MATERIALS AND FABRICATION IN ACCORDANCE WITH ASTM C478-09. WHEN USED AS SAMPLING MANHOLE FLOW SHALL PASS STRAIGHT THROUGH, i.e., 180°. STEPS SHALL BE VERTICALLY ALIGNED. FIRST STEP SHALL BE WITHIN 12" OF COVER, BOTTOM STEP SHALL BE WITHIN 24" OF BOTTOM OF MANHOLE. FRAME AND COVER SHALL BE PROPERLY ALIGNED WITH THE 2 FOOT OPENING OF THE MANHOLE STRUCTURE AND BOLTED IN PLACE. FLAT TOP MANHOLES MAY ONLY BE SUBSTITUTED WITH THE PERMISSION OF THE PARTICIPATING UTILITY. 6. FLEXIBLE JOINT MANHOLE CONNECTION SHALL BE AS MANUFACTURED BY PRES-SEAL GASKET CORPORATION OR EQUAL. GROUT ANNULAR SPACE BETWEEN PIPE AND PRECAST MANHOLE ON INSIDE OF MANHOLE. WHEN REPLACING AN EXISTING MANHOLE OR INSTALLING A NEW PRECAST MANHOLE ON AN EXISTING SEWER, A MINIMUM OF SIX FEET (6') OF EXISTING PIPE SHALL BE REMOVED AND REPLACED WITH NEW MATERIAL ON INLET AND OUTLET OF MANHOLE. MANHOLES WHERE THE INVERT IS LOWER THAN THE NORMAL GROUNDWATER ELEVATION (I.E., ALONG CREEKS, RIVERS, LOW-LYING AREAS, ETC.) SHALL HAVE A FULL EXTERIOR COATING AND JOINT WRAP APPLIED IN ADDITION TO JOINT SEALANT. SEE NOTES 10 & 11.). IF REQUIRED EXTERIOR VERTICAL WALL SURFACES SHALL BE FACTORY COATED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATION. COATING SHALL BE HIGH BUILD COAL TAR EPOXY MEETING ASTM D1227. COATING SHALL BE APPLIED IN TWO COATS TO A MINIMUM TOTAL THICKNESS OF 16 MILS. . IF REQUIRED ALL MANHOLES SHALL UTILIZE AN EXTERNAL FRAME AND JOINT SEAL AT ALL JOINTS AND AT THE FRAME/CHIMNEYINTERFACE. SEAL SHALL BE MADE OF EPDM RUBBER INACCORDANCE WITH ASTM D412 OR POLYOLEFIN BACKED EXTERIOR JOINT WRAP PRECAST HOLE (TYP.) IN ACCORDANCE WITH ASTM E-1745, C-877, AND C-990. EDM SEAL SHALL HAVE A MINIMUM THICKNESS OF 60 MILS. POLYOLEFIN BACKED EXTERIOR JOINT WRAP SHALL HAVE ANNULAR SPACE A BACKING BAND ELEMENT WITH MINIMUM THICKNESS OF (TYP. INLET & OUTLET) 4 MILS. AND BUTYL ROLLER ADHESIVE WITH MINIMUM THICKNESS OF 60 MILS. SEAL SHALL AGGRESSIVELY BOND TO CONCRETE AND METAL STRUCTURES. FLEXIBLE BOOT WITH 2. FOR PIPE LARGER THAN 15 INCHES IN DIAMETER, THE MINIMUM - STAINLESS STEEL INSIDE DIAMETER OF THE MANHOLE SHALL BE IN ACCORDANCE BAND (TYP.) WITH MANUFACTURERS RECOMMENDATIONS BASED ON SECTION A-A PIPE SIZE AND ANGLE BETWEEN INLET AND OUTLET PIPING. 3. 6' MINIMUM DIAMETER MANHOLE SHALL BE REQUIRED 3/4" Ø SS THREADED ROD WHEN DEPTHS EXCEED 15' UNLESS OTHERWISE (IF ADJUSTMENT RINGS APPROVED BY PARTICIPATING UTILITY. ARE REQUIRED) ADJUSTMENT RINGS IF NECESSARY (1'-0" MAX ADJUSTMENT) SEE FRAME & COVER DETAILS **ECCENTRIC CONE** HEIGHT VARIES BUTYL MASTIC JOINT SEALER OR GASKETS MEETING ASTM C443 AND ASTM C1244 TESTING STANDARD (NO MORTAR) RISER MINIMUM SLOPE FOR SECTIONS SERVICE CONNECTION HEIGHT VARIES 4" Ø=1/4" PER 1'-0" 4'-0" 6" Ø=1/8" PER 1'-0" 8" MIN HEIGHT VARIES 6" Min. PRECAST HOLE SLOPE BENCH WITH FLEXIBLE 1/4" PER 1'-0" CONNECTION STONE BASE (6" MIN. DEPTH) **BOOT & STAINLESS**

STEEL BAND

#57 OR EQUIVALENT

S-1

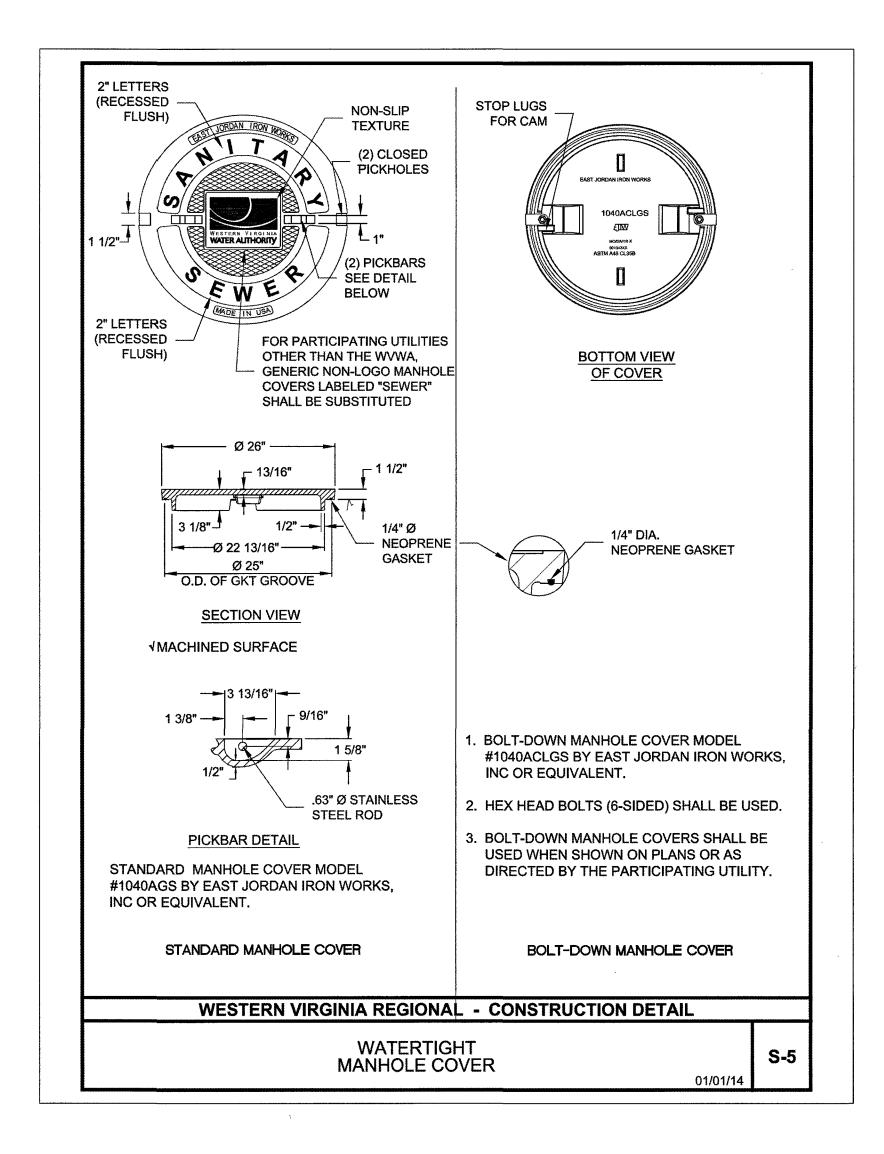
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PRECAST INVERT

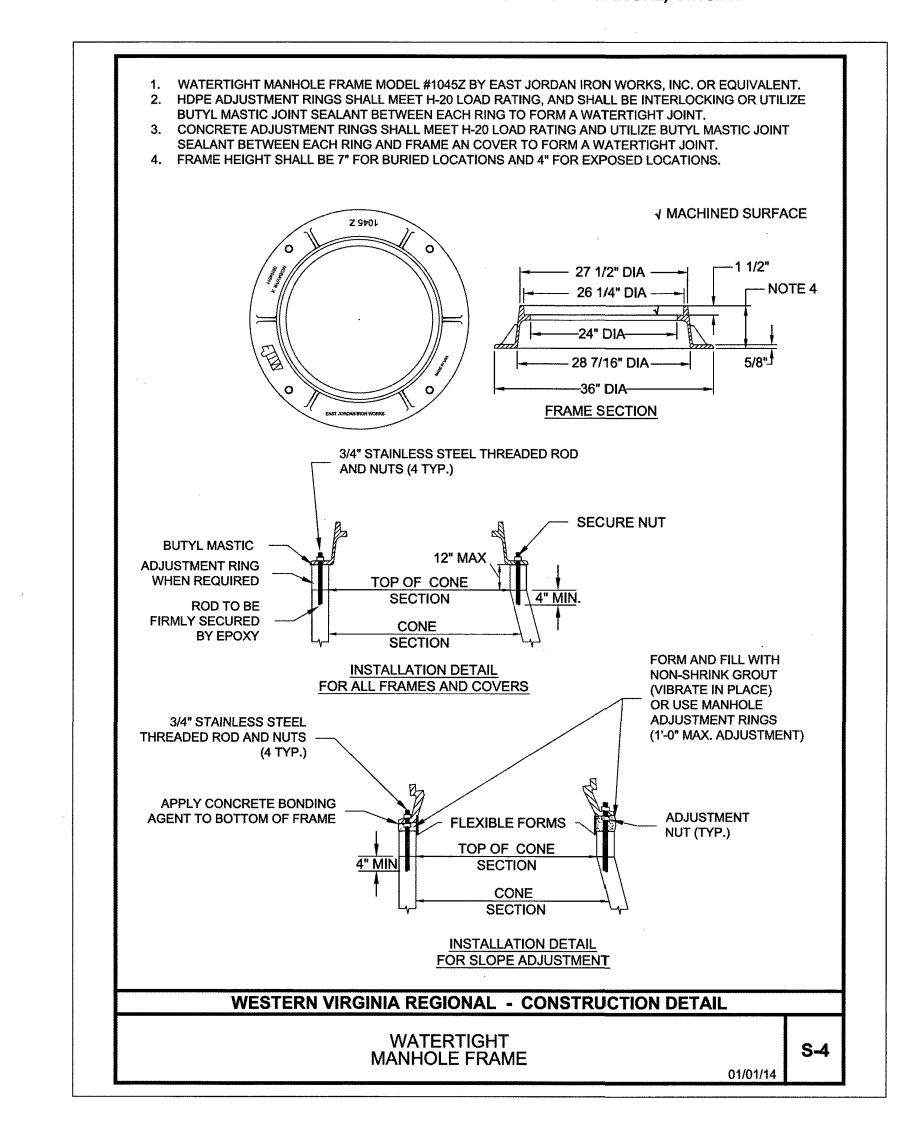
WESTERN VIRGINIA REGIONAL - CONSTRUCTION DETAIL

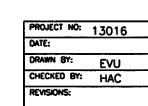
4' STANDARD MANHOLE

FOR PIPE 15" OR SMALLER (FOR DEPTHS UP TO 15 FEET)



CITY OF ROANOKE, VIRGINIA







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OFFICE OF THE CHIEF ENGINEER - DESIGN AND CONSTRUCTION - ATLANTA, GA.

REV BY DATE DESCRIPTION

ROANOKE, VIRGINIA

TITLE PROPOSED SERVICING FACILITY — ALBEMARLE AVENUE
SERVICING FACILITY DETAILS
SEWER DETAILS — MANHOLE

DGN EVU PID NO D1940 VAL MAP V—10—VA/2A (15380) MILE POST V

DWN EVU FILE NO CRS0129781 DRAWING NUMBER

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