

# **DORCHESTER COUNTY WATER & SEWER DEPARTMENT DEVELOPMENT INFORMATION GUIDE**



## **Introduction**

This document is intended to provide general information to Developers, Consulting Engineers and Contractors regarding procedures for approval and acceptance of new water and/or sanitary sewer lines by Dorchester County. Those using this guide should see the Department's *Water and Sanitary Sewer System Minimum Design and Construction Standards* and current *Water and Sewer Ordinance* for more information. These documents can be obtained from the Department's office or downloaded from the DCWS website at <http://www.dorchestercounty.net/watersewer.html>. DCWS may make changes to its policies and procedures without notice. Projects will be administered according to the most recent revisions to the *Minimum Standards* and *Ordinance*.

## **Service Availability**

Those wishing to have water and/or sewer service from DCWS should confirm that service is available from the department. If service to a single home or business is requested, complete a new service application and return it to the Customer Service Department for review. For larger projects, contact the Engineering Department at 832-0070.

## **Design & Construction Standards**

The project submittal shall be in accordance with the current Minimum Standards and Ordinance. The Minimum Standards contain the technical and permitting requirements for the design and construction of all work to be accepted by the DCWS. The Ordinance contains legal, administrative and financial requirements such as permissible and impermissible uses of the systems, fees and fines.

The Department's Minimum Standards have been written to meet or exceed the standards established by the South Carolina Department of Health & Environmental Control (SCDHEC). All project design and construction work is to meet or exceed SCDHEC standards.

## **Plan Review Submittals**

All new services on the DCWS water and sewer systems must be approved by County Council. Typically, the Council review is done after a conceptual review by the agency with Planning and Zoning authority. Requests for service should be made at least three Fridays before the Council

meeting to ensure adequate time for processing. Otherwise, the request may be placed on the next meeting agenda.

The first plan submittal shall include 2 sets of plans and 1 set of design calculations. The first submittal for projects in unincorporated areas shall be made to the Planning and Zoning Department for review by the Technical Review Committee (TRC). The TRC is composed of personnel from the County departments with review authority. The TRC will meet with the developer's engineer to discuss the project goals and the TRC members comments. Please see the Planning and Zoning Department's web site for a schedule of meetings and their deadlines.

After review by the TRC, all follow-up submittals are to be sent to the Dorchester County Water & Sewer Department at the following address:

Dorchester County Water & Sewer Department  
2120 East Main Street  
Dorchester, SC 29437

Plans reviews may be subject to review fees in accordance with the current Ordinance

### **Water and/or Sewer Services Only**

Typically, project submittals consisting of service lines only will not require a construction permit for installation from the SC Department of Health and Environmental Control (SCDHEC). Service applications will not be accepted by Customer Service until such time as all applicable fees are paid and plans are approved. These fees could include an impact fee, connection fee, service inspection fee and origination fee. **Impact fees must be paid in full prior to final approval of construction plans and beginning of construction. If a building is expanded or has a change in use that will increase the expected water or sewer usage, impact fees must be paid.**

At this time, DCWS does not charge fees for dedicated fire services. Dedicated fire services will not require a meter, but unmetered fire services must have a backflow preventer with a detector check. DCWS will conduct a review the plans to ensure the service locations, materials, backflow prevention devices, and sewer pre-treatment interceptors meet DCWS requirements. All non-residential services and fire services are to be installed by a contractor at the Developer's or Applicant's expense and inspected by DCWS. It is the responsibility of the Developer's engineer to determine the appropriate service and meter sizes. The engineer shall send DCWS 3 copies of the final water and sewer plans for approval.

## **Main Extensions**

All projects involving the construction of new water and/or sewer mains require a construction permit from the South Carolina Department of Health and Environmental Control (SCDHEC). The submittal to SCDHEC will be made after DCWS issues a preliminary approval of the plans and calculations and the developer pays all impact fees. A permit application form can be obtained by visiting the SCDHEC website at [www.scdhec.net/water](http://www.scdhec.net/water). DCWS participates in SCDHEC's Delegated Review Program (DRP) for sanitary sewer extensions only. The DRP submittal package is to be prepared by the engineer and sent to DCWS for review and submittal to SCDHEC. Potable water submittals to SCDHEC shall be sent directly to SCDHEC by the engineer. The items required for each submittal is shown on the application. The engineer shall send DCWS at least 2 copies of the final plans and 1 copy of each of the additional items included in the SCDHEC submittal. For projects with DRP submittals, the engineer shall send a third set of plans to be stamped and returned to the engineer.

**DCWS will not issue a Willingness and Ability letter to SCDHEC until ALL impact fees are paid.**

After the SCDHEC permit to construct is received by DCWS, the Department will officially approve the plans.

## **Hydrostatic Flow Test**

The design calculations for water main extensions are to include hydrostatic flow test results taken within one year. Contact DCWS at 832-0070 to schedule the flow test.

## **Encroachment Permits**

All water and sewer main extensions and service lines that will impact a public right-of-way or easement must be permitted through the agency that owns, operates, and maintains the right-of-way or easement. It is the responsibility of the Developer's Engineer to determine which agencies will be involved with the project and submit to DCWS the appropriate permit applications for review and signature. Some permitting agencies require the permit applications to be submitted through DCWS. Once the permit(s) have been reviewed and signed, they will be forwarded to the agency with jurisdiction in the right-of-way. DCWS will not submit permit applications it finds unacceptable. Agencies in the DCWS service area that may require encroachment permits include:

- South Carolina Dept. of Transportation (SCDOT)
- Dorchester County Public Works
- Town of Summerville Public Works
- City of North Charleston Public Works
- Town of St. George Public Works

- CSX Railroad
- Norfolk Southern Railroad
- South Carolina Electric & Gas (SCE&G)
- Santee Cooper
- Berkeley Electric Cooperative
- Edisto Electric Cooperative

### **Fire Department Review**

In addition to the Water & Sewer Department standards, projects involving building construction must meet the standards of the International Fire Code and the local fire department. The engineer is encouraged to obtain approval from the appropriate fire review authority having jurisdiction over the site before submitting final plans. If you need assistance contacting the agency, please call the DCWS Engineering Department at 832-0070 or the Dorchester County Fire Coordinator at 832-0214.

### **Other Permits**

Other permits may be required for the construction of water and sewer system improvements. These may include wetland permits. It is the responsibility of the developer to determine what other permits are required and obtain the permits.

### **Impact Fees**

DCWS collects Impact Fees for all new residential, commercial, industrial, and institutional projects for which service can be provided. Impact Fees are a non-recurring fee charged to Developers to assist DCWS in paying for major capital improvements. Impact fee rates will be reviewed periodically and adjusted accordingly in conformance with sound rate making principles and practices for utility systems.

The total charge for both water and wastewater impact fees are based on the number of Equivalent Residential Units (ERU) in the proposed development. An ERU is defined as 250 gallons per day (gpd) for potable water and wastewater. Each single-family residence is considered one ERU. For all other uses, the total ERUs are determined based on SCDHEC's Approved Unit Contributory Loading Guidelines. Impact fees are not charged for fire services but are charged for irrigation services.

### **Project Construction**

All construction shall be in accordance with DCWS's *Water and Sanitary Sewer System Minimum Design and Construction Standards* and all applicable SCDHEC regulations.

### **Pre-Construction Meeting**

All projects involving the construction of a main extension will require a pre-construction meeting, preferably on the site. Those attending the meeting are to include, at a minimum, the DCWS inspector and representatives of the contractor and engineer.

### **Inspections During Construction**

The contractor or engineer shall notify DCWS a minimum of three (3) working days prior to beginning work. DCWS personnel will make periodic inspections of the work. The engineer is to inspect the work frequently enough to certify the work. All work shall be in accordance with the stamped approved plans, a copy of which shall be in the possession of the Contractor. DCWS reserves the right to require work to be redone or stopped if it is not in accordance with the approved plans or Minimum Standards.

Construction inspection fees may be required in accordance with the current Water and Sewer Ordinance.

### **Project Closeout**

After construction of the water and/or sewer system is completed, the mains are tested, the record drawings are completed, the legal documents are completed and recorded, and the system is accepted for ownership and maintenance by the Dorchester County Water & Sewer Department. Below are the steps required to complete the closeout process:

1. An as-built survey is performed, and two (2) copies of record drawings are submitted for review. If significant problems are observed on the drawings, they will be returned to the engineer with comments to be addressed before proceeding with testing and inspection.
2. The engineer schedules the appropriate testing and inspection with the Department and the contractor. The testing is to include a pressure test (water and sewer force main), hydrant flow test (water), bacteriological tests (water), air, and mandrel tests (gravity sewer), camera inspection (gravity sewer), tracer wire conductivity tests (all lines), and drawdown (pump station).
3. A punch list of items to complete is sent to the engineer.
4. The completed record drawings, easement plats, and closeout documents are submitted for review and a follow-up inspection is performed if necessary. The closeout

documents shall be in accordance with DCWS's standard documents. Remaining comments are returned to the engineer.

5. The engineer and/or developer sends the remaining test results, O&M manuals, documents, fees (if due), and bonds (if required) to DCWS. The legal documents other than any plats will be recorded by DCWS.
6. The Department will issue an O&M letter.
7. The engineer sends to DHEC the required items for the Permit to Operate.
8. DHEC issues the Permit to Operate.
9. The contractor will remove any temporary plugs in the gravity sewer.
10. After DCWS verifies that the plugs have been removed, DCWS will allow service applications.

### **Items Required for Closeout**

1. One (1) full size mylar, one (1) full size print, and one (1) 11x17 print of record drawings
2. Digital submittal of the record drawings in Autocad and .pdf format.
3. Deeds to water and/or sewer easements
4. Deeds to water and/or sewer systems
5. Title to pump station site
6. Easement plat(s) (can be included with subdivision plat)
7. Letter from the engineer stating that the project was built according to plans
8. Letter from the engineer stating the value of the water system, sewer system, and each pump station.
9. Contractor's Final Waiver of Lien
10. Warranty Document
11. OCRM certification on final inspection
12. Outstanding fees paid (if any)
13. Pressure test results (water & force main)
14. Flow test results (water)
15. Bacteriological & chlorine residual test results (water)
16. Mandrel test results (gravity sewer)
17. Air test results (gravity sewer)
18. Camera inspection recording & report (gravity sewer)
19. Drawdown test (pump station)

### **Warranty Period**

All new construction accepted by DCWS will have a warranty in accordance with DCWS requirements. A warranty inspection shall be performed at least 30 days prior to the end of the

warranty period. A notice of any deficiencies shall be sent to the engineer to pass on to the developer and/or contractor.

## **Cross-Connection**

Cross-Connection Control protects the potable water system from contamination from backflow. Depending on the degree of hazard, most commercial, irrigation and all fire sprinkler customers will be required to install, test annually, and maintain a backflow preventer on their water service. A certified backflow preventer inspector shall send DCWS a report of the annual inspection.

All backflow prevention assemblies installed on our distribution system shall be approved by the USC-Foundation for Cross-Connection Control and Hydraulic Research and SCDHEC. The backflow prevention assemblies shall be installed per manufacturer's specifications and shall include freeze protection.

## **Grease, Oil & Sand Interceptors**

DCWS requires grease, oil and/or sand interceptors when necessary for proper handling of liquid wastes containing excessive amounts of grease, flammable wastes, sand, grit, or other harmful ingredients. Interceptors are to meet DCWS standards. DCWS will inspect the interceptors quarterly to ensure they are properly maintained.