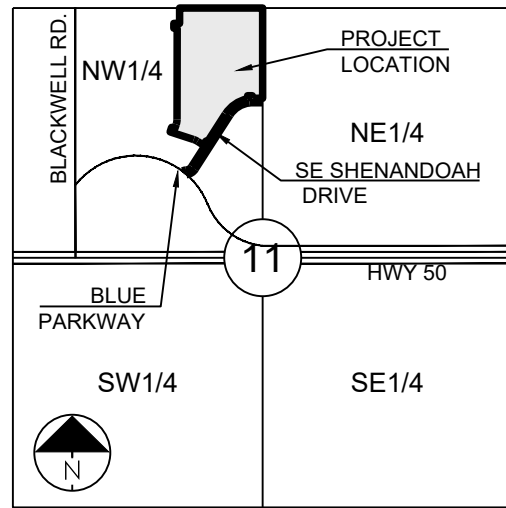


- A/C - ACCESS EASEMENT
- B/E - BACK OF CURB
- B/B - BACK TO BACK
- BM - BENCHMARK
- BL or B.L. - BUILDING LINE
- CO - CLEANOUT
- TJB - TELEPHONE JUNCTION BOX
- C&G - CURB AND GUTTER
- D/E - DRAINAGE EASEMENT
- E/E - ELECTRICAL EASEMENT
- EL - ELEVATION
- FL - FLOW LINE
- G/E - GAS LINE EASEMENT
- HDPE - 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) 399-0663 brent.jones@spireenergy.com

Philip Inghram
1300 SE Hamblin Road
Lee's Summit, MO 64081
Office: (816) 347-347-4339
philip.ingram@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) 275-1550

John Meadows
4700 Little Blue Parkway
Independence, MO 64051
(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

09/21/2023

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL LAYOUT
3	GRADING PLAN
4	TRIB MAP
5	LINE A - PLAN & PROFILE
6	DETAILS
7	DETAILS

PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

BLACKWELL RESERVE
PUBLIC SANITARY SEWER PLANS

SE SHENANDOAH DRIVE LEE'S SUMMIT, MO

REVISION	DATE	DESCRIPTION
1	05/05/2023	PER CITY COMMENTS
2	09/06/2023	PER CITY COMMENTS
3		
4		
5		
6		
7		
8		

COVER SHEET

SHEET

1

APPROVED BY:

CITY ENGINEER
APPROVED FOR ONE YEAR FROM THIS DATE

OWNER/DEVELOPER:

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

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
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

GENERAL NOTES:

1. ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
2. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE MEASUREMENTS. ALL DISTANCES SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
4. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
5. THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
6. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING PERMISSION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE CONTRACTOR MAY ALSO UTILIZE THE FOLLOWING TOLL FREE PHONE NUMBER PROVIDED BY "MISSOURI ONE CALL SYSTEM, INC.": 1-800-DIG-RITE. THIS PHONE NUMBER IS APPLICABLE ANYWHERE WITHIN THE STATE OF MISSOURI. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.
7. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. AFTER APPROVAL OF THE SHOP DRAWINGS, A COPY OF THE APPROVED AND SIGNED SHOP DRAWINGS SHALL BE PROVIDED TO THE CITY INSPECTOR UPON REQUEST.
8. THE CONTRACTOR SHALL CONTROL THE MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
9. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
10. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER.
11. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK REMOVAL.
12. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION, AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
13. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
14. THE CONTRACTOR SHALL CONTACT DEVELOPMENT SERVICES INSPECTIONS AT: 816-969-1200 TO OBTAIN A DEVELOPMENT SERVICES CONSTRUCTION PERMIT. A MINIMUM 48 HOUR NOTICE SHALL BE GIVEN PRIOR TO PERMIT ISSUANCE.
15. THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT.
16. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION).

UTILITIES:

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 relocation of the contractor shall be repaired by the contractor.
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 vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from ground to edge of pipe. If minimum separations cannot be obtained, concrete encasement shall be provided. All encasement shall be 12 feet in every section of the conflict.
5. Payment for trenching, backfilling, pipe embedment, flowable fill, backfill materials, clean up, 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 spoils shall be neatly placed onsite adjacent to the trench and shall be replaced in place to prevent saturation and excess sediment runoff. Unsuitable materials, such as soil and shale, asphalt, concrete, trenching spoil, brush etc. shall be properly disposed of offsite. Materials may be waste onsite at the direction of the Owner or his appointed representative.
8. All excavation is considered unclassified, unless noted otherwise. Unclassified excavation for utility trenching is subsidiary to the unit price provided for the pipe. Any quantity provided for rock excavation is estimated based on the best information provided to the Project Engineer. The Engineer has the authority to identify and define the physical characteristics to determine the classification of the rock. The unit price for rock excavation will be paid at a trench width of the nominal pipe diameter of the installed main plus 18 inches. Contractor is responsible to dispose of excess rock from their trenches by disposing it in areas as specified by the Project Engineer.

SUMMARY OF QUANTITIES			
	ITEM	QUANTITY	UNITS
1	INSTALL 8" PVC SDR-26	1,072	LF
2	INSTALL 6" PVC SDR-26	1,957	LF
3	INSTALL STD. 4' DIAMETER MANHOLE	5	EA
4	EXTRA DEPTH IN MANHOLES	25	VF
5	TRENCHING UNDER FUTURE STREET	2,016	LF
6	INSTALL CLEANOUT	1	EA
7	POST-CONSTRUCTION MANHOLE BARREL ADJUSTMENTS (EST.)	1	EA
8	POST-CONSTRUCTION RING (3"-12") ADJUSTMENT (EST.)	1	EA



SCALE: 1" = 50'

09/21/2023

RELEASED FOR CONSTRUCTION
As Noted on Plan Review
Development Services Department
Lee's Summit, Missouri
09/21/2023

BLACKWELL RESERVE
PUBLIC SANITARY SEWER PLANS
SE SHENANDOAH DRIVE LEE'S SUMMIT, MO

REVISION DATE	DESCRIPTION
05/05/2023	PER CITY COMMENTS
09/06/2023	PER CITY COMMENTS

DRAWN BY: ###	CHECKED BY: ###	DATE PREPARED: 03/03/2023	PROJ. NUMBER: 22-593
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NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
- ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
- ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
- ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS OF SDR 26.
- ALL SANITARY SEWER MANHOLES ARE 4" DIAMETER UNLESS OTHERWISE NOTED.
- ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED.
- PROPOSED GRADING IS FOR REFERENCE ONLY. CONTRACTOR IS TO GRADE WITHIN THE LIMITS OF DISTURBANCE AND PROVIDE SANITARY COVER AS REQUIRED BY THE CITY'S TECHNICAL SPECIFICATIONS.
- MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION.
- SSNR = SEWER SERVICE NOT REQUIRED.
- DDS = DISTANCE TO DOWNSTREAM MANHOLE.
- ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
- REFERENCE SHEET 6 FOR EXCAVATION BENEATH PROPOSED STREETS DETAIL.
- EVERY STUB LINE SHALL BE MARKED AT THE END OF THE PIPE WITH A VERTICAL 2"x4" A MINIMUM OF SIX (6) FEET IN LENGTH.

MO GRS BENCHMARK:

STATION NAME - JA-90

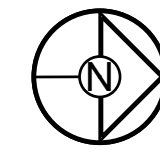
KC METRO ALUMINUM GRS DISK SET IN CONCRETE STAMPED "JA-90, 1988" LOCATED NEAR THE INTERSECTION OF LANGSFORD ROAD AND OLD LANGSFORD ROAD, 43 FEET SOUTHEAST OF THE CENTER OF LANGSFORD ROAD AND 32 FEET NORTH OF THE CENTER OF OLD LANGSFORD ROAD.
N:1001052.8503, E:2845604.8272

ELEV. 997.045

PROJECT BENCHMARK:

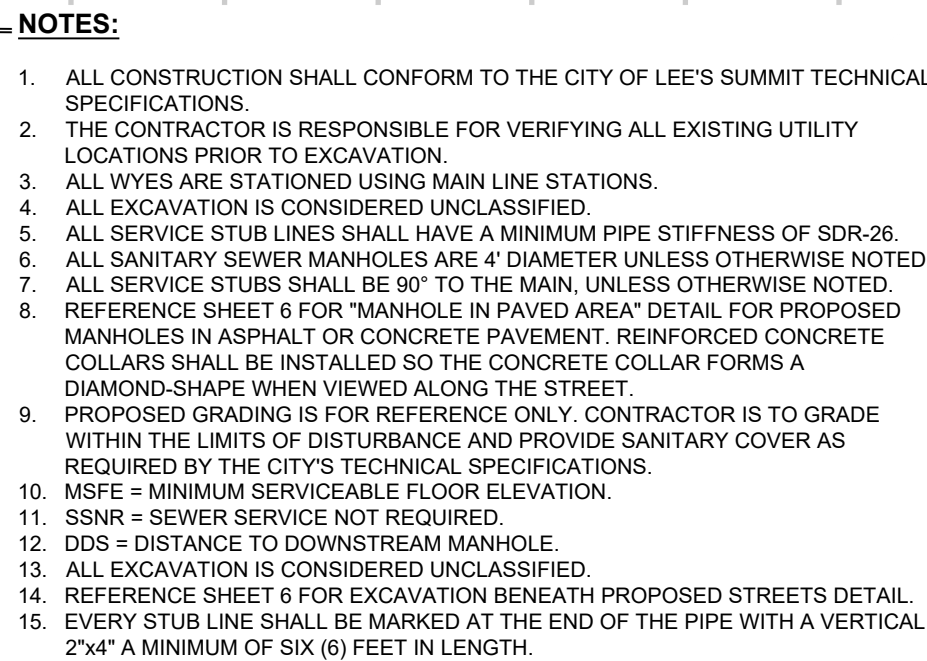
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N:996874.9690, E:2840937.1365

ELEV. 1005.719



SCALE: 1" = 100'

DA TO EXA5
= 61.09 AC



Structure Table		
Structure Name	Structure Northing	Structure Easting
A5	998322.2917	2841285.3534
A6	998263.4547	2841180.1479
A7	998173.9583	2841147.1260
A8	997758.0517	2841129.3346
A9	997412.0945	2841114.5355
A10	997326.1591	2841149.5628

RELEASED FOR CONSTRUCTION
As Noted on Plan Review

Development Services Department
Lee's Summit, Missouri

09/21/2023

MO GRS BENCHMARK:

STATION NAME - JA-90

KC METRO ALUMINUM GRS DIK SET IN CONCRETE STAMPED "JA-90, 1988"

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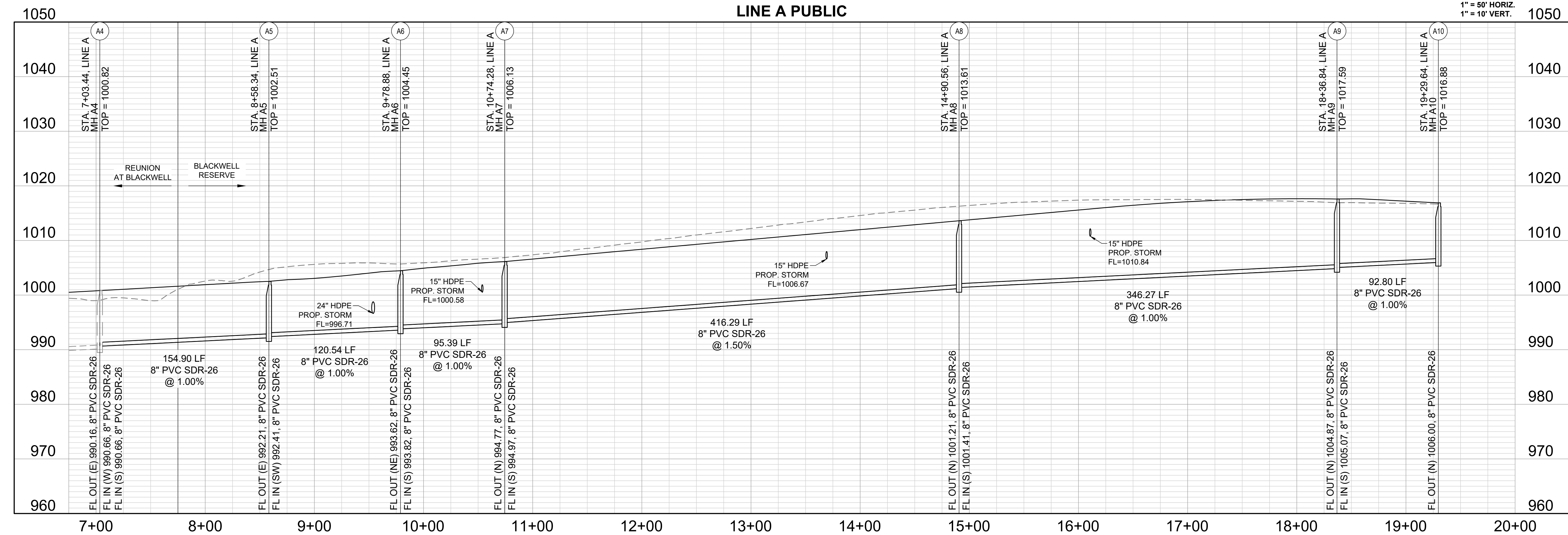
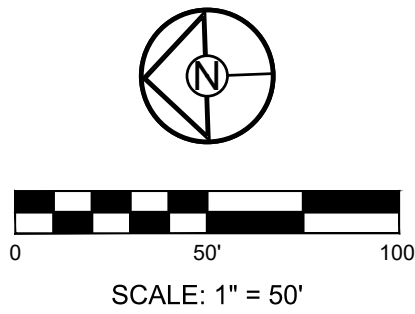
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ELEV. 997.045

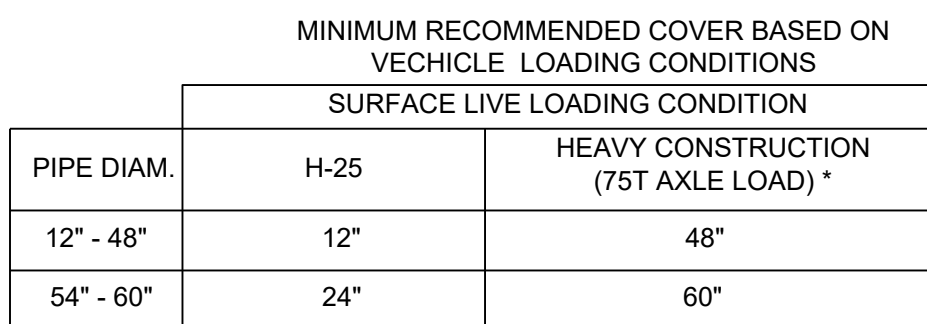
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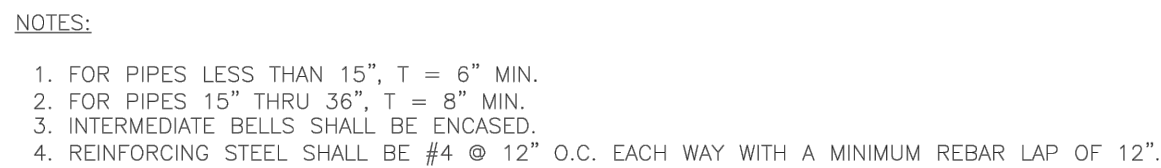
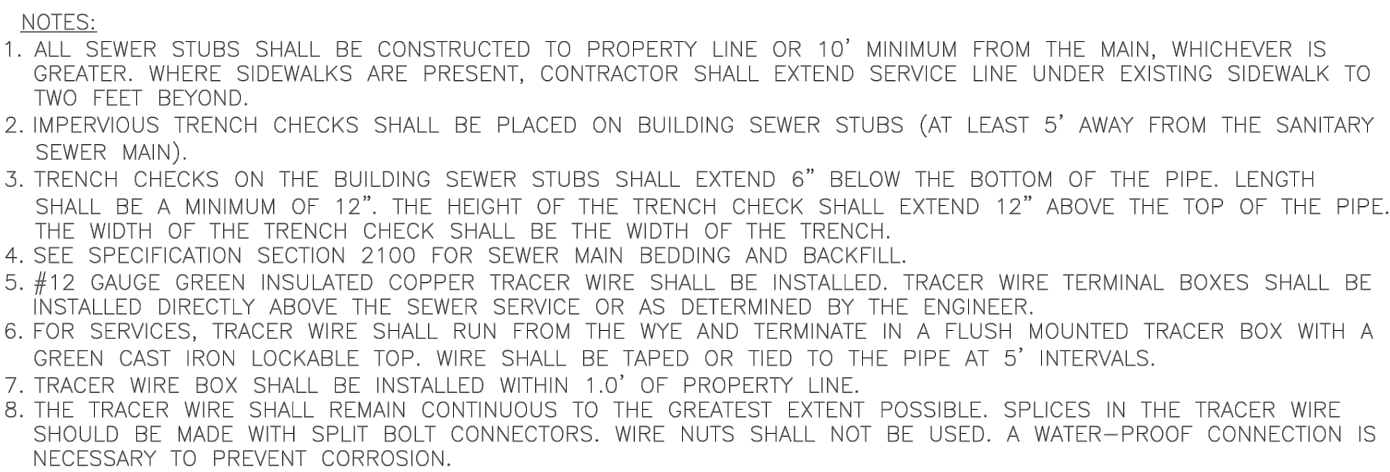


Development Services Department
Lee's Summit, Missouri
09/21/2023

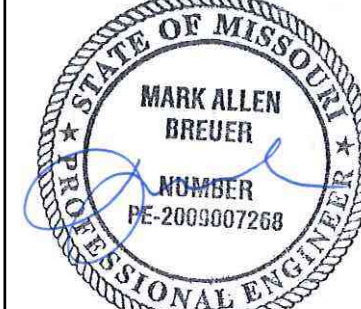


NOTES:

- # PIPE EMBEDMENT
-
- ## NOT TO SCALE



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

BLACKWELL RESERVE
PUBLIC SANITARY SEWER PLANS

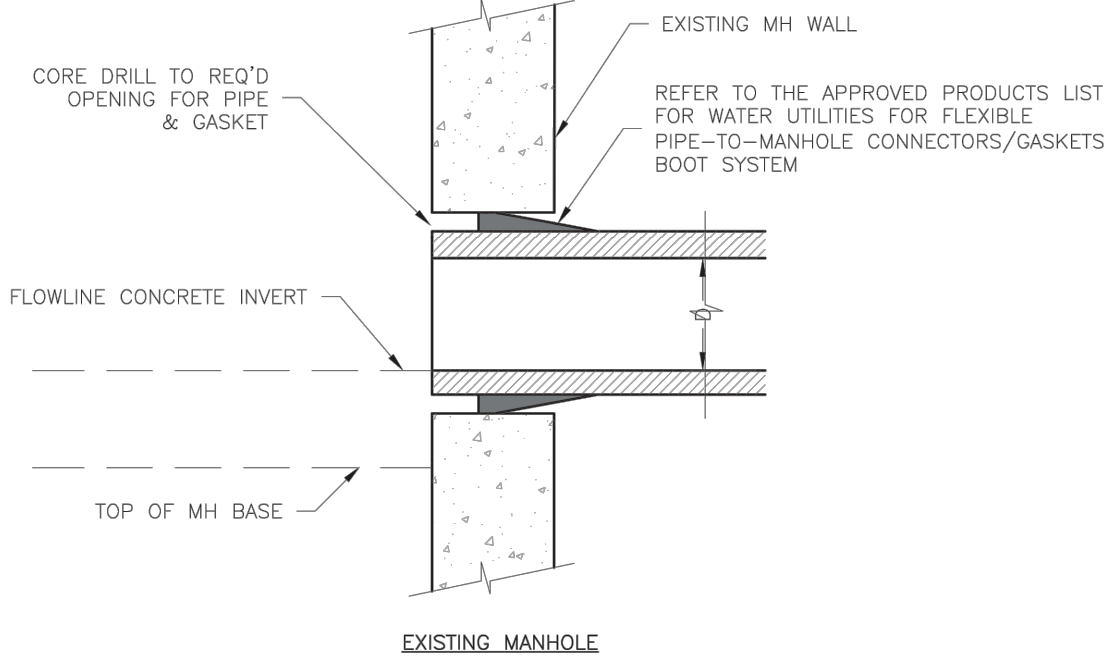
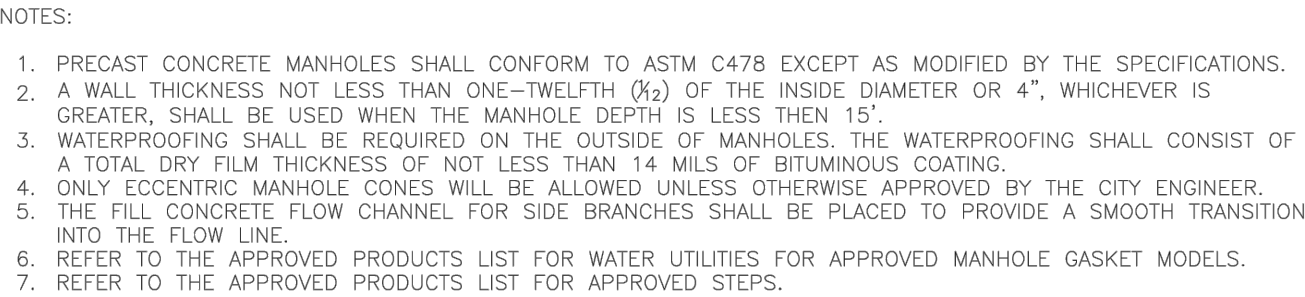
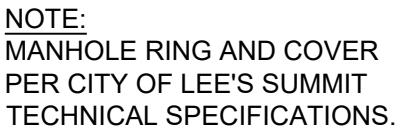
SEE SHENANDOAH DRIVE LEE'S SUMMIT, MO

DRAWN BY:		REVISION DATE	DESCRIPTION
TRC		05/05/2023	PER CITY COMMENTS
		05/06/2023	PER CITY COMMENTS
CHECKED BY:			
MAB			
DATE PREPARED:			
03/03/2023			
PROJ. NUMBER:			
22-093			

DETAILS

SHEET

6



Development Services Department
Lee's Summit, Missouri
09/21/2023



BLACKWELL RESERVE
PUBLIC SANITARY SEWER PLANS

REVISION	DATE	DESCRIPTION
1	05/05/2023	PER CITY COMMENTS
2	09/06/2023	PER CITY COMMENTS
3		
4		
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8		

DRAWN BY:	TRC
CHECKED BY:	MAB
DATE PREPARED:	03/03/2023
PROJ. NUMBER:	22 003

DETAILS

SHEET

7