

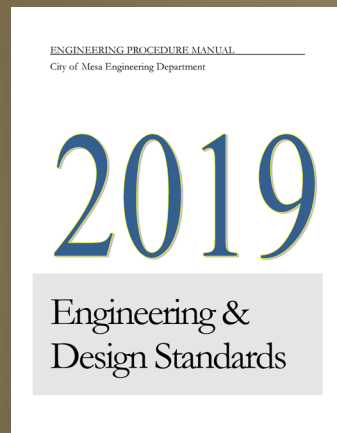
# **CITY OF MESA ENGINEERING & DESIGN STANDARDS MANUAL**

2021 EDITION



# 2021 Mesa Engineering & Design Standards

- General Updates
- Highlight Major Changes
- Comment Period thru April 4<sup>th</sup>
- Effective Date April 15<sup>th</sup>



# General Overview

- Engineering Design Standards
- Mesa Amendments to MAG Specifications
- Mesa Standard Details
- Construction Standard Notes (Water)
- Additional changes expected later this year

# Update Highlights

- Section 105: Master Utility Sheet
- Section 221: City Communication Conduit & Fiber
- Section 307/316: Water Sampling Stations Required for Residential Subdivisions of 20+ lots
- Section 316: Water Easement Access Path
- Section 316: Water Line Profile - Pipe Alignment
- Section 316: Minimum Cover 60" for >12" Pipe
- Section 316: Corrosion Protection Design Cannot Be Deferred

# Update Highlights

- Section 418: Sewer Location Within Easement
- Section 418: Sewer Easement Access Path
- Section 419: Sewer Hydraulic Design to Address Odor
- Section 421: DIP Only Where Regulation Mandates
- Section 432: Minimum Manhole Spacing 1000' for >60"
- Section 433: Polymer Concrete Manholes
- Section 433: Private Backwater Valves
- Section 433: Grease/Oil Interceptor - Added
- Section 434: Sewer Abandonment - Added

# Update Highlights

- Section 806: Lifespan of Underground Storage
- Section 920: Temporary Lighting - Added
- Section 921 : Adaptive (Dimmable) Lighting - Added
- Chapter 11 : Landscape and Irrigation Standards
- Minor updates throughout – list will be posted on line

# Comments

- Proposed changes posted on Mesa website  
<https://www.mesaaz.gov/business/engineering/mesa-standard-details-specifications>
- Return comments by April 5, 2021 to  
Julie.Christoph@mesaaz.gov

# **CITY OF MESA**

# **STANDARD DETAILS & SPECIFICATIONS**

2021 EDITION





# Mesa Standard Details & Specifications 2021 Edition

- Current Update
- Highlight Major Changes
- Comment Period thru April 4<sup>th</sup>
- Effective Date April 15<sup>th</sup>

## **Mesa Standard Details & Specifications**

Amendments to MAG Uniform Standard  
Details & Specifications for  
Public Works Construction



MESA STANDARD DETAILS  
AVAILABLE ON-LINE  
[WWW.MESA.AZ.GOV/ENGINEERING](http://WWW.MESA.AZ.GOV/ENGINEERING)

EFFECTIVE DATE April 15, 2021

# Updates – Details

- Minor updates made to many details- refer to complete list in draft document
- Some details were edited for clarity
- M-19.01
  - Asphalt mix requirements updated in conjunction with the EVAC mixes.
  - TR and PMTR mixes required on all streets
- M-27 details– Water Meter Assemblies (Fire Rated 4” and larger and Manifolded 6”
  - A check valve has been added after the meter
- M-27 & M-28 Series - Water Meter Assemblies
  - Coating specification updated

# Updates – Details

- M-45 series – Bus Pullout/Shelter Details
  - Curb/gutter thickness modified to 8”
  - Shelter pad dimensions/thickness modified
  - Bike loops no longer required
  - Conduits associated with shelter electrical wiring no longer required
- M-49.01 – Water Service Installation
  - Clarified note on meter size reduction on an existing service (1 size maximum reduction)
- M-62 Series Details
  - Added note that trash enclosures must be evenly spaced from users’ access
  - Clarified measurement distance is from center of barrel pad
  - Gate access code and remote requirements clarified

# Updates - Specifications

- New Edition of MAG (2021 revision to 2020 version)
  - Noted that latest MAG version is adopted by the City when ever updates to MAG occur
- Section 106.2 – Quality Control and Quality Assurance Testing
- Subsection 610.11 – Connections to existing water system
  - Identification of application requirements/procedures
  - Identification of shutdown requirements

# Updates - Specifications

- Subsection 611.4(D) – CCTV Sewer inspections
  - Added requirement for CCTV after paving and all final adjustments completion for project acceptance
- Section 615.8- Sewer service taps
  - Wye style required (no tees) and max angle of 45 deg.
- Section 630.4.2(B) – Stainless steel Tapping sleeves
  - Stainless steel is a new option- refer to APL

# Comments

- Proposed changes posted on Mesa website  
<https://www.mesaaz.gov/business/engineering/mesa-standard-details-specifications>
- Return comments by April 5, 2021 to  
Ryan.Nichols@mesaaz.gov