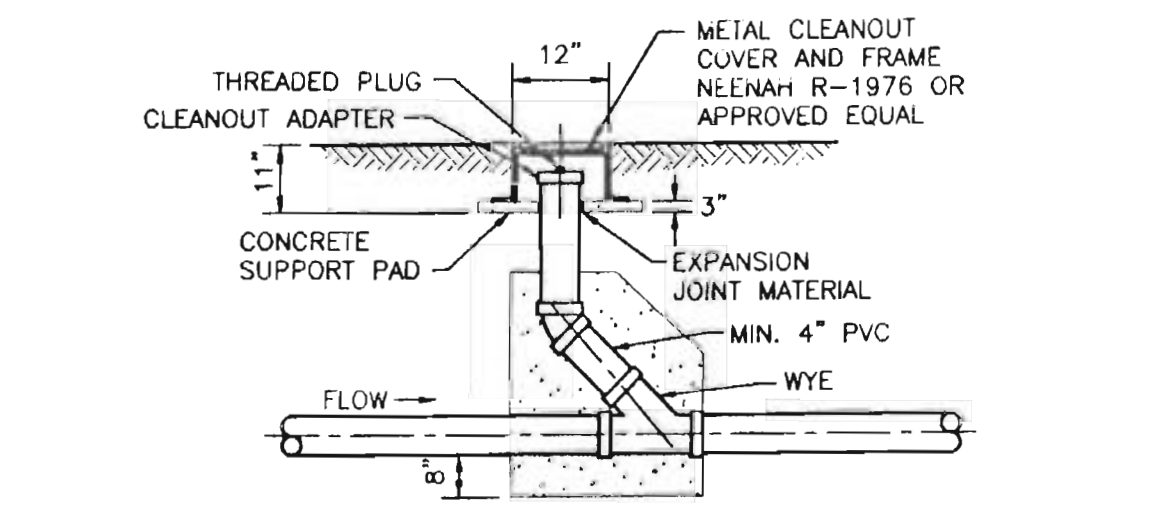


- NOTES:
1. GROUTED RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE; AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
 2. PLACE RIP-RAP ON LOWER 3/4 OF SLOPE. (GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL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

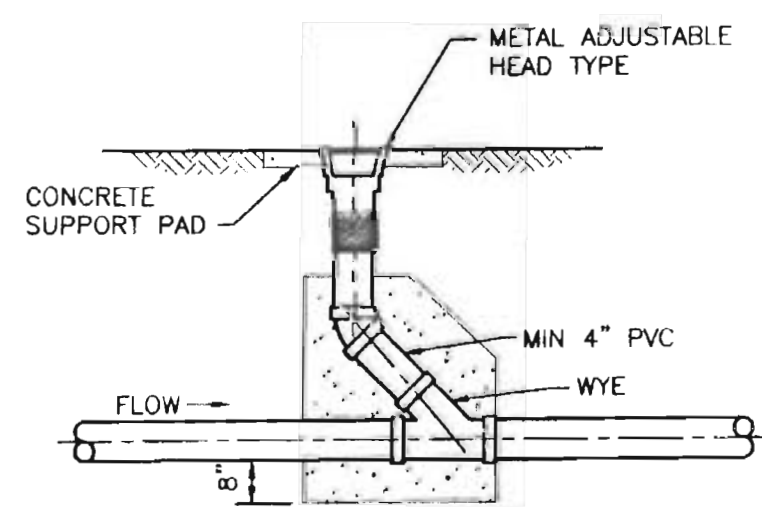
Duckett Creek Sanitary District

TYPICAL CREEK CROSSING

Drawn By:	BSM	App. By:	KLA	Detail No.	
Check By:	MDOB	Date:	1-8-01		24



METAL FRAME AND COVER TYPE CLEANOUT

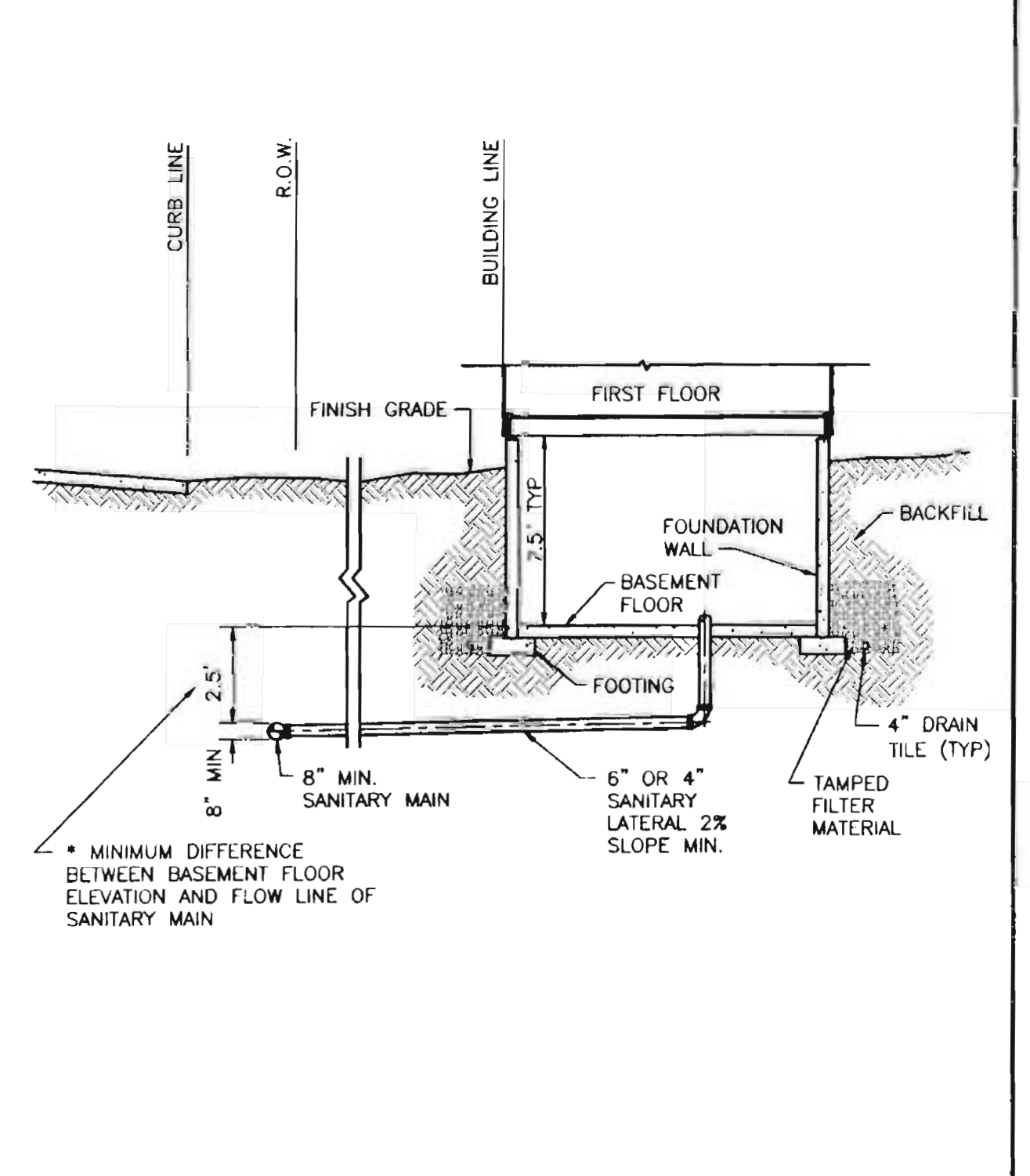


ADJUSTABLE HEAD TYPE CLEANOUT

Duckett Creek Sanitary District

TYPICAL SEWER LATERAL CLEANOUT DETAILS

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Check By:	MDOB	Date:	1-8-01		25

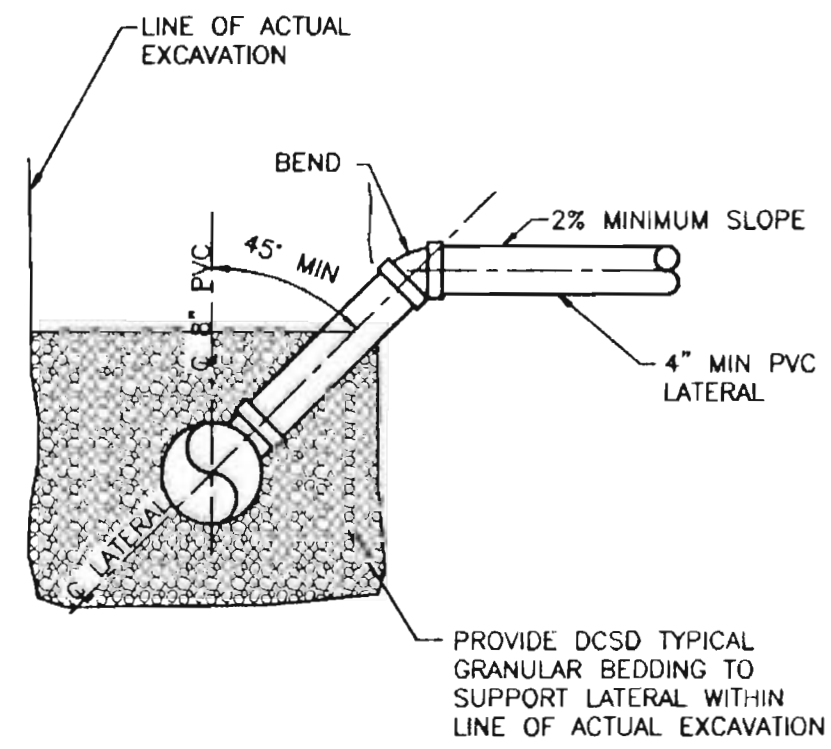


*NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

Duckett Creek Sanitary District

TYPICAL SANITARY SEWER LATERAL PROFILE

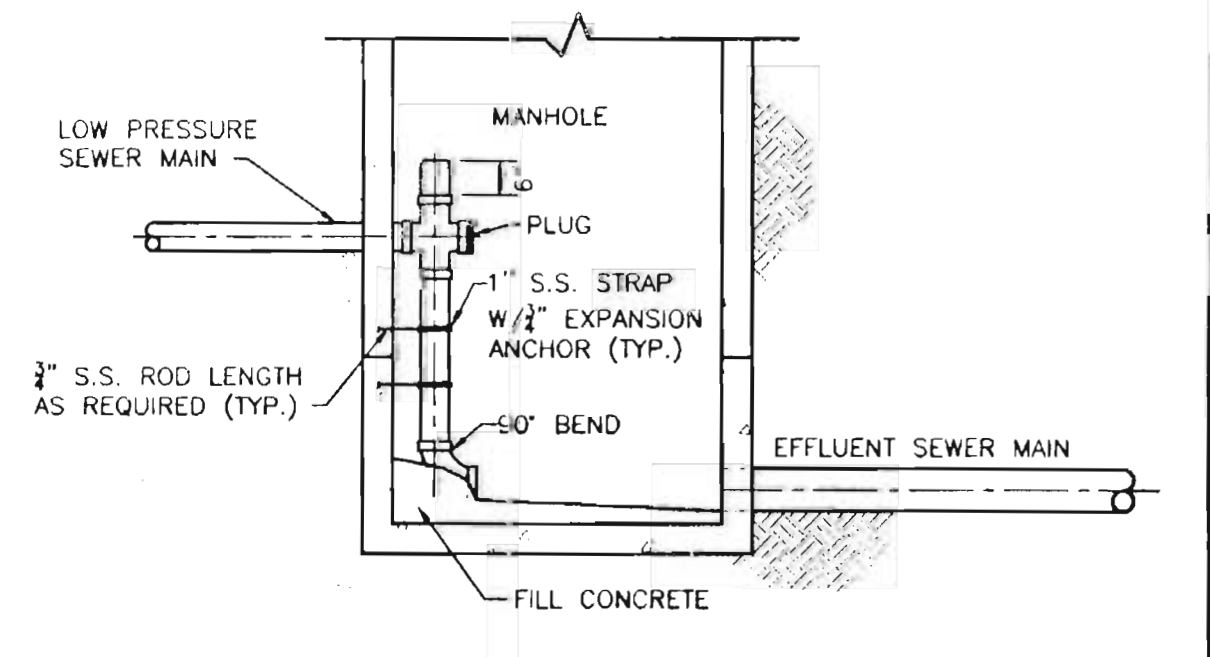
Drawn By:	BSM	App. By:	KLA	Detail No.	
Check By:	MDOB	Date:	1-9-01		26



Duckett Creek Sanitary District

SANITARY SEWER LATERAL RISER DETAIL

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Check By:	MDOB	Date:	1-9-01		27

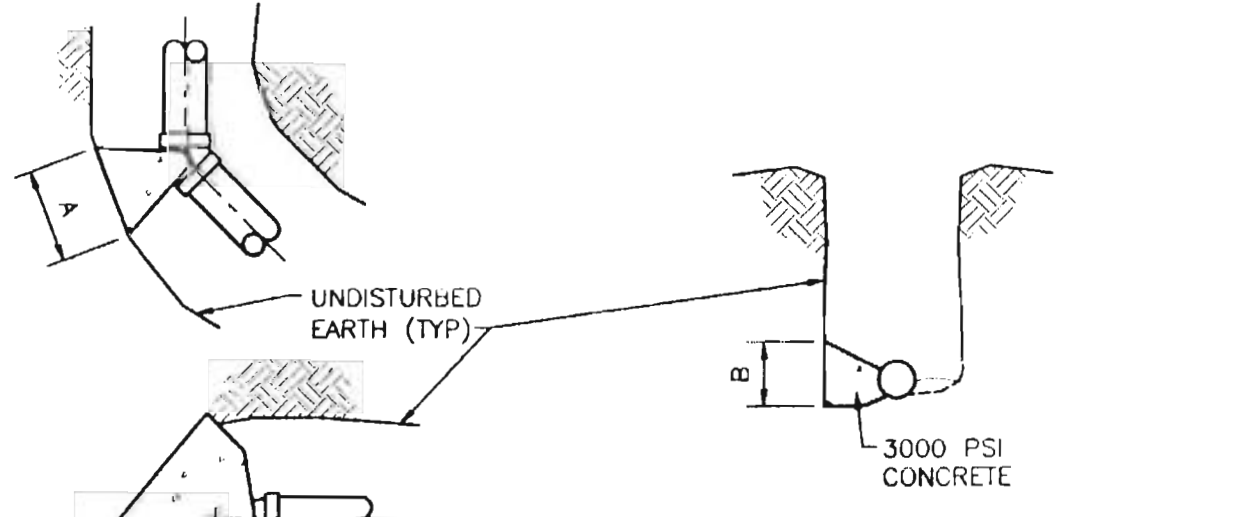


NOTE: INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE

Duckett Creek Sanitary District

LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE

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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

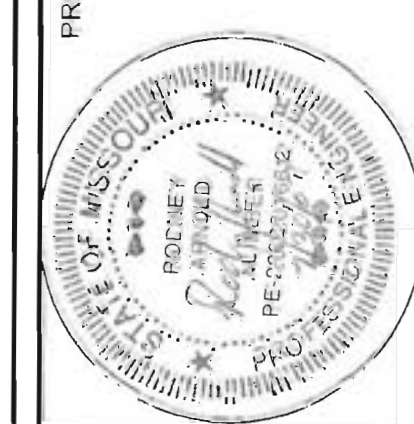
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Check By:	MDOB	Date:	1-9-01		29

ISSUE/REMARKS/DATE

1	10-17-06	FIRST SUBMITTAL
2	12-11-06	REVISED PER DCSD & PWS&P COMMENTS
3	12-28-06	REVISED PER ST. CHARLES COUNTY COMMENTS
4	01-25-07	REV. PER ST. CHARLES CO. & OF ALLIANCE
5	02-19-07	REVISED PER DCSD & PWS&P COMMENTS
6	08-29-07	REVISED PER DEVELOPER COMMENTS

PREPARED FOR:

CROSS DEVELOPMENT OF MISSOURI, INC.
 1609 PROSPECT VILLAGE DR
 LAKE ST. LOUIS, MO. 63367
 314-713-4054



PREPARED BY:

THE STERLING CO.
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 5965 NEW BARKHARTER ROAD
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 (314)-487-0440 FAX 487-8944
 E-Mail: Sterling@sterling-eng-sur.com

PROJECT: **THE ENCLAVE AT SOMMERS POINTE**

DRAWN: _____ DESIGNED: _____ CHECKED: _____

SHEET TITLE: **DETAILS**

NO.	07	06	123
M.S.D.			SHEET
PR			CD12
DATE			OF

Drawing name: K:\DEC-07\PROJECTS\ENCLAVE\ENCLAVE\DETAILS.dwg Plotted on: Jul 16, 2007 - 6:30am Plotted by: JustinHus