

**ORANGE COUNTY  
NORTH CAROLINA**

**TOWN OF HILLSBOROUGH  
WATER/SEWER EXTENSION CONTRACT**

THIS WATER/SEWER EXTENSION CONTRACT (WSEC) is entered into this \_\_\_ day of \_\_\_\_\_, 2025 by and between DHIC – COLLINS RIDGE, LLC (hereinafter the “DEVELOPER”) and the Town of Hillsborough, a North Carolina municipal corporation (hereinafter the “Town”):

WHEREAS, the DEVELOPER proposes to extend the Town’s water and sewer system (hereinafter the “Work, or Improvements”) to serve its **COLLINS RIDGE – BLUFFBERRY WAY EXTENSION AND POD D** project (hereinafter the “Project”); and

WHEREAS, the Work for the Project is more specifically identified in the appendices of this Contract; and

WHEREAS, DEVELOPER has agreed to pay certain costs associated with the proposed Work; and

WHEREAS, water and sewer extensions to the project site by a separate entity were previously approved as Phase IA and Phase IB, the Town Board of Commissioners authorized the proposed water main extension subject to execution of this WSEC and compliance with its terms.

NOW, THEREFORE, the DEVELOPER and the Town, and the successors, and assigns of each of them agree:

(1) Subject to DEVELOPER’s compliance with the terms and conditions set forth herein, and subject to DEVELOPER obtaining all necessary approvals from the State of North Carolina or any other agency or authority with jurisdiction over the Work, the Town will permit the connection of Improvements constructed for the above-referenced Project to the Town’s water and sewer systems.

- a) The Town reserves the right to refuse to allow connection to or use of the Town water and/or sewer system (i) when such connection would cause the Town’s system or the operation thereof to be in violation of any applicable state or federal requirement; or (ii) for reasons not known or foreseen by the Town at the time this contract was executed that would create a clear and present danger to the public health or safety. Reasons for refusal to allow connection shall include, but not be limited to, lack of water supply or lack of capacity of one or more components of the water or sewer system.

The Town's authorization to connect to the Town's water and sewer system, including any capacity reservations noted, under this Contract shall expire if (i) substantial (i.e. more than token) construction of the Project has not begun within two years from the date upon which this contract was executed; (ii) after construction begins, construction ceases for a continuous period of more than one year (unless a result of an action by the Town); or (iii) the extension to be constructed pursuant to this contract has not been connected to the Town's system in accordance with the requirements set forth herein within three years for the date upon which this contract was signed unless both parties agree to extend. within

three years from the date upon which this contract was executed, unless extended by writing before the expiration.

(2) Nothing in this Contract shall be construed as constituting express or implied approval of the Project by the Town under any applicable Town zoning, subdivision, or other land use ordinance.

(3) The DEVELOPER agrees to comply with or satisfy the following terms and conditions as well as those set forth in Appendix A and acknowledges that the Town's authorization to connect the proposed extension to the Town's system is specifically contingent upon compliance with and satisfaction of the same. If these conditions are not met, this Contract will be rendered null and void and the DEVELOPER will need to re-negotiate a new Contract for extension of service from the Town.

A. General Conditions:

1. Unless otherwise explicitly and specifically stated, DEVELOPER shall bear the costs and expenses of all obligations and duties created by this Contract, including without limitation, engineering and legal fees incurred by the Town in connection with the proposed extension. The Town will invoice the Developer for such costs incurred, and payment is due within 30 days. The Town will invoice in accordance with the Town's approved and posted Fee and Charges Schedule prevailing at the time the work is completed.
2. The Town will permit the use of the extension to the Town's water or sewer system only after the Improvements have been successfully tested, all the conditions set forth in Sections B, C, and D and any costs billed per Section A(1) and Section E, and any additional conditions appended hereto, have been satisfied.
3. The Town shall own and maintain the Improvements constructed under this contract after they are accepted by the Town Board of Commissioners and until such time as the Improvements have been accepted by the Town Board, the DEVELOPER remains responsible for all maintenance and repairs to the Improvements. Notwithstanding the foregoing, the Town shall inspect the Improvements and provide a written report of deficiencies within 30 days or accept maintenance and release applicable sureties.
4. The DEVELOPER shall warranty the improvements for a period of one year after the improvements are placed in service. Improvements shall be considered to be in service once metered water and sewer customers are served by the improvements.
5. The DEVELOPER shall warrant all materials and workmanship of the public sewer Improvements pursuant to the Post-Construction Conditions of this Contract. Should defects in workmanship or materials be discovered in work done pursuant to this contract by or for the DEVELOPER during the warranty period, the DEVELOPER shall be responsible to see that all such defects are promptly corrected at the DEVELOPER's expense and written evidence of such, such as a stamped/sealed certification by the DEVELOPER'S engineer per paragraph A.12 above, is provided to the Town.
6. The Town may make or authorize extensions or connections to or from any of the public sewer Improvements constructed pursuant to this Contract without permission of the DEVELOPER.

Notwithstanding the foregoing, the Developer's warranty period of any Improvements downstream of an extension or connection shall automatically expire upon said extension or connection.

7. Water and sewer service shall meet all minimum State and Town standards. The Town makes no warranty as to any water quality, quantity or pressure to be provided.
8. This Contract may be assigned by the DEVELOPER, but such successor or assignee shall obtain no rights hereunder until after it has provided the Town with a written acknowledgment of the assignee's assumption of all DEVELOPER's obligations and responsibilities under this Contract.
9. This Contract is specific to the Project named above and described in Appendix A as approved by the Town Utilities Department and the Board of Commissioners. Any change or alteration in the approved intended use, i.e., residential, and commercial development, or configuration of the approved Improvements of such Project by the DEVELOPER or successor or assignee shall, absent the written consent of the Town, void this Contract.
10. DEVELOPER shall employ a licensed North Carolina engineering firm and engineer to prepare the design and to provide construction administration services throughout the entire Project. DEVELOPER shall provide for third-party construction observation services for the duration of the construction through and until the Town's acceptance of the Project.
11. The words "line" or "lines" shall include "main or "mains" unless the contract otherwise requires. "Sewer" means "sanitary sewer."
12. This Contract shall be deemed made in and shall be construed in accordance with the law of North Carolina.

B. Pre-Construction Conditions

1. The DEVELOPER and its engineer have discussed the capacity needs of the Project with the Town early in the Project's conceptual phases. Water and sewer capacity allocated to the Project will be noted in Appendix A and any changes in Project scope requiring more or less than the allocated amount will require an amendment to this Contract. For large Projects, the Town may require the DEVELOPER to conduct its own capacity analysis using a licensed North Carolina Professional Engineer utilizing information provided by the Town.
  - a) If results of the capacity analysis determine off-site improvements to the Town's existing system (conveyance or treatment) are needed to accommodate the Project and the DEVELOPER decides to proceed with the Project, the Town will negotiate any cost-share of such off-site improvements with the DEVELOPER, and the terms reached as a result of the negotiations will be included in Appendix A. [CAPACITY HAS BEEN DETERMINED TO BE SUFFICIENT AND THIS SECTION DOES NOT APPLY TO THIS CONTRACT]

2. The DEVELOPER shall engage a licensed North Carolina Professional Engineer to prepare plans and specifications for the construction of water improvements and/or sanitary sewer improvements to serve the Project. The Project shall not rely solely on the Town's Standard Utility Specifications, which may not cover all methods of construction or administrative matters (e.g., shoring, trenching, backfill, pipe laying, handling rock or hazardous wastes, bypass pumping, temporary water service, general and special conditions, site security, payment and change processes, geotechnical or other investigations, etc.).
3. The DEVELOPER shall secure formal approval of the water and sewer construction plans and specifications by the following agencies or authorities (and any other government agencies which may have jurisdiction over one or more elements of the Project), and provide approvals of such to the Town:
  - Town Utilities Department
  - North Carolina Department of Environmental Quality (if the Project entails any site infrastructure that is considered private, the plans and permit applications shall clearly delineate such and two applications may be required)
  - North Carolina Department of Transportation
4. The DEVELOPER shall secure and record all required easements for the Work. The Town will provide a boilerplate easement document for utilization.
5. The DEVELOPER shall schedule a pre-construction meeting to include the Town Utilities Department, the Town Planning Department, the Contractor, major Subcontractors, and other pertinent stakeholders prior to commencement of the Work and at this time will provide the Town a list of contacts for the Project.
6. The DEVELOPER shall instruct its contractor to submit to its engineer all water and sewer material and shop drawing submittals and for its engineer to share all approved submittals with the Town.
7. The DEVELOPER shall pay all fees for the Improvements due to the Town prior to construction of the Improvements.
8. The Town will not accept new pumping stations except under extraordinary circumstances. If the Town accepts a pumping station in the Project design, the DEVELOPER shall pay the Town's Perpetual Maintenance Fees for such Improvements as required by the Town Code.
9. The DEVELOPER shall ensure that its engineer, surveyor, and contractor receive a copy of the final approved permits, plans and specifications for the Project and is aware of the Town's Utility Specifications, Standard Details and As-Built Digital Submittal Requirements prior to construction commencement, as applicable to each.

C. Construction Conditions:

1. Unless otherwise provided in this Contract, all construction shall be in accordance with Town and State policy, standards, and specifications at the time of construction commencement.
  - a) The Town shall approve the size and type of material for all water and sewer lines and points of actual or future connection to the Town system.
  - b) The Town shall provide, construction observation of the water and sewer Improvements by a competent, and experienced inspector (Inspector) which may be Town staff, or an outside vendor contracted by the Town. Inspection by the Town does not consist of or imply supervision.
    - i. The role of the Town's construction observation is to ensure the Town's interests are met regarding construction of the Project for which it is to assume ownership, but not to provide information to DEVELOPER's team for the preparation of record drawings or other acceptance documentation which remains the responsibility of the DEVELOPER. DEVELOPER shall reimburse Town for observation services according to its or its vendor's contracted fee schedule within 30 days of receipt of invoices.
  - c) All work on the extension of Public water or sewer lines shall be subject to inspection by the Town or it's designee as outlined in the Town's current Technical Specifications and Design Standards for Water and Sewer Systems and attached Appendices, and no Work may be covered up until such inspection has occurred. If any Work is covered up prior to inspection, the town may require such Work to be uncovered or exposed for inspection at the DEVELOPER'S expense. If, in the judgment of the Town, there is a demonstrated lack of competent supervision by a Contractor, the Town may halt work until approved supervision is obtained and the work done in accordance with town specifications and requirements. Public line extensions are generally depicted in Appendix E – Project Work Areas.
  - d) The Town shall require acceptance testing by the DEVELOPER or its Contractor to determine whether the Work complies with State and Town standards and specifications. All such testing, including the costs of testing chemicals and third party laboratory testing costs, shall be at the DEVELOPER's expense, and a Town representative must be present when testing occurs unless declined or delegated in writing. The DEVELOPER or its Contractor must provide the Town at least 48 hours advance notice of any testing. The Contractor shall document the testing of each segment in detail (type of test, date, test conditions and results, pass/fail) on legible forms. Contractor's failure to document a test will require retesting and a retesting fee for each instance thereafter.
  - e) The Inspector shall be onsite each day that Meaningful Work is performed and shall prepare daily logs to be submitted weekly to the Town. Daily logs shall include a general description of the work performed that day, weather conditions, equipment used, number of crew, any installation observations, or concerns, and who they were communicated to,

and associated photos with a photo log. The Inspector shall routinely communicate on progress and issues that arise.

i. Meaningful Work shall be as outlined in Appendix D – Meaningful Work

- f) The DEVELOPER's engineer/construction team shall consult with the Inspector about any significant field changes. The DEVELOPER's engineer shall gain approval in writing from the Town's Utilities Director or delegated staff (which is not the Inspector) prior to making such changes. Changes shall be reflected on the record drawings. The Utilities Director or designee shall provide written approval of requested field changes within two (2) business days
  - i. Significant change may include but not be limited to adding or deleting or changing the alignment or grade of infrastructure; moving hydrants, manholes, valves or backflow prevention device locations; adding additional services; changing pipe sizes or materials; adding couplings; or making other changes that will affect the layout or operation of the system as designed and approved. In some cases, changes may necessitate a modification of a permit or encroachment. DEVELOPER is responsible for initiating such modifications, the Town staff may recommend field change requests in writing, but the Developer is responsible for ultimate conformance with approved drawings.
- g) All Work on the Improvements shall be performed by a contractor actively licensed to perform this type of Work in North Carolina.
- h) DEVELOPER shall have their construction contractor coordinate with the Town on tie-in plans and water shutdowns at least one week in advance of the planned tie-in or shutdown. Contractor shall be responsible for notification to customers of water disruptions with prior notification language approval by the Town.
- i) Town shall operate any existing system features (i.e., valves, hydrants) to accommodate Work by contractor, unless permission for others to operate such features is granted by the town in writing. Unauthorized operation of hydrants or valves or other system components by DEVELOPER or its contractor (or subcontractor(s)) without prior approval of the town constitutes tampering and theft and will result in the Town assessing fees and civil penalties as outlined in town code Section 14-16.
  - i. Should DEVELOPER fail to pay an assessment imposed pursuant to this paragraph or if tampering occurs repeatedly on the Project, the Town may stop work on the Project until the assessment is paid, or some other arrangement is made to satisfy the Town that no further tampering will occur. Repeat instances of tampering may result in the Town nullifying this Contract.
- j) DEVELOPER shall report any instances of sewer bypass or overflow, or any instance of water system issues, caused by the Work to the Town within one hour of issue becoming

apparent and the appropriate regulatory agency if and as required. Said report may be made through filing an incident report in the BIMS Public Portal.

- i. DEVELOPER is solely responsible for any civil fines, penalties, or enforcement actions directly associated with the Work or performance.
  - k) DEVELOPER shall ensure contractor checks and confirms line and grade throughout installation of future public gravity sewers to ensure proper slope and alignment per plan. Failure to comply with minimum slope shall result in the removal and replacement of such sewers mains at proper grade, at DEVELOPER's cost. Minimum slope shall be either the minimum slope as determined by the NC DEQ Minimum Design Criteria for the Permitting of Gravity Sewers or the Town's Technical Specifications and Design Standards for Water and Sewer Systems, whichever is more stringent.
  - l) DEVELOPER shall provide proof of approved product submittals to the Town prior to construction commencement.
  - m) DEVELOPER shall require its contractor to provide 48-hours' notice to the Town in advance for any taps and acceptance testing.
  - n) DEVELOPER shall require that its water and sewer contractor have its field superintendent onsite during all construction of the Improvements. The field superintendent and a secondary field contact shall be identified at the preconstruction meeting.
  - o) The DEVELOPER shall ensure that the water and sewer contractor maintain field records of the Work as it progresses and shall have a registered land surveyor collect and seal as accurate, the location and survey attributes for all water and sewer features as required by the Town according to its As-Built Digital Submittal Requirements as Attached in Appendix B. Any missing information to meet the requirements shall be collected at the DEVELOPER expense and prior to Town acceptance of the system.
  - p) The DEVELOPER shall prepare and submit final as-built drawings of the Work which are sealed by a North Carolina registered Professional Engineer.
  - q) Off-road vehicles or metal tracked equipment may only be driven over installed utilities if Developer's contractor takes adequate precautions to protect the integrity of the existing utilities. Typical precautions could include load mats, tree protection fence around existing utilities or similar. The Developer shall be responsible for repairing all damage to existing utilities caused by the Developer's contractor at no expense to the Town. The evidence or observation of off-road vehicles or metal tracked equipment driving over installed utilities after inspection may require reinspection and retesting at the costs listed in Section E at the discretion of the Town.
2. The DEVELOPER shall bear the total cost of all water and/or sewer observation, permit

compliance, construction, security instruments, insurance, testing and dedication and acceptance documentation within the Project and all water and/or sewer construction required to extend service to the Project as depicted in the approved plans, unless negotiated otherwise and stated in this Contract. All fees charged by the Town shall be as posted in the Town's current Fees and Charges Schedule.

D. Post-Construction Conditions:

The following stages shall be completed after construction of the Project:

1. Prior to use of the Project for any reason the Town shall have performed a pre-acceptance inspection through the point of use and received from the DEVELOPER and approved:
  - a) sewer smoke testing and televising reports as required by the Town specifications,
  - b) copies of all acceptance testing performed on the Improvements, including any testing of backflow prevention devices; fats, oils and grease interceptors or separators; fire flow or apparatus testing (as it relates to affecting the public water system); sewer manhole vacuum testing; sewer and water main pressure and leakage testing; mandrel testing; geotechnical compaction testing if utilized; and bacteriological testing of any water mains,
  - c) two printed copies (1 full D-size and 1 half-size) and one electronic PDF copy of the sealed as-built drawings (full as-built drawings should be presented unless the Town agrees to accept a series of partial as-built drawings),
  - d) a full CAD version of the final as-built drawings including all necessary X-references and font files to make a complete view of the data in Autodesk's AutoCad 2020 or other Autodesk CAD viewer software,
  - e) a contractor's notarized affidavit that the drawings accurately represent the as-built improvements,
  - f) the completed Engineering Certifications executed by the Professional Engineer of record indicating that work has been performed in substantial compliance with the approved plans and specifications and that the state has received such certifications and approved them (partial or final certification may be provided, and separate sets provided for onsite and offsite), and,
  - g) evidence the noted deficiencies, including any noted from the sewer televising and smoke testing, have been corrected by the DEVELOPER'S contractor and approved by the town, unless the Town has provided written permission for specific minor deficiencies not affecting the operation of the system to be corrected before acceptance of the system per Item D(2)(g).



2. Prior to the Town accepting the system for ownership, the Developer shall:
  - a) provide a Contractor's Affidavit and Release of Liens from all subcontractors and materialmen,
  - b) provide digital data as required by the Town's As-Built Digital Submittal Requirements,
    - i. the digital data will be quality checked by the Town's surveying firm within 10 business days (typically 10% of the system). Additional time shall be accounted for this effort in DEVELOPER's schedule,
    - ii. the data shall be corrected at the DEVELOPER's expense if significant discrepancies exist between the survey data exist from the quality check,
    - iii. The charges for the Town to perform the quality check and input the data into the town GIS system will be billed to the DEVELOPER per the Town's Fees and Charges Schedule.
  - c) convey to the Town and record or cause to have recorded in the Orange County Registry all deeds of easement and plats showing all water and/or sewer easements and Rights of Way (ROW) required to serve the Project,
  - d) provide an engineer-certified Statement of Value per bid line item of the final cost of the water and sewer Improvements for all infrastructure to be donated to the Town,
  - e) have submitted all daily field reports and other pertinent Project records as requested such as approved submittals, Requests for Information, Field Work Orders and Change Orders that pertain to the public water and sewer,
  - f) ensure all Engineering Certifications are final,
  - g) All Town punch list items noting deficiencies with work contemplated in the approved plans are completed and signed off upon.
  - h) provide developer completed state Change of Ownership forms to transfer the state-permitted water and sewer Improvements that are to become public to the Town (the Town will execute its portion and submit to the state upon Town Board of Commissioners acceptance),
  - i) formally dedicate to the Town by letter all physical Improvements constructed to serve the project that is the subject of this contract, which Improvements shall become part of the Town water and sewer system upon acceptance by the Town Board of Commissioners and will thereafter be owned and maintained by the Town, with exception of the warranty conditions, and
3. present a warranty to the Town of Hillsborough for a minimum period of one year from the date the improvements are placed in service. Upon satisfaction of the requirements contained in Section D.2.

above, this Contract shall automatically terminate without the need for any further action by either party. Upon such termination, the Maintenance Bond or Letter or Letter of Credit shall be returned to the Developer (or such portion that is required to be returned under this Contract).”

E. Fees:

1. All fees and charges to be paid pursuant to this Contract shall be calculated in accordance with the Town’s fee schedule in effect when the fees and charges are paid, or if not in the fee schedule, as outlined in this section. Fees typically are adopted as part of the Town’s budget process each year with an effective date of July 1 and are subject to change.
2. DEVELOPER's construction of Improvements pursuant to this Contract shall not relieve DEVELOPER of the obligation to pay applicable fees under the Town's water and sewer ordinances and policies in effect at the time the fees are paid, and this Section E, except as amended by Appendix A.
3. DEVELOPER's construction of Improvements pursuant to this Contract does not affect the Town's policy with respect to the fees to be paid to the Town by property owners other than DEVELOPER for connection to the improvements constructed by DEVELOPER pursuant to this Contract. Nor shall DEVELOPER have any right to collect fees from persons connecting onto or extending the improvements constructed under this Contract. The Town shall not authorize connections to the private portions of the project and will only have authority to allow connections to sewer donated to the Town.
4. The following fees will be applicable to the Project:
  - a) Water and sewer system development, engineering review, inspection and meter fees as applicable and published in the fee schedule referenced in Section A(1) and herein. These fees shall be due when outlined in the relevant state statutes or per Town policy.
  - b) Perpetual Maintenance Fees for any approved pumping station per town code calculations. [this section not applicable to this contract]
  - c) Tampering fees as outlined in Item C(1)(i).
  - d) DEVELOPER shall ensure its water and sewer contractor is prepared for acceptance testing by pre-testing items in advance. Reinspection fee for each recurring trip for previously failed tests, a call for testing that requires the Inspector to wait more than 30 minutes or observation by the Inspector that the items are not ready to be tested, or no timely notification of cancellation (4 hours in advance) of testing will be charged to DEVELOPER per the Town’s Fees and Charges Schedule. .
  - e) DEVELOPER shall ensure the construction is conducted in an orderly and organized fashion and that the Town’s resources are efficiently utilized. Repeated and duplicative effort by the Town on a project will require reimbursement from the Developer for staff time and travel in accordance with Section 14-68 of the Town Code of Ordinances and per Town’s Fees and Charges Schedule.
  - f) Construction water for the Project will not be obtained from the Town’s water system unless

through rental of a hydrant meter, installation of a construction meter (for home building), or through bulk water purchase from the Town's Water Treatment Plant in accordance with policies and rates in place at the time of rental.

- g) DEVELOPER shall reimburse the Town for review of sewer CCTV tapes at \$1.00/lf. CCTV that is submitted not in accordance with the Town CCTV specifications will be immediately rejected with a one-time charge of \$100.

[SIGNATURE PAGE FOLLOWS]

IN TESTIMONY WHEREOF, the parties hereto have executed this Contract in duplicate originals, as of the day and year first above written.

**DHIC COLLINS RIDGE, LLC**

**TOWN OF HILLSBOROUGH**

By: \_\_\_\_\_  
Signatory Title

By: \_\_\_\_\_  
Eric J. Peterson  
Town Manager

ATTEST:

\_\_\_\_\_

ATTEST:

\_\_\_\_\_  
Town Clerk  
Sarah Kimrey

This Contract is approved to as form:

\_\_\_\_\_  
Town Attorney

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

\_\_\_\_\_  
Tiffany Long, Finance Director

List of Appendices:  
Appendix A

**COLLINS RIDGE – BLUFFBERRY WAY AND POD D EXTENSION  
TOWN OF HILLSBOROUGH WATER/SEWER EXTENSION CONTRACT  
APPENDIX A**

DHIC – Collins Ridge, LLC agrees to satisfy the following conditions in addition to those set forth in this WATER/SEWER EXTENSION CONTRACT before the Town will permit the connection, operation and future ownership of improvements constructed for the above referenced Project to the Town water and sewer system:

1. The Project has reserved, for the period stated in WSEC paragraph 1(B), 42,000 gpd.
2. The Project consists of 144 one bedroom, 147 two bedroom, and 35 three bedroom units as well as a clubhouse and pet washing station.
3. Public water and sanitary sewer facilities for the project may include, approximately 164' of 8" public water main with hydrants and other appurtenances, 212' of 8" public sewer main, two public sewer manholes for a complete and operational system as designed by Urban Design Partners. Actual facilities to be constructed will be depicted in the issued construction plans and state permit application(s).
4. Off-road vehicles or metal tracked equipment may only be driven over installed utilities if Developer's contractor takes adequate precautions to protect the integrity of the existing utilities. Typical precautions could include load mats, tree protection fence around existing utilities or similar. The Developer shall be responsible for repairing all damage to existing utilities caused by the Developer's contractor at no expense to the Town. The evidence or observation of off-road vehicles or metal tracked equipment driving over installed utilities after inspection may require reinspection and retesting at the costs listed in Section (3)E at the discretion of the Town.

**APPENDIX B**  
**AS-BUILT DIGITAL SUBMITTAL REQUIREMENTS]**

**APPENDIX C**  
**[CCTV SPECIFICATIONS]**

**APPENDIX D**  
**[MEANINGFUL WORK]**



## **Exhibit D to the Water and Sewer Extension Contract for COLLINS RIDGE – BLUFFBERRY WAY EXTENSION AND POD D.**

**What is meaningful work that requires utility observation/review by a 3<sup>rd</sup> party hired by the town or town observer?**

The Water and Sewer Extension Contract defines “meaningful work” in Section (3)C.1.e)i. as follows:

*Meaningful work means the installation of water or sewer infrastructure and appurtenances that will become part of the public system of the Town, installation of water or sewer services connecting to the public system of the Town, making taps to existing Town water or sewer mains, testing (including flushing and chlorinating of water mains) of water or sewer systems for acceptance, testing of soils for compaction around water and sewer systems, pouring thrust blocking, constructing pumping stations, tanks or other water and sewer features of public systems of the Town.*

The below is additional detail and clarification of water and sewer related work that shall be observed or would require time when the contractor indicates this work is planned or completed:

- Review of approved material submittals.
- Exploratory digging/spotting existing utilities to avoid conflict.
- Excavated trenches for water or sewer pipes or vaults to ensure all obstacles are removed and clearances achieved.
- Installation of bedding and backfill for pipe, including compaction of bedding material including in the public right-of-way.
- Installation of pipe, including pipe fittings, services, line joining, and pipe laying. This includes pouring thrust blocks, installation of any pipe restraints such as MEGALUGs or threaded rod, valves, appurtenances, and assemblies.
- Installation of sewer or air relief valve manholes including subgrade, joint sealing, lining (if required), rims, covers, and vents.
  - Any manhole coring must also be witnessed.
- Valve and hydrant operations, only Town staff may operate Town-owned hydrants and valves. Observer must witness final operation of valves and hydrants prior to formal acceptance.
- Existing water and sewer tapping and all testing.
- Installation of check valve and meter vaults and bypass assembly, including subgrade compaction, backfill, and joint sealing.
- Installation of backflow preventers.
  - A certified backflow tester must test and provide passing reports to the town’s third-party backflow assembly management company BSI Online.
- Valve box and manhole adjustments for paving.
- Installation of all aerial crossings, including footers, encasement, restraint.
- Bypass pumping or temporary water installations and testing operations.
- Jetting/cleaning of sewer mains.
- Flushing and chlorination of water mains.

- Any acceptance testing or testing required by the state or town for waterlines such as pressure testing, bacteriological testing, pigging, etc.
  - This includes returning for failed testing or failure to be ready for testing when scheduled by the contractor.
- Any acceptance testing or testing required by the state or town associated with sewer such as: pressure testing, mandrel pulls, manhole vacuum tests, smoke testing, CCTV footage acquisition.
  - This includes returning for failed testing or failure to be ready for testing when scheduled by the contractor.
- Review of recorded sewer CCTV footage and witness of repairs to any defects noted in CCTV review.
  - Repeat CCTV is required after any repairs.
- Warranty walk-through/punch list generation, as well as reinspection.
- Bore and Jack operations, periodic as discussed. A certified welder will be needed for the encasement welds.
  - Town will want to witness the carrier pipe insertion and pipe supports as well as end sealing of the casing pipe.
- Preconstruction and progress meetings.
- Any onsite closeout inspections not limited to Town standards (e.g., NCDOT and/or Engineer) close out inspections related to water and sewer.
- Any work covered up without observation and required to be uncovered.
- Any field modifications to either existing utilities or utilities proposed for acceptance, including troubleshooting and solution input.
  - All field modifications must be approved in writing by the Town prior to implementation per Section (3)C.1.f).
  - Per (3)C.1.f)i.: Physical field change may include but not be limited to: adding or deleting infrastructure; changing the alignment or grade of infrastructure; moving hydrants, manholes, valves, meters, or backflow prevention device locations; adding additional services; changing pipe sizes or materials; adding couplings or reducers; or making other changes that will affect the layout or operation of the system as designed and approved.
- Review of final testing reports, utility record drawings (as-builts) and plat, including easements per Section (3)D.
- Preparation of daily logs and photos of water and sewer work.
- Review of customer notifications of service outages for water and sewer or assistance at contractor's request in distributing such.
- Performing end of warranty walk through and required items review in addition to warranty punch list verification of completed items.

Any of the above items would be charged time/travel for developer reimbursement under Section 3, as applicable.

#### **What is NOT considered meaningful work related to the water and sewer observation needs?**

- Material acquisition/delivery.
- Mobilization and demobilization.
- Survey and grade work (although the contractor shall be active in checking gravity sewer grade and

taking utility survey points for compliance and record drawing preparation).

- Any earthmoving/ erosion control unrelated to water and sewer utility work.
- Maintenance and restoration such as seeding and strawing and erosion control.
- Asphalt cutting and patching.
- Roadway installation with exception of checking that valves and manholes are properly raised to grade after paving.
- Cleanup/housekeeping operations.
- Toolbox/safety meetings, unless topic of discussion is safety of existing utility system.
- Traffic control setup and implementation.
- Stormwater BMP setup and maintenance.
- Inspections and testing by others unrelated to water and sewer installation.
- Building pad preparation and building features with exception of exterior building water and sewer service connections.

**APPENDIX E**  
**[PROJECT WORK AREAS]**