ARUP

Dwr Cymru Welsh Water

Elan Valley Visitor Centre

Transport Statement

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Appendices

1. Introduction

1.1 Background

Ove Arup and Partners Ltd (Arup) have been appointed by Dwr Cymru Welsh Water to prepare a transport statement in support of the pre-application consultation for the proposed redevelopment of the Elan Valley Visitor Centre in Powys. The site location plan is shown in Figure 1.1.

Elan Valley is an iconic visitor attraction with a unique heritage, covering approximately 1% of the land area of Wales. It has a host of nature and landscape assets including Sites of Strategic Scientific Interest (SSSIs), International Dark Skies Park and Celtic Rainforest.

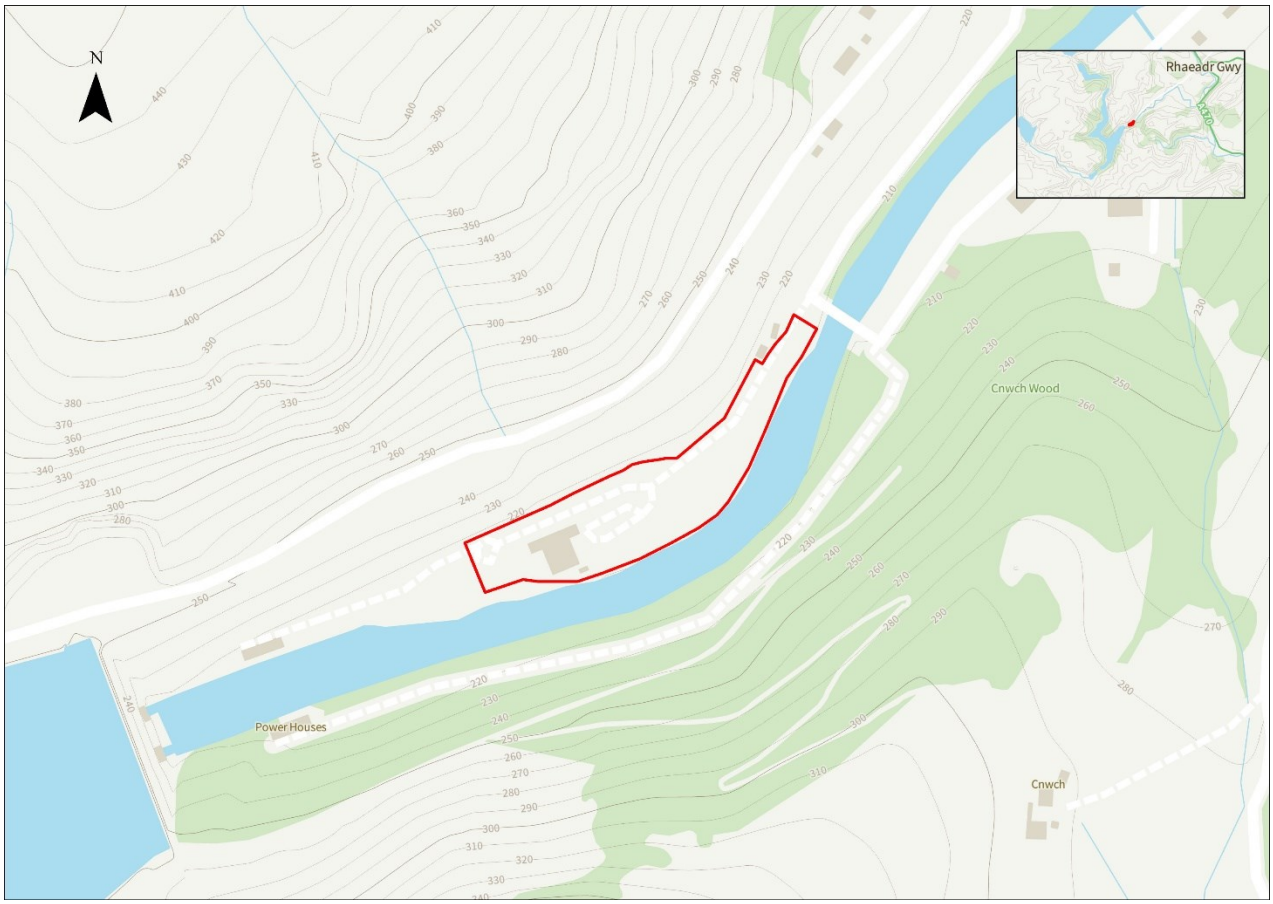


Figure 1.1: Site Location Plan

1.2 Scoping

This Transport Statement (TS) has been prepared following a Pre-Application Enquiry (PAE) with Powys County Council. During the scoping phase, Powys County Council was engaged and consulted as part of the pre-application enquiry process. It is noted that the proposal was submitted for the PAE before Arup was commissioned and involved. The site boundary, the architecture plan and landscape plan have changed significantly since that initial enquiry. The responses from PAE hence might not fully reflect the changes as of to date. Given the proposal does not exceed the threshold stated in the Technical Advice Note (TAN) 18, a TS is considered appropriate in support of a planning application for the development.

The points below outline the agreed approach to the design and the associated TS:

- To assess and determine any impacts of the proposed development on highway network;
- To reconsider the land available and avoid losing existing parking spaces;
- To provide additional parking on site in accordance with the CSS Wales Parking Standards (2014)

1.3 Report Structure

The remainder of this Transport Statement is structured as follows:

- Chapter 2 outlines the national and local policy context for the development;
- Chapter 3 sets out the existing site conditions and characteristics of the local transport network;
- Chapter 4 describes the existing travel demand associated with the existing Elan Valley Visitor Centre;
- Chapter 5 presents the development proposals, parking strategy and travel demand management;
- Chapter 6 outlines the trip making assumptions and provides an assessment of future travel demand associated with the development proposals; and
- Chapter 7 presents the summary and conclusions

2. Policy Context

2.1 National Policy

Well-being of Future Generations (Wales) Act (2015)

This Act aims to improve the social, economic, environmental, and cultural well-being of Wales by prompting public bodies think more about the long term, work better with people and communities and each other, look to prevent problems, and take a more joined up approach to create a Wales that we all want to live in, now and in the future.

The proposed development will contribute to the well-being goals stated in the Act, by providing employment opportunities and environmental education, habitat management, conservation, and safeguarding against inappropriate developments affecting Elan Valley. This will develop a skilled and well-educated population in an economy which generates wealth, meanwhile maintaining a biodiverse natural environment with healthy functioning ecosystems in the local area. People regardless of their socio-economic background and circumstances will be able to live in a healthier environment, maximizing physical and mental well-being. By enhancing climate resilience, it will contribute positively to global well-being.

Active Travel (Wales) Act 2013

The Act makes walking and cycling the preferred option for shorter journeys, particularly everyday journeys, such as to and from a workplace or education establishment, or to access health, leisure or other services or facilities. It places a duty on local authorities to exercise functions to promote active travel. The provision and design for cycle parking have referenced to the Active Travel Act Guidance 2021, incorporating the advice to the design and layout of the development to prioritise active travel and achieve sustainable placemaking outcomes.

Future Wales: The National Plan 2040

This plan sets out the national development framework with a strategy for addressing key national priorities through the planning system, including sustaining, and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems, and improving the health and well-being of our communities. It consists of 11 outcomes to be achieved over the next 20 years.

The proposed development will become a significant tourist attraction with employment opportunities (including apprenticeship) in Elan Valley that supports a biodiverse and sustainable ecosystem, contributing to the objectives of the plan by making Elan Valley a "*connected, inclusive and healthy place"* with access to jobs and services where sustainability and culture are promoted. It will hence support the Policies 4, 5 and 12 by providing "*employment opportunities, local services and greater mobility"* to support the rural community and economy in Elan Valley and Rhayader, as well as encouraging the *"uptake of ultra-low emission vehicles"* and local bus services to improve regional connectivity.

Llwybr Newydd: The Wales Transport Strategy 2021

This plan has been in place since 2021. It sets out Welsh Government's vision for how the transport system can help deliver the priorities for Wales, helping to create a more prosperous, green, and equal society. The three priorities of the strategy include: *bring services to people in order to reduce the need to travel; allow people and goods to move easily from door to door by accessible, sustainable transport; and encourage people to make the change to more sustainable transport.*

The development proposal will contribute to the priorities of the Strategy, by providing cycle parking spaces, accessible bays, electric vehicle (EV) charging bay and lay-by to allow staff and visitors with different mobility levels to travel easily from door to door by sustainable transport modes. The existing Bike Hub which provides bike hire and changing facilities will also form part of the sustainable transport system in the Elan Valley and Rhayader, encourage people to shift away from private car use to cycling and hence contribute to decarbonization and climate resilience.

Planning Policy Wales (PPW) Edition 12

PPW sets out the land use planning policies of the Welsh Government and establishes the key principles for the planning system in Wales. The primary objective is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales. It emphasizes on well-being by highlighting the role of placemaking in development management decisions to create sustainable places and improve the well-being of communities.

Aligning with the key principles of PPW Edition 12, the development proposal has sought to enhance the accessibility by walking and cycling, by segregating traffic from pedestrians and cyclists within the site and providing washing and changing facilities in the Bike Hub to create a safe and cycling-friendly environment. The development will also improve the quality of place and create safe access where people want to walk, cycle and enjoy.

Technical Advice Note (TAN) 18: transport

TAN 18 is used to supplement PPW, which expands on the integration between land use planning and transport infrastructure. The development proposal has adopted the following key principles stated in TAN 18 to create a basis for sustainable travel patterns:

1. Ensuring new development is located at accessible locations to access education, employment, shops and other services by public transport, walking and cycling, and to encourage multi-purpose trips;
2. Considering car-free housing development where sites are fully accessible by public transport and active travel and parking are controlled;
3. Encouraging appropriate redevelopment or re-use of existing private non-residential parking;
4. Ensuring new residential developments to provide secured cycle storage;
5. Ensuring appropriate provision for pedestrians (including those with special access and mobility requirements), cycling, public transport, and traffic management and parking/servicing;
6. Promoting cycling and walking; and
7. Supporting the provision of high quality and inclusive public transport.

With regards to traffic impact, the impacts of a development are considered to be material where a turning movement is anticipated to increase by 5%. If the junction is approaching capacity however, a smaller material increase would normally be considered material.

CSS Wales Parking Standards 2014

These Parking Standards seek to ensure a transparent and consistent approach to the requirements and provision of parking according to land use and location and the required provision for commercial vehicles, cars, motorcycles and cycles. The proposed development layout and parking provision are designed with consideration of the Parking Standards where scheme appropriate to accommodate the needs of the staff and visitors, considering those uses to serve as destinations on their own such as the restaurant and the exhibition/ planetarium area.

2.2 Local Policy

Growing Mid Wales: Mid Wales Growth Deal

Growing Mid Wales is a regional partnership and engagement arrangement between the private and public sectors, and with Welsh Government. It aims to draw together local business, academic leaders and national and local government to create a vision for the future growth of Mid Wales and influence and champion future expansion. This redevelopment proposal shares the vision and will contribute to the Deal, delivering a flagship visitor destination which will be considered as the ‘sustainable tourism’ strand, including the upgrade of the existing facilities to provide new amenities, services and experiences for public enjoyment.

Growing Mid Wales: Mid Wales Transportation

This area comprises the central area of Wales from the English border in the east to the Welsh coast in the west and encompasses the local authorities of Powys and Ceredigion. The Mid Wales Corporate Joint Committee, who is responsible for transport planning in the region, aims to plan and deliver an integrated transport system in partnership with Ceredigion and Powys County Councils. This development proposal

will contribute to the integrated transport system in Mid Wales, ensuring access for all and improve the economic development, the quality of community life and respects the environment in Powys.

Powys Local Development Plan (2011-2026)

The plan sets out the Council's policies for the development and use of land in Powys, and for reconciling uses, up to 2026. The proposed development will be a sustainable development, providing "*economic opportunities set in a health safe environment, whilst protecting, enhancing and sustainably managing the natural resources, native wildlife and habitats, heritage, outstanding landscapes and distinctive characteristics"* which aligns with the vision of the plan.

The proposed development will make the best use of the existing transport infrastructure and highway network, allowing staff and visitors to travel safely to the site by providing safe access to all, including pedestrians, cyclists and vehicles. The Automatic Number Plate Recognition (ANPR) system in the car parking area will also monitor usage and reprogramme to introduce multiple tariffs when needed to manage demand. This will provide incentives for visitors to travel in non-peak hours and ensure sufficient parking spaces are available, reducing the issue of parking on highway and maintaining the capacity of highway network which aligns with the transport strategy in the One Powys Plan.

3. Baseline Conditions

The Elan Valley Visitor Centre (EVVC) development site is located in Elan Valley, which is approximately 1.6 km from the Elan Village and 6 km away at the southwest of Rhayader in Powys and connected by a private access from the B4518. Given its rural location, wider access and transport links are limited. The wider site context of the development site is shown in Figure 3.1.

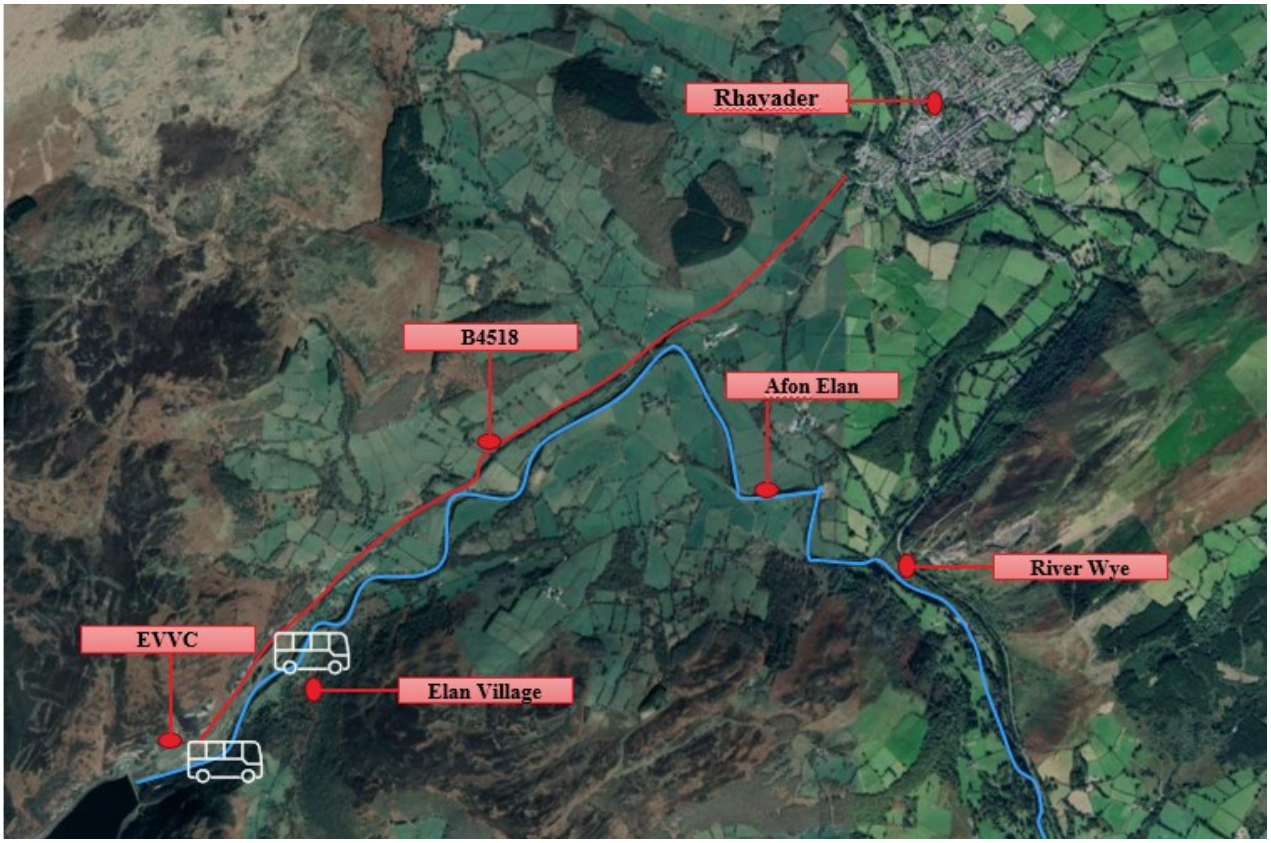


Figure 3.1: Site Context Map

3.1 Sustainable Site Access

The EVVC site can be accessed by cycling via National Cycle Network (NCN) Route 81, an east-west cycle route that crosses the Cambrian Mountains between Aberystwyth and Shrewsbury, shown in Figure 3.2. It connects the site to the nearest town Rhayader, 6 km west of the EVVC and takes approximately 22 minutes to cycle.

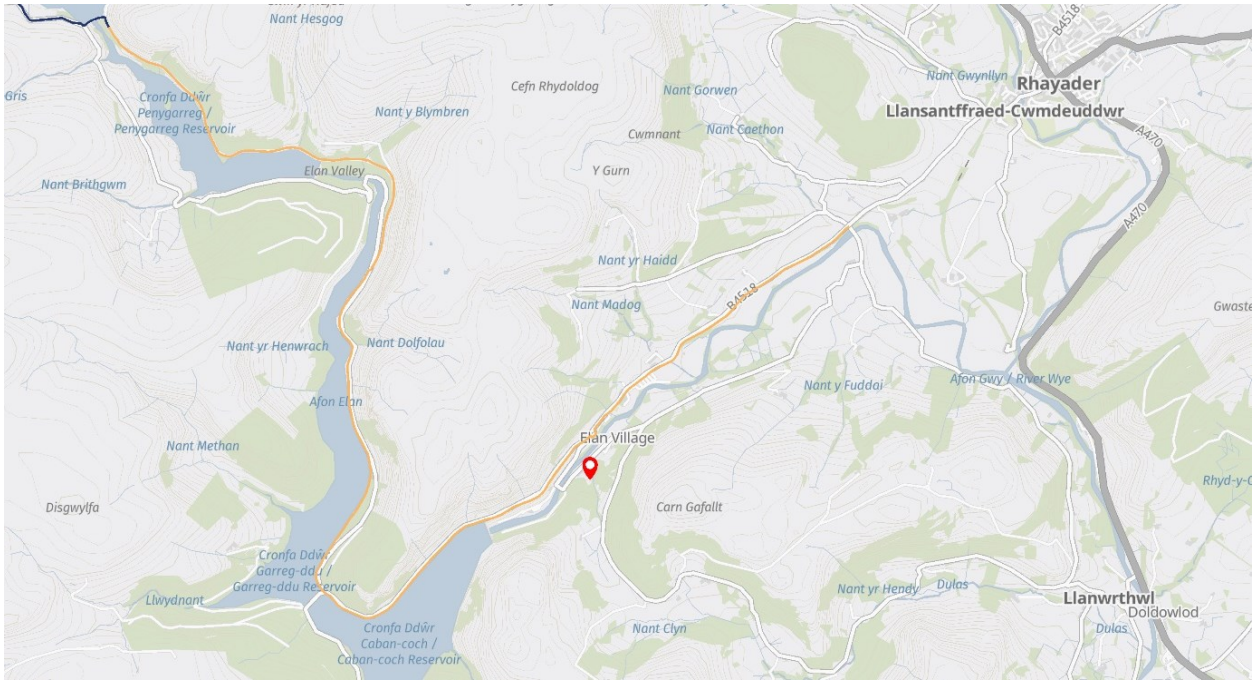


Figure 3.2: National Cycle Network – Route 81

A second cycle route, The Elan Valley Trail, runs parallel to the NCN Route 81 at a length of 14 km, as shown in Figure 3.3 below. it starts from Cwmdauddwr in the west of Rhayader and finishes at Craig Goch Dam in Elan Valley. The trail is open to walkers, cyclists and horse riders. The section between Craig Goch and Pen y Garreg is classed as bridleway whilst the trail between Pen y Garreg and Rhayader is a permissive route agreed by the landowners. Dŵr Cymru Welsh Water, Radnorshire Wildlife Trust and Powys County Council and does not follow a right of way. It is also noted that there is no designated footway for pedestrians along the cycling routes.

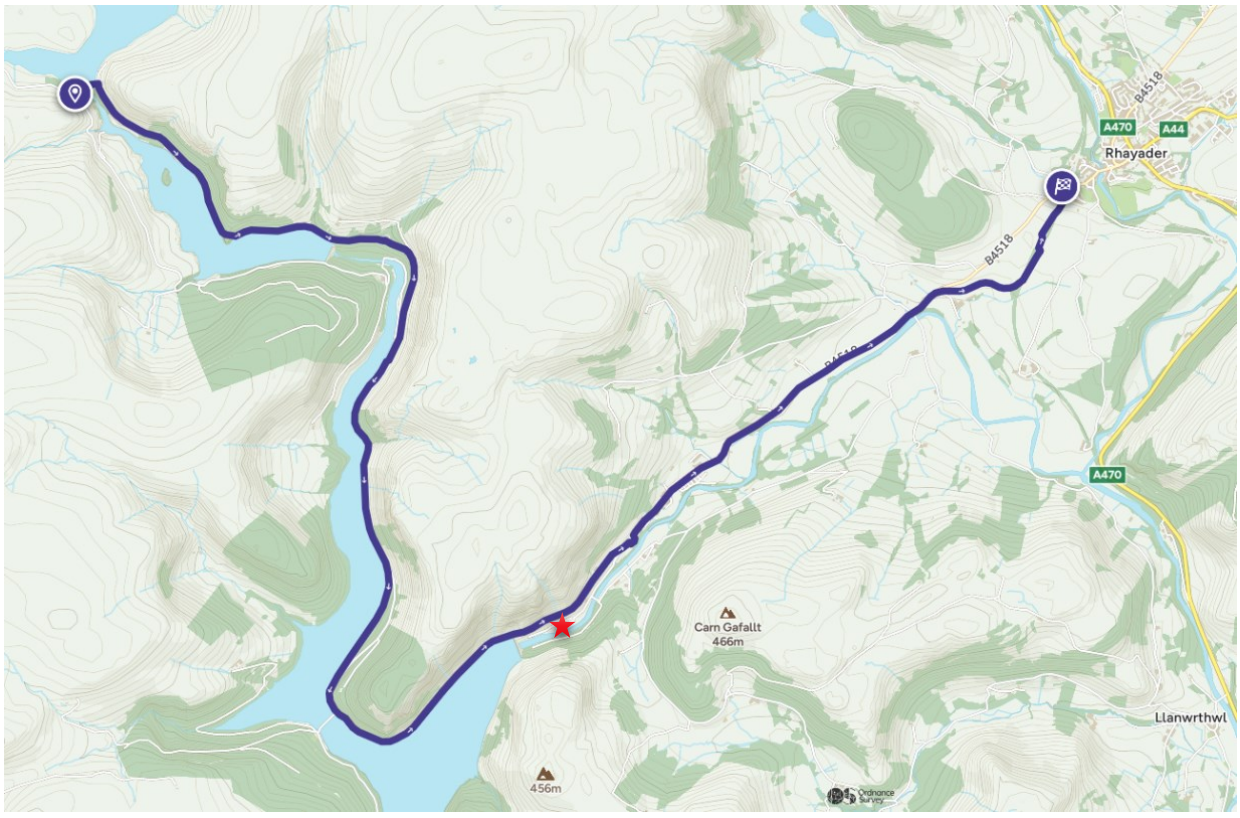


Figure 3.3: Elan Valley Trail

A section of Public Right of Way (PRoW) runs through the development site and continues to the dam as shown in Figure 3.4. The public footpath is partially shared with vehicles at present.

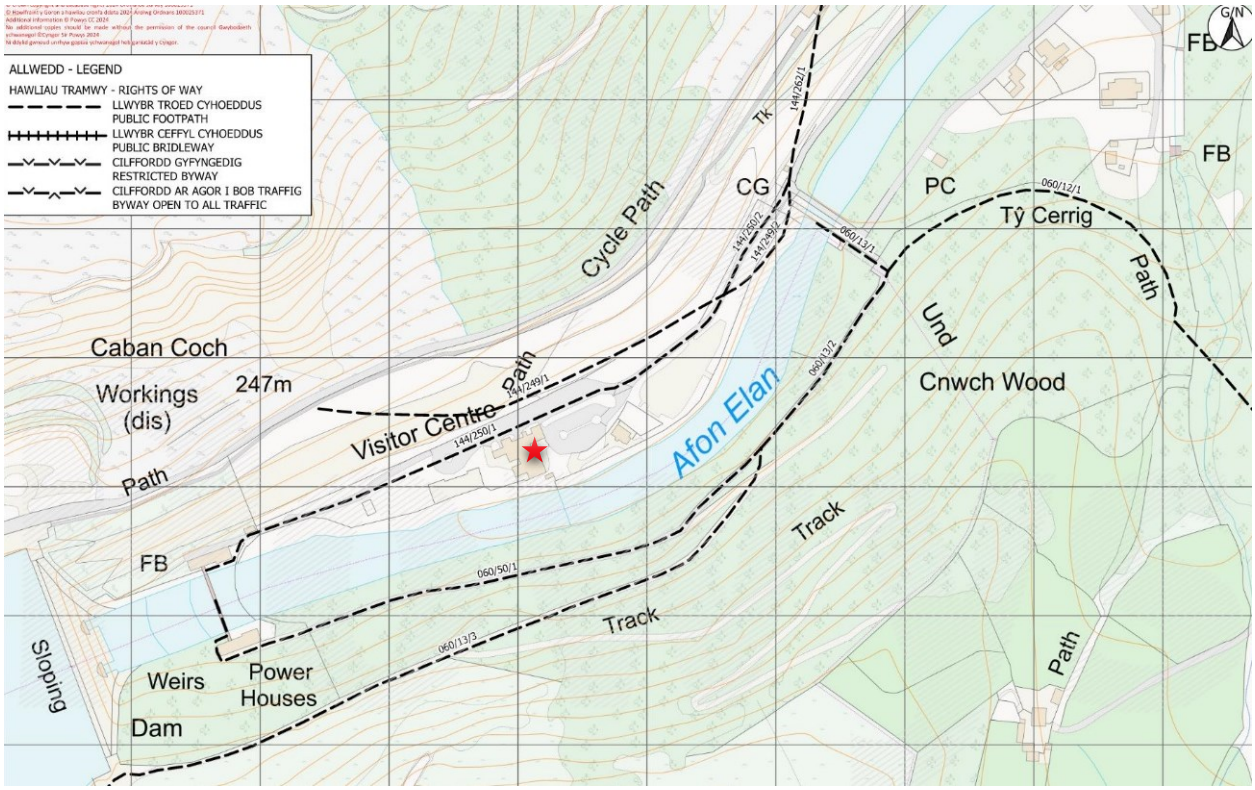


Figure 3.4: Public Right of Way

3.2 Vehicular Access

Vehicular access into the site is currently provided by a single-track road via the cattle-gridded entrance gate. It then links further to B4518, west of Rhayader. There are several additional passing places and waiting lay-bys alongside to create adequate flow (particularly during peak hours) for inbound and outbound vehicles.

3.3 Public Transport

There is no regular bus service and no rail station near the site. The closest existing bus stops to the site are located at Elan Valley Visitor Centre (direct to the site) and Elan Village (0.4 miles east). Bus B57 is the only service provided to both stops. It is a demand-responsive transport service operated by S.P. Cars, running between Llandrindod Wells Interchange and the visitor centre via Rhayader. It only operates on Monday, Wednesday and Friday if advanced booking is made at least two hours before travel via phone calls. Where it is pre-booked, it operates every two hours between 09:30 and 14:30.

3.4 Local Highway Network

As shown in Figure 3.5, the site is accessed via a private lane from the short section of U1555 (which is the County Unclassified Highway) leading from the junction with B4518 County Highway.

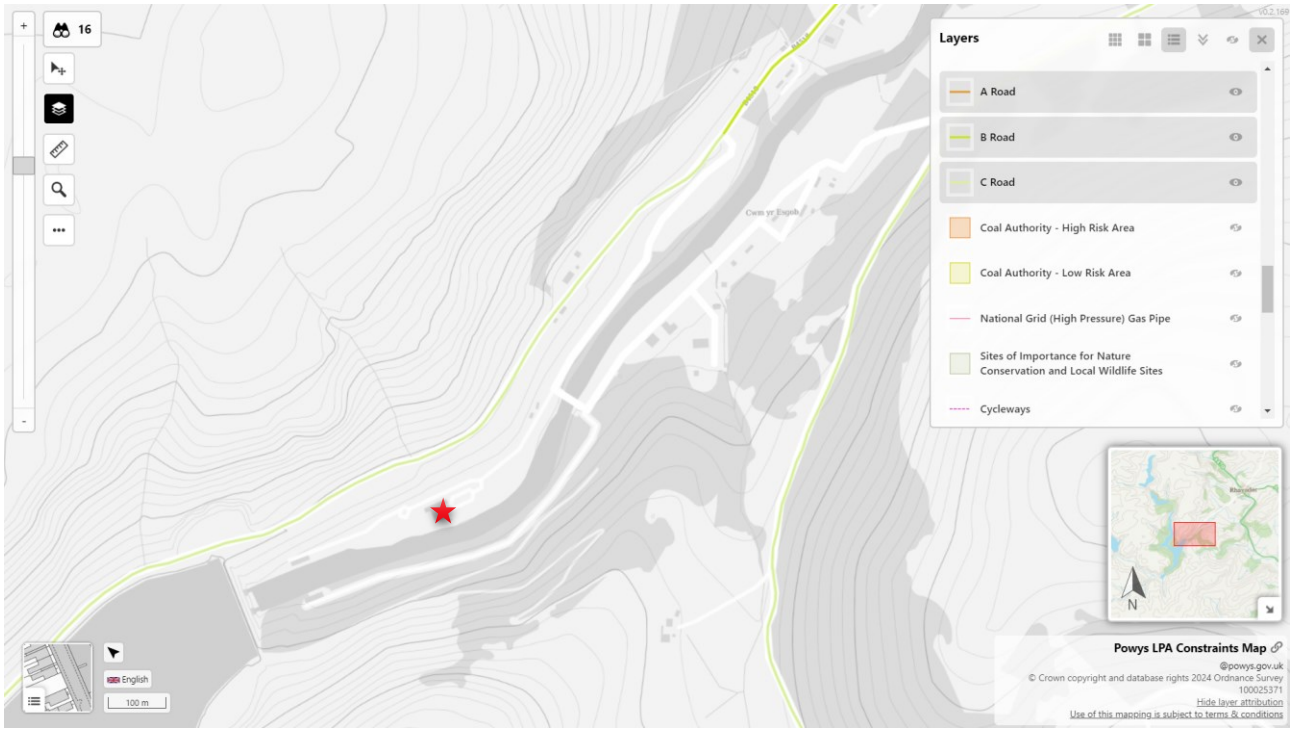


Figure 3.5 Local Highway Network

3.5 Road Safety

Figure 3.6 shows there are no casualties reported within the site area including the main access, but a serious motorcycle casualty along the unclassified single-track road at the northeast of the site that runs parallel to the vehicular access to the north.

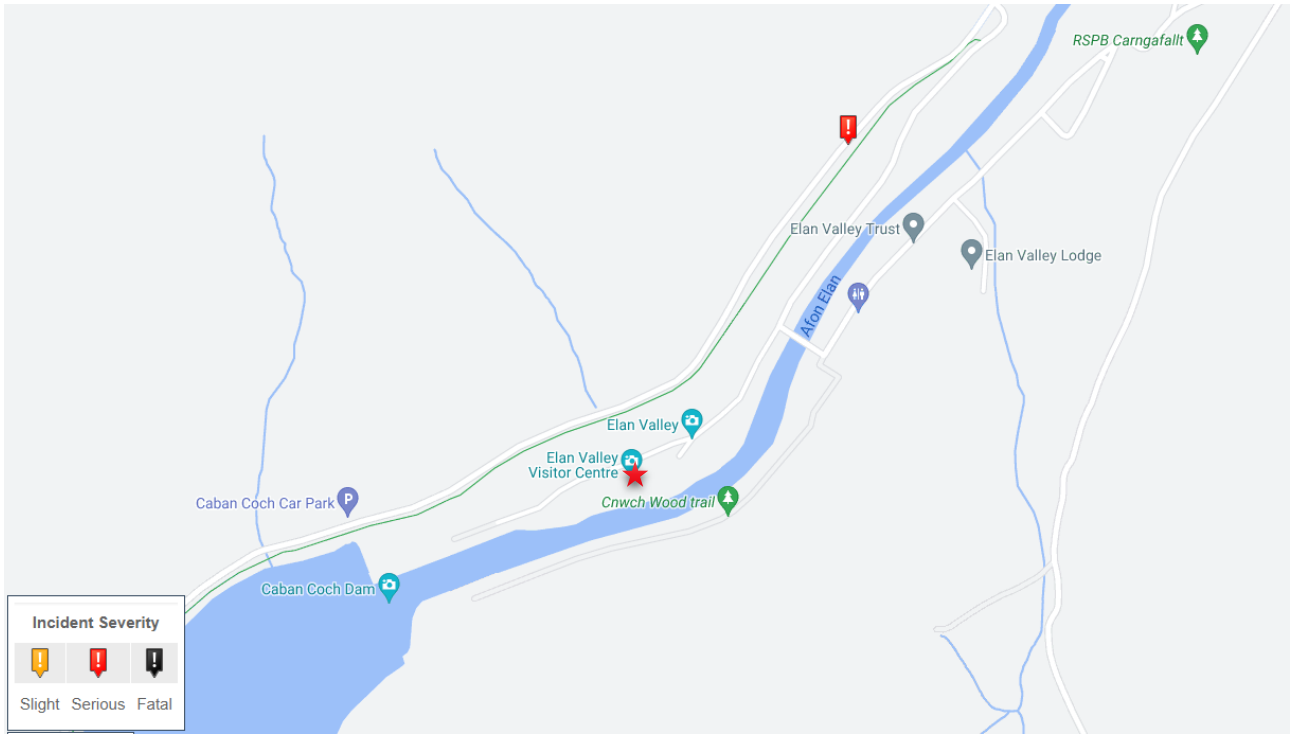


Figure 3.6 Road casualties (2018-2022)

3.6 Parking

The development site has 54 existing marked car parking bays for staff and visitors (with 6 accessible bays and 2 EV charging bays), 3 coach bays, 1 delivery bay and 8 motorcycle parking spaces. It also provides 8 Sheffield Stands which provide 16 cycle parking spaces outside the Visitor Centre, and 4 floor-mounted cycle racks in front of the Bike Hub. Figure 3.7 shows the existing car parking layout in front of the building extracted from tender drawing in 2019.

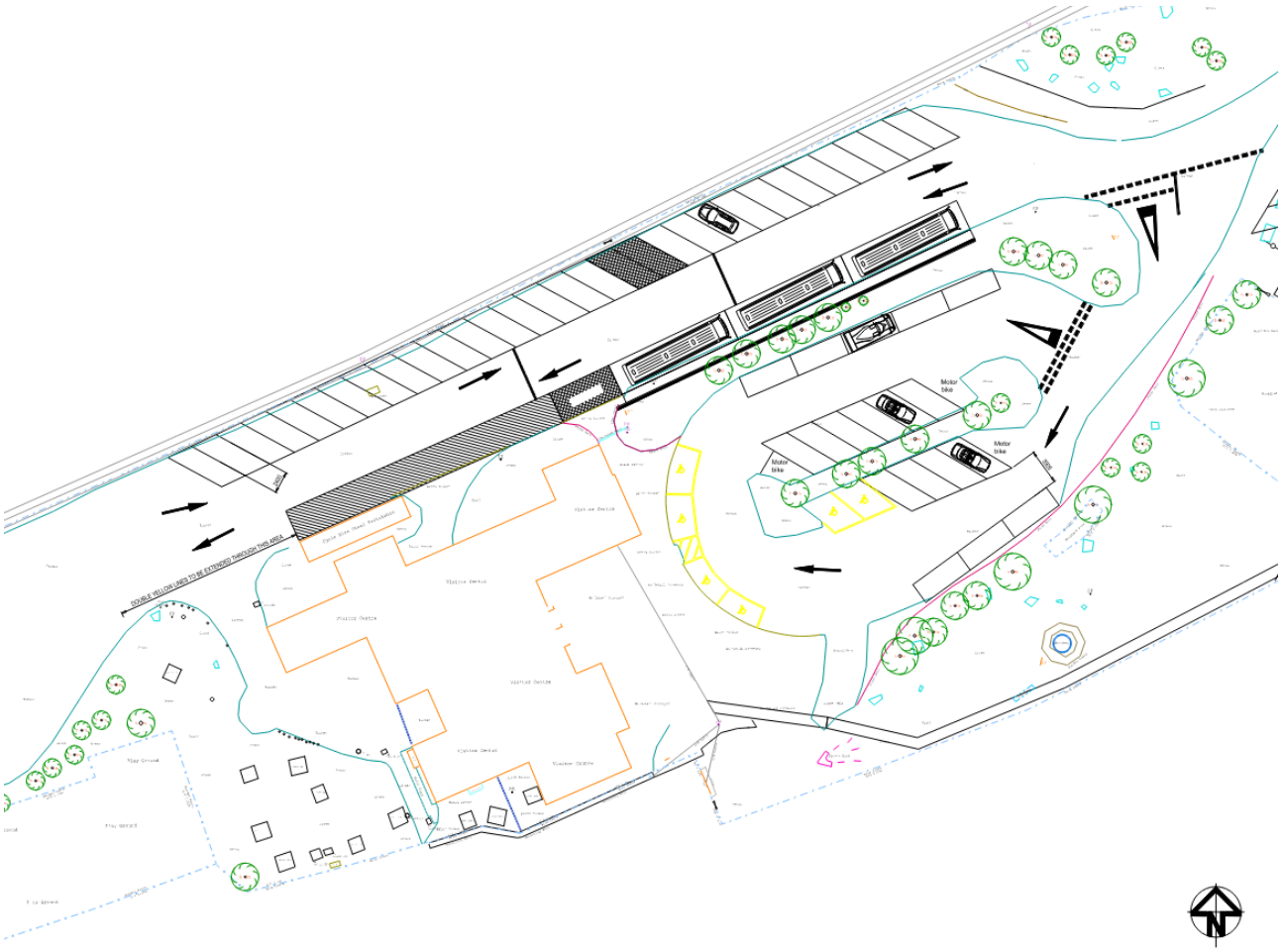


Figure 3.7 Existing Car Park Layout

4. Existing Travel Demand

4.1 Overview

Considering the remote location of the site in a rural area, it is acknowledged that many trips are made by cars for both staff and visitors. Although observations indicate that there are pedestrians, cyclists, motorbikes and horses travelling to the site, none of these trips are currently measured or monitored. It is noted that the Visitor Centre is working on a pilot visitor counting methodology to collect data about trips made by walking, cycling and other modes.

Data on vehicle trips is collected via the ANPR system in the car park. The Visitor Centre owns and manages it to monitor and record the arrival and departure times of vehicles for ticketing purposes. This also helps understand and manage travel demand in relation to parking.

4.2 Existing Car Parking Statistics

The visitor statistics were recorded using the ANPR system in the existing car park. A copy of the visitor statistics for 2022 and 2023 is provided in full at Appendix 1. There were over 7000 visits to the car park in total each year with around 10% of these made by staff. On average, each visitor's vehicle spent almost 2 hours on site and each staff vehicle stayed for 5.5 hours. 88% of visitors came to the site for the first time.

Figure 4.1 shows the existing occupancy level of car park across the week on average. The occupancy level of car park ranges from 40% to 60% between 11am and 4pm on weekdays, whilst it reaches up to 80% on Sunday and 95% on Saturdays between 12pm and 3pm. During the peak hours on Saturday, there is only 5% of headroom left which shows the current capacity almost reaches its maximum level. Hence there is a need to manage travel and traffic demand following the redevelopment of the Visitor Centre.

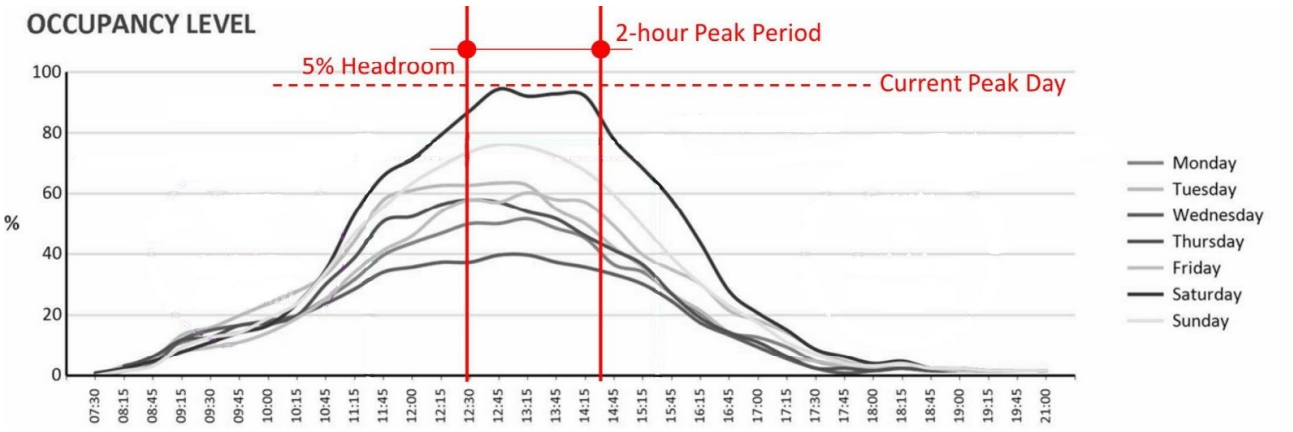


Figure 4.1 Existing occupancy level of car park

5. Development Proposals

The proposed development consists of a restaurant with a training kitchen providing up to 120 seats, an exhibition/ planetarium area, a shop, an office and meeting rooms. It will provide 70 standard car parking spaces (including four accessible bays and six EV charging bays), 22 cycle parking spaces with a shelter for long-stay users, one delivery bay and a lay-by in front of the main entrance of the building. The access route to the shared drop-off space will remain one-way and be shared by coaches, taxis and people with mobility issues to reach the entrance via a direct and short distance route. Figure 5.1 shows the site layout plan and Figure 5.2 shows the close up which includes the location and design layout of the designated parking bays.

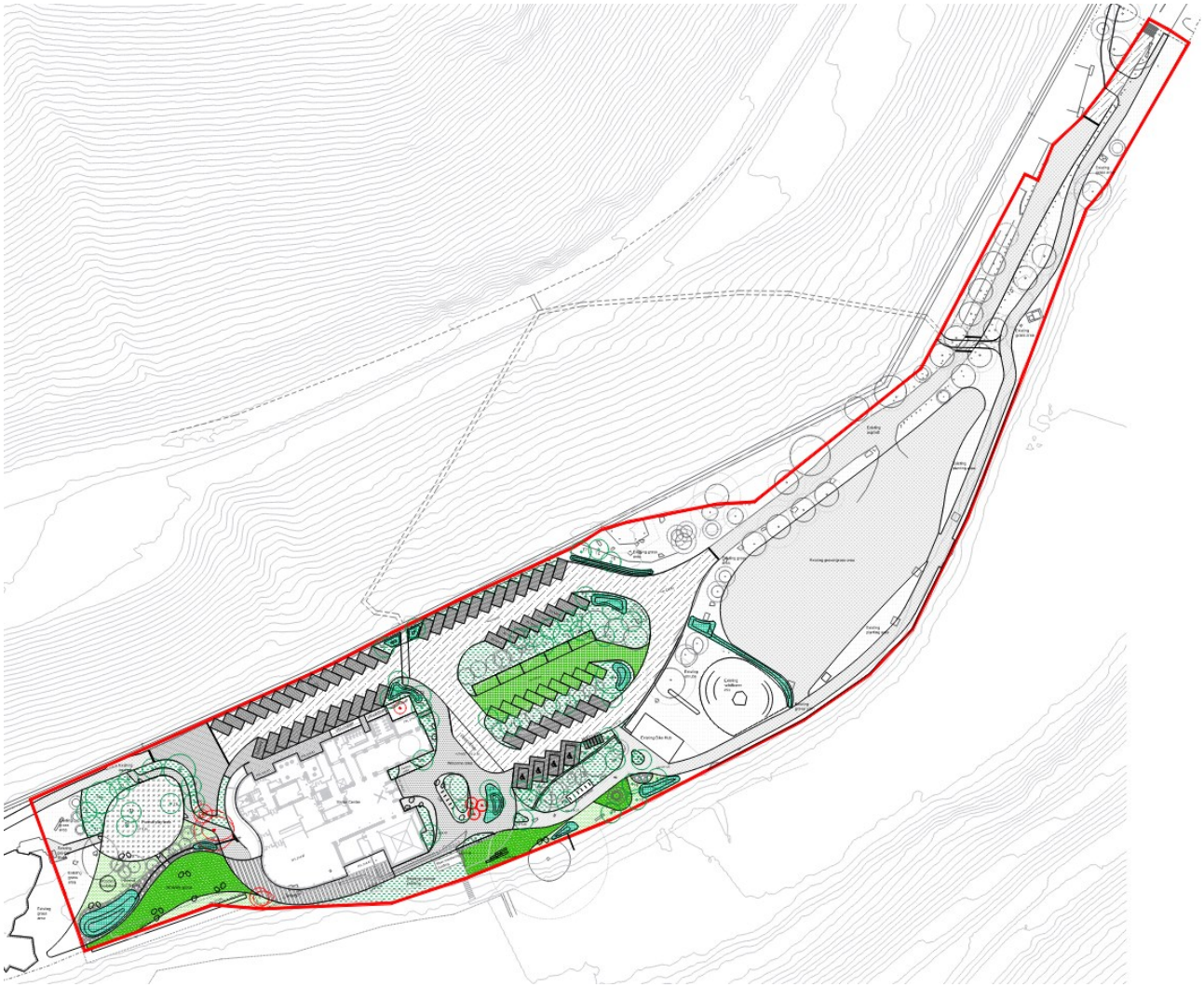


Figure 5.1 Site Layout Plan

Figure 5.2 Site Layout Plan (Parking spaces)

5.1.1 Sustainable site access

The development site will remain accessible by walking and cycling via the existing Elan Valley Trail and NCN Route 81. After entering the site entrance, there will be a segregated route for pedestrians and cyclists at the south along the site boundary. This will provide a traffic-free and safe environment to walk and cycle to the Visitor Centre. This access will also pass by the proposed cycle shelter and the existing Bike Hub where cyclists can park and access the washing and changing facilities there.

5.1.2 Vehicular access

The site will be accessed via a private lane from the short section of U1555 which is an unclassified County Highway, leading from the junction with B4518 in Rhayader. Large vehicles and coaches are advised to follow this route when they head north to Rhayader where they can turn left at the Memorial Clock Tower, rather than driving through the narrow country lanes in Llanwrthwl Village.

The access through the site entrance to the dam will be a two-way road that might allow small vehicles to pass through at the same time and only one large construction type vehicle at a time but the frequency is expected to be very low. Apart from private cars, this access road will also be used by deliveries and refuse vehicles where turning spaces will be at the far end at the west. The loop at the east of the Visitor Centre will be one-way to access the lay-by and the main entrance of the building. There will also be a small section of access at the southeast of building covered by grasscrete to allow occasional access by a maintenance van.

5.1.3 Deliveries

Most deliveries will access the site during the quieter time of the day – arriving before 9am at a frequency of 3-4 days per week and occasional late delivery up until 11am. The largest delivery vehicle will be a 7.5t light rigid truck for food and beverage deliveries, which will be 3 times a week, and then routine LGV up to 3.5t to deliver janitorial supplies and retail supplies. There will be no fixed days or times. It is noted that it is challenging to get a consistent fixed time slot that fits with the delivery schedule given the remote rural location of the site.

5.1.4 Refuse collection

Due to the new waste regulations, waste disposal collections will be 3 days a week (Monday, Wednesday and Friday), between 8am and 11am. The refuse vehicle will be a 3-axle rigid lorry with access to the north of the building to the bin store near the far end of the access.

5.1.5 Dam Maintenance

The access through the site entrance to the dam at the north of Visitor Centre will be required for the management and maintenance of the dam and turbine plant. It will be required and accessed daily by cars and vans, occasionally large construction type vehicles and plant. Parking and turning spaces for these vehicles will take place at the dam and turbine houses, which are outside of the site boundary.

5.1.6 Swept Path Analysis

Swept Path Analysis has been undertaken for 3.5t panel van, 7.5t box van, fire tender, large refuse vehicle, 15m coach and 16.5m large legal articulated vehicle to ensure vehicles can manoeuvre safely through and within the site. A copy of the result is provided in full at Appendix 2.

The results show that the 3.5t panel van, fire tender and large refuse vehicle will be able to access safely through the access road at the north of the Visitor Centre and turn at the far end of the access. Since this access is approximately 3.7m wide, it will allow standard cars to reverse at the 45-degree angle of approach. Apart from entering and leaving the parking bay, private cars would not access this road. It would normally be accessed by light goods vehicles for deliveries and occasionally by refuse vehicles; construction vehicles will access (but not turn in) this road and trips by a large (16.5m) legal articulated vehicle would be rare. Figure 5.3 shows that larger vehicles might need to wait when they access this road, which is acceptable given the relatively low frequency of movements.

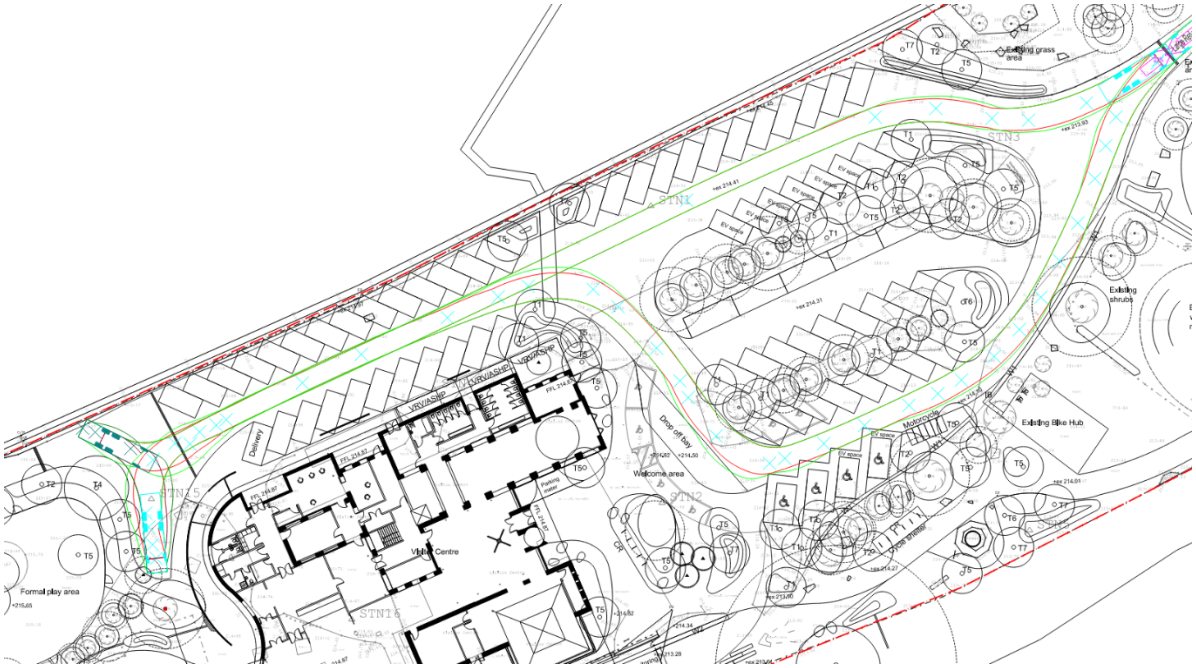


Figure 5.3 Swept Path Analysis (Large Refuse Vehicle)

The loop in front of the main entrance of the Visitor Centre will be one-way. Figure 5.4 shows the swept path of a coach accessing the lay-by, which would only be required when the coach has someone with mobility issues to drop off or pick up. Otherwise, the coach will drop off or pick up people at the designated coach bay in the existing gravel/ grass area. People travelling by coach will follow the pedestrian and cycle path along the southern side of the site boundary to reach the Visitor Centre. A preliminary swept path analysis has been undertaken to understand how the coach manoeuvres and modifications to the entrance of this area will be needed, with details in full which can be found in Appendix 2. Detailed design of the coach bays will be required alongside with other parking bays, the arrangement of vehicular access and considerations from other disciplines.

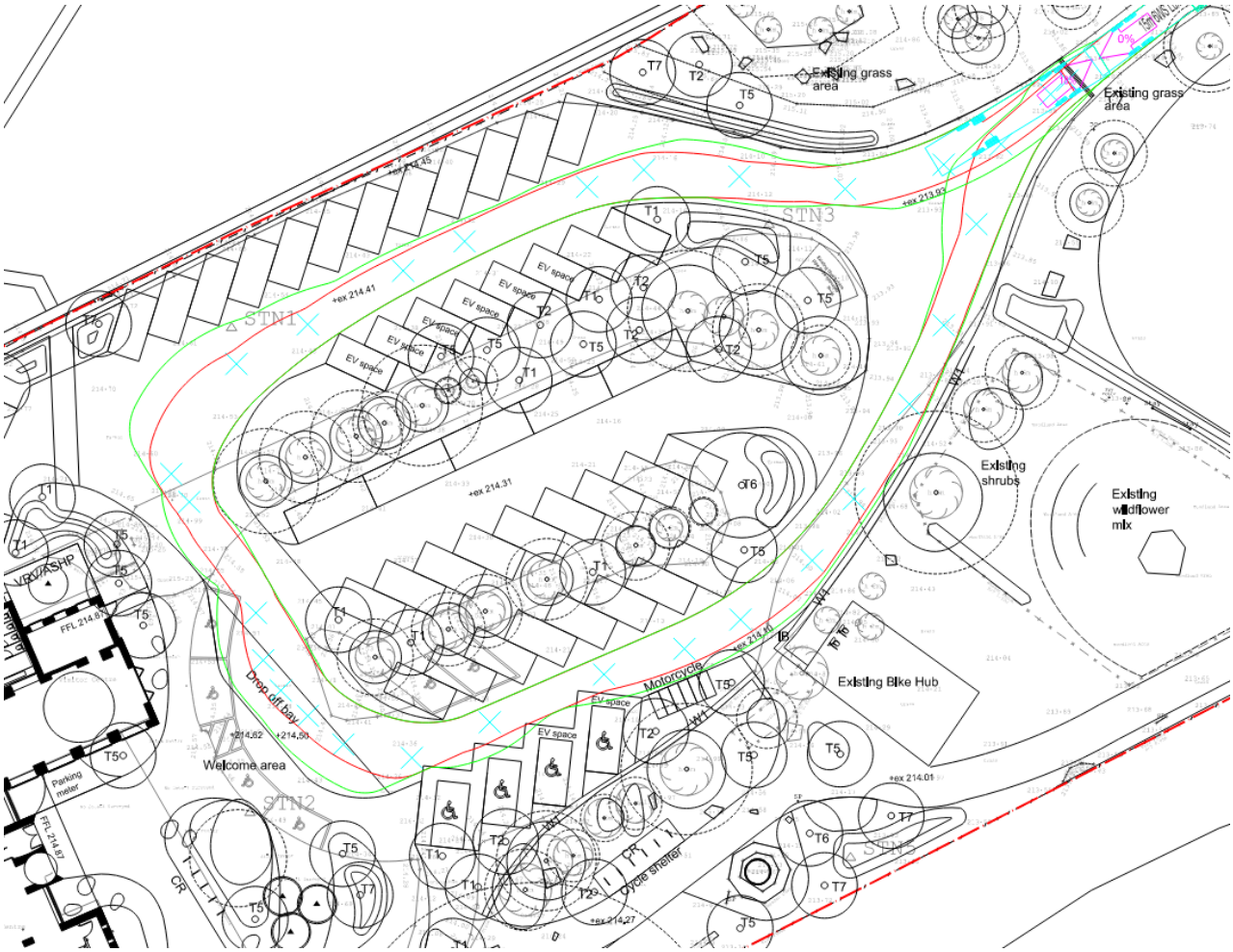


Figure 5.4 Swept Path Analysis (Coach)

The result also shows that drivers accessing to the south of the Visitor Centre will need to reverse carefully as this space is shared with pedestrians and cyclists. Details in full can be found in Appendix 2.

5.2 Parking Strategy

5.2.1 Vehicle Parking

The development proposal will include 70 vehicle parking spaces, including 4 accessible bays (with 2 of them providing an EV charging point) and 6 EV charging spaces. This includes 13 standard parking bays for staff at the north of Visitor Centre. There will also be 6 motorcycle parking spaces. This level of provision has been tailored to accommodate the number of staff and the forecast number of vehicle trips made by visitors as set out in Chapter 6.1. It also aligns with the adopted CSS Wales Parking Standards 2014 given the land use and site location. A summary of vehicle parking standards as per the adopted standards is provided in Table 5.1.

Applicable Use Class	Area (m^2)	Parking Standards	Parking Required for EVVC Site (Zone 6)
B1 Business – office and meeting rooms	170	1 space per 20m^2	8
A3 Food and drink – restaurants	324	Operational: 1 vehicle space Non- Operational: 1 space per 3 non-resident staff and 1 space per 7 m^2 of dining area	33
D1 Non-residential institutions – exhibition/ planetarium	129	Operational: 1 vehicle space Non-Operational: 1 space per 3 seats	15
A1 Shops	167	Staff: 1 vehicle space Visitor: 1 space per 60m^2	4
Total	790	 Accessible: at least 1 for each staff who is disabled + 6% of total parking spaces Motorcycle: 5% of total parking spaces EV charging: 10% of total parking spaces	60 – breakdown as follows: 4 3 6

Table 5.1 Application of CSS Wales Parking Standards (Vehicle)

Figure 5.5 shows there are also other car parks available near the Visitor Centre. The nearest one is the Caban Coch Car Park which locates around 600 m and takes approximately 10 minutes of walk to the Visitor Centre. The all-day parking charge paid at the Centre or via the app will cover parking at these sites across the day, which will also help to cope with the parking demand on site in the meantime.

Figure 5.5 Car parks in Elan Estate

5.2.2 Cycle Parking

The development will provide 12 sheltered long-stay and 10 short-stay cycle parking spaces which are located a few steps away from the main entrance of the Visitor Centre, in addition to the existing 4 short-stay floor-mounted cycle rack outside the Bike Hub. The design of cycle parking aligns with the Active Travel Act Guidance 2021, where long-stay cycle parking is covered. This level of provision for cycle parking exceeds the requirements in the CSS Wales Parking Standards for cycle parking as summarised in Table 5.2.

Applicable Use Class	Area (m^2)	Parking Standards	Parking Provision Required for EVVC Site (Zone 6)
B1 Business – office and meeting rooms	170	Long-stay: 1 per 200m^2 Short-stay: 1 per 1000m^2	2
A3 Food and drink – restaurants	324	Long-stay: 1 per 10 staff Short-stay: Nil	1
D1 Non-residential institutions – exhibition/ planetarium	129	Long-stay: 1 per 10 staff Short-stay: 1 per 30 seats	2
A1 Shops	167	Long-stay: 1 per 100m^2 Short-stay: 1 per 100m^2	2
Total	790		7

Table 5.2 Application of CSS Wales Parking Standards (Cycle)

5.3 Travel Demand Management

The following solutions are available and being developed by DCWW to manage travel demand, parking capacity and potential trips generated by large-scale events. Some of the solutions have also been suggested effective in managing travel and network demand[1].

5.3.1 Optimized uses in non-peak hours

With reference to the visitor statistics in 2022 and 2023, it would be roughly before 11am and after 4pm on weekdays where the car park would only be 60% or less occupied. Therefore, the Visitor Centre will host and organize events and activities in non-peak hours to alleviate and spread the parking demand across the day, managing travel demand.

5.3.2 Group visit

People visiting in groups will be encouraged to pre-book two weeks in advance and it will also be essential for large groups to pre-book.[2] The Visitor Centre also provides a Coach Operators Pack which contains detailed information about coach companies for visiting the area. This will encourage the visitors to share rides and reduce the number of vehicles parking on site.

5.3.3 Demand-responsive transport/ Park-and-ride

There is a demand-responsive transport (DRT) service operated by S.P. Cars, a local minibus and taxi company, where visitors can park their cars in Rhayader and Llandrindod Wells Interchange for transit. The Visitor Centre is also developing an option to provide a park-and-ride service in partnership with CARAD, the local museum in Rhayader. The DRT service will provide capacity to transport visitors to the site and park-and-ride service will avoid driving directly to the site.

5.3.4 Coach arrangements

The Visitor Centre works in partnership with coach companies, providing bespoke coach packages for schools to visit the site and any large-scale events with people being picked up by coach instead of driving to the site. This will increase the transport capacity and reduce the parking demand on site.

As part of the wider redevelopment project, there is a green transport thread that includes the provision of E-minibus services. This will allow the Visitor Centre to organize tours in the Elan Estate, reducing the need for visitors to park on site. The Visitor Centre are also exploring options for others to operate a shuttle service – using a vintage bus – and have trialled a horse and carriage trip.

5.3.5 Tariffs and pricing

The current Elan Estate-wide parking arrangements allow a fixed parking charges that cover visitors to park in any of the Estate's car parks across the day. Regular visitors may purchase an annual parking pass for a single vehicle which will give unlimited parking for that vehicle on the site for one year. The Visitor Centre will review the tariff structure as appropriate to manage parking demand across the day and year.

In addition, the Visitor Centre owns and operates the Automatic Number Plate Recognition (ANPR) system for car parking on site. The system is currently programmed to have one fixed price for parking for the day (currently £3 for all day) but can be reprogrammed to introduce multiple tariffs to provide flexibility to have different tariff structures throughout the day or month to manage the dwelling times of vehicles and incentivise visits at quiet times.

[1] Travel Demand Management Toolkit (Department for Transport 2021)

[2] Elan Valley - Group Visits

6. Future Travel Demand

As mentioned earlier, the development is located in a rural area. It is acknowledged that trips will be made by cars for both staff and visitors. Most of the proposed land uses associated with the redevelopment of Elan Valley Visitor Centre are considered to be destinations in their own right, with the exception of the shop. It is assumed that people visiting the shop will link their trips to other uses and the shop itself will not attract individual vehicle trips. Therefore, the trip generation calculation for the shop has been scoped out of this assessment.

It is noted that, when compiling trip rates for individual land use to comprise a mixed development scenario, there might be cross-visitation activities between individual components. For example, visitors might visit both the restaurant and exhibition area which would cause double counting of trips. This means the total trip rate sum could end up being artificially inflated. Considering all the uses are developed as destinations on their own (except the shop), the total trip rates have been compiled in this assessment.

Apart from the trips generated by the office, TRICS database has been interrogated to establish trip rates for the restaurant and the exhibition area. Trip generation associated with the office has been calculated based on the number of employees, different scenarios with a mix of work arrangements and the existing statistics.

6.1 Trip Generation

6.1.1 Office

The office area is not the dominant use of the development and hence trip generation is calculated based on the number of employees using the office. The Visitor Centre will open all year except for Christmas Day, from 9/10am to 4/5pm, with some staff working hybrid and some working on site with rotating shifts.

Table 6.1 shows the anticipated trip generation with different scenarios. Given the freestanding site location, it is assumed that the employees will drive their own cars to the site and constitute two trips for each person. With reference to the existing usage of car park arrival/departure in 2022 and 2023, the average visits per day by staff were 20 and 23 respectively. This would align with the hybrid working scenario #1 which estimates a daily total vehicle trip of 24. In Everyone On-site scenario, it is estimated that a total of 32 vehicle trips per day will be generated by the 16 office workers.

Scenarios	Description	No. of Staff on site	Daily Total Vehicle Trip
Everyone On-site	All 16 office workers (6 Rangers, 2 Dam Safety, 4 Managers, 2 Business Support, 2 Sales and Marketing) work on-site	16	32
Hybrid Working #1	All 16 office workers work on-site with rotating shifts, with 75% of them working on-site	12	24
Hybrid Working #2	All 16 office workers work on-site with rotating shifts, with 50% of them working remotely	8	16

Table 6.1 Estimated trip generation with different work arrangements (Office)

6.1.2 Restaurant

The restaurant/café will be a destination in its own right, providing a day-visitor servery counter offer, a fine-dining table service and an event buffet service. The TRICS database (version 7.11.2) has been interrogated to establish trip rates for the development site. The surveys were based on the following criteria:

- Land use criteria: Hotel Food & Drink, Banqueting Centre; and
- Located outside of London, Scotland and Ireland; and
- Edge of town, suburban area, edge of town centre.

The sites identified in TRICS from the above criteria includes 2 surveys, with an average of 100 seats. A copy of the TRICS report is provided in full at Appendix A. The trip rates (per seat) of the selected sites are shown in Table 6.2. It also presents the estimated total vehicle trips for this use, during peak hours and daily on average, for the development based on 120 seats.

	AM Peak (12:00-13:00)			PM Peak (23:00-24:00)			Daily (06:00-24:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip rates (per seat)	0.255	0.16	0.415	0.075	0.205	0.28	1.345	1.275	2.62
Proposal (120 seats)	31	19	50	9	25	34	161	153	314

Table 6.2 Estimated total vehicle trips (Restaurant)

Table 6.3 shows the anticipated parking occupancy throughout the day for the restaurant with different dwelling times. Based on the client's advice, there will be occasional evening group talks and presentations with meals provided. In a 2-hour event, the car park is expected to operate within its capacity. Coach visits would be arranged to reduce the parking demand.

Time Range	Arrivals	Departures	Accumulation (2hrs of dwell time)
08:00-09:00	10	4	6
09:00-10:00	11	5	13
10:00-11:00	10	11	11
11:00-12:00	3	5	8
12:00-13:00	28	16	20
13:00-14:00	8	5	22
14:00-15:00	7	8	21
15:00-16:00	5	11	15
16:00-17:00	9	4	20
17:00-18:00	17	6	31
18:00-19:00	9	7	33
19:00-20:00	13	7	39
20:00-21:00	4	13	30
21:00-22:00	4	4	29
22:00-23:00	2	8	23
23:00-24:00	4	20	8

Table 6.3 Estimated car parking occupancy by dwelling time (Restaurant)

6.1.3 Exhibition/ Planetarium

The TRICS database (version 7.11.2) has been interrogated to establish trip rates for the development site for this purpose. The surveys were based on the following criteria:

- Land use criteria: Leisure, Art Galleries/Museums/Exhibitions; and
- Located outside of London, Scotland and Ireland; and
- Edge of town, suburban area, edge of town centre.

The sites identified in TRICS from the above criteria includes 2 surveys, with an average GFA of 565 sq. m. A copy of the TRICS report is provided in full at Appendix B. The trip rates (per 100 sq. m.) of the selected sites are shown in Table 6.4. It also presents the estimated total vehicle trips for this use, during peak hours and daily on average.

	AM Peak (11:00-12:00)			PM Peak (13:00-14:00)			Daily (09:00-17:00)		
	In	Out	Total	In	Out	Total	In	Out	Total
Trip rates (per 100 m²)	0.973	0.619	1.592	0.796	0.973	1.769	4.255	3.892	8.147
Proposal (129 m²)	1	1	2	1	1	2	5	5	11

Table 6.4 Estimated total vehicle trips (Exhibition/ Planetarium)

6.1.4 Summary

Table 6.5 shows the estimated hourly parking demand across the day for office, restaurant and exhibition/ planetarium. Since the typical office hours will be similar to the normal opening hours of the Visitor Centre for exhibition, it would not coincide with the peak hours of the restaurant in the evening. Based on the event of 2-hour dining scenario and the office hybrid #1 scenario, the car park typically would operate below 60% of its capacity.

Time Slot	Office (Hybrid #1)	Exhibition	Restaurant (2-hour dwell time)	Total
08:00-09:00	6	0	0	6
09:00-10:00	12	0	13	25
10:00-11:00	12	1	11	24
11:00-12:00	12	1	8	21
12:00-13:00	12	1	20	33
13:00-14:00	12	1	22	35
14:00-15:00	12	1	21	34
15:00-16:00	12	1	15	28
16:00-17:00	12	0	20	32
17:00-18:00	6	0	31	37
18:00-19:00	0	0	33	33
19:00-20:00	0	0	39	39
20:00-21:00	0	0	30	30
21:00-22:00	0	0	29	29
22:00-23:00	0	0	23	23
23:00-24:00	0	0	8	8

Table 6.5 Estimated hourly parking demand for office, restaurant and exhibition/planetarium

Considering the measures undertaken and being developed by DCWW as detailed in Chapter 5.3 to manage travel demand and parking capacity in case of large-scale events, it is expected that booking will be made in advance and coach/ demand-responsive transport will be arranged to pick up visitors to reduce the trips generated driving to the site and parking demand.

7. Summary and Conclusions

This transport statement has been prepared in support of the planning application for redevelopment of the Elan Valley Visitor Centre in Powys. The development is a freestanding site located in Elan Valley, which is approximately 1.6 km from the Elan Village and 6 km away at the southwest of Rhayader in Powys and connected by a private access from the B4518. The proposed development consists of a restaurant providing up to 120 seats, an exhibition/ planetarium area, a shop, an office and meeting rooms. It will provide 70 standard car parking spaces (including 4 accessible bays and 6 EV charging bays), 22 cycle parking spaces with a shelter for long-stay ones, 1 delivery bays and a lay-by in front of the main entrance of the building.

It is acknowledged that the Visitor Centre attracts a large number of visitors at peak holiday times and many trips are made by car. The Visitor Centre owns and operates the ANPR system in car park and collects data related to vehicle trips, monitor and record the arrival and departure times of vehicles for ticketing purposes. It is also working on a pilot visitor counting methodology to provide the data about trips made by walking, cycling and other modes.

Most of the proposed uses associated with the redevelopment of Elan Valley Visitor Centre are considered to be destinations in their own right, with the exception of the shop. The total trip rates have been compiled in this assessment, noting that there might be cross-visitation activities between individual uses and the total trip rate sum could be artificially inflated. Apart from the trips generated by the office, the TRICS database has been interrogated to establish trip rates for the restaurant and the exhibition area. Trips associated with the office have been calculated based on the number of employees, different scenarios with a mix of work arrangements and the existing statistics.

Several measures will be undertaken and being developed by DCWW to manage travel demand, parking capacity and potential trips generated by large-scale events. This includes optimizing uses in non-peak hours, booking requirement for group visit, provision of demand-responsive transport and park-and-ride services, coach arrangements, and review of tariffs and pricing in the car park.

In summary, the development proposal will contribute positively towards the overarching policy objectives of the Key Policies T1 and DM13 for Powys County Council and is compliant with relevant national and local policies regarding sustainable travel and transport for development.

A.1 Visitor Statistics (Related to Car Park Arrivals/ Departures)

Appraisal – Visitor Statistics (Related to Car Park Arrivals/Departures)

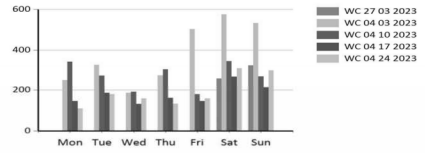
Elan Valley Visitor Centre LD6 (126 spaces)

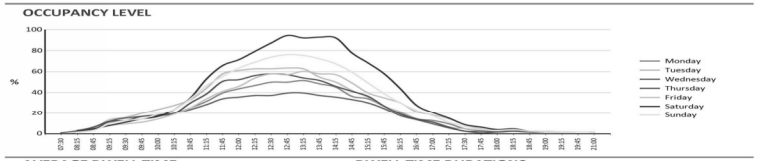
April 2023

	2023	2022	YTD 2022	YTD 2023
Total visits	7,751	7,058	20,254	21,358
Total staff visits	606	739		
Average visits per day	258	235		
Average visits per day - staff	20	23		
Average dwell time	01:45:00	01:44:00		
Average dwell time - staff	05:30:00	05:27:00		

VEHICLE VISIT COUNT

Day	27/03	03/04	10/04	17/04	24/04
Mon		253	343	146	110
Tue		328	275	186	179
Wed		185	191	131	159
Thu		276	306	161	132
Fri		503	179	146	158
Sat	260	575	346	269	311
Sun	325	533	271	213	301
Total	**585**	**2653**	**1911**	**1252**	**1350**



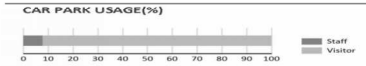


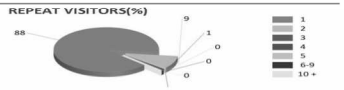
AVERAGE DWELL TIME

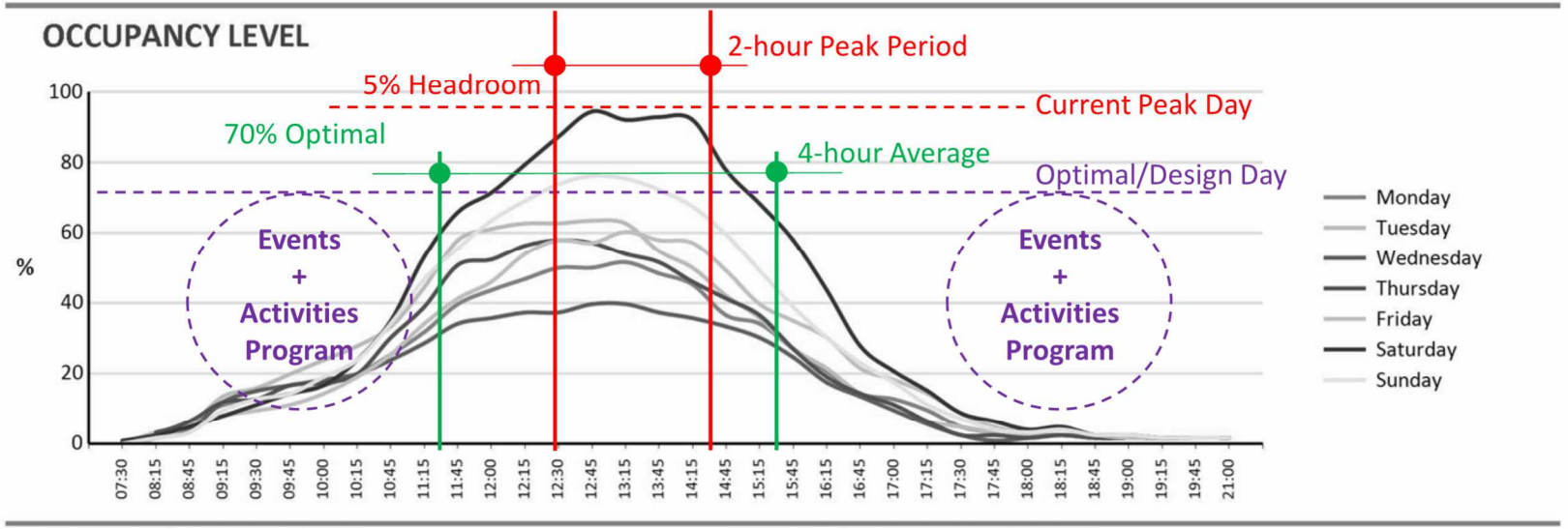
Day	2023	2022	Change
Mon	01:44:43	01:48:25	-3.53%
Tue	01:50:33	01:58:04	-6.80%
Wed	01:58:11	01:55:36	2.18%
Thu	01:53:55	01:54:59	-0.94%
Fri	01:46:53	01:40:37	5.88%
Sat	01:47:02	01:38:12	8.25%
Sun	01:33:23	01:31:22	2.16%

DWELL TIME DURATIONS

Mins	Staff	Mins	Visitor	Mins	Totals
0-60	162	0-15	1,440	**0-15**	**1,526**
60-120	49	15-30	773	**15-30**	**803**
120-180	20	30-60	1,686	**30-60**	**1,732**
180-240	35	60-90	900	**60-90**	**926**
240-300	31	90-120	642	**90-120**	**665**
300-360	36	120-240	1,163	**120-240**	**1,218**
360+	273	240+	541	**240+**	**881**







A.2 Swept Path Analysis

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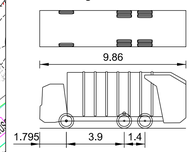
Legend

- Site Boundary
- Survey Data
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



Large Refuse Vehicle (3 axle)	
Overall Length	9.860m
Overall Width	2.450m
Overall Body Height	3.814m
Min Body Ground Clearance	0.366m
Track Width	2.450m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	9.500m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicle types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

2. The vehicle swept paths shown are based on vehicle from the Autodesk Tracking Library. Actual tracking may vary from shown.

Issue	Date	By	Chkd	Appd

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Client
Dŵr Cymru Welsh Water

Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
Large Refuse Vehicle (3 Axle)

Scale at A1	Role	Rev
1:250	Civil	

Suitability: Draft

Job No: **303909-00**

Drawing No: **SK001**

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Legend

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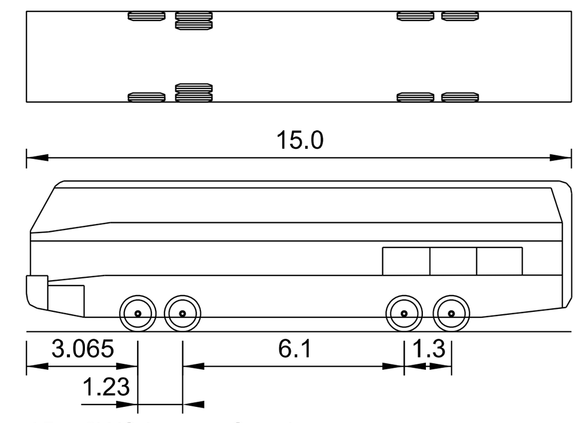
- Survey Data
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



15m 6WS Luxury Coach

Overall Length	15.000m
Overall Width	2.500m
Overall Body Height	4.157m
Min Body Ground Clearance	0.397m
Track Width	2.500m
Lock to Lock Time	5.00s
Wall to Wall Turning Radius	12.490m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicle types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

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Client
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Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
15m 6WS Luxury Coach

Scale at A1: 1:250
Role: Civil
Suitability: Draft
Job No: 303909-00
Rev:
Drawing No: SK002

DRAFT

Do not scale

Legend

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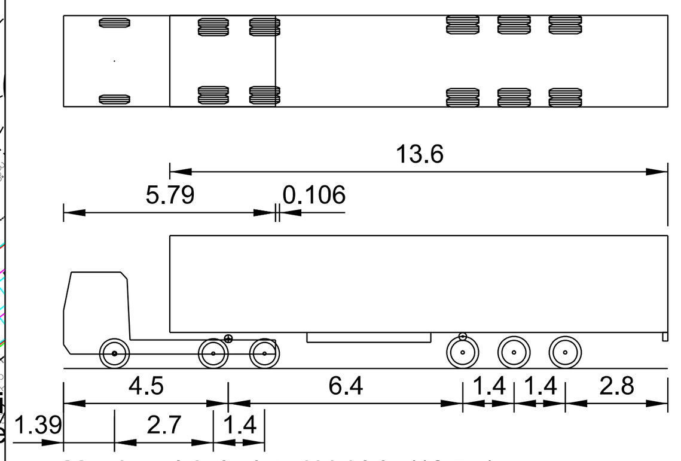
- Survey Data
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



Max Legal Articulated Vehicle (16.5m)

Overall Length	16.500m
Overall Width	2.500m
Overall Body Height	3.632m
Min Body Ground Clearance	0.396m
Max Track Width	2.500m
Lock to Lock Time	6.00s
Curb to Curb Turning Radius	6.870m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicle types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

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Client
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Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
Max Legal Articulated Vehicle (16.5m)

Scale at A1: 1:250
Role: Civil
Suitability: Draft
Job No: 303909-00
Rev
Drawing No: SK003

DRAFT

Do not scale

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Legend

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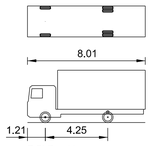
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



7.5t Box Van	
Overall Length	8.010m
Overall Width	2.100m
Overall Body Height	3.556m
Min Body Ground Clearance	0.351m
Track Width	2.064m
Lock to Lock Time	4.00s
Curb to Curb Turning Radius	7.400m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicle types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

2. The vehicle swept paths shown are based on vehicle from the Autodesk Tracking Library. Actual tracking may vary from shown.

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Client
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Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
7.5t Box Van

Scale at A1: 1:250 | Role: Civil

Suitability: Draft

Job No: 303909-00 | Rev:

Drawing No: SK004

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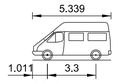
Legend

- Site Boundary
- Survey Data
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



3.5t Panel Van	
Overall Length	5.339m
Overall Width	1.986m
Overall Body Height	2.565m
Min Body Ground Clearance	0.338m
Track Width	1.986m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	6.400m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicle types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

2. The vehicle swept paths shown are based on vehicle from the Autodesk Tracking Library. Actual tracking may vary from shown.

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Client
Dŵr Cymru Welsh Water

Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
3.5t Panel Van

Scale at A1: 1:250 | Role: Civil

Suitability: Draft

Job No: 303909-00 | Rev:

Drawing No: SK005

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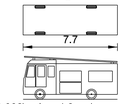
Legend

- Site Boundary
- Survey Data
- Architectural Background
- Vehicle Swept Path Tyre Alignment
- Vehicle Swept Path Body Envelope

Vehicle Legend



Dennis Sabre Fire Tender (LWB)	
Overall Length	7.700m
Overall Width	2.430m
Overall Body Height	3.512m
Min Body Ground Clearance	0.397m
Track Width	2.380m
Lock to Lock Time	5.00s
Kerb to Kerb Turning Radius	7.400m

Notes

1. The vehicle swept paths analysis shown based on the movements as attributed by the vehicle type in the vehicle tracking software. Actual vehicular movements may differ from what shown. It is advised that the movements are verified on site based on the actual vehicle type used within the existing site as the vehicles types are not a true representation of the actual vehicle but the closest vehicle type available within the tracking library.

2. The vehicle swept paths shown are based on vehicle from the Autodesk Tracking Library. Actual tracking may vary from shown.

Issue	Date	By	Chkd	Appd

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Client
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Project Title
Elan Valley Visitor Centre

Drawing Title
Swept Path Analysis
Dennis Sabre Fire Tender (LWB)

Scale at A1: 1:250 | Role: Civil

Suitability: Draft

Job No: 303909-00 | Rev:

Drawing No: SK006

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A.3 TRICS Report (Restaurant)

Calculation Reference: AUDIT-701009-240828-0853

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK
Category : L - BANQUETING CENTRE
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	KC	KENT	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	SE	SHEFFIELD	1 days

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

Primary Filtering selection:

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

Parameter:	Number of seats
Actual Range:	80 to 120 (units:)
Range Selected by User:	80 to 150 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 11/11/23

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
Saturday	1 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town Centre	1
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:

No Sub Category	2

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

Inclusion of Servicing Vehicles Counts:

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

Secondary Filtering selection:

Use Class:

n/a	2 days

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

Population within 500m Range:
All Surveys Included
Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:
250,001 to 500,000 2 days

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

Car ownership within 5 miles:
1.1 to 1.5 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 2 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 2 days

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

LIST OF SITES relevant to selection parameters

1 KC-06-L-01 EVENTS VENUE KENT
EAST HILL
DARTFORD

Edge of Town Centre
No Sub Category
Total Number of seats: 80
Survey date: SATURDAY *11/11/23* *Survey Type: MANUAL*

2 SE-06-L-01 COUNTRY HOUSE VENUE SHEFFIELD
ECCLESALL ROAD SOUTH
SHEFFIELD

Edge of Town
No Sub Category
Total Number of seats: 120
Survey date: FRIDAY *13/05/22* *Survey Type: MANUAL*

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

Trip Rates for Key Periods		Trips per 1 seats SEATS	
Period	Inbound	Outbound	Total
0800-0900	0.090	0.035	0.125
1700-1800	0.145	0.055	0.200

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
TOTAL VEHICLES
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.090	2	100	0.035	2	100	0.125
09:00 - 10:00	2	100	0.120	2	100	0.050	2	100	0.170
10:00 - 11:00	2	100	0.080	2	100	0.105	2	100	0.185
11:00 - 12:00	2	100	0.025	2	100	0.045	2	100	0.070
12:00 - 13:00	2	100	0.255	2	100	0.160	2	100	0.415
13:00 - 14:00	2	100	0.080	2	100	0.055	2	100	0.135
14:00 - 15:00	2	100	0.060	2	100	0.070	2	100	0.130
15:00 - 16:00	2	100	0.040	2	100	0.095	2	100	0.135
16:00 - 17:00	2	100	0.080	2	100	0.030	2	100	0.110
17:00 - 18:00	2	100	0.145	2	100	0.055	2	100	0.200
18:00 - 19:00	2	100	0.080	2	100	0.075	2	100	0.155
19:00 - 20:00	2	100	0.135	2	100	0.085	2	100	0.220
20:00 - 21:00	2	100	0.035	2	100	0.110	2	100	0.145
21:00 - 22:00	2	100	0.030	2	100	0.035	2	100	0.065
22:00 - 23:00	2	100	0.015	2	100	0.065	2	100	0.080
23:00 - 24:00	2	100	0.075	2	100	0.205	2	100	0.280
Total Rates:			1.345			1.275			2.620

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

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

Parameter summary

Trip rate parameter range selected:	80 - 120 (units:)
Survey date date range:	01/01/16 - 11/11/23
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	1
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
TAXIS
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.005	2	100	0.005	2	100	0.010
09:00 - 10:00	2	100	0.000	2	100	0.000	2	100	0.000
10:00 - 11:00	2	100	0.000	2	100	0.000	2	100	0.000
11:00 - 12:00	2	100	0.000	2	100	0.000	2	100	0.000
12:00 - 13:00	2	100	0.020	2	100	0.020	2	100	0.040
13:00 - 14:00	2	100	0.000	2	100	0.000	2	100	0.000
14:00 - 15:00	2	100	0.000	2	100	0.000	2	100	0.000
15:00 - 16:00	2	100	0.000	2	100	0.000	2	100	0.000
16:00 - 17:00	2	100	0.000	2	100	0.000	2	100	0.000
17:00 - 18:00	2	100	0.000	2	100	0.000	2	100	0.000
18:00 - 19:00	2	100	0.000	2	100	0.000	2	100	0.000
19:00 - 20:00	2	100	0.025	2	100	0.025	2	100	0.050
20:00 - 21:00	2	100	0.000	2	100	0.000	2	100	0.000
21:00 - 22:00	2	100	0.000	2	100	0.000	2	100	0.000
22:00 - 23:00	2	100	0.000	2	100	0.000	2	100	0.000
23:00 - 24:00	2	100	0.040	2	100	0.040	2	100	0.080
Total Rates:			0.090			0.090			0.180

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 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
CYCLISTS
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.000	2	100	0.000	2	100	0.000
09:00 - 10:00	2	100	0.000	2	100	0.000	2	100	0.000
10:00 - 11:00	2	100	0.000	2	100	0.000	2	100	0.000
11:00 - 12:00	2	100	0.000	2	100	0.000	2	100	0.000
12:00 - 13:00	2	100	0.000	2	100	0.000	2	100	0.000
13:00 - 14:00	2	100	0.000	2	100	0.005	2	100	0.005
14:00 - 15:00	2	100	0.000	2	100	0.000	2	100	0.000
15:00 - 16:00	2	100	0.005	2	100	0.005	2	100	0.010
16:00 - 17:00	2	100	0.000	2	100	0.000	2	100	0.000
17:00 - 18:00	2	100	0.000	2	100	0.000	2	100	0.000
18:00 - 19:00	2	100	0.000	2	100	0.000	2	100	0.000
19:00 - 20:00	2	100	0.000	2	100	0.000	2	100	0.000
20:00 - 21:00	2	100	0.005	2	100	0.000	2	100	0.005
21:00 - 22:00	2	100	0.000	2	100	0.005	2	100	0.005
22:00 - 23:00	2	100	0.000	2	100	0.000	2	100	0.000
23:00 - 24:00	2	100	0.000	2	100	0.005	2	100	0.005
Total Rates:			0.010			0.020			0.030

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 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
CARS
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.080	2	100	0.030	2	100	0.110
09:00 - 10:00	2	100	0.095	2	100	0.040	2	100	0.135
10:00 - 11:00	2	100	0.080	2	100	0.095	2	100	0.175
11:00 - 12:00	2	100	0.025	2	100	0.045	2	100	0.070
12:00 - 13:00	2	100	0.230	2	100	0.135	2	100	0.365
13:00 - 14:00	2	100	0.065	2	100	0.045	2	100	0.110
14:00 - 15:00	2	100	0.055	2	100	0.065	2	100	0.120
15:00 - 16:00	2	100	0.040	2	100	0.090	2	100	0.130
16:00 - 17:00	2	100	0.075	2	100	0.030	2	100	0.105
17:00 - 18:00	2	100	0.140	2	100	0.050	2	100	0.190
18:00 - 19:00	2	100	0.075	2	100	0.060	2	100	0.135
19:00 - 20:00	2	100	0.110	2	100	0.060	2	100	0.170
20:00 - 21:00	2	100	0.035	2	100	0.110	2	100	0.145
21:00 - 22:00	2	100	0.030	2	100	0.035	2	100	0.065
22:00 - 23:00	2	100	0.015	2	100	0.065	2	100	0.080
23:00 - 24:00	2	100	0.035	2	100	0.165	2	100	0.200
Total Rates:			1.185			1.120			2.305

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 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
LGVS
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.005	2	100	0.000	2	100	0.005
09:00 - 10:00	2	100	0.020	2	100	0.010	2	100	0.030
10:00 - 11:00	2	100	0.000	2	100	0.010	2	100	0.010
11:00 - 12:00	2	100	0.000	2	100	0.000	2	100	0.000
12:00 - 13:00	2	100	0.005	2	100	0.000	2	100	0.005
13:00 - 14:00	2	100	0.015	2	100	0.010	2	100	0.025
14:00 - 15:00	2	100	0.005	2	100	0.005	2	100	0.010
15:00 - 16:00	2	100	0.000	2	100	0.005	2	100	0.005
16:00 - 17:00	2	100	0.005	2	100	0.000	2	100	0.005
17:00 - 18:00	2	100	0.005	2	100	0.005	2	100	0.010
18:00 - 19:00	2	100	0.005	2	100	0.015	2	100	0.020
19:00 - 20:00	2	100	0.000	2	100	0.000	2	100	0.000
20:00 - 21:00	2	100	0.000	2	100	0.000	2	100	0.000
21:00 - 22:00	2	100	0.000	2	100	0.000	2	100	0.000
22:00 - 23:00	2	100	0.000	2	100	0.000	2	100	0.000
23:00 - 24:00	2	100	0.000	2	100	0.000	2	100	0.000
Total Rates:			0.065			0.060			0.125

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 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
MOTOR CYCLES
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.000	2	100	0.000	2	100	0.000
09:00 - 10:00	2	100	0.005	2	100	0.000	2	100	0.005
10:00 - 11:00	2	100	0.000	2	100	0.000	2	100	0.000
11:00 - 12:00	2	100	0.000	2	100	0.000	2	100	0.000
12:00 - 13:00	2	100	0.000	2	100	0.005	2	100	0.005
13:00 - 14:00	2	100	0.000	2	100	0.000	2	100	0.000
14:00 - 15:00	2	100	0.000	2	100	0.000	2	100	0.000
15:00 - 16:00	2	100	0.000	2	100	0.000	2	100	0.000
16:00 - 17:00	2	100	0.000	2	100	0.000	2	100	0.000
17:00 - 18:00	2	100	0.000	2	100	0.000	2	100	0.000
18:00 - 19:00	2	100	0.000	2	100	0.000	2	100	0.000
19:00 - 20:00	2	100	0.000	2	100	0.000	2	100	0.000
20:00 - 21:00	2	100	0.000	2	100	0.000	2	100	0.000
21:00 - 22:00	2	100	0.000	2	100	0.000	2	100	0.000
22:00 - 23:00	2	100	0.000	2	100	0.000	2	100	0.000
23:00 - 24:00	2	100	0.000	2	100	0.000	2	100	0.000
Total Rates:			0.005			0.005			0.010

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 06 - HOTEL, FOOD & DRINK/L - BANQUETING CENTRE
Scooters
Calculation factor: 1 SEATS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	Trip Rate	No. Days	Ave. SEATS	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	1	80	0.000	1	80	0.000	1	80	0.000
07:00 - 08:00	1	80	0.000	1	80	0.000	1	80	0.000
08:00 - 09:00	2	100	0.010	2	100	0.000	2	100	0.010
09:00 - 10:00	2	100	0.000	2	100	0.000	2	100	0.000
10:00 - 11:00	2	100	0.000	2	100	0.010	2	100	0.010
11:00 - 12:00	2	100	0.000	2	100	0.000	2	100	0.000
12:00 - 13:00	2	100	0.000	2	100	0.000	2	100	0.000
13:00 - 14:00	2	100	0.000	2	100	0.000	2	100	0.000
14:00 - 15:00	2	100	0.000	2	100	0.000	2	100	0.000
15:00 - 16:00	2	100	0.000	2	100	0.000	2	100	0.000
16:00 - 17:00	2	100	0.000	2	100	0.000	2	100	0.000
17:00 - 18:00	2	100	0.000	2	100	0.000	2	100	0.000
18:00 - 19:00	2	100	0.000	2	100	0.000	2	100	0.000
19:00 - 20:00	2	100	0.000	2	100	0.000	2	100	0.000
20:00 - 21:00	2	100	0.000	2	100	0.000	2	100	0.000
21:00 - 22:00	2	100	0.000	2	100	0.000	2	100	0.000
22:00 - 23:00	2	100	0.000	2	100	0.000	2	100	0.000
23:00 - 24:00	2	100	0.000	2	100	0.000	2	100	0.000
Total Rates:			0.010			0.010			0.020

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

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

A.4 TRICS Report (Exhibition/ Planetarium)

Calculation Reference: AUDIT-701009-240828-0831

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 07 - LEISURE
Category : I - ART GALLERIES/MUSEUMS/EXHIBITIONS
TOTAL VEHICLES

Selected regions and areas:

07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH 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:	Gross floor area
Actual Range:	400 to 730 (units: sqm)
Range Selected by User:	400 to 1000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/16 to 07/03/19

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:

Thursday	2 days

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

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	2

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:

Built-Up Zone	2

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	2 days - Selected
Servicing vehicles Excluded	X days - Selected

Secondary Filtering selection:

Use Class:

F1(c)	2 days

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

Population within 500m Range:
All Surveys Included
Population within 1 mile:

5,001 to 10,000	1 days
20,001 to 25,000	1 days

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

Secondary Filtering selection (Cont.):

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	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	2 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	2 days

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

LIST OF SITES relevant to selection parameters

1 NY-07-I-01 MUSEUM NORTH YORKSHIRE
CROWN PLACE
HARROGATE

Town Centre
Built-Up Zone
Total Gross floor area: 400 sqm
Survey date: THURSDAY *25/10/18* *Survey Type: MANUAL*

2 NY-07-I-02 MILITARY MUSEUM NORTH YORKSHIRE
TRINITY CHURCH SQUARE
RICHMOND

Town Centre
Built-Up Zone
Total Gross floor area: 730 sqm
Survey date: THURSDAY *07/03/19* *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 Rates for Key Periods		Trips per 100 sqm GFA	
Period	Inbound	Outbound	Total
0800-0900	0.000	0.000	0.000
1700-1800	0.000	0.000	0.000

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS
TOTAL VEHICLES
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00	1	730	0.274	1	730	0.000	1	730	0.274
10:00 - 11:00	2	565	0.531	2	565	0.000	2	565	0.531
11:00 - 12:00	2	565	0.973	2	565	0.619	2	565	1.592
12:00 - 13:00	2	565	0.531	2	565	0.973	2	565	1.504
13:00 - 14:00	2	565	0.796	2	565	0.973	2	565	1.769
14:00 - 15:00	2	565	0.531	2	565	0.354	2	565	0.885
15:00 - 16:00	2	565	0.619	2	565	0.708	2	565	1.327
16:00 - 17:00	2	565	0.000	2	565	0.265	2	565	0.265
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.255			3.892			8.147

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

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

Parameter summary

Trip rate parameter range selected:	400 - 730 (units: sqm)
Survey date date range:	01/01/16 - 07/03/19
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS
CARS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00	1	730	0.274	1	730	0.000	1	730	0.274
10:00 - 11:00	2	565	0.442	2	565	0.000	2	565	0.442
11:00 - 12:00	2	565	0.973	2	565	0.619	2	565	1.592
12:00 - 13:00	2	565	0.531	2	565	0.885	2	565	1.416
13:00 - 14:00	2	565	0.796	2	565	0.973	2	565	1.769
14:00 - 15:00	2	565	0.531	2	565	0.354	2	565	0.885
15:00 - 16:00	2	565	0.619	2	565	0.708	2	565	1.327
16:00 - 17:00	2	565	0.000	2	565	0.265	2	565	0.265
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.166			3.804			7.970

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 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS
LGVS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00	1	730	0.000	1	730	0.000	1	730	0.000
10:00 - 11:00	2	565	0.088	2	565	0.000	2	565	0.088
11:00 - 12:00	2	565	0.000	2	565	0.000	2	565	0.000
12:00 - 13:00	2	565	0.000	2	565	0.088	2	565	0.088
13:00 - 14:00	2	565	0.000	2	565	0.000	2	565	0.000
14:00 - 15:00	2	565	0.000	2	565	0.000	2	565	0.000
15:00 - 16:00	2	565	0.000	2	565	0.000	2	565	0.000
16:00 - 17:00	2	565	0.000	2	565	0.000	2	565	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.088			0.088			0.176

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.

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TRIP RATE for Land Use 07 - LEISURE/I - ART GALLERIES/MUSEUMS/EXHIBITIONS
Servicing Vehicles
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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									
08:00 - 09:00									
09:00 - 10:00	1	730	0.000	1	730	0.000	1	730	0.000
10:00 - 11:00	2	565	0.088	2	565	0.000	2	565	0.088
11:00 - 12:00	2	565	0.000	2	565	0.000	2	565	0.000
12:00 - 13:00	2	565	0.000	2	565	0.088	2	565	0.088
13:00 - 14:00	2	565	0.000	2	565	0.000	2	565	0.000
14:00 - 15:00	2	565	0.000	2	565	0.000	2	565	0.000
15:00 - 16:00	2	565	0.000	2	565	0.000	2	565	0.000
16:00 - 17:00	2	565	0.000	2	565	0.000	2	565	0.000
17:00 - 18:00									
18:00 - 19:00									
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.088			0.088			0.176

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.

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