CHAPTER SEVEN

PERMITS, ENCROACHMENTS AND EASEMENTS

I. REQUIRED PERMITS FOR CONSTRUCTION

All water and sewer system extension plans and specifications must be approved by PWC and all necessary permits, encroachment agreements, and/or dedicated easements must be obtained **PRIOR TO CONSTRUCTION.** Several sample application forms are contained in this Manual for informational purposes. The Applicant is responsible to determine the required permits and submit the properly completed application(s) and pay the associated fees to the approving agency or PWC. The PWC General Manager or his designated shall issue the approved water and/or sewer permits.

A. SANITARY SEWER AND WATER MAIN EXTENSIONS

- Non-discharge permits for sanitary sewer collection facilities and permits for water distribution facilities will be required before construction may commence on any project. PWC shall review and issue the water and/or sewer permits.
- 2. PWC approved plans must accompany the appropriate water and/or sewer applications as indicated in Chapter One General Requirements for Water and System Extensions.
- 3. All application fees must be paid with a check (made payable to Public Works Commission) at the time of submission to PWC for review and approval.
- 4. Construction may not proceed until permits/easements and encroachments are obtained.
- 5. A copy of the Authorization to Construct, issued by PWC, shall be posted at the project site.
- 6. The Contractor shall have the approved set of plans, affixed with the PWC permit stamp, on the job site at all times, and shall produce those approved plans upon request from PWC.
- 7. Upon completion, and before the facilities are activated, the North Carolina Registered Professional Engineer that supervises inspection must certify that the facilities are constructed in accordance with approved plans and specifications and furnish PWC the completed Engineer's Certification and "As Built" drawings.

B. NCDOT HIGHWAY ENCROACHMENTS

Encroachment agreements with NCDOT are required for any water or sewer facility installed within
the limits of NCDOT rights-of-way. Guidelines for design of utility lines within NCDOT rights-ofway are contained in the NCDOT Manual "Policies and Procedures for Accommodating Utilities on
Highway Rights-of-Way" and all requirements in that document shall be considered in design of the
facilities.

- 2. Encroachment maps and copies of construction plans shall be provided to PWC for the encroachment application. The PWC shall prepare the encroachment agreement form. A sample of an acceptable encroachment map is included at the end of this chapter.
- 3. For projects that have cuts deeper than 10 feet within NCDOT rights-of-way, a profile must be included on the encroachment map. In addition, NCDOT may require submission of cut sheets. Approval for these encroachments is completed in the Raleigh Office of NCDOT, and may take up to 90 days for approval.
- 4. All NCDOT encroachment agreements for facilities to be owned and maintained by PWC will be between the Public Works Commission of the City of Fayetteville (PWC) and NCDOT. The Engineer will be required to make changes as required by NCDOT or PWC, and will provide information as requested during the encroachment negotiations. All contacts with NCDOT personnel regarding encroachments will be through the PWC Water Resources Engineering Department.
- 5. If the disturbed area exceeds one (1) acre, a letter from the Land Quality Section of the DENR approving the Erosion Control Plan must be submitted to PWC for forwarding to NCDOT prior to their approval of the encroachment agreement.
- 6. Conditions of an approved encroachment shall be reflected in the project plans and specifications.
- 7. The Contractor shall be provided and shall display at the project site a copy of the encroachment agreement. Failure to have an approved copy of the encroachment at the jobsite may result in NCDOT closing the job until such documentation is made available.
- 8. The bottom of the excavation for a parallel installation by open cut shall not be nearer the edge of pavement (measured in a horizontal plane) than the depth of the excavation so that a 1:1 slope from edge of pavement to bottom of excavation can be maintained. If the excavation cannot maintain the 1:1 slope, NCDOT may require active shoring to be in place.
- 9. Encasements shall be extended from ditch line to ditch line in cut sections and five (5) feet beyond the toe of slope in fill sections.

C. CITY OF FAYETTEVILLE EXCAVATION PERMIT

- 1. All persons who excavate, obstruct and/or occupy the public rights-of-way will obtain the appropriate permit from the City of Fayetteville.
- 2. Each person shall register and pay all fees for the Excavation Permit at City Hall, and shall provide to the City satisfaction that the person has financial capability to cover any liability arising due to presence in the City rights-of-way.
- 3. The Excavation Permit Fee shall be established by the City in an amount sufficient to recover the costs

incurred by the City. This fee shall recover costs incurred by the City for each of the following categories as provided herein:

- a. Administrative: The administrative fee shall be the average permit costs for labor plus indirect and other costs.
- b. Repair: Currently, the City does not collect a repair fee.
- c. Degradation: The general formula for computing the degradation fee shall be the cost per square yard for street overlay and sealing, multiplied by the area of the patch. The area of the patch shall be calculated by adding two (2) feet to each side of the actual street cut.

Total Excavation Permit Fee = Administrative Cost + Degradation Fee (if applicable)

d. Extraordinary: Any other cost over and above Items a through c above. These costs may be levied at the end of the project.

City Exemption: Notwithstanding Sub d. 26-25.3(a) 3, the City and its contractors shall not pay a degradation fee.

D. RAILROAD ENCROACHMENTS

- Whenever a PWC water or sewer facility enters a railroad right-of-way, an encroachment agreement between the railroad and the PWC is required. The Engineer shall prepare a separate encroachment map and design data form as required by the individual railroad. Railroads operating in Cumberland County are: Aberdeen and Rockfish Railroad, CSX Transportation, and Norfolk Southern.
 - a. A sample application for the Aberdeen and Rockfish Railroad is included at the end of this Chapter.
 - b. Please refer to CSX's website (http://www.csx.com) for information and the appropriate forms to complete for an encroachment across CSX facilities.
 - c. Norfolk Southern encroachment applications must be made through the engineering firm DMJM+HARRIS. Please refer to their website (http://www.dhprojects.com) or encroachment information and applications.
- 2. During encroachment negotiations, the Engineer shall make design changes and supply information as required by the railroad.
- 3. All contacts with railroad personnel will be through the PWC Water Resources Engineering Department.
- 4. All conditions of the approved encroachment shall be reflected in the project plans and specifications, such as Insurance requirements, construction by approved Contractor, etc.

E. PROGRESS ENERGY ENCROACHMENTS

1. Whenever a PWC water and/or sewer facility enters the right-of-way of Progress Energy, an encroachment agreement between PWC and Progress Energy is required. The Engineer shall prepare a separate encroachment map and required documentation and submit to PWC for application to Progress Energy. Please refer to their website (http://www.prgnprojectsolutions.com) for further information on Progress Energy's requirements. Alternatively, you can contact the Progress Energy Real Estate Department at 919-546-6205.

F. EROSION CONTROL PERMITS

- 1. All water main or sewer main construction plans, regardless of project size, shall include measures and/or devices to prevent soil erosion and to prevent sedimentation of streams and drainage ways.
- 2. Each set of plans for a water or sewer project must include appropriate design of erosion and sedimentation control measures as required by NCDENR. If the area disturbed by the construction is one acre or more, a site-specific erosion and sedimentation control plan must be submitted to the NCDENR, Land Quality Section. Borrow and/or spoil areas, staging areas, equipment and material storage either at the project site or at any location used by the Contractor (and approved by the Engineer), shall be subject to all erosion control requirements.
- 3. An application fee of \$50 for the first acre of disturbed area and \$50 for each additional acre must accompany the application. For developer funded projects, a check made payable to the NCDENR Land Quality Section in the correct amount must be submitted to NCDENR with one set of plans for approval. PWC shall be provided a copy of the NCDENR approved plans and permit. The review time for NCDENR is 30 to 45 calendar days.
- 4. The Engineer must respond to any questions and make any plan changes necessary to secure approval of the Erosion Control Plan in a timely manner. All construction is subject to inspection by NCDENR Land Quality Section staff for compliance with the approved Erosion Control Plan. A copy of the Permit shall be posted at all times at the project site.
- 5. Projects that are not under construction three (3) years after the approval are considered expired by NCDENR and will need to be re-submitted as required by NCDENR.

G. STORM WATER PERMITS

- All construction projects, which involve more than five acres of disturbed area, must have an NPDES storm water discharge permit. The permit application, along with the approval for the erosion control plan, must be submitted to NCDENR. Land disturbing activity cannot take place until the permit is issued.
- 2. For all construction projects located in the City of Fayetteville's Watershed Protection Area, an application shall be submitted to The City of Fayetteville Inspections Department or to the

Cumberland County Engineer for approval. The Watershed Protection Area is generally an area located northeast of Fort Bragg Boulevard to the Cape Fear River and north to Harnett County.

H. CITY OF FAYETTEVILLE ANNEXATION AGREEMENTS

- 1. The City of Fayetteville requires that all Developers wishing to extend PWC utilities, complete either an annexation petition form or an annexation agreement. The Developer shall initiate the appropriate annexation process with the City prior to receiving the water and/or sewer permit.
- 2. For those projects within three (3) miles of the current City limits, an annexation petition is required. For those projects further than three (3) miles from the current City limits, the Developer is required to sign an annexation agreement.
- 3. For further information on the annexation requirements, please contact the City of Fayetteville's Planning Department at (910) 433-1996.

I. WETLANDS PERMIT

- 1) Any project that involves encroachment on wetland areas must have a wetlands permit issued by the US Army Corps of Engineers in accordance with Section 404 of the Clean Water Act. In addition, a permit may be required from the NC Division of Water Quality, in accordance with Section 401 of the Clean Water Act. The applicant in responsible charge of the project shall secure the required permit(s) and pay all fees.
- 2) Currently, the fees for the NC Division of Water Quality are as follows: \$475 for more than 1 acre of wetland impact or more than 150 l.f. of stream impacts, and \$200.00 for less than 1 acre of wetland impact and less than 150 l.f. of stream impacts.
- 3) Please refer to the NC Division of Water Quality's webpage (http://h2o.enr.state.nc.us/) or call 919-733-7015 for requirements, forms, and procedures for obtaining the necessary permits.

The address for the Division of Water Quality is as follows:

NC Division of Water Quality 1617 Mail Service Center Raleigh NC 27699-1617

4) Please refer to the U.S. Army Corps of Engineers, Wilmington District's webpage (http://www.saw.usace.army.mil/) or call 910-251-4630 for requirements, forms, and procedures for obtaining the necessary permits.

The address for USCE Wilmington is as follows:

Wilmington Regulatory Field Office U.S. Army Engineer District, Wilmington 69 Darlington Ave. Wilmington, N.C. 28403

5) Close coordination between the Engineer, PWC, USCE Wilmington and NCDWQ will be required to insure all necessary permits are issued in a timely manner.

J. ENVIRONMENTAL ASSESSMENTS

- 1. An Environmental Assessment is required when gravity sewer extensions are greater than three (3) miles of new lines; lines greater than eighteen (18) inches in diameter; and new or expanding individual pump stations and associated force mains with a proposed permitted capacity of more than 1,750 gallons per minute.
- 2. Procedures for conducting Environmental Assessments and preparing reports are published by the North Carolina Department of Administration. A minimum of nine months should be allowed for review and approval of the Environmental Assessments. Preparation time for the Environmental Assessments may vary from 120 days to a year, depending on project complexity.
- 3. If any project requires an Environmental Assessment, the project will need to go to NCDENR for permitting.

K. ENVIRONMENTAL CONSIDERATIONS

- 1. Burning Permits: Open burning of materials resulting from any land clearing or of any discarded construction materials or by products is prohibited within the City of Fayetteville. Open burning permits in the County are issued on a case-by-case basis by the Cumberland County Health Department.
- 2. Noise Control: In populated areas, and/or annexation projects, the Designer may consider limiting, restricting or prohibiting certain construction activities to be performed during specified hours on weekends, holidays, early mornings or evening hours.
- 3. Dust Control: In populated areas and/or annexation projects, the Designer shall specify frequency and methods for dust control and street sweeping to be performed throughout the life of the project for all areas affected by construction. Dust control should include paved and unpaved roads, haul roads, access roads, disposal sites, borrow pits, material and equipment storage site. Techniques and methods implemented for wetting and brooming streets shall be compatible with the planned erosion control measures.
- 4. Water Pollution: The Engineer shall specify that the Contractor shall exercise every reasonable precaution throughout the life of the project to prevent pollution of rivers, streams and water impoundments. Pollutants such as chemicals, fuels, lubricants, bitumens, concretes, grouts, raw

sewage or any other harmful waste shall not be discharged into or alongside of any watercourse or impoundment. Containment shall be specified for any stored potential pollutants located in storage or staging areas.

5. Tree Protection: The City of Fayetteville Tree Ordinance shall apply to all construction affecting trees located in or upon City of Fayetteville maintained public street or public property. The Ordinance shall not apply to trees located within NCDOT maintained rights-of-way and sanitary sewer or water main construction easements crossing private properties. However, the Engineer shall consider existing trees and shrubs when establishing the main's alignment and location, particularly in landscaped or maintained yards. The Engineer shall specify that selective clearing operations may be required within public rights-of-way and temporary construction easements. Unless otherwise specified, all trees located totally within permanent sewer or water rights-of-way will be cleared. Valuable trees shall be provided with suitable protective devices or barriers placed in such a manner as to prevent mechanical injuries within the drip line. Trees, shrubs, etc. in temporary easements shall be cleared as necessary to facilitate construction. Trees that show distress or die within 12 months of final acceptance of construction within construction corridor shall be removed.

L. EASEMENTS AND RIGHTS-OF-WAY

- General: All PWC owned sanitary sewer and water mains shall be located within dedicated street
 right-of-way or permanent utility easement having unrestricted access and shall be free of obstructions
 along the entire length of the main. Placement of permanent fencing, signage or other obstructions
 may be cause for rejection of system acceptance. Easement acquisition shall be the responsibility of
 the Developer. However, on a case-by-case basis, PWC can provide assistance in the acquisition of
 easements.
- 2. Widths: Sanitary sewer and water mains shall be centered in a permanent easement of adequate width to allow for excavation and maintenance of the system. The minimum required width of the permanent easement shall be in accordance with the following:

Table 1. MINIMUM EASEMENT WIDTHS							
	Depth of Cut (Ft.)	Min. Permanent Easement (ft.)	Min. Temporary Easement (ft.)				
8" Sanitary Sewer in New Developments	0-10	20	0				
8" Sanitary Sewer in New Developments	>10 <20	30	0				
8" Sanitary Sewer in Existing Developments	0-10	20	10				
8" Sanitary Sewer in Existing Developments	>10 <20	30	10				
Sanitary Sewers 12" and Larger		30	10				
Water Mains and Force Mains	<20	20	0				

Combination (i.e. Water and Sewer)	<20	30	10

Permanent easements of greater width and temporary construction easements may be required by PWC and deemed appropriate as existing conditions warrant such as depth of cut, cuts greater than 20 feet, number of utilities, etc. Permanent easements containing multiple utilities shall locate each utility main a minimum of 10 feet apart and a minimum of five (5) feet (water) or 10 feet (sewer) inside the permanent easement limit and centered within the easement width.

3. Format: All required easement (permanent and temporary) and rights-of-way shall be provided to PWC by one of the following methods:

i. Record Plat

1) The Developer may furnish a record plat of the property to be served with all easements and rights-of-way widths shown. The easement shall be tied to a fixed point, and include bearing and distance for each easement line. The Plat must be recorded at the Cumberland County North Carolina Registry and bear the seal, signature and certification of a Professional Land Surveyor.

ii. Easement Maps

- 1) For those easements that are off-site and not owned by the Developer, a standard easement map and description is required. All maps shall conform to the requirements of the standards of practice for land surveying in North Carolina, Section 1600 of The Board Rules. A separate map shall be prepared for each parcel where an easement is to be obtained. The map shall contain the following:
 - a) The entire property boundary shall be shown on the map with the proposed right-of-way clearly shown. For large properties, easement details must be shown by separate insets at reduced scale. Not to scale insets may be used when necessary to clearly convey details.
 - b) Every point where the sewer/water centerline or right-of-way crosses a property line must be tied to an identifiable property corner.
 - c) The property owners name, deed book and page where the deed is recorded, and the current PIN must be shown on each map, including adjoining parcels.
 - d) All manhole locations must be shown, whether at angle points or on line. Show bearings between angle points and centerline distances along lines.
 - e) Widths for permanent rights-of-way and temporary construction easements must be shown and labeled.

- f) Show the total parcel area, as well as the permanent and temporary easement areas, separately and clearly in square feet.
- g) All maps must be on $8\frac{1}{2}$ " x 14" vellum or mylar with a standard PWC title block.
- h) Include a scale, vicinity map and north arrow (show reference datum).
- Submit an original map and one copy with the original signature and original seal of the NC Professional Land Surveyor, as required by G.S. 47-30 to PWC Water Resources Engineering Department.
- j) Check easement maps against construction plans and make sure they agree. When a revision is made, make sure that both the plans and the affected easement map(s) are changed and that the changes are recorded in the revision blocks on both documents.
- k) When paralleling property lines, the permanent right-of-way boundary should be contiguous with the property line. If possible, the construction easement should on the same property. A separate parcel should not be created just for a construction easement unless the site topography requires it (e.g. where the easement would otherwise be within 10 feet of a creek).
- 2) A sample easement map and submittal checklist are included at the end of this Chapter.

iii. Blanket Easements

- 1) For commercial developments where a plat is not to be recorded, a blanket easement shall be granted to PWC for the operation and maintenance of the utilities within the development. The blanket easement shall be prepared by the PWC, for signature by the Developer. In addition, an easement exhibit map shall be prepared. This exhibit map shall indicate the proposed width of the utility easement, including laterals and meters, as well as the building footprints, and roads. This exhibit map shall be included in the design drawings and submitted to PWC for review and approval.
- A sample easement exhibit map is included at the end of this Chapter.

II. WATER AND SEWER SYSTEM APPROVAL PROCESS

A. GENERAL

- 1. The following is the general sequence that is followed by PWC in reviewing and approving plans, and issuing permits:
 - a. The Developer's Engineer prepares the design plans, and completes the appropriate permit

- applications and checklists.
- b. The design package, including appropriate permit fees, is submitted to PWC for review.
- c. The PWC Water Resource Engineering Department reviews the plans and permit applications. Any requested changes are sent to the Engineer, with a copy to the Developer.
- d. Once the revisions are complete and acceptable to PWC, PWC initiates the contract process.
- e. Upon completion of the contract, the contract is sent to the Developer for signature.
- f. Once the Developer signs and returns the contract, the water and/or sewer permits are prepared and issued.
- g. At such time the permits are issued, construction may commence on the project.
- 2. In general, permits will not be issued until the following items are completed (as applicable for each project). Exceptions may be granted on a case-by-case basis.
 - a. Off-site easements are obtained.
 - b. Encroachments from the appropriate railroad are obtained.
 - c. The annexation petition process has been initiated.
 - d. The annexation agreement process has been initiated.

III. REQUIRED SETS OF PLANS AND SPECIFICATIONS FOR APPROVALS

Type of Project	No. of Copies of Drawings	No. of Copies of Specifications	Permit Originals	Permit Copies	Application Fee	Submit Appl. to
Sewer Ext. Fast Track Form FTA 02/03	2-Bond/ Blueprint	0	1	2	\$400	DWQ
PWC Gravity Sewers, Pump Stations, and Force Mains (rev 1/05)	3-Bond	0*	1	0	\$500	PWC
PWC Water Permit (rev 1-05)	3-Bond	0*	1	0	\$500	PWC
NCDOT Encroachment	1	0	0	0	N/A	PWC
Erosion Control	1 - Bond	1	1 Financial Responsibility	1	\$50 per acre or partial disturbed acre	NCDENR
Wetlands 404 Wilmington District	1 - Bond 11" x 17" Only	1	1	1	\$0 for non- written confirmation \$200 UNDER 5 ACRES \$400 OVER 5 ACRES	USCE Wilmingto n
Wetlands 401 NCDENR	7 - Bond	7	0	7	0	NCDWQ
Easement Maps	1 - Vellum 8½" x 14"	0	0	0	0	PWC
R/R Encroachment	1 - Vellum 8½" x 11"	0	0	0	Varies by R/R	PWC

^{* -} Note: PWC Specification Checklist required in lieu of specifications

IV. EXAMPLES

The following forms, drawings, and applications are included in this Manual for informational purposes:

- ?? Final Plans and Permit Submittal Checklist
- ?? PWC Specification Checklist
- ?? PWC Property Questionnaire
- ?? PWC Economic Development Incentive Questionnaire
- ?? PWC Application for Approval of Engineering Plans and Specifications for Water Supply Systems
- ?? PWC Application for Gravity Sewers, Pump Stations, and Force Mains
- ?? PWC Water Permit Issuance Letter
- ?? PWC Sewer Permit Issuance Letter
- ?? Engineer's Certification Water
- ?? Engineer's Certification Sewer
- ?? Final Approval Letter from PWC
- ?? NCDOT Encroachment Drawing
- ?? Aberdeen and Rockfish Railroad Pipeline Crossing Application
- ?? Easement Submittal Checklist
- ?? Standard Easement Drawing
- ?? Blanket Easement Exhibit