

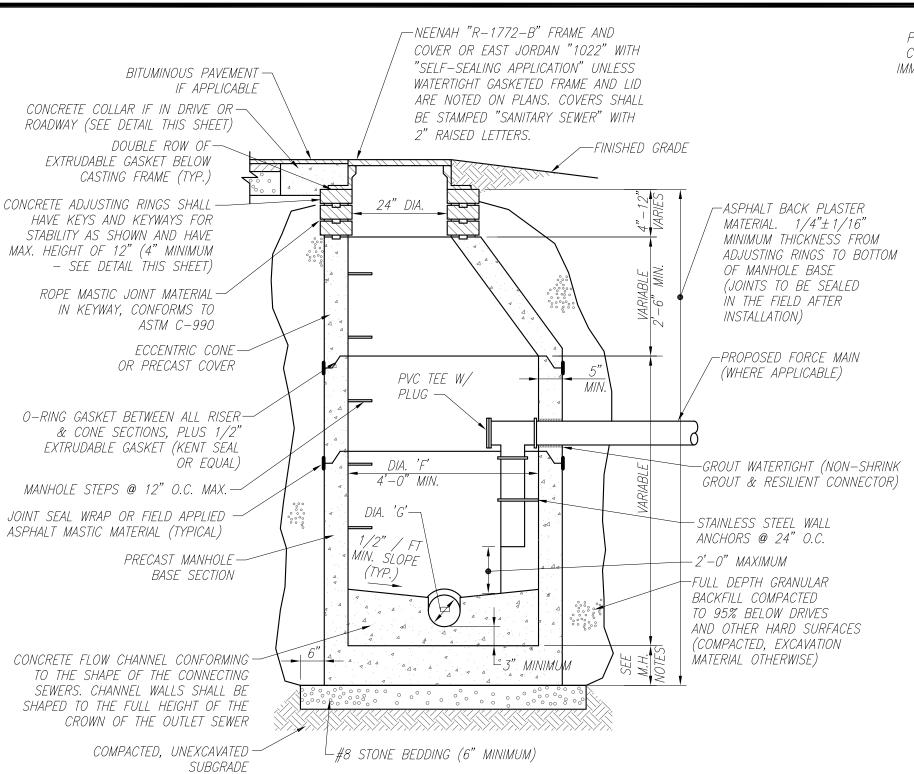
MANHOLE MANUFACTURER TO PROPERLY SIZE AND DESIGN STRUCTURES TO MAINTAIN MANHOLE STRUCTURAL INTEGRITY.

<u>MANHOLE NOTES:</u>

- 1. MANHOLE STEPS SHALL BE POLYPROPYLENE, POLYPROPYLENE COATED STEEL REINFORCING OR APPROVED NON-CORROSIVE FIBERGLASS MATERIAL. COPOLYMER POLYPROPYLENE SHALL MEET ASTM D-4101 REINFORCED WITH DEFORMED 3/8" STEEL MEETING ASTM A-615, GRADE 60. STEPS SHALL BE 12" O.C. MAX. . MANHOLE CONFORMS TO ASTM C-478 3. JOINT CONFORMS TO ASTM C-443
- 4. RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURE AND PIPES, CONFORMS TO ASTM C-923.
- 6. FLAT TOP MANHOLES SHALL BE USED WHERE THE DISTANCE FROM THE INVERT TO THE RIM IS LESS THAN 6.0 FEET. 7. CONTRACTOR TO FIELD ADJUST MANHOLE & STRUCTURE TOP OF

5. MINIMUM SLOPE IN FLOWLINES OF MANHOLES SHALL BE 1/4" PER

- CASTINGS (TC) AS NECESSARY FOR PROPER INSTALLATION AS DIRECTED BY THE TOWN REPRESENTATIVE. 8. CONCRETE ADJUSTING RINGS AND THE TOP SECTION OF THE PRECAST MANHOLE SECTION SHALL BE PROVIDED AND INSTALLED WITH
- KEYWAYS FOR HORIZONTAL STABILITY. 9. MANHOLE BASES SHALL BE 6" MINIMUM THICKNESS FOR MANHOLES 48" IN DIAMETER AND 8" THICK FOR MANHOLES 60" TO 102" IN DIAMETER. 108" TO 120" DIAMETER MANHOLES SHALL HAVE A 12" MINIMUM THICKNESS.

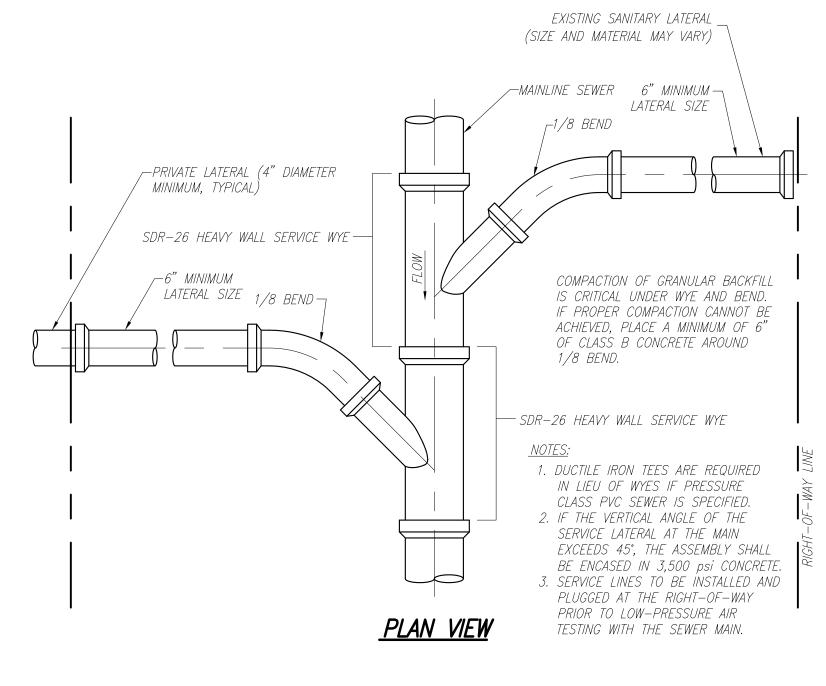


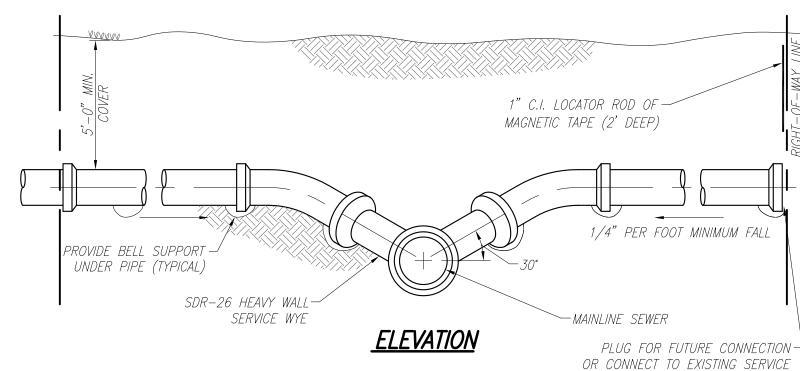
TYPICAL PRECAST SANITARY MANHOLE DETAIL

PAVEMENT AROUND RIM SHALL BE CAREFULLY HAND — __NEENAH "R-1772-B" FRAME AND -STONE OR ASPHALT SURFACE AS EXISTING COMPACTED, AND DENSITY TEST RESULTS FROM THE COVER OR EAST JORDAN "1022" WITH (3" TOP SOIL IF IN LAWN AREA) IMMEDIATE VICINITY OF EACH MANHOLE RIM REPORTED "SELF-SEALING APPLICATION" UNLESS *—8"x5'x5' CONCRETE* TO VERIFY COMPLIANCE WITH THE SPECIFICATION WATERTIGHT GASKETED FRAME AND LID " MINIMUM COLLAR BITUMINOUS PAVEMENT -ARE NOTED ON PLANS. COVERS SHALL *IF APPLICABLE* BE STAMPED "SANITARY SEWER" WITH CONCRETE COLLAR IF IN DRIVE OR — 2" RAISED LETTERS. ROADWAY (SEE DETAIL THIS SHEET) 8" 21" OR LESS *—FULL DEPTH COMPACT* —FINISHED GRADE DOUBLE ROW OF EXTRUDABLE -GRANULAR BACKFILL 12" 24" TO 36" GASKET BELOW CASTING DETAILED THIS SHEET FRAME (TYPICAL) CONCRETE ADJUSTING RINGS SHALL -ASPHALT BACK PLASTER HAVE KEYS AND KEYWAYS FOR MATERIAL. 1/4"±1/16" STABILITY AS SHOWN AND HAVE MINIMUM THICKNESS FROM MAX. HEIGHT OF 12" (4" MINIMUM ADJUSTING RINGS TO BOTTOM - SEE DETAIL THIS SHEET) 1. IF CONCRETE ROAD OR DRIVE, COLLAR CAN BE POURED OF MANHOLE BASE MONOLITHICALLY W/ REMAINDER OF SLAB WITHOUT LIP AND (JOINTS TO BE SEALED ROPE MASTIC JOINT MATERIAL — WITH CONTROL JOINTS IN 5' SQUARE AROUND CASTING. IN THE FIELD AFTER IN KEYWAY, CONFORMS TO 2. SLAB TO BE THICKENED TO 8" AROUND MANHOLE WHEN INSTALLATION) ASTM C−990 BELOW CONCRETE DRIVES. ECCENTRIC CONE 3. CONCRETE COLLARS TO BE INSTALLED IF CASTING IS OR PRECAST COVER WITHIN 5' HORIZONTALLY OF STREET OR DRIVE EDGE. MANHOLE CASTING IN OR ADJACENT O-RING GASKET BETWEEN ALL RISER-& CONE SECTIONS, PLUS 1/2" EXTRUDABLE GASKET (KENT SEAL TO DRIVE OR STREET DETAIL OR EQUAL) MANHOLE STEPS @-12" O.C. MAX. — PVC OR CONCRETE DAM 4'-0" MIN. MANHOLE CASTING -JOINT SEAL WRAP OR FIELD APPLIED FRAME & COVER ASPHALT MASTIC MATERIAL (TYPICAL) PRECAST MANHOLE -— EXTERIOR DROP PIPE BASE SECTION FULL DEPTH GRANULAR BACKFILL COMPACTED TO 98% BELOW DRIVES 1/2" EXTRUDABLE GASKET 1/2" PER FT. MINIMUM SLOPE — AND OTHER HARD SURFACES (COMPACTED, EXCAVATION 1/2" MINIMUM -MATERIAL OTHERWISE) SEE NOTES IN TYPICAL PRECAST MANHOLE DETAIL FOR ADDITIONAL REQUIREMENTS. TOP MANHOLE SECTION NON-SHRINK GROUT OR-PRECAST MANHOLE WITH KEYWAY ADJUSTING RING WITHOUT BASE SECTION KEYWAY GROOVE (TOP COMPACTED, UNEXCAVATED └#8 STONE BEDDING (6" MINIMUM) SUBGRADE

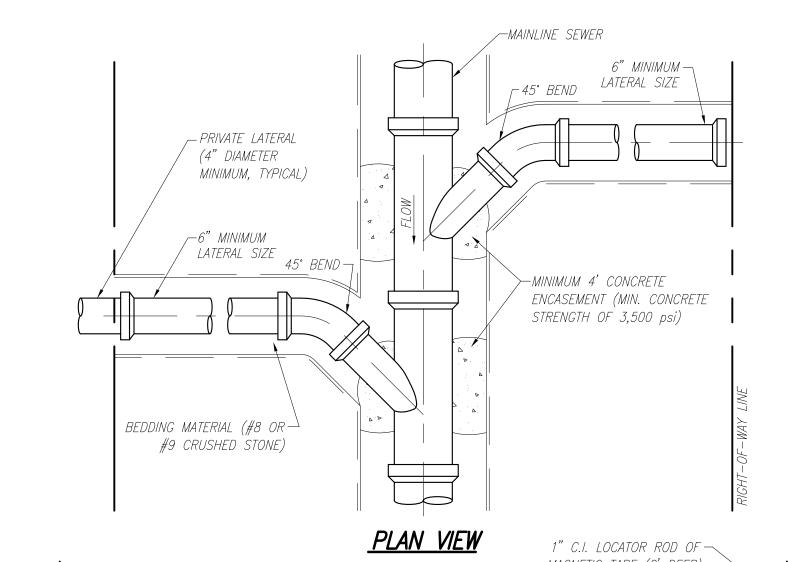
TYPICAL PRECAST DROP MANHOLE DETAIL

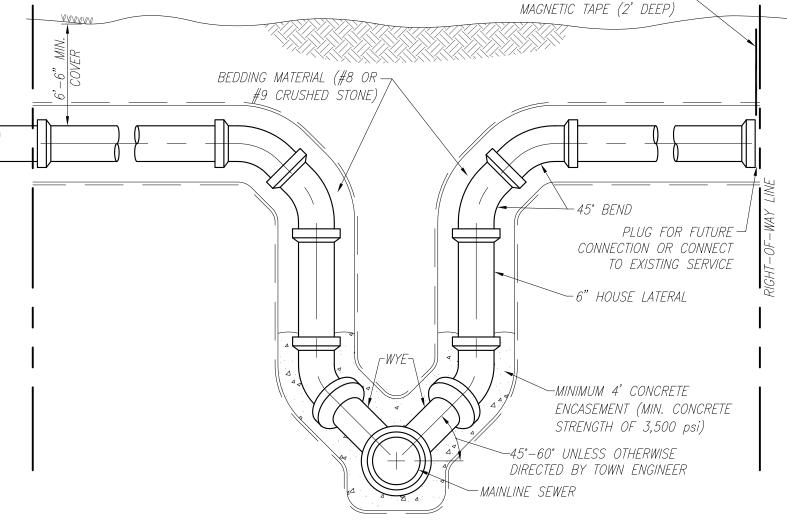
ADJUSTING RING DETAIL



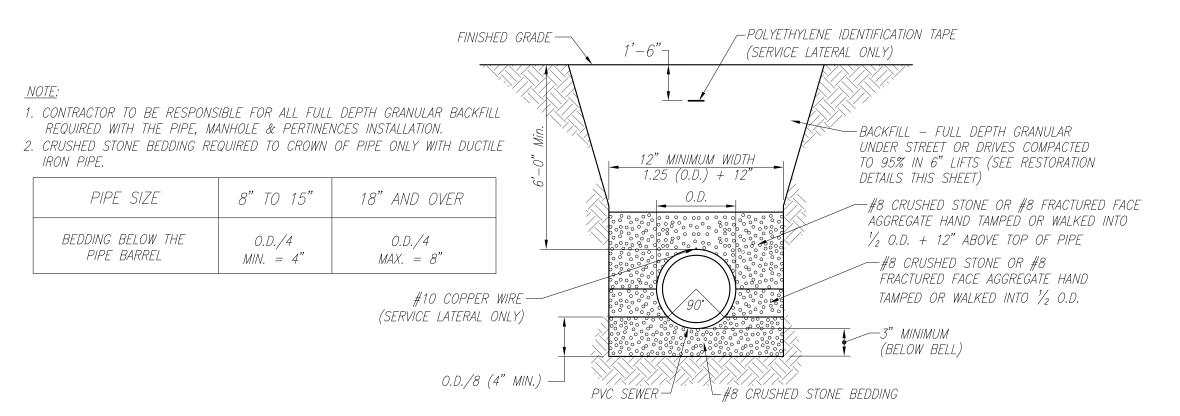


SERVICE CONNECTION FOR SHALLOW SEWERS (LESS THAN 15' DEPTH)

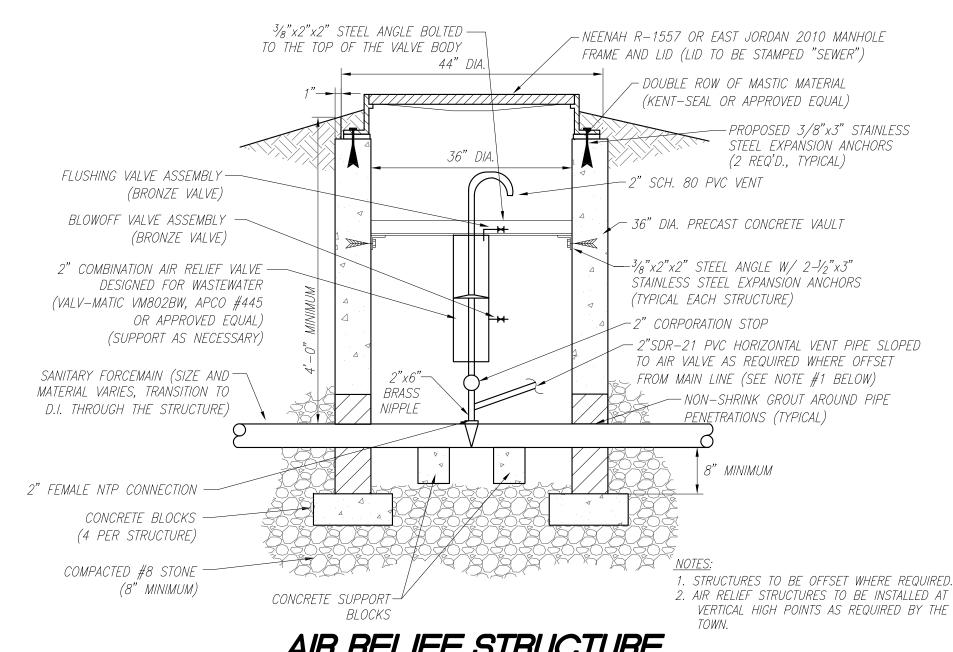




SERVICE CONNECTION FOR DEEP SEWERS (15' DEEP AND OVER)



SANITARY SEWER PIPE BEDDING DETAIL



AIR RELIEF STRUCTURE



REVISIONS Pev. No. Description Date

CERTIFIED BY:

AS NOTED

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8/11/09