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Utility Accommodation Policy

A policy for accommodating and adjustment of utilities on the primary road system in Iowa.

Revised and implemented June 18, 2025

In accordance with Iowa Administrative Code 761 Chapter 115 (306A)

PDF available online at:

https://iowadot.gov/rightofway/Utility-Accommodation-and-Coordination#533652454-policy

Iowa administrative rules, chapter 761-115 (306A)

The current Utility Accommodation Policy of the department is an assembled policy guidebook that restates the rule chapter noted above. In addition, the policy guidebook contains several graphic exhibits to explain various sections of the chapter.

A printed copy of the policy guidebook may be obtained by contacting one of the department's six district offices or by requesting a copy from the Utility Program Director.

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EXHIBITS

CHAPTER 115
UTILITY ACCOMMODATION

[Prior to 6/3/87, Transportation Department[820]—(06,D) Ch 1]

Chapter rescission date pursuant to Iowa Code section 17A.7: 6/18/30

761—115.1(306A,314,320) General.

115.1(1) *Purpose.* This chapter covers the requirements needed for placement, adjustment and maintenance of utility facilities in, on, above or below the rights-of-way of primary roads to ensure the safety of the road user and the integrity of the road.

115.1(2) *Contact information.* Information regarding this chapter may be obtained from the department's website at: www.iowadot.gov/rightofway/Utility-Accommodation-and-Coordination; any of the department's six district offices; or the Transportation Development Division, Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa 50010.

115.1(3) *Considerations.* If the department determines that the literal application of these rules to a specific situation will create or result in an unsafe situation or an unreasonable design, the department shall use sound engineering practices to determine the appropriate design for the specific situation documenting the design decision in the permit or the road project file, as applicable, and addressing:

a. Safety of motorists, pedestrians, construction workers and other road users.

b. Integrity of the road.

c. Protection of the rights of the traveling public and of property owners, including the rights of abutting property owners.

d. Topography and geometric limitations and constraints affecting typical engineering standards.

e. Environmental protections, limitations and constraints of surrounding ecosystem.

115.1(4) *Permit approval process.*

a. To apply for a permit, the applicant must submit a request in the form and manner prescribed by the department. The department will do one of the following in response to a request for a utility accommodation on the primary road system: approve the request for a permit, approve the request for a permit with conditions, or deny the request for a permit. The department will notify the applicant of the determination in writing.

b. If the utility facility will impact a road or street under the jurisdiction of a local public agency, the request must be approved by the county. If the utility facility is within corporate limits of a city, the request must be approved by the city. The applicant is responsible for obtaining

local jurisdiction approvals. If the utility facility will cross or impact an interstate road, the request must be approved by the FHWA. The department is responsible for obtaining FHWA approval.

c. Upon receipt of a denial notification or if the permit was approved with conditions, the applicant may choose to pursue a waiver from the director pursuant to subrule 115.1(5).

d. For the purposes of this chapter, required notifications may be made by electronic means.

115.1(5) *Waivers.* The director may, in response to a written petition, waive provisions of this chapter in accordance with 761—Chapter 11. The written petition is to contain the information as required in 761—subrule 11.5(2) and be submitted to the rules administrator either by mail to Rules Administrator, Office of the Director, Iowa Department of Transportation, 800 Lincoln Way, Ames, Iowa 50010; or by email to the rules administrator's email address listed on the department's website at iowadot.gov/administrativerules.

115.1(6) *Additional requirement for waivers involving interstate roads.* The director will not waive these rules in utility accommodation and adjustment situations involving the interstate road system, including its ramps, without the approval of the FHWA.

761—115.2(306,306A,321) Definitions.

"511" means a traveler information system that provides real-time updates about weather-related road conditions, road work, commercial vehicle restrictions, road closures and other events that impact traffic via the phone or Internet.

"Abandoned" or *"abandonment"* means the decision by a utility owner to no longer use its utility facility.

"Adjustment" means a physical change to an existing utility facility, including improvement, rearrangement, reinstallation, protection, relocation or removal of the utility facility.

"Agreement" means a contract between the department and a utility owner.

"Applicant" means the utility owner or the utility owner's designated representative who submits a request for a utility permit on the primary road system.

"Appurtenance" means a utility facility-related feature, such as a vent, drain, utility access or marker.

"Attachment agreement" means a contract between the owner of a utility pole or structure and another utility owner for the joint use or sharing of poles or structures.

"Backfill" means placement of suitable material and compaction of the material as specified in these rules.

"Best management practices" means the industry's best-known method, technique or proven process used to achieve an end goal or standard.

"Breakaway" means designed to shatter, bend easily or separate from a solid foundation.

"Cable" means an insulated conductor or a combination of insulated conductors.

"Carrier" means a pipe directly enclosing a transmitted fluid (liquid or gas) or slurry. "Carrier" may also mean an electric or communication cable, wire or line.

"Casing" means an oversize load-bearing pipe, conduit, duct, or structure through which a carrier or cable is inserted.

"Cell" means a conduit.

"Clear zone" means a roadside area that is free of obstacles where an out-of-control vehicle can traverse safely, starting at the edge of the traveled way.

"Communication line" or *"communication cable"* means a cable used for the transmission of data, voice, images, television, alarm systems or traffic control.

"Conduit" means an enclosed tubular runway for protecting wires or cables. A conduit may also be referred to as a "cell" or "duct."

"Cover" means depth from the grade of a roadway or ditch to the top of an underground utility facility.

"Department specifications" means departmental standard specifications that can be found on the department's website at www.iowadot.gov/specifications.

"Designated representative" means a person with authority to make decisions on behalf of the utility owner, including employees of the utility company or consultants and utility contractors performing specific work on behalf of the utility owner.

"*Director"* means the director of transportation or the director's designee.

"*District representative"* means a department employee who processes utility accommodation requests in an assigned geographical area.

"*Duct"* means a conduit.

"*Emergency"* means an unplanned situation that presents a danger to the life, safety or welfare of motorists, persons working within the rights-of-way or the general public and that requires immediate attention. The emergency may be the result of storm damage and may involve disruption of utility service to customers. Work on a utility facility due to an emergency is unplanned work and may be necessary at any time of the day or night. The emergency work operation usually involves a small crew and a work vehicle for a short period of time.

"*Encasement"* means placing a casing around a utility facility.

"*FHWA"* means the Federal Highway Administration.

"*Flowline"* means the lowest point in a pipe, culvert, ditch, stream bed, or other structure that conveys water.

"*Foreslope"* means the downward sloping surface of an embankment from the outer edge of the roadway shoulder away from the traveled way to the roadway ditch bottom.

"*Freeway"* means a fully controlled access primary road. The rights of ingress and egress from abutting properties have been legally eliminated by the department. Permanent access to the primary road is allowed only at interchange locations. A freeway is generally five or more miles in length.

"*Generally accepted industry standards"* means a set of criteria within an industry relating to the standard functioning and carrying out of operations in the industry's respective fields of production.

"*Interchange"* means a system that provides for the movement of traffic between intersecting roadways via one or more grade separations.

"*Maintenance,"* as used in conjunction with a utility facility, means any repair or replacement of the utility facility that is not an adjustment and that does not increase the capacity of the original installation. The term "maintenance," when used in conjunction with a road, means repair or other operational activities performed by the department within the primary road rights-of-way to preserve the function of the road and its structures.

"*Median"* means that portion of a divided road separating traffic moving in opposite directions.

"*Multiduct"* means a system comprised of two or more conduits combined in a joined pathway.

"*MUTCD"* means the Manual on Uniform Traffic Control Devices as adopted in 761—Chapter 130.

"*Nonfreeway primary road"* means a primary road that is not a freeway.

"*Occupy the primary road rights-of-way"* means located or to be located in, on, above or below the primary road rights-of-way. The term includes attachments to primary road structures.

"*Out-of-service"* means a utility facility that has been removed from service and is not in use.

"*Pavement*" means that portion of a roadway used for the movement of vehicles, excluding paved and unpaved shoulders.

"*Permit*" means a utility permit issued by the department. The term "permit" includes all attachments to the permit.

"*Pipe*" means a tubular product used to transport solids, liquids or gases.

"*Pipeline*" means a carrier system used to transport liquids, gases, or slurries.

"*Primary road*" means the same as defined in Iowa Code section 306.3(6).

"*Reimbursement agreement*" means a contract between a utility owner and the department for reimbursement of utility facility relocation from private easement due to proposed primary road construction.

"*Rights-of-way*" means the same as "public road right-of-way" as defined in Iowa Code section 306.3(7).

"*Road*" or "*street*" means the same as defined in Iowa Code section 306.3(8).

"*Roadway*" means the same as defined in Iowa Code section 321.1(65).

"*Rural-type roadway*" means a roadway that does not have a curb and gutter section.

"*Service connection*" means a water, gas, power, sanitary sewer, storm sewer line or communications cable that extends from the main or primary utility facility into an adjacent property and that is used to serve the property regardless of ownership.

"*Shoulder*" means that portion of a roadway contiguous to the traveled way for the accommodation of disabled vehicles, for emergency use and for the lateral support of the pavement base and paved and unpaved surface courses.

"*Ten-day notice*" means ten calendar days that begin at midnight on the day the notice is submitted and conclude at midnight on the eleventh day following the date of the notice.

"*Toe of foreslope*" means the intersection of the foreslope and the natural ground or ditch bottom.

"*Traveled way*" means that portion of a roadway used for the movement of vehicles, excluding shoulders and auxiliary lanes.

"*Trenched*" means installed in a narrow open excavation.

"*Trenchless*" means installed without breaking the ground or the pavement surface, such as by jacking, boring, tunneling, directional drilling or mechanical compaction.

"*Urban-type roadway*" means a roadway that has a curb and gutter section.

"*Utility*" means the same as defined in Iowa Code section 306A.13, and for the purposes of this chapter, the term "utility" includes traffic signal systems, street and intersection lighting systems and a communication line or communication cable.

"*Utility access*" means an opening in an underground utility system through which workers or others may enter for the purpose of making installations, inspections, removals, repairs, connections or tests.

"*Utility conflict list"* means a document that identifies the relevant information about the utility facilities identified within the primary road project footprint. The utility conflict list, also known as utility conflict matrix, serves as a tool to track the status of the utility facilities in relation to the road design, including but not limited to no conflict, potential conflict, utility owner, utility type, size, location, assessment, relocation required, actions, and resolutions.

"*Utility facility"* means any pole, pipe, pipeline, pipeline company facility, sewer line, drainage tile, conduit, cable, aqueduct or other utility-related structure or appurtenance.

"*Utility owner"* means the owner of a utility facility.

"*Vent"* means an appurtenance used to ventilate or to discharge gaseous contaminants from casings.

"*Waterway"* means a river, stream, creek, brook, drainage ditch or other perennially flowing body of water.

761—115.3(306A,318,320) General provisions.

115.3(1) *Permit required.* A permit is required to place utility facilities in, on, above or below the primary road rights-of-way to attach utility facilities to a primary road structure or to adjust existing utility facilities occupying the rights-of-way.

115.3(2) *Future adjustment.*

a. In the event any future maintenance or construction of the primary road requires an adjustment of the utility facility, the department will not reimburse the utility owner for adjustment costs incurred unless otherwise noted on the permit.

b. Should adjustment of the utility facility be required, the department makes no assurance nor assumes any liability to the utility owner that the utility facility will again be allowed to occupy the primary road rights-of-way.

115.3(3) *Compliance with requirements.* It is the responsibility of the utility owner to ensure that the utility owner's utility facility complies with all applicable federal, state, local and franchise requirements and meets generally accepted industry standards at the time of installation.

115.3(4) *Performance bond.* The department may require a performance bond for utility work within the primary road rights-of-way under the following circumstances: the work is being done to adjust or relocate the utility facility to accommodate a planned primary road project; the installation is unusual; abnormal site conditions exist, such as but not limited to unstable soil or unique vegetation; or the utility owner has a history of performance problems. A performance bond is required for longitudinal freeway occupancy; more information contained in subrule 115.15(9).

a. If a performance bond is required, the utility owner shall file the bond with the department prior to commencing work within the rights-of-way in the minimum amount of $10,000 per permit. Depending on the type and extent of the utility facility to be installed, adjusted or relocated, the department may require a higher performance bond amount. The performance bond shall be in force for the duration of the permit and through completion of the primary road project construction, when applicable. The department will release the performance bond after all permit requirements have been accomplished by the utility owner. The department shall have the right to file a claim against the performance bond for two years after the performance bond has been released.

b. An annual performance bond in the amount of $100,000 for statewide activities in lieu of an individual performance bond for each permit is permissible and shall be kept in force for as long as the utility owner's utility facilities occupy the primary road rights-of-way anywhere within the state of Iowa.

c. When required, a performance bond shall guarantee prompt relocation for primary road project construction, restoration of any damage that is the result of the utility facility's occupancy of the primary road rights-of-way, and correction of any installation that is not in accordance with the issued permit on location or method of installation.

115.3(5) *Execution of work.* Utility construction and maintenance work within the primary road rights-of-way is to be accomplished in a manner satisfactory to the department.

115.3(6) *Disturbance of other contractors.* Utility construction and maintenance work within the primary road rights-of-way is to be accomplished in a manner that minimizes disturbance to any other contractor working within the rights-of-way. It is the responsibility of the utility owner to coordinate work with other contractors.

115.3(7) *No adverse effect on primary road.* A utility facility must not adversely affect the safety, design, construction, operation, maintenance or stability of the present use or future expansion of a primary road.

115.3(8) *Safety, health and sanitation.* Construction and maintenance of a utility facility shall be accomplished in a manner that minimizes disruption of primary road traffic and other hazards to the road user. The utility owner is responsible to comply with the MUTCD and all applicable federal, state and local statutes, ordinances and regulations governing safety, health and sanitation. The utility owner is to furnish such additional safeguards, safety devices and protective equipment and take actions to protect the life and health of the public.

115.3(9) *Parking or storage in clear zone or median.*

a. Unattended vehicles, equipment and materials shall not be parked or stored within the shoulder, median or clear zone and should be located as close to the right-of-way line as possible.

b. When in use, vehicles are to be oriented with the direction of traffic.

c. Exceptions to parking or storage requirements may be authorized by the district representative on a case-by-case basis.

115.3(10) *Protection of landscaped or planted areas.* Prior to permit approval, specific authorization is to be obtained from the district representative for mowing, trimming trees and shrubs, and for spraying within the rights-of-way. Landscaped and planted areas are to be avoided as much as practical. A landscaped or planted area that is disturbed is to be restored as nearly as practical to its original condition.

115.3(11) *Noncompliance.* The department may take any or all of the following actions for noncompliance with any provision of this chapter or any term of a permit:

a. Halt utility construction or maintenance activities within the rights-of-way.

b. Withhold an adjustment reimbursement until compliance is ensured.

c. Revoke the permit.

d. Determine a utility facility to be an obstruction and remove the noncomplying utility facility, restore the area to its previous condition, and assess the removal and restoration costs to the utility owner in accordance with Iowa Code section 318.5.

e. Place all pending and future permits on hold until the issue is resolved.

f. Initiate a claim on the performance bond as set out in subrule 115.3(4), when a bond is required.

115.3(12) *Identification signs and markers.* Utility facilities within primary road rights-of-way shall be properly marked in accordance with the following unless otherwise authorized by the district representative:

a. Identification signs are to be installed and maintained by the utility owner.

b. The signs must identify the utility owner, telephone number to contact in case of an emergency, and the type of buried utility.

c. Identification signs are to be composed of highly visible ultraviolet-resistant material.

d. Each sign is to be no larger than 200 square inches.

e. The mounting height is to be 5 feet to the bottom of the sign.

f. Signs are to be placed within 12 inches of the right-of-way line along the entire occupancy route.

g. The interval between signs is not to exceed one-quarter mile in rural areas and 500 feet in urban areas or as designated by the district representative.

h. Utility facility crossings must be properly marked on each side of the road.

i. If the utility facility is removed or relocated, the utility owner is to remove or relocate the corresponding identification signs and markers.

j. If the utility facility is abandoned in place, the utility owner is to promptly notify the department as set out in subrule 115.18(2).

115.3(13) *Insufficient capacity of rights-of-way.* The department may deny issuance of a permit if it determines there is insufficient room for additional utility facilities within the rights-of-way. (See Exhibit E13.)

761—115.4(306A,318) General design provisions.

115.4(1) *Design.* The design plan for a utility facility shall:

a. Be prepared by a person knowledgeable with this chapter, road design, and work zone traffic control.

b. Include the measures to be taken to preserve the surrounding environment, safe and free flow of traffic, structural integrity of the road and road structures, ease of road maintenance, appearance of the road and integrity of the utility facility to the extent applicable.

c. Include the location of each utility facility in the proposed run line with footage off centerline or right-of-way line to ensure the placement of the proposed utility facility can be accommodated.

115.4(2) *Number of crossings.* The number of utility facilities crossing the primary road rights-of-way shall be kept to a minimum. The department may require distribution facilities to be installed on each side of the road to minimize the number of crossings and service connections. In individual cases, the department may require several facilities to cross in a single conduit or structure. Crossings should be as near to perpendicular to the road alignment as practical.

115.4(3) *Clear zone requirements and aboveground obstructions.* The department will determine the clear zone distance and cause all obstructions within the clear zone of the primary road rights-of-way to be removed pursuant to Iowa Code sections 318.4 and 318.5. (See Exhibits E-4 through E7.)

a. On rural-type roadways, a permanent, aboveground obstruction is to be situated as near to the right-of-way line as practical in an area beyond the clear zone or the road foreslope, whichever area locates the obstruction a greater distance from the edge of the traveled way, right-of-way width permitting.

b. On urban-type roadways, the face of a permanent, aboveground obstruction is to be situated no closer than 10 feet from the back of the curb. In areas with parking or auxiliary lanes, an aboveground obstruction is to be situated no closer than 2 feet behind the back of the curb or a minimum of 10 feet from the edge of the traveled way, whichever location is farther from the traveled way.

c. Poles, guys, anchors and related appurtenances shall be situated away from roadway shoulders, the foreslope, the flowline of ditches, and drainage structure openings in an area that minimizes interference with department maintenance operations.

d. Pedestals, cabinets, vaults, hand holes or similar appurtenances should be placed 1 foot from the right-of-way line. The number of installations is subject to district representative approval.

e. If sufficient right-of-way is not available to accommodate the clear zone distance, the department may require the use of breakaway devices, self-supporting poles or towers, double-arming and insulators or dead-end construction; require regrading of the rights-of-way; require the utility facility to be located underground; or authorize the utility facility to be placed near the right-of-way line. The district representative may approve the adjustment of minimum setback distances for poles and other appurtenances that have a breakaway design.

f. Additional clear zone requirements for freeways are included in subrule 115.13(2).

761—115.5(306A) Scenic enhancement.

115.5(1) *Introduction.* The type and size of a utility facility and the manner in which it is installed can materially alter the scenic quality, appearance and view of roads and adjacent areas. Such areas may include but are not limited to scenic strips, scenic overlooks, rest areas, recreation areas, public parks and historic sites, aesthetically enhanced corridors, and the rights-of-way of primary roads that pass through or are adjacent to these areas.

115.5(2) *Underground installations.* The department may permit a new underground installation if it does not require extensive removal or alteration of trees or other natural features visible to the road user and if it does not impair the visual quality of the area being traversed.

115.5(3) *Aboveground installations.* The department may permit a new aboveground installation only if the following three conditions are met:

a. Other locations for an aboveground installation are unusually difficult, are unreasonably costly, or are less desirable from the standpoint of visual quality.

b. Underground installation is not technically feasible or is unreasonably costly.

c. The location, design and materials to be used for the proposed aboveground installation will give adequate attention to the visual qualities of the area being traversed.

761—115.6(306A) Liability. The following are conditions of a permit:

115.6(1) *The utility owner.* The utility owner will defend, indemnify and save harmless the state of Iowa, its agencies and employees from any and all causes of action; suits at law or in equity; for losses, damages, claims or demands; and from any and all liability and expense of whatsoever nature (including reasonable attorney fees) arising out of or in connection with the utility owner's use or occupancy of the primary road rights-of-way or noncompliance with rule 761—115.19(306,306A) to rule 761—115.24(306A).

115.6(2) *The state of Iowa.* The state of Iowa, its agencies or employees, will be liable for expense incurred by the permit holder in its use and occupancy of the primary road rights-of-way only when negligence of the state, its agencies or employees, is the sole proximate cause of such expense. Whether in contract, tort or otherwise, the liability of the state, its agencies or employees, is limited to the reasonable, direct expenses to repair damaged utilities, and in no event will such liability extend to loss of profits or business, indirect, special, consequential or incidental damages.

761—115.7(306A,320) Utility permit. (See Exhibit E-2.)

115.7(1) *Applicant contact.* The permit request is to include contact information for the utility owner or utility owner's designated representative.

115.7(2) *Permit.*

a. At a minimum, a utility permit allows:

(1) The applicant or the applicant's contractor to perform the work covered by the permit.

(2) The utility facility described in the permit to occupy the primary road rights-of-way.

(3) The utility facility to be operated and maintained.

b. A utility permit does not convey a permanent right of occupancy.

115.7(3) *Plan.* Each permit request is to be accompanied by a plan. The plan shall include all of the following that are applicable to the installation:

a. Location of the utility facility by route, county, section(s), township(s), range(s), reference post and primary road stationing, where these references exist.

b. Primary road centerline and rights-of-way limits.

c. Location of the utility facility by distance to the nearest foot at each point where the utility facility's location changes alignment, as measured from the:

(1) Centerline of the primary road on nonfreeway installations.

(2) Right-of-way fence on freeway installations.

d. Applicable construction details, including the:

(1) Depth of burial.

(2) Types of materials to be used in the installation.

(3) Type and size of the utility facility, including proposed operating pressures and voltages, number of cable pairs and fiber counts.

(4) Vertical and horizontal clearances.

(5) Traffic control plan prepared by a person knowledgeable in work zone traffic control or a reference to a standard traffic control plan of the department.

115.7(4) *Discharging into waterways.*

a. A permit request for the placement of a utility facility that will discharge materials into the nation's waters is to be accompanied by satisfactory evidence of compliance with all applicable federal, state and local environmental statutes, ordinances and regulatory standards.

b. The utility owner is responsible for obtaining these approvals. The department may withhold a permit until these approvals are obtained.

115.7(5) *Department action on permit request.*

a. The department will act on the permit request within 30 days after the filing of the permit request with all necessary and accurate information. If an emergency should exist, the department will act on the request as expeditiously as practical.

b. Failure on the part of the utility owner to provide complete information may result in a delay in the department taking final action on the request.

115.7(6) *Changes to work.* Changes in the work as described in the original permit require the prior approval of the department and shall be documented in a revised permit and utility as-built plan pursuant to subrule 115.7(8).

115.7(7) *Department-issued permit.* The utility owner or the utility owner's designated representative is to have a complete copy of the department-issued permit in paper or electronic form, including attachments, at the construction site at all times for examination by the department. Failure to have the approved permit and attachments on site shall result in the department halting work until the issued permit is produced.

115.7(8) *As-built plan.*

a. Within 90 days after completion of construction, the utility owner is to submit to the department an as-built plan in an electronic format in accordance with department specifications.

b. If the utility owner fails to submit the as-built plan within the time required, the department may hire an independent contractor to locate the utility facility and prepare an as-built plan. All costs associated with this activity are the responsibility of the utility owner.

c. Any costs incurred by the department or its contractors due to incorrect as-built information supplied by the utility owner or deviations in actual placement from that described in the original permit are the responsibility of the utility owner.

115.7(9) *Transfer of permit.* A new utility permit is not needed when a utility facility is transferred or leased in its entirety. The requirements of the permit and this chapter remain in force for as long as the utility facility continues to occupy the primary road rights-of-way and serve the intended purpose. The transferee or lessee is to submit the following information to the appropriate district representative:

a. The name, mailing and email address and telephone number of the transferee or lessee.

b. Geographical area involved in the transaction.

c. Permit numbers or issued permit documents for utility facilities within the geographical area.

115.7(10) *Term of permit.* Except for permits for longitudinal occupancy of freeways as outlined in subrule 115.15(11), an issued permit will continue in perpetuity or until future maintenance or construction of the primary road requires an adjustment of the utility facility (more information contained in paragraph 115.3(2)*"b"*).

761—115.8(306A) Traffic protection.

115.8(1) *Traffic control for all work.*

a. When performing work within the rights-of-way, the utility owner is responsible for traffic control operations, including but not limited to providing, installing, maintaining and cleaning warning signs and protective devices; removing warning signs and protective devices when the work is complete; and providing certified flaggers.

b. Traffic control operations shall utilize department standard road plans for traffic control available on the department's website, www.iowadot.gov/consultants-contractors/design/standard-road-plans.

c. The utility owner shall provide additional protection when special complexities and hazards exist.

115.8(2) *Traffic control for construction and maintenance work that is not emergency work.*

a. The utility owner is responsible for ensuring the use of traffic controls that are adequate for the nature, location and duration of work; type of roadway; traffic volume and speed; and potential hazards. The utility owner is to provide a ten-day notice to 511 of any lane restrictions or traffic closures.

b. Where high traffic volumes cause frequent congestion, routine scheduled maintenance and construction should be avoided during hours of peak traffic.

c. Work areas should be occupied for only as long as it is necessary to safely move in, finish the work, remove all utility work signs and move out.

d. Special care should be taken to clearly mark suitable boundaries for the workspace with channelizing devices so that pedestrians and drivers can see the workspace. If any of the traveled lanes are closed, tapers are to be used as required by the MUTCD.

e. Pedestrians should not be expected to walk on a path that is inferior to the previous path. Loose dirt, mud, broken concrete or steep slopes may force pedestrians to walk on the roadway rather than the sidewalk. Pedestrian detours, including those to accommodate persons with disabilities (Americans with Disabilities Act of 1990 (ADA) as amended by the ADA Amendments Act of 2008 (P.L. 110-335), codified at 42 U.S.C. 12101 et seq.), may be required at the discretion of the district representative. Repairs (temporary or permanent) to damaged sidewalks should be made quickly. This may include bridging with steel plates or good quality wood supports.

f. Work areas involving excavations on the roadway should not exceed the width of one traffic lane at a time. The work should be staged and, if needed, approved bridging should be used. The utility owner should fully coordinate this type of activity with the district representative and, in a city, with the city's traffic or public works office.

115.8(3) *Traffic control for emergency work.*

a. The extent of traffic control used for emergency work may be less than that used for longer-term construction or maintenance. However, the utility owner is responsible to provide for the safety of pedestrians, motorists and workers. It may be necessary for the utility owner to contact local law enforcement officials to assist in securing the safety of the traveling public.

b. The work vehicle is to be equipped with an amber revolving light or amber strobe light, portable signs and channelizing devices, and necessary equipment for flagging operations.

761—115.9(306A) Construction responsibilities and procedures.

115.9(1) *Permit required before work may begin.* The utility owner shall not commence construction work in the primary road rights-of-way until the utility owner has received a fully approved and issued permit from the department.

115.9(2) *Notice of construction.* The utility owner shall give the district representative at least 48 hours' prior notice of the utility owner's intent to start construction within the rights-of-way.

115.9(3) *Authority of the district representative.*

a. The district representative has the authority to resolve any issues or concerns that arise regarding the intent of the permit and compliance therewith.

b. During the progress of the work, the district representative may approve minor alterations in the plan or character of the work that the district engineer deems necessary or desirable to satisfactorily complete the work. Such an alteration is not a waiver of the permit, nor does it invalidate any provision of the permit.

115.9(4) *Work in progress.* The utility owner is responsible for the care and maintenance of partially completed work within the rights-of-way. Unless otherwise authorized by the permit or the district representative, all work performed within the rights-of-way is to be accomplished within the time frame of 30 minutes after sunrise to 30 minutes before sunset.

115.9(5) *Department inspection.*

a. The department may inspect any permitted work performed within the rights-of-way.

b. If the department finds performance of permitted work is not in compliance with the issued permit, the department will provide to the utility owner written notice of the defects found. The utility owner is to perform any rework or removal as ordered by the department in the time frame established by the department.

115.9(6) *Department inspectors.* The department may appoint inspectors to represent the department in the inspection of construction. Inspectors are placed on the job to keep the district representative informed of the progress of the work and the manner in which it is being performed, and to call to the utility owner's attention any infringements of the permit. The inspectors may not:

a. Modify in any way the provisions of the permit.

b. Delay the work by failing to inspect the work with reasonable promptness.

c. Act as a supervisor for the work or perform any other duties for the utility owner or its contractor.

d. Improperly interfere with the management of the work.

e. Approve or accept any portion of the work on behalf of the department.

115.9(7) *Repair and cleanup.* Prior to the department's final inspection, the utility owner is to:

a. Upon notification by the department, make any repairs to the rights-of-way that are necessary due to the construction work, including but not limited to shoulder and pavement repairs within the time frame established by the department.

b. Remove from the rights-of-way all unused materials and rubbish resulting from the work and leave the rights-of-way in a clean, presentable condition.

c. Make arrangements for repair or compensation for any damage to another utility facility or tile line found to have been caused by the utility owner's actions. (See Exhibit E-10.)

115.9(8) *Completion of work.*

a. The utility owner is to notify the district representative upon completion of work.

b. Upon notification by the utility owner that the work is complete, the department may inspect each item of work included in the permit as set out in subrule 115.9(5).

761—115.10(306A) Vertical overhead clearance requirements.

115.10(1) *Conformance to standards.* The vertical clearance for overhead utility facilities and the lateral and vertical clearances for bridges are to conform to generally accepted industry standards as well as applicable codes and regulations.

115.10(2) *Minimum vertical clearance.* (See Exhibits E-8 and E9.)

a. In no event shall the vertical clearance be less than 20 feet above the roadway for all overhead utilities.

b. Utility facility attachments to existing utility-owned poles are to be documented in an agreement or statement between the applicant and the pole owner authorizing the attachment for all poles not owned by the applicant and included in the permit request.

c. When a primary road detour has been established utilizing local jurisdiction roadways and streets, the minimum vertical clearance shall be applied to the temporary detour route at no cost to the department.

761—115.11(306A) Utility facility attachments to bridges.

115.11(1) *Department determination.* Utility facilities may be attached to an existing primary road bridge if the department determines that the attachment is in the best interests of the public. The department may accommodate utility facility attachments or conduits in the department's design for a new bridge if the department determines that the accommodation is in the best interest of the public.

115.11(2) *Method and weight of attachment.* The plan identified in subrule 115.7(3) is to show the method and weight of attachment. A separate permit is required for each bridge.

a. All attachments are to be placed in conduits, cells, pipes or trays; beneath the bridge's floor; inside the outer girders or beams; and above low steel or masonry of the bridge.

b. Department-approved clamps are to be used for any attachments to structural steel. Attachments are to be designed to withstand expansion or contraction forces.

c. If necessary, expansion devices, such as expansion joints, offsets or loops, shall be used. Utility facilities in cells or casings are to be grounded wherever necessary.

d. Welding or drilling holes in structural steel primary members is prohibited.

e. Utility facilities may be attached to noncritical concrete areas.

f. Holes should not be cut in wing walls, abutments or piers.

115.11(3) *Attachment considerations.*

a. Carrier pipe is to be suitably insulated from electrical power line attachments.

b. Pipelines may be attached to primary road bridges when installation below ground is not feasible, the design of the bridge can accommodate the attachment, and space is available.

c. Pipelines that have an operating pressure of more than 75 pounds per square inch or that are larger than 2 inches in diameter are to have shutoffs not more than 300 feet from each end of the bridge.

d. The department will consider pipeline attachment casing requirements on an individual basis. In some instances, thicker-walled or extra-strength pipe may be considered in lieu of encasement. Encasement is required for plastic pipe attachments to bridges.

e. The utility owner is to provide an indemnity bond to be executed by either itself or by a responsible bonding company, at the department's option.

(1) The indemnifier under the bond is to, in the event of damage resulting from any cause whatsoever arising out of or from permission to attach a pipeline, indemnify the department against all loss or damage to the department or any third party, including but not limited to the expense of repairing or replacing the bridge and the cost of alternate primary road facilities for traffic during the period when the bridge is being repaired or replaced.

(2) The indemnity bond is to be kept in force for as long as the pipeline is attached to the bridge.

(3) The department may periodically review the amount of the bond and require adjustments in the bond amount.

f. All costs attributable to the installation of an attachment to a bridge are to be paid by the utility owner unless the attachment is installed pursuant to a utility agreement.

115.11(4) *Attachment fee.*

a. The utility owner is to pay to the department an attachment fee for attaching the utility owner's utility facility to a primary road bridge. The attachment fee is $181.60 per bridge plus $0.99 times the weight of the attachment in pounds per foot times the length of the bridge in feet. The fee will increase 3 percent per year over the previous year after the base year of 2024. Additional fees may apply for longitudinal freeway occupancy (more information contained in subrule 115.15(8)). The department maintains the current fee listing available on the department's website at www.iowadot.gov/rightofway/Utility-Accommodation-and-Coordination.

b. The attachment fee is due before any construction work commences within the rights-of-way and shall be submitted to the department upon request.

c. Utility facilities dedicated solely to government use may, at the department's discretion, be attached to a primary road bridge without assessment of an attachment fee.

115.11(5) *Utility attachments to freeway border bridges.* The department may permit a utility facility to be attached to an existing or planned freeway border bridge if the following conditions are met:

a. The appropriate state agency of the adjoining state approves the attachment.

b. Except for communication cable, the utility facility exits the freeway rights-of-way as soon as physically practical after crossing the state line into Iowa.

c. The attachment otherwise complies with this chapter, specifically including this rule and rule 761—115.15(306A) on longitudinal freeway occupancy.

761—115.12(306A) Underground utility facilities.

115.12(1) *Depth requirements.* (See Exhibits E-8 and E9.)

a. Minimum cover—roadway. The minimum required cover under a roadway is 48 inches below the bottom of the pavement.

b. Minimum cover—waterways. A minimum of 10 feet of cover below the flowline is required under waterways at the time of placement unless otherwise authorized by the district representative.

c. Minimum cover—other portions of rights-of-way. The minimum required cover under other portions of the rights-of-way is measured from design elevation at the time of placement and is to be a minimum of:

(1) 48 inches for electrical cable.

(2) 30 inches for communication cable, except that 36 inches is required for longitudinal occupancy under freeway rights-of-way.

(3) 36 inches for all other underground utility facilities.

d. Rocky terrain. The department may allow an exception to the minimum depth requirement where rocky terrain makes it difficult to obtain the required depth. The department will determine the minimum depth in these situations; however, no installation will be authorized with less than 24 inches of cover.

e. Other protective measures. In critical situations where the necessary cover cannot be obtained, the department may approve other protective measures.

f. Highly erodible areas. Highly erodible areas may require trenchless installation and additional depth requirements as determined by the district representative.

115.12(2) *Measurement of cover.* The cover is measured from one of the following:

a. On rural-type roadways, the lowest pavement surface edge.

b. On urban-type roadways, the gutter flow line, excluding local depressions at inlets.

c. Where longitudinal installations will be behind the curb, the top of the curb.

d. The surface of the surrounding ground or the low point of the ditch.

115.12(3) *Casing.* A casing is to:

a. Protect the road from damage.

b. Protect the carrier pipe from external loads or shock, either during or after construction of the road.

c. Convey leaking liquids or gases away from the area directly beneath the traveled way.

d. Provide for repair, removal and replacement of the utility facility without interference to the road.

e. Leave no excessive voids around the pipe (more information on procedures for backfilling contained in subrule 115.12(7)).

f. Be of sufficient strength to withstand the external loads created by the vehicular traffic on the roadway being traversed.

g. Be properly installed with fill compacted to department specifications.

h. Be made of material that complies with all applicable federal, state, local and franchise requirements and meets generally accepted industry standards.

115.12(4) *Seals.* Casing pipe shall be sealed at both ends with a suitable material to prevent water or debris from entering the annular space between the casing and the carrier.

115.12(5) *Encasement and related requirements.*

a. Trenchless construction. Underground crossings of existing paved roadways, gravel entrances and residential or business frontage roads shall be accomplished by trenchless construction. Other installation methods may be authorized by the district representative and noted in the permit. The utility owner is responsible for contacting the property owner prior to any open cuts in entrances and residential or business frontage roads.

b. Transverse crossings. Underground transverse crossings of freeways and primary roads are to be encased from right-of-way line to right-of-way line and clearly marked by the utility owner at the outer limits of the rights-of-way. Encasement exceptions for transverse crossings may be authorized by the district representative on a case-by-case basis.

c. Longitudinal installations. Utility lines installed longitudinally to the primary road rights-of-way are to be encased at entrances and crossings of hard-surfaced roads and streets. Encasement exceptions for longitudinal installations may be authorized by the district representative on a case-by-case basis.

d. Electrical service. Underground electrical service is to be placed in a conduit from right-of-way line to right-of-way line and clearly marked by the utility owner at the outer limits of the rights-of-way.

e. Pipelines, except water.

(1) Exceptions to pipeline encasement may be made for a pipeline carrying natural gas at an operating pressure of 60 pounds per square inch or less that is made of copper, steel or plastic and is protected and installed in accordance with generally accepted industry standards; and the utility owner certifies as a part of the permit that these standards are met.

(2) Exceptions to pipeline encasement may be made for a pipeline carrying liquid petroleum products, ammonia, chlorine or other hazardous or corrosive products if the pipeline meets all of the following requirements and the utility owner certifies as a part of the permit that these requirements are met:

1. The pipeline is welded steel pipeline.
2. The pipeline is cathodically protected.
3. The pipeline is coated in accordance with generally accepted industry standards.
4. The pipeline complies with federal, state and local requirements and meets generally accepted industry standards regarding wall thickness and operating stress levels.

(3) Pipeline encasements are to be vented and marked at the outer rights-of-way limits. The markers are to meet generally accepted industry standards and include the following information:

1. Name and address of the utility owner.
2. Telephone number to contact in case of an emergency.
3. Type of product carried.

f. Communication cable. The department may require encasement of communication cable.

g. Sanitary sewer lines. Exceptions to sanitary sewer line encasement may be made for gravity flow lines installed subsequent to road construction if all of the following requirements are met:

(1) The opening is cut to the size of the carrier pipe so that there are no excessive voids around the pipe.

(2) The pipe is of sufficient strength to withstand the external loads created by the vehicular traffic on the roadway being traversed.

(3) Lines beyond the toe of foreslope are properly installed and compacted to department specifications.

h. Waterlines. Exceptions to waterline encasement may be made for the following:

(1) Encasement is not required where it is impractical due to existing conditions as determined by the district representative.

(2) Waterlines with an inside diameter of 2 inches or less need be encased only from toe of foreslope to toe of foreslope. Venting and sealing of the encasement are not required.

(3) Waterlines installed in advance of road construction need not be encased if the pipe is properly embedded and made of extra strength cast iron or ductile iron pipe with mechanical joints and seals, or equivalent.

i. Installations vulnerable to damage. When it is acceptable to both the utility owner and the department, an underground utility facility that, by reason of shallow depth or location, is vulnerable to damage from road construction or maintenance operations may be allowed to remain in place and shall be protected with a casing, suitable bridging, concrete slabs or other appropriate measures and noted in the permit.

j. Other installations. When it is acceptable to both the utility owner and the department, an underground utility facility not otherwise addressed in this subrule may be installed without protective casing if the installation involves trenched construction.

115.12(6) *Multiduct systems.* The department may require installation of a multiduct system to be shared with others. Details of the installation are subject to department approval. (See Exhibit E-12.)

a. For other multiduct systems, the department may designate a "lead company" for the multiduct system. The lead company will generally be the first utility owner requesting occupancy. The lead company is to:

(1) Design and install the multiduct system.

(2) Maintain the multiduct system.

(3) Provide all capital required to construct the multiduct system.

b. Once a multiduct system has been established, the department may require future occupancies to be located within one of the unoccupied inner ducts of the system. If all inner ducts are occupied, the department may require the establishment of an additional multiduct system. Subsequent occupants of a multiduct system should share equally in the entire capital cost of the utility facility. As each new occupant is added to an existing system, the department may require the new occupant to pay its proportionate share based on the number of inner ducts it occupies.

c. More information is contained in subrule 115.15(8) regarding occupancy fees for longitudinal installations on freeways.

115.12(7) *Procedures for backfilling trenched construction and jacking or boring pits.*

a. When a carrier, pipe, conduit, or cable is placed by trenched construction, jacking or boring, the backfill shall be placed and compacted in accordance with department specifications so that there is no settlement or erosion. Should settling or erosion of a trench be observed, the utility owner will be responsible to correct the problem.

b. Backfill under roadways or entrances is to be of a suitable material to minimize settlement at the site. Examples of suitable material include granular backfill or flowable mortar.

115.12(8) *Procedures for trenchless construction.*

a. When trenchless construction techniques are used, the bore is to be as small as practical and in accordance with department specifications.

b. Grout backfill is to be used for all unused holes and abandoned pipes. Grout or sand backfill is to be used for any borehole more than 2 inches larger than the installed casing or other utility facility. All bored utility facilities are to be constructed in such a manner that surface water is not transported to or otherwise allowed access to groundwater.

115.12(9) *Procedures for pavement removal.*

a. When the existing pavement is cut to accommodate a utility installation, the cut shall be made with a concrete saw.

b. The dimensions of the pavement removal shall be 6 feet in length and full lane width unless otherwise authorized by the district representative. If the distance from the specified cut to any adjacent longitudinal or transverse joint or crack is less than 4 feet, the pavement removal shall be extended to the joint or crack.

c. The district representative will make the final determination on the required depth and width of cut.

115.12(10) *Procedures for pavement replacement.*

a. Restoration of pavement shall be accomplished in accordance with department specifications.

b. The district representative may authorize temporary repair with bituminous material.

c. A permanent patch shall be placed as soon as conditions permit.

115.12(11) *Clear zone for pits.* Jacking or boring pits are to be located beyond the clear zone or road foreslope, whichever locates the pit a greater distance from the edge of the traveled way.

a. On freeways, jacking or boring pits are not allowed within the median.

b. On rural-type, nonfreeway primary roads, jacking or boring pits may be allowed within the median or foreslope upon request and at the discretion of the district representative.

c. On urban-type, nonfreeway primary roads, jacking or boring pits should be located at least 2 feet from the curb.

d. Jacking or boring pits authorized within the clear zone are to be protected at all times. All protection measures are to be included in the permit request. Examples of protection measures include backfilling of the pit, temporary barrier rail, or reflective fence.

115.12(12) *Construction methods.* Casing and pipeline installations are to be accomplished by dry boring, tunneling, jacking, trenching, or directional drilling.

a. The use of water under pressure, jetting or puddling to facilitate boring, pushing or jacking operations is not allowed.

b. Water may be used to lubricate a cutter and pipe during a dry boring operation.

761—115.13(306A) Freeways. (See Exhibit E-11.)

115.13(1) *Access to utility facilities occupying freeway rights-of-way.*

a. Except for emergency work, access to utility facilities during utility construction or maintenance activities is to be obtained from the areas other than the freeway or its ramps. More information is contained in subrules 115.8(3) and 115.17(2) regarding emergency work.

b. Fence removal and replacement will be determined by the district representative.

c. No gates or ladders are to be placed in or upon the right-of-way fence.

d. The department will coordinate approval from the FHWA for any request to access the interstate right-of-way for utility work.

115.13(2) *Freeway clear zone requirements.* The clear zone requirements of subrule 115.4(3) apply to freeways. In addition:

a. Personnel, equipment and materials are not allowed in the median or within the clear zone area during utility facility construction or maintenance operations, except as provided in paragraph 115.13(2)*"b."*

b. Temporary poles may be allowed in the median during cable or conductor stringing operations at the discretion of the district representative.

115.13(3) *Aboveground appurtenances.* Aboveground appurtenances, including but not limited to poles, guys and other supporting structures, are not allowed within the rights-of-way of freeways.

115.13(4) *Existing utility facilities.*

a. A utility facility occupying land that subsequently becomes freeway rights-of-way may remain within the rights-of-way if the utility facility:

(1) Can be accessed from areas other than the freeway or its ramps.

(2) Does not adversely affect the safety, design, construction, operation, maintenance or stability of the freeway.

b. If the conditions in paragraph 115.13(4)*"a"* are not met, the department may request the utility facility be relocated outside the freeway rights-of-way.

761—115.14(306A) Transverse installations on freeways.

115.14(1) *Interchange areas.*

a. Utility facilities may not be placed within the interchange area of intersecting freeways unless they are road-related.

b. In other interchange areas, the department may permit occupancy if access to the utility facility can be obtained from areas other than the freeway or its ramps, such as an intersecting, adjacent or nearby road or trail.

115.14(2) *Aboveground installations.*

a. A single span is to be used to cross the freeway where the width of freeway rights-of-way permits.

b. Within interchange areas:

(1) Single-pole construction is to be used, with the number of poles kept to a minimum.

(2) Overhead lines are to be constructed on tangent, parallel to the intersecting road, without guys or anchors being placed in the areas between the ramps and the main freeway. Guy poles are to be located as near to the freeway rights-of-way line as practical.

(3) Poles are to be located outside the clear zone and situated as far from the main freeway and ramps and as close to the toe of foreslope of the intersecting road as practical but shall remain outside the clear zone.

(4) The use of self-supporting poles or towers, double arming and insulators, breakaway devices and dead-end construction should be considered.

761—115.15(306A,314) Longitudinal installations on freeways.

115.15(1) *Type of installation permitted.*

a. Pursuant to Iowa Code section 314.20, the department may permit the installation of an underground utility facility if, in addition to complying with other provisions of this chapter, the utility facility specifically complies with this rule.

b. Except as provided in this rule, no aboveground installations other than those needed to serve road facilities are allowed.

c. If the department determines that an aboveground installation is necessary to advance the state's priorities, can be installed safely with minimal impact on the traveling public, can be safely accommodated within existing right-of-way, is along a roadway that is not anticipated to require additional right-of-way for future improvements in the foreseeable future, and extends for a relatively short distance, the department may permit installation with proper justification.

115.15(2) *Prohibitions on longitudinal occupancy.*

a. A utility facility may not be placed longitudinally within freeway rights-of-way that is used for transmitting gases, liquids, or products that are flammable, corrosive, expansive or unstable.

b. No direct service connection to adjacent properties is allowed.

c. No utility facility is allowed in or on a structure carrying a freeway roadway or ramp, except for freeway border bridges, as provided in subrule 115.11(5).

115.15(3) *Minimal maintenance.* Once installed, the utility facility should require minimal maintenance.

115.15(4) *Location and depth.* The utility facility should be located on uniform alignment, preferably within 8 feet of the freeway rights-of-way line, and at a location approved by the department.

a. More information is contained in subrule 115.12(1) regarding minimum depth requirements.

b. Installation methods should be minimally invasive and authorized by the district representative.

c. Utility accesses should be placed below the existing ground line. The locations and number of accesses are subject to district representative approval.

115.15(5) *Pedestals, cabinets, vaults, hand holes, repeater stations or similar appurtenances.*

a. Aboveground pedestals are permissible. All pedestals, cabinets, vaults, hand holes or similar appurtenances should be placed one foot from the right-of-way fence. The number of installations is subject to district representative approval.

b. Repeater stations are not allowed in the rights-of-way.

115.15(6) *Metallic warning tape.* Metallic warning tape is to be installed a minimum of 12 inches below the existing grade and above the utility installation unless installation is done by directional boring or other trenchless methods.

115.15(7) *Engineering.* The utility owner is to retain the services of a licensed, professional engineer familiar with the requirements for utility work to be accomplished in Iowa.

a. The engineer is responsible for overseeing continuous on-site inspection of the installation of the utility facility, including all provisions pertaining to access to the work site and traffic control.

b. Upon completion of the project, the engineer is to certify to the department on the appropriate form that the installation, traffic control, and access to the work site were accomplished in accordance with the permit.

c. Any change to the alignment as described in the permit requires the prior approval of the district representative and is to be included in the as-built plan (more information is contained in subrule 115.7(8)).

115.15(8) *Occupancy fee.* The utility owner is to pay to the department an annual fee for longitudinal occupancy of the freeway rights-of-way in accordance with Iowa Code section 314.20. The initial fee is due before any construction work commences within the rights-of-way. Additional fees may apply for bridge attachments (more information is contained in subrule 115.11(4)). The department maintains the current fee listing available on the department's website at www.iowadot.gov/rightofway/Utility-Accommodation-and-Coordination.

a. Unless otherwise specified, the annual fee is based on the number of ducts, cables and length in miles as follows:

(1) When a multiduct system is required by the department the fee is $26,188.61 per cable installation or $13,094.31 per mile of cable, whichever is greater. These fees increase 3 percent per year over the previous year after the base year of 2024.

(2) The fee for all other installation is $21,673.33 per cable installation or $4,252.25 per mile of cable, whichever is greater. These fees increase 3 percent per year over the previous year after the base year of 2024.

b. When the department requires the installation of a multiduct system, the department may enter into an agreement with the lead company for a discounted fee payment schedule to be in effect until the company has recovered all or an agreed upon portion of its cost of installing the system. Subsequent occupants of the multiduct system will be required to pay the full annual fee.

c. Utility facilities dedicated solely to state government use may, at the department's discretion, longitudinally occupy freeway rights-of-way without assessment of an occupancy fee.

115.15(9) *Performance bond.* The utility owner is to file a performance bond with the department prior to commencing work within the freeway rights-of-way.

a. The bond shall be in the minimum amount of $100,000 per permit as determined by the district representative and shall guarantee prompt restoration of any damage caused during the installation of the utility facility.

b. The bond is to be in force for the duration of the construction. The department may file a claim against the bond for two years thereafter.

115.15(10) *Insurance.*

a. The utility owner shall maintain the following insurance for bodily injury, death and property damage arising out of or in connection with the construction, maintenance and operation of the utility facility:

(1) General public liability insurance with limits of not less than $500,000 for injury to or death of a single person, or not less than $1,000,000 for any one accident, and not less than $250,000 per accident for property damage.

(2) Comprehensive automobile liability insurance with limits of not less than $500,000 for injury to or death of a single person, or not less than $1,000,000 for any one accident, and not less than $250,000 per accident for property damage.

(3) Excess liability coverage with limits of not less than $5,000,000.

(4) Statutory workers' compensation coverage.

b. This insurance is to be in effect before the utility owner commences any work within the freeway rights-of-way.

c. Coverage may be provided by blanket policies of insurance covering other property or risks.

d. The department is to be named as an additional insured party in the general public liability and excess liability insurance policies.

115.15(11) *Term of permit.* The permit is valid for 20 years from the date of issuance. Upon written request, the department may extend or renegotiate the term.

115.15(12) *Utilities for road facilities.* Longitudinal occupancy of utility facilities that service road-related facilities are permissible upon such terms and conditions as the department may determine.

761—115.16(306A) Longitudinal installations on nonfreeway primary roads.

115.16(1) *Location.* Longitudinal utility facility installations should be located on uniform alignment as near as practical to the right-of-way line to provide a safe environment for traffic operations and to preserve space for future road improvements and other utility installations.

115.16(2) *Underground installations.*

a. No carrier of flammable, corrosive, expansive or unstable material may be placed longitudinally within the rights-of-way of a nonfreeway primary road. Exceptions:

(1) A natural gas line with an operating pressure that is no greater than 150 pounds per square inch is permissible.

(2) The department may permit the placement of a natural gas line with an operating pressure that is greater than 150 pounds per square inch only if a suitable alternate location cannot be found.

b. On rural-type roadways, utility facilities shall be located in an area beyond the road foreslope and ditch bottom, right-of-way width permitting. Exceptions to the location may be made by the district representative for areas such as deep ravines or ditches or to allow for adequate separation between utility facilities. When adequate room within the rights-of-way is available, the utility facility shall be installed beyond the end of any culverts at a minimum depth of 10 feet beneath the normal flow line unless otherwise authorized by the district representative. When adequate room within the rights-of-way is not available, the utility facility shall be installed by trenchless methods a minimum depth of 10 feet beneath any culverts unless otherwise authorized by the district representative.

c. On urban-type roadways, utility facilities shall be located as near to the right-of-way line as practical. A utility access placed within the rights-of-way shall not protrude above the surrounding surface.

d. Utility facilities should not be placed in the median. The district representative may allow an installation within the median if a suitable alternative is not found.

e. Utility facility locations shall be marked and identified as set out in subrule 115.3(12).

761—115.17(306A) Maintenance and emergency work.

115.17(1) *Maintenance responsibilities.* The utility owner is responsible for utility facility maintenance. The utility owner is to:

a. Maintain the utility facility in a good state of repair.

b. Replace and stabilize all earth cover and vegetation where erosion has occurred over an underground utility facility when the erosion is due to or caused by the placement or existence of the utility facility.

c. Give the district representative 48 hours' prior notice of the utility owner's intent to perform predictable routine maintenance within the rights-of-way.

115.17(2) *Utility emergency work.*

a. Access to the worksite is permissible from the freeway roadways and ramps when an emergency exists.

b. The utility owner shall take all necessary, appropriate and reasonable measures to protect the safety of the traveling public and cooperate fully with law enforcement and the department in completing the emergency work.

c. The utility owner shall notify the district representative of the emergency as soon as practical, describing the steps being taken to protect the traveling public, the extent of the emergency, and the steps being taken to address the emergency.

d. If the nature of the emergency is such that it interferes with the free movement of traffic, the utility owner shall immediately notify law enforcement, 511 and the district representative.

e. When an emergency occurs on the interstate system, the department will notify the FHWA as soon as practical, describing the steps being taken to protect the traveling public and the steps being taken to address the emergency.

115.17(3) *Department emergency work.* There will be times when the department performs road-related emergency work. If utility facilities are affected, the department shall as soon as practical notify the utility owner of the emergency condition and what steps are necessary to protect the utility facility.

761—115.18(306A) Abandonment, out-of-service facilities, or removal of utility facilities.

115.18(1) *Ownership.* Ownership remains in place for a utility facility declared abandoned or out-of-service. To facilitate utility investigations for future primary road projects, the location of abandoned and out-of-service utility facilities should be maintained in the utility owner inventories. The last-known utility owner remains responsible for locating and marking abandoned and out-of-service utility facilities within the primary road rights-of-way and for the cost of removal of abandoned utility facilities required to facilitate proposed primary road construction.

115.18(2) *Notice to department.* Within 90 days after the abandonment, out-of-service designation, or removal of all or a portion of an existing utility facility that occupies the primary road rights-of-way, the utility owner is to submit a notice of abandonment, out-of-service designation, or removal to the district representative. The notice shall include:

a. Type of utility facility.

b. Location of the utility facility by route, county, section, township, range, milepost and primary road stationing, where these references exist.

c. Name of the original utility owner if different than the current utility owner.

d. Original permit number and date of approval, if known.

761—115.19(306,306A) Utility facility adjustments for primary road improvement projects. Rules 761—115.20(306A) through 761—115.24(306A) establish administrative procedures for utility facility adjustments made necessary by primary road improvement projects pursuant to Iowa Code section 306A.10, including information exchange and the responsibilities of the department, utility owners, and the department's contractor. The purpose of these procedures is to adjust utility facilities with minimal delays or added expense pursuant to Iowa Code section 306.47. Rules 761—115.20(306A) through 761—115.24(306A) apply to all primary road improvement projects with the following exceptions:

1. Projects the department develops on an accelerated schedule.
2. Projects with no anticipated utility adjustments.

115.19(1) *Adjustment of facilities.* If, despite making reasonable efforts to avoid or minimize the need for adjusting an existing utility facility, it is determined that adjustment is required due to proposed primary road construction, the utility owner is to adjust the utility facility in advance of the road construction. Scheduling of relocation work in the case of the following exceptions should be coordinated with the district representative:

a. Relocation work that needs to be coordinated with the department's contractor.

b. Relocation work that is dependent on work to be performed by another utility company.

c. Relocation work that is not practical until certain department project construction activities occur.

115.19(2) *Relocation costs.*

a. If adjustment of an existing utility facility occupying the right-of-way is required due to proposed primary road construction, the utility owner is to adjust the utility facility without cost to the state.

b. If adjustment of an existing utility facility located on an easement outside existing rights-of-way is required due to proposed primary road construction, approved relocation costs will be eligible for reimbursement by the department through a reimbursement agreement.

c. When the department participates in the cost of a utility facility adjustment required for proposed primary road construction, the department will not pay for a betterment that results in an increase in the capacity of the utility facility or for any other adjustment not required by proposed primary road construction and is made solely for the benefit of and at the election of the utility owner. The department is entitled to receive credit for the accrued depreciation on replaced facilities and the salvage value of any materials or parts salvaged and retained or sold by the utility owner.

d. Adjustment costs for which the department is responsible will be paid on a cost reimbursement basis through a reimbursement agreement. Estimates shall follow the cost development and reimbursement requirements outlined in 23 CFR 645 (Subpart A, 645.117) as amended October 1, 2023.

761—115.20(306A) Utility investigation and notice of project.

115.20(1) *Determining affected utilities.*

a. The department will make a reasonable effort to identify utility facilities located in the vicinity of a proposed primary road project and collect location information and attributes.

b. The department will periodically evaluate the information available and determine the utility investigation needs for the project. Utility companies are to respond to collaboration efforts with the department to determine the best approach to meet those needs.

c. The department will look at potential utility impacts and initiate coordination with utility owners. A utility conflict list should be used to document and track information obtained on the potential utility conflicts.

115.20(2) *Notifying utilities.* The department will identify by name the owner of each known utility facility located within the vicinity of a proposed primary road project. In accordance with Iowa Code section 306A.10, the department will send to each identified utility owner a notice of the improvement project, including the route number of the primary road, the geographical limits of the project and a general description of the proposed primary road work to be done, type of project, important schedule milestones, and, if available, the name and contact information of the designer or a department's representative for coordination purposes.

115.20(3) *Responding to notice.* The utility owner shall:

a. Within 30 calendar days after the date of the notice, provide to the department information about the utility owner's utility facilities that are in the vicinity of the improvement project. This information shall include the following:

(1) A confirmation in writing that the utility owner has or has no facilities in the vicinity of the project.

(2) Information on the utility owner's utility facilities' location and attributes, the name of any other utility companies that have utility facilities that coexist with the utility owner's utility facilities and contact information of the coexisting utility owner's authorized representative.

b. The utility owner is to reply regardless of whether or not it has utility facilities in the project's vicinity.

761—115.21(306A) Preliminary plan, verifying accuracy of information.

115.21(1) *Depicting utility information.* The department will use collected information to list all known utility owners within the vicinity of a proposed primary road project and include the utility owners' utility facility locations on the project plans in accordance with department specifications.

115.21(2) *Preliminary plan.* The department will submit its preliminary plan to the owner of each known utility facility within the vicinity of a proposed primary road project and ask utility owners to provide information regarding the accuracy of utility information depicted in the preliminary plan and potential conflicts and the utility owners' recommended solutions. The department should schedule a utility coordination meeting after the preliminary plan is sent to the utility owners.

115.21(3) *Response to the preliminary plan.*

a. The utility owner shall review the preliminary information sent by the department and provide a response within 30 calendar days. The response is to include the following:

(1) A statement regarding the accuracy of the location of the utility owner's existing utility facilities as depicted in the preliminary plan. If the information is inaccurate, a description of the inaccuracies is to be provided.

(2) A declaration that there are no known conflicts between the utility owner's utility facilities and the department's project, or a description of any potential conflicts between the utility owner's utility facilities and the department's project.

(3) Utility owners may provide recommended changes to the department's plan that may help to avoid or minimize impacts to utility facilities.

(4) Any other relevant information regarding potential utility facility conflicts, such as potential rights-of-way needs, permits that may be required, estimated time frame required for utility facility relocations, and any dependencies with other utility owners' work or the department's contractor.

b. The utility owner is to reply regardless of whether or not the utility owner's utility facilities in the project's vicinity are impacted by the proposed primary road project.

761—115.22(306A) Semifinal plan, utility work plan.

115.22(1) *Preparation of semifinal plan.* When preparing the semifinal plan, the department should review information provided by utility owners in response to the preliminary plan that was received within the requested time frame and implement recommended changes when feasible. The project utility investigation needs may be reevaluated to determine the best approach to meet those needs.

115.22(2) *Distribution of semifinal plan.* The department will submit its semifinal plan to the owner of each known utility facility within the vicinity of a proposed primary road project. The semifinal plan contains information details of the department's project to assist the utility owner in the design and the adjustment of the utility owner's utility facilities.

115.22(3) *Work plan.* Within 90 calendar days after the date the department provides its semifinal plan, the utility owner shall submit to the department a work plan for the adjustment or relocation of utility facilities impacted by the proposed primary road project.

a. The work plan is to include the following:

(1) A narrative description of what work the utility owner will do.

(2) An electronic plan or drawing showing the existing and proposed locations of the utility owner's utility facilities in relation to the semifinal plan.

(3) Whether the work is dependent on work by another utility owner.

(4) Whether the work can be done prior to road construction or must be coordinated with the department's contractor.

(5) Whether the work is dependent on the acquisition of rights-of-way.

(6) The number of working days required to complete the work and the earliest date when the utility owner could begin to implement the work plan.

(7) A list of permits and approvals the utility owner is required to obtain from governmental agencies and railroad companies for the work, and the expected time schedule to obtain them.

(8) The expected lead time in calendar days to obtain materials, schedule work crews, and obtain necessary rights-of-way.

(9) Any other information that may be useful to the department or the department's contractor.

b. If the utility adjustment work may be reimbursable, the utility owner shall include the following with the work plan:

(1) Documentation of real estate interests.

(2) A detailed cost estimate for the adjustment, including appropriate credits for betterments or salvage.

115.22(4) *Conflict between work plans.* When requested by the utility owners or when the department determines there is potential for conflict between work plans, the department shall schedule a coordination meeting. All affected utility owners shall attend the meeting to coordinate the utility owners' work plans. The department may allow a utility owner an additional 30 calendar days to submit the utility owner's work plan if coordination is required with other utility owners.

115.22(5) *Department review of work plan.* The department will review each utility owner's work plan to ensure compatibility with permit requirements, the department's project, other utility work plans, and the department's project schedule.

a. If the work plan is acceptable, the department will notify the utility owner of the department's acceptance of the utility owner's work plan.

b. All relocation work plans should ensure the safety and reliability of the utility facilities and the road and avoid any unnecessary cost or delay. An approved and issued permit is to be obtained for work within the primary road rights-of-way. Any work plan by itself does not constitute a permit nor does it grant permission to occupy primary road rights-of-way.

c. If the work plan is not acceptable to the department, the department will notify the utility owner that the work plan is not acceptable and provide a detailed explanation of the problem.

d. The utility owner is to submit a revised work plan to the department within 30 calendar days after the utility owner's receipt of notice from the department that the work plan was not acceptable.

e. The department will review the revised work plan. If the revised work plan is acceptable, the department will notify the utility owner of the department's acceptance of the revised plan.

f. If the revised work plan is still not acceptable, the department may initiate noncompliance procedures per subrule 115.3(11). If the department determines that meaningful progress is being made, the department may elect to repeat the process set out in paragraphs 115.22(5)"*c*" to "*e.*"

115.22(6) *Reimbursement agreement.*

a. For certain utility facility adjustments, the department may enter into a reimbursement agreement between the department and the utility owner. If applicable, the utility owner is to provide a request for reimbursement to the department prior to commencement of any relocation work. If the department determines that the relocation is eligible for reimbursement, a reimbursement agreement may be prepared between the department and the utility owner and should be fully executed by both parties prior to commencement of any relocation work. The agreement is to include the following:

(1) The responsibilities of each party, including the pro rata share of costs to be borne by each party.

(2) The scope, description, and location of the relocation work.

(3) The relocation work plan.

(4) The itemized cost estimate of the relocation work, including appropriate credits.

(5) The actions to be taken in case of noncompliance with state requirements.

b. A reimbursement agreement by itself does not constitute a permit nor does it grant permission to occupy the primary road rights-of-way. The utility owner is responsible for obtaining a permit prior to commencing work within the rights-of-way.

761—115.23(306A) Notice of work.

115.23(1) *Notice of receipt of permits and approvals.* The utility owner shall notify the department within 14 calendar days after the utility owner has received all required permits and approvals from government agencies and railroad companies.

115.23(2) *Notice to utility owner to begin work.*

a. The department shall send a notice to proceed to the utility owner when necessary approvals are received, permits are issued, and rights-of-way have been acquired for the relocation work.

b. If the utility owner's work plan is dependent upon work by the department's contractor, the department's contractor is to provide the department and the utility owner a good faith notice 14 calendar days before the department's contractor's work is expected to be complete and ready for the utility owner to begin its work. The department's contractor should follow up with a confirmation notice to the department and the utility owner not less than three working days before the department's contractor's work will be complete and ready for the utility owner to begin its work.

115.23(3) *Notice to department of commencement and completion of work.* The utility owner is to give the department 48 hours' prior notice, excluding weekends and holidays, of the utility owner's intent to start utility adjustment work within the vicinity of a proposed primary road project. The utility owner is to also notify the department immediately upon completion of the work.

761—115.24(306A) Miscellaneous adjustment provisions.

115.24(1) *Work plan compliance.* The utility owner is to complete its utility adjustment work within the time frame of the work plan approved by the department. Upon completion of the work, the utility owner is to certify to the department that the adjustment of the utility owner's utility facilities is in accordance with the accepted work plan. The utility owner is to submit an as-built plan in accordance with department specifications.

115.24(2) *Work plan changes.* If a utility owner needs to change its work plan after its adjustment work begins, the utility owner shall notify the department. Once the department approves a modified work plan, the utility owner may make the necessary changes and perform the work.

115.24(3) *Cost allocation.*

a. If the department requires the adjustment of a utility facility that was originally determined, per the notice and work plan processes, to not need adjustment:

(1) The utility owner will bear the cost of the adjustment if the work is otherwise not reimbursable.

(2) The department will bear the reasonable cost of the adjustment if the work is otherwise reimbursable.

b. If the department requires additional adjustment to a utility facility after the utility facility has been adjusted in accordance with a work plan accepted by the department, the department will bear the reasonable cost of the additional work. This applies to all utility facilities, whether the original adjustment work was reimbursable or not reimbursable.

c. The utility owner will bear the cost of additional adjustment work performed after its utility facilities have been adjusted in accordance with a work plan accepted by the department if the additional work is due to the utility owner's error.

115.24(4) *Failure to comply with these rules, to provide an acceptable work plan, or to adjust utility facilities.* If a utility owner fails to comply with these rules, fails to provide an acceptable work plan per subrule 115.22(5), fails to comply with the accepted work plan, or fails to complete the adjustment of its utility facilities in accordance with the accepted work plan, and its failure results in a delay to the primary road project or causes damages to be incurred by the department or the department's contractor, the utility owner is liable for all costs and damages incurred as a result of its failure. In addition to any other remedy that may exist at law, in equity, or under these rules, the department may initiate noncompliance procedures per subrule 115.3(11) for failure to comply with the requirements of these rules.

These rules are intended to implement Iowa Code chapters 306A and 318 and sections 306.3, 306.47, 314.20, 320.4 through 320.8, and 321.1.

[Filed 10/2/85, Notice 8/14/85—published 10/23/85, effective 11/27/85] [Filed 5/11/87, Notice 3/11/87—published 6/3/87, effective 7/8/87] [Filed 11/29/89, Notice 10/18/89—published 12/27/89, effective 1/31/90] [Filed 3/11/92, Notice 2/5/92—published 4/1/92, effective 5/6/92] [Filed 3/7/01, Notice 1/10/01—published 4/4/01, effective 5/9/01] [Filed 9/16/03, Notice 8/6/03—published 10/15/03, effective 11/19/03] [Filed 9/14/05, Notice 8/3/05—published 10/12/05, effective 11/16/05] [Filed ARC 9873B (Notice ARC 9781B, IAB 10/5/11), IAB 11/30/11, effective 1/4/12] Ch 115, p.22 Transportation[761] IAC 5/14/25 [Filed ARC 2889C (Notice ARC 2779C, IAB 10/26/16), IAB 1/4/17, effective 2/8/17] [Filed ARC 9265C (Notice ARC 8594C, IAB 12/25/24), IAB 5/14/25, effective 6/18/25] IAC 5/14/25

Disclaimer

The following pages contain exhibits to be used as **guidelines and assistance in obtaining and maintaining compliance** with the department's Utility Accommodation Policy and are NOT to be considered as part of the department's Utility Accommodation Policy.

Updates to the exhibits will be made on an as-needed basis.

Electronic Permitting

The department's electronic permitting system is a cloud-based application that allows users to submit, edit, and review all their utility permit requests in one convenient location. This system brings efficiency and helps to streamline the permitting process.

https://eps.iowadot.gov/

A web-based training module has been created for users to learn about the new system and how to submit a request.

https://secure.iowadot.gov/EPS/Training/index.html

Permit Forms

Until further notice, the paper utility permit is only to be used as a backup to the electronic system.

- *Form 810025 – Application and Agreement for Use of Highway Right-of-Way for Utilities Accommodation (fully integrated into EPS)*

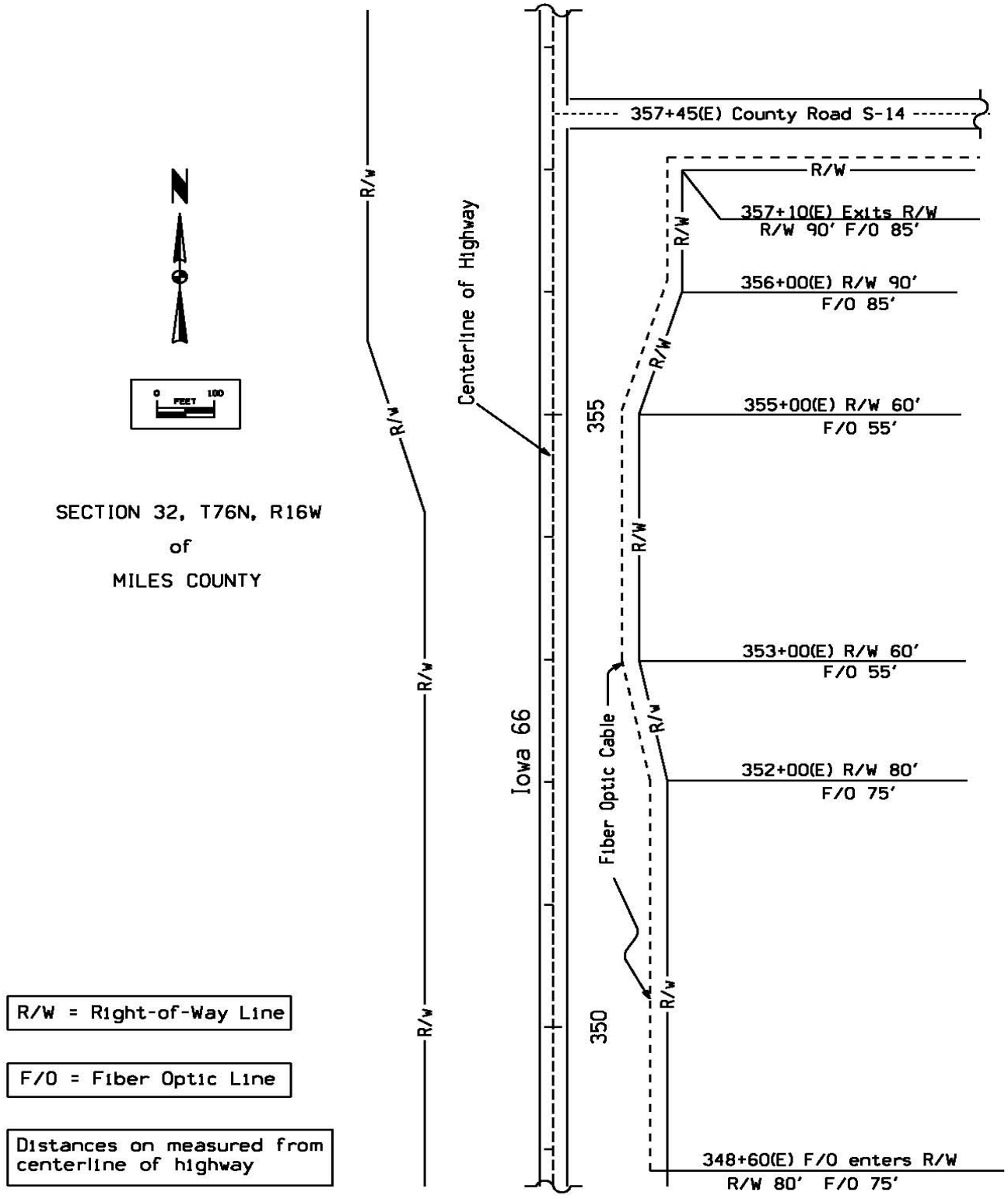
  The paperwork on right-of-way permit will continue to be used until this process has been fully integrated into the electronic permitting system.

- *Form 810028 – Application to Perform Work Within State Highway Right-of-Way (in progress of integration into EPS)*

  Submit completed forms to the EOT that administers the region identified on the permit.

  https://iowadot.seamlessdocs.com/sc/

Utility Exhibit “Example”



Preferred Clear Zones

For freeways, expressways, rural two-lane highways, and transitional facilities, select the design clear-zone distance from the preferred clear zone table below, using the mainline volume. For ramps that are separate from the mainline, use the ramp volume. Note that since traffic speeds, traffic volumes, horizontal curvature, and roadside geometry can all vary throughout a corridor, clear-zone distances must be determined for each distinct roadway segment.

From Iowa DOT Design Bureau – Design Manual - Chapter 8A02, Clear Zones
https://iowadot.gov/design/dmanual/08A-02.pdf

Preferred Clear Zone Distances (feet)
(Based on AASHTO Roadside Design Guide, 4th Edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	10	10	**	10	10	10
	750 ≤ ADT < 1500	12	14	**	12	12	12
	1500 ≤ ADT < 6000	14	16	**	14	14	14
	ADT ≥ 6000	16	18	**	16	16	16
45 – 50 mph	ADT < 750	12	14	**	10	10	12
	750 ≤ ADT < 1500	16	20	**	12	14	16
	1500 ≤ ADT < 6000	18	26	**	14	16	18
	ADT ≥ 6000	22	28	**	16	20	22
55 mph	ADT < 750	14	18	**	10	12	12
	750 ≤ ADT < 1500	18	24	**	12	16	18
	1500 ≤ ADT < 6000	22	30	**	16	18	22
	ADT ≥ 6000	24	32	**	18	22	24
60 mph	ADT < 750	18	24	**	12	14	16
	750 ≤ ADT < 1500	24	32	**	14	18	22
	1500 ≤ ADT < 6000	30	40	**	18	22	26
	ADT ≥ 6000	32	44	**	22	26	28
65 – 70 mph	ADT < 750	20	26	**	12	16	16
	750 ≤ ADT < 1500	26	36	**	16	20	22
	1500 ≤ ADT < 6000	32	42	**	20	24	28
	ADT ≥ 6000	34	46	**	24	30	30

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Acceptable Clear Zones

From Iowa DOT Design Bureau – Design Manual - Chapter 8A02, Clear Zones
https://iowadot.gov/design/dmanual/08A-02.pdf

Acceptable Clear Zone Distances (feet)
(Based on AASHTO Roadside Design Guide, 4th edition)

		FORESLOPES			BACKSLOPES		
design speed	design ADT	6:1 or flatter	Steeper than 6:1, up to and including 4:1	Steeper than 4:1	Steeper than 4:1*	4:1 or flatter, up to 6:1	6:1 or flatter
40 mph or less	ADT < 750	7	7	**	7	7	7
	750 ≤ ADT < 1500	10	12	**	10	10	10
	1500 ≤ ADT < 6000	12	14	**	12	12	12
	ADT ≥ 6000	14	16	**	14	14	14
45 – 50 mph	ADT < 750	10	12	**	8	8	10
	750 ≤ ADT < 1500	14	16	**	10	12	14
	1500 ≤ ADT < 6000	16	20	**	12	14	16
	ADT ≥ 6000	20	24	**	14	18	20
55 mph	ADT < 750	12	14	**	8	10	10
	750 ≤ ADT < 1500	16	20	**	10	14	16
	1500 ≤ ADT < 6000	20	24	**	14	16	20
	ADT ≥ 6000	22	26	**	16	20	22
60 mph	ADT < 750	16	20	**	10	12	14
	750 ≤ ADT < 1500	20	26	**	12	16	20
	1500 ≤ ADT < 6000	26	30	**	14	18	24
	ADT ≥ 6000	30	30	**	20	24	26
65 – 70 mph	ADT < 750	18	20	**	10	14	14
	750 ≤ ADT < 1500	24	28	**	12	18	20
	1500 ≤ ADT < 6000	28	30	**	16	22	26
	ADT ≥ 6000	30	30	**	22	26	28

* Backslopes as steep as 2.5:1 can be considered as part of the clear zone, as long as they are relatively smooth and do not contain any fixed objects. Refer to Section 8A-4 of the Design Manual for information regarding backslopes steeper than 2.5:1.

** Since a vehicle traveling on a slope steeper than 4:1 is likely to be diverted to the bottom of the slope, the width of any slope steeper than 4:1 cannot be counted in the clear zone determination. Refer to Section 8A-2 of the Design Manual for information on providing clear recovery areas at the base of steep slopes.

Clear Zone | Adjustment at Horizontal Curves

The design clear zone distance should be adjusted at certain horizontal curves. Adjust the width of the clear zone at a curve when a crash history or engineering judgment suggests the need for additional width. Otherwise, adjust the width when all of the following criteria are met:

- The design speed of the roadway is 55 mph or greater.
- The radius of the curve is 2860 feet or less.
- The curve occurs on a normally tangent alignment (one where the curve is preceded by a tangent more than one mile in length).

Use the following equation to determine the adjusted clear zone distance when widening at horizontal curves:

$$CZ_C = CZ_T \times K_{CZ}$$

where:

CZ_C = adjusted design clear zone distance at curve (rounded to nearest foot)

CZ_T = design clear zone distance on tangent segment

K_{CZ} = curve adjustment factor

Table 1: K_{CZ} (Curve Adjustment Factors)

radius (ft.)	design speed (mph)						
	40	45	50	55	60	65	70
2860	1.1	1.1	1.1	1.2	1.2	1.2	1.3
2290	1.1	1.1	1.2	1.2	1.2	1.3	1.3
1910	1.1	1.2	1.2	1.2	1.3	1.3	1.4
1640	1.1	1.2	1.2	1.3	1.3	1.4	1.5
1430	1.2	1.2	1.3	1.3	1.4	1.4	
1270	1.2	1.2	1.3	1.3	1.4	1.5	
1150	1.2	1.2	1.3	1.4	1.5		
950	1.2	1.3	1.4	1.5	1.5		
820	1.3	1.3	1.4	1.5			
720	1.3	1.4	1.5				
640	1.3	1.4	1.5				
570	1.4	1.5					
380	1.5						

From Iowa DOT Design Bureau – Design Manual - Chapter 8A02, Clear Zones
https://iowadot.gov/design/dmanual/08A-02.pdf

Clear Zone | Adjustment at Horizontal Curves

A recoverable area free of objects should be provided at the toe of a non-recoverable slope. Non-recoverable foreslopes cannot be counted as part of a clear zone (see Figure 5).

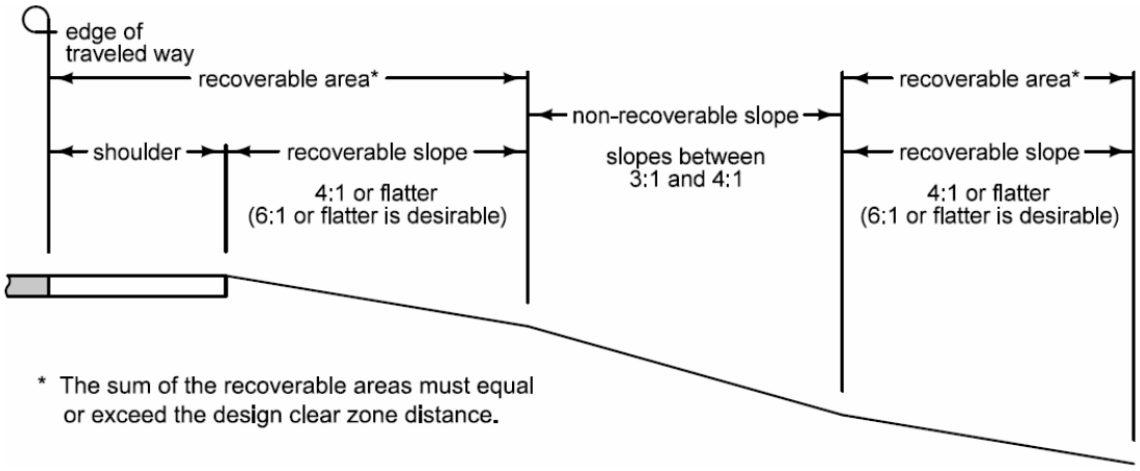


Figure 5: Example of a non-recoverable foreslope design.

As Figure 7 shows, the clear zone should be adjusted only on the outside of the first curve following the tangent. If the alignment is generally curvilinear, no adjustment factor should be applied. Similarly, if the alignment is curvilinear preceding the curve in question, then no adjustment factor should be applied.

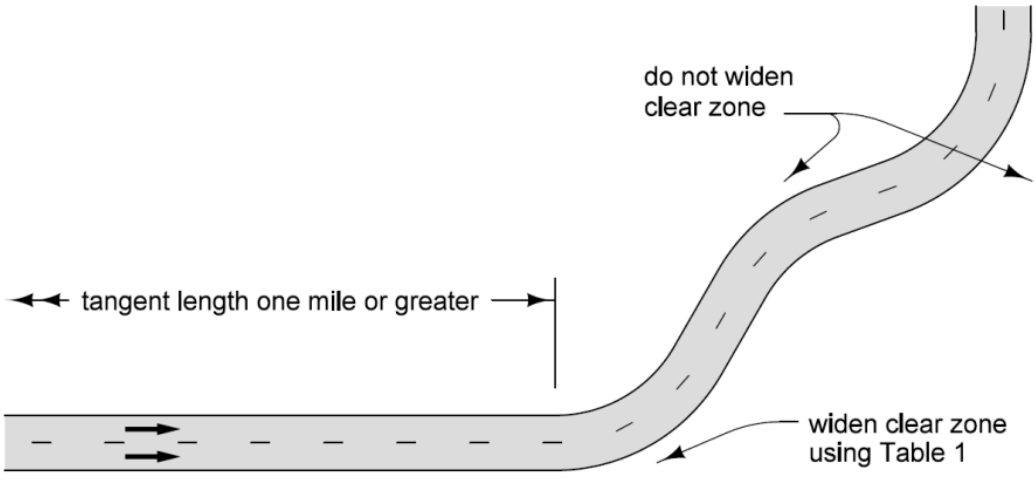
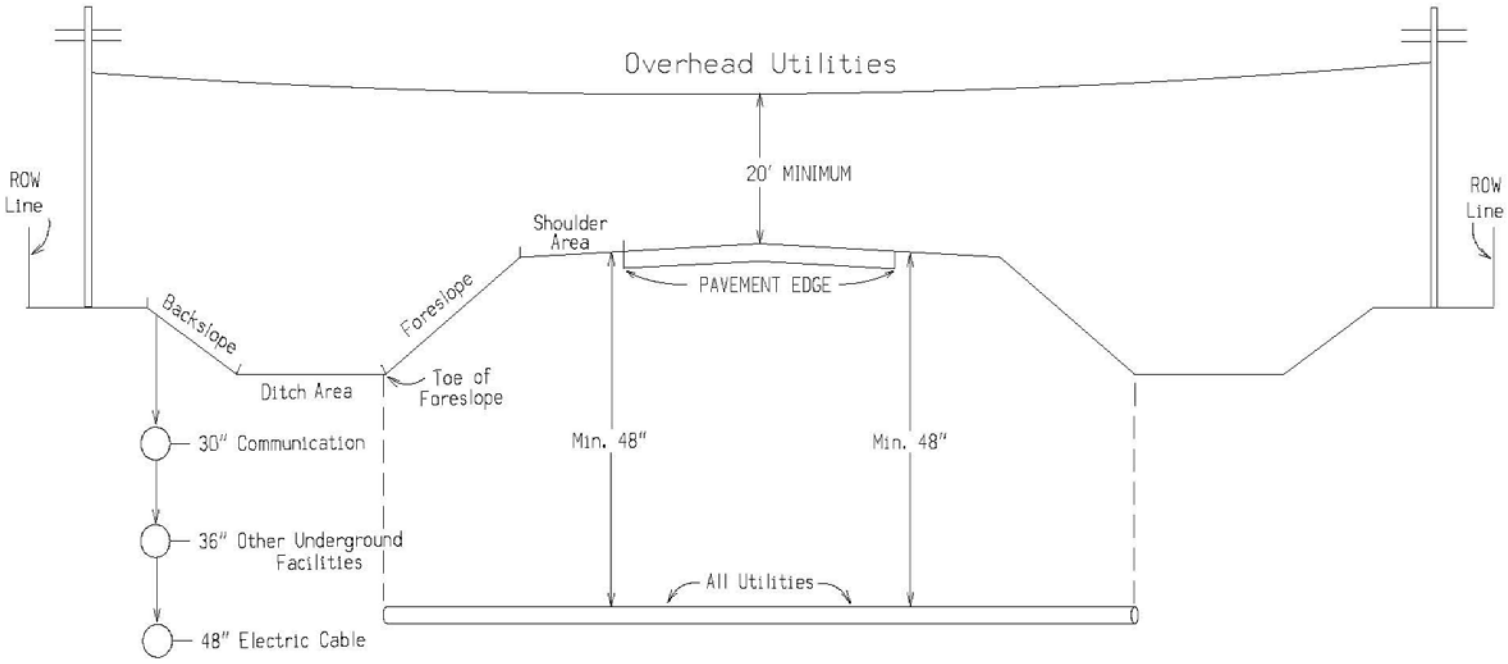


Figure 7: Clear zone adjustment at horizontal curves.

From Iowa DOT Design Bureau – Design Manual - Chapter 8A02, Clear Zones
https://iowadot.gov/design/dmanual/08A-02.pdf

Minimum Requirements | Rural Section Non-Freeway

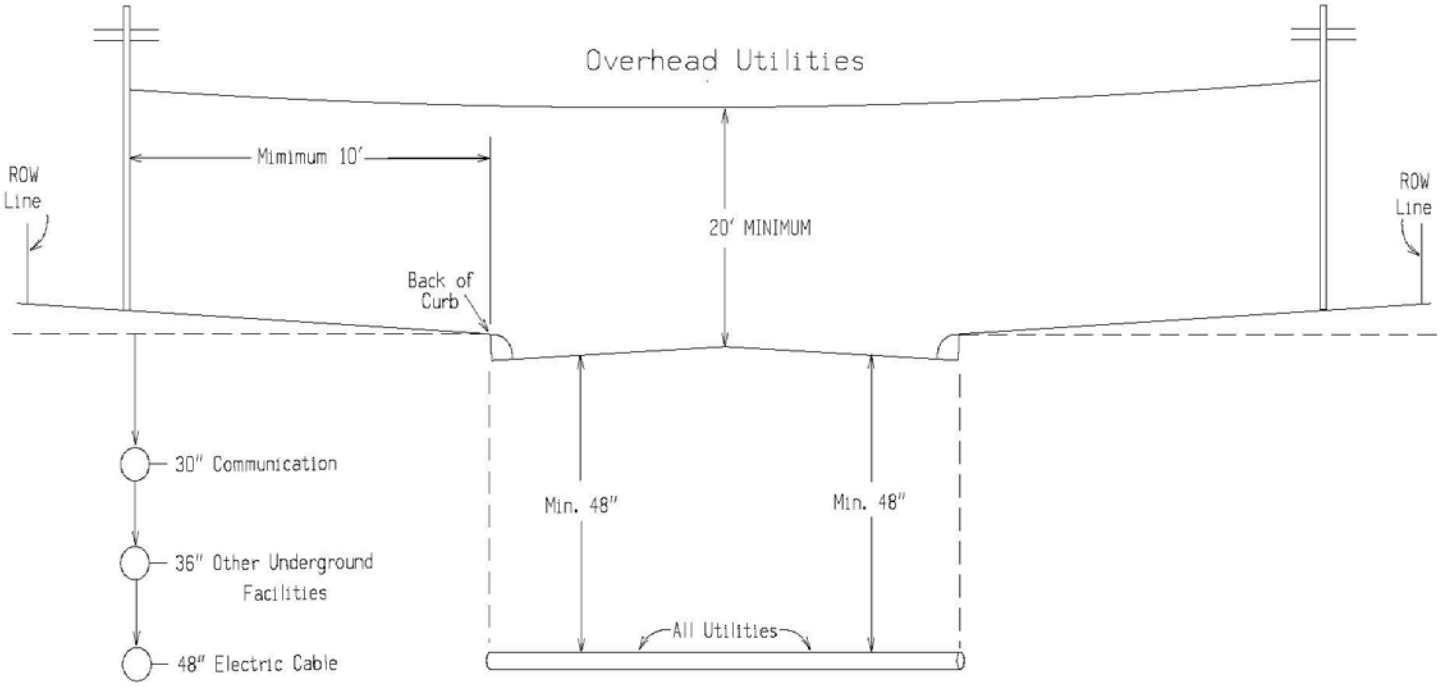


On rural-type roadways, a permanent, aboveground obstruction is to be situated as near to the right-of-way line as practical in an area beyond the clear zone or the road foreslope, whichever area locates the obstruction a greater distance from the edge of the traveled way, right-of-way width permitting.

See subrule 115.4 for general design provisions and clear zone requirements for aboveground obstructions.

See subrule 115.12 for underground utility facilities and associated for depth requirements.

Minimum Requirements | Urban Section Non-Freeway

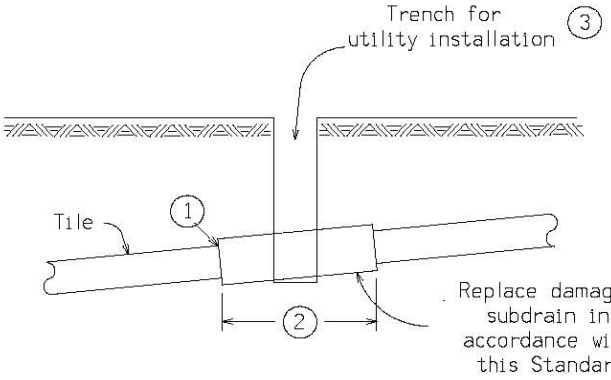


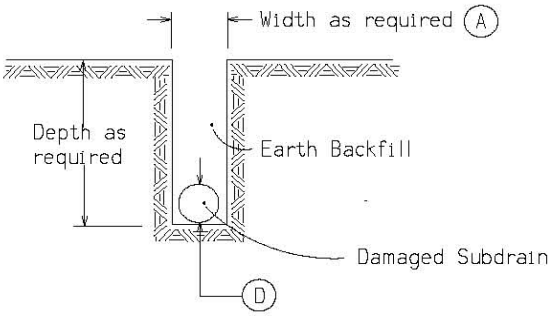
On urban-type roadways, the face of a permanent, aboveground obstruction is to be situated no closer than 10 feet from the back of the curb. In areas with parking or auxiliary lanes, an aboveground obstruction is to be situated no closer than two feet behind the back of the curb or a minimum of 10 feet from the edge of the traveled way, whichever location is farther from the traveled way.

See subrule 115.4 for general design provisions and clear zone requirements for aboveground obstructions.

See subrule 115.12 for underground utility facilities and associated for depth requirements.

Tile Line Repair Guideline





Note:
Replacement of drainage tile shall be accomplished so as to cause the minimum of disturbance to existing field tile. The repaired drainage tile shall be left in a functional condition with special emphasis placed on maintaining existing flow line elevations.

(A) = A minimum of 24" shall be excavated outside the normal utility trench wall or such greater width as may be required to expose a minimum of 12" of undamaged drain tile.

REPLACEMENT SCHEDULE - CASE 'A'										
Existing Tile (D)	4	6	8	10	12	15	18	21	24	>24
Proposed Subdrain Size										
Concrete Pipe	-	-	12	15	15	18	21	24	30	D+6"
Coated C.M.P.	10	12	15	18	21	24	30	36	36	*

* Replacement sizes provide equivalent capacity based on 6" settlement assumming a 0.20% slope with n = 0.013 for concrete pipe and n = 0.025 for corrugated pipe (Manning Formula)

NOTES:

Tile lines disturbed within the right-of-way (outside the Roadway Embankment Area *) limits shall be repaired as follows:

May be repaired with schedule 40 PVC pipe of compatible size or in accordance with the replacement schedule-case 'A' as listed above. Replacement with schedule 40 PVC pipe shall require using a connecting device of a Femco plain and plain flexible pipe coupling or equal.

Tile lines disturbed within the "Roadway Embankment Area" shall be replaced in accordance with the replacement schedule - case 'A' stated above and as follows:

(1) Concrete collar to be placed around joint where existing tile line and corrugated aluminized metal pipe connect.

(2) Minimum length of corrugated metal pipe shall be 4 feet. Minimum length of 2 feet on each side of the tile line break location.

(3) Trench shall be backfilled with 8 inches loose material, compacted to 6 inches with a minimum of 95% compaction of natural density.

A. Backfill and compact area around drain tile to be completed by hand until new tile is completely covered. Remainder of the trench shall be backfilled by acceptable methods.

B. Area shall require inspection by the Iowa Department of Transportation inspectors or their designated personnel prior to backfilling of trench.

* "Roadway Embankment Area" is defined as the area lying between the foreslopes of a two-lane roadway and from near foreslope to far foreslope of a four lane roadway.

Statewide Freeway Listing

(Freeway utility rules apply)

Interstate Highways Statewide

I-29	I-74	I-235	I-380
I-35	I-80	I-280	I-880

US Highways, Freeway segments as follows:

US 18	from I-35 in Cerro Gordo County easterly to the Cameo Avenue intersection in Floyd Co
US 20	from Chase Avenue in Hamilton County to 245th Avenue in Delaware County
US 20	from 310th Avenue to Sand Stone Drive in Dyersville
US 20	from Midwest Lane to West Side Drive in Dubuque
US 20	from Cherokee Drive to IA 946 in Dubuque
US 30	Ames Bypass, from W Avenue in Boone County to 580th Street in Story Co
US 30	in Nevada, from 6th Street to the first median crossing east of the 19th Street interchange
US 30	Marshalltown Bypass, from Knapp Avenue to Underwood Avenue
US 30	Le Grand Bypass, from Yates Avenue to Abbott Avenue
US 30	Tama/Toledo Bypass, from Business US 30 to M Avenue
US 30	Cedar Rapids Bypass, from the first median crossing west of the IA 100 interchange to East Road southwest
US 30	in Linn County, from Old River Road to Knapp Road
US 30	Mount Vernon Bypass, from Irish Lane to the end of the divide highway just before Charles Avenue (once the 4-lane is completed the I/F segment will extend to Charles Avenue)
US 30	De Witt Bypass, from 260th Avenue to 300th Avenue
US 34	in Ottumwa, from the IA 149 intersection to 125th Avenue
US 34	in Ottumwa, from Roemer Avenue to the first median crossing east of the IA 16 interchange

US 34	Fairfield Bypass, from the first median crossing west of the Business 34 interchange to the first median crossover east of the Osage Avenue interchange
US 34	Mt Pleasant Bypass, from a quarter mile west of the 235th Street interchange ramp bifurcation point to the first median crossover east of the Washington Street interchange
US 34	in Des Moines County, from 110th Street to the Illinois State Line
US 52	in Dubuque County, from the US 61 interchange to the US 20 interchange
US 61	in Lee County, from 233rd Street to 340th Avenue.
US 61	in Louisa County, from 140th Avenue to the first median crossover north of the 170th Street interchange
US 61	Blue Grass Bypass, from Zachary Avenue to the first median crossover east of the Mayne Street interchange
US 61	in Scott County, from the I-80 interchange to 212th Street north of De Witt
US 61	in Clinton County, from 130th Street to Caves Road north of Maquoketa
US 61	in Dubuque County, from approximately half a mile south of the US 151 interchange to Digital Drive
US 61	in Dubuque County, from Bellevue Road to approximately half a mile north of the IA 946 ramp
US 61	in Dubuque County, from just north of the IA 946 intersection to the Illinois State Line
US 63	Ottumwa Bypass, from the US 34 interchange to 310th Street in Mahaska County
US 63	Denver Bypass, from Larrabee Avenue to 250th Street
US 63	New Hampton Bypass, from 235th Street to just west of the La Salle interchange
US 65	in Polk County, from the IA 5 interchange to the I-80 interchange
US 75	in Woodbury County, from the I-29 interchange to C80
US 75	Le Mars Bypass, from C38 to the IA 60 interchange
US 151	in Jones County on the Monticello Bypass, from the first median crossing south of the Amber Road interchange to a quarter mile north of the IA 38 interchange
US 151	in Dubuque County on the Cascade Bypass, from 248th Street to the first median crossing east of the Industrial Park Road interchange

US 218 Donnellson Bypass, from 250th Street to 200th Street

US 218 Mt. Pleasant Bypass, from the first median cross over south of the 255th Street interchange to Iowa Avenue

US 218 in Washington and Johnson Counties, from 130th Street to I-80

US 218 in Waterloo and Cedar Falls, from West 9th Street to 200th Street in Bremer County

US 218 Charles City Bypass from the first median cross over east of the T-64 interchange to Cedar View Drive

State Highways, Freeway segments as follows:

IA 5/IA 92 Knoxville Bypass, from mile marker 159 to McGregor Drive

IA 5 from the I-35 interchange to the US 69/65 interchange

IA 12 in Sioux City from Court Street to SW Scott Street

IA 27 in Cedar Falls from South Main Street to the US 218 interchange

IA 60 Alton Bypass, from the first median crossover south of the 470th Street interchange to the first median crossover north of the 450th Street interchange

IA 60 Sheldon Bypass, from the first median crossover south of the McKinley Avenue interchange to 310th Street

IA 60 Sibley Bypass, from 190th Street to 140th Street

IA 100 Cedar Rapids Bypass, from the US 30 interchange to Council Street Northeast

IA 163 Oskaloosa Bypass, from Lynn Avenue to Jewell Avenue

IA 163 Pella Bypass, from the first median crossover east of the Adams Avenue interchange to the first median crossover northwest of the Washington Street interchange

IA 163 Monroe Bypass, from County Line Road to South 104th Avenue West

IA 163 Prairie City Bypass, Old IA 392 to West 116th Street South

Multiduct System Required

(For longitudinal occupancies in the areas listed below)

I-29	I-80 to 16th Avenue in Council Bluffs
I-29	Big Sioux River to Sergeant Bluff/Airport Interchange in Sioux City
I-35/80	West Jct. Of I-235 to the East Jct. Of I-235
I-74	Entire Route in Scott County
I-80	Missouri River to Madison Avenue in Council Bluffs
I-80	I-280 Interchange to Mississippi River Bridge in Scott County
I-80	IA 965 to IA 1 in Iowa City
I-235	Entire Route in and near Des Moines
I-280	Entire Route in Scott County
I-380	Gilbertville Interchange westerly to end of route
I-380	US 30 to Boysen Road in Cedar Rapids
US 20	IA 58 to I-380 in Waterloo/ Cedar Falls area
US 20	I-29 to IA 12 Interchange in Sioux City

US 30	Fairfax Road to “C” Street in Cedar Rapids
US 61	Locust Street Connection to City Island Bridge in Dubuque
US 65	IA 5 Interchange to I-80
US 75	IA 12 Interchange to Lewis Blvd. Interchange
US 218	11th Street to Airport Interchange in Waterloo
IA 5	I-35 Interchange to US 65

Areas at Capacity

(Rights-of-way declared insufficient to accommodate additional installations)

US 69 500 feet south of 66th Avenue to 500 feet north of 66th Avenue in Polk County (northbound and southbound) (no new longitudinal installations)

US 69 SE Peterson Drive to 1st Street in Ankeny (northbound and southbound) (no new longitudinal installations)