AMA Designers Response to Stage 1 Road Safety Audit

Proposed Residential Development – Hart Road, Thundersley

2nd February 2022

Introduction

Andrew Moseley Associates (AMA) has been appointed to carry out the preliminary design of the site access and internal layout for the proposed residential development at Hart Road, Thundersley.

The proposals have now been subject to a Stage 1 Road Safety Audit dated 31st January 2022, carried out by Jonathan Birkett of JHB Consulting. The 'Problems' and 'Recommendations' from the RSA1 are included in this Designer's Response report for ease of reference.

A copy of the Stage 1 Road Safety Audit is attached at **Appendix A**.

Items Raised in Stage 1 Road Safety Audit

Problem 1

Inappropriate drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.

Location:

Hart Road

Summary:

As part of the scheme, it is proposed to install a new priority-controlled junction with Hart Road. Running along the existing dropped kerb line is a system of 'ACO' type kerb drain. Details have not been provided of how this will either be maintained or replaced once the new junction is installed.

The Audit Team were concerned that this could affect the drainage resulting in standing water at the new junction which will increase the risk of loss of control type collisions and during cold weather could freeze increasing the risk of pedestrian slips and falls.

Recommendation

At detailed design carefully consider how the drainage at this location will be maintained once the junction is constructed.

Designers Response

As part of the Section 278 design, a detailed drainage design will be included and will address any concerns raised.

Problem 2

A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.

Location:

Hart Road

Summary:

The drawings provided do not show any crossing facilities of the new site access. There is an existing footway along Hart Road that the new access will bisect.

A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.

Recommendation

Ensure that appropriate tactile paving layouts and dropped crossing points are provide.

Designers Response

An uncontrolled pedestrian crossing at the mouth of the access junction is proposed in the form of dropped kerbs with tactile paving.

Details of the proposed uncontrolled crossing is provided in AMA Drawing Number: *21255/SK003*, attached at **Appendix B**.

Problem 3

Inappropriately located telegraph pole and chamber covers can increase the risk of collisions as well as cycle/powered two-wheeler loss of control.

Location:

Site Access

Summary:

The drawings provided do not indicate what will happen to the existing telegraph pole and service chambers within the proposed site access. The pole appears to be within the new access junction and therefore represents a hazard to road users.

The service covers will be within the new site access and as such the cover may not provide suitable skidding resistance and in wet conditions may lead to a vehicle, cycle or powered two wheelers losing control.

Recommendation

Move the service chambers and telegraph pole away from the new site access.

Designers Response

Both the inspection chamber and telegraph pole will be relocated to an appropriate location within the footway behind the access kerb radii. Full details of the proposed relocation will be provided and agreed as part of the Section 278 design package.

Problem 4

A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.

Location:

Internal Junctions

Summary:

The drawings provided do not show any crossing facilities of the new internal junctions.

A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.

Recommendation

Ensure that appropriate tactile paving layouts and dropped crossing points are provided within the internal road layout.

Designers Response

The specific details regarding the appropriate location and make-up of the dropped kerb pedestrian crossings will be included within the Section 38 design package.

Problem 5

Inappropriate drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.

Location:

Internal Roads

Summary:

As part of the scheme, it is proposed to install a new road network with junctions, access roads and raised ramp features. A lack of drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.

Recommendation

At detailed design provide drainage within the internal roads and junctions.

Designers Response

As part of the Section 38 design, a detailed drainage design will be included and will address any concerns raised with the internal layout. Detail regarding the location and make-up of drainage featureswill be provided within the S38 design package.

Problem 6

Inappropriate levels of lighting can lead to an increased collision risk.

Location:

Internal Roads

Summary:

The drawing provided does not clearly show if street lighting is proposed. The scheme will include a new junctions and internal roads and increase both the night time usage and the number of vehicles/NMUs using the proposed road network once constructed.

This may result in the new road layout being in shadow leading to possible conflicts during the hours of darkness.

Recommendation

Ensure that suitable lighting provision is provided.

Designers Response

The specific details regarding the appropriate location and form of lighting will be included within the Section 38 design package.

Problem 7

A lack of protection will increase the risk of NMU injury.

Location:

Attenuation Pond

Summary:

As part of the scheme a new attenuation pond will be provided. The Audit Team were concerned that there is no fencing surrounding the pond. Without fencing there is no way to stop a person from falling down the embankment into the pond.

A lack of protection will increase the risk of NMU injury.

Recommendation

Consider at detailed design the need for protection in the form of fencing around the attenuation pond.

Designers Response

A Road Restraint Risk Assessment (RRRA) will be undertaken to ensure the safety of motorised users within the vicinity of the attenuation pond.

Detailed information regarding the safety for NMUs near the attenuation pond will be reviewed as part of the landscaping remit of the application.

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Appendix A - Stage 1 Road Safety Audit

meraki alliance
Highways, Transportation & Safety Consulting

Housing Development: Hart Road, Thundersley
Section 278 and 38 works

Road Safety Audit: Stage 1

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Chelmsford
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10 Watkin Avenue
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LL29 9NN
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meraki alliance
Highways, Transportation & Safety Consulting

Housing Development: Hart Road, Thundersley
Section 278 and 38 works

Road Safety Audit: Stage 1

Report Produced for:	Essex County Council
Report Produced by:	Jonathan Birkett
Report Dated:	31 January 2022
Report Reference:	MAL/HRTRSA1Rev0
Road Safety Audit Team Leader:	Jonathan Birkett

meraki alliance
Highways, Transportation & Safety Consulting

Housing Development: Hart Road, Thundersley
Section 278 and 38 works

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	27 January 2022	JB
1	0	FINAL REPORT	31 January 2022	JB/GK

Report Circulation Record

This report has been circulated, as follows:

Person	Organisation	No. of Copies	Date
	Essex County Council		
R Ward	AMA	Electronic	31 January 2022
G Kidd	Meraki Alliance	Electronic	31 January 2022

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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 R Ward AMA on behalf of the Highway Authority Essex County Council. The scheme submitted for Audit is the proposed new residential development, Hart Road, Thundersley.

Hart Road is controlled by a 30mph speed limit and is street lit.

The scope of the highway works being undertaken in this Stage 1 RSA includes:

- New priority site access onto Hart Road,
- Footways, and
- Road markings.

Overseeing Organisation

Essex County Council

Client

L&G

Design Organisation

Andrew Moseley Associates

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 R Ward (AMA), on the instructions of Essex County Council. The total documents forming the Audit Brief are listed in Appendix 1:

Generally, the Brief comprised:

- Verbal Brief
- Transport Statement

1.3 Collision Traffic and Speed Data

Collision data was available as part of the Transport Assessment. The data provided reflects the most recent five years of data held (2016 – 2020), on the “Crashmap” website. Examination of the data indicates that there have been three personal injury

collisions along Hart Road in close proximity to the site. Two slight and one serious in severity, the serious involved a cyclist.

Traffic count data was provided as part of the Transport Statement.

Traffic speed data was not available.

1.4 Details of Site Visit

A site inspection was undertaken on Tuesday 25 January 2022 between 09:00 and 09:30. The Audit Team spent 30 minutes on site understanding the proposed works and their interaction with the local road network.

During the site visit the weather was fine and dry. All roads were relatively lightly trafficked. No incidents were noted during the site visit.

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 MSORSA

Holder of Certificate of Competency

Road Safety Audit Team Leader

GILLIAN KIDD MIHT (HONS)

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 Highways England 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 or Relaxations from Standard were submitted to the Road Safety Audit Team.

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 plan included at **Appendix 2**.

2.1 RSA Problems S278 works

PROBLEM	**1**
Location:	Hart Road
Summary:	Inappropriate drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.
As part of the scheme, it is proposed to install a new priority-controlled junction with Hart Road. Running along the existing dropped kerb line is a system of 'ACO' type kerb drain. Details have not been provided of how this will either be maintained or replaced once the new junction is installed. The Audit Team were concerned that this could affect the drainage resulting in standing water at the new junction which will increase the risk of loss of control type collisions and during cold weather could freeze increasing the risk of pedestrian slips and falls.	
RECOMMENDATION	
At detailed design carefully consider how the drainage at this location will be maintained once the junction is constructed.	

PROBLEM	**2**
Location:	Hart Road.
Summary:	A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.
The drawings provided do not show any crossing facilities of the new site access. There is an existing footway along Hart Road that the new access will bisect. A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.	
RECOMMENDATION	
Ensure that appropriate tactile paving layouts and dropped crossing points are provide.	

PROBLEM	3
Location:	Site access
Summary:	Inappropriately located telegraph pole and chamber covers can increase the risk of collisions as well as cycle/powered two-wheeler loss of control.
The drawings provided do not indicate what will happen to the existing telegraph pole and service chambers within the proposed site access. The pole appears to be within the new access junction and therefore represents a hazard to road users. The service covers will be within the new site access and as such the cover may not provide suitable skidding resistance and in wet conditions may lead to a vehicle, cycle or powered two wheelers losing control.	
RECOMMENDATION	
Move the service chambers and telegraph pole away from the new site access.	

2.2 RSA Problems S38 works

PROBLEM	4
Location:	Internal junctions.
Summary:	A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.
The drawings provided do not show any crossing facilities of the new internal junctions. A lack of suitable uncontrolled crossings will increase both the risk of pedestrian trips and falls as well as pedestrian-vehicle collisions.	
RECOMMENDATION	
Ensure that appropriate tactile paving layouts and dropped crossing points are provided within the internal road layout.	

PROBLEM	5
Location:	Internal roads.
Summary:	Inappropriate drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.
As part of the scheme, it is proposed to install a new road network with junctions, access roads and raised ramp features. A lack of drainage will increase the risk of ponding water causing the likelihood of both vehicle loss of control and pedestrian slips/trips/falls.	

RECOMMENDATION
At detailed design provide drainage within the internal roads and junctions.

PROBLEM		6
Location:	Internal roads.	
Summary:	Inappropriate levels of lighting can lead to an increased collision risk.	
The drawing provided does not clearly show if street lighting is proposed. The scheme will include a new junctions and internal roads and increase both the night time usage and the number of vehicles/NMUs using the proposed road network once constructed. This may result in the new road layout being in shadow leading to possible conflicts during the hours of darkness.		
RECOMMENDATION		
Ensure that suitable lighting provision is provided.		

PROBLEM		7
Location:	Attenuation pond.	
Summary:	A lack of protection will increase the risk of NMU injury.	
As part of the scheme a new attenuation pond will be provided. The Audit Team were concerned that there is no fencing surrounding the pond. Without fencing there is no way to stop a person from falling down the embankment into the pond. A lack of protection will increase the risk of NMU injury.		
RECOMMENDATION		
Consider at detailed design the need for protection in the form of fencing around the attenuation pond.		

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

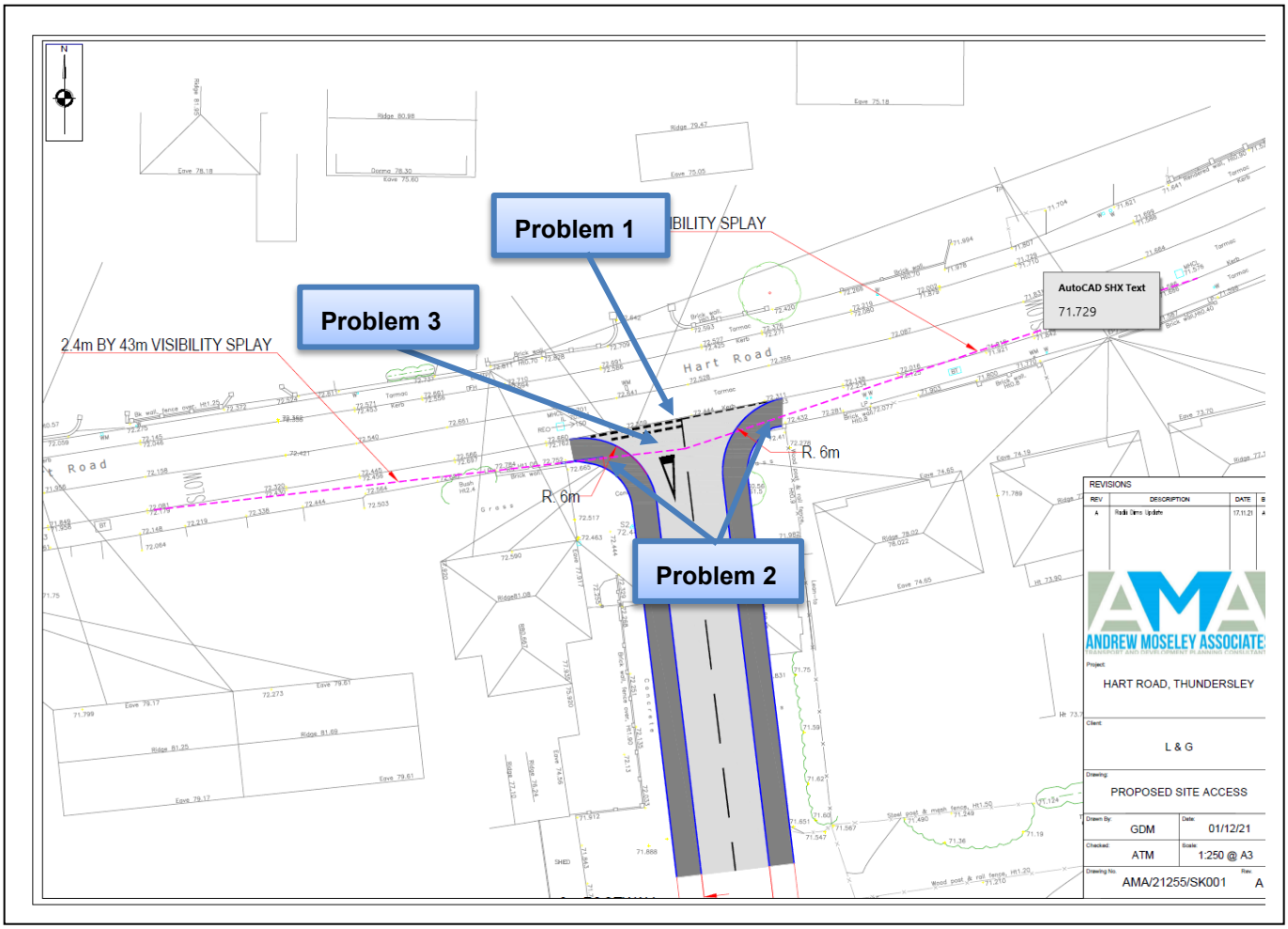
3 Audit Team Statement

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:	31 JANUARY 2022
ROAD SAFETY AUDIT TEAM LEADER	
NAME:	GILLIAN KIDD
POSITION:	AUDIT TEAM MEMBER
ORGANISATION	MERAKI ALLIANCE LTD
DATE:	31 JANUARY 2022

Appendix 1 – Audited Drawings

AMA/21255/SK001 Rev A	Proposed Site Access
AMA/21255/ATR/0003.1	Swept Path
519/19/FUL/PL1004	Proposed Site Layout Plan

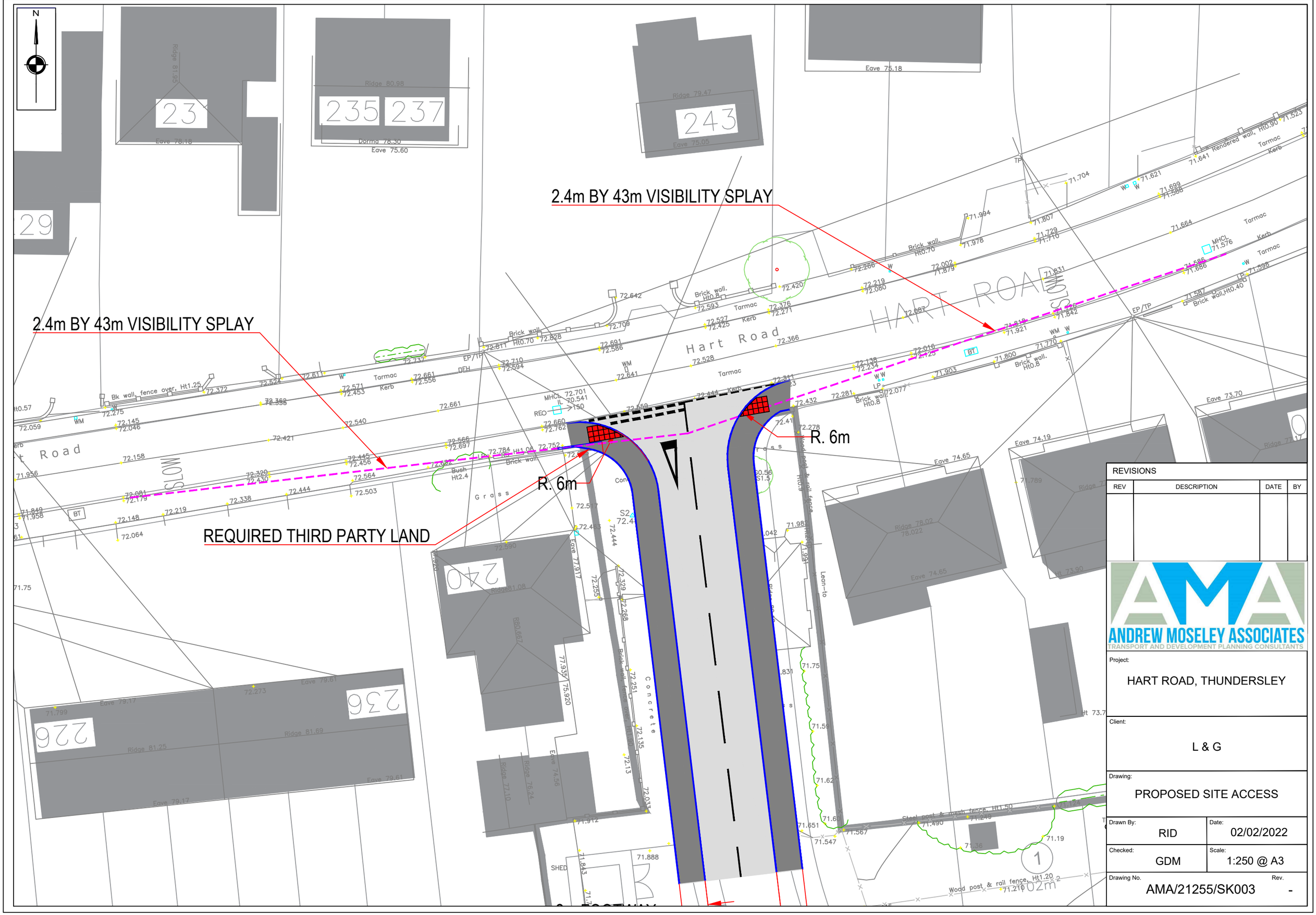
Appendix 2 – Problem Location Plan




Hart Road, Thundersley
Planning
Problem 5 - Drainage
Problem 6 - Lighting
HART ROAD
SCALE 1:500
Cedar Hall School
Problem 4
Problem 7
Play Area
Tiny Forest
Attenuation pond
Hart Road,
Thundersley
Proposed Site Layout Plan
December '21
519/19/FUL/PL1004
Proposed Site Layout Plan

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Appendix B – Site Access Pedestrian Crossing Proposals



REVISIONS			
REV	DESCRIPTION	DATE	BY

ANDREW MOSELEY ASSOCIATES
TRANSPORT AND DEVELOPMENT PLANNING CONSULTANTS

Project:
HART ROAD, THUNDERSLEY

Client:
L & G

Drawing:
PROPOSED SITE ACCESS

Drawn By:	Date:
RID	02/02/2022
Checked:	Scale:
GDM	1:250 @ A3

Drawing No. AMA/21255/SK003 Rev. -