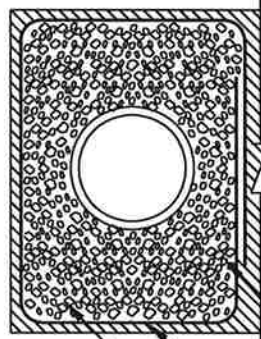
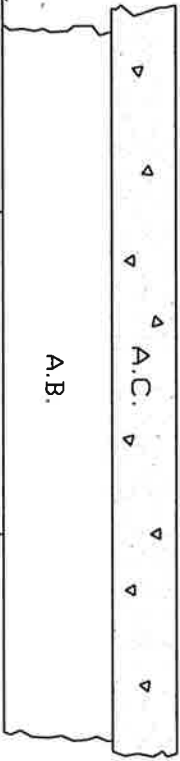


TRENCH BACKFILL REQUIREMENTS:

1. PROPOSED STREETS- REFER TO DETAIL TB-1 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.
2. EXISTING STREETS- REFER TO DETAIL TB-1 AND TB-3 OF SECTION 31 FOR BACKFILL REQUIREMENTS ABOVE THE PIPE ZONE.



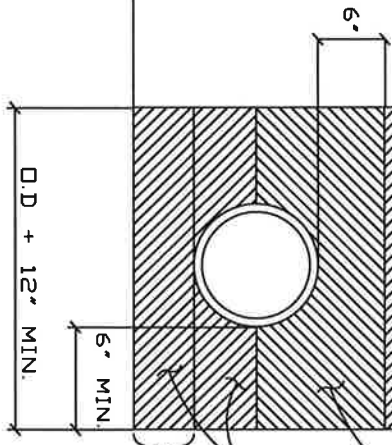
SATURATED PIPE TRENCH

(SEE TRENCH DETAIL)

GEOTEXTILE FILTER FABRIC
(OVERLAP TOP HALF OF PIPE)
CRUSHED ROCK
TO 1/2 PIPE DIAMETER

BACKFILL
TAPES (12" DETECTABLE)
LOCATED 12"-24"
BELOW FINISH GRADE

SUBGRADE



IMPORTED MATERIAL 100% PASSING
3/4" SIEVE MIN. SAND EQUIVALENT
OF 50

ALTERNATE BACKFILL ABOVE SPRING-
LINE ONLY: NATIVE MATERIAL 90%
RELATIVE COMPACTION

IMPORTED MATERIAL, LESS THAN
10% PASSING NO. 8 SIEVE: LESS
THAN 50% PASSING 3/8" SIEVE,
100% PASSING 1/2" SIEVE FOR PIPE
12" OR SMALLER, 100% PASSING
3/4" SIEVE FOR PIPE OVER 12"

3' FOR UNDER 12" PIPE
4' FOR 12" OR LARGER PIPE
(ADD 4' TO THE EXCAVATION IN
ROCKY OR UNYIELDING SOIL)

NOTE: BACKFILL SHALL BE MECHANICALLY CONSOLIDATED OR
SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE

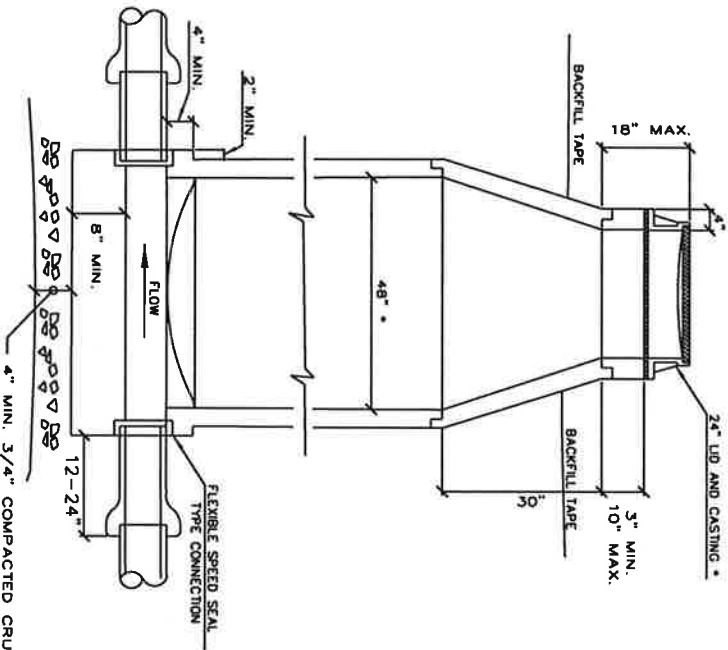
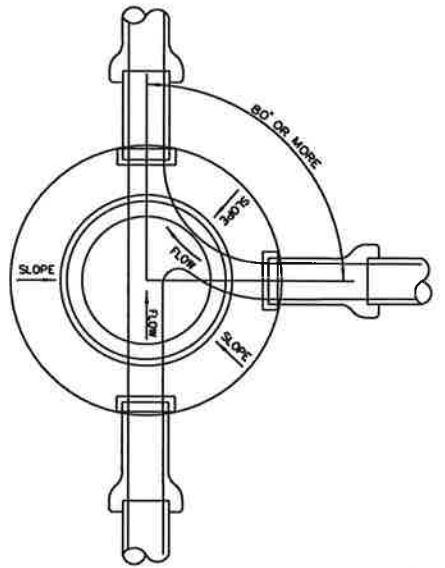
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ENVIRONMENTAL UTILITIES DIRECTOR

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**SEWER MAIN
TRENCH AND BACKFILL**

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REVISED: JANUARY 2010
DRAWN BY: R. VAN NESS
APPROVED BY: D. WHITEHEAD

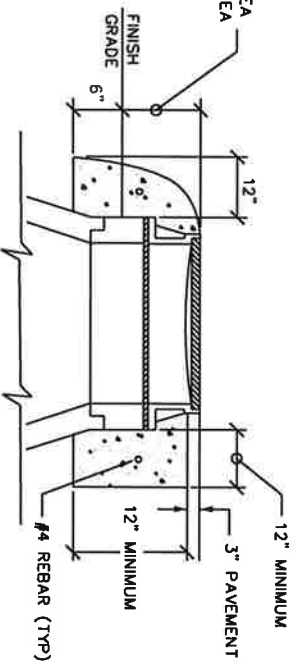
SS-1



NOTES

- MANHOLE LIDS SHALL BE SEALED WITH AN APPROVED RUBBER GASKET.
- JOINTS SHALL BE MORTARED INSIDE AND OUT.
- UNUSED CHANNELS SHALL BE COMPLETELY FILLED WITH GROUT.
- STUBS SHALL BE PLUGGED AND END MARKED ABOVE FINISHED GRADE WITH A REDWOOD 4 BY 4 POST PAINTED GREEN
- IF AN ECCENTRIC CONE IS USED, PLACE SUCH THAT THE OPENING IS OVER THE UPSTREAM INVERT.
- NO CAULDER OR REPAIR COUPLINGS SHALL BE USED ON NEW CONSTRUCTION
- FLOW LINES SHALL HAVE A 1/10 DROP OR AS INDICATED ON PLANS
- MANHOLES WITH DROPS SHALL BE EPOXY COATED. THE COATING SHALL BE APPLIED PER SEC. 91-10K OF THESE STANDARDS.
- 60" & 72" MANHOLES SHALL USE A 36" LID AND CASTING.

6" IN LANDSCAPED AREA
12" IN UNIMPROVED AREA



CONCRETE COLLAR DETAIL

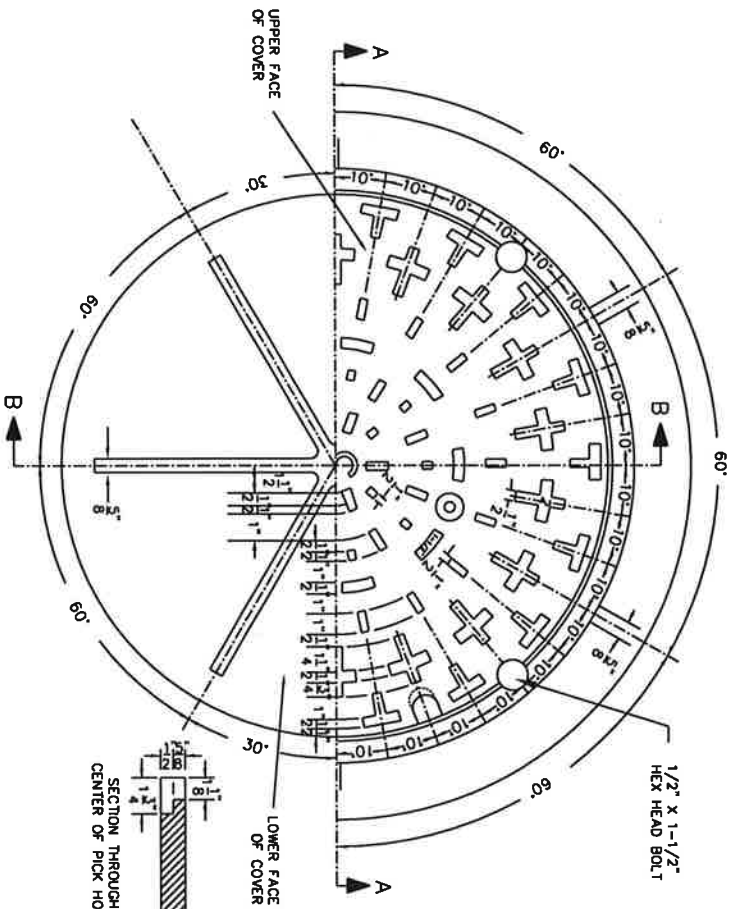
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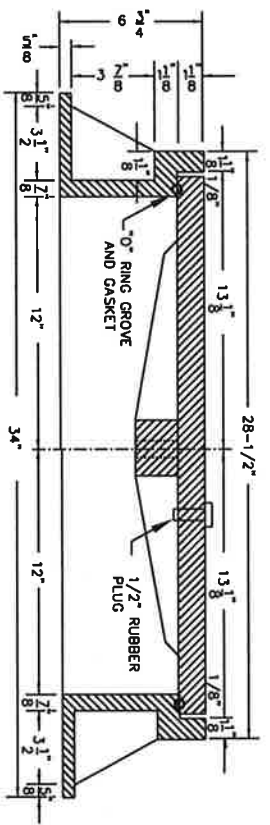
**SEWER MANHOLE
STANDARD 48 INCH**

SCALE: NONE
REVISED: JANUARY 2013
DRAWN BY: R. VAN NESS
APPROVED BY: D. WHITEHEAD

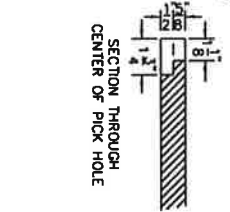
SS-2



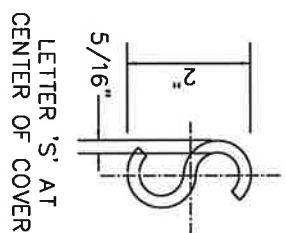
HALF PLAN OF HEAD AND COVER



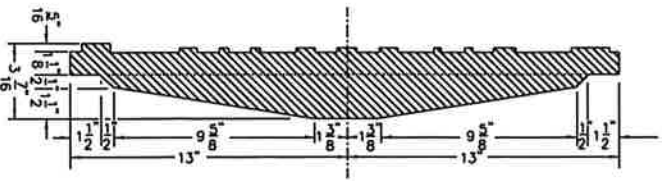
SECTION A-A



SECTION B-B





LETTER 'S' AT CENTER OF COVER



SECTION B-B

NOTES: SEE SECTION 91-16.E.3 FOR APPROVED LIST OF SEWER MANHOLE FRAME AND COVER


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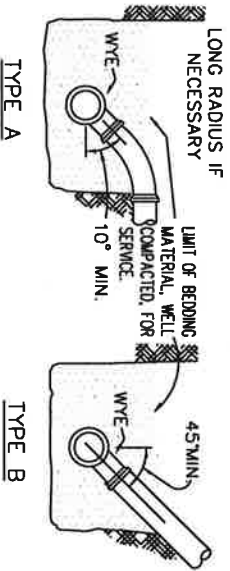
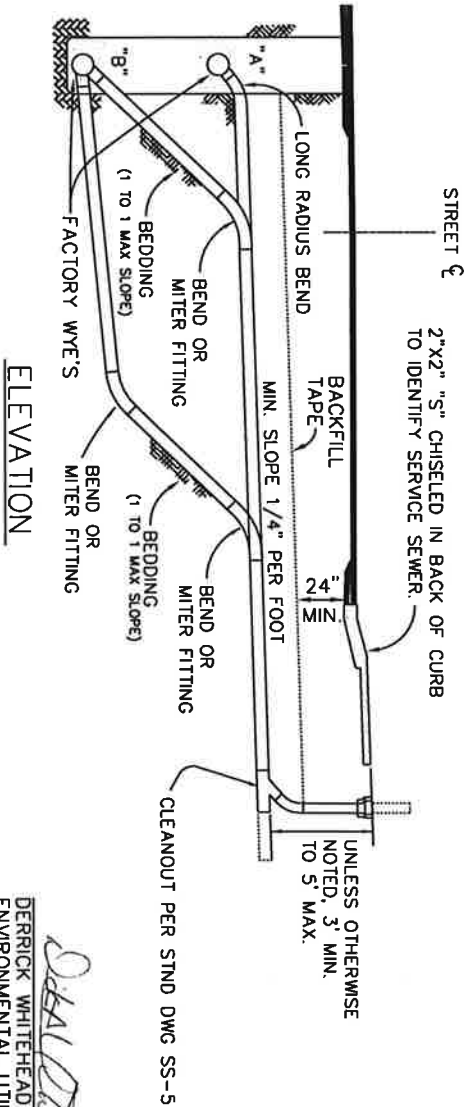
**STANDARD SEWER MANHOLE
 FRAME AND COVER**

SCALE: NONE
 REVISED: JANUARY 2010
 DRAWN BY: R. VAN NESS
 APPROVED BY: D. WHITEHEAD

SS-3

GENERAL NOTES:

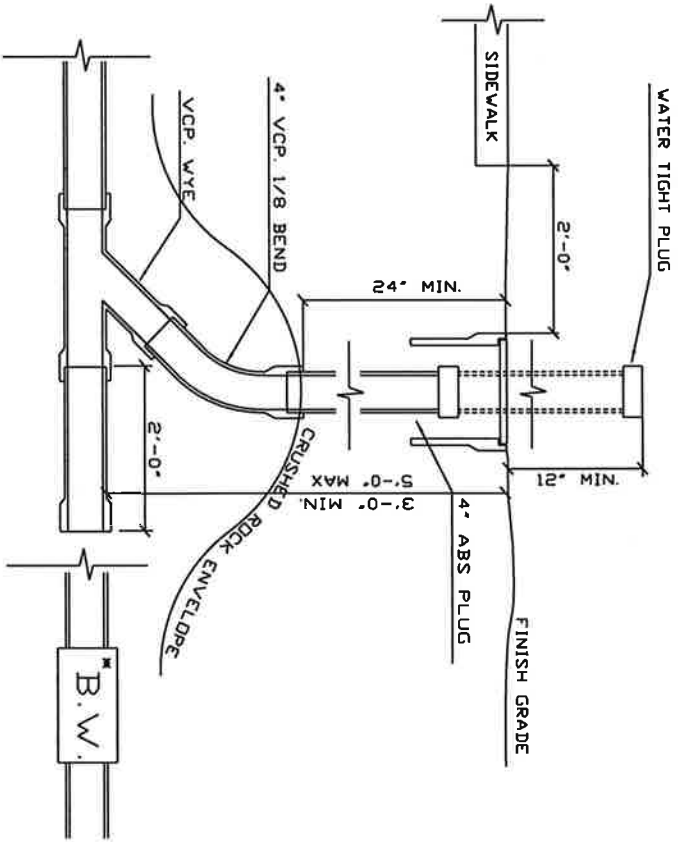
1. ALL SERVICE LINES SHALL BE 4" FOR RESIDENTIAL AND 6" FOR COMMERCIAL UNLESS OTHERWISE NOTED.
2. SERVICES SHALL HAVE SAME BEDDING AND BACKFILL AS LATERAL SEWER.
3. CONTRACTOR SHALL USE THE MOST APPROPRIATE TYPE CONNECTION (A OR B) FOR THE PARTICULAR SITUATION ENCOUNTERED.
4. SERVICE SEWER SHALL HAVE MINIMUM 3'-0" COVER AT PROPERTY LINE WHENEVER LATERAL DEPTH AND SERVICE SEWER SLOPE OF 1/4" PER FOOT (MINIMUM) PERMIT. SEE NOTE 10.
5. WHEN THE LATERAL SEWER DEPTH IS SUCH THAT MINIMUM COVER AT PROPERTY LINE CANNOT BE MET, THE MINIMUM SLOPE OF 1/4" PER FOOT SHALL GOVERN THE COVER.
6. MIN. SPECIFIED COVER AT THE PROPERTY LINE SHALL BE MEASURED FROM EXISTING GROUND SURFACE OR EDGE OF ADJACENT ROADWAY, WHICHEVER IS LOWER.
7. A SPECIFIC ELEVATION AT THE PROPERTY LINE, WHEN SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER, SHALL GOVERN.
8. MITER FITTING SHALL BE MAX. 45°.
9. MINIMUM DEPTH OF COVER SHALL BE INCREASED TO 4'-6" WHERE A WATER MAIN IS TO BE INSTALLED AT BACK OF SIDEWALK AS PART OF THE SUBDIVISION IMPROVEMENTS. IN SUCH CASES, THE SERVICE SHALL BE EXTENDED TO A MINIMUM OF 7' BACK OF SIDEWALK; CLEANOUT TO GRADE SHALL REMAIN WITHIN 3' OF BACK OF SIDEWALK.
10. SEWER SERVICES ORIGINATING FROM SEWER MAINS 14 FT AND GREATER IN DEPTH SHALL HAVE THE CROTCH OF THE VCP "WYE" FITTING FILLED WITH CONCRETE.



CONNECTION DETAILS

<p>CITY OF ROSEVILLE CALIFORNIA</p>	
<p>ENVIRONMENTAL UTILITIES DEPARTMENT</p>	
<p>SEWER SERVICE</p>	
<p>SCALE: NONE REVISED: JANUARY 2010 DRAWN BY: R. VAN NESS APPROVED BY: D. WHITEHEAD</p>	<p>SS-4</p>

Derrick Whitehead
DERRICK WHITEHEAD
ENVIRONMENTAL UTILITIES DIRECTOR



NOTES:

- 1) INSTALL ROUND NON-TRAFFIC TYPE CONCRETE VALVE BOX & COVER MARKED "SEWER" IN A NON - TRAFFIC AREA. INSTALL METAL LID MARKED "SEWER" IN AREAS WITH POTENTIAL TRAFFIC. A GS BOX SHALL BE INSTALLED IN TRAFFIC AREAS.
- 2) THREE FOOT VCP STUB SHALL BE INSTALLED UPSTREAM OF CLEANOUT.
- 3) CLEANOUT BOX TO BE FREE OF ALL DIRT AND READY AT TIME OF PRE-FINAL INSPECTION.
- 4) SERVICES OVER 100' LONG AND COMMERCIAL SERVICES REQUIRE A MIN. 6" CLEANOUT WITH 6" FITTINGS. THE CLEANOUT BOX SHALL BE CONSTRUCTED PER V-16.
- 5) CONNECTION TO MAIN SHALL BE WITH A FACTORY VYE OR AT A MANHOLE.
- 6) THE CLEANOUT RISER SHALL BE INSTALLED 12" ABOVE GRADE PRIOR TO BUILDING CONSTRUCTION.
- 7) BUILDING CONTRACTOR SHALL SET BOX TO FINISH GRADE AND INSTALL AN ABS PLUG SET 6" BELOW THE SURFACE PRIOR TO BUILDING PRE-FINAL.
- * 8) BACKWATER VALVE IF REQUIRED SHALL BE INSTALLED BY THE BUILDING CONTRACTOR

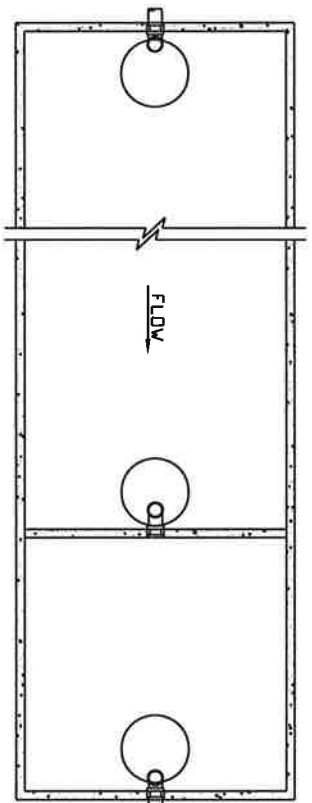
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 ENVIRONMENTAL UTILITIES DIRECTOR

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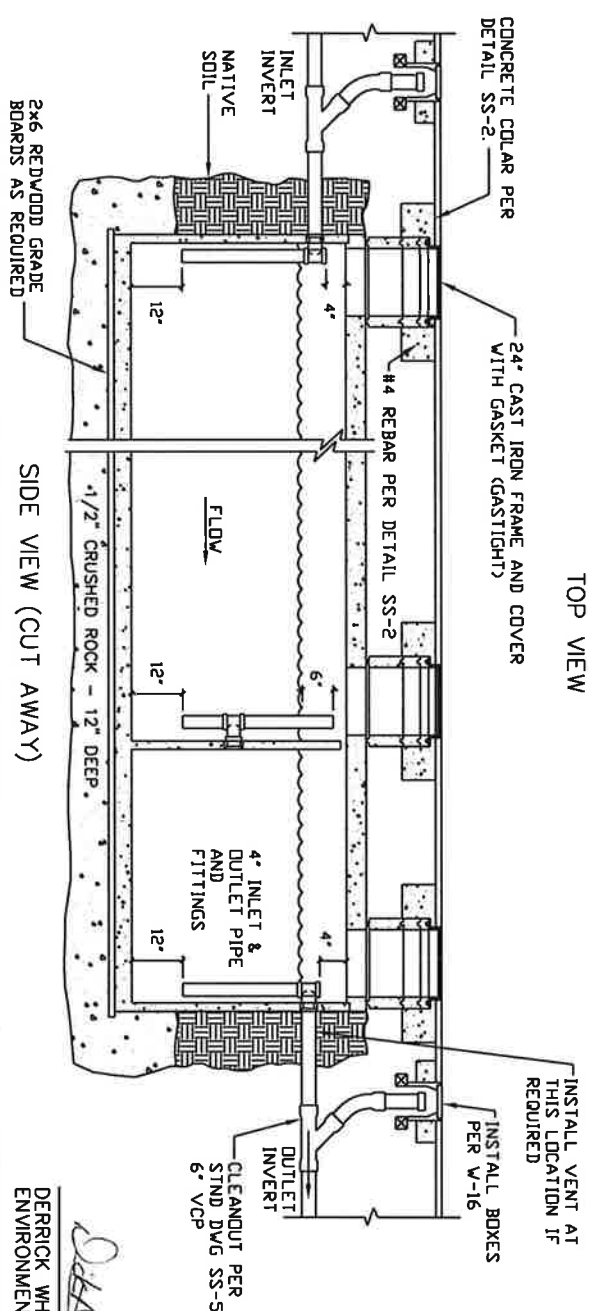
SEWER SERVICE CLEANOUT

SCALE: NONE
 REVISED: JANUARY 2010
 DRAWN BY: R. VAN NESS
 APPROVED BY: D. WHITEHEAD

SS-5



TOP VIEW



SIDE VIEW (CUT AWAY)

MIN. BOX DESIGN LOAD: H-20 TRAFFIC

*NOTE: THE PRECAST CONCRETE UNITS SHALL BE PLACED ON LEVEL UNDISTURBED SOIL. W/1/2" CRUSHED ROCK 12" DEEP. TWO 2x6 REDWOOD GRADE BOARDS SHALL BE PLACED BELOW THE TANK SIDE WALLS ALONG THE LONG DIMENSION PER THE MANUFACTURERS GUIDELINES.

SIZING SHALL BE BASED ON UPC APPENDIX H

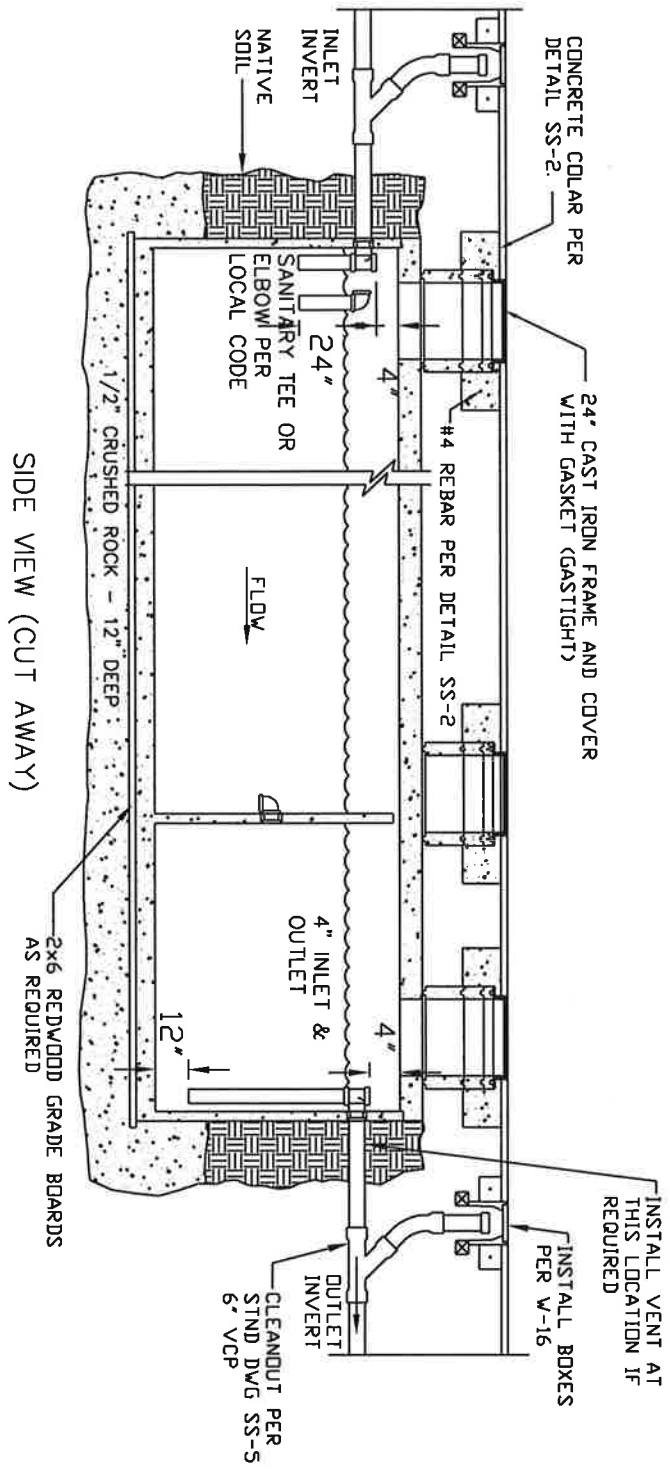
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GREASE INTERCEPTOR (TYP.)

SCALE: NONE
REVISED: JANUARY 2010
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APPROVED BY: D. WHITEHEAD

SS-6



SIDE VIEW (CUT AWAY)

MIN. BOX DESIGN LOAD: H-20 TRAFFIC

*NOTE: THE PRECAST CONCRETE UNITS SHALL BE PLACED ON LEVEL UNDISTURBED SOIL, W/1/2" CRUSHED ROCK 12" DEEP. TWO 2x6 REDWOOD GRADE BOARDS SHALL BE PLACED BELOW THE TANK SIDE WALLS ALONG THE LONG DIMENSION PER THR MANUFACTURERS GUIDELINES.

SIZING SHALL BE BASED ON UPC APPENDIX H & K.

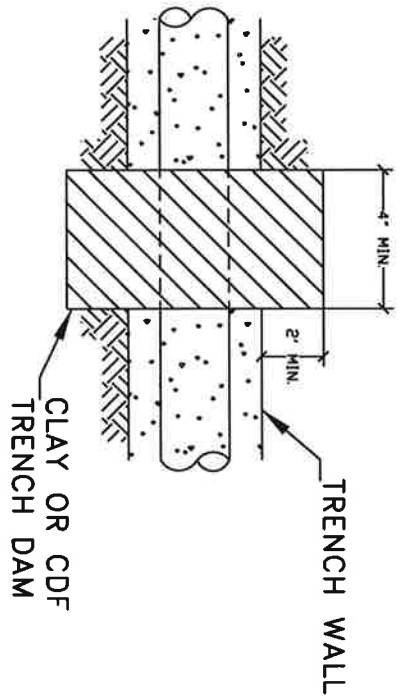
[Signature]
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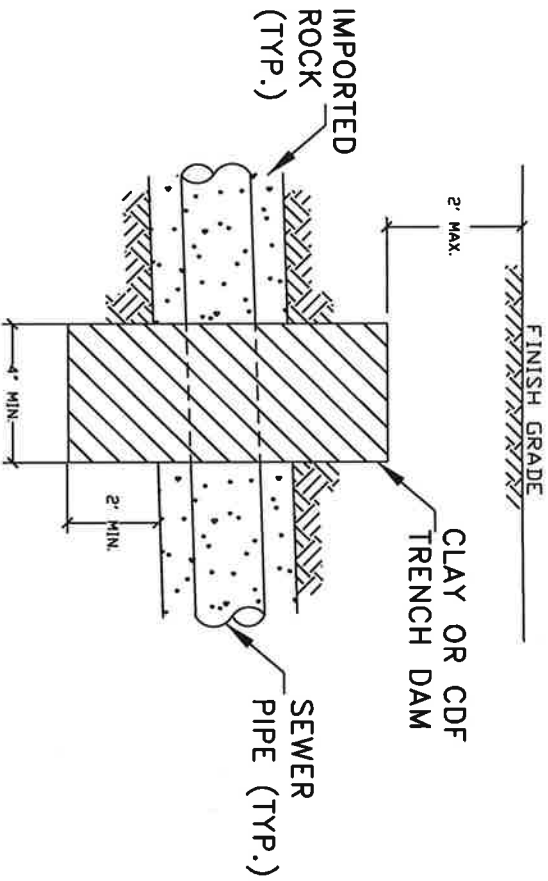
SAND/OIL INTERCEPTOR

SCALE: NONE
 REVISED: JANUARY 2010
 DRAWN BY: R. VAN NESS
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SS-7



PLAN VIEW



PROFILE VIEW

NOTE:

TRENCH DAM SHALL BE CONSTRUCTED OF CLEAN CLAY MATERIAL OR CONTROLLED DENSITY FILL.

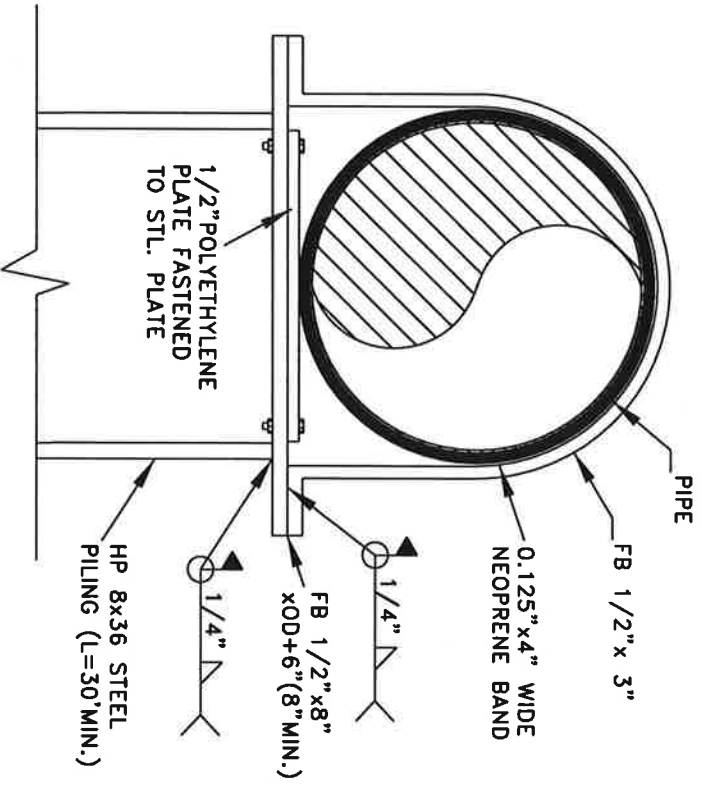
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TRENCH DAM

SCALE: NONE
 REVISED: JANUARY 2010
 DRAWN BY: R. VAN NESS
 APPROVED BY: D. WHITEHEAD

SS-8



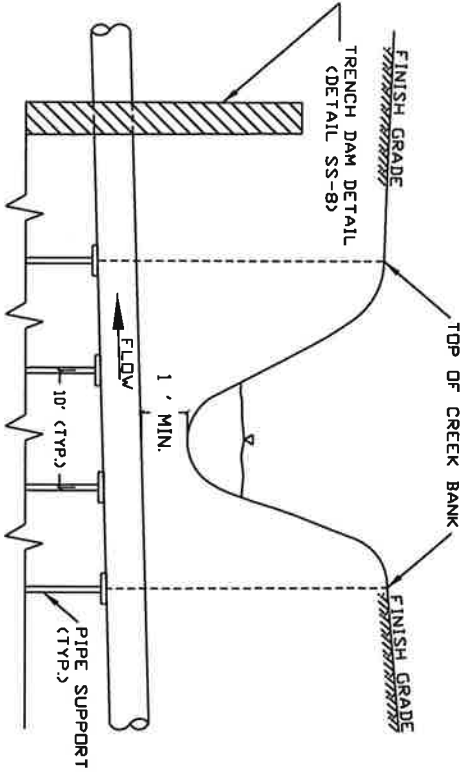
PIPE SUPPORT DETAIL

MTRL. NOTES:

1. STRUCTURAL STL. SHALL BE A36 (F_y=36ksi)
2. WELDING RODS SHALL BE E70 (F_y=70ksi)

DESIGN NOTES:

1. PILES SHALL BE 10' ON CENTER BEGINNING AND ENDING AT CREEK BOTH SIDES *TOP OF BANK* AND AS NOTED ON THE PROJECT PLANS.



CREEK CROSSING

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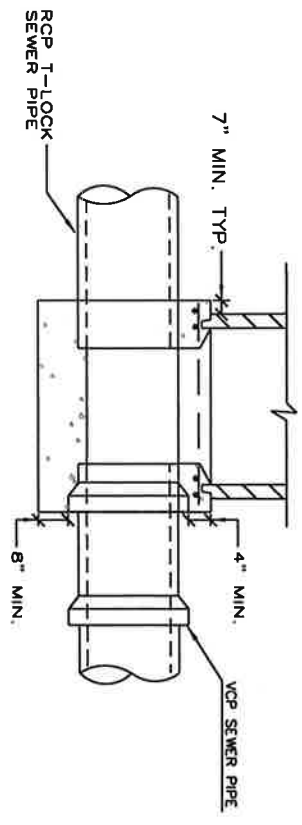
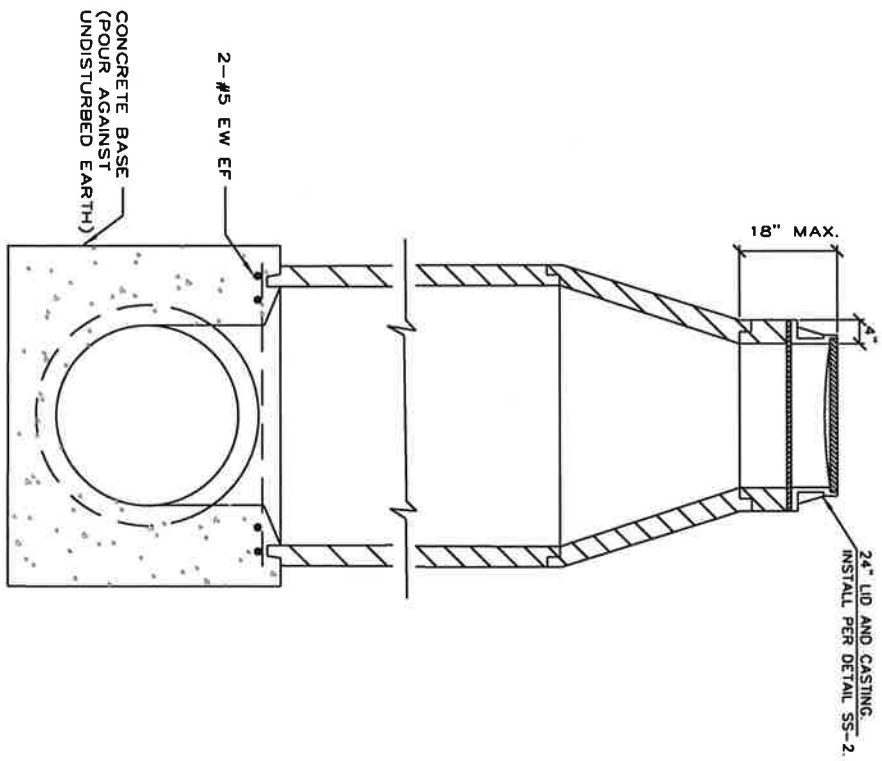
CREEK CROSSING SUPPORT

SCALE: NONE
 REVISED: JANUARY 2010
 DRAWN BY: R. VAN NESS
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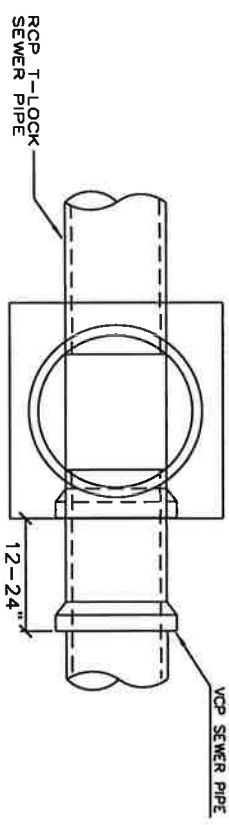
SS-9

NOTES

1. MANHOLE LID SHALL BE SEALED WITH AN APPROVED RUBBER GASKET.
2. JOINTS SHALL BE MORTARED INSIDE AND OUT.
3. APPLY EPOXY COATING TO INTERIOR SURFACES OF MANHOLE IN ACCORDANCE WITH CITY STANDARD SS-10.
4. PROVIDE SPARK TEST OVER ENTIRE PROTECTIVE COATINGS AFTER INSTALLATION.
5. SEE STANDARD DETAIL SS-2 FOR ADDITIONAL REQUIREMENTS.



PROFILE



PLAN

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**60" + SEWER TRUNK MAIN
 MANHOLE**

SCALE: NONE
 REVISED: NOV. 2011
 DRAWN BY: R. VAN NESS
 APPROVED BY: D. WHITEHEAD

SS-10