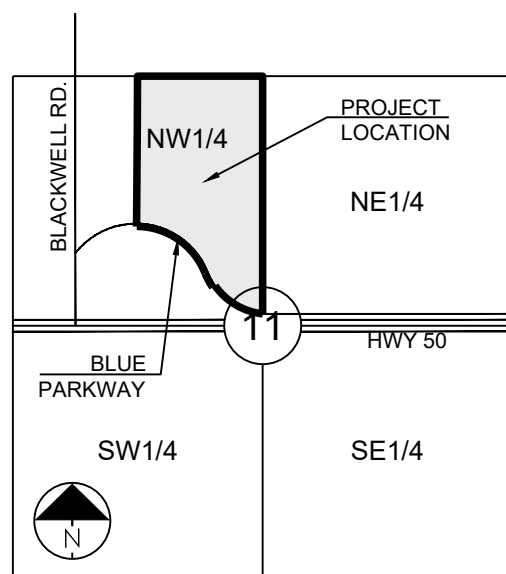


AC	- ACCESS EASEMENT
B/C	- BACK OF CURB
B/B	- BACK TO BACK
BM	- BENCHMARK
BL or B.L.	- BUILDING LINE
CO	- CLEANOUT
TJB	- TELEPHONE JUNCTION BOX
C&G	- CURB AND GUTTER
D/E	- DRAINAGE EASEMENT
E/E	- ELECTRICAL EASEMENT
EL	- ELEVATION
FL	- FLOW LINE
G/E	- GAS LINE EASEMENT
HDPE	- HIGH-DENSITY POLYETHYLENE
L/E	- LANDSCAPE EASEMENT
MSFE	- MINIMUM SERVICEABLE FLOOR ELEVATION
PVC	- POLYVINYL CHLORIDE
P/L	- PROPERTY LINE
PUB/E	- PUBLIC EASEMENT
RCP	- REINFORCED CONCRETE PIPE
ROW or R/W	- RIGHT-OF-WAY
S/E	- SANITARY SEWER EASEMENT
SL	- SERVICE LINE
SW	- SIDEWALK
TE	- TOP ELEVATION
U/E	- UTILITY EASEMENT
WSE	- WATER SURFACE ELEVATION
W/E	- WATERLINE EASEMENT



**LOCATION MAP**  
SCALE 1" = 2000'

MISSOURI DEPARTMENT OF  
TRANSPORTATION (MODOT)

SPIRE

Brent Jones  
3025 SE Clover Drive  
Lee's Summit, MO 64082  
(816) 399-0663brent.jones

Philip Inghram  
1300 SE Hamblin Road  
Lee's Summit, MO 64081  
Office: (816) 347-347-4339  
[philip.ingham@evergy.com](mailto:philip.ingham@evergy.com)

Dena Mezger  
220 SE Green Street  
Lee's Summit, MO 64063  
(816) 969-1800

Mark Manion or Marty Loper  
500 E. 8th Street, Room 370  
Kansas City, MO 64106  
(816) 275-2341 or (816) 275-

John Meadows  
4700 Little Blue Parkway  
Independence, MO 64055  
(816) 795-2257

Mark Schaufler  
1200 SE Hamblen Road  
Lee's Summit, MO 64081  
(816) 969-1900



811 or  
1-800-344-7483  
mo1call.com

### EARTHWORK:

1. PRIOR TO EARTHWORK ACTIVITIES, PRE-DISTURBANCE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE IN PLACE PER THE STORM WATER POLLUTION PREVENTION PLAN AND/OR THE EROSION AND SEDIMENT CONTROL PLAN PREPARED FOR THIS SITE.
2. ALL BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM 6-INCH LIFTS AND COMPACTED TO 95-PERCENT OF MAXIMUM DENSITY AS DEFINED USING A STANDARD PROCTOR TEST (AASHTO T99/ASTM 698).
3. BACKFILL MATERIALS SHALL NOT INCLUDE ORGANIC MATTER, DEBRIS OR TOPSOIL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REDISTRIBUTING THE TOPSOIL OVER PROPOSED TURF AND LANDSCAPED AREAS TO A MINIMUM DEPTH OF 6-INCHES BELOW FINAL GRADE.
5. ALL AREAS SHALL BE GRADED FOR POSITIVE DRAINAGE. UNLESS NOTED OTHERWISE THE FOLLOWING GRADES SHALL APPLY:
  - A. TURF AREAS – 2.5% MINIMUM, 4H:1V MAXIMUM
  - B. ALL DISTURBED AREAS SHALL BE FERTILIZED, SEEDED AND MULCHED IMMEDIATELY AFTER EXCAVATION ACTIVITIES HAVE CEASED. SEEDING SHALL BE PER THE EROSION AND SEDIMENT CONTROL PLAN AND/OR LANDSCAPE PLAN. IF NOT SPECIFIED SEEDING SHALL BE PER APWA SECTION 2400, LATEST EDITION, UNLESS OTHERWISE NOTED. SEEDING SHALL BE SUBSIDIARY TO THE CONTRACT PRICE FOR PIPE INSTALLATION.
7. CONTRACTOR SHALL ADHERE TO THE REPORTING REQUIREMENTS OUTLINED IN THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROPERLY MAINTAINED AND KEPT CLEAN OF SILT AND DEBRIS AND IN GOOD WORKING ORDER. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AS REQUIRED.

1. EXISTING UTILITIES HAVE BEEN SHOWN TO THE GREATEST EXTENT POSSIBLE BASED UPON INFORMATION PROVIDED TO THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE RESPECTIVE UTILITY COMPANIES AND FIELD LOCATING UTILITIES PRIOR TO CONSTRUCTION AND IDENTIFYING ANY POTENTIAL CONFLICTS. ALL CONFLICTS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ANY REQUIRED UTILITY RELOCATIONS. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
3. CONTRACTOR SHALL VERIFY FLOW-LINES AND STRUCTURE TOPS PRIOR TO CONSTRUCTION, AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES. PROVIDE SHOP DRAWINGS FOR ALL PRECAST AND MANUFACTURED UTILITY STRUCTURES FOR REVIEW BY THE ENGINEER PRIOR TO CONSTRUCTION OF THE STRUCTURES.
4. UTILITY SEPARATION: WATERLINES SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL AND 2 FEET (MINIMUM OF 1.5 FEET) VERTICAL SEPARATION FROM ALL SANITARY AND STORM SEWER LINES. IF MINIMUM SEPARATIONS CAN NOT BE OBTAINED, DUCTILE IRON PIPE, DIP, SHALL BE REQUIRED 10 FEET IN EACH DIRECTION OF THE CONFLICT ON THE WATER LINE.
5. MAYDAY FOR TRENCH BACKFILL: PIPE EMBEDMENT, FLOWABLE FILL, BACKFILL MATERIALS, CLEAN U/S SEEDING, SODDING AND ANY OTHER ITEMS NECESSARY FOR THE CONSTRUCTION OF THE UTILITY LINE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE UTILITY INSTALLATION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING RESPECTIVE UTILITY COMPANIES 48-HOURS IN ADVANCE FOR THE INSPECTION OF ANY PROPOSED UTILITY MAIN EXTENSION OR SERVICE LINE OR SERVICE CONNECTION TO ANY EXISTING MAIN.
7. TRENCH SPALLS SHALL BE NEATLY PLACED ONSITE ADJACENT TO THE TRENCH, AND COMPACTED TO PREVENT EROSION AND BACKFILL RUNOFF. UNSUITABLE MATERIALS, ROCK AND SHALE, ASPHALT, CONCRETE, TREES, BRUSH ETC. SHALL BE PROPERLY DISPOSED OF OFFSITE. MATERIALS MAY BE WASTED ONSITE AT THE DIRECTION OF THE OWNER OR HIS APPOINTED REPRESENTATIVE.

CITY ENGINEER  
APPROVED FOR ONE YEAR FROM THIS DATE

GRIFFIN RILEY PROPERTY GROUP  
 JAKE LOVELESS, VICE PRESIDENT  
 21 SE 29TH STREET  
 LEE'S SUMMIT  
 p 816-366-7900  
 JAKE@GRIFFINRILEY.COM

## STATION NAME - JA-90

KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"  
 LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD  
 LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD  
 ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.  
 N:1001052.8503, E:2845604.8272

ELEV. 997.045

### PROJECT BENCHMARK:

"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE  
STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE  
INTERSECTION OF SE JOEL AVE & BLUE PARKWAY AND 26 FEET SOUTH  
OF THE CENTERLINE OF BLUE PARKWAY.  
N:996874.9690, E:2840937.1365

ELEV. 1005.719

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL LAYOUT
3	WATER LINE A - PUBLIC
4	WATER LINE A - PUBLIC
5	WATER LINE B - PUBLIC
7	DETAILS
8	DETAILS

PREPARED BY:



06.12.2023

SCHLAGEL &amp; ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL  
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

REVISION	REVISION DATE	DESCRIPTION
1	01/23/2023	PER CITY COMMENTS
2	03/24/2023	PER CITY COMMENTS
3	05/05/2023	PER CITY COMMENTS
4	06/08/2023	PER CITY COMMENTS
5		
6		
7		
8		

## COVER SHEET

SHEET

1

SUMMARY OF QUANTITIES			
	ITEM	QUANTITY	UNITS
1	CONNECT TO EXISTING WATER MAIN	2	EA
2	12" C900 DR18 WATER MAIN	2668	LF
3	12" X 12" TEE W/THRUST BLOCK	2	LF
4	12" X 8" TEE W/THRUST BLOCK	4	EA
5	12" X 6" TEE W/THRUST BLOCK	5	EA
6	12" GATE VALVE	11	EA
7	8" GATE VALVE	5	EA
8	8" PLUG	5	EA
9	12" 45° BEND W/THRUST BLOCK	4	EA
10	12" 22.5° BEND W/THRUST BLOCK	4	EA
11	12" 11.25° BEND W/THRUST BLOCK	10	EA
12	16" X 12" REDUCER	1	EA
13	12" X 8" REDUCER	1	EA
14	12" X 6" REDUCER	1	EA
15	12" AIR RELEASE ASSEMBLY	1	EA
16	5-1/4" FIRE HYDRANT ASSEMBLY	5	EA
17	TEMP. FIRE HYDRANT	1	EA
18	STRADDLE BLOCK	3	EA
19	PERMIT FEE	1	LS
20	BOND	1	LS

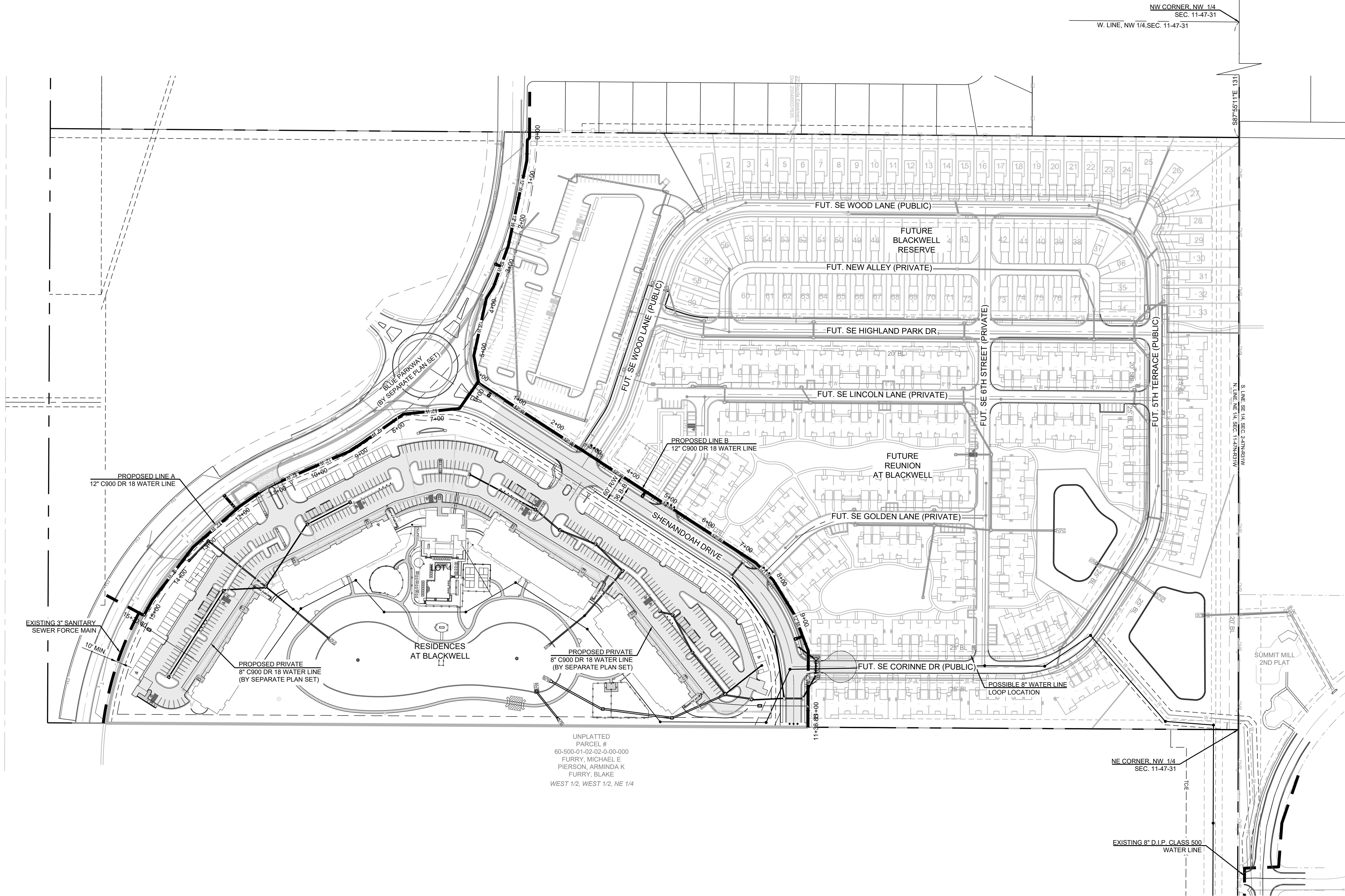
**FEMA NOTE:**

NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBERS 29095C0441G, 29095C0445G, 29095C0437G AND 29095C0439G DATED JANUARY 20TH, 2017.

**OIL/GAS NOTE:**

THERE ARE NOT OIL/GAS WELLS PRESENT ON THE PROJECT PER MISSOURI DEPARTMENT OF NATURAL RESOURCES - MISSOURI GEOLOGICAL SURVEY GeoSTRAT MAPPING.





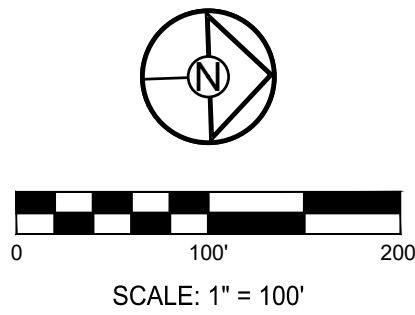
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PARCEL #  
60-500-01-02-02-0-00-000  
FURRY, MICHAEL E  
PIERSON, ARMINDA K  
FURRY, BLAKE  
WEST 1/2, WEST 1/2, NE 1/4

**MO GRS BENCHMARK:**

STATION NAME - JA-90  
  
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"  
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N:1001052.8503, E:2845604.8272  
  
ELEV. 997.045

**PROJECT BENCHMARK:**

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ELEV. 1005.719



RESIDENCES AT BLACKWELL  
PUBLIC WATER MAIN PLANS  
  
HERITAGE STREET LEE'S SUMMIT, MO

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11/23/2023	PER CITY COMMENTS
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06/08/2023	PER CITY COMMENTS
11/30/2022	DATE PREPARED
22-102	PROJ. NUMBER

GENERAL  
LAYOUT



MO GRS BENCHMARK:

STATION NAME - JA-90

KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"  
LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD  
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N:1001052.8503, E:2845604.8272

ELEV. 997.045

PROJECT BENCHMARK:

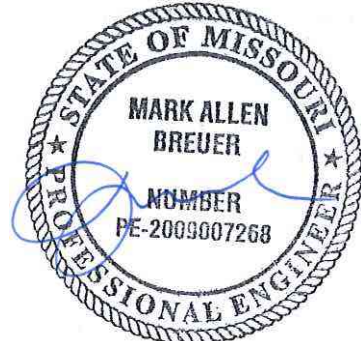
"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE  
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N:996874.9690, E:2840937.1365

ELEV. 1005.719

NOTES:

- ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.

PREPARED BY:



06.12.2023

SCHLAGEL & ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL  
PUBLIC WATER MAIN PLANS

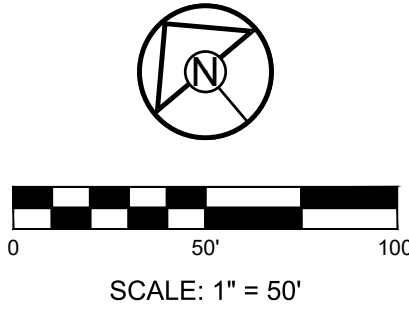
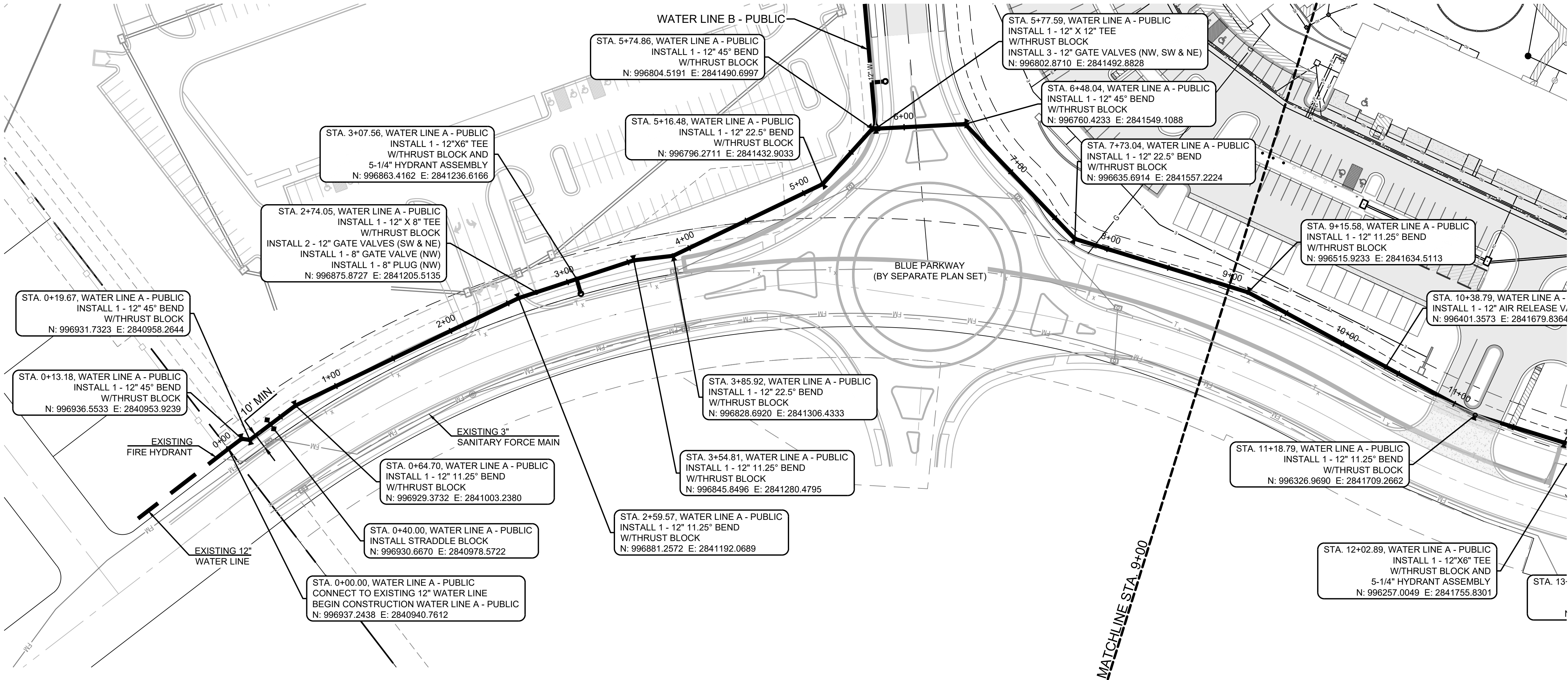
HERITAGE STREET LEE'S SUMMIT, MO

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22-102	PROJ. NUMBER

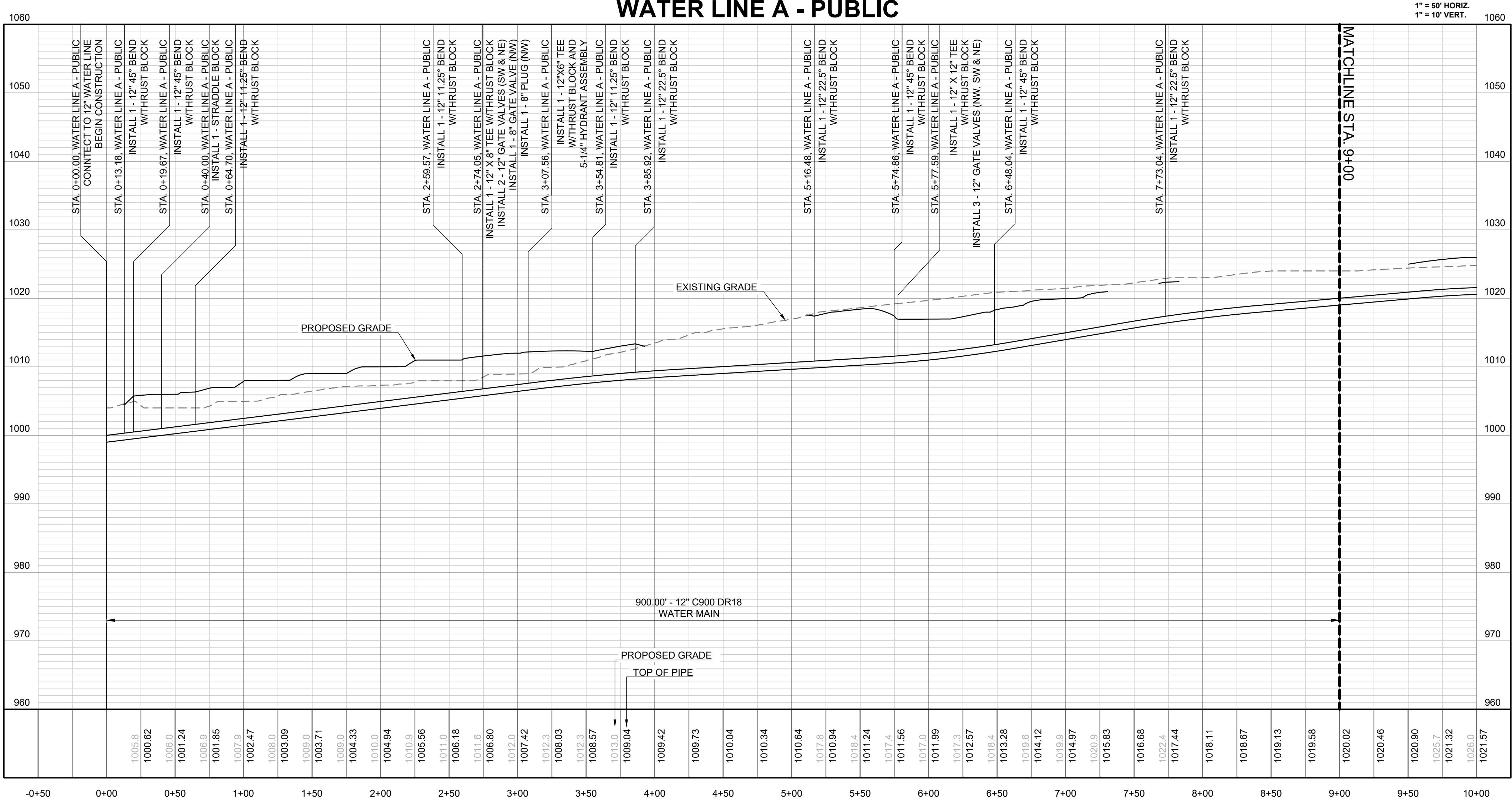
WATER LINE A -  
PUBLIC

SHEET

3



WATER LINE A - PUBLIC





STA. 5+77.59, WATER LINE A - PUBLIC  
INSTALL 1 - 12" X 12" TEE  
WITHRUST BLOCK  
INSTALL 3 - 12" GATE VALVES (NW, SW & NE)  
N: 996802.8710 E: 2841492.8828

STA. 6+48.04, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 45° BEND  
WITHRUST BLOCK  
N: 996760.4233 E: 2841549.1088

STA. 7+73.04, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 22.5° BEND  
WITHRUST BLOCK  
N: 996635.6914 E: 2841557.2224

STA. 9+15.58, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 11.25° BEND  
WITHRUST BLOCK  
N: 996515.9233 E: 2841634.5113

STA. 10+38.79, WATER LINE A - PUBLIC  
INSTALL 1 - 12" AIR RELEASE VALVE ASSEMBLY  
N: 996401.3573 E: 2841679.8364

STA. 15+00.00, WATER LINE A - PUBLIC  
INSTALL STRADDLE BLOCK  
N: 996052.8183 E: 2841968.9960

STA. 15+18.06, WATER LINE A - PUBLIC  
INSTALL 1 - 12" X 12" X 12" TEE  
WITHRUST BLOCK  
INSTALL 2 - 12" GATE VALVES (NW & S)  
INSTALL 1 - 16" X 12" REDUCER (S)  
INSTALL 1 - 12" X 8" REDUCER (E)  
INSTALL 1 - 8" GATE VALVE (E)  
INSTALL 1 - 8" PLUG (E)  
N: 996043.7035 E: 2841984.5828

STA. 11+92.12, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 11.25° BEND  
WITHRUST BLOCK  
N: 996265.3474 E: 2841749.0319

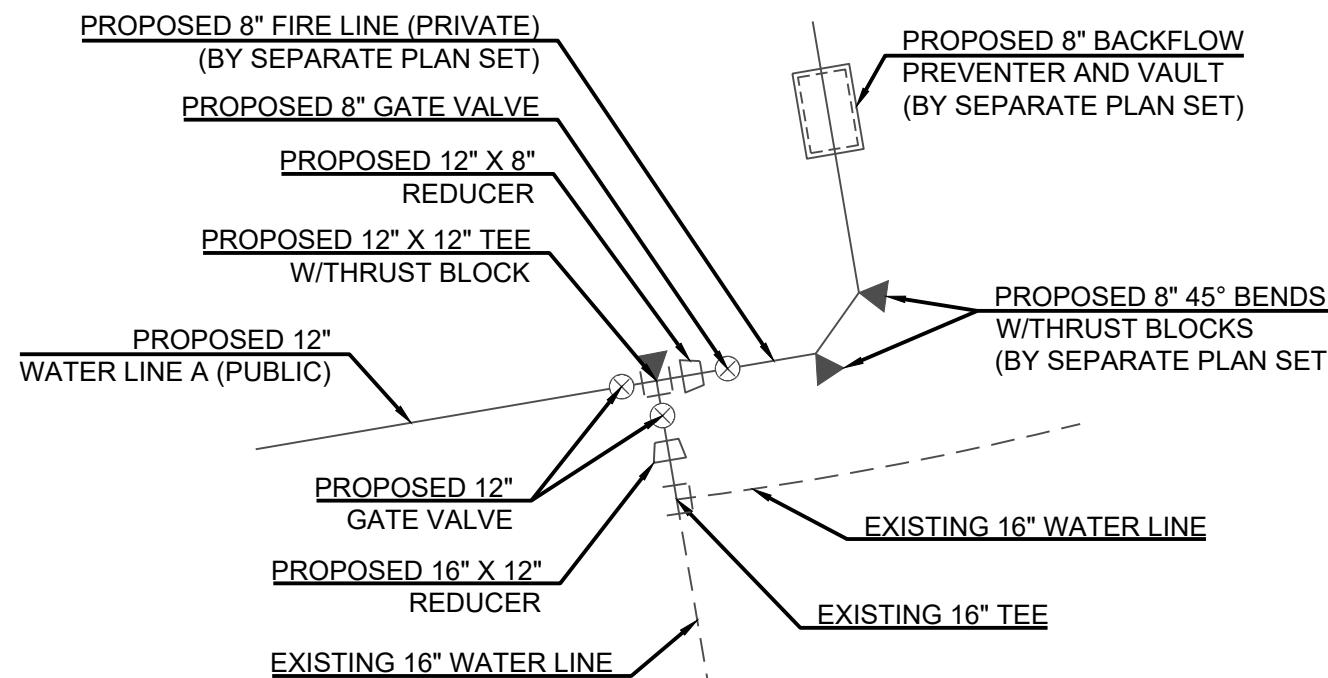
STA. 11+18.79, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 11.25° BEND  
WITHRUST BLOCK  
N: 996326.9690 E: 2841709.2662

STA. 12+02.89, WATER LINE A - PUBLIC  
INSTALL 1 - 12"X8" TEE  
WITHRUST BLOCK AND  
5-1/4" HYDRANT ASSEMBLY  
N: 996257.0049 E: 2841755.8301

STA. 13+30.61, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 11.25° BEND  
WITHRUST BLOCK  
N: 996157.9941 E: 2841836.5127

STA. 14+79.29, WATER LINE A - PUBLIC  
INSTALL 1 - 12" 11.25° BEND  
WITHRUST BLOCK  
N: 996063.2742 E: 2841951.1159

STA. 15+30.60, WATER LINE A - PUBLIC  
CONNECT TO EXISTING 16" TEE  
END CONSTRUCTION WATER LINE A - PUBLIC  
N: 996032.8727 E: 2841978.2492



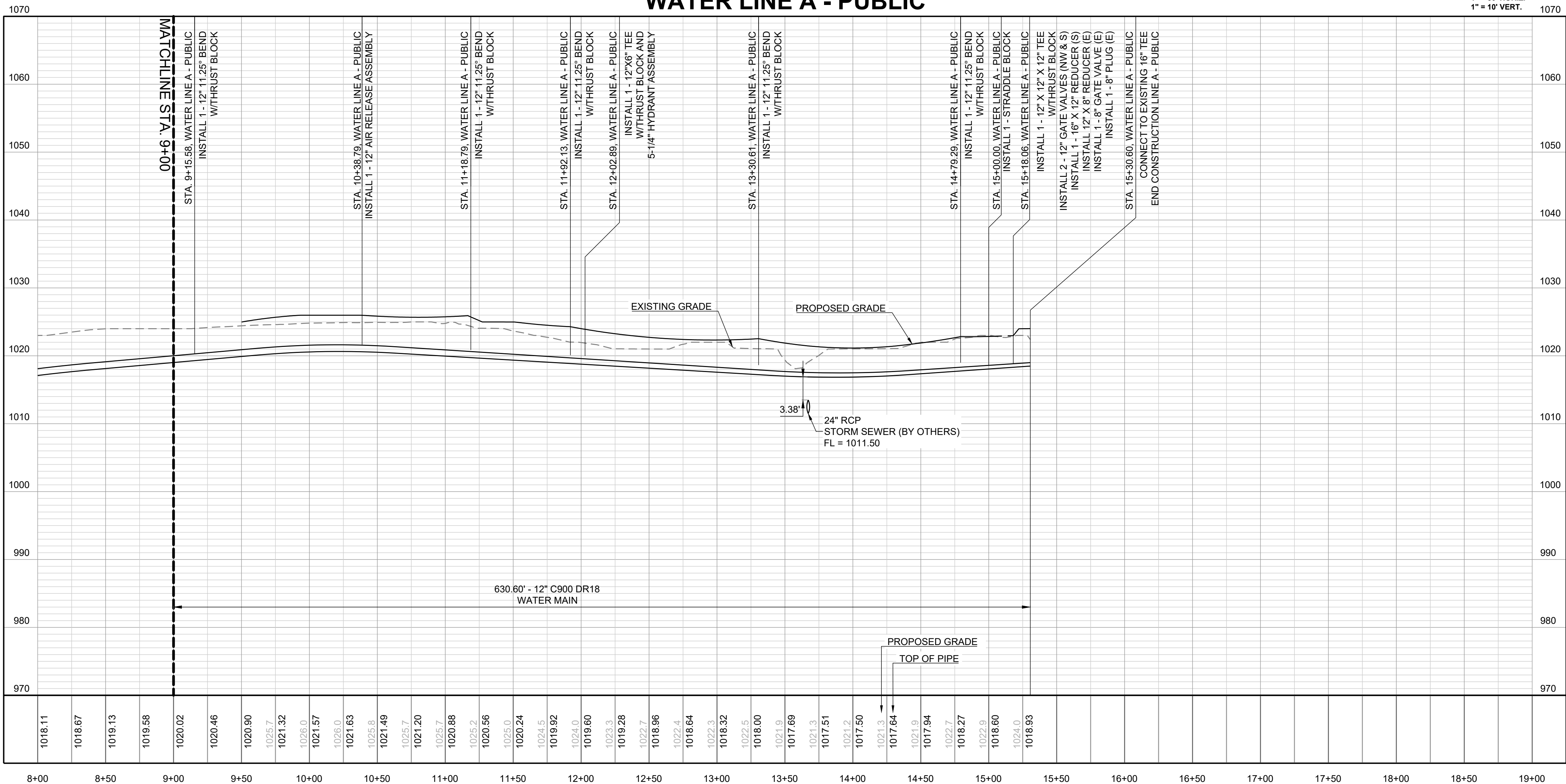
CONNECTION DETAIL  
EXISTING 16" WATER LINE AND 8" PRIVATE FIRE LINE  
N.T.S.

NOTES:

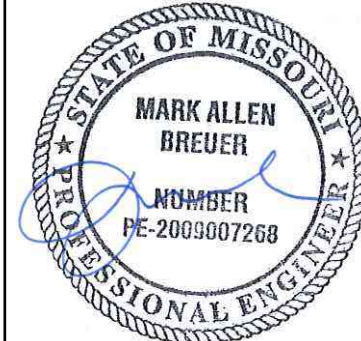
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- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



WATER LINE A - PUBLIC



PREPARED BY:



06.12.2023

SCHLAGEL & ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL  
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION
1 01/23/2023	PER CITY COMMENTS
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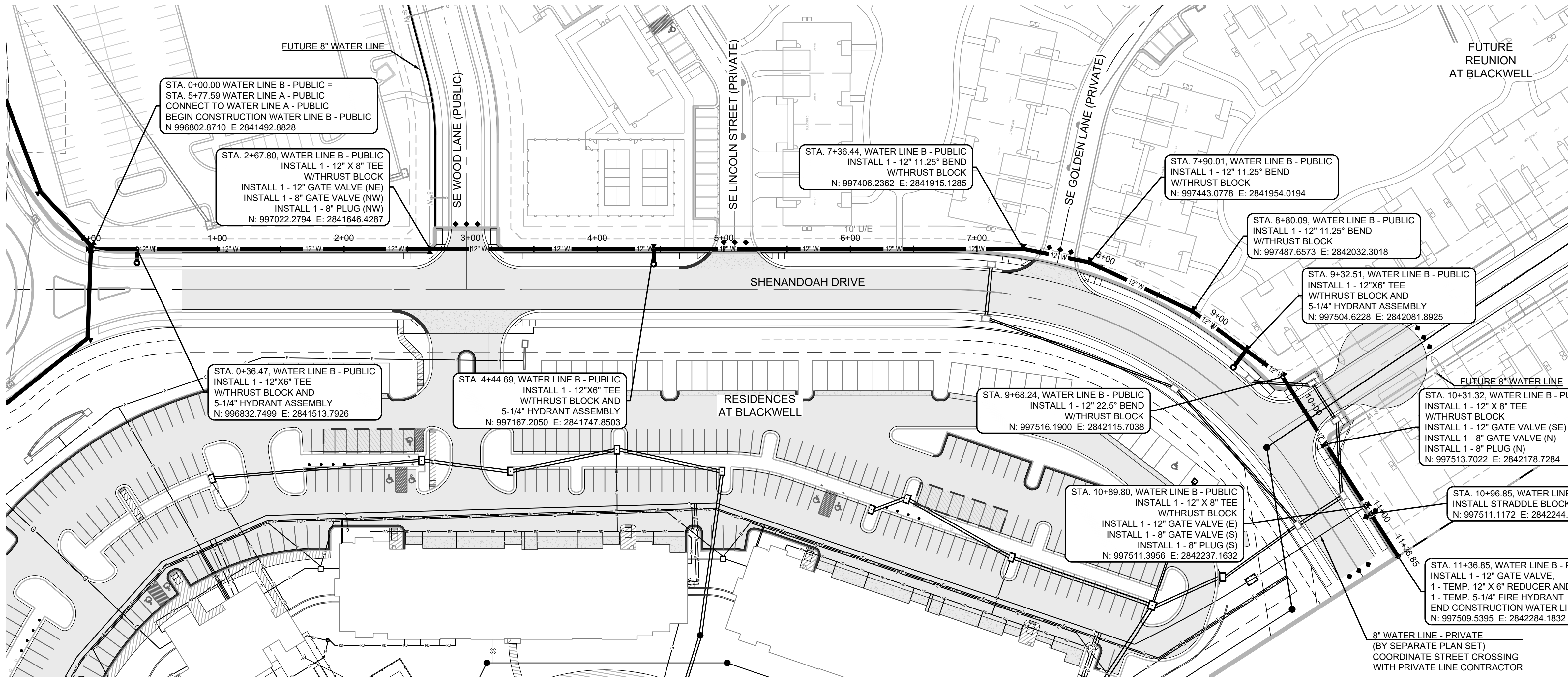
DRAWN BY:	TRC
CHECKED BY:	MAB
DATE PREPARED:	11/30/2022
PROJ. NUMBER:	22-102

WATER LINE A -  
PUBLIC

SHEET

4





**MO GRS BENCHMARK:**

STATION NAME - JA-90  
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988"  
LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.  
N:1001052.8503, E:2845604.8272  
ELEV. 997.045

**PROJECT BENCHMARK:**

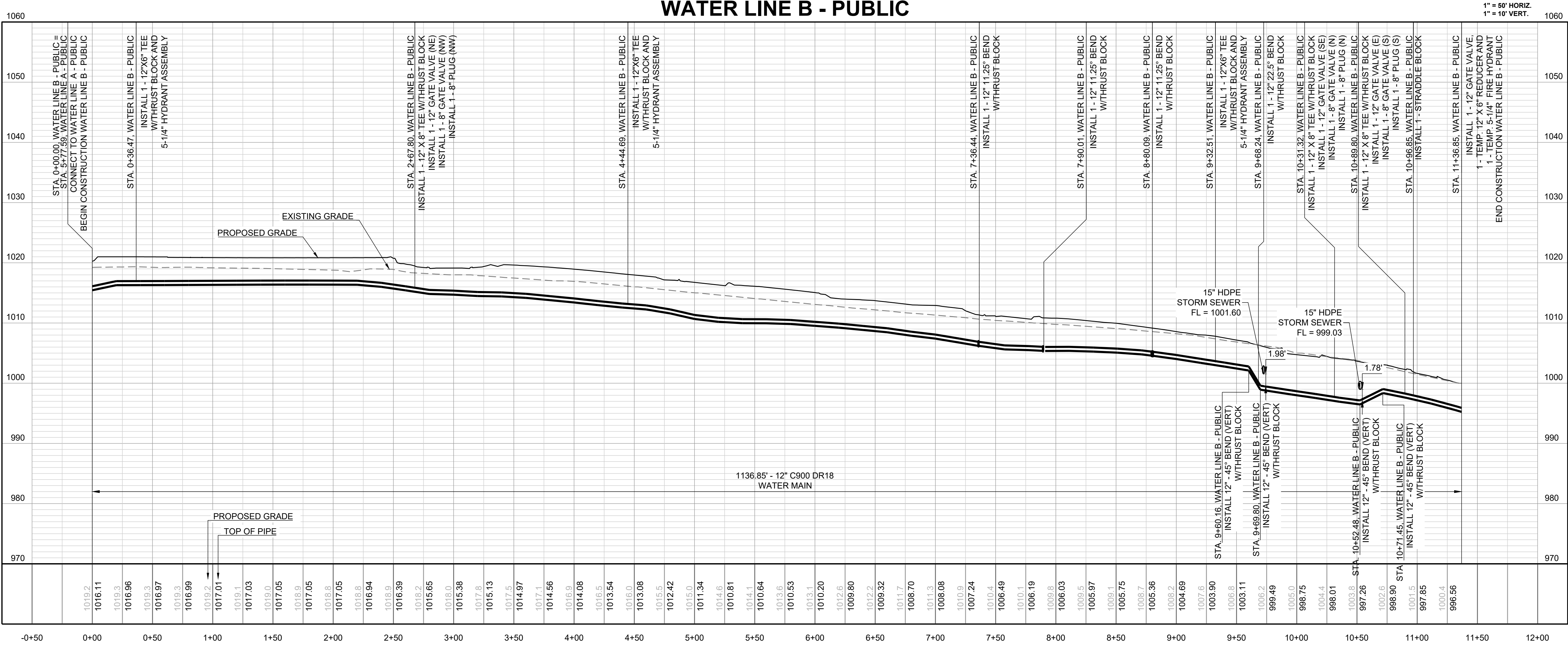
"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE  
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N:996874.9690, E:2840937.1365  
ELEV. 1005.719

**NOTES:**

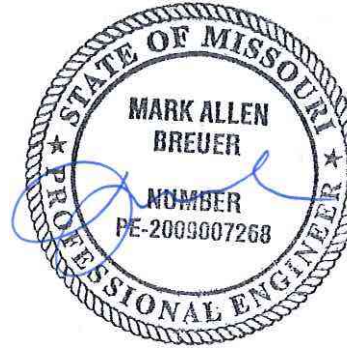
- ALL CONSTRUCTION ON THIS PROJECT SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.



**WATER LINE B - PUBLIC**



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

RESIDENCES AT BLACKWELL  
PUBLIC WATER MAIN PLANS

HERITAGE STREET LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION
01/23/2023	PER CITY COMMENTS
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05/05/2023	PER CITY COMMENTS
06/08/2023	PER CITY COMMENTS
11/30/2022	DATE PREPARED
22-102	PROJ. NUMBER



**NOTES:**

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

The drawing consists of two main views: a **PLAN** view at the top and a **SECTION A-A** view at the bottom. The **PLAN** view shows a central horizontal thrust block with two vertical blocks on either side, all connected by a horizontal bond breaker. The blocks are shown with internal reinforcement (rebar) and are surrounded by concrete. Labels include "POURED CONCRETE BLOCKS (TYP.)", "UNDISTURBED EARTH", "BEARING AREA (TYP.)", and "BOND BREAKER (TYP. ALL BLOCKS)". The **SECTION A-A** view shows a cross-section of the blocks, with a "1/2\" DIAMETER" hole in the central block and a "1/4\" BOND BREAKER" between the blocks. The blocks are shown with internal reinforcement and are surrounded by concrete. The drawing is a technical drawing of horizontal thrust blocks, showing a plan view and a section view. The plan view shows three blocks arranged horizontally, connected by a bond breaker. The section view shows a cross-section of the blocks, with a 1/2 inch diameter hole in the central block and a 1/4 inch bond breaker between the blocks. The blocks are shown with internal reinforcement (rebar) and are surrounded by concrete. The drawing is labeled with "POURED CONCRETE BLOCKS (TYP.)", "UNDISTURBED EARTH", "BEARING AREA (TYP.)", "BOND BREAKER (TYP. ALL BLOCKS)", "PLAN", "SECTION A-A", "1/2\" DIAMETER", and "1/4\" BOND BREAKER".

**LEE'S SUMMIT**  
MISSOURI  
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64083

**HORIZONTAL THRUST BLOCKS**

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

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.

#4 EPOXY COATED GR. 60 REBAR WITH 6" HOOK & 12" MIN. CONCRETE EMBEDMENT DEPTH

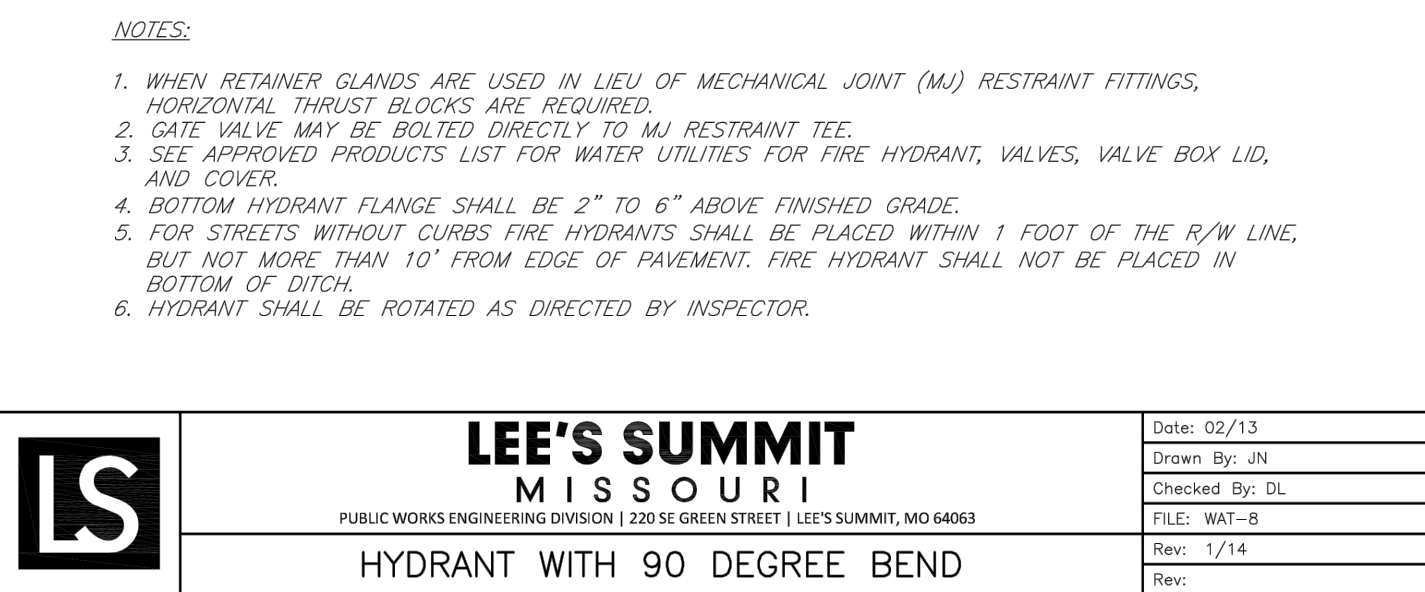
UNDISTURBED EARTH

## LEE'S SUMMIT MISSOURI

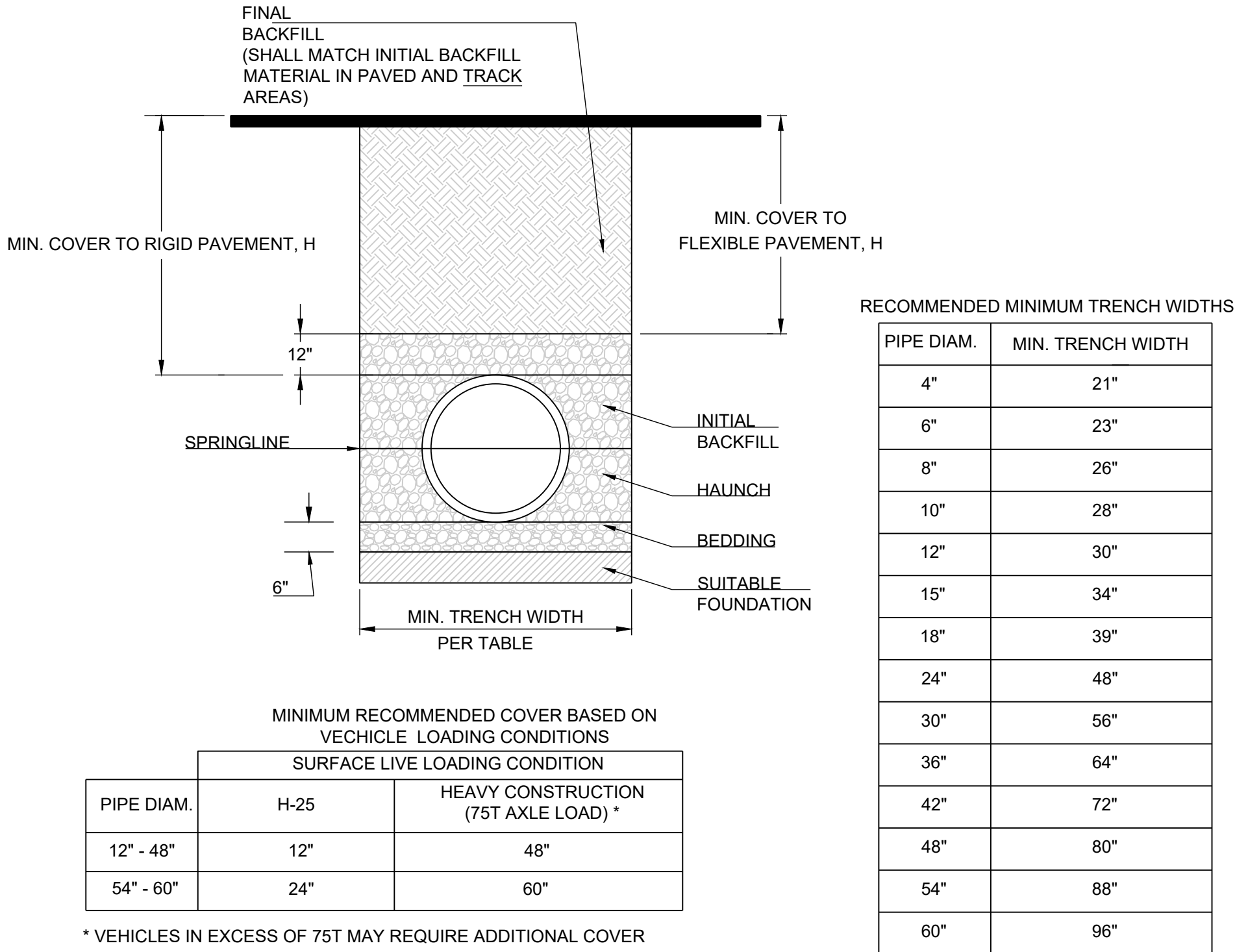
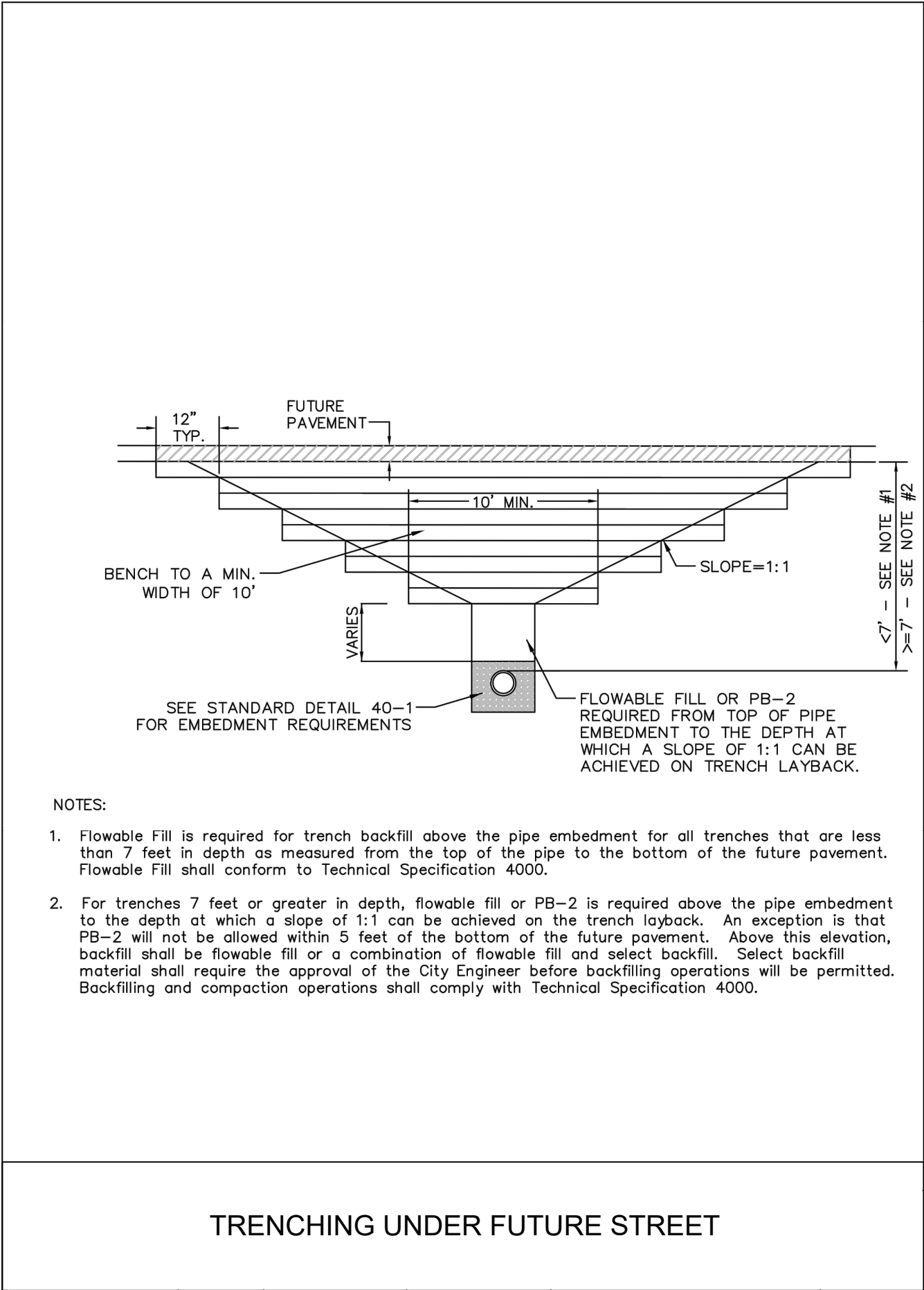
PUBLIC WORKS ENGINEERING DIVISION 1201 S. GREENWAY STREET | LEE'S SUMMIT, MO 64063

### VERTICAL THRUST BLOCKS

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







- NOTES:
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
  - MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
  - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
  - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. UNLESS OTHERWISE NOTED BY THE ENGINEER, MINIMUM BEDDING THICKNESS SHALL BE 6" (100mm) .
  - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
  - MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12" FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE, MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.

REVISION DATE	DESCRIPTION
1 01/23/2023	PER CITY COMMENTS
2 03/24/2023	PER CITY COMMENTS
3 05/05/2023	PER CITY COMMENTS
4 06/08/2023	PER CITY COMMENTS
5	
6	
7	
8	
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10	

DRAWN BY:	TRC
CHECKED BY:	MAB
DATE PREPARED:	11/30/2022
PROJ. NUMBER:	22-102