

Record Drawing

Sheet List Table	
Sheet Number	Sheet Title
1	COVER SHEET
2	GENERAL LAYOUT
3	LINE K PLAN AND PROFILE
4	LINE K PLAN AND PROFILE (2)
5	LINE M PLAN AND PROFILE
6	SANITARY SEWER DETAILS
7	SANITARY SEWER DETAILS

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 PAYMENTS SHALL BE MADE ON HORIZONTAL MEASUREMENTS.
4. 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.
5. 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 ON THE 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-REMIT. 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.
6. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWING SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
7. THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT PERMISSION OF THE OWNER, UNLESS SHOWN OTHERWISE.
8. CUTTING AND GRUBBING OPERATIONS AND DISPOSAL OF DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
9. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR, OR AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST.
10. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK EXCAVATION.
11. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION AND SHALL KEEP THE STREETS CLEAN OF MUD AND DEBRIS.
12. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH AN INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.
13. 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.
14. 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).
15. ALL SANITARY SEWERS SHALL HAVE A TRENCH CHECK, CONSISTING OF FLOWABLE BACKFILL, INSTALLED DURING CONSTRUCTION. TRENCH CHECK SHALL EXTEND TO BOTTOM OF TRENCH, TO WIDTH OF TRENCH, TO 12 INCHES ABOVE PIPE, FOR A MINIMUM LENGTH OF 12 INCHES. TRENCH CHECK SHALL BE LOCATED AT LEAST 5 FEET FROM SANITARY MAIN.

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 obtaining any required permits and allocations. 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 vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from edge to edge. If minimum separations cannot be obtained, concrete encasement of the sanitary line shall be required 10 feet in each direction 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. 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.
6. The contractor shall be responsible for trenching and backfilling of all utility trenches. Trenching shall include 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.
7. 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 rock excavation unit price. Rock excavation shall 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 Engineer.

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"400.00 100.10", "3.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 04/02/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.

CONTRACTOR SHALL OBTAIN ELEVATIONS AND LOCATIONS FOR ALL SANITARY SEWER SERVICE LINES AND SHALL SUPPLY THIS INFORMATION TO THE DESIGN ENGINEER FOR INCLUSION IN THE AS-BUILT RECORD DRAWINGS.

Flowable fill required per City specifications at all sanitary sewer structures.

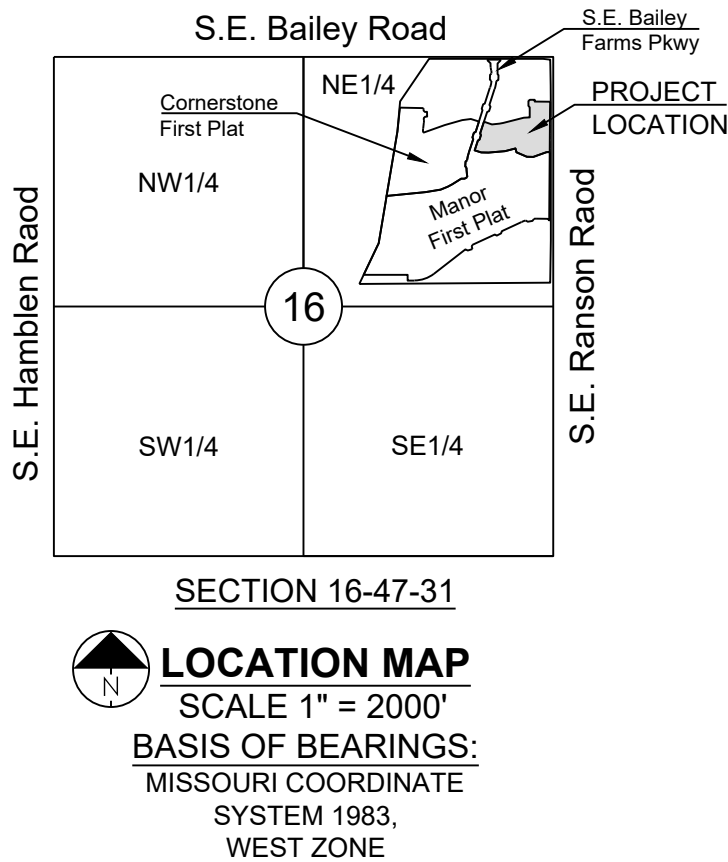
RETREAT AT BAILEY FARMS, FIRST PLAT
SANITARY MAIN EXTENSION PLANS
SE BAILEY ROAD & SE RANSON ROAD
LEE'S SUMMIT, MO

REVISION	DATE	DESCRIPTION
1	04/20/2022	PER CITY COMMENTS DATED 02/25/2022
2	10/27/2023	Updated City Details to 2023 Details
3	11/30/2023	Added "New City Requirements" note
4	01/17/2024	per MDNR Comments (Added details Sheet 7)
5	04/15/2025	As-Builts
6		
7		
8		

SHEET

1

SUMMARY OF QUANTITIES			
	ITEM	QUANTITY	UNITS
2	8" PVC SDR-26	989	LF
3	6" PVC SDR-26	1,632	LF
5	8" x 6" WYES	35	EA
6	STD. 4' DIAMETER MANHOLE	5	EA
7	CONNECT TO EXISTING MANHOLE	1	EA
8	EXTRA DEPTH IN MANHOLE	41	VF
9	TRACER WIRE AND BOXES	35	EA
10	ROCK EXCAVATION (ESTIMATED)	250	CY
11	MANHOLE BARREL ADJUSTMENT	2	EA
12	MANHOLE RING ADJUSTMENT	2	EA
13	EROSION CONTROL	1	LS
14	BONDS	1	LS



MISSOURI DEPARTMENT OF
TRANSPORTATION (MODOT)
Steve Holloway
600 NE Colbern Road
Lee's Summit, MO 64086
(816) 607-2186

3025 SE Clover Drive
Lee's Summit, MO 64082
(816) 399-9633
brent.jones@spireenergy.com

1300 SE Hamblin Road
Lee's Summit, MO 64081
Office: (816) 347-4316
Cell: (816) 810-5234
ron.dejarnette@evergy.com

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

500 E. 8th Street, Room 370
Kansas City, MO 64106
(816) 275-2341 or (816) 275-1550

4700 Little Blue Parkway
Independence, MO 64057
(816) 795-2257

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

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14	BONDS	1	LS

NW CORNER, NE 1/4,
SECTION 16, 47N, 31W

NE CORNER, NE 1/4,
SECTION 16, 47N, 31W

MISSOURI GEOGRAPHIC REFERENCE SYSTEM
BENCHMARK:

BM JA-45, IS A KC METRO ALUMINUM GRS DISK SET IN CONCRETE AND ABOUT 3 INCHES BELOW THE PAVEMENT ON THE SHOULDER OF SE RANSON ROAD. IT IS STAMPED JA45, 1987.

ELEV. = 1046.25

GENERAL NOTES:

1. ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
2. M.S.F.E DENOTES MINIMUM SEWERABLE FLOOR ELEVATION.
3. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATIONS.
4. ALL SERVICE LINES ARE TO BE 90° TO THE MAIN UNLESS OTHERWISE NOTED.
5. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED.



Record Drawing

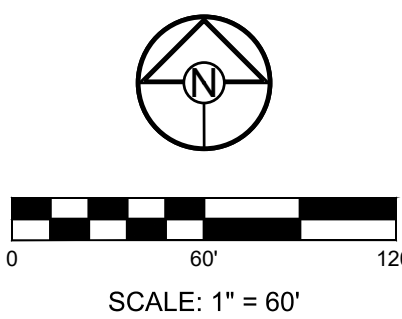
(UNPLATTED)
OWNER: CONSERVATION
COMMISSION OF MISSOURI

RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlager and Associates.

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Date: 04/02/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.



SCHLAGEL
ENGINEERS, PLANNERS, SURVEYORS, LANDSCAPE ARCHITECTS
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Missouri State Certificates of Authority
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PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT
SANITARY MAIN EXTENSION PLANS
SE BAILEY ROAD & SE RANSON ROAD
LEE'S SUMMIT, MO

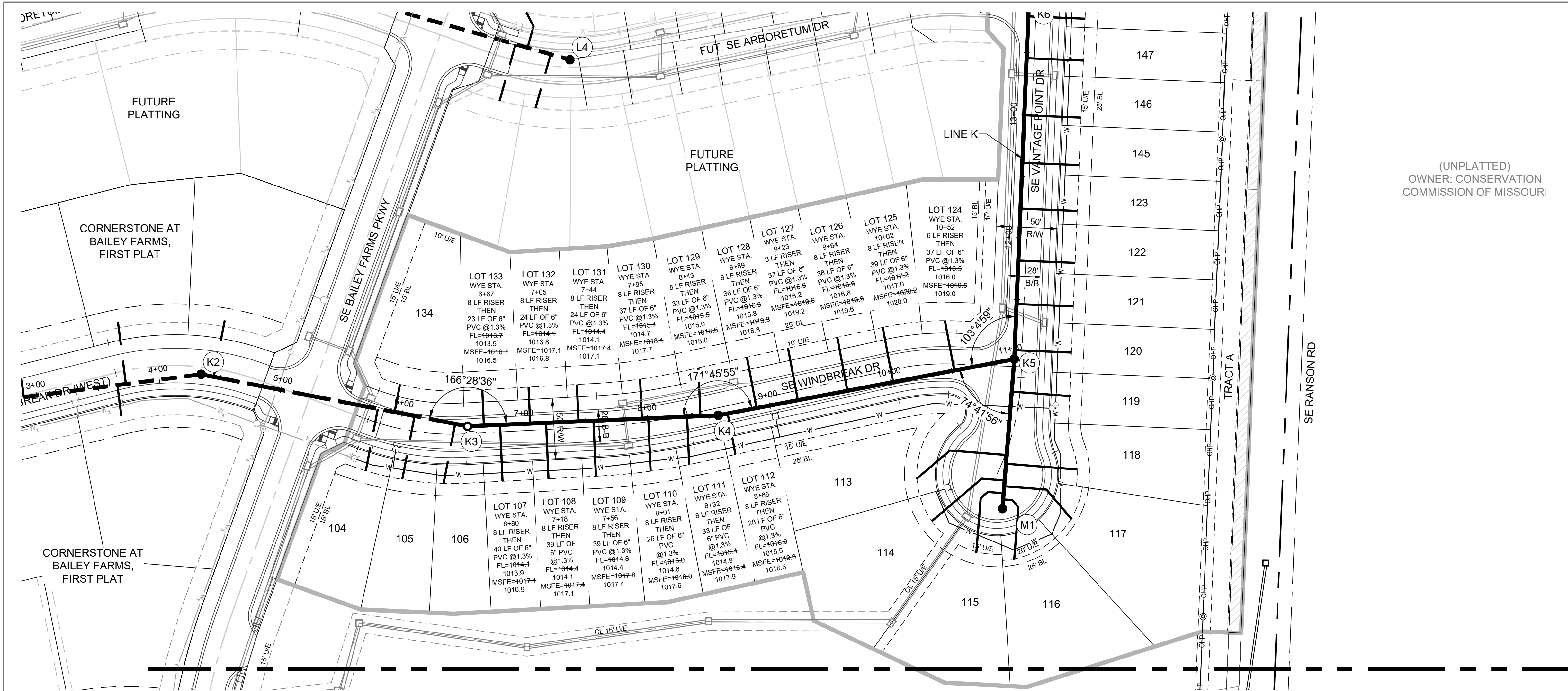
REVISION DATE	DESCRIPTION
04/02/2025	PER CITY COMMENTS DATED 02/25/2025
10/27/2023	Updated City Details to 2023 Details
11/30/2023	Added "New City Requirements" note
01/17/2024	per MNR Comments (Added details Sheet 7)
04/15/2025	As-Built

DRAWN BY:	JRL
CHECKED BY:	JLL
DATE PREPARED:	02/09/2022
PROJ. NUMBER:	21-133

GENERAL
LAYOUT

SHEET

2



MISSOURI GEOGRAPHIC REFERENCE SYSTEM
BENCHMARK:

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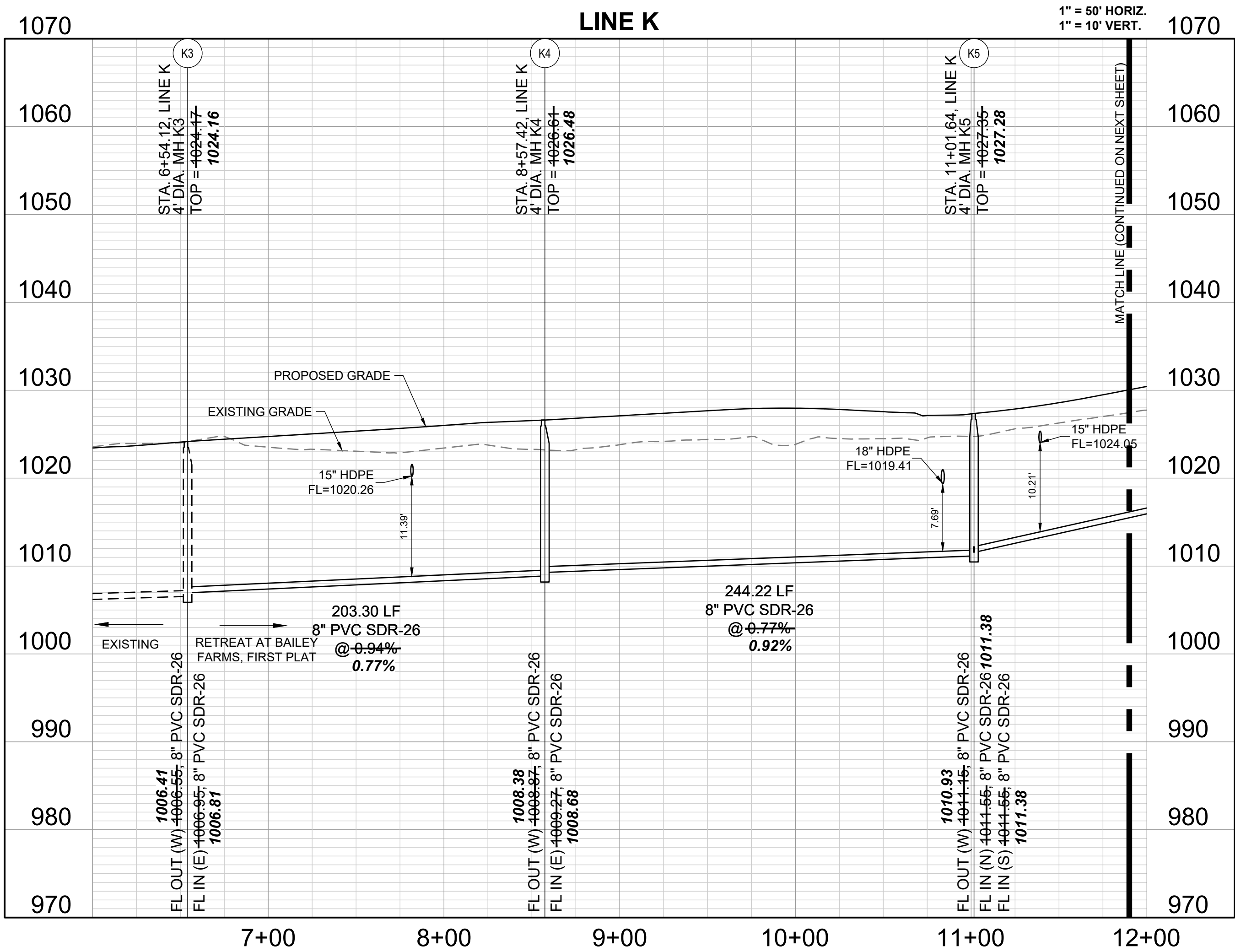
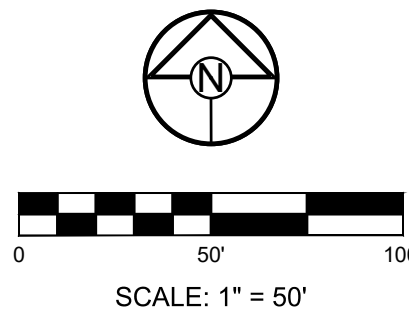
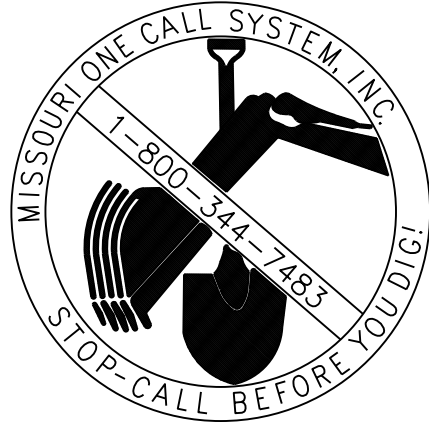
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SCHLAGEL

ENGINEERS PLANNERS SURVEYORS LANDSCAPE ARCHITECTS

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PREPARED BY:

STATE OF MISSOURI
JAMES L. LONG
NUMBER
PE-2014010195
PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

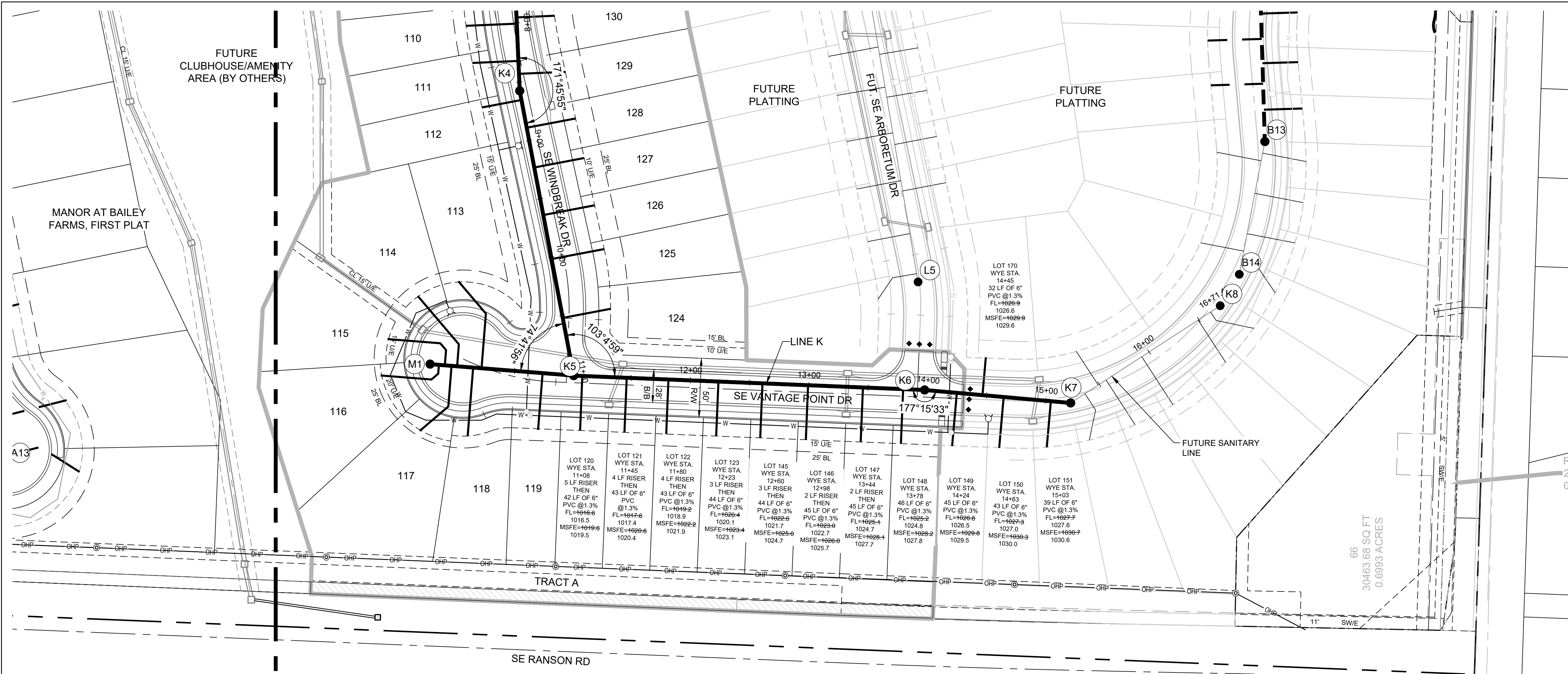
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DRAWN BY: JRL
CHECKED BY: JLL
DATE PREPARED: 02/09/2022
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LINE K PLAN AND PROFILE

SHEET
3



MISSOURI GEOGRAPHIC REFERENCE SYSTEM
BENCHMARK:

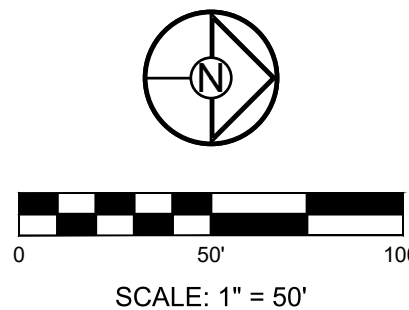
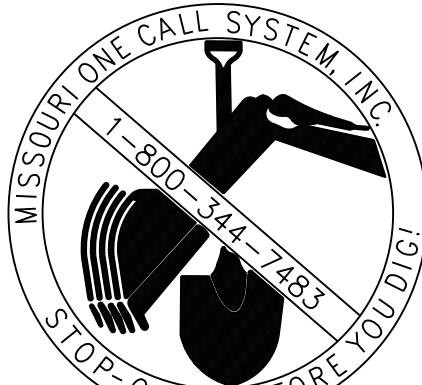
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PREPARED BY:

STATE OF MISSOURI

JAMES L. LONG

NUMBER
PE-2014010195

PROFESSIONAL ENGINEER

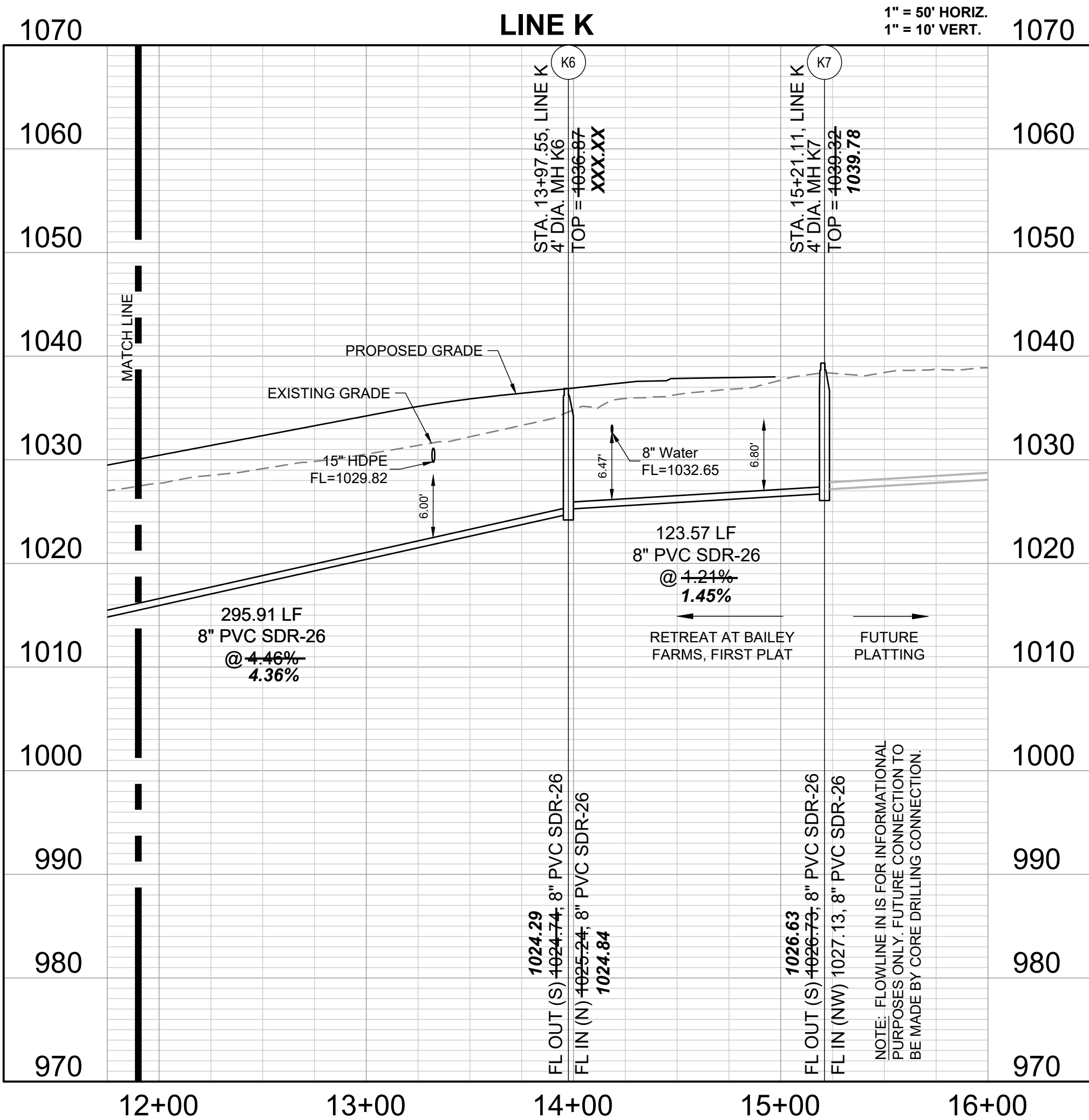
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CHECKED BY:	JLL
DATE PREPARED:	02/09/2022
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LINE K PLAN AND
PROFILE (2)

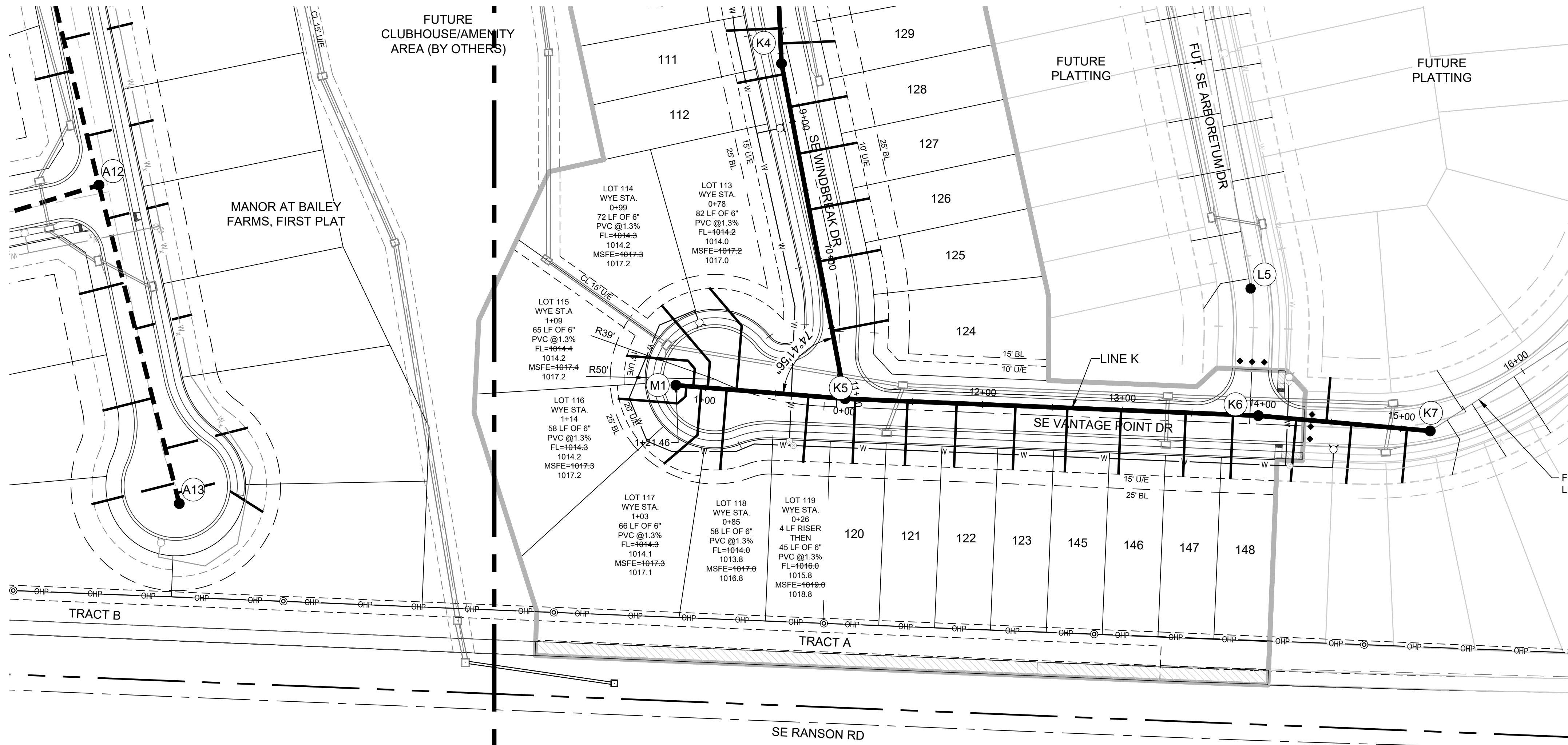


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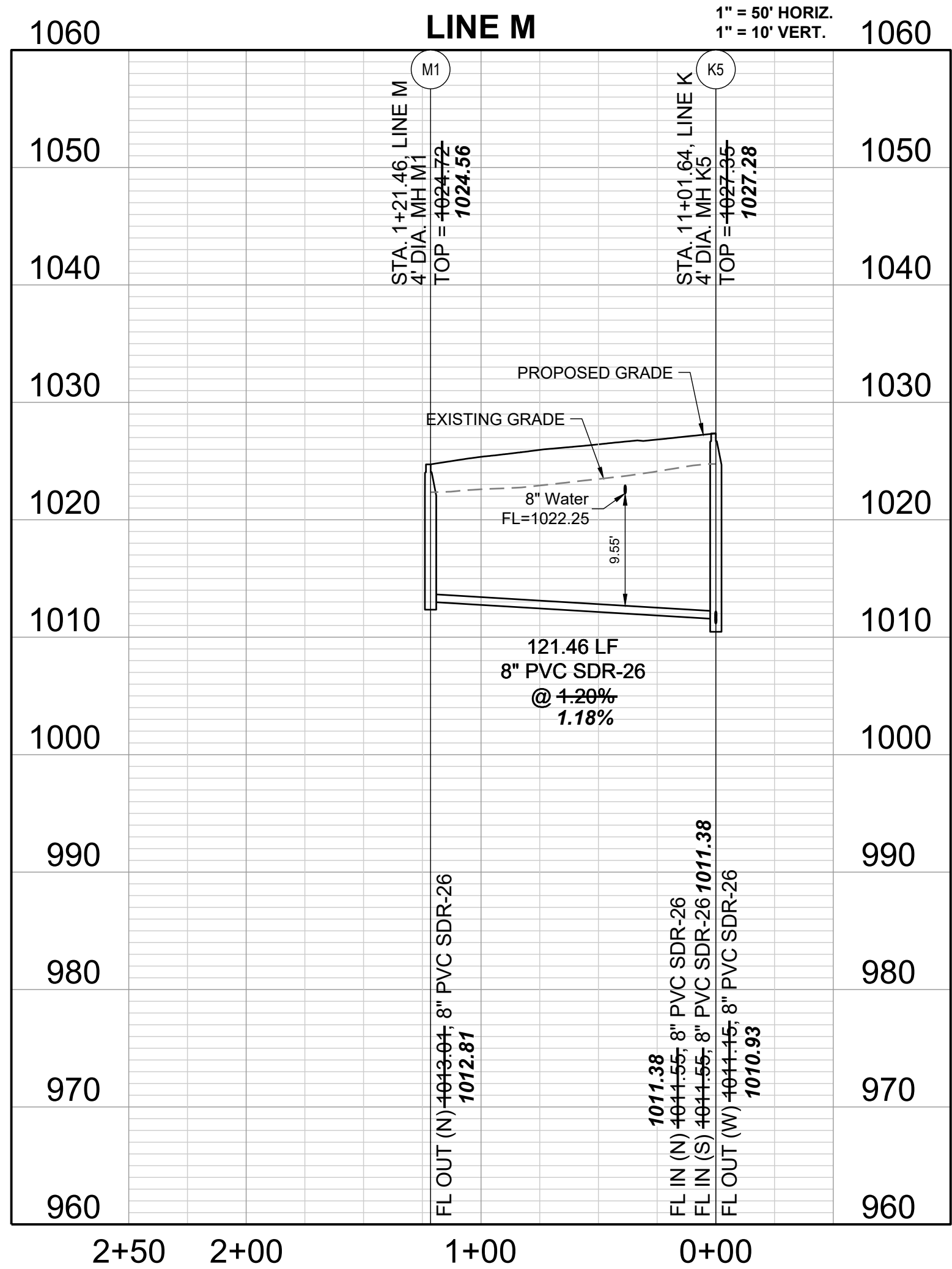
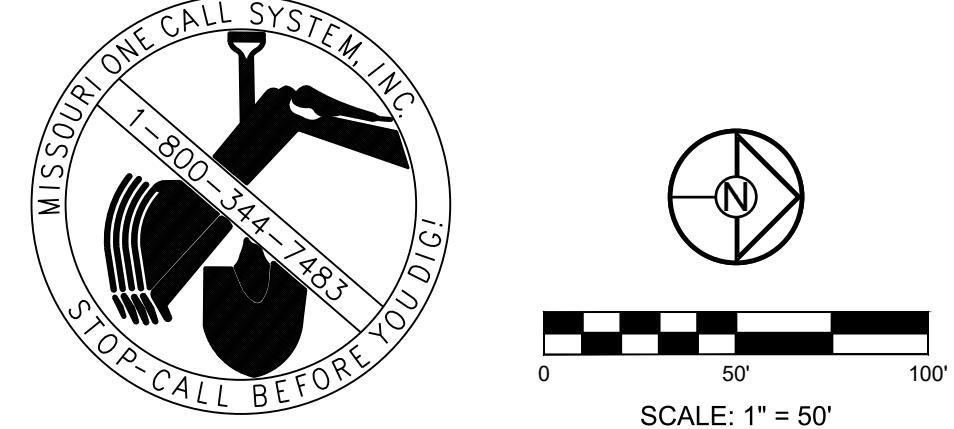
Date: 04/02/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.



MISSOURI GEOGRAPHIC REFERENCE SYSTEM BENCHMARK:
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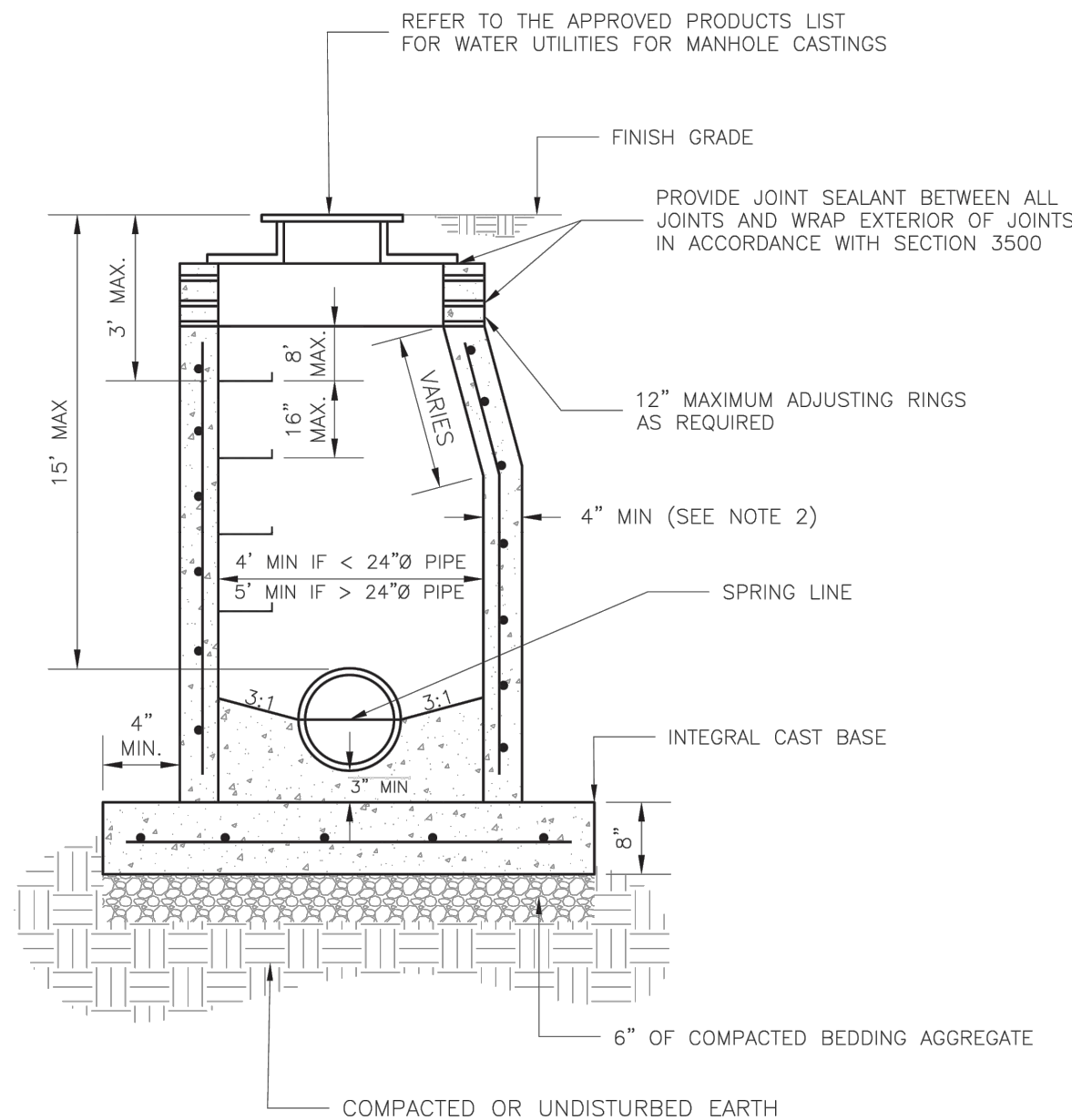
LINE M PLAN AND PROFILE

RECORD DRAWING

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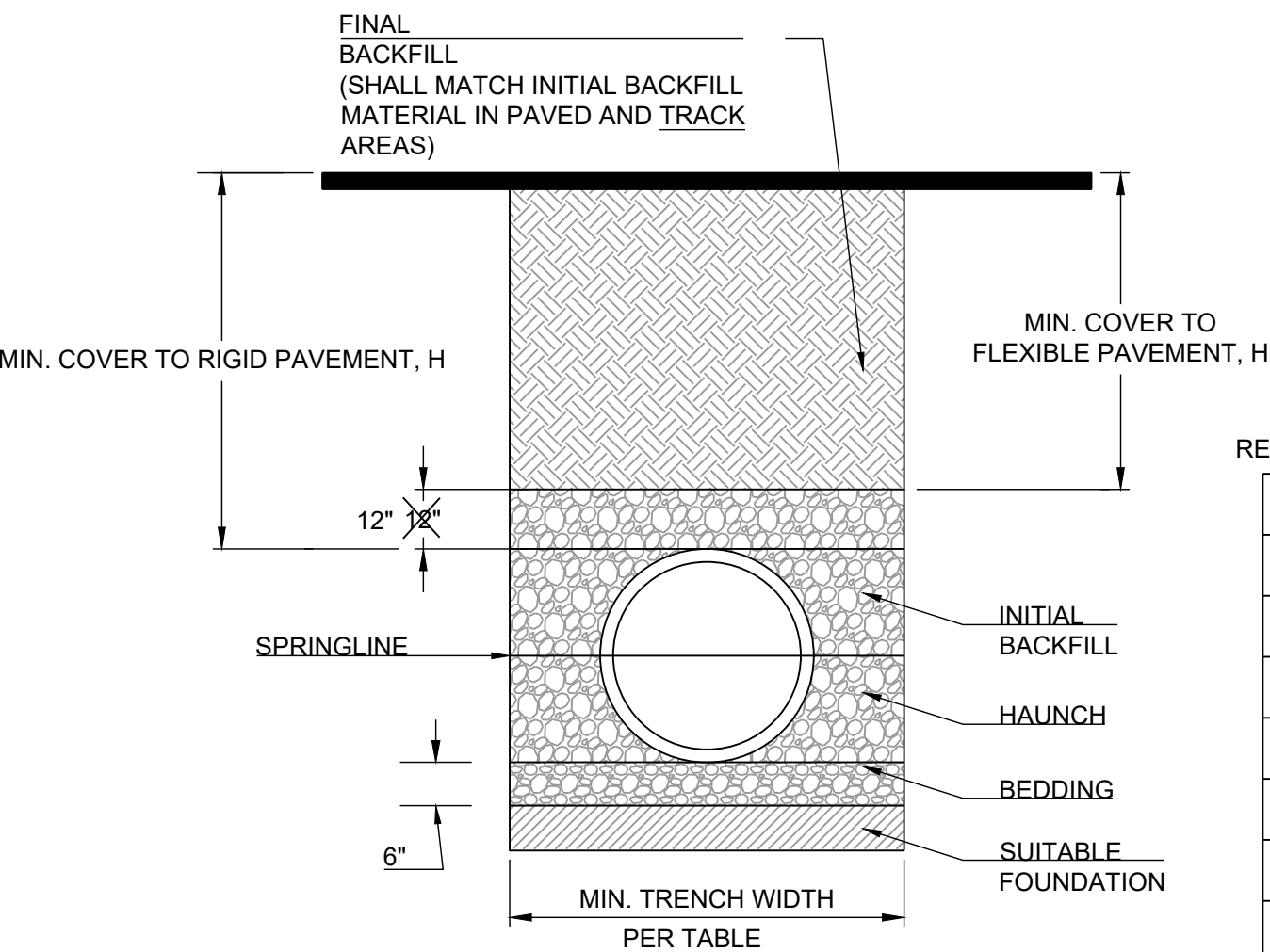
NOTES:

1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THAN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS. OF BITUMINOUS COATING.
4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.



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

Date: 12/2015
Drawn By: SC
Checked By: DL
SAN-2

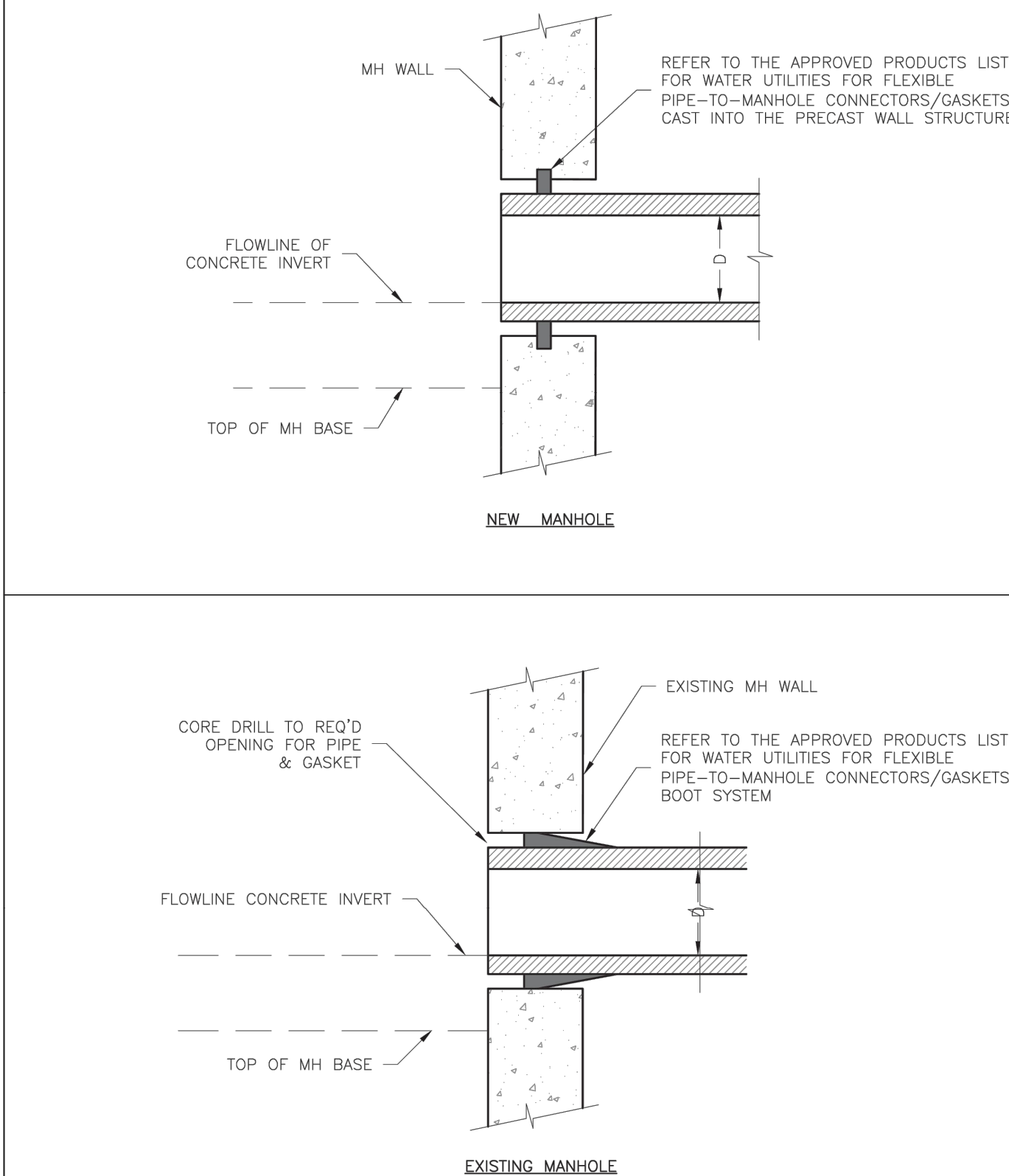


MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS		
PIPE DIAM.	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

* VEHICLES IN EXCESS OF 75T MAY REQUIRE ADDITIONAL COVER

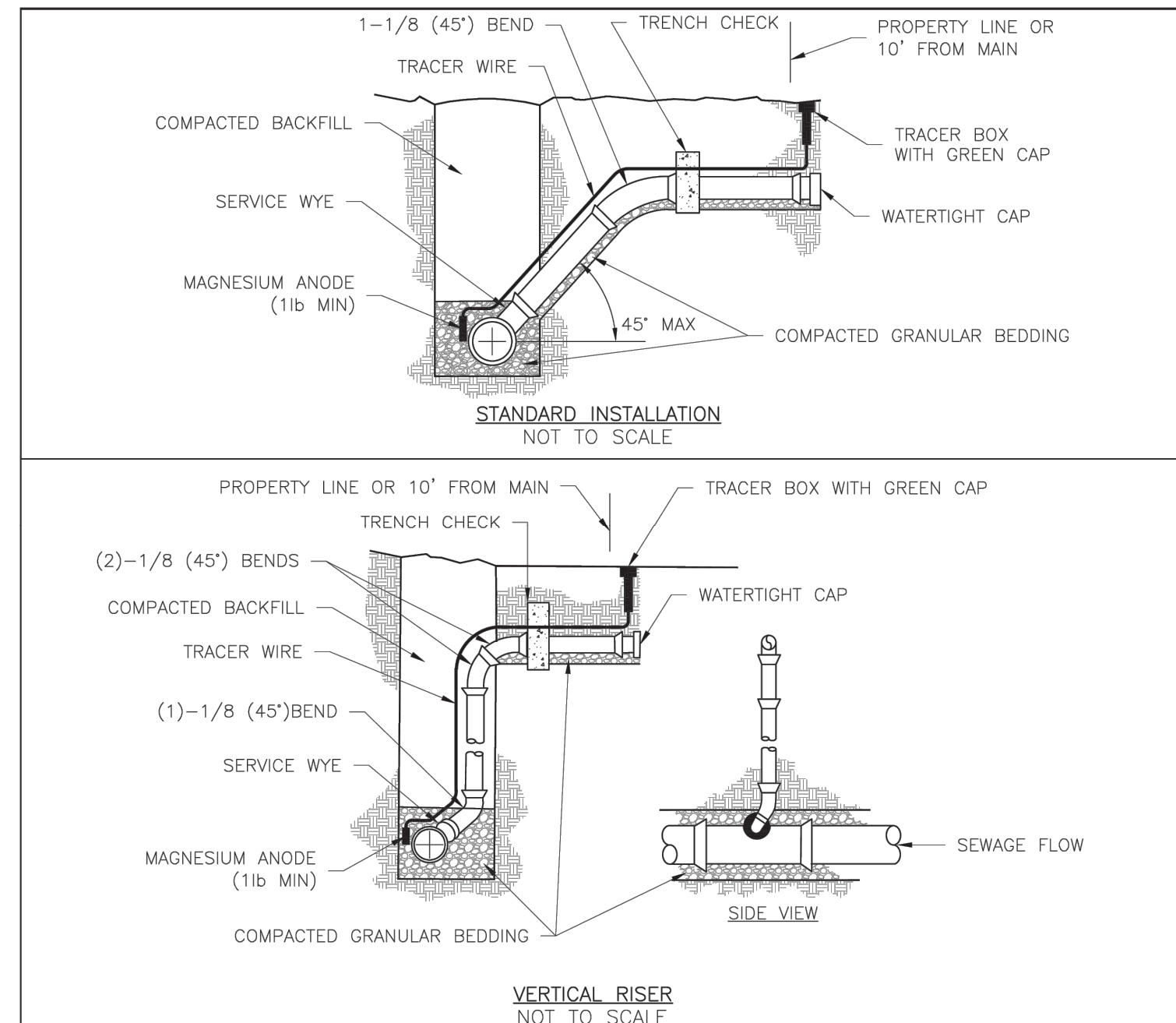
NOTES:

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.
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, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
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.



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

Date: 02/2013
Drawn By: MIF
Checked By: DL
SAN-5



NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER, WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE TRENCH.
4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.



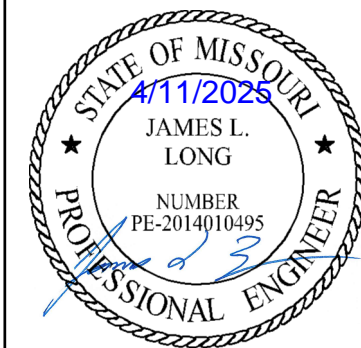
LEE'S SUMMIT
MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063
SANITARY SEWER STUB DETAIL

Date: 12/2015
Drawn By: MIF
Checked By: DL
SAN-1

Record Drawing



PREPARED BY:



SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT
SANITARY MAIN EXTENSION PLANS
SE BAILEY ROAD & SE RANSON ROAD LEE'S
SUMMIT, MO

REVISION	DATE	DESCRIPTION
1	04/20/2022	PER CITY COMMENTS DATED 02/25/2022
2	10/27/2023	Updated City Details to 2023 Details
3	11/30/2023	Added "New City Requirements" note per MNMR Comments (Added details Sheet 7)
4	01/17/2024	As-Built
5	04/15/2025	As-Built

DRAWN BY:	JRL
CHECKED BY:	JLL
DATE PREPARED:	02/09/2022
PROJ. NUMBER:	21-133

**SANITARY
SEWER DETAILS**

SHEET

6

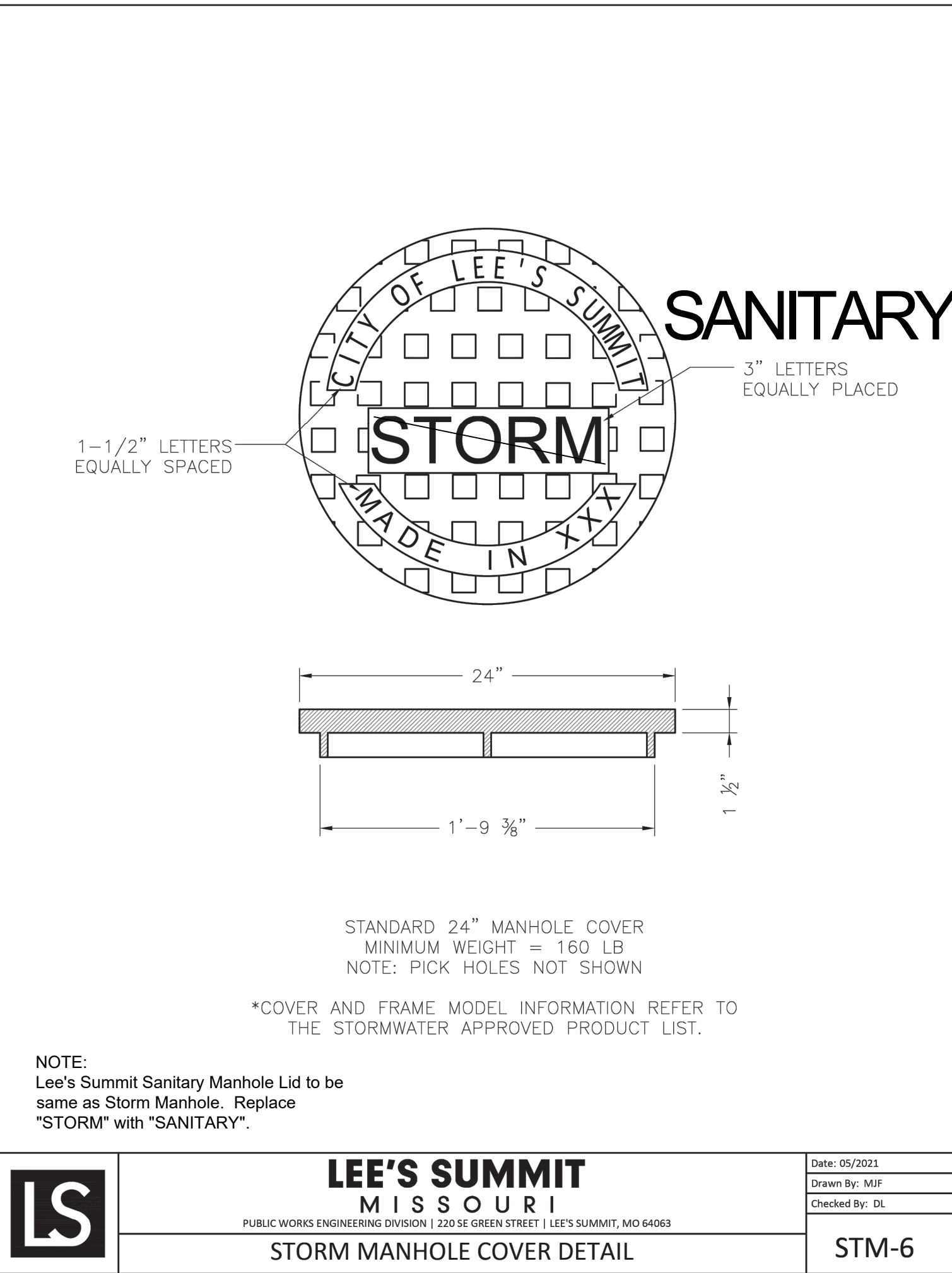
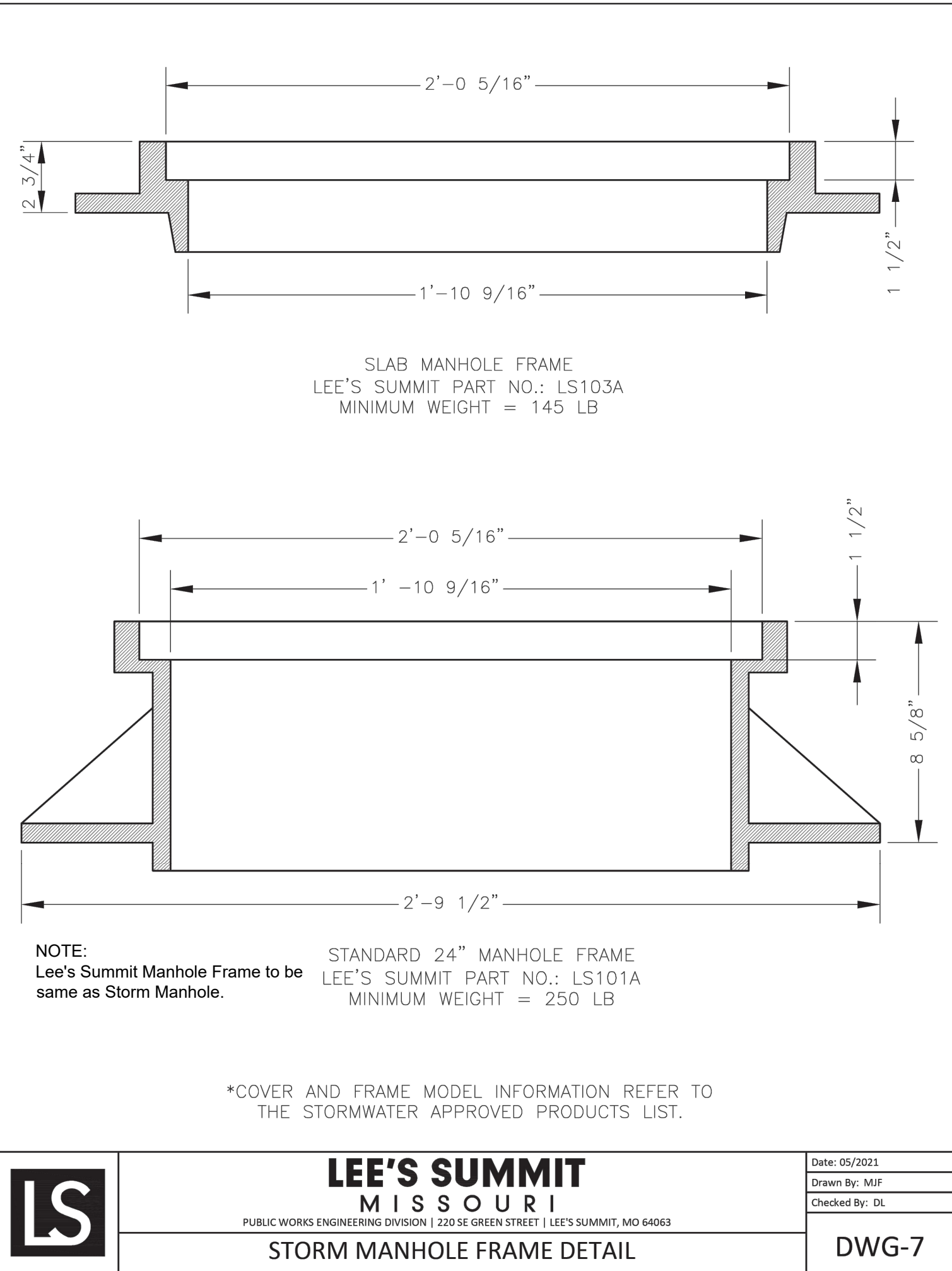
RECORD DRAWING

The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlager and Associates.

"~~100-00~~ 100.10", "±.00% 1.15% slope", or "8-inch HDPE PVC pipe" are all typical examples of revisions that indicate that design data has been replaced with "as-built" information. All other data is as designed and has not been field verified.

Date: 04/03/2025
Certified by: JLL
Title: Senior Project Engineer
Firm: Schlager and Associates, P.A.

Record Drawing



SCHLAGEL

ENGINEERS

PLANNERS SURVEYORS LANDSCAPE ARCHITECTS

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PREPARED BY:

STATE OF MISSOURI

JAMES L. LONG

NUMBER 41172025

PE-2014010195

PROFESSIONAL ENGINEER

SCHLAGEL & ASSOCIATES, P.A.

RETREAT AT BAILEY FARMS, FIRST PLAT
SANITARY MAIN EXTENSION PLANS
SE BAILEY ROAD & SE RANSON ROAD LEE'S
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SANITARY
SEWER DETAILS

SHEET
7