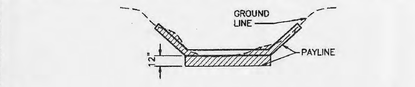
ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT	INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASEMENT
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x30	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	DISCONTINUED			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	18.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	16.17	73.59

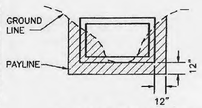
Duckett Creek Sanitary District

PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE

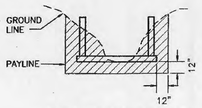
Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-21-99 | Detail No. 1



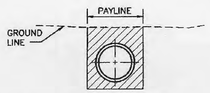
LIMITS FOR TRAPEZOIDAL CHANNEL



LIMITS FOR BOX CULVERT



LIMITS FOR VERTICAL WALL



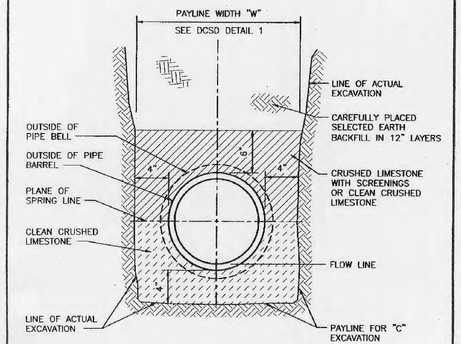
LIMITS FOR PIPE

NOTE:
PAYLINE FOR ANY OTHER TYPE CHANNEL EXCAVATION SHALL BE THE EXACT SHAPE OF THE SUBGRADE.

Duckett Creek Sanitary District

PAYLINE LIMITS FOR EXCAVATION

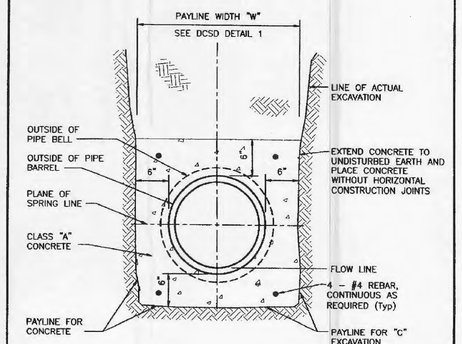
Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-21-99 | Detail No. 2



Duckett Creek Sanitary District

PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-21-99 | Detail No. 3

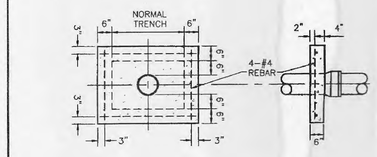


NOTE:
SUPPORT PIPE TO PREVENT DISPLACEMENT DURING PLACEMENT OF CONCRETE.

Duckett Creek Sanitary District

TYPICAL CONCRETE ENCASEMENT

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-21-99 | Detail No. 4



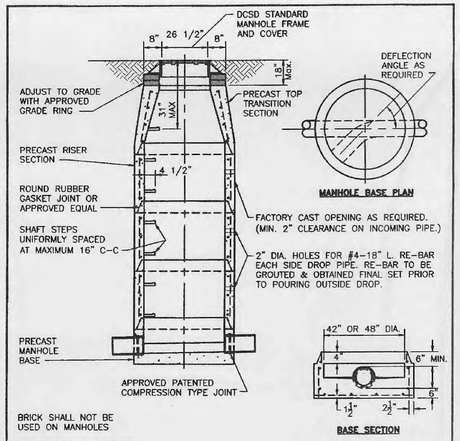
FRONT SECTION

SECTION THROUGH COLLAR

Duckett Creek Sanitary District

CONCRETE ANTI-SLIP COLLAR FOR PVC PIPE ON PIPE SLOPES FROM 15% TO 50%

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-21-99 | Detail No. 5



BRICK SHALL NOT BE USED ON MANHOLES

SECTION OF MANHOLE		DIMENSION
TOP TRANSITION	UPPER LOWER	26 1/2" DIA. 42" DIA.
BOTTOM SECTION	8" DIA. PIPE	42" DIA.
BOTTOM SECTION	10" THRU 36" DIA. PIPE	48" DIA.
BOTTOM SECTION	42" DIA.	60" DIA.

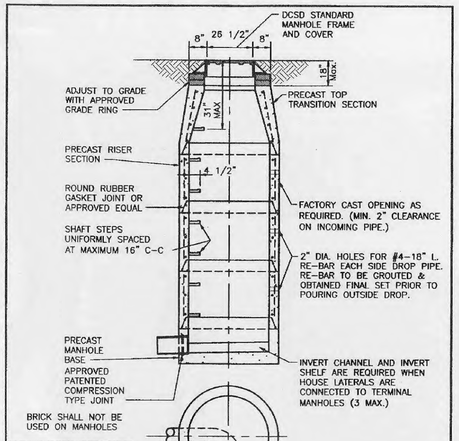
NOTE:
ALL INVERTS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLE.

SEE A.S.T.M. C-478 FOR MINIMUM STEEL REQUIREMENTS.

Duckett Creek Sanitary District

PRE-CAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 18"

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 12-30-99 | Detail No. 7



BRICK SHALL NOT BE USED ON MANHOLES

SECTION OF MANHOLE		DIMENSION
TOP TRANSITION	UPPER LOWER	26 1/2" DIA. 42" DIA.
BOTTOM SECTION	8" DIA. PIPE	42" DIA.
BOTTOM SECTION	10" THRU 36" DIA. PIPE	48" DIA.
BOTTOM SECTION	42" DIA.	60" DIA.

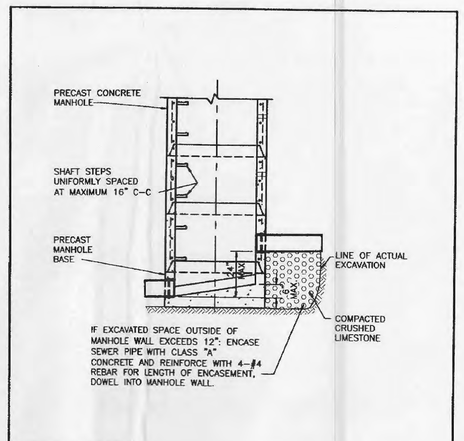
NOTE:
ALL INVERTS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLE.

SEE A.S.T.M. C-478 FOR MINIMUM STEEL REQUIREMENTS.

Duckett Creek Sanitary District

TERMINAL MANHOLE FOR SEWERS 8" THROUGH 18"

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 01-03-00 | Detail No. 8



SECTION OF MANHOLE		DIMENSION
TOP TRANSITION	UPPER LOWER	26 1/2" DIA. 42" DIA.
BOTTOM SECTION	8" DIA. PIPE	42" DIA.
BOTTOM SECTION	10" THRU 36" DIA. PIPE	48" DIA.
BOTTOM SECTION	42" DIA.	60" DIA.

NOTE:
ALL INVERTS SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLE.

SEE A.S.T.M. C-478 FOR MINIMUM STEEL REQUIREMENTS.

Duckett Creek Sanitary District

INSIDE FOULWATER DROP MANHOLE (SWEEP INVERT)

Dwn By: BSM | Chd By: MDOB | App By: KLA | Date: 01-04-00 | Detail No. 9

P&Z #5504

DATE: Apr 20, 2005 - 11:06am
DRAWING S:\Jobs\Jobs2003\03-309\LD3_03-309\dwg\c_plans-phase1.dwg

REVISIONS

DSD:	DATE:	
	9/28/04	
	10/14/04	MEET DCSD
	12/29/04	DUCKETT CREEK COMMENTS
	1/3/05	CITY OF O'FALLON COMMENTS
	1/27/05	DUCKETT CREEK COMMENTS
	1/28/05	CITY OF O'FALLON COMMENTS
	2/15/05	CITY OF O'FALLON COMMENTS
	2/16/05	DUCKETT CREEK COMMENTS
	3/3/05	DUCKETT CREEK COMMENTS

DEVELOPER/OWNER:
WINGHAVEN LAND INVESTORS, LLC.
C/O MC EAGLE DEVELOPMENT COMPANY
1001 BOARDWALK SPRINGS PLACE
O'FALLON, MO 63366
(636) 561-9000

THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEAR HEREON, AND WHOSE NAME IS LISTED BELOW, IS THE PERSON RESPONSIBLE FOR THESE DRAWINGS (PURSUANT TO SECTION 327.411 RSMo) ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES OR OTHER DOCUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO, OR INTENDED TO BE USED FOR, ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

SEAL: STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER JAMES T. ROTH NUMBER E-2000150066

CALEDONIA
HIGHWAY 40/61 AND WINGHAVEN
O'FALLON, MO 63366

DETAIL SHEET

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DRAWN BY: PMH
CHECKED BY: KER/JTR
DATE: 11/5/04
Job Number: 03-309
Sheet Number: C12.0