

**TUSCARAWAS COUNTY  
METROPOLITAN SEWER DISTRICT**

**RULES AND REGULATIONS**

**BOARD OF COUNTY COMMISSIONERS**

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## **Standard Abbreviations**

BOD	Biochemical Oxygen Demand
mg/L	Milligrams per liter
ppm	Parts per million
g/L	Grams per liter
fps	feet per second
APHA	American Public Health Association
ASTM	American Society for Testing Materials
ANSI	American National Standards Institute
AWWA	American Water Works Associates
NSF	National Sanitation Foundation
TCMSD	Tuscarawas County Metropolitan Sewer District
WEF	Water Environment Federation

## 1. Definitions

- 1.1 **Air Gap Separation** means the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle.
- 1.2 **Auxiliary Water System** means any water system on or available to the premises other than the public water system and includes the water supplied by the system. These auxiliary waters may include water from another supplier's public water system; or water from a source such as wells, lakes, or streams; or process fluids; or used water. They may be polluted or contaminated or objectionable or constitute a water source or system over which the supplier of water does not have control.
- 1.3 **Backflow** means a flow condition, induced by a differential in pressure that causes the flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply from any source or sources other than its intended source.
- 1.4 **Backflow Prevention Device**: Shall mean any device, method, or type of construction intended to prevent backflow into a potable water system.
- 1.5 **BOD (Biochemical Oxygen Demand)**: Shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at 20°C, expressed in mg/L.
- 1.6 **Board of County Commissioners**: Shall mean the duly elected Board of County Commissioners of Tuscarawas County, Ohio.
- 1.7 **Building Drain**: Shall mean that part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building (house) sewer beginning three (3) feet outside the building wall.
- 1.8 **Connection, Sewer** means the point where the service connects to the TCMSD (public) sewer.
- 1.9 **Connection, Water** means the point of connection of the user's water service line to the TCMSD water service line, typically at the curb stop.
- 1.10 **Cooling Water or Industrial Cooling Water**: Shall mean water discharged from any system of condensation, air-conditioning cooling, refrigeration or other similar use, which shall be free from odor or oil. It shall not contain polluting substance that will produce BOD, or carry suspended solids in excess of 10 mg/L.
- 1.11 **County Sanitary Engineer**: Shall mean the County Sanitary Engineer appointed by the Board of Tuscarawas County Commissioners, or his authorized deputy, agent or representative.
- 1.12 **Cross-Connection**: Shall mean a physical connection through which a supply of potable water could be contaminated or polluted.
- 1.13 **Customer's Water System**: Shall mean any water system, located on the customer's premises, supplied by or in any manner connected to a public water system. A household plumbing system is considered to be a customer's water system.
- 1.14 **Double Check Valve Assembly**: Shall mean an assembly composed of two single, independently-acting check valves with tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the water-tightness of each check valve.

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- 1.15 **Sewer Installer:** Shall mean a person who has sufficient practical knowledge and mechanical competency to do plumbing and install sanitary sewers and connections in accordance with Chapter 6 herein.
- 1.16 **Easement:** Shall mean a grant of a specified use of land by its owner for the installation and maintenance of sewers and waterlines.
- 1.17 **Environmental Protection Agency (EPA)** means the State (OEPA) or Federal agency that has jurisdiction over publicly operated water and sewer systems.
- 1.18 **Garbage** means solid wastes from the preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.
- 1.19 **Garbage, Properly Shredded** means the wastes from the preparation, cooking and dispensing of food that have been separated to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch in any dimension.
- 1.20 **Health Department** means either the State or County agency that has jurisdiction over privately owned and operated residential water and sewer systems.
- 1.21 **Infiltration** means “clean” water entering a sanitary sewer through joints or cracks in the sewer pipe, typically from ground water.
- 1.22 **Inflow** means “clean” water entering the sanitary sewer through building downspouts, foundation drains, or drain connections, typically from surface runoff.
- 1.23 **Industrial Wastes** means water-carried and liquid wastes from industrial or commercial processes as distinct from sanitary sewage.
- 1.24 **Inhabitable Building** is any structure where people reside, work or conduct business that has sanitary facilities.
- 1.25 **Inspector** means the designated employee of Tuscarawas County who observes the quality of construction as it relates to the regulations and specifications.
- 1.26 **Master Plan** means a plan for sewer or water development adopted by the Board of Tuscarawas County Commissioners to provide guidance and direction in development of water and sewer extensions of service. Master Plans are updated periodically to reflect changes in demographics and economic conditions.
- 1.27 **May** means permissive.
- 1.28 **Non-potable Water** is water that has not been certified as suitable for human consumption. It may be used for lawn or garden purposes, provided such water shall not be accessible for drinking or culinary purposes. For the purposes of these Rules and Regulations means any water that does not originate from the public water system operated by the TCMSD.
- 1.29 **Ohio Revised Code (ORC)** contains the civil laws of the State of Ohio.
- 1.30 **Ohio Administrative Code (OAC)** contains the regulations of the various agencies of the State of Ohio.
- 1.31 **Outfall or Outlet:** Shall mean any outlet into a watercourse, pond, ditch, lake, or other body of surface or ground water.
- 1.32 **Permit** means a Water Service Connection or Sewer Service Connection Permit granted by the TCMSD for residences, apartments, business buildings or properties, institutions

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or industrial establishments to connect to a public sewer or water system operated by the TCMSD. Once issued, a permit is valid for one calendar year from date of issuance.

- 1.33 **Person, Enterprise, Establishment, or Owner** means any individual, firm, company, association, society, corporation or group.
- 1.34 **Potable Water** means water that does not contain objectionable pollution, contamination, minerals, or infective agents and is considered satisfactory for domestic consumption, and has been certified by the Ohio EPA or County Health Department as suitable for human consumption. For these Rules and Regulations it refers to the water produced and distributed by the TCMSD.
- 1.35 **POTW** means a publicly owned sewage treatment works usually operated by a local government agency.
- 1.36 **pH** means the logarithm of the reciprocal of the weight of hydrogen ions in g/L of solution.
- 1.37 **Private Sewage Disposal System** means any privately owned and operated sewage disposal system approved by the County Health Department or the Ohio Environmental Protection Agency where a public sewer system is not available.
- 1.38 **Process Fluids** mean any fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health, pollution, or system hazard if introduced into the public or a customer's potable water system. This includes, but is not limited to:
- A. Polluted or contaminated waters;
  - B. Process waters;
  - C. Used waters originating from the public water system which may have deteriorated in sanitary quality;
  - D. Cooling waters;
  - E. Contaminated natural waters taken from wells, lakes, streams, or irrigation systems;
  - F. Chemicals in solution or suspension; and
  - G. Oils, gases, acids, alkalis, and other liquid and gaseous fluids used in industrial or other processes, or for firefighting purposes.
- 1.39 **Reduced Pressure Principle Backflow Preventer** means a device containing a minimum of two independently-acting check valves together with an automatically-operated pressure differential relief valve located between the two check valves. During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the check valves at less than the supply pressure. The unit must include tightly closing shutoff valves located at each end of the device, and each device shall be fitted with properly located test cocks.
- 1.40 **Water Service Line** means the line running from the system waterline to the user's structure of which the portion from the waterline to and including the curb box shall be owned and maintained by the County and the portion from the curb box to the user's structure shall be owned and maintained by the user.

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- 1.41 **Sanitary Sewage** means water borne wastes discharging from the sanitary facilities of buildings including, but not limited to, houses, hotels, office buildings, factories or institutions, and free from storm and surface water and industrial wastes.
- 1.42 **Sewer** means a pipe or conduit for carrying sewage.
- A. **Lateral/Building Sewer** means that portion of a sanitary sewer serving a single structure from the structure to the service sewer at the right-of-way.
  - B. **Combined Sewer** means a sewer receiving both surface run-off and sewage.
  - C. **Interceptor Sewer** means those sections of the system that intercept sewage and wastes from trunk or local sewers and that transport such sewage and wastes to the wastewater treatment plants.
  - D. **Local Public Sewer** means those sections of the system, 8-inch and larger in size, that are designed and constructed to collect sewage and wastes from service sewers and that transport such sewage and wastes to the trunk or sub-trunk sewers, said sewers providing service for local service only or individual streets only.
  - E. **Private Sewer** means a sewer that is not owned by a public authority.
  - F. **Public Sewer** means a sewer owned or controlled by the Board of Tuscarawas County Commissioners in the Metropolitan Sewer District, and does not include the building sewer.
  - G. **Sanitary Sewer** means a sewer that carries sewage and wastes and to which storm, surface and ground waters are not intentionally admitted.
  - H. **Service Sewer** means that sewer, from the building sewer at the right of way to the point of connection with the system.
  - I. **Storm Sewer/Drain** means a sewer that carries storm and surface waters and drainage, but excludes sewage and industrial wastes.
  - J. **Trunk or Sub-Trunk Sewer** means those sections of the system that collect sewage and wastes from lateral or local sewers and that transport such sewage and wastes to the intercepting sewers.
- 1.43 **Shall** means mandatory
- 1.44 **Sludge** means the accumulated solids separated from liquids, such as water or wastewater, during processing, or deposits on bottoms of streams or other bodies of water.
- 1.45 **Suspended Solids** mean solids that either float on the surface of, or are in suspension in water, sewage or other liquids, and which are largely removable by laboratory filtering and as further defined by the current edition of Standard Methods for the Examination of Water and Wastewater, APHA/AWWA/WEF.
- 1.46 **System Terminology** means the sewage or water system as defined below and when the term system is used, it shall be construed to mean the appropriate system as indicated by the context of use.
- A. **Semi-Public Disposal System** means a disposal system which treats the sanitary sewage discharged from publicly or privately owned buildings or places of assemblage, entertainment, recreation, education, correction, hospitalization, housing or employment, but does not include a disposal system which treats sewage in amounts of more than twenty-five thousand gallons per day.

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- B. **Sewage System** means all facilities for collecting, pumping, treating and disposing of sanitary sewage.
- C. **Water System** means all facilities for production, storage, transmission, distribution, pumping and treatment of potable water.
- 1.47 **Tampering** means any act pertaining to or use of, the sewage or water systems of Tuscarawas County, which in the opinion of the Sanitary Engineer may endanger public health, safety or welfare.
- 1.48 **Tuscarawas County Metropolitan Sewer District (TCMSD/ District/County)** means the District created by the Tuscarawas County Board of Commissioners in accordance with ORC 6117 and 6103 for providing water and sewer service to the unincorporated areas of the County and selected municipalities that were included by consent.
- 1.49 **Watercourse** means a natural or manmade channel in which a flow of water occurs, either continuously or intermittently.
- 1.50 **Wastewater Treatment Facilities or Plant** means any arrangement of devices, processes and structures used for the treatment of sewage.
- 1.51 **Water Treatment Facility or Plant** means any arrangement of devices, processes and structures used to treat and make non-potable water suitable as potable water.

## **2. Protection of County Water Supply and Sanitary Sewage Systems**

### **2.1 Excerpts from the Ohio Revised Code**

- A. ORC Sec. 6103.02 - The Board of County Commissioners may make, publish, and enforce rules and regulations for the construction, maintenance, protection and use of public water supplies in the County outside of municipal corporations, and of public water supplies within municipal corporations in its County wherever such water supplies are constructed or operated by such Board or are supplied with water from water supplies constructed or operated by such Board, including the establishment of connections.
- B. ORC Sec. 6103.29 – No person shall tamper with or damage any water supply or water main constructed under Section 6103.02 to 6103.30, inclusive of the Revised Code or any apparatus or accessory connected therewith or pertaining thereto. No person shall make any connection with such water supply or water main without permission of the Board of County Commissioners, or make any such connection in a manner or for a use other than as prescribed by such Board. No person shall refuse to permit the inspection by the County Sanitary Engineer of any such connection or willfully cause the pollution of any water supply. No person shall violate Sections 6103.02 to 6103.30, inclusive, of the Revised Code. All fines collected under Section 6103.99 of the Revised Code shall be paid to the County Treasurer and credited to such fund as the Board determines
- C. ORC Sec. 6103.99 - Whoever violates Section 6103.29 of the Ohio Revised Code shall be fined not more than one hundred dollars.
- D. ORC Sec. 6117.01 -The Board may make, publish, and enforce rules and regulations for the construction, maintenance, protection, and use of sewers and sewer improvements in its County outside of municipal corporations, and of sewers and sewer improvements within municipal corporations in its County wherever such sewers are constructed or operated by such Board or discharge into sewers or sewage or sewage treatment plants constructed or operated by such Board, including the establishment and use of connections.
- E. ORC Sec. 6117.45 - No persons shall tamper with or damage any sewer or sewage disposal plant constructed under Section 6117.01 to 6117.45, inclusive, of the Revised Code, or any apparatus or accessory connected therewith or pertaining thereto, or make any connection into any sewer or sewage disposal plant without permission of the Board of County Commissioners or in a manner or for a use other than as prescribed by such Board. No person shall refuse to permit the inspection by the County Sanitary Engineer of any such connection.
- F. ORC Sec. 6117.99 – Whoever violates Section 6117.45 of the Revised Code shall be fined not more than one hundred dollars.

### **2.2 Excerpts from the Ohio Administrative Code**

- A. OAC 3745-03-04 - Prohibited Discharges - Pollutants introduced into POTWs by an industrial user shall not pass through the POTW or interfere with the operation or performance of the POTW. These general prohibitions and the specific prohibitions in paragraph (B) of this rule apply to all sources of indirect discharge whether or not

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the source is subject to other national, state, or local pretreatment standards or requirements.

- B. OAC 3745-95-02 Cross-connections. - (A) No person shall install or maintain a water service connection to any premises where actual or potential cross-connections to a public water system or a consumer's water system may exist unless such actual or potential cross-connections are abated or controlled to the satisfaction of the supplier of water. (B) No person shall install or maintain a connection between a public water system or consumer's water system and an auxiliary water system unless the auxiliary water system, the method of connection and the use of such system have been approved by the supplier of water and by the director as required by section 6109.13 of the Revised Code.
- C. OAC 3745-95-04 - Where protection is required. - An approved backflow prevention device shall be installed on each service line to a consumer's water system serving premises, where in the judgment of the supplier of water or the director, a pollution, system, health or severe health hazard to the public water system exists.
- D. OAC 3745-95-07 - No person shall install or maintain a water service connection to any one, two or three family dwelling where a booster pump has been installed, unless an air gap separation is provided to ensure that the booster pump cannot exert suction on the service line.

### **3. Use of Sanitary Sewers**

- 3.1 The sanitary sewers shall be used for all water borne wastes from water closets, urinals, laboratories, normal kitchen, bathroom and laundry fixtures, refrigerators, soda fountains, cellar and garage floor drains or other fixtures which may be designated by the Sanitary Engineer whether from residences, factories, commercial buildings or enterprises, trailers, schools or other public or private buildings, wherever and however located, and for no other purpose except by special written permission of the Sanitary Engineer.
- 3.2 No person, firm or corporation shall discharge or cause to be discharged any storm water, ground water, roof run off, sub-surface drainage, cooling water or unpolluted industrial process water to any sanitary sewer, unless otherwise authorized by the Sanitary Engineer.
- 3.3 It shall be unlawful to discharge into the building sanitary sewer the surface water which collects in basement or foundation excavations.
- 3.4 If the building sanitary sewer is complete before the plumbing can be connected thereto, the builder or sewer tapper shall keep the end of the building sanitary sewer tightly closed with a plumber's plug or other watertight plug.
- 3.5 It shall be unlawful for any person, firm or corporation to discharge or permit the discharge of any of the following described waters or wastes to any public sanitary sewer:
  - A. Any grease, oils, acids, cyanides, explosives or inflammable compounds, industrial chemicals, poisons and any other substances, gas or liquid, which may in any way damage or interfere with the use or operation of the sanitary sewers, or sewage treatment plant in excess of maximum concentrations as determined by the Sanitary Engineer or which may create a hazard to life.
  - B. Any garbage that has not been properly shredded.
  - C. Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, or any other solid or viscous substance capable of causing obstruction to the flow in sewers or other interference with the proper operation of the sewage works.
  - D. Any waters or wastes containing suspended solids of such character and quality that unusual attention or expense is required to handle such materials at the sewage treatment plant, or having a chlorine demand greater than 25 ppm.

## **4. Industrial and Damaging Wastes**

- 4.1 Non-Approved Wastes - Industrial wastes of a nature which will cause damage to the sanitary sewage system or which will interfere with the treatment processes shall be barred from the sanitary sewerage system. In no case will an industry or commercial establishment be allowed to discharge grease, oils, gasoline, thinners, or other highly volatile substances or any highly acidic or basic substances or any other waste which may tend to damage the sanitary sewage system or cause a stoppage of the same. The Sanitary Engineer or his authorized agent shall have authority to enter any property for the purpose of obtaining samples of waste discharged into the sewers.
- 4.2 Furnishing of Chemical Analysis - To determine if a wastewater from an industry can be accepted by the County, the industry must, upon application for sewer service, present to the Sanitary Engineer, a tabulation of the chemical analysis of the waste to be discharged into the sanitary sewage system and the volume of such waste, or if this is not available, the expected waste analysis based on similar processes now in operation.
- 4.3 Pre-Treatment - The County will not accept any wastewater from an industry that requires pre-treatment of a waste in order to satisfy requirements for acceptance into the County's sanitary sewage system.
- 4.4 Monthly Reports - The Sanitary Engineer may require a monthly report of the quantity and characteristics of any wastewater discharged into a sanitary sewer by an industry.
- 4.5 Grease Traps - Any commercial or institutional user of the County sewer system operating a kitchen or providing food preparation shall install and maintain a grease trap prior to the discharge of wastewater into the County sewer.
- 4.6 Oil Separator, Sediment Trap, Holding Tank - Any commercial or institutional user of the County sewer system with floor or other drains in an equipment maintenance area, garage, or chemical processing area shall install an oil separator, sediment trap or drainage holding tank as determined by the Sanitary Engineer.
- 4.7 Depending upon the size required, grease traps shall be constructed according to the most current details and specifications on file at the TCMSD office.

## **5. Protection from Damage**

- 5.1 Damage to Systems: No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenances or equipment which is a part of the County sanitary sewage or water supply system. Any person violating this provision shall be subject to immediate prosecution under charge of disorderly conduct.
- 5.2 Prohibited Acts to System
- A. The following activities, with respect to the County's aforesaid sanitary sewage and water improvements or interconnected waterlines and plumbing or sanitary sewers and sewer service, are prohibited to any person not specifically authorized by the Board:
1. The deposit of filth or any deleterious substance on or in the County's property related to such improvements and equipment or the doing of any damage or nuisance of any kind in connection therewith.
  2. Any unauthorized tampering whatsoever with such County property, including the unauthorized opening or use of fire hydrants and other outlets, the unauthorized uncovering of any branch lines or equipment and any unauthorized attachment or attempted attachment.
  3. Any tampering with or removal of a water meter by the owner of the premises metered or by another.
  4. Pave over or otherwise obstructing access to water valves operating boxes, valve vaults, fire hydrants, sewer manholes and other water and sewer facilities.
  5. Any person violating any of the above prohibitions shall be denied water or sanitary sewer service from any of the Tuscarawas County Improvements until all water used and any other cost, damage or expense to the water system has been paid for including inspection costs, turn on charges, monthly charges, delinquency charges and any other charges applicable.

## **6. Sanitary Sewer Service**

### 6.1 Availability of Service

- A. Sanitary sewer service is available and mandatory for any structure with sanitary facilities where the foundation of any portion of the structure is within 200 feet of public right of way or sanitary sewer easement in which the sanitary sewer main is located. The connection shall be made within 90 days after notice to do so by the County.
  - 1. Owners connected to the water system who do not comply with this requirement shall be subject to termination of water service.

### 6.2 Sanitary Sewer Connection Permit

- A. A separate and individual sanitary sewer connection shall be made to each inhabitable building. No connection shall serve more than one building unless specific authority is given by the Sanitary Engineer.
  - 1. Duplex, triplex or town/row house residential structures shall have a separate sewer connection for each unit.
- B. No connection with any County sanitary sewer shall be made without a permit from the Sanitary Engineer
- C. The sewer builder or the Owner shall make written application for each permit.
  - 1. The sewer builder/installer shall be registered with the Sanitary Engineer if the installation is not done by the property owner.
- D. All information required on the permit must be complete before the permit application will be accepted.
- E. A fee will be charged for any such permit based on the number of equivalent dwelling units being served. This fee may be changed from time to time by the Board of County Commissioners.
  - 1. A Non-refundable permit application fee of \$25.00 will be charged when the application for a Sewer Connection Permit is submitted.
  - 2. Upon approval of the Sewer Connection Permit by the Sanitary Engineer or his/her representative the applicant will be notified of the permit fee. The application fee is credited toward the final permit fee.
  - 3. For any work requiring excavation in any street, highway or road right-of-way, the applicant shall obtain from the proper authority the required permit for each excavation and shall agree to comply with all the requirements of the issuing authority, or shall obtain a written statement by that authority that no road opening permit is required.
  - 4. Upon receipt of the permit fee paid in full and copies of any roadway permits, the permit will be issued.
- F. The Sewer Connection Permit is valid for one year from date of issuance. The permit may be renewed for the difference in the permit fee at time of expiration and the

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date of issuance, but no less than a \$100.00 renewal fee. If the permit is not renewed by date of expiration, the permit is null and void and a new application is required.

- G. The permit shall be shown to the inspector at the commencement of construction and shall be kept "on-the-job" at all times, while work is in progress.
- H. No permit will be issued to a private home owner for a direct connection to a County sewer force main, unless it is part of a designed low pressure sewer system.

6.3 County Inspection of Work

- A. All work shall be done in the presence of an authorized inspector representing the Sanitary Engineer.
  - 1. The Sanitary Engineer or authorized representative is granted the right to enter any and all properties and buildings, public and private, to inspect sewer connections and any appurtenances thereto, to collect samples of wastes, and to test for violations of these rules and regulations.
  - 2. Any work covered previous to the inspection shall be uncovered by the sewer builder and an opportunity must be given to inspect the inside as well as the outside of the sewer pipe.
  - 3. The actual tapping of a connection into the sanitary sewer and the connection at the house shall be done only in the presence of an inspector.
- B. All materials and workmanship shall be in strict accord with the sanitary sewer specifications of the Sanitary Engineer governing such work and the same is hereby made a part of these rules, regulations, procedures, and specifications and as specified in these rules, regulations, procedures and specifications.

6.4 The Sewer Builder Responsible for Construction Safety

- A. All excavation for a building sewer installation shall be adequately guarded with barricades and lights so as to protect the public from hazard.

6.5 Restoration of Public Property

- A. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to and in conformance with the regulations of the County.
- B. The Owner shall indemnify the County and hold the County harmless for all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from Owner's work. The County shall have the right to select its own attorney at the Owner's expense.

6.6 Approval of Material & Workmanship

- A. The Sanitary Engineer shall approve the quality of all materials and workmanship and shall have the right to inspect the same at all times.
- B. The Sanitary Engineer may order removed from the job any inferior or defective materials and may cause to be re-laid any portion of a service connection which is not satisfactorily installed.

6.7 Materials of Construction Standards

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- A. The minimum pipe size shall be four inches (4") inside diameter.
- B. The pipe shall be SDR-35 PVC supplied in accordance with ASTM D3034 with bell and spigot gasket joints.
- C. Granular bedding and backfill shall be ODOT #8 or #57 gradation.
- D. Adaptor and couplings shall be Fernco type.
- E. The sewer builder must submit a list of all materials being used in the installation seven days prior to the scheduling of any work. Material specifications shall be included.

6.8 Installation Requirements

A. Notification and Inspection Requirements:

- 1. The Sewer Connection Permit and any roadway permits shall be kept on the job at all times while the work is in progress.
- 2. No sanitary sewer connection will be made to a house or commercial building for which the rough interior plumbing has not been completed, inspected and approved by the proper authority.
- 3. Three working days notification shall be given to the Tuscarawas County Metropolitan Sewer District, Sewer Department Superintendent prior to the start of any construction so as to allow the ample time to schedule an inspector.
- 4. It is the Sewer Builder's responsibility to ensure the delivery of this notice.
  - a. This notice shall state the permit number, street, sub-lot number and anticipated construction time required for the inspection requested.
- 5. The sewer builder shall immediately inform the Sewer Department Superintendent of any unforeseen delays or postponements prior to 8:15 A.M. of the day for which inspection was arranged.

6.9 Construction Standards

- A. The house lateral sanitary sewers and their connections to the public sewer system shall be installed in conformance with the most current details and specifications on file at the TCMSD office.
- B. The house lateral sanitary sewer shall be laid so as to be centered in a dry trench and in a straight line on a uniform slope.
- C. The minimum slope shall be 1/4 inch per foot (2.08%).
- D. Sewer clean-outs shall be installed on the house lateral sanitary sewer within 10 feet of the building foundation, at all changes in direction of the sewer lateral and at the property line or easement/ right-of-way line.
- E. No surface or ground water collecting in basement or foundation excavations shall be allowed to enter the sanitary sewer.
- F. The sanitary sewer pipe shall be so laid that the barrel will be supported over its full length on a minimum four (4) inches of granular bedding.

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1. Granular bedding shall be placed on undisturbed bottom of the trench.
2. Where the trench has been over excavated because of poor foundation material it shall be brought to proper grade with compacted granular backfill prior to placement of the granular bedding.
3. Place 1 foot of granular backfill over the pipe prior to filling the trench.
4. If within public right of way:
  - a. The backfill shall be placed in 6 inch lifts and mechanically compacted before the next lift is placed; and
  - b. The top 1 foot of the trench backfill shall consist of top soil.

6.10 Testing

- A. All sanitary sewers installed under permits issued by the Tuscarawas County Metropolitan Sewer District are required to be tested for leakage using low pressure air testing in accordance with ASTM F1417 and Tuscarawas County Metropolitan Sewer District standard specifications.
- B. Television inspection may be required at the sole discretion of the Sanitary Engineer.

6.11 Correcting Damaged Work

- A. In the case of paving or sidewalks that are damaged or removed in the laying of any service sewer or in doing other work specified under these rules or that shall need repair or renewal within one year after the completion and approval of such work, the Owner, shall, upon receiving notification in writing from the Sanitary Engineer of the necessity for such repairs or renewal, immediately perform or have performed the work within a period of 96 hours after such notification.
- B. If not corrected in the allotted time, the Sanitary Engineer may cause such work to be done either contract with some capable person, without advertising, or by such other arrangements as may be most convenient and satisfactory, and the bill for the entire cost of the same shall be rendered to the Owner who shall be liable for and shall pay such bill at once.

6.12 Maintenance of the Sanitary Sewer Connection

- A. The County will perform all maintenance of the sanitary sewer main. The home owner will be held responsible for the maintenance of the house sanitary sewer between the sanitary sewer main and the house. The County may require the property owner to make whatever repairs or perform any maintenance that the County deems necessary for the proper functioning of the sanitary sewage systems.
- B. If the County finds it necessary to make corrective action involving the disconnection and reconnection or relocation of improper inflows into the County's sewers, such work shall be done pursuant to ORC Section 6117.012.

6.13 Failure to Comply

- A. Failure by the sewer builder to comply with any of these rules and regulations, or the direct orders of the Sanitary Engineer or his duly authorized assistants shall result in revocation of the permit.

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- B. Property owner shall reapply for a new Sewer Connection Permit, forfeiting any fees previously paid.

6.14 Grinder Pump Stations

- A. A grinder pump station is required where sewer service within 200 feet of the structure's foundation is available but topography prevents a gravity connection.

- 1. In the case of new construction of a home or business where a sewer exists, the property owner is responsible for the installation of the grinder pump station.
- 2. The grinder pump station specifications are determined by the County and the County must approve all equipment to be installed prior to installation.
- 3. The grinder pump station will be located agreed to between the Owner and County.
- 4. Upon the County's acceptance of the grinder pump and force main installation they shall become the property of the County for the purposes of maintenance and repair.
- 5. The property owner shall provide and maintain electrical power to the grinder pump station.

- B. Where the County constructs new sewers to serve existing homes and businesses, all attempts shall be made to have the system designed to provide gravity sewer service to all existing structures.

- 1. If gravity service cannot be provided, the County will include a grinder pump station and force main to all property with existing structures that cannot be served by a gravity connection to the new sewer as part of the project.
- 2. The County will maintain the grinder pump stations and the property owner will provide and maintain electrical power to the grinder pump station.

6.15 Special Requirements for Variable Gradient Small Diameter Sewer Systems (Midvale/Barnhill Area)

- A. A septic tank shall be installed by owner on the applicant's property between the structure being served and the County owned sewer at a location approved by the Sanitary Engineer or authorized representative.

- 1. A septic tank for a single family residential unit shall have a capacity of 1000 gallons.
- 2. Commercial, institutional, multifamily dwelling units and industry shall install septic tanks with 1000 gallons capacity for each equivalent residential unit (ERU).
  - a. The minimum size septic tanks shall be 1000 gallons.
- 3. Septic tanks shall be installed in accordance with the most current details and specifications on file at the TCMSD office.
- 4. The septic tank shall be a water tight structure constructed with extra strength reinforced concrete

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- a. Fiberglass or HDPE septic tanks may be approved on a case by case basis at the sole discretion of the Sanitary Engineer.
5. The tank shall have two top openings, one at the inlet and one at the outlet
6. Openings shall have watertight cast iron or HDPE covers with lifting handles.
7. Each lid shall have a watertight riser.
- B. Once installed the septic tanks and the sewer line from the septic tank and the main sewer line become the property of the County and are operated and maintained by the County.
- C. The applicant, in making application for service, grants an easement to the County that extends ten feet in all directions from outside walls of the septic tank for maintenance of the tank.
- D. The applicant also grants a 20 feet easement centered on the sewer line connecting the septic tank to the county's main sewer.

## **7. Water Service**

### 7.1 Availability of Service

- A. Any prospective water consumer who has contracted for water with the TCMSD by signing and submitting the Application for Water Service Connection, authorized and provided by the aforesaid water improvements, shall be entitled to connect the service branch line into the premises for which service is desired, provided, however, that such water consumer understands, agrees to and complies with the terms contained in said application and these regulations, their amendments, and other requirements of the TCMSD.
1. A fee will be charged for any such permit based on the size of the connection. This fee may be changed as necessary by the Board of County Commissioners.
  2. A Non-refundable permit application fee of \$25.00 will be charged when the application for a Water Service Connection permit is submitted.
  3. Upon approval of the Water Service Connection Permit by the Sanitary Engineer or his/her representative the applicant will be notified of the permit fee. The application fee is credited toward the final permit fee.
    - a. The permit shall be shown to the inspector at the commencement of construction and shall be kept "on-the-job" at all times, while work is in progress.
    - b. The Water Service Connection Permit is valid for one year from date of issuance. The permit can be renewed for the difference in the permit fee at time of expiration and the date of issuance, but no less than a \$100.00 renewal fee. If the permit is not renewed by date of expiration, the permit is null and void and a new application is required.
  4. The following terms, requirements and specifications must be complied with respect to the nature, installation, location and maintenance of such service line unless specific written consent to the contrary is obtained from the Board of its authorized agent:
    - a. The premises to be served must abut the road, street or right of way on which the service main is located.
    - b. The separate service branch shall be used for each consumer to be served.
    - c. A separate meter shall be installed for each consumer, when the same becomes available.
    - d. The water meter shall be installed by the TCMSD or its authorized agents in the manner specified by the plans and specifications for the aforesaid water improvements.
    - e. The meter shall be located at or in the proximity of the property line of the consumer, or at the edge of the road, or at a point within the consumer's property, or at a street crossing the consumer's property, as designated by the TCMSD or its authorized agent.

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- 1) Meter pit shall be installed in accordance with the most current details and specifications on file at the TCMSD office.
  - f. If a meter is installed inside the structure being served, the following shall apply.
    - 1) Applicant must sign an agreement to permit access to the meter upon 24 hour notice, either written or oral and acknowledge responsibility for all water service line from the curb stop valve to the meter.
    - 2) The meter must be open and exposed and readily accessible.
    - 3) A radio transmitter will be mounted on the outside of the structure with wiring connecting it to the meter head. This may require drilling through the outside wall of the structure.
    - 4) The meter shall be installed in accordance with the most current details and specifications on file at the TCMSD office.
  5. In case of a potential consumer that has submitted an application for a water connection permit but does not abut a public right of way containing a TCMSD water line or a TCMSD water line easement, the TCMSD will construct a branch line to the property line of the applicant, placing the branch line where available or acquiring easements on private property. The cost for such an extension of a branch line, including cost of permits and easements, shall be shared between the TCMSD and the applicant, with the TCMSD share being limited to 60 times the minimum monthly charge for water service.
    - a. The applicant's share shall be considered a "contribution in aid of construction".
    - b. Should subsequent customers connect to the branch line within the first ten years after installation; the original applicant will be refunded an amount equal to the TCMSD share for each customer connected.
  6. Meters installed shall belong to the TCMSD and remain the property thereof.
  7. The cost of the meter and its installation is included in the fee for providing the connection.
  8. The costs of those portions of the service lines installed by the TCMSD or its authorized agent to reach the meter pit from the water main are also included in the fee for providing the connection.
    - a. In the case of meters installed in the structure, TCMSD shall install the service branch line from the main to the curb stop valve, located at the property or right-of way line.
- 7.2 County Inspection of Work
- A. The water service line from the water meter to the consumer shall be installed by the consumer at his own cost and shall connect to the water main distribution system at the "user's point of connection" provided at the water meter setting.

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- B. Water service lines shall be left uncovered until inspected by the TCMSD.
- 7.3 Water Service Installer Responsible for Construction Safety
  - A. All excavation for a water service line installation shall be adequately guarded with barricades and lights so as to protect the public from hazard.
- 7.4 Restoration of Public Property
  - A. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to and in conformance with the regulations of the County.
  - B. The owner shall indemnify the County and hold the County harmless for all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from Owner's work. The County shall have the right to select its own attorney at the Owner's expense.
- 7.5 Approval of Material & Workmanship
  - A. The Sanitary Engineer shall approve the quality of all materials and workmanship, and shall have the right to inspect the same at all times.
  - B. The Sanitary Engineer may order removed from the job any inferior or defective materials and may cause the applicant to relay any portion of a service connection which is not satisfactorily installed.
- 7.6 Materials of Construction Standards
  - A. Pipe:
    - 1. Type K seamless copper tubing supplied in conformance to ANSI/ASTM B88.
    - 2. Polyethylene (PE) pressure tubing supplied in conformance to ANSI/AWWA C901.
  - B. Valves and Fittings:
    - 1. All valves shall be full port ball valves and all fittings installed underground shall be Mueller, compression style.
- 7.7 Installation / Construction Requirements
  - A. Installation shall be by a licensed plumber or other qualified installer.
  - B. Install water service line below the frost line or with approximately 48 inches of ground cover over the pipe.
    - 1. Where not practical, an insulating jacket can be used.
  - C. Place a minimum of 4 inches of granular material, either course sand or pea gravel, in the bottom of the trench.
  - D. Backfill the first 1 foot over the pipe with the same granular material.
  - E. Place a pipe locator strip on top of the granular backfill for non-metallic pipe before further backfill.
  - F. Place backfill in six (6) inch lifts and mechanically compact each lift before placing subsequent lifts.

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7.8 Testing

- A. The installer is to perform a leak test prior to covering the pipe.

7.9 Pressure rating of installation.

- A. Any installation where the main line static pressure is less than 90 psi is considered a normal pressure installation.
- B. If the mainline pressure is less than 35 psi, the applicant shall be required to include in the application a “pressure waiver” requesting and accepting low pressure service.
  - 1. Applicants wishing to increase pressure shall make a separate application for a permit to install a booster pump system meeting the requirements of OAC 3745-95-07.
- C. Any installation where the main line static pressure is equal to or greater than 90 psi is considered a high-pressure installation.
  - 1. All high-pressure installations require a pressure reducing valve to be installed and maintained by the property owner immediately after the isolation valve in the structure and, for inside meter installations, after the meter.

7.10 Protection from Contamination

- A. There shall be no cross connection between this public water system and any other source of water whatsoever including private wells and cisterns.
  - 1. Where the water service connection is to property previously supplied water by a private well, the private well must be abandoned and sealed.
  - 2. If the well is maintained as a source for livestock or lawn and garden purposes, it must be physically separated from the potable water supply provided by the County and an acceptable backflow prevention device installed and maintained by the customer on the customer’s side of the water meter.
  - 3. Failure to comply with the above will result in revocation of the Water Connection Permit, forfeiture of fees paid and termination of service.
- B. Water service lines shall not be laid in the same trenches with sewer lines or connections or septic tanks and their appurtenances.

7.11 Protection from Damage

- A. No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenances or equipment which is a part of the County water supply system. Any person violating this provision shall be subject to immediate prosecution under charge of disorderly conduct.
- B. No unauthorized person shall tamper in any way with such County property, including the unauthorized opening or use of fire hydrants and other outlets, the unauthorized uncovering of any branch lines or equipment and any unauthorized attachment or attempted attachment.
- C. No unauthorized person shall tamper with or remove a water meter from any metered premises.

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- D. Correction of Damaged Work Repairs or replacement of TCMSD water system property, including branch lines, meters and distribution system, damaged through the fault of the consumer shall be paid for by the consumer.
  - E. The TCMSD and its employees and agents shall have the right to enter any premises of the consumer to perform meter reading and any necessary inspection or repair of any portion of the water system, the branch service lines, and any other lines or plumbing connected to said system and lines.
  - F. If, in the course of making repairs to the water distribution system or maintenance such as flushing of the system or the use of fire hydrants by the fire departments, damage is done to the consumer plumbing or plumbing fixtures or appliances the consumer shall hold harmless the County and/or authorized fire departments.
  - G. Any person violating any of the above (A through F) prohibitions shall be denied water service from Tuscarawas County until all water used and any other cost, damage or expense to the water system has been paid for including inspection costs, turn on charges, monthly charges, delinquency charges and any other charges applicable.
- 7.12 In addition, Ohio Revised Code, Section 6103.29 will be enforced at the initiative of the Board, its authorized agents and the County Prosecutor with respect to any such unlawful tampering.

## **8. Protection of Water Supply**

- 8.1 Separation of Potable and Non-Potable Water
  - A. There shall be no cross-connection between potable and non-potable water systems.
- 8.2 Backflow Protection Program
  - A. TCMSD administers a Backflow Prevention Program for the purposes of protecting the potable water supply from cross-connections.
  - B. The TCMSD Backflow Prevention Program is included in these Rules and Regulations by reference.
  - C. Copies of the TCMSD Backflow Prevention Program are on file and available for review at the offices of the TCMSD.
- 8.3 Source Water Protection Program
  - A. The TCMSD administers Source Water Protection Programs to protect the wells supplying potable water from contamination for each of its Community Water Systems.
  - B. The TCMSD Source Water Protection Programs are included in these Rules and Regulations by reference.
  - C. Copies of the TCMSD Source Water Protection Programs are on file and available for review at the offices of the TCMSD.

## **9. Basic Water Customer Plumbing Requirements**

### 9.1 Water

- A. An accessible, full size, full port ball shut-off valve with a drain plug shall be provided and maintained by the customer inside near the entrance of the water service pipe into the building.
- B. Where the water meter is located inside the building a second full size, full port ball shut-off valve with a drain plug shall be provided and maintained by the customer on the customer side of water meter.
- C. Separate Controls for Each Family Unit. In two-family or multiple dwellings there shall be a shut off valve which permits water to each family to be shut off without interference with the water supply to any other family unit or portion of the building.
- D. A pressure relief valve or expansion tank must be installed on the hot water portion of the building water distribution system.

## **10. Water and Sewer User Charge System**

- 10.1 The fee for the providing of water and/or sewer service will be assessed through a User Charge System established by the Board of County Commissioners and administered through the TCMUSD.
- 10.2 All funds received from the collection of rates and charges established in User Charge System for water and/or sewer service shall be deposited regularly with the County treasurer, who shall keep the same in separate funds. Such funds shall be used in accordance with the provisions of any resolution or indenture authorizing and securing the issuance of revenue bonds for said waterworks and/or sewer works and otherwise as directed by the Board of Commissioners.
- 10.3 The User Charge System consists of:
  - A. Water usage charges,
  - B. Sewer usage charges,
  - C. Water Service Connection Permit fees,
  - D. Sewer Service Connection and Permit fees, and
  - E. Other appropriate and necessary fees associated with the cost of providing service.
- 10.4 The User Charge System will be based on the cost of providing service, the cost of servicing debt, and the maintenance of a reasonable repair and replacement reserve.
- 10.5 The TCMUSD will assess the adequacy of the rates and fees that make-up the User Charge System on an annual basis and, when necessary, make recommendations to the Board of County Commissioners as to modifications to the User Charge System.
- 10.6 All water and sewer user charges and fees are found in the latest rate resolution enacted by the Board of County Commissioners.
- 10.7 A copy of the latest rate resolution will be posted, or a copy may be obtained by request, at the offices of the TCMUSD, 9944 Wilkshire Blvd. NE, Bolivar, OH 44612.
- 10.8 Water Service Connection fees will be based on the size of service tap provided.
- 10.9 Sewer Service Connection fees will be based on the number of Equivalent Residential Units for the user.
  - A. An Equivalent Residential Unit (ERU) is based upon the estimated average daily sanitary sewage flow established by the Ohio EPA and found in OAC 3745-42-05, Table A-1 divided by 400.
    1.  $ERU = (EPA\ Flow) / 400$
- 10.10 When meters are installed, water and sewer charges will be based on metered water usage.
  - A. Meters will be read and bills will be rendered monthly.
  - B. In the case of leased lots, parcels of land or premises having a connection with the County's water and/or sewer system, the owner of said lots, parcels of land or premises shall be billed and be liable for the payment of all charges.
  - C. No meter reading will be combined for billing purposes and readings and billings will be in units established in the Rate Resolution.

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- D. The amount stated on any bill is the net due and payments are to be submitted before the due date stated on the bill.
  - E. If an account is not paid in full on the due date, ten percent (10%) is added to the net amount as a penalty.
- 10.11 Failure to pay in full the net amount due and any penalty within sixty (60) days of the due date will result in the shutting off of water to the customer whose bill has not been paid.
- A. Such shut off will not relieve the customer of their obligation to pay the applicable monthly rate as set forth in the Rate Schedule.
  - B. The TCMSD's "Water Service Termination Policy" is made part of these Rules and Regulation by reference, copies of which are on file and available for review at the TCMSD office.
  - C. Accounts that remain delinquent will be certified to the County Auditor for collection in the manner authorized and prescribed by law.

## **11. Violations**

- 11.1 The several parts of the foregoing rules, regulations, procedures, and general specifications are hereby declared separate and in the event any provision or part hereof shall be declared void and ineffective for any cause, such declaration shall not affect nor render invalid any other provision or part hereof.
- 11.2 Nothing in these rules, regulations, procedures and general specifications shall prohibit the Board of County Commissioners or the County Sanitary Engineer from entering into an agreement with any person, firm, corporation or governmental agency for the furnishing of a service or performance of any act not specifically mentioned in these rules, regulations, procedures and general specifications.

## **12. Process for Approval of Water and Sewer Plants**

### 12.1 Qualifications of Plan Preparer

- A. Plans shall be prepared by a Professional Engineer licensed to practice in the State of Ohio, who is experienced in such work and shall be submitted to the Tuscarawas County Sanitary Engineer for approval.

### 12.2 Plans Requiring Approval by the County

- A. Proposed public sanitary sewage or water supply systems including treatment plants, sanitary sewage conveyance systems and water distribution systems and any changes in existing structures or methods of treatment located within the TCMSD shall not be constructed without the approval and authorization of the Board of County Commissioners or their authorized representative.
- B. A public sanitary sewage or water supply system shall be construed to mean any system where the TCMSD maintains the completed project or which may, in the opinion of the Sanitary Engineer, be made to serve additional dwellings or buildings, existing or proposed, along its line, or which may be extended to serve additional dwellings or buildings.
- C. Proposed sanitary sewage or water supply for industrial or commercial establishments which discharge their wastes into a sanitary sewage system or receive their water supply from a water supply system operated and maintained by the TCMSD.
  - 1. For the purposes of these regulations, an industrial establishment shall be one engaged in the manufacture of a product, and a commercial establishment shall be one which is engaged in selling goods or services to either a public or a private clientele.

### 12.3 Plan Approval Requirements

- A. Provide a report prepared by the design engineer, giving all pertinent data regarding the project.
- B. Provide three (3) copies of satisfactory detailed plans and specifications, estimates of cost, manufacturer product catalog data, pump performance curves, etc. for all improvements proposed.
  - 1. Plans for facilities in residential subdivisions will not be reviewed by the County Sanitary Engineer until preliminary approval of the plat of said subdivision has been given by the appropriate Planning Commission.
  - 2. Plans shall conform to the requirements of the Ohio Environmental Protection Agency (OEPA) and the Tuscarawas County Metropolitan Sewer District. If another entity is a supplier for services to the County, any special requirements placed on the County by that entity will be provided to the Developer or Owner.
  - 3. The Sanitary Engineer shall review plans for conformance with County requirements prior to Plans being submitted to OEPA. Where concurrence is required by a supplier of service to the County, the Developer or Owner is required to submit plans to that entity for review.

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- C. Provide a plan showing all easements, rights of way and property appropriations needed for the completion of the project.
  - 1. Prepare easement documents and acquire all easements, permits to occupy rights of way, permits for crossing of roadways and railroads.
  - 2. If no "road opening permit" is required by the authority having jurisdiction over a particular street or highway, a written statement to that effect must be obtained from the authority.
- D. Any plans and specifications which are improperly prepared to accompanied by insufficient or inaccurate information may be rejected by the Sanitary Engineer, whereupon, revised plans and specifications or more sufficient data shall be submitted, as required
- 12.4 Upon acceptance of plans and specifications by the County, submit plans to Ohio EPA for review, approval and issuance of a "Permit to Install."
  - A. The Sanitary Engineer, upon the County's acceptance of the proposed project's plans and specifications, will notify Ohio EPA of the acceptance of the plans and the acceptance to maintain and operate the proposed project when completed.
- 12.5 Revised Plans - If any change or modification is deemed necessary or desirable by the public officials or persons, firm or corporation having charge of work, previous to or during the construction, such change or modification shall be incorporated in revised plans, which shall be submitted for approval in the same manner as required for original plans.
- 12.6 Owner's Engineering Services
  - A. No provision in this article shall be so construed as to relieve the Owner from the responsibility to furnish all private engineering, surveying and inspection services necessary in connection with the improvements.
- 12.7 County's Responsibility for Information
  - A. The County expressly disclaims any responsibility for the accuracy or completeness of information given on drawings or orally or in writing by any of its employees in regard to existing structures, and the contractor shall have no claim against the County on the account of such information given.

### **13. Design Requirements and Specifications for Sanitary Sewage and Water Supply Improvements**

#### 13.1 Conformance with Sanitary Engineer Specifications

- A. The material and workmanship must conform in all respects to the requirements of the specifications of the County Sanitary Engineer which specifications shall be considered as minimum specifications and if built by contract, the contract shall contain this stipulation.

#### 13.2 Requirements for Sanitary Sewers

- A. The design of sanitary sewers shall adhere to Ohio EPA requirements and those in the 10-State Standards mentioned above. The TCMSD's minimum specifications applying to sanitary sewer lines, other than house connections which are discussed in Chapter 6 are as follows.

1. All sanitary sewer pipe shall be polyvinyl chloride (PVC) SDR 35 (ASTM D3034) with bell and spigot gasketed joints.
2. The minimum size of sanitary sewers mains shall be eight inches (8") inside diameter.
3. The slope of the sanitary sewer main shall be determined so as to provide a minimum velocity of 2 fps when the sewer is flowing half-full. The minimum slope shall not be less than 0.50% for 8-inch pipe, 0.30% for 10-inch pipe, 0.25% for 12-inch pipe and 0.18% for 15-inch pipe.

- B. Sanitary manholes shall be Manhole No. 3 (Standard Construction Drawing MH-1.2) in accordance with the Ohio Department of Transportation "Standard Construction Drawings" most recent edition with the following clarifications.

1. Manhole shall be provided with an eccentric cone top.
2. Connections between the precast manhole sections and pipe shall be sealed with resilient connectors conforming to ASTM C923.
3. Provide manhole with a monolithic floor and riser.
4. Manhole shall be in accordance with ASTM C478 with joints between precast sections conforming to ASTM C443.
5. Pre-cast concrete manholes shall be constructed so that there will be no less than 6 to 12 inches of precast concrete grade rings between the manhole frame and the top precast concrete section, with a maximum of 12 inches.
6. All manholes shall be concentric to the centerline of the sanitary sewer, have a proper channel and be watertight.
7. Manholes shall not be spaced greater than 400 feet apart, unless approved by the Sanitary Engineer.
8. Manhole frames and covers shall be solid East Jordan 1040 Heavy Duty Type A frame and cover with Type 2 closed pick holes, or equal.
9. Manhole steps shall be Neenah R-1980-E, or equal.

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- C. All sanitary sewers shall be laid on approved granular bedding, from six inches below the bottom of the pipe placed to the pipe spring-line and shall have a hand-placed, compacted granular backfill twelve inches (12") above the top of the pipe.

#### 13.3 Requirements for Water Mains

- A. The design of water systems shall adhere to Ohio EPA requirements and shall meet the requirements in the latest edition of the 10-State Standards for Drinking Water. The County's minimum specifications applying to water mains, other than water service connections (which are discussed in Chapter 7), are as follows:

1. All water main pipes shall be minimum Class 150 ductile cast iron or C-900 PVC pipe of approved manufacturer, with an approved joint. Approval must be obtained from the County Sanitary Engineer.
  - a. All fittings shall be ductile cast iron pipe. All full-bodied ductile iron fittings shall conform to AWWA C110. Fittings 12" and smaller shall be rated for a 250 psi working pressure.
  - b. The normal minimum size water main shall be 8 inches inside diameter (ID).
    - 1) In certain cases, 6 inches ID may be permitted where the pipe is "looped" and the number of users is less than ten. In no case shall line sizes less than 6 inches ID be permitted.
  - c. All water mains shall be designed so as to provide a minimum service at the curb stop of 35 psi pressure, and provide minimum pressures and fire flows as currently recommended by the National Board of Fire Underwriters.
2. Provide fire hydrants that meet AWWA C502 standard and are UL/FM approved.
  - a. Provide Mueller Model A-423 or approved equal, with 5.25 inch main valve, 2 hose and 1 pumper nozzles. The nozzle threads shall be approved by the fire department in the area to be served. A gate valve, valve box and cover shall be installed on every hydrant lead.
  - b. Fire hydrants shall be spaced no greater than 500 feet in residential areas and no greater than 300 feet in commercial and industrial areas.
3. Valves shall be inside non-rising stem, resilient wedge gate valves, Mueller Model No. 2360 or approved equal meeting requirements of AWWA C509 and NSF 61 Certified.
  - a. Main valves shall be spaced no greater than 1,000 feet and shall be installed at every street intersection on right of way lines produced.
4. The minimum ground cover over all pipes shall be 4 feet.

#### 13.4 Sanitary Sewer and Water Service Connections

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- A. Connections with sanitary sewers constructed under this article shall be subject to all the requirements of Chapter 6 of these rules, regulations, procedures and general specifications. The requirements for water service connections are found in Chapter 7.

13.5 Requirements for Wastewater and Water Treatment Plants

A. Wastewater Treatment Plants

- 1. Any wastewater treatment plant to be owned and operated by the County for a sub-division shall be an extended aeration/aerobic digestion type sewage treatment plant.
- 2. Design shall conform to the latest edition of "GLUMRB Recommended Standards for Wastewater Facilities" (10-State Standards) and/or Ohio EPA's "Sewage: Collection, Treatment & Disposal – Where public Sewers are not Available" and the same shall be considered as part of these rules, regulations, procedures, and general specifications.

B. Water Treatment Plant

- 1. Water treatment shall be based on the quality of the raw water.
- 2. Design shall conform to the latest edition of "GLUMRB Recommended Standards for Drinking Water" (10-State Standards) and the requirements of Ohio EPA.

## **14. Summary of Procedures in the Construction of Sanitary Sewage and Water Supply Improvements by Private Owners with Ownership Transferred to the County**

### 14.1 General Procedures

- A. Sanitary Sewage and Water Supply Improvements include water and sewer lines, sewer force mains, sewer pump stations, water booster pump stations, wastewater treatment plants, water treatment plants, water storage tanks and any other component of a water and/or sewer system.
- B. Upon receipt of the OEPA Plan Approval and/or Permit to Install the Owner/Developer shall schedule a meeting with the Sanitary Engineer for the purposes of scheduling construction of the proposed project.

### 14.2 When Owner/Developer provides documentation of approval by the Ohio EPA, and prior to authorization to begin construction the Owner/Developer shall provide to the Sanitary Engineer:

- A. The name of the Contractor to perform the work and ;
- B. Contractor references.
- C. List of successfully completed projects of a similar nature.
- D. Submitting of detailed shop drawings for all equipment and materials; including pipe, fittings, valves, valve boxes, hydrant, pre-cast manholes, casting details and other materials and equipment that are part of the project in triplicate to the Sanitary Engineer.
  - 1. Approval of the quality of all materials and workmanship by the Sanitary Engineer shall be required. The Sanitary Engineer may require testing of equipment or materials at the place of manufacture by an independent testing laboratory or by others, at no expense to the County.

### E. Sanitary Engineer's Inspection Costs

- 1. All improvements constructed shall be done in the presence of the Sanitary Engineer or his duly authorized representative as Construction Representative and all expenses to be incurred in connection with such County participation shall be paid to the TCMSD by the Owner. The amount to be so paid to the County for such purposes shall be deposited with the TCMSD prior to the authorization for the construction work to commence.
- 2. If the cost of such representation exceeds such deposits, the Owner shall pay the difference to the TCMSD. The cost of such supervision shall be based on the actual itemized costs approved by the Sanitary Engineer and/or the Board of County Commissioners.

### F. Road Opening Permits

- 1. Before receiving a permit for any work requiring excavation in any street, highway or road right-of-way, the person desiring to make such excavation shall obtain from the proper authority, the required permit for such work, and shall agree to comply with all requirements of the authority issuing such "road opening permit."

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2. If no "road opening permit" is required by the authority having jurisdiction over a particular street or highway, a written statement to that effect must be obtained from the authority.
  - G. Owner shall submit a satisfactory performance bond in the total amount of 100 percent of the engineer's certificated estimate of probable construction cost and a one-year maintenance bond in the amount of 10 percent of the engineer's certificated estimate of probable construction cost.
  - H. Necessary easements, permanent maintenance easements and temporary construction easements by the Owner/Developer shall be assigned to the County.
- 14.3 Protection of Structures
- A. In excavating and backfilling trenches, and constructing sanitary sewage and water supply facilities, care must be taken not to move or injure any structures and water courses, whether above, at or below the surface of the ground.
    1. If necessary, the contractor shall, at his own expense, sling, shore up, secure and maintain in operating condition any such structure or water course.
    2. If damaged, the contractor shall repair any such damage and shall maintain them in good repair until the final acceptance of the job.
- 14.4 Presence of Sanitary Engineer's Inspection and Owner's Inspector
- A. No construction work in connection with the improvement shall be done except in the presence of a TCMSD representative authorized by the Sanitary Engineer. Forty-eight (48) hours of notice of the intention to begin work shall be given to the Sanitary Engineer to enable him to arrange to place one or more, if needed, inspectors on the work.
  - B. The Owner's Engineer shall also act as Resident Engineer for the improvement.
- 14.5 Improper Construction
- A. The Owner and/or his contractors are responsible that the work is conducted in a safe manner and in compliance with any and all State and Federal safe working rules and regulations.
  - B. If the Sanitary Engineer has proof or evidence in writing that any such work is being improperly done, he may order all work stopped and the Owner or his contractor shall thereupon stop and shall not resume until authorized in writing by the Sanitary Engineer to do so.
- 14.6 Testing of Water and Sewer Line Construction
- A. All sanitary sewers, including lateral connections, shall undergo a leakage test which shall be a low pressure air test for PVC sewer, in accordance with ASTM F1417 and the TCMSD standard specifications.
  - B. All sanitary sewers shall be subject to a television and/or photographic inspection.
  - C. The Sanitary Engineer may require that any cracked or settled pipe or other faulty construction be corrected as the result of such inspection
  - D. Manholes shall be tested for leakage with a vacuum test in accordance with ASTM C1244

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- E. All water mains will be hydrostatically tested at a pressure of 150 pounds per square inch at the highest point of the main or two times the system static pressure, whichever is greater. The leakage should not exceed 20 gallons/inch diameter/mile of main/day.

**Provisional Requirement (to be adopted when Rules and Regulations are revised):**

Deflection tests shall be conducted after the final backfill has been in place for at least 30 days. Maximum allowable deflected shall be 5 percent of the nominal pipe inside diameter. Repair and/or correction of any defective areas shall be done by the Owner at no cost to TCMSD.

The mandrel used for the deflection test shall have a diameter not less than 95 percent of the nominal inside diameter of the pipe being tested and in accordance with applicable ASTM specifications for the pipe. The test shall be performed without mechanical pulling devices.

- 14.7 Upon satisfactory completion of construction the Owner shall provide to the Sanitary Engineer:
- A. One set of "as built" drawings on reproducible mylar and on a CD or Flash drive in both AutoCAD and PDF format to the County Sanitary Engineer by the Owner's Engineer prior to acceptance of the project by the Board of County Commissioners. Plans shall include GPS coordinates compatible with the County GIS system for manholes, hydrants, valves (including curb stops), meter pits, sanitary sewer wyes, laterals at the property line, and any other structures or features identified by the Sanitary Engineer.
  - B. Copies of testing reports for deflection, air testing of mainline sewers, and vacuum testing of manholes.
  - C. Copies of the video inspection (DVD Format) and inspection reports.
- 14.8 Acceptance of the project may be allowed by the Board of County Commissioners for operation by the County Sanitary Engineer after submission of a one year maintenance bond to the Board of County Commissioners by the owner in the amount of ten percent of the final construction costs as certified by the Owner's engineer.
- 14.9 Change to County Operations
- A. Sanitary sewage or water supply facilities constructed for private operation may, after completion, be turned over to the County with the consent of the Commissioners.
    - 1. Documentation that the facilities were constructed in accordance with OEPA requirements is required.
    - 2. The Sanitary Engineer shall inspect the facilities and any deficiencies noted must be corrected prior to recommending transfer of the facilities to the County.
    - 3. The owner shall transfer and assign all easements or dedication of suitable rights-of-way to the County.

## **15. Installer Registration**

- 15.1 The Tuscarawas County Metropolitan Sewer District shall maintain a registry of contractors who install private water service lines and sewer lateral that connect to the County's water and sewer systems.
- 15.2 The registry consists of information as to the type of work the contractor wishes to perform, any geographical limits to the area in which the contractor works, contact information and references that owners can check.
- 15.3 The registry does not check contractor qualifications or rank contractors by qualifications.
  - A. A contractor that has not performed satisfactorily can be removed from the list at the discretion of the Sanitary Engineer.
- 15.4 The Contractor shall submit the required information on application form provided by TCMSD.
  - A. There is a \$10 processing fee for the initial registry listing.
  - B. The Contractor is required to notify the County in writing of any changes to information supplied in the initial application.

## **16. Possible Invalidation and Other Agreements**

- 16.1 The several parts of the foregoing rules, regulations, procedures, and general specifications are hereby declared separate and in the event any provision or part hereof shall be declared void and ineffective for any cause, such declaration shall not affect nor render invalid any other provision or part hereof.
- 16.2 Nothing in these rules, regulations, procedures and general specifications shall prohibit the Board of County Commissioners or the County Sanitary Engineer from entering into an agreement with any person, firm, corporation or governmental agency for the furnishing of a service or performance of any act not specifically mentioned in these rules, regulations, procedures and general specifications.

## **17. Repeal of Conflicting Rules and Adoption of Present Rules and Regulations**

- 17.1 All rules and regulations heretofore adopted by the TCMSD for the governing of the installation and operation of water supply and sanitary sewage improvements, in any way in conflict herewith, are hereby repealed.

## **18. Rules and Regulations of Providers Applicable to County Users**

- 18.1 In any instance where the source of supply for one or more of the aforesaid water improvements is another political subdivision, and the contract for such supply provides that certain rules and regulations applicable to that political subdivision's water utility must be followed in connection with the County's distribution system connected to such source of water, then such rules and regulations are adopted by the Board of Commissioners and are applicable to so much of the aforesaid water improvements as are connected to such source of water.
- 18.2 In any instance where the conveyance and disposal of sewage for one or more of the aforesaid sewer improvements is conveyed through another political subdivision, and the contract for such sewage conveyance and disposal provides that certain rules and regulations applicable to that political subdivision's sewer utility must be followed in connection with the County's sewer collection system connected to such political subdivision, then such rules and regulations are adopted by the Board of Commissioners and are applicable to so much of the aforesaid sewer improvements as are connected to the other political subdivision.

## **19. Amendments to Rules and Regulations**

- 19.1 These regulations, including the charges heretofore set forth may be from time to time amended, changed, or repealed as the Board of County Commissioners may find advisable.