Heol Aneurin, Caerphilly

Transport Statement

Client: **Castell Group**

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Registered Office:
30 Summerfield Avenue
Cardiff
CF14 3QA

QUALITY MANAGEMENT

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Issued by	**Apex Transport Planning Ltd** Clockwise, Brunel House 2 Fitzalan Road Cardiff CF24 0HA Tel: 02920 619 361 info@apextp.co.uk www.apextp.co.uk
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1. INTRODUCTION

1.1 Background

1.1.1 Apex Transport Planning Ltd has been commissioned to produce a Transport Statement (TS) on behalf of Castell Group to support a planning application for the redevelopment of the former Aneurin Labour Club, Heol Aneurin, Caerphilly.

1.1.2 The proposals are to redevelop the site, which was previously a sports and social club, and construct one building accommodating 30 residential apartments, comprising 21no. one-bedroom apartments and 9no. two-bedroom apartments. Vehicular access will be obtained utilising the existing arrangement which is a dropped kerb access onto Heol Aneurin.

1.1.3 The TS considers the impacts of the proposals in relation to transport including the connectivity by active travel and public transport, parking provision and access arrangements, road safety and vehicle trip generation. It has been produced to inform Caerphilly County Borough Council (CCBC) of the highways and transport implications of the proposals.

1.2 Scope of Report

1.2.1 The scope of work has considered policies and advice set out in Planning Policy Wales 12 (PPW12), Technical Advice Note 18: Transport (TAN18), Future Wales - the National Plan 2040, the Active Travel Act (Wales – 2013), the CCBC Local Development Plan (LDP), Car Parking Standards LDP5 SPG, as well as considering experience of other similar sites.

1.2.2 The TS has been structured to include the following:

- A description of the existing conditions including, site location and use, access, road safety analysis and existing travel behaviour in the surrounding area
- Overview of highway network and vehicular connections to the site
- A review of the connectivity of the site by sustainable modes including walking, cycling and public transport
- Description of the development proposals, demonstrating safe and appropriate access by all modes, car and cycle parking, and servicing and delivery arrangements
- Forecast vehicle trip generation in the peak hours and comparison to existing site use
- Consideration of the acceptability of the parking provision in terms of likely demand and sustainable location of the site
- Consideration of the impact of the proposals on the local highway network

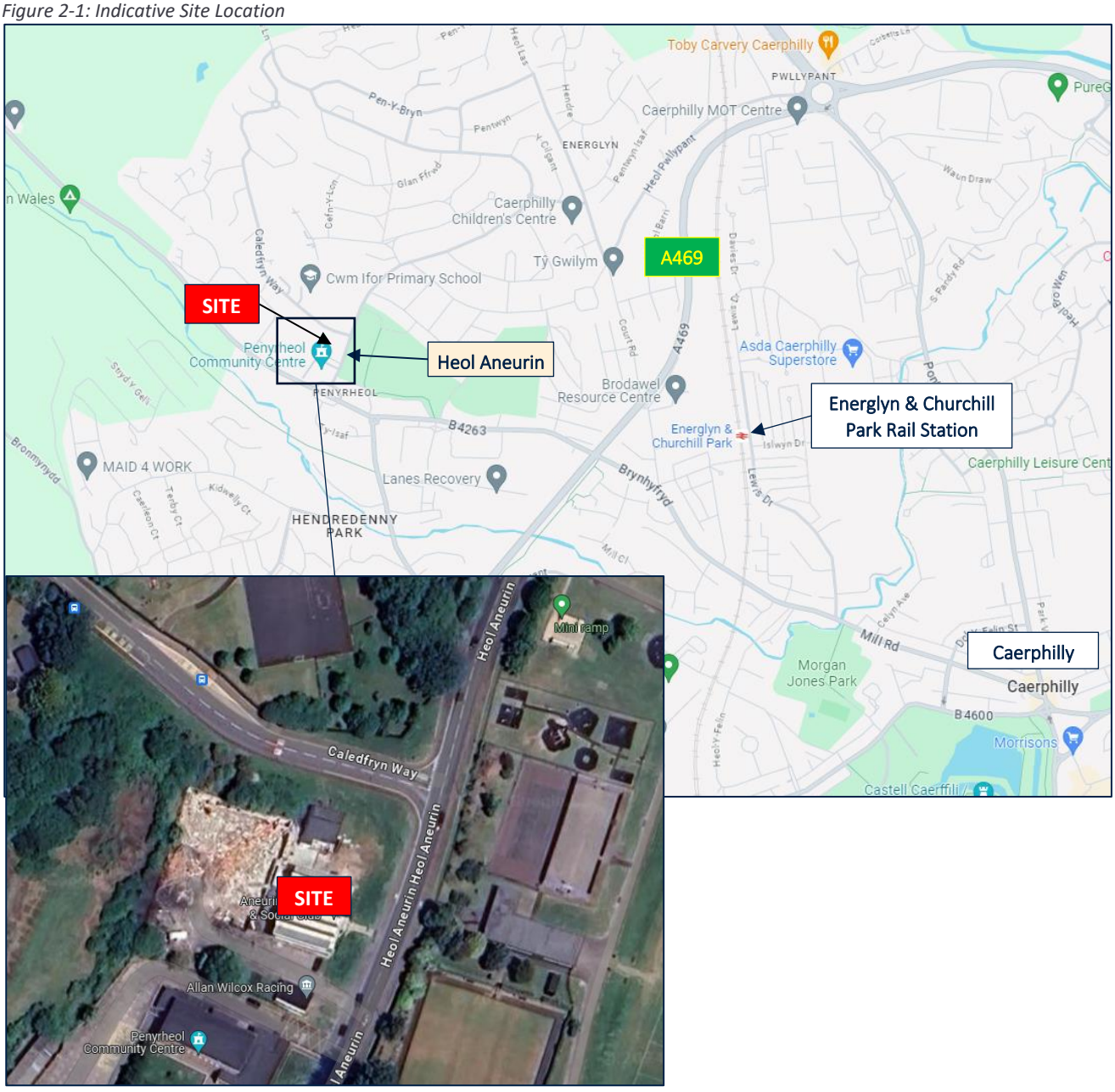
2. EXISTING SITUATION

2.1 Site Location, Use and Access

2.1.1 The site is located in the northwestern area of Caerphilly in Penyrheol, approximately 2km from Caerphilly Town Centre. A sports and social club previously occupied the site, with two existing buildings, both of which were two storeys in height but is now vacant following an arson attack.

2.1.2 The site obtains vehicular access from Heol Aneurin at its southeastern boundary via a dropped kerb arrangement, which also provides access to a betting office, which does not form part of this application. There is also a pedestrian access to the north of the vehicular access, which links to the footways on Heol Aneurin. The site and access has historically accommodated movements by all modes, including vehicles, over an extended period in relation to the previous use as a sports and social club.

Figure 2-1: Indicative Site Location



Source: Google Maps

2.2 Local Highway Network

2.2.1 Heol Aneurin is a single carriageway road routing from the B4263 at its southern extent to Heol Fawr at its northwestern extent. Heol Aneurin serves as a spine road within Penyrheol as it forms the major arm of junctions with a number of residential streets, including Caledfryn Way, Bryn Glas, and Pen-Y-Groes.

2.2.2 Street lighting is present and occurs intermittently along the length of the street. Within the vicinity of the site frontage, the carriageway measures approximately 6 metres in width and has footways on both sides. Within the vicinity of the site, there are no parking restrictions, and it is subject to a 20mph speed limit.

2.2.3 Along Heol Aneurin there are a number of traffic calming measures including chicanes, road humps and raised zebra crossings to minimise vehicle speeds. Towards the south, Heol Aneurin serves a number of facilities including Aneurin Park, the local primary school, and Penyrheol Community Centre, and it becomes mostly residential in nature towards the north.

2.2.4 Approximately 100m south of the site, the B4263 routes in a northwest – southeast direction. To the southeast, the B4263 forms part of the main route from the site into Caerphilly Centre. It also continues south as Station Road connecting to the A469. To the northwest, the B4263 forms the main route into Abertridwr and Senghenydd.

2.3 Road Safety

2.3.1 Personal Injury Accident (PIA) data has been reviewed from data published annually by the Department for Transport (DfT). The statistics provide PIA data which has been recorded using the STATS19 accident reporting form. This review covers the four-year period prior to the pandemic between 1st January 2016 and 31st December 2019, data from the two years during the pandemic between 1st January 2020 and 31st December 2021, as well as the most recent publicly available data which covers up to 31 December 2022. The most recent seven years of data has therefore been reviewed, which includes the most recent five full years of data outside of the pandemic.

2.3.2 The study area considered within the analysis covers the local highway network surrounding the site, the routes to the closest bus stops, and the site access, with the entire study area shown in Figure 2-2.

Figure 2-2: Location of Recorded PIA's

Source: Crashmap

2.3.3 Over the seven-year period, just one PIA occurred to the south of the site. There were no serious or fatal PIAs.

2.3.4 The one PIA occurred on 9th May 2017 and involved a car and a goods vehicle, resulting in one slight casualty.

2.3.5 There were no PIAs that involved a pedestrian or a cyclist and as such there is no evidence of a safety issue in relation to active travel within the vicinity of the site.

2.3.6 There were no incidents recorded along the site frontage or within the visibility splays. As such, there is no evidence of a historic or existing issue for movements from the existing site access onto Heol Aneurin.

2.3.7 There were no clusters of four or more PIAs occurring in the same location, therefore no evidence to suggest a re-occurring road safety issue.

2.3.8 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, particularly given this location accommodates movements associated with the existing residential area.

2.4 Existing Travel Behaviour

Modal Share

2.4.1 The site is located within output area W00007300 in Caerphilly. Table 2-1 shows how the existing residents of this output areas currently travel to work, together with a comparison against all households in Caerphilly, as obtained from 2011 Census data using the Nomis website.

2.4.2 The 2011 data is considered more appropriate than the recently published 2021 data in relation to travel to work information. This is due to the impact of the pandemic and restrictions on the day of the 2021 Census which affected movements to and from work (i.e. reduced public transport) and increasing levels of home working.

Table 2-1: Journey to Work Modal Split

Mode	CCBC	W00007300
Public Transport	8%	6%
Car Driver	74%	76%
Motorcycle	1%	0%
Car Passenger	8%	5%
Bicycle	1%	1%
On Foot	8%	12%
Other	1%	0%
Total	**100%**	**100%**

2.4.3 The census data shows that an average of 76% of residents living in the output area travel to work as a car driver. A total of 12% walk, 1% travel by bike, 6% travel by public transport, and 5% travel as a car passenger.

2.4.4 The data shows a similar level of travel by sustainable travel to the entire of the CCBC area. This demonstrates the sustainable attributes of this location and ability for the surrounding infrastructure to accommodate pedestrian movements.

2.4.5 These statistics have been adjusted to exclude working from home. If this was included, c.20% of residents currently in work in the output area, do so from home rather than commuting and this is likely to have significantly increased since 2011. This is significantly higher than the entire of CCBC (which has 7% home working). This demonstrates that there is further potential for the site to constrain car use and working from home would be in accordance with the Welsh Government aspirations.

2.4.6 Travelling to work is also only one journey purpose during peak hours from a residential site. A significant proportion of journeys will also be for education, leisure, and retail purposes and these are likely to have higher levels of sustainable travel, particularly given the local primary school, retail, employment, leisure and public transport facilities are situated within short walking distances and accessible via appropriate routes (as shown in Section 4).

2.4.7 The data demonstrates that there is good potential for walking and public transport trips to be made to and from the site and that these movements already occur in this area, without evidence of a safety issue (as demonstrated in Section 2.3).

2.5 Car Ownership

Census Analysis - Overall

2.5.1 The 2021 Census data has been reviewed for the average car ownership in the OA within which the site is situated - W00007300.

2.5.2 This shows an average of 1.12 cars per household across the OA, based on 175 cars across 156 households (2021 census data doesn't provide a total sum of all cars or vans in the area, so based on analysis of household data across the entire of Wales for the 2011 data, it has been assumed that households with 3 or more cars have an average of 3.38 cars). It is also shown that 74% of households owned one car or less.

Census Analysis - Dwelling Type

2.5.3 As the overall Census data includes all house and tenure types, car ownership levels by dwelling type in the W00007300 output area have been reviewed, as the proposals are for an affordable apartment scheme.

2.5.4 Data has been analysed in Nomis Table *"RM001 - Accommodation type by car or van availability by number of usual residents aged 17 years or over in household".* This data separates car ownership into two categories – firstly houses and secondly flats / maisonettes / apartments.

2.5.5 Within the W00007300 output area there were 14 flats of which 71.4% had no car ownership and all owned one car or less. The average car ownership for flats was 0.29 per household.

2.5.6 The ownership for flats is approximately a quarter of the car ownership for houses across the same output area. This demonstrates that flats typically have significantly lower car ownership than houses, although within the local output area, the majority of accommodation is houses.

Census Analysis - Tenure Type

2.5.7 Data has been analysed in Nomis Table "*RM131 - Tenure by car or van availability by number of usual residents aged 17 or over in household".* This data separates car ownership into three categories – Owned / shared ownership, Social rented and Private rented / living rent free.

2.5.8 Within W00007300 there are a total of 76 social rented households, with an average ownership of 0.88 cars per household. This includes 32% of social rented households who do not own a car and 80% owning one car or less. As such, on average, social rented households in W00007300 have low car ownership, at around 72% of the level of owner-occupied accommodation, which has a car ownership of 1.23 per household.

2.5.9 On this basis, there is evidence that both flats and affordable housing have significantly lower than average car ownership and the proposed car parking provision has therefore appropriately considered this.

3. CONNECTIVITY BY SUSTAINABLE MODES OF TRAVEL

3.1 Introduction

3.1.1 This section describes the opportunities to make everyday trips by non-car modes. It considers the likelihood of trips being made on foot, by cycle, bus and rail.

3.2 Walking and Cycling

3.2.1 Walking and cycling (collectively known as active travel) are the most important mode of travel at a local level and offer the greatest potential to replace short car journeys.

Walking Infrastructure and Routes

3.2.2 The site is well situated to benefit from existing walking routes. Suitable footways and crossings are provided along key routes and in the vicinity of the site, as would be expected in an existing residential area. The majority of local streets have footways on both sides of the carriageway and benefit from streetlighting, providing links between the site and the surrounding facilities.

3.2.3 The site connects to the footway on the western side of Heol Aneurin which runs along the site frontage. Heol Aneurin has footways on both sides of the carriageway measuring c.2m in width and links to further residential streets which also provide footways and streetlighting. Adjacent to the site boundary, there is a dropped kerb with tactile paving that connects the eastern and western footways on Heol Aneurin. To the south, the western footway links to the closest bus stop and as such there is continuous pedestrian infrastructure to the closest bus stop.

3.2.4 To the north of the site, the footways on Heol Aneurin connect to those on Caledfryn Way which link to additional bus stops and the nearest primary school. At the Heol Aneurin / Caledfryn Way junction there are dropped kerbs across Caledfryn Way connecting the northern and southern footways. Also, on Caledfryn Way there are traffic calming measures which contribute to the pedestrian friendly environment.

3.2.5 At the Heol Aneurin / B4263 junction there are dropped kerbs across Heol Aneurin and across the B4263 which connect the closest bus stops and provide pedestrian access to the footways south of the B4263. The footways on B4263 also continue east connecting to the Tesco Express.

3.2.6 The site is therefore well positioned to benefit from existing high quality walking infrastructure, which connect to key local facilities and services. The local area appropriately accommodates existing pedestrian movements, including for pupils travelling to the nearby schools and the infrastructure would be attractive to potential future residents walking to and from the site.

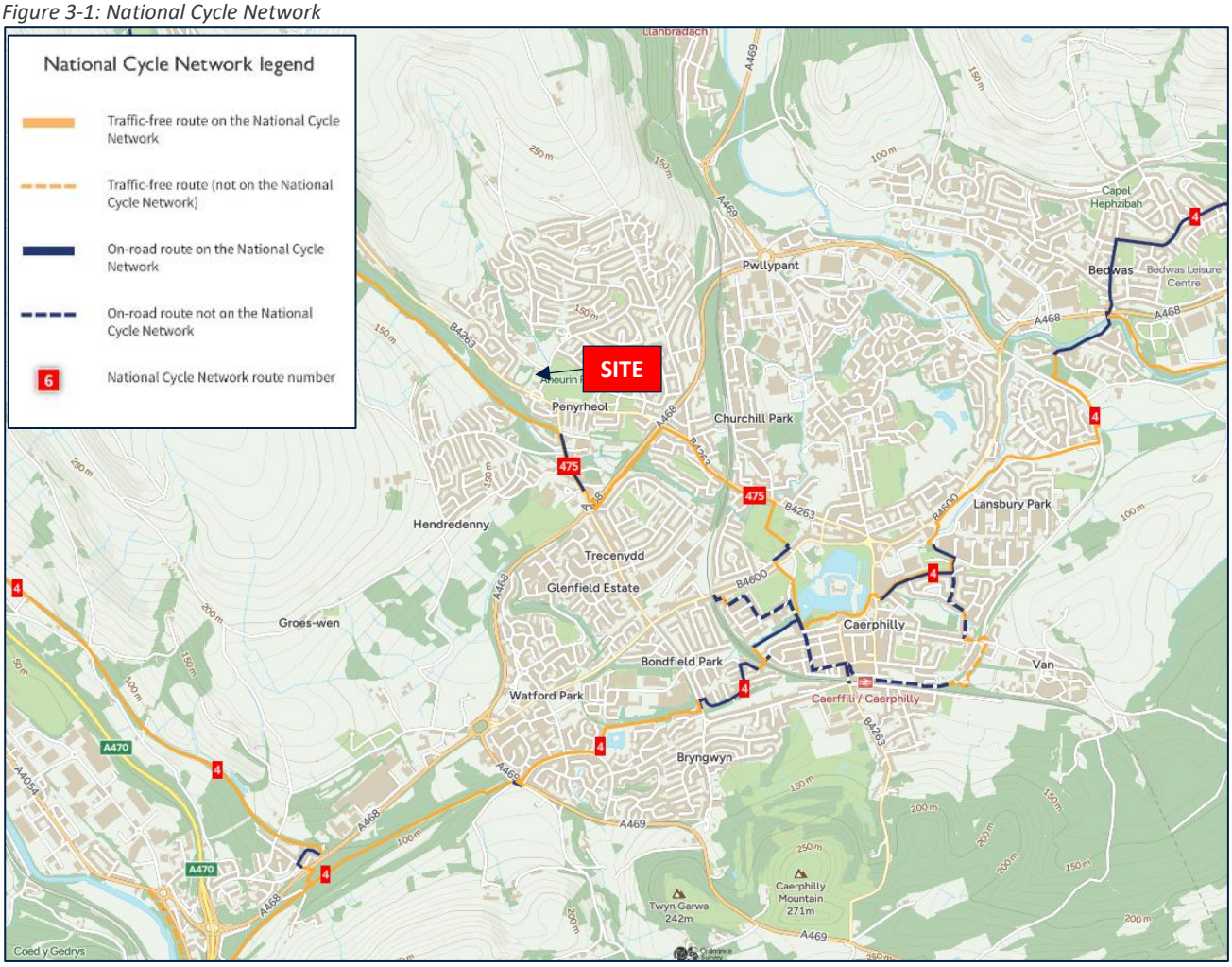
Cycling Infrastructure and Routes

3.2.7 The streets within the vicinity of the site are considered conducive to cycling, encouraged by 20mph speed limits and traffic calming measures. The surrounding highway network is provided with street lighting, which encourages pedestrian and cycle trips to occur during hours of darkness.

3.2.8 The closest National Cycle Network (NCN) Route to the site is NCN 475 which is approximately 360m south of the site accessed via Station Terrace. NCN 475 provides a route into Senghenydd, via Trecenydd, Penyrheol, and Abertridwr and is predominantly traffic-free. Within Caerphilly Centre, NCN 475 also provides a connection to NCN Route 4 which runs from London to Fishguard and forms part of the Celtic Trail West which runs from Chepstow to Pembrokeshire.

3.2.9 The NCN cycle routes within the vicinity of the site are shown in Figure 3-1.

Figure 3-1: National Cycle Network



Source: Sustrans

Active Travel Network Maps

3.2.10 The Welsh Government DataMap Wales shows the Active Travel Network Maps (ATNM) across all authorities, including CCBC. This shows existing walking routes and where upgrades or new routes are anticipated to be provided.

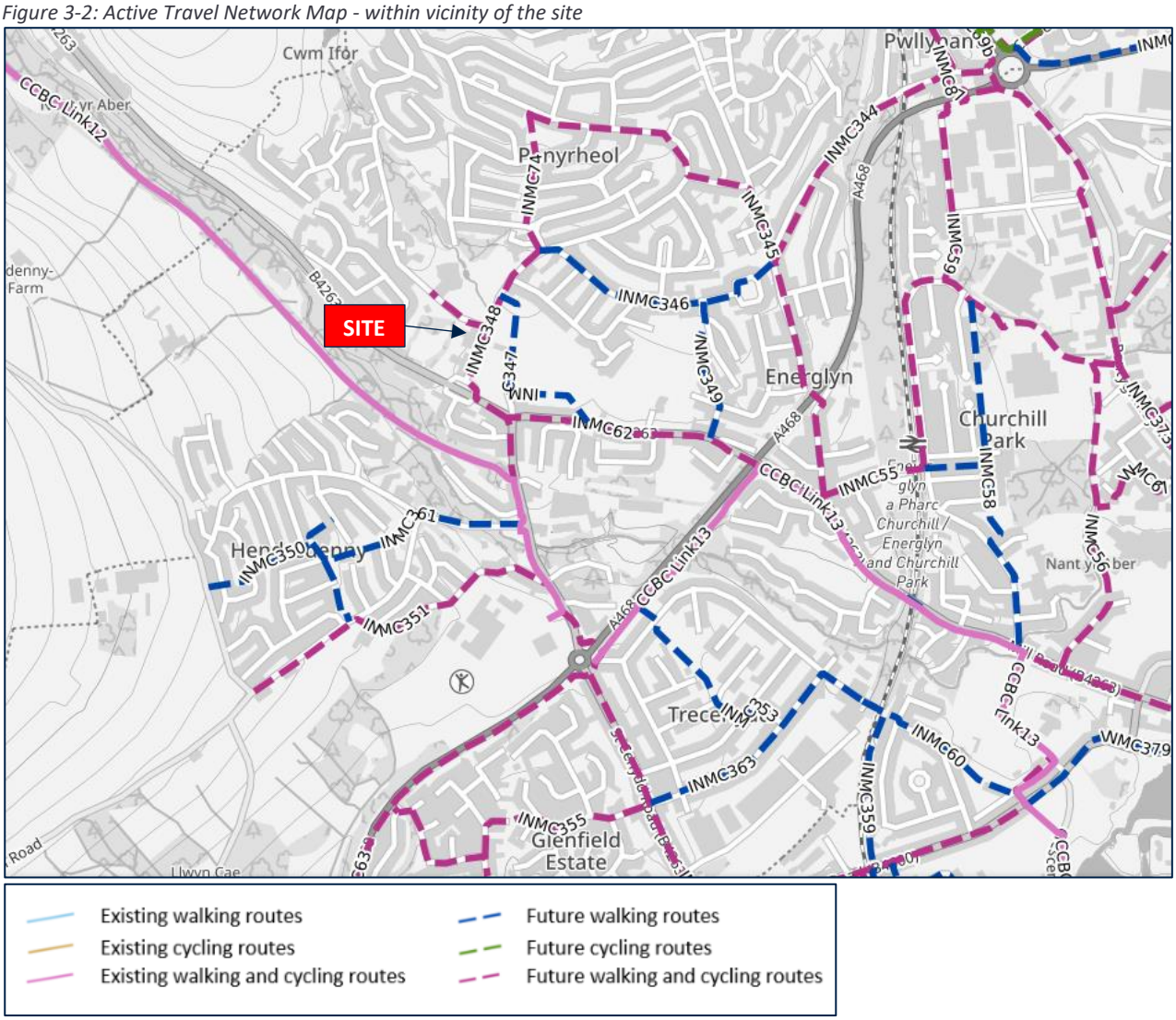
3.2.11 A review of the ATNMs within the vicinity of the site shows a future walking and cycling route on Heol Aneurin that routes along the eastern boundary of the site which can be accessed directly from the site access (Ref: INMC348). This route links to the nearest bus stop and connects to existing walking and cycling route CCBC Link 12 via future walking and cycling route INMC62 on Station Road.

3.2.12 Route INMC348 also connects to a number of additional walking / cycling routes. This includes future walking route NM347 which connects Heol Aneurin to the B4264 via Aneurin park, and future walking route INMC346 which connects Heol Aneurin to Heol Pwllypant.

3.2.13 Also, within the vicinity of the site there is a proposed walking and cycling route which extends from Heol Aneurin along the northern site boundary and the southern boundary of the closest primary school. As such, this route will provide continuous walking and cycling infrastructure from the site access to the closest primary school.

3.2.14 The ATNM showing the existing and proposed routes within the vicinity of the site has been reproduced in Figure 3-2.

Figure 3-2: Active Travel Network Map - within vicinity of the site



Source: Welsh Government Active Travel Map

3.2.15 As such, the site is well positioned to benefit from existing routes and potential future high-quality walking and cycling links, which connect to further routes in the wider area and improve links to key local facilities and services. The site would therefore encourage and promote walking and cycling movements for potential future residents.

3.3 Distances to Facilities

3.3.1 There are a number of publications which suggest guidance for appropriate and acceptable walking and cycling distances to facilities. For reference, these have been summarised as follows.

- Welsh Government - Active Travel (Wales) Act 2021: It is stated within paragraph 4.1.5 that *"Walking is most suitable for journeys of less than two miles whilst cycling is also convenient for longer journeys, typically up to five miles for regular utility journeys"*. This equates to distances for walking of up to 3.2km and cycling of up to 8km.
- This also states in paragraph 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). 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 commuting 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).

3.3.2 As such, based on guidance, it is considered that suitable walking distances are up to 3.2km, but journeys within 2km have a greater potential to be made on foot. A 2km distance equates to around a 25-minute walk travelling at 3mph (4.8kph). A 3.2km distance equates to around a 40 minute walk. Sites with a range of facilities within 1.6km are considered to be within a 'walkable neighbourhood'.

3.3.3 It is considered that journeys of up to 8km are within a suitable cycling distance. A cycling journey of 8km would equate to approximately a 25-minute travel time.

3.3.4 To demonstrate the site's connectivity, facilities within appropriate distances which are accessed via suitable and established routes have been summarised in Table 3-1. The location of the facilities in the context of the site are shown in Figure 3-3.

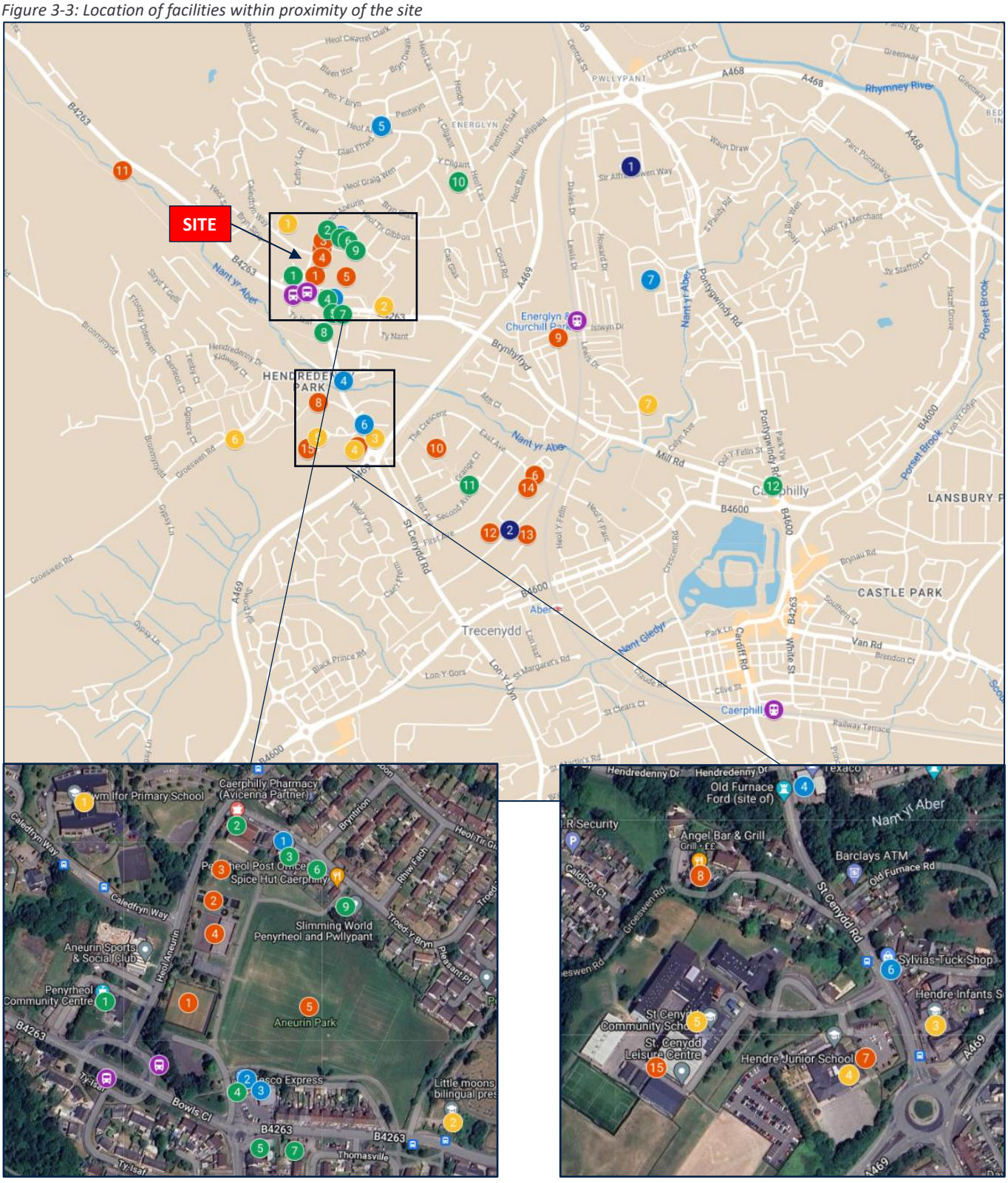
Table 3-1: Proximity of the site to local facilities and services

Facility / Amenity		Distance from site access (metres)	Walking Travel Time (minutes) *	Cycling Travel Time (minutes) *
Community Facilities				
1	Penyrheol Community Centre	100	1	<1
2	Caerphilly Pharmacy (Avicenna Partner)	180	2	1
3	Penyrheol Post Office	240	3	1
4	Tesco Bank Cash Machine	250	3	1
5	Abigail's Hair Studio	250	3	1
6	N&K Barber's	270	3	1
7	ART Dental Laboratory	280	4	1
8	Bethel Baptist Church Penyrheol	310	4	1
9	St Andrew's Church	320	4	1
10	Caerphilly Children's Centre	960	12	3
11	Trecenydd community hall	1400	18	4
12	Vets4Pets - Caerphilly	2000	25	6
Public Transport				
	The Bowls	100	1	<1
	Energlyn & Churchill Park	1300	16	4
	Caerphilly Rail Station	2900	36	9
Retail				
1	Londis	240	3	1
2	Tesco Express	250	3	1
3	St David's Hospice Charity shop	270	3	1
4	Londis	500	6	2
5	Lifestyle Express off licence	670	8	2
6	Sylvias Tuck Shop	680	9	2
7	Asda Caerphilly Superstore	2000	25	6
Education				
1	Cwm Ifor Primary School	240	3	1
2	Little moons bilingual preschool	420	5	1

Facility / Amenity		Distance from site access (metres)	Walking Travel Time (minutes) *	Cycling Travel Time (minutes) *
3	Hendre Infants School	740	9	2
4	Hendre Junior School	780	10	2
5	St Cenydd Community School	820	10	3
6	Hendredenny Park Primary School	1000	13	3
7	Plas-Y-Felin Primary School	1570	20	5
Leisure				
1	Bowls Green	60	1	<1
2	Playground	70	1	<1
3	Skatepark	110	1	<1
4	Tennis Courts	250	3	1
5	Aneurin Park	300	4	1
6	Trecenydd Snooker Club	710	9	2
7	Richard Vaughan Badminton Academy	780	10	2
8	Angel Bar & Grill Public House	800	10	3
9	Caerphilly sidings	1130	14	4
10	Playing field and park	1190	15	4
11	Camping in Wales	1390	17	4
12	Bedwas Gymnastics Club	1640	21	5
13	Poppelwood Play Centre	1750	22	5
14	Team Rees Gym	1900	24	6
15	St. Cenydd Leisure Centre	1910	24	6
Employment				
1	Trecenydd Business Park	1700	21	5
2	De Clare Business Park	2000	25	6

** Based on walking speeds of 80 metres per minute and Cycling Speeds of 320 metres per minute*

Figure 3-3: Location of facilities within proximity of the site



Source: Google Maps
Note: Numbers and colours correlate to Table 3-1

3.3.5 Table 3-1 and Figure 3-3 show there are an extensive number and range of facilities and services situated within comfortable walking and cycling distances which can be accessed via suitable active travel routes. All facilities are within Welsh Government guidance walking and cycling distances.

3.3.6 Within an 800m walk, residents would be able to access the closest bus stops, a Tesco Express, four schools, a post office, a community hall, a dentist, a pharmacy, hairdressers, and a number of leisure facilities.

3.3.7 A number of additional facilities are within further, but suitable walkable distances include two more schools, a food superstore, two employment areas, and a number of leisure facilities including sports clubs. This is a significant number of services / facilities within a short walking distance, which can be utilised for everyday needs purposes, demonstrating that the site is situated within a walkable neighbourhood consistent with the Active Travel Act guidance.

3.3.8 The site is situated in a highly sustainable location, as would be expected for a site in an existing and established residential area. This will encourage walking and cycling and reduce the reliance on the private car, consistent with relevant policies and guidance, including sustainable transport policies in Future Wales, PPW12 and TAN18.

3.4 Public Transport

Bus

3.4.1 The closest bus stops to the site are The Bowls situated 100m south of the site on Heol Aneurin and the B4263. Both bus stops benefit from a bus flag, shelter, seating, and raised kerb for accessible boarding. The stop on the B4263 also benefits from a bus lay-by.

3.4.2 These stops are served by bus services B, C, E, K, and X which are operated by Stagecoach South Wales. These services provide a combined 7 services per hour and provide links to locations such as Caledfryn, Senghenydd, Penyrheol, as well as directly to Caerphilly Town Centre and Rail / Bus Interchange. Services commence from 07:00 and run until 22:45 Monday to Saturday and from 09:24 to 22:50 on Sundays. As such bus services are provided 7 days a week.

3.4.3 These combined services provide link to Blackwood, Newbridge, and Croespenmaen. Hourly services commence from 07:12 and run until 23:08 from Monday to Saturday with an increased frequency between 09:28 to 13:58 Monday to Friday.

3.4.4 The journey time to Caerphilly Interchange is approximately 11 minutes, the journey time to Senghenydd is approximately 11 minutes, and the journey time to Cardiff is approximately 40 minutes. From the Caerphilly Bus and Rail Interchange it is possible access numerous further services which connect to additional locations.

3.4.5 A summary of the local bus services is provided in Table 3-2.

Table 3-2: Local Bus Services

Route No.	Operator and Route	Frequency				
		Mon-Fri Peaks	Mon-Fri Daytime	Mon-Fri Evening	Sat	Sun
B	Senghenydd - Caerphilly	3 per hour	3 per hour 07:00 – 23:32	Hourly	3 per hour 07:00 – 23:32	Hourly 09:24 – 22:50
C	Caerphilly - Penyrheol	2 per hour	2 per hour 07:20 – 22:45	2 per hour	2 per hour 07:21 – 22:45	Hourly 09:28 – 20:28
E	Senghenydd – Caerphilly via Abertridwn	Hourly in PM peak	Hourly 09:40 – 17:40	No service	Hourly 09:40 – 17:40	No service
K	Caledfryn - Caerphilly	Hourly in PM peak	Hourly 09:28 – 17:32	No service	Hourly 09:28 – 17:32	No service
X	Senghenydd – Cardiff, via Llanishen,	07:20	One service 07:20	No service	One service 07:20	No service

Route No.	Operator and Route	Frequency				
		Mon-Fri Peaks	Mon-Fri Daytime	Mon-Fri Evening	Sat	Sun
	Abertridwr and Thornhill					

3.4.6 The bus services provide a good frequency of service connecting to the key local centres of Caerphilly, Caledfryn, Senghenydd, Penyrheol and run throughout the day. As such, the journey times to Caerphilly and Senghenydd, combined with the times of operation, offer a viable option for commuting purposes. They can also be used to access destinations for leisure, retail and education purposes.

3.4.7 Given the close proximity of the bus routes, the site has good accessibility by bus which offers a realistic travel option for potential future residents of the site. This will assist in minimising the vehicle generation from the site and reduce the need for residents to own a car.

Rail

3.4.8 The nearest railway station is Energlyn & Churchill Park, located approximately a 1.3km walk (16 minutes) to the east of the site. This station lies on the Rhymney Line and trains stopping at this station are operated by Transport for Wales. There are two services in each direction per hour providing links to locations such as Cardiff Central, Caerphilly, Barry Island, Bargoed, and Hengoed.

3.4.9 The journey time to Cardiff Central is approximately 26 minutes, the journey time to Caerphilly is approximately 6 minutes, and the journey time to Barry island is approximately 58 minutes.

3.4.10 For additional services, Caerphilly Rail Station (Interchange) is accessible within a 2.9km cycle (9 minutes) southeast of the site. There are 10 cycle spaces available which are monitored by CCTV and sheltered, and therefore this offers the potential of a combined cycle then train journey. Alternatively, bus services C, B, and E provide regular services to Caerphilly Interchange with a combined walk then bus journey of approximately 13 minutes. As such, future residents also have the option of taking a combined bus then rail journey.

3.4.11 As such, it is feasible to use the rail services for commuting purposes as part of a multi-modal journey, particularly to locations such as Cardiff, although rail is also likely to be attractive for other journey purposes such as leisure, retail, or business journeys. A combined walk / cycle / bus and then rail journey has some potential for replacing car journeys and further reducing the requirement for owning or travelling by car.

3.5 Summary

3.5.1 The site is situated in a sustainable location which benefits from being well connected to existing walking and cycling infrastructure, and public transport routes.

3.5.2 Potential future residents can walk or cycle to a number and range of facilities and services within appropriate distances via good quality routes, reducing the need to own a car. In this regard, the site location is consistent with the sustainable transport policies in PPW12 (in particular paras 4.1.10 – 4.1.17).

3.5.3 The site also has good public transport links, which provide a suitable, attractive and realistic alternative to travelling by car.

3.5.4 Potential future residents would have a realistic choice of modes of travel for all journey purposes. This will minimise the impact of the development and reduce the parking demand on the site.

3.5.5 The site location will encourage and promote sustainable travel behaviour, be attractive to residents who do not own a car or have low car ownership and is fully in accordance with transport policies in TAN18, PPW12 and Future Wales.

4. DEVELOPMENT PROPOSALS

4.1 Overview

4.1.1 The proposals are for a redevelopment of the site for 30 affordable apartments consisting of:

- 21no. one-bedroom apartments
- 9no. two-bedroom apartments

4.1.2 These will be provided in one building situated in the eastern parts of the site. Car parking will be provided to the rear of the site, with access obtained from the existing location. The vehicular access junction and footway connecting into the site from Heol Aneurin will remain as per the existing arrangements.

4.1.3 The site also provides landscaping and amenity space surrounding the buildings.

4.1.4 The proposed site layout is provided in Appendix A.

4.2 Site Access and Layout

4.3 Access

Vehicular

4.3.1 The vehicular access to the site would be obtained from the same location as currently onto Heol Aneurin via the same dropped kerb crossing arrangement. There is no evidence of an existing safety issue in relation to this access and it is considered to remain suitable for accommodating the vehicle movements associated with the proposed development.

4.3.2 Visibility splays of 2.4m x 25m can be achieved in each direction from the site access, consistent with the speed limit on Heol Aneurin. Splays of up to 43m can also be achieved, consistent with the previous 30mph speed limit. The internal access road has a width of 6m, which can appropriately accommodate all vehicles.

4.3.3 The visibility splays and geometry of the access road are shown in a drawing in Appendix B.

4.3.4 The access road would route through the site providing access to the car parking at the rear, as well as providing a turning head which allows a refuse vehicle or delivery vehicle to turn. Swept path analysis of a refuse vehicle has been provided in Appendix C which shows a vehicle entering and exiting the site access and turning appropriately.

4.3.5 The access can also accommodate a large car turning into and out of the access without conflict and this has been demonstrated in the swept path analysis in Appendix C.

4.3.6 The access road would operate as a shared space environment which is considered appropriate for the speeds and flows of vehicles using the route, as well as being consistent with the existing arrangements.

Pedestrians

4.3.7 Pedestrian access would be retained as per the previous building from a footway which connects directly to the building from the footway on Heol Aneurin. This is consistent with the existing arrangements and considered suitable to accommodate all pedestrian movements. A footway will also be provided to the rear of the car parking spaces, to the rear of the building which will connect into the building from its western side.

Layout

4.3.8 The internal access road accommodates a turning head at the western end of the site and has a width of 6m along its length. The car parking is obtained from the internal access road along its length. The parking spaces are 2.6m in width and 4.8m in length and cars can enter and exit all spaces appropriately, as shown in swept path analysis in Appendix C. There are footpaths linking from the car parking spaces to the building entrances to ensure pedestrians can access each building appropriately.

4.3.9 The building has bin and cycle stores located in close proximity. The bin store is located a short distance from the access road on the west side of the building, to enable refuse collection to take place appropriately, and the cycle store will provide secure and covered cycle parking in the northwestern area of the site adjacent to the building.

4.4 Parking

4.4.1 CCBC's Supplementary Planning Guidance (SPG) LDP5 – Car Parking Standards Revision 2, as adopted in January 2017 ('the Parking SPG'), provides the applicable standards to apply to the proposed development. The SPG is based on the CSS Wales Parking Standards 2014.

4.4.2 The site is based in a Zone 3 - 'Urban' location and the residential guidance states that a maximum provision of one space per bedroom for apartments and houses should be provided. However, the provision should not exceed three spaces per unit. In addition, a total of one space per five units should be provided for visitors.

4.4.3 Applying the Zone 2 to 6 standards to the site proposals, this would equate to a maximum of 39 parking spaces for the 30 residential apartments/flats plus 6 visitor spaces, equating to a total maximum provision of 45 parking spaces. The site proposes to provide a total of 30 car parking spaces for residents use only which is 15 spaces below this maximum parking level (inclusive of visitor parking spaces).

4.4.4 PPW12 states at paragraph 5.1.53 that *"Local authorities will need to ensure that their parking standards reflect local transport provision"* and that supplementary planning guidance, *"are kept under review"* where *"standards should be applied flexibly and allow for the provision of lower levels of parking and the creation of high-quality places."*

4.4.5 Future Wales and PPW12 were published after the adoption of the Parking Standards SPG and should hold significantly greater weight when considering an application in a sustainable location such as this.

4.4.6 PPW12 states at paragraph 4.1.50 that *"car **parking provision is a major influence on how people choose to travel**"* and at paragraph 4.1.51 states that *"**parking provision should be informed by the local context, including public transport accessibility**"*. Furthermore, it states that its aims are "***reducing reliance on the private car and supporting a modal shift** to walking, cycling and public transport"* and that local authorities *"**must support schemes which keep parking levels down**."*

4.4.7 Paragraph 5.1.53 states that *"Local **authorities will need to ensure that their parking standards reflect local transport provision**"* and that supplementary planning guidance, ***"are kept under review"*** where *"**standards should be applied flexibly** and **allow for the provision of lower levels of parking** and the creation of high-quality places."*

4.4.8 In addition to this, Future Wales is also clear in Policy 12 that *"Planning authorities **must act to reduce levels of car parking in urban areas**."* Within the supporting text for this policy it is stated that *"**Planning authorities should promote car-free and low car developments in accessible locations**."*

4.4.9 Since the publication of the two key national policy documents, the SPG has not been reviewed to reflect the aspirations of Welsh Government to deliver lower levels of parking as part of developments, or reduce car parking in urban areas, or promote low car developments in accessible locations.

4.4.10 The development site has an existing use, as well as a consented use and is seeking permission to deliver affordable housing. This is also in line with PPW12 paragraph 4.1.54, which states that authorities should *"seek to **encourage appropriate redevelopment… to bring the provision down**."*

4.4.11 The key national planning policies have a consistent and clear requirement. Schemes in accessible areas, should be providing low levels of parking, particularly where these are redevelopment sites. In accordance with the key national policies it is considered that a flexible approach to parking provision is appropriate for this redevelopment site in this location.

4.4.12 This flexible approach is reflected in the Parking SPG which states *"Interpretation and application of the standards will rest with the Local Authority, but flexibility in the standards allows local circumstances to be taken into account."* Factors allowing for this flexibility include the accessibility of the site by public transport, walking and cycling and the availability of parking. The site's sustainable location will be set out in detail within the TS for submission with any forthcoming application, although an analysis of the sustainability against the criteria within the SPG is set out as follows (with a summary of the connectivity by sustainable modes above).

4.4.13 The Parking SPG also allows for reductions to be applied to the maximum provision based on the potential car ownership levels. Note 5 within the residential standards states *"For developments where clear evidence has been supplied that car ownership levels will be lower than normal, a more flexible approach to numbers of parking spaces may be taken."*

4.4.14 As such, in accordance with the CCBC SPG, the potential level of car ownership has also been considered, and as shown in the Census analysis above, the level of demand for parking for an affordable flat development would be significantly lower than for a private house.

Reduction based on sustainability criteria

4.4.15 Sustainability criteria is set out in Schedule 6 of the SPG which provides a scoring system to apply a reduction in parking requirements based on a points score. The SPG specifically states that *"Award of these points **will** result in a reduction in parking requirement"* and then sets out the criteria against which a development will be assessed.

4.4.16 A sustainability points calculation has been undertaken using the criteria in Schedule 6 of the SPG. The resultant calculations and sustainability points score for the site have been summarised in Table 4-1.

Table 4-1: Parking Sustainability Points Calculation

Sustainability Criteria	Maximum Walking Distance	Available Single Sustainability Points	Notes	Points Scored by the Site
Local Facilities				
Local facilities include a foodstore over 1000 sqm, post office, community medical practice, school etc. *Access to two of these within the same walking distance will score single points, whereas access to more than two of these will double the points score.*	200m	3		
	400m	2	Post Office, Cwm Ifor Primary School, Tesco store, Londis, Pharmacy	4
	800m	1		
Public Transport				
Access to bus stop or railway station	300m	3	B4263 stops	3
	400m	2		
	800m	1		
Cycle Route				
A cycle route needs to be segregated from vehicular traffic and must provide links to local facilities and employment area	200m	1		
Frequency of Public Transport	**Frequency**			
Bus or rail service within 800m walking distance which operates consistently between 7am and 7 pm. Deduct one point for service which does not extend to these times.	10 minutes	3		
	20 minutes	2	Service B runs every 20 mins (combined frequency of all services to closest stops is less than every 10 minutes)	2
	30 minutes	1		
			Total	**9**

4.4.17 The site location scores nine sustainability points which equates to an allowable reduction of up to one space per dwelling for a residential use.

4.4.18 The SPG states that within a Zone 3 location, any reduction cannot take provision to below one space per unit. Although the guidance states less than one space 'remaining' it is assumed this means one space 'remaining per unit'. As such, applying the minimum requirement of one space per unit would equate to 30 spaces. This is in accordance with the proposed provision, albeit without the provision of visitor parking.

4.4.19 Based on the Census analysis for flats and social rented housing, the car ownership could be between 0.29 and 0.88 cars per unit, equating to a demand of 9 to 26 vehicles for residents. It is considered that any visitor demand (the standards suggest five spaces) can therefore be accommodated within any spare capacity on the site.

4.4.20 Indeed, it is unlikely that every resident would be occupying a space at all times (a number of residents are unlikely to own a car). As such, the proposed parking provision is appropriate for accommodating the demand for both residents and visitors, whilst encouraging travel by other more sustainable modes, through not overproviding spaces on the site.

4.4.21 Manual for Streets also states in paragraph 8.3.23 that in *"locations with good accessibility by non-car modes, and where on-street parking is controlled, it is often appropriate to omit visitor car-parking spaces."*

4.4.22 Potential residents will likely be in an informed position on a variety of matters, including the availability of parking and alternative travel modes prior to moving into a property. If they perceive parking to be an issue, they would be likely to amend their behaviour accordingly (i.e. only own one vehicle or not own a vehicle). The sustainable location of the site would be helpful and attractive to occupiers who do not own a car or have low car ownership. This could be a significant proportion of occupants based on analysis of ownership data within the local area.

4.4.23 This is consistent with paragraph 8.3.6 of MfS which states *"For residents who choose not to own a car, living in such an area may be an attractive proposition."*

4.4.24 As such, the provision is appropriate for the demand, considers the sustainable location of the site, and would not lead to overspill onto the highway network.

4.4.25 This provision is also considered fully in accordance with the Welsh Government policies in Future Wales and PPW12 for supporting low car ownership developments and increasing sustainable travel. It will provide a less car dominated development with more green space, improving the quality of the scheme.

Parking Layout

4.4.26 The car park has been designed to appropriately accommodate a large car turning to and from all spaces. The spaces have dimensions of 2.6m x 4.8m in accordance with the Parking SPG and there is an aisle width of 6m between bays. The swept paths of a large car turning into and out of the end space (the most difficult space to access) has been provided in Appendix C.

Cycle Parking

4.4.27 The SPG provides a minimum standard of one stand per five bedrooms for residential apartments which would equate to 6 stands if applied to the 30 bedrooms within the proposed scheme. The cycle store will provide in excess of the standards with 10 stands accommodating 20 cycles, with the cycle store located adjacent to the apartment block. The cycle shelter is secure and covered and would provide suitable dimensions for manoeuvring and parking. The provision would further reduce the requirement to own a car and encourages travel by more sustainable modes.

4.5 Service and Deliveries

4.5.1 Access for service vehicles will be provided from the access road within the site, with vehicles able to turn within the turning head by the entrance to the parking area, as well as being able to turn into and out of the access appropriately. The swept paths in Appendix C show all movements being accommodated appropriately.

4.5.2 A refuse vehicle will therefore be able to stop adjacent to the bin store on the internal access road. MfS states Building Regulations on refuse collection distances in that waste collection vehicles should be able to get within 25 metres of the storage points. As collection can take place from within the site from this distance, the arrangements are in line with Building Regulations (and MfS) and considered safe and appropriate.

4.5.3 A fire tender would also be able to turn in the same manner to the refuse vehicle and can get access to the building appropriately from internally within the site, as well as from Heol Aneurin and Caledfryn Way. As such, the layout is appropriate for access by emergency vehicles.

4.5.4 Deliveries to a site such as this are likely to be from smaller vehicles such as panel vans and box vans. These vehicles can utilise the access road, which is considered suitable to accommodate such delivery

vehicles, and these can turn using the turning head and informally park for a short time on the access road to deliver into the site. The internal layout is of sufficient width for vehicles to pass any other vehicle parked on-street. As such, deliveries can be appropriately accommodated without an impact on the highway network.

5. TRIP GENERATION AND IMPACTS

5.1 Introduction

5.1.1 This section sets out the forecast vehicle trip generation of the proposals. The existing / historic site use for a sports and social club would also have generated movements on the network, but for robustness within this report, these have not been considered. The existing / historic use also had a larger car park which can accommodate additional vehicles compared to the proposals.

5.1.2 The trip generation has been calculated using the Trip Rate Information Computer System (TRICS). The TRICS database has been analysed for sites with similar characteristics in terms of scale, location, accessibility, and surrounding population numbers.

5.1.3 The TRICS database predicts the likely numbers of arrivals and departures by utilising surveys of existing sites. Trip rates have been obtained and applied to establish the forecast trip generation during network peak hours on a weekday and over a daily period. The weekday network peak hours have been assumed as 08:00 to 09:00 and 17:00 to 18:00.

5.2 Proposed Trip Generation

5.2.1 The TRICS category '03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY FLATS' has been selected to derive trip rates for the proposed scheme. The following parameters have been applied to the search criteria to obtain sites of a similar nature:

- Located in England, Scotland and Wales (Excluding Greater London)
- Vehicle Surveys
- Sites of up to 75 dwellings
- Edge of town, suburban area and neighbourhood centre locations
- Weekday surveys
- From 2010 onwards
- Removed sites with populations over 250,000 within 5 miles
- Removed surveys undertaken during COVID-19 restrictions.

5.2.2 The application of these parameters resulted in identifying 7 comparable sites. The resultant vehicle trip rates, and vehicle trip generation based upon the proposed 30 units are summarised in Table 5-1. The full TRICS report is included in Appendix D.

Table 5-1: Proposed Development - Vehicle Trip Rates and Trip Generation

Time Period	Trip Rates (per unit)			Trip Generation (30 units)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.118	0.124	0.242	4	4	8
PM Peak (17:00-18:00)	0.146	0.112	0.258	4	3	7
12 Hours (07:00-19:00)	1.804	1.732	3.536	54	52	106

5.2.3 Table 5-1 demonstrates that the proposed development is forecast to generate between 7 and 8 two-way vehicular movements during the AM and PM peak hours. Over a 12-hour period, the scheme is forecast to generate 106 two-way vehicle movements.

5.2.4 This equates to one vehicle every c.7-8 minutes in the busiest peak hour, on average. This forecast level of trip generation would not have a material impact on traffic flows or congestion on the highway network.

5.2.5 The scheme would also not have an unacceptable impact on safety, with a footway within the site separating pedestrians from vehicles to the front and rear building entrances. There is no evidence of a safety issue in relation to the existing access arrangements, and the minimal vehicle movements generated by the scheme would not materially change this situation. As such, the access arrangements would remain suitable and safe for the proposals.

6. SUMMARY AND CONCLUSIONS

6.1.1 This Transport Statement (TS) supports a planning application for a proposed affordable residential development scheme on land east of Heol Aneurin, Penyrheol, Caerphilly.

6.1.2 The TS has been produced to inform Caerphilly County Borough Council (CCBC) of the highways and transport implications of the proposals.

6.1.3 The proposals are to redevelop the site, which was previously a sports and social club, and construct one building accommodating 30 residential apartments, comprising 21no. one-bedroom apartments and 9no. two-bedroom apartments.

6.1.4 The site is situated in a sustainable location. Potential future residents can walk or cycle to a number and range of facilities, services and schools within appropriate distances via good quality routes, reducing the need to own a car.

6.1.5 There are continual and suitable active travel links from the site to the surrounding area, and CCBC propose to provide an improved active travel link within the vicinity of the site. There are also footways on both sides of the carriageway and well-lit streets within the surrounding area. Walking would therefore be an attractive mode of transport for potential future residents.

6.1.6 The site also has good public transport links, which provide a suitable and realistic alternative to travelling by car. This will assist in constraining vehicle generation and reduce the need for residents to own a car. It will also benefit and attract residents that would prefer to travel by public transport.

6.1.7 Obtained road safety data does not indicate an existing safety issue which would be exacerbated by the proposals, with no incidents recorded within the vicinity of the site boundary.

6.1.8 The site will be accessed from the same location as currently onto Heol Aneurin via the same dropped kerb crossing arrangement. There is no evidence of an existing safety issue in relation to this access and it is considered to remain suitable for accommodating the vehicle movements associated with the proposed development.

6.1.9 Pedestrian access would be retained as per the current building from a footway which connects directly to the building from the footway on Heol Aneurin.

6.1.10 Parking is provided at an appropriate level (one space per unit) considering the likely demand for an affordable apartment scheme and is in accordance with the maximum parking standards. The provision can accommodate the forecast demand (between 0.29 and 0.88 vehicles per unit), as well as accommodate visitors. The provision is also in line with the aspirations of Future Wales in relation to minimising parking. The parking provision enables a less car dominated development to be provided with more green space, improving the quality of the scheme.

6.1.11 Refuse will be collected from the internal access road with vehicles being able to stop within suitable distances of the bin stores and turn using the turning head within the site. Access for fire tenders is also appropriate.

6.1.12 The trip generation analysis shows that the proposals are forecast to generate 7 two-way movements during the AM Peak and 8 two-way movements during the PM Peak. This is a minimal level of movements and would not have a material impact on the operation of the highway or an unacceptable impact on safety, particularly given the historic sports and social club use would have generated movements on the network.

6.2 Conclusions

6.2.1 The site location will encourage and promote sustainable travel behaviour in accordance with transport policies in Future Wales, PPW12, TAN18 and the LDP.

6.2.2 Data does not indicate a road safety issue which would be exacerbated by the proposals. The development would not have an unacceptable impact on road safety and the access arrangements onto the highway would be safe and suitable.

6.2.3 The proposals will not have a material impact on the operation of the highway network and as such no mitigation is required in relation to highway capacity.

6.2.4 It is therefore considered that there are no reasons relating to transport or highways for objecting to the application.

Appendix A Proposed Site Layout

Key

- Site Boundary
- Proposed Retaining Wall
- Existing Trees
- New Trees

Schedule of Accommodation

Apartment Type:	1B2P
Apartment Size:	52.56m²
Quantity:	21
Apartment Type:	2B3P
Apartment Size:	65 and 68.4m²
Quantity:	9
Circulation Size:	154m² per floor
Refuse/ Bicycle Store	

Note:

Soft landscape shown is indicative only. Refer to landscape architect's drawings for detail.

Notes:

0mm 25mm A3 original sheet size

Notes:

This feasibility drawing has been produced using an ordinance survey drawing. All boundaries and built locations are subject to full measured topographical survey. All service routes and locations are subject to conformation by approved statutory body/subscan survey. All proposed design work is subject to full consultation with LA planning and Highways.

This original drawing is issued for the purpose indicated and contains confidential information. Further copies and circulation will be strictly in accordance with the confidentiality agreement with hlnarchitects.

Safety Health & Environmental (S.H.E.) Notes are for informing competent persons of significant risks or design issues, relevant to their area of work, which may be unusual or not obvious, or which might be difficult to manage

Rv	Date	By	Ch	Revisions
P1	14.05.24	MY	AB	Refuse/ bicycle store updated
P2	20.05.24	MY	AB	Updated to align with soft landscape proposal and transport consultant comments.
P3	11.06.24	MY	AB	Car parking layout revised.
P4	17.06.24	MY	AB	Building moved towards Heol Aneurin and car parking layout revised.
P5	18.06.24	MY	AB	Building moved towards rear of site.

Client: Castell Group
Contractor:

Project: Heol Aneurin, Caerphilly, CF83 2PG

Drawing Title: Proposed Site Plan

Drawing Status: PLANNING

Scale: 1:500 @ A3 | Date: 09-05-24 | Drawn By: MY | Checked: AB

Job No: 105532 | Drawing No.: HLN-BP-00-DR-A-1111 | Rev.: P5

HLN Architects Ltd
21, Neptune Court, Vanguard Way
Cardiff CF24 5PJ
Tel:0845 375 3298
architecture@hlngroup.co.uk www.hlngroup.co.uk

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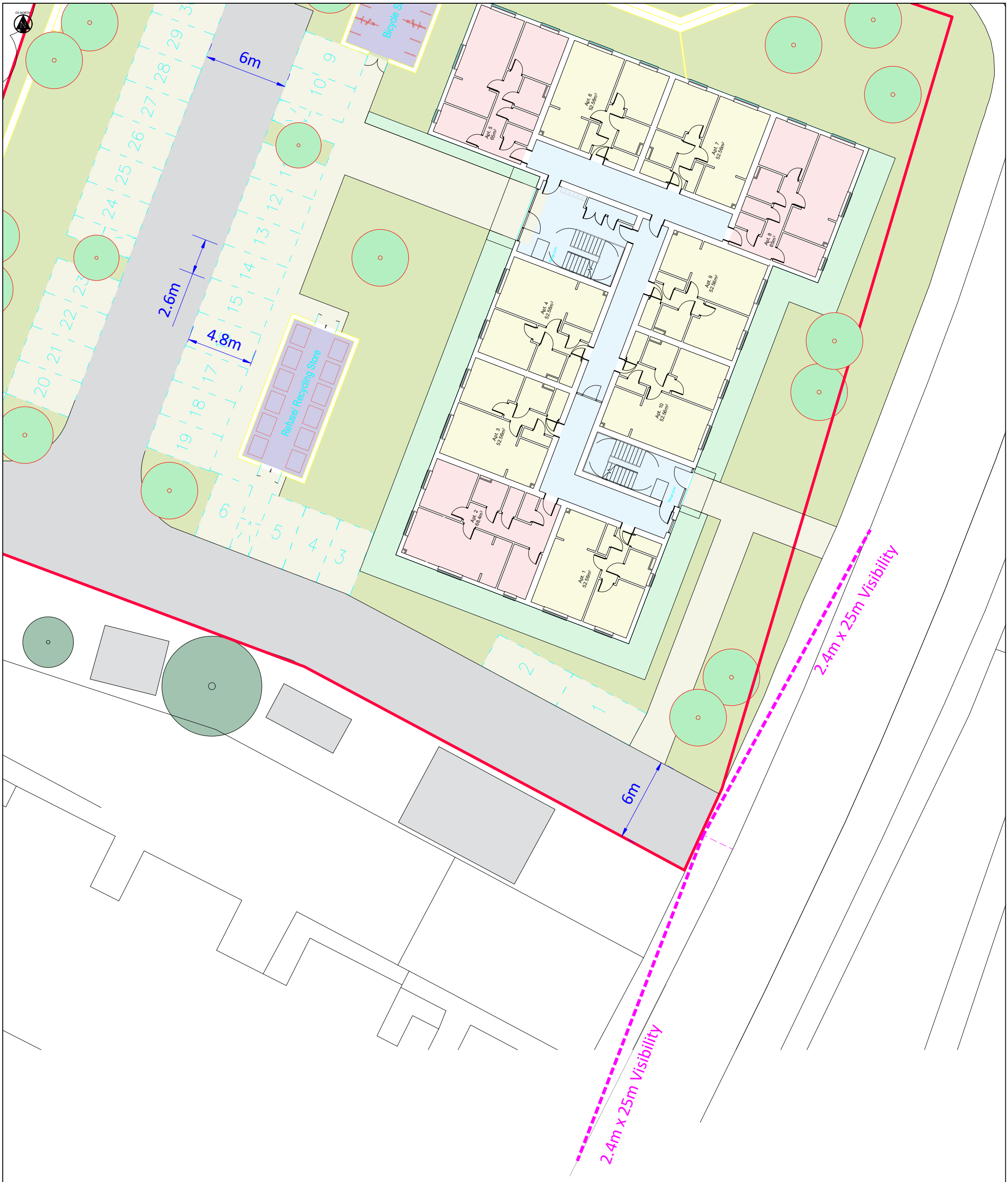
Appendix B Site Access Arrangements and Visibility



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NOTES

REVISIONS

Rev	Date	Description	By	App
P02	24/06/24	Second Issue	SD	DC
P01	26/04/24	First Issue	DC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CASTELL GROUP

PROJECT
HEOL ANEURIN, CAERPHILLY

TITLE
ACCESS VISIBILITY SPLAYS AND GEOMETRY

PROJECT NO.
C24-047

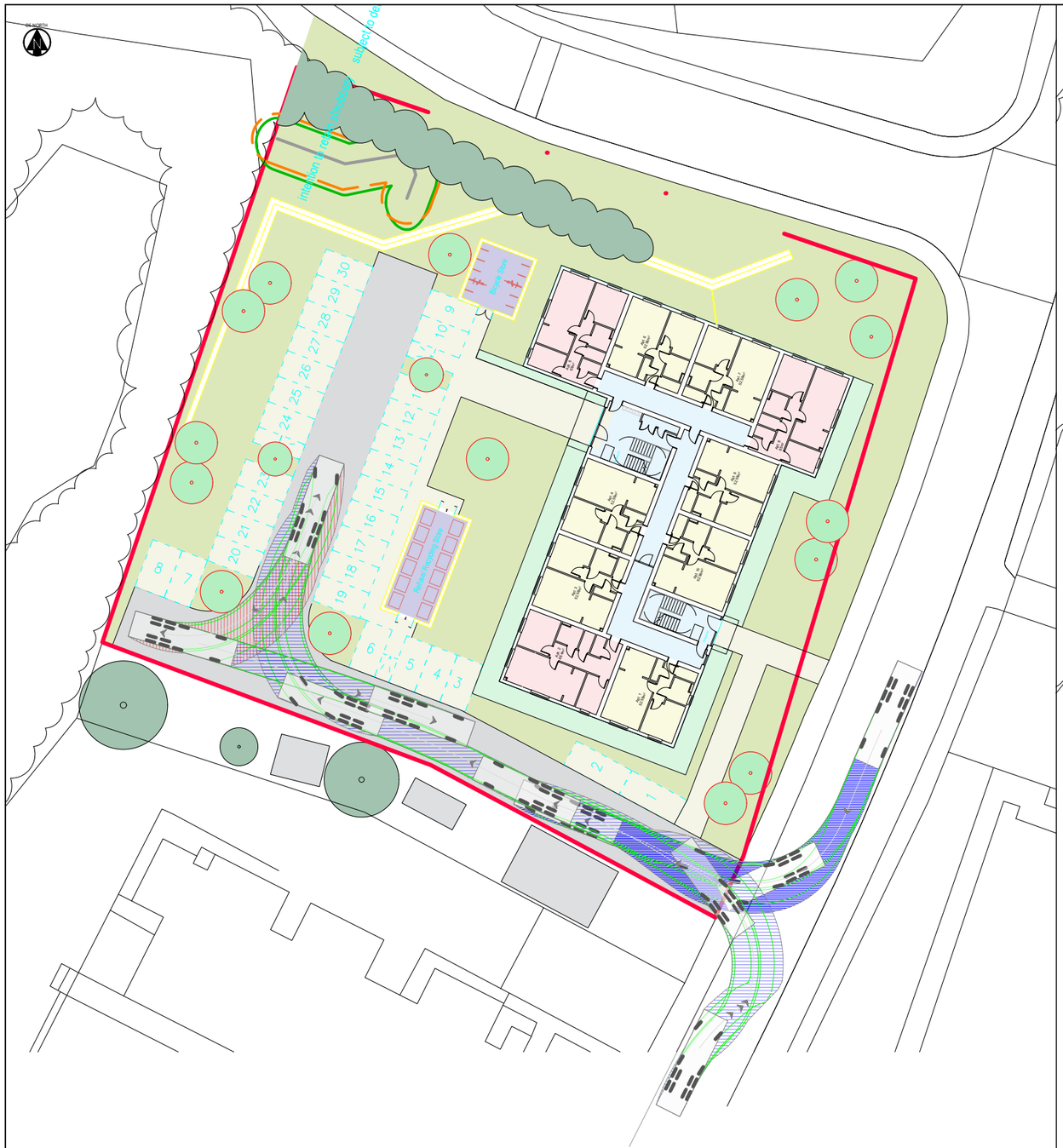
SCALE @ A3
1:250

STATUS DESCRIPTION
INFORMATION

STATUS
S2

DRAWING NO.
C24047-ATP-DR-TP-003

Appendix C Swept Path Analysis



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0m 10m 20m

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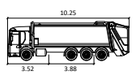
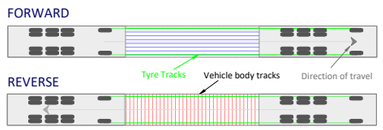
VEHICLE PROFILE



Dennis Eagle OL 27W 2013

	metres
Width	: 2.53
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 22.7



REVISIONS *(CONTINUED)*

REVISIONS

Rev	Date	Description	By	App
P03	24/06/24	Third Issue	SD	DC
P02	26/04/24	Second Issue	DC	DC
P01	24/04/24	First Issue	DC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CASTELL GROUP

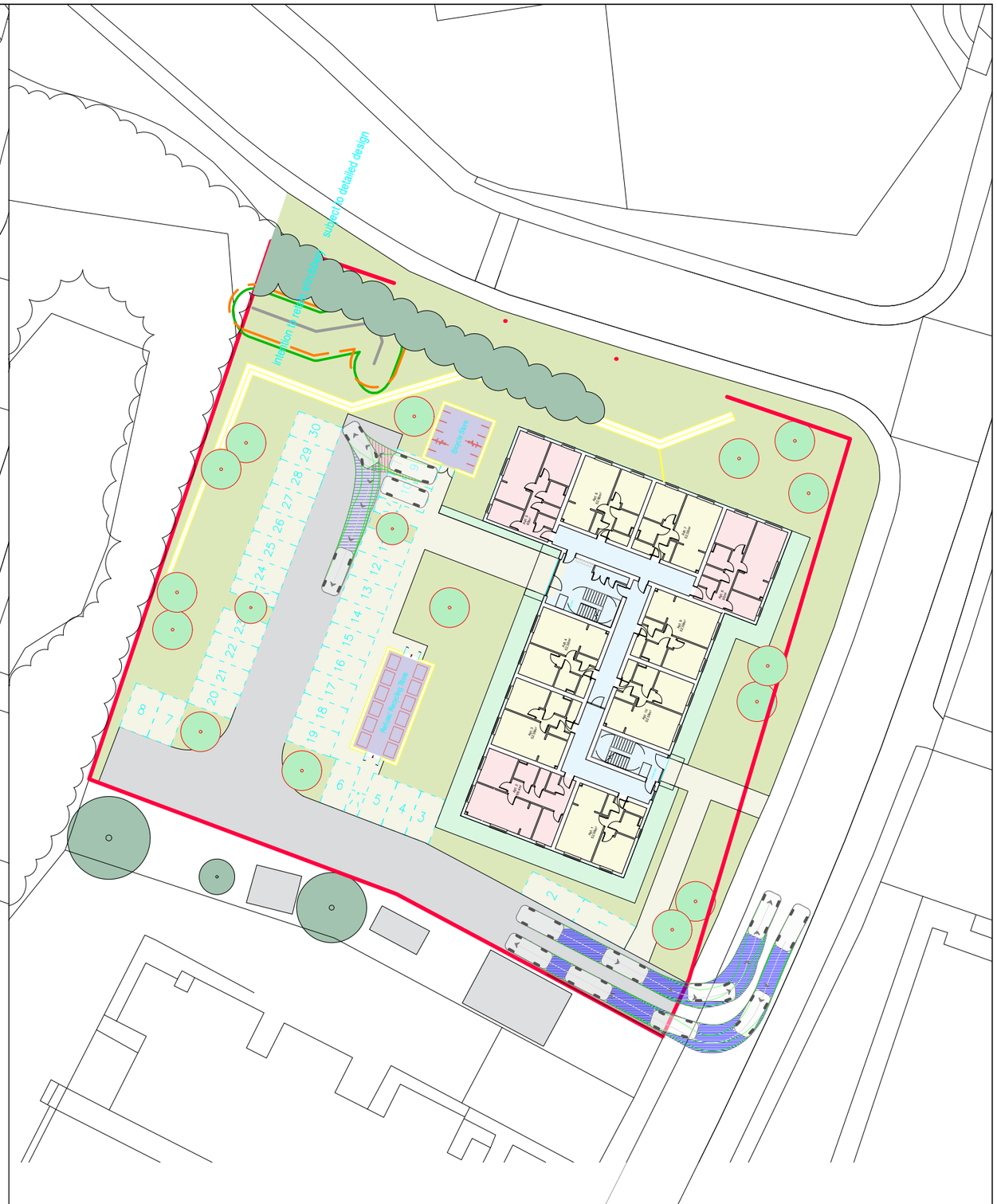
PROJECT
HEOL ANEURIN, CAERPHILLY

TITLE
SWEPT PATH ANALYSIS - LARGE REFUSE VEHICLE

PROJECT NO.	SCALE @ A3
C24-047	1:500

STATUS DESCRIPTION	STATUS
INFORMATION	S2

DRAWING NO.
C24047-ATP-DR-TP-001



SCALE BAR

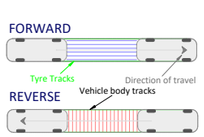
0m 10m 20m

SCALE BAR (1:500)

VEHICLE PROFILE

2010 BMW 5-Series

	metres
Width	: 1.86
Track	: 1.85
Lock to Lock Time	: 6.0
Steering Angle	: 36.9



REVISIONS *(CONTINUED)*

REVISIONS

Rev	Date	Description	By	App
P02	24/06/24	Second Issue	SD	DC
P01	24/04/24	First Issue	DC	DC

Apex TRANSPORT PLANNING

CLOCKWISE
BRUNEL HOUSE
CARDIFF
CF24 0HA
t: 02920 619 361
e: cardiff@apextp.co.uk

RUNWAY EAST
101 VICTORIA STREET
BRISTOL
BS1 6PU
t: 0117 427 0414
e: bristol@apextp.co.uk

CLIENT
CASTELL GROUP

PROJECT
HEOL ANEURIN, CAERPHILLY

TITLE
SWEPT PATH ANALYSIS - LARGE CAR

PROJECT NO.
C24-047

SCALE @ A3
1:500

STATUS DESCRIPTION
INFORMATION

STATUS
S2

DRAWING NO.
C24047-ATP-DR-TP-002

Appendix D TRICS Outputs – Affordable Housing

Filtering Summary

Land Use	03/D	RESIDENTIAL/AFFORDABLE/LOCAL AUTHORITY FLATS
Selected Trip Rate Calculation Parameter Range	6-75 DWELLS	
Actual Trip Rate Calculation Parameter Range	6-56 DWELLS	
Date Range	Minimum: 01/01/10	Maximum: 07/10/16
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	All Surveys Included	
Bedrooms Per Dwelling Range:	All Surveys Included	
Percentage of dwellings privately owned:	All Surveys Included	
Days of the week selected	Monday	1
	Tuesday	1
	Wednesday	1
	Thursday	3
	Friday	1
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	4
	Edge of Town	2
	Neighbourhood Centre (PPS6 Local Centre)	1
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included	1 - Selected
	Servicing vehicles Excluded	10 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000	3
	5,001 to 10,000	1
	15,001 to 20,000	1
	20,001 to 25,000	1
	25,001 to 50,000	1
Population <5 Mile ranges selected	5,001 to 25,000	2
	100,001 to 125,000	1
	125,001 to 250,000	4
Car Ownership <5 Mile ranges selected	0.6 to 1.0	3
	1.1 to 1.5	4
PTAL Rating	No PTAL Present	7

Calculation Reference: AUDIT-502501-230823-0802

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HC	HAMPSHIRE	1 days
	OX	OXFORDSHIRE	1 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	KS	KIRKLEES	1 days
08	NORTH WEST		
	AC	CHESHIRE WEST & CHESTER	1 days
11	SCOTLAND		
	DU	DUNDEE CITY	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 6 to 56 (units:)
Range Selected by User: 6 to 75 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 07/10/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Thursday	3 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	1 days - Selected
Servicing vehicles Excluded	10 days - Selected

Secondary Filtering selection:

Use Class:

C3	7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	3 days
5,001 to 10,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

Site(1):	AC-03-D-01	Site area:	0.20 hect
Development Name:	BLOCK OF FLATS	No of Dwellings:	30
Location:	CHESTER	Housing density:	150
Postcode:	CH3 5SW	Total Bedrooms:	57
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	24/05/12
Sub-Location Type:	Residential Zone	Survey Day:	Thursday
PTAL:	n/a	Parking Spaces:	12
Site(2):	DU-03-D-01	Site area:	0.35 hect
Development Name:	FLATS IN HOUSES	No of Dwellings:	17
Location:	NEAR DUNDEE	Housing density:	142
Postcode:	DD8 2XD	Total Bedrooms:	17
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	06/05/11
Sub-Location Type:	Residential Zone	Survey Day:	Friday
PTAL:	n/a	Parking Spaces:	10
Site(3):	HC-03-D-05	Site area:	0.23 hect
Development Name:	BLOCK OF FLATS	No of Dwellings:	29
Location:	BASINGSTOKE	Housing density:	290
Postcode:	RG21 8YU	Total Bedrooms:	29
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	18/10/10
Sub-Location Type:	Residential Zone	Survey Day:	Monday
PTAL:	n/a	Parking Spaces:	18
Site(4):	KS-03-D-01	Site area:	0.52 hect
Development Name:	BLOCK OF FLATS	No of Dwellings:	56
Location:	HECKMONDWIKE	Housing density:	509
Postcode:	WF15 6EE	Total Bedrooms:	90
Main Location Type:	Edge of Town	Survey Date:	01/05/14
Sub-Location Type:	Residential Zone	Survey Day:	Thursday
PTAL:	n/a	Parking Spaces:	47
Site(5):	LN-03-D-02	Site area:	0.31 hect
Development Name:	FLATS	No of Dwellings:	22
Location:	LINCOLN	Housing density:	105
Postcode:	LN2 4NR	Total Bedrooms:	22
Main Location Type:	Suburban Area (PPS6 Out of Centre)	Survey Date:	01/07/15
Sub-Location Type:	Residential Zone	Survey Day:	Wednesday
PTAL:	n/a	Parking Spaces:	20
Site(6):	OX-03-D-01	Site area:	0.11 hect
Development Name:	FLATS	No of Dwellings:	6
Location:	OXFORD	Housing density:	
Postcode:	OX2 8AR	Total Bedrooms:	12
Main Location Type:	Edge of Town	Survey Date:	05/10/10
Sub-Location Type:	Residential Zone	Survey Day:	Tuesday
PTAL:	n/a	Parking Spaces:	8
Site(7):	WO-03-D-02	Site area:	0.15 hect
Development Name:	BLOCKS OF FLATS	No of Dwellings:	18
Location:	WORCESTER	Housing density:	225
Postcode:	WR4 9PJ	Total Bedrooms:	30
Main Location Type:	Neighbourhood Centre (PPS6 Local Centre)	Survey Date:	22/05/14
Sub-Location Type:	Residential Zone	Survey Day:	Thursday
PTAL:	n/a	Parking Spaces:	8

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	25	0.045	7	25	0.067	7	25	0.112
08:00 - 09:00	7	25	0.118	7	25	0.124	7	25	0.242
09:00 - 10:00	7	25	0.101	7	25	0.118	7	25	0.219
10:00 - 11:00	7	25	0.146	7	25	0.146	7	25	0.292
11:00 - 12:00	7	25	0.073	7	25	0.096	7	25	0.169
12:00 - 13:00	7	25	0.140	7	25	0.118	7	25	0.258
13:00 - 14:00	7	25	0.146	7	25	0.112	7	25	0.258
14:00 - 15:00	7	25	0.135	7	25	0.135	7	25	0.270
15:00 - 16:00	7	25	0.084	7	25	0.090	7	25	0.174
16:00 - 17:00	7	25	0.124	7	25	0.090	7	25	0.214
17:00 - 18:00	7	25	0.146	7	25	0.112	7	25	0.258
18:00 - 19:00	7	25	0.146	7	25	0.152	7	25	0.298
19:00 - 20:00	2	18	0.114	2	18	0.086	2	18	0.200
20:00 - 21:00	2	18	0.200	2	18	0.200	2	18	0.400
21:00 - 22:00	2	18	0.086	2	18	0.086	2	18	0.172
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.804			1.732			3.536

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	6 - 56 (units:)
Survey date date range:	01/01/10 - 07/10/16
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
TAXIS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	25	0.000	7	25	0.000	7	25	0.000
08:00 - 09:00	7	25	0.017	7	25	0.017	7	25	0.034
09:00 - 10:00	7	25	0.000	7	25	0.000	7	25	0.000
10:00 - 11:00	7	25	0.006	7	25	0.006	7	25	0.012
11:00 - 12:00	7	25	0.000	7	25	0.000	7	25	0.000
12:00 - 13:00	7	25	0.011	7	25	0.006	7	25	0.017
13:00 - 14:00	7	25	0.017	7	25	0.011	7	25	0.028
14:00 - 15:00	7	25	0.011	7	25	0.017	7	25	0.028
15:00 - 16:00	7	25	0.006	7	25	0.011	7	25	0.017
16:00 - 17:00	7	25	0.006	7	25	0.006	7	25	0.012
17:00 - 18:00	7	25	0.011	7	25	0.000	7	25	0.011
18:00 - 19:00	7	25	0.017	7	25	0.028	7	25	0.045
19:00 - 20:00	2	18	0.000	2	18	0.000	2	18	0.000
20:00 - 21:00	2	18	0.000	2	18	0.000	2	18	0.000
21:00 - 22:00	2	18	0.000	2	18	0.000	2	18	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.102			0.102			0.204

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	25	0.000	7	25	0.000	7	25	0.000
08:00 - 09:00	7	25	0.011	7	25	0.000	7	25	0.011
09:00 - 10:00	7	25	0.000	7	25	0.011	7	25	0.011
10:00 - 11:00	7	25	0.006	7	25	0.006	7	25	0.012
11:00 - 12:00	7	25	0.000	7	25	0.000	7	25	0.000
12:00 - 13:00	7	25	0.000	7	25	0.000	7	25	0.000
13:00 - 14:00	7	25	0.000	7	25	0.000	7	25	0.000
14:00 - 15:00	7	25	0.000	7	25	0.000	7	25	0.000
15:00 - 16:00	7	25	0.000	7	25	0.000	7	25	0.000
16:00 - 17:00	7	25	0.000	7	25	0.000	7	25	0.000
17:00 - 18:00	7	25	0.006	7	25	0.006	7	25	0.012
18:00 - 19:00	7	25	0.000	7	25	0.000	7	25	0.000
19:00 - 20:00	2	18	0.000	2	18	0.000	2	18	0.000
20:00 - 21:00	2	18	0.000	2	18	0.000	2	18	0.000
21:00 - 22:00	2	18	0.000	2	18	0.000	2	18	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.023			0.023			0.046

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	25	0.000	7	25	0.000	7	25	0.000
08:00 - 09:00	7	25	0.000	7	25	0.000	7	25	0.000
09:00 - 10:00	7	25	0.000	7	25	0.000	7	25	0.000
10:00 - 11:00	7	25	0.000	7	25	0.000	7	25	0.000
11:00 - 12:00	7	25	0.000	7	25	0.000	7	25	0.000
12:00 - 13:00	7	25	0.006	7	25	0.006	7	25	0.012
13:00 - 14:00	7	25	0.006	7	25	0.006	7	25	0.012
14:00 - 15:00	7	25	0.006	7	25	0.006	7	25	0.012
15:00 - 16:00	7	25	0.000	7	25	0.000	7	25	0.000
16:00 - 17:00	7	25	0.011	7	25	0.011	7	25	0.022
17:00 - 18:00	7	25	0.006	7	25	0.006	7	25	0.012
18:00 - 19:00	7	25	0.000	7	25	0.000	7	25	0.000
19:00 - 20:00	2	18	0.000	2	18	0.000	2	18	0.000
20:00 - 21:00	2	18	0.000	2	18	0.000	2	18	0.000
21:00 - 22:00	2	18	0.000	2	18	0.000	2	18	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.035			0.035			0.070

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	25	0.000	7	25	0.006	7	25	0.006
08:00 - 09:00	7	25	0.006	7	25	0.017	7	25	0.023
09:00 - 10:00	7	25	0.000	7	25	0.006	7	25	0.006
10:00 - 11:00	7	25	0.006	7	25	0.000	7	25	0.006
11:00 - 12:00	7	25	0.006	7	25	0.000	7	25	0.006
12:00 - 13:00	7	25	0.000	7	25	0.000	7	25	0.000
13:00 - 14:00	7	25	0.000	7	25	0.000	7	25	0.000
14:00 - 15:00	7	25	0.000	7	25	0.000	7	25	0.000
15:00 - 16:00	7	25	0.006	7	25	0.000	7	25	0.006
16:00 - 17:00	7	25	0.000	7	25	0.006	7	25	0.006
17:00 - 18:00	7	25	0.011	7	25	0.000	7	25	0.011
18:00 - 19:00	7	25	0.000	7	25	0.000	7	25	0.000
19:00 - 20:00	2	18	0.000	2	18	0.000	2	18	0.000
20:00 - 21:00	2	18	0.000	2	18	0.000	2	18	0.000
21:00 - 22:00	2	18	0.000	2	18	0.000	2	18	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.035			0.035			0.070

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*