

RBKC Parking Occupancy Survey 2011

Background

The Royal Borough of Kensington and Chelsea (RBKC) is an inner-city London authority. It covers an area of just over 12sqkm, is a predominantly residential borough (with a population of around 160,000) and has approximately 215km of publicly managed roads.

The Borough’s parking stock largely comprises Residents’ Bays and Pay and Display bays which restrict parking during controlled hours only. There are also a significant number of other bays such as car club, diplomat and disabled bays, which restrict parking to those user types at all times. Additional parking is permitted on single yellow or red lines in locations which are considered acceptable and outside of controlled hours.

Requirements

For this project, RBKC required:

- Parking Supply Survey , ie, a record of what parking bays are currently in place
- Parking Demand Survey, ie, a record of the usage on a particular day and time
- Reports (both tabular and thematic maps) at different levels of aggregation – individual bays, by street, by 100m grid, by Wards and by parking control area

Previous surveys had been carried out and the results stored in a MapInfo based system. Since these surveys, RBKC has implemented a corporate GIS based on ESRI products. An important part of the project was then to make data from this project and the previous surveys available in ArcMap.

Process

For the Supply survey, it was decided to split the kerb into one (or more) types of parking bay. The details and location of the bay types were recording directly onto existing base mapping (Ordnance Survey MasterMap) in the field. Positional accuracy of better than +/- 10cm was achieved using pole mounted GNSS receivers together with an RTK network and correction service (Ordnance Survey SmartNet). In situations where the satellite position didn’t co-incide with the OS mapping (due to either differences in accuracy between the two data sets or to the currency of



the OS mapping), priority was given to the OS mapping, ie, supply data was “snapped” to the base mapping.

The demand surveys involved recording the number of vehicles in each parking bay. These surveys were carried out at six different times of the week.

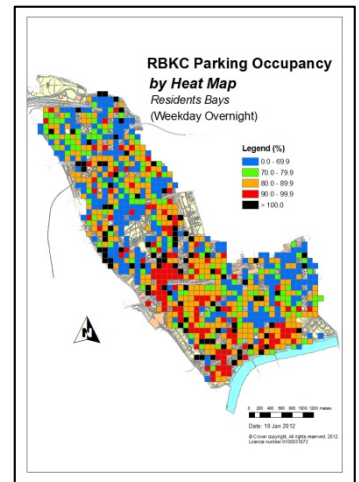


- Weekday Overnight (0000-0600)
- Weekday Afternoon (1400-1600)
- Weekday Evening (2000-2200)
- Saturday Morning (0930-1230)
- Saturday Afternoon (1400-1600)
- Sunday Afternoon (1300-1700)

The demand information was captured onto printed map sheets by surveyors working on foot. Legal parking suspensions and any other obstruction (eg, skips) which removed capacity from the parking supply were also recorded. Details were then entered into an ArcMap based system.

Outcome

Using the information from both the supply and demand surveys, a comprehensive report of parking occupancy within the Borough was provided. Included within this was an analysis of the occupancy based on different assumed vehicle lengths.



Alongside the reporting, additional analysis was conducted. This included, for example, the placement of Pay and Display bays to identify places where additional bays could be included and the location of (inefficient) single bays.



For our contact details and more information about MHTC activities, please see our website: <http://www.mhtc.co.uk/>