

SECTION 1.0 PROJECT REVIEW AND ACCEPTANCE PROCESS

1.1 INTRODUCTION

- 1.1.1 This technical manual has been prepared as a guide for the design and construction of water, wastewater, and reclaimed water system extensions to Hillsborough County (County) utilities. The specifications, standards, drawings and other information included herein are intended as MINIMUM requirements acceptable for a County facility. While this manual has been developed as a guideline for private enterprise (Developers) the requirements listed herein covering the design, construction, and acceptance criteria for projects is applicable for any project which is to be owned and maintained by Hillsborough County Public Utilities Water Resources Department (WRD).
- 1.1.2 Generally, the County owns and maintains all the water, wastewater, and reclaimed water facilities within the public right-of-way. Therefore, plans for these facilities must be reviewed and approved by the County. In addition, utility facilities that are constructed on private property that are connecting to County facilities are also subject to review, inspection, and approval by the County.
- 1.1.3 Design plans for new Developer construction projects must be submitted to the Development Services Department (DSD) for review and approval prior to construction. Due to the routine upgrade of the County Technical Specifications and Manuals (every 2 years) it is the Developer/EOR's responsibility to ensure they are designing to the most current standards in effect at the time of plans submittal. The Service Request (SR) number assigned at submittal determines the year of the applicable standards. Public Utilities has the right to require a submittal to be redesigned when the SR number exceeds the current standards or permitting requirements by more than 2 years at the start of Construction. The Developer is encouraged to communicate regularly with staff in both the DSD and WRD to clarify the specific issues of the project and expedite the review process.
- 1.1.4 All water, wastewater, and reclaimed water facility **plans must be signed and sealed by an Engineer registered in the State of Florida** except for those requirements for single family residences that are subject to review by the Architectural Plans Examiners. The DSD reserves the right to establish additional criteria by which to review and approve a given project. The proposed project will be inspected by County personnel during the construction phase. Final acceptance will be processed only after a determination has been made that the construction of the project complies with all applicable regulations of the County and relevant agencies. Before final acceptance, the Developer is responsible for providing the County with signed and sealed RECORD DRAWINGS of the construction and electronic copies of all final design files in accordance with the list of documents specified in paragraphs 1.6.4, 1.6.5, and 1.6.6 herein.

1.2 PROJECT REVIEW PROCESS – DEVELOPER INSTALLED PROJECTS

- 1.2.1 General: This section lists chronologically the steps that the Development Services Department (DSD) follows when reviewing a Developer-installed project. A Developer-installed project is defined as any project in which a private entity designs and constructs water, wastewater and/or reclaimed water facilities which will be owned, operated, and maintained by Hillsborough County WRD. Since each project may have conditions which are project specific, there may be additional requirements not listed in this section.

1.2.2 Application for Service

- 1.2.2.1 Every Developer involved in the subdivision of real property or the construction of any residential, multi-family, commercial or industrial building within the unincorporated area of Hillsborough County must submit a completed Application for Water, Wastewater, and/or Reclaimed Water Service to the DSD and receive written notification of the Department's determination that:
- a) The County is currently able to provide permanent service to the applicant or will be able to provide it in time to meet the applicant's building schedule; or
 - b) The County is not able to provide permanent service in time to meet the applicant's building schedule, but future service is programmed in the current six-year Capital Improvement Program (CIP), in which case interim service could be an alternative; or
 - c) The project is in the Rural Area and, therefore, the County will not be able to provide permanent water, wastewater, or reclaimed water, in which case permanent service by well, septic system or Community Wastewater Treatment Plant (WWTP) could be alternatives; or
 - d) The project is in another municipality's utility service area and the applicant should submit a service application to that provider and must submit a copy of their service commitment letter to DSD, prior to Construction Plan approval.
- 1.2.2.2 Construction plans may be submitted only after the County's approval of the submitted Application for Water, Wastewater, and/or Reclaimed Water Service. Actual reservation of plant capacity will be effective upon Construction Plan Approval.

- 1.2.3 Master Plan: For residential or commercial developments constructed in multiple phases or for single – phase residential projects with more than one pump station, a Master Plan for water, wastewater, and reclaimed water is required. The Master Plan shall be submitted after the County's approval of the Application for Water, Wastewater and Reclaimed Water Service. The Master Plan must be approved prior to the approval of construction plans.

1.2.4 Construction Plans

- 1.2.4.1 After obtaining the County's approval of the Service Application (and Master Plan for phased developments), the Developer shall have the construction plans prepared by a Professional Engineer registered in the State of Florida. The signed and sealed plans and specifications are then submitted to the DSD for review. The Developer shall also submit the partially completed Department of Environmental Protection (DEP) water or wastewater construction permit application forms for the DSD to complete, sign, and return. The Developer is responsible for processing any other permits which may be required.
- 1.2.4.2 The Developer's Engineer is responsible for the coordination of the design with other construction activity in the public rights-of-way and easements, i.e., State, County, and City highway and utility projects. The Engineer shall verify that the project design is compatible with the design of any existing or proposed County CIP project that may impact development. If design conflicts are encountered, the design constraints imposed by the CIP project shall take precedence over the development's design constraints.
- 1.2.4.3 The DSD Site Engineering Review Section will review the plans and specifications to ensure that the facilities proposed for construction are designed in accordance with the criteria in the current "Water, Wastewater, and Reclaimed Water Technical Specifications" and the commitment letter. The hydraulic characteristics of the system will be analyzed by the WRD Utility Planning Team to establish that the proposed system will operate within any specified flow or demand limits.

- 1.2.4.4 If the plans, specifications, or hydraulics do not conform to the requirements of the current “Water, Wastewater, and Reclaimed Water Technical Specifications,” the Site Engineering Review Section will notify the Engineer and/or Developer of corrections or modifications required. Once DSD determines that the plans are in general conformance with the County's standards, the Developer will be notified in writing that the plans have been approved for construction. Approval does not relieve the Engineer/Developer of responsibility to ensure that the plans meet the applicable Water, Wastewater, and Reclaimed Water Technical Specifications and Manual in effect at the time of approval. It will be the Engineer/Developer’s responsibility to make any changes/corrections to the design found during construction to be out of compliance with the applicable Water, Wastewater, and Reclaimed Water Technical Specifications and Manual.
- 1.2.4.5 The approval-for-construction will remain in effect for a period of two years. A two-year extension may be granted if a written request is submitted to the DSD Site Engineering Review Section one month prior to the expiration of the original approval. An extension may be granted if there are no proposed changes to the original approved plans, the plans meet the most current Water, Wastewater, and Reclaimed Water Technical Specifications and satisfy the system hydraulic conditions in effect at that time, **and** the point of connection remains viable.
- 1.2.5 Construction
- 1.2.5.1 The contractor is required to work from a set of plans stamped “approved” by the DSD Site Engineering Review Section. All work must be inspected by County inspection personnel. The contractor shall request an inspection by the WRD Inspection Team a minimum of 48 hours prior to starting construction. The approved set of plans shall always be located on the construction site.
- 1.2.5.2 The Developer, the Engineer of Record (EOR), and the contractor shall comply with all requirements of the Federal, State, and County; and other laws, codes, ordinances, and regulations that in any way affect those engaged or employed in the proposed construction, the materials or equipment used in or upon the site, or the conduct of the work. The Developer, or the Engineer, or the contractor shall obtain all permits and licenses, pay all charges and fees, and provide all notices necessary and incidental to the due and lawful prosecution of the work prior to the start of any construction.

1.3 RIGHT-OF-WAY USE PERMIT SUBMITTALS

- 1.3.1 The Design Engineer shall take the initiative to determine all the agencies with jurisdiction over the project, particularly agencies requiring permits for right-of-way use, such as Hillsborough County, Florida Department of Transportation (FDOT), Tampa Bay Water, Seaboard/CSX Railroad, or any other appropriate authority. These determinations should be made during the preliminary design stage.
- 1.3.2 If the Engineer finds that the project involves a non-county right-of-way, the Engineer shall contact the appropriate local office, discuss the project with their Utility Coordinator and comply with that agency's design and permitting requirements.
- 1.3.3 The Engineer shall work simultaneously with the involved agency and the DSD in finalizing the plans for submittal.

- 1.3.4 County Right-of-Way Use Permits, if required, will be issued upon plan approval by all reviewing agencies. No permit should be issued without a “Letter of Conflict/No Conflict” from Public Utilities WRD Utility Coordination and Conflict Review Team.

1.4 DEDICATION OF EASEMENTS

- 1.4.1 The Hillsborough County Real Estate Department requires the following items to review and process instruments dedicating property to Hillsborough County:
- 1.4.1.1 Current Ownership and Encumbrance Report, title policy or opinion of title from attorney covering the property to be conveyed. Include complete copy of owner's acquiring deed.
 - 1.4.1.2 A marked survey sketch depicting property to be conveyed to Hillsborough County. (All information contained in the legal description must be verifiable by sketch.)
 - 1.4.1.3 Original, executed instrument conveying property to "Hillsborough County, a political subdivision of the State of Florida."
- 1.4.2 Please submit the above items to the DSD for their review and recommendation. Same will be forwarded to the Real Estate Department.
- 1.4.3 **Note:** No privately owned structure, including decorative walls, driveways, or fences, shall be constructed in an easement that has been dedicated to the County.
- 1.4.4 Water, Wastewater, and Reclaimed Water easements outside the right-of-way shall be dedicated for “Hillsborough County Public Utilities Department” use, and not specified for “public” use. No private entities shall be allowed to use easements dedicated to the County.

1.5 AUTHORITY OF INSPECTORS

WRD Inspection personnel will inspect all construction, all materials, and may inspect preparation, fabrication, or manufacture of supplies. The inspector is not authorized to revoke, alter, or waive any requirements of the specifications, but he is authorized to call to the attention of the contractor and/or Engineer any failure of work or materials to conform to the plans or specifications. The inspector will have the authority to reject materials and may suspend the work, especially if public health or safety is involved. If any such rejection or suspension is contested by the Engineer of Record, the issue will be referred to and decided upon by the WRD Utility Design Section Manager. The inspector will not act as foreman, perform other duties for the contractor, or interfere with the management of the work. Any advice which the inspector may give will in no way be construed as binding to the WRD Section Manager or releasing the contractor from carrying out the intent of plans and specifications.

1.6 REQUIREMENTS OF ACCEPTANCE

- 1.6.1 Final acceptance of a water distribution system, water main extension, reclaimed water distribution system, reclaimed water main extension, and/or wastewater collection/transmission system, including pump stations, and release of the performance bond will be made only after:
- 1.6.1.1 All inspections have been made.
 - 1.6.1.2 The improvements are found to be in accordance with the applicable regulations of the County, the DEP, the Hillsborough County Department of Health, and the standards contained herein.

- 1.6.1.3 For contributed assets (privately developed), the DSD Site Engineering Review Section is provided with the required documentation.
- 1.6.1.4 For County developed projects the County Project Manager is provided with all required documentation.
- 1.6.2 No Certificate of Occupancy shall be given until all WRD inspections have been approved, and all applicable regulatory requirements have been satisfied. At the County's discretion a re-inspection of all infrastructure may be required before release of the performance bond if any system has not been put into service within nine months of final inspection.
- 1.6.3 All requirements of Sections 10.01.05 and 10.01.06 of the Land Development Code are to be met prior to County acceptance of utility and other improvement facilities. The type of acceptance process for off-site utilities (for commercial sites and for subdivisions) constructed in existing road right-of-way depends upon the length of the utility line.
 - 1.6.3.1 Facilities that are 100 feet or longer in length must be accepted by the Board of County Commissioners (BOCC). Off-site facilities less than 100 feet in length are administratively accepted by the DSD.
 - 1.6.3.2 For utilities less than 100 feet, the Engineer of Record, or their representative, will be responsible to witness and sign for any hydrostatic tests performed. Utilities over 100 feet require witness of hydrostatic tests by the WRD Inspector. The Developer will submit a Two-Year Warranty Bond or Letter of Credit for all off-site utilities as part of the acceptance package.
- 1.6.4 The acceptance of improvement facilities within residential and commercial subdivisions is documented by Dedication in the Final Plat. The Developer has several options in the acceptance process, as summarized below.
 - 1.6.4.1 The Developer may submit a Plat to the BOCC for acceptance and recording prior to construction completion. In this case, the plat is accepted along with a Subdivider's Agreement for Construction and a Performance Bond, Letter of Credit, or Cashier's Check for 110% of the total cost of development. After the project infrastructure is constructed, the Developer submits Record Drawings and final inspection reports, then the project is scheduled to be accepted at a second Board meeting. For this meeting the Developer provides a Subdivider's Agreement for Warranty and a Two-Year Warranty Bond, Letter of Credit, or check for 10% of the cost of the improvements that the County is accepting for ownership and maintenance. The Board agenda item includes the release of the performance security.
 - 1.6.4.2 The Developer may submit a Plat to the BOCC for acceptance and recording prior to construction completion and the Board can authorize DSD to administratively accept the improvements after construction is completed. In this case, the Developer provides a Subdivider's Agreement for Construction and Warranty of Required Improvements; a Performance Bond, Letter of Credit, or check for 110% of the total cost of the improvements; and a Warranty Bond, Letter of Credit, or check for 10% of the cost of the improvements. In this case, the performance period, which is usually two years, can vary between six months and two years. The warranty period will be two years, commencing upon acceptance of improvements by DSD. This is the option selected by most subdivision Developers.

- 1.6.4.3 The submission of a plat may be deferred until construction, Record Drawings, and final inspections are complete. In this case, the plat and improvements are accepted at one Board meeting. For this meeting, the Developer also submits the Subdivider's Agreement for Warranty of Required Improvements and the two-year Warranty Bond, Letter of Credit, or check for 10% of the cost of the improvements that the County is accepting for ownership and maintenance.
- 1.6.5 The following is a list of documents that must be submitted to DSD in the acceptance process for subdivision infrastructure improvements. Included in this list are documents related to water, wastewater, reclaimed water, road, and drainage improvements, as applicable.
- Letter requesting acceptance.
 - Final plat
 - Lot grading plans
 - Sidewalk plans
 - Specific cost breakout
 - One set of test reports (Refer to applicable Specifications and Technical Manuals for testing requirements)
 - Contractor's Affidavit
 - Benchmark Certification
 - Surveyor's Certification
 - EOR's Certification of Construction Completion
 - DEP Certifications of Completion
 - Coating Installer/Applicator Certification
 - Subdivider's Agreement
 - Financial Security
 - Maintenance of Landscape/Fencing Agreement for County Pump Stations (as applicable)
 - Asset Data spreadsheets with Construction feature information (see Appendix 2)
 - Record Drawings, signed and sealed (showing "as-built" conditions)
 - One hard copy of the potable water/wastewater/reclaimed water infrastructure, details, and exhibits (WRD Records Archive)
 - An electronic set of roads/storm water infrastructure, details, and exhibits for Public Works, EPC, & SWFWMD
 - An electronic set of potable water/wastewater/reclaimed water infrastructure for Fire Dept.
 - A complete electronic set of Record Drawings (potable water/ wastewater/ reclaimed water/ roads/ storm water infrastructure) including the final approved Construction **design** files (lot grading, sidewalks, landscaping, irrigation, etc.) in Adobe PDF format; and one DWG geometry file of the Record Drawing infrastructure in AutoCAD 2020 or later. Refer to Section 2.4.1 for submittal format criteria. (WRD Record Archives).
- 1.6.6 The following is a list of documents that must be submitted to DSD in the acceptance process for off-site utility improvements for commercial developments:
- Letter requesting acceptance.
 - Specific cost breakout
 - One set of test reports (Refer to applicable Specifications and Technical Manuals for testing requirements)
 - Contractor's Affidavit

- EOR’s Certification of Construction Completion
- DEP Certification of Completion
- Coating Installer/Applicator Certification
- Owner/Developer Agreement
- Financial Security
- Legal proof that Rights-of-Ways and easements have been dedicated to the County.
- Asset Data spreadsheets with Construction feature information (see Appendix 2)
- Record Drawings signed and sealed (showing “as-built” conditions)
 - One hard copy of potable water/wastewater/reclaimed water infrastructure, details, and exhibits (WRD Records Archive)
 - An electronic set of roads/storm water infrastructure, details, and exhibits for Public Works
 - An electronic set of potable water/wastewater/reclaimed water infrastructure for Fire Dept.
 - A complete electronic set of Record Drawings (potable water/wastewater/reclaimed water/roads/storm water infrastructure) including the final approved Construction **design** files (lot grading, sidewalks, landscaping, irrigation, etc.) in Adobe PDF format; and one DWG geometry file of the Record Drawing infrastructure in AutoCAD 2020 or later. Refer to Section 2.4.1 for submittal format criteria. (WRD Record Archives).

1.6.7 The following is a list of documents that must be submitted to the County WRD Project Manager in the acceptance process for utility improvements:

- Letter requesting acceptance.
- Specific Cost Breakdown
- One (1) set of test reports.
- Contractor’s Affidavit
- EOR’s certification of Construction Completion
- DEP Certificate of Completion
- Coating Installer/Applicator Certification
- Asset Data spreadsheets with Construction Feature information
- Surveyor’s Certification
- Record Drawings signed and sealed (showing as built conditions).
 - Two hard copies of the Record drawings (WRD Records Archive and Operations/SRD)
 - An electronic set of Record drawings (potable water/wastewater/reclaimed water/roads/storm water) and project **design** files (grading, sidewalks, landscaping, irrigation, etc.) in Adobe PDF format and one complete DWG file in AutoCAD 2020 or later. Refer to Section 2.4.1 for submittal format criteria. (WRD Record Archives).

1.6.8 Notice of Acceptance: Upon receipt and verification of the above documentation, the DSD will either administratively accept or will request Board of County Commissioners acceptance of the improvement facilities (potable water, wastewater, reclaimed water) for maintenance and operation. Within three days of action by the Board or through administrative approval, the DSD shall notify the applicant in writing regarding the action taken by the Board.

1.7 UTILITIES PRODUCT REVIEW COMMITTEE

- 1.7.1 The Utilities Product Review Committee (PRC) evaluates new and existing products for efficient and economical utilization within the County utility systems. The PRC is charged with the development of a fair and reasonable methodology to systematically evaluate utilities products for use through academic research and field evaluation.
- 1.7.2 The PRC is comprised of representatives from WRD, Procurement Services, and the Development Services Department. The representatives have technical or management positions and are either design supervisors, maintenance, or construction personnel, or have a background in design, maintenance, or construction. Developers, Engineers, and contractors may attend the PRC meetings as non-participating/non-voting representatives.
- 1.7.3 Appendix B of the Hillsborough County Public Utilities Water, Wastewater, and Reclaimed Water Technical Specifications is a list of water, wastewater, and reclaimed water components, and approved manufacturers and model and/or part numbers. This list will be revised as the PRC adds, changes, or deletes items on this list. To begin the product submittal process, follow the procedures as listed on the Hillsborough County Public Utilities website under Technical Specifications, Appendix B.
- 1.7.4 On a case-by-case basis, the DSD may consider a one-time approval of an alternate material or manufacturer through a design exception submittal **prior** to final design. The WRD Utility Design Section Manager must review and agree with any such proposed design exception.
- 1.7.5 A manufacturer or manufacturer's representative may request a demonstration project for products not currently included in Appendix B. If the PRC agrees, the manufacturer will supply any information requested by the Technical Review Officer (TRO). The PRC may approve the demonstration project with specific conditions and timelines and may require the manufacturer to provide the product at no charge to the County.

1.8 DESIGN EXCEPTIONS

- 1.8.1 When it becomes necessary to deviate from the established criteria, early documentation and approval of a design exception is required. This requirement applies to all entities affecting planning, design, construction, and maintenance. If it appears that meeting the criteria is not feasible, please contact the Water Resources Department Utility Design Team as soon as possible to discuss your concerns, the requirements for submitting a design exception to the Public Utilities Water Resources Department for approval and the necessary documentation to be provided. Approval from multiple individuals may be required for certain issues. Sufficient detail and explanation must be given to build a strong case to those reviewing the request. A design exception must address the following items:
 - Design criteria versus proposed criteria.
 - Reason the design criteria are not appropriate or cannot be met.
 - Justification for the proposed criteria.
 - Any background information which documents or justifies the request.
- 1.8.2 Alternatives should be developed, evaluated, and compared, and analysis should only include the benefits and costs attributed solely to each alternative. Mitigation strategies should discuss existing, considered, and proposed.