



TRANSPORTATION, INFRASTRUCTURE & OPERATIONS COMMITTEE

AUGUST 17, 2022



ORDINANCE NO. 220676

American Public Work Association Section 2600 Standards and Design Criteria Adoption

Accepting the recommendations of the Public Works Standards Committee regarding certain amendments to the Public Works Standards and Design Criteria to be used in the construction of public improvements and the development of land or subdivision plats.

ORDINANCE NO. 220676

KCMO APWA -2600

What is APWA 2600?

- APWA 2600 Establishes Construction and Material Specifications for Storm Sewers

Who uses APWA 2600?

- APWA 2600 is used by the following four Departments:
 1. Public Works Department
 2. City Planning and Development
 3. Parks and Recreation Department
 4. Water Services Department

DIVISION II
CONSTRUCTION AND MATERIAL
SPECIFICATIONS SECTION 2600 STORM SEWERS
APPROVED AND ADOPTED THIS 8TH DAY OF OCTOBER,
2020

THE CITY OF KANSAS CITY, MISSOURI
WATER SERVICES DEPARTMENT
Revised April 10, 2019 (See underruled
provisions)
KANSAS CITY METROPOLITAN CHAPTER
OF THE AMERICAN PUBLIC WORKS
ASSOCIATION
As amended by KCMO

TABLE OF CONTENTS

SECTION 2601 GENERAL	2
Scope	2
Referenced Standards	2
Changes	2
Maintenance Bond	3
SECTION 2602 PIPE SEWER CONSTRUCTION	3
Scope	3
Materials	3
Construction	3
SECTION 2603 BORING AND JACKING	8
Scope	8
Materials	8
Construction Details	10
SECTION 2604 STRUCTURES	19
Scope	19
Materials	19
Construction	20
SECTION 2605 OPEN CHANNELS	22
Scope	22
Materials	22
Construction	23
SECTION 2606 MEASUREMENT AND PAYMENT - DELETED	27
Scope	27
Materials	27
Construction	28
	30

KCMO Water Services Department
KANSAS CITY METROPOLITAN CHAPTER
OF THE AMERICAN PUBLIC WORKS
KCMO AND "000001"

FEBRUARY 2021
FPM, AD 0 2019
ORIGINAL EDITION

ORDINANCE NO. 220676

KCMO APWA -2600

Why make changes to APWA 2600?

- Stormwater management is important in both the combined and separate sewer systems
 - Many of the proposed changes already being used on capital projects for the consent decree
- Improved/expanded material specifications. Current version last updated in 2009.
- Provide better quality assurance and quality control of installed stormwater pipes
 - Field investigation of select stormwater pipes installed <10 years ago revealed that approximately 9% of them already need to be replaced due to deflection
 - More than \$3 million has been spent on failed stormwater pipes since 2014

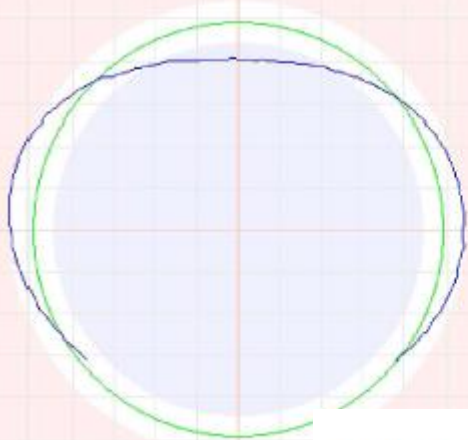
ORDINANCE NO. 220676

Stormwater Pipe Failures

- 38 locations repaired or replaced by KC Water staff since 2014
- 30 locations repaired or replaced by contractors
- \$3M+ spent on repairs
- Pipe sizes range from 8" to 120"
- Majority of failures are CMP and CSP

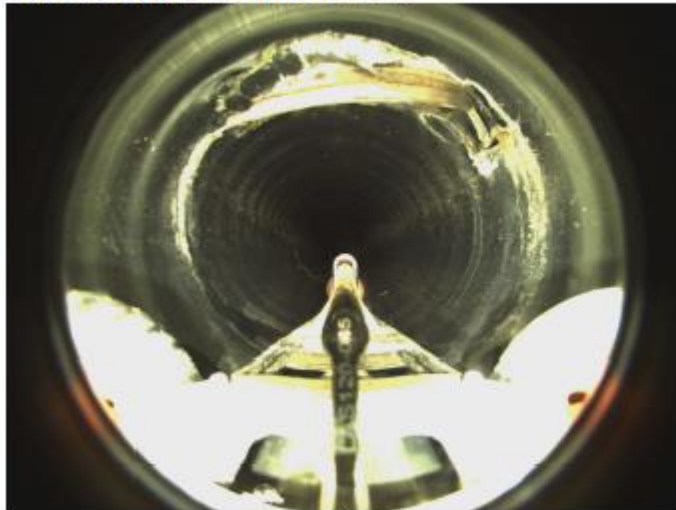


y

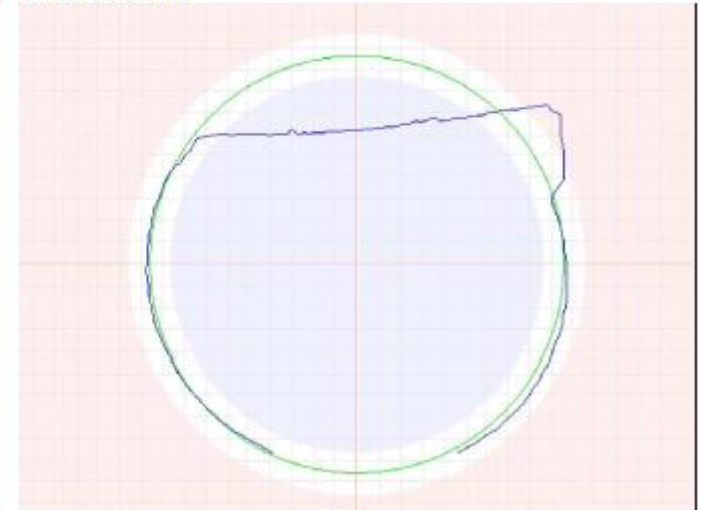


56.1ft Maximum Ovality - To 15.9%

82ft Point of Interest - Pipe damage



82.6ft Point of Interest - Measurement inside reference to 1.9"



ORDINANCE NO. 220676

KCMO APWA -2600

Public Outreach and Response on Changes

9/16/20 - Public hearing held regarding proposed 2600

10/16/20 - Public comment submission deadline

11/6/20 - KC Water posts revised standard based on comments received

12/7/20 - 2nd Public comment submission deadline

12/18/20 - KC Water adopts updated version of 2600 for use on KC Water projects

12/18/20 - Public Work Standard Committee recommends approval of updated version of 2600

ORDINANCE NO. 220676

KCMO APWA -2600 Key Changes Proposed

- Rescinds City/Public Works Department current adoption of the 1996 version KC Metro APWA 2600, last supplemented in 2009
- Removes Corrugated Metal Pipe (CMP) & Corrugated Steel Pipe (CSP) as an approved Pipe Material
- Adds 4 additional approved Pipe Materials:
 - Fiberglass Reinforced Pipe (FRP)
 - PVC SDR 26 (Polyvinyl Chloride Pipe)
 - Polypropylene Pipe (both dual walled and triple walled)
 - Steel reinforced or structural HDPE (High Density Polyethylene) up to 132"
- Adds QA/QC of construction installation by requiring pressure testing (air or water) and deflection testing (mandrel or laser profiling) for installed stormwater pipes
- Adds PVC inlets with City approval when recommended on a project
- Removes gabion baskets as an approved product for slope stability/erosion control



THANK YOU

