

## Exercise 1: Use of Drawing Tools

### Purpose

The purpose of this exercise is to teach the user how to use the Drawing Tools in MapAble®. The learning process is based on the preparation of a Site Plan for the Mbombela Stadium.

### Finding the site

The first step is to locate the stadium. The stadium can be found manually using a combination of the pan mode and zoom mode in your MapAble workspace.

The second method is to utilise the GPS coordinate location tool located in the right-hand corner of your workspace by click on the coordinates.

Latitude:	25°47'35"S	Longitude:	29°27'46"E	Zoom Level:	17
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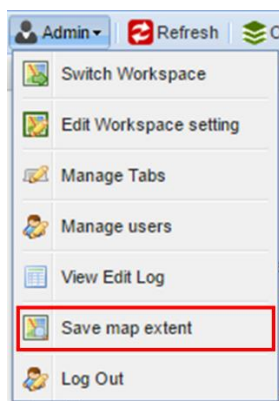
The following box will appear. Type in the coordinates shown below and you will be redirected to the Mbombela stadium:

**MapAble**

Latitude:	-25.46203
Longitude:	30.929904
Zoom Level:	17

The final method to find the stadium is the search and report tool to the top left corner of your workspace. Make sure that OpenStreetMaps is selected under the layer, then type in Mbombela Stadium in the find box. Click on the result of the search which will redirect you to the Mbombela Stadium.

Once you have zoomed or moved to the Mbombela Stadium, you can save the map extent to quickly return to your current extent. Click on the Admin drop-down then select Save map extent.



You can return the map extent of Mbombela stadium by clicking on the  icon

## Creating the site map

The following steps should be followed to create the final Mbombela Stadium Site Map:

- Select NGI – Aerial photos for your background map
- Capturing of all the major roads on the site;
- Capturing of buildings that are onsite including the stadium;
- Identification of the entrances and major walkways to the stadium where patrons enter;
- Identification of the major parking areas; and
- Print and export site plan.

To start activate the drawing mode in your workspace click on the drawing mode button



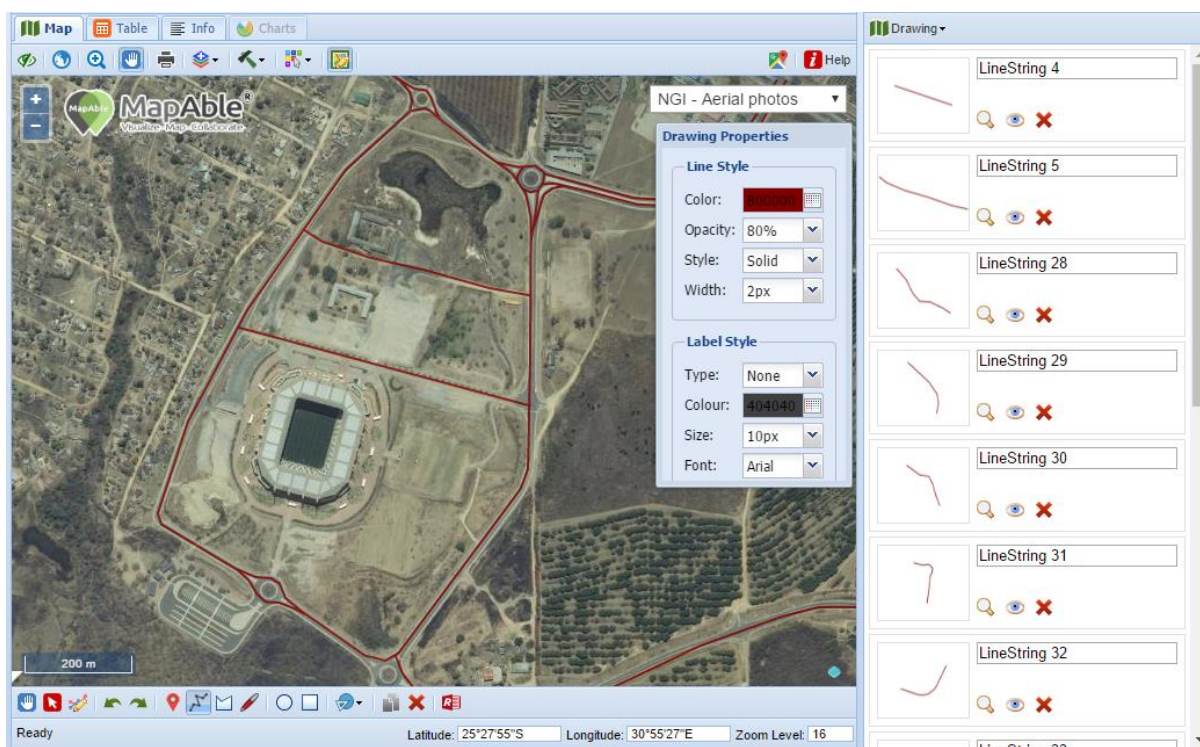
## Capturing the roads





Use the draw polyline tool to draw in all the main roads that link the site/stadium to the R104 -Samora Machel Dr.

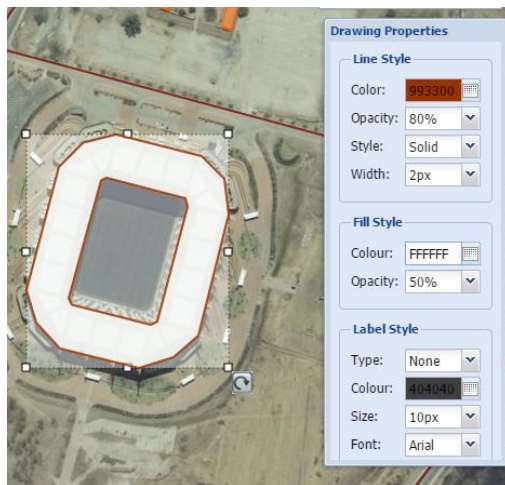


You can use the edit vertex tool to edit roads (polylines) that you have drawn.




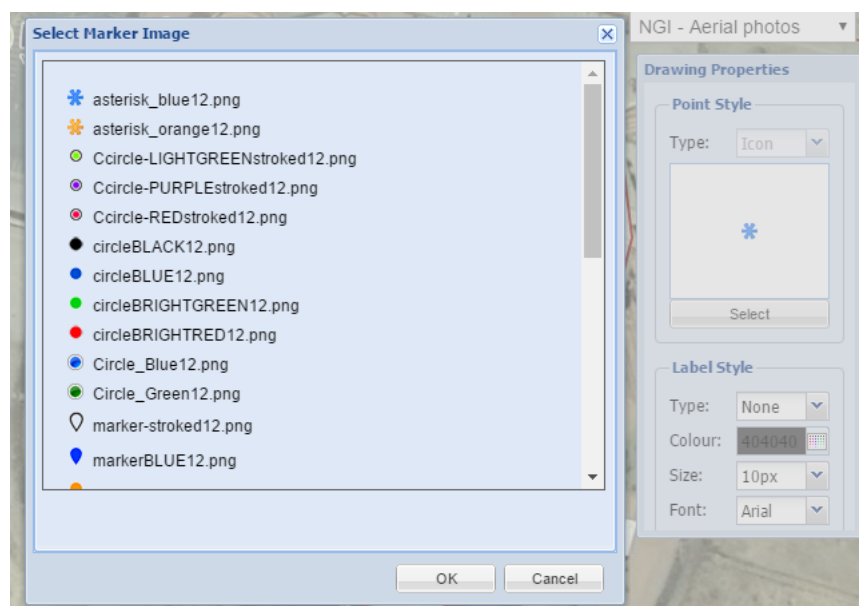
## Capturing the building on site

The first task is to capture the stadium. To start use the polygon mode  to capture the outline of the stadium. Then capture the sports field, select both by using the select tool  and clicking on the large polygon first, then holding the shift key, clicking on the smaller polygon (sports field). Once both polygons are selected, use the "Difference" function in the Boolean operations to remove the sports field's area from the stadium. This will leave you with the building profile of the stadium. Once you have completed this, capture the remaining buildings on site and select the buildings to individually colour each building.



## Identification of the entrances and main walkways to the stadium where patrons enter

Click on the marker mode  and select the asterisk\_blue12.png.







Identify and place a marker at the entrances to the stadium:

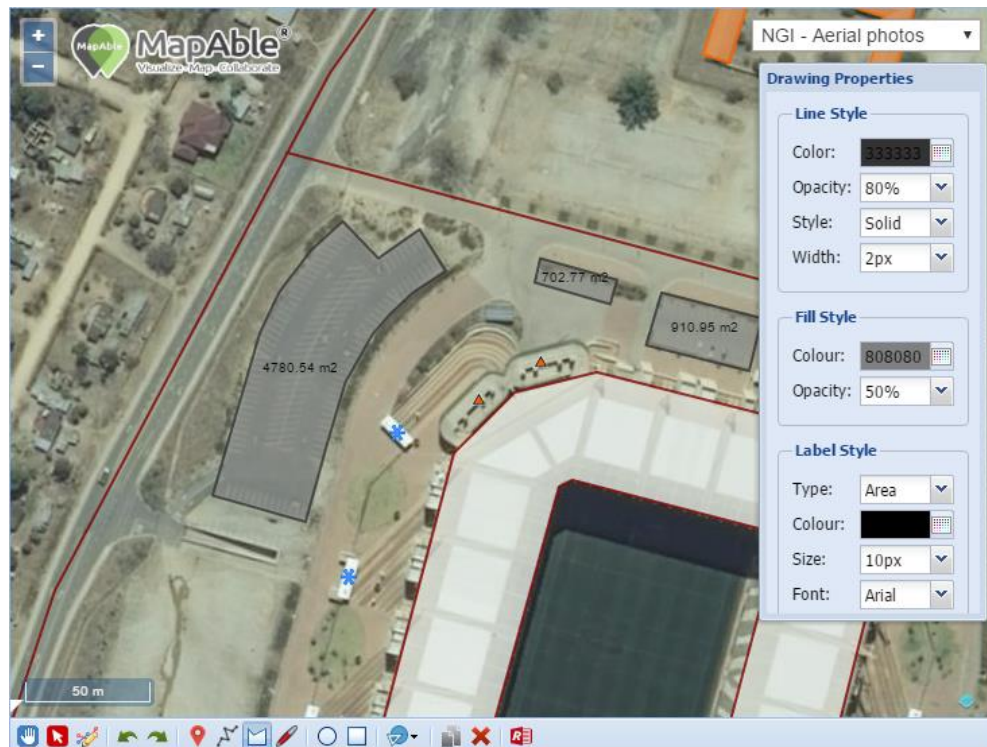


Using a different marker, locate the major walkways/stairway of the stadiums:




## Identification of the major parking areas:

Use the polygon mode  to capture all the parking areas around the stadium. As part of the site plan, the size of each parking area needs to be indicated. To activate the area label of the polygon, use the select tool  and click on the parking area you've drawn. Go to the label style section in the drawing properties menu and select the "Area" in the Type dropdown. You are also able to change the font, size and colour of the label.

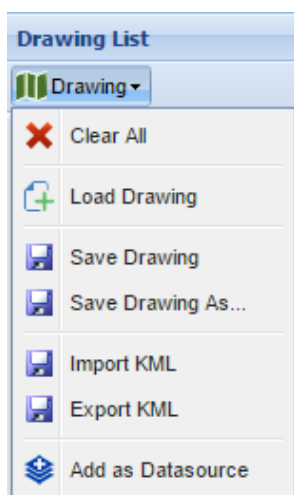


## Print, save and export the site plan

Select the print button  and this will open the print preview where you can make edits and print the site plan:

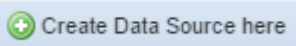


## How to save, load and export your drawing:



Click on the drawing dropdown list in the drawing list and select the "Save Drawing As...". Here you can name and save your drawing to your workspace. You can reload your drawing at another time by selecting the "Load Drawing" icon.

You can export your drawing as a KML by selecting the "Export KML" item.

If you want to add your drawing as a normal layer which you can edit and add attribute data click on the "Add as Data" source item, where after you select your workspace and select the  button. The layer will then be loaded into your workspace where you can edit the layer normally. The process automatically separates the different types of vector files i.e. polylines, polygons and points into different layer files.

## Need to know more?

If you have any questions about these training sessions, please contact us by email on [info@mapable.co.za](mailto:info@mapable.co.za) for more information