ROW Utilities Manual

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From: Kyle Madsen, Right of Way Division Director

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Purpose

This revision is intended to update the manual to match current requirements and procedures.

Changes

Chapter 7:

- In Section 1 "General Requirements", updated content.
- In Section 2 "Cost Estimate Methods and Categories", added reference to Financial Accounting Standards Board (FASB) document, added list of items not considered as the basis of a forced betterment, modified *Table 7-2 Example Computation of Elective Betterment Percentages*, and made minor text edits.

Chapter 8:

- Throughout the chapter, modified the discussion of form ROW-U-Affidavit.
- In Section 2 "Utility Property Ownership", made minor wording changes and updated the *Composite Eligibility Ratios (CER)* subsection.
- In Section 9 "Non-reimbursable Utility Adjustment Procedure", updated content for the implementation of the *Right of Way Utility and Leasing Information System (RULIS)*.

Chapter 9:

- Throughout the chapter, modified the discussion of form ROW-U-Affidavit. Also updated content affected by the implementation of RULIS.
- In Section 1 "Overview", modified wording for *Advance Funding Agreements for Voluntary Utility Relocation Contributions on State Highway Improvement Projects*.
- In Section 2 "District Approval of Utility Agreements", modified wording of *ROW Division Approval* subsection.
- In Section 4 "Agreement Assemblies", updated the checklist form to ROW-U-AGMNTCheck.

- In Section 5 “Prepare and Submit the Agreement Assembly”, edited text throughout the section and added additional items to be included in billings.

Appendix C:

- Added a new Appendix C “Guidance for Submitting Agreements”.

Note

Some hyperlinks will not work when a PDF version of this manual is downloaded and used offline.

Contact

Wayne Robinson, Right of Way Division Utility Portfolio Section Director, 512.416.2831

Archives

Past manual notices are available in a PDF archive.

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Chapter 1 — Introduction

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Section 1 — Utility Adjustment Overview

Utility Adjustment Flowchart

A flowchart showing the utility adjustment overview with interface to transportation projects is available in PDF format.

Transition Terms and Acronyms

Table 1-1: Transition Terms and Acronyms

Former term/acronym	Current term/acronym
Alternate Procedure (not CFR)	Federal Utility Procedure (FUP)
Optional Alternative Procedure (OAP)	State Utility Procedure (SUP)
	Local Utility Procedure (LUP)
sufferance or permit	statutory right
utility company	utility
utility company's facility	utility facility or facility
Advance Funding Agreement	AFA
Utility Accommodation Policy (UAP)	Utility Accommodation Rules (UAR)

Glossary of Terms

An online TxDOT Glossary is available for definitions of terms found in this manual.

Utility Forms

Utility forms can be accessed and saved using the links in the table below.

Table 1-2: ROW and MNT Division Forms Relating to Utility Adjustment Work

Form Number	Title
1082	Utility Installation Request (To be used with Non-Reimbursable utility adjustments or any placement in which the utility does not own a property interest.)
ROW-Indemnity	Indemnity Agreement
ROW-N-17	Release of Easement
ROW-N-30	Quitclaim Deed

Table 1-2: ROW and MNT Division Forms Relating to Utility Adjustment Work

Form Number	Title
ROW-N-85	Subordination of Mineral Lease
ROW-N-88	Subordination of Mineral Lease – Controlled Access Highway Facility
ROW-N-PSTRA	Petroleum Storage Tank Removal Agreement
ROW-U-13	Reimbursable Authorization Letter
ROW-U-27	Support for Certificate of Partial Payment for Utility Accommodation
ROW-U-35	Standard Utility Agreement
ROW-U-40	Signature Authority
ROW-U-45	Tabulation of Utility Adjustments (SUP)
ROW-U-48	Statement Covering Utility Construction Contract Work (as Appearing in Estimate)
ROW-U-139	Indemnity Agreement for Fiber Optic Facility
ROW-U-Affidavit	Affidavit of Property Ownership (Utility Owner / Disinterested Party)
ROW-U-AGMNTCheck	Utility Accommodation / Adjustment Checklist
ROW-U-BillChkDist	Utility Payment/Billing Checklist
ROW-U-CFUA	Certification for Utility Accommodation
ROW-U-Clearance	Utility Clearance Letter
ROW-U-COA	Standard Utility Agreement - Supplemental Agreement No. __ to U-__
ROW-U-EWA	Emergency Work Authorization – Post Highway Letting
ROW-U-JUA	Utility Joint Use Agreement
ROW-U-MA	Master Utility Agreement
ROW-U-NOPC	Notice of Proposed Construction
ROW-U-NORA	Notice of Required Accommodation
ROW-U-SP2125	Application for State Participation in the Relocation of Certain Publicly-Owned Utility Facilities
ROW-U-UAD	Utility Accommodation Declaration

Section 2 — Overview of the TxDOT-Utility Cooperative Management Process

Introduction

Utility accommodation is an integral factor in road construction and design. To provide for efficient accommodation of utilities and minimize delays both before letting and during the construction phase, it is necessary to coordinate the process from program inception to completion. This is accomplished by:

- defining authorities and responsibilities regarding utility adjustments across the functional areas of District planning, design, right of way, and construction involving all parties contributing in this area to planning, action, and execution;
- developing a Utility Memorandum of Understanding for utility companies and trade associations to improve relations and reduce possible misunderstandings between TxDOT and utilities;
- providing for District approval of utility contracts; and
- improving utility accounting procedures.

Distribution of Responsibilities

The TxDOT-Utility Cooperative Management Process ("The Process") is a partnership between the Texas Department of Transportation (TxDOT), Local Public Agencies (LPAs), when applicable, and the utility industry. A flowchart of "The Process" is available. "The Process" provides for cooperation and shared accountability to achieve integration of required utility accommodation with transportation improvement projects. Proactive management of "The Process" accomplishes efficient utility accommodation and minimizes project delays. Fundamental parameters form the basis for "The Process"; see discussion later in this Section.

The utility accommodation and adjustment process will be enhanced by:

- including utility accommodation considerations in project planning, right of way, design, and construction functions at the District level;
- distributing responsibility for utility accommodation coordination to appropriate functions within planning, design, right of way, and construction at the District level; and
- defining roles and responsibilities for all responsible, necessary and interested parties for each functional activity, including but not limited to the following:
  - Utility Provider
  - TxDOT Area Engineer
  - TxDOT Project Manager

- TxDOT Project Design Engineer
- TxDOT Project Construction Engineer
- TxDOT District Utility Liaison
- TxDOT Right of Way Project Delivery Representative
- TxDOT ROW Division
- TxDOT ROW Program Office
- LPA representative, when applicable.

Description of Procedures

District Engineer or designated representative is responsible for comprehensive coordination of the utility accommodation process.

Use the personnel listed above for technical expertise and consultation throughout project development.

The responsibility for the administration of property rights issues, utility policy, and reimbursement of eligible utility adjustments remains with Right of Way personnel.

Consider utility representatives for attendance at each Feasibility Scoping Meeting, Preliminary Design Conference, and Design Conference.

The "TxDOT-Utility Cooperative Management Process" was developed to consider utility concerns as a TxDOT project advances through the planning, design, acquisition, and construction phases of development. "The Process" includes the following activities:

- Annual Meeting(s)
- Initial Project Notification
- Preliminary Design Meeting(s)
- Field Verification
- Design Conference
- Intermediate Design Meeting(s)
- Final Design & Initial Construction Coordination Meeting
- Pre-letting Utility Meeting
- Utility Meeting After Award
- Utility Coordination Meeting During Project Construction.

The "Right of Way-Utility Adjustment Subprocess" was developed to provide detailed information specific to property rights and reimbursement requirements. The Subprocess includes the following activities:

- Early Right of Way Release for Utility Adjustments
- Field Verification
- TxDOT-LPA Right of Way Contracts
- Federal Project Authorization and Agreement
- Right of Way Release
- Alternate Procedure Approval
- LPA Agreement to Contribute Funds
- Contractual Agreement for Right of Way Procurement
- Request for Determination of Eligibility
- Utility Consultant Contract Approval
- Prepare Utility Agreement Assembly
- Perform Utility Adjustment
- Determination of Upper Limit
- Utility Payment Process.

The coordinated implementation of these processes provides early resolution of utility issues. This eliminates problems resulting from postponing those issues until later in project development.

Identify roles and responsibilities for utilities, TxDOT District Planning, Design, ROW, Construction, and TxDOT Division personnel for each activity in "The Process" and "Subprocess." Descriptions of the various participants identified for each activity may be found in the TxDOT Glossary.

Parameters

- Utilities have a statutory right to occupy State right of way. Utilities do not infringe upon TxDOT right of way. They are legal occupants of the right of way. At the same time, utilities rights are subordinate to the needs of the traveling public. This right was established with the understanding that both TxDOT and public utilities use public lands in delivery of services for mutual public benefit.
- Authority and responsibility for the integration and coordination of utility concerns in the TxDOT Plan-Design-Build-Maintain process rest with the District Engineer. Buy-in and commitment to this process by top administration is of paramount importance in assuring efficient and successful implementation.

The District Engineer may elect to delegate this responsibility and authority to the TxDOT Project Manager at his/her discretion, based on the individual structure and resources of the District.

- Traditional TxDOT Utility Coordinators will continue to function as a resource, consultant, and in-house liaison as well as a liaison with utilities across the functional boundaries of "The Process."
- The TxDOT Construction Contractor should not hold the utility unilaterally responsible for delays caused by the re-sequencing of work. Re-sequencing must include reestablishment of a mutually agreeable utility adjustment schedule.
- The list of participants in each activity in "The Process" should include, but not be limited to, those indicated in the model. The Responsible Party is to identify and include additional Necessary Parties and Interested Parties into "The Process" as discovered or otherwise deemed appropriate. Necessary parties may include associates of other parties to "The Process," as required.
- Field verification of utility facility locations will be a cost and expense of right of way when performed under the authority of a TxDOT contract or agreement (i.e., reimbursable utility adjustment agreement).
- According to Transportation Code, Section 224.008, "Utility Relocation Costs," the cost of relocating or adjusting utility facilities associated with the acquisition of right of way by or for TxDOT is a cost of the acquisition. Therefore, reimbursable utility relocation costs are a right of way expense.

Section 3 — Liaison between TxDOT and Utilities

General

TxDOT promotes liaison at all levels with the utility industry to provide maximum lead-time, efficient flow of information, and early adjustment. The American Association of State Highway and Transportation Officials (AASHTO) and the International Right of Way Association (IRWA) at the national level encourage the states, through their departments of transportation, to establish utility liaison committees. Both the annual AASHTO/FHWA Right of Way and Utilities Conference and the IRWA Conference devote several workshops to address the issues of highway/utility cooperation and coordination. Utility representatives from all segments of the utility industry and representatives of various states' departments of transportation can then establish and maintain a framework for exchange of information, concerns, and ideas. This education and mutual sharing of issues by all parties should encourage efforts to accomplish the following objectives:

- prompt accomplishment of utility adjustments;
- performance of utility adjustments in a manner providing maximum safety to the traveling public, TxDOT personnel, and utility industry personnel;
- provision of adequate protection to the highway and utility facilities; and
- performance of utility adjustments at minimum cost, inconvenience, and delay to the highway and utility industries.

The education and sharing of information should also be carried out at the local level. Several Districts have developed Utility Coordination Councils to accomplish the open exchange of information among the private and public utilities, governmental agencies, and construction related organizations. They promote cooperation among these groups in the planning, design, and implementation of projects affecting one another. Each local group should strive for a proactive liaison between all parties for everyone’s mutual benefit.

TxDOT Districts should conduct continuing liaison on the local level from the preliminary study stage to completion of construction. The inability to provide for efficient adjustment of utility facilities can create delays in project planning and/or delays during the construction phase, resulting in increased construction costs and contractor claims.

Lapses in the efficient adjustment of utility facilities typically result from a breakdown of communication, cooperation, and/or coordination. To overcome these lapses, maintain a proactive effort that includes the following:

Communication. There must be a continuous flow of information between all parties involved in the utility adjustment process. Therefore, it is important that TxDOT and utilities respond quickly to requests for information.

Cooperation. TxDOT and utilities must cooperate in executing the process of utility adjustment.

- TxDOT, for its part, must do the following:
  - Utilize the "The Process."
  - Eliminate conflicts with utility facilities through modifications in project design, when feasible.
  - Include, as a part of project sequencing, utility adjustment work to be accomplished during construction.
  - Include utility adjustment work in the highway contract, when possible, and in the agreement with the utility.
- Utilities, for their part, must do the following:
  - Participate in "The Process."
  - Begin preparing utility adjustment plans when TxDOT plans are at a stage where they show a refined profile, basic drainage requirements, and pavement structure design.

Coordination. TxDOT should take the lead in coordinating the utility adjustment process.

- Some areas to be coordinated are as follows:
  - Notification of project schedules.
  - Notification when project development is delayed or letting priority is revised, so that resources can be reallocated.
  - Facilitation of a cooperative venture among two or more utilities for the collective performance of the work, i.e., common trenching, joint occupancy.
  - Completion of advanced funding agreements when non-reimbursable work is included in the highway contract.
  - Submission of utility adjustment design information, an itemized estimate, and special provisions and specifications for constructing the utility adjustments that will be included in TxDOT contract documents.
  - Approval of the Utility Adjustment Agreement
  - Notification of any change orders that occur after letting of the construction contract.
- Utilities, for their part, must notify TxDOT of:
  - any change in company name, ownership, mergers, and acquisitions;
  - financing;
  - windows of adjustment time;
  - location of utilities;
  - manpower availability;
  - unique design considerations;
  - changes in function or status of utility (i.e., public or private);

- ability to meet TxDOT schedules; and
- any abandonments.

Utilities are encouraged to inform TxDOT of proposed new installations so utility construction can be accomplished in a manner compatible with proposed highway projects, whenever it is feasible. This may eliminate future adjustments, thereby avoiding the inconvenience of utility service disruption and person-hour loss to both the utility and to TxDOT.

General Accounting Office Report

The Transportation Equity Act for the 21st Century (TEA-21) directed the United States General Accounting Office (GAO) to assess the impact that delays in relocating utilities were having on the delivery and cost of Federal-aid highway and bridge projects. The reader may review the entire GAO Report for more information.

In summary, the report identified the following areas that may cause delays:

- Short periods for the State to plan and design a project.
- Relocations given low priority by utilities.
- Increased workload on utility adjustment crews because of an increase in highway and bridge construction.
- Delays in starting utility adjustment because some utilities would not start work until a construction contract was advertised or let.
- The phasing of construction and utility relocation work was out of sequence.
- There was inadequate coordination or sequencing among the utilities.
- Inaccurate locating and marking of existing utility facilities.
- Delays in obtaining right of way.
- Shortages of labor and equipment for the utility contractor.
- Project design changes that require changes to utility relocation designs.
- Utilities were slow in responding to contractor’s requests to locate and mark underground utilities.

Section 4 — Fiscal Responsibility

Eligible Utilities

Although utilities may be publicly-owned, privately-owned, or cooperatively-owned and directly or indirectly serving the public, their **function** determines their eligibility for reimbursement of adjustment as prescribed in this manual, in accordance with 23CFR Section 645.107. For utility adjustments to be eligible, they must either have a compensable interest in their present location, be eligible for Federal participation in the adjustment cost, or compensable under another state statute. As an example of how function determines eligibility, a privately-owned facility serving one or more individuals, but not the public, and used for the benefit of **certain** individual recipients of the service, must be considered as an improvement, **not** an eligible utility. Therefore, it must be adjusted through special handling through the ROW acquisition process. The determination regarding whether privately-owned lines are eligible for adjustment under 23CFR 645 may be made at the District level. Where there is a question of eligibility, consult the ROW Division before appraisal of the property on which the facility is located and before authorizing the owner to prepare a plan for adjusting the facility.

Section 5 — Programming and Authorization

General

Program the cost of adjusting reimbursable utility facilities as a cost of right of way acquisition. District personnel must delay requesting a utility to prepare plans and estimates or incur **any** utility adjustment costs, including preliminary engineering, until the ROW Program Office has issued the appropriate release. **Costs incurred by a utility before issuance of such release will be ineligible for State reimbursement.** The appropriate release will involve one or more of the following types of releases.

Right of Way Releases for Utility Work

For related information, see Chapter 2 of the *ROW Acquisition Manual*.

- Utility Only Project Release. This release is typical of projects where no right of way acquisition has been planned, but reimbursable utilities are encountered. Generally, no other right of way work is performed under the ROW CSJ/ROW Project ID assigned to the project. Costs may be charged against the ROW CSJ/ROW Project ID when this type of release is used. The requirements for this type of release are:
  - Commission Minute Order - Project Authorization
  - Environmental clearance
  - Request from the District for release
  - Federal Project Authorization and Agreement (FPAA), if applicable, for Federal funding
  - Contractual Agreement with LPAs , if applicable; include three copies of the agreement
  - Copy of the check for the LPA's contribution amount
  - Copy of the LPA's resolution
- Full Authority Release. All costs may be charged to the ROW CSJ/ROW Project ID. When issued by the ROW Program Office, the Full Authority Release includes utility work and all other right of way activities. This would include processing of the Utility Agreement Assembly, acquiring replacement utility right of way, physical adjustment of utility facilities, and reimbursement of eligible cost incurred. Issuance of a full right of way release is contingent upon completion of the following:
  - Approved schematic
  - Approved right of way map submitted to the ROW Program Office
  - Right of way project cost estimate
  - Environmental clearance
  - Federal Project Authorization and Agreement (FPAA), if required

- Executed contractual agreement with LPA, including funding, if applicable.

Federal Project Authorization and Agreement (FPAA)

FHWA, by issuance of a Federal Project Authorization and Agreement (FPAA), documents the approval of Federal cost participation in a right of way project. The FPAA is required for the ROW Program Office to issue a Full Authority Release. Do not request approval for a full Right of Way Release before an environmental approval for the project is obtained. If Federal reimbursement will be requested for any of the cost incurred under the **Utility Only Project Release** above, these costs must be associated with preliminary engineering and the actual relocation costs for the project, which includes costs associated with obtaining environmental clearance.

Eligible costs for preliminary engineering and replacement right of way incurred by a utility **after** issuance of the ROW Division's release will be reimbursed. Costs of performing adjustments will be eligible upon utility agreement approval or authorization by the LPA, whichever is applicable. For more information on eligible costs, see Chapter 11, Section 3, Final Billings.

Utility Reimbursement Policies (Interstate Highways)

TxDOT Policy TxDOT participation in the costs of necessary utility adjustments is set forth in the Transportation Code, Section 203.092. Participation on highways within the Interstate Highway System is limited to those adjustments eligible for Federal cost participation per 23CFR Part 645. Note that 23CFR Part 645 requires **prior approval** by TxDOT **and** the FHWA for any phase of utility work.

Neither Federal rule nor State statutes provide for cost participation where utility removal occurs without subsequent replacement or relocation. Accordingly, State participation in such removal is dependent upon the utility possessing a compensable interest in the land occupied by the removed facilities. Participation is limited to the value of the real property interest, less the salvage value of the removed or abandoned facilities.

Cost participation in an adjustment where the utility possesses no real property interest is limited to the cost of relocation. New real property interests acquired by the utility after the relocation are **not** eligible for cost participation.

Federal Utility Reimbursement Regulations 23CFR 645.111 prescribes reimbursement controls and general requirements as well as requiring prior TxDOT approval for certain phases of utility work. FHWA approval is required for facilities such as reservoirs, substations, and tank farms, etc. Unless this requirement is met, many items otherwise eligible for State and Federal participation may be declared ineligible.

Utility Reimbursement Policies (US, State (TX), FM, and RM Highways)

TxDOT will participate with the LPA in **necessary** utility adjustments required by improvements of the State Highway System when the utility possesses a compensable interest.

Chapter 2 — TxDOT-Utility Cooperative Management Process and Sub-process

Contents:

Section 1 — TxDOT Utility Cooperative Management Process - “The Process”

Section 2 — Right of Way Utility Adjustment Sub-process - “The Sub-process”

Section 3 — Memorandums of Understanding (MOU)

Section 1 — TxDOT Utility Cooperative Management Process - "The Process"

Overview

The TXDOT-Utility Cooperative Management Process ("The Process") is a system of cooperative planning, design and construction coordination associated with the accommodation of highway-utility joint occupancy. This method will minimize conflicts and construction delays, thereby eliminating or reducing contractor claims

The major procedures used to accomplish the adjustment and accommodation of reimbursable utility facilities on TxDOT projects are listed below. The first three are available as flowcharts in PDF format.

- State Utility Procedure
- Federal Utility Procedure
- Local Utility Procedure
- Non-Reimbursable Procedure

For detailed information about procedures, refer to:

- State Utility Procedure (SUP)
- Federal Utility Procedure (FUP)
- Local Utility Procedure (LUP)

The Overview of Utility Adjustment flowchart shows an overview of utility and engineering tasks and may be viewed and/or downloaded in PDF format.

Exchange of Preliminary Information: Annual Meeting - Process Activity I

- Participants

1. Responsible Party
   - TxDOT District Engineer/Area Engineer/Regional or Special Office
2. Necessary Parties
   - TxDOT Area Engineer or designee
   - TxDOT Right of Way Representative
   - Utility Representative
   - Local Participant Representative
3. Interested Parties

- FHWA Representative(s)
- TxDOT Utility Liaison
- TxDOT Environmental Representative
- TxDOT Advance Planning Engineer

◆ Objectives

1. Cooperative TxDOT-Utility Industry discussion of Statewide Transportation Improvement Program (STIP).
2. Provide STIP project listing with information presented in a utility friendly format.
3. Discussion of projects from utility perspective to identify potential utility conflicts and impacts.

◆ Activity Narrative

This meeting is held each year following approval of the TxDOT STIP. Prior to the meeting, a "utility friendly" chronological listing of the upcoming year's proposed construction letting schedule should be prepared for general distribution to local utility industry representatives. This "utility friendly" project listing is prepared with focus on TxDOT projects and project information of particular interest to utilities and in a format that is clear and understandable to the public. In order to ensure clarity, it is recommended that the project listing be prepared as a cooperative TxDOT-Utility effort. Projects should be listed in chronological order by proposed letting. Project categories without utility impacts should be eliminated from this customized listing (i.e., overlays, pavement markings, and maintenance contracts). The Annual Meeting is conducted by TxDOT and is intended to provide a forum for discussion of the TxDOT construction schedule with local utilities. Particular emphasis is placed on early awareness of the major utility concerns associated with accommodating TxDOT construction. Early communication of this type provides utilities with the opportunity to do fiscal planning for upcoming construction with consideration given to utility budget cycles, construction schedules, and consumer service requirements.

Exchange of Project Specific Information: Initial Project Notification - Process Activity II

◆ Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Local Agency Representative
   - Utility Liaison
   - TxDOT Design Consultant
   - TxDOT Right of Way Representative

- TxDOT Utility Liaison

3. Interested Parties
   - TxDOT Design Team
   - TxDOT Environmental Representative
   - TxDOT Advance Planning Engineer
   - Other TxDOT Parties as Applicable

◆ Objectives

1. Provide preliminary project description, scope, and letting schedule to utilities.
2. Set date for preliminary design meeting.
3. Identify TxDOT Project Design Engineer & TxDOT Design Consultant if appropriate.
4. Request identities of utility contacts to be assigned to the TxDOT project.
5. Request block maps/mark ups from utilities.

◆ Activity Narrative

Prerequisites to the Initial Project Notification include completion of a preliminary schematic or other general representation of the proposed project layout. The TxDOT Project Design Engineer has been appointed and, if applicable, a TxDOT Design Consultant has been retained. A list of potentially impacted utilities is compiled, right of way mapping has begun, and TxDOT is ready to begin design of the facility.

This activity in "The Process" will typically take the form of a project specific letter of information prepared for distribution to all known utilities and other concerned parties. The purpose of the Initial Project Notification is to advise utilities of the general characteristics of an upcoming TxDOT project and to provide an illustration of the project footprint for mark-up of utility facility locations, which occupy the project area. The notification will also introduce the Responsible Party and other TxDOT contacts for the project and request the submittal of utility block maps, as-built plans or system drawings to indicate utility facility locations and other features. The Initial Project Notification will announce the time and location of the Preliminary Design Meeting (Process Activity III) below and should be sent out no less than two weeks before to ensure full attendance and to allow adequate time for compiling requested information by the utilities.

Exchange of Project Specific Information: Preliminary Design Meeting - Process Activity III

◆ Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Utility Representatives

- Utility Design Representative
- TxDOT Design Consultant
- TxDOT Utility Liaison
- TxDOT Right of Way Representative

3. Interested Parties
   - TxDOT Advance Planning Engineer
   - TxDOT Design Team
   - TxDOT Environmental Representative
   - Other TxDOT Parties as Applicable
   - LPA Parties as Applicable

◆ Objectives

1. Discuss TxDOT preliminary design and schedule.
2. Introduce TxDOT and Utility Representatives.
3. Discussion of TxDOT Utility concerns:
   - Utility Accommodation Rules (UAR)
   - Reimbursement eligibility criteria
   - Expected magnitude of impact
4. Action plan for accurate utility locations:
   - Subsurface information provider
   - Response time and schedule of provider
5. Establish the level of utility involvement for each utility.
6. Set date or identify milestone for Design conference (Process Activity V).

◆ Activity Narrative

1. The Preliminary Design Meeting is held within approximately two weeks of the Initial Project Notification (Process Activity II). This meeting is different from the Design Conference. At this meeting, TxDOT and Utility Design Representatives will be introduced, including any consultants that they may use in the design process. TxDOT will describe the proposed improvements, the anticipated schedule and potential impact on utilities. The discussion of TxDOT design will include those items of particular interest to utilities, such as drainage facilities, typical sections, structures, and other roadside features. TxDOT's UAR and

reimbursement eligibility criteria will be explained at this time. It is important to identify conditions that would prevent compliance with the UAR and propose potential solutions.

2. An action plan for locating affected utility facilities can be developed after a determination has been made whether the field verification is to be accomplished jointly or independently. Concerns to be addressed in the action plan are as follows:
   - The immediate need for horizontal and vertical alignment information
   - Physical constraints affecting the methods and equipment to be used in the locating process
   - Anticipated schedule and response time of the information provider(s)
3. During the Preliminary Design Meeting, a determination will be made regarding the level of utility involvement for each utility. Those identified as being Level 3 require no further involvement. Those identified as being Level 2 or Level 1 will continue as active participants in "The Process."
4. Because of the above discussion, a milestone will be identified or a date set for the Design Conference (Process Activity V). An appropriate milestone is a project related activity that triggers the need to start detailed design coordination (i.e., completion of drainage design or availability of field verification information).

Exchange of Project Specific Information: Field Verification - Process Activity IV

- Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Utility Design Representative
   - TxDOT Design Consultant
   - TxDOT Design Team
3. Interested Parties
   - Subsurface Utility Engineering (SUE) Provider
   - TxDOT Utility Liaison
   - TxDOT Construction & Maintenance
   - Other TxDOT Parties as Applicable

- Objectives

1. Identify ownership of utility facilities.
2. Determine accurate horizontal and vertical locations.
3. Utility locations identified in terms of TxDOT Control Datum.

- Activity Narrative

1. Accurate Field Verification of some utility facilities on complex projects will be required to design TxDOT features to avoid conflicts, to relocate the utility or to conclude that neither is necessary. The extent of information needed, and the information provider for each facility, will have been decided by mutual agreement between the TxDOT Project Design Engineer and the Utility Design Representative at the Preliminary Design Meeting (Process Activity III). It should be noted that in some situations, this information would not be warranted. For instance, if it is obvious that relocation is imperative, such as an existing overhead pole line located in the proposed pavement, additional verification is an unnecessary expense.
2. Field Verification information can be obtained from a number of sources: the utility's forces, a utility design consultant, TxDOT survey or maintenance crews, a One-Call locator service, or a SUE provider. In order for a utility to incur reimbursable costs or for TxDOT to retain a SUE provider, it is imperative that a right of way release be in place. If the foregoing has not occurred, the information must be obtained at no expense to TxDOT.
3. The Field Verification information should be supplied in TxDOT control datum to accurately apply the locations to TxDOT drawings. This will help to resolve any identified conflicts.

Design and Utility Construction Phase: Design Conference - Process Activity V

- Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Utility Design Representative
   - TxDOT Design Consultant
   - TxDOT Design Team
   - TxDOT Utility Liaison
3. Interested Parties
   - TxDOT Project Construction Engineer
   - Utility Inspector
   - LPA representatives
   - Other TxDOT Parties as Applicable

- Objectives

1. Cooperative discussion of TxDOT and utility design concepts and criteria.
2. Discussion of right of way issues.
3. Discussion of utility adjustment issues.

4. Discussion of utility bid process and contracting options.
5. Discussion of design schedules and construction time line for all entities.
6. Set date or schedule for Progress Tracking Meeting(s).

◆ Activity Narrative

1. The Design Conference provides a forum to discuss potential utility impacts and promote cooperative solutions before the development of more detailed preliminary design. The participants will exchange the field verification results, investigate alternatives, and propose recommendations to minimize impacts. To facilitate this discussion, the TxDOT Project Design Engineer should present at this meeting anticipated location and type of drainage facilities, structures, and other roadside features.
2. Right of way issues to be discussed may include adequacy of the proposed right of way, sequencing of parcel acquisition critical to anticipated construction phasing, utility accommodations, environmental concerns and obstacles (e.g., petroleum storage tank systems (PSTS), hazardous materials).
3. Utility issues to be discussed may include necessity, justification, and scope of work for any proposed utility adjustment, UAR compliance, and possible TxDOT design modifications to minimize utility conflicts. Contracting options for utility adjustments to be considered are work to be performed by the utility, joint bids between utilities and incorporation of the utility work in the transportation project contract. Other issues that may be applicable are Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects for non-reimbursable utility work included in the TxDOT Plans, Specifications, and Estimate (PS&E).
4. The Design Conference will provide an initial opportunity to integrate the projected construction time lines of all parties with the TxDOT design schedule. Consideration should also be given to setting the schedule for the first Intermediate Design Meeting (Process Activity VI).

Design and Utility Construction Phase: Intermediate Design Meeting(s) - Process Activity VI

◆ Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Utility Design Representative
   - TxDOT Design Consultant
   - TxDOT Design Team
   - TxDOT Utility Liaison
   - TxDOT Right of Way Representative

3. Interested Parties
   - TxDOT Project Construction Engineer
   - Utility Construction Representative
   - Other TxDOT Parties as Applicable

◆ Objectives

1. Clarify highway-utility design concepts from previous meetings.
2. Incorporate highway-utility design changes as appropriate to avoid or minimize conflicts.
3. Establish sequence of work schedules.
4. Track design progress of all parties.
5. Report on status of right of way acquisition.
6. Report on status of TxDOT letting schedule.
7. Begin document preparation for reimbursable adjustments and Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects.
8. Determine frequency of Intermediate Design Meetings.

◆ Activity Narrative

1. At the discretion of the TxDOT Project Design Engineer the frequency of the Intermediate Design Meetings will be commensurate with the complexity of the TxDOT-Utility collective design effort. The meetings are intended to track the progress of ongoing design processes, further develop design concepts from previous meetings, identify design conflicts, and investigate solution alternatives. The first meeting in this series must begin before the design plan is one-third completed.
2. Adequate design progress of features relevant to utility facilities must have occurred at this point in "The Process." During this phase of project development, utilities may begin actual physical adjustment of facilities. Should it be anticipated that the work would be eligible for reimbursement; the utility must initiate required documentation in accordance with the Right of Way Sub-process Activity IX (Prepare Utility Agreement Assembly) before beginning work.
3. Right of way parcel acquisition is ongoing; therefore, the right of way map and full authority for right of way acquisition must have been secured before the Intermediate Design Meetings. These meetings provide an opportunity to reconfirm or adjust right of way acquisition priorities in recognition of design/construction phasing. Consideration should be given to any required hazardous materials remediation. If design moves forward without consideration of the right of way acquisition process, a flaw to effective TxDOT-Utility project coordination results.
4. Utilities with Level II involvement will typically resolve conflicts and discontinue participation in "The Process" during the Intermediate Design Meetings.

Design and Utility Construction Phase: Final Design & Initial Construction Coordination Meeting - Process Activity VII

- Participants

1. Responsible Party
   - TxDOT Project Design Engineer
2. Necessary Parties
   - Utility Construction Representative
   - Utility Design Representative
   - TxDOT Design Consultant
   - TxDOT Project Construction Engineer
   - TxDOT Right of Way Representative
   - TxDOT Utility Liaison
3. Interested Parties
   - TxDOT Area Engineer
   - Other TxDOT Parties as appropriate

- Objectives

1. Establish priorities for remaining/outstanding right of way acquisition.
2. Establish schedule for utility clearance, set dates with consideration of ongoing operations, other non-TxDOT commitments, and seasonal considerations (budget cycle, service demand obligations).
3. Finalize Plans, Specifications and Estimate (PS&E) Submission:
   - Right of way acquisition status
   - Utility adjustment status
   - Hazardous Materials Remediation
   - Special Provisions
   - Integration of remaining utility adjustments into TxDOT project sequence of work.
   - Special Specifications for utility construction in TxDOT contract
   - Utility adjustment plans when included in TxDOT contract
   - Utility cost estimates
4. Finalize details for preparation of an Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects.
5. Set dates for pre-letting utility conference and preconstruction conference.

- Activity Narrative

1. The Final Design & Initial Construction Coordination Meeting is the last meeting before submittal of the PS&E to Austin for approval. The TxDOT Project Design Engineer is responsible for preparation of the utility Special Provisions and special specifications. The sequencing of TxDOT construction and utility work will be coordinated for inclusion into the PS&E submission. Overall utility workload must be considered in order to ensure that personnel and equipment will be available at the time of proposed construction.
2. The TxDOT Utility Liaison should be included in the development of utility special specifications for utility construction to be included in the TxDOT construction project to ensure compliance with the TxDOT UAR. Utility bid items must be separated from the TxDOT items for the transportation project. If the utility adjustment is reimbursable, the utility bid items must be charged to a separate ROW CSJ/ROW Project ID number. Finalize details of Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects and obtain mutual agreement among local parties before submission of PS&E.
3. The TxDOT Right of Way Representative will be responsible for compiling current right of way acquisition and relocation assistance information for preparation of the corresponding special provisions and certifications. Priorities are established for the acquisition of outstanding right of way parcels.

Design and Utility Construction Phase: Pre-letting Utility Meeting - Process Activity VIII

- Participants

1. Responsible Party
   - TxDOT Project Design Engineer/TxDOT Project Construction Engineer
2. Necessary Parties
   - Utility Construction Representative
   - Utility Design Representative
   - TxDOT Design Consultant
   - TxDOT Project Construction Engineer
   - TxDOT Right of Way Representative
   - TxDOT Utility Liaison
3. Interested Parties
   - TxDOT Area Engineer
   - Other TxDOT Parties as appropriate

- Objectives

1. Declare specific status of:
   - Right of way acquisition schedule

- Relocation schedule
- Hazardous material remediation schedule
- Utility adjustments outside of PS&E

2. Update construction schedules for TxDOT and Utility construction.
3. Announce Special Provision/Certification dates and identify recent revisions.
4. Finalize remaining utility designs.

◆ Activity Narrative

1. The Pre-letting Utility Meeting is held due to the lapse of time and likelihood of design modifications that may affect utility adjustments after PS&E submittal. This meeting will be conducted before the TxDOT Pre-bid Conference to identify utility concerns for prospective bidders. The purpose of the Pre-letting Utility Meeting may be served by including local utilities in the TxDOT Pre-bid Conference, if held locally. In this instance, the Responsible Party becomes the TxDOT Project Construction Engineer
2. When a separate Pre-letting Utility Meeting is held, it is the TxDOT Project Design Engineer's responsibility to ensure that pertinent information is conveyed at the Pre-bid Conference. This meeting will provide a final opportunity to refine special provisions before receipt of bids.
3. Particular attention should be given to the coordination of outstanding utility adjustments with the TxDOT sequence of work. Effective coordination will maximize mutual benefits to be realized by all parties to the cooperative effort.

Construction Phase: Utility Meeting After Award - Process Activity IX

◆ Participants

1. Responsible Party
   - TxDOT Project Construction Engineer
2. Necessary Parties
   - Utility Construction Representative
   - Utility Inspectors
   - TxDOT Construction Contractor
   - TxDOT Right of Way Representative
   - TxDOT Utility Liaison
3. Interested Parties
   - Utility Design Representative
   - TxDOT Project Design Engineer
   - TxDOT Area Engineer

- Other TxDOT Parties as appropriate

◆ Objectives

1. Identify Utility Construction Representatives.
2. Establish:
   - Construction start date
   - Date of Preconstruction Conference if held separately
3. Update specific status of:
   - Right of way acquisition
   - Utility adjustments
4. Discuss schedule of work and coordination of utility adjustments.

◆ Activity Narrative

1. The primary purpose of the Utility Meeting After Award is to transfer responsibility for the project from the TxDOT Project Design Engineer to the TxDOT Project Construction Engineer. This utility coordination meeting will occur after the contract award and before the start of construction. It may be combined with the normal TxDOT Preconstruction Conference on less complex jobs as determined by the TxDOT Project Construction Engineer.
2. The Utility Meeting After Award provides the opportunity to identify and discuss the status of outstanding acquisition of parcels identified in the Special Provisions.
3. It is also appropriate at this meeting to identify the various methods by which utility adjustments will be coordinated with the TxDOT project. It is important to distinguish those adjustments that are included as bid items accomplished in the TxDOT contract from those to be accomplished by the utility and coordinated with TxDOT construction. For those utilities to be adjusted outside of the TxDOT contract, discussion should focus on current status of adjustments in reference to clearance dates identified in the Special Provisions and TxDOT project sequencing necessary to accommodate the schedule. If the contractor elects to modify the sequence of construction activities, the TxDOT Project Construction Engineer is responsible for assuring that utility concerns are incorporated in the revised sequence of work.
4. Discussion of utility work to be accomplished in the TxDOT contract will include coordination of inspection responsibilities with affected parties.

Construction Phase: Utility Coordination Meeting During Project Construction - Process Activity X

◆ Participants

1. Responsible Party
   - TxDOT Project Construction Engineer

2. Necessary Parties
   - Utility Construction Representative
   - Utility Inspectors
   - TxDOT Construction Contractor
   - TxDOT Inspectors
   - TxDOT Right of Way Representative
3. Interested Parties
   - TxDOT Area Engineer
   - TxDOT District Director of Construction
   - TxDOT Project Design Engineer
   - TxDOT Utility Liaison
   - Other TxDOT Personnel as appropriate

◆ Objectives

1. Continuous coordination of utility adjustments.
2. Claim-free and delay-free project progression and completion.
3. Comprehensive inspection and documentation of utility installations.

◆ Activity Narrative

1. This series of coordination meetings may be conducted in conjunction with regularly scheduled partnering sessions. The frequency and format of meetings for this phase of coordination will be established as needed at the discretion of the TxDOT Project Construction Engineer.
2. Continuous utility coordination during project construction is essential to minimize delays and reduce contractor claims. By establishing a forum for the regular exchange of information as the construction of the project progresses, the TxDOT Project Construction Engineer can track and thus ensure that schedules established in the Special Provisions of the contract are maintained.
3. In the case of reimbursable adjustments, coordination with the utilities is invaluable for clarifying inspection requirements and insuring that complete information on utility personnel, materials and equipment employed in the adjustment are recorded.

Section 2 — Right of Way Utility Adjustment Sub-process - "The Sub-process"

Flowcharts

Flowcharts of the State Utility Adjustment Procedure (SUP), LPA Utility Adjustment Procedure (LUP), and the Federal (FUP) Utility Adjustment Procedure are available for viewing and/or downloading in PDF format.

Released - Limited for Preliminary Utility Activities - Right of Way Sub-process Activity I

- Participants

1. TxDOT Right of Way Representative
2. TxDOT ROW Program Office

- Objectives

1. Identify need and requirements for limited release.
2. Document justification for and approval of limited release.
3. Approval of Limited Release.

- Activity Narrative

1. To properly coordinate utility activities within advance project development, a Release - Limited for Preliminary Utility Activities must be obtained. The limited right of way release provides the authority for TxDOT to incur costs for preliminary utility activities, including design and procurement of materials, before the normal right of way release. Full Authority to Proceed is contingent upon completion of environmental studies, route studies and receipt of the right of way map by the TxDOT ROW Program Office. These prerequisites may not always be completed at this point. Types of utility activities that will typically be the subject of this limited release include location determination, potential conflict identification, and preliminary cost estimate preparation.
2. Documentation is necessary to establish TxDOT internal controls for audit purposes. The limited right of way release must originate with a written request prepared by the District with approval granted by the TxDOT ROW Program Office.
3. Costs incurred for utility activities under the limited right of way release will not be subject to Local Public Agency (LPA) participation. If Federal cost participation is requested on the project, the early utility activities must be included as components of the environmental investigations.

Field Verification - Right of Way Sub-process Activity II

- Participants

1. TxDOT Project Design Engineer
2. TxDOT Utility Liaison
3. TxDOT ROW Division
4. Utility Design Representative
5. SUE Provider (If required)

- Objectives

1. Identify ownership of utility facilities.
2. Determine accurate horizontal and vertical location of utility facilities.
3. Utility locations identified in terms of TxDOT control datum.

- Activity Narrative

1. The purpose of the Field Verification is to determine the type, location, and ownership of utility facilities. Field Verification activities will require securing a Release - Limited for Preliminary Utility Activities to incur the associated costs if necessary. If Federal cost participation is involved in the project, reimbursable field verification activities will be considered as incidental to environmental studies for preliminary engineering up to, and including, the determination of horizontal location without excavation.
2. Field Verification services may be provided by a Subsurface Utility Engineering (SUE) provider, by individual or groups of utilities, or by TxDOT personnel. In reference to the Right of Way Sub-process, the involvement by right of way personnel will be to provide payment where applicable, and to assist in coordination activities incidental to payment.

Federal Project Authorization and Agreement (FPAA)- Right of Way Sub-process Activity III (a)

- Participants

1. TxDOT Right of Way Representative
2. TxDOT Division
3. Federal Highway Administration (FHWA)

- Objectives

1. Secure right of way project release on Federal-aid right of way projects.
2. Approval of federal cost participation.

- Activity Narrative

1. The Federal Project Authorization and Agreement (FPAA) documents the approval for Federal cost participation in a right of way project. It must be obtained as a prerequisite for the TxDOT ROW Program Office.
2. Necessary information for the FPAA will include the utility name(s), locations of existing facilities by station number and estimated cost of adjustment(s) by utility.
3. The FPAA may be requested concurrently with the Alternate Procedure Approval (Sub-process Activity V).

TxDOT-LPA Right of Way Contracts - Right of Way Sub-process Activity III (b)

- Participants

1. Local Public Agency (LPA)
2. TxDOT Right of Way Representative
3. TxDOT ROW Division

- Objectives

1. To establish cost participation and work responsibilities between TxDOT and LPAs.
2. Satisfy prerequisites to secure right of way project release on Non-Federal-aid projects.

- Activity Narrative

1. It is necessary to determine the authorization for the proposed adjustment of utility facilities to decide how to proceed in obtaining approval of Utility Adjustment Agreements. It is also necessary to confirm that the LPAs will transfer responsibility to TxDOT for acquisition of right of way and utility adjustments, and/or if you have contractual documentation of LPA participation in eligible costs before you start the process of preparing an agreement assembly.
2. When there is Federal-Aid in right of way, inclusive of utility costs, the FHWA Letter of Authorization (see "Federal Project Authorization and Agreement (FPAA)- Right of Way Sub-process Activity III (a)") is FHWA's authorization for TxDOT to assume total oversight of the utility adjustment process.
3. When there is no federal cost participation in right of way, inclusive of utility adjustments, contractual agreements with LPA participants are required. The execution of contractual agreements establishes responsibilities for acquisition of right of way, adjustment of utilities and cost sharing between the LPA(s) and TxDOT. The type of contract to be used is determined by whether the LPA desires to administer right of way activities and payments or defer those responsibilities to TxDOT. There are two general types of contractual agreements as follows:
    - On non-Federal-Aid right of way projects when the LPA administers the payments to utility entities, it is also necessary to execute an Agreement for Right of Way Procurement. This agreement allows the LPA to assume oversight of the utility adjustment payment pro-

cess. In return, TxDOT will reimburse the LPA the agreed percentage of actual eligible expenditures.

- On non-Federal-Aid right of way projects where TxDOT is to administer the payments to utility entities, it is necessary to execute an Agreement to Contribute Funds, with the LPA. This agreement is the LPA's assignment to TxDOT of the responsibility to oversee the utility adjustment and payment process. In return, the LPA will escrow to TxDOT the agreed percentage of cost participation based on the right of way project estimate and amendments thereto.

It is the responsibility of the TxDOT Right of Way Representative, in cooperation with the LPA, to determine and prepare the appropriate agreement for execution. The execution of this agreement by the LPA and TxDOT is a prerequisite for establishment and release of a right of way project. The type of contract selected, as it relates to utility adjustments will dictate the path to follow in Right of Way Sub-process Activity VI (see "LPA Agreement to Contribute Funds - Right of Way Sub-process Activity VI.")

Right of Way Release - Right of Way Sub-process Activity IV

◆ Participants

1. TxDOT Right of Way Representative
2. TxDOT ROW Division
3. TxDOT Finance Division

◆ Objectives

1. Authorize right of way acquisition and utility adjustment activities.
2. Notice to TxDOT Finance Division for right of way funds authorization.

◆ Activity Narrative

1. The Right of Way Release is the authorization by the TxDOT ROW Program Office for the District to begin right of way project activities. The Right of Way Release is a prerequisite to subsequent Right of Way Sub-process activities required to authorize reimbursable utility adjustments. It also acts as a notice to the TxDOT Finance Division to issue fund authorization. The request for Right of Way Release will be initiated by District Right of Way and must be accompanied by a statement that the District is prepared to start the work. The release is conditioned upon completion of the following requirements:
   - right of way map approval
   - Relocation plan
   - Rodent control documentation
   - Right of way project cost estimate
   - Environmental release

- Executed contractual agreement, with funding if applicable.

Alternate Procedure Approval from FHWA - Right of Way Sub-process Activity V

◆ Participants

1. TxDOT Utility Liaison
2. TxDOT ROW Program Office
3. Federal Highway Administration (FHWA)

◆ Objectives

1. Authorize TxDOT to act in the relative position of the FHWA.
2. Identify affected utilities, locations, and estimated costs.

◆ Activity Narrative

1. Where there is Federal-Aid in right of way, inclusive of utility costs, the Alternate Procedure Approval is FHWA authorization for TxDOT to assume total oversight of the utility adjustment process.
2. Necessary information for the Alternate Procedure Approval will include the utility name(s), locations of existing facilities by station number and estimated cost of adjustment(s) by utility.
3. Alternate Procedure Approval may be requested concurrently with the FHWA Letter of Authorization (Sub-process Activity III (a) (see "Federal Project Authorization and Agreement (FPAA)- Right of Way Sub-process Activity III (a)".)

LPA Agreement to Contribute Funds - Right of Way Sub-process Activity VI

◆ Participants

1. Local Public Agency (LPA)
2. TxDOT Right of Way Representative
3. TxDOT ROW Program Office

◆ Objectives

1. Confirm LPA's transfer of responsibility to TxDOT for acquisition of right of way and Utility Adjustments.
2. Confirm contractual documentation of LPA participation in eligible costs.

◆ Activity Narrative

1. On non-Federal-Aid right of way projects when TxDOT is to administer the payments to utilities, it is necessary to execute an Agreement to Contribute Funds, with the LPA. This agreement is the LPA's assignment to TxDOT of the responsibility to oversee the utility adjustment and payment process. In return, the LPA will escrow to TxDOT the agreed percentage of

cost participation based on the right of way project estimate and amendments thereto. This agreement would have been executed under Right of Way Sub-process Activity IIIb, TxDOT-LPA Right of Way Contracts (see "TxDOT-LPA Right of Way Contracts - Right of Way Sub-process Activity III (b)").

Request for Determination of Eligibility - Right of Way Sub-process Activity VII

(Also, refer to Right of Way Sub-process Activity XII)

- Participants

1. Local Public Agency (LPA)
2. TxDOT Utility Liaison
3. TxDOT ROW Program Office

- Objectives

1. Validation of reimbursement eligibility and determination of ratio.
2. Minimize LPA risk of authorizing utility work deemed non-reimbursable by TxDOT.

- Activity Narrative

1. At their option, the LPA may request that TxDOT provide an advance determination of reimbursement eligibility. Before the LPA makes commitments to utilities, TxDOT will confirm eligibility and establish the ratio that will be used for reimbursement to the LPA.
2. The District will review the preliminary plans and estimates regarding the scope and economics of the proposed adjustment, extent of eligibility in respect to compensable interests held by the utility, eligibility of items reflected in the estimate, UAR, betterment, and other matters in order to ensure that a definite understanding is reached concerning the proposed adjustment.
3. If the LPA chooses not to request this early determination of eligibility, then the amount of reimbursement to the LPA will not be determined until the work is completed and the LPA has been billed by the utility. Failure to exercise this option presents an element of risk, in that all costs incurred may not be included in the final determination of the upper limit of TxDOT cost participation and therefore would not be reimbursable. For this reason, TxDOT encourages the LPA to avail itself of the option to request a determination of eligibility.
4. This request must be submitted **before** work is authorized by the LPA.

District Approves Utility Consultant Contract - Right of Way Sub-process Activity VIII

- Participants

1. Utility Representative
2. Utility Consultant

3. TxDOT Utility Liaison

◆ Objectives

- TxDOT pre-approval of utility design consultant contract and scope of reimbursable services.

◆ Activity Narrative

1. The review and approval of the utility consultant contract is a TxDOT District responsibility. This should be a comprehensive review to include:
   - Justification of need for service
   - Qualifications of the consultant
   - Scope of services to be performed
   - Fee structure
2. Typically, there will be no further review of this contract. It is imperative, therefore, that the review complies with the provisions stated in this manual.
3. Consideration should be given to continuing contracts that the utility may have with a consultant.
4. Typically, the Utility Consultant Contract Approval will take the form of a letter to the utility from the TxDOT Utility Section.

Prepare Utility Adjustment Assembly for Approval - Right of Way Sub-process Activity IX

◆ Participants

1. Utility Representative
2. TxDOT Utility Liaison

◆ Objectives

1. To compile a complete assembly of documentation for TxDOT approval of reimbursable utility adjustments.
2. To identify and establish compensable interests, reimbursement eligibility, betterment, UAR compliance and scope of utility work.
3. Secure documentation of the future relationship for joint use of TxDOT right of way by utilities.

◆ Activity Narrative

1. The Standard Utility Agreement Assembly will be compiled by means of cooperative effort exerted by the District Utility liaison and the utility representatives. The goals of a Utility Agreement Assembly are as follows:
   - To compile a complete assembly of documentation for TxDOT approval of reimbursable utility adjustments. Payments for eligible adjustments cannot be made before approval by TxDOT of a completed and fully executed Utility Agreement.

     If an adjustment will not be eligible for cost participation by TxDOT, effort should be made to assist the utility through information concerning grades, scope of project, help with UAR compliance and funding alternatives such as the State Infrastructure Bank.
   - To identify and establish property interests, reimbursement eligibility, betterment, UAR compliance, and scope of utility work. The agreement assembly must be in sufficient detail to allow reviewers to easily understand whether improvements to existing facilities are the result of the utility's desire to improve their facilities or if obsolescence of material or the design of the proposed project caused them.
   - Secure documentation of the future relationship for joint use of TxDOT right of way by utility entities. The property interests defined to establish eligibility must be reviewed to determine if the utility can be allowed to continue to occupy their existing location, if their rights can be shifted within the limits of the project or if it will be necessary to quitclaim their interests to the State. TxDOT's *Utility Joint Use Agreement* form establishes the relationship between the utility entity and TxDOT where they will continue to occupy common right of way after the adjustment.
2. The standard utility adjustment assembly consists of:
   - The appropriate *Standard Utility Agreement* form
   - Itemized estimate
   - Detailed utility plans in support of estimate and sufficient for joint use purpose.
   - Appropriate property ownership form, if required
   - Statement covering contract work, if applicable
   - *Utility Joint Use Agreement* form, if applicable
   - Statements of work scheduling
   - Statement of location of records and availability of records for audit
   - Statement listing components of overhead rates
   - Betterment analysis
   - Additional documentation, as appropriate.
3. TxDOT's promulgated joint-use form establishes the relationship between the utility and TxDOT where they continue to occupy common right of way after the adjustment. These forms must be completed according to instructions.

4. Eligibility ratios, UAR compliance, and scope of work will be adequately defined by the detailed plans submitted as part of the Utility Agreement Assembly.
5. Betterment and compensable interests will be determined and supported by additional documentation as appropriate.
6. The following is a current listing of forms used in conjunction with the Utility Agreement Assembly:

- Affidavit of Compensable Interest, as appropriate:
  - ROW-U-Affidavit (for Utility Owner)
  - ROW-U-Affidavit (for Disinterested Party)
  - ROW-U-Affidavit (for Property Owner)
- Standard Utility Agreement ROW-U-35 Standard Utility Agreement
- Utility Joint Use Agreement ROW-U-JUA Utility Joint Use Agreement
- ROW-U-48 Statement Covering Utility Construction Contract Work
- ROW-U-139 Indemnity Agreement for Fiber Optic Facility
- ROW-U-139A Master Indemnity Agreement for Fiber Optic Facility

Perform Utility Adjustment - Right of Way Sub-process Activity XI

- Participants

1. Utility Construction Representative
2. Utility Construction Inspector
3. TxDOT Construction Contractor
4. TxDOT Project Construction Engineer
5. TxDOT Utility Liaison

- Objectives

1. Accomplish the adjustment to utility facilities in an efficient and timely manner.
2. Coordinate the adjustment of utility facilities with the development, scheduling and performance of the TxDOT construction contract.

- Activity Narrative
  - With particular emphasis placed on the proper documentation of material, labor, and equipment incorporated in the work, it is important that both TxDOT and the utility provide for proper inspection. This will also ensure compliance with the UAR. The TxDOT Utility Liaison will be responsible for assuring that adequate communication and coordination occurs between the appropriate participants to accomplish the adjustment and documentation in a competent manner.

Determination of Upper Limit - Right of Way Sub-process Activity XII

(Also, refer to Right of Way Sub-process Activity VII)

- Participants

1. Local Public Agency (LPA)
2. TxDOT Right of Way Representative
3. TxDOT ROW Program Office

- Objectives

1. Validation of reimbursement eligibility and determination of ratio.
2. Determine the upper monetary limit of TxDOT cost participation.
3. Minimize LPA risk of payment for utility work deemed non-reimbursable by the State.

- Activity Narrative

1. When utility adjustments are administered by the LPA under the terms of the Contractual Agreement for Right of Way Procurement (Local Government), a Determination of Upper Limit must be made to establish the extent of TxDOT cost participation before payment.
2. The LPA initiates the request for TxDOT to provide a determination of the upper monetary limit. Before the LPA makes payment to the utilities, TxDOT will confirm reimbursement eligibility, establish the eligibility ratio, and set the upper monetary limit that will be used for reimbursement of utility costs paid by the LPA.
3. The District will review the plans and utility billing with reference to the scope, necessity and economy of the utility adjustment, compensable interests held by the utility, eligibility of items reflected in the billing, UAR, betterment, and other matters that may be necessary in order to ensure that a definite understanding is reached concerning the determined limit of TxDOT cost participation.
4. If the LPA previously opted to use a Request for Determination of Eligibility (Right of Way Sub-process Activity VII), then many of these prepayment requirements would have already been completed during that determination.
5. This request is submitted after adjustment work is complete.

Utility Payment Process - Right of Way Sub-process Activity XIII

- Participants

1. LPA
2. Utility Representative
3. TxDOT Utility Liaison
4. TxDOT Utility Portfolio Section Audit

5. TxDOT ROW Program Office
6. TxDOT Finance Division
7. State Comptroller

◆ Objectives

1. Reimbursement of eligible utility adjustment costs.
2. Minimize citations of ineligible costs.

◆ Activity Narrative

1. TxDOT utility cost participation is founded in the concept of just compensation being provided in return for the acquisition of real property interests. Payment by TxDOT for eligible utility adjustment costs will be made to the utility except when reimbursement is made to the LPA under the terms of the Contractual Agreement for Right of Way Procurement (Local Government). When payment is requested by the LPA, certification and appropriate documentation is required to indicate that they have made the appropriate reimbursement to the utility.
2. Utility billings should be prepared and submitted in a format that is compatible with the approved estimate and in sufficient detail for analysis and documentation. The utility billing should follow the order of items in the estimate as closely as possible. The totals for labor, overhead, construction cost, travel, transportation, equipment, materials, supplies or other services will be shown in such a manner regarding permit comparison with the approved estimate. The billing will set out the approved eligibility ratio, appropriate credits and the correct Personal Identification Number (PIN), including the mail code for payment delivery.
3. Payments are made commensurate with work performed. A variety of payment methods are available which include monthly partials, pre-approved lump sum or a single final billing upon completion of work. Partial payments may be made as frequently as each month, in an amount not to exceed 90% of the approved estimated cost of work completed to date. Lump sum will be one payment of the amount stated in the approved utility adjustment assembly and is not subject to audit. Payment is most frequently based on a single final billing submitted upon completion of the utility work. This payment is subject to 10% retention pending completion of a TxDOT audit. All payment requests shall be accompanied by supporting documentation.
4. Final billing will not be processed until compensable interest issues are resolved and documented through the use of Utility Joint Use Agreement, Quitclaim Deed, Release of Easement or Subordination of Mineral Lease as applicable.
5. The utility will provide a final bill within one year following completion of the utility work, otherwise previous payments may be considered final.
6. The following is a current listing of the forms used in conjunction with the Utility Payment Process:
   - ROW-N-30 Quitclaim
   - ROW-N-85 Subordination of Mineral Lease (Noncontrolled Access)

- ROW-N-88 Subordination of Mineral Lease (Controlled Access)
- ROW-N-17 Release of Easement
- Utility Joint Use Agreement ROW-U-JUA Utility Joint Use Agreement
- Utility Permit Form 1082 Utility Installation Request.

Section 3 — Memorandums of Understanding (MOU)

Overview

Development of MOUs will aid in developing a partnering atmosphere between the Districts and their counterparts in the utility industry. Partnering will promote and encourage empowerment at the District level by building confidence among participants so that the goals of the UAR and this *ROW Utilities Manual* are being met locally.

The Utility Memorandum of Understanding (MOU) is a non-binding, voluntary instrument that documents the relationship between a utility and TxDOT. The purpose of the MOU is to educate both parties concerning their roles and responsibilities necessary to achieve effective coordination of highway utility activities.

The utility accommodation and adjustment process will be enhanced by:

- The development and maintenance of effective working relationships between TxDOT and the utility industry.
- Mutual commitment by both parties to cooperation during highway utility activities.
- Improved understanding of the parameters that control each party's activities.
- Advance agreement on procedures and responsible participants for performance of highway-utility activities.
- Establishment of a Utility Coordination Steering Committee to provide executive level commitment and strategic direction.

There is no expiration date or duration associated with the MOU; however, as conditions or participants change, or with a significant passage of time, an updated MOU may be used to renew commitments or to reeducate the participants.

The success of the MOU is evidenced by cooperative and productive relationships between TxDOT and the utility industry.

The Instructional Guide for the Utility Memorandum of Understanding provides direction for the development and appropriate use of the MOU.

Form ROW-U-MOU1 Utility Memorandum of Understanding - for use with Utility Entities contains the basic information necessary for a foundation document and may be modified as required to address local conditions. The District Director of Transportation Planning and Development (TP&D) is responsible for preparation and implementation of the MOU. Involvement with as many utilities as possible is encouraged, especially all major local utility providers.

Form ROW-U-MOU2 Utility Memorandum of Understanding - for use with Utility Industry Associations is for execution between TxDOT and utility trade associations. The trade association MOU will be executed on behalf of TxDOT by the ROW Division Director and by the Executive Directors of the trade associations as noted in the Instructional Guide. The following is a representative list of utility trade associations.

- Texas Cable TV Association
- Texas Electric Cooperatives, Inc.
- Texas Gas Association
- Texas Public Power Association
- Texas Rural Water Association
- Texas Telephone Association
- Texas Water Utilities Association
- Association of Electric Companies of Texas
- Association of Texas Intrastate Natural Gas Pipelines
- and others

Instructional Guide for the Utility Memorandum of Understanding

The Utility Memorandum of Understanding (MOU) is a **voluntary, non-binding** document between TxDOT and a utility partner. The intent of the document is to clarify responsibilities and duties of both parties in the pursuit of an effective cooperative relationship. As a District implements “The Process," it is suggested that the MOU be used to:

- Make a symbolic pledge for commitment to cooperation.
- Introduce “The Process” to new participants.
- Educate utility companies in TxDOT procedures.
- Renew or reinforce utility liaison.
- Establish partnerships with major utility service providers.

The sample MOU that accompanies these instructions is a foundation document upon which to build. The information included in the foundation document is essential and should be retained in the final instrument prepared by the District. Preparation of the MOU will be the responsibility of the District Director of TP&D. The MOU may be tailored to address the individual needs of each utility service provider and Districts may exercise the flexibility to include additional provisions to address Local conditions as appropriate. An MOU should be developed with each major utility service provider or group of utility service providers with the goal of maximum utility industry participation.

NOTE: There is a similar Memorandum of Understanding for execution between TxDOT and utility trade associations. This instructional guide is applicable for those MOUs, excluding the portions that pertain to formation of the Steering Committee and the signatory authorities. The ROW Division Director for TxDOT and the Executive Director of the trade association will execute the MOUs with the trade associations.

MOU-Introduction Section

The introduction section of the MOU is intended to make an explicit statement of the established authorities for the TxDOT and Utility joint use of public right of way. It is important to understand that TxDOT is legally mandated to accommodate utility facilities on TxDOT right of way by virtue of the following Texas statutes, which establish these rights.

- Local Government Code Sections:
  - 402.103, Rights of Water Corporation Providing Service to Municipality; Eminent Domain
  - 402.104, Location of Water Lines Outside Municipal Boundaries
- Natural Resources Code Sections:
  - 111.001, Definitions
  - 111.002, Common Carriers
  - 111.020, Pipeline on Public Stream or Highway
- Transportation Code Sections:
  - 202.029, Rights of Public Utility or Common Carrier
  - 202.092, Use of Department Facilities (for telecommunication facilities)
  - 203.092, Reimbursement for Relocation of Utility Facilities
  - 203.0921, Department Relocation of Utility Facilities for Essential Highway Improvement
- Utilities Code Sections:
  - 162.001-162.304, Telephone Cooperative Act
  - 181.004-181.005, Gas, Electric Current, & Power Corporations
  - 181.021-181.026, Use of Roads and Streets in Distribution of Gas
  - 181.041-181.047, Electric Cooperatives and Corporations
  - 181.081, Use of Public Ways
  - 181.101-181.104, Provisions Applicable to Antenna & Cable TV
- Water Code Sections:
  - 11.044, Roads and Highways
  - 53.111, Right of Way Across Roads

- 53.112, Use of Roadways
- 56.121, Road Culverts
- 56.122, Constructing Bridges and Culverts in Certain Counties

MOU-The TxDOT-Utility Cooperative Management Process Section

This section of the Utility MOU is intended to introduce "The Process" and exact a commitment from the parties for the investment of resources required to accomplish the desired results.

MOU-Standards for Installation Section

The statutory authority for utilities to occupy highway right of way is subject to compatibility of their facilities with the safe design, operation and maintenance of the highway facility. The vehicle for accomplishing this TxDOT oversight function is the TxDOT UAR. While the codified policies and procedures of the TxDOT UAR carry the force and effect of law, the flexibility and required procedures for consideration and possible approval of exceptions to policy are included under 43 Texas Administrative Code (TAC) Section 21.35, Exceptions. The request for an exception to policy will include comprehensive documentation of the circumstances and the rationale, which justifies its need. Exception requests are initiated in the Districts and forwarded with the required justification and District recommendation to the ROW Program Office for consideration. The need for an exception to policy should be identified and submitted as early as possible in "The Process."

The TxDOT UAR refers to various industry standards and other legal requirements. Utility installations will conform to these standards when the requirements exceed, or are more restrictive than those of the TxDOT UAR. The following is a representative listing of these industry and legal standards:

- AASHTO, "A Policy on the Accommodations of Utilities Within Freeway Right of Way"
- AASHTO, "A Guide to the Accommodations of Utilities Within Highway Right of Way"
- American Society for Testing and Materials (ASTM) Specifications
- Safety Rules for the Installation and Maintenance of Electrical Supply and Communication Lines - National Electric Safety Code
- Texas Manual on Uniform Traffic Control Devices
- 23CFR Parts 645 A&B, Utilities
- 49CFR 192, Transportation of Natural and Other Gas by Pipeline Minimum Federal Safety Standards and Amendments
- 49CFR 195, Transportation of Liquids by Pipelines and Amendments
- 30TAC, Sections 290.38-290.47, Rules & Regulations for Public Water Systems.

MOU-Construction and Financial Considerations Section

The utilities are responsible for accomplishing the design and adjustment of utility facilities regardless of the construction method selected. The following methods may be utilized as appropriate.

- Where the work is performed independently by each utility with its own or contracted forces.
- A cooperative joint venture among two or more utilities for the collective performance of the work. One utility compensating another for performing the work or two or more companies retaining a common contractor may accomplish this.
- By mutual consent of TxDOT and the utility(ies), utility adjustments may be included in the highway contract. The decision to exercise this option must be made as early as possible in "The Process" and must include consideration of the following:
  - The utility adjustment design information, itemized estimate, special provisions, and specifications for constructing the utility adjustments will be included in the TxDOT contract documents.
  - TxDOT will be responsible for preparing, letting, awarding and administering the contract. Specific duties, responsibilities, and authorities concerning the inspection and acceptance of the work must be clearly defined by TxDOT in cooperation with the utility in advance of the contract letting date.
  - The TxDOT Project Construction Engineer in coordination with the Utility Construction Representative will promptly address change orders or disputes that arise and affect the utility adjustment. The intent is to resolve the construction issues or disputes at the earliest possible time to avoid escalation of costs and delay to the work completion.
  - When reimbursable utility work is included in the TxDOT contract, it must be authorized by the preparation and approval of a Utility Agreement Assembly. This assembly will be prepared by the appropriate parties.
  - When wholly or partially ineligible utility work is included in the TxDOT contract, an AFA as part of the Utility Agreement will be required. Ineligible work would include non-reimbursable betterments, utility adjustments without compensable interests or utility adjustments with partial compensable interests. Requests for AFAs should be initiated by the TxDOT Project Design Engineer and the Utility Liaison, and included in the PS&E submission. The AFAs will then be processed in the Design, Finance, and General Services Divisions.

Utilities may be eligible for State cost participation on their facility adjustments. The "eligibility ratio" is the relationship between real property interest held within the proposed highway right of way and the total highway right of way occupied by the utility facility. Determination of this eligibility ratio will be made by Right of Way personnel subject to approval by the ROW Program Office. An exception to this determination of eligibility exists for the Interstate Highway System on which utility adjustments are normally 100% reimbursable or Toll Projects.

Utilities may elect to upgrade their facilities in conjunction with adjustments for highways. Cost of these facility betterments performed at the option of the utility will be borne by them. Betterments caused directly by the highway project or by the implementation of updated industry standards will be eligible for reimbursement.

The value of all salvage materials on reimbursable adjustments must be credited to TxDOT.

MOU-Utility Coordination Steering Committee Section

The Utility Coordination Steering Committee is intended to provide executive-level strategic direction and commitment to the TxDOT-Utility Cooperative Management Process by both TxDOT and the local utility industry. The TxDOT District Director of TP&D or a higher level TxDOT individual will chair the Steering Committee. Membership should include similar executive level representatives of the Local major providers of basic utility services (e.g., water, sewer, gas, electric, and telecommunications). The chairperson of the committee will be responsible for including additional TxDOT and utility participation as appropriate.

The Steering Committee will focus on issues of interagency coordination and delegation of the appropriate authority to empower decision-making at the operational level in order to maintain continuous improvement of "The Process."

MOU-Conclusions and Endorsements Section

Execution by the District Engineer for TxDOT and by a comparable level executive for the utility is important to maximize the effectiveness of the MOU.

Chapter 3 — References for Utility Accommodation

Contents:

Section 1 — Introduction

Section 2 — Federal Codes and Regulations

Section 3 — Texas Codes and Regulations

Section 4 — Related Policies and Guidance

Section 1 — Introduction

Legal Requirement Categories

Most actions needed for utility adjustments are governed by various legal requirements. These requirements can be categorized as follows:

- **Statutes.** Statutes often require the Federal or State agency to establish rules and regulations to carry out the intent of the legislation. These rules and regulations are published in either the Federal Register (for Federal agencies) or the Texas Register (for Texas agencies). The published and adopted rules are commonly referred to as "Administrative Law."
- **Administrative Law.** Administrative laws have the force and effect of law. The Code of Federal Regulations (CFR) contains the Federal Government's administrative law. The Texas Administrative Code (TAC) contains the State of Texas' administrative law. The appropriate sections of these codes form the basic rules for adjusting and accommodating utilities on transportation projects.
- **Minute Orders.** While they do not have the force and effect of law, Minute Orders (MO) of the Texas Transportation Commission (TTC) and policy statements of TxDOT have an impact on the actions to handle utility adjustments. Some of the MOs reinforce established laws or requirements, while others establish policies.
- **Court Cases.**

The adjustment and accommodation of utility facilities on the State highway system, and reimbursement for the costs of such work, will be in accordance with the provisions of:

- Federal codes and regulations
- Texas codes and regulations
- Texas Transportation Commission Minute Orders
- TxDOT policies.

It should be noted that TxDOT policy on utility adjustments is generally more restrictive than the Federal regulations.

Section 2 — Federal Codes and Regulations

United States Code (USC)

The USC contains the laws of the United States of America. These laws, among other laws, set out the responsibilities of the FHWA, which has oversight authority on transportation projects to carry out requirements of Federal law. 23USC 123 relates to Federal-aid for highways and includes utility adjustments.

Code of Federal Regulations (CFR)

The CFR is a codification of rules published in the Federal Register Regulations, policies, and practices dealing with utility relocation and accommodation matters are found primarily in 23CFR 1.G.645, Subparts A and B. Requirements of 23CFR 645 form the nucleus of both State and LPA utility adjustments.

- Subpart A deals with utility relocation, adjustment, and reimbursements.
- Subpart B deals with accommodation of utilities.

For other special information, refer to:

- The Pipeline Safety Act, 49CFR, Chaps. 192 and 195.
- The Office of Pipeline Safety.

National Electric Code (NEC)

The NEC is a nationally accepted guide to the safe installation of electric wiring and equipment, and is widely used as the basis of laws and regulations. The Occupational Safety and Health Administration (OSHA) borrowed extensively from the NEC in developing Design Safety Standards for Electrical Installations.

This standard is now Federal law.

National Electrical Safety Code (NESC)

The NESC was developed for safeguarding people during installation, operation, and maintenance of electrical supply and communications lines. It also covers equipment and associated work practices employed by:

- public or private electrical suppliers,
- communications,

- railways, and similar utilities in the exercise of their operations.

NOTE: It is not necessary for TxDOT personnel to have extensive knowledge of NEC or NESC requirements. However, where applicable, utilities must comply with these requirements.

Electric Deregulation Act

This Act requires the electric industry to restructure its operations. It also allows community-owned utilities and member-owned cooperatives to choose whether they will compete with investor-owned utilities.

This Act can impact transportation projects. As these electric utilities break up into multiple companies, the number of entities involved in a transportation project may increase. Therefore, it is important to identify each of the parties early in transportation project development and include them in "The Process." This also applies to the Telecommunications Deregulation Act.

The Public Utility Commission (PUC) is the state agency responsible for regulating electric and telecommunication utilities in Texas. The PUC regulates the delivery of electricity and has limited regulatory authority over retail electric providers.

Buy America (FHWA, USC)

Buy America provisions are set forth in both the USC and CFR, and are implemented by the FHWA and TxDOT. The Buy America stipulations are applicable to contracts eligible for Federal-Aid funding. Therefore, any utility work that is accomplished as a result of such contracts cannot be excluded from Buy America provisions. The FHWA Buy America statutory provisions are in 23USC 313 and the regulatory provisions are in 23CFR 635.410. The following links provide additional information regarding Buy America requirements:

- Additional Guidance on 23 CFR 635D
- Buy America Waiver Request
- FHWA's Buy America Q and A
- TxDOT Buy America Overview - Construction Manual
- TxDOT Guidance Memo

Section 3 — Texas Codes and Regulations

Texas Administrative Code (TAC)

The TAC contains the rules and regulations adopted by Texas government agencies. The rules are codified within the TAC and have the force and effect of law. 43TAC, Part 1 affects TxDOT operations. It is necessary to be familiar with the applicable parts and sections of 43TAC.

Two significant issues dealt with in the TAC are:

- Utility Agreements (43TAC Sections 21.21 through 21.24) states that the following will be in accordance with a written agreement between the State and the utility or LPA, whichever is applicable:
  - adjustment;
  - relocation;
  - removal of utility facilities on the State highway system; and
  - reimbursement for the costs of the work.
- Utility Accommodation Rules (UAR) defines the **minimum** standards for the installation, adjustment, and maintenance of utility facilities within a transportation project or new utility installations. According to 23CFR Part G, Section 645.215,TxDOT is required to submit its UAR for approval by the FHWA, which has approved it. The UAR is contained in 43TAC Sections 21.31 through 21.56, and is more restrictive than the CFR.

In addition to 43TAC, the user should also reference:

- 16TAC, Part 1, Chapter 2, Subchapter B, Section 7.07, regarding utility pipelines, and the Texas Railroad Commission regulations on pipeline safety.
- 30TAC Sections 290.38 through 290.49 (public water systems), regarding the Texas Commission on Environmental Quality (TCEQ) rules and regulations.

Transportation Code

The Transportation Code (Texas Civil Statutes, Titles 1 through 4, 6 and 7) is a compilation of general laws, some of which cover utility empowerments to occupy right of way. Users of this manual should familiarize themselves with the following pertinent citations:

- Surplus Property: Transportation Code, Section 202.029.
- Telecommunication Use of Departmental Facilities: Transportation Code, Sections 202.091 through 202.095.
- Reimbursement for Adjustment of Utility Facilities: Transportation Code, Section 203.092.

- Timely Relocations: Transportation Code, Section 203.092 and Section 203.094.
- Reimbursement from State Highway Fund: Transportation Code, Section 203.092 and Section 203.093 authorize reimbursement of the cost of adjustment of the utility facility from the State Highway Fund.
- Iron and Steel Preference Provisions in Improvement Contracts: Transportation Code, Section 223.045.
- State Infrastructure Bank (SIB): Transportation Code, Section 222.072.
- Right of Way Cost: Transportation Code, Section 224.008.
- Right of Way Accommodation for Broadband-only Providers: Transportation Code,Section 250.002.

Utilities Code

The Utilities Code is a compilation of a wide range of subjects affecting utilities. The Utilities Code includes four titles:

- Title 1 - General Provisions
- Title 2 - Public Utility Regulatory Act
- Title 3 - Gas Regulation
- Title 4 - Delivery of Utility Services

This Code includes many provisions allowing joint use of right of way by utilities:

- Utilities Code, Title 4, Section 162.122 for telephone cooperatives
- Utilities Code, Title 4, Section 181.005 and Section 181.022 for gas
- Utilities Code, Title 4, Section 181.042 for electric
- Utilities Code, Title 4, Section 181.082 for telephone and telephony
- Utilities Code, Title 4, Section 181.102 for cable television (CATV)

The Utilities Code contains the mandated minimum clearances of telecommunication and electric lines over roadways. Excavation operations that may damage underground facilities are included in Utilities Code Section 251.153, commonly referred to as One Call.

Local Government Code

The Local Government Code, Title 13, Section 402.104, also contains provisions allowing joint use of right of way for water utility companies.

Water Code

The Water Code consists of five titles, which cover design, installation, easements, environmental impacts, and separation between potable water lines and sewer lines:

- Title 1 - General Provisions
- Title 2 - State Water Administration
- Title 3 - River Compacts
- Title 4 - General Law Districts
- Title 5 - Special Law Districts

Also, refer to the Texas Commission on Environmental Quality (TCEQ) website regarding water hygiene.

Natural Resources Code

The Natural Resources Code is a compilation into one code of the Texas Statutes relating to natural resources. The Chapter most applicable to this manual is Natural Resources Code, Chapter 111,

Common Carriers, Public Utilities and Common Purchasers. This Chapter states that common carriers are entitled to lay, maintain, and operate their pipelines along, across, or under any public stream or highway in this State. This entitlement includes any telegraph or telephone lines that are incidental to, and used only in connection with, the operation of the pipelines. To be considered a common carrier, an entity must submit Form T4, Application for Permit to Operate a Pipeline in Texas, and receive an approved Form T4A, Permit to Operate a Pipeline in Texas, with the Texas Railroad Commission. Therefore, when dealing with a pipeline on highway right of way, verification of common carrier status can be achieved by requesting a copy of the Texas Railroad Commission's certification granting such status. This verification should be accomplished as early in the utility adjustment process as possible due to its direct bearing on placement of the utility on right of way. The verification may be accomplished by:

- having on file an approved certificate from the Texas Railroad Commission previously requested from and furnished by the utility;
- determining if the ROW Division has on file an approved copy of the certification granting common carrier status;
- requesting from the utility an approved copy of the certification from the Texas Railroad Commission granting common carrier status; or
- other pertinent information that would substantiate their legal right.

Section 4 — Related Policies and Guidance

References

- American Association of State Highway and Transportation Officials' (AASHTO)
- A Policy on Geometric Design of Streets and Highways (2001), known as the "Green Book," emphasizes safety. Clear roadside policies and specific statements relating to the utility placement in right of way are contained in the "Green Book." TxDOT has incorporated these recommendations in its design manuals, to the extent possible.
  These policies and guidelines cover much more than just placement of utilities in highway right of way or clear zone areas. Some of the most important published AASHTO policies and guides are:
  - Guide for Accommodating Utilities within Highway Right of Way
  - A Policy on the Accommodation of Utilities within Freeway Right of Way
  - Roadside Design Guide (1996).
- FHWA Program Guide: Utility Relocations, Adjustments, and Accommodation on Federal-aid Highway Projects.
- This guide assists in administering Federal-aid highway programs that involve the use of Federal-aid highway funds for the relocation, adjustment, and the accommodation of utility facilities and private lines for Federal-aid highway projects. Contact FHWA for a printed copy of this guide.
- FHWA Highway/Utility Guide.
- This guide addresses planning, design, permits, construction, and maintenance of utility facilities. It provides the foundation for knowledge on the development, history, and evolution of highway and utility accommodation. This Guide is a critical tool for those involved in the highway utility accommodation field. Contact FHWA for a printed copy of this Guide.
  Note: These guidelines are generally used when Federal aid is not used on the project. Variations on these guidelines by the State will be more restrictive.
- General Utility and Empowerment Statutes
  - Telephone: Utilities Code, Section 181.082 states, "A telephone or telegraph corporation may install a facility of the corporation along, on, or across a public road, a public street, or public water in a manner that does not inconvenience the public in the use of the road, street, or water."
  - Water: Local Government Code, Section 402.103 (b), (Water & Utilities), states, "A water corporation may lay water system pipes, mains, or conductors through a street, alley, lane, or square of a municipality if the governing body of the municipality consents, subject to any regulation by the governing body."

- Gas: Utilities Code, Section 181.022, states, "A gas utility has the right to lay and maintain a gas facility through, under, along, across, or over a public highway, a public road, a public street or alley, or public water."
- Electric: Utilities Code, Section 181.042, states, "An electric utility has the right to construct, maintain, and operate lines over, under, across, on, or along a state highway, a county road, a municipal street or alley, or other public property in a municipality."

◆ Reimbursement and Compensable Rights: There are many laws, and policies that must be considered in making a determination regarding reimbursement. TxDOT must examine each situation to determine if the utility has a "compensable interest," defined as "a utility's interest in its current location that warrants reimbursement by TxDOT for the cost, or portion thereof, of relocating its facility."

Federal and State law establishes that if utilities have compensable interests, they may qualify for reimbursement of the cost of adjustment of their facilities when made necessary by highway construction. Utilities may also be eligible for reimbursement of the expense of obtaining replacement right of way for utility adjustments.

A compensable interest will generally fall into one of the following three categories:

◆ Constitutional Property Right – When the utility is located on right of way acquired in its name and used for utility purposes, this right of way can be held in fee simple, lease, or as an easement. The rights inherent in ownership of private property are protected by both the United States and Texas Constitutions.

◆ TxDOT Policy - TxDOT has acknowledged, through its actions and policies, situations where a compensable interest is recognized when no official documentation of the property right exists. This compensable interest is recognized for reimbursement of adjustment cost only; this does not include replacement right of way. While TxDOT may pay for the initial utility adjustment, future adjustments will be at the expense of the utility. TxDOT may recognize a compensable interest in the following situations:

- Texas Code - Transportation Code, Chapter 203, Section 203.092
- Texas Case law – May establish additional reimbursement rights including granting prescriptive easements.
- License Agreement – As an example, utilities will normally occupy railroad right of way under the terms of a license agreement between the utility and the railroad. Should the utility be required to adjust their facilities, consideration will be given for recognizing a compensable interest.
- Joint Use Agreement between Utility Companies – where a utility occupies the private easement of another utility, a compensable interest may be recognized.
- Utility Company – a utility company may have a compensable interest in its existing facility although a record easement does not exist, i.e., a prescriptive claim.

- Municipal Utilities in Public Right of Way – TxDOT may recognize a municipal utility's compensable interest if the municipal utility was in place before the highway facility was incorporated into the State Highway System.

Research on Eligibility

All evidence (including initial installations and any previous adjustments) concerning the presence of a utility at its current location must be examined by the utility and TxDOT to determine if a compensable interest exists, although the ultimate proof of a compensable interest rests solely with the utility. It is **strongly recommended** that the District discuss with the ROW Division the merits of each situation **before** advising the utility of any eligibility for reimbursement. The utility should also familiarize itself with the general requirements for compensation as set forth in Chapter 11, Section 1 - Invoicing and Payment Procedures of this manual.

Chapter 4 — Preliminary Planning

Contents:

Section 1 — District Utility Cooperative Process Meetings

Section 2 — Utility Location Investigations

Section 3 — Preliminary Utility Adjustment Funding Determinations

Section 4 — Initial Exchange of Design Data and Criterion

Section 5 — Requirements for LPA

Section 1 — District Utility Cooperative Process Meetings

General

Utility coordination meetings are held at the District level to:

- acquaint TxDOT and utilities with key personnel of each participant;
- inform interested parties of proposed projects and project needs;
- give sufficient notice for budgeting of proposed projects;
- involve utilities early in the project to accommodate design changes and minimize delays;
- minimize impacts on other participants; and
- educate TxDOT and utilities on regulations and industry standards.

Annual Transportation Improvement Program (TIP) Meeting

The District Director of Transportation Planning and Development (TP&D) is responsible for setting up and conducting an annual TIP meeting between TxDOT and utilities, to be held immediately after approval of the Statewide Transportation Improvement Program (STIP). The objectives of an annual TIP meeting are as follows:

- cooperatively discuss the STIP at the District level;
- provide a STIP project listing, with information presented in a utility friendly format; and
- examine projects from the utility's perspective to identify potential conflicts and impacts.

Before the meeting, prepare a chronological listing of the upcoming years proposed construction letting schedule for distribution to affected utilities. The project listing should be mailed with the meeting notification to all LPAs and utilities that might be affected by the project. The letting schedule list should be a cooperative TxDOT/utility effort and should be prepared with consideration of the following:

- TxDOT projects. Project lettings should be listed in chronological construction letting date order. Current yearly right of way budget is based on TxDOT's 3-year letting schedule. Individual District right of way projects and projected utility adjustments should be identified for inclusion in the right of way budget allocation process.
- Project information of particular interest to utilities, in a format that is clear and understandable to the public.
- Project categories without utility impacts should be eliminated from this customized listing. Some examples are:
  - landscaping;

- pavement markings; and
- maintenance contracts.

The annual TIP meeting provides a forum for discussion of the TxDOT construction schedule with affected utilities. The meeting should emphasize early awareness of major utility concerns associated with accommodating TxDOT construction. Early communication provides utilities the opportunity to plan budgets for upcoming construction, with consideration given to:

- utility budget cycles;
- construction schedules;
- procurement of materials and fabrication; and
- consumer service requirements.

The participants to be invited should include the:

- TxDOT District Director of TP&D
- TxDOT Area Engineers or their designee(s)
- TxDOT Right of Way Representative and/or LPA Coordinator
- TxDOT Utility Liaison
- TxDOT Environmental Representative
- Executives or engineers from affected utilities
- LPA representatives where projects are scheduled

Annual Meeting (Process Activity I)

Districts are strongly encouraged to host Annual Meetings with all known utilities operating within the District's boundaries.

Make utilities aware early of the accommodation issues associated with TxDOT construction. Early communication provides utilities the opportunity to plan budgets for upcoming construction and informs TxDOT planners of proposed utility construction in time to minimize costly adjustments and delays, and improve relations with utilities involved.

The District Engineer, along with Area Engineers, is responsible for scheduling annual meetings. Participants include the following:

- TxDOT District Engineer or designee;
- TxDOT District Director of TP&D;
- TxDOT Right of Way Representative and/or LPA Coordinator;
- TxDOT Utility Liaison;

- TxDOT Environmental Representative;
- Executives or engineers of **all** known utilities operating within the District;
- County Engineers or their representatives;
- FHWA Representative(s); and
- LPAs that may be involved in any proposed TxDOT project.

Schedule the meeting far enough in advance to allow time for participants to make plans to attend and submit items for the agenda. During the initial meeting, discuss potential follow up activities, as described in "The Process."

Utility Coordination Council Meetings

The existence of a Utility Coordination Council, meeting regularly to discuss upcoming utility projects, may already be established in large municipalities and in some Districts. TxDOT participation and attendance at such meetings is strongly encouraged. If no Utility Coordination Council exists in a District, TxDOT personnel are encouraged to actively suggest and assist in the formation of a Utility Coordination Council.

The council should accomplish and promote the following:

- better awareness of proposed construction activities of each participant;
- introductions of key personnel, and contact representatives, of each participant;
- a forum for resolution of conflicts between participants; and
- an opportunity for partnering in proposed construction.

Participants should include:

- Utilities
- LPAs
- Appropriate TxDOT District Administrative Management Personnel
- TxDOT District Right of Way Representative
- TxDOT Utility Liaison

Initial Project Notification Meeting (Process Activity II)

The objectives of the initial projection notification meeting are to:

- provide preliminary project description, scope and letting schedule to utilities;
- set a date for preliminary design meeting;

- identify TxDOT Project Design Engineer & TxDOT Design Consultant, if appropriate;
- request identities of utility contacts to be assigned to the TxDOT project;
- request block maps/mark ups, as built plans, or system drawings indicating utility facility locations and other features from utilities.

The District should invite all utilities that might be affected by construction, and provide each with one copy of the proposed preliminary schematic, the notification of project, the scope of project, the proposed let date, and the name of TxDOT contact person. All utilities should be encouraged to attend. This advance notification enables utilities to:

- plan for those changes that may be needed by the proposed construction, and
- make arrangements for adjusting their annual budgets and schedules to accommodate facility adjustment(s).

This activity in "The Process" could take the form of a project-specific letter of information prepared for distribution to all affected utilities. The letter should also include:

- A request for utility locations:
  - Attach a copy of the preliminary right of way map, schematic, or plan and profile sheets with all known locations of the utility's facilities indicated.
  - Request the utility to make any additions or corrections necessary to give an accurate account of the facilities to be encountered during construction. It is the utility's responsibility to establish the location.
  - Request the utility to promptly submit the block maps/mark ups, as-built plans, or system drawings to the District regarding any feasible design changes to insure compliance with the UAR.
- A request for determination of utility property interests:
  - The notification letter should also request that an indication be made on the right of way map of the approximate boundaries of easements or other interests in lands held by the utility along or on proposed highway right of way. Such information is necessary to estimate reimbursable costs.
- A request for the name of the utility representative with whom to coordinate:
  - Meet with or correspond with the designated official regarding a determination of utility facilities involved, effect of the proposed construction upon the facility, and exact nature and limits of the utility's property interests.
  - Make this preliminary contact as early as possible.

A copy of the UAR should accompany the letter.

The initial project notification will announce the time and location of the Preliminary Design Meeting. It should be sent out no less than two weeks (four to six weeks is reasonable) in advance to ensure full attendance and to allow adequate time for the utilities to compile requested information.

Preliminary Design Meeting (Process Activity III)

At the preliminary design meeting, TxDOT and utility's representatives should be introduced, along with any consultants that may be used in the design process. The Director of TP&D, or appropriate TxDOT District Administrative Management personnel, should open the meeting by describing:

- the proposed improvements, including such drainage facilities, typical sections, structures and other roadside features;
- right of way needs;
- PS&E development schedule;
- environmental clearance schedule;
- environmental impact;
- the anticipated letting schedule; and
- any other potential impacts on utilities.

Participants at the preliminary design meeting should include the following:

- TxDOT Project Design Engineer/Design Team
- Utilities
- TxDOT Design Consultant
- TxDOT Utility Liaison
- TxDOT Right of Way Representative
- TxDOT Advanced Project Development Engineer
- TxDOT Environmental Representative
- LPA Parties, as applicable

TxDOT's Utility Accommodation Rules (UAR) and reimbursement eligibility criteria should be explained at this time. TxDOT should also provide the following:

- The UAR may be found in Title 43, Chapter 21, Sub-chapter C in the Texas Administrative Code, which can be found online. Instruct participants of the meeting how to access the website.

- Reimbursement eligibility criteria. Briefly explain the need for proof of compensable interests and reasons for requesting further information from utilities to verify their reimbursable interests.
- The expected magnitude of impact. Identify, as early as possible, any conditions that might prevent compliance with the UAR and propose potential solutions.

An action plan for locating affected utility facilities can be developed after a determination has been made whether the field verification is to be accomplished jointly or independently. Concerns to be addressed in the action plan are as follows:

- The immediate need for horizontal and vertical alignment information on underground and overhead utilities. Special attention should be given to signs, bridges, noise walls, high mast lighting, footings, pilings, etc.
- Physical constraints affecting methods and equipment to be used in the field verification process, like:
  - access;
  - traffic control (comply with the Texas Manual of Uniform Traffic Control Devices) (TMUTCD); and
  - right of way restrictions.
- Anticipated utility adjustment schedules and response times of utility information providers.

As a result of the above discussion, a date will be identified for the Design Conference

Section 2 — Utility Location Investigations

General

Make certain that all utilities affected by the proposed project have been identified. Utility facilities that are overlooked may cause costly delays in the construction of the project and pose a danger to personnel and equipment.

The utilities must be furnished with a right of way map, schematic, and/or plan and profile sheets. They must mark the locations of their facilities on these documents and return them to the appropriate TxDOT representative. The information must be checked to ensure that all locations are marked. Some additional methods of verification are:

- Check District Utility Installation Request records
- Check existing Utility Joint Use Agreements from prior projects
- Use Texas 811 call location services. You may also visit the website http://www.texas811.org for further information.
- Use a Subsurface Utility Engineering (SUE) service.
  - Utility companies may be urged to consider SUE usage to determine critical or unknown locations of their facilities.
  - TxDOT design teams are encouraged to make use of SUE services to optimize design.
- Ask known utilities if they are aware of, and can identify, other utility service providers or facilities in the area.
- Perform a thorough on-site examination of the proposed project location by TxDOT personnel.

Section 3 — Preliminary Utility Adjustment Funding Determinations

Federal Utility Procedure (FUP)

PLEASE NOTE: Although Alternate Procedure has been used on **all** Federal-aid in right of way projects, regardless of the type of roadway, the term "Alternate Procedure" has been changed with the release of this manual to "Federal Utility Procedure", as it relates to the Sub-process of "The Process".

The term derives from 23CFR Section 645.119, Alternate Procedure, which allows a state transportation department "to act in the relative position of the FHWA for reviewing and approving the arrangements, fees, estimates, plans, agreements, and other related matters" including "all actions necessary to advance and complete all types of utility work", with certain exceptions; (refer to 23CFR Section 645.119, (b) (1), et seq).

The Federal Highway Administration (FHWA) implemented the Alternate Procedure per 23 CFR 645.119 in 1973, allowing TxDOT to maintain and operate the Utility Relocation Program across the State of Texas. FHWA Texas Division Office was still responsible to approve each Alternate Procedure request per project submitted by TxDOT. In 2014, FHWA modified the Stewardship and Oversight responsibilities of the Federal-Aid Program to a risk based approach known as Risk Based Stewardship and Oversight (RBSO). Under RBSO, the federal action of approving the Alternate Procedure for each project is now considered a State assumed activity. TxDOT performs this activity on behalf of FHWA and is responsible for all actions necessary to advance and complete all types of utility work for Federal-Aid Highway Projects on and off the National Highway System with the exceptions listed in 23 CFR 645.119(b). The FHWA Texas Division's Stewardship and Oversight (S&O) Agreement, *Attachment A-Project Action Responsibility Matrix* of the agreement, identifies three project specific actions delegated to TxDOT for the Utility Program:

- Approval of Utility Agreements
- Approval of Utility Force Account Work
- Approval of the Use of Consultants by Utility Companies

State Utility Procedure (SUP)

TxDOT has adopted an SUP that is, in general, consistent with Federal guidelines. The concentration of the SUP is primarily based on compensable interests. Requirements of the SUP are provided in Chapter 8, Section 6, State Utility Procedure.

Section 4 — Initial Exchange of Design Data and Criterion

General

The following should be part of initial exchange of design data or criterion:

- Furnish utility any information and design data required for adjustment planning at the Preliminary Design Meeting.
- After preliminary design of a highway project is complete and acquisition of right of way is authorized, furnish utility a segment of the approved schematic showing the preliminary plan and profile, including typical cross section data. This exchange may permit early utility adjustment work.
- In more complex situations, such as adjustment in interchange areas or installations influenced by design considerations or drainage facilities, furnish utility with more advanced and detailed data at a later design stage. Furnish preliminary design data to all utilities because of the value of this information in the tentative planning and design of a utility project.
- Since TxDOT cost participation is limited to the most economical method of adjusting the utility installation, the utility should determine the economical route and design of the proposed facility after consultation with the District Utility Liaison and, if needed, ROW Division Representatives, thereby ensuring conformance with planned highway improvements and the UAR.
- Encourage utilities to undertake an adjustment based on furnished advanced design information. Notify utility that if work is properly undertaken according to an approved agreement and a subsequent adjustment becomes necessary due to a revision of highway design requirements, the work would **not** be at the utility's expense.
- Betterment considerations may be resolved at this stage through engineering reviews.
- Early in the process, utilities need to select the most economical route based on highway right of way purchase; Chapter 7, Utility Cost Estimates, discusses this subject.
- If any of the following are anticipated, additional time should be included in the scheduling of the adjustment:
  - Condemnation of highway right of way by acquiring agency
  - Forced utility adjustment (self-help)
  - Utility replacement right of way
  - Seasonal factors
  - Uncooperative utilities
  - Utilities proven to be financially-challenged
  - Materials

- Utility corridor coordination activities

Section 5 — Requirements for LPA

Authority

TxDOT is required, by law, to reimburse LPAs for their share of right of way costs authorized and requested by TxDOT. TxDOT and the LPA designate the responsibility of each party through the use of an Agreement for Right of Way Procurement. The terms and conditions regarding the adjustment of utilities are stated on the agreement.

Procedure

When the LPA is the responsible agency and TxDOT participates, TxDOT will be responsible for oversight of the LPA within applicable Federal and State policies.

The LPA must provide documentation required assuring TxDOT that utility adjustment agreements are executed according to policy.

The District review and approval of the proposed adjustments by the LPA is necessary to determine eligibility, compliance, and a monetary cap to be encumbered for reimbursement to the LPA for their expenditures, if eligible.

The terms under the agreement prohibit TxDOT reimbursement for any adjustment where the utility facility is on publicly owned right of way by statutory right. Owners of these facilities should be given the option of either relocating on the new highway right of way (by Form 1082 Utility Installation Request) or relocating outside the new right of way limits.

When the LPA transfers the responsibility to relocate the utility to TxDOT, the appropriate contractual agreement form should be executed by TxDOT and the LPA, depending upon either of these two conditions:

- If a previous contractual agreement for right of way procurement was executed, use a Supplemental Agreement for Right of Way Procurement.
- If **no** previous contractual agreement for right of way procurement was executed, use an Agreement to Contribute Funds.

Under the SUP, the Standard Utility Agreement will also be executed for each individual utility.

A copy of the letter of initial notice sent to the utility at the preliminary coordination stage must be sent to the affected LPA for their use.

When the LPA is accepting the responsibility to relocate the utility, it is the LPA's responsibility to authorize the utility to make adjustments and to notify the utility of the LPA's intent to reimburse.

The LPA should follow the same steps followed by TxDOT and should make sure that any adjustments conform to the UAR.

When the project is an **Off-System Project**, and **will not be maintained, operated, or regulated by the State**, the **LPA must** sign and submit a form ROW-U-UAD Utility Accommodation Declaration to the District Engineer for approval.

Chapter 5 — Utility Considerations During Highway Design

Contents:

Section 1 — Determination of Utility Impacts

Section 2 — Coordination

Section 3 — TxDOT Utility Contracts

Section 4 — Utility Access, Corridors, and Strips

Section 5 — Combined Transportation Utility Construction

Section 6 — Compliance with the Rules and Policies

Section 7 — Alternate Financial Assistance to the Utility

Section 8 — Intermediate Design Meetings

Section 9 — TxDOT Assistance to the Utility

Section 10 — Utility Design Considerations Related to Reimbursement

Section 11 — Broadband Initiatives

Section 1 — Determination of Utility Impacts

Justification

Utility adjustments are justified by:

- direct construction conflict,
- UAR non-compliance,
- regulated industry standards (signed and sealed engineering determination letter may be required), or
- safety reasons (signed and sealed engineering determination letter may be required).

Considerations

The following elements may be significant in determining the impact of utilities on a proposed project:

- TxDOT highway and bridge projects often necessitate the adjustment of utility facilities to accommodate the design and construction of proposed transportation facilities. Failure to mitigate utility conflicts in the design process or to relocate facilities in a timely manner can result in unscheduled delays and increased project costs.
- Utilities should be provided early notification of a project through ROW-U-NOPC Notice of Proposed Construction as a project moves from a conceptual state into actual design mode. This initiates the Utility Cooperative Management Process and facilitates the planning and budgeting processes.
- TxDOT recognizes the need to develop the right of way acquisition process concurrently with design work and utility adjustments. Current FHWA policy, 23CFR Section 635.309, specifically states that certain conditions on Federal-aid transportation projects must be met before a project can be let for construction.
- Inclusion of the utilities, LPAs, and the TxDOT Utility Liaison in design conferences with TxDOT's design team benefits all participants.

Section 2 — Coordination

Objective

The primary objective of coordination is to ensure that all entities, known or suspected of having involvement within the limits of a proposed project understand that they are part of "The Process." They should be made aware that a coordinated effort would be required to accomplish the goal of serving the public's best interest.

Procedure

Participants are encouraged to attend the Design Conference where specific design considerations are discussed. Involvement of all participants will give both the Design Team and the utilities an opportunity to:

- voice concerns over project scheduling, construction phasing, and location; and
- participate in a forum for discussion of the process involved with preparation for, and during construction of, the project.

Special considerations that must be adhered to by the utilities as a result of regulated industry standards can be discussed. The Design Team may be able to modify the design of a structure or grade to accommodate these considerations. Possible conflicts among the various utilities may be addressed and solutions offered or identified.

The TxDOT Utility Liaison is responsible for assuring utilities and the Design Team that the interests of all participants will be considered. It will be the Liaison's responsibility, after consultation with all participants, to determine the order of and location of assignments. Solutions arrived at on previous projects may aid in the process. In cases of conflict, TxDOT's decision is final.

When an adjustment is necessitated, TxDOT's goal is to perform the adjustment in the most economical manner, consistent with industry standards, safety, and requirements of the UAR. The District can aid the process of coordination by following the UAR TxDOT and the LPA should consider the location of utilities placed within right of way. However, TxDOT has a limited ability to accommodate an ever-growing request for right of way usage by the utility industry. As a result, it is not uncommon to find areas of TxDOT right of way where placement of new utility facilities would not be feasible. Such situations cause a challenge when TxDOT needs to modify the existing roadway facility. Therefore, when the following options should be considered:

- Stacking. For example, place sewer, high-pressure oil & gas, water, and fiber optic lines at depths that will accommodate placement of shallow and more frequently accessed low-pressure gas and underground communication lines.
- Joint trenching.

- Utility conduits.
- Compatible arrangements based on classes or types of utilities.
- Directional boring may sometimes be used to place gas, water, and underground power and fiber optic lines at greater depths. This allows them to be placed below existing facilities.
- Off-site relocation.
- Moratorium to deny all Utility Installation Requests on a highway project while undergoing design and/or construction.

Feasibility of the above options is determined by the utilities. **TxDOT has no liability for damage to existing facilities nor will it guarantee access to such placements if the utility experiences future problems.**

Section 3 — TxDOT Utility Contracts

Introduction

TxDOT recognizes the value and benefit of utilizing a consultant to coordinate the utility adjustment process and obtain Subsurface Utility Engineering (SUE) services. This is especially true in larger highway projects having numerous utility adjustments.

TxDOT is committed to the use of SUE on projects using Professional Engineering Procurement Services (PEPS) contracts. Generally, costs do not affect District project budgets, as the services are procured using the ROW Division budget.

Benefits of Subsurface Utility Engineering (SUE)

The use of SUE can prove to be a valuable resource to benefit TxDOT, LPAs, and utilities. An FHWA study, entitled "Cost Savings on Highway Projects Utilizing Subsurface Utility Engineering (2000)," reports a significant cost saving by more than 4:1 spent on SUE.

Using SUE early can aid in determining:

- the accurate alignment, elevation of a utility facility
- those facilities that may remain in place,
- those facilities that can be accommodated by implementation of design modifications; and
- those facilities that will require adjustment to clear proposed construction.

TxDOT design teams should use SUE for the following reasons:

- Use of SUE providers conserves TxDOT resources.
- SUE providers are trained and equipped to determine locations and elevations of utilities.
- Information provided by SUE can aid in identifying utility facilities' owners.
- Data can be obtained and submitted in a format compatible with design data.
- Conflicts can be avoided through design changes.
- Determination of adjustments will accommodate proposed designs.
- Locations of unmarked or unknown utilities can be identified.
- Risk to TxDOT is minimized; SUE provider assumes risk.

SUE deliverables should be integrated into TxDOT's PS&E to enable the contractor and all other pertinent parties to have maximum information on utilities within the construction area.

If the SUE data is **not** integrated into TxDOT's PS&E, SUE deliverables should be shared between:

- TxDOT designers or consultants,
- affected utilities,
- District Utility Section, and
- LPAs (optional).

  Note: Use of TxDOT CADD standards in SUE deliverables is required.

SUE and Utility Coordination Contracts

The utility coordinator will need to understand the District's process on the procurement of a SUE contract through the PEPS Division. Each District has a consultant contract engineer or Manager to assist you in setting up a SUE contract.

The district may request a contractor solely for SUE, utility coordination services, or a combination of the two from PEPS Division.

The SUE and utility coordination contract may include the following activities:

- SUE;
- Coordination meetings;
- Utility conflict determination;
- Utility conflict resolution;
- Preparation of utility agreement assemblies;
- Review of PS&E;
- Monitoring of progress, including inspections; and/or
- Preparation of Joint Use Agreements and verification of "As-Built" plans.

A SUE contract may be funded through:

- Design Division,
- ROW Division, or
- District local contract.
- LPA

Utility Accommodation, Coordination, and Verification (UACV)

ROW Division, Utility Portfolio Section (UPS), has procured purchase orders through the Procurement Division to assist the districts with project delivery.

The purpose of the UACV is to provide utility coordination services (non-professional services) to TxDOT Districts.

Some of the services provided are:

- Internal and external communication
  - Work plans
  - Orientation
  - Initial meetings
  - Progress meetings
- Progress reporting
- Utility agreement assembly and review
- AFA Review (where applicable)
- Invoicing and payment review
- On-site verification of Adjustment or Relocation (Inspection)
- TxDOTCONNECT data entry

Section 4 — Utility Access, Corridors, and Strips

Access Rights

Access rights are rights of ingress or egress (entrance or exit) to the highway facility from a particular legally defined parcel of land. TxDOT acquires real property rights to parcels of land used for transportation related purposes. In some circumstances, it is in the public's interest to control the right of ingress or egress to portions of public right of way.

In 1959, the American Association of State Highway Officials (AASHTO) adopted a guide for the parallel use of freeway right of way. This guide was created to:

- develop and maintain access control;
- maximize highway safety and function; and
- ensure uniformity of utility treatment among the states.

In 1988, FHWA allowed each State the right to decide whether utilities would be permitted the parallel use of freeway right of way.

On major freeways and interstate highways, TxDOT often purchases the right of access to public right of way from the adjacent property. These rights are purchased with the intent to control access to vehicular travel in a legally defined area of the right of way, and to through traffic lanes in the immediate vicinity. The main concern is for areas in which traffic entering the roadway would confuse or endanger the traveling public. These areas are located:

- adjacent to ramps;
- along curves;
- where sight distances are critical; and
- along main lane facilities without frontage roads (not allowed by the UAR); and
- areas in outer separation and medians (not allowed by the UAR).

State regulations concerning control of access may be found in 43TAC Section 21.37.

In special cases of crossing access control lines, new utility installations may be permitted under controlled conditions. However, in each case the utility owner must show that:

- the accommodation will not adversely affect the safety, design, construction, operation, maintenance or stability of the transportation facility;
- the accommodation will not be constructed and/or serviced by direct access from the through traffic roadways or connecting ramps;

- the accommodation will not interfere with or impair the present or future expansion of the transportation facility; and,
- any alternative location would be contrary to the public interest. This determination would include an evaluation of the direct and indirect environmental and economic effects resulting from the disapproval of the use of this right of way.

Utility Corridors

State laws governing land acquisition for highway uses do not include authority to purchase right of way for utility purposes. However, utilities may joint-use available areas within highway right of way acquired for the maintenance of backslopes, clear zones, and other highway features. To maximize the use of these limited areas, utilities are encouraged to use the utility corridor concept by joint trenching, common duct occupancy, and common infrastructure.

In urban and highly congested areas, TxDOT may determine that the most effective method of maximizing right of way use is to construct a utility corridor, such as a box culvert, for utility joint use.

Communication and cooperation are essential to achieve the desired results for the utility corridor concept. It is recommended that a Memorandum of Understanding be executed by all parties before constructing the corridor. ROW Division should be consulted for additional information and implementation of utility corridors.

Utility Strips

Utility accommodation on controlled access highways must take into consideration areas where access to the right of way has been denied. Without a special exception, utilities may not be placed or allowed to remain in these areas. When an exception is granted in conformance with the Utility Accommodation Rules (43TAC Section 21.35), in a controlled access area, a utility strip, **specific to the utility for which the exception is granted**, can be created during the design and right of way map creation phase by designating a "strip" which **cannot be accessed** directly from the main lanes. This action will not affect the denial of access to the adjacent landowner. The utility strip may be established in an area where no frontage roads exist. It does not convey an easement or property interest and cannot be occupied by other utilities without a specifically approved exception for each utility involved.

The public utility seeking the installation shall submit to the district engineer a written request that includes for each facility proposed for installation the following detailed information:

- survey data as directed by TxDOT to identify and designate the location of a utility strip, the utility strip's relationship to existing highway facilities and the right of way line, and the specific area of use, occupancy, and access for installation and maintenance of the utility facility;

- a plan for the utility's access to, from, and within the utility strip with clearly described procedures that preserve the safety and free flow of traffic on the controlled access highway or freeway during installation, maintenance, and emergency service or repair of the utility facility; and
- any additional information, including an engineering study requested by TxDOT, that is reasonably necessary for a determination of the impact of the proposed utility facility on the safety, design, construction, operation, maintenance, and stability of the controlled access highway.

If the requested utility facility installation meets the conditions of Section 21.35 of this subchapter and the other applicable requirements of this subchapter, TxDOT shall establish a utility strip along the outer edge of the right of way by:

- locating a utility-access denial line between the proposed utility facility installation and the main lanes and connecting ramps; and
- designating the specific area of use, occupancy, and access for installation and maintenance of the requested utility facility.

TxDOT may adjust the utility-access denial line of an established utility strip to accommodate additional authorized utility facilities within the utility strip. The utility requesting installation of the utility facility is responsible for all costs associated with providing the information required for designation of a new or expanded utility strip and shall delineate the utility-access denial line on the ground by setting readily identifiable, durable, and weatherproof permanent markers to represent or reference the corners, angle points, and points of curvature or tangency of the utility-access denial line. All existing and proposed fences shall be located at the freeway right of way line and denial of access regarding property adjoining the right of way line will not be altered.

Section 5 — Combined Transportation Utility Construction

Procedure

If it is determined that the adjustment of utility facilities is to be included in the proposed highway construction contract, the following items should be considered:

1. Who is responsible for the cost of the adjustment?
   - the utility,
   - TxDOT, or
   - the LPA.

   In certain instances, the proposed work may result in a proportionate cost sharing whereby the utility funds certain aspects of the adjustment and the appropriate governmental agency participates as well.

   If it is determined that the utility is responsible for the adjustment costs and the TxDOT contractor will perform all or part of the adjustment, the District must execute an Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects (AFA) to fund the required work.

   Before the project can be awarded, funds must be collected from the utility, at least 45 days prior to the let date. In addition, a statement should be placed in TxDOT's PS&E, noting the adjustment work is to be billed from these funds. Per Transportation Code Section 224.008, the ROW CSJ/ROW Project ID number should be used as a sub-estimate identifier to accumulate utility adjustment costs within the overall construction project estimate.

   If utility work will be performed by TxDOT's contractor, place a ROW CSJ/ROW Project ID number and statement in the PS&E, noting that work will be billed from right of way funds, or from LPA funds.

   Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects are required for all non-reimbursable utility work, (i.e., incorporation of work determined to be ineligible for State cost participation or in some instances, betterments) included in TxDOT's PS&E. If an LPA elects to pay for the work performed by TxDOT contractors, work detailed in the PS&E and either of the two requirements must be met: LPA must be the responsible agency, or the project must be converted to an SUP.

2. Who will perform the adjustment?
   - the utility, with its personnel or contractor, or
   - TxDOT's highway contractor.

   Include a statement of how the work to be accomplished is handled in TxDOT's PS&E. The part to be performed by each party involved should be described.

As a rule, highway right of way should be clear of utilities before the letting of transportation construction projects. However, utility adjustments may be performed by, or coordinated with, the transportation contractor in the transportation construction contract, and included in the PS&E.

Preliminary plan estimates and Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects (if applicable) for utility work must be forwarded to ROW Division. After coordination and review by applicable divisions, the District will include the utility plans and estimate in the appropriate utility agreement assembly. After approval, work will be incorporated in the highway PS&E. The work must be identified by the construction Control Section Job (CSJ)/Project ID number using the ROW CSJ/ROW Project ID. The ROW CSJ/ROW Project ID is a sub-estimate contained within the project construction estimate. Construction funds must not be used when any portion of the utility adjustment is eligible for reimbursement. By law, eligible utility adjustment costs must be funded out of the ROW CSJ/ROW Project ID.

Utility work must be shown as sub-estimates of the transportation project estimate for each utility. At the head of each sub-estimate, the following identifying language must be included:

"The following work is to be performed by highway contractor for [utility name] and funded by right of way funds using the above ROW CSJ/ROW Project ID, or Advance Funding Agreement executed on such date and agreement number associated with the ROW CSJ/ROW Project ID."

Costs to the roadway contractor, paid through the Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects and ROW CSJ/ROW Project ID, need to be shown on the cost estimate of the Utility Agreement, to calculate the Total Utility Relocation Project Cost. A separation of costs is required; from what is paid to the roadway contractor and reimbursed to the utility company (if applicable) through the Utility Agreement should be shown on the cost estimate of the Utility Agreement.

Modifications to the scope of work, before or after letting, that impact associated costs/quantities should be coordinated with the District's Design and Right of Way Sections. Changes **before** letting need to be coordinated with Design Division and ROW Division; changes after letting need to be coordinated with Construction Division and ROW Division.

NOTE: If **utility adjustments** are included in the highway construction contract, the plans submitted **must** be signed and sealed by an Engineer.

Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects (AFA)

Utility work included in the highway construction contract may include items that are ineligible for TxDOT cost participation. Therefore, it will be necessary for the utility to submit the estimated ineligible costs through an Advance Funding Agreement For Voluntary Utility Relocation Contri-

butions On State Highway Improvement Projects (AFA) with TxDOT **before** letting as required by Advance Funding Agreement For Voluntary Utility Relocation Contributions On State Highway Improvement Projects. A statement should be added to the PS&E, in that section where utility items are addressed, stating that the ineligible utility items are financed by an AFA with the utility.

The utility will also contribute funds with the appropriate **percentage** of engineering and construction charges for the highway construction cost, which also applies to the utility construction cost.

Section 6 — Compliance with the Rules and Policies

Overview

There are 2 types of exceptions: Exception to Policy and Exception to Rules (UAR and Federal Rules). An exception to Federal Rules requires FHWA approval. An exception to Utility Accommodation Rules and Policy related to new transportation projects requires approval from the Right of Way Division Director. Requests for exceptions not related to transportation projects should be directed to the Maintenance Division Director.

Utility Accommodation Rules (UAR)

By law, public utilities (see 43 TAC Section 21.31(43)) have been granted the right to occupy State right of way. These rights are extended provided the utility use will not interfere with the traveling public's safety, the State's ability to construct and maintain the highways and as long as they maintain compliance with the Utility Accommodation Rules (UAR).

Private lines should generally be allowed to cross, but should not be permitted longitudinally on highway right of way (see 43 TAC Section 21.36(b), and they must conform to the UAR.

All utility installations within TxDOT right of way must comply with the UAR. Exceptions to the rules will be considered based on valid engineering judgment. Requests for exceptions will be considered only where the utility shows that extreme hardship or unusual conditions provide justification and where alternate measures can be prescribed in keeping with the intent of the UAR. The District Engineer (along with the utility company's concurrence) must recommend all exceptions for approval by the ROW Division Director. All work performed outside TxDOT policy can only be reimbursed with the approval of the ROW Division Director, and the following items must be addressed in writing from the District Engineer to the ROW Division Director, with form ROW-U-CFUA Certification for Utility Accommodation attached:

- All requests to ROW Division, must have a Utility ID number,
- Description of condition /nature of violation;
- Statement attesting that there is no inherent risk to any highway appurtenances (structures, roadway, lighting, storm sewer, etc.);
- Facility will not adversely affect the safety, design, construction, operation, maintenance, or stability of the roadway facility;
- Facility will not be constructed and/or serviced by direct access from the through traffic roadways or connecting ramps;
- Facility will not interfere with or impair the present use or future expansion of the freeway; and adamantly acknowledge that any alternative location would be contrary to the public interest.

- Facility has the required vertical and horizontal clearances set out in the UAR;
- The request for exception is submitted with due consideration of State and local requirements;
- Acknowledgment that facility is compatible with existing utilities;
- District's firm recommendation and expressed willingness to accept proposed condition;
- Description of "alternate measures" have been prescribed or reviewed.

Code of Federal Rules (CFR 1.9)

Exceptions for reimbursement involving work performed outside Federal policy as stated in 23CFR must be approved by FHWA and will be subject to the following conditions (pursuant to 23CFR):

- approval will not adversely affect the public;
- the District and TxDOT have acted in good faith and, therefore, there has been no willful violation of Federal requirements;
- there is substantial compliance with all other requirements prescribed by, and full compliance with, requirements mandated by State and Federal statute;
- the cost to the Federal government will not be in excess of the cost which it would have incurred had there been full compliance; and,
- the quality of work undertaken has not been impaired.

Exceptions for reimbursement involving work performed outside TxDOT policy must be approved by FHWA and will be subject to the above Federal conditions.

Policy

All utility coordination related to TxDOT transportation project must comply with the guidelines within the Right of Way Utility Manual including Federal Guidelines. Exceptions to the policies will be considered based on valid reasoning and justification. Requests for exception to policy will be considered only where the District shows that extreme hardship or unusual conditions provide justification and where alternate measures can be prescribed in keeping with the intent of the UAR. The District Engineer must recommend all exceptions before approval by the ROW Division Director. All work performed outside TxDOT policy can only be considered with the approval of the ROW Division Director, and the following items must be addressed in writing from the District Engineer to the ROW Division Director, with form ROW-U-CFUA Certification for Utility Accommodation attached:

- Description of condition /nature of violation;
- Statement attesting that there is no inherent risk;
- The request for exception is submitted with due consideration of State and local requirements;

- District's firm recommendation and expressed willingness to accept proposed condition;
- Description of "alternate measures" have been prescribed or reviewed;
- Approval will not adversely affect the public;
- The District has acted in good faith and, therefore, there has been no willful violation of Federal requirements;
- There is substantial compliance with all other requirements prescribed by, and full compliance with, requirements mandated by State and Federal statute;
- The cost to the Federal government will not be in excess to the cost which it would have incurred had there been full compliance; and
- The quality of work undertaken has not been impaired.

Section 7 — Alternate Financial Assistance to the Utility

State Infrastructure Bank (SIB)

A utility's inability to pay for adjustments can be addressed by utilizing the State Infrastructure Bank (SIB), or a SIB that operates chiefly as a revolving loan fund and can provide a wide range of financial assistance in addition to loans. In 1997, the 75th Texas Legislature passed Senate Bill 370, which created the Texas State Infrastructure Bank administered by the Texas Transportation Commission, the governing body of TxDOT. In September 1997, the Texas Transportation Commission approved administrative rules that govern the State Infrastructure Bank.

TxDOT has designed the SIB to enable qualified borrowers to access funds at negotiated interest rates and terms. Applications may be submitted to the local TxDOT District or to the TxDOT Project Finance, Debt, and Strategic Contracts (PFD) Division. Approval for financial assistance to a private entity shall be limited to an eligible project that:

- provides transportation services or facilities that demonstrate public benefit; or
- is constructed or operated in cooperation with a state agency or political subdivision in accordance with an agreement between that state agency or political subdivision and the private entity.

State Participation 2125 (SP2125)

The State Participation 2125 (SP2125) Program assists political subdivisions by alleviating financial hardships caused by required utility relocations on TxDOT's transportation projects. In 2019, the 86th Texas Legislature passed Senate Bill 1512, which amended Texas Transportation Code Section 203.092 to add subsection (a-4) and created the State Participation Program administered by the Texas Transportation Commission, the governing body of TxDOT. In February 2020, the Texas Transportation Commission approved administrative rules that govern the State Participation 2125 Program. Texas Administrative Code Title 43, Part 1, Chapter 21, Subchapter B, Rule §21.25, "State Participation in the Relocation of Certain Publicly-Owned Utility Facilities" prescribes the procedures to be taken by the utility to apply for state participation in the relocation of utility facilities and by the department and commission in determining whether all or part of the expense of the relocation of the facility will be reimbursed by the state.

Applications may be submitted to the local TxDOT District.

Section 8 — Intermediate Design Meetings

Overview

The TxDOT Project Design Engineer is responsible for the frequency of intermediate design meetings, based on the complexity of the TxDOT-Utility cooperative design effort. The meetings are intended to:

- track the progress of ongoing design processes;
- further develop design concepts from previous meetings; and
- explore information returned by the various utility entities or SUE provider to determine potential impact or concern. Alternative designs should be investigated and implemented to avoid or minimize impact to utility facilities.

Highway design features. including drainage, footings, and foundations typically affecting utility facilities should be developed to a preliminary state (within reasonable tolerances) to allow evaluation **not later than the** 60% plan completion milestone.

Section 9 — TxDOT Assistance to the Utility

Overview

Per the UAR, **design** of the utility's **adjustment** is the responsibility of the **utility**.

Since the utility's design staff must plan and design the proposed adjustment of their facilities, plan preparation is the responsibility of the utility. Nevertheless, TxDOT personnel and TxDOT's Consultants should assist the utility by providing existing and proposed:

- grades and elevations;
- highway alignment and cross sections;
- drainage;
- schematics;
- right of way maps;
- SUE deliverables;
- TxDOT CADD standards;
- environmental information;
- transportation project design/construction and other plans; and
- TxDOT mapping graphics files.

Close contact between authorized District and utility representatives is imperative in facilitating the continuous flow of information to the utility regarding the design of the transportation facility.

Section 10 — Utility Design Considerations Related to Reimbursement

Overview

Adjustment costs eligible for reimbursement are those that are:

- performed in conformity with an approved utility agreement between TxDOT and the utility;
- necessary to restore, in the most economical manner, the utility's functional operations to a level similar to that existing before the adjustment;
- necessary to comply with laws and regulated industry standards (signed and sealed engineering determination letter may be required); or
- of direct benefit (i.e., safety and aesthetics) to the transportation facility.

Determination of a betterment credit should only be made upon completion of an adequate study of all available facts. The requirements discussed in the following subsections must be considered when determining whether such items are eligible or ineligible for reimbursement.

Coating and Wrapping of Utility Lines

The following are eligible for reimbursement:

- reasonable measures for protection of the highway, including the placement of encasement.
- corrosion control measures required and supported by industry codes, published and/or established company standards, governmental codes, orders, or laws.

Cathodic Protection of Utility Lines

Cathodic protection may be approved as part of the utility agreement as a participating item even though it was not provided on the existing line. This could occur in a scenario where the original line, which did not need protection because of favorable soil conditions, good drainage, etc., is relocated to a new location involving unfavorable conditions. Cathodic protection may also be eligible when required for those reasons described in Chapter 6.

Additional Thickness of Pipe

The Office of Pipeline Safety has outlined the requirements for wall thickness of gas and liquid product pipeline. Should a utility propose to install a wall thickness underneath the highway greater than those requirements, consideration will be given to approval on a case-by-case basis for reimbursement of costs associated with the additional thickness. Refer to Chapter 7, Section 2, Salvage,

Abandoned Facilities, and Removal of Materials. The minimum wall thickness is determined through the use of Barlow's Formula.

Spare Conduits or Ducts

One additional conduit or duct in any conduit system may be approved for reimbursement. With advanced approval, in some instances, a **reasonable number of spare conduits** may be added at the utility's cost, although the cost will **not** be reimbursable by TxDOT. For new installations, see TxDOT's *Use of Right of Way By Others* manual, Chapter 1 - Utility Policy. Such approval is warranted due to:

- the benefit that is derived by the transportation project;
- safety considerations;
- the need to avoid frequent interruptions of utility service;
- the need to reduce expected interference with highway traffic by reducing the installation of temporary overhead lines; and
- situations where subsequent boring is sometimes impossible due to building lines or ground conditions.

When a utility rents, leases, or sells conduit usage to another utility, the new utility must submit a Form 1082 Utility Installation Request prior to placement, and the utility owning the conduit must execute the *Form 1082 Utility Installation Request* in conjunction with the new utility.

Taller Poles

Where TxDOT is purchasing right of way, increased height or size of poles for overhead lines may be approved as a reimbursable item when needed to elevate the lines and attain adequate vertical clearance across the roadway, or due to environmental constraints.

When a utility rents, leases, or sells pole space to another utility, the new utility must submit a Form 1082 Utility Installation Request prior to placement, and the utility owning the poles must execute the *Form 1082 Utility Installation Request* in conjunction with the new utility.

Joint Occupancy of Poles

When the existing facility consists of jointly occupied poles and the utilities separate their facilities in making the adjustment, the following requirements apply:

- Occupancy Agreement between the telecommunication provider and pole owner is required to establish proper interest.

- Reimbursement is warranted in the actual costs of adjustment after the appropriate credits for betterments and salvage are deducted.
- The most economical cost for functional restoration is established by comparative cost estimates that reflect replacement in kind as joint aerial facilities versus separate and distinct installations.
- Additional costs for installation of a different type of facility not required by the transportation project will be at the utility's expense.

Under the above requirements, estimates and agreements for the utilities involved in joint occupancy must be secured and reviewed at the same time so that the most economical adjustment may be determined.

The foregoing requirements may not apply to every situation. There may be various combinations of ownership in joint occupancy of lines requiring special handling through the ROW Division. No one policy can be applied to all projects for all utilities and all types of ground conditions. Consideration will always be given to:

- reimbursable items needed for the integrity of the highway and the safety of the traveling public; and
- reimbursable items needed to restore the functional service of a utility to a like condition before the adjustment.

Utility Facilities in Highway Structures

In keeping with TxDOT policy, all utilities should, when feasible, be located off highway structures. However, when it is impractical to install a utility facility across a stream or other obstruction, attachment to or inclusion in the highway bridge or structure may be considered. Requests for attachment or inclusion to highway bridges, structures, etc., should be coordinated with the District design section for securing bridge attachment agreements through the Bridge Division.

If betterment facilities proposed by the utility require the highway structure to be strengthened, the utility will bear the cost of such strengthening.

For further information, please refer to 43TAC, Section 21.48, Traffic Structures.

Existing Facilities Remaining in Place

When the existing facility is to remain operative and occupies an easement or lease owned by the utility within proposed transportation project right of way, a Utility Joint Use Agreement should be executed for the utility's continued use of the easement and facility upon the highway right of way.

When the existing facility is located on public right of way under a Utility Installation Request, and does not require adjustment, the facility may remain as shown in the Utility Installation Request.

New Location Considerations

A utility in the position of relocating off its existing easement should evaluate the following options and considerations:

- Acquisition of a New Easement:
  - time to acquire the easement including negotiations and necessary legal proceedings
  - number of parcels to be acquired
  - benefit of exclusive rights
  - future adjustment costs
  - design considerations
- Joint Occupancy of State Right of Way
  - right to occupy at no charge
  - available area to locate
  - non-exclusive use
  - future adjustment costs
  - no acquisition efforts or scheduling constraints
  - design considerations.

The utility should determine its new location based upon each individual adjustment in its own best interests and in a cooperative effort with TxDOT.

Section 11 — Broadband Initiatives

Joint Trench Opportunities

A joint trench is an open-cut trench shared by several utility providers, specifically broadband providers.

HB 2422 of the 86th Texas Legislative Session requires TxDOT to provide notice on TxDOT's website of opportunities for broadband providers. Providers may collaborate with TxDOT to deploy broadband conduit or other facilities in those rights-of-way. TxDOT is required to give special consideration to broadband deployment that will likely improve access to broadband in rural or underserved communities. The ROW Division has created a Joint Trench Application that will allow broadband providers to submit a request for those interested in participating in the joint trench opportunity.

TxDOT is required to submit a report to the Legislature explaining the action taken and any costs or savings to the state and private entities associated with voluntary joint trenching opportunities.

Reference: https://maps.dot.state.tx.us/JTA/

Joint Duct Bank Accommodation Program

The Joint Duct Bank Accommodation Program is designed to support the broadband movement and to accommodate broadband facilities within TxDOT ROW. The program is meant to provide better ROW management while supporting future broadband and utility installations. The soundness of the standards developed needs to be validated through discussions with the industry.

Chapter 6 — Utility Plans and Specifications

Contents:

Section 1 — Initial Actions of the Utility

Section 2 — Utility Plan Preparation

Section 3 — Use of Contractors on Utility Work

Section 1 — Initial Actions of the Utility

Use of Consulting Engineers by a Utility Company

If the utility is not adequately staffed to perform engineering services for the required adjustment, it may secure consultant services for all or part of the preliminary study, design, and/or construction phase of work. The utility should notify TxDOT, in writing, that it is securing the services of a consultant.

The selection of an engineering firm should be based on an evaluation of the professional qualifications and the utility's knowledge of the consultant's work and services. The choice of a consulting engineering firm and a surveying firm cannot be based on a competitive bidding procedure. The selection process should then be followed by negotiation of a mutually satisfactory fee. The establishment of the total consultant-engineering fee shall be project specific. The utility should consider the following factors in negotiating a fee:

- degree of risk assumed by consultant;
- difficulty or complexity of work to be performed;
- extent of assistance provided to consultant by TxDOT or utility;
- consultant’s past and present performance;
- degree and nature of the consultant’s estimate of costs;
- adequacy and reasonableness of consultant’s estimate of costs; and
- total dollar amount of consultant's contract.

The consultant can play an important role in coordination by:

- participating in:
  - the Initial Project Notification Meeting,
  - the Preliminary Design Meeting,
  - Field Verification,
  - the Design Conference,
  - any Intermediate Design Meetings,
  - the Final Design & Initial Construction Coordination Meeting,
  - the Pre-letting Utility Meeting, and
  - the District approval of the Utility Consultant Contract.
- maintaining close communication with the TxDOT Utility Liaison.

The method of payment to compensate the consultant for all work required shall be set forth in the original contract and in any contract modifications. It may be a single method for all work or may involve different methods for different elements of work. The methods of payment that should be used are:

- The “lump sum fee” method shall **not** be used to compensate a consultant except when the agency has established the extent, scope, complexity, character, and duration of the work to be required so that fair and reasonable compensation, including profit, can be determined. The proposal must be accompanied by the consultant’s itemized estimate of costs.
- The “cost per unit of work” method is normally reserved for additional charges resulting from changes in the scope of work as detailed in the original contract. A list of fees for additional “cost of work” items should be included with the original contract. These costs usually include, but are not limited to, costs for additional sets of plans, inspection and rates for design changes.
- The “profit amount” method provides for reimbursement of actual costs of the consultant plus a predetermined profit. The determination of the amount of profit shall take into account the size, complexity, duration, and degree of risk involved. Profit exceeding 15% must be justified by the utility and approved by the ROW Division. A set percentage of the job should not be used as the profit. The utility and the utility consultant can negotiate the profit.
- The “specific rates” method is based on a unit of measure, such as linear feet, cubic yards, etc.
- The "direct cost times the multiplier” is based on unloaded (straight) rates times a calculated multiplier (indirect cost plus profit).

The **“percentage of the cost of relocation”** method of computing fees is not acceptable.

The District is responsible for reviewing all utility consultant contracts. TxDOT’s procedures for review and approval of consultant contracts are as follows:

- Necessity for consultant contracts. The utility must submit written notification describing the design work that will be performed by consultants.
- Qualification of the consultant.
- To ensure that the required work will be accomplished as required, a consulting engineering firm or consultant with a professional engineer on staff must be used. TxDOT may review the qualifications of the consultant. Factors to consider in selecting a consultant are the experience and knowledge of the consultant to accomplish the required utility work and the ability to accomplish the work in a timely manner.
- Services to be performed. The contract must define services the consultant will accomplish during all or part of the preliminary, design or construction phases. The reasonable cost of consultant engineering services performed under written continuing contracts is reimbursable when it is demonstrated that such work is performed regularly by the utility in the course of its own business.
- Fee. A maximum fee is specified in each contract.

The basis of compensation must be detailed enough to determine if the cost is reasonable for the services performed. When the basis of payment is other than a lump sum fee, the consultant contract will specify a maximum amount payable. Provisions should be made for adjustment of the maximum amount or lump sum fee when there is a substantial change in the scope of work.

There is no specific format for a consultant contract. However, the contract must be written and must include the services to be performed and the fee. These provisions will enable TxDOT to evaluate the necessity and fairness of charges. The consultant must adhere to Federal regulations when Federal-aid in right of way is involved.

The District does not have to include the consultant contract in the agreement assembly submitted to ROW Division. However, the cost associated with it must be shown in the estimate. **The District must include a review and approval statement in accordance with TxDOT procedures.** If the District has special concerns or specific questions about the consultant contract, the District may request the ROW Division to review for comments and/or suggestions, the contract should be included. Submissions of the consultant contract to the Division for approval will be returned to the District for their handling and approval.

Provided the consultant contract is approved, costs incurred for required preliminary work to prepare the contract and estimate of engineering services will be reimbursed to the utility. The consultant should defer incurring any other costs until the contract is approved.

The costs incurred by consultants are subject to audit; therefore, sufficient documentation must be provided for all costs.

Occasionally, a utility may use consulting engineer services for design and construction phases of utility work that has been included in the highway construction contract. This will, in some instances, result in duplication of services performed under the construction phase of the consultant agreement by TxDOT's construction engineering forces. The FHWA will reimburse the State for such services either by:

- not participating in the utility agreement's consultant charges, while participating entirely in the amount of State's approved percentage for construction engineering; or
- participating in the utility agreement's consultant charges and deducting such amount from the State's approved rate for construction engineering.

This procedure is used for requesting reimbursement from the FHWA by the State. The utility company will be reimbursed by the State upon presentation of a billing for eligible consultant charges.

The following publications are available as guidelines for consulting engineering contracts:

- Procurement Procedures of 23CFR Section 172A, Administration of Engineering and Design Related Service Contracts

- Consulting Engineers Council and Texas Society of Professional Engineers - General Engineering Services
- American Society of Civil Engineers Manual and Reports on Engineering Practices No. 45, “Engagement of Consultants for Engineering Services."

Replacement of Utility Right of Way

Advise the utility to consider selecting an economical route from the standpoint of replacement right of way purchase.

While many utilities have staff experienced in evaluating utility right of way, others may have limited experience in purchasing real property interests. Although the decision to condemn or negotiate lies with the utility, adequate justification must be provided for the values paid in negotiation.

> “The utility shall determine and make a written valuation of the replacement right of way that it acquires in order to justify amounts paid for such right of way. This written valuation shall be accomplished prior to negotiation for acquisition.”
>
> *- 23CFR 645.111(2)(b)*

The valuation must be approved by TxDOT prior to negotiation. TxDOT may require an appraisal if the valuation is not adequately justified. The utility may offer more than the valuation or appraisal; however, the utility will only be reimbursed for the eligible cost.

TxDOT has no legal authority to acquire replacement right of way for a utility, but may participate in the eligible costs associated with the utility’s acquisition of replacement right of way.

Replacement right of way acquired by the utility before project release will not be eligible for reimbursement. After release, the cost of acquiring utility replacement right of way will be eligible for reimbursement if it is necessary and supported by the adjustment. The utility should avoid acquiring replacement right of way before approval of the utility agreement and proposed plan of adjustment by the District or Division. For more information, see the section on Replacement Right of Way Costs in Chapter 7, Section 2.

When replacement right of way is acquired and federal funds are used to cover some portion of the cost, the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (the Uniform Act), and amendments thereto, apply to the acquisition. In these instances, the right of way personnel should be contacted for assistance.

Section 2 — Utility Plan Preparation

Policy

TxDOT personnel should not develop plans, estimates, and other related data for the utility.

Plan Requirements

The Utility Agreement and Utility Joint Use Agreements must be supported by a set of utility relocation plans that provide a clear presentation of the work required. When the utility work, or some portion of the work, is eligible for State cost participation, the plans should be signed and sealed by an Engineer. A vicinity map may be used to illustrate the scope of an adjustment and the extent to which the utility system is affected. Plan sheets should clearly indicate the conflict between the existing utility facility(s) and the proposed highway work.

Submit two sets of utility plans.

The plan must show:

- existing and proposed highway right of way;
- existing and proposed utility right of way;
- proposed joint use areas;
- station and offset to highway control baseline;
- dimensions between existing/proposed right of way line and existing/proposed utilities;
- symbols used to represent existing facilities and conflict with proposed highway improvements delineating the justification for the utility adjustment; (Clearly explain the symbols using legends or notations.)
- symbols used to represent **proposed facilities**; (Clearly explain the symbols using legends or notations.)
- major material items;
- dimensions showing length of encasement, length of conductor, extent of trenching or boring, etc., if drawings are not to scale;
- existing and proposed highway features, i.e., edge of pavement, shoulder lines, piers, ditch lines, etc.;
- existing, temporary, and proposed utilities with:
    - operating pressures, directions of flow, source of power, wall thickness, coated and wrapped lines, anode beds, yield strength, design factor or class location, etc., when applicable; and

- enough information about the existing and proposed installation to determine any betterment in the proposed facility, such as types and quantities of materials, strength classifications, conductor sizes, number of cable pairs, protective devices upon existing and proposed lines, etc.;

- limits of compensable interests;
- control of access / access denial lines and highway station numbers;
- traffic control and safety;
- environmental control (SWPPP);
- in some cases, explanatory notations and/or a letter of transmittal explaining the need for all work phases;
- a brief explanation of factors that justify the work, such as:
  - direct construction conflict between the existing utility and the proposed highway improvements;
  - lack of UAR compliance of the existing utility facility after the proposed highway improvements; and/or
  - inclusion of the existing/proposed highway profile and the existing/proposed utility profile to justify lowering the utility line(s).
  - indication of fill or cut slopes to justify adjustment of poles, etc.;
- specifications. (If they are not included in the agreement, plans may be used to show specifications. This may include any special instructions that will need to be incorporated into the utility project in the interest of the highway facility. When applicable, show backfill specifications.)
- To determine the eligibility ratio, a distinction of that portion of the adjustment located on utility-owned right of way and public right of way must be made; and,
- explanations and calculations used in deriving eligibility percentage ratios for adjustments that are less than fully eligible for state cost participation.

Utility plans will be reviewed by the District to verify that the adjustment is necessary, justified, feasible, economical, and UAR-compliant.

Preparation of Utility Specifications and Proposals

Specifications governing utility contract work may sometimes involve methods that will not permit proper construction of the transportation facility. The most common example is that of backfilling procedure. Flooding or ponding is frequently employed in backfilling a utility trench or around utility structures. These methods are not generally permitted under TxDOT standard specifications when the limits of such backfill fall in areas supporting embankment, pavement, etc. Therefore, the utility must furnish drafts of utility specifications to TxDOT for review of compliance with TxDOT

specifications. The section of each district office responsible for approval of Utility Installation Request Forms should have utility spec sheets that can be included in the agreement.

Section 3 — Use of Contractors on Utility Work

Establishing Need for a Contractor's Services

All utility adjustment work, as well as all work incidental to the adjustment, will be performed by the utility, or by a company under contract to the utility or to TxDOT.

- Force Account Method - FHWA regulations acknowledge that it is cost effective for certain utility adjustments to be performed by the utility with its own crews and equipment (force account method). When a utility uses this method, it will be reimbursed only for the actual costs of adjustment. The form ROW-U-48 is not needed in this instance.
- Contract Method - When a company under contract to the utility or to TxDOT performs the adjustment (the contract method), it must be determined that the utility does not have adequate forces to perform the work, or that performance of the work under contract is to TxDOT's advantage. Prior approval by TxDOT is not necessary for use of this method, but the utility must execute a form ROW-U-48 Statement Covering Utility Construction Contract Work to ensure that requirements of the contract method are met.

Utility Work in the Highway Contract

In some cases, it will be advantageous to include utility adjustment work in the highway plans, specifications, and estimates (PS&E), and handle the actual construction under the general highway contract. Transportation Code, Section 224.008, requires that the cost of adjusting utility facilities associated with the acquisition of right of way, by or for TxDOT, be a cost of the acquisition. Therefore, the PS&E must clearly indicate which cost items are for utility adjustment. The utility adjustment work must be accumulated and charged to a right of way control section & job number (ROW CSJ/ROW Project ID) obtained from ROW Program Office. See Chapter 9, Section 5, Prepare and Submit the Agreement Assembly, with the addition of form ROW-U-48-1.

TxDOT allows utility adjustments to be included in the general highway contract if doing so benefits the overall planning and construction process. The TxDOT Design Engineer or the TP&D must be involved in the discussion of this option, and is ultimately responsible for making this decision.

The inclusion of utility work in the general highway contract will require the Standard Utility Agreement if there are to be costs for which the utility is eligible for reimbursement.

The plans should be signed and sealed by an Engineer.

If elective betterment or ineligible work is proposed under this procedure, an Advanced Funding Agreement (AFA) included in the Utility Agreement is required for funds to finance the betterment and/or ineligible portions of the work. See Chapter 9, Section 5, Prepare and Submit the Agreement Assembly.

Chapter 7 — Utility Cost Estimates

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Section 2 — Cost Estimate Methods and Categories

Section 3 — Contract Work and Consultants

Section 4 — Buy America Guidelines

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Section 1 — General Requirements

Overview

The cost estimate will be prepared by the utility and submitted to the District in support of the utility agreement and plans required for the proposed work. An agreement assembly should include estimates covering only the work for clearing transportation project construction.

Cost estimates may be built using one of multiple cost methods. Acceptable methods for developing relocation costs include:

- actual direct and related indirect costs accumulated in accordance with a work order accounting procedure;
- actual direct and indirect costs accumulated in accordance with an established procedure developed by the utility and which the utility uses in its regular operations;
- an agreed fixed amount (lump sum) payment; and
- other acceptable costing methods, such as unit costs.

Where elective betterments are considered, two complete estimates of all associated costs (GAO-20-195G, Cost Estimating and Assessment Guide: Best Practice by Developing and Managing Program Cost) will be required:

- one estimate showing all associated costs with the better facility to be constructed; and
- one estimate showing all associated costs for replacement in kind.

The utility's accounting or billing section should review estimates prepared by engineers. In addition, the cost estimate must include a complete narrative of the scope of work. This will ensure that costing operations and final bill preparation will be compatible with the format of the estimate.

The cost estimate should contain a summary of all costs for the major accounts and should reflect all credits in order to indicate the net cost of adjustment. If the utility owner has been approved to receive funds from the SP2125 Program, then the Cost Estimate must be broken out by funding eligibility (eg. compensable interest, non-compensable, and/or SP2125). If contract work is to be utilized, the estimate should distinguish between the work being performed under contract and the work to be accomplished by utility force account.

Section 2 — Cost Estimate Methods and Categories

Reimbursable Cost Methods

There are two ways to build a cost estimate and establish a cost basis for reimbursement:

- an agreed fixed amount (lump sum) payment; or
- actual direct and related indirect costs.

Fixed Amount (Lump Sum) Estimates

- For work performed by a utility with its own forces, or for work performed for the utility under contract, a fixed amount final payment based on an estimate of costs prior to construction is allowed. This is commonly known as the lump sum payment method.
- Payment should be based on the methods that are customary and acceptable for the work involved, which include the lump sum payment method. If the utility uses an existing continuing contractor, payment should be by the method the utility has previously established with the contractor. If the continuing contract establishes a lump sum payment for certain types of work, this payment method can be used for the Federal-aid project if TxDOT believes the cost is reasonable.
- FHWA regulations do not limit or cap lump sum contracts. However, all lump sum contracts greater than $500,000 require Right of Way Division's approval. When proposed utility relocation work on a project for a specific utility company can be clearly defined and the cost can be accurately estimated, TxDOT may approve a lump sum agreement without later confirmation by audit of actual costs.
- The lump sum payment method should only be used where the project scope and costs can be clearly and concisely defined. The cost estimate in support of the lump sum agreement must be accurate, comprehensive, verifiable, and in sufficient detail to give a clear picture of the work involved and the cost of the individual items.
- Whenever the lump sum payment method is used, TxDOT must verify that the eligible work has been satisfactorily completed in accordance with the approved agreement, plans, and specifications before reimbursement can be approved.
- When utility relocation work is to be accomplished by a contract secured under a full competitive bidding process controlled by a utility, TxDOT will undertake all actions needed to verify that the utility awards the contract to the lowest qualified responsible bidder based on appropriate solicitation.
- Lump sum estimates should list major items of material and supplies by item, with a description and proper indications of the specific quantity required, and the unit price and extension.

- Lump sum estimates should itemize wages and salaries anticipated on a particular adjustment by class and type. The costs must be representative of actual rates per hour or average rates on the actual amount paid to individuals for productive time incurred under the agreement.
- Lump sum estimates require the reviewer to verify overhead costs to ensure that all items are eligible, and the rates are not established arbitrarily.
- Buy America requirements or state Iron and Steel Preference Provisions must be identified on the cost estimate and evidence of compliance is required prior to installation of associated materials and payment.

Actual Cost Estimates

- Supporting documentation and evidence of actual costs are required at billing.
- Records of actual costs incurred develop the basis for reimbursement to the utility. In many cases for billing purposes, certified ledgers and other indirect methods can be used to substantiate costs, but cost estimates need to be built from actual costs expected, whether internal or external resources are used to complete the adjustment.
- Cost estimate should allow comparison with the actual records of cost accumulation at billing. The comparison of cost to actual cost is a requirement at billing.
- When the utility is to be reimbursed based upon the actual cost incurred under the force account payment method, TxDOT should have a daily inspection record that can be used to verify billings for labor, materials, and major items of equipment used by the utility to complete the work.
- Buy America requirements or state Iron and Steel Preference Provisions must be identified on the cost estimate and evidence of compliance is required prior to installation of associated materials and payment.

Construction Unit Basis

- When construction assembly units are used in estimating the cost of the work, labor costs may be shown on an assembly unit basis.
- The estimate may be prepared by construction units and quantities to support any item included in any account.
- Where construction units are used, it is required that TxDOT approve the estimating and/or billing procedure.
- When estimates are prepared on a construction unit basis, a copy of the utility's current specification sheet for each construction unit will be required.
- Bonds and Insurance cannot be listed as a separate line item in the cost estimate.

Cost Estimate Categories

The cost estimate submitted in support of the agreement will set forth the items of work to be performed, as broken down into the following categories:

- Materials and supplies
- Labor
- Overhead
- Transportation and equipment
- Traffic control
- Right of way
- Salvage, Abandoned Facilities, and Removal of Materials
- Credits
- Betterments
- Items to be paid in highway contract or directly to the utility

All the above items must be sufficiently detailed to provide TxDOT with a reasonable basis for analysis.

Estimates of cost should adhere to Financial Accounting Standards Board (FASB) Accounting Standards Codification and Federal Acquisition Regulations (FAR).

Materials and Supplies

Major items of materials must be itemized. Unit costs, such as assembly units of property (i.e., Rural Utilities Administration (RUA) construction specifications), may be used for estimating purposes if the utility uses such units in its own operations.

The factors that will be included in the utility's construction overhead account must be clearly shown. Materials should be shown by items and price:

- Items of materials and supplies should be shown as assembly units with unit prices.
- All materials subject to Buy America or state Iron and Steel Preference Provisions must be identified.

NOTE: Any utility work accomplished as a part of the project and eligible for reimbursement will need to comply with these rules, particularly work which includes iron and steel products.

A unique example of an adjustment cost is assembly units used primarily for adjustments involving RUA facilities. Specifications, sheets, or booklets, like those used in RUA Form Books 803, 804,

and 805, itemize the components of each assembly. A copy of the current specification sheet for each unit itemized in the estimate should be included in the agreement assembly to support the estimate. No specification sheet will be required for poles, since the symbols for these items are obvious.

Labor

- The estimate must show person-hours by the rate for the job title. Additionally, unit costs for labor will be acceptable when the utility's system of accounts provides for this method of estimating. This type of cost estimating is usually done by cooperatives involving RUA facilities.
- However, if items of overhead are included in the unit cost for labor, these items are detailed separately to be analyzed to assure the costs were incurred after execution of a Utility Agreement. The utility should also include in the estimate the amount of time anticipated for supervisory labor, costs incidental to the preparation of the plans, estimates, and agreement documents, and expenses that will be paid to individuals directly engaged in the proposed adjustment.
- All labor charges and expenses shown must be in conformity with similar charges that are reflected in the accounts of the utility and incurred in its normal operations.

Overhead

- Payroll additives and other overhead factors should be shown individually, with a statement of what is included in each account and an explanation of the method used for accumulating such costs.
- Common ineligible costs that may not be claimed in the utility's overhead account are:
  - advertising and sales promotion;
  - interest on borrowed funds (allowance for funds used during construction (AFUDC);
  - charges for the utility's own funds;
  - resource planning and research programs;
  - stock and stockholder's expenses;
  - Federal and State income taxes;
  - provisions for contingent reserves;
  - directors' salaries;
  - special management studies;
  - bad debts;
  - sales and rate studies;
  - contributions;
  - fines and penalties;

- entertainment;
- lobbying; and
- revenue loss (not to be confused with product loss during construction).

Transportation and Equipment

Charges should have sufficient documentation and explanation of necessity.

- Personal expenses
  - Expenses may include meals and lodging required by use of the utility's forces in remote areas. The costs should be in keeping with those normally incurred by the utility.
- Equipment
  - `For reimbursement, specify type, size, and rate of each piece of equipment used.`
  - The charges should reflect the utility's normal accounting procedures.
  - Rentals should also be shown by type, size, and rate.
  - Published equipment rates, instead of actual rate, are not allowable, (i.e., Petroleum Motor Transport Association (PMTA) rates).

Right of Way

Right of way costs for replacement or damages should be in accordance with the utility's normal methods.

- Definitions:
  - "Right of way costs" are defined as those instances where there is an interest in land acquired.
  - "Replacement right of way" may be defined as the land and interests in land acquired outside existing highway right of way for or by the utility. These costs may include salaries and expenses of utility employees engaged in the valuation of and negotiation for right of way, amounts paid to independent fee appraisers for appraisal of the right of way, recording costs, deed fees and similar costs normally paid that are incidental to land acquisition. These costs must never be lumped together, but should be broken down as separate line items in the estimate with estimated quantities and units.

A valuation of the replacement right of way must be conducted before the initiation of negotiations.

Payment of property damages necessary for a utility adjustment is reimbursable when properly documented. Losses to improvements such as crops, timber, fences, and gates caused by utility construction will be considered as damages and properly chargeable by the utility as a construction or

adjustment expense. No reimbursement is permitted for damages caused by negligence on the part of the utility or its employees.

An affidavit and existing record documentation affirming a utility's property interest at the present facility location needs to be submitted to the District. Upon completion of the utility adjustment, the utility's prior property interest will be quitclaimed to the State.

Traffic Controls

Develop a TMUTCD-compliant traffic control plan, to include:

- Appropriate signs, markings, and barricades per the traffic control plan
- Safety equipment, such as:
  - barrels,
  - signage,
  - flagmen,
  - positive barriers, and/or
  - vertical panels.
- Clear zone protection devices, such as:
  - concrete traffic barriers,
  - metal beam guard fencing,
  - appropriate end treatments, and
  - other appropriate warning devices.

Salvage, Abandoned Facilities, and Removal of Materials

The estimate must contain appropriate credits for salvage and accrued depreciation value, if applicable.

- Salvage
  - If existing materials are to be removed from the project as part of the adjustment or relocation of the utility's facilities, a credit must be given for their value against the net cost of the adjustment.
  - If materials are to be re-stocked, the credit should be in an amount comparable to the prices charged for similar materials when issued from the utility's stock.
  - If the salvaged materials are to be sold as junk or for scrap value, that amount should be credited to the net cost of the adjustment.

- If the salvaged materials are deemed to have no value and are disposed of with no value being returned to the utility, then a credit does not need to be applied to the adjustment's net cost. Justification should be provided to substantiate removal.
- The State or LPA should verify the disposition of salvage materials in their construction diary and a statement as to the disposition should accompany the billing for the adjustment.

◆ Abandoned Facilities

- Abandoned lines are the **responsibility and property of the abandoning utility owner**. Abandonment does **not** relieve the owner of financial responsibility.
- Utilities may request that their abandoned lines be left in the ground; such request must be reviewed and approved by the District, which will notify ROW Division of its decision.
- Without valid justification, all abandoned facilities shall be removed.
- Utilities must maintain an inventory of all abandoned facilities on State right of way.

◆ Required Removal of Materials

- Environmentally sensitive material should be removed if there is a direct construction conflict.
- If abandoned materials are to be removed by the utility, the cost must be reflected in the estimate. A description of the removal work performed **must** be detailed in the scope of work narrative.

Credits

Federal and State regulations require that, in most cases, credits to the utility adjustment project must be given. Generally, these credits will fall into one of the following categories:

◆ Betterment credits due to **elective** increases in functional capacity, improvement of utility service, or superior and improved materials in the replacement facility that are not required because of the highway project.

◆ Capital Improvements. There may be occasions when, to clear right of way for highway construction, the cost of any required adjustment of buildings and other similar structures of a utility used primarily for the production, transmission, or distribution of the utility's products is eligible for reimbursement. These include:

- switching stations
- power substations
- pumping stations
- metering and regulatory stations
- lift stations
- storage tanks

- field offices
- garages, and
- other similar structures

When it is not necessary to retain the existing building and/or facilities in service until a replacement is constructed, reimbursement will be limited to the most economical method of adjustment.

The reimbursement estimate should indicate the method of work to be accomplished on the building and/or the facilities, to the extent of listing major items of materials, if applicable, and should be limited to the most economical method of adjustment. This will enable the reviewer to determine if any credits should be applied to these costs.

Credits to the utility project should be set forth separately and in sufficient detail to show the method used for establishing the amounts. In addition, credits should be included in the summary of costs to arrive at the net cost of adjustment.

- Accrued Depreciation requires credit for accrued depreciation of a utility facility being replaced,
- See computation of credit formula below, (i.e., Handy Whitman Index).
  Credit for accrued depreciation is **not** required when any of the above-described facilities are only being relocated and not replaced.

$$\frac{\text{Actual Service Length}}{\text{Total Life Expectancy}} \times \text{Original Cost} = \text{Credit}$$

Equation 7-1. Computation of Credit Formula

The information for determining the required credit must be furnished by the utility and based on its own records and depreciation schedule.

Betterments

Betterments incorporated into utility work will fall into one of the following categories:

- Forced betterments: also known as non-elective betterments; those necessitated by transportation project construction, as shown below; this type is usually a **reimbursable** cost item. The following are reimbursable items and must be properly documented by the utility:
  - non-stocked items that are uneconomical to purchase;
  - items to comply with governmental laws and regulated industry standards (signed and sealed engineering determination letter may be required);
  - appropriate regulatory commission codes;
  - published, current design practices regularly followed by the utility in its own work;
  - installment of replacements of equivalent standard, although not identical;

- betterments for which there are direct benefits to, and /or are required for, the transportation project.

The following are not considered as the basis of a forced betterment:

- International Fire Code, amendments, and appendixes;
  - Fire suppression measure that is not installed on existing facility
- TAC codes that are not directly related to pipe size or capacity;
- City ordinances that are adopted for TxDOT projects only or non-regulatory commission codes;
- Master Plans implemented for TxDOT only projects;
- Design standards that are not followed by the utility's own practice.

- Elective betterments: those constructed at the election of the utility and are not attributable to the transportation project, i.e., increased service capacity or service improvements; this type is always a **non-reimbursable** cost item. Credit will be required and must be indicated in the estimate for elective betterments.

TxDOT cost participation is based on the cost of providing the most economical replacement facility or restoration of functionally equivalent service to the facility being replaced. The costs of elective betterment items **are ineligible** for TxDOT and Federal participation. Such elective betterments should be depicted on the plan as part of the work proposed.

The utility should record all relocation costs on a **single** work order account. It is impractical for a utility to accurately separate reimbursable and non-reimbursable portions of the relocation cost, particularly labor, overhead, equipment, and transportation. Use the following procedures (below) to determine State cost participation.

Procedures for Computing Elective Betterment Credit

1. Prepare a plan and estimate of cost for replacement of the existing facility in the most economical manner, as required by the transportation construction project: **(A)**.
2. Prepare a second plan and estimate including the betterments that the utility elects to build: **(B)**.
3. Subtract the two (above items) from one another to arrive at the difference between the two: **(B) minus (A) = (X)**
4. Compute a betterment credit percentage based upon the ratio of the result **(X)** in the bullet above to the betterment estimate **(B)**:

$$\frac{(X)}{(B)} = \text{Elective Betterment Credit Percentage}$$

5. Apply the elective betterment percentage to the final billing of actual costs incurred in building the "bettered" facility **BEFORE** deducting accrued depreciation, if applicable, and salvage credits.

Table 7-2: Example Computation of Elective Betterment Percentage

Estimated Total Cost of Relocation:	$1,000,000 (B)
Non-betterment Estimate	- 700,000 (A)
Elective Betterment Credit	$ 300,000 (difference) (X)
(X) / (B) = % (Percentage)	30% Betterment Credit

Table 7-3: Estimate Summary

Total Billing (including betterments)	$1,200,000
Less 30% Betterment Credit	$ 360,000
Less: Accrued Depreciation (if applicable)	$ -0-
Less: Salvage (if applicable)	$ 122,000
Eligibility Ratio (if applicable)	$ -0-
Estimated Reimbursement	$ 718,000
*Actual cost may differ from the estimated cost.	

Care should be taken when arriving at the estimated cost of relocation to avoid having to bid.

- Reimbursable Miscellaneous Items:
  - Storm Water Pollution Prevention Plan (SWPPP): The general requirements established by the EPA maintain that the contractor must have a National Pollution Discharge Elimination System (NPDES) permit for certain construction activities.
  - Security: The utility may contract with a security service to provide security for their on-site equipment and materials during the utility adjustment.
  - Revegetation: In accordance with the UAR, the utility is responsible for reseeding and re-sodding to reduce erosion when the utility installation is complete. It is also required to reshape, reseed, or re-sod the area when, within six months after utility installation, settlement or erosion occurs.
  - Product Loss (not to be confused with revenue loss): The following 4-step calculation will be used to estimate gas loss when relocating pipelines containing natural gas:

(1)FPV = 1 + P2 / 1000 * 0.847

(2)V2 = [P1 * [D1 / 12 * D1 / 12/4] * L1 * [[P2 + 14.65] / 14.65] * FPV] / 1000

(3)R1 = V2 * 1000 * S1

(4)Gas Loss = R1 / 2000.

Where:

FPV = Super-compressibility factor

P2 = Pressure (PSIG)

V2 = Volume of gas in pipeline segment (in MCF)

P1 = Original absolute pressure

D1 = Internal diameter of pipe

L1 = Length of pipeline

R1 = Gas release weight in lbs/cf

S1 = Sample of gas in lbs/cf.

- Trench Safety Plan
- Testing and Removal of Contaminated Soils

Section 3 — Contract Work and Consultants

Contract Work

Differences between actual cost and lump sum agreements regarding the support required for contract work are as follows:

- Actual Cost
  - When the utility proposes to perform adjustment by using a contractor, it must show the method of solicitation or contracting procedure used by including a completed form ROW-U-48 Statement Covering Contract Work for Construction with the agreement.
  - If all or part of the work is to be accomplished on a contract basis, the estimate must reflect that portion of the work to be performed by contract forces.
  - A utility may estimate the cost of work to be performed by contract forces without securing bids. However, the utility must include a reasonable basis for estimating the contract work.
- Lump Sum
  - Lump sum over $500,000.00 must be approved by ROW Division.
  - Actual bids must be secured to support contract work in the estimate.
  - Reimbursable contract costs are limited to the amount of the low bid submitted by a qualified contractor.
  - The utility must defer the award of the low bid pending execution of the Standard Utility Agreement.
  - Copies of bids received should be included in the agreement assembly to document that the amount appearing in the estimate represents the low bid.
  - If it is not practical to include bids in the agreement submission, the plans, estimates, and other supporting data should be submitted before the agreement itself so that all other charges can be reviewed and their eligibility established.

The estimate should be explicit regarding the work to be performed under contract and the work to be accomplished with the utility's own forces.

If the work to be accomplished is

- under a continuing contract, and
- the contractor regularly performs work for the utility,

then a copy of the contract need not be included in the lump sum agreement. In such cases, only the current rate schedules included in the continuing contract must be submitted to support the charges in the estimate.

Consultants

In addition to the requirements outlined in the Use of Consulting Engineers, the utility should take into account the following in submitting costs for consultants in the estimate:

- overall utility project designs and adjustments;
- preliminary estimates; and
- consultant roles and responsibilities

Section 4 — Buy America Guidelines

Overview

Buy America requires the use of domestic steel and iron in Title 23 funded highway contracts. The use of foreign steel or iron materials or products in a Federal-aid project is prohibited with few exceptions (e.g., temporary basis; manufactured products that are not predominantly steel and iron; minimal use; nationwide or individual waivers; etc.). Section 1518 of MAP-21 has modified 23 U.S.C. 313 to require Buy America on the basis of a contract's associated NEPA document. All contracts, irrespective of funding source, are subject to Buy America compliance if any contract to construct a portion of the NEPA project is or has been funded under Title 23. If a non-federal aid contract is awarded without the Buy America provisions on or after December 31, 2013, all subsequent contracts within the scope of the NEPA document would become ineligible for federal aid participation.

On federal-aid projects, utility facility owners will use domestically manufactured products that are composed predominately of steel and/or iron to incorporate into the permanent installation of the utility facility - in compliance with the Buy America provisions of 23 CFR 635.410 as amended. Examples of such products may include poles, cross arms, and structural support members; towers and girders used to comprise transmission towers and stand-alone structures; conductor support cables; high-strength bolts used as anchor bolts and anchor rods; iron or steel baseplates; encasement pipes, pipes and valves; rebar and other reinforcing iron/steel for all cast-in-place and precast installations; conduit and ducting; fire hydrants; manhole covers, rims, and drop-inlet grates.

According to FHWA (memo dated July 6, 1989), all manufacturing processes of the steel material in a project (i.e., smelting and any subsequent process which alters the steel material's physical form or shape or changes its chemical composition) must occur within the United States to be considered of domestic origin. “Domestically manufactured products” are those products manufactured in the United States that have not undergone any manufacturing process outside of the United States that modified the chemical content, physical shape or size, or final finish of the product, beginning with the initial melting and continuing through final shaping and coating. For example, the creation of steel in any fashion from the iron ore is considered a manufacturing process, and if that process is performed outside the US, the steel is non-compliant, even if the final product was manufactured domestically. Raw materials were originally included in Buy America; however, lack of adequate domestic supply resulted in a 1995 nationwide waiver for pig iron and reduced/processed/pelletized iron ore.

Utility agreements executed before Dec. 31, 2013, are not subject to Buy America requirements.

The date of the original Utility agreement will be used as the date to determine Buy America compliance if the Utility Agreement is amended after December 31, 2013, unless the amendment includes major changes in the scope of work.

Non-domestic iron and steel materials may be used provided the cost of such materials does not exceed one-tenth of one percent (0.1 %) of the individual Utility Agreement amount, or $2,500.00 whichever is greater, per 23 CFR 635.410 (b)(4). The De Minimis equation is calculated by the following formula: Combined Cost of Only those Materials that are subject to Buy America and are Non-Compliant (limited to the individual Utility Agreement) divided by the Total Utility Relocation Cost (cited in the individual Utility Agreement).

Documentation Requirements for Buy America

Prior to the installation of products subject to Buy America compliance, the utility facility owner will submit an executed TxDOT Form 1818 with attached Mill Test Reports, issued and signed by the initial fabricator, supplier of materials, or utility owner. Mill Test Reports should state that the materials were manufactured domestically. If the Mill Test Reports are not provided or lacking information, the utility facility owner may demonstrate Buy America compliance by providing a written certification signed by the vendor or manufacturer on company letterhead signed by an authorized representative declaring that all supplied materials subject to the Buy America provisions are fully compliant. The written certification will include the specific project information pertaining to the Standard Utility Agreement and state that all products that are composed predominately of steel and/or iron were manufactured domestically and in compliance with the Buy America provisions of 23 CFR 635.410 as amended.

The utility must furnish the following for verifying compliance with Buy America requirements (domestic origin) of steel and iron materials:

- *Form 1818 Material Statement* - this form is to be completed, furnished, and signed by the supplier of materials, initial fabricator, or utility owner. Form 1818 will not be acceptable if it is incomplete and not signed by a notary. This form, when completed, should contain certification by the utility with attached evidence of compliance from the supplier / manufacturer.
- **And** one of the following (or a combination):
  - The Mill Test Report (MTR) issued and signed by the initial fabricator stating that the materials subject to Buy America were melted and manufactured in the United States; written certification from the factory(s).
  - Written certification signed by the vendor on company letterhead, or other acceptable documentation, signed by an authorized representative of the vendor declaring that all supplied materials subject to the Buy America provisions are fully compliant.
  - Other written statements on company letterhead, signed by an authorized representative, from the manufacturers providing any additional treatment to the fabricated material (such as blasting, galvanizing or painting) stating that all treatment processes occurred in the United States.
  - Written certification should state that all products that are composed predominately of steel and/or iron were manufactured domestically, in compliance with the BUY AMER-

ICA pro-visions of 23 CFR 635.410. Certification should include project information pertaining to the standard utility agreement.

Additional Consideration to Certification Methods

Utility owners will bear responsibility to ensure all materials permanently incorporated into their utility relocations are either compliant or not required to be compliant with Buy America requirements.

Where a utility purchases manufactured products from a vendor for use by the owner in its relocation activities, a certification from the vendor to the utility that the materials meet Buy America requirements shall be deemed to constitute compliance by the utility owner.

Where a utility owner obtains construction services in connection with utility relocation work and the provider of construction services is also responsible for sourcing of manufactured products used in connection with that project, a certification from the provider of construction services that the materials provided meets Buy America requirements is sufficient.

Materials purchased by the TxDOT highway contractor from a TxDOT approved supplier for utility relocations included in the highway contract will not require any supporting documentation from the utility owner.

Exceptions to Buy America Provisions

- Buy America does not apply to existing utility materials which are relocated from one location to another within the project limits.
- Buy America does not apply to any materials required for maintenance and temporary installations.
- Buy America does not apply to any materials necessary to repair equipment that was discovered or damaged during construction and requires immediate action to restore to safe conditions or to minimize adverse public impact.
- Buy America does not apply if the utility relocation effort is not eligible for federal reimbursement when State law prohibits TxDOT from reimbursing utilities. For example, if the utility owner does not have a compensable property interest and is therefore required to pay for 100% of the relocation effort, then the materials associated with that relocation are not subject to Buy America. However, all such work must remain separate from and cannot be accomplished under a utility agreement or contract that includes work eligible for Federal-aid.
- Per 23 CFR 635.410, the work to be performed under the utility agreement may include foreign iron and steel products if the cost of Buy America compliant materials will cause the cost of the work to increase by at least 25%. To determine applicability of this provision, one of the following two procedures shall be used, per TxDOT policy:

- If the utility company will use a contractor or developer or concessioner to perform the work included in the utility agreement, the following procedures apply: Demonstration of meeting the 25% excess cost requirement must be accomplished by receiving two separate bids each from at least two qualified contractors for the work. Requests for bids from the qualified contractors must conform to 23 CFR 635.410 (b)(3). One bid from each contractor will include a cost of performing the work described in the utility agreement using Buy America compliant material and the other bid will include a cost for the same work assuming foreign materials. If the bid with the Buy America compliant materials is at least 25% greater than the bid that includes foreign material, then the contract can be awarded to the lowest bid based on materials that are not compliant with Buy America.
- If the utility company will perform work in the utility agreement with its own forces, the following procedures apply: Demonstration of meeting the 25% excess cost requirement must be accomplished by receiving two separate bids from vendors or manufacturers listing the cost of Buy America compliant materials on one bid document and listing the cost of non-compliant materials on a separate bid document. The utility company will take the cost of the Buy America compliant materials and use it to create the total estimated cost of the work included in the utility agreement. The utility company will do the same with the cost of the noncompliant materials. If the cost of the work included in the utility agreement with Buy America compliant materials is at least 25% greater than the cost using the materials that are not compliant with Buy America, then the non-compliant materials may be used.

Section 5 — Iron and Steel Preference Provisions in Improvement Contracts

Overview

The Iron and Steel Preference Provisions in Improvement Contracts requires the use of domestic iron and steel on contracts awarded by TxDOT for the improvement of the state highway system without federal aid. These contracts must contain the same preference provisions for iron and steel and iron and steel products that are required under federal law for an improvement made with federal aid, as outlined in Transportation Code, Section 223.045. If a state-funded contract is awarded without the subject provisions, it would become ineligible for reimbursement.

On state-funded projects, utility facility owners will use domestically manufactured products that are composed predominately of steel and/or iron to incorporate into the permanent installation of the utility facility - in compliance with the provisions established in Transportation Code, Section 223.045. Examples of such products may include poles, cross arms, and structural support members; towers and girders used to comprise transmission towers and stand-alone structures; conductor support cables; high-strength bolts used as anchor bolts and anchor rods; iron or steel baseplates; encasement pipes, pipes and valves; rebar and other reinforcing iron/steel for all cast-in-place and precast installations; conduit and ducting; fire hydrants; manhole covers, rims, and drop-inlet grates.

Documentation Requirements for Iron and Steel Preference Provisions in Improvement Contracts

Prior to the installation of products subject to Buy America compliance, the utility facility owner will submit an executed TxDOT Form 1818 with attached Mill Test Reports, issued and signed by the initial fabricator, supplier of materials, or utility owner. Mill Test Reports should state that the materials were manufactured domestically. If the Mill Test Reports are not provided or lacking information, the utility facility owner may demonstrate Buy America compliance by providing a written certification signed by the vendor or manufacturer on company letterhead signed by an authorized representative declaring that all supplied materials subject to the Buy America provisions are fully compliant. The written certification will include the specific project information pertaining to the Standard Utility Agreement and state that all products that are composed predominately of steel and/or iron were manufactured domestically and in compliance with the Buy America provisions established in Transportation Code, Section 223.045.

The utility must furnish the following for verifying compliance with the provision (domestic origin) of steel and iron materials:

- *Form 1818 Material Statement* - this form is to be completed, furnished, signed, and notarized by the supplier of materials, initial fabricator, or utility owner. This form, when completed, should contain certification by the utility with attached evidence of compliance from the supplier / manufacturer.

- **And** one of the following (or a combination):
  - The Mill Test Report (MTR) issued and signed by the initial fabricator stating that the applicable materials were melted and manufactured in the United States; written certification from the factory(s).
  - Written certification signed by the vendor on company letterhead, or other acceptable documentation, signed by an authorized representative of the vendor declaring that all supplied materials subject to the provisions are fully compliant.
  - Other written statements on company letterhead, signed by an authorized representative, from the manufacturers providing any additional treatment to the fabricated material (such as blasting, galvanizing or painting) stating that all treatment processes occurred in the United States.
  - Written certification should state that all products that are composed predominately of steel and/or iron were manufactured domestically, in compliance with the BUY AMERICA. Certification should include project information pertaining to the standard utility agreement.

Additional Consideration to Certification Methods

Utility owners will bear responsibility to ensure all materials permanently incorporated into their utility relocations are compliant with the provisions.

Where a utility purchases manufactured products from a vendor for use by the owner in its relocation activities, a certification from the vendor to the utility that the materials meet the requirements shall be deemed to constitute compliance by the utility owner.

Where a utility owner obtains construction services in connection with utility relocation work and the provider of construction services is also responsible for sourcing of manufactured products used in connection with that project, a certification from the provider of construction services that the materials provided meets requirements is sufficient.

Materials purchased by the TxDOT highway contractor from a TxDOT approved supplier for utility relocations included in the highway contract will not require any supporting documentation from the utility owner.

Exceptions to Requirements for Iron and Steel Preference Provisions in Improvement Contracts

- The provisions do not apply to existing utility materials which are relocated from one location to another within the project limits.
- The provisions do not apply to any materials required for maintenance and temporary installations.

- The provisions do not apply to any materials necessary to repair equipment that was discovered or damaged during construction and requires immediate action to restore to safe conditions or to minimize adverse public impact.

Chapter 8 — Procedures for Utility Adjustments

Contents:

Section 1 — Adjustments

Section 2 — Utility Property Ownership

Section 3 — Right of Way Costs

Section 4 — Emergency Adjustment

Section 5 — Four Major Procedures for Utility Adjustment

Section 6 — State Utility Procedure

Section 7 — Federal Utility Procedure

Section 8 — Local Utility Procedure

Section 9 — Non-Reimbursable Utility Adjustment Procedure

Section 10 — Federal-aid Participation

Section 1 — Adjustments

Eligible Adjustments

When highway right of way encroaches on a utility's right of way, TxDOT will participate with the LPA in the cost of necessary utility adjustment. TxDOT will also participate in the cost associated with utility adjustments when the utilities are located on an Interstate highway project (Federal funding for right of way).

TxDOT's participation in the utility adjustment will be limited to the cost of making the adjustment, after deductions for the following:

- elective betterments;
- accrued depreciation;
- salvage or scrap value; and
- ineligible costs (e.g., loss of revenue, interest expense, entertainment, allowance for funds during construction (AFUDC).

Partially Eligible Adjustments

An adjustment may involve facilities located partially on highway right of way by statutory right (Public) and partially on compensable interests acquired for utility purposes (Private). Eligibility for TxDOT cost participation is determined by compensable interests held by the utility within the limits of the existing and proposed right of way. When this situation exists, an eligibility ratio must be established and approved by the District before or as part of the Utility Agreement.

Section 2 — Utility Property Ownership

Public Utility Easement (PUE) Reimbursement Considerations

PUEs are rights obtained by an LPA when property is platted or re-platted for development. Right of way is reserved to accommodate utility access to the development. This right of way is intended for use of all utilities, and therefore conveys a compensable interest to any utility placed within the easement. However, the PUE does not convey a replacement right of way interest to any occupants of the PUE. The Texas 14th Court of Appeals ruled that utilities should be reimbursed for costs directly attributable to work performed in a PUE.

All utilities within a PUE have compensable rights if any portion of the easement were to be incorporated into the proposed right of way limits of a transportation project. The incorporated portion gives the utilities within that portion the right to request TxDOT cost participation in any adjustment to those specific facilities.

In this case, the utilities located within the easement would be eligible for costs to relocate or adjust their facilities on a one-time basis, and would not be eligible to retain any future compensable rights.

Acquisition of Right of Way from a Utility Property Owner

If a utility owns fee title to property required for a proposed right of way project, it is TxDOT's preferred practice to acquire fee title to that property. If the facilities or operations of a public utility are affected on the required right of way, the facilities will be eligible for State cost participation. This cost participation will be in accordance with the appropriate Standard Utility Agreement.

Compensation Considerations

A utility easement is a specific right to a legally described parcel of land that has been, or can be, recorded in the Real Property Records of the county.

In some situations, a property interest may not be possessed by a utility, but eligibility for State cost participation may be appropriate to compensate for the required adjustment. Compensation consideration may be appropriate for a railroad license agreement in favor of a utility predating a public right of way, or a joint occupancy agreement between two separate utilities (typically occupying poles) if the primary utility (typically pole owner) holds a property interest.

Occasionally, a utility will occupy, by statutory authority, areas covered by the property rights of another entity. This does not entitle the utility to retain any compensable right or to purchase replacement rights if acquisition of the area becomes necessary for a transportation project. How-

ever, the utility is entitled to reimbursement of a compensable cost to adjust its facilities on a one-time basis.

If questions arise regarding the status of rights claimed by a utility, that utility is responsible for documentation of these rights. TxDOT reviews property rights claimed by the utility to determine if a compensation consideration or a property right exists before making an agreement to adjust the utility's facilities.

For a utility agreement assembly to be a candidate for approval, the utility's compensation consideration must be clearly documented and supported by verifiable evidence, such as a recorded deed, easement, or lease. In situations where evidence of property interest is inadequate to support compensability, compensation consideration issues must be resolved before District approval of the utility agreement assembly.

The District may request pre-approval of the compensation consideration claim in writing. The request may include submission of completed affidavits, form ROW-U-Affidavit, from a Utility Owner and a Disinterested Party or Property Owner, as appropriate, to support the property interest claim. To utilize the affidavit validation of property interest(s) there must be one (1) affidavit from the utility owner, **as well as** one (1) affidavit from a disinterested party **or** a property owner. A ROW Attorney will review the District's request and reply with comments.

License agreements with a railroad that document a compensation consideration for a utility must have been executed **before** the highway facility was constructed. Otherwise, no compensation consideration can be acknowledged.

When municipally owned utilities are located in a city street where no previous adjustment has been performed and later becomes part of the State Highway System, a current project requiring adjustment of those municipally owned utilities may be deemed reimbursable by the State.

Eligibility Ratio

Eligibility for reimbursement of utility adjustment costs must be clearly identified. The District may seek pre-approval of the eligibility ratio from ROW Division and continue processing the utility agreement assembly for approval. Eligibility issues must be resolved before District approval of the utility agreement assembly.

Scenarios of eligibility, including eligibility ratios, are available in PDF format. The eligibility ratios found on these scenarios are based primarily upon proportional property rights as measured along the centerline of the existing utility facility. When the conflict lies solely within the joint use/acquisition of the utility's property, the eligibility ratio is 100%. Scenarios are available in PDF format. Each example scenario shows the appropriate eligibility ratio.

For example, if it is assumed that the total width of the proposed highway right of way is 300-feet, and 100-feet of the utility's existing facility is presently located on **highway right of way** by statutory right, and 200 feet is presently occupying **utility right of way** (or utility easement), then TxDOT will participate in 66.67% (200'/300') of the total cost of the required adjustment after deducting any credits due for betterment and salvage.

The key determining factors for eligibility ratio are:

- **line length for underground pipelines, cables, or**
- **main line pole location for power and overhead communication facilities. Guy poles, push braces, and down guys must be excluded from the ratio as these items are considered as supporting structures.**

In developing the ratio, line length or number of poles is restricted to existing facilities located **within** the existing and proposed highway right of way. Existing facilities located **outside** the existing and proposed right of way limits will not be used in developing the ratio. However, the percentage established from the ratio will be applied to all applicable costs necessary for the adjustment. If multiple underground cables are located within the general location and owned by the same utility, then use the overall length of the facility to calculate the eligibility ratio. When calculating eligibility ratio, counting the length of the pipe and the cable carried within the pipe is not acceptable.

All applicable adjustment costs will be **ineligible** for TxDOT cost participation when line poles are on highway right of way by statutory right, and guy poles, push braces and/or down guys are on utility-owned right of way. However, TxDOT will participate in **right of way costs** incurred in conjunction with adjustment of the guy poles, push braces, and/or down guys. The basis for developing the ratio for underground pipelines, cables, overhead power and communication facilities is as follows:

Although line lengths for pole line adjustments are not generally used as a basis for determining an eligibility ratio, special conditions (e.g., transmission towers, railroad intersections) may warrant consideration for such handling. When these conditions exist, all factual data must be submitted to the District for determination regarding the appropriate method of handling.

When there are facilities to be removed and not replaced, the establishment of an eligibility ratio must not include these facilities. Utility adjustment charges must be prorated only on those facilities being functionally replaced. For further information see Section 6.

The State's participation must be limited to replacement-in-kind of the utility's property interest, including length, width, and type. The established eligibility ratio must be applied to all costs associated with the accommodation.

Calculating the Eligibility Ratio at Railroads

The eligibility ratio in the case of a license agreement between a railroad and a utility is determined by the following formula:

Width of the Existing Highway= 100’

Width of the Proposed Highway= 150’

Therefore, as an example, if the existing highway is 100 feet wide, and the proposed highway is 150 feet wide, then the eligibility ratio would be 50’ divided by 150’ = 33.33%.

Composite Eligibility Ratios (CER)

On any given project, there may be multiple utility adjustments at different locations within the highway right of way project limits. When these different locations contain different line sizes and/or eligibility ratios, it will be necessary to calculate a CER. A CER is calculated to mitigate administrative and accounting difficulties encountered with simultaneous work sites having different individual eligibility ratios. The total cost of the adjustment should include all cost associated with the adjustment including engineering, construction, administration, inspection, etc. When calculating eligibility ratio, counting the length of the pipe and the cable carried within the pipe is not acceptable.

The formula for determining a CER is:

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CER= [(X+Y+Z) / (A+B+C)] * 100%
```

Where:

- *A*= Total Cost of Adjustment of Utility “A”
- *B*= Total Cost of Adjustment of Utility “B”
- *C*= Total Cost of Adjustment of Utility “C”
- *X*= “A” times the Eligibility Ratio for Utility “A”
- *Y*= “B” times the Eligibility Ratio for Utility “B”
- *Z*= “C” times the Eligibility Ratio for Utility “C.”

For example using the scenario shown in Table 8-1 and Figure 8-1:

Table 8-1: Composite Eligibility Ratio Calculation

Facility to be adjusted	Total Cost of Adjustment	Individual Eligibility Ratio	X, Y & Z Factors
City Sewer Line – Adjustment A	$300,000	30%	X = $90,000
City Sanitary Sewer Treatment - Adjustment B	$100,000	100%	Y = $100,000

Table 8-1: Composite Eligibility Ratio Calculation

Facility to be adjusted	Total Cost of Adjustment	Individual Eligibility Ratio	X, Y & Z Factors
City Water Line – Adjustment C	$20,000	0%	Z = $0

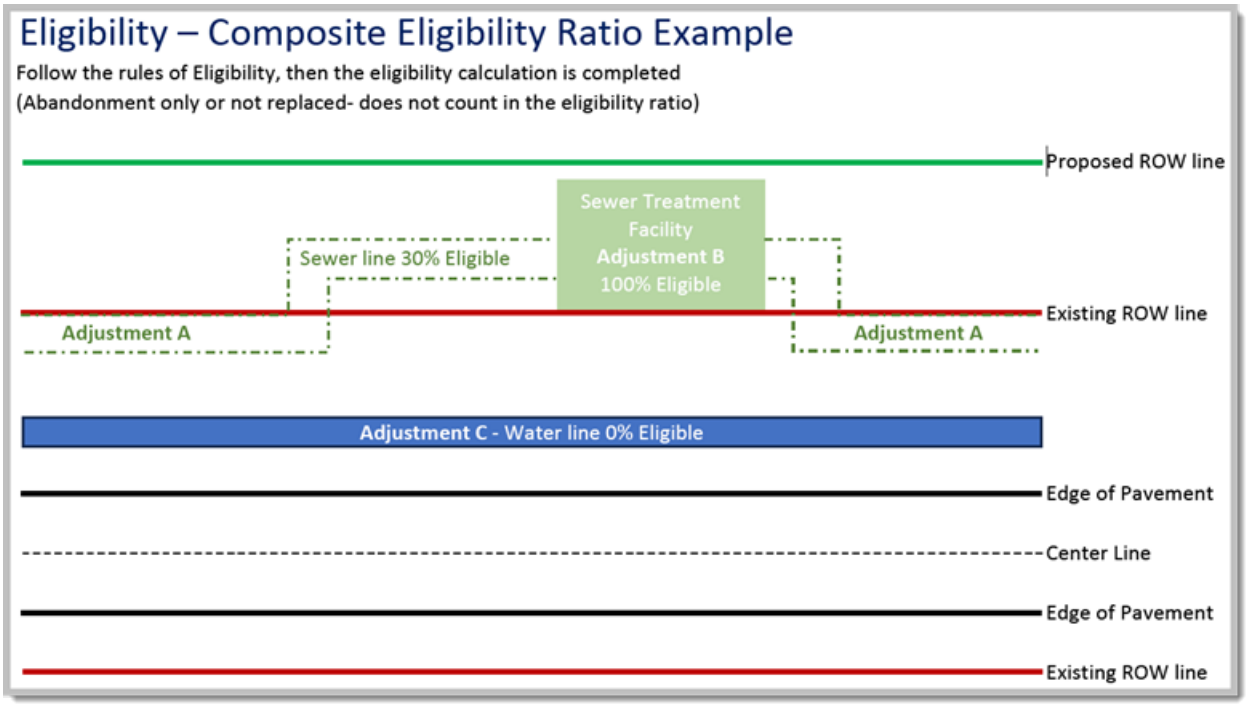

Figure 8-1. Example Scenario for CER Calculation

CER= [(X+Y+Z) / (A+B+C)] * 100%

= [(90,000 +100,000 + 0) / (300,000 + 100,000 + 20,000)] * 100%

= [190,000/420,000] * 100%

= 0.452381*100%

= 45.24%

Therefore, the CER for this example would be 45.24%.

The burden of proof regarding compensable interest lies with the utility company!

When reviewing and approving the eligibility ratios, the District must consider appropriate affidavits and attachments.

Section 3 — Right of Way Costs

Preliminary Activity

The "Preliminary Utility Activities" project phase in utility coordination establishes a point in time by which eligible costs for preliminary utility activities (i.e. utility investigations to determine the necessity for required utility adjustments, design of utility relocation plans, and ordering materials that require extended lead times) may be incurred. However, no physical adjustment of an eligible utility's facilities can commence until appropriate agreement is executed. Prior to incurring any costs for the actual adjustment of any utility facility, the project must have the appropriate authority to proceed in addition to an executed utility agreement or date of eligibility.

Utilities Presently Located on Interstate Right of Way

Under provisions of Minute Order No. 47268, the State will participate in the cost of utility work on the National System of Interstate and Defense Highways in accordance with provisions contained in Transportation Code Section 203.092. Under those provisions, the State is required to reimburse utilities for all adjustments eligible for Federal participation on the National System of Interstate and Defense Highways. The cost of adjusting facilities, or portions thereof, presently occupying public right of way by statutory right has, therefore, been declared eligible for State cost participation. A ruling by the United States Supreme Court states, however, that if a relocating utility is presently in the State's right of way, the State is not required to purchase right of way for ownership by the utility for relocation of its facilities. This ruling would not affect a joint-use agreement previously entered between the State and the utility.

Utilities Presently Located on Private Right of Way

When highway construction necessitates the adjustment of utility facilities that are presently occupying right of way in which the utility holds a valid property interest, reimbursement may be claimed for 100% of the necessary replacement right of way cost.

Where a utility has an existing installation on private right of way and proposes to request reimbursement for all, or part, of the right of way costs incurred in making the required adjustment, the agreement must be supported by affidavits using ROW-U-Affidavit (choose an option for Utility Owner, Disinterested Party, or Property Owner), as appropriate, with proper instruments of conveyance, or by a Quitclaim Deed.

In some cases, when *ROW-U-Affidavit (choose an option for Utility Owner, Disinterested Party, or Property Owner)*, is submitted, it will be found that the instruments defining the utility owner's property interest cannot be properly tied to right of way maps or parcels appearing thereon. In these cases, the District will be supplied with information

necessary for tying each instrument to current ownerships, as they appear on the right of way map for the project. This may be done by written information or by sketches accompanying the submission. Furnished information must substantiate ownership when properties presently lie within the limits of public right of way, if such location is occupied by other than statutory right. These situations will normally exist when a utility was installed on an easement before acquisition of the original right of way.

Utilities Presently Located on Both Public and Private Right of Way

In many instances, a single adjustment will involve facilities located on both public and private right of way. In these cases, the State's participation in total right of way costs attributable to the adjustment will be proportional to the abandoned public and private property interest within the proposed right of way limits. If all adjustment work is confined to the facility that occupies the utility property interest, the State will reimburse 100% of all right of way costs incurred in making the required adjustment. The State's participation must be limited to replacement-in-kind of the utility's property interest, including length, width, and type. This is to be considered a broad statement of policy for use as guidance under normal conditions. There will be special situations requiring deviation from this rule. Such situations should be submitted to ROW Division for decision. It is, however, TxDOT's intent to reimburse those utilities fully authorized by law, and special situations will be decided based on the intent of the Supreme Court ruling. When exceptional handling appears necessary, obtain the approval of ROW Division.

Utilities as a Real Estate Acquisition

When a utility owns or occupies right of way, or has plant facilities located on land owned by the utility and existing facilities are no longer needed or are not part of the utility's system requirements for delivering service to the public, payment for the land or utility facilities needed to accommodate construction should be handled as a right of way acquisition matter. The land and facilities must therefore be appraised for acquisition.

For example, when a utility has several facilities on a crossing and parallel location that must be removed but not replaced, one of the following procedures should be used.

- The crossing and parallel segment may be considered jointly as a utility adjustment project, as allowed under Federal and State law. TxDOT will participate in the costs to remove all of the existing facilities, but will require salvage credit for all of the recovered materials because the facilities are considered as one unit and are being functionally replaced. This procedure may be followed regardless of whether the utility facilities are located on public or private right of way.
- If this work is considered as two separate work units, the crossing is to be processed as a utility adjustment project and the parallel segment is to be considered as a right of way acquisition item. Under this procedure, it is necessary to determine whether the utility has a compensable

interest along the parallel segment. When the parallel utility facilities are located on public property by statutory right and must be removed, removal costs are ineligible for TxDOT participation. TxDOT will not participate in the costs of salvage, nor require salvage credit for those facilities. It will be necessary at the agreement stage to make a determination regarding the method to be used in prorating the costs of removal, salvage, and salvage credits between the eligible and ineligible costs at the billing stage. This may be accomplished using a ratio, based on the number of poles or length of line for pipelines, or on a cost factor.

Other items that may need to be examined to determine if they are eligible for right of way acquisition are as follows:

- Control of access rights to property owned for utility facilities, if the facilities can be accessed from another location.
- Substations, water treatment plants, lift stations, and power plants that are no longer needed to maintain utility capabilities, or may be made obsolete by other methods that are the result of adjustments to their facilities in other locations.
- Water wells or cathodic protection wells that do not need to be replaced.
- Excess property located around utility facilities, if the acquisition will not hinder the function of the facilities.

Property owned by the utility housing personnel, equipment, or materials should always be acquired by the right of way acquisition process.

Section 4 — Emergency Adjustment

Overview

If an unknown, apparently reimbursable utility facility is discovered or an extenuating circumstance is encountered which requires adjustment to clear the way for construction, form ROW-U-EWA Emergency Work Authorization - Post Highway Letting should be used. An example of an extenuating circumstance during highway construction could be the severing of a fiber-optic line during boring. In this case, actual physical adjustment of utilities may be approved by TxDOT in the Emergency Work Authorization.

Under no circumstances shall remedial measures be delayed due to seeking approval when the situation places the public's health, safety, or welfare at risk; such remedial measures should be implemented immediately, followed immediately on the next working day by notifying the appropriate TxDOT division and preparing the appropriate plans and agreements.

Procedure

The District should consider the following prior to approval of the Emergency Work Authorization. An electronic copy of the executed Emergency Work Authorization should be submitted to the ROW Division for record.

- The project is authorized;
- the emergency / unusual situation necessitating the request;
- highway station limits;
- estimated eligibility ratio;
- the utility's compensable interest at the adjustment site;
- total estimated cost of adjustment;
- estimated submission date of utility agreement; and
- estimated date of adjustment completion.

In addition to the above requirements, the Emergency Work Authorization must show the estimated amount of contractor damages if the utility were not adjusted.

An authorized company representative must sign the Emergency Work Authorization.

In addition to the above requirements, the ROW Division must have granted a Full Authority Release or a Utility Only Project Release for the project. In addition, FHWA authorization must have been granted when Federal-aid in right of way is involved.

If construction requirements do not permit the delay necessary to secure advance approval in writing, approval by e-mail may be obtained, and thereafter immediately followed by written confirmation, as in the process necessary regarding a field change. The Emergency Work Authorization will be executed by the District Engineer or designee and a Utility ID will be assigned if not previously assigned. The execution of the Emergency Work Authorization establishes the date at which TxDOT may participate in utility adjustment costs and authorizes the utility to begin incurring costs for the preliminary engineering, materials, or replacement right of way.

- The District will provide the utility with the executed Emergency Work Authorization and a Utility ID.
- The utility must then initiate preparation of the utility agreement, including plans, estimates, and all attachments normally required for the agreement assembly as quickly as possible.
- The District cannot execute a Lump Sum Agreement when an Emergency Work Authorization is issued previously.

Section 5 — Four Major Procedures for Utility Adjustment

Procedures

Flowcharts showing three of the major procedures used to accomplish the adjustment and accommodation of reimbursable utility facilities on TxDOT projects are available in PDF format:

- State Utility Procedure (SUP)
- Federal Utility Procedure (FUP)
- LPA Utility Procedure (LUP)

These procedures are described in the following three sections.

The Non-Reimbursable Utility Adjustment Procedure is described in Section 9 of this Chapter.

Section 6 — State Utility Procedure

Overview

Under the State Utility Procedure (SUP), TxDOT assumes a right of way acquisition function that may include eligible utility adjustments. Use of the State Procedure allows the LPA to escrow its estimated contribution percentage up front, and relieves the LPA of the burden or duty of acquiring the necessary right of way. A flowchart in PDF format, showing steps of this procedure, is available.

Eligibility is based on compensable property interests held by the utility. TxDOT cost participation is based on totally or partially eligible adjustments.

The LPA coordinator will request an estimate of utility costs for the LPA to be able to participate in their percentage of the costs.

The primary advantage of the State procedure is that the LPA is relieved of the burden of right of way acquisition and utility adjustment. This procedure also allows the LPA to escrow its cost contribution up front with no future reimbursement.

The LPA should thoughtfully consider these options before executing a right of way contractual agreement on any project.

Project Category

There are two types of right of way projects for processing utility adjustments under the State Procedure. These are:

- non-Federal-aid participation in right of way acquisition; and
- Federal-aid participation in right of way acquisition.

Utility Agreements

Since TxDOT will negotiate directly with the individual utilities, ROW-U-35 Standard Utility Agreement will be required between TxDOT and the utility.

Section 7 — Federal Utility Procedure

Interstate with Federal Funds in Right of Way

Transportation Code, Section 203.092, provides that the adjustment of any utility facilities necessitated by the improvement of any highway on the interstate highway system will be made by the utility at the expense of TxDOT, provided such adjustment is eligible for Federal participation. The intent of this article is to relieve utility owners of the financial burden of adjustments necessitated by improvements to interstate highways. The Federal Utility Procedure (FUP) flowchart in PDF format, showing steps of this procedure, is available.

Characteristics

- TxDOT is directly responsible for all utility adjustments and payments.
- Utility adjustments are eligible for reimbursement at any location, regardless of prior property rights held.

Benefits

- TxDOT maintains full control.
- Utility adjustments and payments are accomplished in a timely manner.

When a non-interstate right of way project is converted to Federal-aid participation, the following requirements apply.

- Limit TxDOT and Federal participation to the adjustment of facilities located on utility-owned compensable interests.
- Use ROW-U-35 Standard Utility Agreement
- Follow the requirements in Section 6 of this Chapter. These sections refer to required data that must be submitted to ROW Division and to FHWA (23CFR 645.111) to receive approval of utility agreements under State Procedure.
- This information is required on each right of way project.
- When adjustments involve facilities located on both highway right of way and utility-owned right of way, determine an eligibility percentage according to Eligible Adjustments.

Section 8 — Local Utility Procedure

General

Under the Local Utility Procedure (LUP), the LPA may acquire right of way and adjust utilities with their own forces and to some extent under their own rules. The LPA must be aware that some qualifications and requirements must be met if the right of way is to be placed on the State's system of roadways, be maintained by the State, has State or Federal funding involved, and if utility adjustments are involved. These requirements are as listed in the remainder of this section. A flowchart in PDF format, showing steps of this procedure, is available.

- There is a contractual agreement with the LPA designating the responsibilities of each party.
- The LPA is responsible for negotiating, communicating, and coordinating utility adjustments.
- Eligibility is based on compensable interests held by the utility.
- TxDOT cost participation is based on totally or partially eligible adjustments.
- The LPA is responsible for utility payments.
- TxDOT reimbursement to the LPA for utility adjustments is in accordance with the terms of the contractual agreement between TxDOT and LPA.
- The LPA maintains local participation and control.

Acquisition of Replacement Right of Way

When state or Federal funds are involved in the acquisition of replacement right of way:

- the LPA must follow the requirements of the Uniform Relocation Act of 1970 and the Real Property Acquisition Policies Act of 1970, and
- the LPA will have to certify that the above acts have been complied with.
- A written evaluation for the costs should be made by utility and approved by District prior to negotiation for acquisition of right of way replacement.

Utility Accommodation

The LPA must follow the State's UAR and policies dealing with utilities; **or**

- demonstrate that the LPA, through ordinance, resolution, franchise or permit process, has stricter guidelines than those of the State and FHWA; **and**
- the LPA will need to execute ROW-U-UAD Utility Accommodation Declaration.

Participation in Costs of Adjustments

The LPA must furnish the State with an electronic copy of proposed adjustment assembly to determine the upper limit of participation by the State in costs of the proposed adjustments. Cost participation will be limited to 90% of eligible costs.

Eligibility of Utility Adjustments

The LPA must, either by requested review before, or by documentation at the time of billing, prove the eligibility of the utility work by demonstrating the utility's property rights or compensable rights. A review by the District, before expenditures, is recommended and may be accomplished by a submission in writing, with accompanying documentation, requesting the review.

Utility Agreements

- The use of a written utility agreement contract is not required between the LPA and the utility, although the use of such a contract is encouraged when payments are to be based on an actual cost basis.
- The use of a written utility agreement contract, assuring compliance with the FHWA-approved UAR, is required when Federal-aid funds are involved.

The following two procedures are available to the LPA for determining eligibility of adjustments for TxDOT cost participation. The LPA may use either procedure.

Determination of Eligibility is **optional**, while Determination of Upper Limits is **mandatory**.

Determination of Eligibility The LPA may request that TxDOT assist in the determination of eligibility. When requesting Determination of Eligibility from TxDOT before making commitments to the utility on an actual cost adjustment, the LPA must submit the following documents to the District, which forwards their recommendation to the ROW Division before authorization of the adjustment:

- one (1) electronic copy of the utility's preliminary estimates
- one (1) electronic copy of the plans
- one (1) electronic copy of form ROW-U-48 Statement Covering Utility Construction Contract Work (Method of Accounting), if applicable
- one (1) electronic copy of Affidavit of Property Ownership, form ROW-U-Affidavit (for Utility Owner), ROW-U-Affidavit (for Disinterested Party), or ROW-U-Affidavit (for Property Owner)
- confirm replacement/in kind

The ROW Division will review the preliminary plans and estimates of the proposed adjustment along with the compensable interests held by the utility. The eligibility of items reflected in the estimate, betterment, expired service life credit, and other matters will be reviewed to ensure that there is a clear understanding of the proposed adjustment. If the preliminary submission is found satisfactory by the ROW Division, the District will be notified that TxDOT reimbursement will be based on the required percentage contained in the contractual agreement between the State and LPA of the eligible items of actual cost, as appearing in the detailed final billing prepared by the utility, or as paid by the LPA, whichever is the lesser amount. The utility must keep accurate and detailed cost records of the adjustment, since all cost records and accounts are subject to audit by TxDOT for three years after final payment.

Performing the adjustment without obtaining TxDOT Determination of Eligibility incurs the risk that the utility and/or LPA may expend funds that may not be eligible for TxDOT cost participation.

Determination of Upper Limits of State Cost Participation The LPA may authorize a utility adjustment before receipt of the TxDOT's investigation of eligibility for cost participation. Under this procedure, TxDOT determination of eligibility is delayed until the reimbursement stage.

The LPA must submit the following documents to the District when requesting reimbursements:

- final billing and supporting data
- plans of the adjustment
- compensable interests forms ROW-U-Affidavit (for Utility Owner), ROW-U-Affidavit (for Disinterested Party), or ROW-U-Affidavit (for Property Owner) with attachments
- ROW-U-48 Statement Covering Utility Construction Contract Work, if applicable
- ROW-U-JUA Utility Joint Use Agreement or Permit (On System), if applicable or not previously submitted
- quitclaim instrument (ROW-N-30), if applicable

The billing submitted by the utility under this procedure is checked in the same manner as a preliminary estimate and a final billing. Therefore, this procedure is a combination estimate and billing.

Mandatory Procedures Regardless of which of the above procedures is used, the following will apply:

Utility cost estimates must be sufficiently itemized to make a determination of eligibility. This is particularly true for adjustment of facilities partially located on highway right of way, and utility-owned right of way whereby an eligibility percentage is applied to the cost of the adjustment. When an eligibility percentage is necessary, all applicable betterment, accrued depreciation, and salvage credit must be deducted from the estimated cost before applying the eligibility percentage.

Section 9 — Non-Reimbursable Utility Adjustment Procedure

General

While non-reimbursable utility adjustments do not have as many funding issues as utilities occupying TxDOT right of way by a property interest, they are equally as critical in the progression of the highway construction project. Coordination and monitoring of the adjustment at the District level will ensure timely project lettings and minimize conflicts within the highway right of way.

Utility Installation Permit

The Right of Way Utility and Leasing Information System (RULIS) is TxDOT's system for automating utility and leasing processes. Visit TxDOT's website for RULIS resources. As in reimbursable adjustments, the occupying of TxDOT right of way should be documented by a RULIS Utility Permit Application including plans accurately depicting the location and type of utility facility occupying TxDOT right of way. This agreement should also include an adjustment schedule and any special requirements by TxDOT and/or the utility. This agreement should be executed by the District Engineer or designee. For accommodations requiring a standard utility agreement, the permit approval information must be included in Attachment E.

Section 10 — Federal-aid Participation

General

When a non-interstate right of way project is converted to Federal-aid participation, the following requirements apply:

- Limit TxDOT and Federal participation to the adjustment of facilities located on utility-owned compensable interests.
- Use form ROW-U-35 Standard Utility Agreement.
- Follow the State Procedures requirements in Section 6 of this chapter, which outlines the required data that must be submitted to ROW Division and to FHWA to receive approval of utility agreements under State Procedure 23CFR 645. 111. This information is required on each right of way project.
- When adjustments involve facilities located on both highway right of way and utility-owned right of way, determine an eligibility percentage according to Section 1: Adjustments.

For State

Federal-aid cost participation requires that the State has adopted a Utility Accommodation Rules (UAR) that is in compliance with, or stricter than, the federal guidelines listed in 23CFR 645 A & B. TxDOT has been required to submit a statement to the FHWA that complies with the direction of Section 645.215 and documents the following:

- the authority of utilities to use and occupy the right of way of State highways;
- the State's power to regulate such use; and
- the policies the State proposes to employ for accommodating utilities within the right of way of all Federal-aid highways under its jurisdiction.

Compliance with these guidelines, accompanied by the State's use of Alternate Procedure, as outlined in Section 645.119, allows the State to recover 90% of the eligible costs of utility adjustments.

For LPA

Federal-aid programs in the development of LPA transportation facilities have enabled TxDOT to participate in the design and construction of these roadways without the necessity of bringing them onto the State system.

Under 23CFR, Section 645.209(g) for Federal-aid projects on highways where TxDOT cannot exercise authority to control utility use of the highway right of way, TxDOT is required to make

adequate arrangements to ensure that utility use of the highway right of way is properly controlled. TxDOT may:

- handle the adjustment of utility facilities in accordance with its FHWA-approved UAR; or
- require that the LPA enter into written agreements with the utility, if the LPA is to perform adjustments, that comply with the UAR; and
- check to be sure that the LPA's ordinance, resolution, franchise, or permit process has stricter guidelines than those of TxDOT and FHWA.

Compliance with FHWA requirements gives TxDOT the flexibility to design and construct certain LPA projects in accordance with State laws and standards, rather than in accordance with Federally approved standards. However, FHWA does not consider that the UAR falls under the exemptions allowed by these Federal-aid programs.

Chapter 9 — Forms and Agreements

Contents:

Section 1 — Overview

Section 2 — District Approval of Utility Agreements

Section 3 — Affidavits

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Section 6 — Utility Joint Use and Occupancy

Section 1 — Overview

Comparison

The following chart compares requirements of lump sum and actual cost agreements.

Table 9-1: Comparison Chart of Actual Cost vs. Lump Sum Agreements

Actual Cost	Lump Sum
No limitation	Limited to $500,000.00
Detailed estimate	Very detailed and a verified estimate
Detailed itemization of billing	No itemization of billing
Partial payments	No partial payments
Audit required	No audit required
10% retained until audit	100% reimbursement at billing
One review of plan and estimate	One review of plan and estimate
Reconcile final billing to approved plan and estimate	Proof of Buy America compliance
Proof of Buy America compliance	

Actual Cost Agreements

Agreements are approved on an estimated cost basis that will be adjusted to reflect the actual cost of the adjustment at the time of billing and be verified by audit. If any costs are incurred for a reimbursable utility adjustment before an approved agreement, TxDOT will not reimburse the utility for those costs.

Federal Utility Procedure (FUP) All utility adjustments are eligible for reimbursement by State law for Interstate projects. Districts will ensure that appropriate funds are programmed in the STIP for maintenance operations. The necessity for, and justification of, interstate adjustments depends on whether the existing facilities need to be adjusted to accommodate the highway and are in the best interests of the public. The ROW Division has been empowered by the FHWA to act in its capacity and must be consulted concerning all proposed adjustments on interstate highways. The approval authority of the agreement assembly lies with the District. The agreement assembly must contain the following:

- a fully executed Standard Utility Agreement,
- detailed plans of the adjustment,
- a correlating estimate of costs,

- betterment ratio calculation, if applicable,
- accrued depreciation and/ or salvage credits, if applicable,
- statements of who will accomplish the work,
- bid proposals if necessary,
- forms detailing property rights to be maintained or abandoned,
- method of accounting procedure to be used,
- proof of signature authority to execute by utility, if applicable,
- supporting documentation and statements, and
- proof of Buy America compliance

To verify that the adjustment is necessary, justified, feasible, economical, and UAR-compliant, utility plans will be reviewed by the District. Plans shall include existing and proposed Right of Way and Utilities, main lane stationing, easements etc.

A utility may estimate the cost of work to be performed by contract forces without securing bids. However, the utility must include a reasonable basis for estimating the contract work. The plans and estimates should also reflect the necessity for the adjustment.

State Utility Procedure (SUP) Utility adjustments on Federal-aid (non-interstate), Off-System, State, and FM highway projects require a determination of eligibility. The justification for cost participation depends on whether the existing facilities have real or compensable property rights, in addition to the need to be adjusted to accommodate the highway, and are in the best interests of the public. The ROW Division has been empowered by the FHWA and State to approve all such adjustments and can be consulted before approval. The Districts have been empowered by ROW Division to approve the estimate, plans, and general agreements. The agreement assembly must contain the same information required for the Federal Utility Procedure above, plus the following:

- proof of property and/or compensable rights on the correct forms,
- an agreement to contribute funds has been executed with the LPA, and
- a determination of percentage of eligibility

To verify that the adjustment is necessary, justified, feasible, economical, and UAR compliant, utility plans will be reviewed by the District.

A utility may estimate the cost of work to be performed by contract forces without securing bids. However, the utility must include a reasonable basis for estimating the contract work. The plans and estimates should also reflect the necessity for the adjustment.

Local Utility Procedure (LUP) On local public agency (LPA) projects with TxDOT cost participation, a written agreement between TxDOT and the utility is not required. TxDOT does not

require the LPA to execute a formal contract with the utility, but it is recommended. The responsibility for approval of payments rests with the ROW Division. Before any payments to the LPA can be made, an audit will be made to a make a determination of upper limit. The LPA must furnish the same information as required for an agreement under the State Utility Procedure above. Upon project release by the ROW Division, the LPA can initiate the utility adjustment. Negotiation, communication, and coordination of work with the utility, relative to accommodation and/or reimbursement, are the LPA's responsibilities.

To verify that the adjustment is necessary, justified, feasible, economical, and UAR compliant, utility plans will be reviewed by the District. For adjustments that are less than fully eligible for State cost participation, the plans must clearly show the explanations and calculations used in deriving the eligibility percentage.

A utility may estimate the cost of work to be performed by contract forces without securing bids. However, the utility must include a reasonable basis for estimating the contract work. The plans and estimates should also reflect the necessity for the adjustment.

Lump Sum Agreements

Agreements are approved based on very detailed plans and supported estimates of cost that will not be adjusted to reflect changes in costs or be verified by audit. Requirements for a lump sum agreement are:

- Plans must be of sufficient detail to allow verification of placements, methods of placement and materials used and removed.
- A highly itemized cost estimate (or actual bids) plus supporting documentation must be included. The cost estimate must be verified by the District;
- Utility Joint Use Agreements must be executed, if applicable.
- The estimate must contain appropriate credits for salvage and betterment, and accrued depreciation value, if applicable.
- No contingency or miscellaneous items in the estimate are allowed.
- Quitclaims, if applicable, must be supplied at the time of billing.
- Buy America documentation must be approved with Form 1818, MTR's and/or Certifications.
- Form ROW-U-48 Statement Covering Utility Construction Contract Work must be reflected to the portion of the work to be performed by contract forces.
- Bid documents must be submitted with agreement.
- Fee schedule(s) for continuing construction contract and engineering contract must be submitted with agreement.
- The agreed lump sum amount cannot be changed unless there is a change in the scope of work.

Federal Utility Procedure (FUP) 23CFR, Section 645.113(f) permits reimbursement of utility relocation costs based on an estimated lump sum amount. However, ROW Division has placed a ceiling of $500,000.00 on all lump sum agreements. This level of authority may be increased, if requested, in writing, by the District Engineer to the ROW Division. The option to use the lump sum method rests with the utility company.

State (SUP) The State permits reimbursement of utility relocation costs based on a lump sum amount with the same requirements as stated for a Federal Utility Procedure Lump Sum agreement with the exception that the eligibility of costs for reimbursement must have been determined and approved by the Districts and are based on real and compensable property rights.

Advance Funding Agreement for Voluntary Utility Relocation Contributions on State Highway Improvement Projects (AFAs)

Utility work included in the highway construction contract may include items ineligible for TxDOT cost participation. Therefore, it will be necessary for the utility to place the estimated amount of ineligible costs in escrow with TxDOT. A statement should be added to the highway PS&E, in the section where utility items are addressed, stating that the ineligible utility items are financed by an AFA which is included in the Utility Agreement with the utility.

The eligibility ratio and betterment ratio calculated within the Standard Utility Agreement should be applied to all costs included in the highway contract.

Any changes or revisions to the work in the approved utility agreement may require the betterment percentage and/or escrow amount to be recalculated.

The AFA should be coordinated with Contract Services Division and the District. The AFA must be reviewed by the ROW Division prior to execution of the AFA.

Section 2 — District Approval of Utility Agreements

Authority

TxDOT District Engineer, or designee, has approval authority for Utility Agreement Assemblies, Supplemental Utility Agreements, and Emergency Work Authorizations.

The following items are required for a District to initiate local approval of a Utility Agreement Assembly. The District must:

- obtain ROW Division Project Release;
- create a Utility ID;
- environmental clearance;
- approve utility consultant engineering contract, if applicable;
- verify corporate succession and granting of signature authority with ROW Division;
- confirm that utility accounting systems are acceptable to TxDOT for audit and payment purposes;
- have updated AP 152 on file;

TxDOT Utility Accommodation Rules (UAR) Compliance

All utility work must be accomplished in accordance with the UAR.

The requirement for ROW Division's approval of an exception to the UAR does not prevent subsequent District approval of the agreement assembly.

Lump Sum Agreements

Lump sum agreements can be approved up to $500,000.00 by the District.

ROW Division Approval

Note that within a particular project, both the District and Division concurrence might be required. In such instances, utility agreement assemblies with special conditions will be essential to ensure that the execution processes and compliance review are coordinated and do not introduce complex conflicts to the project's ultimate clearance.

The following special situations will require ROW Division concurrence of the Utility Agreement Assembly.

- Utility attachments to highway facilities and structures, for example to a bridge. **In this case, Bridge Division approval is also required.**
- Special utility construction, such as utility bridges, corridors, tunnels, or stacking arrangements.
- Secondary utility adjustments due to TxDOT design changes or oversights.
- Irrigation and drainage canals.
- Third Party Participation - Situations in which a third party will share the cost of the highway facility (i.e., multi-modal, transit and development corporations) and where unique arrangements are required to establish utility cost participation.
- Special design accommodations (i.e., junction boxes to accommodate utilities).
- Lump sum agreements greater than $500,000.

Section 3 — Affidavits

Overview

An affidavit (form ROW-U-Affidavit (with options for Utility Owner, Disinterested Party, or Property Owner), as appropriate, with the required attachments) is required to document the property rights of the utility. Such compensable interests are necessary in determining eligibility for TxDOT cost participation under the State and LPA right of way programs.

If an affidavit *(ROW-U-Affidavit)* is used to document the compensable interest, the utility, third party, or landowner, as appropriate, must describe the interests they claim and certify that they are presently in effect. To utilize the affidavit validation for property interest(s), there must be one (1) affidavit from the utility owner, as well as one (1) affidavit from a disinterested party or a property owner.

ROW staff attorneys may investigate the circumstances to verify that the utility has a valid property interest.

In some cases, the instruments setting forth the utility's compensable interest cannot be correlated to the right of way map for the project. Therefore, it will be necessary to submit information (i.e., sketches) that identify and tie each instrument to the current ownership that appears on the right of way map. This information may be determined by conducting a title search of the deed records at the county clerk's office or possibly from the title commitments issued for the new highway right of way parcels.

The utility may claim a compensable interest within the **existing** highway right of way by virtue of property rights that predate the existing highway right of way. Thus, in order to substantiate the utility's claim, the utility must provide **documentation** of owning the prior right. The District should verify all received documents and determine whether the following exists:

- Previous reimbursable adjustment with utility on past project identified with Utility ID.
- Utility Joint Use Agreement where property rights were retained by the utility provided that such rights were not extinguished by quitclaim or release of easement

In determining the utility's claim of owning compensable interest to be either valid or invalid, the District must also research their files for any notice of installation forms that correlate to the adjustment site. Form 1082 Utility Installation Request (paper utility permits) will be in the District's files if the utility constructed a facility on the existing highway right of way in the past. Past electronic utility permits can also be located within the RULIS system.

Section 4 — Agreement Assemblies

Requirements for Submission

After the plans and estimates have been completed, assemble the following documents, which **together** make up the utility agreement assembly. Email one electronic copy of the executed utility agreement assembly to ROW_UtilityRequests@txdot.gov for ROW Division review:

1. Transmittal Memo from District to Division; explaining necessity of adjustment/relocation, a statement of approval of consultant contract, summary of cost with eligibility and betterment, and a statement of approval of utility adjustment/relocation design. Transmittal Memo from District to Division must be signed by District Engineer or designee.
2. Form ROW-U-AGMNTCheck Utility Accommodation/Adjustment Checklist is available to ensure that all aspects and costs of the adjustment have been addressed.
3. Executed form ROW-U-35 Standard Utility Agreement, with the following attachments:

   Attachment A: Plans, Estimates, and Specifications;

   - Utility Plans
     - Each assembly of plans should include any alternate plan needed to justify the route location selection, or comparative plans to support the amount of betterment credit, if any.
     - Line-coding or bolding must distinguish between existing facilities to remain, to be removed and/or abandoned, and to be installed.
     - As described in Chapter 6, Section 2, Utility Plan Preparation.
   - Utility Estimate - Buy America Items should be identified with an *
     - The estimate(s) and schedule of work, including comparative estimates to establish economy of route location or to establish the limit of TxDOT cost participation when betterment is involved.
     - One electronic copy of the estimate.
     - Major items of materials, correlated with plans, and compliance with the UAR.
     - Estimate must correlate with statement of work in agreement.
     - If betterment is involved, two estimates are required. One for replacement in kind, and a second estimate with betterment.
   - Actual Cost Estimate Submission Requirements
     - Estimate must be broken down as to cost of labor, construction overhead, materials and supplies, handling charges, transportation and equipment, right of way, preliminary engineering, salvage credit, and betterment credit.
   - Lump Sum Estimate Submission Requirements

- The lump sum estimate must be as detailed as a final billing and broken down as to man hours by class and rate; equipment by type, size and rate; materials and supplies by item and price.
- There must be a clear understanding of the work to be performed.
- Payroll additives and other overhead factors must be shown individually with an explanation of each, along with current supporting figures, bids to support contract work, and description of units of material shown as an assembly unit.
- A schedule for accomplishing the utility work must be included with the agreement submission. For simple adjustments, a proposed starting date and estimated completion date will suffice. For complicated adjustments, including those requiring coordination with the construction contractor, the schedule should show the estimated starting and completion dates of **major phases** of the work. This schedule must be submitted in the agreement assembly.

Attachment B: Accounting Method, Actual or Lump Sum;

Attachment C: Schedule of Work;

Attachment D: Statement Covering Contract Work, form ROW-U-48 Statement Covering Contract Work;

Attachment E: Utility Joint Use Agreement - ROW-U-JUA Utility Joint Use Agreement, and/or `RULIS utility permit`;

- Submittal of this form may be deferred until final billing.
- Statement of acknowledgment for future quitclaim requirements

Attachment F: Eligibility Ratio;

Attachment G: Betterment Calculation and Estimate;

Attachment H: Proof of Property Interest; Appropriate property interest document:

- Affidavits Forms `ROW-U-Affidavit (choose an option for Utility Owner, Disinterested Party, or Property Owner)` `which` **accurately describes property easement location**, executed and notarized, with easement documents attachments
- Property interest documents are not required on Interstate projects, unless replacement utility easements or right of way is obtained.
- Corporate Succession, if required.

4. One electronic copy of form ROW-U-40 Signature Authority **required only if** officer of company or appropriate elected official did not execute agreement documents. Not required if copy of signature authority is already on file.

Any revisions or alterations to the agreement **after it has been executed by either party** shall nullify the agreement, in which case a new agreement must be executed by all parties.

Section 5 — Prepare and Submit the Agreement Assembly

General

Documents Required for ROW Division Processing of Utility Agreements

Document Type	State	Federal	LPA
Utility Adjustment Checklist	1 Electronic Copy	1 Electronic Copy	1 Electronic Copy
Transmittal Memo	1 Electronic Copy	1 Electronic Copy	1 Electronic Copy
Standard Utility Agreement	1 Electronic Copy with original or electronic signatures	1 Electronic Copy with original or electronic signatures	No agreement required
Utility Joint Use Agreement, Form ROW-U-JUA	1 Electronic Copy with original or electronic signatures **	1 Electronic Copy with original or electronic signatures **	1 Electronic Copy with original or electronic signatures (only for on-system projects) **
Affidavit (Form ROW-U-Affidavit)	1 Electronic Copy with original or electronic signatures and 1 copy of recorded instruments	Required only for Interstate replacement easement or right of way; otherwise, use documents shown for State.	1 copy with original or electronic signatures and 1 copy of recorded instruments
Form ROW-U-48 (Statement of Contract Work)	1 Electronic Copy, if applicable	1 Electronic Copy, if applicable	TxDOT form is not required
Estimate & Schedule of Work	1 Electronic Copy	1 Electronic Copy	1 Electronic Copy
Plans	1 Electronic Copy	1 Electronic Copy	1 Electronic Copy
Supporting Documentation	1 Electronic Copy ***	1 Electronic Copy ***	1 Electronic Copy ***

* Under the LPA Process, utility agreements are not required when using the actual cost method.

** May be deferred until final billing stage

*** Supporting documentation may not be required for all agreement packages. Grant of Signature Authority only required for documents executed by non-company officers who do not already have signature authorization on file with TxDOT.

For State. The utility will prepare a plan and estimate to support its claim for reimbursement. Additionally, there must be a written agreement stating the separate responsibilities for accomplishing and financing the adjustment work. The Standard Utility Agreement was designed to fit this need. The utility should become familiar with the provisions of 23CFR Parts 645A and B, and amendments, since several provisions of the agreement form provide for compliance with this Federal regulation. The District will complete all spaces at the top of page 1 of the agreement form through the **"Entity"** section. No other sections of the Standard Utility Agreement apply for the State.

For LPA. On LPA projects with TxDOT cost participation, a written agreement between TxDOT and the utility is not required. However, if desired, the LPA may execute a separate written agreement with the utility.

Statement of Work

A statement of work is to be provided in the appropriate space of the Standard Utility Agreement. The statement of work must be sufficiently written to provide a clear and general understanding of the work covered by the agreement. Do not use the phrase “see attached plans” in place of a complete statement of work. The description must be in narrative form and must represent the work appearing on the plans and in the estimate. If more space than provided is required, a separate sheet with the heading "Exhibit A" may be attached to the agreement. The statement "See statement of work described on exhibit A" should be inserted in the space provided on the agreement. Examples follow below. The statement of work must include:

- highway station;
- size and type of facility;
- length or magnitude;
- estimated contract length;
- quantity;
- pertinent material specification; and
- unique circumstances.

Examples:

- Adjust an existing 69 kV transmission line to clear Interstate Highway 10 at highway station 468+42 by installing two 80-foot H-frame suspension structures with double cross-arms, and remove three 50-foot single pole structures. Minimum clearance will be 30 feet over the roadway.
- Remove three 50-foot poles with appurtenances and 1,300 feet of 3-phase #4 ACSR wire. Install two 75-foot H frame structures and 3-75 foot single poles with appurtenances along with 1,700-feet of 3-phase #4 ACSR wire between Highway Station nos. 942+00 and 953+00.
- Lower approximately 100 feet of 10-inch steel high-pressure gas line at highway Station 182+00 and encase approximately 70-feet with 14-inch steel encasement. Minimum depth of cover under the pavement structure will be `60-inches with 48-inches` of cover under ditches. Vent pipes will be placed at each right of way line.

Methods of Cost Accumulation

The utility must designate on Attachment "B" of the Standard Utility Agreement the procedure by which the adjustment cost will be developed.

- **Actual Cost Method of Accounting** should be designated on Attachment "B" when:
  - The utility accumulates costs under a work order accounting procedure prescribed by a Federal or State regulatory body; and
  - The utility proposes to request reimbursement for actual direct and related indirect costs.
- **Lump Sum Method of Accounting** should be designated on Attachment "B" when the utility proposes to request reimbursement based on an agreed lump sum amount supported by a detailed cost analysis.

Execution by Authorized Representative

Since TxDOT's Standard Utility Agreement and other utility agreements are binding contracts between the utility and TxDOT, it is necessary that authorized representatives execute the agreements. These representatives of the utility must have been granted such authority under charter or by-law provisions, a resolution, and/or governing documents of the utility company. The grant of signature authority by the utility ensures that the person signing on behalf of the utility has authority to bind the utility to the terms and conditions of the agreements and documents. Use form ROW-U-40 Signature Authority when obtaining signature authority from the utility company.

Utility companies may also grant signature authority to the authorized person who serves in a specific position at the utility company, rather than naming a particular individual. When a utility company authorizes a certain position of the utility company rather than naming an individual, regardless of who the person is who holds that position at the utility company, that position will continue to have authority to execute documents as an authorized representative of the utility company. Any changes in staffing at the utility company are resolved when the utility company names a position rather than an individual. This allows the signature authority granted by the utility company to remain valid despite the individual person who holds the position.

It is helpful to ask the utility company for a "blanket" authorization that grants signature authority to a specific individual, or a specific position, at the utility company to execute agreements and documents on all highway adjustment work included in the utility's system. This blanket authorization should be furnished in writing so that it may be maintained in the permanent files of the ROW Program Office, filed with each applicable TxDOT project file, and attached to the `form ROW-U-40 Signature Authority`. When obtaining a "blanket" authorization from the utility company, any resolutions, ordinances, by-laws, etc. should be clearly worded to provide general signature authority on all utility adjustment work of the utility, rather than granting signature authorization for the execution of a single, specific agreement.

Distribution of Assemblies

Upon receipt of the agreements and supporting documents, the Districts will:

- verify the Utility ID
- perform the necessary review
- execute the agreement on behalf of TxDOT, if found satisfactory.

Upon agreement approval, the District as executing office will:

- forward electronic copy of the executed agreement to the ROW Program Office for record
- forward one electronic copy of the agreement assembly to the Utility.

Upon receipt of the executed agreement assembly, the ROW Division will perform the administrative review of the agreement and will issue a review memo to the District. Any conditions mentioned in the ROW Division's memo will be sent out to the District. A conditional approval requires the conditions to be addressed before any payment will be made. Major changes in the scope of work must be approved by the District in an amendment to the agreement.

The original assembly must be returned to the utility with the District's letter of authority to proceed with the necessary adjustment work.

District Letter of Authority

The District's letter of authority must include the following:

- authorize the utility to proceed with the necessary adjustment work
- request notification of starting and completion dates
- request notification for inspection of salvage materials before disposal by sale or scrap
- include any desired special instructions concerning specifications attached or included in the agreement
- stress appropriate safety measures and compliance with TMUTCD to be observed
- designate the appropriate TxDOT personnel and other responsible parties to be contacted concerning the adjustment work
- Buy America Compliance.

Additionally, submissions of billings should include:

- U-Number/Utility ID,
- payment ID,
- invoice displaying required details:

- U-Number/Utility ID
- invoice number
- start and end dates of accommodation
- utility name
- utility mailing address
- utility phone number
- ROW CSJ/project ID
- construction CSJ/project ID
- street address where records can be accessed for audit
- the 14-digit vendor ID number

◆ billing address in the same format as the approved estimate.

Section 6 — Utility Joint Use and Occupancy

Acquisition

It is TxDOT's preference that all adjustments involving fee simple interests owned by the utility **will** be acquired, less oil, gas, and Sulphur, as part of the highway right of way acquisition per 43TAC Section 21.36.

Authority

43TAC Section 21.52 specifies that use and occupancy agreement forms are required for utilities installed, adjusted, relocated, or retained within highway right of way.

Utility Joint Use and Occupancy

Joint use occurs when the State determines that:

- the utility places its facilities on, over, across, or under the highway right of way, and
- it is necessary to occupy the same area of land, except fee, for highway purposes that is already occupied by a utility holding a prior interest in the land, and the State does not wish to purchase a prior interest from the utility.

Joint use is established by executing an agreement that sets forth the rights and obligations of both parties for occupying, maintaining, accessing, and notifying changes by either party in their facilities. In order for this to occur, TxDOT must:

- have evidence that the utility has a compensable interest in the land to be incorporated into the right of way limits of the transportation project. As proof of compensable interests, submit affidavits, ROW-U-Affidavit (choose an option for Utility Owner, Disinterested Party, or Property Owner), as applicable, along with the supporting documentation, to TxDOT.
- determine that (1) utility facility meets UAR requirements and may be allowed to remain "as is," or (2) may be adjusted to comply with the UAR and to accommodate construction within the limits of its interests **and** be allowed to remain within the highway right of way with **no** replacement right of way charges. The determination will be based on the State's ability to construct and maintain the highway if the utility facilities are allowed to remain.
- assess the utility's position on retaining its interest rights, determining if the utility will relocate within, or outside of, the right of way for any future adjustments or relocation of its facility, and considering:
  - the utility company moving off current property interest while remaining within highway right of way, and

- no replacement right of way charges.

Each utility having facilities that are to remain or be located within the highway right of way will submit an executed Utility Joint Use Agreement. To ensure that the utility's facility will comply with the UAR, a set of plans or location sketches must be submitted with the agreement.

The agreement requires the following information:

- `Highlighted joint` use area.
- The appropriate information regarding the project designation and location must be completed at the top of the form.
- The name of the utility.
- Plans and/or location sketches detailing the design or "as built" plan of the utilities.
- A signature by an officer of the company or other company representative with designated signature authority for a legally binding agreement.

The agreement must be executed by the TxDOT District Engineer, or designee.

TxDOT must execute this agreement even if an LPA is acquiring right of way for a State transportation project.

In those instances where the utility's facilities are relocated off the highway right of way and eligible for reimbursement, the utility may quitclaim or otherwise release any property rights it holds within the right of way. If the utility refuses to quitclaim, TxDOT will not participate in the cost of replacement right of way and may purchase the utility's property interest which is located within the state right of way.

When there is an existing easement within the existing and proposed ROW, TxDOT may either Joint Use the existing easement or may quitclaim the area if there is a need for a replacement easement. However, TxDOT will not participate in a combined scenario if there is not a need for a replacement easement.

The appropriate use and occupancy form to be used is determined by whether or not a property interest exists by the utility. **If a property interest exists**, use form ROW-U-JUA Utility Joint Use Agreement. **If no property interest exists**, `use RULIS for permit submittal`. If a utility relocates off its existing property interest **within TxDOT right of way**, `a RULIS permit` should be executed for the new facility. If the old or existing easement is not relinquished by quitclaim or acquisition, form *ROW-U-JUA Utility Joint Use Agreement* should be executed to document the existence of the easement on TxDOT right of way.

Utility Accommodation / Adjustment Checklist

A form ROW-U-AGMNTCheck Utility Accommodation / Adjustment Checklist is available to ensure that all aspects of a Utility Joint Use Agreement have been addressed. However, if a Utility Joint Use Agreement accompanies the Standard Utility Agreement, a separate checklist is **not** needed.

Revisions to Forms

TxDOT **strongly discourages** alterations or revisions to its forms.

Any revisions or alterations to a Utility Joint Use Agreement form **must** be approved by FHWA, General Council Division, and the ROW Division. Any revisions or alterations to a Utility Joint Use Agreement form after it has been executed by either party shall nullify the agreement, in which case a new form must be executed by all parties.

Chapter 10 — Performing the Utility Adjustment

Contents:

Section 1 — Utility Pre-Construction Activities

Section 2 — Inspection Activities

Section 3 — Abandoned Interests

Section 4 — Utility Installation Inspection

Section 1 — Utility Pre-Construction Activities

General

The District's letter of authority to the utility designates the authorized TxDOT Utility Liaison to be contacted before and during the construction stage. The TxDOT Utility Liaison should be as familiar with utility adjustments on the construction project as he or she would be with the transportation project construction plans and specifications, and should also be familiar with transportation project drainage, design, and construction practices. The TxDOT Utility Liaison's ability to identify possible conflicts between the transportation project and utility designs can help make utility adjustments accomplish their intended purpose.

The District Engineer or designee is responsible for inspection of utility adjustments and may designate a separate utility inspector for the project. The TxDOT Project Construction Engineer becomes the primary responsible party for utility work and coordination upon award of the contract. This person could be an area engineer, a special project engineer, or a qualified appointee.

The transition from design to construction should not be a definite phase point but rather a gradual change with the TxDOT Utility Liaison being consulted and advised. The TxDOT Project Construction Engineer must be familiar with the basic design of the project.

The TxDOT Utility Liaison is responsible for assuring that adequate communication and coordination occurs between the appropriate participants, and is the direct link between the utility, the District, and ROW Division personnel.

The TxDOT Project Construction Engineer must be aware of the need for accomplishing all utility adjustment work as early as possible, including those adjustments that may have to be accomplished during transportation project construction. In some instances, adjustments may be deferred until a particular transportation construction phase is started or completed, as required. For example:

- sizable roadway cuts to minimize utility excavation costs;
- the need for main lane closures for more than a day.

Pre-letting Utility Meeting (Process Activity VIII)

This meeting will be conducted before the TxDOT Pre-Bid Conference to identify utility concerns for prospective bidders. The purpose of the pre-letting utility meeting may be served by including affected utilities in the TxDOT Pre-Bid Conference.

During the Pre-letting Utility Meeting, consideration should be given to:

- coordination of work scheduling;

- stacking of facilities;
- utility closets;
- conduits;
- common trenches / joint trenches; and
- use of common sub-contractors for boring or tunneling operations.

Utility Meeting After Award (Process Activity IX)

(The primary purpose of the utility meeting after award is to transfer responsibility for the project from the TxDOT Project Design Engineer to the TxDOT Project Construction Engineer. This utility coordination meeting will occur after the contract award and before the start of construction. It may be combined with the TxDOT pre-construction conference on less complex jobs, as determined by the TxDOT Project Construction Engineer. In cases where there are outstanding utility adjustments, consider discussing issues listed in Process Activity X, Chapter 2, Section 1.

If it is necessary to defer utility construction and accomplish the adjustment of utility facilities during the construction of the transportation project, attendance by utility personnel, utility construction contractors, and TxDOT representatives should be requested. Representatives of protective agencies, such as fire and police departments, may also be requested to attend. This conference should afford an opportunity for all utilities to discuss the sequence of work in all phases of construction, so that the project may be accomplished in a manner economical and convenient from the standpoint of all agencies, with special attention to the public interest. The pre-construction conference should focus on the following:

- Identification of:
  - utility construction representatives and inspectors,
  - TxDOT's Transportation Project Construction Contractor's Representatives, and
  - roles and responsibilities for TxDOT utility representatives (i.e., the Utility Liaison, Project Construction Engineer, and Inspector), and appropriate utility company representatives.
- Descriptions of the:
  - location of adjustments within the transportation project.
  - nature of the adjustments to be performed.
- Establishing the construction starting dates and the sequence of work by all contractors.
- Estimates of the time required for each sequence or phase of work.
- Discussions on the:
  - necessity of notifying TxDOT representatives and the Transportation Project Construction Contractor before starting work.

- need and responsibility for inspection of salvaged materials.
- verification of delivery of new materials.
- need for compliance with applicable utility safety standards and the *Texas Manual of Uniform Traffic Control Devices*,
- (TMUTCD) and notifying fire and law enforcement agencies of any special problems that may need to be addressed.
- safety precautions to be taken.
- approval process for changes in approved work.

◆ Maintenance of utility construction records.

Notification of Starting Date

To comply with the request noted in the District's letter of authorization, the utility must give written notification of the construction start date. The notice must be given sufficiently in advance for TxDOT to coordinate inspection of the work. Upon receipt of the requested information, the District will inform the ROW Division of the starting date.

Section 2 — Inspection Activities

Maintaining Utility Construction Records

Construction records must be maintained by the TxDOT utility inspector to assure that work proposed in a utility agreement is accomplished according to the agreement assembly. In addition, records must be maintained to support the payment request submitted at the conclusion of the work, to verify satisfactory performance, and to recommend payment to the utility.

There are three basic types of construction records required:

- Actual Cost Adjustment Performed by Utility Force Account
  - A daily record, maintained by the TxDOT Inspector, of the number and classes of employees used on the project and, if possible, the hours worked.
  - A record in the construction diary of the utility's major items of equipment, so that billing charges may be verified.
  - Date records of any field changes or deviations from the agreement assembly and the reasons for these changes.
- Actual Cost Adjustment Performed by a Utility Contractor
  - The TxDOT Inspector should be certain that units of work, as provided in the bid proposal, are measured and recorded to form a basis for checking payment to the utility contractor.
  - Diary recordings should list the station numbers of daily operations and the units of work accomplished for that period, as shown in the agreement.
  - If contract labor is used by a utility based on a bid per hour, per day, etc., the inspector should maintain records on this type of labor in the same way as for labor by the utility's personnel.
  - Records of materials used and removed from the job site and returned to stock, or scrapped should be maintained.
- Lump Sum Method

  TxDOT Inspectors on these types of utility adjustment work are not required to keep records of man hours, material items, or equipment time, but must be able to confirm that the work is accomplished according to the plans and specifications agreed to in the adjustment agreement assembly.

A sample letter, ROW-U-13 Reimbursable Authorization Letter, requesting billing information is available.

Project Documentation

Regardless of the type of arrangement under which the utility is adjusting the facility, the TxDOT Inspector **must** keep diary entries. The inspectors should realize that their diary records afford support for reimbursement to the utility. These diaries should:

- document all appropriate dates
- document inclement weather and down time,
- document verbal authorization for minor changes,
- record the locations, depths, or heights of adjusted facilities, and other information necessary to coordinate transportation project and utility construction, and
- document notable incidents.

Safety Precautions

Safety precautions apply to utility construction as well as to the transportation project contractor's operations, since they affect the safety and convenience of the transportation project users, and the property owners abutting the transportation project. Safety precautions begin in the planning stages of both transportation projects and utility adjustments, since the design of both types of work must take into consideration the method and timing of the work.

Check for compliance with TMUTCD.

Instructions and visual checks by TxDOT personnel should stress to utility representatives that flares, barricades, warning signs, and flaggers should be provided throughout the time of the adjustment operations if any hazard exists to the public or to construction and TxDOT personnel.

The TxDOT Area Engineer **must** approve the utility traffic control plan before commencement of operations.

Notify TxDOT's District Public Information Office at least 48 hours before proposed lane closures.

Give attention to boring or tunneling pits, trenches near shoulders, manhole excavation, and boring of holes for communication or power poles, etc., to assure a safe working and traveling area.

Insure proper safety clear zone distances are identified and appropriate traffic barriers are installed.

Safety to TxDOT and contractor personnel is as important as safety to the public. Give careful attention to any special condition that may present a hazard, such as:

- potentially dangerous underground lines; and
- any overhead power or communication lines.

See Utilities Code, Section 251.153 for more regulations regarding safety.

Required Inspection of the Work

The degree of inspection of utility construction may vary with the nature and location of the work, as it affects the completed transportation project facility. Certain phases of the work may require a close check to ensure that the transportation project facility will not be adversely affected. The degree of inspection may vary from spot-checking of the overhead installations to continuous and close observation of the installation and backfilling of underground facilities.

The TxDOT Inspector should be careful to ensure that the construction operations are compatible, proceed according to the agreement assembly, and adhere to specifications mandated by appropriate District utility specifications and the appropriate sections of TxDOT's Standard Specifications for Construction of Transportation Projects, Streets and Bridges or Standard Specifications for Construction and Maintenance of Highways, Streets & Bridges (Metric).

Lack of coordination and attention to approved construction methods may result in additional charges, delay in transportation project construction, and possible damage to equipment and injury to personnel.

The following is a partial listing of inspection items to be checked, including, but not limited to:

- compliance with State and Federal regulations;
- verification of utility survey control and datum;
- vertical clearances of proposed underground utility facilities relative to transportation project installations, i.e., storm sewers, roadway subgrades, and drainage structures;
- bridge, retaining, and noise wall column foundation locations relative to underground crossings;
- vertical and horizontal clearances and alignments of proposed utility facilities;
- railroad facilities;
- placement of poles, towers, and other similar aboveground installations that violate clear zone design policies.
- control of access violations;
- encasement or other protective measures;
- manholes adjusted to appropriate grades;
- bedding and backfilling of all utility excavated areas to appropriate density;
- condition of utility materials; and
- other highway improvements or structures.

Changes in Approved Work

Minor Changes Minor changes are those that are less than $100,000.00 or 25% or less of the approved agreement, can be easily explained, and result in minimal changes of quantities or locations from the approved agreement. The TxDOT Utility Liaison may authorize utilities to do work not included in the approved estimate but necessary to accomplish the intent of the agreement, such as changes in:

- materials
- method of installation, or
- alignments.

This authorization may be taken without formal approval by the ROW Division, but with the **specific understanding** that adequate documentation will be established and submitted to the ROW Division with, or before, the final billing. Valid justification must accompany any changes and must not conflict with either the UAR or CFR. Notations regarding minor changes should be documented in the diary to support submissions for payment.

Unless a safety hazard is created, the District may approve a change of less than $100,000.00 or 25% of the approved estimate, submitting valid justification to the ROW Program Office. These changes may, if necessary, be reviewed in the field.

Minor changes in location or estimated quantities should be shown in "as built" plans. They may also be shown on a revised copy of the agreement assembly.

Major Changes Major changes are when cost of the adjustment changes is greater than/less than $100,000.00 or if the percentage of cost change is greater than/less than 25% of the approved agreement, changes in the scope of work, as approved, and any new additions or major deletions to the approved agreement assembly.

Major changes in the scope of work covered by the approved utility agreement, as well as substantial changes in location, must be submitted in writing for prior approval by the District. Upon receipt of such authorization, the utility may proceed with the work. The utility should be furnished a copy of the authorization. All verbal authorizations to supplemental agreements should be evidenced in a supplemental agreement within 30 days of verbal authorization.

In the event construction requirements do not permit the delay necessary to secure advance approval in writing, approval by telephone, facsimile or electronic mail may be obtained, and thereafter followed by written confirmation.

TxDOT approval of changes will be considered as approval of a revised estimate, which must be submitted.

Prior to or at the time of final billing, revisions to "as built plans" will be required so that TxDOT files can reflect the true location of the adjusted facility. In addition to revisions regarding location, any addition or deletion to the original design of the adjusted facility should be reflected in the submission of revised plans.

Betterment Percentage Revisions Adjustments containing betterment credit require revisions when any changes are involved. Any changes in work may require a revision of the betterment percentage established in the approved agreement assembly. These revisions must be applicable to the final billing.

Any changes, minor or major, require execution of form ROW-U-COA Standard Utility Agreement – Supplemental Agreement.

Inspection of Recovered Materials

The purpose of this inspection is to identify the final disposition of recovered materials, whether salvaged or scrapped, for the allowance of appropriate credits. To prevent any possibility that the utility may be cited for the full value of the materials when the audit is performed, the District must retain either:

- a letter from the utility company notifying the District Utility Liaison of the time and place that the recovered materials to be salvaged or scrapped will be available for inspection, or
- a memorandum from the TxDOT Project Construction Engineer or the TxDOT utility inspector verifying inspection of such materials.

The TxDOT Project Construction Engineer or the TxDOT Utility Inspector should not be concerned with placing a dollar value on the materials, but rather should ensure that proper classification and disposition is made.

The District's letter authorizing work under the approved agreement should include a request that TxDOT be notified of the time and place recovered materials will be available for inspection, before salvage or scrap. Upon receipt of such information, retain in District files. When a credit is allowed for salvaged material, a statement is required that all material from the original facility was covered in the credit, or that the items recovered were available for inspection and proper notice given. This statement should accompany the final billing for the project.

Section 3 — Abandoned Interests

For State

When the utility abandons its property interests within the existing or proposed right of way and relocates onto a replacement easement or right of way, the abandoned property interests are to be conveyed to the State of Texas. The replacement right of way charges for the relocated facility will be reimbursed in accordance with regulations set forth in Chapter 7, Section 2, Cost Estimate Methods and Categories of this manual.

Abandoned property interest must be conveyed **before final reimbursement** of the adjustment is made. Such conveyance should normally be made on form ROW-N-30 Quitclaim Deed. Right of Way Project Delivery may prepare the quitclaim instrument using the same legal description(s) used in the deed, or corresponding deed recordation information, for acquisition of the right of way parcel(s) where the utility property interests are located. The instrument will then be forwarded to the utility for their execution, with a request that the instrument be returned for further handling and recordation. When the instrument is returned, Right of Way Project Delivery will review the executed instrument, and, if acceptable, will record it in the deed records of the applicable county.

A utility may have an existing property interest within the existing and/or proposed right of way, and may elect to relocate its facility from its existing location to another location within the highway right of way limits. In this case, the utility may elect to quitclaim its property interest to the State. If the utility does not quitclaim its easement interest, TxDOT may either execute a Utility Joint Use Agreement with the utility or acquire the property through the acquisition process.

For LPA

In **addition** to TxDOT policies and procedures, the following additional information applies to LPAs when they are acquiring the right of way and handling the utility adjustments:

- LPA should thoroughly understand TxDOT requirements concerning the conveyance of abandoned interests.
- LPA should be aware that final reimbursement payment will be withheld until the necessary conveyances have been delivered to TxDOT.
- LPA is responsible for recordation costs.

Acquisition of Utility-Owned Interests or Properties

It is TxDOT's intention to **acquire fee title to all lands, pursuant to 43TAC Section 21.31**.

Title to the needed right of way will be procured following the same procedures used for the acquisition of lands under private ownership. When there is a combination of the conditions outlined in Access Rights, Chapter 5, Section 4, and in the foregoing, all factual data should be submitted to the ROW Division for determination of appropriate handling.

Section 4 — Utility Installation Inspection

General

The TxDOT Project Construction Engineer or the TxDOT Utility Inspector should check adjustment and relocation sites to ensure that:

- all items and equipment, including salvage and scrap, used in the adjustment process have been removed from the site;
- all backfill operations and site restoration have been successfully completed; and
- utility markers have been placed in accordance with the UAR.

Identify any possible pollutants that are present or contamination that may occur. Underground facilities may be abandoned in place, in accordance with applicable standards, provided that:

- the appropriate District and/or Division approves the facility to remain in place;
- the facility to be abandoned does not need to be removed to facilitate the transportation project construction or the traveling public; and
- the facility to be abandoned does not contain hazardous material or pose a hazard to the transportation project construction.

TxDOT inspection personnel should check the following:

- that the utility project diary is up to date;
- that locations of the utility's facilities are documented in “as-built” plans;

  Note: The **District personnel** involved in activities covered by a Utility Installation Request **should also be given a copy** of these “as-built” plans.
- that a copy of the right of way map or plan and profile (P&P) sheets is marked to reflect the current status of utility facilities. **Copies** of such maps or P&P sheets should be given to **transportation project construction personnel** of TxDOT and to the **transportation project construction contractor**.

TxDOT Utility Liaison should request a copy of the utility project diary, along with a certification from the inspector stating that work has been completed as outlined in the agreement assembly. Any changes to the original agreement assembly should be noted along with brief explanations of reasons for the changes.

The TxDOT Utility Liaison should give written notification to the ROW Program Office that the adjustment is complete. Refer to Chapter 11, Section 3, Final Billings concerning “as built” plans.

Chapter 11 — Billing and Payments

Contents:

Section 1 — Invoicing and Payment Procedures

Section 2 — Partial Payments

Section 3 — Final Billings

Section 4 — Final Billing for Local Utility Payment (LUP)

Section 5 — Payments and Final Audit

Section 6 — Utility Considerations in Right of Way Project Closeout

Section 7 — Utility Considerations in State Participation 2125 (SP2125) Program

Section 1 — Invoicing and Payment Procedures

Introduction

The TxDOT Utility Liaison or the LPA should encourage the utility to submit billings as soon as its adjustments are complete, and records of costs and expenditures are processed. Failure to submit billings promptly could result in loss of records and forfeiture of reimbursement.

Refer to Appendix A entitled *Reimbursement Guidelines and Billing Procedures for Utility Adjustments* for additional guidance.

The billing/payment process is one step in the coordination of utility adjustments between the utility, the LPA, and TxDOT. The responsibilities of the participants are listed below.

In accordance with 23 CFR 645.117(i)(2), the utility owner will provide one final and complete billing of all costs incurred, or of the agreed-to lump-sum, within one year following completion of the utility relocation work, otherwise previous payments to the utility may be considered final.

If a utility owner has not submitted an invoice within 24 months after the end of the fiscal year in which the date the performance of the service under the contract is completed, (i.e., by August 31, 2017 for the fiscal year ending August 31, 2015), the reimbursement must go through the Miscellaneous Claims Process, which may require the reauthorization of funds by the State Legislature.

Miscellaneous Claims

If a utility owner has not submitted an invoice within 24 months after the end of the fiscal year in which the date the performance of the service under the contract is completed, (i.e., by August 31, 2017 for the fiscal year ending August 31, 2015), the reimbursement must go through the Miscellaneous Claims Process, which may require the reauthorization of funds by the State Legislature. State Legislation determines that we can pay only for expenses incurred in a specific timeframe - the current fiscal year, plus the past 2 fiscal years.

A fiscal year runs from September 1 through August 31. For example, if an invoice is delivered and is acceptable on September 2, 2018, for work performed during the month of May 2019, enter the fiscal year of 2019 as the service date. **Work/adjustment performed more than** two years before the current fiscal year will have to be processed through Miscellaneous Claims. For example, any payment with fiscal year 2018 or older will be processed as a miscellaneous claim by the end of fiscal year 2021.

Under the Miscellaneous Claims Law, the Comptroller's office is required to pay any claim that satisfies the requirements of Subchapter B of Chapter 103, Civil Practice and Remedies Code, as provided by Texas Civil Practice and Remedies Code Section 103.151.

The Comptroller's office may not pay the following under Miscellaneous Claims Law, therefore will be voted by the legislature for payment:

- A single claim in excess of $50,000
- An aggregate of claims by a single claimant during a biennium in excess of $50,000
- A claim concerning unemployment compensation warrants that have expired because they were not presented to the Comptroller's office for payment within the time period specified in Texas Labor Code Section 210.012.

ROW Division during the process will request that the payment be submitted as Miscellaneous Claims. Texas Comptroller of Public Accounts Form 74-209 will need to be filled out by the Utility. All supporting documentation will need to be submitted and the invoice will need to include the service date. The Utility Portfolio Section will serve as a liaison between the Comptroller and the Utility.

The "Prompt Payment Law"

In 2001, the Texas Legislature enacted the "Prompt Payment Law" now codified in Government Code Section 2251. The law prescribes that a payment by a State governmental agency under a contract executed on or after September 1, 1987, is overdue on the 31st day after the later of:

- the date the governmental entity receives the goods under the contract;
- the date the performance of the service under the contract is completed; or
- the date the governmental entity receives an invoice for the goods or service.

A payment begins to accrue interest on the date the payment becomes overdue.

The renewal, amendment, or extension of a contract executed on or before September 1, 1993, is considered to be the execution of a new contract; therefore, receipt of a new invoice under a revised contract begins another 30-day period during which the invoice must be paid before interest begins accruing.

Therefore, it is **imperative** that the Districts and ROW Division **make every effort to process utility payments in a timely manner**, and thereby **avoid payment of interest**. Please refer to ROW Payment Life Cycle Submission Timeline and Flow Chart.

Any payment resulting from an audit, or as a result of an LPA agreement, is not subject to the Prompt Payment Law.

For further information, refer to the Comptroller's Purchase Policies and Procedures Guide.

Participant Responsibilities in Billing/Payment Process

- Utility
  - Provide "as-built" plans, if there is a significant difference from approved plans.
  - Execute District-prepared quitclaims, if applicable.
  - Maintain complete and accurate records of its involvement in preparation and accomplishment of the adjustment(s).
  - Provide definitions of procedures, descriptions of practices, and explanations of materials used to document the type and nature of adjustments.
  - Submit a single comprehensive billing upon compilation/summation of all record costs.
  - Submit billings in a manner that will allow correlation to the original estimate.
  - Respond promptly to requests from TxDOT or the LPA.
  - Maintain detailed billing records demonstrating compliance with Buy America or state Iron and Steel Preference Provisions; the documentation must be available for review in the event of an audit.
  - Utilities shall provide the completed compliance documentation with reimbursement requests for items required to comply with Buy America or state Iron and Steel Preference Provisions; although, compliance of these items should be verified prior to installation.
  - All items that are subject to Buy America or state Iron and Steel Preference Provisions must be identified in the utility agreement.
- LPA
  - Adhere to TxDOT guidelines and policies in dealing with utilities.
  - Submit executed quitclaims, if applicable.
  - Maintain records of installations and expenditures.
  - Respond promptly to requests from the utility and TxDOT.
  - Promptly process reimbursement requests for eligible expenditures upon completion of adjustments.
- District
  - Provide guidance to utility accounting/billing personnel regarding requirements of reimbursement procedures when work is authorized, or as soon as possible.
  - Assist the LPA or utility with forms and requirements of reimbursement procedures. The TxDOT Utility Liaison should aid the LPA or utility in preparing the forms.
  - Request an accounting/billing contact from the utility when the plan of adjustment is being discussed.
  - Promptly contact the utility for final billing upon the completion of work. Follow up as needed.
  - Prepare and have utility execute all necessary quitclaims, if applicable.

- Review, approve, and recommend final billing for payment.
- Provide clarification and/or additional information to the ROW Division and Audit Office/ ROW Utility Portfolio Section, as requested.
- Ensure that payment is made in accordance with the "Prompt Payment" process.

◆ ROW Division

- Provide guidance, assistance, and on-site support to District personnel on all aspects of utility reimbursements.
- Review all District-prepared and executed quitclaims, when applicable.
- Process utility reimbursement claims for payment.
- Process final reimbursement claims to the Contracts and Finance Section, ROW Division.
- Ensure that payment is made in accordance with the "Prompt Payment" process.

◆ Audit Office/ROW Utility Portfolio Section

- Perform audits in a timely manner.
- Issue citations for ineligible costs.
- Resolve audit citations in a timely manner.
- Issue a final audit report.
- Advise/consult on the eligibility of costs.

A flowchart that may act as a guide to the progress of a request for payment showing the steps involved in the billing/payment process is available.

Use of Payment and Voucher Page

The District should use the *Payment and Voucher Page*, through TxDOTCONNECT for making payment requests involving utility adjustments – this includes payment requests for partial and final billings. The supporting documentation needs to be sent to ROW_UtilityRequests@txdot.gov for review and processing. The ROW Division retains an electronic copy of the payment package and submits the forms to the Finance Division for issuance of State warrants by the Comptroller's Office. The Finance Division forwards the warrants pertaining to the payment requests directly to the Payee.

The following information is required on the *Payment and Voucher Page*:

◆ Payment ID number

◆ Project ID

◆ Control Section Job

◆ Payment Amount

◆ Payment Type

- Organization Name
- District / Division

The following information needs to be verified before payment submittal:

- Address. Enter remittance address of payee. Refer to TINS record.
  - Confirm with Project Delivery PM.
- City & State (of payee's remittance address)
- Service Date. Enter the completion date of work (ensure the date matches the Billing Checklist).
- Payee ID Number. Enter the Payee Identification Number (PIN), including payee's mail code
  - To verify the PIN, use Uniform Statewide Accounting System (USAS). For assistance see Project Delivery PM.
  - Note: If you have a Utility that has not requested a payment in a 12-month period, updated information will be needed. The system will be scrubbed and will result in the PIN being inactive. This will require a W9 and AP-152 to be sent through the FIN Portal "http://legacy-crossroads/org/fin/Central/VoucherCentral/tins-req1.htm".
- Invoice Date. Enter the date of the invoice.
  - Date invoice received and date-stamped
- Invoice Number. Enter the vendor's invoice number.
- Fiscal Year. Enter the fiscal year that the work/adjustment was performed or completed. A fiscal year runs from September 1 through August 31. For example, if an invoice is delivered and is acceptable on September 2, 2018, for work performed during the month of May 2019, enter the fiscal year of 2019 as the service date. **For work/adjustment performed more than** two years before the current fiscal year will have to be processed through Miscellaneous Claims.
- Amount. Enter the total of quantity times unit price for each item.
- Total. Enter the total amount of the invoice.
- Detail. Enter the Project ROW CSJ/ROW Project ID.

Other Items Relevant to Billing Preparation

- A "date received" is the date on which the invoice is received at the District and **does not** need modification, correction, or additional documentation. This **must** be established for utility adjustment payment requests and initiates the provisions of the Prompt Payment Act. **Note:** If additional documentation is needed from a Utility, the payment supporting documentation is not complete and will require an updated date stamp when the additional documentation is received.
- If the invoice is found incorrect, a request for correction should be made.

- The date for payment of reimbursable recording fees should be the date the service is performed.
- For partial payment, form ROW-U-27 Certificate of Partial Payment for Utility Adjustment will be required **(for SUP only)**.
- All quitclaims (form ROW-N-30) shall be prepared, recorded, and submitted prior to final billing or with the reimbursement package containing costs for reimbursement of replacement easement.

Billing Assembly Package

Prior to processing payment, form ROW-U-BillChkDist Utility Payment/Billing Checklist should be attached.

Final Billings

- Electronic submittal (one PDF document)
  - show beginning and ending dates of adjustment on billing or attachment
  - statement reflecting address of records/accounts for audit and mailing purposes (TINS)
  - invoices
  - salvage inspection statement
  - bid specifications and bid tabulation
  - district's transmittal memo, with clarification, recommendation, and an explanation of any unusual underruns or overruns
  - transmittal memo from District to Division must be signed by District Engineer or designee
- Attachments
  - Electronically submit one recorded original of form ROW-N-30 Quitclaim or ROW-N-17 Release of Easement or ROW-N-85 Subordination of Mineral Lease whichever is applicable, if not previously submitted.
- Special Considerations
  - Any conditions applied at agreement approval should not be reflected in billing.
  - Format of billing must agree with format of estimate, so correlation is possible.
  - Billings must be compared and reconciled to the approved agreement, plans, and estimate.
  - Deduct any betterment not originally included in the agreement. Otherwise, betterment ratios must be the same as originally approved.
  - Consulting engineering services in the billing must have prior District approval, with an approved contract in District files.

- Major changes in the scope of work, exceeding +/- $100,000.00 or +/- 25% of the approved agreement, must be approved in an amendment (Supplemental) to the agreement by the District or ROW Division.
- Minor changes must be explained in transmittal memo sent to the ROW Program Office.
- Identify low bid contractor used.
- Attach a copy of the appropriate pages of the inspector's project diary in District files and use it to verify charges on the billing.
- Correctly apply the approved betterment credit, accrued depreciation, salvage credit, and eligibility ratio.
- Show the beginning and ending work dates.
- Check that all extensions and totals are correct.

Section 2 — Partial Payments

For State

The utility may request partial payments at monthly intervals. As stated in 23CFR 645 and in the Standard Utility Agreement, TxDOT may make partial payments provided:

- A right of way project release is obtained from the ROW Program Office before costs are incurred.
- An approved Utility Adjustment Agreement has been executed.
- Costs were incurred during the period covered by the billing.
- Submissions are received no more frequently than monthly (30-day intervals).
- All documentation requirements for Buy America or state Iron and Steel Preference Provisions noted in the cost estimate have been submitted and verified.
- For SUP adjustments, partial reimbursement requests must be prepared with a comprehensive invoice, and form ROW-U-27 Support for Certificate of Partial Payment for Utility Accommodation will be required.

This data is necessary to determine the work accomplished and amount reimbursable to the utility. Form *ROW-U-27 Support for Certificate of Partial Payment for Utility Accommodation* must list all items of work shown in the estimate portion of the utility agreement, together with the estimated cost for each item. The total of these items must agree with the total of the estimate. Partial payment requests must include supporting documentation for all items billed.

NOTE: When agreements are on a lump sum basis, TxDOT will not make partial payments. Payment in the agreed amount will be made upon completion of work and receipt of a properly prepared final billing.

- Subdivide items in the estimate if difficulty is experienced in determining the percentage of completion of a particular item. For example, if the estimate includes an item of "Reconstructing pump house," this item should be subdivided into its major component parts, such as "Structure," "Pump," "Electric," "Wire." The total of the estimated costs of the subdivided items should agree with the estimated cost of the item in the estimate portion of the agreement. Terms of cost, as billed, must agree in description with the estimate portion of the approved agreement assembly.
- Revised estimates and plans should have already been approved in an amendment to the agreement for major changes.
- Utilities shall provide all documentation requirements for Buy America or state Iron and Steel Preference Provisions noted in the cost estimate with reimbursement requests prior to a partial payment.

- Payment will be based on the work completed and certified. Costs for materials stockpiled at the project site, or specifically purchased and delivered to the utility for use on the project may also be reimbursed on partial payments after verification.
- **Betterment percentage and eligibility ratio must be applied on each partial payment submission.**

In addition to the above requirements for State, the utility may request partial payments. TxDOT may make partial payments requested by the utility provided:

- The Utility must submit the invoice to TxDOT for the full amount. The retainage will be deducted by the TxDOT District Office.
- Payments will be in an amount not to exceed 90% of the costs incurred, as shown in each billing. The total of all partial payments must not exceed 90% of the original estimate in the approved agreement. Approved field changes or scope of work changes may increase the amount of the original estimate.
- Partial billings must be detailed and must be checked by the District. When the utility agreement is conditionally approved, partial billings for questionable items may not be accepted until the conditions are removed.

The "Prompt Payment" process begins as of the date of receipt of the utility's invoice at the TxDOT location specified in the agreement. The invoice should be date stamped by the District documenting the received date. If invoices are not approved for payment, they must be returned to the Utility within 21 days.

Supporting Documentation Required for Partial Payment Requests

All Partial Payment Requests must be prepared in a format that corresponds with the Estimate Section of the approved Utility Agreement. Each item must be listed according to its corresponding item in the estimate. Partial payments will not be made until all items on the cost estimate related to Buy America or State Iron and Steel Preference Provisions have been submitted and verified for compliance.

Table 11-1. Example of Cost Estimate Supporting Documentation

Materials			
Type	Unit	Unit Cost	Invoice Amount
8" PVC Pipe	85 ft	$2.00/ft	$170.00

Table 11-1. Example of Cost Estimate Supporting Documentation(Continued)

Labor			
Type	Unit	Unit Cost	Invoice Amount
Draftsperson	20 hrs	$40/hr	$800.00

Variations from the standard format will require TxDOT approval.

All payment requests must be supported with adequate documentation to support the reimbursement of actual costs. Below are preferred and the acceptable examples of supporting documentation. Documentation requiring certification should be certified by appropriate utility personnel as being true and correct. The first page of Certified Time Sheets and Certified Utility Company accounting ledger should be on company letterhead with the company logo, a statement of accountability, and a signature of an officer of the company or representative with signature authority.

Table 11-2. Types of Supporting Documentation

Cost Type	Preferred Documentation	Acceptable Documentation
Utility Labor	Certified Time Sheets	Certified Utility Company's accounting ledger
Utility's Equipment	Certified Time Sheets	Certified Utility Company's accounting ledger
Materials and Supplies	Invoice from Supplier	Inspector's diary of material on hand or installed and the Certified Utility Company's accounting ledger
Consultant Engineering	Invoice from Consultant	Completed Plan Sets and Certified Utility Company's accounting ledger
Contractor Services	Invoice from Contractor	Inspector's diary or approval of work and the Certified Utility Company's accounting ledger

Section 3 — Final Billings

For State and LPA

The final billing must follow closely the order of items in the estimate portion of the agreement. Show the following totals in a manner that permits comparison with the approved estimate:

- labor;
- overhead;
- construction costs;
- travel expense;
- transportation;
- equipment;
- materials and supplies;
- handling costs;
- construction units (if applicable); and
- other services.

After completion of the adjustment, the utility must submit an electronic copy of the final billing for all costs associated with the reimbursement request. Upon receipt of this final billing, check to ensure that all items are eligible for TxDOT cost participation.

The utility will be initially reimbursed 90% of the actual costs as billed before audit of their records and accounts. Total reimbursement will depend on a final audit.

The District and ROW Division will conform to the "Prompt Payment" process.

Final billings should include an invoice reflecting the total cost of the utility adjustment, supporting documentation for entire adjustment, and a thoroughly detailed breakdown of all costs. Supporting documentation includes, but is not limited to: time sheets, invoices, equipment usage reports, bid tabulations and payroll documentation. TxDOT must be furnished with sufficient information to ensure that payment will be eligible for Federal and/or TxDOT participation. The final billing should show details such as:

- a unit cost basis, or man-hours by class and rate, and
- equipment by type, size, and rate per mile or hour.

Overhead and payroll additive items should be shown individually with an explanation or break-down of each.

- 23 CFR 645.117(d)(1) states, "Overhead and indirect construction costs not charged directly to work order or construction accounts may be allocated to the relocation, provided the allocation is made on an equitable basis. All allowable costs included in the allocation shall be eligible for Federal reimbursement, reasonable (and) actually incurred by the utility." Costs not eligible for Federal reimbursement are discussed in 23 CFR 645.117(d)(2).
- Applicable percentages of overhead costs should be indicated, when used, so computed amounts may be verified.
- Items of cost incurred on a contract basis should be designated as such on final billings.
  - Information should be furnished to allow a correlation of the bid items to the approved plan, and an estimate for determination of extent and eligibility of the contract work performed.
  - A copy of the low bid award, or the rate schedule applicable in a continuing use contract, should be submitted by or at the time of final billing.
    - Bid documents may have redacted information if there is proprietary information.
    - The existing continuing contract will be made available to the State for review at a location mutually acceptable to the Owner and the State.
- Field changes affecting the cost of the adjustment should be shown.
  - The ROW Program Office should be furnished two copies of the "as-built" plans, where significant deviations occur from approved plans in the agreement assembly.
  - A copy of the "as-built" plans should be attached to each of the Utility Joint Use Agreements.
- Whenever the billing indicates a substantial change in work from that which was previously approved, an explanation should be made.
- Utilities shall provide all documentation requirements for Buy America or state Iron and Steel Preference Provisions noted in the cost estimate with reimbursement requests prior to final payment.

After reviewing the utility's final billing, electronically submit the billing assembly to the ROW Division, along with a memo signed by the District Engineer giving explanations of changes from the original approved agreement. The District's memo should also contain a comment on salvage inspection and recommend payment of the billing.

- The District's Utility Liaison or Utility Inspector should have inspected the salvage, and a statement about this should be included in the District's letter or memorandum to the ROW Division.
- If applicable, attach the appropriate and executed ROW-U-JUA Utility Joint Use Agreement. This should accompany the billing submission, if not previously submitted. "As-built" plans must be submitted as addendum to the Utility Joint Use Agreement, and/or the Standard Utility Agreement.

- The ROW Division will retain the Joint Use Agreement.
- If applicable, an original, recorded quitclaim from the utility must be submitted before the final billing or with the reimbursement package containing costs for reimbursement of replacement easement. Form ROW-U-BillChkDist Utility Payment/Billing Checklist for District must be sent with the final billing submission.

Section 4 — Final Billing for Local Utility Payment (LUP)

Reimbursement

The "Prompt Payment" process will not apply to this reimbursement process. The reimbursement to the Local Public Agency (LPA) will be made after completion of full audit.

Coordination between the Utility and the LPA

Upon completion of the utility adjustment, the utility owner will submit a final billing of actual cost to the LPA. Final billings should reflect determination of eligibility of each item of cost for TxDOT reimbursement.

Final billings should include supporting documentation and a thoroughly detailed breakdown of costs. Supporting documentation includes time sheets, invoices, equipment usage reports, bid tabulations, Buy America compliance documentation, and payroll documentation. TxDOT must be furnished with sufficient information to ensure that payment will be eligible for Federal and/or TxDOT participation.

In addition to requirements for final billing details stated in the subsection 3, the final billing should also show applicable percentages (when used) so computed amounts may be verified.

Coordination between the LPA and the State;

The final billing must follow closely the order of items in the estimate portion of the agreement. Show the following totals in a manner that permits comparison with the approved estimate:

- labor;
- overhead;
- construction costs;
- travel expense;
- transportation;
- equipment;
- materials and supplies;
- handling costs;
- construction units (if applicable); and
- other services.

After completion of the adjustment, the utility must submit one electronic copy of the final billing for all costs associated with the reimbursement request. Upon receipt of this final billing check to ensure that all items are eligible for TxDOT cost participation.

Billing Requirements

A form ROW-U-45 Tabulation of Utility Adjustments should support each invoice.

Upon completion of the utility adjustment, the utility owner will submit a final billing of actual cost to the LPA. Final billings should reflect determination of eligibility of each item of cost for TxDOT reimbursement.

Final billings should include supporting documentation and a thoroughly detailed breakdown of costs. Supporting documentation includes time sheets, invoices, equipment usage reports, bid tabulations, and payroll documentation. TxDOT must be furnished with sufficient information to ensure that payment will be eligible for Federal and/or TxDOT participation.

The final billing should also show applicable percentages, when used, so computed amounts may be verified.

The LPA should take immediate steps to secure quitclaims to any abandoned utility property interests and should submit the recorded original along with the final billing.

- A form *ROW-U-45 Tabulation of Utility Adjustments* should support each invoice.
- TxDOT reimbursement is contingent upon receipt of the required instruments.
- LPA reimbursements will be made upon completion of audit.

Note: The cost records and accounts of the utility are subject to audit for three years from the date final payment was received.

Table 11-3. Types of Supporting Documentation

Cost Type	Preferred Documentation	Acceptable Documentation
Utility Labor	Certified Time Sheets	Certified Utility Company's accounting ledger
Utility's Equipment	Certified Time Sheets	Certified Utility Company's accounting ledger
Materials and Supplies	Invoice from Supplier	Inspector's diary of material on hand or installed and the Certified Utility Company's accounting ledger
Consultant Engineering	Invoice from Consultant	Completed Plan Sets and Certified Utility Company's accounting ledger

Table 11-3. Types of Supporting Documentation

Cost Type	Preferred Documentation	Acceptable Documentation
Contractor Services	Invoice from Contractor	Inspector's diary or approval of work and the Certified Utility Company's accounting ledger

Note: On the first page of Certified Time Sheets and Certified Utility Company accounting ledger should be on company letterhead with the company logo with a statement of accountability. This will also be accompanied with a signature of an officer of the company or representative with signature authority on the first page of the ledger or time sheet.

Section 5 — Payments and Final Audit

Before Final Audit

Actual Cost Upon satisfactory completion of the utility adjustment and upon receipt of final billing prepared in acceptable form, TxDOT will make payment for 90% of the eligible costs shown. 10% is retained pending final audit. Historically, this 10% has been a sufficient margin to cover the citations resulting from an audit and thus preventing over-reimbursement to the utility.

Lump Sum When the utility agreement is on a lump sum basis, eligibility is established upon execution of the agreement, and no final audit is required.

Upon satisfactory completion of the adjustment and receipt of an invoice, and after any necessary amendment of the original lump sum agreement, TxDOT will pay the utility the approved lump sum amount.

The District and ROW Division will conform to the "Prompt Payment" process.

Final Review

In reviewing billings and completing the Utility Payment/Billing Checklist, make a final review of the following items before submitting a payment request to the ROW Program Office.

- The ROW Program Office cannot process the billing for payment until formal conditions placed upon the agreement at time of approval are satisfied.
- Eligible replacement utility right of way must be similar in type and size to that being quitclaimed.
- Consulting engineering services appearing in the billing require prior approval by TxDOT.
- When a major field change is approved and accomplished by the utility, the final billing should be accompanied by "as-built" plans.
- All necessary instruments regarding utility property interest have been submitted to the ROW Division.
- District assurance must be given that an inspection of material removed from the project was made before disposal by scrap or salvage, if such information was not previously submitted. All materials recovered from the project must be listed in the billing. These items should show appropriate credit values whether salvaged or scrapped.
- Show the location where the records and accounts billed can be audited.

- In addition to showing the beginning and ending dates of the adjustment, verify that no billed costs have been incurred before the right of way release, since those costs are not eligible for reimbursement.

Audits

According to 23CFR645, final billings are subject to audit. TxDOT will perform an audit of costs billed. Audits are not required for reimbursement of lump sum agreements.

The ROW Division Utility Portfolio Section is assigned the audit function for utility adjustments. Audits will determine approval of costs for both Federal and State cost participation. Where Federal-aid in right of way is involved, the Federal Highway Administration (FHWA) accepts the single audit concept, and a subsequent audit by FHWA will not be made.

When final billing assemblies are adequate, audits may be made based on a desk review. Final billings must support the review. There may be instances where the District will be requested to obtain items from the utility, and will be asked to supply its findings to allow payment.

When utilities accumulate costs according to work order accounting procedures, as prescribed by an applicable Federal or State regulatory body, they are audited under the governing regulations established by the regulatory body. This is the basic concept of 23CFR 645.

When a utility accumulates cost according to an established accounting procedure developed by the utility and approved by TxDOT, it is audited for consistency in operation, according to the approved accounting practices. In all cases, 23CFR 645 and related directives form the criteria for audit.

If any audit citations are noted, the auditor will notify the utility in writing and provide 10 business days for a rebuttal. If cited costs are validated and supported to the reasonable satis-faction of the auditor, the citations will be removed. If cited costs are not validated and supported to the reasonable satisfaction of the auditor, the department will submit a payment on the 11th business day to the utility of the supported costs. If the Utility wants to revisit documentation and provide additional information a post review will be done for additional payments in the future.

For FUP or SUP, ROW Program Office will submit payment through TxDOTCONNECT. Reimbursement to the Utility will be based upon the result of audit.

For LUP, the LPA will follow one of two options when requesting reimbursement for incurred utility adjustment costs:

- Option 1 - The LPA may elect to pay the utility for such costs without previously requesting a review of the final bill by TxDOT and a commitment of TxDOT’s participation. TxDOT then determines the amount eligible for participation through an audit, and reimbursement to the LPA will be governed accordingly.

- Option 2 - The LPA may elect not to pay the utility and request TxDOT to review the final bill. The District will submit the final billing package to the ROW Division for their audit report. TxDOT then determines the amount eligible for reimbursement. Reimbursement to the LPA, is based on TxDOT's commitment, or on the net cost to the LPA, whichever is the lesser amount. A payment will be processed after the LPA provides proof of payment to the utility with an invoice to the District. No supporting documentation is required to be submitted with invoice.

The ROW Division Utility Portfolio Section will schedule the audit. Should any audit citations be noted, 10 business days will be provided for a rebuttal. If cited costs are validated and supported, citations may be removed and payment will be issued. Audit citations, if any, will be handled as follows:

- Federal Utility Procedures (FUP) and State Utility Procedures (SUP) - the ROW Division Utility Portfolio Section will handle audit citations with the utility. The District will be provided with copies of all citations and related correspondence.
  - The audit citations may be issued to TxDOT, as well as issued to the utility.
  - When citations are issued against TxDOT, they are not forwarded or transmitted to the utility but rather are resolved in joint action by the ROW Division and the District, and the ROW Division Utility Portfolio Section. In the case of Federal-aid funded projects, FHWA may be involved as well.
  - The utility will not receive final payment for the utility adjustment until the completion of the audit, reconciliation of any audit citations, and final receipt of all required documents.
- Local Utility Procedure (LUP) - the ROW Division will handle the audit citations with the LPA. Copies of the audit citations and related correspondence will be forwarded to the District.
  - LPAs are not reimbursed for TxDOT’s share of such costs until completion of the audit, reconciliation of any audit citations, and final receipt of all required documents.
- The TxDOT Inspector’s project diary may be consulted to aid in determining eligibility of some charges.

Records of Cost

The total cost of utility adjustments is recorded on a project basis and reflects partial payment as well as final payments. These utility cost records are maintained at the “Project” level, and each District should maintain similar records. The costs of utility adjustments are considered as part of the right of way project cost, according to Transportation Code Section 224.008.

For record retention information, refer to the TxDOT Records Management Manual.

Section 6 — Utility Considerations in Right of Way Project Closeout

Introduction

Before any right of way project closeout can occur, determine that all costs are in and there are no outstanding parcel, utility adjustment, or relocation assistance issues and/or payments. The following are utility considerations in a project closure.

District Responsibilities

Review files to verify that:

- all utility final billings are paid;
- reimbursements to LPAs are complete, if applicable; and
- all required Utility Joint Use Agreements, Release of Easements, Subordination of Mineral Leases, and recorded Quitclaims are submitted to the ROW Program Office.

Periodically, Districts should review their master list for projects eligible for closure. The longer an older project stays open, the more difficult it is to finalize; therefore, Districts should promptly request closure.

Division Responsibilities

- Create an electronic utility list of all "U" numbers / Utility IDs for the project acquired by computerized application.
- Retrieve files from the utility list.
- Retrieve any additional files discovered in a physical search of the ROW Division Utility Portfolio Section files.
- Examine all files for final payment and discard duplicates.
- Review all Utility Joint Use Agreements, recorded quitclaims, release of easements, and subordination of mineral leases. **Retain all keep items for permanent records in OnBase, the electronic content management system.**
- Reduce approved plans or "as-built" plans to half scale. **Retain for permanent records in OnBase the electronic content management system.**
- Make annotations on the title sheet of the right of way map listing "U" numbers / Utility IDs applicable to the project.
- Deliver files to Contracts and Finance Section with the completed Utility Branch closeout notice.

- During ROW Program Office review of the District's project financial and records closeout request, if any items in the file are missing or incorrect, the Division will:
  - notify the District of its findings and request action to resolve any items noted;
  - notify its Contracts and Finance Section that project closeout will be delayed due to the items noted; and
  - check with the District on a quarterly basis until outstanding items are resolved.

Section 7 — Utility Considerations in State Participation 2125 (SP2125) Program

Overview

Reimbursements will be handled in compliance with Chapter 11 Section 2 and 3 if applicable.

Because of the fiscal constraint provided under Transportation Code, Section 203.092(e), the department:

1. may prioritize the utility requests based on the needs of the department, including the construction schedules of the projects requiring relocation of utility facilities;
2. may delay until the next fiscal year the payment of all or part of a claim made by a utility if at the time the claim is received by the department, the payment is prohibited by Section 203.092(e); and
3. will not pay a claim for payment that is received by the department later than one year after the date that the relocation of the utility facility is completed.

Chapter 12 — Unique Conditions and Special Cases

Contents:

Section 1 — Cable, Communication, and Fiber Optic Telecommunication Lines

Section 2 — Cellular Towers

Section 3 — Transmission Towers

Section 4 — Restoration of Service

Section 5 — Leasing

Section 6 — Resource Sharing

Section 7 — Economically Disadvantaged/Insolvent Utilities

Section 8 — Disposition of Existing Abandoned or Idled Utility Facilities

Section 9 — Unknown Utility Ownership

Section 10 — Water Control Facilities (Canals)

Section 11 — New Utility Installations in Existing Right of Way

Section 12 — Railroads

Section 13 — Hazardous Materials

Section 14 — Alternative Delivery Project Agreements

Section 1 — Cable, Communication, and Fiber Optic Telecommunication Lines

Overview

The deregulation of fiber optics and telecommunications has created new challenges in adjustment and placement of utilities in TxDOT right of way, especially in the placement of additional conduits for future expansion and communication or cable lines located in or on structures owned by other utilities. Utilities currently submit a Form 1082 Utility Installation Request to utilize spare conduits or available space on an existing pole in the permitted location.

Policy

When an existing utility rents, leases, or sells conduit usage to another utility, the new utility must submit a Form 1082 Utility Installation Request before placement of a new line within the conduit or on the pole. The utility owning the conduit or pole shall execute the *Form 1082 Utility Installation Request* in conjunction with the utility lessee or the lessee must include documentation supporting the right to occupy the pole, structure, or conduit with the *Form 1082 Utility Installation Request*. For more information, refer to TxDOT's *Use of Right of Way By Others* manual, Chapter 1, Utility Policy. This procedure also applies to all utilities located on pole or tower structures owned by others.

The utility originally requesting use of TxDOT right of way will be responsible for all relocations and adjustments of the conduit system, unless TxDOT is notified in writing of the change of ownership or existence of an additional party.

- Refer to the Utility Accommodation Rules (UAR) for specifications regarding design, installation and construction of fiber optic telecommunications within TxDOT right of way.
- During the adjustment of existing telecommunication facilities, there often is a dispute over the amount of cable or fiber optic line that must be replaced. Industry standards should be the criteria for determination of how much line is replaced. The utility must provide TxDOT with copies of its operating standards to determine acceptable splice points. This would minimize claims that a large quantity of fiber optic line needs to be replaced simply because TxDOT requires an adjustment to an existing line.
- Form ROW-U-139 Indemnity Agreement for Fiber Optic Facility and form ROW-U-139A Master Indemnity Agreement for Fiber Optic Facility have been created to allow the telecommunication industry to indemnify the State from damages if the depth of placement is reduced to 36-inch from the 42-inch specified for placement of fiber optic lines.
  - Form *ROW-U-139A Master Indemnity Agreement for Fiber Optic Facility* is an agreement between a particular utility and TxDOT, executed by the ROW Division and the utility, to cover any of the utility's facilities statewide. The utility must submit a copy to the District along with their plans.

- Form *ROW-U-139 Indemnity Agreement for Fiber Optic Facility*, allows for the indemnification in a particular instance and is **not** statewide. This form is useful if a situation arises where line placement at 42-inch is an unreasonable depth.

Section 2 — Cellular Towers

Policy

TxDOT strongly discourages placement of cellular communication towers in TxDOT right of way. The placement of freestanding towers generally requires a large area, which limits the placement of other utilities in the same area. Moreover, the towers and their equipment may obstruct the clear zone. Permission for placement may be granted **only** if placement is in accordance with the UAR.

Section 3 — Transmission Towers

Policy

Longitudinal. Longitudinal lines on the right of way shall be limited to single pole construction. Steel poles with base greater than 36 inches shall not be placed within the right of way. Anything greater would require an exception to policy.

Crossings. Lines should desirably be limited to single pole construction; however, where an existing utility is supported by "H" Frames, towers, etc. the same type of structures may be utilized for the crossing provided all other requirements of the UAR are met. Preferably, overhead line crossings should originate from towers outside the right of way.

Section 4 — Restoration of Service

Policy

TxDOT policy regarding restoration of utility customer service to properties and improvements is as follows.

The determination regarding TxDOT participation for reestablishing service to properties depends upon whether the property presently provided with such service constitutes a partial or whole taking. If the utility line is presently serving property or properties that are subject to a whole taking, TxDOT will not reimburse for the installation of new lines, but will handle this situation as outlined in Disposition of Existing Utility Facilities. TxDOT cannot provide service to property or properties where service did not previously exist. If, however, there is only a partial taking of property or properties within the proposed right of way and utility service is presently provided, TxDOT will participate in the cost of providing a new service to the remainder. It will also provide for installations parallel to the proposed right of way line to make service available to the approximate location serviced by the present facility.

Lines providing service to an improvement either partially or wholly within the area of taking, TxDOT will not reimburse for the installation of new private service lines through the utility process, but rather the acquisition process. The value will be established through the appraisal process. The responsibility of providing service facilities to the new or relocated residence or business rests with the utility or the consumer.

Backflow Prevention Assemblies

Backflow Prevention Assemblies (backflow preventers) are required by municipalities and other governmental agencies to protect the public water supply from becoming contaminated by the reversal of flow of water and other liquids, gases, or other substances into the public water supply.

Backflow preventers are found on private property and typically found on the private side, downstream, of the water meter. It is the responsibility of the property owner to install and maintain the backflow preventer when one is required. If a backflow preventer is not installed, not installed properly, or not maintained, the utility has the right to stop service and/ or fine the property owner until the problem is corrected.

Backflow prevention assemblies vary in size depending on their intended use. The most common use for back flow preventers is for isolated private fire-line systems, landscape irrigation, and for fire sprinkler systems. A small backflow preventer would be used for an individual’s irrigation system and a large backflow prevention system contained in a vault would be used for a private commercial fire line. The District is encouraged to investigate other local requirements where a backflow preventer may be required.

The cost to cure (refer to the *ROW Appraisal and Review Manual*) a backflow prevention system, which is required to be adjusted due to highway construction, should be included in the appraisal of the parcel where the backflow preventer is located. The property owner is typically responsible for hiring a licensed plumber to install a new backflow preventer.

Section 5 — Leasing

Policy

Transportation Code, Section 202.052, authorizes TxDOT to execute a lease with private utilities for placement of its facilities in TxDOT right of way, or for use of facilities owned by the State.

Utilities must initiate any leasing efforts, and a lease must benefit TxDOT. TxDOT will continue to grant approval of those uses of public right of way that have been granted to the utility industry by State statutes, and that conform to the UAR.

TxDOT may be willing to lease State-owned conduit space to utilities. Contact ROW Division for further information.

Section 6 — Resource Sharing

Policy

TxDOT can execute an agreement for use of a particular area, rather than execute a lease, if doing so benefits TxDOT. The provisions of such an agreement must be in accordance with 43TAC, Part 1, Sections 25.801- 25.806, and specifically Section 25.803.

- The agreement with a telecommunications provider if the provisions of the agreement:
  - benefit TxDOT;
  - are consistent with TxDOT's safety, maintenance, operation, and beautification objectives;
  - allow TxDOT to maximize revenue; and
  - advance TxDOT's efforts to share or develop its own telecommunications program.
- The agreement will allow the provider to:
  - place the provider's telecommunications facilities within the median of a divided State or Federal highway; or
  - use telecommunications facilities owned or installed by TxDOT in or on the improved portion of a State or Federal highway, including the median, structures, equipment, and conduit.
- The agreement may benefit TxDOT in the form of:
  - payment;
  - shared use of a telecommunication facility; or
  - equipment, facilities or services.
- The agreement will contain the specific details of each project. This agreement may include, but not be limited to, requirements concerning:
  - traffic control;
  - bonds and insurance;
  - coordination with TxDOT construction projects;
  - relocations; and
  - testing, maintenance, and inspection of telecommunication facilities.

Where applicable, any agreement should be cleared with local LPAs, and requires approval by FHWA on Federal-aid highways, per 23CFR 645.113.

The shared use of right of way and telecommunication facilities may benefit TxDOT's goal to create an "Intelligent Traffic System" (ITS), by which TxDOT can use the telecommunication industry to provide:

- message boards to keep the public informed of conditions on the roadway ahead;
- video cameras to monitor roadway conditions and possibly control traffic;
- roadside assistance to the public; and
- toll integration information.

Section 7 — Economically Disadvantaged/Insolvent Utilities

Policy

Economically disadvantaged or insolvent utilities may own utility facilities located on a proposed highway project. Cooperatives or small communities may not be able to finance the adjustment of their facilities. They may not have a governing body to take responsibility for the facilities, or the means to prepare the required plans and estimates for any necessary adjustments. The TxDOT LPA Coordinator, with the aid of the TxDOT Utility Liaison, may help the utility prepare and execute an agreement for funding to make the necessary adjustments.

Another method to secure funding is through the Texas State Infrastructure Bank (SIB), which was created to improve, rehabilitate, and renovate transportation facilities. Information concerning SIB may be found in 43TAC, Part 1, Chapter 6.

Section 8 — Disposition of Existing Abandoned or Idled Utility Facilities

Abandoned or Idled Pipelines

For specific information on abandoned or idled pipelines, refer to 49CFR, Section 192.727. In addition, 49CFR, Section 192.605 requires each utility to maintain a procedural manual for operations and maintenance.

Existing Facilities Abandoned in Place or Removed Only

When utilities are not being relocated or adjusted, limited funds are available for any necessary abandonment or removal only processes. Federal funds are available if the existing facility poses a safety hazard to the traveling public. To qualify for Federal funds, proof must be provided in the form of an accident history or safety study that justifies the expense. Otherwise, neither Federal nor State funds are available for abandonment or removal purposes. The reason for this interpretation is that both Federal and State law refer to the "relocation" of utilities, defined as the removal and reinstallation of the facility. This definition applies regardless of the location of the utility's facility. **Utilities requiring only removal or abandoning (example, cut and cap) of existing facilities should be treated as a right of way acquisition item.** This should be coordinated with Right of Way Project Delivery. Plans need to specify abandonment procedures, per 49CFR, Section 192.727.

Utilities are responsible for removal of all abandoned hazardous material pipelines. If the abandoned pipelines were placed by permit, it is non-reimbursable; otherwise, it is reimbursable.

Section 9 — Unknown Utility Ownership

Policy

Determining the ownership and authorized agent of the utility can be accomplished by:

- visiting with people being served by the facility;
- checking with the owners or representatives of similar facilities in the area;
- contacting the landowners where the utility is located;
- reviewing TxDOT permits and Joint Use Agreements in the area;
- investigate other adjacent roadway utilities; or
- contacting county maintenance personnel or commissioners.

Cooperative facilities may be used by consumers who are unaware that the facilities are consumer-owned, or that the original members of a cooperative may no longer exist. Yet, the cooperatives are responsible for the adjustment of utilities. This situation may be remedied by the following methods:

- Call the consumers using the facilities to a meeting. Have the TxDOT Utility Liaison explain the scope of the project and potential impact on the facilities.
- If the cooperative is unable to fund their portion of the required adjustment, inform them of financing options. These include SIB and other than State sources, e.g., bond.

When ownership cannot be determined and the utility is not abandoned or inoperative, TxDOT will exhibit a good faith effort by publishing its intention to abandon the utility according to State or industry standards using a citation by publication. This should be accomplished in the same manner as that for a right of way parcel; refer to the *ROW Eminent Domain Manual*, Appendix A - Eminent Domain Guide, Sections 3 and 8. Another method of handling this situation could be leaving the utility in place through highway design mitigation.

Section 10 — Water Control Facilities (Canals)

Overview

Property interests acquired over water control facilities vary depending upon the extent the highway facility will intrude upon the water facility, and the ownership interest owned by the water facility. This often makes traditional fee simple acquisition/relocation not feasible. In these circumstances, the utility should be allowed to retain its current property interest, with TxDOT acquiring an easement, lease, or license, and executing a Joint Use Agreement.

A water control adjustment flowchart is available and may serve as a guide.

Water Control Facilities Crossing the Highway

When a water control facility has been constructed prior to the construction of a transportation project, and the project will cross the facility, TxDOT is responsible for the cost of construction and maintenance, at no expense to the owner, of the necessary structure, culvert, or siphon needed to serve the facility.

When an irrigation or flood control district, specifically authorized under the Statutes of Texas, desires to cross an existing highway with an irrigation canal or flood control facility, the irrigation or flood control district must provide for the cost of the construction and maintenance of the structures. Final approval of the structure's design lies with TxDOT.

In the case of adjusting an existing crossing of a water control facility, TxDOT construction funds will bear the cost of the cross-drainage structure.

Parallel Water Control Facilities

A water control facility is considered a utility and consequently, all adjustment costs will be processed according to TxDOT utility adjustment procedures.

Publicly-Owned Water Control Facilities (for State)

When water control facilities are classified as a utility and a right of way item, follow procedures normally used for utility adjustments. The necessary adjustment work can be accomplished by the water control authority, or, with Design Division concurrence, as part of the State construction project. When replacement right of way is required for the relocated water control facility, acquisition costs by the water control authority must be approved in a Standard Utility Agreement.

When the relocation of the water control facility includes replacement right of way, and will be included in the construction contract, the Design Division will furnish a set of the plans and estimated quantities of the adjustment items to the ROW Program Office for review. This ensures that the proposed adjustment meets the requirements of 23 CFR, Part 645, Subpart A.

The ROW Program Office will then advise the Design Division regarding its findings and either approve the plans or furnish comments regarding necessary corrections. This procedure will normally take care of those adjustments where all of the costs can be paid under TxDOT's construction contract.

Publicly-Owned Water Control Facilities (for LPA)

When water control facilities are classified as a utility and a right of way item, follow procedures normally used for utility adjustments. The adjustment can be accomplished by the LPA, the water control authority, or, with the Design Division's concurrence, as part of the TxDOT construction contract.

Reimbursement for the adjustment should follow the appropriate procedure, as set forth in Chapter 8, Section 6 (SUP) or Chapter 8, Section 8, (LUP).

If the water control work is to be included in the construction contract, the Design Division will furnish plans and quantities of the adjustment items to the ROW Division for review to ensure that the proposed adjustment is eligible and to identify any ineligible betterments. The ROW Division will then advise the Design Division regarding its findings and either approve the plans or furnish comments. The Design Division will then contact the Finance Division, if appropriate and request that an Advanced Funding Agreement be drawn up and forwarded to the District for execution by the LPA. The LPA will advance necessary funds to TxDOT for this right of way item; economically disadvantaged LPA's will obligate funds. If TxDOT assumes the right of way acquisition function under the SUP, an Advanced Funding Agreement would be required for those adjustment costs determined ineligible for TxDOT cost participation. This procedure will normally take care of those adjustments where all of the costs can be paid under the TxDOT contract.

When right of way must be acquired for placement of the relocated water control facility, acquisition by the LPA or the water control authority must be covered by a separate agreement, or by a clause in the Advanced Funding Agreement that will provide for reimbursement for acquisition of any required right of way. Water control facilities classified as a utility right of way item, and included in the highway construction contract, should be identified with the ROW CSJ/ROW Project ID Number.

Privately-Owned Water Control Facilities (for State)

Adjustment of a water control facility will occasionally be classified as an adjustment of a private or jointly owned improvement. These adjustments, are classified as right of way acquisition items,

and should be handled in the acquisition process as a part of the right of way parcel. Since these facilities are not normally classified as a utility, the utility procedure should not be followed.

Privately-Owned Water Control Facilities (for LPA)

This should be handled under the acquisition process and not under the utility adjustment process.

Section 11 — New Utility Installations in Existing Right of Way

New Locations Beyond the Limits of TxDOT Right of Way Projects

Utilities planning to place facilities in TxDOT right of way outside a TxDOT right of way project should submit a request to the District Engineer by use of a Utility Installation Request form.

- The form must give the name and address of the utility owner for future contact and must contain an original and binding signature.
- Include an accurate and complete identification of the type of facilities to be placed.
- Include the methods to be employed in placing the facilities.
- Indicate the county and roadway designation.
- Indicate the exact location of placement, shown to within one foot of the proposed location.
- Identify the location by using a thorough description tying the proposed location to an easily identifiable feature of the roadway or map of the roadway. A survey is encouraged (see Task 2230 in the *Project Development Process Manual*).

The review of the Utility Installation Request should ensure:

- that the form is complete;
- the existence of the utilities' statutory right to occupy TxDOT right of way in the manner proposed;
- compliance with the UAR in the type, manner, and location of the proposed installation;
- by an actual on-site visit to determine that the proposed location can be accommodated without harm to the maintenance or operation of the roadway; and
- that there is no conflict with any proposed or active highway project.

Form 1082 Utility Installation Request is used for new utility installations placed in right of way previously acquired by TxDOT for the State Highway System, as distinguished from existing, adjusted, or relocated installations. Approval of these new installations in right of way is the responsibility of the District, except for those installations on utility bridges, attachments to highway structures, or exceptions to the UAR. Approval of exceptions to the UAR is the responsibility of the Maintenance Division. Refer to TxDOT's *Use of Right of Way by Others* manual, Chapter 1, Utility Policy for more information on new installations. Approval of attachments to highway structures and the preparation of the attachment agreement are the responsibility of the Bridge Division.

Notify the utility of any discrepancies or objections to the notice and suggest possible solutions. The form may either be held or returned until the corrections are made.

Upon successful submission of the Utility Installation Request form, send an executed approval back to the utility. The approval should be handled as follows:

- The District Engineer or designee should sign the approval.
- A TxDOT representative should be clearly identified as the primary contact before the initiation of placement.
- The approval should contain the necessary special provisions needed to ensure compliance with the UAR and TxDOT policies.
- Forward a copy of the approval to the designated TxDOT Representative, the TxDOT Area Engineer, or appropriate TxDOT personnel.
- Place the original Utility Installation Request in the District's permanent records.

New Installations Within the Limits TxDOT Right of Way Projects

New installations on active transportation projects or projects under construction require a Form 1082 Utility Installation Request, and:

- plan review by the appropriate TxDOT Design or Construction office;
- the TxDOT Representative to be selected for contact by the utility must be the TxDOT Project Engineer or designee; and
- *Form 1082 Utility Installation Request* should be executed by the District Engineer or designee.

If the *Form 1082 Utility Installation Request* may negatively impact the highway construction or cause potential delay claims, the request may be denied or deferred until highway construction is complete or progressed to a point where installation would not affect the highway project.

The demand for access to accommodate utility placement within TxDOT right of way will continue to grow. Therefore, it becomes increasingly important that utilities are carefully placed. The degree of inspection and attention to detail exercised for any placement should be the same as that for a TxDOT construction project.

Section 12 — Railroads

Railroad License Agreements

Railroad License Agreements are entered between TxDOT and a railroad company for the joint use of right of way. The agreements are customarily used when an active, operating railroad is involved as opposed to abandoned railroad property. These agreements are in the form of a license in that they are permissive and do not create a property interest. The most common case when a Railroad License Agreement will be used is in a highway and railroad intersection.

Utility Requirements

When a utility wishes to occupy right of way that is jointly utilized by TxDOT and a railroad company, the utility must submit a Utility Installation Request to the local TxDOT area office and a permit/license request to the railroad indicating the intention of occupying railroad-highway right of way. In this manner TxDOT can address the safety of the traveling public, the integrity of the highway structure, and accommodate future highway projects. The railroad request and review assure the interests of the railroad company are addressed.

Section 13 — Hazardous Materials

Safety Precautions

TxDOT employees should become familiar with the hazards involved with transmission of gases, petroleum products, waste materials, and electrical power.

The guidelines and standards for high-pressure gas and petroleum lines, as set forth in the UAR, should be observed when dealing with the accommodation of any pipelines carrying hazardous liquid or gaseous products. Pipelines carrying hazardous materials are required to post warning signs and signs of identification of product along, or at, the right of way line of the State Highway System. Consider the following:

- High-pressure gas and petroleum lines pose a risk of explosions.
- Pipelines that have carried hazardous materials must be purged, capped, and filled before they can be abandoned according to Texas Commission on Environmental Quality (TCEQ) and Texas Railroad Commission requirements. **Be aware that petroleum byproduct lines may contain poisonous gases, such as hydrogen sulfide. Lines carrying poisonous gases must NOT be classed as common carriers and allowed to run parallel in the right of way.**
- Spillage from any pipeline source, other than potable water lines, should be reported to the District's Hazardous Materials (HAZMAT) Coordinator.
- Employees should be aware that BOTH low- and high-pressure gas lines pose a serious threat.

Sanitary sewer lines may also pose hazardous conditions. Consider the following:

- Avoid contamination of clothing.
- Report spillage or leaks to the District's HAZMAT Coordinator.
- Sewer gases are highly combustible and pose a threat of explosion. The gases create a danger working near or within the sanitary sewer manholes.

Overhead or underground power lines can have hidden hazards and should be approached cautiously. Things to watch for are:

- Dead power lines and equipment can contain enough static electricity to cause death. Never assume that power lines or equipment are safe until tested by qualified personnel.
- Active underground power lines can build up considerable static electricity along the line itself and transfer over to metal casings.

Telecommunication lines, although having low amounts of voltage, present the following hazards:

- glass particles in fiber optic lines can easily be embedded in skin and cause severe irritation; and

- looking directly into active fiber optic line may cause eye damage.

Another hazard associated with utilities is asbestos. The most obvious hazard may occur during removal of asbestos pipe, if approved. If any portion of the pipe is crushed, asbestos particles thus released into the atmosphere pose an inhalation threat.

One Call Requirements

The Underground Facility Damage Prevention and Safety Act for Texas, (found in Utilities Code, Section 251.153), requires that all one-call centers share notifications of excavations of 18 inches or more.

It also requires that the Texas Underground Facility Notification Corporation (TUFNC) oversee compliance with the law. All owners of Class A facilities (electric, gas, petroleum, steam, and telecommunications) are required to register with and join a one-call system such as 1-800-DIG-TESS.

All excavators must contact a notification center at least 48 hours before digging. This law also requires State personnel to make notifications when they will be involved in excavations of 18" or more, and are within 10 feet of the right of way line of any State maintained roadway. Utilities Code, Section 251.004, clearly states **"Excavation by an employee of the Texas Department of Transportation on a segment of the State highway system is not subject to this chapter if the excavation is: (1) less than 18 inches in depth; and (2) more than 10 feet from the right-of-way line."** In addition, Utilities Code Section 251 does not apply to a contractor working in the public right of way under a contract with TxDOT.

Monitor Wells

Since monitor wells are not a utility issue, but rather an underground storage tank issue, questions involving monitor wells in a utility adjustment require a temporary use of a right of way highway agreement. Contact Maintenance Division for more information.

Geophysical Exploration on Highway Right of Way

Refer to TxDOT's *Use of Right of Way by Others* manual, Chapter 1, Utility Policy.

Contaminated Sites

TxDOT will not take possession of land, which has been contaminated by oil or petroleum leakage. If a substation, transformer storage site, or an underground storage tank is involved in an adjustment and the site will be incorporated into the right of way, the utility will need to execute an ROW-N-PSTRA, Petroleum Storage Tank Removal Agreement.

If there is no storage tank but the ground is contaminated, the utility will need to execute an ROW-Indemnity, Indemnity Agreement with the State.

Section 14 — Alternative Delivery Project Agreements

Overview

An Alternative Delivery project allows for public-private-partnership involvement by selecting a developer, that is typically a consortium of different companies. The developer on these types of projects is responsible for some or all the following: designing the project, financing the project, acquiring right of way, adjusting utilities, and construction of the roadway. The developer may also be responsible for maintaining and/or operating the roadway. The Alternative Delivery projects are designed to accelerate the construction and completion of transportation projects. Such public-private-partnerships are typically evidenced by one or more agreements, including a Comprehensive Development Agreement. Due to the accelerated project schedule, utility coordination meetings and other utility activities, including construction, may begin immediately after the award of the Alternative Delivery Project Agreement.

With respect to utility adjustments on Alternative Delivery projects, the developer may be responsible for a number of tasks which would otherwise be the responsibility of TxDOT on a traditional project, including entering into adjustment agreements with utility owners and reimbursing utility owners for their adjustment costs (where required, pursuant to Transportation Code, Section 203.092, as referenced above). Because of the "turnkey" nature of these types of projects, certain procedures for utility adjustments in the associated agreement may differ from the procedures of a traditional project, in which case the procedures in the Alternative Delivery Project Agreement will govern.

Additionally, if federal participation is included on the project, utility facility owners will use domestically manufactured products that are composed predominately of steel and/or iron to incorporate into the permanent installation of the utility facility - in compliance with the Buy America provisions of 23 CFR 635.410 as amended. Non-domestic iron and steel materials may be used provided the cost of such materials does not exceed one-tenth of one percent (0.1 %) of the individual Utility Agreement amount, or $2,500.00 whichever is greater. This De Minimis use (not to exceed 0.1%) is to be calculated by the following formula: Combined Cost of only those materials that are subject to the Buy America provisions and are Non-Compliant (limited to the individual utility agreement) divided by the Total Utility Relocation Cost (cited in the individual utility agreement).

Appendix A — Reimbursement Guidelines and Billing Procedures for Utility Adjustments

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Section 1 — Introduction

General

Prior approval by the ROW Division is a prerequisite for some proposals.

The utility and the District should also be certain that the ROW Division has issued the required release to proceed with right of way acquisition and preliminary engineering on utility adjustments.

Any adjustment costs or right of way charges not covered by ROW-U-EWA Emergency Work Authorization - Post Highway Letting and which are incurred by a utility prior to the date of issuance of the ROW Division authorization to proceed with right of way acquisition for a particular project are ineligible for reimbursement.

The cost of right of way which is purchased by the utility prior to plan approval, and which is not needed for relocation due to highway construction, will not be reimbursed.

Where the existing utility facilities are located on public property by statutory right, any right of way costs incurred will be ineligible for State participation.

Pursuant to State law, all utility records are to be available for State inspection for a period not less than three (3) years from the date final payment has been received by the utility company.

This section is designed to provide all concerned with:

- information necessary to identify reimbursable items which may be used in the utility adjustment process, and,
- procedures required by TxDOT for submission of billings.

Questions regarding reimbursable items and billing procedures may be addressed to any of the Texas Department of Transportation District Offices.

Section 2 — General Requirements

Guidelines

The final billing should follow as closely as possible:

- the order of items in the estimate portion of the agreement;
- the totals for labor, overhead construction costs, travel expense, transportation, equipment, materials and supplies, handling costs and other services; and
- where applicable, the construction units shall be shown in such a manner as to permit comparison with the approved estimate.

The final billing should include application of the previously approved eligibility and/or betterment percentages.

The betterment percentage should be applied to all costs associated with the adjustment.

The appropriate credits for accrued depreciation and/or salvage should then be deducted.

The approved eligibility percentage should be the last application of the costs incurred.

Please refer to the example of appropriate order of credits found in Chapter 7 - Utility Cost Estimates.

Section 3 — Final Billings

Guidelines

Where agreements provide for reimbursement on an actual cost basis, the utility owner or operator, upon completion of the adjustment, must submit an electronic copy of a final billing covering all incurred costs for which reimbursement is requested.

Reimbursement will be contingent upon final audit of the utility company's cost records and accounts.

Since the utility will be reimbursed 90% of the eligible costs prior to audit of their records and accounts, it is necessary for the State to be furnished with sufficient information to ensure that payment made to the utility by the State will be found eligible for Federal participation.

It is therefore required that the basis for determination of costs be shown and final billing should show such details on a unit cost basis or as man hours by class and rate, equipment by type, size and rate per mile or hour.

Overhead and payroll additive items should be shown individually with an explanation or breakdown of each.

Overhead costs attributable to the construction project are acceptable for participation.

Costs incurred in the management, supervision, and conduct of the utility's business that would have been incurred irrespective of whether the relocation work is accomplished are not considered as necessary and incident to the performance of the relocation and are not eligible for participation.

Applicable percentages should be indicated when used so that computed amounts can be verified.

Items of cost incurred on a contract basis should be so designated on final billings and information furnished to allow a correlation of the bid items to the approved plan and estimate for determination of extent and eligibility of the contract work performed.

Whenever the billing indicates a substantial change in work from that which was previously approved, the ROW Division should be furnished with an electronic copy of the "As-Built" plan to show the work actually accomplished in order to determine the amount eligible for reimbursement.

Final billings must be fully detailed and include all costs incurred. Where a partial payment has been made, the final billing should include all costs previously billed and should be fully detailed and reflect the total cost of the adjustment.

Section 4 — Labor Charges

Guidelines

Costs to the utility of vacation, holiday pay, company-sponsored benefits, and similar costs incident to labor employment, will be reimbursed when supported by adequate records.

Approved labor additives may include such items as company sponsored benefits, holiday pay, vacation pay, and social security. Examples of non-reimbursement additives or cost components incident to labor might include company picnics, Christmas parties, Christmas gifts, etc.

Section 5 — Charges for Materials and Supplies

Guidelines

Items of new materials and supplies shall be billed at current stock prices when furnished from the utility's stocks or at actual cost to the utility delivered to the project site when such materials must be purchased.

Where the utility maintains a "stock record system", it will be acceptable for material costs to be billed on utility adjustment work using an average of actual unit costs for materials and supplies furnished to the project.

The computation of costs of materials and supplies shall include the deduction of all offered discounts, rebates, allowances, and intercompany profits.

The cost of handling of materials and supplies at storehouses or at material yards, the cost of purchasing (including sales tax), and a reasonable cost of inspection and testing may be included in the computation of prices of materials or supplies, provided these costs are representative of costs incurred and are not included in the development of the utility's overhead account or other accounts.

The costs of supervision, labor and expenses incurred in the operation and maintenance of the storerooms and material yards, including storage, handling and distribution of materials and supplies, are reimbursable costs.

Materials recovered from **temporary** use and accepted for re-use by the utility shall be credited to the project at prices charged to the job, less a consideration for loss in service life at **10 percent.**

Section 6 — Transportation and Equipment Charges

Overview

In the accumulation of utility adjustment costs necessitated by highway construction, costs incurred in the operation and use of equipment and transportation vehicles are reimbursable when properly supported.

Expenses cleared through transportation and heavy equipment accounts may include depreciation; fuel and lubricants for vehicles (including sales and excise taxes); freight and express on fuel and repair parts; heat, light, and power for garage and garage office; insurance (including public liability and property damage insurance) on garage equipment, transportation equipment and heavy work equipment; license fees for vehicles and drivers; maintenance of transportation and garage equipment; operation of garages; and rent on garage buildings and grounds.

Equipment costs may include the costs of supervision, labor and expenses incurred in the operation and maintenance of heavy equipment and transportation equipment of the utility, including direct taxes and depreciation.

A particular class or type of equipment or vehicle may be charged to an individual account on an hourly rate or mileage depending upon the company's standard operating procedure in recording such costs.

Reimbursement of transportation and equipment costs will be limited to charges that account for cost to the utility of expenses for equipment used. Arbitrary or otherwise unsupported equipment use charges will not be reimbursed.

Rental

Where the utility does not have equipment available of the kind or type required to perform the necessary utility adjustment, reimbursement will be limited to the amount of rental paid to the lowest bidder following an appropriate solicitation for quotations from owners of the required kind or type of equipment.

In the event of an emergency, such as a breakdown of utility equipment or the need for equipment not originally contemplated, reimbursement will be allowed for rental of equipment at the lowest rate available under the prevailing conditions.

Equipment rates should be based upon actual cost to the utility. Standard rates such as those published by the Associated Equipment Distributors may not be applied to utility owned equipment since an increment of profit is included in the published rates which is not reimbursable.

Small Tools

Reimbursement for the use of small tools on a project will be made on the basis of tool expenses accumulated in and distributed through the utility's clearing accounts or other equitable and supportable allocation basis; otherwise, it will be limited to actual loss or damage during the period of use. In the latter case, the loss or damage shall be billed in detail and supported to the satisfaction of the State.

Section 7 — Engineering Charges

Guidelines

The estimate should be prepared to indicate detailed engineering charges for which reimbursement is to be requested.

It may be that these engineering charges will be appropriately classified as labor and therefore should be prepared as required in the previously discussed section on labor charges.

Section 8 — Right of Way Charges

Guidelines

The payment of property damages necessitated by a utility adjustment is not considered a right of way charge, but is reimbursable when properly documented. Right-of-way charges are confined to those instances where there is an interest in land acquired.

Losses to improvements such as crops or fences caused by utility construction will be considered as damages and properly chargeable by the utility as a construction or relocation expense that was incurred and paid for by the utility.

Definition

"Replacement right of way" may be defined as the land and interests in land acquired for or by the utility as necessitated by the highway construction. These costs may include salaries and expenses of utility employees engaged in the appraisal of and negotiation for the right of way, amounts paid independent appraisers for appraisals made of the right of way, recording costs, deed fees and similar costs normally paid incidental to land acquisition.

Section 9 — Overhead Charges

Guidelines

Indirect charges such as general engineering and supervision, general office salaries and expenses, construction engineering and supervision by other than the utility, legal expenses, insurance, relief, pensions, and taxes shall be charged to jobs or units **"on the basis of the amount of such overhead reasonably applicable thereto".** All indirect costs (overheads/loadings) should be described and supported at the time of billing. These costs are subject to audit for determination of eligibility.

Some costs which are not eligible for State and Federal participation are:

- entertainment expenses,
- advertising,
- sales promotion,
- special insurance premiums such as those on lives of company officials,
- special bonuses not a part of the general condition of employment,
- taxes and expenses relating to financing or
- refinancing including issuance of stock,
- expenses of listing of securities on exchanges,
- Federal and State income taxes,
- provisions for contingent reserves, director's salaries or special management studies,
- bad debts,
- sale and rate studies,
- contributions,
- fines and penalties,
- interest on borrowings, and
- lobbying and research programs.

Section 10 — Removal or Replacement Charges of Buildings or Similar Structures

The cost of any required relocation of buildings and other similar structures of a utility, which are used primarily for the production, transmission, or distribution of the utility's products or services, is eligible for reimbursement.

When it is not necessary to retain the existing building and/or facilities in service until a replacement is constructed, reimbursement will be limited to the most economical method of relocation.

Whenever a new building and/or facility is constructed, credit for depreciation on the original building or facility will be **required**.

Section 11 — Betterments and Betterment Credit

General

The costs of betterments that are necessitated by the requirements of the highway construction are reimbursable.

The cost of betterments which are constructed at the election of the utility and are not attributable to the highway project, such as increased service capacity or service improvements, are non-reimbursable.

The amount of betterment that the utility owner elects to include is established as a percentage at the time of estimate and execution of the utility agreement with the State.

This estimate-based percentage is applied to the final costs billed.

Betterments Necessitated by Highway Construction

No betterment credit is required for additions or improvements incorporated into a replacement facility for the following reasons:

- economy (non-stocked items may be uneconomical to purchase)
- compliance with governmental laws and ordinances
- compliance with appropriate regulatory commission codes
- installing replacements that are of equivalent standard although not identical
- required by current design practices regularly followed by the company in its own work
- which there is a direct benefit of the highway project, or required by the highway project.

Betterments Elected by the Utility Company

Where betterments are not necessitated by the highway construction, but are to be installed solely for the benefit of the utility company, the cost of installing such betterment items will not be eligible for State and Federal participation.

Section 12 — Forced Betterment Examples

Guidelines

Only those items for the direct benefit of the highway, necessary to comply with governmental laws or needed to restore the utility's functional operation to a like condition in the most economical manner is eligible for reimbursement:

Coating and Wrapping

Any corrosion control measures required by industry or governmental codes, orders or laws are eligible for reimbursement.

Additional Thickness of Pipe

The Office of Pipeline Safety, DOT, has outlined requirements for wall thickness of gas and liquid fuel lines. Where a utility proposes to install a thickness in excess of such requirements underneath the highway, consideration will be given to the approval of the additional thickness if it is necessary due to circumstances outlined in the previous section on "Betterments Necessitated by Highway Construction".

Spare Conduits or Ducts

One spare conduit or duct may be approved for reimbursement where the frequency of interruptions of utility service and the importance of the service together with the expected interference with highway traffic by the utility installing temporary overhead lines, warrants such an approval for the benefit of the highway, or where building lines or ground conditions make subsequent boring impossible.

Taller Poles

Increased height or size of poles for overhead lines may be approved as a reimbursable item when needed to elevate the lines across the highway or the intersecting streets to give proper vertical clearance. The Utility may need to provide proof that a taller pole is required for the accommodation.

Joint Occupancy of Poles

When the existing facility consists of jointly-occupied poles and the utilities separate their facilities in affecting the relocation, reimbursement is warranted in the actual costs of relocation, less the

appropriate credits for betterments and salvage, not to exceed the most economical cost to restore the functional service of the utility.

Section 13 — Accrued Depreciation

Formula

The amount of credit for accrued depreciation should be computed as shown in Chapter 7 - Utility Cost Estimates.

Section 14 — Partially Eligible Adjustments

General

When an adjustment involves facilities located partially on public right of way by sufferance or permit and partially on private right of way acquired for utility purposes, eligibility for State cost participation is to be determined at the estimate stage.

The eligibility is determined based on property interest held by the utility within the limits of the proposed right of way. A ratio is established from the ratio of private right of way occupied to total right of way occupied by the utility within the proposed highway right of way limits.

The percentage is applied to the final costs billed.

Appropriate Order of Credits

An example of appropriate order of credits may be found in Chapter 7 - Utility Cost Estimates.

Section 15 — Consulting Engineer Fees

The "percentage of the cost of relocation" method of computing fees is not acceptable.

The fee must be either a lump sum, cost per unit of work, cost plus a fixed fee, or specific rate.

The contract should define services to be accomplished during the preliminary, design, and/or construction phase.

The basis for determining the fee should be established, and a lump sum or maximum amount payable should be specified.

The cost of consultant engineering services performed under existing written continuing contracts is acceptable when it is demonstrated that such work is performed regularly for the utility in its own work and the District verifies the costs are reasonable and approves the engineering contract.

Section 16 — Special Considerations

In addition to requirements mentioned in this section, the utility company should be aware that:

- if any costs are incurred for a reimbursable utility adjustment prior to an Emergency Work Authorization or an approved agreement, TxDOT **will not** reimburse the utility for those costs, and
- the ROW Division cannot process the billing for payment until any conditions placed upon the approval of the agreement have been removed.

Appendix B — Broadband Accommodation Process

Contents:

Section 1 — Purpose of Broadband Accommodation Process

Section 2 — Definitions

Section 3 — Utility Installation Review Permit Design Documentation Standards

Section 4 — Broadband Technical Specifications

Section 5 — Macro Tower Technical Specifications

Section 6 — Required Process Steps Before Submitting a Utility Installation Review Permit

Section 7 — Utility Permit

Section 8 — Application Processing Shot Clocks

Section 9 — Construction and Maintenance

Section 10 — Inspection

Section 11 — As-Built Documentation

Section 1 — Purpose of Broadband Accommodation Process

General

This document will prescribe minimum design standards for the accommodation, method, materials, and location for the installation, adjustment, and maintenance of broadband facilities under the accommodation process. The Installation Owner is intended to ensure the safety of the general public as well as those who will work on or in proximity to the Broadband equipment.

These Design Standards are governed by the terms and conditions found in applicable sections of the latest versions of the following documents:

- The Texas Administrative Code (TAC), Title 43, Chapter 21, Subchapter C
- This TxDOT ROW Utilities Manual
- The TxDOT Use of Right of Way by Others Manual, including the Utility Installation Request (UIR) form/system
- The TxDOT Landscape and Aesthetics Design Manual
- The TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges
- Poles shall be designed in accordance with *The Standard Specifications for Structural Supports for Highway Signs Luminaires and Traffic Signals, 6th Edition, 2013 (LTS-6)* considering the pressure on the Effective Project Area (EPA) of the pole and each attachment. Calculations shall be submitted by a Texas licensed engineer, shall be concise, and shall not consist simply of computer output where numbers are shown but not defined/labeled. Unreinforced concrete foundations shall not be allowed. A reinforced concrete foundation (either concrete drilled shaft foundations or footings) shall consist of concrete having longitudinal internal reinforcing bars and transverse spiral or tie reinforcement.

Amending the Design Standards

The Department reserves the right to revise the Design Standards in accordance with the terms of Title 43, Texas Administrative Code. Any amendment to the Design Standards shall apply prospectively, except to the extent required by federal, state, or local law.

Additional Requirements

In addition to the requirements of the Design Standards, Installation Owners may also be subject to other regulatory obligations, including requirements established by the TxDOT District in which

the site will be located. Installation Owners are responsible for compliance with all additional or updated TxDOT requirements.

Section 2 — Definitions

List of Definitions

The following words, terms, and phrases, when used in these Design Standards, shall have the meanings ascribed to them in this section except where the context indicates a different meaning.

Antenna means communications equipment that transmits or receives electromagnetic radio frequency signals used in the provision of Wireless Services.

Applicable Codes means:

1. Uniform building, fire, electrical, plumbing, or mechanical codes adopted by a recognized national code organization, including without limitation the National Electric Code, the National Electric Safety Code, American National Standards Institute & Telecommunications Industry Association (“ANSI/TIA”) Structural Standards, National Fire Protection Association (“NFPA”) standards, and the International Building Code; and
2. Federal, state, or local law applicable to activities undertaken pursuant to the Utility Permit

Applicable Engineering Standards means all engineering or safety standards governing the Broadband Installation, maintenance and operation of facilities, and the performance of all work in or around Department Facilities, including without limitation the Department's (or other relevant authorities') clearance standards, the National Electric Safety Code (“NESC”), the National Electrical Code (“NEC”), the Texas Health & Safety Code, Chapter 752 (Vernon 1992), and any subsequent amendments that relate to the maintenance of proper clearances and related safety issues, the regulations of the Occupational Safety and Health Act (“OSHA”), applicable regulations of the Federal Communications Commission (“FCC”), applicable regulations of the Environmental Protection Agency (“EPA”), or other requirements of the Department, including as-yet-unadopted local, state, or national standards that are non-discriminatory to the installation owner as compared to all other similarly situated persons and types of facilities, provided, however, that new or revised engineering standards will not apply retroactively unless required by law.

Attachment means a Broadband Installation on a Department Service Structure or third-party Pole.

Broadband Installation means and includes a Network Provider's installation of a Network Node attached to a Department Service Structure or other Pole in Department Rights-of-Way including, without limitation, a Node Support Pole, together with any broadband facilities installed in Department Rights-of-Way in conjunction with a Network Node.

Broadband Service means internet service with the capability of providing a download speed of 25 megabits per second or faster and upload speed of 3 megabits per second or faster.

Broadband Service Provider is an entity that exclusively provides Broadband Service.

Collocate and **Collocation** means the installation, mounting, maintenance, modification, operation, or replacement of Network Nodes in a Department Right-of-Way on or adjacent to a Pole or Department Service Structure.

Concealment Elements means physical designs or treatments that minimize adverse aesthetic and visual impacts on the view from land, property, buildings, and other facilities adjacent to, surrounding, and in generally the same area as the requested location of a Broadband Installation, including a Network Node or Node Support Pole, which shall mean the least visually and physically intrusive facility, and that is not technologically or commercially impracticable under the facts and circumstances.

Cubic Volume means the total measure of all the Network Node equipment (antenna and ancillary). For any Network Node equipment that is irregular in shape, the greatest length, width, and depth will be used. Dimensions will be listed in inches for calculating cubic volume. Volume shall be listed in cubic feet.

Decorative Pole means a Pole specially designed and placed for aesthetic purposes and on which no appurtenances or attachments, other than specially designed informational or directional signage or temporary holiday or special event attachments, have been placed or are permitted to be placed according to non-discriminatory municipal codes.

The Department means and includes the Texas Department of Transportation, its successors and assigns, and its authorized agents, representatives, employees, or contractors.

Department Facilities means and includes Department-owned or managed property of all kinds, including without limitation Department Service Structures, Department Rights-of-Way, and appurtenances the Department may place in the Department Rights-of-Way.

Department Right-of-Way or **Department Rights-of-Way** means the area or areas on, below, above, or adjacent to public roadways, highways, or streets or public sidewalks, alleys, waterways, or utility easements the Department administers. The term does not include:

1. a Private Easement; or
2. the airwaves above a Department Right-of-Way with regard to Broadband telecommunications.

Design District means an area, including an overlay district, that is zoned or otherwise designated by local municipal codes or regulations for which an affected municipality maintains and enforces unique design and aesthetic standards which are reasonable, objective, published in advance, and applied on a uniform and non-discriminatory basis.

Design Documentation means all documentation required for a complete Utility Permit application as defined in these Design Standards.

District Engineer means the Department's District Engineer for the location where the Individual Site(s) are situated or his or her delegate.

Highway Facility means any present or future physical roadway improvements within existing or future Department Rights-of-Way, including, but not limited to, duct banks installed by the Department, bridges, embankments, drainage areas, traffic signals, signs, and roadway surfaces as well as structures and facilities not physically located within the highway right of way that are used in the construction, maintenance, or operation of a highway, including, but not limited to, warehouses, storage areas, maintenance sites, roadside parks, administration buildings, and parking lots, except for improvements constructed or placed on an Individual Site or permitted facility by Installation Owner.

Historic District means an area that is zoned or otherwise designated as a historical preservation district under local, state, or federal law.

Improvements mean all Network Nodes, Node Support Poles, Node Transport Facilities, or related facilities Installation Owner constructs according to the permissions granted in the Utility Permit.

Installation Owner means a Network Provider that desires to install, own, maintain, repair, or operate Network Nodes providing Broadband Services on or supported by Department-owned Service Structures or other Poles in the Department Rights-of-Way.

Joint Use Structure means a pole or other structure supporting a small cell antenna owned or operated by more than one carrier.

Law means applicable common law or a federal, state, or local law, statute, code, rule, regulation, order, or ordinance.

Macro Tower means a guyed or self-supported pole, monopole, lattice tower, or guyed towers supporting a broadband installation within the Department Rights-of-Way.

Make-Ready Charges means the cost of all work that is required to accommodate or accomplish Make-Ready Construction.

Make-Ready Construction means all work that is required to accommodate Installation Owner's Broadband Installation on a Service Structure in compliance with the Applicable Engineering Standards and these Design Standards. Make-Ready Construction may include but is not limited to, engineering design, pole loading analysis, electrical construction, communications construction, Broadband Installation construction, Service Structure replacement, where applicable, and a post-construction inspection.

Network Node means equipment at a fixed location that enables broadband communications between the user equipment and a communications network. The term:

1. includes:
    a. equipment associated with broadband communications;
    b. a radio transceiver, an antenna, a battery-only backup power supply, and comparable equipment, regardless of technological configuration; and
    c. a coaxial or fiber-optic cable that is immediately adjacent to and directly associated with a particular collocation; and
2. does not include:
    a. an electric generator;
    b. a Service Structure;
    c. a Pole; or
    d. a Macro Tower.

Network Provider means:

1. a Broadband Service Provider; or
2. a person that does not provide Broadband Service and that is not an electric utility but builds or installs on behalf of a Broadband Service Provider:
    a. Network Nodes; or
    b. Node Support Poles or any other structure that supports or is capable of supporting a Network Node.

Node Position Key means an annotated cross-section schematic showing the reference of the Attachment on the horizontal plane.

Node Support Pole means a pole installed by a Network Provider for the primary purpose of supporting a Network Node.

Node Transport Facility or **Node Transport Facilities** means the transmission path or paths within the Department Rights-of-Way from a Network Node directly to the network fiber, for the purpose of providing backhaul for Network Nodes.

Plan View or **Plan** means a top view of a three-dimensional object.

Pole means a vertical, wood or metal, support structure, including a Node Support Pole, or a Utility Pole.

Profile View or **Profile** means a side view of a three-dimensional object.

Service Structure means a Department-owned or operated, vertical, wood or metal, support structure located in a Department Right-of-Way, including a similar structure that is owned or operated

by the Department and that the Department specifies in these Design Standards as being available for the support of Network Nodes.

Typical Detail or **Typical** means an annotated depiction of a certain installation or universal to many installations.

Unauthorized Broadband Installation means a Broadband Installation made on a Department Service Structure or in Department Rights-of-Way without an approved Utility Permit or otherwise not in compliance with an effective Utility Permit.

Utility means any entity owning a utility facility. Defined in Title 43, Texas Administrative Code, Rule §21.31, Definitions.

Utility Installation Review or **UIR** system is a TxDOT online application system used to apply for permits/leases in the Department's Rights-of-Way.

Utility Permit is TxDOT approval allowing the installation of a utility's infrastructure in TxDOT Right of Way.

Utility Pole means a Pole that provides:

1. electric distribution with a voltage rating of not more than 34.5 kilovolts phase-to-phase; and/or
2. services of a telecommunications provider, as defined by Section 51.002, Utilities Code.

Wireless Service means any service using licensed or unlicensed wireless spectrum, including the use of Wi-Fi, whether at a fixed location or mobile, provided to the public using a Network Node.

Section 3 — Utility Installation Review Permit Design Documentation Standards

General

All design criteria must conform with Title 43, Texas Administrative Code, Chapter 21, Subchapter C. The location and manner in which a utility facility installation, adjustment, or relocation work will be performed within the right of way must be reviewed and approved by the Department. Measures must be taken to preserve the safety and free flow of traffic, the structural integrity of the highway or highway structure, ease of highway maintenance, the appearance of the highway, and the integrity of the utility facility.

All Design Documentation shall be submitted electronically with a Utility permit request and shall fully depict the scope of work to be performed by the Utility Installation Owner.

For Broadband Installations, the Utility Installation Owner shall indicate the design of the Node Support Pole, the Network Node, and any other Attachments (such as fiber demarcations, battery backup, and power meters) in the Design Documentation. Design Documentation shall include any handholes, manholes, pedestals, demarcation enclosures, splice cases, and ducts surrounding the installation and illustrate how the Node Transport Facility and power will interconnect with the Network Node.

Design Documentation shall be specific to the design with no handwritten or superimposed annotations other than the Professional Engineer's signature and stamp where required. Design Documentation containing strictly generic standards will not be accepted. Design Documentation shall be original plotted digital renderings created with computer-aided design software and presented in PDF file format. No individual document may be larger than 5 MB in size. Scanned Design Documentation or Design Documentation of poor visual quality (as determined by the Department reviewer) may not be accepted.

Paper Size

All Design Documentation shall be legible when printed according to the ANSI B standard for 11 inches x 17 inches. Drawings may be submitted in a larger, ANSI D format (i.e., 22 inches x 34 inches) but must contain an accurate alternate scale when printed at 11 inches x 17 inches. Architectural sizes (i.e., ANSI A, and ANSI C) are not acceptable formats.

Abbreviations

All annotations, callouts, notes, and descriptive text shall be in plain language. If abbreviations are used to promote clarity in the Design Documentation, the applicant shall follow the TxDOT Style Guide for Construction and Maintenance Specifications.

Line Weights and Annotations

Descriptions of existing above-ground features on Plan View and Profile View sheets shall have a consistent line weight. Descriptions of existing below-ground utilities and features shall have a consistent line weight that is lighter than existing above-ground features. All features and components of the proposed installation-as opposed to existing conditions-shall have a consistent, heavier line weight than existing above-ground features. All annotations for the proposed installation shall be bolded and noticeably heavier than other annotations on the Plan and Profile sheets.

A Plan sheet example with suitable line weights and annotations is shown in Figure B-1. A sample Profile sheet with suitable line weights and annotations is shown in Figure B-2.

Figure B-1. Sample Plan Sheet with Suitable Line Weights and Annotation. Note: Annotations for travel lanes, road names, numbers, clear zone, and ROW were omitted for clarity.

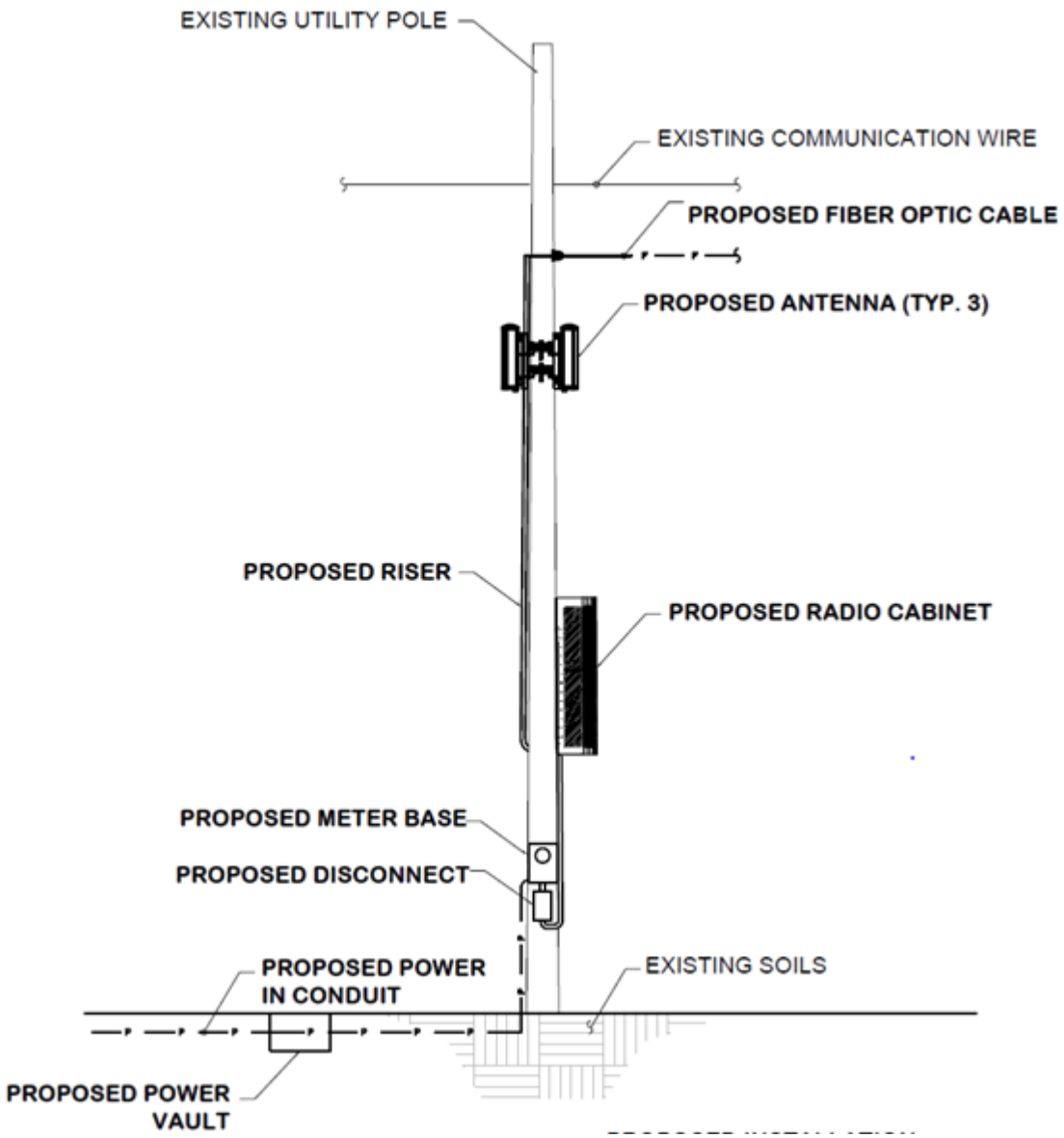

Figure B-2. Sample Profile Sheet with Suitable Line Weights and Annotation (South View)

Required Sheets and Information

Design Documentation shall include, at a minimum, the following sheets for all types of applications except for Broadband Installation removal:

- Title Sheet
- Plan
- Profile
- Equipment

- Traffic Control Plan
- Standards (optional)

Applications to remove a Broadband Installation shall include:

- A title sheet
- A list of items that will be removed
- Traffic Control Plans, and
- A description of the proposed restoration

Title Sheet Requirements

The title sheet shall include the following items:

- State road (name and number)
- TxDOT District (name and number)
- Network Provider's site name and/or identifier number (e.g., “Abilene - North,” “TX3449859”)
- Full address of proposed Broadband Installation location (if none available, use the closest address to assist the reviewer in finding the site)
- Historic or Design District name, if applicable
- Latitude and longitude are expressed in degree/decimal format (e.g., XX.XXXXXX) to the NAD83 standard and accurate to ±1 meter.
- Email and phone number for the applicant's engineer
- Email and phone number for the applicant's single point of contact
- 5-square-mile map of the area for orientation purposes (see Figure B-3)

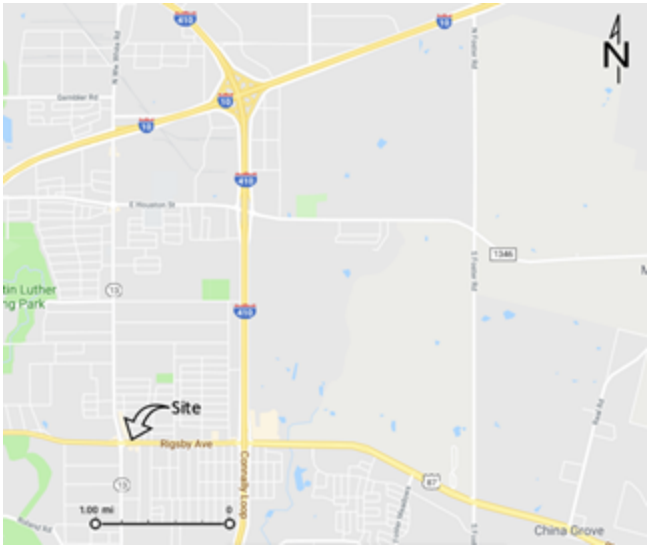

Figure B-3. Sample 5-Square-Mile Area Map

- A list of Applicable Codes and Applicable Engineering Standards (most recent version) with which the application complies
- Sheet index (table of contents) listing only submitted sheets
- Seal and signature from a State of Texas-certified Professional Engineer (P.E.)
- Professional Engineer's statement with the following signature line placed in the lower right-hand quadrant of the title page:

I, _____, a registered Professional Engineer in the State of Texas, do hereby certify that this Drawing was prepared by me, or under my direct supervision, and that all information contained herein regarding safety is in accordance with the listed Applicable Codes and Applicable Engineering Standards, without exception or exclusion, stated or otherwise.

_____

PE Signature

Figure B-4. Sample of Professional Engineer's Statement

Requirements for Plan Sheets

The Plan sheets shall accurately depict existing features that apply, such as:

- State roads and interstates (name and number)
- Municipal roads (name)
- Toll roads (name)
- Private raods

- Travel lanes with traffic direction arrows
- Clear zones
- Distance from proposed installation to the right of way line
- Right of way width
- Department Rights-of-Way and other rights-of-way and property lines
- Sidewalks and accessibility ramps
- Bike trails/lanes/paths
- All existing visible features, street furniture, and structures within the Department Rights-of-Way
- Property addresses for parcels abutting the Department Rights-of-Way
- Area zoning boundaries and an indication of the zone type, if any (e.g., residential, mixed-use, commercial, industrial)
- Premises outlines with address numbers, if applicable
- Existing underground utilities if available from the municipal GIS source(s)
- Visible underground utility appurtenances (e.g., valves, fire hydrants)
- Annotation to identify the surface type (e.g., pavement, grass, bituminous)
- Hydrology/flood plains
- Stormwater management and culverts
- North arrow indication
- Recorded easements
- Limits/boundary of construction
- Notes to identify the method of construction (if not explained on a standards sheet)
- Reference to any applicable detail illustrations on the plan sheet or a separate standards sheet
- Any structure proposed to be installed or replaced
- A color photo of the proposed Broadband Installation location (with approximate placement identified) taken during a field survey conducted within 60 days of the date of the application submittal; internet street-view photos are not acceptable, and the size of the photo shall be no less than 3 x 4 inches when printed on an 11 x 17-inch sheet

Plan sheets may have aerial imagery as the base layer. The Applicant's Professional Engineer shall confirm that the aerial imagery is suitable to depict current conditions as related to the application. If a plan sheet with aerial imagery is used, an additional plan sheet of the same perspective, orientation, scale, and detail will be required without the imagery.

Plan sheets shall include the dimensions of all setbacks, offsets, and road widths related to the proposed Broadband Installation. Dimensioning should include but not be limited to:

- Road and Department Right-of-Way widths
- Distance from existing and proposed underground facilities to the Department Right-of-Way and edge of pavement
- Distance from hydrology and flood plains to proposed facilities
- Clear zone width and offset to proposed facilities
- Widths of sidewalks, accessibility ramps, bike trails, bike lanes, and bike paths
- Setback to premises
- Length of Node Transport Facilities

Plan sheet features shall be drawn to scale except for symbols. Symbols are only to be used to preserve clarity (i.e., an existing 8-inch water line does not need to be drawn to scale). The main plan sheet scale must be in the range from 1:30 (inch: foot) to 1:50. Detailed illustrations can be added to show greater clarity using a larger scale (e.g., 1:10 or 1:5).

Profile Sheet Requirements

A Profile Sheet shall accurately depict the following items:

- View direction (facing)
- The entire dimension of the Pole or Service Structure (new/proposed/existing)
- Existing structure view, if the proposed Broadband Installation will replace or be attached to an existing structure
- Proposed structure view, or two different adjoining views (e.g., north and west) if it is a new structure
- All attached Network Node equipment (e.g., antenna, Network Node, ancillary equipment)
- Node Transport Facility location and depth (if part of the application)
- Foundation view or reference to Typical sheet for proposed foundations
- Buried pole depth for new or replaced Pole or Service Structure without foundation
- Proposed hand boxes, vaults, and hand holes
- Proposed underground conduits (within 10' of the network support structure)
- Grounding detail or reference to Typical page
- Proposed ground-based enclosure

- Node Position Key to Department Right-of-Way and road alignment for each Profile View (see Figure B-5). This detail does not have to be to scale but must show alignment on a quadrant and reference the street and the ROW perspectives.
- Roadway features, including driveways, ramps, and sidewalks, to verify Pole location will not interfere with proposed Improvements
- Minimum depth of cover for proposed power and communications conduit
- Offset from Department Right-of-Way line to power

All the following items shall be dimensioned:

- Antenna height above Pole or Service Structure
- Pole or Service Structure dimension at the base
- Distance from Department Right-of-Way line
- Antenna and cabinet offset from Pole or Service Structure
- Overall height of the Pole or Service Structure above grade
- The vertical clearance of any adjacent overhanging roadway
- Ground-based enclosures and height above grade
- Pole-mounted or Service Structure-mounted enclosures and height above grade

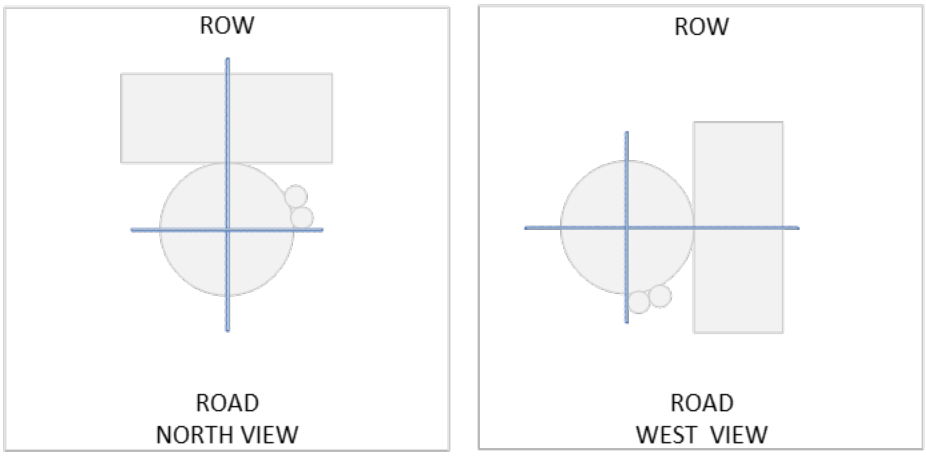

Figure B-5. Node Position Key

Equipment Sheet Requirements

Equipment sheets are specialized Typical Detail sheets that tabulate Cubic Volume for a Broadband Installation. An equipment sheet shall accurately include each of the following that applies:

- Plan View and Profile View, or multiple Profile Views, or combined Plan View and Profile View (isometric) of any visible component with a measurement greater than 6"

- List of external components separately in Typical Detail
- Length, width, and depth in inches or feet and inches for any length greater than 10'
- Manufacturer and model number
- Total cubic feet

Each component shall be identified as an antenna, a Network Node, or ancillary equipment. Each Typical Detail on the equipment sheet shall be numbered and labeled to reference the Typical sheet. The use of borders around details is required. See Figure B-6.

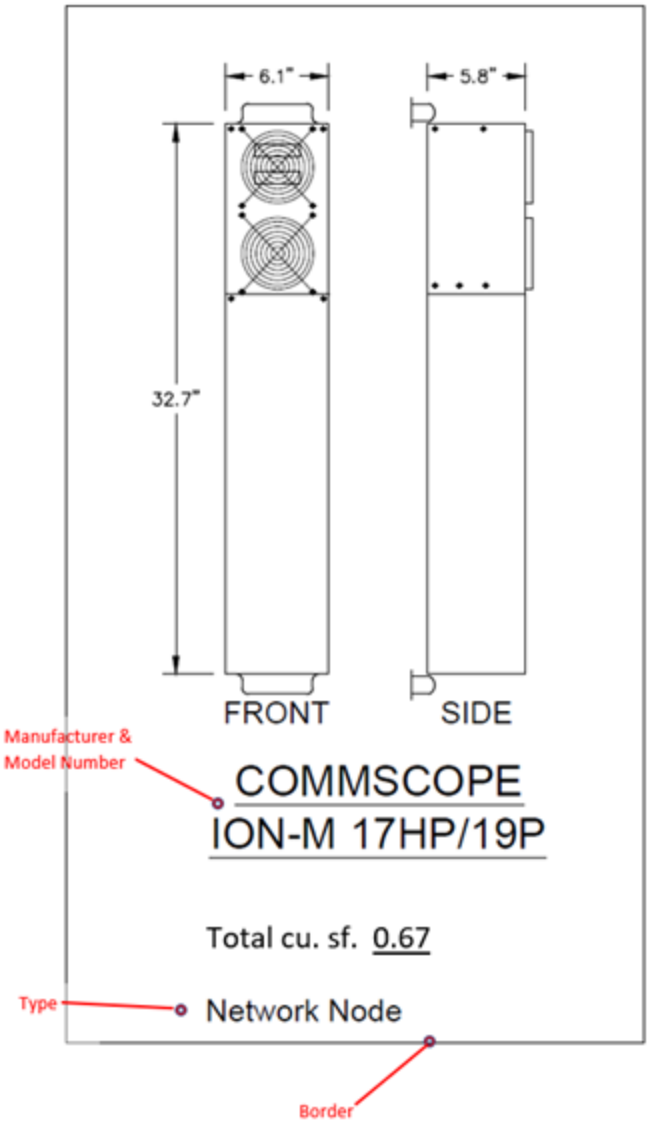

Figure B-6. Sample Typical Detail (Network Node)

In addition to the individual component Typical Detail, each equipment sheet shall include a separate note box that identifies the total Broadband Installation volume, in cubic feet, as shown in

Figure B-7. The total cubic feet note shall be in bold type, located in the lower right-hand quadrant of the equipment sheet.

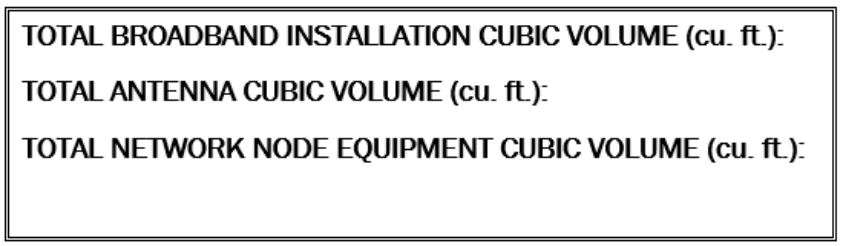

Figure B-7. Sample "Total Cubic Feet" Note

Linework and annotations shall be drafted using computer-aided design software. Scanned or cropped images are not acceptable. Equipment shall be drawn to the scale in the Plan View and Profile View sheets.

Typical Sheet Requirements

A sheet of Typical Details can be part of the Design Documentation. Only one Typical sheet shall be included per Design Documentation, and each Typical Sheet shall contain no more than eight individual details or illustrations to depict the scope of work related to the plan and profile sheets. Each Typical Detail shall be numbered and labeled to reference the Typical sheet and specific individual details. The use of borders around Typical Details is required (see Figure B-8). Only Typical Details referenced in the Plan or Profile sheets shall be included on the Typical sheet. Examples of Typical Details include:

- Antenna mounting
- Cabinet mounting
- Break-away fabrication
- Concealment
- Concrete pad
- Foundation
- Hand box / vault / hand hole
- Riser
- Trench / conduit

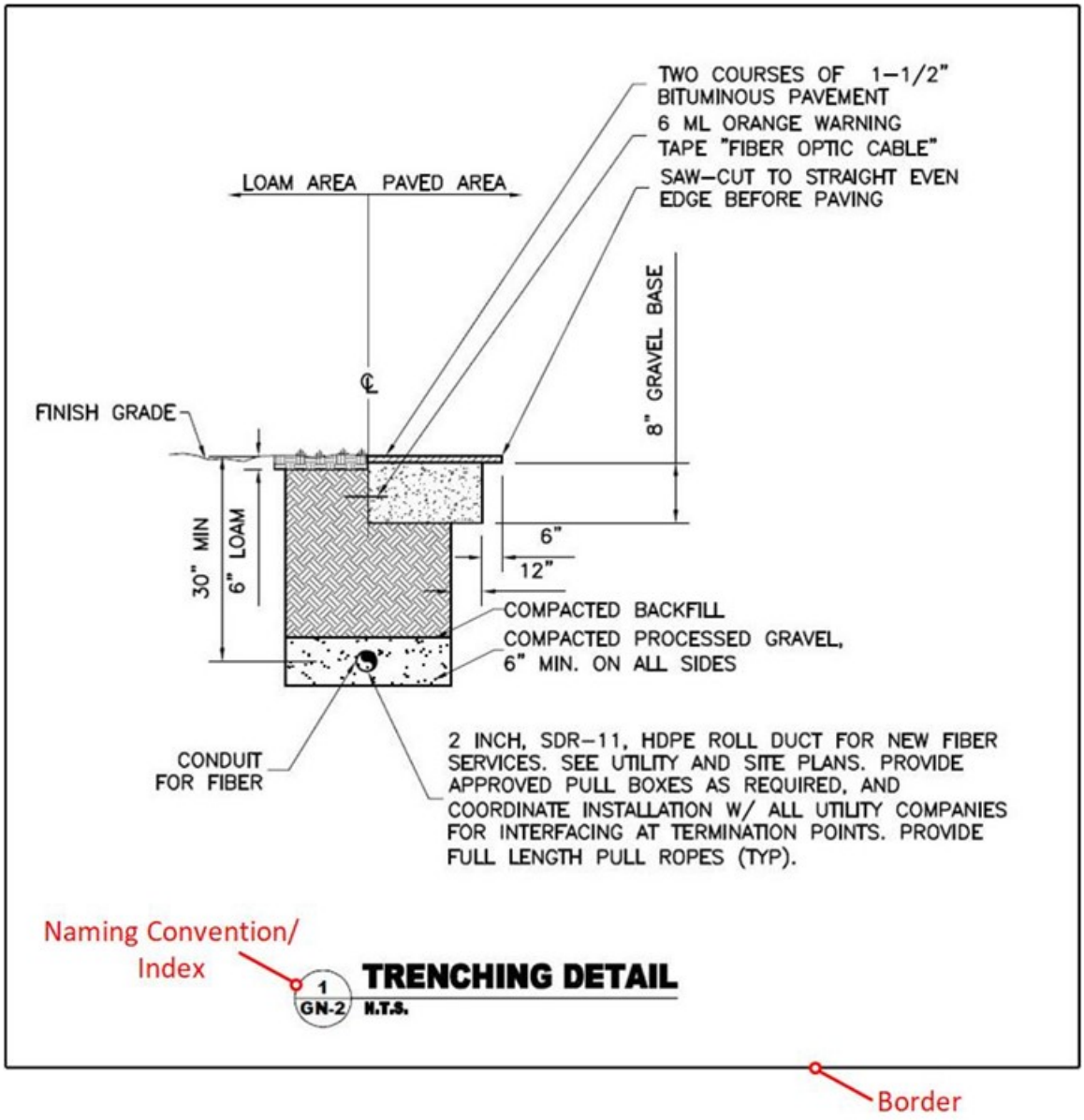

Figure B-8. Typical Detail

Documentation of Demarcation

The Department understands that different Installation owner, and different applications by an Installation Owner may take different business approaches. In some cases, the Installation Owner may propose to build and own the Node Transport Facility. In others, it may build and own the Network Node and another entity may build and own the Node Transport Facility.

The application shall indicate the demarcation between the Node Transport Facility and the Broadband Installation.

If Network Node equipment is to be located on the Pole or Service Structure itself or the ground in close proximity to the Pole or Service Structure, the handoff from the Node Transport Facility to the Broadband Installation is the demarcation point. The following figures illustrate physical demarcations between the Node Transport Facility and the Network Node at a line interface unit (LIU) also known as the network interface device (NID).

Figure B-9 illustrates a typical scenario in which the Node Transport Facility (dotted line) is delivered aerially. The LIU/NID shown is located on the Pole (it could also be in a nearby handhole if the cabinet is on the ground). The Node Transport Facility provider provides transport from a splice point and drops the line to the NID.

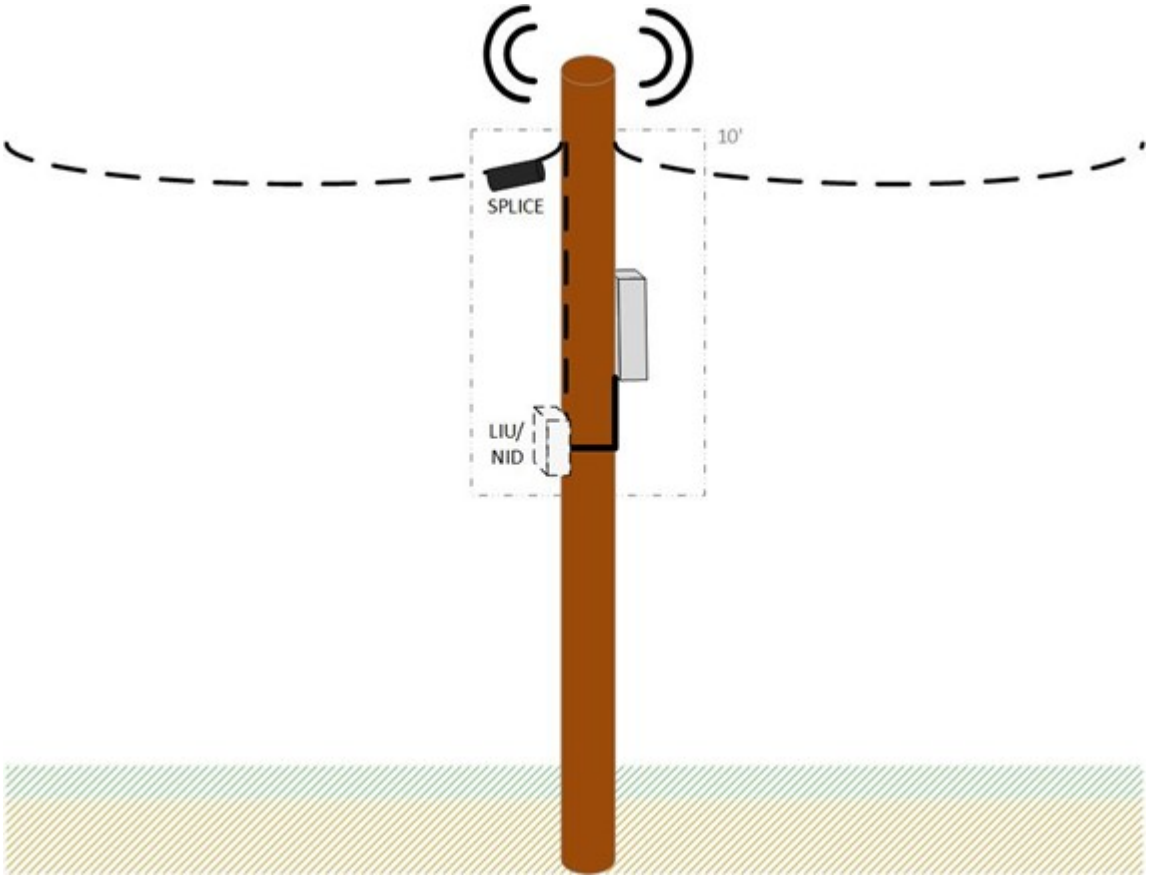

Figure B-9. Example Aerial Node Transport Facility/Network Node Equipment Demarcation Point

Figure B-10 illustrates a typical scenario in which the Node Transport Facility (dotted line) is delivered underground. The Node Transport Facility provider typically builds a handhole containing the transport cable for the Network Node connection. It is recommended that the handhole be located within 10' of the Pole. The demarcation point is where the Node Transport Facility connects to the Broadband Installation.

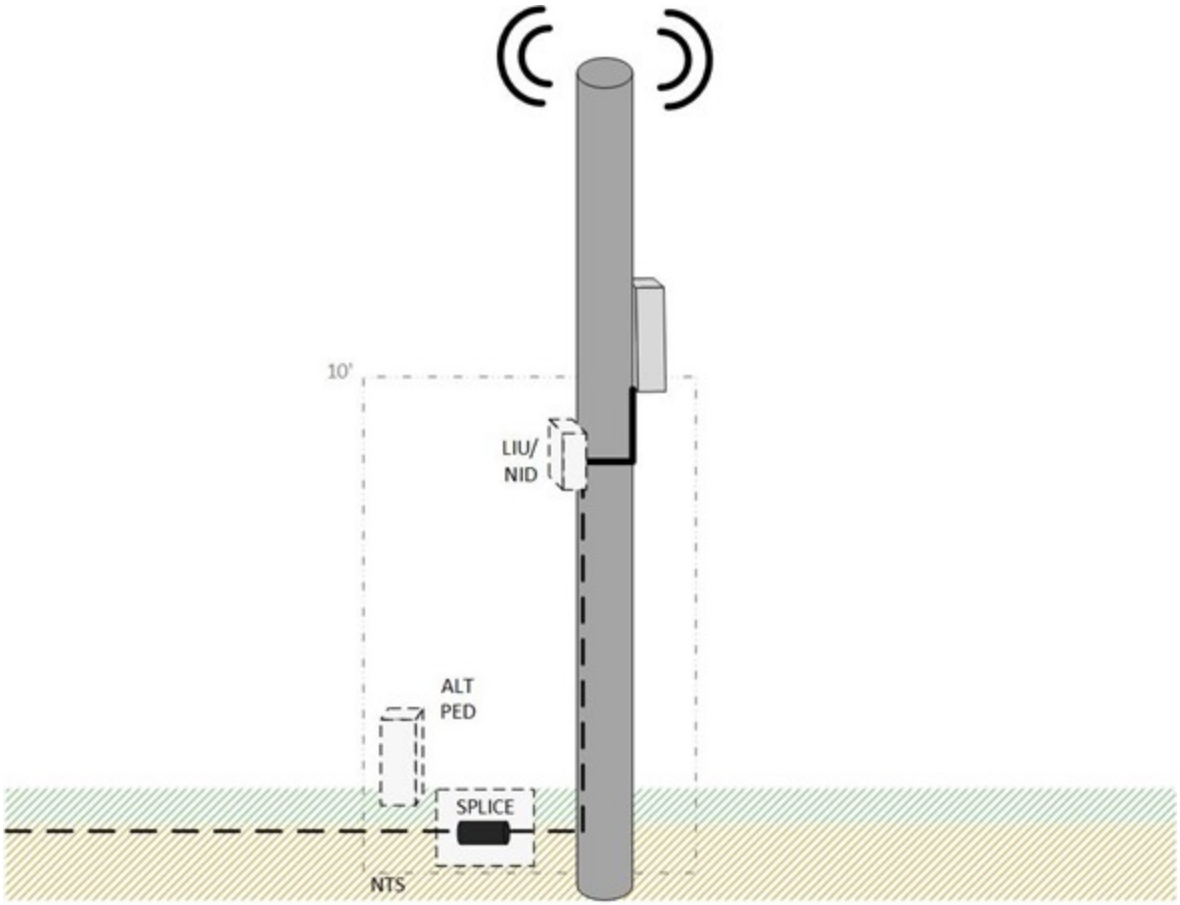

Figure B-10. Example Underground Node Transport Facility/Network Node Demarcation Point

A Node Transport Facility may be delivered wirelessly as well. In that case, a backhaul antenna may be installed on the Pole or Service Structure, and the LIU/NID would contain the RF equipment used to provide backhaul to the Network Node.

Section 4 — Broadband Technical Specifications

Introduction

The following technical specifications apply to proposed and installed Broadband Installations within the Department Rights-of-Way. Underground facilities within the highway right of way must comply with Title 43, Texas Administrative Code, Rule §21.40, Underground Utilities, Overhead Facilities, and Communication Lines must comply with Title 43, Texas Administrative Code, Rule §21.41, Overhead Electric and Communication Lines.

Locations and Structures

If a new antenna site installation requires the replacement of an existing pole, the installation owner must coordinate with the pole owner. If a new antenna site installation of a new pole is in an existing pole line, a replacement will not be allowed without an exception approved by TxDOT. Joint use must be considered, as indicated by Rule 222 of Part 2 of the National Electrical Safety Code (NESC). Broadband Installations may be installed on new or existing third-party Poles within the Department Rights-of-Way. An Installation Owner shall obtain permission for use of existing third-party Poles from the structure owner and provide such documentation with its applications.

A utility facility that crosses railroad right of way shall provide a copy of the fully executed permit to install the utility facility within the railroad right of way from the railroad to the department prior to installation of the utility facility within department right-of-way.

No Broadband Installation's measurements may exceed the dimensions set forth in this document or 43 TAC § 21.31-21.56 without the Department's approval.

Broadband Installations may be installed on the following Department Service Structures at the discretion of the District Engineer:

- Illumination Pole that does not have a maintenance mechanism that traverses the height of the Illumination Pole
- Sign Structure includes cantilevered overhead sign supports and sign bridges.
- Include applicable TxDOT Standard Sheets in the plan set

The Department prefers that a Network Provider shall install its Broadband Installations on allowable structures other than Department Service Structures whenever technically feasible. If a Broadband Installation is proposed to be attached to a Department-owned Illumination Pole, at TxDOT's request, the Network Provider shall replace the Illumination Pole. The new Illumination Pole must comply with all relevant TxDOT standards and the following:

- The weight of the proposed attachment and hardware necessary to mount it must be provided.

- The mounting height of the proposed attachment must be provided.
- The distance from the edge of the pole to where the proposed attachment will be mounted must be provided.
- The Effective Projected Area (EPA) of the proposed attachment must be provided.
- The resulting increase in forces on the pole and the resulting total combined stress ratio at the pole base must be computed and accounted for.

The Network Provider must demonstrate to the Department's satisfaction in the Department's sole discretion that the replacement Illumination Pole will support both the original function and all Improvements.

The Network Provider shall provide a structural analysis of the Broadband Installation on the proposed Pole or Service Structure signed by a Texas Professional Engineer. Acceptable software for structural analysis calculations shall be a commercially available product with general industry acceptance. Should the Installation Owner or its contractor use a commercially available software application that the Department does not possess, the Installation Owner shall, if requested, make available to the Department at least one software license.

No placement shall be made which obstructs the line of sight and the beam or wave detection zone of any fixed TxDOT, Texas Department of Motor Vehicles, or public safety equipment the operation of which is the line of sight, video, or radar detection dependent.

Additionally, any Node Support Pole shall comply with the following:

- Any proposed Node Support Pole shall be located as near as possible to the Department Right-of-Way line furthest from traffic, but no more than 3' from the Department Right-of-Way line furthest from traffic.
- The Pole location shall not be within a horizontal clear zone, any poles located in the clear zone shall comply with breakaway specifications.
- Unless otherwise approved by the Department, a proposed Broadband Installation shall be at least 300' from any current Broadband Installation. Additional spacing may be required for any of the following reasons:
  - Traffic safety
  - Visual sitelines
  - Conflicts with TxDOT structures (existing, proposed, and planned)
  - Maintenance of the travel ways or Department Rights-of-Way
  - The Department's purposes

Strand-mounted, mid-span broadband equipment may be attached to or supported by existing or new Poles with approval from Pole owners on either side of the proposed equipment. Each piece of equipment shall not exceed 24" in length, 12" in height, and 15" in depth. The Installation Owner

shall provide engineering design and pole loading analysis (PLA) calculations to justify the use of both adjacent poles. The Network Provider shall deactivate the strand-mounted installation within 15 minutes of a request from the Department.

Broadband Installations shall comply with applicable municipal ordinances, which may include specific requirements related to Historic Districts, Design Districts, proximity to parks, noise, and others.

Aesthetics

The Department desires to promote safe, cleanly organized, and aesthetically acceptable facilities using the smallest and least intrusive means available to provide broadband services to the community. As such, broadband facilities in the Department Right-of-Way shall comply with the reasonable provisions in this document. These standards are no more burdensome than those applied to other types of infrastructure deployments in the Department's ROW.

The Department desires and encourages collocations among limited numbers of Broadband Service Providers on the same support structure whenever technically feasible. If the Utility Installation Owner chooses not to collocate when options for collocation appear to be technically feasible, Installation Owner shall demonstrate to the Department's satisfaction in its sole discretion why collocation is not feasible.

The Department desires and encourages Utility Installation Owner to incorporate Concealment Elements into their proposed designs. Concealment Elements include techniques such as camouflage or shrouding.

All Broadband Installations shall comply with the following:

- Minimal exposed wiring is permitted, provided the Department approves the wiring and the wires are entirely contained within a flex shrouding.
- Advertising, flashing lights, decals, and stickers are prohibited unless installed to comply with federal or state law.
- Graffiti shall be removed as soon as possible, but in no event longer than 21 days after notification.
- New or replacement Poles shall be consistent in size, color, and material with other adjacent Poles of similar classification and use.
- All Network Node and ancillary equipment shall match the color of any Decorative Pole on which it is attached to the extent reasonably possible.
- Flex shrouding shall match the color of the Pole.

Cabinets and Enclosures

Cabinets and enclosures, including exposed remote radio heads and radio Broadband Installations, may be flush-mounted on a support structure or installed at ground level within a 10-foot radius of the support structure. All cabinets and associated equipment shall be mounted or placed in a manner that does not interfere with any of the following:

- Pedestrian safety
- Americans with Disabilities Act (ADA) compliance
- Vehicular safety and sightlines
- Residential views
- Highway maintenance purposes

Riser cables used to connect antennas and antenna accessory equipment, backhaul services, or power lines shall be installed in conduit on the side of a Pole or Department Service Structure furthest from lanes of traffic with topside weather heads. Power cables transporting AC power shall be installed in separate conduit from DC power or telecommunications cable.

All conduits affixed to Poles consist of Schedule 40 PVC or equivalent material. Any conduit passing through the power space shall consist of non-metallic and non-conductive material and be painted to match the Pole. These conduits shall not exceed a diameter of 4". A utility shall install no more conduit than is necessary for the proposed Broadband Installation. No exposed riser cable slack shall be stored externally. All slack shall be stored in junction boxes or equipment cabinets or on snowshoes on the aerial cable. No cables shall be visible on the exterior of a Department Service Structure.

Conduit transitions to above ground shall be contained in schedule 40 RGS conduit with galvanized finish. All coupling points shall consist of threaded mechanical or solvent-welded materials and be watertight.

Antennas and Other Equipment

Consistent with Texas Local Government Code, Chapter 284, and the FCC regulations (see *Generally in the Matter of Accelerating Wireless Broadband Deployment by Removing Barriers to Infrastructure Investment*, Declaratory Ruling and Third Report and Order, WT Docket No. 17-79, WC Docket No. 17-84, FCC 18-133 (released September 27, 2018).):

1. Each Antenna that does not have exposed elements and is attached to an existing Pole or Department Service Structure:
    a. must be located inside an enclosure of no more than six cubic feet in volume;
    b. unless otherwise approved by the Department, may not exceed a height of 3' above the existing structure or pole and may not be more than 10 percent taller than other adjacent

structures and may not be extended to a height of more than 10 percent above its preexisting height as a result of the collocation of new antenna facilities; and

c. may not protrude from the outer circumference of the existing structure or pole by more than 2'.

2. If an Antenna has exposed elements and is attached to an existing Pole or Department Service Structure, then, unless otherwise approved by the Department, the Antenna and all of the Antenna's exposed elements:
   a. must fit within an imaginary enclosure of not more than 6 cubic feet;
   b. may not exceed a height of 3' above the existing structure or pole and may not be more than 10 percent taller than other adjacent structures; and
   c. may not protrude from the outer circumference of the existing structure or pole by more than 2'.
3. The cumulative size of other broadband equipment associated with the Network Node attached to an existing Pole or Department Service Structure may not:
   a. be more than 28 cubic feet in volume; or
   b. protrude from the outer circumference of the existing structure or pole by more than 2';
   c. Ground-based enclosures, separate from the Pole or Department Service Structure, may not be higher than 3' 6" from grade, wider than 3' 6", or deeper than 3' 6"; and
   d. Pole-mounted enclosures may not be taller than 5'.
4. The following types of associated ancillary equipment are not included in the calculation of equipment volume under Subsection (3)(A):
   a. electric meters;
   b. Concealment Elements;
   c. telecommunications demarcation boxes;
   d. grounding equipment;
   e. power transfer switches;
   f. cut-off switches; and
   g. vertical cable runs for the connection of power and other services.
5. Equipment attached to a Utility Pole must be installed per the National Electrical Safety Code, subject to Applicable Codes, and the Utility Pole owner's construction standards.
6. The facility is not located on tribal lands, as defined under 36 C.F.R. § 800.16(x).

Node Transport Facilities

Wireline Node Transport Facilities included in a Utility Permit must be shown to connect to one or more Network Nodes, whether located within the Department Rights-of-Way or not. Wireline Node Transport Facilities consist of the physical facilities extending from one or more Network Nodes to a splice enclosure or tap where the Node Transport Facilities connect to the higher-count cable of the transport network, which serves multiple facilities or provides services to multiple customers in addition to the owner, utility, or licensee of the Network Node or the Node Transport Facility made the basis of the Utility Permit.

The volume and height of any antenna used for broadband Node Transport Facilities are included within the maximum total antenna size permitted in these Design Standards.

Power

New sources of electric power or new Node Transport Facilities shall be installed underground for any standalone Network Node. Broadband Installations on existing Poles or Service Structures may be served with power and/or communications facilities from above-ground sources. All conduits for electrical power or Node Transport Facilities shall be color-coded per Applicable Engineering Standards. The utility's cables shall not share the Department's conduits, junction boxes, or raceways. The Department's electrical service shall not serve as a Network Node's supply.

Network Nodes containing battery backup shall be installed with a transfer switch to prevent back-feeding into the electrical system. No other types of backup power shall be permitted. (e.g., generator).

All Network Node equipment shall have a visible and accessible safety switch within 10' of the Pole or Service Structure such that power to the Network Node equipment can be turned off in the event of an emergency or when unscheduled work on the structure or within the RF exposure area is required. The safety switch shall have visible identification.

Each Network Node installation shall have a marked disconnect switch adjacent to the electronics cabinet and located outside areas that exceed RF exposure limits. The shut-off switch shall be configured such that when it is placed in the open position, the electronics equipment related to the installation is neither energized nor emitting RF radiation.

For strand-mounted, mid-span installations, the power disconnect shall be located within 3' of one of the poles or on one of the poles at a height no greater than 5'.

Interference and RF Radiation Exposure

A utility owner shall operate Network Nodes under all applicable Laws, including regulations adopted by the FCC.

Antennas shall only transmit or receive frequencies that are licensed by the FCC to the Installation Owner or to the carrier the Installation Owner represents CBRS GAA frequencies or unlicensed frequencies. In the event the Installation Owner wishes to add another carrier or change the carrier network using the Network Node, the Installation Owner shall notify the Department in writing of the change in carrier.

A broadband service provider shall ensure that the operation of a Network Node does not cause any harmful radio frequency interference to an FCC-authorized telecommunications device or any Department or other Texas State agency traffic, public safety, or other communications signal equipment within the proximity of the proposed Network Node that was installed and operating at the time the Network Node was initially installed or constructed. On receiving written notice, a broadband service provider shall take all steps reasonably necessary to remedy any harmful interference.

A broadband service provider shall comply with all provisions and guidelines of the FCC OET Bulletin 65, as may be amended from time to time, as well as any successor FCC RF regulations, and shall submit a report if requested, certifying FCC OET 65 compliance for each Network Node installation. Broadband Service Providers are responsible for addressing all potential questions/ complaints about RF emissions that may be brought forth. The following elements, at a minimum, must be contained within the report:

- A statement of compliance (or non-compliance);
- Date of the report;
- Date of the statement of compliance;
- Location of the applicable signage with an above ground level height listed.

Upon request by the Department, which request shall not occur more frequently than once a year, the broadband service provider shall perform RF emissions field tests while the Network Node is in operation, supervised by the Department, to demonstrate compliance with FCC OET 65.

The Network Node shall accept, and the Department shall have no liability for or obligation to abate, low power interference received from Department devices and other Texas State agencies' devices and/or roadside communications operational now and in the future. This will include roadside electronic equipment, roadside to vehicle communications, vehicle to vehicle communications, and vehicle to roadside communications.

Signage

Identifying signage shall be affixed to and permanently maintained on the Broadband Installation. If the Network Node equipment is separate from the support structure, separate signs shall be affixed to both the support structure and the equipment cabinet. Typical signage shall include, at a minimum:

- The Installation Owner's site name and identifier number
- RF emissions tagging as required by the FCC, OSHA, and/or TxDOT
- A 24-hour telephone number for emergency contact or other inquiries

Section 5 — Macro Tower Technical Specifications

Specifications

Longitudinal lines on the right of way shall be limited to single pole construction as referenced in Title 43, Texas Administrative Code, Rule §21.41 (d) (7), Overhead Electric and Communication Lines. Where an existing or proposed utility facility is supported by "H" frames, the same type of structures may be utilized for the crossing provided all other requirements in Title 43, Texas Administrative Code, Rule §21.41, Overhead Electric, and Communication Lines, are met.

Under Title 43, Texas Administrative Code, Rule §21.41 (d) (1), Macro Tower Poles shall be located within three (3) feet of the right of way line, except that, at the option of the department, this distance may be varied at short breaks in the right of way line. Pole and guy wire installations must not encroach upon current American with Disabilities Act (ADA) clearances. Poles with widths measured at the widest location of the pole bases greater than thirty-six (36) inches in diameter shall not be placed within the right of way.

All telecommunication equipment mounted on Macro Towers shall conform with the requirements outlined in this document.

Section 6 — Required Process Steps Before Submitting a Utility Installation Review Permit

Account

The Installation Owner shall establish an account in the UIR System in each District to which Utility Permits will be submitted. Accounts can be set up at the following website https://apps3.dot.state.tx.us/apps/UIRPROv2/default.asp. To access the UIR, use Internet Explorer. To ensure compatibility, select Menu Bar TOOLS, choose Compatibility View Settings, and add the state.tx.us URL.

Approvals

The Installation Owner shall acquire approval to attach to a non-Department-owned Pole from the structure owner prior to submitting a Utility Permit and provide proof in the permit, as applicable.

Note that individual Districts may have additional requirements that will be included as a Special Provisions document upon application approval. The Installation Owner must comply with the Special Provisions and submit with its application information demonstrating such compliance.

If the proposed location is within a municipal boundary, the Installation Owner shall take notice of and conform its activities to the applicable standards, policies, or requirements.

Section 7 — Utility Permit

Required Permits

Separate Utility Permits are required for each of the following. The type of permit will be indicated in the permit application Form.

- Broadband Installations on a new Service Structure or Pole
- Broadband Installations on an existing Service Structure or Pole (a Collocation)
- Broadband Installations on a replacement Service Structure or Pole
- Modifications to an existing Broadband Installation with an active or utility permit

Section 8 — Application Processing Shot Clocks

Guidelines

FCC regulations impose Broadband Installation application processing shot clocks of 60 days for Network Nodes collocated on existing structures and 90 days for deployment on new structures. The Department's Utility Permitting process strives to streamline the application, review, and approval of a Utility Permit for a Network Node to meet the FCC's requirements.

A unique shot clock for a Utility Permit starts when the application for the Utility Permit is received by the Department through the UIR system.

The shot clock will stop upon submission from the Department through the UIR system of a request for additional information regarding a Utility Permit from the Installation Owner provided the Department sends its request for information within 10 days of Utility Permit submission. If the Department sends subsequent requests for information related to the initial request for information, the shot clock will not be tolled.

If the Installation Owner does not respond to a request for information within 30 days, the Department shall consider the Utility Permit withdrawn and will notify the Installation Owner.

Section 9 — Construction and Maintenance

Protocols

All construction and maintenance protocols must conform with Title 43, Texas Administrative Code, Chapter 21, Subchapter C.

Section 10 — Inspection

Inspection Allowances

The Department and its authorized representatives must have access to Network Nodes and Broadband Installations at any time and may inspect, maintain, or reconstruct Highway Facilities and Service Structures as necessary.

The Department may conduct at least 3 separate inspections:

- Before Network Node installation;
- Immediately after Network Node installation or modification; and
- After removal of Network Node.

The Department retains the right to conduct RF exposure and interference studies in the area surrounding the Network Node at any time.

Unauthorized Broadband Installations

The installation of Unauthorized Broadband Installations poses an increased risk to Department personnel, the public, and legitimate Broadband Installations.

Section 11 — As-Built Documentation

General

All as-built criteria must conform with Title 43, Texas Administrative Code, Rule §21.37, as-built documentation may be needed to close out the permit.

Appendix C — Guidance for Submitting Agreements

Contents:

Section 1 — Types of Guidance

Section 1 — Types of Guidance

Standard Utility Agreement

TxDOT Right of Way Division's Utility Portfolio Section maintains a Standard Utility Agreement Submittal Guidance document. This guide will aid the District Utility Coordinator or Utility Company in developing a Standard Utility Agreement and identifying the appropriate documentation required for the submittal.

Supplemental Agreement

TxDOT Right of Way Division's Utility Portfolio Section maintains a Supplemental Agreement Submittal Guidance document. This guide will aid the District Utility Coordinator or Utility Company in developing a supplement to a Standard Utility Agreement and identifying the appropriate documentation required for the submittal.