

# Proposed Residential Development – Land West of Thaxted Road, Saffron Walden

## Stage 1 Road Safety Audit / Designers Response

Prepared on behalf of Kier Ventures Ltd

March 2023

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### Introduction

This report has been prepared by Milestone Transport Planning (MTP) on behalf of Kier Ventures Limited to respond to a Stage 1 Road Safety Audit (RSA1) associated with the vehicular access strategy of the proposed development on land to the west of Thaxted Road, Saffron Walden.

This report should be read in conjunction with Addendum Transport Assessment (ATA) and Framework Travel Plan (FTP), which together respond to comments made by statutory consultees, principally Essex County Council (ECC) as highway authority to the outline planning application submitted in December 2022.

The outline planning application has been submitted to the Secretary of State for determination under Section 62A of the Town & Country Planning Act (1990). The outline planning application is for the erection of up to 170 dwellings with access from the B184 Thaxted Road and with all other matters reserved.

The Planning Inspectorate's application reference number is S62A/2022-0014 and the application was validated on 7 December 2022. The outline planning application was accompanied by a Transport Assessment (TA) and Travel Plan (TP) prepared by MTP.

### Stage 1 Road Safety Audit / Designers Response

As stated within the ATA:

*"Prior to receipt of the ECC consultation response on 19 January 2023, MTP had issued a Stage 1 Road Safety Audit (RSA1) brief in accordance with DMRB GG19 and an RSA1 was conducted by an independent Auditor in November 2022 based on the vehicular access strategy as submitted within the original TA, i.e., a give-way controlled vehicular access opposite The Kilns and an informal multi-user crossing close to Tiptofts Lane.*

*Given the changes to the vehicular access strategy agreed with ECC through a series of meetings / workshops post the issue of their consultation response on the 19 January 2023, the original RSA1 is, in effect, superseded.*

*Based upon the revised vehicular access strategy described earlier in this section of the ATA, a further, updated brief has been issued to the Auditor and a revised RSA1 carried out. The revised RSA1 and Designers Response is submitted alongside the ATA as a separate document. From the revised RSA1 it is noted that the Auditors comments on the original vehicular access strategy and associated Designers Response are also included for transparency."*

In light of the above, the updated RSA1 brief in accordance with DMRB GG19 is attached at Appendix 1.

The revised RSA1 conducted by an independent Auditor in February 2023 based on the revised vehicular access strategy is attached at Appendix 2.

Appendix 3 sets out the Designer's Response to the revised RSA1. Of note, the Designer's Response cross-references a further revision of the vehicular access strategy which is attached at Appendix 4. The revised vehicular access strategy is deemed to fully address all road safety audit issues raised.

## List of Appendices

Appendix 1	Stage 1 RSA Brief
Appendix 2	Stage 1 RSA (BN/MTP/22-119)
Appendix 3	Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)
Appendix 4	Revised Vehicular Access Strategy Plans

## Appendix 1

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# Proposed Residential Development, Land West of Thaxted Road, Saffron Walden

## Stage 1 Road Safety Audit Brief

Prepared on behalf of Kier Ventures Ltd

February 2023

### 1. Project Summary

Date: 9 February 2023  
Document reference: 22-078\_RSA1\_Brief  
Prepared by: Milestone Transport Planning  
On behalf of: Kier Ventures Ltd

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#### AUTHORISATION SHEET:

Project: Proposed Residential Development, Land West of Thaxted Road, Saffron Walden  
Report title: Stage 1 Road Safety Audit Brief

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#### PREPARED BY:

Name: Brett Morse  
Signed:  
Organisation: Milestone Transport Planning  
Date: 9 February 2023

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#### I APPROVE THE RSA BRIEF AND INSTRUCT THE RSA TO TAKE PLACE ON BEHALF OF THE OVERSEEING ORGANISATION

Name: .....

Signed: .....

Organisation: .....

Date: .....

## 2. General Details

2.1 Highway Improvement Scheme Name and Road Number: Proposed Residential Development, Land West of Thaxted Road, Saffron Walden

2.2 Type of Scheme: Provision of new signalised junction and controlled Equestrian / pedestrian / cycleway crossing

2.3 Road Safety Audit Stage tick as appropriate:	1	✓	2	3	4
	Interim				

2.4 Overseeing Organisation Details: Essex County Council

2.5 Design Organisation Details: Milestone Transport Planning

2.6 Police Contact Details: Not required for this Stage 1 Road Safety Audit

2.7 Managing Agent Contact Details: Essex County Council

2.8 Road Safety Audit Team Membership:

Audit Team Leader

Audit Team Member

2.9 Terms of Reference:

The Stage 1 Road Safety Audit (RSA) is to be undertaken fully in accordance with the DMRB Document GG 119 'Road Safety Audit', as well as the contents of this Road Safety Audit Brief

## 3. Scheme Details

Scheme Description / Objective

3.1 General

This scheme relates to highway works associated with the Proposed Residential Development, Land West of Thaxted Road, Saffron Walden, see **Figure 2** for location of the proposed residential development. The proposals comprise provision of up to 170 dwellings, alongside other amenities.

Vehicular access to the proposed residential site is proposed as a staggered signalised junction off the B184 Thaxted Road, to be located opposite Cardamon Rd, the recently constructed traffic signals junction serving the development to the east of Thaxted Road.

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To accommodate the proposed vehicular access it is proposed to widen the existing carriageway on the south-western side of the B184 Thaxted Road within publicly maintainable highway land, that will enable a signalised right turn lane into the site to be accommodated as well as a revised right turn lane into Cardamon Rd and maintaining the existing ghost right turn lane into The Kilns. These works will also require the removal and replacement of the existing traffic island to the south-east of Cardamon Rd and the relocation of the existing stop line approx. 15m to the south-east

The works on the B184 Thaxted Road to accommodate the proposed vehicular access will not reduce the length of the right turn lane on approach to the recently constructed traffic signals junction serving the development to the east of Thaxted Road.

The site access leading from the proposed vehicular access will be designed as a Street Type D 'Feeder' in accordance with the Essex Design Guide, or EDG (2018). This will be a two-way single carriageway road of 7.3m in width in the vicinity of the signals narrowing to 6.75m with a single lane approach to the Stop line on the B184 Thaxted Road. Minor widening to accommodate the swept path movement of a large refuse collection vehicle (RCV) will be provided on approach to the junction with the B184 Thaxted Road that will also incorporate 11m radii on both sides of the bell-mouth.

A 4m wide Toucan crossing is proposed on the site access and a revised straight through Toucan crossing on the western arm of the proposed signalised junction.

A signal controlled equestrian crossing with parallel toucan crossing is also proposed on the B184 Thaxted Road, 167metres (centre to centre) south-east of the proposed vehicular access that provides an crossing connecting the proposed Orbital Greenway route to the existing PROW18 (Byway) that extends along Tiptofts Lane.

The proposed 3.5m shared footway cycleway running alongside Thaxted Rd. has been directed behind the Equestrian holding area and tactile paving added.

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### 3.2 Design Standard Applied to the Scheme Design

Essex Design Guide  
Design Manual for Roads and Bridges (DMRB)  
LTN 1/20

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### 3.3 Design Speeds

B185 Thaxted Road – 70kph  
Proposed vehicular access to site from Thaxted Road – 20mph target maximum speed

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### 3.4 Speed Limits

B184 Thaxted Road is subject to a 40mph speed limit. To the north the speed limit changes to 30mph just south of the Peaslands Road mini-roundabout and onwards through Saffron Walden town centre. To the south of the Knight Park retail park, the speed limit reverts to national speed limit (60mph).

The internal roads within the residential site will have a 20mph maximum target speed

### 3.5 Existing Traffic Flows/Queues

Refer to Section 5 and Section 6 of the project Transport Assessment report (document reference 22-078/Reports/Transport Assessment)

### 3.6 Forecast Traffic Flows

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	4	363	76	443
	B	13	0	71	9	93
	C	388	20	0	163	571
	D	2	108	121	0	231
	Tot.	403	132	555	248	1338

2027 Base + CD (SLR) + Dev' AM Peak.

A = B184 (SE), B = Site Access, C = B184 (NW), D = Cardamon Road

	Destination					
	A	B	C	D	Tot.	
Origin	A	0	9	273	93	375
	B	4	0	22	3	29
	C	559	50	0	183	792
	D	52	6	78	0	136
	Tot.	615	65	373	279	1332

2027 Base + CD (SLR) + Dev' PM Peak.

### 3.7 Pedestrian, cyclist and equestrian desire lines

Refer to the following sections of the project Transport Assessment report (document reference 22-078/Reports/Transport Assessment):

- Para 3.1 - 3.11,
- Para 4.1 - 4.25, and
- Para 8.8 - 8.12

### 3.8 Environmental Constraints

The Saffron Walden Neighbourhood Plan (SWNP) was adopted in October 2022. From a series of public consultation the vision of the SWNP, from a movement and access perspective, is that Saffron Walden "...will be a settlement of the highest environmental sustainability due to provision for pedestrians and cyclists, continued reduction in carbon emissions...Movement within the town will be safe and easy and journeys by car will be minimised."

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## 4. Locality

### 4.1 Description of locality

The Site is c. 8.35 ha of land, currently in agricultural use but outside the green belt and is located to the south of Saffron Walden town centre. The Site is bounded by existing, established residential development to the north and west, a mature hedgerow / ditch boundary to further agricultural fields to the south, the B184 Thaxted Road and Knight Park retail park to the east. The contextual location of the Site in relation to the local area is shown in Figure 1.

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### 4.2 General Description

The Site is provided with an existing field gate access on its eastern boundary to the B184 Thaxted Road which runs north-south from M11 J9a at Hinxton, through Saffron Walden town centre and Thaxted to the B1256 at Great Dunmow (with connections to the A120).

The B184 Thaxted Road is a County Priority 1 (PR1) road. It is a single carriageway two-way road that is subject to a 40mph speed limit and is lit as it passes the Site. To the north the speed limit changes to 30mph just south of the Peaslands Road mini-roundabout and onwards through Saffron Walden town centre. To the south of the Knight Park retail park, the speed limit reverts to national speed limit (60mph) and the B184 Thaxted Road is more rural in terms of its characteristics.

In conjunction with the recently consented development to the east of Thaxted Road (LPA Ref. 19/2355) a traffic signal junction with pedestrian / cycle crossing facilities has been constructed immediately north-east of the Site on the B184 Thaxted Road to form a new spine road through the site that will ultimately link through to the B1053 Radwinter Road.

Side road junction to Tiptofts Lane and the Knight Park retail park are give-way controlled priority junctions with ghosted right turn lane provision on the main carriageway. To the north of the Site, the B184 Thaxted Road / Peaslands Road mini roundabout is to be converted to a traffic signal controlled junction in conjunction with the recently consented development on Land South of Radwinter Road (East of Griffin Place) (LPA Ref. 21/2509). Beyond the Peaslands Road junction, the B184 Thaxted Road continues northwards to a traffic signal controlled junction with the B1053 Radwinter Road.

Within Saffron Walden Town Centre, the B184 continues as East Street, Hill Street, George Street, Audley Road, High Street, Bridge Street and Windmill Hill. Both East Street and Audley Road are one-way street eastbound and westbound respectively. High Street is the main route through the town centre.

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### 4.3 Relevant Factors which may affect Road Safety

The following factors have been identified that may affect road safety:

- Queuing at AM and PM peak times
- Creation of a new staggered signalised crossroads junction layout (the proposed new junction access to the site is opposite Cardamon Rd)
- High approach speed on Thaxted Road to the new junction off Thaxted Road
- Increased pedestrian and cyclist movements in relation to the new site
- High concentration of junctions/access around the study area



- New road layout and increased turning movements on Thaxted Road

## 5. Analysis

### 5.1 Road Safety Analysis

Personal Injury Accident (PIA) data, recorded by the police, has been obtained from ECC for the section of the B184 Thaxted Road from south of the Knight Park access, along the Site frontage and then stretching northwards to beyond the mini-roundabout junction with Peaslands Road and including Peaslands Road, west to the junction with Winstanley Road. The PIA study area is shown in **Figure 1**.

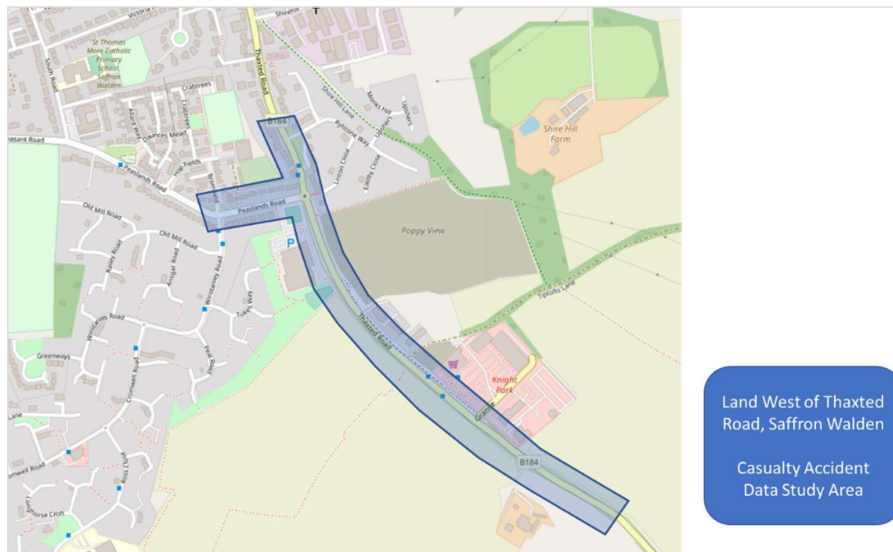


Figure 1 PIA Study Area

The PIA data obtained relates to the most recent 5-year period from 1 July 2017 to 30 June 2022 which shows that there have been only two recorded accidents over the period under consideration. A full copy of the PIA data is provided as in Appendix 2 of Transport Assessment report (document reference 22-078/Reports/Transport Assessment).

The first of the recorded PIA occurred in proximity of the B184 Thaxted Road junction with Tiptofts Lane where a motorcyclist failed to anticipate other members of the motorcycle group turning right and has fallen from the bike in taking avoiding action, resulting in a serious injury to the rider. The second recorded PIA involved a rear end shunt between two cars waiting to turn out of the Knight Park retail park resulting in a slight injury to the driver of the car in front.

Both PIAs occurred during fine, dry conditions in daytime hours and it is evident from the descriptions provided of the incidents that there are no attributable factors to the road geometry, conditions or characteristics. Overall, the B184 Thaxted Road in the vicinity of the Site has a very low accident record for the type of road and volumes of existing traffic using it.

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## 5.2 Departures from standards

DMRB CD123 Para 7.4 states that An intervisibility zone shall be provided that incorporates an area that extends across the full carriageway width of each arm from a distance of 2.5 metres back from each stop line. Due to the proximity of the site access to the adjacent property and the staggered nature of the junction it is not possible to meet the intervisibility standards Stated in DMRB CD123 on the south west corner of the proposed junction.

Drawing 006 shows the achievable intervisibility from both 2.5m behind the stop line and pedestrian crossing.

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## 5.3 Previous road safety audit reports, road safety audit response reports and evidence of agreed actions

No road safety audits have been carried out for this scheme.

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## 5.4 Strategic Decisions

No strategic decisions have been made for this scheme.

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## 5.5 Documents

Reference	Title	Date
22-078/Reports/Transport Assessment	Transport Assessment	November 2022

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## 5.6 Drawings

Drawing No.	Revision	Title
22078 / 006	-	Site Access Arrangements

6. Checklist			
6.1 Site Location Plan	✓	6.2 Scale layout plans	✓
6.3 Departures and relaxations for standards	✓	6.4 Construction / Typical details	Stage 1 RSA, so not applicable
6.5 Previous Road Safety Audit Reports	✓	6.6 Previous Road Safety Audit Responses Reports and evidence of agreed actions	✓
6.7 Collision data and collision data analysis	✓	6.8 Road traffic collision plot	✓
6.9 Traffic Signal Staging	No applicable	6.10 Traffic Counts	✓
6.11 Speed Surveys	Not currently available	6.12 Pedestrian, cyclist and horse riding desire lines and volumes	Volumes not available for pedestrian/horse riding
6.13 Walking, cycling and horse riding assessment and reviews	Not currently available	6.14 Items outside the scope of the RSA / Strategic decisions	None
6.15 Other factors that may impact on road safety	✓	6.16 Design speeds / Speed limits	✓
6.17 Design Standards Used	✓	6.18 Adjacent Land uses	✓



Figure 2 Location of Proposed Residential Development

## Appendix 2



**ROAD SAFETY AUDIT  
STAGE 1**

**PROPOSED HIGHWAY WORKS IN  
ASSOCIATION WITH A  
RESIDENTIAL DEVELOPMENT**

**THAXTED ROAD,  
SAFFRON WALDEN**

**REPORT REF: BN/MTP/22-119**

Job no	BN-MTP-22-119	Issue no	1	Date	February 2023
Prepared by	BN	Verified by	JB	Approved by	BN

Beth Newiss and Associates  
Road Safety Consultants

19a Grange Hill  
Coggeshall  
Essex  
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**ROAD SAFETY AUDIT  
STAGE 1**

**PROPOSED HIGHWAY WORKS IN ASSOCIATION  
WITH A RESIDENTIAL DEVELOPMENT**

**THAXTED ROAD, SAFFRON WALDEN**

**February 2023**

**REPORT REF: BN/MTP/22-119**

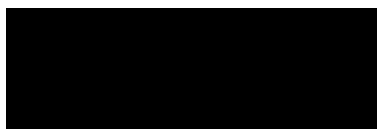
Client: Milestone Transport Planning  
Abbey House,  
282 Farnborough Road,  
Farnborough,  
Hants GU14 7NA

Report Prepared By:



Beth Newiss MSoRSA

Checked By:



Jason Bown MSoRSA

*NB: This report was produced for Milestone Transport Planning, for the specific purpose of documenting the Stage 1 Road Safety Audit process undertaken under GG119.*

*This report may not be used by any person other than Milestone Transport Planning without their express permission*

PROJECT DETAILS	
Report Title:	Stage 1 Road Safety Audit
Date:	February 2023
Document reference and revision:	BN-MTP-22-119
Prepared by:	Beth Newiss and Associates
Design Organisation:	Milestone Transport Planning
Project Sponsor:	Kier Ventures Limited
Overseeing Organisation:	Essex County Council

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
0	Stage 1 Road Safety Audit drafted for Audit Team discussions.	BN			22/02/2023
1	Stage 1 Road Safety Audit finalised and issued to the Design Organisation.	BN	JB	BN	XX/02/2023

## CONTENTS

1.0	INTRODUCTION	2
2.0	ITEMS RAISED AT PREVIOUS AUDIT (S)	5
3.0	ITEMS RAISED AT THIS STAGE 1 AUDIT	7
4.0	AUDIT TEAM STATEMENT	11

## APPENDICES

A1	INFORMATION PRESENTED FOR AUDIT
A2	LOCATION PLAN

## DISTRIBUTION

ORGANISATION	CONTACT	COPIES
Milestone Transport Planning	Brett Morse	1

## 1.0 INTRODUCTION

### 1.1 OVERVIEW:

This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed highway works in association with a residential development located on a site off Thaxted Road, Saffron Walden. The audit was requested by Milestone Transport Planning on behalf of Kier Ventures Limited.

### 1.2 SCHEME INFORMATION:

This scheme relates to highway works associated with the Proposed Residential Development, Land West of Thaxted Road, Saffron Walden. The proposals comprise provision of up to 170 dwellings, alongside other amenities.

### 1.3 SITE LOCATION:

The Site is currently in agricultural use and is located to the south of Saffron Walden town centre. The Site is bounded by existing, established residential development to the north and west, a mature hedgerow / ditch boundary to further agricultural fields to the south, the B184 Thaxted Road and Knight Park retail park to the east.

The Site is provided with an existing field gate access on its eastern boundary to the B184 Thaxted Road which runs north-south from M11 J9a at Hinxton, through Saffron Walden town centre and Thaxted to the B1256 at Great Dunmow (with connections to the A120). The B184 Thaxted Road is a County Priority 1 (PR1) road. It is a single carriageway two-way road that is subject to a 40mph speed limit and is lit as it passes the Site. To the north the speed limit changes to 30mph just south of the Peaslands Road mini-roundabout and onwards through Saffron Walden town centre. To the south of the Knight Park retail park, the speed limit reverts to national speed limit (60mph) and the B184 Thaxted Road is more rural in terms of its characteristics.

### 1.4 THE PROPOSALS:

The improvements to be audited within this report relates to are as follows:

- Vehicular access to the proposed residential site is proposed as a staggered signalised junction off the B184 Thaxted Road, to be located opposite Cardamon Rd, the recently constructed traffic signals junction serving the development to the east of Thaxted Road.
- It is proposed to widen the existing carriageway on the south-western side of the B184 Thaxted Road within publicly maintainable highway land, that will enable a signalised right turn lane into the site to be accommodated as well as a revised right turn lane into Cardamon Rd and maintaining the existing ghost right turn lane into The Kilns.



- These works will also require the removal and replacement of the existing traffic island to the south-east of Cardamon Rd and the relocation of the existing stop line approx. 15m to the south-east.
  - The works on the B184 Thaxted Road to accommodate the proposed vehicular access will not reduce the length of the right turn lane on approach to the recently constructed traffic signals junction serving the development to the east of Thaxted Road.
  - The site access leading from the proposed vehicular access will be designed as a Street Type D ‘Feeder’ in accordance with the Essex Design Guide, or EDG (2018). This will be a two-way single carriageway road of 7.3m in width in the vicinity of the signals narrowing to 6.75m with a single lane approach to the Stop line on the B184 Thaxted Road.
  - Minor widening to accommodate the swept path movement of a large refuse collection vehicle (RCV) will be provided on approach to the junction with the B184 Thaxted Road that will also incorporate 11m radii on both sides of the bell-mouth.
  - A 4m wide Toucan crossing is proposed on the site access and a revised straight through Toucan crossing on the western arm of the proposed signalised junction.
  - A signal controlled equestrian crossing with parallel toucan crossing is also proposed on the B184 Thaxted Road, 167metres (centre to centre) south-east of the proposed vehicular access that provides a crossing connecting the proposed Orbital Greenway route to the existing PROW18 (Byway) that extends along Tiptofts Lane.
  - The proposed 3.5m shared footway cycleway running alongside Thaxted Rd. has been directed behind the Equestrian holding area and tactile paving added.
- 1.5 The Road Safety Audit was undertaken during February 2023. The Road Safety Audit Brief and Audit Team approval was provided on the 17<sup>th</sup> February 2023 by Brett Morse of the Design Organisation – Milestone Transport Planning, on behalf of the Project Sponsor, Kier Ventures Limited and the Local Authority, Essex County Council.
- 1.6 The Road Safety Audit comprised of an examination of the Audit Brief and drawings provided as detailed in **Appendix A1** and a visit to site.

#### 1.7 **SITE VISIT:**

A visit to site was undertaken by the Audit Team, together, on the 15<sup>th</sup> December 2022 between the hours of 10:30 and 11:30.

During the site visit the weather was dry and cold. The road surface was . Traffic flows were constant throughout the scheme. No pedestrians nor cyclists were observed.

### 1.8 COLLISION DATA (Taken from Audit Brief)

The Audit Team was presented with collision data within the Audit Brief. The information provided is as follows:

The PIA data obtained relates to the most recent 5-year period from 1 July 2017 to 30 June 2022 which shows that there have been only two recorded accidents over the period under consideration.

The first of the recorded PIA occurred in proximity of the B184 Thaxted Road junction with Tiptofts Lane where a motorcyclist failed to anticipate other members of the motorcycle group turning right and has fallen from the bike in taking avoiding action, resulting in a serious injury to the rider.

The second recorded PIA involved a rear end shunt between two cars waiting to turn out of the Knight Park retail park resulting in a slight injury to the driver of the car in front.

Both PIAs occurred during fine, dry conditions in daytime hours, and it is evident from the descriptions provided of the incidents that there are no attributable factors to the road geometry, conditions, or characteristics.

Overall, the B184 Thaxted Road in the vicinity of the Site has a very low accident record for the type of road and volumes of existing traffic using it.

### 1.9 DEPARTURES FROM STANDARD (Taken from Audit Brief):

DMRB CD123 Para 7.4 states that an intervisibility zone shall be provided that incorporates an area that extends across the full carriageway width of each arm from 2.5m back from each stop line. Due to the proximity of the site access to the adjacent property and the staggered nature of the junction it is not possible to meet the intervisibility standards Stated in DMRB CD123 on the southwest corner of the proposed junction.

### 1.9 AUDIT TEAM INFORMATION

The Road Safety Audit has been undertaken by an Audit Team whose qualifications and experience accord with the requirements of the Local Authority.

The Audit Team consists of the following members:

Beth Newiss MCIHT MSoRSA

Jason Bown IEng FIHE MICE MSoRSA

Beth Newiss and Associates - 19a Grange Hill, Coggeshall, Essex, CO6 1RE

TEL: [REDACTED] Email: b [REDACTED]

### 1.10 TERMS OF REFERENCE

The terms of reference of this Road Safety Audit are as described in GG119. This Road Safety Audit has been undertaken based on the Road Safety Audit Team's previous experience and knowledge in undertaking Collision Investigation, Road Safety Engineering and Road Safety

Audits. The scheme has been examined and this report compiled, only with regard to the safety implications for road users of the scheme as presented. It has not been examined or 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. A technical audit has not been included. All comments and recommendations are referenced to the design drawings supplied with the Audit Brief and the location of road safety concerns raised have been illustrated adjacent to the items along with relevant photographs for clarity, where appropriate, as well as on the Location Plan attached at **Appendix A2**.

- 1.11 Recommendations made in this report are proportionate and viable suggestions for improvement to eliminate or mitigate, in accordance with GG119, and do not imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when the Design Organisation responds to this report.
  
- 1.12 The Designer Organisation Response to the RSA should be formally recorded and reported to the Overseeing Organisation 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 Overseeing Organisation on final completion.

## **2.0 PREVIOUS ROAD SAFETY AUDIT(S)**

- 2.1 The Audit Team have previously completed a Stage 1 RSA (Report number BN/MTP/22-113) for this scheme in December 2022.
- 2.2 The scheme was revised following this Road Safety Audit.

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## 3.0 SAFETY ISSUES RAISED AT THIS STAGE 1 ROAD SAFETY AUDIT

### 3.1 GENERAL

#### 3.1.1 PROBLEM

**Location:** A – Proposed Junction

**Summary:** **Areas of visibility may be obstructed causing impeded vision for drivers which may result in sudden braking and subsequent rear end shunts.**

The drawings detail inter-visibility splays at the proposed junctions traversing through an area of unknown construction. Any obstruction within these areas will impede visibility for a driver which may result in sudden braking and subsequent rear end shunts.

This is particularly important as immediately after turning left from the junction the driver is met with a Toucan Crossing.

**RECOMMENDATION:** **It is recommended that all areas within visibility splay are kept clear of obstruction.**

### 3.2 WALKING CYCLING AND HORSE RIDING

#### 3.2.1 PROBLEM

**Location:** B – Toucan Crossing

**Summary:** **Island provided within the Toucan Crossing insufficient to accommodate a waiting cyclist. This may result in the cycle being struck by passing vehicles.**

It is noted that the Toucan Crossing to the north of Cardamon Road has been proposed with a 1.8m wide island. If the crossing signals are not operational and a cyclist is required to wait to allow vehicles to pass a 1.8m island width would be insufficient to accommodate a waiting cyclist and may be struck.

**RECOMMENDATION:** **It is recommended that wider island is provided at this location.**

#### 3.2.2 PROBLEM

**Location:** C - Toucan Crossing - Tiptofts Lane

**Summary:** **Tactile Paving Layout is inconsistent and may confuse visually impaired pedestrians.**

The tactile paving arrangement proposed at the Toucan Crossing located to the north-west of Tiptofts Lane is incorrect according to the Inclusive Mobility document 'Guidance for the Use of Tactile Paving'. The layout is also inconsistent with the adjacent footway.

A visually impaired pedestrian may become confused as to the provision at this location and hesitant at the crossing point resulting in frustration from waiting drivers and potential lead

to a pedestrian being struck by a vehicle, if they step out during the green phase of the traffic signals.

It is also noted that no tactile paving has been proposed at all at the Toucan Crossing north-west of Cardamon Road.

**RECOMMENDATION: It is recommended that the tactile paving provided is in accordance with the ‘Guidance for the Use of Tactile Paving’ standards.**

### 3.2.3 PROBLEM

**Location:** D – Pegasus Crossing - Tiptofts Lane  
**Summary:** Carriageway surfacing may be insufficient for a horse resulting in a slip and potential injury to the horse/rider.

The drawings provided detail the crossing area within the Pegasus Crossing as carriageway construction. No further details have been provided at this stage as to whether any additional surface treatment is proposed. Carriageway surfacing may be too smooth for a horse to walk over resulting in a slip and potential injury to the horse/rider.

**RECOMMENDATION: It is recommended that a high friction surface the same colour as the carriageway is introduced at this location. Refer to CD 143.**

### 3.2.4 PROBLEM

**Location:** E – Shared Use area to the North-West of TipTofts Lane  
**Summary:** Shared Use surfacing may be insufficient for a horse resulting in the footway failing under the weight of a horse, presenting a maintenance issue and potential loss of control hazard for cyclists or trip/slip hazard for pedestrians or the horse resulting in personal injury.

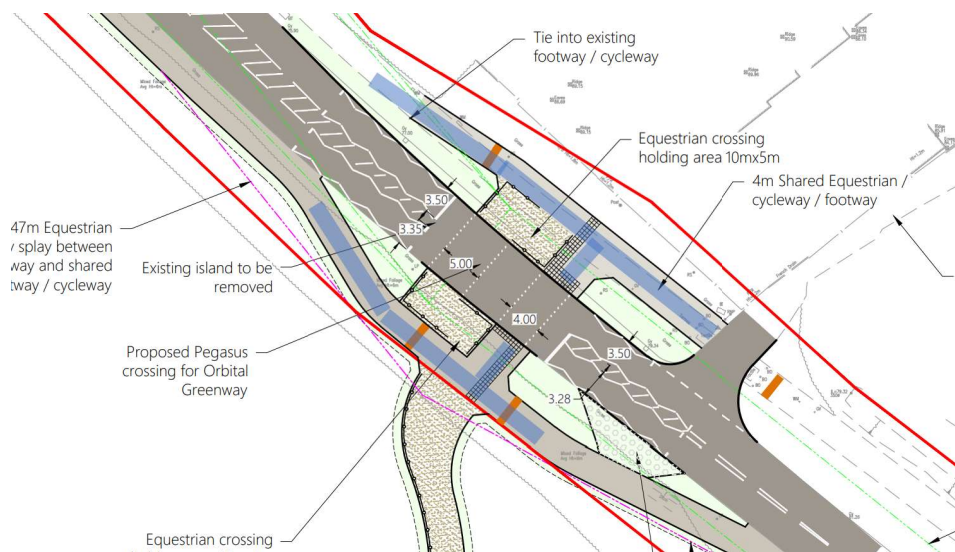
The drawings provided detail the shared use area to the north-east of Thaxted Road as cycleway construction. No further details have been provided at this stage as to what this is. Standard cycleway construction would be insufficient to hold the weight of a horse and may also be unsuitable for a horse to safely cross without slipping. If the construction is unsuitable, the footway may fail under the weight of a horse, presenting a maintenance issue and potential loss of control hazard for cyclists or trip/slip hazard for pedestrians or the horse resulting in personal injury.

**RECOMMENDATION: It is recommended that the surface introduced at this location is suitable to provide comfort for the equestrian and is constructed according to the loads required. Refer to CD 143.**

### 3.2.4 PROBLEM

**Location:** F – Shared Use area to the North-West of TipTofts Lane  
**Summary:** Use of Corduroy Paving as shown may confuse visually impaired pedestrians and cyclists as to the facility they have entered.

The drawings provided show several orange bands located within the vicinity of the Pegasus/Toucan Crossing. Due to the location of the orange bands, it has been assumed that these notate an area of corduroy paving. Corduroy paving is usually introduced to detail the change in a facility, for example the end of a shared use facility. As shown below, the areas marked in blue are all shown as shared use facilities.



Within the area that these have been proposed the facility for visually impaired pedestrians (which the corduroy paving is primarily introduced for) the facility has not changed. By providing this band of corduroy paving a visually impaired pedestrian may think that they have now entered an area of footway only and that the risk of strike from cyclists is no longer a concern, making them vulnerable to strike by approaching cyclists.

**RECOMMENDATION:** It is recommended that corduroy paving at these locations are removed.

### 3.2.5 PROBLEM

**Location:** G –Pegasus Crossing - TipTofts Lane  
**Summary:** Confusion may occur between equestrians and cyclist/pedestrians where the two facilities meet resulting in the potential for a horse to become startled by an expected movement resulting in rider/cyclist/pedestrian injury.

As noted in problem 3.2.4 the drawings provided show several orange bands located within the vicinity of the Pegasus/Toucan Crossing. Due to the location of the orange bands, it has been assumed that these notate an area of corduroy paving. Corduroy paving is usually

introduced to detail the change in a facility or to highlight the presence of a hazard - It is unclear if these corduroy paving strips have been proposed to act as a warning to the potential hazard of a crossing equestrian and horse. If the latter is the case, visually impaired pedestrians are likely to become confused at this location, particularly as a crossing equestrian and horse are likely to be expected and may step out into the path of crossing horse.

**RECOMMENDATION:** It is recommended that the priorities at this location are reversed with the Equestrian required to give way to pedestrians and cyclists on the shared use facility.

### 3.3 SIGNING, LIGHTING AND CARRIAGEWAY MARKINGS

#### 3.3.1 PROBLEM

**Location:** H – Proposed Junction/Cardamon Road  
**Summary:** Right turn arrows direct drivers into the opposing lane/footway. This may result in confusion and hesitation between drivers resulting in sudden braking and subsequent rear end shunts or obstruction of the junction.

The centre of the staggered signalized junction between Cardamon Road and the new junction has two right turn arrows proposed. These arrows appear to direct drivers into the footway and the opposing lane of Cardamon Road. Placing the arrows as such may cause driver confusion as they locate themselves at obscure locations to turn right into the relevant junction. Confusion leads to hesitation, which may lead to rear end shunts or obstruction of the junction.

**RECOMMENDATION:** It is recommended that the carriageway markings are reconfigured within the junction.



## 4.0 AUDIT TEAM, DESIGN TEAM AND OVERSEEING ORGANISATION STATEMENT(S)

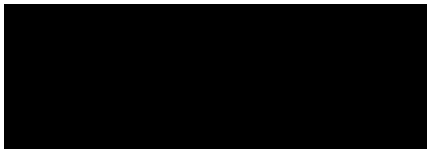
### 4.1 AUDIT TEAM

We certify that this audit has been undertaken in accordance with the principles of GG119.

*NB: The Audit Team qualifications and experience accord with the requirements of Essex County Council.*

Audit Team Leader

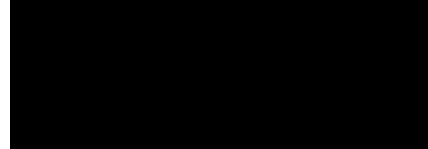
Beth Newiss MCIHT MSoRSA



Date: 23<sup>rd</sup> February 2023

Audit Team Member

Jason Bown IEng FIHE MICE MSoRSA



Date: 23<sup>rd</sup> February 2023

### 4.2 DESIGN ORGANISATION STATEMENT

On behalf of the Design Organisation, I certify that:

1) The RSA Actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.

Name:	
Signed:	
Organisation:	
Position:	Date:

### 4.3 OVERSEEING ORGANISATION STATEMENT

On behalf of the Overseeing Organisation, I certify that:

- 1) The RSA Actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design team and;
- 2) The agreed RSA will be progressed.

Name:	
Signed:	
Organisation:	
Position:	Date:

# **APPENDIX A1**

## **INFORMATION PRESENTED FOR AUDIT**

## INFORMATION PRESENTED FOR AUDIT

### Documents:

Audit Brief

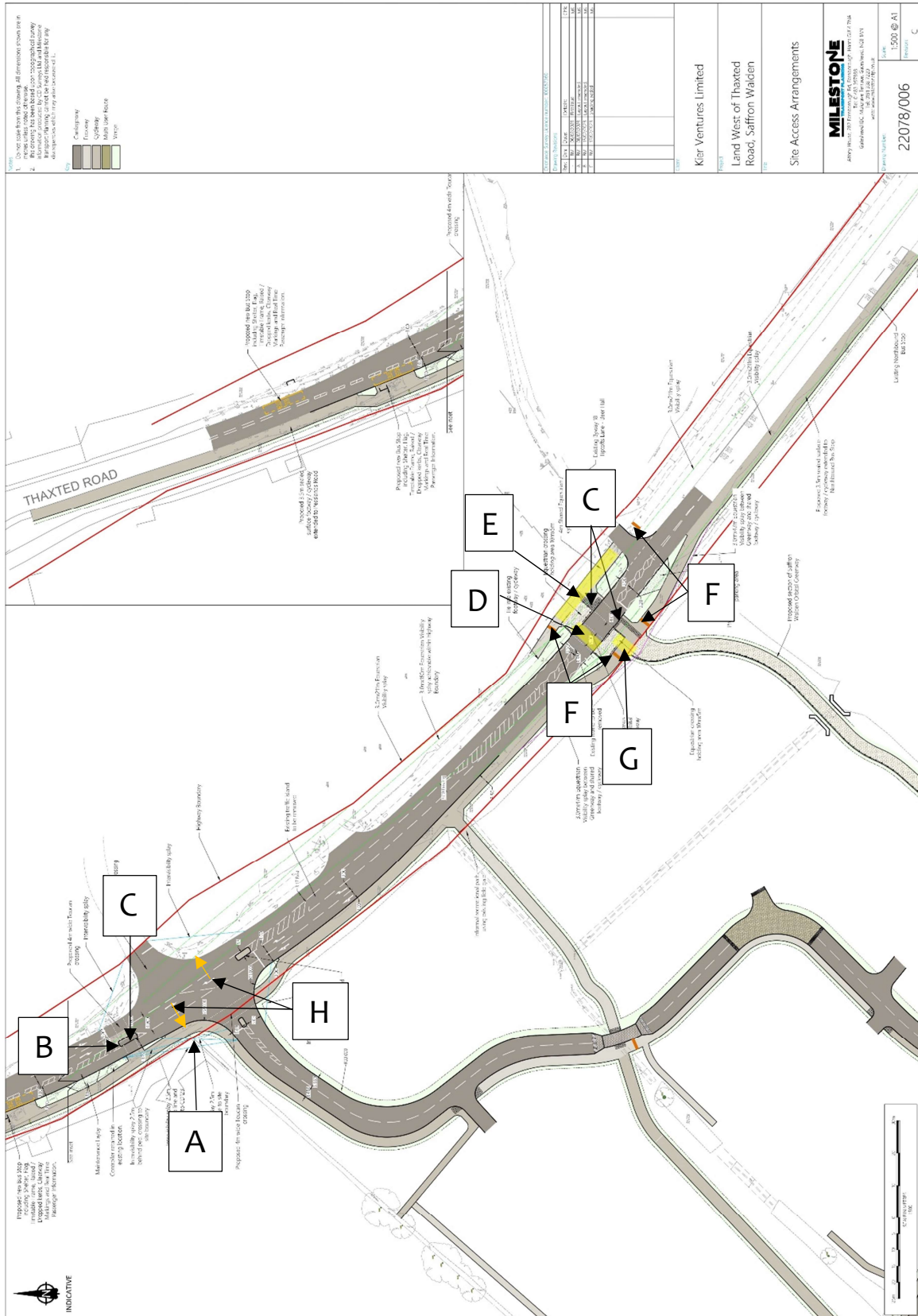
### Drawings:

22078 006 Rev C	Site Access Arrangements
22078 TK03 Rev A	Large Refuse Vehicle Tracking
22078 TK04 Rev A	Single Deck Bus Tracking
22078 TK05 Rev A	Vehicle Tracking

# **APPENDIX A2**

## **LOCATION PLAN**

# Proposed Highway Works Thaxted Road, Saffron Walden Road Safety Audit – Stage 1



## Appendix 3


# Road Safety Audit Response for Stage 1 Road Safety Audit (GG 119 Appendix F)

## F1 Project Details

Table F.1 Project Details

Report Title:	Stage 1 Road Safety Audit Designer's Response
Date:	22 February 2023
Document Reference and Revision:	22078_Proposed Section 278 Highway Works_RSA1_Response
Prepared By:	Milestone Transport Planning Ltd
On Behalf of:	Kier Ventures Limited

Table F.2 Authorisation Sheet

Project:	Proposed Residential Development, Land West of Thaxted Road, Saffron Walden
Report Title:	Stage 1 Road Safety Audit Response
Prepared by:	
Name:	Brett Morse
Position:	Principle Engineer
Signed:	
Organisation:	Milestone Transport Planning
Date:	24 February 2023
Approved by:	
Name:	
Position:	
Signed:	
Organisation:	Essex County Council
Date:	

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## F2 Introduction

### Summary of Scheme

This scheme relates to highway works associated with the Proposed Residential Development, Land West of Thaxted Road, Saffron Walden. The proposals comprise provision of up to 170 dwellings, alongside other amenities.

Vehicular access to the proposed residential site is proposed as a staggered signalised junction off the B184 Thaxted Road, to be located opposite Cardamon Rd, the recently constructed traffic signals junction serving the development to the east of Thaxted Road.

To accommodate the proposed vehicular access it is proposed to widen the existing carriageway on the south-western side of the B184 Thaxted Road within publicly maintainable highway land, that will enable a signalised right turn lane into the site to be accommodated as well as a revised right turn lane into Cardamon Rd and maintaining the existing ghost right turn lane into The Kilns. These works will also require the removal and replacement of the existing traffic island to the south-east of Cardamon Rd and the relocation of the existing stop line approx. 15m to the south-east

The works on the B184 Thaxted Road to accommodate the proposed vehicular access will not reduce the length of the right turn lane on approach to the recently constructed traffic signals junction serving the development to the east of Thaxted Road.

A. signal controlled equestrian crossing with parallel toucan crossing is also proposed on the B184 Thaxted Road, 167metres (centre to centre) south-east of the proposed vehicular access that provides an crossing connecting the proposed Orbital Greenway route to the existing PROW18 (Byway) that extends along Tiptofts Lane.

### Stage of the RSA:

Stage 1

### Date / reference of the RSA Report:

Date: 22th February 2023

RSA Report Reference: Version 1.0

### Details of the representatives from the design organisation who prepared the RSA Response Report:

Paul Koven, Milestone Transport Planning, Associate Director

Brett Morse, Milestone Transport Planning, Senior Engineer

## F3 Key Personnel

Table F.3 Key Personnel

Overseeing Organisation:	Essex County Council
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County Highway Authority:	Essex County Council
RSA Team:	Beth Newiss and Associates Road Safety Consultants
Design Organisation:	Milestone Transport Planning Ltd

## F4 Road Safety Audit Decision Log

Table F.4 Road Safety Audit Decision Log

3.1 General – 3.1.1	
Location A – Proposed Junction	
RSA Problem	<p>Summary - Areas of visibility may be obstructed causing impeded vision for drivers which may result in sudden braking and subsequent rear end shunts..</p> <p>Detail - The drawings detail inter-visibility splays at the proposed junctions traversing through an area of unknown construction. Any obstruction within these areas will impede visibility for a driver which may result in sudden braking and subsequent rear end shunts. This is particularly important as immediately after turning left from the junction the driver is met with a Toucan Crossing.</p>
RSA Recommendation	It is recommended that all areas within visibility splay are kept clear of obstruction.
Design Organisation Response	All intervisibility splays within exist highway boundary to have existing vegetation cleared. Left turn from site access will be held on red light when pedestrian crossing is on green phase.
Overseeing Organisation Response	
Agreed RSA Action	

3.2 WALKING CYCLING AND HORSE RIDING – 3.2.1

Location B – Toucan crossing

<p>RSA Problem</p>	<p>Summary - Island provided within the Toucan Crossing insufficient to accommodate a waiting cyclist. This may result in the cycle being struck by passing vehicles.</p> <p>Detail - It is noted that the Toucan Crossing to the north of Cardamon Road has been proposed with a 1.8m wide island. If the crossing signals are not operational and a cyclist is required to wait to allow vehicles to pass a 1.8m island width would be insufficient to accommodate a waiting cyclist and may be struck.</p>
<p>RSA Recommendation</p>	<p>It is recommended that wider island is provided at this location.</p>
<p>Design Organisation Response</p>	<p>Disagree- The pedestrian phase is a straight through, crossing from one footway to the other. In the rare event cyclist are stranded on the island, it is of sufficient width to allow a cyclist to wait at a slight angle.</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	

3.2 WALKING CYCLING AND HORSE RIDING – 3.2.2

Location C – Toucan Crossing - Tiptofts Lane

<p>RSA Problem</p>	<p>Summary - Tactile Paving Layout is inconsistent and may confuse visually impaired pedestrians.</p> <p>Detail - The tactile paving arrangement proposed at the Toucan Crossing located to the north-west of Tiptofts Lane is incorrect according to the Inclusive Mobility document 'Guidance for the Use of Tactile Paving'. The layout is also inconsistent with the adjacent footway. A visually impaired pedestrian may become confused as to the provision at this location and hesitant at the crossing point resulting in frustration from waiting drivers and potential lead to a pedestrian being struck by a vehicle, if they step out during the green phase of the traffic signals.</p> <p>It is also noted that no tactile paving has been proposed at all at the Toucan Crossing northwest of Cardamon Road.</p>
<p>RSA Recommendation</p>	<p>It is recommended that the tactile paving provided is in accordance with the 'Guidance for the Use of Tactile Paving' standards.</p>
<p>Design Organisation Response</p>	<p>Agreed – Incorrect tactile paving amended and tactile paving added to signalised junction. All Tactile paving will be in accordance with the 'Guidance for the Use of Tactile Paving' standards</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	

3.2 WALKING CYCLING AND HORSE RIDING – 3.2.3

Location D – Pegasus Crossing - Tiptofts Lane

<p>RSA Problem</p>	<p>Summary - Carriageway surfacing may be insufficient for a horse resulting in a slip and potential injury to the horse/rider..</p> <p>Detail- The drawings provided detail the crossing area within the Pegasus Crossing as carriageway construction. No further details have been provided at this stage as to whether any additional surface treatment is proposed. Carriageway surfacing may be too smooth for a horse to walk over resulting in a slip and potential injury to the horse/rider.</p>
<p>RSA Recommendation</p>	<p>It is recommended that a high friction surface the same colour as the carriageway is introduced at this location. Refer to CD 143.</p>
<p>Design Organisation Response</p>	<p>Agreed- High friction surfacing in accordance with CD 143 will be added at detail design.</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	

### 3.2 WALKING CYCLING AND HORSE RIDING – 3.2.4

#### Location E – Shared Use area to the North-West of TipTofts Lane

<b>RSA Problem</b>	<p>Summary - Shared Use surfacing may be insufficient for a horse resulting in the footway failing under the weight of a horse, presenting a maintenance issue and potential loss of control hazard for cyclists or trip/slip hazard for pedestrians or the horse resulting in personal injury..</p> <p>Detail- The drawings provided detail the shared use area to the north-east of Thaxted Road as cycleway construction. No further details have been provided at this stage as to what this is. Standard cycleway construction would be insufficient to hold the weight of a horse and may also be unsuitable for a horse to safe cross without slipping. If the construction is unsuitable, the footway may fail under the weight of a horse, presenting a maintenance issue and potential loss of control hazard for cyclists or trip/slip hazard for pedestrians or the horse resulting in personal injury.</p>
<b>RSA Recommendation</b>	<p>It is recommended that the surface introduced at this location is suitable to provide comfort for the equestrian and is constructed according to the loads required. Refer to CD 143</p>
<b>Design Organisation Response</b>	<p>Agreed - Footway to be constructed to an adoptable standard, using Dense Bitumen surface course which rates 'good' on adequacy scale in accordance with table 5.29 CD143</p>
<b>Overseeing Organisation Response</b>	
<b>Agreed RSA Action</b>	

3.2 WALKING CYCLING AND HORSE RIDING – 3.2.5

Location – Shared Use area to the North-West of TipTofts Lane

<p>RSA Problem</p>	<p>Summary - Use of Corduroy Paving as shown may confuse visually impaired pedestrians and cyclists as to the facility they have entered.</p> <p>Detail- The drawings provided show several orange bands located within the vicinity of the Pegasus/Toucan Crossing. Due to the location of the orange bands, it has been assumed that these notate an area of corduroy paving. Corduroy paving is usually introduced to detail the change in a facility, for example the end of a shared use facility. As shown below, the areas marked in blue are all shown as shared use facilities. Within the area that these have been proposed the facility for visually impaired pedestrians (which the corduroy paving is primarily introduced for) the facility has not changed. By providing this band of corduroy paving a visually impaired pedestrian may think that they have now entered an area of footway only and that the risk of strike from cyclists is no longer a concern, making them vulnerable to strike by approaching cyclists.</p>
<p>RSA Recommendation</p>	<p>It is recommended that corduroy paving at these locations are removed.</p>
<p>Design Organisation Response</p>	<p>Agreed - Corduroy paving removed. Back to back signs to Diag. 956 (shared footway/ cycleway) and 956.1 (shared footway/ cycleway/ equestrian) added.</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	

3.2 WALKING CYCLING AND HORSE RIDING– 3.2.6

Location – Pegasus Crossing - TipTofts Lane

<p>RSA Problem</p>	<p>Summary - Confusion may occur between equestrians and cyclist/pedestrians where the two facilities meet resulting in the potential for a horse to become startled by an expected movement resulting in rider/cyclist/pedestrian injury. Detail- As noted in problem 3.2.4 the drawings provided show several orange bands located within the vicinity of the Pegasus/Toucan Crossing. Due to the location of the orange bands, it has been assumed that these notate an area of corduroy paving. Corduroy paving is usually introduced to detail the change in a facility or to highlight the presence of a hazard - It is unclear if these corduroy paving strips have been proposed to act as a warning to the potential hazard of a crossing equestrian and horse. If the latter is the case, visually impaired pedestrians are likely to become confused at this location, particularly as a crossing equestrian and horse are likely to be expected and may step out into the path of crossing horse.</p>
<p>RSA Recommendation</p>	<p>It is recommended that the priorities at this location are reversed with the Equestrian required to give way to pedestrians and cyclists on the shared use facility..</p>
<p>Design Organisation Response</p>	<p>Disagreed- Both routes are shared. Sufficient visibility from the Greenway to the shared footway cycleway( 3m x47m) allows equestrian users visibility of approaching pedestrian/cyclists. Proposed Cycle route warning sign to Diag 950 with left and right arrows added on approach to shared cycle/footway.</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	



3.3 SIGNING, LIGHTING AND CARRIAGEWAY MARKINGS – 3.3.1

Location – Proposed Junction/Cardamon Road

<p>RSA Problem</p>	<p>Summary - Right turn arrows direct drivers into the opposing lane/footway. This may result in confusion and hesitation between drivers resulting in sudden braking and subsequent rear end shunts or obstruction of the junction.</p> <p>Detail- The centre of the staggered signalized junction between Cardamon Road and the new junction has two right turn arrows proposed. These arrows appear to direct drivers into the footway and the opposing lane of Cardamon Road. Placing the arrows as such may cause driver confusion as they locate themselves at obscure locations to turn right into the relevant junction. Confusion leads to hesitation, which may lead to rear end shunts or obstruction of the junction.</p>
<p>RSA Recommendation</p>	<p>It is recommended that the carriageway markings are reconfigured within the junction.</p>
<p>Design Organisation Response</p>	<p>Agreed – Carriageway marking reconfigured, arrows to Diag 1038 replaced with Diag 1038.1 Curved markings added.</p>
<p>Overseeing Organisation Response</p>	
<p>Agreed RSA Action</p>	

## F5 Design Organisation & Overseeing Organisation Statements

Table F.5 Design Organisation Statement

On behalf of the design organisation I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the overseeing organisation

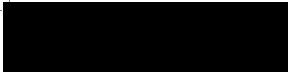
Name:	Brett Morse
Signed:	
Position:	Principal Engineer
Organisation:	Milestone Transport Planning
Date:	

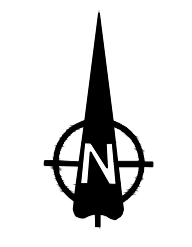
Table F.6 Overseeing Organisation Statement

On behalf of the overseeing organisation I certify that:

1. The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation; and
2. The agreed RSA action will be progressed.

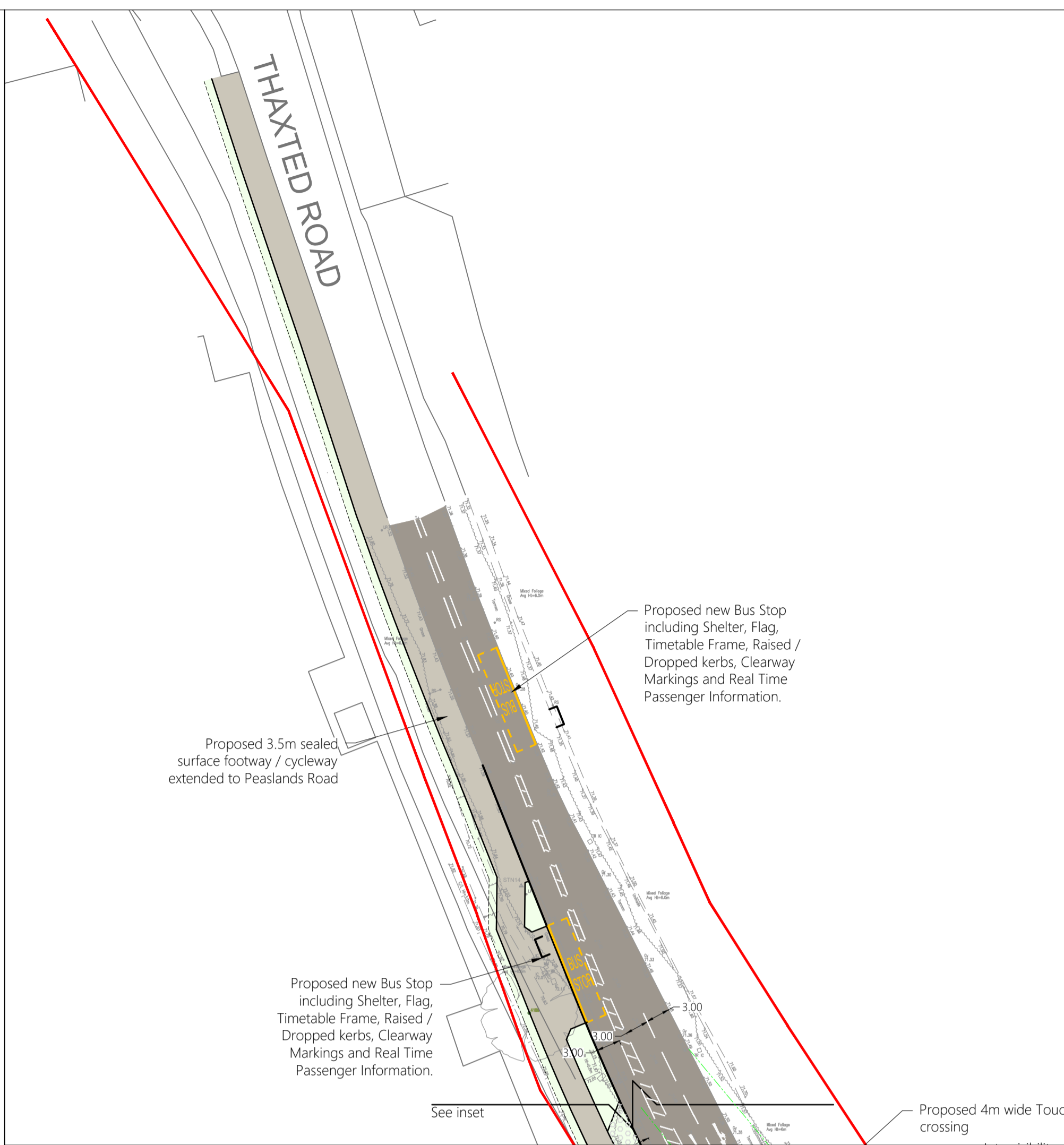
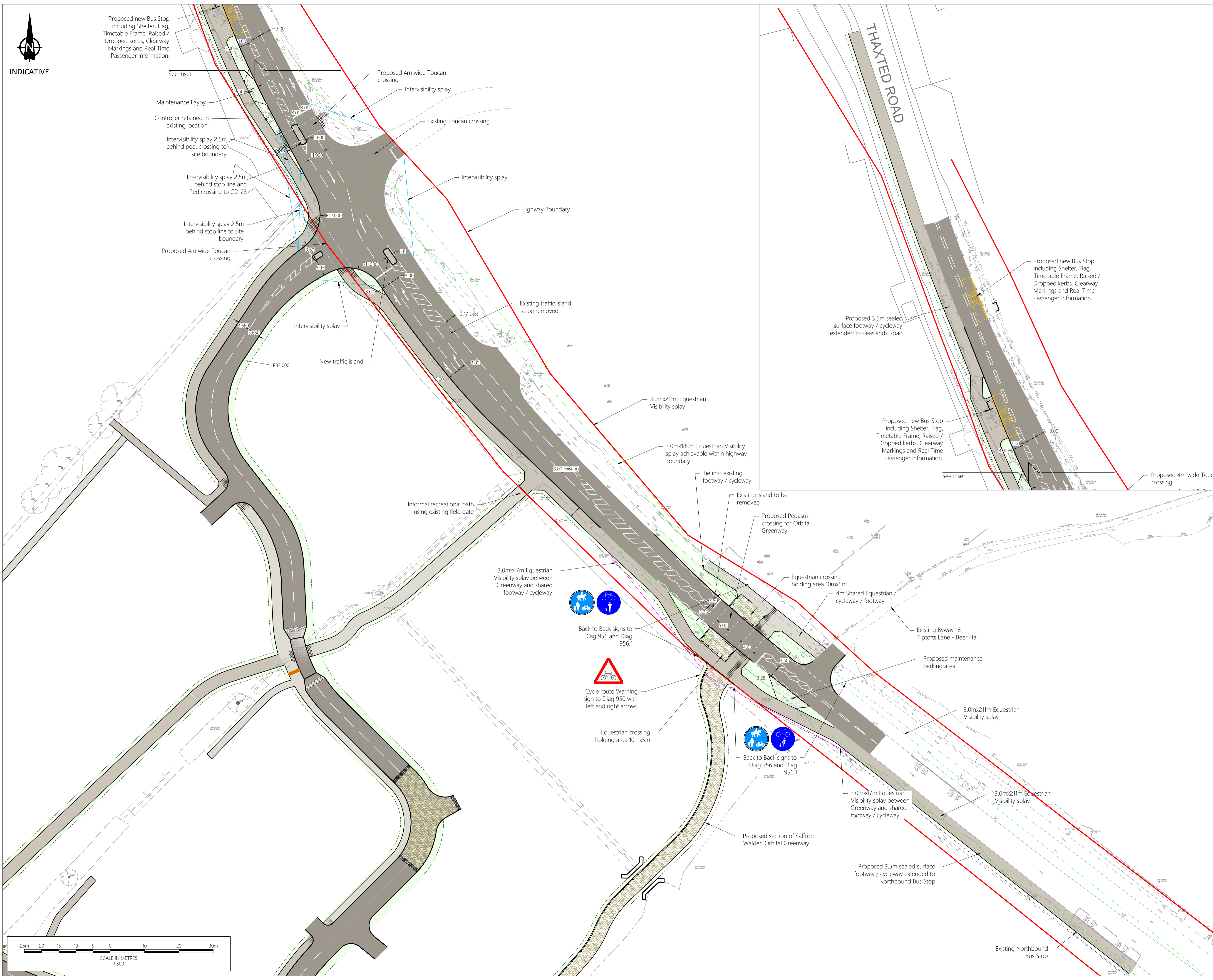
Name:	
Signed:	
Position:	
Organisation:	
Date:	

## Appendix 4



INDICATIVE

Proposed new Bus Stop including Shelter, Flag, Timetable Frame, Raised / Dropped kerbs, Clearway Markings and Real Time Passenger Information.



- Notes
1. Do not scale from this drawing. All dimensions shown are in metres unless noted otherwise.
  2. This drawing has been based upon topographical survey information produced by CD Surveys Ltd and Milestone Transport Planning cannot be held responsible for any discrepancies which may arise because of it.

Key

- Carriageway
- Footway
- Cycleway
- Multi-User Route
- Verge

Ordnance Survey Licence number: 100057360

Drawing Revisions

Rev:	Drn:	Date:	Details:	Chk:
-	BM	06/02/2023	First issue	MS
A	BM	08/02/2023	Layout amended.	MS
B	BM	13/02/2023	Layout amended.	MS
C	BM	17/02/2023	Shading added	MS
D	BM	24/02/2023	Amended following Stage 1 RSA	MS

Client  
Kier Ventures Limited

Project  
Land West of Thaxted Road, Saffron Walden

Title  
Site Access Arrangements

**MILESTONE**  
TRANSPORT PLANNING

Abbey House, 282 Farnborough Rd, Farnborough, Hants GU14 7NA  
Tel: 01483 397888  
Gateshead IBC, Mulgrave Terrace, Gateshead, NE8 1AN  
web: [redacted]

Drawing Number: 22078/006

Scale: 1:500 @ A1

Revision: D

