

SECTION 25, TOWNSHIP 48N, RANGE 32W  
SECTION 30, TOWNSHIP 48N, RANGE 31W  
IN LEE'S SUMMIT, JACKSON COUNTY, MO



ARIA FIRST PLAT LOT 1:  
AS PROVIDED BY STEWART TITLE GUARANTY COMPANY:  
TRACT OF LAND IN THE NORTHEAST QUARTER OF SECTION 30 TOWNSHIP 48 NORTH, RANGE 31 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER SECTION; THENCE SOUTH 01 DEGREES 37 MINUTES 50 SECONDS WEST, ON THE WEST LINE OF SAID QUARTER SECTION, 853.75 FEET TO A POINT ON THE SOUTHEAST LOT LINE OF LOT 1, LEE'S SUMMIT ROAD PUMP STATION, A SUBDIVISION RECORDED IN BOOK 1 51 AT PAGE 90 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE NORTH 50 DEGREES 41 MINUTES 15 SECONDS EAST, ON SAID SOUTHEAST LOT LINE, 59.22 FEET; TO THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE CONTINUING NORTH 50 DEGREES 41 MINUTES 15 SECONDS EAST ALONG SAID LINE, 116.89 FEET; THENCE NORTH 44 DEGREES 49 MINUTES 51 SECONDS EAST, 792.38 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF NW LEE'S SUMMIT ROAD AS ESTABLISHED BY DOCUMENT NUMBER 2015E0017982 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, SOUTH 54 DEGREES 34 MINUTES 12 SECONDS EAST, 95.69 FEET; THENCE SOUTHEASTERLY ALONG A CURVE TO THE RIGHT BEING TANGENT TO THE LAST DESCRIBED COURSE WITH A RADIUS OF 1,142.00 FEET, A CENTRAL ANGLE OF 56 DEGREES 01 MINUTES 43 SECONDS AND AN ARC DISTANCE OF 1,116.74 FEET; THENCE SOUTH 01 DEGREES 27 MINUTES 31 SECONDS WEST, 322.27 FEET; THENCE LEAVING SAID RIGHT-OF-WAY LINE, NORTH 88 DEGREES 32 MINUTES 29 SECONDS WEST, 375.74 FEET; THENCE NORTH 01 DEGREES 27 MINUTES 27 SECONDS EAST, 62.94 FEET; THENCE SOUTH 90 DEGREES 00 MINUTES 00 SECONDS WEST, 195.68 FEET; THENCE NORTH 45 DEGREES 00 MINUTES 00 SECONDS WEST, 889.18 FEET TO THE POINT OF BEGINNING, CONTAINING 979,968 SQUARE FEET OR 22.50 ACRES, MORE OR LESS

DISCOVERY PARK ZONE 1:

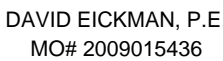
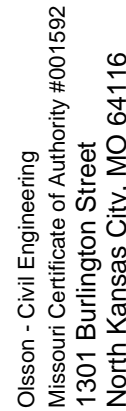
A TRACT OF LAND IN THE NORTHEAST QUARTER OF SECTION 30 TOWNSHIP 48 NORTH, RANGE 31 WEST OF THE 5TH PRINCIPAL MERIDIAN IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI BEING BOUNDED AND DESCRIBED AS FOLLOWS: COMMENCING AT THE NORTHWEST CORNER OF SAID NORTHEAST QUARTER SECTION; THENCE SOUTH 01°37'50" WEST, ON THE WEST LINE OF SAID QUARTER SECTION, 853.75 FEET TO A POINT ON THE SOUTHEAST LOT LINE OF LOT 1, LEE'S SUMMIT ROAD PUMP STATION, A SUBDIVISION RECORDED IN BOOK 1 51 AT PAGE 90 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE, AND THE POINT OF BEGINNING OF THE TRACT OF LAND TO BE HEREIN DESCRIBED; THENCE NORTH 50°41'15" EAST, ON SAID SOUTHEAST LOT LINE, 59.22 FEET; THENCE LEAVING SAID LOT LINE, SOUTH 45°00'00" EAST, 889.18 FEET; THENCE NORTH 90°00'00" EAST, 195.68 FEET; THENCE SOUTH 01°27'27" WEST, 62.94 FEET; THENCE SOUTH 88°32'29" EAST, 375.74 FEET TO A POINT ON THE WESTERLY RIGHT-OF-WAY LINE OF NE DOUGLAS STREET AS ESTABLISHED BY INSTRUMENT NUMBER 2015E0017982 IN THE JACKSON COUNTY RECORDER OF DEEDS OFFICE; THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, SOUTH 01°27'31" WEST, 1,114.58 FEET; THENCE SOUTH 46°40'17" WEST, 35.22 FEET TO THE INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY LINE OF NE COLBURN ROAD AS ESTABLISHED BY A SURVEY PROVIDED BY HAMILTON STERRETT AND DOOLEY, PROJECT NUMBER 99021; THENCE ON SAID NORTHERLY RIGHT-OF-WAY LINE NORTH 88°06'56" WEST, 730.85 FEET; THENCE WESTERLY ALONG A CURVE TO THE LEFT HAVING AN INITIAL TANGENT BEARING OF NORTH 87°33'04" WEST WITH A RADIUS OF 2,904.93 FEET, A CENTRAL ANGLE OF 10°06'02" AND AN ARC DISTANCE OF 512.10 FEET TO THE SOUTHWEST CORNER OF THE SAID NORTHEAST QUARTER; THENCE NORTH 01°37'22" EAST, ON THE WEST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 30, A DISTANCE OF 1,328.05 FEET TO THE NORTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE SAID NORTHEAST QUARTER; THENCE CONTINUING ON THE SAID WEST LINE, NORTH 01°37'50" EAST, 473.96 FEET TO THE POINT OF BEGINNING, CONTAINING 1,717.917 SQUARE FEET OR 39.42 ACRES, MORE OR LESS.

OIL/GAS WELLS:

NO OIL OR GAS WELLS ARE LOCATED WITHIN PROJECT LIMITS.

INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES,  
GEOLOGICAL SURVEY GEOSCIENCES TECHNICAL RESOURCE ASSESSMENT TOOL (GEOSTRAT).

THE ENTIRE SITE IS LOCATED WITHIN ZONE X "AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM THE 1% ANNUAL CHANCE FLOOD" AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 29095C0409G, REVISION DATE JANUARY 20, 2017.



## REVISIONS

drawn by: GS/OS/JN  
checked by: AR/JN  
approved by: DE  
QA/QC by: JS/NH  
project no.: D21-04643  
drawing no.: C TTL01 D2104643  
date: 09.10.2023

SHEET  
C650



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 WITHOUT 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.

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drawn by: GS/OS/JM  
checked by: AR/JM  
approved by: DB  
QA/QC by: JS/NH  
project no.: D21-0464  
drawing no.: C TTL01 D210464  
date: 09.10.2023




























A north arrow pointing upwards with the letter 'N' in the center. Below it is a scale bar marked from 0' to 200' in increments of 50'.

### PLAN LEGEND

\*THIS LEGEND APPLIES TO ALL SHEETS UNLESS EXPLICITLY SHOWN OTHERWISE ON EACH SHEET.

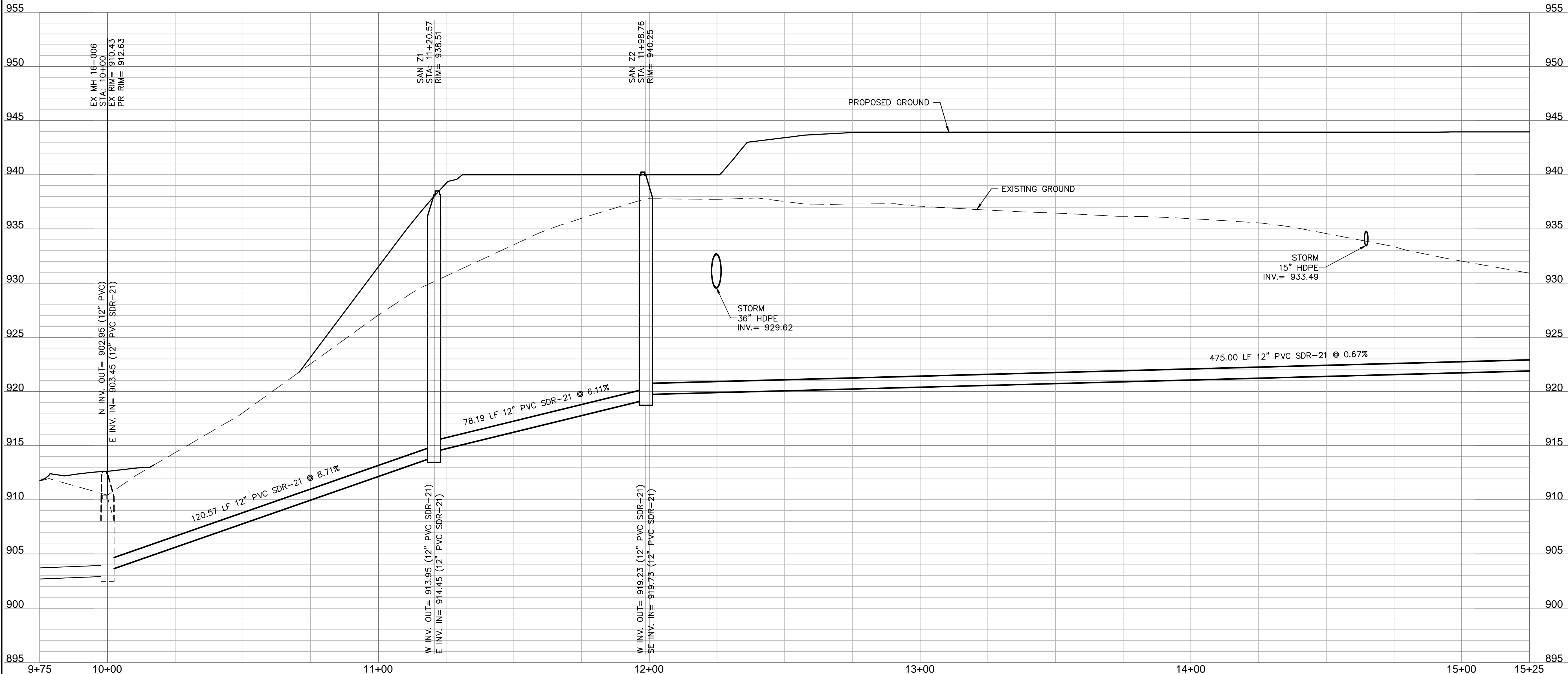
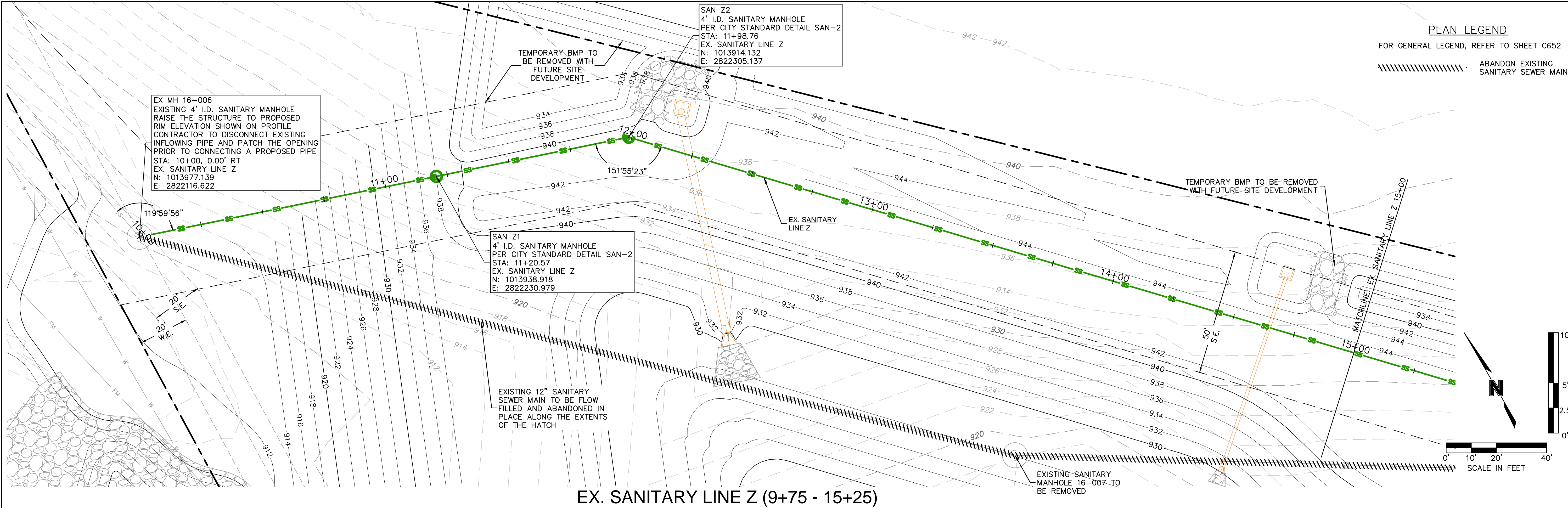
- |   |                                  |
|---|----------------------------------|
|  | EXISTING SANITARY SEWER          |
|  | PROPOSED SANITARY SEWER          |
|  | PROPERTY LINE / R/W LINE         |
|  | PROPERTY LOT LINE                |
|  | PROPOSED SANITARY SEWER EASEMENT |
|  | OTHER UTILITIES' EASEMENT        |
|  | PROPOSED STORM SEWER             |
|  | PROPOSED WATER PIPE              |
|  | EXISTING POWER SERVICE           |
|  | EXISTING NATURAL GAS PIPE        |

-  REMOVE EXISTING TREE
-  EXISTING LIGHT POLE
-  EXISTING SIGN
-  EXISTING SPRINKLER BOX
-  EXISTING SPRINKLER CONTROL VALVE
-  EXISTING WATER VALVE
-  EXISTING FIRE HYDRANT
-  EXISTING WATER METER
-  EXISTING ELECTRIC BOX
-  EXISTING ELECTRIC VAULT
-  EXISTING ELECTRIC METER
-  EXISTING ELECTRIC RISER
-  EXISTING ELECTRIC MANHOLE

\*SCALE MAY AFFECT THE SIZE OF SURVEY  
SYMBOLS IN PLAN, BUT SHAPE WILL BE RETAINED.



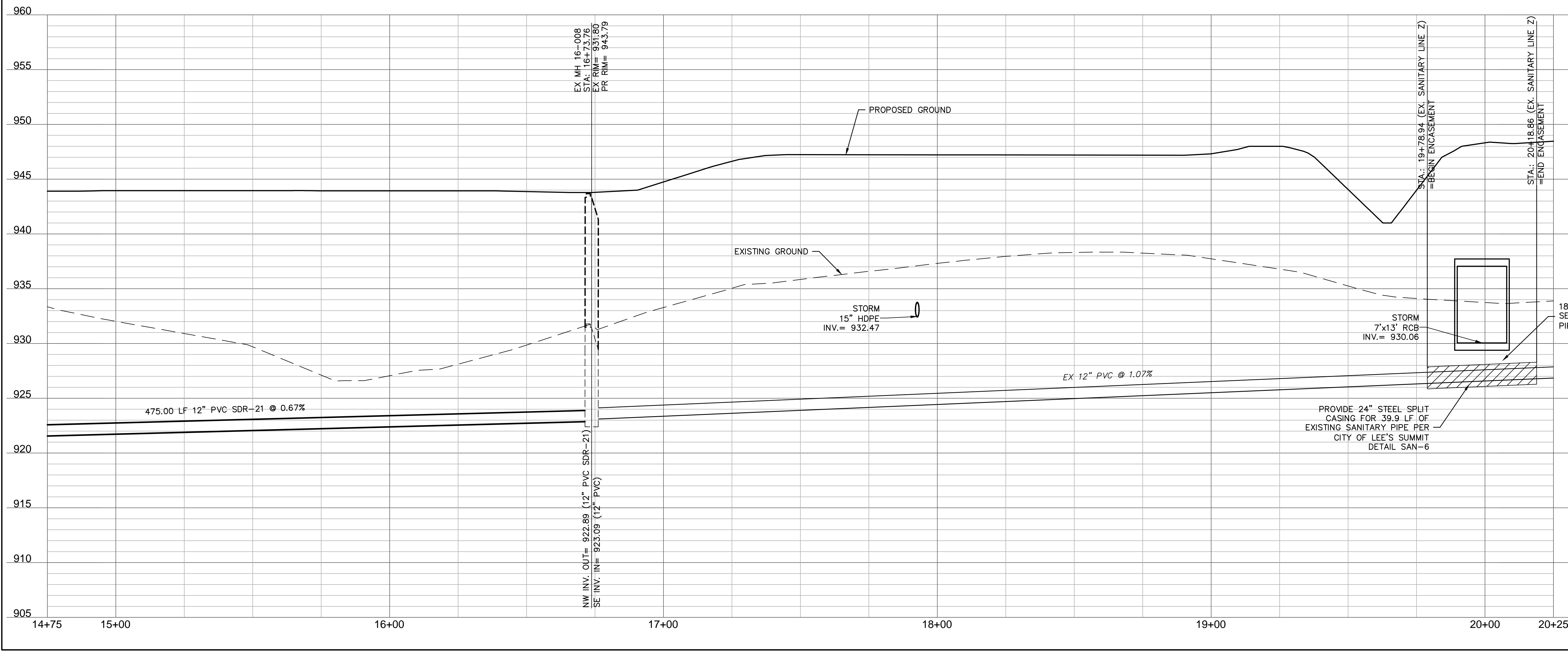
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USER: crromerov



- NOTES:
- CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
  - CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

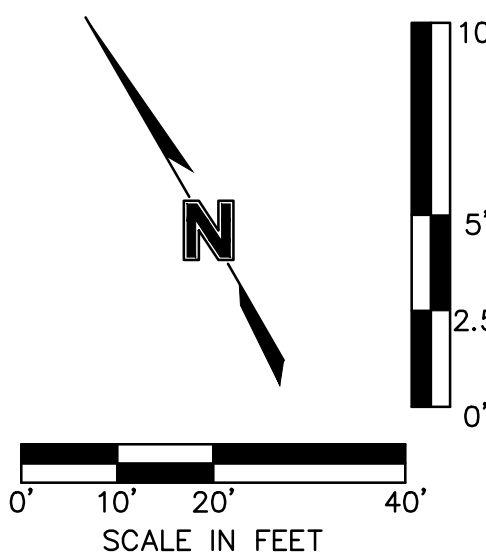
<b>olsson</b> Olsson - Civil Engineering Missouri Certificate of Authority #001592 1301 Burlington Street North Kansas City, MO 64116 TEL 816.361.1177 www.olson.com			
DAVID L. EICKMAN, P.E. MOR 2009015436		REVISIONS	
BY		REVISIONS DESCRIPTION	
DATE			
REV. NO.			
SANITARY SEWER PLAN & PROFILE (EX. SANITARY LINE Z) PUBLIC SANITARY SEWER PLANS THE VILLAGE AT DISCOVERY PARK ZONE 1 NW COLBERN RD & NE DOUGLAS ST LEE'S SUMMIT, MISSOURI		2023	
drawn by: GS/SOS/JN checked by: AR/JN approved by: DE QA/QC by: JS/NH project no.: D21-04643 drawing no.: C_SAN01_D2104643 date: 08.10.2023		SHEET C653	





NOTES:

1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



SANITARY SEWER PLAN & PROFILE (EX. SANITARY LINE Z CONT'D) PUBLIC SANITARY SEWER PLANS		THE VILLAGE AT DISCOVERY PARK ZONE 1 NW COLBERN RD & NE DOUGLAS ST		LEE'S SUMMIT, MISSOURI		2023
drawn by: _____ GS/OS/JN checked by: _____ AR/JN approved by: _____ DE QA/QC by: _____ JS/NH project no.: _____ D21-154643 drawing no.: C_SANO1_D2104643 date: _____ 09.10.2023						
SHEET C654						



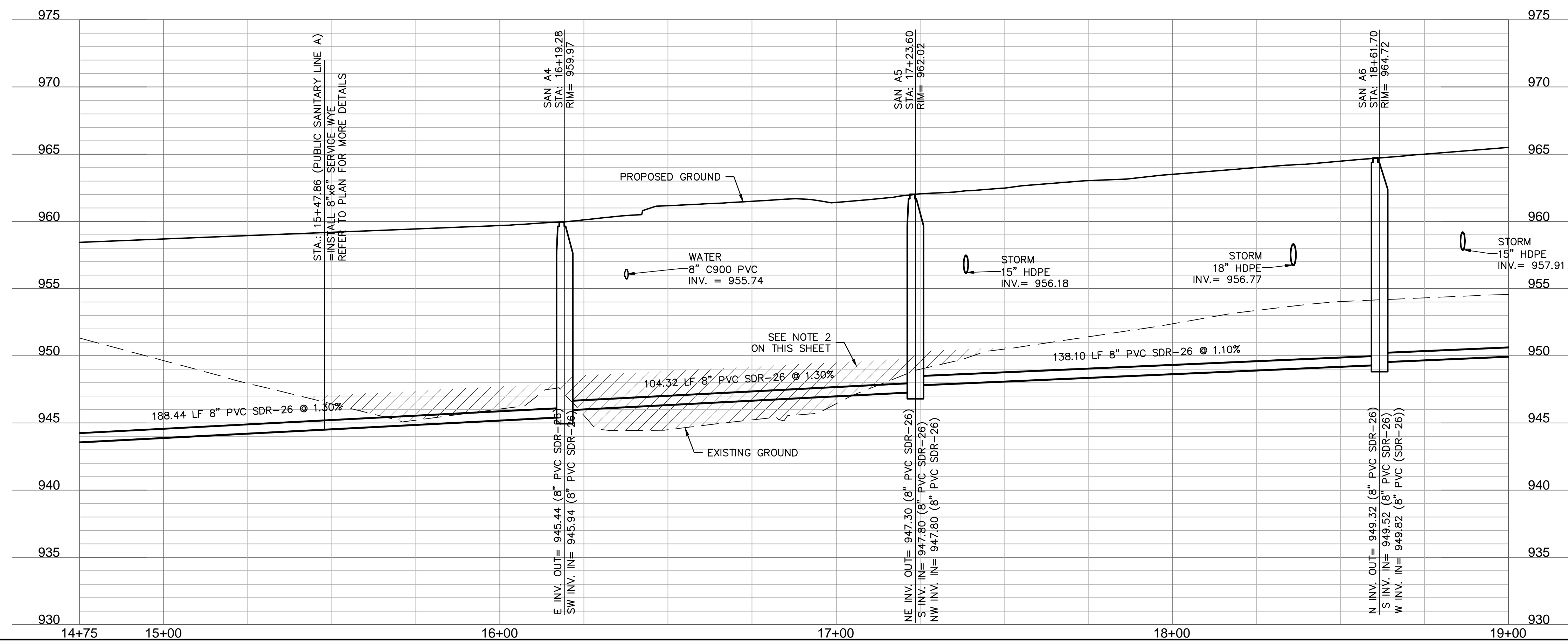
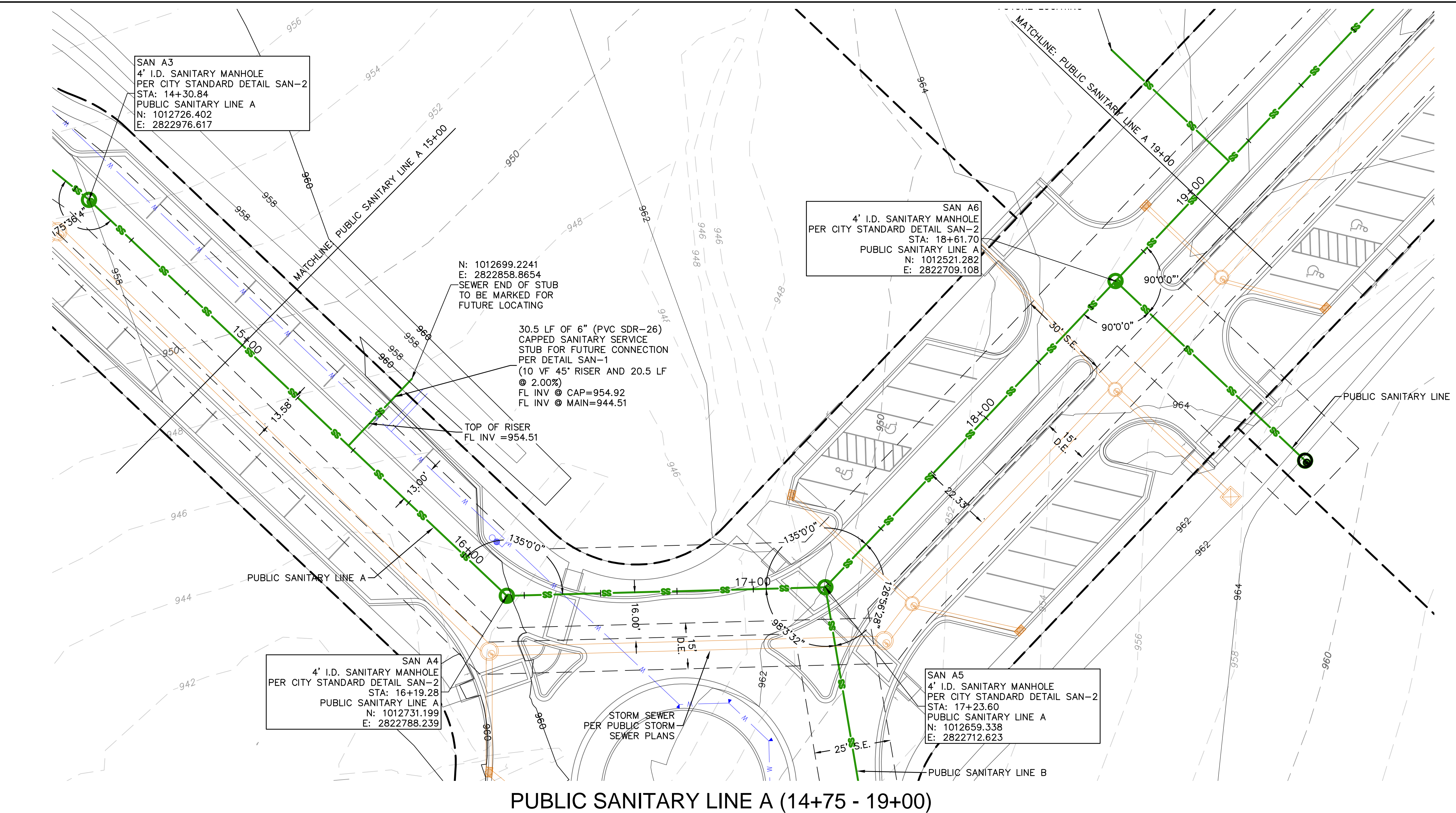






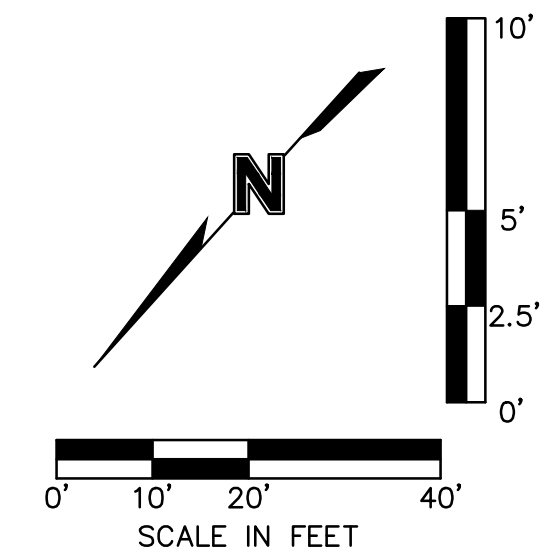


USER: armonov  
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C\_XALTA\_B210104643  
C\_FUTILL\_D210104643  
C\_FROAD\_D210104643  
T\_PBASE\_D0210104643



PLAN LEGEND

FOR GENERAL LEGEND, REFER TO SHEET C652



- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
  2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

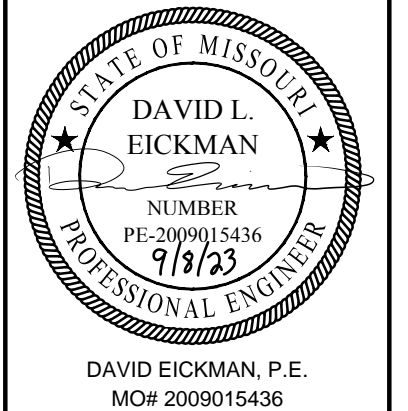
SANITARY SEWER PLAN & PROFILE (SANITARY LINE A CONT'D)  
PUBLIC SANITARY SEWER PLANS

THE VILLAGE AT DISCOVERY PARK ZONE 1  
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

drawn by: GS/OS/JN  
checked by: AR/JN  
approved by: DE  
QA/QC by: JS/NH  
project no.: D21-04643  
drawing no.: C SAN02 D2104643  
date: 09.10.2023

SHEET  
C657

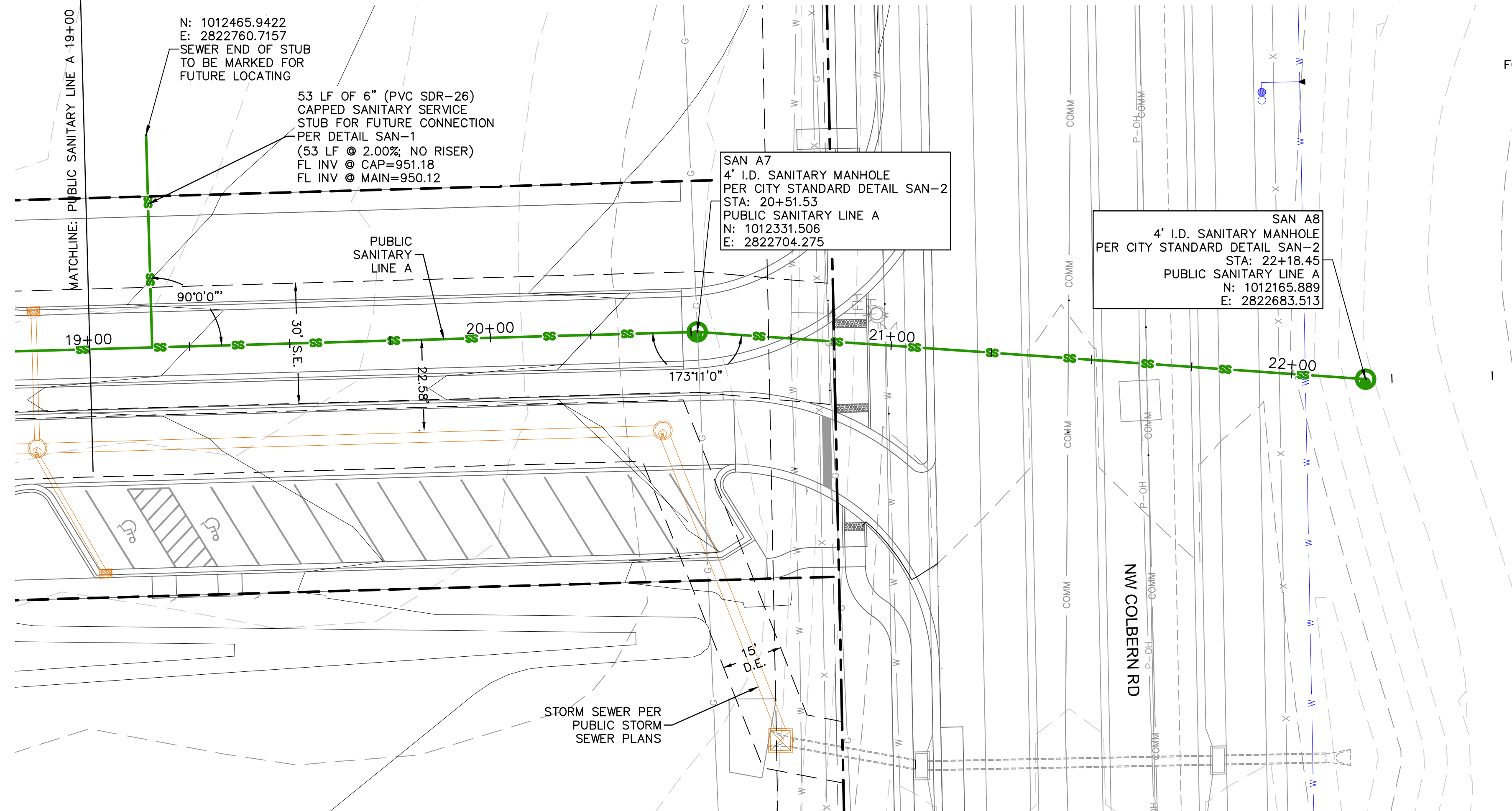
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1301 Burlington Street  
North Kansas City, MO 64116

TEL 816.361.1177    [www.olsson.com](http://www.olsson.com)





PLAN LEGEND  
FOR GENERAL LEGEND, REFER TO SHEET C652

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North Kansas City, MO 64116  
TEL 816.381.1177 [www.olsson.com](http://www.olsson.com)





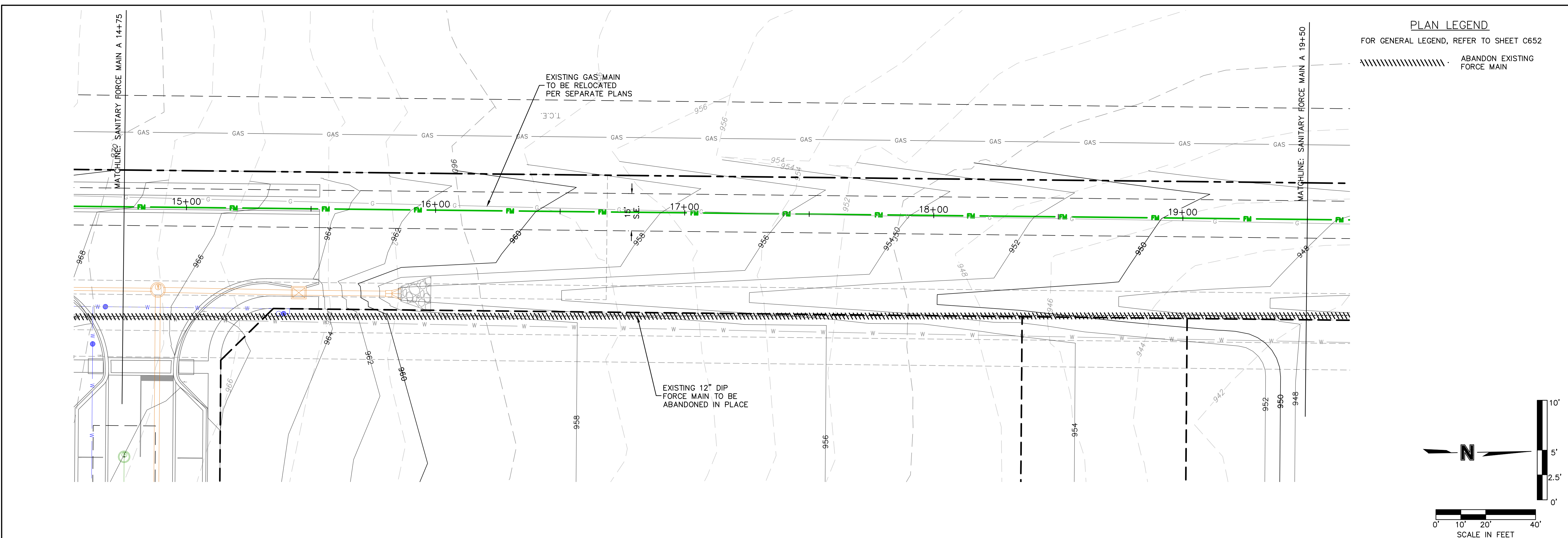




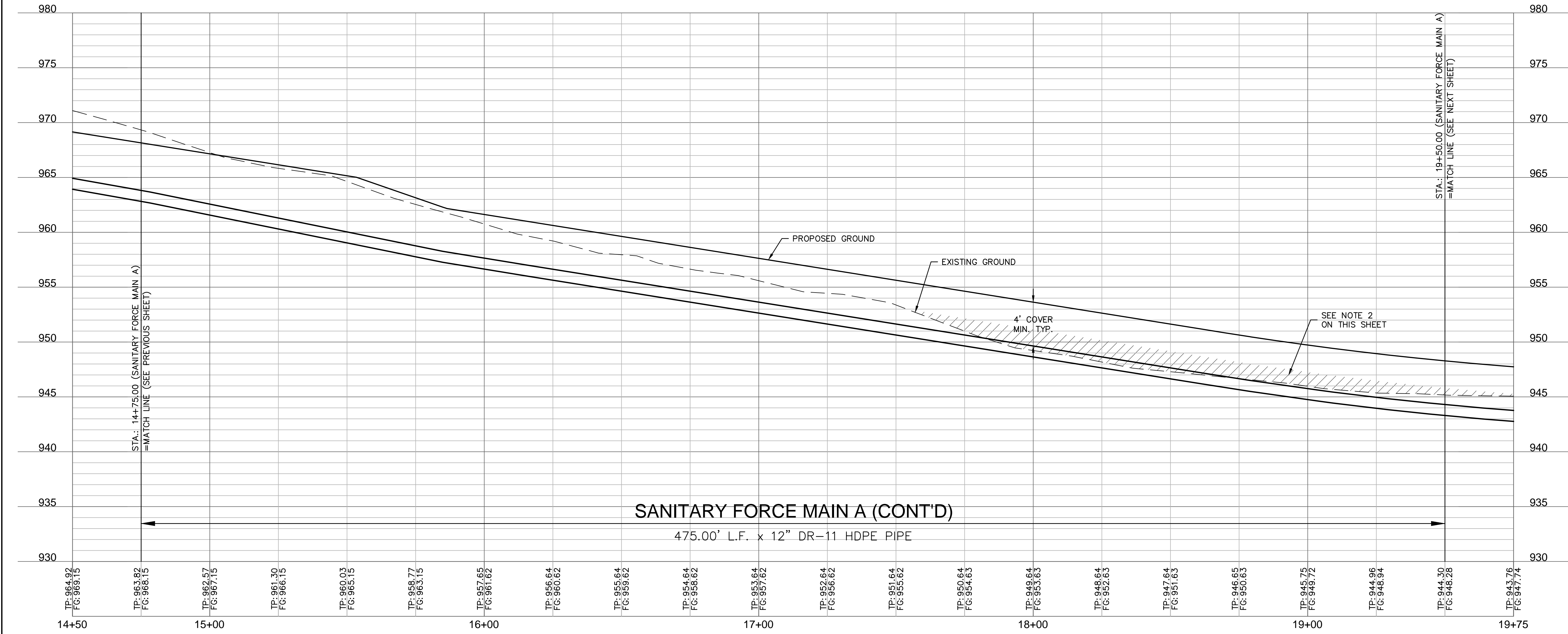








SANITARY FORCE MAIN A (14+50 - 19+75)

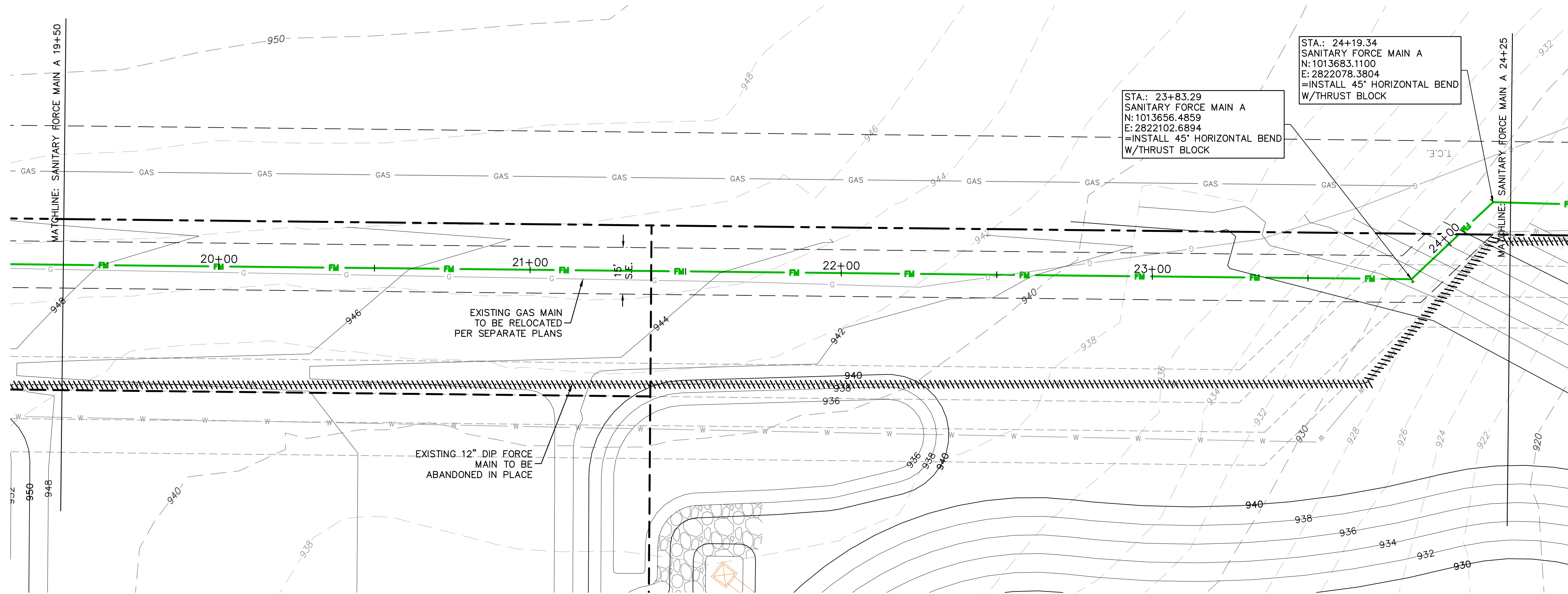
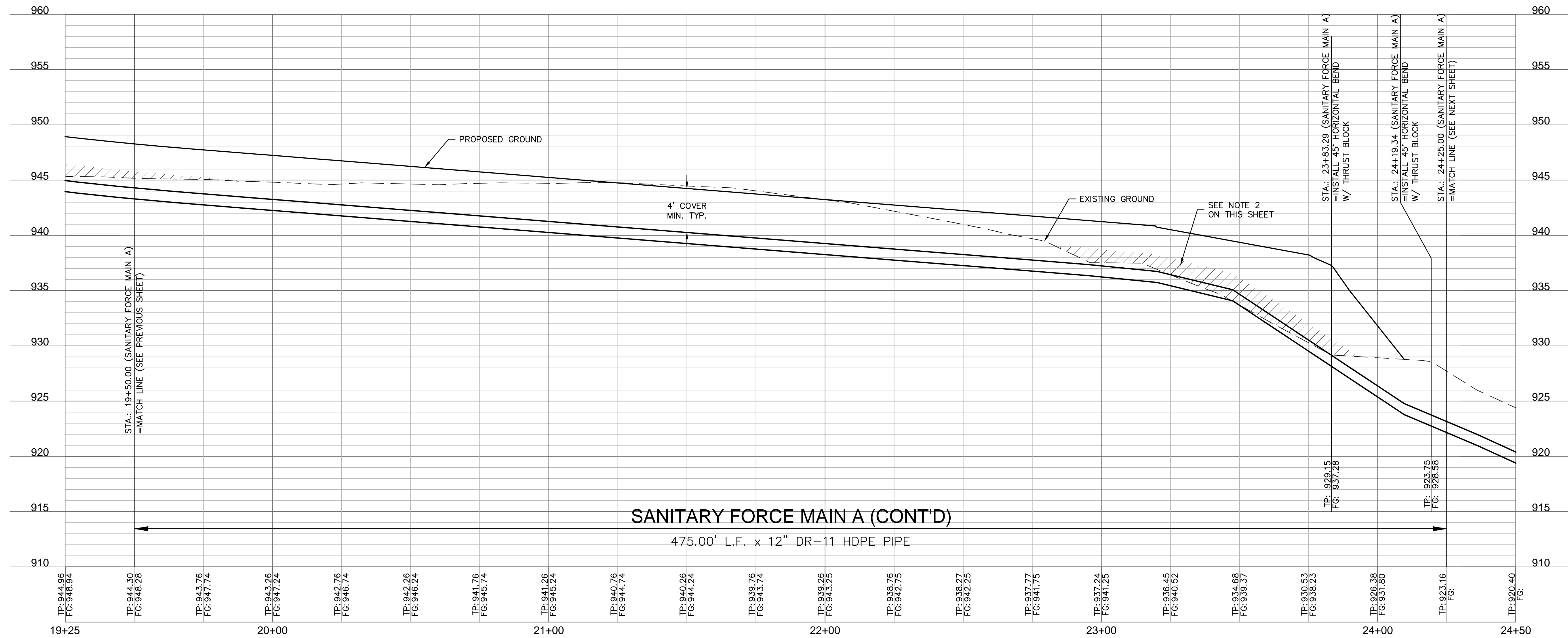


SANITARY FORCE MAIN A (CONT'D)

- NOTES:
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
  2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.


<b>olsson</b> Olsson - Civil Engineering Missouri Certificate of Authority #001592 1301 Burlington Street North Kansas City, MO 64116 TEL 816.361.1177 www.olson.com		<b>STATE OF MISSOURI</b> <b>DAVID L. EICKMAN</b> NUMBER PE-2099015436 <b>9/10/23</b> PROFESSIONAL ENGINEER DAVID EICKMAN, P.E. MOR 2009015436	
		BY	REVISIONS
SANITARY FORCE MAIN RELOCATION PLAN & PROFILE CONT'D PUBLIC SANITARY SEWER PLANS THE VILLAGE AT DISCOVERY PARK ZONE 1 NW COLBURN RD & NE DOUGLAS ST LEE'S SUMMIT, MISSOURI		REV. NO.	DATE
SHEET C662		2023	

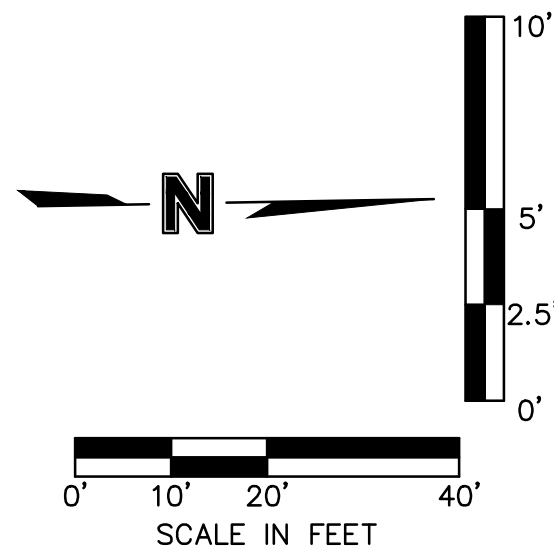




PLAN LEGEND

FOR GENERAL LEGEND, REFER TO SHEET C652

 ABANDON EXISTING  
FORCE MAIN



NOTES:

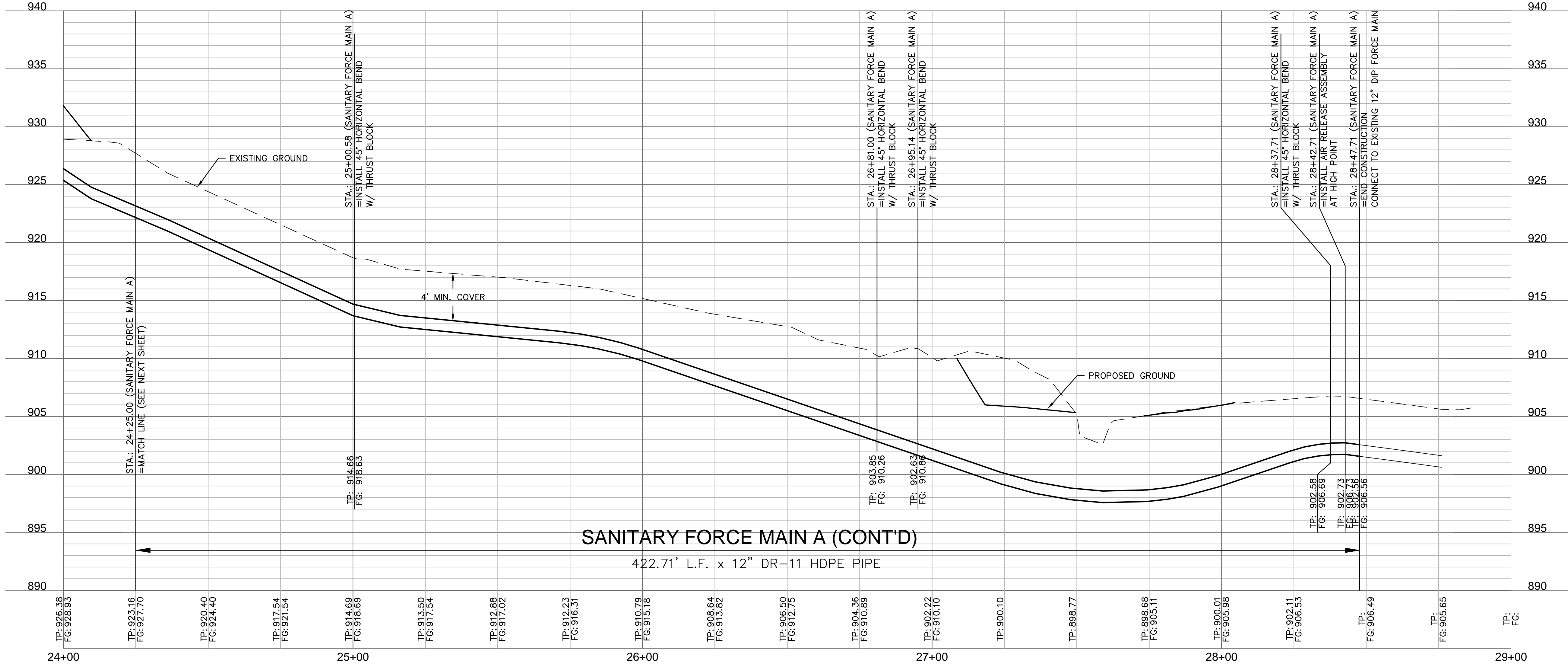
1. CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
2. CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

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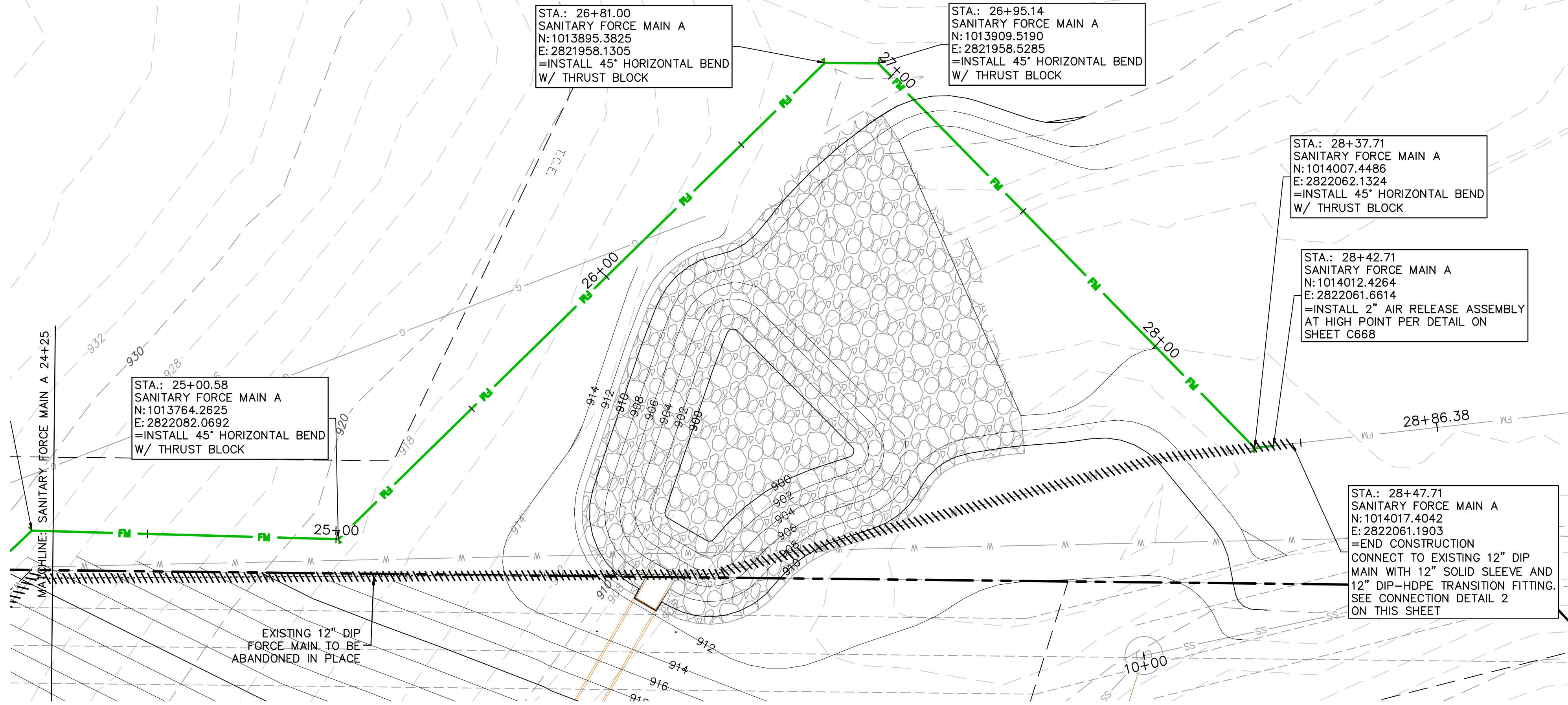
SANITARY FORCE MAIN RELOCATION PLAN & PROFILE CONT'D PUBLIC SANITARY SEWER PLANS	
THE VILLAGE AT DISCOVERY PARK ZONE 1 NW COLBERN RD & NE DOUGLAS ST	
LEE'S SUMMIT, MISSOURI	2023

drawn by: GS/OS/JN  
checked by: AR/JN  
approved by: DE  
QA/QC by: JS/NH  
project no.: D21-04643  
drawing no: C\_SAN\_FM\_D2104643  
date: 09.10.2023



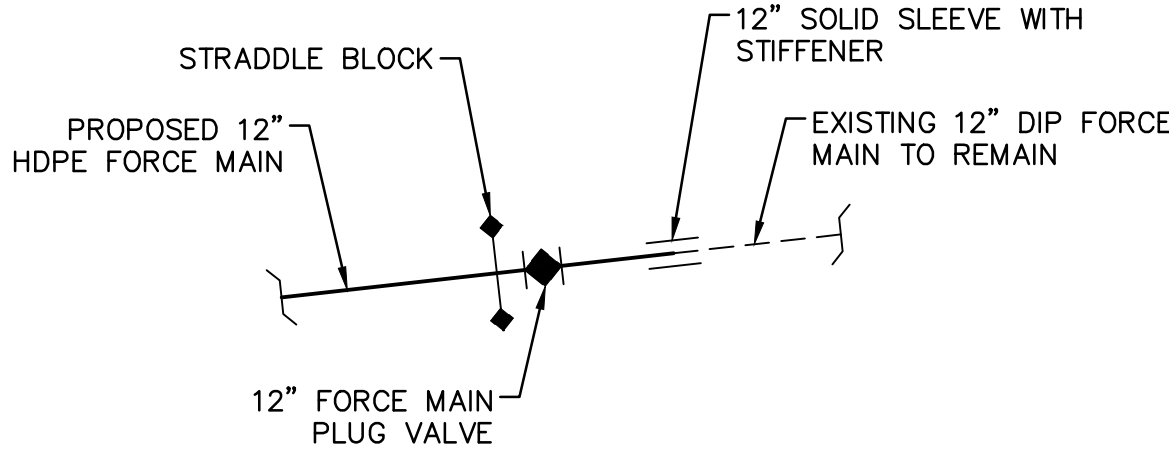


SANITARY FORCE MAIN A (24+00 - 29+00)

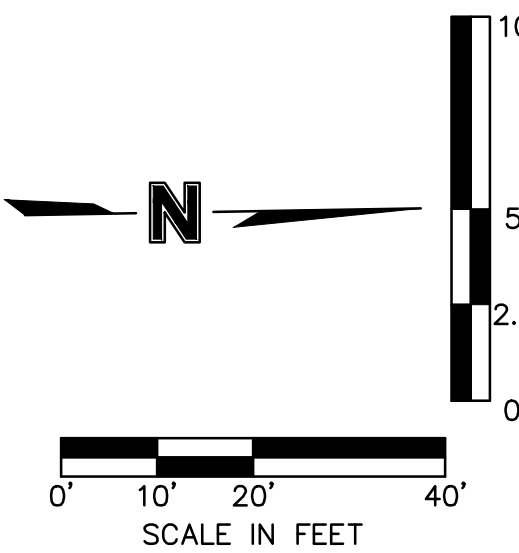


PLAN LEGEND  
FOR GENERAL LEGEND, REFER TO SHEET C652

ABANDON EXISTING  
FORCE MAIN



FORCE MAIN CONNECTION DETAIL 2  
NOT TO SCALE



- NOTES:
- CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COMMUNICATE WITH ENGINEER IF DIFFERENT THAN PLANS.
  - CONTRACTOR SHALL FILL AND COMPACT TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.

SANITARY FORCE MAIN RELOCATION PLAN & PROFILE CONT'D  
PUBLIC SANITARY SEWER PLANS

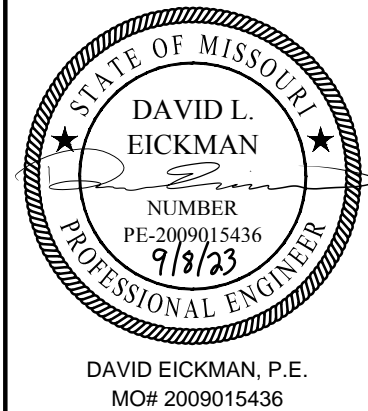
THE VILLAGE AT DISCOVERY PARK ZONE 1  
NW COLBERN RD & NE DOUGLAS ST

LEE'S SUMMIT, MISSOURI

2023

drawn by: GS/SOS/JN  
checked by: AR/JN  
approved by: DE  
QA/QC by: JS/NH  
project no.: D21-04643  
drawing no.: SAN\_FH\_D2104643  
date: 09.10.2023

SHEET  
C664



REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

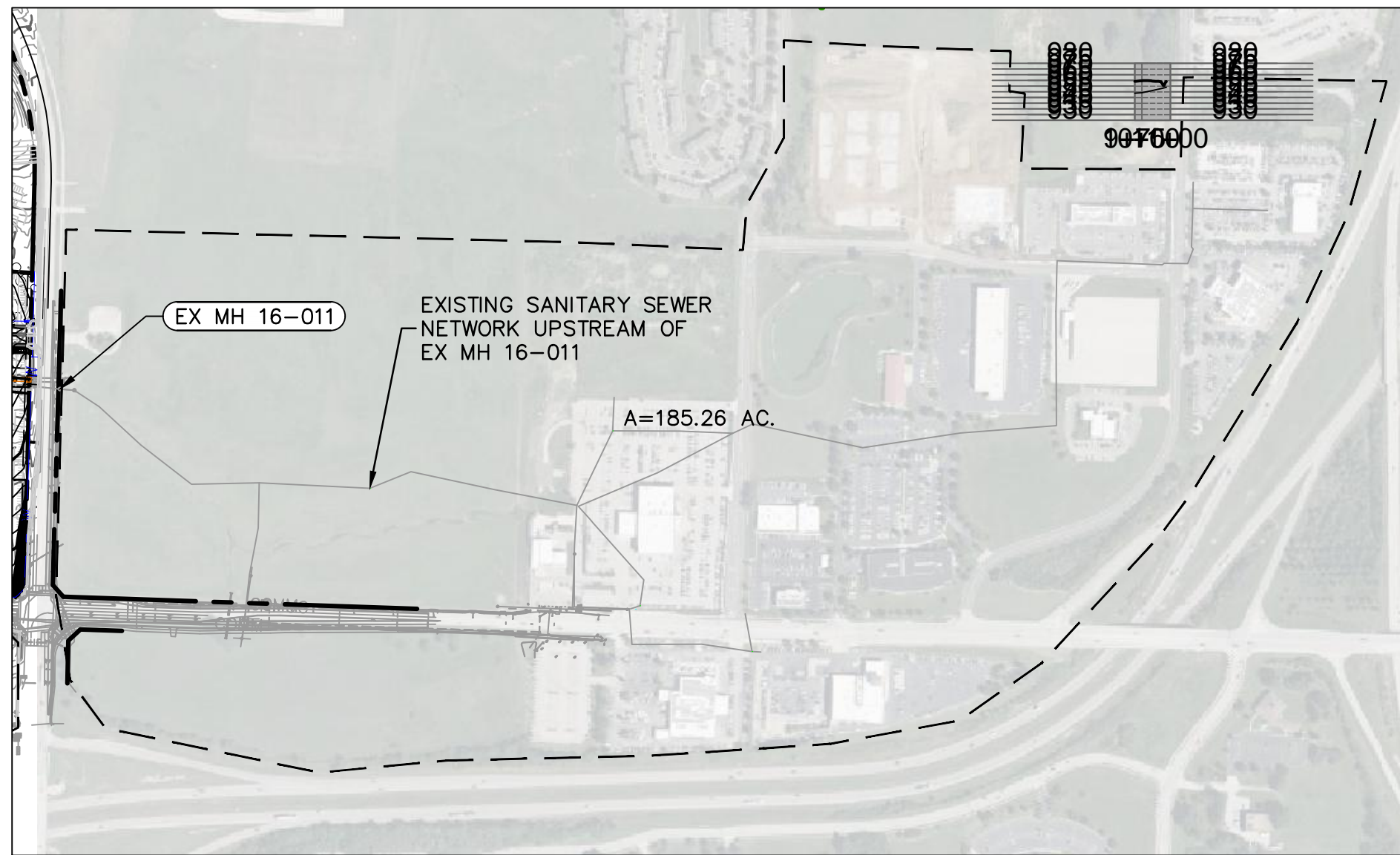
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1301 Burlington Street  
North Kansas City, MO 64116  
TEL 816.361.1177  
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





REFER TO DETAIL ON  
THIS SHEET FOR  
— TRIBUTARY AREA TO EX  
MH 16-011



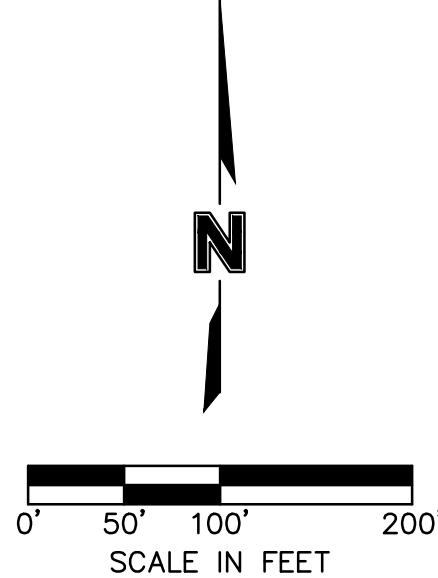
TRIBUTARY AREA TO EX MH 16-011  
1"=500'

### PLAN LEGEND

\*THIS LEGEND APPLIES TO ALL SHEETS UNLESS  
EXPLICITLY SHOWN OTHERWISE ON EACH SHEET.

- |   |                                      |  |
|---|--------------------------------------|--|
|  | EXISTING SANITARY SEWER              |  REMOVE EXISTING TREE             |
|  | PROPOSED SANITARY SEWER              |  EXISTING LIGHT POLE              |
|  | TRIBUTARY AREA TO SANITARY STRUCTURE |  EXISTING SIGN                    |
|  | PROPERTY LINE / R/W LINE             |  EXISTING SPRINKLER BOX           |
|  | PROPERTY LOT LINE                    |  EXISTING SPRINKLER CONTROL VALVE |
|  | PROPOSED SANITARY SEWER EASEMENT     |  EXISTING WATER VALVE             |
|  | OTHER UTILITIES' EASEMENT            |  EXISTING FIRE HYDRANT            |
|  | PROPOSED STORM SEWER                 |  EXISTING WATER METER             |
|  | PROPOSED WATER PIPE                  |  EXISTING ELECTRIC BOX            |
|  | EXISTING POWER SERVICE               |  EXISTING ELECTRIC VAULT          |
|  | EXISTING NATURAL GAS PIPE            |  EXISTING ELECTRIC METER          |
|  |                                      |  EXISTING ELECTRIC RISER          |
|   |                                      |  EXISTING ELECTRIC MANHOLE        |
- \*SCALE MAY AFFECT THE SIZE OF SURVEY SYMBOLS IN PLAN, BUT SHAPE WILL BE RETAINED

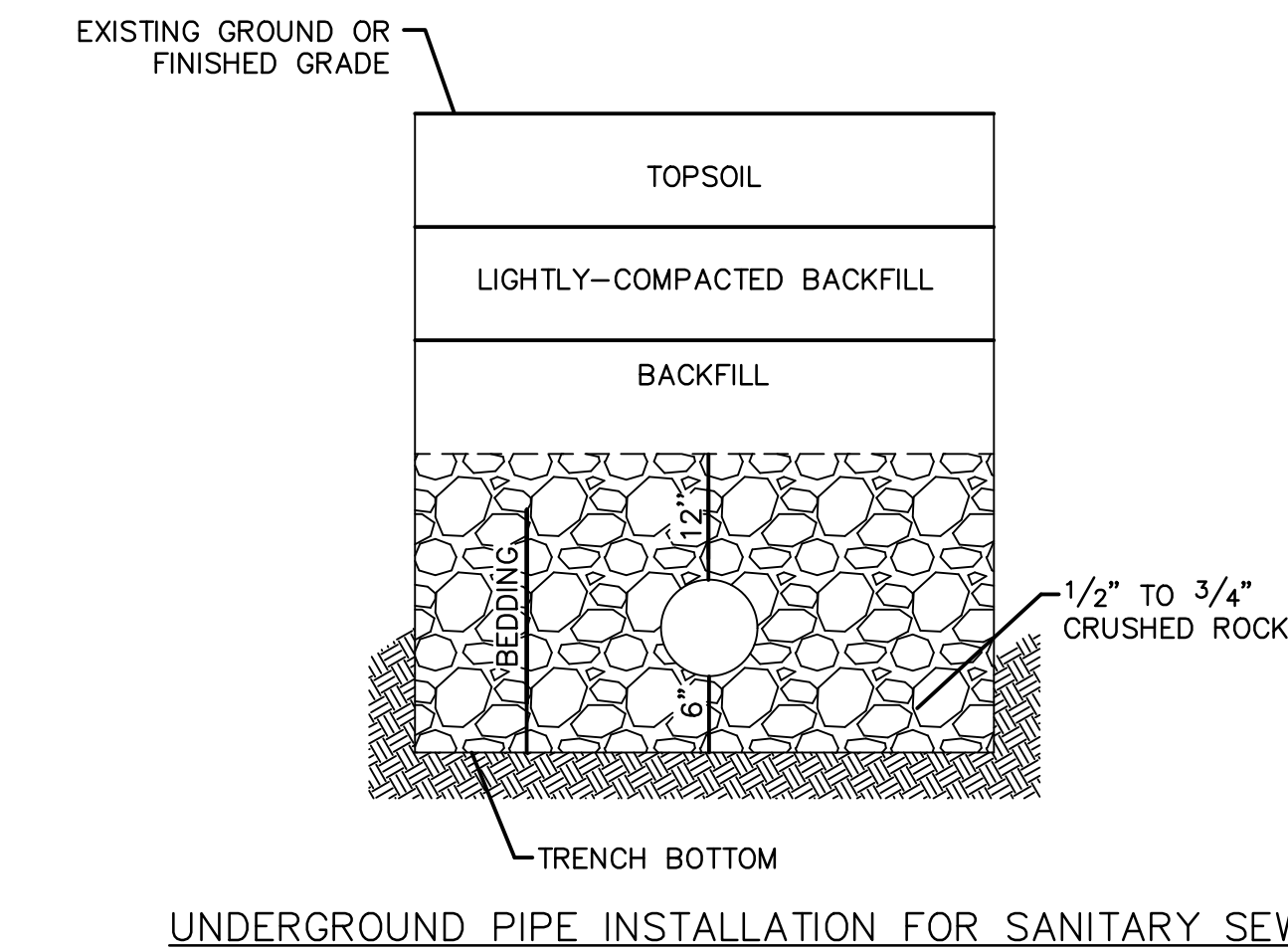
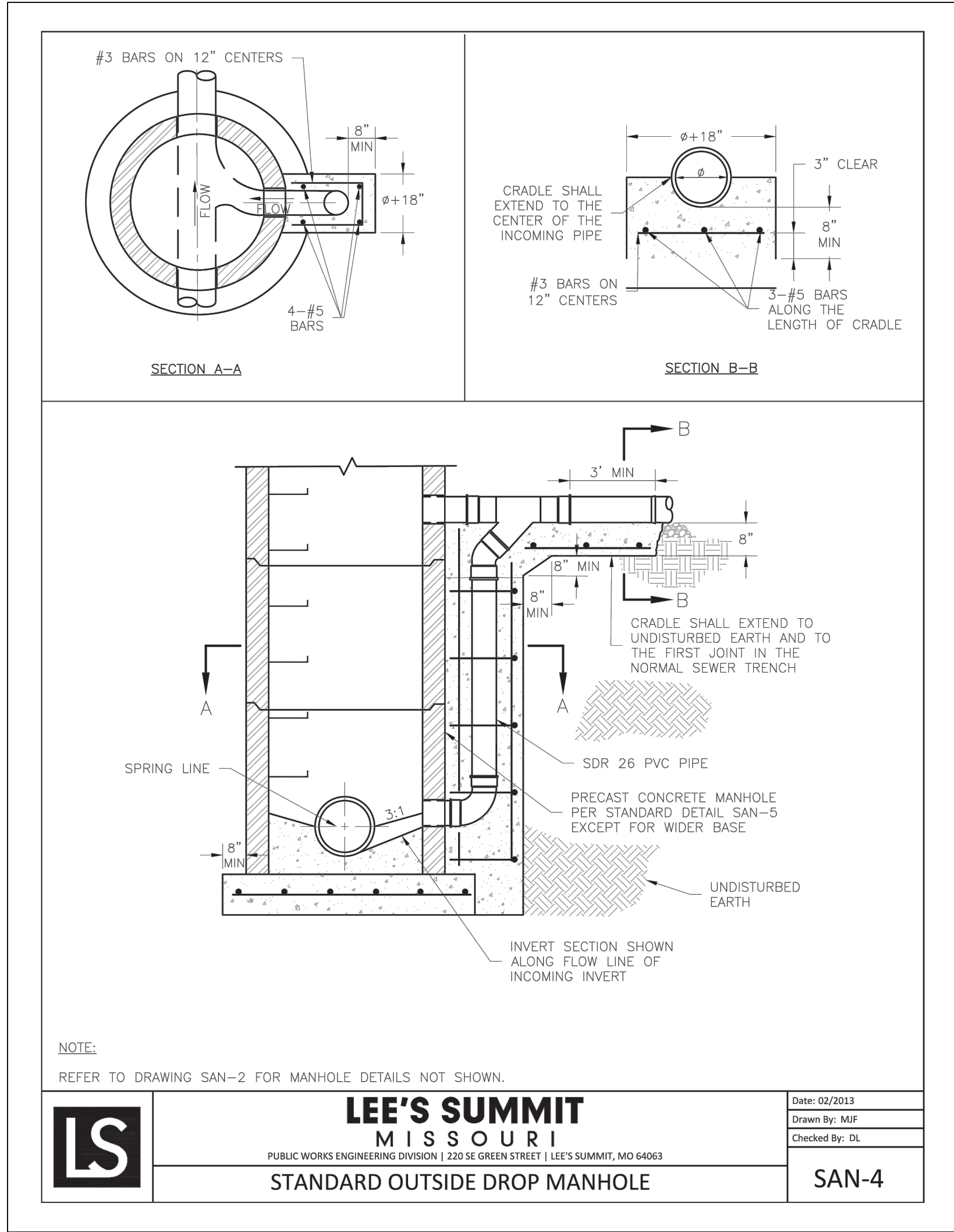
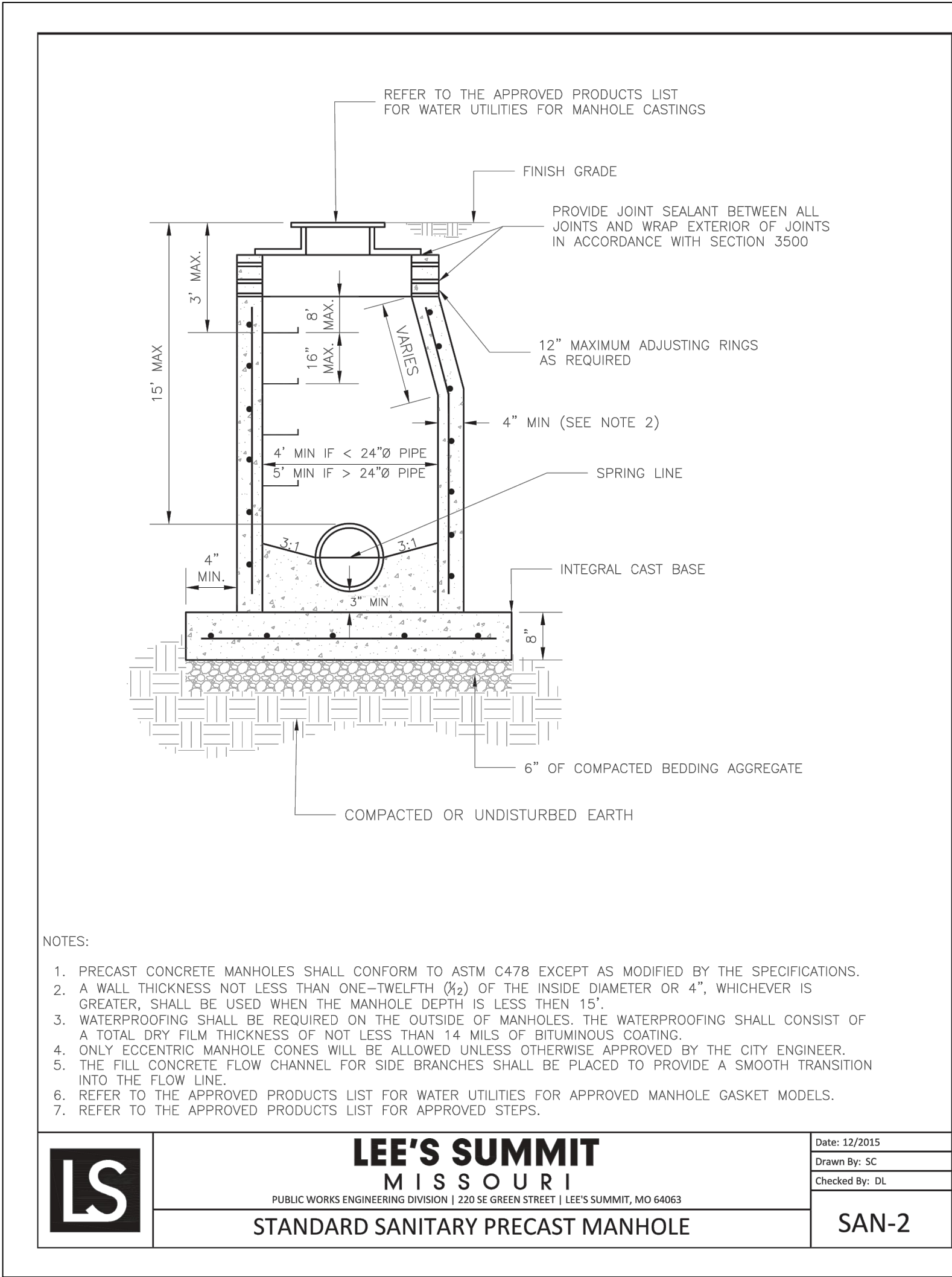
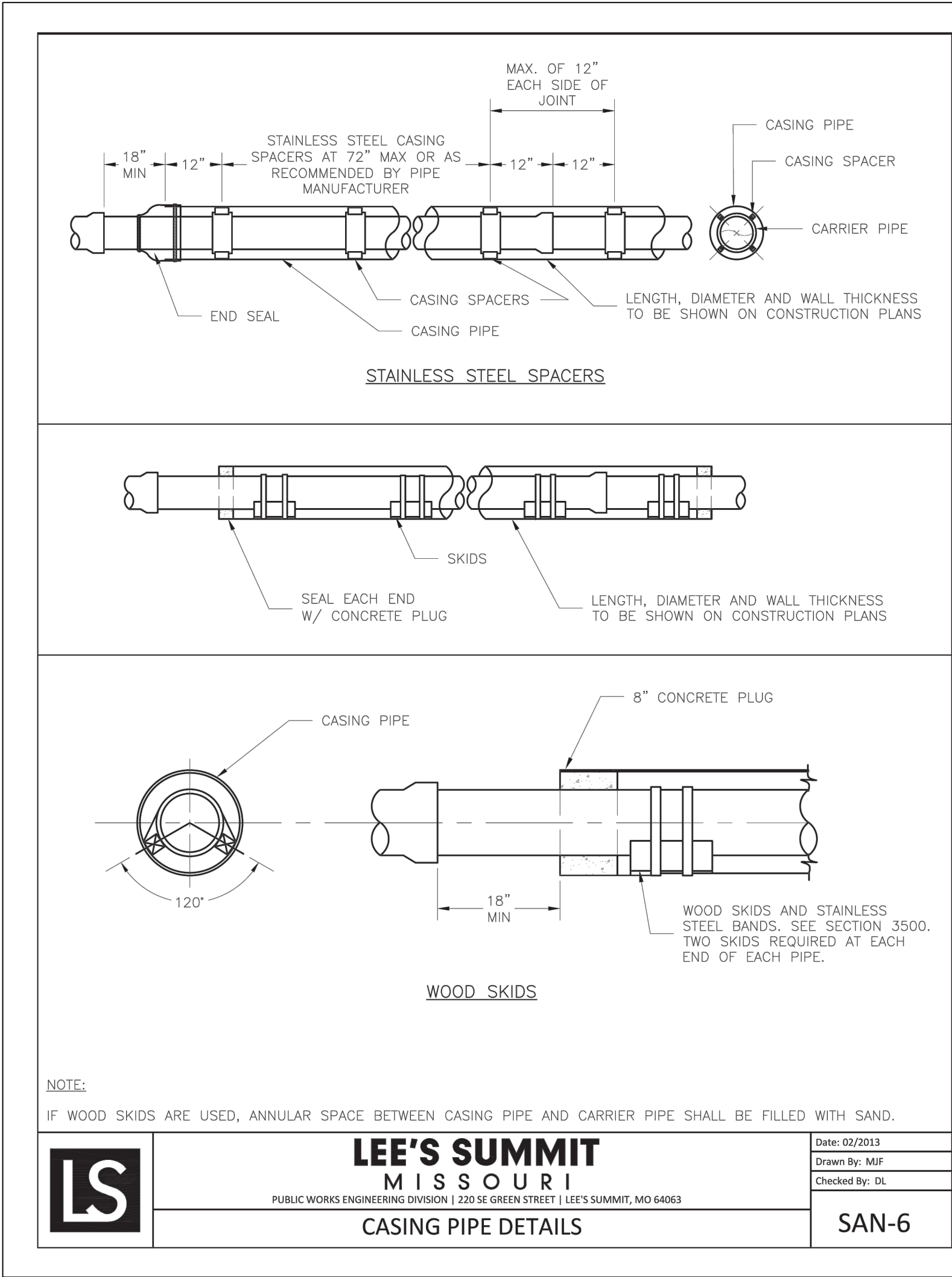
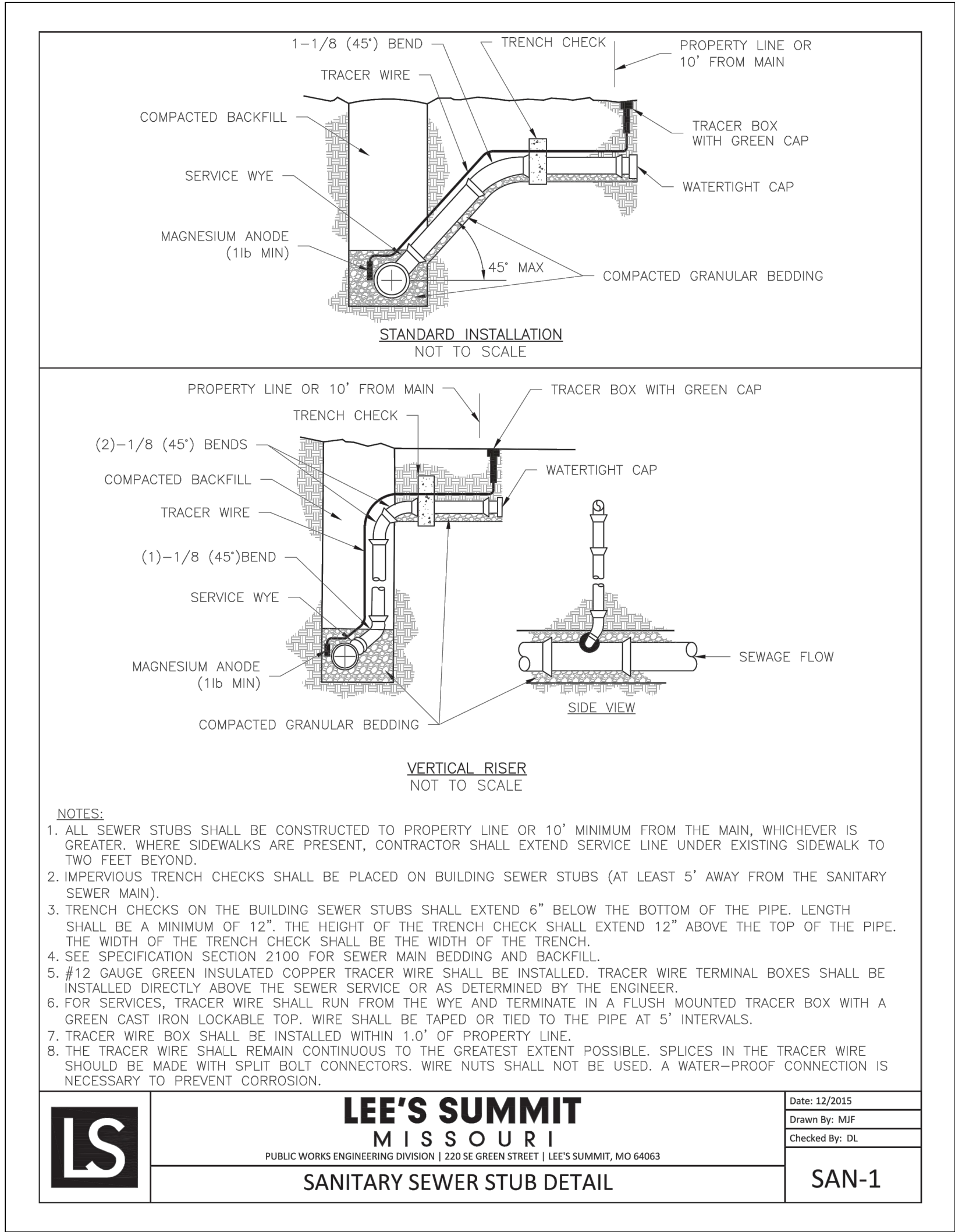
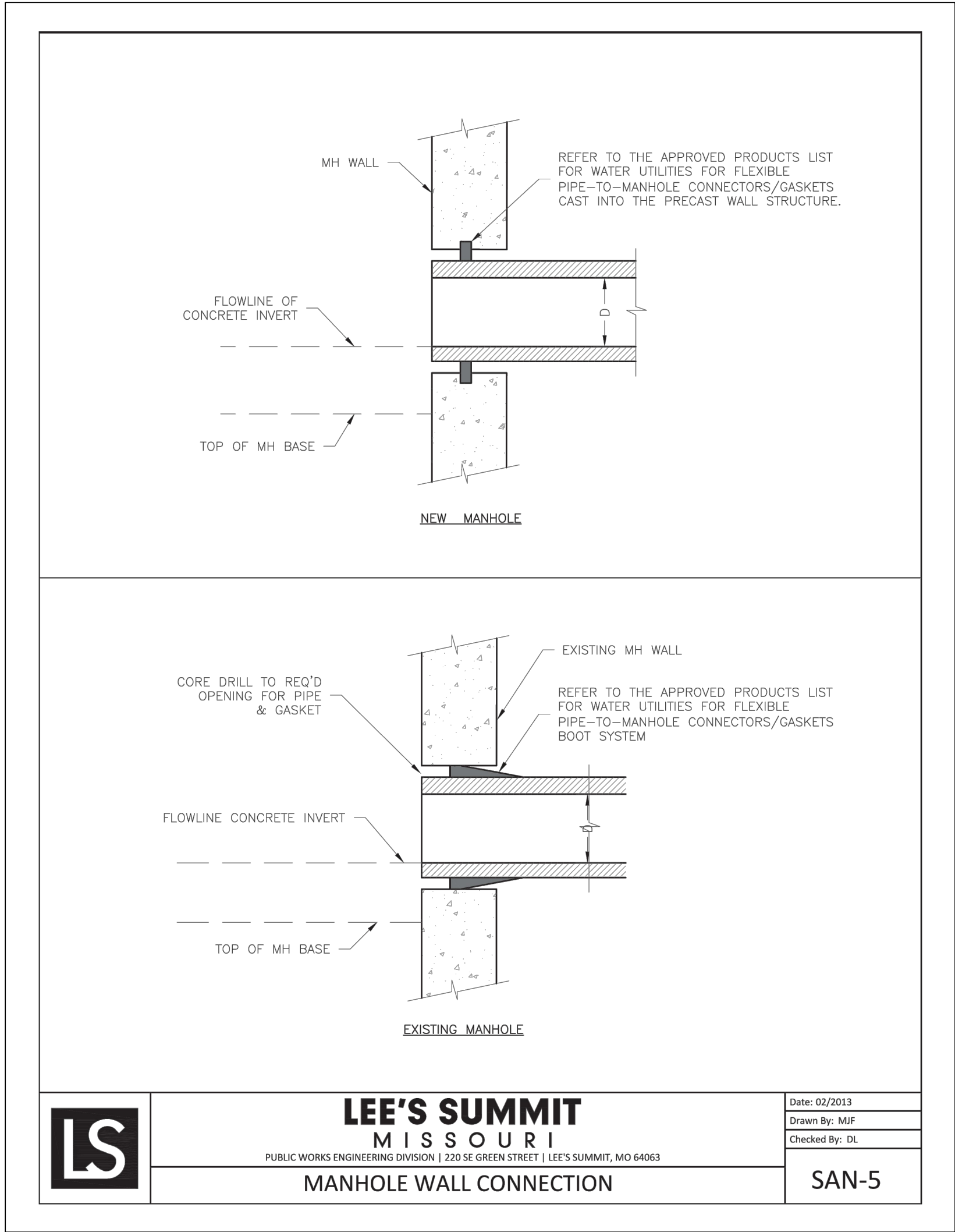
Sanitary Sewer Peak Base Flow Table					
Lot Number	Description	EDU	Building Parameter	Stories	PBF Non-res (gpd)
1	Office/Retail	0.3 per 1000 sq ft	13196 sq ft	2.0	2375
2	Hotel	0.3 per room	107 rooms	n/a	9630
3	Hotel	0.3 per room	123 rooms	n/a	11070
4a	Retail (1st Floor)	0.2 per 1000 sq ft	10200 sq ft	1.0	612
4b	Apartments (2nd Floor)	1.00	10200 sq ft	1.0	3060
5a	Retail (1st Floor)	0.2 per 1000 sq ft	12800 sq ft	1.0	788
5b	Apartments (2nd Floor)	1.00	12800 sq ft	1.0	3840
6	Animal Hospital	1.0 per 1000 sq ft	8000 sq ft	1.0	2400
7	Pet Spa	1.0 per 1000 sq ft	14400 sq ft	1.0	4320
8a	Retail (1st Floor)	0.2 per 1000 sq ft	10200 sq ft	1.0	612
8b	Apartments (2nd Floor)	1.00	10200 sq ft	1.0	3060
9	Apartments	1.00	63500 sq ft	4.0	76200
10	Apartments	1.00	63500 sq ft	4.0	76200
11	Apartments	1.00	10800 sq ft	4.0	12960
12	Apartments	1.00	19000 sq ft	4.0	22800
13	Retail	0.2 per 1000 sq ft	3600 sq ft	1.0	216
14	Clubhouse	1.00	24900 sq ft	1.0	325





Sanitary Sewer Design Information											
Upstream Manhole	Downstream Pipe Slope	Downstream Pipe Diameter	Proposed Cumulative Area	Future Cumulative Area	Peak Base Flow	Peak Infiltration Flow	Peak Inflow	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 16-006	0.99%	12	231.42	0.00	347130.00	57855.000	2.124	2.751	0.013	3.54	4.51
SAN Z1	8.71%	12	231.42	0.00	347130.00	57855.000	2.124	2.751	0.013	10.51	13.39
SAN Z2	6.11%	12	231.42	0.00	347130.00	57855.000	2.124	2.751	0.013	8.81	11.21
EX MH 16-008	0.67%	12	231.42	0.00	347130.00	57855.000	2.124	2.751	0.013	2.92	3.71
EX MH 16-009	1.07%	12	231.42	0.00	347130.00	57855.000	2.124	2.751	0.013	3.69	4.69
SAN Z3	1.24%	12	231.42	0.00	347455.00	57855.000	2.124	2.752	0.013	3.97	5.05
EX MH 16-010	1.24%	12	221.11	0.00	341295.00	55277.500	2.030	2.643	0.013	3.97	5.05
SAN A1	5.48%	8	33.62	0.00	76200.00	8405.000	0.309	0.440	0.013	2.83	8.10
SAN A2	1.10%	8	32.26	0.00	2375.00	8065.000	0.401	0.417	0.013	1.27	3.63
SAN A3	1.10%	8	30.16	0.00	45240.00	7540.000	0.379	0.460	0.013	1.27	3.63
SAN A4	1.30%	8	28.68	0.00	43020.00	7170.000	0.363	0.441	0.013	1.38	3.95
SAN A5	1.30%	8	24.21	0.00	36315.00	6052.500	0.314	0.379	0.013	1.38	3.95
SAN A6	1.10%	8	24.21	0.00	18078.00	6052.500	0.314	0.351	0.013	1.27	3.63
SAN A7	1.10%	8	19.97	0.00	29955.00	4992.500	0.266	0.320	0.013	1.27	3.63
SAN A8	1.10%	8	19.97	0.00	29955.00	4992.500	0.266	0.320	0.013	1.27	3.63
SAN B1	1.00%	8	4.47	0.00	83544.00	1117.500	0.041	0.172	0.013	1.21	3.46
SAN B2	1.00%	8	1.15	0.00	2400.00	287.500	0.019	0.023	0.013	1.21	3.46
SAN B3	1.00%	8	0.00	0.00	0.00	0.000	0.000	0.000	0.013	1.21	3.46
SAN C1	4.40%	8	9.19	0.00	89160.00	2297.500	0.084	0.226	0.013	2.53	7.26
SAN D1	1.00%	8	1.12	0.00	216.00	280.000	0.010	0.011	0.013	1.21	3.46





- 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 12 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 AB-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.

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STATE OF MISSOURI  
DAVID L. EICKMAN  
NUMBER  
PE-2009015436  
9/19/23  
PROFESSIONAL ENGINEER  
DAVID EICKMAN, P.E.  
MOR 2009015436

BY  
REVISIONS DESCRIPTION  
DATE  
REV. NO.

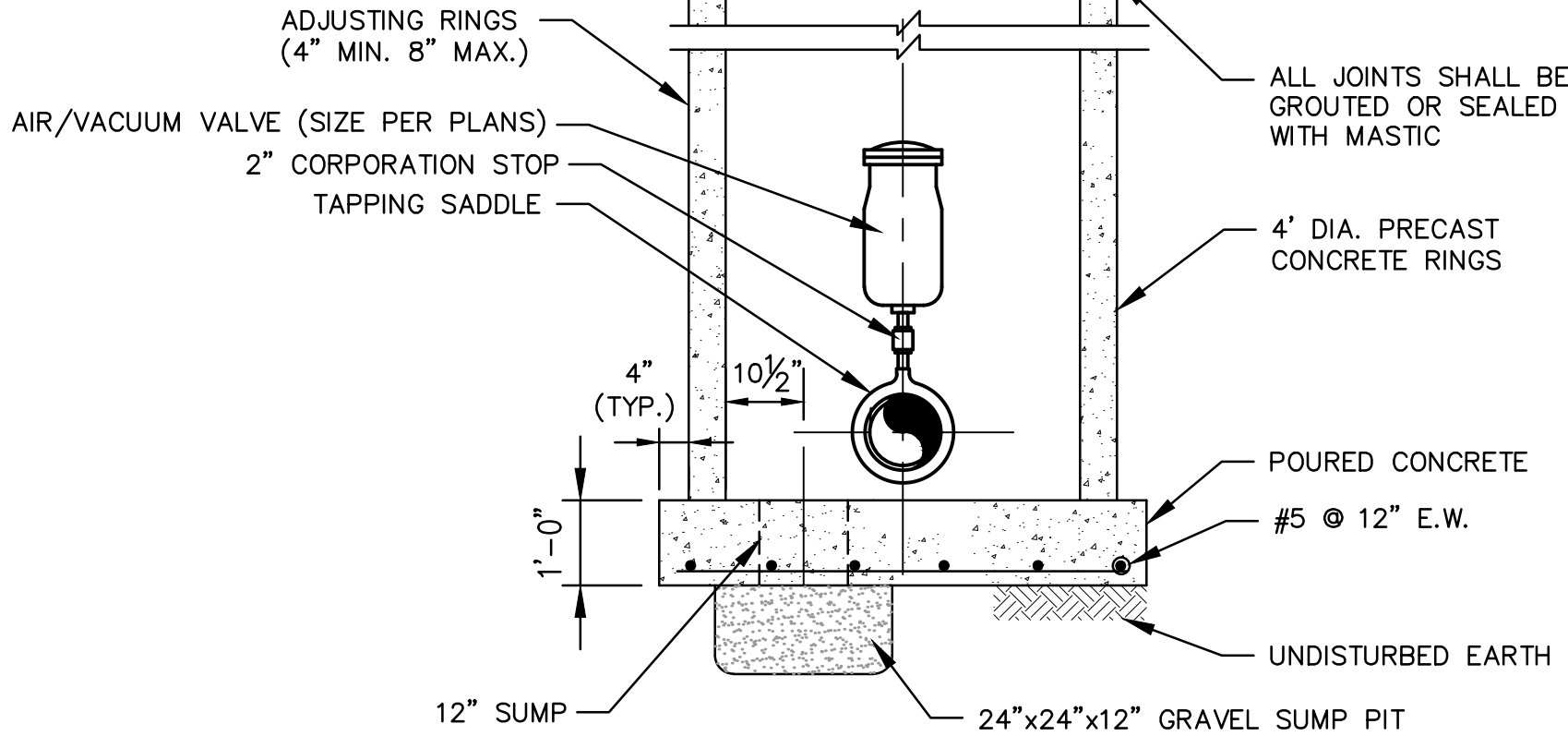
REVISIONS  
2023

SANITARY SEWER DETAILS  
PUBLIC SANITARY SEWER PLANS  
THE VILLAGE AT DISCOVERY PARK ZONE 1  
NW COLBURN RD & NE DOUGLAS ST  
LEE'S SUMMIT, MISSOURI

drawn by: GS/SJS/IN  
checked by: AR/JN  
approved by: DE  
QA/QC by: JS/NH  
project no.: D21-04643  
drawing no.: C\_DET01\_D2104643  
date: 09.10.2023

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3. AIR RELEASE VALVES SHALL HAVE A REINFORCED NYLON BODY. ALL INTERNAL PARTS ARE TO BE MADE FROM 316 STAINLESS STEEL OR NON-METALLIC POLY MATERIALS. THE HINGE OF THE SEAL ON THE ORIFICE SHALL BE MADE OF EPDM RUBBER. ALL HARDWARE SHALL BE 316 STAINLESS STEEL. ALL VALVES, NIPPLES, AND HARDWARE USED FOR CONNECTIONS SHALL BE STAINLESS STEEL. AIR RELEASE VALVES SHALL BE ARI MODEL D-26, D-26 NS, OR D-025 AS CALLED OUT ON THE PLANS.