



Bus Operations Planning

Delivering sustainable transport solutions

Halcrow has a demonstrated ability to help clients realise their goals of developing sustainable transport solutions through effective planning of bus operations, resulting in higher levels of public transport usage and a better traveller experience.

Our Approach

At Halcrow we aim to help our clients drive innovation through the experience we have shared with clients across our global business. We apply this international expertise by working closely with clients at a local level.

In Australia, Halcrow has approximately 200 specialist staff based in Sydney, Melbourne, Brisbane and Perth offering expertise in planning, economics, engineering and design. The variety of professionals within the company enables us to deliver key transport interchanges, whatever the challenge.

We have provided advice to both public and private sectors, from national Government to local developers and operators.

Services

- Network reviews and appraisals
- Operational studies
- Service regulation, legislation and procurement (including client capacity-building)
- Bus priority measures
- Traffic forecasting and surveying

- Demand and revenue forecasting
- Technical feasibility studies
- Event transport master-planning
- Public transport interchanges and infrastructure
- Bus Rapid Transit (BRT) feasibility studies
- Electronic and Paper based Bus Information studies
- Real time information (RTI) system procurement
- Fares and ticketing.

Delivering value – international case studies

■ Warwickshire Kickstart, UK

Working with Warwickshire County Council and bus operators, Halcrow helped in the development and submission of two bids for the Department for Transport's 2009 round of Kickstart funding. The first bid was for a new inter-urban route whilst the second was to upgrade an existing service.

In order to complete the submission proforma, work undertaken comprised demand and revenue forecasting (including population and deprivation assessments), policy compliance and stakeholder consultation in order to gain demonstrable support for the proposals.

All work was submitted in a supporting document to the proforma, in order to demonstrate the methodology used to calculate value-for-money and demand for the services.

■ Yas Island Project, Abu Dhabi

Halcrow has been responsible for the transport planning and public infrastructure design for the Yas Island project in Abu Dhabi – home of the Abu Dhabi Grand Prix. 8km of dedicated bus lanes and 4km of dedicated busway have been constructed - the first facilities of this type in the Gulf Co-operation Council area.

Being a new concept for the region, signage and marking schemes had to be devised, with all the bus facilities being benchmarked against international best practice standards. Legislation has been reviewed, with driver education and enforcement also being considered.

The facilities on Yas include a major bus-based park and ride facility. It features some 2,500 permanent and 7,500 temporary car parking spaces and can handle 300 bus movements per hour. Eventually, the site will service the Abu Dhabi metro system, forming part of a multimodal interchange.

■ Preston Bus Station, UK



Halcrow was commissioned by Lancashire County Council to review the various options for a new bus station site in Preston as part of the wider Tithebarn Regeneration Project. The development of a 'state of the art' interchange facility is required to promote the public transport journey and offer the travelling public a safe, comfortable and pleasant waiting environment.

As project manager, Halcrow co-ordinated a multi-disciplinary team including architects, cost consultants and property experts. The study involved close liaison with both County and City Councils as well as the consultants representing the development partnership.

Following on from the initial feasibility assessment of potential new sites, the preferred option was taken forward for further evaluation and appraisal with Halcrow providing guidance on operations, passenger benefits and access requirements.

■ Glasgow BRT System, UK



Halcrow has undertaken a series of studies to develop a Bus Rapid Transit (BRT) corridor along the Clyde waterfront regeneration area in Glasgow. The project has developed from a broad corridor appraisal of public transport options, through outline appraisal of BRT route alignments to the detailed design of first phase infrastructure.

The project has incorporated strategic transport planning, detailed demand modelling, capital and operational costing, financial and economic appraisals, assessment of procurement and delivery options, the detailed design of structures and traffic management measures including ITS, bringing together a wide range of skills and disciplines within Halcrow.

■ Iskandar Bus Reorganisation Study, Malaysia



The southern tip of the Malay Peninsula – the Iskandar region – is subject to major congestion, being poorly served by public transport and set for significant growth. Halcrow has carried out a series of studies to gain an understanding of present and projected travel demands, and to propose strategic options for public transport improvements.

An intermediate study considered the most appropriate medium to longer term public transport modes and a recent ongoing study is specifying a completely new bus service network involving an 80 per cent increase in capacity.

This new network is tiered and at the highest capacity level involves the development of BRT corridors that are capable of upgrade to tracked transit. Part of this process requires the physical designation of corridors and their safeguarding.

■ Welsh Assembly Bus Operating Cost Model, UK

The Welsh Assembly Government wanted a better understanding of the elements of the cost of bus operations and the relationship between costs and concessionary fares and financially supported local services.

Halcrow has been working on a simple spreadsheet - based bus operations cost model. The initial phase of the project involved a literature review to identify the key cost elements of bus operations. This was followed by consultation with a range of bus operators, from large municipal companies to independent concerns, in different locations throughout Wales.

Consultation has also been undertaken with the local authorities in whose areas the bus operators work. The final phase of the project will be to develop and refine the spreadsheet model further so that the Welsh Assembly Government will be able easily to keep the model up to date and use it as a useful policy evaluation tool.

■ Review of Subsidised Buses, UK

Ensuring accessibility and achieving social inclusion is a key objective of national and local policy. As recognised in City of York's Second Local Transport Plan, transport has a key role to play in supporting these wider social objectives through making opportunities and facilities more easily accessible.

Accessibility is concerned with not only the location of facilities, but also their design and delivery. As such, accessibility planning requires a cross-sectoral partnership approach, both to examine the potential problems that people face getting to facilities and also to look at and deliver the most appropriate solutions.

The authority's role in providing funding for non-commercial services forms a key element of ensuring that those with most need have access to the opportunities and facilities that they require.

In light of these issues the City of York Council commissioned Halcrow to undertake a review of the subsidised bus network in York.

The aims of the study were to assess the value and possible alternatives to the provision of subsidised bus services in the City of York and from York to surrounding areas.



■ Blackheath Bus Interchange Study, UK

Halcrow was appointed to develop options to improve bus operations and the interchange facility that currently exists in Blackheath in the West Midlands area.

Blackheath is well served by buses and is regularly used by passengers as an interchange facility; it also serves a flagship bus showcase service which runs every 8 minutes: the journey time, however, is adversely affected by congestion within the town.

Baseline information revealed that high levels of through traffic and sub-standard layover facilities within the town create congestion. To improve bus movements a number of options were developed involving bus priority, such as bus-only lanes, shared pedestrian and bus surfaces and a consolidated bus interchange area.

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