

SECTION 5500 – SANITARY SEWER AND APPURTENANCES

CITY OF BELTON, MISSOURI

DESIGN CRITERIA

The City of Belton hereby adopts Section 5500 of the Kansas City Metropolitan Chapter of APWA Construction and Material Specifications, current edition. The following additions supersede any discrepancies with Section 5500 for use within Belton.

1. Sanitary sewer shall be located within street or alley right-of-way, but, where feasible, not within pavement of public streets. If necessary, sanitary sewer shall be located in a permanent easement on private property. Imposed loading shall be considered in all locations.
2. Manholes should be located outside of paved areas and not within water courses. Manholes should be offset from property lines a minimum of two-feet.
3. Sewers shall be on straight alignments. Manholes will be required at each change in the vertical or horizontal alignment.
4. Where feasible, the vertical slope shall be a minimum of one percent, not to exceed seven percent. The engineer shall consider outside drop manholes where slopes exceed seven percent. Locations for other drop manholes shall be at the approval of the city engineer. The design of the drop manhole shall conform to City standard detail SAN-003.
5. Stream crossings. The sewer main shall be concrete encased under all natural or constructed drainage ways. Private services shall also be concrete encased under drainage ways. The concrete encasement should extend into the banks one-fourth of the width of the stream on each side, or as required by the City Engineer.
6. Waterproofing. All new manholes shall have a developed base and pipe openings shall contain flexible gaskets. Manholes shall have the exterior coated with a city engineer approved asphalt waterproof coating. All manholes will have a minimum of two one-inch beads of bitumastic installed on each joint of the manhole. The minimum size of the mastic shall not be less than one inch square. All new manholes shall include heat shrinkable wraparound bitumastic sleeves on the joints, such as WrapidSeal or a city engineer approved equivalent.
7. All manholes shall be finished one-half inch per foot above the nearest adjacent back of curb. Eccentric cone sections shall be installed with slope side of profile facing adjacent street. Steps shall be provided at 16-inch spacing. Final grading shall be even with the manhole with the lid fully exposed and accessible.
8. Adjustment rings. Adjustment rings or riser rings shall be a minimum of four inches thick, not to exceed 12 inches. Additional adjustments beyond 12 inches will not be permitted; additional barrel sections with steps will be required.

9. Ring and cover. The ring and cover shall be a Clay and Bailey 2008 casting, East Jordan Iron Works (EJIW) V-1383 frame and cover, or approved equal by the City Engineer, and in conformance with the City's standard details, and stamped "City of Belton - Sanitary Sewer."
10. All service line connections to existing sanitary sewer mains shall use Inserta Tee fittings or an equivalent approved by the City of Belton.
11. All public lift stations shall be equipped with an auto dialer compatible with and approved by the City's Water Services Division. Stand-by generators including the controls and remote monitoring shall be compatible with and approved by the Water Services Division.

END OF SECTION