

Section 1 – General Information

1.1 Concept

Proper location, design, installation, and maintenance of utilities in public right-of-way is necessary for safety, public service and orderly development. Utilities should be located to minimize future adjustments, to accommodate future improvements, allow safe traffic operation, and to permit servicing with minimum interference to traffic.

To the extent practicable, utilities crossing the roadway should cross perpendicular to the roadway alignment. Utility crossings likely to require future servicing should be encased or installed in conduits to permit servicing without disrupting the traffic flow.

The horizontal and vertical location of utility lines within the public right-of-way should conform to the clear zone criteria applicable for the traffic volume and design speed of the roadway.

Utility lines should be placed to avoid damage to existing street trees.

1.2 Conditions

1. The design of utility locations shall be in conformance with the following:
 - A. The Design Standards Manual.
 - B. Latest policy of the Iowa Department of Transportation for Accommodating Utilities on the Primary Road System.
 - C. The owner of the utility shall ensure projects meet applicable government regulations and franchise agreements.

2. Construction Standards

Construction Standards shall be the Cedar Rapids Metropolitan Area Standard Specifications and Details.

3. Project Submittals

A permit and plan review may be required prior to construction. Where existing utilities are in the proximity of roadway improvements, the Project Engineer should coordinate with the Jurisdiction and utilities on the schedule, relocation, adjustments and removals prior to final plans.

Section 2 – Utility Location Design

2.1 General

When street grades, alignments, or widths are changed, utilities may have to be

relocated. Typical locations may be unobtainable in crowded utility corridors and where significant relocations are not feasible. Location criteria must be practical in new developments, urban relocations, and where overhead facilities are being converted to underground. Utilities are not expected to relocate existing facilities solely for the purpose of creating uniformity.

2.2 Design

1. Consideration should be given in the roadway design for coordinated use of the right-of-way.
2. Above-ground utility fixtures that constitute safety hazards shall not be permitted within the roadway clear zone. The only exceptions permitted would be where the fixture has a breakaway base or could be installed behind a protective barrier. Refer to Chapter 5 for clear zone dimensions.
3. Attachments to bridge structures should be avoided when possible. Where alternate locations are not feasible, bridge structure installations should be concealed from view. When attachments to bridges or structures are warranted, refer to the Jurisdiction for method of attachment and other requirements.
4. On new or adjusted utilities, provision should be made for possible expansion of the utility facilities, particularly those located underground or attached to bridges. It is important that the placement of the utility considers the future widening of the street or highway.
5. For roadway reconstruction projects, utilities already existing in non-standard locations may be replaced in the same location when permitted by the Jurisdictional Engineer.
6. Keep all public easements clear of above ground utility fixtures that may prevent use of these easements.
7. Refer to Figure 9.1 for typical utility locations in the public right-of-way. Utility locations will vary based on right-of-way and pavement width (see Chapter 5).