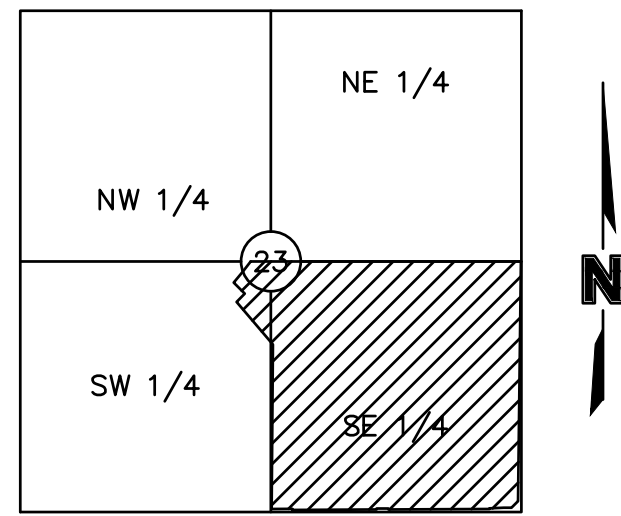


THE RETREAT AT HOOK FARMS SANITARY SEWER PLANS

SECTION 23, TOWNSHIP 47N, RANGE 23W
IN LEE'S SUMMIT, JACKSON COUNTY, MO



LOCATION MAP
Sec. 23, Twp. 47 N., Rge. 23 W.
(N.T.S.)

PROJECT TEAM & UTILITY CONTACT LIST	
OWNER / DEVELOPER HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.459.4285	UTILITY SERVICE NUMBERS NAME: DEVELOPMENT SERVICES PHONE: 816-969-1200 NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940 NAME: SPIRE (MGE) PHONE: 314-342-0500 NAME: AT&T PHONE: 800-286-8313 NAME: EVERGY PHONE: 816-471-5275 NAME: SPECTRUM (TWC) PHONE: 877-772-2253 NAME: GOOGLE FIBER PHONE: 877-454-6959
ENGINEER OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: MEGAN WALTER, P.E. PHONE: 970.635.3737	
SURVEYOR OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, PLS PHONE: 816.361.1177	



Sheet List Table		
Page Number	Sheet Number	Sheet Title
27	C200	COVER SHEET
28	C201	GENERAL NOTES
29	C202	GENERAL LAYOUT
30	C203	SANITARY SEWER PLAN & PROFILE
31	C204	SANITARY SEWER PLAN & PROFILE
32	C205	SANITARY SEWER PLAN & PROFILE
33	C206	SANITARY SEWER TABLES
34	C207	SANITARY SEWER DETAILS

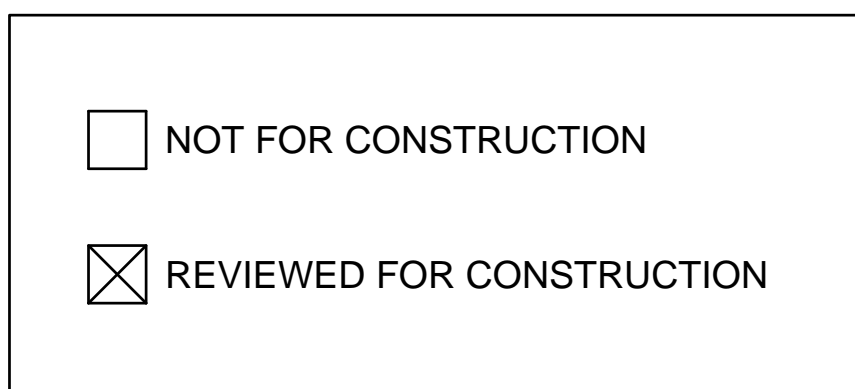
PROPERTY DESCRIPTION:

(AS PROVIDED BY CHICAGO TITLE INSURANCE COMPANY, NOVEMBER 1, 2018)

ALL THAT PART OF THE SOUTHEAST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN THE CITY OF LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, BEING BOUNDED AND DESCRIBED AS FOLLOWS: BEGINNING AT THE NORTHWEST CORNER OF SAID SOUTHEAST QUARTER; THENCE SOUTH 89 DEGREES 45 MINUTES 34 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTHEAST QUARTER, 2613.19 FEET TO ITS INTERSECTION WITH THE WEST RIGHT-OF-WAY LINE OF PRYOR ROAD AS NOW ESTABLISHED; THENCE SOUTH 02 DEGREES 45 MINUTES 31 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 2520.50 FEET; THENCE SOUTH 47 DEGREES 23 MINUTES 30 SECONDS WEST, ALONG SAID WEST RIGHT-OF-WAY LINE, 135.21 FEET TO ITS INTERSECTION WITH THE NORTH RIGHT-OF-WAY LINE OF HOOK ROAD, AS NOW ESTABLISHED; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 2264.70 FEET; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 10.00 FEET; THENCE NORTH 87 DEGREES 58 MINUTES 31 SECONDS WEST, ALONG SAID NORTH RIGHT-OF-WAY LINE, 252.00 FEET TO A POINT ON THE WEST LINE OF SAID SOUTHEAST QUARTER; THENCE NORTH 02 DEGREES 43 MINUTES 25 SECONDS EAST ALONG SAID WEST LINE, 2615.22 FEET TO THE POINT OF BEGINNING.

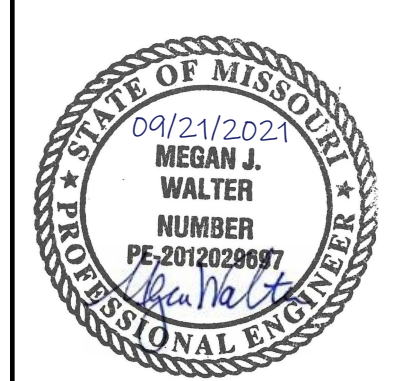
ALSO,

ALL THAT PART OF THE FOLLOWING DESCRIBED PROPERTY IN THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 23, TOWNSHIP 47, RANGE 32, LYING NORTH OF EAGLE CREEK GREENWAY, A SUBDIVISION, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, TO-WIT: THE SOUTH ONE HALF OF THE NORTHEAST QUARTER AND THE SOUTH ONE-HALF OF THE NORTHWEST QUARTER AND ALL THAT PART OF THE SOUTHWEST QUARTER OF SECTION 23, TOWNSHIP 47, RANGE 32, IN LEE'S SUMMIT, JACKSON COUNTY MISSOURI, BEING DESCRIBED AS FOLLOWS: BEGINNING AT THE SOUTHWEST CORNER OF SAID NORTHWEST QUARTER, THENCE NORTH 2 DEGREES 36 MINUTES 10 SECONDS EAST, ALONG THE WEST LINE OF SAID NORTHWEST QUARTER 1330.50 FEET TO THE NORTHWEST CORNER OF THE SOUTH ONE-HALF OF SAID NORTHWEST QUARTER, THENCE SOUTH 87 DEGREES 40 MINUTES 35 SECONDS EAST, ALONG THE NORTH LINE OF SAID SOUTH ONE-HALF 2657.85 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF, THENCE SOUTH 87 DEGREES 41 MINUTES 31 SECONDS EAST ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF SAID NORTHEAST QUARTER 2654.44 FEET TO THE NORTHEAST CORNER OF SAID SOUTH ONE-HALF; THENCE SOUTH 2 DEGREES 46 MINUTES 08 SECONDS WEST, ALONG THE EAST LINE OF SAID NORTHEAST QUARTER 1323.83 FEET TO THE SOUTHEAST CORNER OF SAID NORTHEAST QUARTER; THENCE NORTH 87 DEGREES 45 MINUTES 23 SECONDS WEST, ALONG THE SOUTH LINE OF SAID NORTHEAST QUARTER, 2653.42 FEET TO THE SOUTHWEST CORNER OF SAID NORTHEAST QUARTER; THENCE SOUTH 2 DEGREES 43 MINUTES 24 SECONDS WEST, (DEED-SOUTH 2 DEGREES 41 MINUTES 49 SECONDS WEST), ALONG THE EAST LINE OF SAID SOUTHWEST QUARTER, 1138.42 FEET TO THE CENTERLINE OF MOUSE CREEK, AS NOW ESTABLISHED; THENCE NORTH 25 DEGREES 51 MINUTES 15 WEST (DEED-NORTH 25 DEGREES 52 MINUTES 53 WEST), ALONG SAID CENTERLINE, 73.83 FEET; THENCE NORTH 67 DEGREES 53 MINUTES 09 SECONDS WEST (DEED-NORTH 67 DEGREES 54 MINUTES 44 SECONDS WEST), ALONG SAID CENTERLINE, 379.20 FEET; THENCE SOUTH 39 DEGREES 00 MINUTES 27 SECONDS WEST (DEED-SOUTH 38 DEGREES 58 MINUTES 52 SECONDS WEST), ALONG SAID CENTERLINE, 187.72 FEET; THENCE NORTH 48 DEGREES 37 MINUTES 07 SECONDS WEST (DEED-NORTH 48 DEGREES 38 MINUTES 42 SECONDS WEST), ALONG SAID CENTERLINE, 131.31 FEET; THENCE NORTH 73 DEGREES 28 MINUTES 23 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 58 SECONDS WEST), ALONG SAID CENTERLINE, 279.90 FEET THENCE NORTH 26 DEGREES 34 MINUTES 47 SECONDS WEST (DEED-NORTH 26 DEGREES 36 MINUTES 22 SECONDS WEST), ALONG SAID CENTERLINE, 312.25 FEET; THENCE NORTH 62 DEGREES 29 MINUTES 46 SECONDS WEST (DEED-NORTH 62 DEGREES 31 MINUTES 21 SECONDS WEST), ALONG SAID CENTERLINE, 134.47 FEET; THENCE SOUTH 52 DEGREES 10 MINUTES 15 SECONDS WEST (DEED-SOUTH 52 DEGREES 08 MINUTES 40 SECONDS WEST), ALONG SAID CENTERLINE, 85.16 FEET; THENCE SOUTH 19 DEGREES 37 MINUTES 09 SECONDS WEST (DEED-SOUTH 19 DEGREES 35 MINUTES 34 SECONDS WEST), ALONG SAID CENTERLINE, 142.83 FEET; THENCE SOUTH 79 DEGREES 21 MINUTES 39 SECONDS WEST (DEED-SOUTH 79 DEGREES 20 MINUTES 04 SECONDS WEST), ALONG SAID CENTERLINE, 68.92 FEET; THENCE NORTH 73 DEGREES 27 MINUTES 48 SECONDS WEST (DEED-NORTH 73 DEGREES 29 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 114.02 FEET; THENCE NORTH 25 DEGREES 46 MINUTES 28 SECONDS WEST (DEED-NORTH 25 DEGREES 48 MINUTES 03 SECONDS WEST), ALONG SAID CENTERLINE, 73.12 FEET; THENCE NORTH 87 DEGREES 30 MINUTES 19 SECONDS WEST (DEED-NORTH 87 DEGREES 31 MINUTES 54 SECONDS WEST), ALONG SAID CENTERLINE, 473.33 FEET; THENCE NORTH 49 DEGREES 45 MINUTES 48 SECONDS WEST (DEED-NORTH 49 DEGREES 47 MINUTES 23 SECONDS WEST), ALONG SAID CENTERLINE, 343.23 FEET; THENCE NORTH 56 DEGREES 22 MINUTES 25 SECONDS WEST (DEED-NORTH 56 DEGREES 24 MINUTES 00 SECONDS WEST), ALONG SAID CENTERLINE, 277.94 FEET; THENCE NORTH 65 DEGREES 42 MINUTES 49 SECONDS WEST (DEED-NORTH 65 DEGREES 44 MINUTES 24 SECONDS WEST), ALONG SAID CENTERLINE, 182.37 FEET; THENCE NORTH 22 DEGREES 55 MINUTES 55 SECONDS WEST (DEED-NORTH 22 DEGREES 57 MINUTES 30 SECONDS WEST), ALONG SAID CENTERLINE, 65.99 FEET TO ITS INTERSECTION WITH THE WEST LINE OF SAID SOUTHWEST QUARTER; THENCE NORTH 2 DEGREES 36 MINUTES 17 SECONDS EAST (DEED-NORTH 2 DEGREES 34 MINUTES 42 SECONDS EAST), ALONG SAID WEST LINE, 239.42 FEET TO THE POINT OF BEGINNING.
(SHOWN FOR CONVENIENCE IN REPORTING.)



AS-BUILT
2021.09.07

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REV. NO.	DATE	REVISIONS DESCRIPTION
1	06-24-2020	CITY COMMENTS
2	02-01-2021	ADDED HOOK ROAD SWALE
3	04-06-2021	SWALE AND ADA RAMP REVISIONS
4	05-04-2021	ADA RAMP REVISIONS
5	06-11-2021	HEARTHSTONE PLACE ENTRANCE REVISION

COVER SHEET
SANITARY SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
LEE'S SUMMIT, MO
2020

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_TTL00_0194059
date: 4/20/2020

SHEET C200
27 OF 54

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 USER: gsmith
 C:\XBASE_0194059

DWG: F:\2019\4001-4500\019-4059\40-design\AutoCAD\final_plans_os-builts\Sheets\GNVC\GEN&TABL_0194059.dwg USER: gemith
DATE: Sep 07, 2021 1:13pm XREFS: C:\PTBLK_0194059_34x22 C:\PBASE_0194059

GENERAL NOTES:

- LINEAR FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS (NOT SLOPE MEASUREMENTS) FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE CURRENT "CITY STANDARDS" AND SPECIFICATIONS OF THE CPD-DS-LDD, LEE'S SUMMIT, EXCEPT AS NOTED.
- THE DEVELOPER SHALL PERFORM ALIGNMENT AND GRADE, INFILTRATION - EXFILTRATION, DEFLECTION, SOIL DENSITY, AND MANHOLE TESTS AS CALLED OUT IN SECTION 2500 OF THE CURRENT APWA (AMERICAN PUBLIC WORKS ASSOCIATION) STANDARDS AND SPECIFICATIONS. ANY SECTION OF SEWER FAILING ANY OF THE ABOVE MENTIONED TESTS SHALL BE RETESTED BY THE DEVELOPER AFTER REPLACEMENT OR REPAIR.
- THE DEVELOPER MAY, AS AN ALTERNATE, SUBSTITUTE A.B.S. OR V.C.P. PIPE FOR P.V.C. PIPE. THE FOLLOWING PIPE DEFLECTION TEST SHALL BE IMPLEMENTED ON A.B.S. AND P.V.C. PIPE:

THE DEVELOPER SHALL PERFORM DIAMETRICAL DEFLECTION TESTS ON FLEXIBLE AND SEMI-FLEXIBLE (I.E. POLY-VINYL-CHLORIDE AND ACRYLONITRILE BUTADIENE STYRENE) PIPE WHEN USED AS A PUBLIC DIAMETER. ALL TESTS SHALL BE CONDUCTED BETWEEN MANHOLES. SEWER TESTS SHALL BE CONDUCTED BETWEEN MANHOLES. SEWER TESTED SHALL BE 100% OF THE TOTAL SEWER INSTALLED. A MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE BEING INSTALLED SHALL BE USED.
- THE DEVELOPER SHALL PERFORM DIAMETRICAL DEFLECTION TESTS ON FLEXIBLE AND SEMI-FLEXIBLE (I.E. POLY-VINYL-CHLORIDE AND ACRYLONITRILE BUTADIENE STYRENE) PIPE WHEN USED AS A PUBLIC SEWER PRIOR TO FINAL ACCEPTANCE. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE 3% OF THE INSIDE DIAMETER. ALL TESTS SHALL BE CONDUCTED BETWEEN MANHOLES. SEWER TESTED SHALL BE 100% OF THE TOTAL SEWER INSTALLED. A MANDREL WITH A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE BEING INSTALLED SHALL BE USED.
- PRIOR TO ORDERING PRE-CAST STRUCTURES, SHOP DRAWINGS ARE TO BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL. THE DESIGN ENGINEER SHALL INDICATE APPROVAL OF THE SHOP DRAWINGS.
- DEVELOPER SHALL PROVIDE EARTHWORK AND MATERIAL TESTING TO COMPLY WITH THE STANDARD SPECIFICATIONS OF THE CPD-DS-LDD.
- DURING CONSTRUCTION OF THE PROJECT, THE DEVELOPER SHALL KEEP ONE RECORD COPY OF ALL SPECIFICATIONS, DRAWINGS, ADDENDA, MODIFICATIONS, AND SHOP DRAWINGS AT THE SITE IN GOOD CONDITION. THESE DOCUMENTS SHALL BE ANNOTATED TO SHOW ALL CHANGES MADE DURING CONSTRUCTION. THE EXACT LOCATION OF ALL SEWER WYES, TEES, AND SERVICE LINES SHALL BE RECORD ON THESE DOCUMENTS. AT THE CONCLUSION OF CONSTRUCTION, THESE DOCUMENTS SHALL BE FORWARDED TO THE DESIGN ENGINEER FOR PREPARATION OF AS-BUILT DRAWINGS.
- THE PROJECT BENCHMARKS AND ALL ELEVATIONS SHOWN ON THE PROFILES ARE N.G.V.D.
- THE DEVELOPER IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE DEVELOPER MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT IS THE DEVELOPERS RESPONSIBILITY TO RELOCATE AND/OR ADJUST ALL EXISTING UTILITIES, CONFLICT WITH PROPOSED SITE IMPROVEMENTS.
- THE DEVELOPER SHALL 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. THE NAMES AND TELEPHONE NUMBERS OF UTILITY COMPANIES, EVEN IF ONLY REMOTELY INVOLVED WITH THIS HIS PROJECT ARE LISTED UNDER "UTILITY CONTACTS" THIS SHEET.
- THE DEVELOPER SHALL PROVIDE AND MAINTAIN ALL TRAFFIC CONTROL MEASURES NECESSARY TO ENSURE THAT THE GENERAL PUBLIC IS PROTECTED AT ALL TIMES. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD-LATEST EDITION).
- THE SITE PLAN IS BASED ON SURVEY BY OLSSON ASSOCIATES, COMPLETED 12-13-16. CONDITIONS ON SITE AT THE TIME OF CONSTRUCTION MAY VARY FROM THE SURVEYED CONDITIONS. DEVELOPER SHALL VERIFY EXISTING SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION.
- THE DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL PERMITS (EXCEPT LAND DISTURBANCE), BONDS, INSURANCE, ETC. AND PAYING ALL FEES. THE COST OF DEVELOPERS BONDS AND INSURANCE AS REQUIRED BY THE CITY OF LEE'S SUMMIT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
- DEVELOPER SHALL COMPLY WITH ALL APPLICABLE REGULATIONS REQUIRED BY THE CITY AND THE STATE.
- THE DEVELOPER MUST REMOVE AT HIS COST ANY BAD SUBSURFACE SOIL WHICH WOULD NOT BE ABLE TO SUPPORT ANY PROPOSED PUBLIC IMPROVEMENT. BACKFILL SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTIONS 2100 AND 2201 ENTITLED "GRADING AND SITE PREPARATION" AND "SUBGRADE PREPARATION".
- VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). THE DEVELOPER IS ADVISED TO USE BENCHMARK INFORMATION FOR VERTICAL CONTROL. HORIZONTAL CONTROL (CONTROL POINT INFORMATION) IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83). THE DEVELOPER IS ADVISED TO USE CONTROL POINT INFORMATION FOR HORIZONTAL CONTROL.
- THE CONTRACTOR SHALL CONSTRUCT ALL MH LIDS AT THE CENTERLINE OF THE ROAD.

PLUMBING NOTES:

- ALL LOTS HAVE BEEN SUPPLIED WITH WYES OR LATERALS. PLUMBER SHALL CONNECT HOUSE SERVICE TO MAIN AT LOCATIONS INDICATED.
 - ALL SERVICE LINES SHALL BE LAID AT 2% MINIMUM SLOPE, UNLESS OTHERWISE NOTED.
 - M.S.F.E. ELEVATION - INDICATES BASEMENT FLOOR ELEVATION OR LOWEST FLOOR ELEVATION SERVICEABLE BY PROPOSED SANITARY SEWER.
- EXCAVATING NOTES:
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION.
 - THE DEVELOPER SHALL BE RESPONSIBLE FOR RECORDING ROCK ELEVATIONS AT 25 FOOT (MAXIMUM) INTERVALS WHERE ENCOUNTERED, AND FURNISHING THIS INFORMATION TO THE DESIGN ENGINEER FOR USE ON AS-BUILTS.
 - THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES. EROSION CONTROL PLANS AND PROCEDURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION.
 - NO SUBSURFACE EXPLORATION FOR THE DETERMINATION OF AND/OR THE LOCATION OF EXISTING ROCK HAS BEEN MADE.
 - WHEN SEWER LINES CROSS A LOW POINT IN A CREEK, THE SEWER LINE MUST BE ENCASED ACCORDING TO LEE'S SUMMIT.
 - DEVELOPER IS RESPONSIBLE FOR KEEPING ALL PUBLIC ROADWAYS ADJACENT TO THE CONSTRUCTION SITE FREE OF DIRT AND DEBRIS RESULTING FROM ACTIVITIES RELATED TO THE CONSTRUCTION OF THIS PROJECT. INSPECTIONS AND CLEANUP TO OCCUR ON A DAILY BASIS.
 - DEVELOPER SHALL KEEP THE ENTIRE PROJECT SITE FREE OF DEBRIS AND TRASH AT ALL TIMES. DEVELOPER SHALL EXECUTE WORK USING METHODS THAT MINIMIZE EXCESSIVE NOISE OR DUST EMISSIONS. DEVELOPER SHALL PROVIDE METHODS, MEANS AND FACILITIES TO PREVENT CONTAMINATION OF SOIL OR WATER FROM DISCHARGE OF REGULATED MATERIALS (I.E. FUEL) USED DURING CONSTRUCTION.
 - THE DEVELOPER SHALL ERECT AND MAINTAIN ORANGE COLORED TEMPORARY CONSTRUCTION FENCE AROUND ALL AREAS INDICATED ON THE PLANS TO BE LEFT UNDISTURBED BOTH TEMPORARY AND PERMANENTLY THE DEVELOPER WILL BE GIVEN NOTICE WHEN HE MAY ENTER THESE AREAS MARKED TEMPORARY BY THE OWNER ONCE PERMITS HAVE BEEN OBTAINED. THE FENCE MATERIAL SHALL BE 48" TALL, HIGH DENSITY POLYETHYLENE (HDPE) WITH NOMINAL MESH OPENING SIZE OF 1.25 INCHES X 1.25 INCHES.

LEGEND	
	EXISTING CABLE TV, OVERHEAD
	EXISTING CABLE TV, UNDERGROUND
	PROPOSED CABLE TV, OVERHEAD
	PROPOSED CABLE TV, UNDERGROUND
	FUTURE CABLE TV, OVERHEAD
	FUTURE CABLE TV, UNDERGROUND
	EXISTING FIBER OPTIC, OVERHEAD
	EXISTING FIBER OPTIC, UNDERGROUND
	PROPOSED FIBER OPTIC, OVERHEAD
	PROPOSED FIBER OPTIC, UNDERGROUND
	FUTURE FIBER OPTIC, OVERHEAD
	FUTURE FIBER OPTIC, UNDERGROUND
	EXISTING FIRE PROTECTION SYSTEM LINE
	PROPOSED FIRE PROTECTION SYSTEM LINE
	FUTURE FIRE PROTECTION SYSTEM LINE
	EXISTING FUEL LINE
	PROPOSED FUEL LINE
	FUTURE FUEL LINE
	EXISTING NATURAL GAS LINE
	PROPOSED NATURAL GAS LINE
	FUTURE NATURAL GAS LINE
	EXISTING TELEPHONE LINE, OVERHEAD
	EXISTING TELEPHONE LINE, UNDERGROUND
	PROPOSED TELEPHONE LINE, OVERHEAD
	PROPOSED TELEPHONE LINE, UNDERGROUND
	FUTURE TELEPHONE LINE, OVERHEAD
	FUTURE TELEPHONE LINE, UNDERGROUND
	EXISTING POWER/ELECTRIC LINE, OVERHEAD
	EXISTING POWER/ELECTRIC LINE, UNDERGROUND
	PROPOSED POWER/ELECTRIC LINE, OVERHEAD
	PROPOSED POWER/ELECTRIC LINE, UNDERGROUND
	FUTURE POWER/ELECTRIC LINE, OVERHEAD
	FUTURE POWER/ELECTRIC LINE, UNDERGROUND
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	FUTURE SANITARY SEWER
	EXISTING STEAM LINE
	PROPOSED STEAM LINE
	FUTURE STEAM LINE
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	FUTURE STORM SEWER
	EXISTING WATER LINE
	PROPOSED WATER LINE
	FUTURE WATER LINE

ESTIMATE OF QUANTITIES				
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
SANITARY SEWER				
1	8" SANITARY PVC (SDR-26)	L.F.	-2460-	2324
2	MANHOLES, STD. 4' DIA.	EA.	-14-	14
3	CONNECTION TO EXISTING MANHOLE	EA.	-1-	1
4	TRACER WIRE	L.F.	-2460-	2460*
5	SERVICE WYE	EA.	-50-	50*
6	4" LATERAL PIPE	L.F.	-2060-	2060*
*AS PROVIDED BY CONTRACTOR				

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS 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.

CONTROL POINT TABLE				
POINT NUMBER	EASTING	NORTHING	POINT ELEVATION	DESCRIPTION
1	2813424.811	1004323.277	978.52	SET 3/4" IB/CAP ON THE WEST SIDE OF PRYOR ROAD ON THE NORTH SIDE OF THE NORTH ENTRANCE TO THE JOHN KNOX VILLAGE CARE CENTER. 23.0' S TO BACK OF CURB. 51.0' SE TO POWER POLE. 52.4' S TO LIGHT POLE.
2	2810579.799	1003600.769	965.27	SET 3/4" IB/CAP ON THE SW CORNER OF THE INTERSECTION OF NW ASHURD AND NW ESSEX AVE. 12.2' NW TO CENTERLINE FIBER BOX. 37.3' E TO STOP SIGN. 39.7' E-NE TO LIGHT POLE.
3	2810569.194	1000980.591	904	SET 3/4" IB/CAP AT THE SE CORNER OF NW CODY DRIVE AND NW WHITLOCK DRIVE. 12.2' E TO NW CORNER CURB INLET. 7.7' SE TO POWER POLE. 49.7' W-NW TO STOP SIGN.
4	2813406.046	1000727.167	958.11	SET 3/4" IB/CAP ON THE SE CORNER SW PRYOR ROAD AND SW 1ST STREET. 10.8' NE TO FIRE HYDRANT. 22.1' NE TO SE CORNER CURB INLET. 22.0' SW TO NE CORNER CURB INLET.
6	2813383.638	1002469.496	979.56	SET 3/4" IB/CAP ON THE SW CORNER OF PRYOR ROAD AND O'BRIEN ROAD. IT IS IN LINE WITH THE PC OF THE CURB RETURN N AND THE BENCHMARK E.
BENCHMARK				
POINT NUMBER	EASTING	NORTHING	POINT ELEVATION	DESCRIPTION
5	2813403.101	1002468.034	979.24	CHISELED BOX ON THE SE CORNER OF A CONCRETE PAD FOR A TRAFFIC SIGNAL BOX AT THE SW CORNER OF PRYOR ROAD AND O'BRIEN ROAD.

AS-BUILT / SERVICE LINE NOTE

- CONTRACTOR SHALL PLACE 2"x4" TIMBER OR METALLIC TAPE AT END OF EACH SERVICE LINE STUB. STANDARD 8' LENGTH MAY BE VARIED WITH 3' EXPOSED WHEN PLACED DIRECTLY OVER THE SERVICE LINE TERMINATION POINT. 2"x4" TIMBER SHALL BE MARKED APPROPRIATELY TO IDENTIFY SEWER SERVICE STUB.
- CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING OF ROCK ELEVATIONS AT 25' INTERVALS WHERE ENCOUNTERED. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR RECORDING SERVICE LINE LOCATIONS FROM THE DOWNSTREAM OR UPSTREAM MANHOLE AND SERVICE LINE LENGTHS DURING CONSTRUCTION OPERATIONS. CONTRACTOR SHALL ALSO RECORD VERTICAL ELEVATIONS WITH A REFERENCE POINT. ALL INFORMATION SHALL BE PROVIDED TO THE ENGINEER OF RECORD FOR PREPARATION OF AS-BUILT PLANS.

AS-BUILT 2021.09.07

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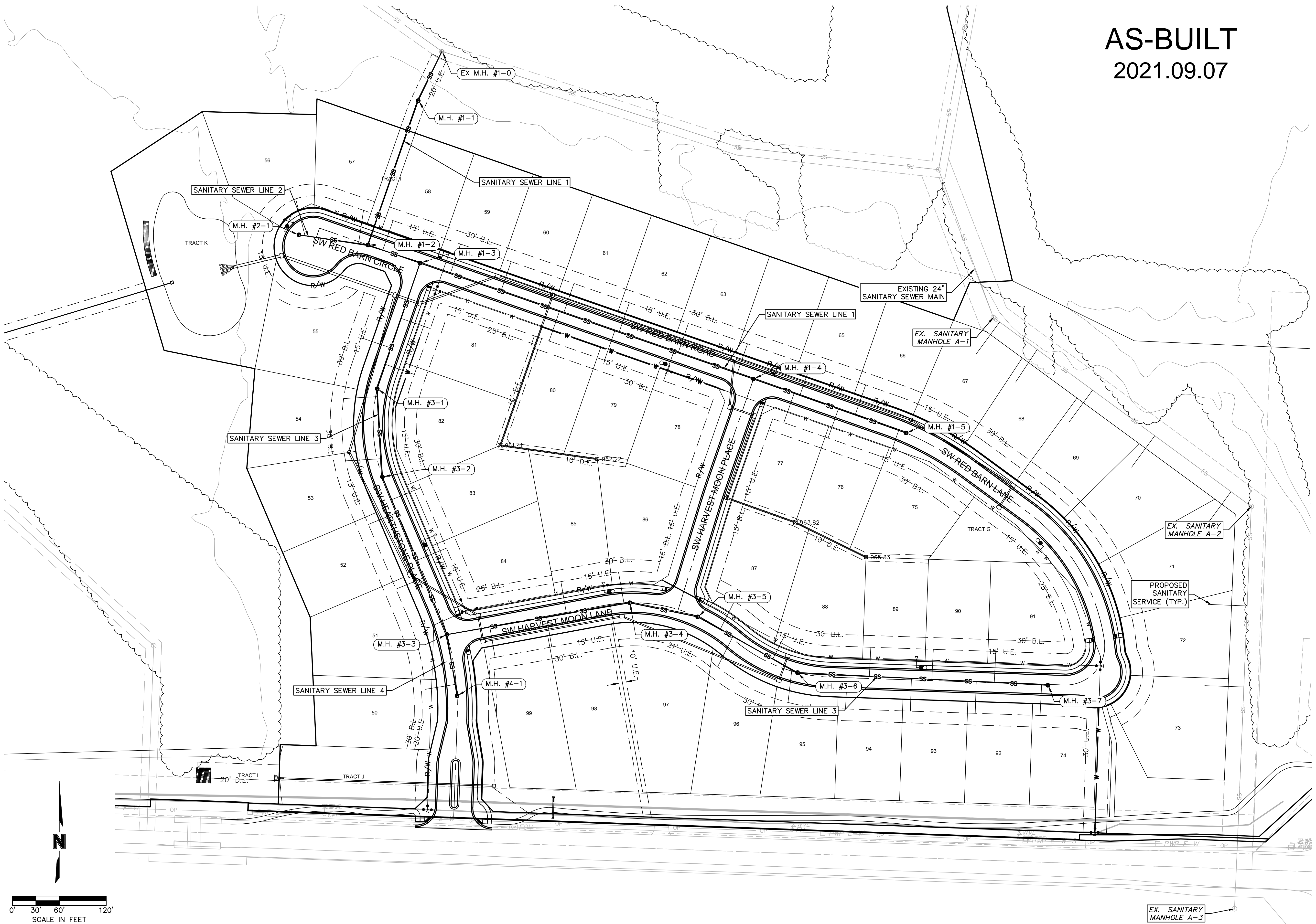
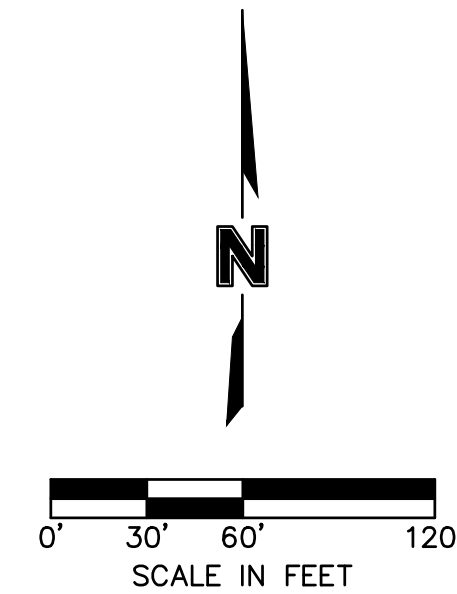
REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	06-24-2020	CITY COMMENTS	
2	02-01-2021	ADDED HOOK ROAD SWALE	
3	04-06-2021	SWALE AND ADA RAMP REVISIONS	
4	05-04-2021	ADA RAMP REVISIONS	
5	06-11-2021	HEARTHSTONE PLACE ENTRANCE REVISION	

GENERAL NOTES
SANITARY SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS
2020
LEE'S SUMMIT, MO

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: GEN&TABL_0194059
date: 4/20/2020

ALL NOTES REFERENCED ON THIS PLAN SHEET MAY HAVE APPLICATIONS TO EVERY FACET OF THE CONSTRUCTION PLANS. THE NOTE HEADINGS OR TITLES ARE TO BE USED AS A GENERAL GUIDE TO APPLICABLE SITUATIONS.

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 USER: gsmith



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REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	06-24-2020	CITY COMMENTS	
2	02-01-2021	ADDED HOOK ROAD SWALE	
3	04-06-2021	SWALE AND ADA RAMP REVISIONS	
4	05-04-2021	ADA RAMP REVISIONS	
5	06-11-2021	HEARTHSTONE PLACE ENTRANCE REVISION	

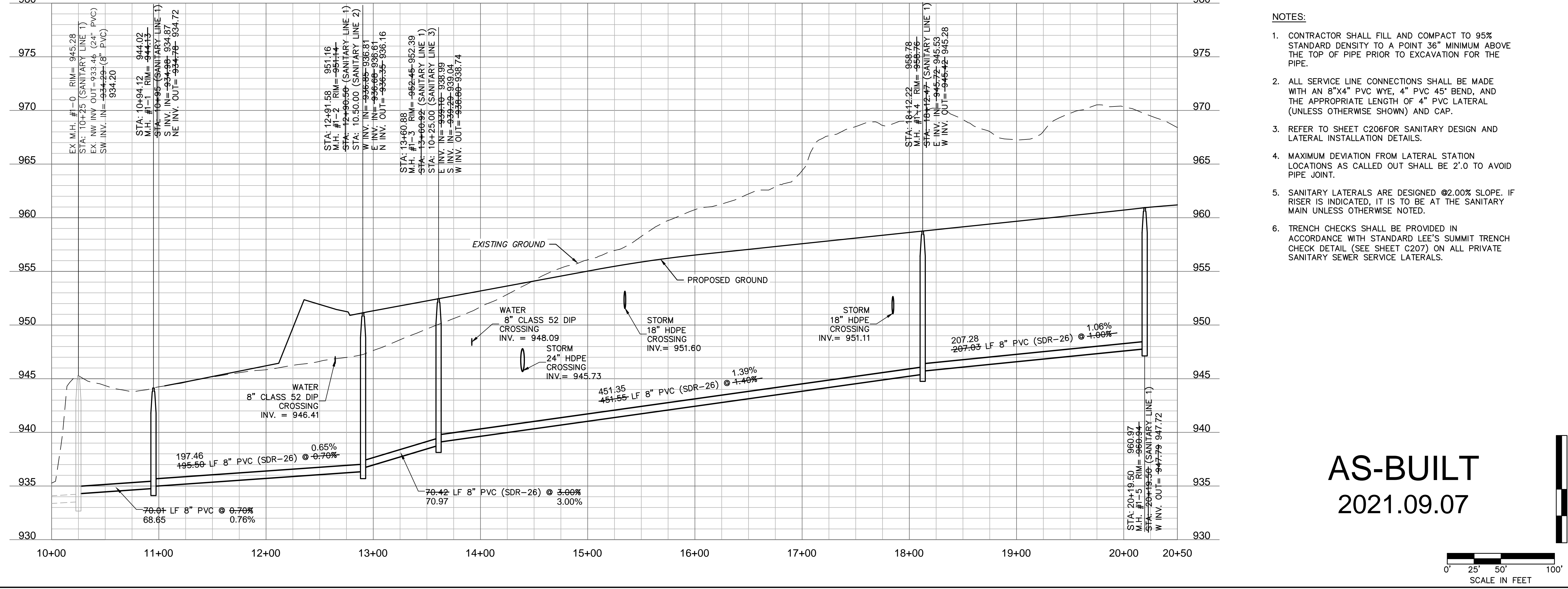
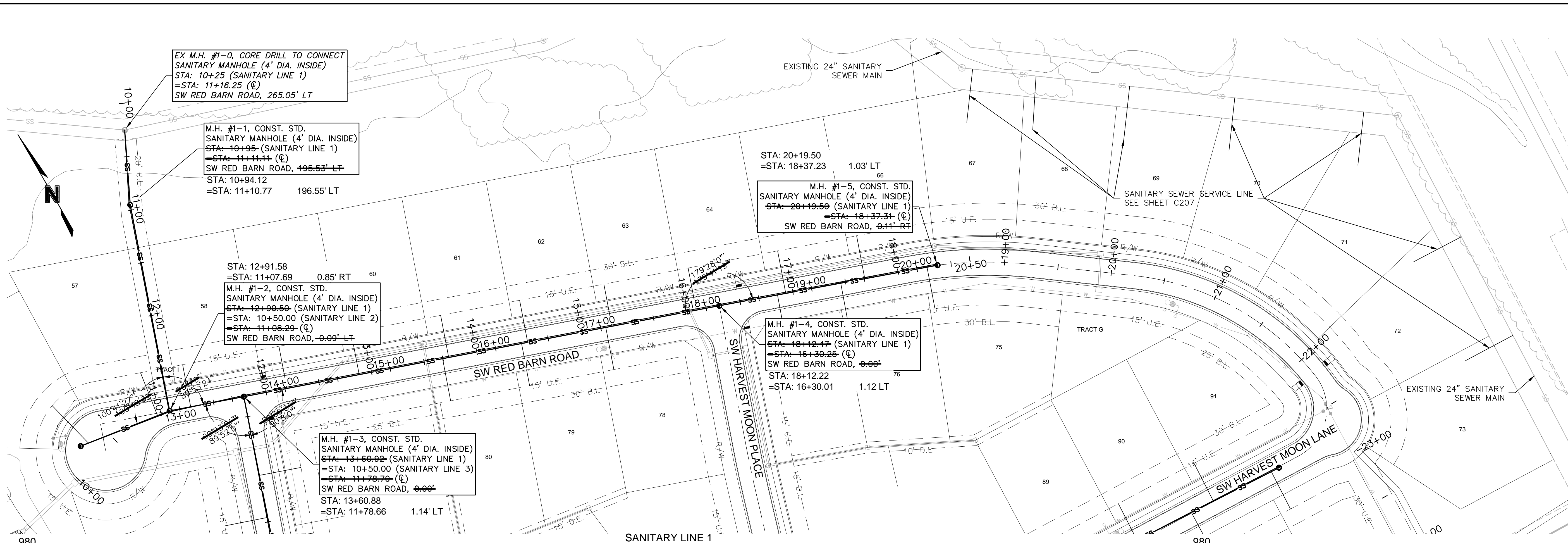
GENERAL LAYOUT
 SANITARY SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS
 2020

drawn by: EM
 checked by: EM
 designed by: RB
 QA/QC by: NH
 project no.: 019-4059
 drawing no.: C_SAN01_0194059
 date: 4/20/2020

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- NOTES:**
- CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 36" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.
 - 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.
 - REFER TO SHEET C206 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.
 - MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2'0" TO AVOID PIPE JOINT.
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 - TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD LEE'S SUMMIT TRENCH CHECK DETAIL (SEE SHEET C207) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

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STATE OF MISSOURI
MEGAN J. WALTER
NUMBER PE-201202897
Professional Engineer

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SANITARY SEWER PLAN & PROFILE
 SANITARY SEWER PLANS
 THE RETREAT AT HOOK FARMS
 CONSTRUCTION DOCUMENTS

REVISIONS
 2020
 LEE'S SUMMIT, MO

drawn by: _____ EM

checked by: _____ EM

designed by: _____ RB

QA/QC by: _____ NH

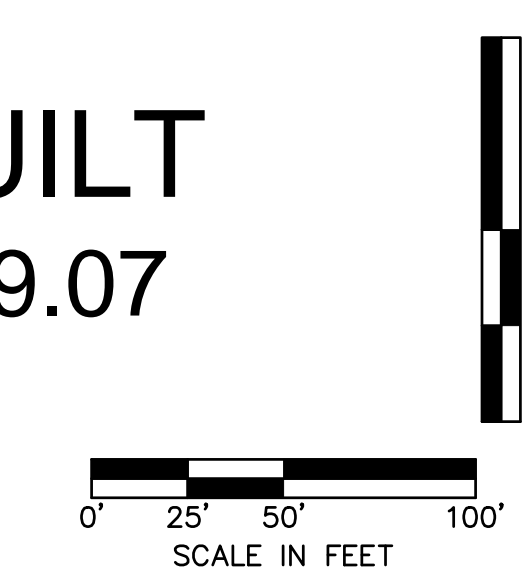
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drawing no.: C_SAN02_0194059

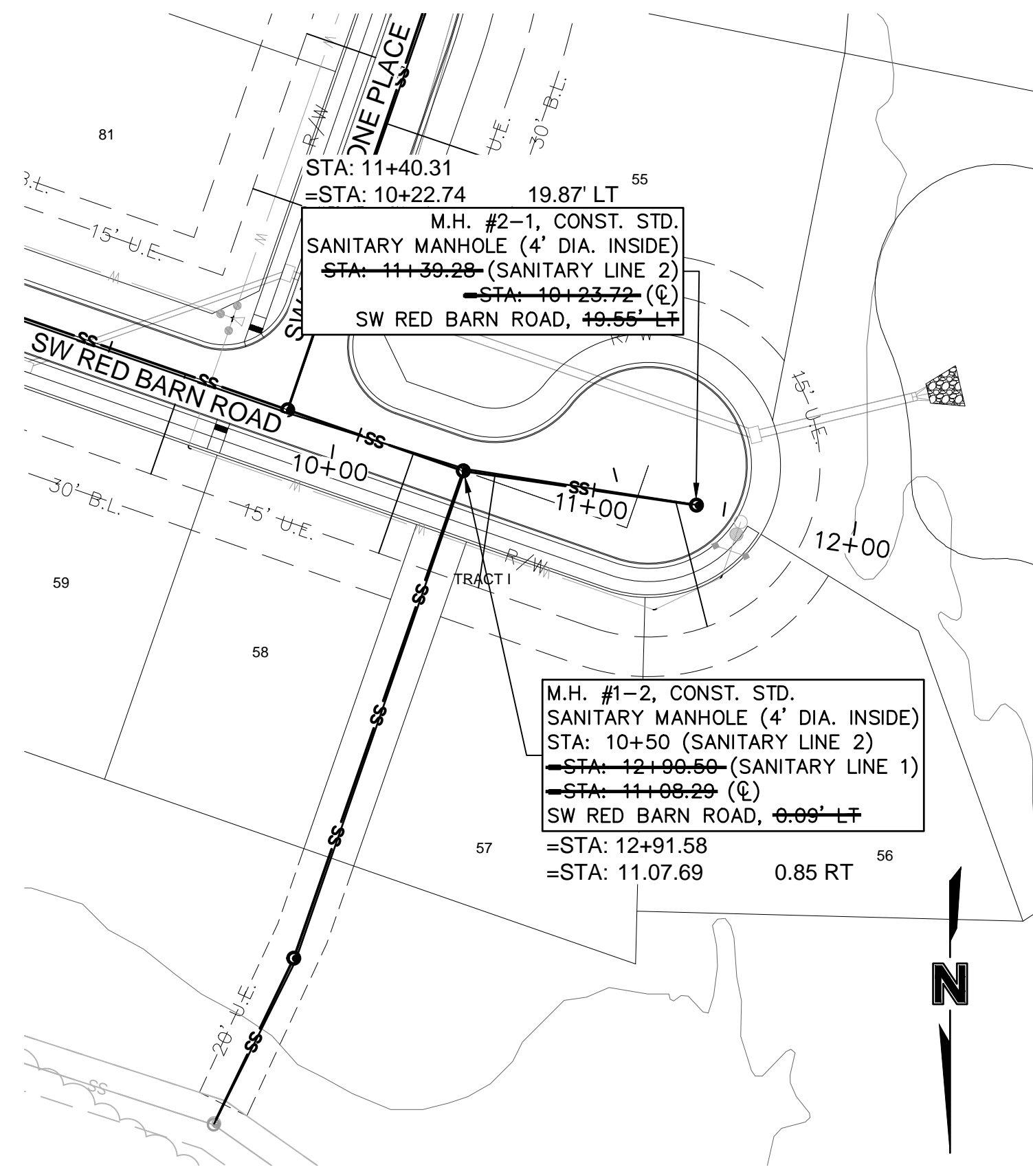
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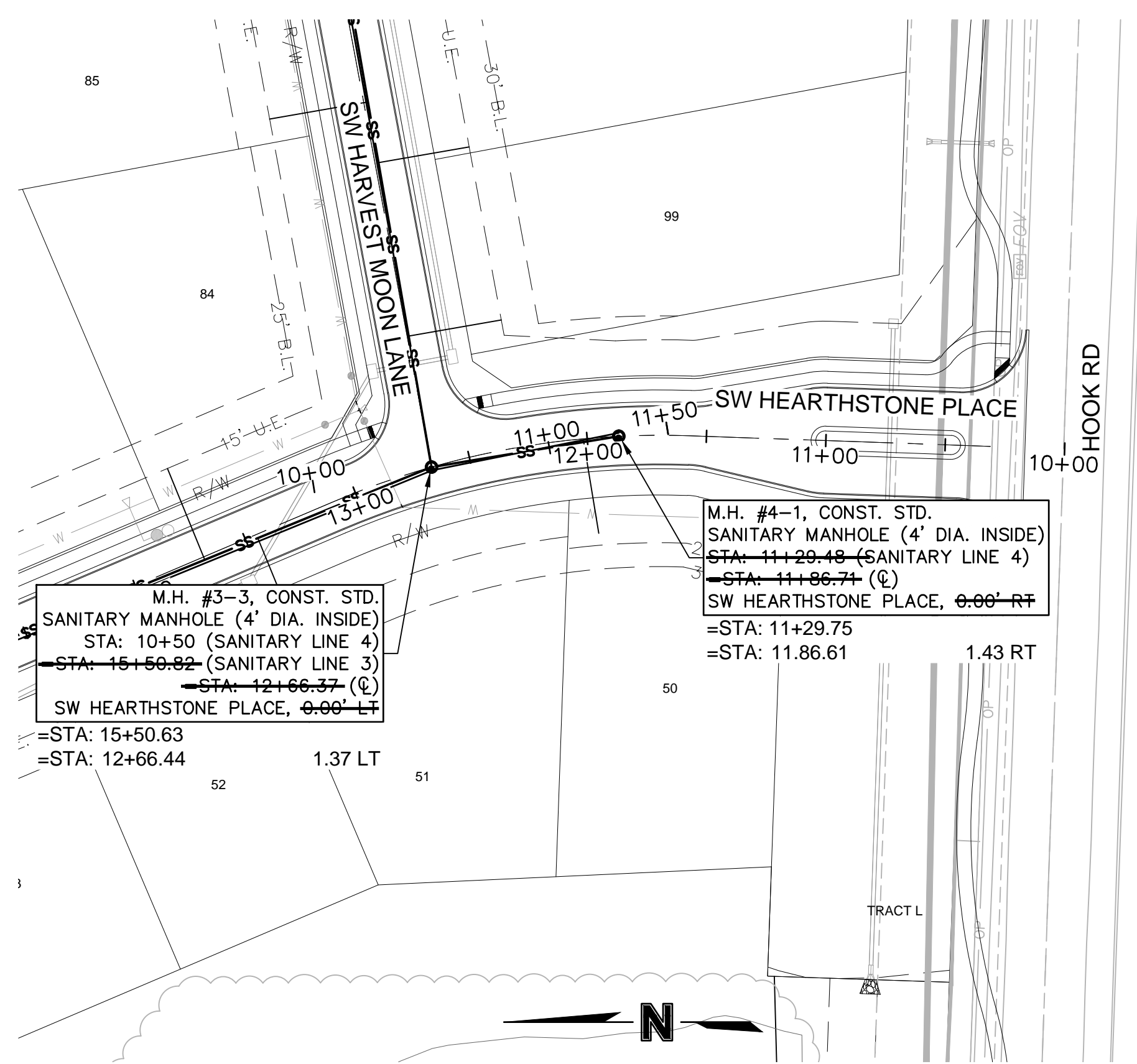
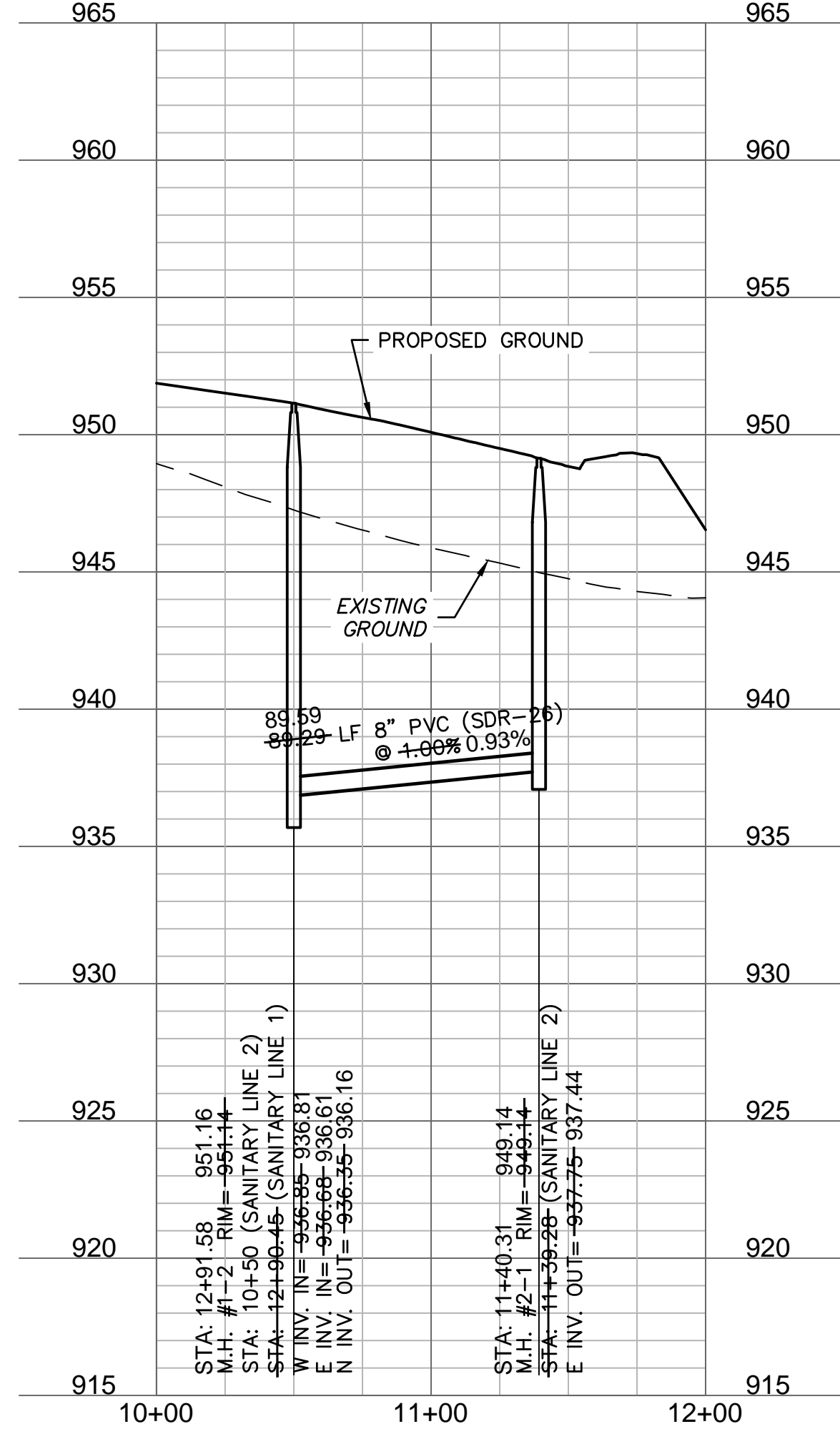
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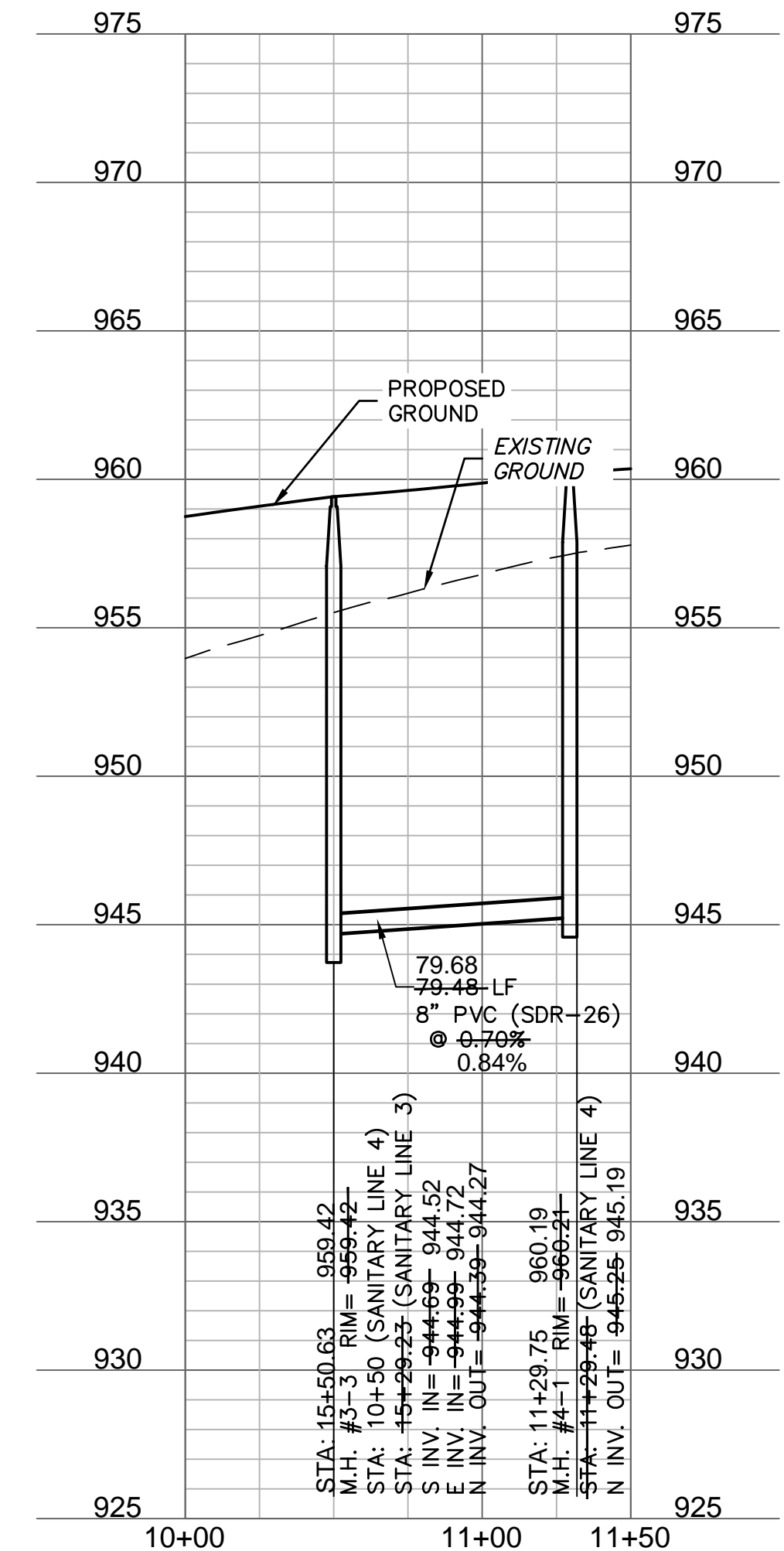
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SANITARY LINE 2



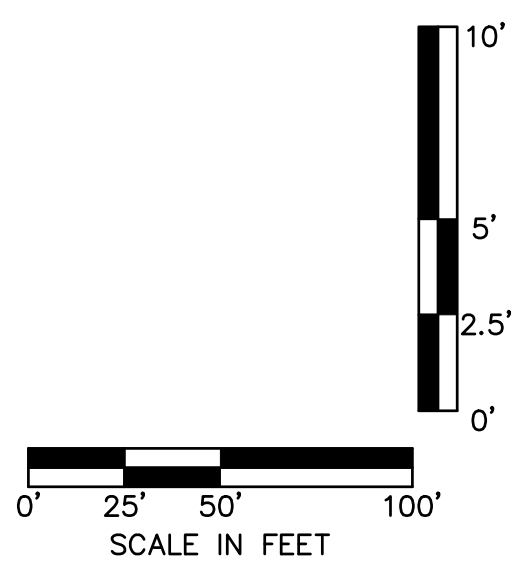
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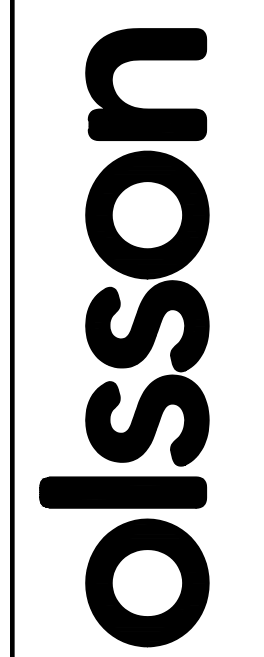


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- FOR PIPE ANGLES AT MANHOLE, REFER TO SHEET C203 OR C205.

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SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

BY _____

2020

drawn by: _____ EM
 checked by: _____ EM
 designed by: _____ RB
 QA/QC by: _____ NH
 project no.: 019-4059
 drawing no.: C_SAN02_0194059
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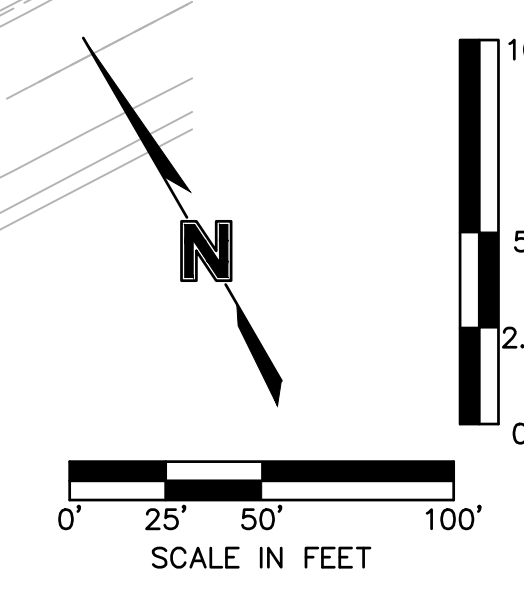
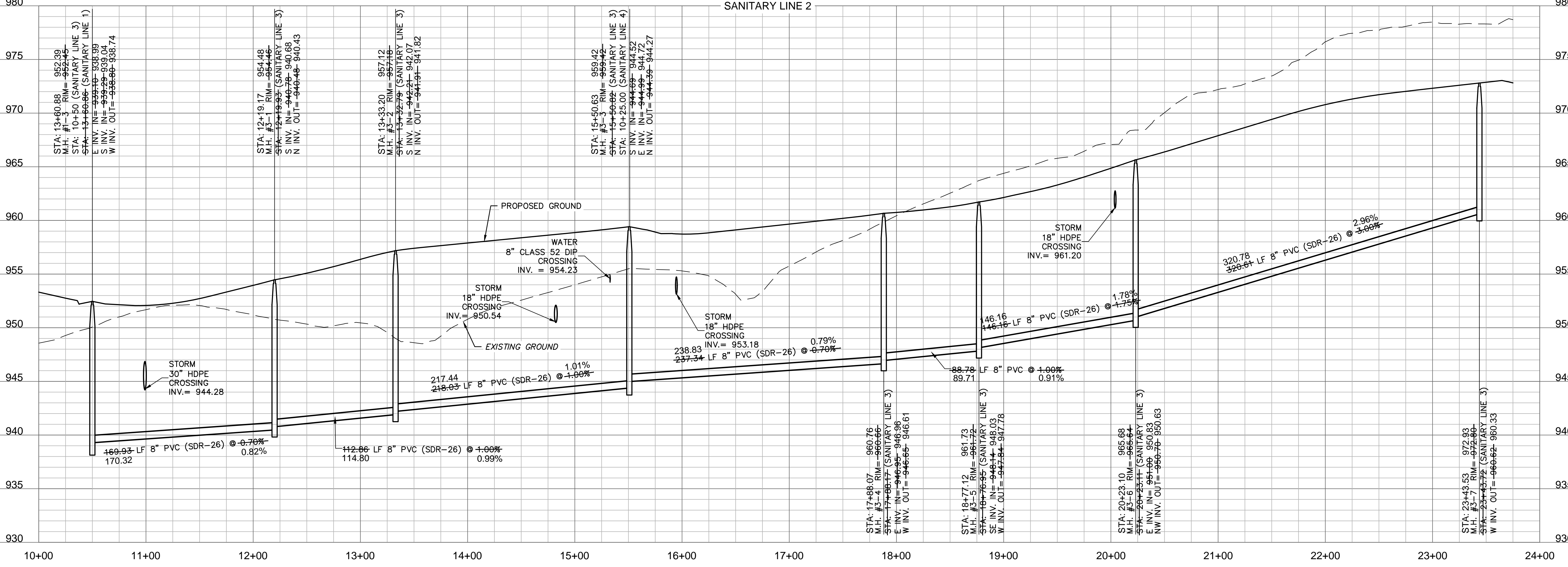
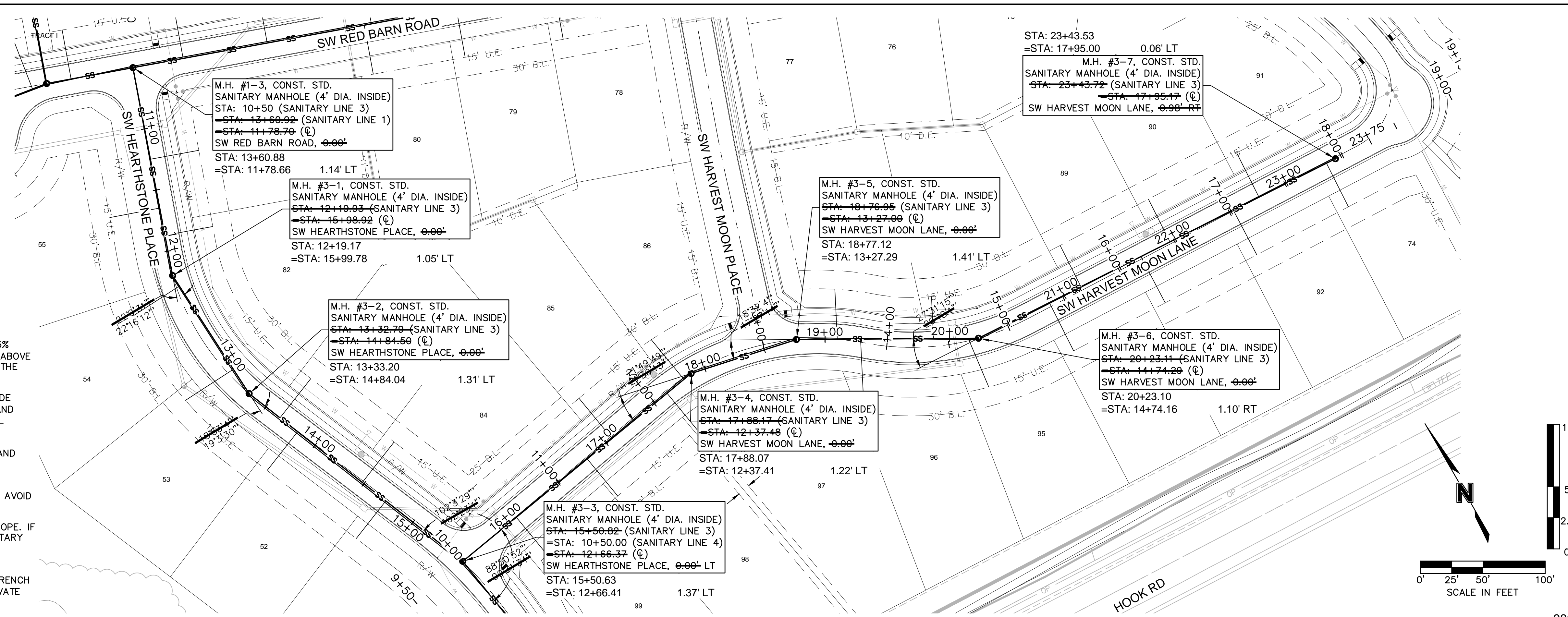
SHEET C204
31 OF 54

AS-BUILT

2021.09.07

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SANITARY SEWER PLAN & PROFILE
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REVISIONS

LEE'S SUMMIT, MO

2020

drawn by: _____ EM
checked by: _____ EM
designed by: _____ RB
QA/QC by: _____ NH
project no.: 019-4059
drawing no.: C_SANO2_0194059
date: 4/20/2020

SHEET C205
32 OF 54

Sanitary Sewer Laterals							
Lot Number	Lateral Station	Upstream Manhole	Lateral Length	Riser	Flowline at Main	Flowline at End of Lateral	Minimum Serviceable Floor Elevation
			(ft)	(ft)	(ft)	(ft)	(ft)
50	11+14.62	MH 4-1	38.74	1.0	945.2	947.9	950.72
51	14+72.29	MH 3-3	38.36	1.0	943.6	946.4	949.16
52	13+82.30	MH 3-3	39.63	1.0	942.7	945.5	948.29
53	13+09.56	MH 3-2	45.82	1.0	941.7	944.6	947.38
54	12+29.93	MH 3-2	43.57	2.0	940.9	944.7	947.52
55	11+64.73	MH 3-1	40.44	0.0	940.1	941.9	944.71
56	11+31.45	MH 2-1	48.61	0.0	937.7	939.6	942.44
57	10+62.14	MH 2-1	43.04	1.0	937.0	939.8	942.61
58	13+10.50	MH 1-3	40.00	2.0	937.3	941.0	943.85
59	14+01.92	MH 1-4	40.00	1.0	939.7	942.5	945.25
60	14+70.50	MH 1-4	40.00	1.0	940.6	943.4	946.21
61	15+55.50	MH 1-4	40.00	1.0	941.8	944.6	947.40
62	16+30.50	MH 1-4	40.00	1.0	942.9	945.7	948.45
63	17+10.50	MH 1-4	40.00	1.0	944.0	946.8	949.57
64	17+90.50	MH 1-4	40.00	1.0	945.1	947.9	950.69
65	18+75.50	MH 1-5	40.35	0.0	946.4	948.2	950.96
66	19+50.50	MH 1-5	40.76	0.0	947.1	948.9	951.72
67	2+10.96	MH A-2	50.00	6.0	942.6	950.5	953.26
68	2+70.47	MH A-2	50.00	6.0	943.2	951.1	953.85
69	3+58.30	MH A-2	50.00	6.0	944.1	951.9	954.73
70	4+56.96	MH A-2	50.00	8.0	945.0	954.9	957.68
71	5+77.95	MH A-2	50.00	10.0	946.2	958.0	960.85
72	7+30.73	MH A-3	50.00	10.0	948.7	960.5	963.26
73	8+34.44	MH A-3	50.00	11.0	950.3	963.0	965.84
74	23+35.72	MH 3-7	50.00	2.0	960.4	964.3	967.14
75	20+09.52	MH 1-5	39.03	1.0	947.7	950.5	953.25
76	19+27.69	MH 1-5	39.37	0.0	946.9	948.7	951.46
77	18+67.69	MH 1-5	39.70	0.0	946.3	948.1	950.87
78	17+04.69	MH 1-4	40.00	1.0	943.9	946.7	949.49
79	16+24.69	MH 1-4	40.00	2.0	942.8	946.6	949.35
80	15+49.69	MH 1-4	40.00	2.0	941.7	945.5	948.30
81	11+24.82	MH 3-1	39.56	0.0	940.8	941.6	944.41
82	11+87.00	MH 3-1	39.07	2.0	941.3	944.0	946.80
83	13+64.30	MH 3-3	40.12	2.0	943.5	946.3	949.10
84	14+48.30	MH 3-3	41.31	2.0	944.4	947.2	949.96
85	17+06.49	MH 3-4	41.77	1.0	947.1	948.9	951.70
86	17+80.73	MH 3-4	41.23	1.0	947.6	949.4	952.21
87	19+09.80	MH 3-6	40.22	1.0	949.7	951.5	954.31
88	19+87.03	MH 3-6	33.75	3.0	951.1	954.7	957.49
89	21+15.12	MH 3-7	37.12	3.0	954.8	958.4	961.25
90	21+95.11	MH 3-7	38.47	2.0	957.2	959.9	962.69
91	22+75.10	MH 3-7	39.82	1.0	959.6	961.3	964.14
92	22+52.02	MH 3-7	40.57	1.0	958.9	960.7	963.46
93	21+69.01	MH 3-7	41.98	2.0	956.4	959.2	961.98
94	20+86.75	MH 3-7	43.38	2.0	953.9	956.7	959.54
95	20+14.86	MH 3-6	42.49	3.0	951.6	955.4	958.15
96	19+28.45	MH 3-6	43.56	2.0	950.0	952.9	955.68
97	17+62.78	MH 3-4	37.75	2.0	947.5	950.2	953.00
98	16+79.77	MH 3-4	38.53	1.0	946.9	948.7	951.45
99	16+06.06	MH 3-4	39.37	1.0	946.4	948.2	950.95

FOR SERVICES TO LOTS 67-74:
 CONTRACTOR TO VERIFY ELEVATION OF EXISTING SANITARY SEWER MAIN AND CONSTRUCT 6" SANITARY SERVICE @ 2.00% THAT EXTENDS 30 FEET INTO LOT PER DETAIL SAN-1 ON SHEET C207. REFERENCE TABLE ABOVE FOR APPROXIMATE INVERT ELEVATIONS AND RISER LENGTHS.

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 1-0	2.00%	8	12.33	0.00	0.02	0.234	0.234	0.014	1.59	4.55
MH 1-1	0.70%	8	12.33	0.00	0.02	0.234	0.234	0.014	0.94	2.69
MH 1-2	0.70%	8	12.33	0.00	0.02	0.234	0.234	0.014	0.94	2.69
MH 1-3	3.00%	8	11.25	0.00	0.02	0.214	0.214	0.014	1.94	5.57
MH 1-4	1.40%	8	1.77	0.00	0.02	0.034	0.034	0.014	1.33	3.80
MH 1-5	1.00%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.12	3.21
MH 2-1	1.00%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.12	3.21
MH 3-1	0.70%	8	4.90	0.00	0.02	0.093	0.093	0.014	0.94	2.69
MH 3-2	1.00%	8	4.19	0.00	0.02	0.080	0.080	0.014	1.12	3.21
MH 3-3	1.00%	8	2.64	0.00	0.02	0.050	0.050	0.014	1.12	3.21
MH 3-4	0.70%	8	0.00	0.00	0.02	0.000	0.000	0.014	0.94	2.69
MH 3-5	1.00%	8	2.37	0.00	0.02	0.045	0.045	0.014	1.12	3.21
MH 3-6	1.75%	8	0.00	0.00	0.02	0.000	0.000	0.014	1.48	4.25
MH 4-1	0.70%	8	0.00	0.00	0.02	0.000	0.000	0.014	0.94	2.69
MH A-1	0.52%	24	2.43	0.00	0.02	0.046	0.046	0.014	15.15	4.82
MH A-2	1.00%	24	2.43	0.00	0.02	0.046	0.046	0.014	21.01	6.69
MH A-3	1.54%	24	0.73	0.00	0.02	0.014	0.014	0.014	26.07	8.30

*Sanitary lines in italics are existing



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SANITARY SEWER TABLES
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SHEET C206
 33 OF 54

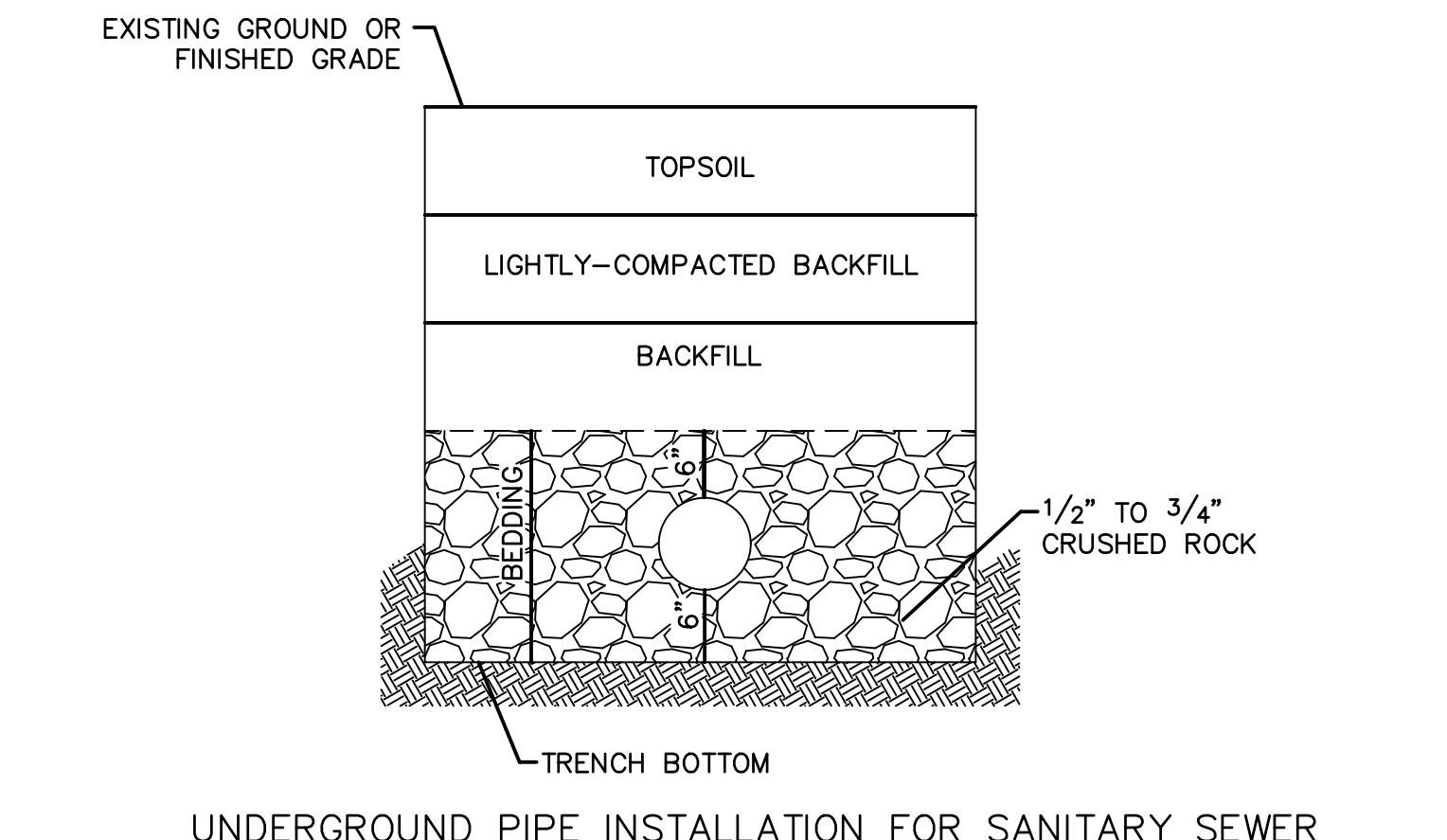
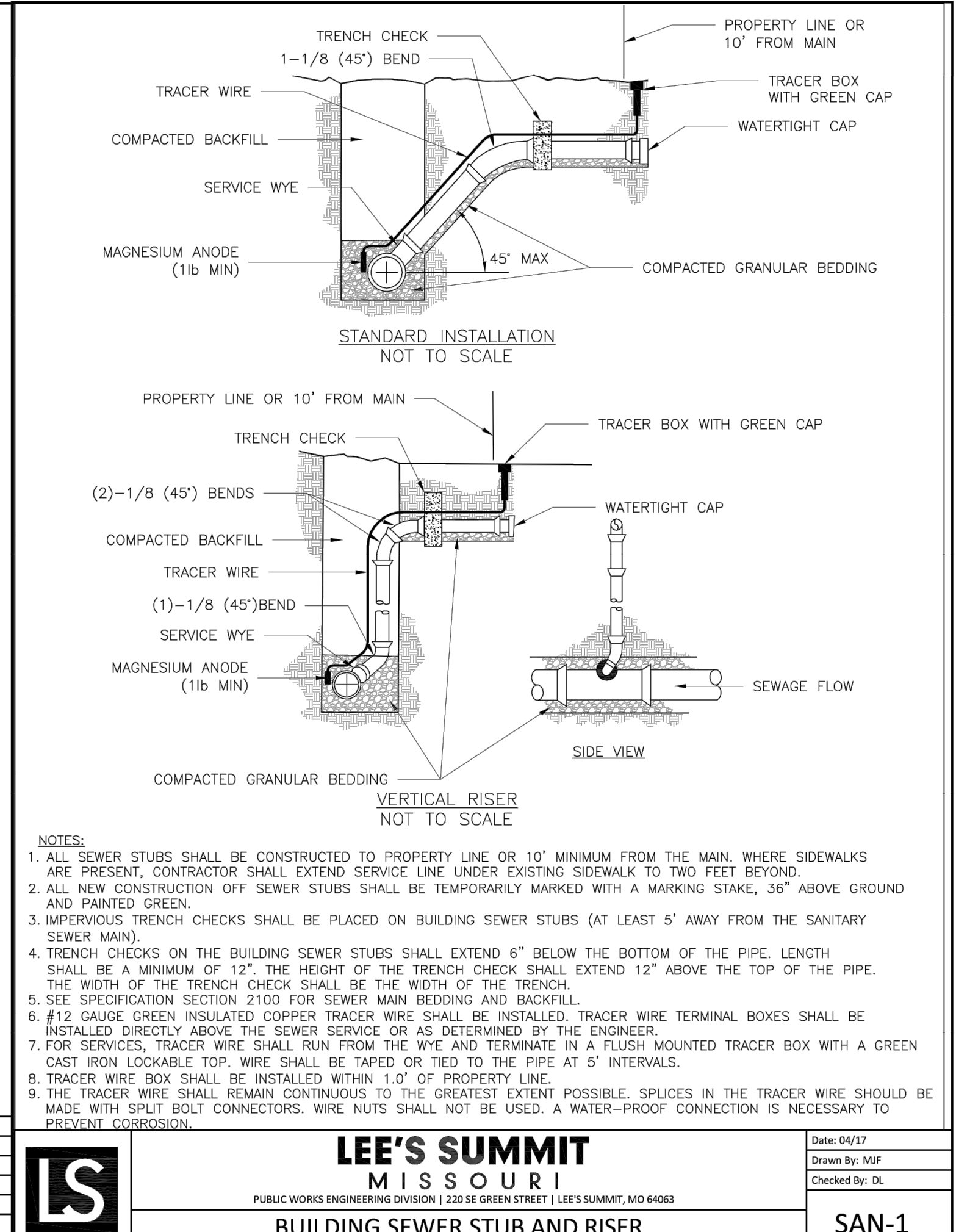
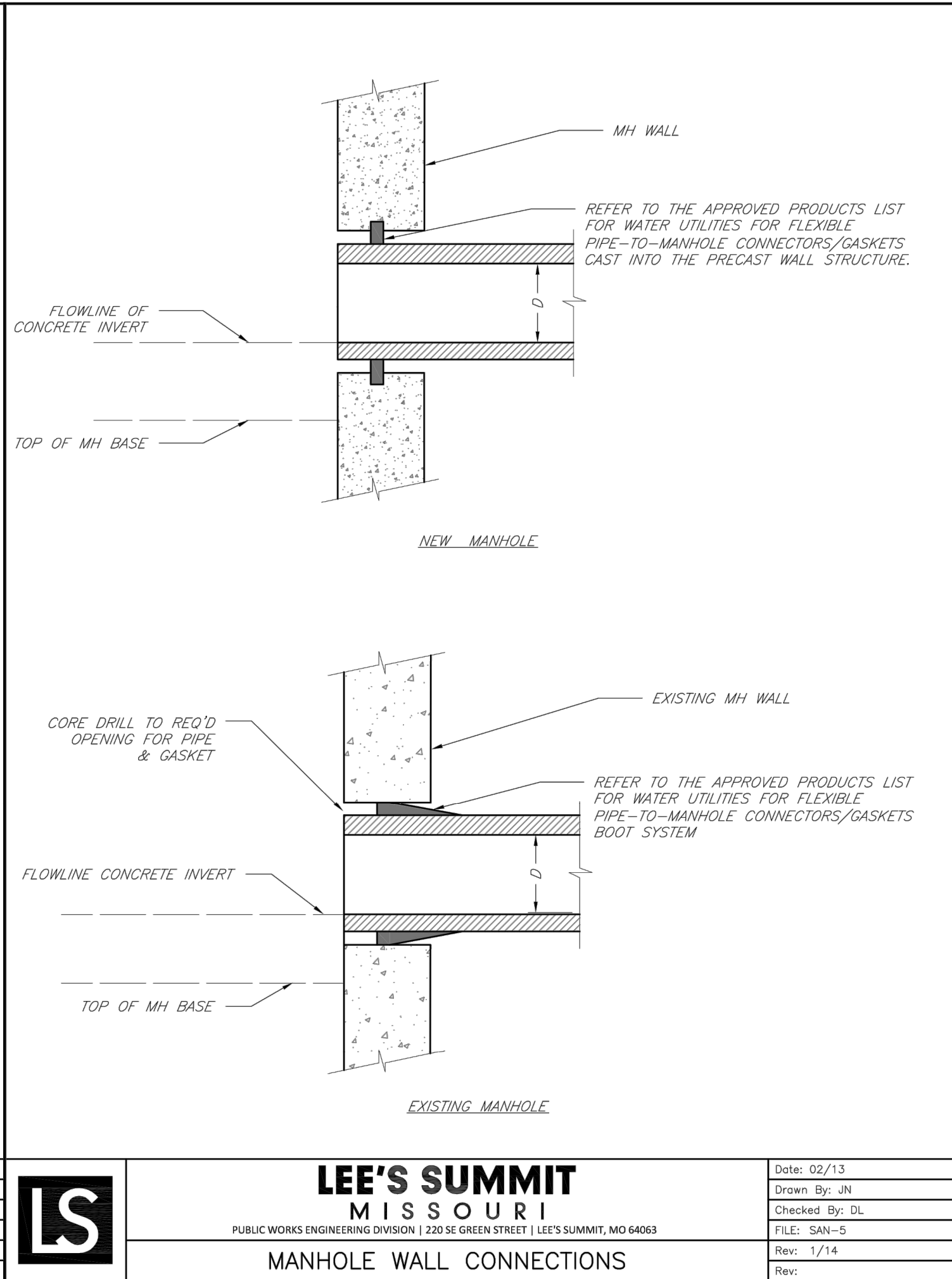
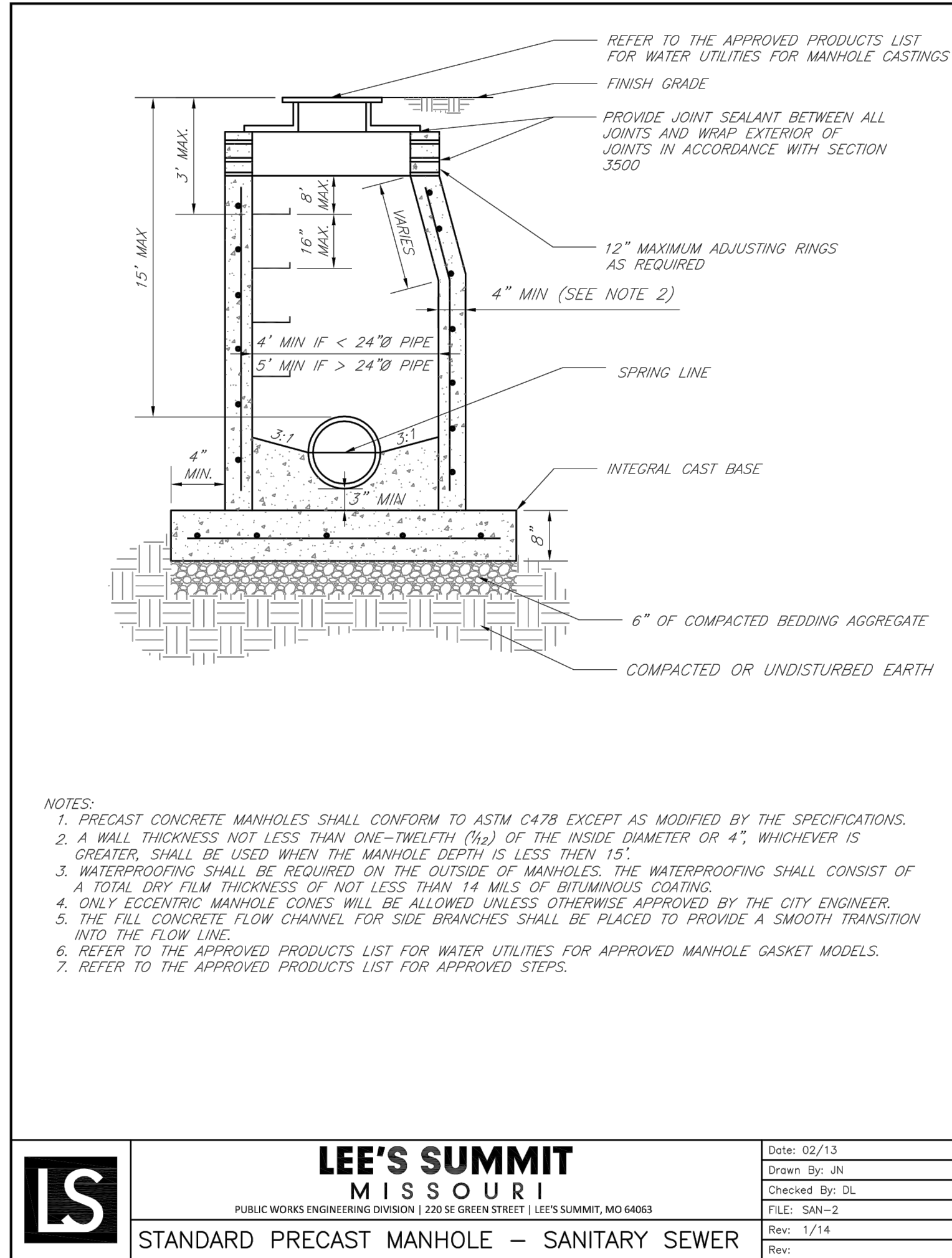
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REVISIONS

USER: gemith

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DATE: Sep 07, 2021 1:15pm XREFS: C_PTBK_0194059_34x22 C_PBASE_0194059



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 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. TRENCH BACKFILL IN PAVED AREAS WITHIN STREET OR ALLEY RIGHT OF WAYS
 - a. NARROW TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES 24 INCHES OR LESS IN WIDTH AND SHALL BE TYPE A FLOWABLE FILL.
 - b. STANDARD TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES BETWEEN 24 TO 48 INCHES WIDE SHALL BE EITHER TYPE A FLOWABLE FILL OR DENSE, WELL GRADED AGGREGATE BASE MATERIAL. AGGREGATE BASE MATERIAL SHALL MEET THE REQUIREMENTS FOR KDOT AD-3; MODOT TYPES 1 OR 5; OR APWA 2202.2.
 - c. WIDE TRENCH: SUITABLE BACKFILL MATERIAL FOR TRENCHES GREATER THAN 48 INCHES WIDE SHALL BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C.
4. SUITABLE BACKFILL MATERIAL OUTSIDE OF PAVED AREAS WITHIN RIGHT OF WAY, AND ALL AREAS OUTSIDE RIGHT OF WAY, MAY BE SUITABLE MATERIAL AS SPECIFIED FOR EARTH EMBANKMENT IN APWA STANDARD SPECIFICATIONS, SECTION 2102.2.C. SUITABLE BACKFILL MATERIAL MAY ALSO BE OTHER TRENCH BACKFILL MATERIAL (FLOWABLE FILL OR AGGREGATE BASE) DEPENDING ON SITE CONDITIONS, TRENCH WIDTHS OR AT THE DIRECTION OF THE CITY'S ON SITE INSPECTOR.

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

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

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

Date: 04/17
Drawn By: MEF
Checked By: DL

BUILDING SEWER STUB AND RISER

DATE: 06-24-2020
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MEGAN J. WALTER
NUMBER
PE-2012028697
Professional Engineer

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5	06-11-2021	HEARTHSTONE PLACE ENTRANCE REVISION	

SANITARY SEWER DETAILS
SANITARY SEWER PLANS
THE RETREAT AT HOOK FARMS
CONSTRUCTION DOCUMENTS

LEE'S SUMMIT, MO

2020

drawn by: EM
checked by: EM
designed by: RB
QA/QC by: NH
project no.: 019-4059
drawing no.: C_DTL00_0194059
date: 4/20/2020

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AS-BUILT
2021.09.07