



CAEWERN HOUSE

Heol Illtyd, Neath


TRANSPORT STATEMENT

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Control Sheet

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1 INTRODUCTION

1.1 Introduction

- 1.1.1 Calibro has been appointed by Linc Cymru (herein referred to as “the Applicant”) to provide an appraisal of the traffic and transport implications associated with a proposed redevelopment of Caewern House at Heol Illtyd, Neath for a residential scheme comprising 36 apartments.
- 1.1.2 This report has been prepared with the purpose of providing the Local Planning and Highway Authorities with an evidence base that establishes the magnitude of the transport-related development effects. The assessment process has been undertaken with due regard to best practice and current policy, particularly in respect of Planning Policy Wales (PPW). The report has also been drafted in the context of the Active Travel Wales Act, which makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel.
- 1.1.3 Further details of these relevant policies, and their relationship to the proposed development are set out in later sections of this report.

1.2 Site Context

- 1.2.1 The site is located approximately 1.5-kilometres north-east of Neath town centre, circa 10-kilometres to the north-east of Swansea and 8-kilometres north of Port Talbot. The site is located approximately 1.5-kilometres of the A465 whilst the M4 Motorway is within 4.0-kilometres of the site.
- 1.2.2 The application site is show in its strategic context below.

Figure 1.1 Strategic Site Context



- 1.2.3 The site is currently occupied by Caewern House, a large property setback roughly 120-metres from Dwr-Y-Felin Road. Vehicular access is currently via a privately owned single carriageway lane that connects to Dwr-Y-Felin Road at a simple priority T-junction.
- 1.2.4 In a localised context, the western boundary of the site delineated by the curtilage of dwellings fronting onto Heol Illtyd, whilst Dwr-Y-Felin Road abuts the southern boundary. Caewern Lodge and the rear garden boundaries of properties fronting Twyn Teg delineate the eastern limits of the site, whilst a public footpath connecting Twyn Teg and Heol Illtyd abuts the northern extents.
- 1.2.5 The site area is shown indicatively in its local context below.

2 DEVELOPMENT PROPOSALS

2.1 Application Details

2.1.1 A detailed description of the development is provided in the planning statement prepared by Amity Planning, although the salient elements of the proposed scheme in respect of traffic and transport may be summarised as follows:

- The proposals comprise of the development of 36 apartments;
- An improved vehicle access road that connects to the local highway network via an improved priority junction onto Dwr-Y-Felin Road;
- Improved pedestrian and cycle access to provide permeable connections to the existing Active Travel network. Provision of a level surface carriageway with different block colouring to differentiate pedestrian areas; and
- The proposals are accompanied by 38no. car parking spaces, which reflects a ratio of approximately 1 space per dwelling.

2.1.2 The proposed development is shown in the figure below and to scale at Appendix A.

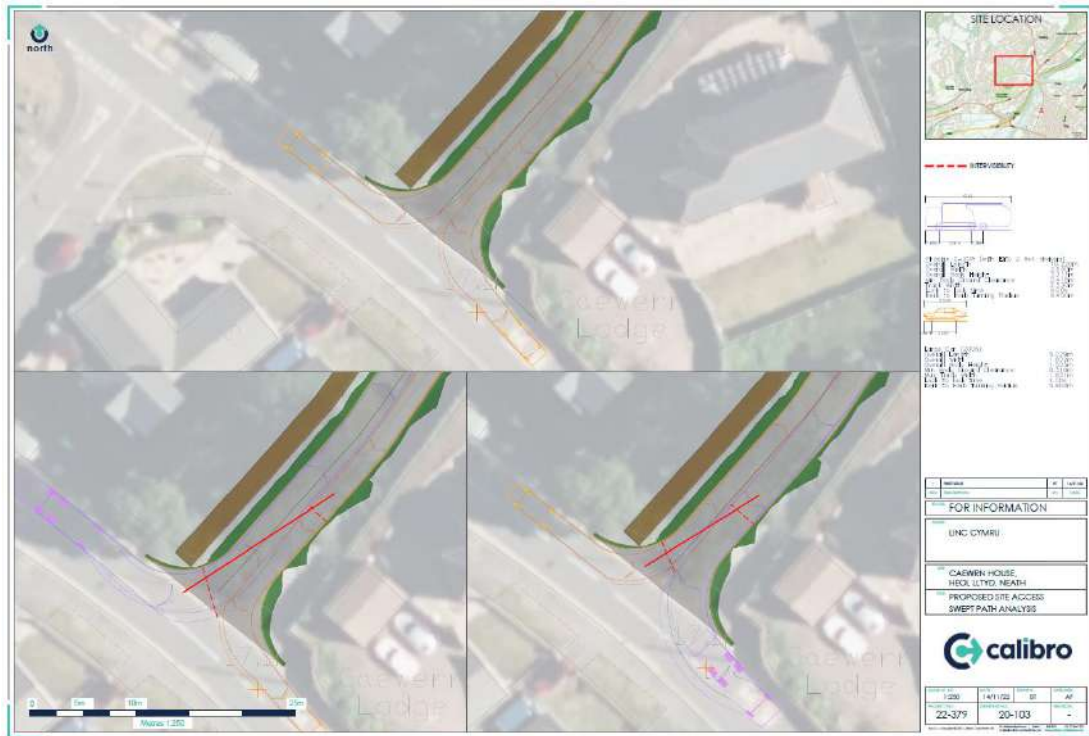
Figure 2.1 Illustrative Masterplan



2.2.5 The proposed junction arrangements have been subject to swept-path analyses assuming a 10-metre refuse collection vehicle – as required by local guidance. The results demonstrate that safe and efficient access can be provided, even by the largest of the reasonably anticipated vehicle types considered likely to visit the site.

2.2.6 The results are shown below and to scale at [Appendix C](#).

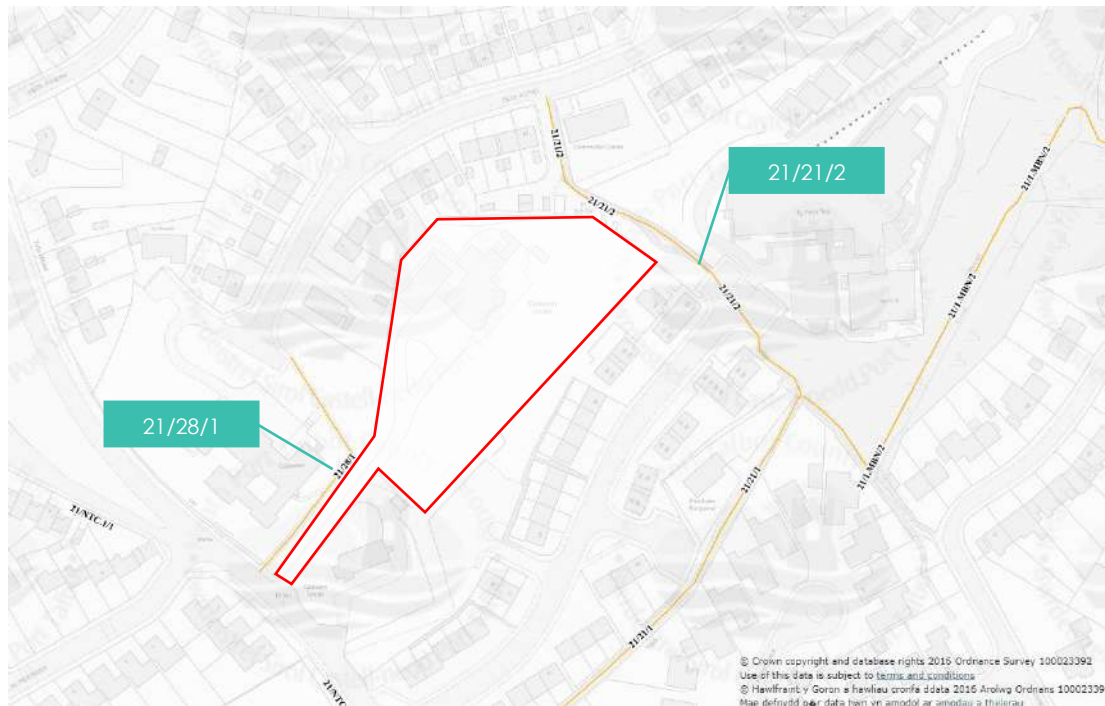
Figure 2.3 Swept-Path Analysis - Site Access



2.3 Pedestrian Access

2.3.1 As briefly identified above, pedestrian access to the site is proposed via the existing public right of way (ref: 21/28/1) that is located immediately adjacent to the proposed access road, as shown below for context.

Figure 2.4 Public Rights of Way



- 2.3.2 As part of the proposals, a small spur will be provided from the main development area to connect onto the existing footway network, enabling pedestrians to access existing bus stops and services located on Dwr-Y-Felin Road to the south, and the existing residential community to the north via Heol-lltyd. In this way, the proposals would become integrated with the existing community.
- 2.3.3 Furthermore, it is noted that the improvements to the proposed access would necessitate the removal of existing trees and underlying scrub that currently separate the existing access lane from the public footpath.
- 2.3.4 Taken together with the increased levels of activity along the new access road – with new residents travel to and from their dwellings - natural surveillance of the existing footway will be significantly improved, with associated improvements in perceived safety and security – addressing an existing issue identified by early consultation with the local community.
- 2.3.5 As recognised later in this report, the pedestrian footway located on the southern side of Dwr-Y-Felin Road is an 'Existing Route' under the Active Travel Wales Act, such that the proposed access strategy enables a direct, safe and convenient connection to an active travel route - thereby supporting and aligning with Neath Port Talbot's overall Active Travel objectives.

2.3.6 Within the site, a level surface design approach has been adopted to create a sense of place and to encourage slower traffic speeds. Pedestrian routes would be delineated by a contrasting surface colour/material to ensure pedestrians have a sense of security and priority to increase the propensity for journeys to be undertaken by active travel modes in favour of private car travel.

2.4 Cycle Access

2.4.1 Cyclists will be able to access the site via the proposed access road. The design of the road will be suitable for cyclists and will be lightly trafficked with slower vehicle speeds. Cyclists will then be able to access the wider network via Dwr-Y-Felin Road.

2.4.2 With reference to the Neath and Port Talbot Supplementary Planning Guidance (SPD) document entitled "Parking Standards", cycle parking should be provided within the curtilage of dwellings and considered within the dwelling design. Where external cycling parking is provided, cycle stands should be provided at one space per five bedrooms, which based on the development quantum proposed equates to 8 spaces.

2.5 Internal Servicing Arrangements

2.5.1 To ensure all units are within the required 30-metre distance of a bin store, as per Manual for Streets, the proposed development includes two bin store locations.

2.5.2 A 10-metre refuse vehicle has been tracked within the site, and this swept-path analysis confirms that all required movements and manoeuvres can be accommodated within the proposed design.

2.5.3 This is shown in the figure below and to scale at [Appendix D](#).

Figure 2.5 Internal Layout Swept-path Analysis



2.6 Vehicle Parking Provision

- 2.6.1 Neath Port Talbot County Borough Council provides guidance in the Supplementary Planning Guidance (SPD) document entitled "Parking Standards", issued as part of the Council's Local Development Plan.
- 2.6.2 On this basis, the relevant policy identifies a maximum of 1 space per bedroom as well as 1 visitor space for every 5 dwellings. In this context, the maximum permissible provision for the proposed development would be 45 spaces. The proposed development includes a total of 38 spaces, including two disabled bays, and is therefore a policy compliant level of parking.
- 2.6.3 For the avoidance of doubt, the policy also notes that parking spaces should measure 4.8 x 2.6-metres, and this has been incorporated with the proposals.
- 2.6.4 The spaces are shown on the Masterplan in Figure 2-4.

2.7 Section Conclusion

- 2.7.1 The development proposed will facilitate access to the site by all modes, and the good quality walking and cycling connectivity will encourage Active Travel mode choice wherever possible.

2.7.2 The proposed vehicular access can accommodate all appropriate vehicle types safety, with the appropriate visibility splays achievable at the proposed access junction.

3 EXISTING TRAVEL CREDENTIALS

3.1 Introduction

- 3.1.1 This section of the report describes and critiques the availability and quality of the existing transport facilities accessible to the application site.
- 3.1.2 The non-car accessibility credentials of the application site have been considered in this section of the report by way of GIS-based modelling, using centralised travel networks and public transport data to identify the geographical catchment of each mode and the amenities located therein.

Planning Policy Wales

- 3.1.3 Planning Policy Wales (PPW) Edition 11 (2021) sets out the land use planning policies of the Welsh Government. The overall objective is to ensure the planning system contributes towards the delivery of sustainable development and achieving sustainable places.
- 3.1.4 Paragraph 4.1.8 of PPW sets out that “The Welsh Government is committed to reducing reliance on the private car and supporting a modal shift to walking, cycling, and public transport. Delivering this objective will make an important contribution to decarbonisation, improving air quality, increasing physical activity and improving the health of the nation.
- 3.1.5 It is noteworthy that the principle of the proposed residential development is complimentary to the document, which goes on to state that the planning system should facilitate developments which “are sited in the right locations, where they can be easily accessed by sustainable modes of travel and without the need for a car”. This section of the report demonstrates how the proposed development supports these goals.

Active Travel Wales Act

- 3.1.6 In support of Planning Policy Wales, in September 2014 the Welsh Government introduced the Active Travel (Wales) Act which makes it a legal requirement for local authorities in Wales to map and plan for suitable routes for active travel.
- 3.1.7 The first stage of the act requires Local Authorities to produce Existing Route Maps (ERMs) to show existing routes within the district that the council considers suitable for Active Travel uses. These ERMs do not, therefore, show all routes within an area, focussing only on the most suitable and attractive options that would likely encourage Active Travel journey choices.

- 3.1.8 The second stage of the act requires Local Authorities to identify potential new routes or improvements to existing routes within the district. The Authority can apply for funding from Welsh Government for upgrades and the delivery of new routes, but this can only be undertaken if the routes are identified through the process described above.
- 3.1.9 The location of these routes, therefore, is important to establish in the context of the development proposals.
- 3.1.10 Providing connections to these routes ensures future residents of the development will be encouraged to utilise Active Travel modes to and from the site, based on the knowledge that these routes will be of a high quality.
- 3.1.11 Relevant routes in the context of the development are covered in more detail in the following section to assess how future residents of the site may benefit from the connections provided as part of the local Active Travel network.
- 3.1.12 For reference, the existing routes in the vicinity of the site are shown in the figure below, with red lines representing pedestrian routes and green representing cycle routes.

Figure 3.1: Existing Active Travel Routes



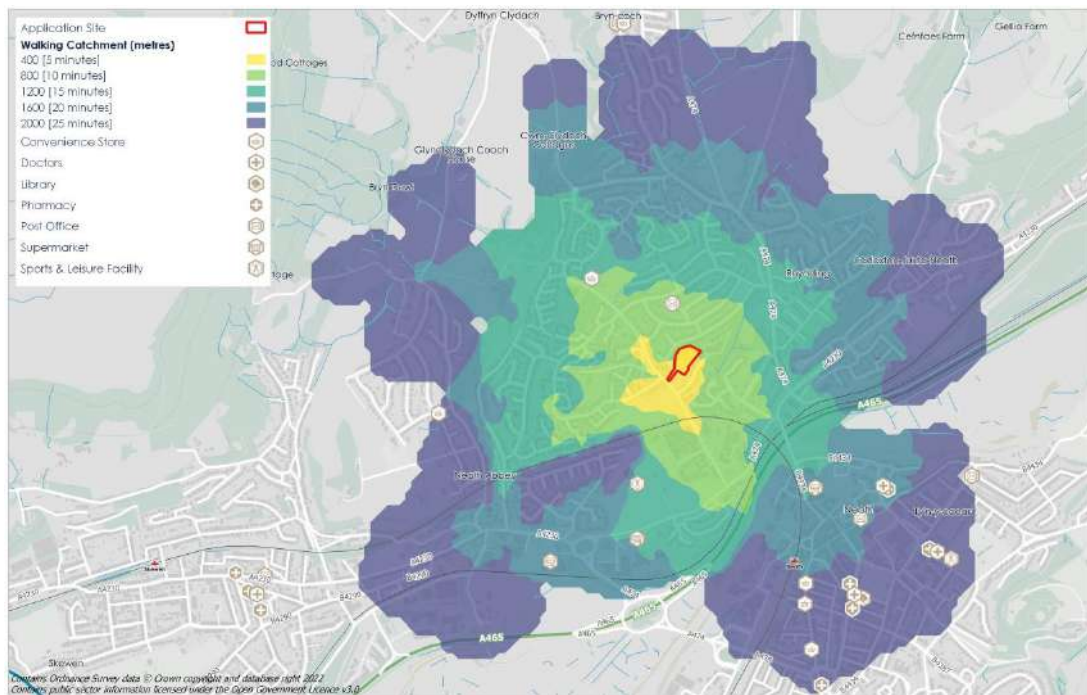
3.2 Accessibility by Foot

- 3.2.1 The application site is connected by via an extensive and well-maintained network of footways that provide connectivity to the nearby bus stops and local facilities which future residents will likely need to access on a daily basis.

- 3.2.2 It is noted that the proposed development will connect to, and improve, the existing public right of way (21/28/1) which provides onward connections to the local footway network.
- 3.2.3 The local network in the vicinity of the site includes continuous footways providing access into Neath to the south and Rhydding to the north. The residential nature of the area means that there is a wide-ranging network of footways throughout, providing good connectivity with the facilities in the vicinity of the site.
- 3.2.4 Public right of way 21/28/1 connects to the local footway network immediately adjacent to the proposed access junction with Dwr-Y-Felin Road. To the north of the proposed access junction, Dwr-Y-Felin Road benefits from footways on both sides of the carriageway. These are of a high quality, measuring at least 2-metres on the eastern side, and approximately 3-metres on the western side.
- 3.2.5 The footway on the western side of Dwr-Y-Felin Road is included within the Existing Route Map network (as INM-PEA-P011) as described at paragraph 3.1.5, with reference to the Active Travel Wales act. This footway has recently been upgraded, further enhancing pedestrian connectivity in the area. Furthermore, the routes inclusion within the Existing Route Network means that it could be subject to further upgrades in the future, which would only enhance future connectivity for residents, given its proximity to the site.
- 3.2.6 Immediately to the north of the proposed access junction with Dwr-Y-Felin Road is a crossing that comprises of dropped kerbs and tactile paving. The upgraded footway included new surfacing and tactile paving at the crossing point. Pedestrians accessing the site can use this crossing to easily travel to and from the site, and easily access locations to the west of Dwr-Y-Felin Road including northbound bus stops.
- 3.2.7 To the south of the site access, the route INM-PEA-P011 continues to the south on the western side of Dwr-Y-Felin Road. There are no continuous footways on the eastern side of the carriageway, but intermittent provision is supported by crossing points throughout the length of the route up to the junction with Neath Abbey Road, approximately 650-metres to the south.
- 3.2.8 Planning Policy Wales (PPW) does not define a catchment within which travel by foot is considered feasible and the suggest maximum desirable walk distance of 2-kilometres, advocated within the document entitled '*Guidelines for Providing for Journeys on Foot*' has been adopted for this report. The guidance is set out below for reference:
- Maximum desirable distance to nearest bus stop = 400-metres.
 - Maximum desirable distance to Town Centre = 800-metres.
 - Maximum desirable distance to food shopping = 1-kilometre.
 - Maximum desirable distance to all other uses = 2-kilometres.

- 3.2.9 Given its location within relatively close proximity to Neath town centre the site is located in a 2-kilometre walking distance of several facilities and amenities. The majority of these are located to the south in and around Neath's main commercial area.
- 3.2.10 The accessible areas within these thresholds have been identified by way of a GIS-based accessibility model which has been constructed with reference to the available travel infrastructure. This is illustrated in Figure 3.2 below, and also to scale at [Appendix E](#).

Figure 3.2 Walking Catchment

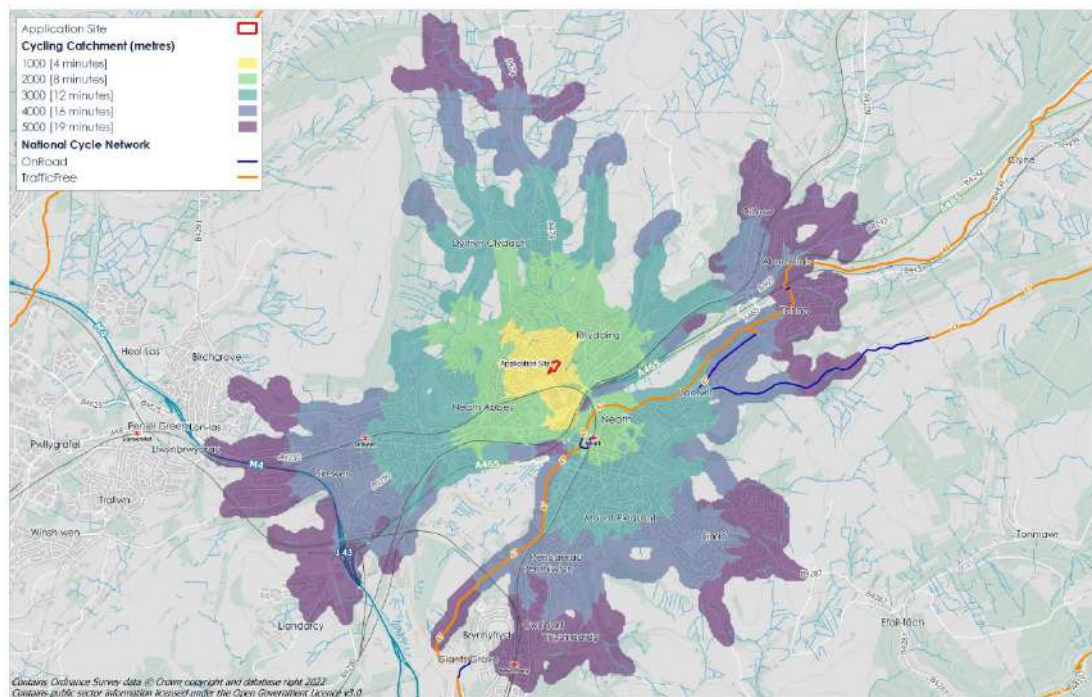


- 3.2.11 The above catchment demonstrates that future residents of the site would be able to access the entirety of Neath and the numerous amenities therein. The nearest bus stops are located immediately adjacent to the proposed site access onto Dwr-Y-Felin Road.
- 3.2.12 In addition, residents will be able to easily walk to a neighbourhood centre and Waunceirch Primary School, located on Dwr-Y-Felin Road approximately 650-metres to the north of the site.
- 3.2.13 The application site is therefore considered to afford high quality opportunities to travel by foot to a wide range of destinations, including Neath Town Centre and the railway station to the south. Therefore, the proposals comply with sustainability principles of Planning Policy Wales document.

3.3 Accessibility by Bike

- 3.3.1 The industry-accepted distance over which cycling is feasible for most of the population is 5-kilometres, although it is noted that there will always be a part of the population that have a natural propensity to cycle and will be willing and able to travel further by bike.
- 3.3.2 With regard to dedicated cycle infrastructure, it is noted that National Cycle route 47 is located 1.35-kilometres to the south-east of the site, providing a predominantly traffic free route, with onward accessibility provided to both Swansea and Port Talbot via NCN Route 4. This route is also included within the Existing Route Mapping network (as INM-NEA-C017), with reference to the Active Travel Wales act.
- 3.3.3 In addition, Route INM-NEA-C001 has been identified as a future connection that would link Neath and Pontardawe, a town located approximately 5.5-kilometres to the north of the site. Whilst the alignment of this route has not yet been determined, the indicative route appears to pass in the vicinity of the site. This future route would benefit residents of the site should it be delivered, potentially enhancing the connectivity between the development to both Neath town centre and other destinations further afield.

Figure 3.3 Cycling Catchment



- 3.3.4 The analysis presented above illustrates that all of the town of Neath is accessible by bike, including the town centre and railway station. In addition, several outlying villages and settlements, including Bryncoch to the north, Cilfrew and Tonna in the east, Briton Ferry to the south and Skewen to the West are all accessible from the site by bike.
- 3.3.5 In addition, further evidence of the suitability of the area for cycling can be seen in the Strava Heat Map, set out in Figure 3-4. This demonstrates that many of the roads in the vicinity of the site are frequently used by cyclists in particular Dwr-Y-Felin Road immediately adjacent to the site.

Figure 3-4: Strava Heatmap



- 3.3.6 With reference to the analysis presented, the application site is located where access by bicycle provides a realistic alternative to car travel for some journeys. Given the above and the facilities identified, the proposed development is acceptable in the context of its credentials to encourage journeys by bike and therefore complies with the sustainability principles of Planning Policy Wales document.

3.4 Accessibility by Bus

- 3.4.1 It is accepted that public transport accessibility comprises two principal aspects:

- Access to public transport which is concerned with how far the development is from the public transport network and the level of service on that network; and
- Access by public transport which takes account of where the services go and the opportunities to access amenities located within the catchment areas served.

3.4.2 In the case of the first criterion, the application site is located within 150-metres of the nearest bus stop, which is situated on Dwr-Y-Felin Road (southbound) to the north of the proposed access junction. The northbound stop is located on the opposite side of the carriageway, and is accessible via an uncontrolled crossing point, comprising of recently upgraded dropped kerbs and tactile paving.

3.4.3 With regard to the second criterion, these stops are served by regular services that connect to both Neath town centre and multiple residential villages in the wider area. The two services that serve the site are summarised below:

Table 3.1 Dwr-Y-Felin Road Bus Services

Service	Route	Weekday			Saturday	Sunday
		Start	Freq. (mins)	End	Freq. (mins)	Freq. (mins)
56	Orchard Street at Bus Station 8 - Pontardawe	07:25	60 - 70	18:40	60 - 70	-
	Pontardawe - Orchard Street at Bus Station 8	07:25	30 - 70	19:10	60 - 70	-
256	Neath, Victoria Gardens – Pontardawe, Jubilee Interchange	07:45	55 to 60	16:50	60	-
	Pontardawe, Jubilee Interchange - Neath, Victoria Gardens	08:18	60 to 62	17:20	60 - 62	-

3.4.4 In combination, the services described above provide a broadly half hourly service that offers connections to Neath town centre to the south, and the town of Pontardawe to the north. The 56 service operates before, during and after the peak hours and are therefore considered to offer a realistic commuting option for future residents of the site.

3.4.5 Additional services are available from stops on Neath Abbey Road, located approximately 650 metres away from the site.

- 3.4.6 The latest Department for Transport (DfT) statistics suggest that the average time taken to travel to work in Wales by bus is 34-minutes. In consideration of the accessibility afforded by bus, an accessibility model has been created to identify the geographical catchment that is accessible within a 60-minute intermodal travel time, i.e. walk>bus>walk. This reflects the maximum commute time that is considered to be reasonable. The analysis considered both the 34-minute average and the 60-minute maximum travel time for context.
- 3.4.7 The catchment areas for the bus services during the morning and afternoon peak periods are shown in the figures below which are also included at [Appendix E](#). The plans also account for the walking distance to the stops.

Figure 3.4: Bus Catchment – Weekday Morning Peak

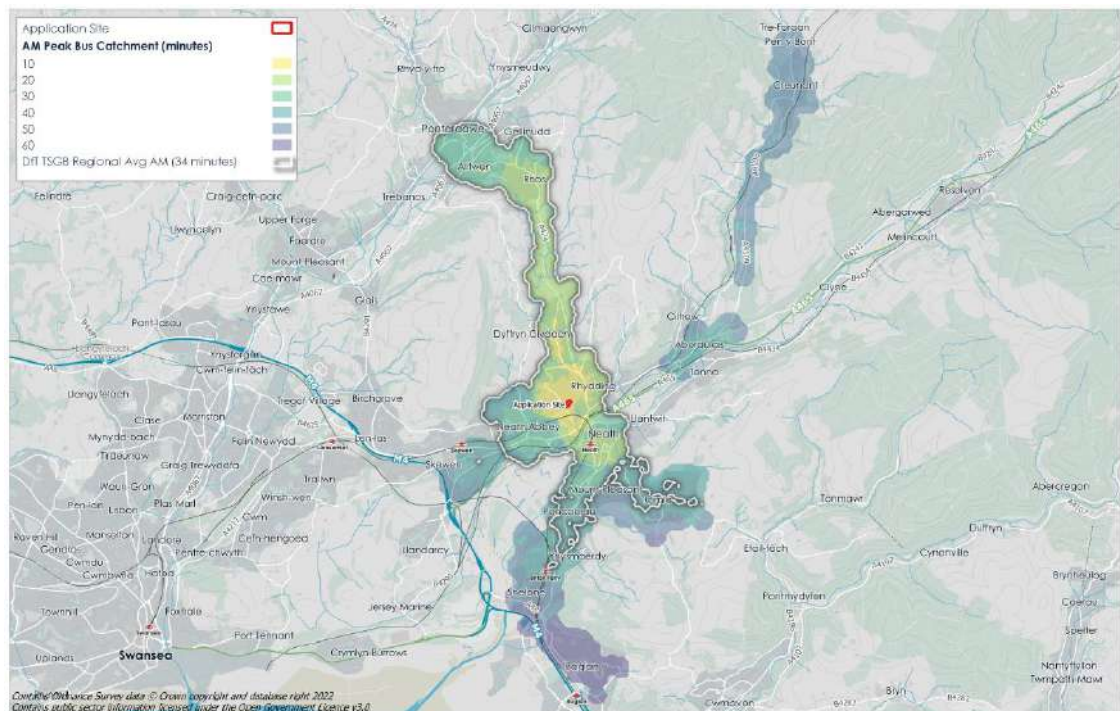
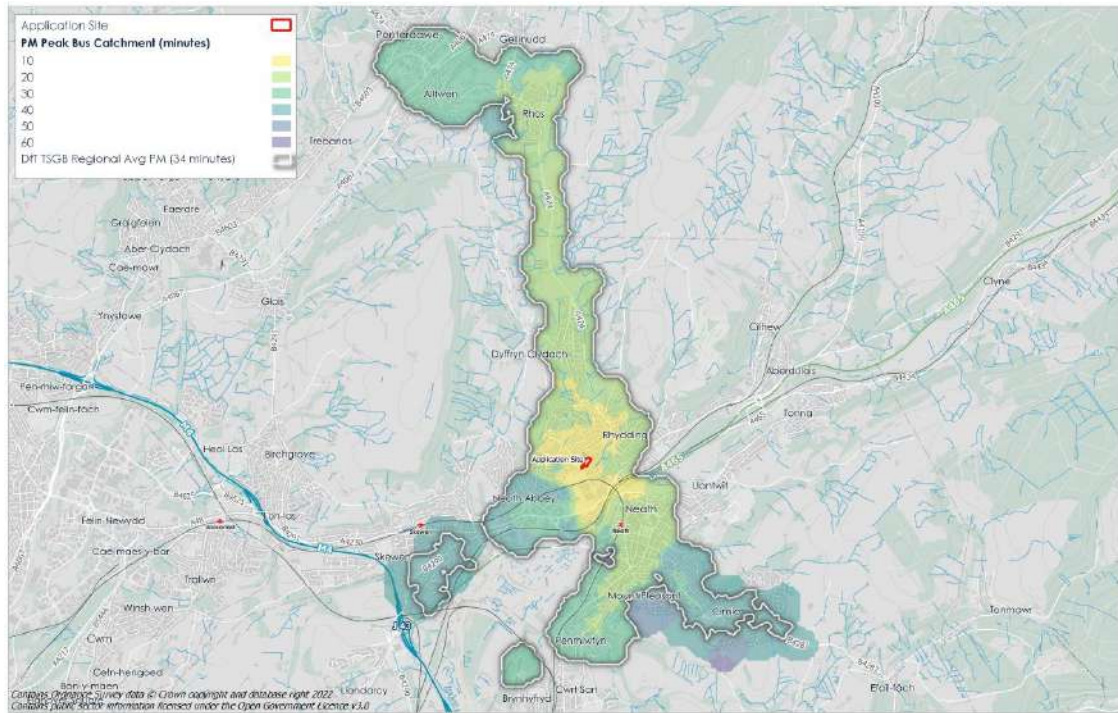


Figure 3.5: Bus Catchment – Weekday Evening Peak



3.4.8 The above figures show that the weekday morning peak catchment is greater than the evening peak, which is due to a slightly reduced 256 service during this period of time.

3.4.9 Nonetheless, the analysis demonstrates that there is an opportunity for future residents of the site to access Neath, including the rail station and the surrounding area, as well as Portedawe and Skewen during both peak periods.

3.5 Accessibility by Rail

3.5.1 The application site is located within a 20-minute walk or 10-minute cycle of Neath rail station. It can also be accessed via the bus services described in the previous section. The station provides a range of services to destinations across Wales and into England, a summary of which is set out below:

Table 3-2: Rail Services from Neath Station

Destination	Frequency	Approx Journey Time
Swansea	2 services per hour	15 minutes
Cardiff	2 services per hour	40 minutes
London Paddington	Hourly	2 hours 40 minutes
Bridgend	2 services per hour	20 minutes
Manchester Piccadilly	Hourly	4 hours 30 minutes

3.5.2 The good range of services offered provides future residents of the site with a genuine alternative to car travel when undertaking journeys to destinations outside of the range offered by bus, thereby helping to enhance the sustainability of the site.

3.6 Section Conclusion

3.6.1 The evidence set out within this section of the report confirms that a wide range of non-car travel options would be available to the future residents of the proposed development. The Active Travel facilities in the vicinity of the site are of high quality and would facilitate non-vehicular trips to a wide range of local destinations, in line with the policy objectives of Planning Policy Wales and the Active Travel Wales act.

4 LOCAL HIGHWAY NETWORK

4.1 Introduction

4.1.1 This section of the report provides a critique of the existing highway network surrounding the site. The study area comprises the following links:

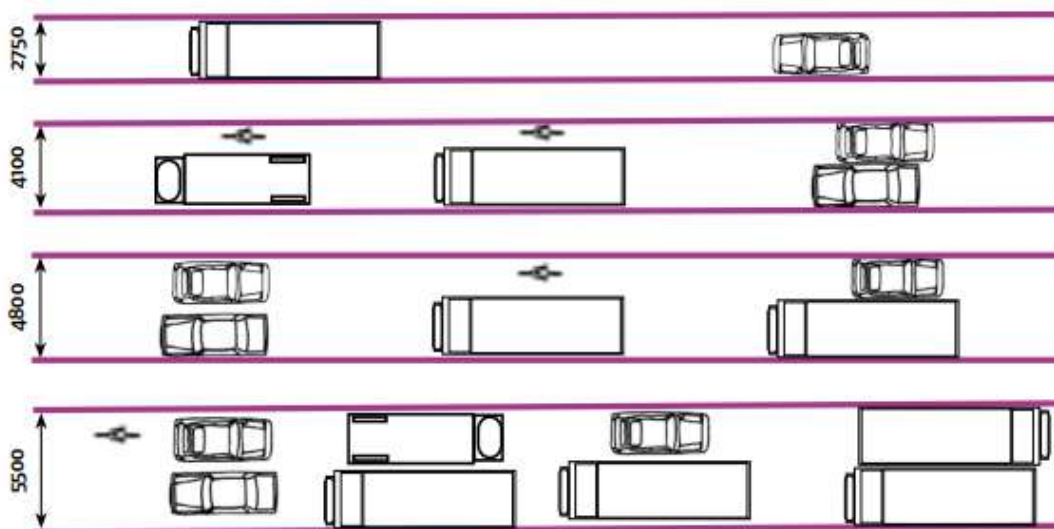
- Dwr-Y-Felin Road
- Neath Abbey Road / Dwr-Y-Felin Road junction

4.2 Highway Network

4.2.1 As set out in Section 2, the site access is proposed to form a priority junction onto Dwr-Y-Felin Road, replacing the existing junction.

4.2.2 In the vicinity of the proposed junction, Dwr-Y-Felin Road comprises a 6-metre-wide two-way carriageway that is subject to a 30mph speed limit. The width of the street allows for two HGVs to pass side by side, as per Manual for Streets Figure 7.1, as shown in Figure 4-1 below:

Figure 4.1: Accommodation of vehicles by street width (extracted from Manual for Streets)



4.2.3 The road forms the main connector route to the residential area within which the site is located, with several priority access junctions connecting to it throughout its length.

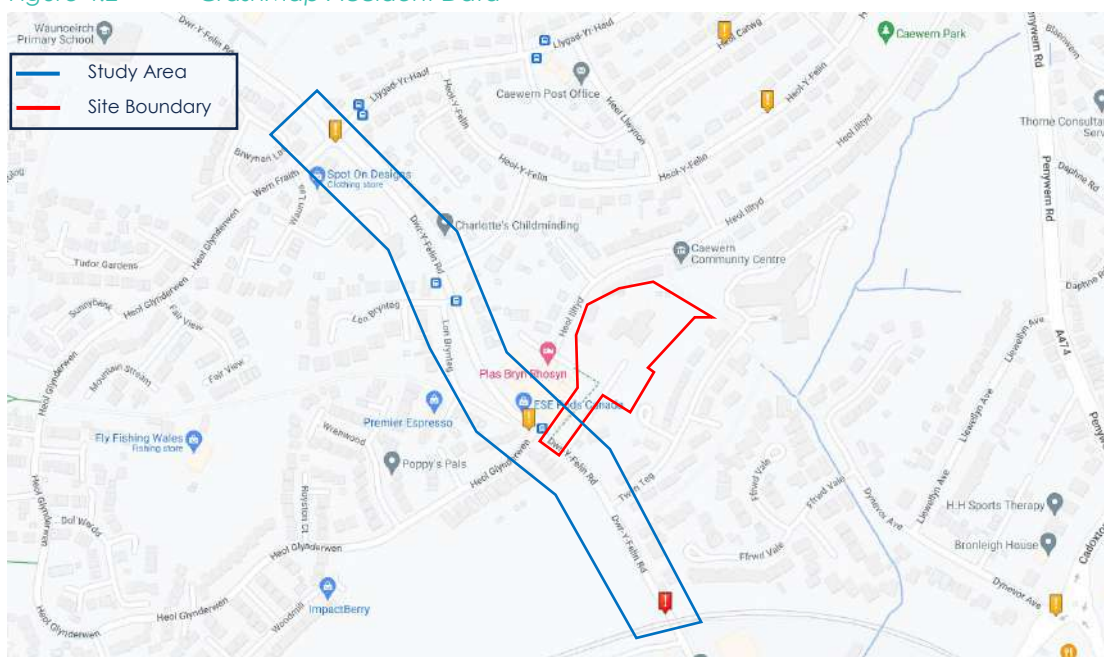
4.2.4 Approximately 30-metres to the north of the proposed access junction, Heol Glynderwen forms a priority junction with Dwr-Y-Felin Road, whilst approximately 60-metres to the south, a priority junction is formed with Twyn Teg. Both of these residential roads are approximately 7-metres wide and accommodate on street parking.

- 4.2.5 Approximately 500-metres to the south of the proposed access junction, Dwr-Y-Felin Road forms a signalised junction with the A474-Neath Abbey Road. The signalised junction comprises of three arms with a right turn filter lane present on the Neath Abbey East arm. Signalised pedestrian crossings are also located on each of the three arms.
- 4.2.6 The Dwr-Y-Felin Road arm of the junction measures a total of 8-metres in width. The southbound carriageway comprises of a left turn and a right turn lane, which measure approximately 2.5-metres in width, whilst the northbound lane measures approximately 30-metres in width.
- 4.2.7 The Neath Abbey Road East arm also measures around 8-metres in width, with a right turn and an ahead lane for southwest bound traffic. The Neath Abbey Road West arm measures approximately 7-metres in total, with only one lane on the approach to the junction.

4.3 Highway Safety

- 4.3.1 In order to assess the safety performance of the existing highway network within the vicinity of the site, road safety data has been obtained via the public database available at CrashMap for the most recent five-year period available: this being 2017 to 2021 inclusive. As outlined above, the study area comprises a stretch of Dwr-Y-Felin Road within the vicinity of the site and as illustrated by the blue line on the plan.

Figure 4.2 CrashMap Accident Data



- 4.3.2 Within the vicinity of the site, a total of three personal injury accidents (PIAs) have occurred during the latest five-year period, as illustrated on the figure above. Two of these are classified as Slight and the other was classified as Serious.

- 4.3.3 On the basis of the above, it is evident that there is no clustering or frequency of accidents that might otherwise be suggestive of a deficiency in the layout or geometry of the highway network which would then indicate an unacceptable safety risk.
- 4.3.4 Indeed, it is considered that the traffic generation potential of the site identified at Section 4 would not give rise to any material change in the safety performance of the wider highway network.
- 4.3.5 The analysis included above confirms that there are no inherent highway safety risks in the existing operation of the adjoining highway network. The proposed development is, therefore, acceptable in the context of highway safety and geometry.

4.4 Section Conclusion

- 4.4.1 The proposed development benefits from easy access to the local and strategic highway network which provides good links to local and regional centres. Additionally, no accident clusters exist in the vicinity of the proposed site accesses which might otherwise suggest a deficiency in the layout or geometry of the highway.

5 DEVELOPMENT TRAVEL DEMAND

5.1 Introduction

5.1.1 This section of the report considers the impacts of the proposal in the context of the magnitude and significance of the possible changes in traffic movements on the adjoining highway network.

5.2 Trip Generation

5.2.1 The industry standard TRICS database (version 7.8.3) has been utilised to determine the trip generation potential of the proposed development.

5.2.2 In this context, the RESIDENTIAL > AFFORDABLE / LOCAL AUTHORITY FLATS category has been considered, selecting sites within EDGE OF TOWN, EDGE OF TOWN CENTRE and SUBURBAN areas. Any sites within Greater London, Scotland or Ireland have not been considered in the assessment given uncertain validity. The resultant trip rates are presented below and available in full at [Appendix F](#).

Table 5.1: Vehicle Trip Rates

Time Period	Arrival	Departure	Two-way
08:00-09:00 (Morning Peak Hour)	0.111	0.156	0.267
17:00-18:00 (Evening Peak Hour)	0.115	0.122	0.237

5.2.3 Application of the above trip rates to the 36 apartments proposed at the site results in the following vehicle trip generation during the peak hours:

Table 5.2: Vehicle Trip Generation

Time Period	Arrival	Departure	Two-way
08:00-09:00 (Morning Peak Hour)	4	6	10
17:00-18:00 (Evening Peak Hour)	4	4	8

5.2.4 The analysis presented above therefore indicates that the proposed development is forecast to generate a total of 10 vehicle movements during the weekday morning peak, and 8 movements during the evening peak hour. This equates to one additional vehicle on the local highway network every 6 to 7 minutes across the respective peak hours, which is entirely immaterial in the context of highway capacity and safety.

5.2.5 Whilst the above has demonstrated that the impact of the development in terms of vehicle trip generation is notional, further consideration has been given of the likely distribution of this traffic on the local highway network, set out below.

5.3 Trip Distribution

5.3.1 Vehicular trips generated by the proposed development have been distributed across the study area highway network in accordance with Census 2011 Dataset WU03EW (Location of usual residence and place of work by method of travel to work) for the appropriate Middle Super Output Area.

5.3.2 In this way, MSOA Area: Neath Port Talbot 007 (02000205) has been used to determine trips to and from the proposed development.

5.3.3 Assignment through the highway network will reflect the distribution derived from the above analysis and will take the quickest path per origin / destination, in accordance with google maps typical traffic data.

5.3.4 The table below sets out the vehicle trip distribution forecast to be associated with the proposed development.

Table 5-3: Trip Distribution

Zone	Road	Distribution	Morning Peak: Two-way Vehicles	Evening Peak: Two-way Vehicles
A	Dwr-Y-Felin Road North	3.6%	0	0
B	A474 Neath Abbey Road West	77.9%	7	7
C	A474 Neath Abbey Road East	18.5%	2	2
Total		100%	10*	8*

**subject to rounding errors*

5.3.5 As shown above, the level of traffic generated by the site indiscernibly low, with just 10 and 8 vehicle movements forecast during each peak hour respectively.

5.3.6 The analysis presented above indicates the majority of the traffic is forecast to travel to and from the A474-Neath Abbey Road West, with the development resulting in the increase of 7 two-way movements during the weekday morning and evening peak hours.

- 5.3.7 The above is considered to result in a negligible impact, with the addition of around one vehicle every 10 minutes on the worst impacted area of the highway network.
- 5.3.8 Based on the conclusions of the above, detailed capacity assessment would be disproportionate and unnecessary to inform the over-riding conclusions of this assessment.

5.4 Section Conclusion

- 5.4.1 Based on the above analysis, the trip rates associated with the proposed development are not considered material or discernible in the case of highway safety or capacity for the surrounding highway network.
- 5.4.2 The traffic impact of the proposed development therefore cannot be considered to be severe. Allied to this, the number of additional trips are considered immaterial and thus, it is considered that proposals could not result in a severe cumulative impact.

6 FRAMEWORK TRAVEL PLAN

- 6.1.1 The analyses provided at Section 3 of this report evidence that the proposed development is accessible to a range of amenities and trip attractors, via non-car modes, which would be further enhanced by the development proposals to upgrade the existing pedestrian connection between the main artery that is Dwr-Y-Felin Road and the wider residential area. In addition, the footway on the western side of Dwr-Y-Felin Road is included within the Existing Route Map network (as INM-PEA-P011) as per the Active Travel Wales act, identifying it as a key local connection which could be subject to further upgrade in the future.
- 6.1.2 In order to maximise the non-car credentials of the development in line with current policy objectives, it is proposed to implement and operate a Travel Plan as part of the proposed development.
- 6.1.3 A Full Travel Plan will be submitted to the Local Authority prior to occupation of the proposed development. The basic framework of this document will comprise the following:
1. Appointment of a Travel Plan Co-ordinator (TPC) to be responsible for the implementation and management of the plan. The TPC would be the main point of contact for all travel related queries from the Local Authority and residents.
 2. Preparation of a suite of Travel Plan documents:
 - a) A Travel Plan report for submission to the Local Authority for approval and thereafter as part of any travel plan update. This will include, and make detailed reference to, the Active Travel Routes that have been identified in the vicinity of the site, as well as any additional routes that will be incorporated in the future.
 - b) A Travel Plan brochure, to be included within the resident's Welcome Packs, detailing the various benefits and opportunities of non-car travel. This would include maps illustrating pedestrian and cycle facilities alongside public transport information.
 - c) A Travel Plan leaflet to be provided within welcome packs and in communal areas on notice boards, in agreement with the Council. The leaflets will provide a summary of key travel opportunities available from the site.
 3. An Action Plan that details measures taken to fulfil the targets of the Travel Plan. These can for example include offering green travel vouchers, resident's training, organising events such as bike repair days and other local and national green travel events, in liaison with the Council.

4. Annual monitoring of travel habits of residents for the first five-years following initial occupation of the facility will be undertaken. This will include organising residents travel surveys, with content agreed in advance by the Council. After each completed survey, a monitoring report will be issued to the Council for sign off. The information gathered from the travel survey will enable initiatives and incentives to be altered and tailored to address specific challenges and opportunities of this site.
5. Updates will be made to the Travel Plan to reflect any changes in the Active Travel Routes and to reflect any relevant improvement to facilities that may come forward in respect of the Active Travel Wales Act. The Local Authorities objectives in terms of Active Travel will be publicised within the Travel Plan and reference in the Welcome Packs, with the overall objective of encouraging and facilitating active travel journeys at the site wherever possible.

6.1.4 The approach outlined above will ensure that the residents and visitors on this site are well informed about sustainable travel alternatives available and are actively encouraged to choose active green modes as their preferred choice of travel.

7 SUMMARY & CONCLUSION

7.1 Report Summary

7.1.1 Calibro has been appointed on behalf of the Linc Cymru Housing Association to consider the traffic and transportation implications of a proposed residential development of 36 apartments at a site at Caewern House, Neath. To this end, this report has considered the various transport-related effects and its findings may be summarised as follows:

- The proposed development comprises of 36 apartments and associated parking, an enhanced vehicular access road and new priority junction, improved pedestrian connectivity and associated internal landscaping.
- The non-car accessibility credentials of the site have been considered with reference to GIS-based modelling techniques in combination with a review of the primary desire lines and availability of infrastructure. From a review of this analysis, Calibro concludes that the site is very well located in respect of giving residents the opportunity to travel to key destinations and amenities by a range of sustainable transport modes, including first tier walking and cycling. Therefore, the proposals comply with sustainability principles of Planning Policy Wales document.
- The existing highway network in the vicinity of the site has also been appraised. The review concluded that the surrounding highway network adheres to existing design guidance and would be of a suitable standard to accommodate the small number of vehicular trips generated by service and maintenance vehicles.
- A review of highway safety has also been undertaken, which has identified that only three personal injury accidents have occurred within the study area during the most recent five-year period. These incidents are not considered to be related to any issues around highway design or geometry.
- The trip generation potential of the existing and consented uses of the site have been calculated using the industry standard TRICS database to determine the number of vehicle trips forecast to be generated by the proposals. The analysis indicates that the site is forecast to generate approximately 10 two-way vehicle movements during the Morning peak hour, and 8 two-way movements during the Evening peak hour.
- The potential distribution of these vehicle trips has been considered based on 2011 Census data, with vehicles assigned to the local highway network. The analysis indicates that approximately 78% traffic is likely to route via Neath Abbey Road West. The traffic impact in this location is limited to approximately 7 two-way trips during both Morning and Evening peak hours.

7.2 Report Conclusion

- 7.2.1 In view of the above findings, it is concluded that the accessibility credentials of the proposed development set out within Section 3 meet with the requirements of sustainability. Future residents will therefore have opportunities to travel to key destinations and amenities by a range of non-car travel, including the primary modes of walking and cycling. Furthermore, the forecast vehicle impact of the development in terms of additional movements on the highway network is considered to be negligible.
- 7.2.2 It is therefore concluded that there are no valid highways or transport reasons, which should prevent the proposed development of this site.

APPENDICES



APPENDIX A
Proposed Masterplan





Soft Landscape Principles

- Public facing soft landscaping managed by SAB/Man.Co./HA
- Secure, shared amenity space for residents
- New strategic landscaping
- Existing Cat. B trees & RPAs to be retained

NB: All Cat. C & U Trees shown as being removed. Refer to Treescene Tree Constraints Plan & Report for full details of existing trees

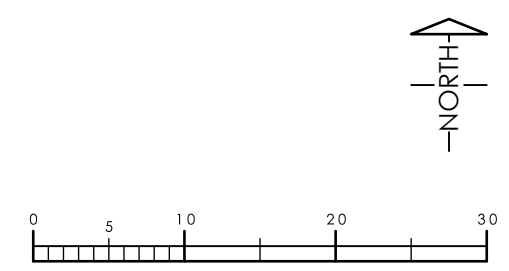
Boundary Structures

- 2.1m high screen wall
- Assumed retaining wall (TBC)

OVERALL MIX

2p1b WDQR Flats	30 No.	@ 50.1sq.m
2p1b Accessible Flats	2 No.	@ 62.3sq.m
3p2b WDQR Flats	4 No.	@ 62.3sq.m

TOTAL 36 No.



Status: **CONCEPT**

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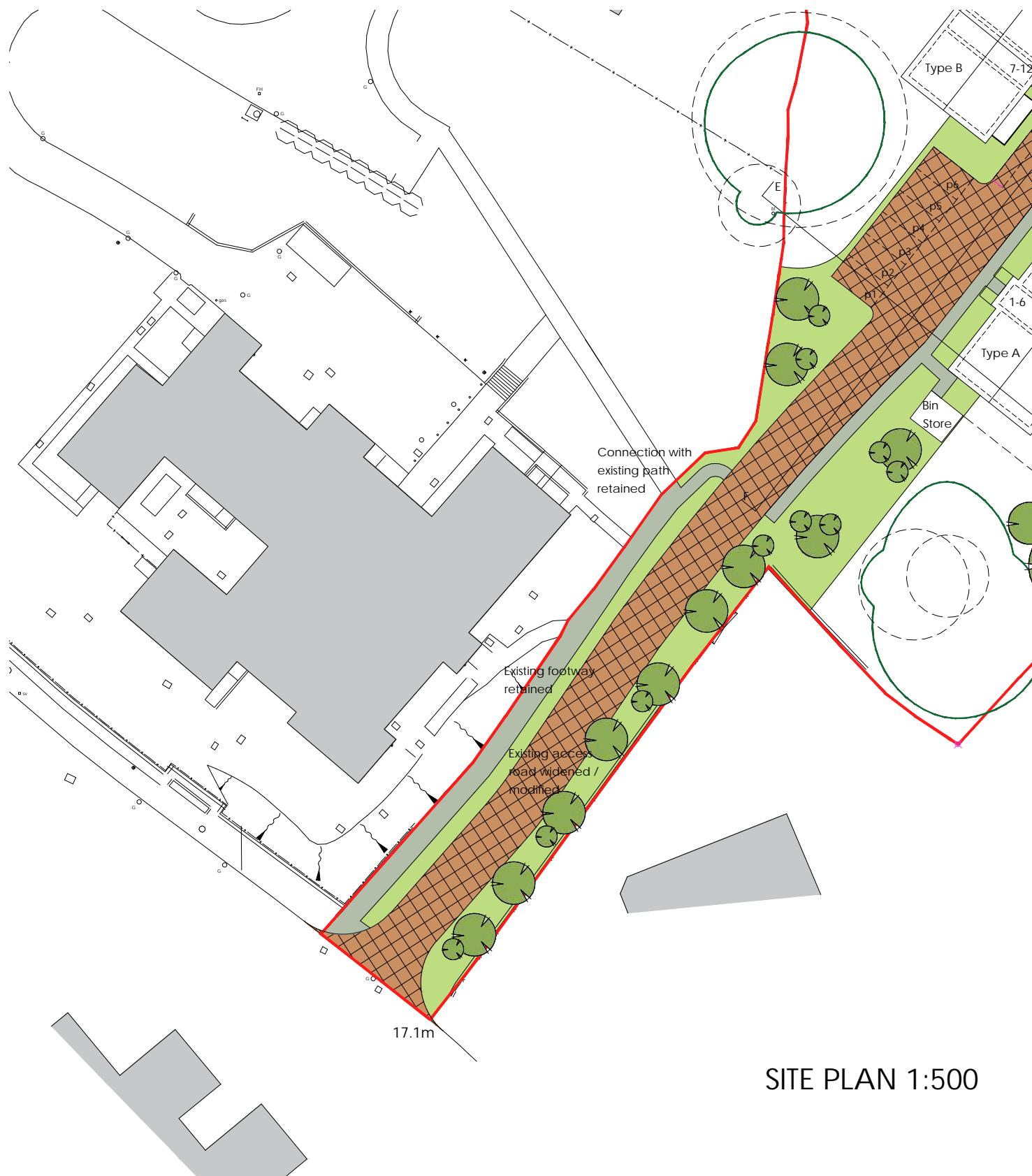
rev	date	description
A	11/10/22	Retained trees, Building position / size, parking amended.
B	14/10/22	Buildings moved south, reducing excavation. Section lines added
C	07/11/22	Adjustments to entrance road, paths, parking and bin stores
D	15/11/22	Entrance to site changed, existing access widened.

by	Drawn:	JM	Client:	Linc Cymru
CL	Director:	JM	Project:	Caewern House, Neath
CL	Date:	18/02/22	Title:	Sketch Site Concept Layout
CL	Scale:	1:500@A3	Ref:	2609-00(02)101

Rev: D



Unit 2 Chapel Barns | Merthyr Mawr
Bridgend | CF32 0LS | 01656 656267
mail@spring-consultancy.co.uk



SITE PLAN 1:500



SITE PLAN 1:1000

Status: **CONCEPT**

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rev	date	description

by
CL
CL
CL
CL

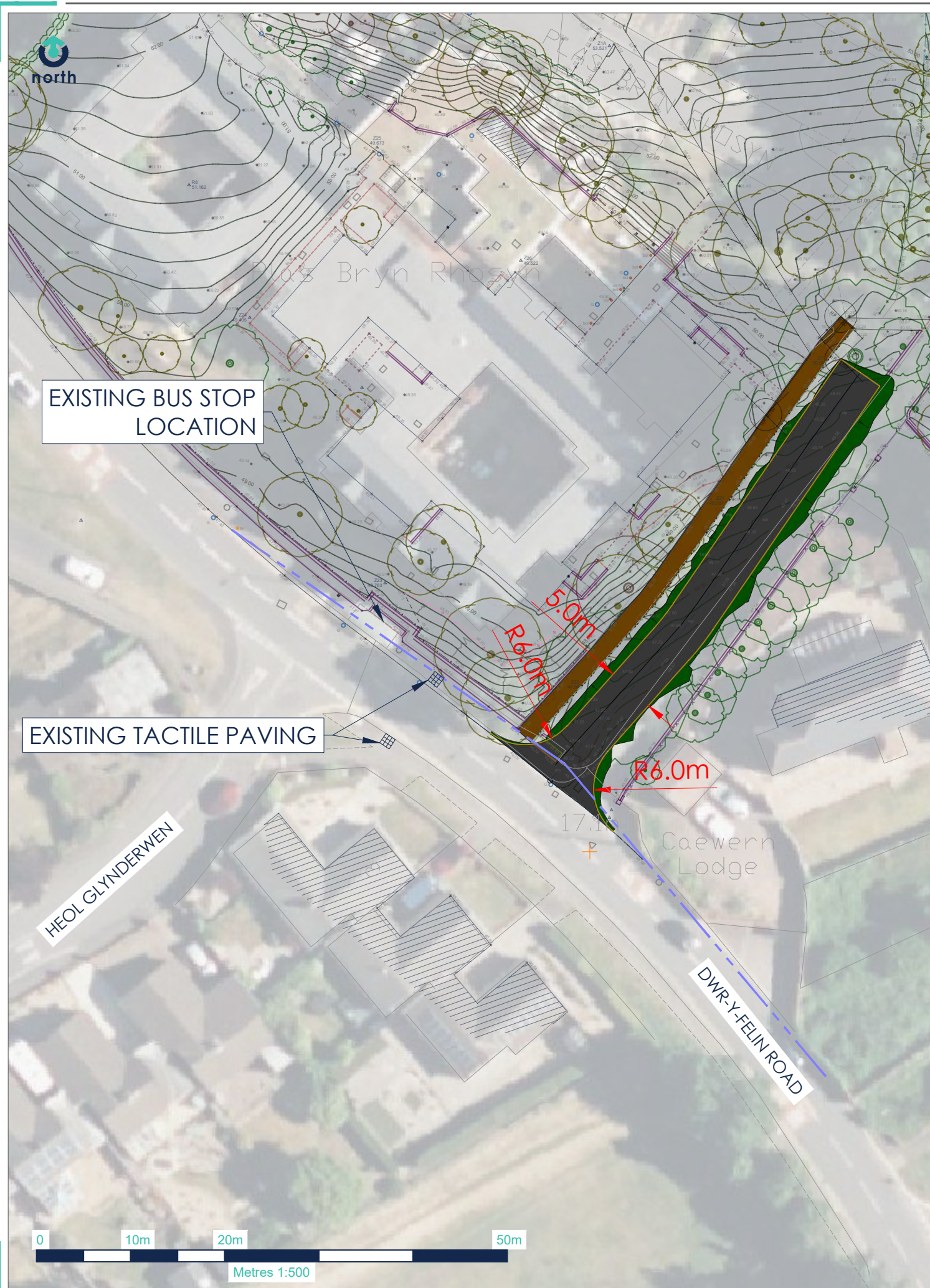
Drawn:	CL	Client:	Linc Cymru
Director:	JM	Project:	Caewern House, Neath
Date:	15/11/22	Title:	Sketch Site Concept Layout
Scale:	As indicated	Ref:	2609-00(02)102

Rev: -



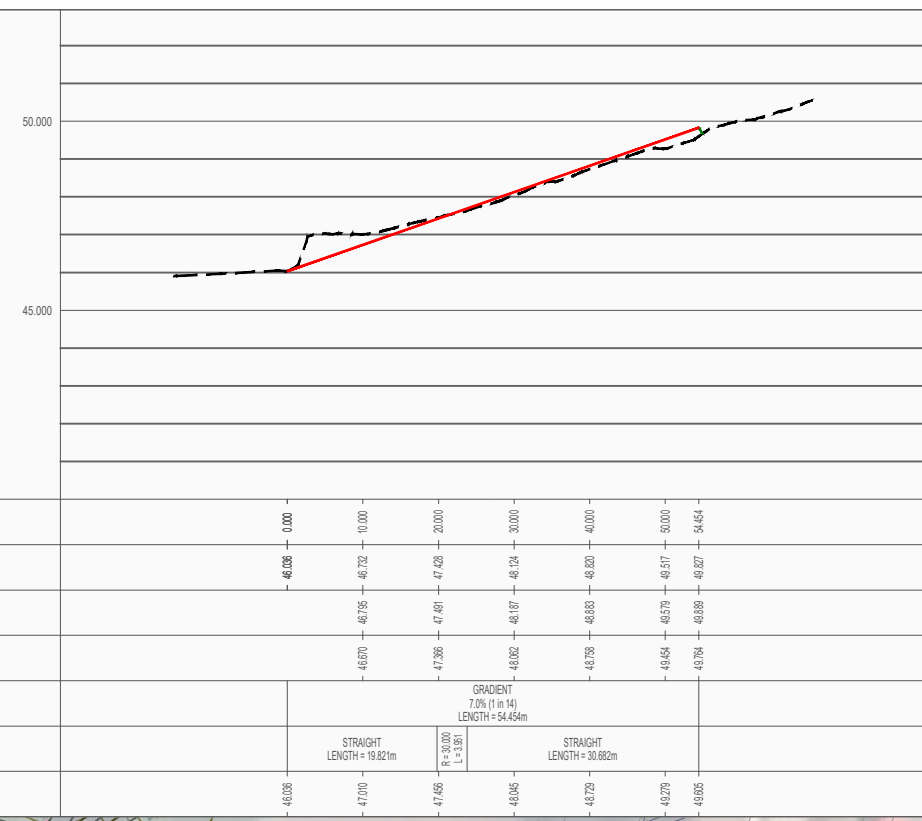
Unit 2 Chapel Barns | Merthyr Mawr
Bridgend | CF32 0LS | 01656 656267
mail@spring-consultancy.co.uk

APPENDIX B
Proposed Site Access



2.4x43m VISIBILITY SPLAYS
SSD FOR 30mph
MFS

Road 2



EXISTING BUS STOP LOCATION

EXISTING TACTILE PAVING

HEOL GLYNDERWEN

Caewern Lodge
DWR-Y-FELIN ROAD

TWYN TEG



REV:	DESCRIPTION:	BT	14/11/22
BY:	DATE:		

STATUS: FOR INFORMATION

CLIENT:
LINC CYMRU

SITE:
CAEWRN HOUSE,
HEOL LLTYD, NEATH

TITLE:
PROPOSED SITE ACCESS
VISIBILITY SPLAYS



SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:500	14/11/22	BT	AF
PROJECT NO:	DRAWING NO:	REVISION:	
22-379	20-102	-	

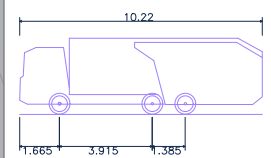
APPENDIX C

Site Access Swept-Path Analysis

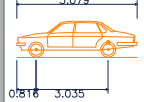




--- INTERVISIBILITY



Phoenix 2-20W (with Elite 2 6x4 chassis)
 Overall Length 10.220m
 Overall Width 2.530m
 Overall Body Height 3.211m
 Min Body Ground Clearance 0.416m
 Track Width 2.530m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 9.450m



Large Car (2006)
 Overall Length 5.079m
 Overall Width 1.872m
 Overall Body Height 1.525m
 Min Body Ground Clearance 0.310m
 Max Track Width 1.831m
 Lock to lock time 4.00s
 Kerb to Kerb Turning Radius 5.900m

-	FIRST ISSUE	BT	14/11/22
REV:	DESCRIPTION:	BY:	DATE:

STATUS: FOR INFORMATION

CLIENT: LINC CYMRU

SITE: CAEWRN HOUSE, HEOL LLTYD, NEATH

TITLE: PROPOSED SITE ACCESS SWEPT PATH ANALYSIS



SCALE AT A3:	DATE:	DRAWN:	CHECKED:
1:250	14/11/22	BT	AF
PROJECT NO:	DRAWING NO:	REVISION:	
22-379	20-103	-	

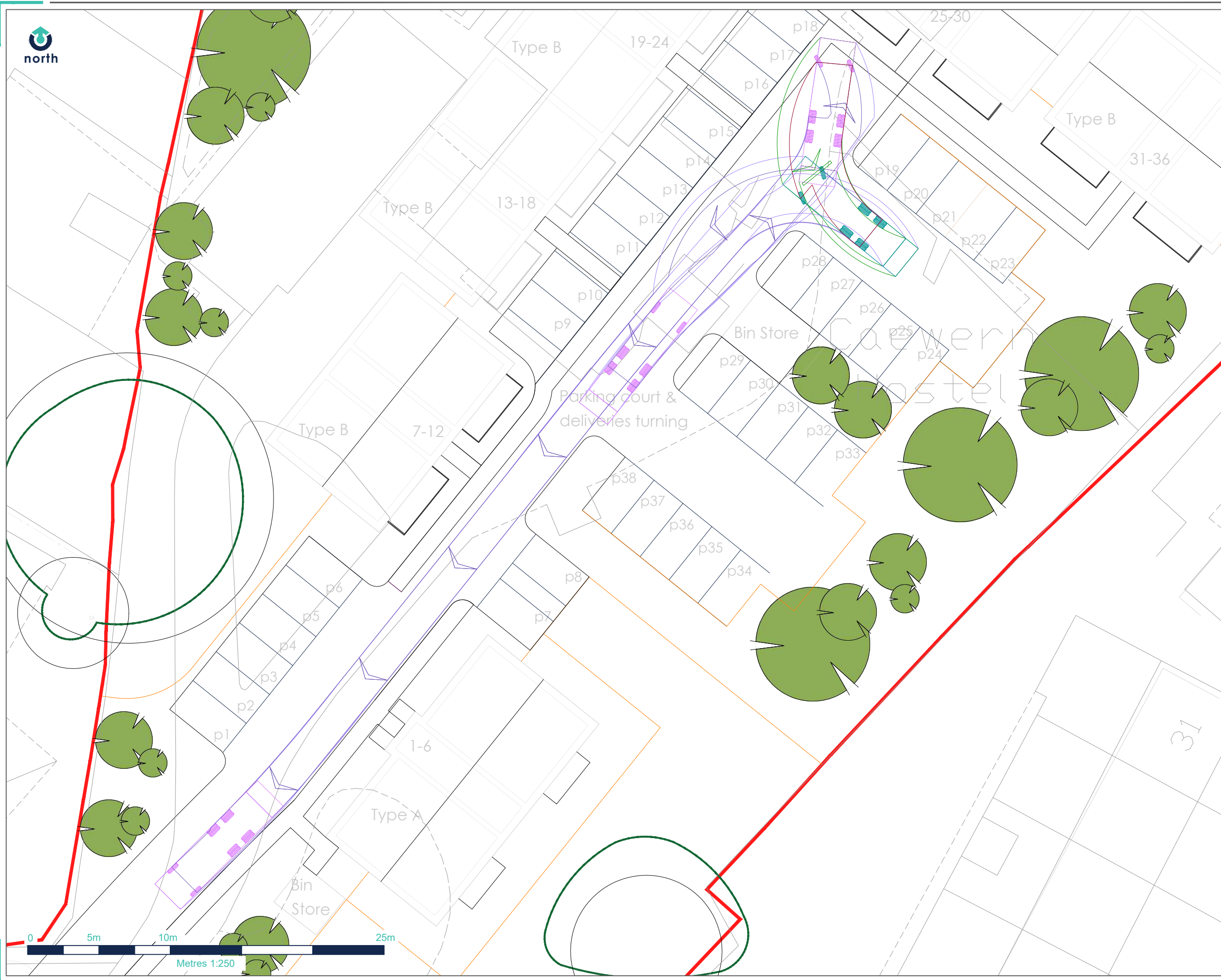
APPENDIX D

Internal Layout Swept-Path Analysis





north



RED LINE BOUNDARY

Phoenix 2-20W (with Elite 2 6x4 chassis)

Overall Length	10.220m
Overall Width	2.530m
Overall Body Height	3.211m
Min Body Ground Clearance	0.416m
Track Width	2.530m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.450m

-	FIRST ISSUE	BT	16/11/22
REV:	DESCRIPTION:	BY:	DATE:

STATUS: **FOR INFORMATION**

CLIENT:
LINC CYMRU

SITE:
**CAEWERN HOUSE,
HEOL LLTYD, NEATH**


TITLE:
**INTERNAL LAYOUT
SWEEP PATH ANALYSIS**









SCALE AT A3: 1:250	DATE: 16/11/22	DRAWN: BT	CHECKED: JH
PROJECT NO: 22-379	DRAWING NO: 20-104	REVISION: -	


APPENDIX E
Catchment Analysis

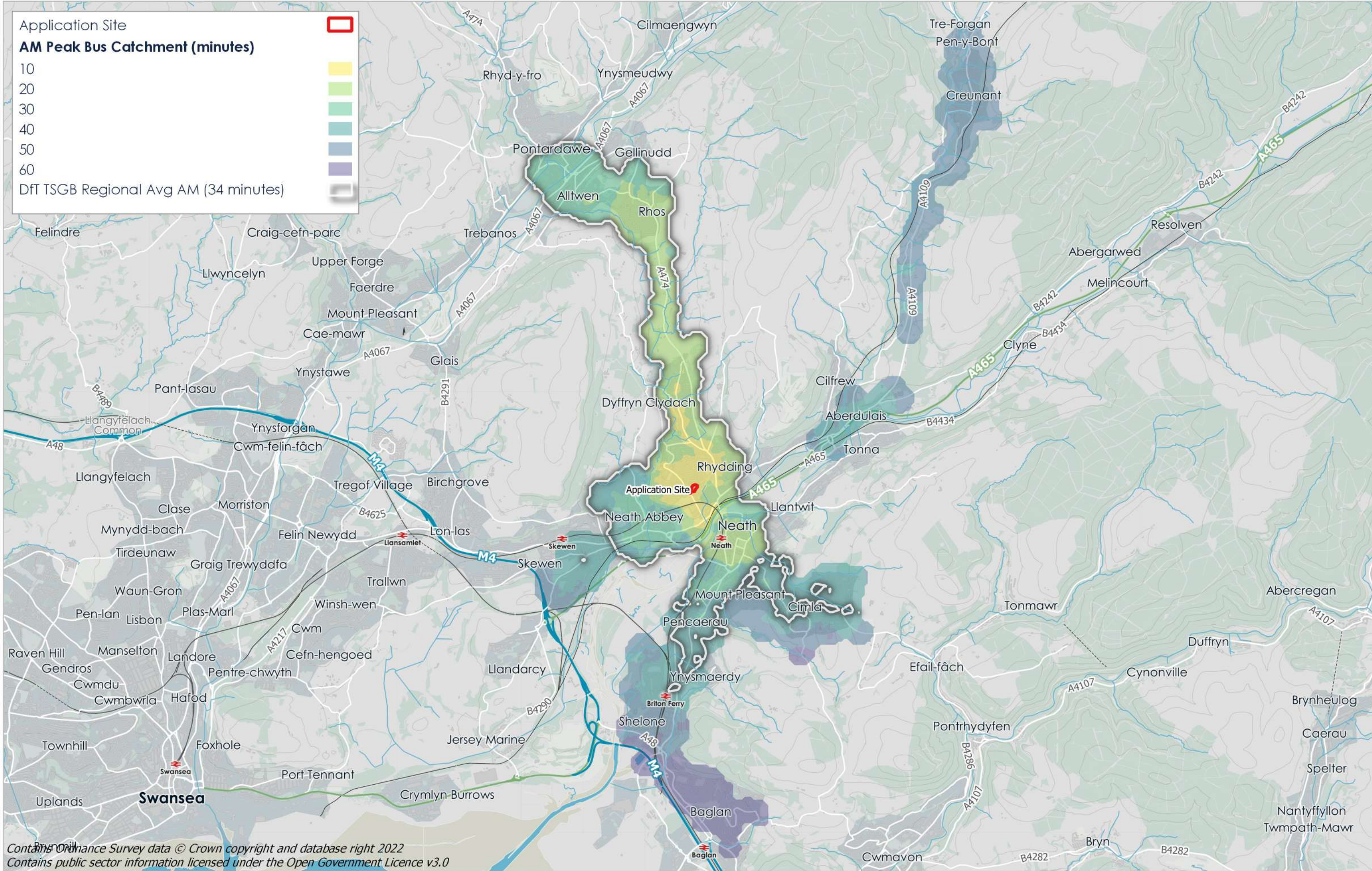


Application Site 

AM Peak Bus Catchment (minutes)

- 10 
- 20 
- 30 
- 40 
- 50 
- 60 

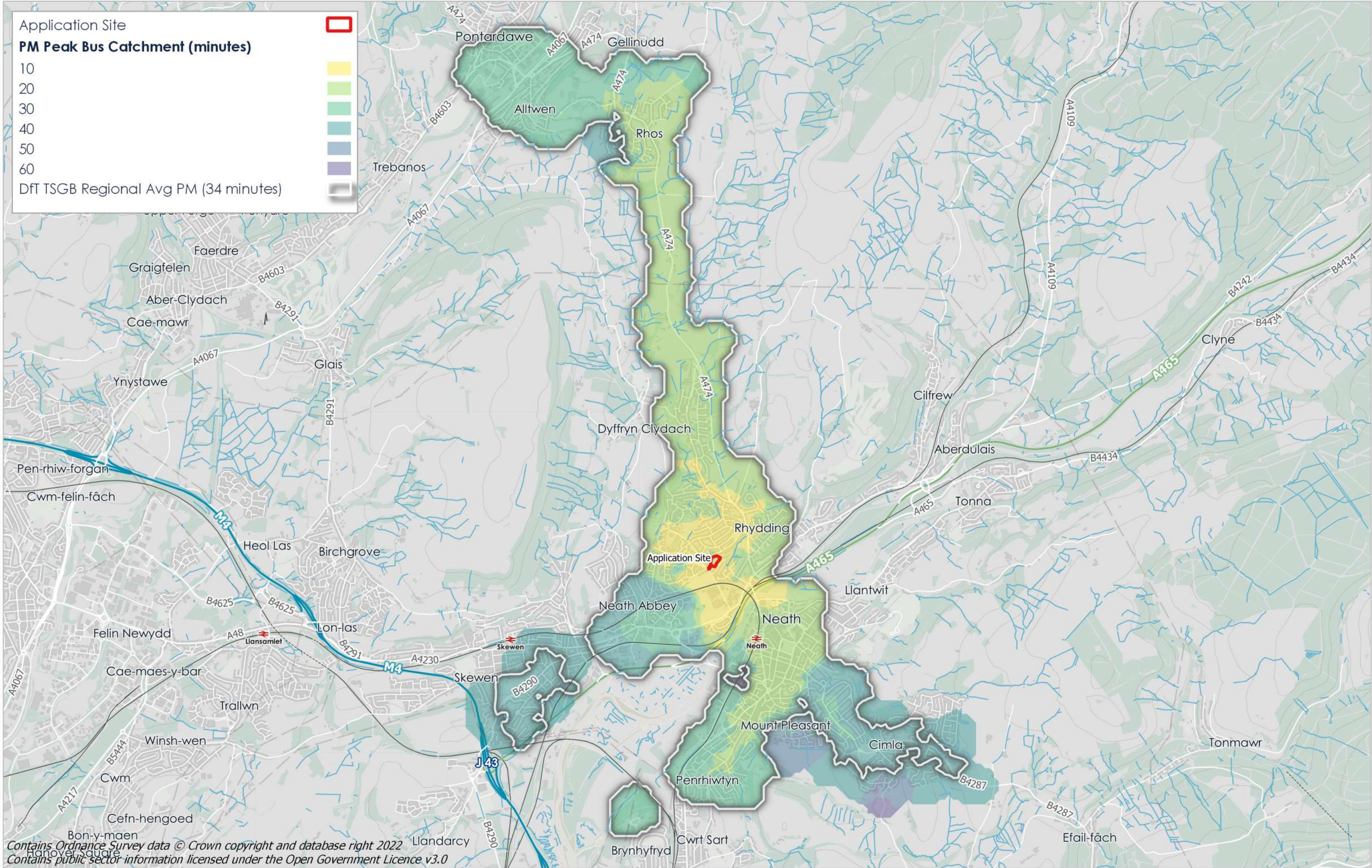
DfT TSGB Regional Avg AM (34 minutes) 



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22-379-20 Caewern House, Heol Illtyd, Neath
 AM Peak Bus Catchment



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APPENDIX F
TRICS Output Files



Calculation Reference: AUDIT-861401-221110-1119

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	HF HERTFORDSHIRE	1 days
	SP SOUTHAMPTON	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	2 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: 15 to 103 (units:)
 Range Selected by User: 6 to 150 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 28/06/19

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

Selected survey days:

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

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

Selected survey types:

Manual count	5 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:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	2
Edge of Town	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	5
------------------	---

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.

Secondary Filtering selection:

Use Class:

C3 5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	1 days

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

Population within 5 miles:

5,001 to 25,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	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	3 days
1.1 to 1.5	2 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 5 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 5 days

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

LIST OF SITES relevant to selection parameters

1	HF-03-D-02 SILAM RD STEVENAGE	BLOCK OF FLATS		HERTFORDSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		103	
	<i>Survey date: FRIDAY</i>		<i>28/06/19</i>	<i>Survey Type: MANUAL</i>
2	LN-03-D-02 ADDISON DRIVE LINCOLN	FLATS		LINCOLNSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		22	
	<i>Survey date: WEDNESDAY</i>		<i>01/07/15</i>	<i>Survey Type: MANUAL</i>
3	SP-03-D-01 HANNAY RISE SOUTHAMPTON THORNHILL	BLOCKS OF FLATS		SOUTHAMPTON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		66	
	<i>Survey date: TUESDAY</i>		<i>24/11/15</i>	<i>Survey Type: MANUAL</i>
4	WY-03-D-03 CARR STREET HECKMONDWIKE LIVERSEGE	BLOCK OF FLATS		WEST YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		56	
	<i>Survey date: THURSDAY</i>		<i>01/05/14</i>	<i>Survey Type: MANUAL</i>
5	WY-03-D-04 BELLE VUE ROAD LEEDS	BLOCK OF FLATS		WEST YORKSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings:		15	
	<i>Survey date: MONDAY</i>		<i>19/10/15</i>	<i>Survey Type: MANUAL</i>

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BH-03-D-03	Too urban
NG-03-D-01	Too urban
WM-03-D-02	Too urban

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

TOTAL VEHICLES

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	5	52	0.038	5	52	0.080	5	52	0.118
08:00 - 09:00	5	52	0.111	5	52	0.156	5	52	0.267
09:00 - 10:00	5	52	0.092	5	52	0.141	5	52	0.233
10:00 - 11:00	5	52	0.118	5	52	0.111	5	52	0.229
11:00 - 12:00	5	52	0.115	5	52	0.137	5	52	0.252
12:00 - 13:00	5	52	0.126	5	52	0.092	5	52	0.218
13:00 - 14:00	5	52	0.141	5	52	0.126	5	52	0.267
14:00 - 15:00	5	52	0.141	5	52	0.195	5	52	0.336
15:00 - 16:00	5	52	0.160	5	52	0.122	5	52	0.282
16:00 - 17:00	5	52	0.191	5	52	0.111	5	52	0.302
17:00 - 18:00	5	52	0.115	5	52	0.122	5	52	0.237
18:00 - 19:00	5	52	0.126	5	52	0.111	5	52	0.237
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.474			1.504			2.978

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:	15 - 103 (units:)
Survey date date range:	01/01/14 - 28/06/19
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	3

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/D - AFFORDABLE/LOCAL AUTHORITY FLATS

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	5	52	0.000	5	52	0.000	5	52	0.000
08:00 - 09:00	5	52	0.004	5	52	0.004	5	52	0.008
09:00 - 10:00	5	52	0.000	5	52	0.000	5	52	0.000
10:00 - 11:00	5	52	0.008	5	52	0.008	5	52	0.016
11:00 - 12:00	5	52	0.000	5	52	0.000	5	52	0.000
12:00 - 13:00	5	52	0.004	5	52	0.000	5	52	0.004
13:00 - 14:00	5	52	0.008	5	52	0.004	5	52	0.012
14:00 - 15:00	5	52	0.004	5	52	0.008	5	52	0.012
15:00 - 16:00	5	52	0.000	5	52	0.004	5	52	0.004
16:00 - 17:00	5	52	0.000	5	52	0.000	5	52	0.000
17:00 - 18:00	5	52	0.004	5	52	0.000	5	52	0.004
18:00 - 19:00	5	52	0.000	5	52	0.004	5	52	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.032			0.032			0.064

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	5	52	0.000	5	52	0.000	5	52	0.000
08:00 - 09:00	5	52	0.004	5	52	0.000	5	52	0.004
09:00 - 10:00	5	52	0.000	5	52	0.004	5	52	0.004
10:00 - 11:00	5	52	0.000	5	52	0.000	5	52	0.000
11:00 - 12:00	5	52	0.004	5	52	0.004	5	52	0.008
12:00 - 13:00	5	52	0.000	5	52	0.000	5	52	0.000
13:00 - 14:00	5	52	0.000	5	52	0.000	5	52	0.000
14:00 - 15:00	5	52	0.000	5	52	0.000	5	52	0.000
15:00 - 16:00	5	52	0.000	5	52	0.000	5	52	0.000
16:00 - 17:00	5	52	0.000	5	52	0.000	5	52	0.000
17:00 - 18:00	5	52	0.000	5	52	0.000	5	52	0.000
18:00 - 19:00	5	52	0.000	5	52	0.000	5	52	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	5	52	0.000	5	52	0.000	5	52	0.000
08:00 - 09:00	5	52	0.004	5	52	0.000	5	52	0.004
09:00 - 10:00	5	52	0.000	5	52	0.004	5	52	0.004
10:00 - 11:00	5	52	0.000	5	52	0.000	5	52	0.000
11:00 - 12:00	5	52	0.000	5	52	0.000	5	52	0.000
12:00 - 13:00	5	52	0.000	5	52	0.000	5	52	0.000
13:00 - 14:00	5	52	0.000	5	52	0.000	5	52	0.000
14:00 - 15:00	5	52	0.004	5	52	0.004	5	52	0.008
15:00 - 16:00	5	52	0.000	5	52	0.000	5	52	0.000
16:00 - 17:00	5	52	0.000	5	52	0.000	5	52	0.000
17:00 - 18:00	5	52	0.000	5	52	0.000	5	52	0.000
18:00 - 19:00	5	52	0.000	5	52	0.000	5	52	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.008			0.008			0.016

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

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	5	52	0.000	5	52	0.000	5	52	0.000
08:00 - 09:00	5	52	0.004	5	52	0.019	5	52	0.023
09:00 - 10:00	5	52	0.000	5	52	0.000	5	52	0.000
10:00 - 11:00	5	52	0.004	5	52	0.000	5	52	0.004
11:00 - 12:00	5	52	0.011	5	52	0.008	5	52	0.019
12:00 - 13:00	5	52	0.000	5	52	0.000	5	52	0.000
13:00 - 14:00	5	52	0.000	5	52	0.004	5	52	0.004
14:00 - 15:00	5	52	0.000	5	52	0.000	5	52	0.000
15:00 - 16:00	5	52	0.011	5	52	0.000	5	52	0.011
16:00 - 17:00	5	52	0.008	5	52	0.011	5	52	0.019
17:00 - 18:00	5	52	0.015	5	52	0.000	5	52	0.015
18:00 - 19:00	5	52	0.004	5	52	0.008	5	52	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.050			0.107

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
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	5	52	0.027	5	52	0.065	5	52	0.092
08:00 - 09:00	5	52	0.084	5	52	0.137	5	52	0.221
09:00 - 10:00	5	52	0.088	5	52	0.118	5	52	0.206
10:00 - 11:00	5	52	0.099	5	52	0.088	5	52	0.187
11:00 - 12:00	5	52	0.099	5	52	0.126	5	52	0.225
12:00 - 13:00	5	52	0.095	5	52	0.073	5	52	0.168
13:00 - 14:00	5	52	0.103	5	52	0.092	5	52	0.195
14:00 - 15:00	5	52	0.122	5	52	0.153	5	52	0.275
15:00 - 16:00	5	52	0.130	5	52	0.095	5	52	0.225
16:00 - 17:00	5	52	0.160	5	52	0.099	5	52	0.259
17:00 - 18:00	5	52	0.092	5	52	0.103	5	52	0.195
18:00 - 19:00	5	52	0.118	5	52	0.103	5	52	0.221
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.217			1.252			2.469

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

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	5	52	0.011	5	52	0.011	5	52	0.022
08:00 - 09:00	5	52	0.015	5	52	0.015	5	52	0.030
09:00 - 10:00	5	52	0.004	5	52	0.011	5	52	0.015
10:00 - 11:00	5	52	0.011	5	52	0.015	5	52	0.026
11:00 - 12:00	5	52	0.011	5	52	0.008	5	52	0.019
12:00 - 13:00	5	52	0.027	5	52	0.019	5	52	0.046
13:00 - 14:00	5	52	0.031	5	52	0.031	5	52	0.062
14:00 - 15:00	5	52	0.004	5	52	0.023	5	52	0.027
15:00 - 16:00	5	52	0.023	5	52	0.023	5	52	0.046
16:00 - 17:00	5	52	0.031	5	52	0.011	5	52	0.042
17:00 - 18:00	5	52	0.011	5	52	0.011	5	52	0.022
18:00 - 19:00	5	52	0.008	5	52	0.004	5	52	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.187			0.182			0.369

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

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

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS

MOTOR CYCLES

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	5	52	0.000	5	52	0.004	5	52	0.004
08:00 - 09:00	5	52	0.000	5	52	0.000	5	52	0.000
09:00 - 10:00	5	52	0.000	5	52	0.004	5	52	0.004
10:00 - 11:00	5	52	0.000	5	52	0.000	5	52	0.000
11:00 - 12:00	5	52	0.000	5	52	0.000	5	52	0.000
12:00 - 13:00	5	52	0.000	5	52	0.000	5	52	0.000
13:00 - 14:00	5	52	0.000	5	52	0.000	5	52	0.000
14:00 - 15:00	5	52	0.008	5	52	0.008	5	52	0.016
15:00 - 16:00	5	52	0.008	5	52	0.000	5	52	0.008
16:00 - 17:00	5	52	0.000	5	52	0.000	5	52	0.000
17:00 - 18:00	5	52	0.008	5	52	0.008	5	52	0.016
18:00 - 19:00	5	52	0.000	5	52	0.000	5	52	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.024			0.024			0.048

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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