

J000508-HTN01b
November 2024

Proposed New Residential Development

Land at Heol Dirion, Colwyn Bay, Conwy

Highways Technical Note

Prepared on behalf of:

ANWYL
thoughtful homes



F • < US
TRANSPORT PLANNING

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CONTENTS

1.0	INTRODUCTION
2.0	EXISTING HIGHWAY NETWORK CONDITIONS
2.1	Site Location & Development Proposals
2.2	Description of Existing Local Network Connections
2.3	Personal Injury Accident Records: Highway Safety
3.0	SITE ACCESSIBILITY AUDIT
3.1	Introduction
3.2	Access to Public Transport
3.3	Accessibility to Local Facilities (Walking and Cycling)
3.4	Accessibility Summary
4.0	DESCRIPTION OF THE PROPOSAL SCHEME
4.1	Overview
4.2	Highway Access Arrangements
4.3	Car Parking
4.4	Site Servicing
5.0	PREDICTED DEVELOPMENT TRAFFIC DEMAND
5.1	Trip Generation
5.2	Assignment of Development Traffic Movements
5.3	Overview
6.0	SUMMARY AND CONCLUSIONS

DRAWINGS

SAER ARCHITECT
HDC-SAL-01-ZZ-DR-A-0003_P4 Proposed Site Plan

FOCUS TP
J000508/SK101A Visibility Splays from Internal Private Drives
J000508/ATR101A Swept Path Assessment - Refuse Vehicle

FIGURES

Figure HTN1	Site Location Plan - Strategic Context
Figure HTN2	Site Location Plan - Immediate Context
Figure HTN3	Personal Injury Accident Review Search Area
Figure HTN4	Available Local Bus Connections from The Application Site
Figure HTN5	2km Walk Catchment from The Application Site
Figure HTN6	5km Cycle Catchment from The Application Site

APPENDICES

Appendix HTN1	Residential TRICS Output
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1.0 INTRODUCTION

1.1 This Highways Technical Note has been prepared by Focus Transport Planning Ltd (Focus TP) on behalf of Anwyl Homes & Wales and West Housing Association to provide a review of highways and transport matters associated with the proposed residential development at Heol Dirion, Colwyn Bay, Conwy. The proposals envisage the development of 28 residential dwellings served via an extension of the existing residential estate road of Heol Dirion. The delivery of the proposed new dwellings would represent the extension of an existing residential development area.

1.2 This Highways Technical Note (HTN) report has been prepared to apprise the local planning and highway authority (Conwy County Borough Council - CCBC) of highways and transport matters associated with the development proposals and to outline the principles of the proposed site access arrangements.

1.3 Planning Policy Wales TAN18 “Transport” Annex D identifies that residential developments of under a suggested threshold of 100 dwellings do not trigger the need for the preparation of a detailed Transport Assessment report. Notwithstanding this general rule of thumb, in order to provide a review of the current proposed scheme, this HTN has been prepared.

1.3.1 The structure of the remainder of this report is therefore as follows:

- An audit of the existing characteristics of the immediate highway layout to the site, including highway safety matters, a review of site accessibility via alternative travel modes to the private car;
- A review of the key proposed development elements and proposed site access strategy;
- An assessment of the future traffic levels anticipated to be generated by the development scheme;
- Summary and Conclusions.

2.0 EXISTING HIGHWAY NETWORK CONDITIONS

2.1 Site Location & Development Proposals

2.1.1 The location of the proposal site is illustrated in **Figure HTN1** to this report. This plan identifies the location of the site on the southern outskirts of Colwyn Bay.

2.1.2 **Figure HTN2** to this report illustrates the immediate location of the site, and demonstrates that the site is located at the terminus of the Heol Dirion cul-de-sac.

2.2 Description of Existing Local Network Connections

2.2.1 Heol Dirion represents a cul-de-sac route with frontage residential properties and two small side roads. The route is 5.5m in width, with a speed cushion located approximately halfway along its length. Footways of 1.8m width are provided to both sides and the route is lit. Occasional on-street parking is noted to take place, although such parking is not observed to create any operational difficulties. Heol Dirion bends through 90degrees, with forward visibility of at least 25m available throughout the bend, suitable for the prevailing 20mph speed limit.

2.2.2 Heol Dirion connects to Beal Avenue and Severn Road at a priority-controlled give-way T-junction (Heol Dirion representing the minor road approach). Both Beal Avenue and Severn Road are characterised by 7.0m carriageway widths with 1.8-3.0m footways to both sides. Beal Avenue continues north eastwards towards Groes Road, with Groes Road acting as the main local distributor road for frontage and surrounding residential development, providing direct connections to A547 Abergele Road to the north. Seven Road, which continues north westwards, also ultimately connects to Groes Road, via Glyn Avenue.

2.2.3 In the vicinity of its junctions with Beal Avenue and Glyn Avenue, Groes Road is of a minimum of 6.0m width and is lit with no traffic calming features on the main road carriageway.

2.2.4 Groes Road climbs in both approach directions to a localised crest at the junction with Glyn Avenue. The approach gradient is particularly steep on the southeastern

approach, where the combination of the local vertical profile and a sharp bend in the carriageway are such that forward visibility to the junction is limited. Forward visibility from the north-west however, is much more suitable, being of the order of 45-50m. Suitable standard footways are also available on both sides of the route, with street lighting also available for the full length of route section.

- 2.2.5 The section of Glyn Avenue to the north of its junction with Glyn Avenue is characterised by frontage development along the majority of the western road frontage. Typically, such development is residential in nature, although some commercial properties are noted towards the extreme northern end of the route, close to the terminal connection to A547 Abergele Road. The eastern road frontage serves a range of development uses including an Assisted Living residence, a limited number of residential properties and an access to a territorial army barracks.
- 2.2.6 Many of the residential properties to the western frontage of Groes Road do not provide in-curtilage parking and therefore on-street parking is noted to take place on some sections. This parking is noted to exclusively take place to the western side of the road, with no parking on the opposite side of the road. A lay-by parking facility was also noted close to the crest of the steeper section of route, removing on-street parking demand at this location.
- 2.2.7 The main impact of the on-street parking is noted to effectively reduce sections of the route to give-way shuttle working. Such operation is noted to assist in controlling vehicle speeds whilst not resulting in any obvious operational problems, such as safety issues or congestion. Double yellow line markings are noted to be in force to the front of the commercial properties near the mini-roundabout junction, ensuring two-way operation in this location and avoiding any potential for vehicles on Groes Road to block back onto Abergele Road.
- 2.2.8 The key physical feature of the section of Groes Road from Glyn Avenue is the steep downhill gradient northwards towards A547 Abergele Road. This steep section extends over approximately 125m and results in a crest feature with restricted forward visibility approximately 40m to the south of the army barracks entry. This restricted forward visibility results in reduced operating speeds on the link - as drivers are noted to approach the crest with some care. The gradient also

impacts on southbound speeds (uphill vehicle movements) but clearly increases stopping distances for northbound (downhill) traffic. Anti-skid surfacing is in evidence on the immediate downhill approach of Groes Road to the Abergele Road mini-roundabout.

2.2.9 Groes Road terminates at a mini-roundabout connection to the A547 Abergele Road. This junction is of a 4-arm roundabout design, with the other side road arm being made up of an entrance to Erias Park (also serving Colwyn Bay Leisure Centre and Erias High School). The junction layout was implemented in mid-2003 as an accident remedial scheme to replace the previous 'give way' arrangements.

2.2.10 The mini-roundabout junction is established by white-line markings on all approaches. The main A547 Abergele Road approach arms are further reinforced by pedestrian crossing islands set back from the main junction stoplines. No crossing islands or deflection islands are provided on the side road connections from Groes Road / Erias Park. A signalised crossing facility is available at the A547 Abergele Road circa 100m east of Groes Road.

2.2.11 A547 Abergele Road acts as the main district distributor road between the settlements of Old Colwyn and Llandullas to the east and Colwyn Bay town centre to the west. A range of local shops and services provide frontage development to the route approximately 300m to the west of the mini-roundabout junction.

2.3 Personal Injury Accident Records: Highway Safety

2.3.1 Personal Injury Accident (PIA) data for the immediate local highway network to the proposal site has been obtained by Focus TP using Crashmap.co.uk, which provides details of all PIA events attended by the police. The data is approved by the National Statistics Authority and reported on by the Department for Transport (DfT) each year. Data has been obtained for the most recently available ten-year search period in line with standard practice, covering January 2013 - December 2022.

2.3.2 PIA data has been obtained for key sections of Heol Dirion, Beal Avenue, and Groes Road (including the Groes Road junction with the A547 Abergele Road). A location plan of the search area is included as **Figure HTN3** to this report.

- 2.3.3 Review of the most recently available ten-year accident information identifies that no accident incidents have been recorded in the study area. Further review of historic data identifies that no incidents have been recorded at the Glyn Avenue / Groes Road junction in the last 10 years.
- 2.3.4 Given that no incidents have occurred across the search area in the last ten-years, it is not considered that there are any prevailing road safety issues that would bring the proposed development into question or require the developer to fund any off-site highway improvements.

3.0 SITE ACCESSIBILITY AUDIT

3.1 Introduction

3.1.1 Development of the application site for residential land use would need to satisfy the key planning and transport related sustainability objectives of:

- Reducing the need to travel, especially by private car;
- Ensuring accessibility to a range of sustainable travel options.

3.1.2 The nature of local sustainable transport connections available within the immediate catchment of the application site are summarised in the paragraphs below.

3.2 Access to Public Transport

Bus Links

3.2.1 The closest bus stop to the site is located on Beal Avenue at its junction with Heol Dirion, within a 160m walk from the application site and therefore within the maximum walking distance of 300m for access to a less frequent route as per the national guidance (as defined in *Buses in Urban Developments, January 2018, Chartered Institute of Highways and Transportation*). This bus stop features a simple flagpost stop and can be accessed via footways to both sides of Heol Dirion. Further stops are available throughout the Glyn Estate including at the Glyn Estate Flats and adjacent to the playground, all of which are served by the 27 service.

3.2.2 In addition to the Glyn Estate bus stops mentioned above, further bus stops are located on the A547 Abergele Road corridor, the closest of which are located circa 80m west of the mini-roundabout, within a 900m walk from the centre of the application site. The eastbound stop consists of a bus lay-by with a local raised bus boarder style kerb feature, covered bus stop with seating and information panel on a flagpost. The westbound stop features a bus lay-by with a local raised bus boarder style kerb feature and simple flagpost with information panel. The

stops can be accessed from the application site via footways to both sides of Heol Dirion, Beal Avenue and Groes Road, or via the 27 service.

3.2.3 The local bus stops to the application site are served by a range of regular frequency bus routes, as identified in **Table HTN3.1** below. A plan of these available local bus route connections is also illustrated in **Figure HTN4** to this report.

Table HTN3.1: Bus Services Available from Local Stops

Bus Stop on Beal Avenue		
Service	Route	Mon-Fri / Sat / Sun Daytime Frequency
27	Tan Lan to Conwy Railway Station / Old Colwyn St David's Rd via Mochdre and Llandudno Junction	1 per hr / 1 per hr / No service
Bus Stops on A547 Abergele Road		
Service	Route	Mon-Fri / Sat / Sun Daytime Frequency
12 / X12	Rhyl to Llandudno via Abergele, Old Colwyn, Colwyn Bay and Penrhyn Bay	5 per hr / 4 per hr / 3 per hr
13	Llandudno to Prestatyn via Llandudno Junction, Old Colwyn, Abergele and Bodelwyddan	1 per hr / 1 per hr / 7 per day
14	Llysfaen to Conwy via Old Colwyn and Colwyn Bay	8 per day / 7 per day / No service
15	Conwy - Llandudno - Rhos-On-Sea - Old Colwyn - Mynydd Marian / Llysfaen	1 per hr / 1 per hr / No service
21	Colwyn Bay Railway Station to Bay View Road, Colwyn Bay	4 per day / 3 per day / No service
23	Tan Lan to Colwyn Bay via Colwyn Heights	1 per hr / 1 per hr / No service

3.2.4 Review of this bus service information identifies that the local bus stops offer regular frequency connections to local destinations such as Colwyn Bay town centre (9 per hour), Colwyn Bay Railway Station (2-3 per hour), Old Colwyn (10 per hour), Rhos-on-Sea (2 per hour) and other wider connections to Llandudno (4 per hour), Rhyl (5 per hour) and Conwy (8 per day).

Rail links

3.2.5 Colwyn Bay railway station is located circa 2km walk (or via local bus connection) to the northwest of the application site, adjacent to the alignment of the A55 trunk road. Colwyn Bay station is served by trains on the North Wales coastal line

(Chester - Llandudno Junction - Holyhead) and offers access to the following services (weekday daytime frequencies):

- Hourly Birmingham to Holyhead service (Crewe / Chester / Llandudno Junction)
- Hourly Manchester Airport to Llandudno service (Manchester / Runcorn / Chester / Llandudno Junction).
- Hourly Holyhead to Cardiff service (Llandudno Junction / Chester / Shrewsbury / Hereford / Newport).
- Limited frequency Holyhead - London service (Llandudno Junction / Chester / Crewe).

3.3 Accessibility to Local Facilities (Walking and Cycling)

3.3.1 National planning guidance notes that walking is the most important mode of travel at the local scale, offering the greatest potential to replace short distance car trips of under 2km. Guidance produced by CIHT also notes that 800m represents an ‘acceptable’ walking distance to community facilities and shops, with 1.2km representing a ‘preferred maximum’. 2km has been identified as a suitable walk distance for regular commuting trips and journeys to / from school. The Wales Active Travel Act Guidance reinforces such thresholds, referencing ‘active neighbourhoods’, which are characterised as having a range of facilities available within a 20-minute walking distance (20 minutes walking equating to approximately 1mile / 1.6km).

3.3.2 As noted above, footways on immediate sections of the local highway are of good quality (generally a minimum 1.8m width). **Figure HTN5** to this report illustrates a 2km walking catchment and shows that a variety of local services destinations lie within a convenient and practical walking distance from the application site, including:

- Ysgol Bod Alaw primary school;
- Ysgol Eirias secondary school;
- Colwyn Leisure Centre; and
- A small business park at the corner of Groes Road and A547 Abergele Road.

3.3.3 National planning guidance also notes that cycling has the potential to substitute for short car trips - particularly those journeys of 5km or less or which could form part of a longer journey by public transport. The location of the application site allows for practical cycling access to a range of local areas, including all of the built-up area of Colwyn Bay and Old Colwyn, as well as Rhos-on-Sea and the outskirts of Llysfaen (**Figure HTN6**). Longer distance cycle journeys from the application site to destinations such as Llandudno and Llandullas are also considered likely to be practical, via connections offered by the National Cycle Route 5 which passes within 2km of the site, and which offers segregated cycle connections between the North Wales coastal towns.

3.4 **Accessibility Summary**

3.4.1 Overall, it is considered that the application site represents a suitable location for residential development, effectively representing the extension of an existing residential development area and within a practical walking distance of regular frequency public transport services and everyday facilities such a primary & secondary school and community leisure centre. Footways on immediate sections of the local highway are of good quality with tactile crossing points available at larger junctions.

3.4.2 Such locational characteristics will deliver the potential for residents of the application site to utilise sustainable transport for a range of 'everyday' journeys and therefore meet the core planning objectives of promoting opportunities for the use of alternative travel modes to the private car and managing the overall traffic impact associated with new development.

4.0 DESCRIPTION OF THE PROPOSAL SCHEME

4.1 Overview

4.1.1 The proposal scheme comprises the development of 28 affordable residential dwellings, at Heol Dirion, Colwyn Bay, Conwy.

4.1.2 A masterplan of the proposal scheme provided in **Saer Architect's Drawing HDC-SAL-01-ZZ-DR-A-0003_P4**.

4.2 Highway Access Arrangements

4.2.1 It is proposed that access to the new residential development would be via an extension to the existing Heol Dirion cul-de-sac. The extended route would be designed to appropriate local design standards (5.5m carriageway width), with turning head provided at its terminus. Private driveways located off the extended cul-de-sac would serve some properties. The proposed access route incorporates 1.8m footways to both sides. Appropriate visibility splays are provided from proposed internal private driveway connections (i.e. 2.4m x 25m), as illustrated in **Focus TP Drawing J000508-SK101A**.

4.3 Car Parking

4.3.1 The site plan includes 2 spaces per dwelling, with 3 spaces available for a 4-bed dwelling. All spaces have minimum 2.6m x 4.8m dimensions.

4.3.2 Such parking provision is considered to be entirely appropriate for the application scheme, noting that all dwellings are affordable, and would be available for rent only. Indeed, review of census statistics identifies that 37% of rental households within the local area do not own a car or van, with 42% of households owning 1 car or van (2021 super output area (middle layer) W02000034: Conwy 008), with just 21% of households have 2 or more cars or vans. Due to the proportion of dwellings with 0 or 1 cars or vans, it is considered highly unlikely that dwellings would have more than 2 vehicles, and accordingly the provision of 2 spaces for every dwelling is considered ample to accommodate anticipated demand.

4.4 **Site Servicing**

- 4.4.1 The proposal site masterplan includes for a turning head suitable to accommodate typical large vehicle types that could be reasonably be expected to need to access the site - such as refuse collection vehicles.
- 4.4.2 It is proposed that all refuse collection would take place on street, with refuse vehicles using the available turning head.
- 4.4.3 A swept path assessment of a refuse vehicle servicing the site is provided in **Drawing J000508/ATR101A.**

5.0 PREDICTED DEVELOPMENT TRAFFIC DEMAND

5.1 Trip Generation

5.1.1 Anticipated levels of traffic generated to / from the Heol Dirion proposal site have been estimated using trip rates taken from the TRICS traffic generation database. TRICS is a widely accepted national database of historical trip demand data and contains observed traffic data for a large number of development-type sites and, as such, can be considered to produce reliable base trip rate data.

5.1.2 Trip rate estimates have been calculated through reference to typical small private residential sites held within the TRICS database. Predicted peak hour average ‘per dwelling’ trip rates and ‘worst case’ 85th percentile trip rates from interrogation of the database are outlined in **Table HTN5.1** below (detailed TRICS related output is provided in **Appendix HTN5** to this report). In order to provide a robust assessment, trips are provided for private dwellings, however it should be noted that the dwellings would be rented.

Table HTN5.1: Predicted peak hour average and ‘worst case’ 85th percentile ‘per dwelling’ trip rates

Trip Rates (per dwelling)	Arrivals	Departures	Total
Residential - Average			
AM Peak (08:00-09:00)	0.181	0.385	0.566
PM Peak (17:00-18:00)	0.340	0.196	0.536
Residential - 85 th %'ile			
AM Peak (08:00-09:00)	0.296	0.539	0.909
PM Peak (17:00-18:00)	0.443	0.334	0.745

5.1.3 Application of these trip rates to the proposed development size of 28 private residential units provides the following estimate of trip demand:

Trip Total	Arrivals	Departures	Total
Residential - Average			
AM Peak (08:00-09:00)	5	11	16
PM Peak (17:00-18:00)	10	5	15
Residential - 85 th %'ile			
AM Peak (08:00-09:00)	8	15	25
PM Peak (17:00-18:00)	12	9	21

5.2 **Assignment of Development Traffic Movements**

5.2.1 It is anticipated that all development traffic movements associated with the Heol Dirion application scheme will seek to access the main public highway network via Beal Avenue and Groes Road to the A547 Abergele Road.

5.3 **Overview**

5.3.1 The proposed development is forecast to generate just 25 two-way vehicle movements in the AM and PM peak hour (85th percentile trip rate). The level of trip generation is equivalent to less than one vehicle movement every 2 minutes, which is not considered to be significant.

6.0 SUMMARY AND CONCLUSIONS

- 6.1 This Highways Technical Note has been prepared by Focus TP to consider highways and transport matters associated with the delivery of residential properties at land at Heol Dirion, Colwyn Bay, Conwy. The proposals envisage the development of 28 dwellings served via a cul-de-sac access from the existing estate road of Heol Dirion, and effectively represents the extension of an existing residential development area. The report has been prepared to inform the Local Planning & Highway Authority of the design and nature of the proposed site access arrangements and any highway network operational impacts associated with the residential development proposals.
- 6.2 This report has demonstrated that the application scheme would represent appropriate and sustainable development when considered in highways and transport terms. The site is located adjacent to a mature residential area and offers the potential to encourage access by alternative sustainable travel modes to the private car for some day-to-day journeys. The proposals incorporate a suitable level of car parking, and appropriate servicing arrangements are available for refuse collection and delivery vehicles.
- 6.3 There is no evidence to suggest that the application scheme would give rise to a severe detrimental impact on local highway network operation. Development traffic increases would be of a strictly limited scale, with the level of trip generation being equivalent to less than one vehicle movement every 2 minutes (85th percentile trip generation), which is not considered to be significant.
- 6.4 Given the above, it is concluded that there are no material highway grounds for refusing the development proposals.



NOTE: ENGINEER TO CONFIRM HEIGHT AND EXTENT OF RETAINING WALLS

POS PROVISION
Requirement TBC by Planning Consultant
Achieved: 800m² (+1500m²?)

REV.	DESCRIPTION	DATE	BY	CHK
P1	INITIAL ISSUE	31/07/2024	DP	GJ
P2	FOR CLIENT COMMENTS	12/09/2024	DP	GJ
P3	SITE LEVEL REVIEW	04/10/2024	DP	GJ
P4	LEVEL UPDATE	15/11/2024	MJ	DP

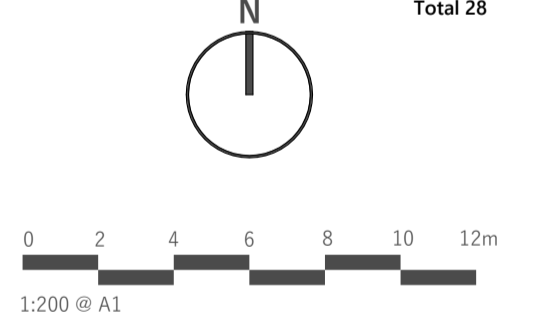


SITE PLAN KEY

- EXISTING TREE / PLANTING AND ROOT PROTECTION AREA (IF KNOWN)
- PROPOSED TREE
- PUBLIC OPEN SPACE & PLANTING
- GRASS
- ROAD
- PAVEMENT
- CAR PARKING
- PATH
- PRIVATE DRIVE
- TREES/SHRUBS REMOVED

HOUSE TYPES

TYPE	AMOUNT
1B2P BUNGALOW (50m ²)	2
2B4P HOUSE (83m ²)	16
3B5P HOUSE (83m ²)	8
4B7P HOUSE (122m ²)	2
Total	28



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PROJECT:
HEOL DIRION, COLWYN BAY

CLIENT:
WALES & WEST HOUSING

DRAWING TITLE:
PROPOSED SITE PLAN

DRAWING STATUS	STATUS
FOR COMMENTS	S3
DRAWING No: HDC-SAL-01-ZZ-DR-A-0003	PROJECT No: P1315
SCALE: As indicated@A1	REVISION: P4

PROPOSED SITE PLAN
SCALE: 1 : 200



Client:

Anwyl Homes
& Wales and West Housing Association

Project:

Land at Heol Diron
Colwyn Bay, Conwy

Drawing Title:

Private Driveway Visibility Splay
2.4m x 25m

Drawing Number: J000508/SK101

Revision: A

Date: 08.09.2024

Scale: 1:500@A3

Drawn By: KG

Checked By: KG

Status:

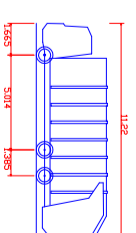
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Phoenix 2 Duo Recycler (r2-15W with Elite 6x4 chassis)
 Overall Length 11.22m
 Overall Width 3.18m
 Min Body Ground Clearance 2.703m
 Track Width 2.703m
 Kerb to Kerb turning Radius 11.350m

Client: Anwyl Homes
 & Wales and West Housing Association

Project: Land at Heol Diron
 Colwyn Bay, Conwy

Drawing Title: Swept Path Assessment
 Refuse Vehicle

Drawing Number: J000508/ATR101
Revision: A

Date: 08.09.2024
Scale: 1:500@A3

Drawn By: KG
Checked By: KG

Status: Information

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Figure HTN1 Site Location: Wider Context

J000508

Land off Heol Dirion, Colwyn Bay

September 2024



Application Site



Study Area

Application Site

Incident Severity



Slight Serious Fatal

Location: Heol Dirion, Colwyn Bay

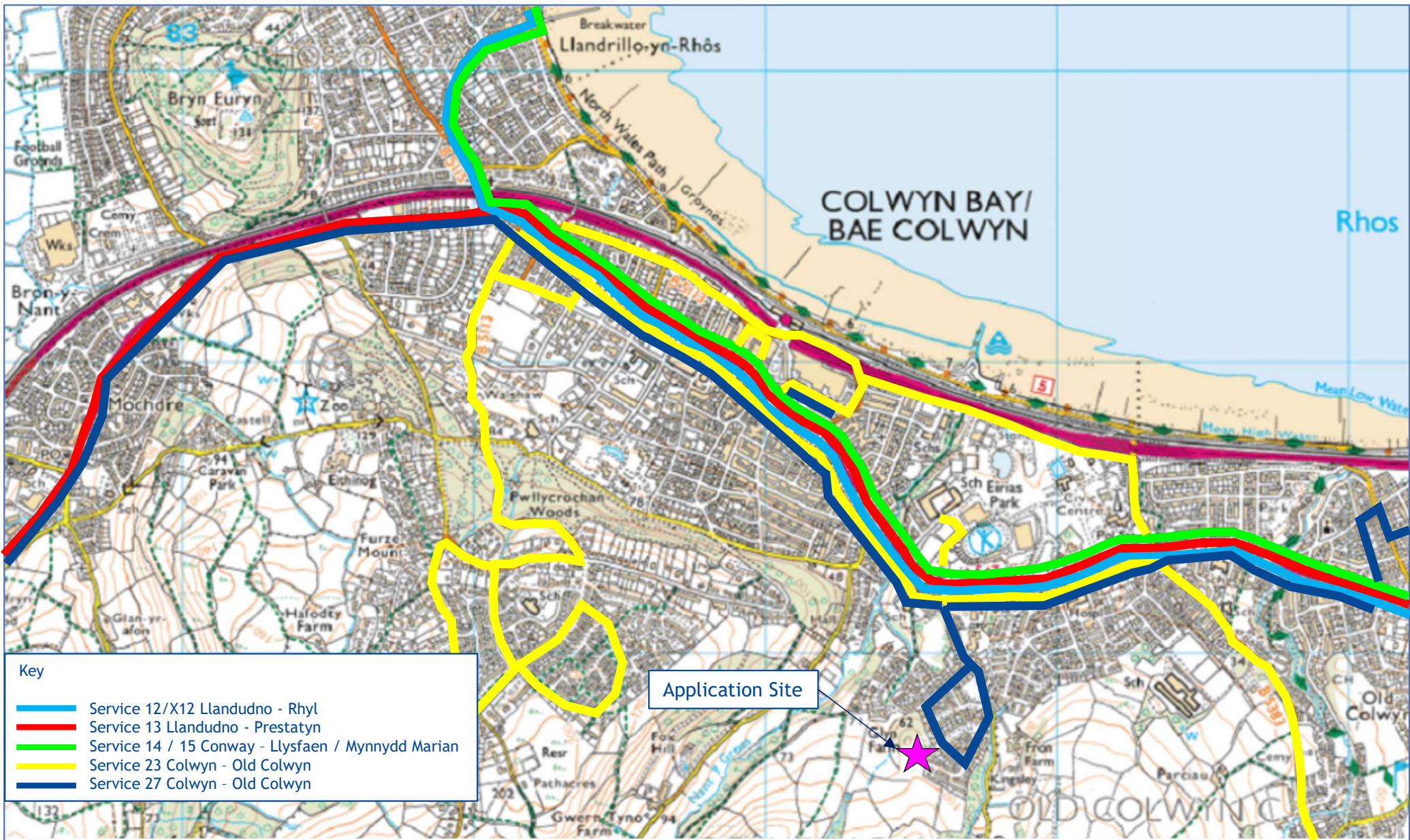
Years
10 of 24 years selected

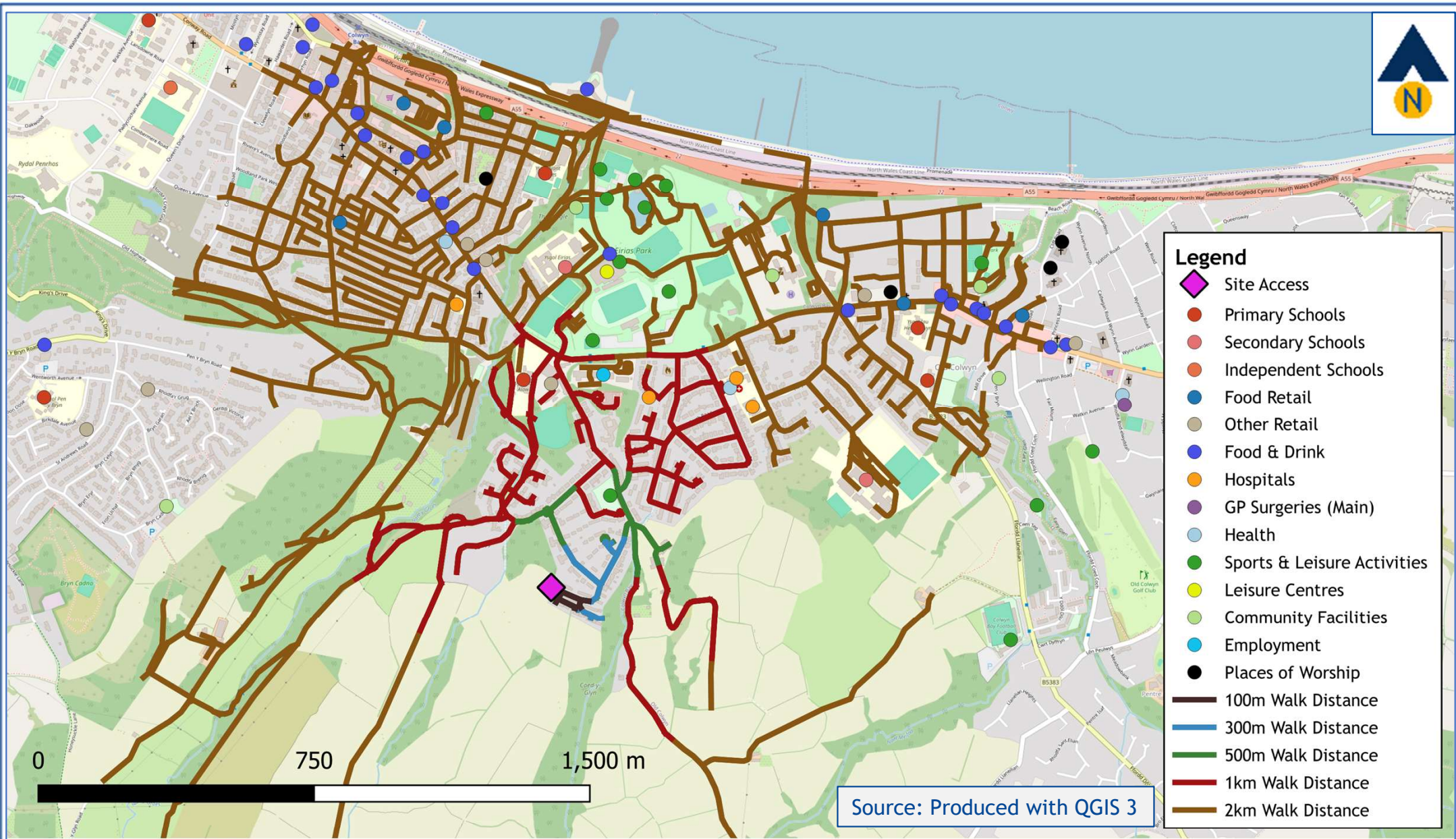
Severity

Fatal	<input checked="" type="checkbox"/>
Serious	<input checked="" type="checkbox"/>
Slight	<input checked="" type="checkbox"/>

Casualty Types:
All Casualty Types

Vehicles Involved:
All Vehicle Types





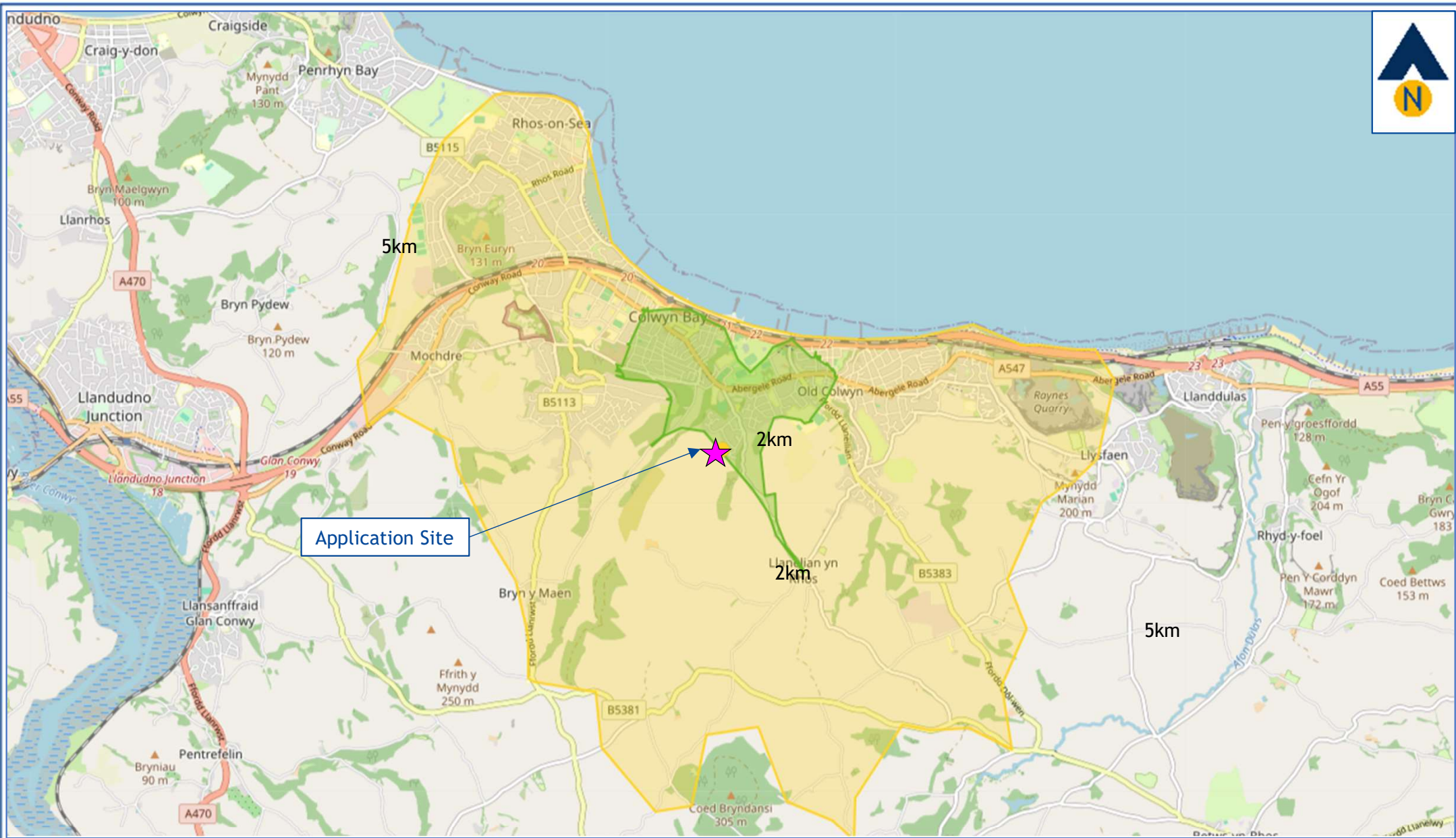


Figure HTN6

2km & 5km Cycle Catchments from the Application Site

J000508

Land off Heol Dirion, Colwyn Bay

September 2024





TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	CT CENTRAL BEDFORDSHIRE	1 days
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	4 days
	HF HERTFORDSHIRE	1 days
	MW MEDWAY	1 days
	SC SURREY	1 days
03	SOUTH WEST	
	DC DORSET	2 days
	SD SWINDON	1 days
04	EAST ANGLIA	
	NF NORFOLK	4 days
	PB PETERBOROUGH	1 days
05	EAST MIDLANDS	
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
	WK WARWICKSHIRE	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	3 days
08	NORTH WEST	
	AC CHESHIRE WEST & CHESTER	1 days
	LC LANCASHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
	FU WESTMORLAND & FURNESS	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	HI HIGHLAND	1 days
17	ULSTER (NORTHERN IRELAND)	
	DE DERRY	1 days

Primary Filtering selection:

Parameter: No of Dwellings
 Actual Range: 8 to 50 (units:)
 Range Selected by User: 5 to 50 (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: 01/01/16 to 05/06/23

Selected survey days:

Monday	6 days
Tuesday	6 days
Wednesday	10 days
Thursday	4 days
Friday	5 days

Selected survey types:

Manual count	30 days
Directional ATC Count	1 days

Selected Locations:

Edge of Town Centre	3
Suburban Area (PPS6 Out of Centre)	8
Edge of Town	20

Selected Location Sub Categories:

Residential Zone	30
No Sub Category	1

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	8 days - Selected
Servicing vehicles Excluded	27 days - Selected

Secondary Filtering selection:

Use Class:

C3	31 days
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Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	10 days
10,001 to 15,000	9 days
15,001 to 20,000	5 days
20,001 to 25,000	4 days
25,001 to 50,000	1 days

Population within 5 miles:

5,001 to 25,000	6 days
25,001 to 50,000	3 days
50,001 to 75,000	5 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	11 days
250,001 to 500,000	3 days

Secondary Filtering selection (Cont.):

Car ownership within 5 miles:

0.6 to 1.0	9 days
1.1 to 1.5	21 days
1.6 to 2.0	1 days

Travel Plan:

Yes	14 days
No	17 days

PTAL Rating:

No PTAL Present	31 days
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LIST OF SITES relevant to selection parameters

1	AC-03-A-04 LONDON ROAD NORTHWICH LEFTWICH Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: THURSDAY</i>	TOWN HOUSES 24 <i>06/06/19</i>	CHESHIRE WEST & CHESTER <i>Survey Type: MANUAL</i>
2	CT-03-A-01 ARLESEY ROAD STOTFOLD Edge of Town Residential Zone Total No of Dwellings: <i>Survey date: WEDNESDAY</i>	MIXED HOUSES 46 <i>22/06/22</i>	CENTRAL BEDFORDSHIRE <i>Survey Type: MANUAL</i>
3	DC-03-A-09 A350 SHAFTESBURY Edge of Town No Sub Category Total No of Dwellings: <i>Survey date: FRIDAY</i>	MIXED HOUSES 50 <i>19/11/21</i>	DORSET <i>Survey Type: MANUAL</i>
4	DC-03-A-10 ADDISON CLOSE GILLINGHAM Edge of Town Residential Zone Total No of Dwellings: <i>Survey date: WEDNESDAY</i>	MIXED HOUSES 26 <i>09/11/22</i>	DORSET <i>Survey Type: MANUAL</i>
5	DE-03-A-04 GREENHALL HIGHWAY COLERAINE Edge of Town Residential Zone Total No of Dwellings: <i>Survey date: THURSDAY</i>	SEMI -DETACHED & TERRACED 38 <i>19/05/22</i>	DERRY <i>Survey Type: MANUAL</i>
6	DH-03-A-01 GREENFIELDS ROAD BISHOP AUCKLAND Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: <i>Survey date: TUESDAY</i>	SEMI DETACHED 50 <i>28/03/17</i>	DURHAM <i>Survey Type: MANUAL</i>
7	ES-03-A-09 THE FAIRWAY NEWHAVEN Edge of Town Residential Zone Total No of Dwellings: <i>Survey date: MONDAY</i>	DETACHED & SEMI -DETACHED 47 <i>13/03/23</i>	EAST SUSSEX <i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

8	FU-03-A-02 MACADAM WAY PENRITH	DETACHED/TERRACED HOUSING	WESTMORLAND & FURNESS
	Edge of Town Centre Residential Zone Total No of Dwellings: 50 <i>Survey date: TUESDAY 21/06/16</i>		<i>Survey Type: MANUAL</i>
9	HC-03-A-21 PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS	TERRACED & SEMI -DETACHED	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 39 <i>Survey date: TUESDAY 13/11/18</i>		<i>Survey Type: MANUAL</i>
10	HC-03-A-22 BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE	MIXED HOUSES	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 40 <i>Survey date: WEDNESDAY 31/10/18</i>		<i>Survey Type: MANUAL</i>
11	HC-03-A-30 MEUDON AVENUE FARNBOROUGH	TERRACED HOUSES	HAMPSHIRE
	Edge of Town Centre Residential Zone Total No of Dwellings: 31 <i>Survey date: FRIDAY 14/10/22</i>		<i>Survey Type: MANUAL</i>
12	HC-03-A-31 KILN ROAD LIPHOOK	MIXED HOUSES & FLATS	HAMPSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 44 <i>Survey date: FRIDAY 07/10/22</i>		<i>Survey Type: MANUAL</i>
13	HF-03-A-05 HOLMSIDE RISE WATFORD SOUTH OXHEY	TERRACED HOUSES	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 8 <i>Survey date: MONDAY 05/06/23</i>		<i>Survey Type: MANUAL</i>
14	HI-03-A-14 KING BRUDE ROAD INVERNESS SCORGUIE	SEMI -DETACHED & TERRACED	HIGHLAND
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings: 40 <i>Survey date: WEDNESDAY 23/03/16</i>		<i>Survey Type: MANUAL</i>
15	LC-03-A-31 GREENSIDE PRESTON COTTAM	DETACHED HOUSES	LANCASHIRE
	Edge of Town Residential Zone Total No of Dwellings: 32 <i>Survey date: FRIDAY 17/11/17</i>		<i>Survey Type: MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

16	MW-03-A-02	MIXED HOUSES		MEDWAY
	OTTERHAM QUAY LANE			
	RAINHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		19	
	Survey date: MONDAY		06/06/22	Survey Type: MANUAL
17	NF-03-A-05	MIXED HOUSES		NORFOLK
	HEATH DRIVE			
	HOLT			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		40	
	Survey date: THURSDAY		19/09/19	Survey Type: MANUAL
18	NF-03-A-10	MIXED HOUSES & FLATS		NORFOLK
	HUNSTANTON ROAD			
	HUNSTANTON			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		17	
	Survey date: WEDNESDAY		12/09/18	Survey Type: DIRECTIONAL ATC COUNT
19	NF-03-A-37	MIXED HOUSES		NORFOLK
	GREENFIELDS ROAD			
	DEREHAM			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		44	
	Survey date: TUESDAY		27/09/22	Survey Type: MANUAL
20	NF-03-A-51	SEMI -DETACHED		NORFOLK
	CITY ROAD			
	NORWICH			
	LAKENHAM			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:		34	
	Survey date: TUESDAY		13/09/22	Survey Type: MANUAL
21	NT-03-A-08	DETACHED HOUSES		NOTTINGHAMSHIRE
	WIGHAY ROAD			
	HUCKNALL			
	Edge of Town			
	Residential Zone			
	Total No of Dwellings:		36	
	Survey date: MONDAY		18/10/21	Survey Type: MANUAL
22	NY-03-A-12	TOWN HOUSES		NORTH YORKSHIRE
	RACECOURSE LANE			
	NORTHALLERTON			
	Edge of Town Centre			
	Residential Zone			
	Total No of Dwellings:		47	
	Survey date: TUESDAY		27/09/16	Survey Type: MANUAL
23	NY-03-A-13	TERRACED HOUSES		NORTH YORKSHIRE
	CATTERICK ROAD			
	CATTERICK GARRISON			
	OLD HOSPITAL COMPOUND			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total No of Dwellings:		10	
	Survey date: WEDNESDAY		10/05/17	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

24	NY-03-A-14 PALACE ROAD RIPON	DETACHED & BUNGALOWS		NORTH YORKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		45	
	Survey date: WEDNESDAY		18/05/22	Survey Type: MANUAL
25	PB-03-A-04 EASTFIELD ROAD PETERBOROUGH	DETACHED HOUSES		PETERBOROUGH
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		28	
	Survey date: MONDAY		17/10/16	Survey Type: MANUAL
26	SC-03-A-07 FOLLY HILL FARNHAM	MIXED HOUSES		SURREY
	Edge of Town Residential Zone Total No of Dwellings:		41	
	Survey date: WEDNESDAY		11/05/22	Survey Type: MANUAL
27	SD-03-A-01 HEADLANDS GROVE SWINDON	SEMI DETACHED		SWINDON
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		27	
	Survey date: THURSDAY		22/09/16	Survey Type: MANUAL
28	ST-03-A-08 SILKMORE CRESCENT STAFFORD MEADOWCROFT PARK	DETACHED HOUSES		STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		26	
	Survey date: WEDNESDAY		22/11/17	Survey Type: MANUAL
29	VG-03-A-01 ARTHUR STREET BARRY	SEMI-DETACHED & TERRACED		VALE OF GLAMORGAN
	Edge of Town Residential Zone Total No of Dwellings:		12	
	Survey date: MONDAY		08/05/17	Survey Type: MANUAL
30	WK-03-A-03 BRESE AVENUE WARWICK GUYS CLIFFE	DETACHED HOUSES		WARWICKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total No of Dwellings:		23	
	Survey date: WEDNESDAY		25/09/19	Survey Type: MANUAL
31	WK-03-A-04 DALEHOUSE LANE KENILWORTH	DETACHED HOUSES		WARWICKSHIRE
	Edge of Town Residential Zone Total No of Dwellings:		49	
	Survey date: FRIDAY		27/09/19	Survey Type: MANUAL

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
BO-03-A-01	15/10/20	covid restrictions
KC-03-A-09	09/06/21	covid restrictions
WO-03-A-07	01/10/20	covid restrictions

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
 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	31	34	0.088	31	34	0.272	31	34	0.360
08:00 - 09:00	31	34	0.181	31	34	0.385	31	34	0.566
09:00 - 10:00	31	34	0.173	31	34	0.213	31	34	0.386
10:00 - 11:00	31	34	0.141	31	34	0.178	31	34	0.319
11:00 - 12:00	31	34	0.172	31	34	0.170	31	34	0.342
12:00 - 13:00	31	34	0.192	31	34	0.214	31	34	0.406
13:00 - 14:00	31	34	0.183	31	34	0.159	31	34	0.342
14:00 - 15:00	31	34	0.181	31	34	0.220	31	34	0.401
15:00 - 16:00	31	34	0.306	31	34	0.227	31	34	0.533
16:00 - 17:00	31	34	0.300	31	34	0.182	31	34	0.482
17:00 - 18:00	31	34	0.340	31	34	0.196	31	34	0.536
18:00 - 19:00	31	34	0.263	31	34	0.168	31	34	0.431
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.520			2.584			5.104

Parameter summary

Trip rate parameter range selected: 8 - 50 (units:)
 Survey date date range: 01/01/16 - 05/06/23
 Number of weekdays (Monday-Friday): 34
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 4
 Surveys manually removed from selection: 0