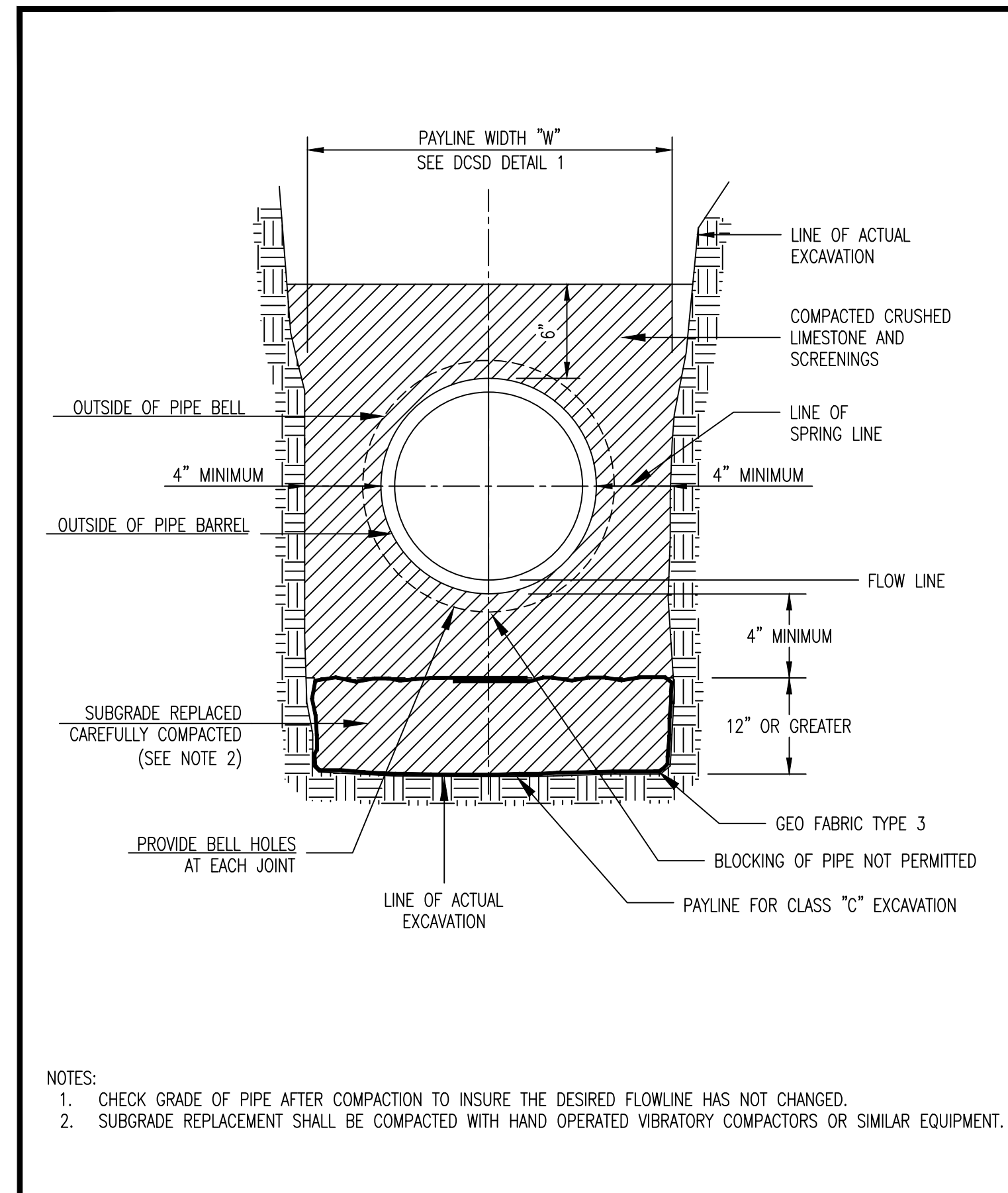
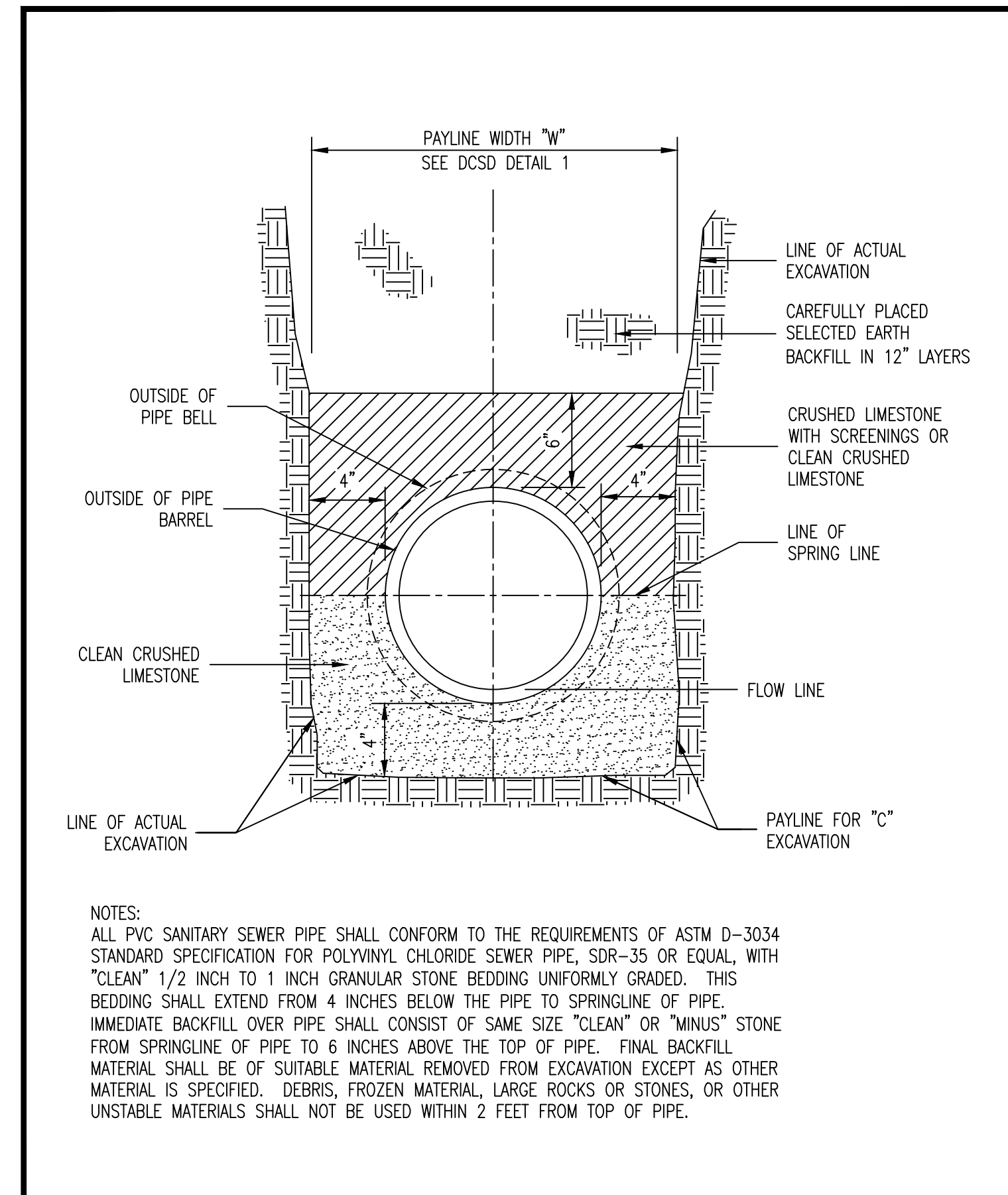


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASUREMENT	INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. CONCRETE ENCASUREMENT
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 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	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	16.18
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	18.17	73.59

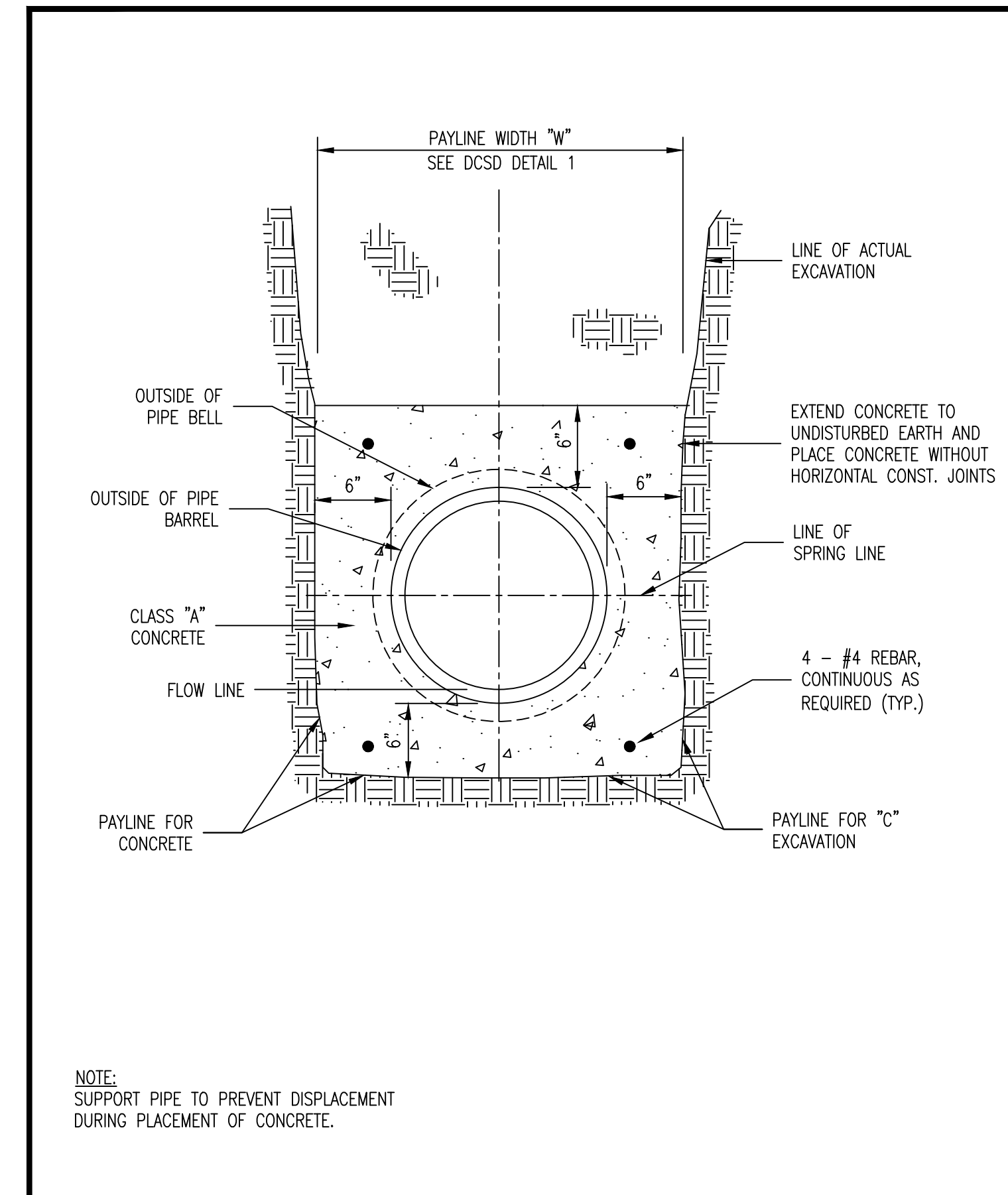
Duckett Creek Sanitary District
 PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE
 Dwn By: BSM App By: KLA Detail No. 1
 Ckd By: MDOB Date: DEC. 2015



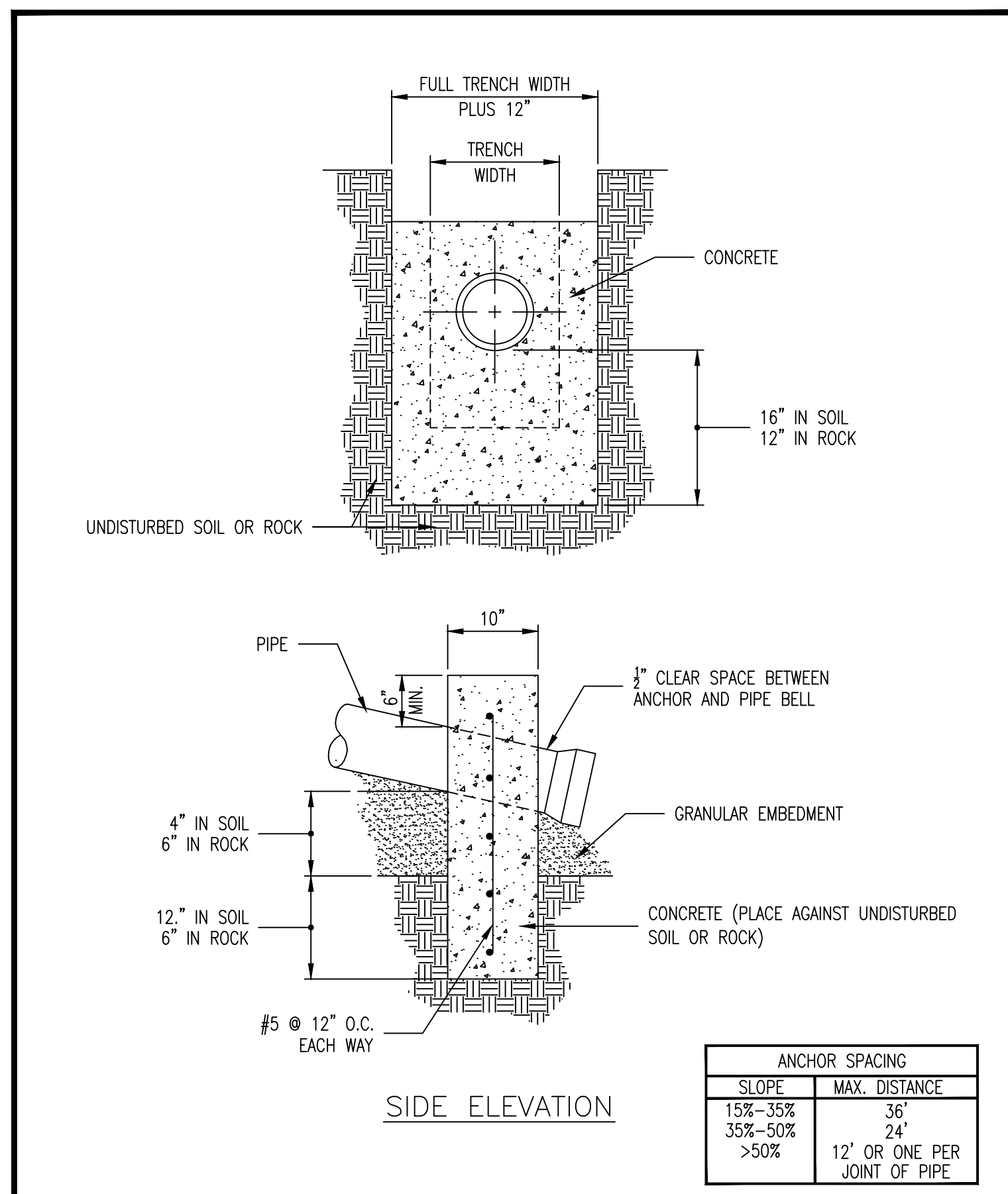
Duckett Creek Sanitary District
 SPECIAL PIPE BEDDING DETAIL FOR UNSUITABLE SUBGRADE REPLACEMENT 12" DEPTH OR MORE
 Dwn By: MSM App By: LRK Detail No. 2
 Ckd By: MDOB Date: JUNE 2023



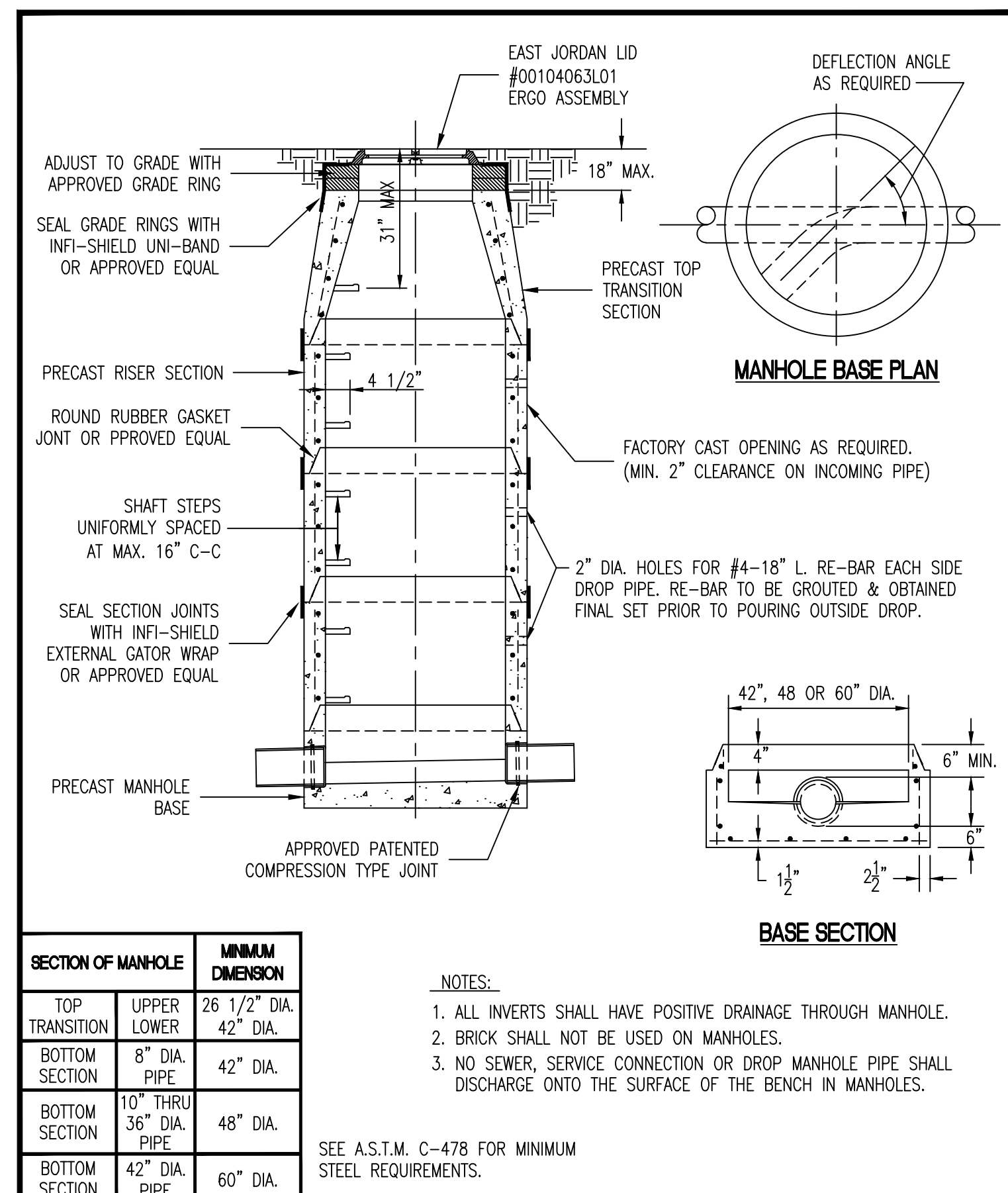
Duckett Creek Sanitary District
 PIPE BEDDING CLASS "C" (FOR ALL EXCEPT REINFORCED CONCRETE PIPE)
 Dwn By: BSM App By: KA Detail No. 3
 Ckd By: MDOB Date: JULY 2016



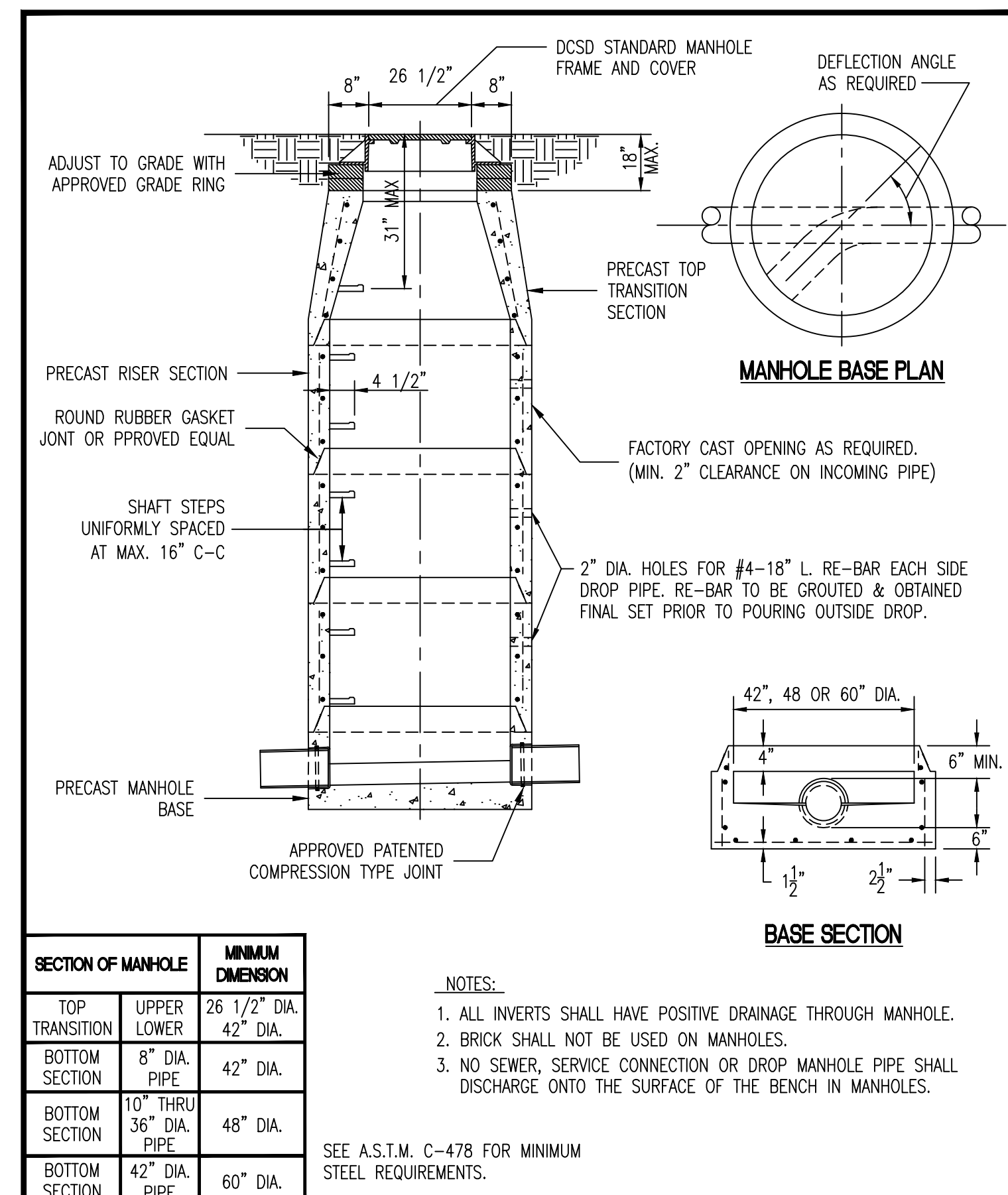
Duckett Creek Sanitary District
 TYPICAL CONCRETE ENCASUREMENT
 Dwn By: BSM App By: KA Detail No. 4
 Ckd By: MDOB Date: DEC. 2015



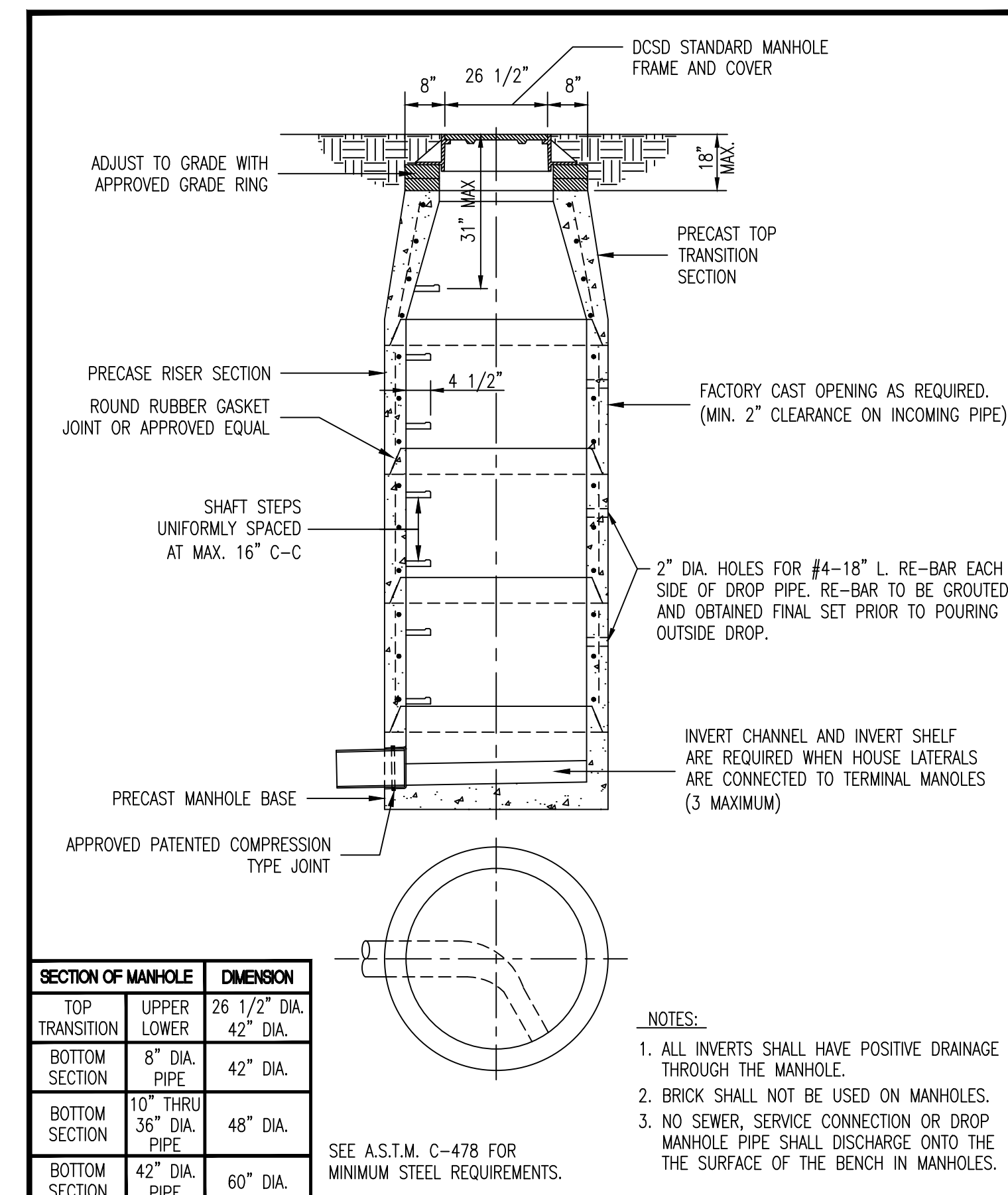
Duckett Creek Sanitary District
 CONCRETE ANTI-SLIP COLLAR FOR PVC PIPE ON PIPE SLOPES FROM 15% TO 50%
 Dwn By: MSM App By: KA Detail No. 5
 Ckd By: MDOB Date: DEC. 2015



Duckett Creek Sanitary District
 PRECAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 42" IN FLOODPLAIN AREAS
 Dwn By: MSM App By: LRK Detail No. 6
 Ckd By: MDOB Date: MAY 2023

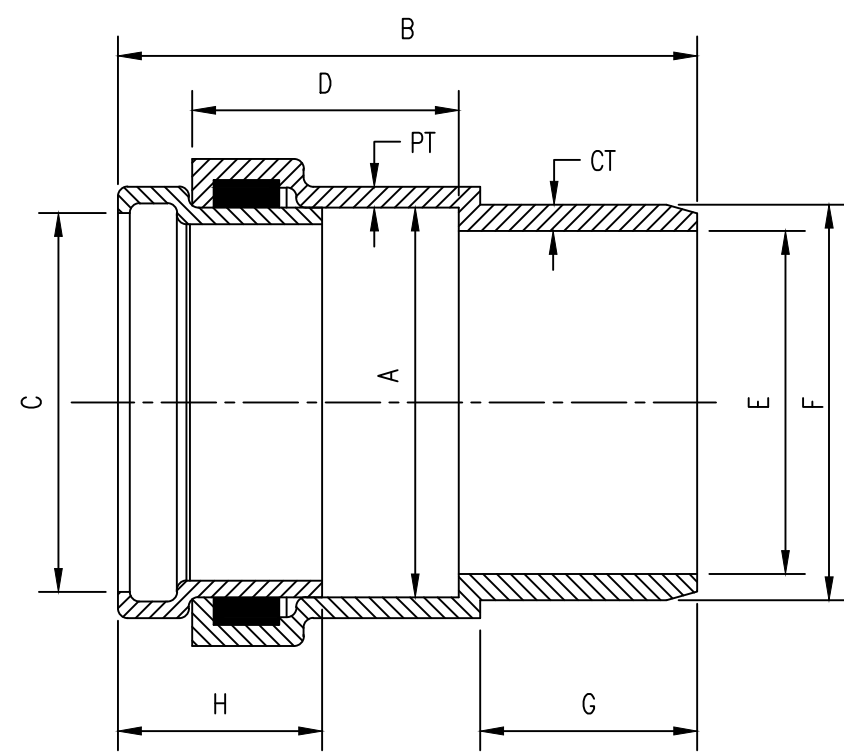


Duckett Creek Sanitary District
 PRECAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 42"
 Dwn By: BSM App By: LRK Detail No. 7
 Ckd By: MDOB Date: MAY 2023



Duckett Creek Sanitary District
 TERMINAL MANHOLE FOR SEWERS 8" THROUGH 18"
 Dwn By: MSM App By: KLA Detail No. 8
 Ckd By: MDOB Date: MAY 2023

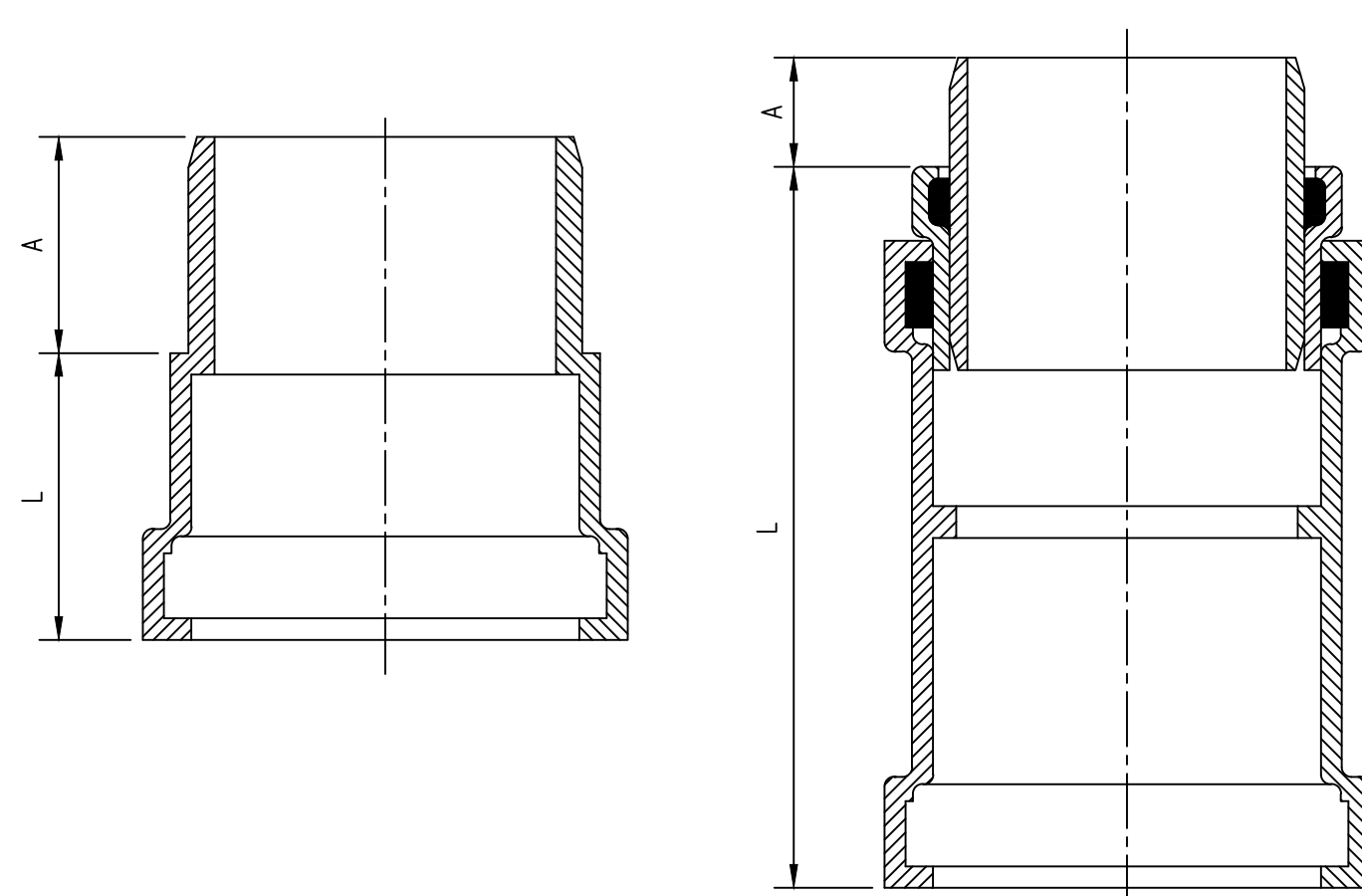
SDR-35 x C900
BELL x SPIGOT ADAPTERS



SIZE	CATALOG NO.	A	B	C	D	E	F	G	H	CT	PT
4"	334-040	4.56	8.23	4.25	4.10	3.94	4.80	2.72	2.7	.32	.25
6"	334-060	6.68	9.93	6.31	4.57	5.88	6.90	3.72	3.5	.45	.36

Duckett Creek Sanitary District
SDR-35 x C900 BELL AND SPIGOT ADAPTERS
Down By: BSM App By: KA Detail No. 19A
Ckd By: MDOB Date: DEC. 2015

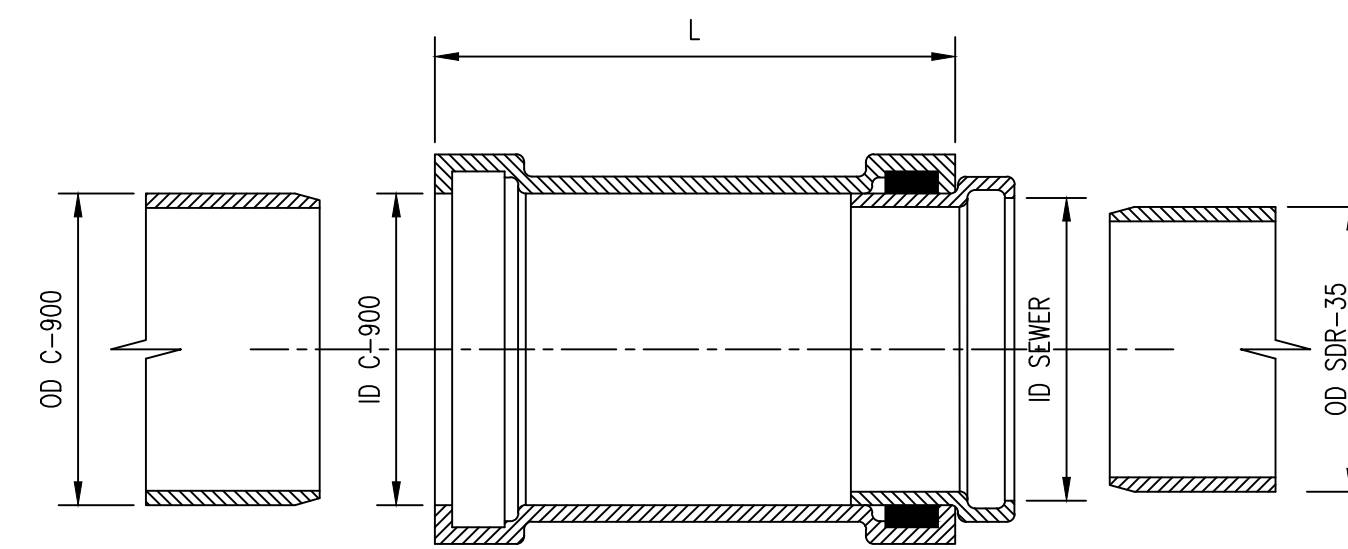
SDR-35 x C900
BELL x SPIGOT ADAPTERS



SIZE	CATALOG NO.	A	L	STYLE
4"	335-040	3.2	10.0	FABRICATED
6"	335-060	2.9	3.5	HARCO
8"	335-080	4.0	12.5	FABRICATED

Duckett Creek Sanitary District
SDR-35 x C900 BELL AND SPIGOT SPECIAL 4", 6" 8" ADAPTERS
Down By: BSM App By: KA Detail No. 19B
Ckd By: MDOB Date: DEC. 2015

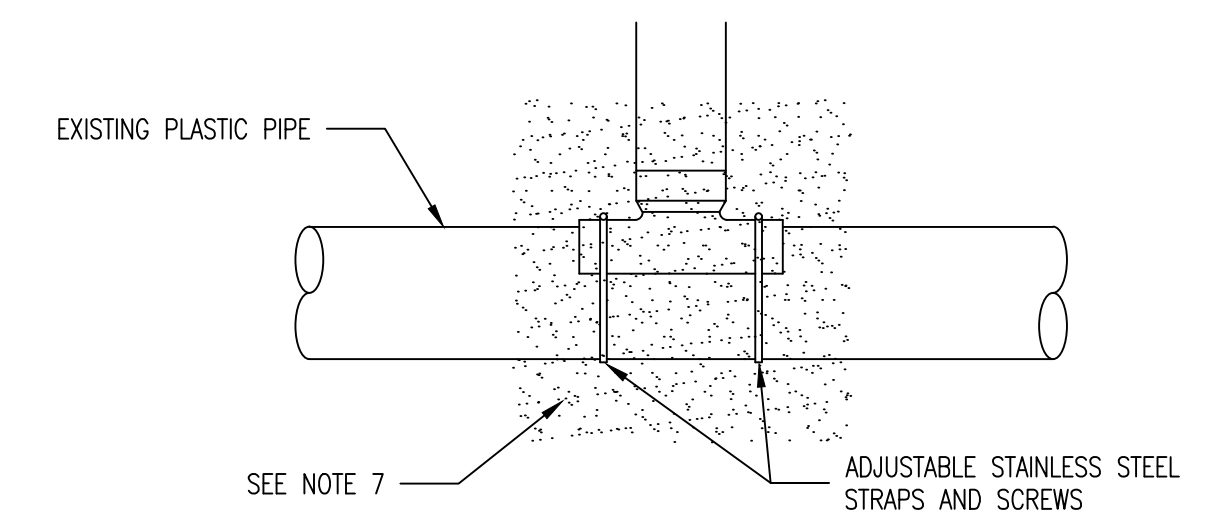
SDR-35 x C900
BELL x BELL ADAPTERS



SIZE	CATALOG NO.	OD C900	OD SEWER	ID C900	ID SEWER	L	CTN QTY	CTN WT
4x4	337-040	4.80	4.215	4.86	4.25	10.0	1	4
6x6	337-060	6.90	6.275	6.96	6.32	11.13	1	8
8x8	337-080	9.05	8.400	9.13	8.45	12.50	1	15

Duckett Creek Sanitary District
SDR-35 x C900 BELL AND BELL 4", 6" & 8" ADAPTERS
Down By: BSM App By: KA Detail No. 19C
Ckd By: MDOB Date: DEC. 2015

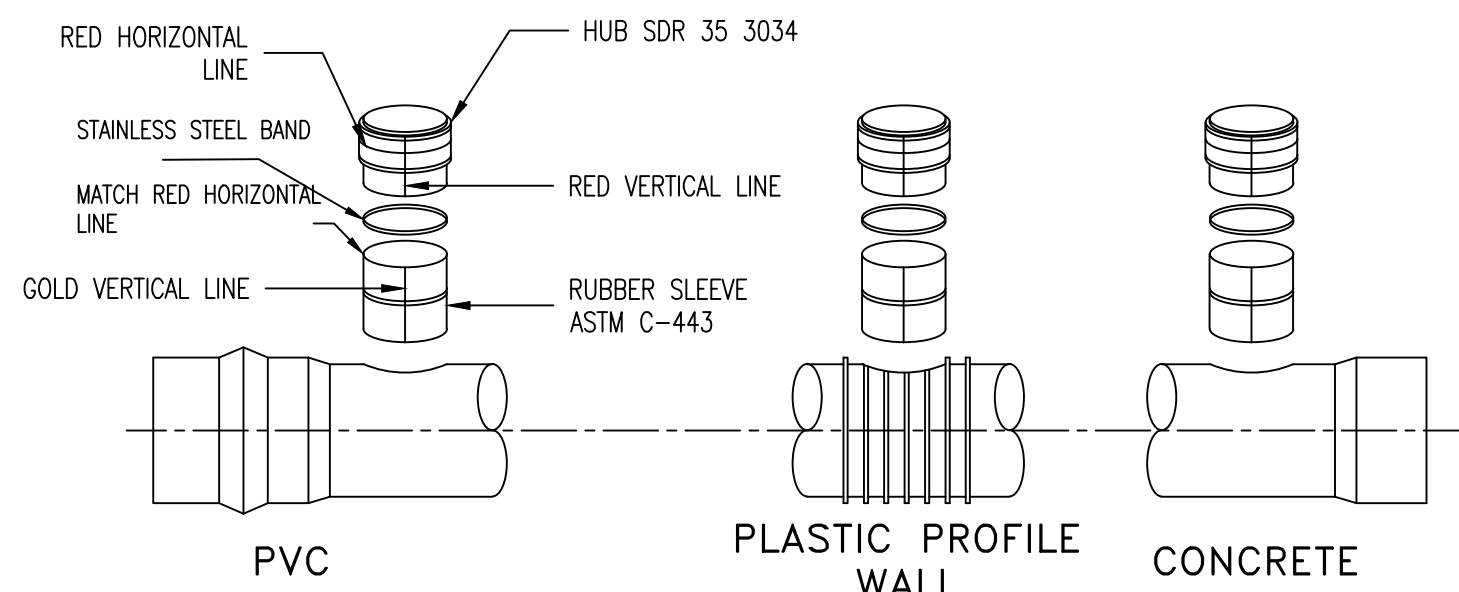
PLASTIC SADDLE TEE OR
WYE FITTING (SOLVENT
WELD)



- EXISTING PLASTIC PIPE
ADJUSTABLE STAINLESS STEEL STRAPS AND SCREWS
SEE NOTE 7
- WHEN CONNECTION TO A PLASTIC PIPE IS ALLOWED AND A CONNECTION IS LARGER THAN 6" IN DIAMETER, A SOLVENT WELD WYE OR TEE FITTING OF A SIMILAR MATERIAL MUST BE USED. (EXAMPLE: 10" x 8")
- THIS IS ACCOMPLISHED BY CAREFULLY CUTTING A HOLE WITH A SAW IN THE MAIN AT THE REQUIRED LOCATION AFTER CUTTING AND SHAPING THE HOLE TO THE SIZE OF THE FITTING. THE FOLLOWING STEPS SHOULD BE TAKEN:
- CLEAN AND DRY BOTH INSIDE THE SADDLE WYE SURFACE AND PIPE SURFACE TO BE SOLVENT CEMENTED.
 - IMPORTANT: APPLY A LIBERAL, HEAVY COAT OF ONE-STEP SOLVENT CEMENT TO THE INSIDE SURFACE OF THE SADDLE WYE AND TO THE EXTERIOR WELDING SURFACE TO THE PIPE.
 - WITHOUT DELAY, MATE THE SURFACES AND STRAP DOWN TIGHTLY. A BEAD OF SOLVENT SHOULD APPEAR AFTER THE SADDLE HAS BEEN STRAPPED DOWN TIGHTLY.
 - USING A RAG OR PAPER TOWEL, WIPE BEAD AND ANY EXCESS SOLVENT CEMENT OFF PIPE AND SADDLE.
 - ALLOW 30-60 MINUTES FOR SET-UP TIME BEFORE BACKFILLING. CURE TIME DEPENDS ON SIZE FIT OF MATERIALS BEING INSTALLED AND VARIOUS COLD DAMP CONDITIONS.
 - DISCARD OLD SOLVENT IF IT BECOMES JELLED OR LUMPY.
 - A CLEAN, DRY BEDDING MATERIAL IS REQUIRED AROUND THE COMPLETED CONNECTION BEFORE BACKFILLING. THE BEDDING MATERIAL SHOULD BE ONE OF THE FOLLOWING:
 - 1 TO 3 CEMENT TO SAND MIX
 - "PRE-MIX" CONCRETE.
 - CSD APPROVED BEDDING FOR SANITARY SEWERS.

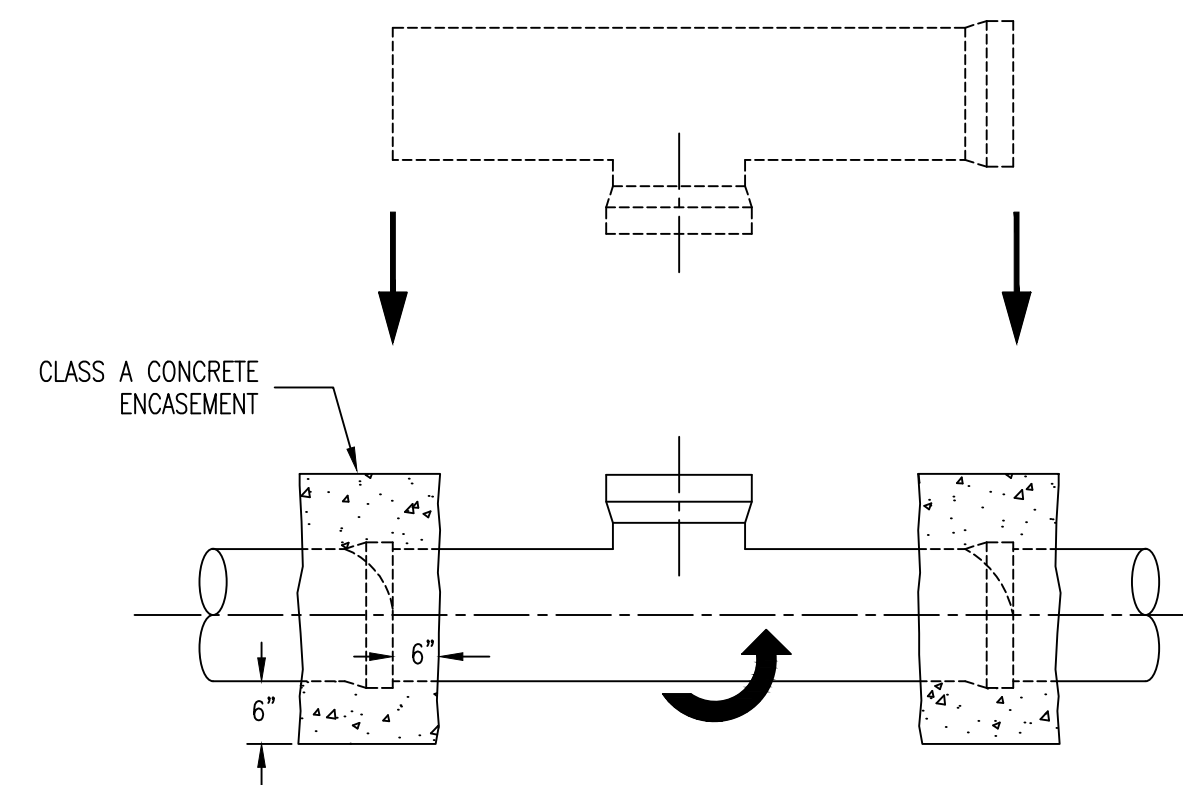
Duckett Creek Sanitary District
SADDLE TEE CONNECTION TO EXISTING PLASTIC MAIN
Down By: BSM App By: KA Detail No. 20A
Ckd By: MDOB Date: DEC. 2015

INSERTA TEE
THE USE OF AN INSERTA TEE
REQUIRES DISTRICT APPROVAL.



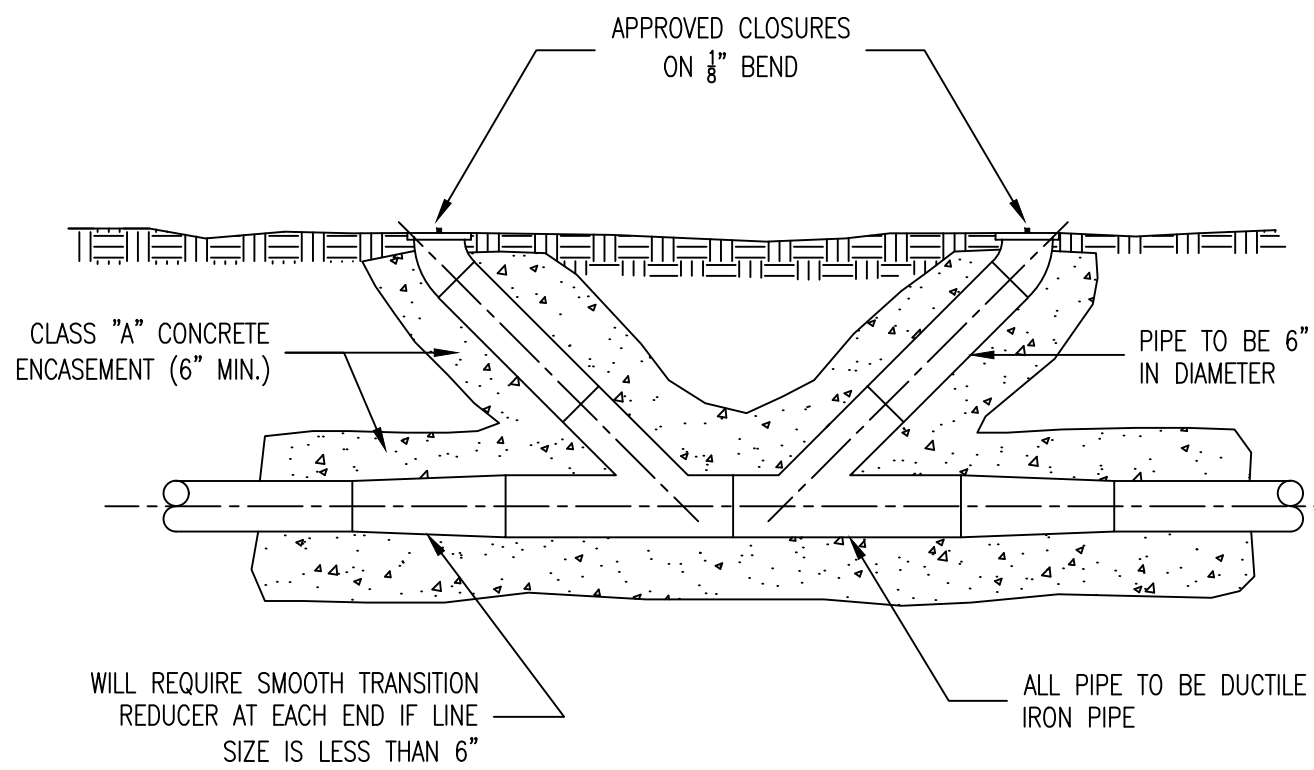
- INSTALLATION PROCEDURE:
- TEE SIZE: 4" 6" 8" 10" 12" 15"
BIT SIZE: 4 1/2" 6 1/2" 8 1/2" 10 1/2" 12 1/2" 15 1/2"
- CORE THE PROPER SIZE HOLE.
 - INSERT THE RUBBER SLEEVE ① IN THE CORED HOLE WITH THE GOLD VERTICAL LINE ON THE RUBBER SLEEVE. ② FACING TO THE SIDE OF THE MAIN LINE. THE UPPER SEGMENT SHOULD BE ON TOP OF THE WALL OR RIB AND THE LOWER SEGMENT (PVC, PROFILE WALL, AND POLYETHYLENE PIPE ONLY) SHOULD BE ON THE INSIDE OF THE PIPE.
 - APPLY THE INSERTA TEE SOLUTION SUPPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE OUTSIDE OF THE PVC HUB ADAPTER. CAUTION - DO NOT USE AN OIL BASED LUBRICANT.
 - PLACE THE PVC HUB ADAPTER ③ INTO THE RUBBER SLEEVE. MAKE SURE THAT THE RED VERTICAL LINE ④ ON THE PVC HUB ADAPTER IS IN LINE WITH THE GOLD VERTICAL LINE ② ON THE RUBBER SLEEVE.
 - PLACE THE 2x4 BOARD ONTO THE TOP OF THE PVC HUB ADAPTER.
 - THE RED HORIZONTAL LINE ⑤ AT THE TOP OF THE HUB ADAPTER IS A DEPTH MARK. THIS TELLS THE INSTALLER HOW FAR TO DRIVE THE ADAPTER INTO THE RUBBER SLEEVE. DRIVE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE TO WHERE THE HORIZONTAL RED LINE ⑤ ON THE PVC HUB ADAPTER ③ MEETS THE TOP OF THE RUBBER SLEEVE ⑥.
 - PLACE THE STAINLESS STEEL BAND ⑦ AROUND THE TOP OF THE RUBBER SLEEVE AND TIGHTEN DOWN.
 - INSTALL PIPE IN NORMAL MANNER.

Duckett Creek Sanitary District
INSERTA TEE DETAILS AND SPECIFICATIONS
Down By: BSM App By: KA Detail No. 20B
Ckd By: MDOB Date: DEC. 2015



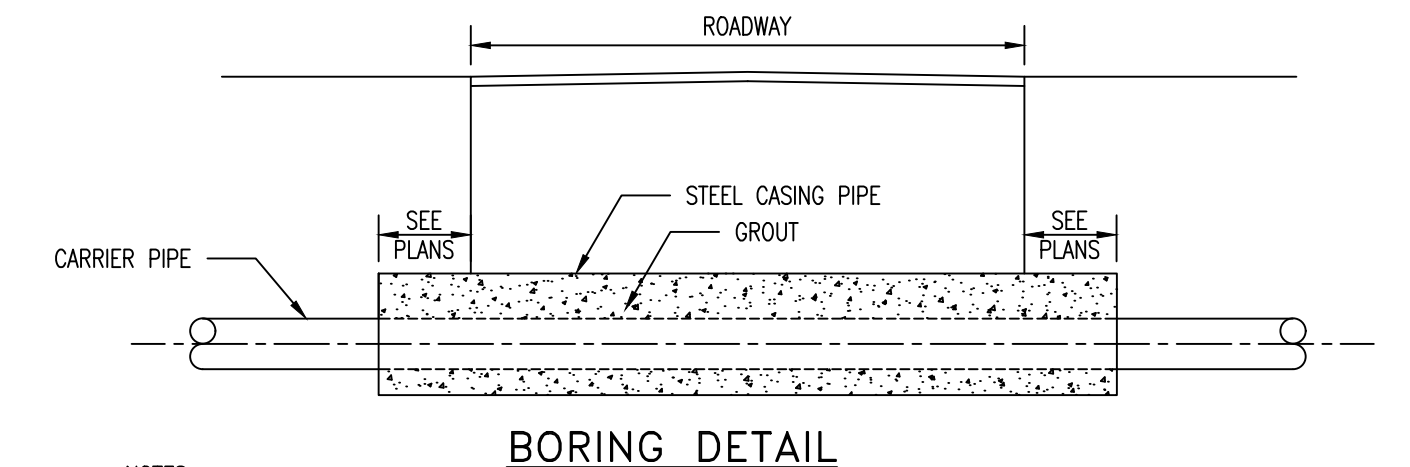
- NOTES:
- WHEN A CONNECTION IS ALLOWED LARGER THAN 6" DIAMETER A SADDLE MAY BE USED IF THE I.D. OF THE CONNECTION PIPE IS NOT GREATER THAN ONE HALF (1/2) OF THE I.D. OF THE MAIN SEWER. (EXAMPLE: 24" x 10")
 - IF THE I.D. OF THE CONNECTION PIPE IS GREATER THAN ONE HALF (1/2) THE I.D. OF THE MAIN SEWER THE WYE OR TEE MUST BE "ROLLED IN". (EXAMPLE: 15" x 8")
 - THIS IS ACCOMPLISHED BY BREAKING AWAY AND REMOVING ONE SECTION OF PIPE. THE TOP HALF OF THE BELL ON THE PIPE LYING ADJACENT TO THE GAP IS CAREFULLY BROKEN OFF. THE TOP HALF OF THE BELL ON THE MAIN REPLACEMENT SECTION (WITH A "TEE" WYE) FITTING IS ALSO BROKEN OFF. THE REPLACEMENT PIPE IS THEN PLACED IN THE LINE GAP WITH THE STUB POINTED IN THE WRONG DIRECTION. THE BROKEN BELLS ON THE REPLACEMENT AND ADJOINING PIPE MAKE IT POSSIBLE FOR THE REPLACEMENT SECTION TO FIT INTO THE SEWER LINE WITHOUT DISTURBING THE ADJOINING PIPE SECTIONS. THE REPLACEMENT SECTION IS THEN ROTATED TO THE DESIRED POSITION AND THE BROKEN BELLS ARE ENCASED WITH A 6" CLASS "A" CONCRETE ENCASEMENT.
 - ID OF MAIN SEWER SHALL NOT BE DECREASED BY A ROLL-IN CONNECTION.

Duckett Creek Sanitary District
"ROLL-IN" (FOR EXISTING CLAY OR CONCRETE PIPE)
Down By: BSM App By: KA Detail No. 21
Ckd By: MDOB Date: DEC. 2015

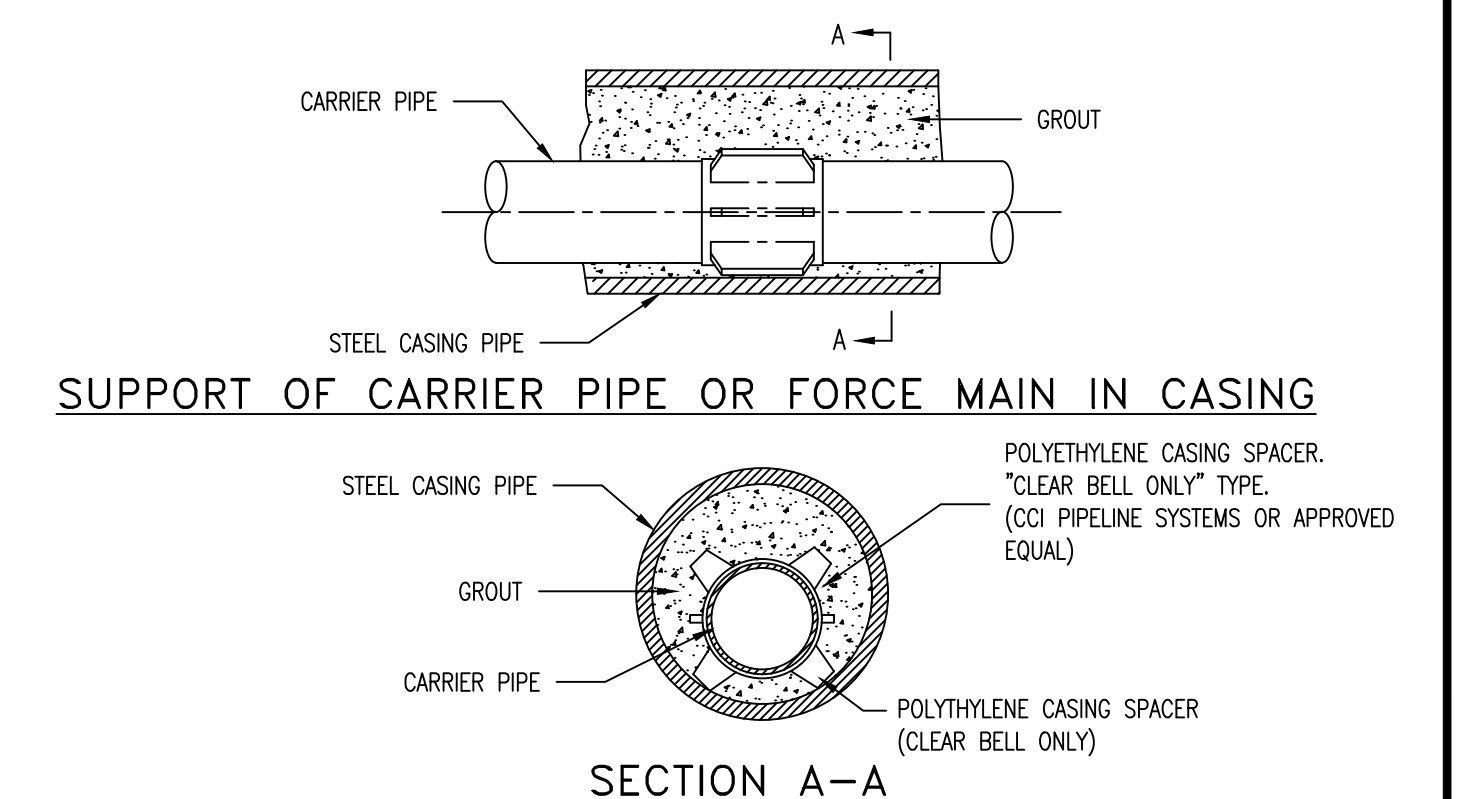


180° MAXIMUM SPACING

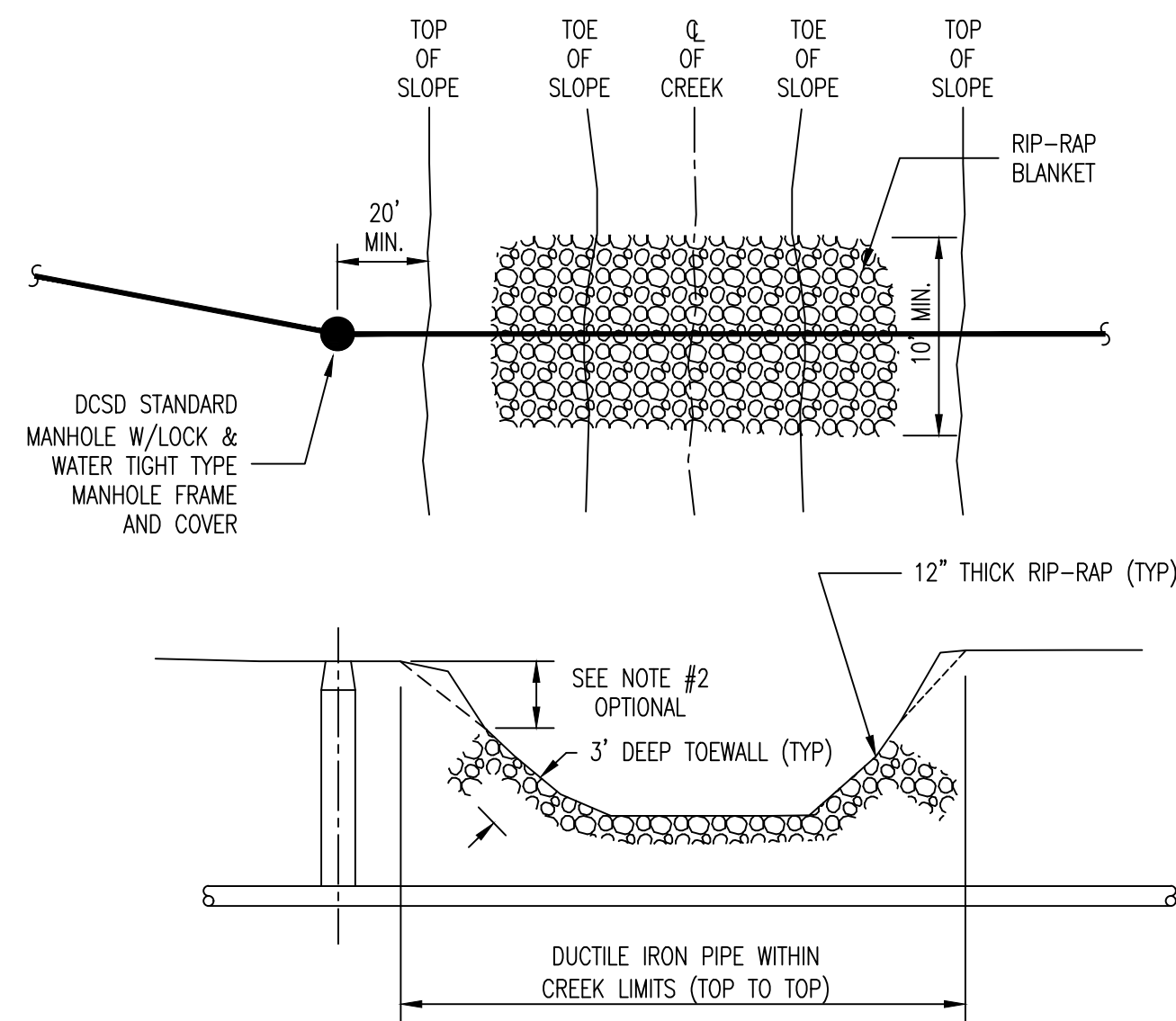
Duckett Creek Sanitary District
FORCE MAIN CLEANOUT 6" DIAMETER & SMALLER
Down By: BSM App By: KA Detail No. 22
Ckd By: MDOB Date: DEC. 2015



- NOTES:
- INSIDE DIAMETER OF CASING PIPE TO BE MINIMUM OF 4" GREATER THAN COUPLING DIAMETER OF CARRIER PIPE.
 - ENCASEMENTS TO BE INSTALLED UNDER THE ROAD BY MEANS OF JACKING IT THROUGH, OR BY DRY BORING A HOLE THAT WILL RECEIVE THE CASING WITH A SNUG FIT.
 - THE OUTSIDE DIAMETER OF THE CASING SHALL NOT BE LESS THAN, NOR MORE THAN ONE INCH GREATER THAN THE BORED HOLE.
 - CASING PIPE SLOPE TO MATCH CARRIER PIPE. CARRIER PIPE TO LAY IN THE BOTTOM OF THE STEEL CASING PIPE.
 - CASING PIPES SHALL BE CONSTRUCTED OF STEEL WITH WELDED JOINTS CONFORMING TO AWWA C200-17 STEEL WATER PIPE, 6 INCHES & LARGER, OR DUCTILE IRON PIPE WITH MECHANICAL JOINTS.

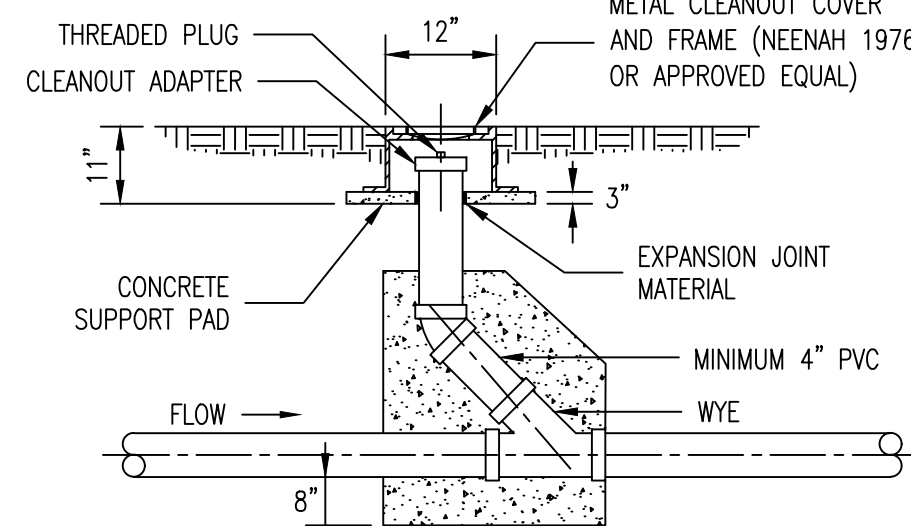


Duckett Creek Sanitary District
ROADWAY BORING DETAIL
Down By: MSM App By: LRK Detail No. 23
Ckd By: MDOB Date: MAY 2023

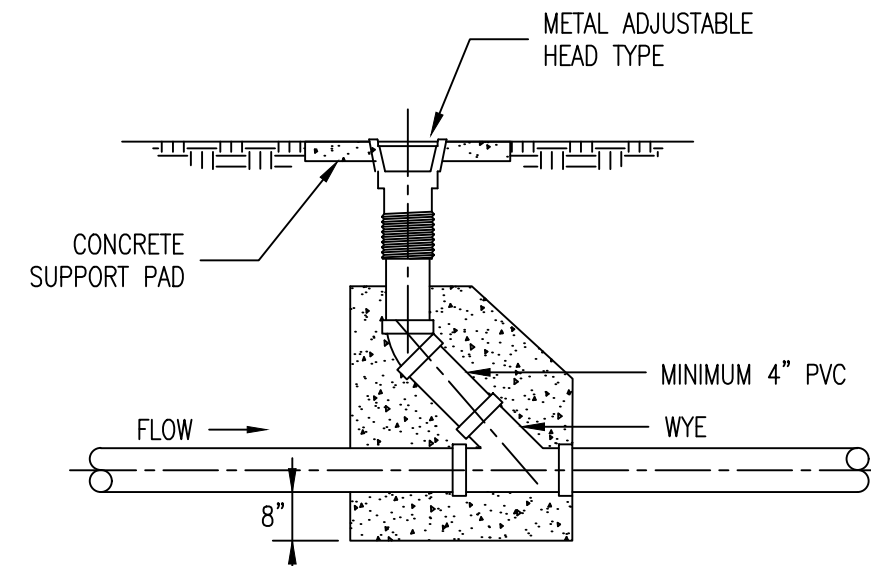


- NOTES:**
1. RIP-RAP IS REQUIRED AT ALL CREEK CROSSINGS WHERE THE EMBANKMENTS CROSSED ARE STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL RATIO SLOPE; AND ALSO WHERE THERE IS 3 FEET OR LESS COVER OVER THE TOP OF THE SEWER MAIN.
 2. PLACE RIP-RAP ON LOWER 3/4 OF SLOPE. GRADE UPPER 1/4 OF SLOPE AT 1 VERTICAL TO 2.5 HORIZONTAL SLOPE FOR SOIL AND STRAW.
 3. RIP-RAP TO BE MSD 5' GRADATION, MINIMUM 12" THICK.
 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.
 8. EXPOSED AREAS SHALL NOT REMAIN UNPROTECTED FOR MORE THAN SEVEN (7) DAYS FOR PROTECTION OF THE STREAM.

Duckett Creek Sanitary District
 TYPICAL CREEK CROSSING
 Dwn By: BSM App By: KA Detail No. 24
 Ckd By: MDOB Date: OCT. 2016

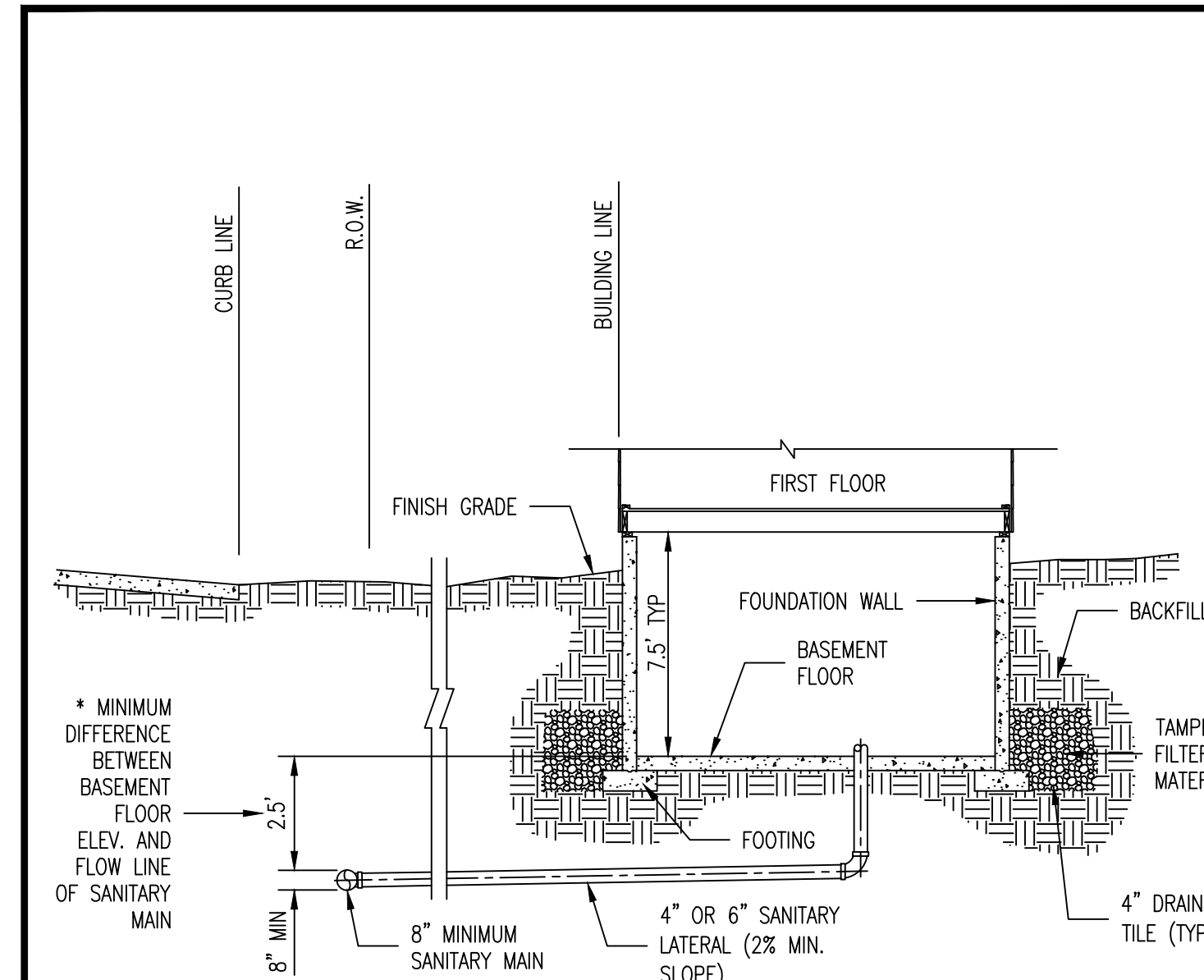


METAL FRAME AND COVER TYPE CLEANOUT



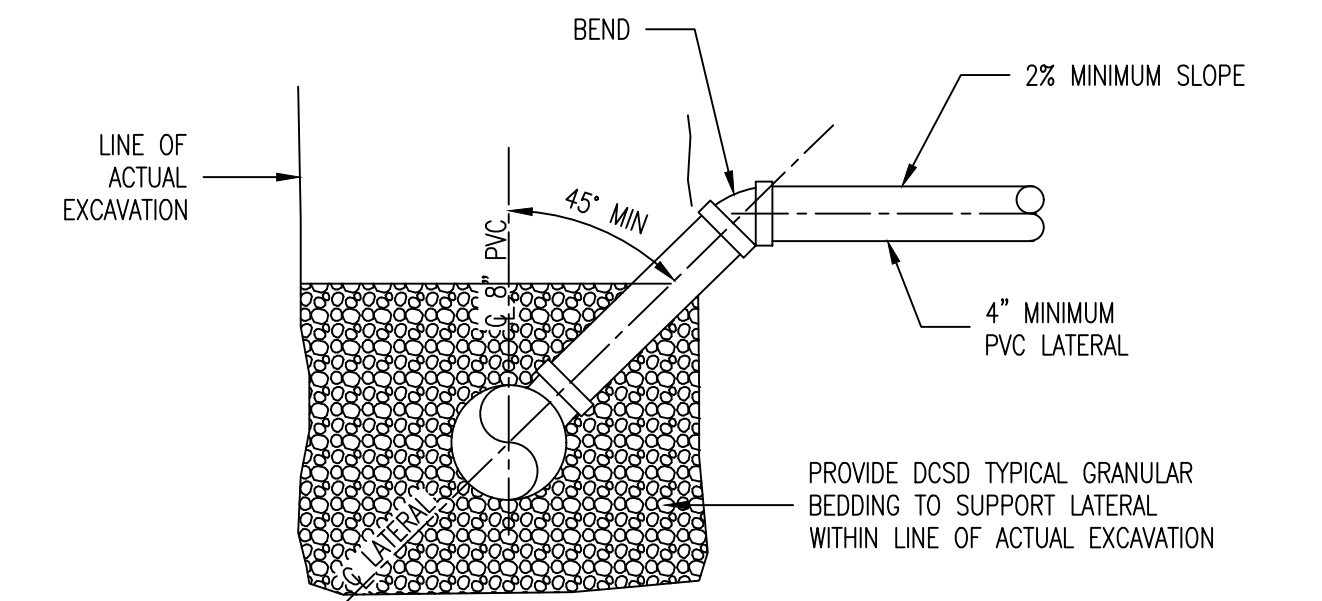
ADJUSTABLE HEAD TYPE CLEANOUT

Duckett Creek Sanitary District
 TYPICAL SEWER LATERAL CLEANOUT DETAIL
 Dwn By: BSM App By: KLA Detail No. 25
 Ckd By: MDOB Date: DEC. 2015

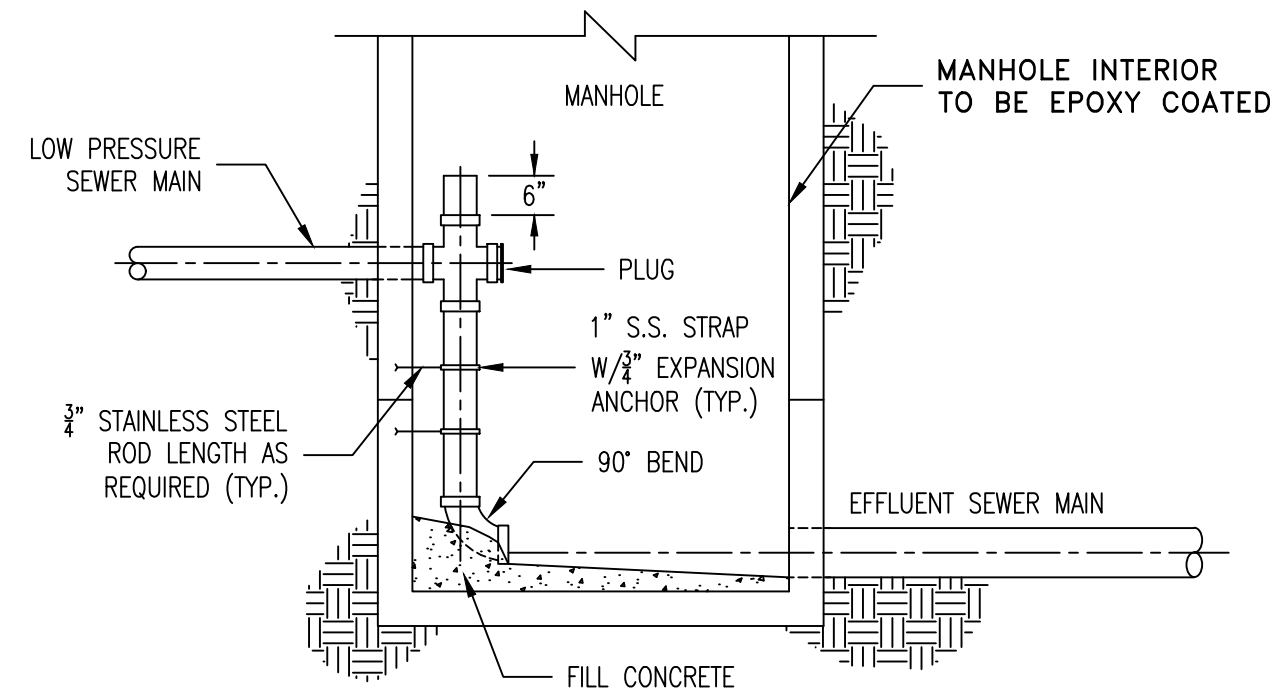


*NOTE: DIFFERENCE IN DEPTH INCREASES WITH PIPE SIZE

Duckett Creek Sanitary District
 TYPICAL SANITARY SEWER LATERAL PROFILE
 Dwn By: BSM App By: KLA Detail No. 26
 Ckd By: MDOB Date: DEC. 2015

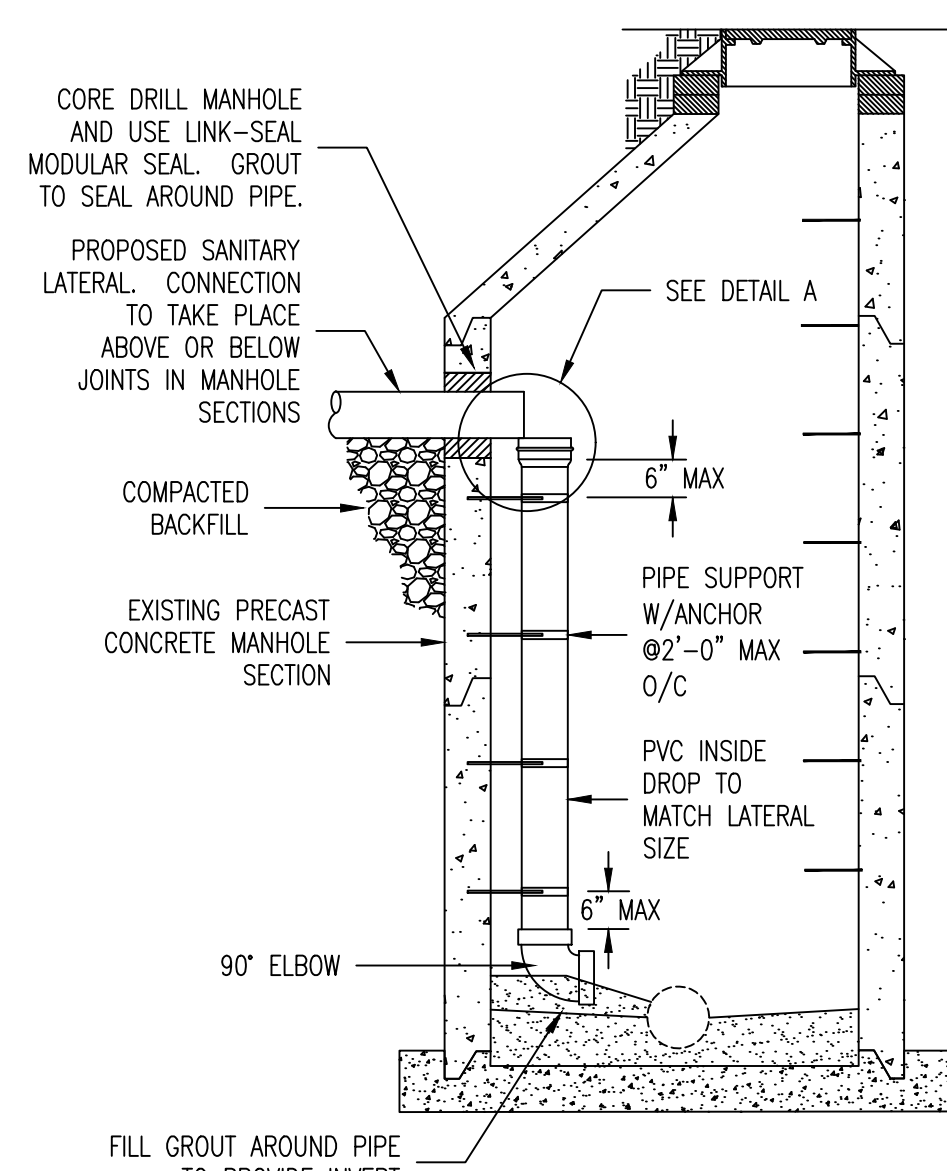


Duckett Creek Sanitary District
 SANITARY SEWER LATERAL RISER DETAIL
 Dwn By: BSM App By: KA Detail No. 27
 Ckd By: MDOB Date: DEC. 2015



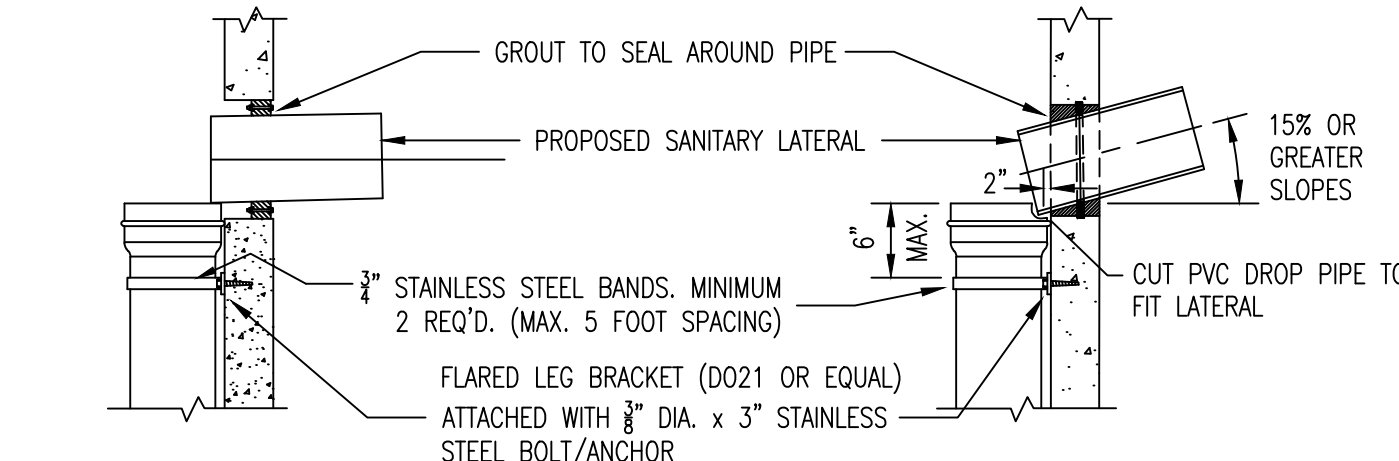
NOTE: INVERT-BOTTOM SHALL BE WORKED TO PROVIDE POSITIVE DRAINAGE THROUGH MANHOLE

Duckett Creek Sanitary District
 LOW PRESSURE SEWER MAIN CONNECTION AT MANHOLE
 Dwn By: BSM App By: KA Detail No. 28
 Ckd By: MDOB Date: DEC. 2015

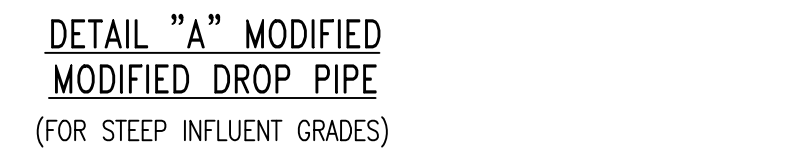


SECTION A-A

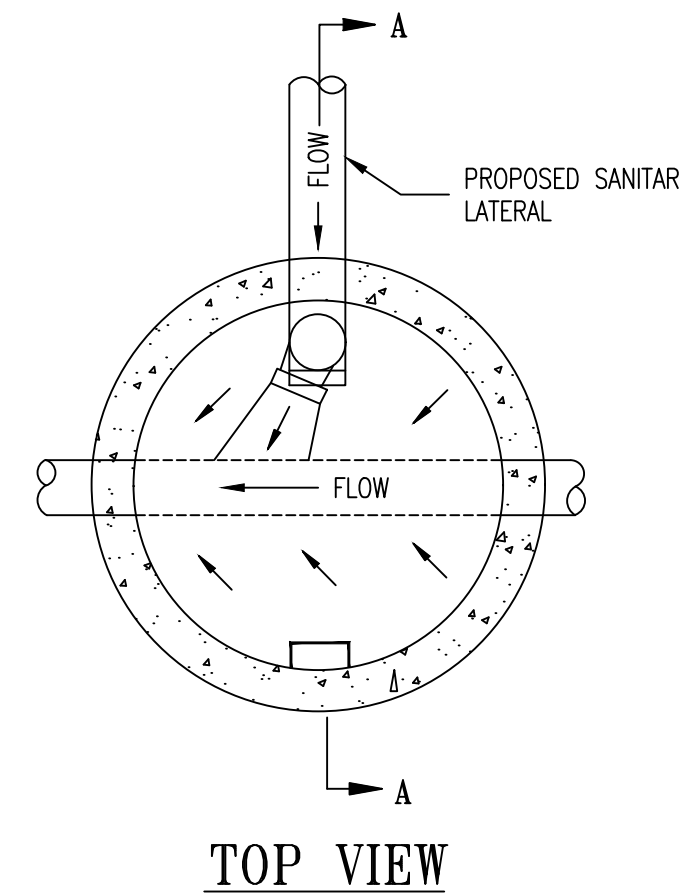
- NOTES:**
1. IF EXCAVATED SPACE OUTSIDE OF MANHOLE WALL EXCEEDS 1 FOOT, PROVIDE 6 INCHES OF CLASS "A" CONCRETE ENCASEMENT ON INCOMING LINE FROM WALL OF MANHOLE TO A MINIMUM OF 2 FEET INTO UNDISTURBED EARTH WITH A MINIMUM OF 4-#4 REBARS FOR LENGTH OF ENCASEMENT OR INSTALL ON LENGTH OF D.I.P. FROM MANHOLE INTO UNDISTURBED EARTH.
 2. STAINLESS STEEL STRAPS SHALL BE 1/2"x2" STAINLESS STEEL.
 3. STAINLESS STEEL STRAP CONNECTORS SHALL BE FLARED LEG BRACKET (D021 OR EQUAL) ATTACHED WITH 3/8"x3" STAINLESS STEEL BOLT/ANCHOR OR APPROVED EQUAL.
 4. ALL SEWER CONNECTIONS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR DUCKETT CREEK SANITARY DISTRICT.
 5. LONG INSIDE DROPS WILL REQUIRE STAINLESS STEEL BANDS TO BE 2'-0" MAX BETWEEN BANDS.



DETAIL "A" STANDARD DROP PIPE

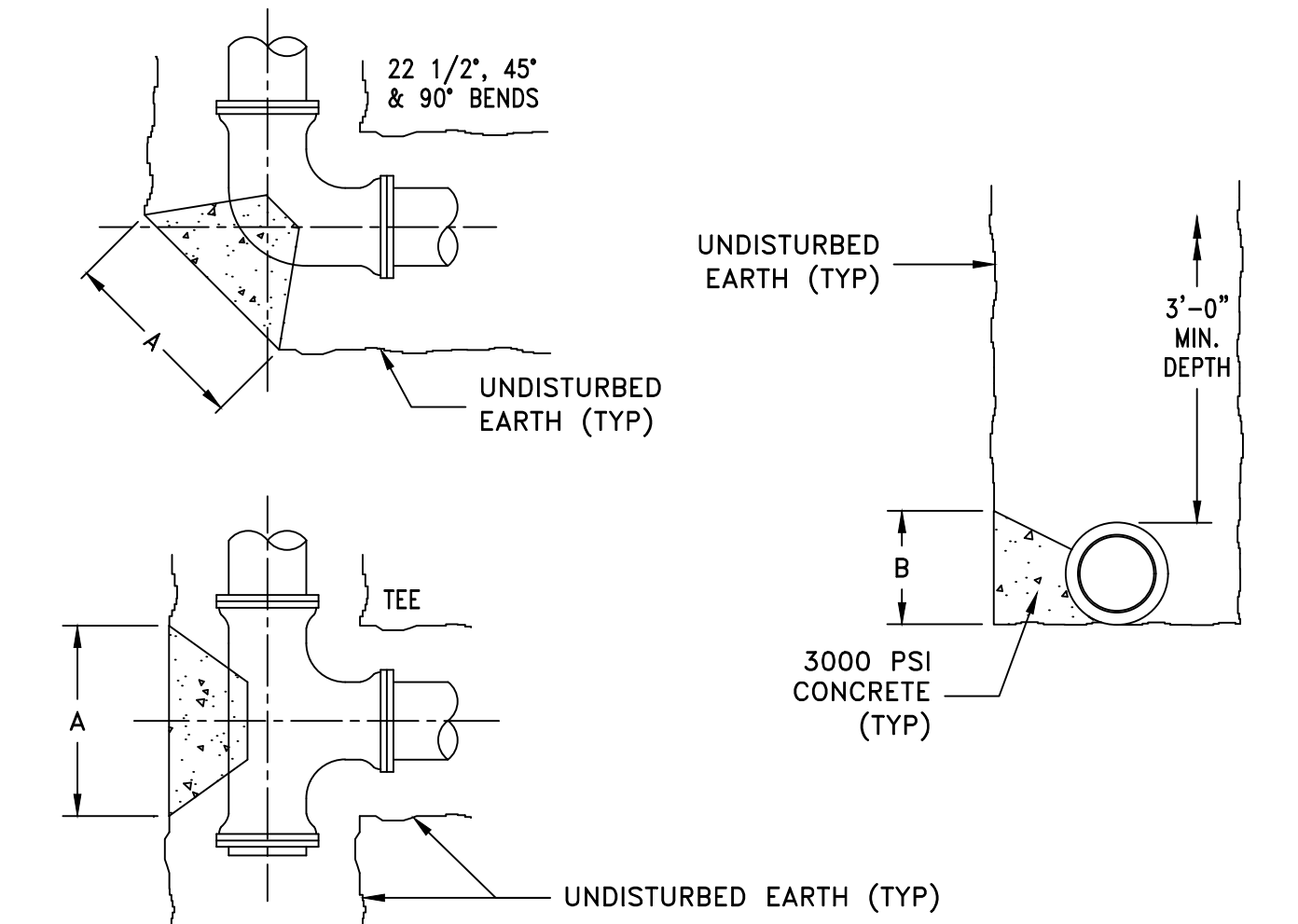


DETAIL "A" MODIFIED DROP PIPE (FOR STEEP INFLUENT GRADES)



TOP VIEW

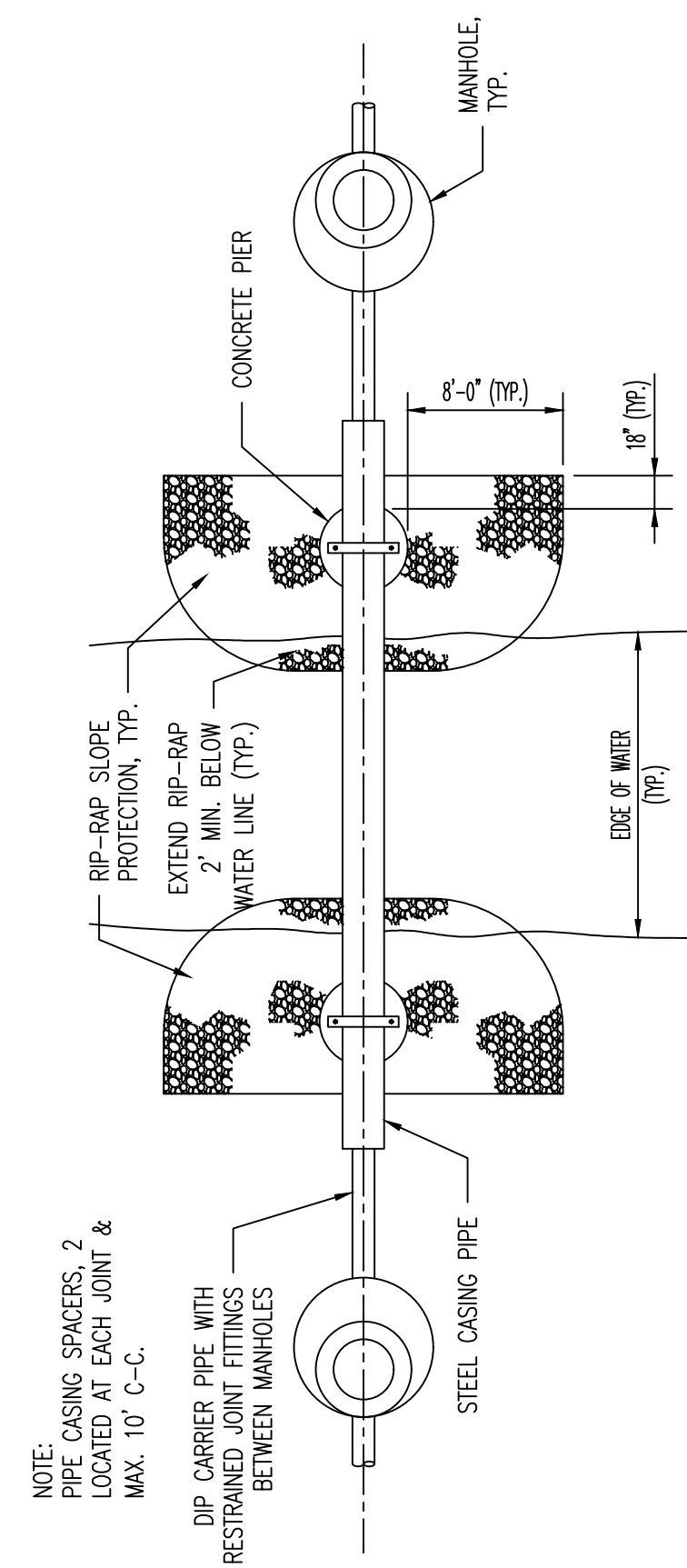
Duckett Creek Sanitary District
 INSIDE DROP GRAVITY LATERAL CONNECTION DETAIL
 Dwn By: MSM App By: KA Detail No. 28A
 Ckd By: MDOB Date: OCT. 2018



- NOTES:**
1. ALL A & B DIMENSIONS TO BE AS REQUIRED TO REACH UNDISTURBED EARTH BUT NOT LESS THAN LISTED ON THRUST BLOCK TABLE.
 2. DIMENSIONS A & B APPLY TO ALL BEND CONDITIONS SHOWN.
 3. INSTALL PLUGS AT ALL RUNS OR BRANCHES DISCONTINUED FOR FUTURE SERVICES.
 4. ALL BENDS, TEES, PLUGS, FITTINGS OR OTHER SIGNIFICANT CHANGES SHALL BE BRACED WITH POURED CONCRETE THRUST BLOCK AS SHOWN ON THIS DETAIL.
 5. ALL PLUGS SHALL BE SEPARATED FROM THE CONCRETE THRUST BLOCK BY A 5 MIL LAYER OF PLASTIC SHEETING.

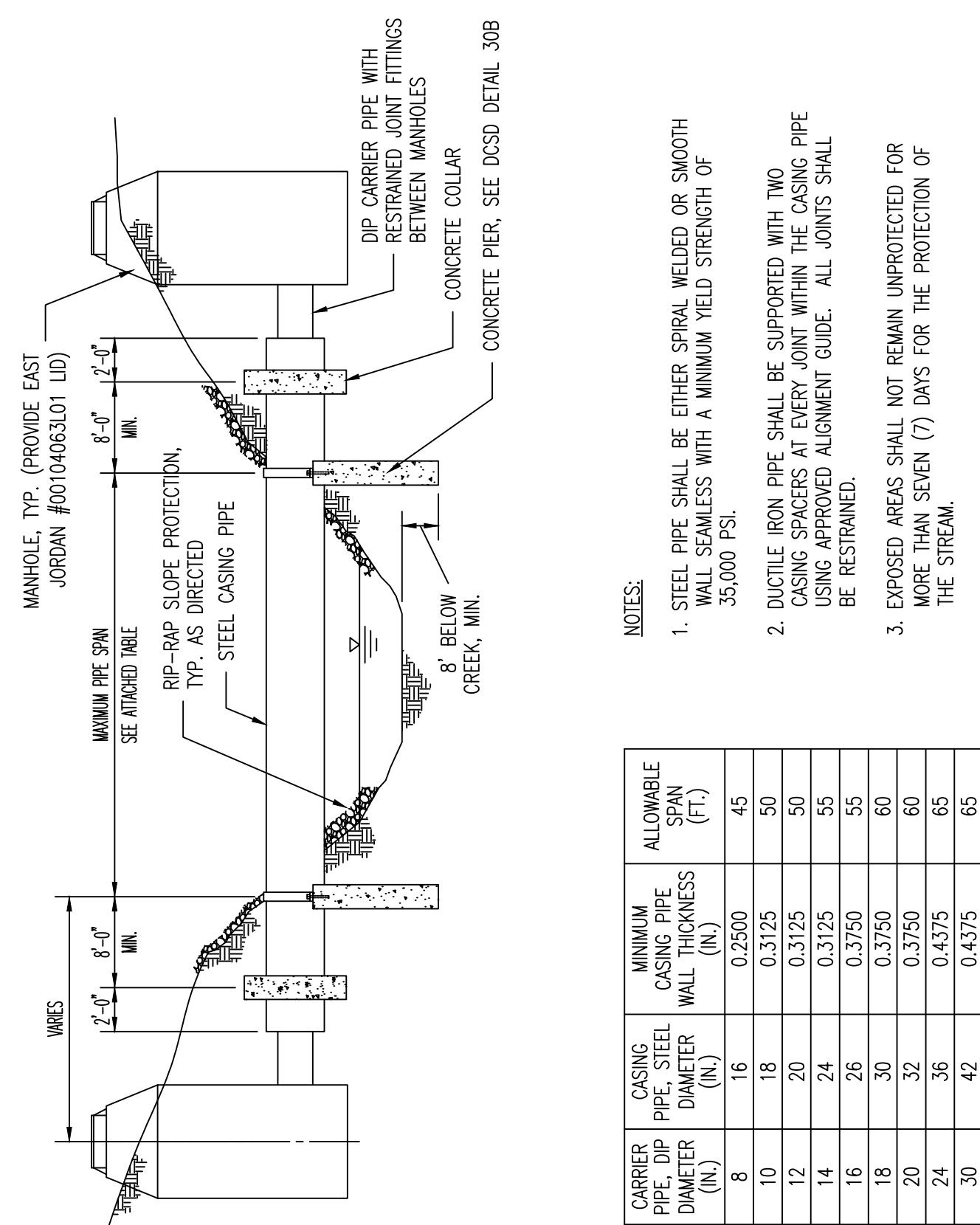
MAIN SIZE	A x B	A x B	A x B	A x B
	22 1/2"	45°	90°	TEE
2"	5' x 1'	5' x 1'	1' x 1'	1' x 1'
4"	1' x 1'	1' x 1'	1.5' x 1'	1' x 1'
6"	1' x 1'	1.5' x 1'	2' x 1'	1.5' x 1'
8"	1' x 1'	2' x 1'	2' x 1'	2' x 1'

Duckett Creek Sanitary District
 THRUST BLOCK DETAIL AND SIZE SCHEDULE
 Dwn By: BSM App By: KA Detail No. 29
 Ckd By: MDOB Date: DEC. 2015



NOTE:
PIPE CASING SPACERS, 2 LOCATED AT EACH JOINT & MAX. 10" C-C.
DIP CARRIER PIPE WITH RESTRAINED JOINT FITTINGS BETWEEN MANHOLES

Duckett Creek Sanitary District
ARIEL CROSSING TYPICAL PLAN
Dwn By: MSM App By: KA Detail No. 30A
Ckd By: Date: JULY 2016

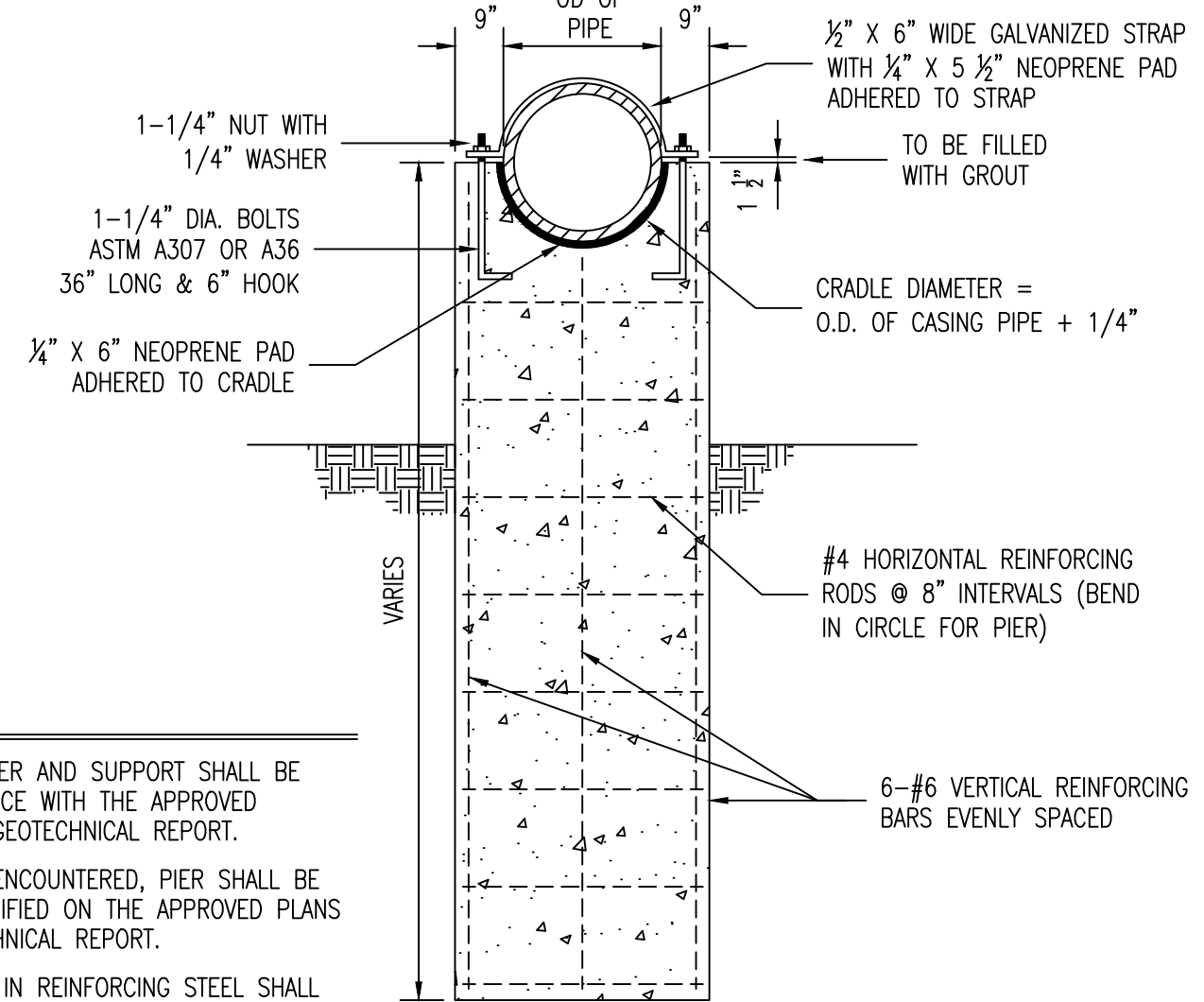


NOTES:

1. STEEL PIPE SHALL BE EITHER SPIRAL WELDED OR SMOOTH WALL SEAMLESS WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI.
2. DUCTILE IRON PIPE SHALL BE SUPPORTED WITH TWO CASING SPACERS AT EVERY JOINT WITHIN THE CASING PIPE USING APPROVED ALIGNMENT GUIDE. ALL JOINTS SHALL BE RESTRAINED.
3. EXPOSED AREAS SHALL NOT BE PAINT UNPROTECTED FOR MORE THAN SEVEN (7) DAYS FOR THE PROTECTION OF THE STREAM.

CARRIER PIPE, DIP DIAMETER (IN.)	CASING PIPE, DIP DIAMETER (IN.)	MINIMUM CASING PIPE WALL THICKNESS (IN.)	ALLOWABLE SPAN (FT.)
8	16	0.2500	45
10	18	0.3125	50
12	20	0.3125	55
14	24	0.3125	55
16	26	0.3750	55
18	30	0.3750	60
20	32	0.3750	60
24	36	0.4375	65
30	42	0.4375	65

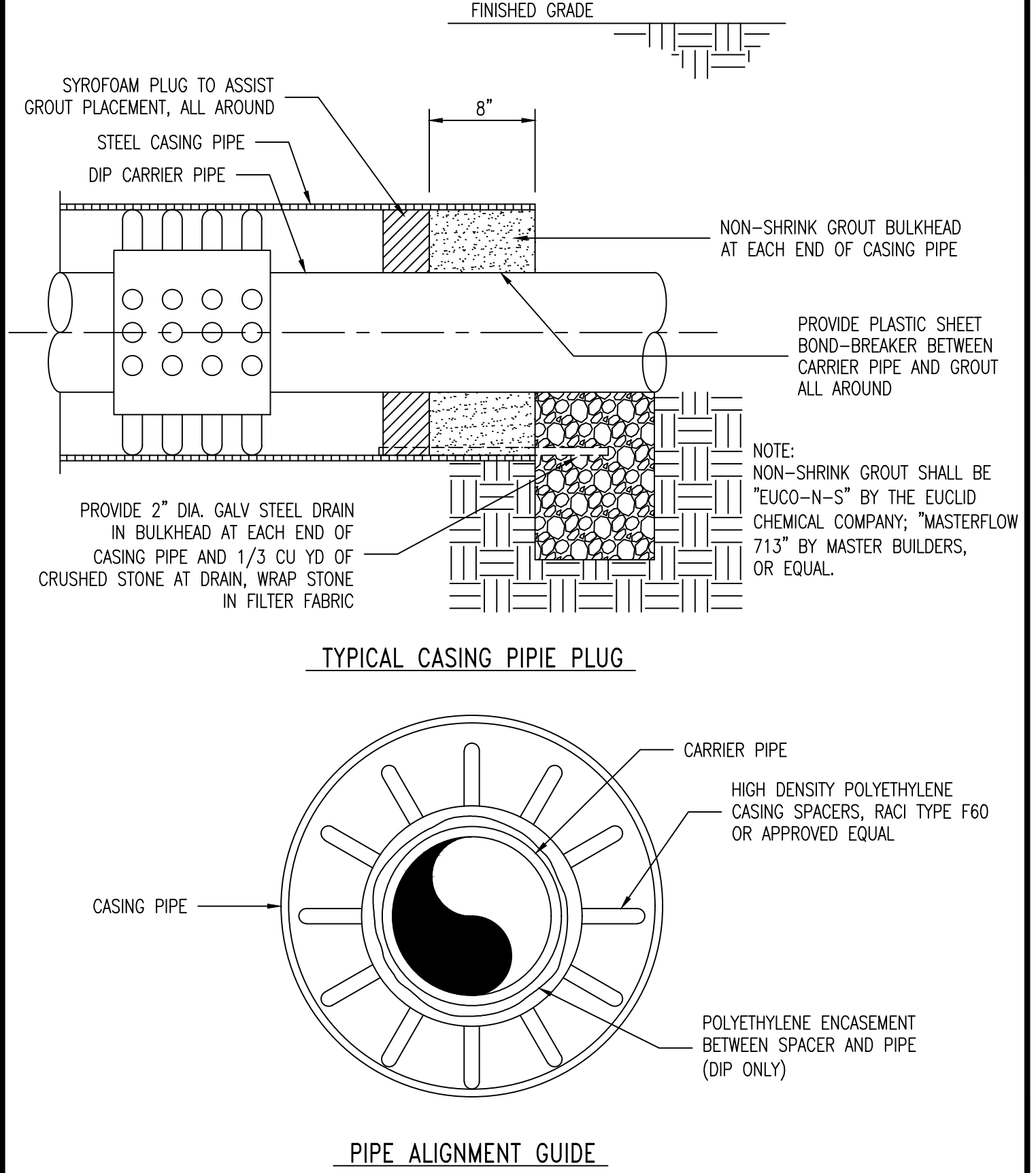
Duckett Creek Sanitary District
ARIEL CROSSING TYPICAL PROFILE
Dwn By: MSM App By: KA Detail No. 30B
Ckd By: Date: OCT. 2016



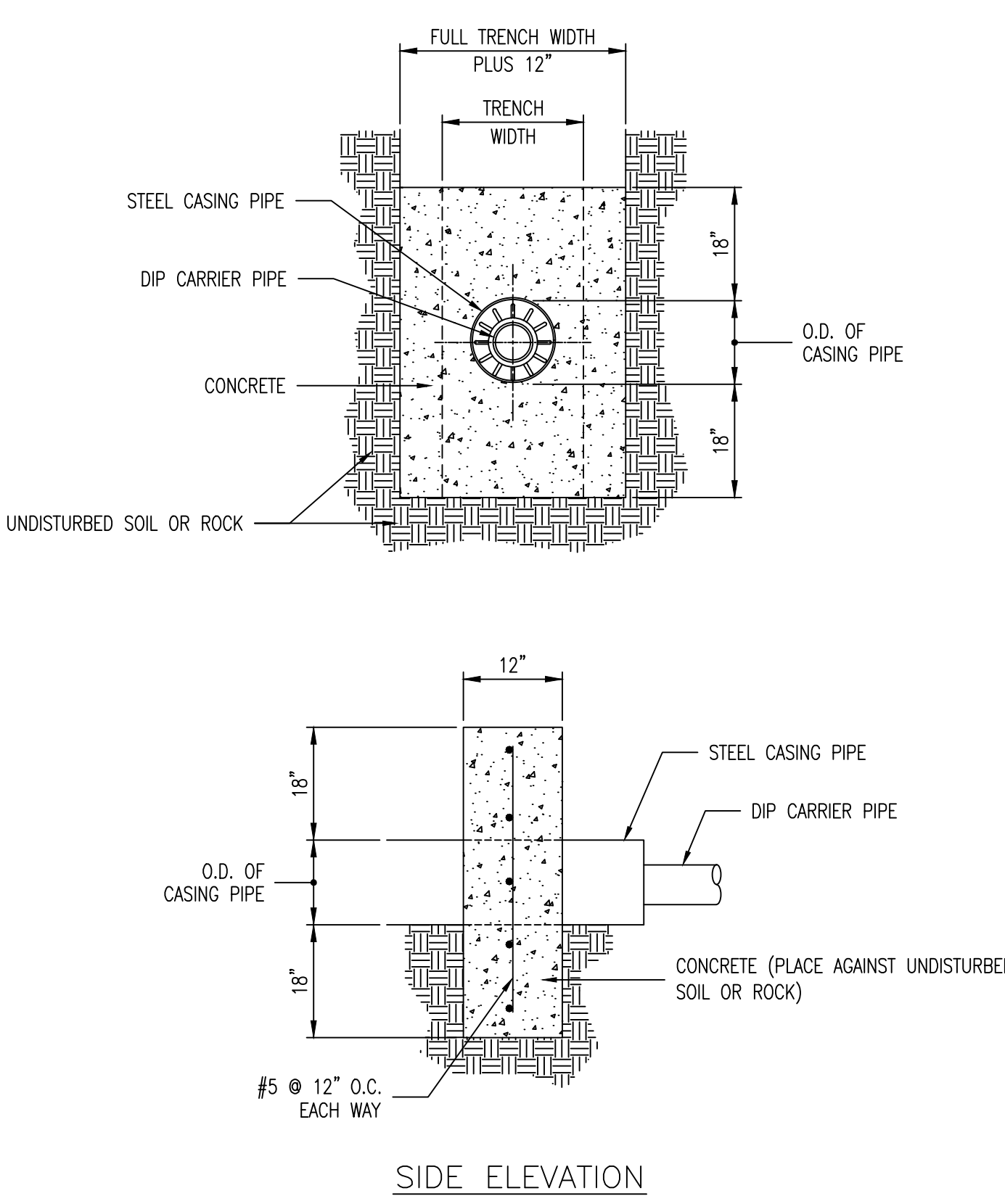
NOTES:

1. DEPTH OF PIER AND SUPPORT SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND GEOTECHNICAL REPORT.
2. IF ROCK IS ENCOUNTERED, PIER SHALL BE SET AS SPECIFIED ON THE APPROVED PLANS AND GEOTECHNICAL REPORT.
3. ALL SPLICES IN REINFORCING STEEL SHALL BE 30 X BAR DIAMETER IN LENGTH MINIMUM.
4. MINIMUM COVER OVER PRIMARY REINFORCING SHALL BE 2".
5. CONCRETE ULTIMATE COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM.
6. REINFORCING STEEL SHALL BE GRADE 60.

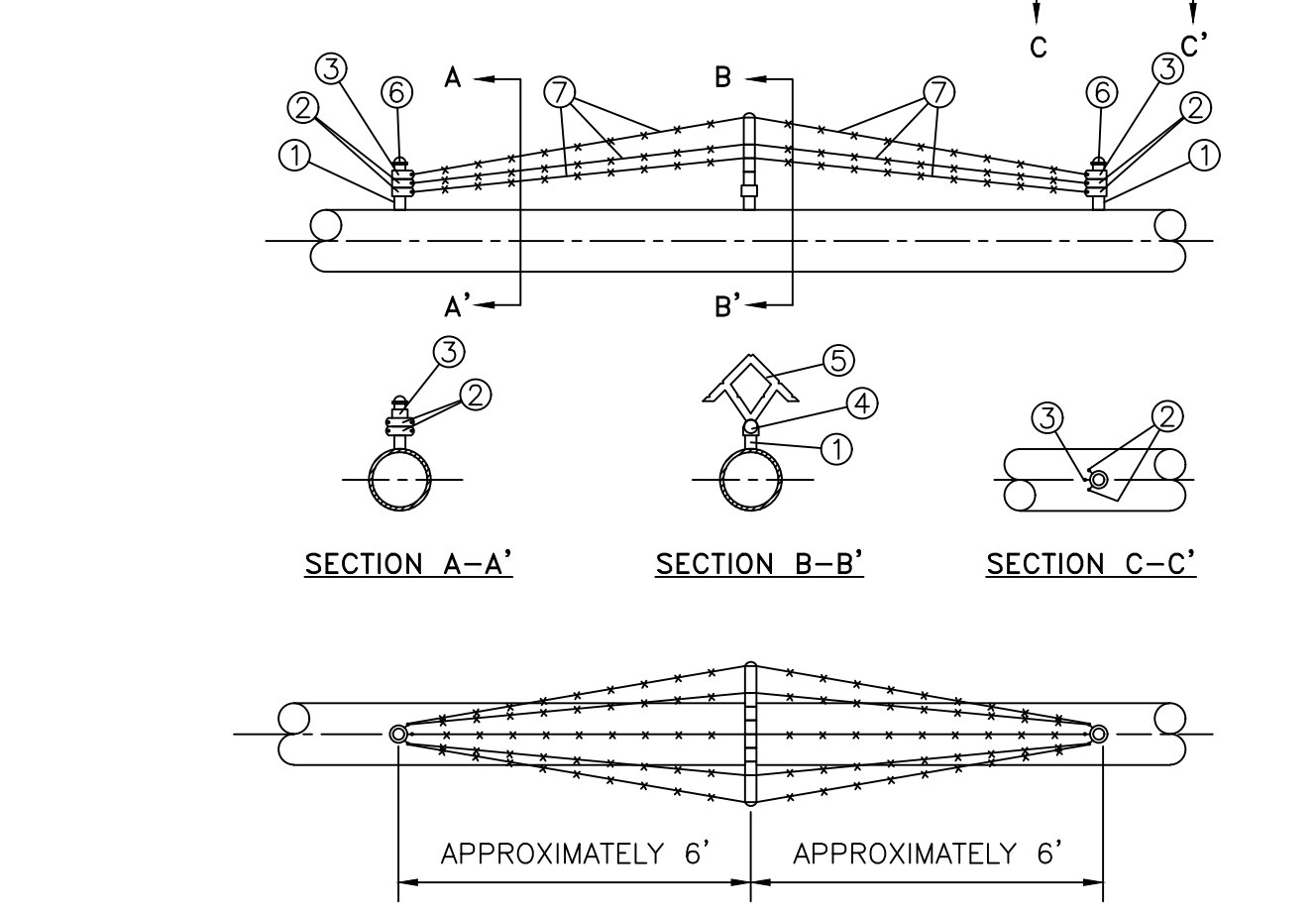
Duckett Creek Sanitary District
ARIEL PIPE CROSSING CONCRETE PIER DETAIL
Dwn By: MSM App By: KA Detail No. 30C
Ckd By: Date: JULY 2016



Duckett Creek Sanitary District
ARIEL PIPE CROSSING CASING PIPE DETAILS
Dwn By: MSM App By: KA Detail No. 30D
Ckd By: Date: JULY 2016



Duckett Creek Sanitary District
ARIEL CROSSING CONCRETE COLLAR DETAIL
Dwn By: MSM App By: KA Detail No. 30E
Ckd By: Date: JULY 2016



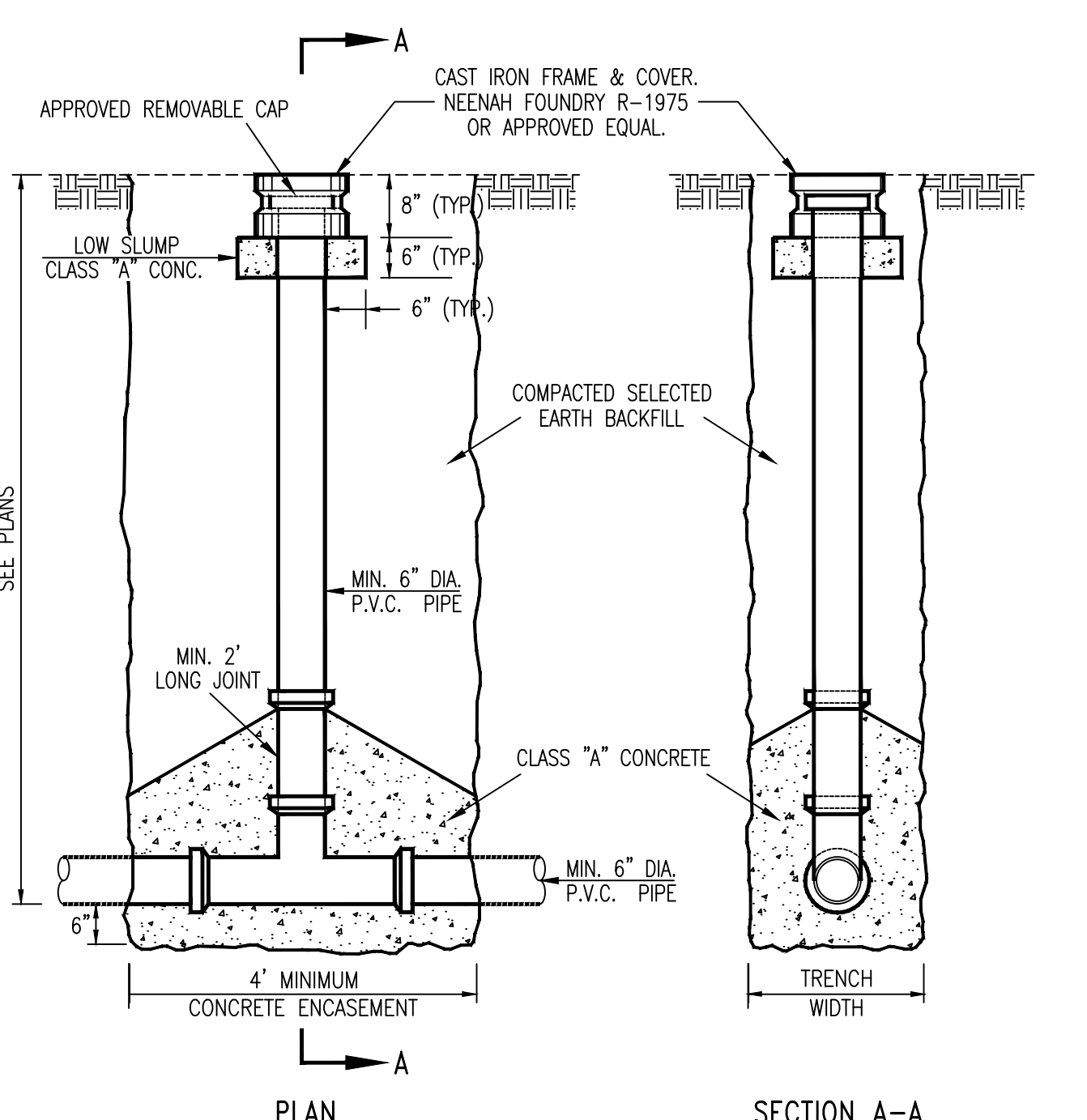
BILL OF MATERIAL

NO.	QTY	STK. NO.	SIZE	DESCRIPTION
1	6*	38290	1 1/4" x 5"	NIPPLE, STL. SCR.D.
2	8		1 1/8" OD, #7 90°	BRACE BAND, GALV.
3	4		1 1/8" OD, #6	BRACE BAND, GALV.
4	2		1 1/8" OD x 59U	UNIVERSAL BASE, GALV.
5	2		NORTHLAND 5 STRD.	ARM, STL., GALV. W/BOLT
6	4		NORTHLAND #1	CAP, ACORN, GALV. W/SET SCREW
7	1**	59850	4 POINT, 12 1/2 GAUGE	WIRE, BARBED, GALV.

NOTES:

1. "BILL OF MATERIALS" PROVIDES SUFFICIENT MATERIAL FOR TWO BARRICADES.
 2. LOCATION OF BARRICADES ON PIPING SYSTEM TO BE AS SPECIFIED ON APPROVED CONSTRUCTION DRAWINGS.
 3. TWO BARRICADES WILL BE REQUIRED, ONE AT EACH END OF THE CROSSING AS A DETERRENT AGAINST FOOT TRAFFIC. IN SOME INSTANCES ADDITIONAL BARRICADES MAY BE REQUIRED.
 4. COAT ANY EXPOSED PIPE WITH MASTIC, STOCK #51857.
- * 1 1/4" BARE PIPE ON JOB MAY BE SUBSTITUTED FOR 1 1/4" x 5" NIPPLE. SCREW THREADS NOT NECESSARY.
** CONTACT SUPERVISOR BEFORE ORDERING BARBED WIRE. BARBED WIRE SUPPLIED IN 1320' ROLLS ONLY, NOT RETURNABLE.

Duckett Creek Sanitary District
ARIEL CROSSING BARRIER DETAIL
Dwn By: BSM App By: KA Detail No. 30F
Ckd By: Date: DEC. 2015



Duckett Creek Sanitary District
SAMPLING TEE
Dwn By: MSM App By: LRK Detail No. 31
Ckd By: Date: APRIL 2022