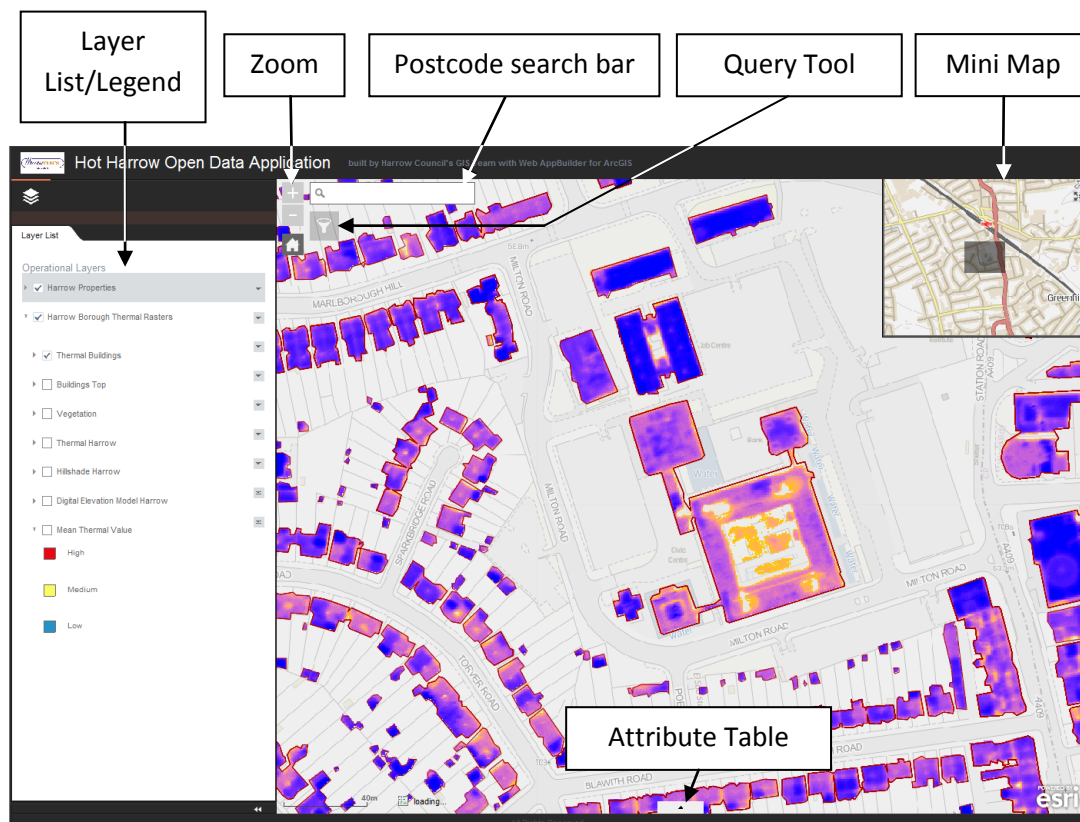


## Thermal Harrow Open Data Application Guide

The Thermal Harrow Addresss Lookup is a tool designed to allow users to search for their homes, identify their homes and identify if their homes have a greater than average thermal emissivty (heat loss).

### The Application

The application can be accessed via URL by copying and pasting the URL below into your address bar (<http://harrow.maps.arcgis.com/apps/webappviewer/index.html?id=0618391e006244f6ba36a61899196189>).



### Features


**Postcode Lookup** – enter the postcode of the address you are looking for (due to the geocoder used only postcodes can be found therefore addresses entering addresses will not work).

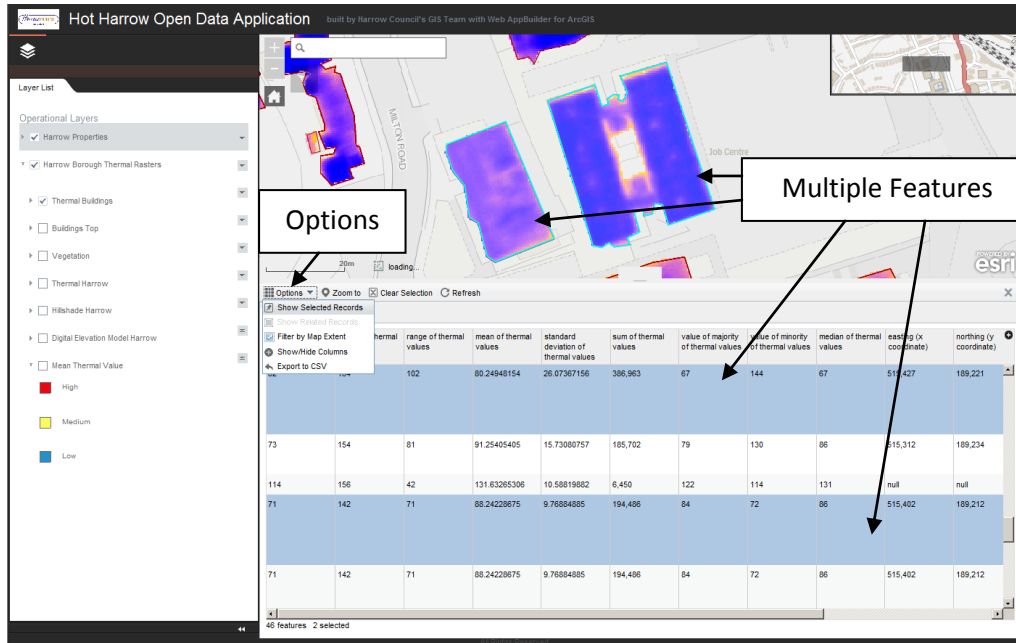
**Zoom** – allows adjustments to different scales.

**Pan** – panning allows you to move around the map this can be done by left clicking and dragging on the map itself or by left clicking and dragging the grey square on the mini map.


**Legend** – displays the visible layers and the key representing what each symbol means when clicking the grey arrow (▾) next to layer. The legend allows you to chose which layers are active by ticking the box (☑) next to the layer you want to be active.

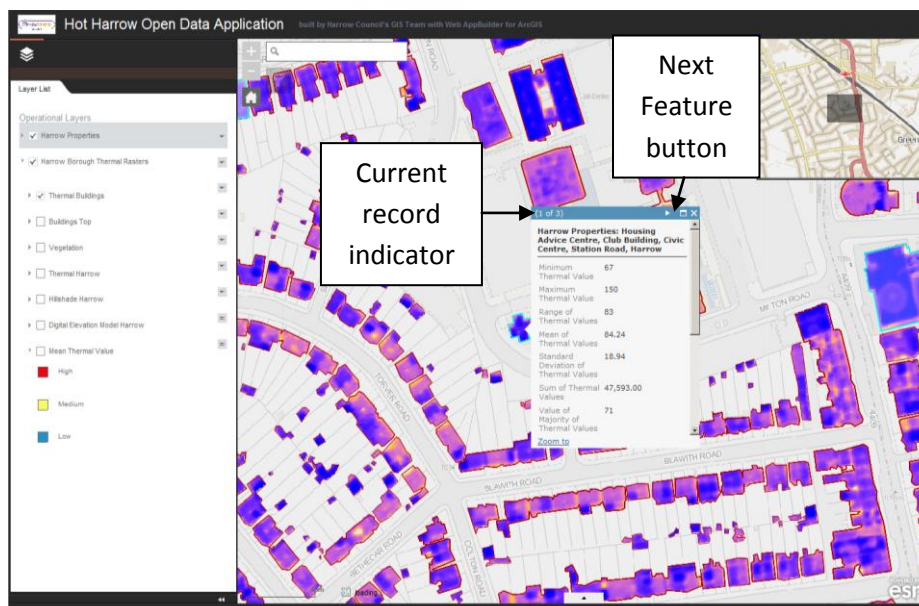
NOTE: having multiple layers active will only display the layer which is highest on the list (excluding Harrow Properties or Thermal Buildings as these layers are partially transparent or hollow features).

**Attribute Table** – accessed by clicking the long grey icon with an arrow at its centre (  ) allows you to view multiple attributes of multiple features and export the selected features as a .CSV file.



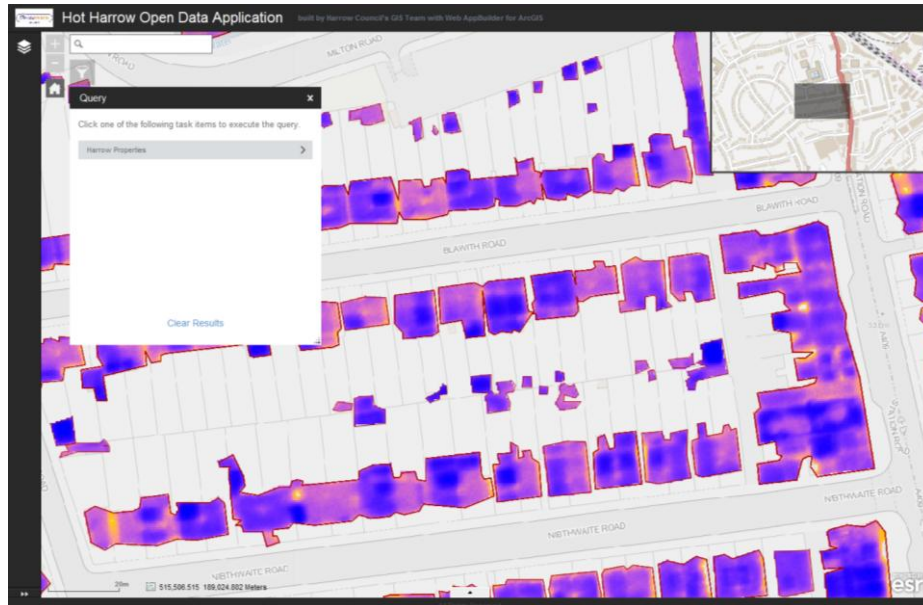
The 'Options' menu allows you to choose 'Filter by Map Extent' (only items that appear in your map view will appear in the attribute table), 'Show/Hide Columns' to remove any unwanted attributes and 'Export to CSV' to export the selected data (highlighted in blue). To select items in the attribute table simply click them and to select multiple attributes hold CTRL (to select one by one) or SHIFT (to select all values between the first and last value you select).

**Querying** – To query a single feature simply click it. Multiple records can be stored within a single feature so to alternate between the various records click the Next Feature button (  ).

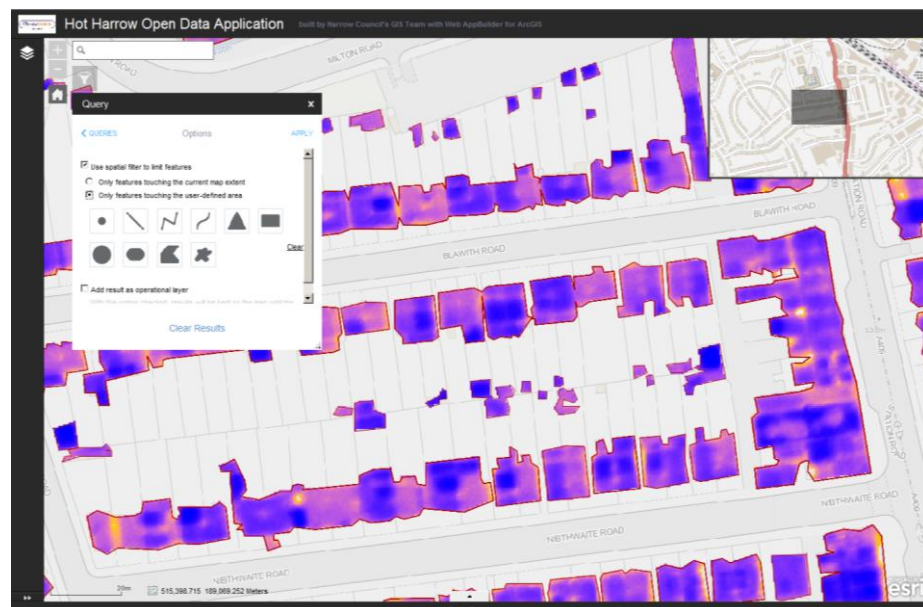


To query multiple features at once they can either be selected in the attribute table and exported as a CSV as shown previously or selected using the Query tool (🔍).

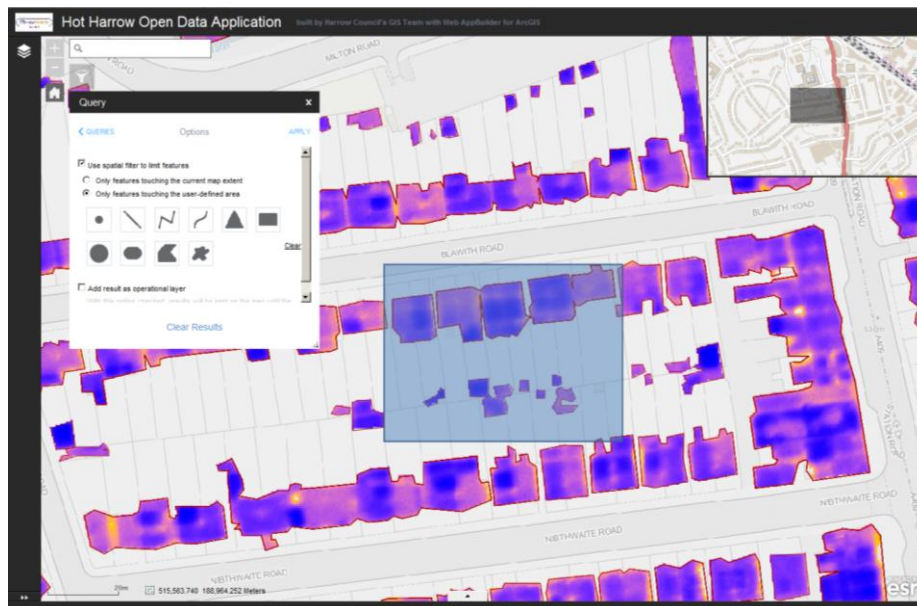
Click the 'Query' tool (🔍), select the 'Harrow Properties' option:




Tick the 'Use spatial filter to limit features', select 'Only features touching the user-defined area', select the 'Add result as operational layer' and choose the shape you want to select features using by left clicking on it:



Then left clicking and dragging on the map to highlight the features you want to select and click 'APPLY':




This will produce a new layer in the Layer List with the selected features in it. Clicking the drop down arrow (  ) on the right hand side of the layer from your query results (should be name Harrow Properties\_Query Result or similar) and selecting 'Open Attribute Table' will open the attribute table. This table should contain only the features you have selected in your query. This table can then be exported as previously mentioned.

## Layers

**Harrow Properties** – polygon features that store the values for the underlying thermal data.

NOTE: turning the Harrow Properties layer off will mean you cannot query any thermal values as this is where the thermal values are stored!

NOTE: due to the creation of polygons from LiDAR data there is no distinction between buildings or structures that touch each other. Therefore multiple houses (features) will be stored in the same polygon and can be navigated between using the 'Next Feature' button (  ) once the feature has been queried (or selected).

**Thermal Buildings** – raster layer displaying the clipped (from the Thermal Harrow Layer) thermal emissivity values of properties within the Borough of Harrow.

**Building Tops** – raster layer created from LiDAR aerial imagery visualising the tops of structures and properties within Harrow.

**Vegetation** – raster layer identifying the extent of vegetation (predominantly trees) that could be identified and extracted from aerial LiDAR imagery.



**Thermal Harrow** – raster layer displaying the thermal emissivity values of the whole Borough of Harrow (not just properties).

**Hillshade Harrow** – LiDAR aerial imagery shaded using the hillshade effect to force a 3D appearance from properties, buildings and features that can be identified.

**Digital Elevation Model Harrow** – a raster layer showing the variations in elevation across the Borough of Harrow.

**Mean Thermal Value** – the Harrow Properties (LiDAR derived polygons) layer symbolised to show whether the mean (average) thermal value within the property/s is higher, the same or lower than the average of the Borough.

#### Functionality

	Query	Query by Defined Area	Attribute Table	Alternate between layers	Address Search	Postcode Search	Overview Map
Thermal Harrow Address Lookup	✗	✗	✗	✗	✓	✗	✗
Thermal Harrow Open Data Application	✓	✓	✓	✓	✗	✓	✓

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