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STORTHES HALL, KIRKBURTON - PROPOSED SITE ACCESS ARRANGEMENTS AND OFF-SITE HIGHWAY WORKS

Stage 1 Road Safety Audit

Client: Ubrique Investments Limited

27/02/2025

Quality Management

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Storthes Hall, Kirkburton -Proposed site access arrangements and off-site highway works

Stage 1 Road Safety Audit

27/02/2025

Overseeing Organisation

Kirklees Council

Client

Ubrique Investments Limited

Design Organisation

Optima Highways and Transportation Consultancy Ltd

Road Safety Audit Team Organisation

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1 Introduction

1.1.1 This report results from a Stage 1 Road Safety Audit carried out on the proposed site access arrangements and off-site highway works for the Storthes Hall development, Kirkburton scheme. This is at the request of Adam Darwin, Kirklees Council (Overseeing Organisation).

1.1.2 The terms of reference of the Road Safety Audit are as described in DMRB GG 119. The Road Safety Audit Team has examined and reported only on the road safety implications in the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

1.1.3 The Road Safety Audit Team membership, approved by Adam Darwin, Kirklees Council (Overseeing Organisation), consisted of:

Team Leader	**Mark Hedley,** IEng, MCIHT, MSoRSA, FIHE, RegRSA(IHE)
	Certificate of Competency in Road Safety Audit gained in Nov 2013
	Partner, Road Safety Initiatives LLP
Team Member	**Martin Morley, BSc (Hons), MCIHT, MSoRSA**
	Certificate of Competency in Road Safety Audit gained in Feb 2013
	Partner, Road Safety Initiatives LLP

1.1.4 The Road Safety Audit was undertaken in accordance with the Road Safety Audit Brief provided by James Stackhouse, Optima Highways and Transportation Consultancy Ltd and approved by Adam Darwin, Kirklees Council (Overseeing Organisation). The Road Safety Audit comprised an examination of the documents provided and listed in **Appendix A**.

1.1.5 The Road Safety Audit Team visited the site together on Tuesday 18 February 2025 between 14:50 and 15:35 hours. It was sunny but cloudy, and the road surfaces were dry at the time of the site visit. During the site visit, traffic flows were moderate, and occasional pedestrians and cyclists were observed.

1.1.6 Matters which the Terms of Reference exclude from this report, but which the Road Safety Audit Team wishes to draw to the attention of the Overseeing Organisation, will be supplied in a separate document in the covering email to this Road Safety Audit Report.

1.1.7 All Road Safety problems are referenced to the design drawings and the locations have been indicated on the plans supplied with the Road Safety Audit Brief in **Appendix B**.

1.1.8 This Road Safety Audit will review the road safety aspects of the proposed highway improvements and includes:

- Upgrade both the northern and southern site accesses to facilitate two-way movements and serve the development via an internal spine road, suitable to accommodate a bus route running between both accesses.
- Off-site highway improvement works are also proposed within the vicinity of:
  - Storthes Hall Lane bridge junction (Woodsome Beck).
  - Penistone Road/Storthes Hall Lane/Woodsome Lees Lane junction.
  - Penistone Road/Storthes Hall Lane (southeastern arm) junction.
  - Penistone Road/North Road junction.

1.1.9 The objective of the scheme is to provide access and highway improvements for the proposed 261 dwelling residential development. The site is located at the former 'Storthes Hall Student Village, located on land to the south and east of Storthes Hall Lane, Kirkburton.

1.1.10 The internal road and footpath layout of the development is outside the scope of this Road Safety Audit.

1.1.11 The Road Safety Audit Team was not informed of strategic decision made and agreed by the Overseeing Organisation.

1.1.12 The Road Safety Audit Team was informed of the following Departures from Standards.

Northern Site Access

The Northern site access is to be provided with 2.4m x 90m junction visibility splays in both directions, in order to minimise the impact on trees to the north and south of the junction, the principle of which has been agreed with HDM. The proposed visibility splays are based on DMRB CD109 Table 2.10 'one-step below' values based on recorded vehicle speeds.

Southern Site Access

The Southern site access is also to be provided with 2.4m x 90m junction visibility splays in both directions, in order to minimise the impact on trees to the north, the principle of which has been agreed with HDM. The proposed visibility splays are based on DMRB CD109 Table 2.10 'one-step below' values based on recorded vehicle speeds.

A greater level of visibility, measured at 2.4m x 134m is available to the south.

Proposed Bridge Signalisation

Footway widths of circa 1-1.7m are proposed in the vicinity of the proposed bridge signalisation along Storthes Hall Lane and on the route leading to Penistone Road, which fall below the recommended minimum widths quoted within DfT 'Inclusive Mobility' Guidance (e.g. the minimum footway width of 1m recommended in the guidance for up to 6m lengths is exceeded, due to the width constraints). However, the proposed scheme incorporates the maximum widths that can be provided within the constraints of the adopted highway, whilst also accommodating the required vehicle swept path analysis. The scheme also provides a significant betterment to the existing situation, which results in pedestrians entering the carriageway when crossing the existing bridge and as Storthes Hall Lane (south) meets the A629 Penistone Road.

North Road Proposed Cycle Facility

In order to accommodate the required swept path analysis along North Road, the proposed shared footway/cycleway reduces to 2-2.5m over a distance of circa 17m, which is below recommended widths identified within LTN 1/20 of 3.0m. To the south, the cycle/footway widens to 2.7m before transitioning back to the existing cycle lane, and to the north widens to 3m+ for the remaining length up to the proposed Toucan crossing.

Half size SLOW markings and cycle symbols have been provided to mitigate the reduced width and downhill gradient towards Penistone Road. This issue is also mitigated as the footway/cycleway would generally only be used by cyclists heading from North Road when turning right on to Penistone Road (e.g. as cyclists from Penistone Road are more likely to remain on carriageway).

2 Items Raised at previous Road Safety Audits

2.1.1 No previous Road Safety Audit has been undertaken on this scheme.

3 Items raised at this Stage 1 Road Safety Audit

3.1 JUNCTIONS

PROBLEM 3.1.1	
Location	Southern access junction in Storthes Hall Lane.
Summary	Potential for 'vehicle-to-vehicle' incidents associated with parked vehicles.
On-street parking directly opposite the access junction (the access road will become two-way) may result in a vehicle turning right into the junction blocking through traffic. This may lead to possible 'shunts' or 'head-on' related collisions.  	
RECOMMENDATION	
It is recommended that Storthes Hall lane is widened to allow unimpeded two-way movements, with on-street parking still present. If this is not practical, its recommended that parking restrictions are introduced or that the access junction is relocated away from on-street parking.	

PROBLEM 3.1.2	
Location	Southern access junction in Storthes Hall Lane.
Summary	Potential for 'vehicle-to-vehicle' incidents associated with parked vehicles.

On-street parking directly opposite the access junction (the access road will become two-way) may result in a vehicle turning right out of the junction travelling on the wrong side of the road to pass parked vehicles. This may lead to possible 'head-on' related collisions.

RECOMMENDATION

It is recommended that Storthes Hall lane is widened to allow unimpeded two-way movements, with on-street parking still present. If this is not practical, its recommended that parking restrictions are introduced or that the access junction is relocated away from on-street parking.

PROBLEM 3.1.3	
Location	A629 Penistone Road / Storthes Hall Lane (northern arm).
Summary	Potential for 'vehicle-to-vehicle' incidents.

The revised layout of the junction potentially results in uncertainty on the north side of the junction where the give-way road marking is replaced with an edge of carriageway road marking. There is a risk of 'vehicle-to-vehicle' collisions between vehicles entering Woodside Lees Lane (or parking area) and those egressing Woodside Lees Lane (or parking area) simultaneously.

In addition, the diagonal lines of the proposed central hatching are 'back to front', possibly further adding to road user uncertainty.

RECOMMENDATION

It is recommended that the junction arrangement is clearly defined to inform drivers of their priority and route. It is also recommended that the new and modified road markings conform to Chapter 5 of the Traffic Signs Manual.

3.2 WALKING, CYCLING AND HORSE RIDING

PROBLEM 3.2.1	
Location	A629 Penistone Road / Storthes Hall Lane (southern arm).
Summary	Potential for pedestrian falls.

The proposed footway along sections of Storthes Hall Lane will benefit pedestrians. However, the new footways are adjacent to low walls with steep drops. This may create a hazard and a risk of falls and injury to pedestrians, particularly during darkness and wintry conditions.

RECOMMENDATION

It is recommended that the walls / parapets are improved to prevent pedestrian falls.

PROBLEM 3.2.2	
Location	A629 Penistone Road / Storthes Hall Lane (southeastern arm).
Summary	Turning traffic may be in conflict with crossing pedestrians.

The proposed footway along sections of Storthes Hall Lane extends into Penistone Road near the former 'Spring Grove Tavern'. There is no crossing for pedestrians using the western footway of Penistone Road and walking to / from the Huddersfield-bound bus stop. Turning traffic may be in conflict with crossing pedestrians, some of whom may not be aware that this section of Storthes Hall Lane is one-way.

RECOMMENDATION

It is recommended that there is a suitable pedestrian crossing in Storthes Hall Lane (southeastern arm) at its junction with Penistone Road.

PROBLEM 3.2.3	
Location	Southern access junction in Storthes Hall Lane.
Summary	Possible vehicle / pedestrian collision.

A few pedestrians may cross Storthes Hall Lane between the existing houses (on the west side) and the new residential development (on the east side). In the absence of a suitable crossing, there is a possibility of a vehicle / pedestrian collision.

RECOMMENDATION

It is recommended that the likely pedestrian crossing demand is assessed and that, if needed, a safe and convenient crossing is included in the proposals.

PROBLEM 3.2.4	
Location	A629 Penistone Road Toucan crossing.
Summary	Potential for a collision involving a vehicle and a pedestrian / cyclist.

A pedestrian or cyclist may decide to cross 'halfway' to the central refuge however there will be no pedestrian button unit. There is potential for a collision involving a vehicle and a pedestrian / cyclist using at the Toucan crossing, if they are unable to call up the crossing phase.

RECOMMENDATION

It is recommended that a 'call button' is include in the central refuge at Toucan crossing.

3.3 TRAFFIC SIGNS, CARRIAGEWAY MARKINGS AND LIGHTING

PROBLEM 3.3.1	
Location	Southern access junction in Storthes Hall Lane.
Summary	Potential for a collision in darkness involving a vehicle and a pedestrian / cyclist.
There will be an increase in pedestrian and cyclist activity as a result of the development. There is potential for a collision in darkness involving a vehicle and a pedestrian / cyclist crossing the junction.	
RECOMMENDATION	
It is recommended that adequate lighting is provided.	

PROBLEM 3.3.2	
Location	Northern access junction in Storthes Hall Lane.
Summary	Potential for a collision in darkness involving a vehicle and a pedestrian / cyclist.
There will be an increase in pedestrian and cyclist activity as a result of the development. There is potential for a collision in darkness involving a vehicle and a pedestrian / cyclist crossing the junction.	
	
RECOMMENDATION	
It is recommended that adequate lighting is provided.	

PROBLEM 3.3.3	
Location	A629 Penistone Road Toucan crossing and A629 Penistone Road / North Road pedestrian and cycle crossing facilities.
Summary	Potential for a collision in darkness involving a vehicle and a pedestrian / cyclist.
There will be an increase in pedestrian and cyclist activity as a result of the development and the associated Toucan and pedestrian crossing and cycle right-turn facility. There is potential for a collision in darkness involving a vehicle and a pedestrian / cyclist using the facilities if the road lighting is inadequate.	
RECOMMENDATION	
It is recommended that adequate lighting is provided.	

****** END OF IDENTIFIED PROBLEMS AND RECOMMENDATIONS MADE AT THIS STAGE 1 ROAD SAFETY AUDIT ******

4 Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG 119.

ROAD SAFETY AUDIT TEAM LEADER	
Name:	Mark Hedley
Signed:	
Position:	Partner
Organisation:	Road Safety Initiatives LLP
Date:	27 February 2025
ROAD SAFETY AUDIT TEAM MEMBER	
Name:	Martin Morley
Signed:	
Position:	Partner
Organisation:	Road Safety Initiatives LLP
Date:	27 February 2025

Appendices, Figures and Tables

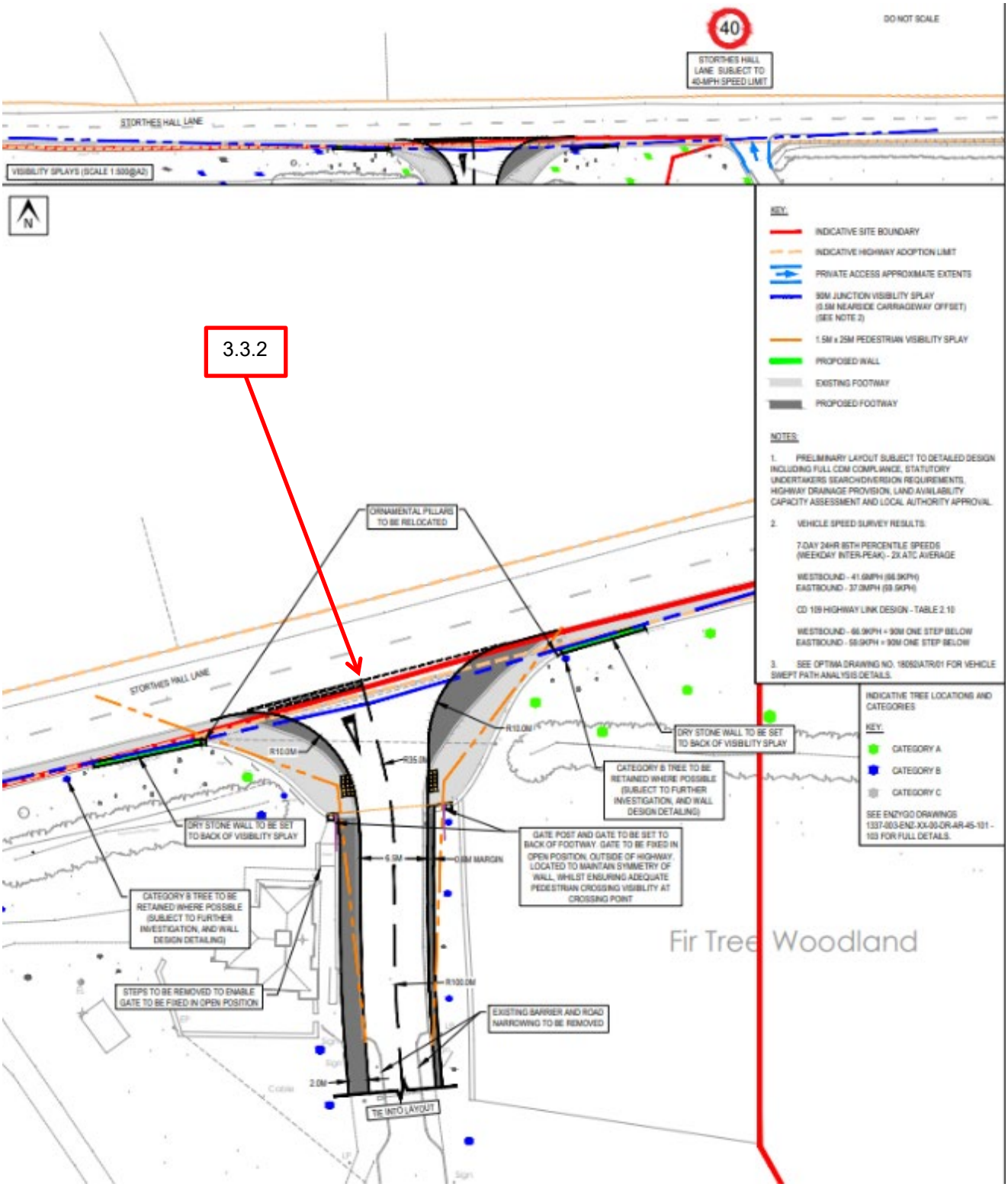
Appendix A: Scheme Documents Issued for Road Safety Audit

DRAWING/DOCUMENT REFERENCE	REV	TITLE
18092/GA/01	E	Proposed Northern Access Road Layout
18092/ATR/01	A	Northern Access Swept Path Analysis
18092/GA/02	F	Proposed Southern Access Road Layout
18092/ATR/02	-	South Access Swept Path Analysis
18092/GA/05	B	Proposed Penistone Road/Storthes Hall Lane/North Road Improvements Option B – General Arrangement
18092/ATR/04	B	Proposed Penistone Road/Storthes Hall Lane/North Road Improvements Option B – Vehicle Swept Path Analysis
18092/IN/06	B	Proposed Penistone Road/Storthes Hall Lane/North Road Improvements Option B – Proposed Traffic Regulation Orders
-	-	Structure Plan 12 – Storthes Hall, Kirkburton[1]
-	-	Traffic Flow Diagrams
(Chapter 5 from Transport Assessment Addendum)	-	Traffic Impact Assessment
(Summary note of review undertaken by Kirklees UTMC – 06/02/25)	-	2023/93667 Storthes Hall Park Residential development
(Collision Data)	-	Storthes Hall Development 5 Years to 27-10-24
250214 Storthes Hall, Kirkburton Stage 1 Road Safety Audit Brief (rev 2)	14/02/25	Stage 1 RSA Brief

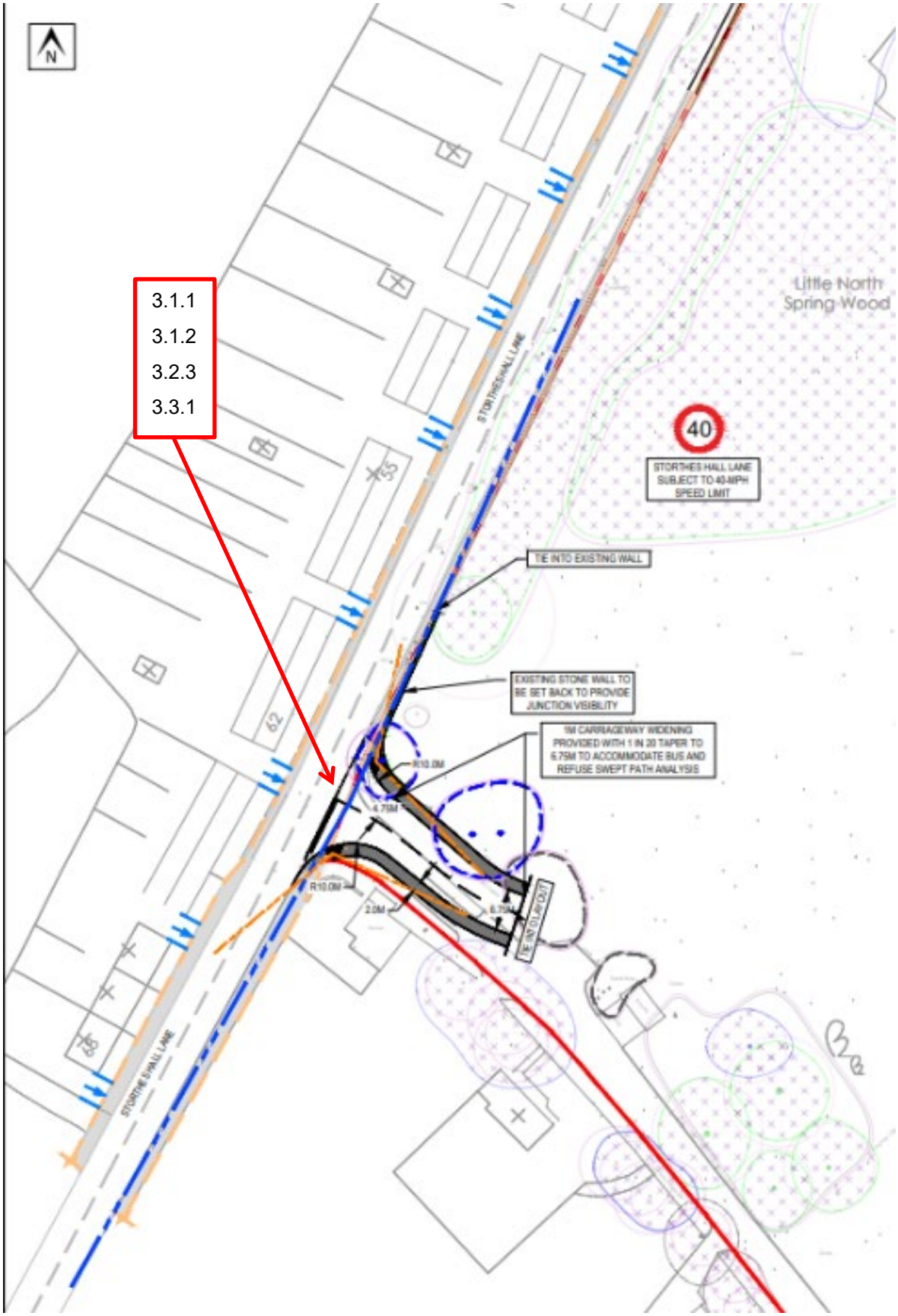
[1] The internal road and footpath layout of the development is outside the scope of this Road Safety Audit.

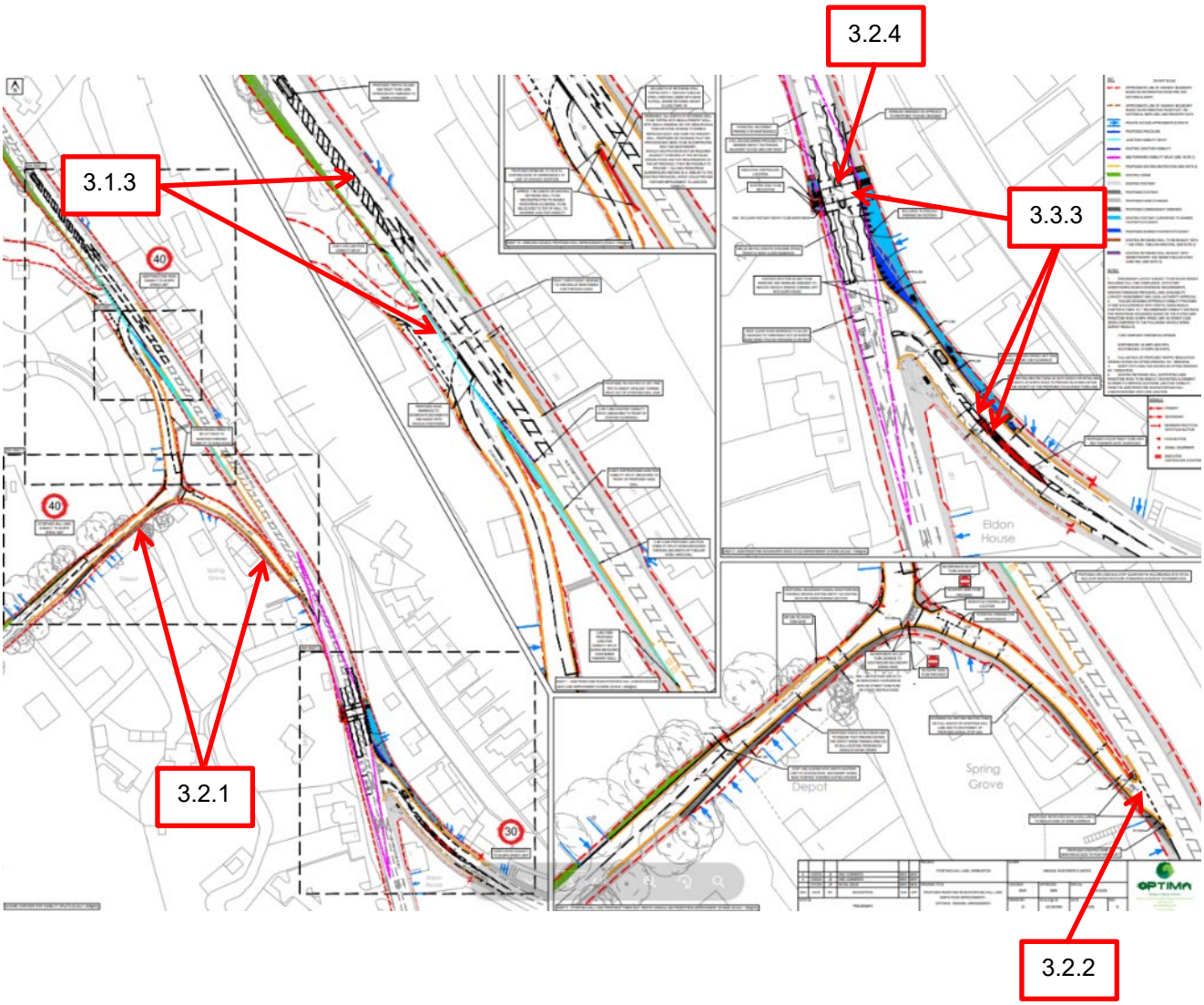
Appendix B: Location Plans

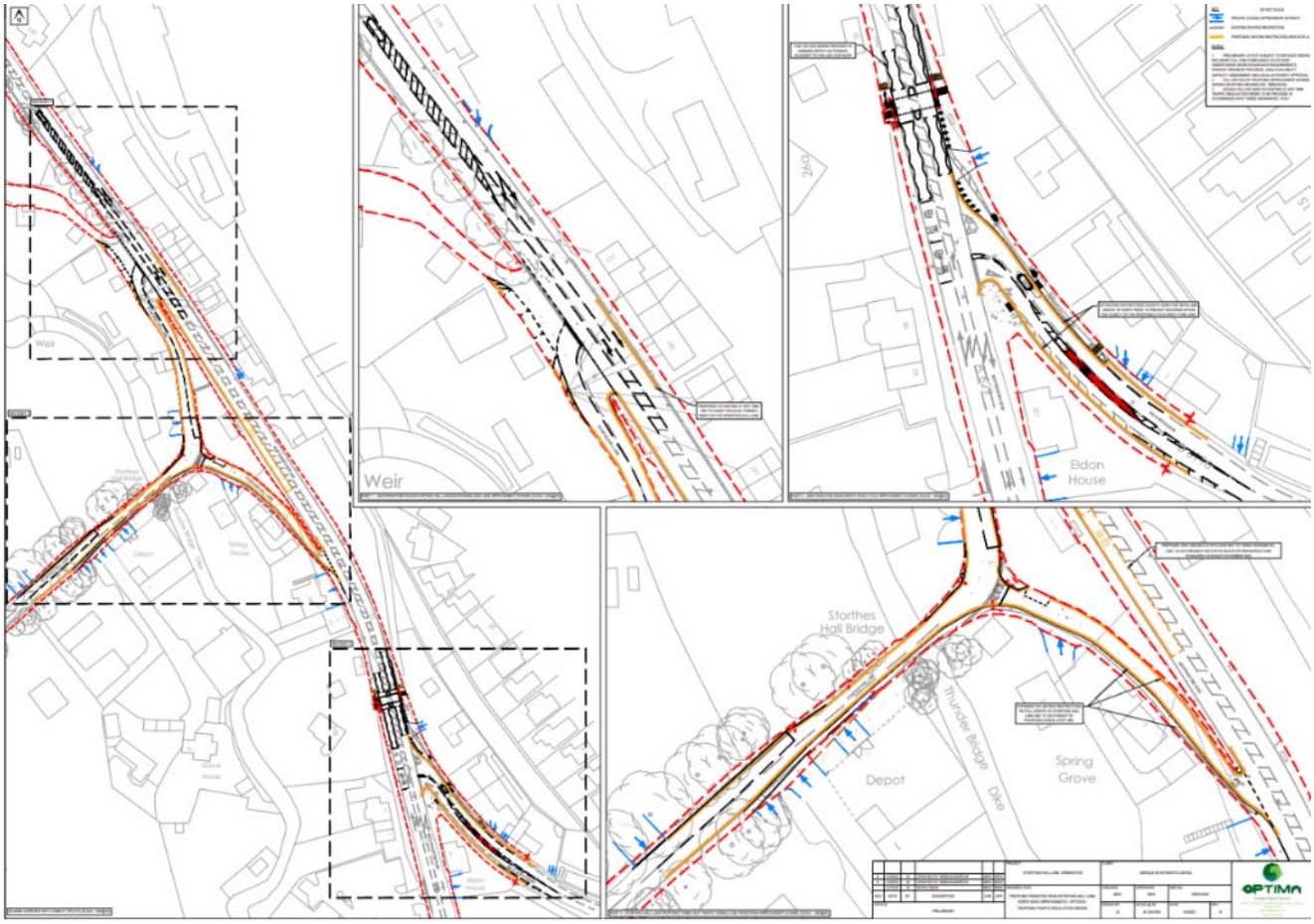
Northern Site Access



Southern Site Access




3.2.4
3.1.3
3.3.3
3.2.1
3.2.2
Eldon House
Spring Grove
Depot
OPTIMA


Weir
Eldon House
Storthes Hall Bridge
Depot
Thunder Bridge Dike
Spring Grove
OPTIMA

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