

Proposed Residential Development
(Affordable) at Meadow Lane, Hirwaun,
CF44 9PT

Transport Statement

9 October 2023

For and on behalf of

**Newydd Housing Association in
association with Life Property Group**



Project Ref: 2023-805

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1 INTRODUCTION

- 1.1 LvW Highways Ltd is commissioned by Newydd Housing Association in association with Life Property Group to provide Highway and Transportation advice and prepare a Transport Statement (TS) in support of a Proposed Residential Development (Affordable) at Meadow Lane, Hirwaun, CF44 9PT.
- 1.2 The site location extracted from the LDP Proposals Map is shown in **Figure 1**. The primary access will be from a new junction on to a widened Meadow Lane.

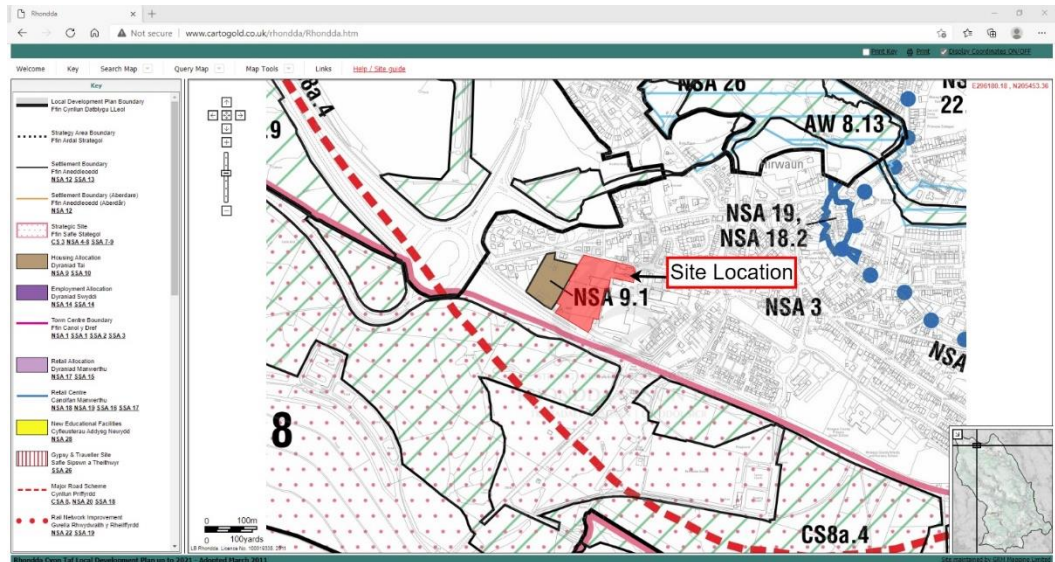


Figure 1: LDP Site allocation map

Purpose of the report

- 1.3 In accordance with Part 1A of The Town and Country Planning (Development Management Procedures) (Wales) (Amended) Order 2016 (DMPO 2016), all major developments are required to be subject of pre-application consultation (PAC), prior to the Planning Application being validated by the Local Planning Authority.
- 1.4 The PAC process allows members of the public and statutory consultees the opportunity to comment on the development proposals which can then be taken considered and taken on-board within the final proposals.
- 1.5 This report will outline and assess any transport issues in relation to the site. It will consider the traffic generation of the development and potential impact on the surrounding transport network with any required mitigation measures outlined.
- 1.6 The Transport Statement will consider the access arrangements to the site for all modes of travel including walking, cycling, and public transport. This report will also outline and assess any transport issues in relation to the site and quantify whether the road network is suitable to accommodate the predicted impact of the development.
- 1.7 It finds that there is a good range of facilities within walking and cycling distance to the site and that the site benefits from ready access to good quality, regular public transport services.
- 1.8 The site's proximity to services and its accessibility by sustainable modes of transport provide opportunities for many of the trips generated by users of the development, to be made by sustainable, non-car, means.

- 1.9 This Transport Statement is produced in accordance with, and in recognition of, local and central government guidance and follows our understanding of the requirements set out in Planning Policy Wales.
- 1.10 LvW Highways Ltd as independent transport planning consultants have prepared this Transport Statement providing what we consider is a fair and unbiased appraisal of the traffic and highways issues arising due to the proposed development and with consideration of other proposed developments in the area.

Background

- 1.11 This revised site layout is based on a previous scheme that has a resolution to be granted (21/1491/10). The previous scheme was for 35 privately owned open market dwellings and the new application is for 41 affordable housing association dwellings. The internal highway layout and the off-site highway works to widen Meadow lane to 5.5m remains the same as the previous application.

Report Structure

- 1.12 The structure of this Transport Statement is as follows:
- Section 2: Provides a summary of relevant national and local planning policy;
 - Section 3: Outlines the existing accessibility of the site by modes of movement and describes the existing highway and transport conditions in the vicinity of the site including an analysis of collision data and existing traffic volumes;
 - Section 4 Outlines the relevant characteristics of the proposed development including provision for walking, cycling and public transport; estimates the number of vehicle trips that would be generated by the development;
 - Section 5 provides the scope for a Residential Travel Plan.
 - Section 6: Presents a summary of the report and identifies the main conclusions that can be drawn from the Transport Statement.

2 PLANNING POLICIES

Introduction

- 2.1 This section of the report outlines relevant policies for development and transport in Wales, which are cognisant of one another and follow a common theme; moving towards carbon reduction in the promotion of communities, virtual and active mobility, followed by public transport with private vehicle trips at the bottom of the hierarchy. This hierarchy is demonstrated in **Figure 2**.

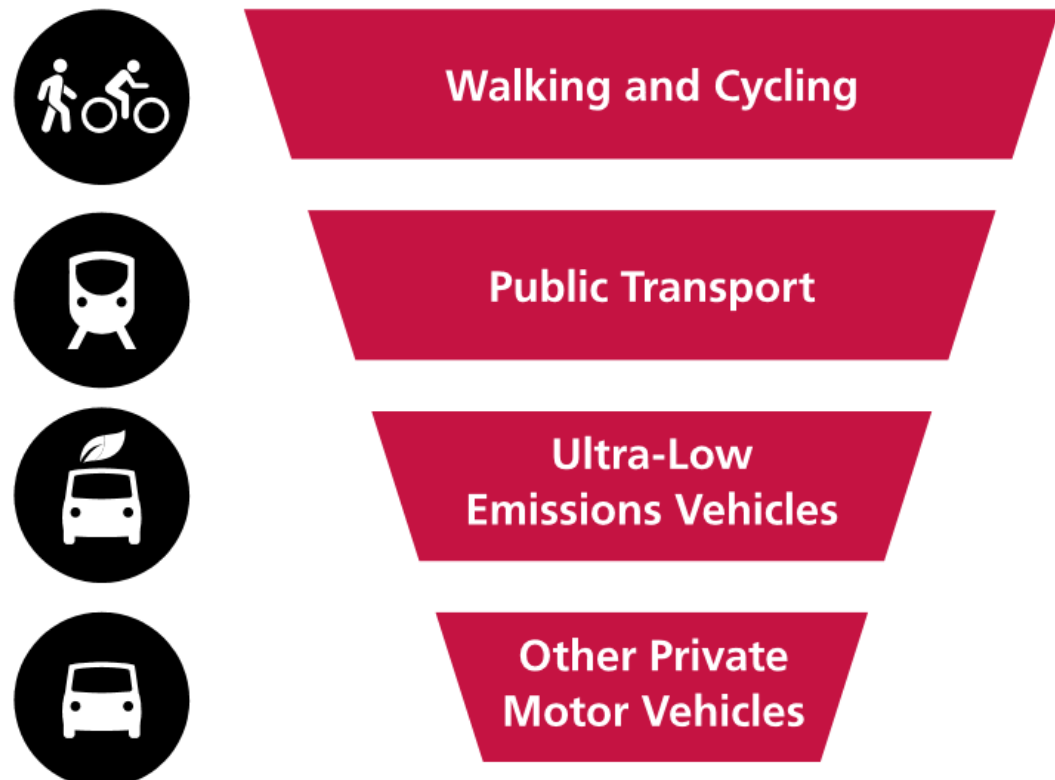


Figure 2: Transport Hierarchy (Active Travel Act Guidance 2021)

- 2.2 The site will be fully in line with the principles outlined in the Active Travel Wales Guidance (2021), which places placemaking and sustainable communities at the forefront of new development. Connections to employment, health, education and leisure opportunities are key, but also achievable through the promotion of active travel and public transport above less sustainable modes.
- 2.3 The policy context for the proposed development is set out in national, regional and local planning policy and guidance. The following is a list of current Planning Policy documents are discussed briefly below:-
- Planning Policy Wales (Edition 11, February 2021),
 - Technical Advice Note (TAN) 18: Transport (2007),
 - Building Better Places - Placemaking and the Covid 19 recovery (2020)
 - Llwybr Newydd – The Wales Transport Strategy 2021,
 - Future Wales – the National Plan 2040 (Feb 2021),
 - Active Travel (Wales) Act 2013,

- Wellbeing of Future Generations (Wales) Act 2015,
- The Future Generations Report 2020, and
- Rhondda Cynon Taf Local Development Plan (up to 2021).

Planning Policy Wales (Edition 11, February 2021)

- 2.4 Walking, cycling and public transport are prioritised to provide a choice of transport modes and avoid dependence on private vehicles. Well designed and safe active travel routes connect to the wider active travel and public transport network and public transport stations and stops are positively integrated.

Technical Advice Note (TAN) 18: Transport (2007)

- 2.5 TAN18 promotes housing development at locations with good access by walking and cycling to primary and secondary schools and public transport stops, and by all modes to employment, further and higher education, services, shopping and leisure, or where such access will be provided as part of the scheme.

Building Better Places - Placemaking and the Covid 19 recovery (2020)

- 2.6 Good places are the result of good planning which fully embraces placemaking. Taking a placemaking approach has multiple benefits which not only helps improve quality of life, but also helps us to tackle climate change, reduce our carbon footprint and improve biodiversity and ecological resilience for the future. Our legal obligations under the Environment and Well-being of Future Generations Acts must be recognised and our actions must not be diluted. The National Sustainable Placemaking Outcomes are set out in PPW and are highly relevant at this time.

Llwybr Newydd – The Wales Transport Strategy 2021

- 2.7 The new Transport Strategy for Wales sets out the ‘new path’ that will shape the transport system over the next 20 years. It is a “new way of thinking that places people and climate change at the front and centre of our transport system”. This document crucially defines the climate emergency as one of the biggest defining issues of our time, and the need to achieve net zero by 2050.
- 2.8 This seeks to improve the social, economic, environmental and cultural well-being of Wales. It contains seven well-being goals which local authorities as well as other public bodies must seek to achieve in order to improve well-being both now and in the future several of which support this strategy’s promotion of sustainable travel.

Future Wales: The National Plan 2040

- 2.9 A Wales where people live in places where travel is sustainable. All methods of travel will have low environmental impact and low emissions, with increased use of public transport and ultra-low emission vehicles replacing today’s petrol and diesel vehicles. Sustainable transport infrastructure will be embedded within development to enable easy and convenient access from one place to another for commuting, business, tourism and leisure purposes. Development will focus on active travel and public transport, allied with a reduced reliance on private vehicles.

The Active Travel (Wales) Act 2013

- 2.10 The Active Travel (Wales) Act 2013 is Welsh Government legislation aimed to support an increase in the level of walking and cycling in Wales, to encourage a

shift in travel behaviour to active travel modes, and to facilitate the building of walking and cycling infrastructure.

- 2.11 Active travel is a term used to describe walking and cycling for purposeful journeys to a destination, or in combination with public transport. Whilst walking and cycling are in themselves healthy activities that are to be encouraged, it is when they displace car journeys that they deliver significant benefits for the health and well-being of Wales. Achieving modal shift by displacing private car journeys with walking and cycling and public transport is at the heart of Llwybr Newydd, the Wales Transport Strategy.
- 2.12 The provisions of the act therefore put in place the conditions that will allow many more people whose current mode of travel is the car to switch to more sustainable modes for shorter journeys and facilitate access to public transport as part of longer distance journeys.
- 2.13 The active travel network is designed to serve everyday journeys. These are also known as utility journeys – trips with a purpose rather than purely for leisure. Examples of destinations which can be considered to form an everyday or utility journey include; school or other educational establishments, local shops, employment sites, healthcare facilities, and other destinations people travel to for a purpose.
- 2.14 In the Welsh Government publication “Active Travel Act Guidance July 2021” Table 4.1 provides a guide for network development in relation to reasonable distances that would be travelled by each respective mode. Table 4.1 is not descriptive of all active users and travel distances may be dependent upon a number of factors such as journey purpose, topography or suitability of route. We have presented Table 4.1 in **Figure 3** below.

Mode	Less than 1 mile	Up to 2 miles	Up to 3 miles	Up to 4 miles	Up to 5 miles	Up to 7.5 miles	Up to 15 miles
							
							
e- 							

Colour	Average active user likelihood
	Many users likely to travel this distance for utility journeys
	Some users likely to travel this distance for utility journeys
	Few or no users likely to travel this distance for utility journeys

Figure 3: Typical distance range for each mode of active travel

- 2.15 In summary the Welsh Government consider walking a suitable alternative to car journeys for up to 2 miles and cycling up to 5 miles.

Well-being of Future Generations (Wales) Act

- 2.16 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.

- 2.17 To make sure we are all working towards the same vision, the act puts in place 7 well-being goals, these are:-

A prosperous Wales

- An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.

A resilient Wales

- A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example, climate change).

A healthier Wales

- A society in which people's physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.

A more equal Wales

- A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio-economic background and circumstances).

A Wales of cohesive communities

- Attractive, viable, safe and well-connected communities.

A Wales of vibrant culture and thriving Welsh language

- A society that promotes and protects culture, heritage and the Welsh language, and which encourages people to participate in the arts, and sports and recreation.

A globally responsible Wales

- A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.

The Future Generations Report 2020

- 2.18 This is a once in five years report, which sets out the Commissioner's assessment of the process made in implementing the Act within the reporting period. It reflects on the progress being made.

- 2.19 In terms of the vision for transport, the report states;

"Places, which embed active travel infrastructure, fully integrated with a high-speed reliable, zero carbon, affordable and completely accessible public and community transport system. Transport that is co-designed with communities and citizens' needs in mind, and which improves the social, environmental, economic and cultural well-being of Wales".

Rhondda Cynon Taf Local Development Plan (up to 2021)

- 2.20 In terms of accessibility and transport issues, policy AW2 requires that new development, amongst other things, has good access to key services and facilities.
- 2.21 Policy AW5 requires that new development be accessible by a range of sustainable forms of transport, that dependency on the car is reduced, that safe access to the highway network is provided and that the development traffic can be accommodated without problems and that car parking provision accords with the Council's Supplementary Planning guidance (SPG).
- 2.22 Policy AW6 also requires that new development has a high level of connectivity and accessibility to existing centres by a wide range of sustainable transport modes.
- 2.23 This site fulfils all the above policy requirements.

Planning Policy Summary

- 2.24 The overall aim of Planning Policy is to deliver a planning system which is positive in outlook and enables development, helping to deliver sustainable places that include homes, jobs and infrastructure, whilst providing opportunities to protect and enhance our most important built and natural environments and support the use of the Welsh language.
- 2.25 In terms of Highways and Transportation this is for walking and cycling to be the natural mode of choice for short everyday journeys, or as part of a longer journey in combination with other sustainable modes.
- 2.26 The development site is an allocated site for employment use located on Proposed Residential Development (Affordable) at Meadow Lane, Hirwaun, CF44 9PT. The site is therefore deemed to be compliant with current transport planning policy and is able to help reduce single-occupancy private car travel amongst prospective employees. This will result in environmental benefits (less CO₂), social improvements (inclusive mobility and a healthier population) and economic benefits (less congestion).

3 EXISTING CONDITIONS

Introduction

- 3.1 This section provides a review of the existing conditions at the site with relation to transport and movements. This includes a review of the site location and access to local facilities and amenities, a study of the existing local highway network and traffic conditions along with a local review of accident data.
- 3.2 The sustainability of the site is considered regarding the provision of alternative modes of transport to the car, including walking, cycling and public transport.

Site Location & Surrounding Area

- 3.3 Hirwaun is a village and community at the north end of the Cynon Valley in the County Borough of Rhondda Cynon Taf. It is 4 miles (6 km) NW of the town of Aberdare, and comes under the Aberdare post town. At the 2001 census, Hirwaun had a population of 4,851 increasing at the 2011 census to 4,990. The village is on the A465 Heads of the Valleys Road and at the southern edge of the Brecon Beacons National Park.
- 3.4 The site is located between the former 'Ferrari Bakery Site' and the allocated residential site NSA 9.1 (OSGR 295267, 205463) access off Meadow Lane. It extends to approximately 1.0 hectare and is situated approximately 85 metres from Redhill Close or 250 metres from the junction with Tower Road/Manchester Place/Foundry Road.
- 3.5 The front of the site that abuts Meadow Lane has been cleared and there only remains the concrete slabs on the ground. The site was previously used for a mix of industrial and commercial use. Behind this portion of the site is an agricultural field, which is relatively level. The rear of the site form the boundary with the A465 on slip heading east towards Merthyr Tydfil.
- 3.6 The field to the west is allocated within the RCTCBC LDP (NSA 9.1) for housing although it now has planning permission for a 16 bed specialist residential care home (use class C2) (23/0506/10).
- 3.7 To the east of the site are the derelict buildings of the former Ferrari's Bakery. The bakery closed in 2008 and the site has been predominantly vacant since.
- 3.8 The proposed development site is identified on **Figure 4** with the wider highway network labelled.

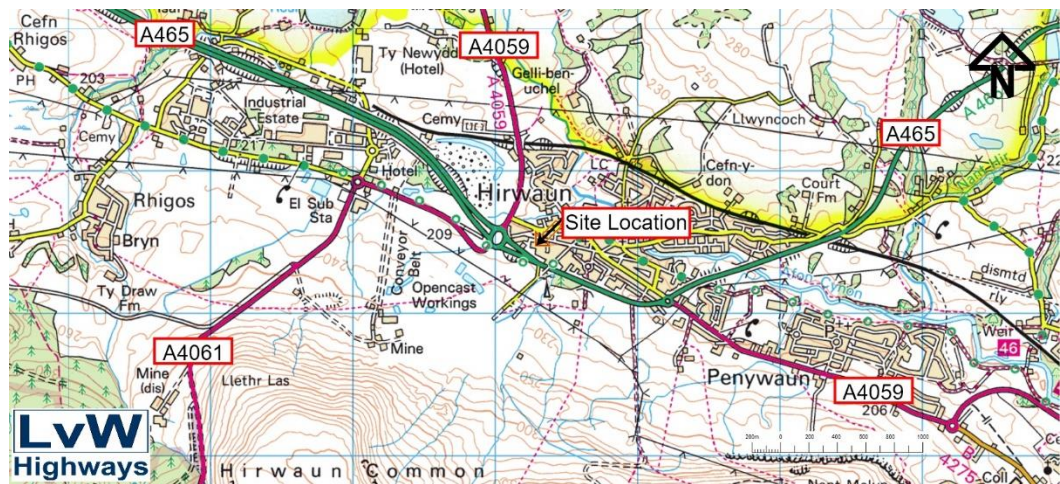


Figure 4. Site Location and Wider Surroundings

- 3.9 The A465 is a trunk road connecting Neath to Abergavenny, and commonly called the Heads of the Valleys Road because it links the northern heads of the South Wales Valleys. The Welsh Government have undertaken a long-standing commitment to complete the dualling of the A465. In November 2020 the Welsh Government confirmed that the 'Future Valleys' consortium has been awarded the contract to take forward improvements to Section 5 and 6 of the A465, following their appointment as preferred bidder in June 2020.
- 3.10 Sections 5 and 6 are an 18km stretch of road between Dowlais Top, Merthyr Tydfil and Hirwaun. They are the western section of the wider dualling programme, and their construction will complete the dualling of the A465. The scheme will see the existing three lane road converted to two lanes in each direction. Construction has started and it is due to be finished by mid-2025. **Figure 5** shows the scheme at the A465 roundabout junction with Rhigos Road.

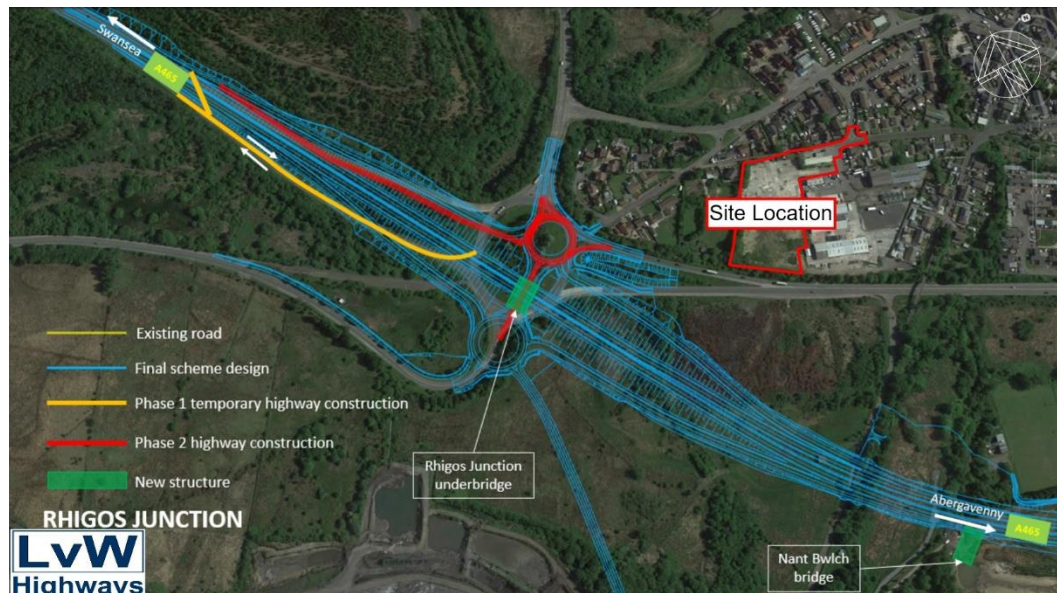


Figure 5: A465 Heads of The Valleys Rhigos Junction works

- 3.11 Meadow Lane runs in a west-east direction past the development site. A 20mph speed limit applies along Meadow Lane past the site frontage. Meadow Lane continues approximately 250m eastwards from the development site where it forms one arm of a 3 arm priority T-junction with Tower Road and Manchester Place.

- 3.12 Street lighting is present along Meadow Lane from this T-junction to the access into the Bryngelli Industrial Estate access road. No street lighting is present beyond this point along the single carriageway linking to Redhill Close.
- 3.13 To the west, Meadow Lane connects with the residential estate Redhill Close via a single carriageway of approximately 3 metres width. Redhill Close connects with Rhigos Road a lightly trafficked road that follows through the village of Hirwaun and connects the A465 in the west and the east of the village.
- 3.14 A footway has been constructed on the southern side of Meadow Lane from the sites western boundary across the frontage of the adjacent two bungalows to connect with the footway leading to the junction with Redhill Close.

Meadow Lane

- 3.15 Meadow Lane as it runs between Rhigos Road and Bryngelli Close is single carriageway. Meadow Lane between Bryngelli Close and Tower Road is typically 5.5m wide with a single lane in each direction. At Bryngelli Close, Meadow Lane narrows from the two lane width to a single lane. These features can be seen in **Plate 1**.



Plate 1: Meadow Lane junctions with Bryngelli Close and Ind Est.

- 3.16 This arrangement operates as an informal priority narrowing with the traffic travelling westbound (towards Rhigos Road) giving way and allowing the traffic

travelling eastbound (towards Tower Road) to enter either Bryngelli Close, Bryngelli Industrial Estate or Meadow Lane.

Site Access

- 3.17 Access to the site can be gained through the Bryngelli Industrial Estate however, the existing access to the site is provided directly off Meadow Lane through a gate in the northern boundary wall which from the site visit looks as if it has not been used for a long time and can be seen in **Plate 2**.



Plate 2: Existing gated site access

- 3.18 Plate 1 shows that this gated access had restricted visibility when entering onto Meadow Lane due to the high walls constructed up to the highway boundary.
- 3.19 The previous site uses, a mix of industrial and commercial use would have generated movements in and out of the site via this entrance, along Meadow Lane and through the junctions with Bryngelli Close and the Industrial Estate Access.

Active Travel Network

- 3.20 Active Travel means walking and cycling (including the use of mobility scooters and electric wheelchairs) for everyday journeys. These include journeys to work, to the shops or to access services, such as health, leisure centres and bus/rail stations. Active travel is important in promoting healthier lifestyles and reducing the negative impacts of traffic upon neighbourhoods and communities.

- 3.21 Hirwaun appears on the Council's Integrated Network Maps and identifies that Tower Road is shown as being an existing walking route (RCTAT16a and 16c).
- 3.22 Improvement for the Hirwaun area included, RCT-INM-N67 as a future walking and cycling route. These can be seen in **Figure 6**.

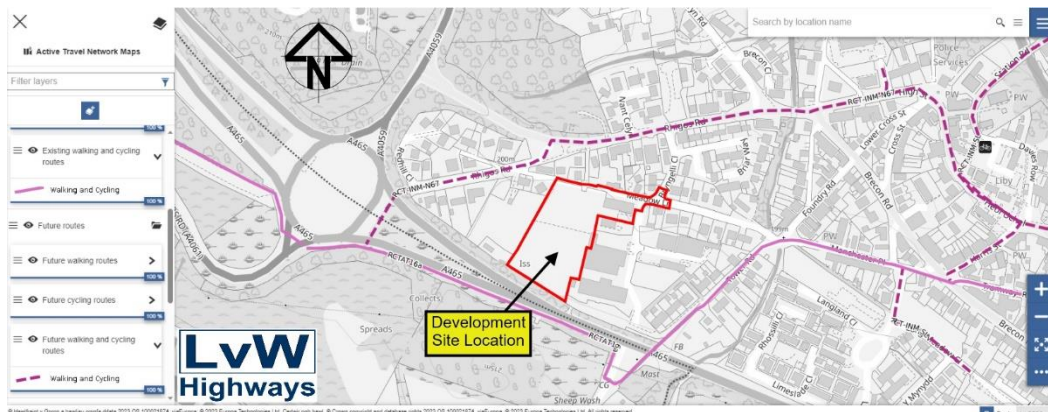


Figure 6: Caerphilly CBC Integrated Network Map extract at Crosskeys

Learner Travel Statutory Provision and Operational Guidance (June 2014) - Walking Distances Eligibility

- 3.23 Local Authorities are required to provide free transport for all pupils of compulsory school age (5-16) if their nearest suitable school is:
- Beyond 2 miles / 3.22 kilometres (if below the age of 8); or
 - Beyond 3 miles / 4.83 kilometres (if aged between 8 and 16).
- 3.24 A 400m walking distance to a bus stop and an 800m walking distance to a railway station has been widely adopted by many Highway Authorities. However, the reason why these distances have been selected is not clear. The most recent publication from CIHT (2015) acknowledges that the research is old and more work is required.
- 3.25 In the Welsh Government publication “Active Travel Act Guidance July 2021” Table 4.1 provides a guide for network development in relation to reasonable distances that would be travelled by each respective mode. Table 4.1 is not descriptive of all active users and travel distances may be dependent upon a number of factors such as journey purpose, topography or suitability of route. We have presented Table 4.1 in **Figure 7** below.

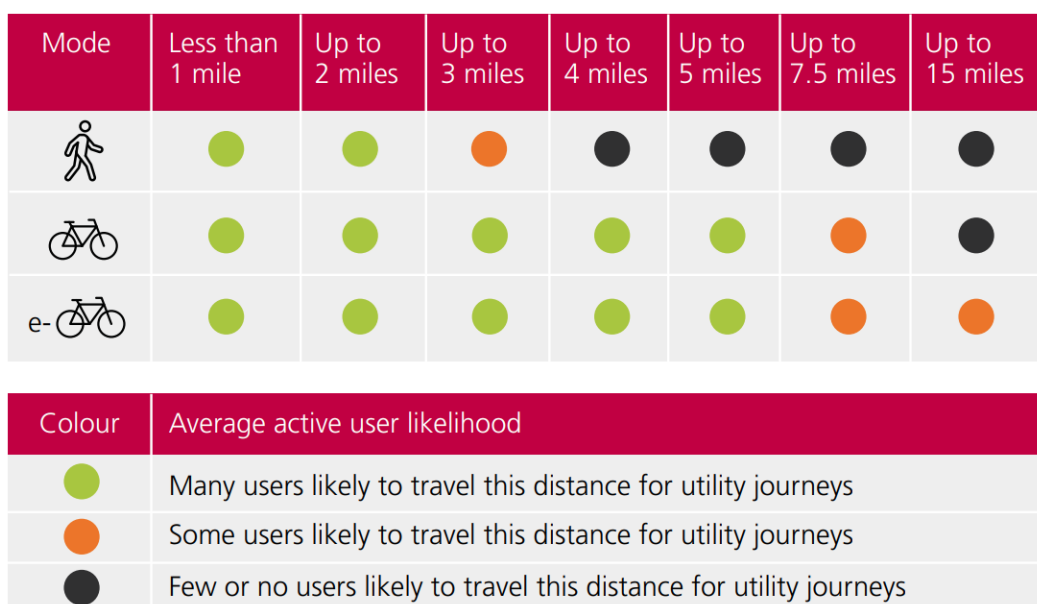


Figure 7: Typical distance range for each mode of active travel

3.26 In summary the Welsh Government consider walking a suitable alternative to car journeys for up to 2 miles and cycling up to 5 miles.

Pedestrian Facilities

3.27 The development site is ideally situated for walkers to connect to the local areas of population in Hirwaun some 3 minutes walking distance. On Rhigos Road there are footways running along the carriageway providing access to the bus stops.

3.28 Manual for Streets considers the width of footways required for pedestrian activity and **Figure 8** shows the width of typical pedestrian users.

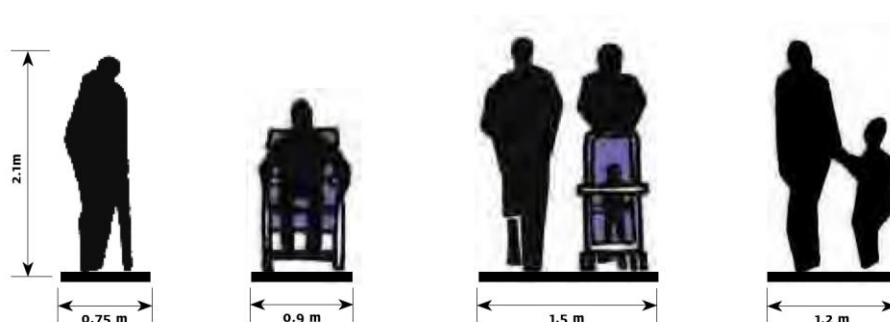


Figure 8: Manual for Street minimum footway widths

3.29 As shown in **Figure 9**, an extract from DfT's 'Inclusive Mobility' document (2002), a footway width of 1.5m is suitable for a wheelchair user and ambulant person side by side.

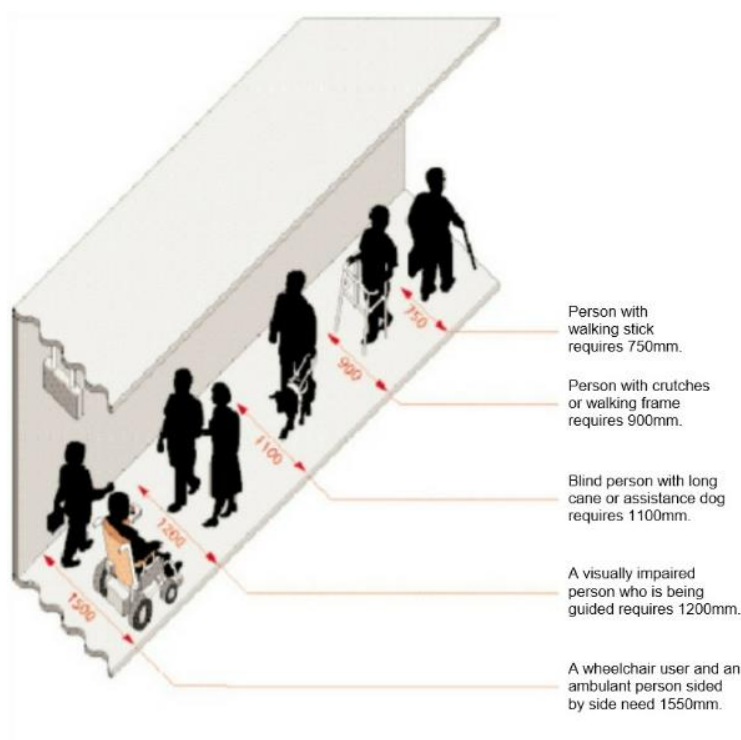


Figure 9: Footway widths (DfT 'Inclusive Mobility' 2002)

3.30 **Figure 10** shows the pedestrian isochrones for 1.61km (1 mile dark blue), and 3.22km (2 miles light blue) from the centre of the proposed development site within walking distance of this notional point.

3.31 The isochrones for walking shows that Hirwaun and Penywaun are within the statutory walking distances and therefore not eligible for free school transport.

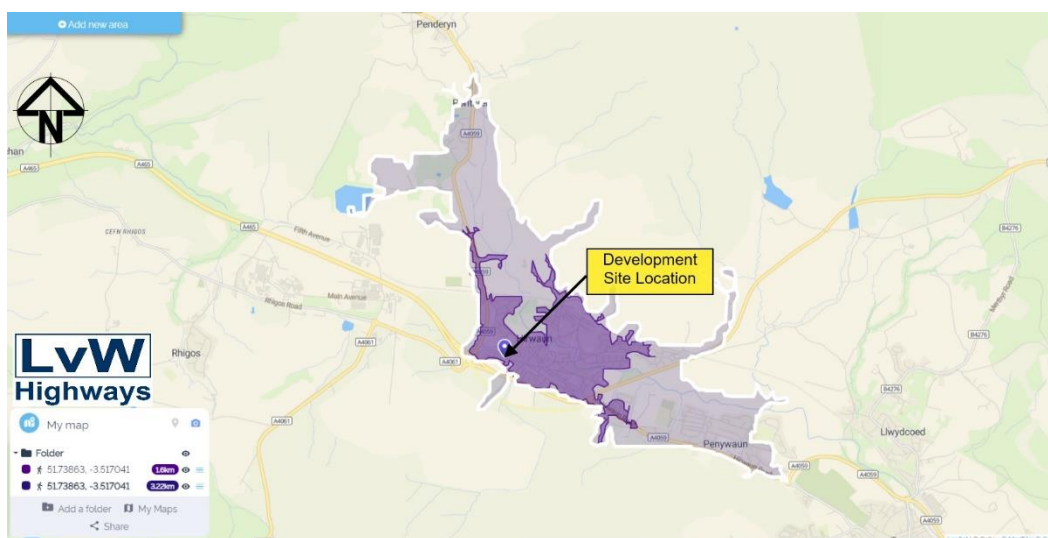


Figure 10: Walking isochrones for 1610m (1mile) and 3220m (2miles)

3.32 The whole of the urban area of Hirwaun is within walking distance to the site with the furthest, eastern edges of the village being around 10 to 15 minutes' walk.

3.33 The site is accessible to pedestrians via its main access from Meadow Lane.

- | | |
|------|--|
| 3.34 | Footways throughout the village are generally of good quality and benefit from street lighting. No significant shortfalls in pedestrian provision that would dissuade residents and visitors that live within Hirwaun from walking have been identified. |
| 3.35 | People will choose their mode based on their journey purpose, and it is reasonable to conclude that a proportion of journeys undertaken to and from the site will be on foot, particularly given the proximity of key facilities and services. |
| 3.36 | On the basis that there is an acceptable level of provision for pedestrians it is reasonable to expect that typical able bodied people are capable of walking at least 3.22km (2 miles) for day to day activities. |
| 3.37 | The thrust of sustainability policy is that there will be an increasing propensity for people to use non single car occupancy modes, of which walking is one. |

Cycle Facilities

- | | |
|------|---|
| 3.38 | In the vicinity of the development site, cyclists are accommodated on the carriageway in line with the guidance contained in Manual for Streets, Manual for Streets 2 and The Highway Code. |
| 3.39 | The Institution of Highways and Transportation advises that the mean average length for cycling journeys is approximately 4 km although states that journeys of up to three times these distances are not uncommon for regular commuters. |
| 3.40 | The Welsh Government suggest that cycling for utility journeys could be undertaken for lengths of up to 8km (5 miles) in the publication “Active Travel Act Guidance July 2021”. |
| 3.41 | Figure 11 shows the cycling isochrones for 4 kilometres from the centre of the proposed development site. |

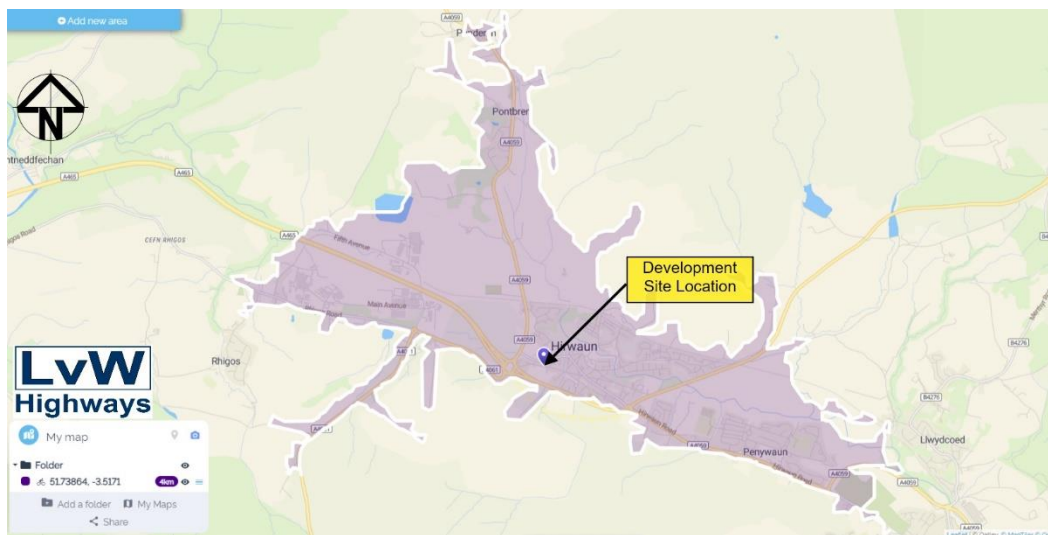


Figure 11: Cycling isochrones 4000m (4km)

- 3.42 National Cycle Network Route 46 and 478 pass through Hirwaun.
- 3.43 Based on the above, cycling offers a potentially attractive form of travel to and from the proposed site, particularly from the built up areas of Hirwaun and Aberdare.

Public Transport

Bus Services

- 3.44 The proposed development site is very conveniently located to access public transport. The closest bus services are within 200m of the site and there are several bus stops within 400m on Rhigos Road, Brecon Road and High Street.
- 3.45 The close proximity of the proposed development site to these public transport services reduce the need to travel, especially by private car and promote the use of more sustainable travel modes.
- 3.46 All the timetables are available online at <https://www.traveline.cymru/>.
- 3.47 It is therefore concluded that the existing bus routes provide excellent opportunities for residents of the development to make both commuting and leisure trips via sustainable modes of travel.

Rail Services

- 3.48 The nearest railway station to Hirwaun is located at Aberdare some 4.6 miles 7.5 kilometres away. Rail journeys are considered suitable for long distance travel.
- 3.49 Transport for Wales are working with Rhondda Cynon Taff County Borough Council, Welsh Government and the Cardiff Capital Region to look at how they can bring the existing rail track between Aberdare and Hirwaun back into use. These discussions are at an early stage but initial studies have been undertaken as part of South Wales Metro.
- 3.50 The opening of the Aberdare to Hirwaun line will create more access to jobs, healthcare provision and education. It will transform lives and reduce the environmental impact of our transport network.
- 3.51 Further surveys and investigation are required to determine the condition of the existing line and future infrastructure requirements. The project will be open to public consultation with feedback being taken in to account to make sure that the local community is at the heart of the plans.
- 3.52 Part of the CCRTA Metro Plus programme, the project is progressing through the Welsh transport appraisal guidance (WelTAG) requirements set out by the Welsh Government. This ensures that a robust method is followed to analyse and assess problems and options and develop solutions.

Local Facilities and Amenities

- 3.53 Due to the location of the site, there are many local facilities and amenities available close by within Hirwaun village centre on High Street. The new local Primary School is a few minutes' walk to the west of the site located off Long Meadow Close.
- 3.54 **Table 1** identifies the following amenities that are available within 500m of the site.

Amenity	Location	Walk Distance
Co-op Convenience Store & Cashpoint	Brecon Road	500m
Medical Centre	High Street	500m
Bus Stop	Rhigos Road	200m

Table 1: Accessible Amenities within 500m

- 3.55 A broader range of services and facilities are available just beyond a 500m walk, including a primary school and range of shops and food outlets in the town centre (Approximately 600m walk).

Accessibility and Sustainability Assessment Conclusions

- 3.56 Walking and cycling both offer viable modes of transport for access to the development site. These modes would be particularly effective at reducing car travel.
- 3.57 The local centres are connected by bus provision, particularly to the larger population centres in the district and neighbouring areas.
- 3.58 The proximity of rail provision is accessible and provides services to local destinations at sub hourly frequencies.
- 3.59 The site is located in a sustainable location with real choice in non-car modes of transport due to its accessible location.

Personal Injury Collision/Accident Data

- 3.60 The DfT (and the legislation) refers to this as an 'accident report', but we prefer to use the more accurate term 'collision'.
- 3.61 A review has been undertaken on local highway network safety in order to establish whether there are any current accident clusters or blackspots in the vicinity of the site that may be exasperated by the development proposals. In road safety management, an accident blackspot or black spot is a place where road traffic accidents have historically been concentrated over a period of time, usually between 3 and 5 years where 5 or more collisions occur at a junction or a short section of highway. However, there are no definitive specified criteria for accident black spots.
- 3.62 This data has been sourced from the National statistics authority and reported on by the Department for transport each year. The information uses data obtained directly from official sources and compiled in an easy-to-use format showing each collisions on a map.
- 3.63 The DMRB publication GC 119 Road Safety Audit mentions that a road safety audit should consider as a minimum the most recent 36 months of data (i.e. 3 years).
- 3.64 A preliminary study of Personal Injury Accident (PIA) collision data shows that there have been no collisions on Meadow Lane Bryngelli Close or Rhigos Road, in the past 5 years where full year's data is available (01/01/2017 to 31/12/2021) within the local vicinity of the proposed development site.
- 3.65 We have also checked the latest released 2022 data on the DfT web site and there were no collisions recorded on the local highway network. The location and severity of the recorded collisions (2017-2-21) can be seen in **Figure 12** an extract from Crashmap.

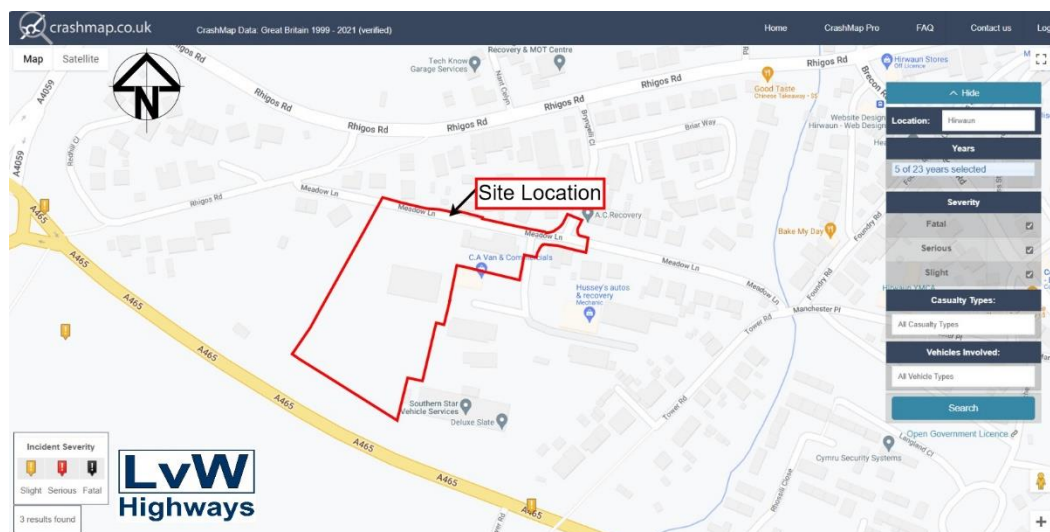


Figure 12: Location and Severity of Collisions

- 3.66 The recorded collisions are dispersed along the A465 and A4059 with some apparent patterns that might suggest a deficiency in the existing highway infrastructure at the major at grade junctions. However, as previously mentioned the A465 is being improved to alleviate some of these incidents.
- 3.67 The above information suggests that there is not an identifiable safety problem that could be attributable to the local road layout. The proposed development is unlikely to result in any material increase in traffic using the local highway network and, on this basis, the accident data does not have a negative bearing on the acceptability of the development proposals.
- 3.68 The traffic generated by the proposed development (as discussed later on in this report) is highly unlikely to exasperate the existing safety record to a significant level to warrant concern.

Accident Risk - Responsibility of Highway Users

- 3.69 As highlighted in Manual for Streets 2 (para 3.1.7) the use of the public highway is governed by the Highway Code, and “confirms that users must behave reasonably, taking into account other people and local conditions.”
- 3.70 The UK Roads Board and Institution of Civil Engineers (ICE) document “Highway Risk and Liability Claims” 2009 (2nd edition) sets out to “provide an overview of the current position on highways liability arising from maintenance and design, including latest philosophy and views on best practice and legislation”. This document states that “the use of the Highway is governed by the Highway Code. It may be used in evidence in court cases, and is also a guide to reasonable use.
- 3.71 The duty on the person to observe the Highway Code is set out in Section 38 of the Road Traffic Act 1988 and the key guidance and instruction on how to use the public highway is set out in rule 146 of the Highway Code as follows:

Highway Code Rule 146:

‘Adapt your driving to the appropriate type and condition of road you are on. In particular

- *do not treat speed limits as a target. It is often not appropriate or safe to drive at the maximum speed limit*

- *take the road and traffic conditions into account. Be prepared for unexpected or difficult situations, for example, the road being blocked beyond a blind bend. Be prepared to adjust your speed as a precaution*
- *where there are junctions, be prepared for road users emerging*
- *in side roads and country lanes look out for unmarked junctions where nobody has priority*
- *be prepared to stop at traffic control systems, road works, pedestrian crossings or traffic lights as necessary*
- *try to anticipate what pedestrians and cyclists might do. If pedestrians, particularly children, are looking the other way, they may step out into the road without seeing you'*

3.72 As highlighted in paragraph 3.1.9 of Manual for Streets 2, "It is clear that the Highway Code requires drivers to have regard for other road users particularly children. Manual for Streets 2 also provides examples of court rulings on this point, citing Gorringe v Calderdale as an example that road users are responsible for their own safety. In that case the House of Lords made the following rulings:

"The overriding imperative is that those who drive on the public highways do so in a manner and at a speed which is safe having regard to such matters as the nature of the road, the weather conditions and the traffic conditions. Drivers are first and foremost themselves responsible for their own safety".

3.73 In summary, therefore, it is a long established principle that users of the public highway have a responsibility to adapt to the road conditions, which includes the presence of cyclists and pedestrians on the highway. The objective of the Highway Authority is to obtain the maximum benefits for the community, and although the balanced decision making process should include highway safety and risk to road users it is not to be slavishly tied to risk management.

3.74 The determination of a planning application necessarily requires a balance of all competing constraints and opportunities; which in this case includes the movement of cyclists, pedestrians and vehicles along the U6618 and other local roads.

3.75 It should also be remembered that risk is an inherent factor in any trip, whether by car or any other mode of transport, and subject to the Appellant taking account of these risks the movement of cyclists and pedestrians should be encouraged.

3.76 If all the roads in the county where a pedestrian or cyclist was involved in an accident were considered too dangerous for these activities, then I would suggest that there would be very little walking or cycling taking place and the Welsh Government would have to re-think its objectives on transport.

Highway Safety Summary

3.77 Based on the above, it can be concluded that the local highway network does not have an unduly poor safety record, and that there are no reasons to assume that this situation should be significantly worsened as a consequence of the development proposals.

20mph

3.78 On 17th September 2023, Welsh Government legislation introduced a default 20mph speed limit on restricted (street lit) roads across Wales in place of the current 30mph limits. This is being done to:

- Improve road safety
 - Create safer walking and cycling areas
 - help improve our health and wellbeing
- 3.79 Selected roads which have a strategic role and are less of a risk to walkers and cyclists may be an exception to the legislation.
- 3.80 The County Council has assessed all roads within its boundary to map the impacts of the legislation and to identify these exceptions. These exceptions can be seen on the Welsh Governments web site¹.
- 3.81 Wales is due to become one of the first countries in the world, and the first nation in the UK, to introduce legislation to have a default 20mph speed limit on roads where cars mix with pedestrians and cyclists.
- 3.82 Public Health Wales believe that lowering the default speed limit to 20mph could have substantial health benefits. 20mph will reduce the risk of collisions, help people feel safer and benefit people's physical and mental wellbeing. Driving slower produces less noise, reduces fuel consumption, and exhaust and non-exhaust emissions are likely to be reduced at lower speeds, tyres and roads will not breakdown so much, thereby reducing non exhaust emissions.
- 3.83 The Welsh Government is working closely with GoSafe and the Police, who enforce speed limits in Wales, to ensure that the new speed limits are respected and driver behaviour change is supported.
- 3.84 We have checked the Welsh Government 'DataMapWales' and it shows that all the local roads within Hirwaun are now subject to the 20mph speed limit as can be seen in **Figure 13**. The roads identified in yellow/orange are the 20mph roads.

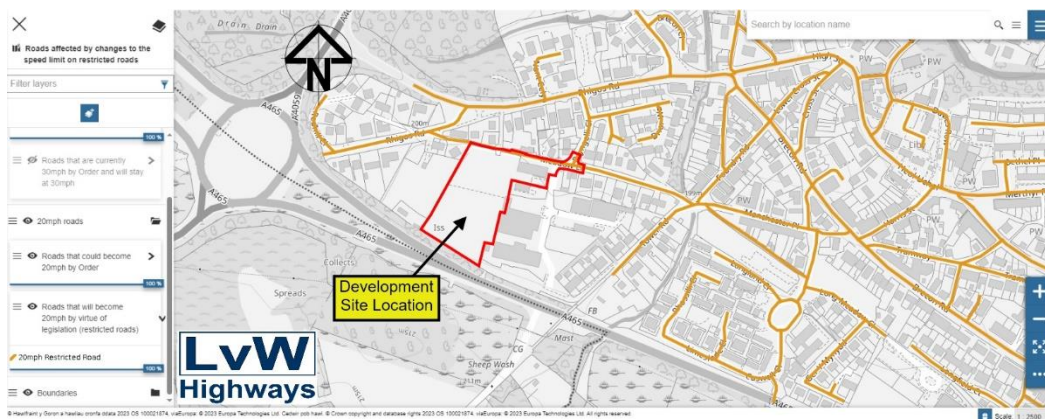


Figure 13: 20mph roads in the local area

Highway Trips

- 3.85 In order to assess the impact that the existing land use has on the transport infrastructure, it is necessary to assess the likely level of vehicular trips generated by the land-use on the site.
- 3.86 As previously mentioned the site has been cleared and therefore, there are few associated vehicle movements.

¹ [View map | DataMapWales \(gov.wales\)](#)

Air Quality Management Area (AQMA)

- 3.87 The location of the site is not within or near a designated Air Quality Management Area (AQMA).

Abnormal Loads

- 3.88 There are no abnormal load uses associated with the current site or expected with the development of the site.

Summary

- 3.89 The pedestrian infrastructure is well maintained in the immediate vicinity of the site and there is comprehensive provision throughout the existing neighbourhood providing opportunities for future residents to access primary education and leisure activities by foot.
- 3.90 The general road network within Hirwaun is subject to low levels of through traffic so cycling is therefore considered a viable means of travel within the village.
- 3.91 The site is well positioned with respect to existing bus stops where regular services run to Merthyr Tydfil, including connections with secondary education facilities.
- 3.92 The PIA data indicated that there are no discernible patterns in recent accidents on the local road network that suggest there are any existing material highway safety issues.
- 3.93 Overall, the site is accessible by foot, cycle and bus. The proposed physical works to improve the access junctions will improve these connections by providing a footway on the development side and connecting to the existing footways.
- 3.94 In conclusion, it is considered that the site is positioned in an accessible location and that there would be good opportunities for journeys from the site to be made by sustainable modes of travel as required by TAN18 and The Active Travel Wales Act.

4 PROPOSED DEVELOPMENT

Introduction

- 4.1 The proposed development is for 41 affordable residential dwellings on land accessed off Meadow Lane in Hirwaun. This is made up of 8, 1 bedroom apartments and 33 dwellings. An indicative site layout plan is provided in the submitted planning documents. It is likely that further discussions on the site layout will take place as part of the detail design process and therefore this illustrative plan may change as a result of the planning processes.
- 4.2 The approach taken in developing the layout plan is founded on giving maximum encouragement to walking and cycling within the layout of the development. The inclusion of high quality pedestrian and cycle routes within the development will play an important role in connecting the development to its surroundings.
- 4.3 The layout design will place an emphasis on the principles of “Manual for Streets” in facilitating a choice of direct and attractive routes for pedestrians and cyclists that are aligned with key desire lines and take advantage of the attractiveness associated with a suburban location.
- 4.4 It is likely that further discussions on the site layout will take place as part of the detail design process and therefore the plan may slightly change as a result of the planning processes. However, the highway access has a resolution to grant and the road layout mirrors that scheme.
- 4.5 The current layout shows that the development site will accommodate a mix of storage areas, parking areas and industrial or warehouse building and has been developed in association with the client as shown in the supporting planning documents.

Proposed Site Access

- 4.6 Vehicular access to the development site will be provided from a new junction on Meadow Lane. Visibility splays of 2.4m x 43m can and will be provided at the junction although now the speed limit has been reduced to 20mp the visibility splays required are 2.4m x 25m.
- 4.7 At the Bryngelli Close junction the road will be widened to 5.5m with the purchase of third parties land. This is shown on the plan in **Appendix A** and these works will be the subject of a S278 agreement of the Highways Act.
- 4.8 Meadow Lane will be widened to 5.5m from a point west of the access to the Bryngelli Industrial Estate to near the western boundary with a 1.8m wide footway on the development side of Meadow Lane.
- 4.9 Meadow Lane will narrow at the western boundary to connect with the existing Meadow Lane (approximately 4m wide) and to the footway outside of the adjacent two bungalows. This will provide a continuous footway along the length of Meadow Lane.
- 4.10 The applicant would welcome the opportunity to work with the LHA to prepare an achievable highway scheme that may need to be considered via a S38 and S278 of the Highways Act.
- 4.11 All highway users are subject to the rules, regulations and laws of the Highway Code.

- 4.12 In the research undertaken for MfS2 (see para 10.4.2) carried out by TMS Consultancy² they have found no evidence that failure to provide visibility at priority junctions in accordance with the values recommended in MfS1 or DMRB (as appropriate) will result in an increased risk of injury collisions. Research into cycle safety at T-junctions found that higher cycle collision rates are associated with greater visibility³.
- 4.13 MfS2 states in para 10.5.9; “The Y-distances should be based on recommended SSD values. However, based on the research referred to above, unless there is local evidence to the contrary, a reduction in visibility below recommended levels will not necessarily lead to a significant problem.”

Proposed Walking and Cycling Access

- 4.14 The internal design will allow for informal roads space to be used by all road users, creating a safe environment for pedestrians and cyclists. This will provide better scope for effective integration with the existing built-up areas and offer the levels of accessibility that are a necessary part of sustainable development.
- 4.15 The proposed development will provide an external connection to Meadow Lane with the provision of footways at the proposed access to the development.
- 4.16 The site is located within close walking proximity to education facilities. The most recent guidance on this issue is provided by Manual for Streets (MfS) which, at paragraph 4.4.1, states that:

“Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes’ (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPG13 (paragraph 75 of that document) states that walking offers the greatest potential to replace short car trips, particularly those under 2.0km”.

- 4.17 The Hirwaun Primary School is located some 700m from the site while the commercial facilities within the village centre are located approximately 600 metres from the site.
- 4.18 Manual for Streets 2 (MfS2) clearly identifies the contribution that cycling can make to transport sustainability and accessibility, identifying this mode of travel as a good substitute for short car trips, particularly those under 5km.

Proposed Public Transport Access

- 4.19 In respect of the site and the level of development, the existing bus services are considered suitable to meet the public transport requirements of the residents of the site and achieve a tangible modal shift.
- 4.20 Bus stops are located within 400 metres of the site. Frequent bus services are provided from these bus stops to a variety of destinations.

On Site Parking

- 4.21 TAN 18 supplements Planning Policy Wales and states in paragraph 4.6 that *“Maximum car parking standards should be used at regional and local level as a form of demand management.”* and in paragraph 4.7 it requires LHA’s in determining maximum car parking standards for new development, regard should

² Research for MfS2 – High risk collisions sites and Y distance visibility, TMS Consultancy, 2010

³ Layout and design factors affecting cycle safety at T-junctions, Traffic Engineering and Control, October 1992

be given to alternative transport modes, economic objectives, public and shared parking arrangements.

- 4.22 Paragraph 4.13 goes on to say “Where appropriate, the local parking strategy should link parking levels on new development sites with either the existence or introduction of on-street control regimes. Maximum parking standards should not be applied so rigidly that they become minimum standards. Maximum standards should allow developers the discretion to reduce parking levels.”

RCTCBC Parking Standards

- 4.23 The proposed development site’s parking requirement is guided by the local authority parking standards. Rhondda Cynon Taf Local Development Plan Supplementary Planning Guidance – “Delivering Design & Placemaking; Access, Circulation & Parking Requirements (2011)” presents guidelines for the provision of parking to inform developers, designers and builders what is expected of them and from them at an early stage of the development process.
- 4.24 The parking standards guidance is determined by land use and location, with development being located in zones 1 to 6, with zone one being applicable to city centre and the centres of largest towns.
- 4.25 Hirwaun is listed as a Key Settlement where ‘Zone 2’ parking requirements apply.
- 4.26 **Zone 2 – Urban** *The zone includes the centres of Key Settlements (as defined in the LDP) which contain the range of basic local facilities generally within 400m walking distance, as well as Llantrisant /Talbot Green. The settlements have regular and frequent bus services to a range of destinations offering practical access to most but not all essential facilities. The curtilage of sites in these centres restricts, to an extent, what car parking can be provided. There are likely to be some restrictions on on-street parking and may be some available off-street parking.*
- 4.27 This new approach to transport, with the change from predicting and providing for cars to managing traffic and reducing car dependency, means a new role for parking provision and control. However, whilst maximum standards have been introduced, the document still aims to ensure that development is accompanied by sufficient parking space for private cars and service vehicles to avoid the need for vehicles to park on street and thereby cause congestion, danger and visual intrusion.

Assessment of Parking Standards

- 4.28 The parking standard for the type and location of the proposed new development is provided in **Table 2**.

Type of Development	Residents	Visitors
Houses (1 or 2 Bedrooms)	Maximum 2 spaces	Maximum 1 space per 5 units for all general purpose developments
Houses (3 or more Bedrooms)	Maximum 3 spaces	
Apartments (1 or 2 Bedrooms)	Maximum 2 spaces	
Apartments (3 or more Bedrooms)	Maximum 3 spaces	

Table 2: Parking Standards for private dwellings in Zones 2 to 6

- 4.29 It is proposed to provide a minimum of one designated car parking space per dwelling and therefore, this does not exceed the maximum of 2 space for houses and apartments with 1 to 2 bedrooms or the maximum of 3 space for houses and apartments with 3 or more bedrooms.
- 4.30 The site will also provide off-carriageway parking for visitors at a rate of 1 space per 5 dwellings which therefore equates to 8 additional spaces i.e. 41 divided by 5. A 5.5 metres wide access road allows for the visitor parking to be on-carriageway.
- 4.31 Provision for secure cycle storage will be provided within each dwelling.

Parking and Servicing Arrangements

- 4.32 Sufficient room within the site will be included for all anticipated vehicles to turn and exit in forward gear. It is anticipated that the majority of vehicle movements will be rigid vans and cars however, there may be the odd occasion that an articulated vehicle may visit the site.
- 4.33 The vehicle swept paths of a large refuse vehicle is shown within **Appendix B**.

Highway Trips

- 4.34 This section describes the traffic analysis undertaken to determine the likely effect that the proposed development accessed off the local adopted highway may have on the surrounding highway network. The traffic analysis includes the calculation of the number of vehicle trips associated with the development.
- 4.35 Predict and Provide is a demand-led supply methodology used for Transport Planning purposes, it is a reactive methodology. It forecast a most likely mobility future (within sensitivity-tested bound of uncertainty) and provides a means to accommodate projected demand.
- 4.36 The problem with sticking with the Predict and Provide approach, include: not supporting Net Zero or the increase in work from home provision; under provision of walking and cycling facilities; and the over provision of highway capacity. Its base assumption is that people will maintain past travel behaviour.
- 4.37 The latest thinking in Transport Planning is Decide and Provide, this is a supply-led demand methodology and considered a proactive approach. The methodology starts with deciding on a preferred accessibility future (and the outcomes that represents to a community) and provide a means to move towards it in a way that accommodates the deep uncertainty ahead.
- 4.38 Decide and Provide allows us to adopt a more positive and integrated transport and land use planning approach; achieve more meaningful implementation of a modal hierarchy that prioritises walking, wheeling and cycling; and better support of the decarbonisation of transport. However, there is a deep uncertainty using this methodology such as the changes in consumer behaviour, the increase in the take up of ultra-low emission vehicles, electric and autonomous vehicles, things such as new pandemics and other interruptions and these have to be considered carefully.
- 4.39 As the proposed development is not built, one estimate of trips is based on information extracted from the TRICS® database. TRICS is a database containing details of historic trip generations from sites across Britain for various land uses and provides an estimate of the likely levels of transport generation for the proposed use. The TRICS data depicts what has happened in the past, not what is going to happen in the future. The data results from TRICS is an attempt to project future trip rates based upon the selection criteria assumptions.

4.40 As required by the TRICS Good Practice Guide we have provided information below on the steps taken to filter the database to arrive at the results, so that the LHA receiving the data can fully understand how the data was obtained in the first place.

4.41 Based on the application being for the Proposed Residential Development (Affordable) at Meadow Lane, Hirwaun, CF44 9PT and the development consisting of 8, 1 bedroom apartments and 33 dwellings we have used the following TRICS assessment.

Land use & trip rate selection - Proposed use

4.42 The TRICS selection criteria used are, 03/B - Affordable/Local Authority Houses (use class C3)

- Housing developments where at least 75% of units are non-privately owned. Of the total number of units, 75% must also be houses (sum of "non-split" terraced, detached, semi-detached, bungalows, etc), with no more than 25% of the total units being flats. "Non-privately owned" may be council rented or housing association rented. The TRICS definition of a privately owned dwelling is a dwelling at which residents have any degree of equity, or a dwelling that is owned by a private landlord and rented at market rates. Trip rates are calculated by Site Area, Dwellings, Housing Density, or Total Bedrooms.
- Calculate multi modal trip rates.
- Regions of the development: Exclude Greater London and Ireland.

Primary Filtering

- Trip Rate Parameters: No. of Dwellings
- No. of units: Default (Min 14, Max 280).
- Survey days: Monday – Friday, excludes weekend.
- Locations of the development: Suburban Area.
 - Sub-categories: Residential Zone

Secondary Filtering

- Population < 1 mile: Default (50,001 to 100,000).
- Population < 5 miles: Default (250,001 to 500,000).

4.43 The TRICS output is provided in detail in **Appendix C** and summarised below.

4.44 The trip rate has been calculated based on the proposed total number of affordable dwellings.

4.45 **Table 3** shows the average hourly trips during the day as well as the daily flows that the private dwellings could typically have. These are calculated by multiplying the trip rates produced from the TRICS data with the proposed number of affordable dwellings.

Time Range	Arrivals	Departures	Totals
07:00-08:00	0	4	4
08:00-09:00	5	6	11
09:00-10:00	5	8	13
10:00-11:00	6	9	15
11:00-12:00	5	3	8
12:00-13:00	4	4	8
13:00-14:00	5	6	11
14:00-15:00	5	4	9
15:00-16:00	4	5	9
16:00-17:00	5	1	6
17:00-18:00	6	4	10
18:00-19:00	2	2	4
Daily Trip Rates:	52	56	108

Table 3: Vehicular Trips for affordable dwellings (Proposed Use)

- 4.46 This clearly shows that if the affordable dwellings were occupied, it is estimated that it could attract and produce 108 vehicle movements a day.
- 4.47 To visualise how these trips arrive and depart throughout a typical day, the arrivals and departures are plotted on **Chart 1**. It can be seen that a development of affordable dwellings there are two peak periods in the morning and the afternoon to evening.

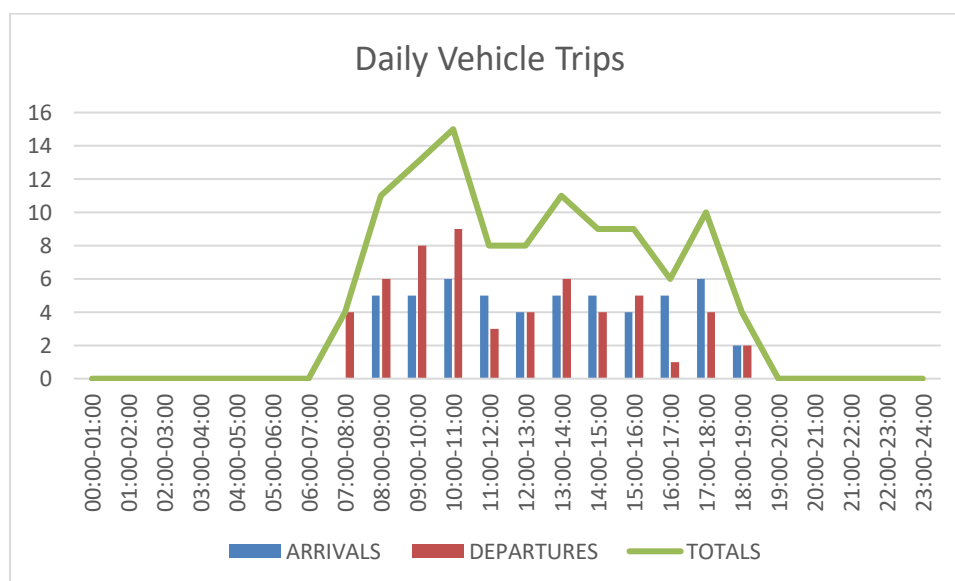


Chart 1: Vehicular Trips for affordable dwellings (Proposed Use)

- 4.48 During the AM peak hour (08:00-09:00) it is anticipated that the proposed development could attract 5 vehicle movements (arrivals) and produce 6 vehicle movements (departures). To put this in context, vehicle movements per hour equates to on average, no more than one movement every six minutes. This is not considered to be significant.
- 4.49 During the PM peak hour (17:00-18:00) it is anticipated that the proposed development could attract 6 vehicle movements (arrivals) and produce 4 vehicle movements (departures). To put this in context, vehicle movements per hour

equates to on average, no more than one movement every six minutes. This is not considered to be significant.

4.50 The TRICS data suggests that, based on typical trip rates for residential, the proposed development has the potential to generate around 52 arrivals and 56 departures per day.

4.51 The development is likely to be at its busiest during the mid-morning and the data suggests that 6 and 9 vehicle movements will be generated during its busiest hour (10:00-11:00).

Mode Share

4.52 The multi modal TRICS data provides information on the suggested number of trips made by various mode as shown in **Table 4**.

Summary of Daily Trip Rates:	ARRIVALS	DEPARTURES	TOTALS
Count Type: TOTAL VEHICLES	52	56	108
Count Type: TAXIS	6	6	12
Count Type: OGVS	1	1	2
Count Type: CYCLISTS	11	11	22
Count Type: VEHICLE OCCUPANTS	71	76	147
Count Type: PEDESTRIANS	47	49	96
Count Type: BUS/TRAM PASSENGERS	25	26	51
Count Type: TOTAL RAIL PASSENGERS	6	7	13
Count Type: PUBLIC TRANSPORT USERS	31	33	64
Count Type: TOTAL PEOPLE	164	174	338
Count Type: CARS	41	43	84
Count Type: LGVS	4	4	8

Table 4: Summary of Daily Trips by Mode (Proposed Use)

4.53 Of the total movements it is anticipated that, 36.6% of the total movements would walk or cycle, 19.7% would use public transport, 22.3% would vehicle share and the remaining 21.3% would be single vehicle occupants. This is represented graphically in **Chart 2**.

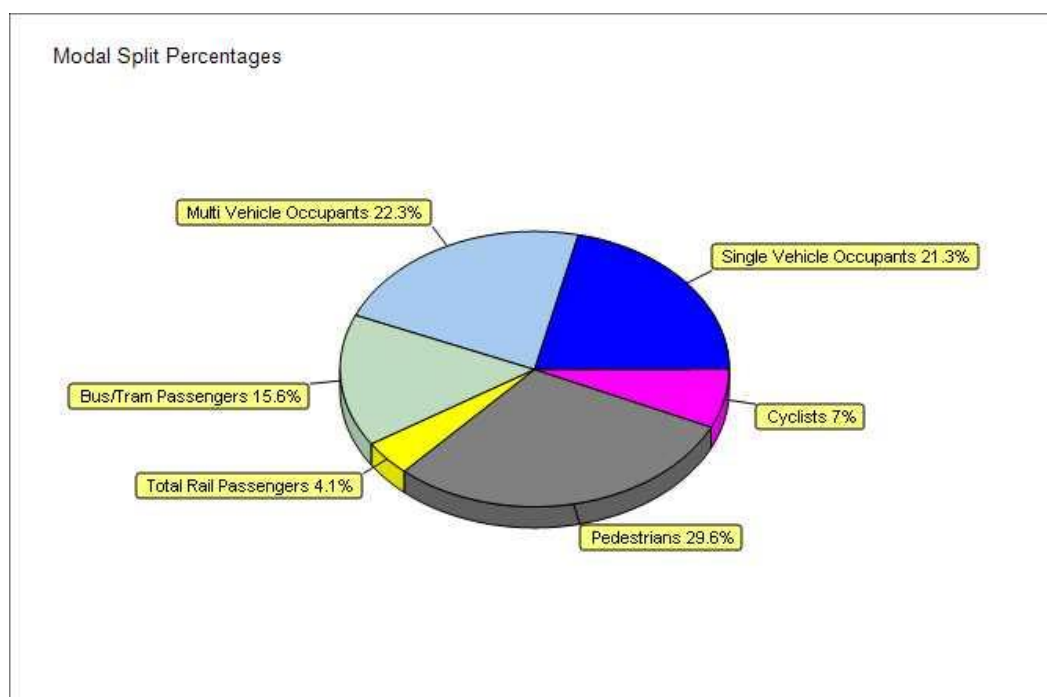


Chart 2: Mode share

Trip Distribution

- 4.54 Trip distribution refers to the estimate of origins and destinations of the new generated trips to and from the development site, which needs to be assigned across the highway network. Route assignment concerns the selection of routes between origin and destination. At this stage, the generated traffic volumes have been distributed and assigned to the adjacent road system.
- 4.55 The residents will use the access onto Meadow Lane to access and depart from the site. It is suggested that the majority of the residents and guests will depart and arrive from the east using the T-junction with Tower Road/Manchester Place or use Bryngelli Close.

Comparison with previous application (21/1491/10)

- 4.56 As mentioned earlier, this application is for affordable housing association dwellings and the previous application (21/1491/10) was for 35 privately owned open market dwellings.
- 4.57 Housing Association sites tend to have lower car ownership than private open market dwellings and this is reflected in the TRICS assessment.
- 4.58 The previous application (21/1491/10) predicted that the 35 privately owned open market dwellings could attract 123 vehicle movements and produce 123 vehicle movements on an average day, i.e. 246 two-way movements.
- 4.59 This application predicts that the 41 housing association affordable dwellings will attract 52 vehicle movements and produce 56 vehicle movements on an average day, i.e. 108 two-way movements.

Conclusion

- 4.60 This section has reviewed the proposed development and the mitigation measures, and it has concluded the following:

- 4.61 **Site Access Scheme and Parking:** A simple T-junction access to the development site is proposed at its connection with Meadow Lane. The internal layout will be designed where pedestrians and cyclists will have priority over motorised traffic.
- 4.62 **Pedestrian and Cycle Facilities and Routes:** The development site is surrounded by good pedestrian facilities, with footways provided as part of the site access junction connecting the site with the local pedestrian network in Hirwaun. A number of footpaths are located within close proximity to the development that provide recreational routes to other areas of Hirwaun.
- 4.63 **Public Transport:** There are several bus stops located within close proximity to the development site providing frequent access to the main town of Aberdare.
- 4.64 **Highway Trips:** The predicted vehicle trips associated with the proposed development can be accommodated on the local highway network without significant impact on road safety or the free flow of vehicles. .
- 4.65 It has been concluded that the highway network can satisfactorily accommodate the predicted traffic flows when the development is operational.

5 SCOPE OF RESIDENTIAL TRAVEL PLAN

Introduction

- 5.1 It is recognised that Travel Plans are an important means of influencing transport to and from a given site. They provide a framework within which to address the important aims of cutting down on the proportion of journeys taken by single occupancy cars and increasing the use of more sustainable transport modes. They have an important role to play the minimisation of the negative impacts of car travel including pollution and congestion.
- 5.2 A Travel Plan (TP) is an important tool for delivering accessible and sustainable communities and can act as a mechanism for ensuring that a sustainable access to a proposed new community is considered from the earliest stages of development.
- 5.3 A Travel Plan will provide a package of measures for:
- Minimising the number and length of car trips generated by a development;
 - Supporting more sustainable travel; and
 - Reducing the need to travel.
- 5.4 The Travel Plan will incorporate a series of objectives and targets that will set up a strategy to achieve the main aims of minimising the adverse impact caused by use of the private car and maximise the use of more sustainable modes of transport.
- 5.5 Travel planning for residential developments has the potential to help achieve more sustainable communities by improving their accessibility. In the past, new housing development has been characterised by high car trip generation. However, better choices about the location and density of new housing combined with the use of TPs should have a real impact on travel patterns and aid progress toward sustainable transport and land use objectives.
- 5.6 Travel behaviour change is more likely to come about when other changes are already happening (i.e. a house move) and therefore targeting new residential developments often provides a timely intervention when travel patterns are more likely to be predisposed to change and travel habits broken.
- 5.7 To this end, a detailed TP will be implemented for the proposed development in order to reduce the impact of the development on the surrounding road network by outlining measures to maximise the use of non-car modes of transport.
- 5.8 The TP for the development has been prepared in accordance with DfT's "Good Practice Guidelines: Delivering Travel Plans through the Planning Process" from April 2009. The Good Practice Guidelines states that Travel Plans should include relevant targets and measures to ensure that these can be achieved, as well as monitoring and management arrangements.

Objectives of the Travel Plan

- 5.9 The main objectives of the TPs are to:
- Reduce the need for unnecessary travel to and from the development and assist those who need to travel to do so by sustainable modes;
 - Achieve a minimum number of additional single occupancy car traffic movements to and from the development;

- Encourage those travelling to and from the development to use public transport, cycle, walk and car share in a safe and secure manner;
- Provide adequately for those with mobility difficulties; and
- Promote healthy lifestyles and sustainable, vibrant local communities by extending the benefits of the TPs through the local area where possible.

Proposed Travel Plan Targets and Measures

- 5.10 Setting targets is essential in assessing whether or not the Travel Plan has been successful and where, if necessary, improvements/amendments could be made. These targets should be SMART:
- Specific;
 - Measurable;
 - Achievable;
 - Realistic; and
 - Time-bound.
- 5.11 The TP then provides a series of measures that will be implemented and will have regard to the following hierarchy:
- Walking;
 - Cycling;
 - Public Transport; and
 - Vehicles.
- 5.12 The TP will combine site specific “hard measures” related to the provision of infrastructure works with “soft measures” such as marketing and promotion. The proposed measures will be appropriate to the site, realistic, and likely to affect travel behaviour. Restrictions related to the modes wished to be limited will be combined with incentives to attract people to more sustainable measures.

Implementation

- 5.13 A Travel Plan Co-ordinator will be appointed for the development in order to oversee and be responsible for the TP, implement the proposed measures and ensure that the information is kept up to date and relevant.
- 5.14 The TP Co-ordinator could be a representative from the developer, an external consultant or a member of the site management committee.
- 5.15 In terms of sources of information, Travel Packs will be provided to each dwelling providing information on local walking/cycling facilities, public transport routes in the area and car sharing initiatives.

Maintaining and Monitoring

- 5.16 The Travel Plan will be an iterative document that will evolve over the years and will require a process of monitoring and review in order to check the effectiveness of the measures that are introduced.
- 5.17 A survey will be conducted a year after first occupation of the full development in order to collect data on travel choices, behaviour for all travel purposes and modes of transport.

- 5.18 Preliminary targets can then be set for the development in discussion with the Travel Plan Officer from the Council. The target is likely to be that single occupancy car trips should be reduced by between 2% and 5% within a five-year period as the estimated base is already low.
- 5.19 Continued monitoring of the travel patterns of the new residents will be achieved by carrying out at least one more travel surveys during the five-year period of implementation of the Travel Plan, recording information of how people are travelling, and, more importantly, what might encourage them to travel differently. After the survey, there should be liaison with the Travel Plan Officer from the Council in order to revise and amend the targets as necessary.

6 SUMMARY AND CONCLUSIONS

Introduction

- 6.1 This document has been prepared in support of an application for a Proposed Residential Development (Affordable) at Meadow Lane, Hirwaun, CF44 9PT consisting of 8 affordable apartments and 33 affordable dwellings.

Existing Conditions

- 6.2 The site is well located in terms of access to the local road network. The main road within the study area is the A465 Heads of the Valleys Road.
- 6.3 There are local bus services serving the local towns and railway station in Hirwaun that services a range of destinations.

Policy Review

- 6.4 The proposed development meets the objectives of national policy, as set out in the Planning Policy Wales (PPW) and supports the aims of current government planning guidance on the integration of land use planning and transport for a number of reasons, inter-alia:
- it encourages walking through the provision of a new footway and road widening on Meadow Lane and a network of footpaths throughout the development;
 - at the local level, the Council's transport policy aspirations build upon national policy by seeking to reduce reliance on the car and encourage the use of non-car modes of transport.
- 6.5 The development proposals accord with the objectives of the adopted Local Plan in that they seek to promote travel on foot, cycle and by public transport for residents and the provision of sufficient on-site parking spaces.
- 6.6 The proposed development would accord with these policies and would also be integrated into the existing built up areas, thus enabling its residents and visitors to readily access other facilities.

Accident Data

- 6.7 We have examined the personal injury accident records in detail for the highway links and junctions in the vicinity of the site for the latest 5 years of available data. This information does not identify any major accident problems on the surrounding highway network.
- 6.8 We have established from the recent personal injury accident history that there is not an identified accident problem along the local highway network in the vicinity of the proposed site.
- 6.9 Evidence shows that no 'black spot' personal injury accidents were recorded on local road links. As such, the development traffic movements associated with the development proposals should not have a detrimental effect on highway safety.

Proposed Development

- 6.10 The proposed development will comprise a residential development of 41 affordable dwellings accessed via a new simple priority T- junction off Meadow Lane. It is considered that this site is located adjacent to complementary land uses.

- 6.11 Access to these facilities by non-motorised modes will be encouraged through the provision of footways. The layout of the development will be designed to minimise the walking distance to any local facilities and public transport infrastructure.
- 6.12 Networks of footways are included throughout the site which connect and integrate various elements of the development. The proposed routes will connect to the existing public rights of way on the periphery of the site providing safe routes to and from the local centre and Primary School.
- 6.13 Parking will be provided in accordance with current standards as indicated by the Council.

Traffic Generation, Distribution and Assignment

- 6.14 It is expected that the proposed development would exhibit higher levels of trips by car than foot, cycle and bus due to its location and the nature of the development.
- 6.15 All vehicles will enter and leave the site via the widened Meadow Lane and the new access junction, and being the shortest distance to the wider highway network.

Impact on the Local Highway Network

- 6.16 During the AM peak hour it is anticipated that the proposed development could attract 5 vehicle movements (arrivals) and produce 6 vehicle movements (departures).
- 6.17 During the PM peak hour it is anticipated that the proposed development could attract 6 vehicle movements (arrivals) and produce 4 vehicle movements (departures).
- 6.18 It has been concluded that the highway network can satisfactorily accommodate the predicted traffic flows when the development is operational.

Highway Access Arrangements

- 6.19 Meadow Lane narrows from 5.5m wide to single carriageway width at the junctions of Bryngelli Close and the Industrial Estate Access. This arrangement was identified as an issue by the local Highway authority officers.
- 6.20 To address this arrangement, third parties land has been purchased and a road widening scheme will be provided as part of off-site highway works. These works will be the subject of a S278 agreement of the Highways Act.

Overall Conclusion

- 6.21 This report has investigated the transport implications of the development proposals for the residential development proposed on Proposed Residential Development (Affordable) at Meadow Lane, Hirwaun, CF44 9PT.
- 6.22 It is considered that this development is appropriate and acceptable in traffic and transportation terms. That the traffic movements associated with the development proposals are currently accommodated on the highway network and do not have a detrimental impact on the free flow of traffic due to the existing volumes of traffic using the local highway network.
- 6.23 It is considered that the application site meets planning policy requirements in terms of being in an appropriate location that is safely accessed and that the impacts of the development on the continued operation and safety of the surrounding highway network would be acceptable.

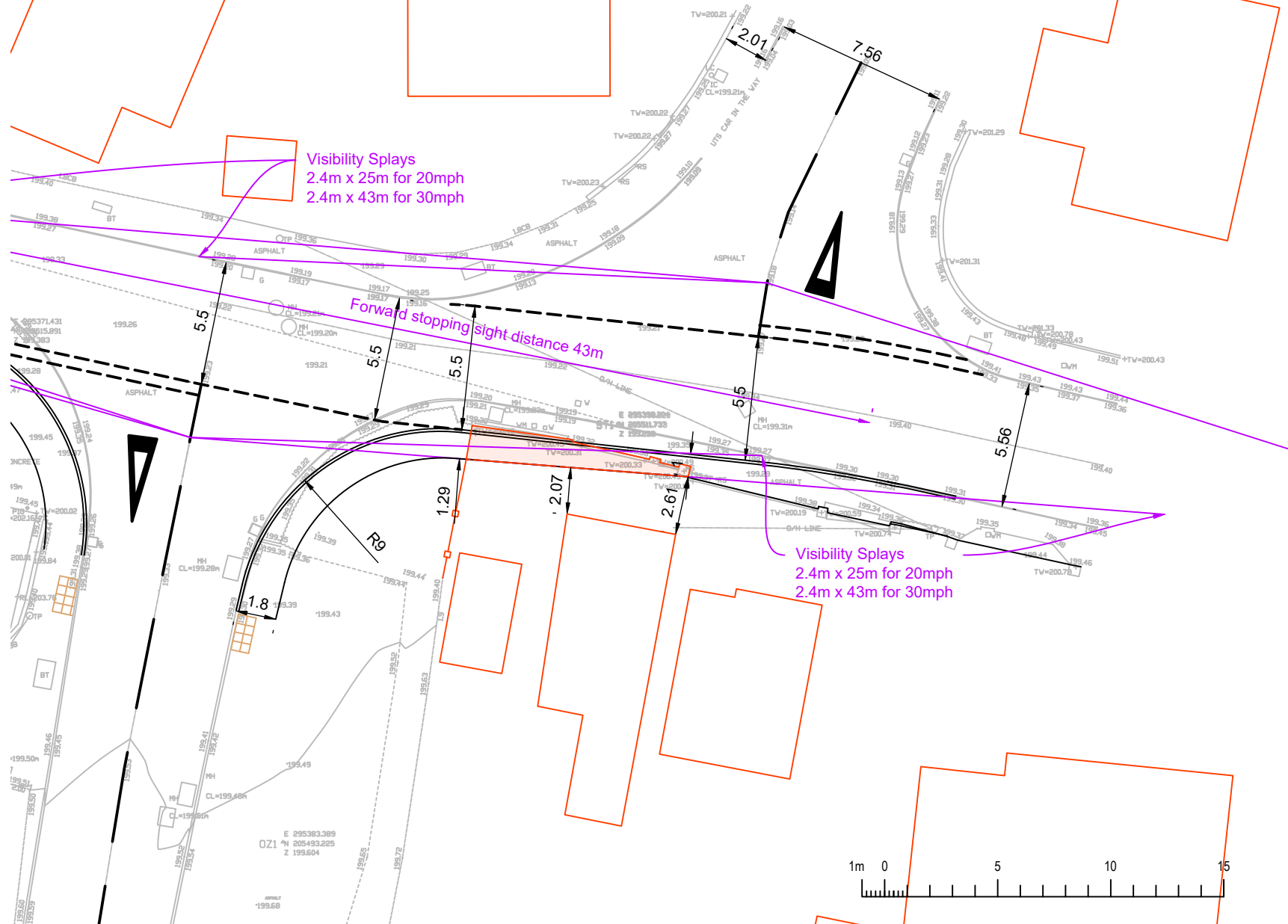
- 6.24 We conclude that, with respect to transport, this development complies with the Welsh Governments development guidance as set out in Planning Policy Wales and is appropriate and acceptable in traffic and transport terms. The Well-being of Future Generations Act put in place four aspects of well-being: economic, social, environmental and cultural and this development assists with meeting these aspects.

Closure

- 6.25 LvW Highways Ltd has prepared this report with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on interpretation of data collected has been accepted in good faith as being accurate and fair.
- 6.26 This report is for the exclusive use of Newydd Housing Association in association with Life Property Group no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from LvW Highways Ltd.
- 6.27 LvW Highways Ltd disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of work.

APPENDIX A

Off-site highway works



General Notes

1. ALL DIMENSIONS ARE INDICATIVE AND IN METRES UNLESS NOTED OTHERWISE.
2. DO NOT SCALE THIS DRAWING, USE FIGURED DIMENSIONS ONLY.
3. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM (AOD) BASED ON THE TOPOGRAPHICAL SURVEY DRAWING SUPPLIED BY THE CLIENT.
4. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER.
5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
6. THE SPECIFICATION IN ALL ASPECTS SHALL BE IN ACCORDANCE WITH THE CURRENT RESIDENTIAL DESIGN GUIDE AND SPECIFICATION IN FORCE WITHIN THE COUNTY AT THE TIME OF CONSTRUCTION.
7. COPYRIGHT OF THIS DRAWING IS RETAINED BY THE ENGINEER AND IT MUST NOT BE REPRODUCED IN WHOLE OR PART WITHOUT WRITTEN CONSENT.

A For Discussion		05.10.2023
No.	Revision/Issue	Date

LvW Highways	
Firm Name and Address Lvw Highways Ltd Blawpore Feltriguen Uchaf Carmarthen SA31 7PP Mob: 07769 220095	

Project Name and Address Bryngelli Ind Est. Meadow Lane, Hirwaun, RCT Road widening scheme at Meadow Lane	
---	--

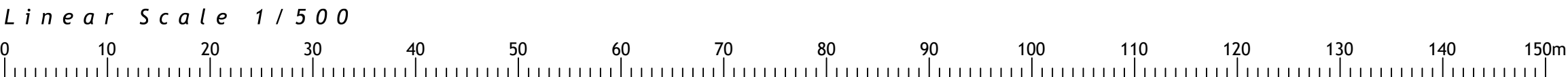
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Date 05.10.2023	
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APPENDIX B

Vehicle swept path



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A

B

C

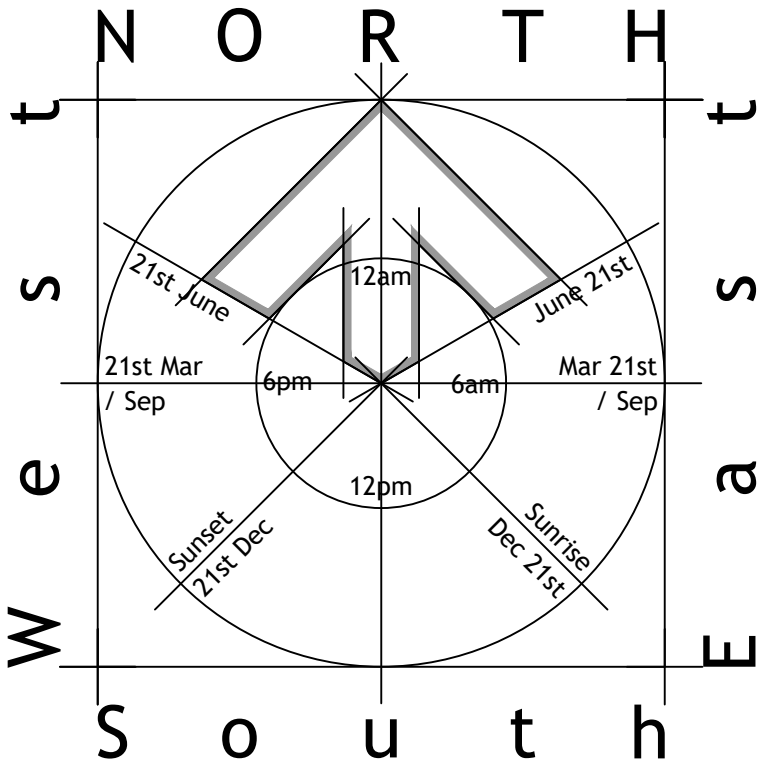
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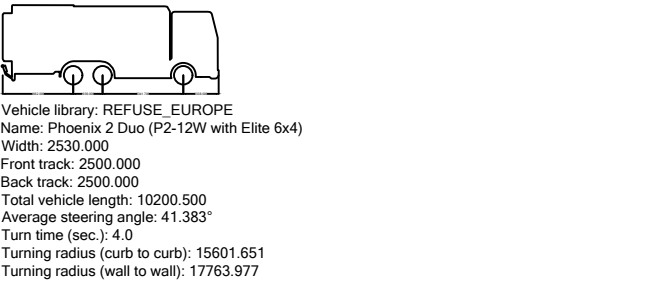
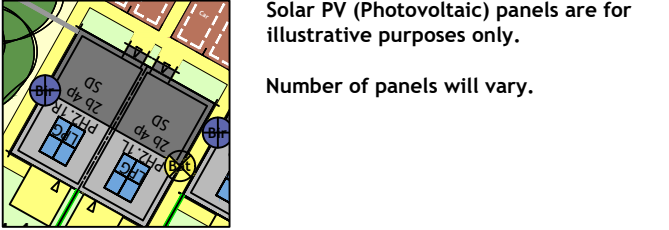
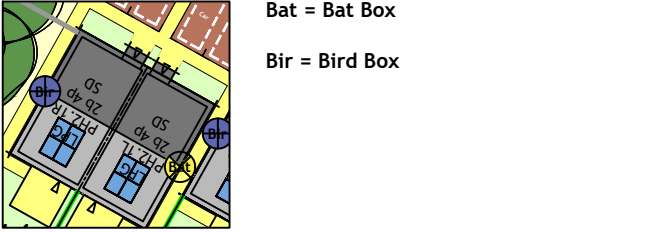
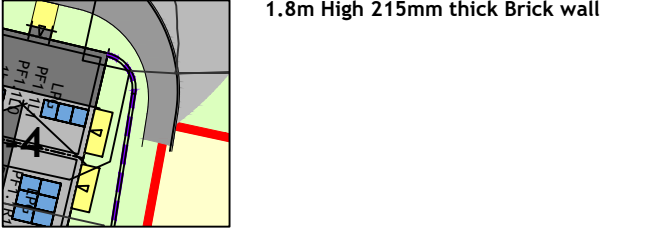
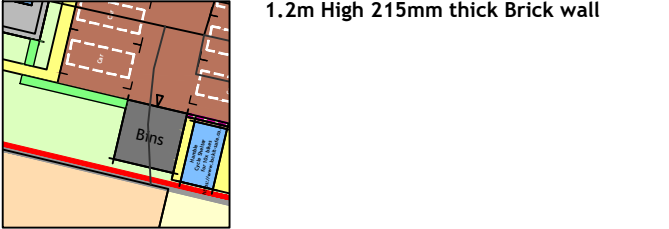
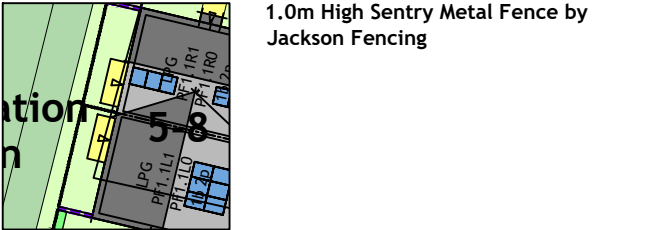
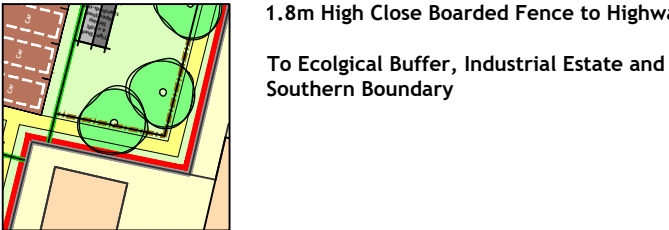
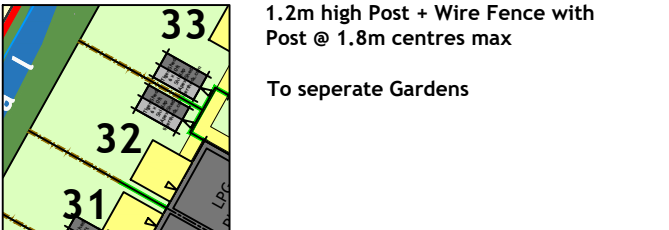
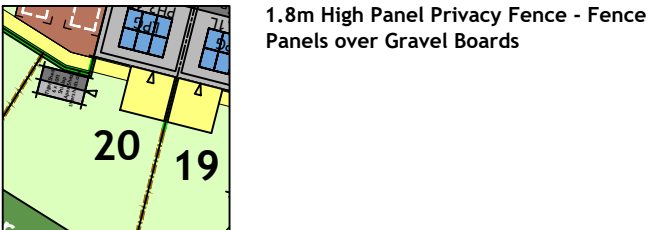
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H



Legend



Notes

Rev Date, Description and Initials

Amendments

Client

Meadow Lane (Hirwaun) Limited
65 Station Road, Port Talbot, SA13 1NW

Project Title

Proposed Residential Development
Land Adjacent to Bryngelli Ind Est,
Meadow Lane, Hirwaun, CF44 9PT

Drawing Title

Proposed
Site Layout Plan

Scale

1:500 @ A1
1:1000 @ A3

Date

June 2023

Drawn

Daryn Parfitt

Checked

Daryn Parfitt



HEPS
Architecture

Urban Design
Architecture
Landscape
Interiors
Sustainable Futures

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Cotswolds | South West | Wales

DO NOT SCALE: Detailed drawings and larger scale drawings take precedence.
DIMENSIONS: The Builder is to check and verify all building and site dimensions, levels and sewer invert levels at connection points before work starts. All dimensions to be checked prior to the placement of materials or the fabrication of work and any discrepancy, omission or error, must be reported immediately.

SPECIFICATION: The Builder is to comply with current Building Legislation, British Standard Specifications, Building Regulations etc. Whether or not specifically stated on this drawing. This drawing must be checked against any structural, geotechnical or other specialist documentation provided. Where the contractor substitutes materials specified by HEPS, these will not be paid for unless agreed in writing.

TREES: Where trees are shown to be retained they should be subject to a full Arboricultural Inspection for safety. Proposed trees must be planted a minimum 5m from buildings and 3m from any utility. A suitable method of foundation is to be provided to accommodate the proposed tree planting.

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Project Number / Building Reference

HA 202305021759 dpp

Drawing Number

2.3

Revision

-

DRAFT

SUBJECT TO APPROVAL

APPENDIX C

TRICS Data

Calculation Reference: AUDIT-452201-231004-1019

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

05 EAST MIDLANDS
LR LEICESTER 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: 38 to 38 (units:)
 Range Selected by User: 14 to 280 (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: 01/01/15 to 22/10/21

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:

Friday 1 days

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

Selected survey types:

Manual count 1 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of 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:

Residential Zone 1

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 X days - Selected
 Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:

C3 1 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

Secondary Filtering selection (Cont.):

Population within 1 mile:

50,001 to 100,000 1 days

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

Population within 5 miles:

250,001 to 500,000 1 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 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 1 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 1 days

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

LIST OF SITES relevant to selection parameters

1	LR-03-B-01 COLEMAN ROAD LEICESTER	SEMI-DETACHED & TERRACED	LEICESTER
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total No of Dwellings:	38	
	Survey date: FRIDAY	22/10/21	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.

TRIP RATE for Land Use 03 - RESIDENTIAL/B - AFFORDABLE/LOCAL AUTHORITY HOUSES

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Total People to Total Vehicles ratio (all time periods and directions): 2.96

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.105	1	38	0.105
08:00 - 09:00	1	38	0.132	1	38	0.158	1	38	0.290
09:00 - 10:00	1	38	0.132	1	38	0.184	1	38	0.316
10:00 - 11:00	1	38	0.158	1	38	0.211	1	38	0.369
11:00 - 12:00	1	38	0.132	1	38	0.079	1	38	0.211
12:00 - 13:00	1	38	0.105	1	38	0.105	1	38	0.210
13:00 - 14:00	1	38	0.132	1	38	0.158	1	38	0.290
14:00 - 15:00	1	38	0.132	1	38	0.105	1	38	0.237
15:00 - 16:00	1	38	0.105	1	38	0.132	1	38	0.237
16:00 - 17:00	1	38	0.132	1	38	0.026	1	38	0.158
17:00 - 18:00	1	38	0.158	1	38	0.105	1	38	0.263
18:00 - 19:00	1	38	0.053	1	38	0.053	1	38	0.106
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.371			1.421			2.792

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.

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Parameter summary

Trip rate parameter range selected: 38 - 38 (units:)
Survey date range: 01/01/15 - 22/10/21
Number of weekdays (Monday-Friday): 1
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 shown. 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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL TAXIS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.000	1	38	0.000
08:00 - 09:00	1	38	0.026	1	38	0.026	1	38	0.052
09:00 - 10:00	1	38	0.026	1	38	0.026	1	38	0.052
10:00 - 11:00	1	38	0.026	1	38	0.026	1	38	0.052
11:00 - 12:00	1	38	0.000	1	38	0.000	1	38	0.000
12:00 - 13:00	1	38	0.000	1	38	0.000	1	38	0.000
13:00 - 14:00	1	38	0.026	1	38	0.026	1	38	0.052
14:00 - 15:00	1	38	0.026	1	38	0.026	1	38	0.052
15:00 - 16:00	1	38	0.000	1	38	0.000	1	38	0.000
16:00 - 17:00	1	38	0.000	1	38	0.000	1	38	0.000
17:00 - 18:00	1	38	0.026	1	38	0.026	1	38	0.052
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.156			0.156			0.312

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL OGVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.000	1	38	0.000
08:00 - 09:00	1	38	0.000	1	38	0.000	1	38	0.000
09:00 - 10:00	1	38	0.026	1	38	0.000	1	38	0.026
10:00 - 11:00	1	38	0.000	1	38	0.026	1	38	0.026
11:00 - 12:00	1	38	0.000	1	38	0.000	1	38	0.000
12:00 - 13:00	1	38	0.000	1	38	0.000	1	38	0.000
13:00 - 14:00	1	38	0.000	1	38	0.000	1	38	0.000
14:00 - 15:00	1	38	0.000	1	38	0.000	1	38	0.000
15:00 - 16:00	1	38	0.000	1	38	0.000	1	38	0.000
16:00 - 17:00	1	38	0.000	1	38	0.000	1	38	0.000
17:00 - 18:00	1	38	0.000	1	38	0.000	1	38	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.026			0.052

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.026	1	38	0.026
08:00 - 09:00	1	38	0.000	1	38	0.053	1	38	0.053
09:00 - 10:00	1	38	0.000	1	38	0.053	1	38	0.053
10:00 - 11:00	1	38	0.000	1	38	0.000	1	38	0.000
11:00 - 12:00	1	38	0.026	1	38	0.053	1	38	0.079
12:00 - 13:00	1	38	0.053	1	38	0.026	1	38	0.079
13:00 - 14:00	1	38	0.000	1	38	0.000	1	38	0.000
14:00 - 15:00	1	38	0.053	1	38	0.026	1	38	0.079
15:00 - 16:00	1	38	0.026	1	38	0.000	1	38	0.026
16:00 - 17:00	1	38	0.053	1	38	0.000	1	38	0.053
17:00 - 18:00	1	38	0.079	1	38	0.053	1	38	0.132
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.290			0.290			0.580

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL VEHICLE OCCUPANTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.132	1	38	0.132
08:00 - 09:00	1	38	0.105	1	38	0.184	1	38	0.289
09:00 - 10:00	1	38	0.105	1	38	0.342	1	38	0.447
10:00 - 11:00	1	38	0.158	1	38	0.263	1	38	0.421
11:00 - 12:00	1	38	0.158	1	38	0.105	1	38	0.263
12:00 - 13:00	1	38	0.184	1	38	0.132	1	38	0.316
13:00 - 14:00	1	38	0.132	1	38	0.184	1	38	0.316
14:00 - 15:00	1	38	0.211	1	38	0.105	1	38	0.316
15:00 - 16:00	1	38	0.184	1	38	0.184	1	38	0.368
16:00 - 17:00	1	38	0.184	1	38	0.026	1	38	0.210
17:00 - 18:00	1	38	0.211	1	38	0.105	1	38	0.316
18:00 - 19:00	1	38	0.105	1	38	0.105	1	38	0.210
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.737			1.867			3.604

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL PEDESTRIANS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.105	1	38	0.105
08:00 - 09:00	1	38	0.053	1	38	0.237	1	38	0.290
09:00 - 10:00	1	38	0.079	1	38	0.105	1	38	0.184
10:00 - 11:00	1	38	0.079	1	38	0.053	1	38	0.132
11:00 - 12:00	1	38	0.053	1	38	0.105	1	38	0.158
12:00 - 13:00	1	38	0.079	1	38	0.105	1	38	0.184
13:00 - 14:00	1	38	0.132	1	38	0.105	1	38	0.237
14:00 - 15:00	1	38	0.263	1	38	0.158	1	38	0.421
15:00 - 16:00	1	38	0.184	1	38	0.158	1	38	0.342
16:00 - 17:00	1	38	0.132	1	38	0.079	1	38	0.211
17:00 - 18:00	1	38	0.079	1	38	0.026	1	38	0.105
18:00 - 19:00	1	38	0.053	1	38	0.026	1	38	0.079
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.186			1.262			2.448

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL BUS/TRAM PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.079	1	38	0.079
08:00 - 09:00	1	38	0.000	1	38	0.184	1	38	0.184
09:00 - 10:00	1	38	0.026	1	38	0.079	1	38	0.105
10:00 - 11:00	1	38	0.000	1	38	0.000	1	38	0.000
11:00 - 12:00	1	38	0.053	1	38	0.026	1	38	0.079
12:00 - 13:00	1	38	0.026	1	38	0.053	1	38	0.079
13:00 - 14:00	1	38	0.079	1	38	0.053	1	38	0.132
14:00 - 15:00	1	38	0.079	1	38	0.079	1	38	0.158
15:00 - 16:00	1	38	0.211	1	38	0.053	1	38	0.264
16:00 - 17:00	1	38	0.053	1	38	0.026	1	38	0.079
17:00 - 18:00	1	38	0.053	1	38	0.026	1	38	0.079
18:00 - 19:00	1	38	0.053	1	38	0.000	1	38	0.053
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.633			0.658			1.291

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TOTAL RAIL PASSENGERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.000	1	38	0.000
08:00 - 09:00	1	38	0.000	1	38	0.132	1	38	0.132
09:00 - 10:00	1	38	0.000	1	38	0.026	1	38	0.026
10:00 - 11:00	1	38	0.000	1	38	0.000	1	38	0.000
11:00 - 12:00	1	38	0.026	1	38	0.000	1	38	0.026
12:00 - 13:00	1	38	0.026	1	38	0.000	1	38	0.026
13:00 - 14:00	1	38	0.000	1	38	0.026	1	38	0.026
14:00 - 15:00	1	38	0.026	1	38	0.000	1	38	0.026
15:00 - 16:00	1	38	0.053	1	38	0.000	1	38	0.053
16:00 - 17:00	1	38	0.026	1	38	0.000	1	38	0.026
17:00 - 18:00	1	38	0.000	1	38	0.000	1	38	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.157			0.184			0.341

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.079	1	38	0.079
08:00 - 09:00	1	38	0.000	1	38	0.316	1	38	0.316
09:00 - 10:00	1	38	0.026	1	38	0.105	1	38	0.131
10:00 - 11:00	1	38	0.000	1	38	0.000	1	38	0.000
11:00 - 12:00	1	38	0.079	1	38	0.026	1	38	0.105
12:00 - 13:00	1	38	0.053	1	38	0.053	1	38	0.106
13:00 - 14:00	1	38	0.079	1	38	0.079	1	38	0.158
14:00 - 15:00	1	38	0.105	1	38	0.079	1	38	0.184
15:00 - 16:00	1	38	0.263	1	38	0.053	1	38	0.316
16:00 - 17:00	1	38	0.079	1	38	0.026	1	38	0.105
17:00 - 18:00	1	38	0.053	1	38	0.026	1	38	0.079
18:00 - 19:00	1	38	0.053	1	38	0.000	1	38	0.053
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.790			0.842			1.632

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 2.96

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.342	1	38	0.342
08:00 - 09:00	1	38	0.158	1	38	0.789	1	38	0.947
09:00 - 10:00	1	38	0.211	1	38	0.605	1	38	0.816
10:00 - 11:00	1	38	0.237	1	38	0.316	1	38	0.553
11:00 - 12:00	1	38	0.316	1	38	0.289	1	38	0.605
12:00 - 13:00	1	38	0.368	1	38	0.316	1	38	0.684
13:00 - 14:00	1	38	0.342	1	38	0.368	1	38	0.710
14:00 - 15:00	1	38	0.632	1	38	0.368	1	38	1.000
15:00 - 16:00	1	38	0.658	1	38	0.395	1	38	1.053
16:00 - 17:00	1	38	0.447	1	38	0.132	1	38	0.579
17:00 - 18:00	1	38	0.421	1	38	0.211	1	38	0.632
18:00 - 19:00	1	38	0.211	1	38	0.132	1	38	0.343
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.001			4.263			8.264

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
 MULTI-MODAL CARS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.105	1	38	0.105
08:00 - 09:00	1	38	0.105	1	38	0.132	1	38	0.237
09:00 - 10:00	1	38	0.053	1	38	0.158	1	38	0.211
10:00 - 11:00	1	38	0.105	1	38	0.105	1	38	0.210
11:00 - 12:00	1	38	0.132	1	38	0.079	1	38	0.211
12:00 - 13:00	1	38	0.105	1	38	0.105	1	38	0.210
13:00 - 14:00	1	38	0.079	1	38	0.105	1	38	0.184
14:00 - 15:00	1	38	0.105	1	38	0.079	1	38	0.184
15:00 - 16:00	1	38	0.079	1	38	0.105	1	38	0.184
16:00 - 17:00	1	38	0.132	1	38	0.026	1	38	0.158
17:00 - 18:00	1	38	0.132	1	38	0.079	1	38	0.211
18:00 - 19:00	1	38	0.053	1	38	0.053	1	38	0.106
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.080			1.131			2.211

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/B - AFFORDABLE/LOCAL AUTHORITY HOUSES
MULTI-MODAL LGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	1	38	0.000	1	38	0.000	1	38	0.000
08:00 - 09:00	1	38	0.000	1	38	0.000	1	38	0.000
09:00 - 10:00	1	38	0.026	1	38	0.000	1	38	0.026
10:00 - 11:00	1	38	0.026	1	38	0.053	1	38	0.079
11:00 - 12:00	1	38	0.000	1	38	0.000	1	38	0.000
12:00 - 13:00	1	38	0.000	1	38	0.000	1	38	0.000
13:00 - 14:00	1	38	0.026	1	38	0.026	1	38	0.052
14:00 - 15:00	1	38	0.000	1	38	0.000	1	38	0.000
15:00 - 16:00	1	38	0.026	1	38	0.026	1	38	0.052
16:00 - 17:00	1	38	0.000	1	38	0.000	1	38	0.000
17:00 - 18:00	1	38	0.000	1	38	0.000	1	38	0.000
18:00 - 19:00	1	38	0.000	1	38	0.000	1	38	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.104			0.105			0.209

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.