

Case Study

World Cargo Centre, Heathrow

Bay Monitoring and Zone Parking



Background

On the back of the Airports National Policy Statement (NPS) allowing for the expansion of Heathrow Airport, industrial warehouse developer Segro acquired 100% control of Airport Property Partnership (APP) whose assets include the majority of airside cargo facilities.

Part of this includes the Shoreham Road which forms a U-shaped link road providing access to air-freight warehousing associated with the Airport. In context, the top of the 'U' is in the north, the east and west outer sides are warehouses which are used to transfer freight between 'airside' (cargo planes) and 'landside' (HGVs).

This area became operationally challenging from a number of aspects:-

Lorries would enter the Segro Heathrow Cargo Centre via a right turn from the Shoreham Road East in order to drop off their cargo, load up again, and loop round on the Shoreham Road West then exit the area.

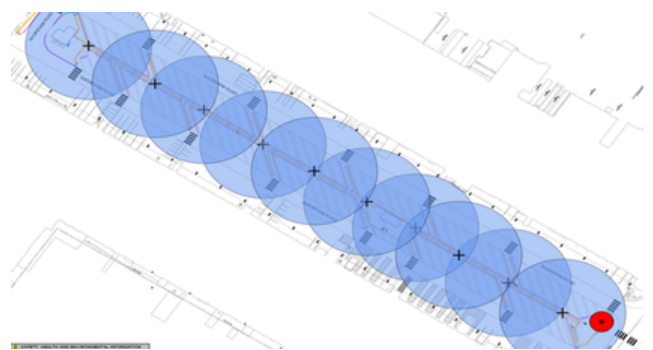
Problems developed when drivers entered the zone but did not have a clear indication of which bay to park in for unloading. This often resulted in the lorry driver continuing round the loop and repeating the journey - causing lorries to back-up.

Solutions and Objectives

Segro required a solution and Clearview had the capability to design and implement one which transformed the bottle-neck situation into an innovative, smart count parking management system.

The key objective was to provide reliable real-time information about parking space availability to lorry drivers in order to reduce congestion and time wasted in hunting for a unoccupied space.

This bespoke solution for Segro used zone count technology, bay parking sensors, and communication via Variable Message Signs (VMS).



Challenges ▼

- Unclear indication of parking availability
- Site congestion compromising pedestrian safety
- Delays in operation

Challenges

The main challenge was the integration of two different technologies for counting car park occupancy.

This was overcome by using Clearview's parking software suite and combining individual bay sensors into a zonal count system, resulting in a single solution that was available via the web. A 'live' Zone and Bay parking solution was created and integrated with an intelligent Variable Message Sign (VMS).

The Workings of the Project

The solution required the supply of VMS signs and occupancy sensors in 76 bays within the Shoreham Road cargo areas. At the entrance to the cargo area the sign consists of 4 elements, each one allocated a zone colour. During standard operation each element section can display up to 6 characters and is able to display either the number of available spaces, or simple text messages (SPACES, FULL, OPEN, CLOSED).

Provided as part of the scheme is the M300 parking system consisting of 76 parking sensors, 10 repeaters and a single gateway access point. The parking sensors deliver their occupancy status via the repeater network to the Gateway mounted on the security hut. The Gateway is connected to a network which in turn gives the client access (via the internet) to Clearview's data management platform, 'Insight'. The sign is also connected via the same client network and the Insight platform can update the occupancy figures with minimal delay.



Insight - Data Management Platform

The customer is provided with a secure login to the Insight platform where the data is displayed, charted, and monitored. Once logged onto the system, a user can view real time occupancy data, but can also review and report on historic data.

Conclusion

By accurately monitoring individual vehicle bays, and aggregating the information into a small number of coloured zones, the Clearview system makes it easy for drivers to understand the availability of parking spaces in the different zones in the car park. At the same time, it allows the site operator to get accurate, granular data to efficiently and effectively manage the site.

This parking management system can readily be replicated in other similar environments, such as retail parking, transport hubs, and large commercial sites ports and airports.

Last updated 3 minutes ago

Green Zone	17	>
Yellow Zone	18	>
Blue Zone	8	>
Red Zone	14	>

Key Benefits

- Reduction in congestion
- Reduction in time wasted hunting for parking spaces
- Reliable real-time information about parking and space availability via VMS