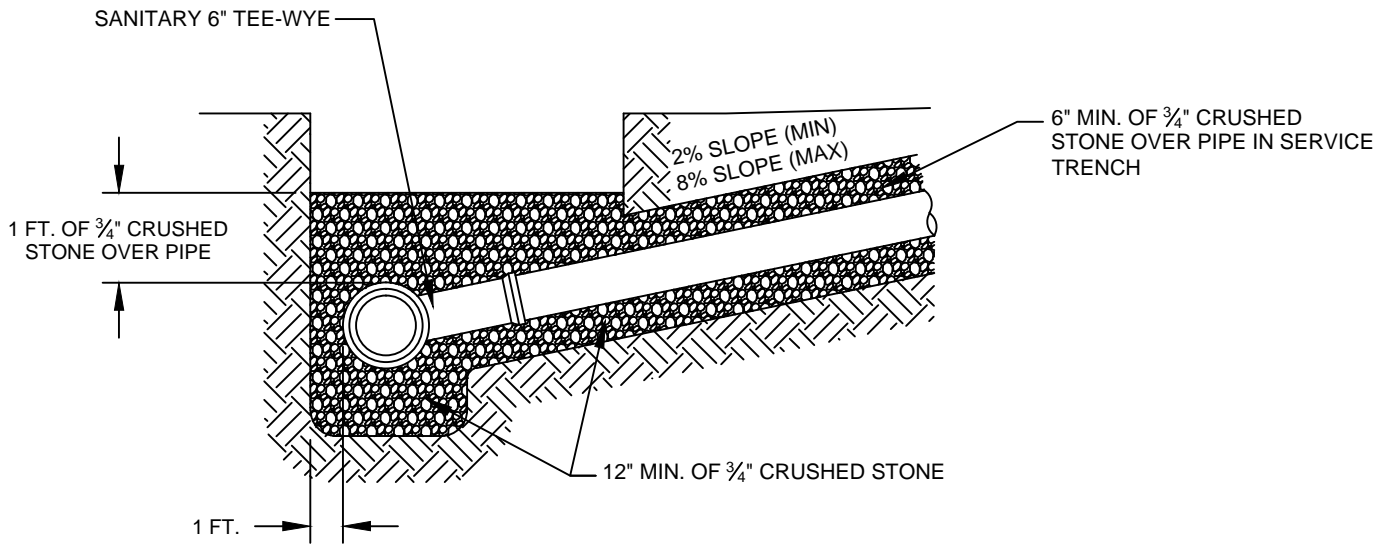
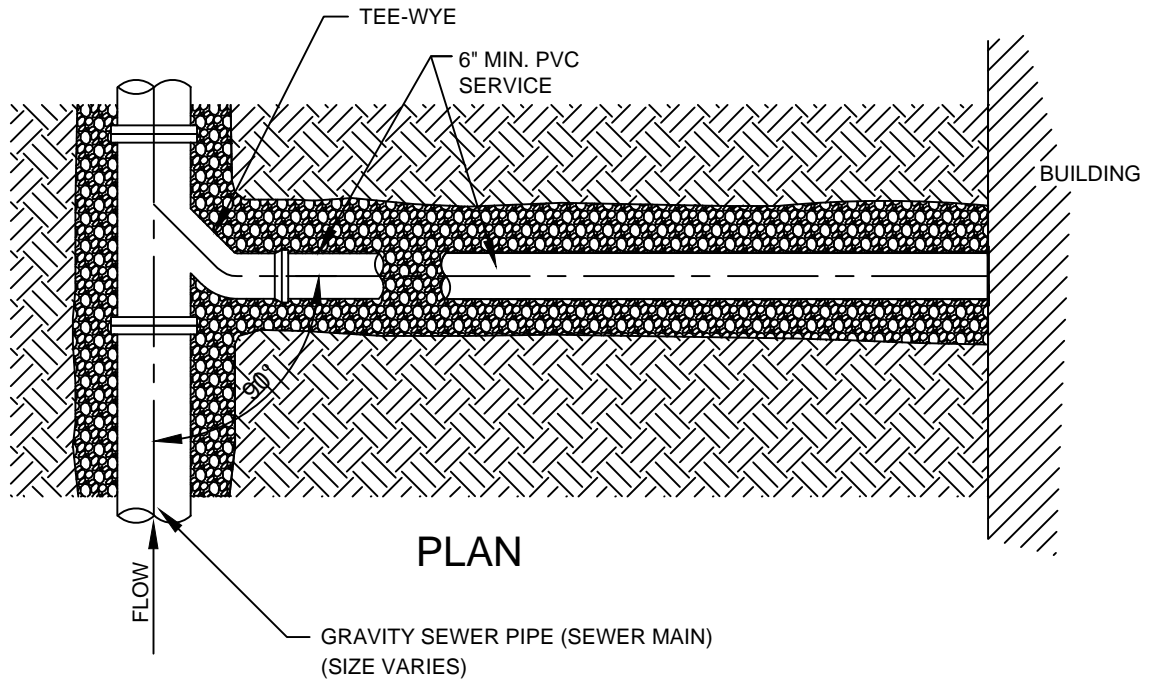




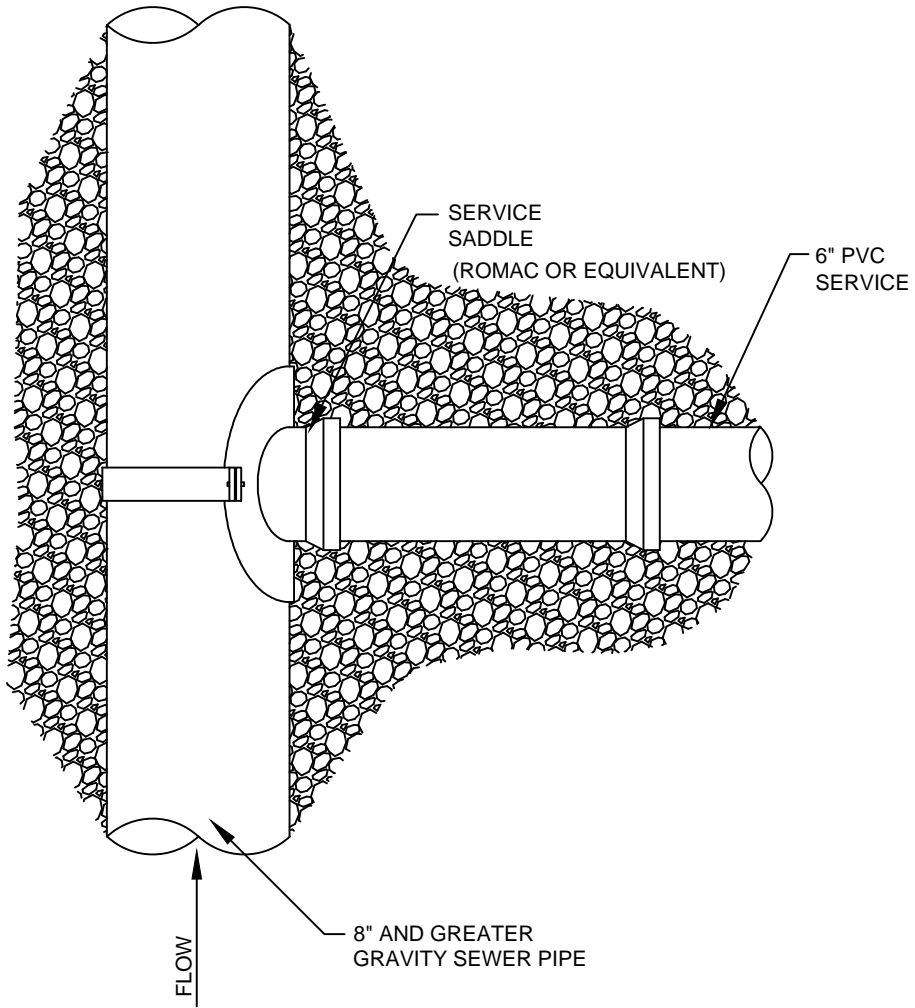
SEWER CONSTRUCTION STANDARD DETAILS

S-0001	Typical Gravity Service Connection
S-0002	Typical Saddle Service Connection
S-0003	Typical Chimney Connection
S-0004	Grinder Pump/Force Main Service Connection
S-0005	Sewer Service Cleanout
S-0006	Typical Utility Pipe Trench Detail
S-0007	Typical Sewer Manhole
S-0008	Sewer Drop Manhole
S-0009	Manhole Pipe Seal/Gasket
S-0010	Typical Sewer Main/Lateral Crossing Detail
S-0011	Typical Oil & Gas Separator
S-0012	Inserta Tee for Lined Rigid Pipe
S-0013	Inserta Tee Installation Detail for Lined Rigid Pipe



NOTE:

1. ALL INSTALLATIONS SHALL CONFORM TO TOWN OF ARLINGTON STANDARD SEWER REGULATIONS & SPECIFICATIONS.



NOTE:

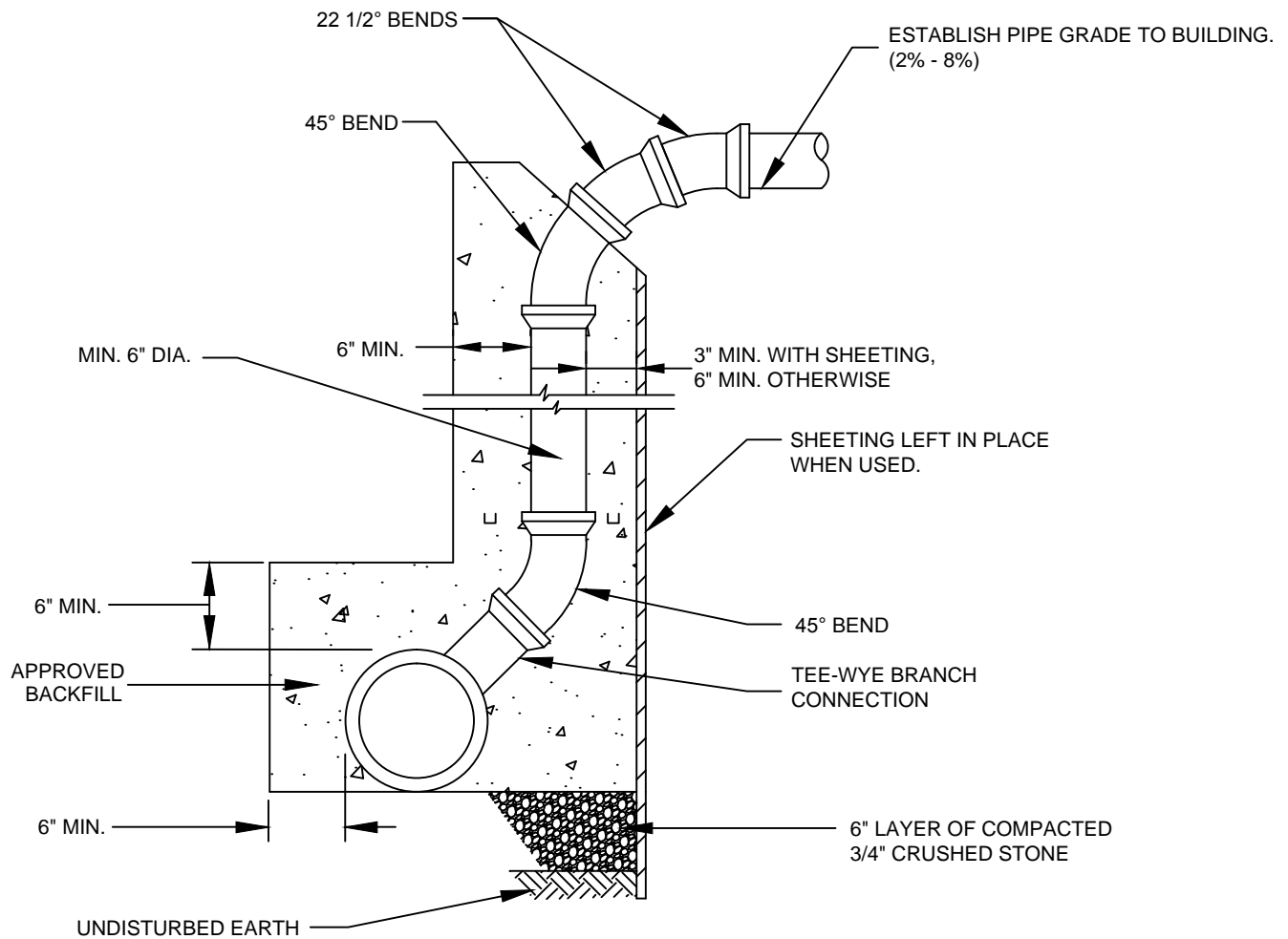
1. ALL INSTALLATIONS SHALL CONFORM TO TOWN OF ARLINGTON STANDARD SEWER REGULATIONS & SPECIFICATIONS.



TYPICAL SADDLE SERVICE CONNECTION

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S-0002



NOTE:

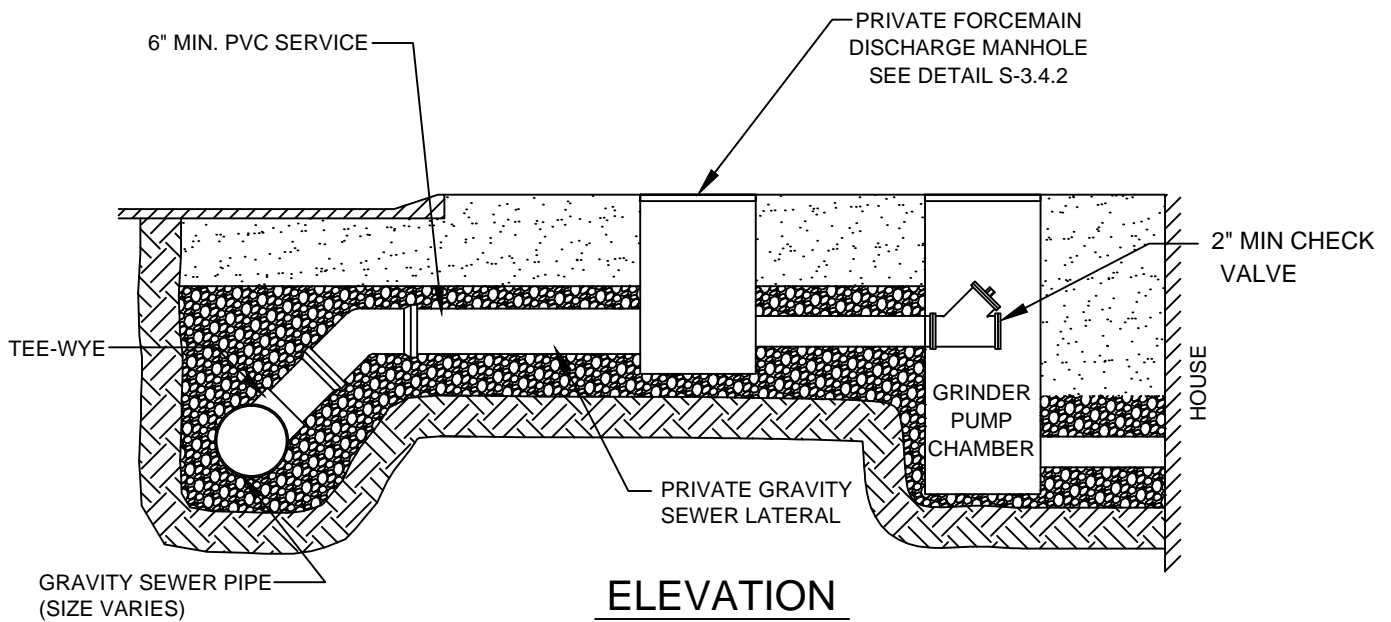
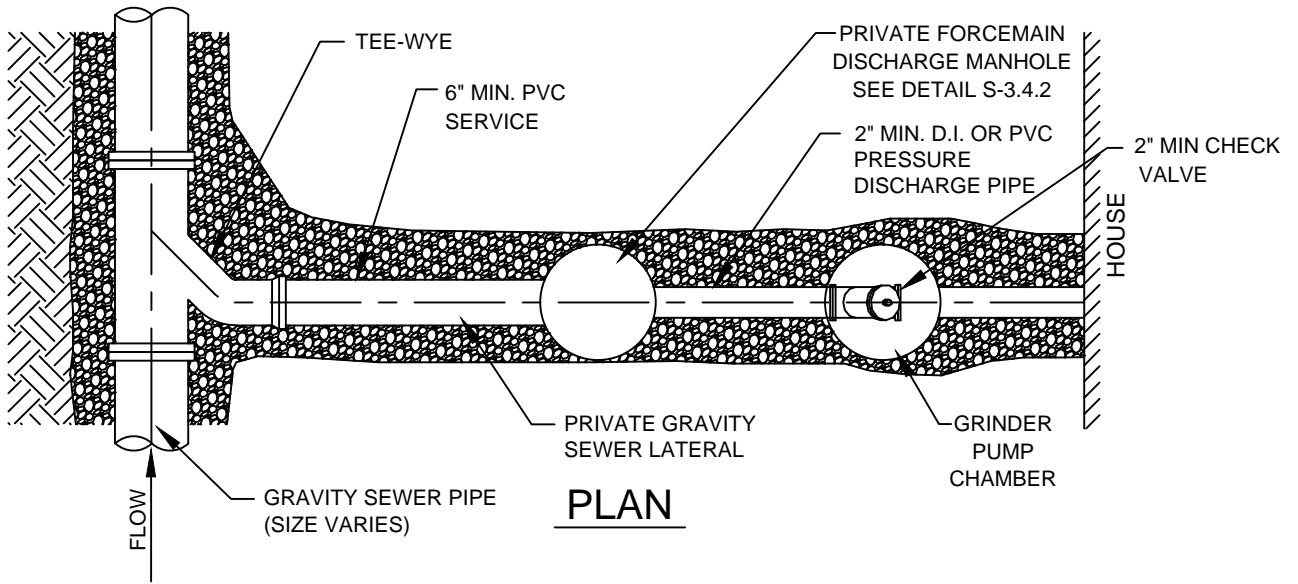
1. ALL INSTALLATIONS SHALL CONFORM TO TOWN OF ARLINGTON STANDARD SEWER REGULATIONS & SPECIFICATIONS.



TYPICAL CHIMNEY CONNECTION

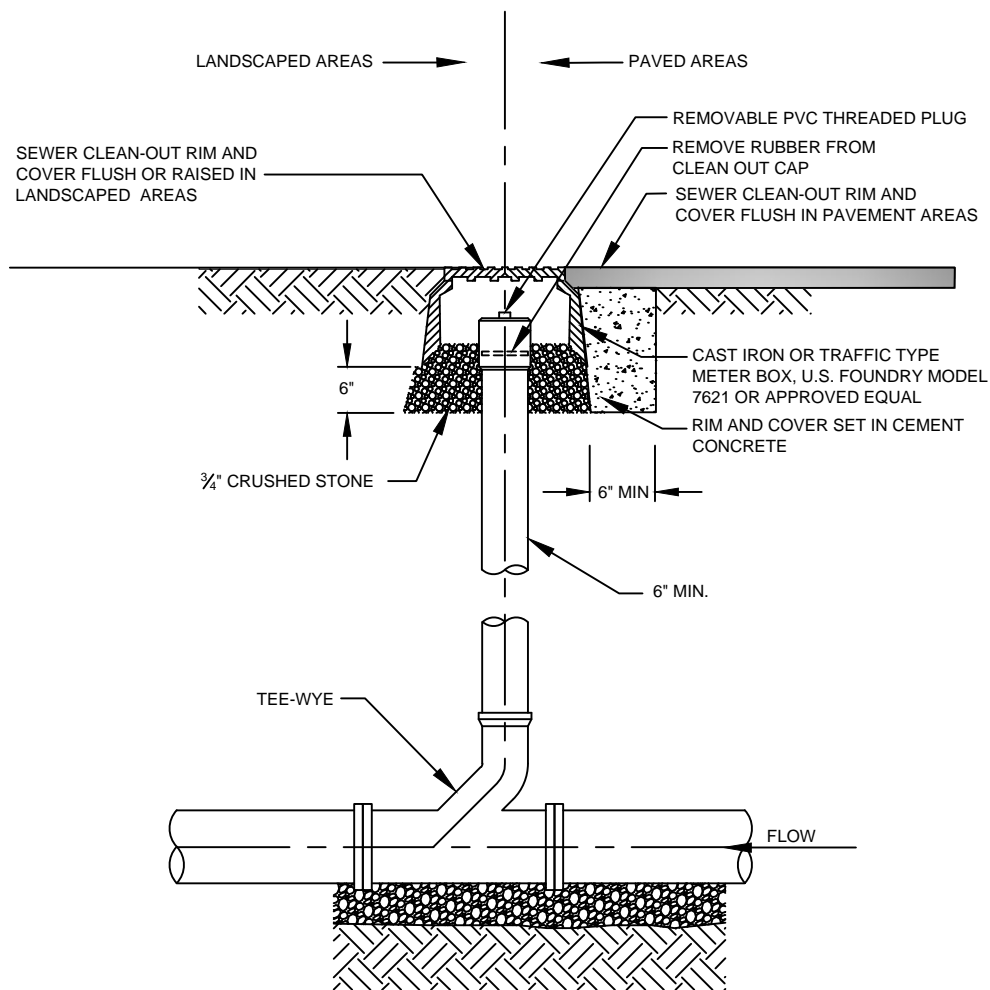
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S-0003



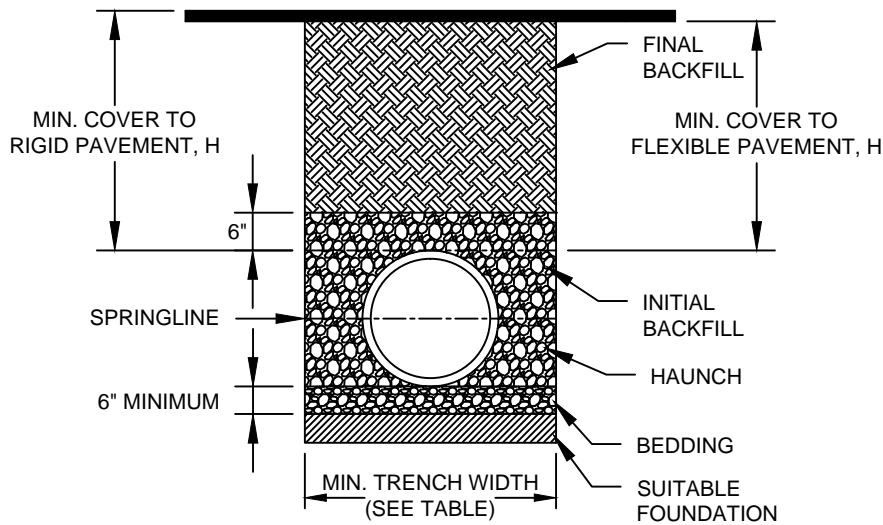
NOTE:

1. ALL INSTALLATIONS SHALL CONFORM TO TOWN OF ARLINGTON STANDARD SEWER REGULATIONS & SPECIFICATIONS.



NOTES:

1. PLACE CLEAN OUT WITHIN 5 FEET OF HOUSE FOUNDATION.
2. CLEAN OUT SHALL BE ACCESSIBLE AT ALL TIMES.
3. 6" MIN. LAYER OF 3/4" CRUSHED STONE 12" IN LEDGE.
4. FLUSH MOUNT BOLT-DOWN BOX ACCEPTABLE UPON SPECIFIC APPROVAL BY DPW.



RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

NOTES:

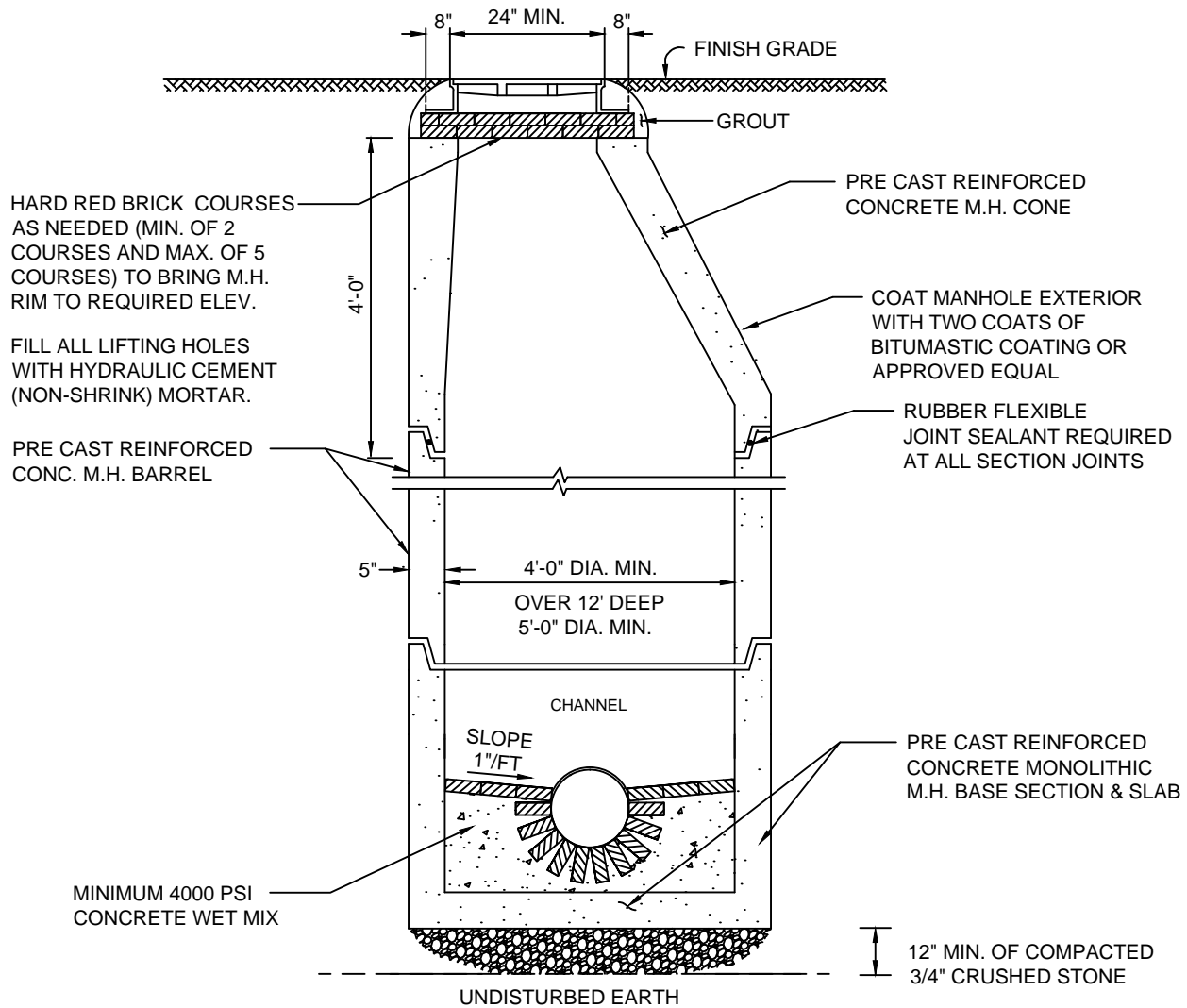
1. ALL BACKFILL SHALL BE PLACED AND COMPACTED IN 6" LIFTS
2. MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
3. **FOUNDATION:** WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER. AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
4. **BEDDING:** PIPE BEDDING FOR WATER UTILITIES SHALL BE SAND. PIPE BEDDING FOR SANITARY AND STORMWATER SEWER UTILITIES SHALL BE 3/4" DIAMETER CRUSHED STONE.
5. **INITIAL BACKFILL:** SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6" ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
6. **MINIMUM COVER:** MINIMUM COVER, H, SHALL BE IN ACCORDANCE WITH TOWN OF ARLINGTON SPECIFICATIONS, REGULATIONS, AND STANDARDS.



TYPICAL UTILITY PIPE TRENCH DETAIL

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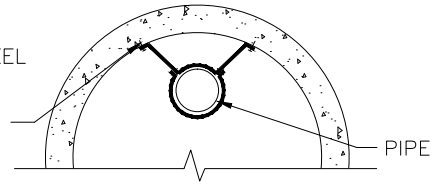
S-0006



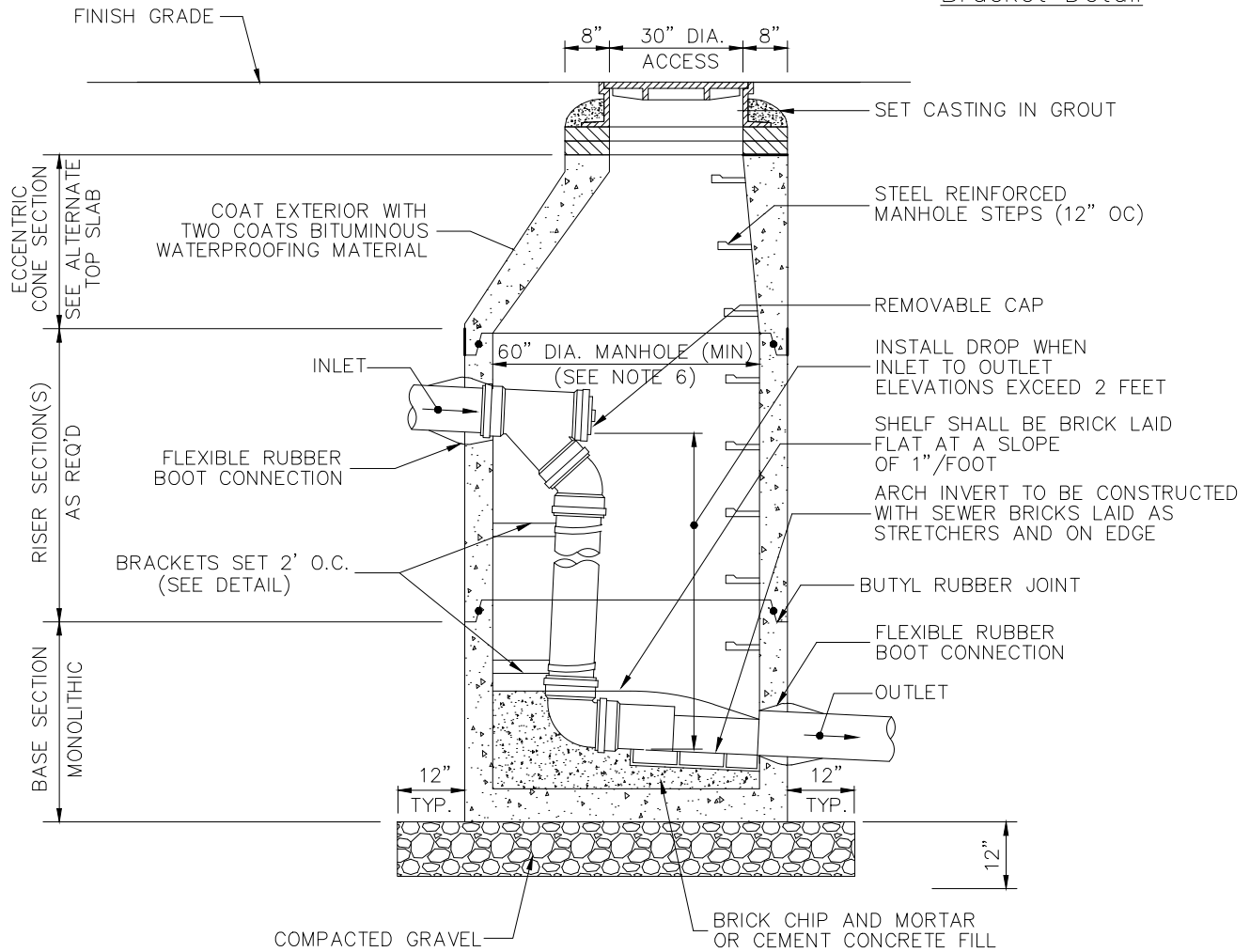
NOTES:

1. TYPICAL SANITARY MANHOLE TO BE 4 FEET IN DIAMETER.
2. 5'-0" DIAMETER FOR ALL MANHOLE DEPTHS GREATER THAN 12 FEET OR WHEN ORDERED BY THE ENGINEER.
3. 6" MIN. WALL THICKNESS AND 7" MIN. BASE THICKNESS WITH 5'-0" DIAMETER MANHOLES.
4. INNER EDGE OF BRICK TABLE TO BE AT ELEVATION OF CROWN OF TOP OF PIPE.
5. DESIGN LOAD - HS20.
6. ALL INVERTS SHALL BE 4,000 PSI CEMENT CONCRETE IN VOID AREAS AND RED SEWER BRICK CONSTRUCTION.
7. INVERTS SHALL NOT BE BUILT ABOVE GRADE. ALL INVERTS SHALL BE BUILT IN PLACE AFTER ALL PIPES HAVE BEEN INSTALLED.

STAINLESS STEEL
BRACKET AND
FASTENERS
2" X 2" THICK



Bracket Detail



NOTES:

1. MANHOLE SECTIONS AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM C478 AND BE SUITABLE FOR HS-20 LOADING.
2. REINFORCING STEEL SHALL BE MIN. 0.12 SQ. IN. STEEL PER VERTICAL FOOT, PLACED ACCORDING TO AASHTO DESIGNATION M199.



**SEWER DROP
MANHOLE**

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S-0008

POWER SEAL INTERLOCKED INSIDE OF GASKET. (ACID RESISTANT-STAINLESS STEEL TYPE 304)

TAKE UP CLAMPS. (ACID RESISTANT-STAINLESS STEEL TYPE 302)
 (1 CLAMP ON 12" PIPE AND SMALLER)
 (2 CLAMPS ON 15" PIPE AND LARGER)

PIPE

NON-SHRINK HYDRAULIC CEMENT GROUT

FLEXIBLE "SEAL BOOT" RESILIENT CONNECTOR IN ACCORDANCE WITH ASTM C923.

PRECAST CONCRETE MANHOLE

NOTE:

1. ALL INSTALLATIONS SHALL CONFORM TO TOWN OF ARLINGTON STANDARD SEWER REGULATIONS & SPECIFICATIONS.



MANHOLE PIPE SEAL/GASKET

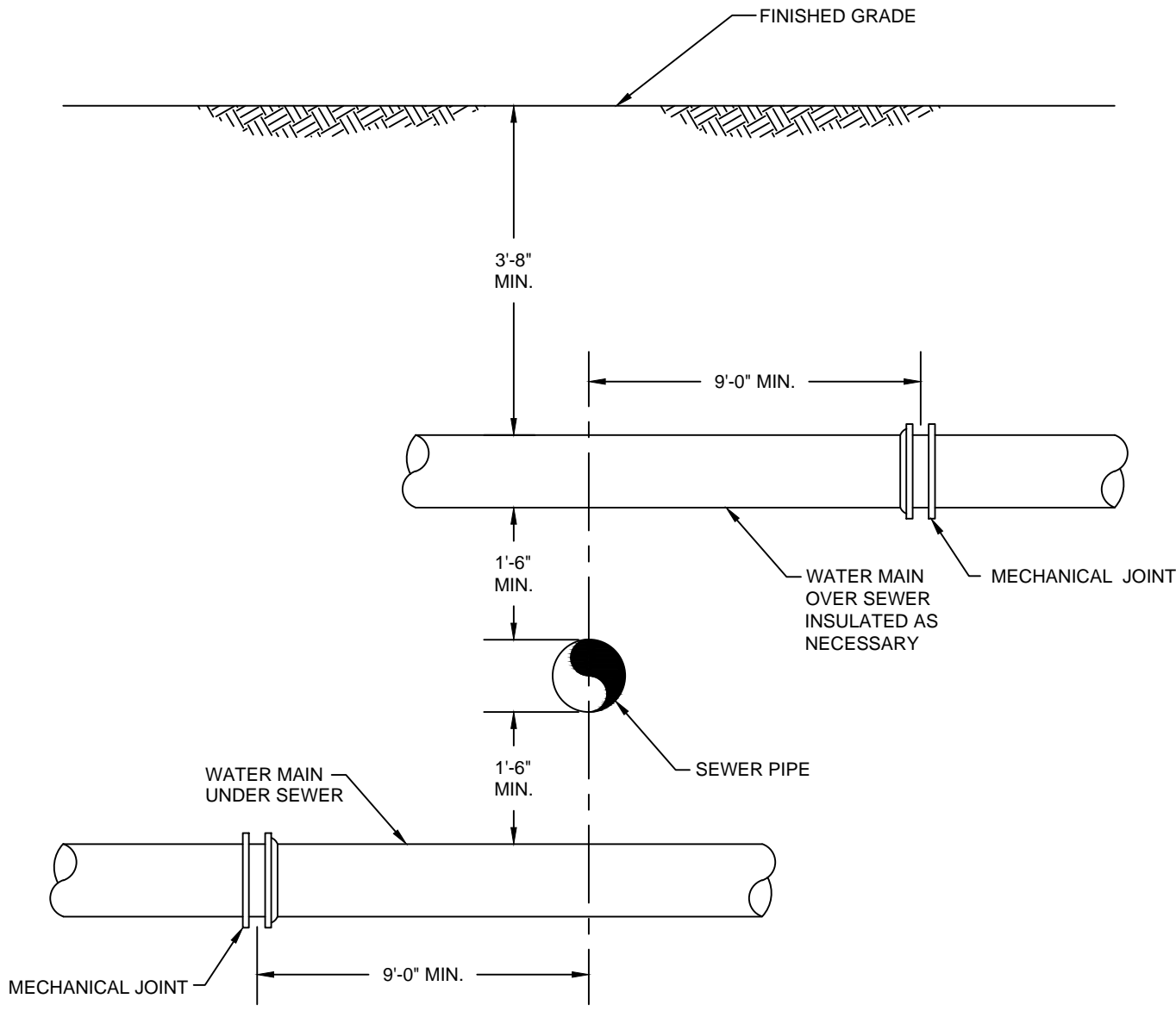
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S-0009



NOTES:

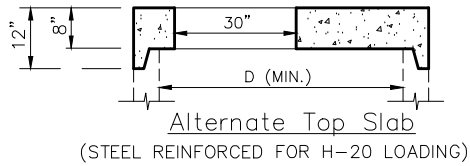
1. SEWERS SHALL BE KEPT REMOTE FROM WATER SUPPLY PIPING AND STRUCTURES. WHEREVER FEASIBLE, SEWERS SHOULD BE LAID AT A MINIMUM HORIZONTAL DISTANCE OF 10 FEET FROM WATER MAINS. IF LOCAL CONDITIONS PREVENT THIS, THE WATER MAIN SHOULD BE LAID IN A SEPARATE TRENCH, AND THE ELEVATIONS OF THE CROWN OF THE SEWER PLACED AT LEAST 18 INCHES BELOW THE INVERT OF THE WATER MAIN.
2. WHENEVER SEWERS MUST CROSS UNDER WATER MAINS, THE CROWN OF THE SEWER SHOULD BE PLACED A MINIMUM OF 18 INCHES BELOW THE INVERT OF THE WATER MAIN. IN ADDITION, THE WATER MAIN MUST BE CONSTRUCTED WITH ONE FULL LENGTH OF PIPE CENTERED ABOVE THE CROSSING. THE WATER PIPE SHALL HAVE MECHANICAL JOINTS FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING.
3. WHEN IT IS IMPOSSIBLE TO OBTAIN HORIZONTAL OR VERTICAL SEPARATION AS STIPULATED ABOVE, BOTH THE WATER AND THE SEWER PIPING SHALL BE CONSTRUCTED SUCH THAT THE PIPE JOINTS ARE PLACED AS FAR AWAY FROM THE CROSSING AS POSSIBLE AND THE PIPE CROSSING SHALL BE ENCASED IN CONTROL DENSITY FILL FOR A DISTANCE OF 10 FEET ON ALL SIDES OF THE CROSSING.



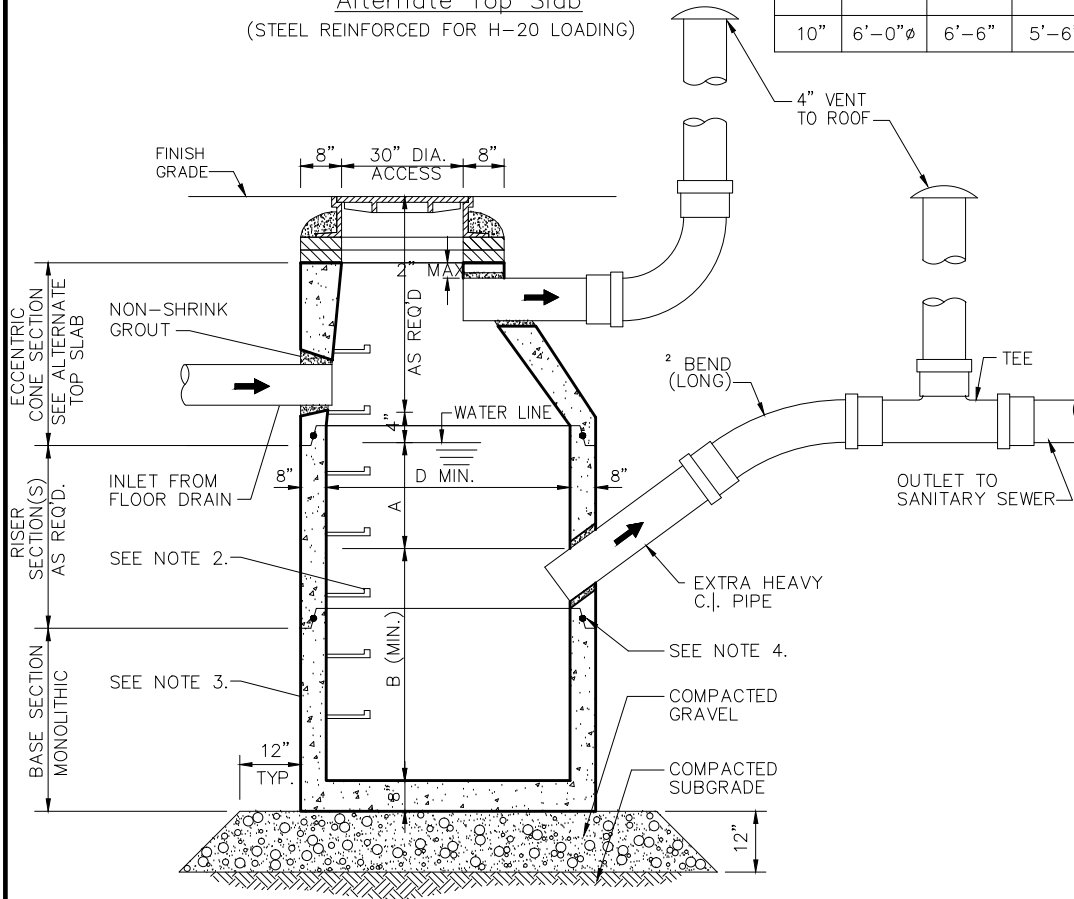
TYPICAL SEWER MAIN/LATERAL CROSSING DETAIL

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S-0010



INLET SIZE	D	A	B
4"	3'-6" \emptyset	3'-0"	2'-6"
5"	4'-0" \emptyset	3'-6"	3'-0"
6"	4'-0" \emptyset 5'-0" \emptyset	5'-0" 3'-6"	4'-6" 3'-0"
8"	5'-0" \emptyset 6'-0" \emptyset	6'-0" 4'-0"	5'-0" 3'-6"
10"	6'-0" \emptyset	6'-6"	5'-6"

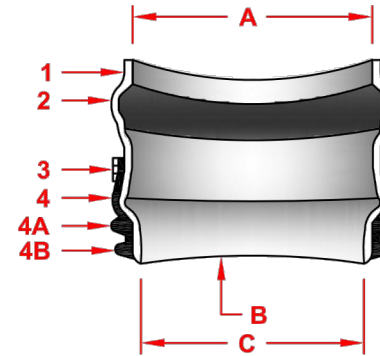


Notes:

1. STRUCTURE SHALL BE DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM).
6. STRUCTURE TO BE LOCATED OUTSIDE OF BUILDING WHERE POSSIBLE.
7. THE STRUCTURE SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.
8. INLET PIPE SHALL BE AT LEAST FOUR INCHES ABOVE NORMAL WATER LINE.
9. WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST THREE FEET BELOW THE SURFACE.
10. THE NEW SEPARATOR MUST BE FILLED WITH CLEAN WATER BEFORE USING, AND AFTER BEING EMPTIED FOR PERIODIC CLEANING.
11. OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT THE BASIN, AND MUST NOT BE DISCHARGED INTO THE SEWER THROUGH OTHER FIXTURES.
12. SPECIFICATIONS FOR COVERING SPECIAL CASES OR CONDITIONS, SHALL BE APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE M.W.R.A.
13. BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 18" ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE M.W.R.A.
14. ALL PIPING AND VENT MATERIAL TO BE EXTRA HEAVY CAST IRON OR DUCTILE IRON.

FATBOY, SDR 26, SDR 35 GASKETED BELL GRAVITY APPLICATIONS

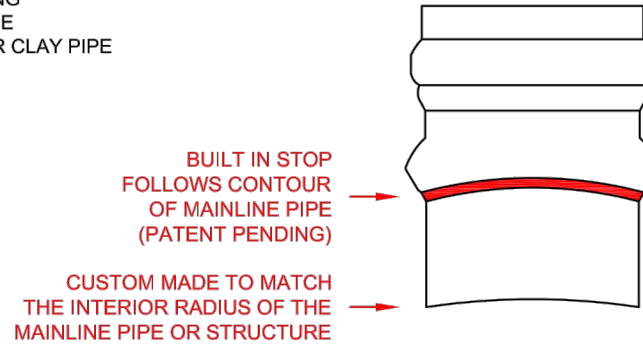
- A.** BELL END ACCEPTS PIPE WITH SDR 26, SDR 35 AND ASTM D3034 OR EQUIVALENT O.D. SPECIFICATION IN 4" AND 6" SIZES.
- B.** CURVATURE VARIES WITH MAINLINE DIAMETERS.
- C.** SPIGOT END SDR 26, PVC SDR 35, ASTM D3034 DIAMETERS: 4" AND 6"



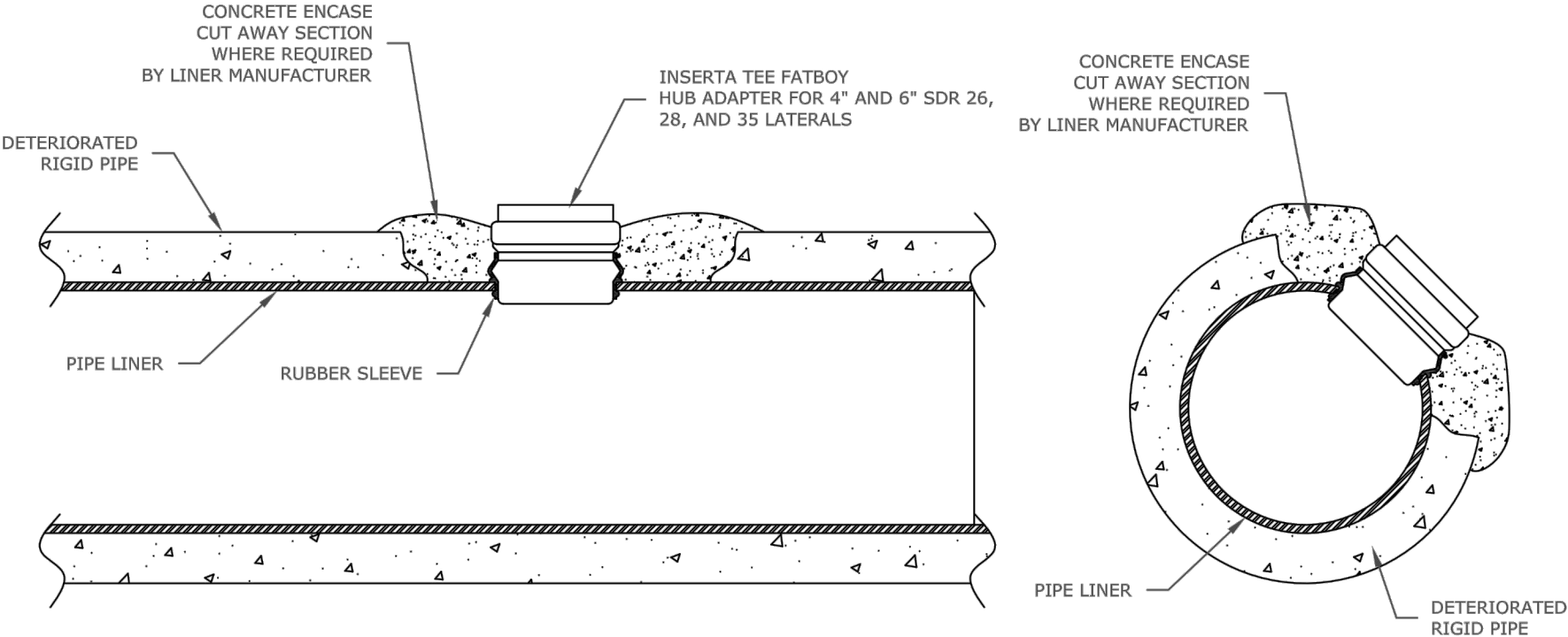
PART	PART NAME	MATERIALS
1	HUB ADAPTOR	PVC SDR 26 ASTM D3034
2	RUBBER GASKET	ASTM F477
3	SECURING CLAMP*	BAND SS #301 SCREW SS #305 HOUSING SS #301
4	RUBBER SLEEVE (AVAILABLE IN NITRILE AND EPDM BY SPECIAL ORDER)	ASTM F477
4A	UPPER SEGMENT**	
4B	LOWER SEGMENT***	

* OPTIONAL: #316 STAINLESS STEEL BAND, SCREW AND HOUSING
 ** DISTANCE BETWEEN 4A AND 4B WILL VARY BY PRODUCT TYPE
 *** WILL NOT APPEAR ON RUBBER SLEEVES FOR CONCRETE OR CLAY PIPE

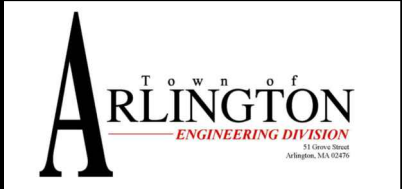
INSERTA TEE SIZE	HOLE DIAMETER
4" (100 mm)	4 1/2" (114 mm)
6" (150 mm)	6 1/2" (165 mm)



INSTALLATION DETAIL FOR TAPPING LINED RIGID PIPE USING INSERTA TEE FATBOY®



- INSTALLATION INSTRUCTIONS:**
1. MARK AREA TO BE TAPPED ON SURFACE OF RIGID PIPE. WORKING AREA SHOULD BE 2-INCHES WIDER THAN DIAMETER OF INSERTA TEE.
 2. BREAK AWAY RIGID PIPE SECTION TO BE TAPPED AND EXPOSE NEW LINER SECTION.
 3. BRUSH AND CLEAN PIPE LINER SURFACE AND REMOVE DAMAGED SECTIONS OF RIGID PIPE.
 4. CORE HOLE INTO LINER WITH APPROPRIATE INSERTA TEE HOLE SAW.
 5. INSTALL INSERTA TEE FATBOY® TAP CONNECTION PER PROVIDED INSTALLATION INSTRUCTIONS.
 6. ENCASE CUT OUT SECTION OF RIGID PIPE WITH CONCRETE WHERE REQUIRED BY LINING MANUFACTURER.



INSERTA TEE INSTALLATION DETAIL FOR LINED RIGID PIPE

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