Midlands Road Safety Ltd

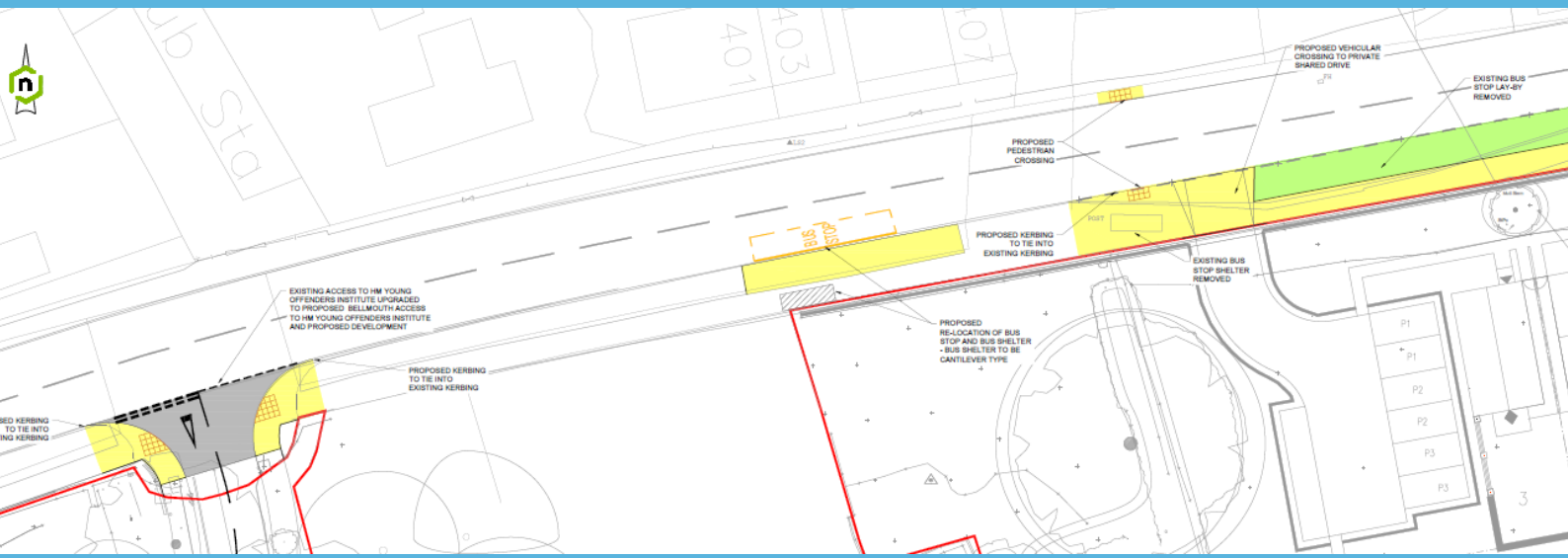
PROPOSED RESIDENTIAL ACCESS & PEDESTRIAN CROSSINGS

ASH BANK ROAD, WERRINGTON

COMBINED STAGE 1 & 2 – ROAD SAFETY AUDIT

MARCH 2023

REPORT REF: 23-1436-RSA12



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COMBINED STAGE 1 & 2 ROAD SAFETY AUDIT

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CLIENT: Link Engineering

ENGINEER: Midlands Road Safety Ltd

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1. INTRODUCTION

1.1 This report comprises a Combined Stage 1 & 2 Road Safety Audit (RSA) on the proposed amendments to an existing priority junction alongside a new private driveway access junction, an uncontrolled pedestrian dropped crossing and a new controlled crossing at an existing signal controlled junction.

1.2 The works are arising from a proposed residential development on land to the south of Ash Bank Road in Werrington, Stoke on Trent. The report was requested by Link Engineering on behalf of Countryside Properties. The Overseeing Organisation is Staffordshire County Council.

1.3 The Audit Team Membership was as follows:

Audit Team Leader

Chris Berry, MSc Transport Planning, MSoRSA, NH RSA Certificate of Competency

Audit Team Member

Robert Cyples, BSc, MIHE, FCIHT, FSoRSA, NH RSA Certificate of Competency

1.4 A site inspection was carried out by the Audit Team together on Monday 1st February 2023 between the hours of 13:00 and 14:00. During the site visit the weather conditions were sunny and the road surface was damp. Traffic flows were observed as being light, with low pedestrian flows and no pedal cycle movements being observed.

1.5 The audit also comprised of a desk-top study where all documents and plans provided by the Design Team were reviewed. A list of these can be found in Appendix A. It should be noted that details of the changes to the signal controlled junction with regard to the provision of the pedestrian crossing element were not available at the time of the audit. The auditors have not been made aware of any departures from design standards.

1.6 The audit has been carried out in accordance with the principals of the National Highways document GG 119 'Road Safety Audit'. A formal Road Safety Audit Brief was not provided to the Audit Team. However, information regarding the site was provided via email alongside the relevant scheme documents and drawings. This was considered by the Audit Team to provide sufficient detail to undertake the appropriate stage of audit.

1.7 The Audit Team have examined and reported solely on the road safety implications of the scheme as presented and not examined or verified the compliance to any alternate criteria.

1.8 All comments and recommendations in this report are referenced to the Audit Brief where provided, and detailed drawings supplied. Where appropriate a list of "Additional Considerations" will follow from any safety problems raised. These are not identified safety problems but generalised comments to assist in the design and safety audit process.

1.9 Midlands Road Safety Ltd has ensured that this report has been carried out independently with no member of the Audit Team membership directly linked to the scheme design.

2. SAFETY PROBLEMS RAISED IN PREVIOUS ROAD SAFETY AUDITS

2.1. It is understood that no previous Road Safety Audits have been undertaken for the proposals subject to this report.

3. SAFETY PROBLEMS RAISED IN THIS ROAD SAFETY AUDIT

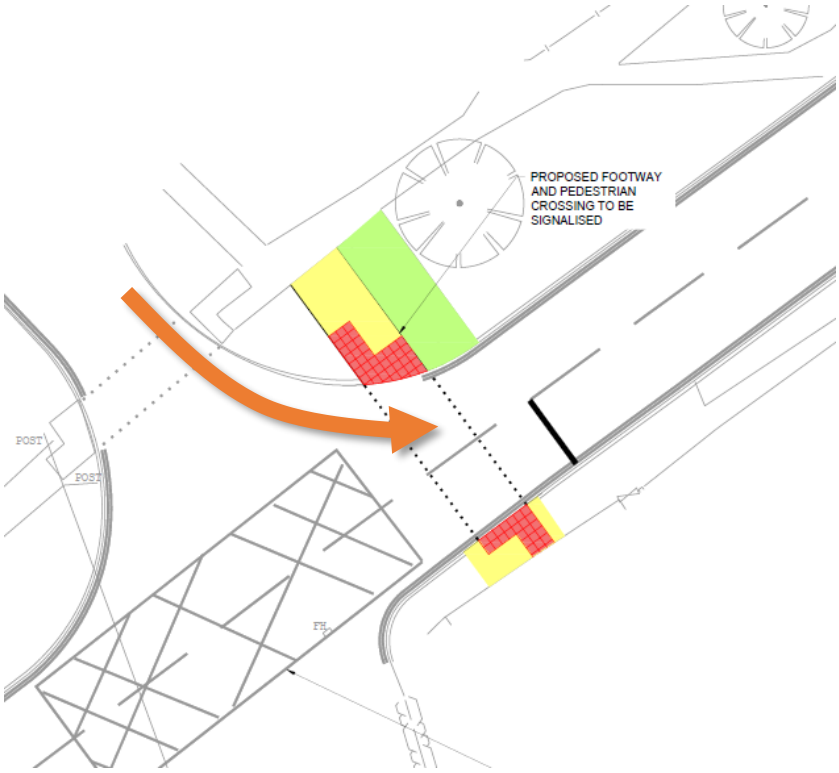
3.1. The Audit Team has identified five safety problems to be addressed.

3.2. **Problem 1**

Location: Junction of Ash Bank Road and Salters Lane.

Summary: Adjusted stop line may result in side swipe type collisions between left turners and westbound vehicles stopped at the junction.

The westbound stop line at the signalised junction has been relocated west so as to accommodate vehicles turning out the existing private access on the southern side of Ash Bank Road. As a result there are concerns that larger vehicles turning left from Washerwall Lane onto Ash Bank Road may collide with vehicles stopped at the stop line resulting in side swipe collisions.



Recommendation:

It is recommended that a swept path analysis is undertaken reviewing turning movements through the junction for likely vehicle types with a vehicle stopped at the relocated stop line. Should the stopped vehicle impede movements, it is recommended that amendments are made to the junction in order to accommodate the movements.

3.3. Problem 2

Location: Ash Bank Road – approaches to the proposed controlled crossing.

Summary: Deteriorating road surface on the approach to the crossing may increase the risk of vehicle to pedestrian and shunt collisions.

It was observed on site that the road surface on each approach to the proposed signalised crossing is worn and cracking. Should insufficient skid resistance be provided on the approaches to the crossing there is an increased risk of vehicles skidding or failing to stop in time for pedestrians using the crossing . This could increase the risk of pedestrian collisions or shunts with other vehicles.



Recommendation:

It is recommended that the surface is renewed with a high PSV surface on the approaches to the crossing.

3.4. Problem 3

Location: Washerwall Lane junction with Ash Bank Road - footway link between controlled crossings.

Summary: Pedestrians may slip and trip walking on unmade soft ground across desire line.

It is likely that pedestrians travelling between the crossing on Washerwall Lane and the proposed crossing on Ash Bank Road will "cut" the corner between the two paths, wearing the verge. This may result in slip and trip type incidents with pedestians walking across unmade soft ground.



Recommendation:

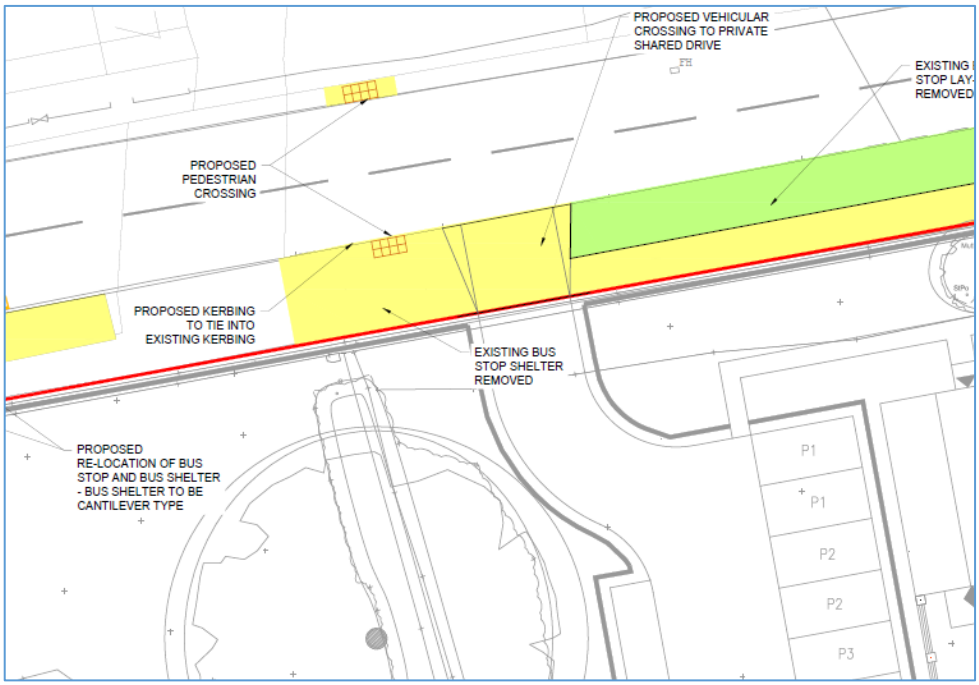
It is recommended that a splayed corner is provided between the two footway links.

3.5. Problem 4

Location: Ash Bank Road - proposed shared private driveway.

Summary: Steep uphill gradient on the approach to the junction risks shunt type collisions.

Whilst the wide footway on Ash Bank Road provides a relatively flat area from which vehicles can join the carriageway, there is concern with regard to the potential gradient of the private driveway on the approach to the junction. It was observed on site that there is a significant slope into the site. Should the back end of vehicles be on a steep gradient when entering the Ash Bank Road this may restrict their ability to get up to speed with traffic on the main road, risking 'bogging down', stalling or rolling back which may result in failure to give way or shunt type collisions.



Recommendation:

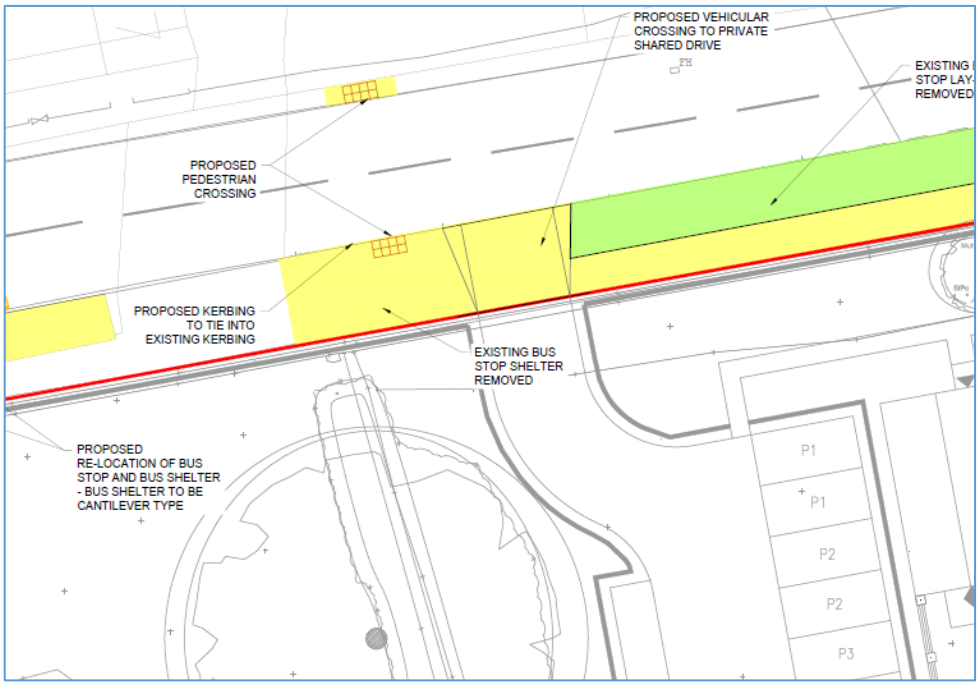
It is recommended that a dwell area with a low gradient is provided on the approach to the junction to accommodate likely vehicle types to enable vehicles to enter Ash Bank Road safely without risk of stalling, rolling back or slow get aways.

3.6. Problem 5

Location: Ash Bank Road - proposed shared private driveway.

Summary: Uphill gradient on the approach to the junction may limit intervisibility with pedestrians on the footway and increase the risk of pedestrian collisions.

Whilst the existing height of the boundary wall appears relatively low, there is concern that pedestrians walking along the footway could still be masked by the wall due to the likely steep gradient of the driveway. This could restrict intervisibility between road users exiting the private driveway towards Ash Bank Road and pedestrians walking along the footway and may result in drivers unintentionally pulling out into the path of pedestrian resulting in pedestrian collisions.



Recommendation:

It is recommended that suitable visibility is provided between users of the driveway and the adjacent footway.

End of the 'Safety Problems' in this Section of the Report

4. AUDIT STATEMENT

4.1. We certify that the terms of reference of the audit are as described in GG 119 and that no member of the Audit Team was directly linked to the scheme design.

4.2. **AUDIT TEAM LEADER:**

Chris Berry – MSc, MSoRSA, NH RSA Certificate of Competency

Director

Midlands Road Safety Ltd



Signed: _____

Date: 09.03.2023

4.3. **AUDIT TEAM MEMBER:**

Robert Cyples, BSc, MIHE, FCIHT, FSoRSA, NH RSA Certificate of Competency

Road Safety Consultant working on behalf of Midlands Road Safety Ltd



Signed: _____

Date: 09.03.2023

APPENDIX A

The following documents and drawings were provided for the purposes of this road safety audit.

Drawings

Number	Title	Rev
AB-LE-GEN-XX-DR-CE-100	S278 General Arrangement	A
AB-LE-GEN-XX-DR-CE-101	S278 Alignment Geometry	A
AB-LE-GEN-XX-DR-CE-102	S278 Alignment Geometry	A
AB-LE-GEN-XX-DR-CE-106	S278 Swept Path Analysis	A
AB-LE-GEN-XX-DR-CE-107	S278 Swept Path Analysis	-
AB-LE-GEN-XX-DR-CE-110	S278 Existing Utilities	A
AB-LE-GEN-XX-DR-CE-200	S278 Site Clearance	A
AB-LE-GEN-XX-DR-CE-500	S278 Drainage Layout	A
AB-LE-GEN-XX-DR-CE-600	S278 Proposed Contours	A
AB-LE-GEN-XX-DR-CE-700	S278 Construction Layout	A
AB-LE-GEN-XX-DR-CE-750	S278 Construction Details	A
AB-LE-GEN-XX-DR-CE-1100	S278 Kerbing Layout	A

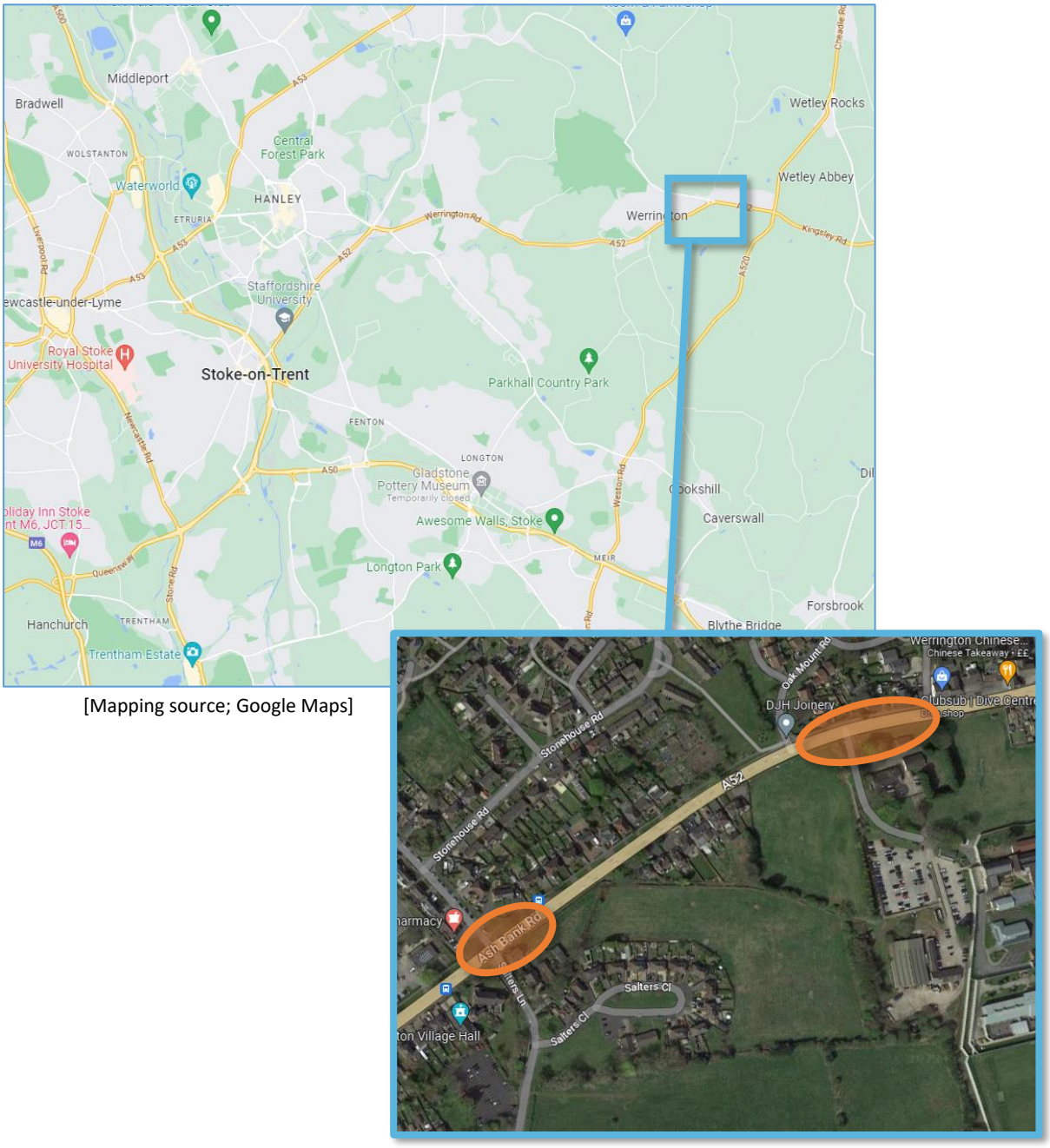
Documents

Author	Title	Rev	Date
Link Engineering	Road Safety Audit Brief (email)	-	28.02.2023
Link Engineering	Technical Note – Visibility	-	08.02.2023

APPENDIX B

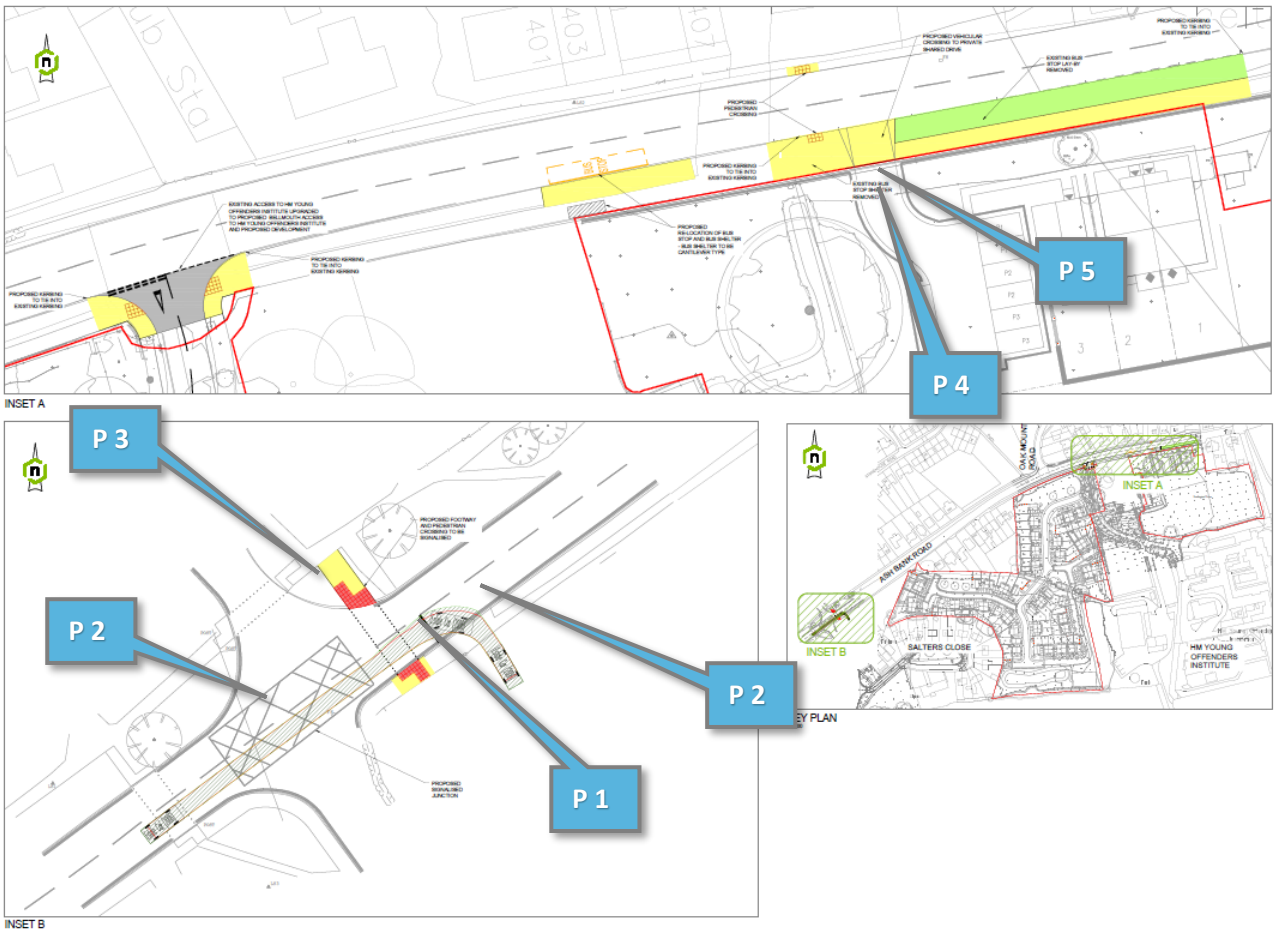
The location of any problems/observations that have been identified in Section 3 of this report can be seen on the extracts of the drawings supplied to the Audit Team, as listed in Appendix A.

Figure 1 – Site Location



[Mapping source; Google Maps]

Figure 2 – Problem Location Plan





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