



TRAINING GUIDE

# Web GIS Basics for Non-GIS Heavy Users



# Web Map

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The Lucity Web Map provides a way for users to see and work with their asset and work data. This allows them to see relationships between objects and plan work accordingly. The web map is made up of a map display that has two toolbars and a navigation wheel. This guide will go through the various tools, and how to use them.

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## Launching the Web Map









The web map is primarily launched by clicking the Web Map button  on the Home menu toolbar. Accessing the map this way will open the map to the last extent used by the current user or the default extent

The web map can also be launched from different modules using the Show in map button. Accessing the map in this way will bring up the map, and then zoom to the assets, or Work Orders/Requests selected when the button was clicked.





## Map Management tools

In the top left corner are the map management tools. They allow you to view information about the map, control selectability and visibility, open and close the data table, and perform standard navigation.

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|   |                            |  |
|---|----------------------------|--|
|    | <b>Log</b>                 | Click on this tool to bring up a selection of troubleshooting tools. Select a tool from the list and click OK to open it. These tools are designed to help us help you.<br><br><i>Local Log</i> - Click on this button to bring up a log for the web map.<br><br><i>View Layer Details</i> - Right-click for a dropdown menu with the option to view layer details. This will show the map services displayed in this map, and which layers are linked back to Lucity. |
|  | <b>Map Layers</b>          | This allows users to: turn feature classes off and on, control selectability, and control layer transparency.  |
|  | <b>Base Map</b>            | Provides a list of base maps to choose from. Only one base map can be viewed at a time.  |
|  | <b>Data Table</b>          | The data table shows a table view of all records that have been selected or identified. It has several tools to help when selecting records, and special tools to relate asset records back to Lucity.   |
|  | <b>Display Preferences</b> | This allows you to change color that select assets will appear in the map. After making a selection you can also highlight items in the data table. Using the Display preferences you can change the color that highlighted items appear as well.<br><br>There is also an option that causes the tool you are using to automatically switch back to the pan tool after you use the selection tool.   |
|  | <b>Pan</b>                 | This allows you to pan around the map. If no other tool is selected this one is selected by default.   |
|  | <b>Zoom In</b>             | This allows you to zoom in. Select the tool then click on the map to zoom in. You can also click in the map and drag the cursor to form a box. Click again to finish the box and zoom.   |
|  | <b>Zoom Out</b>            | This allows users to zoom out. Select the tool then click on the map to zoom out. You can also click in the map and drag the cursor to form a box.   |

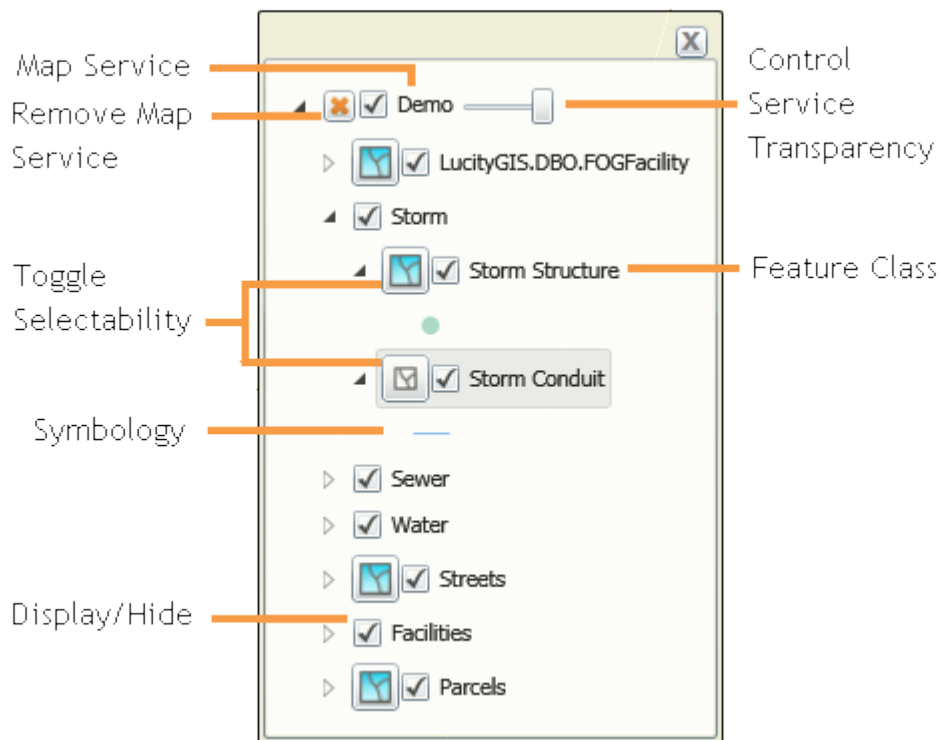
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|  |   |
|--|---|
|  <b>Undo Navigation</b> | Cycles backwards through previous map extents   |
|  <b>Redo Navigation</b> | Cycles forward through previous map extents   |
|  <b>Measurements</b>    | Allows users to measure the length of a line, side and area of a polygon, and radius of a circle. |
|  <b>Redlining</b>       | This allows users to add markups to the map.  |

## Map Layers



The Map Layers tool allows users to: turn feature classes off and on, control selectability, and control layer transparency. The diagram below points out different controls that are in the map layers tool. A description of the controls is below that



**Remove Map Service** - click this to remove the map service and all associated feature classes. These only affect you. If you are removing something that is in the map by default it will be there next time you load the map. If it is a layer that you created using one of the Analysis tools it will be permanently deleted.


**Control Service Transparency** - Controls the transparency of an entire group of layers.

**Toggle Selectability** - Click this button to toggle the ability to select that type of feature using the select tool. When this button is blue the layer is selectable.

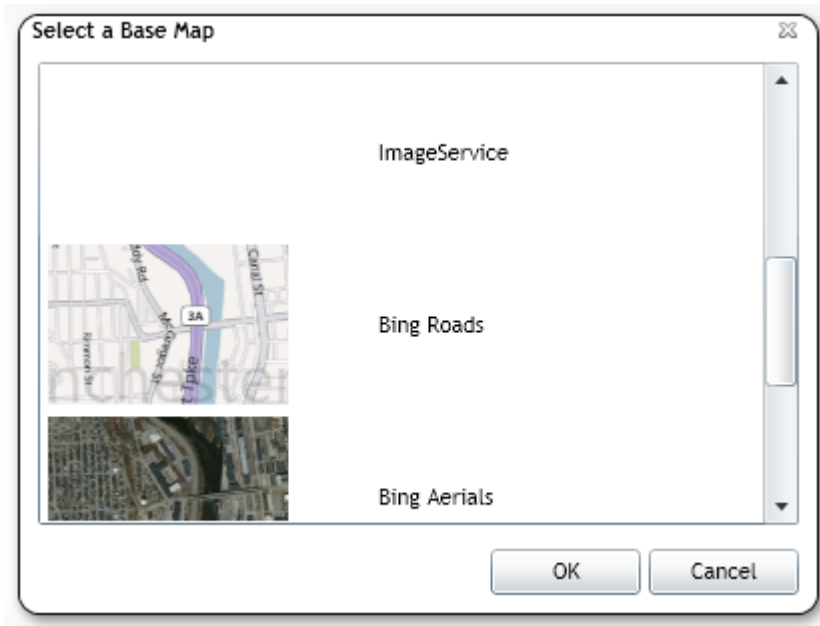
**Display/Hide** - Uncheck the box next to a service, group or feature class to hide it in the map.

Note: some layers will be turned off in the map by default.

## Base Map


 Base maps are layers of data that is useful to see, but you don't need to select or identify. Your organization can setup several kinds of base maps including road maps and aerial photographs. The Lucity Webmap has a tool that allows you to switch between the different base maps that your organization has.

1. To change the base map click  and the following popup will appear.



2. Select a new base map, or select ~No Base map~
3. Click OK
4. The map will reload and now your base map will be visible.

## Measurements


 The measurement tools allow users to measure the length of lines, sides and area of a polygon, and radius of a circle.

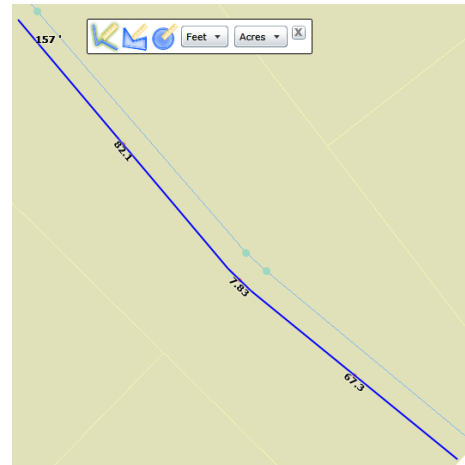
1. To measure something click the  tool and the following toolbar will appear:




2. Select an item to measure.

## Line

- Click . The cursor will change.
- Select a **Unit of Measurement**.
  - Click at a location in the map to start the measurement.
  - Click on another location in the map to end the line segment and begin a new one.
  - Continue until all segments are marked.
  - Each segment of the line will display the length. At the end of the line, near the cursor the total length of the line will be displayed.
  - Double-click to end the line. (The measurement line will disappear)




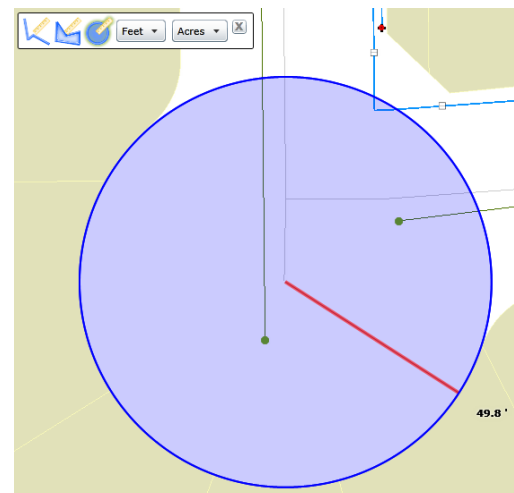
## Polygon

- Click . The cursor will change.
- Click on the map to start the measurement.
- Click on another location in the map to finish a side to the polygon and begin a new side.
- Continue until all sides are marked
- Each side of the polygon will display the length. Near the cursor the area (shaded part) of the polygon will be displayed.
- Double-click to end the polygon. (The measurement polygon will disappear)



## Circle

- Click . The cursor will change.
- Click on the map to start the measurement.
- Move the cursor away from the original point. The tool will display a red line and a circle. The red line is the radius of the circle
- At the end of the line, near the cursor the length of the radius will be displayed.
- Click to end the circle. (The measurement circle will disappear)




## Redlining



The Redline tool allows users to add markups to the map. This can be used to provide information to somebody at another location, or to save information for later.

*Example: A supervisor could draw a picture in the map of what he is trying to describe, the workers in the field can see this drawing.*

To work with redlining click the  button and a toolbar with the following tools will appear.

### Redline tools



#### Palette

A list of all the redline feature classes that are included in the map. They are displayed with a sample of the symbology (the example shows a point, line, and polygon feature class). Select a feature class to begin marking up the map.



#### New Selection

Gives the user a selection pointer. This automatically unselects any previously selected drawings and allows them draw a selection box in the map to select a set or redline drawings.



#### Add/Remove from Selection

Allows users to draw a selection box in the map. Any selected drawings are added or removed from the current selection.



#### Clear selection

Unselects all drawings.



#### Delete selected features

Deletes any selected drawings



#### Edit Geometry

Allows users to click on a drawing and then modify the shape of the drawing.



#### Save Edits

Saves any edits made to the drawings.

**Note:** Edits maybe saved automatically based on a system setting.



#### Display attributes

Displays the attributes for the currently selected drawing. This could include a comment field.



#### Add options

Expands to show the following options.


#### Freehand draw

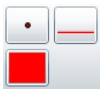
Allows users to draw free hand. They can click at a spot and the line will begin to draw wherever the mouse pointer goes.

#### Autocomplete

Marking this causes polygons to automatically be completed.

### To add a redline


1. Click the  button to bring up the redlining menu.
2. Select a redline feature class from the palette.



- 3.
4. Begin editing

- For a point click at a location in the map.
- For a line click at a location in the map to begin the line. Click in another location to finish the section of line and start a new one. Double-click to end the line.

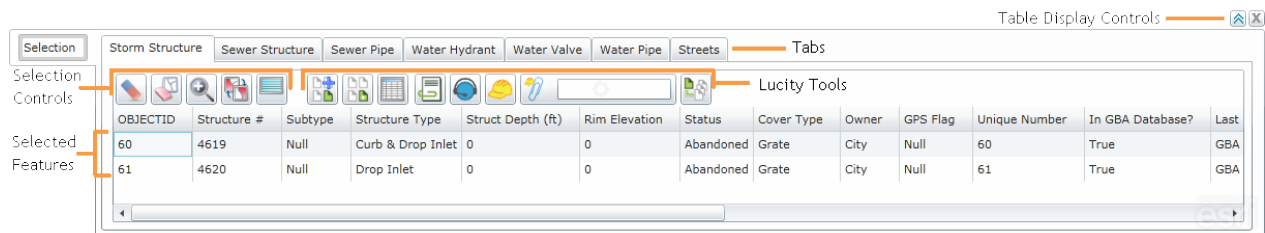
- o For a polygon click on a location in the map to begin a side. Click in another location to end a side and start a new one. Double-click to end the polygon. It will automatically complete the polygon.

5. When complete click the  button.

## Data Table




The Data table allows you to see information about and interact with features that are currently selected or work order and request locations that are plotted. This table is opened automatically when either the Selection tool or Show Work Locations tools are used.



| OBJECTID | Structure # | Subtype | Structure Type    | Struct Depth (ft) | Rim Elevation | Status    | Cover Type | Owner | GPS Flag | Unique Number | In GBA Database? | Last |
|----------|-------------|---------|-------------------|-------------------|---------------|-----------|------------|-------|----------|---------------|------------------|------|
| 60       | 4619        | Null    | Curb & Drop Inlet | 0                 | 0             | Abandoned | Grate      | City  | Null     | 60            | True             | GBA  |
| 61       | 4620        | Null    | Drop Inlet        | 0                 | 0             | Abandoned | Grate      | City  | Null     | 61            | True             | GBA  |

### Table Display Controls

To the top right of the table are two buttons that control the tables appearance.

 Click this button to expand the table and show more records

 Click this button to close the table. This does not clear the current selection.

### Tabs

At the top of the grid there is a row of tabs. Each tab corresponds to a feature classes that has features included in the current selection. Click on a tab to switch to a table showing the selected features for that feature class.

User Point Graphics created using the *Create Work Point tool* will show up on a tab called UserPointGraphics.

### Selected Records

Features that appear in the table are currently Selected. They are displayed in the map using the Main Selection Color.

- Click on one or more features in the grid to make them Highlighted. Highlighted features are displayed in the map using the Secondary Selection Color.
- Highlighting records is a way to narrow down a selection set even further. Users might highlight records to use the Lucity Tools.






*Note: The Main and Secondary Selection Colors are changed using the Display Preferences tool.*



## Selection Controls

The Selection controls allow users to control the current feature selection.

- They specifically interact with features that are highlighted in the table on the current tab.
- These tools show up for every feature class, whether it is linked to Lucy or not.


|   |   |
|---|---|
|  <b>Clear Selection</b>            | Un-selects any features that are currently highlighted in the table. This removes them from the Data Table  |
|  <b>Clear Highlight</b>            | Un-highlights any records that are currently highlighted in the table. They remain selected.  |
|  <b>Zoom and Flash Highlighted</b> | Zooms to the features highlighted in the table.   |
|  <b>Switch Highlight</b>           | Switches which records are highlighted in the table. Any records that are currently highlighted will not be and any records that weren't highlighted will be. |
|  <b>Highlight All In Selection</b> | Highlights all records in the current table.  |

## Lucy Tools


These tools allow users to perform Lucy operations against features in the map.

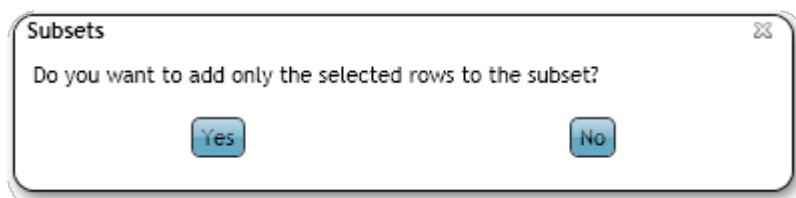
- Some of these tools specifically only with features that are highlighted on the current tab. Others will interact with the highlighted features or the entire selection set for the current tab.
- These tools only show up for feature classes that are linked to Lucy.

## Attach Subsets

 This tool lets you add selected features to an existing subset. Subsets allow you to save a fixed group of records for later use.

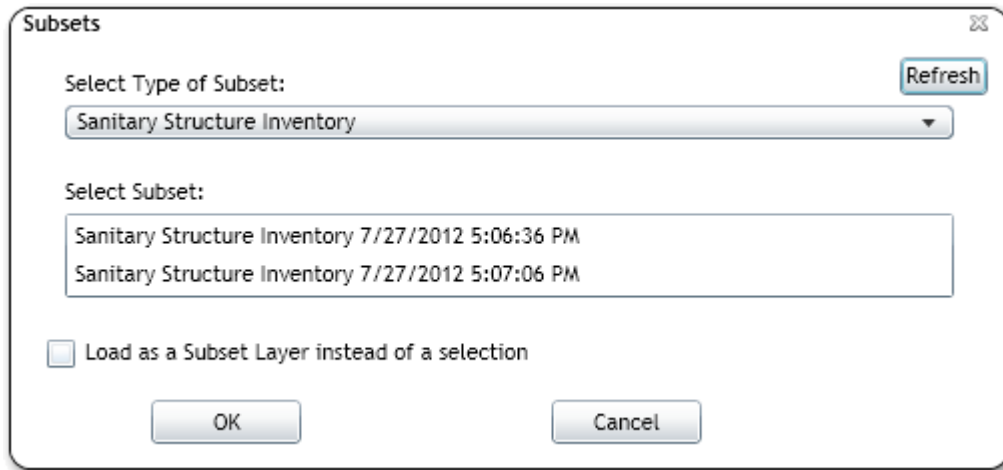
### *To add features to a subset*

1. Select Assets in the map.
2. In the Data Table users can highlight assets to include in the subset and click .
3. The following dialog will appear:





4. Choosing **Yes** will add the highlighted assets to the subset. Choosing **No** will add all of the selected assets (on the current Data Table tab) to the subset.

5. After choosing **Yes** or **No** the following dialog will appear.





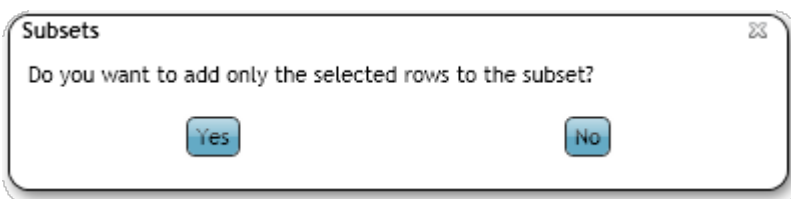
6. Select a subset from the list and click **OK**.
7. The program will add the highlighted or selected features to the subset and will zoom to the newly defined subset.

## Create Subsets

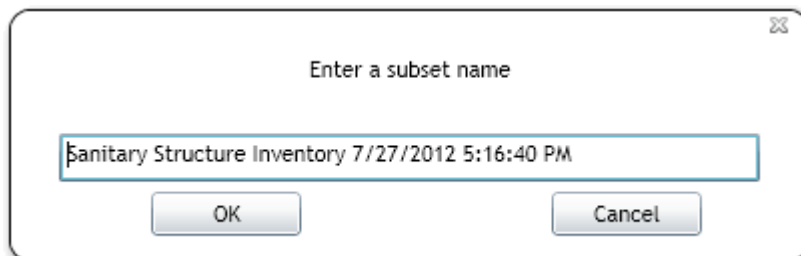
  The **Create Subset tool** allows you to create a new subset from selected features. Subsets allow users to save a fixed group of records for later use.

### To create a subset

1. Make a selection of records in the map.
2. In the **Data Table** users can highlight the assets to include in the subset and click  .
3. The following dialog will appear:



4. Choosing **Yes** will add the highlighted assets to the subset. Choosing **No** will add all of the selected assets (on the current Data Table tab) to the subset.
5. After choosing **Yes** or **No** the following dialog will appear.



6. Enter a name for the subset. By default the dialog creates a name based on the asset type, date, and time. Click **OK** when finished.
7. The program will create the subset and display a message stating that it was successful.

## Relationships



The **View Relationships tool** allows you to see all the modules and records related to an asset highlighted in the Data Table. Users can directly open the modules to view the related records in Lucity Desktop or Web.

### To view relationships

1. After making a selection in the map select a record in the **Data Table**.
2. In the **Data Table** click . The following popup will appear.

| Related Module         | Record Count |
|------------------------|--------------|
| Structure Inventory    | 1            |
| Structure Inspection   | 0            |
| MACP Inspections       | 0            |
| Sewer Construction     | 0            |
| Manhole Vacuum Testing | 0            |
| Work Orders            | 0            |
| PM/Work Template       | 0            |
| Work Requests          | 0            |

3. Each line in the popup is for a Lucity module. To the right of the module name is a count of how many records in that module are related to the record highlighted in the Data Table.
4. Select a module to view. Click one of the following buttons to open that module. The module will open to the related records.



Open in Lucity Desktop



Open in Lucity Web

Notes: \_\_\_\_\_

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\_\_\_\_\_

\_\_\_\_\_

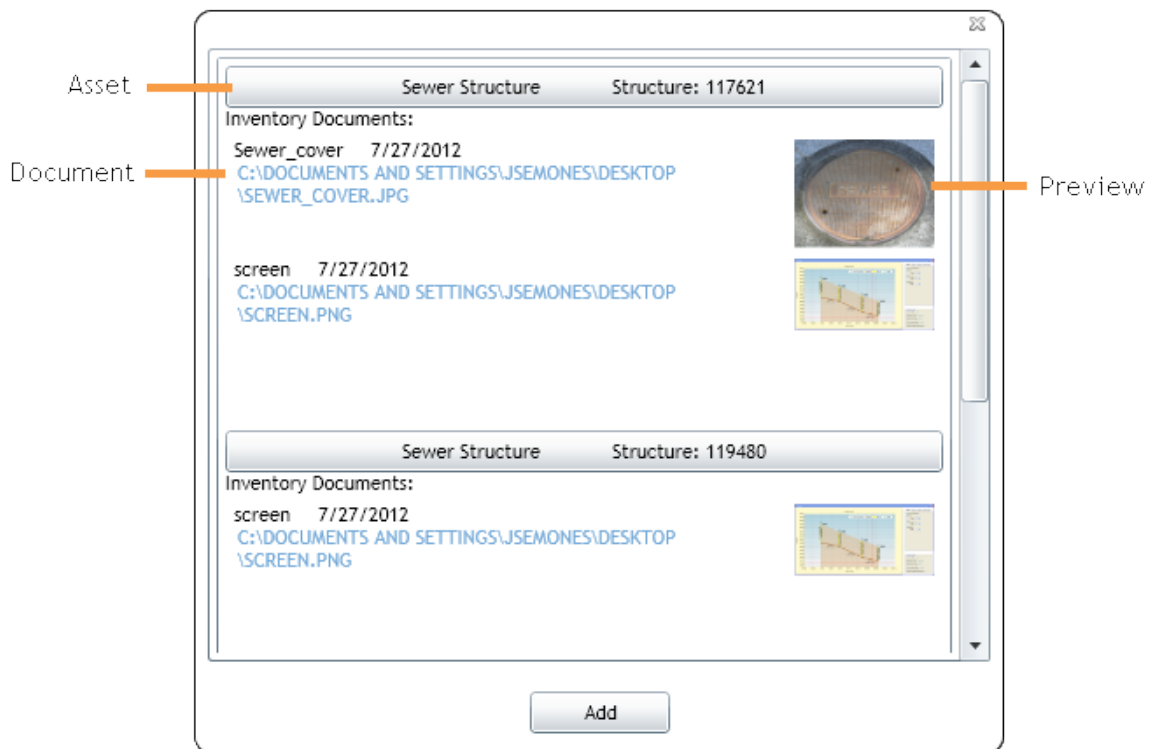
## Documents



The *Documents tool* allows you to see documents that are linked to the selected objects, and attach new documents.

### To view and add documents

1. Highlight one or more records in the *Data Table*
2. Click . The following popup will appear




3. Each asset highlighted in the *Data Table* will appear in a list. Underneath each asset is a list of the associated documents and a preview (if one is available.)
4. Click on a document to view it. It will be opened in the computers default program for that type of document.
5. To add a document, click the **Add** button. Browse to the document and click **OK**.
6. The document will be linked to ALL assets in the document popup.
  - o Attaching a document does not move the document; Lucity just stores the current location for future use.
  - o In the above example the documents are located on the C drive of the computer; however it is important to note that these will only be available to this user, on this computer. Talk to a system administrator about the best location for documents to be stored so that they are available to all users on all computers.

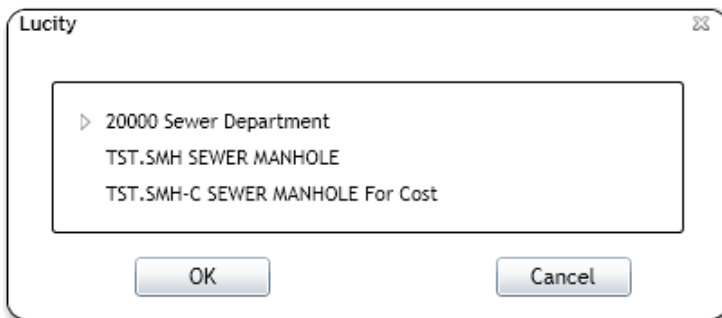
## Create Request



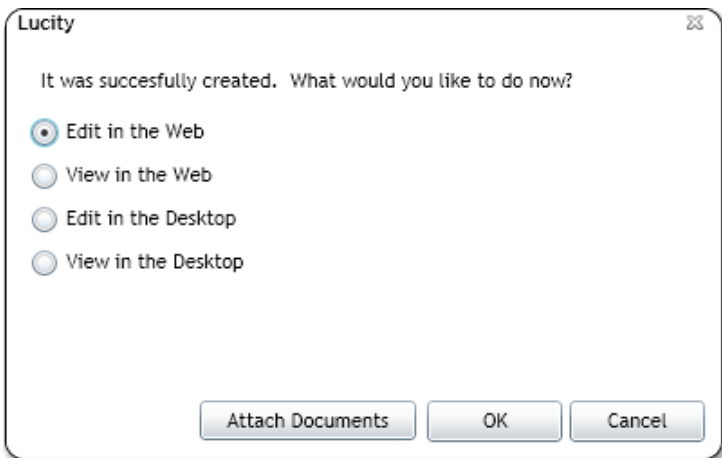
The *Create Request tool* allows you to create a request from the map based on an asset.

### To create a Request

1. Highlight an asset, or User Point Graphic, in the *Data Table*
  - o User Point Graphics are created using the Create Work Point tool.
2. Click the  button.
3. If the highlighted asset does not have a *Default Work Category*, the following popup will appear allowing users to select a category:
  - o If a User Point Graphic is used, no category is required and this popup will be skipped.



4. Only categories that are associated to the highlighted asset will appear.
5. Select a category and click OK. This is required. The request will be created with the highlighted asset attached and the following popup will appear:




6. Clicking Attach Document will open up a browse window to let the user select a document to attach to the request.
7. Choose one of the Edit or View options and click OK.
8. Lucy Web or Desktop will open up the request module and go to the new record.

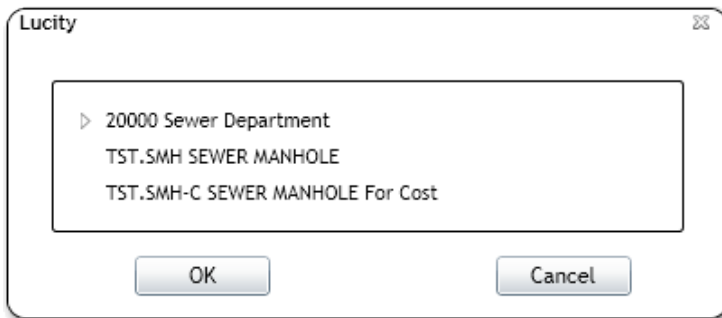
## Create Work Order



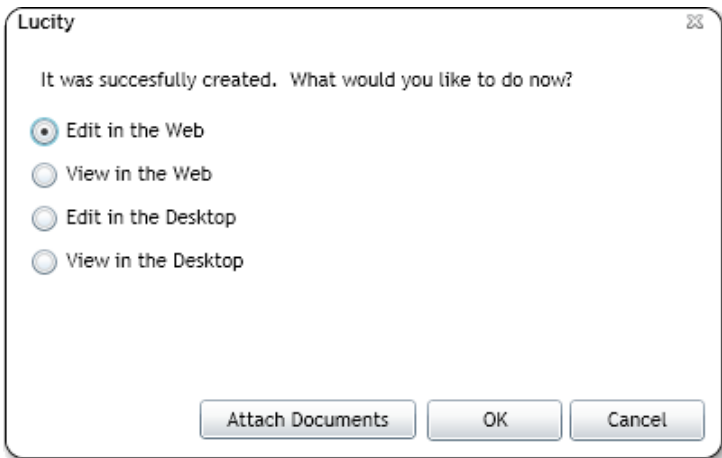
The *Create Work Order tool* allows users to create a work order from the map based on one or more assets.

### To create a work order

1. Highlight assets, or User Point Graphics, in the *Data Table*
  - o User Point Graphics are created using the Create Work Point tool.
2. Click the  button.
3. If the highlighted asset does not have a *Default Work Category*, the following popup will appear allowing users to select a category:



- o When assets are selected only categories that are associated to the highlighted asset will appear.
  - o When User Point Graphics are used the category list will include all categories.
4. Select a category and click OK. This is required. The work order will be created with the highlighted assets attached and the following popup will appear:



5. Clicking Attach Document will open up a browse window to let the user select a document to attach to the work order.
6. Choose one of the Edit or View options and click OK.
7. Lucity Web or Desktop will open up the work order module and go to the new record.
  - o After the work order is created the work order number is automatically entered into the Attach to Work Order tool. This allows users to create a work order, and the quickly highlight other assets, even on other tabs, and attach them to that same work order.

## Attach to Work Order



The *Attach to Work Order tool* allows users to attach assets to a pre-existing work order.

### To attach assets to a work order


1. Select assets or User Point Graphics in the *Data Table*.
2. Click in the field section of the *Attach to Work Order tool* and type in a work order number.
3. Click the icon part *Attach to Work Order tool* and the selected asset or point will be attached to the work order.
  - o Assets are added to the Asset grid of the work order.
  - o User Point Graphics are added to the Location grid of the work order.
  - o The field part of the tool is automatically filled out by the last work order created using the Create Work Order tool.

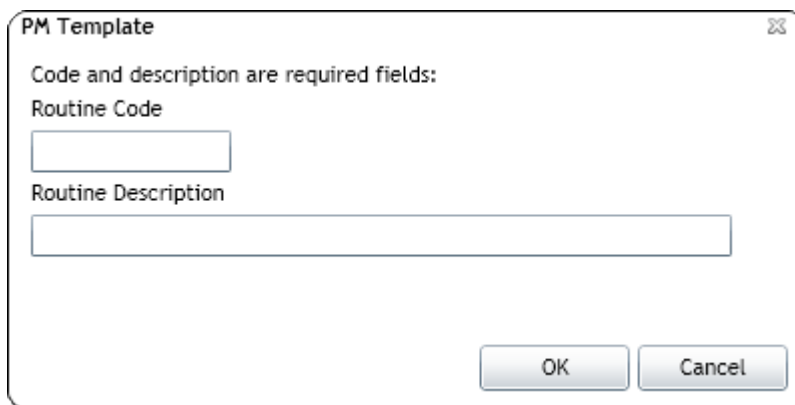
## Create PM/Template



The *Create PM/Template tool* allows users to create a Template from the map based on an asset. If desired this template can then be turned into a PM.

### To create a PM/Template

1. Highlight assets, or User Point Graphics, in the *Data Table*
  - o User Point Graphics are created using the Create Work Point tool.
2. Click the  button. The following popup will appear:



PM Template

Code and description are required fields:

Routine Code

Routine Description

OK Cancel

3. Fill out the Routine Code and *Routine Description*. Click OK.

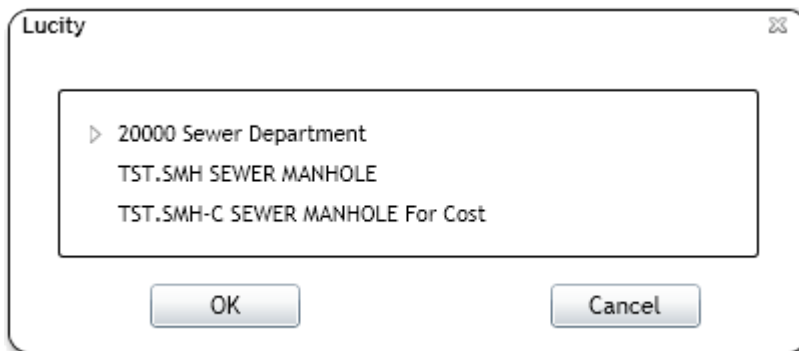
Notes: \_\_\_\_\_

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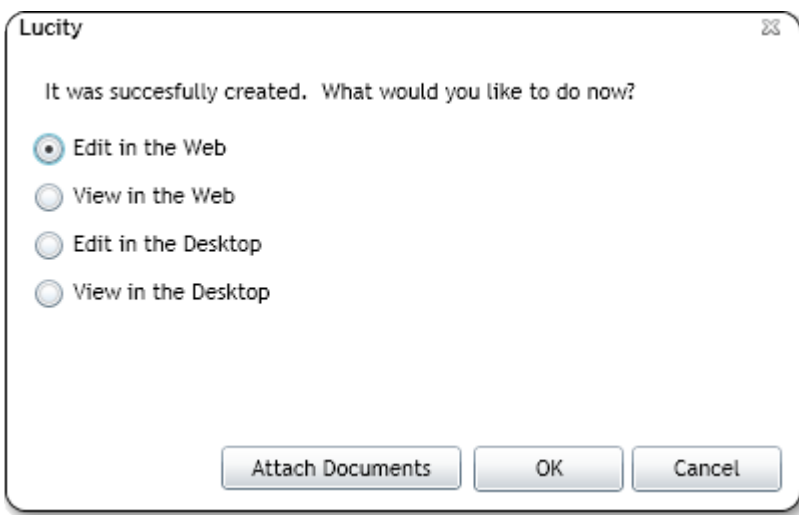
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\_\_\_\_\_

If the highlighted asset does not have a *Default Work Category*, the following popup will appear allowing users to select a category:



4. Only categories that are associated to the highlighted asset will appear.
  - o If a User Point Graphic is used all categories will be available.
5. Select a category and click OK. This is required. The template will be created with the highlighted asset attached and the following popup will appear:



6. Clicking Attach Document will open up a browse window to let the user select a document to attach to the PM/Template.
7. Choose one of the Edit or View options and click OK.
8. Lucy Web or Desktop will open up the request module and go to the new record.
  - o This is created as a template. To turn it into a PM users must edit the record and mark the Scheduled PM box.




## Analysis Tools

In the top right of the Web map are the analysis tools. The tools on this toolbar allow users to Identify and select assets, view work locations, etc...


The Analysis Toolbar provides ways for users find features in the map, get information out of the map, and interact with the related information. It is made up of the following tools

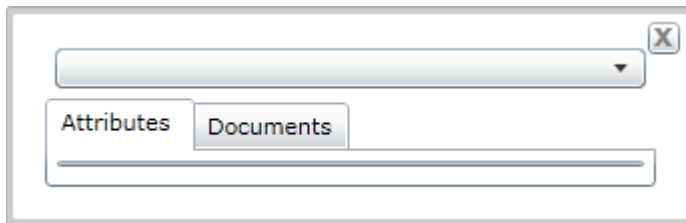
### Identify

 This allows users to draw a box and identify any features in that box. It provides a way to quickly see all the attribute information about a specific feature in the map. It also shows documents attached to features in the map.

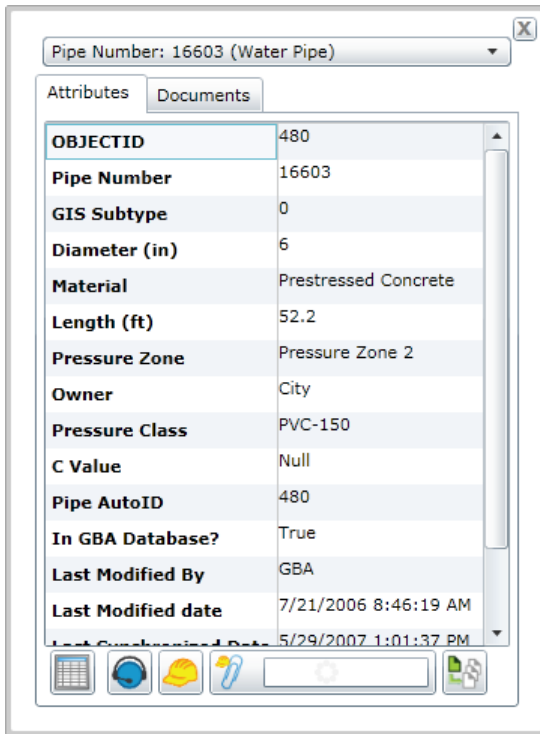
*Note: Some features might have the Identify tool disabled depending on settings controlled by the system admin.*

#### To identify an asset

1. Click  , and then click on a feature in the map.
2. If there is more than one visible feature at that location the identify popup will appear like this:



3. Select the asset to identify from the drop down. This selection can be changed later.
4. The Attributes tab will be filled out with the fields and attributes of the asset



- At the bottom of the Attributes tab several of the Lucity tools from the Data Table appear. These only work if the asset being identified is a Lucity asset and when run from this location they only apply to one asset at a time. For more information about these tools look at the Data table section of this guide.



View Relationships



Create Request



Create Work Order

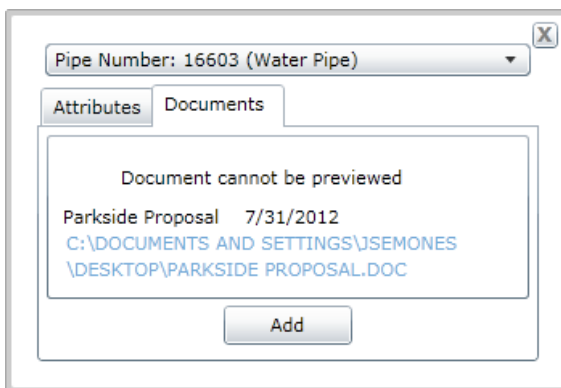


Attach to Work Order



Create PM/Template

- The Documents tab shows any documents attached to the asset and allows users to add new ones. For more information on documents go to the Data table section and read about the document control tool.



- When complete close the Identify window.

## Find



This tool searches for Addresses, Property ID's, Assets, and Customers based on criteria the user enters

The Find tool allows you to quickly search for Addresses, XY coordinates, Property ID tags, Assets, and Customers. Some of these tools will only work if the agency tracks the data the tool is reliant on. For example, if they do not track property ids the Property ID search will not work.

### To use the find tool

1. Click on the Find tool and the following dialog will appear:

The screenshot shows a dialog box with five tabs: Address, Lat/Long, Property ID, Asset, and Customer. The 'Address' tab is selected. Below the tabs are four text input fields labeled 'Address', '(Optional) Cross Street', '(Optional) Zip Code', and '(Optional) City'. At the bottom of the dialog are two buttons: 'Close' and 'Find'.

2. Select the type of search to perform.
  - o Click Address to find an address
  - o Enter an **Address** and **Street**. The program will provide a dropdown list of matches as you type
  - o Enter other optional information
  - o Click **Find**.
  - o A point will be put in the map at the address location.
  - o Click Lat/Long to find an X/Y coordinate

The screenshot shows the same dialog box, but with the 'Lat/Long' tab selected. Below the tabs are two radio buttons: 'Decimal Degrees' (which is selected) and 'Degrees Minutes Seconds'. Below these are two text input fields labeled 'Longitude (X)' and 'Latitude (Y)'. At the bottom of the dialog are two buttons: 'Close' and 'Find'.

- o Select the types of Degrees being entered.
- o Enter the coordinates in the Longitude and Latitude fields
- o Click **Find**.
- o A point will be put in the map at the XY location.

- Click Property ID to search based on Property ID tags

A search dialog box with five tabs: Address, Lat/Long, Property ID, Asset, and Customer. The 'Property ID' tab is selected. Below the tabs is a text input field with the label 'Property ID Tag (supports % for partial match)'. At the bottom are two buttons: 'Close' and 'Find'.

- Enter a *Property ID* number
- Click **Find**.
- A point will be put in the map at the property location.
- Click asset to search through the Lucity assets in the map

A search dialog box with five tabs: Address, Lat/Long, Property ID, Asset, and Customer. The 'Asset' tab is selected. Below the tabs is a dropdown menu labeled 'Feature Type'. Underneath is a text input field with the label 'supports % for partial match'. At the bottom are two buttons: 'Close' and 'Find'.

- Select a *Feature Type*. This list is populated from the Lucity feature classes in the map.
- Type in an asset number.
- Click **Find**.
- The assets will be selected in the map.

Notes: \_\_\_\_\_  
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- o Click Customer to search for a Customer using name, address, or phone number

The screenshot shows a search interface with the following elements:

- Tabs: Address, Lat/Long, Property ID, Asset, Customer (selected)
- Form fields: Name, Address, Cross Street, Apartment, Zip Code, City, Phone
- Checkboxes: Requestor Address, Location of Problem
- Buttons: Close, Clear, Create Request, Find
- Table: Matching Customers (headers: Name, Address, Cross Street, Business, Email, Home Ph)
- Table: Requests in Area (headers: Request #, Status, Status Text, Status Date, Category, Cate)

- o Type in any known information in the fields. Click **Find**. Any matching records will appear in the Matching Customers grid.
- o If the desired customer record appears in the Matching Customers grid, select it by checking the box.
  - The tool will try to locate the associated addresses for that record in the map.
  - Any information missing in the search fields will be filled out from the Customer/Address record.
- o To create a request mark if this is the above address is the *Requestor Address*, the *Location of Problem*, or both
- o Click **Create Request**.

## Selection



This tool allows you to select features. This icon may appear differently depending on which selection mode is currently being used. When the select tool is used the Data Table automatically pops up with the selected features.

The Selection tool has two modes. The buttons for these modes appear to the right of the Selection tool in the Analysis toolbar. Click on one of these buttons to select that mode. Switching modes does not automatically selection the Selection tool. After switching modes, click the Selection tool to use it.




**Create Polygon** This mode allows users to draw a selection polygon. Click to begin the polygon. Each new click creates a new corner for the polygon. Double clicking completes the polygon and selects anything that intersects it.




**Point** This mode allows users to click one point in the map and selects everything near that Selection point.

Remember that layer selectability is controlled using the Map Layers tool.


## Clear All Selections

 Clears any selections currently made.


## Print

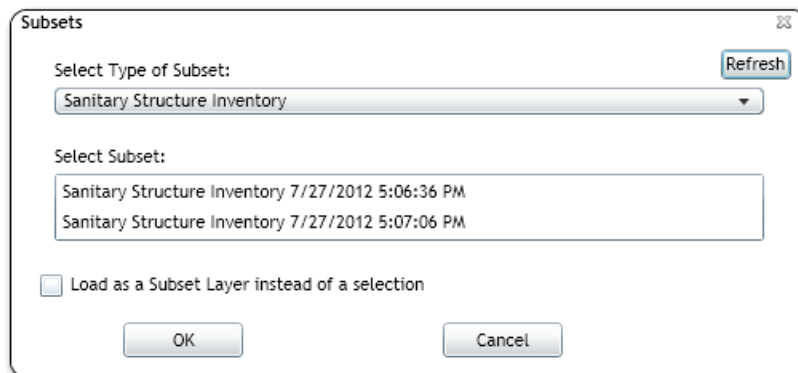
 Prints a copy of the current map extent

## Load Subsets

 Using this tool you can load a subset in the map. This tool can either select the records in the subset, or create a temporary subset layer.

### To load a subset

1. Click . The following popup will appear:




The dialog box titled "Subsets" contains the following elements:

- A "Select Type of Subset:" label with a "Refresh" button to its right.
- A dropdown menu currently showing "Sanitary Structure Inventory".
- A "Select Subset:" label above a list box containing two entries: "Sanitary Structure Inventory 7/27/2012 5:06:36 PM" and "Sanitary Structure Inventory 7/27/2012 5:07:06 PM".
- An unchecked checkbox labeled "Load as a Subset Layer instead of a selection".
- "OK" and "Cancel" buttons at the bottom.

2. Choose an asset type from the *Select Type of Subset* field.
3. The tool will select the features in the subset by default. To create a subset layer instead mark the *Load as a Subset Layer....* box.
4. Click OK.
5. The assets will be selected in the map and appear in the *Data Table* or a layer will be added to the *Map Layers tool*.

## Create Work Point

 Using this tool you can create a point in the map and records its location. These points can be used to add an X/Y point to a work order or request.

### To create a Work Point

1. Select the *Create Work Point* tool and click on a location in the map.
2. A red pin will appear and the *Data Table* will be opened with a tab for UserPointGraphics.
3. Using the *Data Table* users can create Requests and create Work Orders based on one or more points.
4. They can also attach a point to a Work Order.
5. These points can be removed using the tools in the data table.

## Work Order and Work Request Locations



The Show Work Order Locations and Work Request Locations tools allow you to locate and display a filtered set of work order or work request locations. Each tool contains four tabs of options to control the output of the tool.



### To view work locations

1. Go into the Work Order or Request module and create and save a filter for the records you would like to view in the map.
2. In the Webmap click on one of these two tools in the toolbar and it will popup.
3. Select the filter you created in the Work Order or Request module

| User Name | Filter Name                           | Is Adv                   |
|-----------|---------------------------------------|--------------------------|
| GBA       | 2006                                  | <input type="checkbox"/> |
| GBA       | A Services                            | <input type="checkbox"/> |
| GBA       | All Open WOs                          | <input type="checkbox"/> |
| GBA       | COREY C OPEN WO                       | <input type="checkbox"/> |
| GBA       | donnac test                           | <input type="checkbox"/> |
| GBA       | Emergency Response - Open Work Orders | <input type="checkbox"/> |
| GBA       | Eugene Open WOs                       | <input type="checkbox"/> |
| GBA       | Fire Department - Hydrant Reflector   | <input type="checkbox"/> |
| GBA       | Fleet - Open Work Orders              | <input type="checkbox"/> |

My Filters Only Refresh

Hide Show

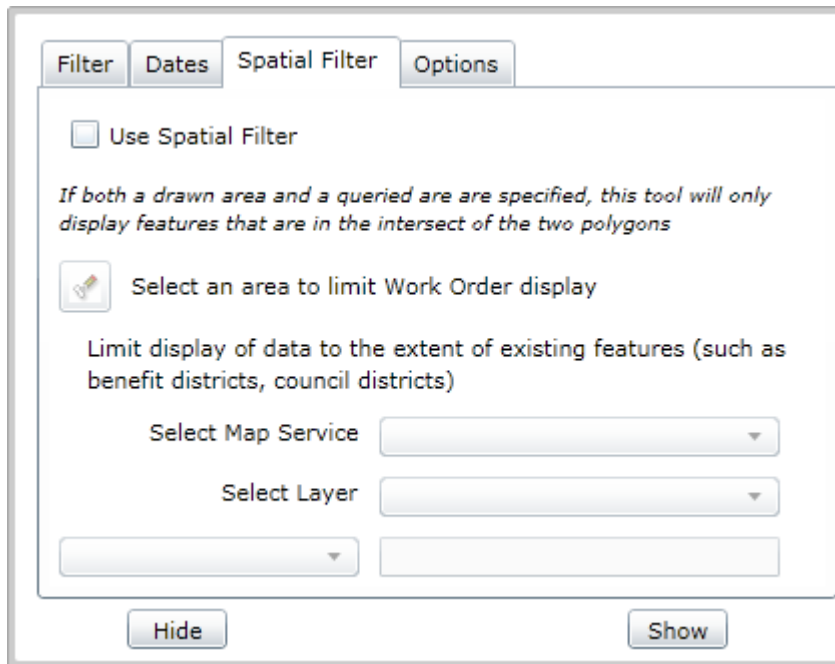
4. Click the Dates tab


Filter on Start Date of Work

Start: 7/1/2012 15 End: 7/31/2012 15

Hide Show

5. If you want to narrow down the filter further to a specific date range check the box and choose the dates here.
6. Click the Spatial Filter tab



7. If you want to restrict the work locations that are displayed to a specific area mark the box.
  - o To draw a polygon of the area you want to see work order for click the
  - o Click the *Select an area...*  button.
  - o Click on a location in the map to start the polygon. Each new click creates a new corner for the polygon. Double clicking completes the polygon.
  - o The selected area will be highlighted in red as below:





- To restrict the area based on a polygon in another feature class
  - Mark the Use Spatial Filter box.
  - Select a Map Service.
  - Select a Layer from the map service. This must be a polygon feature class.
  - The bottom two boxes are to select a specific polygon. Use the drop down box to select a specific feature.

8. Click the Options Tab

The screenshot shows a dialog box with four tabs: Filter, Dates, Spatial Filter, and Options. The Options tab is active. It contains the following settings:

- Use Clustering for Results Display
- Radius: 5
- Cluster Size: 10
- Color code based on field
- Color Scheme: [Multi-colored bar]
- Main Task Text: [Dropdown menu]
- If a Work Order has Addresses/XYs and Assets:
  - Use the Assets
  - Use the Addresses and X/Y Coordinates
- Do not retrieve comment information

Buttons: Hide, Show

9. This tab allows you to change the following default settings.

- Radius and Clustering Size - These options are designed to make the map less cluttered. When users are viewing the locations after running the tool the app will group work orders that are close together. Clicking on a cluster will expand the cluster so that users can drill down and see some individual work order information without zooming in. As users zoom in the locations will ungroup and show their individual locations. This is turned on by default.
  - The Radius is how close together locations must be to be grouped.
  - The Cluster Size puts a cap on how many records a cluster can hold and still expand. If a cluster exceeds this number users will have to zoom in until the cluster breaks down into smaller clusters before they can expand them
- Color code based on field - This colors the location dots based on a field. Check the Color code... box. Select a field in the drop down box to base the color coding off. Choose a color scheme.
- If a Work Order has Addresses/XYs and Assets - Work orders can use both assets and address/xy information to provide a location. Use this field to tell the program which type of information to use for the location when a work order has both available.
- This only shows up for the Work Order Location tool.

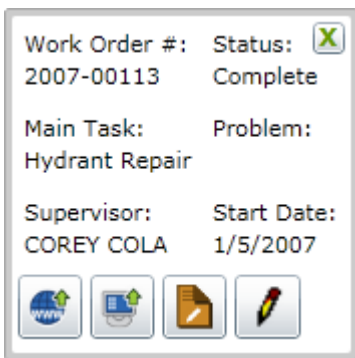
- o Do not retrieve comment information - It takes longer to include comment information when processing the locations. Unmark this box to include comments that are attached to work orders or requests.

10. Click the show button. The bottom of the tool will extend to show it progress.

11. After the process is complete new layers will be added to the map and a new page will open in the data table. There will one layer for point assets, one for line assets, and one for polygon assets.

*To interact with the work order locations*

1. Click on a work location in the map for a popup with information about the work order or request.



2. Along the bottom are four tools to work with this record.



**Open in Web** - Opens the selected record in Lucity Web.



**Open in Desktop** - Opens the selected record in Lucity Desktop.



**Edit in Web** - Opens a form for the selected record in Lucity Web.



**Edit in Desktop** - Opens the selected record in Edit mode in Lucity Desktop.

3. Work orders and requests can also be selected in the Data table and there are similar tools available there.

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## Route Work Orders



With this tool you can take a set of work orders from a work order filter and locate them in the map. It then uses a GIS routing service to find the shortest route between the work orders. This helps work crews to more efficiently plan their work for the day.

### To create a work order route

1. Go into the Work Order module and create a filter for the work orders you would like to route.

The screenshot shows the 'Routing' dialog box with the following content:

| User Name | Filter Name                           | Is Advanced              |
|-----------|---------------------------------------|--------------------------|
| GBA       | 2006                                  | <input type="checkbox"/> |
| GBA       | A Services                            | <input type="checkbox"/> |
| GBA       | All Open WOs                          | <input type="checkbox"/> |
| GBA       | COREY C OPEN WO                       | <input type="checkbox"/> |
| GBA       | donnac test                           | <input type="checkbox"/> |
| GBA       | Emergency Response - Open Work Orders | <input type="checkbox"/> |

My Filters Only Refresh

Data in the Filter:

| Work Order # | Category Text | Main Task Text | Problem Text | F |
|--------------|---------------|----------------|--------------|---|
| 2007-01700   | Hydrants      | Hydrant Repair |              |   |
| 2007-01699   | Hydrants      | Hydrant Repair |              |   |
| 2007-01626   | Hydrants      | Hydrant Repair |              |   |
| 2007-01625   | Hydrants      | Hydrant Repair |              |   |
| 2007-01624   | Hydrants      | Hydrant Repair |              |   |

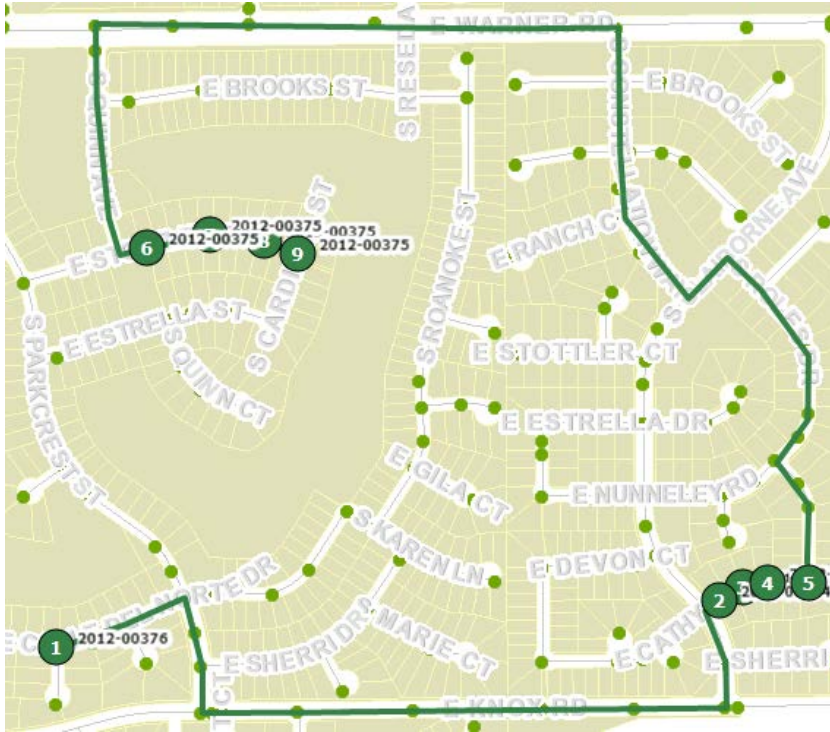
Route All  
 Route Selected

OK Cancel

2. In the Webmap click the routing tool and it will popup.
3. On the routing tab select the filter that you would like to use. The work orders in this filter will be loaded into the bottom grid.
4. At this point you can either choose to Route All of the work orders in that filter, or Route Selected.
5. If you choose route selected you need to select one or more work orders in the bottom grid
6. Click on the options tab. This allows you to change several of the tools default options.
  - o **One Route or Multiple Routes** - This option allows the user to create one route for all the selected work orders, or to create multiple routes based on Supervisor, Lead Worker, or Crew. This would allow them to quickly create several routes at once.
  - o **Display Driving Directions** - Check this box to include driving directions with the map.

- Use the Assets or Use the Address and X/Y - Work orders can use both assets and address/xy information to provide a location. Use this field to tell the program which type of information to use for the location when a work order has both available.
- Vehicle Starting Location - By default the work order route will start at the location of the first work order, or at an address specified by the system admin. Enter an address in this field to start the route at an alternate location.

7. Click OK to start the work order route.



Notes: \_\_\_\_\_

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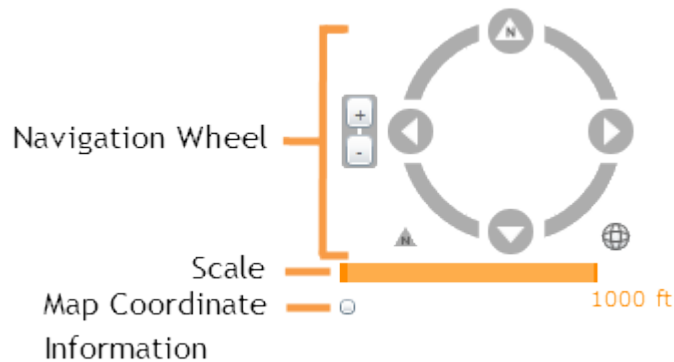
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## Navigation/Information Tools

The navigation wheel is in the bottom left corner. It provides a way to quickly navigate around the map. There are also a couple of tools that provide map information



**Navigation Wheel** - click on different parts of the wheel for different functions.

- Click the four arrows on the wheel to move the map North, East, South, and West.
- Click and drag the other areas of the compass to rotate the map in any direction.
- Click the arrow to the lower-left of the compass to reset the map to North.
- Click the globe icon to the lower-right of the compass to zoom to the full extent.
- Click the + and - buttons to the left side of the compass to zoom in or zoom out in the map
- Along with these functions users can:
  - Hold down the **Shift** key, click and drag the mouse to zoom to a selected area in the map.
  - Use the navigation tools on the [Map Management Toolbar](#)

**Scale** - Shows the scale the map is currently at. This changes as users zoom in and out.

**Map Coordinate Information** - After clicking this button XY information will appear in the lower left corner for wherever the mouse point is currently pointing. It will also display the map WKID. Click this button again to turn off.

Notes: \_\_\_\_\_

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