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Engineering Design Services



B4337 Llanrhystud Traffic Calming Combined Stage 1 & 2 Road Safety Audit October 2025



Report Prepared for: -
Ceredigion County Council



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Prepared By C Gillett

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Prepared By:	Powys County Council
On Behalf of:	Ceredigion County Council

	Name	Signature	Position	Date	Version
Prepared	Craig Gillett		Senior Road Safety Auditor / Engineer	20 Oct 2025	01
Approved	Simon Kendrick		Principal Engineer	20 Oct 2025	01

Record of Previous Issue and Amendments

Version	Original Issue Date	Summary of Changes

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1 INTRODUCTION

1.1 Background to the Study

This report results from a Combined Stage 1 & 2 Road Safety Audit carried out on the B4337 Llanrhystud Traffic Calming scheme at the request of Ceredigion County Council (CCC) (County Road Highway Authority as Overseeing Organisation). The Audit Brief was issued by Rhodri James, and approved by Steve Hallows, Project Sponsor, CCC.

The Design Organisation for this scheme is AtkinsRéalis.

The scheme proposes to install traffic calming in the form of raised tables and sinusoidal humps along the B4337 from the A487(T) junction to Ystrad Teilo to the east.

The Audit was carried out in October 2025.

1.2 The Audit Team

The Road Safety Audit Team Membership as approved by Rhodri James, CCC, was as follows:

Craig Gillett
(Team Leader)

BEng (Hons), GMICE, MSoRSA
Powys County Council (Engineering Design Services)
(Certificate of Competency in Road Safety Audit
gained in May 2012)

Norma Leadbetter
(Team Member)

BEng (Hons), GMICE
Powys County Council (Engineering Design Services)
(Certificate of Competency in Road Safety Audit
gained in July 2021)

The Audit Team are independent of the project design team and have not been involved with the project design.

1.3 The Audit

The RSA team members reviewed the documents listed in Appendix A, these documents consisted of the Combined Stage 1 & 2 Audit Brief, the scheme general arrangement & sign drawings, and collision data collected by the Audit Team leader. The Audit Team visited the site during the afternoon of Friday 10th October 2025 between 14:50 & 16:25.

During the site visit the weather was cloudy and cool and the road surface was dry. The traffic flows were light increasing to moderate around school pick up time and consisted mostly of cars. A few cyclists and several pedestrians were also observed during the visit. Three-way lights were in operation around the A487(T)/B4337 junction with the A487(T) northbound lane closed over the bridge due to bridge monitoring being in process.

No motorcyclists, equestrians, or PSVs were observed during the site visit.

The terms of reference of the Audit are as described in GG 119 'Road Safety Audit'.

5.17 Stage 1 RSA shall be undertaken at the completion of preliminary design, (for example at the order publication report stage) before publication of draft orders.

5.17.1 Stage 1 RSA should include road safety matters which have a bearing upon land take, licence, or easement before the draft orders are published or planning consent is applied for.

5.17.2 Where preliminary design is not undertaken; a stage 1 RSA may be combined with a stage 2 RSA at the detailed design stage.

5.20 Stage 2 RSA shall be undertaken at the completion of detailed design stage.

At stage 2, the RSA team focuses on the more detailed aspects of the highway scheme.

The team has examined and reported only on the road safety implications of the scheme as presented. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors do not accept any responsibility for the design of the scheme.

The RSA is not a technical check that the design conforms to standards and/or best practice guidance. It does not cover health and safety issues concerning road workers during the construction, maintenance, or operation of the road.

The generic term "pedestrians" can include walking pedestrians, wheelchair users, dismounted cyclists, the blind, partially sighted, mobility impaired and people with prams or pushchairs. Where a problem is specific to one or more of these vulnerable groups then appropriate reference will be made in the report.

Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified, and do not absolve the Designer of their responsibilities. The recommendations are only intended to indicate a proportionate and viable means of eliminating or mitigating the identified problem in accordance with GG 119 and do not imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

All comments and recommendations are referenced to the design drawings and where applicable the locations have been indicated on the plans in Appendix B of this report.

1.4 Description of the Scheme

The scheme is located along the B4337 county road in Llanrhystud and extends from the A487(T) junction to Ystrad Teilo. The west to east alignment consists of a mix of right-hand curves and straights.

This section of county road is a semi-rural single carriageway carrying two-way traffic subject to 20mph. A footway is present along the westbound carriageway for the eastern half of the scheme, from Diadem to the ford. The lack of a footway west of Diadem causes pedestrians to walk in the road or on sections of private hardstanding, which are generally used for parking. While there is some street lighting, the length is generally unlit.

There are two side roads within the scheme extents, both at the eastern end of the scheme, one joins the westbound lane and connects to housing, while the second joins the eastbound lane and crosses a watercourse as a ford/weir and connects to more housing and Myfenydd Primary School to the north. This road was closed with vehicle gates at the time of the visit and appears to have been disused for several years, however, pedestrian access is retained over the watercourse via a timber footbridge between the ford and the adjacent river monitoring station. There are a few private accesses along both sides of the carriageway east of Diadem with unrestricted side on parking in front of the houses to the west up to the junction with the A487(T).

The scheme aims to provide pedestrian crossing improvements, and traffic calming features to reduce vehicle speeds along the B4337, to provide a safer link for pedestrians. The proposal involves the installation of three crossing facilities: two raised, one uncontrolled, three sinusoidal humps, and signing and lining.

The scheme has funding for the construction phase with works due to commence late in the fourth quarter of 2025.

1.5 Collision Analysis

The Audit Brief provided a summary of the collision data for 2019 to 2023. The search of collision data for the five-year period, 01/01/19 – 31/12/23, within the length of the scheme identified three reported personal injury collisions, one serious and two slight, which resulted in five casualties, one suffering serious injuries and four sustaining slight injuries.

One collision occurred in 2019 with two in 2021, all three occurred on the A487(T) during the day, in fine weather, and on a dry road surface. Two were in the vicinity of the B4337 junction with the third south of the junction near Heol Islwyn. One involved a northbound vehicle with the other two involving southbound.

The 2019 collision involved a vehicle exiting the B4337 into the side of a southbound vehicle.

The 2021 collision near the junction involved a pupil, who was changing seats on a moving northbound school bus, being thrown forward and striking the windscreen, when the driver braked sharply to avoid colliding with two pedestrians that had ran into the road to cross.

The 2021 collision near Heol Islwyn involved a southbound driver slowing and indicating to pass a stationary vehicle that had its hazards on. The driver of the following vehicle failed to slow down sufficiently and collided with the rear of the vehicle in front, shunting it forward, although the stationary vehicle was not struck.

No collisions were recorded as involving cyclists, motorcyclists, or equestrians within this timeframe. Although listed as present and the apparent reason for the sharp braking, no pedestrian was struck or injured during the study period.

1.6 Departures from Standards and Relaxations

There are no relaxations or departures from standards for this scheme.

1.7 Previous Road Safety Audits

No previous Road Safety Audits have been undertaken for this scheme.

2 ITEMS RAISED AT THIS COMBINED STAGE 1 & 2 AUDIT

2.1 Traffic Signs, Road Markings & Lighting

2.1.1 Location:

Proposed 'Pedestrians in road ahead' sign, S04, near the A487(T) junction.

Summary:

The proposed replacement warning sign, S04, is larger than the existing sign and cannot be mounted utilizing the existing mounting height. There is the potential for the new sign to be struck by pedestrians resulting in injuries.

Description:

It is proposed to replace the existing warning sign with S04, 'Pedestrians in road ahead' on a yellow backing plate while utilizing the same post. The new sign is larger than the existing sign that it replaces, which already extends above the top of the post, this will reduce the available mounting height of the sign. Although the footway stops shortly after the sign, it may still be used by pedestrians choosing to walk on the eastbound side. It is possible for pedestrians to collide with the sign with the potential for head, trip and fall type injuries. In addition, as the new sign is twice the area of the existing sign, the post and foundation may not be suitable for the increased load, and could fail, presenting a hazard to pedestrians.

RECOMMENDATION:

The sign should be positioned with a 2.1m mounting height and the post replaced as appropriate.



2.1.2 Location:

Proposed 'Pedestrians in road ahead' sign, S05, by Diadem.

Summary:

The proposed warning sign, S05, is not located far enough in advance of the hazard to allow drivers to assimilate the information and react to pedestrians in the road, with the potential to result in injury collisions.

Description:

The proposed warning sign, S05, 'Pedestrians in road ahead' is positioned at the start of the hazard at Diadem rather than in advance. Drivers may fail to appreciate that the hazard is immediate, with the possibility for drivers to be unprepared to encounter pedestrians adjacent to Diadem. The sign may also give pedestrians a false sense of safety as they step into the carriageway. This could lead to conflict and or sharp braking with the potential to result in collisions with pedestrians or unsighted drivers of the following vehicles.

RECOMMENDATION:

The sign should be positioned at an appropriate distance from the hazard.



2.1.3 Location:
Proposed raised crossing on Queen Street.

Summary:

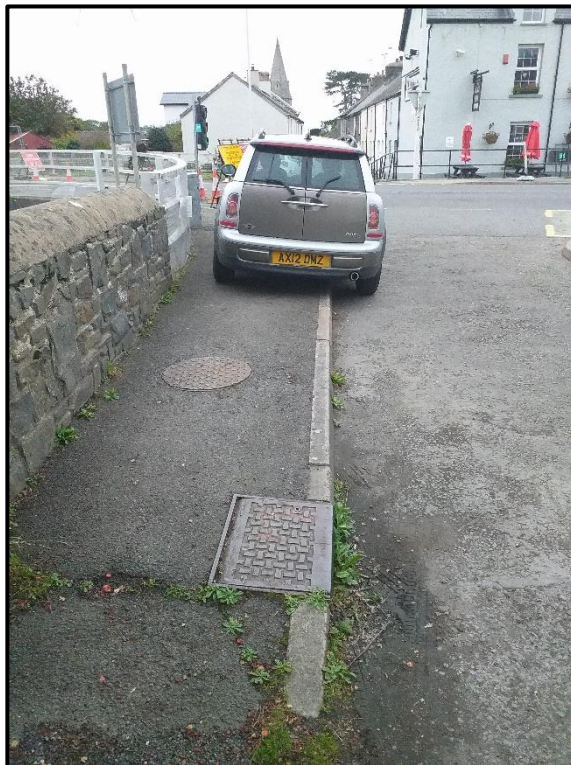
The possibility of vehicles mounting the footway has the potential to result in injury collisions with pedestrians.

Description:

There are no bollards on the south side of the raised crossing point to provide an element of protection to pedestrians or to prevent vehicles from being parked on the crossing. It is possible for a vehicle to inadvertently mount the footway and strike a pedestrian waiting to cross. In addition, a vehicle parked on the crossing would force pedestrians to cross elsewhere while possibly blocking visibility to and from pedestrians for drivers exiting Queen Street. Both scenarios have the potential to lead to collisions resulting in injury.

RECOMMENDATION:

Bollards should be positioned on the south side of the crossing on Queen Street to prevent vehicles from mounting the footway.



3 AUDIT TEAM STATEMENT

We certify that this Audit has been carried out in accordance with GG 119.

AUDIT TEAM LEADER

Craig Gillett BEng (Hons), GMICE, MSoRSA
Certificate of Competency

Signed:



Senior Road Safety Auditor / Engineer
Central Wales Infrastructure Collaboration
Engineering Design Services
Powys County Council
County Hall
Llandrindod Wells
LD1 5LG

Date:

20th October 2025

AUDIT TEAM MEMBER

Norma Leadbetter BEng (Hons), GMICE
Certificate of Competency

Signed:



Senior Civil Engineer
Central Wales Infrastructure Collaboration
Engineering Design Services
Powys County Council
Kirkhamsfield Depot
Pool Road
Newtown
SY16 3AF

Date:

20th October 2025

Appendix A

List of Documents and Drawings provided by the Design Team

Drawings

Drawing Reference	Title	Rev
Issued with Audit Brief		
CE01_201-ATK-HGN-SWMWRCES-DR-CH-000001	Location Plan	P02
CE01_201-ATK-HGN-SWMWRCES-DR-CH-000002	General Arrangement	P03
CE01_201-ATK-HSN-SWMWRCES-DR-CH-000001	Proposed Signs and Road Markings	P02
CE01_201-ATK-VUT-SWMWRCES-DR-CH-000001	Statutory Utilities Plan	P02
Issued following request for additional information		
CE01_201-ATK-HSN-SWMWRCES-DR-CH-000002	Proposed Signs Post and Foundation Details	P01.4
CE01_201-ATK-HGN-SWMWRCES-DR-CH-000003	Standard Details Sheet 01 of 02	P02.2
CE01_201-ATK-HGN-SWMWRCES-DR-CH-000004	Standard Details Sheet 02 of 02	P03.3
CE01_201-ATK-HKF-SWMWRCES-DR-CH-000001	Kerb and Construction Plan	P02.5

Other Information

Road Safety Audit Combined Stage 1 & 2 Brief
 (Signed by Steve Hallows, CCC 26/09/2025)

18th September 2025

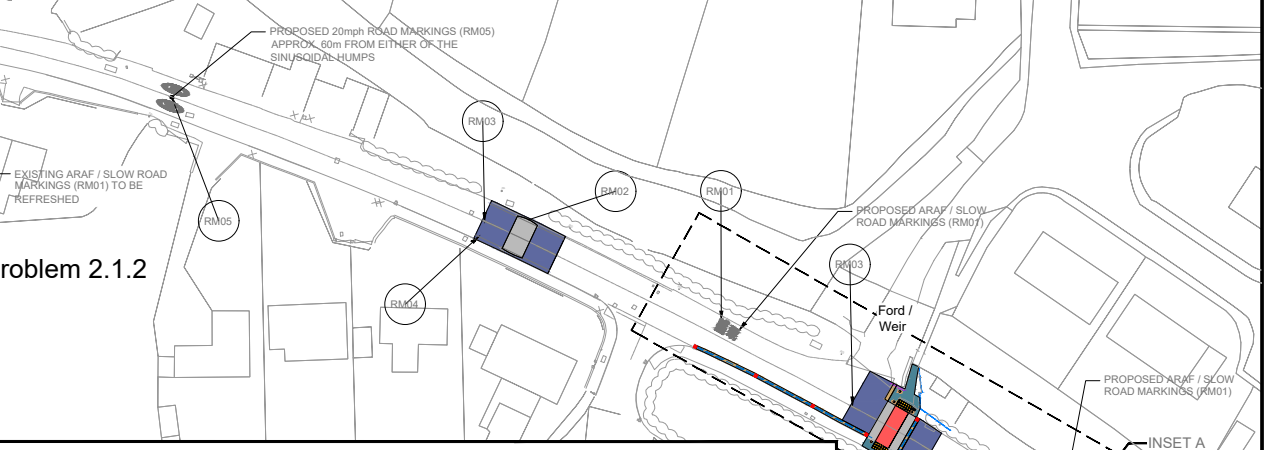
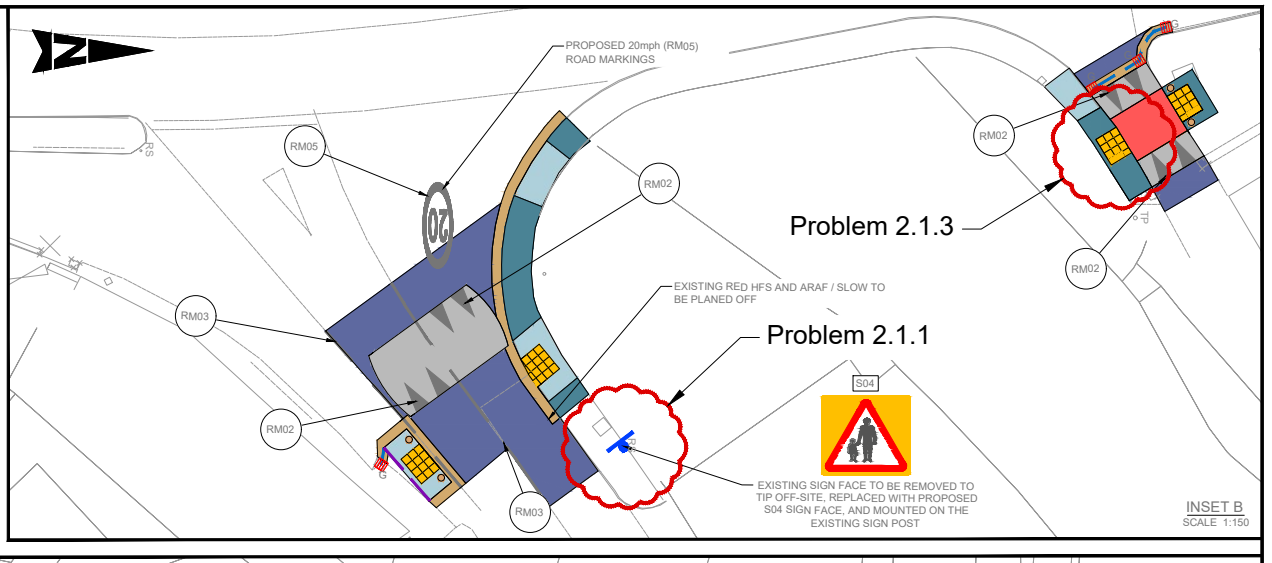
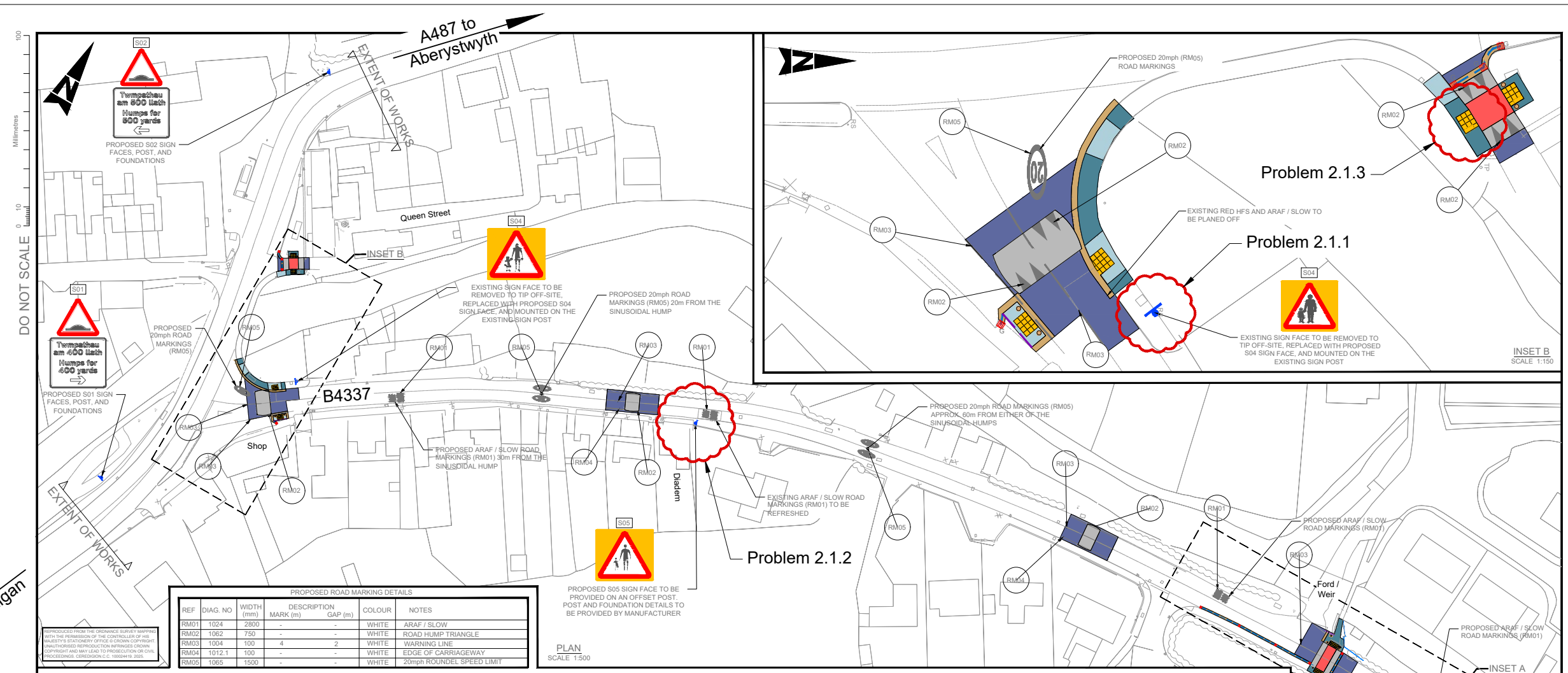
Collision Data 5 years

01 Jan 2019 to 31 Dec 2023

Appendix B

Problem Location Drawing

4047_RSA1n2_P01



REF	DIAG. NO	WIDTH (mm)	MARK (m)	GAP (m)	COLOUR	NOTES
RM01	1024	2500	-	-	WHITE	ARAF / SLOW
RM02	1062	750	-	-	WHITE	ROAD HUMP TRIANGLE
RM03	1004	100	4	2	WHITE	WARNING LINE
RM04	1012.1	100	-	-	WHITE	EDGE OF CARRIAGEWAY
RM05	1065	1500	-	-	WHITE	20mph ROUND EL SPEED LIMIT

PROVIDED FROM THE ORDNANCE SURVEY MAPS WITH THE PERMISSION OF THE COPYRIGHTED MATERIALS STATIONARY OFFICE. IS Crown Copyright and may lead to prosecution or civil proceedings. Ordnance Survey, 2025.

KEY:

- PROPOSED RAISED UNCONTROLLED CROSSING
- PROPOSED SINUSOIDAL HUMP
- PROPOSED TYPE 1 FOOTWAY CONSTRUCTION
- PROPOSED TYPE 2 FOOTWAY CONSTRUCTION
- PROPOSED TYPE 1 CARRIAGEWAY CONSTRUCTION
- PROPOSED TYPE 2 CARRIAGEWAY CONSTRUCTION
- PROPOSED ROAD MARKING
- PROPOSED BUFF COLOUR TACTILE PAVING
- PROPOSED MANCHESTER (OR SIMILAR APPROVED) BOLLARD IN DURAPOLY DURACAST POLYURETHANE BLACK WITH WHITE / RED BANDING. REFER TO NOTE 12
- PROPOSED 400mm RAIL TIMBER SAFETY FENCE
- PROPOSED SIGN AND POST
- PROPOSED GULLY
- PROPOSED 150mm DIAMETER CONNECTION BETWEEN PROPOSED GULLY AND EXISTING DRAINAGE
- PROPOSED DREXUS 100 CHANNEL DRAIN WITH GRD CAST IRON COVER OR SIMILAR APPROVED
- EXISTING FENCE / GATE TO REMAIN
- EXISTING HEDGELINE TO REMAIN
- EXISTING GULLY TO REMAIN

- GENERAL NOTES:**
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
 - ONLY WRITTEN DIMENSIONS SHALL BE USED, DO NOT SCALE.
 - THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS AND SWM/WREC FRAMEWORK SPECIFICATION.
 - SHE INFORMATION TO BE READ IN CONJUNCTION WITH PRE-CONSTRUCTION INFORMATION.
 - FOR KERBS AND CONSTRUCTION AREA DETAILS. REFER TO DRAWING NO. CE01_201-ATK-HKF-SWM/WRCES-DR-CH-000001.
 - FOR STANDARD DETAILS. REFER TO DRAWING NO. CE01_201-ATK-HGN-SWM/WRCES-DR-CH-000003 AND CE01_201-ATK-HGN-SWM/WRCES-DR-CH-000004.
 - FOR STATUTORY UTILITIES. REFER TO DRAWING NO. CE01_201-ATK-VUT-SWM/WRCES-DR-CH-000001.
 - FOR PROPOSED SIGN POST AND FOUNDATION DETAILS. REFER TO DRAWING NO. CE01_201-ATK-HSN-SWM/WRCES-DR-CH-000002.

- ALL PROPOSED SURFACING TIE-INS TO BE CONFIRMED ON-SITE BY CSCCC ENGINEER / SUPERVISOR. REFER TO STANDARD DETAILS DRAWING FOR TIE-IN DETAILS.
- ALL ROAD MARKINGS TO BE IN ACCORDANCE WITH CURRENT TRSDG.
- ALL PROPOSED DRAINAGE TO BE COMMITTED IN TO EXISTING DRAINAGE. TO BE CONFIRMED ON-SITE BY CSCCC ENGINEER / SUPERVISOR.
- ALL RETROREFLECTIVE BANDING ON THE PROPOSED BOLLARDS SHOULD BE PLACED SO THAT THE RED BANDING FACES ONCOMING TRAFFIC.
- ALL EXISTING UTILITY COVERS WITHIN WORKS AREA TO BE RAISED / RESET TO PROPOSED FOOTWAY / CARRIAGEWAY LEVEL.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Description	Drawn	Checked	Reviewed	Authorised	Issue Date
Construction	Drawn	Checked	Reviewed	Authorised	Issue Date
Maintenance / Cleaning	Drawn	Checked	Reviewed	Authorised	Issue Date
Decommissioning / Demolition	Drawn	Checked	Reviewed	Authorised	Issue Date

Issue	Revision	Drawn	Checked	Reviewed	Authorised	Issue Date	
FOR INFORMATION	S2					12/09/25	
First Issue	A1	C01	MS	EM	SW	CD	26/09/24

FOR INFORMATION

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CEREDIGION COUNTY COUNCIL

Project Title: LLANRHYSTUD TC B4337

Project No: CE01_201 - ATK - HSN - SWM/WRCES - DRGH000001

Original Issue: A1 Scale: AS SHOWN Project Ref No: 5219773 Sheet: 1 of 1 Rev: P02

This Drawing is saved on ProjectWise. Plotted: 15/09/2025 08:40:53 By: MAINB158

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CSCCC • CWIC Powys

Rev	Date	Amendments Description	By	Chkd

Project: **B4337 Llanrhystud Traffic Calming**

Drawing Title: **Road Safety Audit - Combined Stage 1 & 2 Problem Location**

Drawn By: **CRG** Checked By: **NL** Approved By: **[Signature]** Scale at A3: **N.T.S**

Date: **October 2025**

Project Number: **4047** Drawing Number: **RSA1n2** Revision: **[Blank]**

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