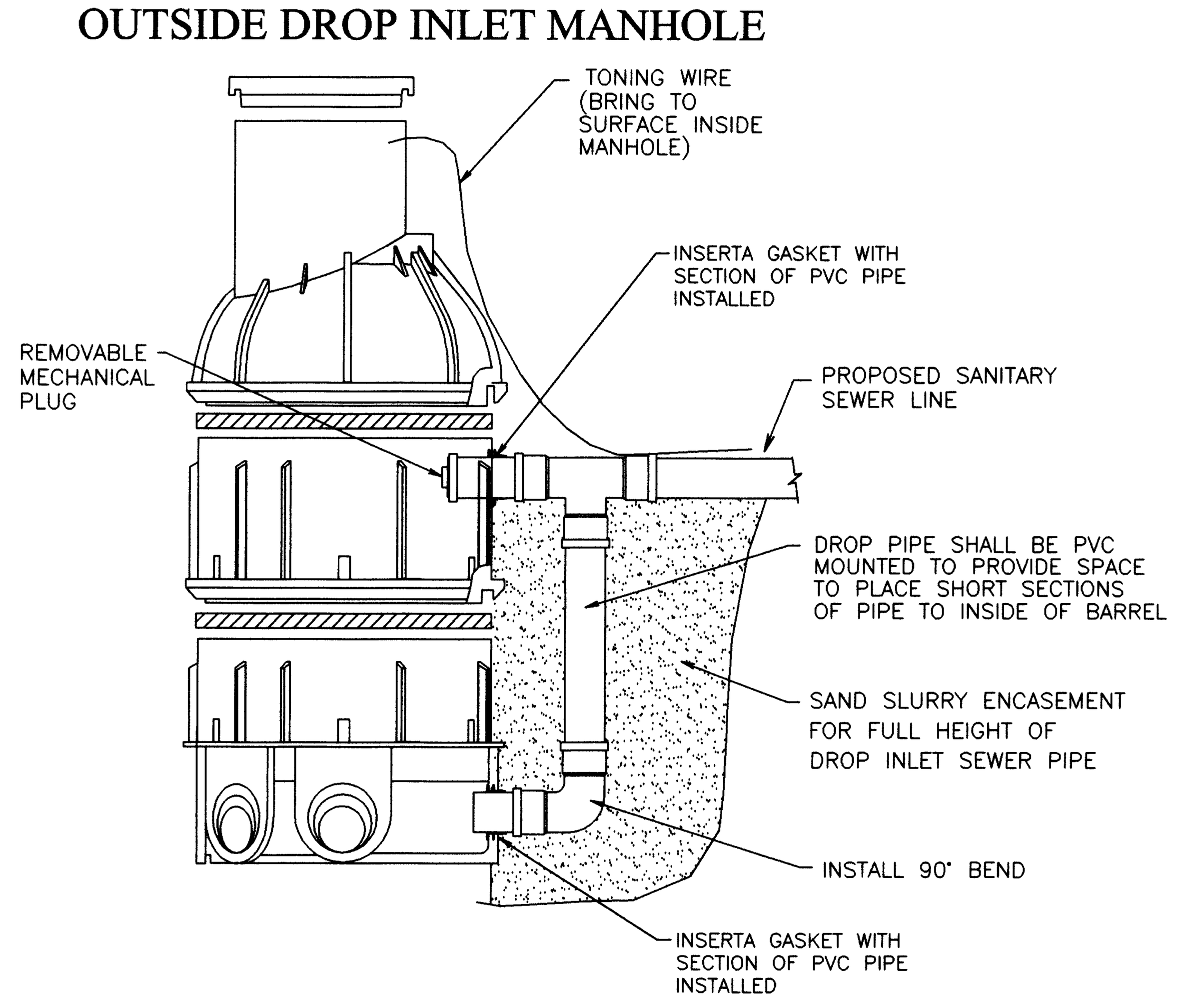
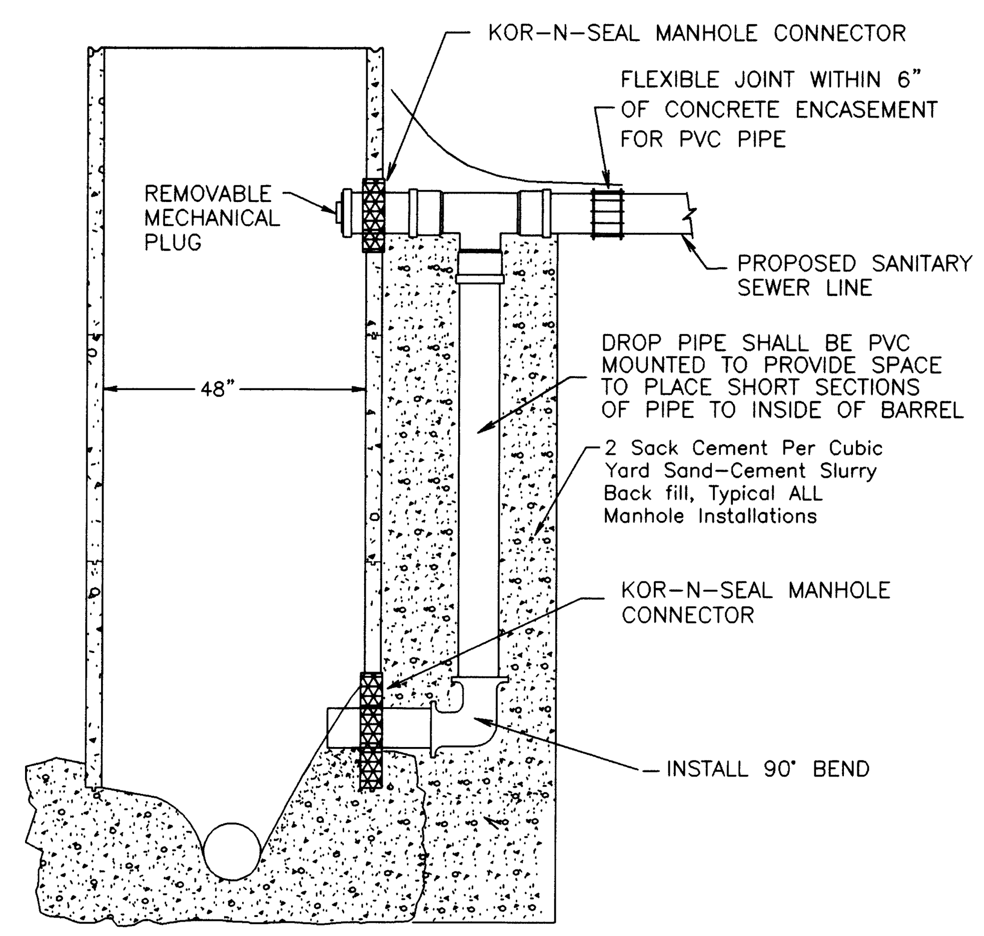
# GREEN SANITARY DISTRICT GENERAL CONSTRUCTION SPECIFICATIONS

1. ALL SANITARY SEWER WORK SHALL BE IN CONFORMANCE WITH GREEN SANITARY DISTRICT'S STANDARDS, SPECIFICATIONS AND ORDINANCES.
2. SANITARY BUILDING SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH OREGON STATE DEPARTMENT OF COMMERCE, BUILDING CODE (LATEST REVISION) AND ITS AMENDMENTS. 8" AND LARGER PUBLIC SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEQ STANDARDS FOR PUBLIC SEWERS AND TO THE LINES, GRADES AND DETAILS SHOWN ON THE PLANS. 4" AND 6" SANITARY BUILDING SEWERS SHALL BE PVC ASTM 3034. ALL LINES SHALL HAVE 12 GAGE INSULATED GREEN TONING WIRE INSTALLED IN THE TRENCH FOR FUTURE LOCATING. CONTRACTOR SHALL INSTALL SEWER LATERALS TO A POINT 5 FEET BEHIND THE PROPERTY LINE AND LATERALS MUST BE AT LEAST 4 FEET DEEP ON PROPERTY.
3. ALL SANITARY BUILDING SEWERS SHALL BE AIR TESTED IN ACCORDANCE WITH APPLICABLE CODE.
4. SANITARY SEWER PIPE SHALL BE PVC ASTM 3034 SDR 35. FOR GRADES OVER 15%, USE CEMENT LINED DUCTILE IRON PIPE.
5. SANITARY SEWERS SHALL BE AIR TESTED IN ACCORDANCE WITH STANDARD SPECIFICATION, UNIBELL B-0.6.85, AFTER COMPACTION OF BACKFILL.
6. SANITARY SEWERS SHALL PASS THE 5% MANDREL DEFLECTION TEST IN ACCORDANCE WITH APPLICABLE APWA SPECIFICATIONS.
7. SANITARY SEWERS SHALL BE INSPECTED AFTER CONSTRUCTION WITH A TV CAMERA PER D.E.Q. REQUIREMENTS.
8. CONCRETE SHALL BE CLASS 5 (1 1/2" MAXIMUM AGGREGATE SIZE) WITH 6 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE, WITH A MINIMUM COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 P.S.I. AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH ASTM C-39.86.
9. WHEREVER SANITARY SEWERS CROSS WATER LINES WITH LESS THAN 18" VERTICAL CLEARANCE, THE SANITARY SEWER SHALL BE C900 PVC OR DUCTILE IRON PIPE 10' MINIMUM EACH SIDE OF WATER LINE.
10. MANHOLES SHALL BE TESTED WITH A VACUUM TO 10 INCHES OF MERCURY, WITH VALVES CLOSED, MEASURE THE TIME FOR VACUUM TO DROP TO 9 INCHES. TIME TO BE GREATER THAN 60 SECONDS FOR 48 INCH DIAMETER MANHOLES.
11. NEW SANITARY SEWER LINES SHALL BE CLEANED WITH A JETTER TRUCK CAPABLE OF PRODUCING 65 GPM AT A PRESSURE OF 1200 PSI MINIMUM. CLEANING SHALL BEGIN AT THE UPSTREAM END OF THE LINE AND PROCEED DOWNSTREAM TO THE BEGINNING OF THE PROJECT. ANY SOIL, ROCKS OR RUBBISH WILL BE REMOVED FROM THE PROJECT SITE.
12. ALL MANHOLE CONNECTIONS SHALL BE INSERTA TEE CONNECTORS.
13. CONTRACTOR SHALL PROVIDE PRE-FORMED U SHAPED GASKETS, CONFORMING TO ASTM F-477.
14. CONTRACTOR SHALL REPLACE ANY AND ALL SURVEY MONUMENTS WHICH ARE AFFECTED BY THE CONSTRUCTION. ALL MONUMENTS WILL BE RESET BY A LICENSED LAND SURVEYOR. ++WHEN GREEN SANITARY DISTRICT FURNISHES THE LICENSED SURVEYOR, CONTRACTOR WILL BE BILLED FOR THE ACTUAL COST OF RESETTING THE MONUMENT OR MONUMENTS.
15. CONTRACTOR SHALL PROVIDE GREEN SANITARY DISTRICT WITH A BOND FOR ONE YEAR EQUIVALENT TO THE COST OF THE SEWER PORTION OF THE CONSTRUCTION BID. ++GREEN SANITARY DISTRICT IS TO BE LISTED AS CO-INSURED ON CONTRACTOR'S INSURANCE POLICY.
16. ALL TONING WIRE SHALL BE TESTED FOR CONTINUITY BEFORE FINAL SURFACING BY A LICENSED ELECTRICAL CONTRACTOR.
17. CONTRACTOR SHALL CONTACT ONE-CALL AT 1-800-332-2344 AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATION.

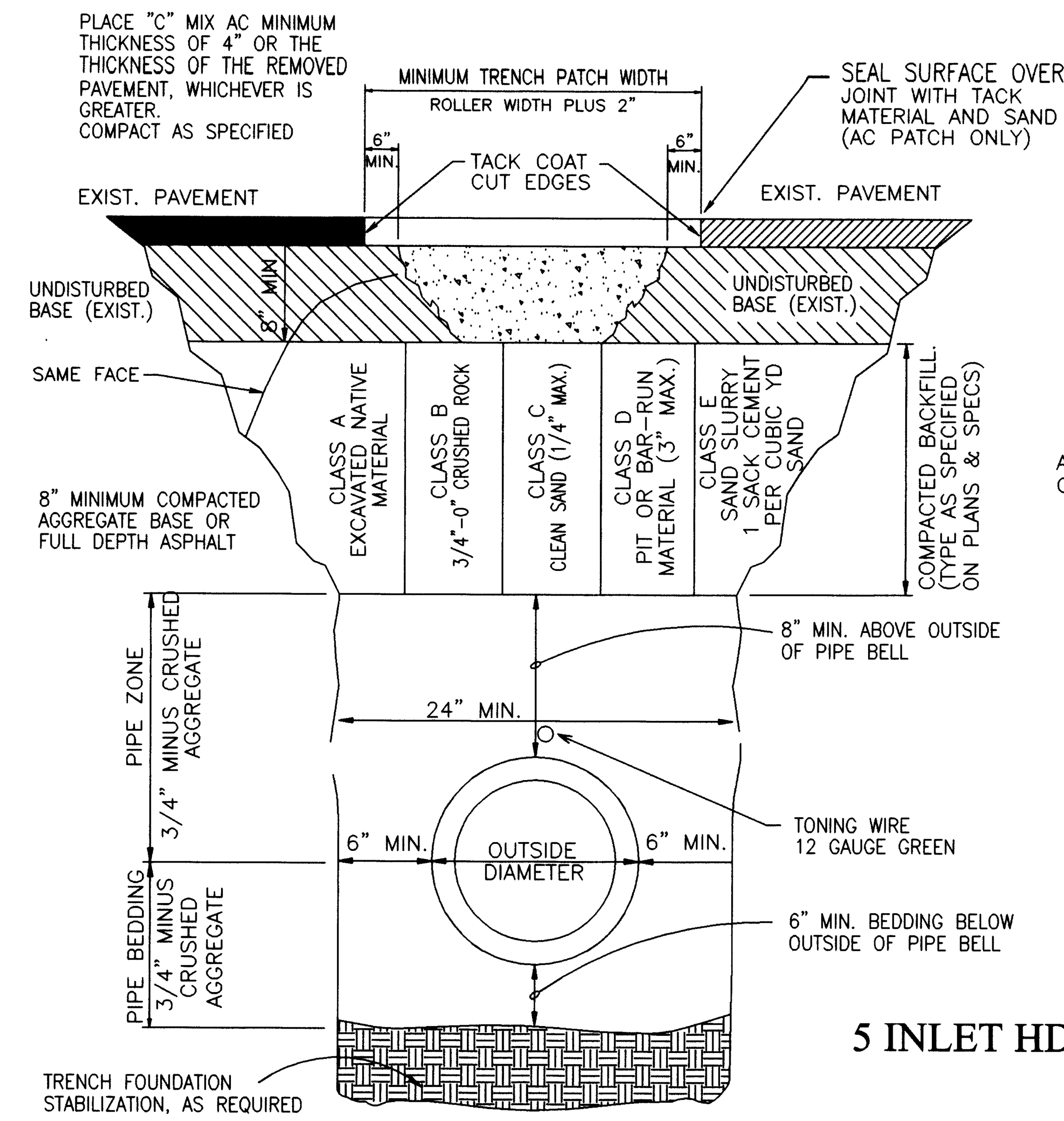
## OUTSIDE DROP INLET MANHOLE




## OUTSIDE DROP INLET MANHOLE



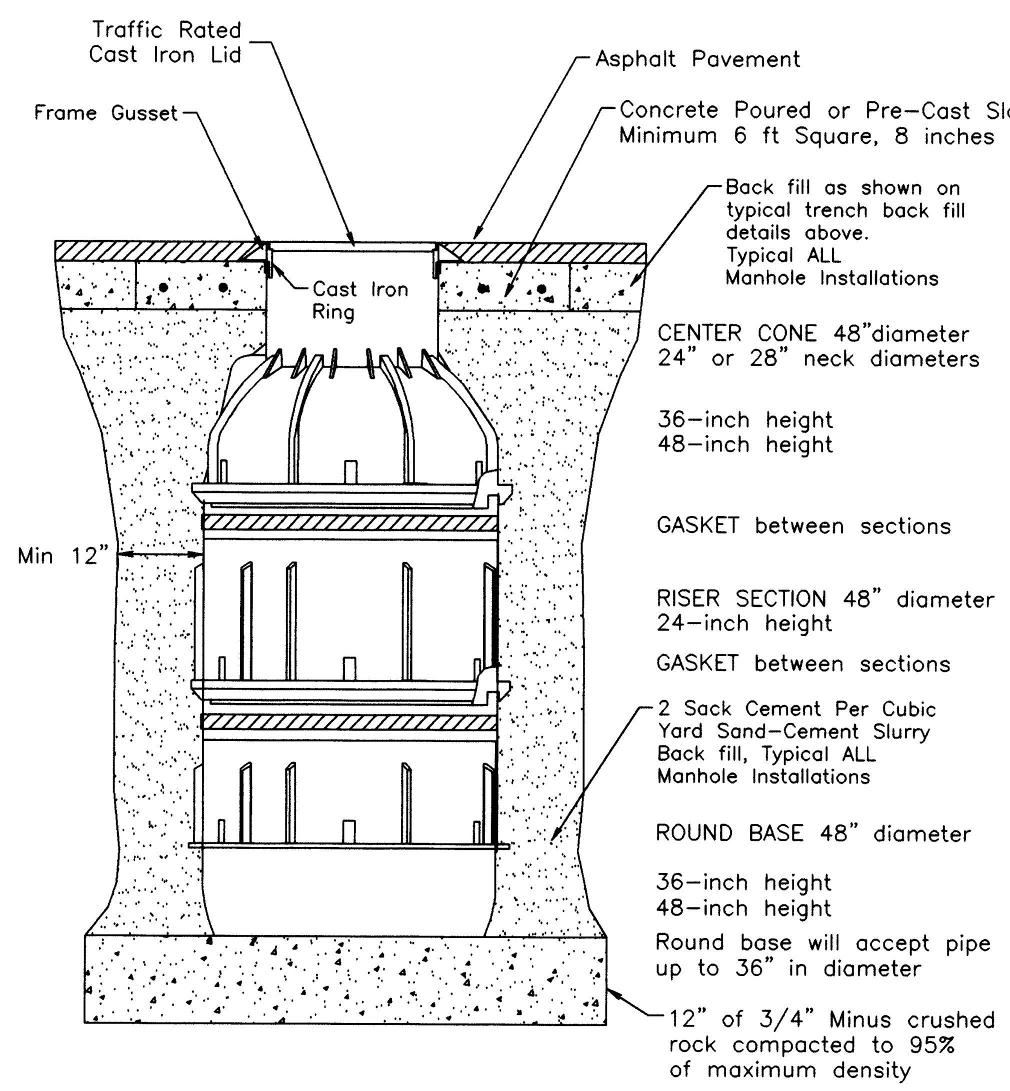

## TYPICAL TRENCH BACK FILL ZONES

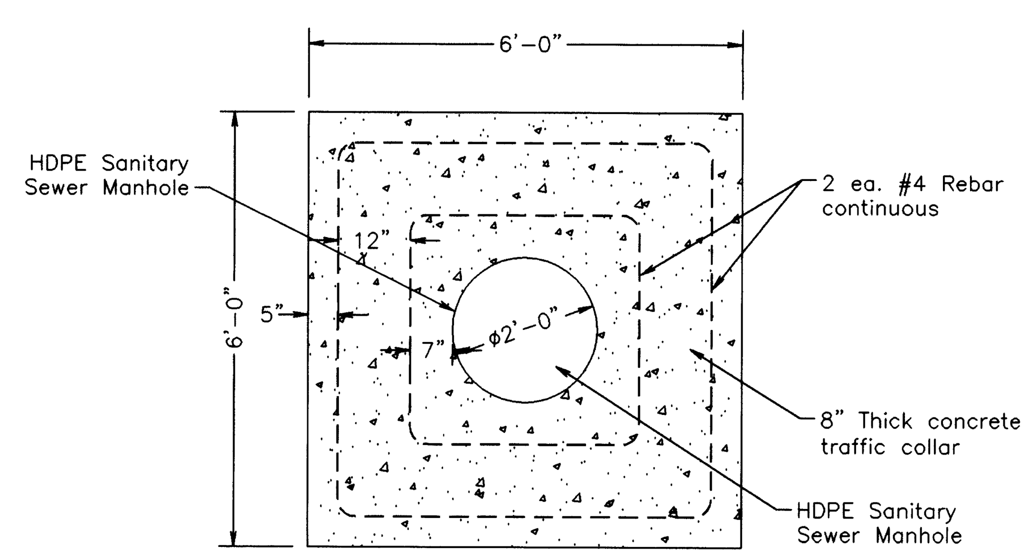



NOTES:

1. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAW CUT PRIOR TO REPAVING.
2. CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6" OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER.

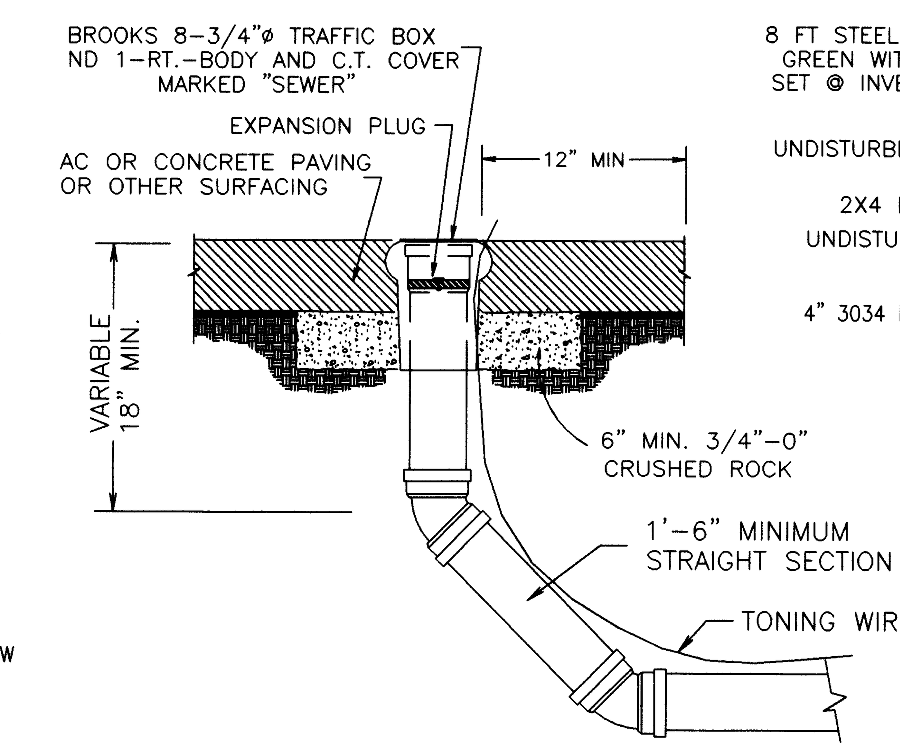
## SANITARY ROUND BASE



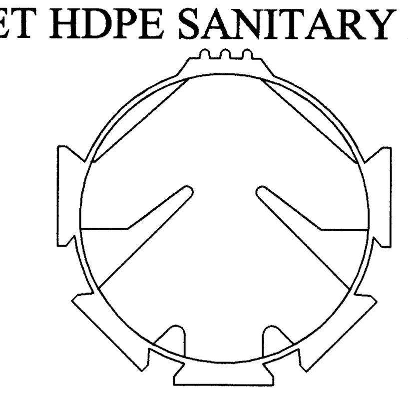




Concrete Poured or Pre-Cast Slab Traffic Ring

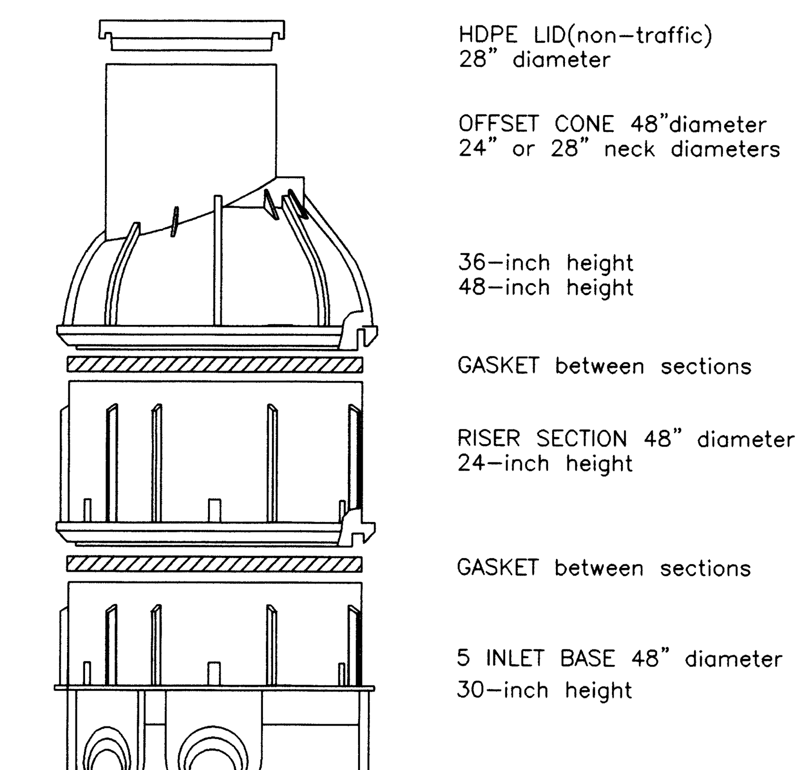
## CLEAN-OUT DETAIL



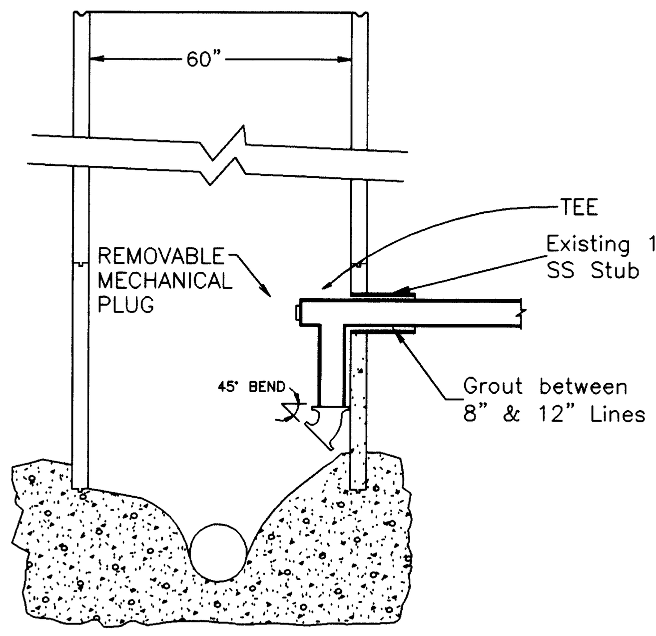

## 5 INLET HDPE SANITARY BASE



## HDPE SANITARY MANHOLE

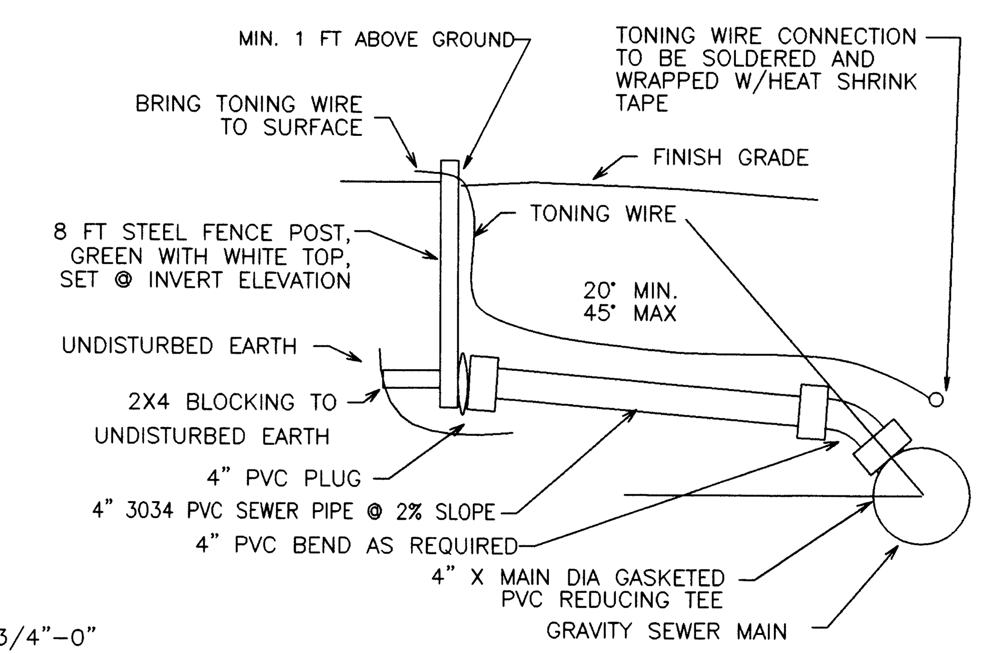



## INSIDE DROP INLET MANHOLE

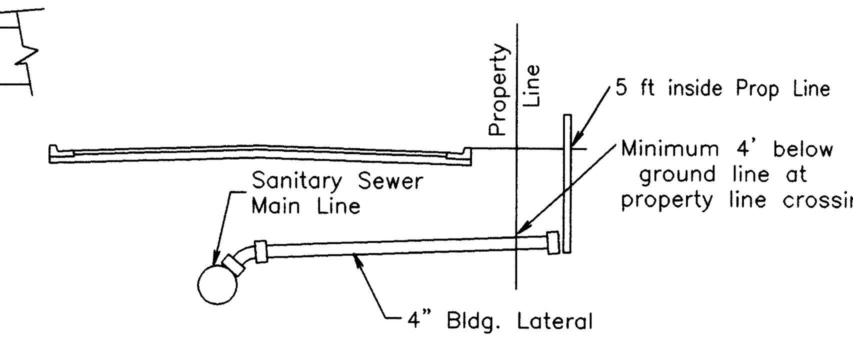



*AS-BUILT PLAN OCTOBER 2004*

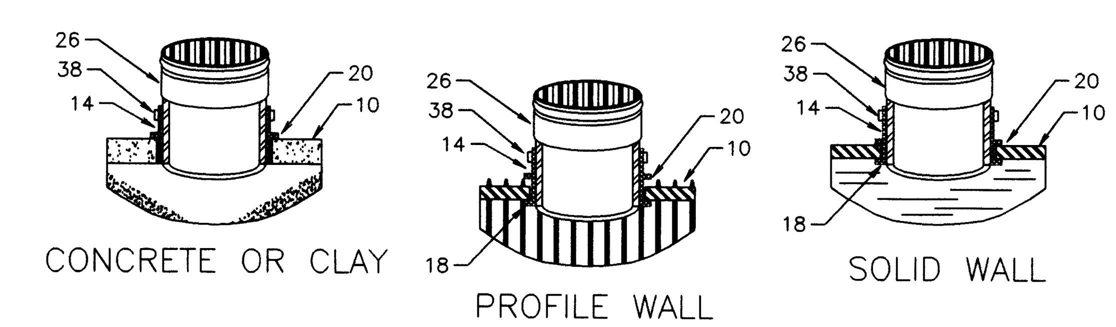
## TYPICAL 4" SEWER SERVICE CONNECTION DETAIL




## BUILDING LATERAL LINE




## INSERTA TEE® CONNECTION DETAILS




10 MAINLINE PIPE WALL WHERE BRANCH LINE IS CONNECTED
14 COMPLETE RUBBER SLEEVE CONSISTING OF C-443 SPECIFICATIONS
18 RUBBER SEGMENT WHICH IS MOLDED INTO THE RUBBER SLEEVE
20 RUBBER SEGMENT WHICH IS MOLDED INTO THE RUBBER SLEEVE
26 SDR-26 PVC HUB (ASTM D-3034) WHICH IS DRIVEN INTO THE CENTER OF THE RUBBER SLEEVE AFTER THE RUBBER SLEEVE IS IN THE HOLE
38 STAINLESS STEEL BAND, PUT ON ABOVE 20 AS AN ADDED PRECAUTION

## INSERTA TEE® INSTALLATION INSTRUCTIONS

| BITS INSERTA TEE SIZE | BIT (HOLE) DIAMETER |
|---|---|
| 4" (100 MM) | 4 1/2" (112.5 MM) |
| 6" (150 MM) | 6 1/2" (162.5 MM) |
| 8" (200 MM) | 8 3/4" (218.8 MM) |
| 10" (250 MM) | 10 7/8" (271.9 MM) |
| 12" (300 MM) | 12 7/8" (321.9 MM) |
| 15" (375 MM) | 15 13/16" (395.3 MM) |

## INSERTA TEE® INSTALLATION PROCEDURE

1. CORE THE PROPER SIZE HOLE AS SHOWN ABOVE
2. INSERT THE RUBBER SLEEVE INTO THE CORED HOLE WITH THE GOLD VERTICAL LINE ON THE RUBBER SLEEVE FACING TO THE SIDE OF THE MAINLINE. THE UPPER SEGMENT SHOULD BE ON THE TOP OF THE WALL OR RIB AND THE LOWER SEGMENT (PVC, RIBBED & POLYETHYLENE PIPE ONLY) SHOULD BE ON THE INSIDE OF THE PIPE.
3. APPLY THE INSERTA TEE SOLUTION SUPPLIED TO THE INSIDE OF THE RUBBER SLEEVE AND TO THE OUTSIDE OF THE PVC HUB ADAPTER. CAUTION! USING PIPE LUBE MAY RESULT IN HUB ADAPTER POPPING OUT
4. PLACE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE. MAKE SURE THAT THE RED VERTICAL LINE ON THE PVC HUB ADAPTER IS IN LINE WITH THE GOLD VERTICAL LINE ON THE RUBBER SLEEVE.
5. PLACE THE 2X4 BOARD ONTO THE TOP OF THE PVC HUB ADAPTER.
6. THE RED HORIZONTAL LINE AT THE TOP OF THE HUB ADAPTER IS A DEPTH MARK. THIS TELLS THE INSTALLER JUST HOW FAR TO DRIVE THE ADAPTER INTO THE RUBBER SLEEVE. USING THE BOARD AND HAMMER, DRIVE THE PVC HUB ADAPTER INTO THE RUBBER SLEEVE TO WHERE THE HORIZONTAL RED LINE ON THE PVC HUB ADAPTER MEETS THE TOP OF THE RUBBER SLEEVE.
7. PLACE THE STAINLESS BAND AROUND THE TOP OF THE RUBBER SLEEVE AND TIGHTEN DOWN
8. INSTALL SIDE SERVICE PIPE IN NORMAL MANNER

## SPECIFICATIONS FOR POLYETHYLENE MANHOLES

1. THIS SPECIFICATION COVERS MATERIALS, MANUFACTURE, DIMENSIONS, AND REQUIREMENTS FOR POLYETHYLENE MANHOLES USED WITH SEWERAGE OR DRAINAGE PIPE AND OR UNDERGROUND CONDUITS WITH OUTSIDE DIAMETERS OF LESS THAN 46 INCHES. MANHOLES SHALL BE MANUFACTURED OF HDPE OR APPROVED EQUAL MEETING THE FOLLOWING SPECIFICATIONS: ASTM D-833; ASTM D-3350; ASTM D-2122; ASTM F-412; ASTM F-2412; ASTM F-477
2. MANHOLES SHALL BE PRODUCED BY THE ROTATIONAL MOLDING PROCESS AND CONSIST OF THE REQUIRED COMBINATIONS OF BASE, RISER, STIFFENING/ANCHOR RING, AND CONE SECTION AS REQUIRED BY ASTM F-477.
3. INTERIOR ACCESS SHALL BE PROVIDED WITH NONMETALLIC FACTORY-MOLDED STEPS.
4. SEGMENTED JOINTS SHALL BE BELL AND SPIGOT WITH A U SHAPED GASKET, CONFORMING TO ASTM F-477.
5. ANCHOR RINGS SHALL BE AT EACH JOINT AND EXTEND 2.5 INCHES FROM MANHOLE O.D.
6. STIFFENER RINGS SHALL BE EQUAL TO OR LESS THAN 24 INCHES APART LONGITUDINALLY AND CIRCUMFERENTIALLY AROUND THE BARREL.

GREEN SANITARY DISTRICT 1962 S

REGISTERED PROFESSIONAL ENGINEER 5188 OREGON JULY 10, 1964 MAURICE E FARR
12-04
EXPIRES 12-31-05

FILED
Date: 3-9-2006 By: JP
This survey consists of:
Map:
Narrative:
Corner Rpt:
DOUGLAS COUNTY SURVEYOR

# GREEN SANITARY DISTRICT CONSTRUCTION SPECIFICATIONS


GREEN SANITARY DISTRICT
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ROSEBURG, OR 97470
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SANITARY SEWER LINE CONSTRUCTION DETAILS AND SPECIFICATIONS

SHEET 3 OF 3

R413SEWR

Co. Rd. #413 M.P. 0.00 - 0.05

CO. RD. #413 SEWER CONST. DETAILS