



Data Updates & Sharing Application

Instruction Manual

TPP, Data Management Section

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Purpose

Welcome to the Data Updates & Sharing Application!

This document serves as a how-to guide and reference for reviewing and submitting changes to the Texas Department of Transportation's geospatial road inventory. The Data Updates & Sharing Application (DUSA) application serves as a communication tool for local, subject matter experts to review and acquire the GIS road network TxDOT currently has on file under their jurisdiction. The application provides multiple tools for the user to interact with the GIS inventory such as downloading a copy, uploading bulk changes to be implemented by TxDOT, or by directly marking up changes within the application to be implemented by TxDOT.

Browser Information

DUSA is accessed through an internet browser. It is highly suggested to use Google Chrome to receive the highest performance while working within a WebMap. Mozilla Firefox will also provide acceptable performance. TxDOT advises against using Internet Explorer.

Logging In

To access the Data Updates & Sharing Application, you must first establish a username and password. Follow the steps outlined below to obtain this information. You will only have to do this one time. If you already have a username and password, skip to step #3.

- 1) Fill out the Registration form at the following website address:

https://www.dot.state.tx.us/apps-cg/contact_us/form/dusa-form.htm


- 2) Within 24 hours after submitting the Registration form, you will receive an email from **ArcGIS Notifications** providing your unique username and inviting you to join the **ArcGIS Online Organization, Texas Department of Transportation**. Follow the link within this email to finish setting up your account and establish your own password.
- 3) Once you receive a unique username and password, you will then sign-in to DUSA at the following website address:

https://www.txdot.gov/apps/statewide_mapping/dusa/index.html

- 4) Select the '**ARCGIS**' option to sign into the Data Updates & Sharing Application with your new ArcGIS Online username and password. **DO NOT** attempt to sign-in using the '**TXDOT**' option, as it will prove to be unsuccessful.

Data Updates & Sharing Application wants to access your ArcGIS Online account information

Sign in to Texas Department of Transportation



Using

TXDOT

OR

ARCGIS

Username

Firstname.Lastname_COUNTYNAME

Password

.....


☐ Keep me signed in

SIGN IN

CANCEL

[Forgot password?](#) [Forgot username?](#)

Data Updates & Sharing Application developed by:



Texas Department of Transportation

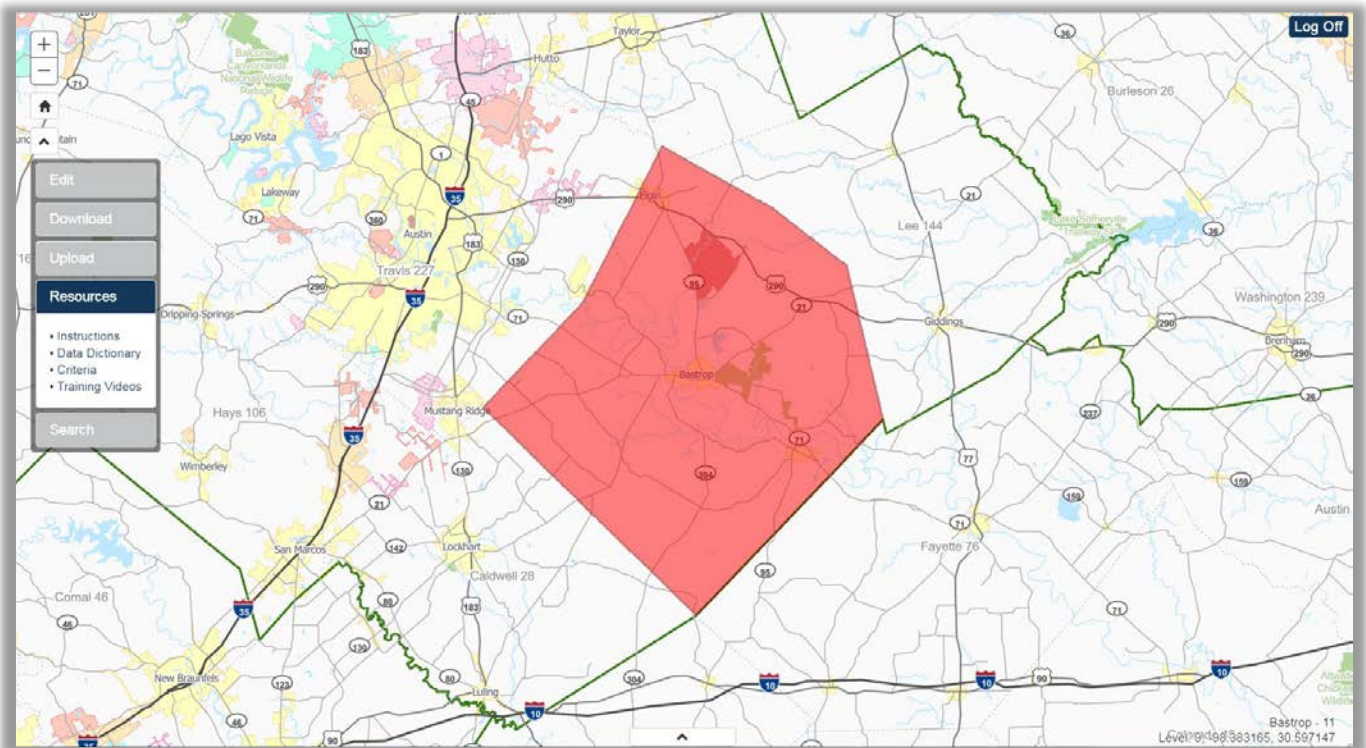
TxDOT's workforce is made up of engineers, administrators, financial experts, designers, architects, sign makers, accountants, purchasers, maintenance workers, travel counselors and many other professions. All of our employees work together to realize the TxDOT mission: providing safe and reliable transportation solutions for Texas.

- 5) Once you have successfully signed in, select your county from the dropdown list and click 'Go'. DUSA will open and automatically zoom to your county.

The Application

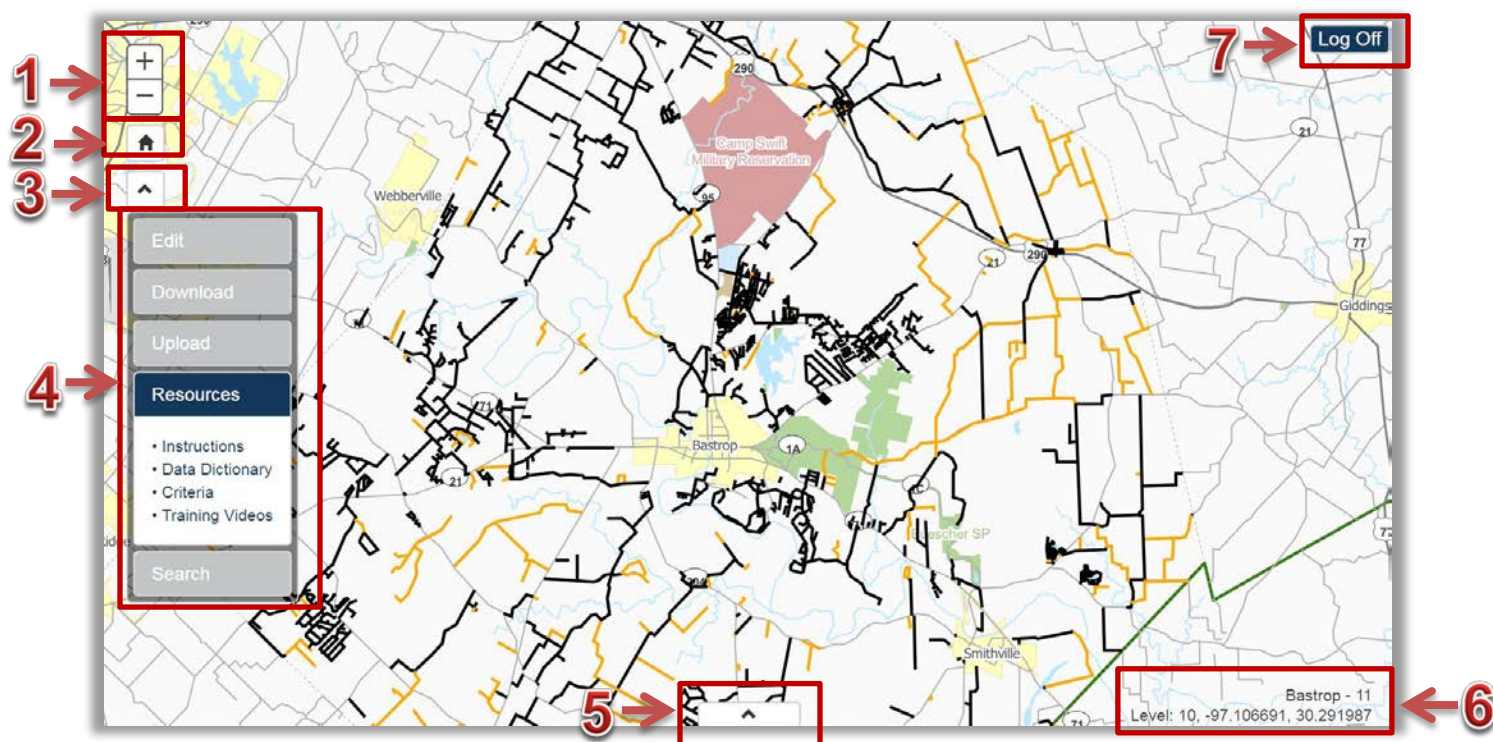
The DUSA Application is a large interactive map which you can navigate and has tools for completing various interactive tasks. The application is specifically oriented for reviewing and updating the TxDOT inventory. Therefore, you will only be able to view the inventory for your organization.

To ensure a quality review and mark up, you must be zoomed in for the inventory to appear (Level 11 for County Roads). If you are zoomed out too far, the inventory will disappear and your organization's jurisdiction will appear in red.



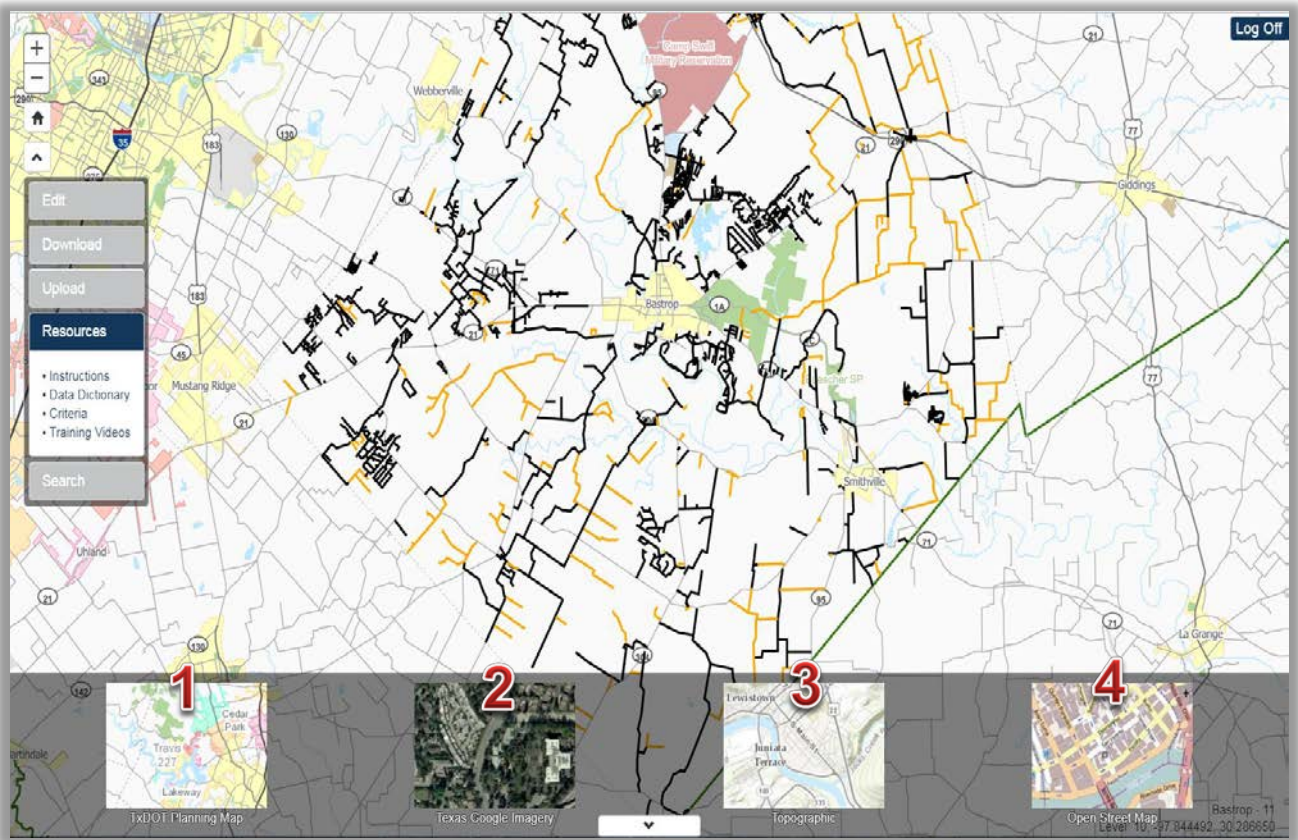
Click and drag anywhere on the map to pan around the map.

The application contains many components, each with a specific functionality.



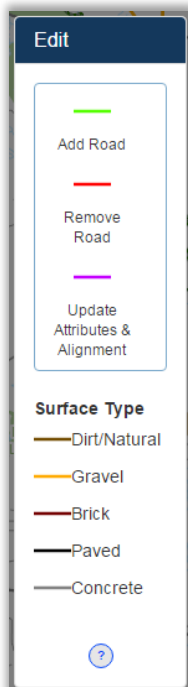
1. **Zoom Buttons.** Click the + (plus) button to zoom in and the – (minus) button to zoom out of the map. Alternatively, you can double click a location on the map to zoom in or use the scroll wheel on the mouse to zoom in and out.
2. **Home Button.** Click the Home button to return the map to the original zoom level and location as when you initially logged in. This will be the default extent for your organization.
3. **Menu Button.** Click the Menu button to toggle showing and hiding the menu.
4. **Menu.** The Menu contains 5 sections: Edit, Download, Upload, Resources, and Search. Each section name can be clicked to open the options/tools for that section while simultaneously hiding the other sections. Detailed instructions for each section can be found through links within this document.
5. **Basemap Button.** Click the basemap button to display the Basemap Menu (described below). The Basemap Menu provides options for changing the background (basemap) image on the map.
6. **Map Information.** This text displays the name of the organization you logged in with, the current zoom level of the map, and the current latitude and longitude coordinates of the mouse cursor.
7. **Log Off Button.** Click the Log Off button to exit the current session and return to the Sign-In screen.

The Basemap Menu displays four options for changing the background (basemap) image of the map. With the Basemap Menu open, click any of the options to make a change. Re-click the Basemap Button to then close/hide the Basemap Menu.



1. **TxDOT Planning Map.** The default basemap, this is the standard basemap for TxDOT products as it displays the full range of necessary reference information TxDOT currently has within its GIS inventory. This basemap automatically switches to Imagery when zoomed in past level 16.
2. **Imagery.** Standard aerial photography. This basemap contains no reference information aside from the imagery itself.
3. **Topographic.** Similar to the TxDOT Planning Map, this basemap display a full range of reference information sourced from a variety of sources including USGS, Texas Parks & Wildlife, HERE, and more. This basemap also contains topographic contour information.
4. **Open Street Map.** Oriented toward the road inventory, this basemap displays the open source road inventory of the Open Street Map Foundation.

The Menu is broken down into five sections. Each has a purpose which provides an alternative method for reviewing the inventory and submitting changes.

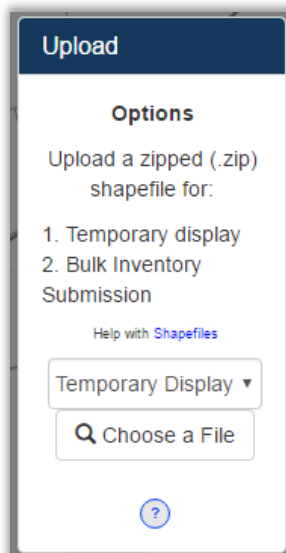
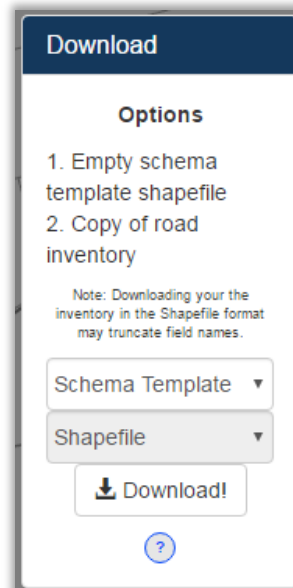


Edit

The Edit section provides 3 drawing template options for you to mark up the map. Also provided is a Legend for the current inventory as it is displayed in the map. Finally, the “?” button can be clicked to open [instructions](#) specific to editing within the application.

Download

The Download section offers 2 options. First is the ability to download an empty template shapefile to be used when marking up changes to the current TxDOT inventory within ArcMap on your local computer. This template shapefile is required to submit bulk updates in the Upload section. Secondly, you can download a GIS copy of the current TxDOT inventory. Choose between the option in the dropdowns and click ‘Download!’. Finally, the “?” button can be clicked to open [instructions](#) specific to downloading within the application.



Upload

The Upload section offers 2 options. First is the ability to upload a shapefile for temporarily displaying within the map. Your shapefile will draw and can be used for reference during your update. The shapefile will be cleared automatically when you log off. Secondly, if you have marked up changes within the downloaded schema template shapefile, you can submit those changes in bulk. Finally, the “?” button can be clicked to open [instructions](#) specific to uploading within the application.

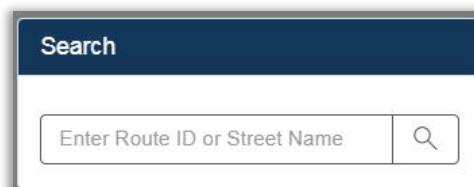
Resources

The Resources section offers reference material for use during your update.



Search

The Search tool enables you to search by the Route ID or Full Street Name for a county road in your county. The Route ID is a unique identifier for each route within the TxDOT Inventory and is comprised as follows:

A screenshot of a search tool interface. It features a dark blue header with the word "Search" in white. Below the header is a white input field with the placeholder text "Enter Route ID or Street Name". To the right of the input field is a magnifying glass icon inside a square button.

3 digit county number + Prefix "A" or "AA" + 4 or 5 digit unique ID for the specific county

Example (Harris County; Number 102) = 102AA1234

The Full Street Name is the common name used on signs and for navigation. This includes any prefixes and suffixes.

Examples: E McDonald Ln or County Road 2206

When using the search tool, it will only search for an exact match.

Example: 'Smith Rd' is correct but 'Smith' is incorrect

Example: 'County Road 2468' is correct but 'CR 2468' is incorrect

Resources Menu Section



The Resources Menu Section contains a variety of reference materials which may serve as helpful information when reviewing the current inventory and marking up changes. At minimum, available resources include:

1. **Instructions.** This is a link to this document with descriptions on the application and its functions and links to specific instructions for Editing, Downloading, and Uploading (page 7).
2. [Data Dictionary](#). A document which interprets the data schema fields within all the datasets used in the DUSA application. Each field is described with listed acceptable values for said field.
3. **Criteria.** A document which outlines the mandated definition of the road classification being updated. This document will list specific requirements for roads to be added to the TxDOT road inventory and reported to dependent agencies.
4. **Training Videos.** Instructional videos of DUSA for an overview and editing.

How to Complete the Markup

The markup is a multistep process involving a review of the current TxDOT inventory and identifying changes which need to be made. Complete the markup using one of the following two options:

Option 1: Draw changes directly into the Updates Layer within the application using the Edit tools in the Edit section of the menu. The general steps for this method are as follows:

- a. Log into the DUSA application. Review the documentation available within the 'Resources' section of the menu for comprehension of the application and markup process.
- b. Open the 'Edit' section of the menu. Click the "?" button at the bottom to access the [Edit section instructions](#) for detailed directions about editing within the application.
- c. Review the current TxDOT inventory by panning and zooming within the web map. Observe the current existence and alignment of the roads in the inventory. Click roads to review their attributes (descriptive details).
- d. Markup changes to identify inaccuracies in the current road inventory by drawing in the Updates Layer using the Edit tools. Specific details and examples demonstrating how to draw changes within the Updates Layer are shown in the [Edit section instructions](#).

Option 2: Draw changes in ArcMap using the 'Schema Template' shapefile and upload them to the Updates Layer. The general steps for this method are as follows:

- a. Log into the DUSA application. Review the documentation available within the 'Resources' section of the menu for comprehension of the application and markup process.
- b. Open the 'Download' section of the menu. Click the "?" button at the bottom to access the [Download section instructions](#) for detailed directions about the download process. Download the 'Schema Template' shapefile for markup changes. Optionally, download the current TxDOT road inventory for the county for reviewing and identifying changes to be marked up.
- c. Review the [Edit instructions](#) for detailed directions and examples how to markup changes in the 'Schema Template' shapefile (use the same methods as the instructions outline for working within the application). Review the current TxDOT inventory and edit the 'Schema Template' shapefile by drawing changes in ArcMap.
- d. Open the 'Upload' section of the menu. Click the "?" button at the bottom to access the [Upload section instructions](#) for detailed directions

about the upload process. Upload the edited 'Schema Template' shapefile into the Updates Layer in bulk via the Upload section of the menu.

Completion & Contact Info

The deadline for completing the present year's review and markup is August 31. Any markups submitted after August 31 will be applied towards next year's submission. At the time of completion, the updates will be reviewed and the changes which meet the inventory criteria will be implemented to update the TxDOT Road Inventory.

Thank you for using the Data Updates & Sharing Application to submit changes to the TxDOT Road Inventory. If you would like to report any bugs or issues, or have any questions which need clarification of the procedures, please contact the Transportation, Programming, and Planning Division's Data Management staff at:

TPP-GIS@txdot.gov

(512) 486-5052