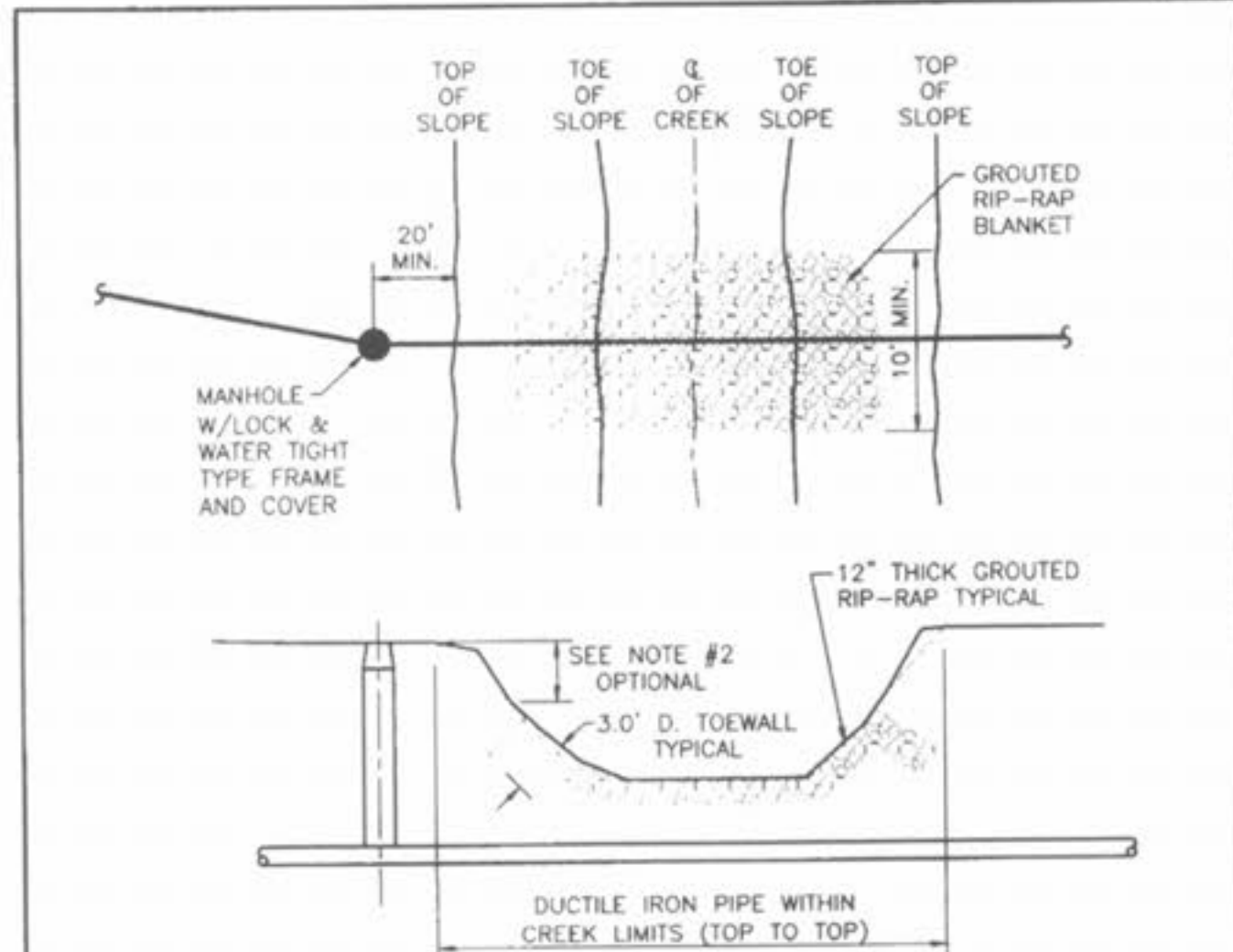


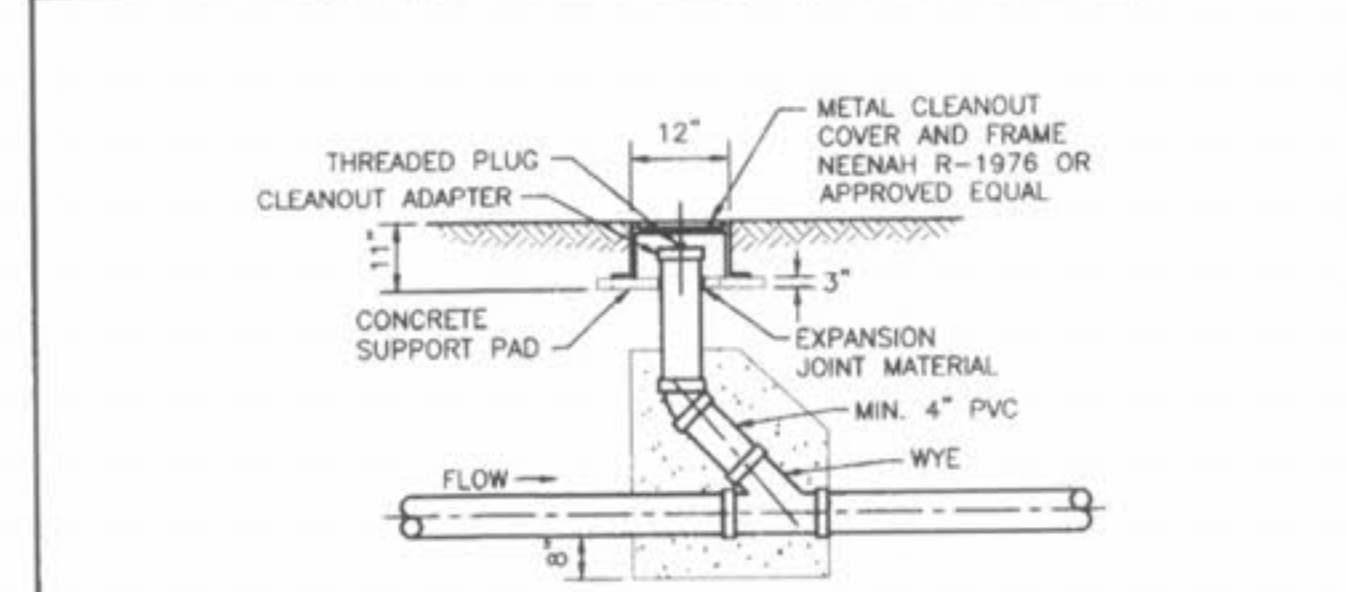
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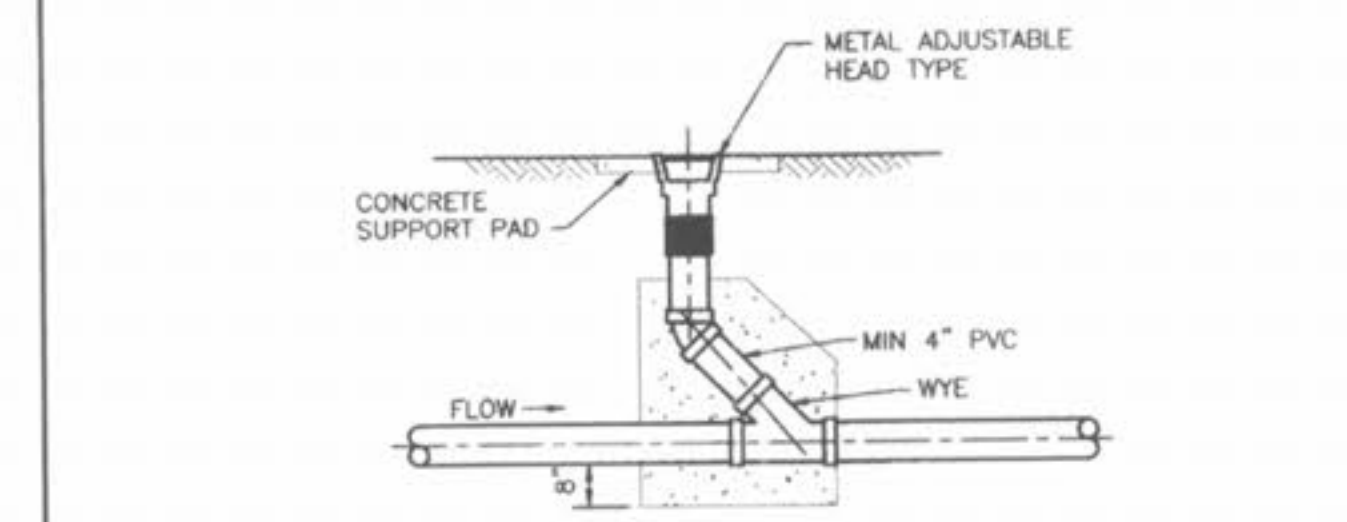
- NOTES:**
1. GROUTED RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE, AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
  2. PLACE RIP-RAP ON LOWER 3/4 OF SLOPE GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL TO 2 HORIZONTAL SLOPE FOR SOD OR 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SEED AND STRAW.
  3. RIP-RAP TO BE 'MSD 5' GRADATION, MINIMUM 12" THICK, GROUTED WITH 8 SACK MIX SAND-CEMENT SLURRY, BROOM FINISH.
  4. INCORPORATE A 3 FEET DEEP TOE WALL ON EMBANKMENT'S UPPER EDGE OF RIP-RAP.
  5. TOP SURFACE OF RIP-RAP SHOULD NOT BE HIGHER THAN ADJACENT GROUND SURFACE.
  6. IF PIPE HAS LESS THAN 12" COVER, A PAVED CHANNEL MAY BE REQUIRED.
  7. DUCTILE IRON PIPE IS REQUIRED WITHIN THE CREEK LIMITS.

**Duckett Creek Sanitary District**

TYPICAL CREEK CROSSING	Des By: BSM	App By: KLA	Detail No. 24
	Chd By: MDOB	Date: 1-8-01	



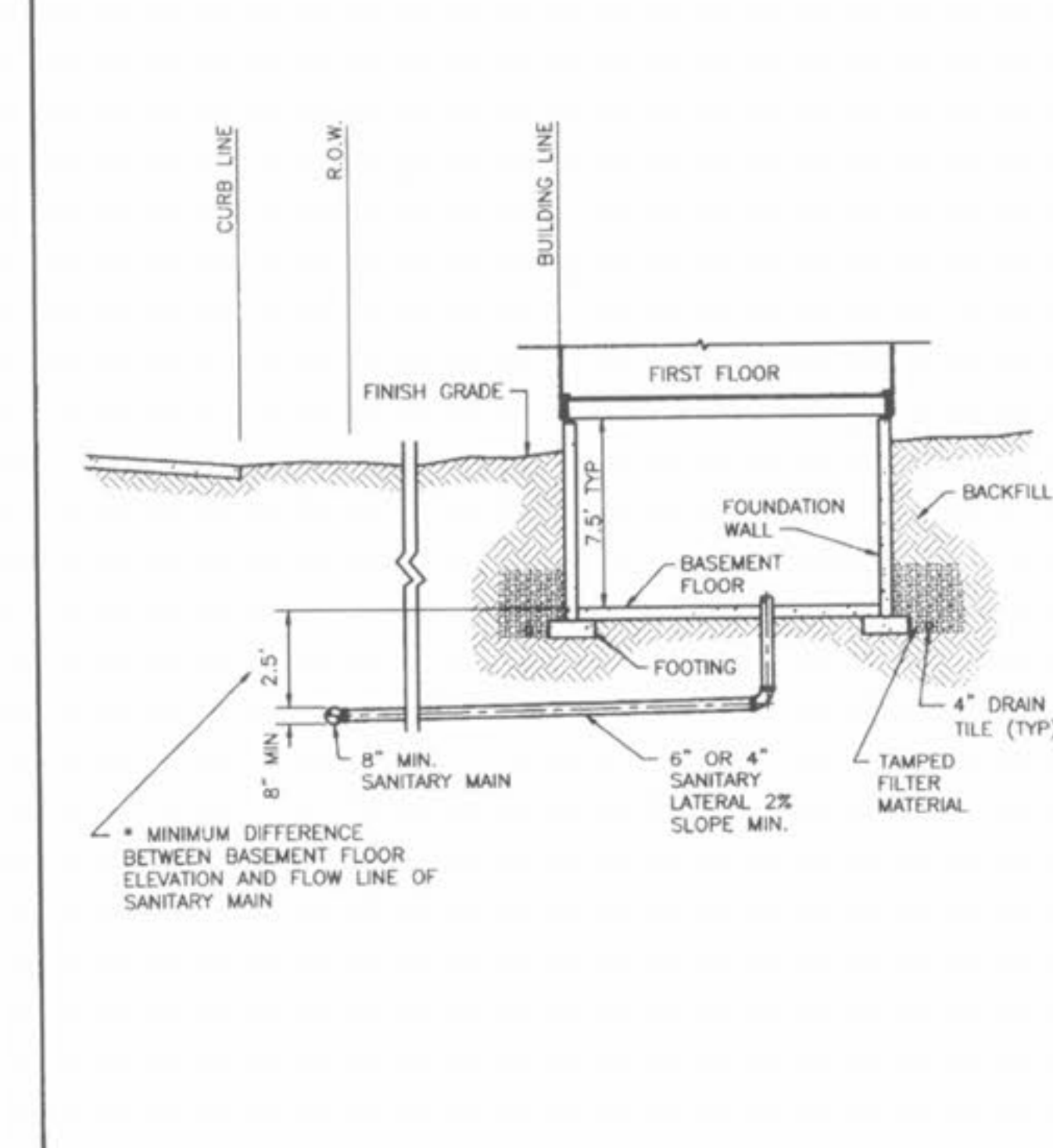
**METAL FRAME AND COVER TYPE CLEANOUT**



**ADJUSTABLE HEAD TYPE CLEANOUT**

**Duckett Creek Sanitary District**

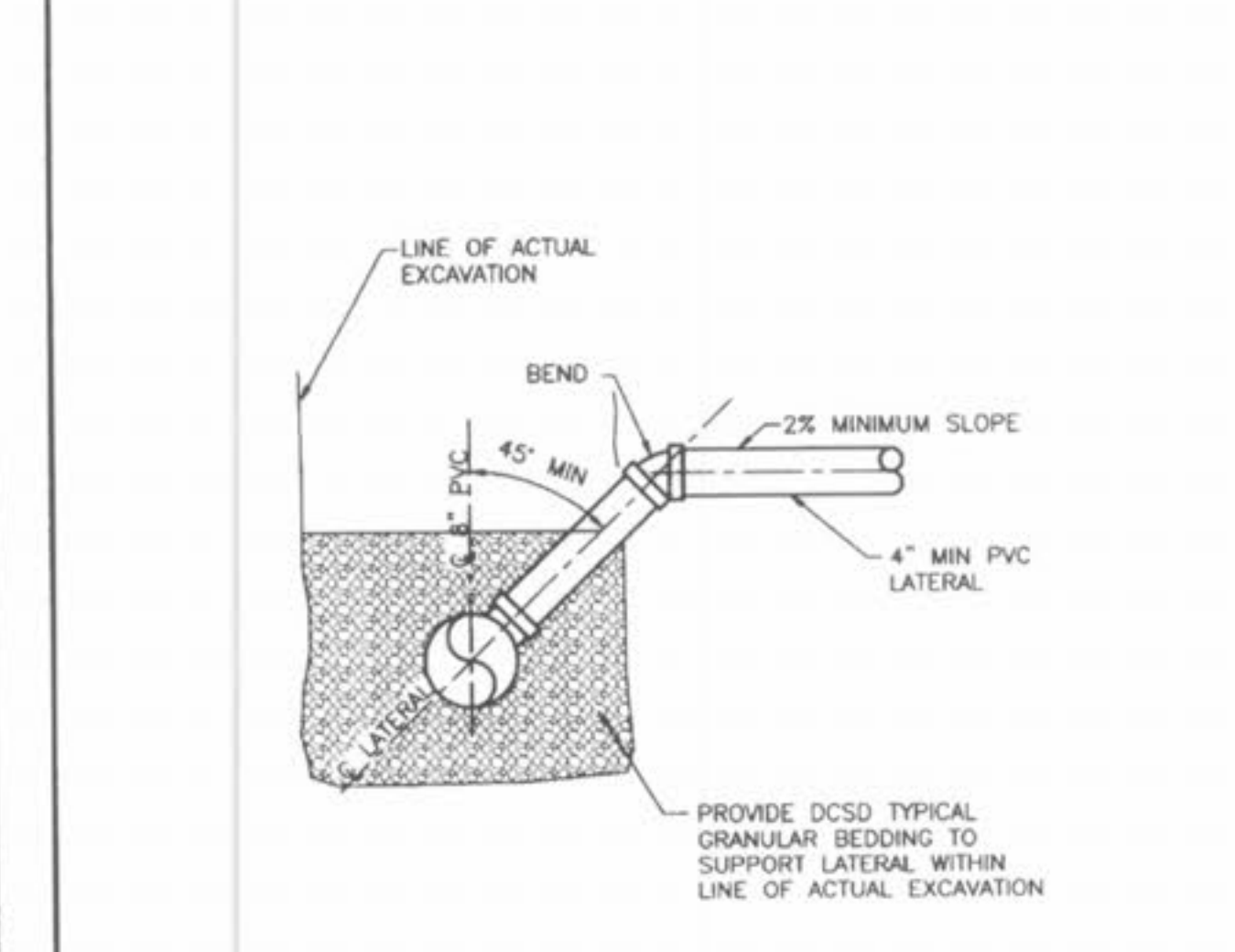
TYPICAL SEWER LATERAL CLEANOUT DETAILS	Des By: BSM	App By: KLA	Detail No. 25
	Chd By: MDOB	Date: 1-8-01	



\*NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

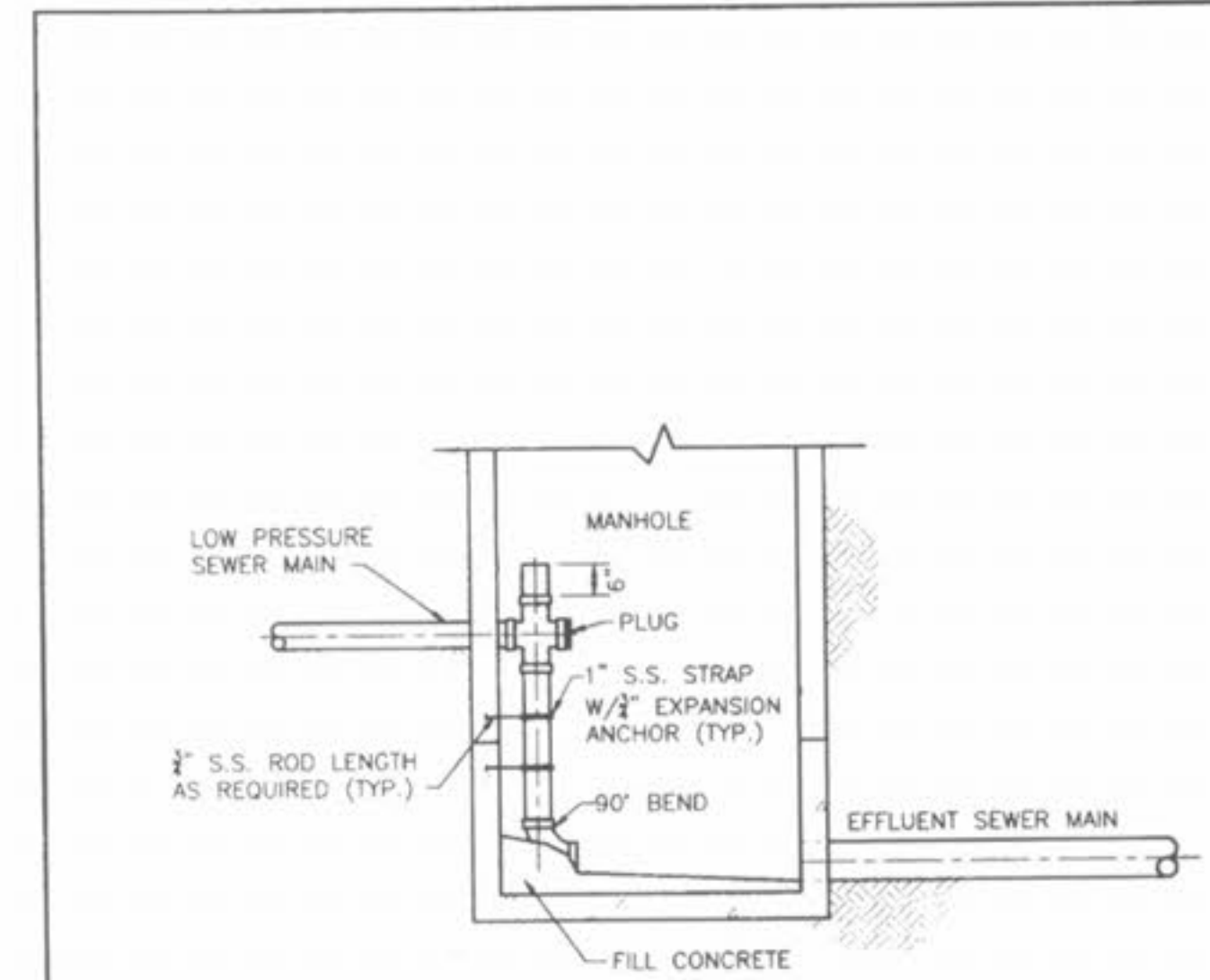
**Duckett Creek Sanitary District**

TYPICAL SANITARY SEWER LATERAL PROFILE	Des By: BSM	App By: KLA	Detail No. 26
	Chd By: MDOB	Date: 1-9-01	



**Duckett Creek Sanitary District**

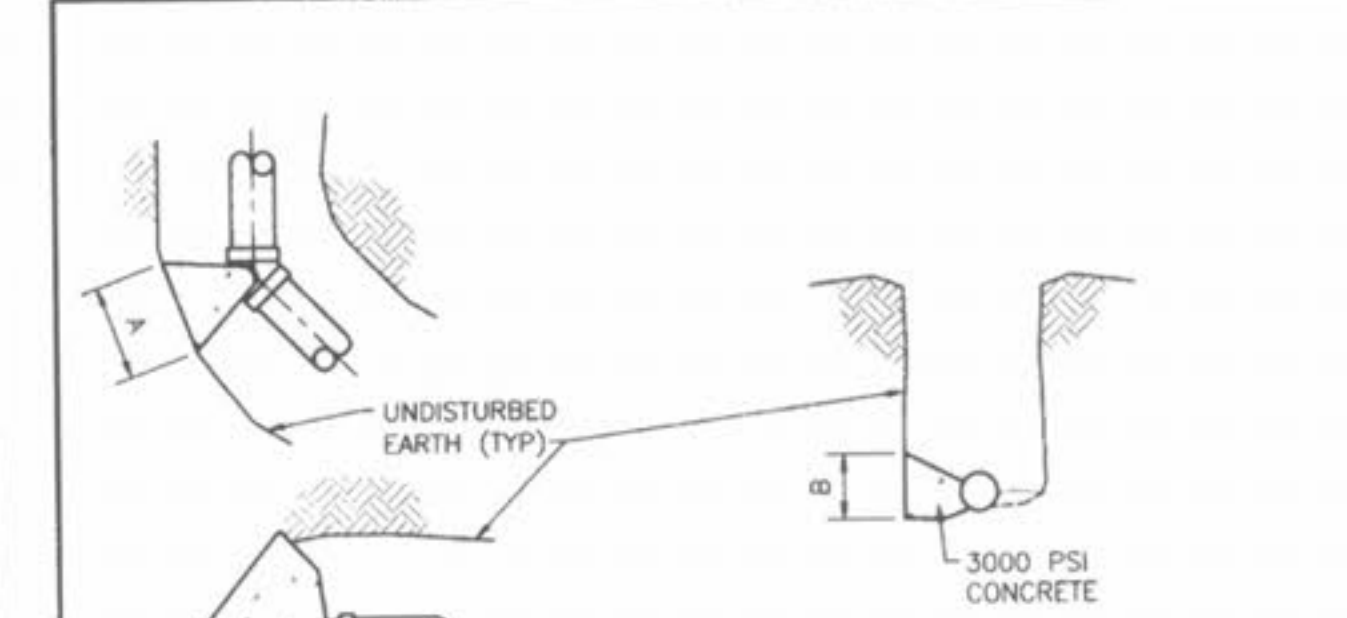
SANITARY SEWER LATERAL RISER DETAIL	Des By: BSM	App By: KLA	Detail No. 27
	Chd By: MDOB	Date: 1-9-01	



**NOTE:**  
INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE

**Duckett Creek Sanitary District**

LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE	Des By: BSM	App By: KLA	Detail No. 28
	Chd By: MDOB	Date: 1-9-01	



MAIN SIZE	A x B	A x B	A x B	A x B
	22"	45"	90"	TEE
2"	.5' x 1'	.5' x 1'	1' x 1'	1' x 1'
4"	1' x 1'	1' x 1'	1.5' x 1'	1' x 1'
6"	1' x 1'	1.5' x 1'	2' x 1'	1.5' x 1'
8"	1' x 1'	2' x 1'	2' x 1'	2' x 1'

**Duckett Creek Sanitary District**

THRUST BLOCK DETAIL AND SIZE SCHEDULE	Des By: BSM	App By: KLA	Detail No. 29
	Chd By: MDOB	Date: 1-9-01	

ISSUE	REMARKS/DATE
1	03-01-04 FIRST SUBMITTAL
2	06-15-04 REVISED PER CITY COMMENTS
3	07-20-04 REVISED PER CITY COMMENTS
4	08-04-04 REVISED PER CITY COMMENTS
5	08-12-04 REVISED PER PHYSICIAN COMMENTS

PREPARED FOR:  
**McBride & Son Homes  
Land Development, Inc.**  
#1 McBride & Son Center Drive  
Chesterfield, Missouri 63005  
(636) 537-2000



**STERLING CO.**  
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5055 NEW BAUMGARTNER ROAD  
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(314)-487-0440 FAX 487-8944  
E-Mail: Sterling@sterling-eng-sur.com

DRAWN:	DESIGNED:	CHECKED:
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**FOX HAVEN**  
DCSD CONSTRUCTION DETAILS

PROJECT:	SHEET TITLE:
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NO. 03 06 147	M.S.D. SHEET
P#	CD10
DIGITAL FILE LOCATION: SEWER-STERLING-2	