



Appendix 15.12

Draft Construction Phase Travel Plan



Contents

1.0	Introduction.....	1
1.1	Introduction.....	1
2.0	Planning Policy	2
2.1	Planning Policy Wales.....	2
2.2	Technical Advice Note 18	2
2.4	Walking and Cycling Action Plan for Wales 2009-2013.....	3
2.6	City and County of Swansea Unitary Development Plan	4
2.7	Neath Port Talbot County Borough Council Unitary Development Plan	4
2.8	Fabian Way Corridor Transport Study.....	5
3.0	Objectives of the Travel Plan.....	6
3.1	Principal Objectives	6
4.0	Development Proposal	7
4.1	Introduction.....	7
4.2	Overview of the Project.....	7
4.3	Access	8
5.0	Existing Transport Facilities	11
5.1	Local Highway Network.....	11
5.2	Public Transport	11
5.3	Pedestrian and Cycle Facilities	12
6.0	Delivering the Plan	14
6.1	Travel Plan Coordinator.....	14
7.0	Travel Plan Initiatives	15
7.2	Site Hours	15
7.3	Site Access	15
7.4	Travelling by Car	16
7.5	Delivery Traffic	16
7.6	Construction Working Group	17
8.0	Monitoring and Review	18
8.1	Targets.....	18
8.2	Monitoring.....	18
9.0	Action Plan.....	19
9.1	Outline Timetable.....	19



1.0 Introduction

1.1 Introduction

- 1.1.0.1 This Draft Construction Phase Travel Plan has been prepared on behalf of the Tidal Lagoon Swansea Bay plc (TLSB) as part of the supporting documentation for the environmental impact assessment for its tidal lagoon generating station project (Project).
- 1.1.0.2 It is envisaged that this Draft Construction Phase Travel Plan will provide a framework from which a more detailed Construction Phase Travel Plan will be prepared and submitted for approval prior to commencement of the construction works.
- 1.1.0.3 The Project involves the construction and operation of a tidal energy lagoon located in Swansea Bay. The tidal lagoon will generate renewable energy in the form of electricity using the large tidal range in the Bay. The lagoon will have a rated capacity of 240 MW, or enough electricity to supply approximately 121,000 homes.
- 1.1.0.4 The tidal lagoon will be built by forming a 9.5km long U-shaped seawall running from the Port of Swansea out to sea before curving back to re-join land adjacent to the site of Swansea University Bay Campus (SUBC). Access to the Project, and supporting onshore facilities at the two landfall locations, will be from Fabian Way.
- 1.1.0.5 In addition to generating electricity, the Project also aims to provide visitor facilities and other amenities including art, education, mariculture and sporting and recreational facilities. The seawall is expected to be open to the public during daylight hours for walking, running, cycling, etc., although access will be controlled in extreme weather.
- 1.1.0.6 During construction there will be a short-term increase in traffic associated with construction personnel, and an increase in HGV traffic from the import of construction materials. The measures to be taken to minimise the impact on the local highway network are set out in this document.



2.0 Planning Policy

2.1 Planning Policy Wales

- 2.1.0.1 Edition 5 of Planning Policy Wales (PPW) was published in November 2012. It sets out the land use planning policies of the Welsh Government emphasising its commitment to sustainable development in the planning system so that it can play an appropriate role in moving towards sustainability.
- 2.1.0.2 Chapter 4 of PPW (Planning for Sustainability) affirms the Welsh Government's objectives regarding sustainable development and the need of Local Development Plans to reflect the policy goals of the Wales Spatial Plan and provide a framework to stimulate, guide and manage change towards sustainability.
- 2.1.0.3 Chapter 8 (Transport) of PPW confirms the Welsh Government's commitment to sustainability identifying one of its key aims *'to extend choice in transport and secure accessibility in a way which supports sustainable development and helps to tackle the causes of climate change by encouraging a more effective and efficient transport system, with greater use of the more sustainable and healthy forms of travel, and minimising the need to travel'*.

2.2 Technical Advice Note 18

- 2.2.0.1 Technical Advice Note 18 (TAN 18) was published in March 2007 in support of PPW. The document sets out the Welsh Government's objectives on planning with regard to transport issues. TAN 18 acknowledges that *'by guiding the location of new development, reducing the need to travel, and promoting transport choices which are less polluting, land-use planning can contribute to long term environmental improvement.'*
- 2.2.0.2 TAN 18 states that in order to meet sustainable development policy objectives, local authorities should be:
 - i. Promoting resource and travel efficient settlement patterns;
 - ii. Ensuring new development is located where there is, or will be, good access by public transport, walking and cycling thereby minimising the need for travel and fostering social inclusion; and
 - iii. Encouraging the location of development near other related uses to encourage multi-purpose trips.

2.3 Wales Transport Strategy

- 2.3.0.1 The Wales Transport Strategy: One Wales - Connecting the Nation was published in May 2008 and is a key document to developing an effective transport strategy for Wales. The document outlines how the transport policy approach is more responsive in its delivery of the Welsh Government's wider policy agenda, and has attempted to be flexible to reflect different regional circumstances.
- 2.3.0.2 The four main regions in Wales are each represented by one of four regional transport consortia which have been created through partnerships between neighbouring Local



Authorities. CCSC is part of the South West Wales Transport Consortium known as SWWITCH.

- 2.3.0.3 The stated goal of the Transport Strategy is for Wales to promote sustainable transport networks that safeguard the environment while strengthening Wales' economic and social life.

2.4 Walking and Cycling Action Plan for Wales 2009-2013

- 2.4.0.1 The Welsh Government presented a Walking and Cycling Action Plan for Wales in December 2008 setting out its aim to maximise opportunities for walking and cycling and to reduce car use, particularly for short journeys. In addition, it identifies that the provision of walking and cycling facilities is an important element in creating equal opportunities. Its mission statement is '*to encourage more people to walk and cycle more safely and more often*'.

2.5 Regional Transport Plan

- 2.5.0.1 The Regional Transport Plan (RTP) is the result of joint working between the four local authorities (Carmarthenshire, Neath Port Talbot, Swansea and Pembrokeshire) as part of the South West Wales Integrated Transport Consortium known as SWWITCH. It replaces the individual local transport plans previously adopted by the four councils. As well as acting as a bidding document for major transport schemes it has and will continue to shape transport policy in the region for the period 2010-2015 and beyond.
- 2.5.0.2 The plan was adopted by the four councils in summer 2009. It was submitted to the Welsh Government in September 2009 and approved at the end of December 2009.
- 2.5.0.3 SWWITCH has worked with a range of stakeholders to examine a variety of options that could potentially deliver RTP objectives. The RTP explains that no single option would be appropriate across such a diverse region as South West Wales, and advocates a 'mix and match' approach to transport.
- 2.5.0.4 The RTP lists a number of objectives, including the following:
- I. To improve access for all to a wide range of services and facilities including employment and business, education and training, health care, tourism and leisure activities;
 - II. To improve the sustainability of transport by improving the range and quality of, and awareness about, transport options, including those that improve health and well-being;
 - III. To implement measures which make a positive contribution to improving air quality and reducing the adverse impact of transport on health and climate change, including reducing carbon emissions;
 - IV. To implement measures which help to reduce the negative impact of transport across the region on the natural and built environment including biodiversity; and
 - V. To improve road safety and personal security in South West Wales.
- 2.5.0.5 The long term strategy set out in the RTP for the Swansea urban area emphasises improved public transport and walking and cycling facilities, including Bus Rapid Transit.



- 2.5.0.6 In relation to the Fabian Way corridor, the RTP states that *'new development sites and corridors, such as Fabian Way will be planned so that they can be effectively served by public transport and walking and cycling facilities. All these measures will be supported by intensive use of smarter choices measures, including comprehensive personalised travel planning'*.

2.6 City and County of Swansea Unitary Development Plan

- 2.6.0.1 The CCSC Unitary Development Plan (CCSC, 2008) was adopted in November 2008. The UDP sets out a range of policies and proposals relating to future development, and deals with the use and conservation of land and buildings within the City & County up to 2016. The UDP is based firmly on sustainable planning principles. This is reflected in its spatial strategy and overall approach to the pattern, form and distribution of new development.
- 2.6.0.2 Chapter 5 of the UDP relates to Improving Accessibility, and includes the following policies.
- 2.6.0.3 Policy AS1 - New development associated with housing, employment, shopping, leisure and service provision should be located in areas that are currently highly accessible by a range of transport modes, in particular public transport, walking and cycling, or in areas where a good level of such provision can realistically be achieved.
- 2.6.0.4 Policy AS2 - New developments should be designed to:
- i. Promote the use of public transport and facilitate sustainable travel choices,
 - ii. Provide suitable facilities and an attractive environment for pedestrians, cyclists and other non-motorised modes of transport,
 - iii. Allow for the safe, efficient and non-intrusive movement of vehicles, and
 - iv. Comply with the principles of accessibility for all.
- 2.6.0.5 Policy AS5 - Development proposals will be required to consider the access requirements for pedestrians and cyclists and, where necessary, provide appropriate facilities and/or infrastructure to encourage their use.
- 2.6.0.6 Policy AS6 - Parking provision to serve development will be assessed against adopted maximum parking standards to ensure that proposed schemes provide appropriate levels of parking for private cars and service vehicles. Account will also need to be taken of the need to provide facilities for the parking of motorcycles and cycles.

2.7 Neath Port Talbot County Borough Council Unitary Development Plan

- 2.7.0.1 The NPTCBC Unitary Development Plan (NPTCBC, 2008) was adopted in March 2008. The purpose of the document is to guide development, conservation and the use of land within the County Borough for the fifteen years up to mid 2016.
- 2.7.0.2 The following policies relate to transport:
- 2.7.0.3 Policy 12- Improvements to the transport system will concentrate on:
- i. improving accessibility and highway safety and reducing congestion, pollution and disturbance generated by traffic;



- ii. encouraging travel by public transport, cycling and walking as alternatives to the car; and
- iii. encouraging the movement of freight by rail and sea as alternatives to road.

2.7.0.4 Policy 13- The location and design of development should contribute to more sustainable communities through reducing dependency on the motorcar and encouraging the use of public transport, cycling and walking.

2.7.0.5 Policy 14- Proposals will be resisted which would be likely to cause unacceptable adverse impact in terms of:

- I. traffic generation and highway safety;
- II. poor accessibility by public transport, cycling and walking including people with disabilities; and
- III. preventing the use or re-use of docks, harbours, wharfs or routes of railway lines.

2.8 Fabian Way Corridor Transport Study

2.8.0.1 The Fabian Way Corridor, from the River Tawe to the M4, has numerous sites for future development including employment, residential and leisure uses. The area has been identified as a sub-regional focus for economic growth with several major regeneration schemes ongoing e.g. SA1, Coed Darcy and Swansea University Bay Campus.

2.8.0.2 The Welsh Assembly Government (WAG) commissioned Arup to undertake a strategic assessment of the transportation options for the Fabian Way Corridor. The study commenced in November 2008 with the Main Report issued in January 2010. The overall aim of the study was to develop a transport strategy to support the regeneration of the corridor.

2.8.0.3 Client steering group meetings including officers from CCSC and NPTCBC, stakeholder consultation with workshops and a community Newsletter were included as part of the process.

2.8.0.4 The Preferred Strategy incorporates highway, rail, Public Transport, walking and cycling, canal, Intelligent Transport Systems, demand management and a Strategic Travel Plan. Proposed targets for mode splits and a provisional programme for implementation are also included. The Preferred Transport Strategy has been approved in principle by both CCSC and NPTCBC.

2.8.0.5 Measures for the delivery of the Strategy from 2010 to 2029 include:

- i. Short term - Bus only bridge over River Tawe, segregated busway, transport hub at Swansea University site;
- ii. Short, Medium and Long Term - Walking and cycling route improvements, improvement to bus services, reduction of speed limits;
- iii. Medium Term - Capacity improvements at Tawe Bridges, improvement to Park & Ride, upgraded pedestrian/cycle bridge; and
- iv. Long term - Additional Park & Ride north of Amazon, new grade separated junction at Baldwin's Bridge.



3.0 Objectives of the Travel Plan

3.1 Principal Objectives

- 3.1.0.1 This Plan demonstrates the commitment of TLSB to take all reasonable steps to minimise the impact of construction related travel on the environment by reducing the level of unnecessary travel, and encouraging those who have to travel to do so in a more environmentally friendly way.
- 3.1.0.2 The aim of the Travel Plan is to promote greener, cleaner travel choices, reducing reliance on the private car. The Travel Plan is aimed at employee journeys to and from work and also considers travel issues relating to deliveries of construction materials. The aims of the Travel Plan are:
- Reducing the number of vehicles, with emphasis on single occupancy vehicles travelling to the site;
 - Providing the minimum possible parking provision to encourage other travel modes;
 - Improving overall accessibility;
- 3.1.0.3 Through changes in travel habits this Travel Plan will provide benefits for:
- Individuals - through improved travel choices and potential cost savings;
 - The employers/sub-contractors - through reduced congestion and improved access to site for employees;
 - Local community – minimising local pollution, noise levels and congestion; and
 - The Environment - through improved air quality with less noise, dirt and fumes, as well as by reducing the impact of other national and global environmental problems such as photochemical smog and global warming.

4.0 Development Proposal

4.1 Introduction

- 4.1.0.1 TLSB is proposing to construct and operate a tidal energy lagoon, located in Swansea Bay, South Wales (Figure 4.1). The tidal Lagoon will generate renewable energy in the form of electricity using the large tidal range (the difference between high and low water) which is a distinguishing feature of the Bay. The Project will have a rated capacity of 240 Megawatts (MW), generating 400GWh net annual output. This is enough electricity for approximately 121,000 homes: more than Swansea's annual domestic electricity use (109k households); around 70% of Swansea Bay's annual domestic electricity use (Swansea, Neath & Port Talbot, 173k households); or approximately 9% of Wales' annual domestic electricity use (based on 1,369k households).

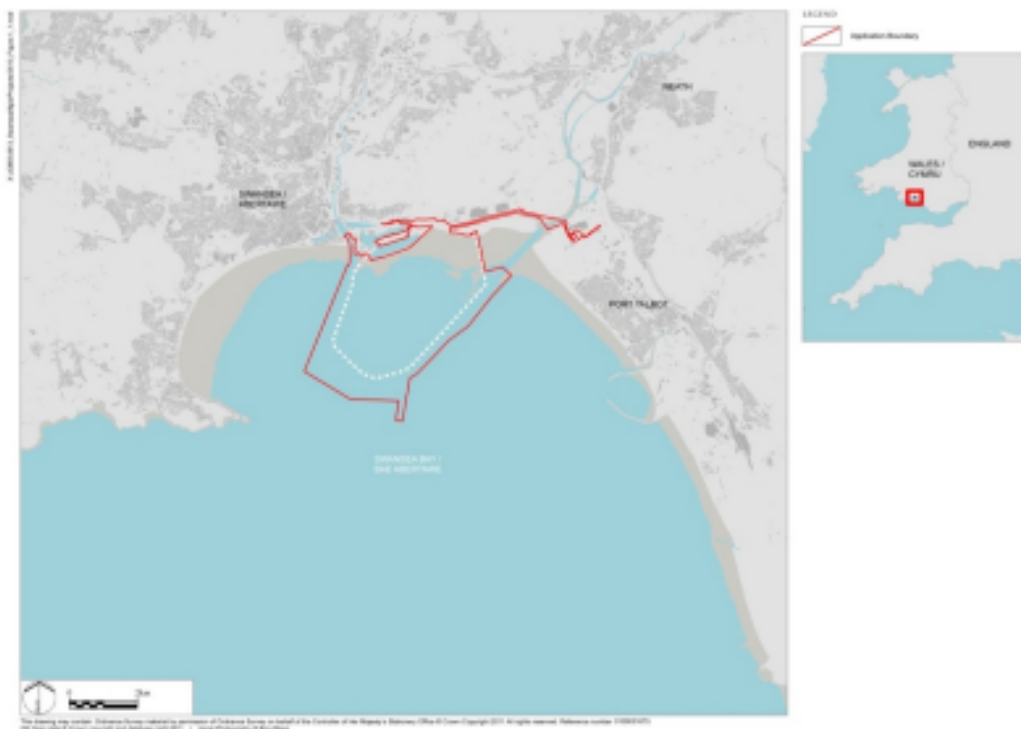


Figure 4.1: Location of Project

- 4.1.0.2 In addition to generating electricity, the Project also aims to provide visitor facilities and other amenities including art, education, mariculture and sporting/recreational facilities. The seawall is expected to be open to the public during daylight hours for walking, running, cycling etc, though access will be controlled in extreme weather.

4.2 Overview of the Project

- 4.2.0.1 The Project is situated in Swansea Bay, adjacent to the Port of Swansea, approximately 2.2 km southeast of Swansea City Centre. The Project as a whole spans the administrative areas of the City and County of Swansea Council (CCSC) and Neath Port Talbot County Borough Council (NPTCBC). The main onshore development lies within the Port area, immediately south of Fabian Way (A483) which is the main trunk road from Junction 42 of the M4 into Swansea.

- 4.2.0.2 The onshore development area (Figure 4.2) provides an indication of where the structures associated with the Project will be located. Immediately west of the site, adjacent to the boundary, is the mouth of the River Tawe and to the east of the site, is the River Neath.
- 4.2.0.3 Figure 4.2 provides an indication of the Project and the wider extent to the mouth of the River Neath related to the cable and grid connection at Baglan Bay substation.

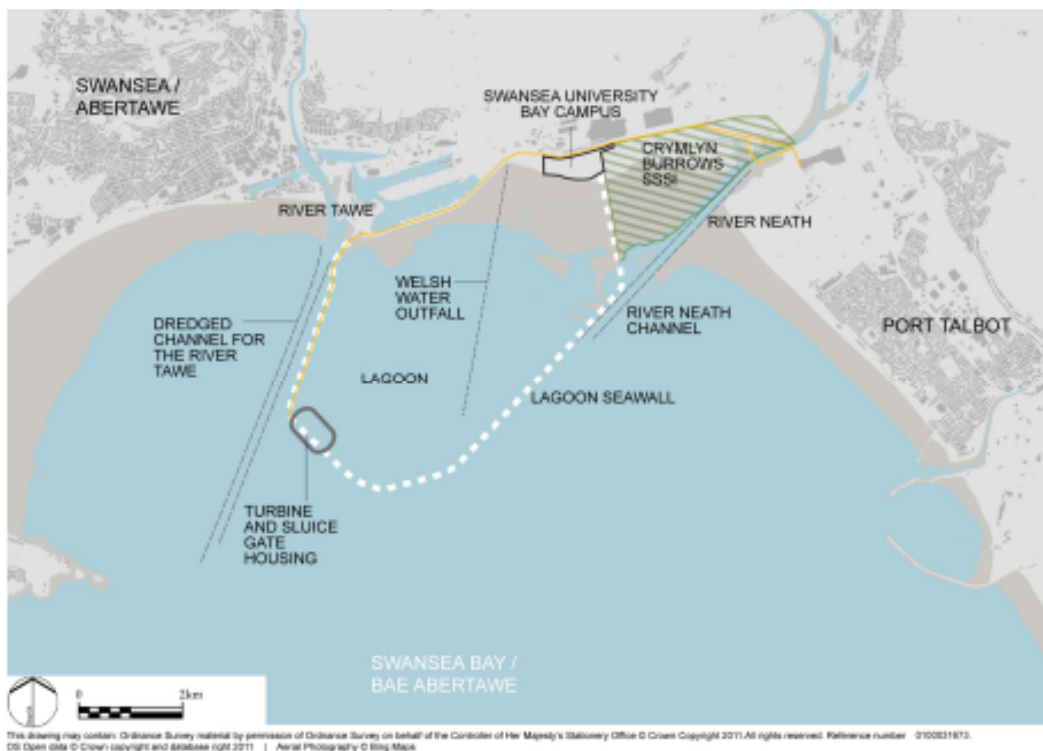


Figure 4.2: The Project

- 4.2.0.4 The Lagoon will enclose part of Swansea Bay, from the eastern side of the River Tawe (western landfall) to the eastern edge of the new Swansea University Bay Campus (SUBC) (eastern landfall). The new seawalls that impound the Lagoon will extend approximately 1.5km directly offshore from the campus, adjacent to Crymlyn Burrows SSSI. The seawalls will then extend in a southwest direction along the western boundary of the training wall of the River Neath Channel. A turbine and sluice gate housing will be located in the south west of the Lagoon, at an oblique angle to the dredged channel of the River Tawe. At this location an operation and maintenance, and visitor, facility will be located. The seawall will then extend north towards Swansea Port, close to the mouth of the River Tawe parallel but off set by 100m to the dredged channel for the River Tawe. In total, this will form an approximately 9.5km-long, U-shaped, seawall which will encompass approximately 11.5km² of the seabed, foreshore and intertidal area of Swansea Bay.

4.3 Access

- 4.3.0.1 Vehicle access for both the construction and operational phase of the Project will be via the Fabian Way/Langdon Road/Park & Ride junction. At the roundabout to the south of this junction, traffic will turn east along Langdon Road. From the eastern end of Langdon Road a new road to link to the south side of the Port and Queens Dock will be

provided, and a new coastal access road extending to the western landfall of the Lagoon, as shown in Figure 4.3 below. From Langdon Road the route will turn south and then east, running parallel to and immediately north of the existing port access road, up to the boundary of the Dwr Cymru Welsh Water Waste Water Treatment Works (WWTW). From here, the existing Port road will be moved south and the Lagoon access road will continue past the entrance to the WWTW. At a distance of approximately 50m east of the entrance to the WWTW the Lagoon access road will turn south, cross the Port access road, and extend west along the south of Queen's Dock. A new port security entrance will be created with the existing security hut relocated to the west of the proposed Lagoon access road. Access to the Port will remain from Baldwin's Bridge junction.



Figure 4.3 Vehicle access

- 4.3.0.2 Once the Lagoon access road has crossed the Port road there will be a drop off point and turning area allowing pedestrians and cyclists to join the footpath and cycleway to the eastern landfall. The Lagoon access road will extend along the south side of Queen's Dock and utilise the alignment of the existing Port road. A new Port road will be constructed immediately north of the Lagoon access road, separated by a secure fence and swale. In this way, existing operations at the Port will not be affected by the development.
- 4.3.0.3 The new Lagoon access road will also include facilities for pedestrians and cyclists along its entire length in the form of a Shared Use Path (SUP). In order to be convenient, attractive and safe to potential users the proposed SUP will be 3m wide, flat and, for the vast majority of its route, segregated from the vehicular carriageway by a 1m wide grass separation strip. A new footpath/cycleway will be created south of Langdon Road to link the existing footpath from SA1 to the start of the Lagoon access road. A small section of the SUP along Langdon Road will not be segregated due to unavoidable land constraints.



- 4.3.0.4 At its southern end, the SUP will link up with the circular shared use path that will run atop the Lagoon seawall. The SUP will also link up with a separate SUP to the east, providing a continuous link for pedestrians and cyclists between the Lagoon visitors centre and the Swansea University Bay Campus (SUBC). The proposed SUP supports a Sustrans aspiration to consider improvements to the National Cycle Network route 4 away from Fabian Way.
- 4.3.0.5 Under the current design the WWTW, which is currently accessed via Baldwin's Crescent and the main entrance to the port, would be accessed via Langdon Road and the Lagoon access road.
- 4.3.0.6 The junction arrangement where the Lagoon access road crosses the existing Port road will be designed to prevent traffic on the Lagoon access road from accessing Fabian Way at Baldwin's Bridge, and also prevent traffic from accessing the Lagoon or Langdon Road via Baldwin's Bridge and the Port road. Signage will also be employed at the entrance to the Lagoon access road/Fabian Way Junction 3 to ensure that extraneous traffic is not attracted. Exceptional loads arising during construction may access the Lagoon site via Junction 4 if necessary.
- 4.3.0.7 The proposed access seeks to ensure that vehicle speeds are minimised by limiting the road width to 5.5m. Speed along the access road will also be regulated through the use of speed signs.
- 4.3.0.8 A temporary construction route will be provided from the new Lagoon access road to the site compound utilising existing carriageway where possible. An emergency vehicle access will also be provided from the new Lagoon access road to the eastern landfall.



5.0 Existing Transport Facilities

5.1 Local Highway Network

5.1.0.1 Fabian Way is an arterial road which forms part of the A483, connecting Swansea city centre with the M4 motorway at Junction 42. It is the main route into Swansea from the surrounding area and for traffic from further afield. It is approximately 7.6 km long and cuts through the centre of Crymlyn Burrows in the unitary authority areas of Swansea and Neath Port Talbot. Fabian Way is a dual carriageway for its whole length. The speed limit is 30 mph between Swansea city centre and Port Tennant, after which the speed limit rises to 50 mph until the Jersey Marine roundabout. The road is a standard national speed limit dual carriageway between Jersey Marine and the junction with the M4.

5.1.0.2 Access to the site during construction will be via the Fabian Way/Langdon Road/Park & Ride access signalised junction. This junction provides access to a Park and Ride facility to the north and the existing main Port of Swansea entrance to the south. Exceptional loads arising during construction may access the Lagoon site via the Baldwin's Bridge junction.

5.2 Public Transport

5.2.0.1 Bus services operate regularly in the vicinity of the site, with 11 services operating along Fabian Way, Elba Crescent or Baldwin's Crescent. All of these services start from Swansea Bus Station and travel between Swansea and various towns and villages to the east.

5.2.0.2 The services are summarised in Table 5.1 below.

Table 5.1 Bus services

Service No.	Operator	Route	Frequency		
			M - F	Sa	Su
7	First	City centre - Swansea Marina	Hourly	Hourly	-
44	First	Swansea - SA1 - Grenfell Park	Hourly	Hourly	-
156	SBAC	Swansea – Neath	-	-	6 / day
157	First	Swansea - SA1 - Elba Crescent – Neath	Hourly	Hourly	-
158 / X58	First	Swansea - SA1 - Elba Crescent – Banwen	Hourly	Hourly	Hourly
224	First	Swansea - SA1 - Elba Crescent - Porthcawl	Hourly	Hourly	-
X1	First	Swansea - Elba Crescent - Neath - Port Talbot - Bridgend	2 / hour	2 / hour	-
X3	First	Swansea - Elba Crescent - Port Talbot - Maesteg	Hourly	Hourly	-
X5	First	Swansea - Neath – Glynneath	2 / hour	2 / hour	-
X6	SBAC	Swansea – Neath	Hourly	-	-
X63 / X64	First	Swansea - SA1 - Neath - Ystradgynlais	Hourly	Hourly	-
X75	FC5	Swansea - Neath - Glynneath - Hirwaun - Merthyr Tydfil	4 / day	6 / day	-

- 5.2.0.3 The nearest bus stops to the site are illustrated in Figure 5.1 below. The site can be accessed from bus stops at two locations. The first is on Fabian Way close to the Park & Ride junction, near the junction with Wern Terrace. These stops are approximately 3.7km from the western landfall, via Bevans Row and the new Lagoon access road. There is a pedestrian overbridge crossing Fabian Way providing access to the eastbound stop. The second location is near the SUBC, to the east of Baldwin's Bridge junction. The bus stop near the SUBC is approximately 950m from the perimeter cycle and footpath that will run around the Lagoon, approximately 3.3km from the western landfall, and is presently accessed from Fabian Way via Baldwin's Bridge.
- 5.2.0.4 An average walking speed of approximately 1.4 m/s is generally assumed for pedestrians. This equates to approximately three miles per hour. The western landfall is therefore a 44 minute walk from the bus stops close to Junction 3. From the bus stops near the SUBC site it is an 11 minute walk to the perimeter cycle and footpath, and a 39 minute walk to the Western Landfall.

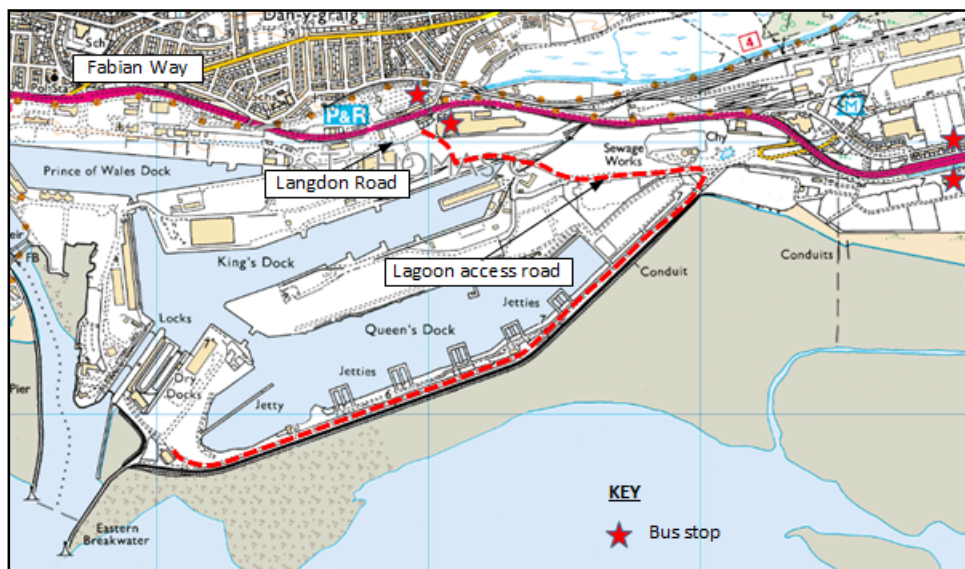


Figure 5.1 Bus stop locations

- 5.2.0.5 A Park & Ride facility is located just to the north of Fabian Way at Junction 3, at the same location as the first bus stop identified above. Service 502, operated by First, runs every 12-15 minutes between 07:00-19:07 on Monday to Saturday between the Park & Ride site and the city centre. The Park & Ride site has 550 parking spaces, including 23 disabled bays, and is open from 06:45-19:30.

5.3 Pedestrian and Cycle Facilities

- 5.3.0.1 There is a cycle path running along the southern side of Fabian Way between Kings Road and the junction with Port Tennant, which forms a section of both National Cycle Network route 4 (NCN 4) and the Swansea to Glyncorrwg Loop. NCN 4 provides links between Swansea, Neath, Briton Ferry, Port Talbot and several local villages.
- 5.3.0.2 To the east of the Port Tennant junction the cycle path continues running adjacent to the southern side of Fabian Way and then crosses to the north via the pedestrian/cycle and bus bridge linking to the Park and Ride facility. The cycle path runs to the north of the Park & Ride site to Wern Terrace. It is then signed along a short section on Wern Terrace to the north side of Fabian Way, where it continues east to Baldwin's Crescent.



- 5.3.0.3 NCN 4 is signed along Baldwin's Crescent and Elba Crescent until re-joining the north side of Fabian Way. It continues east to the Jersey Marine roundabout where it turns north to join Ffordd Amazon.
- 5.3.0.4 To the east of the Baldwin's Bridge junction the footpath on the south side of Fabian Way is wide and is also used as a cycle path. The path narrows as it approaches the westbound offslip at the junction, where there is an uncontrolled crossing point. This wider section is the subject of a cycle link project being promoted by NPTCBC which extends cycle provision off Fabian Way and on to the road that provides access to the Port at the Baldwin's Bridge junction.
- 5.3.0.5 From the Tawe Bridges junction the cycle path runs south alongside King's Road towards Prince of Wales Dock, where it then crosses the river via a pedestrian/cycle bridge using the Wales Coastal Path route over the Trafalgar Bridge and National Route 4 over the Sail Bridge, and on towards South Dock in the Maritime Quarter and Swansea town centre.
- 5.3.0.6 The wider road network of the SA1 development is subject to a Section 38 Agreement and as such the port road network is not presently adopted. The SA1 road network (Langdon Road) extends to meet the proposed site boundary and the Lagoon access road and associated pedestrian and cycle route improvements proposed as part of the Project.



6.0 Delivering the Plan

6.1 Travel Plan Coordinator

- 6.1.0.1 A successful Travel Plan needs commitment from staff at all levels. TLSB will ensure that the Contractor will appoint a Travel Plan Coordinator, who will have the authority to implement the Plan with the support of senior management.
- 6.1.0.2 The Travel Plan Coordinator will be responsible for organising, delivering and reporting the detailed aspects of the Travel Plan, including the following:
- i. Securing the commitment and support of senior management and other staff;
 - ii. Promoting the objectives and benefits of the Travel Plan;
 - iii. Exploring possible sustainable travel alternatives;
 - iv. Acting as a point of contact for staff with travel queries;
 - v. Monitoring the progress achieved towards the Travel Plan targets;
 - vi. Providing feedback to senior management on the success of the Travel Plan;
 - vii. Acting as the point of contact for information and for exchanging ideas and best practice with other organisations; and
 - viii. Any other transport and travel related issues and concerns that may arise from time to time.



7.0 Travel Plan Initiatives

7.1.0.1 There are a number of factors which can limit the potential of Construction Phase Travel Plans, including the following:

- I. The origin of material deliveries is unknown at this stage;
- II. The locations from which construction staff will commute on a daily basis is unknown;
- III. The location of the site and nature of the work makes walking or cycling less appealing; and
- IV. The transient nature of a construction workforce makes it difficult to establish routines based around sustainable transport.

7.1.0.2 However, a number of measures that will help to minimise the impact of construction traffic on the local environment will be implemented, and these are presented below.

7.2 Site Hours

7.2.0.1 Working hours during construction of the Project have not been finalised yet. However, it is likely that there will be 24/7 working during at least some phases of construction. In terms of impact on the local highway network, the key periods are the AM and PM commuter peaks, typically 0800-09:00 and 17:00-18:00. When work is carried out in shifts, the start and finish times generally do not coincide with the regular commuter peaks. However, to ensure that the assessment of the impact of construction traffic is robust it has been assumed that construction staff will operate typical daytime hours.

7.2.0.2 Working hours for construction projects are typically 08:00-18:00 on weekdays and 08:00-13:00 on Saturdays. However, for safety reasons it is expected that staff will not be permitted to drive their own vehicles along or close to the Lagoon wall and instead transport will be provided between the site compound and the work site. Therefore it is expected that construction staff will be required to arrive at the site compound by 07:30 in the morning, allowing 30 minutes for transport within the site. Construction staff will therefore arrive and depart outside the peak hours on the local highway network, which were shown to be 08:00-09:00 and 16:00-17:00 in the Onshore Transport chapter of the Environmental Statement.

7.3 Site Access

7.3.0.1 The access and egress of construction traffic will be carefully planned to minimise impacts on the surrounding highway and local road users, including any existing employees still occupying other parts of the Port of Swansea. The increase in construction traffic flows will be managed to minimise the impact on the surrounding highways and all local road users, in particular the morning and evening commuter peak periods. Discussions will be held with CCSC to agree a safe site access strategy in advance of site works commencing, and prior to each phase of the works.

7.3.0.2 Exceptional loads arising during construction may access the Lagoon site via the Baldwin's Bridge junction. Delivery vehicles would then leave the site via the Fabian Way/Langdon Road/Park & Ride access signalised junction.



7.3.0.3 Construction staff will be encouraged to travel to and from the site by sustainable means. In particular, emphasis will be given to car sharing and the use of minibans. Parking within the site for construction staff will be managed in order to prevent overspill parking on the surrounding side roads.

7.3.0.4 Pedestrian access to the site will be segregated from vehicular traffic at all times, with clear signage to maintain the safety of the site and the general public.

7.4 Travelling by Car

7.4.0.1 Travel to the site by minibus or car sharing retains the directness and flexibility of car travel while allowing staff to reduce fuel bills and wear and tear on their own vehicles, and reduce demand for car parking on site. The use of minibuses or crew buses and car sharing will form a central element of this Travel Plan for the following reasons:

- i. It is likely that staff will be travelling to the site from a very dispersed catchment area; and
- ii. Staff may need to bring equipment to the site, and so travel by public transport, walking or cycling is less practical.

7.4.0.2 Some common Travel Plan measures to encourage car sharing, such as setting up a database of staff willing to car share or providing access to a web site for car sharers, are not practical in the case of a construction project. The financial benefits of travel by minibus and car sharing will therefore be promoted through staff noticeboards, and preferential car parking spaces will be allocated for minibuses and car sharers, to be positioned in the most convenient location.

7.5 Delivery Traffic

7.5.0.1 It is anticipated that the main bulk material for the construction of the lagoon seawall will be imported by sea as far as possible. It is also proposed to use a concrete batching plant within the docks. However, some raw materials for concrete production, steel reinforcement, turbine components and other materials will have to be imported by road.

7.5.0.2 A preliminary assessment of the number of HGV movements required during the construction phase is shown in the Project Description chapter of the Environmental Statement. It has been assumed that sand required for concrete production will be obtained from Swansea Bay, and that concrete will be produced at an on-site batching plant. Therefore these activities will not generate any HGV movements on the external road network. Based on these assumptions the maximum number of HGV deliveries on the local network is expected to be 1,975/month.

7.5.0.3 All construction traffic entering and leaving the site will be closely controlled. Vehicles making deliveries to site or removing spoil or demolition material etc. will travel via designated routes which will have been previously agreed with CCSC, NPTCBC and other relevant bodies. It is anticipated that all HGV traffic will be routed via Junction 42 of the M4, to avoid any HGV traffic travelling through Swansea city centre. Temporary signage for construction traffic will be provided in agreement with CCSC, NPTCBC and other relevant bodies.



- 7.5.0.4 Deliveries will be phased on a 'just in time' basis where possible. This will minimise travel time and potential congestion around the site.

7.6 Construction Working Group

- 7.6.0.1 A Construction Working Group will be formed, comprising representatives from TLSB, the Contractor, CCSC, NPTCBC and any other interested parties including local businesses and residents.
- 7.6.0.2 The Working Group will provide a forum for any transport related issues to be raised with the Contractor, and for corrective action to be agreed. The frequency and format of Working Group meetings will be agreed with CCSC and NPTCBCT.



8.0 Monitoring and Review

8.1 Targets

- 8.1.0.1 The transient nature of a construction workforce and the limited opportunities to travel to the site by public transport, walking or cycling make it difficult to set realistic targets for changes in mode share. A more realistic approach is to use the estimate of construction staff numbers and associated trip generation as a target not to be exceeded during the construction phase, as it has been demonstrated in the Onshore Transport chapter of the Environmental Statement that the local highway network has sufficient capacity to accommodate the estimated peak traffic generation.

8.2 Monitoring

- 8.2.0.1 During the peak construction period the maximum number of employees on site is expected to be approximately 600, comprising 200 contractor's staff and 400 sub-contractors. In order to estimate the number of staff cars and vans travelling to site the following assumptions regarding vehicle occupancy have been made:

- | | | |
|-----------------------|--------------|----------------|
| I. Contractor's staff | 1 person/car | = 200 vehicles |
| II. Sub-contractors | 2 people/car | = 200 vehicles |
| III. Total | | = 400 vehicles |

- 8.2.0.2 At intervals to be agreed with CCSC and NPTCBC, surveys of car park occupancy will be undertaken. At the same time the number of employees on site will also be recorded. This will provide a simple but effective check on the validity of the assumptions made regarding employee travel.

- 8.2.0.3 If analysis of the results indicates that construction staff traffic is exceeding 110% of the estimated numbers, the Travel Plan will be reviewed and further measures introduced in order to address the situation in consultation with CCSC and NPTCBC.



9.0 Action Plan

9.1 Outline Timetable

- 9.1.0.1 A timetable for the ongoing monitoring and review of the Travel Plan has been produced, detailing the key elements of the process and the approximate timescales. This is shown in Table 9.1 below.

Table 9.1 Action Plan Timetable

Action	Timescale
Appoint Travel Plan Coordinator	Prior to commencement of construction
Finalise Construction Phase Travel Plan in consultation with CCSC and NPTCBC	Prior to commencement of construction
Monitor success of Travel Plan and progress towards achieving targets; amend Travel Plan if necessary	Reviews at 6 monthly intervals

- 9.1.0.2 As with all elements of the Travel Plan process, these timescales are not prescriptive, but should be modified according to circumstances to ensure that they allow the Contractor to produce a Travel Plan that benefits the company and all associates, and remains relevant throughout the construction period.