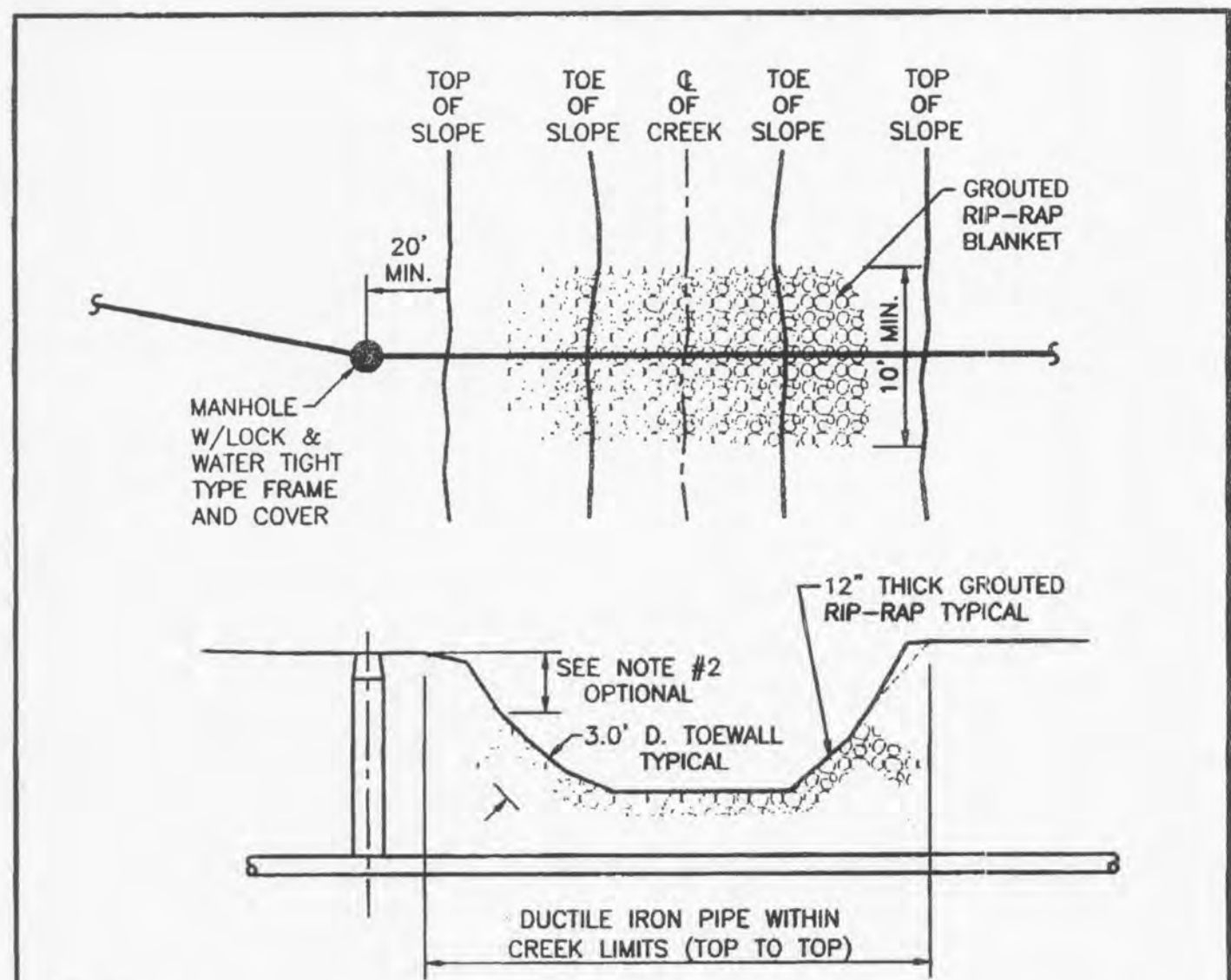
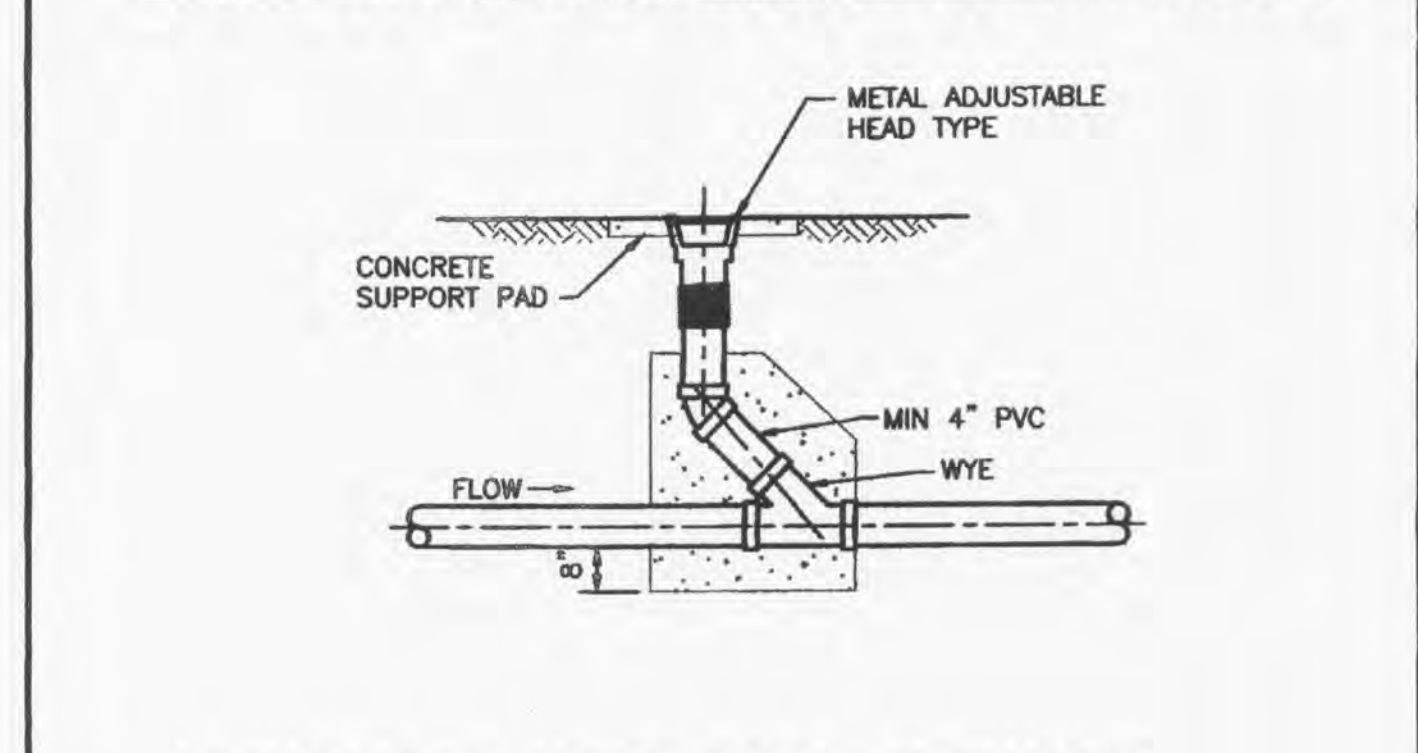
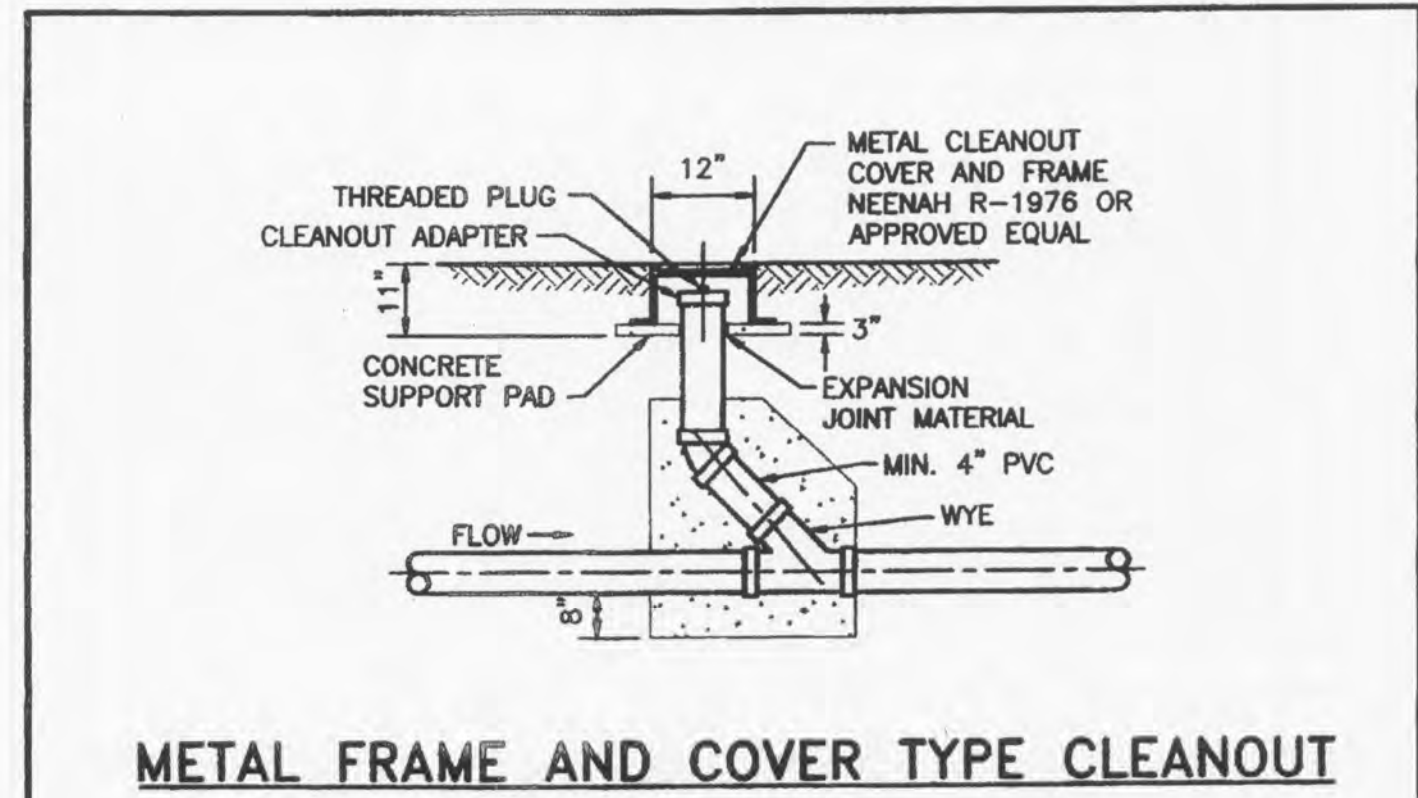


ISSUE	REMARKS/DATE
1	10-16-2012, INITIAL SUBMITTAL
2	11-29-2012, CITY COMMENTS
3	1-14-2013, CITY & DCSD COMMENTS
4	2-20-2013, CITY COMMENTS

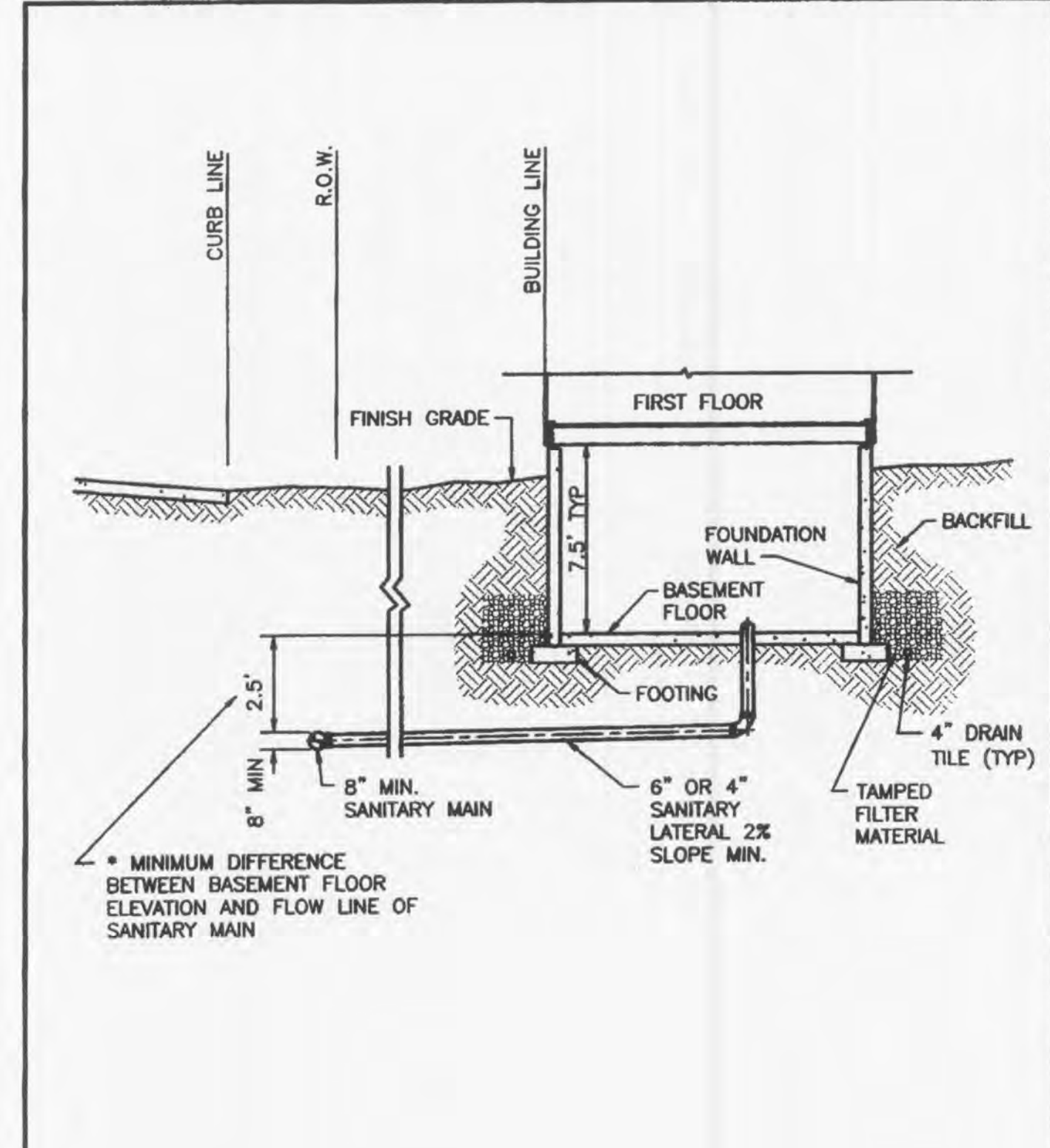


- NOTES:
1. GROUTED RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE, AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
 2. PLACE RIP-RAP ON LOWER 3/4 OF SLOPE, GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL 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
	Clad By: MDOB	Date: 1-8-01	

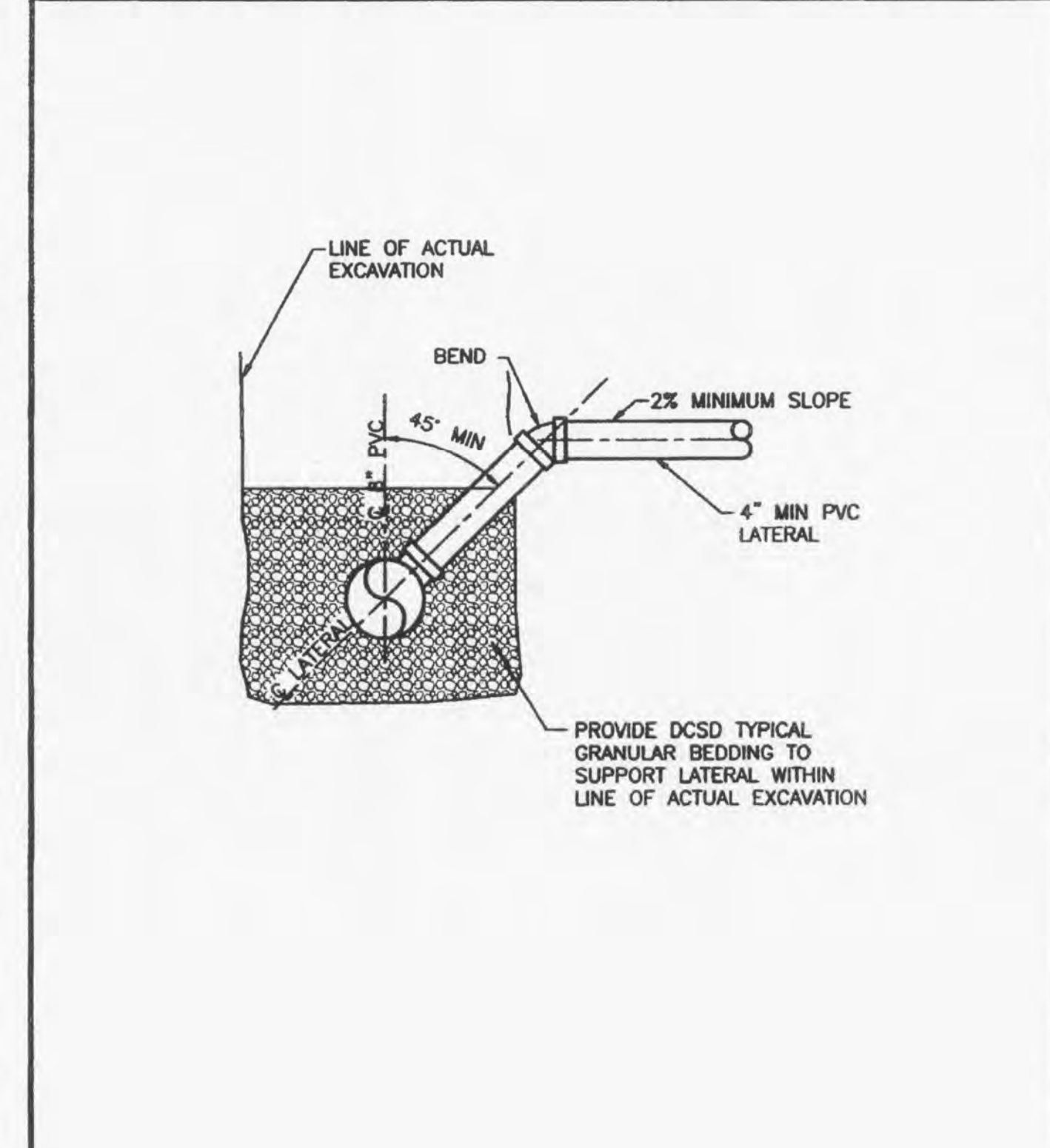


Duckett Creek Sanitary District			
TYPICAL SEWER LATERAL CLEANOUT DETAILS	Des. By: BSM	App. By: KLA	Detail No. 25
	Clad By: MDOB	Date: 1-8-01	

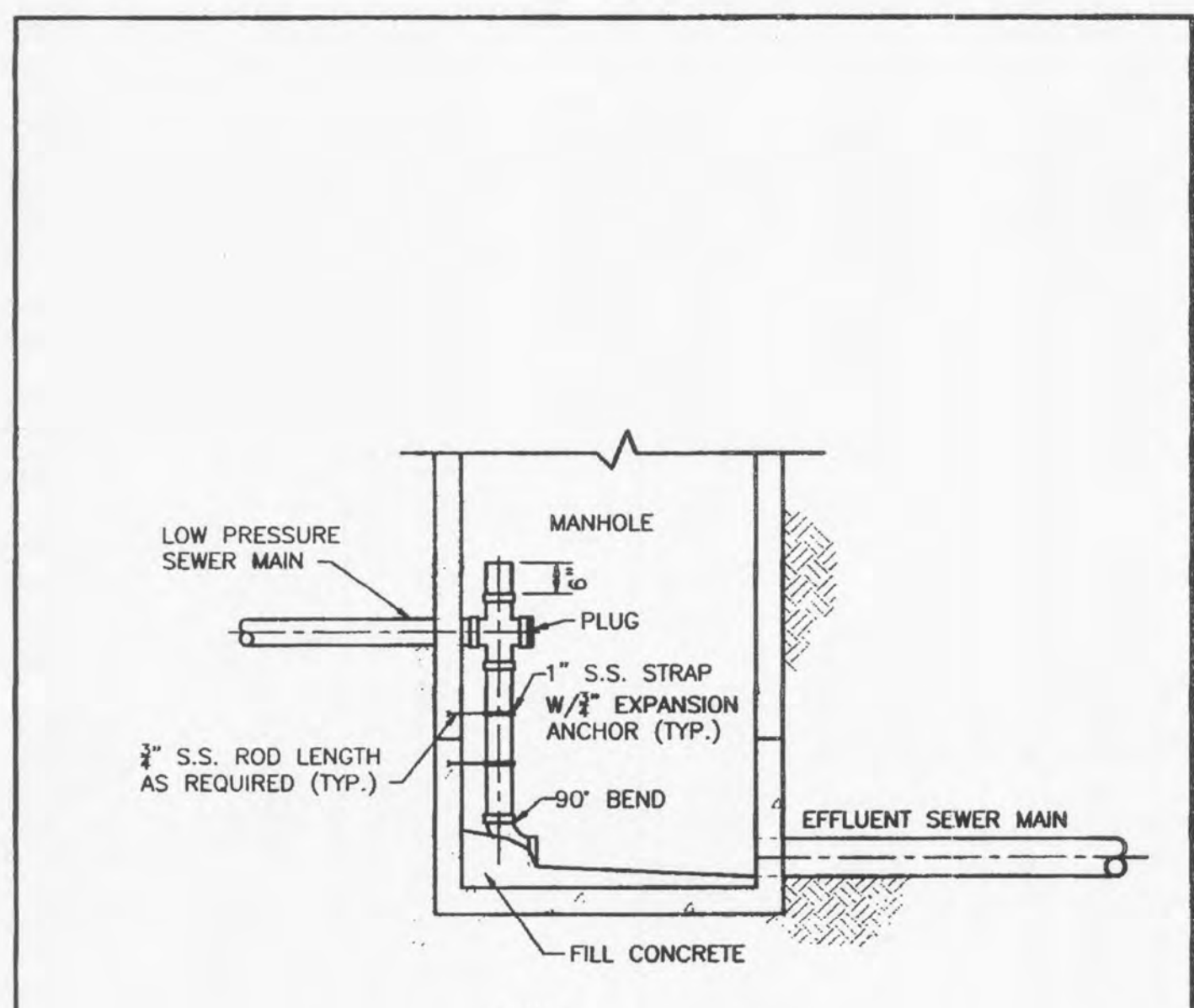


*NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

Duckett Creek Sanitary District			
TYPICAL SANITARY SEWER LATERAL PROFILE	Des. By: BSM	App. By: KLA	Detail No. 26
	Clad By: MDOB	Date: 1-9-01	

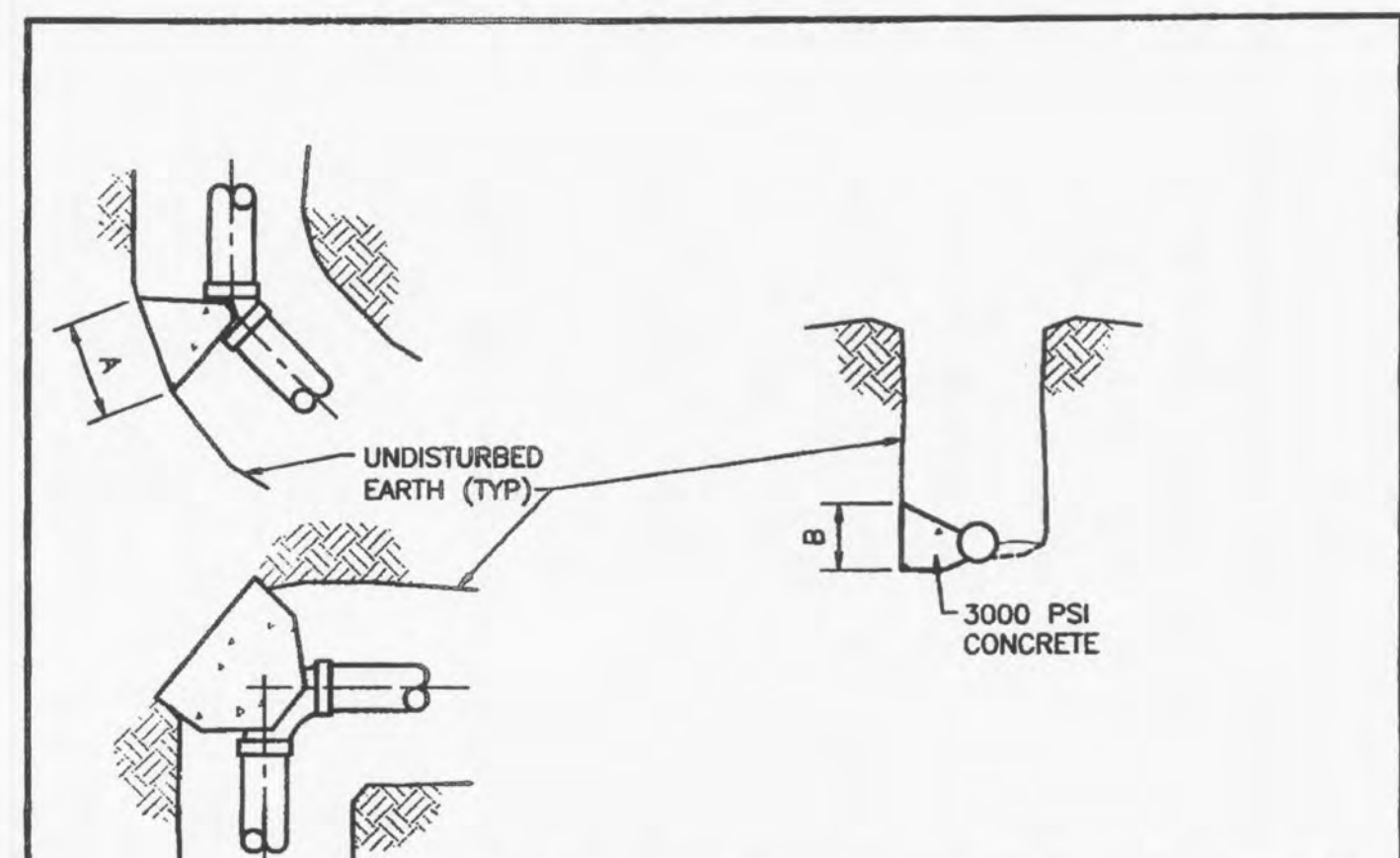


Duckett Creek Sanitary District			
SANITARY SEWER LATERAL RISER DETAIL	Des. By: BSM	App. By: KLA	Detail No. 27
	Clad By: MDOB	Date: 1-9-01	



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
	Clad By: MDOB	Date: 1-9-01	



Duckett Creek Sanitary District			
THRUST BLOCK DETAIL AND SIZE SCHEDULE	Des. By: BSM	App. By: KLA	Detail No. 29
	Clad By: MDOB	Date: 1-9-01	

PROJECT TITLE
BOARDWALK GARDENS
OF FALLON, MISSOURI

THE **STERLING** CO.
ENGINEERS & SURVEYORS
5065 New Baumgartner Road
St. Louis, Missouri 63129
Ph 314-487-0440 Fax 314-487-8944
www.sterling-eng-survey.com
Corporate Certificate of Authority #001348

The Professional Engineer's seal and signature offered in this sheet apply only to the material and items shown on this sheet. All drawings, instruments or other documents not bearing this seal and signature shall not be considered correct for the purposes of the Engineer's professional discipline and all responsibility for such items, drawings or documents not exhibiting this seal and signature.

Date: 1/16/2013
MICHAEL G. BOERING
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SANITARY SEWER DETAILS

P+Z No. 9831.34.09.01
City No.
Date: OCT.16, 2012
Job No. 12-05-128
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