



# User Guide for the Corporate GIS Web Viewers

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Prepared by Corporate GIS

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## 1. Welcome

The eThekweni Municipality, Corporate GIS Website consists of three Web Viewers

- Public Map Viewer
- Oblique Viewer
- Durban Solar Map Viewer

The User Guide for the Corporate GIS Web Viewers enables users to become competent with the chore functionality of the Web Viewers. It could also serve as a training manual. This is with the assumption that the user is familiar with general GIS concepts.

## 2. Purpose

The eThekweni Municipality has rights and duties with regard to the rate payers and the general public. The Municipality provides services. The infrastructure of which is situated on both private and public land. The Web Viewers are tools for improving the quality, accuracy, efficiency and responsiveness of local government services.

## 3. Web Viewers

This section introduces the main interface components of the Corporate GIS Website. The Web Viewers is where users can view the Municipality's data.

### 3.1. Public Map Viewer

The Public Map Viewer contains standard navigation functionality such as pan, zoom and searches.


The Public Map Viewer consist of the following widgets – Identify, Layers, Bookmarks, Draw, Measurement, Print, Google Street View, Searches.

#### 3.1.1. Standard Navigation


##### 3.1.1.1. Pan

- In the Web Map Viewer, left click and hold down the mouse, then drag to the desired location


##### 3.1.1.2. Zoom In

- In the Web Map Viewer, click the **Zoom In** button 
- Or roll the mouse wheel forward

##### 3.1.1.3. Zoom Out

- In the Web Map Viewer, click the **Zoom Out** button 
- Or roll mouse wheel back

#### 3.1.1.4. Default Extent

- Click the **Home** button  to Zoom to the full extent of the map

#### 3.1.1.5 Search

##### About Search

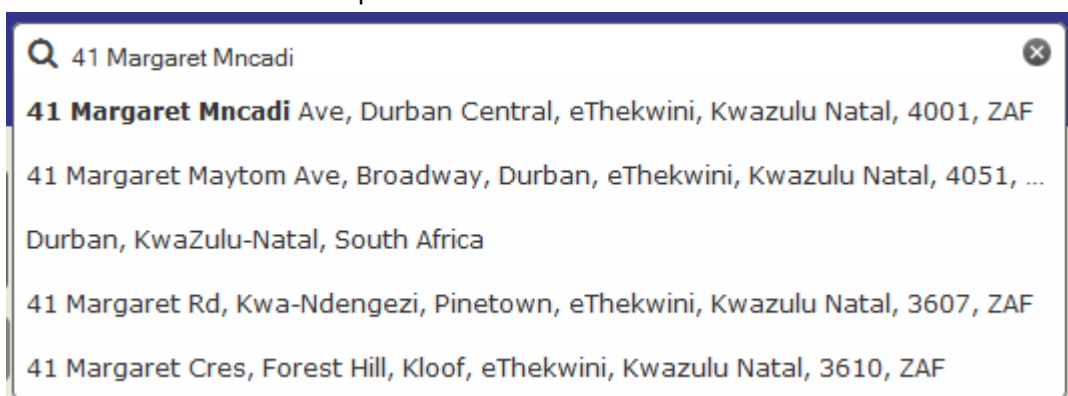
The standard Search widget allows you to search for an address or place. When entering a portion of an attribute value, the Search widget will return a list of addresses or places that contain that value in any of the field's attributes. When searching, the Search widget makes use of ArcGIS Online content and not Corporate GIS data.


##### How to use Search

- Enter an address or place in the **Search** textbox



- Select the desired address or place from the list



- The desired address or place is zoomed into and marked with a blue dot 

#### 3.1.2. Widgets

##### 3.1.2.1. Chose Data Layer to Identify on

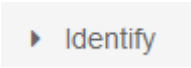
##### About Identify

Use the Identify widget to view attribute values for a feature.

By default –

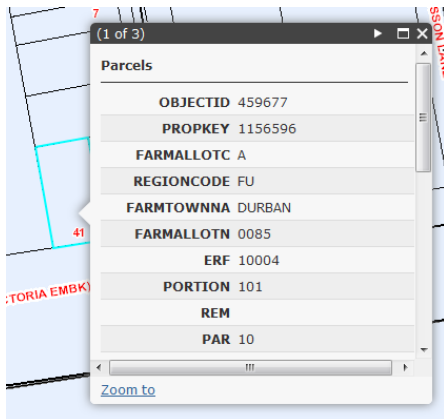
- a) The Identify widget is set to identify from “All Visible Layers” (i.e. the top most layer)

## How to use Identify

- Click the **Identify** widget 
- Use the drop down to choose "All Visible Layers" or a single layer to identify from

Choose "All Visible Layers" or a single layer for identify:

- Click on a location in your map to identify the features at the location



### 3.1.2.2. Layers

#### About Layers

Layers are listed together in Groups as being related in some way. For Example the Parcels Layer is listed in the Cadastral Group. The Groups and subgroups are –

- Social Services
  - SAPS
  - Fire Stations
  - Health
  - Billboards
  - Institutions
  - Cemeteries and Crematoria
  - Transport
- Infrastructural Services
  - Sanitation
  - DSW
  - Water
  - Coastal Stormwater
  - Natural Drainage
  - Environment
  - Geology

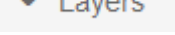




- Cadastral
  - Addressing
  - Cadastral
  - Town Planning
- Aerial Photos
- BaseMap Data
  - Roads
  - Buildings
  - Map Railroad Link
  - Map Facility Area
  - Water
  - Map Admin Builtup Area
  - South Africa

By default –

- a) The Aerial Photos Layer is Unchecked (set to be invisible) and its toggle bar is set to maximum
- b) The Cadastral and BaseMap Data Groups are Checked (set to be visible). Some Layers within the two different Groups are checked.

## How to use Layers

### Vector Data

- Click the **Layers** widget 
- To set a Layer to be visible –
  - Check the relevant Group
  - Expand the Group
  - Find and Check the Layer
  - For Example to set the Parcels Layer to be visible
    - Check the relevant Group   **Cadastral**
    - Expand the Group
      -  **Cadastral**
      -  **Addressing**
      -  **Cadastral**
    - Find and Check the Parcels Layer   **Parcels**

### Raster Data (Aerial Photos)

- Check the Aerial Photos Layer in order to view the photography

### Aerial Photos

- Slide the Aerial Photos bar to set (adjust) the transparency of the Aerial Photos in order to see underlying Layers

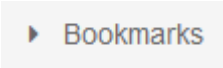
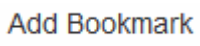


#### 3.1.2.3. Bookmarks

##### About Bookmarks

A Bookmark identifies a particular geographic location that you want to save and refer to later. You might need to create a bookmark that identifies a study area or a favourite place.

##### How to use Bookmarks

- Click the **Bookmarks** widget 
- Pan and zoom to your area of interest
- Click **Add Bookmark** 
- Enter the name of the new bookmark and press the Enter key

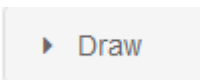
Add Bookmark

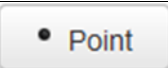
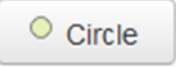
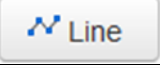
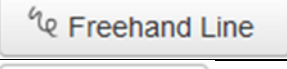

#### 3.1.2.4. Draw

##### About Draw


The Draw widget is used to add graphical elements on your map. You can quickly draw new points, lines, circles and polygons.

##### How to use Draw

- Click the **Draw** widget 
- The Draw buttons and their functions are –

Buttons	Name	Function
	Point	Draws a point
	Circle	Draws a circle
	Line	Draws a line
	Freehand	Draws a freehand line
	Polygon	Draws a polygon




 Freehand Polygon	Freehand Polygon	Draws a freehand polygon
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### 3.1.2.5. Measurement

#### About Measurement



The Measurement widget lets you measure Distance between points of interest; Area on the map and lets you retrieve the Latitude and Longitude of a location.

When using the Measurement widget, with each click on the map the Identify widget is triggered, this is a bug embedded in the API. Click the **Close** button  to close the Identify widget.

#### How to use Measurement: Area and Distance

- Click the **Measurement** widget


▼ Measurement



- Click the **Area** icon  or the **Distance** icon 
- The units of measurement will appear **Sq Meters** ▼ or **Meters** ▼
- Click the arrow to change the units of measurement
- Sketch the desired shape on the map
- Double-click to end the line or polygon
- The **Measurement** Result re displayed below the measurement icons

#### Measurement Result

316.8 Sq Meters

#### Location

- Click the **Location** icon 
- The units of measurement will appear **Degrees** ▼
- Click the arrow to change the units of measurement
- Click the desired location on the map
- The Latitude and Longitude of the location will be displayed in the widget, to the right of the green icon

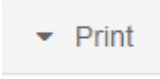


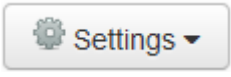
Measurement Result		
	Longitude	Latitude
	30.767303	-29.888350
	30.779666	-29.884766

### 3.1.2.6. Print

#### About Print

The Print widget allows you to export the current display extent to a file, such as an EPS, GIF, JPG, PDF, PNG32, PNG8, SVG, SVGZ.

#### How to use Print

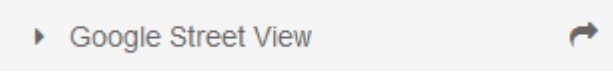
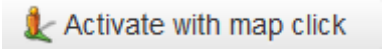
- Click the **Print** widget 
- Enter the Title of the file  
Title:
- In the **Format** drop down, select the file format  
Format:
- In the **Layout** drop down, select the page layout  
Layout:
- Click the **Print** button  to export the map
- Click the file name to open the file in a New Tab  
1.  **41 Margaret Mncadi Ave**
- Click the **Settings** button  to change **Settings**

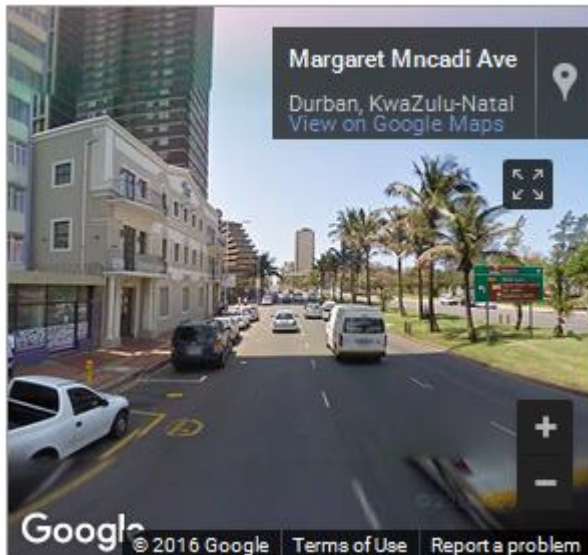
### 3.1.2.7. Google Street View

#### About Google Street View

The Google Street View widget consumes a technology feature in Google Maps that provides panoramic (side) views from positions along many streets.

#### How to use Google Street View

- Click the **Google Street View** widget 
- Click the Activate with map click button 
- Click on the Web Map Viewer
- The panoramic (side) views of the location will be displayed in the widget

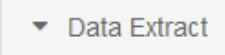
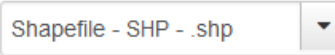

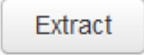


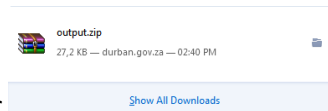
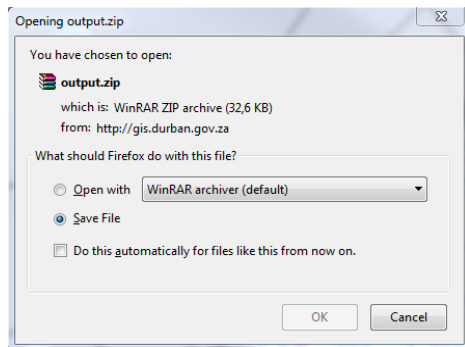
### 3.1.2.8. Data Extract

#### About Data Extract

The Data Extract widget is available in the Staff Map Viewer only. The widget enables users to extract a subset of data from an area of interest to a specific spatial reference and format. The extracted data is shipped in the following formats: DWG, DXF, DGN, GDB, SHP and written to a zip file that is saved to the Downloads folder.

#### How to use Data Extract

- Click the **Data Extract** widget 
- In the **Format** drop down, select a file format 
- Click the **Layer** drop down, select a layer 
- Click the **Extract** button 
- Await result **1. Succeeded**
- Select **Save File**



- Open file location i.e. Downloads folder

### 3.1.2.9. Searches

#### About Searches

An Attribute Query helps you select or view certain data on the map based on that data's attributes. The available Attribute Queries or Searches are –

- Hexagons
- Police Stations
- Hospital
- Cemetery
- Educational Institutions
- Dwelling Number
- Suburb
- Rate Number
- Street Address
- Cadastral Description
- Property Key

#### How to use Searches

- Click the **Searches** widget
- In the **Select Search or Layer** drop down, select the Search or Layer

**Select (Search or Layer):**

#### Search or Layer Types –

- **Hexagons**
  - Enter the text you want to search for

**Property Key Search: (at least 3 chars)**

- **Police Stations**

- Enter the text you want to search for

**Name: (at least 3 chars)**

- **Hospital**

- Enter the text you want to search for

**Name: (at least 3 chars)**

- **Cemetery**

- Enter the text you want to search for

**Name: (at least 3 chars)**

- **Educational Institutions**

- Enter the text you want to search for

**Name: (at least 3 chars)**

- **Dwelling Number**

- Enter the text you want to search for

**Dwelling Number: (at least 3 chars)**

- **Suburb**

- Enter the text you want to search for

**Suburb Name: (at least 3 chars)**

- **Rate Number**

- Enter the text you want to search for

**Rate Number: (at least 3 chars)**

- **Street Address**

- Enter the text you want to search for

**Street Number:**

**Street Name: (at least 3 chars)**

**Street Type: (at least 1 chars)**

- **Cadastral Description**

- Enter the text you want to search for

**Select (Search or Layer):**

**FarmName: (at least 3 chars)**

**Erf Number: (at least 1 chars)**

**Portion:**

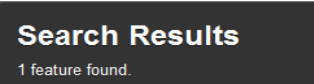
- **Property Key**

- Enter the text you want to search for

**Property Key: (at least 3 chars)**

- Click the **Search** button


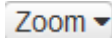

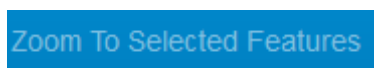
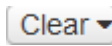




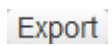
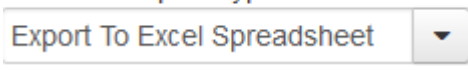


### Search Results –



**Search Results**

1 feature found.


- A **Search Results** popup window will display on the top right hand corner of the Web Map Viewer indicating features (records) found

- Click the **Results Grid** arrow  at the bottom of the Web Map Viewer to show the search results
- On the Results Grid, click the record that you want to Zoom to or
- Click the **Zoom** button  option to –
  - Zoom To All Features 
  - Zoom To Selected Features 
- Click the **Clear** button  option to –
  - Clear All Features 
  - Clear Selected Features 
  - Clear Grid 
  - Clear All 
- Click the **Export** button  to export records –
  - In the **Select an Export Type** drop down, select the export type  
 Select an Export Type:  

  - Click the **Export** button 
- Click the **Grid Display** plus sign  to discard fields in the Grid

### 3.1.2.10. Legend

A Legend tells a map reader the meaning of the symbols used to present features (Layers) on the map. Legends consist of examples of the symbols on the map with labels containing explanatory features on the map.

## 3.2. Oblique Viewer

Open the Oblique Viewer, click the **About** button  and click Tutorial: Download.

### **3.3. Durban Solar Map Viewer**

Under construction.