

<p>1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND MANUFACTURER'S RECOMMENDATION.</p> <p>2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE, OR CRUSHER RUN.</p> <p>3. IN AREAS 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 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.</p> <p>4. BEDDING REQUIREMENTS FOR DUCTILE IRON WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.</p> <p>5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS, TRENCHING AND SHORING".</p> <p>6. THE TRACER WIRE SHALL BE PLACED ALONG THE LOWER QUADRANT OF THE PIPE. THE WIRE SHALL NOT TOUCH THE PIPE, BUT SHALL BE A MAXIMUM OF 6" FROM THE PIPE. NON-METALLIC SPACERS MAY BE USED TO MAINTAIN A SET DISTANCE FROM THE UTILITY.</p>	<p>1. BEDDING, HAUNCHING AND INITIAL BACKFILL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THIS DETAIL AND MANUFACTURER'S RECOMMENDATION.</p> <p>2. ALL PVC PIPE SHALL BE BEDDED IN COMPACTED VDOT #57 OR #68 STONE.</p> <p>3. IN AREAS SUBJECTED TO VEHICULAR TRAFFIC, BEDDING STONE AND FILL SHALL BE PLACED IN 6" LIFTS AND SHALL BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D 698.</p> <p>4. BEDDING REQUIREMENTS FOR DUCTILE IRON WATER LINE ARE DEPENDENT ON MANUFACTURER'S BEDDING CRITERIA.</p> <p>5. ALL EXCAVATIONS SHALL COMPLY WITH OSHA TECHNICAL MANUAL, CHAPTER 2, TITLED "EXCAVATIONS, TRENCHING AND SHORING".</p> <p>6. THE TRACER WIRE SHALL BE PLACED ALONG THE LOWER QUADRANT OF THE PIPE. THE WIRE SHALL NOT TOUCH THE PIPE, BUT SHALL BE A MAXIMUM OF 6" FROM THE PIPE. NON-METALLIC SPACERS MAY BE USED TO MAINTAIN A SET DISTANCE FROM THE UTILITY.</p>	<p>1. MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-03.</p> <p>2. WHEN USED AS SAMPLING MANHOLE FLOW SHALL PASS STRAIGHT THROUGH 1/8", 180°.</p> <p>3. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE AT LEAST 18" FROM BOTTOM OF MANHOLE.</p> <p>4. REMAINING COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE.</p> <p>5. SEPARABLE JOINT MANHOLE CONNECTION SHALL BE AS MANUFACTURED BY PRES-SEAL GASKET CORPORATION OR EQUAL.</p> <p>6. GROUT ANNUAL SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE.</p> <p>7. WHEN REPLACING AN EXISTING MANHOLE OR INSTALLING A NEW PRECAST MANHOLE ON AN EXISTING MATERIAL ON INLET AND OUTLET OF MANHOLE.</p> <p>8. MANHOLES WHERE THE INVERT IS LOWER THAN THE NORMAL GROUNDWATER ELEVATION (I.E., ALONG DRAINAGE DIVERS, LOW-LYING AREAS, ETC.) SHALL HAVE A FULL EXTERIOR COATING AND JOINT WRAP APPLIED IN ADDITION TO JOINT SEALANT. SEE NOTES 10 & 11.</p> <p>9. COATING SHALL BE APPLIED IN TWO COATS TO A MINIMUM TOTAL THICKNESS OF 16 MILS.</p> <p>10. IF REQUIRED ALL MANHOLES SHALL UTILIZE AN EXTERNAL FRAME AND JOINT SEAL AT ALL JOINTS AND AT THE FRAME/CHIMNEY INTERFACE.</p> <p>11. SEAL SHALL BE MADE OF EPDM RUBBER IN ACCORDANCE WITH ASTM D412 OR POLYOLEFIN BACKED EXTERIOR JOINT WRAP IN ACCORDANCE WITH ASTM E-1745, C-877, AND C-990.</p> <p>12. EPDM SEAL SHALL HAVE A MINIMUM THICKNESS OF 60 MILS. POLYOLEFIN BACKED EXTERIOR JOINT WRAP SHALL HAVE A BACKING BAND ELEMENT WITH MINIMUM THICKNESS OF 4 MILS. AND BUTYL ROLLER ADHESIVE WITH MINIMUM THICKNESS OF 60 MILS. SEAL SHALL AGGRESSIVELY BOND TO CONCRETE AND METAL STRUCTURES.</p> <p>13. FOR PIPE LARGER THAN 15 INCHES IN DIAMETER, THE MINIMUM INSIDE DIAMETER OF THE MANHOLE SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS BASED ON PIPE SIZE AND ANGLE BETWEEN INLET AND OUTLET PIPING.</p> <p>14. 6" MINIMUM DIAMETER MANHOLE SHALL BE REQUIRED WHEN DEPTHS EXCEED 15' UNLESS OTHERWISE APPROVED BY PARTICIPATING UTILITY.</p>	<p>1. WATERTIGHT MANHOLE FRAME MODEL #1045Z BY EAST JORDAN IRON WORKS, INC. OR EQUIVALENT.</p> <p>2. HOPE ADJUSTMENT RINGS SHALL MEET H-20 LOAD RATING, AND SHALL BE INTERLOCKING OR UTILIZE BUTYL MASTIC JOINT SEALANT BETWEEN EACH RING TO FORM A WATERTIGHT JOINT.</p> <p>3. CONCRETE ADJUSTMENT RINGS SHALL MEET H-20 LOAD RATING AND UTILIZE BUTYL MASTIC JOINT SEALANT BETWEEN EACH RING AND FRAME AN COVER TO FORM A WATERTIGHT JOINT.</p> <p>4. FRAME HEIGHT SHALL BE 7" FOR BURIED LOCATIONS AND 4" FOR EXPOSED LOCATIONS.</p>
WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL	WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL	WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL	WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL
BEDDING AND BACKFILL OUTSIDE OF PAVED AREAS 08/01/15	BEDDING AND BACKFILL UNDER PAVEMENT AND IN RIGHT-OF-WAY 08/01/15	4' STANDARD MANHOLE FOR PIPE 15" OR SMALLER (FOR DEPTHS UP TO 15 FEET) 08/01/15	WATERTIGHT MANHOLE FRAME 01/01/14

<p>1. TRAFFIC BEARING BOX AND LID REQUIRED IN TRAFFIC AREAS (CAPTOL, FOUNDRY YB-9'S).</p> <p>2. SEWER LATERAL AND CLEANOUT PIPING SHALL BE ASTM D3034 SDR 26. SEWER LATERAL FITTINGS SHALL BE OF SEWER MAIN. SCHEDULE 40 SOLVENT WELD PIPE AND FITTINGS MAY BE USED FOR THE SEWER LATERAL AND CLEANOUT ASSEMBLY WITH APPROVAL FROM THE PARTICIPATING UTILITY.</p> <p>3. ALL PIPE SHALL BE OF SAME SIZE.</p> <p>4. NO BENDS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEANOUT STACK WYE, (EXCEPT FOR DEEP SEWER, AS SHOWN BELOW).</p> <p>5. ALL MAIN LINE TAPS ON ACTIVE MAINS SHALL BE PERFORMED BY PARTICIPATING UTILITY.</p> <p>6. PIPING ON PRIVATE SIDE OF CLEANOUT TO BE INSTALLED PER GOVERNING JURISDICTION REQUIREMENTS.</p> <p>7. MINIMUM LATERAL SIZE: 4" FOR RESIDENTIAL, SERVICE: 6" FOR NON-RESIDENTIAL SERVICE.</p> <p>8. SEWER CLEANOUTS SHALL BE SAME SIZE AS SEWER LATERAL.</p> <p>9. MINIMUM COVER FOR ALL SEWER LATERALS SHALL BE THREE (3) FEET.</p> <p>10. PROPERTY OWNER RESPONSIBLE FOR INSTALLING CLEANOUT ON PROPERTY LINE (IN ACCORDANCE WITH THIS DETAIL) WHEN MAINTENANCE OCCURS.</p> <p>11. LOWEST SERVED FINISHED FLOOR ELEVATION SHALL BE A MINIMUM OF THREE FEET (3') ABOVE THE TOP OF THE MAIN AT THE POINT WHERE THE SERVICE LATERAL CONNECTS TO THE MAIN.</p> <p>12. WHEN CONNECTING TO EXISTING LATERAL USE FERNCO FLEXIBLE COUPLING.</p>	<p>1. SAME SIZE LATERAL AND CLEANOUT PIPING SHALL BE ASTM D3034 SDR 26. SEWER LATERAL FITTINGS SHALL BE OF SEWER MAIN. SCHEDULE 40 SOLVENT WELD PIPE AND FITTINGS MAY BE USED FOR THE SEWER LATERAL AND CLEANOUT ASSEMBLY WITH APPROVAL FROM THE PARTICIPATING UTILITY.</p> <p>2. ALL PIPE SHALL BE OF SAME SIZE.</p> <p>3. NO BENDS ARE ALLOWED IN THE LATERAL FROM THE MAIN TO THE CLEANOUT STACK WYE, (EXCEPT FOR DEEP SEWER, AS SHOWN BELOW).</p> <p>4. ALL MAIN LINE TAPS ON ACTIVE MAINS SHALL BE PERFORMED BY PARTICIPATING UTILITY.</p> <p>5. 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SADDLES MUST BE USED WITH ALL PLASTIC & DUCTILE IRON PIPE. SERVICE SADDLES SHALL BE USED IN ACCORDANCE WITH THE DISTRIBUTION PIPING SPECIFICATION. SERVICE SADDLES FOR PLASTIC PIPE SHALL BE: POWERSEAL 3417, OR 3418, OR 3419, OR 3420, OR 3421, OR 3422, OR 3423, OR 3424, OR 3425, OR 3426, OR 3427, OR 3428, OR 3429, OR 3430, OR 3431, OR 3432, OR 3433, OR 3434, OR 3435, OR 3436, OR 3437, OR 3438, OR 3439, OR 3440, OR 3441, OR 3442, OR 3443, OR 3444, OR 3445, OR 3446, OR 3447, OR 3448, OR 3449, OR 3450, OR 3451, OR 3452, OR 3453, OR 3454, OR 3455, OR 3456, OR 3457, OR 3458, OR 3459, OR 3460, OR 3461, OR 3462, OR 3463, OR 3464, OR 3465, OR 3466, OR 3467, OR 3468, OR 3469, OR 3470, OR 3471, OR 3472, OR 3473, OR 3474, OR 3475, OR 3476, OR 3477, OR 3478, OR 3479, OR 3480, OR 3481, OR 3482, OR 3483, OR 3484, OR 3485, OR 3486, OR 3487, OR 3488, OR 3489, OR 3490, OR 3491, OR 3492, OR 3493, OR 3494, OR 3495, OR 3496, OR 3497, OR 3498, OR 3499, OR 3500, OR 3501, OR 3502, OR 3503, OR 3504, OR 3505, OR 3506, OR 3507, OR 3508, OR 3509, OR 3510, OR 3511, OR 3512, OR 3513, OR 3514, OR 3515, OR 3516, OR 3517, OR 3518, OR 3519, OR 3520, OR 3521, OR 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