

SECTION 01010 - INTRODUCTION

PART 1 - GENERAL

1.1 SCOPE

- A. These Specifications have been adopted by the West Cocalico Township Authority to specify the manner in which sanitary sewers, force mains, and pump stations shall be furnished and installed in West Cocalico Township.
- B. The Contractor shall comply with all regulations and requirements of the West Cocalico Township Authority as established in the Sewer Regulations, these Specifications and West Cocalico Township ordinances, plus applicable regulations of the Pennsylvania Department of Environmental Resources and where applicable, all Federal Regulatory Agencies.
- C. All work involving new subdivisions shall be done in accordance with the procedures and the minimum requirements of the Lancaster County Subdivision and Land Development Ordinance in effect at the time of the application for approval.
- D. The first step in the approval process shall be the submittal of a letter to the Authority to determine if sufficient capacity is available to serve the proposed development or extension to the sewer system.
- E. If capacity is available, prior to beginning any work or requesting an Authority review of any submitted plan, drawings, or sketch, the Contractor shall contact the Authority to obtain the required specifications, instructions, worksheets, and forms. The Contractor shall post with the Authority an initial Escrow of \$500 to cover engineering, legal, and Authority administrative costs prior to the detailed review of preliminary and final plans. Depending on the size and complexity of the development and/or extension, additional Escrows will be required prior to formal plan review and approval. The final plan approval will include an estimate of construction and operation costs, which amount shall be placed in Escrow prior to construction.
- F. Depending on the size and complexity of the development and/or extension, an Extendor Agreement, an Improvement Guarantee Agreement and a Maintenance Guarantee Agreement may need to be established with the Authority.
- G. Before any work is started at the construction site, the Contractor shall notify the West Cocalico Township Authority, the local Police Department, the School Board, and the various utility companies serving the Authority and shall schedule a pre-construction meeting with the Authority and their Engineer.
- H. It shall be understood that the Authority, at their discretion, reserves the right to visit the construction site(s) and inspect the installation of the sanitary sewers, force mains, and pump stations and may require corrective actions to assure compliance with these standards.

- I. All work is subject to the inspection and final acceptance by the Authority's Engineer.

1.2 DEFINITIONS

- A. Wherever the word "Authority" or "Owner" is used, hereinafter it shall mean "The West Cocalico Township Authority."
- B. Wherever the word "Engineer" is used, hereinafter it shall mean the Authority's Engineer: Entech Engineering, Inc., 4 South Fourth Street, P.O. Box 32, Reading, PA 19603.
- C. Wherever the word "Contractor" is used, hereinafter it shall mean the "Developer" or "Builder" doing the work.
- D. "Accepted Plans," wherever referred to in these Specifications, shall mean the Contractor's Construction Plans accepted by the Authority/Engineer.
- E. "Approval," as used in these Specifications, shall mean a written letter or other written document issued by the Engineer or Authority. Oral or verbal instruction or agreements are not binding.

PART 2 - REQUIREMENTS

2.1 DOCUMENTS TO BE SUBMITTED TO OBTAIN INITIAL PLAN APPROVAL

- A. The Contractor shall, in order to obtain initial approval of plans, submit his proposed plans and data to the Authority with sufficient information to enable the Authority's Engineer and Attorney to review same for compliance with sound engineering practices and legal requirements and all Authority rules and regulations. The Authority's review of the Contractor's Plans is for the purpose of determining general conformance with the Authority's Standard Specifications and requirements and details of the Authority. The Contractor remains responsible for implementation of the Authority's Specifications, requirements and details. The Contractor is also responsible for the accuracy of the Accepted Plans and for the designed facility to function as intended. The Contractor is also responsible for determining the size and location of all existing utilities. The Contractor is hereby notified that any purchase of material and/or equipment etc., prior to the Authority's approval thereof, is at the Contractors risk.
- B. When the Authority, through its Engineer, indicates its general acceptances of the proposed plans, the Contractor shall provide an estimate of the construction of the proposed facilities in sufficient detail to the Authority's Engineer. Standard estimating procedure shall be used.

In general, sewer installation shall be classified by depth and size for estimating. An estimate for rock excavation shall also be included. It is preferred that the estimate be done by a Contractor competent in the work to be performed. The Authority's Engineer will have to right to adjust the estimate to reflect his understanding of the cost to perform this work.

2.2 SUBMITTALS

- A. The Contractor shall submit copies of all required permits and other various requirements as itemized herein.
- B. All submittals shall be made in accordance with Section 01300 - Submittals, of these Specifications.
- C. The Contractor shall, in accordance with the following schedule, transmit to the Authority two (2) copies or sets of the following data, unless otherwise noted.
 - 1. Two (2) weeks prior to construction:
 - a. Three (3) sets of the Accepted Plans signed and sealed by a Professional Engineer licensed to practice in the Commonwealth of Pennsylvania. The drawings shall be clear and legible. The profile shall be drawn at a minimum scale of 1 inch equals 5 feet vertical, and 1 inch equals 50 feet horizontal; also, the plan view shall be a minimum of 1 inch equals 50 feet. Each drawing shall contain a north arrow. Each drawing shall name the legal Owner of the land on which the construction is to occur and the legal name of the Contractor.
 - b. Approved copies of Pennsylvania Department of Environmental Resources Modules and Sanitarian Reports (when required).
 - c. Pennsylvania State Highway Occupancy Permit (when required).
 - d. County Highway Occupancy Permit (when required).
 - e. Railroad Permit (when required).
 - f. Erosion and Sediment Control Plan.
 - g. Shop Drawings of the following:
(See Section 01300, Submittals, for copies required.)
 - (1) Pipe and appurtenances
 - (2) Manholes (precast manholes only) with pipe adaptor
 - (3) Manhole covers
 - (4) Fittings (wyes, elbows, valves, etc.)
 - (5) Gabions (if required)
 - (6) Components of pump stations (if required)
 - (7) All other appurtenant data on items to be incorporated in the work.
 - h. Blasting Report, if required.
 - 2. During construction:
 - a. Letters of Certification as to compliance with the Specifications for:
 - (1) Paving material
 - (2) Select backfill - Type No. 2 (PennDOT)
 - (3) Crushed stone for pipe bedding
 - (4) Concrete
 - (5) Pipe
 - (6) Manholes

(7) All pumping station equipment (if required).

3. After construction:

- a. Blasting Records
- b. Paving Core Tests
- c. All Maintenance and Operation Manuals
- d. Record Drawings
- e. Warranties and Guarantees shall be turned over to the Authority.
- f. A Maintenance Bond equal to fifteen percent (15%) of the construction cost of the proposed work or five thousand dollars (\$5,000), whichever is greater, is required. The Contractor shall also purchase and maintain such insurance as will protect the Authority from any claims. The said insurance shall be as required under the laws of the Commonwealth of Pennsylvania.

2.3 ROCK EXCAVATION

- A. Contractor shall obtain approval from the governing Township prior to any blasting. All blasting shall be performed under the supervision of a person licensed to practice in the Commonwealth of Pennsylvania.

2.4 SOILS TESTING

- A. All soils testing, as described in these Specifications, shall be performed by a reputable testing and control firm when required by the Authority.

2.5 BUILDING LATERALS

- A. Building laterals are to be installed from the sewer to the street right-of-way line in accordance with the construction details. Laterals installed from the street right-of-way line to the building shall be installed in accordance with the local plumbing codes, the construction details and the Authority's specifications.
- B. Where sewers are to be capped, the Contractor shall install building laterals from the sewer to the street right-of-way line for each property.
- C. For instances where an existing structure that has an existing on-lot sanitary sewer system is to be connected to the public sanitary sewer system, the existing underground piping system is to be abandoned starting two (2) feet beyond the building structure and replaced with new sanitary sewer piping as described in the Gravity Wastewater Sewer specification and/or Grinder Pump Service Lines specification.
- D. On-lot systems that are to be abandoned are to be done so in accordance with County guidelines and local plumbing code. The County to be contacted prior to abandonment.
- E. For instances where a building lateral is to penetrate a building wall, a steel sleeve is to be provided, sized greater than the proposed sanitary sewer lateral. Annular space

between the sanitary sewer lateral and sleeve to be sealed with mechanical seal or suitable non-shrink grout.

2.6 ACCESS TO WORK

- A. Representatives of the Authority shall have access to the work. The Contractor shall provide proper and safe facilities for such access and observation of the work and also for any inspection or testing thereof by others.

2.7 SEWER INTERCEPTORS AND SEPARATORS

- : A. Harmful discharges to the Sewer System are prohibited. Interceptors and separators shall be provided, installed, and maintained by the Owner of an Improved Property, at Owners expense, wherever in the sole judgment of the Authority they are deemed necessary for the proper handling of liquid wastes containing excessive grease, inflammable wastes, sand, or other harmful substances. All interceptors and separators shall be of a type and capacity determined by the Owner using sound engineering practices and shall be approved by the Authority and constructed and installed at a satisfactory location in accordance with plans approved by the Authority prior to installation or commencement of construction.
- B. GREASE INTERCEPTORS: A grease interceptor shall be required to receive the grease-laden drainage from plumbing fixtures and equipment located in the food preparation areas of commercial and industrial establishments. This includes, but is not limited to, restaurants, bars, schools and food processing facilities. No Sanitary Sewage shall be discharged into the grease interceptor. At a minimum, the grease interceptor is to have a 500-gallon capacity, constructed of concrete, include both inlet and outlet baffles, with the outlet baffle located 6-inches from the interceptor floor and a cast iron frame and cover with risers (if applicable). Sizing program available through Monarch Products Company, Inc. Acceptable manufacturers include Monarch, Terre Hill or engineer-approved alternative.
- C. OIL INTERCEPTORS: An oil interceptor shall be required to receive drainage from work areas of commercial and industrial establishments where the possibility exist that petroleum product could become mixed with wastewater. This includes, but is not limited to, garages and gasoline stations.
- D. SPECIAL PURPOSE INTERCEPTORS: Interceptors shall be required at commercial and industrial establishments where the nature of their operation is such that a substance detrimental to the Sewer System could enter the wastewater stream.
- E. ACCESSIBILITY AND MAINTENANCE: Each interceptor or separator shall be installed so as to be readily accessible for service and maintenance. Interceptors and separators shall be maintained by periodic removal of accumulated grease, scum, oil, solids, etc. and by disposal of the material in a lawful manner. All interceptors shall be pumped at least every three hundred and sixty-five (365) days, or more frequently if the accumulated grease, scum, oil and solids exceed 25 percent of the total volume of the device. Disposal shall be in accordance with appropriate laws.

- F. **INSPECTION AND RECORDS:** Authority shall make periodic inspections of these facilities and review associated records to ensure proper installation, maintenance, and disposal procedures are being practiced. Written records, maintained by the Owner or facility management, shall be required for a period of three (3) years to document required maintenance and lawful disposal of all accumulated material. The Authority shall also require the annual submission of this documentation.

If the Borough determines that pumping and/or maintenance is necessary, the required work must be completed by the Owner within 72 hours of written notification.

- G. **SPECIAL AGREEMENT:** Nothing contained herein shall be construed as prohibiting any special agreement or arrangement between the Authority and the Owner of an Improved Property or other Person whereby Sanitary Sewage or Industrial Wastes of unusual strength or character is to be admitted into the Sewer System, either before or after preliminary treatment. However, any such agreement or arrangement must be documented within written permission from the Authority.

2.7 AUTHORITY MAY STOP THE WORK

- A. If the work is defective, or the Contractor fails to supply suitable materials, the Authority may order the Contractor to stop the work any portion thereof, until the cause for such order has been eliminated.

2.8 WARRANTY AND GUARANTEE

- A. The Contractor warrants and guarantees to the Authority that all work will be of good quality and free from faults or defects. All unsatisfactory work, all faulty or defective work, and all work not conforming to the Accepted Plans and these Specifications shall be considered defective. The Authority will give timely notice of all defects to Contractor. At the option of the Authority, all defective work, whether or not in place, may be rejected, or accepted with or without requiring corrections from Contractor.

2.9 TESTS AND INSPECTIONS

- A. Where so indicated in these Specifications, or if the laws, ordinances, rules, and regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested, or approved by some public body, the Contractor shall assume full responsibility thereof, pay all cost in connection therewith, and furnish the Authority the required Certificates of Inspection, Testing, or Approval.
- B. The Contractor shall give timely notice of readiness of the work for all inspections or approvals.

2.10 FINAL INSPECTION

- A. Upon written notice from the Contractor that the project is complete, the Authority will make a final inspection with the Contractor and will notify the Contractor in writing of all particulars in which this inspection reveals that the work is incomplete or defective. The Contractor shall immediately take such measures as are necessary to remedy such deficiencies.

2.11 FINAL APPLICATION FOR ACCEPTANCE

- A. After the Contractor has completed all such corrections to the satisfaction of the Authority and delivered all Schedules, Guarantees, Bonds, Certificates of Inspection, Record Plans, and other documents, the Authority shall issue a Letter of Final Acceptance.

2.12 EIGHTEEN-MONTH CORRECTION PERIOD

- A. If, after final inspection and prior to the expiration of the eighteen-month Maintenance Bond or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Authority, any work installed by the Contractor is found to be defective, Contractor shall promptly, in accordance with Authority's written instructions, either correct such defective work, or, if it has been rejected by Authority, remove it from the site and replace it with non-defective work. If Contractor does not promptly comply with the terms of such instructions, the Authority may have the defective work corrected or the rejected work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation of additional professional services shall be paid by Contractor.

2.13 RECORD PLANS

- A. At completion of work and prior to the Final Application for Acceptance, the Contractor shall provide the Authority with two (2) sets of Reproducible Plans (mylars), in a neat and clean condition showing the "As-Built Conditions."
- B. Plans shall be marked "Record Drawings" and maintained at the project site. The Contractor shall record on the prints all deviations from his Accepted Plans and these Specifications at the time that such deviations are made.
 - 1. Record Plans for sewers and force mains shall show all vertical and horizontal changes to the sewers and manholes as shown on the Accepted Plans. The location of all building laterals (lengths and depths) shall be dimensional from manholes. Drawings shall indicate a profile showing the depths where rock was encountered and all other changes made to his Accepted Plans and these Specifications. The plates at the end of this Specification, define what is required.
- C. A complete file of accepted field sketches, diagrams, and other changes, as may become necessary during the progress of the work, shall also be maintained and attached to the set of marked-up prints.
- D. At completion of the work, the Contractor shall provide, for the information of the Authority, each sheet of marked prints and all accepted field sketches and diagrams.
- E. When this data has been checked and returned by the Authority, the Contractor shall record all field changes and conditions on the reproducible mylar "Record Drawings." Each sheet of these "Record Drawings" shall be signed by an Officer of the Company certifying that each sheet reflects the as-built conditions.
- F. Before final acceptance of the work, deliver "Record Drawings" in a clean and neat condition to the Authority.

PART 3 - (NOT USED)

END OF SECTION 01010