

**KC Water
Rules and Regulations
For Water Main Extensions and Relocations**



May 2022

Contents

Process Outline	3
Purpose.....	4
Professional Engineer Responsibilities.....	5
KC Water Responsibilities.....	7
General Design Guidelines	8
Drawing Layout and Content.....	11
Check List	15
Title Block	18
Standard Notes	Error! Bookmark not defined. 9
Checklist for Plans Submittal	Error! Bookmark not defined.
KC Water Contacts	Error! Bookmark not defined.

Process Outline

When KC Water determines that a development or redevelopment project requires a water main extension, water main size increase, relocation, or any work on a public water main or appurtenance such as a fire hydrant, the following process is required:

In accordance with the City Code of Ordinances (Chapter 78), the Applicant is required to hire a registered Professional Engineer to prepare drawings for the proposed work. Drawings shall be prepared in accordance with these Rules and Regulations and “The Technical Specifications for KC Water Contracts.” The drawings shall be submitted to KC Water accompanied by a Checklist for Plans Submittal. The checklist and other documents are available at www.kcwater.us/projects/rulesandregulations.

When drawings receive final approval from KC Water within Compass KC (www.Compasskc.kcmo.org), KC Water will prepare contracts and related forms for execution by the Applicant and the City. KC Water reserves the right to refuse contracts that are not executed within 90 days from the date they are provided to the applicant by KC Water. The contracts and related documents may be submitted via the USPS or email. The applicant is responsible for ensuring that a properly formatted address and email address is provided.

Before beginning work, the Applicant shall provide a payment bond for approval by KC Water; and pay a fee to KC Water equal to 5% (\$750 minimum) of the estimated cost of the work, as determined by KC Water. The Applicant must hire a Contractor to perform the work. The Contractor who performs the work must provide a three-year Performance & Maintenance Bond and Certificate of Insurance for approval by KC Water before beginning work.

All design and related costs shall be paid by the Applicant. After all work is completed, the Applicant is required to provide to KC Water paid bills from the Applicant’s Engineer and Contractor and a notarized affidavit form provided by KC Water indicating all costs have been paid in full. The work must be installed in a platted public right-of way or recorded easements as required by KC Water. When requirements are satisfied, KC Water will accept ownership of the water mains and/or appurtenances. The Applicant or others may hire a licensed Plumber to apply for permits for private water service connections in accordance with the Rules and Regulations for Water Service Lines.

For further information, contact:

KC Water
Attn: Water Main Extensions and Relocations Manager
4800 E 63rd St.
Kansas City, Missouri 64130

(816) 513-1313

Purpose

These Rules and Regulations are intended to provide minimum standards for uniform style and content of detailed engineering drawings submitted in an application for water main extensions or relocations in the service area of KC Water (the Kansas City, Missouri, Water Services Department).

All drawings submitted shall conform to these minimum guidelines and include other information required to convey simple, clear, and complete instructions to properly lay out and construct or relocate water mains in accordance with all rules and regulations of KC Water.

Please contact KC Water staff in the Water Main Extensions and Relocations Program to discuss circumstances or seek clarification about rules and regulations for design of water main extensions or relocations not addressed by this guide.

Professional Engineer Responsibilities

Drawing Preparation

Drawings for water main extensions or relocations must be submitted by a Professional Engineer who is registered in the State of Missouri and has demonstrated experience in the design of water lines.

The Professional Engineer shall investigate existing water mains and all other utilities to help KC Water determine the size of the new or relocated water mains, how they will be connected to the distribution system to serve the proposed use adequately, how they will maintain the integrity of a well-planned distribution and grid system. KC Water encourages communication with Water Main Extension and Relocation Program staff to assist in this preliminary phase. The Professional Engineer may be required to submit preliminary development plans for adjacent areas when KC Water deems that information is necessary to determine proper size and location of new and proposed water mains. KC Water reserves the right to require final size and connection specifications in accordance with KC Water's long-range goals.

The Professional Engineer shall submit preliminary design plans for new or relocated water mains to the Water Main Extension and Relocation Program for review through Compass KC. More information: www.kewater.us/wp-content/uploads/2020/10/User-Guide-Water-Main-Extensions-Compass-KC-2020.pdf

Drawings must conform with Compass KC requirements, Chapter 78 of the Kansas City, Missouri, Code of Ordinances, and KC Water CAD Design Standards and Specifications. These requirements include but are not limited to water main sizes, fire hydrant spacing, and extension of transmission mains along the perimeter rights-of-way. Per Section 78-92, oversized transmission mains shall be extended as required by the Director of KC Water. Plans that do not meet minimum requirements will be returned for resubmission.

Materials and methods detailed on the drawings must conform to the latest edition of KC Water Standards and Technical Specifications for Water Contracts. A certified Checklist for Plans Submittal must be included with the original submission. Each sheet of the drawings shall include the seal or stamp and signature of the Professional Engineer and the date as required by the Rules of the Missouri Board for Architects, Professional Engineers and Land Surveyors. The seal should be placed in the space provided in the standard title block.

Properly submitted drawings will be reviewed by KC Water Water Main Extension and Relocation Program associates. Drawings that fail a Quality Control Review for minimum submission requirements may be returned without further comment. KC Water may require submission of another set of preliminary drawings or if substantial revisions are required. KC Water will establish work order, project, and drawing numbers to be

used to track the project. Once provided, these numbers shall be included on all drawings, correspondence or other documents related to the project.

Drawings submitted for final approval shall include all revisions and additions required by KC Water. The most recently revised drawings must be submitted on translucent film (Mylar® or vellum) to provide a permanent public record and to enable easy reproduction. The drawings shall not be folded, creased or rolled tightly. The latest version of drawings also shall be submitted on a computer disc in the latest version of Microstation® or AutoCAD® and meet current KC Water CAD standards. The disc shall include all information necessary to edit and plot the drawings and be labeled with the Project Name, KC Water Project Number, KC Water Work Order Number, KC Water Drawing Number, and date of publication.

Right of Way and Easements

The Professional Engineer shall verify that dedicated public right-of-way or water line easements exist for all areas of work shown on the drawings. New right-of-way or easements shall be provided by platting. Easements that cannot be platted may be provided by separate documents when necessary. Exclusive easements typically will be required.. Water mains in areas not in or adjacent to public rights-of-way normally will not be allowed.

Right-of-way and easement widths must provide a minimum of 25 feet of separation between any water main and any building or other permanent structure, with greater separations required for larger diameter mains or mains with more than minimum depth of cover. Permanent easement widths shall be as required by KC Water with the following minimum easement widths:

- 15 feet for 6-inch and 8-inch water mains
- 25 feet for 12-inch water mains
- 30 feet for 24-inch and larger water mains

Special conditions may require additional easement widths.

Construction Staking

The Professional Engineer shall provide the Contractor both horizontal and vertical survey control information necessary for proper layout of the work as detailed in the Standards and Specifications for Water Main Extensions and Relocations.

Certification of Payment

The Professional Engineer shall provide a letter, with authorized signature, to the Applicant for delivery to KC Water to certify when the Engineer has been paid in full for their work on the project.



The Applicant shall provide to KC Water a letter from the Professional Engineer with authorized signature certifying that the Engineer has been paid in full for work on the project.

KC Water Responsibilities

After drawings for a water main extension or relocation are approved, KC Water will prepare a cost estimate to be used as the basis of the contract between the City and Applicant. KC Water will provide contract forms, payment bond forms, performance and maintenance bond forms, and insurance specifications to the Applicant.

Upon receipt of an approved contract with the Applicant, approved payment bond forms, approved performance and maintenance bonds, approved insurance certificates and the required inspection fee, KC Water will issue approved-for-construction drawings and will inspect the work. KC Water will review and approve for the permanent public record final Record Documents submitted by the Contractor.

General Design Guidelines

Mains

Water mains, including transmission mains, shall be designed to extend to the boundary lines and corners of each subdivision of land and provide water service access to every lot in a subdivision along public street rights-of-way. Lots not fronting public street right-of-way will be served by private branch service mains installed in accordance with the Rules and Regulations for Water Service Lines.

Water mains normally shall be 12-inch, 8-inch, or 6-inch, diameter ductile iron pipe to meet the needs of the intended service area.

KC Water may require larger diameter water mains if deemed necessary to provide adequate fire protection and to meet the needs of a well-planned distribution system. KC Water in most cases will reimburse the Applicant for the difference in cost for water mains larger than 12-inch in diameter if the larger water main is not deemed necessary to serve the proposed development.

Water mains shall be located four feet from the curb on the west or south side of a street when possible. Normally this means the water main will be located in the grassy area between the curb and sidewalk. KC Water requires that streets and parking areas be graded and curbs in place prior to construction of all water mains. If this is not possible due to deferral of construction of a public street as authorized by another City department, the water main shall be designed to be in an exclusive easement immediately adjacent to the public right-of-way at a horizontal and vertical location that will avoid the need for future relocation due to eventual street construction.

All water mains shall be located with a minimum of five feet of separation from the edge of the water main to the right of way. Five feet of separation also shall be provided from parallel and non-cathodically protected gas mains.

All water mains shall be located with a minimum of 10 feet of separation from underground electrical lines or fixtures such as street lights. Water mains also shall be located a minimum of 10 feet from cathodically protected underground infrastructure such as gas mains. Normally this locates water mains on the opposite side of the street from street lights or other underground electrical lines or fixtures.

All water mains shall be installed a minimum of 42 inches (to the top of pipe) below finished grade. Water mains 16 inches and larger shall be installed a minimum of 60 inches below finished grade.

Water main designs shall comply with rules of the Missouri Department of Natural Resources regarding water mains near sewers (Title 10, Division 60, Chapter 10). All sewers shall be designed to cross under water mains and limit crossing water mains as

much as possible. See Section 01016 of the Standards and Specifications for Water Main Extensions and Relocations for additional requirements.

Water main designs shall minimize bends and other fittings that may adversely affect efficient flow of water through the system.

A properly restrained hydrant assembly or flushing assembly shall be installed at all terminal points. A hydrant is preferred when practical when it will fit within a normal hydrant spacing pattern. A flushing assembly including a gate valve the same size as the main shall be used at other dead ends.

Water main designs shall include provisions for undisturbed earth, concrete blocking and approved joint restraining devices necessary to bear possible horizontal and vertical thrusts. Concrete blocking and joint restraining devices shall be shown and called out on water main drawings. The Professional Engineer shall verify soil conditions and specify proper thrust restraint in accordance with the Rules and Regulations for Water Main Extensions and Relocations.

Concrete backing blocks may be used on horizontal bends or other fittings unless there is a possibility of insufficient, undisturbed earth bearing surface. In the case of insufficient, undisturbed earth bearing surface, approved joint-restraining devices and concrete straddle blocks installed against undisturbed earth will be required in lieu of or in addition to backing blocks. Use of approved joint restraining devices in lieu of or in addition to backing blocks is required on cul-de-sacs or other areas where multiple bends may be necessary. For larger diameter water mains, lengths of restrained joint piping may be used in lieu of large concrete blocks. Methods and values used to determine required length of restrained joints shall be included on drawings.

Vertical deflection of bends or other fittings shall be restrained by use of approved joint restraining devices and concrete straddle blocks installed against undisturbed earth. Design should maintain 42-inch minimum ground cover and 18-inch minimum clearance from all sewers or other structures. Design of vertical alignment shall limit the possibility of air entrapment in all water lines and shall include slopes that limit the number of air release valves required. Vertical alignment of water mains near proposed streets shall be consistent with established street grade criteria.

Design of connections to existing water mains shall include provisions to meet KC Water's long-range goal of maintaining a grid system. Design shall include materials and means necessary to limit water service disruption to customers. Full-size tees are required in lieu of tapping sleeves. Valves normally should be anchored to each side of any tee or cross. The Professional Engineer shall ensure existing water mains are investigated to ensure that all work complies with KC Water standards, including type, horizontal, and vertical location of existing pipe and fittings.

Outlets or connections of private service lines are allowed as part of large-diameter main extensions only at points approved by KC Water. A copy of water service drawings,

signed and approved by the KC Water Permit Desk, must be attached to the water main extension checklist plans.

Valves

Valves shall be the same nominal size as the water main to which they are installed.

Valve location shall provide the ability to isolate small blocks or sections of water mains to maintain service to adjacent areas.

Valve locations normally shall include a valve in every direction at every water main intersection. Valves normally should be anchored to each side of any tee or cross.

Fire Hydrants

Fire hydrants at street intersections shall be placed a minimum of 10 feet beyond the end of the radius return of the curb and at least five feet from stormwater catch basins.

Fire hydrants not at street intersections shall be placed at a property line or a minimum of five feet from a stormwater catch basin.

Fire hydrants shall be placed at least two feet from the curb or at least four feet from the edge of pavement where there is no curb. Fire hydrants shall not be placed within five feet of any above-ground or below-ground structure. Fire hydrants shall not be placed in sidewalks or drainage ditches.

Stationing for fire hydrant assemblies on drawings shall be the location of the center of the fire hydrant. Other appurtenances shall be placed in accordance with standard detail drawings for fire hydrants in the Standards and Specifications for Water Main Extensions and Relocations. Type A fire hydrant assemblies are preferred.

Fire hydrant locations shall provide fire protection in accordance with requirements of local authorities. Fire hydrants are required to be spaced every 600 feet in residentially zoned areas and 300 feet in commercial areas, or mixed zoned (residential and commercial) areas and multi-family residential areas with units larger than duplexes. The spacing in both instances is as measured along the street centerline/baseline. Radial distance shall not be used for hydrant spacing.

All fire hydrant assemblies shall include anchor fittings or other approved joint restraining devices.

Drawing Layout and Content

Media

Drawings submitted for final approval shall include all revisions and additions required by KC Water. The most recently revised drawings must be submitted on translucent film (Mylar® or vellum) to provide a permanent public record and to enable easy reproduction. The drawings shall not be folded, creased or rolled tightly. The latest version of drawings also shall be submitted on a computer disc in the latest version of Microstation® or AutoCAD® and meet current KC Water CAD standards. The disc shall include all information necessary to edit and plot the drawings and be labeled with the Project Name, KC Water Project Number, KC Water Work Order Number, KC Water Drawing Number, and date of publication.

Title Block

A complete 8-inch x 6-inch title block as shown on page 16 in these rules shall be placed in the lower right hand corner of all sheets.

Cover Sheet

The standard cover sheet template provided by KC Water staff shall be used. The cover sheet for each set of drawings shall include the following:

A signature block immediately above the title block:

Approved:

D. Matt Bond P.E., Deputy Director	Date
For: Wes Minder, Director, KC Water	

An appropriate title centered at the top of the cover sheet:

Water Main (Extension, or Relocation, or Abandonment)
Project Name
Section xxx Township xxx Range xxx
Kansas City, xxx County, Missouri
Project # _____

A location map showing the project area in relation to major streets, highways, and surrounding neighborhoods. Location map orientation shall be north at the top.

Applicant information:

Applicant:	Name (as it will appear on contract forms)
	Address
	Phone and fax number
Contact Person:	Name

Professional Engineer information:

Name of Professional Engineer
Address of Professional Engineer
Phone and email address of Professional Engineer
Contact PersonsName

On Sheet #2, a standard legend of symbols used by KC Water and general notes.

A general layout drawn to scale (normally 1 inch = 100 feet) of the entire development, showing and labeling all new water mains, valves, and fire hydrants and their relationship to existing water mains, valves, and fire hydrants with spacing labels. The general layout shall be oriented with North at the top. The general layout shall include information necessary to establish the relationship of existing and proposed adjacent developments. The general layout shall identify all adjacent property ownership. The general layout shall reference each section of main, the main's size, and the sheet of drawings with the detailed plan and profile for that main.

Additional notes may be submitted at the end of the standard list of general notes.

The drawings shall include detailed information about survey benchmarks and other reference or control points necessary to lay out the work. Statewide Missouri Geographic Reference System monuments, Kansas City Metro Control Project monuments, Certified Land Corners, and other monuments used as references to determine State Plane Coordinates must be shown on the drawings along with reference ties.

No table of quantities shall be included.

Orientation

All sheets shall include an arrow to indicate the direction of North. North should point toward the top half of each drawing. On multisheet drawings, sheets shall be oriented to read continuously from left to right and in succession of sheet number from front to back.

Scales

All drawings shall be drawn accurately to scale. Scales shall be indicated on each sheet with a numerically labeled bar graph. Plan views shall be drawn to 1-inch = 50 feet. Profile views shall be drawn to 1 inch = 10 feet. A larger horizontal scale (typically, 1 inch = 20 feet) shall be used for drawings in high density (urban) areas, for very small water main extensions or relocations, or for details.

Stationing

Survey stationing must be used to indicate the dimension of water main and appurtenances. The stationing should progress from left to right on each sheet. On multisheet drawings of continuous mains, stationing shall progress in succession with sheet numbers from front to back. Stationing shall begin at the connection point to the existing water main and be exclusively for the water main. In addition to water-line stationing, all beginning and ending points, bends, hydrants, valves, tees, fittings, and beginning and ending points of deflection of water mains shall be indicated in State Plane Coordinates in U.S. feet expressed in feet and decimals of a foot. The coordinates shall conform to the Missouri Coordinate System of 1983, West Zone, with the date of adjustment. The conversion from meters to U.S. Survey feet is: 1 meter = 3.28083333 U. S. Survey Feet, and shall be shown on drawings in the proximity of the control point references.

Plan View

All drawings shall include an accurately detailed plan view of the water main extension or relocation and appurtenances and any feature of the surrounding topography that could affect the water main or related construction activities. In general, this includes any feature of the topography that crosses the water main or is within 10 feet of the water main in any direction. Special attention shall be given to sewers and other underground utilities.

The plan view shall also include the following:

- Labeled and dimensioned public right-of-way lines
- City approved street names
- Labeled and dimensioned easement lines
- Labeled boundary and lot lines of subdivisions or other property lines
- Lot or tract numbers in subdivisions
- Detailed description of main sizes and stationing along the water main
- Detailed description of required fittings or other appurtenances and their stationing along the water main

Profile View

All drawings shall include an accurately detailed profile view of the water main extension or relocation and any feature that could affect the water main or related construction activities. The profile view shall be on the lower portion of the same sheet as the related plan view. The profile view shall include elevations of all underground features. Special attention shall be given to size and location of sewers and other underground utilities or structures. The drawings also shall include elevations of the finished grade or improvements and the top of pipe of the water main at every fitting and Station at maximum spacing of 50 feet along the water main. All elevations shall be indicated in NAVD 88 Datum (in feet and decimals of a foot) and include the date of adjustment. The conversion from KC Datum to NAVD 88 Datum is +722.57 feet and shall be shown on the drawings in the proximity of the control point references.

The profile view shall include the following items with labels:

- Existing grades over the water main
- Proposed grades over the water main
- Detailed description of all fittings or other appurtenances required for vertical deflections and their stationing along the water main. (Fittings for horizontal deflection should not normally be shown in the profile view.)
- Detailed description of main sizes, pipe class, and reference to polyethylene encasement and zinc coating
- Reference note indicating 42-inch or 60-inch minimum cover requirement
- Reference notes indicating 18-inch minimum separation from other utilities
- Percent of grade and points of intersection of vertical curves
- Percent of slope and PIs for all 16-inch and larger diameter water mains
- Limits of restrained joints
- Proposed top of pipe and proposed grades at 50-foot intervals

Match Lines

Match lines shall be used to show identical points on drawings for continuous mains shown on separate sheets or in separate drawings on the same sheet. Match lines shall be perpendicular to the water line and should be placed at a survey station. Match lines should be labeled and include a reference to the related sheet of the drawings.

Line Weights

Water mains and appurtenances shall be indicated with heavier lines than other features such as curbs, pavement, trees, right-of-way lines, easement lines, other utilities, etc.

Checklists

The Checklist is furnished for the purpose of Quality Control Review in expediting the City's review of plans and specifications submitted for Water Main Extension or Relocation contract applications with KC Water. Plans that do not meet the requirements of this checklist will be returned without detailed review comments.

The Checklist does not constitute a complete list of all items that may be required for approval during the plans review process. The Applicant and the Applicant's Professional Engineer are responsible for compliance with the requirements of the Code of Ordinances of Kansas City, Missouri, and related administrative rules.

Approval of the plans depends upon the accuracy and completeness of the submitted plans by the Applicant's Professional Engineer. The Applicant is further advised that additional permits may be required from other City departments outside of this plan review submittal.

Quality Control Review (QCR) Checklist

Required information on plans for Quality Control Review (QCR)

- ☐ All sheets are properly sealed or stamped by a Professional Engineer
- ☐ Cover sheet includes Applicant's name, address, phone number, email address, and contact person
- ☐ Cover sheet includes Consultant Professional Engineer's company name, address, phone number, and email address
- ☐ A general layout of entire project
- ☐ All sheets include a complete KC Water title block on lower right hand corner
- ☐ The standard KC Water legend of symbols is included, and those symbols are used on plans
- ☐ The standard KC Water general notes are included
- ☐ Plan view includes:
 - Labeled and dimensioned public right-of-way lines
 - Street names approved by the City street naming committee
 - Labeled and dimensioned easement lines
 - Labeled property lines
 - Labeled subdivision boundary and lot lines
 - Subdivision names and lot numbers
 - All topography affecting water main design and construction
 - Label, location and size of all utilities, including street lights
- ☐ Profile of new mains on same sheet as plan view
- ☐ Both existing and proposed grades over water main on the profile view
- ☐ Proposed street lights
- ☐ Current format Cover Sheet

Overall Plan Review Checklist

Cover sheet

- ☐ 1. Applicants name, address, phone #, email address, and contact person
- ☐ 2. Consultant P.E. name, address, phone #, email address, and contact person
- ☐ 3. WSD Director's approval line immediately above title block
- ☐ 4. The appropriate title and project name
- ☐ 5. Project location map
- ☐ 6. Council district map
- ☐ 7. Drawing Index

2nd Sheet

- ☐ 8. Standard KC Water legend of symbols is included and those symbols used
- ☐ 9. Standard KC Water General Notes
- ☐ 10. Benchmarks and other survey controls

General Layout Sheet

- ☐ 11. A general layout of the entire project at a minimum scale of 1 inch = 100 feet with fire hydrant spacing distances labeled.

All sheets

- ☐ 12. Properly sealed or stamped by Professional Engineer
- ☐ 13. Use KC Water CAD drafting standards throughout the plans including a complete KCMO WSD title block on lower right hand corner.
- ☐ 14. Include north direction arrows (with north pointing in top half of horizon) and scales
- ☐ 15. Include correct county name and map number

Plan view

- ☐ 16. Labeled and dimensioned public right of way lines
- ☐ 17. Labeled and dimensioned easement lines
- ☐ 18. Labeled property lines
- ☐ 19. Labeled subdivision boundary and lot lines
- ☐ 20. Labeled location and size of all other utilities
- ☐ 21. Subdivision names and lot numbers
- ☐ 22. Match lines where appropriate
- ☐ 23. Street names approved by City street naming committee
- ☐ 24. Proposed street lights
- ☐ 25. Location and size of existing and new water lines with stationing
- ☐ 26. Appropriate valve and hydrant spacing with stationing
- ☐ 27. Labeled, appropriate water line fittings and appurtenances corresponding to the profile view of a specific sheet with stationing and coordinates. All sheets, as applicable.
- ☐ 28. Indication that water mains are to be installed 4 feet from the curb
- ☐ 29. Indication that water mains are to be installed with a minimum 10-foot horizontal clearance from any sewer
- ☐ 30. Indication that water mains are to be installed with a minimum five-foot separation from the right-of-way lines

- ☐31. Direct Booster Boundary line shown on plans when shown on GIS
- ☐32. Missouri Department of Transportation right of way with indication that plans are approved by the Missouri Department of Transportation

Profile view

- ☐33. Profile view of new mains on same sheet as plan view
- ☐34. Profile view of both existing and proposed grades over water main
- ☐35. Profile view specifying vertical deflections, fittings, and joint restraining notation
- ☐36. Detailed description of pipe size, class, and reference to polywrap and zinc coating
- ☐37. Profile view of stationing, top of pipe elevations and proposed grades at 50-foot intervals
- ☐38. Reference to 42-inch or 60-inch minimum cover requirement
- ☐39. Reference to 18-inch minimum separation from storm and sewer crossings

Fire Hydrants

- ☐40. Fire hydrants at intersections placed 10 feet from the end of the radius of the curb return
- ☐41. Minimum 2-foot separation from storm water catch basins
- ☐42. Minimum 2-foot separation from curb or 4-foot separation from the edge of pavement
- ☐43. Minimum 5-foot from any above-ground or below-ground structures, including power poles
- ☐44. Spaced every 300 feet in commercially or mixed zones or every 600 feet in residential zones
- ☐45. Type A fire hydrants along main streets and Type B in cul-de-sacs

Submit checklist with all plan submittals and re-submittals.

Check all boxes and mark n/a if not applicable.

Title Block

A title block shall be included on all sheets of every drawing for water main extensions or relocations. The complete full size (8 inches wide by 6 inches high) title block shall be placed on the lower right hand corner of all sheets. The project number, drawing number and work order numbers can be obtained by contacting water main extension staff.

THE PROFESSIONAL WHOSE SIGNATURE AND PERSONAL SEAL APPEARS HEREON ASSUMES RESPONSIBILITY ONLY FOR WHAT APPEARS ON THIS PAGE, AND DISCLAIMS (PURSUANT TO SECTION 327.411 RSMO) ANY RESPONSIBILITY FOR ALL OTHER PLANS, SPECIFICATIONS, ESTIMATES, REPORTS, OR OTHER DOCUMENTS OR INSTRUMENTS NOT SEALED BY THE UNDERSIGNED PROFESSIONAL RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THE PROJECT TO WHICH THIS PAGE REFERS.

PROFESSIONAL ENGINEER SEAL	KANSAS CITY, MISSOURI, WATER SERVICES DEPARTMENT					
	<p>WATER MAIN EXTENSION</p> <p>TITLE GOES HERE</p>					
FOR WSD USE:	<p>SHEET TYPE</p>					
DRAWN BY XXX		CHECKED BY XXX	DATE SUBMITTED XX/XX/XX	RANGE XX	TWP XX	SEC XX
CONTRACTOR				DATE COMPLETED		
CONTRACT NO.	CONTRACT DATE	MAP NO. XXXX	WMA EXTENSION #	DRAWING NO. XXXXX		
PROJECT NO. XXXXXXXXXXXXXX			SHEET 1 OF 6			

**TITLE BLOCK FOR:
WATER MAIN EXTENSIONS**

"TYPE OF WORK"
APPROVED TITLES:
WATER MAIN EXTENSION,
WATER MAIN RELOCATION,
WATER MAIN ABANDONMENT,
FIRE HYDRANT INSTALLATIONS.

SHEET TITLE

"SHEET TYPE"
SITE LAYOUT, PLAN AND PROFILE,
CROSS SECTIONS, DETAILS, ETC.

FOR WATER MAIN EXTENSION
PROJECTS THIS BOX SHALL BE
RESERVED FOR WATER MAIN
EXTENSION NUMBER.

Standard Legend and General Notes

The legend shown shall be included on all drawings for water main extensions or relocations. Symbols shall be standard symbols used by KC Water on all drawings and maps. In some instances, these symbols differ from national standards. A standard legend and general notes may be obtained from KC Water staff or from the KC Water website Rules and Regulations page (see below).

Applicable Ordinances and Rules

Code of Ordinances Sec. 78-91 through Sec. 78-141.

Technical Specifications for KC Water Contracts

Rules and Regulations for Water Main Extensions and Relocations

More information: www.kcwater.us/projects/rulesandregulation

Submission Channel

A completed Checklist and .pdfs of plans for water main extensions, relocations, or abandonments should be submitted to KC Water for review and contract approval via CompassKC (www.Compasskc.kcmo.org). To expedite review, use the Checklists guide preparation of project drawings for review.

Development Assistance Team

Development Assistance Team (DAT) meetings are offered as an informal step in the land use application process to applicants and/or their representatives, potential developers and property owners. The meeting provides the opportunity to meet with City staff to discuss a development proposal before making a formal application submittal to the City.

The purpose of the meeting is to inform City staff about the proposal and for staff to explain the review process, offer the City's perspective, and provide other necessary information to help potential developers make better, informed decisions regarding development proposals. The DAT is not a formal review body. The staff review of DAT applications should be considered preliminary.

To schedule a DAT meeting, contact the Development Concierge at 816-513-1500.

Resubmittal of Plans

Resubmittal of plans in response to plan review comments must be made to KC Water through CompassKC. Resubmittals shall include a cover letter signed by the Professional Engineer identifying the project name, KC Water project number, and KC Water drawing number. Contact the plans examiner to clarify the requirements of the review. No

approvals may be received without resubmitting plans or required information through the Applicant's Professional Engineer.

Review Comment Resolution

To expedite final approval of plans and clearly communicate KC Water requirements, the plans examiner will be available to discuss review comment resolution in person or via telephone when it is determined that a resubmittal to previous plan review comments is not approved.

The plans examiner will work to ensure that the Applicant or Professional Engineer fully understands the requirements of the plan review comments and resolve any questions about compliance with KC Water requirements. This discussion will be documented. Resubmitted plans are assigned a two-week plan review turnaround time.