

Bay County Utility Services Construction Process Guidance

PREFACE

All new development within the Bay County Utility Services (BCUS) Retail Systems service area must meet certain requirements. The document is to assist Developers and Contractors with scheduling and construction of water and sewer systems that will be owned and operated by BCUS after construction. Other County departments may have additional requirements and conditions that will need to be met prior to acceptance. This document is only a guideline and does not replace the most current edition of the “*Bay County Manual of Standards and Specifications for Water and Wastewater Construction*”.

I. PRE-CONSTRUCTION

A. Utility Availability

- a. The Developer, or the Developer’s representative, contacts BCUS to request a Letter of Availability (LOA) for a parcel(s). BCUS will provide a letter stating whether or not utilities are available, and other utility information that may be of use to the developer (i.e. line sizes, location).

B. New Development Preliminary Information Request

All new development should complete a BCUS Water and Wastewater New Development Preliminary Information Request form. It is recommended this be completed prior to BCUS approval FDEP for Water and/or Wastewater Construction Permits.

C. Capacity Analysis

- a. The County requires a capacity analysis to be completed for all new developments. The analysis is completed by the County, and will identify any potential offsite improvements to the water and wastewater systems that would need to be constructed at the Developer’s expense. The analysis fee is payable to the County and is based on the size of the development. It is recommended that the Developer initiate the analysis as early as possible in the planning process in order to avoid additional engineering design costs. If the Developer chooses to have their Engineer complete a predesign hydraulic model, the County will make the County’s data available by request from a Licensed in Florida Professional Engineer. The data request forms are available on the Bay County Utility Services Development Group website: <https://www.co.bay.fl.us/517/Permitting-Division>

D. Pre-Design Conference

- a. It is recommended that Developers should initiate a pre-design conference between themselves, their engineer, and the County.

E. Approved Construction Plans

- a. All development projects, which intend to connect to the County Utility System, are required to have construction plans approved by BCUS. Two (2) hard copies AND a digital copy (USB, .pdf, or direct download/link) of the design plans are required to be submitted to BCUS with both the Contractor's and Engineer's stamp/seal of approval. BCUS will review and return comments within ten (10) working days of receipt of the first submittal. BCUS will review and return comments within five (5) working days for any subsequent submittals.

F. Project Engineer provides design plans and review fees to BCUS.

G. If needed, BCUS provides mark-up plans and comments to Engineer.

H. If needed, Engineer provides final plans, with changes.

I. Permit Review

- a. All development projects, which intend to connect to the County Utility System, are required to have appropriate State and Federal permits approved by BCUS.

J. Project Engineer provides FDEP permits and review fees to BCUS.

K. Project Engineer coordinates with BCUS any other State (FDOT) or Federal permit requirements.

L. Project Engineer coordinates with Bay County Engineering Department for construction within a County-owned right-of-way.

- a. Note: FDEP permit applications and fees should be provided with the initial design plan submission.

M. Shop Drawing Submittal

- a. All materials installed as part of the water, sewer, and/or reuse utility systems, are required to be approved by BCUS prior to any construction. Two (2) hard copies AND an electronic copy (.pdf via USB drive, or direct download/link) of the material shop drawings are required to be submitted to BCUS with both the Contractor's and Engineer's stamp/seal of approval. BCUS will review and return comments within ten (10) working days of receipt of the first submittal. BCUS will review and return comments within five (5) working days for any subsequent submittals.

N. Pre-Construction Meeting

- a. It is the responsibility of the Developer's Engineer to schedule the pre-construction meeting with BCUS (minimum five (5) business days) prior to start of construction. The Developer's Engineer shall ensure the Contractor's Superintendent brings the approved "Issued for Construction" plans to the meeting for verification with BCUS that the plans are the official set. Failure to bring the approved plans will result in rescheduling the preconstruction meeting to a later date.
- b. The Developer's Engineer shall also bring one (1) additional 11 x 17 plan set for the BCUS Inspector. Any changes to the construction plans discussed at the pre-construction meeting will be noted on the Contractor's and Inspector's plans.

O. Unit Connection Fees

- a. The Unit Connection Fees will be presented to the Applicant or Representative within 14 days of the pre-construction meeting. The fees are required and calculated in accordance with the current County Fees and Fines Resolution, or subsequent revisions. BCUS requires payment of all fees in full prior to any meters being installed.

P. Telemetry Fees

Development projects, which include a lift station that will be dedicated to BCUS, are subject to Telemetry fees. The fees can be found in the most recent Bay County Schedule of Fees and Fines. The fees are due in full within 60 days after the re-construction meeting, or prior to the lift station start-up, depending on which occurs first.

II. CONSTRUCTION

The construction process has been outlined on the Checklist for New Developments. The Checklist will be completed by the Permitting Coordinator and provided to the Contractor at the pre-construction meeting. The Checklist identifies which milestone items pertain to each specific project.

A. Inspection and Testing

BCUS has several mandatory inspections, all of which require the presence of the Contractor, Developer's Engineer, and BCUS Inspector. The Developer shall request a BCUS inspection by contacting the project Inspector directly, or by contacting the Utility Permitting Department.

Mandatory inspections are as follows:

- Connection to the Utility System
- Flushing Test
- Pressure Test
- Gravity Sewer – mandrel, air, and video testing
- Locate Wire Test
- Lift Station Start-Up
- Preliminary and Final Walk-Through

Note: BCUS requires a minimum of a 48-hour notice, or (2) two business days, prior to scheduling a mandatory inspection.

1. Connection to the Utility System

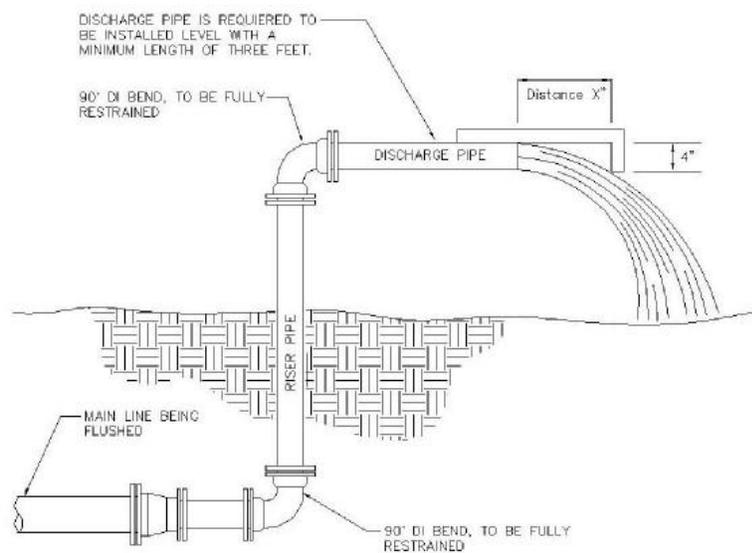
BCUS inspection of system connections is mandatory. Failure to schedule connections will, at minimum, require Developer/Contractor to uncover and expose the connection for inspection, at the sole cost of the Developer/Contractor, or potentially require a new connection to be performed.

If the connection requires an existing water system to be shut down, the contractor shall coordinate with the BCUS Inspector to schedule a time/date approved by BCUS. BCUS reserves the right to reject proposed plans to shut down systems for connections if it is determined to have a significant technical and/or customer impact concern. In these cases, alternative methods for connection will need to be prepared by the Engineer of Record, approved by BCUS, and constructed at the cost of the Developer.

A BCUS Inspector must be present at the project site prior to the construction work commencing. BCUS personnel shall be responsible for operation of all isolation valves.

2. Flushing of All Pressure Mains (PVC, HDPE and Ductile Iron)

Prior to pressure testing and placing into service, sections of installed pressure mains (water, sewer, reuse) smaller than 12-inch diameter shall be flushed (full diameter) to remove any solids or contaminated material that may have become lodged in the pipe. If no hydrant is installed at the end of a water main, then a blow-off valve of adequate size shall be provided to develop a velocity of at least 2.5 feet per second in the main. A typical flushing detail is shown below.



All taps required for chlorination or flushing purposes, or for temporary or permanent release of air, shall be provided for by the Contractor as a part of the construction of water mains. After disinfection, all taps shall be sealed to the satisfaction of the BCUS Inspector.

The Contractor and the Engineer of Record shall submit a flushing plan to the Inspector for review.

All flushing piping should be installed prior to scheduling the flushing inspection. The Contractor should take precautions to minimize anticipated damage to nearby surface features and plan for storage of the discharged water and path of travel. The discharged water is not allowed to enter private property or enter any surface waters. If the discharged water is not controlled to the BCUS Inspector's satisfaction, the BCUS Inspector may terminate the test at any time.

The BCUS Inspector will be responsible for contacting the water treatment plant operators to verify that the flushing test will not adversely affect the treatment facilities. Flushing operations may be required to be performed at night during low demand periods at no additional cost. A BCUS representative shall be present during all flushing activities.

All pipes 12-inches and larger shall require pigging or swabbing, in lieu of flushing, to clean the line. Pigging/swabbing may also be required in areas where the required flushing velocity cannot be achieved.

Reuse Water (if available) may be used to flush reuse or sewer lines in lieu of potable water only with prior approval by BCUS and FDEP.

3. Pressure and Leakage Testing

a. PVC and Ductile Iron Piping

General: Hydrostatic testing shall consist of a pressure test and leakage test. Hydrostatic tests shall be conducted on all newly installed pressure pipes, joints, hydrants and valves, including all service lines to the curb stops. Air testing of pressure pipes shall not be permitted under any circumstances. Tests shall be made on sections not exceeding 1,000 feet. Contractor shall furnish all closure pieces in the pipe as required. Equipment to be furnished by the Contractor shall include graduated containers, pressure gauges, hydraulic force pumps, and suitable hoses and piping. BCUS, or its designated representative, shall monitor and approve a satisfactory test. The basic provisions of the AWAA C-600 shall apply to ductile iron pipe and AWWA C-605 shall apply to PVC pipe.

The Contractor may conduct hydrostatic tests after the trench has been partially backfilled with the joints left exposed for inspection. The hydrostatic tests for acceptance shall only be conducted after the trenches have been completely backfilled and compacted as specified.

Testing Criteria: All pipe section to be pressure tested shall be subjected to hydrostatic pressure equal to the pressure rating printed on the pipe. At a minimum, water mains will be tested at 150 psi, force mains at 100 psi, and reclaimed water mains at 150 psi. If there are multiple pressure rated pipes or pipe materials on the project, it will be the Contractor's responsibility to isolate the different pipes from each other. The duration of each pressure test shall be for a period of two (2) hours. If during the test the integrity of the tested line is in question, BCUS may require other pressure tests at no expense to BCUS. All line valves shall be hydrostatically tested for 15 minutes to ensure tight seal when closed.

Procedure for Pressure Test: Each section of pipe to be tested, as determined by BCUS, shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. It shall be standard practice to verify that the isolation valves for fire hydrants on potable water systems are in the open position prior to hydrostatic testing to verify that the operating valves on newly installed hydrants do not leak. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made and appropriate valves installed to ensure bleeding of all air from the main. If defective pipes, fittings, valves, or hydrants are discovered during the pressure test, all such items shall be removed and replaced by the Contractor with BCUS approved material and the test shall be rescheduled and repeated until satisfactory results are obtained. BCUS does not guarantee that existing system valves will hold pressure under pressure testing conditions. Contractors are recommended to perform pressure testing prior to permanent connection to system stub-outs. In no case will a pressure loss greater than 5 psi, during any two-hour test, be

accepted. Prior to scheduling the BCUS-witnessed pressure test, the Contractor shall preliminarily test the main to ensure it will pass when the BCUS Inspector, or representative, is present.

b. HDPE Piping

General: Hydrostatic testing shall consist of a pressure test and leakage test. Hydrostatic tests shall be conducted on all newly installed pressure pipes, joints, hydrants and valves, including all service lines to the curb stops. Air testing of pressure pipes shall not be permitted under any circumstance. Tests shall be made on sections not exceeding 1,000 feet. The Contractor shall furnish all necessary equipment and material, make all taps, and furnish all closure pieces in the pipe as required. Equipment to be furnished by the Contractor shall include graduated containers. Pressure gauges, hydraulic force pumps, and suitable hoses and piping. BCUS, or its designated representative, shall monitor and approve a satisfactory test. The basic provisions of ASTM F2164 “*Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure*” shall apply.

Testing Criteria: All pipe sections to be pressure tested shall be subjected to a hydrostatic pressure equal to the pressure rating printed on the pipe. At a minimum, water mains will be tested at 150 psi, force mains at 100 psi, and reclaimed water mains at 150 psi. If there are multiple pressure rated pipes or pipe materials on the project, it will be the Contractor’s responsibility to isolate the different pipes from each other. The duration of each pressure test shall be for a period of two (8) hours including time to pressurize, time for initial expansion, time at test pressure, and time to depressurize the test section. If during the test the integrity of the tested line is in question, BCUS may require other pressure tests at no expense to BCUS.

Procedure for Pressure Test: Each section of pipe to be tested, as determined by BCUS, shall be slowly filled with water and the specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made and appropriate valves installed to ensure bleeding of all air from the main. During the initial expansion phase, gradually pressurize the test section to test pressure and maintain the test pressure for two (2) hours while continuing to add water to the test section to account for the expansion of the pipe. If defective pipes, fittings, valves, or hydrants are discovered during the pressure test, all such items shall be removed and replaced by the Contractor, at no expense to BCUS, with approved material, and the test shall be repeated until satisfactory results are obtained. BCUS does not guarantee that existing system valves will hold pressure under pressure testing conditions. Contractors are recommended to perform pressure testing prior to permanent connection to system stub-outs. Prior to scheduling the BCUS-witnessed pressure test, the Contractor shall preliminarily test the main to ensure it will pass when the BCUS Inspector is present.

4. Disinfection of New Water Mains

Following final flushing and chlorination, water samples shall be collected on two (2) successive days from the treated piping system as directed by the BCUS Inspector and shall show acceptable bacteriological results. At least one set of samples shall be collected from every 1,200 feet of the new water main, one set from the end of the line, and one set from each branch. All bacteriological testing shall be performed and paid for by the Contractor. All such bacteriological analysis shall be performed by a laboratory certified by the State of Florida (FDEP).

Proper chain of custody procedures shall be followed and samples shall only be collected by certified laboratory personnel. Copies of testing results, and all related correspondence with FDEP, shall be submitted to BCUS.

Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the Contractor until satisfactory results are obtained at no additional expense to BCUS.

5. General Field Inspection

The Developer's water, wastewater, and/or reuse systems, shall be installed in accordance with the engineering plans and specifications approved by BCUS. BCUS shall have the right, but not the obligation, to make inspections as installation progresses. The inspectors shall maintain field notes of any general field inspection performed.

6. Lift Station Startup

All lift stations, which shall be BCUS-owned and maintained, shall undergo a full startup test prior to acceptance by BCUS. Upon completion of installation, the Contractor shall perform an operational test of the system, in the presence of the BCUS Inspector and a representative of the manufacturer, to ensure that all component parts meet the specifications. The Contractor will schedule a pre-startup meeting with the BCUS Inspector.

The BCUS Inspector shall be responsible for completing the BCUS Lift Station Startup Report. The Contractor shall be responsible for providing the Manufacturer's Startup Report, which shall include the appropriate pump curve for the station. Appropriate O&M manuals for the equipment shall also be provided by the Contractor at the startup. Please note that the BCUS Startup Report and the Manufacturer's Startup Report cover different material and both reports are required for the acceptance of the lift station.

The central power must be available to perform the startup test.

7. Walk-Through Inspection

Prior to requesting a walk-through, the Contractor is responsible for completing all testing of the proposed utility system and submitting the Preliminary As-Built drawings to BCUS. The walk-through requirement form must be signed by the Engineer of Record and the Contractor prior to the walk-through. Signing this states that the development is ready for final inspection. The walk-through will not take place without this signed form.

Upon completion, BCUS will provide the Contractor with an itemized punch list, if necessary, to complete the project. However, BCUS reserves the right to request further items until the project's final acceptance by the County. Prior to the walk-through inspection, the Contractor is responsible for the following:

- Ladder
- Fire hydrant wrench
- Valve key
- Curb Stop key

- Personnel to operate all items

Sanitary Sewer Items:

- Manhole lids marked “Bay County Sanitary Sewer”
- Lids cleaned of asphalt and dirt
- Inside of manholes must be properly concreted with smooth flow channels
- Inside of manholes must be coated with bituminous waterproofing material
- Inverts completed and cleaned of debris
- Curb etched and painted green to show location of sewer service lateral
- Cleanouts need to be located 5 feet inside private property and 18 inches above grade

Public Fire Hydrants:

- Paint orange
- Place blue reflector on centerline of roadway to show location of hydrant
- Grease hydrant caps
- Isolation valve cap to fire hydrant is to be painted blue

Private Fire Hydrant:

- Paint orange
- Place blue reflector on centerline of roadway to show location of hydrant
- Grease hydrant caps
- Isolation valve cap to fire hydrant is to be painted blue

Water, Force Main, and Reuse Valves:

- Valve jackets to be flush with grade
- Curb etched and painted blue for water, green for sewer, and purple for reuse, to show location
- Valve box cap painted blue for water, green for sewer, and purple for reuse
- 24” x 24” x 6” concrete pad around all valves

Water and Reuse Services:

- Meter box flush with grade level
- Curb stop facing up with no poly visible in box
- Curb etched and painted blue for water and purple for reuse to show location

B. Preliminary As-Builts

Preliminary As-Builts conforming to Part III of the *Bay County Manual of Standards and Specifications for Water and Wastewater Construction* and Part III, Section K, of this manual shall be submitted **directly to BCUS** prior to a walk-through inspection.

C. Construction Water Meters and Permanent Water and Reuse Meters

BCUS shall not provide water for construction on an unmetered basis. All charges, including all minimum charges for water service, shall be paid by the Developer from the date of meter installation in accordance with BCUS’s approved rate schedule. A construction hydrant meter can be made available upon request at the BCUS Billing Office. The meter will be installed by BCUS personnel at an existing hydrant preferable to the Contractor. A refundable deposit will be required for the installation. Contractors found to be using unmetered water shall be fined by Code Enforcement.

No permanent meters will be released until the following closeout documents/procedures have been received/completed:

- BACT's
- Drill Logs (if applicable)
- Sewer video on USB drive, including report
- Lift station startup report (if applicable)
- As-Builts required for walk-through
- Walkthrough inspection report
- FDEP Clearance for Water and Sewer
- Original Warranty
- Original Release of Lien
- Original Bill of Sale
- Original Schedule of Values
- Easement Documents (if applicable)
- Final As-Builts, together with CAD and an electronic copy (.pdf via USB drive, or direct download/link)
- As-Builts have been transferred to Bay County GIS mapping system

D. Common Area Meters

Engineer of Record shall provide a map of the development's common areas needing irrigation and an address for each meter. Addresses shall be obtained from 911 (GIS) Addressing prior to applying for a common area meter.

III. CLOSEOUT AND DEDICATION

A. Inspection Reports

Inspector sends copies of reports to the Contractor and Engineer of Record after each inspection. It shall be the Contractor's responsibility to keep a copy of all tests reports performed on the system. The reports shall include, but not be limited to, water system bacteriological testing, sewer system video log with electronic minimum, pressure testing, flushing of mains, and lift station startup reports. Transfer of power account to Bay County is to be initiated by the Contractor following conveyance of systems to the County. The most current power bill is required.

B. FDEP Completion of Construction

Prior to placing any new water main, or any portion of a new sewer system into service, the appropriate Certificate of Completion form shall be submitted through BCUS and approved by FDEP in accordance with Chapters 62-555 and 62-604, FAC.

Construction of all water, sewer, and reuse facilities, shall be completed per phasing schedule set on the approved construction plans. Partial clearances not coinciding with the construction plans shall not be commonly accepted and will be approved on a case by case basis.

Certifications of Completion forms shall be submitted to the BCUS Utility Permitting Department with all sections of the form completed and signed. All testing and punch list items shall be completed prior to BCUS approval of the Certification of Completion.

BCUS will typically require that the potable water and sewer systems are certified simultaneously. In certain instances, BCUS will entertain certification of the potable water system separate from the sewer system. However, in these limited cases, no meters will be released for a potable water system until both the potable water and sewer system have been certified.

C. RPZ Backflow Certification

A Reduced-Pressure Zone (RPZ) Backflow Prevention Device shall be installed by a licensed plumber and certified by a certified backflow assembly tester approved by the State of Florida. The meter will be installed and will remain locked until the Backflow Prevention Test Report is received and approved by the Cross-Connection Control Specialist at BCUS Administration office. BCUS has adopted the testing procedure from the University of Florida TREEO Center.

D. Utility Construction Values

The Contractor shall be responsible for providing BCUS a schedule of values for all parts of the Developer's utility system which will be dedicated to BCUS. The schedules of values are required to be completed on the standard BCUS forms and shall be indicative of the installed value of the system (i.e. materials and installation labor).

E. Release of Lien

The Contractor shall provide BCUS a release of lien in the amount of the total listed in the Schedule of Values. The Release of Lien shall be signed and notarized. The original signed document must be provided to BCUS.

F. Bill of Sale

The Developer (Owner) of the utility system shall provide BCUS a Bill of Sale. The Bill of Sale shall be signed and notarized. The Bill of Sale cannot be accepted by BCUS until the Developer (Owner) owns the utility system free and clear of any outstanding bills. BCUS must receive the Release of Lien from the Contractor prior to accepting the Bill of Sale. The original signed document must be provided to BCUS.

G. Warranty Letter

Developer shall warrant his extension and hold County harmless against all costs, expenses and losses, including, without limitation, incidental and consequential damages resulting from any defects in the Developer's extension, including, without limitation, defects in design material and workmanship, which are discovered or arise within a period of one (1) year following the date of Final Acceptance by the County. Developer shall provide an original of this letter to BCUS.

H. Operation and Maintenance Manuals

The Manufacturer's Operation and Maintenance Manuals are required to be provided at the startup of all lift stations which are being dedicated to BCUS.

I. Easement Documentation

In cases where an easement is required, the following procedure shall be followed. Prior to BCUS providing service to the development. The Developer shall execute a grant, or grants of easement, in recordable form to be recorded by BCUS. Generally, this shall be in the form of a sketch and legal description of the easement prepared by a Professional Land Surveyor. The easement should **not** be recorded by the Developer/Owner. The Developer shall provide all easement documentation to BCUS for approval.

The easement conveyance document shall be completed without modification and returned to BCUS along with Attachment "A". Attachment "A" shall be a full sketch and legal description or survey of the subject easement property.

Following BCUS approval, it shall be the responsibility of BCUS to forward the easement documentation to the County Administration for approval and submission to the Board of County Commissioners to be recorded in the public records of Bay County, Florida.

J. Warranty Deed for Lift Station Sites

Prior to BCUS providing service to the development, the Developer shall execute a Special Warranty Deed for any lift station property where said lift station will be owned and maintained by BCUS. This shall be in the form of a sketch and legal description of the real property prepared by a Professional Land Surveyor. The Special Warranty Deed should **not** be recorded by the Developer/Owner. The Developer shall provide all Special Warranty Deed documentation to BCUS for approval. Said document shall be executed and returned to BCUS **unrecorded** for approval.

The Special Warranty Deed conveyance document shall be completed without modification and returned to BCUS along with Attachment "A". Attachment "A" shall be a full sketch and legal description or survey of the subject Lift Station property.

Following BCUS approval, it shall be the responsibility of BCUS to forward the Special Warranty Deed documentation to the County Administration for approval and submission to the Board of County Commissioners to be recorded in the public records of Bay County, Florida.

K. Final As-Built Drawings

As-Built drawings should be furnished as outlined in the *Bay County Manual of Standards and Specifications for Water and Wastewater Construction, Volume 1 Section 1: Policies and Procedures, 1.35, Record As-Built Drawings*, along with the following criteria:

1. As-Built drawings shall be based on all engineering design drawings as released for construction and shall include all detail sheets and depict any deviations. Redrafting for the purpose of As-Built drawings will not be accepted unless specifically approved by BCUS. As-Built drawings shall match the approved plat.
2. Each sheet must be labeled "AS-BUILT". The following references must be depicted on As-Built drawings:

- a. Station Numbers with Offsets
 - b. Ties
 - c. Lot Numbers
 - d. Street Names
 - e. North Arrow
 - f. Scale
 - g. Location, horizontal datum/bearing basis, elevations (if any), vertical datum of elevations, benchmark used, and government published original benchmark
 - h. Easements as shown on approved paving and drainage drawings
3. As-Built drawings must be prepared and certified by a Florida Registered Land Surveyor and shall include:
- a. Type of As-Built survey (Water, Sewer, Both, etc.)
 - b. Surveyor's name, address, and phone number
 - c. Legend
 - d. Last field date of survey
 - e. Registration number, and/or licensed business number/certification of authorization, should be included on the drawing and shall be placed on the certification block of each drawing sheet.
4. Locations, elevations, sizes, types, and materials of the following must be accurately shown and labeled (as applicable) on the As-Built drawings:
- a. Manholes (including specialty lining material, pipe invert, manhole rim, and bottom elevations)
 - b. Water and Force Main valves
 - c. Water and Sewer services
 - d. Fire Hydrant and all associated structures
 - e. Fittings
5. All water and sewer mains must be identified on the As-Built drawings by their function, size, and material. Horizontal locations and top of pipe elevations must also be labeled every 100 linear feet.
6. As-Built drawings for pump stations shall include the following:
- a. Wet well size and location indicated and located to property lines and/or right-of-way lines
 - b. Elevations indicated at inverts, wet well top and bottom and at ground adjacent to wet well
 - c. All types and sizes of lines and fittings
 - d. All schedules that show pump, motor, and electrical data are corrected to show the As-Built condition
 - e. The following located within the pump station boundaries: water spigot and TPZ, wet well, emergency pump-out, control panel, bends, fittings, manholes, fence, and auxiliary electrical enclosures, as applicable
7. A preliminary printed copy of the final record drawings shall be provided by the Contractor to BCUS for approval and verification that all required information has been provided.
8. Upon approval of the final record drawings by BCUS, the Contractor shall provide the following:
- a. Two (2) signed and sealed hard copies of the As-Built/Record Survey by a Florida Professional Land Surveyor/Mapper
 - b. A .pdf copy of the As-Built/Record Survey exported directly from AutoCAD or its native program

- c. An AutoCAD .dwg file containing the spatially identical survey data used to generate the aforesaid hard copy and .pdf. All features must be survey-grade spatially accurate based on the Florida State Plane Coordinate System (SPC North Zone 903) to reflect what has been installed in the field
9. In addition, ALL OTHER REQUIREMENTS listed in the *Bay County Manual of Standards and Specifications for Water and Wastewater Construction, Volume 1 Section 1: Policies and Procedures, 1.35, Record As-Built Drawings*, will also apply.

L. FDEP Completion of Construction

Prior to placing any new water main, or any portion of a new sewer system into service, the appropriate FDEP Certificate of Construction Completion and Place into Operation form shall be submitted through BCUS and approved by the FDEP in accordance with Chapters 62-555 and 62-604, FAC.

Construction of all water, sewer, and reuse facilities shall be completed per phasing schedule set on the approved construction plans. Partial clearances not coinciding with the construction plans shall not be commonly accepted and will be approved only on a case by case basis.

Certifications of Completion forms shall be submitted to the BCUS with all sections of the form completed and signed. All testing and punch list items shall be completed prior to BCUS approval of the Certification of Completion. BCUS will typically require that the potable water system and sewer systems are certified simultaneously.

M. Final Acceptance

Final acceptance by BCUS of the completed County-owned and/or operated water, wastewater, and/or reclaimed water system, shall occur at such time as the Developer has met all of the requirements of the *Bay County Manual of Standards and Specifications for Water and Wastewater Construction* and all required engineering submittals have been completed and approved by BCUS.