

Land north of Moat Road, Headcorn Kent

Proposed Site Access and
Associated Highway Works

Road Safety Audit Response Report 2




F1 Project details

Table F.1 Project Details

Report title:	Land north of Moat Road, Heacorn, RSA Response Report 2
Date:	09/10/2023
Document Reference and revision:	20472-09
Prepared by:	DTA Transportation
On behalf of:	Kent County Council

Table F.2 Authorisation Sheet

Project:	Land north of Moat Road, site access and highway works.
Report title:	Road Safety Audit Response Report (RSA1)
Prepared by:	
Name:	Dave Neale
Position:	Associate Director
Signed	
Organisation:	DTA Transportation
Date:	9 th October 2023
Approved by:	
Name:	
Position:	
Signed	
Organisation:	
Date:	

F2 Introduction

This report sets out the design organisation response to problems raised in the Stage 1 Road Safety Audit carried out by Meraki Alliance (reference MAL/MRHRSA1Rev0, 9th October 2023).

This audit formally considered the proposed access junction onto Moat Road as well as the associated footway works and road narrowing proposals east of the site on Moat Road. The scheme primarily involves the delivery of a new priority junction. Further works include the narrowing of the existing carriageway with the introduction of a give way arrangement, to enable the creation of a new footway from the site to connect into the existing further east on Moat Road.

The auditor was provided with an RSA brief which is attached at **Appendix A**. The received audit is attached as **Appendix B**. The audit raised 3 problems and for ease, the responses below use the same references as the received audit.

A previous Stage 1 RSA was undertaken on the original scheme and whilst the recent changes to respond to root protection areas of adjacent trees have resulted in modest alteration to road widths, it was considered that a new safety audit would be worthwhile. This is attached in **Appendix C**.



F3 Key personnel

Table F.3 Key personnel

Overseeing Organisation:	<u>Kent County Council</u>
RSA Team:	Jonathan Birkett – Audit Team Leader Gillian Kidd – Audit Team Member Meraki Alliance Ltd Unit 1 Waterside Old Boston Road Wetherby LS22 5NB
Design organisation:	<u>DTA Transportation</u> Dave Neale (dn@dtatransportation.co.uk) Forester House, Doctors Lane, Henley in Arden, Warwickshire B95 5AW T: 01564 793598

F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit decision log

RSA Problem	RSA recommendation	Design organisation response	Overseeing Organisation response	Agreed RSA action
<p>Problem: 1-1</p> <p>Location: Moat Road</p> <p>Summary: Obstructed visibility will increase the risk of both failures to give way and shunt type collisions.</p> <p>It was noted as part of the RSA that there is extensive vegetation growth along both the northern and southern verges of Moat Road. This vegetation will significantly affect visibility both for drivers exiting the development and to vehicles waiting at the road narrowing (especially eastbound). This point was raised in the Mott McDonald RSA and agreed by the design team in 2019 but details have not been provided on the drawings at this Stage 1 RSA.</p> <p>Obstructed visibility will increase the risk of both failures to give way and shunt type collisions.</p>	<p>At detailed design provide details of site clearance and ensure that this is stringent enough that future vegetation growth does not become an ongoing issue.</p>	<p>The problem and recommendation are accepted.</p> <p>The recommendation is accepted. The visibility splays are wholly contained within either land under the control of the developer or public highway. Therefore, any vegetation interfering with the visibility splay will be removed.</p>		

<p>Problem: 1-2</p> <p>Location: Moat Road approach to road narrowing.</p> <p>Summary. Obscured signs will increase the risk of both failure to give way and shunt type collisions.</p> <p>As part of the scheme, it is proposed to construct a length of single lane narrowing slowing vehicles entering the village. Vehicles travelling eastbound must give way to vehicles travelling westbound out of the village. The Audit Team were concerned that the proposed signing shown on the drawings could be lost in the background vegetation clutter currently within the verges. The extents of vegetation clearance is not known and as such, the signs could be lost within the dark background created by the vegetation.</p> <p>Obscured signs will increase the risk of both failures to give way and shunt type collisions.</p>	<p>Consider the level of vegetation clearance required in association with Problem 1-1 and also consider providing the signs with yellow backing boards to improve visibility to the signs for approaching vehicles.</p>	<p>The problem and the recommendation are accepted.</p> <p>The detailed designs of the associated signs will be agreed with KCC as local highway authority through the technical approval of the highway works process.</p>		
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Land north of Moat Road, Headcorn

Road Safety Audit Response Report 2

<p>Problem: 1-3</p> <p>Location: Moat Road uncontrolled crossing.</p> <p>Summary: A lack of suitable pedestrian-vehicle visibility splays can increase the risk of pedestrian-vehicle collisions.</p> <p>As part of the scheme there will be a new uncontrolled crossing of Moat Road details of the intervisibility between pedestrians and vehicles are not shown on the drawing.</p> <p>The Audit Team were concerned that pedestrians crossing Moat Road (especially from the north) could have their visibility to vehicles approaching eastbound on Moat Road obstructed (Photo).</p> <p>Based on current standards and a speed limit of 30mph DMRB CD109 Table 2.10 shows that the visibility required is 1.5m x 40m (MfS 30mph).</p> <p>A lack of suitable visibility between pedestrians and vehicles can increase the risk of collisions.</p>	<p>Ensure that intervisibility is provided that meets the required standards.</p>	<p>The problem and the recommendation are accepted.</p> <p>The stated visibility is now shown on Drawing 20472-03e</p>		
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F5 Design organisation and Overseeing Organisation statements

Table F.5 Design organisation statement


On behalf of the design organisation I certify that:	
1) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation; or	<input type="checkbox"/>
2) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit cannot be agreed and I wish to proceed to an exception report	<input type="checkbox"/>
Name:	Dave Neale
Signed:	
Position:	Associate Director
Organisation:	DTA Transportation
Date:	9 th October 2023

Table D.5 Overseeing Organisation statement

On behalf of the Overseeing Organisation I certify that:	
1) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation and will be progressed; or	<input type="checkbox"/>
2) The RSA actions and other matters identified in response to the road safety audit problems in this road safety audit cannot be agreed and I wish to proceed to an exception report	<input type="checkbox"/>
Name:	
Signed:	
Position:	
Organisation:	Kent County Council
Date:	

Appendix A

Road Safety Audit Brief

Road Safety Audit Brief

1. General Details													
Scheme Name	Moat Road, Headcorn												
Type of scheme	Residential Development Access												
Stage of Audit required <input checked="" type="checkbox"/> (please indicate one – further stages require another brief form)	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">NMU Audit Non-Motorised User Audit to DMRB HD 42/05</td> <td style="width: 10%; text-align: center;"><input type="checkbox"/></td> <td style="width: 30%; text-align: center;">Stage 1 Completion of Preliminary Design</td> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Combined Stage 1 / 2 No Prelim Design - progressed straight to Detailed Design</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Stage 2 Completion of Detailed Design</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">Stage 3 Completion of construction</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Stage 4 Monitoring at 12 or 36 months</td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table>	NMU Audit Non-Motorised User Audit to DMRB HD 42/05	<input type="checkbox"/>	Stage 1 Completion of Preliminary Design	<input checked="" type="checkbox"/>	Combined Stage 1 / 2 No Prelim Design - progressed straight to Detailed Design	<input type="checkbox"/>	Stage 2 Completion of Detailed Design	<input type="checkbox"/>	Stage 3 Completion of construction	<input type="checkbox"/>	Stage 4 Monitoring at 12 or 36 months	<input type="checkbox"/>
NMU Audit Non-Motorised User Audit to DMRB HD 42/05	<input type="checkbox"/>	Stage 1 Completion of Preliminary Design	<input checked="" type="checkbox"/>										
Combined Stage 1 / 2 No Prelim Design - progressed straight to Detailed Design	<input type="checkbox"/>	Stage 2 Completion of Detailed Design	<input type="checkbox"/>										
Stage 3 Completion of construction	<input type="checkbox"/>	Stage 4 Monitoring at 12 or 36 months	<input type="checkbox"/>										
Design Team contact details (Name, Address, Email, and Tel No.)	<p>Dave Neale (dn@dtatransportation.co.uk)</p> <p>+44 (0) 1564 793598</p> <p>DTA Transportation, Forester House, Doctors Lane, Henley in Arden, Warwickshire B95 5AW</p>												
Client / Project Sponsor contact details (Name, Address, Email, and Tel No.)													
Maintaining Agent contact details (Name, Address, Email, and Tel No.)													
Police contact details (Required for Stage 3 Road Safety Audit)													
Terms of Reference (please stipulate which RSA standard is being applied to this Highway Improvement Scheme)	GG119												

2. Scheme Description / Objective

General Description (include scheme purpose and construction start date)	Proposed Footway and traffic management scheme.
Design Standards Applied to the Scheme Design (List any departures/relaxations from standard in Section 5)	CD123
Design Speeds (kph)	60kph
Speed Limits (State whether mandatory or advisory)	NSL / 30mph
Existing Traffic Flows / Queues	249 AM / 257 PM
Forecast Traffic Flows	351 AM / 345 PM
Non-Motorised User (NMU) Desire Lines	East along Moat Lane towards the village centre
Environmental Constraints	Watercourse and bridge structure

3. Description of Locality (Please include an attached location plan)

General Description	See draft transport assessment
Factors Affecting Road Safety	Traffic speeds and pedestrian movements

4. Personal Injury Collisions (PICs)

PIC data details (analysis period, data range, area analysed etc)	See draft transport assessment
Summary of Collisions (narrative record and PIC location plot to be included)	None

5. Departures and Relaxations from Standards

General (Please state if there are none)	None aware of at present
List of Departures/Relaxations	

6. Previous Road Safety Audits, Design Team Responses and Exception Reports

(Please provide details, including Report title, Document ref, Date completed)

7. Strategic Decisions: Items outside the scope of this Road Safety Audit

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8. List of Documents and Drawings provided for Audit

Documents (Include Title, Document Ref and Revision)	Transport Assessment 20472-04d
Drawings (Include Title, Drawing No., Revision and Status)	20472-03d / 20472-03d-1 / 20472-03d-2

9. Checklist (provide reasons for those that have not been included/carried out)

Road Safety Audit Brief - Approved and signed	<input checked="" type="checkbox"/>	Confirmed RSA Team Approval	<input type="checkbox"/>
Contact Details of all relevant parties	<input type="checkbox"/>	Site location plan	<input checked="" type="checkbox"/>
Scale layout plans	<input checked="" type="checkbox"/>	Construction/typical details	<input type="checkbox"/>
Previous RSA reports	<input checked="" type="checkbox"/>	Previous Design Team Responses	<input type="checkbox"/>
Previous RSA Exception Reports	<input type="checkbox"/>	List of Departures and Relaxations	<input type="checkbox"/>
Traffic signal staging	<input type="checkbox"/>	Summary of Personal Injury Collisions	<input checked="" type="checkbox"/>
Personal Injury Collision Location Plot	<input type="checkbox"/>	Traffic Management Plan (schedule)	<input type="checkbox"/>
Traffic Counts	<input checked="" type="checkbox"/>	Traffic Management Layout (drawings)	<input type="checkbox"/>
Vehicle speed surveys	<input checked="" type="checkbox"/>	NMU volumes and desire lines	<input type="checkbox"/>
NMU reports - including NMU context reports. This is required for an NMU report to HD 42/05	<input type="checkbox"/>	Items outside the scope of RSA	<input type="checkbox"/>
Other factors that may impact on safety	<input type="checkbox"/>	Design Speeds/speed limits	<input type="checkbox"/>
Design standards used	<input type="checkbox"/>	Adjacent land uses	<input type="checkbox"/>

Additional Comments:

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10. Safety Audit Team Membership (CVs available on request)

Team Leader	
Team Member	
Team Member (2)	

Observer	N/A
Specialist Advisor	
Highway Authority	
Police (Required for Stage 3 RSA)	
Design Team (Required for NMU Audit to HD 42/05)	

11. Road Safety Audit Brief Approval (To be completed by the Project Sponsor)

I hereby approve this Road Safety Audit Brief and composition of the Road Safety Audit Team, as detailed in this form.

Name / Position	
Signed / Date	

Appendix B
Road Safety Audit



meraki alliance

Highways, Transportation & Safety Consulting

Residential Development: Moat Road Headcorn

Road Safety Audit: Stage 1

Kent County Council
County Hall
Maidstone
Kent
ME14 1XQ

Jonathan Birkett
Meraki Alliance Ltd
Unit 1 Waterside
Old Boston Road
Wetherby
LS22 5NB
[Tel:+44 \(0\) 7966296302](tel:+4417966296302)



meraki alliance

Highways, Transportation & Safety Consulting

Residential Development: Moat Road Headcorn

Road Safety Audit: Stage 1

Report Produced for:	Kent County Council
Report Produced by:	Jonathan Birkett
Report Dated:	09 October 2023
Report Reference:	MAL/MRHRSA1Rev0
Road Safety Audit Team Leader:	Jonathan Birkett

Residential Development: Moat Road Headcorn

Road Safety Audit: Stage 1

Contents Amendment Record

This report has been issued & amended as follows:

Issue	Revision	Description	Date	Signed
1	0	Draft Report	08 Oct 2023	JB
1	0	FINAL REPORT	09 Oct 2023	JB/GK

Report Circulation Record

This report has been circulated, as follows:

Person	Organisation	No. of Copies	Date
	Kent County Council		
Dave Neale	DTA	Electronic	09 Oct 2023
Gillian Kidd	Meraki Alliance Ltd	Electronic	09 Oct 2023

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1 Introduction

1.1 General

This report has been prepared in response to a request to undertake a Stage 1 Road Safety Audit (i.e., carried out prior to detailed design), by Dave Neale (DTA) on behalf of Kent County Council. The scheme submitted for Audit is the new development on land to the north of Moat Road, Headcorn.

The scope of the works included within this Road Safety Audit are:

- New priority access junction off Moat Road.
- New footway.
- New uncontrolled crossing of Moat Road.
- Localised widening of Moat Road.
- Traffic calming features in the form of carriageway narrowing to a single lane with associated signing.
- New gateway signing.

Overseeing Organisation

Kent County Council.

Client

Catesby.

Design Organisation

DTA.

The audit comprised an examination of documents forming the Audit Brief and an examination of the site.

1.2 Documents Forming the Brief

The documents were made available to the Road Safety Audit Team by Dave Neale (DTA), on behalf of Kent County Council. The total documents forming the Audit Brief are listed in Appendix 1:

Generally, the Brief comprised:

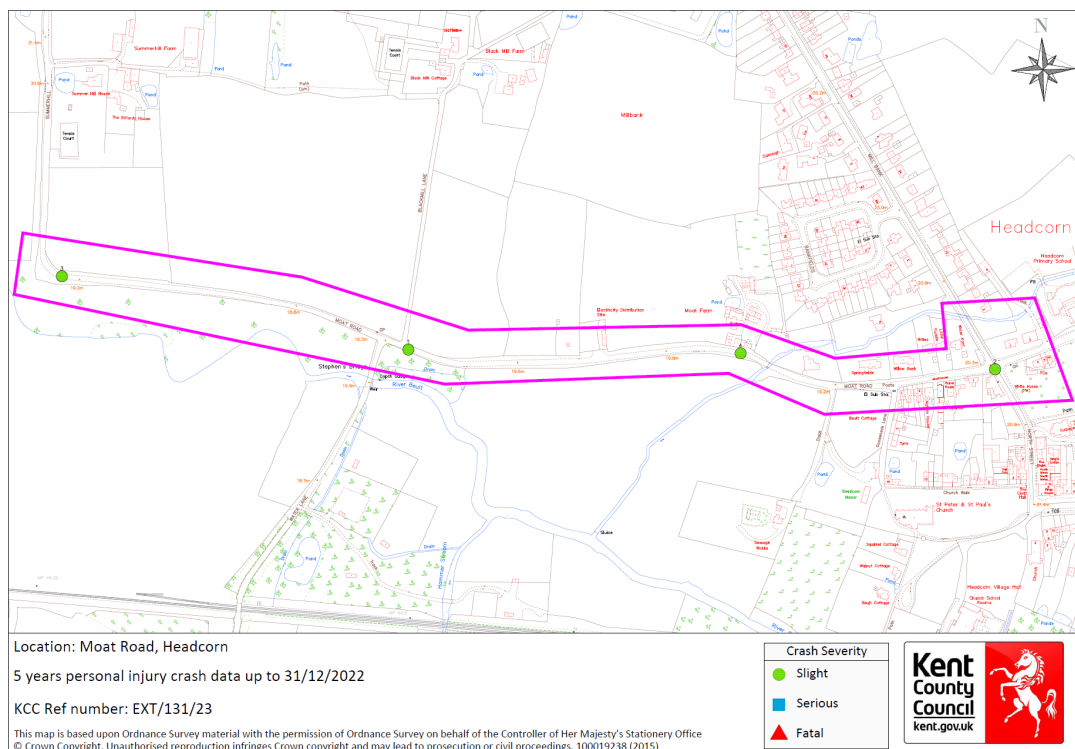
- Brief.
- Drawings.

- Transport Assessment.
- Traffic flow data.
- Collision Data.
- Previous RSA 1 Mott McDonald and Designers Response.

1.3 Collision Traffic and Speed Data

Collision data was provided as part of the brief and associated Transport Assessment.

The latest five-year personal injury collision data up to 31/12/2022 has been provided from Kent County Council. The search area and collision plot are shown below.



Detailed traffic and speed data is shown below:

Site Location	Direction	5 Day Ave.	7 Day Ave.	Average 85%ile (mph)	Average Mean (mph)	AM Peak	PM Peak
Site 1	Eastbound	117	109	14.9	11.9	11	6
	Westbound	126	117	14.8	11.7	6	10
Site 2	Eastbound	1424	1257	43.1	36.9	123	145
	Westbound	1442	1283	44.8	38.2	150	117
Site 3	Eastbound	1432	1268	34.3	28.8	127	146
	Westbound	1436	1276	34.2	28.8	147	117

Site 2 covers a location to the west of the existing sub station access and site 3 is closer to the village centre near the bridge.

1.4 Details of Site Visit

A site inspection was undertaken on 04 October 2023 between 02:30 and 03:45. The Audit Team spent 75 minutes on site understanding the proposed works and their interaction with the local road network.

During the site visit the weather was fine. No incidents were noted whilst on site.

1.5 RSA Team and Format

It was considered that the information provided was sufficient for the purpose of carrying out the Road Safety Audit Stage 1 requested.

The Road Safety Audit Team membership approved was:

JONATHAN BIRKETT IENG MICE FIHE
Holder of Certificate of Competency
Road Safety Audit Team Leader

G KIDD BSc (HONS) MIHE
Road Safety Audit Team Member

The Road Safety Audit comprised an examination of the documents and drawings supplied to the Road Safety Audit Team (referenced in Appendix 1 of this report). No member of the Road Safety Audit Team has had any previous input to the design of the scheme.

The Terms of Reference are as described in the National Highways Design Manual for Roads and Bridges document GG119 'Road Safety Audit'. The scheme has been examined and this report compiled only with regard to safety implications to road users of the scheme as presented. It has not been verified for compliance with any other Standards or criteria. However, in order to clearly explain a safety problem or the recommendation to resolve a problem, the Audit Team may on occasion have referred to a design standard for information only. However, any audit comments should not be construed as implying that a technical audit has been undertaken in any respect.

Furthermore, any recommendations included within this report should not be regarded as being prescriptive design solution to the problem raised. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, as stipulated in GG119, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which should be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.

It is the Project Sponsor's responsibility to ensure that all problems raised by the Road Safety Audit Team are given due consideration.

In the event of a collision and any resulting legal action, Meraki Alliance Ltd would have to defend its actions on the basis that it took such care, as in all circumstances was reasonably required, to ensure that the highway was not dangerous to road users. It is important therefore that recommendations contained in the report are acted upon wherever possible.

1.6 Departures or Relaxations from Standards

No departures from standard have been provided to the RSA Team.

1.7 Items Outside the Scope of the Road Safety Audit

No items have been identified outside the scope of the RSA.

1.8 Information not provided for this Stage of Audit

All information has been provided necessary to undertake this RSA Stage 1.

2 Items Raised at Stage 1 Road Safety Audit


This section details the findings of this Stage 1 Road Safety Audit. All locations of identified problems are illustrated on the plans after each audit section.

2.1 RSA 1 Problems

PROBLEM		1-1
Location:	Moat Road.	
Summary:	Obstructed visibility will increase the risk of both failures to give way and shunt type collisions.	
<p>It was noted as part of the RSA that there is extensive vegetation growth along both the northern and southern verges of Moat Road. This vegetation will significantly affect visibility both for drivers exiting the development and to vehicles waiting at the road narrowing (especially eastbound). This point was raised in the Mott McDonald RSA and agreed by the design team in 2019 but details have not been provided on the drawings at this Stage 1 RSA.</p> <p>Obstructed visibility will increase the risk of both failures to give way and shunt type collisions.</p>		
RECOMMENDATION		
At detailed design provide details of site clearance and ensure that this is stringent enough that future vegetation growth does not become an ongoing issue.		

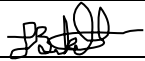

PROBLEM		1-2
Location:	Moat Road approach to road narrowing.	
Summary:	Obscured signs will increase the risk of both failure to give way and shunt type collisions.	
<p>As part of the scheme, it is proposed to construct a length of single lane narrowing slowing vehicles entering the village. Vehicles travelling eastbound must give way to vehicles travelling westbound out of the village. The Audit Team were concerned that the proposed signing shown on the drawings could be lost in the background vegetation clutter currently within the verges. The extents of vegetation clearance is not known and as such, the signs could be lost within the dark background created by the vegetation.</p> <p>Obscured signs will increase the risk of both failures to give way and shunt type collisions.</p>		
RECOMMENDATION		

Consider the level of vegetation clearance required in association with Problem 1-1 and also consider providing the signs with yellow backing boards to improve visibility to the signs for approaching vehicles.

PROBLEM		1-3
Location:	Moat Road uncontrolled crossing.	
Summary:	A lack of suitable pedestrian-vehicle visibility splays can increase the risk of pedestrian-vehicle collisions.	
<p>As part of the scheme there will be a new uncontrolled crossing of Moat Road details of the intervisibility between pedestrians and vehicles are not shown on the drawing. The Audit Team were concerned that pedestrians crossing Moat Road (especially from the north) could have their visibility to vehicles approaching eastbound on Moat Road obstructed (Photo).</p> <p>Based on current standards and a speed limit of 30mph DMRB CD109 Table 2.10 shows that the visibility required is 1.5m x 40m (MfS 30mph).</p> <p>A lack of suitable visibility between pedestrians and vehicles can increase the risk of collisions.</p>		
		
RECOMMENDATION		
Ensure that intervisibility is provided that meets the required standards.		

END OF PROBLEMS IDENTIFIED AND RECOMMENDATIONS PRESENTED IN THIS STAGE 1 ROAD SAFETY AUDIT

3 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG119	
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	JONATHAN BIRKETT
SIGNED:	
POSITION:	DIRECTOR
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	09 OCT 2023
ROAD SAFETY AUDIT TEAM MEMBER	
NAME:	GILLIAN KIDD
SIGNED:	
POSITION:	AUDIT TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	09 OCT 2023

Appendix 1 – Audited Documents

20472-03 RSA Response Report

20472-03d

20472-03d-1

20472-03d-2

20472-03d-3 (with Highway Boundary)

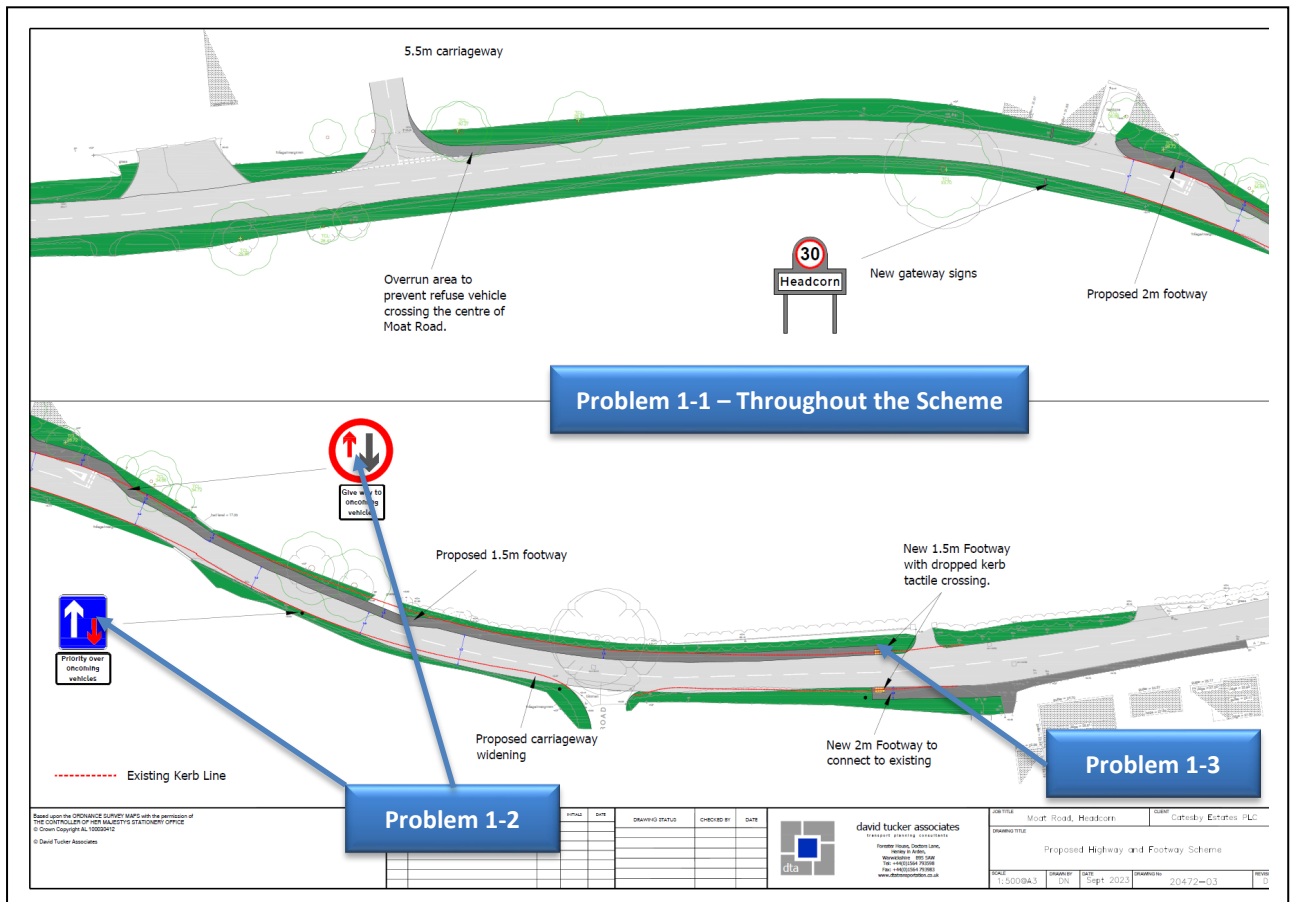
20472-04d Transport Assessment

20472-08 RSA Brief

Moat Road, Headcorn 5yr PIC Plot

Moat Road, Headcorn 5yr PIC Report

Appendix 2 Problem Location Plan

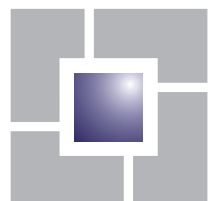


Appendix C

Previous Road Safety Audit Response Report and Audit

Land north of Moat Road,
Headcorn, Kent

Road Safety Audit Response Report



david tucker associates
transport planning consultants

1.0 Introduction

1.1 This report sets out the design team response to problems raised in the Stage 1 Road Safety Audit carried out by Mott MacDonald (reference 414214-TPN-ITD-001-B, 13th November 2019). The audit formally considered proposed access and highway works associated to a potential residential development. The audit is attached as **Appendix A**.

2.0 Road Safety Audit

2.1 This audit raises two problems, which are set out below along with the response to how these matters will be addressed.

2.2 Location: Moat Road – Throughout Scheme

Summary: Existing street furniture items possibly within footprint of proposed footway

Within the northern verge of Moat Road are a number of existing street furniture items, including road signs, boundary fencing and telegraph / power poles. Some of these are likely to be relocated / removed as part of the works, such as the relocation of the 30mph gateway. It is not clear, however, if other items, such as the telegraph / power supply pole shown in the background of Figure 1 will be located within the footprint of the proposed footway.

Should street furniture items be located within the proposed footway, this may reduce the effective width and cause an obstruction to pedestrians, particularly mobility impaired or those with buggies. Where obstructions cause them to walk in the carriageway this increases the risk of them being struck by passing vehicles.

RECOMMENDATION

It is recommended that all street furniture items are reviewed and, where located in the proposed footway, are relocated accordingly.

DESIGN TEAM RESPONSE

The recommendation is accepted. All existing signs/ street furniture that are affected by the proposed footway will be either be relocated to the verge behind the footway where possible or to alternative locations.

During the detailed design process the need for signs will also be reviewed.

2.3 Location: Key Plan B: Proposed site access on Moat Road

Summary: Vegetation within proposed visibility splays

The proposed site access is to be located approximately 20m east of the electrical sub-station. The visibility splay for the junction is shown on drawing 20472-03a-2. It shows a desirable splay of 123m can be accommodated to the centre of the carriageway to west with a 96m absolute minimum splay to the edge of carriageway. Both however, extend through the existing verge which is currently established vegetation.

It is not clear from the proposals what the extent of vegetation clearance will be and therefore the viability of the visibility splays proposed. Should vegetation remain within the visibility splay, this increases the risk of inappropriate turning movements and collisions.

RECOMMENDATION

It is recommended that the vegetation within the visibility splay is removed and a maintenance plan provided to ensure the growth of vegetation within the visibility splay is managed.

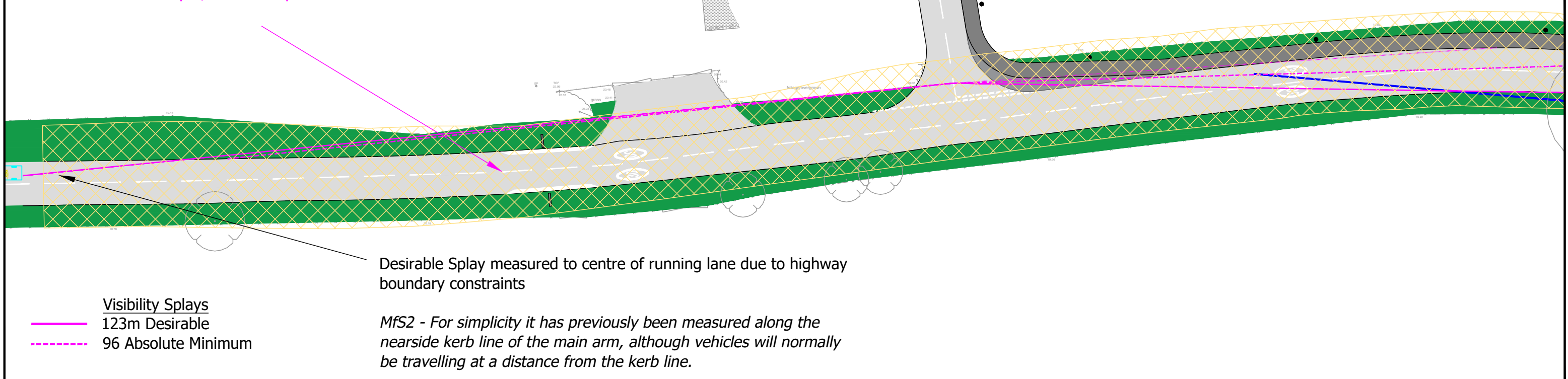
DESIGN TEAM RESPONSE

*The recommendation is accepted. The visibility splays are wholly contained within either land under the control of the developer or public highway. This is shown on **Drawing 20472-03a-3**. Therefore, any vegetation interfering with the visibility splay will be removed. There are no trees that would be affected.*

-
- 2.4 The problems as set out in the safety audit have been addressed, with some matters of detail to be resolved and agreed during the S278 detailed design process.

Drawings

Speed Survey -
 EB : 85ths 45.2mph / Mean 39.2mph
 WB : 85ths 45.2mph / Mean 39mph

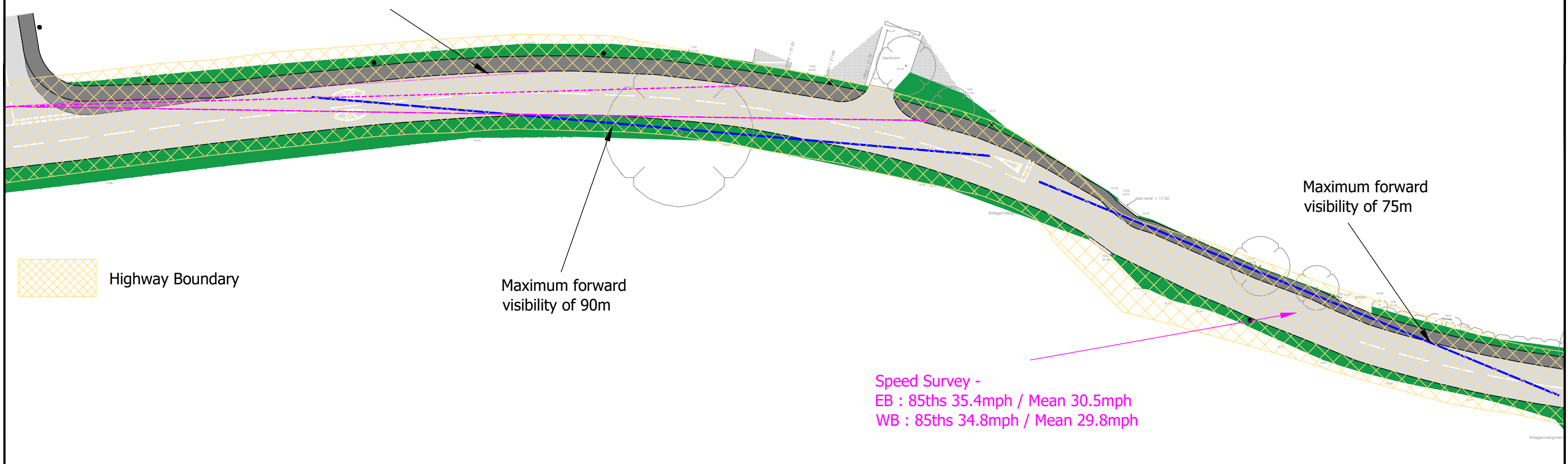


Visibility Splays

123m Desirable

96 Absolute Minimum

Tangential Splay



Highway Boundary

Maximum forward visibility of 90m

Maximum forward visibility of 75m

Speed Survey -
 EB : 85ths 35.4mph / Mean 30.5mph
 WB : 85ths 34.8mph / Mean 29.8mph

Based upon the ORDNANCE SURVEY MAPS with the permission of THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © Crown Copyright AL 100030412

© David Tucker Associates

REV	DESCRIPTION	DRAWN	INITIALS	DATE	DRAWING STATUS	CHECKED BY	DATE



david tucker associates
 transport planning consultants
 Forester House, Doctors Lane,
 Henley in Arden,
 Warwickshire B95 5AW
 Tel: +44(0)1564 793598
 Fax: +44(0)1564 793983
 www.dtatransportation.co.uk

JOB TITLE	Moat Road, Headcorn	CLIENT	Catesby Estates PLC
DRAWING TITLE	Visibility Splays (with Highway Boundary Overlay)		
SCALE	1:500@A3	DRAWN BY	DN
DATE	Nov 2019	DRAWING No	20472-03-3
REVISION	A		

Appendix A
Road Safety Audit

Moat Road, Headcorn

Road Safety Audit
Stage 1

13 November 2019

Mott MacDonald House
8-10 Sydenham Road
Croydon CR0 2EE
United Kingdom

T +44 (0)20 8774 2000

mottmac.com







David Tucker Associates
Forester House
Doctors Lane
Henley in Arden
Warwickshire
B95 5AW

Moat Road, Headcorn

Road Safety Audit Stage 1

13 November 2019

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	13/11/2019	M S Ring	J Man	T J Blaney	First Issue
					
B	13/11/2019	M S Ring	J Man	T J Blaney	Second Issue
					

Information class: Standard

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1 Introduction

This report describes a Stage 1 Road Safety Audit carried out on the proposed highway modifications in the vicinity of Moat Road, Headcorn.

The audit was carried out at the request of David Tucker Associates.

The audit took place at the Croydon office of Mott MacDonald and consisted of a detailed examination of the submitted documentation and drawings listed in **Appendix A**.

It is confirmed that this is a Stage 1 Road Safety Audit and that the audit was undertaken upon completion of the preliminary design work.

The Road Safety Audit Team as approved by the Local Highway Authority, Kent County Council, consisted of:

Matthew Ring	BSc (Hons), MCIHT, MSoRSA (Certificate of Competency in Road Safety Audit, April 2016) Audit Team Leader, Mott MacDonald
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Jeffrey Man	MEng, MCIHT, MSoRSA Audit Team Member, Mott MacDonald
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The Audit Team visited the site of the proposed works together on Friday 8th November 2019 at 10:00hrs. During this visit the weather was fine, and the road surface dry. Traffic conditions were light. No pedestrian or cycle activity was observed.

This Road Safety Audit was carried out in accordance with Highways England's Departmental Standard GG119. The Road Safety Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

The comments and suggestions for road safety improvements made in this report seek to address 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. Consequently, the auditors accept no responsibility for the design or construction of the scheme.

All the issues raised in this report are considered to be required for action. The comments contained in the report are based on safety related concerns and as such the design engineer will need to consider carefully how to respond to each of the issues. The Audit Response Report to the audit should be completed by the Design Team and kept on file for future reference.

A Key Plan indicating the location of any identified safety related issues is provided in **Appendix B**.

Scheme Description

The scheme consists of the following proposed improvements to Moat Road:

- A new 55m wide two-way access road to the proposed development. This will be located approximately 20m east of the electrical sub-station and a footway will be provided on the eastern side of this access road.
- A new footway on the northern side of Moat Road. For the majority of the scheme, this is located in the verge, but over the watercourse bridge / culvert, the footway is proposed to be installed in the existing carriageway, reducing the carriageway width in this location. The proposed footway width varies between 1.5m and 2m.
- At the eastern extents of the scheme, an uncontrolled pedestrian crossing is proposed to tie the new footway into the existing footway.
- Due to the local narrowing over the watercourse bridge / culvert, a priority give-way system is proposed. Drivers travelling eastbound will be required to give-way to those travelling westbound.
- East of the bridge / culvert, there is proposed carriageway widening on the southern side of Moat Road to accommodate the new footway on the northern side of the road.
- The existing 30mph speed limit terminals will be relocated to a point approximately 45m west of the proposed site entrance. The new 30mph will be a gateway featuring new 'Headcorn' name signs and visual narrowing / 30mph roundel road markings.
- Street lighting is proposed on the northern verge of Moat Road between the proposed site access and the priority give way. Lamp columns are proposed behind the proposed footway.

2 Items Raised at this Stage 1 Audit

This section describes road safety related issues identified by the Audit Team that are associated with the scheme as presented in **Appendix A**. A reference key plan is shown in **Appendix B**.

2.1.1 Problem 1.1

Location: Moat Road – Throughout Scheme.

Summary: Existing street furniture items possibly within footprint of proposed footway.

Within the northern verge of Moat Road are a number of existing street furniture items, including road signs, boundary fencing and telegraph / power poles. Some of these are likely to be relocated / removed as part of the works, such as the relocation of the 30mph gateway. It is not clear, however, if other items, such as the telegraph / power supply pole shown in the background of **Figure 1** will be located within the footprint of the proposed footway.

Should street furniture items be located within the proposed footway, this may reduce the effective width and cause an obstruction to pedestrians, particularly mobility impaired or those with buggies. Where obstructions cause them to walk in the carriageway this increases the risk of them being struck by passing vehicles.

Figure 1: Street furniture items in northern verge of Moat Road.



Source: Mott MacDonald

Recommendation

It is recommended that all street furniture items are reviewed and, where located in the proposed footway, are relocated accordingly.

2.2 Problem 1.2

Location: Key Plan B: Proposed site access on Moat Road.

Summary: Vegetation within proposed visibility splays.

The proposed site access is to be located approximately 20m east of the electrical sub-station. The visibility splay for the junction is shown on drawing 20472-03a-2. It shows a desirable splay of 123m can be accommodated to the centre of the carriageway to west with a 96m absolute minimum splay to the edge of carriageway. Both however, extend through the existing verge which is currently established vegetation. **Figure 2** below shows the view to west from the proposed site access.

Figure 2: Existing vegetation to the west of the proposed site access



Source: Mott MacDonald

It is not clear from the proposals what the extent of vegetation clearance will be and therefore the viability of the visibility splays proposed. Should vegetation remain within the visibility splay, this increases the risk of inappropriate turning movements and collisions.

Recommendation

It is recommended that the vegetation within the visibility splay is removed and a maintenance plan provided to ensure the growth of vegetation within the visibility splay is managed.

3 Audit Team Statement

We certify that this audit has been carried out in accordance with Highways England's Departmental Standard GG119

Road Safety Audit Team Leader

M S Ring BSc (Hons) MCIHT, MSoRSA
(Certificate of Competency in Road Safety Audit, April 2016)

Signed:



Date: 13th November 2019

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Signed:



Date: 13th November 2019

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Appendices

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A. List of Drawings & Documents Examined

The following drawings and documents were examined as part of this Road Safety Audit.

Table 1: Drawings

Drawing Number	Revision	Drawing Title
20472-03	-	Proposed Highway and Footway Scheme
20472-03-1	-	Site Access Vehicle Tracking
20472-03-2	-	Visibility Splays
20472-03a	A	Proposed Highway and Footway Scheme
20472-03a-1	A	Site Access Vehicle Tracking
20472-03a-2	A	Visibility Splays

Source: David Tucker Associates

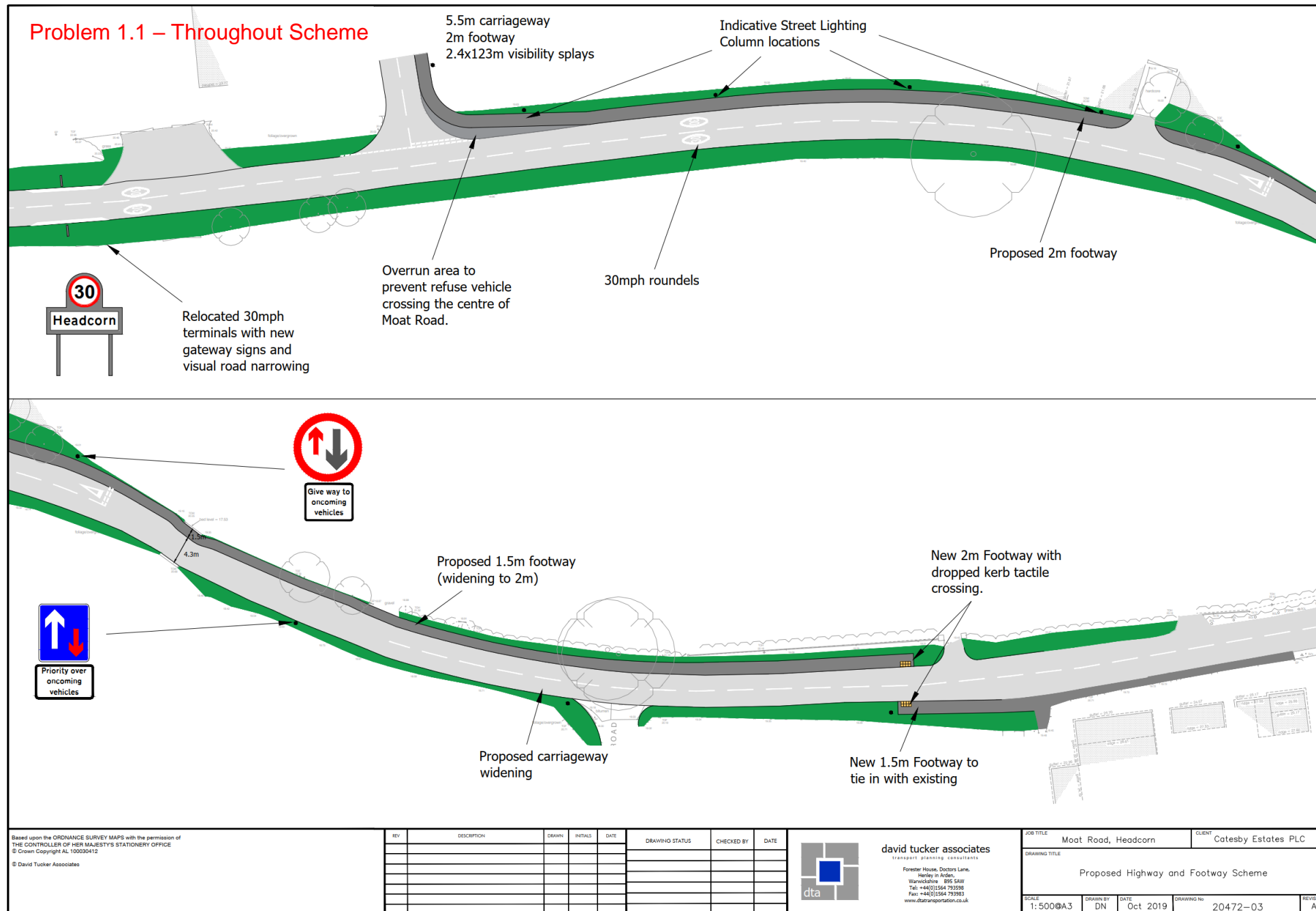
Table 2: Documents

Document Number	Revision	Document Title
20472-02	-	Road Safety Audit Brief
20472-01a	-	Site Appraisal - Transport
-	-	2019-07-10 Headcorn Transport Meeting Notes
-	-	Pre-app for Headcorn (150 homes)

Source: David Tucker Associates

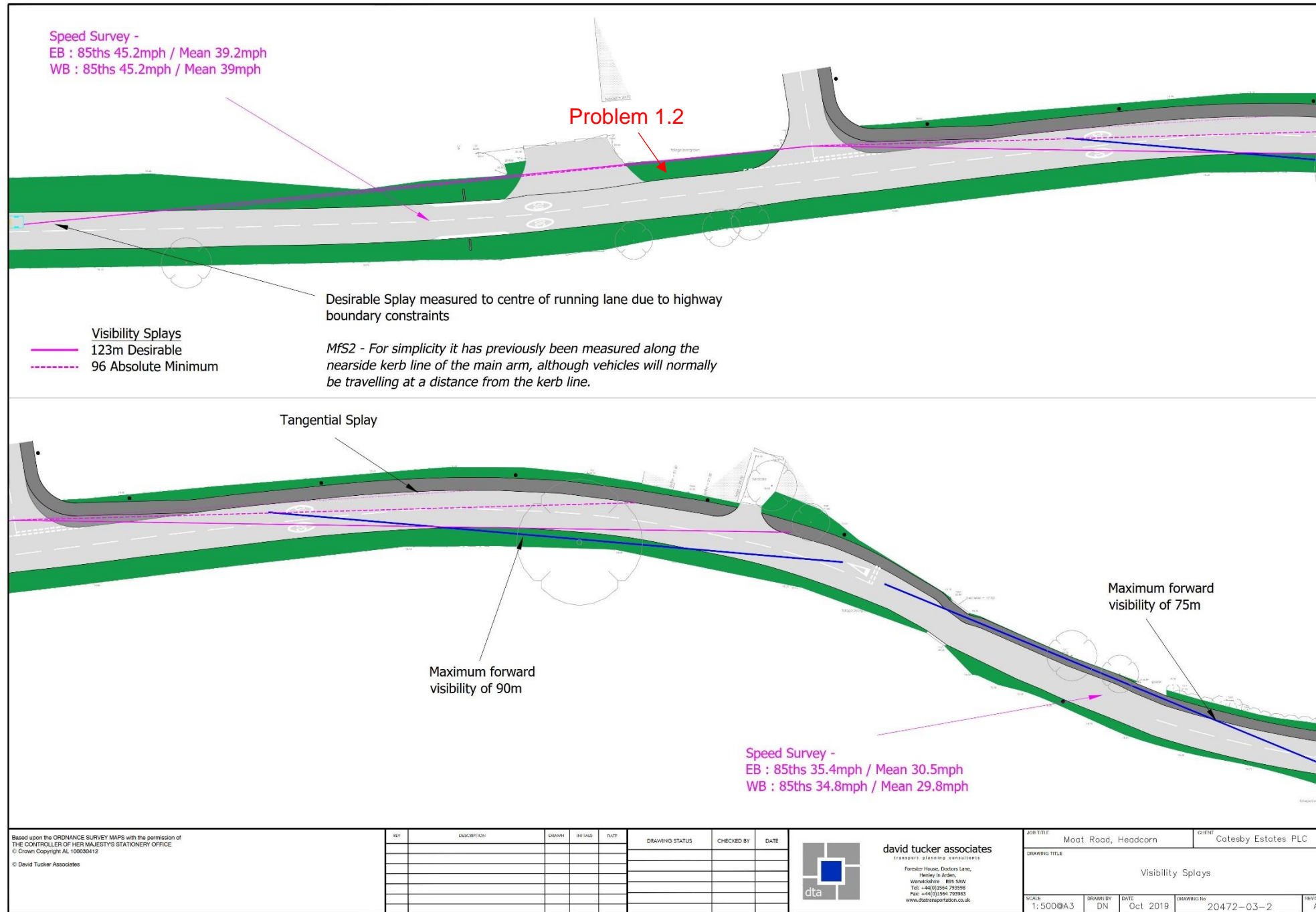
B. Key Plans

Key Plan A – Moat Road, Headcorn




Not to Scale

Key Plan B – Moat Road, Headcorn Visibility Splays



Not to Scale



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