

SECTION 5

APPROVAL PROCESS FOR SEWER EXTENSIONS

5.00 Preliminary Plan Approval

Owner/Developer submits the Preliminary Maps to District to identify the location of the nearest sewer line to the proposed project site.

Owner/Developer Submits the Preliminary Maps and Plans to the Cumberland County Planning Board for the Initial Approval to proceed with project.

5.01 Design of Sewer System

Owner/Developer contracts a Registered Professional Engineer (P.E.) to design the Sewer System or Subdivision Utilities.

- *Sanitary Sewer Specifications. ESD sewer extensions shall follow the Public Works Commission of Fayetteville Design Standards found at the following website - www.faypwc.com and all federal, state, county, and District regulations.*

5.02 Submission to District of Application, Plans, Specifications, Engineer's Report

The Registered Professional Engineer (P.E.) submits the Application for Approval of Engineering Plans and Specifications for Sewer Supply Systems, copies of the Engineer's Report and the Project Specifications, along with the Plan & Profile to District for review and subsequent approval.

Any construction that will require digging or trenching in or along the North Carolina Department of Transportation (NCDOT) right-of-way (ROW), then the Owner/Developer must enter in a three (3) party encroachment agreement with the District and the NCDOT.

The Registered Professional Engineer will provide one (1) original and five (5) copies of a NCDOT Three-Party Encroachment Agreement (Form R/W 16.6) signed by the Owner/Developer along with the Plans and Specifications to be reviewed. The District will endorse the Encroachment forms and return them to the Registered Professional Engineer.

The Registered Professional Engineer will submit the original and all copies of the signed NCDOT Encroachment form to the NCDOT Division Engineer for approval. The NCDOT Encroachment Agreement must be signed by the Owner/Developer along with one witness, by the District along with one witness and approved by the NCDOT Division Engineer.

5.03 Downstream Sewer, WWTF Capacity, and Flow Tracking/Acceptance FORM FTSE (Flow Tracking Acceptance for Sewer Extension Applications)

The FTSE form will be completed by the Public Works Commission (PWC) based on information provided in the permit. PWC will provide a completed FTSE form to the applicant, for submission to the State.

Before submission to the State, ESD is required to receive an "Acceptance Flow" letter from PWC.

5.04 Plan Review by District

The District reviews the Plans & Profile, the Engineer's Report, and the project specifications for compliance with the established standards ordinances, rules and regulations.

The District will send the Registered Professional Engineer (P.E.) a Plan Review Comment Letter to the Registered Professional Engineer (P.E.) to discuss findings of the Plan Review and request revisions and corrections as necessary to satisfy the established standards, ordinances, rules and regulations.

5.05 Plan Revisions

The Registered Professional Engineer will then make the revisions necessary to incorporate any and all required changes necessary into the Plan & Profile, Specifications, and Engineer's Report as directed by the Plan Review Comment Letter issued by the District.

5.06 Submission to NCDENR of Application, Plans, Specifications, Engineer's Report

The Registered Professional Engineer (P.E.) submits three (3) copies of the Fast Track Application for Gravity sewers, Pump Stations and Force Mains along with a check for the processing fee to the North Carolina Department of Environment & Natural Resources – Division of Water Quality (NCDENR-DWQ) for review and subsequent approval.

NCDENR-DWQ assigns a permit number to the project and approves the Fast Track Application by issuing the sewer permit to the District or requests that the Registered Professional Engineer provide additional information for appropriate consideration.

If the Registered Professional Engineer receives a Comment Letter from NCDENR-DWQ then the Registered Professional Engineer must respond to NCDENR-DWQ and take the appropriate steps to satisfy all issues outlined in the Comment Letter from NCDENR in order to obtain the necessary approval on the permit.

5.07 Acquire the Permit

Once approved by the State, NCDENR-DWQ will issue a Sewer Permit for the construction and operation of the proposed sewer improvements. Project construction may begin once the sewer permit has been issued.

Once the sewer permit has been issued then the Owner/Developer may then hire a Licensed Utility Contractor to install the sewer system. The Licensed Utility Contractor shall provide at least forty-eight (48) hours notice to the District prior to the commencement of construction and schedule a pre-construction meeting with the District.

In addition, Licensed Utility Contractor should submit all the necessary documentation to the District on the materials to be used in construction of the approved project. The material submittals demonstrate that the materials will meet all specifications as outlined in the approved plans as designed.

5.08 North Carolina One Call Center

Prior to digging and trenching, the Licensed Utility Contractor and all sub-contractors are required by state law to notify the North Carolina One Call Center at **811** in order to request locators from each utility company to make an on-site visit for the purpose of locating all existing underground utilities. The Licensed Utility Contractor is responsible to ensure that all sub-contractors follow this requirement. Failure to follow this procedure can result in property damage, service outages, and possibly life threatening hazardous conditions.

5.09 Pre-Construction Meeting

A pre-construction meeting is scheduled between the Licensed Utility Contractor, the Registered Professional Engineer and the Owner/Developer to discuss the scope of the project, safety, and any additional site requirements that must be addressed prior to construction. The Licensed Utility Contractor is responsible to ensure that all sub-contractors follow the approved plans and all requirements of the District and the State as outlined in the permit requirements. Failure to follow the permit requirements will result in delays, work stoppages and possible civil penalties and fines.

5.10 Construction

Following the pre-construction meeting with the District, the Licensed Utility Contractor may begin construction in accordance with the approved plans. All underground utilities must be inspected by the District prior to being buried. Every sewer line shall be installed with at least three (3') feet of cover along with all required blocking, reinforcement and proper backfilling of suitable soils.

The underground utilities are normally installed along the NCDOT right-of-way (ROW). Property owners shall provide an easement to the District for any underground utilities that are not installed along the NCDOT right-of-way in order to provide legal access to the underground utilities for the purposes of operation, maintenance, testing, and repairs.

5.11 Field Changes

If the project work site requires any field changes, then all such change orders must be reported to the District Manager and Registered Professional Engineer of record and the Field Liaison or Inspector for the District. The Engineer and the District will then determine if the change orders are major or minor. Major change orders must be addressed by re-submitting the revised Engineering Plans to the District and NCDENR-DWQ for the necessary approval. Minor change orders may be documented on the As-Built Record Drawings once the construction is completed as long as the changes will not increase or decrease the length of the sewer line extension by more than ten (10%), will not change the diameter of the sewer lines, or change the location of the sewer lines.

Any revisions that will increase or decrease the length of the sewer line extension more than the (10%), or change the diameter of the sewer lines, or change the location of sewer lines will require that the Registered Professional Engineer resubmit the revised plans and Fast Track Applications to the District for approval and then resubmit the entire package to the Regional NCDENR-DWQ office for approval.

5.12 On-Site Field Inspection

The Field Liaison or Inspector for the District will conduct on-site visits to inspect the quality of work throughout the course of the project. The quality and workmanship of each project shall meet the established standards of the, the District, state and federal governments.

After the sewer system has been installed and inspected by the District, a pressure test is performed on the gravity sewer lines and the sewer force main(s) and a mandrel test is performed on the gravity sewer system in accordance with established requirements outlined in the District rules and regulations.

5.13 Pressure Testing

All gravity sewer mains shall be pressure tested in accordance with ASTM F1417-92 and UNI-B-6-98. All Sanitary Sewer manholes shall be vacuum tested in accordance with ASTM C-1244. All force mains shall be air tested at 35-40 psi. Allowable leakage shall not exceed 10 gallons/inch diameter/mile/24 hours. Water for testing and blow-off may be obtained from existing water main. The contractor is responsible for any cost of water used during cleaning, flushing and testing.

5.14 Mandrel Testing & Video Camera Examinations

Following the successful completion of the pressure test, the gravity sewer system shall be tested using an approved mandrel that will be pulled through the sewer main from one manhole to the next until it reaches the end of the gravity sewer line. A minimum of 10% of newly installed sanitary sewer mains shall be inspected by CCTV. Any sewer main over 14 feet deep shall require visual inspection by CCTV at the beginning and end of the one year warranty period if deemed necessary. All CCTV inspections will be conducted in accordance with the National Association of Sewer Service Companies (NASSCO) Pipeline Certification Program. Any leakage or damage noted by the video camera inspections will be repaired and corrected by the contractor before the new sewer system is placed into service.

The Licensed Utility Contractor shall pump dry and dispose of all extraneous ground water, and other sand, gravel and foreign objects with the sewer main. Such material shall not be flushed into the existing operating sewer mains, pump stations or pertinent facilities. Flushing of new water main lines under construction into existing sewer main lines is prohibited. Water for flushing and cleaning shall be provided by the District upon payment of the appropriate fees for a fire hydrant meter in accordance with established standards, rates and regulations.

Sewer man holes shall be vacuum tested in accordance with ASTM C 1244-05a.

5.15 Final Inspection

A Final Inspection is performed by the District Liaison or Inspector. This Final Inspection will be required for the project to be approved by the District. Upon acceptance of the new sewer system, the Registered Professional Engineer of record will complete a thorough review of the entire project including all field changes and all final adjustments.

5.16 Request for Final Documents

Following the Final Inspection(s) the District will send a letter to the Engineer of Record requesting the Engineer's Certification, the Cost of the System, along with the As-Built record drawings record in three (3) formats: Mylars, PDF Digital Drawings and CAD File.

5.17 As-Built RECORD Drawings & Engineer's Certification

As-Built RECORD Drawings are produced by the Engineer of Record in three (3) formats: Mylars, PDF Digital Drawings and CAD File. The Engineer of Record will submit the As-Built Record drawings in all three (3) formats along with the Engineer's Certification and the Cost of the System to the District that will assume ownership of the system.

5.18 Final Certifications

Upon receipt of the Engineer's Certification, the Cost of the System along with the As-Built Record Drawings record in three (3) formats: Mylars, PDF Digital Drawings and CAD File, the District will require that the Registered Professional Engineer of record submit copies of the Engineer's Certification to NCDENR-DWQ for Final Approval by the State of North Carolina in accordance with requirement of the sewer permit.

At this point, the Registered Professional Engineer of record is certifying to the State of North Carolina that all requirements have been completely satisfied and the District is prepared to accept the new system and tie it into the existing sewer system.

The NCDENR-DWQ will issue a sewer collection permit to the District based upon approval of the Fast Track application submitted to their office. The new sewer system cannot be placed into service until the sewer collection permit has been issued to the District and all final certifications have been approved by NCDENR - DWQ.

5.19 Warranty Period

The District will accept the new sewer system and allow it to be activated once NCDENR-DWQ has issued the Final Approval. The Owner/Developer will provide the necessary documents to the District to transfer ownership of the new sewer system along with all necessary easements when the Plat or Final Map is recorded with the Cumberland County Register of Deeds Office. The Owner/Developer will then turn over the control and ownership of the new system to the District with a one (1) year warranty.

The District will then accept the new sewer system with a one (1) year warranty period beginning on (date), and ending on (date). A final inspection will be conducted by the District Field Liaison or Utility Construction Inspector at the end of the one (1) year warranty period.

Note:

The warranty period shall begin at the discretion of the District. However, once the District accepts all the applicable fees and places the first meter into service, this action should imply acceptance of the new sewer system.

5.20 Final Inspection & End of Warranty Period

At the time of final acceptance, the District will send the Owner/Developer a letter to inform the Owner/Developer when the warranty period shall end. The District will conduct a final warranty inspection of the new sewer system. The new sewer system is now considered complete and is accepted as part of the Eastover Sanitary District Sewer & Sewer system. The District will now be responsible for the operation and maintenance of the new sewer system once the warranty period ends.