Former Merthyr Hospital

Transport Note

Client: Signature Realtors Ltd

REPORT DETAILS

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NOTICE

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1. INTRODUCTION

1.1 Overview

1.1.1 This Transport Note (TN) has been produced on behalf of Signature Realtors Ltd to support a planning application for the redevelopment of the former Merthyr Hospital in Merthyr Tydfil for residential use.

1.1.2 The proposals are for the conversion of the former nursing home building into 30 flats (35no. bedrooms in total) with six associated parking spaces. The access arrangements would remain the same as currently from an existing junction onto Gwaelodygarth, close to the A4102.

1.1.3 This TN has been produced to inform Merthyr Tydfil County Borough Council (MTCBC) of the highways and transport implications of the proposals. It considers the connectivity of the site by all modes of travel, the site layout and access arrangements, parking provision, highway safety and trip generation.

1.1.4 The TN concludes that the proposals would therefore not have an unacceptable impact on highway safety and are in accordance with key Welsh Government planning policies for reducing car use and encouraging sustainable travel.

1.2 Planning Context

1.2.1 The site received planning permission in 2016 for the conversion and extension of the former nursing home to accommodate 23 dwellings (LPA Ref: P/16/0033) containing a mix of single storey 1no. and 2no. bed units, and two-storey 2no. and 3no. bed units. The scheme included a total of 39 bedrooms, as such the proposals would reduce the total bedspaces by four compared with the previous consent. The scheme utilised the existing access and had six parking spaces on the site, four of which were dedicated as disabled bays. These arrangements remain the same for the proposals.

1.2.2 Based on the 2016 consent, a residential redevelopment of the site has recently been accepted on the site by MTCBC. Therefore the principle of this use is considered to be acceptable in terms of connectivity by sustainable modes and the impacts on the highway network.

1.3 Scope of Report

1.3.1 The scope of work has considered 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 CSS Wales - Wales Parking Standards, as well as experience of other similar sites.

1.3.2 The TN has been structured to include the following:

- A description of the existing conditions including, site location, road safety analysis and existing travel behaviour and car ownership in the surrounding area
- Review of the connectivity of the site by active travel modes (walking and cycling) and public transport
- Description of the development proposals, demonstrating safe and appropriate access by all modes, appropriate provision of car and cycle parking, and servicing and delivery arrangements
- Forecast vehicle trip generation in the peak hours and comparison with the existing site use and the previously consented scheme
- Consideration of the impact of the proposals

2. EXISTING SITUATION

2.1 Site Location, Access and Use

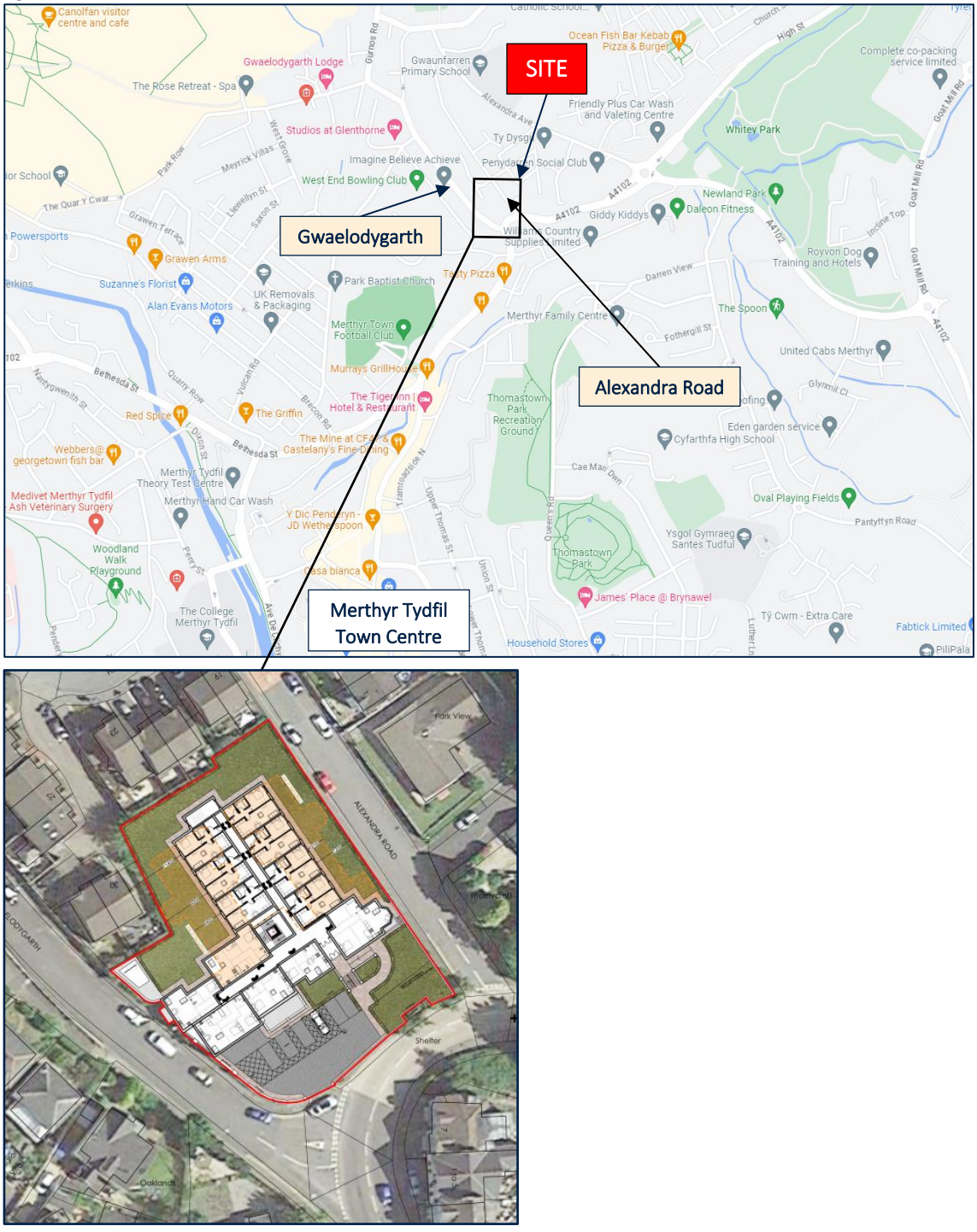
2.1.1 The site is located immediately north west of the A4102 on the edge of Merthyr Tydfil town centre. Alexandra Road spans the length of the north eastern boundary while the south western edge borders Gwaelodygarth. To the north west are residential dwellings associated with Heritage Court.

2.1.2 The A470 is located approximately 1.6km west of the site and the A4060 is approximately 1.2km to the east which both form part of the Welsh Government trunk road network. These link with the A465 Heads of the Valleys Road to the north which is c.1.5km from the site.

2.1.3 The site is a former nursing home which was originally the Merthyr General Hospital, but this has since closed and the site is now unoccupied. The site has an existing access from its southern side via a junction onto Gwaelodygarth just to the west of the junction with the A4102. The access measures c.4.6m wide and formed the access to the historic nursing home use, as well as being accepted for the previously consented residential scheme.

2.1.4 The indicative location of the site in its local context is shown in Figure 2-1.

Figure 2-1: Indicative Site Location



Source: Google Maps

2.2 Local Highway Network

2.2.1 The site is accessed from Gwaelodygarth on its southern boundary. This is a single carriageway road, subject to 30mph speed restrictions for its full length. The carriageway is c.7.3m along the length of Gwaelodygarth. There is a footway on the eastern side of the carriageway between the site access and The Grove and to the north of this there are footways on either side of the carriageway. There is also street lighting along the length of the carriageway.

2.2.2 Gwaelodygarth forms the minor arm of a priority T-junction with the A4102 High Street. High Street adjoins the southeast boundary of the site and continues northeast where it forms a four armed roundabout with Alexandra Avenue. Within the vicinity of the site, the A4102 High Street is a 30mph single carriageway with footways on either side and street lighting. The carriageway provides on-street advisory cycle lanes which commence approximately 100m to the northeast of the site boundary.

2.2.3 To the south of the site, the A4102 becomes Penydarren Road, which comprises a single carriageway with footway to either side and on-street cycle lanes for the majority of its length. The carriageway is well lit throughout with street lighting and a formal signal controlled pedestrian crossing is provided c.85m from the site. The carriageway is subject to a 30mph speed restriction. Penydarren Road joins High Street to the south within Merthyr Tydfil town centre at a mini-roundabout junction.

2.2.4 Alexandra Road is a single carriageway residential street along the north eastern boundary of the site and is subject to a 30mph speed restriction. The carriageway has street lighting throughout its length and provides footways to either side of the street. The width of the carriageway measures approximately 7.3m.

2.2.5 The majority of the surrounding residential streets, particularly on Alexandra Road and Gwaelodygarth are unrestricted and have the potential to accommodate significant levels of on-street parking. The width of these two streets allows parking to occur on one-side of the carriageway and two-way movements to be maintained.

2.3 Road Safety

2.3.1 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 covers between 1st January 2017 and 31st December 2021.

2.3.2 The study area considered within the analysis covers the local highway network within the vicinity of the site, with the entire study area shown in Figure 2-2.

Figure 2-2: Location of Recorded PIA's

Source: DfT / Crashmap

2.3.3 Over the five-year period, four slight PIA's occurred within the study area. No serious or fatal accidents were recorded.

2.3.4 Three PIAs occurred at the A1402 / Alexandra Avenue junction of which two involved a cyclist and the other involved a pedestrian. These all involved a collision with a vehicle and occurred on different arms of the junction and for differing reasons.

2.3.5 No PIAs occurred near to the existing site access or within the vicinity of the Gwaelodygarth / A4102 junction.

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

2.3.7 As such, although all incidents are regrettable, the PIA's 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 highway safety issue for access from the site to key local facilities to the south, particularly for pedestrian movements.

2.4 Car Ownership

2.4.1 The 2021 Census data has been reviewed for the average car ownership in the output area (OA) within which the site is situated - W00006844. As the site borders directly with a further two adjacent OA's, W00006842 to the south east and W00006845 to the south west, an average of the three areas has been taken.

2.4.2 This shows an average of 1.26 cars per household across the OA's, based on a total of 493 cars across 391 households (2021 census data does not provide a total sum of all cars or vans in the area, so based on analysis of household data in 2011, it has been assumed that households with 3 or more cars have an average of 3.38 cars).

2.4.3 It is also shown that 25% of households did not own a car. However, although this is a relatively low car ownership, the majority of the residential properties within this output area are houses and not flats and therefore the overall average is not directly comparable with the proposed development as all units on the site would be flats.

2.4.4 As the overall Census data includes all house and tenure types, car ownership levels by dwelling type, on average, in the OA's in which the site is situated have been reviewed.

2.4.5 Data has been analysed in Nomis Table *"RM001 - Accommodation type by car or van availability by number of usual residents aged 17 or over in household".* This data separates car ownership into two categories – firstly houses and secondly flats / maisonettes / apartments. Within the three OAs which have been considered, there are 34 flats / maisonettes / apartments, of which 97% have either no car ownership (71%) or have one car (26%). Just one flat (3%) had two or more cars in the household. The average ownership for flats was 0.34 cars per household. This is considerably less than the overall car ownership for all dwelling types and tenure in this location, equating to c.26% of the overall car ownership in the OA of 1.26 cars per household.

2.4.6 By way of comparison, when considering the ownership across the entire MTCBC area, the Census shows a total of 1,940 flats / maisonettes / apartments, of which 95% have either no car ownership (59%) or have one car per household (36%). As such, the significant majority of this dwelling type in MTCBC have low car ownership and just 5% of all of these would have two or more cars per household. The average ownership for flats / maisonettes / apartments was 0.48 cars per household (assuming 2.35 cars per two or more car household, consistent with the overall average).

2.4.7 Those residing in flats in this location are likely to have a lower car ownership, indeed, it is significantly more likely that residents would not own a car, than own two cars. As such, the location is considered appropriate for a site with low on-site parking provision.

3. SUSTAINABLE CONNECTIVITY

3.1 Introduction

3.1.1 This section sets out the connectivity of the site to the surrounding area by sustainable modes of travel and demonstrates its proximity to schools, public transport, facilities, services and employment. The site location is demonstrated to be consistent with the aims of TAN18 and in accordance with sustainable transport policies in Future Wales and PPW11.

3.1.2 The location of the site for the movements generated by a residential use was considered appropriate through the granting of permission for a residential scheme on the site in 2016 and as such, it is considered to remain appropriate for the proposed development.

3.2 Walking and Cycling

Walking Infrastructure and Routes

3.2.1 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.

3.2.2 There are safe walking and on-carriage cycling routes connecting the site with Merthyr Tydfil town centre and all key local services, facilities, public transport and employment. Footways connect directly to the site access, linking to footways on the A4102 to the east and Gwaelodygarth to the west. Footways are present on either side of the carriageway along the A4102, measuring between approximately 1m and 2m wide. Gwaelodygarth provides a c.1.6m wide footway for its length on the east side of the carriageway and provides a wider c.2m wide footway for some of its length on the west side of the carriageway.

3.2.3 Suitable footways and a mix of informal and formal crossings are provided throughout the wider area, as would be expected within an existing and established urban area situated on an edge of town centre location. All local streets have a footway on at least one side of the carriageway with street lighting throughout.

Cycling Infrastructure and Routes

3.2.4 There are advisory cycle lanes provided on the A4102 to the north of the site. These are approximately 1.2m wide and link between Alexandra Road and Alexandra Avenue.

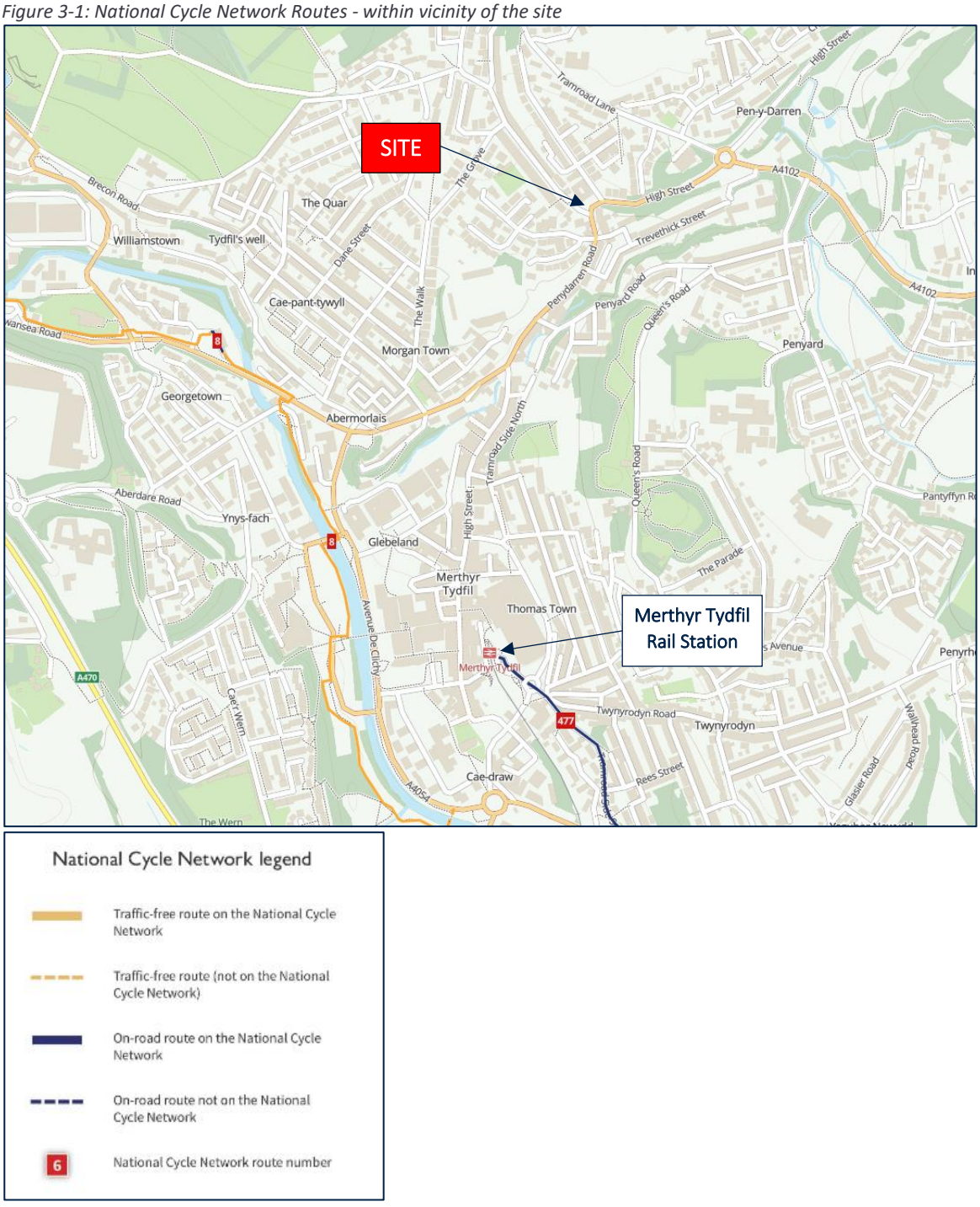
3.2.5 Along with the cycle lanes, some of the local roads within the vicinity of the site are considered conducive to cycling, encouraged by low speed limits of 30mph. As part of legislation coming into force in September 2023, the majority of the local streets will likely be reduced to 20mph, further improving the environment for walking (and cycling). The surrounding highway network is provided with street lighting, which encourages pedestrian and cycle trips to occur during hours of darkness.

3.2.6 Reference has been made to the Sustrans website and the National Cycle Network (NCN) map. The nearest NCN route, being NCN Route 8, is located approximately 730m to the south-west of the site. NCN Route 477 starts at Merthyr Tydfil Rail Station, approximately 940m south of the site.

3.2.7 NCN Route 8 is mostly a traffic free-route which starts in Cardiff and finishes on the island of Anglesey. It follows along the River Taff, west of Merthyr Tydfil and near to the town centre. The 'Taith Trevithick Trail' (NCN Route 477) travels south from the rail station at Merthyr Tydfil to Abercynon. It is mostly a traffic-free route, although a proportion through Merthyr Tydfil is on-street.

3.2.8 The surrounding NCN routes, obtained from the Sustrans website, are shown in Figure 3-1.

Figure 3-1: National Cycle Network Routes - within vicinity of the site



Source: Sustrans

Active Travel Network Map

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

3.2.10 There are some existing walking and shared routes and a number of proposed links within vicinity which improve the connectivity of the site.

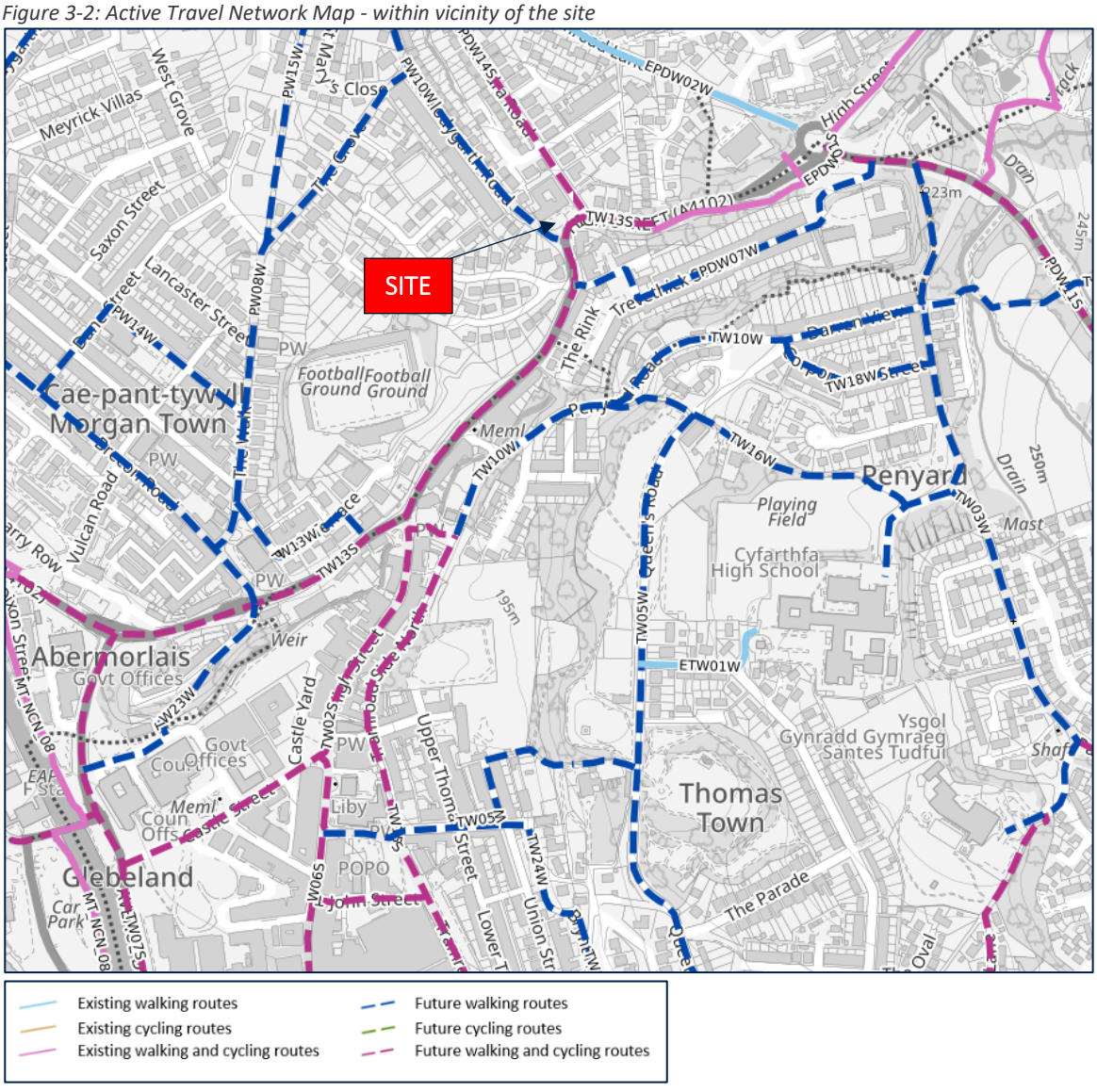
3.2.11 Existing shared footway / cycle route EPDW01S is situated along A4102 High Street, east of the site and utilises the on-carriageway cycle lanes. This also continues to the north east of the roundabout

junction with Alexandra Avenue. This links with proposed route PDW13S in the north and TW13S in the south which connects with the junction with High Street. From this point, further shared routes are proposed which lead to Merthyr Tydfil town centre.

3.2.12 There are a network of proposed pedestrian routes in vicinity of the site, such as PDW07W, TW10W and PW10W which will provide improved facilities connecting pedestrians with local employment areas, recreational open spaces and Merthyr Tydfil town centre.

3.2.13 The DataMap Wales Active Travel mapping showing these and other routes within the vicinity of the site has been provided in Figure 3-2.

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



Source: Welsh Government Active Travel Map

3.2.14 The majority of the proposed walking and shared routes shown in Figure 3-2 already benefit from existing footways, and some have cycle lanes. The proposals would further improve existing infrastructure.

3.2.15 The site is well positioned to benefit from existing and potential future high quality walking and cycling links, which connect to further routes, to local services and facilities. The active travel routes located throughout Merthyr Tydfil are considered appropriate for walking and cycling (more so once all are

completed / upgraded). Therefore, active travel movements would be attractive for potential future residents.

3.3 Distance to Facilities

3.3.1 The Welsh Government - Active Travel (Wales) Act Guidance 2021 states within paragraph 9.1.5 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.

3.3.2 The site is situated in a highly sustainable, walkable neighbourhood, location with a range of key facilities and services within a 20-minute walk (1.6km). Some of the key facilities within this walkable neighbourhood distance include the employment area along Goat Mill Road, a number of primary and secondary schools and Merthyr Tydfil town centre which provides a range of retail and leisure facilities.

3.3.3 The site is therefore situated in a highly sustainable location, as would be expected for a site on the edge of a town centre in an existing and established urban 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, PPW11 and TAN18.

3.4 Public Transport

Bus

3.4.1 The closest bus stops to the site are located on the A4102 High Street and Gwaelodygarth adjacent to the site boundary. The A4102 northbound stop provides services to a wide catchment while the southbound stop links to the bus station located c.130m west of Merthyr Tydfil Rail Station. The stop on Gwaelodygarth provides access to northbound services for Service 33.

3.4.2 Table 3-1 provides a summary of the available local bus services in a single direction (away from Merthyr Tydfil).

Table 3-1: Local Bus Timetables

Route No.	Operator	Route	Hours of Operation	Frequency (Mon-Fri)	Frequency (Saturdays)	Frequency (Sundays)
1	Adventure Travel and Stagecoach South Wales	Merthyr Tydfil - Bargoed	07:15 - 20:17	Hourly	Hourly	Every two hours
33	Stagecoach South Wales	Merthyr Tydfil - Galon Uchaf	07:36 - 18:06	Every 30 minutes	Every 30 minutes	No Services
35	Stagecoach South Wales	Merthyr Tydfil - Rhydybedd	06:44 - 19:04	Every 20 minutes	Every 20 minutes	No Services
38	Stagecoach South Wales	Merthyr Tydfil - Twynyrodyn	08:20 - 18:20	Every two hours	Every two hours	No Services
78A	Stagecoach South Wales	Merthyr Bus St Stand 12 - Abergavenny Bus Station 2	06:54 - 20:53	Hourly	Hourly	No Services

3.4.3 Potential future residents of the site can access a number of frequent bus services, with up to a combined 8 services per hour linking to a variety of destinations including local and more regional destinations. The bus services provide a feasible and attractive option for work related journeys, with

services running throughout the day and covering the morning and evening peak hours. They can also be used to access destinations for leisure, retail and health purposes.

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

Rail

3.4.5 Merthyr Tydfil Rail Station is located approximately a 1.1km walk to the south of the site. This equates to a walk time of c.14 minutes and a cycle time of c.3 minutes. Ten cycle parking spaces are available at the station.

3.4.6 The station is accessed from the east of the track next to the entrance to the Tesco Extra and provides users with a sheltered seating area, ticket machines, car parking and live train information boards.

3.4.7 Merthyr Tydfil Rail Station is the terminus of the Merthyr branch of the Merthyr Line and offers two services per hour to Cardiff with further stops to Penarth, Barry Island and Bridgend.

3.4.8 As such, it is feasible and attractive to use the rail services for commuting purposes, particularly to Cardiff and Bridgend, although rail is also likely to be attractive for other journey purposes such as leisure, retail, or business journeys. A combined walk (or cycle) and rail journey has excellent 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 highly sustainable location on the edge of a town centre. Potential future residents can walk or cycle to a number and range of facilities, services and employment within appropriate distances via suitable routes, reducing the need to own a car. In this regard, the site location is consistent with the sustainable transport policies in PPW11 (in particular paras 4.1.10 - 4.1.17).

3.5.2 The site also has excellent public transport links, which provide a suitable, attractive 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.

3.5.3 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 generated by the proposed site.

3.5.4 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, PPW11 and Future Wales.

4. DEVELOPMENT PROPOSALS

4.1 Overview

4.1.1 The proposals are for a conversion of the existing building for a development of 30 flats, which would comprise 25no. one bed and 5no. two bed units. The proposals include some demolition of the existing building and the area to the south of the building will provide 6 car parking spaces.

4.1.2 The site access junction will remain as per the existing arrangements. This is considered appropriate as this junction has historically accommodated vehicular and pedestrian movements associated with the former hospital and nursing home. The access was also agreed as appropriate for the previously consented scheme.

4.1.3 The previous planning consent was for 23no. dwellings which are included 9no. one-bed and 4no. two-bed apartments, plus 6no. two-bed and 4no. three-bed houses spanning two storeys. Although the proposed number of units has increased, there will be a decrease in the number of bedrooms from the previously consented scheme from 39 bedrooms to 35 bedrooms

4.1.4 The site layout plans are provided at Appendix A.

4.2 Parking Provision

Car Parking Provision

4.2.1 The parking standards in MTCBC are set out in the CSS Wales - Wales Parking Standards 2008. The site is likely to be a Zone 2 location on the edge of a town centre and the standards suggest a maximum provision of one space per bedroom. Applied to the site, this would equate to 35 spaces. There is also a standard for 1 space per five units for visitor parking (an additional 6 spaces). This is a total of a maximum of 41 spaces based on the standards.

4.2.2 The proposals will provide a total of six car parking spaces on-site, located within the southern area of the site and accessed directly from the southern site boundary. Four of the spaces will be dedicated for disabled parking. Vehicles can manoeuvre into and out of all spaces appropriately, as shown in the swept path analysis in Appendix B.

4.2.3 The level of car parking and the layout remains the same as the previously consented scheme and as such is considered appropriate considering the reduced number of bedrooms (therefore lower requirements of provision against the standards).

4.2.4 The likely level of parking demand associated with the proposals has been considered based on the analysis of car ownership set out in Section 2. This shows that for apartments in the surrounding area there are 0.34 cars per household. On this basis, assuming ownership consistent with the surrounding area, there could be a demand for 10 vehicles associated with the site. As such, there would be a minimal overspill demand onto the surrounding network of four vehicles and the proposed parking provision is therefore considered suitable.

4.2.5 The CSS Parking Standards report was also produced prior to the publication of Future Wales. This requires planning authorities to promote low car parking provision developments in accessible locations (such as this) and act to reduce levels of car parking in urban areas (as per at this site location). In particular this states on page 86 that *"Planning authorities should promote car-free and low car developments in accessible locations."*

4.2.6 Policy 12 also states that *"Planning authorities must act to reduce levels of car parking in urban areas, including supporting car free developments in accessible locations and developments with car parking spaces that allow them to be converted to other uses over time."*

4.2.7 In addition, 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 purchasing a property. If they perceive parking to be an issue, they would be unlikely to purchase a property, or 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 potential purchasers who do not own a car or have low

car ownership (as shown in Section 3). This could be a significant proportion of occupants based on ownership data within the local area.

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

On-Street Car Parking

4.2.9 It is possible to park on-street on the majority of the surrounding residential streets in vicinity of the site. There are double yellow line restrictions along the A4102, however the surrounding residential streets to the east, west and north provide significant space for on-street parking and should be suitable for accommodating any overspill associated with the site, without impacting on road safety or the operation of the highway.

4.2.10 Gwaelodygarth has available kerbline for parking on its eastern side. In addition, vehicles currently park on both sides of Alexandra Road along its length. Heritage Court, Gwendoline Street and Alexandra Court also provide on-street parking opportunities. As such, there is a significant level of potential available kerbline for on-street parking, within a short walk, which could be utilised by the proposals for the minimal level of overspill and visitor parking, if needed.

4.2.11 On-street parking within vicinity of the site would also provide the most efficient use of the land available, and enable increased amenity space within the site, consistent with aspirations in MfS and Future Wales. In paragraph 8.3.13 of MfS it states *"It is recommended that, in most circumstances, at least some parking demand in residential… areas is met with well-designed on-street parking."*

4.2.12 Paragraph 8.3.15 then continues on to state that: *"In planning for expected levels of car ownership it is not always necessary to provide parking on site [i.e. in off-street parking bays]. In some cases it may be appropriate to cater for… anticipated demand on-street. This could be the case, for example… where a low car-ownership development is proposed."*

4.2.13 MfS also states that on-street parking is the most efficient and flexible use of space, and within paragraph 8.3.2 suggests that residential parking policies should take account of: *"Expected levels of car ownership, the importance of promoting good design and the need to use land efficiently."*

Car Parking Summary

4.2.14 As such, the provision of car parking is considered appropriate, in line with the maximum parking standards, in accordance with the previously consented scheme, consistent with policies in Future Wales and would lead to a minimal overspill demand onto the surrounding highway network. This overspill demand can be suitably accommodated on the highway network without impacting on road safety or the operation of the highway.

Cycle Parking

4.2.15 Cycle parking will be accommodated within the building on the lower ground floor, providing space for up to 44 cycles.

4.2.16 The parking standards in MTCBC are set out in the CSS Wales - Wales Parking Standards 2008. This recommends one stand per five bedrooms which would equate to a requirement of six stands for the scheme (12 spaces).

4.2.17 The proposals will provide significantly in excess of the recommended standards which will encourage residents to cycle and minimise the requirement for owning a car.

4.3 Servicing and Deliveries

4.3.1 Servicing would mainly relate to refuse collection which would be undertaken on-street from Gwaelodygarth, as currently occurs for surrounding existing properties. Refuse vehicles are able to safely stop at the kerbside without impacting through movements.

4.3.2 The bin store will be provided on the lower ground floor to the west of the building frontage and is situated within 25 metres of the Gwaelodygarth carriageway.

4.3.3 MfS states Building Regulations on refuse collection distances in that waste collection vehicles should be able to get within 25-metres of the storage point. As such, the arrangements are in line with Building Regulations and considered safe and appropriate.

4.3.4 For parcel deliveries and home deliveries, for example for food shopping, these can be accommodated safely and appropriately on-street on Gwaelodygarth or the other surrounding streets, as currently occurs for the surrounding residential properties. These streets have sufficient capacity to safely accommodate delivery vehicles waiting for a short time.

5. TRIP GENERATION AND IMPACTS

5.1 Introduction

5.1.1 This section sets out the forecast trip generation of the proposed development and the estimated vehicle generation from the existing planning use. The existing and proposed uses have then been compared. The existing planning use is for a nursing home which is the lawful use and forms the fallback position for the site. The site could theoretically be reoccupied within this lawful use without the requirement for planning permission and therefore this forms the baseline position against which the proposals should be assessed.

5.1.2 In addition, the site has a previous recent consent for a residential use with a higher number of bedrooms. As such, the use of the site for residential purposes has previously been accepted and given the reduction in bedrooms, the proposals are unlikely to generate a material change in movements to this previously accepted level.

5.1.3 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 use, scale, location, accessibility, and surrounding population.

5.1.4 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 peak hours on a weekday and over a daily period.

5.2 Existing Site Planning Use

5.2.1 As the site has an existing planning use and was previously used as a nursing home, the TRICS category '05 - HEALTH / F – CARE HOME (ELDERLY RESIDENTIAL)' has been selected to derive trip rates for the existing nursing home planning use.

5.2.2 As the trip rates are calculated per resident, and the previous number of residents for the existing use is unknown, sites have been chosen by their site area with only sites of between 1,200sqm and 6,800sqm used. The site has an area of c.2,169sqm. From the selected sites, the sqm of site area per resident has been calculated and this equated to an average ratio of approximately one resident per

81 sqm. This has been applied to the proposed site area size to obtain an estimated number of 27 residents when the site was operating as a nursing home.

5.2.3 The following parameters have been applied to the search criteria to obtain surveys of similar sites:

- Vehicle Surveys
- Located in England and Wales (excluding London)
- Sites between 1,200 and 6,800 sqm site area
- Surveys from Monday to Friday
- Edge of town centre / Suburban location
- From 2010 onwards

5.2.4 The application of these parameters resulted in a total of four surveys of similar sites. A summary of the forecast vehicle trip rates and trip generation associated with the existing planning use for a nursing home is shown in Table 5-1. The full outputs of the TRICS analysis including the sites used can be found in Appendix C.

Table 5-1: Existing Use (Nursing Home) - Vehicle Trip Rates and Trip Generation

Time Period	Trip Rates (per resident)			Trip Generation (27 residents)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.109	0.044	0.153	3	1	4
PM Peak (17:00-18:00)	0.044	0.131	0.175	1	4	5
12 Hours (07:00-19:00)	0.904	0.917	1.821	24	25	49

5.2.5 Table 5-1 shows that the existing planning use of a nursing home is estimated to generate 4-5 two-way vehicle movements in the peak hours and 49 two-way vehicle movements over a 12 hour period.

5.3 Proposed Development

5.3.1 For the proposed development the TRICS category '03 - RESIDENTIAL / C – FLATS PRIVATELY OWNED' has been selected to derive trip rates.

5.3.2 The following parameters have been applied to the search criteria to obtain surveys of similar sites:

- Vehicle Surveys
- Located in England, Scotland and Wales (excluding London)
- Sites of up to 150 units
- Surveys from Monday to Friday
- Edge of town centre / Suburban location
- From 2000 onwards
- Population of less than 500,000sqm within 5 miles
- Car ownership areas of 1.5 per household or less
- Removal of sites with houses or bungalows
- Removal of sites with parking ratio of more than 1 parking space per unit
- Removal of sites surveyed during Covid pandemic

5.3.3 The application of these parameters resulted in a total of 12 surveys of similar sites. A summary of the forecast vehicle trip rates and trip generation associated with the 30 proposed units is shown in Table 5-2. The full outputs of TRICS including the sites used can be found in Appendix D.

Table 5-2: Proposed Use - Vehicle 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)	0.043	0.165	0.208	1	5	6
PM Peak (17:00-18:00)	0.145	0.082	0.227	4	2	6
12 Hours (07:00-19:00)	0.897	0.953	1.850	27	29	56

5.3.4 Table 5-2 demonstrates that the proposals are forecast to generate 6 two-way vehicle movements during the AM and PM peak periods.

5.3.5 Over a daily period, it is forecast to generate up to 56 two-way vehicle movements.

5.3.6 This is a minimal level of movements to and from the site and would not materially change from the previously consented scheme, which had a higher number of bedrooms.

5.4 Net Change in Vehicle Trips

5.4.1 Based on the TRICS analysis, the forecast net change in vehicle generation resulting from the proposals compared with the existing planning use are set out in Table 5-3.

Table 5-3: Net Change in Vehicle Movements between Existing and Proposed Uses

Time Period	Existing Nursing Home Use			Proposed Residential Use			Net Change		
	In	Out	Two-way	In	Out	Two-way	In	Out	Two-way
AM Peak (08:00-09:00)	3	1	4	1	5	6	-2	4	2
PM Peak (17:00-18:00)	1	4	5	4	2	6	3	-2	1
12 Hours (07:00-19:00)	24	25	49	27	29	56	3	4	7

5.4.2 The analysis shows that the proposals are forecast to generate a similar level of two-way vehicular trips during the peak hours, with an increase of between 1 and 2 vehicle movements. This is a minimal change from the existing planning use.

5.4.3 In addition, the movements would be similar to those previously accepted for the consented scheme, given that there would be a reduction in the total number of bedrooms.

5.4.4 As such, the proposals would not have a material impact on the operation of the highway or an unacceptable impact on safety and no mitigation is required.

5.5 On-Street Parking

5.5.1 As set out in Section 4, it is unlikely there would be any significant overspill parking from the proposals, with the forecast demand for parking just four vehicles higher than the proposed on-site provision. In addition, there is a significant level of available kerbline for vehicles to park within the surrounding area. As such, there will not be a material impact on parking stress, or inconsiderate or illegal parking on local residential streets. The impact of the proposals would remain acceptable as per the previously consented scheme.

6. SUMMARY AND CONCLUSIONS

6.1 Summary

6.1.1 This Transport Note (TN) has been produced to support a planning application for the redevelopment of the former Merthyr Hospital in Merthyr Tydfil for residential use.

6.1.2 This TN has been produced to inform the Merthyr Tydfil County Borough Council (MTCBC) of the highways and transport implications of the proposals.

6.1.3 The proposals are for the conversion of the former nursing home building into 30 flats (35no. bedrooms in total) with six associated parking spaces. The access arrangements would remain the same as currently from an existing junction onto Gwaelodygarth, close to the A4102.

6.1.4 The site has a previous planning consent for the conversion and extension of the former nursing home to accommodate 23 dwellings (39 bedrooms in total). The agreed on-site parking provision and access arrangements were the same as proposed for this application. As such, a residential redevelopment of the site has recently been accepted on the site by MTCBC. The scheme included a total of 39 bedrooms, as such the proposals would reduce the total bedspaces by four compared with the previous consent.

6.1.5 In summary:

- The site is situated in a highly sustainable location. This will encourage sustainable travel and reduce the need for residents to own a car. It will also attract residents with low car ownership or who do not own a car, or prefer to travel by sustainable modes of travel.
- This TN has clearly set out that the proposals would have a low car ownership given the proposals are for flats in an edge of town centre location.
- The proposed parking provision is considered to be in accordance with the maximum standards, with a forecast parking demand of 10 vehicles based on the ownership in the surrounding area. As such, there is forecast to be a minimal overspill of vehicles onto the surrounding streets.
- There is significant lengths of kerbline available for vehicles to park on-street in the surrounding residential areas. As such, the minimal overspill can be accommodated appropriately and without impacting safety or the operation of the network.
- The provision is also in accordance Welsh Government overarching planning policy Future Wales: The National Plan 2040 which seeks to encourage sustainable travel and reduce the use of the car. This states that *"Planning authorities should promote low car developments in accessible locations."*
- A site with low parking provision also enables the scheme to meet urban design principles and reduce the reliance on the private car.
- Residents will also be aware of the parking situation prior to purchasing a property and if they perceive parking to be an issue, they would amend their travel choices and car ownership accordingly or choose not to purchase a property.

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

6.1.7 It is forecast that the proposals would generate a minimal change in vehicle movements compared with the existing nursing home planning use of the site. As such, the proposals would not have an adverse impact on the operational capacity of the highway or an unacceptable impact on road safety.

6.2 Conclusions

6.2.1 The site location will encourage and promote sustainable travel behaviour, attract residents who choose not to own a car or have low car ownership and is fully in accordance with transport policies in Future Wales, PPW11, 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 remain suitable.

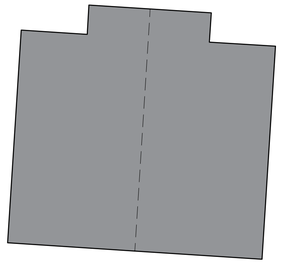
6.2.3 The on-site parking provision is fully in accordance with the objectives for encouraging sustainable travel and reducing car use as set out in PPW11 and Future Wales. It would not have a material impact on parking stress, inconsiderate or illegal parking given the availability of on-street parking in the surrounding streets.

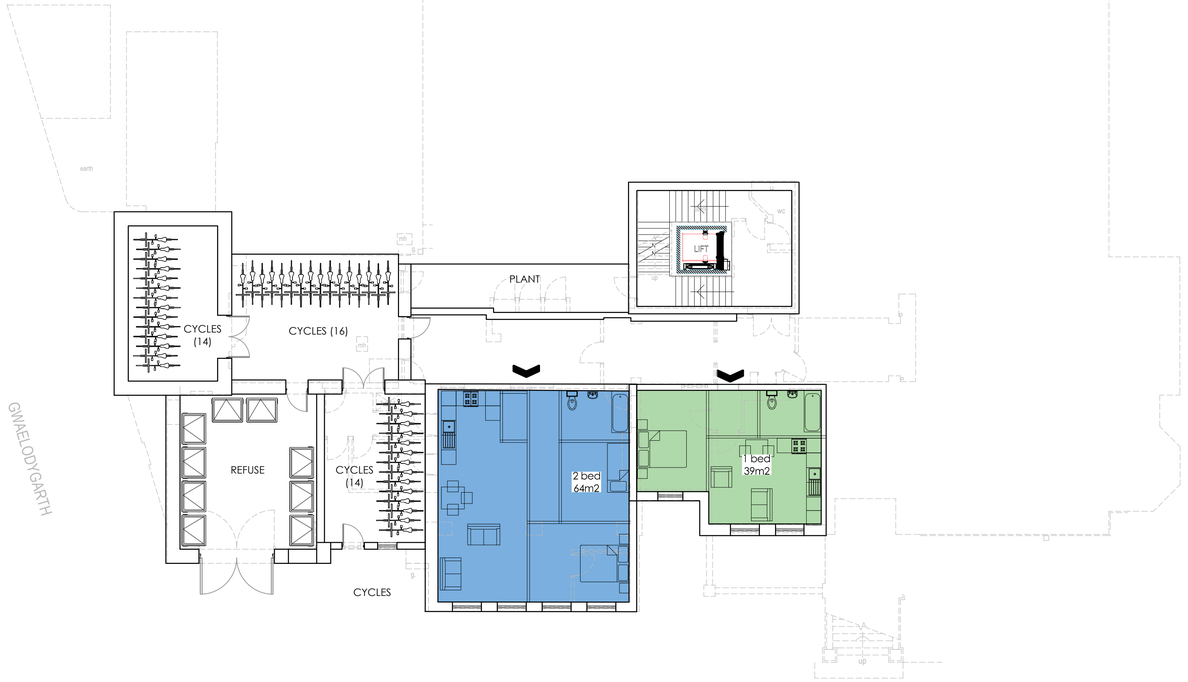
6.2.4 The proposals will not have a material impact on the operation of the highway network and as such no mitigation is considered to be required.

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

Appendix A Proposed Site Layout

Date	Drawn	Check	Description	Rev.
25/05/2023	WS	***	Bin and bike stores amended.	B





Lower Ground Floor Plan

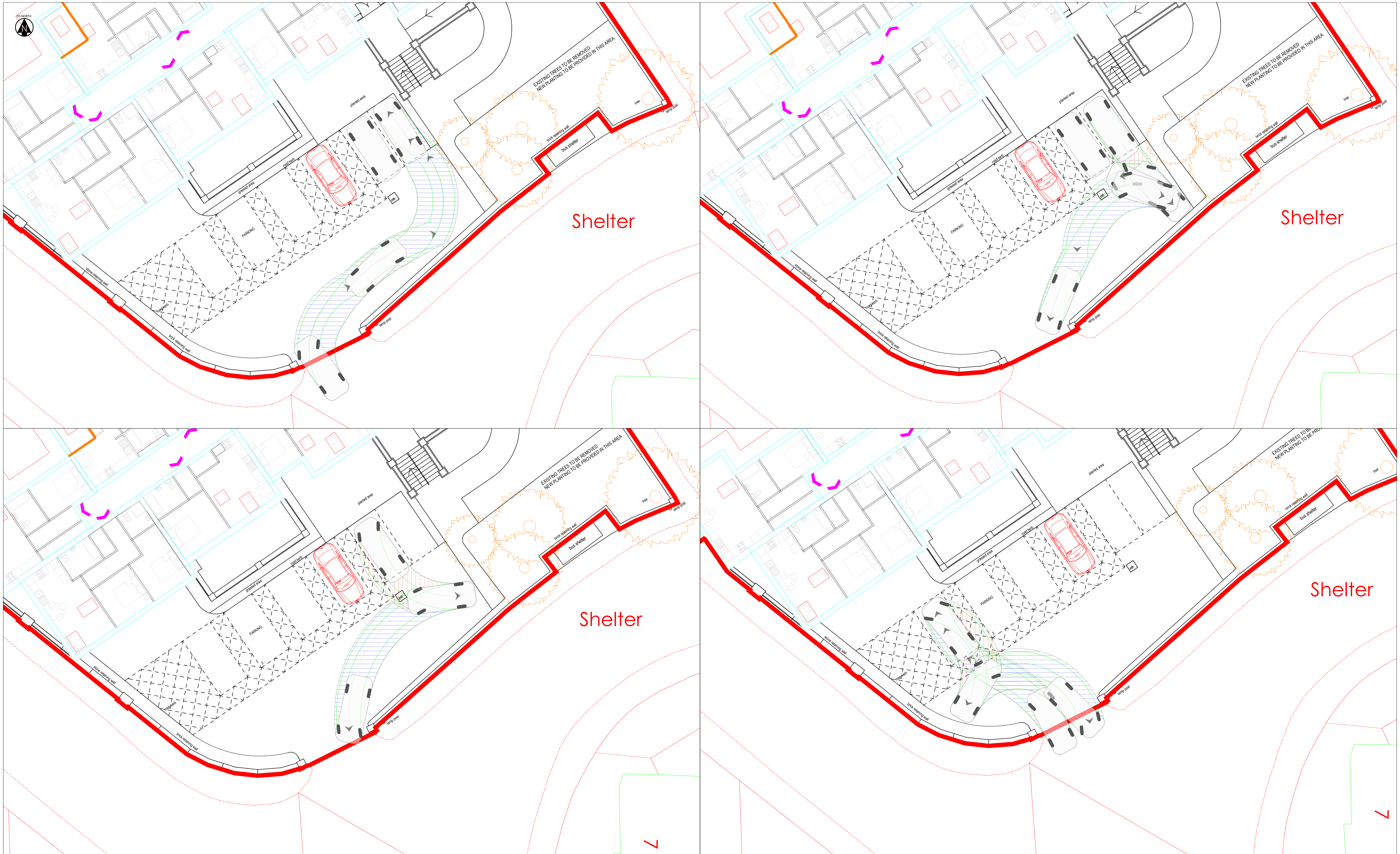
No.	KEY	
05		2 BEDROOM APARTMENT
25		1 BEDROOM APARTMENT

Ground Floor Plan

Proposed Redevelopment Former Merthyr Hospital High Street, Merthyr CF47 0RX	Job No. 22_058	
	Dwg No. SK_10	Rev. B
Title Sketch Lower and Ground Floor Plans		
Date 01/07/22	Drawn ***	Scale 1:250 @ A3, 1:125 @ A1

C2J Architects · Town planners
Environmental & Urban design
Unit 1A, Compass Business Park, Pacific Road, Cardiff. CF24 5HL
www.c2jarchitects.co.uk tel: 029 20492100

Appendix B Swept Path Analysis



SCALE BAR

0m 5m 10m

SCALE BAR (1:250)

KEY

2010 BMW 5-Series

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

FORWARD

Tyre Tracks

Direction of travel

Vehicle body tracks

REVERSE

REVISIONS *(CONTINUED)*

REVISIONS

Rev	Date	Description	By	App
P01	18/05/23	First Issue.	LF	DC

Apex TRANSPORT PLANNING
11-13 PENHILL ROAD
CARDIFF
CF11 9PQ
t: 02920 619 361
e: info@apextp.co.uk

CLIENT
SIGNATURE REALTORS LTD

PROJECT
FORMER MERTHYR HOSPITAL

TITLE
SWEPT PATH ANALYSIS - LARGE CAR

PROJECT NO.
C23-047

SCALE @ A3
1:250

STATUS DESCRIPTION
INFORMATION

STATUS
S2

DRAWING NO.
C23047-ATP-DR-TP-001

Appendix C TRICS Outputs - Existing Use (Nursing Home)

Calculation Reference: AUDIT-502501-230608-0659

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : F - CARE HOME (ELDERLY RESIDENTIAL)
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	WG	WOKINGHAM	1 days
	WS	WEST SUSSEX	1 days
04	EAST ANGLIA		
	PB	PETERBOROUGH	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: Number of residents
Actual Range: 38 to 69 (units:)
Range Selected by User: 16 to 180 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 12/10/22

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:

Tuesday	2 days
Wednesday	1 days
Sunday	1 days

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

Selected survey types:

Manual count	4 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:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	3

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:

Residential Zone	4

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	5 days - Selected
Servicing vehicles Excluded	22 days - Selected

Secondary Filtering selection:

Use Class:

C2	4 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:

15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	2 days

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

Population within 5 miles:

50,001 to 75,000	1 days
125,001 to 250,000	3 days

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

Car ownership within 5 miles:

1.1 to 1.5	3 days
1.6 to 2.0	1 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	4 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	4 days

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

LIST OF SITES relevant to selection parameters

1 ES-05-F-02 CARE HOME EAST SUSSEX
BATTLE ROAD
HAILSHAM

Edge of Town Centre
Residential Zone
Total Number of residents: 69
Survey date: WEDNESDAY *13/07/16* *Survey Type: MANUAL*

2 PB-05-F-01 NURSING HOME PETERBOROUGH
PARK CRESCENT
PETERBOROUGH

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 48
Survey date: SUNDAY *16/10/16* *Survey Type: MANUAL*

3 WG-05-F-01 NURSING HOME WOKINGHAM
BARKHAM ROAD
WOKINGHAM

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 58
Survey date: TUESDAY *20/11/12* *Survey Type: MANUAL*

4 WS-05-F-02 NURSING HOME WEST SUSSEX
WYKEHAM ROAD
WORTHING

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of residents: 54
Survey date: TUESDAY *17/05/22* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AG-05-F-01	Scotland
BP-05-F-01	Edge of Town
CS-05-F-01	Too large site area
CV-05-F-01	Too large site area
DL-05-F-01	Irish
DO-05-F-01	Irish
NY-05-F-04	Too large site area
NY-05-F-05	Edge of Town
SF-05-F-01	Edge of Town
SR-05-F-01	Scotland
WK-05-F-01	Too large site area

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
LN-05-F-01	30/06/13	Weekend

TRIP RATE for Land Use 05 - HEALTH/F - CARE HOME (ELDERLY RESIDENTIAL)
TOTAL VEHICLES
Calculation factor: 1 RESIDE
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	Trip Rate	No. Days	Ave. RESIDE	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	4	57	0.179	4	57	0.131	4	57	0.310
08:00 - 09:00	4	57	0.109	4	57	0.044	4	57	0.153
09:00 - 10:00	4	57	0.052	4	57	0.039	4	57	0.091
10:00 - 11:00	4	57	0.061	4	57	0.039	4	57	0.100
11:00 - 12:00	4	57	0.066	4	57	0.052	4	57	0.118
12:00 - 13:00	4	57	0.079	4	57	0.070	4	57	0.149
13:00 - 14:00	4	57	0.087	4	57	0.109	4	57	0.196
14:00 - 15:00	4	57	0.074	4	57	0.057	4	57	0.131
15:00 - 16:00	4	57	0.066	4	57	0.127	4	57	0.193
16:00 - 17:00	4	57	0.052	4	57	0.061	4	57	0.113
17:00 - 18:00	4	57	0.044	4	57	0.131	4	57	0.175
18:00 - 19:00	4	57	0.035	4	57	0.057	4	57	0.092
19:00 - 20:00	4	57	0.057	4	57	0.092	4	57	0.149
20:00 - 21:00	4	57	0.035	4	57	0.039	4	57	0.074
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.996			1.048			2.044

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:	38 - 69 (units:)
Survey date date range:	01/01/10 - 12/10/22
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	2
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	11

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.

Appendix D TRICS Outputs - Proposed Use (Residential Flats)

Apex Transport Planning Ltd 11-13 Penhill Road Cardiff Licence No: 502501

Filtering Summary

Land Use	03/C	RESIDENTIAL/FLATS PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	6-150 DWELLS	
Actual Trip Rate Calculation Parameter Range	27-140 DWELLS	
Date Range	Minimum: 01/01/00	Maximum: 11/05/22
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	3
	Tuesday	2
	Wednesday	3
	Thursday	3
	Friday	1
Main Location Types selected	Edge of Town Centre	8
	Suburban Area (PPS6 Out of Centre)	4
Inclusion of Servicing Vehicles Counts	Servicing vehicles Included	9 - Selected
	Servicing vehicles Excluded	41 - Selected
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000	1
	10,001 to 15,000	4
	15,001 to 20,000	1
	20,001 to 25,000	2
	25,001 to 50,000	4
Population <5 Mile ranges selected	50,001 to 75,000	2
	125,001 to 250,000	4
	250,001 to 500,000	6
Car Ownership <5 Mile ranges selected	0.6 to 1.0	3
	1.1 to 1.5	9
PTAL Rating	No PTAL Present	12

Calculation Reference: AUDIT-502501-230611-0635

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	HF	HERTFORDSHIRE	1 days
	PO	PORTSMOUTH	1 days
	SC	SURREY	2 days
03	SOUTH WEST		
	DV	DEVON	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	PB	PETERBOROUGH	1 days
05	EAST MIDLANDS		
	DY	DERBY	1 days
	NG	NOTTINGHAM	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	WY	WEST YORKSHIRE	1 days
08	NORTH WEST		
	AC	CHESHIRE WEST & CHESTER	1 days
10	WALES		
	FS	FLINTSHIRE	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: 27 to 140 (units:)
Range Selected by User: 6 to 150 (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: 01/01/00 to 11/05/22

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	3 days
Tuesday	2 days
Wednesday	3 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	12 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:

Edge of Town Centre	8
Suburban Area (PPS6 Out of Centre)	4

This data displays the number of surveys per main location category within the selected set. The main location 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	9 days - Selected
Servicing vehicles Excluded	41 days - Selected

Secondary Filtering selection:

Use Class:

C3	12 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	1 days
10,001 to 15,000	4 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	4 days

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

Population within 5 miles:

50,001 to 75,000	2 days
125,001 to 250,000	4 days
250,001 to 500,000	6 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	9 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:

Yes	2 days
No	10 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	12 days

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

LIST OF SITES relevant to selection parameters

1 AC-03-C-01 BLOCKS OF FLATS CHESHIRE WEST & CHESTER
NEW CRANE STREET
CHESTER

Edge of Town Centre
Residential Zone
Total No of Dwellings: 60
Survey date: FRIDAY *17/10/08* *Survey Type: MANUAL*

2 DV-03-C-01 BLOCK OF FLATS DEVON
BONHAY ROAD
EXETER

Edge of Town Centre
Residential Zone
Total No of Dwellings: 27
Survey date: MONDAY *10/07/17* *Survey Type: MANUAL*

3 DY-03-C-03 BLOCKS OF FLATS DERBY
CAESAR STREET
DERBY

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 30
Survey date: WEDNESDAY *25/09/19* *Survey Type: MANUAL*

4 FS-03-C-01 BLOCK OF FLATS FLINTSHIRE
WREXHAM STREET
MOLD

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 30
Survey date: MONDAY *06/07/09* *Survey Type: MANUAL*

5 HF-03-C-03 BLOCK OF FLATS HERTFORDSHIRE
SHENLEY ROAD
BOREHAMWOOD

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 91
Survey date: THURSDAY *14/11/19* *Survey Type: MANUAL*

6 NF-03-C-01 BLOCKS OF FLATS NORFOLK
PAGE STAIR LANE
KING'S LYNN

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 51
Survey date: THURSDAY *11/12/14* *Survey Type: MANUAL*

7 NG-03-C-02 HOUSES (SPLIT INTO FLATS) NOTTINGHAM
CASTLE MARINA ROAD
NOTTINGHAM

Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 135
Survey date: WEDNESDAY *09/11/16* *Survey Type: MANUAL*

8 PB-03-C-02 BLOCK OF FLATS PETERBOROUGH
WESTFIELD ROAD
PETERBOROUGH
NETHERTON
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total No of Dwellings: 44
Survey date: TUESDAY *18/10/11* *Survey Type: MANUAL*

LIST OF SITES relevant to selection parameters (Cont.)

9 PO-03-C-01 BLOCKS OF FLATS PORTSMOUTH
CROSS STREET
PORTSMOUTH

Edge of Town Centre
Built-Up Zone
Total No of Dwellings: 90
Survey date: TUESDAY *05/06/18* *Survey Type: MANUAL*

10 SC-03-C-01 FLATS SURREY
HEATHCOTE ROAD
CAMBERLEY

Edge of Town Centre
Residential Zone
Total No of Dwellings: 140
Survey date: MONDAY *21/07/08* *Survey Type: MANUAL*

11 SC-03-C-02 FLATS SURREY
CONSTITUTION HILL
WOKING

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total No of Dwellings: 36
Survey date: WEDNESDAY *23/07/08* *Survey Type: MANUAL*

12 WY-03-C-01 BLOCK OF FLATS WEST YORKSHIRE
EAST STREET
LEEDS
CROWN POINT
Edge of Town Centre
Development Zone
Total No of Dwellings: 127
Survey date: THURSDAY *13/11/03* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BH-03-C-01	Parking above 1 space per unit
BR-03-C-01	houses
CA-03-C-03	Parking above 1 space per unit
CB-03-C-03	bungalows
CO-03-C-01	Parking above 1 space per unit
CT-03-C-02	Parking above 1 space per unit
CT-03-C-03	Parking above 1 space per unit
DC-03-C-01	Parking above 1 space per unit
DC-03-C-02	Parking above 1 space per unit
DY-03-C-01	Parking above 1 space per unit
EB-03-C-01	Parking above 1 space per unit
HC-03-C-02	Parking above 1 space per unit
HF-03-C-02	Parking above 1 space per unit
MS-03-C-04	covid
NF-03-C-02	houses
NG-03-C-01	Parking above 1 space per unit
NN-03-C-01	Parking above 1 space per unit
NY-03-C-01	Parking above 1 space per unit
OT-03-C-01	Parking above 1 space per unit
OX-03-C-01	Parking above 1 space per unit
SA-03-C-01	Parking above 1 space per unit
SF-03-C-01	Parking above 1 space per unit
SF-03-C-03	Parking above 1 space per unit
SF-03-C-04	covid
SR-03-C-01	Parking above 1 space per unit
SR-03-C-02	Parking above 1 space per unit
SS-03-C-01	Parking above 1 space per unit
SS-03-C-02	Parking above 1 space per unit
SY-03-C-01	covid
TV-03-C-01	Parking above 1 space per unit
TV-03-C-02	Parking above 1 space per unit

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
WM-03-C-03	Parking above 1 space per unit
WM-03-C-04	Parking above 1 space per unit
WY-03-C-02	Parking above 1 space per unit

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
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	12	72	0.034	12	72	0.139	12	72	0.173
08:00 - 09:00	12	72	0.043	12	72	0.165	12	72	0.208
09:00 - 10:00	12	72	0.063	12	72	0.075	12	72	0.138
10:00 - 11:00	12	72	0.064	12	72	0.057	12	72	0.121
11:00 - 12:00	12	72	0.052	12	72	0.057	12	72	0.109
12:00 - 13:00	12	72	0.069	12	72	0.081	12	72	0.150
13:00 - 14:00	12	72	0.060	12	72	0.069	12	72	0.129
14:00 - 15:00	12	72	0.066	12	72	0.074	12	72	0.140
15:00 - 16:00	12	72	0.080	12	72	0.044	12	72	0.124
16:00 - 17:00	12	72	0.085	12	72	0.050	12	72	0.135
17:00 - 18:00	12	72	0.145	12	72	0.082	12	72	0.227
18:00 - 19:00	12	72	0.136	12	72	0.060	12	72	0.196
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.897			0.953			1.850

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:	27 - 140 (units:)
Survey date date range:	01/01/00 - 11/05/22
Number of weekdays (Monday-Friday):	12
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	34

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/C - FLATS PRIVATELY OWNED
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	12	72	0.005	12	72	0.005	12	72	0.010
08:00 - 09:00	12	72	0.000	12	72	0.000	12	72	0.000
09:00 - 10:00	12	72	0.001	12	72	0.001	12	72	0.002
10:00 - 11:00	12	72	0.001	12	72	0.001	12	72	0.002
11:00 - 12:00	12	72	0.001	12	72	0.001	12	72	0.002
12:00 - 13:00	12	72	0.005	12	72	0.005	12	72	0.010
13:00 - 14:00	12	72	0.000	12	72	0.000	12	72	0.000
14:00 - 15:00	12	72	0.003	12	72	0.002	12	72	0.005
15:00 - 16:00	12	72	0.001	12	72	0.002	12	72	0.003
16:00 - 17:00	12	72	0.002	12	72	0.002	12	72	0.004
17:00 - 18:00	12	72	0.000	12	72	0.000	12	72	0.000
18:00 - 19:00	12	72	0.003	12	72	0.003	12	72	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.022			0.022			0.044

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/C - FLATS PRIVATELY OWNED
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	12	72	0.003	12	72	0.003	12	72	0.006
08:00 - 09:00	12	72	0.000	12	72	0.000	12	72	0.000
09:00 - 10:00	12	72	0.001	12	72	0.001	12	72	0.002
10:00 - 11:00	12	72	0.001	12	72	0.000	12	72	0.001
11:00 - 12:00	12	72	0.000	12	72	0.001	12	72	0.001
12:00 - 13:00	12	72	0.001	12	72	0.001	12	72	0.002
13:00 - 14:00	12	72	0.001	12	72	0.001	12	72	0.002
14:00 - 15:00	12	72	0.000	12	72	0.000	12	72	0.000
15:00 - 16:00	12	72	0.002	12	72	0.002	12	72	0.004
16:00 - 17:00	12	72	0.001	12	72	0.001	12	72	0.002
17:00 - 18:00	12	72	0.000	12	72	0.000	12	72	0.000
18:00 - 19:00	12	72	0.000	12	72	0.000	12	72	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010			0.010			0.020

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/C - FLATS PRIVATELY OWNED
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	12	72	0.003	12	72	0.013	12	72	0.016
08:00 - 09:00	12	72	0.005	12	72	0.012	12	72	0.017
09:00 - 10:00	12	72	0.003	12	72	0.002	12	72	0.005
10:00 - 11:00	12	72	0.005	12	72	0.006	12	72	0.011
11:00 - 12:00	12	72	0.003	12	72	0.002	12	72	0.005
12:00 - 13:00	12	72	0.005	12	72	0.002	12	72	0.007
13:00 - 14:00	12	72	0.002	12	72	0.001	12	72	0.003
14:00 - 15:00	12	72	0.006	12	72	0.005	12	72	0.011
15:00 - 16:00	12	72	0.003	12	72	0.002	12	72	0.005
16:00 - 17:00	12	72	0.007	12	72	0.003	12	72	0.010
17:00 - 18:00	12	72	0.008	12	72	0.003	12	72	0.011
18:00 - 19:00	12	72	0.005	12	72	0.002	12	72	0.007
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.055			0.053			0.108

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.*