

# Pencoedtre High School, Barry

Travel Plan

Vale of Glamorgan Council

Project number: 60610283

September 2019

## Quality information

### Prepared by



Matt Davies  
Senior Consultant

### Prepared by



Kirsty Cox  
Principal Consultant

### Checked by



Spiro Panagi  
Associate Director

### Approved by



Spiro Panagi  
Associate Director

## Revision History

Revision	Revision date	Details	Authorized	Name	Position
V1	16.08.2019	Project review team	MD	Matt Davies	Senior Consultant
V2	23.09.2019	Planning submission	KC	Kirsty Cox	Principal Consultant

## Distribution List

# Hard Copies	PDF Required	Association / Company Name

**Prepared for:**

Vale of Glamorgan Council

**Prepared by:**

AECOM Limited  
1 Callaghan Square  
Cardiff CF10 5BT  
United Kingdom

T: +44 29 2067 4600  
aecom.com

© 2019 AECOM Limited. All Rights Reserved.

This document has been prepared by AECOM Limited ("AECOM") for sole use of our client (the "Client") in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

## Table of Contents

1.	Introduction.....	5
2.	Existing Situation and Site Accessibility.....	7
3.	Development Proposals .....	13
4.	Scope, Objectives and Implementation .....	17
5.	Measures.....	18
6.	Targets and Monitoring.....	20
7.	Summary.....	22

## Figures

Figure 1.1	Site Location Plan
Figure 2.1	Local Facilities Plan
Figure 2.2	Route of Bus Service 97/97A

## Appendices

Appendix 2.1	Accessibility Index
Appendix 3.1	Proposed Masterplan
Appendix 3.2	Access Arrangements

# 1. Introduction

## 1.1 Introduction

- 1.1.1 AECOM was commissioned by the Vale of Glamorgan (VoG) to provide transport planning and highways advice to inform a planning application for application for the proposed new development of Pencoedtre High School (PHS). The location of the site is shown on **Figure 1.1**.
- 1.1.2 This document provides a Travel Plan (TP) aimed at facilitating and encouraging sustainable transport and the reduction of single occupancy vehicle use for staff, parents, pupils and visitors to the School.
- 1.1.3 This is an interim document which sets out the scope and initial objectives, measures and targets of the TP prior to the opening year of the new school development. Upon opening, the content of this document will be updated and tailored to the specific requirements of the development to form a Full TP.

## 1.2 What is a Travel Plan?

- 1.2.1 TPs are a way of promoting sustainable travel behaviour through a range of mechanisms, initiatives and targets that when combined can help to reduce unnecessary travel and encourage journeys to be undertaken in a more environmentally sustainable way.
- 1.2.2 For new developments, it is important that sustainable travel measures are in place prior to opening of a new development as travel habits in favour of walking, cycling and public transport are more readily established from the outset.
- 1.2.3 It should be noted that a TP is a document that will evolve over time as additional information becomes available and the travel habits of staff/parents/pupils change.

## 1.3 Benefits of Travel Planning

- 1.3.1 Benefits of implementing a TP can include:
  - Increased travel choice: TPs can increase personal travel choice by promoting existing and providing additional sustainable travel options;
  - Health benefits: Many alternative forms of travel involve an element of physical activity that can help improve the physical health and mental wellbeing of users of a development. For employers, this can also reduce the number of days lost to staff illness;
  - Public/environmental responsibility: A decrease in the number of vehicle trips results in cleaner air and eases congestion both in the development and on the local highway network. As a result of the reduced number of car movements, the site may also become more attractive for pedestrians and cyclists;
  - Positive publicity: TPs can generate positive publicity and improve the environmental image of an organisation, an area or a development. It demonstrates to residents living in the surrounding areas that the organisation/developer is committed to limiting single occupancy car trips and promoting sustainable travel options; and
  - Financial savings: Users of a development can make savings by switching to or encouraging travel by non-car modes. For staff employed on a site, this is primarily related to reduced fuel consumption and vehicle depreciation.

## 1.4 Policy Context

- 1.4.1 This document has been prepared in accordance with *Technical Advice Note (TAN) 18: Transport*, published by the Welsh Government (WG). TAN 18 sets out technical guidance for the transport related elements of development and also confirms the WG's commitment to sustainable travel via the implementation of TPs for new developments.

- 1.4.2 TAN 18 states that the WG *“wishes to promote the widespread adoption of travel plans by businesses, schools, hospitals, tourist attractions and other significant travel-generating uses”*.

## 1.5 Report Structure

- 1.5.1 The TP is structured as follows:

- **Section 2 – Existing Situation and Site Accessibility:** Examines the local transport conditions in the vicinity of the site and makes an assessment on the accessibility of the site to non-car modes of travel;
- **Section 3 – Development Proposals:** Provides a description of the development proposals, including the proposed means of access by all travel modes and parking provision;
- **Section 4 – Scope, Objectives and Implementation:** Sets out the scope and objectives for the implementation of the TP;
- **Section 5 – Measures:** Outlines the measures proposed in order for the TP to meet the objectives detailed in Section 4; and
- **Section 6 – Targets and Monitoring:** Sets out the initial mode share targets for the monitoring period, against which the success of the TP will be measured, and associated procedures for monitoring and evaluation.

## 2. Existing Situation and Site Accessibility

### 2.1 Introduction

- 2.1.1 This section of the TP provides a description of the site location and its existing usage, the local highway network, current safety and traffic conditions, and accessibility to non-car modes of travel.

### 2.2 Site Location and Existing Usage

- 2.2.1 The site is situated in Barry, within the VoG. It lies to the south of the A4050, around 3km to the northeast of Barry Town Centre. The site is occupied by the existing PHS and associated playing fields and sports pitches. Residential areas are located to the east, south and west. Barry Rugby Football Club (BRFC) is located immediately to the south of the site. The location of the site and the surrounding area is shown on **Figure 1.1**.

### 2.3 Local Highway Network

- 2.3.1 The local highway network is shown on **Figure 1.1**. The site is accessed via Merthyr Dyfan Road (MDR) to the west. The access road from MDR is around 125m in length and has a minimum carriageway width of 5.5m. The access road provides access to a roundabout at the school entrance. The school car park is accessed from this junction; parking is also provided on and around the junction and subsequently it forms a turning circle for vehicles. There is a continuous footway on the south side of the carriageway of 2m minimum width. The roundabout has a footway bisecting through its centre to facilitate pedestrian movements from the car park. There is no designated crossing location from the roundabout to the school entrance.
- 2.3.2 There is a continuous footway on the south side of the carriageway of the site access road, which is of 2m minimum width. There is also a footway on the north side of the carriageway, which terminates around 50m east of MDR. The access road is subject to a 30mph speed limit and street lighting is provided.
- 2.3.3 The access road forms a priority junction with MDR; MDR forms the major arms and the access road forms the minor arm. The junction incorporates a ghost island right-turn lane for movements from the southern arm of MDR to the site access; there is storage within this facility for up to for up to six vehicles. There are crossing facilities located immediately to the north and south of the junction. The northern crossing is uncontrolled, comprising dropped kerbs, tactile paving and a central refuge island, allowing for crossing movements to be undertaken in two stages, if required. The southern crossing is signal-controlled. The proximity of this to the site access not only has a benefit in terms of providing for controlled crossing movements on pedestrian desire lines, but also in terms of junction operation, creating gaps in northbound traffic, thereby facilitating northbound exit movements from the site access.
- 2.3.4 MDR routes on a north-south alignment between the A4050 and Skomer Road, primarily serving surrounding residential areas. It is a single carriageway road, which has a minimum carriageway width of 6.5m. There is some localised widening of up to 9m, but this typically includes hatching and on-street parking (through either marked bays or informal arrangements) such that the typical effective carriageway width is 6.5m. There are footways on both sides of the carriageway of 2m minimum width. The road is subject to a 30mph speed limit and street lighting is provided.
- 2.3.5 Winston Road is a residential street served via MDR, and provides access to other residential areas. Its junction with MDR is located approximately 100m south of the school access and is subject to a 20mph zone along its entire length, accompanied by traffic calming.
- 2.3.6 MDR connects to the A4050 at a signal-controlled junction located around 200m north of the site access. The A4050 forms the eastern and western arms of the junction, and MDR forms the southern arm. The junction incorporates signal-controlled pedestrian crossings on the eastern and southern arms.
- 2.3.7 The A4050 is one of the key highway links in the wider area. It provides a connection between the A48 and A4232 at Culverhouse Cross (Cardiff) to the north and the A4226 to the southwest (which serves Cardiff Airport and also provides a connection to the A48). It also connects with the A4231 to the east, which provides access to industrial land to the southeast.

- 2.3.8 The A4050/A4226 corridor within Barry is a single carriageway road subject to a 40mph speed limit, which is enforced through speed cameras. There is a shared footway/cycleway on the south side of carriageway, with crossing facilities provided on side roads. There is also footway on the north side of the carriageway along most of the corridor, with non-provision generally limited to the section east of MDR. Other key junctions along the corridor and not already referenced in the preceding paragraphs include the A4050/A4231, A4050/A4226 and A4226/B4266 roundabouts junctions, and the A4050/Stirling Road signal-controlled junction.

## 2.4 Walking and Cycling

- 2.4.1 As identified in **Section 2.3**, the local area to the site provides a network of footways and cycleways and pedestrian/cycle infrastructure which facilitate active travel for users of the site.
- 2.4.2 There are generally footways on both sides of the site access road serving PHS, and MDR, the A4050 and A4226. There is also shared footway/cycleway along the A4050/A4226 corridor. Street lighting is provided. Crossing movements are facilitated through the provision of both controlled and uncontrolled crossing facilities.
- 2.4.3 The site access road is around 125m in length with a continuous footway on the south side of the carriageway of 2m minimum width and a footway on the north side of the carriageway, which terminates around 50m east of MDR. There are no dropped kerbs or tactile paving at this point nor at the access junction, to facilitate pedestrian movements.
- 2.4.4 The surrounding residential areas generally have footways on both sides of the carriageway and have street lighting. However, along MDR and at junctions with residential streets, there are dropped kerbs but no tactile paving. This is evident at the junction with Morningside Walk, which is approximately 20m south of the site access, and Winston Road, which is subject to a 20mph zone and traffic calming for its entire length.

## 2.5 Local Facilities

- 2.5.1 The Institution for Highways and Transportation's (IHT's) *Guidelines for Providing for Journeys on Foot*, published in 2000, identifies that 2km is the preferred maximum distance that people will walk for commuting and education purposes. Cycling has been identified as having the potential to replace car trips of up to 5km. The travel distance of 5km equates to approximately a 20 minute journey by bicycle.
- 2.5.2 **Figure 2.1** shows a 2km walking catchment from the site. From a pupil and staff perspective, this is primarily related to the distance travelled from their place of residence. This shows that there is a significant level of residential development within walking distance. Areas beyond this and located in Barry are within cycling distance.
- 2.5.3 It is also important for other day-to-day facilities such as retail and health facilities to be within walking and cycling distance. The distance and indicative walking/cycling times to these facility types are set out in **Table 2.1** and the locations of the facilities shown on **Figure 2.1**. This shows there is a range of retail and health facilities within active travel distances of the site.



**Table 2.1: Accessibility to Local Facilities**

	Local Facilities	Walking Accessibility		Cycling Accessibility	
		Distance (m)	Time (Minutes)	Distance (m)	Time (Minutes)
1	Costcutter/Post Office (MDR)	250m	3 minutes	250m	1 minute
2	Premier Convenience Store (Skomer Road)	1,000m	12 minutes	1,000m	3 minutes
3	Vale Family Practice (Ramsey Road)	1,200m	14½ minutes	1,200m	3½ minutes
4	One Stop Convenience Store (Winston Road)	1,400m	16½ minutes	1,400m	4 minutes
5	Lidl Supermarket (A4231)	2,300m	27½ minutes	2,300m	7 minutes
6	Barry Hospital	1,900m	22½ minutes	1,900m	6 minutes
7	Highlight Park Medical Practice (Stirling Road)	2,400m	28½ minutes	2,400m	7½ minutes
8	Tesco Supermarket (Stirling Road)	2,500m	30 minutes	2,700m	8 minutes
9	Barry Town Centre	3,700m	44 minutes	3,800m	11 minutes

*Note: Distances are approximate and measured from the centre of the site and along existing footways and cycleways.*

## 2.6 Public Transport

### Introduction

- 2.6.1 Existing public transport services operating in the vicinity of the site have been identified with reference to current timetable and routeing information.

### Bus Services

- 2.6.2 The nearest bus stops to the site are the 'Barry Rugby Club' bus stops on MDR, located approximately 400m southwest of the site, equating to a 5 minute walk. The northbound bus stop comprises a pole-mounted flag and bus shelter. The southbound bus stop is marked by a pole-mounted flag. The locations are shown on **Figure 2.1**.
- 2.6.3 The IHT's *Guidelines for Providing for Public Transport in Developments*, published in 1999, suggests 400m as the acceptable walking distance to a bus stop. These bus stops are therefore considered to be of acceptable walking distance from the site.
- 2.6.4 **Table 2.2** provides a summary of bus services accessed from these bus stops.

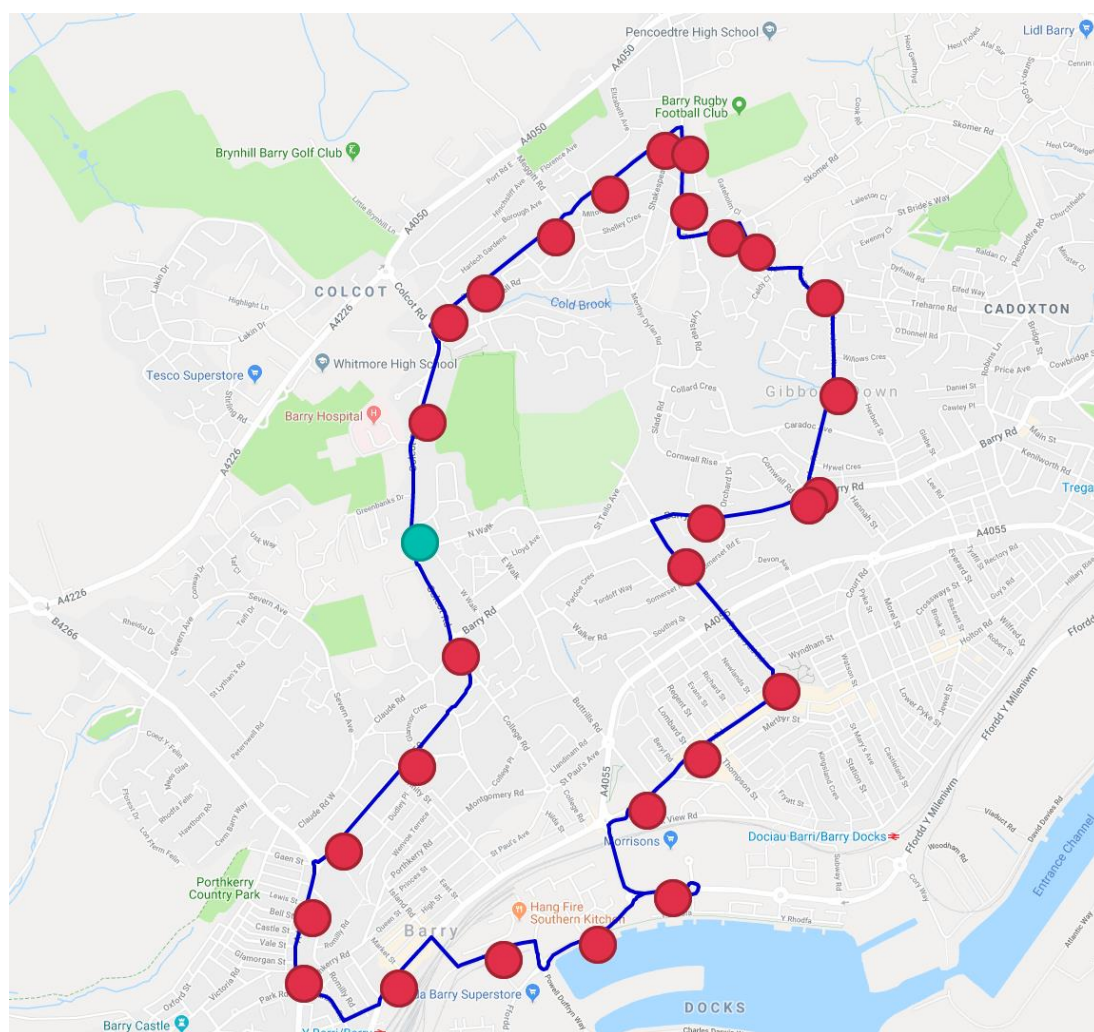
**Table 2.2: Bus Service Information**

Service	Route	Direction	Days	First Service	Last Service	Approximate Frequency
97/97A	Barry – Barry	Clockwise	Mon-Fri	07:46	16:26	30 minutes
			Sat	09:16	15:46	30 minutes
		Anticlockwise	Mon-Fri	08:06	17:16	30 minutes
			Sat	09:36	16:06	30 minutes
100	Merthyr Dyfan – Highlight Park (via Barry)	Towards Highlight Park	Sun	11:31	19:01	90 minutes
		Towards Merthyr Dyfan	Sun	12:49	20:19	90 minutes

**Notes:**

1. Information obtained from Traveline Cymru (July 2019).
2. Service times are arrival/departure times at/from the 'Barry Rugby Club' bus stops on MDR.
3. Services 97/97A and 100 are operated by Cardiff Bus.

2.6.5 **Table 2.2** shows that the 97/97A offers frequent weekday services; this serves numerous residential areas and key destinations within Barry, including the hospital, town centre and railway stations. The route is shown on **Figure 2.2**.

**Figure 2.2: Route of Bus Service 97/97A**

Source: Traveline Cymru.

2.6.6 In addition to these services, there are numerous school transport services that provide specifically for pupil travel to/from the site. These are as follows:

- S1 – From East Aberthaw, Rhoose and Rhoose Point;

- S3 – From Barry Island;
- S10 – From Holton Road via Barry (also serves WHS and YGBM); and
- S14 – From Broad Street, Barry (also serves WHS).

2.6.7 This assessment of bus service provision within walking distance of the site shows that there are opportunities to replace car trips from the surrounding area. An assessment of the accessibility of the site to these bus services has been undertaken using the 'Accessibility Index' (AI) calculator and associated methodology contained within the BREEAM guidance (a scheme for assessing the sustainability credentials for the built environment). This involves establishing the average number of services per hour from compliant transport nodes during a site's operating hours. For schools, a five-hour operating period is specified (from 07:30-10:00hrs and 15:00-17:30hrs). Compliant bus stops are those within 650m of a site. Where bus services are duplicated across bus stops, they should be included only once. For bi-directional services, average frequency should be calculated for one direction only.

2.6.8 The AI calculations are contained in **Appendix 2.1**. The average number of services per hour for services 97/97A and 100 has been based on the 'Barry Rugby Club' bus stops, approximately 400m from the site; this is identified as 'Node 1'. The input of the frequencies at these nodes results in an **AI of 1.65**.

### Rail Services

2.6.9 There are four railway stations serving Barry; these are Barry, Barry Island, Barry Docks and Cadoxton. All stations are located on the Barry Branch line between Cardiff Central and Barry Island. Barry is also the rail junction at the start of the VoG line which serves Rhoose and Llantwit Major and terminates at Bridgend.

2.6.10 The nearest station to the site is Cadoxton; this is located approximately 2.6km walk (equating to 31 minutes) or 2.8km cycle (equating to 8½ minutes) to the southeast of the site. The station is managed by Transport for Wales. **Table 2.3** provides a summary of the rail services accessed from Cadoxton.

**Table 2.3: Railway Service Information**

Direction	Days	First Service	Last Service	Approximate Frequency
Cardiff Central – Cadoxton	Mon-Fri	05:20	23:31	15 minutes
	Sat	05:20	23:30	15 minutes
	Sun	08:24	22:25	15-30 minutes
Cadoxton – Cardiff Central	Mon-Fri	05:25	23:21	15 minutes
	Sat	05:25	23:21	15 minutes
	Sun	09:11	23:06	15-30 minutes
Cadoxton – Bridgend	Mon-Fri	05:57	22:59	60 minutes
	Sat	05:57	21:57	60 minutes
	Sun	08:57	20:57	120 minutes
Bridgend – Cadoxton	Mon-Fri	06:21	23:21	60 minutes
	Sat	06:21	23:21	60 minutes
	Sun	10:21	22:21	120 minutes

**Notes:**

1. Information obtained from National Rail timetable (July 2019).
2. Services times are arrival/departure times for direct services at/from Cadoxton.

2.6.11 **Table 2.3** shows that regular services to key destinations are accessible from Cadoxton railway station. Barry railway station provides access to the same services; while this is further from the site (an additional 1km), it has a greater level of facility provision in terms of cycle parking, staffing presence and waiting areas, and can also be accessed via the 97/97A bus service.

- 2.6.12 The site is considered to have a good accessibility via railway services. The provision of direct services is a considerable benefit to encouraging sustainable travel for site users and an alternative to travelling by vehicle.

## 2.7 Summary

- 2.7.1 The site is situated in Barry, within the VoG. It lies to the south of the A4050, around 3km to the northeast of Barry Town Centre. The site is occupied by the existing PHS and associated playing fields and sports pitches. Residential areas are located to the east, south and west. BRFC is located immediately to the south of the site.
- 2.7.2 The local highway network to the site includes the PHS access road, MDR, the A4050 and A4226.
- 2.7.3 The site benefits from existing provision for pedestrians and cyclists in the locality; this includes footways on both sides of the majority of roads surrounding the site, with some allowing for shared use. Local facilities are located within walking and cycling distance of the site.
- 2.7.4 Bus services are accessible from bus stops located on MDR, which are within the IHT's suggested 'acceptable' walking distance. These provide access to a frequent weekday service that serves numerous residential areas and key destinations within Barry, including the hospital, town centre and railway stations. There are also numerous school transport services that provide specifically for pupil travel to/from the site.
- 2.7.5 Rail services are available from numerous railway stations in Barry, the nearest being Cadoxton. This provides accesses to high frequency services to/from Cardiff Central (every 15 minutes on weekdays) and reasonable frequency services to/from Bridgend (every hour on weekdays). Barry railway station provides access to the same services; while this is further from the site, it has a greater level of facility provision in terms of cycle parking, staffing presence and waiting areas, and can also be accessed via bus services. Overall, the site is considered accessible by sustainable modes.

## 3. Development Proposals

### 3.1 Introduction

- 3.1.1 This section of the report provides a description of the development proposals, including the site access strategy.

### 3.2 Overview of Proposals

- 3.2.1 The existing school, rebranded as PHS, currently has 846 pupils enrolled (at the time of the traffic surveys) with a permitted total capacity of 1,331 pupils. The existing staff numbers are a total of 78, with 53 being teaching staff and 25 being non-teaching staff.
- 3.2.2 The proposals seek to develop a full new school facility on the same wider school site. The new school is expected to open in 2021, with up to 1,100 pupils enrolled, of which up to 200 will be sixth form students. Pupil numbers are expected to steadily increase until full capacity is reached in 2026, at which point the school will enrol up to 1,250 pupils, of which up to 200 will be sixth form students. The number of staff is expected to increase in accordance with pupils to 150, with 105 being teaching staff and 45 being non-teaching staff.

### 3.3 Access Strategy

#### Vehicle Access

- 3.3.1 The site will continue to be served off MDR; this includes for all modes, i.e. vehicles, pedestrian and cyclists. The current vehicle activity on this access road includes teachers, parents dropping off and collecting pupils, school bus services and service vehicles. Parent vehicles and buses park within the internal junction with spaces provided on the roundabout island and around the circulatory. This current arrangement has caused concern from the LHA and has been the subject of safety assessments in the past.
- 3.3.2 To improve the current arrangement, the masterplan has considered the needs of the future school and the best use of the available space. This has resulted in a redesign of the internal access arrangements to include some minor improvement works.
- 3.3.3 It has been confirmed that the school will not be operating four bus services at the time of the new school opening. The ongoing adjustments to pupil catchment area and policy on pupil travel provision will result in two school buses being required and potentially a minibus. This future service requirement has helped to formulate a rationalisation of the junction and parking provision. Further details on the justification of the reduction in school transport provision is included within Appendix 3.2 of the accompanying Transport Assessment.
- 3.3.4 The parking provision which currently exists on the roundabout requires reversing movements which are contrary to the circulation of a roundabout junction. This was deemed one of the areas of most conflict within the current layout. This parking provision is therefore proposed to be removed. The roundabout island will be set out in a more uniform shape and the infill areas hatched out. The existing circulatory parking also currently contributes to congestion and multi-direction conflict opportunities, and this has therefore been reduced to provide two bus parking bays and a minibus parking bay. The masterplan illustrates this area to the east of the roundabout and includes the areas which are needed for manoeuvring by PSV vehicles, shown in hatch road markings. These areas will be monitored to ensure that they remain free for intended use. As part of these proposals, it is also proposed to remove the existing footpath which bisects the roundabout island; this serves parking areas and future use would be discouraged given that all pupil movements will be contained to the south of the junction, which are more direct.
- 3.3.5 The location of these bus bays ensures the shortest transition from bus drop off to the school entrance with now crossings or further interaction with the carriageway required. This location also provides adequate areas for pupil holding and waiting should buses be delayed at the end of the school day. The access arrangement improvements can be seen more clearly in the layout included at **Appendix 3.2**.

- 3.3.6 Swept Path Analysis (SPA) has been undertaken of the proposed bus bay pick-up/drop-off point, as shown in **Appendix 3.3**. Based on information provided by the Client team, a mix of coaches and minibuses will serve this area; therefore, SPA was undertaken using a 15m coach. The SPA indicates that the current design adequately accommodates the manoeuvring of a 15m coach and parking in each of the two bays and a minibus in the northern most allocated space
- 3.3.7 SPA was also undertaken of a fire tender vehicle, refuse vehicle and service vehicle entering school grounds, turning and exiting in a forward manoeuvre. These are also included in **Appendix 3.3**.
- 3.3.8 General staff parking will be provided to the north of the building cluster. This car park includes all the parking requirements for the school including cycle, motorcycle, staff and visitor cars and minibus. The design of the pedestrian area to transfer from the mobility parking areas will ensure that it is flat and easy to access.

### Pedestrian and Cycle Access

- 3.3.9 It is proposed that pupils and visitors of all abilities shall be able to easily enter into and move through the landscape and each space within it, via level or ramped entry points where necessary.
- 3.3.10 The current access arrangements will be retained with minor modifications, where necessary, to improve the current footway to a shared cycle/footway facility. The proposed width of the facility will be 3m; this width will be provided from the access with the local highway through to the school. The footway proposals will include a footway crossover at the location of the entrance to the caretaker's property, south of the roundabout. Traffic calming measures will be implemented along the access road, including a pedestrian crossing where the northern footway terminates.
- 3.3.11 Where this shared facility crosses the internal service access road, dropped kerbs and tactile paving will be provided. The access arrangement improvements can be seen more clearly in the layout included at **Appendix 3.2**.
- 3.3.12 The masterplan confirms that there is an opportunity to link with the footpath to the south to provide a link to the school building. The other areas of the wider school site will be accessible with internal footpaths and where required shallow gradient ramps to aid those with mobility issues.

## 3.4 Parking Provision

### Car Parking

- 3.4.1 The VoG parking standards are set out in Supplementary Planning Guidance (SPG) to the adopted Local Development Plan (LDP); the SPG was adopted in March 2019.
- 3.4.2 The SPG sets out the VoG's parking standards and explains the planning policy for parking requirements for new developments or changes of use. The parking standards seek to promote and ensure transparent and consistent approaches to the provision of parking. In addition to this, it helps to inform developers and designers what is expected of them in terms of sustainability considerations and travel planning.
- 3.4.3 The standards are defined according to a zoning system, with the site falling within Zone C - Suburban. **Table 3.1** summarises the car parking standards in the SPG and their application to the proposed development at full capacity.



**Table 3.1: VoG Car Parking Standards Applied to Proposed Development**

Type	Sub-Category	Standard	Maximum Provision
Operational	Commercial Vehicle Space	1 space	1
	<b>Total</b>		<b>1</b>
Non-Operational	Teaching Staff	1 space per each member of teaching staff	102
	Ancillary Staff	1 space per two ancillary staff	24
	Students aged 17+	1 space per 20 students aged 17+	10
	Visitors	3 spaces	3
	<b>Total</b>		<b>139</b>

*Note: Standards are for the 'Education – Secondary Schools & Colleges of Further Education' use type in the SPG.*

- 3.4.4 **Table 3.1** shows that, in terms of operational parking, one commercial vehicle space is required; there is available space within the area outside the loading bay / adjacent to the refuse storage area (located in the southwest corner of the site). In regard to non-operational parking, the maximum provision permitted by the standards is 139 spaces. The SPG also states that disabled parking should account for 5% of the total parking provision; on the basis of the maximum provision permitted of 139 spaces, this equates to seven disabled bays. The proposed development provides a total of 139 spaces, of which eight are designated as disabled bays. The total provision is therefore in accordance with standards. The provision is spread across two adjacent areas; the eastern area provides nine spaces and the western area provides 130 spaces (including the eight disabled bays, in proximity to the main entrance).

### Cycle Parking

- 3.4.5 **Table 3.2** summarises the cycle parking standards in the SPG and their application to the proposed development at full capacity.

**Table 3.2: VoG Cycle Parking Standards Applied to Proposed Development**

Cycle Parking Type	Standard	Required Provision
Short Stay	1 stand per 100 students	13
Long Stay	1 stand per 5 staff	30
	1 stand per 6 students aged 17+	33
<b>Total</b>		<b>76</b>

*Note: Standards are for the 'Education – Secondary Schools & Colleges of Further Education' use type in the SPG.*

- 3.4.6 **Table 3.2** shows that a total of 76 cycle parking spaces are required. The masterplan shows a total of 76 cycle parking spaces (38 stands allowing for two spaces per stand), which is in accordance with standards.
- 3.4.7 The SPG states that cycle parking should be located in a safe, secure and convenient location and for reasons of security, cycle parking facilities should be located in areas that are visible and therefore allow for informal surveillance. The proposed cycle parking is located in the southwest corner of the western parking area, which is in proximity to the main entrance, and is therefore considered to be in accordance with standards.
- 3.4.8 The SPG also requires the provision of appropriate lockers, changing and shower facilities to support staff cycling trips; these facilities are included as part of the internal building design.

### Motorcycle Parking

- 3.4.9 The SPG requires motorcycle parking to be provided at a level of 5% of the total car parking provision; this equates to a requirement for seven spaces. The masterplan shows a total of nine spaces, which is considered a reasonable level of provision. This will be located in the eastern parking area.

### Coach and Minibus Parking

- 3.4.10 Parking for two coaches and a minibus is provided off the main roundabout within the site. Parking for two additional minibuses is provided in the eastern parking area.

## 3.5 Summary

- 3.5.1 This section has provided a description of the development proposals, including the site access strategy.
- 3.5.2 The existing school, rebranded as PHS, currently has 846 pupils enrolled (at the time of the traffic surveys) with a permitted total capacity of 1,331 pupils. The existing staff numbers are a total of 78, with 53 being teaching staff and 25 being non-teaching staff.
- 3.5.3 The proposals seek to develop a full new school facility on the same wider school site. The new school is expected to open in 2021, with up to 1,100 pupils enrolled, of which up to 200 will be sixth form students. Pupil numbers are expected to steadily increase until full capacity is reached in 2026, at which point the school will enrol up to 1,250 pupils, of which up to 200 will be sixth form students. The number of staff is expected to increase in accordance with pupils to 150, with 105 being teaching staff and 45 being non-teaching staff.
- 3.5.4 The site will continue to be served off MDR; this includes for all modes, i.e. vehicles, pedestrian and cyclists. The proposed modifications to existing arrangements include:
- Improved footway to accommodate shared pedestrian and cyclist use;
  - Traffic calming measures will be implemented along access road, with the inclusion of a pedestrian crossing to facilitate pedestrian movements where the northern footway terminates.
  - Reconfiguration of internal access junction to remove circulatory parking on roundabout island;
  - Formal bus/coach drop-off and pick-up bays for two coaches and one minibus, with pupil holding areas; and
  - Minibus parking for school travel transport and also for school time events.
- 3.5.5 Car, cycle and motorcycle parking will be provided in accordance with adopted standards. In summary this includes 139 car parking spaces (of which eight are designated as disabled bays), 76 cycle parking spaces and nine motorcycle parking spaces. Parking for two coaches and a minibus is provided off the main roundabout within the site. Parking for two additional minibuses is provided in the eastern parking area.



## 4. Scope, Objectives and Implementation

### 4.1 Introduction

- 4.1.1 This section of the report outlines the scope and objectives of this TP, including a strategy for its implementation. The current PHS School does not have a TP and as such this is an opportunity to introduce this document and commitments to sustainable travel to coincide with the change of setting to a new purpose built facility.

### 4.2 Scope

- 4.2.1 This TP is aimed at facilitating and encouraging sustainable transport and the reduction of single occupancy vehicle use by staff, parents, pupils and visitors of the school. In this case, a change of behaviour is required given that the existing school will be redeveloped for a new facility.
- 4.2.2 It is an interim document, meaning that the scope of this TP is to outline the initial objectives, measures and targets prior to opening and full occupation of the proposed development. Upon opening, the content of this document will be updated and tailored to the specific requirements of the development to form a Full TP.

### 4.3 Objectives

- 4.3.1 The primary objectives of this TP are as follows:
- To encourage staff, parents, pupils and visitors to use more sustainable modes of transport to travel to and from the site;
  - To improve awareness of transport issues and reduce the impact of traffic on the local environment;
  - To minimise the proportion of single occupancy car trips made by staff, parents and visitors to and from the site;
  - To develop a change in travel behaviour of individuals towards sustainable modes of travel and then maintain that change.

### 4.4 Implementation

- 4.4.1 A Travel Plan Coordinator (TPC) will be appointed to oversee the implementation and management of the TP. The TPC will be 'hands-on', actively implementing and monitoring the TP.
- 4.4.2 The TPC will be appointed a minimum of six months prior to opening of the newly constructed comprehensive school. It will be the responsibility of the Local Education Authority (LEA) to appoint the TPC. This role will typically be undertaken by a member of the school community, e.g. Headteacher, other senior member of staff, governor, etc.
- 4.4.3 The responsibilities of the TPC will include:
- Acting as the point of contact for the TP;
  - Marketing and promoting the TP;
  - Providing sustainable travel information to the school community;
  - Monitoring and reviewing the TP;
  - Liaison with the VoG, transport operators and specialist groups; and
  - Arranging for travel surveys to be undertaken of the school community.

## 5. Measures

### 5.1 Introduction

- 5.1.1 This section of the TP sets out the measures that are proposed in order to achieve the objectives set out in **Section 4**.

### 5.2 Measures and Initiatives

#### Travel Information

- 5.2.1 Travel information will be distributed to the school community, the intention of which will be to encourage engagement in sustainable modes of transport. The travel information will include:
- Maps and information on local walking and cycling routes;
  - Public transport information including bus and rail services;
  - Details of public transport discounted fares/season tickets;
  - Details of the 'Cycle 2 Work' scheme;
  - Information on marketing and promotional events at a national and local level; and
  - Reasons for using sustainable modes of transport.
- 5.2.2 The travel information will be communicated through a number of channels including the school prospectus, school website, new starter packs and the school notice board.

#### Walking and Cycling Measures

- 5.2.3 It is proposed that people of all abilities shall be able to easily enter into and move through the landscape and each space within it via level or ramped entry points where necessary.
- 5.2.4 The masterplan includes a safe and convenient network of footways into the school. Pedestrian access will be via the existing vehicle access off MDR to the west. A pedestrian only link will also be provided to Blyth Close, located to the south, which provides a more direct route to Skomer Road. Internal access roads which require crossing will include dropped kerbs and tactile paving, with a footway crossover provided at the access to the caretaker's property. The bus bay areas will include easy and direct transfer facilities to the school together with pupil holding areas.
- 5.2.5 There are footpaths within the site, generally surrounding the building. The school buses will drop-off pupils at the front of the school, providing direct access to the school entrance.
- 5.2.6 Traffic calming measures will be implemented along access road, with the inclusion of a pedestrian crossing to facilitate pedestrian movements where the northern footway terminates.
- 5.2.7 A total of 76 cycle parking spaces are proposed, in accordance with parking standards, to be located near the main entrance.
- 5.2.8 The general walking and cycling measures that will be implemented are as follows:
- Promotion of the 'Cycle to Work' scheme;
  - Promotion of walking and cycling events such as 'Walk to School Week' and 'Bike Week';
  - Promotion of walking and cycling in travel information distributed to the school community and in classroom sessions; and
  - Provision of lockers and changing/shower facilities for pupils and staff.
- 5.2.9 In addition, the TPC will investigate the potential for the following walking and cycling measures:
- Junior Road Safety Officers (JRSOs) Scheme – this scheme seeks to empower children to take the lead in promoting road safety within their school. Participating schools elect JRSOs who will be

responsible for tasks such as maintaining a road safety notice board and promotion of road safety topics through class or school presentations;

- Cycle Training – Bikeability cycle training is available through BikeAbility Wales; and
- Liaison with local walking and cycling shops to establish if discounts on cycles/equipment or outdoor clothing can be agreed.

#### **Public Transport Measures**

- 5.2.10 Public transport measures will generally be promoted through the travel information distributed to the school community and in classroom sessions.

#### **Car Sharing**

- 5.2.11 Car sharing databases will be set up for both pupils and staff. This will allow those wishing to car share to identify potential matches in journeys. An indication of the financial savings which can be made through car sharing will be provided with the travel information. Staff will also be offered a free ride home in an emergency.

#### **Visitor Information**

- 5.2.12 Visitors to PHS will be encouraged to travel to the site by means other than the car. This will be facilitated through the provision of travel information, including local walking/cycling maps and bus timetables, in a prominent position within the school. The TPC will be responsible for the production and publication of visitor travel information.
- 5.2.13 Pre-planned visitors to the site will be provided with travel information prior to their visit in order to allow them to make well-informed travel plans, with an awareness of the sustainable travel options available to them.

## 6. Targets and Monitoring

### 6.1 Introduction

- 6.1.1 This section of the TP sets out initial mode share targets for the monitoring period and associated procedures for monitoring and evaluation.

### 6.2 Mode Share and Targets

- 6.2.1 Mode share targets are used to evaluate the success of the TP and to identify areas on which further measures should be focused in order to help to drive travel behaviour change. To enable the setting of valid and realistic targets, a valid baseline first needs to be established.
- 6.2.2 As set out earlier there is no current live TP at the school so travel information is not being collected. Section 5 of the Transport Assessment (TA) prepared for the planning application set out the forecast mode share of the school with the development proposals, as well as the calculation method and assumptions. For the pupil population, this involved the use of postcode data of the existing pupil population, and details of mode share by travel distance from the National Travel Survey (NTS). For the staff population, this involved the use of data from the 2011 Census.
- 6.2.3 The staff and pupil mode share which has been calculated as part of the assessments for both the existing and new school is summarised in **Table 6.1**.

**Table 6.1: Forecast Mode Share**

Mode	Existing School		New School (2021)		New School (2026)	
	Staff	Pupils	Staff	Pupils	Staff	Pupils
Walk	16%	54%	16%	55%	16%	54%
Cycle	1%	0%	1%	0%	1%	0%
Public Transport/ School Bus	3%	14%	3%	14%	3%	14%
Car	80%	32%	80%	31%	80%	32%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

- 6.2.4 **Table 6.1** provides mode share forecasts for both 2021 (opening year) and 2026 (full capacity). Given that the TP will be implemented from the opening year, it is appropriate to set targets based on the forecast mode share for that time. The target will be to reduce the 'car' mode share by 6% (from 31% to 25% for pupils, from 80% to 74% for staff) over five years, consistent with Smarter Choices' report *Changing the way we travel* (2004). Following the baseline travel survey this target can be confirmed or adjusted as appropriate, following discussion between the VoG and the TPC.
- 6.2.5 The target for a reduction in single occupancy vehicle use encompasses both staff and parent/pupil travel to the development. This is likely to provide a suitable sample size from which performance against the target can be reliably measured.

### 6.3 Monitoring and Evaluation

- 6.3.1 The point at which baseline travel surveys are required will be subject to agreement with the VoG. A minimum response rate to the travel surveys will be required to be set and agreed to ensure that the data is representative.

- 6.3.2 The format of the baseline and monitoring surveys will need to be agreed with the VoG. In general, these will seek to establish the actual travel patterns, the reasons for travel choice and potential measures to encourage consideration of alternatives. For staff, it is envisaged that the surveys will be primarily online-based, but paper copies will also be made available to staff should they prefer. For pupils and staff at the schools, a combination of survey methods could be utilised, and is likely to include the following:
- Hands-up surveys of pupils;
  - Manual counts at school drop-off/pick-up periods; and
  - Pupil/parent and staff questionnaires.
- 6.3.3 The results of the baseline travel surveys will be analysed and the factors influencing travel behaviour will be investigated. It will then be necessary for the TPC to review and update the respective TP to include additional details and the need for any other measures not already included that require further investigation. Specific objectives and targets will need to be identified, separated into short/medium/long term targets, and will need to be SMART (Specific, Measurable, Achievable, Realistic, and Timed). Specific actions and measures to encourage sustainable modes of travel will be identified. For the on-going management of the TP to be successful and to deliver the desired outcomes, it is important that the parties involved in the delivery of the TP, which means the TPC, and the VoG, work effectively in partnership to achieve the desired results.
- 6.3.4 Monitoring of the TP will be required for a five year period from the date of the baseline travel surveys. They will be undertaken at one, three and five years after the date (or close to the date) of the baseline travel surveys. The TPC will aim to coordinate the baseline travel surveys and subsequent monitoring surveys to ensure consistency between the collection of data for the TP. Surveys will avoid sustained periods of inclement weather or when there is significant disruption to the local road or public transport network.
- 6.3.5 A monitoring report will be prepared by the TPC for each monitoring survey. These will identify the results of the surveys and success of the measures implemented in achieving the targets. The reports will be submitted to the VoG for comment. If the targets are not met, then it will be necessary to review what remedial measures need to be implemented to mitigate the impact of any under achievement.
- 6.3.6 At the end of the formal monitoring period (five years), if the target for reduction in single occupancy vehicle use has not been achieved, the TPC will liaise with VoG to extend the period of monitoring or agree that the actual level of reduction achieved is satisfactory.
- 6.3.7 A TP is a living document, and as such it is expected that it evolves over the five year monitoring period to fit the changing requirements of the hub. By instilling a sustainability “ethos” at the school from the outset, it is more likely that engagement with sustainable travel will continue after the end of the formal monitoring period.

## 7. Summary

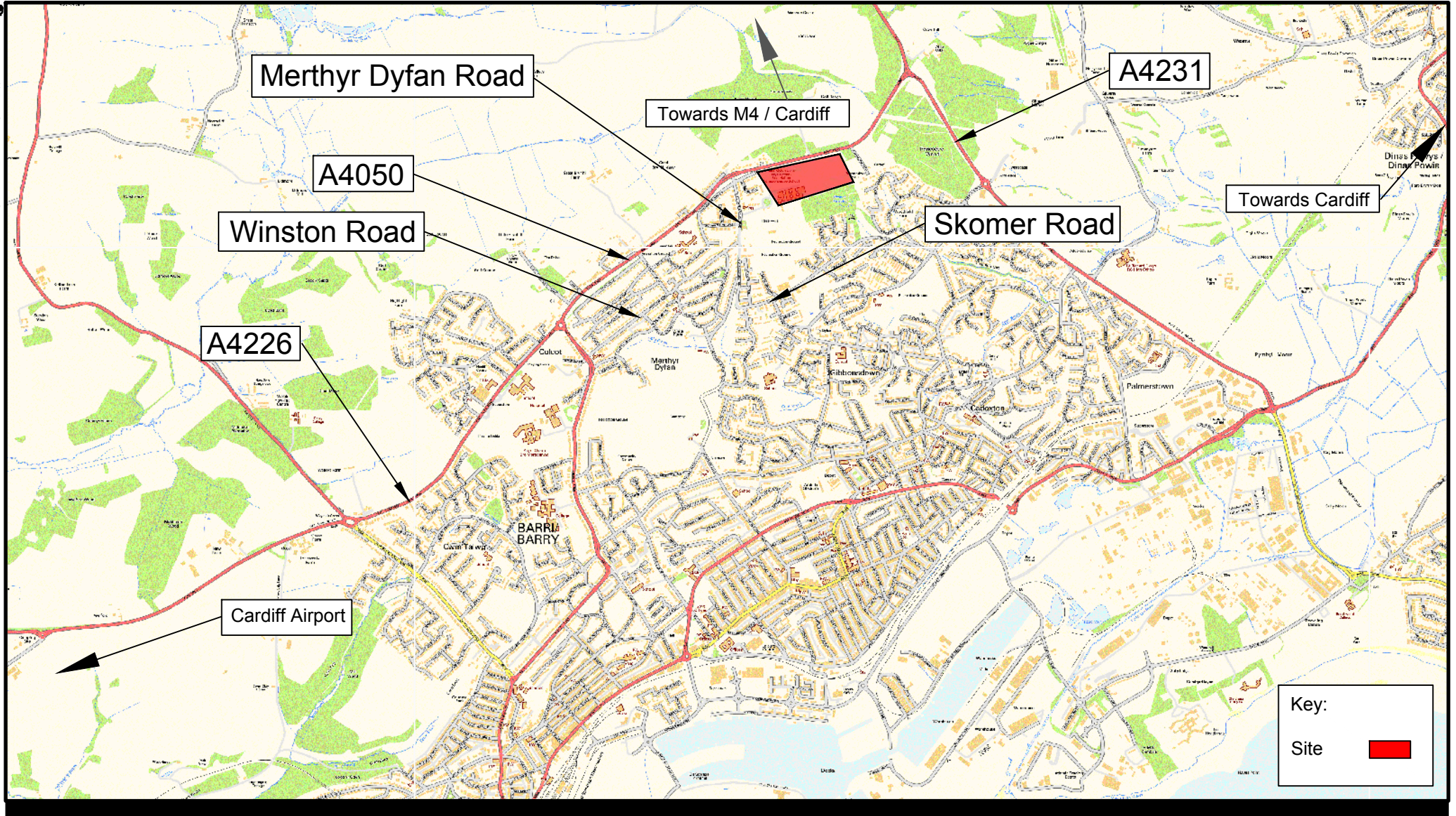
- 7.1.1 AECOM was commissioned by the VoG to provide transport planning and highways advice to inform a planning application for a new school development at PHS.
- 7.1.2 The existing school, rebranded as PHS, currently has 846 pupils enrolled (at the time of the traffic surveys) with a permitted total capacity of 1,331 pupils. The existing staff numbers are a total of 78, with 53 being teaching staff and 25 being non-teaching staff.
- 7.1.3 The new school is expected to open in 2021, with up to 1,100 pupils enrolled, of which up to 200 will be sixth form students. Pupil numbers are expected to steadily increase until full capacity is reached in 2026, at which point the school will enrol up to 1,250 pupils, of which up to 200 will be sixth form students. The number of staff is expected to increase in accordance with pupils to 150, with 105 being teaching staff and 45 being non-teaching staff. In terms of transport, the proposals include:
- Improved footway to accommodate shared pedestrian and cyclist use;
  - Traffic calming measures will be implemented along access road, with the inclusion of a pedestrian crossing to facilitate pedestrian movements where the northern footway terminates.
  - Reconfiguration of internal access junction to remove circulatory parking on roundabout island;
  - Formal bus/coach drop-off and pick-up bays for two coaches and one minibus, with pupil holding areas; and
  - Minibus parking for school travel transport and also for school time events.
- 7.1.4 The proposed development will not result in an increase in the number of pupils beyond the permitted capacity (1,331 pupils). There will be an increase in staffing level to support the increase in pupil population from what is currently on roll.
- 7.1.5 Car, cycle and motorcycle parking will be provided in accordance with adopted standards. In summary this includes 139 car parking spaces (of which eight are designated as disabled bays), 76 cycle parking spaces and nine motorcycle parking spaces. Parking for two coaches and a minibus is provided off the main roundabout within the site. Parking for two additional minibuses is provided in the eastern parking area.
- 7.1.6 A detailed review of the existing highway network and baseline situation has been carried out. The site benefits from existing provision for pedestrians and cyclists in the locality, including footways on both sides of the majority of roads surrounding the site. Residential areas and a range of local facilities are located within walking and cycling distance of the site. Frequent weekday bus services to numerous residential areas and key destinations within Barry are accessible from bus stops within the IHT's suggested 'acceptable' walking distance. An assessment of the accessibility of the site to these bus services has been undertaken using the 'Accessibility Index' (AI) calculator and associated methodology contained within the BREEAM guidance (a scheme for assessing the sustainability credentials for the built environment); this has confirmed an **AI of 1.65**. Rail services are available from numerous railway stations in Barry, the nearest being Cadroxton. This provides accesses to high/reasonable frequency services to/from Cardiff Central and Bridgend.
- 7.1.7 A TPC will be appointed to oversee the implementation and management of the TP. The TPC will be 'hands-on', actively implementing and monitoring the TP. The TPC will be appointed a minimum of six months prior to completion of the school expansion. It will be the responsibility of the LEA to appoint the TPC.
- 7.1.8 A range of potential sustainable travel measures to be implemented as part of the TP have been identified with reference to best practice. They form a starting point and the need for further measures to cater to the specific travel characteristics and demands of staff/parents/pupils/visitors will need to be considered when developing the TP.

- 7.1.9 Indicative targets for the TP have been established; these target a 6% reduction in car/van mode share. These will need to be reviewed following baseline travel surveys, along with the need for any specific TP measures. Monitoring of the TP will be required for a five year period from the date of the baseline travel survey. The monitoring survey will be undertaken at one, three and five years after the date (or close to the date) of the baseline travel survey. A monitoring report will be prepared by the TPC for each monitoring survey.
- 7.1.10 In summary, it is considered that the TP provides a solid foundation for the development of TP measures across the development. A package of measures has been identified with reference to best practice guidance, and these will complement the development proposals. A robust monitoring strategy has been set out, which will ensure effective monitoring and review to establish whether the TP is proving successful.



## Figures





# Pencoedtre High School, Barry

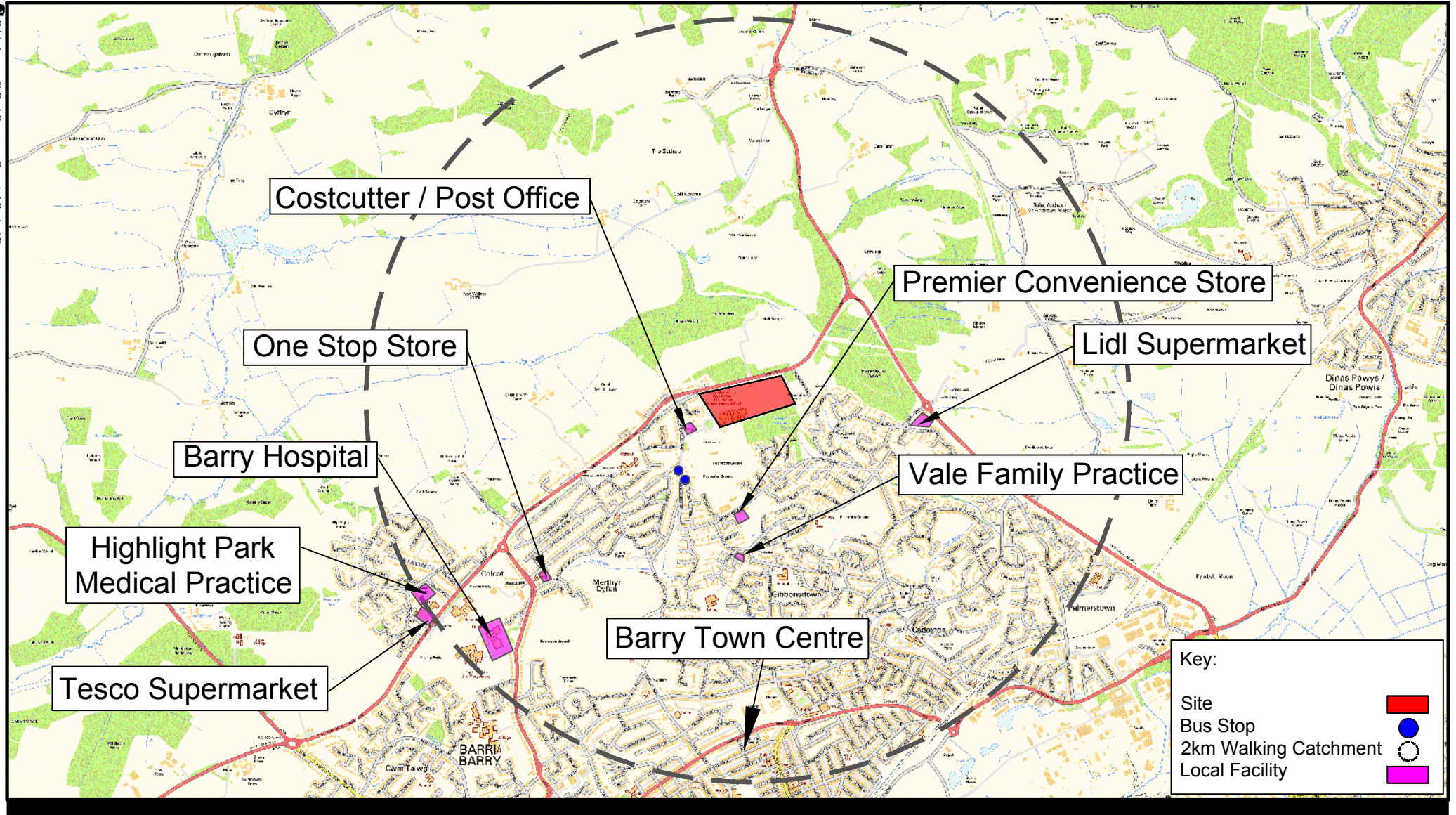
Travel Plan

Figure 1.1: Site Location Plan

**AECOM**

60610283





# Pencoedtre High School, Barry

Travel Plan

Figure 2.1: Local Facilities Plan

**AECOM**

60610283

## Appendix 2.1

### Accessibility Index

BREEAM 2018 Tra01/02 Accessibility Index calculator

Using the drop down boxes make the relevant selections and press the 'Select' button

Building type

No. nodes required

Select

NODE 1

Public transport type	Bus									
Distance to node (m)	400									
Average frequency per hour	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10
	2	0.66								

NODE 2

Public transport type										
Distance to node (m)										
Average frequency per hour	Service 1	Service 2	Service 3	Service 4	Service 5	Service 6	Service 7	Service 8	Service 9	Service 10

Accessibility Index	1.65
---------------------	------



## Appendix 3.1

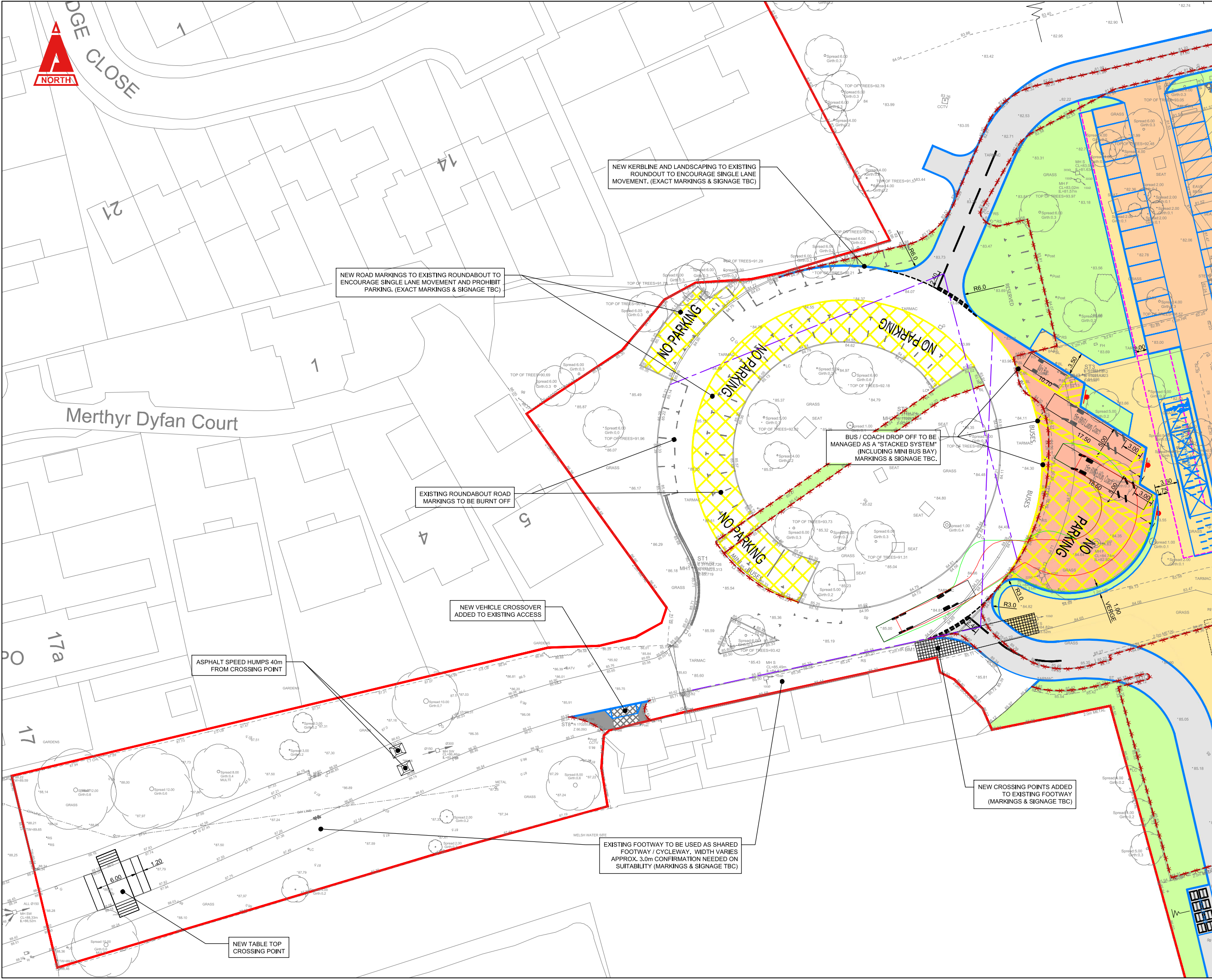
### Proposed Masterplan





## Appendix 3.2

### Access Arrangements



THIS DRAWING IS COPYRIGHT © CAMBRIA CONSULTING LTD.  
DO NOT SCALE FROM THIS DRAWING.

CONTRACTORS MUST CHECK ALL DIMENSIONS ON SITE, ONLY FIGURED DIMENSIONS ARE TO BE WORKED FROM. DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO CAMBRIA CONSULTING LIMITED BEFORE PROCEEDING.

THE CONTRACTOR IS TO REFER TO THE SPECIFICATION, FULL SCHEDULE OF RESIDUAL RISKS IN THE CONTRACT DOCUMENTATION AND ALSO TO INFORMATION FROM OTHER DESIGNERS, IN PARTICULAR THE M&E CONSULTANT REGARDING EXISTING LIVE SERVICES.

THIS SYMBOL IS USED TO HIGHLIGHT INSTANCES OF RISK WITHIN THE CONSTRUCTION PROCESS. ALWAYS CHECK FOR LATER REVISIONS OF THIS DRAWING.

**KEY:**

- NEW ROAD CONSTRUCTION (TBC)
- NEW PEDESTRIAN AREA (TBC)
- NEW LANDSCAPING (TBC)
- NEW CAR PARK AREA (TBC)
- NEW BUS DROP OFF AREA (TBC)
- NEW CROSSING POINTS (TBC)
- EXISTING KERBLINE TO BE REMOVED
- NEW PROPOSED LAYOUT
- ARCHITECTS PROPOSED CAR PARK KERBLINE
- SIGN "NO REVERSING EXIT IN FORWARD GEAR"
- 2.4m x 43m JUNCTION VISIBILITY SPY

Rev.	Description	By	Chk	App
P02	REVISED IN ACCORDANCE WITH VOG COMMENTS 21/08/19 AND DTM COMMENTS 29/08/19.	SJ	CP	GC
P01	FIRST ISSUE FOR COMMENT	SJ	CP	GC

Client:

Project:

**PENCOEDTRE HIGH SCHOOL (CC1941)**

Drawing Title:

**BUS & COACH DROP OFF: GENEARL ARRANGEMENT**

Drawing No.

**PHS CAM SW XX GA C 1163**

Project No.	Org.	Vol.	Level	Type	Dis.	Number
S3 PRELIMINARY			1:250			P02

Suitability Status:

Scale @A1:

Rev:

**CAMBRIA**  
Constructive Thinking

Civil & Structural Engineers  
Cambria House  
16 Plas St. Pol de Leon  
Penarth Marina  
Cardiff, CF64 1TR

T 029 2099 3333  
E admin@cambria.co.uk  
W www.cambria.co.uk  
@cambriauk  
uk.linkedin.com/in/cambria



