

**UNION COUNTY PUBLIC WORKS**

**WATER AND SEWER**

**EXTENSION POLICY**

**January 6, 1997**

**UNION COUNTY WATER AND SEWER**

# **EXTENSION POLICY**

## **BOARD OF COUNTY COMMISSIONERS**

**Leroy Pittman, Chairman**

**Paul Standridge, Vice Chairman**

**John Feezor**

**Richard Stone**

**Tommy Tucker**

## **COUNTY OFFICIALS**

**Gary Smoak, County Manager**

**Mike Shalati, Director of Public Works**

**Effective Date:** These regulations shall become effective \_\_\_\_\_

Adopted this the \_\_\_\_\_ day of \_\_\_\_\_, 1997.

\_\_\_\_\_  
Leroy Pittman, Chairman

\_\_\_\_\_  
Gary Smoak, County Manager

\_\_\_\_\_  
Mike Shalati, Director of Public Works

Revised by Board of County Commissioners  
May 7, 2001 and June 13, 2001

Revised by Board of County Commissioners  
April 18, 2005

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## **PREFACE**

The purpose of this policy is to provide for the orderly development of water and wastewater systems to meet the ever-growing needs of the residents, businesses and visitors of Union County. These guidelines were developed with the flexibility to accommodate the individuality of each project while maintaining high standards and an orderly procedure.

The standards and procedures established by this policy are applicable to all utility contractors, engineers, developers, and others installing water and/or sewer facilities connecting to the Union County Public Works systems. These standards and procedures are designed to control the quality and overall integrity of water and sewer main extensions for which Union County Public Works assumes operational and maintenance responsibility.

Please note that although an effort was made to make this document complete and reflective of Union County Public Works requirements for new customers who wish to connect to the County's system, other regulations may be applicable. As a result, contact should be made with Union County Public Works officials administering this program on a continued basis to ensure familiarity and compliance with the most current policy standards and procedures prior to planning a water and sewer system extension. Union County Public Works reserves the right to revise this policy and other related policies.

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# CHAPTER 1

## **GENERAL**

### **DEFINITIONS AND GENERAL**

#### Section 1.1 - Interpretation of Certain Terms or Words

Except as specifically defined herein, all words used in this *Regulation* have their customary dictionary definitions. For the purposes of this policy, certain words or terms used herein are defined as follows:

- 1.1.1 Words used in the present tense include the future tense. Words used in the singular include the plural and words used in the plural include the singular.
- 1.1.2 The word “shall” is always mandatory.
- 1.1.3 The word “may” is permissive.
- 1.1.4 The word “lot” includes the word “plat” or “parcel”.
- 1.1.5 The word “person” includes a firm, association, organization, partnership, trust company, or corporation, as well as an individual.

#### Section 1.2 - Definitions

##### 1.2.1 Public Works

The Union County Public Works Department (U.C.P.W.)

##### 1.2.2 Lot

A parcel of land used as a building site or intended for water and wastewater use, immediate or future.

##### 1.2.3 Utility Right-of-Way/Easement

Private rights-of-way or easements granted to the County shall not be deemed dedicated to the public but shall be for exclusive use of the County.

#### 1.2.4 Public Right-of-Way/Easement

Public rights-of-way or easements are considered to mean street rights-of-way or any other public rights-of-way.

#### 1.2.5 Engineer

A person registered as a Professional Engineer in good standing with the North Carolina State Board of Registration for Professional Engineers and Land Surveyors.

#### 1.2.6 Land Surveyor

A person registered as a Land Surveyor by the North Carolina State Board of Registration for Professional Engineers and Surveyors.

#### 1.2.7 Subdivision

The division of a tract, parcel, or lot into two or more lots or building sites, or other divisions for the purpose, whether immediate or future, of sale, legacy, or building development and includes all division of land involving a new street or change in existing streets to include re-subdivision. Subdivision shall also refer to uses of land not ordinarily considered a subdivision, but requiring utility installations. Examples of these uses are mobile home parks, multi-family projects townhouses, and planned unit developments.

#### 1.2.8 Subdivider

Any person, firm, corporation or other legal entity subdividing land within the jurisdiction of Union County.

#### 1.2.9 Developer

Any person, firm, corporation, or other legal entity improving property for commercial, industrial or residential purposes.

#### 1.2.10 Plat

A map or drawing upon which the development plan is presented for approval.

### 1.2.11 Contractor

A person or entity authorized to perform construction by the State of North Carolina Licensing Board for Contractors. A contractor may not perform work outside of his licensed capacity. This includes well drillers, water and sewer lines, pump station, and electrical contractors.

All contractors will be required to present their current license number, classification and sub-classifications as listed with the North Carolina Licensing Board.

1. No contractor shall contract or subcontract his work to another party without the express written approval of Union County Public Works.

Should it be discovered that a contractor has sub-contracted all or part of a job without the written consent of Union County Public Works, the contractor and sub-contractor will be subject to being restricted from performing future work in the Union County Public Works system. In addition, a stop work order may be issued by Union County Public Works on any work in progress in violation of these terms and conditions.

2. General or subcontractors who have not previously performed work on water and sewer systems conveyed to Union County Public Works will be required to complete a "Contractor's Questionnaire" in order for Union County Public Works to determine the competency of the contractor to construct systems to be dedicated to the County.
3. Any contractor who, in the estimation of Union County Public Works, has not performed work to the approved standards (AWWA and North Carolina Administrative Code, Title 15A Rules Governing Public Water Systems and 15A-Waste Discharged to Surface Waters) specified without substantial administrative follow-up may be restricted until notice, from future work on utility systems connected onto the Union County Public Works system or planned to be connected to the system. A notice of restriction shall be done in writing by the Public Works Director and mailed certified return receipt.
4. All contractors will be required to carry certified umbrella public liability and property damage insurance that specifically saves Union County harmless from liability.

### 1.2.12 Development

Property improved for commercial, industrial or residential purposes.

### 1.2.13 Collections ORC

Operator in Responsible Charge for Union County Public Works Collections Department.

1.2.14 Project Engineer

Construction Project Engineer

1.2.15 Project Manager

Professional Engineer and/or Project Manager for Union County Public Works.

1.2.16 Inspector

Operator in Responsible Charge for Union County Public Works or his designee.

1.2.17 NCDEHNR or DEHNR

North Carolina Division of Environmental Health and Natural Resources

1.2.18 AWWA

American Water Works Association

1.2.19 DWQ

Division of Water Quality

## **CHAPTER 2**

### ***DEVELOPER'S PROCEDURES***

Preface: These procedures shall be followed by a project developer in order to plan, reserve water and sewer capacity, construct and have accepted for service any water and/or sewer main line extension to Union County Public Works system that is to serve any individual or multi-unit development.

Depending upon the size and scope of the proposed project, some procedures may be waived by Union County Public Works. However, developer must conform to all applicable local, state and federal regulations.

#### Section 2.1 - General Rules

##### Location

No water and/or wastewater facilities will be installed under the provisions outline herein and accepted for ownership and maintenance by the County except those in a dedicated utility right-of-way/easements or public right-of-way/easements.

##### Ownership

All water and/or wastewater facilities and appurtenances, other than plumbing, when installed or accepted by the County, shall become and remain the property of the County; and no person, by payment or charge or fee, or by any construction of facilities accepted by the County may acquire any interest or right in any of the facilities, or any portion thereof, other than the privilege of having their property connected thereto and service in accordance with these rules and regulations.

#### Section 2.1.1 - Procedures and Activity Sequence

Administration fees will be charged at each activity sequence in accordance with the fee rates and charges (see Appendix 1).

1. Submission of Letter of Intent to Director of Public Works
2. Response to Letter of Intent
3. Water and Sewer Engineering Plan Submittal
4. Union County Public Works Response to and Approval of Engineering Plans
5. Pre-Construction Conference
6. Service Authorization
7. Union County Public Works Acceptance

## Section 2.2 - Letter of Intent

### 2.2.1 Letter of Intent

The first step required of a developer is to file a letter of intent to develop (see Appendix 2 for form). The letter is to be forwarded to the attention of the Public Works Director. All further correspondence regarding the review of the project should be directed to the designated Project Manager. The letter should include the following information:

1. Name of developer or development firm and designated contact person or project manager.
2. Name, address, legal description of the owner(s), e.g., name of owners as stated on deed of the property to be developed.
3. Identification of property to be developed by tax map, block and parcel number, date of sale giving deed book and page number, specifying grantor and any other pertinent information such as subdivision name and lot number, general plat of property, name and/or highway number of adjacent streets and highways and adjacent property owners as may be necessary to properly identify the property.
4. Nature of development contemplated and proposed number and type of units, square footage and proposed construction schedule and phases as applicable.
5. Service requested with estimated consumption or flow volumes (water, sewer, and/or fire flow). List number and size of meters to be used and classify whether the meters will be used as master or individual settings. Union County Public Works reserves the right, at its discretion, to make the final determination of use of master or individual meter sets. See Chapter 6, METER POLICY, for further information.
6. Quality of waste to be delivered to the County's system for treatment (domestic, industrial, commercial).
7. Assignment of fee based on the fees and charges in Appendix 1.

### 2.2.2 Letter of Intent Response

Within fourteen (14) working days of receipt of the letter of intent, Union County Public Works will notify, in writing or by personal conference, its response to the letter of intent which will brief the developer on the current availability of and the requirements for service. This response does not represent a reservation of water and/or sewer capacity.

Any project that has not had developer/engineer activity within six (6) months after Union County Public Works' response to the letter of intent will be considered void and removed from active status. Once the project is voided, any future return to active status will require that the project be resubmitted as a new project.

## Section 2.3 - Engineering Plans for Water and Sewer

### 2.3.1 Submission of the Engineering Plans

Should Union County Public Works, upon review of the letter of intent, decide the project is of substantial magnitude to require engineering plans, Union County Public Works will require submittal of two (2) sets of certified engineering plans prepared in accordance with the requirements of Section 2.3.2. A plan review fee, if applicable, shall accompany this submittal. Plans will not be reviewed until the applicable review fee is paid. Refer to Appendix 1 for the rate schedule in effect at time of document approval.

### 2.3.2 Engineering Plan Requirements

1. All plans shall be prepared and/or approved by a N.C. licensed engineer or engineering firm, and shall have their seal and signature certification with the date on each plan.
2. Engineering plans shall consist of an overall composite plan, large scale individual plans with profiles as needed, detail sheets, specifications and calculations.
3. Engineering plans shall be in conformance with N.C. Administrative Code Section 15A - Waste Discharged to Surface Waters and 15A Rules Governing Public Water Systems.
4. Engineering plans shall conform to current Union County Public Works Sanitary Sewer and Water Specifications.
5. Engineering plans shall conform to other local, state and/or federal regulations which are applicable.
6. Items indicated on composite plan (Section 2.3.2-A) and large scale plans (Section 2.3.2-B) may be interchanged with prior approval of Union County Public Works.

#### 2.3.2-A *Overall Composite Plan*

The Overall Composite Plan shall include the following:

- a. Shall be clearly and legibly drawn to a scale of no smaller than one (1) inch equals to two hundred (200) feet and shall be no larger than 24" x 36". All written notes or numbers will be 1/8" minimum.
- b. If the preliminary plan requires more than one sheet, a key diagram showing relative locations of the several sections and match lines shall be drawn on each sheet.
- c. Proposed name of project, lot, block numbers, tax map numbers, adjacent property owners and developers name, address and phone number.

- d. North arrow, graphic scale, written scale and date, including the month, day and year that the original drawing was completed and the month, day and year for each revision of the original drawing. Title block with engineer's name, address, and telephone number.
- e. A vicinity or location map, for the purpose of locating the property being developed, drawn at a scale of no less than one (1) inch equals two thousand (2,000) feet and showing the relation of the property to adjoining property, and to all streets, roads, municipal boundaries, and recorded subdivision(s) existing within one thousand feet of the property.
- f. Total tract boundaries of the property being developed and total acreage of property being developed, name, registration number, and seal of registered surveyor. Reference any information provided by others.
- g. All existing buildings, utilities and streets, including streets of record (recorded but not constructed), on or abutting the tract, including the names and right-of-way widths.
- h. In case of re-subdivision, a copy of existing plat with proposed re-subdivisions superimposed thereon.
- i. Location and names of streams, lakes, swamps, and wetlands and any other water courses. Areas subject to flood must be designated. MSL elevations of all above areas shall be indicated.
- j. Designation and distance of any state roadways near property.
- k. Layout of lots including phase lines and proposed water and sewer lines (no detail required), material summary and the total number of lots shall be shown
- l. Topo of project with topo extending 100 feet beyond property boundary showing a minimum of 5 feet contours.

### 2.3.2-B *Large Scale Plans*

The Large Scale Plans shall include the following:

- a. Clearly and legibly drawn to a scale of no smaller than 1" equal to 60 feet and shall be sheets no larger than 24" x 36". All written notes shall be 1/8" minimum.
- b. North arrow, graphic scale, written scale and date, including the month, day and year that the original drawing was completed and the month, day and year for each revision of the original drawing. Title block with engineer's name, address, and telephone number.
- c. Location and names of streams, lakes, swamps, and wetlands and any other water courses. Areas subject to flood must be designated. MSL elevations of all above areas shall be indicated.
- d. Size, location and type materials of existing sewers and water mains. Indicate drains, culverts, or other underground facilities within the project which may interfere with water and sewer lines proposed. Grade, rim, and invert elevations of existing sewer to be extended shall be shown.

- e. Layout of all lots including phase lines and proposed water and sewer systems. Layout of streets, roads, alleys, public crosswalks and sidewalks, including widths. Road names should be included.
- f. Designation of any land to be conveyed or given by easement to Union County Public Works. Temporary and permanent utility right-of-way/easements for future sewer lines to adjoining properties will be required in all natural drainage basin.
- g. Provide profiles and cross sections of streets and ditches. Indicate finished grade elevation and existing grade elevation of street and storm drainage facilities.
- h. All dimensions shall be to the nearest one hundredth of a foot with angles to the nearest 15 seconds.
- i. Accurate description of the location of all monuments and markers.
- j. Utility easements for gas, electric lines, telephone and TV cable which cross or share proposed water and sewer easements shall be designated.
- k. Sewer profile sheets shall indicate inlet/outlet invert elevations, manhole casting elevation, grade, length, and type of pipe. Plan views of sewer shall include service locations, lines, designation and station numbers, road cross-sections, storm drainage facilities and other pertinent information deemed necessary by Union County Public Works.
- l. The location and elevation of the benchmark to which contour/elevations refer shall be shown when established benchmarks are within one (1) mile. All elevations shall be referenced to a USGS benchmark or a TBM established from a USGS monument.
- m. Water line designs shall denote sizes and all special appurtenances, valves, backflow prevention devices, tees, bends and thrust blocks/reaction blocks, where necessary, detailed blow-ups of interconnections shall be shown. Location of fire hydrants and/or any special appurtenances provided in the water system design. Applications requiring backflow prevention devices shall be in accordance with Union County Public Works Cross-connection Control Program (see Appendix 3).
- n. Detailed pump station site layout including proposed dimensions and delineation boundaries.
- o. Proposed layout of force main including profiles, types of pipe, detailed discharge design, relief valve design and location.

### 2.3.3 Response to and Approval of Engineering Plans

Union County Public Works will review the engineering plans and tentatively approve, disapprove or request additional information within thirty (30) days. The developer and/or engineer will be notified in writing within 30 days of receipt of all required information, all the fees associated with plan approval, and any additional off-site improvements that may be required. All comments and design modifications identified by Union County Public Works during the review of the engineering plans shall be incorporated into the final construction plan. Final approval and permit for construction to be issued by the Division of Environmental Health and Natural Resources.

Any project that has been inactive for three (3) months after Union County Public Works tentative approval of engineering plans will be considered void and removed from active status. Once the project is voided, any future return to active status will require that the project be resubmitted as a new project and new fees, if applicable, may be assessed.

## Section 2.4 - The Construction Plan

### 2.4.1 Submission of the Construction Plan

Approval of the engineering plan is a conditional and conceptual approval and does not constitute final approval of the plan for construction. Documents submitted as a part of the construction plan for final approval shall include, but not be limited to: Requirements set forth in Section 2.3.2 in addition to the following, as applicable:

1. Seven (7) copies of completed North Carolina Department of Transportation Encroachment Permit Applications.
2. One copy of approved plans in compliance with the Sedimentation Pollution Act of 1973.
3. Copies of any and all permits and/or permit applications to all regulatory agencies (Section 2.4.3).
4. Completed application and approval for railroad crossings where applicable including necessary fees.
5. Any other information considered by either the developer or Union County Public Works to be pertinent to the review of the plan.
6. The Project Engineer upon his receipt of submittals from the contractor, shall forward to Union County Public Works' Project Manager, one complete schedule of materials and equipment to be incorporated in the project. Submittals are to be catalogs, cuts, diagrams, performance curves, shop drawings, and charts published by manufacturers. Complete electrical characteristics for all equipment shall be provided.

Union County Public Works Sanitary Sewer and Water Specifications are available for your review upon request. Specifications established by Union County Public Works remain in effect until amended. Union County Public Works reserves the right to amend its specifications without prior notice.

#### 2.4.2 Platting Information

Platting information required for easements or real property to be dedicated to Union County Public Works shall be as follows:

1. All platting information shall conform to the Union County Land Use Ordinance.
2. In accordance with the “Standards of Practice for Land Surveying in North Carolina”.
3. Easements to be granted to or real estate to be deeded to Union County shall be shown on a separate 8 ½” x 14” plat which designates Union County as the recipient.
4. Applicable bonds (see Section 3.1.19)

#### 2.4.3 Required Certifications and/or Permits

The following certificates and/or permits shall be provided prior to the approval to construct by Union County Public Works.

1. Approved North Carolina Department of Transportation Encroachment Permits, where applicable.
2. Non-discharge permit for sewer from DEHNR.
3. Preliminary plan/plat approval by the Union County Planning Board or where applicable.
4. Section 404 Permit from the U.S. Army Corps of Engineers, as applicable.
5. Section 401 Water Quality Certification from DEM, as applicable.
6. State and/or County Fire Marshal approval, as applicable
7. Approval of plans and specifications for water systems from DEHNR.
8. Other regulatory agency permits, as applicable.

#### 2.4.4 Approval of the Construction Plan

Prior to issuance of letter from Union County Public Works stating final plan approval, all previously described requirements, and certificates/permits must be in hand, and all plans and specifications review requirements of Union County Public Works satisfied. When all applicable requirements have been satisfied, the pre-construction conference can be scheduled by the project manager.

## Section 2.5 - Fees

### 2.5.1 Capacity Fees (Water and Sewer)

Payment of fees required of developers/builders/property owners will be the current rates and charges in force at the time payment is to be received. The fee schedule in effect at time of this document's approval can be found in Appendix 1.

In order for a developer to reserve the necessary sewer capacity for his/her development, in addition to the items shown in Section 2.3 the following items are required:

1. Engineering plans must be approved by the Union County Public Works, the Union County Planning Department, and NCDEHNR.
2. One-half of sewer capacity fees must be paid at such time when applications are submitted to NCDEHNR.
3. At least one tap must be made within one (1) year from date of permit issuance.
4. Unpaid balance of capacity fees must be paid within three (3) years of date of permit issuance or capacity is forfeited back to the County to be used at its sole discretion.
5. Discharge permits shall be issued at the sole discretion of the County on a priority basis determined by points awarded for amenities in the subdivision and compliance with smart design requirements.

### 2.5.2 Tap Fees (Water and Sewer)

Payment of tap fees will be the current rates and charges in force at the time payment is to be received. Applicant may retain a utility contractor to install taps with prior approval of Union County Public Works. In such case Union County Public Works must inspect workmanship prior to covering and/or activating tap. The fee schedule in effect at time of the document's approval can be found in Appendix 1. Cost for sewer taps shall be at cost, but not less than the minimum tap fee shown in Appendix 1.

### 2.5.3 Minimum Monthly Charge

Upon installation of water/sewer taps and upon activation, base facility charges will be imposed in accordance with fees shown in Appendix 1.

### 2.5.4 Assignment of Prepaid Fees

Tap and capacity fees are assigned to and associated with specific parcels of property and will remain with the property unless otherwise approved by Union County Public Works upon the recommendation of the Director due to unique or special circumstances. Further subdivision of the parcel will require additional fees for newly developed parcels to reserve necessary capacities.

#### 2.5.5 Separate Monitoring

In the case where Union County Public Works believes additional waste materials are being added to the wastewater in sufficient quantities or strengths to warrant separate wastewater monitoring and to ensure accurate billing and charges for the wastewater treatment, it may require the discharger to install additional equipment and establish pretreatment and monitoring at his own expense in accordance with the *Union County Public Works Sewer Use Ordinance*.

#### 2.5.6 Excess Impact on System

Union County Public Works may require that development, i.e., residential subdivisions, condominiums, apartments, hotel/motel, projects or any other type commercial, residential, or industrial projects that will place an unusual or excessive flow demand upon Union County Public Works in excess of its existing system design capacity of its water and/or sewer supply/treatment capacity above that which is in existence, be required to provide support related water and/or sewer facilities in addition to any other fees or charges that may be necessary to provide the excess capacity required.

## **CHAPTER 3**

### ***CONSTRUCTION PROCEDURES***

#### Section 3.1 General

##### 3.1.1 Pre-Construction Conference

At such time that Union County Public Works has issued final construction plan approval, approved the contractor and all permits, and rights-of-way have been acquired, a pre-construction conference shall be scheduled with Union County Public Works project engineer. A minimum five-day advance notification to Union County Public Works to schedule the conference is required. Upon notification of the pre-construction conference Union County Public Works will review the project to see if all requirements have been met in order to schedule the conference. Those in attendance shall include representatives of the following: General Contractor, Subcontractor, Developer and Engineer. Others who may be in attendance are representatives of the NC Department of Transportation and any other applicable utility company or regulatory agency. The purpose of this meeting is to outline construction, inspection procedures, and project close-out policies. No construction will begin until the pre-construction conference is held and Union County Public Works gives authorization to proceed.

##### 3.1.2 Wet Taps

All existing water and sewer lines will be wet tapped by Union County Public Works at cost or by a certified contractor approved by Union County Public Works. Where a wet tap is not possible or the relocation of a water or sewer line requires interruption of service, prior approval for such work must be issued by Union County Public Works and the construction must be coordinated through Union County Public Works at a time it designates.

##### 3.1.3 Conformance

Improvements shall be installed in accordance with the established requirements and standards set forth in this document, Union County Public Works Sanitary Sewer and Water Specifications, and other applicable policies of the Department. Contractor shall conform to all applicable local, state and federal regulations.

#### 3.1.4 Construction Methods

All work shall be in accordance with the latest edition and revisions of Union County Public Works' Standard Specifications. Failure to comply with these specifications will be cause for a stop work order and rejection of all work and as-built plans.

Union County Public Works will provide, as feasible, inspectors on the job site as it progresses. The inspector can stop the work, if needed, due to contractor's non-compliance of any standards or procedures contained in this policy.

#### 3.1.5 Sewer Extensions

Extensions from existing manholes must be performed in the presence of a Union County Public Works inspector. No debris shall be allowed to remain with the sewer system. Upon completion of the first section of gravity sewer, the contractor is required to plug the extension. The plug is not to be removed until the service authorization is given. Failure to meet this provision will make a contractor subject to fines and imprisonment.

#### 3.1.6 Construction of a Manhole Over Existing Gravity Sewer Line

Manholes must be constructed in the presence of a Union County Public Works inspector. Any manhole being constructed onto an existing line along with the entire system must receive approval prior to cutting into the existing operational sewer line.

#### 3.1.7 Force Main Tie-Ins

All tie-ins of force mains into existing manholes must be done in the presence of an Union County Public Works inspector.

#### 3.1.8 Access

All public agencies shall have access to the premises and structures of a development under this document during reasonable hours to make those inspections as deemed necessary by them to ensure compliance with the provisions of this policy.

#### 3.1.9 New Construction Activity

- 1) Flushing of new construction can use large quantities of unaccounted for water unless metered. It is not usual for a contractor to let 5ft/sec for 30 minutes flow through a line for several days prior to sampling. Union County Public Works reserves the right to refuse flushing by contractor and require contractor to take bacteriological samples every 2500 feet of line per State Regulations.

- a) On all new projects for development, Union County Public Works Water System Supervisor will determine whether an in-line temporary meter is justified for installation at the same time the wet tap is made for the project.
  - 1) If an in-line turbine meter is justified, the Water System Supervisor will notify the contractor so that the temporary meter installation will be performed by the contractor/developer at his expense. This installation will be built to Union County Public Works specifications and may be tested upon request.
  - 2) Upon installation of the wet tap and meter, to include a dual check valve assembly or reduced pressure zone backflow prevention device, there must also be placed a service connection for chlorination to properly disinfect the water main. This service line will be used for almost all water usage to that project. A hydrant meter is available for the purpose, if required. The meter will be used for heavy filling, flushing and cleaning of the lines in the project and will only be operated by the Water Operations staff.
  - 3) Temporary services will be used only if no fire hydrants are available.
- b) Where temporary metering is not used, the contractor will be billed for a minimum of 4 (four) volumes of water based on the length and size of the mains in the project.
- c) At all times, the main valve will remain closed and locked unless scheduled for water usage through permission by Water Operations staff. Unauthorized use or tampering with the main valve is grounds for administrative fees, civil penalties or criminal prosecution. The service connection (chlorination) tap may be used by the contractor and will be under his control provided proper backflow/back siphonage devices are in place and contractor had express written permission for a dedicated period from Union County Public Works.
- d) Prior to service authorization of a new project, the Water System Supervisor will assemble the total construction water bill including the following, as appropriate, and forward to the Customer Service staff. He will require proof of payment before issuing Service Authorization for the project.
  - 1) Base facility charge plus volume charges as shown in Appendix 1.
  - 2) Credit for any prepaid flush and fill water or installing charges.
  - 3) Repair or replacement costs for any damage to the meter, loss or theft of the meter.

Upon request, the contractor/developer will be provided a service connection application with current charges (Appendix 4) by the Customer Service staff before beginning construction.

- e) Temporary meters and new tap valves will remain in place until service authorization is given; at which time individual service meters will be installed and the main tap valve will be opened and normal accounting procedures begin.

### 3.1.10 Hydrant Usage

- 1) No one except Union County Public Works personnel, the local fire departments and customers authorized within the following procedure is approved to use a fire hydrant within Union County Public Works service area.
- 2) In the event that a customer requests the use of a hydrant to obtain water to fill tanker trucks or for any other purpose, the customer requesting service must:
  - a) Fill out the appropriate hydrant use application which may be obtained from the Water Department or Customer Service staff (See Appendix 5).
  - b) Pay required fees, charges and deposits (See Appendix 1).
- 3) Use by a non-permitted vehicle or any other unauthorized use of a hydrant will be subject to the appropriate unauthorized or illegal usage fees and/or other penalties under Section 3.1.11.

### 3.1.11 Unauthorized or Illegal Usage

Unauthorized water usage is in violation of the Union County Public Works policies, rules and regulations, and is subject to minimal monthly base facility and volume charges as shown in (See Appendix 1). It may also be considered illegal and, therefore, subject to civil and criminal penalties in addition reports may be filed with the N. C. Licensing Board for possible disciplinary actions. In some circumstances, however, civil or criminal penalties may be more appropriate. This will be determined by the Public Works Director.

- 1) When an illegal connection is found, the device used on the illegal connection will be confiscated and information will be posted stating that this is an illegal connection and to claim equipment, please come by the Union County Public Works office or call (704) 283-3819. If the responsible person is at the scene, the Water Operations staff will advise him of the policy, obtain needed information and request it be disconnected. Failure to comply with the request may result in the Water Operations staff contacting the Union County Sheriff's Department to resolve the violation or arrest the offender.
- 2) A bill will be calculated for the water used, based on the currently approved unauthorized usage fee. Where water is returned into Union County Public Works sewer system, the gallons used will also be calculated for sewer charges at the prevailing volume charge per 1,000 gallons currently approved.
- 3) Movement and installation of water meters by unauthorized personnel is strictly prohibited.

### 3.1.12 General Inspection

Routine, unscheduled inspection of on-going project will be made periodically during the construction phase. Projects permitted under these policy procedures automatically authorize Union County Public Works inspection personnel access to the construction site at all times for the purpose of inspecting specific areas of concern, or observing construction operations in progress. This policy also further authorizes Union County Public Works inspection personnel to take appropriate action, as outlined, herein, when improper material or unacceptable workmanship is detected on the project. Union County Public Works' inspectors shall make periodic checks during all phases of construction to ensure that the contractor is complying fully with project design and specifications, as well as the policies and procedures herein established. Any deviation or revision to the approved engineering plans shall be accomplished in writing by contract change order. No deviations or revisions shall be initiated by the contractor until the contractor, Union County Public Works, engineer and developer have approved the change in writing. **At the option of the Union County Public Works, any portion of a project may require full time inspections. The developer will be charged for any related increased costs due to full-time inspections.**

### 3.1.13 Stop Work Orders

Failure to adhere to the approved plans and/or specifications established for the construction of a project or adherence to applicable requirements of the Union County Public Works may warrant the necessity of a stop work order. Such stop work order may be issued by appropriate Union County Public Works staff. Copies of the stop work order will be sent to the developer, engineer and contractor. A copy will be left on site with the in-charge contractor representative. Minor discrepancies where corrective measures do not prevent on-going construction will be delineated on a notice of correction form. This form will specifically identify that the discrepancy for the contractor, establish a time for corrective action and serve as a future checklist item.

### 3.1.14 Preliminary Inspection

A preliminary inspection will be conducted by Union County Public Works prior to service authorization. This inspection will be done only after Union County Public Works has received the developers engineer's certification for sewer and/or water systems. The developers engineer is responsible for coordinating the inspection schedule with Union County Public Works Project Manager. It is the responsibility of the developer's engineers prior to scheduling a preliminary inspection to fulfill the following:

- 1) Have contractor pump dry and dispose of all extraneous water from the sewer system.

- 2) Provide certification that the air test, pressure test, bacteriological test have been satisfactorily performed.
- 3) Certification that construction of both water and/or sewer systems have been built within substantial compliance of the approved plans and specifications.
- 4) Even on inspections that have been approved, the main line valve to any project will remain closed and locked off until service authorization has been issued, acceptance by NC Public Water Supply Section of engineer's approval, a maintenance bond received, and deed signed over to Union County Public Works. Water will be available for construction through a service connection that is metered and protected and read monthly.
- 5) No one other than Union County Public Works Water Operations Department will operate or give permission to anyone to operate a blow-off throughout the Union County Public Works water system. No one should operate a blow-off without permission from the Water System Supervisor or his designee.

#### 3.1.15 Service Authorization

Any developer that wishes to receive service prior to final acceptance by Union County Public Works must post a maintenance/completion guarantee with Union County Public Works. This guarantee may be used in conjunction with the one-year warranty/repair guarantee required after final acceptance. The amount of guarantee will be as outlined under section 3.1.19 under Warranty/Repair Guarantee.

To receive service authorization which would allow the residential and/or commercial establishments to receive water and/or sewer service, the following items must be completed:

1. All punch list items as determined by the inspector based on preliminary inspections and compliance with Section 3.1.12.
2. Contractors Guaranty for not less than one year after final acceptance.
3. Division of Environmental Management approval. Temporary verbal approval may be arranged for, but must be followed in a timely manner by written approval from DEM.
4. Certified and notarized cost certificate from the developer of water and sewer improvements.
5. Release by other agencies such as State, County or others applicable to encroachment permits or other liabilities.
6. Execution and legal recording of all easements and deeds necessary for the conveyance of the water and/or sewer facilities to be maintained and owned by the Union County Public Works.

7. Developer will provide to the Union County Public Works certification that he has had an abstract of title performed by all property that is to be dedicated to the County either by fee simple conveyance or granting of right-of-way. Nor service authorization or dedication of systems will be made until the abstract of title indicating clear title is presented to the County.
8. All paperwork shall be delivered to the attention of Project Manager.
9. At any time after service authorization should any damage or defects to the water and sewer system be found, the contractor will be notified by the Maintenance Supervisor. Should the contractor not be able to repair the damage or defect within a reasonable time (usually 24 hours after notification), Union County Public Works may repair the damaged line and the actual cost will be collected against the maintenance bond for that project.

### 3.1.16 As-Built Drawings

Two (2) sets of the preliminary as-built construction plans shall be provided at least 14 working days prior to the final inspection for approval. Once the as-builts are approved by the Union County Public Works, the engineer may schedule a final inspection with Union County Public Works. Three (3) sets of the approved certified as-builts, and one mylar and one (1) set of electronic files on a 3 ½” disk shall be presented to the Union County Public Works at the final inspection. No reference is to be made to any proposed facilities. As-built drawings shall have the same requirements as the engineering plans as shown in section 2.3. In addition the following information shall appear on all as-built drawings.

1. Final project name and address.
2. Final street names, lot lines and lot numbers.
3. Title block with engineer’s name, address, telephone number. Date of as-built and revision dates.
4. All as-built sheets must be sealed and signed by a N. C. licensed surveyor. As-built must be resealed by a N.C. licensed engineer if different than engineer providing certification.
5. Indicate all pipe and utility crossings (electric, cable, telephone, gas, etc.). Include vertical and horizontal separation distances, depth of cover and pipe materials.
6. Provide total construction cost for each water and sewer system. Give cost for pump stations and wells.
7. All sheets must be numbered consecutively in one set.
8. Exclusive easements on all pipelines to be dedicated to Union County Public Works (unless lines are in dedicated public right-of-way). The width of the permanent easement shall be based on 1:1 slope measured from the invert of the pipe to finish ground elevation, with fifteen (15) feet being a minimum. Increases above the minimum amount shall be in five (5) foot increments.

9. Run and invert elevations of sewer manholes and pump stations shall be certified by a registered land surveyor and shall be tied to a USGS benchmark.
10. Show all recorded easements to be conveyed and surveyed boundaries of any property to be deeded to Union County. Surveyed meets and bounds shall be given for the property lines along the outer perimeter of a project, and a permanent benchmark shown on the plans.
11. Dark unclear mylar sepia will not be accepted. Mylar sepias must be clear and easily reproducible. Water lines and force mains located within public rights-of-way shall be referenced to the center line, edge of pavement, or right-of-way boundaries.
12. Where any water and sewer facilities are located within private property through which an easement will be granted, these facilities shall be located by surveyed metes and bounds.

### *SEWER*

1. Provide schedule of sewer line tangents with manhole rim and invert elevations, pipe diameter, length, pipe material and slope. Manholes shall be tied to building corners, fire hydrants, property corners and/or other suitable permanent structures.
2. Manholes shall be stationed from the downstream manhole going upstream, with all manholes reverting to 0+00 for the next line tangent. Station all services from downstream manhole and show distance in feet from the main lines to the end of the service cleanout. Manhole laterals shall be located from property corners.
3. Provide a chart on the drawing giving the total number of manholes, linear feet of sewer main, size and material, number of single services and double services. Include the name, address and telephone number of the contractor that installed the system/s and the date of installation.
4. Provide MSL elevation on top of force main connection to manhole or force main manifold.

### *SEWER PUMP STATION*

1. Provide MSL elevations of influent line invert, bottom of wetwell, top slab, pump off, pump on, lead, lag, both pumps on, and high water alarm. Also, elevation of surface grade of pump station site and base of control panel.



### 3.1.18 Final Acceptance

Items required to receive Union County Public Works final acceptance are as follows:

1. The repair of all facilities damaged during phases of construction, paving, drainage, and installation activities as identified during the final inspection.
2. Completion of all improvements including roads, taps, drainages, storm drains, and other utilities. Any modifications to the water and/or sewer systems to accommodate these improvements shall be at the developer's expense.
3. The final acceptance inspection as outlined in Section 3.1.17 titled Final Inspection.
4. Written approval from NC DEHNR.
5. Approval from NC Department of Transportation.
6. Posting of warranty/repair guarantee as outlined in Section 3.1.19 titled Warranty/Repair Guarantee.

### 3.1.19 Warranty/Repair Guarantee

Prior to final acceptance by Union County Public Works, all developers must post a Warranty Repair Guarantee with Union County in the form of an irrevocable letter of credit or a cash deposit. The amount of the letter of credit or cash deposit will be equal to ten percent (10%) of the certified cost of the water and sewer improvements. This shall remain in effect until a time period of one (1) year after the final acceptance by Union County Public Works. Upon completion of the above specified warranty period, the letter of credit or cash deposits (without interest) will be refunded to the developer. If during this time any system or component failure as determined by Union County Public Works has occurred which has not been satisfactorily repaired or any repairs made by Union County Public Works will be covered under this warranty. Furthermore, all other items specified in this policy and/or within the approved engineering plans and specifications which have not been completed as specified will be covered under this warranty. These items will determine if the money being held in escrow for warranty/repair is needed. When it is determined the money is needed, the developer will be notified by mail at least five (5) working days prior to exercising the option of using the money set aside for this purpose.

## **CHAPTER 4**

### ***WATER AND/OR SEWER EXTENSION GUIDELINES FOR EXISTING RESIDENCES AND PROPERTY OWNERS***

#### Section 4.1 General

Union County Public Works may authorize extensions, by others at their expense, in accordance with the following guidelines:

- 4.1.1 All extensions shall follow Developers Procedure in Chapter 2.
- 4.1.2 All lines must be appropriately sized per the County's Master Plan. Any extension not part of the County Master Plan shall be designed under the same criteria as the Master Plan.
- 4.1.3 All construction shall be performed in accordance with Chapter 3.
- 4.1.4 In the event insufficient interest/participation is generated for a project, it will be considered inactive for a minimum of one year.
- 4.1.5 Any offsite water and/or sewer lines, including easements needed to serve any project will be at the developers expense.

#### Section 4.2 Water Requirements to Facilitate Wastewater Metering

All sewer customers will be required to connect to public water systems, where available. A signed agreement consenting to connect to the public water supply once it is available will be required to obtain sewer service in those areas where public water is not presently available.

Where individually metered public water systems are not available, Union County Public Works approved water meters must be installed on well lines at the customer's expense. Meter shall be located approximately 30 feet from center line of road. Meter readings will be used to generate sewage billings.

## **CHAPTER 5**

### ***Pump Stations***

Pump stations, public or private, designed to discharge wastewater into any of Union County's sewage distribution systems or into any wastewater treatment facilities must conform to this extension policy and to Union County Public Works Sanitary Sewer and Water Specifications.

Pump stations will only be considered within an approved 201 Facility Service Area and only upon determination that a gravity sewer can not be utilized.

Pump stations to be owned and/or operated by Union County Public Works serving more than 25,000 gpd P.D.F.(Peak Design Flow = 2.5 x Daily Average Flow) will require a telemetry system with the appropriate antenna and mast.

Generators sized adequately to operate dual pumps must be supplied for each subdivision. In any subdivision, one portable generator may be supplied for every two (2) pump stations.

## CHAPTER 6

### ***Meter Policy***

#### Section 6.1 Meter Policy

Water furnished for a given lot shall be used on that lot only. Each consumer's service must be separately metered at a single delivery and metering point.

Developers are requested to notify builders as lots are developed, that water meters **will not** be set if sewer cleanouts, water boxes or their appurtenances have been damaged or improperly positioned or if concrete driveways have been located over meter boxes. Arrangements for these repairs or modifications must be made prior to requesting meters to be set. Any repairs or modifications made by Union County Public Works will be at the developers and/or builders expense.

Master meters may be allowed or required to serve commercial buildings, multi-family buildings, or other applications on any un-subdivided parcel at the time of the initial application at the discretion of Union County Public Works. Each master meter will be charged the appropriate capacity fees, base charges plus volume charges as shown in Appendix 1.

In the case of master meters requiring bypasses, the bypass shall either be equipped with a meter installed between the two shut-off valves, or a single shut-off valve that will be locked off.

## CHAPTER 7

### *Industrial Pretreatment*

#### Section 7.1 Industrial Pretreatment

Any project proposing to discharge or having the potential to discharge wastewater other than “unpolluted wastewater”, which is wastewater containing no free or emulsified grease or oil; no acids or alkalis; no phenols or other substances that produce taste or odor in receiving water; no toxic or poisonous substances in suspension, colloidal state or solution; no noxious or otherwise obnoxious or odorous gases; not more than the allowable limit of suspended solids and BOD; not any other substances that will cause any violation of receiving water quality standards, shall be required to submit a pretreatment plan acceptable to the Union County Public Works before the Union County Public Works shall provide service. The pretreatment plan shall be consistent with the **Union County Sewer Use Ordinance** and Industrial Pretreatment Permit Procedures.

## APPENDIX 1

### Standard Charges

<b>SERVICE CHARGE</b> to establish account (new and transfers)	<b>\$ 25.00</b>
<b>RETURNED CHECK FEE</b>	<b>\$ 20.00</b>
<b>METER VERIFICATION REQUEST</b>	<b>\$ 25.00</b>

If the meter is accurate, a \$25.00 service fee will be charged.  
If the meter is registering low, there will be no service charge.  
The meter will be adjusted and customer back-billed as far as can be determined, but no more than 12 months.  
If the meter is registering high, there will be no service charge.  
The meter will be corrected, and the overcharge will be refunded back as far as can be determined, but no more than 12 months.

### LATE PAYMENT PROCEDURES

Bills are due upon receipt and past due 20 days from billing date. A \$5.00 late charge will be applied to the total balance due if not paid by the due date.

**Reconnection Fee** **\$50.00**

### DISCONNECTION POLICY

If payment for prior month's services has not been received by the date billing is completed for the current month, a notice is placed on the customer's bill stating that their account shows an overdue and unpaid balance. If the overdue balance is not paid in twenty-two (22) days, service will be disconnected without further notice.

Once disconnected for non-payment of bills, the total amount owed is due and must be paid in cash, money order or certified check in order to have service restored. In addition, any outstanding fees or deposits not previously paid shall be collected before service is restored. Reconnections will only be made in normal working hours of 8 A.M. to 5 P. M.. An additional fee of \$10.00 will be charged for locks which have been broken, damaged, or removed. Any account in which the lock was previously broken and continues to be delinquent, the water meter will be removed and a \$25 service fee will be charged to reset the meter.

Revised 10/11/99

**DEPOSIT FEE**

Rental Customers                      \$50.00

Deposit fee of \$50.00 when the customer’s account is established. If the customer is terminating service, any outstanding balance owed is deducted from the deposit amount and the balance is refunded to the customer. Deposit balances less than \$1.00 will not be refunded. Interest accrued on deposits is not refundable to customers.

**USER CHARGE FOR UNMETERED SPRINKLER CONNECTIONS**

<u>Size Meter</u>	<u>Rate</u>
4”	\$120.00
6”	210.00
8”	300.00
10”	420.00
12”	600.00

Each Private Hydrant Connection      210.00

A user shall pay an annual charge of \$100.00 for each unmetered sprinkler connection WATER which is not activated during the year. Should the unmetered sprinkler connection be used, the customer shall pay the rate specified in the “User Charge for Unmetered Sprinkler Connections” table, for each time the sprinkler is used. The \$100.00 fee shall be payable in advance in January of each year. The fee charged for each use of the connection shall be paid within twenty (20) days after the County has billed the customer.

**ENGINEERING FEES**

**Reserved**

## CREDITS FOR LOSS OF WATER

Water/sewer credits may be issued upon receipt of written proof of water loss (copy of plumber's invoice, written statement by customer, etc.) provided the customer has taken immediate steps to correct the problem.

To determine the amount of credit, the most recent six (6) months' average consumption is calculated. This amount is subtracted from the number of gallons billed. The customer pays for half the loss plus the average consumption as determined above.

### EXAMPLE:

10,000	Total gallons billed
<u>-5,000</u>	Average gallons for past 6 months
5,000	Water lost due to leak
$\div$ 2	
2,500	Half of water loss
<u>+5,000</u>	Average gallons
7,500	Total number of gallons Customer to pay for

If the customer was also billed for sewer and the water lost went into the sewer system, the sewer credit would be figured the same as the water credit. However, if the leak was on the customer's service line, they should only pay for their average sewer bill.

A maximum of two (2) water leak credits will be given in one year.

**WATER and SEWER RATES**

**Monthly Service Charges:**

- (1) Base facility Charge (Fixed Amount Varies by Meter Size)
- (2) Volume Charge (Per 1,000 Gallons of Metered Usage)

**Sewer Billing Cap**

Beginning April 18, 2005, a year round sewer billing cap for 12,000 gallons maximum per billing cycle is in effect for **residential customers with ¾” meters**. The rate for sewer up to 12,000 gallons remains at \$3.30 per 1,000 gallons.

**BASE FACILITY CHARGE**

Meter Size	WATER Monthly Amount	SEWER Monthly Amount
¾”	5.00	9.25
1”	12.60	23.31
1 1/2”	25.05	46.34
2”	40.05	74.09
3”	112.70	208.50
4”	250.45	463.33
6”	350.60	648.61

**WATER VOLUME CHARGE  
RESIDENTIAL and IRRIGATION**

Effective April 18, 2005

First 3,000 gallons	\$2.10
Next 5,000 gallons	\$2.45
Next 4,000 gallons	\$3.45
Next 6,000 gallons	\$5.45
Greater than 18,000 gallons	\$9.45

**NON RESIDENTIAL**  
\$2.45 per 1,000 Gallons

**SEWER VOLUME CHARGE**

\$3.30 per 1,000 gallons  
of metered water usage

**WATER AND SEWER CAPACITY FEES**

Meter Size	WATER Amount	SEWER Amount
¾”	\$ 500	\$ 2,650
1”	1,250	6,675
1 1/2”	2,500	13,275
2”	4,000	21,225
3”	11,250	59,725
4”	25,050	132,725
6”	35,050	185,825

**MINIMUM  
TAP FEE BY SIZE OF LINE  
SEWER**

4”	6”	>6”
\$630	\$825	Cost

**TAP FEE BY METER SIZE  
WATER**

¾”	1”	1 1/2”
\$400	\$525	\$2,600

**FIRE CONNECTIONS**

- Capacity fee - No charge
- Tap fee - At cost

Revised 4/14/2005

**APPENDIX 2**

**Request for Review of Intent to Develop**

1. PROPOSED PROJECT NAME: \_\_\_\_\_
  
2. LOCATION OF PROPERTY TO BE DEVELOPED IN TOTAL ACREAGE:  
Tax Map and Lot number; subdivision name and lot number (if applicable);  
Township; name and/or highway number of adjacent streets and highways (attach  
general location map).
  
3. DEVELOPER OR DEVELOPMENT FIRM: (Name, address, telephone number)  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  
4. PROPERTY OWNER(S): (Name, address, telephone number)  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  
5. NORTH CAROLINA LICENSED ENGINEER OR ENGINEERING FIRM:  
(Name, address, telephone number)  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  
6. NORTH CAROLINA LICENSED SURVEYOR: (Name, address, telephone  
number)  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  
7. CONTACT PERSON: (Name, address, telephone number)  
  
\_\_\_\_\_  
  
\_\_\_\_\_
  
8. SIGNATURE OF AUTHORIZED REPRESENTATIVE OR AGENT  
  
\_\_\_\_\_ DATE: \_\_\_\_\_
  
9. WHO WILL PROVIDE: FIRE PROTECTION \_\_\_\_\_

POWER \_\_\_\_\_ NATURAL GAS \_\_\_\_\_

TELEPHONE \_\_\_\_\_ CABLE TV \_\_\_\_\_

10. WILL ROADS BE DEDICATED TO:

CITY \_\_\_\_\_

COUNTY \_\_\_\_\_

STATE \_\_\_\_\_

PRIVATE \_\_\_\_\_

11. APPLICABLE REVIEWING AGENCIES:

UNION COUNTY PUBLIC WORKS \_\_\_\_\_

UNION COUNTY ENVIRONMENTAL HEALTH \_\_\_\_\_

NC DEPARTMENT OF TRANSPORTATION \_\_\_\_\_

NC DEHNR \_\_\_\_\_

OTHER AGENCY (SPECIFY) \_\_\_\_\_

12. NATURE OF PROPOSED DEVELOPMENT: (Describe in detail the proposed development(s), e.g., subdivision, mobile home park, golf course, shopping center, apartments, etc., including number of residential units, densities, commercial and industrial square footages, if applicable)

\_\_\_\_\_  
\_\_\_\_\_

13. NATURE OF PROPOSED COMMERCIAL BUSINESS: (Retail square footages, restaurant seating, motels/number of rooms, etc.)

\_\_\_\_\_  
\_\_\_\_\_

14. CONSTRUCTION SCHEDULE:

A. ANTICIPATED START DATE: \_\_\_\_\_

B. ANTICIPATED COMPLETION DATE: \_\_\_\_\_

C. IF PROJECT IS TO BE PHASED, PLEASE LIST BELOW THE  
NUMBER OF UNITS TO BE CONSTRUCTED FOR EACH PHASE  
AND DATES PLANNED OR THE START AND COMPLETION OF  
EACH PHASE.

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## **APPENDIX 3**

### **CROSS-CONNECTION CONTROL REQUIREMENTS**

- 1) All approved public water systems interconnected to Union County Public Works shall have a common gate valve between the systems.
- 2) All low hazard customers shall have an approved dual check valve assembly (DCVA) on the customer's side of the meter.
- 3) All medium hazard customers should have an approved double check valve assembly or approved backflow/back siphonage device installed on the customer's side of the meter.
- 4) All high hazard customers shall have an approved reduced pressure zone backflow (RPBP) device on the customer's side of the meter.
- 5) The cost of providing and installing any cross-connection control devices shall be paid for by the customer.
- 6) Union County Public Works may require an annual inspection of each DCVA and RPBP device by a certified tester for all devices at the meter at the expense of the customer. For service connections that are considered by Union County Public Works to pose an extremely high hazard, semi-annual or quarterly inspections and test may be required.
- 7) The customer shall provide access to any cross-connection device located on the premises to Union County Public Works personnel during normal working hours for the purpose of inspecting and/or testing the device.
- 8) Union County Public Works reserves the right to random inspections of any device. Should faulty or malfunctioning devices be observed, the owner shall make all necessary repairs within 30 days of written notice.
- 9) Should an owner fail to provide a certified test within thirty (30) days after notice, Union County Public Works may provide said test and bill customer for the testing service.
- 10) Should needed maintenance repairs be identified, the customer shall perform said maintenance within thirty (30) days of notice or service will be terminated.
- 11) All service connections shall have devices meeting the requirements of the highest hazard level of intended use.

APPENDIX 4

**APPLICATION FOR WATER AND SEWER**

OWNER OF PROPERTY \_\_\_\_\_

SERVICE ADDRESS \_\_\_\_\_

NEAREST CROSS STREET \_\_\_\_\_

COMMENTS & DIRECTIONS \*\*\*\*Is this inside the town limits? \_\_\_\_\_

***BILLING INFORMATION:***

Name: \_\_\_\_\_ SS# \_\_\_\_\_

Address: \_\_\_\_\_ Home Phone # \_\_\_\_\_

\_\_\_\_\_ Work Phone # \_\_\_\_\_

\*\*\*\*\*

It is understood between the applicant and the County of Union that this application, upon execution by the applicant or his representative and by the County Manager or his representative, will constitute a contract between the applicant and the County of Union, by which the applicant agrees that he will comply with all rules and regulations that may be adopted by the Board of Commissioners relating to the County Water System.

The applicant agrees to pay to the County of Union the sum \$\_\_\_\_\_ for the privilege of making the connection referred to herein. The applicant further agrees to pay upon installation of said connection a monthly water charge based on a rate schedule approved by the Board of Commissioners and on file in the Public Works Department.

\_\_\_\_\_  
Signature of Applicant

\_\_\_\_\_  
Date

Account Number _____	Lot # _____
Permit Number _____	Meter Size _____
Receipt # _____	Total Charges \$ _____
Received by: _____	Date: _____
ULOCO# _____	CLEAR DATE _____
Cycle _____ Day _____ Route _____	Code: RE _____ CO _____ ID _____ IT _____
Interceptor Tank Needed for Sewer? Y N	

Union County Public Works, 400 N. Church Street, Monroe, NC 28112.  
704-296-4210

## APPENDIX 5

### APPLICATION FOR FIRE HYDRANT PERMIT FOR VEHICLE MOUNTED WATER METER

This application covers the procedure through which water is made available to those firms requiring water at various locations daily. Users in this category may include grading contractors, paving contractors, real estate developers, pavement cleaning companies, landscape companies, etc.

Purpose of Water Meter \_\_\_\_\_

Applicant agrees to the following provisions:

- A. The applicant agrees to deliver the meter to the arranged location at the scheduled time for reading during the first week of January, March, May, July, September and November. The location and time will be set by calling 704-296-4210, Monday-Friday, 8 AM to 5 PM.
- B. The applicant is responsible for the purchase of the meter and its installation. Union County Public Works Fire Hydrant permit will be issued for each vehicle mounted meter. The permit shall be placed in a highly visible place on the rear of the water tank. The meter and installation must be approved by UCPW before a permit is issued.
- C. The applicant agrees to pay for water at the prevailing rate or a \$10.00 minimum charge for each reading period, whichever is greater. Billing is subject to the UCPW Rules and Regulations. In the case of a stopped meter, the current bill will be based on prior usage.
- D. In the case of a malfunctioned meter, repair must be made promptly. All repair and maintenance cost shall be borne by the applicant.
- E. The meter must register in U. S. gallons. Brands of meters acceptable to UCPW are: Kent, Sensus, Hersey and Neptune. UCPW reserves the right to inspect and test meters at its discretion.
- F. The inlet pipe to the vehicle water tank must be an air gap or an AWWA approved backflow preventing device so that back siphoning cannot occur.
- G. The applicant agrees to assume responsibility for damage to any fire hydrant used under these provisions or the damage to the connecting water system caused by

improper operation of the hydrant. Hydrants must be operated according to the attached instructions.

H. Failure to comply with the provisions of this application will result in revocation of the permit.

I. It should be noted that water that is withdrawn from a fire hydrant is not considered to be a potable source of water.

MAIL BILL TO:

_____	_____
CUSTOMER NAME	TELEPHONE NUMBER
_____	_____
STREET ADDRESS	NAME OF AUTHORIZED REPRESENTATIVE
_____	_____
CITY/ZIP	SIGNATURE
	_____
	DATE

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TO BE COMPLETED BY UCPW PERSONNEL ONLY

UCPW FIRE HYDRANT PERMIT NO. \_\_\_\_\_

DATE PERMIT ISSUED \_\_\_\_\_

WATER METER SERIAL NO. \_\_\_\_\_

MANUFACTURER OF WATER METER \_\_\_\_\_

VEHICLE LICENSE NO. \_\_\_\_\_

VEHICLE TANK NO. (IF NUMBERED) \_\_\_\_\_

SIGNATURE OF EMPLOYEE \_\_\_\_\_

INSPECTING INSTALLATION / ISSUING PERMIT \_\_\_\_\_

**PROCEDURES FOR THE OPERATION OF FIRE HYDRANT**

1. Only operate with an approved fire hydrant wrench. The operating nut on the top of the fire hydrant is a brass five-sided nut and will be damaged if operated with anything other than a fire hydrant wrench. If you damage the nut, you will be billed for the repairs.
2. Always open the fire hydrant no less than five turns and be aware of the opening direction indicated usually by an arrow on the top of the hydrant. opening the hydrant at least five turns will keep the weep holes from running water out and eroding soil at the base of the hydrant.
3. It is very important that the fire hydrant be closed very slowly. The way to assure that you are closing it slowly enough would be to take your hand completely off of the wrench and count to five between turns. The reason for closing the fire hydrant slowly is to reduce water hammer in the distribution system which can cause broken water mains and services. If you do cause this type of damage, you will be billed for the cost of making the necessary repairs.
4. When closing hydrants, do not apply extra leverage to operation wrench if hydrant valve fails to close entirely. An obstruction may be under the hydrant valve and further forcing of the hydrant would unnecessarily damage the rubber valve seats. Open and close hydrants several times to flush obstruction off the seat. If after doing this, the hydrant does not close entirely, notify the Union County Public Works Department at 283-3819 or 289-1591.
5. Replace all caps on the fire hydrant before leaving. If caps are left off, debris can enter the barrel and can cause problems when fighting fires. This condition also can cause damage to your own equipment if you are the next user.

APPLICATION FOR USE OF FIRE HYDRANT METER

DATE: \_\_\_\_\_ Size of meter requested: 3/4" \_\_\_\_\_ or 3" \_\_\_\_\_  
 The Union County Public Works Department agrees to place a fire hydrant meter on the fire hydrant located at \_\_\_\_\_.  
 This agreement hereby permits \_\_\_\_\_ to use water in the amount needed for the purpose of \_\_\_\_\_.

Applicant agrees to the provisions as follows:

1. The applicant agrees to the advanced deposit of \$ \_\_\_\_\_ for this service, plus \$ \_\_\_\_\_, the current service charge.
2. The applicant agrees to pay for water used at the prevailing rate. Charges for the actual water used will be deducted from the deposit and the difference refunded to the applicant, provided the meter is returned in good condition. The service charge is non-refundable.
3. The applicant agrees to assume responsibility for loss or damage, including freezing, to the fire hydrant meter, up to a maximum of 75% of the cost of a new meter. Any damages will be deducted from the deposit.
4. The applicant agrees to notify the UCPW at 283-3819 when the fire hydrant meter is to be picked up.
5. The applicant agrees that the UCPW will automatically pick up the fire hydrant meter at the end of two (2) days for a pool fillup or thirty (30) days from date of installation for other use.

Signature \_\_\_\_\_  
 Applicant

Mail Additional Billing or Refund To:

Name: \_\_\_\_\_ Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Address: \_\_\_\_\_

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Hydrant Meter# _____	Consumption _____
Date Installed _____	Cost @ _____ per 1000/gal.\$ _____
Installed By _____	Plus Service Charge \$ _____
Begin. Reading _____	Repair Charges \$ _____
Date Removed _____	TOTAL \$ _____
Inspected by: _____	Less Amount Paid \$ _____
Removed by _____	<b>Additional Billing</b>
End Reading _____	or Refund \$ _____
Condition of meter when returned _____	

**APPENDIX 6**

**Contractor Guaranty**

WHEREAS, Union County Public Works, as ultimate owner and operator of the \_\_\_\_\_ (project name) water and/or sewer utility systems, located at \_\_\_\_\_ (street address, lot and block or tract), requires tangible assurance as to the quality of materials and workmanship used on the aforementioned project; and

WHEREAS, \_\_\_\_\_ (contractor), as the duly licensed and responsible contractor having constructed and/or supervised the construction of the aforementioned project, desires to assure Union County Public Works that the quality of materials and workmanship meet published standards governing the construction of such utilities work.

THEREFORE, it is hereby agreed that neither final payment by the developer, nor any provision in the contract with the developer, no partial or entire use of the constructed utility improvements by Union County Public Works or the public shall constitute an acceptance of work not performed in accordance with approved plans or relieve the contractor of liability or responsibility for faulty materials or workmanship. It is further agreed that the contractor shall promptly remedy any defects in the work, with the exception of damages construed as acts of God, at his own expense, and pay for any damage to other work resulting therefrom which shall appear within a period of twelve (12) months from the date of the service authorization.

IN WITNESS WHEREOF, this instrument of GENERAL GUARANTY is hereby executed.

Attest: \_\_\_\_\_ (Authorized Signature of Contractor)

For: \_\_\_\_\_ (Company Name)

\_\_\_\_\_ (Address)

**NOTARY:**

Submitted and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, by \_\_\_\_\_ (Authorized Company Official), for Union County Public Works.

\_\_\_\_\_ (Seal)

(Notary Public for North Carolina)

My Commission Expires: \_\_\_\_\_