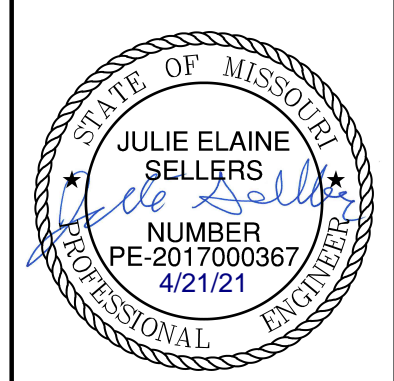
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 USER: bworthley



\*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



STA: 18+75.00 (WATER LINE 1)  
 STA: 10+00.00 (WATER LINE 6)  
 STA: 20+10.29 (WATER LINE 1)  
 STA: 20+22.68 (WATER LINE 6)  
 STA: 19+58.14 (WATER LINE 1)  
 STA: 19+70.53 (WATER LINE 6)  
 STA: 20+95.32 (WATER LINE 1)  
 STA: 21+07.71 (WATER LINE 6)  
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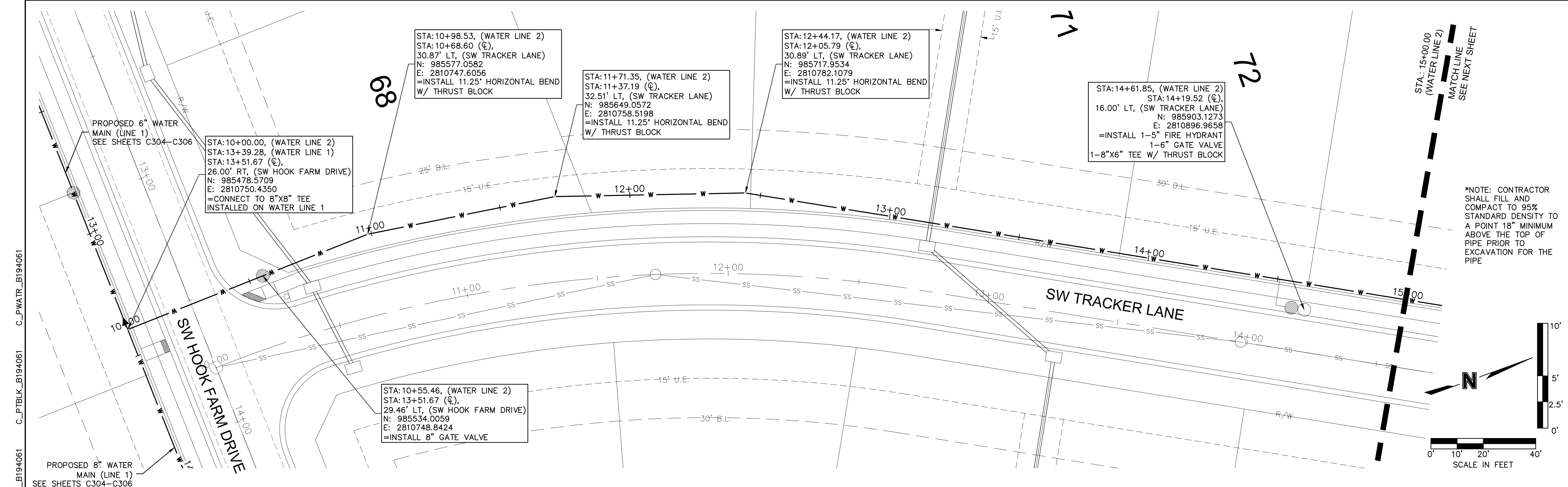
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 1)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

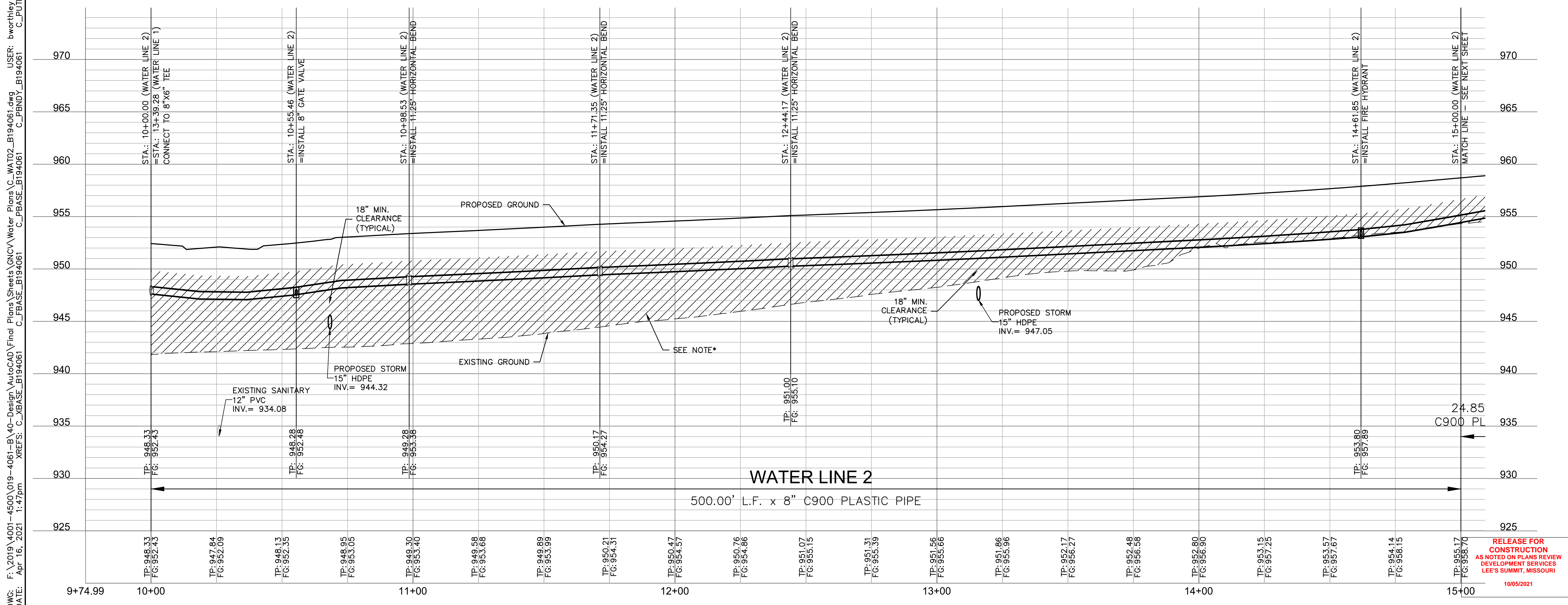
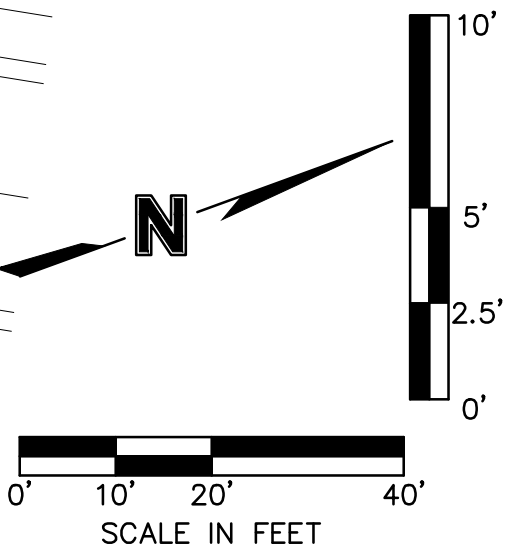
drawn by: B.M.W./A.A.  
 checked by: B.M.W./A.A.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

RELEASE FOR CONSTRUCTION  
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 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

**olsson**  
 Olsson - Civil Engineering  
 Missouri Certificate of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 FAX 816.361.1888  
 www.olson.com



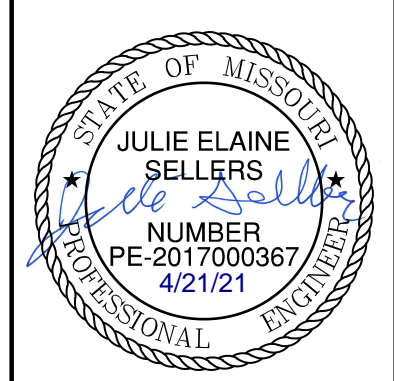
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REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

**WATER MAIN PLAN & PROFILE (LINE 2)**  
**WATER MAIN EXTENSION PLANS**

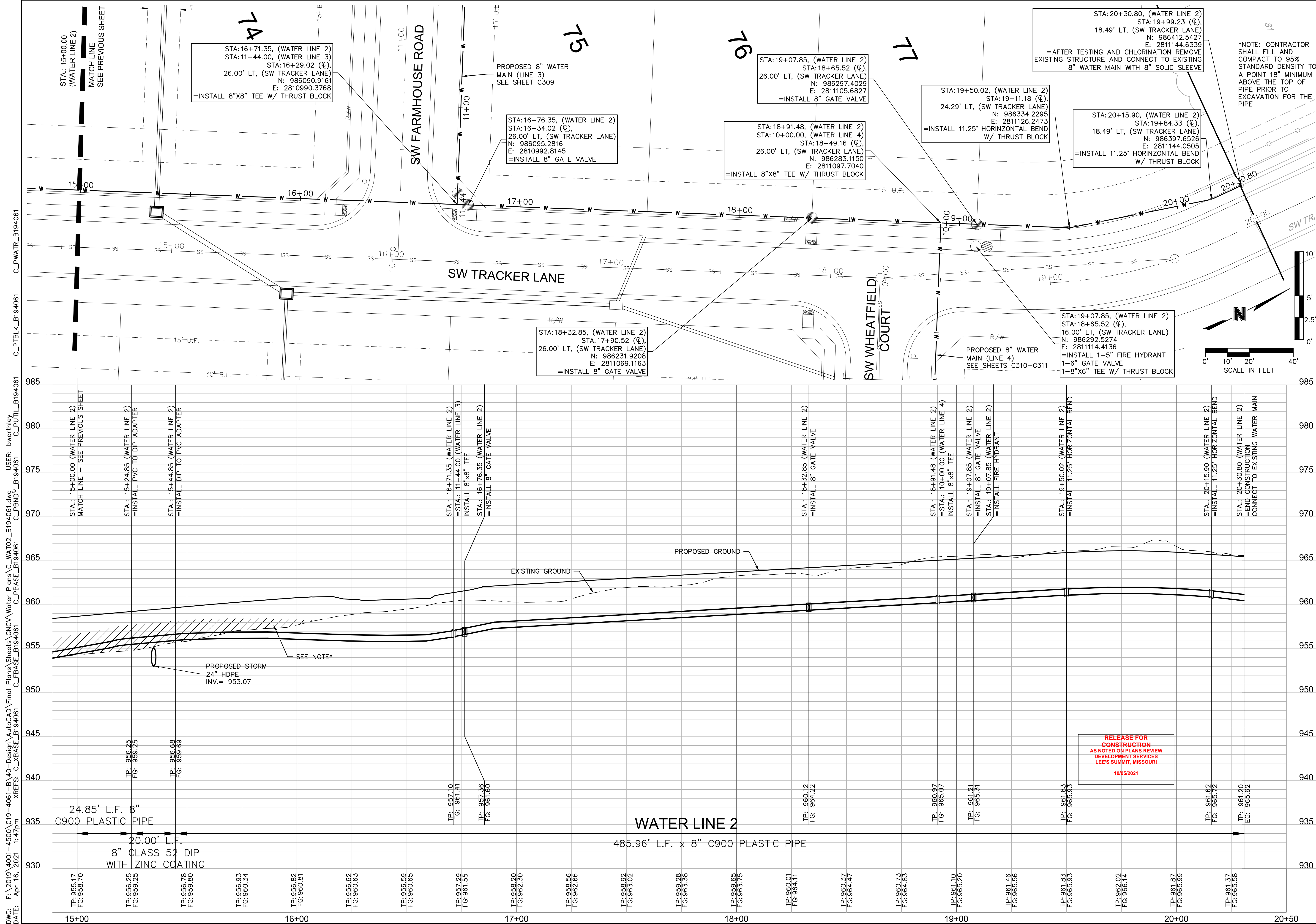
HOOK FARMS  
 SECOND PLAT

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.: B19-4061  
 date: 01-09-2021

**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021



DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCV\Water Plans\C\_WAT02\_B194061.dwg USER: bworthley  
 DATE: Apr 16, 2021 1:47pm XREFS: C:\BASE\_B194061 C:\PBDY\_B194061 C:\PUTIL\_B194061 C:\PWATR\_B194061

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 North Kansas City, MO 64116  
 TEL 816.361.1177  
 FAX 816.361.1888  
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**JULIE ELAINE SELLERS**  
 MISSOURI PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 4/21/21

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

BY: \_\_\_\_\_

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

2021

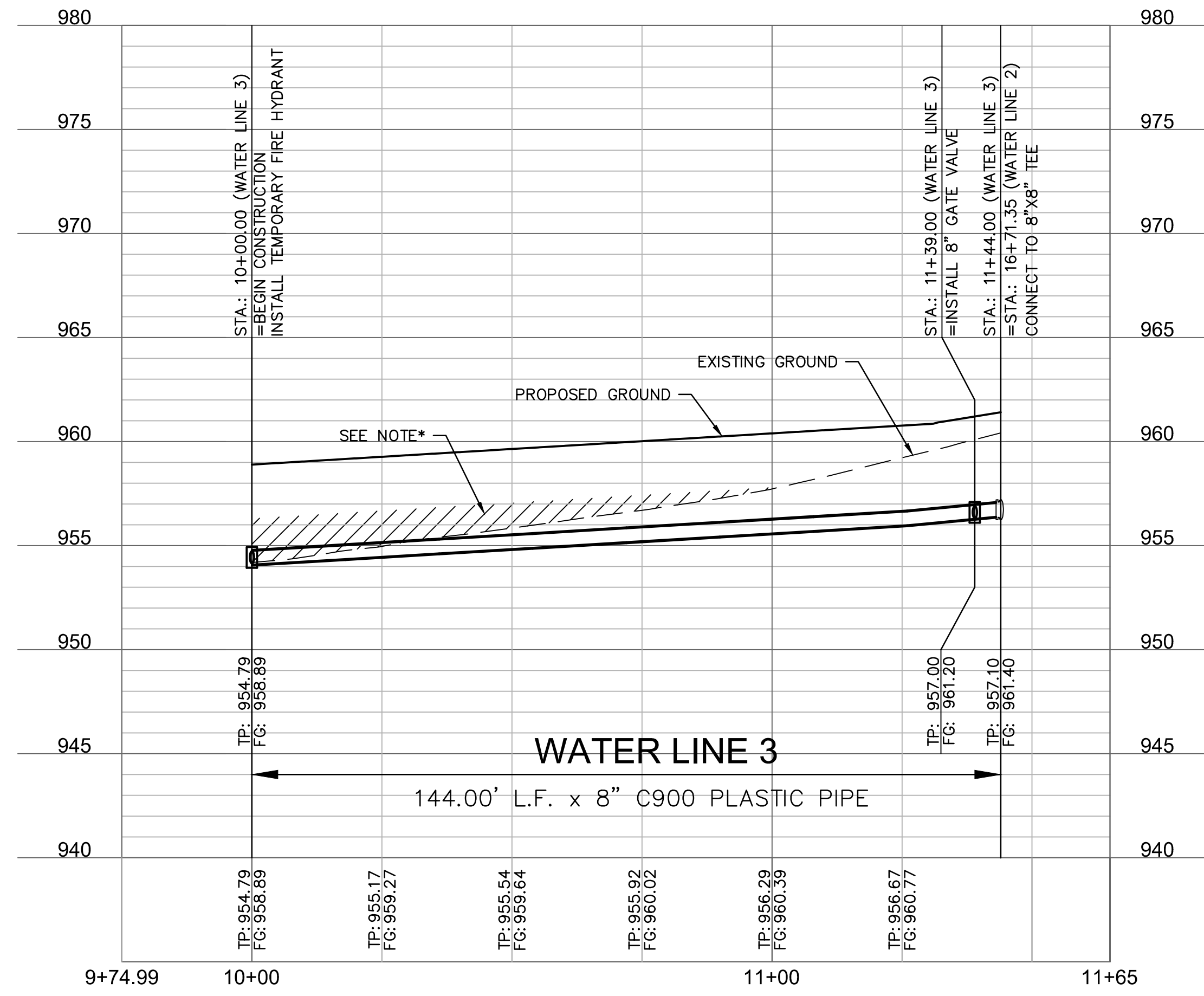
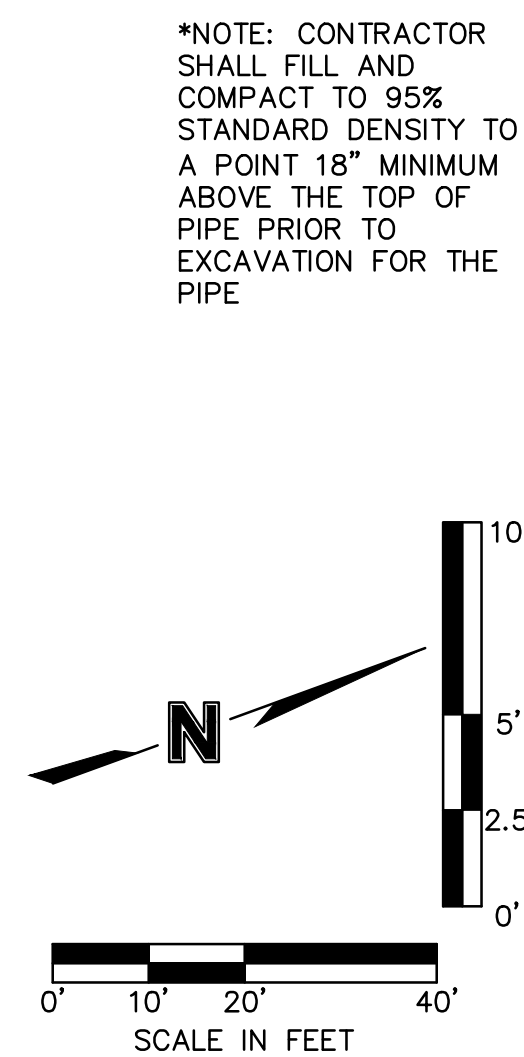
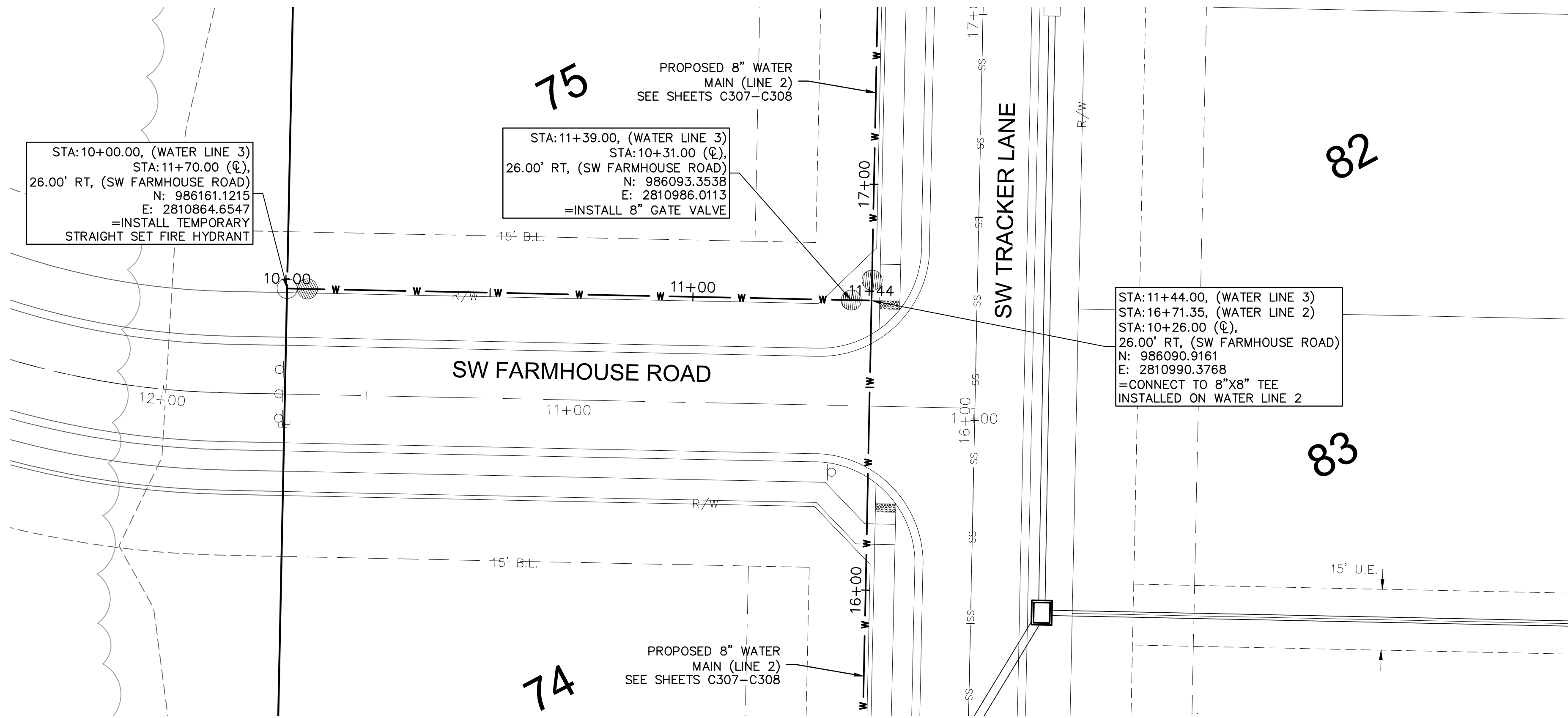
RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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.: B19-4061  
 date: 01-09-2021

**SHEET C308**



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 USER: bworthley



RELEASE FOR CONSTRUCTION  
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 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
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**olsson**  
 Olsson - Civil Engineering  
 Missouri Certificate of Authority #001592  
 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
 FAX 816.361.1888  
 www.olsosn.com

JULIE ELAINE SELLERS  
 PE-2017000367  
 4/21/21

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1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

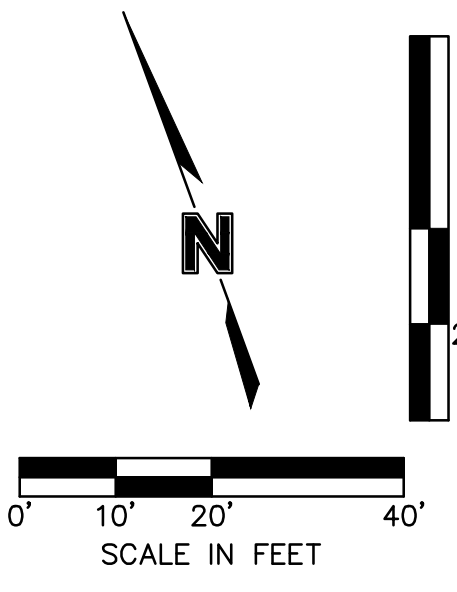
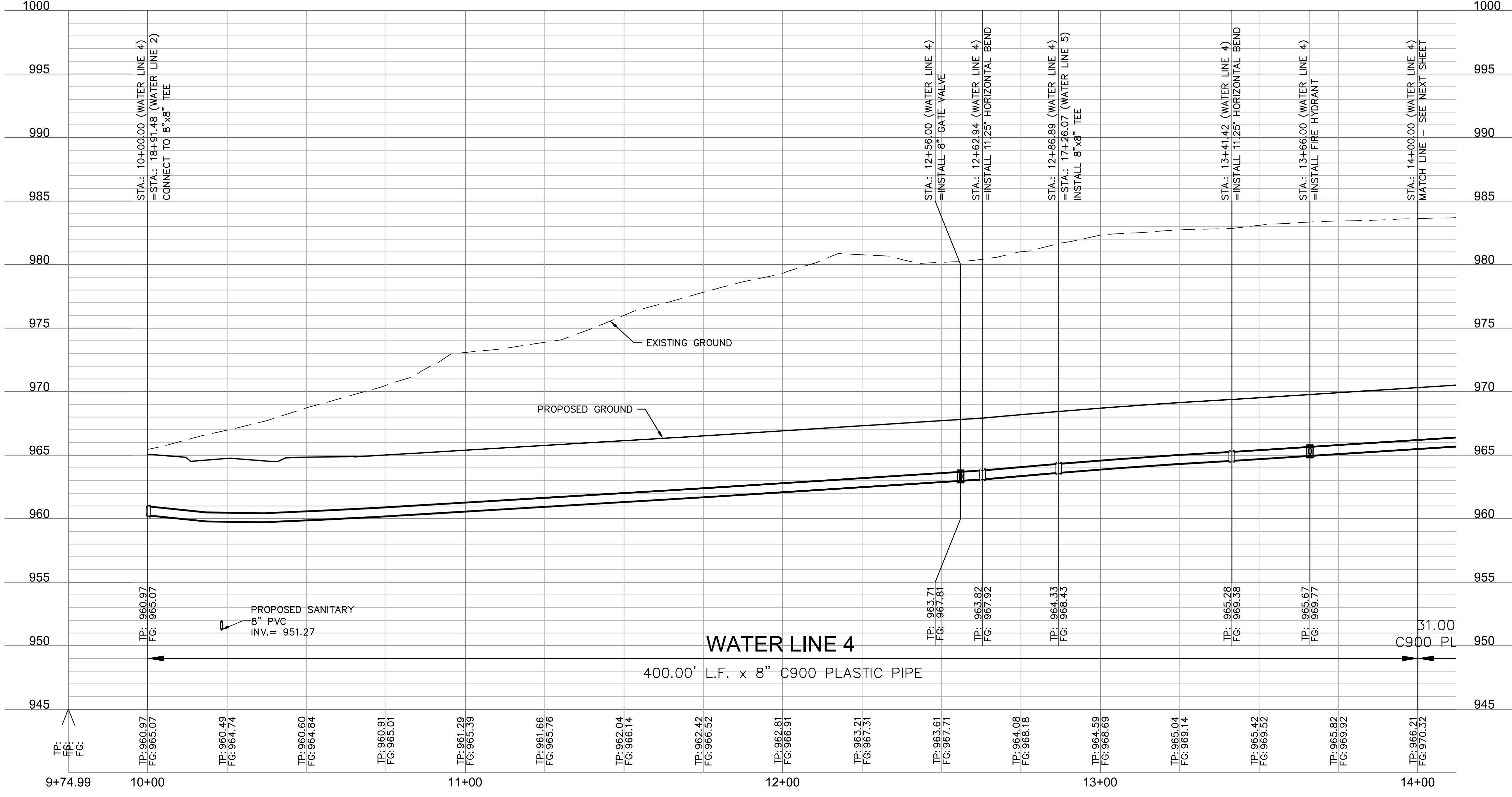
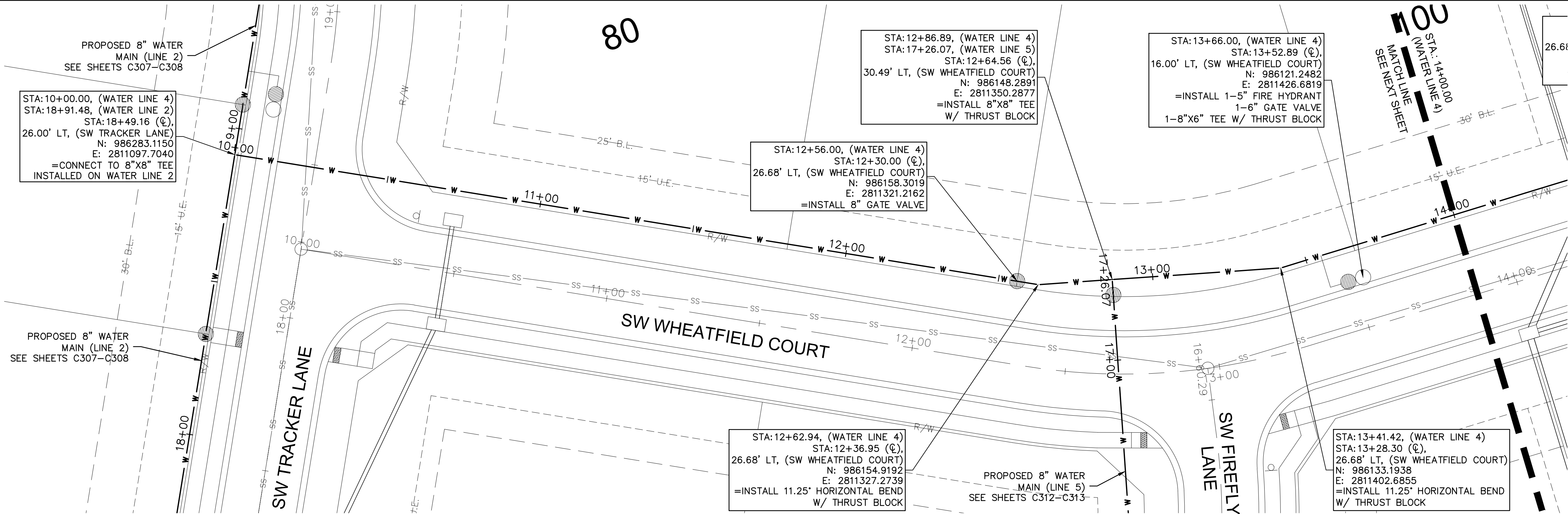
BY: \_\_\_\_\_

WATER MAIN PLAN & PROFILE (LINE 3)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO 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.: B19-4061  
 date: 01-09-2021

SHEET C309

DWG: F:\2019\4001-4500\019-4061-EV-40-Design\AutoCAD\Final Plans\Sheets\GNCVA\Water Plans\C\_WAT02\_B194061.dwg USER: bworthey  
 DATE: Apr 16, 2021 1:49pm XREFS: C:\XBASE\_B194061 C:\PBASE\_B194061 C:\PUBIL\_B194061 C:\PTBLK\_B194061 C:\PWATR\_B194061



**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

**olsson**  
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 JULIE ELAINE SELLERS  
 PE-2017000367  
 4/21/21  
 PROFESSIONAL ENGINEER

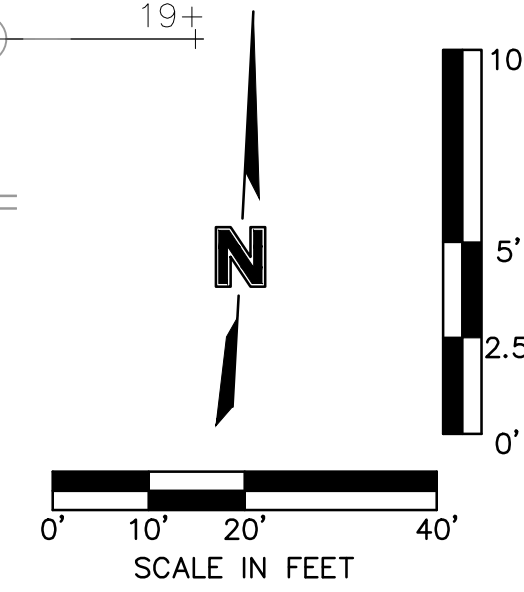
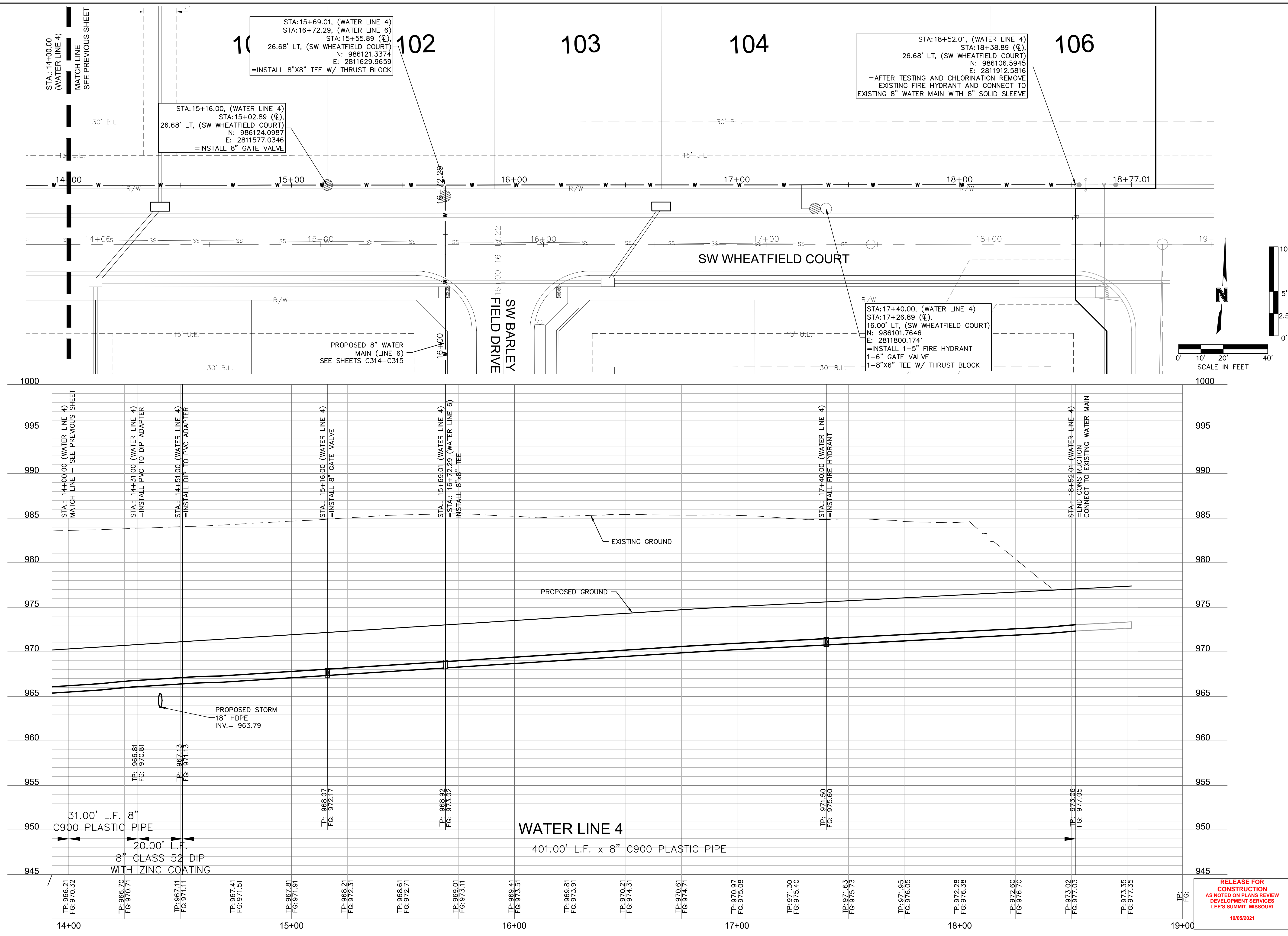
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 4)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

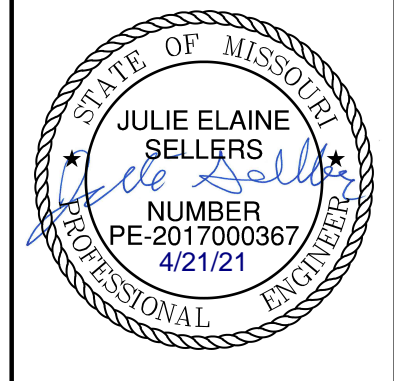
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

SHEET  
 C310

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCV\Water Plans\C\_WAT02\_B194061.dwg USER: bworthley  
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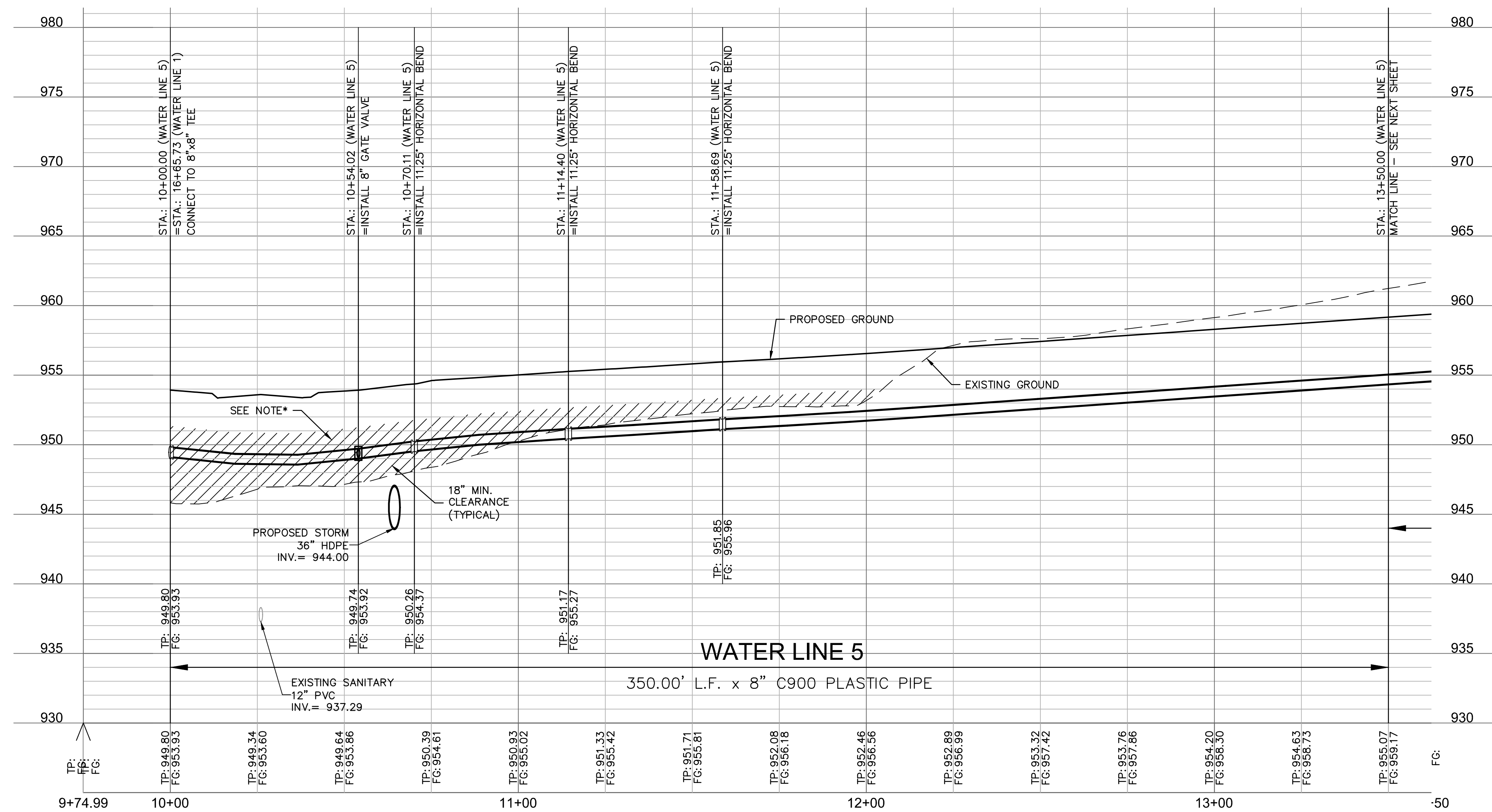
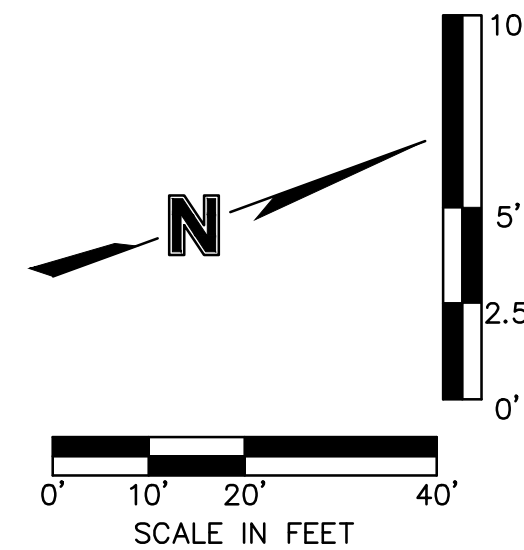
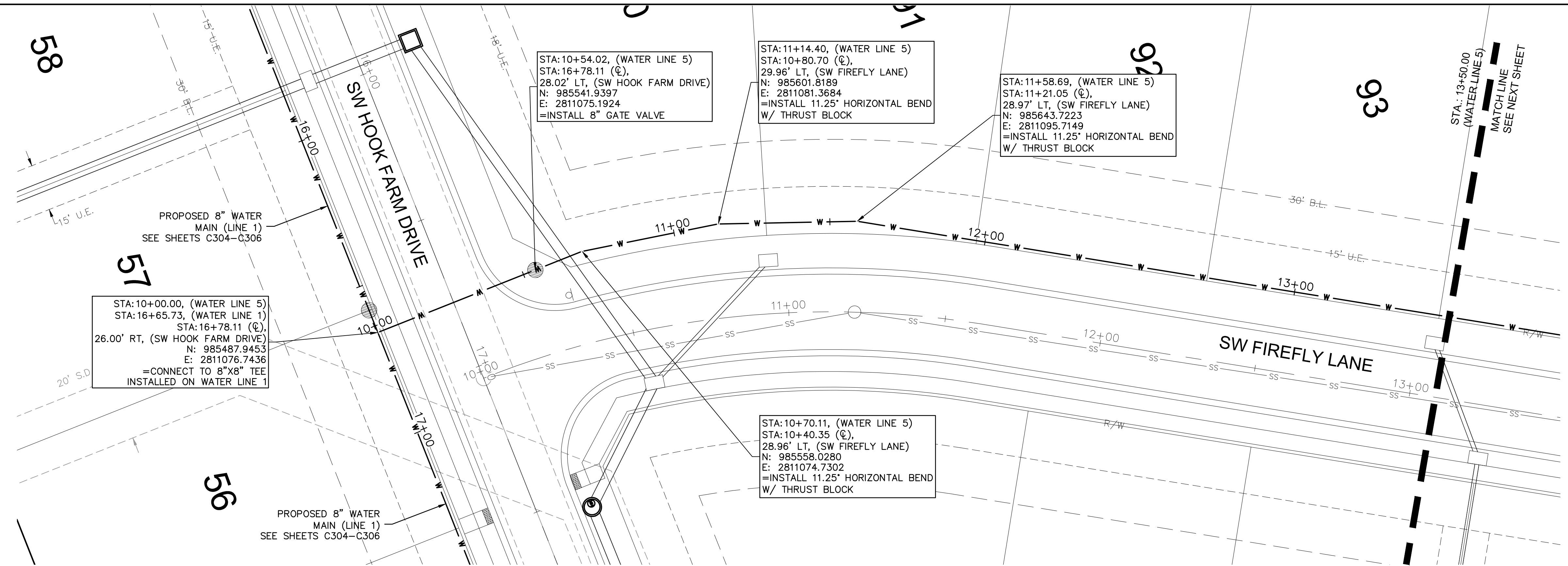
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 4)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEES SUMMIT, MO  
 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.: B19-4061  
 date: 01-08-2021

**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEES SUMMIT, MISSOURI  
 10/05/2021

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCV\Water Plans\C\_WAT03\_B194061.dwg USER: bworthley  
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RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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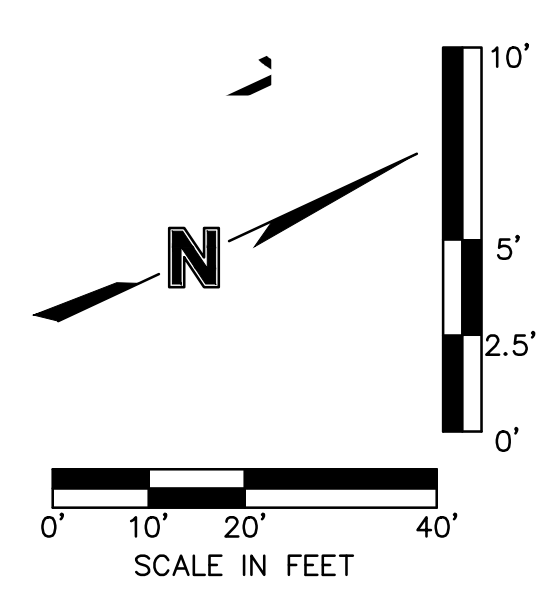
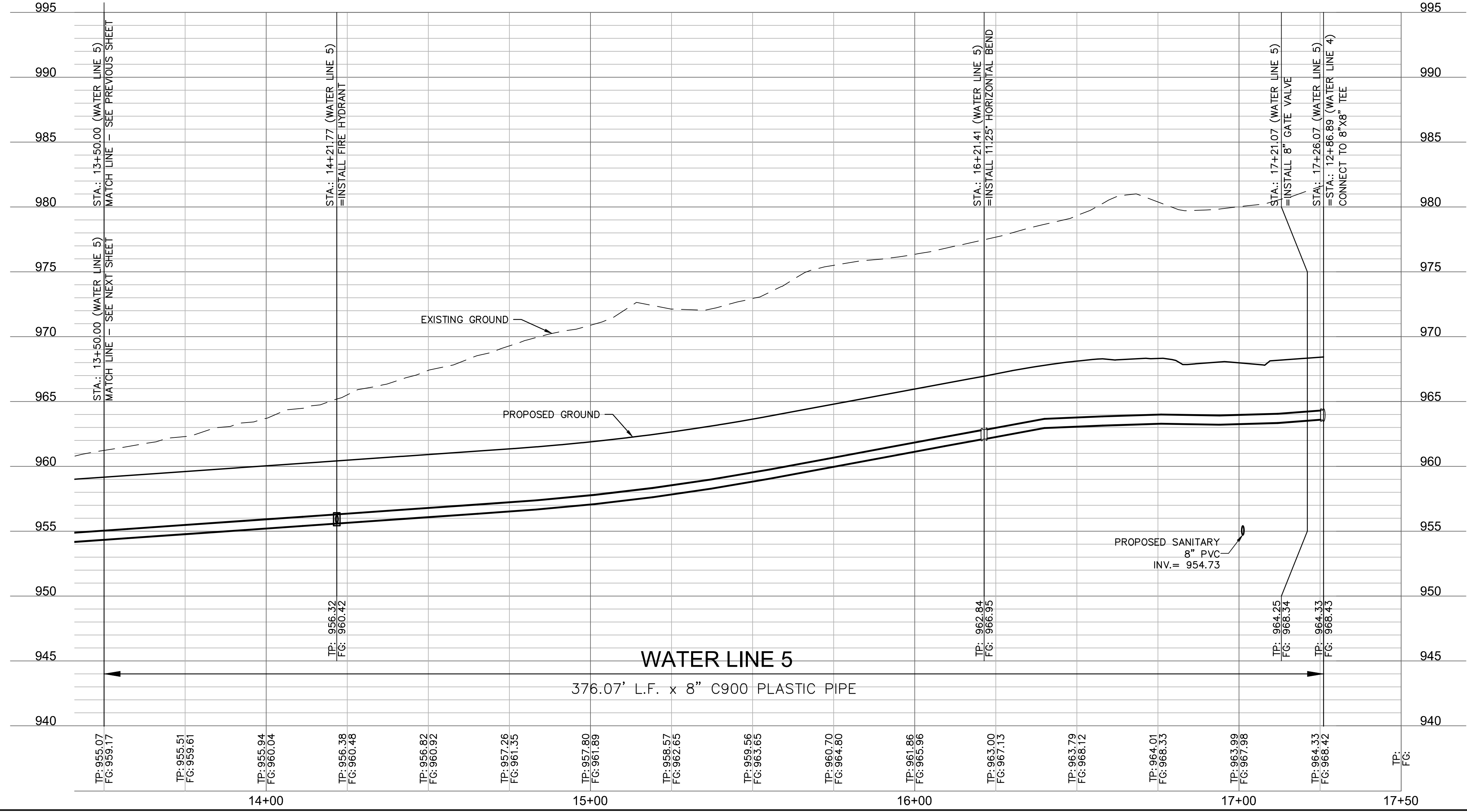
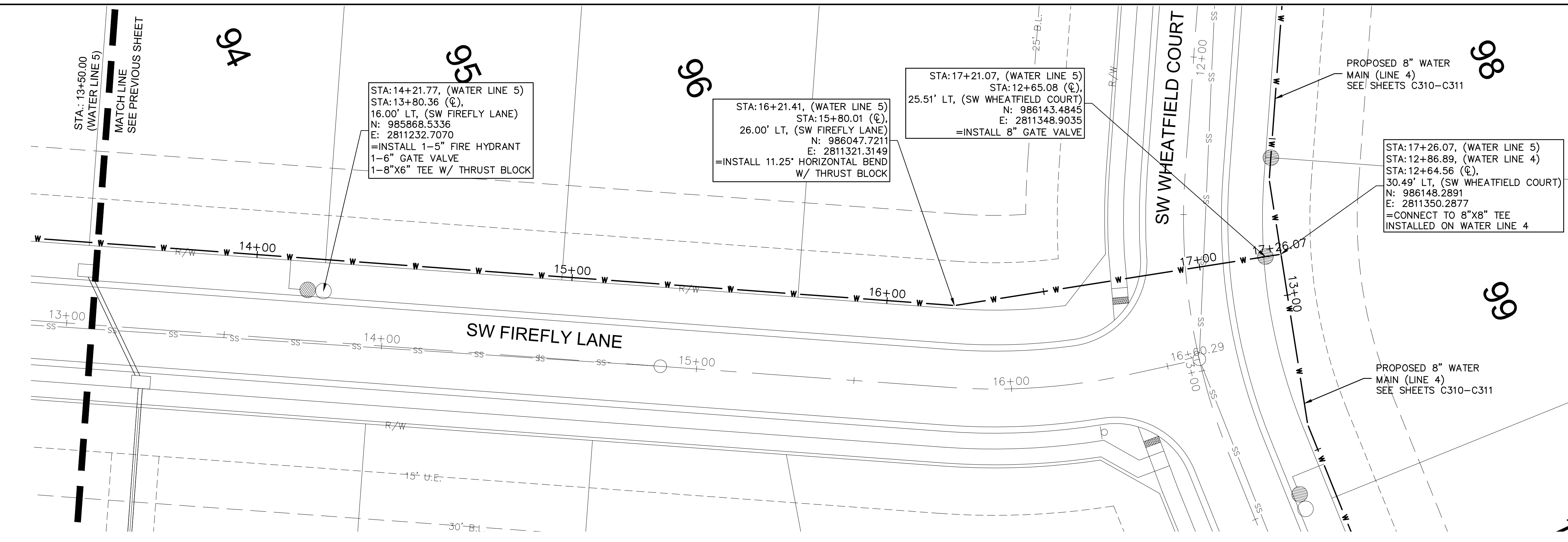
STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 PE-2017000367  
 4/21/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 5)  
 WATER MAIN EXTENSION PLANS  
 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.: B19-4061  
 date: 01-09-2021

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCVA\Water Plans\C\_WAT03\_B194061.dwg USER: bworthley  
 DATE: Apr 16, 2021 1:53pm XREFS: C\_XBASE\_B194061 C\_PBASE\_B194061 C\_PBDY\_B194061 C\_PUTIL\_B194061 C\_PTBLK\_B194061 C\_PWATR\_B194061



**RELEASE FOR CONSTRUCTION**  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 NUMBER PE-2017000367  
 4/21/21  
 PROFESSIONAL ENGINEER

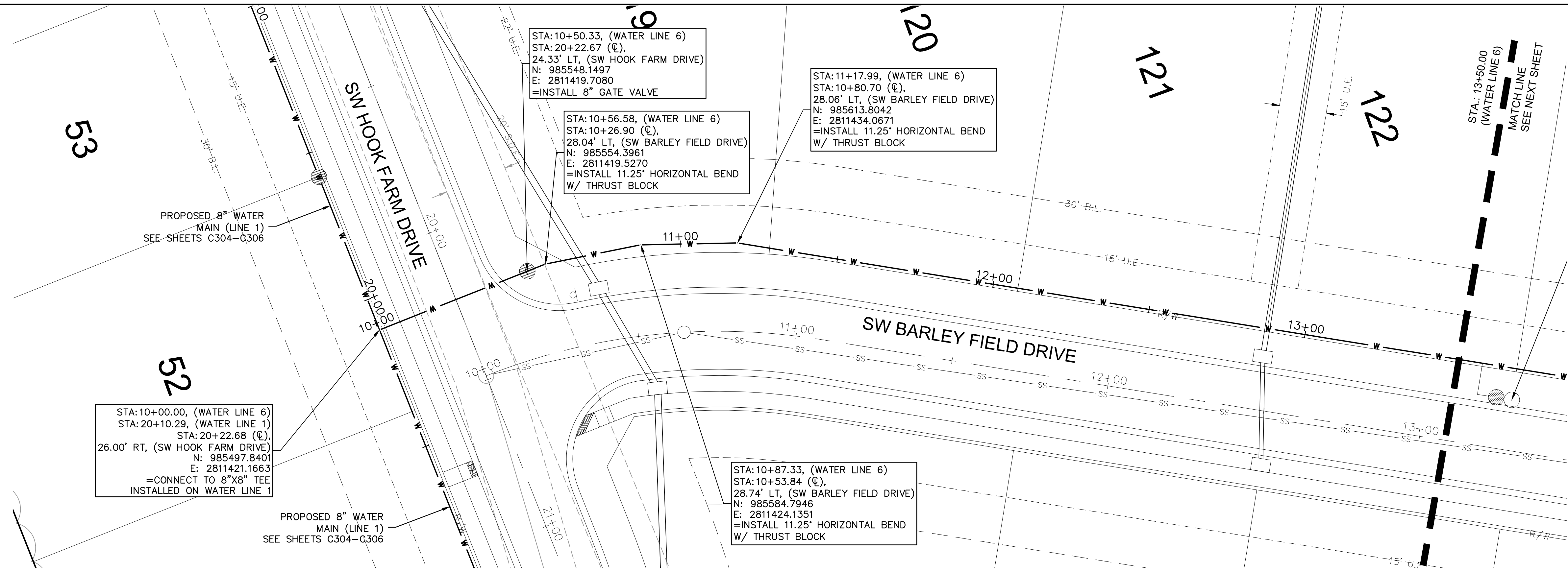
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	

WATER MAIN PLAN & PROFILE (LINE 5)  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 2021

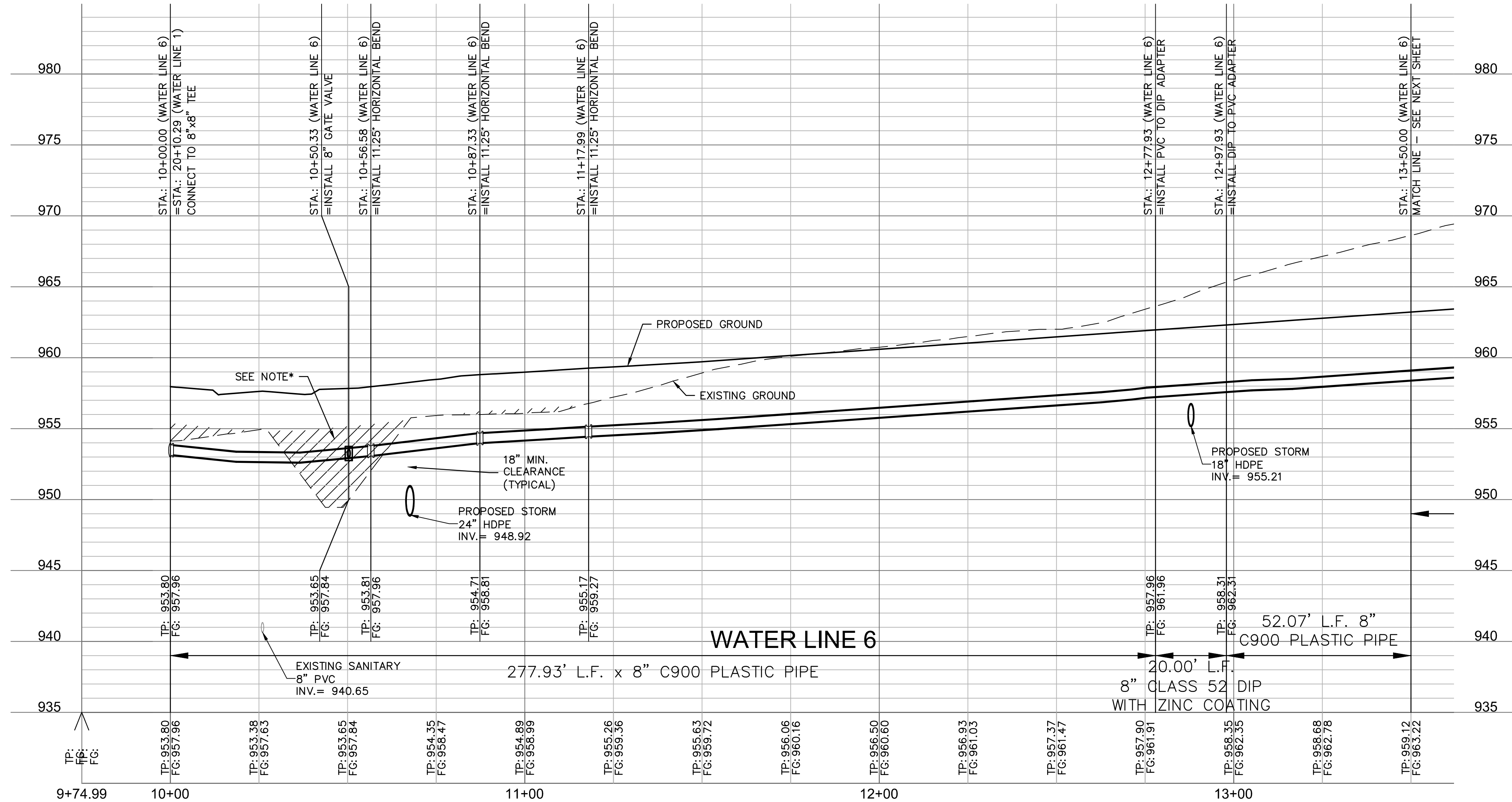
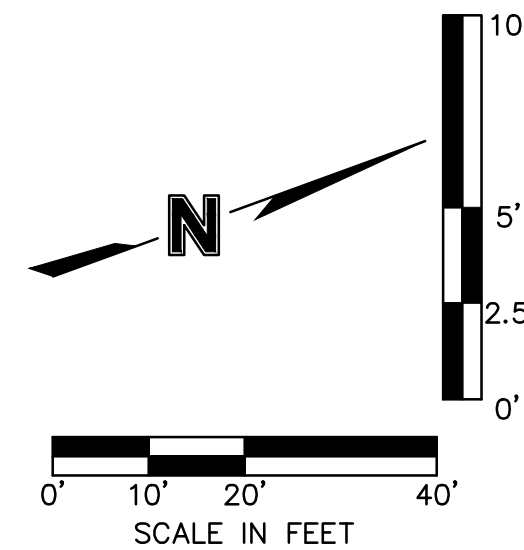
drawn by: B.M.W./A.A.  
 checked by: B.M.W.  
 designed by: B.M.W./A.A.  
 QA/QC by: J.E.S.  
 project no.: B19-4061  
 date: 01-09-2021

**SHEET C313**

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCVA\Water Plans\C\_WAT03\_B194061.dwg USER: bworthley  
 DATE: Apr 16, 2021 1:53pm XREFS: C:\BASE\_B194061 C:\PBDY\_B194061 C:\PUBIL\_B194061 C:\PWATR\_B194061 C:\PTBLK\_B194061



\*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



RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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 JULIE ELAINE SELLERS  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 4/21/21

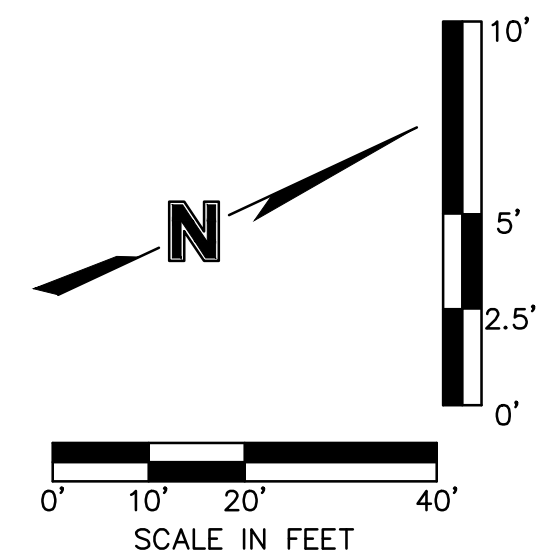
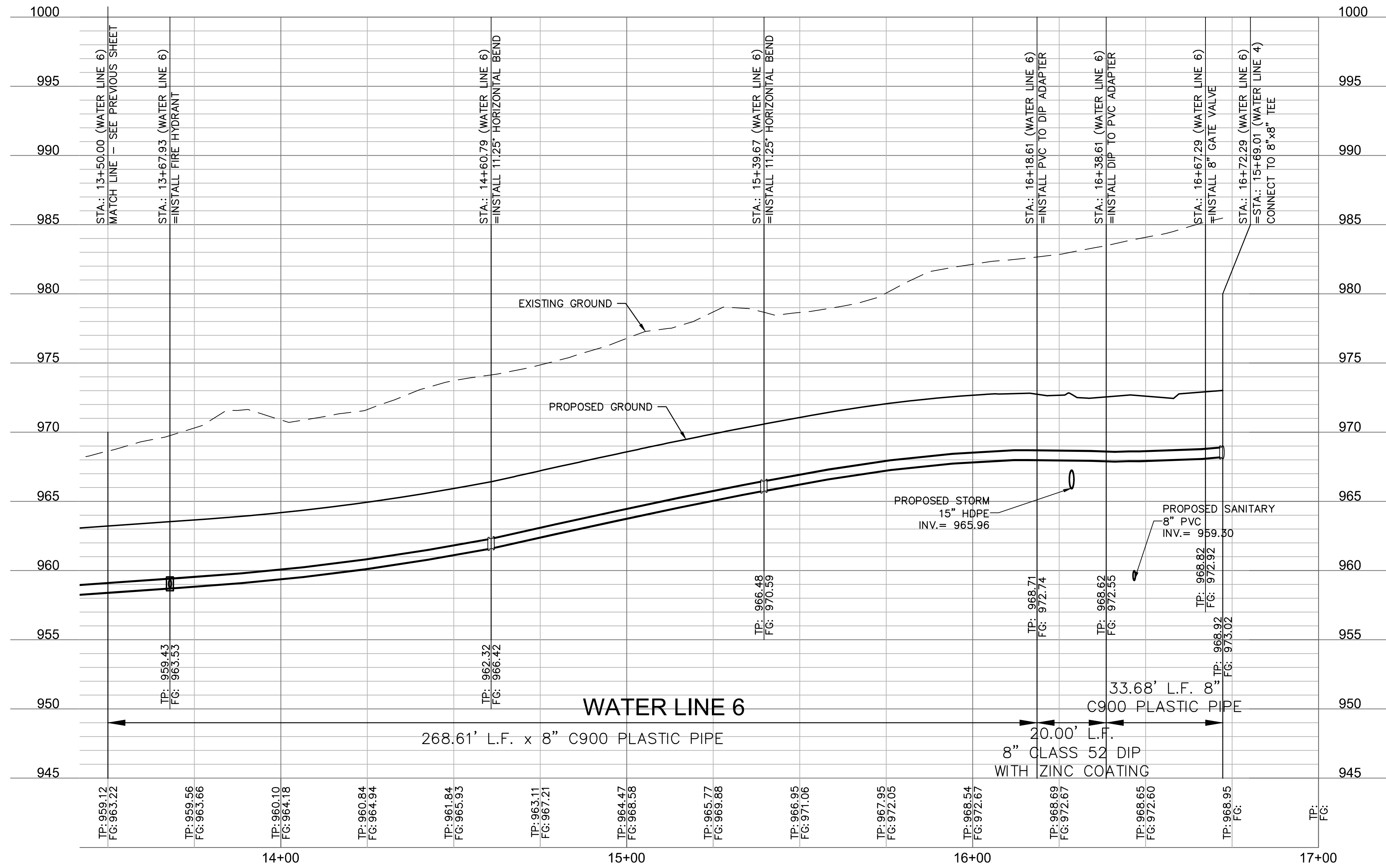
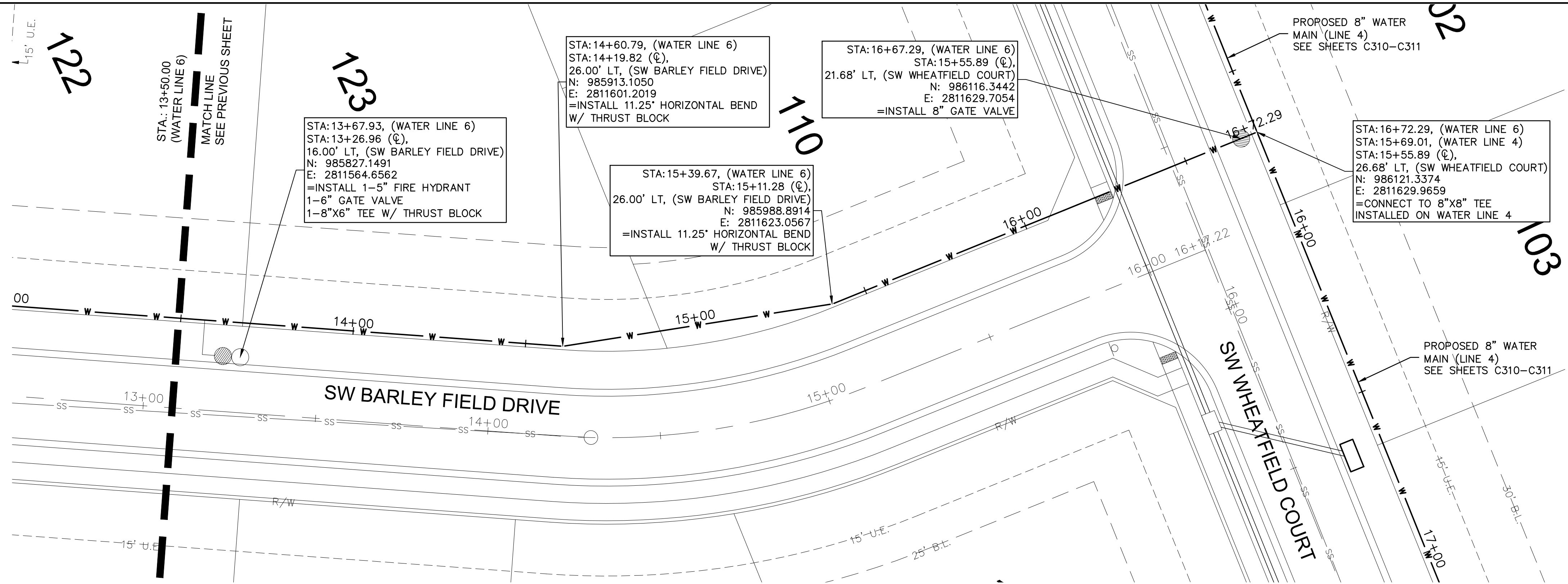
REV. NO.	DATE	REVISIONS DESCRIPTION
1	03-23-2021	REVISED PER CITY COMMENTS
2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 6)	BY
WATER MAIN EXTENSION PLANS	
HOOK FARMS SECOND PLAT	
LEE'S SUMMIT, MO	
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.: B19-4061  
 date: 01-09-2021

SHEET C314

DWG: F:\2019\4001-4500\019-4061-BV-40-Design\AutoCAD\Final Plans\Sheets\GNCVA\Water Plans\C\_WAT03\_B194061.dwg USER: bworthley  
 DATE: Apr 16, 2021 1:54pm XREFS: C\_XBASE\_B194061 C\_PBASE\_B194061 C\_PUBDIR\_B194061 C\_PBLK\_B194061 C\_PWATR\_B194061



RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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STATE OF MISSOURI  
 JULIE ELAINE SELLERS  
 NUMBER PE-2017000367  
 4/21/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
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2	04-16-2021	REVISED PER CITY COMMENTS

WATER MAIN PLAN & PROFILE (LINE 6)  
 WATER MAIN EXTENSION PLANS

HOOK FARMS  
 SECOND PLAT

LEE'S SUMMIT, MO 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.:	B19-4061
date:	01-08-2021

**SHEET C315**

REQUIRED CONCRETE BEARING AREA (SQUARE FEET - SF)

NOM. DIA. (INCHES)	TEE, PLUG	90 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	59.1	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  
 Rev:

REQUIRED CONCRETE VOLUME (CUBIC FEET - CF)

NOM. DIA. (INCHES)	TEE, PLUG	90 BEND	45 BEND	22.5 BEND	11.25 BEND
6	50.5	71.4	35.6	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	282.0	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.	173.3	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  
 Rev:

LEE'S SUMMIT MISSOURI  
 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  
 Rev:

NOT TO SCALE

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" IN ANY DIMENSION.  
 3. TOP OF FLOWABLE BACKFILL SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE.  
 4. LENGTH OF TRENCH CHECK SHALL BE A MINIMUM OF 12".

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  
 Rev:

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" TO 6" ABOVE FINISHED GRADE.  
 5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.  
 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

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  
 Rev:

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" TO 6" ABOVE FINISHED GRADE.  
 5. FOR STREETS WITHOUT CURBS FIRE HYDRANTS SHALL BE PLACED WITHIN 1 FOOT OF THE R/W LINE, BUT NOT MORE THAN 10' FROM EDGE OF PAVEMENT. FIRE HYDRANT SHALL NOT BE PLACED IN BOTTOM OF DITCH.  
 6. HYDRANT SHALL BE ROTATED AS DIRECTED BY INSPECTOR.

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  
 Rev:

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 10/05/2021

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 JULIE ELAINE SELLERS  
 NUMBER PE-2017000367  
 4/21/21  
 PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION
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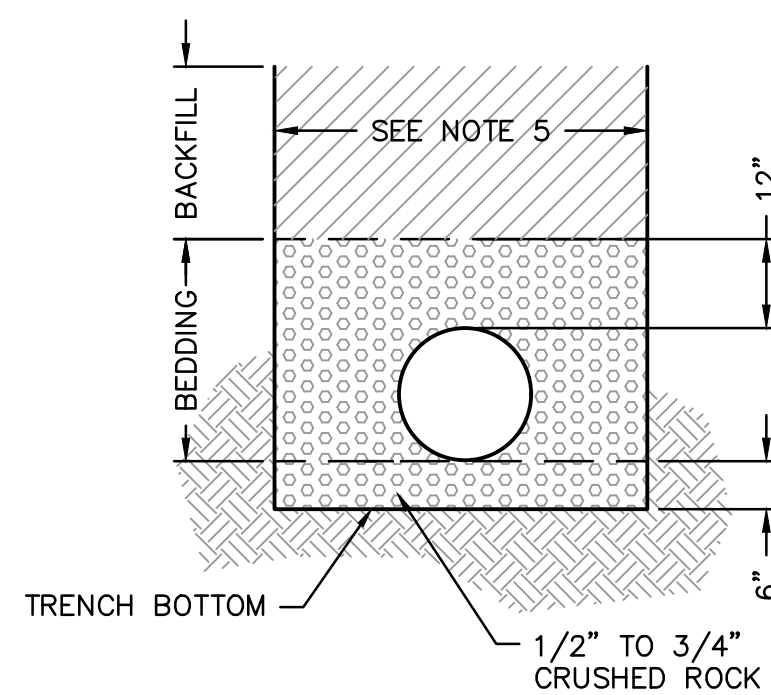
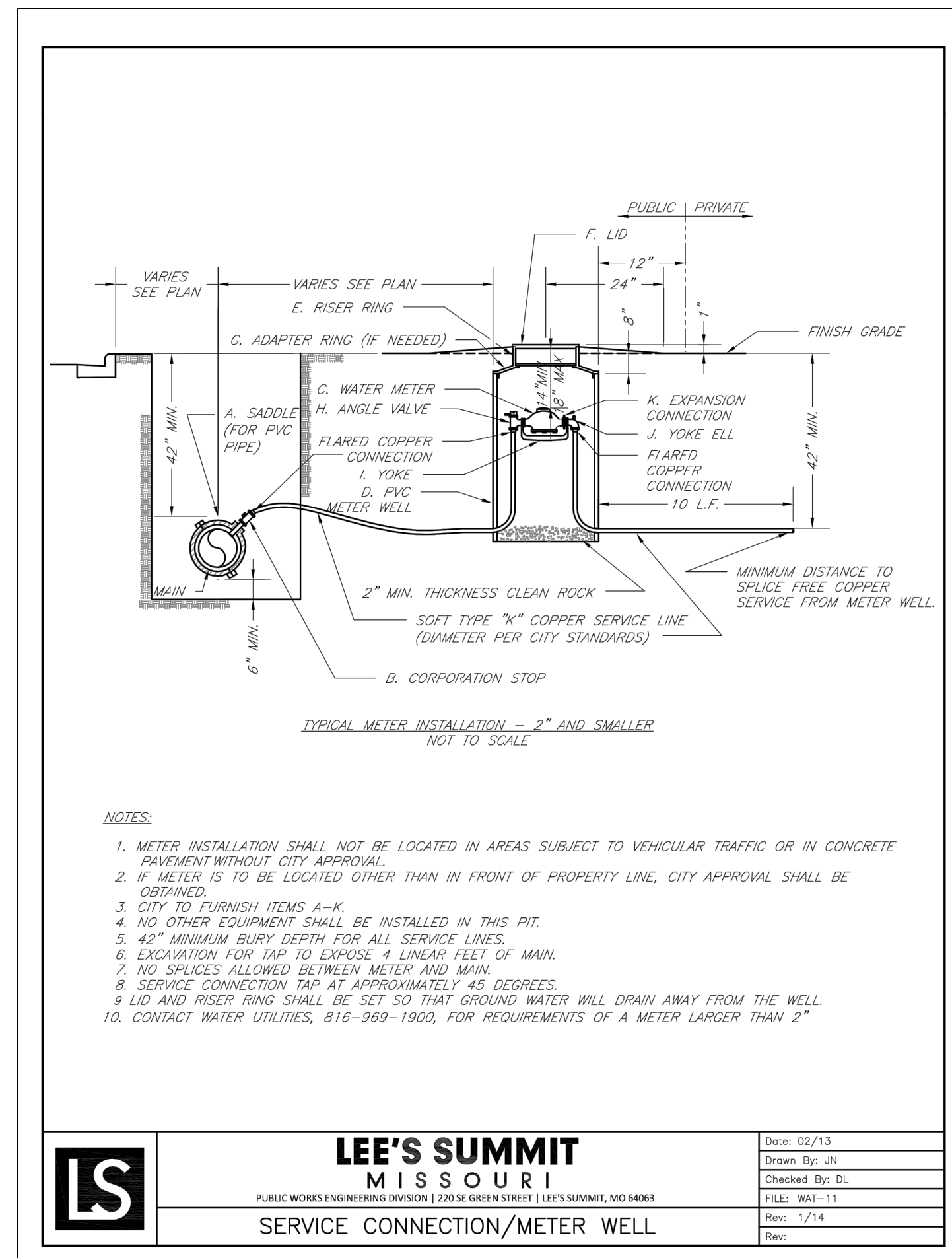
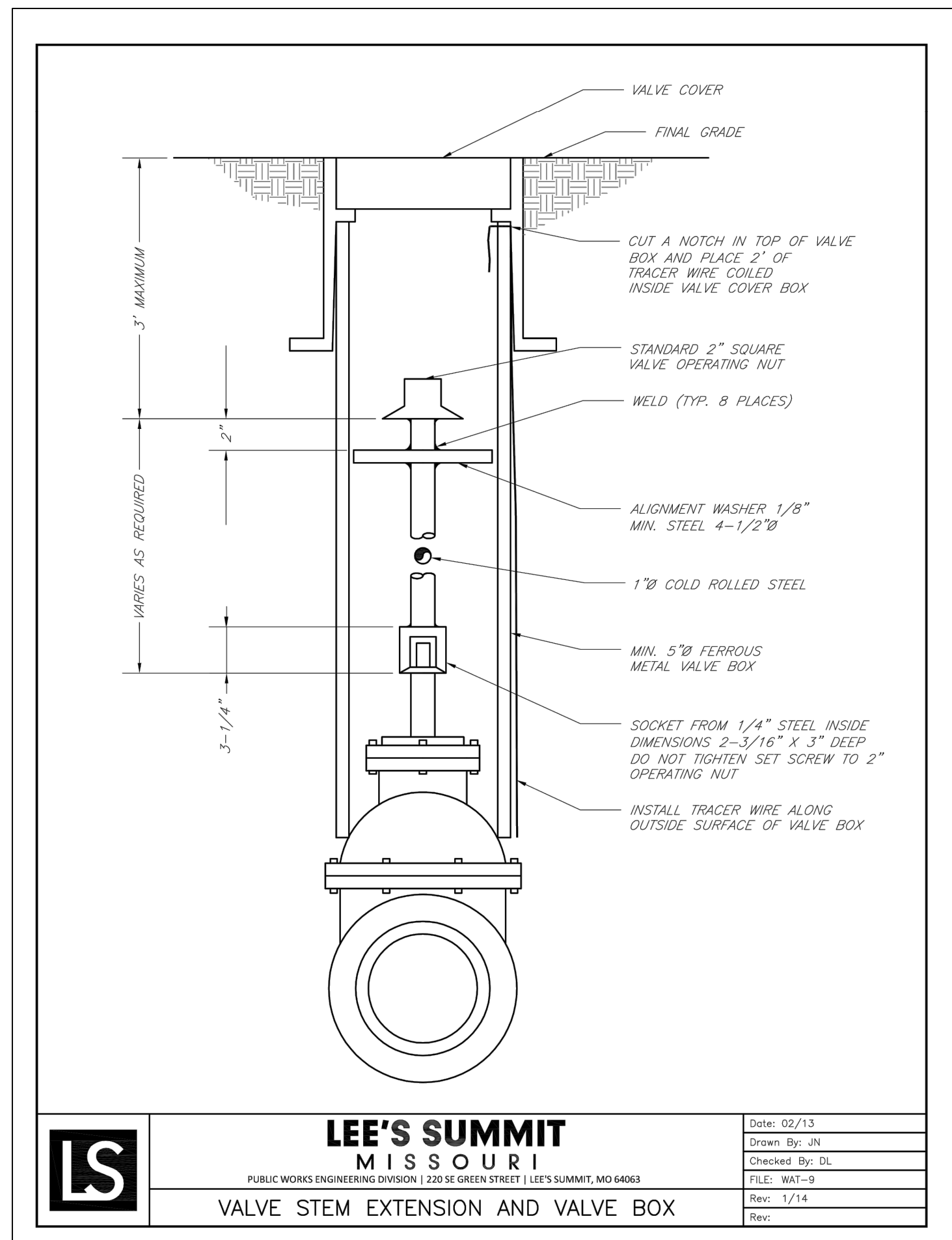
BY: \_\_\_\_\_

DETAIL SHEET  
 WATER MAIN EXTENSION PLANS  
 HOOK FARMS  
 SECOND PLAT  
 LEE'S SUMMIT, MO  
 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.: B19-4061  
 date: 01-09-2021

SHEET C316





**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

RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 10/05/2021

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STATE OF MISSOURI  
**JULIE ELAINE SELLERS**  
 PROFESSIONAL ENGINEER  
 NUMBER PE-2017000367  
 4/21/21

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
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2	04-16-2021	REVISED PER CITY COMMENTS	

DETAIL SHEET	2021
WATER MAIN EXTENSION PLANS	
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.: B19-4061  
 date: 01-09-2021

**SHEET C317**