METROPOLITAN UTILITIES DISTRICT

Inter-Department Communication

December 19, 2025

Subject: REVISIONS TO THE STANDARD SPECIFICATIONS FOR WATER MAIN CONSTRUCTION

To: District Holders

From: Ryan Opdahl, Engineer

The “Metropolitan Utilities District Standard Specifications for Water Main Construction” has been revised and will take effect December 19th, 2025; the changes are summarized below:

INDEX

The Index Page has been updated.

EXCAVATION

The Contractor Excavation Shoring Requirements standard has been updated.

SPECIFICATIONS

107 COATED AND CEMENT LINED STEEL PIPE AND FITTINGS FOR WATER DISTRIBUTION SERVICE

- Updated the title and removed the revision year.
- Comprehensive formatting updates to improve consistency across specifications.
- Added additional language and sections, where applicable, to improve consistency across specifications.
- All references to external documents now default to their latest edition.
- Updated various product names that have become obsolete.
- Updated Section 5.1.1 Qualification and Section 5.1.2 Welding Procedure Details.
- Removed the specific details and installation requirements for 32-pound Mg anodes. References are now made to CS 8.3.1, CS 8.3.3, and MUD 119.
- Removed much of the “inspection” language. References are now made to NACE SP0274 and AWWA C209.
- Updated handling, shipping, delivery, and storage requirements.

110 DUCTILE IRON PIPE FOR WATER DISTRIBUTION SERVICE

- Comprehensive formatting updates to improve consistency across specifications.
- Added additional language and sections, where applicable, to improve consistency across specifications.
- All references to external documents now default to their latest edition.
- Listed the applicable standards for rubber gaskets, cement-mortar lining, zinc coating, and polyethylene encasement.
- Section 3.1.1 now requires pipes from 6" to 20" to be Special Thickness Class 52, expanding on the previous range of 6" to 16".
- Specifically call out the requirement of a cement-mortar lining and seal coat, and a compatible finishing layer after the zinc coating is applied.
- Updated various product names that have become obsolete.

- For Section 4.6.1.2, clarified that weld-on outlets shall also have a minimum working pressure rating of 250 psi.

123 HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS FOR WATER DISTRIBUTION SERVICE

- Comprehensive formatting updates to improve consistency across specifications.
- Added additional language and sections, where applicable, to improve consistency across specifications.
- All references to external documents now default to their latest edition.
- Updated acceptable manufacturers of pipe and fittings.
- Updated pipe labeling requirements.
- Added the requirement that all fittings shall be injection molded.

126 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS FOR WATER DISTRIBUTION SERVICE

- Updated the title.
- Comprehensive formatting updates to improve consistency across specifications.
- Added additional language and sections, where applicable, to improve consistency across specifications.
- All references to external documents now default to their latest edition.
- Specifically call out that pipe and fittings shall be manufactured from PVC compound conforming to cell class 12454 as defined in ASTM D1784.
- Specifically call out that pipe compounds shall qualify for a minimum hydrostatic design basis (HDB) of 4,000 psi at 73°F in accordance with the requirements of AWWA M23.
- Modified Section 3.1.2 to change the pipe size from 24” and larger to 18” and larger for DR 18 pipe.
- Updated acceptable manufacturers of pipe and fittings.

<u>O & M PROCEDURES</u>

E.225.3 WELDING PROCEDURE – GAS METAL ARC WELDING

- Updated the edition of API 1104 that is incorporated by reference by Minimum Federal Safety Standards, 49 CFR, § 192.7.
- Other minor verbiage changes.

E.225.4 WELDING PROCEDURE – OXY-ACETYLENE WELDING

- Updated the edition of API 1104 that is incorporated by reference by Minimum Federal Safety Standards, 49 CFR, § 192.7.
- Other minor verbiage changes.

E.227.0 WELDING PROCEDURE – QUALIFICATION OF WELDERS

- Updated the edition of API 1104 that is incorporated by reference by Minimum Federal Safety Standards, 49 CFR, § 192.7.
- Clarified initial versus ongoing multiple qualification destructive testing methods.
- Other minor verbiage changes.

E.229.0 WELDING PROCEDURE – VISUAL INSPECTION OF TEST WELDS
- Updated the edition of API 1104 that is incorporated by reference by Minimum Federal Safety Standards, 49 CFR, § 192.7.

CONSTRUCTION STANDARDS

0.3.0 SHORING INSTALLATION REQUIREMENTS
- Added clarification for spoil piles near excavations.
- Added language limiting work outside of the shored area.
- Added language defining small, localized dugouts and how they may or may not be utilized in order to not be considered when determining overall trench depth.
- Updated shoring figures.
- Added trench end protection language.
- Removed references to screw jack braces.
- Other verbiage updates.

1.14.1 INSTALLATION OF TRACE WIRE ON WATER MAINS
- Removed manufacture names from materials
- Revised directional boring and pipe bursting section with new trace wire sizes.

2.3.0 DIVISION CHECK VALVE AND DIVISION VALVE INSTALLATION ON WATER MAINS
- Standard added to “Metropolitan Utilities District Standard Specifications for Water Main Construction.”

3.0.1 HYDRANT INSTALLATION ON 6”, 8”, 12”, & 16” WATER MAINS
- Added ‘Not In Service’ tag option.
- Added section concerning abandoned hydrants.

6.0.5 3/4", 1”, 1-1/2”, OR 2” SERVICE TAPS ON C900 PVC WATER MAINS
- Updated processes, part numbers, and add temperature rating for tapping.

6.0.6 1”, 1-1/2”, OR 2” SERVICE TAPS ON 6”, 8”, AND 12” HDPE PE 3408 WATER MAINS
- Updated wrapping procedure due to being missed on previous revision review.

8.2.1 INSTALLATION OF A SINGLE INSULATING WASHER FLANGE INSULATING SET
- Updated cathodic protection details and references.

8.2.2 INSTALLATION OF A DOUBLE INSULATING WASHER FLANGE INSULATING SET
- Updated cathodic protection details and references.

8.3.1 MAGNESIUM ANODE PLACEMENT & TEST LEAD DETAIL (GAS & WATER)
- Standard added to “Metropolitan Utilities District Standard Specifications for Water Main Construction.”

8.3.3 TRACE WIRE, ANODE AND TEST LEAD ATTACHMENT METHODS FOR STEEL, DUCTILE IRON AND CAST-IRON WATER MAINS
- Multiple changes involving Cadweld Plus bonding and Patch-Pad Exothermic Weld Protector usage.

8.5.1 APPLICATION OF TAPES, WRAPS AND PATCHES FOR NATURAL GAS PIPELINES
- Standard added to “Metropolitan Utilities District Standard Specifications for Water Main Construction.”

8.5.2 APPLICATION OF TAPES AND WRAPS FOR WATER MAINS
- Updated list of approved wrap materials.
- Minor formatting updates.

11.2.1 PLASTIC PIPE INSTALLATION
- Standard added to “Metropolitan Utilities District Standard Specifications for Water Main Construction.”

11.2.3 BUTT-FUSION
- Updated language to include DIPS with IPS that was already specified due to being missed during review of recent revision.

11.7.0 INSTALLATION OF ELECTROFUSION COUPLINGS, SADDLES & FLEX RESTRAINTS ON HDPE WATER MAINS
- Matched language between similar workflows across multiple construction standards.
- Made peeling pipe primary method for removing pipe material. Made scraping pipe secondary method and with Foreman approval.
- Added top load clamp method for 8" & 12" saddles.
- Updated workflow pictures.
- Other verbiage updates.

11.7.1 SIDEWALL FUSION OF TEES AND SADDLES ON HDPE WATER MAINS
- Matched language between similar workflows across multiple construction standards.
- Minor verbiage updates.

Please review each specification and standard and update your specification book with the attached copies.

APPROVED:

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Director, Engineering Design