

## **WATER AND WASTEWATER SYSTEMS DEVELOPMENT PROCEDURES**

### **Terms Defined in Order of Appearance:**

Developer:	Owner
JWSC:	Brunswick-Glynn County Joint Water and Sewer Commission
CDD:	Glynn County Community Development Department
CO:	Certificate of Occupancy
EPD:	Georgia Environmental Protection Division
GIS:	Geographic Imaging System
ZM:	Zoning Request
XS:	Expedited Subdivision
PP:	Preliminary Plat
SP:	Site Plan
CP:	Construction Plan
BPSP:	Building Permit Site Plan
FP:	Final Plat

### **Phase 1: Developer and JWSC.**

1. Developer, or his designee, acquires GIS Map of water/wastewater systems in project area from the JWSC. Discuss capacities available and receipt of JWSC Construction Standards and Specifications. Developer of private systems requiring EPD approval shall contact the CDD for processing. *(Prior to ZM or XS Phase)*
2. Submission of Preliminary Concept Drawing and Letter of Intent. *(Start of ZM, PP Phase):*
  - a. Submit to JWSC preliminary water/wastewater concept drawing showing available utilities, locations, and proposed demands.
  - b. Submit to JWSC a letter of intent indicating whether the proposed water/wastewater systems will be of private or public ownership; dated and signed by the Developer. The letter of intent shall include the following if the Developer wishes to maintain the system ownership:
    - (1) Acknowledgment of responsibility for operation and maintenance of water/wastewater systems within the development from the point of connection to the public system as identified on approved *Record Drawing*; and

- (2) Acknowledgment of the responsibility to maintain water quality and/or wastewater discharge quality and non-polluted wastewater discharges within tolerances dictated by federal, state, and local laws and JWSC standards.
- c. If at any time the Developer's intent changes from private to public utility systems, then the Developer shall submit a revised letter of intent requesting consideration to make the system public, and acknowledge that any upgrades necessary to meet JWSC standards prior to dedication and acceptance will be at the Developer's sole expense.
3. JWSC will review/approve preliminary water/wastewater concept drawing of proposed systems to the extent such systems are intended to be public systems, and confirm capacities in writing to the CDD. JWSC may recommend conditions to Glynn County on zoning cases regarding required improvements. *(Prior to ZM or XS Phase)*
4. Developer, or his designee, shall submit to the CDD Intake Desk or City Engineer, as applicable, who will then submit to the JWSC, detailed water/wastewater construction plans, showing properties and/or lots to be served, any proposed easements, and a report showing calculated demands. *(Start of CP, BPSP Phase)*
5. JWSC will review/approve construction plans as to public connections and water/wastewater systems to the extent the Developer has identified his intention, by the submission of a letter of intent, as to whether the system(s) is to be publicly or privately owned and operated. Water/Wastewater plans approved by the JWSC will be submitted to the CDD for submission to the EPD, as required. Additionally, the Developer, or his designee, shall submit to the CDD an electronic file compatible with JWSC GIS of the water/wastewater infrastructure of all plans pertaining to the EPD submission. The CDD shall forward the electronic file to the JWSC. The CDD shall notify the JWSC, in writing, upon EPD approval. *(CP, BPSP Phase)*
6. If the development project is one hundred percent (100%) bonded, then the engineer's estimate of probable costs shall be submitted to the JWSC by CDD for review. The JWSC will provide to the CDD, in writing, its concurrence or any required modification(s) to the plans.
7. If there is any modification of construction plans or the FP which affects the water/wastewater infrastructure then the Developer, or his designee, shall resubmit detailed construction plans by following the requirements of Paragraph 4, above.

## **Phase 2: Developer, Contractor and JWSC.**

1. Preconstruction meeting with Developer, Contractor, JWSC, CDD, and Glynn County Engineer, as applicable. Prior to the meeting, the Developer shall provide to the CDD eight (8) sets of construction plans, as approved by the JWSC, Glynn County or City of Brunswick, as applicable.
2. Construction of water/wastewater systems in conjunction with periodic inspections by the JWSC, as appropriate for intended public or private utility system ownership.
3. Developer, or his designee, notifies the JWSC when preliminary testing of piping systems is complete. A date and time may be set for JWSC to witness a test of the utility systems. Testing requirements for water/wastewater systems to be dedicated for public ownership differ from those for private ownership.
4. Scheduling of water/wastewater systems testing by Developer, or his designee, with the JWSC (i.e., testing water system pressure, water quality, sewer force main pressure, gravity sewer low pressure air, manhole vacuum, mandrel, lift station pump, and leaks, as applicable).
5. Developer, or his designee, submits *Preliminary Record Drawing* of installed gravity wastewater systems to CDD Intake Desk. On the day of submission, the CDD will notify the JWSC Planning and Construction Division that such Drawing has been submitted by the Developer. If applicable, lift station and force main components should be included in the *Preliminary Record Drawing*, if installed; otherwise, these wastewater system components shall be provided on the *Record Drawing* submission. Developer, or his designee, shall provide vehicle access to manholes at all times necessary for JWSC inspection activities.

## **Phase 3: Coordination Between Developer and JWSC Systems Pumping and Maintenance Division and Planning and Construction Division.**

1. Planning and Construction Division delivers the *Preliminary Record Drawing* to the Systems Pumping and Maintenance Division for implementation of gravity sewer confirmation process and development of defect list (punch list). The System Pumping and Maintenance Division will begin the confirmation process within three (3) working days of receiving said drawings unless prohibited by weather conditions. The intensity and scope of the confirmation process varies depending on the proposed ownership of the water/wastewater systems.
2. Inspection of Water/Wastewater Systems:
  - a. If the wastewater system is to be publicly owned and operated, then the System Pumping and Maintenance Division will televise the gravity

wastewater system to determine system integrity and to confirm line slopes and the location of all manholes, mains, services and service line clean-outs/stub-outs at properties to be served; and, if provided on the *Preliminary Record Drawing*, lift station and/or force main components will be included in the confirmation process.

- b. If the wastewater system is to be privately owned and operated, then the System Pumping and Maintenance Division will perform an above ground physical inspection of the system to confirm the correctness of manhole/line locations and depth, and test the system for water tightness for compliance with allowable standards of infiltration and inflow at or near the connection to the public system.

During this process, a list may be developed by the operational staff showing wastewater system defects, issues of non-compliance with standards and/or drawing errors/omissions that require correction, and re-verification prior to the submission of the *Record Drawing* for Final Inspection.

3. Systems Pumping and Maintenance Division submits a report to the Planning and Construction Division of *Preliminary Record Drawing* approval or defect list and any issues requiring correction in the wastewater system or on the drawings found during the confirmation process. The report will include a written approval or a summary of defects for posting to CDD project files and tracking software.
4. Planning and Construction Division notifies the Developer, or his designee, of all defects to be corrected on the wastewater system and/or submitted *Preliminary Record Drawing*, if applicable. A meeting between the Developer, or his designee, and the JWSC Systems Pumping and Maintenance Division to review wastewater line videos showing defects to be repaired is encouraged and should be scheduled through the JWSC Project Inspector.
5. Developer, or his designee, notifies the Planning and Construction Division when the defect list, and any required edits of the *Preliminary Record Drawing*, have been completed. If drawing edits are required, then one (1) paper copy of the corrected version of the *Preliminary Record Drawing* shall be submitted to the CDD Intake Desk and forwarded to the JWSC.
6. System Pumping and Maintenance Division confirms system defect corrections and/or drawing edits, and reports its findings to the Planning and Construction Division. Confirmation of corrections shall commence within three (3) working days of the notification by the Planning and Construction Division unless prohibited by weather conditions.
7. Planning and Construction Division confirms the System Pumping and Maintenance Division approval of corrections, or, if defects still exist, advise the

Developer, or his designee, to re-start the procedure at Step 4, above. Steps 4 through 7 shall be repeated as often as necessary until such time as system integrity and *Preliminary Record Drawing* correctness are confirmed, in writing, by the Systems Pumping and Maintenance Division. All defect list items and drawing edits to the *Preliminary Record Drawing* shall have been corrected and approved during this time and made a part of the *Record Drawing* to be submitted regardless of whether the water and wastewater systems are to be publicly or privately owned.

8. If a wastewater lift station or water pumping/storage facility is included in the project, then the inspection and functionality testing of the facility shall be scheduled by the Developer, or his designee, with the Planning and Construction Division. The Planning and Construction Division schedules the inspection and testing with the Systems Pumping and Maintenance Division and notifies the Developer, or his designee, of the date and time. Lift station and/or water pumping/storage facilities inspection, testing and approval shall be completed prior to submission of the *Record Drawing*.
9. Developer, or his designee, submits to the CDD Intake Desk a *Record Drawing* of the installed water and/or wastewater systems and a written request for Final Inspection. For proposed public systems, any utility line easement(s) and any area(s) intended to be dedicated for wastewater facilities shall be shown on the *Record Drawing*. (*Start of FP, Bonding Reduction, and CO Phase*)
10. CDD and Planning and Construction Division coordinates scheduling of the Final Inspection with the Developer, or his designee, to include JWSC operational staff. A final inspection of water/wastewater systems is required on both proposed private and public systems.
11. Planning and Construction Division delivers one (1) copy of the *Record Drawing* to the Water Distribution Division Superintendent and one (1) copy to the Systems Pumping and Maintenance Division Superintendent for field use during the Final Inspection.
12. Final Inspection of the water/wastewater systems is conducted. The inspection entails field confirmation of all water/wastewater system components not previously confirmed and approved during the *Preliminary Record Drawing* process, and includes the following:
  - a. Confirmation of water system component functionality, location, and water quality; and
  - b. Confirmation of wastewater system components, such as force main and air release valves not shown on the *Preliminary Record Drawing*.

- c. If applicable, water/wastewater easements and/or real property intended for public ownership, as shown on the *Record Drawing*, is field verified for placement and size.

When wastewater system components previously confirmed and approved during the *Preliminary Record Drawing* process are found to be damaged or moved, they will be included in any defect list generated during the Final Inspection process. The Final Inspection process is performed on the water/wastewater systems regardless of whether the systems are proposed for private or public ownership.

13. Upon completion of the Final Inspection, the water and wastewater systems are determined to be either compliant or non-compliant.
  - a. Compliant: JWSC operational superintendents and project inspector endorse a JWSC statement on the *Record Drawing* to that effect.
  - b. Non-compliant: A report of defects is presented to the Developer, or his designee, and the process reverts to Step 9, above, to address the defect list and any additional defects that may occur in the interim.

Steps 9 through 13 shall be repeated as necessary until all water and/or wastewater systems are determined to be compliant.

**Phase 4: Dedication and Acceptance of Water/Wastewater Systems (not applicable to private systems).**

1. Once the *Record Drawing* has been approved as compliant with the applicable standards, the Developer may submit to the JWSC Executive Director or his designee for his consideration the following, as applicable:
  - a. Water/Wastewater Systems Dedication Application.
  - b. Proposed easement(s) and/or fee simple deed(s), as applicable, to include a metes and bounds description of the property to be dedicated; except that proposed easement(s) in a residential subdivision shall not require a metes and bounds description but shall be described as set forth in Subparagraph d, below.
  - c. A survey in recordable form, signed and dated by a duly licensed surveyor, depicting the metes and bounds description stated in Subparagraph b, above.
  - d. For residential subdivisions, a *Record Drawing* depicting the location of the water/wastewater systems, the distances of such infrastructure from

all property lines, and the width of the easement(s). Each *Record Drawing* shall bear reference to the plat of survey utilized in the *Record Drawing* for the proposed easement(s), and shall be signed and dated by a duly licensed surveyor.

Failure to provide any of the above required documents, as applicable, or to complete the Application in full will result in rejection of the Application by the Executive Director or his designee.

2. The Executive Director or his designee forwards the documents submitted by the Developer in Paragraph 1, above, to JWSC legal counsel for review and comment.
3. JWSC legal counsel advises the Executive Director, in writing, as to legal form of the easement(s) and/or deed(s) presented for dedication.
4. The Executive Director places the acceptance of the dedication on the next regular meeting of the Commissioners of the JWSC for their consideration and recommendation to the appropriate governing authority as to whether the dedication for public use and/or ownership should be accepted or rejected.
5. After consideration by the Commissioners of the JWSC, the Executive Director or his designee forwards all applicable documents, along with the Commission's recommendation, to the appropriate governing authority for their consideration to either accept or reject the dedication for public use and/or ownership.
6. The Executive Director or his designee notifies the Developer, or his designee, in writing by letter or electronic mail, of the recommendation of the Commissioners and that the matter and all applicable documentation have been forwarded to the appropriate governing authority for final action.
7. Upon notice from the appropriate governing authority of their acceptance of the easement and/or deed of dedication to public use and/or ownership, the Executive Director or his designee shall cause the easements and/or deeds to be recorded in the public records of the Clerk of Superior Court of Glynn County.
8. JWSC Executive Director or his designee confirms receipt of all required documentation, (i.e., properly stamped *Record Drawing*, filed easements/deeds, and any conditional documentation associated with the project. The Executive Director advises operational division superintendents in writing of system operation and maintenance responsibilities, and confirms the placement of *Record Drawing* and other associated documentation in the JWSC System Records Repository.

## **Phase 5: Two Year Warranty Period Following Recording of Final Plat.**

1. The two (2) year warranty agreement is filed with the CDD Intake desk with the corrected version of the final plat that is to be recorded after approval by the Glynn County Board of Commissioners. The sum amounts of the water and wastewater infrastructure in the warranty agreement must be identified in individual line items.
2. For built projects, the warranty period begins on the date the final plat was recorded.
3. For bonded projects, the warranty period begins on the date the improvements are accepted as complete and approved for acceptance. This date shall be on or before the completion date in the warranty agreement. If the date is after the warranty period, the warranty agreement shall be amended to indicate the revised date. The two (2) year warranty period begins on the date the project is deemed complete and approved for acceptance.
4. Eleven (11) months into the warranty period, the CDD issues an inspection request to the JWSC in preparation for the one (1) year bond reduction.
5. JWSC operational divisions begin an above ground physical inspection within seven (7) working days of the request for inspection of all water/and wastewater utility appurtenances to confirm integrity and visibility of the system(s). Smoke testing of wastewater infrastructure, line televising, water quality testing, as well as other types of tests, may be performed as needed to identify problems encountered or suspected to have occurred since the Final Inspection of the systems and for acceptance.
6. JWSC inputs a post acceptance construction defect list into the CDD project management software system, as applicable. If there are defects, the Developer is required to correct the deficiencies prior to any bond reduction and, depending upon the number and nature of the deficiencies, the JWSC may recommend to the CDD that no bond reduction should be approved.
7. The Developer, or his designee, advises the JWSC through the CDD Intake Desk that all items on the post acceptance defect list have been corrected by requesting, either in writing or by electronic means, a reinspection.
8. Within seven (7) working days of the reinspection request, the JWSC begins the reinspection to confirm that the post acceptance defect list is complete, as applicable. The inspection results are entered into the CDD software system. JWSC notifies CDD of any outstanding issues preventing a bond reduction.

9. Two (2) months prior to the scheduled release of the remaining bond amount, CDD shall schedule a reinspection and steps 5-8 will be repeated, as required, prior to the release of the bond.

**End Document.**