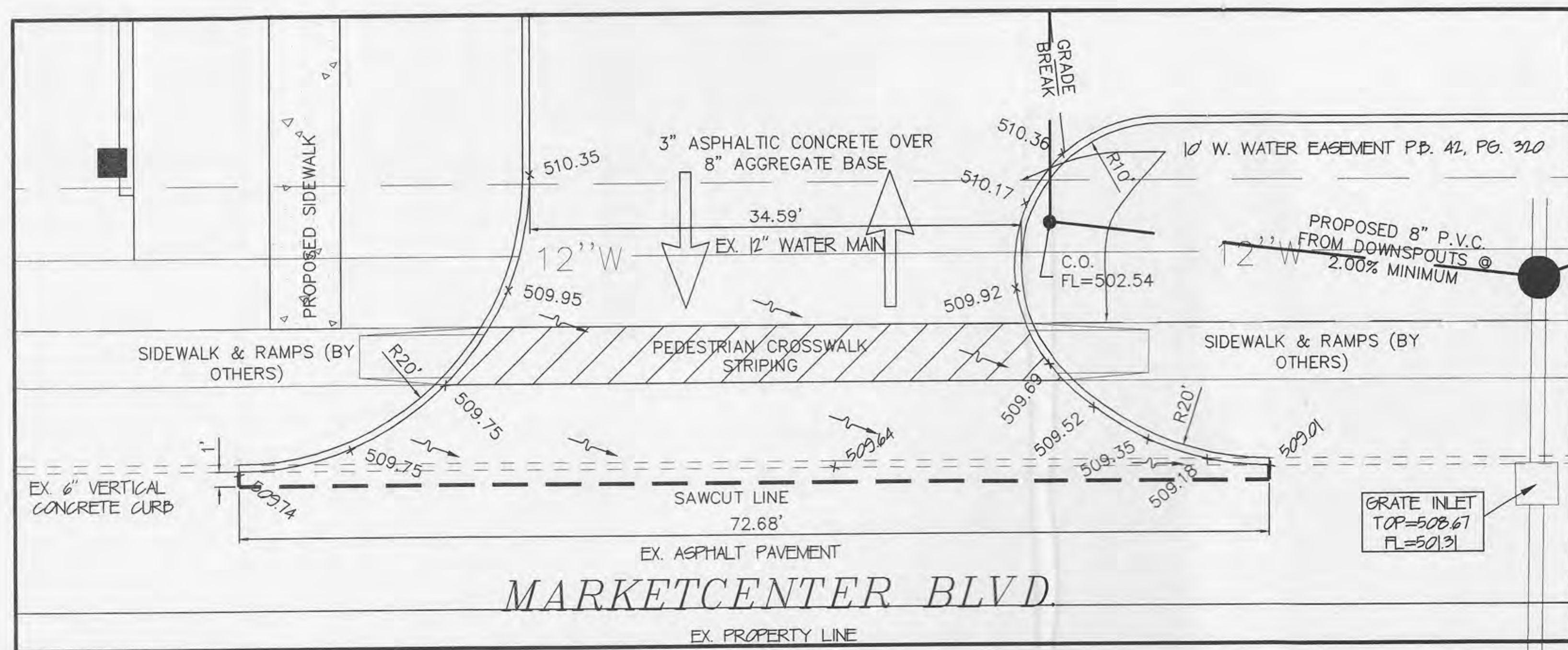
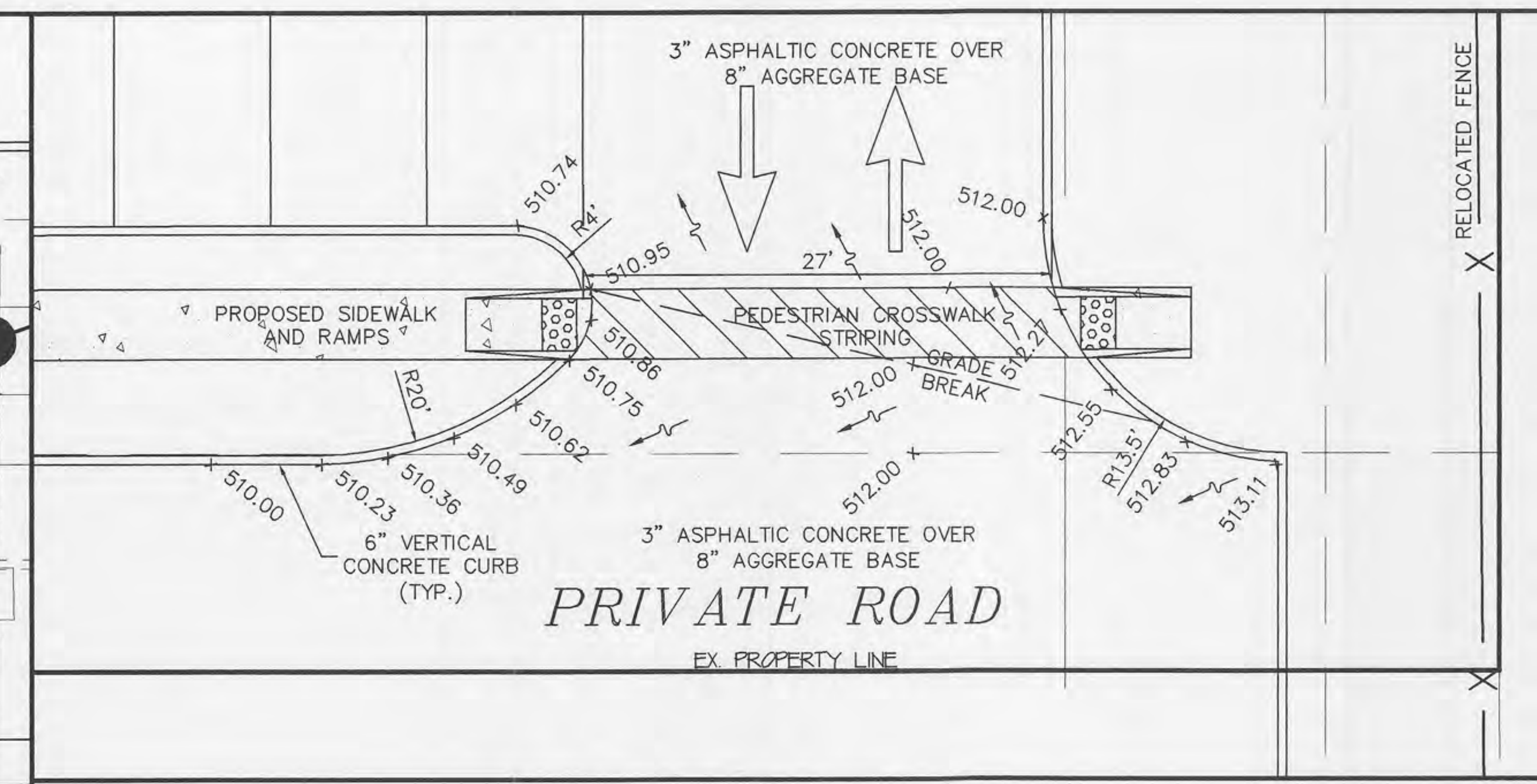


NOTE: ALL SPOTS TO TOP OF PAVEMENT.

ENTRANCE DETAIL

SCALE: 1" = 10'



NOTE: ALL SPOTS TO TOP OF PAVEMENT.

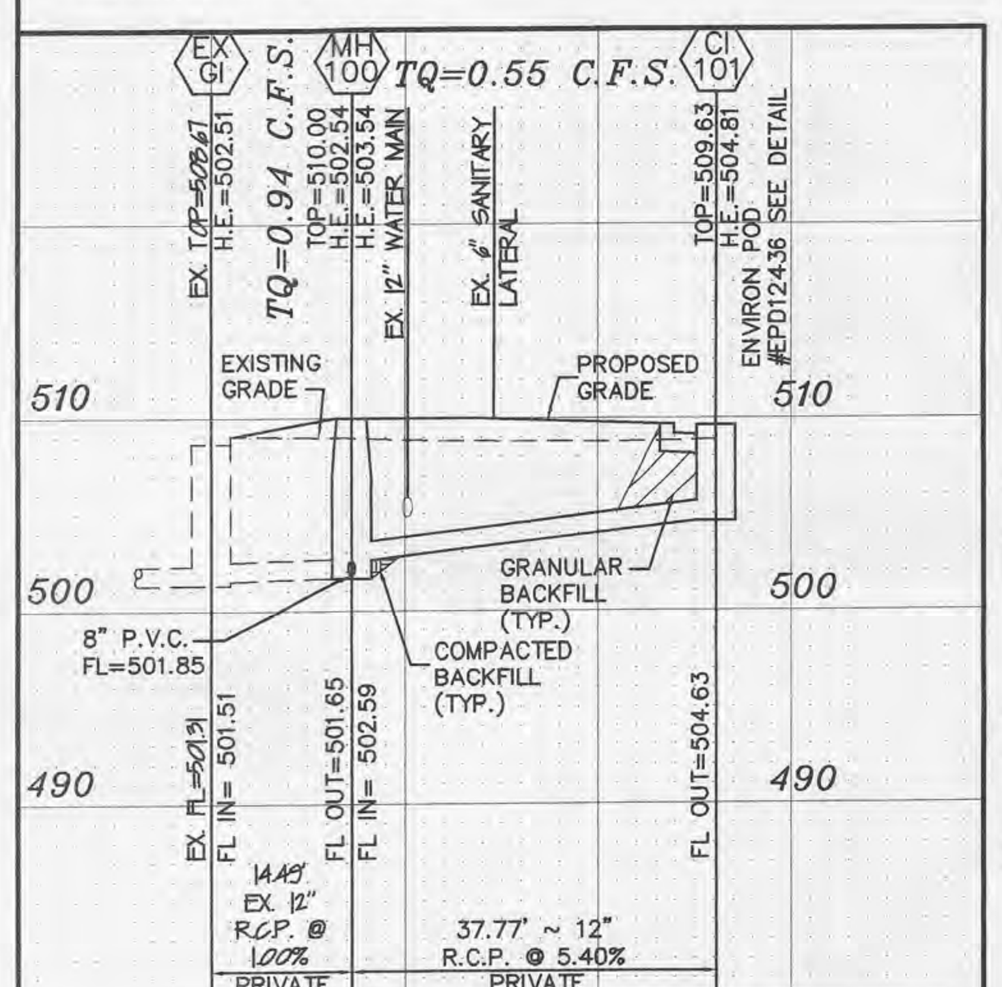
ENTRANCE DETAIL

SCALE: 1" = 10'

BAX PROJECT NAME : ST. CHARLES COUNTY AMBULANCE DISTRICT
BAX PROJECT NO. : 05-13159
DESIGN DATE : 12-14-06
DESIGNED BY : ALJ
15 YEAR DESIGN STORM
FILENAME: 13159

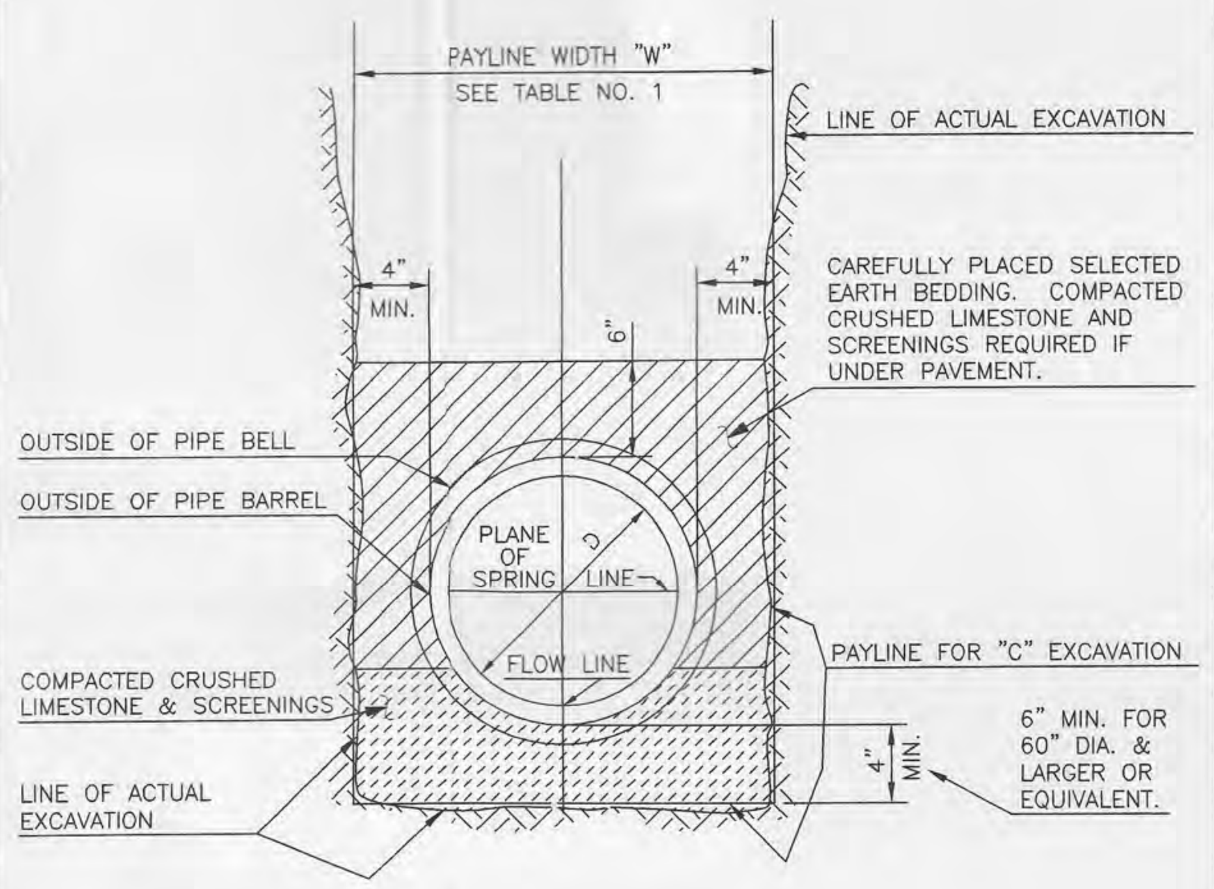
UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	CURVE LOSS	STR GRADE	INL CAP	DR AREA	PI	Q	TQ	PIPE CAP	REMARKS
CI 101	MH 100	38	12	504.63	502.59	5.40	509.63	4.82	504.81*	503.59	.00020	0.01	0.70	0.01	0.01	0.00	0.00		0.00	0.00	0.00	0.00	0.55	8.28	1
MH 100	EX GI	14	12	501.65	501.51	0.97	510.00	7.46	502.54	502.51	.00070	0.01	1.20	0.02	0.02	0.01	0.00		0.00	0.00	0.00	0.00	0.94	3.50	2
EX GI	EX GI	33	12	501.31	501.06	0.75	508.67	6.54	502.13	502.06	.00140	0.04	1.67	0.04	0.03	0.00	0.00		0.00	0.00	0.00	0.00	1.31	3.09	3 HW=502.06

* INDICATES CRITICAL DEPTH

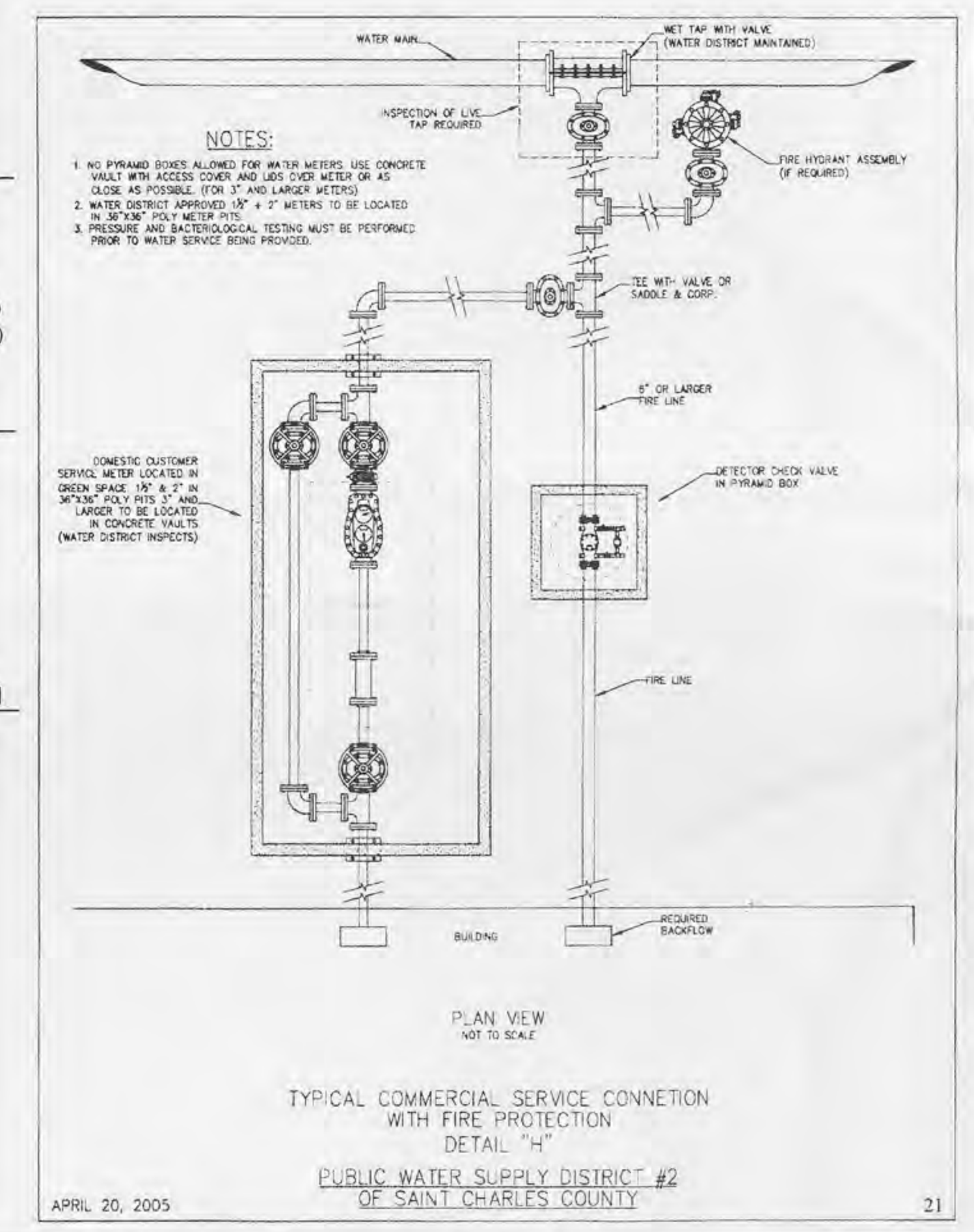


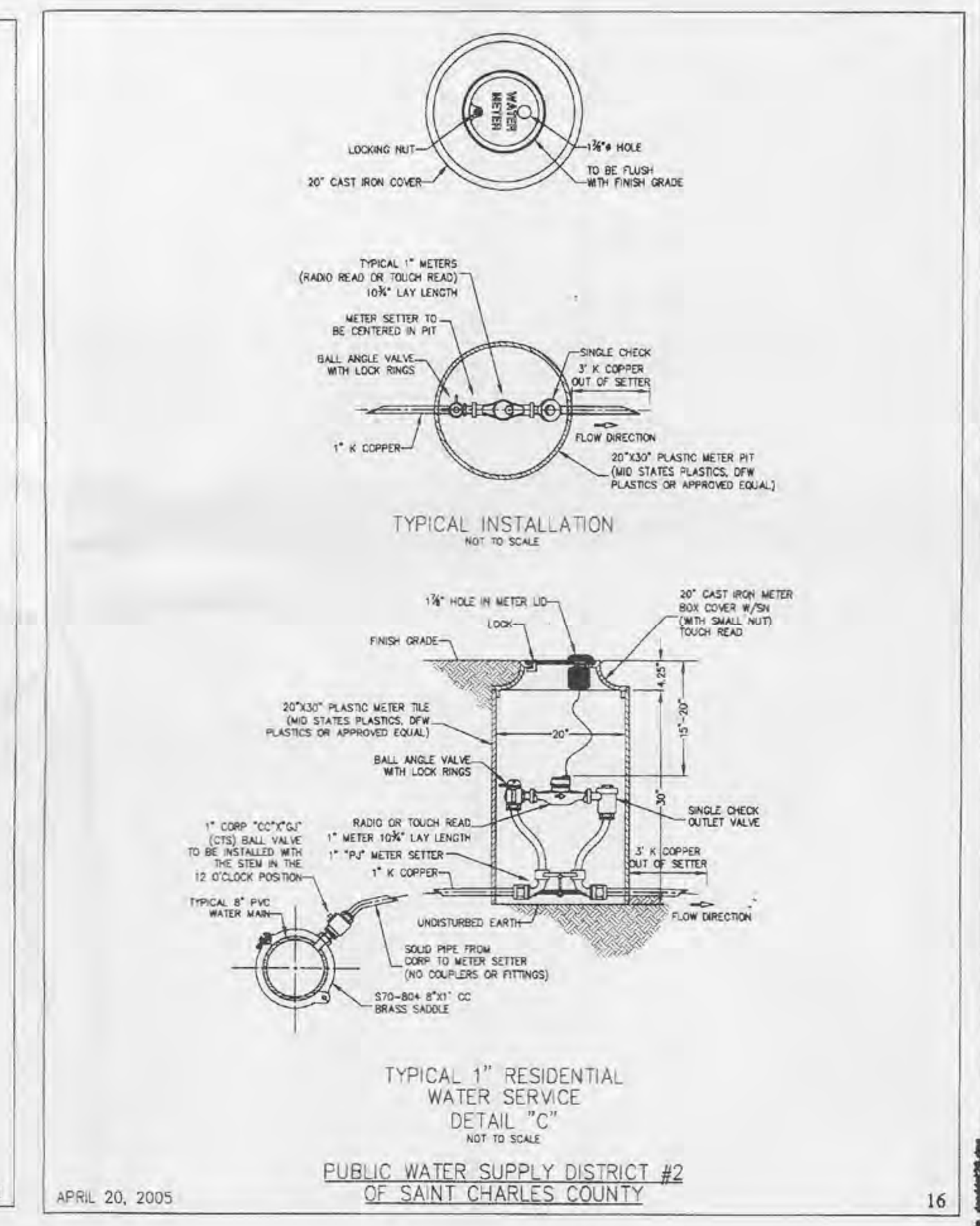
STORM SEWER PROFILE

SCALE: 1" = 10' VERTICAL
1" = 20' HORIZONTAL



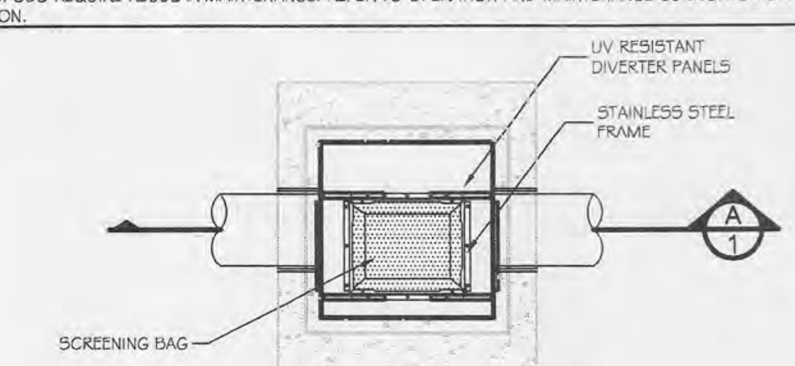
PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)



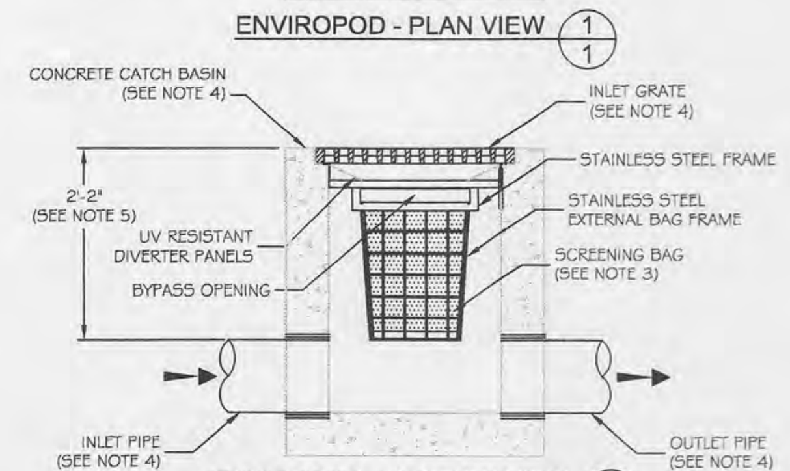


GENERAL NOTES

1) ENVIROPOD™ BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3318.
2) CATCH BASIN INSERT TO BE ENVIROPOD OR APPROVED EQUAL, SUBMITTALS REQUIRED.
3) STANDARD MESH SIZE FOR SCREENING BAG RETAINS PARTICLES GREATER THAN 1,000 MICRONS. CONTACT CONTECH STORMWATER SOLUTIONS FOR ALTERNATE MESH SIZES. REPLACEABLE OIL ABSORBENT POUCHES INCLUDED.
4) CONCRETE CATCH BASIN, GRATE AND INLET AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
5) STANDARD ENVIROPOD REQUIRES 2'-6" DROP FROM RIM TO INVERT OUT. IF INLET PIPE(S) IS SPECIFIED, ENVIROPOD REQUIRES 2'-2" OF DROP FROM RIM TO CROWN OF INLET PIPE. CONTACT CONTECH STORMWATER SOLUTIONS FOR SHALLOWER APPLICATIONS.
6) ALL ENVIROPODS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



ENVIROPOD - PLAN VIEW 1/1



ENVIROPOD - SECTION VIEW A/1

STANDARD MODEL SIZES

MODEL	CATCH BASIN SIZES	DEBRIS CAPACITY	WATER QUALITY FLOW RATE	PEAK BYPASS FLOW RATE
EPDI1818	18" X 18" TO 24" X 24"	1.1 CU FT	1.8 CFS	2.6 CFS
EPDI2424	24" X 24" TO 32" X 32"	2.4 CU FT	3.0 CFS	3.7 CFS
EPDI2436	24" X 36" TO 36" X 48"	3.9 CU. FT	4.0 CFS	4.8 CFS
EPDI3535	35" X 35" TO 48" X 48"	5.4 CU FT	5.4 CFS	5.8 CFS

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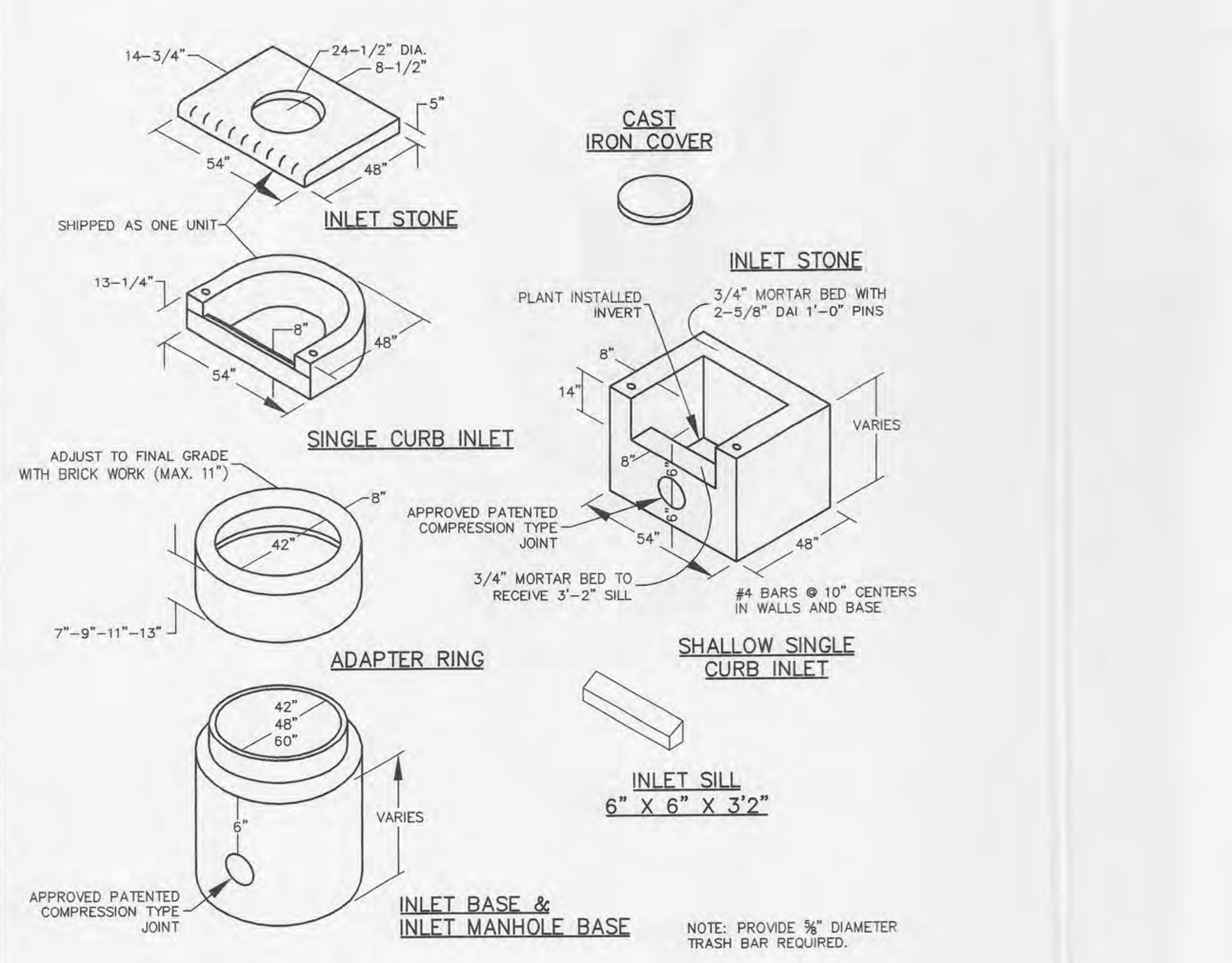
THE Enviropod™ U.S. PATENT No. 5,985,157

CONTECH STORMWATER SOLUTIONS
contechstormwater.com

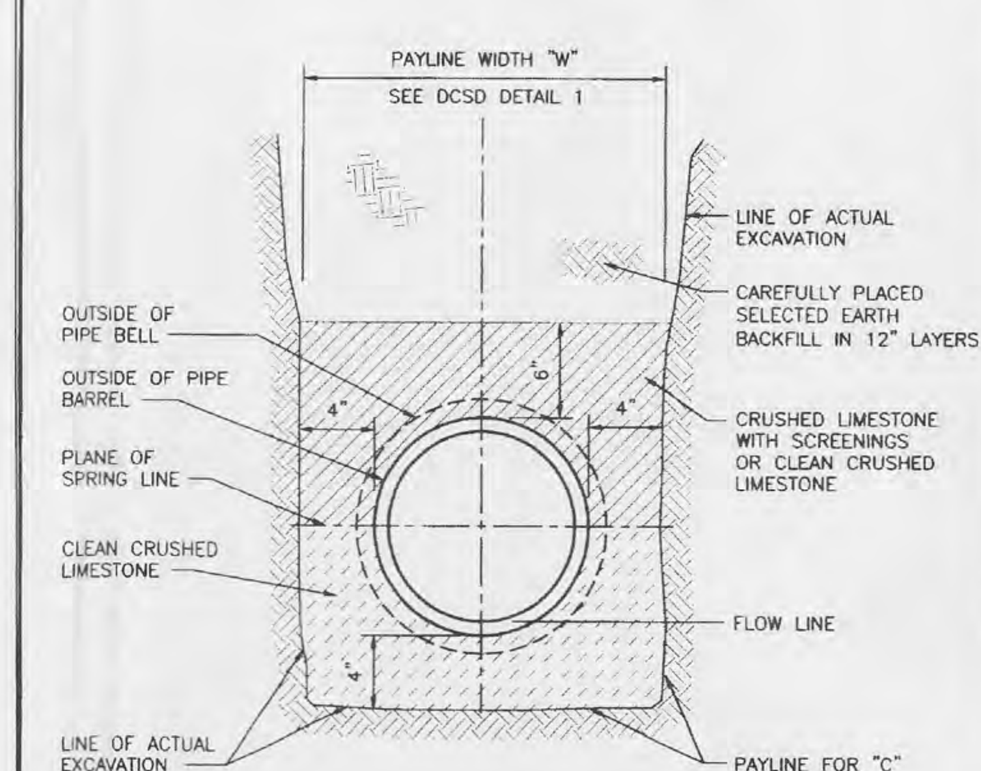
ENVIROPOD CATCH BASIN INSERT - DROP IN UNIT
PLAN AND SECTION VIEWS
STANDARD DETAIL

DATE: 04/04/06 | SCALE: NONE | FILE NAME: EP-C-DTL | DRAWN: MJW | CHECKED: ARG



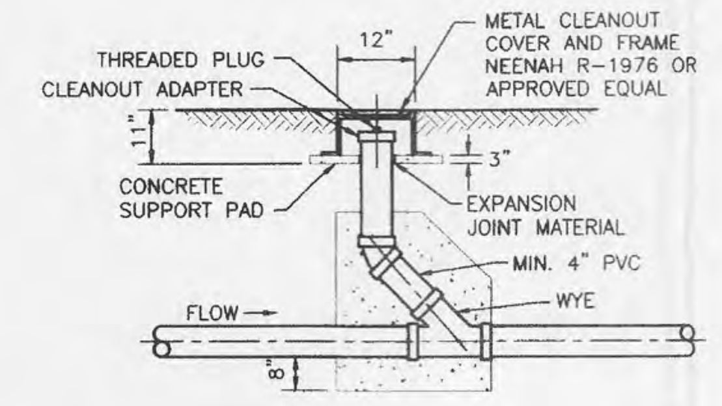
SINGLE STREET INLETS
PRECAST CONCRETE
NOT TO SCALE

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

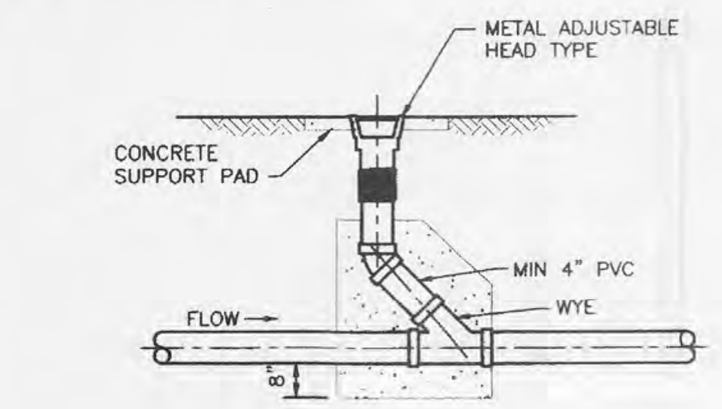


Duckett Creek Sanitary District

PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)	Dwn By: BSM	App By: KLA	Detail No. 3
	Ckd By: MDOB	Date: 12-21-99	



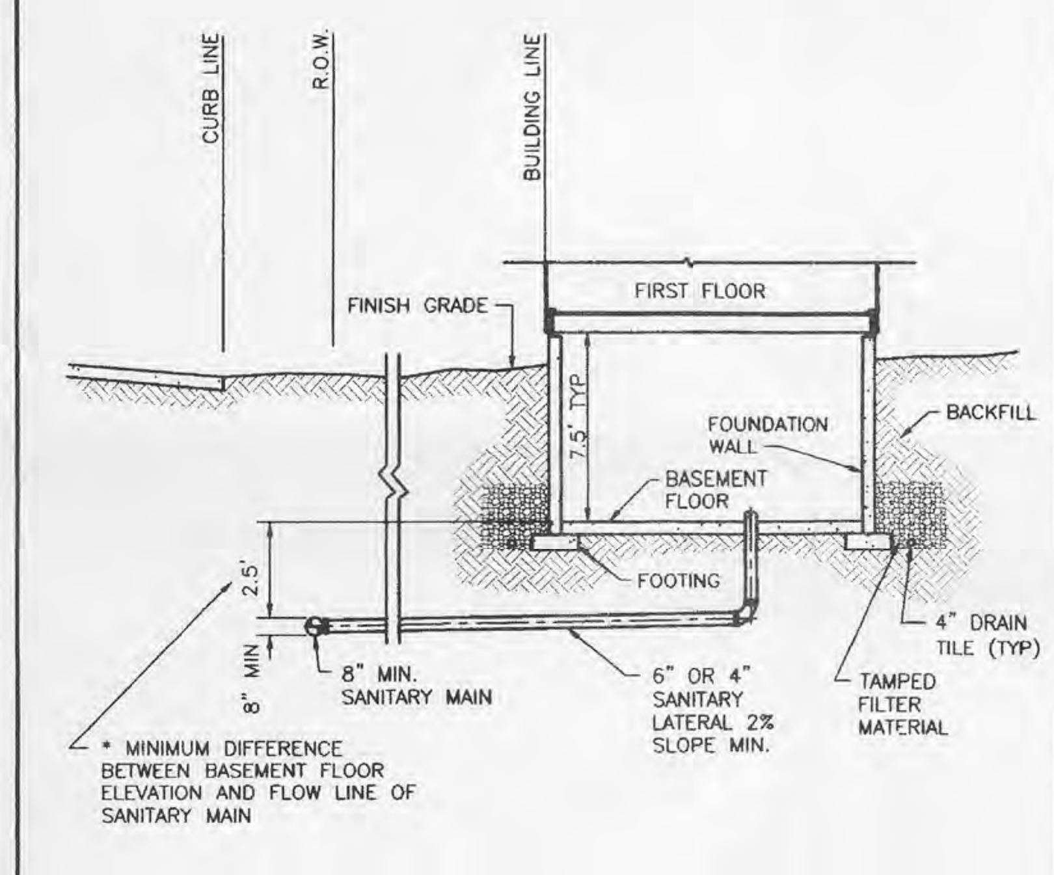
METAL FRAME AND COVER TYPE CLEANOUT



ADJUSTABLE HEAD TYPE CLEANOUT

Duckett Creek Sanitary District

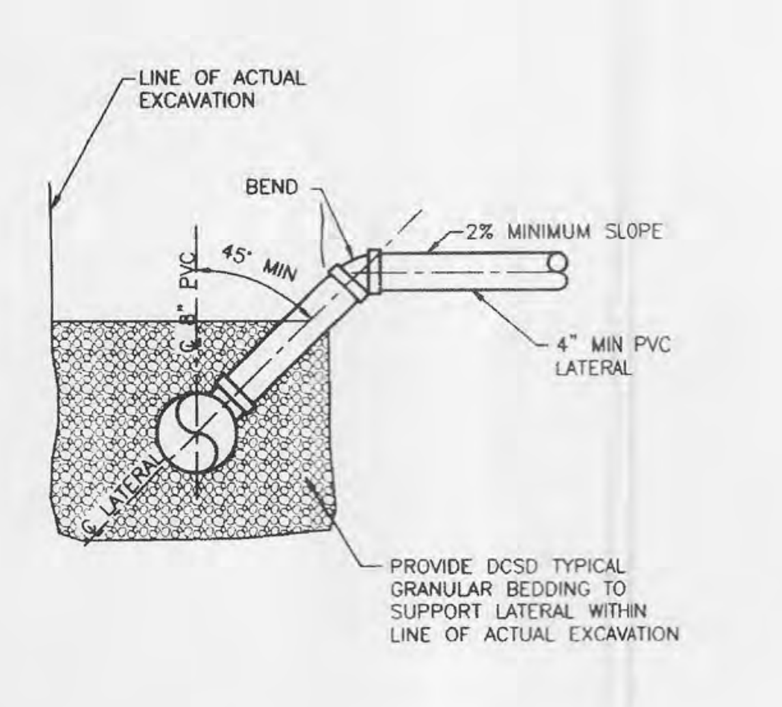
TYPICAL SEWER LATERAL CLEANOUT DETAILS	Dwn By: BSM	App By: KLA	Detail No. 25
	Ckd By: MDOB	Date: 1-8-01	



*NOTE:
DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

Duckett Creek Sanitary District

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



Duckett Creek Sanitary District

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

REVISIONS:
1-3-07 PER DUCKETT COMMENTS
1-12-07 PER P.W.D. #2 COMMENTS
1-22-07 PER CITY COMMENTS

A CONSTRUCTION DETAIL SHEET FOR
ST. CHARLES AMBULANCE DISTRICT
05-13159 12-15-06

DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION

1. Underground utilities have been plotted from available information and therefore there location shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor and shall be located prior to any grading or construction of improvements.
2. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterals.
3. All existing site improvements, disturbed, damaged or destroyed shall be repaired or replaced to closely matched preconstruction conditions.
4. All fill including places under proposed storm and sanitary sewer lines and paved areas included trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proofrolling and compaction.
5. The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
7. It is the responsibility of the contractor to adjust all sanitary manholes (that are affected by the development) to finish grade.
8. Easements shall be provided for all sanitary sewers, storm sewers and all utilities on easement exhibits.
9. All sanitary sewer construction and materials shall conform to the current construction standards of Duckett Creek Sanitary District.
10. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
11. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2-1/2 feet.
12. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources specification 10 CSR-8.120(7)(E).
13. All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
14. All sanitary and storm sewer trench backfills shall be water jetted. Granular backfills will be used under pavement areas.
15. All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
16. All creek crossings shall be grouted rip-rap as directed by District inspectors.
17. Brick shall not be used on sanitary sewer manholes.
18. Existing sanitary sewer service shall not be interrupted.
19. Maintain access to existing residential driveways and streets
20. Pre-manufactured adapters shall be used at all PVC to DIP connection. Rubber boot/Mission type couplings will not be allowed.
21. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
22. 'Type N' Lock-Type Cover and Locking Device (Lock-Lug) shall be used shere lock-type covers are required.

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	"W" Payline Width of Trench (Inches)	"W" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. Concrete Encasement	Inside Diameter of Pipe (Inches)	"W" Payline Width of Trench (Inches)	"W" Payline Width of Trench (Feet)	Pay-volumes cu. ft. per ft. Concrete
4	28	2.33	3.20				
6	28	2.33	3.46				
8	28	2.33	3.70				
10	28	2.33	3.86				
12	28	2.33	3.98				
15	32	2.67	4.89				
18	35	2.92	5.63	14 X 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 X 30	49	4.08	7.68
27	45	3.75	8.18	22 X 34	53	4.42	8.61
30	49	4.08	9.30	24 X 38	58	4.83	9.70
33	53	4.42	10.53	27 X 42	62	5.17	10.71
36	56	4.67	11.43	29 X 45	66	5.50	11.72
39	D I S C O N T I N U E D			32 X 49	71	5.92	13.14
42	63	5.25	13.38	34 X 53	75	6.25	14.05
48	70	5.83	15.67	38 X 60	83	6.92	16.18

TABLE NO. 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTIES OF CONCRETE

O'FALLON #3506
December 7, 2006

E:\DWG\A13000PLUS\13159-HWY K AMBULANCE DISTRICT\Construction\13159con.dwg, Details 5, 1/22/2007 1:44:02 PM, Sta 28 ALJ