TIMS Transportation Information Mapping System



Version 2.0

TIMS User Guide for Desktop



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TIMS User Guide for Desktop and Tablet

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Preface

Who is this guide for?

This User Guide is for people who use the Transportation Information Mapping System (TIMS) on a desktop computer. These are individuals who need to access Ohio Department of Transportation information, view that information in maps or tables, and download or share the data with others. Potential users include:

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- **Executive Management** .
- Local Government Officials
- **Engineering Departments**
- **Planning Departments**
- **Financial Departments**
- **Operations Personnel**

Why read this guide?

This guide provides step-by-step instructions for accessing the various web pages of TIMS to gather the information you need for the job at hand. The type of information available to you includes:

- **Project details**
- Project funding and schedules
- Construction plans and specs •
- Roadway characteristics
- Routes
- **Traffic Counts** .
- Crash and Safety data
- Transit data

- Facilities and assets data
- Land use and zoning data
- Permits
- Bridges and culverts
- **Demographics data**
- Environmental data
- Aerial imagery
- And more!

Map Viewers

Data Glossary Crash Data Search

How is this guide organized?

The guide is organized for ease of use. Each section corresponds to a major section of the TIMS website, which is accessed by a large button on the TIMS home page.

- **Project Search**
- Create a Map
- Data Download
- Standard PDF Maps

Within each section, we provide a list of useful tasks you can perform and step-by-step instructions for successfully completing each task. We also provide screenshots to illustrate what the web pages look like to guide you through each task.

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Facilities Personnel

Rail Commission External Consultants

Communications Personnel

Construction Managers

Section 1. Getting Started with TIMS

The Transportation Information and Mapping System (TIMS) is a web-based application used to access Ohio Department of Transportation information. TIMS runs in your web-browser.

All sections in this guide refer to the version of TIMS developed for desktop computers.

1.1 Startup TIMS

- 1. To start the TIMS application, open your browser.
- 2. Enter the URL: <u>https://gis.dot.state.oh.us/tims</u> **Note:** *Bookmark this link for future reference.*
- 3. The Home page opens as shown in the next task.

1.2 Get familiar with the Home page

1. When you start up TIMS, the following **Home** page appears in your browser:



2. Each of the blue buttons takes you to a new Web page that deals with a different aspect of transportation information.

Button	Purpose
Project Search	Search for transportation project information
Create a Map	View and search ODOT transportation data to create custom maps
Data Download	Download complete datasets to excel, KML, SHP, FGDB
Standard PDF Maps	Generate maps with specific layouts and formats
Map Viewers	Access interactive maps by content focus (for example, Construction)
Data Glossary	Search for and view dataset and field descriptions stored in the database
Crash Data Search	Safety crash analysis tool for pre-qualified individuals

Note: When you hover over each of the blue buttons, a helpful tool tip appears telling you what the button does.

3. The **Search by PID** field appears in the title bar on every TIMS webpage. It lets you search for information by Project ID (PID).



 Enter a specific PID and press the magnifying glass icon or press the Enter or Return key. A Project Information page will appear for that project. For details about searching for projects, see Project Search.

TIMS TRANSPORTATION INFORMATION MAPPING SYSTEM	Project Search	Create a Map	Data Download	Sta	andard PDF Maps	Map ∨i	ewers	Data Glossary	٩	Search by PID	\odot
Project Infor	mation										
This project summary infor total cost for all associated View in map View in	mation is updated or locations. If you hav ELLIS	a nightly basis. Pl e questions regard	lease note that project ling this information, p	ts may please	y have multiple work contact the appropr	i locations riate Distr	and the	PID Est. Total Co S Coordinator C	onstruc	tion Cost represent	s the
Overview											
Project Name	ALL IR 75 13.87				Primary Work C	ategory	Slide Re	pair			
Project ID	19049				Pavement Tre	eatment	ient				
District (Work Location)	01				с	ategory					
County (Work Location)	ALLEN				Pavement Treatme	ent Type					
Route Type	IR				Projec	t Status	Awardeo	t .			
Route	00075				Project N	Aanager	CLARK,	BETH D			
Begin Log Point	13.83				Contra	act Type	Standar	d Build			
End Log Point	13.93					Letting	ODOT L	et			
District (Primary PID	1				Fis	cal Year	2003				
Location)						FMIS					
County (Primary PID	Allen					STIP	False				
Location)					Schedu	ile Type	12 Wk B	id			

1.3 Access standard links

1. The menu of standard links across the bottom of every web page takes you to these pages:

Link	Action
Home	Returns you to the TIMS Home page
News	Provides up to date news up TIMS updates
Help	Opens a PDF version of the TIMS User Guide for Desktop and Tablets in a new browser window or tab
About	Provides information about all supported browsers for TIMS
Contact	Provides contact information for the Ohio Department of Transportation if you have any problems with the TIMS application
Privacy	Opens a page with the privacy notice
Ohio.gov	Takes you to the Ohio.gov website
Login	Provides a login screen for the TIMS Administrator to log in to perform administrative functions or access the Crash Data Search Page

Section 2. Project Search

The **Project Search** section of the TIMS website lets you search for transportation project information.

2.1 Display the Project Search page.

1. From the **Home** page, press the **Project Search** button. The **Project Search** page appears.

TIMS TRANSPORTATION INFORMATION MAPPING SYSTEM	Project Search	Create a Map Da	ita Download	Standard PDF Maps	Map Viewers	Data Glossary	Q Search by PID
Find transportation project HSP, Safety SRTS, Local here are an overview of the Projects (PIDs) with multip	on Project ts from ODOT's project Programs, and TRAC, te project information, and ble work locations will re	Search database. This search (2) are completed, cur nd not a comprehensiv isult with multiple recor	includes project rent or future pro ve view of the pro rds.	s with (1) funding cate ojects with committed oject database. The pi	egories of Ellis Multila funding, and (3) have oject information ava	ne/Major Rehab, S a valid work locati ilable in TIMS is up	TIP, Major Bridge, Safety on. The information provided dated on a nightly basis.
Recorded Lo	cation Work Location	as recorded in ELLIS	Primary	Work Category			•
Distric	t \varTheta	•		Fiscal Year	From		То
Cou	nty	•		Calendar Year	From		To
	PID	•					Reset
		Reset					
Results					View in	n map Export d	lata 🕶 Download
10 v records per pa	ge					Searc	h:
PID Record	ied	d	♦ Work District	♦ Route Type	Route GTL Route Begi	n CTL	Primary Work Category
Q 3938 Lorain	3	LORAIN	03	CR	00647 0.19	1.82	New Construction
Q 4062 Lorain	3	LORAIN	03	SR	00611 4.25	5.57	Major Widening
Q 4082 Medina	3				0	0	Major Reconstruction
Q 4082 Medina	3	MEDINA	03	SR	00018 16.03	21.13	Major Reconstruction

2.2 Enter search criteria in user input area

- 1. From the top of the Transportation Project Search page, enter your search criteria.
 - Recorded / Work Location: Recorded Locations allows filtering by the County and District as recorded in the Ellis Project Database. Work Locations allows filtering by the County and District where the actual work was performed for a given PID.
 - **District:** Pull-down list of districts in numeric order, where **District 13** represents statewide projects. **Note:** *District 13 is only valid when* **Recorded Location** *is selected.*
 - **County:** Pull-down list of counties in alphabetical order. If you already selected a district, you will see only the counties in that district.
 - **PID:** Type the entire Project ID number or select it from the pull-down list. If you already selected a district or county, you will see only those projects in that district or county.
 - Primary Work Category: Alphabetical list of work categories.

- Fiscal Year: To narrow the project search by fiscal year, select the date range (From and To years). Type the year or press the Calendar button and select a year. Remember: The To year must come AFTER the From year.
- Calendar Year: To narrow the project search by calendar year, select the date range (*From and To years*). Type the year or press the Calendar button and select a year.
 Note: If you make any mistakes and want to clear your selections, press Reset.
- 2. As you enter the search criteria, TIMS begins searching the database for data that meets that criteria and a revolving icon typically appears. Once the search completes, the results appear at the bottom of the page in the results table. The next section describes the search results in greater detail.

2.3 View project search results as records in a table

1. After you select search criteria, the results appear in the Results window below the map. In this example, **District 1 and Allen County** are the search criteria:

Re	sults						View in map	Export d	ata 👻	Download
5	• recor	rds per page						Sear	rch:	
~	PID	Recorded County	Recorded District	Work County 🏺	Work District	Route ⊺ype ∲	Route	CTL Begin [∲]	CTL End [♦]	Primary Work Category
Q	19049	Allen	1	ALLEN	01	IR	00075	13.83	13.93	Slide Repair
ଷ	20175	Allen	1	ALLEN	01	SR	00117	18.42	18.76	Resurfacing, Undivided System
ଷ	20175	Allen	1	ALLEN	01	SR	00309	15.18	25.16	Resurfacing, Undivided System
୍ତ	21370	Allen	1	ALLEN	01	SR	00697	0	0.04	Resurfacing, Undivided System
đ	21370	Allen	1	PUTNAM	01	SR	00066	0	2.46	Resurfacing, Undivided System
Showi	ng 1 to 5 (of 342 entries (filte	ered from 55,338	total entries)			First	Previous	N	Jext Last

- 2. The result records are organized into pages. The **top-left corner** of the results window indicates how many records appear on each page. In this example, 5 records appear per page. Change the value to see more or less records.
- 3. The **bottom-left corner** of the results window shows you how many records you are viewing. In this example, you are viewing records **1**–**5** of **342**, **filtered from 55,338 total entries**.
- 4. The **bottom-right** corner of the results window contains buttons that let you move between pages of the **Results** table.
 - **First:** Display the first page of results.
 - **Previous:** Display the previous page of results.
 - **Next:** Display the next page of results.
 - Last: Display the last page of results.

2.4 Search through the results

- If the number of results is large, consider using the Search field in the top-right corner of the Results table. This lets you narrow the results records in the table by typing a few characters of text that you want to search for in each record. As you type, the search begins.
- For example, to further narrow the results of projects in Allen County by all work done on bridges (maintenance, repair, replacement), type Bridge in the results Search field. The results are now limited to records for Allen County that contain Bridge in any of the columns. This reduced the number of results to 57.

Re 5	esults • reco	rds per page					√iew in map	Export of Sea	lata 🗸	Download
\$	PID	Recorded County	Recorded District	Work County [♦]	Work District 🗘	Route Type	Route	CTL Begin [♦]	CTL End [♦]	Primary Work
Q	21719	Allen	1	ALLEN	01	IR	00075	11.19	0	Bridge Repair
Q	22991	Allen	1					0	0	Bridge Replacement
Q	22991	Allen	1	ALLEN	01	IR	00075	14.91	0	Bridge Replacement
Q	22991	Allen	1	ALLEN	01	SR	00696	0.96	1.05	Bridge Replacement
Q	23001	Allen	1					0	0	Bridge Replacement
Showi	ng 1 to 5	of 57 entries (filte	red from 55,338 t	otal entries)			First	Previous	N	lext Last

2.5 View details of a record

- 1. Once you find a record of interest in the **Results** table, you can view its details.
- 2. Identify the record of interest and press the **Details** button on the far-left side of the record. The **Project Information** page appears.

TIMS TRANSPORTATION INFORMATION Pro-	oject Search	Create a Map	Data Download	Standard PDF Maps	Map Viewer	s Data Glossary	Q	Search by PID
Project Inform	nation							
This project summary inforr total cost for all associated View in map View in I	nation is update locations. If you ELLIS	ed on a nightly bas I have questions re	is. Please note that p garding this informat	rojects may have multiple ion, please contact the ap	work locations propriate Distr	and the PID Est. Total Construint Const	uction C	ost represents the
Overview								
Project Name	ALL IR 75 13.	87		Primary Wo	ork Category	Slide Repair		
Project ID	19049			Pavemei	nt Treatment			
District (Work Location)	01				Category			
County (Work Location)	ALLEN			Pavement Tre	atment Type			
Route Type	IR			Pi	roject Status	Awarded		
Route	00075			Proj	ect Manager	CLARK, BETH D		
Begin Log Point	13.86			C	ontract Type	Standard Build		
End Log Point	13.96				Letting	ODOT Let		

- This page contains a summary of information about the project. This information is updated on a nightly basis.
- Projects may have multiple work locations and the **PID Est. Total Construction Cost** represents the total cost for ALL associated locations.
- Some of the information on the page may have links to other documents. This symbol designates a link:
- 3. Scroll down to review all the information associated with the project. The information is grouped into categories for ease of reading:
 - Overview
 - Dates & Numbers
 - Bridge Information
 - Additional Information

Note: To print the project details, use your browser's **Print** feature.

2.6 View project search results as a layer on the map.

1. If you want to view the search results on a map, from the **Project Information** page, press the **View in map** button. The **Create a Map** page appears.



- 2. The page has several areas:
 - Toolbar: Blue bar at the top left containing different tools for performing tasks on the map.
 - **Tool Area:** Area under the toolbar that contains user input fields for the selected tool. The layers tool is selected by default.
 - Map Area: Displays the map with the results.
 - **Results:** Table along the bottom that contains results from the tool.
- 3. For details on how to interact with the toolbar, map, tool area, and results, see Create a Map.

2.7 View project in search results in ELLIS

1. If you want to view further details of the search result, from the **Project Information page**, press the **View in ELLIS** button. The **ELLIS PROJ** page opens in a new tab.

View in ELLIS

- 2. **ELLIS PROJ** is a web-based application that provides project information such as agencies involved, location information, and current cost estimates.
- 3. At the top of the screen there are buttons which allow you to access: Project information, schedule data, and CMS (Construction Management System) data. Additionally, some projects may provide data on bridges, construction contracts, detailed funding information, and roadway segments. To access this information, select the buttons at the top of the screen:

Ellis Proj Home	Schedule Data	CMS Data
Construction Contracts	Bridges	Roadway Segments

Section 3. Create a Map

The **Create a Map** section of the TIMS website deals with viewing and searching ODOT transportation data and creating custom maps for visual analysis. This is a great part of the website for those of you who like to see your data on maps.

Note: This section of the User Guide is large because of the wide variety of actions you can take when creating, viewing, and working with custom maps. It's broken into the following subsections to allow you to jump to your required topic:

- 3.1 View the Map
 3.2 Navigate Around the Map
 3.3 Find, Identify, Draw, Measure, and Bookmark Information
 3.4 Work with the Results
 3.5 View Additional Imagery on the Map
 3.6 Add Data to Map
 3.7 Filter Data on the Map
- 3.8 Print and Share the Map

3.1 View the Map

1. From the Home page, press the Create a Map button. The Create a Map page appears.

CREATE A MAP

3.1.1 Get familiar with the interface

1. Menu items with down arrows (b, d, e, f, g, and h) have pull-down menus with more items. **Note:** *You can hover over any of the items on the menu bar for a friendly tool tip.*



- a. Set visible layers: Specify which layers you want to appear on the map. For details, see Show and hide map layers.
- b. Find locations: Find specific map locations based on address, lat/long, log point, or area. Then view the attributes. For details, see <u>Find, Identify, Measure, and Bookmark</u> <u>Information</u>.
- c. **Identify features:** Select any feature on the map to view its attributes. For details, see <u>Find</u>, <u>Identify, Measure, and Bookmark Information</u>.

- d. **Tools:** Use a number of tools to gather information about data on the map. For details, refer to any of these tasks: <u>Find, Identify, Measure, and Bookmark Information</u>, <u>ODOT</u> <u>PathWeb</u>, or <u>Map Channel</u>.
- e. Filter data: View a subset of your visible layers. For details, see Filter Data on the Map.
- f. Add data: Import additional information to the map. For details, see Add Data to Map.
- g. Set basemap: Specify what map will be your basemap. For details, see <u>Select basemap for a</u> <u>new map</u>.
- h. **Print map:** Print the full extent of the visible map. For details, see **Print the map**.
- i. **Share map with friends:** Email a URL to others that points to the current map. For details, see <u>Share the map with others</u>.
- j. **Hide window panes:** The toolbar and results table can be collapsed or expanded by pressing the arrow buttons.
- 2. Interactive map and controls are located in the top left corner of the map panel. For details on how to zoom in and out, see the corresponding tasks under <u>Navigate Around the Map</u>.



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Zoom in by increments.

Return to original map extent.

Zoom out by increments.

- 3. The tool area, below the toolbar to the left of the map, is where you interact with any tool you have selected. For example, if you selected the **Measure** tool, the tool area would show pull-down lists allowing you to select your units of measure for distance, area, and latitude and longitude. The **Set Visible Layers** tool will be active by default when you open the **Create a Map** page. For details on how to interact with various **Tools**, see the individual tasks in this section.
- 4. The results table, located below the map, is where you see the records returned from a Find or Filter tool. For example, if you looked up a location by address, you would see the information about that location in the results area. For details on how to work with the Results table, see Work with the Results.
- 5. The tool bar and the results table can be hidden by pressing the arrow buttons. Press the button to expand a collapsed panel. For details see <u>Hide Tool Bar and Results Table.</u>



3.1.2 Hide Tool Bar and Results Table

- You can adjust the overall size of the map by hiding the tools and results. From the map toolbar, select Collapse Side / Bottom Panel buttons.
- 2. After the tool bar or results tables have been hidden, you can bring them back by selecting the Expand Side / Bottom Panel buttons.



Tools and Results collapsed

3.1.3 Select a basemap

 The basemap is the aerial photography or imagery that is the basis for the map. Other vector layers are drawn on top of it. From the map toolbar on the Create a Map page, select Set basemap.



2. From the resulting pull-down list, select any of the following menu items:



• Streets: Esri Streets map

• Hybrid: Aerial photography with labels for major features



Dark Grey: Dark gray version of the topographic map





• National geographic: National Geographic streets map

• USA Topo: Topographic map from the United States Geographical Service



• **ODOT Basemap:** Basemap created by ODOT





• **OSIP 1:** Ohio State Imagery Program 1 map

 OSIP 2: Ohio State Imagery Program 2 map (high-resolution imagery and elevation data). May not be available for all areas of Ohio



• **OSIP best available:** Best available Ohio State Imagery Program map based on your current viewing location



3.1.4 Show and hide map layers

1. Layers are turned on and off with the **Set visible layers** tool. This tool is enabled in the tool area by default. **Note:** *The list of available map layers has been set by the TIMS System Administrator.*



2. Map layers are grouped within the **Layers** tab. Once you select a group, it expands revealing the list of layers in that grouping.



Click to select one or more layers and they appear on both the map and the legend. In this example, the user expanded Road Information and decided to display the Scenic Byways layer. To collapse the list of layers within any group, click on the name of the group.

Note: Some layers will not appear on the map until you are zoomed in to a closer extent.

4. Click on the Legend tab to see symbol descriptions for the layers that are currently turned on. The legend automatically updates as layers are turned on and off.



3.2 Navigate around the map

When all the necessary layers are visible on the map, you will probably want to move around the map to view different areas of interest.

3.2.1 Pan around the map

The amount of map that is visible to you may not contain the information you need to see. You can pan (move) to see other areas of the map using any of these methods:

- 1. Click and drag the mouse to pan in any direction.
- 2. Click on the map, then use the keyboard to slowly move up, down, left, or right.

3.2.2 Zoom into a rectangular region

There may be times when you want to zoom into a rectangular region of the map to better view information of interest. To do so, follow these steps:

- 1. Imagine a box around the region of the map you want to zoom into.
- 2. Press the **Shift** key as you left-click one corner of the box, hold down the mouse button, and drag the mouse diagonally. A box appears as you drag.



- 3. When the box contains the region you want to zoom into, let go of the mouse.
- 4. The map will zoom into the area you outlined and center it on the map.Note: If you are zooming way in, the map may take a while to refresh. Please be patient.

3.2.3 Zoom in incrementally

- 1. To zoom in by increments and see more on the map, use any of these methods:
 - Map control: Press the Zoom In button.
 - **Mouse:** Double-click to zoom in.
 - Mouse Wheel: Roll your mouse wheel forward to zoom in.
 - Mouse Pad: Press the Shift key and drag the mouse to zoom in.

3.2.4 Zoom out incrementally or completely

- 1. To zoom out by increments use any of these methods:
 - Map Control: Press the Zoom Out button.
 - Mouse Wheel: Roll mouse wheel backward to zoom out.
 - Mouse Pad: Pres Shift + Ctrl keys and drag the mouse to zoom out.
- 2. To zoom out to the max viewing area, press the **Home** button.

3.2.5 Center

1. To center the map on a particular feature, press the **Shift** key and click a location on the map.

3.3 Find, Identify, Draw, Measure, and Bookmark Information

This subsection looks at the various analytical operations you can perform.

3.3.1 Find a location by address

You can quickly discover information about an address and find it on the map.

- 1. To zoom to a specific location, click the **Find location** tool and choose **Find address or intersection.**
- 2. The Find address or intersection user input fields appear in the tool area.

1980 West Broad Stree	t
address	
Columbus	43223

- 3. Enter a street address and the city or zip code. Then press the **Find** button. Alternately, enter the names of 2 intersecting streets (For example, *N High & W Broad*) and the city or zip code. **Note:** *Tool is restricted to Ohio*.
- 4. The map zooms into the location and a small icon appears there. The full details of the address appear as a row in the **Results** table.

Find address or intersection	
1980 West Broad Street	A manufacture damage
address	Valleyview Mc Kintey Ave
Columbus 43223	
Find Clear	Subject Ale Subject Ale Subje
Results Find Address Results	10 v records per page Search: Show / Hide columns Zoom to results Export data •
▲ Address1 😧 👙 Address2 😡	🗭 City 🛛 🍦 State 🔿 🍦 Zip 🕀 🍦 Latitude 🖓 🌩 Longitude 🖓 🍦 OBJECTID 🚱 🌩
Q (3) 1980 W Broad St	Columbus OH 43223-1102 39.959186 -83.054452 0
Showing 1 to 1 of 1 entries	First Previous Next Last

5. Press **Clear** to clear the address fields in case you want to enter another address.

and

3.3.2 Identify the latitude and longitude of a map location

You can identify the latitude and longitude of any location on the map formatted in Decimal Degrees or Degrees Minutes Seconds.

- 1. To identify the coordinates of any location on the map, click the **Find locations** tool select **Find latitude/longitude**.
- 2. The Find latitude/longitude user input fields appear in the tool interface.



- 3. Choose either **Decimal Degrees** or **Degrees Minutes Seconds**, then press the **Click on map** button and the click anywhere in the map. This example shows **Decimal Degrees** selected.
- 4. A small flag appears at that location. The latitude and longitude of the location appear beneath the button in the chosen format.
 - Decimal Degrees Lat/Long: 40.08634674781801, -83.09481388125563
 - Degrees Minutes Seconds: 40° 5' 10.848292144845573", -83° 5' 41.329972520276215"
- 5. Click **Reset** to remove the flag.

Find latitude/longitude	- impion St	Sawn
Decimal Degrees Degrees Minutes Seconds		
Click on the map to identify latitude and longitude.	¹⁰ Urn _{AV} e	
Click on map Reset	lon oc	
Lat/Long: 40.08634674781801, -83.09481388125563	Strathcona	
Find latitude and longitude on map.	< danting st crobisher Ave	Tun
40.08634674781801	E C I I I I I I I I I I I I I I I I I I	q
-83.09481388125563	Pous	awmill R
Find Clear	Saybrook CL Cranston Dr	-
	e Way	

3.3.3 Zoom into a particular latitude and longitude

You can quickly find a location on a map associated with a particular latitude and longitude, and then zoom into it.

1. If you have latitude/longitude coordinates and want to find that location on the map, click Find



- 2. The **Find latitude/longitude** user input fields appear in the tool area.
- 3. Select **Decimal Degrees** or **Degrees Minutes Seconds**, then enter the coordinates in the appropriate format. This example shows **Degrees Minutes Seconds**.

Find latitude/longitude	
Decimal Degrees Degrees Minutes Seconds	
Click on the map to identify latitude and longitude.	
Click on map Reset	
Latitude: 39° 57' 32.51352806680529" Longitude: -83° 3' 16.166580460828754"	
Find latitude and longitude on map. Latitude DMS:	N Opherstand Av
39 57 32.5135280668052	
Longitude DMS:	_violet St
-83 3 16.1665804608287	
Find Clear	40 W Broad St 01 Glerwood 12 Farmont Ave

- 4. Press **Find**. The map will zoom and center to that location on the map, and a flag will appear.
- 5. Press **Clear** to remove the flag and reset the input fields.

Q -

3.3.4 Determine the route measure (log point) at a particular location

- 1. To find the route and measure of a specific location on the map, click the **Find locations** tool and choose **Find log point.**
- 2. The **Find log point** user input fields appear in the tool interface.



- 3. Though not necessary, it can be helpful to display the appropriate road layers on the map and adequately zoom into the area of interest.
- 4. Press the **Click on map** button and then click a road centerline on the map.
- 5. A small flag appears at the selected location and the results will be displayed in the tool area



6. View the **Results** table for details of the route and measure.

Result	ts Find Log Po	pint Results	10	v reco	ords pe	er page				Search:				Show / Hide	e colun	ans Zoom to	results	Export	t data 👻
	OBJECTID O	♦ NLFID 🛛	÷	Route O	÷	LRM 😡	¢	LogPoint 9	¢	Distance 😡	¢	MMin \varTheta	¢	MMax 😡	¢	ADDRESS O	÷	ZIP 😡	÷
Q (8)	1	SFRAUS00040*	°C	US 40		County		9.770		3.14		0		25.190		N/A		N/A	
Showing 1	to 1 of 1 entries	50											[First	Pr	evious	Next	L	ast

- 7. Click **Clear** to remove the flag and results.
- 8. Click Cancel to deactivate the **Click on** map tool.

3.3.5 Show the map location of a particular route and measure

1. If you know the route and measure of a feature, you quickly find that location on the map.

From the map toolbar, click the **Find locations** tool and choose **Find log point**.

2. The **Find log point** user input fields appear in the tool area.

Find log point	
County LRS State LRS	
Click on the map to identify nearest log po	pint
Click on map Cancel	
FRANKLIN	•
US 40	•
9.774	
Min Value: 0.0 Max Value: 25.190	
Find Clear	

- 3. Select either the **County LRS** or the **State LRS** buttons (**County LRS** will be default). County LRS will search for a County Log Point where State LRS will allow you to search for a State Log Point.
- 4. If you selected County LRS, Select the **County** and **Route**. Only routes in the selected county are shown in the drop-down list. If you selected State LRS, simply select the statewide route. You can expand the tool area for a clearer view of the possible routes.

FRANKLIN -								
choose ro	ute						•	
Township	County	Municipal	State	U.S.	Interstate	Ramp		
TR	CR 368	MR 1	SR 3	US 23	IR 70	RA		
81144	CR 2	MR 2	SR 3D	US 23D	IR 71	25000		
TR	CR 3A	MR 3	SR 16	US 23X	IR 270	RA		
81214	CR 6	MR 4	SR 104	US 33	IR 670	25001		
IR 81237	CR 7	MR 5	SR 104I	US 33D		RA 25002		
TR	CR 7A	MR 6	SR 161	US 33T		RA		
82/130	CR 8	MR 7	SR 256	115.40		25003	•	

- 5. Type a valid **log point**, within the minimum and maximum value according to the helpful tip displayed below the user input fields.
- 6. Press **Find.** A flag appears and the map will zoom and center to the specified location. In this example, the selections were: Franklin County, US 40, log point 9.774.



- 7. View the **Results** table to see the details of the location.
- 8. Click **Clear** to remove the location flag and enter another location for new results.

Result	S Find Log Poi	nt Results	10 v recor	ds per page		Search:		Show / Hide	columns Zoom to	results 🛛 Export data 👻
	OBJECTID	♦ NLFID ©	Route O	¢ LRM ©	LogPoint 9	Distance O	♦ MMin Ø ♦	MMax 😡	♦ ADDRESS Ø	
@⊗	1	SFRAUS00040**C	US 40	County	9.770	3.14	0	25.190	N/A	N/A
Showing 1	to 1 of 1 entries							First	Previous	Next Last

3.3.6 Find a particular area of the map

- 1. To zoom to a specific geographic area, click the **Find locations** tool and choose **Find** area.
- 2. Pick the area type from the first drop-down list. Then select a specific item from the second drop-down list. The following areas are available:
 - County
 - MPO (Metropolitan Planning Organization)
 - District
 - Urban Areas

3. Once you make your choice, press **Find** and the map automatically zooms in and highlights your area of interest. In this example, **Hamilton** County was selected.



4. Click **Clear** to remove the highlight from the map.

3.3.7 View (identify) attributes of any layer feature on the map

You can learn about features on the map by identifying them.

1. To identify individual features of the layers turned on in the map, click the **Identify features** tool.



- 2. Click on any feature on the map that you want to identify.
- 3. A red rectangle appears at the location and all features in that rectangle are identified in the tool area.



4. The **Result layers** appear in the tool area with information about the feature(s) at the location you selected. In this example, the features associated with the **Cities and Villages** layer at the selected location are shown. If multiple features were selected, you can cycle through them using the arrow

dentify					
Result layers:					
Cities and Villages	•				
« » 1 of 2 features s	selected				
OBJECTID	24730				
CORPORATION_NAME	GLENDALE				
FIPS_CITY_CD	30380				
COUNTY_CD	HAM				
COUNTY	HAMILTON				
ODOT_DISTRICT	08				
POP_2010	2155				
POP_2000	2188				
POP_1990	2445				
URBAN_AREA_CD	16885				
AREA_SQMI	1.64				
SHAPE	Polygon				

5. If features are selected from more than one layer, you can click the drop down menu to select the layer you are interested in.

dentify	
esult layers:	
Cities and Villages	A
Boundaries	1
Cities and Villages	
Roadway Information	
Traffic AADT	
COUNTY_CD	НАМ
COUNTY	HAMILTON
DDOT_DISTRICT	8
POP_2010	2155
POP_2000	2188
POP_1990	2445
URBAN_AREA_CD	16885
AREA_SQMI	1.64
SHAPE	Polygon

- 6. To zoom to the selected feature(s), click the **More** button and choose **Zoom to all** or **Zoom to selected**. Additionally, you can hide the red rectangle using the **Hide click graphic**.
- 7. To clear the results, click **Clear** from the **More** button drop-down list.

	•	
Zoom t	o all	
Zoom t	o selec	ted
Hide cli	ick gra	phic
Clear		

3.3.8 Take measurements

- 1. Use the Measure tool to find the area, distance, or State Plane coordinate of a location.
- 2. From the map toolbar, click **Tools** and choose **Measure**.
- 3. The **Measure** user input fields appear in the tool area with the following input fields:
 - Area. Allows you measure the area inside a closed shape, as well as the perimeter around it.
 - **Distance.** Allows you measure the length of any continuous line (single start point and end point) or polyline (start point, many points in between, and end point)
 - Location. Allows you determine the coordinates of any point on the map.

Measure		
Double-click to finish dra	wing poly	gon and line graphics.
Area:		
Square Miles	*	Measure
Distance:		
Miles	•	Measure
Location:		
State Plane North	*	Measure
Clear		
Clear		

Using the pull-down lists, enter the units of measure you want to use for area, distance, or location. **Note:** *If you change the units of measure AFTER drawing a shape, the unit measures will automatically be recalculated and displayed.*

Measure							
Double-click to finish drawing polygon and line graphics.							
Area:							
Square Miles	•	Draw polygon					
Distance:							
Feet	•	Draw line					
Location:							
State Plane South	¥	Draw point					
Clear							

Select a unit of measure from the appropriate drop-down list and click the corresponding

Measure button. The button label changes to indicate what action to take on the map.

- Area:
 - (1) Left-click the starting point.
 - (2) Left-click other points that define the perimeter of the shape until you get close to the starting point again (as you draw your polygon, the "Perimeter:" readout will dynamical display the length of the active shape's perimeter).
 - (3) Double-click to close the shape and complete your measurement
 - (4) Press **Clear** to remove the measurement.

Measure	W-Whittier St
Double-click to finish drawing polygon and line graphics.	
• Area: 298.973 acres Perimeter: 20,434.262 feet	Greentawn Ave
Area:	
Acres Measure	
Distance:	
Feet • Measure	
Location:	
State Plane North Measure	
Clear	

Distance:

(1) Left-click the starting point.

(2) Left-click any other points that define the shape of the line (as you draw the line, the length of the drawing will dynamically display in the "Distance:" readout)

(3) Double-click to finish and complete your measurement

Measure		Π	6	Marion
Double-click to finish drawir	ng polygon and line graphics.		1337	5
Oistance: 98.955 miles		Ĩ	Sidney Piqua	Delaware
Area:		1	Springfie	eld 70 Columbus
Acres	Measure	Richmond	Dayton	Chio
Distance:			35	
Miles	Measure	Oxford		\sim
Location:	- 1940			Chillicothe
State Plane North	Measure			XC
Clear		<	incinnat	32

Location:

(1) Left-click the point whose location you are determining.

(2) A red circle appears where you clicked with the location information in the readout above the dropdowns



3.3.9 Draw Tool

After adding data to your map, you might want to also add text or draw shapes on the map. You can add additional information to your map using the **Draw tool.**

- 1. To add text or draw shapes on the map, click **Tools** and choose **Draw.**
- 2. The **Draw** tool interface appears in the side panel.

features car and used th printed PDF	ics or text symbols. Drawn to be saved to the current session roughout the application including maps.	
Graphic type:		
point		v
Symbol text:		
Border color:		
Fill color:		
Text color:		
Notes:		

- 3. Select the type of feature you would like to draw on the map.
 - Point
 - Line
 - Polygon
 - **Text** (If text is selected, enter the text you want to display in the **Symbol Text** box.)
- 4. Select the border, fill, or text color you are interested in drawing. A color selector will pop up and allow you to select a color. **Note:** *the color selector will vary depending on what browser you are using. This example shows the color selector in Google Chrome. Internet Explorer uses HEX Codes.*
| | 51 1 | |
|---------------|----------------|-------------------|
| Graphic type: | Color | × |
| point | Basic colors: | |
| Symbol text: | | |
| Border color: | | |
| Fill color: | Custom colors: | |
| Text color: | | Hue: 0 Red: 255 |
| | | Sat: 240 Green: 0 |
| Notes: | | ColodColid |

- 5. You can also add any notes in the **Notes** section. Notes added here will display in the results table for that drawing once the drawing is made.
- 6. Click **Draw** to begin drawing your shape or adding your text. Below are examples of how to draw each type:
 - **Point:** To draw a point, simply click on the location for which you would like to draw the point. In this example, the shape is drawn as a small red circle with yellow fill.



Line: To draw a line, click on the map where you would like to begin your drawing. Drag your mouse and click to continue your drawing. To complete the drawing, double click. In this example, the drawing appears on the map as a red line.



 Polygon: To draw a polygon, click on the map where you would like to begin your drawing. Drag your mouse and click to continue drawing the perimeter of your shape. To complete the drawing, double click. In this example, the drawing appears on the map as red outline with yellow fill.



Text: To add text on the map, your text must first be entered in the Symbol Text box. After clicking Draw, click on the map where you would like to place the text. A point will draw where you click, and the text will be displayed to the upper right of the point. In this example, the text "Sample Text" was displayed in red.



7. You can draw as many shapes as you wish. All shapes of similar type will be stored in a layer for each type of drawing (point, line, polygon, or text). You can toggle this layer the same way you toggle any other layer in **Create a Map**. In this example, the point layer is turned off, but the other three drawings are turned on. You also have the ability to utilize other tools in TIMS to query this layer including the ability to view and export the features from the results table.

igend			орот
0			орот
0			0001
	5		
olyline			
Text			
	olyline Text	olyline	otyline Text

8. If you change the color for a type of drawing (point, line, polygon or text) after features have been drawn, the previous feature colors will also be changed.

3.3.10 Make and use bookmarks

- 1. To save a shortcut to a region on the map you consistently work with, you can create a bookmark.
- 2. Pan and zoom to the exact region you want to bookmark.
- 3. From the map toolbar, click **Tools** and choose **Bookmarks**.
- 4. The **Bookmarks** user input fields appear in the tool interface.

ookmark name	Add
--------------	-----

5. Type a name for the bookmarked region and press **Add**. The name now appears in the list of bookmarks. See **Cleveland** in the example below.



- 6. In the future, no matter where you are on the map, you can click **Tools**, choose **Bookmarks**, scroll through the list of bookmarks, and press **Zoom**. The bookmarked region will automatically appear on the map. **Note:** *Bookmarks are saved in your browser*. *If you clear your browser history, the bookmarks in* **Create a Map** will disappear.
- 7. If you no longer want to use the bookmark, press **Delete**.

3.4 Filter Data on the Map

You can search the layers turned on in the map to identify a subset of features by attribute or area. **Note:** *Before you begin, make sure you have the appropriate layers displayed on the map.*

3.4.1 Search by attribute

- 1. To search features by a particular characteristic, click the **Filter data** tool **and** choose **Filter by attributes.**
- 2. The Filter by attributes tool interface appears.

Filter by attributes	
Select features from:	
County	Add Filter
where:	
Field	
Operator	
Enter Value	
Search Clear	

- 3. Next, use the pull-down lists to specify the criteria for the search:
 - Select features from: layer (The list of layers comes from visible layers on the map.)
 - Where: attribute operator value (The lists for operator and value vary, based on the attribute you select.)

For example, if you are trying to find the county whose county seat is Akron, you would enter the following information:

- Select features from: County
- Where: County Seat is Akron

Note: If you make a mistake selecting the criteria, press **Clear** to make the search fields blank again.

- 4. Once you specify the criteria, press **Search**.
- 5. The map automatically zooms to the search results. In this example, **Summit County** is highlighted in because its county seat is Akron.
- 6. The **Results** table lists the results.
- 7. Click the **Zoom to feature** icon for any row in the table to zoom to the location of its associated feature on the map. **Note:** *You can also click Zoom to results to see the locations of all the features on the map, or select Export Data to convert the table to a specific format to download the data to your computer, or Search for information in the table. For details, see <u>Work with the Results</u>.*

3.4.2 Search by geography

 To find features within a specific geographic area, click the Filter data tool by geography.

and choose Filter

2. The **Filter by geography** tool interface appears.

Filter by geography		
Filter features from:		
County		•
that intersect:		
County		•
feature:		
choose feature	•	۲
Search Clear		

- 3. Use the pull-down lists to specify the criteria for the search:
 - Filter features from: *layer.* This is the list of *layers* that comes from visible layers on the map.) Note: Make sure the layer you select is the one with the features you are interested in.
 - **That intersect:** *type of geographic area*: County, MPO, District, or Urban area.
 - **Feature:** Specify the name of the geographic area from the pull-down list. **Note:** *This list varies depending on the type of geographic area you selected.*

For example, if you are trying to locate all ODOT Facilities in Allen County, you would enter the following information:

- Filter features from **ODOT Facilities**
- Feature from County
- Choose feature: Allen

Note: If you make a mistake selecting the criteria, press **Clear** to make the search fields blank again.

- 4. Once you specify the criteria, press **Search**.
- 5. The map automatically zooms into the search results. In this example, **Allen** County is highlighted and **ODOT Facilities** within the county are shown in the **Results** table.
- 6. Click the **Zoom to feature** icon for any row in the table to zoom to the location of its associated feature on the map. **Note:** You can also click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results</u>.

3.4.3 Search by graphic

- 1. To search for features within a custom area, click the **Filter data** tool and choose **Filter by** graphic.
- 2. The **Filter by graphic** tool interface appears.

Filter by graphic		
To filter by a graphic, first activate the Draw polygon button then click map to start drawing. Dou shape, input a distance value and select a unit of measure. Then click Buffer to complete.	ble-click to complete polygon. Optionally, to buffer a drawn	
Filter features from:		
Culvert Inventory		•
that intersect graphic type:		
point		Y
buffer graphic:		
buffer distance	meters	Y
Clear		

- 3. Use the drop down lists to specify the following information:
 - Filter features from: This is the list of layers that are visible on the map.
 - **That intersect graphic type:** The type of graphic you are interested in drawing to apply your filter. Options available here are:
 - **Point:** Feature consisting of a single location on the map. The point option is typically used to apply a buffer distance, creating a larger circular area.
 - Line: Line feature drawn on the map. Line feature could be used, for example, to trace a corridor or route of interest. Once the line is drawn, a buffer distance can be applied to the shape to capture all features that fall within a distance of the line.
 - **Polygon:** Polygon shapes can be drawn on the map to filter features that fall within the drawn area. Buffer distances can also be applied to a polygon shape.
- 4. Once the criteria is specified, press **Draw** to draw your shape on the map. In this example, three methods for finding **Culvert** features near an intersection are shown.
 - To draw a Point feature, simply click on a location on the map. A red circle graphic appears where you click. If you would like to create a buffer, enter the **buffer distance** and click the **Buffer** button. The graphic will expand on the map to encompass the distance provided.



To draw a Line feature, begin by clicking on a starting location. Now draw the line and click again to add as many vertices to the line as you would like. Double click on the ending location to complete the line. If you would like to create a buffer, enter the **buffer distance** and click the **Buffer** button. The graphic will expand on the map to encompass the distance provided.



 To draw a Polygon feature, begin by clicking on the starting location. Continue to drag and click to draw the perimeter. Double click to complete the shape. Buffers can also be applied to polygons.



- 5. Once your shape is complete, click the **Search** button.
- 6. The **Results** table populates with the features found within the graphic.

*	ObjectID 😡 🔶	InvGDB_ARCHIVE_OID \varTheta 🗍	NLFID \varTheta	ODOT District 😡 🔶	County \varTheta 🖕	County CD $\Theta \Leftrightarrow$	Route Type 😡 👙	Route Number 🛛 🔶 Route Suffix 🔾 🔶	CTL Beg
Q 😣	5405624	1871549	SSUMSR00021**N	4	SUMMIT	SUM	SR	00021	4.479
Q 🗵	5405524	1871543	SSUMSR00021**C	4	SUMMIT	SUM	SR	00021	3.731
<u>३</u> 🛞	5405570	1869897	SSUMSR00021**C	4	SUMMIT	SUM	SR	00021	5.105
Q 🗵	5404256	1828816	SSUMIR00076**C	4	SUMMIT	SUM	IR	00076	0.584
Q 🗵	5405610	1869899	SSUMSR00021**N	4	SUMMIT	SUM	SR	00021	5.391
<u>२</u> 🛞	5404259	1828817	SSUMIR00076**C	4	SUMMIT	SUM	IR	00076	0.694
	5405590	1868122	SSUMSR00021**C	4	SUMMIT	SUM	SR	00021	3.402

3.5 Work with the Results

Once you create a map and operate on it with various tools, **Results** layers are created. The data in these layers appears in the **Results** table. There are several tools used to view and work with those results. In the examples below, the **Results** table is populated by using the **Filter by** attributes tool to find **Aviation Facilities** in **Franklin** County.

	uttributos			ALT	City	Dublin Worth	ington		
elect fe	atures from:	12.24		Mechanicsburg			161		
Aviatio Use)	n Facilities (Public	Add Filte	er 4			Hilliard	Gahanna	Pataskala	
			<	1-1-2	West Jefferson		Reyn	oldsburg	Buckey
when	P:			40					
00	UNIY			Londo	m	Grove		Pickerington	204
is		•	isbon	South	663		TOR	- 250	Baltimore
FR	Cloar	•	42	thatleston	X		674		
Resu	Its Filter by At	tributes Results	10	 records per page 	Se	arch:	Show / Hide colu	umns Zoom to re	sults Export data
Resu	Its Filter by Ati ObjectID ♀ ♦	tributes Results	10 ASSOC_CITY	records per page AIRPORT_NAME	Se	arch:	Show / Hide colu	Umns Zoom to re • COUNTY_C	sults Export data
Resu A	ObjectID O 🔶	tributes Results CLASS_ID •	10 ASSOC_CITY C	records per page AIRPORT_NAME Columbus Southwest	AIRPORT_ADDRESS O	arch: AIRPORT_CITY_ZIP Galloway 43119	Show / Hide colu AIRPORT_PHONE 614-878-4080	COUNTY_C	Export data
Resu Q Q Q Q Q	UbjectID O (* 1997) 4738 4814	Class 2 Airport	10 ASSOC_CITY 6 Columbus Columbus	records per page AIRPORT_NAME Columbus Southwest Botton Field	Set AIRPORT_ADDRESS 1751 Atton Rd. 2000 Norton Road.	AIRPORT_CITY_ZIP Galloway 43119 Columbus 43228	Show / Hide colu	Country_C FRA FRA	sults Export data
Resu @@ @@ @@ @@	ObjectiD • 4738 4814 4821	CLASS_ID	10 ASSOC_CITY € Columbus Columbus Columbus	records per page AIRPORT_NAME Columbus Southwest Bolton Field Department of Transportation	Ser AIRPORT_ADDRESS © 1751 Alton Rd. 2000 Norton Road 1600 W. Broad St.	AIRPORT_CITY_ZIP Galloway 43119 Columbus 43228 Columbus 43223	Show / Hide colu AIRPORT_PHONE 614-878-4080 614-851-9900 614-387-2350	Zoom to re O I COUNTY_C FRA FRA FRA FRA	Suils Export data
Resu	Attack Objectil O Image: Constraint of the second	CLASS_ID • • CLASS_ID • • Class 3 Airport Class 2 Airport Class 2 Airport Class 2 Diport Class 2 Airport Class 2 Airport Class 2 Airport Class 2 Airport	10 ASSOC_CITY € Columbus Columbus Columbus Columbus Columbus Columbus	 records per page AIRPORT_NAME Columbus Southwest Bolton Field Department of Transportation Ohio State University 	Ser AIRPORT_ADDRESS 1751 Alton Rd. 2000 Norton Road. 2000 W. Broad St. 2160 West Case Road	arch: AIRPORT_CITY_ZIP Galloway 43119 Columbus 43228 Columbus 43223 Columbus 43235	Show / Hide colu AIRPORT_PHONE 614-878-4080 614-851-9900 614-387-2350 614-292-5460	Imms Zoom to restrict to restrinct to restrict to restrinct to restrict to restrict to restrict	sults Export data
Resu	Its Filter by Att ObjectID • 4738 • 4814 • 4821 • 4891 •	CLASS_ID	10 Assoc_crry Columbus Columbus Columbus Columbus	records per page AIRPORT_NAME Columbus Southwest Botton Field Department of Transportation Ohio State University	Sec AIRPORT_ADDRESS 1751 Alton Rd. 2000 Norton Road 1600 W. Broad St. 2160 West Case Road	arch: AIRPORT_CITY_ZIP Galloway 43119 Columbus 43228 Columbus 43223 Columbus 43235	Show / Hide colu • AIRPORT_PHONE 614-878-4080 614-851-9900 614-337-2350 614-292-5460	Jumms Zoom to re Image: Country_C FRA FRA FRA FRA FRA	sults Export data

3.5.1 Move through the pages of the Results table

- 1. The results of the **Filter** operation are stored in a map layer called **Filter by Attributes Results**. The **Results** table displays the data for individual features in that layer.
- 2. The rows in the table can be quite long. Use the horizontal scroll bar at the bottom of the table to see all the columns in the row.
- 3. The top of the results table indicates how many records appear on each page. In this example, 10 records appear per page. Change the value if you need to see more or less records.
- 4. The bottom-left corner of the table shows you how many records you are viewing. In this example, you are showing records 1 to 7 of 7 entries.
- 5. The bottom-right corner of the results contain buttons that let you move between pages of the **Results** table.
 - **First:** Display the first page of results.
 - **Previous:** Display the previous page of results.
 - **Next:** Display the next page of results.
 - Last: Display the last page of results.

6. If the number of results is large (unlike this example), you can use the **Search** field on the top of the **Results** table. This lets you find a subset of records in the table by typing a few characters of text that you want to search for in each record. As you type, the search begins.

3.5.2 Zoom to all results

 Use the Zoom to results button to view all of the records in the Results table in the map. In this example, clicking Zoom to results ensures that all 7 Aviation facilities in Franklin County are shown on the map.

Filler by	attributes			-577	City	Bubin Worthing	ton	X	
Select fe	atures from:		1	Mechanlosburg	11		T		>
Aviatio Use)	n Facilities (Pub	Add Fill	e 19 (9	- BE	XD	Hillard	Cahanha	1) Patatkala	9
			- (West. Jefferson	Colum	abus Whitehall Reynoldeb	ury G	Bucseye
when	e:				144		17		Lake
-00	UNTY			Londo	a logar	Grow	Pic	serington 🚍	24
łs			isbon		THE	191		128	1 2
FR	ANKLIN		140	South	V.	1		1	Y
					X/	5-117			Th
Carnet	Charat			40 TR 370	X	STAT	000		est
Search	Creat		+	The second second	Mt V		A -the Ha	a francisco	-
Resu	Its Filter by A	dtributes Results	10	records per page	Sci	arch	Show / I fide columns	Zoom to results	Export data -
								-1.	- DOMESTIC
*	ObjectiD 0	CLASS_ID O	ASSOC_CITY O	AIRPORT_NAME O	AIRPORT_ADDRESS O	AIRPORT_CITY_ZIP 0	AIRPORT_PHONE O	COUNTY_CD O	COUNTY O
QØ	4738	Class 3 Airport	Columbus	Columbus, Bouthwest	1751 Alton Rd	Galloway 43119	614-878-4080	FRA	
-	0.227								FRANKLIN *
200	4814	Class 3 Almost	Columbus	Bolton Ficin	2000 Notice Read	Columbus, 43728	614.951.0000	FRA	FRANKLIN *
	4814	Class 2 Airport	Columbus	Bolton Field	2000 Norton Road	Columpus 43228	614-851-9900	FRA	FRANKLIN *
	4814	Class 2 Airport	Columbus	Botton Field	2000 Notion Road	Columbus 43228	614-851-9900	FRA	FRANKLIN
Q (3)	4814	Class 2 Airport	Columbus Columbus	Boton Field Department of Transportation	2000 Notion Road	Columbus 43228 Columbus 43223	614-851-0000 614-367-2358	FRA FRA	FRANKLIN *
Q.0	4814 4821 4891	Class 2 Alrport Public Owned Helibolt Public Owned	Columbus Columbus Columbus	Balton Field Department of Transportation Onio State University	2000 Norton Road 1800 W. Brosel St. 2160 Weer Case Road	Columbus 43226 Columbus 43223 Columbus 43223	614-851-0000 814-087-2350 814-292-5480	FRA FRA FRA	FRANKLIN FRANKLIN FRANKLIN
Q (3) Q (3)	4814 4821 4891	Class 2 Airport Public Owned Heliport Public Owned Heliport	Columbus Columbus Columbus	Botton Field Department of Transportation Onio State University	2000 Norton Road 1800 W. Broad St. 2160 West Case Road	Columbus 43228 Columbus 43223 Columbus 43223	614-851-0000 814-387-2350 814-292-5680	FRA FRA FRA	FRANKLIN FRANKLIN FRANKLIN FRANKLIN
Q0 Q0	4814 4821 4891	Class 3 Aliport Public Owned Heliport	Columbus Columbus Columbus	Botton Field Department of Transportation Onio State University	2000 Norten Road 1600 W. Broad St. 2160 West Case Road	Columpus 43225 Columtus 43225 Columtus 43235	614-851-0000 814-387-2350 614-292-5460	FRA FRA FRA	FRANKLIN FRANKLIN FRANKLIN FRANKLIN
Q (S) Q (S)	4814 4821 4891 1 to 7 of 7 entru	Class 2 Aliport Public Owned Heliport Public Owned Heliport	Columbus Columbus Columbus	Botton Field Department of Transportation Ohio State University	2000 Norton Road 1800 W. Broad St. 2160 West Case Road	Columpus 43225 Columtus 43225 Columtus 43235	614-851-9909 814-387-2350 814-292-5460	FRA FRA FRA	FRANKLIN FRANKLIN FRANKLIN FRANKLIN

3.5.3 Search through results

- 1. To find a specific value within the **Results** table, use the **Search** box in the top-right section of the table.
- 2. The system performs the search as you type, so you may not have to type the entire value.
- 3. In this example, **Rickenbacker** airport was found in the **Results** table by typing the beginning of the name ("*rick*") in the **Search** box.

10 • records per page	Search: rick	Show / Hide	e columns Zoom to resul	ts Export data 👻
ASSOC_CITY 😡 AIRPORT_NAME 😡 🍦	AIRPORT_ADDRESS 😡 🖕	AIRPORT_CITY_ZIP 😡 🖕	AIRPORT_PHONE 😡 🔶	COUNTY_CD 😡
Columbus Rickenbacker International	7161 Second Street	Columbus 43217	614-491-1401	FRA
otal entries)		First	Draviava	• •
	10 records per page ASSOC_CITY AIRPORT_NAME Columbus Rickenbacker International Airport_name Airport_name Data entries) Data entries	10 records per page Search: rick ASSOC_CITY AIRPORT_NAME AIRPORT_ADDRESS Image: Columbus Columbus Rickenbacker International 7161 Second Street Data entries) Data entries Data entries	10 records per page Search: inck Show / Hide ASSOC_CITY I I Image: A and the answer of the answer o	10 records per page Search: rick Show / Hide columns Zoom to recult ASSOC_CITY (Image: A constraint of the column o

3.5.4 Zoom to individual record

- 1. Click the **Zoom to feature** icon in the far-left column of the record.
- 2. The map immediately zooms and centers to the location of the feature identified by the record.

yers		- "Ho to Hole	Sta bbets S	Ss Rd			
Layers	Legend	Reserver	aut fi	N Acce			
Collapse all 💙 Ex	pand all with visible layers	e Pa					
Results Layers	0		Joho				
· ·		Rickenbacker National Guard Base					
Filter by				1411			
		< ⁹⁴ 6-0,					
Assots	0						
/100010	•						
Aviation Fa	ODOT Facil	Rickenbacker					
Intermodal	Intermodal	Int'l Airport					
Culvert Inv	Bridge Inve						Peri
1.11-4-1-1-1-10-1			~				6
esults Filter by	Attributes Results	10 • records per page	Search:	rick	Show / Hide columns	Zoom to results	Export da
 ObjectID Ø 	♦ CLASS_ID ● ♦ A	SSOC_CITY 🛛 🔶 AIRPORT_NAME 🚱 🗧	AIRPORT_ADDRESS 🛛 👙	AIRPORT_CITY_ZIP 😡 🍦	AIRPORT_PHONE 😧 👙	COUNTY_CD 🛛 🗍	COUNT
5320	Class 1 Airport Co	lumbus Rickenbacker	7161 Second Street	Columbus 43217	614-491-1401	FRA	FRANKL

3.5.5 Remove individual records from results table

1. To remove a record from the Results table, click on the **Remove feature from selection** button in the far left column.

Resul	ts Filter by Att	ributes Results	10 v r	ecords per page	Search		Show / Hide column	s Zoom to results	Export data 👻
	ObjectID 😡 👙	CLASS_ID 🛛 🔶	ASSOC_CITY 😡 👙	AIRPORT_NAME 🛛 🔶	AIRPORT_ADDRESS 😡 🖕	AIRPORT_CITY_ZIP 🛛 🗦	AIRPORT_PHONE	COUNTY_CD 😡 👌	COUNTY 0
Remove feat	ure from selection	Class 3 Airport	Columbus	Columbus Southwest	1751 Alton Rd.	Galloway 43119	614-878-4080	FRA	FRANKLIN
Q 🗵	4814	Class 2 Airport	Columbus	Bolton Field	2000 Norton Road	Columbus 43228	614-851-9900	FRA	FRANKLIN
^ ^	4004	Dublic Output	Ashumbus	Department of	4600 MI Droad Of	Columbia 19999	e++ 207 2250	PDA.	РРАКИИ (К) •
Showing 1	to 7 of 7 entries						First Pre	vious Next	Last

3.5.6 View Field Definitions in Results Table

1. Click the icon ext to a field name to quickly access the field definitions without having to navigate to the <u>Data Glossary</u> page. Note: The popup will contain all instances in which the field name occurs in the **Data Glossary**.

	ASSOC_CITY						/ /		772//
Assets Dataset: Aviation Facilities Description: Principal city that serves and with which it is ass		nat the airport ter t							
Resul	ts Filter by A	ttributes Re			Search	n:	Show / Hide columns	Zoom to results	Export data 👻
•	ObjectID 😡 🗄	CLASS_ID 0	ASSOC_CITY O	AIRPORT_NAME	AIRPORT_ADDRESS O 🔅	AIRPORT_CITY_ZIP	AIRPORT_PHONE O	COUNTY_CD 😡 🕴	COUNTY 😡
0.0	4738	Class 3 Airport	Columbus	Columbus Southwest	1751 Alton Rd.	Galloway 43119	614-878-4080	FRA	FRANKLIN
Q 😕	4814	Class 2 Airport	Columbus	Bolton Field	2000 Norton Road	Columbus 43228	614-851-9900	FRA	FRANKLIN

3.5.7 Show/Hide Fields in Results Table

1. To change the columns shown in the table, select the **Show/Hide columns** button.

Show / Hide columns

2. The **Show/Hide columns** pop-up window opens, listing every field available for that layer.



3. De-select any field you wish to hide or use the **Toggle** all button to turn all fields off or on. **Note:** *If an export is performed, ALL fields will export to the resulting output regardless of which fields are enabled.*

3.5.8 Export and download the Results layer

- 1. To export records from the **Results** table, click the **Export data** button and select the format:
 - Excel
 - KMZ/KML
 - Shapefile
 - Geodatabase
- 2. A rotating icon replaces the **Export data** button while the data is prepared. Once complete, the button changes to **Download**.



- 3. Click the Download button, and the formatted data is then downloaded according to your browser settings.
 - Some browsers prompt you for a folder location, while others automatically download.
 - The downloaded file uses the same name as the **Results** layer (without any blank spaces), with the appropriate extension. For example, if you wanted to export the results from the Filter Results layer to an Excel spreadsheet, those exported results would be stored in a file called Filter_by_Attributes.xls.

3.5.9 Remove the Results layer from the map

- 1. Results tables are represented as **Results Layers** in the **Set visible layers** tool. To see the list of **Results Layers**, go to the map toolbar and click **Set visible layers on map**.
- 2. Select to expand the **Results Layers** layer grouping.



- 3. You will now see any **Results layers** you produced.
- 4. To remove a layer, click the down-arrow above the name of the **Results** layer.
- 5. From the pop-up menu, select **Remove layer**. The layer is no longer part of the map.

900 Al-	
Layers	Legend
🔺 Collapse all 🛛 🗙 Expan	d all with visible layers
Results Layers	0
-	
Show attributes	
Zoom to layer	
Remove laver	

3.5.10 Show attributes of a Results layer

- 1. To re-open the **Results** table for a **Results layer**, click the arrow above the layer name to access the drop-down menu. Select **Show attributes**.
- 2. The attributes will now appear in the **Results** table at the bottom of the web page.

Resu	ts Filter by At	ttributes Results	10 •	records per page	Search	: Ohio	Show / Hide columns	Zoom to results	Export data 👻
	ObjectID 😡 🔅	CLASS_ID 🛛 🔅	ASSOC_CITY O	AIRPORT_NAME 😡 🖗	AIRPORT_ADDRESS 😡 👙	AIRPORT_CITY_ZIP	AIRPORT_PHONE 😡 🛊	COUNTY_CD 🛛 🄅	COUNTY O
0.0	4821	Public Owned Heliport	Columbus	Department of Transportation	1600 W. Broad St.	Columbus 43223	614-387-2350	FRA	FRANKLIN
0 🙁	4891	Public Owned Heliport	Columbus	Ohio State University	2160 West Case Road	Columbus 43235	614-292-5460	FRA	FRANKLIN
0.0	4892	Class 1 Airport	Columbus	Ohio State University	2160 West Case Road	Columbus 43235	614-292-5460	FRA	FRANKLIN

3.6 View Additional Imagery on the Map

There may be times you need to see more detailed imagery than is available with your basemap and map layers. **PathWeb** and **Map Channe**l are available for this purpose.

3.6.1 View ODOT PathWeb imagery associated with location

ODOT Path Web lets you see photographs of roadway and pavement conditions, as well as peripheral assets associated with the area of the map you are viewing.

- 1. Pan and zoom into the area of interest on the map. You need to zoom in far enough to clearly see the lines that represent a road.
- 2. From the map toolbar, click **Tools** and choose **ODOT PathWeb**.
- 3. Click directly on the road you want to view.
- 4. **ODOT PathWeb** opens in a new browser window or tab. **Note:** *Make sure your popup blocker is disabled for this website, otherwise the ODOT PathWeb site will not open.*



3.6.2 View Map Channel imagery associated with a location

Sometimes you need additional visual information when viewing a map. Map Channel lets you see a Google Street View, Google Map View, and Bing Birdseye View of the current map location. In addition, you can get geospatial information as well.

- 1. To see the additional information, zoom into the area of interest on the map.
- 2. From the toolbar, click **Tools** and choose **Map Channel**.
- 3. Click any location on the map.
- 4. Map Channel opens in a new browser window or tab.



- 5. Depending on the checkboxes selected in the top-left corner, you will see anywhere from one to four items associated with the location you clicked on the map:
 - Map: Gives you the standard Google Streets map.
 - Street View: Gives you a Google Street view of the location.
 - Bird's Eye: Gives you the Bing aerial photo view of the location.
 - Info: Provides geospatial information about the location such as latitude, longitude, zoom factor, and more.

3.7 Add Data to Map

Sometimes your map needs more than just imagery (basemap and layers) to provide adequate information. In this case, you can add other data to the map, such as shapefiles, KML tracks, LRS events, latitude/longitude, geocode addresses, and reverse geocode lat/longs.

3.7.1 Add shapefile

- 1. From the map toolbar, click **Add data to map t** and select **Shapefile**.
- 2. The Shapefile tool interface appears.



- 3. Click Choose File to display the Open dialog.
- 4. Navigate to a shapefile of your choice, select it, and click Open.
 Note: The shapefile you select must be a ZIP file that contains the following file types: .shp, .shx, .dbf, and .prj. The selected file cannot exceed 10 MB in size.
- 5. Press the **Upload** button to view the selected shapefile as a **Results** layer on the map. In this example, the shapefile puts blue rectangles on the map to identify all bridges in AUG and SHE counties. **Note:** *If the data in the shapefile is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.*



- If you want to hide the shapefile layer, go to the map toolbar and click Select visible layers on map. Scroll down and expand the Results Layers grouping. Select the layer to turn it off so it is no longer appears on the map.
- 7. The records representing the features in the shapefile appear in the **Results** table. Here is an example of the table showing the list of bridges from the shapefile. **Note:** *Only the top 1000 features appear in the* **Results** table.

Resu	ts AUG_E	Bridge (2)		10 v rec	ords per page		Searc	h:	Show	/ Hide columns	Zoom to results	Export data 👻
	OID 🛛 👙	OBJECTID 🛛 👙	SFN 🛛 👙	District 🛛 👙	County 🛛 🛊	Latitude 🛛 👙	Longitude 🛛 🔶	Maintenanc 🛛 🔶	FeatureInt 🛛 🖕	FacilityCa 🛛 🖕	Route 🛛 👙	RteOnBdg 🛛
•	1	1	601780	7	AUG	40.600964	-83.926422	1	WALLACE FORK	SR-67	067R	10
@⊗	2	2	601985	7	AUG	40.527439	-84.169497	1	PUSHETA CREEK	IR-75	075R	10
•	3	3	602019	7	AUG	40.527439	-84.169497	1	PUSHETA CREEK	IR-75	075R	10
@ 🗵	4	4	602035	7	AUG	40.541633	-84.169647	1	BRANCH OF PUSHETA CREEK	IR-75	075R	10
Q (8)	5	5	602043	7	AUG	40.554839	-84.169856	1	USR 33	IR-75	075R	10
0.0	6	6	602078	7	AUG	40.554839	-84.169856	1	USR 33	IR-75	075R	10
Q 🗵	7	7	602108	7	AUG	40.557189	-84.1699	1	PENN CENTRAL R.R.	IR-75	075R	10
• •	8	8	602132	7	AUG	40.557189	-84.1699	1	PENN CENTRAL R.R.	IR-75	075R	10
۹.۲	9	9	602159	7	AUG	40.561428	-84.169981	1	BELLEFONTAINE STREET	BELLEFONTAINE ST.	75	41
Q 🗵	10	10	602191	7	AUG	40.565319	-84.170056	1	QUAKER RUN	IR-75	075R	10
Showing	1 to 10 of 23	0 entries							First	Previous	Next	Last

8. Click on the **Zoom To** icon for any row in the table to zoom to the location of its associated feature on the map. **Note:** You can also click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format and download the data to your computer, or **Search** for information in the table. For details, see Work with the Results.

3.7.2 Add KMZ/KML

- 1. From the map toolbar, click Add data to map and select KMZ/KML.
- 2. The **KMZ/KML** tool interface appears.

KMZ/KML
Choose File No file chosen
Upload (KML or KMZ)
To add a KML file (.kml or .kmz) to the map, the KML must be available via a publicly accessible URL. Locally hosted or KML files inside a firewall are not supported.
Multiple layers within the KML is supported. Howevever, only the last processed layer will be displayed in the Results table.
Maximum file size is 5 MB.

- 3. Click **Choose File** to display the **Open** dialog.
- 4. Navigate to a .kml or .kmz file your choice, select it, and click **Open**. Note: *The file you select must be available on a publicly accessible URL and cannot exceed 5 MB in size.*
- 5. Press the **Upload** button to view the selected file as a **Results** layer on the map.

- In this example (below), the .kml file puts boxes on the map that represent bridges in AUG County. Note: If the data in the .kml or .kmz file is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.
- If you want to hide the KML/KMZ layer, go to the map toolbar and click Set visible layers, expand the Results Layers grouping. Select the layer to turn it off so it is no longer appears on the map.
- 6. The records representing the features in the KML/KMZ file appear in the **Results** table. Here is an example of the table showing the list of AUG bridge deficiencies from the **.kml** file. **Note:** *If you selected a multi-layer* **.kml** *file, only the last processed layer will appear in the* **Results** *table. However, you can find the other layers if you go to the map toolbar, click* **Set visible layers**, *then expand the* **Results Layers** *grouping. There you can toggle the visibility of each layer and show its attributes in the* **Results** *table.*



Note: Only the top 1000 features appear in the Results table.

7. Click the **Zoom to feature** icon for any row in the table to zoom to the location of its associated feature on the map. **Note:** You can also click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format, and **Download** to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results</u>.

3.7.3 Add LRS events

- 1. If you have an .xls or .xlsx file containing LRS events (NLFID and measure), use Add LRS events.
- 2. From the map toolbar, click Add data to map and select LRS events.
- 3. The **LRS events** tool interface appears.

LRS events	
Choose File No file chosen	
Upload (XLS or XLSX)	
There is a known issue which may affect uploading large LRS events files.	
Point Events Line Events	
County LRS State LRS	
choose	•
From Log Field:	
choose	•
To Log Field:	
choose	•
Add Clear	

- 4. Click **Choose File** to display the **Open** dialog.
- 5. Navigate to the **.xls** or **.xlsx** file of your choice containing LRS events, select it, and click **Open**.
- 6. Press the **Upload** button to upload the selected LRS events file.
- 7. Next, specify the type of LRS data you are interested in adding to the map and columns in the file that contain that data.

Choose File	lo file chosen	
Upload (XL	S or XLSX)	
There is a kno	own issue which may affect uploading large LRS events files.	
Point Events	Line Events	
County LRS	State LRS	
County LRS	State LRS	
County LRS	State LRS	
County LRS ILFID Field: NLF_ID From Log Field CTL_BEGIN	State LRS	
County LRS NLFID Field: NLF_ID From Log Field CTL_BEGIN To Log Field:	State LRS	

- 8. Select the appropriate button to indicate the type of LRS data you want to add to the map. The selected button turns dark blue; the unselected button remains a lighter blue.
 - **Point Events.** Add events (features) to the map that will appear as points.
 - Line Events. Add events (features) to the map that will appear as lines. This button is selected in the example.
 - **County LRS.** Measure values will be determined relative to county boundaries. This button is selected in the example.
 - State LRS. Measure values will be determined relative to state boundaries.
- 9. Select values from the pull-down lists to specify the columns in the LRS file where specific data is stored.
 - **NLFID Field.** This is the column that contains the unique event identifier for each event.
 - **From Log Field.** This is the column that contains the location where measure begins for each event. This field IS required for both point and line events.
 - **To Log Field.** This is the column that contains the location where the measure ends for each event. This field is required for line events only.
- 10. Press **Add** to view the LRS events as a **Results** layer on the map. **Note:** This may take a while, depending on how many events there are, so be patient. You may also want to zoom in further.
 - In this example, the .xls file puts green lines on the map that represent LRS events in Franklin County. Note: If the data in the .xls or .xlsx file is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.
 - If you want to hide the layer, go to the map toolbar and click Set visible layers, then select the Results Layers grouping. Select the layer to turn it off so it is no longer appears on the map.



- 11. The records representing the events appear in the **Results** table. Here is an example of the table showing the list stations and measures.
- 12. Click the **Zoom To** icon for any row in the table to zoom to the location on the map with the specified NLFID and measure. **Note:** *You can also click Zoom to results to see the locations*

of all the features on the map, or select **Export Data** to convert the table to a specific format to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results.</u>

3.7.4 Add lat/long coordinates

- 1. If you have an **.xls** or **.xlsx** file containing latitudes and longitudes, use **Add Lat/long coordinates**.
- 2. From the map toolbar, click Add data to map and select Lat/Long coordinates.
- 3. The Lat/Long coordinates tool interface appears.

Lat/long coordinates	
Choose File No file chosen	
Upload (XLS or XLSX)	
You must specify lat/long fields in order to add lat/long coordinates.	
Latitude column:	
choose	¥
Longitude column:	
choose	۲
Add Coordinates Clear	

- 4. Click **Choose File** to display the **Open** dialog.
- 5. Navigate to the **.xls** or **.xlsx** file of your choice containing coordinates, select it, and click **Open**.
- 6. Press the **Upload** button.
- 7. Next, use the pull-down lists to specify the columns in the selected file containing latitude and longitude information.

Choose File No file of	hosen	
Upload (XLS or XL	.SX)	
You must specify lat	long fields in order to add lat/long coordinates.	
atitude column:		
LAT_DD		
ongitude column:		
LONG_DD		•
Add Coordinates	Clear	

8. Press Add Coordinates to view points with known latitudes and longitudes as a **Results** layer on the map.

Lat/long coordinates	
Choose File No file chosen	
Upload (XLS or XLSX)	Tr Designants (F)
You must specify lat/long fields in order to add lat/long coordinates.	Sidney West
Latitude column:	
LAT_DD	
Longitude column:	< Piqua 3 StParis 0000 2 30
LONG_DD	
Add Coordinates Clear	
Success: 105 Not Found: 0 Errors: 0	st Tipp
	Deston Josefon nglescod Heights Totalite Springiled Springiled Cardion Heights Totalite Springiled Cardion Heights Totalite Springiled Cardion Heights Heights Cardion Heights Height

- In this example, the .xlsx file puts blue points on the map to indicate features where GPS coordinates are known. Note: If the data in the .xls or .xlsx file is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.
- If you want to hide the Results layer, go to the map toolbar and click Set visible layers, then expand the Results Layers grouping. Select the layer to turn it off so it is no longer appears on the map.
- 9. The records representing the features with known coordinates appear in the **Results** table. Here is an example of the table showing the list of features with known longitudes and latitudes.

							-					
1	OBJECTID_1 😡 🍦	SFN 🚱 🍦	Maintenanc 🤀 🏺	District 🤂 🏺	County 😧 🌲	Route 😡 🍦	FeatureInt 😡 🏺	FacCarried 😡 🏺	RteOn 🥹 🏺	RteUn 😡 🏺	Main SpN 🥹 🏺	Ov StrLen 😡
Q 🗵	223	1101803	1	7	CHP	068R	I&O RR & BIKEPATH	US-68	10	99	2	173.5
@⊗	224	1101773	1	7	CHP	068R	I&O RR & BIKEPATH	US-68	10	99	2	173.5
Q 🗵	225	1101838	1	7	CHP	068R	MOORE'S RUN	US-68	10	99	3	73.1
२ ⊗	226	1101846	1	7	CHP	068R	MOORE'S RUN	US-68	10	99	3	73.1
Q 🗵	227	1101811	1	7	CHP	068R	TRIB OF MOORES RUN	USR-68	10	99	1	15
n 🔊	228	1101862	1	7	CHP	068R	UNNAMED	US-68	10	99	1	14 •

Note: Only the top 1000 features appear in the Results table.

10. Click the **Zoom To** icon for any row in the table to zoom to the location on the map with that latitude and longitude. **Note:** You can also click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format, to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results</u>.

3.7.5 Add geocoded addresses

There are times when you need to see addresses associated with features on the map. If you already have an **.xls** or **.xlsx** file containing addresses, use **Add geocode addresses**.

- 1. From the map toolbar, click Add data to map and select Geocode addresses.
- 2. The Geocode addresses tool interface appears. Click Choose File to display the Open dialog.

Geocode addresses		
Choose File No file chosen		
Upload (XLS or XLSX)		
You must specify address of	r city and zip fields in order to geocode locations on to the map.	
Address column:		
choose		,
Address 2 column:		
choose		,
City column:		
choose		•
Zip column:		

- 3. Navigate to the **.xls** or **.xlsx** file of your choice containing address information, select it, and click **Open**.
- 4. Press the **Upload** button.
- 5. Next, use the pull-down lists to specify the columns in the selected file containing the address information and press **Geocode**.

Geocode addresses	
Choose File No file chosen	
Upload (XLS or XLSX)	
You must specify address or city and zip fields in order to geocode locations on to the map.	
Address column:	
Address	v
Address 2 column:	
choose	۳
City column:	
City	٠
Zip column:	
Zip	•
Geocode Clear	

- If the Excel file does not have a column with secondary address information, you can leave that field blank (noted as "choose" in the example).
- 6. Press **Geocode** to view the point features with known addresses as a **Results** layer on the map.

In this example, the .xlsx file places blue squares on the map to represent features with known addresses. Note: If the data in the .xls or .xlsx file is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.



- 7. If you want to hide the **Results** layer, go to the map toolbar and click **Set visible layers**, then expand the **Results Layers** grouping. Select the layer to turn it off so it is no longer appears on the map.
- 8. The records representing the points on the map with known addresses appear in the **Results** table. Here is an example of the table showing the list of addresses.

*	Agency 😡	\$	Address 😡	÷	City 😡 💧	State 😡	÷	Zip 🛛 👌	OBJECTID	÷		LONGITUDE 😡	¢	
@.⊗	Deputy Registrar License Agency	2	1583 Alum Creek Dr.		Columbus	Ohio		43209	0		39.93764	-82.94313		1
Q 🗵	Deputy Registrar License Agency		4503 Kenny Rd.		Columbus	Ohio		43220	1		40.050529	-83.050542		
@⊗	Deputy Registrar License Agency		5287 Westpointe Plaza		Columbus	Ohio		43228	2		39.982429	-83.149438		
Q 🗵	Deputy Registrar License Agency		17 Cherri Park Square		Westerville	Ohio		43081	3		40.114857	-82.928463		
0.0	Deputy Registrar License Agency		990 Morse Road, Suite A		Columbus	Ohio		43229	4		40.06181	-82.992824		
Q (2)	Deputy Registrar License Agency		3040 Southwest Blvd.		Grove City	Ohio		43123	5		39.890833	-83.082211		

Note: Only the top 1000 features appear in the **Results** table.

9. You can click the **Zoom To** icon for any row in the table to zoom to the location of its associated feature on the map, or click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results</u>.

3.7.6 Add reverse geocoded lat/longs

There are times when you need to see addresses associated with features on the map, but only have an **.xls** or **.xlsx** file containing latitudes and longitudes. This is when you should use **Add reverse geocode lat/longs**.

- 1. From the map toolbar, click Add data to map and select Reverse geocode lat/longs.
- 2. The **Reverse geocode lat/long coordinates** tool interface appears.

Upload (XLS or XLSX)	
You must specify lat/long fields in order to reverse geocode lat/long coordinates i addresses.	into
atitude column:	
choose	
ongitude column:	
choose	

- 3. Click **Choose File** to display the **Open** dialog.
- 4. Navigate to the **.xls** or **.xlsx** file of your choice containing latitude and longitude information, select it, and click **Open**.
- 5. Press the **Upload** button.
- 6. Next, use the pull-down lists to specify the columns in the selected file containing the latitude and longitude information and press **Reverse** geocode.

Choose File No file chosen	
Choose the no me chosen	
Upload (XLS or XLSX)	
You must specify lat/long fields in order to reverse geocode lat/long coordinates into addresses.	
Latitude column:	
LAT_DD	۲
Longitude column:	
LONG DD	٣

7. Press **Reverse geocode** to view points with known addresses associated with their GPS coordinates as a **Results** layer on the map



- In this example, the .xlsx file puts aqua points on the map representing features with addresses associated with their latitudes and longitudes. Note: If the data in the .xls or .xlsx file is associated with a different area of the map than you have displayed, as soon as you upload the file, the map will pan and zoom to the correct area.
- 8. If you want to hide the **Results** layer, go to the map toolbar and click **Set visible layers**, then expand the **Results Layers** grouping. Select the layer to turn it off so it is no longer appears on the map.
- 9. The records representing the points on the map appear in the **Results** table. Here is an example of the table showing the list of addresses.

	OBJECTID_1 🛛 👙	SFN 🚱 🍦	Maintenanc 😡 🖕	District 😡 🍦	County 😡 🌲	Route 🛛 👙	FeatureInt 🛛 👙	FacCarried $oldsymbol{\Theta}$	RteOn 🛛 👙	RteUn 🛛 🍦	Main SpN \varTheta 🍦	Ov\$trLer	n 0
Q 🗵	223	1101803	1	7	CHP	068R	I&O RR & BIKEPATH	US-68	10	99	2	173.5	
Q 🙁	224	1101773	1	7	CHP	068R	I&O RR & BIKEPATH	US-68	10	99	2	173.5	
@.⊗	225	1101838	1	7	CHP	068R	MOORE'S RUN	US-68	10	99	3	73.1	
@⊗	226	1101846	1	7	CHP	068R	MOORE'S RUN	US-68	10	99	3	73.1	
Q 🗵	227	1101811	1	7	CHP	068R	TRIB OF MOORES RUN	USR-68	10	99	1	15	
@ <u>@</u>	228	1101862	1	7	CHP	068R	UNNAMED	US-68	10	99	1	14	•

Note: Only the top 1000 features appear in the Results table.

10. Click the **Zoom To** icon for any row in the table to zoom to the location of its associated feature on the map. **Note:** You can also click **Zoom to results** to see the locations of all the features on the map, or select **Export Data** to convert the table to a specific format to download the data to your computer, or **Search** for information in the table. For details, see <u>Work with the Results</u>.

3.8 Print and Share the Map

Other people may need to see your map. You can print the map for them or share it electronically.

3.8.1 Print the map

- 1. Zoom in to the area of the map you are interested in printing.
- 2. From the map toolbar, press the **Print map button**.
- 3. Select the size you would like to print: **8.5 x 11**, **11 x 17**, or **17 x 22**.
- 4. A PDF map pops up in another browser tab or window. Notice the map only displays features currently visible when you pressed **Print map**. It also has a title and a scale. **Note:** *If the PDF map does not appear, you may have pop-ups disabled; check your browser settings and make sure popups are allowed for the TIMS website.*



5. You can now print the displayed map by using the **Print** function in your browser.

3.8.2 Share the map with others

- 1. Zoom in to the area of the map you are interested in sharing.
- 2. From the map toolbar, press the **Share map with your friends** button.
- 3. The Share tool interface appears.

Url:	https://goo.gl/TwsBEz	
Url:	https://goo.gl/TwsBEz	

- The **URL** is the link to the map.
- If you want to verify that the URL is valid, click **Verify**. The URL opens in a new browser tab or window.
- If you accidentally delete the URL, press **Update** to ensure the link represents the displayed map.
- 4. Copy and paste the link into an email and send the email to those whom you want to see the map.
- 5. When the email recipients click the link, **TIMS** will start up in the browser and the map will open in the **Create a Map** page. Shared map links may be opened on desktop or mobile browsers. **Note:** *The basemap that others see will be the default basemap set up by the TIMS Administrator, which may or may not be the basemap you used.*

Section 4. Data Download

The **Data Download** section of the TIMS website lets you download entire datasets without interacting with the map.

- 1. From the Home page, select the Data Download button.
- 2. The Data Download page appears.

TIMS TRANSPORTATION INFORMATION MAPPING SYSTEM	Project Search	Create a Map	Data Download	Standard PDF Maps	Map Viewers	Data Glossary	٩	Search by PID	$ \Theta$
Data Down Datasets are downloa Select from the availa	nload ded as single compre ble layers below to do	essed zip file. ownload statewide (data in the specified	format.					
								Export data 0	-
Assets								0 ~	•
Boundaries								0 ~	•
Environmental								0 ~	•
Projects								0 ~	•
Roadway Informati	on							0 ~	•
Strategic Transport	ation System							0 ~	•

3. Next, select the layer or layers whose data you want to export. Click the down-arrow to expand each layer grouping and select the layers you are interested in. **Note:** *These are the same layers displayed in* **Create a Map**.

asets are downloaded as single compresse	d zip file.		
ect from the available layers below to down	load statewide data in the specified format.		
			Export data
sets			0
Aviation Facilities (Private Use)	Aviation Facilities (Public Use)	BMP Inventory	Bore Hole Locations
Bridge Inventory	Culvert Inventory	Geotech Projects Limits	Historic Bridge Inventory
Intermodal Connectors	Intermodal Facilities	Noisewall Inventory	ODOT CORS Network
ODOT Facilities	Outfall Inventory	PCR (Local)	PCR (State)
Predicted PCR	Rail Crossing Inventory	Railroad Inventory	Road Inventory
RWIS (Roadway and Runway We	Safety Barrier Inventory	Tower Lighting Inventory	
indaries			Q
City	County	Metropolitan Planning Organizatio	MS4 Urbanized Boundaries
ODOT Districts	Ohio House District	Ohio Senate District	Place
PUCO Electric Service Areas	PUCO Telephone Service Areas	Rural Island	Rural Planning Organization (RPO)

4. Press Export data.

- 5. From the resulting pull-down menu, select the format you prefer for export:
 - To Excel
 - To KMZ/KML
 - To Shapefile
 - To Geodatabase
- 6. Upon completion of download, a zip file containing the selected files should appear in your browser. **Note**: *Depending on your browser, the data may be automatically downloaded to a designated folder or you may be prompted for the folder where you want to download it.*

Section 5. Standard PDF Maps

The **Standard PDF Maps** section of the TIMS website lets you generate maps with specific layouts and formats.

IMPORTANT! The PDF maps are generated using standardized map type definitions, and they are rendered from live database connections. For some uses, these standardized map definitions may not produce the exact results seen in other maps produced internally at ODOT, as each District often refines their program based on local needs.

5.1 Define and generate a PDF map

- 1. From the Home page, press the Standard PDF Maps button.
- 2. The **Standard PDF Maps** page appears.

Please contact the Ellis C	contact C for specific questions regarding proje	ect information.				
Мар Туре:	Annual Construction Work Plan	•	Map Only	Θ		
Area of Interest:	County	•				
	ADAMS	•				
Basemap:	Streets	*				
Format:	PDF	¥				
Layout:	Portrait	•				
Size:	11x17	¥				

- 3. Specify the criteria for the maps' generation and appearance:
 - **Map Type:** Annual Construction Work Plan, Construction Season, Fiscal Year Project Map, Functional Classification, Multi-Year Work Plan, and STIP Map. **Note:** *Press Map Only if you want to generate a map that has no layout elements on it (title, legend, scale, etc.).*
 - Area of Interest: County, ODOT District, MPO, City, or Urban area. Once you select the type of area, select its value from the field beneath.
 - Basemap: Streets, Hybrid, Topo, National Geographic, Gray, or Dark Gray.
 - Format: PDF, JPG, or PNG
 - Layout: Portrait
 - **Size:** 11x17, 17x22, or 34x44

- 4. Once you make your selections, press **Generate Map**. A revolving circle appears over the **Download** button. When it stops revolving, the map is ready to download.
- 5. Press the **Download** button to save the PDF map to your computer. **Note:** *Depending on your browser, the data may be automatically downloaded to a designated folder or you may be prompted for the folder where you want to download it. The default name for the map can be somewhat cryptic, so you may want to rename it.*
- 6. Here is an example of a Construction Season in Franklin County with a Streets basemap. **Note:** *If you selected Map Only, the title, legend, and notes will not appear.*



Section 6. Map Viewers

The **Map Viewers** section of the TIMS website lets you access interactive maps by content focus.

- 1. From the Home page, press the **Map Viewers** button.
- 2. The Map Viewers page appears.

TIMS TRANSPORTATION INFORMATION MAPPING SYSTEM	Project Search Create a Ma	p Data Download	Standard PDF Maps	Map Viewers	Data Glossary	Q Search by PID
Map View The interactive map the Create a Map vie	CIS viewers below include all the map fu wer to view all datasets available in	inctionality as the Crea i TIMS.	te a Map viewer, and are	tailored to display o	nly datasets central to each n	nap's theme. Please visit
	CONSTRUCTION	Q CRE/	ATE A MAP	ENVIRON	IMENTAL ♀	
	GEOTECH		RAULIC ENGINEERING	OUTFALL	.s Q	
	PLANNING&ENGINEE		GRAM MANAGEMENT	STRUCTU	JRES V	

3. Each button represents a different map theme. The buttons you see vary depending on what map themes the TIMS Administrator has set up for you. Each button you press takes you to a different map page where the map displays only the datasets associated with the map's theme. For example, if you pressed **Construction**, a map appears with layers associated with construction theme.



 You can now use any of the tools in the blue toolbar and view the results on the map and in the Results table. For details, see: <u>Create a Map</u>. All instructions about viewing, measuring, searching, filtering, exporting, downloading, printing, and sharing apply.

Section 7. Data Glossary

This section of the TIMS website lets you search for information in the dataset name, dataset description, field name and field description columns of all tables in the database.

This is useful in several situations:

- Data discovery. You are trying to find out what data is available pertaining to a particular subject.
 For example, you might want to find out all the fields across all the datasets that contain "traffic" in the either the field name or field description.
- **Explanation.** You need an explanation of dataset or field descriptions. For example, what does the field "AADT" represent?
- Additional information. You can find additional links and metadata that have to do with a particular dataset or field.

7.1 Search the Data Glossary

- 1. From the **Home** page, press the **Data Glossary** button.
- 2. The Data Glossary page appears.

MS	INFOR MAPPI	PORTATION MATION NG SYSTEM	Project Search	Create a Map	Data Download	Standard PDF	Maps Map Viewers	Data Glossary	Q Search by PID
Dat	a C	Blossa	rv						
Search	perfor	ms a partial o	or wildcard search a	icross dataset nar	me, dataset description, fie	ld name and	field description fields.		
					Search criteria		Search		
				1	Limit search to dataset:				
					Choose		*		
					Optional				
Sea	arch	n resul	ts						Export Download
10	• rec	ords per pag	e						Search:
Lini	ks and	Metadata	Dataset 🔺	Name 🕴	Column Name	¢ Type ♦	Description		÷
Θ	C		Active Bike Routes	Active	ACTIVE	text	Flag used for indicating planning phase	that the segment is act	ive during the designation
0	C	B	Active Bike Routes	Aggreement Link	AGREEMENT_LINK	text	Hyperlink to the local ag the US or State Bike Ro	reement or ordinance oute System	designating the facility as part of
0	C		Active Bike Routes	City FIPS Code	CITY_FIPS	text	Five digit FIPS code of (City in which route segr	nent is located
0	C	1	Active Bike Routes	Comment	COMMENT	text	Notes collected during t	he designation planning	j phase
0	C	6	Active Bike Routes	Corporation Name	CORPORATION_NAME	text	Corporation in which rou	ite segment is located	
0	C	B	Active Bike	County Name	COUNTY	text	County in which route se	egment is located	

- 3. The search field at the top of the screen allows you to enter a value that might be found in the Name, Column Name, Type, or Description columns of the database.
- 4. You can enter an exact value or a partial value in the search field. For example, suppose you know there are some columns that store land cover information, but you do not know their names, and

you do not know what dataset they are in. You could type **Land Cover** in the search field and press **Search**. The results would appear as follows:

- 5. In this example, the search saved you a lot of time, because you did not have to scroll through 1,969 entries! **Note:** *Rather than searching through the entire database, you can also limit your search to a particular dataset if you know it. For example, you could have limited the previous search to National Landcover Database dataset, in which case, the results would have been the same, but the search would have taken less time.*
- 6. The icons on the far left side of each record in the table do the following:
 - Ø Hover over the icon to learn the purpose of the dataset referenced in the record.
 - Click this link to go to a URL with related information. This link is enabled if a link to related information exists.
 - Click to view a related document. This link is enabled if metadata for the dataset exists.

7.2 Export and download the search results

- 1. To save the search results into an Excel spreadsheet, press the **Export** button.
- 2. While the spreadsheet is generating, a revolving circle appears over the **Download** button. Once complete, the **Download** button is enabled.
- 3. Press the **Download** button to save the spreadsheet to your computer. **Note**: *Depending on your browser, the data may be automatically downloaded to a designated folder or you may be prompted for the folder where you want to download it.*
Section 8. Crash Data Search

The **Crash Data Search** section of TIMS is a tool for qualified users which allows for quick analysis of vehicular accidents. Non-qualified users have access to similar data through the **Create a Map** function.

- 1. From the home page, push the **Crash Data Search** button.
- 2. The **Crash Data Search** page appears. **Note**: *This page will only display if you have not logged in during your current session.*

	Project Search Create a Map D	ata Download Standard PDF M	aps Map Viewers	Data Glossary	Q Search by PID	
GCAT Crash	analysis tool					
The purpose of GCAT is consultants.	s to provide a convenient highway safety cr	ash analysis tool for ODOT, MPOs, o	ity/county engineers, la	w enforcement agencies	, and pre-qualified safety study	
The crash data provided Original crash data repo	d in this tool is not official and has been pro orts can be obtained from the law enforcem	wided by the Ohio Department of Pu lent agency handling the crash or Pu	blic Safety and modified blic Safety's Ohio Traffi	t by ODOT for engineerin c Safety Office Crash Dat	ng and analysis purposes ONLY. ta site.	
Disclaimer						
Please note that the cra	ish data in TIMS is not live. It is only for trai	ining purposes. Please refer to the st	andard GCAT page to s	search current data until f	further notice.	
Standard GCAT »						
Existing GCAT User?		Forg	Forgot your password?			
		For exis	For existing users, to recover your password, click the Forgot password button below.			
		Forgo	t password »			
Need GCAT user account?		Acce	Access Public Information?			
Doguast assass to the (Request access to the GCAT Crash Analysis Tool by following the New User button below.		General crash information is publicly available in TIMS Create a Map Feature. Click the Public Access button below to have instant access.			
below.		Public	Access button below to	have instant access.	create a map reature. Click the	

3. If you are an existing GCAT User, press the Login button to login to GCAT.



4. If you are an existing GCAT user but have forgotten your password, press the **Forgot password** button to be directed to the MYODOT page.

Forgot password »

5. To request GCAT access, press the **New user** button for information on applying for access.

New user »

6. Press the **Public Access** button to be directed to the public crash layer in Create A Map.

Public Access »

*For more information regarding the Crash Data Search page, please contact the ODOT's Office of Program Management for training opportunities and reference guides.