

CORMAC

Truro Loops Phase 1 Newham Road

Road Safety Audit – Stage 1 & 2

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CORMAC Solutions Ltd | Infrastructure Group
Radnor Road, Scorrier, Redruth, Cornwall, TR16 5EH



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Issue & Revision Record

Revision	Date	Originator	Checked	Authorised	Purpose of Issue	Nature of Change
V01	06/04/23	Andy Roberts	Jason Hoole-Jackson	Adrian Roberts	RSA Stage 1-2	Original

CORMAC

Prepared by
CSL Infrastructure
Western Group Centre
Radnor Road
Scorrier
Redruth
TR16 5EH

If you would like this report in another format, please contact

CORMAC Solutions Ltd

Head Office
 Western Group Centre
 Radnor Road
 Scorrier
 Redruth
 TR16 5EH

Tel: 01872 323 313

Email: customerrelations@cormacltd.co.uk
www.cormacltd.co.uk

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Truro Loops, Phase 1

Newham Road

ROAD SAFETY AUDIT STAGE 1 & 2

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1. Introduction

This report results from a Road Safety Audit Combined Stage 1 & 2 carried out on proposals to widen the footway along the eastern side of Newham Road, between the Tesco supermarket entrance to the north and Higher Newham Lane to the South, in order to provide shared-use for pedestrians and cyclists. The proposals also include coloured surfacing on the shared-use facility at private accesses and a new zebra crossing at the southern end of the scheme, to link with Gas Lane and the Newham Trail beyond.

This Audit has been requested by Jeremy Edwards, Principal Consultant, Cormac Solutions Ltd

The Audit Team was:

- Andy Roberts Audit Team Leader, Senior Technician (Infrastructure) Infrastructure Design, Cormac Solutions Ltd.
- Adrian Roberts, Audit Team Member, Project Engineer (Safety), Infrastructure Design, Cormac Solutions Ltd.

The Audit Team visited the site on Monday 3 April 2023 at 0940hrs. The weather was fine and sunny. The road surface was dry. Traffic conditions were free flowing and of low volume. Pedestrian and cyclist numbers were low.

Diagram numbers in this report refer to the Traffic Signs Regulations and General Directions 2016.

References to the Traffic Signs Manuals (TSM) relate to the 2018 editions.

2. Information received for this audit

Jeremy Edwards provided the following information for this audit:

Drawing No.	Rev.	Title
Infra22-093-CSL-HGN-SW830439-DE-D-0103	P01	General Arrangement
Infra22-093-CSL-HDG-SW830439-DE-D-0103	P01	Highways Drainage
Infra22-093-CSL-HKF-SW830439-DE-D-0003	P01	Kerbs and Footways
Infra22-093-CSL-HMK-SW830439-DE-D-0103	P01	Road Markings

Infra22-093-CSL-HPV-SW830439-DE-D-0002	P01	Road Pavements
Infra22-093-CSL-HSC-SW830439-DE-D-0003	P01	Site Clearance
Infra22-093-CSL-HFE-SW830439-DE-D-0001	P01	Fencing
Infra22-093-CSL-VUT-SW830439-DE-D-0103	P01	Utilities

In addition, the following superseded design drawings were provided to show carriageway and shared-use facility widths only:

Infra22-093-CSL-GEN-SW830439-DE-CH-0002	P02	General Arrangement (Sheet 01 of 02)
Infra22-093-CSL-GEN-SW830439-DE-CH-0003	P02	General Arrangement (Sheet 02 of 02)

3. Previous audit

No previous Road Safety Audit has been carried out on this scheme, however, a Safety Review was previously carried out on a previous design for wider cycle facility improvements along Newham Road, between Garras Wharf car park and Lighterage Hill, with a report (RSA722/SR1) issued to Adam Warden, Project Manager, Cormac Solutions Ltd on 16 December 2022.

A Designer's Response report was received from Jeremy Edwards, Principal Consultant, Cormac Solutions Ltd, dated 25 January 2023, on 28 March 2023. Whilst some recommendations were agreed, the Response disagreed with many recommendations. Any outstanding issues still considered relevant to the scheme presented for this Road Safety Audit, are included within this report.

4. Scope of this audit

This Audit has considered the road safety implications of the proposed layout for all users of the public highway. It has not been examined or verified for compliance with any other standards or criteria, although to clearly explain a safety problem or the recommendation to resolve it, the Audit Team may have referred to a design standard.

Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in line with GG 119 (2020), and in no way imply that a

formal design process has been undertaken. There may be alternative methods of addressing a problem which would be acceptable in achieving the desired elimination or mitigation.

5. Items raised by this audit

5.1 Information provided for Audit

i. Lack of scheme detail provided

No detailed drawings have been provided to the Audit Team concerning the proposed signing, carriageway cross sections, cycle stands, seating or fencing, therefore it has not been possible for these elements to have been audited. There is a risk that any potential road safety issues relating to these may not be identified, which could lead to road users being injured.

RECOMMENDATION

Provide this information to the Audit Team for review.

5.2 Tesco access junction – Morlaix House

i. Footway widening resulting in poor nearside carriageway edge alignment

The proposals widen the footway on the eastern side of Newham Road, south of the Tesco access junction, to provide a wider shared-use facility for pedestrians and cyclists. This would result in the kerblines to the south of the junction, being much further out towards the centre of the carriageway than the preceding kerblines, to the north of the Tesco junction (Photos 1 and 2). The plans do not show any changes to the Tesco give-way markings. Southbound drivers, following the alignment of the nearside carriageway edge, could be led into the kerb face of the widened footway kerb edge, resulting in them colliding with it and losing control and colliding with an oncoming vehicle, or mounting the shared-use facility and colliding with a pedestrian or cyclist.

Realignment of the kerblines and footway on the northern side of the Tesco junction and of the give-way markings at the junction itself, would be needed to provide a smooth nearside carriageway edge, to guide drivers past the widened footway. Due to the resultant change in the nearside kerblines,

amendments to the adjacent central hatching that leads to the pedestrian refuge, adjacent to Aldi, further north, would also be required

RECOMMENDATION

Ensure the design provides a smooth southbound nearside edge of carriageway alignment towards the shared-use facility and that the central hatching for the nearby pedestrian refuge, is suitably amended.

ii. Lack of cycle access to shared-use facility from carriageway

There is no provision for on-road, southbound cyclists to access the shared-use facility at its beginning, south of the junction. Cyclists may therefore turn into the Tesco junction and immediately turn right to join the existing facility, where the manoeuvre could be unexpected for a following motorist and result in a rear-shunt collision with a slowing cyclist. Alternatively, a cyclist may attempt to mount the full-height kerb from the main carriageway, where they could lose control and fall.

RECOMMENDATION

Provide dropped kerb access from the main carriageway for cyclists to access the shared-used facility.

iii. Lack of shared-use signing

It is unclear whether shared-use signing is to be provided as part of the scheme along this particular section (note: existing shared-use signing is present southwards of Morlaix House). If no shared-use signing is provided, pedestrians may not expect cyclists to be sharing the facility with them and could step into the path of a passing cyclist, resulting in a collision and injury. Alternatively, cyclists may rejoin the carriageway thinking that the shared-use facility has ended, where they would be at a higher risk of collision with a motor vehicle.

RECOMMENDATION

Provide shared-use pedestrian and cycle route signing.

iv. Shared-use facility pinch point, Morlaix House

The appears to be a length of shared-use facility outside Morlaix House, where the width reduces to 2.1 metres. As there is vegetation abutting the edge of the existing footway (Photo 3), this would reduce the usable width of the facility for cyclists down to 1.6 metres, as cyclists would not be able to ride along the rear edge of it. Although forward visibility is good, and the narrow width is over a fairly short distance of around 35 metres, this is too narrow for shared-use with pedestrians and could result in a collision between both.

RECOMMENDATION

Widen the shared-use facility across the frontage of Morlaix House to provide a minimum of 2.5 metres of shared-use width. For example, the proposed carriageway width here is 6.5 metres therefore, the shared-use facility could be widened and additional 300 - 400mm.

v. Overhanging tree branches, 'Bluebird Care'

There are low-hanging tree branches over the existing footway, from a tree located outside of 'Bluebird Care' at Morlaix House (Photo 3). Cyclists riding on the proposed shared-use facility following its conversion, may be at risk of a branch getting caught in their cycle helmet and pulling them from their bicycle and causing them to fall, or a branch could strike them in the face, resulting in injury.

RECOMMENDATION

Remove low-hanging branches

5.3 Gas Hill - Morlaix House

i. Provision of Zebra crossing on a cycle route

The proposed design shows a zebra crossing being provided, to the north of Gas Hill, linking shared-use facilities on either side of Newham Road. This appears to have replaced a Parallel Crossing design proposal that was presented for the previous Safety Review.

Legally, providing a Zebra Crossing on a cycle route would result in cyclists not having priority over carriageway traffic. Whilst in practice, most carriageway users are likely to treat cyclists like pedestrians and stop to allow a cyclist to cross, there is a risk that a carriageway user may decide not to give way, as a cyclist, thinking they have legal priority, enters the crossing. This could result in a collision. Furthermore, the Zebra crossing is proposed to be 2.6 metres in width, which would be narrow for pedestrians and cyclists to share and could result in cyclists and pedestrians colliding with one another. Finally, partially-sighted people using the crossing, would not be expecting cyclists to be using a Zebra crossing and could be struck by a passing cyclist, resulting in injury.

RECOMMENDATION

Provide a Parallel crossing rather than a zebra crossing.

ii. Dropped kerb at Zebra crossing shown extending across adjacent grass verge

The plans show the dropped kerbs at the Zebra crossing, extending southwards, beyond the end of the eastern shared-use facility, across the grass verge frontage (Photo 4). This is mirrored on the western shared-use facility opposite. This could encourage pedestrians to cross away from the Zebra crossing and from or onto the grass verge, where they could trip, slip or fall on the uneven surface, resulting in injury. The lack of kerb upstand and tactile paving on the western side of the carriageway, could lead to partially-sighted pedestrians inadvertently stepping into the carriageway, where they could be struck by a passing vehicle.

RECOMMENDATION

Ensure the dropped kerb provision here only covers the extents of the controlled crossing.

iii. Belisha Beacon obstruction

Further to issue 5.2 ii, the proposed Belisha Beacon on the western side of the Zebra crossing, is shown part-way along the dropped kerbs. A pedestrian, particularly a partially-sighted person, crossing east to west, could collide with the Belisha Beacon post, resulting in injury.

RECOMMENDATION

Ensure the Belisha Beacon is positioned away from a dropped kerb.

iv. Cycle stand positioning reducing shared-use facility width

Three sets of cycle stands are proposed along this section, perpendicular to the shared-use facility kerb edge. The stands appear to be shown abutting the rear of the shared-use facility at each location, however, it should be noted that the central set of stands appear to be shown abutting the building edge at 'Fresh Bakes' (Photo 5), though this may not be Public Highway.

In this orientation, the stands would need to be inset from the rear edge to account for the overhang of a bicycle with typically, a 2-metre length required for a parked bicycle. At these locations, the available shared-use footway width would be substantially narrowed, creating a pinch point to below two metres, past the cycle parking areas. There is a risk that cyclists passing by on the shared-use facility could collide with the cycle stands or with bicycles parked at them, and fall resulting in injury, or they could collide with pedestrians at the narrowing.

RECOMMENDATION

Position the cycle parking where there is adequate remaining width, taking into consideration the length of a bicycle parked. Alternatively, orientate the cycle stands at the rear of the shared-use facility, parallel to the kerb line.

5.4 General

i. Existing signs obstructing shared-use facility

There are a number of signs mounted within the existing footway along the eastern side of Newham Road. The Site Clearance drawing shows the advance direction sign (ADS) (Photo 6), mounted on two posts outside Peat House being removed to store, however no information is provided as to whether it will be reinstated and if so, where or at what height etc. No information is provided to suggest that the 'Unsuitable for long vehicles' sign outside Vivian house (Photo 7), or the 'Higher Newham Lane' (Photo 8) flag sign outside Cornish Mutual, are to be removed. If the ADS is reinstated at the same mounting height and on two posts, it will restrict the shared-use

facility width and be at risk of being struck by passing cyclists who could fall and be injured. If mounted at the same present mounting height, passing cyclists could strike their head on the lower edge of the sign, resulting in head injury. The 'unsuitable for long vehicle' sign and 'Higher Newham Lane' flag sign also present the same mounting height risks to cyclists.

Note that the 'Unsuitable for long vehicles' sign may no longer be required, as it is likely that the only heavy goods vehicles seeking to turn right onto Morlaix Avenue, would be Aldi or Tesco delivery vehicles, which use Morlaix Avenue roundabout.

RECOMMENDATION

Ensure traffic signs are mounted at the rear of the footway on a single or closely-spaced double post to maximise available width, and are mounted at a minimum of 2400mm above ground level. See also issue 5.3 iii regarding post visibility.

ii. Risk of collision with cycle stands & bench seating

No details have been provided concerning the design or dimensions of the cycle stands and bench seating proposed at various locations along Newham Road. It is therefore uncertain how visible these items of street furniture will be for partially-sighted people as well as at night. If there is poor colour contrast with the surrounding surface, partially-sighted pedestrians may not be able clearly identify them which could result in them walking into them and being injured. There may also be a risk that these features may not be immediately visible during the hours of darkness, particularly if a nearby streetlight fails. This could result in cyclists colliding with them and being injured.

This issue is also relevant to any signposts mounted within the shared-use facility.

RECOMMENDATION

Provide colour contrasting finish and reflective material to street furniture to maximise visibility.

iii. Lack of temporary Diag. 7014 signing

No Diag. 7014 signs are proposed at either end of the scheme to highlight the change in road layout and provision of new controlled crossing. Drivers relatively unfamiliar with the road, may not be anticipating the narrowed carriageway or new controlled crossing ahead which could result in late braking or unexpected manoeuvres and a subsequent rear-shunt or loss of control collision.

RECOMMENDATION

Provide temporary Diag. 7014 signs.

6. Designer's response

The Scheme Project Manager or the person requesting this Audit must provide to the Audit Team Leader a statement accepting the recommendations of this report and agreeing to implement them or provide an Exception Report giving reasons why the recommendations should not be implemented. This is a requirement of Cornwall Council's Policy on Road Safety Audits.

7. Audit statement

We certify that this road safety audit has been carried out in line with GG 119, subject to Cornwall Council's Policy as set out in its Casualty Reduction Strategy 2013.

It has been carried out with the sole purpose of identifying any features that may have an adverse bearing on the safety of any user of the highway and has not examined or verified the compliance of the designs to any other criteria. The Auditors have had no relevant involvement in the scheme design.



Andy Roberts B.Sc (Hons)
AUDIT TEAM LEADER
Infrastructure Design Group
Scorrier



Adrian Roberts B.Sc (Hons)
AUDIT TEAM MEMBER
Infrastructure Design Group
Scorrier

Cc George Redman, Cormac Solutions Ltd

Photo 1



Photo 2



Photo 3

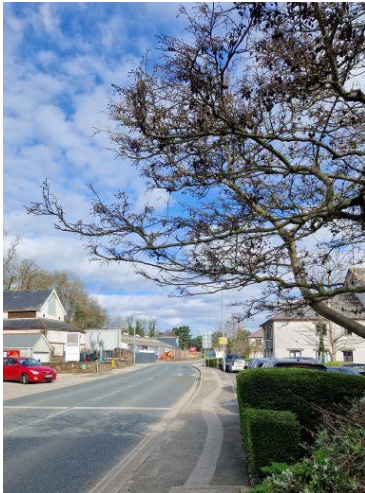


Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



8. Technical and design issues (outside RSA)

The Technical and Design Issues below are noted in addition to the preceding Road Safety Audit recommendations. They are not part of the formal Audit and are therefore not subject to the same response requirements. They will generally relate to matters that are technically incorrect or that could be beneficially improved, but do not otherwise have a direct safety consequence. They are commended to the design and/or maintenance teams for action on this basis.

i. Missing carriageway marking reinstatement

The drawings do not show the carriageway centre line, nor the 'No Waiting at Any Time' double yellow line on the eastern side of the carriageway, between the Cornish Mutual building and the proposed zebra crossing, being reinstated. These lines should be remarked to ensure continuity and parking enforcement is maintained

RECOMMENDATION

Reinstate the centre line marking and 'No Waiting at Any Time' double yellow markings.

ii. Futureproof design with Higher Newham Development

A large residential development is proposed at Higher Newham with a new shared-use pedestrian and cycle facility planned, running along the eastern side of Morlaix Avenue and terminating at Newham Road via the concrete access ramp, adjacent to the Newham Road-Morlaix Avenue 'slip road'. To minimise future disruption and additional costs, a dropped kerb for cyclists opposite the concrete ramp may be beneficial for futureproofing pedestrian and cycle links here.

RECOMMENDATION

Provide a dropped kerb for cyclists.