

Water and Sewer Department: Updated Design Criteria Standards and Specifications

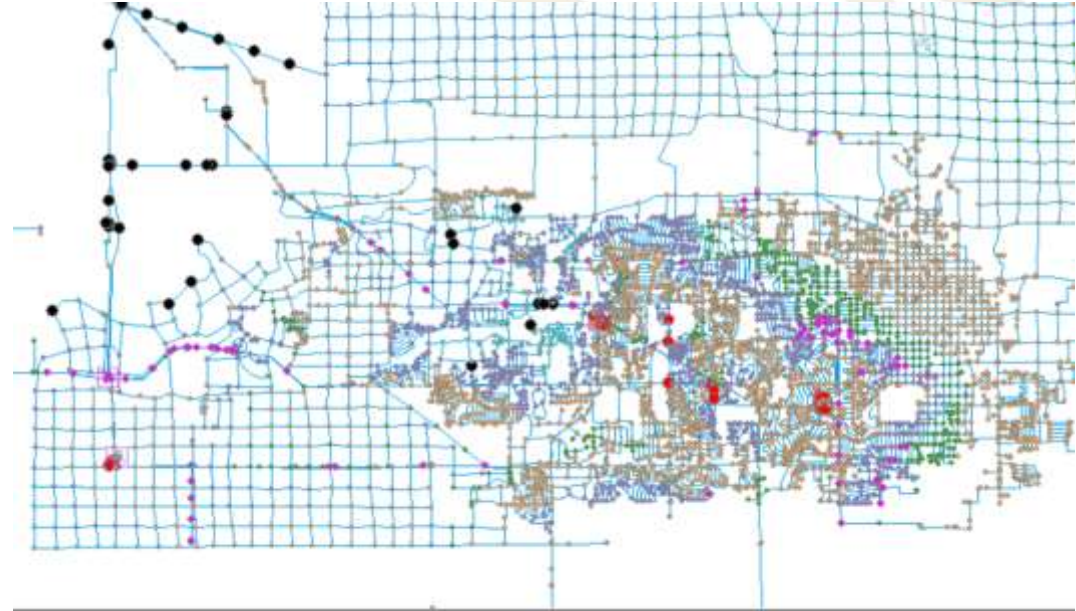
**City Council Work Session
January 10, 2023**

City of Greeley Water & Sewer Utilities Department
www.greeleygov.com/water



Goals

- Alignment with:
 - 2021 Water and Sewer Master Plans
 - 2022 Water Efficiency Plan
 - Other City Plans, Policies, and Procedures
- Updated technology and equipment standards
- Potential cost savings
- Comprehensive and easy to follow
- Conformance with new statewide Subsurface Utility Engineering (SUE) Laws



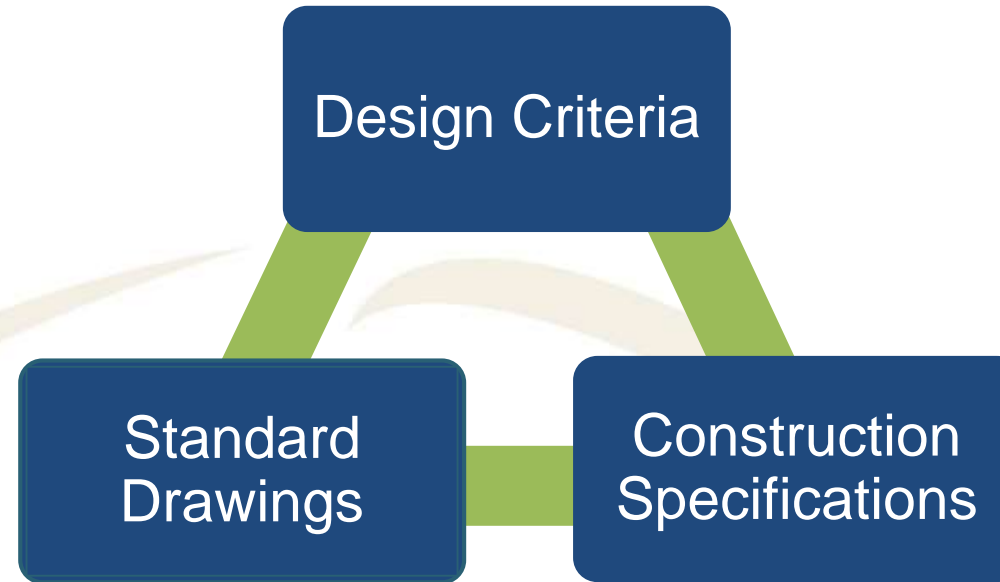
Public Outreach & Engagement



- ✓ City Water and Sewer Board 4/20/22, 7/20/22, & 11/16/22
- ✓ Planning Commission 3/8/22, 8/10/22, 11/8/22 & 12/13/22
- ✓ City Department Reviews (2020-current)
 - ✓ Engineering Development, Planning, CPRD & Civil Inspections
- ✓ Targeted local business & development community stakeholders
 - ✓ Builders, Realtors, & Developers Workshops-
7/19/21, 3/2/22, 3/3/22, & 4/29/22
 - ✓ Engagement and Feedback (December 2021-December 2022)
 - ✓ Landscape & Irrigation stakeholders 3/2/22, 3/3/22, 4/29/22, 9/30/22,
11/8/22 & 12/5/22



Design Criteria Standards & Specifications



- Section 1: General Requirements of Development
- Section 2: Submittal Requirements
- Section 3: Potable Water
- Section 4: Sanitary Sewer
- Section 5: Non-potable water
- Section 6: Commercial Landscape and Irrigation

Sections 1-2



Section 1: General Requirements of Development

- Minor updates and streamlined with Engineering Development Reviews

Section 2: Submittal Requirements

- Consistent modeling
- Better survey verifications and as-built drawings
- More details for reimbursement of oversized public infrastructure



Sections 3-4

Section 3: Potable Water

- Demand management per development type
- Ensure flows are more accurately calculated
- Updated connections standards, details and specifications
- Aligns with wastewater for consistency

Section 4: Sanitary Sewer

- Flows per development type
- Updated connection standards, details and specifications
- Detailed lift station criteria
- Aligns with potable water for consistency



Section 5: Non-Potable Water

- Aligns with 2021 Non-Potable Master Plan
- Regional systems and oversizing
- Consistency of systems
- Ensure flows are calculated consistently
- Conservation strategy
 - Reduces energy, chemical & water demands on potable water infrastructure



Section 6: Commercial Landscape & Irrigation

Goals

- Provides long-range water wise planning
- Support attractive and sustainable landscapes

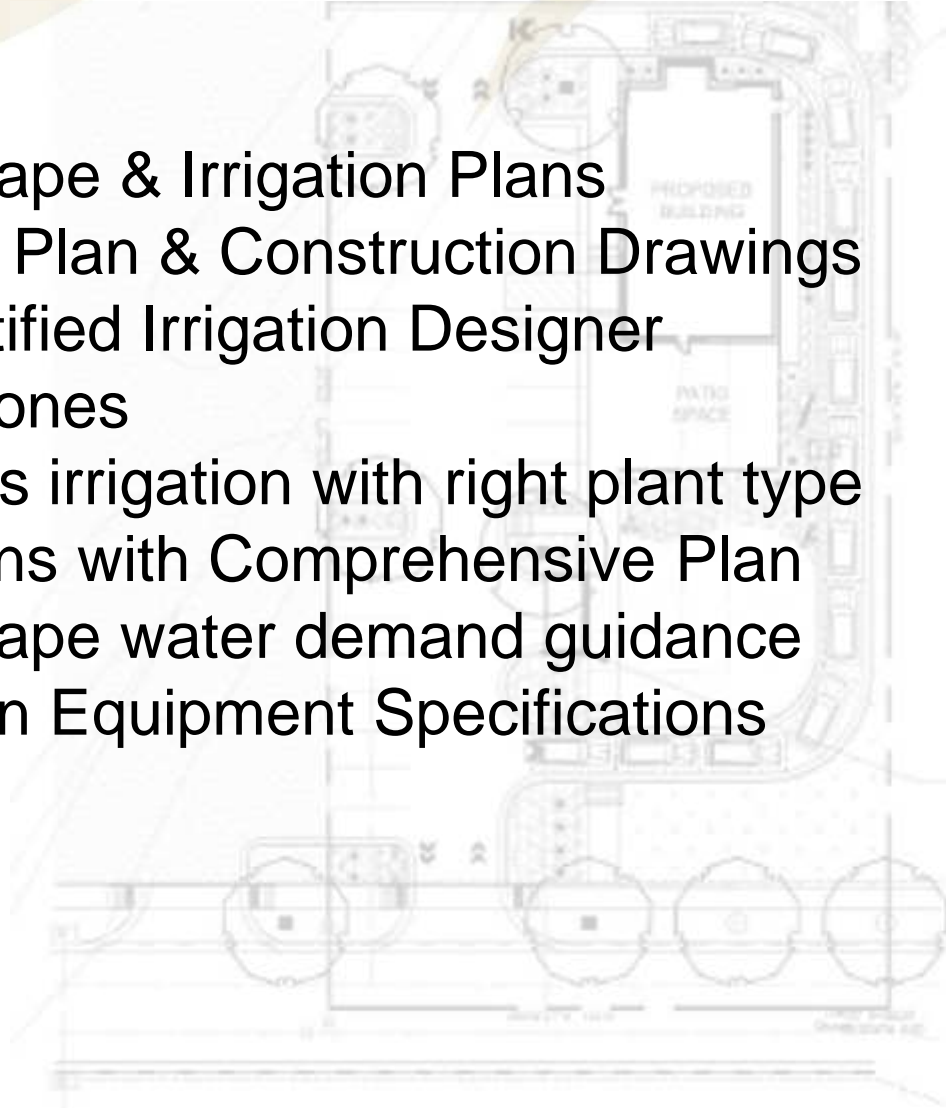
Applicable to:

- Common areas
- Right-of-ways
- Municipal buildings
- Non-residential (commercial/industrial)
- Multi-family residential



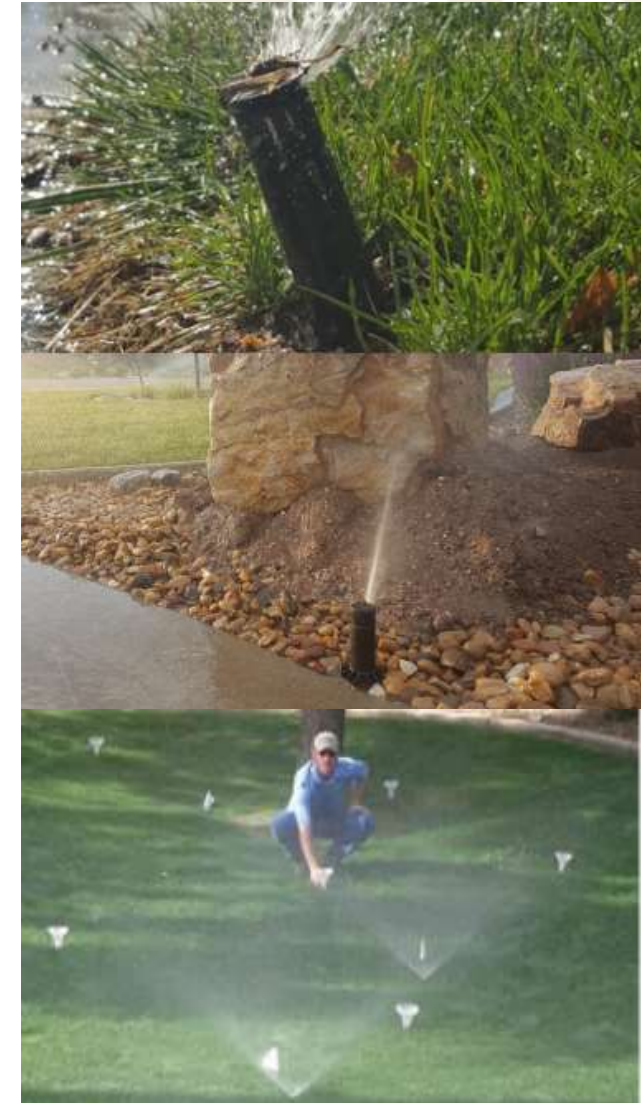
Section 6: Commercial Landscape & Irrigation

- Landscape & Irrigation Plans
 - Site Plan & Construction Drawings
 - Certified Irrigation Designer
- Hydrozones
 - Pairs irrigation with right plant type
 - Aligns with Comprehensive Plan
- Landscape water demand guidance
- Irrigation Equipment Specifications



Section 6: Commercial Landscape & Irrigation

- Irrigation System Installation Specifications
- Irrigation Performance Verifications
- Maintenance (irrigation)
 - Leak repair obligations that align with code
 - Recommends adjustments to sprinkler heads and controllers
 - Suggested checkups
 - Free performance audits by City staff

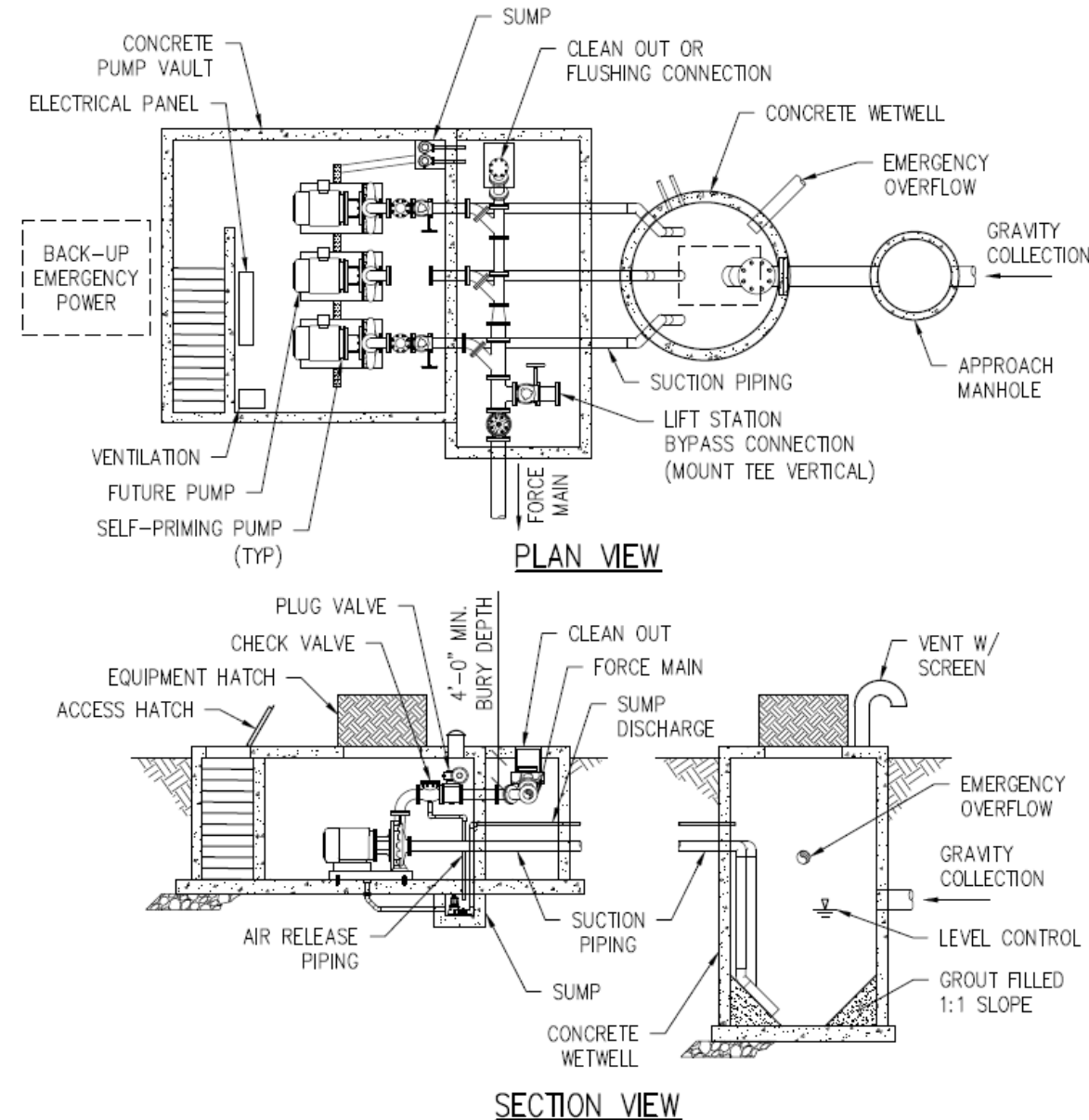


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Standard Drawings: Section 1-5

Key Updates

- Details with current material & equipment
- Standard lift station drawings to the sanitary sewer drawings
- Utility locating details in accordance with the new SUE law in Colorado (SB 18-167)



Questions?

City Council Approval

- First Reading- 1/17/23
- Second Reading- 2/7/23

DESIGN CRITERIA
AND
CONSTRUCTION SPECIFICATIONS

VOLUME III

POTABLE WATER DISTRIBUTION,
SANITARY SEWER COLLECTION,
NON-POTABLE IRRIGATION SYSTEMS,
AND LANDSCAPE & IRRIGATION



January 2023

DEPARTMENT OF WATER & SEWER

CITY OF GREELEY, COLORADO

