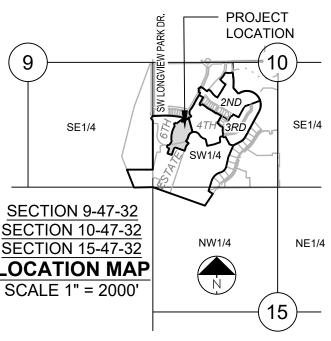
| LEGEN                                 | D:   |                 |
|---------------------------------------|--|-----------------|
| A/E -                                 | ACCESS EASEMENT  |                 |
| BC -                                  | BACK OF CURB   | (               |
| B/B -                                 | BACK TO BACK   |                 |
| BM -                                  | BENCHMARK  |                 |
|                                       | BUILDING LINE  |                 |
| CO -                                  | CLEANOUT   |                 |
| TJB -                                 |  |                 |
|                                       | CURB AND GUTTER<br>DRAINAGE EASEMENT                   | _               |
|                                       | ELECTRICAL EASEMENT                                    | SI              |
| EL -                                  | ELEVATION  | SE              |
|                                       | FLOW LINE  | SE              |
|                                       | GAS LINE EASEMENT                                      | LO              |
| HDPE -                                | HIGH-DENSITY POLYETHYLENE                              | <u></u><br>S(   |
| L/E -                                 | LANDSCAPE EASEMENT                                     |                 |
| MSFE -                                | MINIMUM SERVICEABLE FLOOR                              |                 |
|                                       |  |                 |
|                                       | POLYVINYL CHLORIDE<br>PROPERTY LINE                    |                 |
|                                       |  |                 |
| RCP -                                 | REINFORCED CONCRETE PIPE                               |                 |
| -                                     | RIGHT-OF-WAY   |                 |
| S/E -                                 | SANITARY SEWER EASEMENT                                |                 |
| SL -                                  | SERVICE LINE   |                 |
| S/W -                                 | SIDEWALK   |                 |
| TE -                                  | TOP ELEVATION  |                 |
| U/E -                                 | UTILITY EASEMENT                                       | UT              |
| WSE -                                 | WATER SURFACE ELEVATION                                |                 |
| W/E -                                 | WATERLINE EASEMENT                                     | MIS             |
|                                       | ASPHALT PAVEMENT - EXISTING                            | I RA<br>Steve   |
|                                       | ASPHALT PAVEMENT - PROPOSED                            | 600 I           |
| · · · · · · · · · · · · · · · · · · · | CONCRETE PAVEMENT - EXISTING                           | Lee's<br>(816)  |
| <u>.</u> <u>.</u>                     | ASPHALT PAVEMENT - EXISTING                            | MIS<br>Bren     |
|                                       | CONCRETE SIDEWALK - EXISTING                           | 3025<br>Lee's   |
|                                       | CONCRETE SIDEWALK - PROPOSED                           | (816)<br>brent  |
|                                       | CURB & GUTTER  | EVE             |
|                                       | CURB & GUTTER - EXISTING                               | Ron<br>1300     |
| ~~~~~                                 | TREELINE   | Lee's           |
|                                       | EXISTING LOT AND R/W LINES                             | Offic           |
| ·                                     | EXISTING PLAT LINES                                    | Cell:<br>ron.d  |
|                                       | PROPERTY LINES   | TOIL.G          |
| ROW                                   | RIGHT-OF-WAY   | CIT             |
|                                       |  | 220 \$          |
|                                       | SANITARY SEWER MAIN - EXIST.                           | Lee's<br>(816)  |
|                                       | STORM SEWER<br>STORM SEWER - EXISTING                  |                 |
|                                       | CABLE TV - EXISTING                                    | AT8             |
| A                                     | FIBER OPTIC CABLE - EXISTING                           | Mark            |
| 74                                    | TELEPHONE LINE - EXIST.                                | 500 I<br>Kans   |
|                                       | ELECTRIC LINE - EXISTING                               | (816)           |
|                                       | OVERHEAD POWER LINE - EXIST.                           |                 |
|                                       | UNDERGROUND ELECTRIC - EX.                             | CO              |
|                                       | GAS LINE - EXISTING                                    | John<br>4700    |
|                                       | WATERLINE - EXISTING                                   | Indep           |
| ¥                                     | LIGHT - EXISTING<br>EXISTING MANHOLE                   | (816)           |
| <u> </u>                              |  | ~I <del>-</del> |
| $\overset{\textup{(i)}}{\bigcirc}$    |  | CIT<br>Mark     |
|                                       | EXISTING SANITARY MANHOLE<br>PROPOSED SANITARY MANHOLE | 1200            |
| AI                                    | EXISTING AREA INLET                                    | Lee's           |
|                                       | EXISTING AREA INLET                                    | (816)           |
| GI                                    | EXISTING GRATE INLET                                   |                 |
| JB                                    | EXISTING JUNCTION BOX                                  |                 |
| D                                     | EXISTING STORM MANHOLE                                 |                 |



## FILITY CONTACTS:

SSOURI DEPARTMENT OF RANSPORTATION (MODOT) ve Holloway ) NE Colbern Road e's Summit, MO 64086 6) 607-2186

SSOURI GAS ENERGY (MGE) ent Jones 25 SE Clover Drive 's Summit, MO 64082 6) 399-9633 nt.jones@spireenergy.com

'ERGY n Dejarnette 0 SE Hamblin Road e's Summit, MO 64081 ce: (816) 347-4316 : (816) 810-5234 .dejarnette@evergy.com

TY OF LEES SUMMIT PUBLIC WORKS ) SE Green Street e's Summit, MO 64063 6) 969-1800

Г&Т rk Manion or Marty Loper 0 E. 8th Street, Room 370 nsas City, MO 64106 6) 275-2341 or (816) 275-1550

DMCAST CABLE n Meadows 0 Little Blue Parkway pendence, MO 64057 6) 795-2257

TY OF LEE'S SUMMIT WATER UTILITIES rk Schaufler 0 SE Hamblen Road e's Summit, MO 64081 6) 969-1900

|    | SUMMARY OF QUANTITIES                |          |       |  |
|----|--------------------------------------|----------|-------|--|
|    | ITEM                                 | QUANTITY | UNITS |  |
| 1  | 8" PVC SDR 26                        | 1,693    | LF    |  |
| 3  | 6" PVC SDR 26                        | 878      | LF    |  |
| 4  | 8" x 6" WYE                          | 25       | EA    |  |
| 6  | STANDARD 4' DIAMETER MANHOLE         | 13       | EA    |  |
| 7  | SEWER CONNECTION                     | 2        | EA    |  |
| 8  | POST-CONST. BARREL ADJUSTMENT        | 6        | EA    |  |
| 9  | POST-CONST. RING (3"-12") ADJUSTMENT | 6        | EA    |  |
| 10 | EXTRA DEPTH IN MANHOLE               | 142      | VF    |  |
| 11 | CLEARING & GRUBBING                  | 1        | LS    |  |
| 12 | MANHOLE IN PAVED AREA                | 7        | EA    |  |
| 13 | MOBILIZATION                         | 1        | LS    |  |
| 14 | EROSION CONTROL                      | 1        | LS    |  |
| 15 | BONDS                                | 1        | LS    |  |

# SANITARY SEWER MAIN PLANS FOR **PERGOLA PARK, 5TH PLAT**

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

#### 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 APPARENT FIELD LOCATIONS. THE CONTRACTOR SHALL VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- 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 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.
- 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.
- THE CONTRACTOR SHALL PROTECT ALL MAJOR TREES FROM DAMAGE. NO TREE SHALL BE REMOVED WITHOUT 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. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE 10.
- CONTRACTOR, OR AS DIRECTED BY THE OWNER. ALL EXCAVATIONS SHALL BE UNCLASSIFIED. NO SEPARATE PAYMENT WILL BE MADE FOR ROCK 11
- EXCAVATION. THE CONTRACTOR SHALL CONTROL THE EROSION AND SILTATION DURING ALL PHASED OF CONSTRUCTION, 12.
- 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. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO 14. SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND
- DISTURBANCE WORK AT (816) 969-1200 THE CONTRACTOR SHALL CONTACT THE RIGHT OF WAY INSPECTOR AT 816-969-1800 PRIOR TO ANY LAND 15.
- DISTURBANCE ACTIVITIES WITHIN THE RIGHT OF WAY. THESE ACTIVITIES MAY REQUIRE A PERMIT. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TRAFFIC HANDLING MEASURES NECESSARY TO 16 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 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 structures.
- Utility Separation: Waterlines shall have a minimum of 10 feet horizontal and 2 feet vertical separation from all sanitary 4. 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. 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 Engineer.

**Record Drawing** 

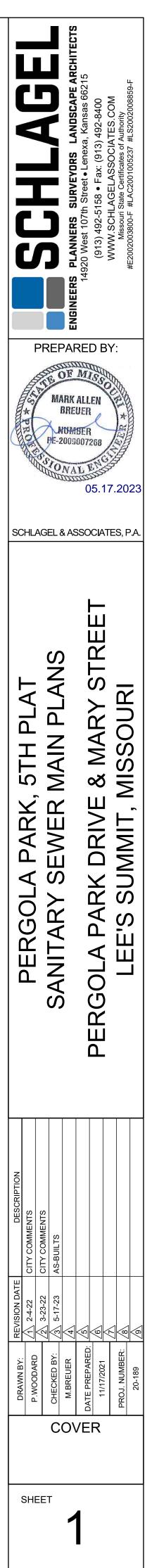
### RECORD DRAWING

and Associates.

"100.00 100.10", "1.00% 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: 5/17/2023 Certified by: BAL Title: Design Engineer Firm: Schlagel and Associates, P.A.

| Sheet List Table |                       |  |
|------------------|-----------------------|--|
| Sheet Number     | Sheet Title           |  |
| 1                | COVER                 |  |
| 2                | LAYOUT & GRADING PLAN |  |
| 3                | LINE A CONT.          |  |
| 4                | LINE B                |  |
| 5                | LINE C & D            |  |
| 6                | SANITARY DETAILS      |  |





# **OWNER/DEVELOPER:**

NLV DEVELOPMENT COMPANY LLC RUSSELL PEARSON 3152 SW GRANDSTAND CIRCLE LEE'S SUMMIT, MO 64081 p 816-589-4415 f -----

RPEARSON@BOXDEVCO.COM

# MISSOURI GEOGRAPHIC REFERENCE SYSTEM **BENCH MARK:**

BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

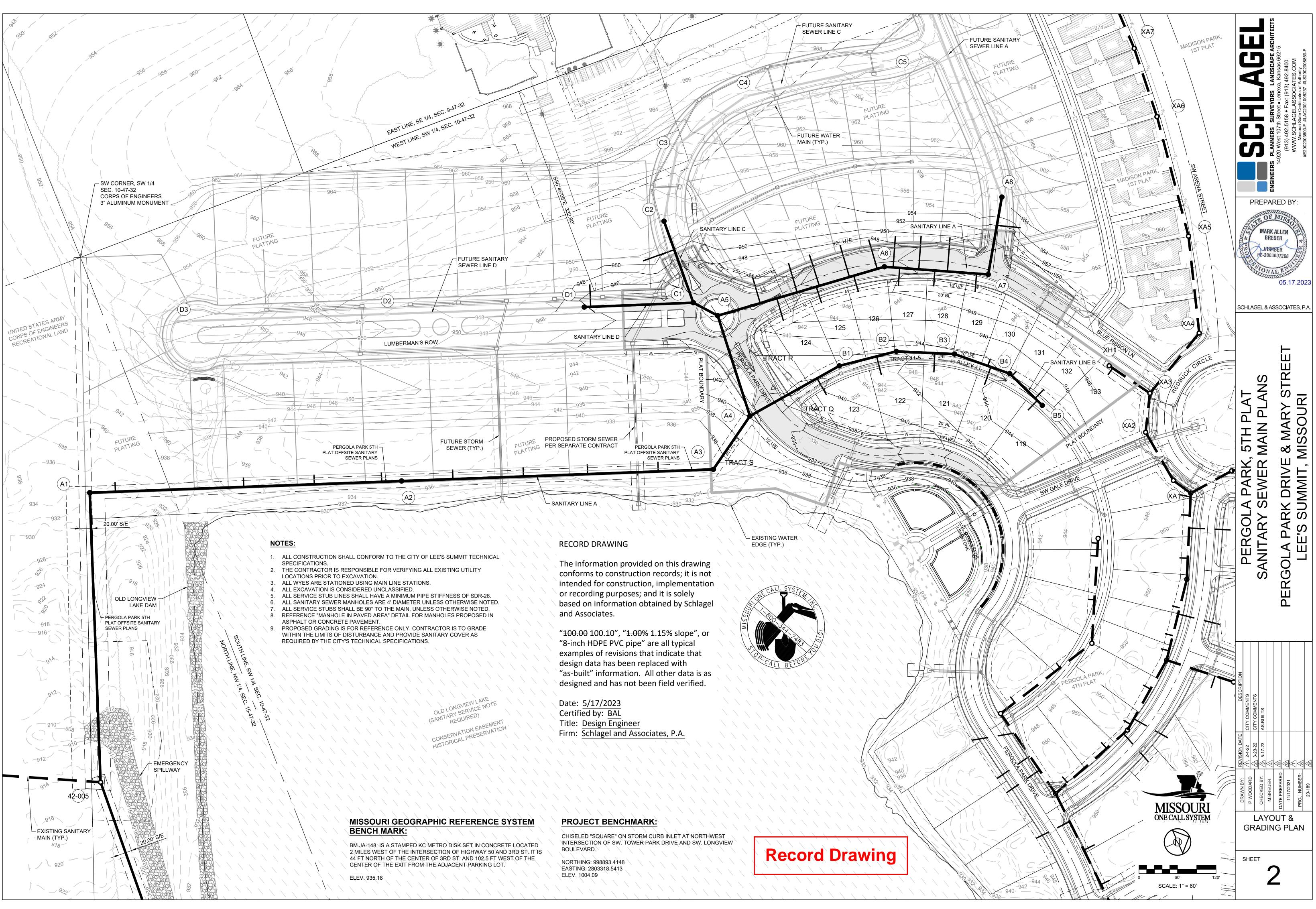
ELEV. 935.18

# **PROJECT BENCHMARK:**

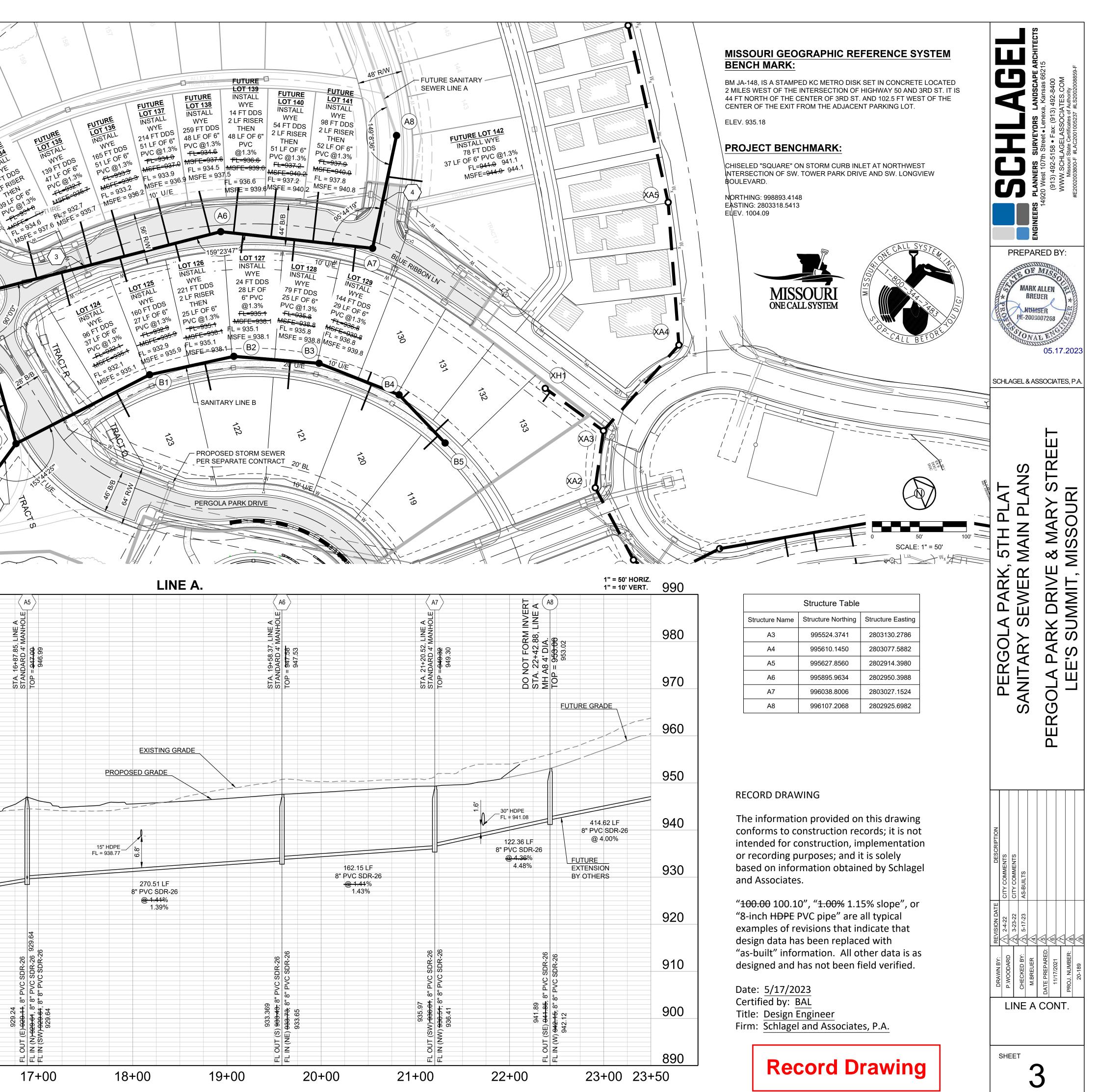
CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

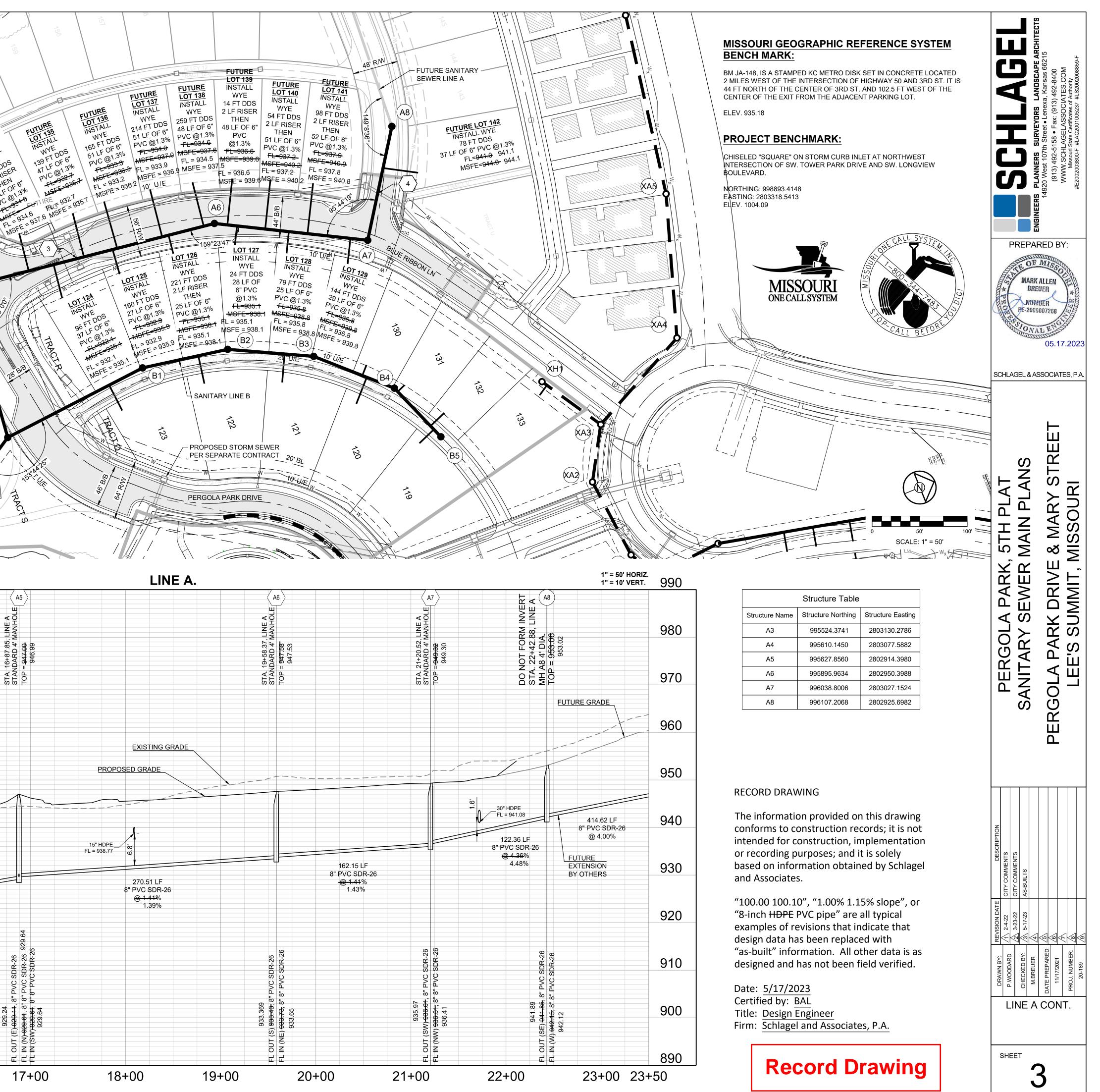
NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09

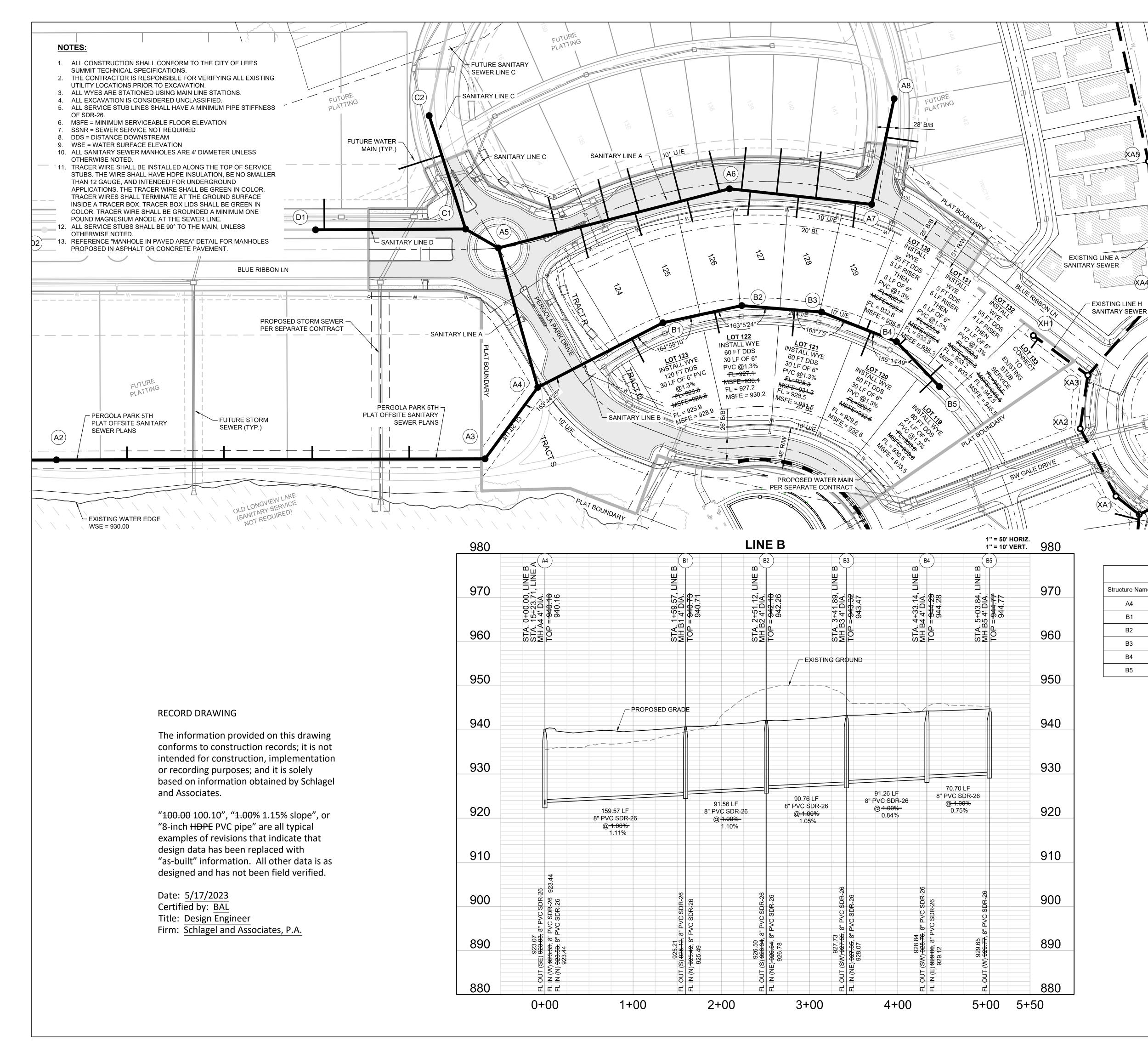
The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlagel



NOTES: 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S SUMMIT TECHNICAL SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION. ALL WYES ARE STATIONED USING MAIN LINE STATIONS. 4. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED. 5. ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS OF SDR-26. 6. MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION 7. SSNR = SEWER SERVICE NOT REQUIRED (C2) 8. DDS = DISTANCE DOWNSTREAM 9. WSE = WATER SURFACE ELEVATION 10. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS OTHERWISE NOTED. 11. TRACER WIRE SHALL BE INSTALLED ALONG THE TOP OF SERVICE STUBS. THE WIRE SHALL HAVE HDPE INSULATION, BE NO SMALLER THAN 12 GAUGE, AND INTENDED FOR UNDERGROUND APPLICATIONS. THE TRACER WIRE SHALL BE GREEN IN COLOR. TRACER WIRES SHALL TERMINATE AT THE GROUND SURFACE INSIDE A TRACER BOX. TRACER BOX LIDS SHALL BE GREEN IN COLOR. TRACER WIRE SHALL BE GROUNDED A MINIMUM ONE POUND MAGNESIUM ANODE AT THE SEWER LINE. SANITARY LINE D -12. ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED. - 13. REFERENCE "MANHOLE IN PAVED AREA" DETAIL FOR MANHOLES PROPOSED IN ASPHALT OR CONCRETE PAVEMENT. \_(D1) BLUE RIBBON LN \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ -----\_ \_ \_ \_ \_ FUTURE PLATTING SANITARY CROSSING TABLE STORM\WATER VERTICAL STORM/WATER RCE/CRCE SEPARATION REQUIRED? ID SAN ELEV. ELEV SIZE SAN SIZE 1 922.81 934.86 8" PVC 8" PVC 11.36 NO 2 927.12 938.29 8" PVC 8" PVC 10.50 NO 3 931.32 938.77 8" PVC 15" HDPE 6.76 NO 4 938.75 941.08 8" PVC 30" HDPE 1.64 NO PERGOLA PARK 5TH -PLAT OFFSITE SANITARY - PERGOLA PARK 5TH SEWER PLANS PLAT OFFSITE SANITARY SEWER PLANS (A2) 990 A3 > A4 ` 980 0+00.00, IDARD 4' = <del>940.10</del> <u>4</u> 4 STA. ( STAN TOP = 970 OFFSITE SANITARY PER SEPARATE CONTRACT ONSITE SANITARY 960 950 940 930 164.15 LF 8" PVC SDR-26 920 @ <mark>3.40%</mark> 3.53% 100.66 LF 8" PVC SDR-26 485.93 LF 8" PVC SDR-26 <del>@ 1.02</del>% 1.38% <del>@ 1.02</del>% 1.01% 910 0 00 ∞ ∞ <mark>6</mark>01 900 . 35 . 60 . 60 FL OUT (S FL IN (W). ŏIĭ 890 교교 14+00 15+00 16+00







# MISSOURI GEOGRAPHIC REFERENCE SYSTEM **BENCH MARK:**

BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

 $\leq$ 

PREPARED BY:

OF MI

MARK ALLEN

BREUER

MOMBER

PE-2009007268

SCHLAGEL & ASSOCIATES, P.A.

 $\sim$ 

<

>

00

SS

 $\propto \leq$ 

RK DRIV SUMMI

S Ζ

Ω

AIN

 $\geq$ 

К К К

Δ

S

05.17.2023

ELEV. 935.18

XA5

# **PROJECT BENCHMARK:**

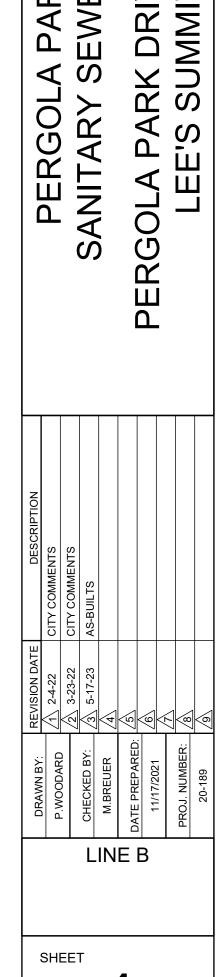
CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09



|   |           | 10 ME<br>10 OC # 2007E0032613<br>DOC # 2007E0032613<br>DOC # 2007E0032613 |
|---|-----------|---|
|   |           |   |
|   |           | _   |
| 0 | 50'       | 1   |
|   | SCALE: 1" | = 50'   |
| / |           |   |

| Structure Table |                    |                   |  |
|-----------------|--------------------|-------------------|--|
| Structure Name  | Structure Northing | Structure Easting |  |
| A4              | 995610.1450        | 2803077.5882      |  |
| B1              | 995769.0273        | 2803062.8398      |  |
| B2              | 995859.2695        | 2803078.3090      |  |
| B3              | 995940.3990        | 2803119.0015      |  |
| B4              | 996006.5744        | 2803181.8417      |  |
| B5              | 996032.7467        | 2803247.5169      |  |



4

**Record Drawing** 

### MISSOURI GEOGRAPHIC REFERENCE SYSTEM **BENCH MARK**:

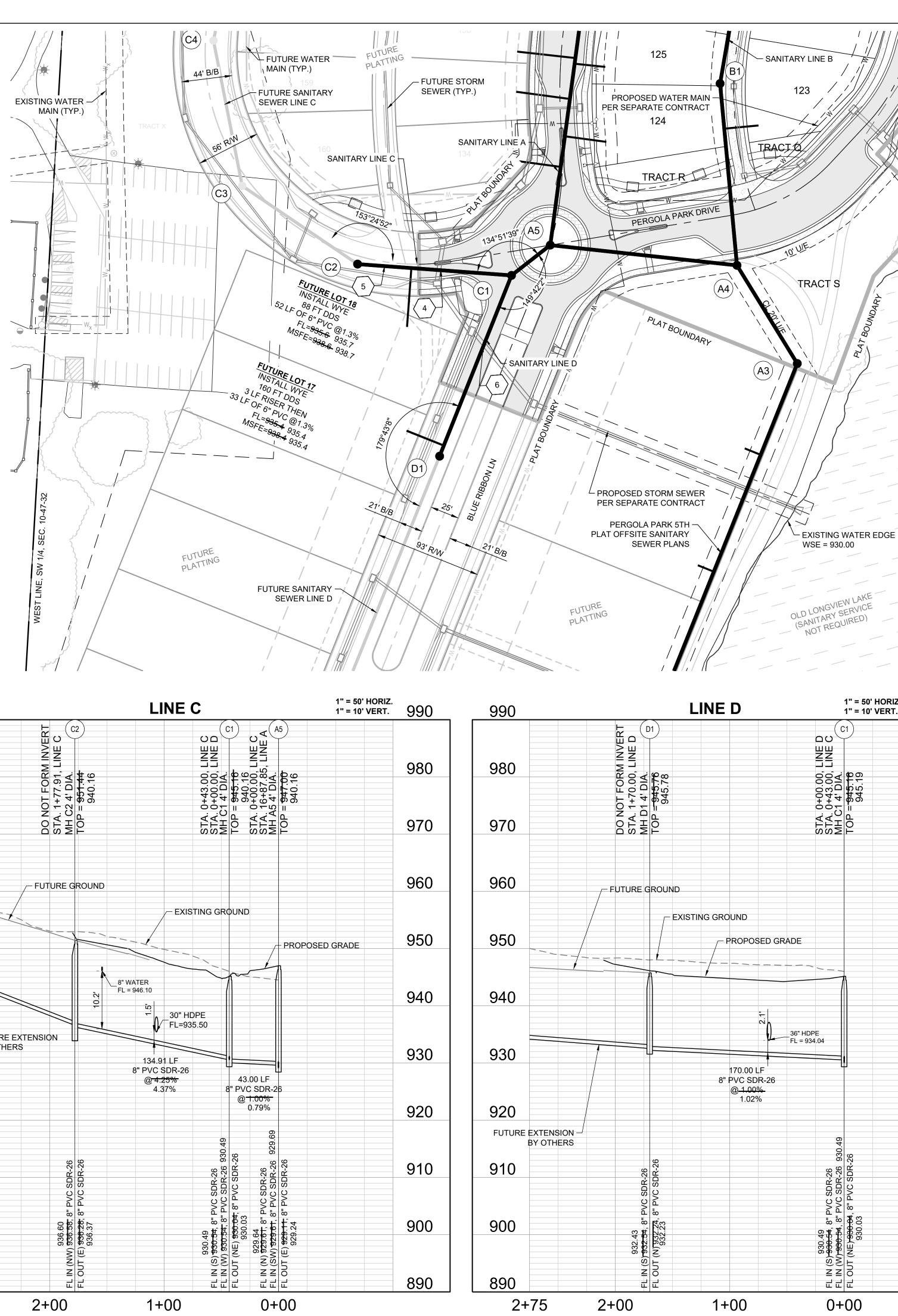
BM JA-148, IS A STAMPED KC METRO DISK SET IN CONCRETE LOCATED 2 MILES WEST OF THE INTERSECTION OF HIGHWAY 50 AND 3RD ST. IT IS 44 FT NORTH OF THE CENTER OF 3RD ST. AND 102.5 FT WEST OF THE CENTER OF THE EXIT FROM THE ADJACENT PARKING LOT.

ELEV. 935.18

#### **PROJECT BENCHMARK:**

CHISELED "SQUARE" ON STORM CURB INLET AT NORTHWEST INTERSECTION OF SW. TOWER PARK DRIVE AND SW. LONGVIEW BOULEVARD.

NORTHING: 998893.4148 EASTING: 2803318.5413 ELEV. 1004.09



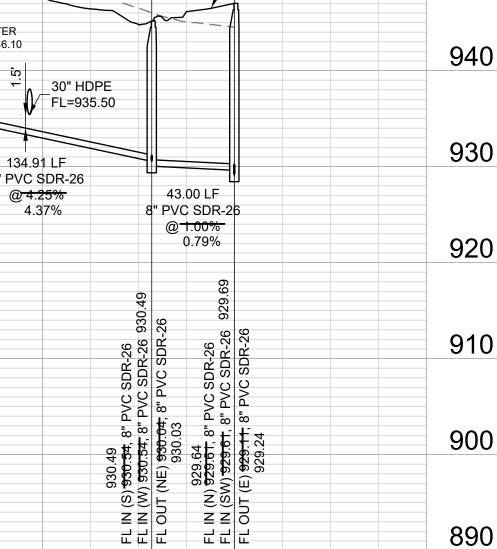
|    |           | STORM/WATER |          | STORM\WATER | VERTICAL   | RCE/CRCE  |
|----|-----------|-------------|----------|-------------|------------|-----------|
| ID | SAN ELEV. | ELEV.       | SAN SIZE | SIZE        | SEPARATION | REQUIRED? |
| 5  | 933.25    | 935.5       | 8" PVC   | 36" HDPE    | 1.50       | NO        |
| 6  | 935.27    | 946.1       | 8" PVC   | 8" PVC      | 10.17      | NO        |
| 7  | 931.2     | 934.04      | 8" PVC   | 36" HDPE    | 2.08       | NO        |
|    |           |             |          |             |            |           |

| 990        |  |                   |
|------------|--|-------------------|
| 980<br>970 | DO NOT FORM INVERT<br>STA. 1+77.91, LINE C<br>MH C2 4' DIA.<br>TOP = <del>951.44</del>   |                   |
| 960        |  |                   |
| 950        |  |                   |
| 940        | 10.23  | 8" WAT<br>FL = 94 |
| 930        | FUTURE EXTENSION<br>BY OTHERS  | 8"                |
| 920        | Image: state |                   |
| 910        | SDR-26<br>SDR-26   |                   |
| 900        | FL OUT (E) 936.60<br>FL OUT (E) 936.57<br>FL OUT (E) 936.37  |                   |
| 890        |  |                   |
| 2+         | 80 2+00  |                   |

| Structure Table |                    |                   |  |
|-----------------|--------------------|-------------------|--|
| Structure Name  | Structure Northing | Structure Easting |  |
| A5              | 995627.8560        | 2802914.3980      |  |
| C1              | 995601.3816        | 2802880.5143      |  |
| C2              | 995611.2522        | 2802745.9704      |  |

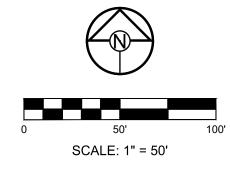


MISSOURI ONE CALL SYSTEM



#### NOTES:

- 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF LEE'S
- SUMMIT TECHNICAL SPECIFICATIONS. 2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING
- UTILITY LOCATIONS PRIOR TO EXCAVATION. 3. ALL WYES ARE STATIONED USING MAIN LINE STATIONS.
- 4. ALL EXCAVATION IS CONSIDERED UNCLASSIFIED.
- 5. ALL SERVICE STUB LINES SHALL HAVE A MINIMUM PIPE STIFFNESS OF SDR-26. 6. MSFE = MINIMUM SERVICEABLE FLOOR ELEVATION
- SSNR = SEWER SERVICE NOT REQUIRED
- 8. DDS = DISTANCE DOWNSTREAM
- 9. WSE = WATER SURFACE ELEVATION 10. ALL SANITARY SEWER MANHOLES ARE 4' DIAMETER UNLESS
- OTHERWISE NOTED. 11. TRACER WIRE SHALL BE INSTALLED ALONG THE TOP OF SERVICE
- STUBS. THE WIRE SHALL HAVE HDPE INSULATION, BE NO SMALLER THAN 12 GAUGE, AND INTENDED FOR UNDERGROUND APPLICATIONS. THE TRACER WIRE SHALL BE GREEN IN COLOR. TRACER WIRES SHALL TERMINATE AT THE GROUND SURFACE INSIDE A TRACER BOX. TRACER BOX LIDS SHALL BE GREEN IN COLOR. TRACER WIRE SHALL BE GROUNDED A MINIMUM ONE POUND MAGNESIUM ANODE AT THE SEWER LINE.
- 12. ALL SERVICE STUBS SHALL BE 90° TO THE MAIN, UNLESS OTHERWISE NOTED.
- 13. REFERENCE "MANHOLE IN PAVED AREA" DETAIL FOR MANHOLES PROPOSED IN ASPHALT OR CONCRETE PAVEMENT.



# **Record Drawing**

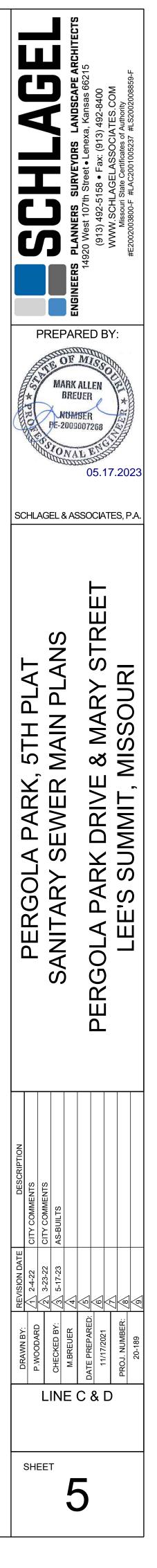
| Structure Table |                    |                   |  |
|-----------------|--------------------|-------------------|--|
| Structure Name  | Structure Northing | Structure Easting |  |
| C1              | 995601.3816        | 2802880.5143      |  |
| D1              | 995443.4277        | 2802817.6607      |  |

## **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 Schlagel and Associates.

"100.00 100.10", "1.00% 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: 5/17/2023 Certified by: BAL Title: Design Engineer Firm: Schlagel and Associates, P.A.



1" = 50' HORIZ. 1" = 10' VERT. 990 980 970 960 950 940 930 920 910 900 890

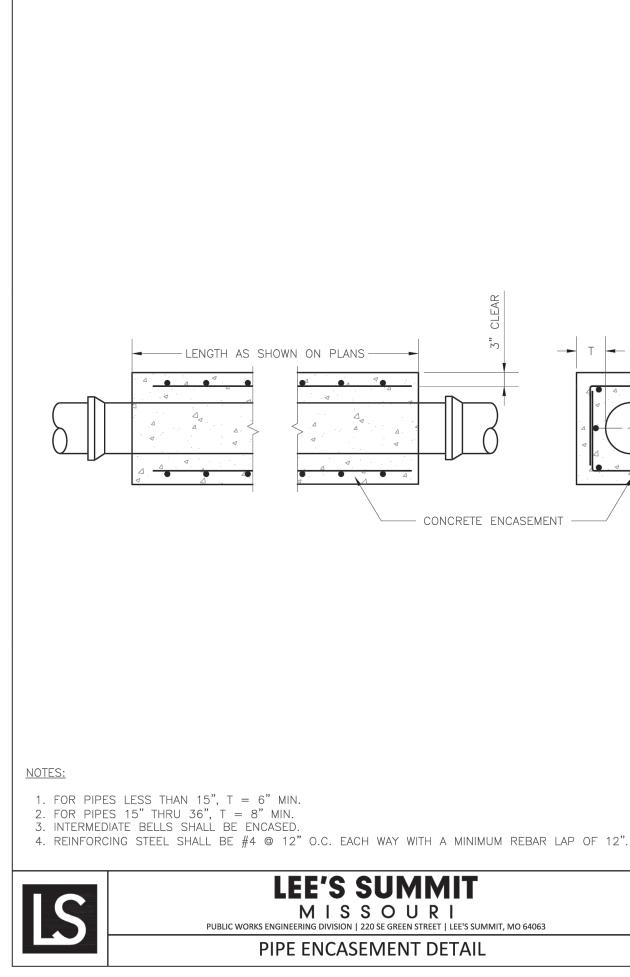
#### RECORD DRAWING

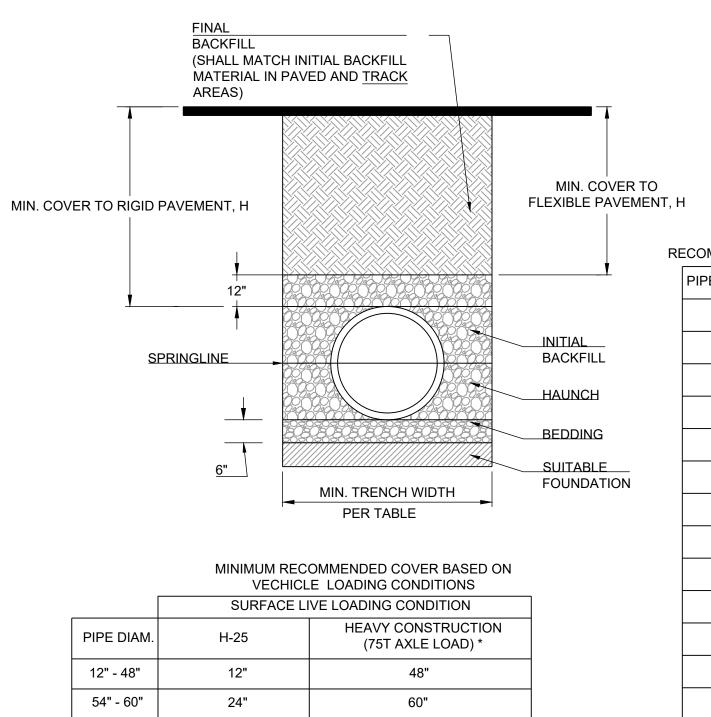
The information provided on this drawing conforms to construction records; it is not intended for construction, implementation or recording purposes; and it is solely based on information obtained by Schlagel and Associates.

"100.00 100.10", "1.00% 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: 5/17/2023 Certified by: BAL Title: Design Engineer Firm: Schlagel and Associates, P.A.







\* 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

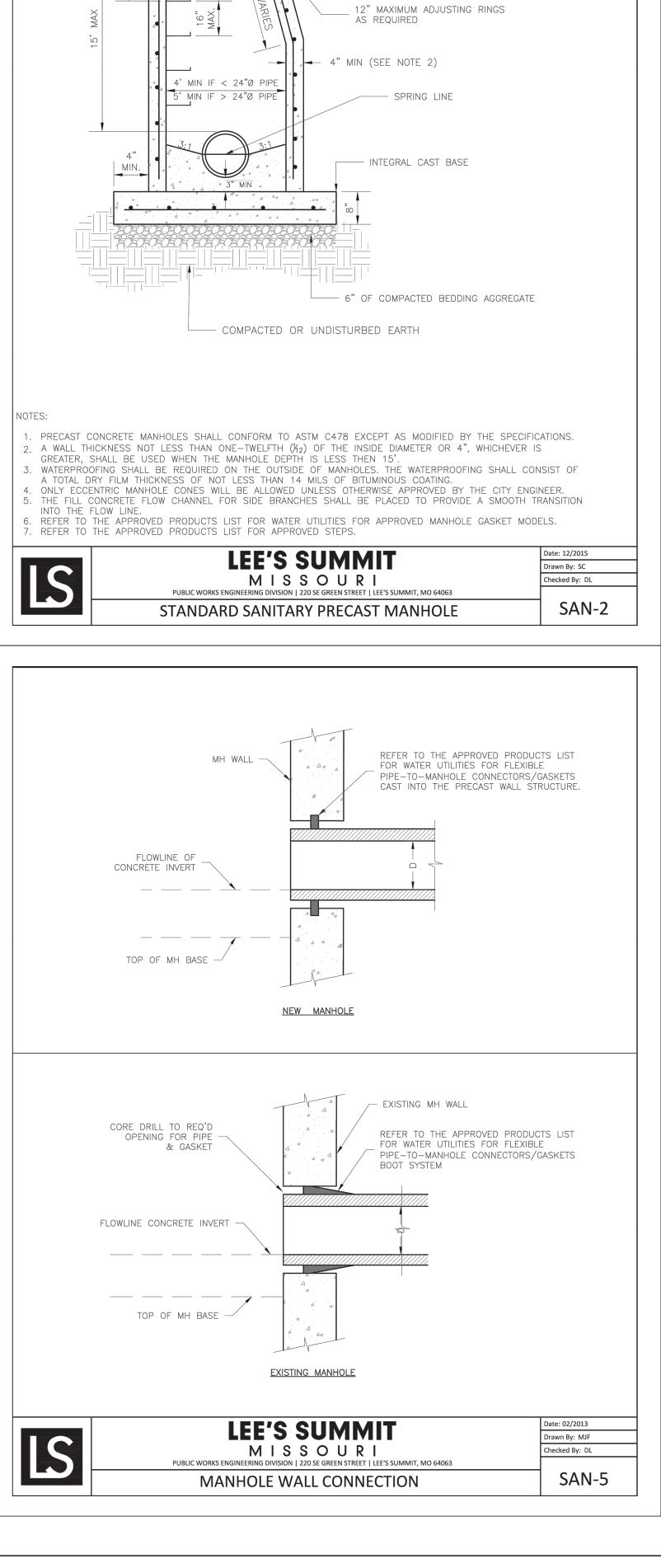
| E DIAM. | MIN. TRENCH WIDTH |
|---------|-------------------|
| 4"      | 21"               |
| 6"      | 23"               |
| 8"      | 26"               |
| 10"     | 28"               |
| 12"     | 30"               |
| 15"     | 34"               |
| 18"     | 39"               |
| 24"     | 48"               |
| 30"     | 56"               |
| 36"     | 64"               |
| 42"     | 72"               |
| 48"     | 80"               |
| 54"     | 88"               |
| 60"     | 96"               |
|         |                   |

RECOMMENDED MINIMUM TRENCH WIDTHS PIPE DIAM. MIN TRENCH WIDTH

#### PIPE EMBEDMENT FOR SANITARY PIPE

| A MINIMUM REBAR LAP OF 12". |                |
|-----------------------------|----------------|
| AIT                         | Date: 01/2016  |
| TIM                         | Drawn By: JN   |
| 2                           | Checked By: DL |
| ET   LEE'S SUMMIT, MO 64063 |                |
| DETAIL                      | SAN-7          |
|                             |                |

╼┤┬╎╉╴╶┲┤┬╎╉ CONCRETE ENCASEMENT



REFER TO THE APPROVED PRODUCTS LIST

FOR WATER UTILITIES FOR MANHOLE CASTINGS

----- FINISH GRADE

PROVIDE JOINT SEALANT BETWEEN ALL - JOINTS AND WRAP EXTERIOR OF JOINTS IN ACCORDANCE WITH SECTION 3500

