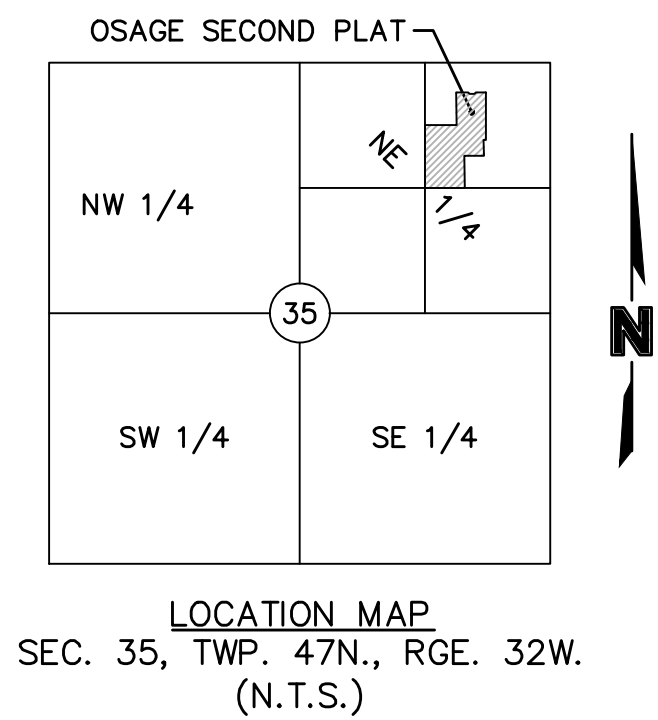


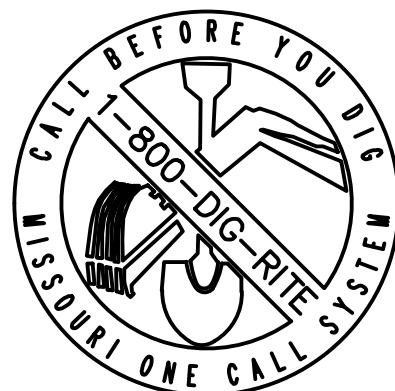
NE 1/4 SECTION 35, TOWNSHIP 47 N, RANGE 32 W.  
IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



| PROJECT TEAM & UTILITY CONTACT LIST                                                                                                                                                                                            |                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>OWNER / DEVELOPER</u></b><br>CLAYTON PROPERTIES GROUP, INC.<br>D.B.A. SUMMIT HOMES<br>120 SE 30TH STREET<br>CONTACT: VINCENT WALKER<br>LEE'S SUMMIT, MO 64082<br>PHONE: 816-246-6780<br>EMAIL: VINCENT@SUMMITHOMESKC.COM | <b><u>UTILITY SERVICE NUMBERS</u></b><br>NAME: LEE'S SUMMIT PUBLIC WORKS<br>PHONE: 816-969-1800<br><br>NAME: LEE'S SUMMIT WATER & SERVICES<br>DEPARTMENT<br>PHONE: 816-969-1940 |
| <b><u>ENGINEER</u></b><br>OLSSON<br>1301 BURLINGTON ST. SUITE 100<br>NORTH KANSAS CITY, MO 64116<br>CONTACT: JULIE SELLERS, PE<br>PHONE: 816.361.1177<br>EMAIL: JSSELLERS@OLSSON.COM                                           | NAME: SPIRE (MGE)<br>PHONE: 314-342-0500<br><br>NAME: AT&T<br>PHONE: 800-286-8313<br><br>NAME: EVERGY<br>PHONE: 816-471-5275                                                    |
| <b><u>SURVEYOR</u></b><br>OLSSON<br>1301 BURLINGTON ST. SUITE 100<br>NORTH KANSAS CITY, MO 64116<br>CONTACT: JASON ROUDEBUSH<br>PHONE: 816.361.1177<br>EMAIL: JROUDEBUSH@OLSSON.COM                                            | NAME: SPECTRUM (TWC)<br>PHONE: 877-772-2253<br><br>NAME: GOOGLE FIBER<br>PHONE: 877-454-6959                                                                                    |

☐ NOT FOR CONSTRUCTION

☒ REVIEWED FOR CONSTRUCTION



A tract of land in the Northeast Quarter of the Northeast Quarter of Section 35, Township 47 North, Range 32 West of the 5th Principal Meridian in Lee's Summit, Jackson County, Missouri being bounded and described by or under the direct supervision of Jeffrey P. Means PLS. 2000147866 as follows: Commencing at the Northeast corner of said Northeast Quarter; thence North 80°07'14" West, on the North line of said Northeast Quarter, 1,319.40 feet to the Northwest corner of the Northeast Quarter of said Northeast Quarter; thence leaving said North line, South 02°10'22" West, on the West line of said Northeast Quarter of said Northeast Quarter, 659.27 feet to the Southwest corner of the North half of said Northeast Quarter of said Northeast Quarter, thence South 88°11'07" East, on said Westerly line, 127.17 feet to the Southwest corner of the East Half of the Northeast Quarter of said Northeast Quarter of said Northeast Quarter; thence North 02°09'46" East, on the West line of said East Half of the Northeast Quarter of said Northeast Quarter of said Northeast Quarter, 346.14 feet to a point on the proposed Westerly line of OSAGE FIRST PLAT (LOTS 1 THRU 41, INCLUSIVE AND TRACTS A, B, C, D, E, F, G AND H); thence South 88°11'07" East, on said Westerly line, 127.17 feet; thence South 43°11'07" East, on said Westerly line, 19.80 feet; thence South 88°11'07" East, on said Westerly line, 50.00 feet; thence North 46°48'53" East, on said Westerly line, 19.80 feet; thence South 88°11'07" East, on said Westerly line, 106.00 feet; thence South 01°48'53" West, on said Westerly line, 500.00 feet; thence North 88°11'07" West, on said Westerly line, 21.62 feet to the Southwest corner of said Northeast Quarter of said Northeast Quarter; thence South 88°11'07" East, on said Westerly line, 19.80 feet; thence South 43°11'07" West, on said Westerly line, 335.30 feet to a point on the South line of said Northeast Quarter of said Northeast Quarter; thence North 80°04'45" West, on said South line, 423.24 feet to the Southwest corner of said Northeast Quarter of said Northeast Quarter; thence North 02°10'22" East, on the West line of said Northeast Quarter of said Northeast Quarter, 659.27 feet to the Point of Beginning. Containing 453,717 square feet or 10.42 acres, more or less.

BENCHMARK NO. 1  
CHISELED PLUS ON THE EAST FLANGED BOLT OF THE FIRE HYDRANT ON THE WEST SIDE OF SW PRYOR ROAD ON ADJOINING PROPERTY SOUTH OF THE  
SOUTHWEST CORNER OF SUBJECT PROPERTY.  
ELEVATION = 1014.830

BENCHMARK NO. 2  
RAILROAD SPIKE IN THE NORTH FACE OF POWER POLE LOCATED ON THE SOUTH SIDE MISSOURI STATE HIGHWAY 150 AT THE WEST SIDE OF THE DRIVEWAY TO  
2025 MISSOURI STATE HIGHWAY 150, LEE'S SUMMIT, MO.  
ELEVATION = 1031.313

| SHEET LIST |                                          |
|------------|------------------------------------------|
| NUMBER     | TITLE                                    |
| C201       | TITLE SHEET                              |
| C202       | GENERAL NOTES                            |
| C203       | GENERAL LAYOUT                           |
| C204       | SANITARY PLAN & PROFILES (LINE 1)        |
| C205       | SANITARY PLAN & PROFILES (LINE 2)        |
| C206       | SANITARY PLAN & PROFILES (LINE 3)        |
| C207       | SANITARY PLAN & PROFILES (LINE 3 CONT'D) |
| C208       | SANITARY PLAN & PROFILES (LINE 4)        |
| C209       | DESIGN TABLES                            |
| C210       | DETAIL SHEET                             |
| C211       | DETAIL SHEET                             |

ASBUILT  
02-03-2022

**Accepted  
Record Drawings**

**These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.**

OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

  
JULIE SELLERS, P.E.  
CIVIL ENGINEER  
MO#2017000367

6/9/22

---

DATE

STATE OF MISSOURI  
JULIE ELAINE SELLERS  
NUMBER  
PE-2017000367  
6/9/22  
PROFESSIONAL ENGINEER

[illegible]

|  |  |      |
|--|--|------|
|  |  | 2020 |
|--|--|------|

**TITLE SHEET**  
**SANITARY SEWER PLANS**

|              |                    |
|--------------|--------------------|
| drawn by:    | D.F. / M.O. / A.A. |
| checked by:  | C.G.W.             |
| designed by: | A.A.               |
| QA/QC by:    | J.E.S.             |
| project no.: | C19-2339           |
| drawing no.: |                    |
| date:        | 2020.11.03         |

SHEET  
C201

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION ARE THE MOST CURRENT VERSION ISSUED, ARE FULLY COORDINATED WITH ALL SUBCONTRACTORS, AND PRESENT ON SITE AT ALL TIMES. CURRENT PLANS PREPARED BY OLSSON MAY BE OBTAINED AT THE DIRECTION OF OLSSON'S CLIENT. DIRECT REQUESTS TO OLSSON MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR INFORMATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING QUANTITIES AND ITEMS OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.
8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY THROUGHOUT THE PROJECT AND NOT BE LIMITED BY WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES.
9. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
11. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
12. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

1. UNLESS EXPLICITLY DESCRIBED OTHERWISE WITHIN THESE PLANS THE FOLLOWING SHALL APPLY;
  - A. ALL CONSTRUCTION, INCLUDING THOSE LISTED BELOW, SHALL CONFORM TO THE LATEST CODES AND ORDINANCES OF LEE'S SUMMIT, MISSOURI.
  - B. ALL CONSTRUCTION IN MODOT RIGHT-OF-WAY SHALL CONFORM TO THE LATEST SPECIFICATIONS ADOPTED BY U.S. DEPARTMENT OF TRANSPORTATION AND MODOT.
  - C. ALL TRAFFIC CONTROL SIGNAGE SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
  - D. ALL UTILITY EXTENSIONS AND CONSTRUCTION SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF THE UTILITY COMPANIES.
  - E. ALL EXTERIOR PAVEMENT (PCC, ASPHALT, ETC.) SHALL BE IN CONFORMANCE WITH THE SPECIFICATIONS OF LEE'S SUMMIT, MISSOURI.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE DELIVERY MANAGER AND COORDINATING ANY MAILBOXES THAT MAY BE DISTURBED. FAILURE TO DO SO MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.

## CONSTRUCTION

- FROM THE PROJECT OFF-SITE AND IN STRICT CONFORMANCE WITH ALL LOCAL CODES AND ORDINANCES.
4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED. NOT ALL ADJUSTMENTS ARE INDICATED IN THE PLANS.
5. THE CONTRACTOR SHALL STREET SWEEP OR OTHERWISE CLEAN ALL ACCESS ROUTES TO THE SITE AT CONCLUSION OF THE PROJECT.

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING A MINIMUM OF 7 DAYS PRIOR TO THE REQUESTED DATE OF APPROVAL. ENGINEER SHALL REVIEW SHOP DRAWINGS OR SAMPLES CONFORMANCE WITH THE DESIGN FOR THIS PROJECT AS DESCRIBED IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS. THE ENGINEER'S REVIEW SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VARIATIONS FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS NOTIFIED ENGINEER OF EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND OBTAINED ENGINEER'S WRITTEN APPROVAL OF EACH SUCH VARIATION. PRIOR TO SUBMITTING EACH SHOP DRAWING OR SAMPLE, CONTRACTOR SHALL HAVE REVIEWED AND VERIFIED:

- A. ALL FIELD MEASUREMENTS, QUANTITIES, DIMENSIONS, SPECIFIED PERFORMANCE CRITERIA, INSTALLATION REQUIREMENTS, MATERIALS, CATALOG NUMBERS AND SIMILAR INFORMATION WITH RESPECT THERETO;
- B. ALL MATERIALS WITH RESPECT TO INTENDED USE, FABRICATION, SHIPPING, HANDLING, STORAGE, ASSEMBLY AND INSTALLATION PERTAINING TO THE PERFORMANCE OF THE WORK;
- C. ALL INFORMATION RELATIVE TO MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION AND SAFETY PRECAUTIONS AND PROGRAMS INCIDENT THERETO;
- D. CONTRACTOR SHALL ALSO HAVE REVIEWED AND COORDINATED EACH SHOP DRAWING OR SAMPLE WITH OTHER SHOP DRAWINGS AND SAMPLES, AND WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS.
- E. ALL SUBMITTED SHOP DRAWINGS SHALL BEAR A STAMP OR SPECIFIC WRITTEN INDICATION AND SIGNATURE THAT CONTRACTOR HAS FULLY COMPLETED THE ABOVE TASKS.

2. SHOP DRAWINGS AS DESCRIBED ABOVE ARE REQUIRED FOR, BUT NOT LIMITED TO, THE FOLLOWING:

- A. ALL SANITARY SEWER STRUCTURES TO BE INSTALLED WITH THIS PROJECT.
- B. ANY ITEMS IN THESE PLANS THAT ALLOW FOR AN "APPROVED EQUAL" ALTERNATIVE.

3. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE CONSTRUCTION WITH CITY OF LEE'S SUMMIT, MISSOURI.
2. ALL PIPE LENGTHS ARE CALCULATED LINEARLY FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. ALL STRUCTURE DIMENSIONS ARE TO INSIDE FACE OF STRUCTURE.
5. COORDINATES ARE PROVIDED AT THE CENTER OF STRUCTURE. ADDITIONAL COORDINATES PROVIDED ARE PER LOCAL CODES AND ORDINANCES OR AS AN AID WHEN ORIENTING THE LID DURING INSTALLATION.
6. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF SANITARY SEWER.
7. SANITARY SEWER TRENCHES SHALL BE CONSTRUCTED SUCH THAT UNDISTURBED EXISTING SOIL OR FILL COMPACTED TO 95% PROCTOR DENSITY IS AT A DEPTH THAT IS 18" ABOVE TOP OF PROPOSED PIPE.
8. MANHOLE INVERT CHANNELS SHALL BE SMOOTH, CIRCULAR, AND CONFORMING TO 1/2 THE ADJACENT PIPE SECTION (INVERT TO CENTER). CHANGES IN DIRECTION OF FLOW SHALL BE MADE WITH A SMOOTH CURVE AND MAINTAIN SHAPE THROUGHOUT. CHANGES IN GRADE OF ADJACENT PIPES SHALL BE TRANSITIONED SMOOTHLY AND EVENLY THROUGH THE MANHOLE.
9. PIPE PENETRATIONS SHALL BE USE GASKETS TO ENSURE WATERTIGHT SEALS.
10. TRACING TAPE SHALL BE INSTALLED ALONG ALL NON-METALLIC SURFACES OR AS DIRECTED BY LOCAL CODES AND ORDINANCES.
11. SEWER LINE INSPECTIONS AND TESTING MUST BE SCHEDULED A MINIMUM OF TWO FULL BUSINESS DAYS IN ADVANCE. CONTRACTOR SHALL FURNISH ALL TESTING EQUIPMENT. TESTING SHALL INCLUDE
  - A. MANDREL TEST OF ALL GRAVITY SEWERS, IF THE MANDREL TEST FAILS ON ANY SECTION OF PIPE, THAT SECTION SHALL BE UNCOVERED AND REPLACED.
  - B. AIR PRESSURE TEST OF ALL GRAVITY SEWERS.
  - C. VACUUM TEST OF ALL MANHOLES.
12. REFER TO SHEET XXX FOR SANITARY DESIGN & SEWER LATERAL INFORMATION.
13. ALL SERVICE LINE CONNECTIONS SHALL BE MADE WITH AN 8"x4" PVC WYE, 4" PVC 45° BEND, AND THE APPROPRIATE LENGTH OF 4" PVC LATERAL (UNLESS OTHERWISE SHOWN) AND CAP. SEE DETAIL SHEET XXX.
14. MSFE - INDICATES LOWEST FLOOR SERVICEABLE BY PROPOSED SANITARY SEWER.
15. MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
16. SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE. IF RISER IS INDICATED, IT IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE NOTED.
17. REFER TO CURRENT CITY SPECIFICATIONS FOR MINIMUM PIPE SLOPES.
18. CONTRACTOR MAY BE REQUIRED TO RECONSTRUCT PIPE AND STRUCTURE IF MINIMUM INVERT DROP OR PIPE SLOPE REQUIREMENTS ARE NOT MET.
19. SANITARY STRUCTURES SHALL BE PER CURRENT CITY DETAILS. IF CITY DOES NOT HAVE PUBLISHED DETAILS STRUCTURES SHALL BE PER CURRENT APWA SPECIFICATIONS.
20. GRAVITY SANITARY SEWER AND WATER LINES SHALL BE SEPARATED BY A MINIMUM OF 10' HORIZONTALLY WHEN PARALLEL AND 2' VERTICALLY WHEN CROSSING. WATER LINES SHALL CROSS ABOVE SANITARY SEWERS.

| CONTROL POINT TABLE |            |             |                 |                                                                                                                                                                                                                                                            |
|---------------------|------------|-------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| POINT NUMBER        | NORTHING   | EASTING     | POINT ELEVATION | DESCRIPTION                                                                                                                                                                                                                                                |
| 11                  | 978424.224 | 2811650.442 | 1030.85         | IB/CAP SET IN THE CENTER MEDIAN OF ROUTE 150. IT IS DUE NORTH OF THE CENTER LINE OF THE DRIVEWAY TO PROPERTY ADDRESS 2025 ROUTE 150. IT IS 12.15 FT WEST OF A LIGHT POLE, 8.5 FT SOUTH OF THE BACK OF CURB, AND 8.1 FT NORTH OF THE BACK OF CURB.          |
| 12                  | 978340.573 | 2812332.280 | 1036.11         | IB/CAP SET ON THE EAST SIDE OF SW PRYOR RD AT THE SOUTHEAST CORNER OF THE INTERSECTION OF ROUTE 150 AND SW PRYOR RD. IT IS 2.15 FT EAST OF THE BACK OF CURB, 19 FT WEST OF THE TRAFFIC SIGNAL POLE, AND 9.6 FT WEST OF A VAULT.                            |
| 13                  | 977064.448 | 2812265.992 | 1012.10         | IB/CAP SET ON THE NORTHEAST CORNER OF THE INTERSECTION OF SW PRYOR RD AND SW NAPA VALLEY DR. IT IS 6 FT EAST OF THE BACK OF CURB, 10.2 FT NORTH OF THE CORNER OF THE SIDEWALK, AND 7.25 FT WEST OF ROCK LANDSCAPE BORDER.                                  |
| 14                  | 977092.478 | 2810924.856 | 1040.93         | IB/CAP SET IN THE NORTHWEST CORNER OF THE SOUTH ADJOINING PROPERTY. IT IS 7.5 FT EAST OF THE FENCE LINE, AND 45 FT SOUTH OF OF THE TREE LINE.                                                                                                              |
| 18                  | 978446.811 | 2810956.695 | 1050.47         | IB/CAP SET IN THE CENTER MEDIAN OF ROUTE 150. THE POINT IS DIRECTLY SOUTH OF A WHITE MAILBOX ON AN ORANGE POST FOR HOUSE ADDRESS 2144 ROUTE 150. IT IS 6.6 FT SOUTH OF THE BACK OF CURB, 5.8 FT NORTH OF THE BACK OF CURB, AND 31 FT EAST OF A LIGHT POLE. |
| BENCHMARK           |            |             |                 |                                                                                                                                                                                                                                                            |
| BMK1                | 977045.350 | 2812211.924 | 1014.83         | CHISELED PLUS ON THE EAST FLANGED BOLT OF THE FIRE HYDRANT ON THE WEST SIDE OF SW PRYOR ROAD ON ADJOINING PROPERTY SOUTH OF THE SOUTHWEST CORNER OF SUBJECT PROPERTY.                                                                                      |
| BMK2                | 978357.416 | 2811627.737 | 1031.31         | RAILROAD SPIKE IN THE NORTH FACE OF POWER POLE LOCATED ON THE SOUTH SIDE MISSOURI STATE HIGHWAY 150 AT THE WEST SIDE OF THE DRIVEWAY TO 2025 MISSOURI STATE HIGHWAY 150, LEE'S SUMMIT, MO.                                                                 |

**Accepted  
Record Drawings**

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

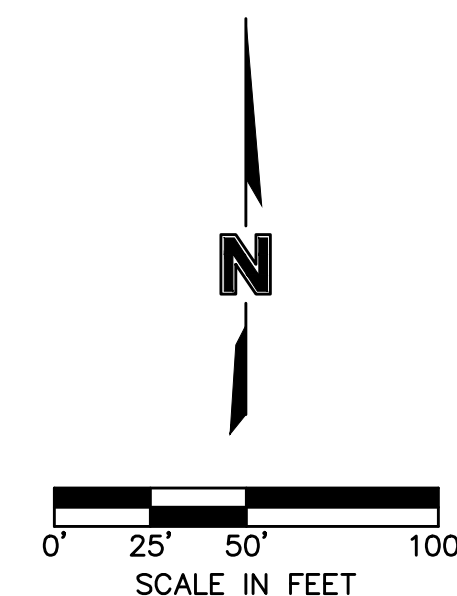
| ESTIMATE OF QUANTITIES     |                             |      |                 |          |
|----------------------------|-----------------------------|------|-----------------|----------|
| ITEM NO.                   | DESCRIPTION                 | UNIT | QUANTITY        | AS-BUILT |
| STREET                     |                             |      |                 |          |
| 1                          | 8" SANITARY PVC (SDR-26)    | L.F. | <del>1500</del> | 1507.03  |
| 2                          | MANHOLES, STD. 4' DIA.      | E.A. | <del>0</del>    | 9        |
| 3                          | CONNECTION TO EXISTING STUB | E.A. | <del>2</del>    | 2        |
| 4                          | TRACER WIRE                 | L.F. | <del>2425</del> | 2425*    |
| 5                          | TRACER WIRE BOX             | E.A. | <del>60</del>   | 60*      |
| 6                          | SERVICE WYE                 | E.A. | <del>60</del>   | 60*      |
| 7                          | 4" LATERAL PIPE             | L.F. | <del>2425</del> | 2425*    |
| AS PROVIDED BY CONTRACTOR* |                             |      |                 |          |

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS. QUANTITIES HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

# AS-BUILT



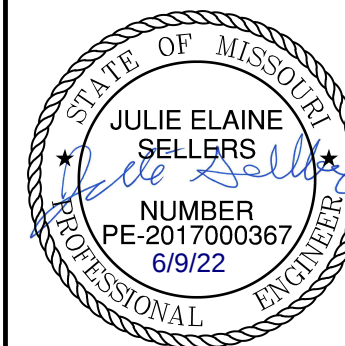
# NOT AS BUILT



| Structure Table |             |              |
|-----------------|-------------|--------------|
| STRUCTURE ID    | NORTHING    | EASTING      |
| EX MH 1         | 977578.8528 | 2811489.8379 |
| EX MH 2         | 977279.3112 | 2811292.7528 |
| MH 1-1          | 977613.0260 | 2811437.5116 |
| MH 1-2          | 977617.9860 | 2811280.9725 |
| MH 1-3          | 977628.1714 | 2810959.5161 |
| MH 2-1          | 977857.9032 | 2811445.2706 |
| MH 2-2          | 978072.7943 | 2811452.0795 |
| MH 3-1          | 977308.4056 | 2811258.6571 |
| MH 3-2          | 977313.6031 | 2811094.6217 |
| MH 3-3          | 977505.6385 | 2811100.7064 |
| MH 4-1          | 977207.8690 | 2811091.2715 |

**Accepted  
Record Drawings**

**These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.**



Olsson - Civil Engineering  
Missouri Certificate of Authority #: 001592  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olsson.com

## GENERAL LAYOUT SANITARY SEWER PLANS

OSAGE  
SECOND PLAT

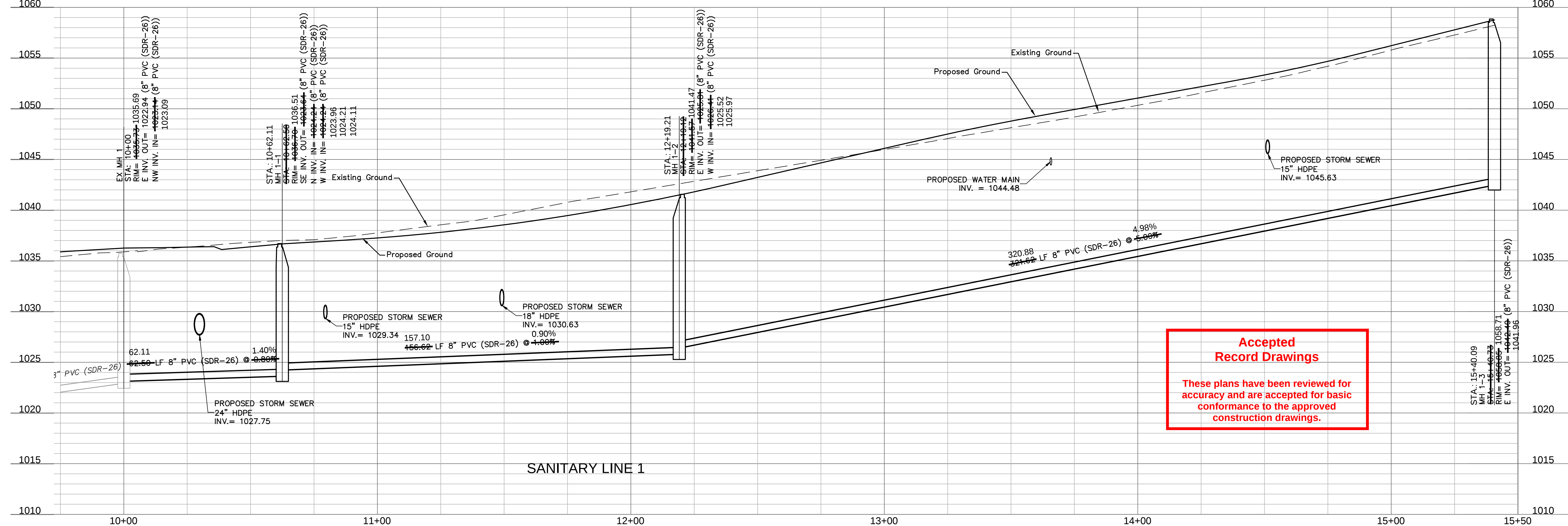
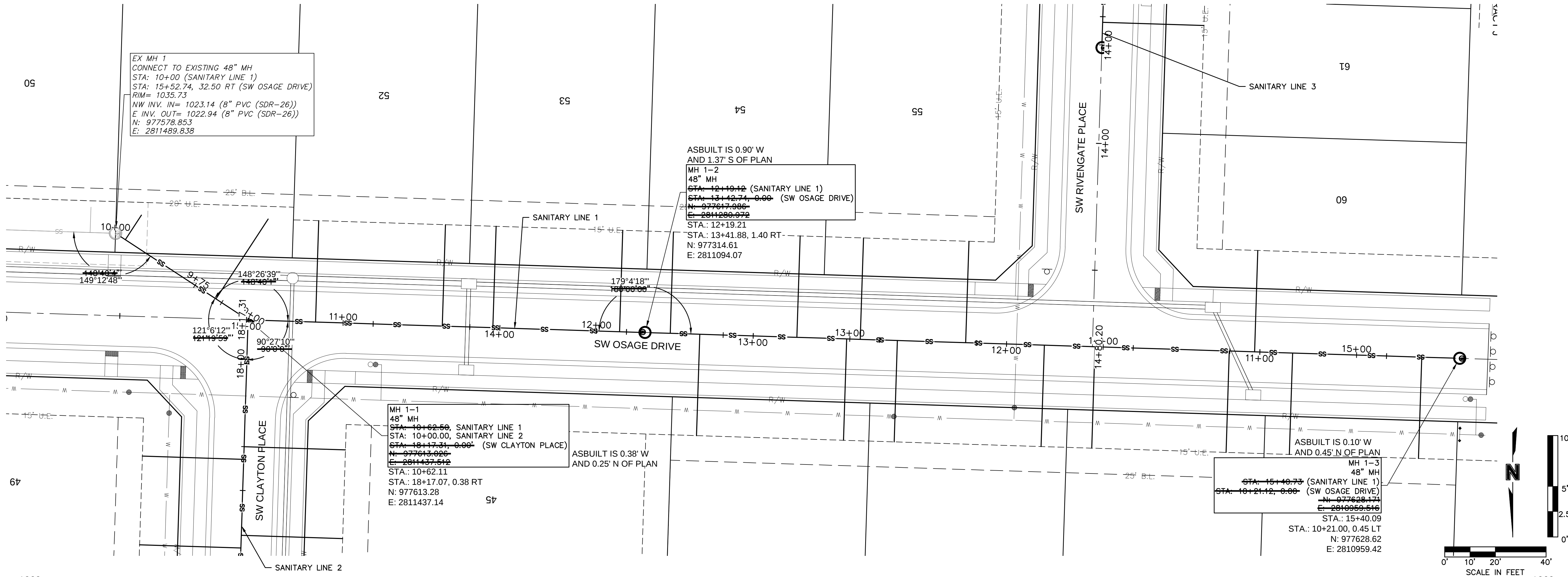
2020

## REVISIONS

drawn by: D.F. / M.O. / A.A.  
checked by: C.G.W.  
designed by: A.A.  
QA/QC by: J.E.S.  
project no.: C19-2339  
drawing no.: \_\_\_\_\_  
date: 2020.11.03

SHEET  
C203

DWG: F:\2019\2001-2500\019-2339-C140-Design\AutoCAD\Final Plans - As-Built\Sheets\GNCV\Sanitary\C\_SAN01\_C192339.dwg  
DATE: Feb 15, 2022 10:49am  
USER: essvler  
C\_PSSWR\_C192339 C\_PSTRM\_C192339 C\_PWATR\_C192339  
XREFS: C\_XBASE\_C192339 C\_PBASE\_C192339 C\_PEND\_C192339 C\_PTEBL\_C192339



AS-BUILT

Accepted  
Record Drawings

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

olsson

Olsson - Civil Engineering  
Missouri Certificate of Authority #: 001592  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olsson.com

STATE OF MISSOURI  
JULIE ELAINE  
SELLERS  
Professional Engineer  
NUMBER  
PE-2017000367  
5/9/22

REVISIONS

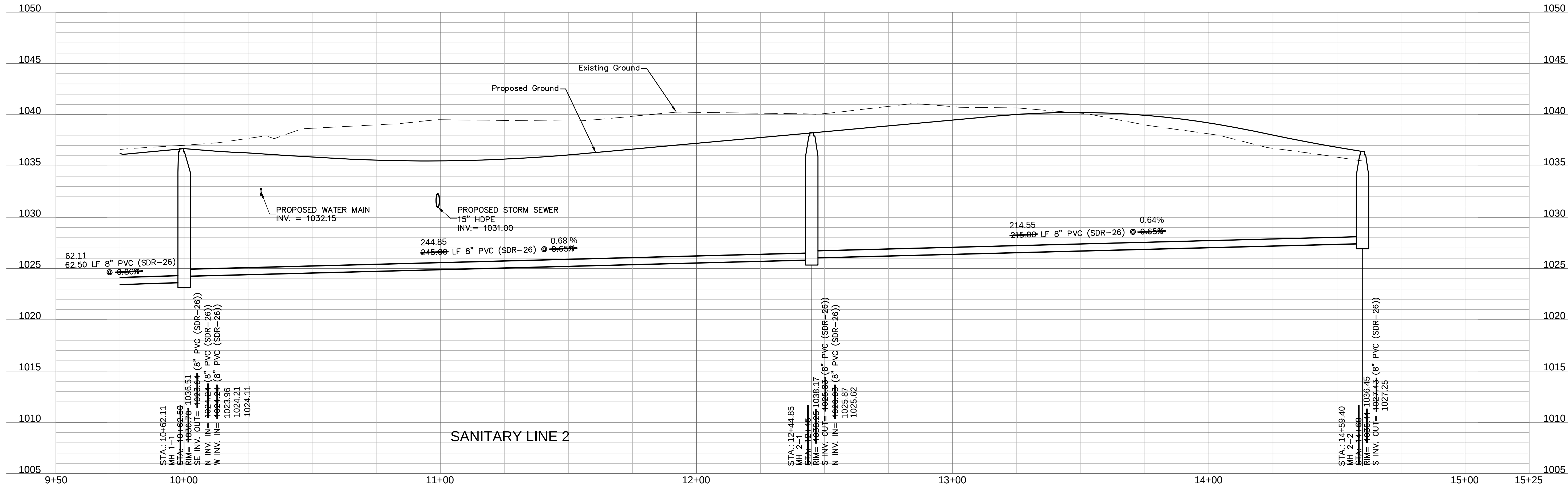
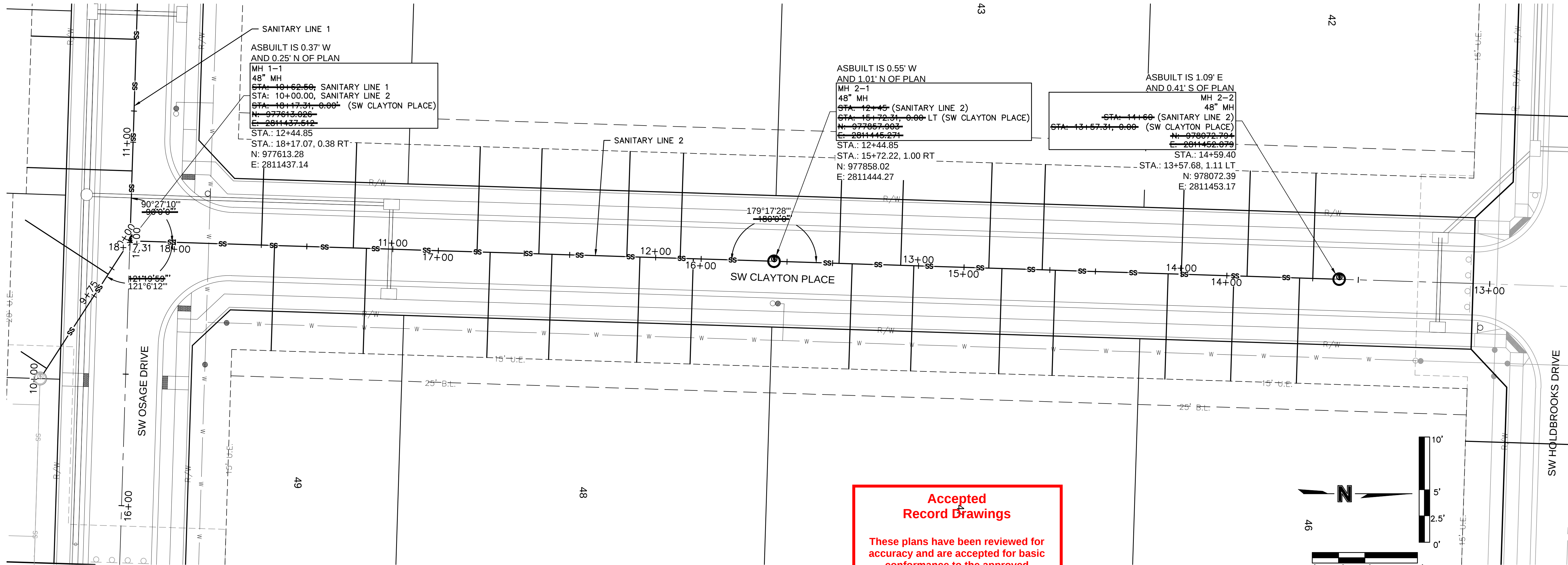
| REV. NO. | DATE | REVISIONS DESCRIPTION |
|----------|------|-----------------------|
| 1        |      |                       |
| 2        |      |                       |
| 3        |      |                       |
| 4        |      |                       |
| 5        |      |                       |
| 6        |      |                       |
| 7        |      |                       |
| 8        |      |                       |
| 9        |      |                       |
| 10       |      |                       |

SANITARY PLAN & PROFILES (LINE 1)  
SANITARY SEWER PLANS  
OSAGE  
SECOND PLAT  
2020

drawn by: D.F./M.O./A.A.  
checked by: C.G.W.  
designed by: A.A.  
QA/QC by: J.E.S.  
project no.: C19-2339  
drawing no.:  
date: 2020.11.03

SHEET  
C204

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XREFS: C:\BASE\_C192339 C:\PBDY\_C192339 C:\FTBLK\_C192339



AS-BUILT

olsen

Olson - Civil Engineering  
Missouri Certificate of Authority #: 001592  
1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
www.olson.com

STATE OF MISSOURI  
JULIE ELAINE SELLERS  
Professional Engineer  
NUMBER PE-2017000367  
5/9/22

REVISIONS

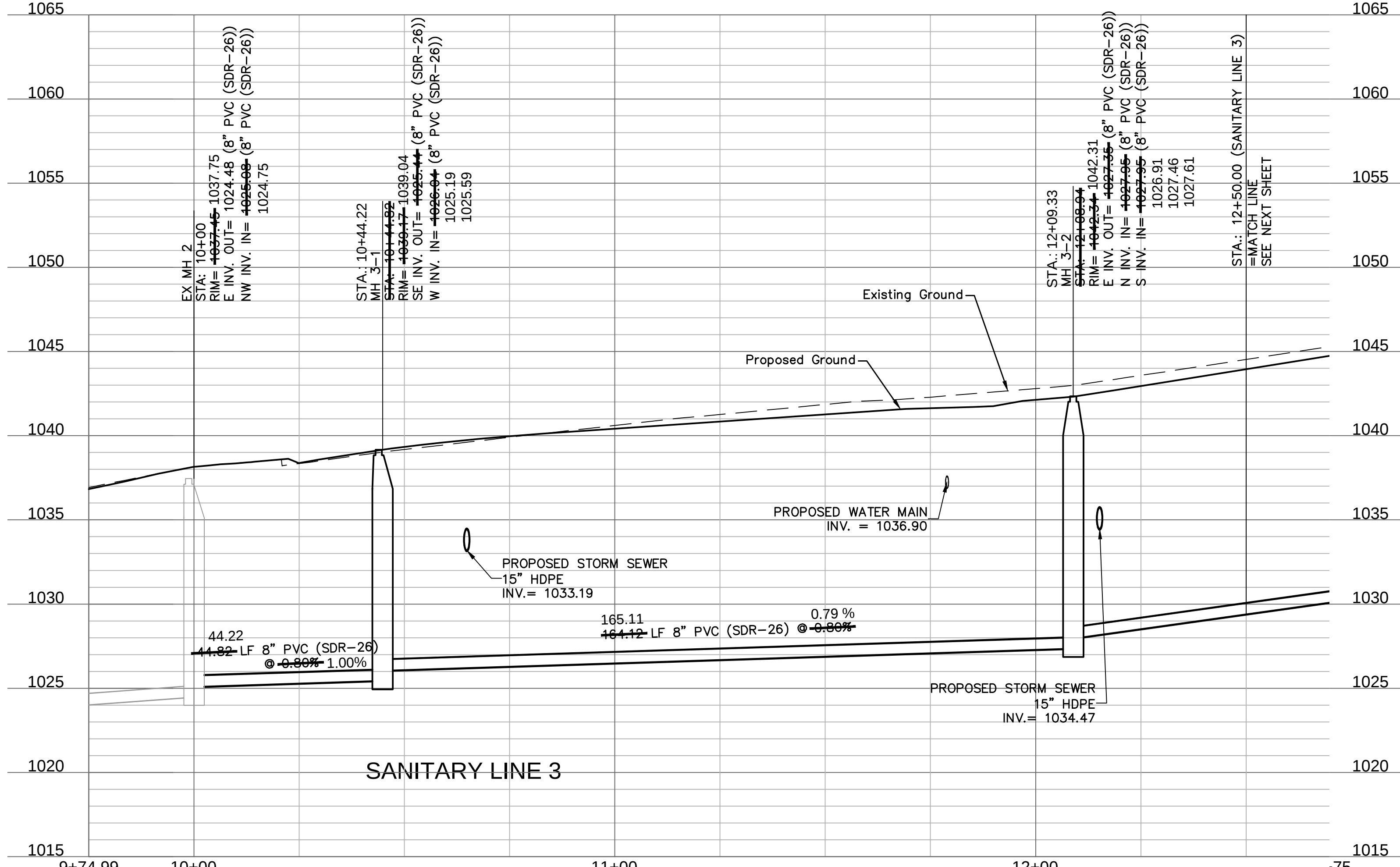
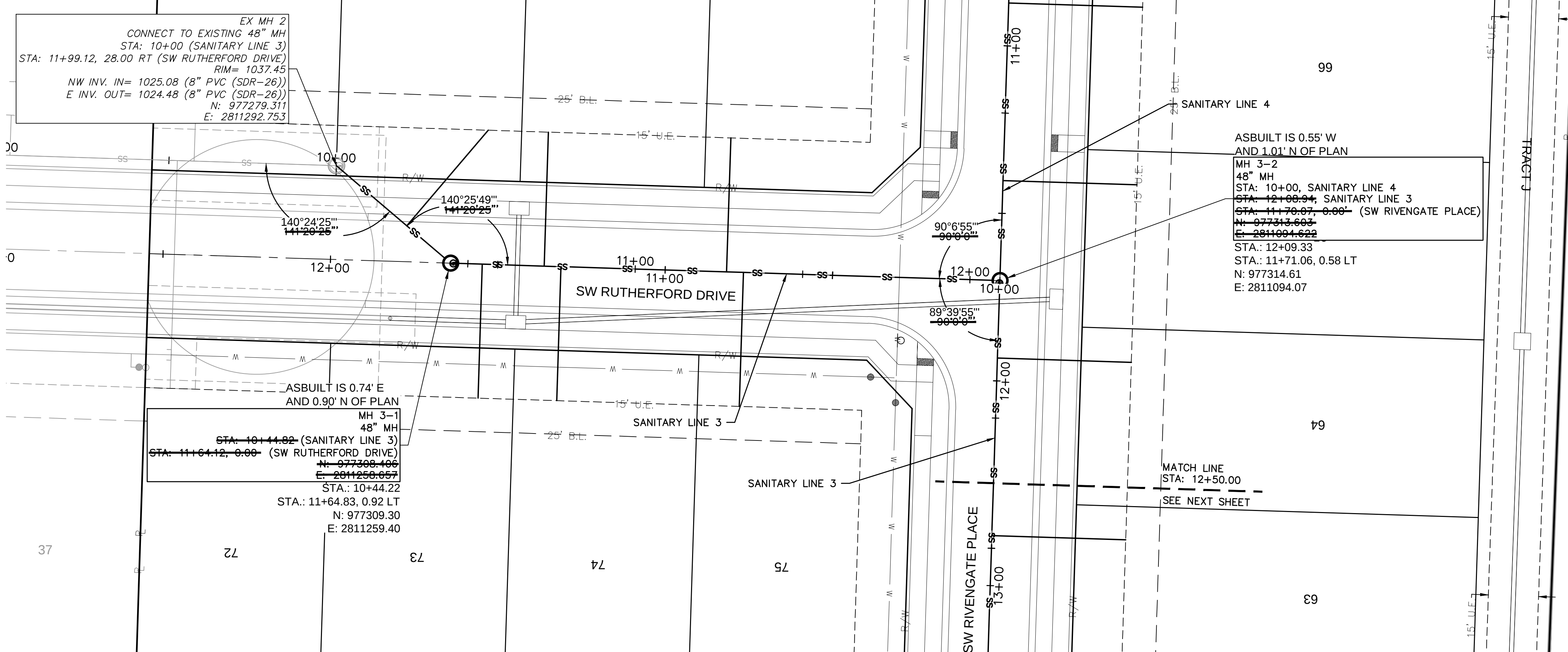
2020

SANITARY PLAN & PROFILES (LINE 2)  
SANITARY SEWER PLANS  
OSAGE  
SECOND PLAT

drawn by: D.F./M.O./A.A.  
checked by: C.G.W.  
designed by: A.A.  
QA/QC by: J.E.S.  
project no.: C19-2339  
drawing no.:  
date: 2020.11.03

SHEET  
C205

DWG: F:\2019\  
DATE: Feb 15,



Accepted  
Record Drawing

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

## AS-BUILT

SANITARY PLAN & PROFILES (LINE 3)  
SANITARY SEWER PLAN AND PROFILES (LINE 3)OSAGE  
SECOND PLAT

2020

REVISIONS DESCRIPTION

SHEE  
C20

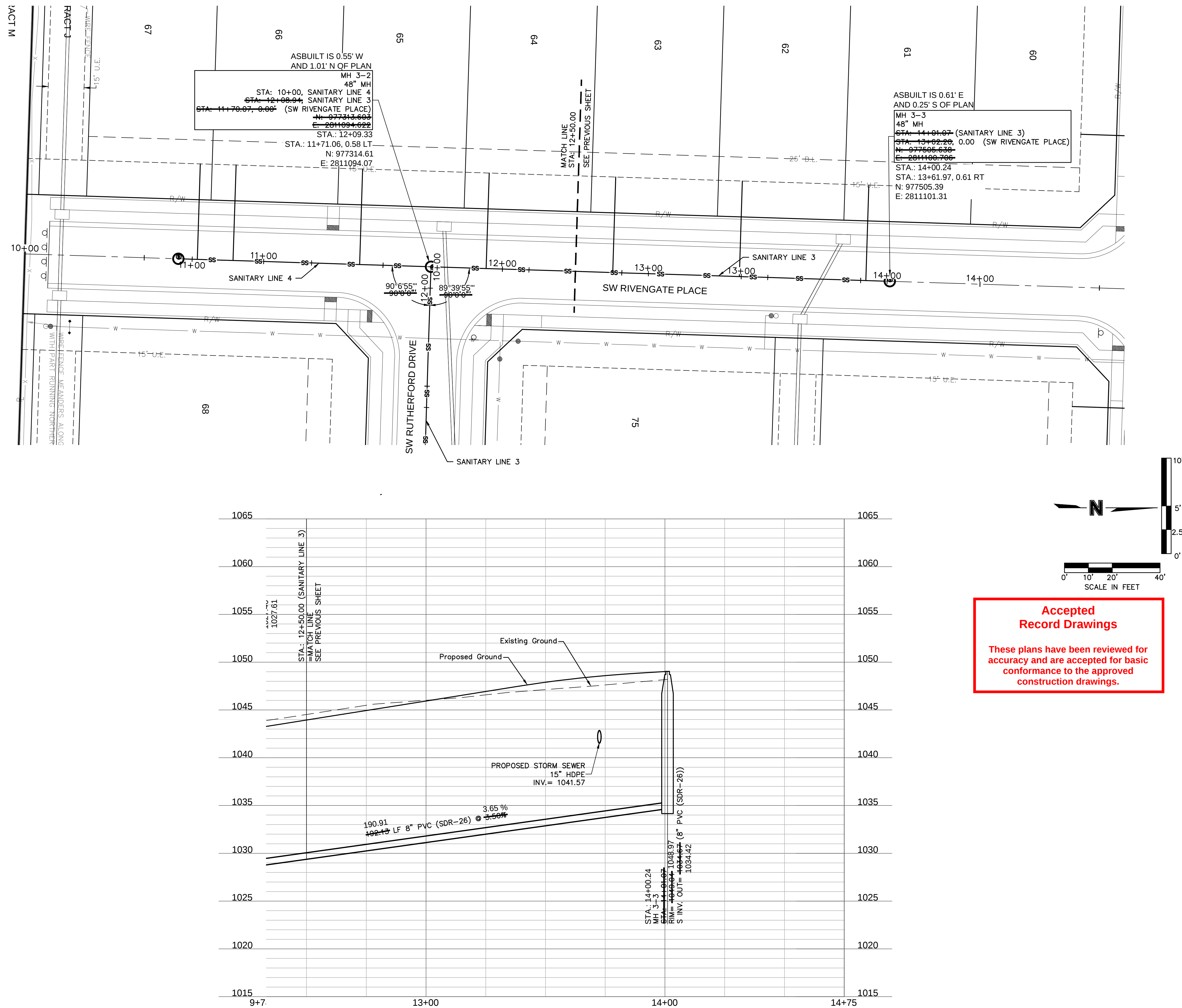
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checked by: \_\_\_\_\_ C.G.W.  
designed by: \_\_\_\_\_ A.A.  
QA/QC by: \_\_\_\_\_ J.E.S.  
project no.: \_\_\_\_\_ C19-2339  
drawing no.: \_\_\_\_\_  
date: \_\_\_\_\_ 2020.11.02

STATE OF MISSOURI  
JULIE ELAINE  
SELLERS  
NUMBER  
PE-2017000367  
6/9/22  
PROFESSIONAL ENGINEER

1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816 261 1177  
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# cos/

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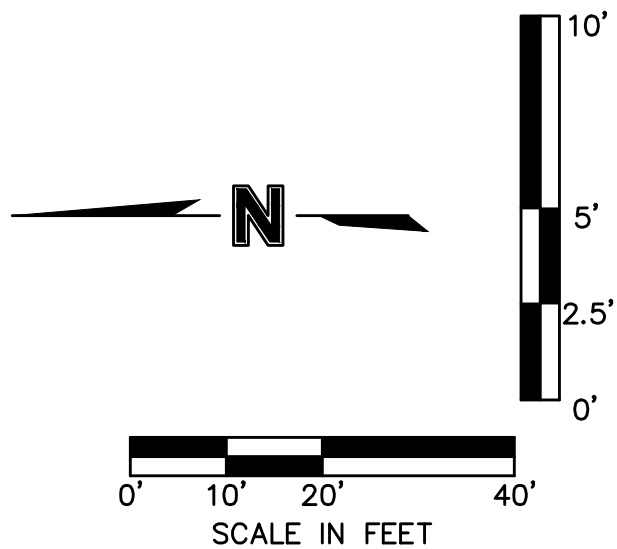
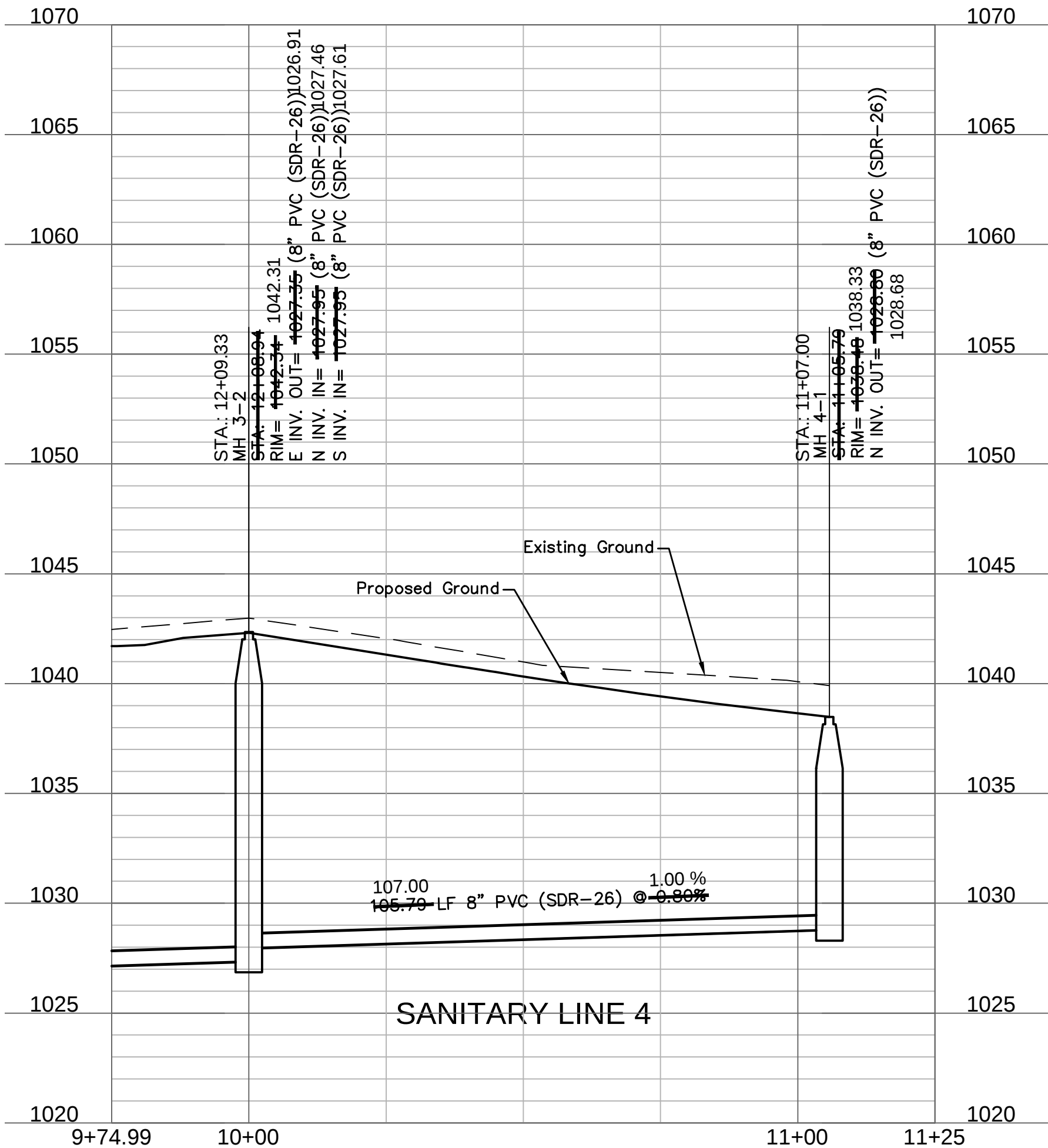
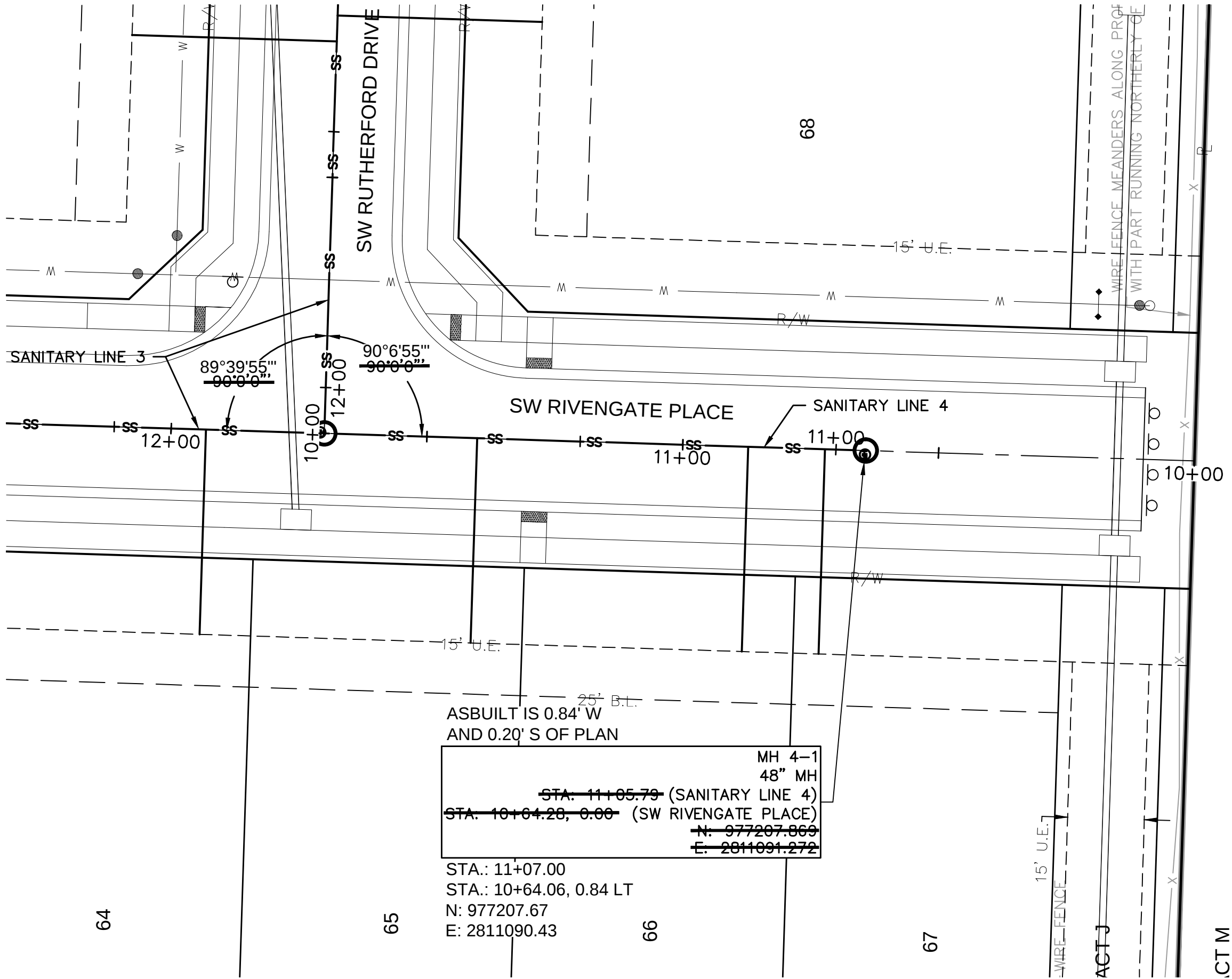


## AS-BUILT

**Accepted  
Record Drawings**

These plans have been reviewed for  
accuracy and are accepted for basic  
conformance to the approved  
construction drawings.

[illegible]



**Accepted  
Record Drawings**

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

**AS-BUILT**

|                                                                                                                                                      |  |               |  |                                                                                            |  |                       |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|--|--------------------------------------------------------------------------------------------|--|-----------------------|--|
| SANITARY PLAN & PROFILES (LINE 4)<br>SANITARY SEWER PLANS                                                                                            |  | REV. NO.      |  | DATE                                                                                       |  | REVISIONS DESCRIPTION |  |
| OSAGE<br>SECOND PLAT                                                                                                                                 |  |               |  |                                                                                            |  |                       |  |
| 2020                                                                                                                                                 |  |               |  |                                                                                            |  |                       |  |
| drawn by: D.F./M.O./A.A.<br>checked by: C.G.W.<br>designed by: A.A.<br>QA/QC by: J.E.S.<br>project no.: C19-2339<br>drawing no.:<br>date: 2020.11.03 |  | SHEET<br>C208 |  |                                                                                            |  |                       |  |
|                                                                                                                                                      |  |               |  | 1301 Burlington Street<br>North Kansas City, MO 64116<br>TEL 816.361.1177<br>www.olson.com |  |                       |  |

| Sanitary Sewer Laterals |                 |                    |                |       |                  |                            |                                    |
|-------------------------|-----------------|--------------------|----------------|-------|------------------|----------------------------|------------------------------------|
| Lot Number              | Lateral Station | Upstream Manhole   | Lateral Length | Riser | Flowline at Main | Flowline at End of Lateral | Minimum Servicable Floor Elevation |
|                         |                 |                    | (ft)           | (ft)  | (ft)             | (ft)                       | (ft)                               |
| 42A                     | 36+96.36        | MH 1-12 (1st Plat) | 69.00          | 1.0   | 1022.3           | 1025.7                     | 1028.50                            |
| 42B                     | 14+50.00        | MH 2-2             | 40.00          | 0.0   | 1027.4           | 1029.2                     | 1031.97                            |
| 42C                     | 14+25.00        | MH 2-2             | 40.00          | 0.0   | 1027.2           | 1029.0                     | 1031.80                            |
| 42D                     | 14+00.00        | MH 2-2             | 40.00          | 1.0   | 1027.0           | 1029.8                     | 1032.62                            |
| 43A                     | 13+47.06        | MH 2-2             | 40.00          | 2.0   | 1026.7           | 1030.5                     | 1033.26                            |
| 43B                     | 13+26.76        | MH 2-2             | 40.00          | 2.0   | 1026.6           | 1030.3                     | 1033.12                            |
| 43C                     | 12+93.25        | MH 2-2             | 40.00          | 2.0   | 1026.3           | 1030.1                     | 1032.91                            |
| 43D                     | 12+69.75        | MH 2-2             | 40.00          | 2.0   | 1026.2           | 1030.0                     | 1032.75                            |
| 44A                     | 12+09.36        | MH 2-1             | 40.00          | 0.0   | 1025.6           | 1027.4                     | 1030.20                            |
| 44B                     | 11+89.05        | MH 2-1             | 40.00          | 0.0   | 1025.5           | 1027.3                     | 1030.07                            |
| 44C                     | 11+55.55        | MH 2-1             | 40.00          | 0.0   | 1025.3           | 1027.1                     | 1029.85                            |
| 44D                     | 11+32.05        | MH 2-1             | 40.00          | 1.0   | 1025.1           | 1027.9                     | 1030.68                            |
| 45A                     | 10+85.00        | MH 2-1             | 40.00          | 0.0   | 1024.8           | 1026.6                     | 1029.39                            |
| 45B                     | 10+50.00        | MH 2-1             | 40.00          | 0.0   | 1024.6           | 1026.4                     | 1029.17                            |
| 46A                     | 35+71.78        | MH 1-12 (1st Plat) | 69.00          | 1.0   | 1020.5           | 1023.8                     | 1026.63                            |
| 46B                     | 14+45.00        | MH 2-2             | 40.00          | 0.0   | 1027.3           | 1029.1                     | 1031.93                            |
| 46C                     | 14+20.00        | MH 2-2             | 40.00          | 0.0   | 1027.2           | 1029.0                     | 1031.77                            |
| 46D                     | 13+95.00        | MH 2-2             | 40.00          | 1.0   | 1027.0           | 1029.8                     | 1032.59                            |
| 47A                     | 13+52.06        | MH 2-2             | 40.00          | 2.0   | 1026.7           | 1030.5                     | 1033.29                            |
| 47B                     | 13+31.76        | MH 2-2             | 40.00          | 2.0   | 1026.6           | 1030.4                     | 1033.16                            |
| 47C                     | 12+98.25        | MH 2-2             | 40.00          | 2.0   | 1026.4           | 1030.1                     | 1032.94                            |
| 47D                     | 12+75.00        | MH 2-2             | 40.00          | 2.0   | 1026.2           | 1030.0                     | 1032.79                            |
| 48A                     | 12+14.36        | MH 2-1             | 40.00          | 0.0   | 1025.6           | 1027.4                     | 1030.23                            |
| 48B                     | 11+94.05        | MH 2-1             | 40.00          | 0.0   | 1025.5           | 1027.3                     | 1030.10                            |
| 48C                     | 11+60.55        | MH 2-1             | 40.00          | 0.0   | 1025.3           | 1027.1                     | 1029.88                            |
| 48D                     | 11+37.05        | MH 2-1             | 40.00          | 0.0   | 1025.1           | 1026.9                     | 1029.73                            |
| 49A                     | 10+90.00        | MH 2-1             | 40.00          | 0.0   | 1024.8           | 1026.6                     | 1029.43                            |
| 49B                     | 10+55.00        | MH 2-1             | 40.00          | 0.0   | 1024.6           | 1026.4                     | 1029.20                            |
| 51A                     | 10+47.35        | MH 1-1             | 37.61          | 1.0   | 1023.5           | 1026.3                     | 1029.05                            |
| 51B                     | 10+04.64        | MH 1-1             | 11.61          | 2.0   | 1023.2           | 1026.4                     | 1029.17                            |
| 52A                     | 11+39.12        | MH 1-2             | 40.00          | 1.0   | 1025.0           | 1027.8                     | 1030.58                            |
| 52B                     | 10+89.12        | MH 1-2             | 40.00          | 2.0   | 1024.5           | 1028.3                     | 1031.06                            |
| 53A                     | 12+09.12        | MH 1-2             | 40.00          | 3.0   | 1025.7           | 1030.4                     | 1033.24                            |
| 53B                     | 11+59.12        | MH 1-2             | 40.00          | 3.0   | 1025.2           | 1029.9                     | 1032.74                            |
| 54A                     | 12+79.12        | MH 1-3             | 40.00          | 2.0   | 1029.4           | 1033.2                     | 1035.96                            |
| 54B                     | 12+29.12        | MH 1-3             | 40.00          | 5.0   | 1026.9           | 1033.6                     | 1036.40                            |
| 55A                     | 13+45.73        | MH 1-3             | 40.00          | 3.0   | 1032.7           | 1037.5                     | 1040.27                            |
| 55B                     | 13+04.12        | MH 1-3             | 40.00          | 5.0   | 1030.7           | 1037.4                     | 1040.15                            |
| 56A                     | 12+98.77        | MH 1-3             | 40.00          | 2.0   | 1030.4           | 1034.1                     | 1036.94                            |
| 56B                     | 12+40.77        | MH 1-3             | 40.00          | 5.0   | 1027.5           | 1034.2                     | 1036.98                            |
| 57A                     | 13+76.77        | MH 1-3             | 40.00          | 3.0   | 1034.3           | 1039.0                     | 1041.82                            |
| 58B                     | 13+18.77        | MH 1-3             | 40.00          | 6.0   | 1031.4           | 1039.1                     | 1041.86                            |
| 58A                     | 14+49.77        | MH 1-3             | 40.00          | 3.0   | 1037.9           | 1042.7                     | 1045.47                            |
| 58B                     | 13+18.77        | MH 1-3             | 40.00          | 6.0   | 1031.4           | 1039.1                     | 1041.86                            |
| 59A                     | 15+25.73        | MH 1-3             | 40.00          | 4.0   | 1041.7           | 1047.5                     | 1050.25                            |
| 59B                     | 14+74.77        | MH 1-3             | 40.00          | 6.0   | 1039.2           | 1046.9                     | 1049.66                            |
| 60                      | 14+59.77        | MH 1-3             | 40.00          | 4.0   | 1038.4           | 1044.2                     | 1046.95                            |
| 61                      | 13+91.07        | MH 3-3             | 40.00          | 3.0   | 1034.3           | 1039.1                     | 1041.87                            |
| 62                      | 13+38.07        | MH 3-3             | 40.00          | 4.0   | 1032.5           | 1038.2                     | 1040.99                            |
| 63                      | 12+85.07        | MH 3-3             | 40.00          | 4.0   | 1030.6           | 1036.3                     | 1039.14                            |
| 64                      | 12+32.07        | MH 3-3             | 40.00          | 4.0   | 1028.8           | 1034.5                     | 1037.28                            |
| 65                      | 10+29.87        | MH 4-1             | 40.00          | 3.0   | 1027.4           | 1032.1                     | 1034.90                            |
| 66                      | 10+82.87        | MH 4-1             | 40.00          | 0.0   | 1027.8           | 1029.6                     | 1032.39                            |
| 67                      | 10+97.87        | MH 4-1             | 40.00          | 0.0   | 1027.9           | 1029.7                     | 1032.51                            |
| 68                      | 11+27.30        | MH 3-2             | 40.00          | 3.0   | 1026.7           | 1031.4                     | 1034.24                            |
| 69                      | 10+72.80        | MH 3-2             | 40.00          | 3.0   | 1026.3           | 1031.0                     | 1033.80                            |
| 70                      | 10+27.64        | MH 3-2             | 37.48          | 2.0   | 1025.9           | 1029.6                     | 1032.41                            |
| 73                      | 10+54.32        | MH 3-2             | 40.00          | 1.0   | 1026.1           | 1028.9                     | 1031.69                            |
| 74                      | 10+77.82        | MH 3-2             | 40.00          | 2.0   | 1026.3           | 1030.1                     | 1032.86                            |
| 75                      | 11+32.35        | MH 3-2             | 40.00          | 3.0   | 1026.7           | 1031.5                     | 1034.28                            |

| Sanitary Sewer Design Information |                       |                          |                          |                        |                                 |                                |                              |                            |                          |                                    |
|-----------------------------------|-----------------------|--------------------------|--------------------------|------------------------|---------------------------------|--------------------------------|------------------------------|----------------------------|--------------------------|------------------------------------|
| Upstream Manhole                  | Downstream Pipe Slope | Downstream Pipe Diameter | Proposed Cumulative Area | Future Cumulative Area | Minimum Hourly Peak Design Flow | Proposed Cumulative Peak Flows | Future Cumulative Peak Flows | Downstream Pipe Mannings N | Downstream Pipe Capacity | Downstream Pipe Full Flow Velocity |
|                                   | (%)                   | (in)                     | (Ac.)                    | (Ac.)                  | (cfs/ac)                        | (cfs)                          | (cfs)                        |                            | (cfs)                    | (fps)                              |
| EX MH 1                           | 3.50%                 | 8                        | 6.93                     | 0.00                   | 0.02                            | 0.139                          | 0.139                        | 0.013                      | 2.26                     | 6.48                               |
| MH 1-1                            | 0.80%                 | 8                        | 6.23                     | 0.00                   | 0.02                            | 0.125                          | 0.125                        | 0.013                      | 1.08                     | 3.10                               |
| MH 1-2                            | 1.00%                 | 8                        | 2.47                     | 0.00                   | 0.02                            | 0.049                          | 0.049                        | 0.013                      | 1.21                     | 3.46                               |
| MH 1-3                            | 5.00%                 | 8                        | 2.00                     | 0.00                   | 0.02                            | 0.040                          | 0.040                        | 0.013                      | 2.70                     | 7.74                               |
| MH 2-1                            | 0.65%                 | 8                        | 3.53                     | 0.00                   | 0.02                            | 0.071                          | 0.071                        | 0.013                      | 0.97                     | 2.79                               |
| MH 2-2                            | 0.65%                 | 8                        | 1.84                     | 0.00                   | 0.02                            | 0.037                          | 0.037                        | 0.013                      | 0.97                     | 2.79                               |
| EX MH 2                           | 1.83%                 | 8                        | 3.66                     | 0.00                   | 0.02                            | 0.073                          | 0.073                        | 0.013                      | 1.63                     | 4.68                               |
| MH 3-1                            | 0.80%                 | 8                        | 2.56                     | 0.00                   | 0.02                            | 0.051                          | 0.051                        | 0.013                      | 1.08                     | 3.10                               |
| MH 3-2                            | 0.80%                 | 8                        | 2.38                     | 0.00                   | 0.02                            | 0.048                          | 0.048                        | 0.013                      | 1.08                     | 3.10                               |
| MH 3-3                            | 3.50%                 | 8                        | 0.71                     | 0.00                   | 0.02                            | 0.014                          | 0.014                        | 0.013                      | 2.26                     | 6.48                               |
| MH 4-1                            | 0.80%                 | 8                        | 0.53                     | 0.00                   | 0.02                            | 0.011                          | 0.011                        | 0.013                      | 1.08                     | 3.10                               |

Accepted  
Record Drawings

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

NOT AS BUILT

olsson

Olsson - Civil Engineering  
Missouri Certificate of Authority #: 001592  
1301 Burlington Street  
North Kansas City, MO 64116

TEL 816.361.1177  
www.olsson.com

STATE OF MISSOURI  
JULIE ELAINE SELLERS  
NUMBER PE-2017000367  
5/9/22  
PROFESSIONAL ENGINEER

DESIGN TABLES  
SANITARY SEWER PLANS

OSAGE  
SECOND PLAT

2020

drawn by: D.F./M.O./A.A.  
checked by: C.G.W.  
designed by: A.A.  
QA/QC by: J.E.S.  
project no.: C19-2339  
drawing no.:  
date: 2020.11.03

SHEET  
C209

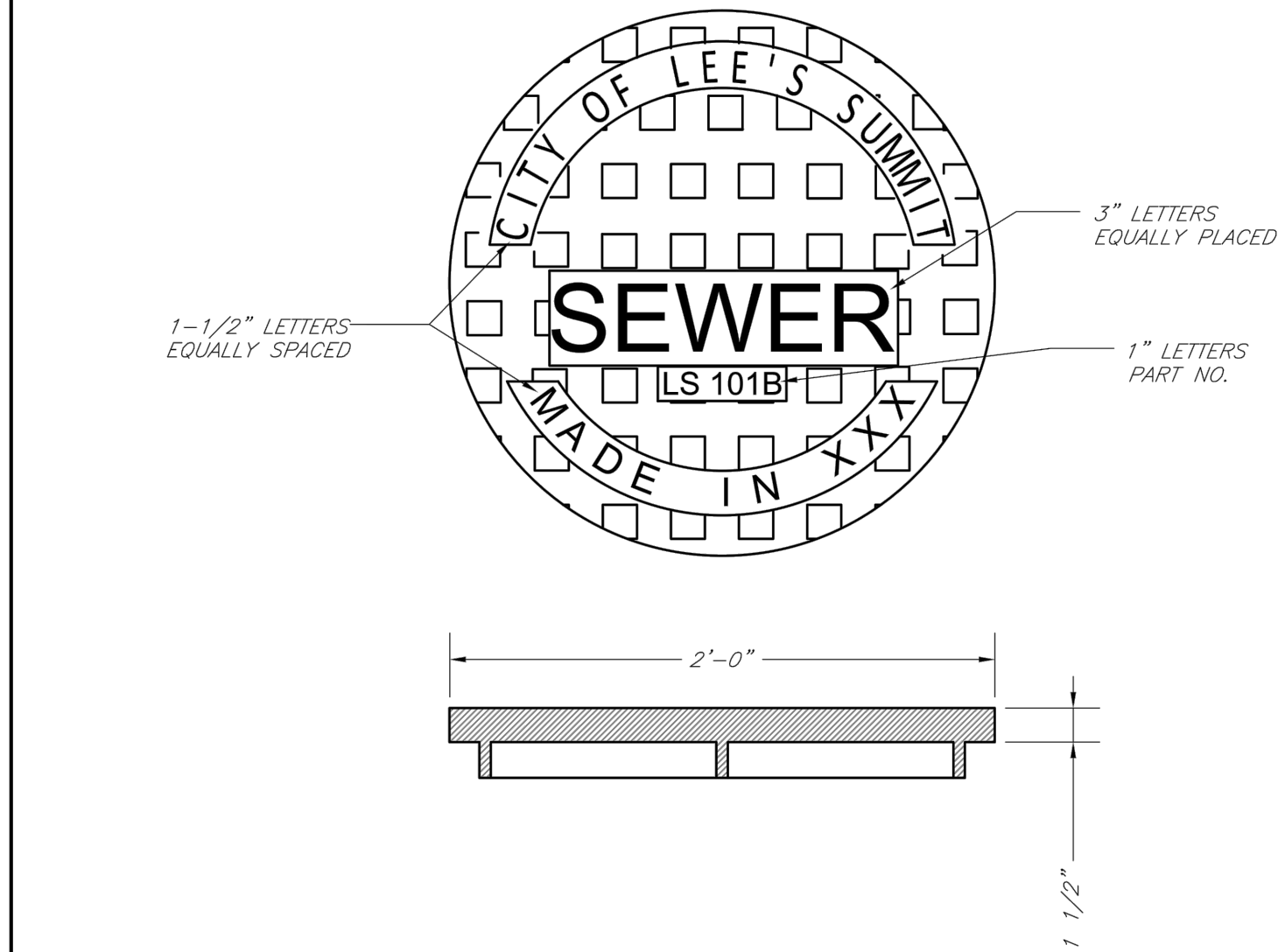
REV. NO.

DATE

REVIEWS DESCRIPTION

REVISIONS

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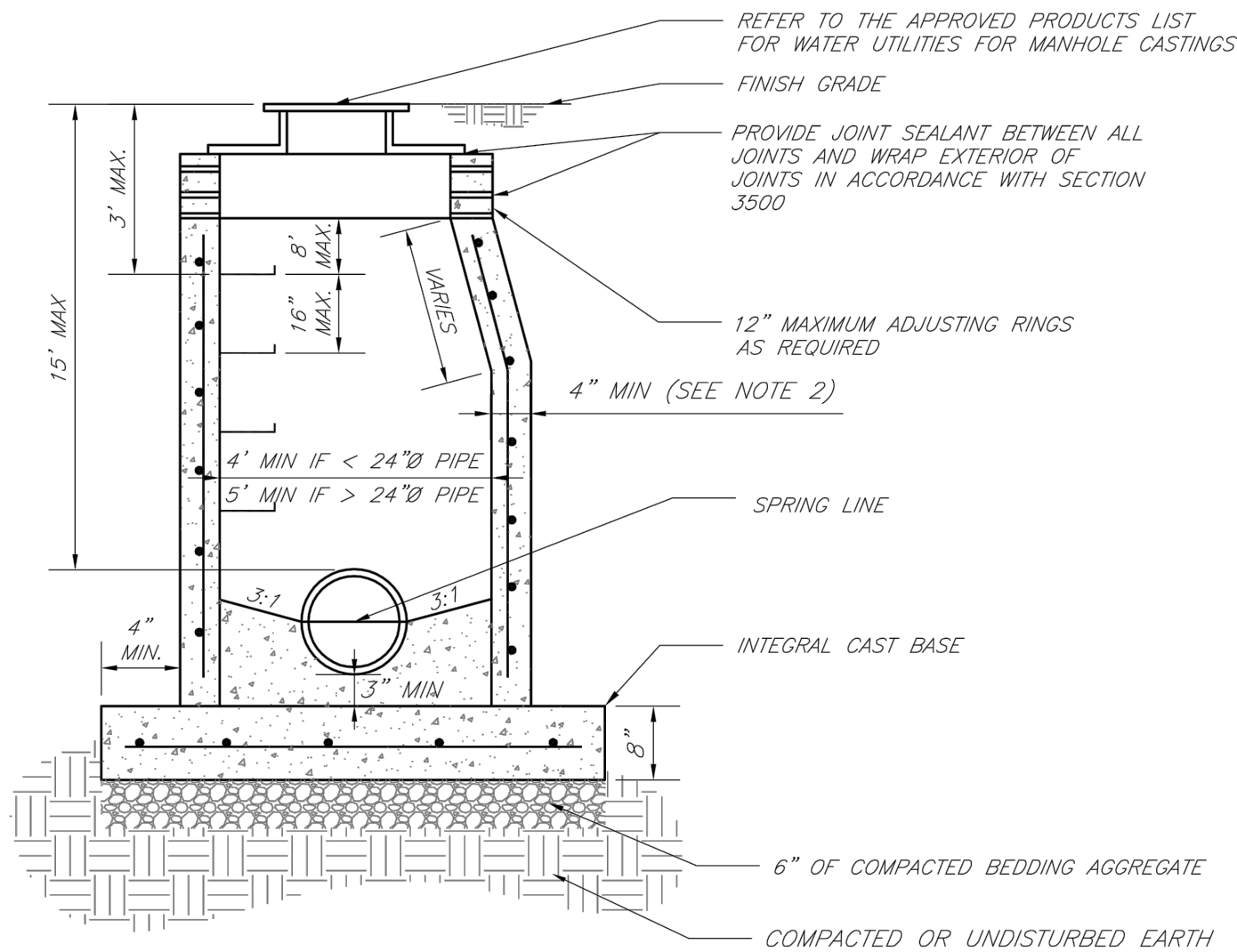
STANDARD 24" MANHOLE COVER  
LEE'S SUMMIT PART NO.: LS101B  
MINIMUM WEIGHT = 160 LB  
MATCHING FRAME: LS101A  
NOTE: PICK HOLES NOT SHOWN



**CITY OF LEE'S SUMMIT, MO**  
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING DIVISION**

Date: 09/16/04  
Drawn By: JN  
Checked By:  
FILE: SANITARY SEWER-2  
Rev: 04/05/07  
Rev: 12/12

STANDARD 24" MANHOLE COVER



NOTES:

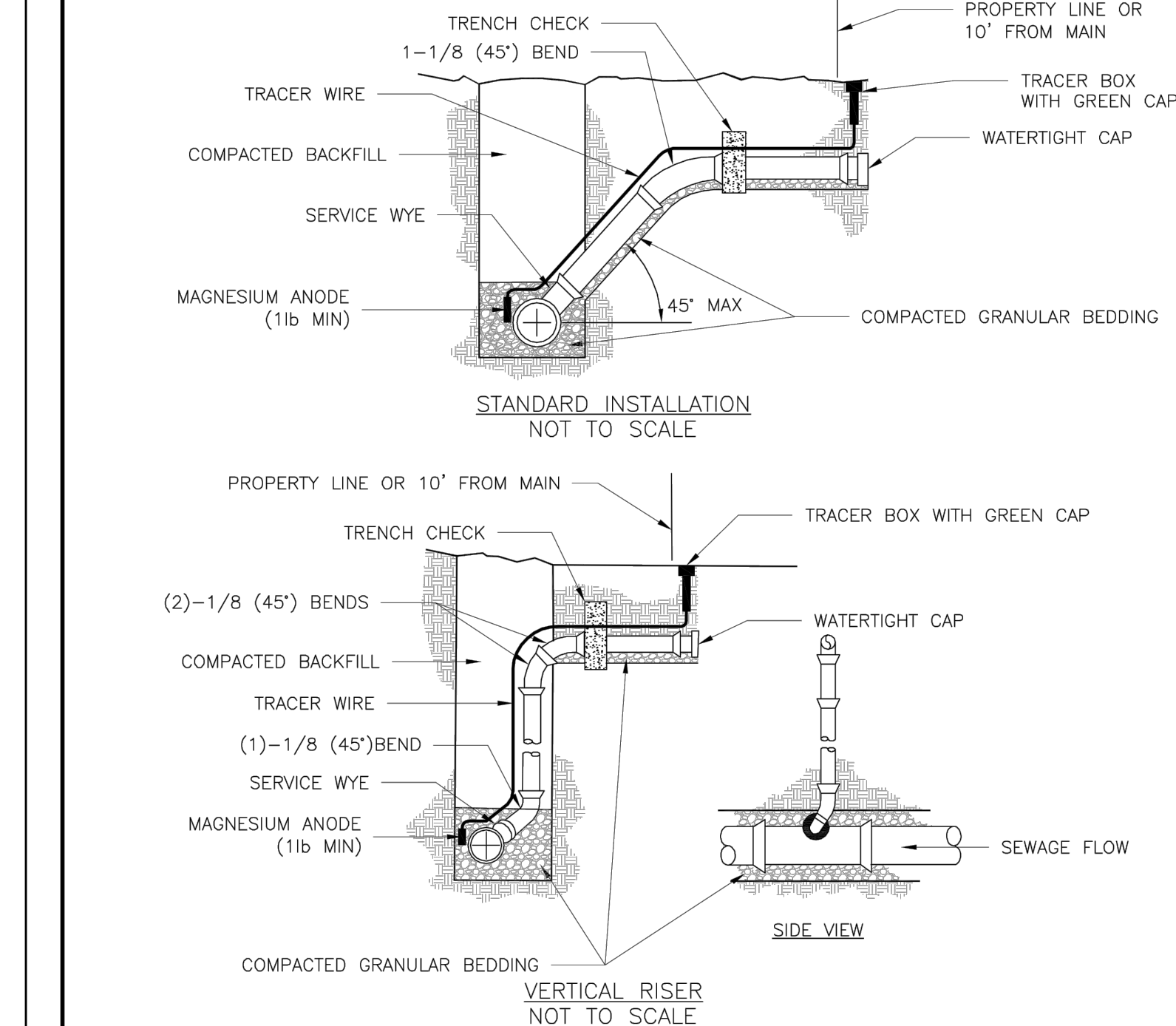
1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THAN 15'.
3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE 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 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 PRECAST MANHOLE - SANITARY SEWER

Date: 02/13  
Drawn By: JN  
Checked By: DL  
FILE: SAN-2  
Rev: 1/14  
Rev:



NOTES:

1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
2. ALL NEW CONSTRUCTION OFF SEWER STUBS SHALL BE TEMPORARILY MARKED WITH A MARKING STAKE, 36" ABOVE GROUND AND PAINTED GREEN.
3. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
4. 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.
5. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
6. #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.
7. 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.
8. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
9. 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.

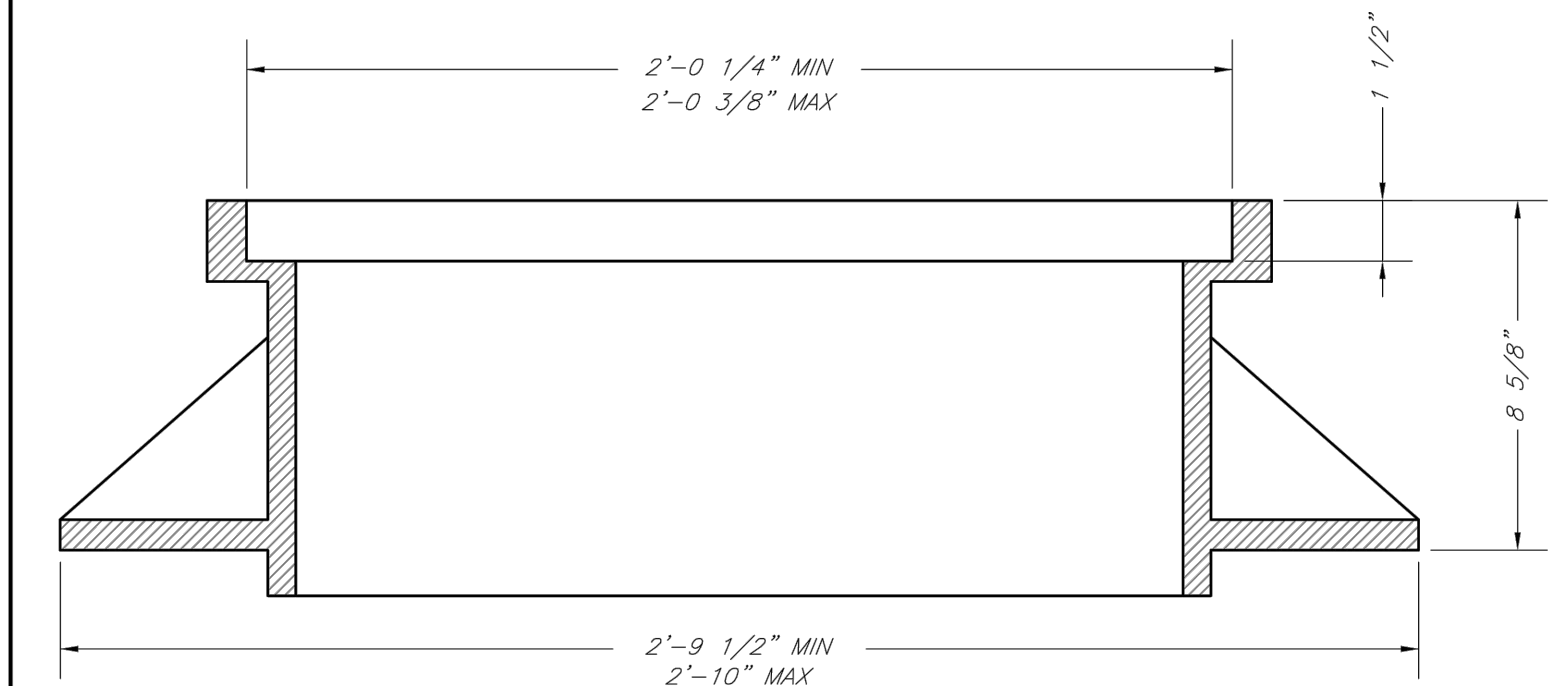


**LEE'S SUMMIT**  
**MISSOURI**

PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063  
BUILDING SEWER STUB AND RISER

Date: 04/12  
Drawn By: MIF  
Checked By: DL

SAN-1



STANDARD 24" MANHOLE FRAME  
LEE'S SUMMIT PART NO.: LS101A  
MINIMUM WEIGHT = 250 LB  
MATCHING COVER: LS101B



**CITY OF LEE'S SUMMIT, MO**  
**PUBLIC WORKS DEPARTMENT**  
**ENGINEERING DIVISION**

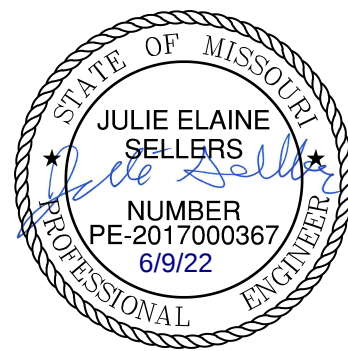
Date: 09/16/04  
Drawn By: JN  
Checked By:  
FILE: SANITARY SEWER-1  
Rev: 01/04/07  
Rev: 1/13

STANDARD 24" MANHOLE FRAME

Accepted  
Record Drawings

These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.

NOT AS BUILT



REVISIONS DESCRIPTION

DATE

REV. NO.

DETAIL SHEET  
SANITARY SEWER PLANS

OSAGE  
SECOND PLAT

2020

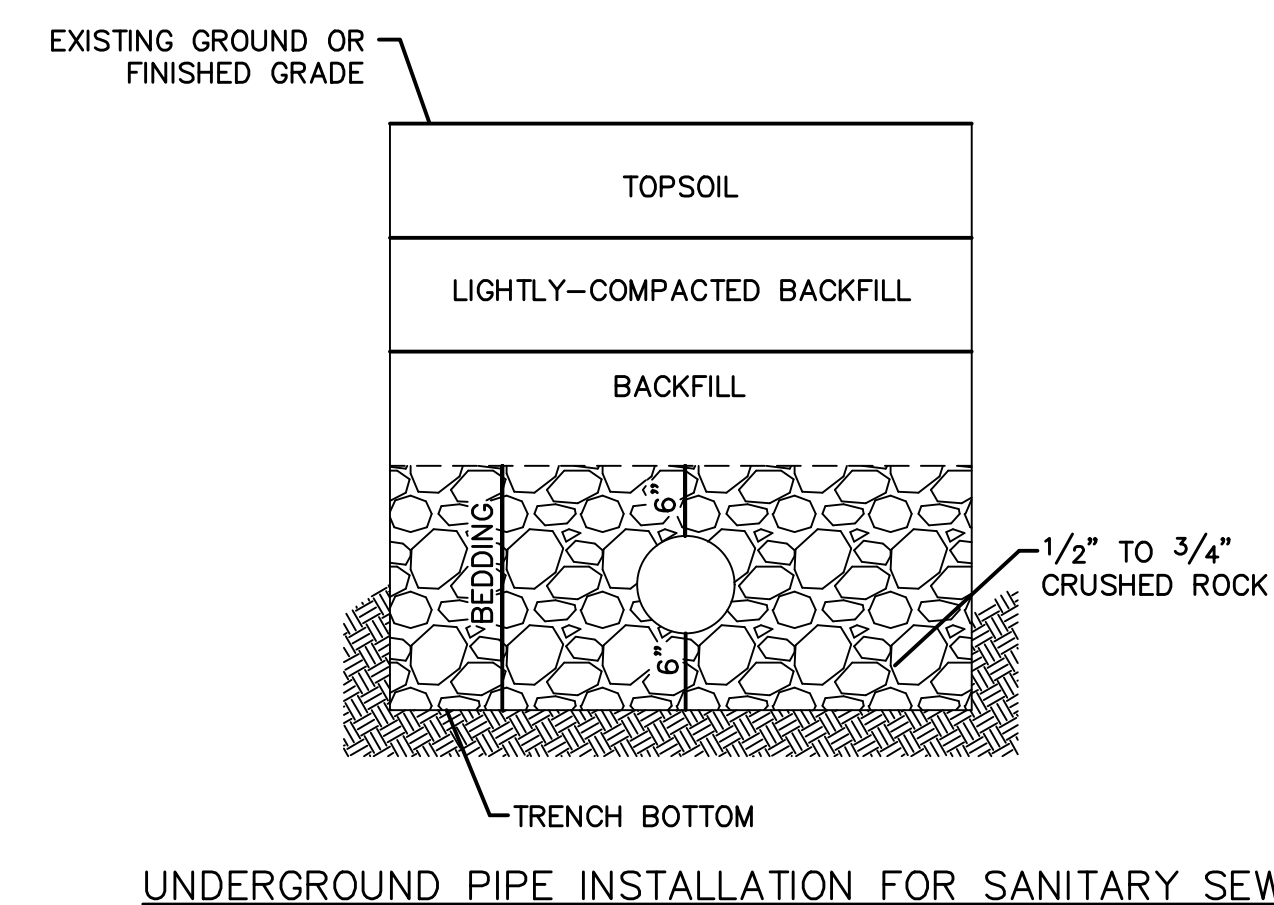
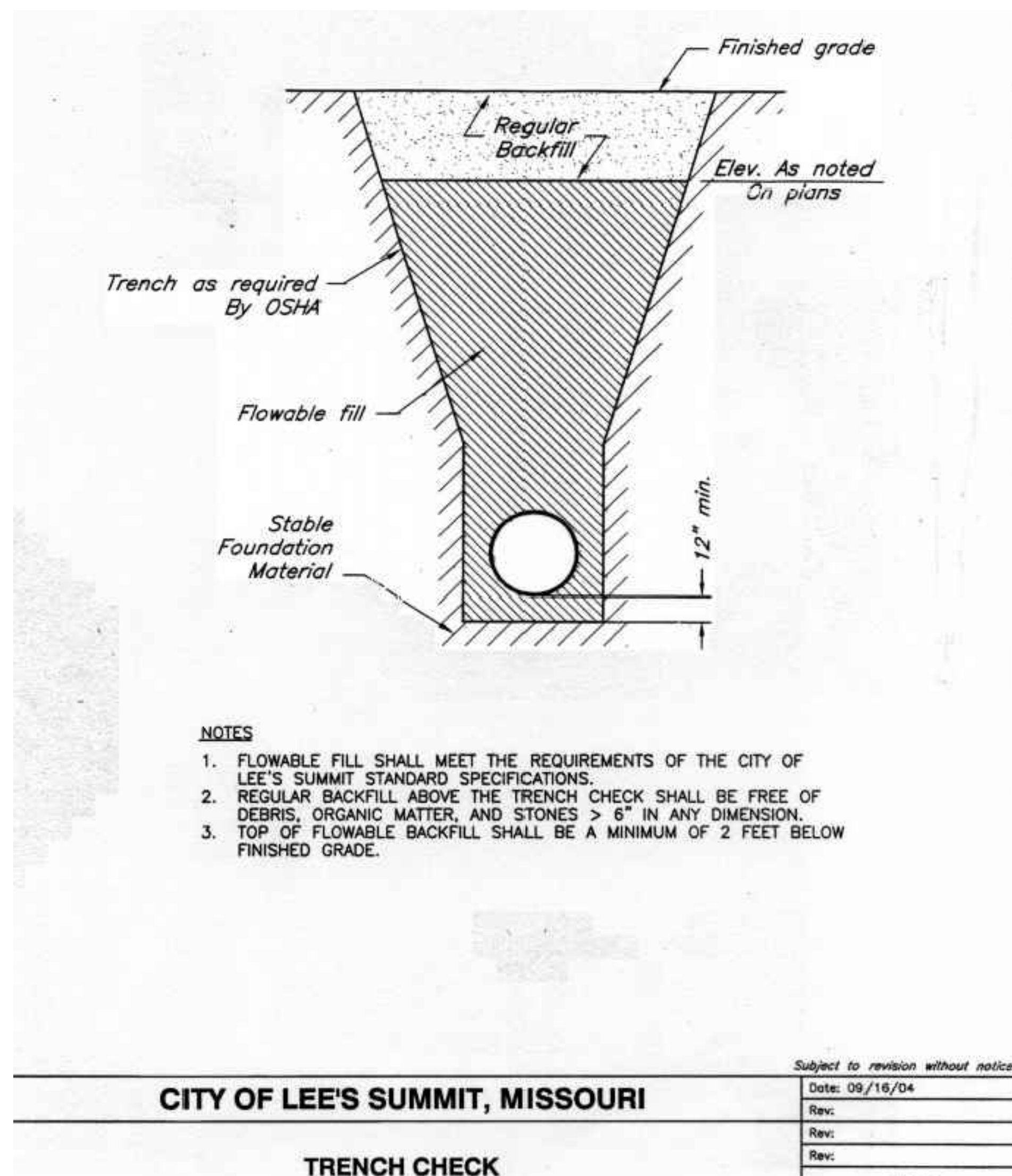
REVISIONS

drawn by: D.F./M.O./A.A.  
checked by: C.G.W.  
designed by: A.A.  
QA/QC by: J.E.S.  
project no.: C19-2339  
drawing no.:  
date: 2020.11.03

SHEET  
C210

**olsson**

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- NOTES:**
1. A MINIMUM OF 36 INCHES OF COVER SHALL BE OVER THE TOP OF THE PIPE. THIS MINIMUM OF COVER SHALL BE FROM THE TOP OF PIPE TO THE FINISHED GRADE.
  2. BEDDING AGGREGATE MATERIAL SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL. BEDDING AGGREGATE SHALL BE PLACED FROM A LEVEL 6 INCHES BELOW THE BOTTOM OF THE PIPE TO A LEVEL 6 INCHES ABOVE THE TOP OF THE PIPE.
  3. BACKFILL MATERIAL AND PLACEMENT SHALL BE PER SECTION 6900 AND 2102 OF THE CITY DESIGN AND CONSTRUCTION MANUAL.
  4. TRENCHING SHALL BE IN ACCORDANCE WITH CURRENT OSHA REGULATIONS. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
  5. MINIMUM AND MAXIMUM TRENCH WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.

**Accepted  
Record Drawings**

**These plans have been reviewed for accuracy and are accepted for basic conformance to the approved construction drawings.**

# NOT AS BUILT