

YSGOL NEWDD MARGAM

S278 WORKS ASSOCIATED WITH SCHOOL DEVELOPMENT IN BERTHA ROAD IN PORT TALBOT

Stage 3 Road Safety Audit

November 2019

RDW-DC-19-1399-RSA3

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APPENDIX A Location Plan

1.0 INTRODUCTION

- 1.1 This report results from a Stage 3 Road Safety Audit (RSA) carried out on the newly completed S278 Works Associated with a School Development (Ysgol Cwm Brombil) in Bertha Road, Port Talbot.
- 1.2 The highway works included: the construction of a new access junction from Bertha Road and a new egress from the site onto Bertha Road. The egress from the site was not fully completed due to ongoing works at the adjacent site. It also includes:
- the extension of an existing length of one-way operation;
 - the removal of existing kerb build-outs and humps;
 - the construction of new kerb build-outs complete with raised speed tables with uncontrolled pedestrian crossings;
 - the construction of new footway within the grounds of the existing schools and adjacent to the line of the existing footway;
 - the provision of new parking bays alongside the new footway (i.e between the carriageway and the new footway);
 - signing and lining work.
- 1.3 The Audit was carried out between 21st October and 12th November 2019 by consultants working on behalf of The Safety Forum Limited.
- 1.4 The Audit Team, which is established from The Safety Forum Ltd and independent of the project design team, has had no involvement with the project, other than undertaking a stage 1 road safety audit of the scheme during April 2017, a stage 2 road safety audit during April 2018, and an Interim Stage 3 road safety audit in October 2019 when highway works were completed but the school was not operational.
- The Auditors were:
- Rob Westhead – Team Member (MSoRSA RSA Cert Comp)
- David Crawford – Team Member (IEng, MICE, MCIHT HE RSA Cert Comp))
- 1.5 Mr Paul Daniels representing the Police, Mr Terry Davies representing Neath Port Talbot Council and Lyn Jones of Swansea City Council (but representing Neath Port Talbot Council, were present during the audit. Also in attendance was Ben Fields, Facilities Manager at Ysgol Cwm Brombil school.

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- 1.6 The site visit took place on Monday 21st October 2019 between the hours of 14:40 and 17:00 and again between 18:30 and 19:15 in both light and dark conditions. Street lighting was operational during the hours of darkness. The weather was dry and sunny and the road surface was dry. Traffic conditions were very light. The site was observed the end of the school day for both the primary and secondary schools. During this time only the Audit Team were on site and were guided through the schools traffic management procedures for departing vehicles, buses pupils, staff, visitors etc.
- 1.7 The report has been prepared in accordance with General Principles and Scheme Governance General Information, GG 119, Road Safety Audit (Formerly HD 19/15).
- 1.8 Issues relating to the health & safety of operatives constructing, operating or maintaining the highway are not covered by Road Safety Audit. Only issues relating to the design and construction of facilities for highway maintenance that may potentially contribute to a Road Safety Matter are considered by the Road Safety Audit process.

Road Safety Audit is not a technical check that the design conforms to Standards and/or best practice guidance. Design Organisations are responsible for ensuring that their designs have been subjected to the appropriate design reviews (including, where applicable, Non-Motorised User (NMU) assessment or review) prior to Road Safety Audit.

Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.

Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.

- 1.9 The recommendations in this report are aimed at addressing the road safety problems; however there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.
- 1.10 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit, and would encourage the Designer to consult them on this matter.
- 1.11 The LHA response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the As Built design pack to be provided and retained by the LHA on final completion.

- 1.12 All problems identified in this Road Safety Audit Report are indicated on a location plan in Appendix A

2.0 ITEMS CONSIDERED

2.1 The Road Safety Audit was undertaken on the scheme detailed in the following documentation.

Drawing No.	Rev	Title
-	-	Previous Audit Reports and Responses
CC1610 YNM CAM SI XX GA CV 0299 CR	CR3	HIGHWAY WORKS - GENERAL ARRANGEMENT (SHEET 1 OF 3)
CC1610 YNM CAM SI XX GA CV 0300 CR	CR3	HIGHWAY WORKS - GENERAL ARRANGEMENT (SHEET 2 OF 3)
CC1610 YNM CAM SI XX GA CV 0301 CR	CR3	HIGHWAY WORKS - GENERAL ARRANGEMENT (SHEET 1 OF 3)
CC1610 YNM CAM SI XX GA CV 0303 CR	CR1	HIGHWAY WORKS: PROPOSED LEVELS PLAN (SHEET 1 OF 3)
CC1610 YNM CAM SI XX GA CV 0304 CR	CR1	HIGHWAY WORKS: PROPOSED LEVELS PLAN (SHEET 2 OF 3)
CC1610 YNM CAM SI XX GA CV 0305 A	CR1	HIGHWAY WORKS: PROPOSED LEVELS PLAN (SHEET 3 OF 3)
CC1610 YNM CAM SI XX GA CV 0306 CR	CR1	HIGHWAY WORKS: PROPOSED KERBING LAYOUT (SHEET 1 OF 3)
CC1610 YNM CAM SI XX GA CV 0307 CR	CR1	HIGHWAY WORKS: PROPOSED KERBING LAYOUT (SHEET 2 OF 3)
CC1610 YNM CAM SI XX GA CV 0308 CR	CR1	HIGHWAY WORKS: PROPOSED KERBING LAYOUT (SHEET 3 OF 3)
CC1610 YNM CAM SI XX GA CV 0309 A	CR1	HIGHWAY WORKS: SETTING OUT PLAN (SHEET 1 OF 3)
CC1610 YNM CAM SI XX GA CV 0310 CR	CR1	HIGHWAY WORKS: SETTING OUT PLAN (SHEET 2 OF 3)
CC1610 YNM CAM SI XX GA CV 0311 CR	CR1	HIGHWAY WORKS: SETTING OUT PLAN (SHEET 3 OF 3)
CC1610 YNM CAM SI XX SC CV 0312 CR	CR2	HIGHWAY WORKS - SIGNAGE & ROAD MARKINGS SCHEDULE

Also submitted to the Audit Team was a copy of the schools 'Traffic Management Policy September 2018.

2.2 No departure from standards or other information was submitted to the Audit Team.

3.0 MATTERS ARISING FROM PREVIOUS STAGE 1 AND 2 AUDITS

Only items that remain outstanding or require further comments have been included in this Chapter.

3.1 PROBLEM (outstanding stage 1 issue from paragraph 3.2 of stage 2 report)

LOCATION: Existing kerb build-out and raised speed table, approximately 15m to the south of the proposed access.

SUMMARY: Increased speeds.

The proposed removal of this, along with the removal of the existing table at the site of the proposed access, will increase the distance between speed controlling devices. The road will also be widened through this length with the provision of parking bays (which will be unoccupied on occasion). The effect of this will be to reduce the speed control and potentially increase vehicle speeds.

RECOMMENDATION

Retain the kerb build-out and speed table.

DESIGNERS RESPONSE

It is suggested that additional speed cushions be provided between the build outs to help keep speeds down. Providing additional build outs will reduce the amount of parking bays available. Highways/Planning to advise.

STAGE 2 COMMENTS

This issue is unresolved and remains outstanding.

DESIGNERS RESPONSE

Highway authority have confirmed speed cushions are not required between build outs.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2018)

See issue 3.2 below.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

During the site visit no observations were made of excessive speeds, however no speed survey data was available to the Audit Team to confirm this. No further comments at this stage.

3.2 PROBLEM (outstanding stage 1 issue from paragraph 3.3 of stage 2 report)

LOCATION: The existing kerb build-out and speed table, approximately 30m to the south of the proposed car park access.

SUMMARY: Parked vehicles may obscure visibility between traffic and pedestrians.

The road bends to the left and vehicles parked in the new parking bays on the left, ahead of the speed table / uncontrolled pedestrian crossing point, may obstruct the sightline between pedestrians and oncoming traffic.

RECOMMENDATION

Ensure that sightlines are clear, bearing in mind that pedestrians may be small children who are more readily obscured. This may involve the loss of some of the proposed parking bays.

DESIGNERS RESPONSE

The pedestrian sight line from the crossing has been checked and a distance of 40m is visible from the crossing point west along Bertha road.

STAGE 2 COMMENTS

In view of the absence of sufficient speed management devices, this issue is unresolved and remains outstanding.

DESIGNERS RESPONSE

The pedestrian sight line from the crossing has been checked and a distance of 40m is visible from the crossing point west along Bertha road.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2018)

The audit team remained concerned that the sightline between pedestrians on the northern (school-side) footway and oncoming traffic was insufficient at both of the kerb build-out crossing points (about 30m south of the main vehicle access to the school and at the central pedestrian access). It is accepted that certain guidance may be met and that observed speeds were low, but the audit team were mindful of the curvature of the road, the height, behaviour and skills of child pedestrians and the obscuration noted from large vehicles.

There are three engineering ways in which this could be responded to. The kerb could be built out on the northern side, traffic speeds could be reduced further, or two or three parking bays could be suspended/deleted. Of these options, closure of parking bays appears to be the most practicable and proportionate response.

It is therefore recommended that, for both of these kerb build-out crossing points, two or three parking bays are suspended in such a way that they don't attract

pedestrians crossing movements (because this would simply move the problem northbound) and also don't contain substantial items (e.g. planters) that might obstruct sight lines.

DESIGNERS RESPONSE

Speed reduction devices have been removed in accordance with NPT requests. NPT to monitor situation.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

This item remains of concern and it carried forward to the current Chapter. See Problem 5.1.

4.0 MATTERS ARISING FROM THIS INTERIM STAGE 3 AUDIT (OCTOBER 2018).

4.1 PROBLEM

LOCATION: Main school car park.

SUMMARY: There is a significant level change within the car park.

The extent of the gradient is greater than anticipated and it is not clear whether pedestrian routes will have steps or slopes. There is potential for slips, trips and resultant falling into vehicle routes.

RECOMMENDATION

It is recommended that this matter should be properly considered during the final stage 3 audit. It is likely that the provision of handrails, pedestrian barrier, suitable surfacing and gritting policy will be relevant considerations.

DESIGNERS RESPONSE

Problem accepted – no. Recommendation accepted – no.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

No concerns were observed during the site visit. Item is resolved.

4.2 PROBLEM

LOCATION: Outside No. 37 Bertha Road.

SUMMARY: The kerb build out associated with an uncontrolled pedestrian crossing is being used as a vehicular access haulway. It is understood that this haulway is improvised and unapproved and that it has been created since the highway works were installed. (See image below).

Manoeuvring a vehicle over a pedestrian crossing facility creates a risk of collisions with pedestrians.

RECOMMENDATION

Prevent access across the kerb build-out and footway in this location.

DESIGNERS RESPONSE

Problem accepted – yes. Recommendation accepted – yes. NPT to manage situation.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item remains of concern and is carried through to the current chapter. See problem 5.2.

4.3 PROBLEM

LOCATION: Outside No. 38 Bertha Road.

SUMMARY: Vehicles parked on the hatched area ahead of the kerb build-out may obscure visibility. (See the white car in the image above).

If the sightline is obstructed then there is an increased risk of vehicles colliding with pedestrians crossing at this point.

RECOMMENDATION

Prevent parking in this area; either by provision of a double yellow line or by placing a suitable physical item in that area (i.e. an item that prevents parking but does not obstruct the sightline).

DESIGNERS RESPONSE

Problem accepted – no. Recommendation accepted – no. Area is hatched (diag1040.4) as requested by NPT. NPT to monitor.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Parking was again observed here. Therefore, this item remains of concern and is carried through to the current chapter. See problem 5.3.

4.4 PROBLEM

LOCATION: Within the car park.

SUMMARY: Vehicles on the drop-off through route merge with buses and other traffic leaving the car park. There is no clear priority.

Because the routes are nearly parallel, there will be restricted inter-visibility between them with a resultant risk of collisions. It is also noted that pedal cycles will use this route.

RECOMMENDATION

Provide give-way markings to clearly define priorities.

DESIGNERS RESPONSE

Problem accepted – yes. Recommendation accepted – yes. Give way markings provided.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item is resolved.

4.5 PROBLEM

LOCATION: At the southern end of Bertha Road, at the end of the one-way system.

SUMMARY: The No-Entry signs are posted rather high and out of a drivers eyeline.

Drivers who face the No-Entry signs will only be able to see them at a late point (i.e. because of their approaches, they cannot see them from a far distance). The signs are mounted higher than is necessary and could be difficult to see, potentially resulting in drivers entering Bertha Road in the wrong direction of travel. Such vehicles would be at increased collision risk with oncoming vehicles and pedestrians.

It was also noted by Lyn Jones (subsequent to the site inspection on 11th October) that one sign had rotated and was facing the wrong way.

RECOMMENDATION

Provide larger signs lower on the existing posts and, if practicable, relocate the posts closer to the running carriageway. Ensure that the signs are facing in the correct direction.

DESIGNERS RESPONSE

Problem accepted – yes. Recommendation accepted – yes. Signs have been lowered

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item is resolved.

4.6 PROBLEM

LOCATION: The eastern kerbline at the junction between Cyncoed Road and Bertha Road.

SUMMARY: The kerbing and footway works carried out on the eastern kerbline at the junction between Cyncoed Road and Bertha Road are considered likely to result in pedestrian trip hazard risk.

Tactile paving has been implemented at a location that shows evidence of vehicle run over. The finish is also considered to be poor which could lead to tripping type incidents.

RECOMMENDATION

It is recommended that the surface is made good and that suitable bollards are provided in order to prevent further overrun.

DESIGNERS RESPONSE

Problem accepted – yes. Recommendation accepted – yes. Make good surface.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item is resolved.

4.7 PROBLEM

LOCATION: The junction between Cyncoed Road and Bertha Road.

SUMMARY: Cars parked near the junction restrict sightlines resulting in increased risks of collisions between traffic and pedestrians.

RECOMMENDATION

It is recommended that waiting restrictions are provided in order to maintain clear sightlines.

DESIGNERS RESPONSE

Problem accepted – no. Recommendation accepted – no. Make good surface.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item remains of concern and is carried through to the current chapter. See problem 5.4.

4.8 PROBLEM

LOCATION: At locations where new black bollards have been installed.

SUMMARY: Reflective strips are peeling off meaning that the bollards are less conspicuous and more likely to be collided with.

RECOMMENDATION

It is recommended that suitable reflective material is provided on all new bollards.

DESIGNERS RESPONSE

Problem accepted – yes. Recommendation accepted – yes. Defective bollards to be made good.

COMMENTS FROM THIS STAGE 3 AUDIT (October 2019)

Item is resolved.

5.0 MATTERS ARISING FROM THIS STAGE 3 AUDIT (OCTOBER 2019).

5.1 PROBLEM (outstanding stage 2 issue from Problem 3.2)

LOCATION: The existing kerb build-out and speed table, approximately 30m to the south of the proposed car park access.

SUMMARY: Parked vehicles may obscure visibility between traffic and pedestrians.

The road bends to the left and vehicles parked in the new parking bays on the left, ahead of the speed table / uncontrolled pedestrian crossing point, may obstruct the sightline between pedestrians and oncoming traffic.

RECOMMENDATION

Ensure that sightlines are clear, bearing in mind that pedestrians may be small children who are more readily obscured. This may involve the loss of some of the parking bays.

5.2 PROBLEM (outstanding interim stage 3 issue from Problem 4.2)

LOCATION: Outside No. 37 Bertha Road.

SUMMARY: The kerb build out associated with an uncontrolled pedestrian crossing is being used as a vehicular access haulway. It is understood that this haulway is improvised and unapproved and that it has been created since the highway works were installed. (See image below).

Manoeuvring a vehicle over a pedestrian crossing facility creates a risk of collisions with pedestrians.

RECOMMENDATION

Prevent access across the kerb build-out and footway in this location.

5.3 PROBLEM (outstanding interim stage 3 issue from Problem 4.2)

LOCATION: Outside No. 38 Bertha Road.

SUMMARY: Vehicles parked on the hatched area ahead of the kerb build-out may obscure visibility.

If the sightline is obstructed then there is an increased risk of vehicles colliding with pedestrians crossing at this point.

RECOMMENDATION

Prevent parking in this area; either by provision of a double yellow line or by placing a suitable physical item in that area (i.e. an item that prevents parking but does not obstruct the sightline).

5.4 PROBLEM

LOCATION: The junction between Cyncoed Road and Bertha Road.

SUMMARY: Cars parked near the junction restrict sightlines resulting in increased risk of collisions between traffic and pedestrians. It was noted that the majority of pedestrian movements pass through the northern access point from the school with this crossing point being well used, thus increasing risk of conflicts.

RECOMMENDATION

It is recommended that waiting restrictions are provided in order to maintain clear sightlines.

5.5 PROBLEM

LOCATION: Pedestrian crossing at Beechwood Road.

SUMMARY: Buildout may be difficult to see.

Should no vehicles be parked in the parallel parking area on the approach to the pedestrian crossing Beechwood Road, there may be a risk that drivers who are straddling the carriageway and parking area may fail to see the buildout /guardrail in dark conditions.

RECOMMENDATION

Install a reflective marker or similar on the guardrail taper facing approaching traffic.

5.6 PROBLEM

LOCATION: Bertha Road.

SUMMARY: Vehicles travelling in wrong direction along Bertha Road.

During the site visit some vehicles were observed driving the wrong way on Bertha Road and entering the school. The Audit Team were informed by staff and residents that this was a relatively common occurrence for drivers to drive the wrong way on Bertha Road from the junctions with College Green / Beechwood Road either into

the school egress or all along Bertha Road. Vehicles making such movements may lead to head to head conflicts.

RECOMMENDATION

Install 'no-entry' worded markings on Bertha Road at the junction with College Green / Beechwood. Along the length of Bertha Road install directional arrows to emphasise the one-way working.

It is assumed that some drivers, who are entering the school via the egress are doing this wilfully in contravention, and are aware of, the one-way working. It is recommended that measures are installed to physically prevent these movements through the school egress, such as by using devices to force one-way operation. Further no-entry signs may also be beneficial.

5.7 PROBLEM

LOCATION: Bertha Road, footway immediately northwest of school egress.

SUMMARY: Cars parked on footway obscure visibility.

Cars parked on footway here obscure visibility for vehicles leaving the school egress. This could increase risk of emerging conflicts.

RECOMMENDATION

Install measures to prevent parking on the footway such as bollards.

5.8 PROBLEM

LOCATION: Bertha Road junction with College Green / Beechwood Road

SUMMARY: Lanterns over traffic signs not operational.

A number of lantern units over traffic signs around the above junction were not operational. These included over give-way, turn left and no left turn signs. This could increase the risk of vehicles failing to give away or driving the wrong way down Bertha Road.

RECOMMENDATION

Make these lantern units operational.

6.0 AUDITOR STATEMENT

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

AUDIT TEAM LEADER

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Signed:

Date: 13 November 2019

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Signed:

Date: 13 November 2019

APPENDIX A: LOCATION PLAN

