

SECTION 2, TOWNSHIP 47 N, RANGE 32 W
IN LEE'S SUMMIT, JACKSON COUNTY, MO

Date Surveyed: 04-20-2020

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C316	DETAIL SHEET

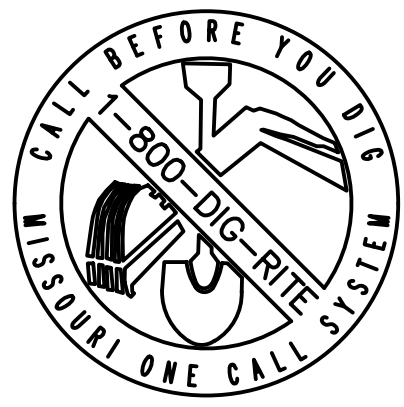
Sue Pyles 2022.11.11
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Record Drawing

OF JOHN KNOX RETIREMENT VILLAGE--10TH PLAT, A SUBDIVISION RECORDED AS INSTRUMENT NUMBER 1279980 IN BOOK 35 AT PAGE 61 IN JACKSON COUNTY RECORDER OF DEEDS OFFICE, AND ALL OF FOREST LAKE AT JOHN KNOX VILLAGE -- 1ST PLAT A SUBDIVISION RECORDED AS INSTRUMENT NUMBER E0051292 IN BOOK 1106 AT PAGE 42 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, BOTH SUBDIVISIONS OF LAND IN THE NORTHEAST QUARTER OF SECTION 2, TOWNSHIP 47 NORTH, RANGE 32, WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, AND ALSO AN UNPLATTED TRACT OF LAND IN SAID NORTHEAST QUARTER AND SOUTHEAST QUARTER OF SAID SECTION 2, BEING BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 02°53'56" EAST, ON THE EAST LINE OF SAID SOUTHEAST QUARTER, 1,328.34 FEET TO THE SOUTHEAST CORNER OF THE NORTH HALF OF SAID SOUTHEAST QUARTER ALSO BEING THE NORTHEAST CORNER OF STERLING HILLS 1ST PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1188888 IN BOOK 153 AT PAGE 22 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 87°49'43" WEST, 580.01 FEET ON THE SOUTH LINE OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER, ALSO BEING THE NORTH LINE OF SAID STERLING HILLS 1ST PLAT TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE CONTINUING NORTH 87°49'43" WEST ON SAID SOUTH LINE OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER, ALSO BEING THE NORTH LINE OF SAID STERLING HILLS 1ST PLAT AND ALSO ON THE NORTH LINE OF STERLING HILLS 3RD PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1121580 IN BOOK 153 AT PAGE 96 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, ALSO BEING A POINT TO THE EAST LINE OF STERLING HILLS 5TH PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 11273788 IN BOOK 154 AT PAGE 88 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, 2,048.69 FEET TO THE SOUTHWEST CORNER OF SAID NORTH HALF OF SAID SOUTHEAST QUARTER, THENCE NORTH 03°05'41" EAST ON SAID EAST LINE OF STERLING HILLS 5TH PLAT, ALSO BEING THE WEST LINE OF SAID SOUTHEAST QUARTER, 389.26 FEET; THENCE NORTH 85°54'26" EAST, 236.75 FEET; THENCE NORTH 29°55'27" EAST, 306.11 FEET; THENCE NORTH 41°11'03" EAST, 611.03 FEET; THENCE SOUTH 55°11'51" EAST, 21.43 FEET; THENCE NORTH 22°54'26" EAST, 116.03 FEET; THENCE WESTLY, ALONG A CURVE, TO THE LEFT, HAVING AN INITIAL TANGENT BEARING OF NORTH 81°07'00" WEST WITH A RADIUS OF 100.00 FEET, A CENTRAL ANGLE OF 0°57'28" AND AN ARC DISTANCE OF 60.76 FEET; THENCE NORTH 06°37'15" WEST, 50.00 FEET; THENCE EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF NORTH 83°22'45" EAST WITH A RADIUS OF 275.00 FEET, A CENTRAL ANGLE OF 28°01'47" AND AN ARC DISTANCE OF 134.53 FEET; THENCE NORTH 21°24'31" EAST, 135.10 FEET; THENCE NORTH 61°49'26" EAST, 951.56 FEET; THENCE NORTH 70°58'24" EAST, 137.47 FEET; THENCE NORTH 85°52'23" EAST, 130.41 FEET; THENCE NORTH 19°50'07" EAST, 128.42 FEET; THENCE WESTERLY ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF NORTH 70°09'53" WEST WITH A RADIUS OF 375.00 FEET, A CENTRAL ANGLE OF 08°59'37" AND AN ARC DISTANCE OF 58.86 FEET; THENCE NORTH 10°50'30" EAST, 50.00 FEET; THENCE EASTERLY ALONG A CURVE TO THE RIGHT HAVING AN INITIAL TANGENT BEARING OF SOUTH 79°09'30" EAST WITH A RADIUS OF 425.00 FEET, A CENTRAL ANGLE OF 09°42'06" AND AN ARC DISTANCE OF 71.96 FEET; THENCE NORTH 20°32'36" EAST, 229.10 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID NORTHEAST QUARTER; THENCE NORTH 87°37'42" WEST, ON SAID NORTH LINE OF SAID SOUTH HALF OF SAID NORTHEAST QUARTER, 574.95 FEET TO THE SOUTHEAST CORNER OF THE FORESTS OF BROOKRIDGE ESTATES THIRD PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1198645 IN BOOK 153 AT PAGE 46 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 03°27'53" EAST, ON THE EAST LINE OF SAID THE FORESTS OF BROOKRIDGE ESTATES -- THIRD PLAT, 765.70 FEET TO THE SOUTHWEST CORNER OF LOT 1, VILLAGE CARE CENTER PLAT, A SUBDIVISION IN SAID LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1736897 IN BOOK 143 AT PAGE 122 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE, THENCE SOUTH 87°23'49" EAST, ON THE SOUTH LINE OF SAID LOT 1, ALSO A PORTION BEING ON THE NORTH LINE OF SAID JOHN KNOX RETIREMENT VILLAGE--10TH PLAT AND SAID FOREST LAKE AT JOHN KNOX VILLAGE--1ST PLAT, 1,343.71 FEET TO THE NORTHEAST CORNER OF SAID FOREST LAKE AT JOHN KNOX RETIREMENT 1ST PLAT, ALSO BEING A POINT ON THE EXISTING WEST RIGHT--OF--WAY LINE OF NW PRYOR ROAD, AS NOW ESTABLISHED; THENCE SOUTH 03°27'53" WEST, ON SAID EXISTING WEST RIGHT--OF--WAY LINE ALSO BEING THE EAST LINE OF FOREST LAKE AT JOHN KNOX VILLAGE--1ST PLAT FOR THE NORTH 24°3.74 FEET, 481.43 FEET; THENCE NORTH 86°32'07" WEST, 479.89 FEET; THENCE SOUTH 03°27'53" WEST, 70.20 FEET; THENCE NORTH 86°32'07" WEST, 200.00 FEET; THENCE SOUTH 03°27'53" WEST, 221.62 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF THE SOUTH HALF OF SAID NORTHEAST QUARTER; THENCE SOUTH 87°37'42" EAST ON SAID NORTH LINE OF SAID SOUTH HALF OF SAID SOUTH HALF OF SAID NORTHEAST QUARTER, 200.04 FEET TO THE NORTHWEST CORNER OF LOT 1, JOHN KNOX RETIREMENT VILLAGE 9TH PLAT, A SUBDIVISION IN LEE'S SUMMIT RECORDED AS INSTRUMENT NUMBER 1274676 IN BOOK 35 AT PAGE 42 IN SAID JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE SOUTH 03°27'53" WEST, ON THE WEST LINE OF SAID JOHN KNOX RETIREMENT VILLAGE 9TH PLAT 400.00 FEET TO THE SOUTHWEST CORNER OF SAID JOHN KNOX RETIREMENT VILLAGE 9TH PLAT; THENCE SOUTH 04°27'07" WEST, 289.53 FEET; THENCE NORTH 85°32'53" WEST, 175.00 FEET; THENCE SOUTH 04°27'07" WEST, 425.00 FEET; THENCE SOUTH 85°32'53" EAST, 175.00 FEET; THENCE SOUTH 04°27'07" WEST, 484.59 FEET; THENCE SOUTH 02°53'56" WEST, 385.97 FEET TO THE POINT OF BEGINNING, CONTAINING 3,360,308 SQUARE FEET OR 77.14 ACRES, MORE OR LESS.

BMK #5 CHISELED SQUARE ON THE S.E. CORNER OF A CONCRETE PAD FOR A TRAFFIC SIGNAL BOX AT THE S.W. CORNER OF PRYOR ROAD AND O'BRIEN ROAD.

ELEVATION: 979.24



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

11/1/2020

DATE _____

[illegible]

COVER SHEET SANITARY SEWER PLANS	2019
	EE'S SUMMIT MO

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C201

GENERAL NOTES:

1. LINEAR FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS (NOT SLOPE MEASUREMENTS) FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
2. 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.
3. 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.
4. 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 ACRYLONITRILLE BUTADIENE STYRENE) PIPE WHEN USED AS A PUBLIC DIAMETER. ALL TESTS HALL 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.
5. 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 5% 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.
6. 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.
7. DEVELOPER SHALL PROVIDE EARTHWORK AND MATERIAL TESTING TO COMPLY WITH THE STANDARD SPECIFICATIONS OF THE CPD-DS-LDD.
8. 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.
9. THE PROJECT BENCHMARKS AND ALL ELEVATIONS SHOWN ON THE PROFILES ARE N.G.V.D.
10. 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.
11. 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.
12. 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).
13. 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.
14. 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.
15. DEVELOPER SHALL COMPLY WITH ALL APPLICABLE REGULATIONS REQUIRED BY THE CITY AND THE STATE.
16. 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".
17. 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.

PLUMBING NOTES:

1. ALL LOTS HAVE BEEN SUPPLIED WITH WYES OR LATERALS. PLUMBER SHALL CONNECT HOUSE SERVICE TO MAIN AT LOCATIONS INDICATED.
2. ALL SERVICE LINES SHALL BE LAID AT 2% MINIMUM SLOPE, UNLESS OTHERWISE NOTED.
3. M.S.F.E. ELEVATION - INDICATES BASEMENT FLOOR ELEVATION OR LOWEST FLOOR ELEVATION SERVICEABLE BY PROPOSED SANITARY SEWER.

EXCAVATING NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION.
2. 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.
3. 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.
4. NO SUBSURFACE EXPLORATION FOR THE DETERMINATION OF AND/OR THE LOCATION OF EXISTING ROCK HAS BEEN MADE.
5. WHEN SEWER LINES CROSS A LOW POINT IN A CREEK, THE SEWER LINE MUST BE ENCASED ACCORDING TO LEE'S SUMMIT.
6. 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.
7. 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.
8. 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
STREET				
1	8" SANITARY PVC (SDR-26)	L.F.	10319.02	10319.02
2	CONCRETE ENCASEMENT	L.F.	105	105
3	STEEL CASING	L.F.	60	60
4	MANHOLES, STD. 4' DIA.	EA.	62	62
5	DROP MANHOLE STD. 4' DIA.	EA.	4	4
6	DROP ADDTION	V.F.	48.65	48.65
7	CONNECTION TO EXISTING M.H.	EA.	4	4
8	SERVICE WYE	EA.	152	152
9	4" LATERAL PIPE	L.F.	6234.76	6234.76
10	CLEANOUT	EA.	6	6
11	STREET BORE	L.F.	166	166

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.

AS-BUILT / SERVICE LINE NOTE

- 1.) 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.
- 2.) 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.

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 ASHURST 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.

Record Drawing

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.

GENERAL NOTES
SANITARY SEWER PLANS

WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

BY
NO. REV.
DATE
REVISED PER SECOND SUBMITTAL CITY COMMENTS

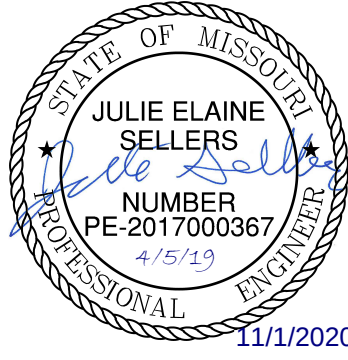
REVISIONS DESCRIPTION

REVISIONS

2019

drawn by: D.A.H.Q.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

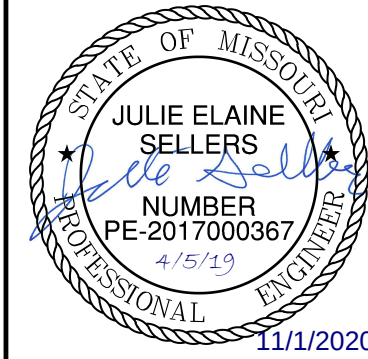
SHEET
C202



olsson

NO. Certificate of Authority #001892
300 E. Main Street, Suite 100
NORTH KANSAS CITY, MO 64116
www.olsson.com
TEL. 816.861.1177

Record Drawing



NO	DATE	REVISIONS DESCRIPTION	BY
REV.	4-6-2019	REVISED PER SECOND SUBMITTAL CITY COMMENTS	
DEVIATIONS			

MASTER LAYOUT SANITARY SEWER PLANS	2019
WOODSIDE RIDGE FIRST PLAT	LEE'S SUMMIT, MO

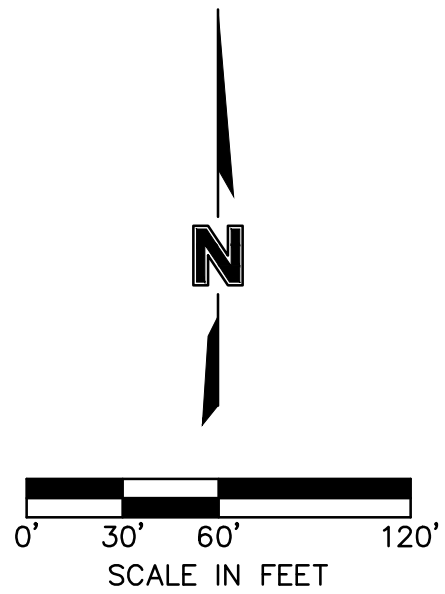
drawn by: D.A.H.Q
checked by: J.E.S
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project no.: A18-1140
date: 2019.03.12

SHEET
C203

olsson

MO Certificate of Authority #001592
130 BURNING WOODS BLVD
NORTH KANSAS CITY, MO 64116
TEI 816.361.1177
www.olsson.com

DWG: F:\2018\1001-1500\018-1140-A\40-Design\AutoCAD\Final Plans\Sheets\GNCV\01_Sanitary_36x24\C_GEN02_1140A.dwg
DATE: Mar 13, 2019 2:10pm
USER: dhernandez



Record Drawing



Key Map



WOODSIDE RIDGE
FIRST PLAT

CONFIDENTIAL

SHEET
C206

Record Drawing

NOT AS-BUILT



NOT AS-BUILT

SHEET
C207

LEE'S SUMMIT, MO

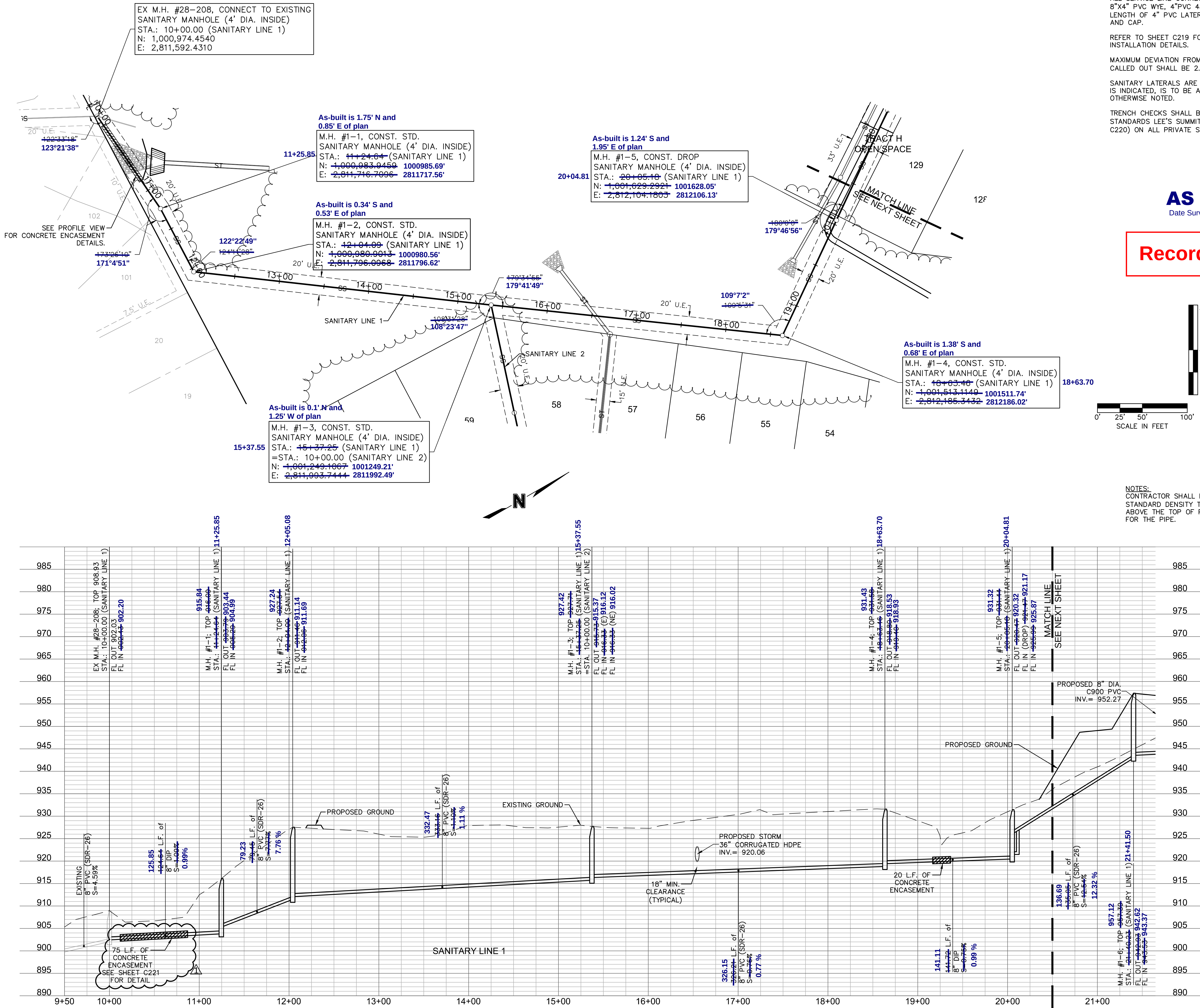
2019

REVISIONS

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
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STATE OF MISSOURI
JULIE ELAINE
SELLERS
NUMBER
PE-2017000367
4/5/19
PROFESSIONAL ENGINEER
1/1/2020

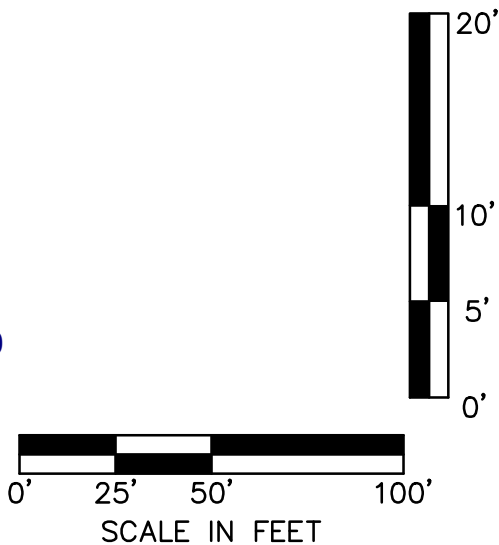
MO Certificate of Authority #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.ojsosn.com



NOTES:
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 C219 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.
MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE. IF RISER IS INDICATED, IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE NOTED.
TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

AS BUILT
Date Surveyed: 04-20-2020

Record Drawing



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.

olsson

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Date Surveyed: 04-20-2020

Record Drawing

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STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
11/1/2020

NO.	REV.	DATE	REVISIONS DESCRIPTION
1	A	03/12/2019	REVISED PER CITY COMMENTS

SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS

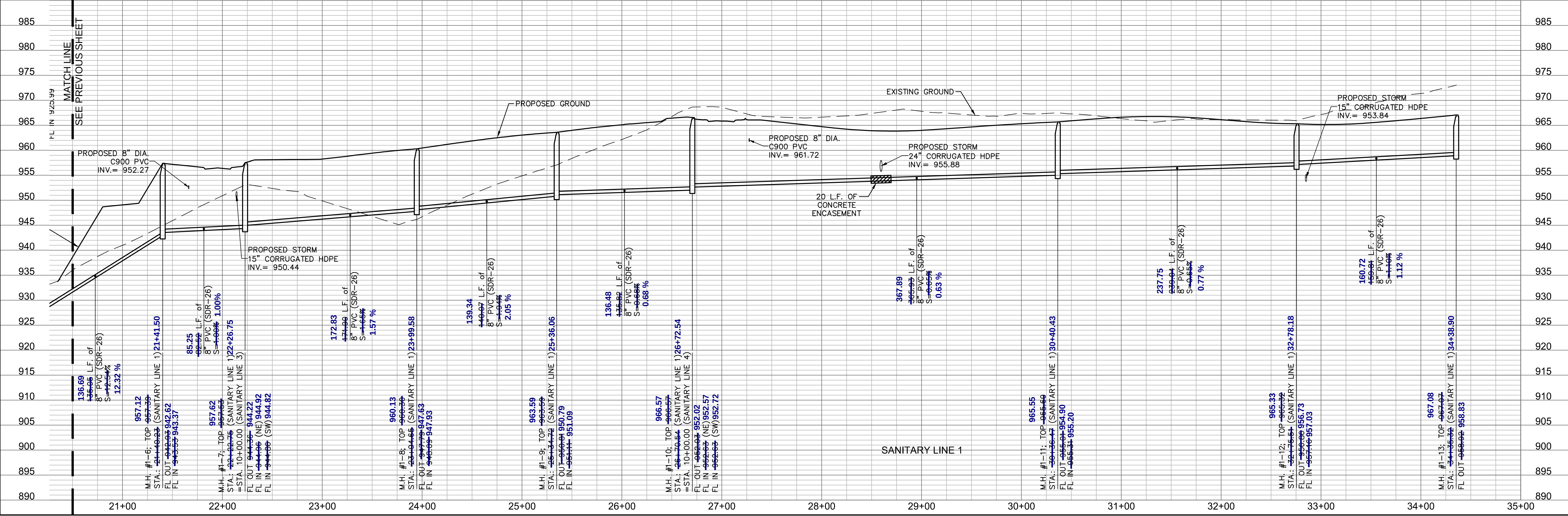
WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

2019

SHEET
C208

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12



NOTES:
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.

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AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

BY: [REDACTED]

NO. REV. [REDACTED]

DATE [REDACTED]

REVISIONS DESCRIPTION [REDACTED]

SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS

WOODSIDE RIDGE
FIRST PLAT

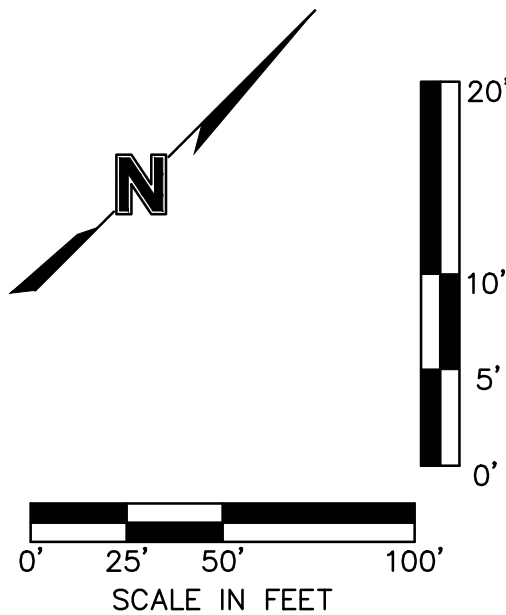
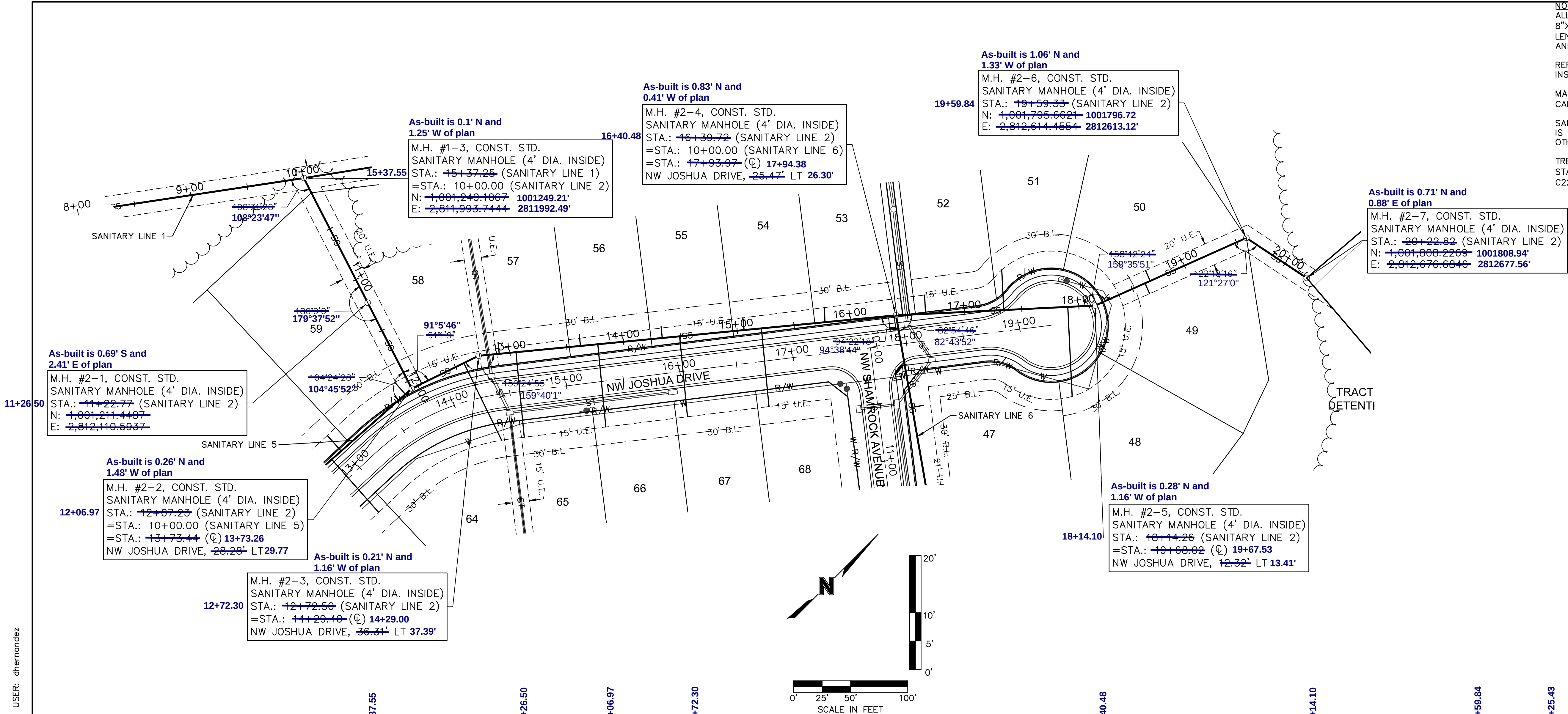
LEE'S SUMMIT, MO

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.B.
project no.: A18-1140
date: 2019.03.12

SHEET
C209

STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
11/1/2020

www.olson.com
TEL 816.861.1177
NCE Certified as Auditor of C21992
303 BIRLING ST. SUITE 100
NORTH KANSAS CITY, MO 64116

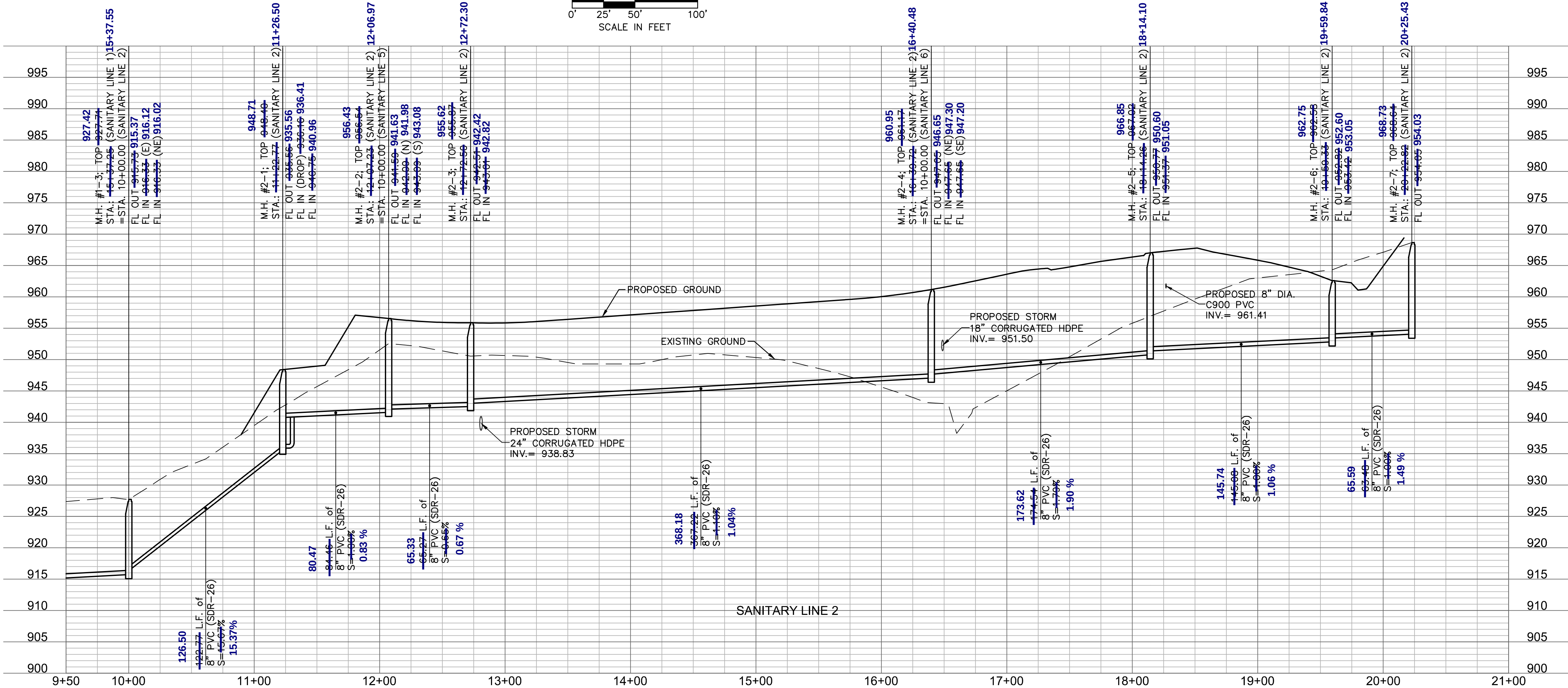


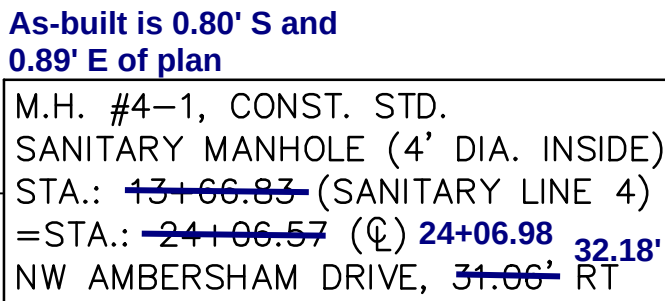
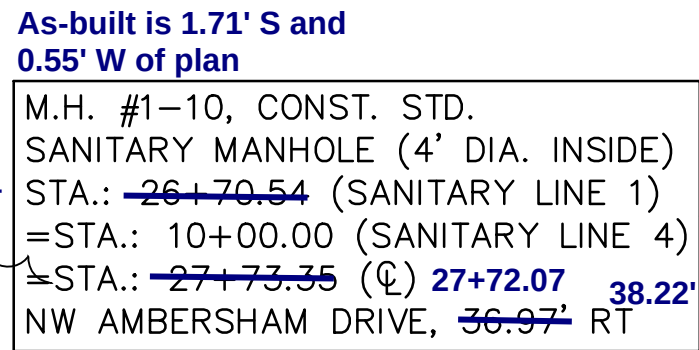
NOTES:
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AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

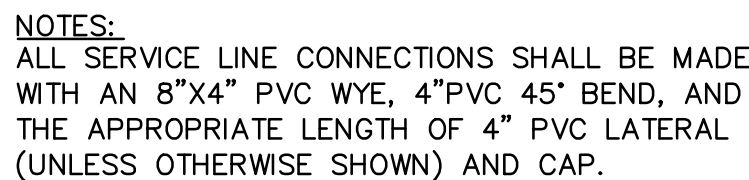
NOTES:
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AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

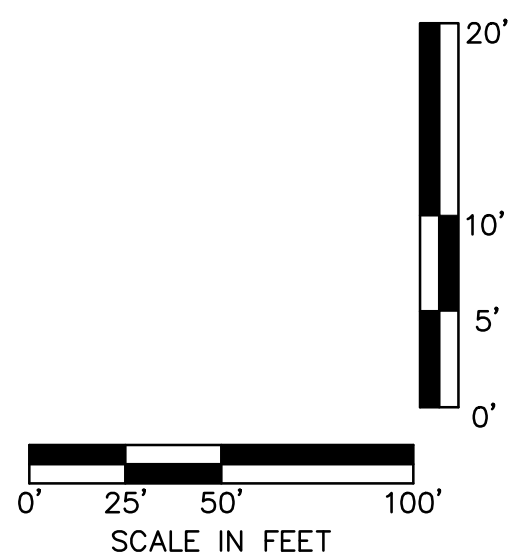
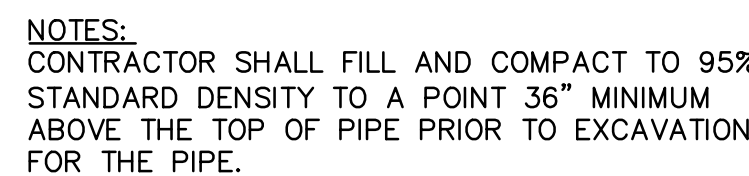


REFER TO SHEET C219 FOR SANITARY DESIGN
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SLOPE. IF RISER IS INDICATED, IS TO BE AT THE
SANITARY MAIN, UNLESS OTHERWISE NOTED.

TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.



drawn by: _____ D.A.H.C.
checked by: _____ J.E.S.
designed by: _____ S.M.S.
QA/QC by: _____ M.G.D.
project no.: _____ A18-114
date: _____ 2019.03.12

SHEET
C211

12+06.97

As-built is 0.26' N and 1.48' W of plan
M.H. #2-2, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~12+07.23~~ (SANITARY LINE 2)
=STA.: 10+00.00 (SANITARY LINE 5)
=STA.: ~~13+73.44~~ (C) 13+73.26
NW JOSHUA DRIVE, ~~28.26~~ LT 29.77

As-built is 0.64' N and 0.89' W of plan
M.H. #5-1, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~12+16.19~~ (SANITARY LINE 5)
=STA.: ~~11+64.34~~ (C) 11+64.94
NW JOSHUA DRIVE, ~~25.00~~ LT 25.91'

As-built is 0.70' N and 0.10' E of plan
M.H. #6-1, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~11+64.66~~ (SANITARY LINE 6)
=STA.: ~~11+39.00~~ (C) 11+39.36
NW SHAMROCK AVENUE, ~~33.73~~ LT 34.91'

As-built is 0.09' N and 2.31' E of plan
M.H. #6-2, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~13+62.36~~ (SANITARY LINE 6)
=STA.: 10+00.00 (SANITARY LINE 7)
=STA.: ~~13+47.43~~ (C) 13+49.87
NW SHAMROCK AVENUE, ~~27.32~~ LT

As-built is 1.34' N and 1.13' W of plan
M.H. #6-4, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~17+59.74~~ (SANITARY LINE 6)
=STA.: ~~17+59.16~~ (C) 17+58.35
NW SHAMROCK AVENUE, ~~40.63~~ LT

As-built is 0.83' N and 0.41' W of plan
M.H. #2-4, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~16+39.72~~ (SANITARY LINE 2)
=STA.: 10+00.00 (SANITARY LINE 6)
=STA.: ~~17+93.97~~ (C) 17+94.38
NW JOSHUA DRIVE, ~~25.47~~ LT 26.30'

M.H. #6-3, CONST. STD. SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~14+36.22~~ (SANITARY LINE 6)
=STA.: ~~14+31.49~~ (C) 14+32.31
NW SHAMROCK AVENUE, ~~31.64~~ LT
As-built is 1.39' N and 0.69' E of plan

AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

NOTES:
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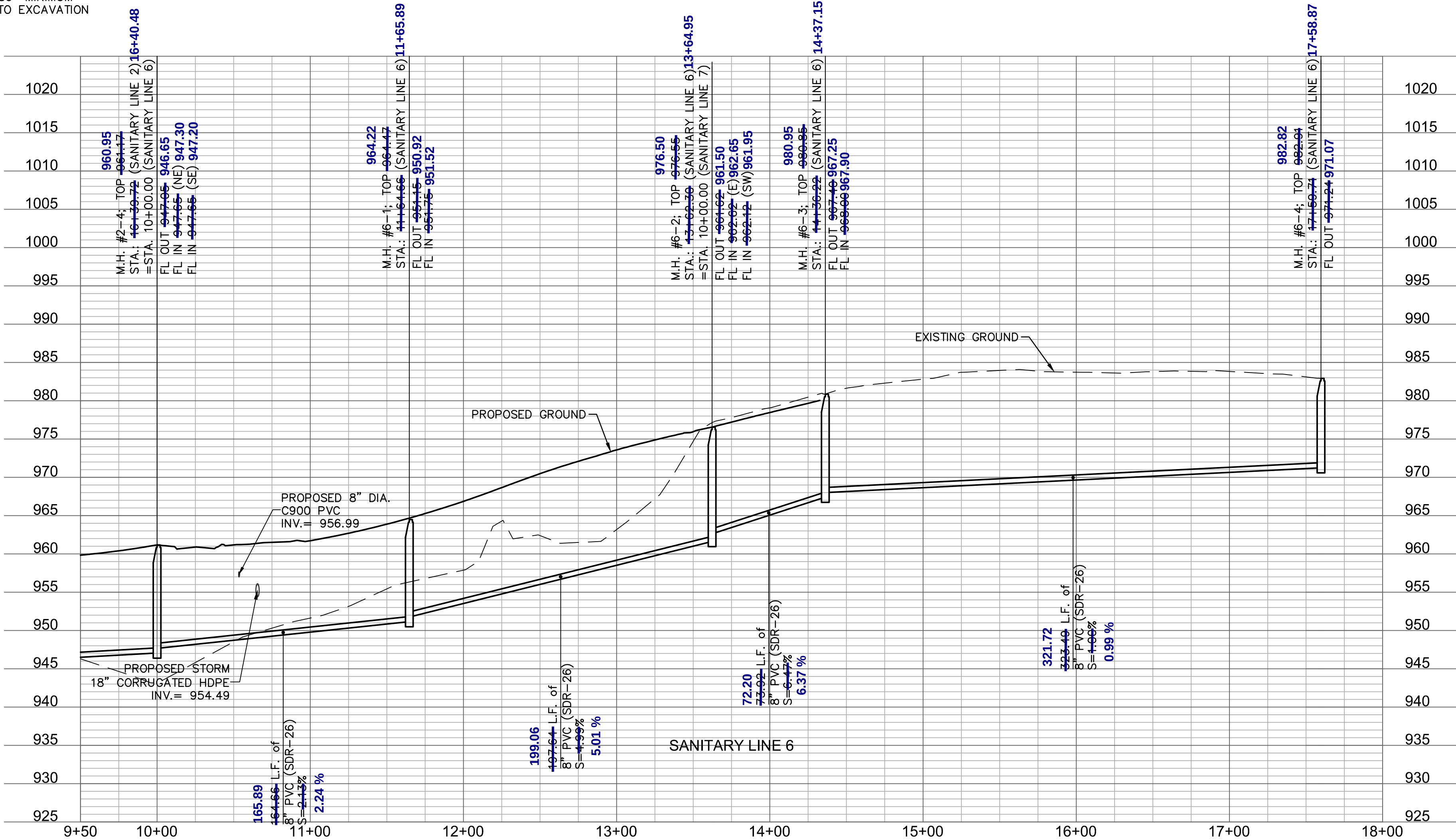
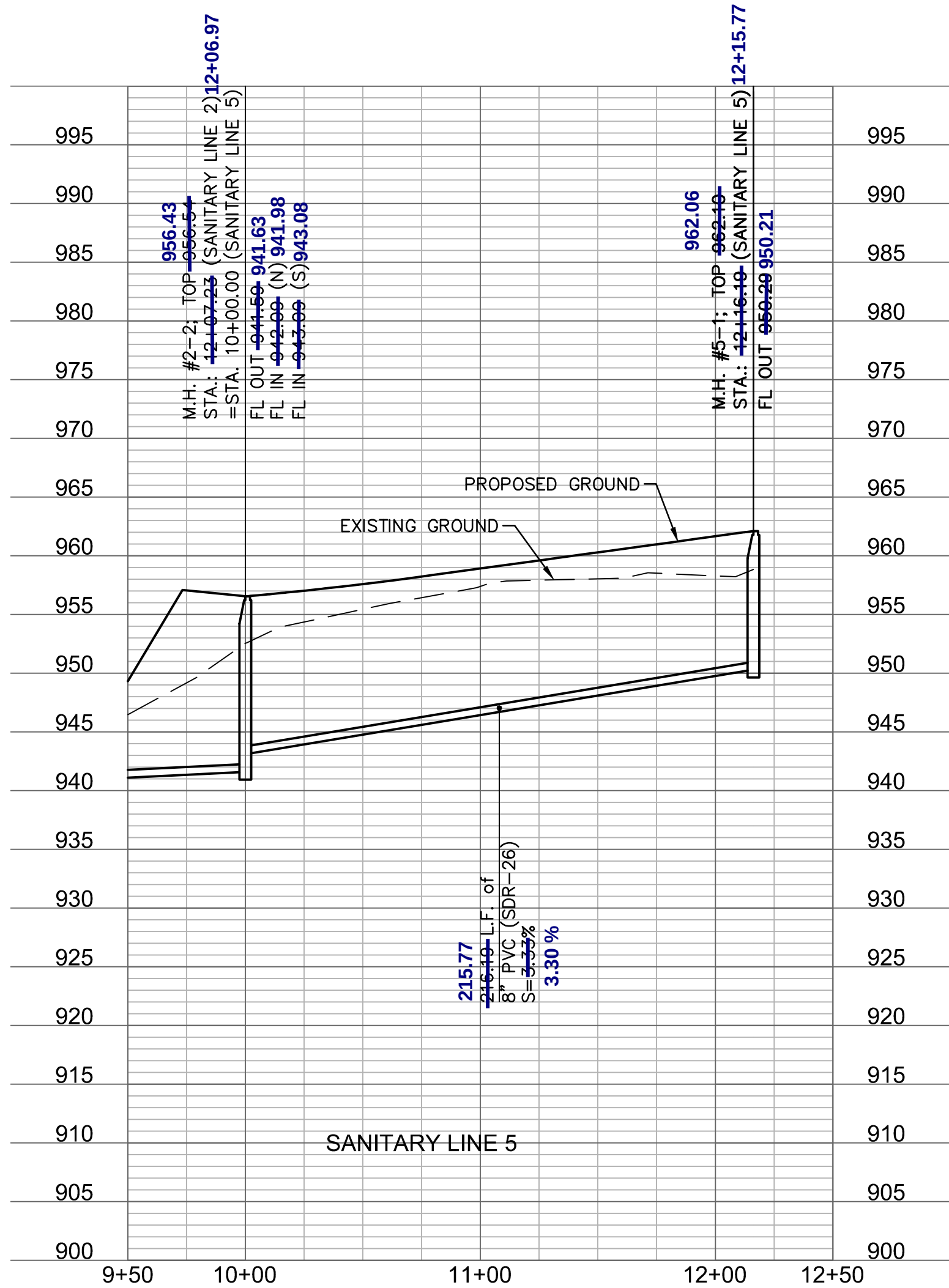
REFER TO SHEET C219 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.

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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.



USER: dhernandez

DWG: F:\2018\1001-1500\018-1140-A\40-Design\AutoCAD\Final Plans\Sheets\GNV\01_Sanitary_36x24\C_SAN05_1140A.dwg
DATE: Mar 13, 2019 2:27pm

SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS

WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.B.
project no.: A18-1140
date: 2019.03.12

SHEET
C212

REVISIONS

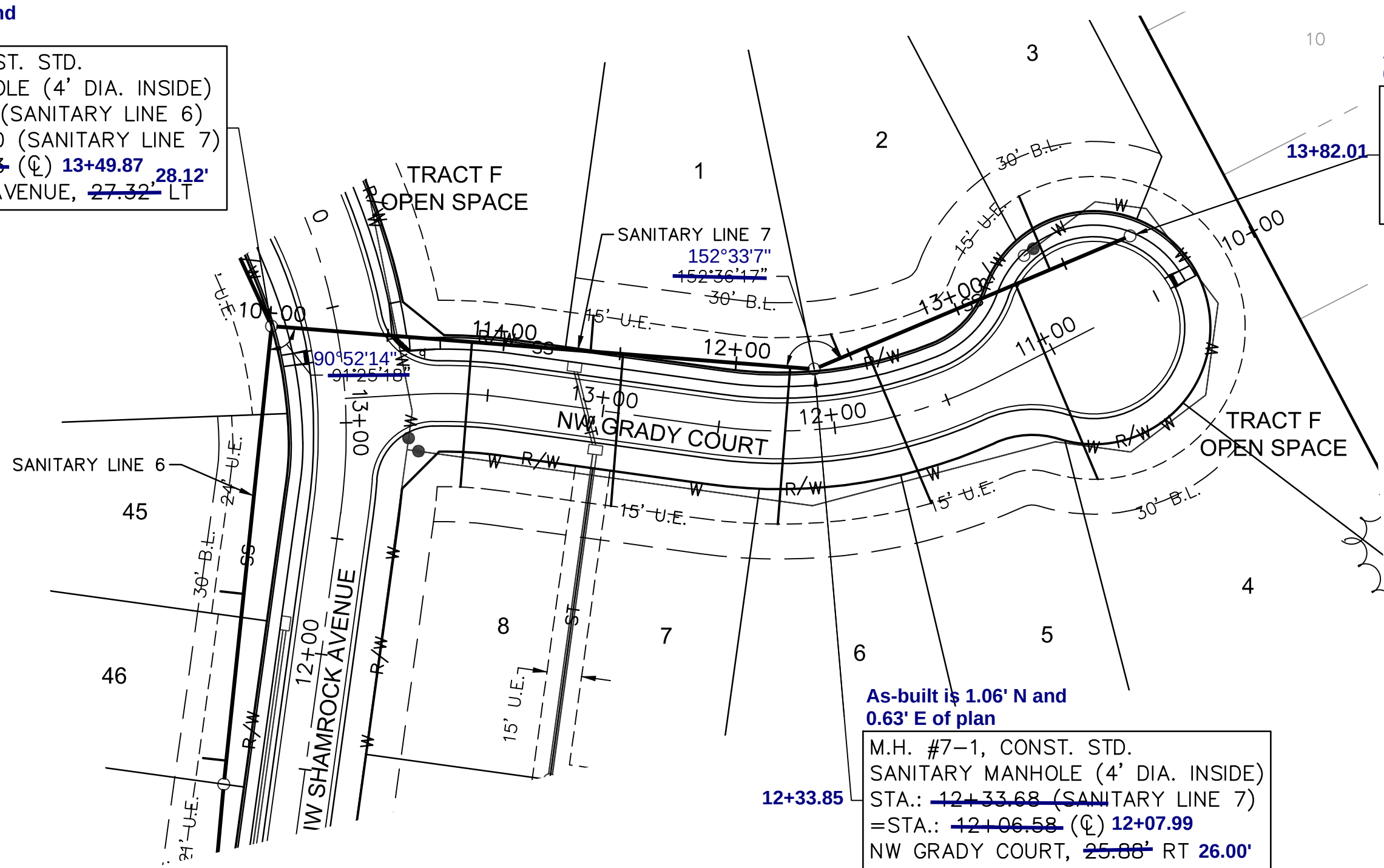
BY

STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
11/1/2020

NO. 018-1140-001
300 HURDIS STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL. 816.981.1177
WWW.OSSON.COM

olsson

As-built is 0.09' N and
2.31' E of plan
M.H. #6-2, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~13+62.30~~ (SANITARY LINE 6)
=STA.: 10+00.00 (SANITARY LINE 7)
=STA.: ~~13+47.43~~ (C) ~~13+49.87~~ ~~28.12'~~
NW SHAMROCK AVENUE, ~~27.32'~~ LT



As-built is 0.14' N and
0.58' W of plan
M.H. #7-2, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~13+80.79~~ (SANITARY LINE 7)
=STA.: ~~10+48.14~~ (C) ~~10+48.25~~
NW GRADY COURT, ~~28.66'~~ RT ~~27.42'~~

As-built is 1.71' N and
10.51' W of plan
M.H. #10-2, CONST. FLAT TOP
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~11+16.84~~ (SANITARY LINE 10)
N: ~~1,003,097.0286~~ ~~1003098.74'~~
E: ~~2,812,246.2060~~ ~~2812235.70'~~

EX MH 28-100, CONNECT TO EXISTING
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: 15+03.11 (EX SANITARY LINE 1)
N: 1,003,031.7870
E: 2,812,321.6620

NOTES:
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AND CAP.

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C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

As-built is 0.56' S and
1.90' W of plan
M.H. #10-3, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~11+97.22~~ (SANITARY LINE 10)
=STA.: ~~10+63.37~~ (C) ~~10+62.72~~
NW KAYLEA COURT, ~~5.01'~~ RT ~~4.04'~~

As-built is 0.65' N and
1.18' E of plan
M.H. #10-4, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~12+54.90~~ (SANITARY LINE 10)
=STA.: ~~11+19.97~~ (C) ~~11+20.67~~
NW KAYLEA COURT, ~~16.06'~~ RT ~~18.11'~~

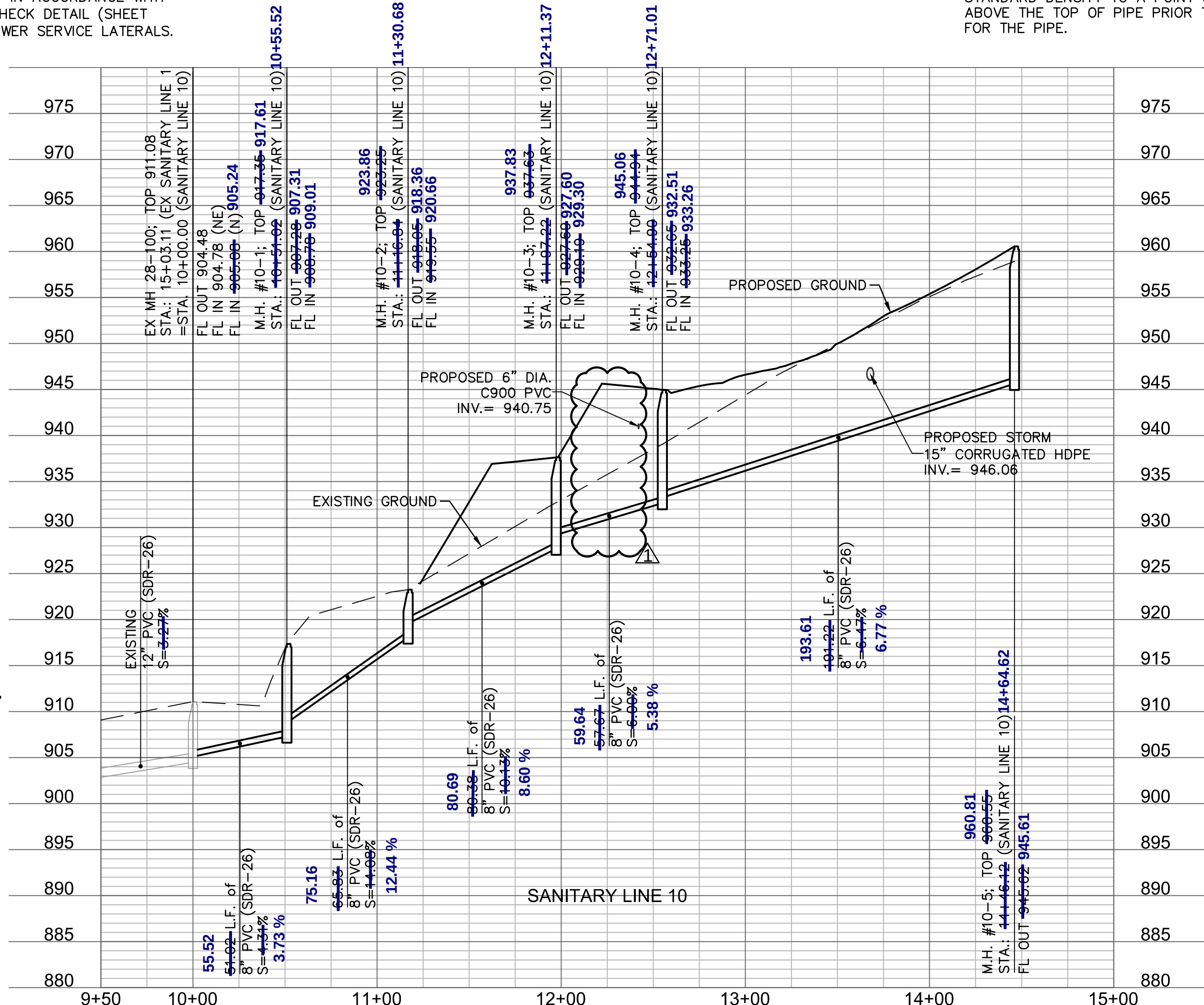
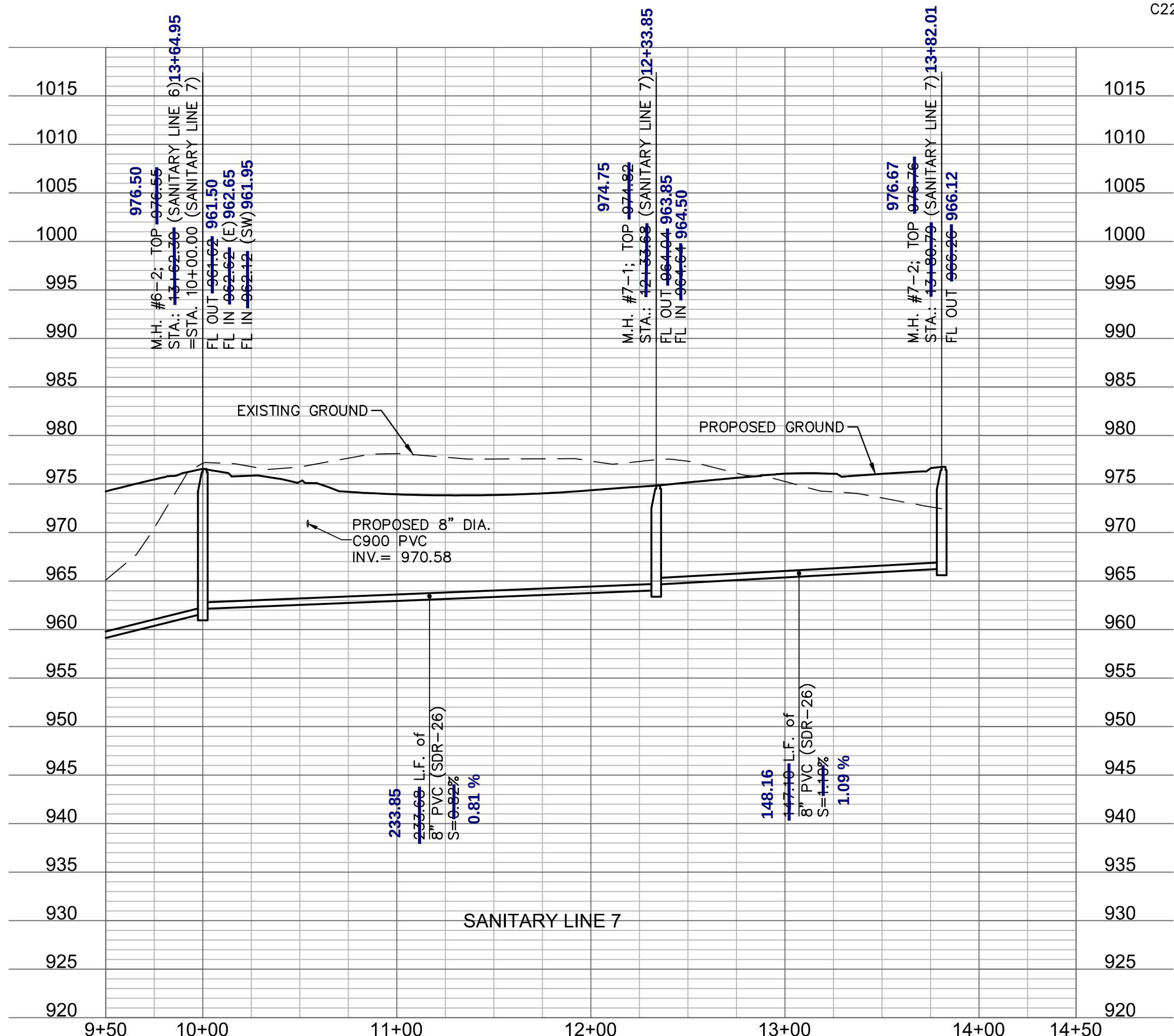
As-built is 3.02' N and
1.42' E of plan
M.H. #10-5, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~11+46.12~~ (SANITARY LINE 10)
=STA.: ~~13+10.90~~ (C) ~~13+13.98~~
NW KAYLEA COURT, ~~27.55'~~ RT ~~28.84'~~

As-built is 3.95' N and
0.50' W of plan
M.H. #10-1, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~10+51.92~~ (SANITARY LINE 10)
N: ~~1,003,081.4947~~ ~~1003085.45'~~
E: ~~2,812,310.1740~~ ~~2812309.68'~~

AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

NOTES:
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STANDARD DENSITY TO A POINT 36" MINIMUM
ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION
FOR THE PIPE.



SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS

WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

drawn by: D.A.H.O.
checked by: J.E.S.
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date: 2019.03.12

SHEET
C213

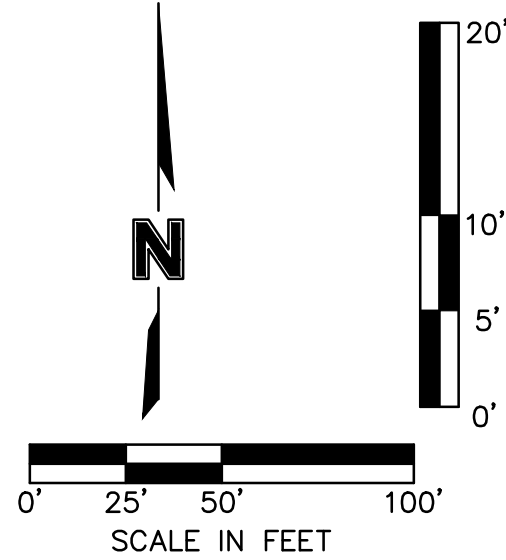
REVISIONS

BY

STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000387
11/1/2020

NSI Certification of Authority #031892
300 E. BIRLING ST. SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.861.1177
WWW.OLSSON.COM

olsson



EX MH 28-099, CONNECT TO EXISTING
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: 12+56.72 (EX SANITARY LINE 1)
N: 1,002,976.3100
E: 2,812,081.5980

As-built is 0.19' N and
1.38' E of plan

M.H. #9-1, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~10+13.21~~ (SANITARY LINE 9)
N: ~~1,002,934.3100~~ 1002934.89'
E: ~~2,812,091.7676~~ 2812093.05'

As-built is 0.47' N and
1.24' W of plan

M.H. #9-3, CONST. DROP
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~13+06.03~~ (SANITARY LINE 9)
N: ~~1,002,797.4901~~ 1002797.97'
E: ~~2,812,259.6935~~ 2812258.44'

As-built is 0.76' S and
1.73' W of plan

M.H. #9-4, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~13+03.43~~ (SANITARY LINE 9)
N: ~~1,002,723.5923~~ 1002722.83'
E: ~~2,812,282.6703~~ 2812280.94'

As-built is 0' SN and
0' EW of plan

M.H. #9-2, CONST. DROP
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~11+71.42~~ (SANITARY LINE 9)
N: ~~1,002,926.0371~~ 1002925.02'
E: ~~2,812,219.7050~~ 2812217.95'

As-built is 0.69' N and
0.43' W of plan

M.H. #9-5, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~15+27.17~~ (SANITARY LINE 9)
N: ~~1,002,742.9364~~ 1002743.62'
E: ~~2,812,425.0992~~ 2812424.67'

As-built is 1.08' N and
0.68' E of plan

M.H. #9-6, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~16+70.88~~ (SANITARY LINE 9) 16+70.12
=STA.: ~~25+60.45~~ (C) 25+60.68
NW O'BRIEN ROAD, ~~37.49~~ LT 38.74'

As-built is 0.94' S and
0.66' E of plan

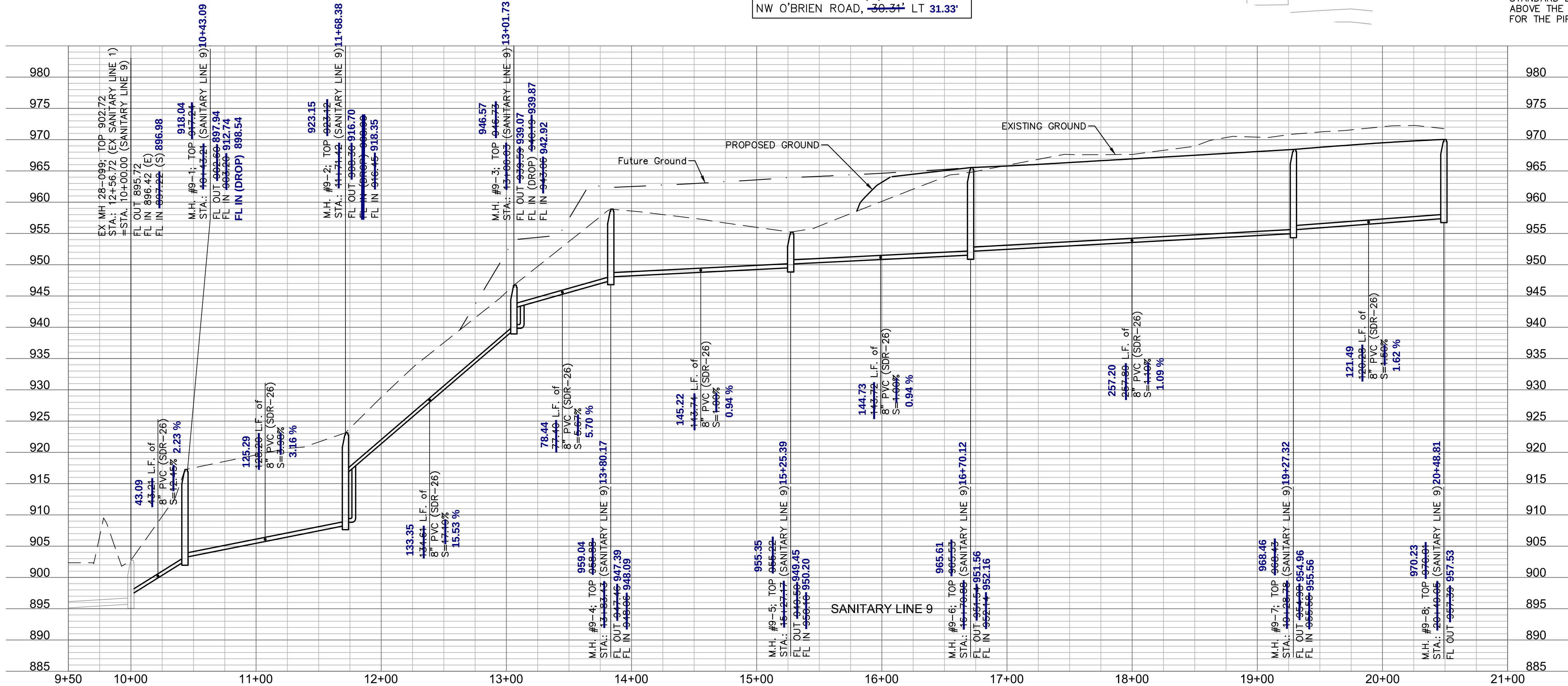
M.H. #9-8, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~20+49.06~~ (SANITARY LINE 9)
=STA.: ~~29+51.45~~ (C) 29+52.14
NW O'BRIEN ROAD, ~~38.50~~ LT 37.57'

As-built is 1.17' N and
0.05' W of plan

M.H. #9-7, CONST. STD.
SANITARY MANHOLE (4' DIA. INSIDE)
STA.: ~~19+28.70~~ (SANITARY LINE 9)
=STA.: ~~28+13.08~~ (C) 28+13.39
NW O'BRIEN ROAD, ~~30.31~~ LT 31.33'

Record Drawing

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.



NOTES:
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.

LATERAL FOR FUTURE PRIVATE IMPROVEMENTS SHALL BE
CONSTRUCTED WITH 8"x6" FITTING AND 6" PVC.

REFER TO SHEET C219 FOR SANITARY DESIGN AND LATERAL
INSTALLATION DETAILS.

MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS
CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.

SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE. IF RISER
IS INDICATED, IS TO BE AT THE SANITARY MAIN, UNLESS
OTHERWISE NOTED.

TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH
STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET
C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

AS BUILT
Date Surveyed: 04-20-2020

olsson

NO. 001815 of Arkansas at 001892
300 BIRCH STREET SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.861.1177
www.olsson.com

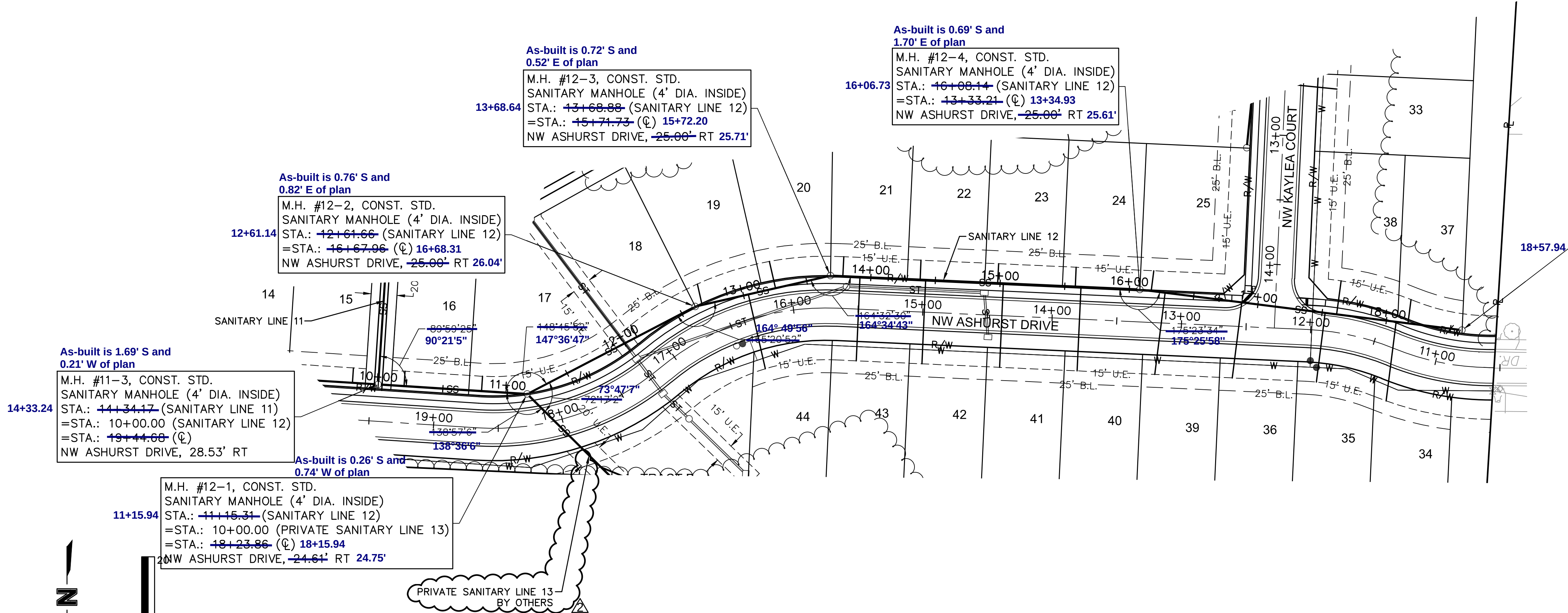
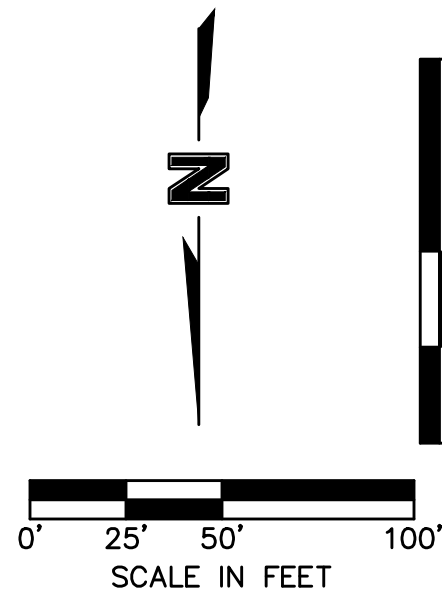
STATE OF MISSOURI
JULIE ELAINE
SELLERS
Professional Engineer
NUMBER
PE-2017000387
11/1/2020

BY: _____
NO. REV. _____
DATE _____
REVISIONS DESCRIPTION _____

SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS
WOODSIDE RIDGE
FIRST PLAT
LEE'S SUMMIT, MO
2019

drawn by: _____ D.A.H.O.
checked by: _____ J.E.S.
designed by: _____ S.M.S.
QA/QC by: _____ M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C215

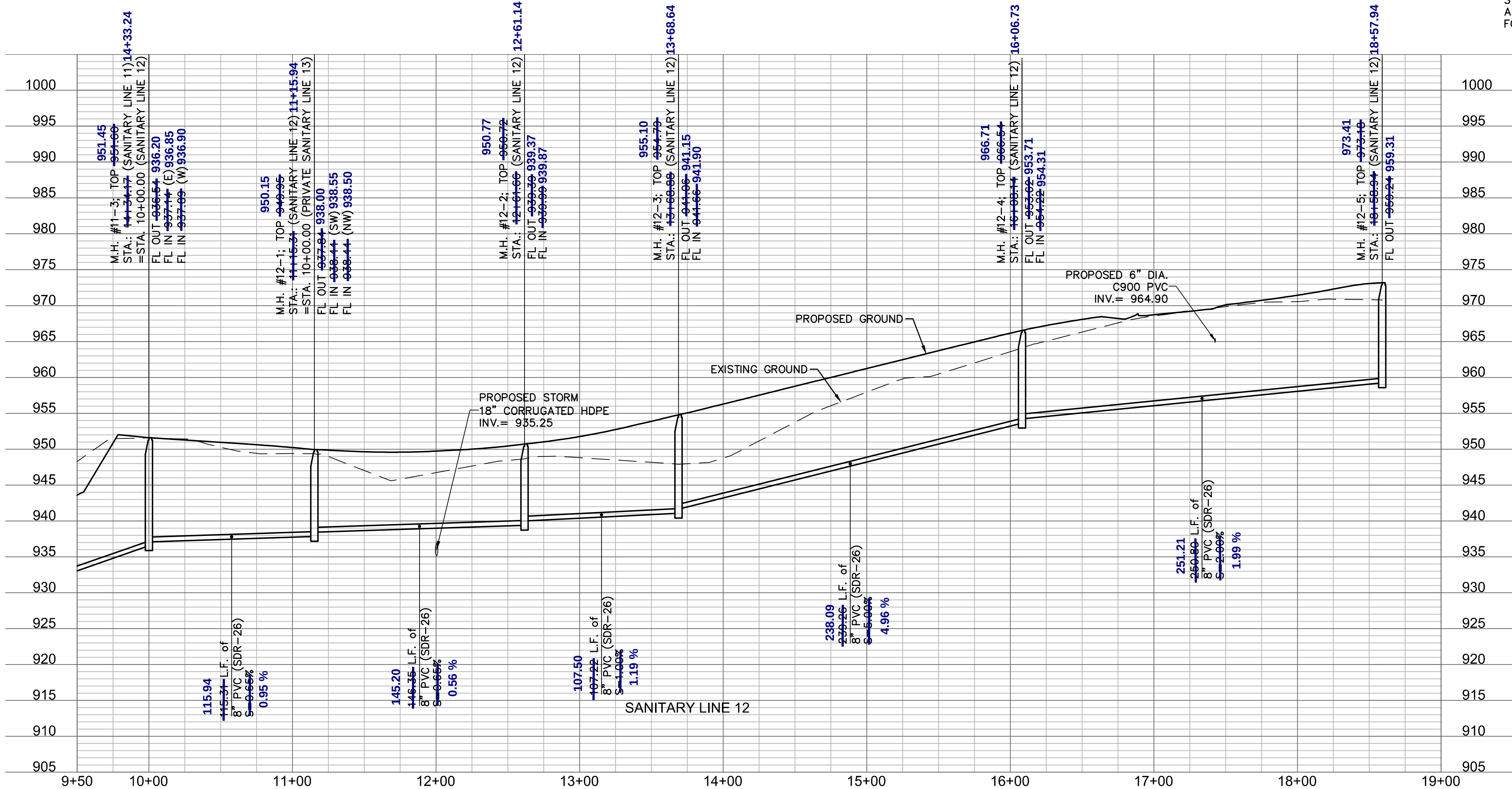


NOTES:
ALL SERVICE LINE CONNECTIONS SHALL BE MADE WITH AN 8"x4" PVC WYE, 4" PVC 45° BEND, AND THE APPROPRIATE LENGTH OF 4" PVC LATERAL (UNLESS OTHERWISE SHOWN) AND CAP.
REFER TO SHEET C219 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.
MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE, IF RISER IS INDICATED, IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE NOTED.
TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

AS BUILT
Date Surveyed: 04-20-2020

Record Drawing

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.



olsson

NOTES:
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 C219 FOR SANITARY DESIGN AND LATERAL INSTALLATION DETAILS.
MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.
SANITARY LATERALS ARE DESIGNED @ 2.00% SLOPE, IF RISER IS INDICATED, IS TO BE AT THE SANITARY MAIN, UNLESS OTHERWISE NOTED.
TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

STATE OF MISSOURI
JULIE ELAINE SELLERS
Professional Engineer
NUMBER PE-2017000367
4/4/20
11/1/2020

NO. REV. DATE DESCRIPTION

1 4/4/2019 REVISED PER SECOND SUBMITTAL CITY COMMENTS

REVISIONS

SANITARY SEWER PLAN & PROFILE
SANITARY SEWER PLANS

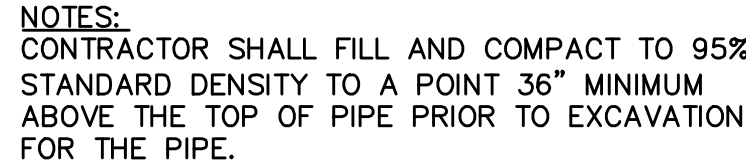
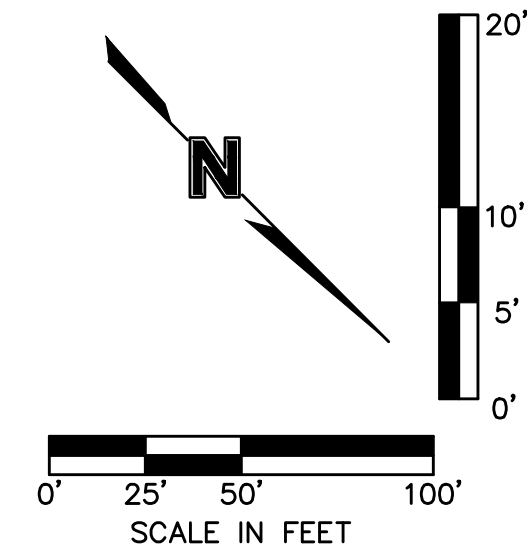
WOODSIDE RIDGE
FIRST PLAT

LEE'S SUMMIT, MO

2019

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.D.
project no.: A18-1140
date: 2019.03.12

SHEET
C217



Record Drawing

REFER TO SHEET C219 FOR SANITARY DESIGN AND LATERAL
INSTALLATION DETAILS.

MAXIMUM DEVIATION FROM LATERAL STATION LOCATIONS AS
CALLED OUT SHALL BE 2.0' TO AVOID PIPE JOINT.

TRENCH CHECKS SHALL BE PROVIDED IN ACCORDANCE WITH STANDARDS LEE'S SUMMIT TRENCH CHECK DETAIL (SHEET C220) ON ALL PRIVATE SANITARY SEWER SERVICE LATERALS.

TARY SEWER PLAN & PRO SANITARY SEWER PLANS

SANITARY
SANITARY
W
LEE'S SUMMIT, MO

drawn by: _____ D.A.H.O
checked by: _____ J.E.S
designed by: _____ S.M.S
QA/QC by: _____ M.G.D
project no.: _____ A18-1140
date: _____ 2019.03.12

SHEET
C218

NO. REV.	DATE	REVISIONS DESCRIPTION	BY
A	4/4/2019	REVISED PER SECOND SUBMITTAL CITY COMMENTS	

REVISIONS DESCRIPTION	COMMENTS
-----------------------	----------

REVISIONS

2019

LEE'S SUMMIT, MO

STATE OF MISSOURI
JULIE ELAINE SELLERS
NUMBER
PE-2017000367
4/5/19
PROFESSIONAL ENGINEER

olsson

MO Certificate of Authority #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116

www.qlsson.com

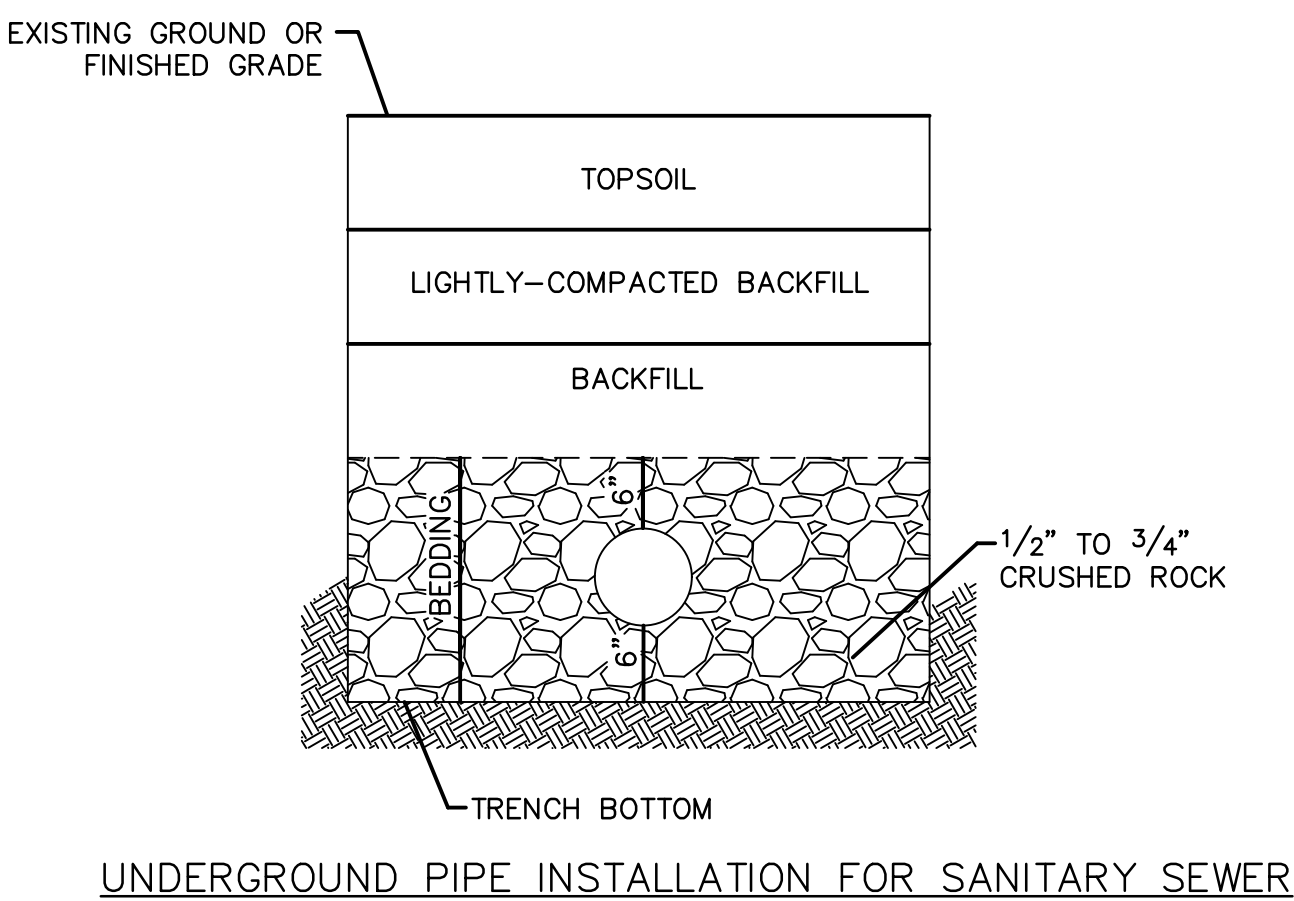
TEI 816 361 1177

Sanitary Sewer Laterals						
Lot Number	Lateral Station	Lateral Length	Riser	Flowline at Main	Flowline at End of Lateral	Minimum Servicable Floor Elevation
		(ft)	(ft)	(ft)	(ft)	(ft)
1	11+37.37	15.49	0.0	962.7	964.0	966.77
2	12+46.01	11.06	0.0	964.2	965.4	968.21
3	13+43.41	34.27	0.0	965.3	966.9	969.74
4	13+27.41	90.82	0.0	965.1	967.9	970.70
5	12+57.54	72.54	0.0	964.3	966.8	969.56
6	12+23.28	67.54	0.0	963.4	965.7	968.51
7	11+51.34	65.47	0.0	962.8	965.1	967.88
8	10+96.31	62.38	0.0	962.2	964.5	967.29
9	18+14.54	16.02	0.0	941.5	942.8	945.58
10	17+54.39	10.00	0.0	940.7	941.9	944.73
11	16+94.41	10.49	0.0	940.0	941.2	944.02
12	16+34.42	11.72	1.0	939.3	941.5	944.30
13	15+74.15	11.81	3.0	938.2	942.3	945.15
14	15+14.15	11.67	2.0	937.7	940.9	943.70
15	14+54.15	11.52	2.0	937.2	940.4	943.24
16	10+20.00	11.47	1.0	937.2	939.4	942.18
17	10+80.00	11.47	0.0	937.6	938.8	941.59
18	12+10.85	10.30	0.0	939.0	940.2	943.02
19	12+67.16	16.61	0.0	940.0	941.3	944.13
20	13+25.26	21.27	0.0	940.6	942.0	944.81
21	13+78.44	15.09	1.0	942.1	944.4	947.18
22	14+38.14	15.07	1.0	945.1	947.4	950.16
23	14+98.14	15.05	1.0	948.1	950.4	953.16
24	15+58.14	15.02	1.0	951.1	953.4	956.16
25	16+16.90	15.75	1.0	954.4	956.7	959.45
26	13+97.13	15.18	2.0	942.4	945.7	948.51
27	13+21.13	65.88	0.0	937.5	939.8	942.65
28	12+79.26	68.43	0.0	934.8	937.2	939.99
29	12+11.84	10.00	2.0	930.1	933.2	936.02
30	12+06.84	10.00	4.0	929.8	934.9	937.68
31	12+76.72	56.19	0.0	934.7	936.8	939.58
32	13+32.79	61.37	0.0	938.3	940.5	943.31
33	13+93.98	64.77	1.0	942.2	945.5	948.32
34	18+07.57	61.60	1.0	958.2	961.4	964.18
35	17+52.29	53.87	0.0	957.1	959.1	961.94
36	16+87.48	58.85	0.0	955.8	957.9	960.75
37	18+16.71	18.52	1.0	958.4	960.7	963.50
38	17+61.32	26.14	1.0	957.2	959.7	962.55
39	16+27.67	63.64	0.0	954.6	956.8	959.64
40	15+62.50	64.98	0.0	951.3	953.6	956.40
41	15+02.50	64.96	0.0	948.3	950.6	953.40
42	14+42.50	64.93	0.0	945.3	947.6	950.40
43	13+91.65	64.91	0.0	942.8	945.1	947.86
44	13+03.74	58.94	1.0	938.4	941.5	944.32
45	12+46.82	10.00	5.0	955.3	961.4	964.17
46	11+74.86	10.00	2.0	951.7	954.8	957.64
47	10+81.79	10.25	1.0	948.8	951.0	953.79
48	17+90.24	78.50	3.0	949.8	955.3	958.07
49	18+62.05	10.00	3.0	951.3	955.4	958.21
50	18+67.05	10.00	3.0	951.3	955.5	958.26
51	17+34.10	35.25	4.0	948.8	954.4	957.18
52	16+65.55	16.53	3.0	947.5	951.8	954.60
53	15+77.14	12.84	1.0	945.8	948.0	950.81
54	15+05.97	10.80	1.0	945.0	947.2	949.99
55	14+33.99	10.00	1.0	944.2	946.4	949.18
56	13+62.02	10.00	1.0	943.4	945.6	948.39
57	12+90.56	10.00	0.0	942.6	943.8	946.62
58	12+17.02	11.69	2.0	941.6	944.8	947.56
59	10+07.50	13.64	2.0	942.7	946.0	948.78
60	10+82.60	18.33	1.0	945.2	947.6	950.40
61	11+54.58	16.54	1.0	947.6	950.0	952.76
62	11+65.59	63.76	0.0	948.0	950.3	953.09
63	10+93.62	61.97	0.0	945.6	947.9	950.66
64	12+58.00	75.21	1.0	941.8	945.3	948.11
65	13+05.36	74.85	0.0	942.8	945.3	948.08
66	13+77.33	72.84	0.0	943.6	946.0	948.83
67	14+49.30	70.82	0.0	944.4	946.8	949.58
68	15+21.27	68.81	0.0	945.2	947.5	950.34
69	19+40.78	10.00	1.0	955.7	957.9	960.72
70	18+63.63	10.00	1.0	954.2	956.4	959.22
71	17+88.64	10.00	1.0	953.4	955.6	958.39
72	16+80.47	10.00	1.0	952.2	954.4	957.20
73	34+28.11	10.00	0.0	958.2	959.4	962.24
74	33+66.59	20.73	0.0	957.6	959.0	961.78
75	32+96.09	17.26	0.0	956.8	958.1	960.93
76	32+11.16	14.56	0.0	955.8	957.1	959.93

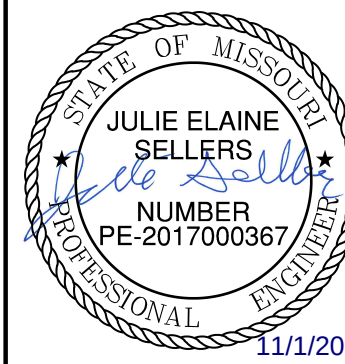
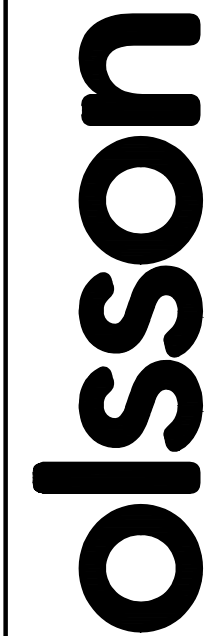
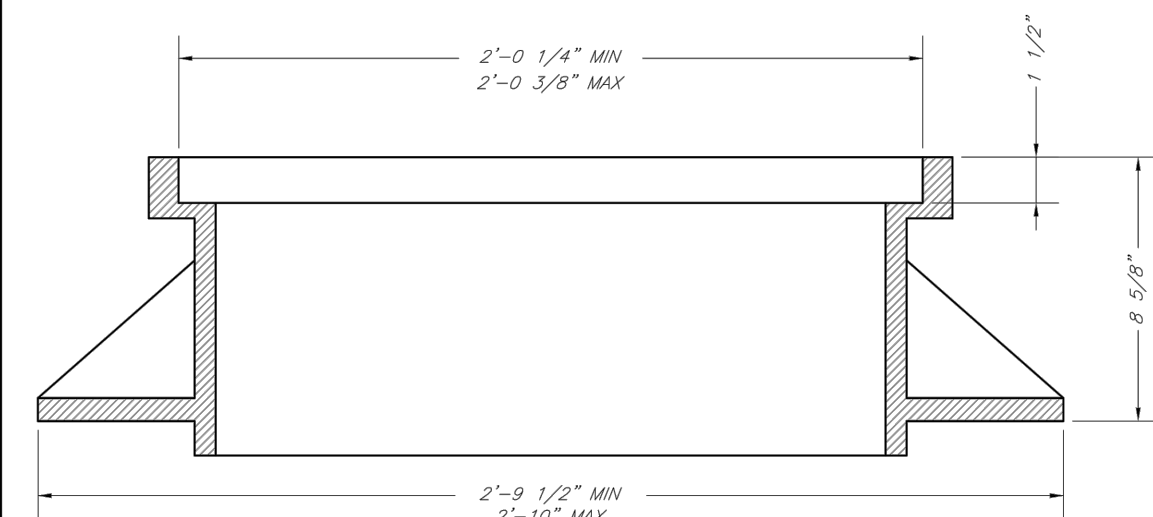
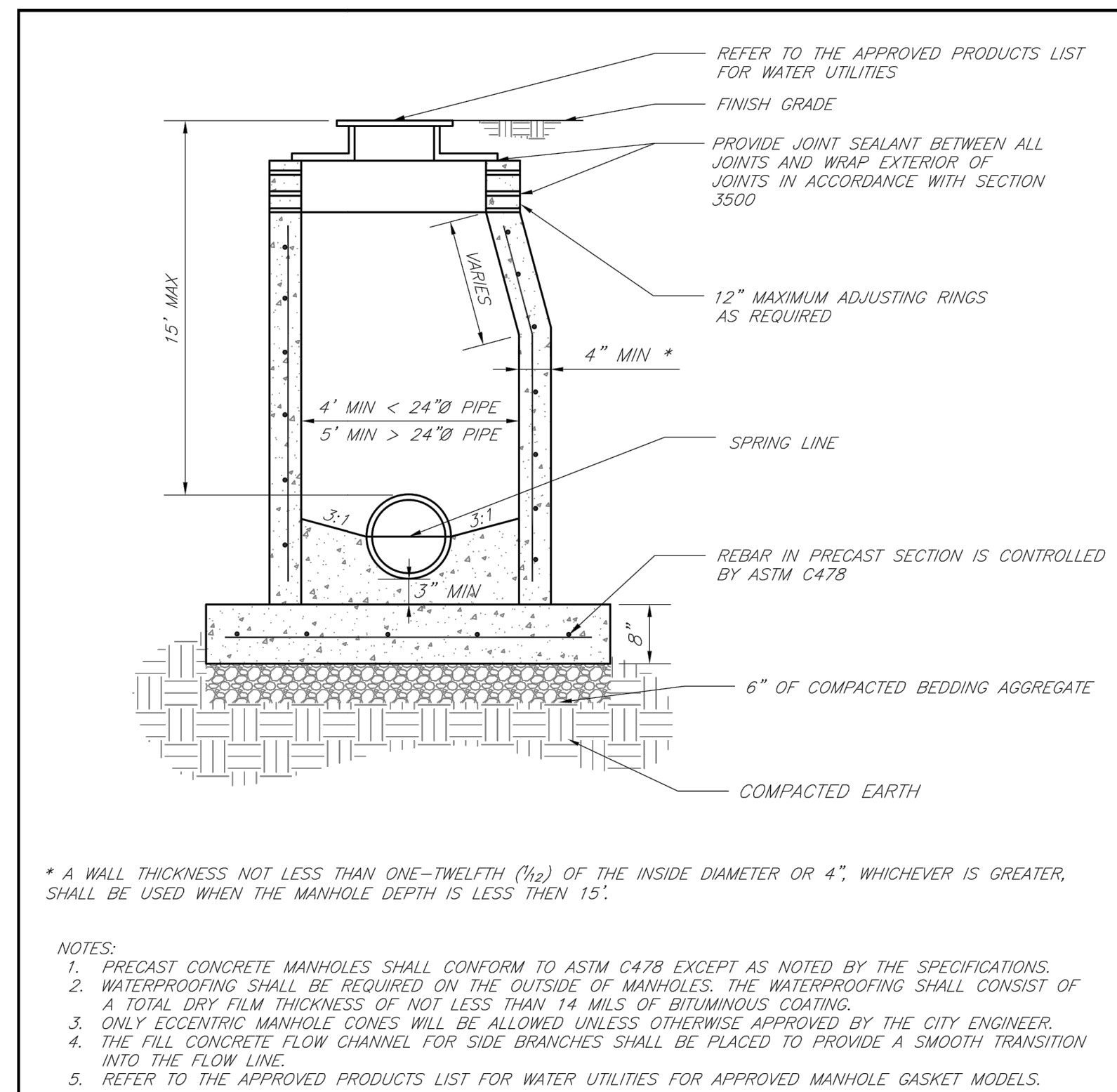
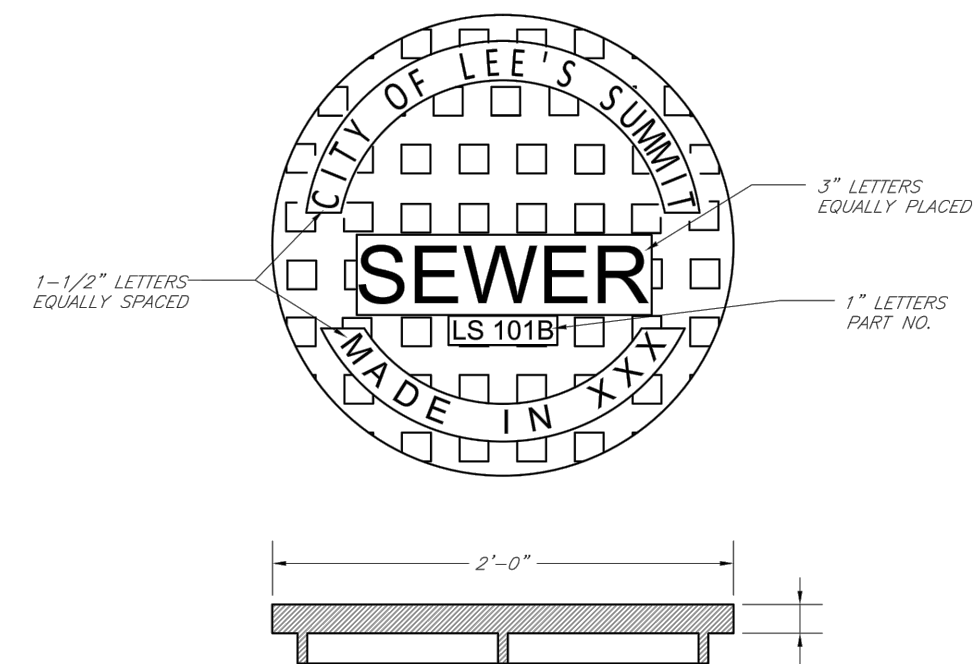
Sanitary Sewer Laterals						
Lot Number	Lateral Station	Lateral Length	Riser	Flowline at Main	Flowline at End of Lateral	Minimum Servicable Floor Elevation
		(ft)	(ft)	(ft)	(ft)	(ft)
77	31+36.17	13.10	0.0	955.4	956.6	959.41
78	30+48.26	13.79	0.0	954.8	956.1	958.86
79	29+44.42	10.00	0.0	953.8	955.0	957.81
80	28+69.45	10.00	0.0	953.3	954.5	957.32
81	30+88.65	67.83	0.0	955.0	957.4	960.20
82	30+44.07	74.32	0.0	954.8	957.2	960.04
83	29+70.49	76.71	0.0	954.0	956.5	959.31
84	28+95.51	77.69	0.0	953.5	956.0	958.84
85	28+20.51	77.45	0.0	953.0	955.6	958.35
86	27+45.51	77.21	0.0	952.5	955.1	957.86
87	26+79.63	76.93	1.0	952.1	955.6	958.40
88	10+16.02	76.72	2.0	952.4	956.9	959.72
89	10+96.00	75.43	1.0	954.4	957.9	960.71
90	11+71.00	74.22	1.0	956.3	959.8	962.57
91	13+17.99	71.86	0.0	960.0	962.4	965.21
92	23+79.00	16.17	4.0	958.1	963.3	966.12
93	23+00.88	15.51	4.0	956.9	962.1	964.93
94	22+21.14	10.00	3.0	955.7	959.8	962.64
95	21+55.52	14.60	3.0	954.4	958.6	961.43
96	19+86.57	15.69	2.0	952.7	956.0	958.79
97	19+17.86	17.34	2.0	951.2	954.5	957.29
98	18+43.01	16.56	2.0	950.1	953.4	956.20
99	17+68.01	15.57	2.0	949.0	952.3	955.11
100	16+93.02	14.58	2.0	948.0	951.2	954.02
101	16+18.03	13.59	1.0	946.9	949.1	951.95
102	15+14.21	15.00	2.0	944.9	948.2	950.99
103	14+35.11	15.00	0.0	943.9	945.2	948.00
104	13+41.01	25.34	0.0	937.0	938.5	941.33
105	12+70.85	14.54	1.0	930.4	932.6	935.43
106	11+99.16	19.92	2.0	921.9	925.3	928.10
107	11+71.54	57.13	3.0	917.9	923.0	925.82
108	12+82.19	66.11	3.0	931.4	936.7	939.50
109	14+40.26	68.81	0.0	944.0	946.3	949.14
110	15+21.12	78.57	0.0	945.0	947.6	950.39
111	15+84.15	72.68	0.0	945.8	948.3	951.09
112	16+42.19	66.10	0.0	947.2	949.6	952.36
113	17+17.18	65.11	1.0	948.3	951.6	954.40
114	17+92.17	64.12	1.0	949.4	952.6	955.45
115	20+08.44	62.09	1.0	952.9	956.2	958.95
116	21+51.57	65.45	0.0	954.4	956.7	959.47
117	22+70.30	67.19	2.0	956.4	960.7	963.55
118	23+66.62	63.26	3.0	957.9	963.1	965.89
119	13+00.87	10.00	2.0	959.5	962.7	965.51
120	12+25.07	10.00	2.0	957.7	960.8	963.61
121	11+40.94	10.00	3.0	955.5	959.7	962.49
122	25+97.51	10.79	2.0	950.9	954.1	956.91
123	25+94.81	69.22	1.0	950.9	954.3	957.08
124	25+42.22	72.34	0.0	950.6	953.0	955.80
125	24+91.89	79.16	0.0	949.4	952.0	954.76
126	24+22.50	77.93	0.0	948.0	950.6	953.38
127	23+89.11	71.72	0.0	947.1	949.5	952.33
128	23+23.14	76.78	0.0	946.0	948.5	951.34
129	21+19.77	16.13	5.0	939.8	946.0	948.78
130	21+15.83	21.93	5.0	939.3	945.6	948.40
131	11+04.31	71.57	0.0	945.0	947.5	950.26
132	11+88.09	78.85	0.0	945.7	948.2	951.04
133	12+64.08	75.93	0.0	946.2	948.7	951.55
134	12+86.47	72.00	0.0	947.1	949.6	952.36
135	13+49.32	80.15	0.0	949.0	951.6	954.40
136	14+07.66	73.32	0.0	950.7	953.2	956.01
137	13+26.28	10.00	2.0	948.3	951.5	954.27
138	11+85.42	10.00	1.0	945.6	947.8	950.62
139	11+08.28	10.00	0.0	945.1	946.3	949.06
140	10+34.35	10.00	0.0	944.5	945.7	948.51
141	10+13.63	12.00	0.0	944.4	945.6	948.39
142	22+85.72	10.00	1.0	945.4	947.6	950.37
143	24+08.77	10.00	2.0	947.8	950.9	953.72
TRACT D	17+83.69	72.63	0.0	953.4	955.8	958.61
FT 144	16+09.02	10.00	1.0	950.9	953.1	955.88
FT 145	15+36.62	10.00	1.0	950.2	952.4	955.16
FT 146	14+65.30	10.00	2.0	948.9	952.0	954.82
FT 147	13+56.03	10.00	4.0	945.9	951.0	953.81
FT 148	13+51.03	10.00	3.0	945.6	949.7	952.55
FT 181	14+20.62	73.28	0.0	948.4	950.9	953.68
FT 182	14+40.57	71.87	1.0	948.6	952.0	954.83
FT 183	15+63.83	73.18	0.0	950.4	952.9	955.71

NOTE: THE LATERAL FOR
"TRACT D" IS 6" PVC, ALL
OTHERS ARE 4" PVC.

Sanitary Sewer Design Information											
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Future Cumulative Area	Peak Base Flow 50-Year Design	Peak Infiltration Flow 50-Year Design	Peak Inflow 50-Year Design	Total Peak Flow	Downstream Pipe Mannings N	Downstream Pipe Capacity	Downstream Pipe Full Flow Velocity
	(%)	(in)	(Ac.)	(Ac.)	(gpd)	(gpd)	(cfs)	(cfs)		(cfs)	(fps)
EX MH 28-208	4.59%	8	42.22	0.00	63330.00	21110.000	1.004	1.135	0.014	2.40	6.89
MH 1-1	1.09%	8	42.22	0.00	63330.00	21110.000	1.004	1.135	0.014	1.17	3.36
MH 1-2	7.77%	8	42.22	0.00	63330.00	21110.000	1.004	1.135	0.014	3.13	8.96
MH 1-3	1.10%	8	42.22	0.00	63330.00	21110.000	1.004	1.135	0.014	1.18	3.37
MH 1-4	0.76%	8	14.12	0.00	21180.00	7060.000	0.392	0.435	0.014	0.98	2.80
MH 1-5	0.75%	8	14.12	0.00	21180.00	7060.000	0.392	0.435	0.014	0.97	2.78
MH 1-6	12.54%	8	14.12	0.00	21180.00	7060.000	0.392	0.435	0.014	3.97	11.38
MH 1-7	1.00%	8	14.12	0.00	21180.00	7060.000	0.392	0.435	0.014	1.12	3.21
MH 1-8	1.65%	8	9.67	0.00	14505.00	4835.000	0.279	0.309	0.014	1.44	4.13
MH 1-9	1.94%	8	9.67	0.00	14505.00	4835.000	0.279	0.309	0.014	1.56	4.48
MH 1-10	0.68%	8	8.35	0.00	12525.00	4175.000	0.245	0.270	0.014	0.93	2.65
MH 1-11	0.65%	8	4.94	0.00	7412.00	2470.000	0.151	0.167	0.014	0.90	2.59
MH 1-12	0.65%	8	3.68	0.00	5520.00	1840.000	0.115	0.127	0.014	0.90	2.59
MH 1-13	1.10%	8	1.59	0.00	2385.00	795.000	0.053	0.057	0.014	1.18	3.37
MH 2-1	15.67%	8	28.10	0.00	42150.00	14050.000	0.713	0.800	0.014	4.44	12.72
MH 2-2	1.00%	8	28.10	0.00	42150.00	14050.000	0.713	0.800	0.014	1.12	3.21
MH 2-3	0.65%	8	26.44	0.00	39660.00	13220.000	0.677	0.759	0.014	0.90	2.59
MH 2-4	1.10%	8	25.61	0.00	38415.00	12805.000	0.659	0.738	0.014	1.18	3.37
MH 2-5	1.79%	8	7.50	0.00	11250.00	3750.000	0.222	0.245	0.014	1.50	4.30
MH 2-6	1.00%	8	6.77	0.00	10155.00	3385.000	0.202	0.223	0.014	1.12	3.21
MH 2-7	1.00%	8	6.77	0.00	10155.00	3385.000	0.202	0.223	0.014	1.12	3.21
MH 3-1	0.75%	8	3.63	0.00	5445.00	1815.000	0.114	0.125	0.014	0.97	2.78
MH 3-2	2.99%	8	1.52	0.00	2280.00	760.000	0.050	0.055	0.014	1.94	5.56
MH 4-1	2.50%	8	2.30	0.00	3450.00	1150.000	0.074	0.081	0.014	1.77	5.08
MH 5-1	3.33%	8	1.66	0.00	2490.00	830.000	0.055	0.060	0.014	2.05	5.87
MH 6-1	2.13%	8	13.91	0.00	20865.00	6955.000	0.387	0.430	0.014	1.64	4.69
MH 6-2	4.99%	8	13.51	0.00	20265.00	6755.000	0.377	0.419	0.014	2.51	7.18
MH 6-3	6.47%	8	10.13	0.00	15195.00	5065.000	0.291	0.323	0.014	2.85	8.18
MH 6-4	1.00%	8	10.13	0.00	15195.00	5065.000	0.291	0.323	0.014	1.12	3.21
MH 7-1	0.82%	8	2.82	0.00	4230.00	1410.000	0.090	0.099	0.014	1.02	2.91
MH 7-2	1.10%	8	1.41	0.00	2115.00	705.000	0.047	0.051	0.014	1.18	3.37
MH 8-0	4.92%	8	9.72	0.00	14580.00	4860.000	0.281	0.311	0.014	2.49	7.13
MH 8-1	2.50%	8	9.72	0.00	14580.00	4860.000	0.281	0.311	0.014	1.77	5.08
MH 8-2	11.16%	8	9.39	0.00	14085.00	4695.000	0.272	0.301	0.014	3.75	10.74
MH 8-3	9.50%	8	9.08	0.00	13620.00	4540.000	0.264	0.292	0.014	3.46	9.91
MH 8-4	1.30%	8	7.93	0.00	11895.00	3965.000	0.233	0.258	0.014	1.28	3.67
MH 8-5	1.43%	8	6.16	0.00	9240.00	3080.000	0.185	0.204	0.014	1.34	3.84
MH 8-6	1.00%	8	3.66	0.00	5490.00	1830.000	0.115	0.126	0.014	1.12	3.21
MH 8-7	1.50%	8	1.71	0.00	2565.00	855.000	0.056	0.062	0.014	1.37	3.94
EX MH 28-099	1.17%	12	5.13	4.45	14370.00	4790.000	0.277	0.307	0.014	3.58	4.56
MH 9-1	12.45%	8	5.13	4.45	14370.00	4790.000	0.277	0.307	0.014	3.96	11.34
MH 9-2	3.98%	8	5.13	4.45	14370.00	4790.000	0.277	0.307	0.014	2.24	6.41
MH 9-3	17.19%	8	5.13	4.45	14370.00	4790.000	0.277	0.307	0.014	4.65	13.33
MH 9-4	5.67%	8	5.13	4.45	14370.00	4790.000	0.277	0.307	0.014	2.67	7.65
MH 9-5	1.00%	8	4.34	0.00	6510.00	2170.000	0.134	0.148	0.014	1.12	3.21
MH 9-6	1.00%	8	3.27	0.00	4905.00	1635.000	0.103	0.113	0.014	1.12	3.21
MH 9-7	1.10%	8	2.12	0.00	3180.00	1060.000	0.069	0.075	0.014	1.18	3.37
MH 9-8	1.50%	8	0.45	0.00	675.00	225.000	0.016	0.017	0.014	1.37	3.94
EX MH 28-100	3.27%	12	2.26	0.00	3390.00	1130.000	0.073	0.080	0.014	5.98	7.62
MH 10-1	4.31%	8	2.26	0.00	3390.00	1130.000	0.073	0.080	0.014	2.33	6.67
MH 10-2	14.08%	8	2.26	0.00	3390.00	1130.000	0.073	0.080	0.014	4.21	12.06
MH 10-3	10.13%	8	2.26	0.00	3390.00	1130.000	0.073	0.080	0.014	3.57	10.23
MH 10-4	6.00%	8	2.26	0.00	3390.00	1130.000	0.073	0.080	0.014	2.75	7.87
MH 10-5	6.47%	8	1.58	0.00	2370.00	790.000	0.052	0.057	0.014	2.85	8.18
EX MH 28-103	2.03%	12	214.47	0.00	321705.00	107235.000	3.314	3.977	0.014	4.71	6.00
MH 11-1	2.50%	8	6.47	0.00	9705.00	3235.000	0.194	0.214	0.014	1.77	5.08
MH 11-2	1.02%	8	6.47	0.00	9705.00	3235.000	0.194	0.214	0.014	1.13	3.25
MH 11-3	6.98%	8	6.47	0.00	9705.00	3235.000	0.194	0.214	0.014	2.96	8.49
MH 11-4	0.77%	8	1.47	0.00	2205.00	735.000	0.049	0.053	0.014	0.98	2.82
MH 11-5	1.21%	8	0.87	0.00	1305.00	435.000	0.030	0.032	0.014	1.23	3.54
MH 12-1	0.65%	8	5.00	0.00	7500.00	2500.000	0.153	0.169	0.014	0.90	2.59
MH 12-2	0.65%	8	3.97	0.00	5955.00	1985.000	0.124	0.136	0.014	0.90	2.59
MH 12-3	1.00%	8	3.73	0.00	5595.00	1865.000	0.117	0.128	0.014	1.12	3.21
MH 12-4	5.00%	8	3.10	0.00	4650.00	1550.000	0.098	0.108	0.014	2.51	7.19
MH 12-5	2.00%	8	1.58	0.00	2370.00	790.000	0.052	0.057	0.014	1.59	4.55
MH 13-1	7.57%	8	0.47	0.00	705.00	235.000	0.016	0.018	0.014	3.09	8.84



-
- SECTION A-A**
- FLOW
 - 4 - #5 BARS
 - #3 BARS AT 12" CENTERS
 - CRADLE SHALL EXTEND TO THE CENTER OF THE INCOMING PIPE
 - #3 BARS AT 3' CENTERS
- SECTION B-B**
- 3 - #5 BARS ALONG LENGTH OF CRADLE
 - CRADLE
 - 8" MIN
 - 3' MIN
 - 8" MIN
- ELEVATION**
- CORE DRILL OPENING
 - 3' MIN
 - 8" MIN
 - CRADLE SHALL EXTEND TO UNDISTURBED EARTH AND TO THE FIRST JOINT IN THE NORMAL SEWER TRENCH
 - SDR 26 PVC PIPE
 - PRECAST CONCRETE MANHOLE PER STANDARD DETAIL SAN-5
 - UNDISTURBED EARTH
 - 8" MIN
 - INVERT SECTION SHOWN ALONG FLOW LINE OF INCOMING INVERT
 - 3:1
 - 8" MIN
 - SPRING LINE



REVISIONS DESCRIPTION

NO.	DATE
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DETAIL SHEET
SANITARY SEWER PLANS

SANIT	W	LEE'S SUMMIT, MO
drawn by: _____ D.A.H.O.		

SHEET
C220

REVISIONS

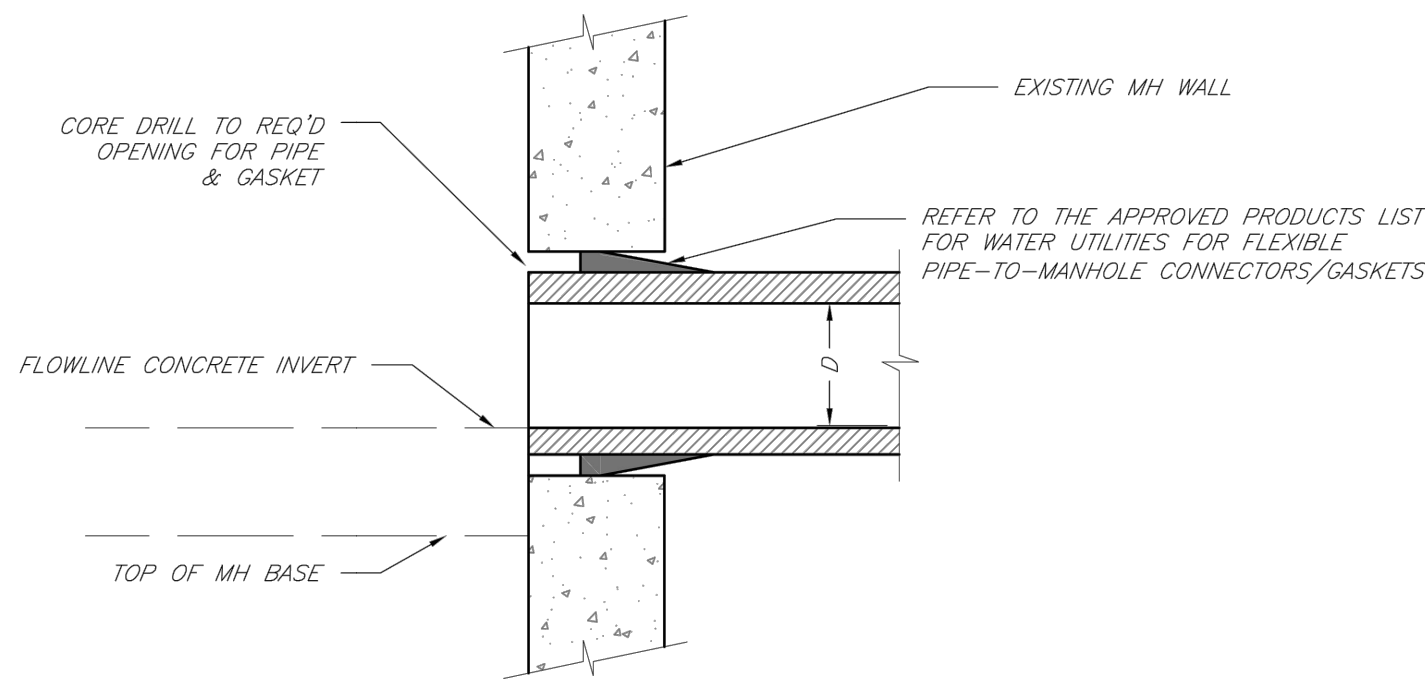
2019

LEE'S SUMMIT, MO

MO Certificate of Authority #:001592
1301 BURLINGTON, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.361.1177
www.olsson.com

Record Drawing

DWG: F:\2018\1001-1500\018-1140-A\40-Design\AutoCAD\Final Plans\Sheets\GNCV\01_Sanitary_36x24\C-DTL01_1140A.dwg
DATE: Mar 13, 2019 2:33pm
USER: dhernandez



LS

LEE'S SUMMIT

MISSOURI

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

EXISTING WALL CONNECTION

Date: 02/13

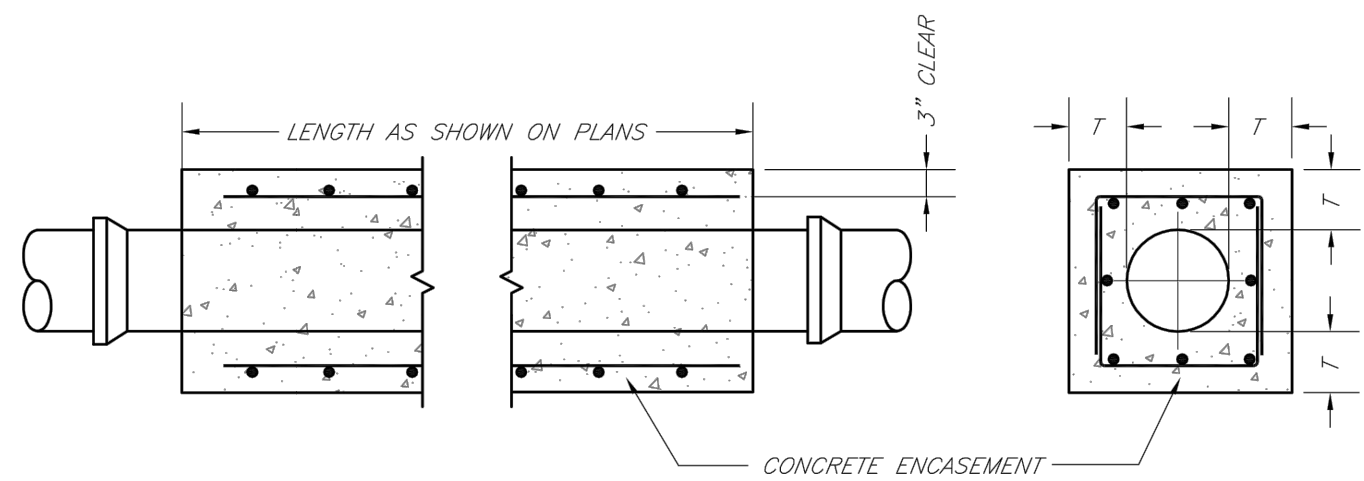
Drawn By: JN

Checked By: GB

FILE: SAN-9

Rev:

Rev:



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MISSOURI

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

SANITARY PIPE ENCASEMENT

Date: 02/13

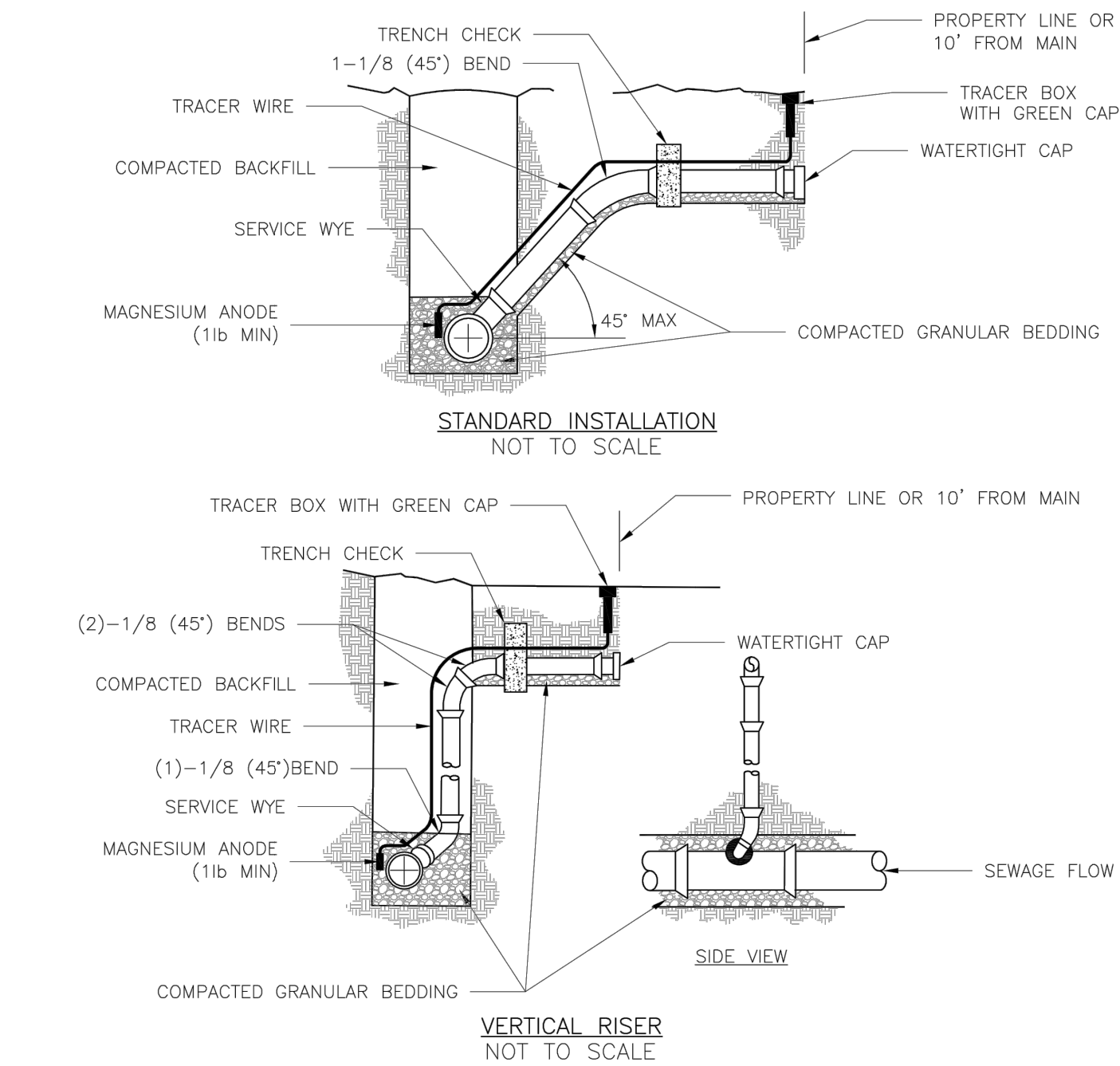
Drawn By: JN

Checked By: DL

FILE: SAN-7

Rev: 1/14

Rev:



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

BUILDING SEWER STUB AND RISER

Date: 02/13

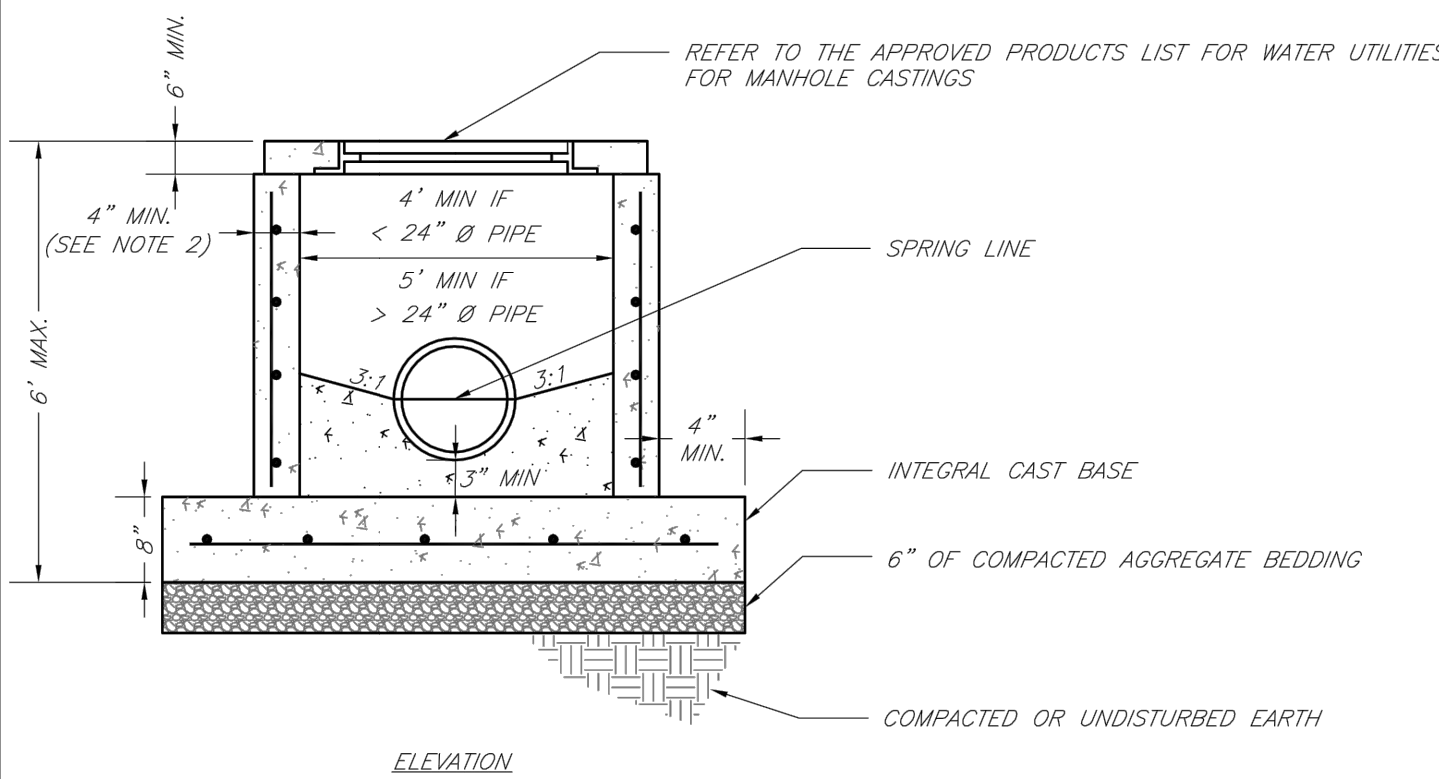
Drawn By: SC

Checked By: DL

FILE: SAN-1

Rev: 10/15

Rev: 12/15



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MISSOURI

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

SHALLOW PRECAST MANHOLE - SANITARY SEWER

Date: 02/13

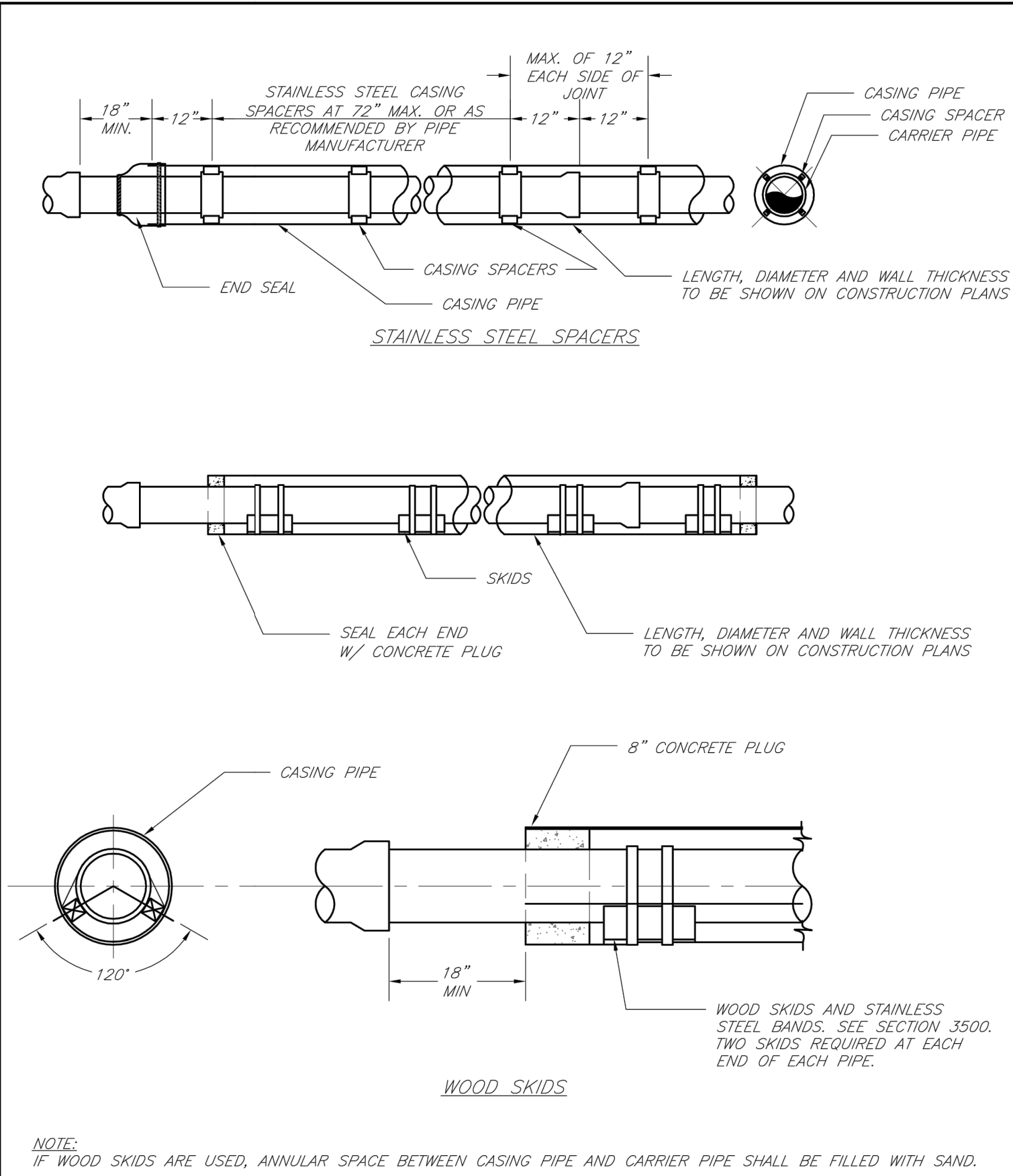
Drawn By: JN

Checked By: DL

FILE: SAN-3

Rev: 1/14

Rev:



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CASING PIPE DETAIL

Date: 02/13

Drawn By: JN

Checked By: DL

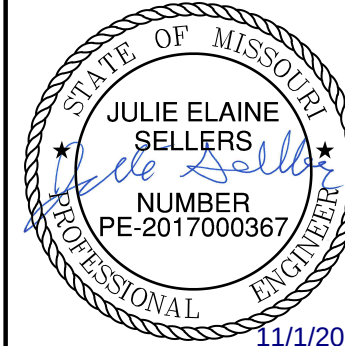
FILE: SAN-6

Rev: 1/14

Rev:

Record Drawing

NOT AS-BUILT



NO. REV.	DATE	REVISIONS DESCRIPTION
1	03/12/2019	REVISED PER CITY COMMENTS

DETAIL SHEET SANITARY SEWER PLANS	WOODSIDE RIDGE FIRST PLAT	2019
LEE'S SUMMIT, MO		

drawn by: D.A.H.O.
checked by: J.E.S.
designed by: S.M.S.
QA/QC by: M.G.B.
project no.: A18-1140
date: 2019.03.12

SHEET
C221

olsson
NO. Certificate of Authority: 001892
380 E. HURON STREET, SUITE 100
NORTH KANSAS CITY, MO 64116
TEL 816.861.1177
www.olson.com