

# LEE'S SUMMIT FIRE STATION NO. 4

## 5031 NORTHEAST LAKEWOOD WAY

### LEE'S SUMMIT, MISSOURI 64064

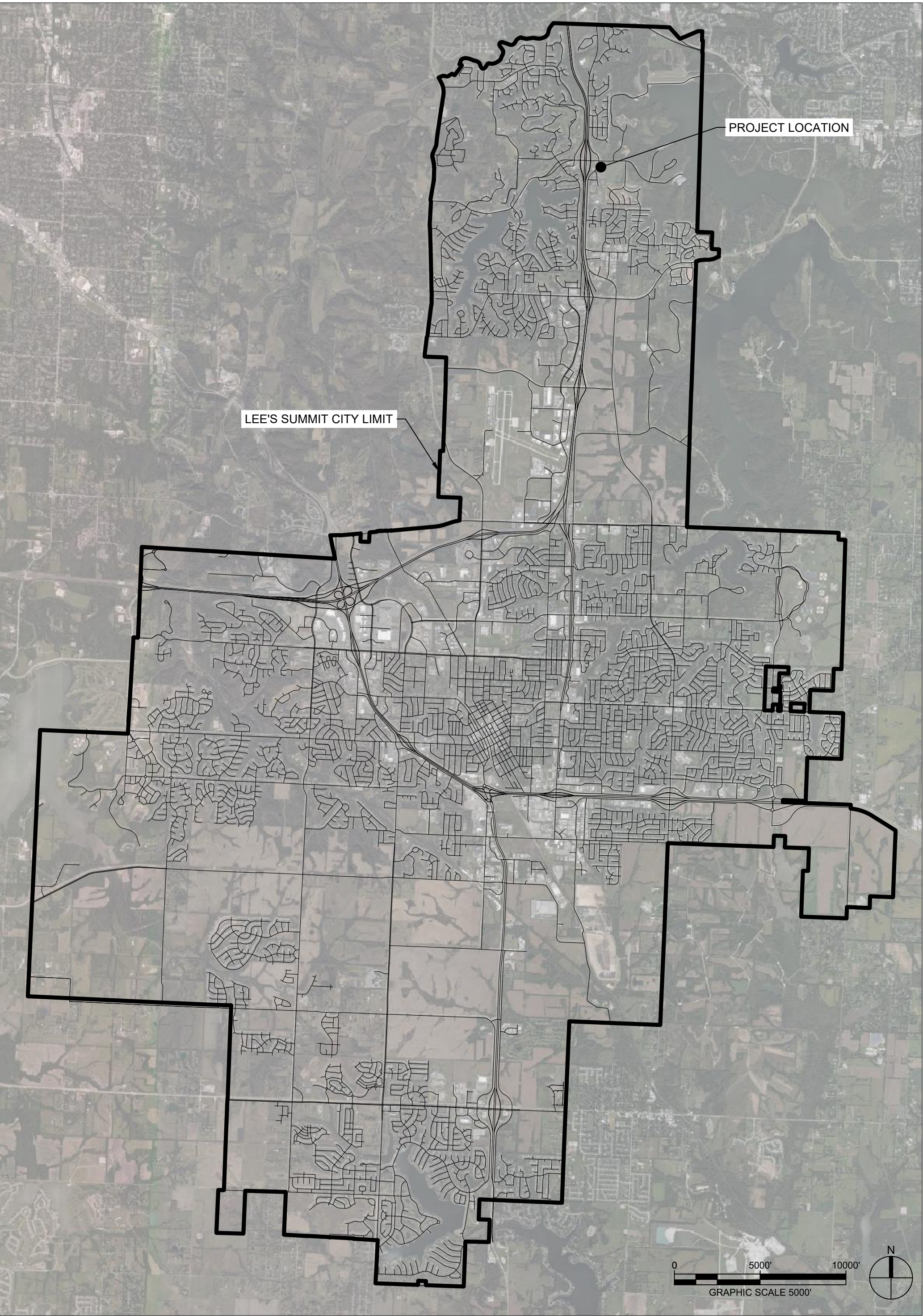
#### PUBLIC SANITARY SEWER MODIFICATIONS

CONSULTANT:

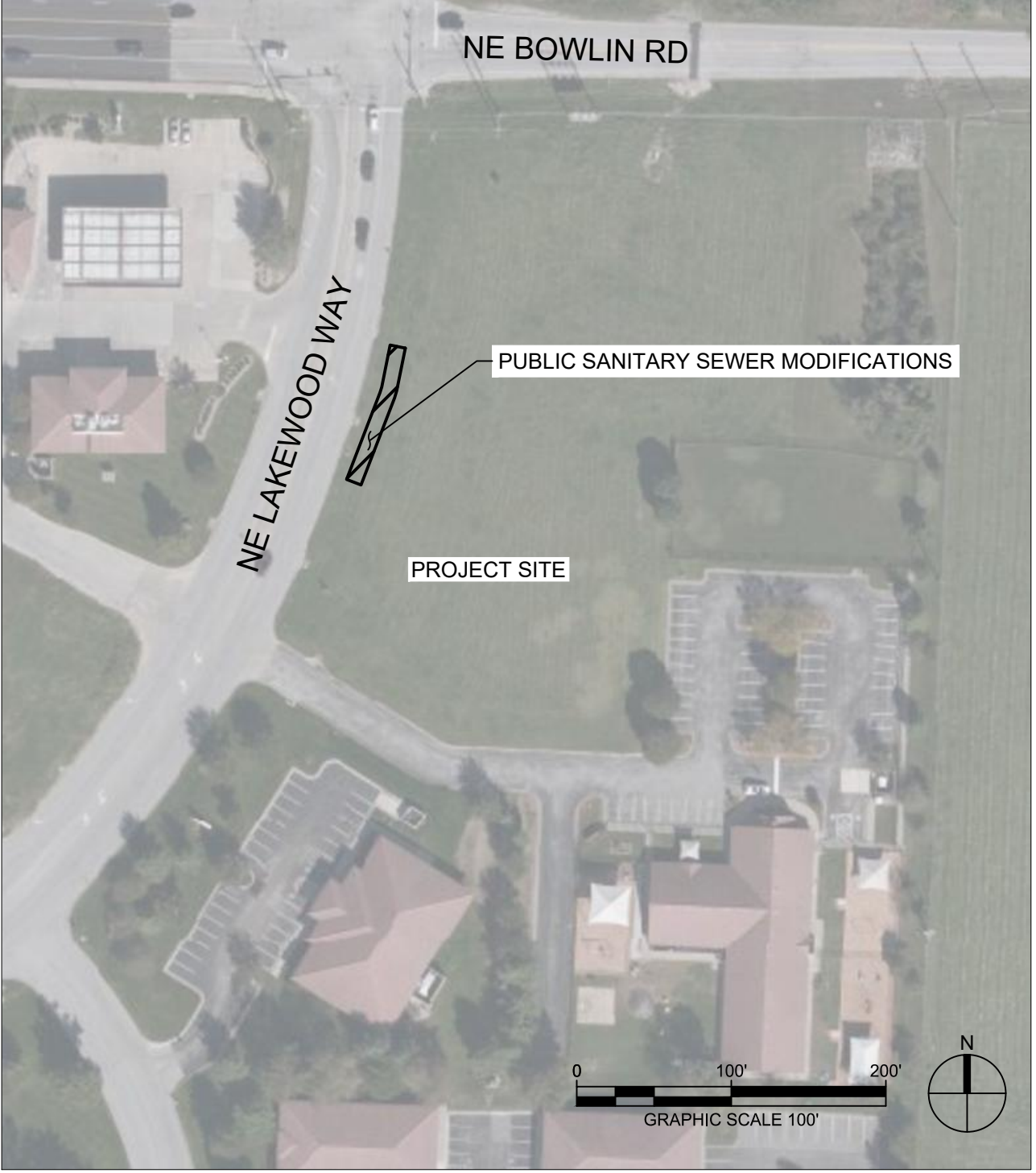


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VICINITY MAP



SITE LOCATION MAP



INDEX OF DRAWINGS

SHEET NO.	SHEET NAME
C-003	COVER SHEET
C-240	PUBLIC SANITARY SEWER PLAN & PROFILES
C-540	SANITARY SEWER DETAILS



#	Description	Date
3	ASI 03	12.08.2022

RECORD  
DRAWINGS

PROJECT NO: 18225R21001  
DATE: 12.08.2022

COVER  
SHEET

C-003

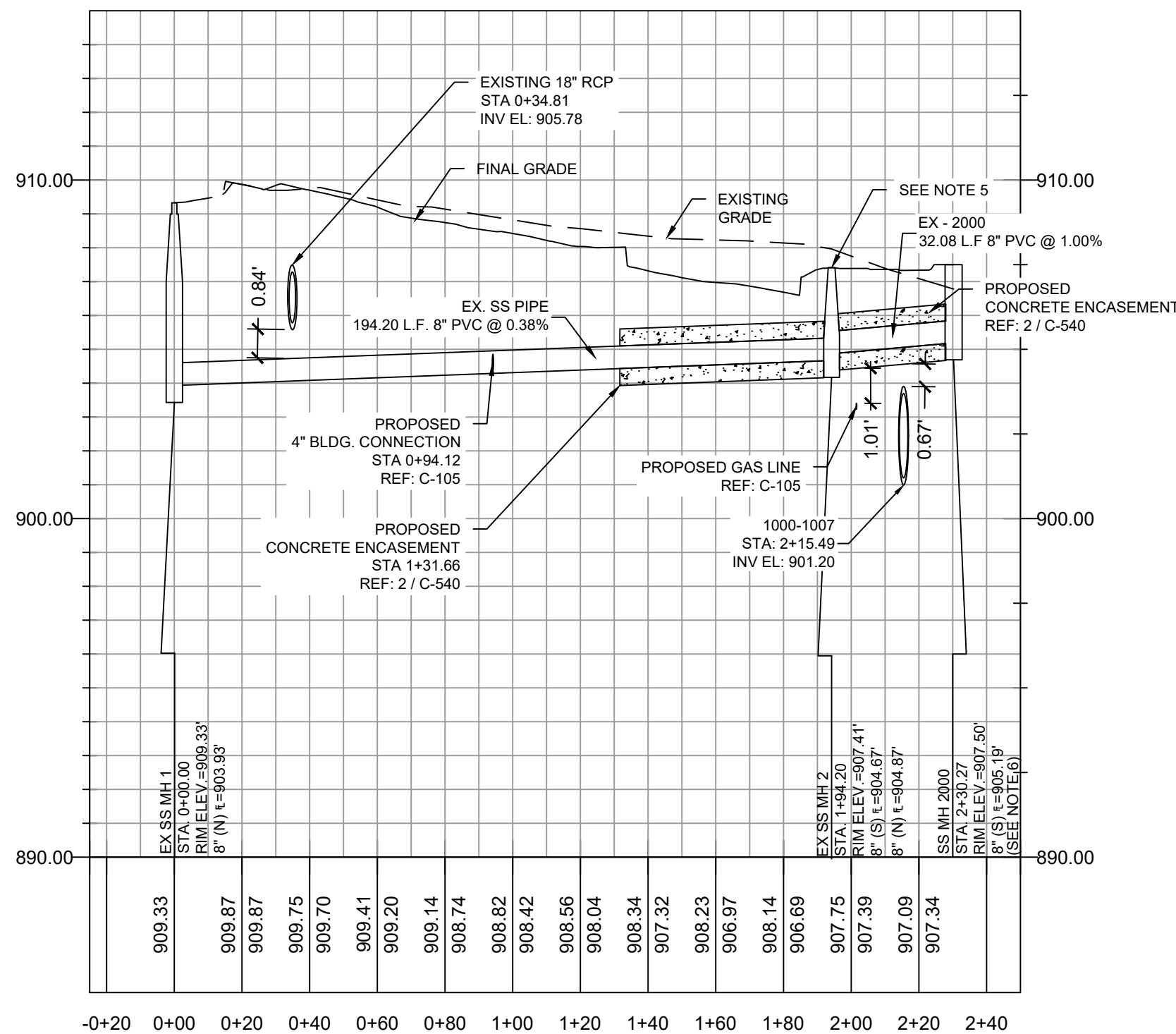
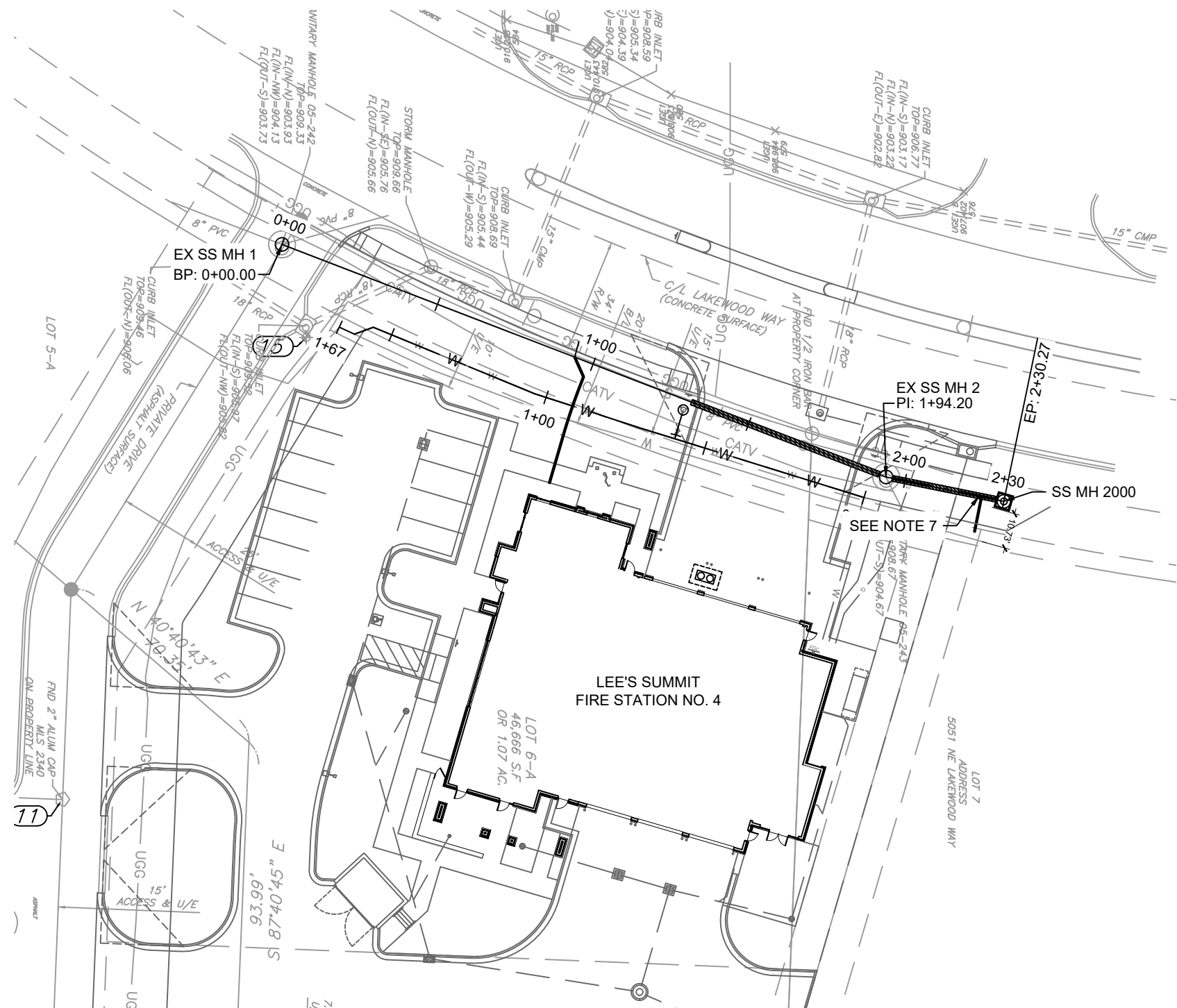


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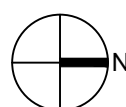
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## SANITARY SEWER MAIN PLAN & PROFILE

SCALE: HORIZONTAL 1"= 40'  
SCALE: VERTICAL 1"= 4'



### GENERAL NOTES:

- CONSTRUCTION OF SANITARY SEWER IMPROVEMENTS SHALL BE AS PER CITY OF LEE'S SUMMIT, MO STANDARD SPECIFICATIONS AND STANDARD SPECIAL PROVISIONS.
- THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
- PROTECT ALL COMPONENTS DURING DEMOLITION / CONSTRUCTION PROCESS. MAINTAIN BMP'S THROUGHOUT THE DURATION OF CONSTRUCTION.
- CONTRACTOR TO PROVIDE DETAILED AS-BUILT DRAWINGS TO OWNER, ENGINEER, AND CITY OF LEE'S SUMMIT, MO UPON COMPLETION OF ALL UTILITIES.
- ADJUST EXISTING MH RIM ELEVATION TO NEW PROPOSED GRADE.
- INSTALL STANDARD SHALLOW PRECAST MANHOLE.  
REF: 4 / C-540
- INSTALL 6" STUB TO SERVE LOT 7 PER THE FOLLOWING:
  - MAIN STATION: 2+22.87
  - 8" MAIN INVERT ELEVATION: 905.14
  - MINIMUM STUB SLOPE: 2%
  - MINIMUM STUB LENGTH: 10.0 FEET
  - MINIMUM HORIZONTAL DISTANCES:
    - NEW WYE SHALL BE NO LESS THAN 4.0 FEET FROM THE MANHOLE AS MEASURED FROM THE OUTSIDE WALL OF THE MANHOLE TO THE FIRST PART OF THE WYE.
    - NEW WYE SHALL BE NO LESS THAN 5.0 FEET FROM THE PROPOSED PUBLIC STORM SEWER, MEASURED FROM OUTSIDE WALL TO OUTSIDE WALL.



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#00036

#### CIVIL ENGINEER & LANDSCAPE ARCH.

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#### SECURITY & IT ENGINEERS

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### FIRE STATION #4

CITY OF LEE'S SUMMIT

5031 NORTHEAST LAKEWOOD WAY  
LEE'S SUMMIT, MISSOURI 64064

#	Description	Date
1	ASI 01	11.16.2022
3	ASI 03	12.08.2022



DERICK HOLMES - CIVIL ENGINEER  
MO# PE-2022005196

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PROJECT NO: 18225R21001

DATE: 10.19.2022

DRAWN BY: HFL

CHKD BY: DMH

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## PUBLIC SANITARY SEWER PLAN & PROFILES

# C-240

PLEASE CONSIDER THE ENVIRONMENT  
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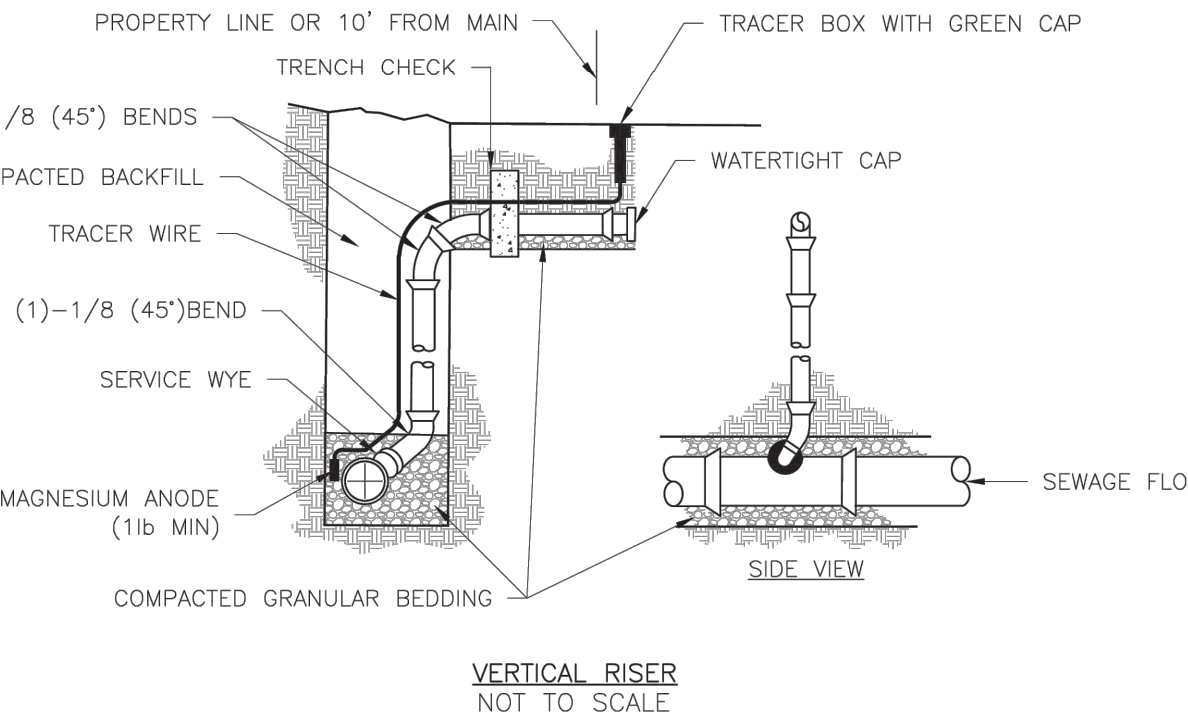
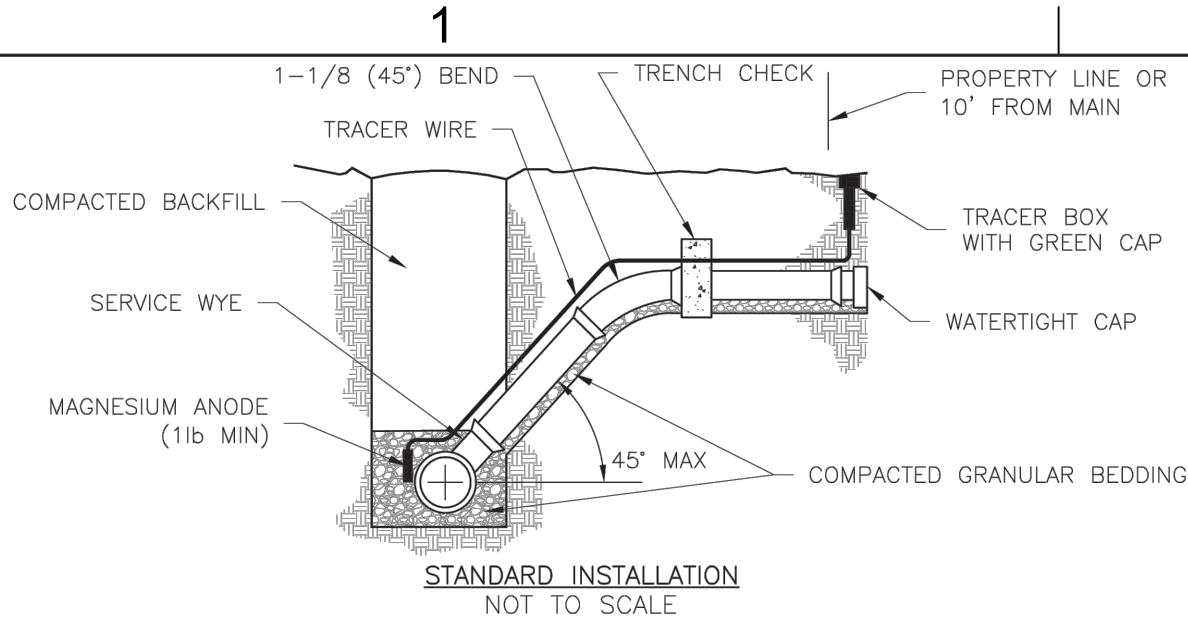
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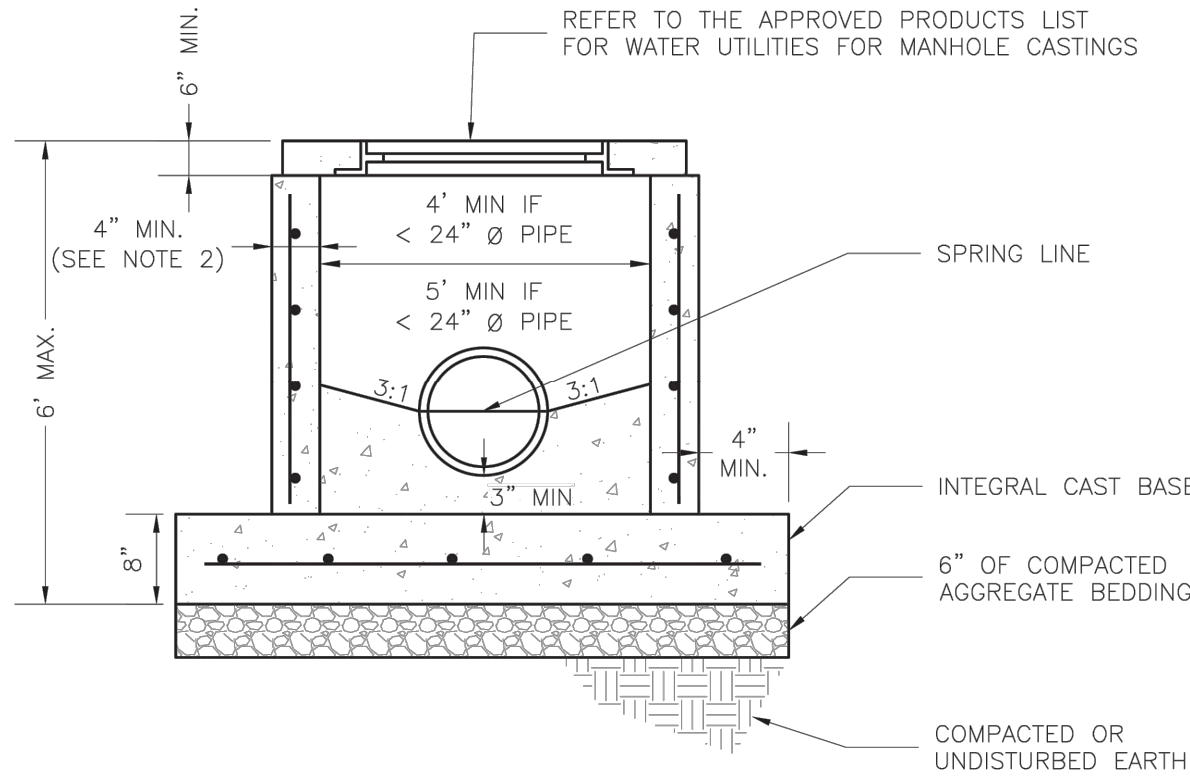


- NOTES:
1. ALL SEWER STUBS SHALL BE CONSTRUCTED TO PROPERTY LINE OR 10' MINIMUM FROM THE MAIN, WHICHEVER IS GREATER. WHERE SIDEWALKS ARE PRESENT, CONTRACTOR SHALL EXTEND SERVICE LINE UNDER EXISTING SIDEWALK TO TWO FEET BEYOND.
  2. IMPERVIOUS TRENCH CHECKS SHALL BE PLACED ON BUILDING SEWER STUBS (AT LEAST 5' AWAY FROM THE SANITARY SEWER MAIN).
  3. TRENCH CHECKS ON THE BUILDING SEWER STUBS SHALL EXTEND 6" BELOW THE BOTTOM OF THE PIPE. LENGTH SHALL BE A MINIMUM OF 12". THE HEIGHT OF THE TRENCH CHECK SHALL EXTEND 12" ABOVE THE TOP OF THE PIPE. THE WIDTH OF THE TRENCH CHECK SHALL BE THE WIDTH OF THE PIPE.
  4. SEE SPECIFICATION SECTION 2100 FOR SEWER MAIN BEDDING AND BACKFILL.
  5. #12 GAUGE GREEN INSULATED COPPER TRACER WIRE SHALL BE INSTALLED. TRACER WIRE TERMINAL BOXES SHALL BE INSTALLED DIRECTLY ABOVE THE SEWER SERVICE OR AS DETERMINED BY THE ENGINEER.
  6. FOR SERVICES, TRACER WIRE SHALL RUN FROM THE WYE AND TERMINATE IN A FLUSH MOUNTED TRACER BOX WITH A GREEN CAST IRON LOCKABLE TOP. WIRE SHALL BE TAPED OR TIED TO THE PIPE AT 5' INTERVALS.
  7. TRACER WIRE BOX SHALL BE INSTALLED WITHIN 1.0' OF PROPERTY LINE.
  8. THE TRACER WIRE SHALL REMAIN CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. SPLICES IN THE TRACER WIRE SHOULD BE MADE WITH SPLIT BOLT CONNECTORS. WIRE NUTS SHALL NOT BE USED. A WATER-PROOF CONNECTION IS NECESSARY TO PREVENT CORROSION.

<b>LS</b>	<b>LEE'S SUMMIT</b> <b>MISSOURI</b> <small>PUBLIC WORKS ENGINEERING DIVISION   220 SE GREEN STREET   LEE'S SUMMIT, MO 64063</small>	Date: 12/2015 Drawn By: MJF Checked By: DL
	<b>SANITARY SEWER STUB DETAIL</b>	<b>SAN-1</b>

## SANITARY SEWER STUB

NTS

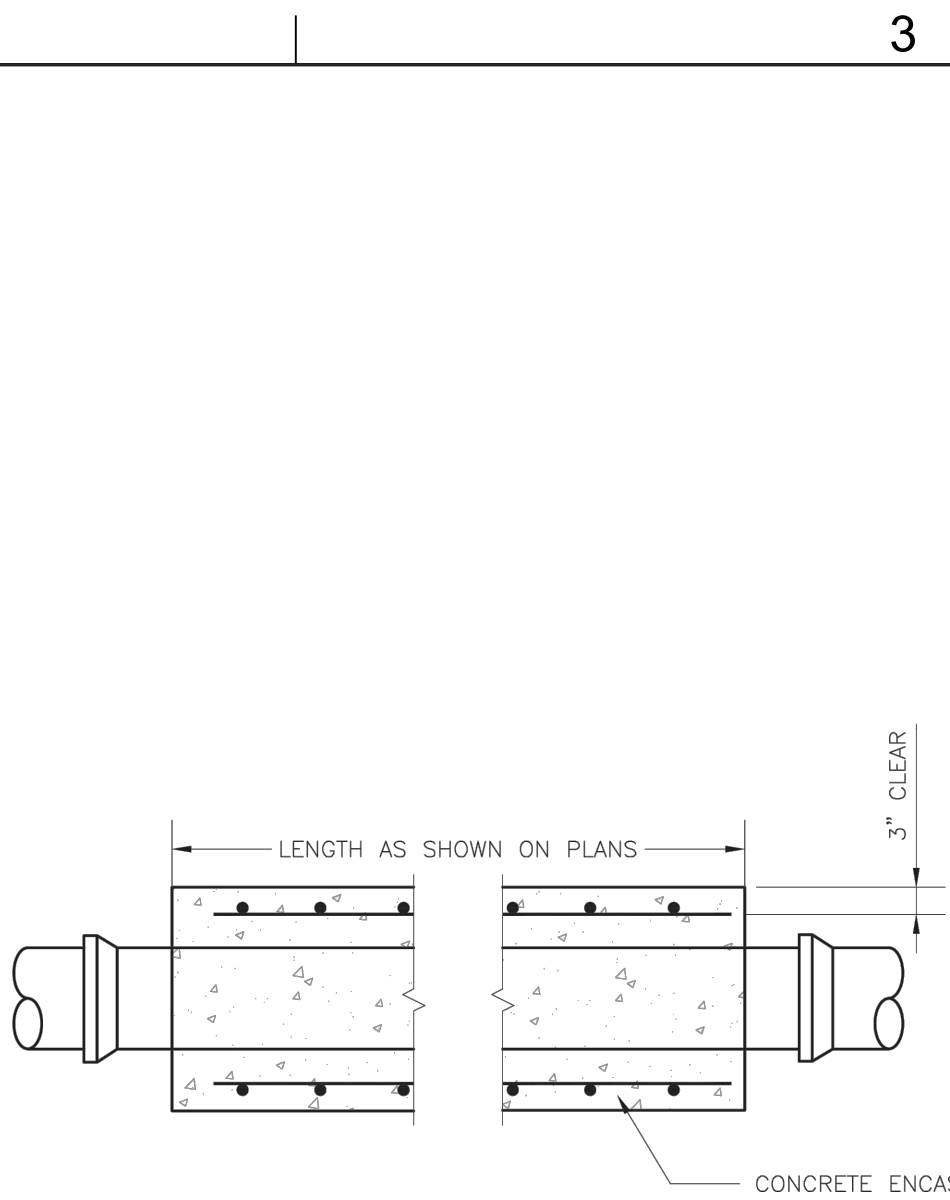


- NOTES:
1. PRECAST CONCRETE MANHOLES SHALL CONFORM TO ASTM C478 EXCEPT AS MODIFIED BY THE SPECIFICATIONS.
  2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER SHALL BE USED.
  3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
  4. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
  5. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR MANHOLE GASKET MODELS.
  6. PROVIDE STEPS AS SHOWN ON THE APPROVED PRODUCTS LIST FOR MANHOLE DEPTHS GREATER THAN 4'.

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	<b>STANDARD SHALLOW SANITARY PRECAST MANHOLE</b>	<b>SAN-3</b>

## STANDARD SHALLOW SANITARY PRECAST MANHOLE

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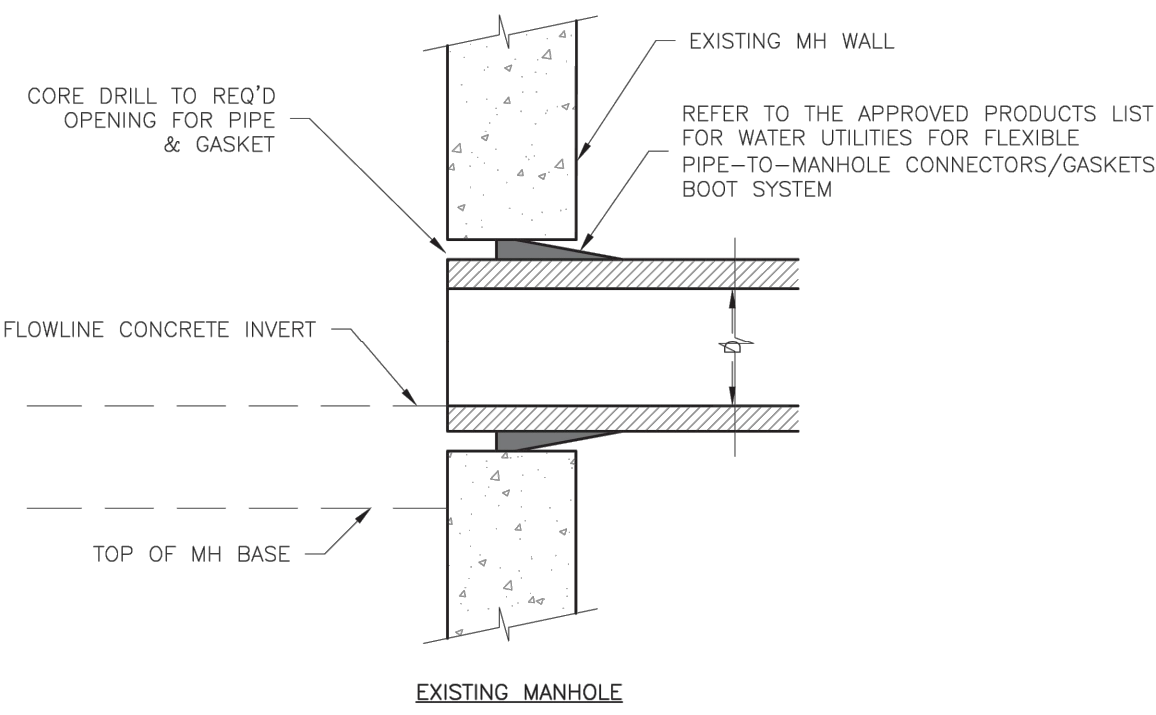
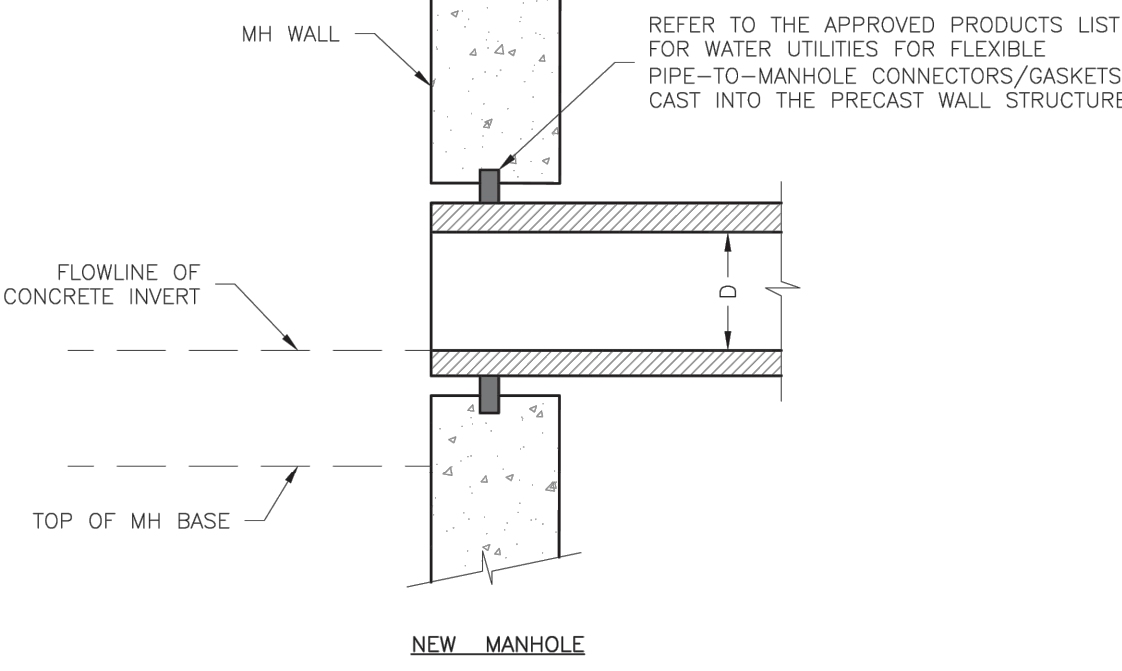


- NOTES:
1. FOR PIPES LESS THAN 15", T = 6" MIN.
  2. FOR PIPES 15" THRU 36", T = 8" MIN.
  3. INTERMEDIATE BELLS SHALL BE ENCASED.
  4. REINFORCING STEEL SHALL BE #4 @ 12" O.C. EACH WAY WITH A MINIMUM REBAR LAP OF 12".

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	<b>PIPE ENCASEMENT DETAIL</b>	<b>SAN-7</b>

## PIPE ENCASEMENT

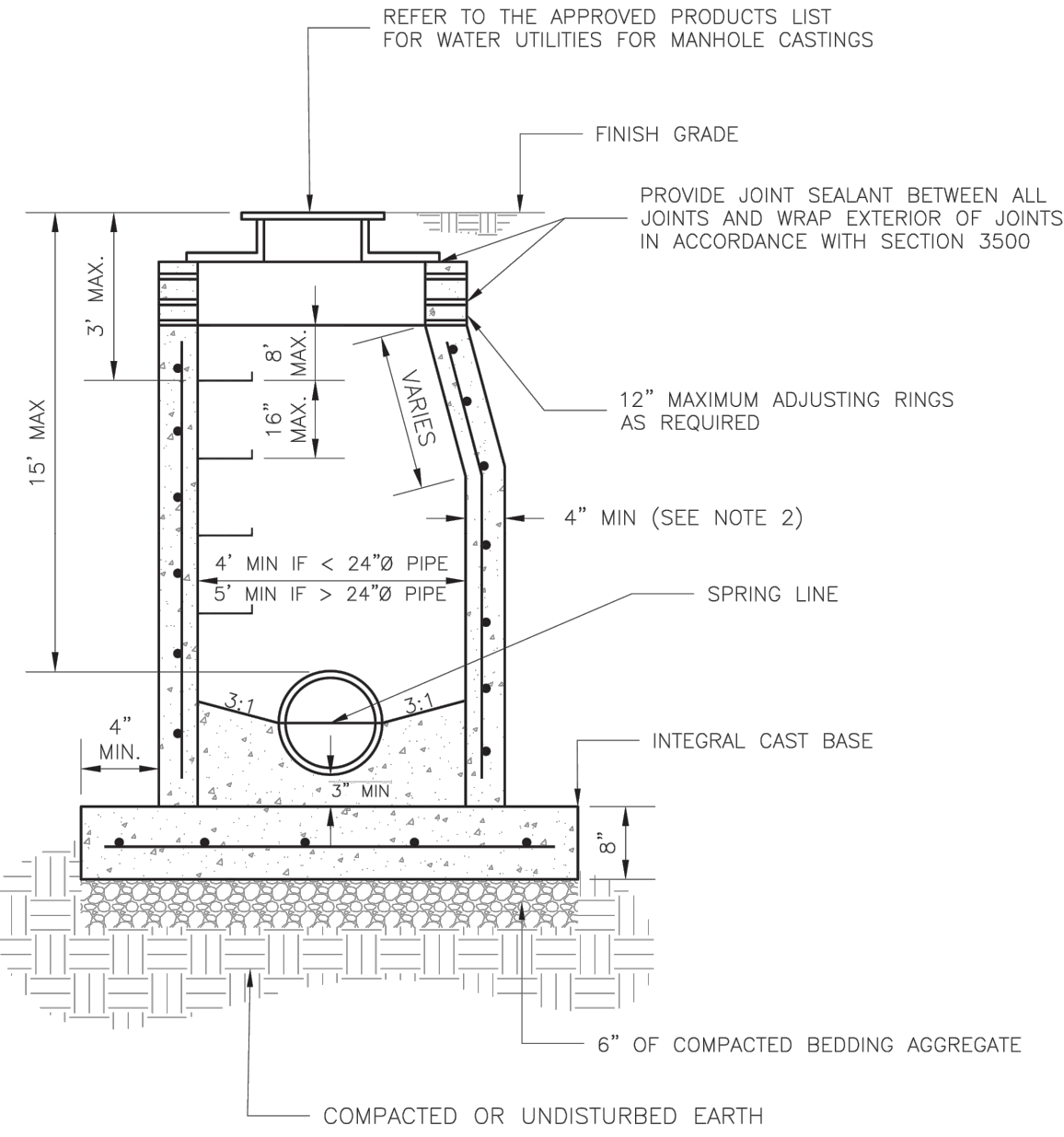
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	<b>MANHOLE WALL CONNECTION</b>	<b>SAN-5</b>

## MANHOLE WALL CONNECTION

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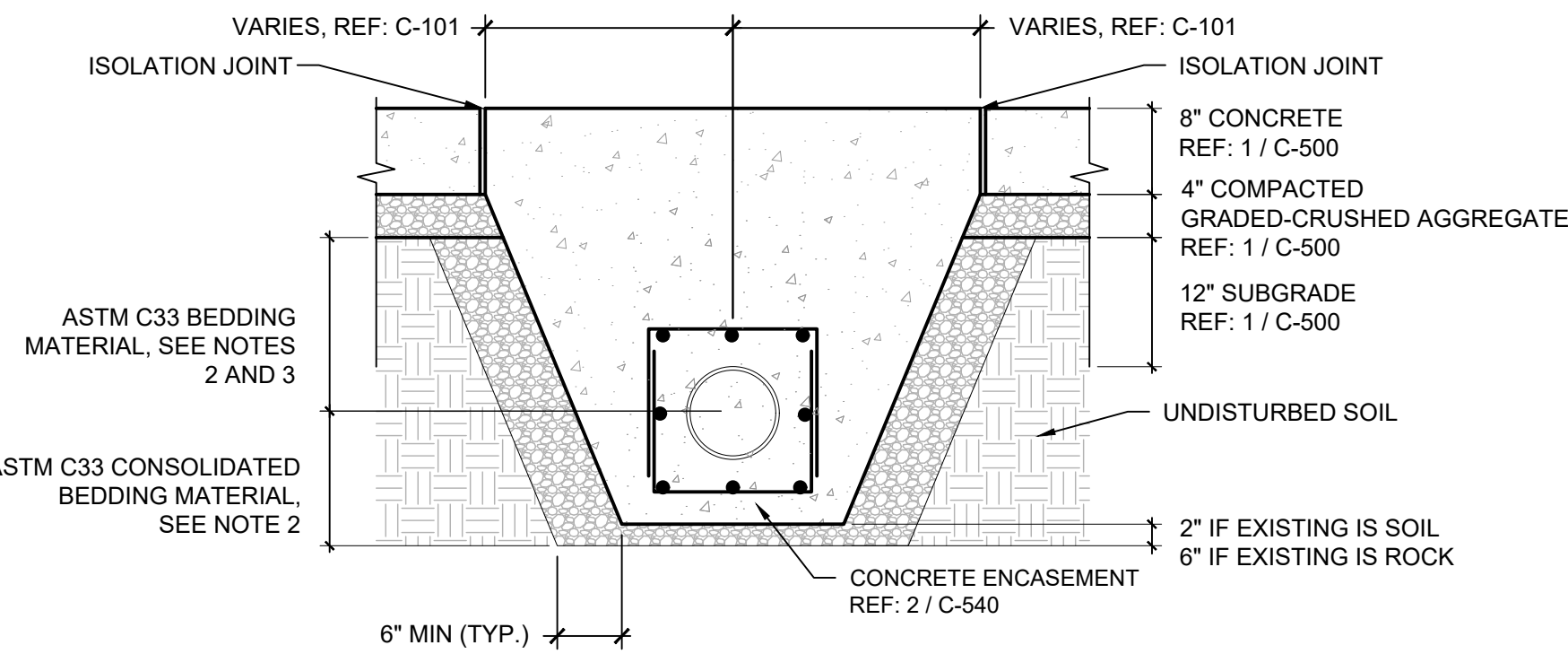


- NOTES:
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  2. A WALL THICKNESS NOT LESS THAN ONE-TWELFTH (1/12) OF THE INSIDE DIAMETER OR 4", WHICHEVER IS GREATER, SHALL BE USED WHEN THE MANHOLE DEPTH IS LESS THAN 15'.
  3. WATERPROOFING SHALL BE REQUIRED ON THE OUTSIDE OF MANHOLES. THE WATERPROOFING SHALL CONSIST OF A TOTAL DRY FILM THICKNESS OF NOT LESS THAN 14 MILS OF BITUMINOUS COATING.
  4. ONLY ECCENTRIC MANHOLE CONES WILL BE ALLOWED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
  5. THE FILL CONCRETE FLOW CHANNEL FOR SIDE BRANCHES SHALL BE PLACED TO PROVIDE A SMOOTH TRANSITION INTO THE FLOW LINE.
  6. REFER TO THE APPROVED PRODUCTS LIST FOR WATER UTILITIES FOR APPROVED MANHOLE GASKET MODELS.
  7. REFER TO THE APPROVED PRODUCTS LIST FOR APPROVED STEPS.

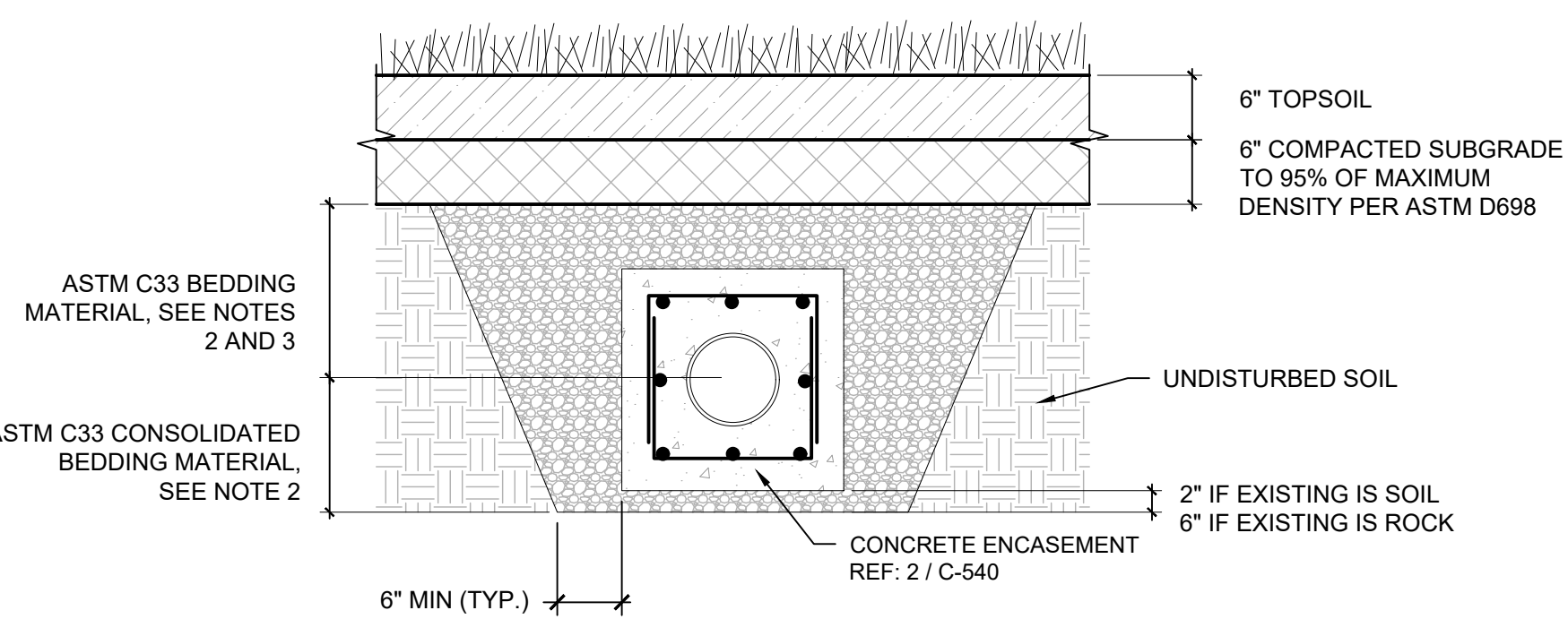
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	<b>STANDARD SANITARY PRECAST MANHOLE</b>	<b>SAN-2</b>

## STANDARD SANITARY PRECAST MANHOLE

NTS



### SANITARY SEWER UNDER PAVEMENT



### SANITARY SEWER UNDER GRASS

- NOTES:
1. INSTALLATION SHALL BE AS PER THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION (KC APWA) SPECIFICATION 2100, GRADING AND SITE PREPARATION.
  2. BEDDING MATERIAL SHALL MEET THE REQUIREMENTS OF KC APWA SPECIFICATION 2102.4 G. PLACE BEDDING PER SECTION 2102.4 H.
  3. BEDDING MATERIAL TO BE HAND COMPACTED TO 95% OF MAX DENSITY (ASTM D698).

## TRENCHING & BACKFILL DETAIL

NTS

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**FIRE STATION #4**  
CITY OF LEE'S SUMMIT  
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LEE'S SUMMIT, MISSOURI 64064

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3	ASI 03	12.08.2022
11	ASI 11	08.08.2023

STATE OF MISSOURI  
DERICK M. HOLMES  
NUMBER  
PE-2022005196  
07/16/2024  
PROFESSIONAL ENGINEER

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