SMART
TRANSPORT HUB

h&f
hammersmith & fulham

" Smart Lenz provides us the ability to bring all of our transport and air quality data into one place to truly understand our network and the changes we make. "

John Galsworthy, Assistant Director at London Borough of Hammersmith

★★★★★

Partnership case study

Brackenbury Traffic Monitoring Study

Introduction

The London Borough of Hammersmith and Fulham have implemented a traffic study to monitor traffic levels and to also analyse the displacement of traffic throughout Brackenbury.

Additionally, it incorporates monitoring air quality, which could be beneficial for the council in regards to health, which can affect both residents and visitors. Another benefit of the scheme is reduced traffic congestion and better flow of traffic throughout Brackenbury for everyone, through the analysis of routes and appropriate changes and improvements from the council.

Monitoring motorised vehicles, cycling and pedestrian behaviour is important for this scheme to understand the variations within both internal and external sites.
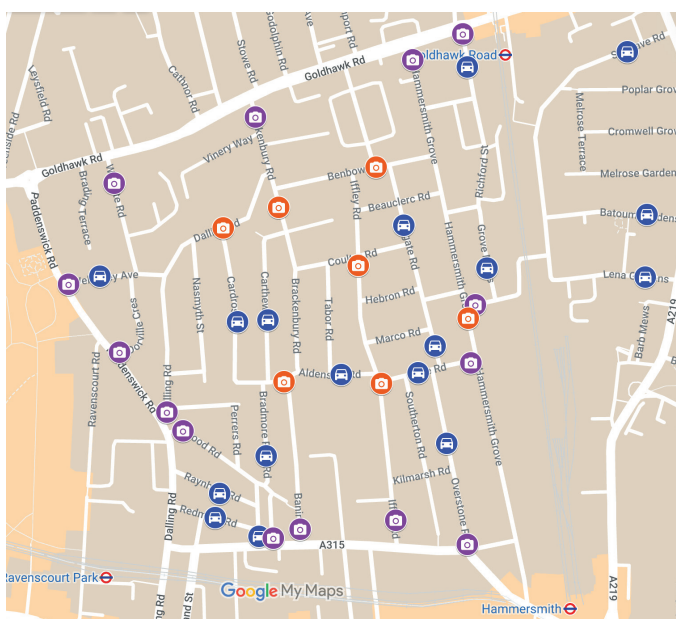
Sites - Location overview

Smart Transport Hub's VECC sensors and ANPRs were installed across 21 different sites across 2 zones within Brackenbury.

They are distinguished by being in internal or external zones, there are 14 external sites, 7 internal sites.

It can help determine how this monitoring study can show which sites are composed of different classes, travel patterns and how the makeup of people (Resident vs Visitors), especially within the 2 zones differ.

☑ ATC
  ⌄ Uniform style
  🚌 All items (17)

☑ External ANPR
  ⌄ Uniform style
  📷 All items (14)

☑ Internal ANPR
  ⌄ Uniform style
  📷 All items (7)

Recorded Classifications

Monitoring real time impact of 9 different classes

- Cars
- Large Good Vehicles (LGV)
- Motorcycles (MCL)
- Cyclists (PCL)
- Public Service Vehicle (PSV)
- Pedestrians (Peds)
- Other Goods Vehicle (OGV1)
- Other Goods Vehicle (OGV2)
- London Taxi
- E Scooters
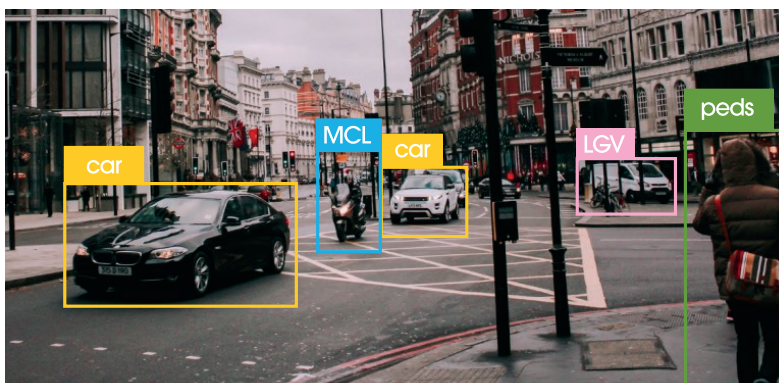
Smart Lenz - Introduction

By installing the VECC sensors, our Smart Lenz platform helps to provide information and reports to make data driven decisions through graphs and real time analysis. Some of this data may be anomalous due to contributing factors such as weather changes, pandemic restrictions, road closures, school holidays, national and religious holidays such as Christmas which can cause sporadic spikes in travel and traffic.

The London Borough of Hammersmith and Fulham can visualise users as trail lines to understand space utilisation and volumes:


Ai Portal view

Smart Lenz - Insights

Smart Transport Hub is monitoring and analysing the following for The London Borough of Hammersmith and Fulham:

● Total volume counts for all sites within both zones to gather an overview and to visualise the differences between the internal and external zones

● Daily traffic volumes per site to grasp a more detailed analysis of the behaviours of all classes

● Average traffic volumes (weekday vs weekend) to see how patterns change during a working week compared to leisure times and how the routes differ from the weekday to weekend per site

● Average Monthly Peak vs Nonpeak (All classes, Cars, OGV 1 and 2):

  ● To understand different segments of the population especially those who use Cars, OGVs and motorised vehicles at the:

    > Morning peak to see commuters and the school run

    > Midday peak (lunch) to see workers out of office or those who don't work doing essential travels for their daily needs

    > Evening peak to see those usually commuting and other after work activities
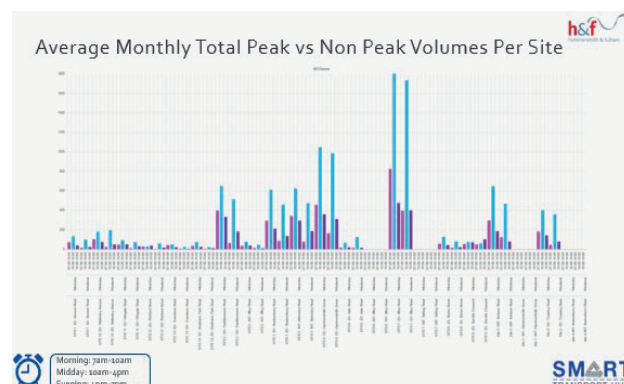
Further Monitoring & Analysis

Besides the analysis mentioned, there is a large focus on ANPR analysis for The London Borough of Hammersmith & Fulham, this includes:

Travel Time Analysis
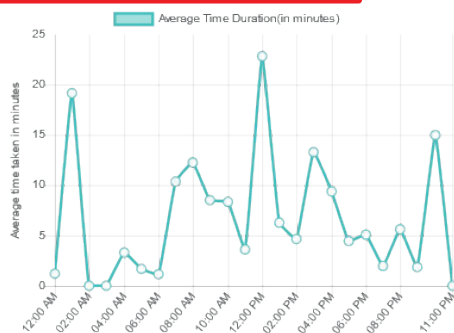
Analysing the routes between 2 specific internal and external sites to determine whether certain routes are used more than others, and if the council closes a road, what the displacement would be, alongside traffic levels hourly.

Resident vs Visitor Composition
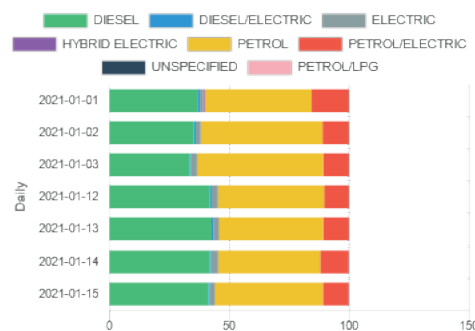
Monitoring the Resident vs Visitor composition at each/all sites within the 2 zones to see who actually lives within the zones and who only goes to each site and where the composition differs by using permit data. This ANPR analysis dives into great detail including fuel type, volume and even the type of car.

Climate & Air quality data
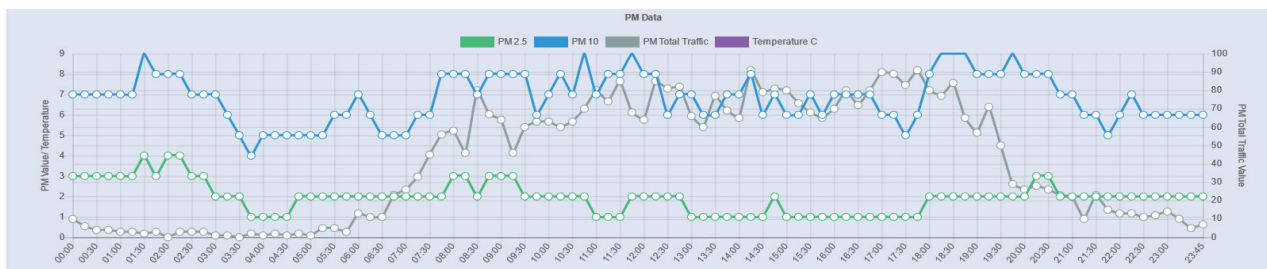
Climate and air quality data is also imperative for The London Borough of Hammersmith & Fulham as it allows for the council to improve the health of those within in the area and target the areas which are resulting in higher levels of pollution/ poor air quality, while comparing between different time periods. This allows for the council to create solutions and policies that target problem areas.

Enforcement Data

Other areas of enforcement data for The London Borough of Hammersmith and Fulham include the volumes and duration of stay of cars passing through each enforcement camera, to see the areas that are resulting in higher levels of traffic. Alongside this the percentage change analysis allows for comparison between two different time periods, for example when a traffic measure has come in, it allows Smart Transport Hub and The London Borough of Hammersmith and Fulham to see if this has been a successful project.