

COLLIER COUNTY GOVERNMENT

In Collier County, utilities engineering responsibility is shared by the Public Utilities Department and the Growth Management Department. The Planning and Project Management Division of the Public Utilities Department (PPMD) performs water and wastewater network capital planning functions and provides regulatory oversight of system capacity concerns. This part of the process relates to zoning, growth management plan amendments, and utility system concurrency. The Development Review Division of the Growth Management Department reviews planning and development applications for conformance to the Collier County Utilities Standards and Procedures Ordinance (2004-31, as amended), the Collier County Water-Sewer District Utilities Standards Manual (USM), any development commitments within the zoning document (where applicable), and applicable state codes and standards.

ABOUT THIS GUIDEBOOK

The Collier County Growth Management Department wants to provide customers the best possible experience during the review process for each land development project. The purpose of this Engineering Utilities Guidebook is to provide applicants and their professional practitioners with guidance for producing complete design and construction documents conforming to local standards prior to initial submittal of development applications. The guidebook will also assist with informing the applicant of the review, approval, construction, inspection, utilities conveyance and acceptance processes. This guidebook highlights the primary utility planning and design considerations for typical development projects. This guidebook applies to projects within the Collier County Water-Sewer District water and/or sewer service areas in particular and the unincorporated area outside the city limits of Naples, Marco Island, and Everglades City in general.

This is only a guidebook and does not establish utilities standards or procedures. This document does not influence requirements of the County's Land Development Code, Administrative Code, Code of Ordinances, or other standards. The information contained in this guidebook is not all-inclusive and has only been provided to assist the developer / designer with the permit application and design review process. More information, resources, and links to applicable standards are available online at the Collier County Government web page found at www.colliergov.net. For questions or to request further information, please contact the Collier County Growth Management Department at (239) 252-2400.



LOCATION

The first step in the utility design process is to determine the service area in which the project is located. Once the service area is determined, existing utilities information can be requested from the applicable service provider. Service area maps for Collier County, shown on pages 3-4, are provided on the County web site. If your project is not located within the Collier County Water-Sewer District service boundary, please refer to the applicable service provider contact information listed below.

NON-COUNTY SERVICE PROVIDERS

- City of Naples (239) 213-5051 www.naplesgov.com
- Everglades City (239) 658-3781
- Florida Governmental Utility Authority (FGUA) (239) 455-1583 www.FGUA.com
 - Immokalee Water & Sewer District (239) 658-3630 www.iw-sd.com
 - Marco Island (239) 389-5181 www.CityofMarcolsland.com
 - Orange Tree Utility Company (239) 596-4088
 www.orangetreeutility.com
 - Ave Maria Utility Company (239) 348-0248 www.AMUC.com

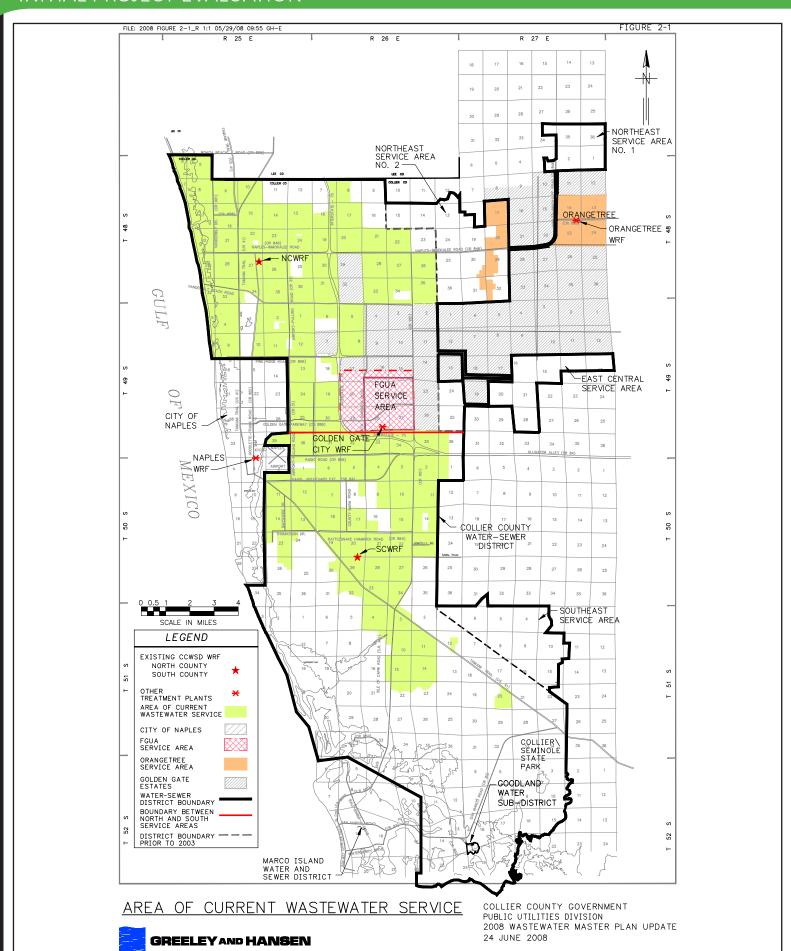


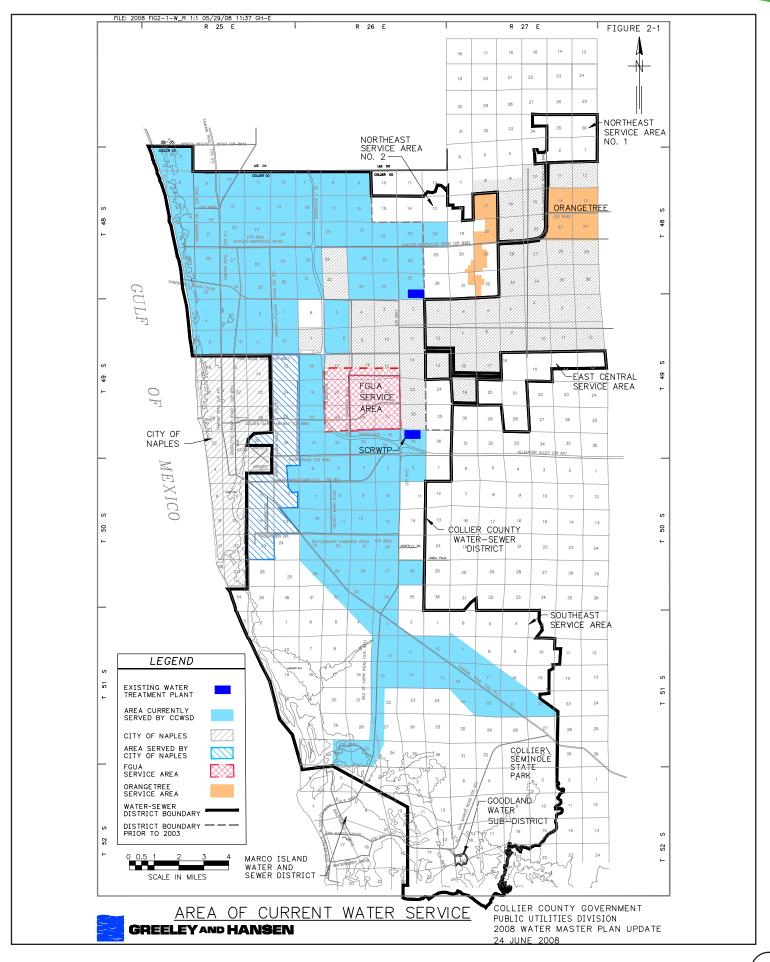
UTILITY AVAILABILITY

Once the service area is determined, a letter demonstrating water and/or sewer availability from the applicable service provider will need to be requested and the letter will need to be provided to the County with the planning and/or development application. If utility services are not available for the project, well and septic permits will be needed. Additional permitting with the Health Department, Florida Department of Environment Protection (FDEP) and South Florida Water Management District (SFWMD) for wells and septic systems may be required. If located in the Orange Tree Utility Company or Ave Maria Utility Company service area, a project approval letter must also be submitted.

CONNECTION POINTS

The next step is to determine the appropriate connection points to the existing utilities. When connecting to County Utilities, one should coordinate with County staff to review and evaluate existing conditions and planned improvements. Utility stubouts to the property may already exist. If none are identified, then coordinate with the Public Utilities Planning and Project Management Division on how to extend services or mains to the project site. For projects not within the Collier County Water-Sewer District, coordinate with the applicable service provider to determine the closest connections points.





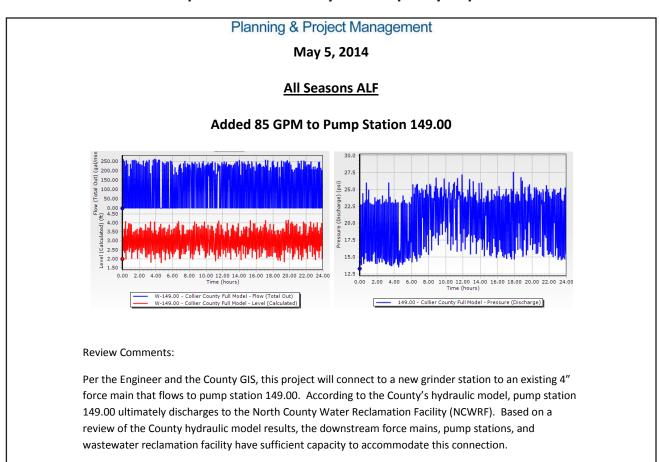
WATER CAPACITY

- Average daily water demand for non-residential projects should be based on section 64E-6.008 of the Florida Administrative
 Code (same as sanitary sewer flows). For residential projects, use the estimated flow per capita and per unit occupancy
 provided in the USM. The peaking factor for peak hour flow is determined using the population based equation in the "10
 States Standards". For Site Developments, water demand is determined based on plumbing fixtures using the Water Meter
 Sizing Form (USM Appendix B). The estimated flows are to be provided when requesting an availability letter.
- Required fire flow is to be determined per the current adopted FFPC/NFPA 1:18.4.
- Irrigation flows are based on the largest irrigation zones running simultaneously and are typically provided by the landscape architect. For projects within Collier County Water-Sewer District, the Potable Water-Only Meter Application is required to be submitted with the development application if requesting potable water for irrigation. This is only allowed however if other supplemental water sources are not available or permitted.

WASTEWATER CAPACITY

Average daily wastewater flow for non-residential projects should be based on section 64E-6.008 of the Florida Administrative Code and should be adjusted for peak hour using the "10 States Standards" peaking factor. The estimated peak hour flow provided to Public Utilities Planning and Project Management will be used to verify capacity in the system to serve the project. Projects within a Planned Unit Development (PUD) or Development of Regional Impact (DRI) and within the Collier County Water-Sewer District may be subject to an additional wastewater modeling fee. The wastewater system capacity report must be submitted with the development application.

Example: Wastewater System Capacity Report



MANHOLES

Precast concrete manholes, a minimum of 4' diameter, must be installed at the end of each wastewater main, at all main pipe intersections and at all changes in grade, size, or horizontal alignment. Manholes should not be spaced greater than 400' apart (450' for mains greater than 15" diameter) and shall be placed within the roadway.



WATER DISTRIBUTION

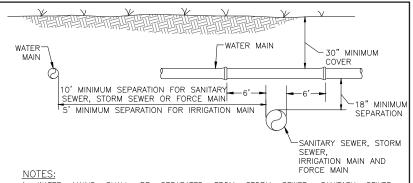
Water distribution systems should be designed so that all systems are located adjacent to, and are accessible from, paved or unpaved roadways so as to allow access for short and long term maintenance, repair, and/or replacement of such system. Water mains should not be placed beneath any existing or proposed building structures. New potable water distribution systems shall be designed as "looped" systems, which should have two independent connections off the source main (unless served by a master meter). When existing water mains are not available for looping, provide a stub-out in a location agreed to by the County. A dead end main may not serve more than 149 residential units.

PIPE ALIGNMENT

Setbacks: Water and force mains are required to be set back at least 7.5 feet from residential roadways, curbs and gutters, permanent structures, and plantings (trees and palms).

Separation: Per the Collier County Damage Prevention Policy, a minimum distance of 5' horizontally and 18" vertically must be maintained away from Collier County Utilities. Per the pipeline separation criteria, the horizontal distance must be increased to 10' between potable water lines and wastewater or stormwater lines and between raw water mains and potable water, non potable irrigation water, and wastewater lines. Wastewater lines must be separated from public drinking water supply wells by a horizontal distance of 100' and private drinking water supply wells by 75'. On-site service piping shall maintain minimum separation per sub-section 603.2 of the locally adopted Florida Building Code, Plumbing (FBCP).

Separation vs. Setback Requirements: Setbacks are measured to the centerline of the pipe; separation distances are measured between exterior pipe surfaces.



- SEPARATED WATER MAINS SHALL BE FROM STORM SEWER. SANITARY NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERT DISTANCE OF 18 INCHES MEASURED BETWEEN THE BOTTOM OF THE UPPER PIPE THE TOP OF THE LOWER PIPE. THE 18 INCHES MINIMUM VERTICAL SEPARA THE TOP OF THE LOWER PIPE. THE 18 IN DISTANCE DOES NOT APPLY TO SEPARATIONS OF INCHES MINIMUM VERTICAL SEPARATION OF SEWER LATERALS AND POTABLE WATER
- DISTANCE DOES NOT APPLY TO SEPARATIONS OF SEWER LATERALS AND POTABLE WATER MAIN PIPELINE INSTALLATIONS. ALSO, WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER AND FORCE MAINS BY 10 FEET AND FROM IRRIGATION MAINS BY 5 FEET MEASURED HORIZONTALLY BETWEEN OUTSIDE OF PIPES.

 ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18 INCHES SHALL REQUIRE SUBMISSION AND APPROVAL OF A DEVIATION. IF A DEVIATION IS SUBMITTED, THE FOLLOWING MINIMUM STIPULATIONS APPLY: THE CROSSING SHALL BE MADE USING THICKNESS CLASS 200 AWMA C-900 DR14, PVC (CLASS 235 AWMA C-905, DR 18, PVC FOR PIPES GREATER THAN 12" IN DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10 FEET ON EACH SIDE OF THE CROSSING. WATER MAIN CONCRETE ENCASEMENT SHALL ONLY BE MADE AFTER WRITTEN APPROVAL OF THE WATER DIRECTOR OR HIS DESIGNEE.

 18 INCHES CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.
- 18 INCHES CLEAR DISTANCE CROSSES UNDER SEWER LINE.
- WATER MAINS, SANITARY SEWER, SHALL BE IN SEPARATE TRENCHES. STORM SEWER, AND NON-POTABLE IRRIGATION MAINS
- SHALL BE IN SEPARATE TRENCHES.

 WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM—TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62—610, FAC, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY—OR PRESSURE—TYPE SANITARY SEWERS, FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62—610. 57 STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN GRAVITY SANITARY SEWER LINES AND STORMWATER LINES.
- LINES AND STORMWATER LINES.
 SEE SECTION 1- DESIGN CRITERIA, SUBSECTIONS 1.2.3 AND 1.3 FOR ADDITIONAL

REQUIREMENTS.

PIPE SEPARATION DETAIL

G-3

REVISED: APRIL 2006

UTILITIES STANDARDS

The Collier County Utilities Standards and Procedures were established by Ordinance No. 2004-31 and amended by Ordinance No. 2007-60. The ordinances provide for service areas, definitions, observation of construction, policies and standards, utilities conveyance procedures and forms, creationand maintenance of the Utilities Standards Manual, and penalties and enforcement.

The Collier County Water-Sewer District Utilities Standards Manual (USM) was prepared by the Public Utilities Department in the interest of protecting the health and safety of the public and to ensure access to environmentally sound, cost effective, and implementable services and facilities for the provision of potable water, irrigation quality water and the collection of wastewater and should guide the design and construction of potable water, non-potable irrigation water (including reclaimed and reuse water) and wastewater—system extensions to Collier County Utilities. For the latest revisions, please visit: http://www.colliergov.net/ppmd. For projects not within the Collier County Water-Sewer District, the utilities standards for the applicable service provider should be followed.

Approval of any deviation from the utilities standards must be obtained by using the appropriate form submitted to the Public Utilities Planning and Project Management Division.

PUBLIC VS. PRIVATE

All public and private mains 4" and larger must conform to the USM and all private (on-site) utilities must conform to the locally adopted Florida Building Code, Plumbing. Additionally, all public potable water and wastewater systems improvements as well as private gravity sewers serving more than one building and private pump stations connecting to a County force main must conform to FDEP rules, including the "10 States Standards" (incorporated by reference).

PIPE SIZING AND HYDRAULICS

Generally, force mains intended for public ownership by Collier County must be a minimum of 4" in diameter and water mains must be a minimum of 6" in diameter.

Water systems shall be designed to maintain adequate flows and pressures assuming a County source pressure under peak hourly flow conditions of 50 psi and under maximum day conditions with fire flow of 40 psi, delivered from the closest County transmission main to the project. The minimum residual node pressure within a proposed project system shall be 20 psi. A chloramine dissipation analysis will be required based on the daily consumption rate, a standard decay rate of 0.012 ppm per hour, and an assumed chloramine level of 2.0 ppm at the connection point.

All gravity sewer mains constructed shall be a minimum of 8" in diameter and constructed to the minimum slope specified in the Utilities Standards Manual based on size. All laterals shall be a minimum of 6" in diameter. Gravity sewers shall be designed to give mean velocities, when flowing full or half-full of not less than 2' per second, based on Manning's formula (n=0.013).

PUMP STATIONS

When sanitary sewer gravity service is not available to the project, a pump station(s) will be required. A pump station designed and constructed per the USM should be conveyed to Collier County for ownership and maintenance. A project with low flow may request a Utility Deviation for a private grinder pump station. A check valve will be required to be installed at the right-of-way (ROW)/County Utility Easement (CUE) to delineate the privately owned portion from the publicly owned portion. All pump stations shall have water available to them within the adjacent ROW/CUE. A pump station that is connected directly to the County transmission force main from a development (Community Pump Station) shall have uninterrupted pumping capability (standby diesel pump or generator) with three days of fuel storage (compliant with Technical Specification 263213) and a concrete pad for a future odor control system.

Pump Selection

- Select a pump that can handle the design peak hour flow as efficiently as possible over the full range of operating conditions, without over cycling, "dead heading", or running off the pump curve.
- Pump stations requiring a pump motor of twenty horsepower or greater shall operate by a VFD (variable frequency drive) that varies the operating speed of the pump based on wet well water levels.
- When a pump station has an influent peak design flow greater than 500 gpm, contact Public Utilities Planning and Project Management Department for specifications.

Wet Well Level

- The effective volume of wet wells shall be based on design average flows and a filling time not to exceed 30 minutes unless the facility is designed to provide flow equalization.
- The pump manufacturer's recommendations shall be utilized in selecting the minimum cycling time and the minimum pump submergence.
- The high water alarm shall be set 6" below influent sewer invert.

Flood Protection

- Pump station structures and electrical and mechanical equipment shall be designed to be protected from physical damage by the 100-year flood event.
- Pump stations shall be designed to remain fully operational and accessible during the 25-year flood event.
- Pump station wetwells shall be designed to withstand flotation forces with the assumption that the structures are empty and ground/flood water elevation is at the top of the structures.



UTILITY DESIGN

APPURTENANCES

<u>Isolation Valves</u>: Valves must be provided at all intersections and branches. In-line gate valves and plug valves shall be provided at no greater than one thousand foot (1,000') intervals on mains.

<u>Sample Points:</u> Bacterial sampling points shall be positioned at the beginning of each new water main system, at 1,000-foot intervals, and at all dead ends unless otherwise directed. At the completion of the project, permanent sampling points shall remain every 3,000' or one at 2/3 of the length from the point of connection to the County system if the line is less than 3,000 feet long.

<u>Fire Hydrants:</u> Current local fire protection policy requires a maximum distance between fire hydrants of 500' in exclusive oneand two-family areas, with buildings not exceeding 5,000 sq ft, and 300' in all other areas.

<u>Air Release Valves (ARV)</u>: Air release valve assemblies shall be installed at all high points on water and force mains where air will not be released through service lines or hydrants and on both sides of conflict crossings or on the upstream side only where flow reversal is not expected (i.e. force mains and dead end water mains). A high point is defined by the hydraulic gradient and is considered the upper end of any pipe segment that slopes up to the hydraulic gradient or runs parallel to it.

<u>Automatic Flushing Devices (AFD)</u>: An automatic flushing device (AFD) shall be provided at each dead end and at the midpoint of a looped main as needed to achieve the minimum residual chlorine level based on water consumption. Multi-phased projects must use a temporary automatic flushing device at the end of each phase.

SERVICES

<u>Water:</u> All parcels within a development must be provided with a means for water service via water service conduits, a minimum of 4" diameter PVC, with a minimum cover of 24". Such pipelines shall extend at least 5' past the edge of pavement, sidewalk, bike path or any other improvement and shall run from a lot corner on one side of the street to a lot corner on the opposite side. Service pipelines shall be polyethylene sized in accordance with the FBCP and shall be a minimum of 1 ½" in diameter within the ROW/CUE.

<u>Wastewater:</u> Laterals, a minimum of 6" diameter, shall be extended to the property (or easement) line and shall terminate in a cleanout. A double wye shall be provided at the property corner when serving two lots/parcels. Laterals shall be held to a minimum depth of 30" and maximum depth of 48". When the minimum depth of 30" cannot be provided, laterals shall be C900 DR 14 PVC pipe with not less than 24" of cover. At no time shall a lateral be core bored into a manhole.

Meters and Service Lines: Water meter sizing is based on the total fixture value according to the Water Meter Sizing Form (Appendix B of the Utilities Standards Manual). Any variation from the determined meter size shall require an approved Utility Deviation. All water meters larger than 2" shall be installed above ground by the contractor. All water meters 2" and smaller shall be installed below ground in an approved meter box by the Water Division.

COUNTY UTILITY EASEMENTS (CUE)

- PRESSURE MAINS: 15' minimum width.
- GRAVITY SEWERS: 15' minimum width or twice the depth, whichever is greater.
- PUMP STATIONS: 30'x30' or twice the depth, whichever is greater.
- MASTER METERS: Master meters and back flow assemblies, 3" and larger, shall be located within a CUE that is outside of but contiguous to the road ROW. Master meters connected to the County system shall include a minimum 10'x16' maintenance driveway 4' from the concrete pad within the CUE.

PRE-APPLICATION MEETINGS

Pre-application meetings are necessary in order to determine the correct permit application type for your project and for you to obtain guidance on the submittal requirements and fees applicable to your project. During the pre-application meeting, you should present the location and scope of your project along with any preliminary plans you may have already developed. County staff that will be involved in the review of your project will attend the meeting to provide guidance and information about applicable County codes and standards that affect your project.

PERMIT APPLICATION

Once the correct application type has been determined for your project, it is the project consultant's responsibility to complete the appropriate application form, and prepare and assemble sufficient information (drawings, exhibits and reports) that demonstrate compliance and consistency with the applicable codes and standards. A qualified Professional Engineer who has been properly licensed by the State of Florida shall sign and seal the plans and reports. Complete submittal packages shall be delivered to the Collier County Growth Management Department.

REVIEW PROCESS

The review process will be described in general detail at the pre-application meeting. Upon submittal of your application, plans, and appropriate fees, a preliminary sufficiency review ensures all required items have been provided. If complete, the application is then entered into the County's electronic tracking system and is distributed to the appropriate staff for review. Review times vary but are generally completed within 5 to 15 business days based on the type of application. Status can be tracked from the GMD public portal (http://cvportal.colliergov.net/cityviewweb)

FDEP PERMITS

FDEP construction permit applications are submitted through the Growth Management Department and will be forwarded to Public Utilities PPMD for review and execution. The Development Review Division must approve the utility portion of the construction documents before releasing the executed forms. It is then the project consultant's responsibility to submit and obtain the proper FDEP utility permits. FDEP utility permits must be issued and copies provided to the County prior to scheduling the mandatory pre-construction meeting.

MANAGING CHANGES

Occasionally, changes may be required due to field conditions encountered during construction that were not contemplated during design. All revisions to approved construction drawings should be approved by the Engineer of Record and the Collier County Growth Management Department prior to proceeding with the changes. Coordinate with County staff to determine if the changes need permit modification. All changes must be precisely identified and illustrated on the Record Drawings.







CONSTRUCTION & INSPECTIONS

PRE-CONSTRUCTION MEETING

Upon issuance of a development permit and prior to the commencement of construction, a pre-construction meeting must be conducted. The applicant must request the pre-construction meeting, allowing at least 48 hours for the meeting to be scheduled by the Engineering Services Division.

A schedule of construction, accompanied by all approved county, state and federal permits must be provided by the applicant prior to scheduling the pre-construction meeting. A list of standard inspections that require the presence of the County Engineer or designee will be provided in the permit approval letter and will be discussed at the pre-construction meeting along with other standard requirements and permit stipulations.

PROCESS

County staff shall require both a preliminary and final utility inspection of all potable water, non-potable irrigation water and wastewater systems or portion(s) thereof constructed. Refer to Preliminary and Final Acceptance procedures further in this guidebook. For projects not connected to the County utility systems an acceptance letter from the utility providers are required to be submitted with the record drawing packages.

General

Observation during construction must be performed by a Florida licensed Professional Engineer (P.E.) or a designated technical representative under the P.E.'s direction.

Pursuant to the Florida Administrative Code, a Florida P.E. must submit certification of construction in compliance with County staff approved construction documents verifying that the potable water, non-potable irrigation water and/or wastewater systems or portion(s) thereof have been constructed in accordance with Record Drawings.

County Inspections

The Engineer of Record or applicant's contractor shall be responsible for requesting County inspections based upon the scheduling and progress of construction. Requests for inspections shall be provided to the County staff at least 48 hours prior to the requested inspection to allow scheduling of the County Inspector. During the County inspection, the Engineer of Record or his/her designated representative shall be available on-site. Routine County inspections may be performed without notice on all potable water, non-potable irrigation water and/or wastewater systems construction to ensure compliance with County approved construction documents.

REQUIREMENTS

Preliminary Inspections

A preliminary inspection of the completed system(s) or portion(s) thereof shall be required prior to any conveyance to and acceptance by the Board of County Commissioners (BCC). During this inspection, the utilities will be checked for compliance with the approved construction drawings and/or approved revised construction drawings.

Final Utility Inspections

Final utility inspections procedures run with all land in, on or over which the respective utility facilities have been installed (constructed). The final utility inspection shall be conducted no earlier than one year and no later than one year and 60 days after preliminary acceptance of the utility system(s) or portion(s) thereof by the BCC. Each final utility inspection shall be delinquent (overdue) if not completed and passed within 14 months after that acceptance date.

RECORD DRAWINGS (AS-BUILTS)

Process

Within 60 days of final completion of utilities construction, submit at least three (3) sets of signed and sealed record drawings depicting the constructed configuration of all potable water, non-potable irrigation water, and/or wastewater systems or portion(s) thereof. If multiple systems are being conveyed, then two (2) additional sets are required. Refer to the Utilities Conveyance Checklist provided with the permit approval package.

Requirements

Each sheet of the record drawings must identify the entity that provided the record data. Drawings must be referenced to, and tie-in with, the state plane coordinate system with a Florida East Projection, NAD 1983, and with United States Survey Feet (US FEET) units. Files shall be submitted in Digital Exchange File (DXF) format in AutoCad Release 14 or later version.

For projects where the potable water, non-potable irrigation water and/or wastewater systems are not being conveyed to the County, the record drawings must contain a disclaimer stating: "On-site potable water, non-potable irrigation water and/or wastewater systems shall be owned, operated and maintained by the master condominium/homeowner's association, its successors or assigns" (or other comparable private ownership).

CONVEYANCE

Process

A completed Utilities Conveyance Checklist (USM Appendix D) will be provided with the permit approval and will identify conveyance documents required for submission at the time the constructed system(s) is considered for dedication to the County. It should be noted that the County ordinance does not require that the County and/or the District accept title to (or any responsibility for) any utility facility, including each interim facility or interim system, until the facility or system has then received all proper permits/licenses from all applicable agencies.

Requirements

Applicants should reference Sec. 134-60 of the Code of Ordinances for all requirements related to the conveyance of utility system ownership to Collier County. All conveyance documents listed in the checklist (deeds, bills of sale, affidavits, easements, facilities agreements, subordinations, master condominium/homeowner's association documents, letters of credit and UPS, etc.) shall be in a form that is acceptable to the Collier County Attorney.

UTILITIES ACCEPTANCE

Process

Preliminary acceptance may be granted by the Growth Management Department upon completion of the preliminary inspection(s) and is required prior to any certificates of occupancy being issued for the project.

Final acceptance of utilities that are conveyed to the County or District can occur only after the final inspection process, which is noted in the Construction & Inspections section of this guidebook. The final utility inspection shall be conducted no earlier than one year, and no later than one year plus 60 days, after the preliminary acceptance of the utility system(s) or portion(s) thereof by the BCC. The final utility inspection will be considered delinquent if not completed (and passed) within 14 months after the preliminary acceptance date. Staff shall provide written notice of overdue final utility inspections or requirements. Upon approval from the Public Utilities Department, final acceptance of such facilities and/or system may be approved by the BCC, subsequent to the one-year warranty period.

Requirements

The BCC may accept title to a potable water distribution system (pipes 6" or greater), a gravity wastewater collection system (pipes 8" or greater, no more than 10% deviation below minimum slope), and a pressure wastewater collection system (force mains 4" or greater and lift stations), provided all facilities to be accepted meet the minimum requirements of Ord. 04-31 (as amended), the Utilities Standards Manual and all are located within acceptable CUE(s) or public right-of-way.

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"TOP 10"

MOST COMMONLY REJECTED ITEMS

- 1. Use the latest details and only those which apply to the project.
- 2. Provide wastewater system capacity letter from Public Utilities PPMD.
- 3. Provide water and/or wastewater availability letter and approval letters from the utility provider.
- 4. Provide temporary sample points at the beginning and end of mains and/or every 1000'. Provide and label permanent sample point at the 2/3 point of the project or every 3000'.
- 5. Provide fixture flows and irrigation flows for meter sizing.
- 6. Provide signed and sealed engineering opinion of probable cost (OPC). Verify the quantities in the OPC match the plans.
- 7. Provide a statement as to who owns and maintains the on-site potable water, non-potable irrigation water and wastewater systems.
- 8. Maintain a minimum 7.5' setback from drainage structures or obtain Utility Deviation approval for a reduced distance.
- 9. Add note at tie-in point indicating use of gap configuration or TBF at the option of the FCD.
- 10. Provide FDEP water and sewer applications and a Master Utility Plan on CD, in 3 separate PDF files.



STATE CODES & STANDARDS

Division 62, FAC: https://www.flrules.org/Gateway/Division.asp?DivID=430

10 State Standards: http://10statesstandards.com

Florida Statutes 163.3180; Concurrency: http://www.flsenate.gov/laws/statutes/2011/163.3180

LOCAL CODES & STANDARDS

Collier County's Land Development Code (LDC) for Utilities

https://www.municode.com/library/fl/collier county/codes/land development code

Section 6.03.00- WASTEWATER SYSTEMS AND IMPROVEMENTS STANDARDS

6.03.01 - Central Sewage System Requirements

6.03.02 - Individual Sewage System Requirements

Section 6.04.00 - POTABLE WATER SYSTEMS AND IMPROVEMENTS STANDARDS

6.04.01 - Central Water System Requirements

6.04.02 - Individual Water System Requirements

6.04.03 - Fire Hydrants

Collier County Public Utilities Planning & Project Management - http://www.colliergov.net/index.aspx?page=114

<u>Utilities Standards Manual- http://www.colliergov.net/index.aspx?page=389</u>

Design Criteria - http://www.colliergov.net/modules/showdocument.aspx?documentid=57199

Technical Specifications - http://www.colliergov.net/modules/showdocument.aspx?documentid=57200

Utilities Detail Drawings - http://www.colliergov.net/Index.aspx?page=390

Appendices - http://www.colliergov.net/Index.aspx?page=1594

- a. Utilities Deviation Form http://www.colliergov.net/modules/showdocument.aspx?documentid=57196
- b. Water Meter Sizing Form http://www.colliergov.net/modules/showdocument.aspx?documentid=57197
- c. Final Waiver of Liens http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=21998
- d. Utilities Conveyance Checklist http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=21999
- e. Vendor Product Approval Application Form http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=22000
- f. County Approved Product List http://www.colliergov.net/modules/showdocument.aspx?documentid=57198
- g. Approved Backflow Devices http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=39110

Water and Wastewater Impact Fee Form - http://www.colliergov.net/index.aspx?page=1724

<u>Ordinance 2004-31, Collier County Utilities Standards and Procedures - http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=15548</u>

Ordinance 2007-60, Amendment to Utilities Standards and Procedures -

http://www.colliergov.net/Modules/ShowDocument.aspx?documentid=15549

Water and Wastewater Master Plans - http://www.colliergov.net/index.aspx?page=2489

Contacts

Public Utilities Planning & Project Management: http://www.colliergov.net/Index.aspx?page=391
Collier County Growth Management Department Contact List: http://www.colliergov.net/index.aspx?page=3367

