

SECTION 1

PROJECT REVIEW AND ACCEPTANCE PROCESS

1.1 INTRODUCTION

- 1.1.1 This technical manual has been prepared as a guide for private enterprise (Developer) and their engineering consultant (Engineer) in 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 Water Resource Services (HCWRS).
- 1.1.2 As a general rule, 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 by the County.
- 1.1.3 Design plans for construction projects must be submitted to the Planning and Growth Management Department (PGMD) for review and approval prior to construction. The Developer is encouraged to communicate regularly with staff in both the PGMD and Water Resource Services (WRS) 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 PGMD 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 is in compliance 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 design files in accordance with the list of documents specified in paragraphs 1.6.4 and 1.6.5 herein.

1.2 PROJECT REVIEW PROCESS**1.2.1 GENERAL**

This section lists chronologically the steps that the Planning & Growth Management Department (PGMD) 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 Water Resource Services (WRS). 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 PGMD 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 6-year Capital Improvement Program (CIP), in which case interim service could be an alternative; or
- C. The project is located 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 located in another municipality's utility service area and must submit a service application to that provider, and must submit a copy of their service commitment letter to PGMD, prior to Construction Plan approval.

1.2.2.2 Construction plans may be submitted only after Service Application approval. 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/or reclaimed water is required. 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 PGMD for review. The developer shall also submit the partially completed Department of Environmental Protection (DEP) water or wastewater construction permit application forms for the PGMD to complete 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 PGMD Site Plan and Subdivision Review Section will review the plans and specifications to insure that the facilities proposed for construction are designed in accordance with the criteria in the latest "Water, Wastewater, and Reclaimed Water Technical Specifications" and the commitment letter. The hydraulic characteristics of the system will be analyzed by the WRS Infrastructure 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 "Water, Wastewater, and Reclaimed Water Technical Specification," the Site Plan and Subdivision Review Section will notify the engineer and/or developer of corrections or modifications required. Once the Department 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 developer of responsibility to ensure that the plans meet the applicable Technical Specifications and Technical Manual in effect at the time of approval. It will be the developer's responsibility to make any changes/corrections to the design found during construction to be out of compliance with the applicable Technical Specification.
- 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 County 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, if the plans meet the most current Technical Specifications and satisfy the system hydraulic conditions in effect at that time, and if 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 PGMD Site Plan and Subdivision Review Section. All work must be inspected by Hillsborough County inspection personnel. The contractor shall request an inspection by the WRS Inspection Team a minimum of 48 hours prior to starting construction. The approved set of plans shall be located on the construction site at all times.
- 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 developer's engineer shall take the initiative to determine all the other agencies with jurisdiction over the project, particularly agencies requiring permits for right-of-way use, such as Hillsborough County, Florida Department of Transportation (DOT), 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 developer's engineer finds that the project involves a non-county right-of-way, the engineer should 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 developer's engineer should work simultaneously with the involved agency and the PGMD 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 WRS 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."
- 1.4.1.4 If the grantor is an "individual or partnership," use form *PUE (Perpetual Utility Easement) 1*. If the grantor is a "corporation," use form *PUE 2*.
- 1.4.2 Please submit the above items to the PGMD 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 Reclaim water easements outside the right-of-way shall be dedicated for "Hillsborough County" 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

WRS 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 Developer, the issue will be referred to and decided upon by the WRS Technical Design Team Leader. 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 WRS 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 a) all inspections have been made; b) 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; and c) the PGMD Site Plan and Subdivision Review Section is provided with the required documentation. No Certificate of Occupancy shall be given until all WRS inspections have been approved, and all applicable regulatory requirements have been satisfied.
- 1.6.2 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.

- 1.6.2.1 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 PGMD.
- 1.6.2.2 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 WRS Inspector. The developer will submit a one year letter of warranty for all off-site utilities as part of the acceptance package.
- 1.6.3 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.
- 1.6.3.1 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.
- 1.6.3.2 The Developer may submit a Plat to the BOCC for acceptance and recording prior to construction completion and the Board can authorize PGMD 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 2 years, can vary between 6 months and 2 years. The warranty period will be two years, commencing upon acceptance of Improvements by PGMD. This is the option selected by most subdivision developers.
- 1.6.3.3 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.
- 1.6.4 The following is a list of documents that must be submitted to PGMD 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

- One (1) copy of final plat (Survey)
- Five (5) copies of lot grading plans (Inspections - 1, Main Office Permitting - 1, Satellite Offices Permitting - 3)
- One (1) copy of sidewalk plan (Inspections)
- Specific cost breakout
- One (1) set of test reports
- Contractor's Affidavit
- Benchmark Certification
- Surveyor's Certification
- EOR's Certification of Construction Completion
- DEP Certification of Completion
- Coating Installer/Applicator Certification
- Subdivider's Agreement
- Financial Security
- Record Drawings (showing "as-built" conditions):
 - One (1) complete set, roads/ drainage/ water/ wastewater/ reclaimed water (Inspections/File)
 - Three (3) sets of roads/drainage (Public Works, EPC, SWFWMD)
 - Two (2) sets of water/wastewater/reclaimed water (WRS Record Archives- 1, Fire Dept.- 1)
 - One (1) complete set of project design files (roads, drainage, lot grading, sidewalks, water, reclaimed water, waste water, etc.) in AutoCAD 2008 or later dwf format, and one (1) unencrypted AutoCAD 2008 or later dwg file of project geometry tied to an established County benchmark and (optionally) stripped of all design notes and other proprietary information. The dwg file shall be self contained with no Xrefs. (WRS Technical Design).

1.6.5 The following is a list of documents that must be submitted to PGMD in the acceptance process for off-site utility improvements for commercial developments:

- Letter requesting acceptance
- Specific cost breakout
- One (1) set of test reports
- 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.
- Record Drawings (showing "as-built" conditions):
 - One (1) complete set of roads/drainage/ water/ wastewater/ reclaimed water (Inspections/File)
 - One (1) set of roads/drainage (Public Works)

- Two (2) sets of water/wastewater/reclaimed water (WRS Record Archives.- 1, Fire Dept.- 1)
- One (1) complete set of roads/drainage/water/wastewater and reclaimed water design files in AutoCAD 2008 or later dwf format and one (1) unencrypted AutoCAD 2008 or later dwg file of project geometry tied to an established County benchmark and (optionally) stripped of all design notes and other proprietary information. The dwg file shall be self contained with no Xrefs.(WRS Technical Design).

1.6.6 NOTICE OF ACCEPTANCE

Upon receipt and verification of the above documentation, the PGMD will either Administratively accept or will request Board of County Commissioners acceptance of the Improvement Facilities (water, wastewater, reclaimed water) for maintenance and operation. Within three (3) days of action by the Board or through Administrative approval, the PGMD 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 Committee 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 Committee is comprised of representatives from Water Resource Services, Procurement Services, and the Planning and Growth Management Department. The representatives have technical and/or management positions and are either design supervisors, maintenance or construction personnel, or have a background in design, maintenance, and/or construction. Developers, engineers and contractors may attend the PRC meetings as non-participating/non-voting representatives.
- 1.7.3 Appendix B of the HCWRS 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 send an email addressed to: HC-PRC@HillsboroughCounty.org listing in the subject line “Begin Product Review”.
- 1.7.4 On a case-by-case basis, the PGMD may consider a one-time approval of an alternate material or manufacturer through a shop drawing submittal prior to design. The WRS Technical Design Team Leader 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 TECHNICAL MANUAL REVISION PROCEDURE

- 1.8.1 As material specifications and technical criteria change to meet new needs and changing technology, it will become necessary to revise and update this manual. These revisions will be handled administratively under the direction of the Water Resource Services Director.
- 1.8.2 Any significant revisions to this manual under consideration by WRS will be e-mailed as a "Notification for Comment" to interested Hillsborough County Departments (PGMD, PW, and WRS), the Tampa Bay Builders Association, and anyone who submits a request to the WRS Technical Design Team Leader to be included in the email notifications. Recipients of the proposed revisions will have twenty-one calendar days to provide written comments to the WRS Engineering Services Group (ESG) Manager. An informal workshop attended by staff and any interested parties will be held to discuss the proposed revisions. If staff is of the opinion that additional review and/or workshops are necessary, all attendees of the first workshop will receive notification of this action via e-mail. If, after a proposed revision has been thoroughly reviewed and discussed in at least one informal workshop, staff holds the opinion that the proposed revision is in the best interest of Hillsborough County and should be incorporated in this manual, then a recommendation with dissenting viewpoints, if any, will be forwarded to the WRS Director for action.
- 1.8.3 A notice of revisions approved by the WRS Director will be e-mailed in a timely manner to all the original "notification for comment" recipients. The effective date of such changes shall be 30 days from the date of the WRS Director's approval. At that time the new manual will be available online through the HCWRS website.
- 1.8.4 The preparers of this manual have gone to great lengths to develop a manual that is accurate, consistent, and free from errors and conflicts. However, there is no foolproof way to assure that a technical document of this type is totally free from imperfections. Therefore, in the unlikely event that an existing conflict is discovered or is created by an implementation of an approved revision to this manual, the ESG Manager shall assume responsibility for investigating the conflict and recommending a change to the Technical Manual pending the WRS Director's approval. The effective date of conflict resolution will be the date of the approval by the WRS Director. The resolution of all design problems directly related to criteria conflicts in this manual will be handled on a case-by-case basis by the ESG Manager. Public health, safety and welfare, economic impact, and due diligence by the site designer will all be considered in the resolution of these design problems. The Tampa Bay Builders Association (and anyone on the direct

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email notification list) will be notified by email in the event that a significant change has been made.

- 1.8.5 Finally, correction of any typographical errors contained herein that do not materially and significantly affect criteria will not require approval by the WRS Director. All corrections of this nature will be handled by e-mail notification to the Tampa Bay Builders Association (and anyone on the direct email notification list) by the ESG Manager and will be effective as of the date of e-mail notification and the upload of the revision to the HCWRS website.

– END OF SECTION 1 –