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DEVELOPER PROJECT CHECKLIST - NOT AUTHORITY OWNED

Section 1. PURPOSE

This policy is to explain the review process that the Bedford Regional Water Authority ("Authority") utilizes for water and sewer developer projects being planned outside the service areas of the Authority that will not become part of the Authority's system.

Section 2. PROJECT CHECKLIST

The checklist that will be utilized by the Authority for the review of the project will be similar to that which is shown below.

PHASE 1 – REVIEW/DESIGN

1. PRELIMINARY REVIEW

- ☑ Initial plans are submitted for review along with the Base Project Review Fee.
- Bedford Regional Water Authority ("Authority") performs a preliminary review of the site plan of the proposed development.
- Water/sewer plans are submitted for review to the Authority by the Developer's design engineer.

2. DEVELOPER PACKAGE

- Developer package, including assessment of review and inspection fees (Project Fees), is mailed to developer.
- The developer package includes the following documents:
 - Cover Letter (including assessment of Project Fees)
 - Review Schedule and Process Guidelines
 - Developer Project Checklist
 - Developer Agreement
 - Surveyed As-Built Requirements
 - Comments generated from the initial review of the water/sewer design plans are included with the developer package.

3. REVIEW FEES

- Developer submits an executed Developer Agreement to the Authority including payment of Review Fees.
- Review Fees are assessed at the current rates per foot of waterline 3-inches in diameter and greater, and per foot of sewer line (service laterals are excluded).
- Inspection Fees must be paid prior to the issuance of the certificate to construct (see item 8 below), but can also be paid at the same time as the Review Fees.



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 ✓ Authority releases additional comments, clarifications, etc. to Developer a engineer (if applicable). ✓ PLAT APPROVAL (See General Note B) ✓ Final plat for the subdivision must be approved and signed by all applicab entities. ✓ Any necessary easements for the project are identified and included on the platting is not necessary, proof of easement will be required. 6. PLAN APPROVAL (See General Note B) ✓ Final water/sewer design plans are reviewed by the Engineering and Main departments in the presence of the design engineer when available. Any a comments generated are submitted to the Developer and/or design engineer ✓ Water/sewer design plans are approved by the Authority for construction. 7. ADDITIONAL REQUIREMENTS ✓ Contractor submits shop drawings to the Authority for review and approvation of the items may be required including but not limited to easements, permit items may be required including but not limited to easements, permit items in the presence of the Inspection Fees prior to the issuance of to construct; the fees are calculated as follows: 	le County e plat. Where tenance dditional
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	the certificate
• Inspection Fees are assessed at the current rates per foot of waterline, and sewer line.	per foot of
• Bacterial testing fees: \$60.00 per 1,000 linear feet of waterline; Flushing f the volume of water contained in said system multiplied by 4, charged at t water billing rate.	
Filling fee for testing Force Mains: Filling fee is equal to the volume of wain the force main system during testing, charged at the current water billing.	
9. CERTIFICATE TO CONSTRUCT	
Authority Engineering Department submits the Certificate to Construct ("Authority field representative for final approval.	C2C") to the
10. SURVEY / STAKE-OUT	
The design engineer performs a survey and stakes out the waterline, sewer proposed edge of pavement prior to construction commencing. Waterlines surveyed with a maximum spacing of 100 feet between stakes, including stakes. Sewer lines are to be surveyed with staking at each manhole locatic Surveying is to be performed by a licensed surveyor with a notice submitted surveyor or surveying company upon completion verifying what has been along with the date of survey.	s are to be staking at any on.



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PHASE 2 – CONSTRUCTION

11.	SITE GRADING
	Grading contractor constructs the proposed road to within 6-inches of final sub-grade. Survey stakes for the roadway are to be set by a licensed surveyor and shall verify that sub-grade has been established. Some flexibility may be permitted for gravity sewer.
12.	PRE-CONSTRUCTION
	Developer/Contractor schedules a pre-construction conference with the Authority's field representative(s).
13.	EXECUTED CERTIFICATE TO CONSTRUCT
	☑ C2C is issued to the Developer/Contractor by the Authority's field representative upon site approval determined at the pre-construction conference.
14.	CONSTRUCTION STARTS
	Developer/Contractor notifies Authority of anticipated start date at least three working days in advance and prior to construction.
15.	TESTING
	The contractor shall schedule with the Authority's field representative at least three working days in advance (after construction is complete) for pressure testing and/or air & vacuum testing.
	Soil compaction tests are performed by a third party with the results being submitted to the Authority for review. The Contractor shall administer the scheduling of all compaction tests so that the Authority's field representative may be present during testing.
	✓ (WATER) Pressure tests are performed by the Contractor and approved by the Authority's field representative upon satisfactory test results as per Authority Master Specifications.
	☑ (WATER) Bacteriological tests are performed by the Developer or the Developer's Authorized Agent with the results being submitted to the Authority for review. (SEWER) Air/vacuum tests are performed by the Contractor and approved by the Authority's field representative upon satisfactory test results as per Authority Master Specifications.
	Other tests may be required to ensure that installation, materials, etc. is in accordance with the AUTHORITY Master Specifications as prescribed in the Agreement.
16.	PROJECT COMPLETION
	Authority Utility Locator schedules walk through to verify proper trace wire installation, and Engineering Department notifies Developer and Engineer of scheduled date. (See General Note I)
	✓ Authority Utility Locator marks water / sewer lines during verification of trace wire.



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Authority's field representative conducts a substantial completion walk-thru and issues
a project punch-list to the Contractor.

- Punch-list items are completed by the Contractor and verified by the Authority in a final completion inspection.
- The waterline is verified to be the minimum required distance from the edge of pavement. Asphalt base is required to be in place for distance verification.
- Field drawings and field notes are reviewed with the Authority's field representative for correctness and accuracy.
- Field drawings and field notes are submitted by the Contractor to the Developer and/or the design engineer for inclusion in the as-built drawings.

PHASE 3 – PROJECT CLOSEOUT

17. DESIGN FILES / AS-BUILT DRAWINGS ☑ The Developer/design engineer submits surveyed as-built drawings to the Authority per the Authority's Surveyed As-Built Requirements. ☑ AutoCAD and Adobe Acrobat files of the as-built drawings need to be submitted per the Authority's Surveyed As-Built Requirements. ☑ Authority's field representative reviews drawings for accuracy. 18. CERTIFICATE OF COMPLETION (See General Note J) ☑ A Certificate of Completion will be mailed to the Developer upon completion of all requirements as prescribed in the Agreement and this Checklist.

Section 3. GENERAL NOTES:

- A. In certain situations the Authority will enter into Agreements with Developers to offset some costs if linework has been built in excess of what their development requires. Any such Agreement is entered into at the discretion of the Authority Board of Directors, and must be done prior to the commencement of construction.
- B. General notes on the plan sheets shall be consistent and reflected in the plans and design. Plats and utility plans shall reflect each other prior to plan approval of either plan. Alignment changes made to plan sheets should be reflected in the overall site map submitted with the utility plans.
- C. The Authority has the authority to halt construction and order pipe and appurtenances to be removed if construction begins prior to the issuance of the Certificate to Construct.
- D. The Contractor is required to arrange for a Authority's field representative to be on-site at the beginning of any water/sewer construction project.



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- E. The Contractor is required to have the latest Authority Master Specifications on-site at all times. Construction may be halted until this documentation is on-site and verified by the Authority's field representative.
- F. Construction may be halted at any time if the Developer/Contractor fails to comply with any of the requirements set forth by the Agreement and associated documents.
- G. The Authority works closely with VDOT on projects where utilities are proposed in the right-ofway. Delays in receiving VDOT approval may result in delays for the construction or acceptance of the water or sewer lines.
- H. The latest edition of the Authority Master Specifications shall serve as the standard for water/sewer construction practices in Bedford County. Any changes required by the Authority or noted deficiencies during construction shall be corrected by the Contractor.
- I. Developer and/or Engineer are responsible for scheduling survey of the utilities immediately following the Authority Utility Locator's scheduled walk through and trace wire verification. If proper scheduling is not arranged, and Utility Locator's marks are no longer present upon time of survey for as-built drawings, the Developer and/or Engineer are responsible for having the lines located and marked with proper locating equipment.
- J. Final plats and any necessary easements must be recorded prior to the acceptance of the system(s). Recordation information and/or instrument numbers must be provided to the Authority prior to the issuance of a Certificate of Completion.

Section 4. REVISIONS

- A. This policy was approved and adopted by the Authority's Executive Director on April 23, 2013, effective July 1, 2013.
- B. This policy was modified as follows:
 - 1. Approved July 15, 2014, effective July 16, 2014:
 - a. Section 3.J was added clarifying recorded final plats and easements.
 - 2. Approved April 4, 2015, effective April 22, 2015:
 - a. Section 2.3 was revised to remove reference to Base Project Review Fee.
 - b. Section 2.8 was revised to reflect current costs for bacterial testing fees.
 - c. References to Inspector were modified to Authority's field representative.