

## **SECTION 100 - GENERAL INFORMATION**

### **101. GENERAL REQUIREMENTS - USE OF THIS DOCUMENT**

- 1.) This document is subject to periodic revision to meet changing requirements for materials, environmental regulations, etc. At the beginning of a project, users should verify that they have the latest edition.
- 2.) This document is intended to convey the general design and construction requirements for a typical project. It also lists specific Cherokee County Water and Sewerage Authority requirements relating to plan review, inspection, testing and acceptance of facilities. It is not intended as a substitute for site-specific engineering and construction techniques. Individual project conditions may require variances from the provisions in this document in which case such variances should be noted in the plans and other data submitted by the project design professional for the Authority's approval.
- 3.) The Standard Details in Section 700 are complementary to the Specifications written herein. If the developer or designer notes any discrepancies or desires an interpretation of a specification, they should submit their question to the Authority in writing for a decision by the Authority or the Authority's representative.
- 4.) Failure by the Authority or the Authority's plan review representative to notice any deviations from the Authority's Standards during the plan review process does not alleviate the Developer's responsibility to adhere to the Standards.

### **102. PLAN REVIEW PROCESS**

The following steps apply to the approval for installation of sewer mains, manholes, force mains, lift stations and appurtenances by private developers in commercial, industrial, institutional, residential or other types of developments:

- 1.) Three (3) copies of preliminary plans showing the type of development, location and general plan for sewer collection must be submitted to the Authority's G.P.S. Department. See Section 201 for a description of the contents of Preliminary Plans.
- 2.) Sewer availability will be determined by the Authority or a representative of the Authority in the area of the proposed development. The Authority will

review the preliminary plans to determine if the wastewater treatment facilities, lift stations and sanitary sewer lines in the area of the proposed development have sufficient remaining capacity to serve the proposed development.

- 3.) Comments will then be addressed to the Developer by the Authority relating to the availability of sewer or other items pertinent to the development, such as the need for pretreatment of industrial waste or grease traps.
- 4.) The Developer should procure a copy of the current set of sanitary sewer main standards. It is the Owner/Developer's responsibility to get copies made and distributed to the appropriate Contractors.
- 5.) The Developer must then submit six (6) paper copies of Construction Plans, (first submittal or revisions) plus the electronic data on disc, as outlined in these specifications to the Authority for review. Electronic data disc shall be submitted with each submittal (first submittal or revisions). Plans and other submittals shall be delivered to the Authority's G.P.S. Department. (See Section 202 for a description of the contents of Construction Plans.) **"These plans must carry the stamp of a registered professional engineer or registered land surveyor."** Included with these plans shall be the National Resource Conservation Service Report of Technical Review and a completed E.P.D. Sanitary Sewer Submittal Form. At this time the Developer will also pay the plan review fee for sewer system additions. (See the Water Main Standards – Section 102.5 for the fee for water main plan review.) If this amount is sufficient to cover the Engineer's hourly fee for the complete plan review, no further amount will be charged to the Developer. If the sewer plans are such that the Engineer's fee exceeds the review fee minimum, the Developer will be invoiced for the additional costs at the Engineer's hourly rate. This additional fee must be paid prior to the scheduling of the preconstruction conference. There will also be an additional fee charged if the project requires the plan review of a lift station to serve the development. Consult the Authority regarding the amount of this fee. Fees are subject to increase at any time.
- 6.) **Plan Review Schedule:** The Authority and reviewing engineer shall meet every Tuesday with Developers or their representatives to discuss plan review comments and to distribute new sets of plans to the various Authority departments for review. Plans must be delivered to the Authority's G.P.S. Department by 4:30 p.m. on Monday to be distributed for review at the Tuesday meeting. Comments shall be made available to the Developer at the following Tuesday meeting one week after the plans are distributed. Comments on lift stations will require a minimum of two weeks. **Plans shall not be distributed for review until all required documents and electronic data have been submitted and all review fees have been paid.**

- 7.) A list of comments noting any deficiencies of the plans will be returned to the Developer or representative at the Tuesday meeting. The Authority's G.P.S. Department staff will assign manhole I.D. numbers during this phase of the plan review. These manhole I.D. numbers shall be shown on the plans to be re-submitted along with the other revisions.
- 8.) After the revisions have been made, the Developer must submit six (6) revised copies of construction plans plus the electronic data on disc, as outlined in these specifications to the Authority for review. (With the same plan review schedule. See Section 7 above).
- 9.) If all of the required revisions have been properly made, the Authority will deliver a comment list stating "No Exceptions" to the Developer or their representatives, thereby allowing the Developer to return to the Authority's G.P.S. Department to have the plans stamped "Approved". The Developer can have as many sets stamped "Approved" as he or she may need for construction, but the Developer shall submit a minimum of four (4) new sets of plans to the Authority for stamping and retention by the Authority for use during construction. Plus the electronic data on disc, as outlined in these specifications.
- 10.) The Developer shall complete the Ownership Form (Exhibit "A") and submit it to the Authority's G.P.S. Department before the Authority's Construction Permit is issued to the Developer. (See form at end of Section 100.)
- 11.) The Developer shall forward a copy of all county and state permits to the Authority's G.P.S. Department before the Authority's Construction Permit is issued to the Developer.
- 12.) The Developer shall obtain all necessary utility and ingress/egress easements and record these at the Cherokee County Courthouse. The Developer shall provide the Authority's G.P.S. Department with a copy of the recorded easements before the plans will be approved and the Authority's Construction Permit is issued to the Developer.
- 13.) The Developer shall complete sewer tap application(s) and pay all sewer tap fees and meter deposits required prior to the scheduling of the preconstruction meeting.
- 14.) The Developer shall arrange for the preconstruction meeting with the Chief Inspector.
- 15.) When the project is completed, the Developer shall forward two copies of the recorded final plat and the "As-Builts" to the Authority's G.P.S.

Department before any water meters are released to the project.

### **103. CONSTRUCTION PERMIT**

When the sewer plans have been approved by the Authority, a permit will be issued to the Developer which must be displayed at the project site at all times. This permit will be delivered to the Developer at the preconstruction meeting. **No sewer main construction shall be allowed until the permit is issued and is displayed at the project site.** The permit will expire if the Developer does not begin construction of the sewer facilities within one year from the date of issuance. If the permit expires, the plans will have to be resubmitted for review, and the Developer will have to pay all associated costs of the new review.

### **104. APPROVAL BY OTHER GOVERNMENT AGENCIES**

No part of the approval process is intended to relieve the Developer of the responsibility to comply with minimum standards of the Cherokee County Water & Sewerage Authority, Georgia Department of Natural Resources, E.P.A., E.P.D., N.R.C.S., Georgia Department of Transportation, Cherokee County, U.S. Army Corps of Engineers or other appropriate regulatory agency.

### **105. CONSTRUCTION**

1.) **Preconstruction Conference** The Developer, Design Professional, Contractor and Cherokee County representatives are required to meet with the Authority for the purpose of discussing the construction and inspection of the proposed development. The proposed start date and an approximate time for completion will be given to the Authority.

***“All tap fees and plan review fees are required to be paid in full prior to the scheduling of the preconstruction meeting. The preconstruction conference is required to be attended before the issuance of the C.C.W.S.A. construction permit. No sewer main construction shall be allowed until the permit is issued and is displayed at the project site.”***

2.) **Approved Plans** An approved set of construction plans stamped by the Authority must be kept onsite at all times by the Contractor.

3.) **Notification** The Authority shall be notified by the Developer or his Contractor before construction begins, and at the various stages in construction as required by the Authority. The Authority shall be given a minimum of four (4) days advance notice before an inspection is needed.

- 4.) Contractor Qualifications** Contractors performing utility construction must be licensed in accordance with State of Georgia law and local ordinances and approved by the Authority. They shall maintain liability insurance to the minimum requirements of the Authority. (See Detail S737 for a sample of the Certificate of Liability Insurance to be submitted.) They should be completely familiar with the procedures and contract requirements associated with this type of project. Unsatisfactory work will cause a Contractor to not be approved for future work.

Any and all subcontractors must be approved by the Authority.

- 5.) Damage to Water and/or Sewer Facilities** The Developer is responsible for replacing any and all water and/or sewer facilities which are damaged by the Developer and any of his Contractors and any Builder working at the project site. Water and sewer facilities include but are not limited to service lines, meters, meter boxes, valves, valve boxes, valve markers, fire hydrants, and manholes.

## **106. INSPECTION**

- 1.) Any sewer main installed as provided for in these Specifications will be subject to inspection during construction by the Authority or a representative of the Authority. Inspection, testing and acceptance requirements are presented in greater detail in Section 600.
- 2.) On any system to be accepted for ownership and operation by the Authority, an inspection will be made to accept or reject the work when completed. Evidence must be submitted to the Authority in writing indicating that installation of the sanitary sewer system has been subjected to and has passed the requirements as set out in these specifications before acceptance. If the sanitary sewer system passes this inspection, the Authority will issue a written conditional approval of the improvements and the one year maintenance period shall begin. SEE SECTION 108.
- 3.) Authorized representatives of the Authority, the EPD, Cherokee County, or other state or federal agencies shall have access to the site for inspection at all times.

## **107. AS-BUILTS**

Three sets of As-built drawings and the electronic data requested herein must be submitted to the Authority immediately after the completion of construction and before the final acceptance of the project. **Please review Section 604 for the**

**details on the specific items to be included.**

**108. ONE-YEAR MAINTENANCE:**

- 1.) The Developer shall maintain the improvements in his development for a period of one year from the date the Authority issues written conditional approval of the improvements. At the end of the one year maintenance period, the Authority shall perform an inspection of the development. The Developer shall be notified of the inspection results in writing including a list of deficiencies for immediate correction.
- 2.) If repairs are needed for the development to meet Authority specifications, the Developer shall be required to make such repairs within 60 days after written notification by the Authority. If no action is taken to correct deficiencies noted within 30 days, a hold will be placed on any remaining sewer connections until those deficiencies are corrected. If no lots remain, the Authority will not approve any future proposed development by the Developer. Should any Developer/Contractor fail to comply with the specifications and regulations of the Authority or fail to correct deficiencies identified by the Authority, approval will not be given on any future proposals by the Developer/Contractor until ALL previous projects of the Developer are in compliance with these regulations.
- 3.) If the work is free from defects, or after the required repairs have been completed to the satisfaction of the Authority, a letter of final acceptance will be issued to the Developer. The letter will state that the one year maintenance period has expired and that the Authority is now the owner of the sewer facilities and is responsible for all future maintenance of these facilities.
- 4.) After the sewer main is operational and throughout the one year maintenance period, the Developer will be responsible for locating all water and sewer facilities when called upon by the Utilities Protection Center or the Authority. These utilities must be marked within 72 hours of the time notified. Any water or sewer facilities cut by others will be repaired by the Developer's contractor at the Developer's expense if the lines are not located or if they are improperly located. The Developer shall provide the name and telephone number of the company providing this locate service for the Developer.
- 5.) During the one year maintenance period, the Developer shall be notified of all sewer line leaks (including emergencies) or other problems within the project. If the sewer main is not repaired in a timely fashion, the Authority will make the repair and the Authority's cost (including all materials, labor, equipment, etc.) will be billed to and paid by the Developer.

## **109. BUILDING PERMITS**

**Sewer tap fees must be paid to the Authority prior to the issuance of a building permit. Replacement of water and/or sewer facilities damaged by Builders shall be the responsibility of the Developer.**

## **110. SANITARY SEWER CONNECTIONS AND AVAILABILITY**

- 1.) Any single family or multi-family dwelling, commercial or industrial establishment shall be connected to public sewer when sewer lines are available for connection. Connection shall be at the cost of the property owner.
- 2.) Availability shall be defined as follows:
  - a.) Sewerage shall be considered available to an existing single family dwelling when the dwelling can be connected by gravity flow to a line in any public right-of-way or easement which passes the property at any point.
  - b.) Sewerage shall be considered available to any new single family dwelling when the dwelling can be connected to a sewer line by the installation of 200 linear feet of gravity flow line from the nearest point of the property.
  - c.) Sewerage shall be considered available to any new subdivision when trunk sewers have been extended into the drainage basin. Sewerage shall also be considered available when trunk sewers are constructed under a current funding program. Trunk sewers are those sewers recognized in the Facilities Plan or other planning documents of the Authority. When trunk sewers are to be funded under future bond programs, sewerage will not be considered available.
  - d.) To determine the availability of sewerage to any multi-family dwelling, commercial or industrial tract, the sewage effluent for the development will be converted to its equivalent number of single family dwellings. For comparison purposes, a single family dwelling generates an effluent of 400 gallons of sewage per day.(With 4.0 Peak Factor)
  - e.) The Authority shall determine the availability of capacity for the development's sewage in accordance with the steps detailed in Section 102 of these Sewer Standards.

## **111. SEWER TYPES AND FUNDING**

- 1.) Building sewers are used to convey wastewater from the buildings to lateral sewers, or any other sewer except another building sewer. These sewers are privately funded.
- 2.) Lateral sewers form the first element of a wastewater collection system and are usually in streets or special easements. They are used to collect wastewater from one or more building sewers and convey it to a main sewer. The minimum sewer size is 8 inches. In new developments, these sewers are privately funded.
- 3.) Main sewers are used to convey wastewater from one or more lateral sewers to trunk sewers or to intercepting sewers. These sewers are a minimum of 8 inches in diameter and can extend beyond the property boundaries of subdivisions. In new developments, these sewers are privately funded.
- 4.) Trunk sewers are large sewers that are used to convey wastewater from main sewers to treatment or other disposal facilities or to large intercepting sewers. These sewers are a minimum of 10 inches in diameter. These sewer lines are funded in accordance with the Authority's sewer line extension requirements in Section 302.
- 5.) Intercepting sewers are large sewers that are used to intercept a number of main or trunk sewers and convey the wastewater to treatment or other disposal facilities. These sewer lines are funded in accordance with the Authority's sewer line extension requirements in Section 302.

## **112. SEWER TAP FEES**

A connection fee shall be paid to the Cherokee County Water and Sewerage Authority before any structure is connected to the system. The connection fee shall be calculated as follows:

- 1.) The tap fee for single and multi-family dwellings shall be that which is in effect at the date that a building permit is purchased. In certain drainage basins, the Cherokee County Water and Sewerage Authority have certain contractual commitments which require a higher fee. In these basins, the higher fee shall apply.
- 2.) The fee for all other types of development shall be calculated based on a comparison of the expected sewage effluent of the user with a typical single family residence. If the comparison results in an amount less than a single family residence, the tap fee shall be the same as a single family residence in

that basin.

For comparative purposes, a single family residence is expected to generate 400 gallons per day of sewage and 0.68 pounds of 5 day Biochemical Oxygen Demand. The tap fees for the following common dischargers will be calculated by comparing their flow based on the table of estimated flows with the flow expected from a single family residence. The tap fee for dischargers of process waste will be calculated by comparing the strength of the waste with the strength of domestic waste. In the event that the waste is expected to include other parameters such as Suspended Solids and Ammonia which are significantly higher than domestic waste, a comparison will be made of that parameter and will be used in calculating the connection fee.

<u>Type of Installation</u>	<u>Sewage Flow, GPD (Per Capita, Unless Noted)</u>	<u>B.O.D.5 Lbs./Day</u>
<i>Airports:</i>		
Passenger	5	0.02
Employee	25	0.05
<i>Apartments:</i>		
1 Bedroom	300/Aprtmt.	0.23
2 Bedroom	350/Aprtmt.	0.46
3 Bedroom	400/Aprtmt.	0.68
Clubhouse	500/Clbhse	0.80
<i>Auditorium, Convention Center, Assembly Halls</i> (Does not include food service)		
Per Capita (Maximum Capacity)	10	0.05
<i>Bar, Tavern</i> (Does not include food service)		
Per Seat	25	0.05
<i>Camping Grounds</i> (Overnight)		
Per Space	175	0.42
<i>*Car Wash</i> (Coin Operated)	750/Bay	
<i>Church</i> (Does not include food service nor day schools)		
Per Seat	5	0.02
<i>Commercial Laundries</i>		
*Per Machine	640	1.68

<i>Country Clubs</i>		
Resident Member	100	0.20
Nonresident Member	25	0.08
 <i>Hospitals</i>		
Per Bed	200	0.30
 <i>Industrial-Light</i>		
Employee (or use Warehouse)	25	0.05
 <i>Industrial-Heavy</i> (Base Flow determined by data supplied)		
*Laundries	400/Machine	1.05

<u>Type of Installation</u>	<u>Sewage Flow, GPD (Per Capita, Unless Noted)</u>	<u>B.O.D.5 Lbs./Day</u>
<i>Nursing Homes</i>		
Per Bed	125	0.20
Employee	25	0.05
<i>Motel, Hotel</i>		
Per Unit / with restaurant	100	0.24
Per Unit / w/o restaurant	75	
<i>Offices</i>		
Per 1000 sq. ft.	100 (or 25 GPD Per Employee)	0.35
<i>Office/Warehouse</i>		
Per 1000 sq. ft.	50 GPD (or 25% as office @ 175 GPD/1000 sq.ft.)	0.24
<i>Picnic Areas, Parks</i>		
Per Capita	10	0.03
Per Capita with Showers	25	0.07
<i>Police, Fire Station</i>		
Resident Employee (Food Service Included)	75	0.15
Day Employee (No Food Service)	25	0.05
Residence	400	0.68
<i>Rest Stops</i>		
Per Visitor	5	0.012
Employee	25	0.05
<i>Restaurant</i>		
Per seat	50	0.55
Per seat at bar	25	0.05
Fast Foods - per seat	30	0.05
<i>Schools</i>		
	12/student	0.04
If cafeteria & gym exists, add 8/student		

<u>Type of Installation</u>	<u>Sewage Flow, GPD (Per Capita, Unless Noted)</u>	<u>B.O.D.5 Lbs./Day</u>
<i>Service Station</i>		
Per car	10	0.03
Employee	25	0.05
*with Car Wash, add	750	
<i>Stores, Shopping Center</i>		
Per 1000 sq. ft. (Includes toilet waste only)	100	0.40
<i>Swimming Pool</i>		
Per Swimmer	20	0.04
Per Employee	25	0.05
<i>Theater (Regular)</i>		
Per Seat	5	0.02
<i>Trailer Park</i>		
Adult Only	200/Space	
Mixed	300/Space	
Any Other Facility	25/Person	

\*If water saver devices or recycle devices are used for car washes or laundries, flow may be based on their engineer's water use calculations.

The tap fee for any service will be determined by the best information available to the Cherokee County Water and Sewerage Authority. Any discharger of process waste will be responsible for furnishing estimates of the amount and strength of the waste to be discharged. The tap fee for dischargers of process waste will be subject to an upward adjustment if it is found that the fee was underestimated. Dischargers of process waste will be responsible for the cost of an adequate number of tests to determine the average strength of their discharge.

### **113. SEWERAGE SERVICE FEES**

The sewerage service rate shall be applicable only to residential service. Commercial and Industrial rates may be adjusted according to strength of waste and other criteria. Prevailing rate schedules may be obtained from the Authority.

## **114. OBTAINING SEWER SERVICE IN CHEROKEE COUNTY FOR EXISTING DWELLINGS**

As the Authority continues to construct new treatment plants and to extend interceptor sewers into outlying sections, sanitary sewer service is becoming available to many areas where only septic tanks could be used in past development. Residents in these areas who wish to obtain sewers for their subdivision or area of residence may do so by petitioning the Authority for the service as outlined below.

- 1.) PETITION:** Petition forms are available from the Cherokee County Water and Sewerage Authority, 391 West Main Street, Canton, Georgia 30114. When a petition request is received, the Authority will make a brief survey of the identified neighborhood and advise the petitioners if sewer service is feasible and if the topography and economic factors are favorable. An outlined map will be provided showing those residences that can be served by the proposed sewer.

The signatures of the owners of at least sixty-six (66) percent of the property and sixty-six (66) percent property frontage abutting the proposed sewer must be secured before the petition can be approved for consideration by the Cherokee County Water and Sewerage Authority. After the petition has been returned to the Cherokee County Water and Sewerage Authority and has been found to have the required signatures, it will be considered for construction by the Authority. Please note that once a signature has been verified and accepted by the Authority, it cannot be deleted or revoked.

- 2.) SCHEDULE OF WORK:** If the petition is approved, the Authority shall then make an engineering survey of the area in order to complete the plans for the project. The project will then take its turn with the other projects which are in line for construction.
- 3.) CONSTRUCTION OF SEWERS:** Ordinarily the sewer main will be constructed down the center of the street with service connections or stub-outs for each lot extending from the main to the edge of the right-of-way. The service connections will be placed at elevations and locations compatible with the best service for each lot.

The depth of the sewer main will be governed by the elevations of the property that is to be served. **Extremely low property will be served if economically feasible. A residence shall be considered served if service is available to the main floor.**

**Each property owner will be responsible for making his own**

**arrangements to connect his residence to the sewer main.**

After the sewers have been laid and the road-cut properly filled, the cut will be topped with an adequate road surface.

- 4.) **PERMIT AND TAPPING FEE:** Before connecting to the sewer, the property owner must secure a permit from the Cherokee County Water and Sewerage Authority. This permit will be issued on payment of a tapping fee which is charged at the prevailing rate for a residential tap.
- 5.) **CONNECTING TO SEWER:** A permit must be secured from the Plumbing Inspector. Property owners preparing to connect to the sewer may employ a private contractor, or a plumber, to lay the pipe from the owner's residence to the stub-out provided by the Authority.
- 6.) **MONTHLY CHARGE:** Sixty days after the tap has been made available, a monthly charge will appear on the customer's water bill.

Any further information desired may be obtained by calling the Cherokee County Water and Sewerage Authority at (770) 479-1813.

**115. LIST OF COMMONLY USED TERMS**

"Authority" shall mean the Cherokee County Water and Sewerage Authority.

"Contractor" shall mean the individual, firm or corporation undertaking the execution of the Work under the terms of the contract and acting through its agents and employees.

"Developer" shall mean the individual, firm or corporation financing the execution of the Work.

"Engineer" shall refer to the engineer appointed by the Developer as representatives of the Developer and to its properly authorized agents.

"General Manager" shall refer to the General Manager of the Cherokee County Water and Sewerage Authority.

"Chief Inspector" shall refer to the Chief Inspector of the Cherokee County Water and Sewerage Authority.

"Owner" shall refer to the Cherokee County Water and Sewerage Authority.

"Plans" shall refer to those drawings that show the character and scope of the

Work and shall include all drawings identified in the contract documents.

"Shall" and "Will" are mandatory; "May" is permissive.

"Specifications" and "Standards" shall refer to the Sanitary Sewer Main Standards of the Cherokee County Water and Sewerage Authority.

"Work" of the contractor shall include all labor, material, equipment, transportation, skills, tools, machinery, and other equipment and things useful and necessary to complete the contract.

## **116. LIST OF ACRONYMS**

A.S.T.M: American Society for Testing and Materials

A.W.W.A: American Water Works Association

D.I.P.: Ductile Iron Pipe

D.O.T.: Georgia Department of Transportation

E.P.A: United States Environmental Protection Agency

E.P.D: Georgia Department of Natural Resources, Environmental Protection  
Division

C.C.W.S.A.: Cherokee County Water and Sewerage Authority

H.D.P.E.: High Density Polyethylene

N.R.C.S.: National Resource Conservation Service

OSHA: United States Dept. of Labor, Occupational Safety and Health  
Administration

P.V.C.: Polyvinyl Chloride

R.C.P.: Reinforced Concrete Pipe

V.C.P.: Vitrified Clay Pipe

## **117. APPEALS**

Any requirement that is outlined in these specifications may be modified or revoked by a majority vote of the full membership of the Cherokee County Water and Sewerage Authority.

Persons wishing to file an appeal must submit a written request to the Authority prior to the Agenda date for the next Authority meeting stating the nature of the request to be made. If the request is not made prior to the Agenda date, it will be considered at the following regularly scheduled meeting of the Authority. Please contact the Authority's office for information regarding the deadline date to be included on the agenda.

**EXHIBIT "A"**

Cherokee County Water and Sewerage Authority

Project Ownership Form  
Sanitary Sewer System Facilities

The Developer understands that the Sanitary Sewer System for this project will be owned and operated by the Cherokee County Water and Sewerage Authority.

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Project Number: \_\_\_\_\_

Developer's Name: (Print)  
\_\_\_\_\_

Developer's Signature:  
\_\_\_\_\_

Chief Inspector's Signature:  
\_\_\_\_\_

Date: \_\_\_\_\_