

CITY OF KANSAS CITY, MISSOURI

**SUPPLEMENT TO
APWA STANDARD SPECIFICATIONS AND DESIGN CRITERIA
SECTION 5600
STORM DRAINAGE SYSTEMS AND FACILITIES**

This is Kansas City, Missouri supplement to Section 5600, APWA, Standard Specifications and Design Criteria. The following additions, deletions and/or revisions are adopted for use and shall become a part of Section 5600 for use within Kansas City, Missouri.

Section headings and changes from APWA are **highlighted** for clarity. Changes in this supplement from the previous supplement are marked by an asterisk, “*”.

5601.2.P shall be renamed 5601.2.P.1 and changed to read as follows:

**5601.2.P.1 Private Detention Facility with Private Water:
Constructed by a developer with a permit issued by Codes
Administration.**

Any detention facility located on and controlling discharge from a site wholly owned and controlled by one owner and not platted for future subdivision of ownership. Also, all facilities incorporating detention storage of storm water in or on any of the following:

1. Roofs of buildings or structures also used for other purposes.
2. Paved or surfaced areas also used for other purposes.
3. Enclosed or underground pipes or structures on private property when the surface is used for other purposes.

ADD a new section 5601.2.P.2 as follows:

**5601.2.P.2 Private Detention Facility with Public Water:
Constructed by a developer with a permit issued by Public
Works.**

**Any detention facility controlling discharge from a
tributary area owned by more than one owner and/or
platted for future subdivision of ownership, except as
defined as a private detention**

facility herein. The facility is located within a separate tract located on platted property and a maintenance agreement for the property owner's perpetual maintenance of the facility is required.

5601.2.Q shall be deleted and the following added in lieu thereof:

5601.2.Q Public Detention Facility: Any detention facility controlling discharge from a tributary area owned by more than one owner and/or platted for future subdivision of ownership **which is located within a public storm drainage easement and is maintained by the city.**

Add the following after the last paragraph of **Section 5602.2**

The S.C.S. curve numbers shown are consistent with Type C soils as designated by Technical Release No. 55. The S.C.S. curve numbers may be adjusted in accordance with TR-55 when the design engineer demonstrates that the project soil conditions are not Type C.

5603.1.A shall be deleted and the following added in lieu thereof:

5603.1.A. Type: Only curb opening inlets shall be used on public streets, except as approved by the City Engineer.

Drop inlets may be used outside of street right-of-way if an overflow system is provided and a clogging factor of 50 percent is used. Pondered water over the top of the grate shall be limited to six inches.

5603.1.B shall be deleted and the following added in lieu thereof:

5603.1.B. Capacity: Inlet capacity shall be rated at 80 percent of the theoretical capacity indicated by **Figures 8-1 through 8-3** to allow for partial obstruction and clogging. Capacity for sizes not shown may be interpolated from these figures. **Capacity of curb inlets in sump is controlled by the spread and shall be limited to 2.5 cfs from each direction.**

5603.4 shall be deleted and the following added in lieu thereof:

5603.4 Gutter Flow: Inlets shall be located to limit the width of flow in street gutters at the time of peak discharge of a 10-year return period storm to the following limits:

<u>BACK TO BACK OF CURB STREET WIDTH IN FEET</u>	<u>MAXIMUM ALLOWABLE SPREAD IN EACH OUTSIDE CURB LANE FROM BACK OF CURB IN FEET</u>
28 or less	10.5
Over 28 to 36	11.5
Over 36	12.0
Divided Roadways	As above for each direction roadway
Street Intersections and Pedestrian Crosswalks	6.0

5604.1.A shall be deleted and the following added in lieu thereof:

5604.1.A. Permanent:

1. **An easement shall be dedicated to the outer limits of the 100-year overflow system as defined in 5601.5.D.**
2. The City Engineer may require wider easements when other utilities are located within the same easement and/or when the depth of cover is greater than 4 feet.

5604.3.2 shall be deleted and the following added in lieu thereof:

5604.3.2 Watertight joints capable of withstanding the internal surcharge pressure are used in the new construction. **Joints in the affected existing system are to be made watertight.**

ADD a new section 5604.7 as follows:

*** 5604.7** **Connections to existing systems: Enclosed storm sewer systems shall be extended to connect to any existing upstream and/or downstream enclosed system if within 100-feet. For this requirement, cross-road culverts are not considered an enclosed system.**

* Add the following after the last paragraph of **Section 5605 .4 .B**

If the velocity in the overflow channel above enclosed systems exceeds 7 FPS, the enclosed system shall be enlarged to carry the 100-year storm. Riprap, grouted riprap, gabion revetment or paved concrete shall not be used in the overflow channel.

ADD a new section 5605.9 as follows:

5605.9 Fencing Guidelines: Refer to Kansas City, Missouri fencing requirements; document number 900639 dated October 8, 1990.

The last sentence of **5606.5.D** shall be changed to read as follows:

Design loadings and special building and structural details shall be subject to approval by the **Codes Administrator**.

Tables 8-1 through 8-3 shall be deleted. Figures 8-1 through 8-3 shall be used to determine inlet capacity.

*** Gutter deflectors are required for inlets on slopes of 4% and greater.**

*** The City Engineer has the authority to waive any requirement in Section 5600 or this Kansas City, Missouri supplement.**

This Supplement shall become effective May 1, 1993 and shall supersede all previous supplements to this section.

George E. Satterlee
Director of Public Works
Kansas City, Missouri

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