

Knoxville Utilities Board

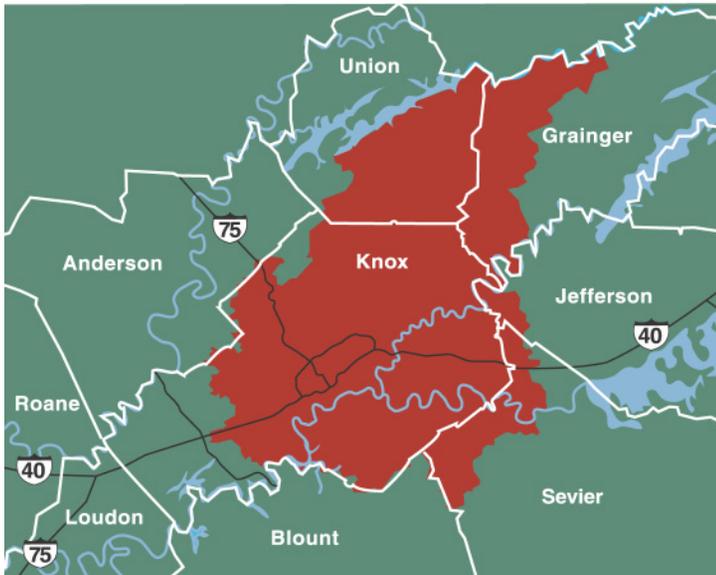
Development Guide



KUB has produced this step-by-step guide to help you with the development process. Inside you will find information about the four utilities we offer and how to establish service for each utility. Please use this guide as a roadmap to help you successfully complete your development.



Electric



KUB Electric Service Area



Electric Checklist

— **Contact KUB to schedule a project planning meeting and determine whether a primary electric extension is required to serve your development.**
We will discuss your project, explain the development process, and determine the availability of existing facilities. Primary electric line extensions can be expensive to you and should be discussed in the planning stages of any development.

— **Submit an electronic version of the development site plan to KUB.**

E-mail site plans to NSVdesign@kub.org in one of the following formats:

- Microstation.dgn file (preferred format)
- AutoCAD.dwg file (version 14 or later). AutoCAD files should be converted to 2D, have drop status on all blocks and include all files needed to display the design.

— **Obtain an electric utility infrastructure design and cost estimate from KUB.**

KUB will design the electric utility infrastructure for your development and provide a cost estimate. Utility designs typically take two to three weeks to complete.

— **Schedule a follow-up meeting with KUB.**

This meeting gives you an opportunity to review the infrastructure design and clarify any financial, contractual, or legal obligations with KUB before beginning the new development. We will also discuss any required financial contribution along with the build-out requirements for the development.



Electric

___ Execute development contract(s) and pay any required advance for construction.

KUB must have signed copies of your development contract(s) and any required monetary advance for construction before releasing your electric design plans for construction.

___ Schedule a pre-construction meeting with KUB.

Before beginning any utility infrastructure construction, contact KUB to schedule a pre-construction meeting. The pre-construction meeting is typically held at the development site. The meeting is an opportunity to make introductions, ask questions related to the electric system infrastructure installation, and establish contacts and a construction schedule.

___ Contact KUB Field Services at least three days before you begin installing the electric infrastructure for your development.

KUB Field Services must inspect the construction of electric facilities that are intended to become part of KUB's electric system. You are required to call KUB Field Services (865-558-2786) at least three days prior to construction of the electric facilities so that KUB can schedule an inspector for your project.

___ Install conduit and transformer pads per the approved design plans.

The developer is responsible for the installation of all electric conduit and transformer pads and any other facilities specifically indicated on the approved design plans.



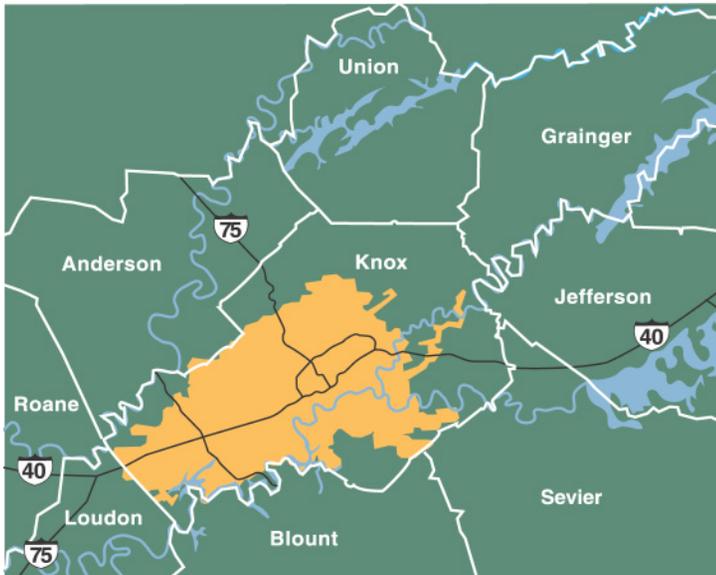
Electric

___ KUB will complete the installation of electric infrastructure.

After the conduit and transformer pads have been installed and inspected, KUB will begin installing the remaining electric facilities. A KUB electric crew or contractor will pull the cable through the conduits, set the transformers, and make all necessary connections. Service for individual homes or buildings within the development will be made available through KUB's standard new service process.

You should schedule KUB's installation of electric facilities with your KUB Field Inspector or call KUB's New Service department at (865) 558-2639.

Gas



KUB Gas Service Area



Gas Checklist

— **Contact KUB to schedule a project planning meeting and determine whether a gas main extension is required to serve your development.**

We will discuss your project, explain the development process, and determine the availability of existing facilities. Gas main extensions can be expensive to you and should be discussed in the planning stages of any development.

— **Submit an electronic version of the development site plan to KUB.**

E-mail site plans to NSVdesign@kub.org in one of the following formats:

- Microstation.dgn file (preferred format)
- AutoCAD.dwg file (version 14 or later). AutoCAD files should be converted to 2D, have drop status on all blocks and include all files needed to display the design.

— **Obtain a gas utility infrastructure design and cost estimate from KUB.**

KUB will design the gas utility infrastructure for your development and provide a cost estimate. Utility designs typically take two to three weeks to complete.

— **Determine who will install the gas utility infrastructure for the development.**

There are two methods of installing gas utility infrastructure in the development:

1. The developer installs the gas infrastructure using a KUB approved contractor.
2. KUB installs the gas infrastructure using one of its approved contractors. The chart on the next page further describes the two KUB-approved gas installation methods.



Gas

Option 1: Developer Installed Gas Facilities	Option 2: KUB Installed Gas Facilities
<i>Step 1.</i> Developer executes a Developer Installed Gas Agreement and selects contractor	<i>Step 1.</i> Developer executes a Gas Utility Extension Agreement
<i>Step 2.</i> Developer contacts KUB three days before installation	<i>Step 2.</i> Developer prepares site to grade and installs curbs
<i>Step 3.</i> KUB Field Inspector approves site before installation	<i>Step 3.</i> KUB approves site before installation
<i>Step 4.</i> Developer's pre-approved contractor installs gas infrastructure	<i>Step 4.</i> Job is bid through KUB's standard bid process
<i>Step 5.</i> KUB inspects and approves completed work	<i>Step 5.</i> KUB contractor installs infrastructure
<i>Step 6.</i> KUB pays developer for installation based on terms of Developer Installed Gas Agreement	<i>Step 6.</i> KUB inspects and approves completed work

___ Execute development contract(s), supply any required financial security and pay any required advance for construction.

KUB must have signed copies of your development contract(s), any required financial security, and/or monetary advance for construction before releasing your gas design plans.

___ Schedule a follow-up meeting with KUB.

This meeting gives you and KUB an opportunity to clarify any financial, contractual, or legal obligations before beginning the new development.



Gas

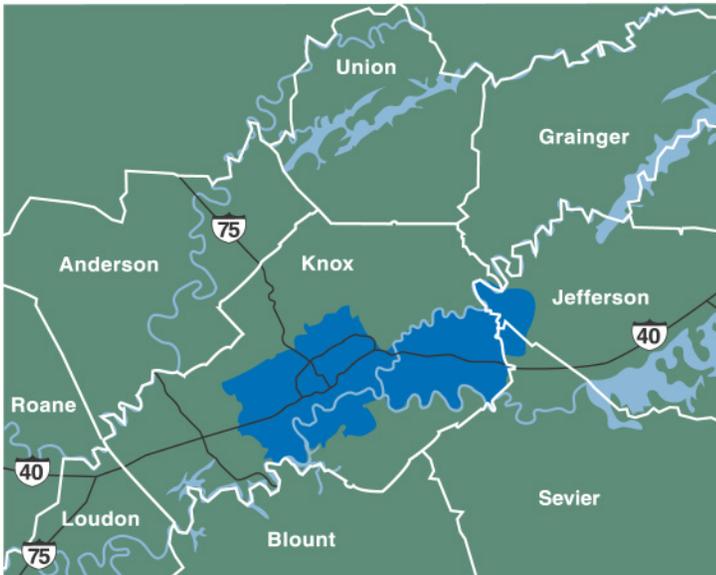
___ Schedule a pre-construction meeting with KUB.

Before beginning any utility infrastructure construction, contact KUB to schedule a pre-construction meeting. The pre-construction meeting is typically held at the development site. The meeting is an opportunity to make introductions, ask questions related to the gas system infrastructure installation, and establish contacts and a construction schedule.

___ Letter of Final Acceptance (OPTION 1 ONLY).

After KUB inspects and approves the gas facilities constructed in your development, you will receive a Letter of Final Acceptance from KUB. The letter will state that you will warrant all materials and workmanship associated with the construction of the gas facilities for a period of one year following the date of the Letter of Final Acceptance. Meters will not be set until KUB issues the Letter of Final Acceptance. Note: a Letter of Final Acceptance will only be issued in instances where the Developer has installed the gas facilities.

Water



KUB Water Service Area



Water Checklist

— **Contact KUB to schedule a project planning meeting and determine whether a water main extension is required to serve your development.**

We will discuss your project, explain the development process, and determine the availability of existing facilities. Water main extensions can be expensive to you and should be discussed in the planning stages of any development.

— **Submit a copy of the development water plan to KUB for local and State of Tennessee approval and pay State approval fees.**

E-mail your water plan and a copy of the water hydraulic calculations to NSVdesign@kub.org. Send a check made payable to KUB for State approval fees to KUB's New Service department. Contact KUB New Service at (865) 558-2639 for questions about the approval fee schedule. KUB will handle the approval process for your water plan and will remit your payment to the State.

Water plans should be prepared in accordance with KUB Water and Wastewater Design Guidelines. KUB Water and Wastewater Design Guidelines can be found at www.kub.org/standards.

— **Execute a Developer Installed Utility Facilities Agreement.**

This agreement spells out the requirements for constructing KUB water facilities and the conditions that must be met for KUB to accept the facilities into its system.

The agreement also states that the developer will warrant all materials and workmanship associated with the construction of the water facilities for a period of one year following the date of the Letter of Final Acceptance. This agreement



Water

must be executed by both parties before approved design plans can be released for construction.

___ **Obtain water design approval from KUB and the Tennessee Department of Environment and Conservation.**

KUB Engineering will note any corrections that must be made to the plans you submitted and return them to your engineer for revisions. After the plans are complete, they will be stamped “Approved for Construction” by KUB, on behalf of the Tennessee Department of Environment and Conservation (TDEC). KUB will return the approved plans to you and your engineer and keep a copy for the record.

It is important that you or your engineer provide the contractor with a set of plans. An approved set of plans must be present at the jobsite at all times in accordance with TDEC requirements.

___ **Obtain an approval letter from KUB before construction.**

The approval letter gives you authorization to construct the water facilities for the development. KUB grants this permission through an agreement with TDEC to review and approve plans for local water distribution projects.

___ **Schedule a follow-up meeting with KUB.**

This meeting gives you and KUB an opportunity to clarify any financial, contractual, or legal obligations before you begin the new development. KUB will also discuss with you any project-specific issues and address any final questions before construction.



Water

___ **Contact KUB Field Services at least three days before you begin installing the water infrastructure for your development.**

KUB Field Services must inspect the construction of water facilities that are intended to become part of KUB’s water system. You are required to call KUB Field Services (865-558-2786) at least three days before construction begins on the water facilities so that KUB can schedule an inspector for the project.

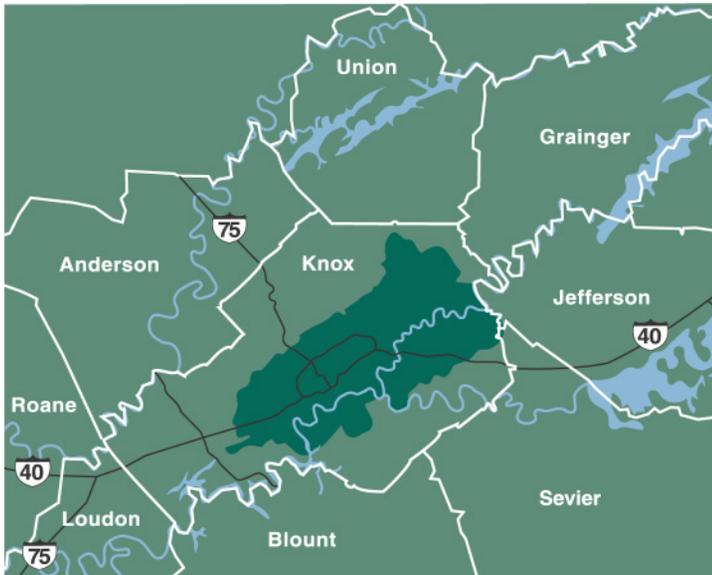
___ **Schedule water tap installations with KUB.**

Only KUB-authorized personnel are allowed to connect facilities to a water main. Make your request for water tap installations after site plans for the development have been approved.

___ **Letter of Final Acceptance.**

After KUB inspects and approves the water facilities constructed in your development, you will receive a Letter of Final Acceptance from KUB. The letter will state that you will warrant all materials and workmanship associated with the construction of the water facilities for a period of one year following the date of the Letter of Final Acceptance. Meters will not be set until KUB issues the Letter of Final Acceptance.

Wastewater



KUB Wastewater Service Area



Wastewater Checklist

— **Contact KUB to schedule a project planning meeting and determine whether a wastewater main extension is required to serve your development.**

We will discuss your project, explain the development process, provide information about KUB's Capacity Reservation Program, and determine the availability of existing facilities. Wastewater main extensions can be expensive to you and should be considered in the planning stages of any development.

— **Submit a Capacity Reservation Program capacity review application.**

All developers should submit a capacity review application to KUB's New Service department as soon as they begin planning a new project that includes KUB wastewater service. The application allows KUB to evaluate the project's potential impact on KUB's wastewater system and determine whether there is adequate system capacity available to serve the development.

KUB will not approve wastewater design plans until a capacity review application has been submitted and adequate wastewater capacity for the project has been reserved. Capacity review applications are available at www.kub.org or through KUB's New Service department.

Please see **Capacity Reservation Program (CRP)** at the end of this brochure for more details.

— **Submit a copy of the development wastewater plan to KUB for local and State of Tennessee approval and pay State approval fees.**

E-mail your wastewater plan and a copy of the wastewater hydraulic calculations to NSVdesign@kub.org. A check made payable to KUB for State approval fees



Wastewater

should be sent to KUB's New Service department. KUB will handle the approval process for your wastewater plan and will remit your payment to the State. Wastewater plans should be prepared in accordance with KUB Water and Wastewater Design Guidelines. KUB's Water and Wastewater Design Guidelines can be found at www.kub.org/standards.

___ Execute a Developer Installed Utility Facilities Agreement.

This agreement spells out the requirements for constructing KUB wastewater facilities and the conditions that must be met for KUB to accept the facilities into its system. The agreement also states that the developer will warrant all materials and workmanship associated with the construction of the wastewater facilities for a period of one year following the date of the Letter of Final Acceptance. This agreement must be executed by both parties before approved design plans can be released for construction.

___ Obtain wastewater design approval from KUB and the Tennessee Department of Environment and Conservation.

KUB Engineering will note any corrections that must be made to the plans you submitted and return them to your engineer for revisions. After the plans are complete, they will be stamped "Approved for Construction" by KUB, on behalf of the Tennessee Department of Environment and Conservation (TDEC). KUB will return the approved plans to you and your engineer and keep a copy for the record.

It is important that you or your engineer provide the contractor with a set of plans. An approved set of plans must be present at the jobsite at all times in accordance with TDEC requirements.



Wastewater

___ Obtain an approval letter from KUB before construction.

The approval letter gives you authorization to construct the wastewater infrastructure for the development. KUB grants this authority through an agreement with TDEC to review and approve plans for local wastewater collection system projects.

___ Schedule a follow-up meeting with KUB.

This meeting gives you and KUB an opportunity to clarify any financial, contractual, or legal obligations before you begin the new development. KUB will also discuss with you any project-specific issues and address any final questions before construction.

___ Contact KUB Field Services at least three days before you begin installing the wastewater infrastructure for your development.

KUB Field Services must inspect the construction of wastewater facilities that are intended to become part of KUB's wastewater system. You must call KUB Field Services (865-558-2786) at least three days before construction begins on the wastewater facilities so that KUB can schedule an inspector for your project.

___ Submit As-Built Drawings.

Following the construction, inspection, and testing of wastewater facilities, the developer must provide KUB with as-built drawings of all wastewater mains in the development. The developer's engineer should prepare the as-built drawings with the assistance of KUB's Field Inspector notes. As-built drawings must be delivered to KUB no later than 30 days after the date of the Letter of Final Acceptance.



Wastewater

___ Letter of Final Acceptance.

After KUB inspects and approves the wastewater utility installation in your development, you will receive a Letter of Final Acceptance from KUB. The letter states that you will warrant all materials and workmanship associated with the construction of the wastewater facilities for a period of one year following the date of the Letter of Final Acceptance. Laterals must not be connected to the wastewater system until KUB issues the Letter of Final Acceptance.

Capacity Reservation Program (CRP)

KUB, like many other utilities nationwide, must verify wastewater system capacity before allowing new sewer connections. The CRP helps KUB meet federal capacity assurance requirements, protect our environment, and support our community's growth. It also helps protect developers by ensuring that KUB can serve their project before large investments are made. Listed below is an overview of the program steps and some additional information:

CRP Steps:

1. Complete a Capacity Review Application.
2. Pay a \$300 non-refundable capacity review fee and submit the CR application.
3. KUB will perform a capacity review and return the results within two weeks.
4. Developer has 60 days to decide whether to proceed with the project.
5. Developer must sign a Capacity Reservation Agreement and submit a deposit.
6. Developer must submit design plans (if applicable) and sign an Extension Agreement.



Wastewater

Additional CRP Information:

- The EPA requires KUB to verify the availability of capacity for new sewer connections.
- KUB must manage capacity to prevent sewer overflows and to avoid penalties and a possible freeze on new development.
- Developers should have KUB review projects early in the planning stage to verify capacity and avoid delays.
- The reservation deposit is \$300 per residential unit and/or \$2 per gallon of projected daily flow for non-residential developments. Deposits are due upfront in the form of cash or letter of credit and are refundable under the terms of the Extension Agreement.
- Customers building a single-family home (not a multi-unit residential development) are not subject to the CRP process or fees. KUB handles those through a process with the City and County building permit offices.

Additional Items and Considerations

Street names. For development projects in the city of Knoxville or Knox County, street names within the development must be established with, and approved by, the Knoxville-Knox County Metropolitan Planning Commission before KUB will perform any required construction.

Private water and/or wastewater facilities. If you choose to install private water and/or wastewater facilities in your development, KUB will not be the governing authority for your plans review and approval process. You must check with the local city and/or county office to determine the governing authority. Also, if you choose to install private water facilities within a development, then the wastewater facilities must be private as well (and vice versa). Please note that KUB is not responsible for accepting, owning, maintaining, repairing, or replacing privately owned utility facilities.

Important Contact Names and Numbers

KUB New Construction <i>(General new service-related questions)</i>	(865) 558-2555
KUB Field Services <i>(Questions concerning inspections)</i>	(865) 558-2786
KUB Customer Service <i>(Utility service requests and emergencies)</i>	(865) 524-2911

To report a gas leak or damaged utility facilities, please call 524-2911.

Reminder: Call Tennessee One-Call (dial 811) at least three business days before you begin excavation and ask to have all utility and communication lines marked.

**KUB New Service
P.O. 59017
Knoxville, TN 37950-9017**



One easy phone call to Tennessee One Call (dial 811) gets the approximate location of underground utility lines marked for free. Knowing where utility lines are buried before each digging project helps protect you from injury, expense, and penalties.

Call Tennessee One Call by simply dialing 811 at least three business days before you begin excavation and ask to have all utility and communication lines marked.



P.O. Box 59017
Knoxville, TN 37950-9017
(865) 524-2911 • www.kub.org