



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



Welsh Assembly Government

FABIAN WAY CORRIDOR TRANSPORT ASSESSMENT: EXECUTIVE SUMMARY

January 2010 Revision A



ARUP

FOREWORD

It seems certain that the Fabian Way corridor will be further developed in the future in order to help Swansea to consolidate its position as a prominent regional centre. Fabian Way will become a destination in its own right, with employment, residential and leisure uses planned. To support this development, it is essential that transport links are strengthened and real choices provided for travellers meeting their individual and family needs.

This study has shown that regional growth in background traffic is forecast to significantly increase traffic flows on the Fabian Way corridor over the next 25 years, creating severe congestion and delay to travellers, even without any additional development. This will result in the deterioration of travel conditions on the route if nothing is done. The measures proposed as part of the Fabian Way Corridor Transport Strategy would help to reduce this congestion whilst allowing the area to be developed as planned. The Strategy therefore gives a sound basis on which to plan the necessary transport provision for the next 25 years.

The measures proposed in the Fabian Way Corridor Transport Strategy would make a major contribution towards meeting local, regional and national transport policy objectives. It consists of cost-effective, affordable, safe and environmentally acceptable measures to reduce the impact of current and future

travel demand within the area. Each element of the strategy is vital if these objectives are to be achieved. The strategy must be regarded as an integrated package and implemented as such rather than as a set of piecemeal schemes. The strategy is predicated on the completion of the Coed Darcy Urban Village Southern Access Road and the Fabian Way Link Road (Ffordd Amazon 2). The timing of the implementation of specific measures will be intrinsically linked to the delivery of developments along the corridor. Furthermore, land use and travel patterns are not static; therefore, it is important that the strategy is monitored on a regular basis to ensure its continued effectiveness.

The total investment proposed to implement the strategy is some £27m to £40m over the next 25 years, of which £7m to £9m is earmarked for schemes to be implemented in the next five years. The funding for this will need to be secured through a combination of Welsh Assembly Government, South West Wales Integrated Transport Consortium, Neath Port Talbot County Borough Council, City and County of Swansea and private sector investment secured through planning conditions and development agreements. In summary the strategy is important in providing a framework within which transport can support the wider regeneration, environmental and quality of life aims within the corridor.

BACKGROUND

Arup was commissioned on behalf of the Welsh Assembly Government (WAG) to undertake a strategic assessment of the transportation options for the A483 Fabian Way corridor.

The corridor is scheduled to experience significant development in the next 25 years, generating increased travel demand. It is important that a balanced transport strategy is established to support the sustainable development of the corridor and to facilitate wider economic regeneration in the surrounding catchment area.

The study area covers the strategic route into eastern Swansea and lies within both the boundaries of Neath Port Talbot County Borough (NPT) and the City and County of Swansea (CCS).

The study was managed by a client steering group which included representatives of WAG, NPT and CCS. The following aims for the study were agreed with the client steering group:

- to review the outputs of previous studies and assessments within the study area;
- to assess the opportunities and constraints on the corridor;
- to identify appropriate transport options to enhance the movement of people and freight throughout the corridor;
- to present a robust, comprehensive and sustainable strategy for the corridor, including determining the potential funding streams; and
- to ensure full engagement with all stakeholders.

The study commenced in November 2008 and was completed in November 2009. This report summarises the findings of the study and presents the conclusions. Further details of the study are provided in the Transport Assessment: Main Report (December 2009) and the supporting Transport Assessment: Technical Appendices.

STUDY APPROACH

The study methodology broadly followed the principles and advice set out in the Welsh Transport Planning Appraisal Guidance (WelTAG) which was developed by WAG. There were three main stages:

1. **Planning** – which included the following:
 - a corridor review to build up a picture of the existing situation and understanding the problems and opportunities with the input of the relevant Stakeholders;
 - set the transport planning objectives; and
 - developed and sifted the options to mitigate against the existing and potential future problems identified within the corridor.
2. **Appraisal** – compared the options and selected a preferred strategy; and
3. **Implementation** – developed a plan to ensure the preferred strategy can be implemented.

Throughout the course of the study, consultation with stakeholders and the community was seen as critical to the development of the strategy for the corridor. This involved the following:

- Client steering group meetings were held at regular intervals between the client group and the consultant team;
- Stakeholder consultation included two workshops with a wider reference group which included transport operators, key business and other interested groups. The stakeholders were involved in identifying the problems, establishing options and developing a range of possible solutions;
- Individual meetings with stakeholders were held to discuss specific issues and options; and
- Production and issue of a Community Newsletter in order to establish the challenges and opportunities within the corridor.



Aerial view of study area

PROBLEMS AND OBJECTIVES

A number of problems and objectives were identified for the corridor strategy to address. These were identified through an examination of the existing transport and environmental conditions in the corridor and from consultation with stakeholders and the community. These can be summarised as follows:

Table ES1: Problems

Ref	Problem
P1	Congestion near Tawe Bridges
P2	Baldwins Bridge: poor junction arrangement, existing structure requires heavy maintenance
P3	Park and Ride too close to City Centre
P4	Lack of eastern gateway to Swansea
P5	Negative local perception of transport
P6	Fabian Way forms a barrier between areas to the north and south
P7	Social exclusion
P8	Lack of continuous cycle facilities
P9	Lack of linkages between green areas
P10	Pollution from traffic
P11	Flood risk
P12	Land contamination
P13	Insufficient capacity of existing utilities

Table ES2: Objectives

Ref	Objective
1	To maintain or improve the duration, reliability and predictability of journey times on the corridor for business, commuting and freight
2	To reduce congestion and delay at the Tawe Bridges
3	To actively promote ultra-low carbon alternatives such as walking and cycling and low carbon alternatives such as public transport options in order to double the modal share for alternative modes of travel along the length of the corridor
4	To increase public transport capacity along the corridor
5	To define a clear gateway into Swansea from the east for transport users along the corridor
6	To improve connectivity and accessibility between communities and developments north and south of Fabian Way
7	To protect, enhance and improve access to green space within the Study area, particularly Crymlyn Bog and Crymlyn Burrows
8	To minimise the adverse impacts on air quality for local residents arising from transport

DEVELOPING THE TRANSPORT STRATEGY

The overall aim of this study was to develop a transport strategy to support the regeneration of the corridor. The area has been identified as a sub-regional focus for economic growth and there are several major regeneration schemes ongoing at present and proposed for the future. The key developments include:

- the SA1 Swansea Water front development, a mixed-use regeneration scheme centred on the Prince of Wales dock and currently being delivered by WAG;
- the consented Coed Darcy Urban Village development of 4,000 homes on the former BP oil refinery site to the north of the study area; and
- the proposed Swansea University second campus with an estimated 4,000 residential and 2,000 non-residential students on the site of the former BP tank farm to the south of Fabian Way.

In order to meet the objectives and to support the economic growth strategy all possible transport options that could improve travel conditions along the corridor were considered. A three step process was undertaken in order to define the number of options for appraisal:

- Developing Options – a long list of possible solutions was developed through evaluation of existing conditions and consultation with the client steering group, stakeholders and the community;
- Sifting Options – a three stage sifting process was applied to the long list of options. Aspects considered included compatibility with study objectives, stakeholder acceptability and option exclusivity; and
- Packaging Options – the results of the sifting process enabled themed packages to be assembled for the more detailed appraisal stage.

The following four packages were assembled and appraised against the study objectives, transport indicators and WeTAG criteria (social, economic and environmental):

- Package 1: Fabian Way as a Community Corridor with On-Line Public Transport
- Package 2: Fabian Way as a Community Corridor with Segregated Public Transport
- Package 3: Fabian Way as a Strategic Transport Link with On-Line Public Transport
- Package 4: Fabian Way as a Strategic Transport Link with Segregated Public Transport

The packages were assessed using a combination of qualitative and, where appropriate, quantitative data using the output from the transport model developed for this study. Their performance was compared against the Reference case, which assumed that the Coed Darcy Urban Village Southern Access Road and the Fabian Way Link Road (Ffordd Amazon 2) had been completed.

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PREFERRED STRATEGY

The outcome of the appraisal process resulted in a hybrid package being developed which provided a compromise between the community benefits of Package 2 with the transport efficiency of Package 4.

The Preferred Strategy as a whole is summarised in the sections and illustrated on the figure below. Any variation to the constraints influencing the routes and locations of the elements of the strategy (e.g. availability of a coastal route for walking and cycling) should be appraised and adopted where agreed providing the strategy targets are delivered.

Highway Strategy

The Preferred Highway Strategy aims to strike a balance between maintaining efficient access and promoting an environment suited to travel by more sustainable modes such as walking and cycling. The key measures include:

- capacity improvements at the Tawe Bridges;
- new grade-separated junction at Baldwins Bridge;
- reduction of the speed limit from 50mph to 40mph along the central section of Fabian Way to reflect the aspiration for development of a community corridor; and
- two-way bus-gate on Ffordd Amazon to the west of the proposed entrance to the new / additional Park and Ride site, to restrict the use of Ffordd Amazon as an alternative through route to Fabian Way.

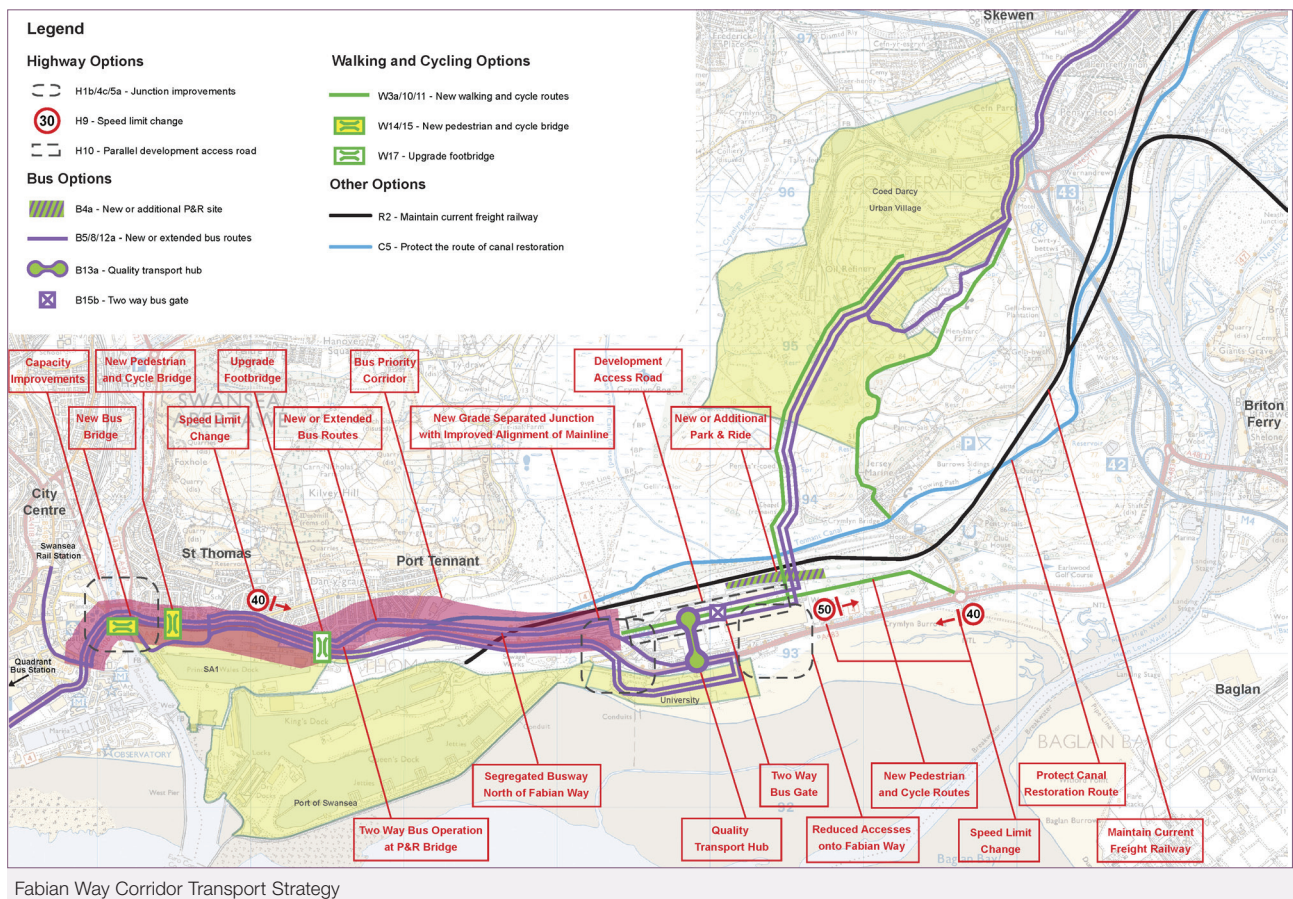
Rail Strategy

The Preferred Rail Strategy seeks to maximise the use of the existing railway as a freight line.

Public Transport Strategy

The overriding aim is to improve public transport connectivity and to enhance its attractiveness as an alternative to the private car. The Preferred Public Transport Strategy focuses on enhancing and expanding the existing bus network and Park and Ride facilities to encourage use of more sustainable modes. The key measures include:

- segregated two-way busway between the existing Park and Ride site and Baldwins Bridge;
- possible expansion of the existing Park and Ride site into vacant land to the west;
- potential future conversion of part of the existing Park and Ride site to a Park and Walk site serving SA1;
- new Park and Ride site to the north of the Amazon Distribution Centre;
- high-quality transport hub on Fabian Way adjacent to the University;
- diversion / extension / enhancement of existing bus services;
- provision of new bus services and routes, including a dedicated shuttle bus between the new developments along the corridor and Swansea City Centre;



- improved facilities at bus stops such as seating, lighting and digital real-time passenger information; and
- bus priority measures at key signalised junctions along Fabian Way.

Walking and Cycling Strategy

The Preferred Walking and Cycling Strategy aims to encourage walking and cycling through improvements to the existing network and facilities, with particular emphasis on crossing points along Fabian Way. The key measures include:

- new smooth gradient pedestrian and cycle bridge to link SA1 and the communities to the north of Fabian Way;
- upgrade of the existing footbridge to the west of the Park and Ride junction;
- improved walking and cycling links between Coed Darcy Urban Village and Fabian Way;
- on-road cycle route through the residential area of Port Tennant and St Thomas; and
- additional pedestrian and cycle leisure routes in the area.

Canal Strategy

WAG is funding a separate study to consider the benefits of integrated restoration of the waterway network in the Swansea and Neath valleys. The Preferred Canal Strategy for the Fabian Way Corridor is to protect the route of the canal restoration proposals by not proposing alternative uses for the land.

Intelligent Transport Systems Strategy

The Preferred ITS Strategy supports the measures proposed for the other modes. Variable message signs will be installed to show traffic conditions and support Park and Ride and traffic signals within the study area will be optimised to increase efficiency.

Demand Management Strategy

The Preferred Demand Management Strategy incorporates various 'soft' measures to encourage use of alternative modes of travel and thus reduce traffic levels and resolve existing parking conflicts. Key measures include:

- a controlled parking zone across the study area;
- parking spaces associated with all new developments restricted to levels proposed in the CSS Wales Parking Standards;
- priority spaces designated for car sharing in public car parks;
- all new developments to conform to a site-wide Travel Plan, building on the work already undertaken by the SA1 Travel Forum. This will be complemented by a residential Travel Plan for the existing communities. It is proposed that both Plans will be managed and monitored by an overall Travel Plan Coordinator;
- dedicated travel information website with real-time public transport information, traffic conditions and any issues with pedestrian or cycle links; and
- smart card ticketing throughout the corridor.



Pedestrian Priority

Strategic Travel Plan

A Travel Plan is a strategy for managing trips to a site. It outlines a package of measures to be undertaken over a period of time that aim to increase opportunities to travel by safer, healthier and more environmentally friendly methods than the single occupant private car.

It is recommended that a Travel Plan Co-ordinator is appointed to oversee the implementation of the Fabian Way Corridor Travel Plan. This will include monitoring its success, maintaining enthusiasm for the Travel Plan through promotional activities and being a point of contact for matters regarding travel.

The overall goal of the Fabian Way Corridor Travel Plan will be to achieve a situation where residents, employees and visitors can make intelligent travel decisions based on high quality information and a choice of transport modes. The Travel Plan objectives can be summarised as follows:

- to reduce the impact of travel and transport on the environment;
- to improve access to and through the corridor by various modes of travel;
- to reduce reliance on the car;
- to reduce car traffic during peak periods on the road network; and
- to benefit residents, employees and visitors in terms of choice of access and improved travel facilities.

STRATEGY TARGETS

The Fabian Way Corridor Transport Assessment anticipates a certain level of modal shift in response to particular transport interventions contained within the Preferred Strategy. This includes an assumed 10% increase in car occupancy. New developments will have mode split targets incorporating an additional 20% improvement on top of the anticipated response to the Preferred Strategy. The targets are set as person trips rather than vehicle trips to more accurately reflect movement to and from the site.

The table below summarises the anticipated response in mode shift to the Preferred Strategy and the proposed targets compared to the Do-Minimum scenario. The proposed target modal splits offer a 12% improvement on the Do-Minimum situation. It is worth noting that the proportion of person trips made by train is not likely to be affected by the Preferred Strategy as no changes will be made to the passenger rail connections within the corridor. It is anticipated that new developments will be required to provide financial support if public transport patronage targets are not met.

Table ES3: Anticipated and Target Modal Splits (Person Trips)

Mode	Do-Minimum	Anticipated Response to Preferred Strategy	Proposed Target (20% betterment on Anticipated Response to Preferred Strategy)
Car	85%	77%	73%
Train	3%	3%	3%
Bus	5%	9%	11%
Cycle	3%	5%	6%
Walk	4%	6%	7%

STRATEGY DELIVERY

A provisional programme for implementation of the Preferred Strategy over the next 25 years is given below. The desired outcomes are predicated on the early construction of the Coed Darcy Urban Village Southern Access Road and Fabian Way Link Road (Ffordd Amazon 2). Measures have been split into three phases: short term (2010 – 2014), medium term (2015 – 2019) and long term (2020 – 2029).

Table ES4: Anticipated Phasing

Measure	Short Term	Medium Term	Long Term
New bus-only bridge to south of existing Tawe Bridges			
Segregated busway north of Fabian Way			
Transport hub adjacent to / within University site			
Two-way bus-only access north of Baldwins Bridge			
Maximise use of existing railway as a freight line			
Travel Plan, Smart Card ticketing, parking measures			
Walking and cycling route improvements			
Improvements to bus services			
Reduce speed limit to 40mph along central section			
Capacity improvements at the Tawe Bridges			
Improvements to existing Park and Ride Site			
New / upgraded pedestrian / cycle bridges			
Variable message signs, signal optimisation			
New/additional Park and Ride site north of Amazon			
New grade-separated junction at Baldwins Bridge			

In conclusion, the overall aim in developing the Strategy has been to create a set of complementary transport measures which, when implemented as a whole, will provide a transport system that offers an improved level of service, effective mode choice and support sustainable development for the corridor.

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