

5.4 APPROVED MATERIALS AND MANUFACTURERS – SEWER

5.4.01 General

- A. This Section lists the acceptable materials and manufacturers for all the pipes, valves, fittings, manholes and other appurtenances which must be provided when constructing public sewage collection and conveyance systems in Goochland County, Virginia.
- B. Shop drawings must be submitted for all products to be supplied.

5.4.02 Underground Pressure Pipe

- A. Ductile Iron Pipe
 - 1. American Ductile Iron Pipe
 - 2. McWane Ductile
 - 3. U.S. Pipe & Foundry
- B. Ductile Iron Restrained Joint Pipe
 - 1. Griffin Snap Lock
 - 2. TR Flex
 - 3. American Ductile Flex Ring
- C. Polyvinylchloride (PVC) Pipe
 - 1. Diamond Plastics Corporation
 - 2. IPEX, Inc.
 - 3. North American Pipe Corporation
 - 4. National Pipe & Plastics, Inc.
- D. Polyethylene Pipe
 - 1. Flying W Plastics
 - 2. ISCO by A.H. McElroy, Inc.
 - 3. AGRU America, Inc.
 - 4. JM Eagle
 - 5. W.L. Plastics

5.4.03 Gravity Pipe

- A. Polyvinylchloride (PVC)
 - 1. Diamond Plastics Corporation
 - 2. IPEX, Inc.
 - 3. North American Pipe Corporation
 - 4. National Pipe & Plastics, Inc.
- B. Ductile Iron

1. American Ductile Iron Pipe
2. McWane Ductile
3. U.S. Pipe & Foundry

C. Service Connection on Existing Sewer Mains

1. Existing 12” and Smaller Sewer Mains: Geneco
2. Existing Sewer Mains Larger Than 12”: No manufacturer specified.

5.4.04 Underground Pressure Pipe Fittings

A. Ductile Iron Mechanical Joint Fittings for PVC and DI pipe

1. U.S. Pipe & Foundry Company
2. Tyler Union
3. The Harrington Corporation (HARCO)
4. SIGMA Corporation
5. Star Pipe Products, Inc.

B. Polyethylene Pipe Fittings

1. Butt Fusion Fittings:
 - a. ISCO
 - b. AGRU
 - c. JM Eagle
 - d. Elofit
 - e. Integrifuse
2. Electro-fusion Fittings:
 - a. The Harrington Corporation (HARCO)
 - b. Friatec as manufactured by IPEX
 - c. Elofit
 - d. Itegrifuse

C. Thrust Restraint

1. Restrained joint retainer glands for fittings, plugs, caps, tees, and bends with Ductile Iron Pipe
 - a. EBAA Iron Sales, Inc. - Megalug Series 1100
 - b. SIGMA – One Lok SLD
 - c. Star Pipe Products – Stargrip Series 3000
2. Ductile iron bell and spigot pipe joint restraints
 - a. EBAA Iron Sales, Inc. - Megalug Series
 - b. SIGMA – One Lok
 - c. Star Pipe Products – Stargrip Series 3100P
 - d. U.S. Pipe – Field Lok 350 gaskets may be used in lieu of other mechanical joint restraints.
3. Restrained joint retainer glands for fittings, plugs, caps, tees, and bends with PVC Pipe
 - a. EBAA Iron Sales, Inc. - Megalug Series 2000
 - b. SIGMA – One Lok SLC

- c. Star Pipe Products – Stargrip Series 4000
- 4. PVC pipe bell and spigot joints
 - a. EBAA Iron Sales, Inc. - Megalug Series 1500
 - b. SIGMA – One Lok
 - c. Star Pipe Products – Stargrip Series 4100P

5.4.05 Above Ground or Exposed Pressure Pipe

- A. Ductile Iron Pipe
 - 1. American Ductile Iron Pipe
 - 2. McWane Ductile
 - 3. U.S. Pipe & Foundry
- B. Ductile Iron Fittings
 - 1. Flanged Fittings
 - a. U.S. Pipe & Foundry Company
 - b. Tyler Union
 - c. The Harrington Corporation (HARCO)
 - d. SIGMA Corporation
 - e. Star Pipe Products, Inc.
- C. Flange Adaptors:
 - 1. EBAA Iron Sales, Inc. – 2100 Megaflange
 - 2. JCM model 301R
- D. PVC Pipe and Fittings
 - 1. PVC Sanitary Sewer Fittings (socket weld schedule 80)
 - a. GPK Products, Inc.
 - b. The Harrington Corporation (HARCO)
 - c. IPEX, Inc.
 - d. Multi-Fittings
 - e. Nyloplast USA, Inc.
 - f. Royal Municipal Solutions
 - g. Vassallo
- E. Stainless Steel Pipe and Fittings
 - 1. No manufacturer specified. Approved by DPU on a case by case basis.

5.4.06 Plug Valves

- A. Plug Valves
 - 1. Dezurik PEC (gravity) or PEF (pumped)
 - 2. Milliken Millcentric (gravity) or Full/100% Port (pumped)

5.4.07 Check Valves

- A. Swing Check Valves
 - 1. 3 Inches and Larger:
 - a. APCO Series CVS 250
 - b. Val-Matic Series 7800
 - c. Milliken Series 8501
 - 2. Smaller than 3 inches:
 - a. Crane Figure 137 (bronze)
 - b. Crane Aloyco Figure 49

5.4.08 Tracer Wire

- A. Open Cut Direct Bury Tracer Wire
 - 1. Copperhead Industries – HS-1230 CCS
 - 2. Agave Wire Ltd – APHS-1201 High Strength CCS PE30
 - 3. Pro-Line Safety Products – PRO-TRACE 12 AWG HS-CCS-PE30
- B. Tracer Wire for HDD Installations
 - 1. Copperhead Industries – SoloShot 1045 EHS
 - 2. Agave Wire Ltd – BT-1001 Extra High Strength CCS
 - 3. Pro-Line Safety Products – PRO-TRACE HDD-CCS-PE45

5.4.09 Connectors for Tracer Wires

- A. Wire Connectors for Direct Bury
 - 1. Copperhead Industries – SnakeBite
 - 2. Pro-Line Safety Products – PRO-TRACE TW
 - 3. Tracer Wire Technologies – Tracer-Lock Connector
- B. Wire Connectors for HDD Installations
 - 1. Copperhead Industries – SC-PB-01

5.4.10 Tracer Wire Access Boxes

- A. 2 ½” shaft tracer wire access boxes
 - 1. P200 Test as manufactured by Bingham & Taylor

5.4.11 Marking Tape

- A. 3.5 mil polyethylene tape, 3 inches in width, with a 14-gage metallic core
 - 1. Seton Safety and Identification style 48288
 - 2. Presco

3. Pro-Line

5.4.12 Steel Casing Pipe

- A. No manufacturer specified

5.4.13 Manholes

A. Precast Manholes

1. Concrete Pipe & Precast
2. Concrete Specialties, Inc.
3. Contractor's Precast
4. Nansemond Pre-cast Concrete Co., Inc.
5. Tindall Concrete Products, Inc.
6. Winchester Building Supply Co., Inc.

B. Gasket

1. As provided by manhole manufacturer

C. Acid-resistant liners for new manholes.

1. FRP liners
 - a. Dion No. 6694.
2. PVC liners
 - a. Amercoat "T-Lock Amer-Plate"
3. HDPE liners
 - a. AGRU "Sure Grip" HDPE Concrete Protective Liner

D. Acid-resistant liners for existing manholes.

1. Epoxy liner
 - a. Raven 405

E. Manhole steps

1. American Step Company
 - a. Model #ML-10 (Standard Grade)
2. Bowco Industries, Inc.
 - a. Model #93810 (48" and 54" Dia. M.H.'s)
 - b. Model #93813 (60" Dia. M.H.'s and Larger)
3. Cosmos North America
 - a. Model # US-10-OH
4. MA Industries, Inc.
 - a. Style No. PSI-PF
5. Press Seal
 - a. Model #P-10938 (48" and 54" Dia. M.H. 's)

Model #P-14850 (60" Dia. M.H.'s and Larger)

- F. Manhole frame and covers
 - 1. East Jordan Iron Works
 - 2. Neenah Foundry
 - 3. Capitol Foundry
- G. Manhole flexible connectors
 - 1. Kor-N-Seal, Press-Seal with a stainless steel expander ring
- H. Sealant for manhole frames
 - 1. Sika "Sikaflex" Series 1A.
- I. External Joint Wrap
 - 1. Press-Seal Corporation
 - 2. Concrete Sealants, Inc.

5.4.14 Pressure Gauges

- A. Pressure Gauges
 - 1. Ashcroft 1009S

5.4.15 Wafer Pressure Isolators Ring (Sensor Ring)

- A. Wafer pressure isolator rings
 - 1. Onyx Valve Co model PSW
 - 2. Red Valve Company Series 40

5.4.16 Pipe Supports

- A. Supports for pipes 2-½ inches and larger
 - 1. Standon Model S89 flange support
 - 2. Standon Model S96 cradle support
- B. Supports for pipes 2 inches and smaller
 - 1. Unistrut Building Systems
 - 2. B-Line

5.4.17 Combination Air Valves

- A. Combination Air Valves
 - 1. DeZURIK APCO Series 440

2. Cla Val Models 36WW
3. GA Industries Figures 942
4. Valmatic VM-800 Series

END OF SECTION 5.4