

## **ARTICLE XI**

### **SEWER EXTENSIONS BY DEVELOPERS**

- 11.01 Three (3) copies of plans for proposed extension shall be submitted to the Authority on 24 inch by 36 inch (24" x 36") sheets showing plan views to a scale of one inch equals fifty feet (1" = 50') and profiles to a scale of one inch equals five feet (1" = 5') vertically and one inch equals fifty feet (1" = 50') horizontally, a north point, a suitable title block, date and the name of the engineer or surveyor and imprint of his registration seal.
- 11.02 The developer shall file all necessary connection permits.
- 11.03 The Authority shall charge a tapping fee consisting of the capacity part, the collection part and the special purpose part unless the Authority is obligated, under the terms of an agreement, to reimburse the developer or others for facilities constructed or donated to the Authority. Under such circumstances, the reimbursement portion of the tapping will be included to reflect such reimbursements. In the absence of a written agreement between the Authority and the developer, the developer's right to an automatic reimbursement, as provided for the PA Act 57, is deemed to have been waived due to the Authority's inability to collect the collection system portion of its tapping fee from property owners connecting to lines not constructed by the Authority.
- 11.04 In larger developments, the Authority may require the division of the development into small sections. Before approval by the Authority to proceed on new sections, all connection and inspection fees pertaining to the previous sections must have been paid, the newer lines in the previous sections must have been dedicated to the Authority, and there must be homes connected to and using the sanitary sewer system on 50% of the lots in the previous sections, or the tapping fees paid for 50% of the lots in the previous section. Service will be generally approved in phases of thirty (30) EDU's.
- 11.05 The developer must sign a Sewer Extension Agreement at the time of application.
- 11.06 Construction of sewers will not be permitted until the proper State Permits have been obtained in the name of the Authority, if required.
- 11.07 Easements shall be recorded in the name of the Authority for all sewers to be constructed outside of dedicated street rights-of-way.
- 11.08 All sewers shall be designed in accordance with the latest edition of Sewerage Manual of Pennsylvania Department of Environmental Resources, Bureau of Water Quality Management and these Rules and Regulations.

- 11.09 No sewer extensions constructed by a developer will be approved for use by the Authority until all connection, tapping, customer facilities, reservation of capacity fees and inspection fees have been paid in full and the Authority has been reimbursed in full for all costs incurred by the inspector during construction, testing and approval.
- 11.10 All sewer pipe shall be polyvinyl chloride (PVC) manufactured in accordance with ASTM D 3034, having a minimum wall thickness equal to SDR-35 (Standard Diameter Ratio). The pipe and fittings shall be joined by the elastomeric gasket system conforming to ASTM D 3212. Pipe must be buried with a marking tape two feet above the final grade of the pipe.
- 11.11 All collection sewer pipe shall be a minimum of eight inches (8") in diameter and have a minimum of laying lengths of not less than five feet (5').
- 11.12 The installation of sewers shall start at the lower end of the line and proceed upstream so that the spigot ends point in the direction of flow. The pipe shall be carefully laid to line and grade. The handling, placing and jointing pipe shall be in strict accordance with the pipe manufacturer's recommendations.
- 11.13 All manholes shall be constructed in accordance with the standards established by the Authority. Frames and covers for all manholes shall be fabricated of cast iron and shall conform to the standards established by the Authority. Manholes with frames and covers as specified shall be furnished at the ends of lines. Manholes shall be placed at a maximum of 400 feet apart or at any change of grade or direction. In addition, each manhole must be assigned an approved individual identity prior to construction.
- 11.14 Prior to final acceptance of any sewer extensions by the Authority, it will be necessary for the developer to furnish to the Authority "as built plans" showing the angle and distance between manholes, the top and invert elevation of each manhole and the exact location of all house sewer connections relative to the nearest manhole both downstream and upstream.
- 11.15 The owner shall cause to be prepared and furnished to the Authority at the expense of the owner, all plans which must be submitted electronically and in hard copy format. Electronic files may be submitted either in CADD format ( using the approved seed files as a special reference) or ( GIS format database or shapefile). Electronic files will adhere to the Pennsylvania state plane feet – North Zone projection. (Datum NAD83) and referenced vertically to existing infrastructure. Drawings will be delivered in hard copy format as well as TIFF uncompressed raster image.
- 11.16 The sewer shall be flushed before final approval.

11.17 Sewers shall be hydrostatically, pneumatically, and/or smoke tested for leakage at the discretion of, and in the manner required by, the Authority.

11.18 The developer shall also reimburse the Authority in full for all costs of inspection of construction of all sanitary sewers. The amount and type of inspection required shall be determined by the Authority during construction.

11.19 Refer to the Authority's Technical Specifications for detailed drawings of various applications.

11.20 Pressure Sewer Systems

The construction of a pressure sewer system will be considered when the following criteria, requirements and responsibilities are met:

A. Criteria

1. The finish grade of the proposed development requires conventional gravity sewer mains to be greater than 15-feet deep as measured from the top of the sewer pipe to finish grade.
2. Site specific conditions include wetlands, streams, or other natural water obstructions.
3. The location of the pressure sewer system is such that subsequent development in the vicinity will not be forced to connect to the pressure sewer system.

B. Additional Requirements

1. Each home or structure shall have an individual grinder pump station. Sharing of grinder pump stations is not allowed. All grinder pump stations shall be located exterior to and at least 10-feet from any structures on the property.
2. Spare grinder pumps shall be supplied by the Developer according to the following table:

<u>No. Of Grinder Pumps on Pressure System Pumps</u>	<u>Spare Grinder</u>
1 - 4	1
5 - 8	2
9 - 12	3
13 - 16	4
17 - 25	5
26-30	6

More than 30 Six (6) plus one (1) for every ten (7) Additional or part there of

3. The Owner shall deposit funds with the Authority equal to the replacement cost of the total number of grinder pumps in the pressure sewer system, less those provided in 11.20.B.2. The funds will be placed in escrow by the Authority, and used to bring the expectant life of the pressure sewer system to 20-years, or more.

#### C. Responsibilities and Maintenance

1. The individual property owner will be responsible for the maintenance and operation of the following components of the pressure sewer system:
  - a. Power and Electrical
  - b. House lateral to the grinder pump station
  - c. Wet well
  - d. Pressure lateral including all fittings
  - e. Controls
2. The Authority will be responsible for the maintenance of the following components of the pressure sewer system. The deeds of each property served by the pressure sewer system shall contain a provision allowing the Authority permanent access to the grinder pump station for inspection, maintenance, and observation.
  - a. Grinder pumps
  - b. Common main

#### D. Plans & Specifications

1. All pumping systems must be designed by a Professional Engineer registered in the Commonwealth of Pennsylvania, and shall bear the original impression seal and signature of the Engineer who prepared

the Plans. The design shall include all necessary specifications for all equipment and appurtenances.

A. Pressure Sewer Connections to Existing Force Mains

1. When a connection is planned for a force main, the designer shall demonstrate the proposed pumping system pressure will exceed the force mains pressure at the point of connection.
2. Check valves and valve pit must be installed in accordance with standard detail #25
3. Check valves must be designed to allow disassembly for cleaning and maintenance. These valves must be equal to the Spears - True Union Utility Swing Check or Ball Check.
4. Valve pit must be 30" minimum diameter and be covered with a lid that can be easily removed to allow access to the valves. Lid must be constructed of load tested material, minimum 2000 Lbs., such as reinforced fiberglass or concrete.