Utility Design Standards for Commercial and Multi-Family Development

The following design standards are recommended by the City Engineer's office for use on all commercial and apartment complex developments in Wichita. These standards are intended to be utilized where possible and shall not reduce the buildable area, with any and all deviations approved by Engineering staff prior to final plan approval.

An encroachment agreement will be required prior to final plan approval.

Easement Standards (not to encumber buildable space):

- 15' waterline easement for 8" pipe
- 20' waterline easement for 12" and larger pipe
- 20' utility easement (no intent for water) where sewer is less than 15' deep
- 25' utility easement for water (8") with parallel sewer (10' deep or less)
- 30' utility easement for water (8") with parallel sewer (10' to 15' deep)
- 35' utility easement for water (12" and larger) with parallel sewer (less than 15' deep)
- Easement width and type for any sewer deeper than 15' will be discussed with City staff based on site soil and groundwater information.
- All easements shall be submitted to the City Engineer's office for review and approval prior to recording.
- Sanitary sewer easements shall be graded at a 6:1 slope or flatter and a minimum 14' wide for maintenance vehicle access; 3:1 will be allowed for the remaining width of the easement.
- Masonry walls may cross sanitary sewer lines assuming all footings are outside of the easement.
- Berms shall be allowed in easements provided they do not cause a waterline to be buried in excess of 7', nor cause a manhole to be deeper than permitted by its diameter.
- Easement width adjustments may be considered after development through the formal vacation process.

Utility Configuration Standards

- A 3' radius of clear space is necessary for access and maintenance around all fire hydrants and valves.
- Water meters, fire hydrants and valves shall be located in non-paved surfaces. Where that is not possible, water meters shall be traffic rated, fire hydrants shall be bollard protected (where not protected by curb) and valves shall be adjusted to final pavement grade prior to pavement placement. The number of meters shall be minimized; one water meter per 3500sf off a distribution (smaller than 12") main and one meter per 7000 sf off a transmission (12" or larger) main. These do not include irrigation meters.
- A 12" water line extension may be required in commercial streets or developments over 50 acres unless documentation can be provided to support an 8" line.
- For commercial developments, one primary public waterline may be taken through the site. The number of bends, fittings and meters shall be minimized. Lines extending off the public line shall be privately owned and maintained unless otherwise approved. A redundant (looped) connection to two arterial street water mains shall be required if a connection can be made by an extension within 10% of the aggregate length of the waterline through the development. If looping requires a longer extension, the City may be able to participate in the cost to complete the loop.
    - Master metering is desired for apartment complexes and similar developments with multiple buildings on a single ownership tract. Equity fees may be negotiated to encourage this configuration. In cases where an internal public waterline is permitted, the public line shall be looped, and the number of bends, fittings and meters shall be minimized. Lines extending off the public line shall be privately owned and maintained unless otherwise approved.
        - In the event that a master metering system is beneficial to a commercial development, by increasing the developments buildable area, economic return and design efficiencies of the development then the developer shall be permitted to design the development with the use of a master meter system.

- Approved fire service layouts are detailed in Typical Fire Protection Scenarios and can be found on the City's website under "Design Resources and Guidelines" at https://www.wichita.gov/PWU/Pages/Regulations.aspx.

Site Utility Reviews

- A utility concept plan is recommended for submittal and review by the City Engineer's Office as early as possible in the development process.
- Site utility review meetings are available each Monday afternoon on the 7th floor of City Hall, Engineering Conference Room starting a 1pm, in 30 minute intervals; or on a case by case basis as requested. Call the City's project manager or the front desk at 268-4501 to reserve a slot.