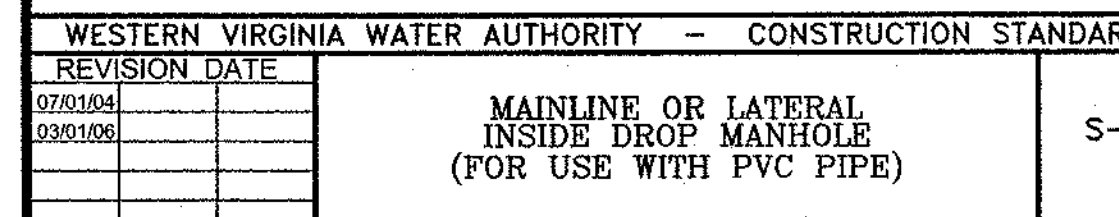
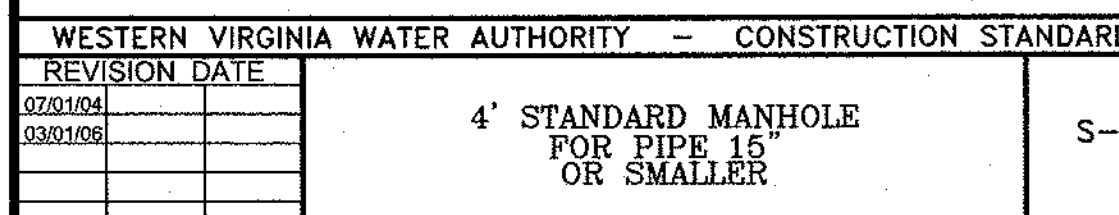


1. THIS PROJECT REQUIRES THE INSTALLATION OF SANITARY SEWER MAIN AND SANITARY SEWER LATERALS. THE INSTALLATION ANTICIPATES THE USE OF DIRECTIONAL DRILL INSTALLATION TO AVOID THE RECONSTRUCTION OF WHITE EAGLE LANE. ACTUAL LENGTH OF DIRECTIONAL DRILL IS AT THE DISCRETION OF THE CONTRACTOR. INSTALLATION OF SEVEN (7) LATERALS ARE ANTICIPATED.
2. THE CONTRACTOR SHALL INSTALL THE PROPOSED SANITARY SEWER MAIN FROM MANHOLE 3 (PROVIDED BY OTHERS), INSTALLING THE MAIN TO MANHOLE 6 (A NEW DROP MANHOLE), INSTALL SEWER MAIN AND LATERAL TO MANHOLE 6A1 (NEW MANHOLE) AND INSTALL SEWER MAIN AND LATERALS TO MANHOLE 6A2 (UTILIZE MANHOLE ONSITE). THIS PROJECT INCLUDES ALL WORK NECESSARY TO INSTALL THE SEWER MAIN, MANHOLES AND LATERALS AS SHOWN.
3. THE CONTRACTOR SHALL PROVIDE EROSION & SEDIMENT CONTROL MEASURES AS REQUIRED TO CONSTRUCT THE SANITARY SEWER MAIN, LATERALS, AND MANHOLES. THE MINIMUM REQUIRED EROSION CONTROL MEASURES ARE SHOWN ON THIS PLAN.
4. THIS PROJECT IS AN ADJUSTMENT OF A PORTION AND A CONTINUATION OF THE WESTERN VIRGINIA WATER AUTHORITY CHEROKEE HILLS SEWER 4900 BLOCK PROJECT.

1. THE LOCATION OF EXISTING UTILITIES IS APPROXIMATE BASED UPON MAPPING PROVIDED BY WVWA AND VISUAL INSPECTION. THE CONTRACTOR SHALL ANTICIPATE ENCOUNTERING UNDERGROUND ELECTRIC, TELEPHONE, CABLE LINES, EXISTING WATERLINES, AND GAS LINES. THE CONTRACTOR SHALL CONTACT "MISS UTILITY" PRIOR TO ANY EXCAVATION.
2. PAVEMENT RECONSTRUCTION IS NOT ANTICIPATED, HOWEVER, SHOULD PAVEMENT RECONSTRUCTION OCCUR, THE CONTRACTOR SHALL PROVIDE A NEAT, VERTICAL SURF ALONG THE PAVEMENT EDGE TO BE REMOVED. THE CONTRACTOR SHALL PROTECT THE SAW CUT FOR THE PAVEMENT RECONSTRUCTION PROCESS IN ACCORDANCE WITH VDOT AND THE WESTERN VIRGINIA WATER AUTHORITY (WVWA).
3. REFERENCE IS DIRECTED TO THE BENCHMARKS SHOWN ON THE PLAN IF ANY. THESE BENCHMARKS ARE BASED ON A PROJECT DATUM. SEE WVWA PROJECT FOR BENCHMARK INFORMATION. CONTOURS SHOWN WITHIN THE SANITARY SEWER ALIGNMENT ARE BASED ON AERIAL MAPPING BY ROANOKE COUNTY.
4. REFERENCE IS DIRECTED TO THE REQUIRED EROSION CONTROL MEASURES FOR THE SANITARY SEWER INSTALLATION.

DIRECTIONAL DRILLING OF LATERALS
WORKING IN CLOSE PROXIMITY TO EXISTING WATERLINES
TREE REMOVAL & DISPOSAL
TREE ROOT PROTECTION



(SF) SILT FENCE VA ESCH STD. 3.05
(PS) PERMANENT SEEDING, VA ESCH STD. 3.32

NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPEN AT ONE TIME. THE ENTIRE PROJECT IS 545 LF OF TRENCH. THE CONTRACTOR SHALL PROVIDE OSHA MINIMUM REQUIREMENTS PERTAINING TO OPEN TRENCHES ADJACENT TO ACTIVE AREAS AT THE END OF EACH DAY.

EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.

MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION & PROMOTE STABILIZATION.

APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.

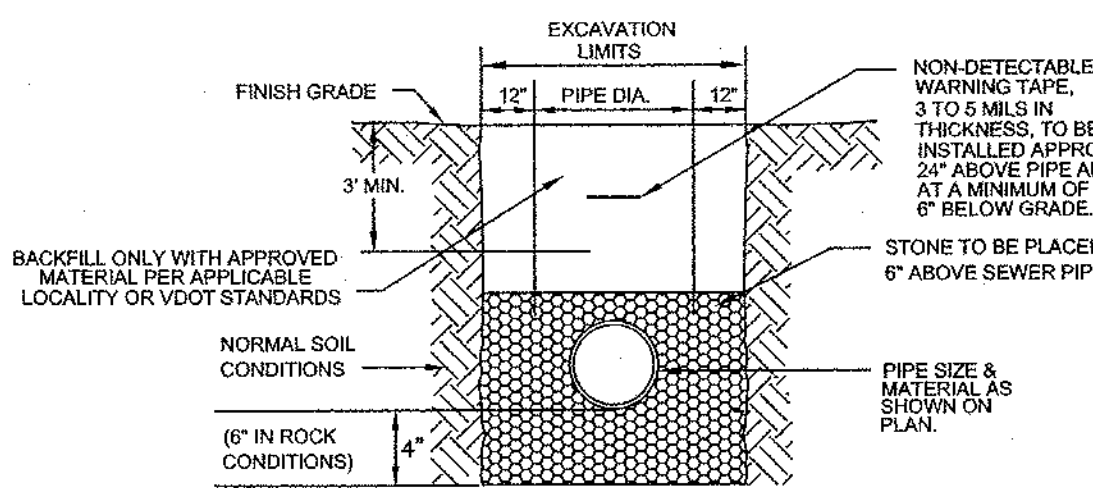
Diagram illustrating the installation of a sanitary tee (tee) into a horizontal section of a pipe, showing various components and specifications:

- PRIVATE PROPERTY OR EASEMENT LINE**: Indicated by a dashed line.
- RIGHT OF WAY OR FENCE LINE**: Indicated by a dashed line.
- 1" HOUSE CLEANSOUT FRAME & COVER**: A component at the top right.
- 1" CEMENT FOUNDRY BRASS CAP (NON-TRAFFIC) OR YB-8'S (TRAFFIC-BEARING)**: A component at the top right.
- 2" OR P.U.E.**: A label at the top right.
- SOLID GLUE CAP**: A component on the left.
- ROUGH GRADE**: A label on the left.
- FINISHED GRADE**: A label on the left.
- P.U.E.**: A label on the left.
- 5 MIN.**: A dimension on the left.
- PLASTIC BODY CLEANSOUT & CAP**: A component on the left.
- CLEAN-OUT TO EXTEND ABOVE GROUND A MIN. OF 3 FEET DURING INSTALLATION OF MAIN LINE, TO UNDER SHALL CUT OUT TO FINISH GRADE & REPLACE C.C. PLUS WHEN BUILDING SEWERS IS CONNECTED TO LATERAL.**: A label on the left.
- OR 2" (1/2" BELL & SPIGOT BEND IF NEEDED)**: A label on the left.
- 45° WYE & RE-ENTER BEND**: A label on the left.
- SANITARY TEE NOT ACCEPTABLE**: A label on the left.
- 45° MAX.**: A dimension on the left.
- SCREW (BSR 35)**: A label on the left.
- CLEAN-OUT STACK (4" MINIMUM)**: A label on the left.
- COUPLING**: A label on the left.
- HORIZONTAL SECTION SHALL EXTEND A MINIMUM OF 5' OR AS DIRECTED BY THE AUTHORITY.**: A label on the left.
- 1/4" FEET 1/2" MINIMUM GRADE**: A dimension on the right.
- 4" MINIMUM GRAVEL BEDDING**: A dimension on the right.
- TEE, WYE, TEE/WYE OR COMBINATION OF WYE & 45° BEND FITTINGS SHALL BE SIZED AS REQUIRED.**: A label on the right.

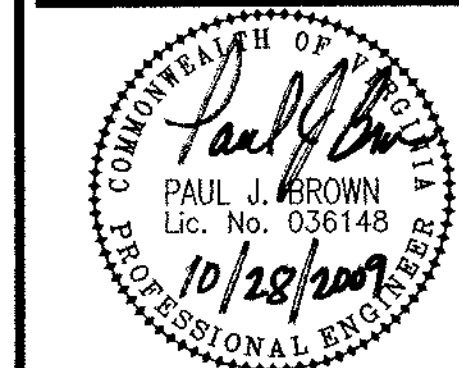
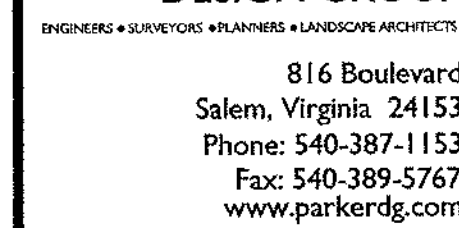
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NOTES:

1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
2. 4" PVC PIPE SHALL BE BEDDED IN UNCOMPACTED VDOT #57 OR #69 STONE.
3. IN AREAS NOT SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS FROM BOTTOM OF TRENCH TO 1' ABOVE THE PIPE AND THE REMAINING SHALL BE PLACED IN 4" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.
4. ALL SEWER LINE PIPE SHALL BE BEDDED IN COMPACTED GRANULAR MATERIAL. BEDDING REQUIREMENTS FOR DUCTILE SEWER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.
5. EXCAVATION SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS, HAZARD RECOGNITION IN TRENCHING AND SHORING."



REVISION DATE		BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS	S-3
7/01/04			
3/01/06			



**Cherokee Hills (4900 Blk)
Sewer Extension**

Rev	Description	Date	By
3	FIELD REV.-ADD "641"-REDESIGN SLOPES	10/28/09	PJB
2	LATERAL REVISION PER WWA	07/09/09	PJB
1	REVISION PER WWA	07/02/09	DRB

Designed: DRB/PJB
 Drawn: DRB
 Checked: PJB
 Approved:
 Date: 2 JULY 2009
 Project: 09-0110-01

C1

Sheet 1 of 1