



Road Safety Audit Stage 1

Fordingbridge Highway Improvements

Fordingbridge

Hampshire

Date: 10th June 2024

Report produced for: Paul Basham Associates

Report produced by: M & S Traffic

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Project Title Fordingbridge Highway Improvements.

Report Title Fordingbridge Highway Improvements

Road Safety Audit Stage 1

Status Final

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Original	Martin Morris	Bryan Shawyer		10 th June 2024
Designers Response	James Rand		JR	2 nd July 2024
Authority Response				

Distribution

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1 INTRODUCTION

1.1 This report describes a Stage 1 Road Safety Audit carried out on proposed Highway improvement/alteration works in Fordingbridge; comprising of

- Widening of the Provost Street approach to the junction with High Street to provide separate left and right turn lanes.
- Implementation of a one-way system that would remove conflict over two narrow bridges. The one way system would mean a) Provost Street allowing southbound traffic only, with narrowing of the carriageway at the junction with High Street b) reworking of the priority arrangement at Church Street / West Street junction and c) West Street allowing northbound traffic only, with amendments to the junction with Shaftesbury Street to create separate left and right turn lanes

The Audit was requested by the design organisation, Paul Basham Associates, The Bothy Cams, Hall Estate, Fareham, Hampshire P016 8UT on behalf of Hampshire and Dorset County Councils as the Overseeing Organisations.

1.2 The Road Safety Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA, Audit Team Leader
Highways England Approved RSA Certificate of Competency

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA – Audit Team Member
Highways England Approved RSA Certificate of Competency

1.3 The audit has been undertaken following the principles of GG 119, The Design Manual for Roads and Bridges. The documents available at the time the report was compiled are detailed in Appendix A.

1.4 The Audit took place at the Gillingham offices of M&S Traffic in June 2024. The Road Safety Audit was undertaken in accordance with the Road Safety Audit brief provided by Paul Basham Associates, The Bothy Cams, Hall Estate, Fareham, Hampshire P016 8UT. The Road Safety Audit comprised an examination of the documents provided, and these are listed in Appendix A. The documents consisted of a set of the design drawings and Stage 1 Road Safety Audit Brief.

The audit team visited the site together on the 4th June 2024 between 12:30 and 14:00. Weather conditions at the time were fine, traffic flows were low and free flow speeds were moderate. There were low level pedestrian and low-level cyclist movements observed during the site visit.

- 1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals. It is assumed that the Project Sponsor is satisfied that such a “Technical Check” has been successfully completed prior to requesting this safety audit.

- 1.6 No Departures from Standard was provided to the Audit Team. Personal Injury Collision (PIC) data has been provided.

- 1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

2.1 No previous Audits were supplied for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: West Street junction with Church Street.

Summary: Lack of vehicle containment could increase injury severity in a loss of control collision.

West Street is currently two way and forms a junction with Church Street; with the one-way operation proposals and changing this junction to a bend, entry speeds could easily increase. There is concern that with this being a bend and with possible increased speeds that the current level of containment over the existing watercourse may not be suitable. Should a vehicle lose control and strike the fencing they are unlikely to be contained and could enter the watercourse where injury severity could increase and vehicle occupants could drown.

RECOMMENDATION

It is recommended that suitable vehicle containment measures should be installed.

3.2 Local Alignment

3.2.1 PROBLEM

Location: Proposed one-way streets.

Summary: Increased speeds due to one-way system without traffic calming could lead to side impact collisions or vehicle to pedestrian / cyclist collisions.

One way operation is proposed where there is concern that without suitable traffic calming being proposed, this could result in motorists travelling along these roads at inappropriate speeds as there will be no opposing vehicular traffic. As a result, increased speeds could increase of side impact collisions occurring on these roads or vehicle to pedestrian / cyclist collisions occurring.

RECOMMENDATION

It is recommended that measures to control vehicle speed should be included in the scheme.

3.3 Junctions

3.3.1 PROBLEM

Location: Provost Street junction Shaftesbury Street.

Summary: Junction realignment could lead to footway overrunning and vehicle to pedestrian collisions.

The junction is being tightened, and various swept paths have been provided for assessment, where swept paths have little margin for error. Drivers unfamiliar with the area may not start the turning movements at ideal point. This could lead to footway overrunning and vehicle to pedestrian collisions.

RECOMMENDATION

It is recommended that sufficient carriageway width should be available for safe egress with a margin for driver unfamiliarity and error.

3.4 Non-Motorised User (NMU) Provision

3.4.1 No comments were raised in the section.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 PROBLEM

Location: The scheme various locations.

Summary: A lack of suitable signage could lead to confusion and non-compliance of the one way working which could compromise road safety.

At this early stage of design, no signing details have been provided for assessment, where No entry, One way signage and change of junction priority signage may be needed and may also need to be illuminated. A lack of suitable signage could lead to confusion and non-compliance of the one way working which could compromise road safety. In addition, as these proposal tie into cycling proposals, contraflow cycling operation should be considered.

RECOMMENDATION

It is recommended that signage details should be supplied at Stage 2 Safety Audit.

4 ISSUES IDENTIFIED DURING THE STAGE 1 AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

4.1 Any issues that the Audit Team wishes to bring to the attention of the Client Organisation, which is not covered by the road safety implications of this audit have been included in the following section. These issues could include maintenance items, operational issues, or poor existing provision. It should be understood, however, that in raising these issues, the Audit Team does not warrant that a full review of the existing highway environment has been undertaken beyond the scope of the audit.

4.2 The Audit Team had no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

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

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 10/06/2024

Audit Team Member

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency

Signed:  Date: 10/06/2024

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APPENDIX A

List of drawings and supporting documents

132.0001.0016	PROVOST STREET PROPOSED MITIGATION DESIGN
132.0001.0019 – Appendix U of TAA P01	WEST STREET ONE-WAY ARRANGEMENTS
132.0001.0020 – Appendix U of TAA P01	WEST STREET ONE-WAY SHAFTESBURY STREET ARRANGEMENTS
132.0001.0027 – Appendix U of TAA P01	WEST STREET ONE-WAY TRACKING
132.0001.0028 – Appendix U of TAA P01	WEST STREET ONE-WAY SHAFTESBURY STREET TRACKING
132.0001.0029 – Appendix U of TAA P01	PROVOST STREET ONE-WAY ARRANGEMENT AND TRACKING
ITB17592-GA-014 C	Proposed cycle improvements along Station Road – Option 1 [Approved drawing by others]
132.0001/TAA 1	TRANSPORT ASSESSMENT ADDENDUM
132.0001/JR/030624	HAMPSHIRE CYCLIST ASSESSMENT
Road Safety Audit Brief PBA May 2024	

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report)

APPENDIX C: Road Safety Audit Decision Log.

Auditors: Martin Morris (Team Leader) and Bryan Shawyer (Team Member).

Scheme: Fordingbridge Highway Improvements

Date Audit Completed: 10th June 2024

This response is to a Stage 1 Road Safety Audit to the design standard detailed within GG 119 of Volume 5, Section 2, Part 2, of the Design Manual for Roads and Bridges, as detailed by the Highways Agency.

RSA Problem	RSA Recommendation	Design Organisation response)	Overseeing Organisation Response (HCC)	Agreed RSA action
<p>3.1.1 PROBLEM</p> <p>Location: West Street junction with Church Street.</p> <p>Summary: Lack of vehicle containment could increase injury severity in a loss of control collision.</p> <p>West Street is currently two way and forms a junction with Church Street; with the one-way operation proposals and changing this junction to a bend, entry speeds could easily increase. There is concern that with this being a bend and with possible increased speeds that the current level of containment over the existing watercourse may not be suitable. Should a vehicle lose control and strike the fencing they are unlikely to</p>	<p>It is recommended that suitable vehicle containment measures should be installed.</p>	<p>HCC's TG14 sets out that the installation of new VRS is the least desirable solution and that all other methods should be exhausted first.</p> <p>Therefore, measures to encourage slow vehicle speeds can be included within the scheme such as white lining to visually narrow the carriageway, warning signage / SLOW markings on approach to the bridge, as well as treatment of carriageway to reduce skid risk.</p> <p>Improved vehicle containment measures could be provided if still considered necessary following a Collision Risk Assessment as set out in HCC's TG14, and further considered in later stage RSAs.</p>	<p><i>Measures such as white lining to visually narrow the carriageway and warning/ SLOW signage may not reduce speeds sufficiently to address this concern. No design has been provided for review; as such it is not possible to confirm this point can be addressed by deliverable design amendments.</i></p> <p><i>Vehicles currently park on the corner of West Street and Church Street; any VRS would obstruct access to this parking. Any VRS would need to not obstruct the crossing</i></p>	

<p>be contained and could enter the watercourse where injury severity could increase and vehicle occupants could drown.</p>			<p><i>point to the pedestrian footbridge.</i></p> <p><i>The Safety Auditor has not confirmed the Designer's Response satisfactorily addresses the safety problem raised</i></p>	
<p>3.2.1 PROBLEM</p> <p>Location: Proposed one-way streets.</p> <p>Summary: Increased speeds due to one-way system without traffic calming could lead to side impact collisions or vehicle to pedestrian / cyclist collisions.</p> <p>One way operation is proposed where there is concern that without suitable traffic calming being proposed, this could result in motorists travelling along these roads at inappropriate speeds as there will be no opposing vehicular traffic. As a result, increased speeds could increase of side impact collisions occurring on these roads or vehicle to pedestrian / cyclist collisions occurring.</p>	<p>It is recommended that measures to control vehicle speed should be included in the scheme.</p>	<p>Accepted.</p> <p>On-street parking on West Street acts to slow vehicle speeds.</p> <p>On Provost Street, the carriageway could be narrowed to control vehicle speeds, which would allow additional space to be given to NMUs.</p> <p>Other measures to control vehicle speed can be included within the detailed scheme design, for example, white lining along the carriageway edge to visually narrow the road, and SLOW road markings. These would be considered in the S2 RSA.</p>	<p><i>On-street parking on West Street would have been noted by and accounted for in the Safety Auditor's review and comments and therefore cannot be considered as mitigation to address this point.</i></p> <p><i>As set out in HHA's initial comments above, installation of traffic calming raises concerns.</i></p> <p><i>Measures such as white lining to visually narrow the carriageway and warning/ SLOW signage may not reduce speeds sufficiently to address this concern. No design has been provided for review; as such it is not possible to confirm this</i></p>	

			<p><i>point can be addressed by deliverable design amendments.</i></p> <p><i>Addressing Problem 3.2.1 would require traffic calming features in a sensitive location, which may not be appropriate or acceptable.</i></p> <p><i>Horizontal traffic calming measures such as road narrowing/ build outs may reduce speeds; however, the position of side roads would require consideration and may hamper delivery. There are other concerns around the delivery of horizontal traffic calming, including retaining suitable widths for cycles, creation of queues if priority working is proposed and a understanding of impacts on highway operation, tracking of larger vehicles, material choice, appropriate spacing between features, lighting and signage.</i></p>	
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			<p><i>Any vertical traffic calming (e.g. speed cushions/ humps, raised tables, etc) requires a separate process, which is subject to public consultation; delivery is therefore not guaranteed. Further to this, there are other concerns around the delivery of vertical traffic calming, including material choice, increases to noise and emissions, signage (street clutter), bus and salting routes and lighting requirements.</i></p> <p><i>The Safety Auditor has not confirmed the Designer's Response satisfactorily addresses the safety problem raised.</i></p> <p><i>It should be noted that the tracking analysis submitted for West Street has not included any car parking along the road. It therefore has not demonstrated if HGV can pass those parked cars safely</i></p>	
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<p>3.3.1 PROBLEM</p> <p>Location: Provost Street junction Shaftesbury Street.</p> <p>Summary: Junction realignment could lead to footway overrunning and vehicle to pedestrian collisions.</p> <p>The junction is being tightened, and various swept paths have been provided for assessment, where swept paths have little margin for error. Drivers unfamiliar with the area may not start the turning movements at ideal point. This could lead to footway overrunning and vehicle to pedestrian collisions.</p>	<p>It is recommended that sufficient carriageway width should be available for safe egress with a margin for driver unfamiliarity and error.</p>	<p>Accepted. The design was informed by the swept path analysis, and was designed to limit vehicle speeds on entry. However, the design can be 'loosened' at S278 stage to increase the margin for error and assessed in the S2 RSA.</p>	<p><i>Addressing Problem 3.3.1 will be challenging, if not impossible to overcome given the land is required for delivery of a committed scheme, required to mitigate the SS16 permitted development. The SS16 development is obligated to deliver this scheme in a completed S106 Agreement. It is required to make the SS16 permission acceptable.</i></p> <p><i>Regardless of the above, based on the highway boundary, prioritising the carriageway width would result in reduction in the width of the footway. The design submitted by the appellant shows the width of the proposed footway at the property No.76 Shaftesbury Street is reduced to 1.5m which may not be approved by the highway authority in this location due to the level of pedestrian movements. If this is reduced even further to</i></p>	
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			<p><i>provide additional carriageway width, the footway would become even less acceptable and will not comply with HCC's current design standards/guidance related to pedestrians and cyclists.</i></p> <p><i>No design has been provided for review; as such it is not possible to confirm this point can be addressed by deliverable design</i></p> <p><i>It is considered unlikely this point can be satisfactorily address at the S278 stage.</i></p> <p><i>The Safety Auditor has not confirmed the Designer's Response satisfactorily addresses the safety problem raised.</i></p>	
<p>3.5.1 PROBLEM</p> <p>Location: The scheme various locations.</p> <p>Summary: A lack of suitable signage could lead to confusion and non-</p>	<p>It is recommended that signage details should be supplied at Stage 2 Safety Audit.</p>	<p>Accepted - to be provided at detailed design stage and assessed in the S2 RSA</p>	<p><i>Problem 3.5.1 in relation to signage is a detailed design issue. The position of signage needs to be carefully thought</i></p>	

<p>compliance of the one way working which could compromise road safety. At this early stage of design, no signing details have been provided for assessment, where No entry, One way signage and change of junction priority signage may be needed and may also need to be illuminated. A lack of suitable signage could lead to confusion and non-compliance of the one way working which could compromise road safety. In addition, as these proposal tie into cycling proposals, contraflow cycling operation should be considered.</p>			<p><i>out as it is likely to reduce the unobstructed width of a footway / cycleway / shared use facility.</i></p> <p><i>However, contraflow cycling operation is a principle of the design and should be considered at this stage, with updated proposals provided. Proposals would need to be considered by HHA to ensure an acceptable design can be achieved No design has been provided for review therefore cannot comment further.</i></p> <p><i>The Safety Auditor has not confirmed the Designer's Response satisfactorily addresses the safety problem raised</i></p>	
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APPENDIX D: DESIGN ORGANISATION STATEMENT

PROJECT NAME: Fordingbridge Highway Improvements, Road Safety Audit Stage 1	
On behalf of the Design Organisation I certify that: 1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Overseeing Organisation	
Name	
Signed	
Position	
Organisation	Paul Basham Associates Ltd
Date	

APPENDIX E: OVERSEEING ORGANISATION STATEMENT

PROJECT NAME: Fordingbridge Highway Improvements, Road Safety Audit Stage 1	
On behalf of the Overseeing Organisation I certify that: 1) The actions identified in response to the problems raised in this RSA have been discussed and agreed with the Design Organisation; and 2) The agreed RSA actions will be progressed.	
Name	
Signed	
Position	
Organisation	
Date	