

The City of Kalispell has a DRAFT of revised standards available for review and comment on the City's website linked [here](#).

**Formatting Changes:**

Each chapter has a colored title header and colored thumb tab for easier navigation through the standards. The formatting of the standards has been changed to help with citations to and from the standards. The number on the top left side of the printed page is the first citable section on a page and the number on the top right side is the last citable section on the page. So as you look at the open pages you know exactly what section you are looking at.

**Chapter 5- Water System**

5.1.2A.IV

- IV. Capacity shall meet the max day plus fire flow and peak hour demand.
  - a. Required fire flow shall be determined by the CK Fire Department.
- V. Velocity shall not exceed 15 feet per second through a public main line.
- VI. C value for flow calculations shall be 130.

B. Location

- I. Mains shall be extended to far property line or such other point within the development that may be specified by the City Engineer. Subdivisions and corner lot developments may be required to extend mains to property lines in multiple directions.
- II. Mains shall be under the paved section of the roadway.
- III. Transmission mains shall be located as approved by the City Engineer.
- IV. Fire hydrant leads shall not exceed 50 feet in length.
- V. Mains shall be buried a minimum of 6-foot and maximum of 8-foot.
  - a. Mains with more than 7 feet of bury require extensions at valves with centering donuts.

5.1.3 Valves

A. Size and Type

- I. 12-inch diameter and smaller shall be gate valves.
- II. Larger than 12-inch diameter shall be butterfly valves.

B. Location

- I. Shall be installed at each leg of every tee and cross, and at each intersection crossing.
- II. Maximum spacing shall not exceed 500 feet unless otherwise approved by the City Engineer.
- III. Shall not be located underneath curb and gutters, sidewalks, boulevards, travel route of a multiple use path, or within the wheel path of a vehicular travel lane.

5.1.4 Fire Hydrants

A. Location

- I. Placement is subject to the approval of the Fire Chief
- II. Spacing shall not exceed 500 feet in residential areas
- III. Spacing shall not exceed 300 feet in commercial areas
- IV. Spacing shall not exceed 200 feet in industrial areas
- V. Provide a 2-foot separation from the face of the barrel to the back of curb and from the edge of sidewalk.
- VI. Provide bollards for hydrants unprotected by curb.

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**Chapter 5- Water System**

5.1.5C.III

5.1.5 Water Services

A. General

- I. Structures containing two or more residences under separate ownership shall have separate service lines from the main, service valves, and meters for each residence.
- II. Structures containing two or more residences, offices, or businesses that are rental units under common ownership shall have one service line, valve, and meter for all occupants within a single structure.
- III. When a lot or parcel is developed to a permitted use, all duplicate, excess, and/or unused water services and fire services, including stub-outs, shall be abandoned at the main.
- IV. Aggregation of parcels will trigger abandonment of unused water and fire services at the main.
- V. New or reconstructed services shall meet current Standards, including location of curb stops and meter pits.
- VI. Domestic water services shall not be tapped on a fire service line or fire hydrant main.

B. Location

- I. Services shall connect to and extend from the main perpendicularly.
- II. Services shall connect to the main on the front door side of the structure if multiple mains are available.

C. Size

- I. The water service tap, corporation stop, service line, and curb stop shall all be the same nominal size for all services larger than 2-inch.
- II. Existing stub-outs 2-inch or smaller may be downsized one CK standard nominal size prior to the meter pit or vault.
  - a. A 2-inch service may be reduced to a 1.5-inch service.
  - b. A 1.5-inch service may be reduced to a 1-inch service.
  - c. A 1-inch service may be reduced to a ¾-inch service.
- III. If a service line size is reduced prior to the meter pit or vault, the design engineer shall provide hydraulic data indicating maximum achievable flow rates at the meter are within the manufacturer's recommendations.

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There is now a total of 8 chapters:

- Chapter 1 – Construction within City Right-of-Way (grey)
  - This chapter covers the standard requirements for permitting, insurance, bonding, warranties, testing, and acceptance of work within existing or proposed city right-of-ways
- Chapter 2 – Design Criteria (red)
  - Drafting and formatting elements for plan submittals.
- Chapter 3 – Project Submittals (purple)
  - Projects are proposed to be submitted only electronically (pdf) to the Building Department. If part of a larger plan set, the entire plan set should be submitted.
  - Applicable specifications and reports should also be submitted electronically.
  - Payment for project reviews will be made at time of Building Permit application or plan approval (if no Building Permit is required).
- Chapter 4 – Development (black)
  - Development requirements. This section was compiled from other sections of the previous version of the standards.
- Chapter 5 – Water System (blue)
  - 5.1 Design Standards
    - Requirements for hydraulic analysis and report
    - Design requirements for water appurtenances
    - 5.1.5.C – Allows downsize of 1 nominal pipe diameter prior to the meter pit or vault for services 2” or smaller
  - 5.2 Construction Standards
    - Material and construction requirements
- Chapter 6 – Sanitary Sewer System (orange)
  - 6.1 Design Standards
    - Requirements for analysis and report
    - Design requirements for sewer appurtenances
  - 6.2 Construction Standards
    - Material and construction requirements
- Chapter 7 – Storm Sewer System (green)
  - 7.1 Design Standards
    - Regulatory Threshold
    - Basic Requirements
    - 7.1.4 – Adopt the Montana Storm Water Post Construction BMP Design Guidance Manual
      - Underground infiltration allowed
      - Permeable pavements still prohibited
    - 7.1.5 – Reference and link to the TR-55 method, rather than providing it in the standards
  - 7.2 Construction Standards
    - Material and construction requirements

- Chapter 8 – Transportation System (teal)
  - 8.1 Design Standards
    - TIS report requirements
    - Design criteria specific to Kalispell
  - 8.2 Construction Standards
- Appendices
  - Most appendices are for stormwater (colors vary)
  - Updated Standard Details (colors match sections above)

In an effort to reduce the size of the manual, we tried to link to sources where possible and also provide footnote references for links in case of hardcopy use.

For pdf users, the Table of Contents links to individual sections within the document and the find word feature is available (ctrl+f) for finding keywords.

**A public hearing will be held on January 16<sup>th</sup> at 7:00pm. If you have comments you would like to provide to the Public Works and the City Council for review and discussion, please email [jpurdy@kalispell.com](mailto:jpurdy@kalispell.com) or [abrunckhorst@kalispell.com](mailto:abrunckhorst@kalispell.com) prior to January 10th so that we can track the comments, review them, and provide them to the Council.**

Sincerely,

Keith Haskins, PE  
City Engineer