

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION SOLUTIONS
2400 Division of Transportation Solutions

2401 Utilities Manual Regulations

1.0 Introduction

1.1 Purpose and Objectives

- 1.1.1 The mission of the State of Delaware's Department of Transportation (DeIDOT) is excellence in transportation every trip, every mode, every dollar, and everyone. DeIDOT supports that mission by developing, constructing, and maintaining the State's infrastructure in a manner that results in a safe, cost-effective, and efficient multi-modal transportation network that enhances mobility commerce, and livability. Proficient management and utility installation design in close coordination with utility owners are essential to construct and maintain the transportation network safely and effectively.
- 1.1.2 The purpose of this regulation is to prescribe policies and procedures for adjusting, relocating, and accommodating utility facilities and private lines within the public right-of-way of DeIDOT-maintained highways and streets, including any utility work related to highway project construction in the right-of-way of DeIDOT-maintained streets and highways. These regulations establish guidelines that affect the relationship between DeIDOT and any entities seeking to place utility facilities within the rights-of-way of highways and streets maintained by DeIDOT.
- 1.1.3 This regulation has been prepared to accomplish the following objectives:
 - 1.1.3.1 Provide standard arrangements to install permitted utilities along DeIDOT maintained highways and relocate or maintain utilities due to DeIDOT projects.
 - 1.1.3.1 Minimize utility work delays and interference for DeIDOT projects, highway contractors, or other utilities.
 - 1.1.3.3 Prevent service disruptions, utility facility damage, and hazardous conditions.
 - 1.1.3.4 Ensure standards, specifications, and environmental considerations are met.
 - 1.1.3.5 Ensure proper performance and high-quality utility work, along with accurate and timely reimbursement to utility companies when appropriate.
 - 1.1.3.6 Outline procedures and conditions for federal reimbursement when utility work is part of a federal-aid project.
 - 1.1.3.7 Outline procedures and conditions necessary for state reimbursement of utility work when circumstances, agreements, and Delaware code govern.
- 1.1.4 The information in this regulation applies to all public and private facilities, including but not limited to electric power, telephone, communications, cable TV, lighting, water, natural gas, oil, petroleum, steam, chemicals, sewage, drainage, irrigation, and similar lines located along roadways that are maintained by or otherwise located within state highway rights-of-way under DeIDOT's jurisdiction. Underground, surface, and overhead facilities - whether singular or in combination - are also covered by this regulation.

1.2 Statutory Authority

- 1.2.1 The Delaware Code provides DeIDOT with the authority and responsibility to regulate the use of all utilities within rights-of-way of highways and streets maintained by DeIDOT.
- 1.2.2 DeIDOT has the legal authority to control the use of rights-of-way of DeIDOT-maintained highways and streets.
- 1.2.3 The "Delaware State Highway Department" was established into law on April 2, 1917. Chapter 166 of the 1935 Code amended the original act that created the Highway Department. The legislature enacted additional amendments, including Title 17 of the Delaware Code, on February 11, 1953. These were approved by the governor on February 12, 1953, and included all prior amendments as well. This act provides State of Delaware authorization to participate in acquiring rights-of-way, placing new utilities, and adjusting existing utilities.
- 1.2.4 Title 26 of the Delaware Code (1953) provides state authorization to control new installations of pipes, conduits, and wires above or beneath public roads.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- 1.2.5 Section 143, Title 17, of the Delaware Code established by law on January 16, 1962, made the state responsible for the entire cost of altering or relocating utilities within public highway rights-of-way when the utility facilities are owned or operated by a municipality, government body, or subdivision of the state when the altering or relocating of utilities is necessitated by highway construction, reconstruction, relocation, repair, or maintenance undertaken by DeIDOT.
- 1.2.6 Section 132, Title 17, of the Delaware Code (1966) provides for the state to reimburse the owner for the expense of relocating public utility facilities for any project where the state is to be reimbursed at least 90% of the project cost from federal funds, by the federal government, or from any agency thereof. Such expense shall be the amount paid by the owner that is properly attributable to the relocation after deducting any increase in the new facilities' value and any salvage value derived from the old facilities.
- 1.2.7 Section 143, Title 17, of the Delaware Code, amended on June 29, 2004, allows DeIDOT to negotiate alteration or relocation agreements with public utilities to improve efficiency and fairness.
- 1.2.8 The State of Delaware's Court of Chancery's 1963 opinion in *Delaware Power & Light Co. v. Terry*, 194 A.2d 553 (Del. Ch. 1963) forms the basis on which the state reimburses utility owners for the expense of relocating public utility facilities on rights-of-way for which they hold title or have permission or easement for occupancy, as necessitated by any project (Title 2 Transportation, 2400 Division of Transportation Solutions/2401 Utilities Manual Regulations). A copy of the Court of Chancery's 1963 Decision, 194 A.2d 553 is provided in Appendix F, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-f.pdf>.
- 1.2.9 Adherence to DeIDOT's policies, practices, and procedures, along with the requirements described in the Regulation, shall be undertaken with full knowledge of and compliance with Chapter 8, Title 26, of the Delaware Code entitled *Underground Utility Damage Prevention and Safety*. DeIDOT's commitment to protect public health and safety is essential and must always be maintained.
- 1.3 Construction and Location Requirements. DeIDOT shall have the right to review and approve the detailed location and design of all utility installations, adjustments, or relocations affecting the highway rights-of-way and will issue permits for proposed utility work. Subsection 4.1 describes permitting requirements in further detail.
- 1.4 Exceptions to Requirements. The utility company shall submit any request for deviation from or exception to the standards described in this regulation to DeIDOT. The request shall be in writing and must include full justification surrounding the hardship. The written justification and any other pertinent information shall be sent for coordination and comment to DeIDOT's District Public Works Office for permit projects and the Utility Engineer for highway projects. The process for requesting an exception is outlined in subsection 5.8.
- 1.5 Grandfathering. If utility projects are bid to contractors, under construction, or there is a prior publication of a utility regulation update, those facilities are not required to meet the regulation's updated provisions. However, utilities shall abide by the most current version of this regulation any time work is performed in conjunction with existing or proposed facilities within the rights-of-way on highways and street maintained by DeIDOT.
- 1.6 Transmittal of Information. When the utility companies are required to submit plans or other documents under this regulation, they shall submit electronic files directly to DeIDOT. When utilities submit plans or other documents electronically, their systems and GIS databases must be compatible with DeIDOT's system for electronic file transfer.
- 1.7 Sea Level Rise
 - 1.7.1 In accordance with Exec. Order No. 41 (Sep. 12, 2013) (Gov. Markell), all state agencies must incorporate measures for adapting to increased flood heights and sea level rise in the siting and design of projects for construction of new structures and reconstruction of substantially damaged structures and infrastructure. Such projects must be sited to avoid and minimize flood risks that would unnecessarily increase state liability and decrease public safety.
 - 1.7.2 Utility projects shall also incorporate measures to improve resiliency to flood heights, erosion, and sea level rise using natural systems or green infrastructure to improve resiliency wherever practical and effective, if the utilities are within an area mapped by the Department Of Natural Resources And Environmental Control (DNREC) as vulnerable to sea level rise inundation, the projects should be designed and constructed to account for sea level changes anticipated during the lifespan of the facility in addition to FEMA flood levels. Utilities should consider and incorporate the sea level rise scenarios set forth by the DNREC Sea Level Rise Technical Committee into appropriate long-range plans for infrastructure, facilities, land management, land use, and capital spending.

2.0 Definitions

The following is a list of terms and definitions relevant to transportation solutions, utilities regulations and DeIDOT.

"Adjustment" means the relocation, removal, replacement, retirement, etc., of existing utility facilities as necessitated by a highway construction project.

"American Association of Highway and Transportation Officials" or **"AASHTO"** is the a non-profit, nonpartisan association representing highway and transportation departments in the 50 states, District of Columbia, and Puerto Rico.

"Americans with Disabilities Act" or **"ADA"** means The Americans with Disabilities Act of 1990, as amended.

"Authorization" means permission by the applicable district engineer, public works engineer, construction region engineer, or utilities engineer for the utility to proceed with any phase of the project.

"Backfill" means material used to replace or the act of replacing material removed during construction, also, may denote material placed or the act of placing material adjacent to structures.

"Bar chart" means a schedule showing the proposed start and end dates for various utility activities on a complex singular contract or project. DeIDOT prepares the bar chart based on utility statements submitted by and in coordination with the utilities.

"Betterment" means any relocated facility upgrade made solely for the benefit and election of the utility and not attributable to highway construction, as determined by the utilities engineer.

"Bridge" means a structure, including supports, erected over a depression or an obstruction, such as water, a highway or a railroad, for carrying traffic or other moving loads that has an opening exceeding 20 square feet.

"Buy America" means the domestic manufacturing process requirement for all of the iron, steel, manufactured products, and construction materials that are permanently incorporated in a federal aid highway construction project outlined in federal laws, regulations, and policies including but not limited to United States Code (USC) Title 23 Part 313, USC Title 49 Part 5323, Code of Federal Regulation (CFR) Title 23 Part 635.410, CFR Title 49 Part 661, and any revisions as per the Infrastructure Investment and Jobs Act (H.R. 3684). See FHWA Question and Answer for Utilities: <https://www.fhwa.dot.gov/utilities/buyam.cfm>.

"Carrier Pipe" means a fluid-carrying inner pipe contained within a casing, encasement, or sleeve.

"Casing" means a larger pipe, conduit, sleeve, or duct enclosing a carrier.

"Chief Engineer" means the highest authority for the authorization of this regulation. The Chief Engineer has the authority to establish a designee to act on their behalf.

"Clear Zone" means the total roadside border area starting at the edge of the traveled way and available for safe use by errant vehicles. This area consists of elements such as a shoulder, a recoverable slope, a non-recoverable slope, and a run-out area clear of fixed or non-traversable objects. Fixed or non-traversable objects include existing or planned objects, whether natural or manufactured, such as trees, drainage structures, non-yielding sign or lighting structures, drainage ditches, retaining walls, rock outcroppings, utility facilities, etc. The purpose is to provide errant vehicles a reasonable opportunity to stop safely or otherwise regain vehicle control. The desired width is dependent on traffic volumes, speeds, and roadside geometry. See the *DeIDOT Road Design Manual* and the *AASHTO Roadside Design Guide* for properly calculated clear-zone widths.

"Conduit" means an enclosed tubular casing, singular or multiple, for the protection of wires, cables, or lines, usually jacketed and often extended from manhole to manhole.

"Conflict" means when a utility facility is blocking highway construction or maintenance operations requiring the facility to be adjusted, relocated, or mitigated with other measures such as protecting the facility. The presence of utilities in the right-of-way does not necessarily constitute a conflict.

"Construction" means the actual building and all related work, including relocation or adjustments, incidental to a highway project's construction or reconstruction-excluding preliminary engineering, subsurface utility engineering, test holes, or rights-of-way work programmed and authorized as a separate work phase. Construction requires adequate levels of subsurface utility engineering for managing certain risks associated with utility mapping at appropriate quality levels, utility coordination, utility relocation design and coordination, utility condition assessment, communication of utility data to concerned parties, utility relocation cost estimates, implementation of utility accommodation policies, and utility design. Please refer to the *Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data*, CI/ASCE 38-02, American Society of Civil Engineers, 2002.

"Construction plans" means scalable plan sheets that show the highway project in detail.

"Consultant" means a registered professional engineer engaged by DeIDOT, another agency of the State of Delaware, or a utility to develop plans, specifications, and estimates for DeIDOT or a utility.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- "Coordination meeting"** means periodic meeting with utilities' representatives to outline current policy and procedures and discuss current topics of general interest.
- "Corner Cut"** or **"Daylight Corner"** means a right-of-way area at an intersection reserved for sight clearance or turning clearance, usually by a diagonal right-of-way line.
- "Cover"** means depth to top of pipe, conduit, casing, cable, or similar line or utility tunnel below the earth or roadway surface. It is normally referenced from the bottom of the highway ditch.
- "Dam"** means any artificial barrier, including appurtenant works, with the ability to impound or divert water, wastewater, or liquid-borne materials.
- "Delaware Manual on Uniform Traffic Control Devices"** or **"DE MUTCD"** means the manual approved by the Federal Highway Administrator as the national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel in accordance with 23 U.S.C. 109(d) & 402(a) as amended for use in Delaware. Published online at https://www.deldot.gov/Publications/manuals/de_mutcd/index.shtml.
- "Delineator"** means an object marker used to provide attention and awareness to a utility facility of importance or concern that is otherwise unnoticeable or difficult to locate.
- "Denial-of-access"** means that access rights have been obtained by DeIDOT in the form of a recorded deed. Where access is controlled by deed there is no right of direct access through the deeded section.
- "Department"** or **"DeIDOT"** means the State of Delaware's Department of Transportation.
- "Department of Natural Resources and Environmental Control"** or **"DNREC"** means the primary body concerned with the governance of public land, natural resources, and environmental regulations for the state.
- "Designation"** means the process of using a surface geophysical method or methods to interpret the presence of a subsurface utility and mark its approximate horizontal position (its designation) on the ground surface.
- "District engineer"** means the DeIDOT district engineer of the north, canal, central, or south maintenance district. The engineer with the highest authority in a district.
- "District Public Works Section"** means the unit within each DeIDOT maintenance district responsible for utility operations under the direction of the district engineer.
- "Duct"** means an enclosed tubular casing for protecting wires, lines, or cables, often flexible or semi-rigid.
- "Eligibility"** means the costs incurred on a project or a specific phase of a project that, when authorized, may be reimbursable provided they are legally qualified under the applicable State Highway Laws.
- "Emergency"** means a situation as defined in the Delaware Code, Title 26, Chapter 8 - the Miss Utility Law. This shall also include situations deemed by DeIDOT to be an emergency within the rights-of-way of DeIDOT-maintained highways and streets where the safety of the traveling public or general public, or the structural integrity of the highway facility, is placed in immediate danger.
- "Encasement"** means a structural element that surrounds a carrier or casing.
- "Executed agreement"** means a legal instrument entered by DeIDOT and a utility construction project which outlines the legal and financial responsibilities of both parties.
- "Federal-Aid Highway Projects"** means the active or completed projects administered by or through DeIDOT which involve the use of federal aid highway funds for the development, acquisition of right-of-way, construction, or improvement of the highway or related facilities, including highway beautification projects under 23 U.S.C. 319, Landscaping and Scenic Enhancement.
- "Federal Highway Administration"** or **"FHWA"** means the U.S. Department of Transportation's federal highway agency.
- "Flow Line"** means the bottom elevation of an open channel or bottom of pipe otherwise known as the invert of the pipe.
- "Functional classification"** means the system of hierarchical designation for highways based on the competing functions of transportation movement and access are satisfied. See *DeIDOT Road Design Manual* Chapter 2 and functional classification maps for specific highway designation.
- "Hardship"** means the adherence to a requirement that will cause persistent difficulty with facility installation and long-term maintenance or will be prohibitively expensive resulting in unreasonable rate increases for utility customers.
- "Highway"** means any public way for vehicular travel including the entire area within the rights-of-way and related facilities. Also referred to as Street or Road.

- "Highway construction project"** means the constructing, reconstructing, widening, or resurfacing a state highway within the existing legal right-of-way or within a newly acquired right-of-way whether by contract, DeIDOT forces, or a DeIDOT agent.
- "Highway right-of-way"** means the real property or interests therein, acquired, dedicated, or reserved for the construction, operation, and maintenance of a highway. Lands acquired under Section 319(b), Title 23, U.S.C. (Scenic strips 1965 Highway Beautification Act) shall be under the jurisdiction of the department.
- "Lateral offset"** means the distance from the edge of traveled way, shoulder, or other designated point to the front face of a vertical roadside element. Lateral offset should not be confused with clear zone.
- "Letter agreement"** means the agreement that is the legal instrument between a utility and DeIDOT to establish the utility work in conjunction with a DeIDOT highway construction project that DeIDOT has determined reimbursable.
- "Maintenance of Traffic" or "MOT"** means the process of establishing a work zone, providing related transportation management, and incorporating temporary traffic control on streets and highways right-of-way. Also known as Temporary Traffic Control (TTC).
- "Manhole"** means an opening in an underground system where workers can enter to install, remove, inspect, repair, connect, and test as needed.
- "Master Franchise"** means the legal document that authorizes a regulated Public Utility to place its facilities within state rights-of-way without any vested interest therein under the provisions of 17 **Del.C.** §1953 and supplements thereto.
- "Median"** means the portion of a divided highway separating the traveled ways for traffic in opposite directions.
- "Non-participating"** means whenever utility relocations are not programmed with FHWA for reimbursement to DeIDOT from federal funds. Project design, right-of-way acquisition, and construction can be participating, while utility relocations can be non-participating. Utility relocations may be handled as non-participating on a federal-aid project, even when other utility relocation work on the same project is programmed as participating.
- "Participating"** means utility adjustments or relocations performed after work has been programmed with and authorized by FHWA. Such funds are requested by the state at the pro-rata share applicable for the project where FHWA requirements are met by DeIDOT and the utility.
- "Pavement box"** means the cross section of the highway consisting of the highway surface, base and subbase materials.
- "Pipe"** means a tubular product made and sold as a production item.
- "Flexible pipe"** is a plastic, fiberglass or metallic pipe with a large ratio of diameter to wall thickness designed for a diametric deflection of up to 5%. The pipe can be designed for a diametric deflection of up to 7.5% with an engineering study confirming the pipe's stability and structural soundness.
- "Preliminary Engineering"** means related preparatory work in advance of construction operations such as surveys, utility plans, specifications, estimates (PS&E), and more.
- "Preliminary Engineering Estimate"** means the estimate of the preliminary engineering required to design the alternation, adjustments or relocation.
- "Prior rights"** means a utility is determined to have legally occupied a public right-of-way prior to the time such right-of-way was conveyed to or acquired by the DeIDOT.
- "Private lines"** means privately owned facilities that convey or transmit utility commodities devoted exclusively to private use.
- "Project manager"** means the DeIDOT staff member responsible and accountable for the construction project's satisfactory completion.
- "PS&E"** means plans, specifications, and estimates.
- "Public Right-of-Way"** means the legal right-of-way of any public highway, street, road, or alley that is under the jurisdiction of DeIDOT or any municipality or political subdivision. Certain navigable waterways are also designated as public rights-of-way.
- "Public utility"** means a utility as defined in 26 **Del.C.** §102(2) and 17 **Del.C.** §143.
- "Relocation"** means adjusting or moving utility facilities required for a highway project.
- "Replacement Facility"** means replacing the function of a facility rather than installing a replica facility.
- "Retirement"** means a utility facility that is inactive or deactivated but remains in place within the right-of-way. Also referred to as an abandoned facility.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- "Right-of-Way"** means real property, or interests therein, acquired, dedicated, or reserved for the construction, operation, and maintenance of a highway, road, or street.
- "Roadside"** means a general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.
- "Roadway"** means the portion of a highway for vehicular use, including shoulders. A divided highway has two or more roadways. In construction specifications, the roadway is the portion of a highway within the limits of construction.
- "Sacrificed Life"** means a reimbursable charge for the value of the unused life of a facility removed from private property and not functionally replaced.
- "Salvage"** means material removed and used or placed in storage for future use.
- "Single-pole construction"** means the use of single poles to support aerial facilities rather than double-pole arrangements such as H-frames.
- "Sleeve"** means a short casing through pier or abutment of highway structure.
- "Standard Construction Details"** means the DelDOT Standard Construction Details in effect on the date of permit authorization or notice to proceed. Details can be found online at: https://deldot.gov/Publications/manuals/const_details/index.shtml.
- "Standard Specifications"** means the standard specifications for DelDOT road and bridge construction in effect on the date of permit authorization or notice to proceed. The specifications can be found online at: https://deldot.gov/Publications/manuals/standard_specifications/index.shtml.
- "State"** means the State of Delaware.
- "Temporary Traffic Control"** means the process of establishing a work zone, providing related transportation management, and incorporating temporary traffic control on streets and highways right-of-way. Also known as Maintenance of Traffic.
- "Traffic Control Devices"** means signs, signals, markings, or other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, private road open to public travel, pedestrian facility, or shared-use path by authority of a public agency or official having jurisdiction, or, in the case of a private road open to public travel, by authority of the private owner or private official having jurisdiction. Temporary traffic control devices including signs, channelizing devices, lighting devices, and shadow vehicles are governed by the DE MUTCD and ATSSA quality guidelines.
- "Traveled Way"** means the portion of the highway used for vehicles (including dedicated bicycle lanes), excluding shoulders and auxiliary lanes.
- "Typical Applications"** means predesigned temporary traffic control plans for specific solutions as illustrated and described in Chapter 6 of the DE MUTCD.
- "Use and Occupancy Agreement"** means the document (written agreement or permit) by which DelDOT approves the use and occupancy of highway right-of-way by utility facilities or private lines.
- "Utilities engineer"** means the engineer and authorized representative of the chief engineer responsible for utility coordination work performed within DelDOT Transportation Solutions.
- "Utilities Section"** means the unit within DelDOT Transportation Solutions responsible for matters concerning utilities under the direction of the utilities engineer.
- "Utility Attachment Agreement"** means an agreement between a utility and DelDOT that covers the agreements for attachment of utility facilities to highway structures.
- "Utility clearance"** means the arrangements by the utilities to accommodate the highway construction project. It does not indicate that the utility facilities are removed from the area but that facilities have been either adjusted to accommodate construction or arrangements have been made to coordinate the relocation work with the highway contractor's operations.
- "Utility Conflict Matrix"** or **"UCM"** means a spreadsheet or enterprise database used by DelDOT to identify, track, coordinate, and resolve potential conflicts with utility companies throughout the highway project design process.
- "Utility Construction Permit"** means a permit that authorizes a utility to construct, maintain, or repair a utility facility within state rights-of-way. Also, referred to as utility permit or construction permit herein.
- "Utility coordinator"** means the DelDOT personnel assigned to a project responsible for coordinating the relocation or adjustment of all utilities between the utility and DelDOT.

"Utility Facility" means any privately, publicly, or cooperatively owned line, facility, or system for producing, transmitting, or distributing an essential commodity or service, such as water, gas, electricity, wastewater, or telecommunications to the public, whether active or retired.

"Utility Permit Application Portal" or **"UPA"** means the online portal used for the electronic submission of utility plans and documents associated with highway projects as well as utility permits.

"Utility Plans, Specifications, and Estimate" or **"utility PS&E"** means a detailed relocation cost estimate prepared by the utility and consisting of highway plan sheets which show the relocation and any additional utility drawings or supplemental sheets necessary to provide a clear picture of work to be performed and how estimated costs were determined.

"Utility statement" means a synopsis of utility relocation work and its anticipated schedule incorporated in the bid package upon approval by DeIDOT. Also known as a resume of proposed work.

"Working Day" means days between Monday through Friday, except for state, federal, and recognized operator holidays unless otherwise amended by the operative contract documents.

3.0 References and Source Material

3.1 References and Source Materials - National. The following guidelines and design standards (which are made available in their entirety through nationally recognized professional organizations and publications) are incorporated by reference, except as modified within this Manual. If conflicts may exist between incorporated references and the DeIDOT Development Coordination Manual, the Development Coordination Manual controls.

- AASHTO's "A Policy on Geometric Design of Highways and Streets", 7th Edition (2018), commonly referred to as "the Green Book"
- AASHTO's "Roadside Design Guide", 4th Edition (2011)
- AASHTO's "Manual for Assessing Safety Hardware (MASH)", 1st Edition
- American Concrete Pipe Association's (ACPA) "Concrete Pipe and Box Culvert Installation Manual", (2007)
- ACPA's "Concrete Pipe Design Manual", (2009)
- TRB's "NCHRP (National Cooperative Highway Research Program) Report 350-Recommended Procedures for the Safety Performance Evaluation of Highway Features", (1993)
- National Electric Safety Code (NESC)
- U.S. Department of Transportation Federal Highway Administration's Program Guide Utility Relocation and Accommodation on Federal Aid Highway Projects
- ANSI A300 "Tree Shrub and other Woody Plant Management - Standard Practices (Pruning)"

3.2 References and Source Materials - State of Delaware

3.2.1 The following guidelines, design standards and independent manuals (which are made available in their entirety through their authoring Agencies and Departments of the State of Delaware) are incorporated by reference, except as modified within this regulation. In the event that conflicts may exist between incorporated references and this regulation, the Utilities Regulation controls.

- DeIDOT's "Pedestrian Accessibility Standards for Facilities in the Public Right-of-Way" (PAS)
- DeIDOT's "Road Design Manual" (RDM)
- DeIDOT's "Standard Construction Details"
- DeIDOT's "Standard Specifications for Road and Bridge Construction"
- DeIDOT's "Bridge Design Manual"
- DeIDOT's "Traffic Design Manual"
- DeIDOT's "Traffic Calming Manual"
- DeIDOT's "CADD Standards Manual"

3.2.2 Regulations that are adopted through the Federal or State of Delaware *Register of Regulations* shall be taken into consideration in each aspect of planning, design, or construction, where such regulations may have independent jurisdiction over applicable elements irrespective of any consideration in this regulation. The omission of explicit references to any such applicable State or Federal regulation from this regulation shall not have the effect of sheltering the design professional from the separate and additional responsibilities that such regulations may create. If conflicts may exist between State or Federal regulation and this regulations, the more restrictive criteria should be used, while meeting the intent of the controlling regulation. All regulations shall be considered in their entirety, inclusive of any amendments, in their most

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

current version. The following is not an exhaustive list, but includes some of the more commonly referenced regulations:

- Delaware version of the "Federal Manual on Uniform Traffic Control Devices" (DE MUTCD), 2 **DE Admin. Code** 2402;
- Delaware's "Development Coordination Regulations", 2 **DE Admin. Code** 2309;
- U.S. DOJ Americans with Disabilities Act (ADA) "Standards for Accessible Design" (2010 - Federal Register Vol. 75, No. 178 as amended or current version);
- For Maintenance and New Service Installation Work, the applicable standards shall be the versions in effect at the time of permit authorization by the District Public Works; and
- For Project Design and Facility Relocation Work, the applicable standards shall be the versions in effect at the Notice to Proceed issued by the Utilities Engineer or designee.

4.0 Design Requirements for Rights-of-Way Utility Installations Within DeIDOT-maintained Highways and Streets

4.1 Types of Work

- 4.1.1 Maintenance and new service installation work: this work consists of maintaining existing utility facilities and installing new services or utility distribution facilities. This work is not the result of a DeIDOT highway project and is coordinated through the district public works office for the county where the work is performed.
- 4.1.2 Project Design and Facility Relocation Work. This work results from highway construction projects that require relocating utility facilities. Project design work is coordinated through the utilities engineer and utilities section.
- 4.1.3 Responsibility and Dispute Resolution. The District Public Works Section administers permit work in its respective district under the authority of the district engineer and, ultimately, the director of maintenance. The construction group engineer administers highway construction projects under the authority of the assistant director of construction. The assistant directors of project development and bridge are responsible for project designs and the assistant director of right-of-way (chief of ROW) is responsible for the utility section. The chief engineer has authority over the project development, bridge, right-of-way/utilities, and construction sections of DeIDOT. Any situations that cannot be resolved through the normal process may be forwarded to the appropriate authority.

4.2 Highway Safety and Temporary Traffic Control. DeIDOT considers highway safety the highest priority that is an essential and indispensable component of every project from planning through the design and construction phases. Therefore, companies that install, maintain, service, operate, or otherwise work upon utilities within highway rights-of-way are required to provide appropriate temporary traffic control within work areas.

- 4.2.1 Temporary Traffic Control. Measures shall be taken for protection and safe operation of traffic and workers during and after installation of utility facilities. For all utility maintenance or construction operations within public highway rights-of-way.
 - 4.2.1.1 All temporary traffic control shall conform to the requirements specified in the DE MUTCD and any other applicable state and federal regulations.
 - 4.2.1.2 A temporary traffic control plan, referencing the DE MUTCD Part 6 and, if applicable, the appropriate Typical Applications, shall be submitted and approved whenever a permit is required.
 - 4.2.1.3 Failure by a utility to provide for traffic safety shall be cause for immediate suspension of operations. The work will not be allowed to continue until the District is satisfied that the proper traffic control is established.
 - 4.2.1.4 In all questions of interpretations of the DE MUTCD, the judgment of the Chief of Traffic Engineering or designee shall be final. The protection prescribed for each situation shall be based on the speed and volume of traffic, duration of operation, various modes of traffic and exposure to hazards.
 - 4.2.1.5 No work shall occur over live traffic. If it is required that work be performed over a travel lane or a turn lane or bike lane, a lane closure shall be required. If it is required that work be performed over pedestrian facilities, the pedestrian facility shall be closed, and a pedestrian detour shall be required.

4.2.2 Temporary Traffic Control and Safety References

- 4.2.2.1 Title 17 of the Delaware Code provides for the establishment of traffic control and safety standards to be observed during utility construction and maintenance operations on or adjoining any public highway, road, or street. Public and private utilities, contractors under contract with utility companies, and all others engaged in utility construction and maintenance are required to comply with these standards.
 - 4.2.2.2 The DE MUTCD explains in detail the principles and requirements of temporary traffic control and safety standards. It covers temporary traffic control procedures, responsibilities of involved parties, required training for personnel, and descriptions of approved control devices. The traffic control and safety standards are to be implemented through the training and supervision of utility employees.
 - 4.2.2.3 Failure to meet the standards of the DE MUTCD will result in stoppage of work until deficiencies are brought into compliance.
- 4.2.3 Temporary Traffic Control Plan
- 4.2.3.1 The temporary traffic control plan is an important aspect of a project. It shall be prepared by a professional engineer registered in the State of Delaware and understood by all affected parties before work begins. In preparing the temporary traffic control plan, the appropriate typical applications in the DE MUTCD shall be followed. A plan for Maintenance of Pedestrian Traffic, including plans, specifications, and standards to provide a clear and positive manner for pedestrians to safely approach and traverse through temporary work zones, shall be required when the proposed work impacts established pedestrian access routes. The plan must be submitted, or temporary traffic control typical application shall be identified when applying to the District Office for a utility construction permit. Temporary traffic control for design work is coordinated with the highway contractor, the highway construction project supervisor, and the construction section to ensure proper safety standards are employed.
 - 4.2.3.2 The utility work within the right-of-way, except work associated with DeIDOT highway project not requiring a permit as referred to in subsection 4.1.2, shall not begin until the District approvals have been obtained and the approved permit and supplementary information, including temporary traffic control plan, is on the job site. Once the job has begun, the utility inspectors must ensure that the plan is followed throughout the project.
 - 4.2.3.3 In the case of emergency work where there is no prior approval of a temporary traffic control plan; the utility is still required to follow the DE MUTCD and the utility shall be prepared to immediately set up whatever temporary traffic control may be required to protect the public and perform necessary repair work.
 - 4.2.3.4 On construction projects where utility adjustments are made simultaneously with the highway contractor's operations and the highway contractor provides the temporary traffic control, the utility is not required to prepare a temporary traffic control plan.
 - 4.2.3.5 Under these circumstances, the utility and highway contractor must cooperate and coordinate their work so that neither is delayed by the other's operation. See subsection 6.4.2.2.
- 4.2.4 Flaggers and Temporary Traffic Control
- 4.2.4.1 Certified flaggers per the DE MUTCD are required in controlling traffic when flagging operations are needed.
 - 4.2.4.2 DeIDOT has specific requirements for flagger warning signs, safety clothing, training, and associated flagger concerns, as described in the DE MUTCD. Utility personnel acting as flaggers shall abide by these requirements.
- 4.2.5 Inspection of Temporary Traffic Control
- 4.2.5.1 Routine inspections of temporary traffic control elements must be made to ensure acceptable levels of operation. DeIDOT has the right to inspect traffic control in a manner and at a frequency determined in the sole discretion of DeIDOT.
 - 4.2.5.2 When a utility or utility contractor fails to follow the approved temporary traffic control plan, inspectors may suspend the work within DeIDOT right-of-way until the required temporary traffic control is in place. Failure to follow the temporary traffic control plan violates 21 **Del. C.** §4105 and is subject to punishment by law.
- 4.3 Location of Utility Facilities. When planning utility locations on highway rights-of-way, consideration must be given to sound engineering principles, public safety, and economic benefits to the state.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- 4.3.1 Planning must consider safety, the visual quality of the highway, and efficiency of maintenance. The following items must also be considered:
- 4.3.1.1 Minimal Future Project Interference: New utility facilities shall be located to minimize the need for later adjustments to accommodate future highway improvements or other utility installations. The location shall allow for adequate access to the facilities and accommodate future maintenance. In addition to meeting with DeIDOT to discuss future projects, the following are sources to check on projects:
 - The Capital Transportation Program (CTP);
 - Wilmington Area Planning Council (WILMAPCO);
 - The Statewide Long Range Transportation Plan;
 - Dover/Kent County Metropolitan Planning Organization (MPO);
 - DNREC Dam Safety Engineer - if near a dam; and
 - DeIDOT Representatives (Utility Engineer, District Public Works Office, Project Development Personnel, Bridge Personnel, Traffic Safety, etc.).
 - 4.3.1.2 Minimal Future Interference to Traffic. Consider methods to maintain utility facilities with minimum interference to highway traffic.
 - 4.3.1.3 Safe Traffic Operation and Preservation of Future Space. New longitudinal installations shall be located on a uniform alignment as near as practicable to the right-of-way line to provide a safe environment for traffic operation and preserve space for future highway improvements or other utility installations. Above-ground facilities shall meet the additional criteria being outside the clear zone.
- 4.3.2 General Standards. The following standards apply to all utilities:
- 4.3.2.1 Retired Facilities
 - 4.3.2.1.1 The utility shall notify DeIDOT of the intention to retire its facilities in place. Such retired installations within the right-of-way shall remain the responsibility of the utility unless an executed agreement or other form of written documentation is supplied to DeIDOT showing the responsibility was transferred to another entity. The utility shall keep documentation of the facility as being disconnected or retired and shall provide it to DeIDOT during coordination of projects. The utility shall also install RFID markers along any subsurface retired facilities at disconnected or capped locations so they can more easily be identified in the future. RFID markers shall be programmable and shall be programmed with utility owner name, contact phone number, facility material type, and facility size at a minimum.
 - 4.3.2.1.2 If retired facilities cause issues with the operation, maintenance, or reconstruction of the highway, DeIDOT shall notify the Utility to this problem and require the facilities be addressed. If maintenance issues persist, DeIDOT may give notice to require the removal of all or part of retired utility facilities or the filling of any such facility by an approved method and restoration of the right-of-way. All utility facilities shall be properly purged of material and sealed at all open ends consistent with industry standards and federal, state, and local laws prior to retirement. Any utility facility that is proposed to be retired and removed by the utility owner must be disposed of consistent with industry standards and federal, state, and local laws.
 - 4.3.2.1.3 When a new pole is being installed to replace an existing pole, all utilities shall be transferred from the old pole within 60 calendar days. The owner of any retired pole within the right-of-way of the state-maintained highway or street is responsible for ensuring its removal within 10 calendar days of the last utility being removed unless otherwise agreed to by the District Public Works office. See subsection 6.1.4.4.
 - 4.3.2.2 ADA. The location of utility facilities and appurtenances shall be in accordance with the Americans with Disabilities Act (ADA) and the DeIDOT Pedestrian Accessibility Standards (PAS). Utility Devices and appurtenances shall not be located where they would interfere with the accessibility of facilities nor create a negative impact to the accessibility of the facilities. If the proposed utility work will impact any existing pedestrian facilities, the utility company will be required to bring the impacted facilities up to the DeIDOT Pedestrian Accessibility Standards. For examples of ADA responsibility associated with Utility work, see Appendix C, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-c.pdf>. Any negative impacts that are created by utilities shall be remediated by the utility. If they are not remediated, non-compliance procedures in accordance with subsection 5.9 may be initiated. A Utility may not use the Utility Exception or

Deviation procedures outlined in subsection 5.8 to avoid compliance with this section. If a Utility wishes to get an exception from these provisions, a Request for Practical Exception in accordance with the DeIDOT PAS shall be required.

- 4.3.2.3 Clear Zone Policies and Lateral Offset
 - 4.3.2.3.1 The locations of aboveground utility facilities shall be consistent with the clearances applicable to all roadside obstacles for the type of highway involved and consistent with clear zone and clear roadside policy. See the *DeIDOT Road Design Manual* and the *AASHTO Roadside Design Guide* for more details related to providing a clear recovery area to increase safety, improve traffic operations, and enhance the aesthetic quality of highways by designing, constructing, and maintaining highway roadsides as wide, flat, and rounded as practical and as free as practical from natural or manufactured hazards such as trees, drainage structures, nonyielding sign supports, highway lighting supports, and utility poles and other ground-mounted structures.
 - 4.3.2.3.2 Clear zones are established for new highway construction and major reconstruction projects. Utilities shall determine the clear zone widths and lateral offsets for specific locations for utility work performed under permits. The calculation of clear zone widths and information on lateral offsets is explained in the *DeIDOT Road Design Manual* and the *AASHTO Roadside Design Guide*.
 - 4.3.2.3.3 If there is no feasible alternative to locating appurtenances protruding more than four inches above the ground line within the clear zone, the appurtenances, including fire hydrants, shall meet breakaway criteria. Breakaway devices must be certified as meeting the breakaway characteristics established by *AASHTO Manual for Assessing Safety Hardware (MASH)*, National Cooperative Highway Research Program (NCHRP), or FHWA. Appurtenances protruding more than four inches that are breakaway shall not be located within 1.5 feet from the face of curb. Fixed objects may not be placed in the clear zone without going through the exception process.
 - 4.3.2.3.4 Utility poles that are placed within the clear zone shall be properly delineated by either a yellow reflective band installed around the utility pole or a vertical rectangular object marker with yellow reflective sheeting. If an object marker is used, it shall be a minimum of 12 inches wide by 18 inches tall with one used on each side of the utility pole facing approaching traffic. The marker must be placed between four and five feet above the ground.
 - 4.3.2.4 Perpendicular Crossings. Underground utility lines shall cross the highway on a line perpendicular to the highway alignment.
 - 4.3.2.5 Delineators. All appurtenances existing outside of the paved surface and protruding from the ground greater than one inch, but less than 24 inches shall be properly delineated so that they are visible during mowing operations. The delineator shall be constructed of a durable, UV resistant, flexible material that will not pose a safety hazard to a vehicle or bystander if struck. It shall provide assured long-term outdoor durability, provide impact resistance, be colored in accordance with the American Public Works Association (APWA) color code for the associated utility, and contain a label with utility company, contact number, and facility information clearly identified. The delineator shall be a permanent installation with the base embedded at least 18 inches into the ground. Maintenance of the delineator and replacement when delineators are no longer functional shall be the responsibility of the utility company.
 - 4.3.2.6 Ownership. The utility is responsible for the maintenance and relocation of all facilities located within DeIDOT right-of-way whether facilities are active or retired. Ownership of facilities located within the DeIDOT right-of-way shall not be transferred to individual property owners.
- 4.3.3 Highways with Fully Controlled Access: Delaware highways with full access control include interstate, expressway, and freeway, as defined by the functional classification.
- 4.3.3.1 Crossings. Underground crossings may be allowed if it is determined the crossing and installation does not affect safety. Aerial crossings are not permitted. Where a utility company has no alternative but to aerially cross a highway with fully controlled access, the company must follow the exception process described in subsection 5.8.
 - 4.3.3.2 Lateral Positioning

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- 4.3.3.2.1 Longitudinal installations of utilities shall not be permitted on fully controlled highways. Frontage roads, where provided, may be used for placement of utilities with the approval of DeIDOT.
- 4.3.3.2.2 Utilities located on existing highway rights-of-way, where the highway facility is being upgraded to a fully controlled access highway, shall be moved outside of the rights-of-way of the fully controlled access highway.
- 4.3.3.2.3 Utilities Along Highways that Cross a Fully Controlled Access Highway. Where a utility follows a highway that crosses a fully controlled access highway, the utility shall cross the fully controlled access highway on the location of the highway, and generally within its right-of-way. The utility shall be serviced without access from the fully controlled access highway. All work is subject to State and FHWA regulations in effect at the time.
- 4.3.4 Highways. On highways, preference is given to through traffic to a degree that, in addition to access connections with selected public roads, there may also be some other roads crossing at grade as well as some private driveway connections.
 - 4.3.4.1 Aboveground Utilities Along Highways-Lateral Positioning. The following constraints apply to the location of any aboveground facilities along a highway. Utilities can submit exceptions to these requirements for DeIDOT consideration in accordance with subsection 5.8.
 - 4.3.4.1.1 Clear Zone. At grade and above ground utilities protruding greater than four inches, placed longitudinally on DeIDOT's right-of-way, shall be positioned in accordance with subsection 4.3.2.3.
 - 4.3.4.1.2 Curves. Aboveground installations shall not be placed on the outside of curves on roadways where the speed limit is above 30 miles per hour. Rebuilding or upgrading existing facilities currently on the outside of a curve shall conform to this section unless outside of the adjusted clear zone or lateral offset.
 - 4.3.4.1.3 Daylight Corners, Medians, and Traffic Islands. Aboveground features such as poles, guys, enclosures, etc. shall not be placed in corner cuts ("daylight corners") or medians or on traffic islands.
 - 4.3.4.1.4 Incorporated Areas. In incorporated areas, aboveground utilities shall be placed as close as possible to the right-of-way line. In curbed sections, the utilities shall be located as far as possible behind the curb and in compliance with the ADA and the DeIDOT PAS. Utility facilities shall never be closer than the lateral offset established in the AASHTO Roadside Design Guide as discussed in subsection 4.3.2.3.
 - 4.3.4.1.5 Occupy One Side of Roadway. Every effort shall be made to place a utility's lines on one side of the roadway. New aerial service connections shall be avoided if possible. DeIDOT will not issue a Utility Construction Permit authorizing the placement of utility facilities by the same company along both sides of a highway absent an authorized exception.
 - 4.3.4.1.6 Pole Foundations. When pole foundations will be utilized, the utility shall submit foundation designs signed and sealed by a Delaware Professional Engineer with the permit application.
 - 4.3.4.1.7 Slopes and Ditches. Poles, guys, stub poles, or other utility equipment or utility structures may not be placed in front slopes or ditch bottoms.
 - 4.3.4.1.8 Joint-Use Single-Pole Construction. Joint-use single-pole construction shall be used at locations where more than one utility or type of facility is involved. The pole owner shall ensure that the pole is sized in accordance with industry standards to allow space for existing and future joint-use utility facilities. Note: The holder of a franchise shall not grant permission to another utility facility to jointly occupy its pole line without the other utility providing the pole owner with a copy of their executed DeIDOT Master Franchise or verification from the District Public Works or the DeIDOT Utilities Engineer of having an executed Master Franchise agreement on file with DeIDOT.
 - 4.3.4.1.9 Spacing: Pole line designs shall be performed to maximize pole spacing and limit the quantity of poles utilized. Minimum spacing shall be 150 feet.
 - 4.3.4.2 Utilities Along Highways-Vertical Positioning
 - 4.3.4.2.1 Overhead electric power and communications structures, lines and cables shall be installed in compliance with the National Electrical Safety Code.

4.3.4.2.2 The owner of utility facilities is responsible for moving them to eliminate any existing or proposed visual obstruction or interference to any traffic control device. This includes moving structures, overhead lines and cables, splice boxes, enclosures, and other appurtenances in order to provide adequate visibility of a traffic control device and to maintain safety clearances required in applicable laws, codes or regulations.

4.3.4.3 Historic Sites, Scenic Areas, Parks, etc.

4.3.4.3.1 Aboveground utility installations, including those needed for highway purposes such as highway lighting or to serve a weigh station, rest area, or recreation area, are not permitted on highway rights-of-way or other lands which are acquired or improved with federal aid or direct federal highway funds and are located within or adjacent to areas of scenic enhancement and natural beauty.

4.3.4.3.2 Such areas include public parks and recreational lands, wildlife and waterfowl refuges, historic sites as described in 23 U.S.C. 138, scenic strips, overlooks, rest areas, and landscaped areas.

4.3.4.3.3 DeIDOT may permit exceptions provided that the conditions described in the current program guide utility relocation and accommodation on federal-aid highway projects are met.

4.3.4.3.4 Relocation of pre-existing utility facilities from overhead to underground is subject to reimbursement within the guidelines described in Section 6.0.

4.3.4.4 Utilities in Denial-of-Access. Where DeIDOT has established a denial-of-access, utilities that require an entrance or access, either improved or unimproved, shall not be permitted.

4.3.4.5 Subdivisions and Industrial Parks

4.3.4.5.1 Subdivision Streets Not Yet Accepted for State Maintenance. The subdivision developer shall be responsible for submitting utility installation site plans to District Public Works for review and approval prior to commencement of street construction within the subdivision and prior to utility installation.

4.3.4.5.2 A utility shall obtain a utility construction permit for work in new subdivisions. All utilities shall install facilities in accordance with this regulation and all applicable Federal, State, and local requirements. Upon completion and acceptance of the subdivision streets, the utilities that are located within the right-of-way shall be franchised in accordance with the existing Master Franchise for each utility.

4.3.4.5.3 Utilities in a Subdivision must be located according to the following standards:

4.3.4.5.3.1 Utilities will be allowed within the right-of-way, outside of the paved surface.

4.3.4.5.3.2 The main lines of longitudinal underground utilities must be located between the right-of-way line and the curb or edge of pavement-except for sanitary sewers. If sanitary sewers cannot be located outside of the roadway, they may be allowed under pavement but should not be located under the wheel path. Sanitary sewer manholes may be placed along the center of the roadway. Service lines may cross under the paved area to connect residences with main lines.

4.3.4.5.4 Subdivision Streets Accepted for State Maintenance: Utility construction permits are required for existing subdivisions. Existing underground utilities will be permitted to remain in place in subdivisions with streets currently maintained by DeIDOT. However, any utilities that are upgraded shall be located per subsection 4.5.

4.4 Design

4.4.1 Utility's proposed design in all cases shall:

4.4.1.1 Protect the integrity of the roadway or highway structure.

4.4.1.2 Minimize interference with traffic during installation and maintenance of the facility.

4.4.1.3 Minimize highway maintenance problems for DeIDOT.

4.4.1.4 Avoid conflicts with other uses of the rights-of-way.

4.4.2 Maintenance and New Service Installation

4.4.2.1 The utility shall submit a permit application to the District Public Works Section to review for approval/rejection of work requiring new facility installation; facility maintenance, repairs, or reconstruction; pole upgrades, rebuilds, or replacements; and certain utility functions required prior to highway construction. The District Public Works Sections shall supply permit submissions to

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

and review them with the DeIDOT Utility Section if the proposed work area is within the limits of an active or proposed DeIDOT highway project to ensure no potential conflicts. A highway project is considered active until DeIDOT's final acceptance, after which it is considered complete. If the District Public Works Section deems the permit acceptable after consulting with appropriate DeIDOT sections, the District Public Works Section will approve:

- 4.4.2.1.1 The proposed location for the utility facility.
- 4.4.2.1.2 The utility's method of installing or attaching the facility and repairing the highway or structure.
- 4.4.2.2 DeIDOT will review and approve the temporary traffic control plan to ensure highway safety, including the safe and free flow of traffic and pedestrians.
- 4.4.2.3 Project Design and Facility Relocation: Includes removing and reinstalling permanent or temporary facilities; acquiring necessary right-of-way on new locations; moving, rearranging, or changing existing facilities; and taking any necessary safety and protective measures. It shall also cover constructing a replacement facility that is functionally equivalent to the existing facility and necessary for continuous operation of the utility service, the project economy, and sequence of highway construction.
- 4.4.2.4 On DeIDOT highway construction projects, the utilities engineer will coordinate, review, and approve the utility's proposed plans for the following:
 - 4.4.2.4.1 Location of the facility, either in its existing position or in a relocated position.
 - 4.4.2.4.2 Methods of installing or attaching the facility and repairing the highway or structure.
 - 4.4.2.4.3 Timing of any proposed adjustments and relocations.
 - 4.4.2.4.4 Reimbursement of work in accordance with the requirements of Delaware Code as outlined in this regulation.
- 4.4.2.5 Requirements
 - 4.4.2.5.1 Utility installations on, over, or under the rights-of-way of state highways and utility attachments to highway structures, shall meet or exceed the requirements listed below, as well as any other applicable codes or regulations in place at the time of Notice to Proceed (NTP) or permit authorization.
 - 4.4.2.5.2 Electric Power and Communications. National Electric Safety Code (NESC).
 - 4.4.2.5.3 Water Transmission and Distribution. American Water Works Association (AWWA).
 - 4.4.2.5.4 Pressure Pipelines. Standard Code of Pressure Piping of the American Society of Mechanical Engineers ASME B31.4 and B31.8 and applicable sections of federal, state, local, and industry codes.
 - 4.4.2.5.5 Liquid Petroleum Pipelines. American Petroleum Institute Recommended Practice for Steel Pipelines Crossing Railroads and Highways. U.S. DOT Rules and Regulations governing transportation of such materials, including Code of Federal Regulations Title 49 Part 195.
 - 4.4.2.5.6 Pipelines Carrying Natural Gas and Hazardous Materials. U.S. DOT Rules and Regulations governing transportation of such materials, including Code of Federal Regulations Title 49, Parts 192, 193, and 195.
 - 4.4.2.5.7 Fiber Optic Facilities. Standard for the physical location and protection of below-ground physical plant (EIA/TIA-590); also NESC provisions for communications cable.
 - 4.4.2.5.8 Provisions for future expansion of utility facilities are to be made when planning for adjustments to existing facilities or preparing for new installations.
 - 4.4.2.5.9 Underground utilities shall utilize safe trenching practices when preparing their designs and constructing their facilities. Both the utilities and their contractors shall comply with all Occupational Safety and Health Administration (OSHA) requirements while working on highway rights-of-way. If unsafe work environments exist, work shall stop until safe conditions are established or restored.
 - 4.4.2.5.10 Other Permits
 - 4.4.2.5.10.1 Utilities are responsible for obtaining all required permits from municipal, state, and federal agencies and railroads for all work they have performed. It is also the utility's responsibility to obtain all required permits for DeIDOT road construction projects and when the utility or its contractor is performing the relocation work.

4.4.2.5.10.2 DeIDOT will support and cooperate with the utility in obtaining such permits when the relocation work is associated with a highway project. Examples of these permits include, but are not limited to:

- Water quality permits, DNREC Water Quality Certification;
- DNREC subaqueous Lands/Wetlands permits;
- DNREC Coastal Zone Consistency Certification;
- DNREC Dam Safety permit;
- DNREC Coastal Construction Permit or Letter of Approval;
- Floodplain permit;
- U.S. Coast Guard permit;
- U.S. Army Corps permits (404, 408, etc.);
- Sediment and Stormwater permit;
- Railroad crossing permits;
- All Municipal required permits; or
- DeIDOT Entrance Permits.

4.4.2.5.10.3 The utility will not be responsible for obtaining a Sediment and Stormwater permit when the utility work is within the highway contractor's limit of construction and the utility is performing the work when the highway contract is active. However, it is the individual utility's responsibility to seed and stabilize all disturbed areas associated with their work in accordance with DNREC regulations upon completion. If the disturbed areas are not properly restored, especially in association with a DeIDOT project, DeIDOT may take further action to obtain compliance as outlined in subsection 5.9. Where authority over the ROW is shared, utilities shall coordinate with all impacted stakeholders having defined ROW responsibilities.

4.5 Utility Clearances and Depth of Cover

4.5.1 Positioning and Clearances

4.5.1.1 Vertical and horizontal clearances between utilities and utility clearances above roadways shall conform to the utility codes cited in subsection 4.4.2.5.1 and any other applicable industry codes and standards.

4.5.1.2 Aerial utility lines crossing a highway or commercial entrance shall provide at least 18 feet of clearance at maximum sag conditions. Clearance over railroads shall be at least 23.5 feet at maximum sag conditions. Clearance over sidewalks shall be at least 80 inches at maximum sag conditions. Clearance over shared use paths shall be at least 96 inches at maximum sag conditions.

4.5.2 Depth of Cover

4.5.2.1 Depth of cover shall conform to the utility codes cited in subsection 4.4.2.5, the requirements in subsection 4.6, and any other applicable codes and regulations. Minimum depth of cover for all installations is 42 inches below the finished surface of the pavement.

4.5.2.2 Underground utilities shall be in the subgrade material and shall not be in the pavement box. Regardless of the minimum depth of cover requirements, if the depth of the pavement box is greater than the minimum cover, greater cover shall be required. DeIDOT may request greater cover in some instances due to the type of road construction or other circumstances affiliated with proposed work or site conditions.

4.5.3 Highway Appurtenances

4.5.3.1 Utilities shall provide the minimum overhead clearances above the roadway defined in the references listed in subsection 4.4.2.5. Appropriate clearances from signal poles and street lighting shall also be maintained, as applicable codes require. DeIDOT may request greater clearances due to construction and maintenance practices or other circumstances affiliated with proposed work or site conditions.

4.5.3.2 Utility accesses and valve covers shall not be in the roadway. If there is no feasible alternative, they shall not be in a wheel path or in the centerline of the roadway.

4.5.3.3 The horizontal placement of appurtenances shall be in accordance with the clear zone and lateral offset requirements described in subsection 4.3.2.3, the DeIDOT Road Design Manual, AASHTO Roadside Design Guide, and A Policy on Geometric Design of Highways and Streets (AASHTO's Green Book).

TITLE 2 TRANSPORTATION
DELAWARE ADMINISTRATIVE CODE

4.6 Underground Installations

4.6.1 Underground Utilities Crossing Highways

4.6.1.1 Utility crossings in deep cuts, near bridge and retaining wall footings, in wet or rocky terrain where it is difficult to obtain minimum cover, and at highway cross drains where flow of water, drift, or streambed load may be obstructed are not preferred. Crossings shall be located so that the following conditions are not encountered:

4.6.1.1.1 Placements where attaining minimum cover would be jeopardized due to anticipated or encountered field conditions.

4.6.1.1.2 Placements running through paved or unpaved berm slopes under structures.

4.6.1.1.3 Underground utility lines shall not cross laterally within 50 feet of a bridge or dam.

4.6.1.1.4 Underground utility facilities shall not be located above corrugated metal pipes. See subsection 4.3 for more information regarding crossings of highways. Refer to subsection 4.6.2 for more information regarding pipelines.

4.6.1.2 Installation Methods

4.6.1.2.1 Trenchless Methods

4.6.1.2.1.1 Utilities shall provide construction plans for proposed trenchless operations for approval by the District Public Works Section when applying for a utility construction permit. For DeIDOT highway projects, construction plans shall be provided to the utility coordinator assigned to the project prior to approval of the proposed operations.

4.6.1.2.1.2 Pits for underground installations are not permitted in existing pavement or a proposed paving area. The pits shall be excavated no closer to the roadway than five feet from the edge of an improved shoulder. Where the shoulder is dirt or grass, the pit excavation shall remain at least 10 feet from the edge of pavement. For curb-and-gutter sections, pits must be a minimum of five feet from the back of the curb. When adequate shoring is detailed in design and utilized in construction, pits may be 2 feet from the edge of the pavement.

4.6.1.2.2 Open Cutting

4.6.1.2.2.1 The open cutting of a roadway for the purpose of working on or installing new underground facilities is the secondary method for installation when trenchless methods are not feasible. Open cutting of any roadway may not be permitted for at least five years after resurfacing or reconstruction.

4.6.1.2.2.2 In the event open cutting is allowed, the utility shall restore the area in accordance with subsection 4.8.

4.6.1.2.2.3 Utilities shall not cover open trenches with steel plates between November 1 and March 31.

4.6.2 Pipelines

4.6.2.1 All pipeline installations shall conform to the applicable regulations pertaining to the type of installation being constructed. DeIDOT considers vents, drains, markers, manholes, and shutoffs as parts of pipeline installations.

4.6.2.1.1 Permits. Utilities shall obtain approval from the District Public Works Office for any new pipeline or anticipated change to the current design or operation of a pipeline. The permit application shall specify the applicable codes to be used.

4.6.2.1.2 Except for gravity sanitary sewer where manholes are present and accessible, all newly installed facilities shall be locatable. See subsection 4.6.3.4 on Non-Metallic Pipe for more details.

4.6.2.1.3 Placement of Pipeline. When pipelines are installed longitudinally, the pipeline shall be placed as close as possible to the right-of-way line, unless approved otherwise in a municipality or suburban development. The placement shall not interfere with highway drainage or with the structural integrity of the traveled way, shoulders, or embankment.

4.6.2.2 Pipeline Crossings

4.6.2.2.1 Pipe, conduit, sewer, or other similar facility shall not be placed inside or through any drainage pipe, inlet, junction box, etc. Neither shall objects be placed across the ends of any drainage pipe or culvert to obstruct the flow of water.

- 4.6.2.2.2 Pipelines crossing streams shall be securely suspended above flood lines or laid beneath streambeds.
- 4.6.2.3 Pipeline Appurtenances
 - 4.6.2.3.1 Manholes. Manholes may not be in the traveled way or centerline of any highways except in Subdivisions as outlined in subsection 4.3.4.5. Installations shall avoid intersections. Manholes shall be designed and located so that they will not interfere with other utilities and planned highway expansion. Manholes shall not be in the flow line of ditches, within the curb line, or the wheel path of traffic. All manholes shall be flush with the finished grade.
 - 4.6.2.3.2 Valves. Isolation valves shall be placed at or near the ends of structures. Automatic shut-off valves shall be preferred. Valves and valve access points shall be placed outside of pedestrian access routes and shall not be located within the curb line.
- 4.6.2.4 Pipeline Installation
 - 4.6.2.4.1 Pipeline Crossings shall be identified by delineators as described in subsection 4.3.2.5.
 - 4.6.2.4.2 Pressurized Pipelines shall be pressure-tested to assure they are watertight, if applicable, and completely without leaks. See subsection 4.4.2.5.4, Pressurized Pipelines.
 - 4.6.2.4.3 Pipeline Depth requirements are outlined in utility codes cited in subsection 4.4.2.5. Utilities shall conform to such codes whenever applicable. Pipelines may not be permitted in the pavement box.
- 4.6.2.5 Pipeline Crossings
 - 4.6.2.5.1 Pipelines shall be placed a minimum 42" below pavement finished grade under highway. The critical control for the depth of cover on a non-cased pipeline crossing is the low point in the highway cross-section. Normally, this is the bottom of the longitudinal ditch. Additional protection shall be provided for any pipeline with less than minimal cover. These measures shall provide physical protection to facilities using suitable bridging or concrete slabs.
 - 4.6.2.5.2 Longitudinal. Pipelines in the highway right-of-way must be placed at least 24 inches below the finished surface. Lines crossing ditches must be placed at least 24 inches below the ditch flow line. The nearest edge of the trench is to be at least five feet from the edge of pavement or back of curb line.
 - 4.6.2.5.3 Clearances Between Utilities. All utilities shall be separated from one another as required by appropriate codes and ordinances, typically 12 inches minimum.
 - 4.6.2.5.4 Hazardous Transmittants. Crossings by pipelines carrying a hazardous liquid (as defined in Code of Federal Regulations Title 49 Part 195.2) or liquefied gas (including propane) or other hazardous material as listed in Code of Federal Regulations Title 49 Part 172 shall not be allowed. Natural gas pipelines, however, will be allowed via the permit review and approval process through the District Office.
- 4.6.2.6 Casings. DelDOT requires Casings or Encasements under the following circumstances:
 - 4.6.2.6.1 All crossings of full-access-control roadways (interstate highways, toll roads, freeways) shall be cased or encased;
 - 4.6.1.6.2 All crossings of existing or proposed arterial and collector roadways shall be cased or encased. Arterial and collector roadways are identified on the DelDOT Functional Classification Maps;
 - 4.6.1.6.3 Casings or encasement are required for crossings of existing or proposed major entrances to commercial facilities or residential subdivisions;
 - 4.6.1.6.4 Jacked or bored installations of coated carrier pipes shall be cased; and
 - 4.6.1.6.5 Encasement or other suitable protection shall be given for any pipeline with less than minimum cover, across unstable or subsiding ground, near other locations where hazardous conditions may exist.
- 4.6.2.7 Casing Placement. DelDOT requires Casings or Encasements under the following circumstances:
 - 4.6.2.7.1 Casings shall extend at least five feet beyond the curb, pavement, projected fill slopes, or ditch lines to assure proper support of roadways during any repairs to pipelines. For all access-controlled highways, the casing shall extend from right-of-way line to right-of-way line or outside outer curbs; and

TITLE 2 TRANSPORTATION
DELAWARE ADMINISTRATIVE CODE

- 4.6.2.7.2 If necessary, the utility shall acquire enough right-of-way or private easements to remove or replace the utilities.
- 4.6.2.8 Casing Types
 - 4.6.2.8.1 Casings shall be designed to support the load of the highway and superimposed loads thereon and at least equal the structural requirements for highway drainage facilities. Corrugated materials shall not be allowed.
 - 4.6.2.8.2 Hazardous Transmittants. The casings for facilities transmitting hazardous materials shall be of steel pipe of standard manufacture. The joints shall be welded or fused sealed around the entire circumference of the pipe as industry standards and regulations allow. Natural gas facilities may be cased with polyethylene pipe of a design to sustain the live and dead loads currently used in Delaware highway design.
 - 4.6.2.8.3 Non-Hazardous Transmittants. The casings for facilities transmitting non-hazardous materials shall be of a design to sustain the live and dead loads currently used in Delaware highway design. Such materials include steel pipe, reinforced concrete pipe, cast iron pipe, polyethylene pipe, fused PVC, and ductile iron pipe.
- 4.6.2.9 Casing Installation
 - 4.6.2.9.1 All pipeline installations shall conform to the applicable regulations pertaining to the type of installation being constructed. When a pipeline casing is placed under a roadway, all installations are to be made by trenchless methods and shall be outside the pavement box. If coated pipe is used for jacking or boring, the same pipe shall not be used as the carrier pipe.
 - 4.6.2.9.2 Other requirements for installation are as follows:
 - 4.6.2.9.2.1 Sealing of Casing. Casing pipe shall be sealed at the ends with a flexible material to prevent flowing water and debris from entering the annular space between the casing and the carrier. Where carrier pipes that carry hazardous transmittance are cased, the casing pipes shall be provided with a screened vent on each end that is as near as feasible to the right-of-way boundaries.
 - 4.6.2.9.2.2 Drains. Drains shall be provided for casings and tunnels enclosing carrier pipes containing liquid, liquefied gas, or heavy gas. Drains may not outfall into roadside ditches. Such outfall may not be used as a wasteway for purging the carrier unless specifically authorized by a National Pollutant Discharge Elimination System (NPDES) permit.
 - 4.6.2.9.2.3 Vents. Where carrier pipes that carry combustibles are cased, the casing pipes shall be provided with a screened vent on each end that is as near as feasible to the right-of-way boundaries. Other requirements are as follows:
 - 4.6.2.9.2.3.1 Vents required for cased pipes shall be located at the high end of casings less than 150 feet long and at both ends of casings longer than 150 feet.
 - 4.6.2.9.2.3.2 Vent standpipes and warning markers shall be located and constructed so as not to interfere with the maintenance of the highway nor be concealed by vegetation.
- 4.6.3 Electric, Communication and CATV
 - 4.6.3.1 The requirements discussed earlier in this chapter describing installations and maintenance of pipelines crossing highway rights-of-way as related to casings, markers, and installations shall be applied to underground electric, CATV, and communications lines greater than two inches in diameter. The minimum depth of cover for these cased crossings is 42 inches under a highway.
 - 4.6.3.2 For underground electric, CATV, and communications lines two inches or less in diameter:
 - 4.6.3.2.1 Where a conduit or casing is placed under highway, all installations shall be made by trenchless methods. The casing shall be placed a minimum of 42 inches below the finished surface.
 - 4.6.3.2.2 Where a conduit or casing is placed under an existing roadway other than a highway, installations shall be made by trenchless methods. The casing shall have a minimum nominal diameter of two inches and is to be placed a minimum of 24 inches below the finished surface, the bottom of ditches and not in the pavement box.
 - 4.6.3.2.3 When the conduit or casing is placed parallel to the paved surface, the minimum depth of cover shall be 24 inches. The utilities shall also conform to the National Electric Safety Code and any other utility codes cited in subsection 4.4.2.5.

- 4.6.3.3 Burial Methods. Where the burying of cable is permitted along the edge of pavement, it may be done by plowing or trenching methods. The nearest edge of the trench shall be at least 5 feet from the edge of the pavement. The minimum depth of bury for CATV, communications, and electric is 24 inches outside of pavement, however, these utilities shall also conform to the National Electric Safety Code and any other applicable regulations. Plowing or trenching lines shall be parallel to the centerline of the road between intersecting roads. Where possible, utilities shall coordinate and collocate in trenches.
- 4.6.3.4 Locatability. Installations of non-metallic pipe shall include a tracer material that is detectable by locating devices. Non-metallic gravity sanitary sewer systems where manholes are present and accessible are exempt from this requirement. Metal tape shall not be used as tracer wire. It is the Utility's responsibility to ensure all non-metallic facilities are detectable after installation is complete and shall demonstrate it is traceable to DeIDOT. If the facilities are not detectable, DeIDOT shall require further action which may include removal of facilities. Locatability of retired facilities shall be in accordance with subsection 4.3.2.1.
- 4.6.3.5 As-Built. As-built plans shall be submitted to the district office or utility engineer for all underground installations upon completion of the work. As-built plans shall accurately portray the size, type, and material of the facilities along with the horizontal and vertical location. If as-builts are not provided, DeIDOT may take further action to obtain compliance as outlined in subsection 5.9.

4.7 Attachments to Bridges (and Other Structures)

4.7.1 General

- 4.7.1.1 Attaching utility facilities to a highway structure can materially affect the structure, the safe operation of traffic, and the efficiency of maintenance, safety inspections, and structural repairs.
- 4.7.1.2 New attachments of utility facilities shall not be allowed on existing structures. If a utility believes there is no feasible alternative the exception process outlined in subsection 5.8 shall be followed.
- 4.7.1.3 Utility facilities shall not be attached to ancillary structures owned or maintained by DeIDOT including above-ground structures like sign structures, streetlights, and camera poles.
- 4.7.1.4 DeIDOT may enter into an agreement to reimburse the utility to design and inspect facility support and protection during DeIDOT projects as described in subsection 6.3. Refer to the OSHA Technical Manual for requirements.
- 4.7.1.5 The utility shall have an executed Utility Attachment Agreement for attaching any utility to a structure.

- 4.7.2 Structure Reconstruction and New Construction. If DeIDOT, through the exception process in subsection 5.8, approves the attachment, the utility shall agree to having the facility installed by the DeIDOT's contractor at the price assigned to this bid item within the DeIDOT construction project bid, at the utility's expense. The utility shall reimburse DeIDOT in accordance with the terms of the agreement outlining the conditions of occupancy.

4.7.3 Existing Structures. The following policies apply to utilities on existing structures:

- 4.7.3.1 Existing utilities attached to a structure can remain if they are not impacted by a DeIDOT project.
- 4.7.3.2 Existing utilities shall be relocated off the structure if DeIDOT's project requires either temporary or permanent relocation.
- 4.7.3.3 Any utility that plans to replace a facility attached to a structure shall relocate the facility off the structure.
- 4.7.3.4 The utility shall submit their choice of contractor to the District Public Works Engineer or designee on its choice of contractor and have the District Public Works Engineer's consent. The utility shall pay for DeIDOT inspection, and DeIDOT inspector on site during the construction.
- 4.7.3.5 Utilities may request exception for attached facilities in accordance with the exception procedures outlined in subsection 5.8.

4.8 Preservation and Restoration

4.8.1 Preservation

- 4.8.1.1 Utilities shall get a permit for spraying, cutting, and trimming trees on public highways or street rights-of-way.

TITLE 2 TRANSPORTATION
DELAWARE ADMINISTRATIVE CODE

- 4.8.1.2 Where tree removal is permitted, stumps shall be removed, and the resulting holes shall be properly backfilled to limit settlement in accordance with the DeIDOT Standard Specifications. Note: Requirements for tree removal may be different within the limits of a state-regulated dam and shall be coordinated with the DNREC Dam Safety Engineer.
- 4.8.1.3 When working under a permit for spraying, cutting, or trimming trees, utilities shall follow the ANSI Standard A300 (Part 1) 2017 entitled Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard Practices for vegetation management.
- 4.8.1.4 For all future transportation projects and maintenance activities on existing highway alignments, trees shall be replaced in accordance with Delaware Code Title 17 Chapter 1 Section 7. Trees will not be allowed to be replanted within the limits of a state regulated dam.
- 4.8.1.5 Utilities shall ensure that appropriate erosion control devices are in place before work starts and properly maintained during construction. The surface area disturbed by utility installations or relocations shall be kept to a minimum.
- 4.8.1.6 Utility installations shall be performed in such a manner as to not disturb the existing highway or private drainage facilities. Any damage to the facilities by the utility company or its subcontractors shall be repaired to the satisfaction of DeIDOT at the utility company's expense.
- 4.8.1.7 Utilities shall provide protection for all elements in the right-of-way and shall repair anything damaged.
- 4.8.2 Restoration
- 4.8.2.1 Damage to highway traveled way, shoulders, and drainage features caused by utility installations or repairs shall be immediately restored to their original condition unless conditions such as cold weather warrant temporary restoration. The roadway shall be immediately restored with asphalt pavement material and made flush with the surface of the roadway or as directed by the District Public Works Office for permit projects. The utility shall complete all permanent restoration within 30 days, or as directed by the Public Works Engineer. If utilities have not completed restoration within 30 days, noncompliance regulations as discussed in subsection 5.9 will take effect. Temporary patches from winter months shall be permanently restored by May 15 before noncompliance action as outlined in subsection 5.9 will be taken. Damage to roadside areas in the right-of-way shall be repaired as specified by the District Public Works Section. Restoration is also necessary when utilities are working on active construction sites. The construction engineer will determine any necessary repairs and timeframes for work associated with active highway construction projects. A project is considered active until DeIDOT's final acceptance, after which it is considered complete.
- 4.8.2.2 Utilities shall restore any damaged areas to a state equivalent to or better than roadway conditions prior to utility work. In all cases, the District Public Works Section will determine the extent of restoration required for permit projects. Utilities will conduct all such work at their expense and in accordance with the appropriate DeIDOT Standard Specifications and Standard Construction Details.
- 4.8.2.3 After satisfactory completion, utilities shall maintain non-pavement restoration for 12 months. Furthermore, utilities must maintain pavement patches in areas impacted by utility work including Pedestrian Access Routes (PAR) such as sidewalks for a period of three years.
- 4.8.2.4 Traveled way - General. To maintain traffic, not more than one lane of traffic shall be closed at a time whenever a traveled way is cut unless a detour plan is approved by DeIDOT to allow the road to be closed. All crossroad cuts for utilities will be made perpendicular to the longitudinal centerline of the traveled way, and perpendicular to the plane of the finished subgrade. All patches shall extend a minimum length of three feet from either end of the cut (as measured along the roadway centerline) and the full width of the lane or lanes disturbed. To ensure integrity of the roadway and to minimize future maintenance issues, the District Public Works or DeIDOT Construction personnel may require pavement restoration areas to be extended beyond what is outlined in the Standard Construction Details if there are multiple cuts in roadways within proximity to one another. DeIDOT can require resurfacing of the roadway up to a maximum of 200 feet (as measured along the roadway centerline) on each side of a trench crossing a highway to tie into an existing joint line. Any lane encroachment of one foot or more requires restoration of the full lane width. Before reopening the lane, the area shall be made usable for traffic.

- 4.8.2.5 Flowable Fill. Flowable fill can be used for restoration of crossroad cuts with approval from DeIDOT. Flowable fill shall meet the requirements of DeIDOT's Standard Specifications. Flowable fill shall not be used around flexible pipes unless stone is placed one foot around and above the flexible pipe.
- 4.8.2.6 Temporary Highway Patches
- 4.8.2.6.1 If immediate repairs to the traveled way are not feasible and if the District Public Works Section concurs, a temporary patch may be used until permanent repairs are completed. The minimum design requirements for temporary patches include at least eight inches of compacted graded aggregate overlaid by at least two inches of Type C asphalt pavement material. When weather conditions prohibit the use of such mix, District Public Works may approve 10 inches of compacted graded aggregate overlaid by at least two inches of cold patch mix in certain locations. In all cases, greater patch sections may be required by the District, the Utilities Engineer, or the Construction Section.
- 4.8.2.6.2 Trench width and backfill requirements shall meet those outlined for permanent patches in the DeIDOT Standard Construction Details and Standard Specifications.
- 4.8.2.7 Surface Treatments and Asphalt Pavement Materials
- 4.8.2.7.1 The DeIDOT Standard Construction Details illustrate the requirements of permanent crossroad or longitudinal utility patches for surface-treated asphalt pavement roads and shoulders. Note that this is a minimum patch unless otherwise directed by the District Public Works office for permits, or the DeIDOT Utility Section or DeIDOT Construction for work associated with highway projects. If the existing roadway has a thicker cross section than indicated in the detail, it will be replaced with the same cross section or will be repaired as directed by the District Public Works Section for permit work, or the DeIDOT Utility Section or DeIDOT Construction for highway projects.
- 4.8.2.7.2 The compaction requirements for both the patch material and the backfill material are covered in DeIDOT's Standard Specifications.
- 4.8.2.8 Portland Cement Concrete Pavements
- 4.8.2.8.1 Portland cement concrete (PCC) streets and roads shall be patched as described in the DeIDOT Standard Specifications and in accordance with the DeIDOT Standard Construction Details.
- 4.8.2.8.2 An approved concrete saw shall be used to make a vertical, full depth cut in the concrete pavement to ensure a straight, clean, vertical surface.
- 4.8.2.9 Asphalt Pavement Overlays on PCC Pavements Utility patches made in PCC pavements with asphalt pavement overlays shall comply with the DeIDOT Standard Specifications and gain approval of the District Public Works Section (for permit work) or DeIDOT Construction (for highway projects). The required patch layout is illustrated in DeIDOT's Standard Construction Details.
- 4.8.2.10 Roadsides
- 4.8.2.10.1 All areas disturbed in the right-of-way shall be restored to conditions at least equivalent to those existing prior to construction or utility work. The restoration shall occur as soon as the work is completed. For projects that are longitudinal, the restoration shall occur in order with installation. Areas not restored within 30 days of disturbance (weather permitting) will be considered non-compliant.
- 4.8.2.10.2 Trenching, pipe bedding and permanent patching shall be done in accordance with the DeIDOT Standard Construction Details.
- 4.8.2.10.3 Trenches shall be backfilled or covered immediately after installation of the utility facility. They may not be left open overnight because they pose a hazard to the public. Steel Plates may be utilized in accordance with the DeIDOT Standard Details including restrictions on dates of use.
- 4.8.2.10.4 The backfill material and compaction method shall meet the requirements of the DeIDOT Standard Specifications.
- 4.8.2.10.5 Excavated material not meeting the requirements for backfill shall be removed from the area immediately after excavation. Material that is satisfactory for backfill shall be stockpiled in a safe and orderly manner. For permit work, District Public Works can approve storage on the roadway if necessary. For work related to a highway project, DeIDOT Construction can

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

approve. Material stockpiled in the immediate work area shall not pose a hazard to the traveling public. All materials shall be stockpiled in accordance with the rules established by the DE MUTCD.

- 4.8.2.10.6 For Highway projects and permit work, the utility company shall be responsible for the removal and disposal of all unsuitable material. The Utility company shall be responsible for supplying and installing suitable material.
- 4.8.2.11 Manholes and Valve Boxes
 - 4.8.2.11.1 Where manholes or valve boxes are repaired in pavement areas, backfill shall be placed in 8-inch layers (loose measurement) and thoroughly compacted - the same as for trenches in pavement areas. The backfill material (Type C Borrow) and compaction method shall meet the DeIDOT Standard Specifications.
 - 4.8.2.11.2 During construction, areas around manhole lids and valve boxes shall be dug by a non-destructive method. The details of proper roadway patching around manhole lids are shown in Appendix G, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-g.pdf>.
- 4.8.2.12 Test Holes
 - 4.8.2.12.1 Test holes shall be performed in accordance with the ASCE 38 standard.
 - 4.8.2.12.2 Test holes shall be dug by a nondestructive method such as by vacuum removal in a hole less than 36 square inches. The repair shall be only the size of the hole. The fill shall be compacted in lifts, and the same amount of stone, asphalt pavement, concrete, etc., as the existing roadway, shall be replaced in accordance with the Standard Specifications. Hydro excavation of test holes may not be permitted within the right-of-way.
 - 4.8.2.12.3 Small holes (up to two inches in diameter) bored in the surface for any type of utility testing or maintenance shall be repaired with a flexible embedding sealer (cold poured resilient type epoxy joint sealer) or standard methods approved by the District Public Works Section.
 - 4.8.2.12.4 Depending on the quantity and location of the test holes, additional restoration may be required as directed by Public Works, the Utility Engineer, or DeIDOT Construction. Similarly, if a restored test hole is not holding up within timeframes outlined in subsection 4.8.2.3, additional restoration shall be required as directed by the District Public Works office for permits, or the DeIDOT Utility Section or DeIDOT Construction for work associated with highway projects.
 - 4.8.2.12.5 Key holing of test holes may be permitted upon approval by Public Works for permit work, the Utilities Engineer for DeIDOT projects in design or the DeIDOT Construction Engineer for DeIDOT projects in construction.
- 4.8.2.13 Highway Construction Projects
 - 4.8.2.13.1 The restoration requirements defined in this chapter apply to the placement of utilities on existing roadways and rights-of-way. Where utility relocations and adjustments are made in conjunction with a highway improvement project, some portions of the restoration by the utilities may be unnecessary. In these circumstances the DeIDOT Utilities section or DeIDOT construction section will direct which portions of the restoration requirements may be waived.
 - 4.8.2.13.2 The utility company is responsible for restoring all sedimentation and erosion control measures to their original conditions and for maintaining temporary patches.
- 4.8.2.14 Sidewalks and Shared Use Paths
 - 4.8.2.14.1 Temporary patches of sidewalk and shared-use paths shall be of a material that is firm, stable and slip-resistance.
 - 4.8.2.14.2 The DeIDOT Standard Construction Details illustrate the requirements of sidewalks and shared-use paths. Note that this is a minimum patch unless otherwise directed by the District Public Works office for permits, or the DeIDOT Utility Section or DeIDOT Construction for work associated with highway projects. If the existing sidewalk or path has a thicker cross section or is wider than indicated in the detail, it shall be replaced with the same cross section or width or will be repaired as directed by the District Public Works Section for permit work or the DeIDOT Utility Section or DeIDOT Construction for highway projects.

- 5.1 General Requirements. DeIDOT uses different types of documents to manage the installation and occupancy of utility facilities on, under, or across State right-of-way. These documents include franchises, permits, and agreements.
- 5.1.1 A Public Utility Master Franchise is required if a public utility wishes to locate facilities on the right-of-way of a DeIDOT-maintained highway. A public utility shall submit a franchise application for each county where its facilities are to be located within the rights-of-way of a DeIDOT-maintained road.
 - 5.1.2 Public companies that do not qualify as public utilities in the Delaware Code will not be permitted to place facilities within DeIDOT right-of-way absent legislative authority and an executed Use and Occupancy Agreement or Master Agreement. Use and Occupancy Agreements and Master Agreements will be developed for each individual situation in which a public company or private entity is permitted to place facilities in the right-of-way.
 - 5.1.3 An executed Master Franchise or Use and Occupancy Agreement shall be on file prior to submission of a Utility Construction Permit application and before any type of installation, repair, or relocation occurs.
 - 5.1.4 A Utility Construction Permit is required in all cases of utility facility maintenance or installation in the right-of-way of a DeIDOT-maintained highway or street, including within a municipality unless otherwise specified for a state highway construction project. The application for a Utility Construction Permit shall be submitted to the applicable District Office of Public Works.
 - 5.1.5 If the utility crosses over or under a railroad, the district shall contact the DeIDOT Railroad Section to coordinate. The district will make a notation on the permit that the work is subject to approval by the railroad company.
 - 5.1.6 Letter Agreement. A letter agreement is a legal instrument between a utility and the DeIDOT to establish the utility work in conjunction with a DeIDOT highway construction project. It describes the terms and conditions, in accordance with the State code, by which the work and subsequent payment will be handled. An executed letter agreement is required prior to the performance of any work that is to be reimbursed.
 - 5.1.7 A Utility Attachment Agreement shall be on file for a utility requesting the attachment of a facility to highway or ancillary structure.
- 5.2 Master Franchise
- 5.2.1 Purpose. The master franchise is a legal instrument by which the use of highway right-of-way is granted. It is not a control instrument over construction methods, traffic control features, or timing as opposed to a permit. DeIDOT may grant a master franchise to the following:
 - 5.2.1.1 An entity meeting the definition of a public utility that is subject to the regulatory jurisdiction of the public service commission;
 - 5.2.1.2 A cable system operator or video services provider franchised by the public service commission or a municipality; or
 - 5.2.1.3 A utility owned, operated, controlled, or created by the state, a municipality, county, or other political subdivision.
 - 5.2.2 Conditions
 - 5.2.2.1 The master franchise requires that all facilities to be constructed shall meet the requirements set forth in this regulation.
 - 5.2.2.2 All utility companies making underground installations shall be members of "Miss Utility of Delmarva" and, documentation verifying membership shall be provided prior to approval of Master Franchise.
 - 5.2.3 Preparation. A Master Franchise must be in force for any Utility to place facilities in the highway right-of-way for which DeIDOT has maintenance responsibility.
 - 5.2.4 Coordination between Utility and State Projects. Both DeIDOT and the utility company representatives need to exchange information regularly to help avoid conflicts between utility company projects and DeIDOT projects in terms of location, construction timing and method of installation. See Section 6.0 for more details on DeIDOT highway project coordination.
- 5.3 Use and Occupancy Agreements
- 5.3.1 Purpose. A Use and Occupancy Agreement (shown in Appendix A, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-d.pdf>) is used for privately or individually owned facilities that are located on or across state-maintained rights-of-way. For example, if a landowner owns property on both sides of a state roadway and needs to convey irrigation lines, water lines, natural gas lines, propane lines etc., between properties, the landowner and DeIDOT must execute a Use and Occupancy

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

Agreement. The Use and Occupancy Agreement provides DeIDOT with information about the facilities and sets forth their conditions. The owner shall obtain a Utility Construction Permit for any facility construction, maintenance, or repair.

5.3.2 Conditions. Only crossings are allowed. Longitudinal lines are not permitted.

5.3.3 Preparation. A Use and Occupancy Agreement shall be prepared by the owner for each installation where a facility is placed on a state-maintained right-of-way.

5.4 Letter Agreements. A Letter Agreement shall be required for all work not covered under a Master Franchise, a Use and Occupancy Agreement, or a Construction Permit. The agreement describes the terms and conditions, in accordance with the State code, by which work and subsequent payment will be handled for utility work.

5.5 Utility Attachment Agreement. A Utility Attachment Agreement is a subset of Letter Agreements and shall be required for all work where a utility facility will be attached to a DeIDOT structure.

5.6 Utility Construction Permits

5.6.1 Purpose

5.6.1.1 A utility construction permit (see sample in Appendix A, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-a.pdf>) shall be obtained for all utility construction not performed in conjunction with a DeIDOT highway project. A utility construction permit is required if utility work is done in advance of notice to proceed being issued to the DeIDOT contractor for the highway project which DeIDOT construction personnel has yet to be assigned as determined by the Utilities Engineer. Permit submissions shall be coordinated with the DeIDOT Utility Section when there are proposed or active highway projects in the vicinity of the permit scope of work.

5.6.1.2 Plans shall be submitted with the utility construction permit application via the UPA for the District Public Works Section to review. Plans will not be required if the district determines that a written description of the work and location is adequate to outline the construction.

5.6.2 Requirements

5.6.2.1 A utility construction permit is required any time utility construction work, including excavations or openings, will disturb anything on the roadway or within state right-of-way. A permit is necessary each time a facility is upgraded, maintained, or rebuilt or an installation is added, including services. Project design work as described in subsection 4.1 is excluded from this requirement unless the utility is notified otherwise by the utilities engineer. The district may waive the permit requirement for test holes.

5.6.2.2 The new permit request shall show the existing and proposed installation. Permit submissions shall clearly identify existing pedestrian facilities such as pedestrian connections, sidewalks, crosswalks, etc. along with any proposed work that will alter them. All proposed work shall comply with the ADA and DeIDOT's PAS. Permits shall not be approved if the ADA and PAS requirements are not properly identified and addressed. See subsection 4.3.2.2 for ADA requirements.

5.6.2.3 A utility that performs work on DeIDOT right-of-way longer than one working day to repair or adjust an existing facility or that disturbs the roadway will require a utility construction permit. If the work takes less than one day and does not disturb the roadway, a permit is not required. However, the utility shall notify the District Public Works Office of any lane or shoulder closure on any roadway. The notification shall include the location and type of work to be performed.

5.6.3 Emergency Situation

5.6.3.1 When a utility initiates an emergency, the utility shall promptly notify the District Public Works Office and the Traffic Management Center (TMC) at 302-659-4600 prior to performing work. The utility is responsible for communicating the type of emergency and location of the work to be performed and other pertinent information. Work may commence following verbal notification to public works and concurrence from Public Works that the situation is an emergency. The utility shall submit a utility construction permit to the District Public Works Office via the UPA within 24 hours of the commencement of work. The utility company shall install the required temporary traffic control devices and personnel in accordance with the DE MUTCD to protect the public and the workers performing emergency work and restoring the site.

5.6.3.2 When notified of a situation that is deemed an emergency by DeIDOT, the utility shall verbally respond to DeIDOT personnel within 30 minutes of being notified. The utility shall have someone on-site within the first hour of notification to determine needs and mobilize all personnel, equipment, and resources required to perform work, including MOT. The utility shall have MOT in

place and commence remediation work to address the situation within 4 hours of being notified. At that point, the utility is responsible to take ownership of the site and relieve DeIDOT crews. The TMC shall be notified by each utility once MOT is set and once work is complete. Noncompliance actions as outlined in subsection 5.9 may be taken should a utility not respond following notification.

- 5.6.3.3 For situations involving utility poles, responsibility falls to the pole owner to ensure all work is occurring in accordance with this policy, including maintenance of traffic. The pole owner shall identify all utilities that are attached to their pole. They shall update TMC with the utility attacher information along with notifying and coordinating with utility attachers. The pole owner shall maintain the site and oversee work associated with all parties on their pole.
- 5.6.3.4 DeIDOT's TMC will track responses and associated timeframes. In the event the required timeframes are not adhered to by utilities, DeIDOT may initiate non-compliance actions as outlined in subsection 5.9.
- 5.6.3.5 If a utility intends to utilize temporary measures to safely resolve the immediate emergency, they shall coordinate such measures with DeIDOT throughout the process. Any temporary measures shall be permanently resolved under the standard utility permit process within 2 weeks of the emergency.
- 5.6.3.6 In all emergency situations, the utility shall coordinate work with any other utility companies that are impacted by the work and that may have facilities in the area.
- 5.6.4 Fees. No fees are authorized at this time.
- 5.6.5 Preparation
 - 5.6.5.1 Applications for utility construction permits and plans and documents shall be submitted to the appropriate District Public Works Section through the UPA.
 - 5.6.5.2 The plans shall show the following:
 - 5.6.5.2.1 Roadway name;
 - 5.6.5.2.2 Width of the right-of-way and method of right-of-way determination;
 - 5.6.5.2.3 Type of roadway material;
 - 5.6.5.2.4 Width of traveled way;
 - 5.6.5.2.5 Speed Limit of the affected road;
 - 5.6.5.2.6 Proposed work;
 - 5.6.5.2.7 Areas of pavement disturbance including sidewalks and shared use paths;
 - 5.6.5.2.8 Distance from the crossroad or side road to the installation;
 - 5.6.5.2.9 Distance from cross arm to existing right-of-way;
 - 5.6.5.2.10 Distance from the centerline of the roadway to the installation;
 - 5.6.5.2.11 Type of shoulder;
 - 5.6.5.2.12 Width of shoulder;
 - 5.6.5.2.13 Bore pits;
 - 5.6.5.2.14 Test pit locations;
 - 5.6.5.2.15 Drainage system or systems in the utility area;
 - 5.6.5.2.16 Location of existing utilities (aerial and underground);
 - 5.6.5.2.17 Trench and restoration details;
 - 5.6.5.2.18 North arrow, scale, and legend;
 - 5.6.5.2.19 Railroad crossing roadways;
 - 5.6.5.2.20 Location and width of sidewalk;
 - 5.6.5.2.21 Location and width of pedestrian connections; and
 - 5.6.5.2.22 Sidewalk and pedestrian restoration details.
 - 5.6.5.3 All plans for pressure pipeline installations shall specify the type of transmittant, the maximum working pressure, the maximum design pressures, and the design standards for the carrier.
 - 5.6.5.4 Plans for casing shall specify the location, method of installation, and type of casing, size, and wall thickness proposed.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- 5.6.5.5 Traffic Control Plan or proposed Typical Application shall be submitted in accordance with subsection 4.2.
 - 5.6.5.6 When a utility construction permit is needed after a DeIDOT highway contract has been awarded, the utility shall obtain written permission from the DeIDOT contractor to work in the project area. This policy includes any utility work not caused by the highway construction or improvement of a highway. See Appendix D, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-d.pdf>, for Contractor Approval form.
 - 5.6.5.7 Utility construction permits are required for work to be performed on state right-of-way or state-maintained roads within the incorporated limits of a municipality. The utility shall also have approval of the municipality prior to performing work.
- 5.7 Utility Construction, Relocation, or Repair Not Due to Highway Construction
- 5.7.1 A public utility shall not start construction of a new installation, repairs, or relocation until a utility construction permit has been issued, and a master franchise is in place. Refer to subsection 5.6.3 for further details including emergency situations. A privately owned facility shall have a utility construction permit and a use and occupancy agreement before any type of installation, repairs, or relocation.
 - 5.7.2 The District Public Works office (for permit work) or the DeIDOT Construction Section (for DeIDOT highway project work) shall be notified at least one working day before the start of construction unless otherwise directed in writing. Notification may be given in writing, orally, by email, or by fax. The information transmitted shall include the starting date, road number, and project or permit number. Refer to subsection 5.6.3 for further details including emergency situations. The utility shall be responsible for notifications to the public and ensuring they are provided at the proper time.
 - 5.7.3 Permits issued by DeIDOT may be suspended or revoked whenever state authorities ascertain a threat to the traveling public. Other causes for revocation may include, but may not be limited to misuse, lack of response to DeIDOT inquiries, noncompliance with state requirements, or improper temporary traffic control. Any permit application may be denied if it does not meet the requirements of this regulation.
 - 5.7.4 The utility company or its contractor shall always have a responsible representative at the job site to supervise the work. A copy of the authorized permit and any supporting documentation shall be on site.
 - 5.7.5 Utilities and their contractors shall utilize the Miss Utility system in accordance with Delaware Code Title 26 Chapter 8.
 - 5.7.6 Utility companies shall provide as-built plans to the District for permit work and the utilities section for project work at the completion of all utility work as outlined in subsection 4.6.3.5.
- 5.8 Exception or Deviation
- 5.8.1 If the utility company feels that due to hardship or where this regulation conflicts with other regulation or code, an exception or deviation to the requirements of this regulation is necessary, the utility shall submit a request, for deviation from or exception to the standards described in this regulation to DeIDOT. The request shall be in writing and must include full justification surrounding the hardship, alternatives evaluated to arrive at the proposed solution and cost associated with each alternative. It is the utility's responsibility to provide enough information to evaluate the hardship request. The request shall address the following:
 - 5.8.1.1 Where a conflict between this regulation and other standards exists;
 - 5.8.1.2 The extent to which the utility facility complies with the provisions of this regulation and AASHTO policies;
 - 5.8.1.3 The direct and indirect environmental and economic effects of any loss of productive agricultural land which may result from disapproving the use of the right-of-way;
 - 5.8.1.4 Why any other utility location would be extremely difficult and unreasonably costly for the utility consumer; and
 - 5.8.1.5 How the utility's installation will not adversely affect the design, construction, stability, traffic safety, or operation of the right-of-way. If approved by DeIDOT, DeIDOT will require an agreement with the utility that all relocation costs due to a future DeIDOT project are to be borne by the utility.
 - 5.8.2 DeIDOT will assess the situation and provide recommendations. The written justification and any other pertinent information shall be sent to the District Public Works Office for permit projects and the utilities engineer for highway projects. An approval for a hardship request is not a blanket approval for similar situations. The utility shall submit a request each time an exception or deviation is desired. DeIDOT has the final authority in determining if an exception is approved.

- 5.9 Non-Compliance. If a utility fails to comply with any of the conditions, restrictions, or regulations prescribed by DeIDOT and stated in this regulation without an approved exception as outlined in subsection 5.8, the following actions may be taken:
- 5.9.1 If the noncompliance is the result of an emergency, see subsection 5.6.3 for timeframes associated with responses.
 - 5.9.2 If the noncompliance has a direct effect on public safety or impedes the flow of traffic, the utility shall take actions to address the noncompliance within four hours of being notified of it. If DeIDOT determines immediate actions are required to protect the safety of the traveling public and the utility has not responded, then DeIDOT may perform the work and take any action necessary to protect the traveling public. All costs associated with this shall be borne by the non-compliant utility.
 - 5.9.3 If the utility does not meet a deadline, DeIDOT may do the work or have the work performed by a contractor of DeIDOT's choosing and charge the utility for the work.
 - 5.9.4 In addition to the cost of the work being performed, DeIDOT may charge a Utility company the road user cost for any delay associated with a utility delay or a failure to remedy non-compliance. Road user costs will be calculated in accordance with DeIDOT Design Guidance Memorandum 1-24.
 - 5.9.5 DeIDOT will notify the utility, in writing, of the noncompliance. Consistent with applicable law, DeIDOT may impose such reasonable sanction, as it may deem appropriate for noncompliance. For examples and not by way of limitation, DeIDOT may impose lesser sanctions such as not issuing new permits to the utility; or issue an immediate stop work order on any active utility construction within DeIDOT right-of-way until the utility complies.
 - 5.9.6 The utility shall correct the noncompliance within 30 days after receiving written notice from DeIDOT, unless otherwise agreed to by DeIDOT. After the 30-day period, DeIDOT will take any action necessary to protect the safety of the traveling public. This may include restoration of roads or taking possession of and removing poles, pole lines, wires, pipelines, conduits, fixtures, or other structures or property owned by the utility and located on state right-of-way. DeIDOT will bear no cost for such work. All costs associated with this shall be borne by the non-compliant utility.
 - 5.9.7 The utility is responsible for its contractors and will be held responsible for noncompliant actions by said contractors.
 - 5.9.8 DeIDOT may revoke the utility master franchise after 60 days' written notice to the utility of material noncompliance and opportunity to cure. Provided that in the event the cure requires more than 60 days to complete, the franchise shall remain valid so long as the utility promptly begins to effectuate such cure and diligently prosecutes it until completion. In the event of revocation of the franchise agreement, DeIDOT may seek a court order to appoint a trustee to administer the utility's assets located within DeIDOT's roadway rights-of-way until the noncompliance is corrected or such time as the utility's facilities, fixtures, assets, and appurtenances are removed from DeIDOT's roadway rights-of-way. DeIDOT will bear no cost for such removal. The utility shall bear all associated costs. This is not to be construed as placing any limitation upon either the utility or DeIDOT to pursue any other legal or equitable remedy available to it for a breach of the conditions of the franchise.

6.0 Utility Adjustments for Highway Construction

- 6.1 Utility Adjustments and Preconstruction and Construction Coordination
- 6.1.1 General. In order to remain in place, utility facilities along highways that are to be relocated shall not be in the way of the highway reconstruction work. In addition, their future maintenance shall not create a hazard for the traveling public. Utility companies with affected facilities may request that existing facilities be left in place. Utilities are not reimbursed by DeIDOT for the cost of adjusting or relocating their facilities except in accordance with Sections 132 and 143, Title 17, Delaware Code and the 1963 Court of Chancery decision: *Delaware Power & Light Co. v. Terry*, 194 A.2d 553 (Del. Ch. 1963). A copy of the Court of Chancery's 1963 Decision, 194 A.2d 553 is provided in Appendix F, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-f.pdf>.
 - 6.1.2 Preconstruction and Construction Coordination
 - 6.1.2.1 Concept Milestone
 - 6.1.2.1.1 Utility companies shall review and provide input related to concept plans provided by DeIDOT during the concept milestone stage. Utility companies shall inform DeIDOT of all existing and proposed facilities within the existing or proposed right-of-way. This information shall include

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

facility types, sizes, locations, easements or other property interest documentation, and proof of prior rights in addition to the utility company's system improvements. A utility conflict matrix (UCM) may be utilized by affected utility companies, at DeIDOT's direction during this phase, to provide evaluation and documentation of the potential conflicts between the proposed design and existing utility facilities. It is the sole responsibility of the utility to provide the documentation of a compensable interest and not DeIDOT's responsibility to seek it.

- 6.1.2.1.2 All utilities shown on plans shall be in color. Colors shall be in accordance with APWA designations and DeIDOT CADD standards.
- 6.1.2.2 Utility Designation Milestone
 - 6.1.2.2.1 Utility companies shall respond to coordination efforts with DeIDOT's project manager and the DeIDOT utility coordinator to determine whether adequate utility designation insight can be gathered utilizing information obtained through "Miss Utility" or a utility as-built submission (to determine if more detailed utility designation is required). Utility companies shall coordinate with DeIDOT's project manager and the DeIDOT utility coordinator to determine if test holes are required, including the number and location of test holes needed.
 - 6.1.2.2.2 The CI/ASCE 38-02 Guidelines shall be followed for the classification and depiction of subsurface utility data.
 - 6.1.2.2.3 Utility companies shall respond and provide information to DeIDOT's SUE consultant or SUE consultant subcontracting to an approved design consultant, operating at DeIDOT's direction, to acquire utility facility information. Utility companies shall coordinate in advance of work with the SUE consultant upon notification to the utility of pending exploratory activities of existing utility facilities.
 - 6.1.2.2.4 In all cases, utility companies shall coordinate with the SUE consultant to confirm the scope and accuracy of SUE designation of all information obtained from the approved tasks prior to transmittal to DeIDOT's project manager, the approved design consultant for the project, and the utility coordinator.
 - 6.1.2.2.5 Utility companies shall verify the designation information on their facilities regardless of DeIDOT's use of a SUE consultant.
- 6.1.2.3 Survey Milestone
 - 6.1.2.3.1 Affected utility companies shall review survey plans, when provided by DeIDOT, and provide detailed responses to identify existing and known retired facilities on the plans, indicating whether they are aerial, surface, or buried underground. The utility company shall also include information indicating:
 - 6.1.2.3.1.1 The sizes of pipes/conduits
 - 6.1.2.3.1.2 Number of pipes/conduits
 - 6.1.2.3.1.3 Approximate depths of facilities
 - 6.1.2.3.1.4 Private easements or other property interest documentation
 - 6.1.2.3.1.5 Proof of prior rights
 - 6.1.2.3.1.6 Any private services that may be affected
 - 6.1.2.3.1.7 The identity of other utility company facilities if known (attached, housed, aerial, or underground)
 - 6.1.2.3.1.8 Any other information pertinent to the facilities
 - 6.1.2.3.1.9 Any planned alterations or reconstruction of existing facilities or installation of new facilities within the limits of the project.
 - 6.1.2.3.2 The utility company shall return the required information, except easement, property interest and existing prior rights, to the DeIDOT Utilities Section within 30 days of receipt.
 - 6.1.2.3.3 Utility companies shall supply DeIDOT with easement, property interest, and existing prior rights documentation within 60 days of the receipt of the survey plan submission.
 - 6.1.2.3.4 Utility company failure to provide the necessary information within the timeframes discussed herein, or as agreed upon between parties, will trigger the initiation of noncompliance procedures, at DeIDOT's direction, as specified in subsection 5.9.
- 6.1.2.4 Preliminary Plan Milestone

- 6.1.2.4.1 Utility companies shall review and provide comments in unison with their review of the highway design when preliminary plans and a utility conflict matrix (UCM) are provided by DeIDOT. The utility company review shall include identification of any potential conflicts or concerns.
- 6.1.2.4.2 The utility company shall mark the preliminary plans with existing facilities (if not shown or not shown correctly), proposed facility relocations, and any additional right-of-way necessary for relocation of facilities. The utility companies shall provide the following with the marked Preliminary Plans:
 - 6.1.2.4.2.1 Suggested design modifications that would eliminate relocation;
 - 6.1.2.4.2.2 Description of utility relocations along with estimated timeframe for construction;
 - 6.1.2.4.2.3 List of stations and offsets where test holes are needed;
 - 6.1.2.4.2.4 Identification of any permits that may be required;
 - 6.1.2.4.2.5 Information on any other utility's facilities located on its poles;
 - 6.1.2.4.2.6 Joint Use or third-party installation requirements;
 - 6.1.2.4.2.7 To the best of its information, verify that existing facilities and retired facilities are shown correctly on the plans;
 - 6.1.2.4.2.8 Private easements or other property interest documents (if applicable);
 - 6.1.2.4.2.9 Proof of prior rights (if applicable); and
 - 6.1.2.4.2.10 Request for field meeting, if needed.
- 6.1.2.4.3 The utility company shall make the DeIDOT utility coordinator aware in any situation where a utility company may be dependent upon another utility company's plans or actions in order to complete their own work.
- 6.1.2.4.4 The utility company owning the pole, duct system, etc. shall perform necessary coordination related to the relocation of any renters or lessees as required by the Telecommunication Act of 1996.
- 6.1.2.4.5 The utility company shall return the preliminary plans provided by DeIDOT with the required markup electronically within ninety (90) days of receipt through the UPA.
- 6.1.2.4.6 Coordination and Site Meeting. Following the distribution of preliminary plans, utility companies shall attend a site meeting at DeIDOT's direction. The utility company shall return preliminary plans at the site meeting or within thirty (30) days of the meeting or the remainder of the 90 days as specified in subsection 6.1.2.4.5, whichever is greater.
- 6.1.2.4.7 Reimbursable Work
 - 6.1.2.4.7.1 Utility companies with utility relocation work that is eligible for reimbursement shall provide the DeIDOT utility coordinator with a detailed cost estimate for preliminary engineering in order to be evaluated for eligibility as reimbursable by DeIDOT. The preliminary engineering work shall not be reimbursable if started prior to issuance of a notice to proceed from DeIDOT.
 - 6.1.2.4.7.2 Within ninety (90) days of the issuance of the notice to proceed and receipt of preliminary plans, the utility company shall electronically supply a plans, specifications, and estimate (Utility PS&E) package, consisting of plans, specifications, details, and estimate, and one set of marked color-coded plans. Electronically submitted color-coded plans shall be printable on standard DeIDOT plotting size paper as specified in the DeIDOT CADD Standards Manual. These plans shall indicate utility features as:
 - 6.1.2.4.7.2.1 Existing to remain;
 - 6.1.2.4.7.2.2 Existing to remove;
 - 6.1.2.4.7.2.3 Proposed reimbursable; and
 - 6.1.2.4.7.2.4 Proposed non-reimbursable.
 - 6.1.2.4.7.3 Utility company failure to provide the necessary information within the timeframes discussed herein, or as agreed upon between parties, will trigger the initiation of noncompliance procedures, at DeIDOT's direction, as outlined in subsection 5.9.
 - 6.1.2.4.7.4 Refer to subsection 6.3 for further details on plan preparation and reimbursable work.
- 6.1.2.5 Semifinal Milestone. Utility companies shall review semifinal documentation such as plans, cross sections or a UCM, when provided by DeIDOT. Utility company shall provide the DeIDOT utility coordinator with marked-up semi-final documents for all utilities within the project limits, including

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

the utility company's proposed utility statement (resume of proposed work). A sample Utility Statement is provided in Appendix E, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-e.pdf>.

- 6.1.2.5.1 The following items shall be included with the marked semifinal plans:
 - 6.1.2.5.1.1 Written concurrence for ROW shown on construction plans provided by DeIDOT
 - 6.1.2.5.1.2 Detailed cost estimate of reimbursable work: including necessary relocations and adjustments, with sufficient detail for discrete elements eligible for reimbursement.
 - 6.1.2.5.1.3 Cost estimate for providing electric power service to traffic signals, roadway lighting, and ITS facilities.
- 6.1.2.5.2 The utility statement (resume of proposed work), submitted by the utility company, shall contain:
 - 6.1.2.5.2.1 A description of the existing facilities
 - 6.1.2.5.2.2 Any proposed changes, adjustments, or relocations
 - 6.1.2.5.2.3 The location of the changes shall include station count and offsets.
 - 6.1.2.5.2.4 Quantities of borrow Type C if necessary.
 - 6.1.2.5.2.5 Activity based schedules and the proposed duration (in calendar days) for completing the alterations, adjustments, or relocations for each phase of the project's sequence of construction/ maintenance of traffic (MOT) or temporary traffic control Plan.
 - 6.1.2.5.2.6 Any work or outage restrictions
 - 6.1.2.5.2.7 A description of the proposed MOT needed to perform utility work; plans may be required if MOT requires more detailed planning than what is provided through the Typical Applications of the DE MUTCD.
 - 6.1.2.5.2.8 A description of all materials with long lead times (lead times greater than three months) for ordering, if applicable.
 - 6.1.2.5.2.9 A description of any anticipated permits required to allow the Utility to move forward with the relocation work, including the timeframe the Utility anticipates it will take to obtain said permits.
 - 6.1.2.5.2.10 Any other information that may impact DeIDOT's contractor.
 - 6.1.2.5.2.11 The utility company shall return an electronic set of semifinal plans with the changes marked, the proposed relocation plan, and their proposed utility statement to the DeIDOT utilities engineer through the UPA within ninety (90) days of receipt of semifinal plans from DeIDOT, unless a coordination meeting is scheduled. If a coordination meeting is scheduled, the plans should be returned within thirty (30) days of the meeting or the remainder of the 90 days.
- 6.1.2.5.3 A coordination meeting will be scheduled, at DeIDOT's direction, with affected utility companies to review the utility statements and sequencing bar chart. Utility companies shall modify their utility statements based on the coordination meeting. Utility companies shall submit their updated utility statements to DeIDOT fourteen (14) days following the meeting so that a revised DeIDOT utility statement can be prepared.
- 6.1.2.5.4 Utility company failure to provide the necessary information within the timeframes discussed herein, or as agreed upon between parties, will trigger the initiation of noncompliance procedures, at DeIDOT's direction, as outlined in subsection 5.9.
- 6.1.2.6 Final Plans. Utility companies shall review final plans, construction schedules, and related documentation, when provided by DeIDOT. Utility company shall provide the DeIDOT utility coordinator with responses within (30) days of receipt of final plans and anticipated final construction schedule unless a coordination meeting is scheduled.
 - 6.1.2.6.1 Written concurrence on final utility statement and activity-based bar chart construction schedule.
 - 6.1.2.6.2 Signed reimbursement agreement
 - 6.1.2.6.3 Request for NTP for advanced relocation
 - 6.1.2.6.4 Request for NTP to order materials with long lead times (lead times greater than three months)
 - 6.1.2.6.5 Request for NTP to start environmental permitting

- 6.1.2.6.5.1 Should the necessary information not be provided by the utility company within the timeframe discussed herein or as agreed upon between parties, then DeIDOT may initiate noncompliance procedures outlined in subsection 5.9.
- 6.1.2.6.5.2 The utility company shall not begin work on advance relocations required for the highway project until an NTP is issued by the Utilities Engineer authorizing commencement of work. The utility company shall provide DeIDOT with notification to ensure that the advanced relocation work is coordinated with and inspected by DeIDOT construction. Utility companies shall coordinate directly through the District Public Works office for a utility construction permit, when determined by DeIDOT that additional inspection personnel are required.
- 6.1.2.7 Construction Phase. The utility company shall attend the preconstruction meeting scheduled for the project. If utility company disputes the ability to attend the proposed preconstruction meeting, the utility company shall provide notice to the DeIDOT construction engineer, and the utility coordinator assigned to the project. The NTP issued by DeIDOT to highway contractor shall serve as the authorization and notice to utility companies for relocation work that is to occur concurrent to the highway project.
- 6.2 Non-Reimbursable Work. Adjustments to utility facilities occupying highway right-of-way by master franchise are not eligible for reimbursement. Exceptions are discussed in subsection 6.3. If the facilities must be relocated due to DeIDOT's project, DeIDOT will provide right-of-way for relocation of the facilities. The relocation of the utility facilities shall be at the sole expense of the utility.
- 6.3 Reimbursable Work
 - 6.3.1 Utility Reimbursement on Highway Construction Projects
 - 6.3.1.1 Section 143, Title 17, Delaware Code, determines the policies governing expenses of utility adjustments, removals, and relocations.
 - 6.3.1.2 Utility company work that is considered reimbursable, as determined by DeIDOT, shall only be eligible for reimbursement based on the utility companies restoring impacted facilities to the condition that existed prior to the project. This is referred to as in-kind replacement. Utilities shall use the procedures established by FHWA for reimbursement. These are explained in the U.S. Department of Transportation Federal Highway Administration Program Guide Utility Relocation and Accommodation on Federal-Aid Highway Projects including amendments.
 - 6.3.1.3 Buy America provisions apply to all contracts within the scope of the NEPA document, regardless of the source of funding, if one contract within the scope of a NEPA document is awarded using Federal-aid funding. When Delaware Code prohibits DeIDOT from reimbursing utilities, the utility work is not eligible for federal reimbursement. Federally ineligible work is not subject to the Buy America requirements. The utility may furnish materials from company stock only in the case where the supplied materials meet the Buy America requirements. The utility shall not be required to change its existing standards for materials used in permanent changes to its facilities as long as Buy America requirements are met.
 - 6.3.2 Betterment
 - 6.3.2.1 The cost of a betterment or increased size in facilities is only reimbursable in accordance with FHWA regulations (Program Guide: Utility Relocation and Accommodation on Federal Aid Highway Projects and Code of Federal Regulations Title 23 Part 645) or as allowed by specific agreements enabled by Delaware Code.
 - 6.3.2.2 When seeking reimbursement with betterment involved, the utility shall submit two Utility PS&E packages. The first detailed estimate with color-coded plans indicates relocation or adjustment in kind and the second shows the facility size increase or betterment. Right-of-way acquisition and salvage value shall be included where applicable on all estimates.
 - 6.3.3 Prior Rights Utility Companies shall submit the following to claim prior rights:
 - 6.3.3.1 Documentation that the utility facility was constructed on private property with an easement of record in the recorder of deeds office and the facility and its easements are encompassed by a DeIDOT project; or
 - 6.3.3.2 Documentation that the utility facility was relocated onto or remained in DeIDOT right-of-way under a previous project, during which participants agreed that if it became necessary to relocate for a future transportation project, DeIDOT would assume the cost.

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- 6.3.3.3 For proper documentation of this right, the utility shall furnish a copy of the utility agreement stating the arrangement previously agreed to by DeIDOT.
- 6.3.3.4 The utility company shall present DeIDOT with proof of prior rights no later than upon receipt of the semi-final plan submission. This may include documentation that shows rights existed prior to dedication of right-of-way or prior to right-of-way being purchased without properly being extinguished.
- 6.3.4 Reimbursable Work Process. The Utility Companies shall submit all documentation establishing prior rights to the DeIDOT Utilities Section for approval. During the process of plan review discussed in subsection 6.1, reimbursable work may be discovered. The utility company shall obtain concurrence from the DeIDOT Utilities Section that reimbursable work will be involved. Utility company shall coordinate to ensure that the following actions occur:
 - 6.3.4.1 DeIDOT and utility company shall agree in writing as to the obligations and responsibilities of each party.
 - 6.3.4.2 The agreement shall incorporate the conditions of occupancy for each party. The agreement shall also include the rights vested in DeIDOT and the rights and privileges retained by the utility company.
 - 6.3.4.3 The interest acquired by or vested in DeIDOT in any portion of the rights-of-way of a highway project to be used, occupied, or vacated by utilities shall be adequate in nature and extent for the construction, safe operation, and maintenance of the project.
- 6.3.5 Utility Adjustment Agreements. The utility company shall enter into utility alteration, adjustment, or relocation agreements for projects where DeIDOT will be responsible for the cost of the work. The utility company shall obtain an executed agreement from DeIDOT before work begins when state or federal funds are anticipated to be used to pay for all or part of eligible utility adjustments. DeIDOT's Master Utility Reimbursement Agreement can be found in Appendix A, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-a.pdf>.
 - 6.3.5.1 Agreement Requirements: Utility adjustment agreements shall include:
 - 6.3.5.1.1 The incorporating limits or areas to be served.
 - 6.3.5.1.2 The responsibility of each party.
 - 6.3.5.1.3 The terms and conditions regarding the relocation, adjustments, or reconstruction.
 - 6.3.5.1.4 The action to be taken in case of noncompliance with state requirements.
 - 6.3.5.1.5 Other provisions as deemed necessary to comply with state laws and regulations.
 - 6.3.5.2 Work incidental to utility relocations shall be performed by the utility company with its own forces including a utility's open-end and continuing construction contractor, or by an approved utility contractor, unless such work is included in DeIDOT's construction contract by separate agreement. When a utility company obtains a contractor for the relocation work, the utility, federal and state regulations apply.
- 6.3.6 Utility Plan Preparation
 - 6.3.6.1 When reimbursable work is involved, the utility company shall coordinate with DeIDOT to ensure that the appropriate construction plans are used to estimate the scope of the utility work to be performed and reimbursed. The utility shall submit the preliminary engineering estimate for any engineering required to design the alteration, adjustments or relocation. A sample of the engineering estimate is provided in Appendix B, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-b.pdf>.
 - 6.3.6.2 Utility company shall use the procedures established by FHWA for reimbursement. The procedures are explained in the U.S. DOT FHWA Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects including amendments and the Federal-Aid Policy Guide (FAPG) Code of Federal Regulations Title 23.
 - 6.3.6.3 The preliminary engineering estimate shall become part of the letter agreement mentioned above in subsection 6.3.5. Utility company shall not begin the design for the adjustments or relocations until a notice to proceed has been obtained from DeIDOT, indicating that the preliminary engineering estimate is approved and funding has been allocated by DeIDOT. The utility company shall prepare the utility plans, specifications, and estimate (utility PS&E) for the relocation or adjustment and forward them to the DeIDOT utilities engineer for review.

- 6.3.6.4 Any work performed by the utility company prior to DeIDOT's issuing the notice to proceed shall be at the sole expense of the utility.
- 6.3.6.5 Employment of a Consultant for Utility PS&E
- 6.3.6.5.1 Utility company shall submit a written request to the DeIDOT utilities engineer requesting authorization to obtain a consultant to provide preliminary engineering services for utility relocations. The request shall state the type of work the consultant is expected to perform during the utility relocation for the project, such as: preparing utility plans, specifications, and estimates; inspecting materials; and supervising work.
- 6.3.6.5.2 The request shall meet the provisions established by federal procurement regulations of the U.S. DOT FHWA, and the applicable regulations of the Program Guide: Utility Relocation and Accommodation on Federal-Aid Highway Projects. Federal funds may participate in the cost of such services performed under existing written continuing contracts when the utility company provides documentation to DeIDOT's Utility Section and obtains concurrence that such work is performed regularly for the utility company in its own work and that the costs are reasonable.
- 6.3.6.5.3 When a utility company obtains DeIDOT consent to have a consultant prepare the utility plans, specifications and estimates, the utility company shall provide the DeIDOT utilities engineer with preliminary plans, estimates, and a fee schedule from the consultant for performing the work. The utility company shall review and approve the data before submitting it to the DeIDOT utilities engineer.
- 6.3.6.5.4 When the consultant estimate and other data are deemed acceptable by DeIDOT, the utility company shall prepare and submit the specifications, estimates, and a draft of the contract between the responsible consultant and the utility company to the DeIDOT utilities engineer. The draft contract and materials shall stipulate the work to be done under the agreement and the method of payment for preparing the utility PS&E package.
- 6.3.6.5.5 Utility company submittals that propose a consultant fee which is based on a percentage of the work to be performed will not be approved by DeIDOT.
- 6.3.6.5.6 When federal participation is involved in a highway construction project, the agreement with the consultant shall conform to federal procurement regulations and appropriate U.S. DOT regulations. Upon approval of the draft agreement by DeIDOT, the utility company shall execute the agreement with the consultant.
- 6.3.6.6 Processing Utility PS&E Packages. Utility plans, specifications and estimates (utility PS&E) submitted by the utility company shall include:
- 6.3.6.6.1 A utility statement. See subsection 6.1.5.2.
- 6.3.6.6.2 A detailed estimate of the work to be performed. See Appendix B, located at <https://deldot.gov/Business/drc/manuals/utilities-manual-2022/appendix-b.pdf>, for sample "Utility Relocation Cost Estimate".
- 6.3.6.6.3 Marked color coded plans indicating:
- Existing to remain (green);
 - Existing to be removed (red);
 - Proposed reimbursable (blue);
 - Proposed non-reimbursable (yellow); and
 - Other colors can be used provided they are legible and clearly marked in the legend
- 6.3.6.6.4 The terms under which the utility is to cross or otherwise occupy the rights-of-way
- 6.3.6.6.5 A description of the size, type, nature, and extent of each utility company facility to be located within the highway rights-of-way
- 6.3.6.6.6 A description of each installation's construction requirements, traffic protection, maintenance, access restrictions, and any special conditions
- 6.3.6.6.7 Proposed maintenance of traffic (MOT) (i.e. Temporary Traffic control) needs
- 6.3.6.6.8 Adequate drawings or sketches that show the existing and proposed locations of the utility facility, including the following:
- Horizontal and vertical locations of proposed facilities;
 - Facility locations within the right-of-way with respect to the existing or planned DeIDOT improvement, the traveled way, or the right-of-way;
 - Control-of-access lines and approved access points; and

TITLE 2 TRANSPORTATION

DELAWARE ADMINISTRATIVE CODE

- Responsibilities of the utility company for future adjustments of its facilities to accommodate DeIDOT improvements.

6.3.6.6.9 The color-coded, complete utility PS&E package shall be forwarded to the utilities engineer electronically.

6.4 Construction Coordination

6.4.1 Authorization of Utility Work. The utility company shall not proceed with its alterations, adjustments, or relocations until given direction to proceed by DeIDOT via the applicable Construction District or District Public Works office.

6.4.1.1 When State or federal funds will pay all or part of the costs of adjustments, all work done by the utility company's own forces shall be performed on a force account basis with reimbursement matching actual costs. When a utility company's request to perform the work by competitive bid has been approved by DeIDOT, the utility company shall forward one copy of the bid tabulation, with the preliminary estimate included, to the DeIDOT utilities engineer.

6.4.1.2 When a utility company requests permission from DeIDOT to perform the work with a current continuing contract, using an outside contractor, the utility company shall include an estimate based on the applicable contract unit prices with the request submitted to the DeIDOT utilities engineer.

6.4.2 Coordination During Construction

6.4.2.1 Utility Preconstruction Meetings. The utility companies shall have representatives at preconstruction meetings held by DeIDOT or its' contractor to discuss in detail the effect that each utility's adjustment or relocation will have on the progress of the project.

6.4.2.2 Contractor's Schedule. The utility company shall coordinate its contractor's work occurring simultaneously with DeIDOT projects. When this coordination is accomplished via a utility progress meeting, a utility company representative shall attend. The utility company shall cooperate in scheduling work so that the DeIDOT contractor is not delayed.

6.4.3 Revisions. This section refers to changes required to the plans or estimates after DeIDOT's notice to proceed is given. Occasionally, field conditions necessitate revision to a utility company's approved plan of adjustment or relocation.

6.4.3.1 Revising Construction Projects

6.4.3.1.1 Utility company changes to construction projects and their impact on utility relocation costs shall be carefully considered before proceeding. Refer to the subsection 6.3 summary of reimbursement to public utilities for "second moves" and "change in plans". The time involved, material availability, additional labor and utility costs shall be evaluated before changes are pursued.

6.4.3.1.2 Utility company project plan revisions shall be coordinated with and provided to DeIDOT's utilities engineer, construction engineer, and the project manager for review. DeIDOT's approval is necessary to proceed with the utility company plan revisions.

6.4.3.2 Revising Utility Plans and Estimates. When revisions are necessary to the plan or estimate, the utility company shall forward a copy of the revised plan or estimate and the justification for the change for approval by DeIDOT's utilities engineer or construction engineer. The utility company shall not proceed without DeIDOT's Utility Section approval of the plan change, including confirmation of any additional funds requested to cover the added cost.

6.4.3.3 Change Orders. Copies of all change order correspondence and copies of all utility related correspondence shall include the affected utility companies, DeIDOT's construction region engineer and utilities engineer.

6.4.3.4 As Built. The utility shall submit as-built plans to the construction engineer and utility engineer for all underground installations within six months of work being completed or as part of the final invoice package. As-built plans shall accurately portray the size, type, and material of the facilities along with the horizontal and vertical location. If as-builts are not provided, DeIDOT may withhold reimbursement and take further action to obtain compliance as outlined in subsection 5.9.

6.5 Payment for Work

6.5.1 Utility Billing

- 6.5.1.1 The utility company may submit progress billings at a frequency not to exceed one invoice per month for costs incurred after the executed utility agreement has been approved and notice to proceed has been provided by DeIDOT. The utility company shall also submit progress billings for the cost of materials stockpiled at the project site or specifically purchased and delivered to the utility company for use on the project following similar approval by DeIDOT. Any materials purchased, or work performed by the utility company prior to written authorization from the DeIDOT utilities engineer shall be done at the company's sole expense. All utility company invoices shall conform to the provisions of the Federal-Aid Policy Guide (FAPG): Code of Federal Regulations, Title 23, Part 645 including; Subpart A which defines policy, procedure, and cost development for utility relocation, adjustments, and reimbursement, and Subpart B which defines policy and procedure for accommodating utility facilities on federal-aid highways.
- 6.5.1.2 Utility company billing documents including support for incurred costs (such as material used, equipment used, and number and classification of personnel working at the location) shall be submitted to the DeIDOT Utilities Section.
- 6.5.1.3 Buy America certification shall be provided with or prior to any request for reimbursement.
- 6.5.2 Final Bill from Utility Company. A final and complete billing of all costs incurred shall be made by the utility company within six months from the last chargeable day of the project in compliance with the executed agreement. The utility company statement of billing shall follow the order of the items in the utility PS&E identified as part of the executed letter of the agreement between DeIDOT and the utility company. The statement shall be itemized to show:
 - 6.5.2.1 The DeIDOT contract number, federal-aid project number, project location, and executed utility agreement number.
 - 6.5.2.2 A brief description of work performed, identifying the utility PS&E submission incorporated in project limits.
 - 6.5.2.3 The date the last work was performed on the last billed expense item.
 - 6.5.2.4 Goods received to date.
 - 6.5.2.5 A statement from the utility company stating whether it has or has not been paid in full for all reimbursable work performed.
 - 6.5.2.6 The totals for each of the following costs: labor, overhead, travel expenses, transportation, equipment, handling, material and supplies, and other services.
 - 6.5.2.7 Salvage credits from recovered and replaced permanent material and recovered temporary material.
 - 6.5.2.8 The replacement cost or the original charge for temporary use of material.
 - 6.5.2.9 The location where the records and accounts billed can be audited, and the name of a contact person for auditing purposes.
 - 6.5.2.10 A definitive statement about the origin of all products, permanently incorporated into the project, covered under the Buy America requirements, if applicable.
 - 6.5.2.11 The final invoice specifying "final" and containing a summary of total project costs billed.
- 6.5.3 Final Invoice Copies and As-Built Plans
 - 6.5.3.1 The utility company shall provide DeIDOT with one copy of the final invoice.
 - 6.5.3.2 The Utility Company shall provide DeIDOT with as-built plans following construction to document any changes that were made in construction. As-built plans shall be provided prior to final reimbursement.
- 6.5.4 Electric Power Service for Roadway Lighting, Traffic Signals, and Equipment. Utility company shall follow the DeIDOT Design Guidance Memorandum (DGM) Process for Requesting Electrical Power Services, dated April 7, 2020.

10 DE Reg. 1730 (05/01/07)

26 DE Reg. 618 (01/01/23)