



Topic: Freight and city logistics

Submission date: 2006

Name of measure/service etc:

Broadmead Freight Consolidation Scheme

Location: Bristol, United Kingdom

Initiator and partners:

Bristol City Council, DHL Exel Supply Chain

Short description of the activity:

Initially set up for a trial period of eight months in May 2004, the consolidation scheme has helped to reduce congestion and associated emissions in one of the UK's busiest cities. The consolidation centre works by acting as a central delivery hub on the periphery of the city where deliveries are streamlined and the number of delivery vehicles travelling into Broadmead are reduced, whilst at the same time it provides an improved delivery service to retailers.

Background and objectives:

There are around 500,000 car movements every day in and out of the city centre alone, average peak hour traffic speeds in Bristol are down to 16mph making it one of the most congested cities in the UK. 23% of travelling time is spent stationary in traffic queues. Freight vehicle movements contribute to the problems found in Bristol as well as other issues relating to road maintenance and conflict with other road users. The transport strategy wishes to support the economy of the city and therefore the effective delivery of goods is seen as essential to achieving this aim, but at the same time it is recognised that there is a need to minimise the impact of freight distribution on the area it is serving.

Transport has a key role to play in the vision for Bristol and the wider sub region. The City Council wants to see a transport system that:

- Strengthens the local economy
- Supports rising quality of life and social inclusion
- Improves access and links
- Ensures that alternatives to the car are a realistic first choice for the majority of trips
- Offers real choice - affordable, safe, secure, reliable, simple to use and available to all
- Meets both rural and urban needs

Within this transport policy framework, the City of Bristol has developed the Broadmead Freight Consolidation Scheme which aims to:

- Reduce the number of delivery vehicles operating in the target area
- Contribute to improving air quality in the target area
- Reduce the conflict between vehicles in loading areas and delivery bays

- Provide an improved delivery service to retailers
- Provide the opportunity for added-value services to retailers such as packaging/waste collection/recycling and remote stock storage

Implementation:

As part of the EC supported START Project Bristol City Council along with supply chain experts DHL Exel continue to successfully operate the UK's first city centre based freight consolidation centre. The scheme is targeted at Bristol's core retail area Broadmead, which has over 300 stores and is currently undergoing a major expansion to increase retail floor space by 40%.

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An initial step in the development of the consolidation centre was to understand the current freight distribution patterns in the Broadmead. In autumn 2003 a survey of retailers in Broadmead was undertaken with a total of 118 surveys completed using face-to-face interview techniques. The survey data was analysed to provide a list of retailers that fit the consolidation criteria and who were invited to participate in the trial.

The survey of retailers established there were over 100,000 deliveries per year into Broadmead and this caused a number of operational difficulties such as conflict between delivery vehicles in loading areas and conflict with pedestrians and other roads users. The survey also helped us identify the type of retailer where maximum consolidation could be achieved and therefore set the framework for the scheme.

Following a public procurement process DHL Exel were selected as the preferred operator of the scheme. They have a proven track record of running successful consolidation centres through previous work at sites such as Heathrow Airport.

The scheme has generated great interest from all sectors of the transport field and has been widely publicised through the media to both the general public and the trade sector at a local, national and international level. Due to its niche position as the only UK city centre based consolidation scheme the facility has also received numerous visits from other Local Authorities and other interested parties. The centre is seen as a benchmark for urban consolidation and also as a potential model that they can be applied in UK cities.



Picture 1: A Broadmead Freight Consolidation Scheme vehicle



Conclusions:

Over the last two years the scheme has been run effectively and achieved its primary objective, often exceeding expectations.

Delivery vehicle movements have been reduced on average by over 72% for the 53 participating retailers, which equates to a reduction of over 96,000 lorry kilometres. This in turn has contributed to an environmental improvement through reductions in CO₂ 11.3 tonnes, NO_x 1.75 tonnes and PM10 243kg's.

Retailers have also benefited from an improved delivery service with no lost or damaged stock and 100% on time deliveries to date. A retailer satisfaction survey carried out revealed that 94% would recommend the service to another retailer and more than half of retailers are saving over 20 minutes per delivery, additional time they can spend on the shop floor.

A new dimension added as part of the EC START project has seen waste and packaging material collected from retailers, which has meant 5.7 tonnes of cardboard and plastic being recycled so far.

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