LEGE	NI	D:		
E	-	ACCESS EASEMENT		
	-	BACK OF CURB	Q PROJE	
В	-	BACK TO BACK	ROJE NW1/4 PROJE LOCAT	
Л	-	BENCHMARK	M N N N N N N N N N N N N N N N N N N N	
or B.L.	-	BUILDING LINE	NW1/4 LOCAT	
)	-	CLEANOUT		
IB	-	TELEPHONE JUNCTION BOX		
3G	-	CURB AND GUTTER	71	
Έ	-	DRAINAGE EASEMENT	BLUE	
E	-	ELECTRICAL EASEMENT	PARKWAY	
_	-	ELEVATION	SW1/4 SE1/4	
-	-	FLOW LINE	3VV 1/4 3E 1/2	
Έ	-	GAS LINE EASEMENT		
DPE	-	HIGH-DENSITY POLYETHYLENE		
E	-	LANDSCAPE EASEMENT		
SFE	-	MINIMUM SERVICEABLE FLOOR ELEVATION		
/C	-	POLYVINYL CHLORIDE	SECTION 11-47-31	
L	-	PROPERTY LINE	<u> </u>	
JB/E	-	PUBLIC EASEMENT	LOCATION MAP	
CP	-	REINFORCED CONCRETE PIPE	SCALE 1" = 2000'	
OW or R/W - RIGHT-OF			20,122 1 2000	
E	-	SANITARY SEWER EASEMENT		
_		SERVICE LINE		
W	-	SIDEWALK	LITH ITY CONTACTO	
Ξ	-	TOP ELEVATION	UTILITY CONTACTS:	
E	-	UTILITY EASEMENT	MISSOLIDI DEDADTMENT O	
SE	-	WATER SURFACE ELEVATION	MISSOURI DEPARTMENT O TRANSPORTATION (MODO Steve Holloway	
/E	_	WATERLINE EASEMENT		
		ASPHALT PAVEMENT - EXISTING	600 NE Colbern Road Lee's Summit, MO 64086	
		ASPHALT PAVEMENT - PROPOSED	(816) 607-2186	

CONCRETE PAVEMENT - EXISTING

ASPHALT PAVEMENT - EXISTING

CONCRETE SIDEWALK - EXISTING

CONCRETE SIDEWALK - PROPOSED

CURB & GUTTER - EXISTING

EXISTING LOT AND R/W LINES

EXISTING PLAT LINES

— SANITARY SEWER MAIN

STORM SEWER - EXISTING

—— SANITARY SEWER MAIN - EXIST.

FIBER OPTIC CABLE - EXISTING

----- OHP_x ----- OVERHEAD POWER LINE - EXIST

----- UGE_x ----- UNDERGROUND ELECTRIC - EX.

LIGHT - EXISTING

EXISTING MANHOLE

EXISTING AREA INLET

EXISTING CURB INLET EXISTING GRATE INLET EXISTING JUNCTION BOX

EXISTING SANITARY MANHOLE

EXISTING STORM MANHOLE

PROPOSED SANITARY MANHOLE

CURB & GUTTER

TREELINE

—— P/L —— PROPERTY LINES

—— STO—— STORM SEWER

---- CATV_x ---- CABLE TV - EXISTING

GAS LINE - EXISTING

CLEANOUT

——Tx—— TELEPHONE LINE - EXIST.

Brent Jones 3025 SE Clover Drive Lee's Summit, MO 64082

(816) 399-0663brent.jones@spireenergy.com

EVERGY Philip Ingram 1300 SE Hamblin Road Lee's Summit, MO 64081 Office: (816) 347-347-4339

philip.inghram@evergy.com CITY OF LEES SUMMIT PUBLIC WORKS Dena Mezger

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

Kansas City, MO 64106 (816) 275-2341 or (816) 275-1550 COMCAST CABLE John Meadows

Mark Manion or Marty Loper

500 E. 8th Street, Room 370

4700 Little Blue Parkway (816) 795-2257

CITY OF LEE'S SUMMIT WATER UTILITIES Mark Schaufler 1200 SE Hamblen Road Lee's Summit, MO 64081 (816) 969-1900



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

SUMMARY OF QUANTITIES						
	ITEM	QUANTITY	UNITS			
1	24" PVC SDR-26	440	LF			
2	12" PVC SDR-26	1270	LF			
3	8" PVC SDR-26	689	LF			
4	6" PVC SDR-26	341	LF			
5	12" D.I.P. W/RESTRAINED JOINTS	319	LF			
6	STANDARD 4' DIAMETER MANHOLE	10	EA			
7	STANDARD 5' DIAMETER MANHOLE	4	EA			
8	EXTRA DEPTH IN MANHOLES	152	VF			
9	TRENCHING UNDER FUTURE STREET	762	LF			
10	POST-CONSTRUCTION MANHOLE BARREL ADJUSTMENTS (ESTIMATED)	4	EA			
11	POST-CONSTRUCTION RING (3"-12") ADJUSTMENT (ESTIMATED)	4	EA			
12	SEED & MULCH DISTURBED AREAS	1	LS			
13	EROSION CONTROL	1	LS			

PUBLIC SANITARY SEWER MAIN PLANS RESIDENCES AT BLACKWELL

IN THE CITY OF LEE'S SUMMIT JACKSON COUNTY, MO

GENERAL NOTES

- ALL CONSTRUCTION TO FOLLOW THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813.
- ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DEPARTMENT OF THE CITY OF LEE'S SUMMIT, MISSOURI.
- LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS, NOT SLOPE
- MEASUREMENTS. ALL PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS. NO GEOLOGICAL INVESTIGATION HAS BEEN PERFORMED ON THE SITE.
- THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE TAKEN FROM UTILITY COMPANY RECORDS AND
- 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 INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. THE
- 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.
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED NITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE
- 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.
- ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK
- THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED 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
- 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:

- 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
- 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.
- 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
- 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 EDGE TO EDGE. IF MINIMUM SEPARATIONS CAN NOT BE OBTAINED, CONCRETE
- ENCASEMENT OF THE SANITARY LINE SHALL BE REQUIRED 10 FEET IN EACH DIRECTION OF THE CONFLICT. 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. 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. TRENCH SPOILS SHALL BE NEATLY PLACED ONSITE ADJACENT TO THE TRENCH, AND COMPACTED TO PREVENT SATURATION AND EXCESS SEDIMENT RUNOFF. UNSUITABLE MATERIALS, EXCESS 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.

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. UNIT PRICE QUANTITIES FOR ROCK EXCAVATION WILL BE PAID AT A TRENCH WIDTH OF THE NOMINAL PIPE DIAMETER OF THE INSTALLED MAIN PLUS 18 INCHES. CONTRACTOR IS REQUIRED TO DISPOSE OF EXCESS ROCK FROM THEIR TRENCHES BY DISPOSING IT IN AREAS AS SPECIFIED BY THE PROJECT

	Sheet List Table
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL LAYOUT & GRADIN
3	TRIB MAP
4	LINE A
5	LINE A
6	EXISTING LINE
7	LINE B
8	DETAILS

PREPARED BY

SCHLAGEL & ASSOCIATES, P.A

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

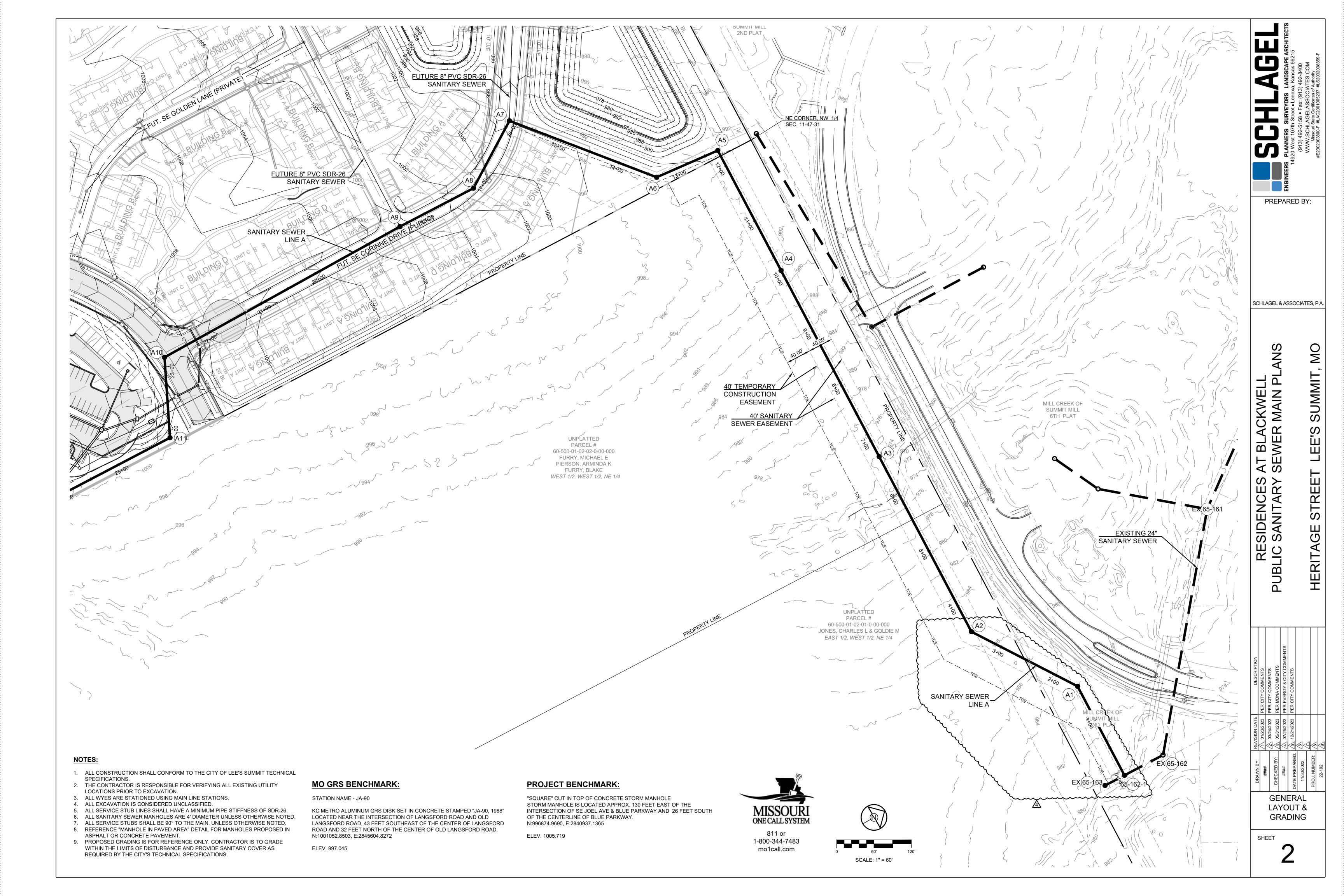
PROJECT BENCHMARK:

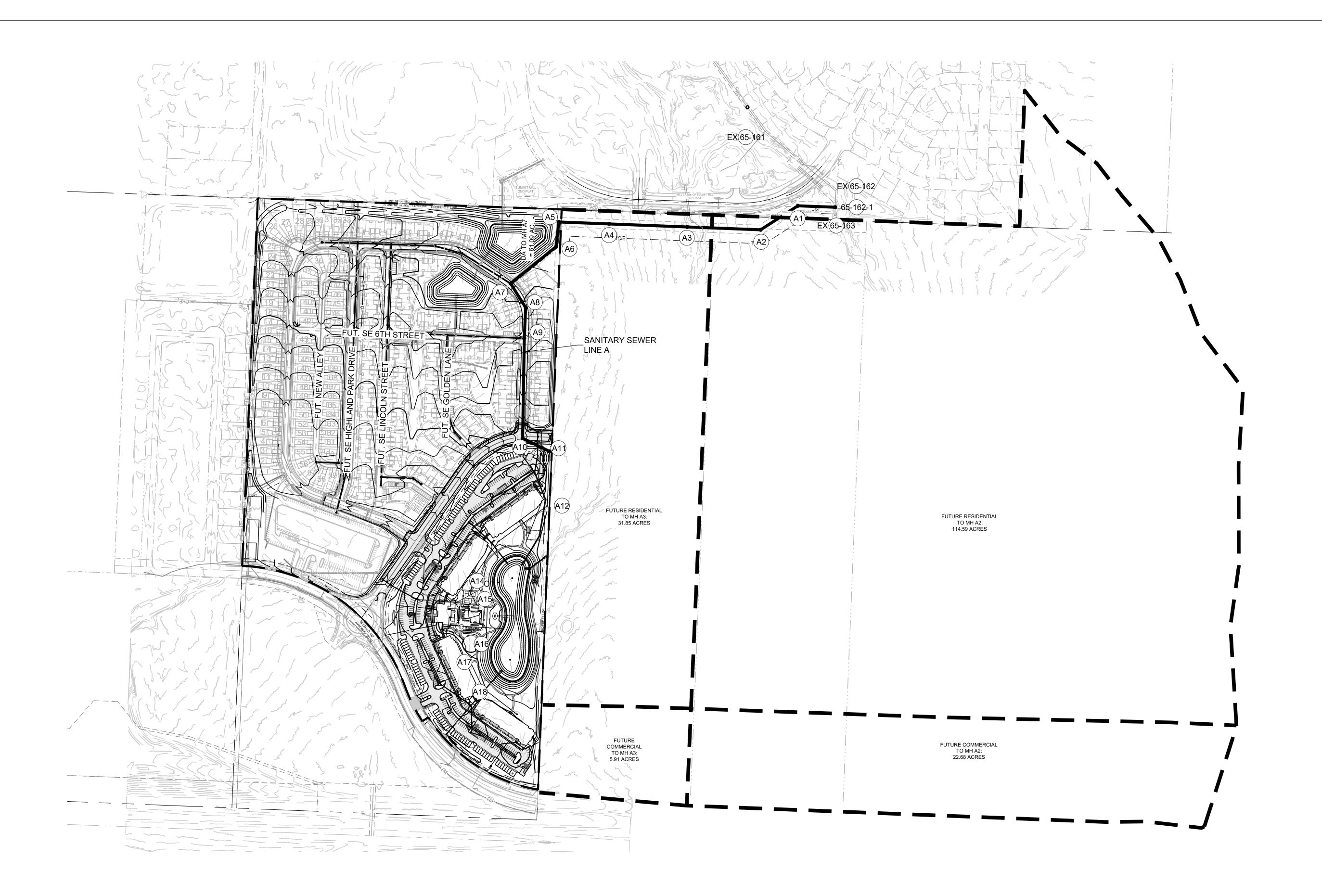
"SQUARE" CUT IN TOP OF CONCRETE STORM MANHOLE STORM MANHOLE IS LOCATED APPROX. 130 FEET EAST OF THE INTERSECTION OF SE JOEL AVE & BLUE PARKWAY AND 26 FEET SOUTH OF THE CENTERLINE OF BLUE PARKWAY. N:996874.9690, E:2840937.1365

ELEV. 1005.719

COVER SHEET

SHEET





NOTE: CITY OF LEE'S SUMMIT TO PROVIDE SANITARY SEWER CALCULATIONS.

MO GRS BENCHMARK:

STATION NAME - JA-90

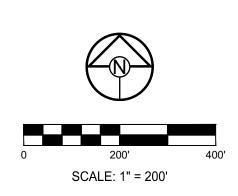
ELEV. 997.045

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

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

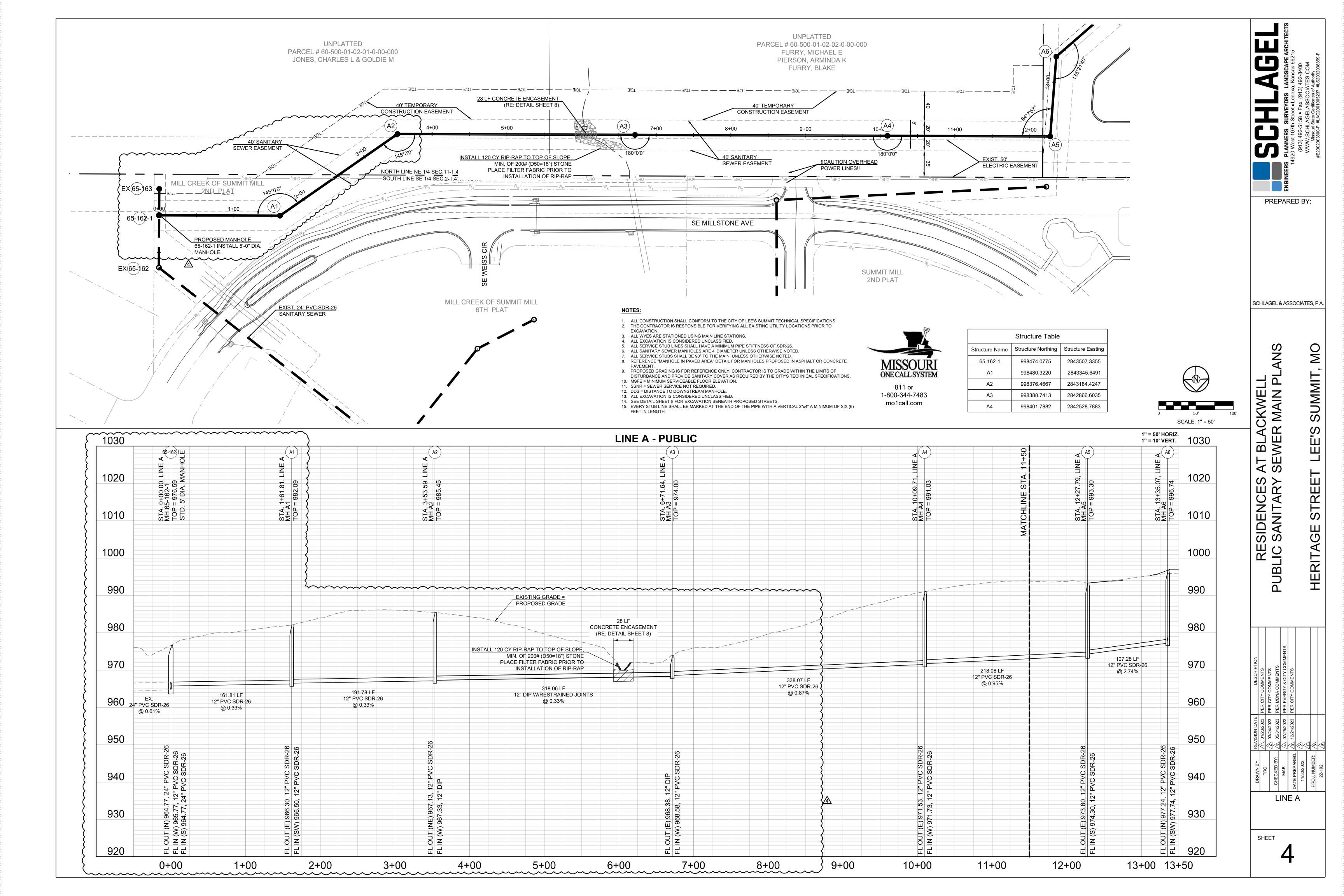


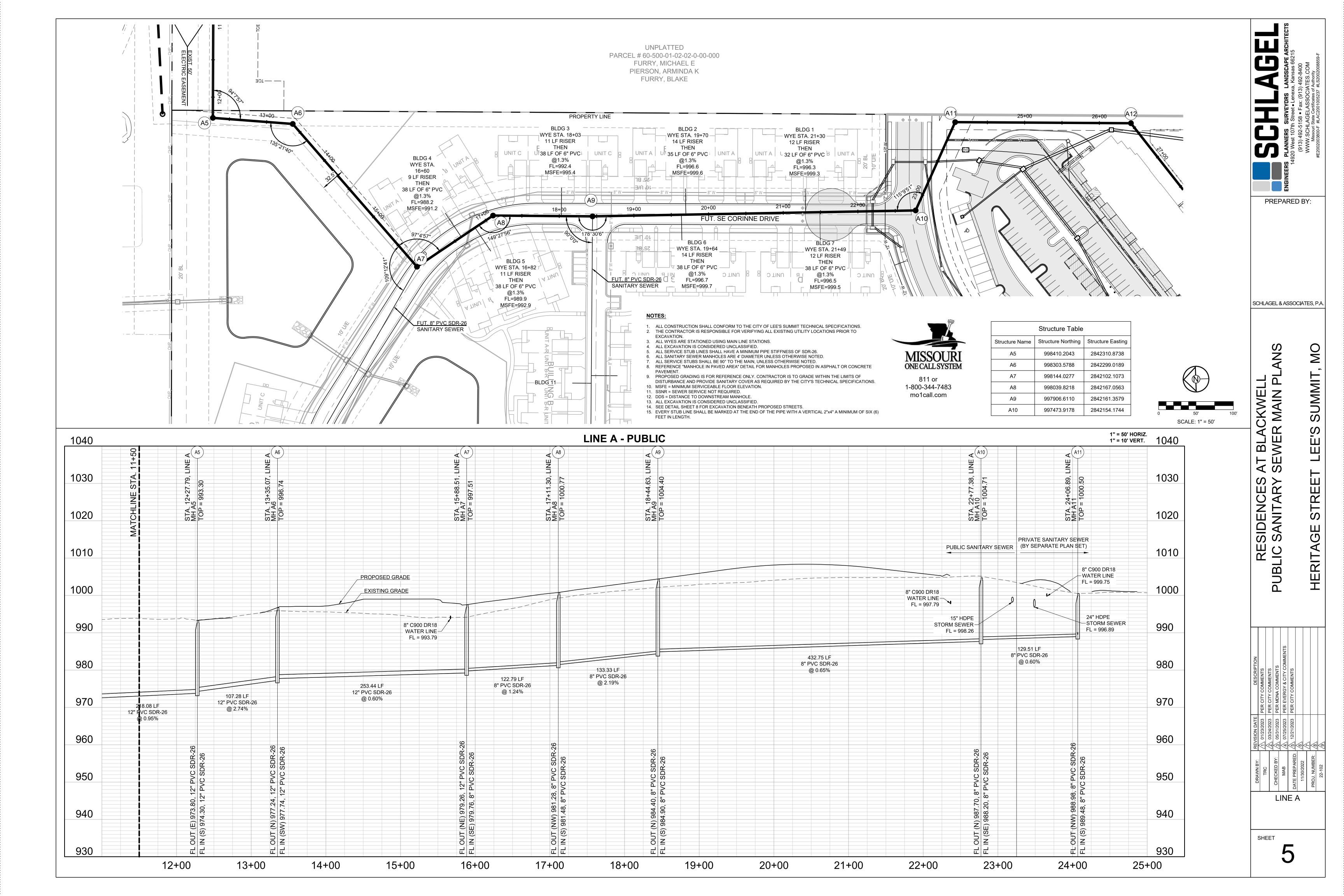
SHEET 3

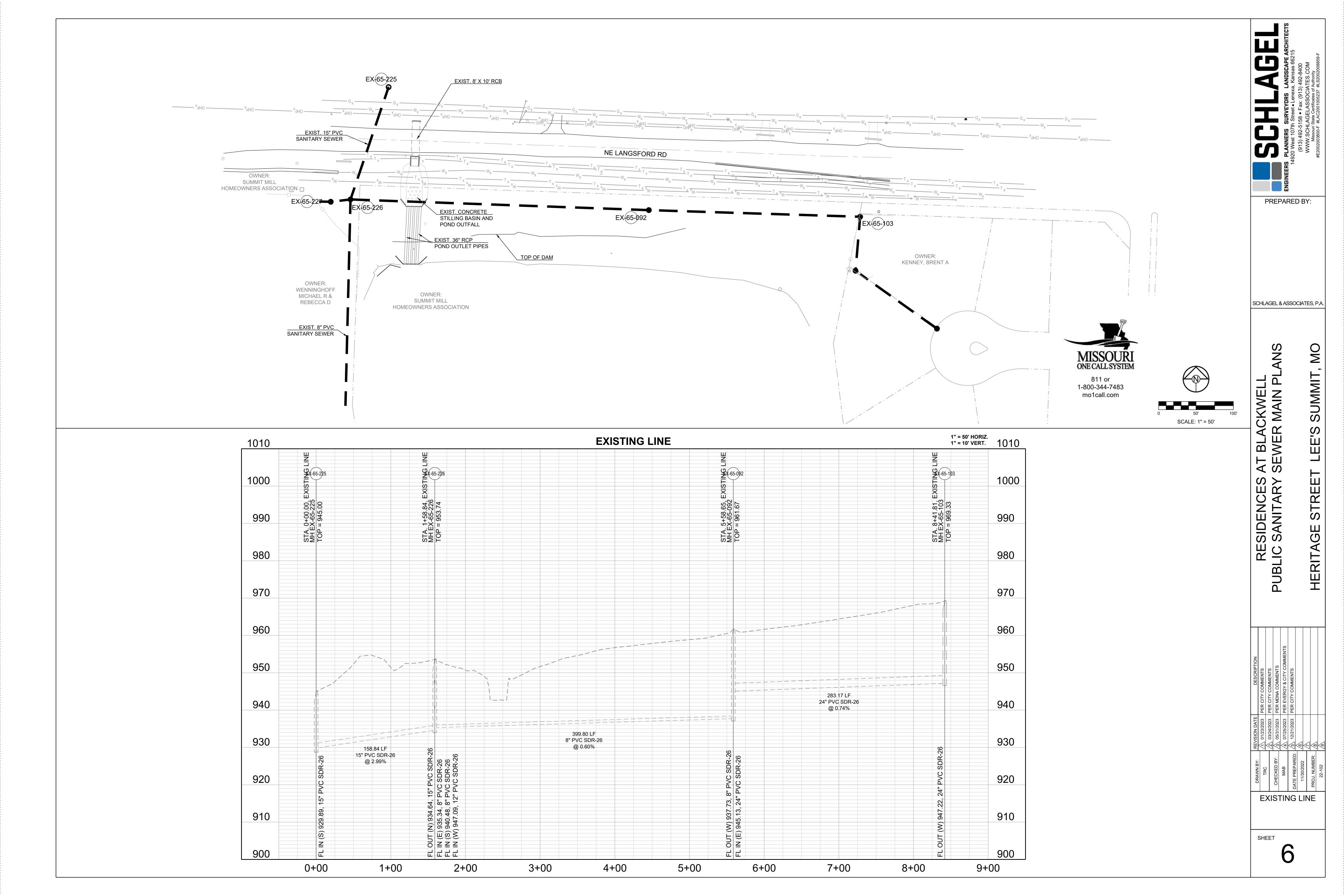
TRIB MAP

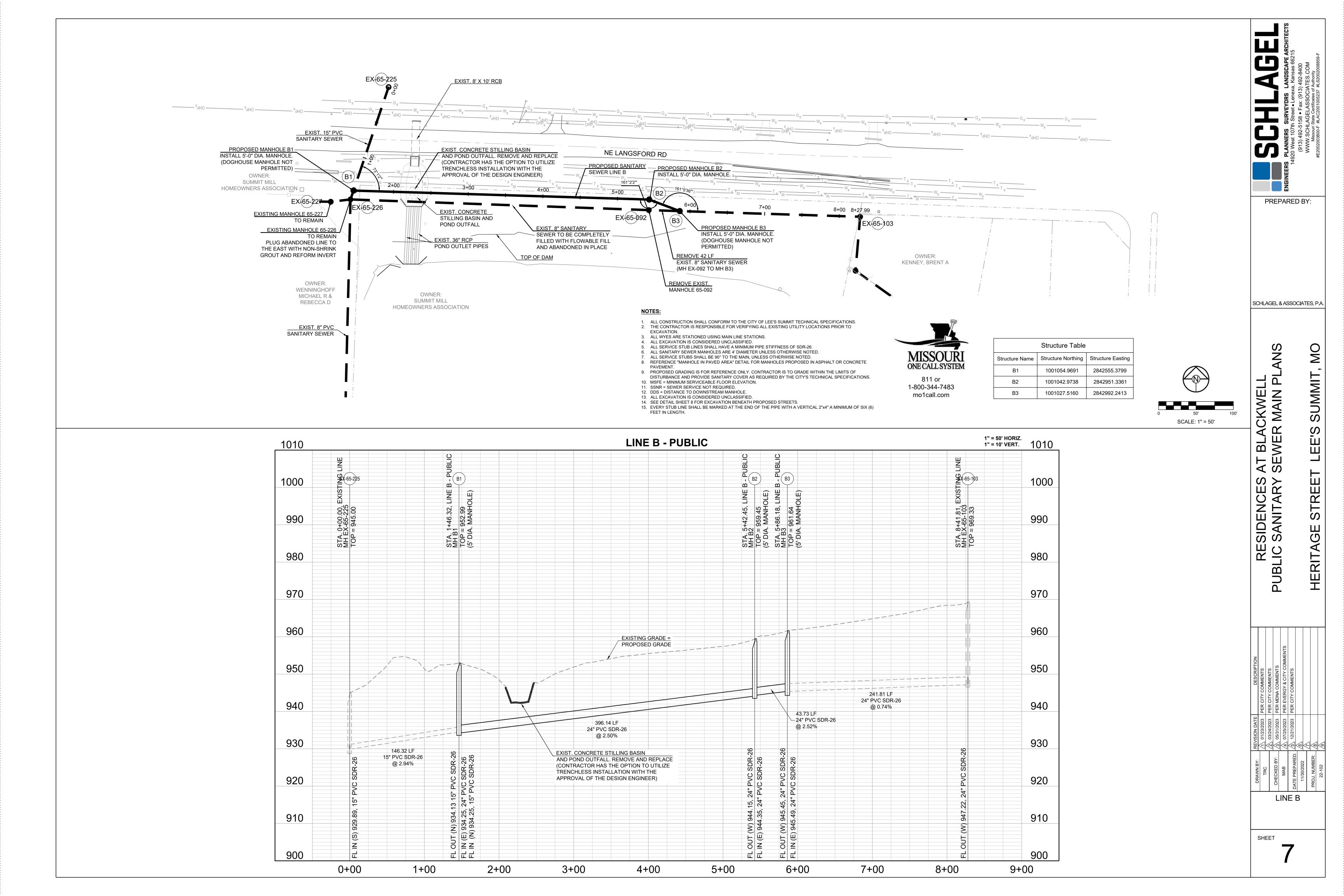
PREPARED BY:

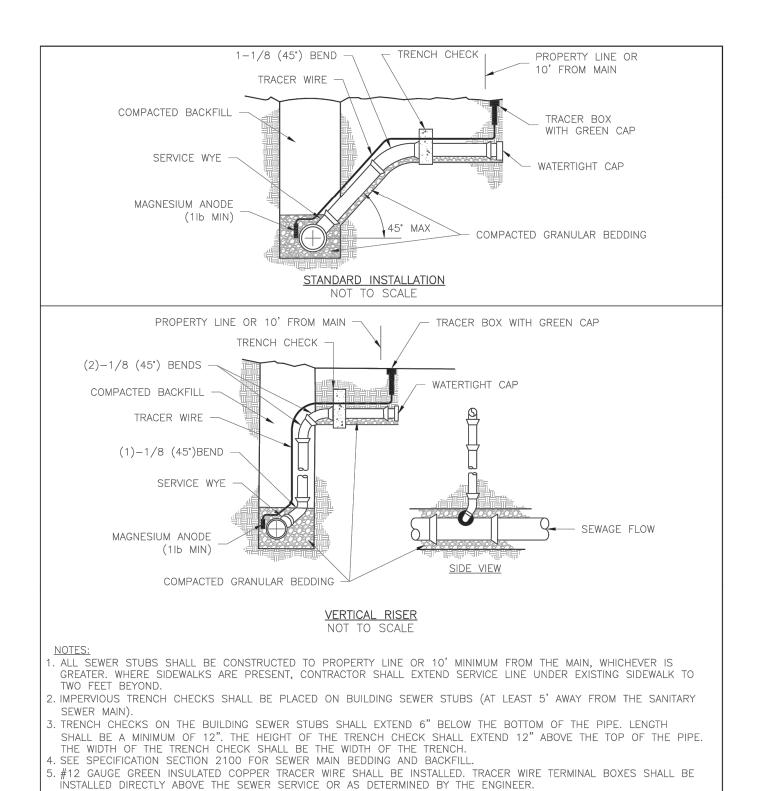
SCHLAGEL & ASSOCIATES, P.A.











6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A

THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE

LEE'S SUMMIT

MISSOURI

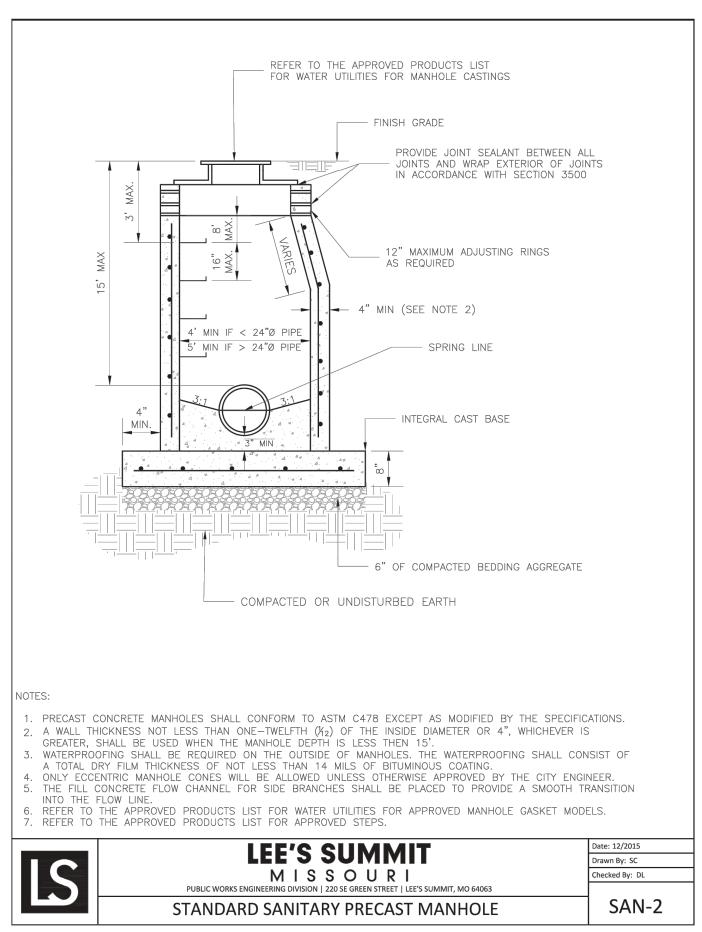
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

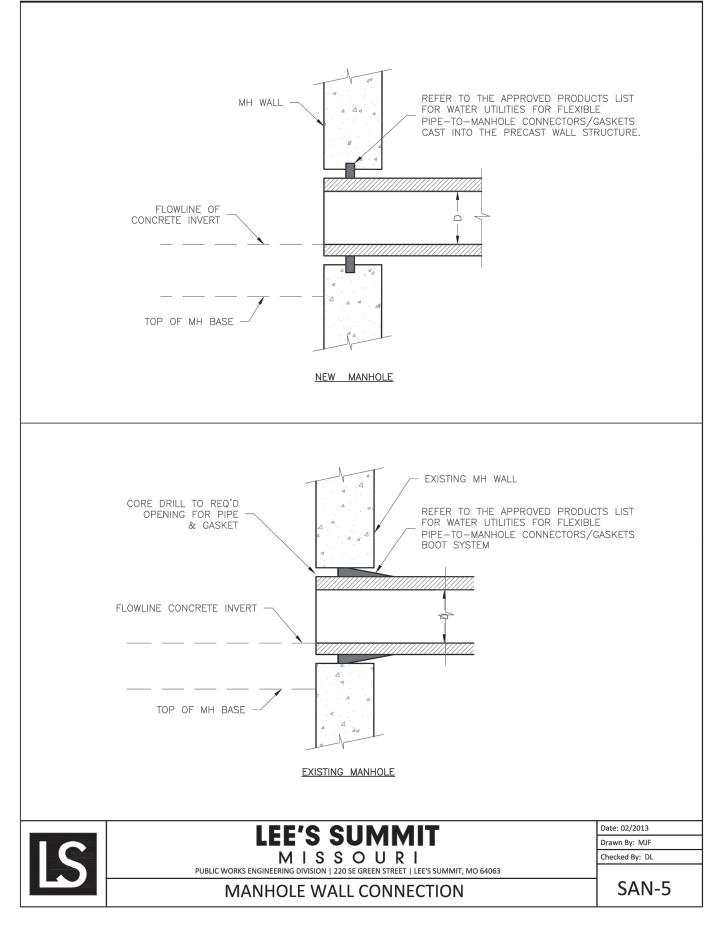
SANITARY SEWER STUB DETAIL

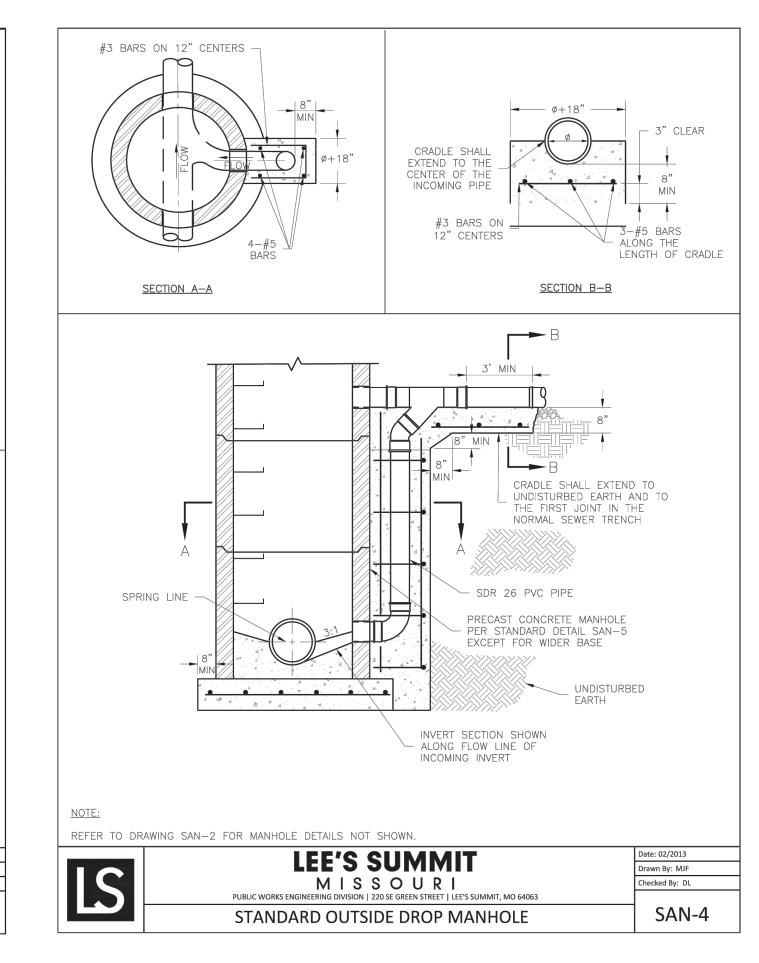
SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS

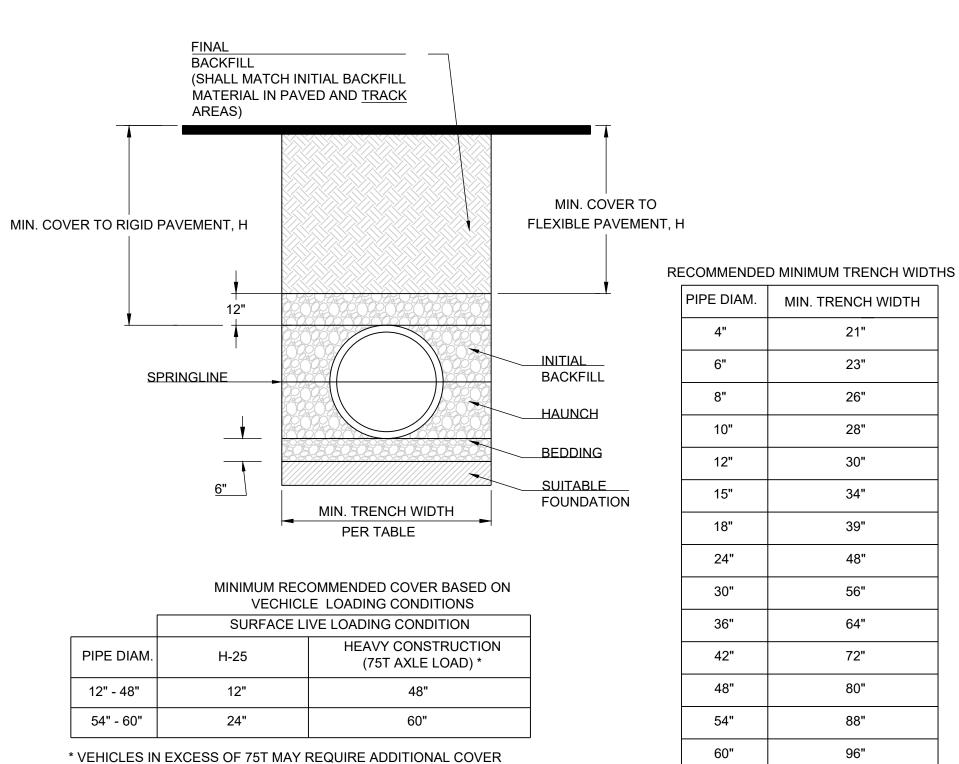
GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.

. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.









rawn By: MJF

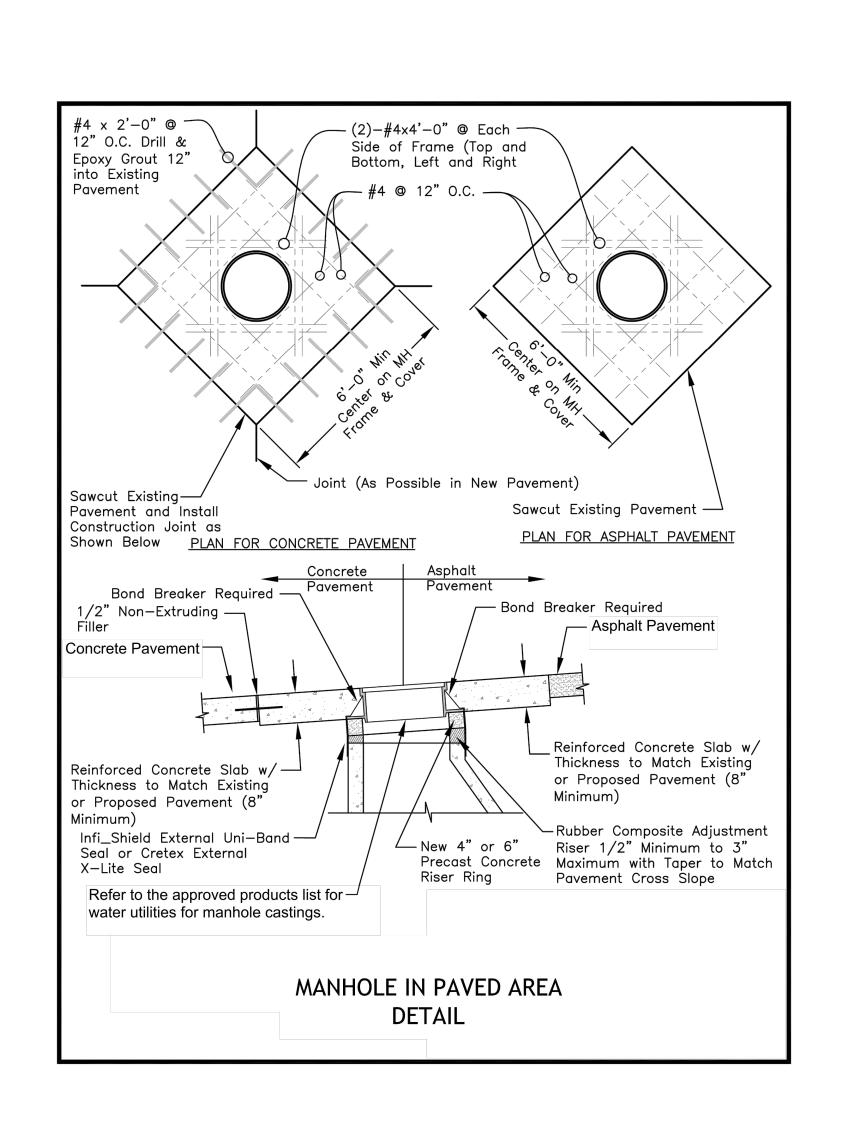
SAN-1

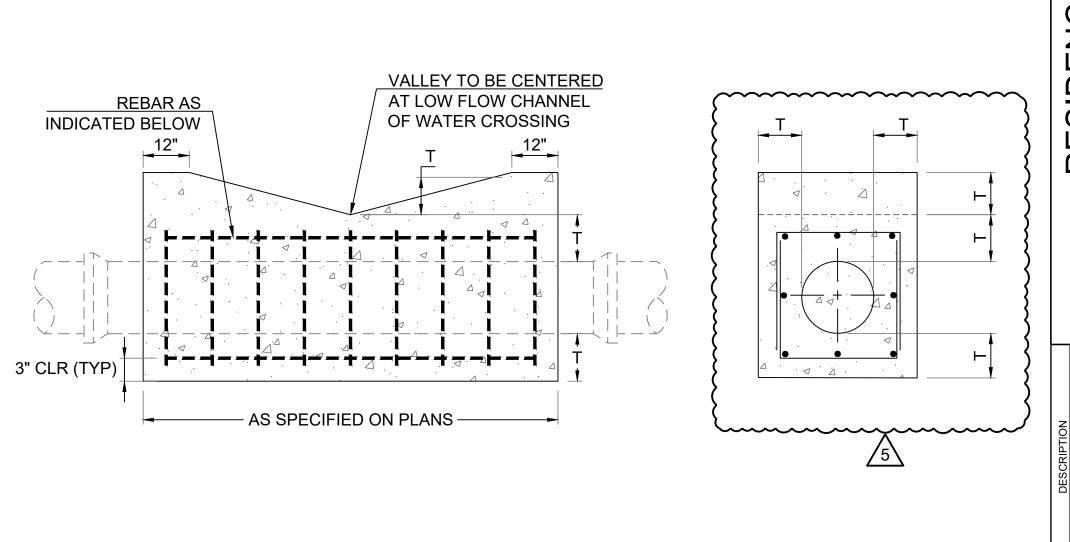


- 1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS", LATEST EDITION
- 2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.

THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.

- 3. 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,
- 4. 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)
- 5. 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.
- 6. 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 FLOATION. 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.





FOR PIPES LESS THAN 15", T = 6" MIN. FOR PIPES 15" THRU 36", T = 8" MIN. INTERMEDIATE BELLS SHALL BE ENCASED 4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".

PIPE ENCASEMENT AT WATER CROSSING DETAIL N.T.S.

PREPARED BY:

SCHLAGEL & ASSOCIATES, P.A.

S

SIDENCE SANITARY RE LC

DETAILS

SHEET