



Delays in the Row Acquisition and Utility Adjustment Processes and Methods for Expediting the Processes

Reducing the time from planning to construction of a project can ensure that the benefits of the project are available sooner to the traveling public. This will, in turn, greatly facilitate public commerce and reduce adverse traffic problems and their associated costs. This research project looked closely at the TxDOT right of way (R/W¹) acquisition and utility adjustment processes in order to enhance TxDOT's capabilities for predicting the duration of these processes. In addition, this effort identified recommendations that may help in reducing process durations and/or in enhancing the predictability of such durations.

What We Did

The four objectives included:

- Collect data from relevant data sources, such as the right of way information system (ROWIS) and personnel involved in the R/W acquisition and utility adjustment processes.
- Identify major factors that drive R/W acquisition and utility adjustment durations.
- Establish a duration prediction tool that takes such factors into consideration.
- Develop a user-friendly information system to allow planners to readily access needed duration information.

The applied methodology involved the following:

- Develop a data collection tech-

nique so that relevant data can be collected efficiently and accurately.

- Develop an integrated R/W acquisition and utility adjustment process map in conjunction with assistance from TxDOT subject matter experts.
- Identify documented relevant projects that constitute a representative sample for Texas.
- Apply appropriate methods for analyzing and presenting data.
- Develop a user-friendly information system that TxDOT personnel can utilize efficiently to estimate durations for R/W acquisition and utility adjustment.

R/W workshops and interviews were carried out to identify factors relevant to R/W acquisition. Data were collected from all 25 districts in Texas from projects that were completed and had been documented in ROWIS. A system was set up to control the accuracy and reliability of the data sample, which included 205 total parcels.

Utility adjustment data were collected via interviews and meetings with district and utility personnel. A process model and duration driver influence diagrams were developed. Projects selected for in-depth analysis were identified by district personnel and focused on two extremes: "quick" adjustments and "slow" adjustments. Utility adjustment data for a total of 82 projects were provided by the responding districts.

What We Found...

The processes for R/W are summarized into R1, R2, and R3, where R1 represents R/W Project Release to Possession, R2 represents First Parcel Appraisal to Possession, and R3 represents R/W Project Release to receipt of First Parcel Appraisal. There are four major factors for R/W acquisition duration; these include "Total number of parcels," "Location type," "District R/W staff size" and "District annual R/W budget."

The durations for utility adjustment are summarized into three key durations: U1, U2, and U3. U1 represents R/W Project Release to Utility Final Agreement Execution, U2 represents Utility Final Agreement Execution to Utility Final Agreement Completion, and U3 represents R/W Project Release to Utility Final Adjustment Completion.

Generally, for the three durations, there are eight major factors or project characteristics that were found to "drive" utility adjustment durations. These include "TxDOT Highway Type," "TxDOT Project Type," "Utility Type," "Reimbursable or Non-Reimbursable" adjustments, "LPA-Funded or Non-LPA-Funded" adjustments, "Federally-Funded or Non-Federally-Funded" adjustments, "Location Category," and "Quick or Slow" adjustments.

Cumulative plots and percentile tables were developed for each factor when warranted by sample size. These plots and tables are listed in the RUDI software tool that was specifically developed to allow users

¹R/W is the acronym used for the common usage of right of way, e.g., the R/W acquisition process.

ROW is the acronym used for right of way when it is used as a proper noun, e.g., ROW Division.



easy access to such duration information. RUDI is a tool with a static database that will become dated over time. Although the current RUDI and process map can be implemented now, the researchers stress the need for future development, utilizing a living database, such as ROWIS.

An integrated R/W acquisition and utility adjustment process map was developed in conjunction with the research committee. The process map shows integration points between the R/W acquisition process and the utility adjustment process. This process map is stratified by responsibility as well.

The Researchers Recommend...

For R/W Acquisition

Based on the research, the following recommendations are made pertaining to R/W acquisition:

- Use the data assembled and analyzed in the sample analysis, along with the cumulative duration charts, to develop realistic, data-based forecasts of how long the acquisition process will take.
- Look closely at resource allocation in terms of R/W acquisition. The data show an opportunity to improve the time required for R/W acquisition

through:

- Advance commitment of resources before the overarching parcel acquisition effort falls behind schedule
- Timely commitment of resources to the appraisal process, including more resources earlier in the process and experienced personnel in to help identify problem parcels early
- Prioritization of acquisition resources and focusing the right effort on important parcels
- Use the integrated, stratified process flow chart developed as part of this research as a tool to assist management of R/W parcel acquisition and utility adjustment. The diagram shows each activity of the R/W acquisition and utility adjustment process with corresponding responsible party separated into three categories: TxDOT Right of Way (ROW) Division, TxDOT R/W district and project associates. This tool can be used to plan activities and provide education to participants in the process.
- R/W acquisition challenges (delay factors) were identified as part of a root cause analysis of the Critical Path Parcels in this study. The primary issues of delay discovered were Pricing (issues related to dis-

agreement on value between TxDOT and land owners), Compensation and Impact on Remainder Delays, and Title Curative and Ownership Delays. Use the insight from this analysis to plan strategies to identify potentially problematic parcels so that they can be addressed proactively.

- Begin benchmarking R/W acquisition data using the method developed in this study.
- ROWIS can be a highly effective database and tracking system; however, it would be more usable if it contained more data. In effect, it is not being used to its full potential.

For Utility Adjustments

Based on the research, the following recommendations are made pertaining to utility adjustments:

- Because obtaining accurate utility information is critical to project success, the use of Subsurface Utility Engineering should be expanded and perhaps mandated for congested corridors (such as those in urban / metropolitan areas).
- TxDOT should continue to expand its GIS utilities database. This inventory should be made available state-wide and could become a very useful first

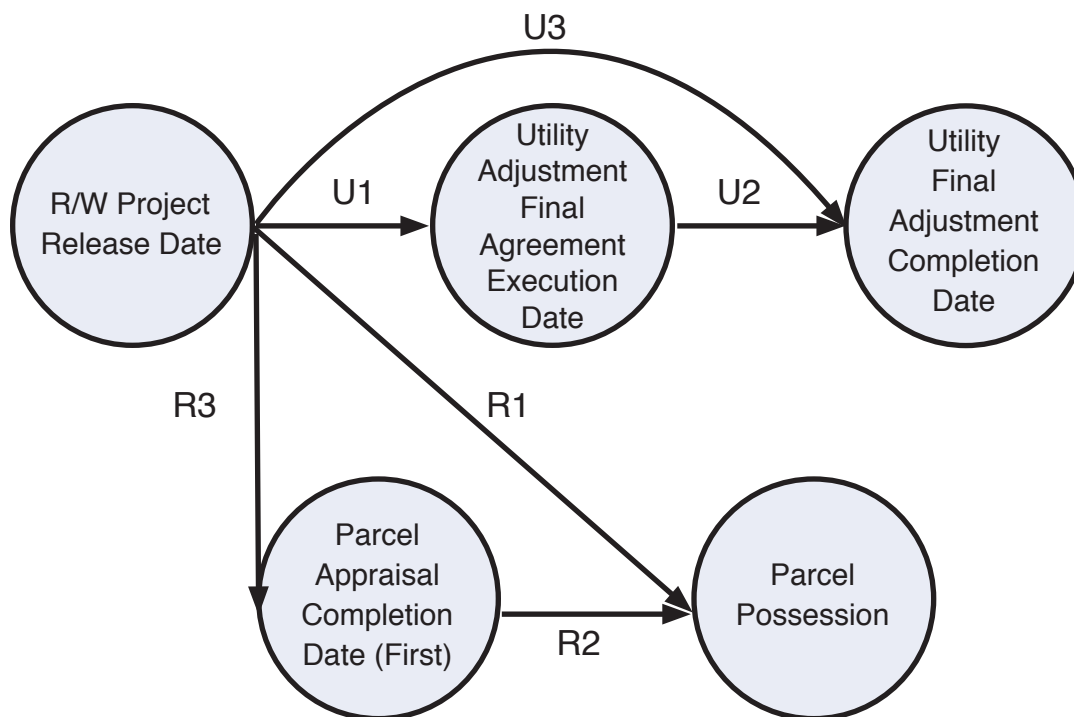


Figure 1. Key R/W Acquisition and Utility Adjustment Milestones and Durations



stop for TxDOT district personnel for acquiring information about utility locations.

- TxDOT should continue investigation and evaluation of non-traditional utility-adjustment methods (such as the use of consultants for developing utility agreements and joint-bid for utility relocation with highway construction contracts). These practices may prove useful in expediting complex utility relocation projects.
- Where applicable, TxDOT and utilities should consider incorporating multi-use conduits and other integrated facilities in project right-of-way. This may help alleviate conflicts between contractors and utility companies, therefore reducing time lost and other problems.
- TxDOT and consultant project designers should determine ways in which to perform hydraulic design earlier in the Plans, Specifications, and Estimates (PS&E) phase, as this often causes delays in the utility adjustment process.
- When hydraulic design is completed earlier than is currently done, project designers should communicate the design to utilities in a timely manner. Not communicating such design until the 60-percent-complete PS&E milestone (as is often the practice) greatly inhibits utility designers' ability to complete design in a timely manner.
- Because unidentified utilities will most likely continue to be uncovered during highway construction, the need will remain for a procedure similar to the Date of Eligibility procedure. In order to avoid the overuse of such a procedure, TxDOT should strongly consider revising and renaming the procedure to reflect its true intent. A possible name for the revised procedure could be Emergency Utility Relocation Procedure.

In order to facilitate similar R/W acquisition duration analyses in the future, TxDOT needs to track/document several additional fields of information in a single location, preferably in ROWIS. Information needed as readily accessible includes the following:

- ROW Release Date: This is provided by ROW Division and is readily available in ROWIS. This field is

already in ROWIS.

- Appraisal Date: This is based on the Real Estate Appraisal Report which is based on the recorded date of the appraiser on TxDOT Form ROW-A-5/ROW-A-6, Real Estate Appraisal Report. The appraisal date is based on the signature and date of the initial appraiser.
- Appraisal Approved Date: This date is based on Tabulation of Values when the District Engineer approves the TxDOT document ROW-A-10, Tabulation of Values form.
- Negotiations End Date: This date is based on the Final Offer Letter and is the deadline for response by the property owner noted on ROW NFOL, Final Offer Letter.
- Eminent Domain Begins: This date is based on an INTEROFFICE MEMORANDUM when the ROW District sends form ROW-E-49, Request for Eminent Domain Proceedings, to the ROW Division.
- Prepare and Submit Request for Eminent Domain: This date is a memorandum from the ROW Division Legal Section to the Office of the Attorney General regarding ED Proceedings.
- Minute Order for ED Approved by Transportation Commission: This is an Interoffice Communication from Office of the Attorney General acknowledging receiving of the ED request; it is preferred to have a follow-up letter from the AG with the condemnation pleadings (case # and assigned legal filing). This data entry is generally defined as date the AG's Office responds to the ED request and begins processing ED hearings.
- Possession of Deed: By Eminent Domain (condemnation) parcels, the Possession of Deed date is based on a Notice of Deposit from the court which reads: "by reason of deposit, the state of Texas is now entitled to enter upon and take possession of said property" the date of deposit shown on ROW-E-ND, Notice of Deposit.
- Possession by Negotiation: Of a negotiated a parcel, this Possession of Deed date is the date of "Title company closeout date" on TxDOT document ROW-N-72, Title Company's Closing Statement – State of Texas.

In order to facilitate similar utility adjustment duration analyses in the future, TxDOT needs to track/document several additional fields of information in a single location. Such information, needed as readily accessible, includes the following:

- Right-of-Way Release Date: This is tracked in most cases already, although there are occasions when it is not kept together with other utility-related data, and it is not present in the utility database.
- Executed Agreement Dates: Of all of the dates that existed, this was the most reliably tracked date, as the Division office kept a copy of all Executed Agreements in its paper file library. However, this date was not always available in the utility database.
- Adjustment Completion Dates: This date is supposed to be submitted with billings to the Division office; however, this is not consistently done. In addition, there are many past projects for which this date is not known and for which inquiries had to be sent to District Offices. It is highly recommended that district R/W personnel improve record-keeping with respect to this date. Some districts track this well within the district R/W office; however, in other Districts, the only notation is made in the construction field logs.
- Data indicating multiple adjustments for the same utility should also be tracked. Interviews indicated that this practice occurs on many projects, but little or no records to this effect were found in the database or project files.
- Data for non-reimbursable adjustments should be included in the same source. Presently the ROW Division is requiring copies of Joint Use Agreements to be sent in for execution.
- If TxDOT wants to quantify the effects of SUE usage on utility relocation projects, the utilities database and paper files should record whether or not a SUE contract was awarded for the project. This should be organized at the CSJ-level rather than the individual agreement level.



For More Details...

Research Supervisor: G. Edward Gibson, Jr., Ph.D., P.E., (512) 471-4522
email: egibson@mail.utexas.edu

James T. O'Connor, Ph.D., P.E., (512) 471-4645
email: jtoconnor@mail.utexas.edu

TxDOT Project Director: Larry Black, Amarillo District, (806) 356-3380
email: LBLACK1@dot.state.tx.us

TxDOT Research Engineer: Tom Yarbrough, P.E., Research and Technology Implementation Office,
(512) 465-7403
email: tyarbrog@dot.state.tx.us

The research is documented in the following reports:

0-4617-1, *Durations for Acquiring Roadway Right-of-Way and Assorted Expediting Strategies*

0-4617-2, *Duration Quantification and Opportunities for Improvement in the Texas Department
of Transportation's Utility Adjustment Process*

To obtain copies of a report: CTR Library, Center for Transportation Research,
(512) 232-3126, email: ctrlib@uts.cc.utexas.edu

Your Involvement Is Welcome!

Disclaimer

This research was performed in cooperation with the Texas Department of Transportation and the Federal Highway Administration. The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view or policies of the FHWA or TxDOT. This report does not constitute a standard, specification, or regulation, nor is it intended for construction, bidding, or permit purposes. Trade names were used solely for information and not for product endorsement. The engineer in charge was G. Edward Gibson, Jr. (Texas No. 72760).



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