

Cardiff Sixth Form College Boarding Hub - Plot 5, Pierhead Street

Transport Statement

Client: Dukes Education Group Limited

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REPORT DETAILS

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1. INTRODUCTION

1.1 Background

- 1.1.1 Apex Transport Planning has been commissioned by Dukes Education Group to produce a Transport Statement (TS) in relation to proposals for a new sixth form boarding school accommodation development located at Plot 5, Pierhead Street, Cardiff Bay.
- 1.1.2 The proposals will provide an accommodation development for approximately 400 college boarding students for Cardiff Sixth Form College. These students will attend a new educational facility at Merchants Place and the Cory's Building at Bute Street, which is subject to a separate but inter-related planning application. At 280 metres apart, the sites are within a short walk of each other and would operate as one overall boarding school campus.
- 1.1.3 Dukes Education Group Limited was founded in 2015 and is a family of nurseries, schools and colleges in the UK. Dukes Education currently has 23 schools and colleges, and 20 nurseries. Cardiff Sixth Form College is part of this family and is currently located in leased accommodation at Trinity Court, 21-27 Newport Rd, Cardiff. The majority of students currently board in college accommodation in Cardiff. The College's overarching aim is to provide a permanent new home for the College's teaching space and boarding accommodation across the two chosen sites.
- 1.1.4 Overall the proposed campus would provide new teaching facilities for Cardiff Sixth Form College to accommodate a total of 500 students, consisting of 400 boarders and 100 day students across the Merchants Place / Cory's Building site and Plot 5 Pierhead Street sites. The proposals at Pierhead Street will be supported by sports facilities, amenity space, ancillary parking and other facilities to support the education use. The aim of the proposed campus scheme is to provide a world leading teaching facility supported by high quality boarding accommodation nearby.
- 1.1.5 This TS has been produced to support the Plot 5, Pierhead Street site which has been referred to as the "site". There is a significant crossover between the two sites due to the close proximity, and as they are being brought forwards as one single campus.
- 1.1.6 Each site benefits from planning consents for other development uses. As such movements into and out of the sites for other uses have previously been accepted on the network by Cardiff Council (CC).

1.2 Scope

- 1.2.1 The sites have been submitted as two separate planning applications and are supported by separate TS's to reflect the slightly different uses and demands for each site. Although separate, the sites are interdependent, with each site relying on the success of the other application for the campus to be viable under the proposals.
- 1.2.2 Each application will also be supported by a Framework Travel Plan, although this would be a single document which will cover both sites as the operations will be interdependent and the plan would be managed by the same Travel Plan Coordinator. The Travel Plan contains measures for encouraging sustainable travel for students / boarders, staff and visitors.
- 1.2.3 This approach and the content of this TS has considered the views of CC, obtained in response to a Scoping Note issued on 7th February 2022 and from subsequent pre-application comments and meetings held between the applicant and CC planning authority. The latest email correspondence can be found at Appendix A.

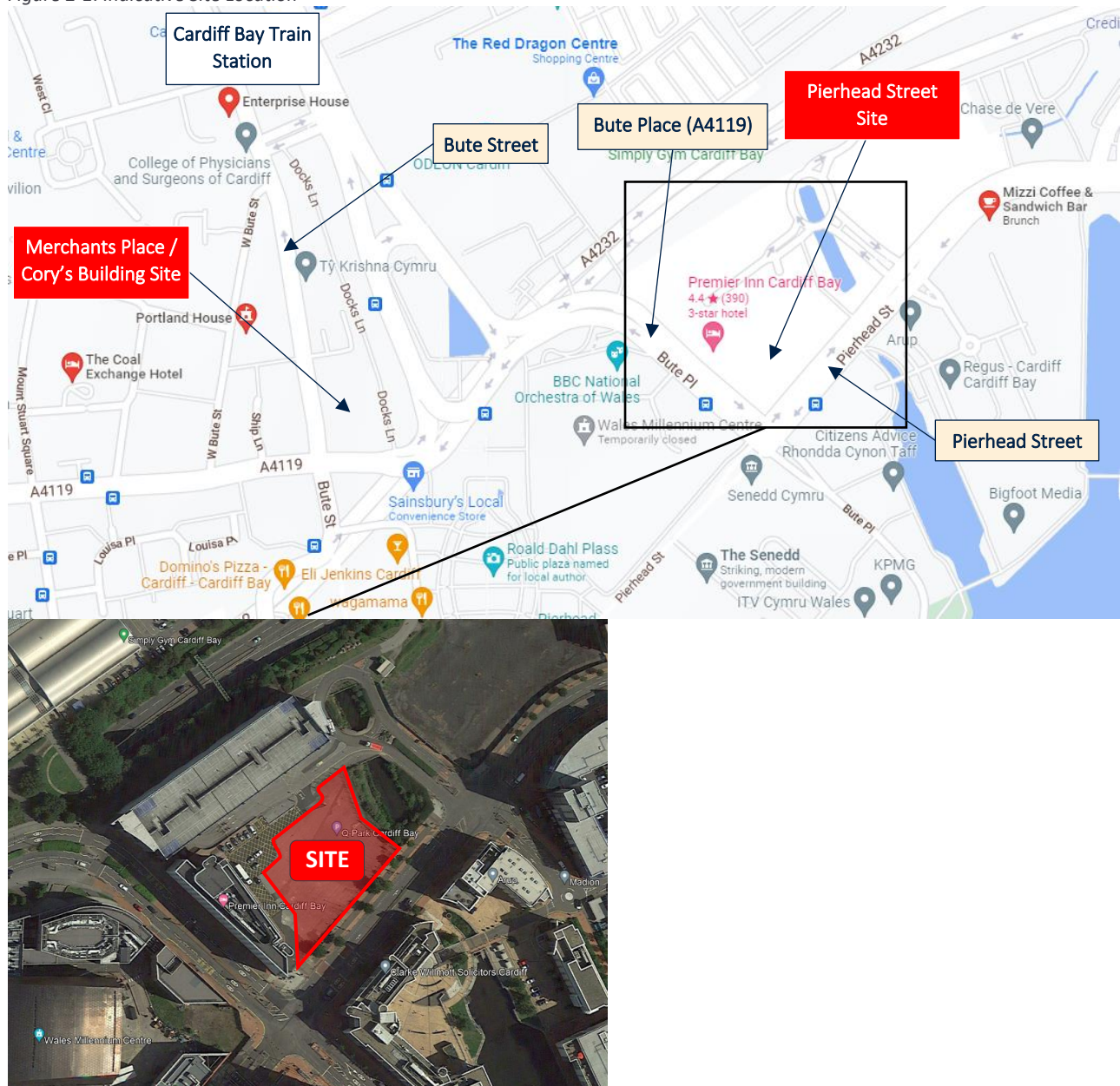
- 1.2.4 This TS also considers policies and advice set out in Future Wales, Planning Policy Wales 11 (PPW11), Technical Advice Note 18: Transport (TAN18), the Active Travel Act (Wales – 2013), the CC Local Development Plan (LDP) and Managing Transportation Impacts Supplementary Planning Guidance (SPG), as well as considering previous experience of other similar sites.

2. EXISTING CONDITIONS

2.1 Site Location, Use and Access

- 2.1.1 The site is located within the Cardiff Bay area, to the north of Pierhead Street and east of Bute Place (A4119) and the Wales Millennium Centre.
- 2.1.2 The site is bound by a multi-storey car park to the north, the dock's Canal to the east, Pierhead Street to the south, and the Premier Inn Hotel and Bute Place to the west.
- 2.1.3 The indicative location of the site is shown in Figure 2-1. This also shows the location of the college teaching facility proposed within the Merchants Place and the Cory's Building site to the west.

Figure 2-1: Indicative Site Location



Source: Google Maps

2.2 Cardiff Sixth Form College - Current Operation

- 2.2.1 The college is currently situated on Newport Road approximately 200m from Cardiff City Centre. It has 365 students (308 boarders and 57 day pupils), which is expected to grow to a total of 500 after the new site has been developed. At present there are 116 full and part time staff at the college which is forecast to grow to 160 with the new site.

2.3 Planning Context

Planning History on the Site

- 2.3.1 An application was approved in 2016 for the site which comprised a *“Hybrid application comprising: full planning application for erection of a 210 bed hotel (class c1) (9,334 sqm GEA) fronting Bute Place, including access, service area and six disabled car parking spaces. Outline planning application for the erection of two office buildings (circa 15,687 sqm GEA) including 106 surface and undercroft car parking spaces with all matters reserved other than means of access.”* (App Ref: 16/00547/MJR). The Premier Inn hotel was built pursuant to this application and currently fronts Bute Place immediately to the west of the site. The two office buildings (with a maximum height of 9-storeys) have not come forward, and in 2019 planning permission was granted for a five year extension to the permission (App Ref: 19/01024/MJR).
- 2.3.2 Prior to the 2016 application, the site was granted permission in 2001 for a temporary car park comprising 207 commuter spaces and 148 visitor spaces for general purpose visitors to the inner harbour (App Ref: 01/01355/C).
- 2.3.3 If progressed, the approved consent for an office building would have generated significant daily movements to and from the site, particularly given the 106 space car park, movements which were accepted by CC. As such, the impact of the proposals on the local highway network have been considered in this context.

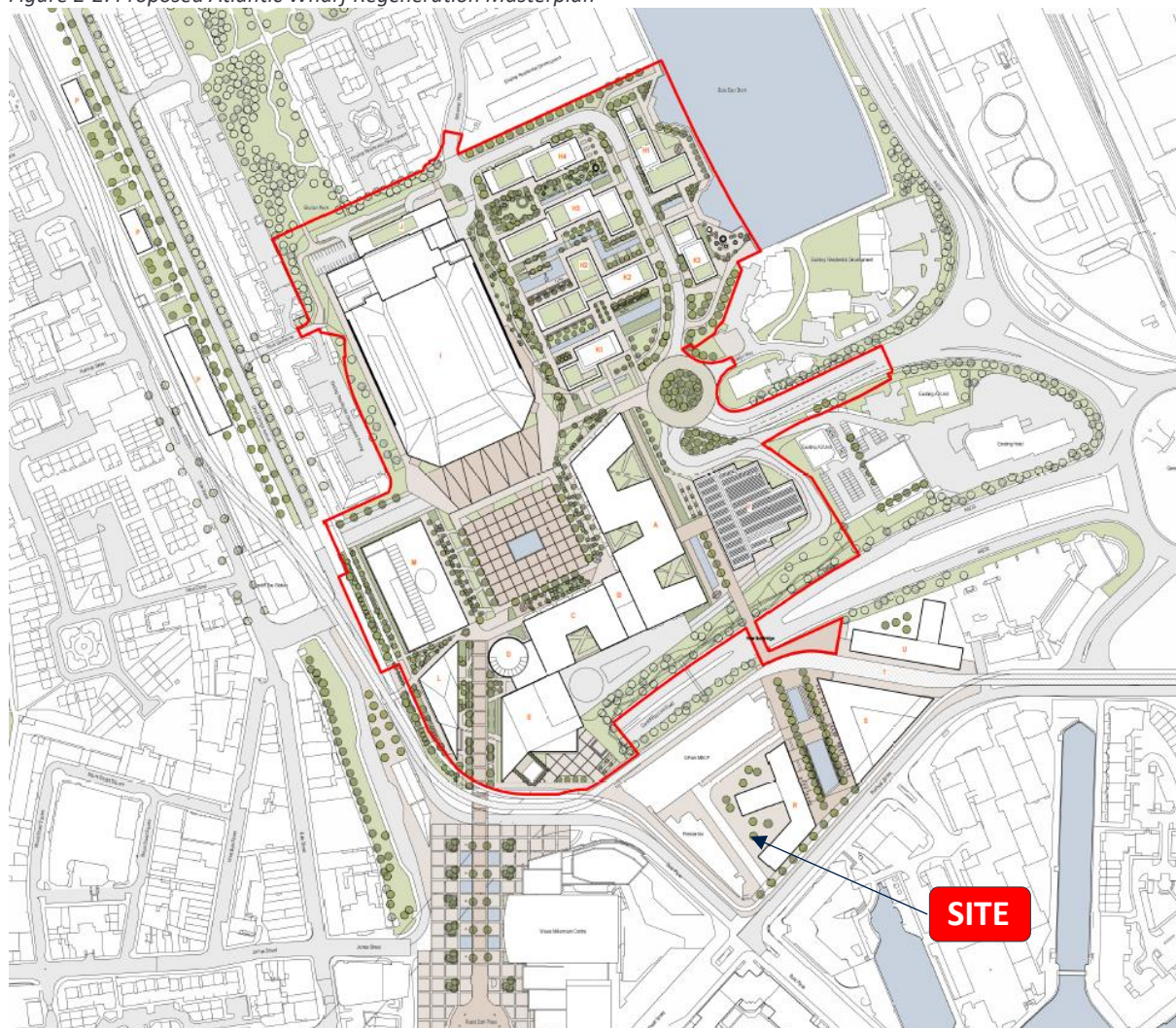
Atlantic Wharf Regeneration

- 2.3.4 The site lies within the vicinity of the proposed Atlantic Wharf regeneration scheme, proposed as part of a joint partnership between CC and Robertson Property Ltd. The proposals seek to extend the public realm from Cardiff Bay Waterfront into Atlantic Wharf, supported by a 17,000 capacity events arena and mixed-use developments including residential, office, food and leisure. The wider masterplan will also incorporate improvements delivered through the Metro which will include a new rail link between Cardiff Central, Cardiff Bay and the new St Mellon's Parkway station. The scheme will improve active travel by extending the car-free public realm areas, which will enhance pedestrian connections to and from the site as well as between the two college sites. A Hybrid planning application was submitted in November 2021 (App Ref: 21/02687/MJR) and this was granted at committee in March 2022, subject to conditions and agreeing a S106. The proposal was for:

A mixed-use masterplan within the inner harbour, Cardiff Bay including outline details for up to 890no. residential dwellings (use class C3), 1,090 no. hotel bed spaces (use class C1), 19,500 sqm of employment floorspace (use class B1), 27,500 sqm of leisure floorspace (use classes D1 and D2) and 12,310 sqm of retail floorspace (use classes A1 and A3). Plus associated public realm, open space, hard and soft landscaping, drainage, walking, cycling, car parking and other transport infrastructure. Together with full details for a multi-use, indoor arena (use class D2) with supporting uses and cafe (use class A3) a 182 no. bed space hotel (use class C1) plus associated public realm, hard and soft landscaping, drainage, walking, cycling, car parking and other transport infrastructure.

- 2.3.5 The masterplan in the context of the site is shown in Figure 2-2 which demonstrates the significant changes which will be delivered by the regeneration scheme particularly to the streets within the vicinity of the site and the walking routes between the education facility at Merchants Place and the accommodation at Pierhead Street.

Figure 2-2: Proposed Atlantic Wharf Regeneration Masterplan



Source: Rio Architects Proposed Context Masterplan for Atlantic Wharf application

- 2.3.6 As such, the proposed Cardiff Sixth Form College scheme will benefit from the significant improvements which will be delivered by the approved scheme, particularly for walking between the two sites and public realm improvements along the canal to the east. The proposed Cardiff Sixth Form College scheme will also contribute towards the wider regeneration and improvements delivered within the area.

2.4 Local Highway Network

Pierhead Street

- 2.4.1 Pierhead Street runs along the southeastern boundary of the site and routes between a signal controlled junction with Caspian Way and Tyneside Road to the east and the Senedd buildings to the west. At this point, it terminates for vehicular use and joins Harbour Drive and the adjacent pedestrianised areas. At the southwestern corner of the site it forms a crossroad signal controlled junction with Bute Place. Pierhead Street is a dual carriageway road with two lanes running in each

direction. It also forms a signal controlled junction with Falcon Way and the private access road which connects to the site and the multi-storey car park. Each signal controlled junction is provided with signalised crossing facilities and advanced cycle stop lines.

- 2.4.2 It also serves as a bus route for Cardiff Bus Service 8, which operate from the adjacent bus stops along Pierhead Street.
- 2.4.3 Locally, Pierhead Street forms a strategic link to and from the east and joins the Cardiff Bay Link Road (A4232) via Caspian Way which provides routes in all directions and connects to the A48 and the M4 at Junction 29. Pierhead Street connects to Bute Place to the west, which provides routes in all directions including Cardiff Bay Link Road to the west and the A4119 and A48 at Culverhouse Cross.

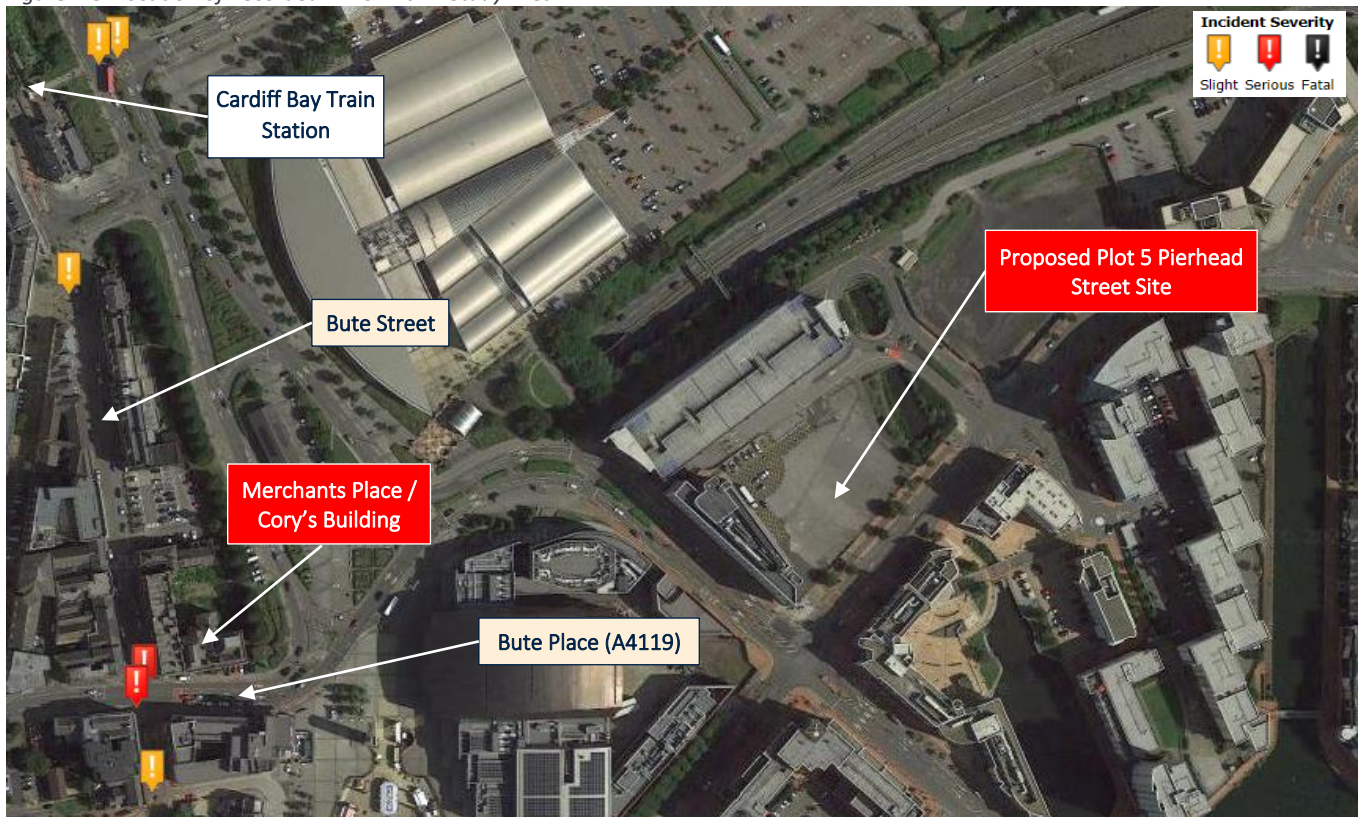
Bute Place (A4119)

- 2.4.4 Located to the west of the site, Bute Place forms part of one of the key east-west links within Cardiff Bay. It connects to Lloyd George Avenue to the northwest which links to the City Centre. Further west Bute Place becomes St James St (A4119) which links to the A48 via the A4232 at Culverhouse Cross.
- 2.4.5 It is a dual carriageway with two lanes running in each direction, similar to Pierhead Street. It is subject to a 20mph speed limit.

2.5 Road Safety

- 2.5.1 Personal Injury Accident (PIA) data has been obtained from road safety data published annually by the Department for Transport (DfT). The statistics provide PIA data which has been recorded using the STATS19 accident reporting form. The most recently available five-year dataset, prior to the pandemic therefore covering a position with typical traffic flows, covers between 1st January 2015 and 31st December 2019. The review has also considered the data in 2020 and 2021. A total of seven years of data has therefore been reviewed, which is considered robust.
- 2.5.2 Due to the nature of the proposals, the proposed study area to be considered within this road safety review covers the local highway network within the vicinity of and connecting both sites. This includes the route to the Cardiff Bay Rail Station and to the proposed college boarding site off Pierhead Street.
- 2.5.3 Figure 2-3 shows the PIA's recorded within this study area over the seven year study period.

Figure 2-3: Location of Recorded PIA's Within Study Area



Source: Crashmap.co.uk

- 2.5.4 Figure 2-3 shows that there were seven PIAs with the study period, comprising five slight PIAs and two serious PIAs. No fatal PIAs were recorded within the study area or within the vicinity of the site.
- 2.5.5 Two of the PIAs involved pedestrians, although none involved children. These accidents were recorded as slight and occurred at different locations along Bute Street, with one located to the north near Hemingway Road and the other to the south opposite Bute Crescent.
- 2.5.6 Two of the recorded PIAs involved pedal cycle casualties, which occurred at the signalised junction of Bute Street / A4119 adjacent to the site. These were recorded as serious, although occurred on different arms of the junction.
- 2.5.7 There were no clusters of four or more PIAs occurring in the same location and therefore no evidence to suggest a re-occurring road safety issue.
- 2.5.8 There were no PIAs on the route between the two sites which does not suggest there is a road safety issue for pedestrian movements on this key route.
- 2.5.9 In addition, there were no PIAs along Bute Place on the boundary of the site or at the access with Docks Lane which does not suggest there is a safety issue with the pedestrian or cyclist environment along the site frontage.
- 2.5.10 Although all incidents are regrettable, the PIAs that occurred do not indicate a specific pattern of issue with the geometry of the highway that would be exacerbated by the proposed development. There is no evidence of a specific highway safety issue on key routes or the site frontage, particularly for pedestrian movements.

2.6 Modal Share

2.6.1 The site is located within middle layer super output area (MSOA) Cardiff 048. The Census data (2011) has been analysed for this output area to establish the journey to work modal split for the workplace population to show the potential modes of travel for staff of the site. Cardiff 048 MSOA covers a wide area, including numerous leisure, retail and industrial uses within Cardiff Bay.

2.6.2 Table 2-1 shows how the existing employees in this area currently travel to work, as well as a comparison with the entire of CC as obtained from 2011 Census data (via Nomis dataset WP703EW).

Table 2-1: Journey to Work Mode Split (Census 2011)

Mode	Cardiff 048	Cardiff
Public Transport	12.8%	16.7%
Car Driver	65.7%	60.4%
Car Passenger	5.0%	5.6%
Motorcycle	0.4%	0.5%
Bicycle	4.3%	3.3%
On Foot	11.1%	12.6%
Other	0.6%	0.8%
Total	100.0%	100%

2.6.3 Table 2-1 shows that 66% of existing employees travel to work to the Cardiff 048 MSOA by car or motorcycle driver and an additional 5% travel to work as a car passenger. A total of 28% travel by sustainable modes of transport, of which 11% travel on foot, 13% travel by public transport and 4% travel by bicycle.

2.6.4 The data shows that the method of travel is similar in Cardiff 048 MSOA and across the wider CC area.

2.6.5 The data shows that employees in this area travel by sustainable modes and the level of cycling is higher than across the wider CC area. As such, this demonstrates that there is potential for employees to travel to and from the site by walking, cycling, and that these movements already occur in this area.

2.6.6 The Census data is also 11 years old, and the percentage of journeys made by cycling (for example) within Cardiff has increased since this time. Cardiff Council's Transport White Paper (2020) suggests that cycling has increased from 7% of journeys to work in 2010 to 13% in 2020, together with increases in public transport use. The percentage of car journeys has fallen from 57% to 49% over the same 10-year period. As such, it is likely that there is a higher level of sustainable travel use than shown.

2.7 Public Car Parking

2.7.1 There are a number of chargeable public car parks within close proximity to the site, which have been summarised in Table 2-2.

Table 2-2: Car parks within close proximity of the site

Car Park	Walking Distance from site (metres)	Number of Spaces
Mermaid Quay Car Park	500	380
Pierhead St Car Park	20	1239
Red Dragon Centre Car Park	550	765
Havannah St Car Park	950	238
Total Spaces		2,622

2.7.2 Mermaid Quay Car Park was granted consent in December 2021 for an extension which would increase the car parking capacity to 682 car parking spaces (+302 spaces) as well as additional electric car charging points and cycle parking (App Ref: 19/01012/MJR). This would increase the total car parking capacity within 500 metres of the site to 2,924 spaces.

- 2.7.3 In addition to the public car parks shown in Table 2-2, there is also chargeable on-street parking on some of the surrounding streets including:
- Bute Street (approximately 42 spaces)
 - West Bute Street (approximately 28 spaces)
 - Bute Crescent (approximately 11 spaces)
 - James Street (approximately 10 spaces)
 - Mount Stuart Square (approximately 33 spaces)
- 2.7.4 There is also free parking available along the following roads within walking distance of the site:
- Bute Street (approximately 50 spaces)
 - Hodges and Loudon Square (approximately 133 spaces)
 - Dudley Street (approximately 17 spaces)
 - Eleanor Place (approximately 17 spaces)
 - Windsor Esplanade (approximately 25 spaces)
 - Havannah Street (approximately 8 spaces)
 - West Close, Hannah Street, Henry Street (approximately 123 spaces)
- 2.7.5 There are a number of parking options within short walking distance of the site, with four large public car parks located within 950 metres providing a total of c.2,622 spaces. In particular, Pierhead Street Car Park lies immediately to the north of the site and provides a total of 1,239 spaces. There are also a number of electric car charging points located within Cardiff Bay which will help support the use of sustainable vehicles, including within the Pierhead Street Car Park adjacent to the site.
- 2.7.6 There is a significant level of car parking available within the vicinity of the site which can accommodate the potential vehicle demand associated with the proposed college as an overall development, including staff and visitors associated with the proposed boarding accommodation site (where needed).

3. PLANNING POLICY

3.1 Future Wales: The National Plan 2040

- 3.1.1 This is the national development framework, setting the direction for development in Wales to 2040. It provides an overarching development plan with a strategy for addressing key national priorities through the planning system. Planning decisions at every level of the planning system in Wales must be taken in accordance with the development plan as a whole.
- 3.1.2 In relation to transport, it states on page 51 that *"Growth should be shaped around sustainable forms of transport and places that make us and the environment healthier"*. Page 55 continues on to state that *"Development will focus on active travel and public transport, allied with a reduced reliance on private vehicles"*.
- 3.1.3 In the supporting text for Policy 2 - Shaping Urban Growth and Regeneration – Strategic Placemaking, it is stated that *"To enable active and healthy lives, people should be able to easily walk to local facilities and public transport."*
- 3.1.4 Policy 11 sets out National Connectivity, this states that *"Our priorities are to encourage longer distance trips to be made by public transport, while also making longer journeys possible by electric vehicles."*
- 3.1.5 Policy 12 sets out Regional Connectivity. This states that *"in urban areas our priorities are improving and integrating active travel and public transport."*
- 3.1.6 In relation to Active Travel and developments it is stated that *"Active travel must be an essential and integral component of all new developments, large and small."*
- 3.1.7 In relation to travelling in Wales, on page 84 it is stated that *"The Welsh Government's aim is to reduce the need to travel, particularly by private vehicles, and support a modal shift to walking, cycling and public transport."*
- 3.1.8 On page 174, supporting Policy 36, it is stated that *"Welsh Government wishes to see development built in sustainable locations that are supported by the active travel and public transport infrastructure and services needed to enable people to live active and healthy lives."*
- 3.1.9 As such, the key themes are that development should be sited where it can benefit from active travel and public transport connections and reduce the need to travel by car. Facilities should be within easy walking distance, which would include educational facilities.
- 3.1.10 The site is situated in a highly sustainable location in an existing urban area within a short walking distance to public transport links, key facilities, education (the associated education site at Bute Place) and employment areas. Existing active travel connections connect to the site which encourages walking and cycling for local journeys. The site is also excellently situated to benefit from public transport services.
- 3.1.11 The site location is consistent with the policies and aims of Future Wales and is fully in accordance with the Welsh Government aspirations for where development should be focused. Full details of the sustainable connectivity are set out within Section 4.

3.2 Planning Policy Wales 11th Edition (PPW11)

- 3.2.1 PPW11 provides overarching Welsh Government policies with transport policies set out in Section 4.1. This states in paragraph 4.1.10 *"The planning system has a key role to play in reducing the need to*

travel, particularly by private car, and supporting sustainable transport, by facilitating developments which:

** are sited in the right locations, where they can be easily accessed by sustainable modes of travel and without the need for a car*

** make it possible for all short journeys within and beyond the development to be easily made by walking and cycling."*

3.2.2 PPW11 sets out a "Sustainable Transport Hierarchy for Planning" in Figure 9. This states in paragraph 4.1.12 "It is Welsh Government policy to require the use of a sustainable transport hierarchy in relation to new development, which prioritises walking, cycling and public transport ahead of the private motor vehicles. The transport hierarchy recognises that Ultra Low Emission Vehicles also have an important role to play in the decarbonisation of transport."

3.2.3 It continues to state that "The sustainable transport hierarchy should be used to reduce the need to travel [and] prevent car-dependent developments in unsustainable locations."

3.2.4 PPW11 also states in paragraph 3.39 that development should "where possible, offer good active travel connections to the centres of settlements to reduce the need to travel by car for local journeys."

3.2.5 The site is situated in a location which is highly accessible by walking, cycling and public transport, with active travel links to numerous areas, which is fully compliant with PPW11, as demonstrated in Section 4 of this TS.

3.3 Technical Advice Note 18: Transport (TAN18)

3.3.1 The importance of walking and cycling in contributing towards sustainable travel patterns is detailed in the guidance contained within TAN18: Transport (March 2007). The guidance emphasises not only the role walking and cycling can have as main modes of transport for local journeys but also the considerable contribution they play in forming parts of longer journeys by public transport.

3.3.2 Paragraph 3.8 states that "Locations that are highly accessible by a variety of travel modes offer significant opportunities to make travel patterns more sustainable."

3.3.3 As such it is recognised by TAN18 that the sustainable location of a site, such as the application site, has a significant influence in engraining sustainable travel habits.

3.4 Cardiff Local Development Plan (LDP) (2006-2026)

3.4.1 Section 4 of the LDP relates to Transport. Policy T1 specifically refers to walking and cycling. This states that to enable people to access employment, services and community facilities by walking and cycling, the Council will support developments which incorporate;

- High quality, sustainable design which makes a positive contribution to the distinctiveness of communities and places;
- Permeable and legible networks of safe, convenient and attractive walking and cycling routes;
- Measures to minimise vehicle speed and give priority to pedestrians and cyclists;
- Safe, convenient and attractive walking and cycling connections to existing neighbourhoods;
- Infrastructure designed in accordance with standards of good practice including the Council's Cycling Design Guide;
- Supporting facilities including, signing, secure cycle parking and, where necessary shower and changing facilities;

- 3.4.2 Policy T6 states that Development will not be permitted which would cause unacceptable harm to the safe and efficient operation of the highway, public transport and other movement networks including pedestrian and cycle routes, public rights of way and bridle routes. This TS demonstrates that the proposals would not have an unacceptable impact on transport.
- 3.4.3 Policy KP8 relates to sustainable transport, which shows that development in Cardiff will be integrated into existing transport infrastructure in order to achieve a target of a 50:50 modal split between cars and journeys by walking cycling and public transport on the network. The proposed development is in line with this policy as the site location offers a realistic choice of travel modes and would significantly reduce on-site parking provision in comparison with the consented use.

4. SUSTAINABLE CONNECTIVITY

4.1 Introduction

- 4.1.1 This section describes the opportunities to make everyday trips by non-car modes and demonstrates the sustainable travel options which are available to students, staff and visitors to and from the site. It considers the likelihood of trips being made on foot, by cycle, bus, and rail. The site location is demonstrated to be in accordance with sustainable transport policies in Future Wales, PPW11, TAN18 and the LDP.
- 4.1.2 The site benefits from being located within Cardiff Bay, an area which provides extensive sustainable travel infrastructure which will provide opportunities for potential future users to make everyday trips by non-car modes.
- 4.1.3 As demonstrated in Section 2, the site location already accommodates sustainable travel movements without evidence of an existing safety issue. As such, the location is considered safe and suitable to accommodate the demand from the proposed scheme.
- 4.1.4 The majority of trips to and from the site on a daily basis will be made to and from the associated teaching facility at the Merchants Place and Cory's building site. These trips will be associated with the 400 boarding students who will make this trip on foot as cycling will not be allowed between the two campuses.
- 4.1.5 However, there will be some demand for other local trips during evenings and/or weekends for other purposes such as retail, leisure and recreation. The majority of these trips are also expected to be made by sustainable modes due to the proximity of the site to nearby facilities and services as well as the extensive sustainable infrastructure and travel services on offer.

4.2 Walking and Cycling

Infrastructure

- 4.2.1 Walking and cycling (collectively known as active travel) are the most important modes of travel at a local level and offer the greatest potential to replace short car journeys.
- 4.2.2 The site benefits from being located to nearby existing and well-established walking routes, public open spaces and car-free areas which enhance pedestrian permeability. Suitable footways and crossings are provided throughout the local area, as would be expected within an existing and established urban area. The majority of streets within the vicinity of the site are subject to 20mph speed limits and benefit from footways on both sides of the carriageway, providing pedestrian friendly links between the two associated sites as well as to the surrounding facilities and public transport services.
- 4.2.3 There are signal controlled crossings located on Pierhead Street to the south and on Bute Place to the west which provide opportunities for pedestrians to cross, with a total of five crossing locations on the route between the two sites. As such, there are suitable crossing points for pedestrians to safely cross the surrounding streets.
- 4.2.4 The site benefits from access to a good standard of cycle infrastructure including on and off-carriageway routes, providing connections in all directions. A two-way off-carriageway cycle facility routes along Pierhead Street and Bute Place adjacent to the site. This provides a connection to the National Cycle Network Route 8 via an off-carriageway link past Roald Dahl Plass between the two

sites. Advanced stop lines are provided at the adjacent signalised junctions, which encourages on-carriageway cycling along the advisory cycle routes and 20mph streets.

Cycle Routes

- 4.2.5 The site is located in close proximity to several cycling routes as indicated on the Cardiff Cycling and Walking map. An extract of this map showing cycle routes in the vicinity of the site is shown on Figure 4-1. This shows cycle routes are available in all directions from the site including to and from the associated college sites as well as between the City Centre and Cardiff Bay, with a number of traffic-free routes which serve Cardiff Bay as well as the City Centre, Penarth and west Cardiff. In particular, Pierhead Street forms a traffic free route connecting to the west, with a cycleway routing adjacent to the site boundary.
- 4.2.6 Lloyd George Avenue also provides routes connecting to and from Cardiff City Centre and Cardiff Central Rail Station and a traffic free route also runs adjacent to Bute Place connecting the site to the associated teaching facility site.

Figure 4-1: Cycle Network within the vicinity of the site



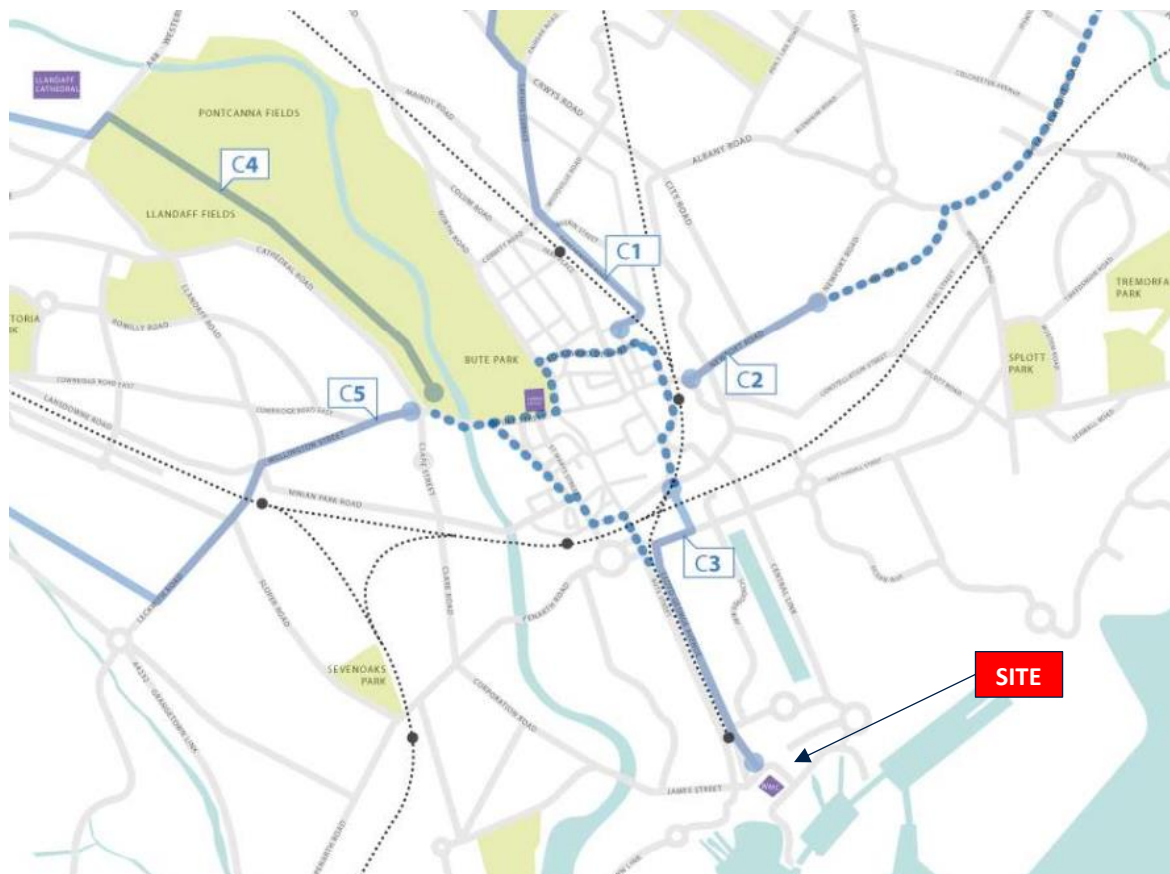
Source: Cardiff City Council My Maps

- 4.2.7 Cardiff Council is also developing proposals for five permanent cycleways to support and promote cycling. The routes will connect communities to major destinations across the city, including the City Centre and Cardiff Bay. The routes are as follows:
- Cycleway 1: City Centre to Cathays, University Hospital Wales, Heath High Level and Heath Low Level Rail Stations and North East Cardiff Strategic Development Site
 - Cycleway 2: City Centre to Adamsdown, Newport Road retail parks, Rumney, Llanrumney and St Mellons Business Park
 - Cycleway 3: City Centre to Cardiff Bay
 - Cycleway 4: City Centre to Llandaff, Danescourt and North West Strategic Development Site
 - Cycleway 5: City Centre to Riverside, Ely and Caerau

4.2.8 Cycleway 3 routes within close proximity of the site along Lloyd George Avenue and has already been completed. This route connects the City Centre to Cardiff Bay as well as linking to other existing and planned routes. Once completed, these routes will provide a network of high quality cycling connections to numerous parts of the city.

4.2.9 A plan of the five cycleways is shown on Figure 4-2.

Figure 4-2: Proposed Cycleways in Proximity of City Centre



Source: Cardiff Council website

Nextbike

4.2.10 CC has implemented a cycle hire scheme operated by Nextbike, called OVO Bike. Nextbike is a subscription-based bike sharing system that has 50 stations throughout Cardiff with over 1,000 bikes to rent from as little as £1 per 30 minutes. As shown on Figure 4-1, four OVO Bike stations are located within the local area with the closest stations located on Pierhead Street to the south (c.40m) and Bute Place to the west (c.200m). The Pierhead Street station provides standard bikes with the Bute Place Station providing both standard bikes and e-bikes.

4.2.11 This allows students and staff the ability to travel to and from the site using the hire bikes and travel via existing well-established cycle routes. The existing stations are considered to appropriately serve the site and encourage the use of the scheme.

Summary

4.2.12 The site is considered to be situated in a highly sustainable location for active travel, as would be expected for a site with consent for office use in an established urban area. This will encourage walking and cycling and reduce the need to travel by car, consistent with relevant policy and guidance, including sustainable transport policies in Future Wales, PPW11 and TAN18.

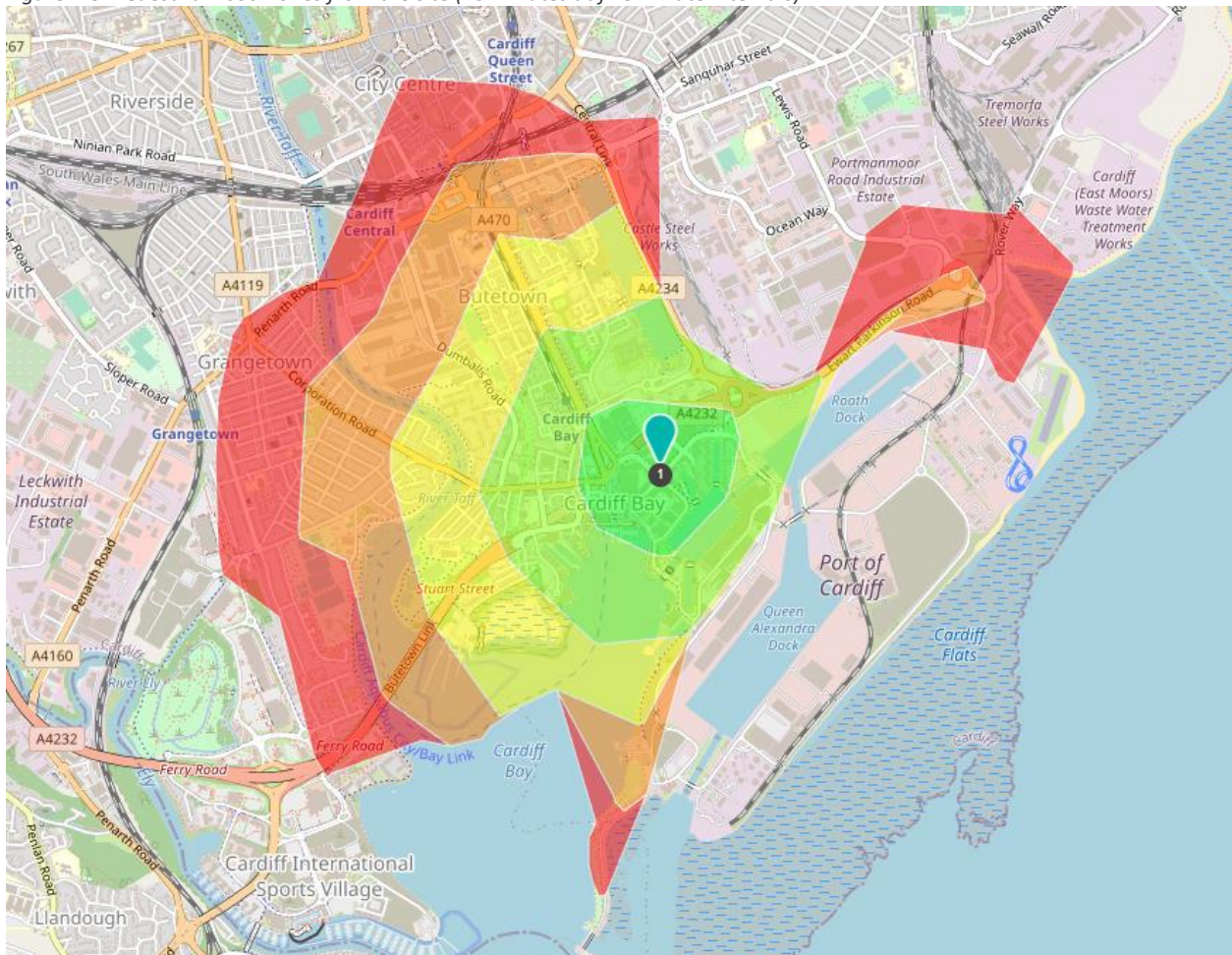
4.3 Distances

- 4.3.1 To enable an assessment of the viability of walking between the site and surrounding areas and facilities as well as the associated teaching facility site, it is appropriate to establish the maximum distance that people are generally prepared to walk.
- 4.3.2 There are a number of publications which suggest guidance for appropriate and acceptable walking distances. For reference, these have been summarised as follows.
- Welsh Government - Active Travel (Wales) Act 2013: Within the ATADG it is stated within paragraph 4.1.4 that *“walking as a mode of travel predominates for journeys of less than two miles whilst cycling is more convenient for longer journeys, typically of up to five miles for regular journeys”*. This equates to distances for walking of up to 3.2km and cycling of up to 8km.
 - This also states in Para 9.5.3 that *“Walkable neighbourhoods also referred to as ‘low-traffic neighbourhoods’, or ‘active neighbourhoods’, (see figure 9.6) are characterised by having a range of facilities within 20 minutes’ walking distance which people may access comfortably on foot.”* This would equate to c. 1.6km.
 - Department for Transport (DfT) – Manual for Streets (2007): MfS states that *‘walkable neighbourhoods’* are typically characterised by having a range of facilities within 10 minutes walking distance (c. 800 metres) – i.e. this would include education uses. MfS also acknowledges that this is not an upper limit and references previous planning policy guidance in that it is generally acknowledged that walking offers the greatest potential to replace short car trips, particularly under 2km.
 - CIHT (2015) – Planning for Walking: In relation to shorter trips in particular, (section 2.1) states that across Britain about *‘80% of journeys shorter than 1 mile (1.6km) are made wholly on foot’*.
 - CIHT - Guidelines for Providing for Journeys on Foot (2000): suggests preferred maximum distances for education journeys are up to 2km.
 - DfT – LTN1/20 Cycle Infrastructure Design (paragraph 2.2.2) – states that *“Two out of every three personal trips are less than five miles in length, an achievable distance to cycle for most people”* (c.8km).

Walking

- 4.3.3 As such, based on guidance, it is considered that suitable walking distances could be up to 3.2km but journeys within 2km have a greater potential to be made on foot. The majority of journeys within 1.6km are also made by walking and this would be within a walkable neighbourhood distance as defined by Welsh Government. A 2km distance equates to around a 25-minute walk travelling at 3mph (c.5kph).
- 4.3.4 Openroute Service has been used to generate pedestrian isochrones at five-minute (c.400m) intervals as shown in Figure 4-3. This is based on walking speeds of 5km per hour (c. 3mph). It shows that a significant part of Cardiff City Centre and Cardiff Bay are accessible within a 25-minute walk from the site (c. 2km).
- 4.3.5 Within a 25 minute walk is Cardiff Bay, Butetown, Cardiff Central Station, Cardiff City Centre and the eastern extent of Grangetown. This shows that there is potential for a number of journeys to be made on foot to and from the site. In addition, it also shows potential for staff to travel as part of a multi-modal journey from local bus stops and rail stations located within acceptable walking distances.

Figure 4-3: Pedestrian Isochrones from the site (25 minutes at five minute intervals)

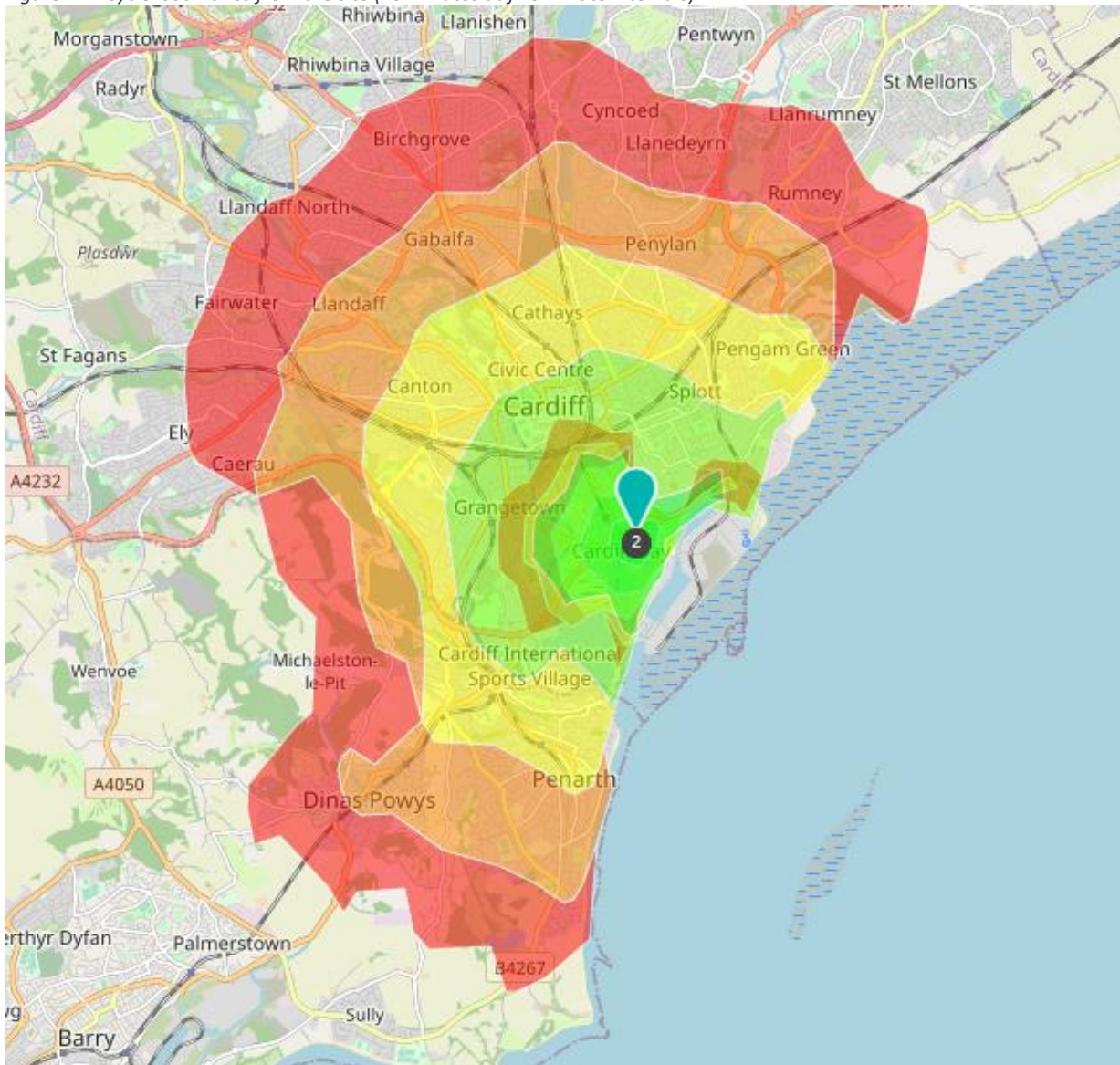


Source: Openroute Service

Cycling

- 4.3.6 It has been assumed that journeys of up to 8km are within an acceptable cycling distance. A cycling journey of 8km would equate to approximately a 25 minute trip.
- 4.3.7 The Openroute Service has been used to generate cycle isochrones at five minute intervals up to a total of 25 minutes (c.8km) using roads and cycle routes (i.e. not straight line distances). This has been shown in Figure 4-4.
- 4.3.8 The isochrones are generated based on speeds dependent on the surface and highway type. The majority (if not all) of the routes used would be paved and as such would be subject to an 18kph speed based on the parameters in the software. A five minute isochrone would therefore cover a distance of c.1.5km, with a 25 minute isochrone covering a distance of c.7.5km. As such, this is broadly in accordance with the relevant design guidance (indeed, cycle journeys to the site could originate from slightly greater distances, up to 8km from the site, in accordance with the guidance).

Figure 4-4: Cycle Isochrones from the site (25 minutes at five minute intervals)



Source: Openroute Service

4.3.9 The majority of Cardiff is situated within a 25 minute cycle, including residential locations such as Penarth, Dinas Powys, Canton, Llandaff, Gabalfa, Birchgrove, Penylan, Splott, Pengam Green, Rumney, Llanedeyrn and Cyncoed. As such, travelling to and from the site by cycle is considered a feasible and realistic option. Figure 4-4 also demonstrates that cycling could be undertaken as part of multi-modal journey from the bus and rail stations in the City Centre which are located within a 5-10 minute cycle of the site.

4.4 Public Transport

Bus

4.4.1 The closest bus stops are located on Pierhead Street and Bute Place, within 50 metres of the site. These stops are served by the number 8 Cardiff Bus. The bus stop adjacent to the Millennium Centre is also within a 280m walk and this stop serves additional services including 6 Baycar, 304, and C8. Further stops are located on Lloyd George Avenue within a 400m walk. These provide a connection to further services being the 89A / 89B.

4.4.2 Combined, these services provide a high frequency of buses connecting to Cardiff City Centre and outer areas of Cardiff. A summary of the services during the overall boarding college peak arrival and departure times is set out in Table 4-1.

Table 4-1: Local Bus Services

Route No.	Route	Frequency	
		Mon-Fri AM peak, arrival (0730 – 0900)	Mon-Fri PM peak, departure (1500-1700)
5	Cardiff – Cardiff International Sports Village	No service	1 service per hour
8	Heath Hospital – Cardiff Bay via Whitchurch Road, City Centre, Grangetown	2 services per hour	Every 24 minutes
99	Cardiff – Penarth Pier via Cardiff Bay	No service	1 service
C8	Taffs Well – Cardiff Millennium Centre via Thornhill, Cardiff City Centre	2 services per hour	2 services per hour
6 Baycar	City Centre to Cardiff Bay via Lloyd George Avenue, County Hall	2 services per hour	2 services per hour
304	Llantwit Major – Cardiff, via Llandough, Grangetown, Barry	1 service per hour	1 service per hour
X2 Cymru Clipper	Porthcawl – Cardiff via Bridgend, Cowbridge	2 services per hour	2 services per hour
2 City Circle	City Circle via Ocean Way, Splott, Tremorfa, Albany Road, Heath Hospital, CMet Llandaff, Canton, Grangetown, Cardiff Bay	1 service per hour	1 service per hour
89A / 89B	Dinas Powys Square - Cardiff City Centre Customhouse Street	1 service	1 service

Source: Traveline Cymru

4.4.3 There are a significant number of frequent bus services which stop within close proximity of the site and provide services which would be suitable for commuting to and from the site. These services therefore provide a viable and realistic alternative to the car.

4.4.4 Given the extent and proximity of numerous bus routes, the site has excellent accessibility by bus which offers a realistic travel option for site users. This will assist in minimising the vehicle trip generation from the site and the demand for parking.

Rail

4.4.5 Cardiff Bay Rail Station is located approximately a 600m walk north of the site, which can be accessed within an 8 minute walk. Cardiff Bay Rail Station runs regular services to Cardiff Queen Street Station, every 12 minutes Monday to Saturday (between 06:30 and 23:30) and every 12 minutes on Sundays (between 11:00 and 16:30).

4.4.6 The station is accessed from either Bute Street or Lloyd George Avenue and provides users with a sheltered seating area, ticket machines, cycle parking, live train information boards and CCTV.

4.4.7 There is a journey time of 4 minutes for journeys to Cardiff Queen Street and 11-18 minutes to Cardiff Central (changing at Queen Street).

4.4.8 Queen Street Rail Station provides connections to several destinations to the north and east of the city centre and operates as the main Valleys Line network serving Cardiff, the Vale of Glamorgan, Bridgend and South Wales Valleys.

4.4.9 From Cardiff Central it is possible to access frequent services to numerous other destinations across Cardiff and areas outside such as Bristol and Swansea, from where students or staff would travel.

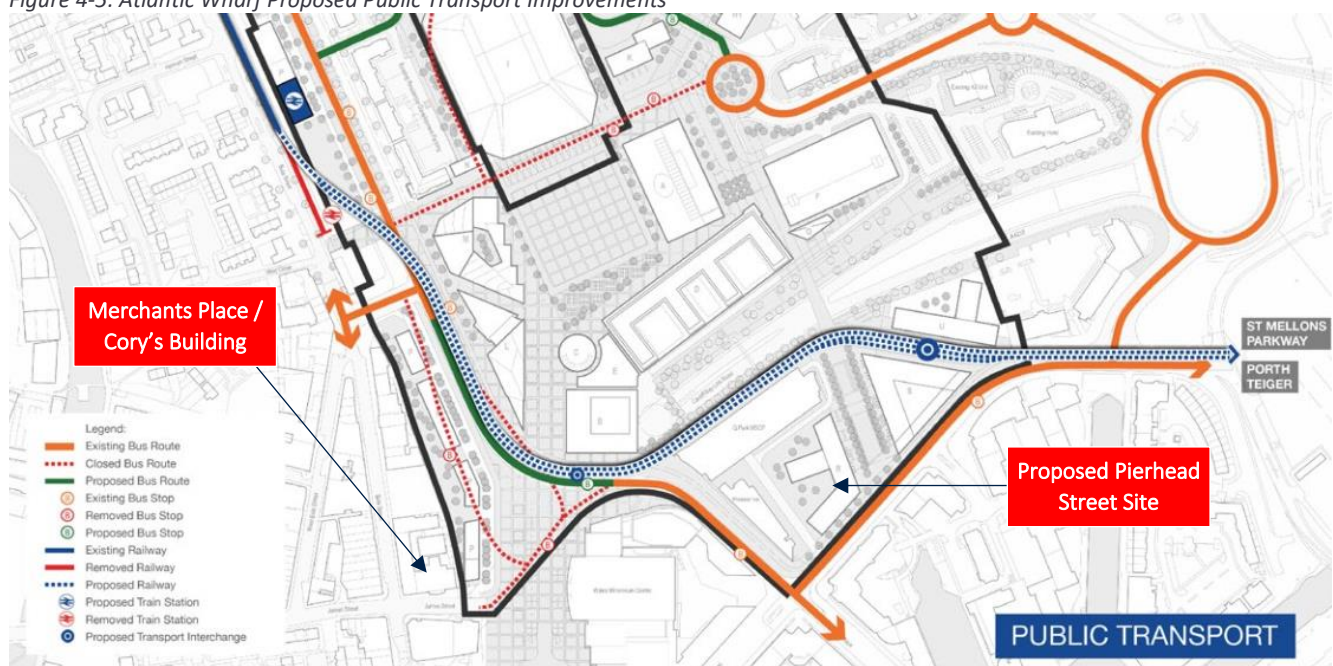
4.4.10 Cardiff Central Rail Station is also a 1.6km walk (20 minutes) or cycle from the site and accessible via continuous routes. It is therefore suitable for site users to travel to and from the site on rail via Cardiff Central, without interchanging at Queen Street.

4.4.11 As such, it is feasible to use the rail services for travelling to the site, a combined walk/cycle and rail journey therefore would be an attractive mode of travel.

4.5 Potential Future Improvements

4.5.1 As shown in Section 2, the masterplan for the Atlantic Wharf regeneration scheme shows the location of a potential new rail link which forms part of the Metro and which will potentially provide stops within close proximity to the site, as well as link Cardiff Bay to the proposed St Mellon's Parkway Station to the east. Figure 4-5 shows an extract from the Atlantic Wharf Masterplan demonstrating the potential public transport links within the proximity of the site and the accommodation at Pierhead Street. This will provide additional sustainable transport connections for users of the site, further enhancing the sustainable connectivity.

Figure 4-5: Atlantic Wharf Proposed Public Transport Improvements



Source: Cardiff Council

4.6 Summary

- 4.6.1 The site is situated in a location which has excellent sustainable transport links and benefits from being connected to a high standard of walking and cycling infrastructure and public transport routes.
- 4.6.2 Students and staff will be able to walk (or cycle) to and from the site, as well as to services and facilities within appropriate distances. In this regard, the site location is consistent with the sustainable transport policies in Future Wales and PPW11.
- 4.6.3 Future users will also benefit from the potential regeneration of the surrounding area as part of the Atlantic Wharf regeneration and the potential Metro scheme improvements.
- 4.6.4 As such, there is a realistic choice of modes of travel for all journey purposes, which will assist in constraining the level of vehicle generation from the site and minimise any impacts on the highway network from the development. This is fully in accordance with transport policies in Future Wales, TAN18, PPW11 and the Active Travel Act.

5. DEVELOPMENT PROPOSALS

5.1 Overview

- 5.1.1 The proposals comprise a new boarding accommodation development at Pierhead Street.
- 5.1.2 The proposals comprise an 11 storey building to be located adjacent to the recently constructed Premier Inn and to the north of Pierhead Street. The building will largely consist of accommodation for a boarding college use but will also include sports facilities, amenity space, an auditorium, and other facilities to support the overall boarding college use. The proposals will also include a publicly accessible 90sqm commercial unit fronting Pierhead Street to improve the active frontage.
- 5.1.3 The new facility will form part of plans to establish a new campus for Cardiff Sixth Form College within Cardiff Bay, with associated teaching facilities proposed at a separate site located at Merchants Place and the Cory's Building, Bute Street. A separate standalone TS has been produced to support the associated teaching facilities site.
- 5.1.4 The proposals for the Pierhead Street boarding accommodation comprise the college boardings which will house and cater for 400 students as well as 30 boarding staff. The 30 boarding staff would cover a range of management, operations and administration roles within the proposed accommodation building.
- 5.1.5 The proposed site layout is provided in Appendix B.

5.2 Staff

- 5.2.1 There are currently 116 staff at the existing college site. This consists of 46 teachers (FTE), 40 non-teaching staff, and 23 boarding staff. It is anticipated that the number of staff would increase for the proposed college campus. The forecast level of staff is as follows:
 - Teachers - 66
 - Non-Teaching – 50
 - Boarding Staff – 30
 - Total Staff – 146
- 5.2.2 The 66 teaching staff would work from the Merchants House and Cory's Building teaching facilities site and would not travel to and from the proposed accommodation site.
- 5.2.3 The 50 non-teaching staff would be administrative, security, cleaning and catering personnel. 45 of these would work from the Merchants House and Cory's Building site with the remaining five working from the boarding accommodation site at Pierhead Street. The non-teaching staff would include part-time staff and those working outside of 'typical' hours, such as cleaners and catering staff. The five members of staff associated with the accommodation site would travel on the highway network to and from Pierhead Street, to support the day to day operation of the boarding accommodation site.
- 5.2.4 The 30 boarding staff would be based at the boarding accommodation site at Pierhead Street, and as such would not be commuting to and from the site on a typical day. These would comprise Houseparents, Graduate Residential Assistants, Nurses and Matrons, Security and Reception, Cleaners and Maintenance personnel.
- 5.2.5 As such, there would be a minimal number of movements from staff commuting to and from the site on a typical day.

5.3 Access

Vehicular Access

- 5.3.1 Vehicular access to the site will be obtained from the northern boundary via the existing priority junction currently utilised by the Premier Inn site, which connects onto the access road linking to the multi-storey car park.
- 5.3.2 Minor amendments to the shared private access road will be implemented so that it continues through to the Premier Inn, with a new stop line provided into the boarding accommodation site. The boarding accommodation junction onto the shared private access road would provide visibility appropriate for 15mph speeds and will have access gates to secure the site appropriately. The shared private access road with the Premier Inn and all areas within the visibility splays are within the control of the applicant. The access arrangements can also appropriately accommodate refuse vehicle movements serving the boarding accommodation.
- 5.3.3 The proposed site access road within the site will be 5m wide with a 2m radius to the west and 5m radius to the east which tie into the shared private access road. The 5m site access road widens to 6m as it routes into the site and car parking area.
- 5.3.4 A 2m footway is provided to the east of the existing shared private access road junction which connects to the surrounding footway network via Pierhead Street. This would be link to the site boundary to provide a pedestrian access point.
- 5.3.5 This shared private access road junction is in line with the approved access included as part of the consented 2016 hybrid application (App Ref: 16/00547/MJR) and was agreed as suitable to serve a 210 bed hotel, two office buildings and a significant level of car parking (as detailed in Section 2). The access would therefore remain appropriate for these proposals.
- 5.3.6 Appendix C contains swept path analysis of a large car and refuse vehicle accessing and egressing the site.
- 5.3.7 Visibility can be provided for at least 2.4m x 18m in each direction from the site access, in accordance with the guidance for 15mph speeds in Manual for Streets. This is considered appropriate as speeds in both directions would be slow as drivers approach or turn into the junction. These visibility distances have been shown on a general arrangement plan of the site access and visibility splays included at Appendix D. All visibility splays are within the control of the applicant.

Pedestrian and Cycle Access

- 5.3.8 Access for pedestrians and cyclists will be obtained from Pierhead Street via a number of secure access points located to the northeast, southwest and southeast of the building. These access points provide direct links to the existing footway and off-carriageway cycle facility along Pierhead Street, which provide links to the surrounding pedestrian and cycling infrastructure.
- 5.3.9 As requested by CC, a connection was considered through the Premier Inn site to gain access to Bute Place. However, this would cross land outside of the applicant's control and the route through the Premier Inn car park and servicing route is therefore not considered appropriate or as secure as the routes being provided. The routes that are proposed connecting to the southeast and northern boundaries are considered appropriate to accommodate all movements and would be a minimal difference in distance compared with travelling through the Premier Inn site.

Route between the two sites

- 5.3.10 The route between the two sites is considered appropriate to accommodate all movements, particularly by pedestrians. As set out in Section 2, there is no evidence of a safety issue between the two sites. Considering the route from the Pierhead Street accommodation site towards the teaching facility site, the shared footway / cycleway is of sufficient width to accommodate pedestrians associated with the college and has a high capacity for accommodating these movements. There are two signal controlled crossings along Bute Place, one at the junction with Pierhead Street and one opposite the multi-storey car park. There are large waiting areas on both sides of the crossings, with the car park crossing also providing a large central reservation waiting area.
- 5.3.11 Pedestrians would then walk around the perimeter of the Millennium Centre before crossing at another signal controlled pedestrian crossing point at Bute Place / Lloyd George Avenue. This has a large central reservation area which can accommodate a significant number of pedestrians.
- 5.3.12 On the northern side of the crossing, the footway is 2m wide, this is considered appropriate for pedestrians to wait on a 2m wide footway and guardrail is provided to ensure pedestrians cross in the appropriate locations. However, the proposals for the Merchants Place and Cory's Building site include widening improvements between Docks Lane and the crossing on Bute Place (as shown in the Apex Transport Statement). The improvements will provide a 3m wide footway and waiting area at the existing crossing in addition to extending the guard railing to prevent users from crossing prior to the signalised crossing facility. These improvements are within the PFI adopted highway land, and will be subject to a detailed technical approval process (S278) to be agreed following any forthcoming planning permission.
- 5.3.13 There is also an alternative route between the sites, whereby pedestrians can cross Lloyd George Avenue at the northern end of the Craft in the Bay gyratory, however this would be a significant detour and increase in journey distance as pedestrians would then need to double back to cross Bute Place into the central refuge island described in the route above. As such, all pedestrians would ultimately route to the same location where the pedestrian widening improvements are proposed on the northern side of Bute Place. Students will also be informed to utilise the main route as described, wherever possible. As such, all routes are considered appropriate, and signal controlled crossings are provided for pedestrians at all crossing locations.
- 5.3.14 The existing crossings and footways already accommodate pedestrian movements associated with the existing uses in the area and there is no evidence of a recorded safety issue on the footways or at crossings. The proposed improvements will provide an enhanced pedestrian environment in this location and assist in accommodating the student movements at the beginning and end of the day.
- 5.3.15 As shown in Section 4, the Atlantic Wharf masterplan and permitted Indoor Arena led mixed-use development are also proposing changes in this area, which would result in a significant amount of the route between the sites becoming pedestrianised. This would enhance the pedestrian route between the sites.
- 5.3.16 Due to the short distance between the site and the teaching facility at Merchants Place and Cory's Building, it is acceptable and appropriate for all boarding students and staff to walk between the sites via suitable routes. The college will not allow cycling between campuses, to ensure that cycle parking at each site is at an appropriate level to accommodate the likely demand, as well as ensuring that all movements are accommodated via safe and suitable off-carriageway routes.

5.4 Parking

- 5.4.1 Maximum car parking standards are set out in CC's Supplementary Planning Guidance (SPG) *Managing Transportation Impacts (Incorporating Parking Standards)* as adopted in July 2018. In accordance with the SPG in Figure 6.1, the site is situated within the Central Area zone.

Car Parking Provision

- 5.4.2 The site forms part of Cardiff Sixth Form Campus which comprises two sites, and although they are to be dealt with via separate planning applications, they are interrelated and are being brought forwards as one development scheme. As such, it is considered appropriate to consider the parking provision in relation to the overall scheme as a whole based on the boarding school standards within the SPG. These are considered more appropriate than other uses (including sui generis) set out within the SPG.
- 5.4.3 The SPG sets out a maximum standard of 1 space per 4 bedrooms for boarding schools, which equates to a potential maximum of 113 car parking spaces.
- 5.4.4 It is proposed that 14 car parking spaces will be provided at the proposed Pierhead Street site. This would be a significant reduction in the number of spaces approved as part of the 2016 hybrid scheme.
- 5.4.5 The level of parking is significantly less than the maximum standards and is therefore considered appropriate and in line with the Cardiff aspirations and policies for constraining car use. The proposed level of parking is also significantly below the level agreed as part of the approved outline schemes at each site.
- 5.4.6 These spaces will be for the staff working at the Pierhead Street site only, with the majority of spaces being utilised by boarding staff.
- 5.4.7 The college will encourage day staff to travel sustainably, and this is considered realistic given the highly sustainable location of the site, as outlined in Section 4. This will be reinforced through measures within the Travel Plan. However, when this is not possible, staff will be able to park within a number of easily accessible nearby public car parks, including the adjacent 1,239 space capacity Pierhead Street Car Park.
- 5.4.8 No student parking will be provided at either campus site and this is considered acceptable given the highly sustainable location of the college. No parking provision will be provided for the commercial unit, as this would be a secure site for College access only. The car park will operate via a barrier system accessible by authorised users only.
- 5.4.9 The proposed level of parking is considered acceptable given the highly sustainable location of the college. The proposed car park has a 6m aisle width which is appropriate for accommodating all movements into and out of all spaces. This is demonstrated in swept path analysis of a large car in Appendix C.
- 5.4.10 Disabled parking will be provided in accordance with the SPG, which requires 5% of the provision to be provided as accessible bays and 5% as enlarged bays. The proposals include one accessible bay and one enlarged bay in accordance with the guidance.
- 5.4.11 Electric vehicle charging points will be provided at the boarding accommodation site. A provision of two (10% of parking provision) charging points will be provided for use by college staff or visitors.

Cycle Parking

- 5.4.12 The SPG sets out that boarding schools should provide a minimum of 5 cycle parking spaces plus one space per 10 beds. Applied to the college as an overall entity across both sites, this would equate to 45 cycle parking spaces.
- 5.4.13 It is proposed to provide a total of 96 cycle spaces across both campus sites for the college use, with 30 spaces provided at the Merchants Place and Cory's Building site and 66 spaces provided at the proposed accommodation site. This is significantly above the levels required for a boarding school site within the SPG and reflects the sustainable location of the site and the applicant's commitment to encouraging travel via cycle.
- 5.4.14 The proposed site layout shows 52 secure and sheltered spaces located within the undercroft parking area to the rear of the site. A further 14 spaces are located within proximity to the main site entrances for use by visitors as well as a proposed college bike share scheme. In addition there are 6 spaces outside the commercial unit for use by visitors and staff of this unit. The proposed cycle parking is provided as Sheffield stands, and double tiered parking within the undercroft area. The proposals also include showers, changing facilities and lockers for users.
- 5.4.15 Due to the short distance between the site and the teaching facility at the Merchants Place and Cory's Building site, all boarding students will walk between the sites and would not cycle. As such, there would be no demand for cycle parking generated by those travelling from the accommodation to the teaching facility site.
- 5.4.16 The provision of cycle parking is considered to be extremely robust, as those residing in the boarding accommodation would be international students and based on the existing experience of the college none of these students typically travel to the UK with a cycle. As such, the cycle parking would be utilised by staff, visitors and any day students using the facilities on the site.
- 5.4.17 Across the two sites, the cycle parking provision is considered to be appropriate and in line with the CC standards. This will encourage travel by sustainable modes, assisting in reducing the demand for off-site parking.
- 5.4.18 In addition to this, the college would provide cycles for shared use by the international students which would be parked within the secure provision on the site. These can be utilised by students by booking them through the management team.
- 5.4.19 A new nextbike stand was previously discussed and considered on the site, but this related to a previous iteration of the design when a lower provision of cycle parking was provided on the site and before the college bike hire scheme was proposed. As such, given the close proximity of the existing nextbike stand, it is no longer considered necessary to appropriately encourage cycling to and from the site.
- 5.4.20 The site is also not proposed as a typical residential accommodation or student residential use. The development is linked to the associated teaching facility and would not operate as a standalone scheme. As such the provision of parking on the site and across the overall campus on the two overall sites, is significantly in excess of the standards for a boarding school, and significantly in excess of the provision on the existing site on Newport Road. The level of cycle parking will appropriately encourage travel by cycling in accordance with relevant CC planning policies.

5.5 Servicing and Deliveries

- 5.5.1 Refuse collection would be undertaken from the northern end of the building using the proposed vehicular access. The access has been designed to allow a refuse vehicle to turn appropriately using the shared private access road with the Premier Inn, allowing collection from the bin storage areas within a 25m walk. Swept path analysis has been included in Appendix C which shows a 9.2m long refuse vehicle (the length of vehicle used by Cardiff Council) turning appropriately and entering and exiting the site in forward gear.
- 5.5.2 In addition, there would be light vehicles generated for maintenance purposes on ad-hoc occasions, as well as service and delivery vehicles for laundry and other operational purposes. There will be 1-2 spaces reserved on the site for light vehicles to park which would be bookable by management. In addition, vehicles can park off the site in the numerous public car parks, including the one adjacent to the site. Any larger vehicles are able to turn and park within the site access and would not block the through route to the Premier Inn. These vehicles would stop within the access for a short period of time and mainly relate to the laundry collection. As such, this arrangement is considered suitable and would not have an unacceptable impact on the highway. Wherever possible, the college would encourage suppliers to use small vehicles that can park in the undercroft bays on the site. On this basis, larger vehicles delivering to the site are likely to be infrequent in nature and can be accommodated appropriately without impact on the highway.
- 5.5.3 The commercial unit will be serviced via a proposed loading/unloading bay located on Pierhead Street. The loading/unloading bay will utilise the existing coach drop off bays which extend for approximately 60 metres along the site frontage. The 90sqm commercial unit will likely be typically serviced by a small panel van at a frequency of approximately 1-2 deliveries/visits per day, albeit this depends on the end user of this unit, which is not yet known.
- 5.5.4 It is proposed that an amendment to the TRO for a section of the coach parking bay is implemented to enable loading and unloading at certain times opposite the commercial unit. The college would provide a contribution towards this TRO amendment to be delivered by Cardiff Council. Cardiff Council requested the unit to ensure that there is an active frontage along Pierhead Street and this is the only suitable location to provide a loading bay to service this unit. The peak demands for servicing by a small commercial unit are unlikely to coincide with the peak coach parking times and on this basis, the arrangements are considered appropriate. This bay would not be used by the college.

6. TRIP GENERATION AND TRAFFIC IMPACTS

6.1 Overview

- 6.1.1 This section provides a comparison between the forecast vehicle movements for the proposed boarding accommodation scheme and the vehicle generation accepted for the consented office use of the site (App Ref: 16/00547/MJR). The analysis considers the change in movements during the typical network peak hours between 0800-0900 and 1700-1800.
- 6.1.2 It should be noted that there is low level of car parking provided as part of the proposals (14 spaces), which is significantly below the boarding school standards and sustainable transport will be encouraged as part of the Travel Plan. As such, this will assist in minimising the vehicle movements generated by the proposals. The majority of movements to and from the site would also be made on foot by students travelling to and from the associated teaching facilities site.
- 6.1.3 The proposals include a small commercial unit fronting Pierhead Street which is not expected to be a primary trip generator, particularly in the network peak hours. The movements to and from this unit are likely to be secondary movements whereby users have visited another use in the area (i.e. the Senedd, Millennium Centre or working in the adjacent employment facilities). In addition, a significant proportion of the movements are likely to be from visitors passing by, mainly on foot and cycle. As such, the vehicle trip generation from this use has not been considered in this analysis.

6.2 Consented Site Use – Vehicle Trip Generation

- 6.2.1 The planning history for the site is set out in Section 2. The site benefits from an existing outline consent for two office buildings, which formed part of a wider hybrid approval.
- 6.2.2 The trip generation for the consented office scheme is included in the Capital Waterside Transport Assessment (TA) produced by Arup in March 2016. The vehicle trip generation related to the office use is shown in Table 13 of the Arup TA and this shows 121 vehicle movements in the AM peak hour and 93 vehicle movements in the PM peak hour.
- 6.2.3 These approved vehicular trips were derived by applying person trip rates obtained from the TRICS database to the vehicle modal share data obtained from a travel survey conducted at a comparable office development on Pierhead Street (Arup office). Table 6-1 shows the agreed trip profile by hour based on the approved trip rates and obtained vehicle modal share of c.28%.

Table 6-1: Forecast vehicle trip generation for consented office use

Time Period	Trip Rates per 100sqm (total persons)			Person Trip Generation (15,687 sqm consented office)			Vehicle Trip Generation (15,687 sqm consented office)		
	Arrive	Depart	Two-way	Arrive	Depart	Two-way	Arrive	Depart	Two-way
07:00-08:00	1.144	0.129	1.273	179	20	200	50	6	56
08:00-09:00	2.500	0.278	2.778	392	44	436	109	12	121
09:00-10:00	1.287	0.364	1.651	202	57	259	56	16	72
10:00-11:00	0.605	0.41	1.015	95	64	159	26	18	44
11:00-12:00	0.517	0.498	1.015	81	78	159	23	22	44
12:00-13:00	0.883	1.336	2.219	139	210	348	38	58	97
13:00-14:00	1.224	1.073	2.297	192	168	360	53	47	100
14:00-15:00	0.851	0.677	1.528	133	106	240	37	30	67
15:00-16:00	0.445	0.704	1.149	70	110	180	19	31	50
16:00-17:00	0.338	1.546	1.884	53	243	296	15	67	82
17:00-18:00	0.222	1.909	2.131	35	299	334	10	83	93
18:00-19:00	0.064	0.794	0.858	10	125	135	3	35	37
Daily	10.08	9.718	19.798	1581	1524	3106	440	424	864

Note: Figures within the Capital Waterside TA are subject to rounding.

6.3 Proposed Site Use – Vehicle Trip Generation

- 6.3.1 The majority of students (400) for the overall college campus across both sites will be boarding in the accommodation at Pierhead Street and would walk between the two sites. As such, vehicle movements on the network would only be generated by the 100 day students that live off-campus, the 50 non-boarding college staff, as well as some movements for visitors and deliveries / servicing (which would be unlikely to occur in peak hours).
- 6.3.2 The 100 day students will travel to and from the proposed teaching facility at the Merchants Place and Cory's Building site and only the non-boarding staff and visitors will generate trips to and from the proposed boarding accommodation site on a daily basis.
- 6.3.3 The proposals include 14 car parking spaces which would be utilised by boarding staff and some visitor parking. If parking is required by other staff, they will be expected to use the widely available nearby public car parking, although it is likely that the majority of users would travel by sustainable modes given the highly sustainable location. As such, the constrained on-site parking and highly sustainable location is likely to minimise the level of vehicle movements generated by the site.

Staff Movements

- 6.3.4 For robustness and ease the staff movements across both sites combined has been considered in this TS with the analysis in accordance with the TS submitted for the teaching facility site.
- 6.3.5 In relation to the staff movements, these have been considered based on the total number of 116 staff travelling to and from the overall campus (66 teaching staff and 50 non-teaching staff), as outlined in Section 5. It should be noted that just five non-teaching staff would be located at the boarding accommodation site and as such, there would be a minimal level of movements associated with the site which is subject of this application (if for example comparing this site directly against the approved office scheme).
- 6.3.6 The movements would arrive and depart throughout the day as the teaching day lasts from 08:55-17:55, with potential one-to-one tuition starting at 08:00 and additional classes and clubs running until 19:00.
- 6.3.7 There would also be non-teaching staff working at mealtimes and cleaners working outside of teaching hours. As such, the movements of staff would occur across the day. On this basis, the profile of arrivals and departures as obtained from TRICS and shown in Table 6-2 of the TS for the teaching facility application is considered appropriate to apply to the staff movements.
- 6.3.8 To estimate the number of vehicle movements generated by staff, for robustness the Census modal share data in Section 2 has been utilised. It has been assumed that all staff make two trips, one to and one from the College, so a total of 232 two-way person movements. The trips by all modes based on the Census modal split and the TRICS hourly profiles are shown in Table 6-2. These trips would be generated in relation to both the teaching and the boarding accommodation sites by all non-boarding staff.

Table 6-2: Proposed Education Use – Staff Trip Generation by Mode

Time Period	% of movements	Vehicles	Passengers	Cyclists	Pedestrians	PT	Total
Modal Split		66%	5%	4%	11%	13%	
07:00-08:00	1.70%	3	0	0	0	1	4
08:00-09:00	19.60%	30	2	2	5	6	45
09:00-10:00	11.00%	17	1	1	3	3	25
10:00-11:00	4.40%	7	1	0	1	1	10
11:00-12:00	7.30%	11	1	1	2	2	17

Time Period	% of movements	Vehicles	Passengers	Cyclists	Pedestrians	PT	Total
Modal Split		66%	5%	4%	11%	13%	
12:00-13:00	6.40%	10	1	1	2	2	16
13:00-14:00	6.00%	9	1	1	2	2	15
14:00-15:00	6.50%	10	1	1	2	2	16
15:00-16:00	10.20%	16	1	1	3	3	24
16:00-17:00	14.40%	22	2	1	4	4	33
17:00-18:00	7.70%	12	1	1	2	2	18
18:00-19:00	4.60%	7	1	0	1	1	10
Daily		152	12	10	26	30	232

Notes: Subject to rounding

- 6.3.9 Table 6-2 shows that the proposals are forecast to generate a total of 30 two-way vehicle movements in the network AM peak hour (0800-0900) and 12 two-way vehicle movements in the network PM peak hour (1700-1800) in relation to staff movements. There would be some additional movements generated by both boarding staff and deliveries / servicing, however these would likely occur outside of the peak hours so would not materially change the forecast of movements in the peak hours from the entire campus.
- 6.3.10 These vehicle movements will be distributed across the network to surrounding parking areas, rather than concentrated at the access as per the consented office scheme.
- 6.3.11 This would equate to a maximum of one vehicle every 2 minutes seconds on the local highway network, on average, during the busiest hour. This level of trips will not have a material impact on the local highway network, particularly as these trips would be distributed across the network to the different car parking locations.

6.4 Net change in comparison with the consented office use

- 6.4.1 A comparison of the vehicle generation of the proposals (across the entire college campus, by staff) against the consented office use on the Pierhead Street site has been undertaken. This level of vehicle generation has been accepted on this site and this remains the fallback position and as such provides a useful benchmark against which to assess the proposals.
- 6.4.2 The net change in movements is shown in Table 6-3.

Table 6-3: Net Change in Two-Way Vehicle Movements from Consented Scheme

Time Period	Consented Office Use at Pierhead Street	Proposed Sixth Form College	Net Change
07:00-08:00	56	3	-53
08:00-09:00	121	30	-91
09:00-10:00	72	17	-55
10:00-11:00	44	7	-37
11:00-12:00	44	11	-33
12:00-13:00	97	10	-87
13:00-14:00	100	9	-91
14:00-15:00	67	10	-57
15:00-16:00	50	16	-34
16:00-17:00	82	22	-60
17:00-18:00	93	12	-81
18:00-19:00	37	7	-30
Daily	864	152	-712

Notes: Subject to rounding

- 6.4.3 The analysis shows that there would be a significant decrease in vehicle movements between the proposed and consented uses. This assumes a robust worst case whereby all staff movements across both sites (the overall college campus) are compared against the consented office use at the Pierhead

Street site only. There would be some additional vehicle movements generated by day students, visitors and deliveries / servicing across the entire college campus, but these would still be well within the levels agreed as part of the consented scheme.

- 6.4.4 As such, this demonstrates that the proposals would provide a reduction in vehicle movement movements on the network from those previously accepted network from levels previously accepted, underlining the commitment to encouraging sustainable travel and minimising vehicle use by the proposals.
- 6.4.5 As such, the proposals would not have an unacceptable impact on road safety or a material impact on highway capacity.

7. MITIGATION

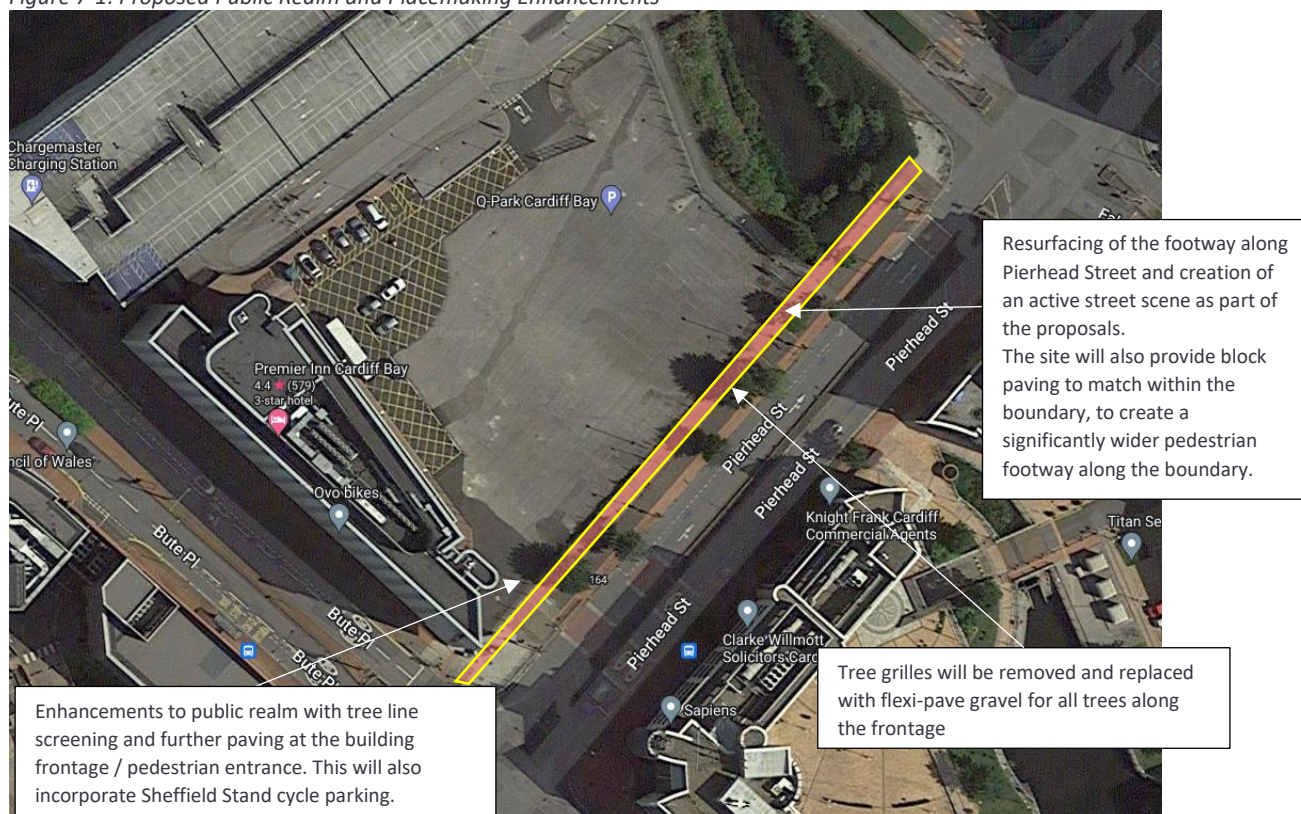
7.1 Public Realm and Placemaking Enhancements

7.1.1 Following the pre-application discussions with CC, a scheme of works is proposed to enhance the area along the site boundary on Pierhead Street.

7.1.2 The location of the proposed enhancements are illustrated on Figure 7-1 and have been summarised as follows:

- Tree grilles will be removed and replaced with flexi-pave gravel.
- Corners will be resurfaced to match surrounding red clay pavers.
- Resurfacing of paving and kerbing on the footway adjacent to the site boundary to provide an improved pedestrian facility and more appropriately separate this from the cycle route. This would also define this area differently from the kerbing between the carriageway and the cycle route to offer a sense of function to the footway.
- The site will also provide block paving to match within the boundary, to create a significantly wider pedestrian footway along the boundary. This could be offered for adoption, subject to discussion with the highway authority and the applicant.
- Enhancements to public realm in the southwestern corner of the site with tree line screening and further paving at the building frontage / pedestrian entrance. This will also incorporate Sheffield Stand cycle parking.
- No amendments to the parking restrictions or Traffic Regulation Orders are required to deliver the public realm improvements

Figure 7-1: Proposed Public Realm and Placemaking Enhancements



Source: Google Maps

7.1.3 These works could be delivered through a S278 / S38 agreement and form a condition to any forthcoming planning consent, as per the consented office scheme.

- 7.1.4 The delivery of the development itself will significantly enhance the streetscene along Pierhead Street which would create a more pleasant walking and cycling environment.

8. SUMMARY AND CONCLUSIONS

8.1 Summary

- 8.1.1 This Transport Statement (TS) has been provided in support of a planning application for a new sixth form boarding school accommodation development located at Plot 5, Pierhead Street, Cardiff Bay.
- 8.1.2 This report has been prepared to provide the necessary information for the Local Highway and Planning Authorities to consider the merits of the proposals in terms of location, connectivity, highway safety, parking, access and the impact on the local highway network.
- 8.1.3 The proposals will provide an accommodation development for approximately 400 college boarding students for Cardiff Sixth Form College. These students will attend a new educational facility at Merchants Place and the Cory's Building at Bute Street, which is subject to a separate but inter-related planning application.
- 8.1.4 The new facility will form part of plans to establish a new campus for Cardiff Sixth Form College within Cardiff Bay across the two sites. A separate standalone TS has been produced to support the Merchants Place and the Cory's Building site.
- 8.1.5 The site is situated in a location which has excellent sustainable transport links and benefits from being connected to a high standard of walking and cycling infrastructure and public transport routes. Students and staff will be able to walk (or cycle) to the site, as well as to services and facilities within appropriate distances. Future users will also benefit from the potential regeneration of the surrounding area as part of the Atlantic Wharf regeneration and the potential Metro scheme improvements.
- 8.1.6 The proposals show access to pedestrians will be available from Pierhead Street via the existing footways. The main staff and visitor entrance to the building will be provided from Pierhead Street on its southern boundary with other secure entrances around the building. Cycle parking can be accessed from the entrance on the northern side of the building.
- 8.1.7 The site benefits from an ongoing planning consent for office use with 106 car parking spaces. As such, a significant level of vehicle movements have been accepted by CC to and from the site.
- 8.1.8 The proposals would provide a vehicular access on the northern boundary which provides access to an undercroft car parking area for 14 cars. As such, there is a significant decrease in car parking on the site relating to the consented use and as such the proposals would reduce vehicle movements into and out of the site compared with the consent. The car parking would mainly be used by boarding staff with 1-2 spaces for deliveries.
- 8.1.9 There are a significant number of public car parks within short walking distance of the site that would be suitable for non-boarding staff members and visitors. The level of car parking is well within the Cardiff Council maximum standards.
- 8.1.10 It is proposed to provide a total of 102 cycle spaces across both campus sites, with 30 spaces provided at the Merchants Place and Cory's Building site and 72 spaces provided at the Pierhead Street site. This is significantly above the levels required for a boarding school site within Cardiff Council standards and reflects the sustainable location of the site and the operators commitment to encouraging travel via cycle. A college cycle hire scheme would also be implemented at the Pierhead Street site for use by international students, who are extremely unlikely to bring a bike to college.

- 8.1.11 Due to the short distance between the site and the teaching facilities, all boarding students will walk between the sites and would not cycle. As such the provision on the educational facilities site for 30 cycle parking spaces is considered appropriate. The spaces on that campus will only be utilised by the day students, staff and visitors.
- 8.1.12 Obtained road safety data does not indicate an existing safety issue which would be exacerbated by the proposals and no evidence of a safety issue on the key pedestrian route between the site and the proposed teaching facilities.
- 8.1.13 Servicing and deliveries would be undertaken using the site access arrangements, which are all within the control of the applicant. Refuse vehicles can enter and exit the site in forward gear and would not reverse on the highway. The majority of servicing and deliveries would be in light vehicles which can utilise the 1-2 on-site spaces for these purposes.
- 8.1.14 The site is forecast to significantly increase vehicle movements from the consented scheme in the peak hours and over a daily period. This has considered all movements across the entire campus (and both sites) against the consented use on the Pierhead Street site. As such, the proposals would not have a not have a material impact on the operation of the local highway network, particularly as movements would be distributed across the network to different car parking areas, rather than concentrated at the access to the Pierhead Street site.
- 8.1.15 Improvements to the public realm will be provided on Pierhead Street along the site boundary to enhance the pedestrian environment and active frontage.
- 8.1.16 Sustainable transport will be encouraged and promoted to students and staff through the Travel Plan, which has been submitted separately as a standalone document.

8.2 Conclusions

- 8.2.1 The site location will encourage and promote sustainable travel behaviour and discourage car use and is therefore fully in accordance with transport policies in Future Wales, TAN18, PPW11 and the Cardiff Council LDP.
- 8.2.2 The development would not have an unacceptable impact on road safety.
- 8.2.3 The proposed parking provision is in accordance with the Cardiff Parking Standards as well as the objectives for encouraging sustainable travel and reducing car use as set out in PPW11 and Future Wales.
- 8.2.4 The proposals will not have a material impact on the operation of the highway network.
- 8.2.5 The analysis presented within this TS allows the highway authority to provide a positive recommendation on the planning application.

Appendix A Pre-App feedback from Cardiff Council

David Chapman

From: Harriet Swale <
Sent: 01 December 2022 11:46
To: David Chapman
Cc:
Subject: RE: Plot 5 - Final Plans
Attachments: Plot 5 - Servicing, Waste and Cycle Parking.pdf

Hi David,

We have also received the following comments from the LPA which I would be grateful if you could address as far as possible in the reports.

"As a general point, what is the applicant/CC Planning position on the proposed use class of this site? Whilst the SPG has a C2 Residential institution category that lists boarding schools, this application is only a part boarding school really, and is arguably closer in use to a Student development. The other listed Resi institution items (care/nursing homes) could be expected to generate much less demand for cycle parking. What is the m2 of the retail unit.

Cycle Parking

In addition to the above about needing to determine the minimum numbers:

- The following user groups need to be accommodated – students (boarders), teachers (boarders), boarding staff, retail (staff) and retail (visitors). All of these groups need to have covered cycle parking, and all but the latter need to have secure access (i.e. lockable door/gate). It should be made clear how the proposed cycle parking areas relate to these groups.*
- There is no scale on the cycle plan, so can't fully comment on acceptability of layout, but Sheffield stands should have 1m spacings between them, and have 2m clear access in front of them.*
- It appears that the main cycle block (50 no.) is proposed to be of 2-tier type, although would like to see a lower proportion of 2-tier parking than that, to maximise accessibility. Any 2-tier parking involving two rows requires a store width of at least 7m. As drawn, the door access into the store is not central and would seem to result in an access problem.*
- Each cycle parking space should have minimum horizontal footprints of 0.5m.*
- Is it still proposed to introduced a Nextbike/Ovo cycle scheme within or adjacent to the site?*

Car Parking and Refuse/Servicing area

- As per above, need to determine the allowable maximum car parking.*
- Where will refuse/service vehicles turn?*

Pierhead St frontage

- Is any highway dedication proposed, or would the existing adopted highway boundary remain? What will the demarcation be between the adopted highway and the proposed footway adjacent to the building?*
- We would be likely looking for improvements to the frontage footway/cycleway on Pierhead St. I have asked Highways colleagues for comment.*
- The proposed canopy line is above the adopted footway in places and would thus need an over-sailing (S177) license. As long as there is a minimum clearance of 2.3m between the footway and base of roof feature there should not be any issues though.*

- *It is not considered that a dedicated Loading space on Pierhead St is appropriate. We would be looking for some loading restrictions to be placed on this frontage to minimise impacts, and especially considering the presence of bus parking.*
- *Why does the red-line indent into the site just north of the service cabinet? This is not shown as being adopted highway."*

Kind regards,

Harriet

Harriet Swale
MPlan MRTPI
Senior Associate

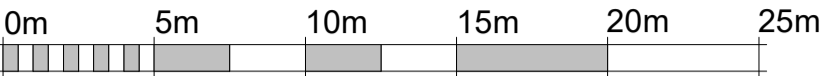
Appendix B Proposed Site Layout



Sub Sta

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Figured dimensions only are to be taken from this drawing. All dimensions are to be checked on site before any works put in hand.



VISUAL SCALE 1:250 @ A1

Key
Application Boundary (3,623m²)

02	Issued for pre-application consultation	16.12.22	ML
01	Issued for comment	25.11.22	ML
Revision	Description	Date	Issued

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Client's Name
Cardiff 6th Form College

Job Title
Cardiff 6th Form Boarding Hub

Status
Planning

Suitability
S2

Scale
1 : 250 @ A1

Document Reference
21.65-EDS-XX-ZZ-DR-A-(00)201

Drawing Title
Proposed Site Plan

Drawing Number
(00)201

Revision
02



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VISUAL SCALE 1:100 @ A1

Zone Legend

- Commercial
- House Parent
- Shared
- Staff

03	Issued for pre-application consultation	16.12.22	ML
02	Issued for comment	25.11.22	ML
01	Issued for comment	18.11.22	ML
Revision	Description	Date	Issued

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Client's Name
Cardiff 6th Form College

Cardiff 6th Form Boarding Hub

Status
Planning

Suitability
S2

Scale
1 : 100 @ A1

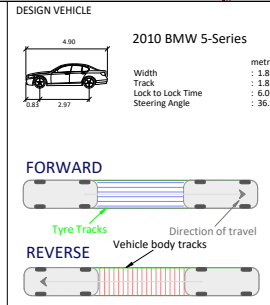
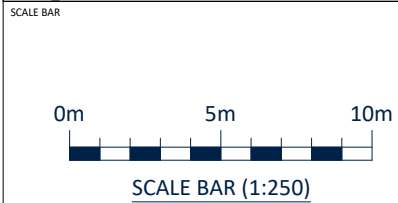
Document Reference
21.65-EDS-XX-00-DR-A-(01)200

Drawing Title
Proposed Ground Floor Plan

Drawing Number
(01)200

Revision
03

Appendix C Swept Path Analysis



- NOTES
1. General arrangement drawing suitable for planning purposes only. This drawing is not suitable for construction.
 2. The content of this drawing is subject to detailed design considerations such as ground conditions, utilities, drainage and signage.
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 4. All land ownership details and rights of way to be confirmed.
 5. Please do not scale from this drawing.

REVISIONS (CONTINUED)

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

REVISIONS

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

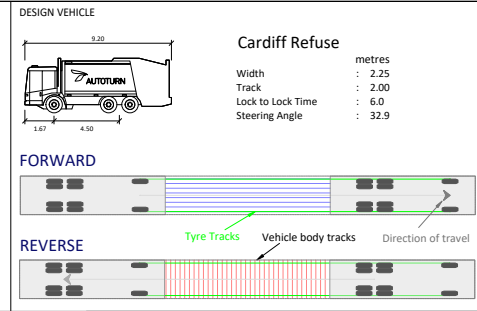
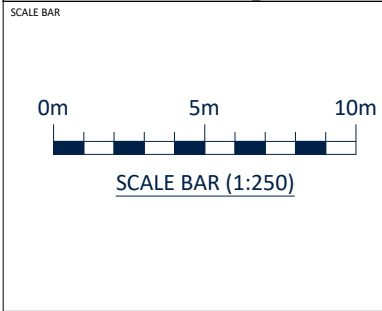
Apex
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CLIENT
DUKES EDUCATION GROUP LIMITED

PROJECT
PIERHEAD STREET, CARDIFF BAY

TITLE SWEPT PATH ANALYSIS OF A LARGE CAR ACCESSING AND EGRESSING THE SITE ACCESS	
PROJECT NO. C22-007	SCALE @ A3 1:250
STATUS DESCRIPTION INFORMATION	STATUS S2
DRAWING NO. C22007-ATP-DR-TP-002	



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REVISIONS (CONTINUED)

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

REVISIONS

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

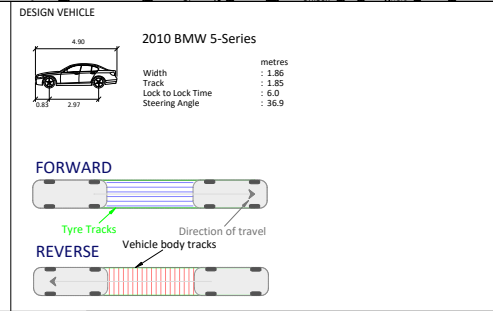
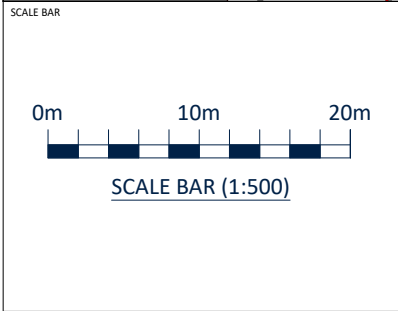
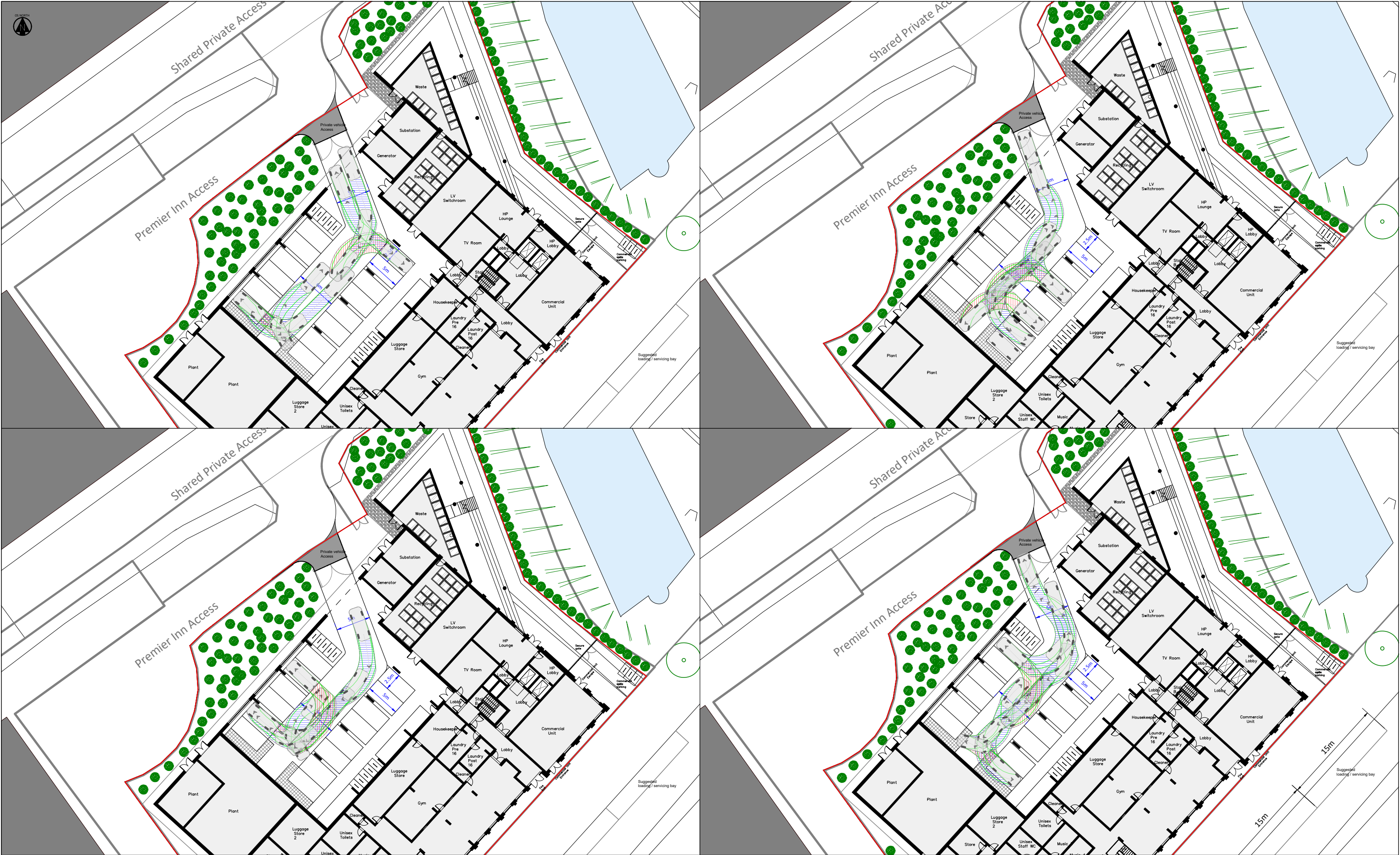
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PROJECT
PIERHEAD STREET, CARDIFF BAY

TITLE SWEPT PATH ANALYSIS DEMONSTRATING REFUSE VEHICLE SERVICING THE PROPOSED SITE		
PROJECT NO. C22-007	SCALE @ A3 1:250	
STATUS DESCRIPTION INFORMATION		STATUS S2
DRAWING NO. C22007-ATP-DR-TP-003		



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REVISIONS (CONTINUED)

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

REVISIONS

Rev	Date	Description	By	App
P01	15/12/22	First Issue.	GP	DC

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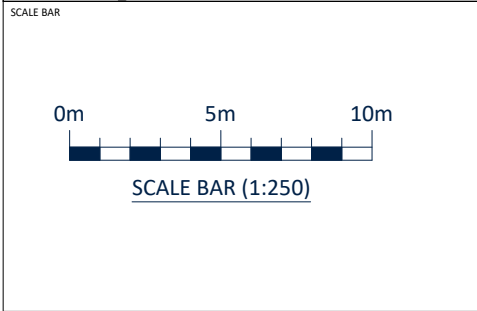
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PROJECT
PIERHEAD STREET, CARDIFF BAY

TITLE SWEEP PATH ANALYSIS OF PROPOSED CAR PARK USING LARGE CAR	
PROJECT NO. C22-007	SCALE @ A3 1:500
STATUS DESCRIPTION INFORMATION	STATUS S2
DRAWING NO. C22007-ATP-DR-TP-004	

Appendix D General Arrangement of Site Access and Visibility Splays



KEY

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- NOTES
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REVISIONS (CONTINUED)

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REVISIONS

P01	15/12/22	First Issue.	GP	DC
Rev	Date	Description	By	App

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CLIENT
DUKES EDUCATION GROUP LIMITED

PROJECT
PIERHEAD STREET, CARDIFF BAY

TITLE PROPOSED VEHICULAR ACCESS GENERAL ARRANGEMENT AND VISIBILITY SPLAY PLAN		
PROJECT NO. C22-007	SCALE @ A3 1:250	
STATUS DESCRIPTION INFORMATION		STATUS S2
DRAWING NO. C22007-ATP-DR-TP-001		