OPTIMA
Intelligent Highways Solutions

Blackmoorfoot Road, Huddersfield
Proposed Access Arrangements
Stage 1 Road Safety Audit

May 2025 (Rev 1)

Prepared on behalf of

Miller Homes & Vistry Homes Limited

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Quality Management

Blackmoorfoot Road, Huddersfield - Stage 1 Road Safety Audit Project No: 24040				
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Issue/revision	**Initial Issue**	**Revision 1**	**Revision 2**	**Revision 3**
Remarks	Draft	Final		
Date	7th May 2025	8th May 2025		
Prepared by	M Whittaker	M Whittaker		
Signature				
Checked by	J Stackhouse	J Stackhouse		
Signature				
Authorised by	M Whittaker	M Whittaker		
Signature				

Content

APPENDICES

1. Introduction and Background

1.1 PROJECT DETAILS

Table 1.1 Project Details

Report title	Stage 1 Road Safety Audit
Date	8th May 2025
Document reference and revision	250508 Initial Issue
Prepared by	Optima Highways
On behalf of	Kirklees Council

1.2 INTRODUCTION

1.2.1 The objective of the road safety audit process is to provide an effective, independent review of the road safety implications of engineering interventions for all road users and to suggest modifications that could improve road safety. The road safety audit process is not a technical check of compliance with design standards.

1.2.2 Highway schemes subject to the Road Safety Audit process are conducted at the following design stages:

Stage 1 – Completion of Preliminary Design;

Stage 2 – Completion of Detailed Design;

Stage 3 – Completion of Construction; and

Stage 4 – Post-Opening Monitoring.

1.2.3 Optima Highways and Transportation Consultancy Ltd (Optima) has been appointed by Miller Homes and Vistry Homes Limited to undertake a Stage 1 Road Safety Audit of the proposed access arrangements associated with a proposed residential development on land off Blackmoorfoot Road and Felks Stile Road, Huddersfield.

1.2.4 The Road Safety Audit has been carried out by experienced Road Safety Engineers employed by Optima, who are independent from the design. The Road Safety Audit Team membership has been approved by Adam Darwin of Kirklees Council (Overseeing Organisation), which consisted of:

Martin Whittaker FIHE MSoRSA

Road Safety Audit Team Leader (Director, Optima)

James Stackhouse BA (Hons) MCIHT AMSoRSA

Road Safety Audit Team Member (Senior Transport Planner, Optima)

1.3 PREVIOUS ROAD SAFETY AUDITS

1.3.1 The Road Safety Audit Team has not been made aware of any previous Road Safety Audits of the proposed works.

1.4 DEPARTURE FROM STANDARD

1.4.1 The following departures from standard are referenced within the Road Safety Audit Brief contained at Appendix A:

- The ghost island right-turn tapers are below the recommended minimum of 1:20 (1:15 – 1:16 are achieved) identified in CD123 of DMRB (Section 6.1) and TSM Chapter 5. However, this is mitigated by the introduction of the required speed limit gateway improvements and staggered junction ahead warning signage (2 no. signs including secondary VAS) mentioned in the separate note relating to the speed limit changes.
- The radii and corner tapers on the minor arm of the site access are not in full accordance with the recommendations in CD123 (See paragraph 5.6.3). However, they have been informed by DMRB and local design guidance contained in the Kirklees Highway Design Guide SPD (e.g. with 10m junction radii). Based on the Swept Path Analysis (SPA) checks, the radii and corner tapers are adequate to allow the design vehicles to turn to/from the access 'in-lane' in all directions.
- Refuge islands are provided on Blackmoorfoot Road (1.5m wide) and the site access minor arm (2.0m wide). The island on the site access arm is below the recommended min. width of 3m in LTN 1/20 for cyclist use. However, this is considered to be adequate given it will be very lightly used, and as it can still accommodate the majority of cycle types. Whilst a wider island may be possible, this has not been shown, as it would further impact on tree loss, and is not considered necessary.
- Pedestrian visibility of 1m x 70m is achievable at the crossing point on the south side of the Blackmoorfoot, at the pedestrian refuge island. This should be adequate based on the '1 step below desirable minimum' SSD value in DMRB.
- A 1.2m wide splitter island is also proposed on Blackmoorfoot Road in advance of the cycle right turn pocket, to provide protection to waiting cyclists and discourage overtaking through the ghost island markings. The physical gaps between kerbs at the island is 3.7m, which is below the recommend min. width of 4m in LTN 1/20. However, the island is an important safety feature for cyclists waiting in the right turn pocket, and a wider gap (or narrower island) is not possible without compromising other design parameters. Deflection arrows are proposed on the southwest bound approach to the island, to discourage drivers overtaking cyclists on approach.

1.5 SCHEME DETAILS

1.5.1 A full description of the proposed works is provided within the Road Safety Audit Brief contained at Appendix A, which are summarised below:

- Formation of a ghost island priority junction onto Blackmoorfoot Road.
- Formation of a simple priority junction onto Felks Stile Road.
- Both junctions are linked via an internal spine road (not subject to this Stage 1 Road Safety Audit) accommodating a new bus route.
- Provision of a shared footway/cycleway along the site frontage along Blackmoorfoot Road and northwest side of the Felks Stile Road access.
- Relocation of the existing speed limit terminal points on both Blackmoorfoot Road and Felks Stile Road.

- Improved signing and lining along Blackmoorfoot Road and Felks Stile Road.
- Improvements to the Blackmoorfoot Road/Felks Stile Road to include increased junction radii, footway widening, crossing points and visibility improvements.

1.5.2 The following drawings set out within Table 1.2 were provided to the Road Safety Audit Team for the purposes of the Audit:

Table 1.2 Drawings

Designer	Drawing No.	Revision	Title
Felks Stile Road			
ARP	425-92-103.01	P	General Arrangement of S278 Works for Outline Agreement
ARP	425-92-103.08	F	Section 278 Works Signing & Lining Layout
ARP	0425/92/SK17	E	Swept Path Analysis Refuse Vehicle and Bus Vehicle
ARP	425/92/101	D	Section 185 Layout Drainage Diversion Works
Blackmoorfoot Road			
AMA	AMA-22224-SK-060	P03	Proposed Site Access on Blackmoorfoot Road
AMA	AMA-22224-SK063-1.1	P01	Swept Path Analysis of a Bus (11.3) – Blackmoorfoot Road
AMA	AMA-22224-SK063-1.2	P01	Swept Path Analysis of a Refuse Vehicle – Blackmoorfoot Road
AMA	AMA-22224-SK064-1.1	P01	Swept Path Analysis of a KC Refuse Vehicle (11.85m) – Sand House Lane
AMA	AMA-22224-SK064-1.2	P01	Swept Path Analysis of a LWB Panel Van (7.2m) – Sand House Lane
AMA	AMA-22224-SK065-1.1	P01	Swept Path Analysis of a KC Refuse Vehicle (11.85m) – Sand House PH
AMA	AMA-22224-SK065-1.2	P01	Swept Path Analysis of a LWB Panel Van (7.2m) – Sand House PH
AMA	AMA-22224-SK067	P01	Swept Path Analysis of a LWB Panel Van (7.2m) – Matlock House

1.5.3 The following additional information set out within Table 1.3 has also been supplied to the Road Safety Audit Team.

Table 1.3 Additional Information

Author/Designer	Report/Drawing Title	Date
AMA	Stage 1 Road Safety Audit Brief	1st May 2025
Croft	Transport Assessment	July 2020
AMA	Highways Note on Speed Limit Measures on Blackmoorfoot Road and Felks Stile Road	3rd April 2025
Nineteen47	N2114 420 rev H Movement Plan	17th April 2025
N/A	STATS19 Collision Records 5 years to 28/02/2025	N/A

1.6 TERMS OF REFERENCE AND AUDIT DETAILS

1.6.1 This Road Safety Audit has been undertaken in accordance with GG 119 and a Road Safety Audit brief prepared by Andrew Mosely Associates (Design Organisation) and approved by the Overseeing Organisation, which is contained at Appendix A.

1.6.2 The above plans and information have been examined prior to the site visit, analysed in detail on site and at the offices of Optima following the visit.

1.6.3 A Site visit was carried out by the Road Safety Audit Team on Friday 2nd May 2025 between the hours of 13:30 and 14:45. The weather was fine/dry. Moderate traffic volumes were observed

along both Blackmoorfoot Road and Felks Stile Road, with a limited number of pedestrians and cyclists.

1.6.4 The Road Safety Audit considers and reports only on the safety implications of the proposed scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

1.6.5 Any recommendations included within this report are intended to identify proportionate means of eliminating or mitigating the concern raised and should not be regarded as being prescriptive design solutions. There may be alternative methods of addressing a problem that would be equally acceptable and these should be considered in full by the Designer.

1.6.6 The reference and location of problems have been indicated on the plan contained at Appendix B, where appropriate.

2. Items Raised at Stage 1 Road Safety Audit

2.1 FELKS STILE ROAD

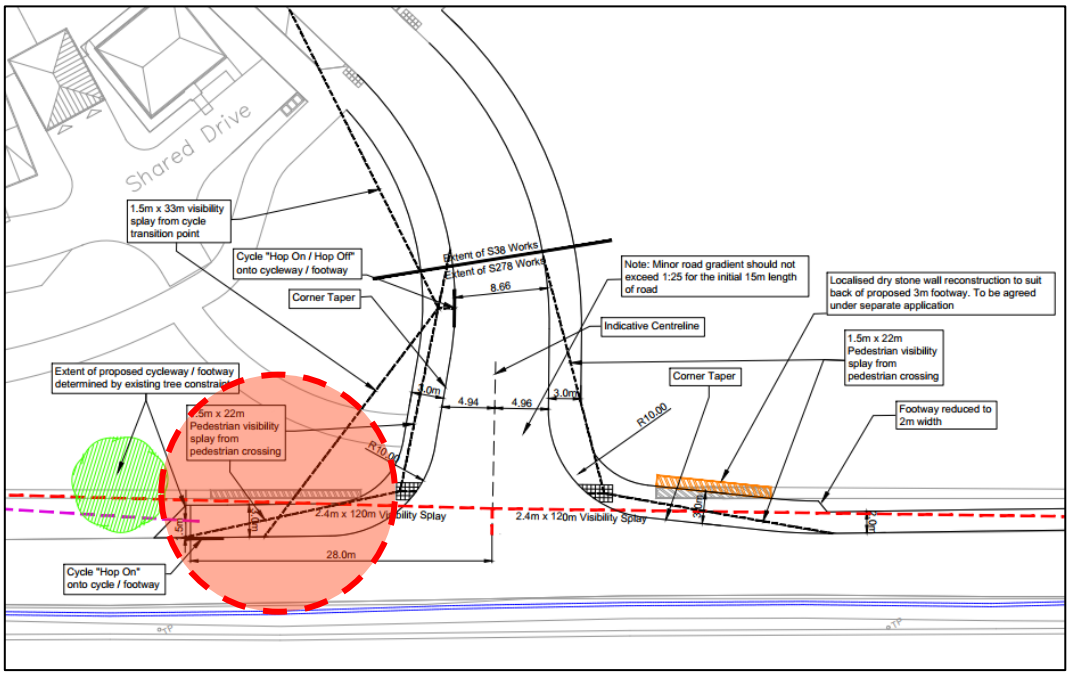
Table 2.1 Problem 1

PROBLEM	
Location	Felks Stile Road access.
Summary	Visibility from the crossing may be restricted by an existing boundary wall.

A pedestrian visibility splay of 1.5m x 22m is shown from the northwestern crossing position onto Felks Stile Road, avoiding an existing boundary wall located at the back of the shared footway/cycleway. A larger visibility splay of 1.5m x 33m is shown from the cycle transition point, which relies on the removal of the existing boundary wall. Although the wall is hatched grey, which may suggest it is being removed (consistent with the wall reconstruction on the opposite side of the junction), there are no accompanying notes on the drawing or within the key to confirm its removal.

Should the wall be retained, visibility from the cycle transition point would be restricted, increasing the potential for a vehicle/cycle collision.

The Road Safety Audit Team note that a 1.5m 'X' distance has been applied to the cycle transition point rather than 2.4m required within LTN 1/20, Table 5.6, however if the wall is to be removed, visibility can be achieved from the greater set back position.



Recommendation

It is recommended that the existing wall is removed to achieve appropriate visibility from the cycle transition point and that suitable notes are added to the drawing to confirm this.

Table 2.2 Problem 2

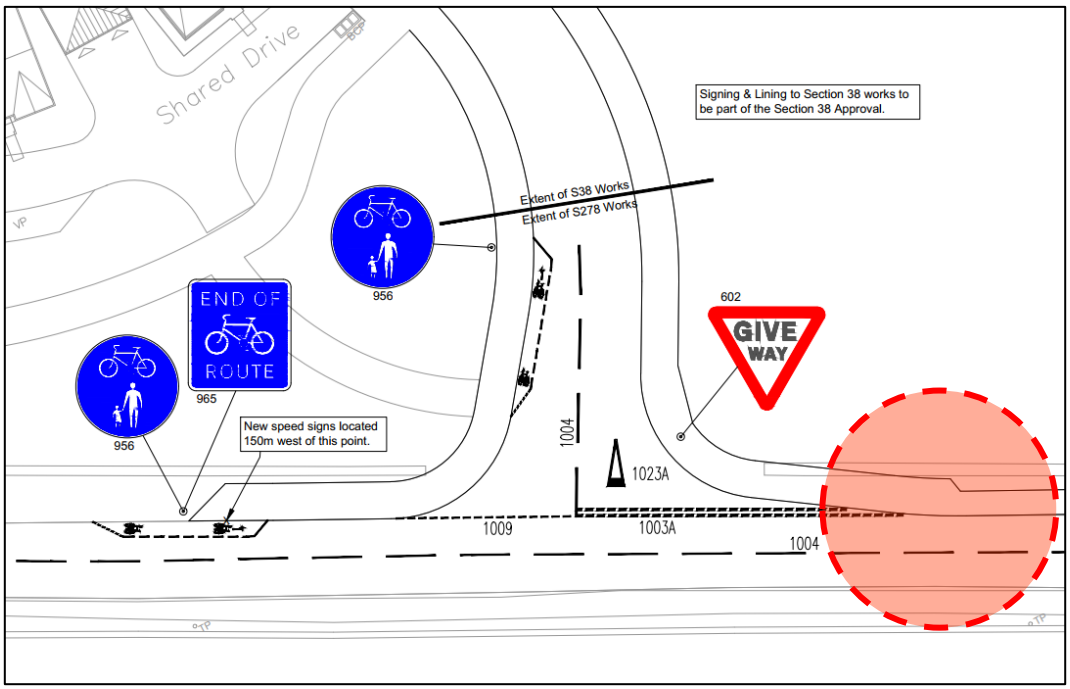
PROBLEM	
Location	Felks Stile Road access.
Summary	Lack of cycle discharge position.

The Road Safety Audit Brief states that a 3.0m wide shared footway/cycleway is to be provided on the northwest side of the access, however it is noted that the Nineteen47 Movement Plan (drawing 420 rev I), indicates that 3.0m wide shared footway/cycleways are proposed along both flanks of the site access.

The northwestern flank of the junction is provided with cycle 'hop on/hop off' facilities and associated shared use path and end of route signage and advisory cycle lane markings.

However, the facility on the southeastern flank continues around the junction radius and narrows to a 2.0m wide footway. In this location, no dropped kerbs, end of cycleway signage, hazard paving or advisory cycle lane markings are provided.

As a result, cyclists may either continue along the footway, resulting in potential cycle/pedestrian collisions or re-enter the carriageway at an unsuitable location, over a full hight kerb, which could lead to a potential vehicle/cyclist collision.



Recommendation

It is recommended that dropped kerbs, end of cycleway signage, hazard warning paving and advisory cycle lanes road markings are provided.

Table 2.3 Problem 3

PROBLEM	
Location	Felks Stile Road.
Summary	Lack of dropped crossing to the bus stop.
A pedestrian dropped crossing is not provided on the desire line between the development and the existing north westbound bus stop. As a result, pedestrians, including vulnerable road users such as wheelchair users and those with prams or pushchairs, may experience difficulty in crossing the carriageway due to the presence of a full-height kerb along the southern flank of the carriageway. The absence of a dropped crossing may lead to the potential for trips, falls, or vulnerable road users becoming stranded within the carriageway resulting in potential vehicle/pedestrian collisions.	
Recommendation	
It is recommended that a suitable pedestrian crossing facility is provided on the pedestrian desire line between the development and the north westbound bus stop.	

Table 2.4 Problem 4

PROBLEM	
Location	Felks Stile Road.
Summary	The introduction of kerbing along the frontage of the development may result in standing water.
A new footway with kerbs is to be introduced along the full frontage of the Site. Currently, a drainage ditch is provided along the southern boundary of Felks Stile Road, however it appears some surface water may drain into the existing grass verge along its northern flank. The introduction of kerbing along the full length of frontage will prevent this and may overwhelm the existing gully at the Blackmoorfoot Road/Felks Stile Road junction. The absence of formal drainage may result in standing water, leading to potential loss of control incidents, particularly during poor or freezing weather conditions.	
Recommendation	
It is recommended that suitable drainage is provided along the frontage of the Site as part of the detailed design of the scheme, or it is demonstrated that the existing drainage system is suitable to accommodate the increased run off.	

Table 2.5 Problem 5

PROBLEM	
Location	Felks Stile Road access.
Summary	The presence of existing vegetation and a parking layby restricts visibility for emerging vehicles.
Visibility splays of 2.4m x 120m are indicated on drawings provided, however visibility to the northwest of the access may be restricted (particularly during summer months) due to the presence of vegetation and an overhanging tree. In addition, although it is acknowledged that the existing layby to the northwest of the access may not be frequently occupied, when in use (as illustrated in the image below) a parked vehicle may also restrict visibility to/from the junction. Insufficient visibility could lead to a collision between vehicles emerging from the Site and those travelling along Felks Stile Road. 	
Recommendation	
It is recommended that all vegetation and obstructions within the visibility splay are cleared and appropriately maintained during the lifetime of the development and that the existing layby is removed or relocated outside the visibility splay.	

2.2 BLACKMOORFOOT ROAD

Table 2.6 Problem 6

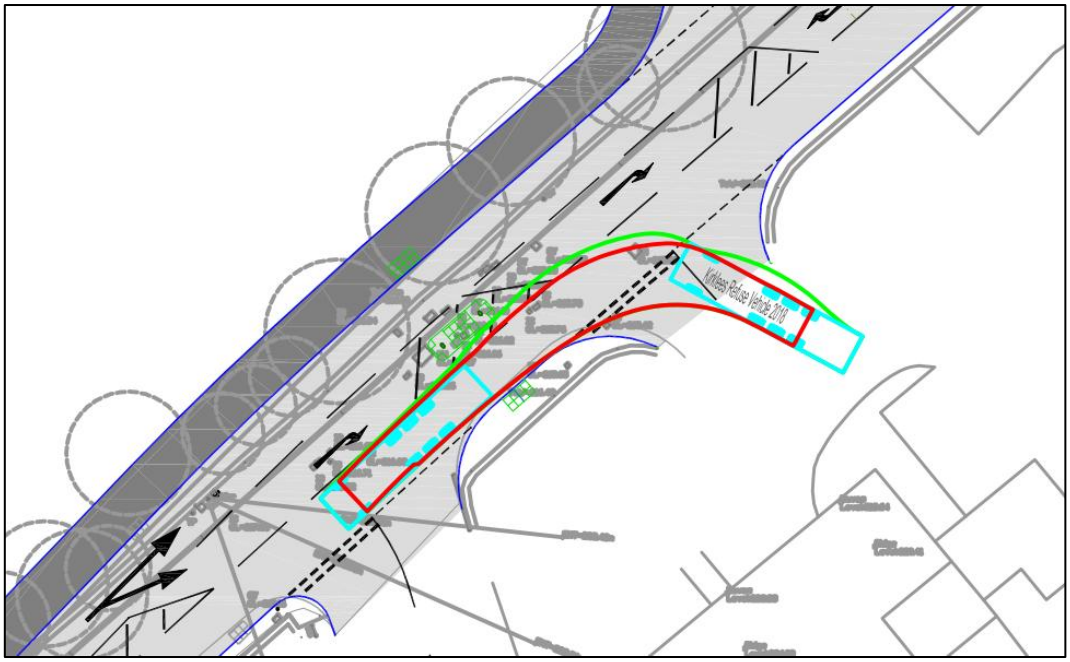
PROBLEM	
Location	Blackmoorfoot Road – Public House access.
Summary	Potential for refuse/delivery vehicles overrunning the pedestrian refuge island.

A swept path analysis is provided of a Kirklees refuse vehicle turning left out of The Sands House public house onto Blackmoorfoot Road.

The analysis indicates that the manoeuvre is extremely tight, with minimal margin for error, due to the proximity of the proposed pedestrian refuge island located between the public house access and Sands House Lane. Based on the analysis presented, there appears to be a risk that larger vehicles could overrun or collide with the refuge island.

Furthermore, the assumed starting position and orientation of the vehicle may not be practically achievable when considering the internal layout of the public house and the location of the bin store. In reality, larger vehicles may adopt an alternative exit path, which may increase the likelihood of a vehicle overrunning or striking the refuge island, resulting in a potential vehicle/pedestrian collision or damage to the street furniture.

It is worth noting that the analysis adopts an inconsistent approach, with the right turn entry movement showing the vehicle travelling to the western frontage of the site, whereas the exit assumes an origin from the rear of the public house.



Recommendation

It is recommended that the swept path analysis is revisited to ensure the exiting vehicle is realistically positioned and oriented. Following the revised analysis, should the swept path impact on the proposed refuge island, it is further recommended that the island be repositioned or redesigned to ensure all vehicle movements can be comfortably accommodated.

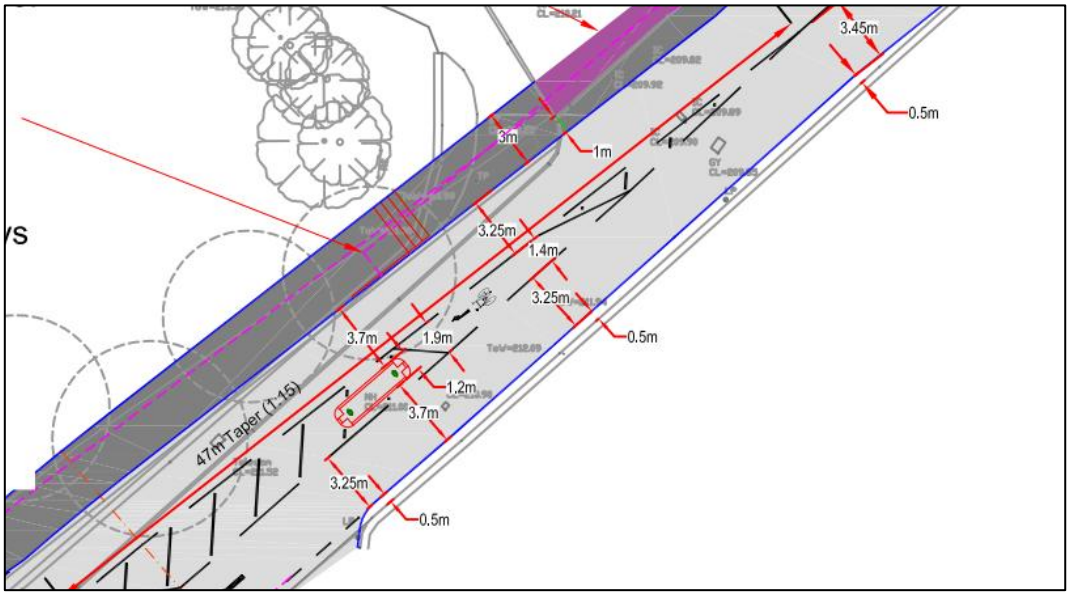
Table 2.7 Problem 7

PROBLEM	
Location	Blackmoorfoot Road access.
Summary	The splitter island may result in vehicle/cyclist collisions.

The proposed design includes a 1.2m wide splitter island intended to protect cyclists turning right from Blackmoorfoot Road into the development. Through lanes of 3.7m are provided adjacent to the splitter island.

Guidance contained within LTN 1/20 and Chapter 6 of the Traffic Signs Manual 'Traffic Control' state that lane widths between 3.2m and 3.9m should be avoided as it can encourage drivers to attempt unsafe overtaking of cyclists, when there is insufficient space to do so.

Whilst the Road Safety Audit Team agrees that the splitter island is an important feature of the scheme, as a consequence, westbound and eastbound cycle traffic could be 'squeezed' by drivers misjudging the passing clearance, resulting in a potential vehicle/cyclist collisions.



Recommendation

The Road Safety Audit Team's preferred option would be to provide lane widths of 4.0m past the splitter island, consistent with the pedestrian refuge island opposite the public house. However, the Overseeing Organisation has confirmed that this is not feasible, due to the resultant impacts on either the taper length or the right turn lane length.

As such, it is recommended that either the right turn cycle facility and island are removed or additional measures are provided to discourage overtaking such as widening the island, providing red thermoplastic surfacing within the central hatching on both the approach to and around the island (to visually reinforce the through lane width), provide road markings (cycle symbol for example) past the island to indicate a cyclists expected road positioning or whether warning signage could be provided.

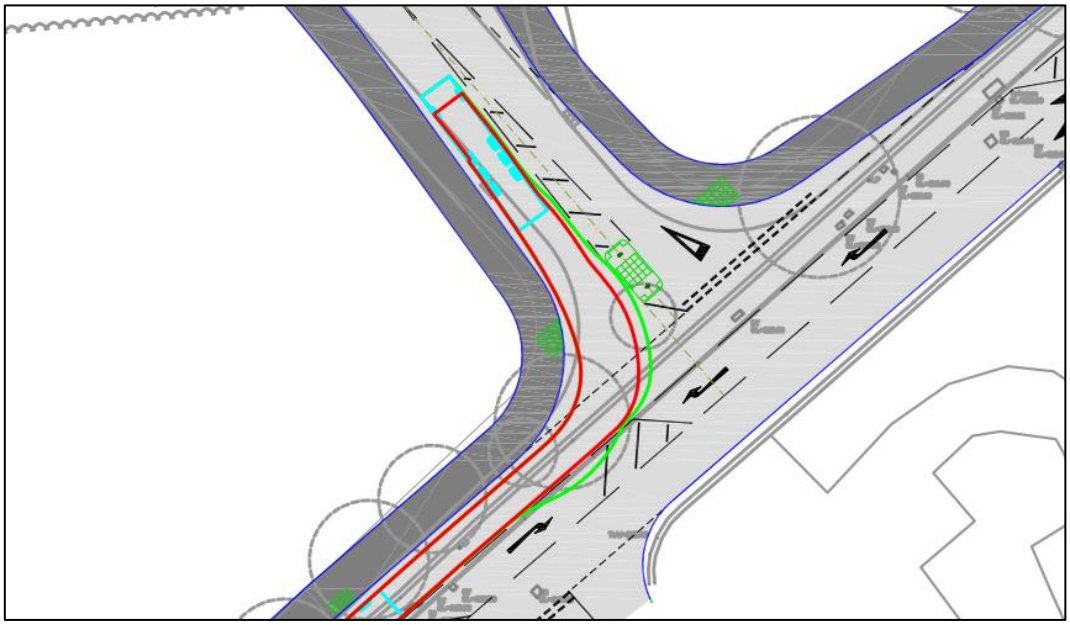
Table 2.8 Problem 8

PROBLEM	
Location	Blackmoorfoot Road access.
Summary	The width of the pedestrian refuge island may result in vehicle/cyclist collisions.

The side arm of the junction includes a 2.0m wide pedestrian refuge island, connecting to a 3.0m wide shared footway/cycleway along Blackmoorfoot Road. The Road Safety Audit Brief states that the reduced width of the island has been provided in order to minimise tree loss.

The swept path analysis confirms that both buses and refuse vehicles entering the development require the full width of the lane, with minimal margin for error, passing in very close proximity to the island.

Although the Road Safety Audit Team acknowledges that use of the island by larger bicycles may be limited, there is concern that the narrower island width could lead to vehicles encroaching on cyclists using the island, if a cyclist (particularly a less experienced rider) does not position themselves entirely within the island, increasing the risk of a vehicle/cyclist collision.



Recommendation

It is recommended that the island is increased to 3.0m in accordance with LTN 1/20 guidance.

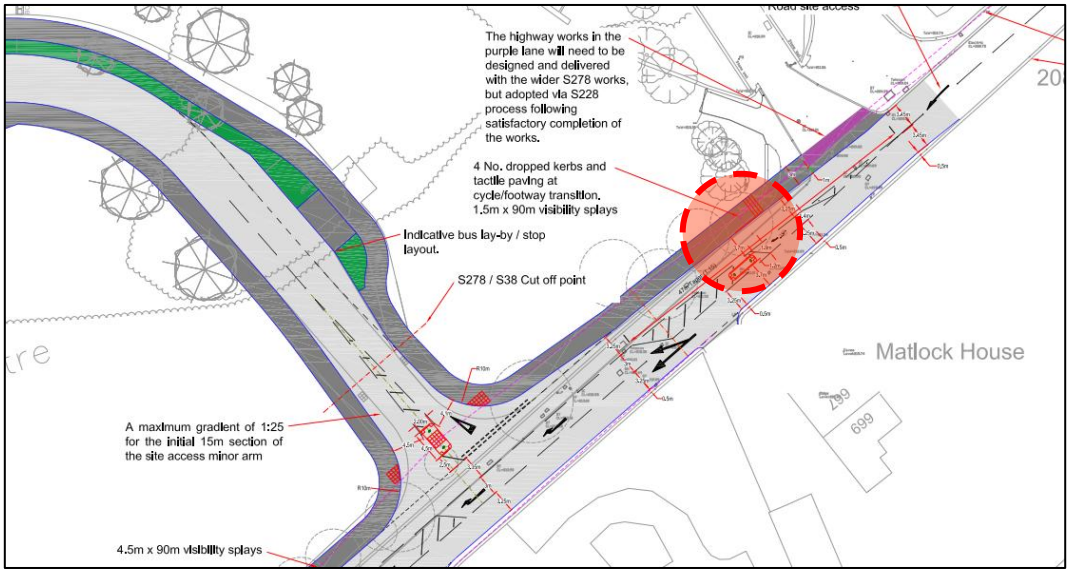
Table 2.9 Problem 9

PROBLEM	
Location	Blackmoorfoot Road access.
Summary	Lack of advisory cycle lane road markings

A dropped kerb, tactile paving and advisory cycle lane road markings are provided to the west of the junction to denote the start of the shared footway/cycle provision. At the end of the shared footway/cycle, dropped kerbs and tactile paving are provided, however the advisory cycle lane markings have not been provided (consistent with the Felks Stile Road junction).

The provision of a short length of advisory cycle lane, raises awareness of the likelihood of a cyclist entering the carriageway, therefore the absence of the road markings could increase the potential for a cyclist being struck by an oncoming vehicle, discharging into the carriageway.

Although it is acknowledged that this is a preliminary design, the use of tactile paving at the start and end of the shared facility, rather than corduroy, may cause confusion for visually impaired users by failing to distinguish between pedestrian and cycle routes.



Recommendation

It is recommended that a short length of advisory cycle lane road markings are provided at the end of the shared footway/cycleway and that the tactile paving is stipulated corduroy paving at the detailed design stage.

Table 2.10 Problem 10

PROBLEM	
Location	Blackmoorfoot Road pedestrian crossing.
Summary	Pedestrians are encouraged to walk on the carriageway.

A new pedestrian refuge island is proposed between the development and the existing public house. In order to accommodate the crossing, a short length of footway is proposed along the frontage of the public house, however this footway terminates before reaching both the vehicular access to the public house and the Blackmoorfoot Road/Sands House Lane junction. As a result, pedestrians accessing the public house must either walk within the bell mouth of the vehicular access or walk along the edge of the carriageway to reach the pedestrian access located along Sands House Lane. The absence of a suitable pedestrian connection may increase the potential for a pedestrian/vehicle collision.

Recommendation

It is recommended that the proposed footway is extended around the Blackmoorfoot Road/Sands House Lane junction, using the apparent unused area of the carriageway along the eastern flank of Sands house Lane, in order to connect with the existing pedestrian access to the public house.

2.3 BLACKMOORFOOT ROAD/FELKS STILE ROAD

Table 2.11 Problem 11

PROBLEM	
Location	Blackmoorfoot Road/Felks Stile Road access.
Summary	Visibility to the southwest is restricted.

Visibility at the Blackmoorfoot Road/Felks Stile Road junction is restricted in both directions, due to the narrow footway and presence of a stone boundary wall.

Visibility to the northeast is restricted to 2.4m x 20.8m (as noted on drawing 425-92-103.01 rev P), but is proposed to be improved to 2.4m x 120m by widening the footway and reconstructing the boundary wall.

The existing level of visibility to the southwest is not indicated on the drawing, but was observed to fall well short of 120m. Although it is noted that enhanced speed limit measures are proposed on the approach to the junction, it is considered unlikely that these alone would reduce speeds to align with the level of visibility provided.

The restricted visibility and increased use of the junction resulting from the development, may increase the risk of a vehicle/vehicle collision.

Recommendation

It is recommended that the existing level of visibility is confirmed. If visibility is found to fall short of recommended levels, it is recommended that further speed restraint measures are introduced. The Road Safety Audit Team noted that a substandard ghost island right turn pocket is provided at the junction, which could potentially be removed to allow the footway along Blackmoorfoot Road to be widened. This may allow the giveaway position to be relocated to improve visibility in both directions. This potential solution may also reduce the extent of wall reconstruction identified to the north of the junction.

Table 2.12 Problem 12

PROBLEM	
Location	Blackmoorfoot Road/Felks Stile Road.
Summary	Visibility from the proposed crossing may be restricted.
A new pedestrian crossing with tactile paving is located at the junction of Blackmoorfoot Road and Felks Stile Road. Although it is noted that the existing boundary wall along Blackmoorfoot Road is being set back to improve junction visibility to the northeast, it is unclear from the drawings provided whether the crossing has been positioned to provide appropriate pedestrian visibility. Insufficient intervisibility between pedestrians and approaching vehicles at the crossing point may result in the potential for vehicle/pedestrian collisions.	
Recommendation	
It is recommended that pedestrian visibility splays are indicated on the drawing to demonstrate that suitable visibility can be achieved. If appropriate visibility cannot be provided, it is recommended that the location of the crossing is reviewed and adjusted accordingly.	

2.4 ALL WORKS

Table 2.13 Problem 13

PROBLEM	
Location	Full extent of speed limit changes.
Summary	Signage obscured by existing vegetation.
It was noted that a number of existing signs that are proposed to be upgraded where partially or wholly obscured by existing vegetation, compromising driver awareness of the posted speed limit and potential hazards. Reduced sign conspicuity may reduce the effectiveness of the proposed speed limits and sign enhancements, resulting in higher approach speeds and increasing the potential severity of a collision.	
Recommendation	
It is recommended that visibility to all signage is reviewed and either the signs are relocated or vegetation is removed to ensure unobstructed visibility.	

Table 2.14 Problem 14

PROBLEM	
Location	Full extent of works.
Summary	Potential for collisions during the hours of darkness.
The development will result in an increase in vehicular, pedestrian and cycle traffic. There is currently no existing street lighting provision along Felks Stile Road and the existing lighting along Blackmoorfoot Road may not be sufficient to illuminate the new access. The absence of appropriate street lighting may result in the potential for a collision during the hours of darkness involving a vehicle and pedestrian or cyclist negotiating the junctions or crossings.	
Recommendation	
It is recommended that suitable street lighting is provided at the detailed design stage to ensure that the new junctions, shared footway/cycleway and crossings are suitably illuminated.	

3. Audit Team Statement

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

Road Safety Audit Team Leader

Name: Martin Whittaker FIHE MSoRSA (Membership Number P000075996)

Position: Director

Organisation: Optima Highways & Transportation Ltd

Date: 8th May 2025

Signed:……..

Road Safety Audit Team Member

Name: James Stackhouse BA (Hons) MCIHT AMSoRSA (Membership Number P000093999)

Position: Senior Transport Planner

Organisation: Optima Highways & Transportation Ltd

Date: 8th May 2025

Signed:……..

Appendices

Appendix A Road Safety Audit Brief

Road Safety Audit brief template (DMRB GG119)

Table C.1 Project Summary

Date:	*1st May 2025*
Document Reference:	*RSA Brief Stage 1 – Blackmoorfoot Road, Huddersfield*
Prepared by:	*AMA*
On behalf of:	*Kirklees Council*
AUTHORISATION SHEET	
Project:	*Access into residential development from Blackmoorfoot Road and Felks Stile Road in Huddersfield.*
Report title:	*RSA Stage 1 – Blackmoorfoot Road, Huddersfield*
PREPARED BY:	
Name:	*Alex McGarrell*
Signed:	
Organisation:	*AMA*
Date:	*1st May 2025*
I APPROVE THE RSA BRIEF AND INSTRUCT THE RSA TO TAKE PLACE ON BEHALF OF THE OVERSEEING ORGANISATION	
Name:	*Adam Darwin*
Signed:	
Organisation:	*Kirklees Council*
Date:	*1st May 2025*

Table C.2 General Details

<table>
<tr><td colspan="6">General Details</td></tr>
<tr><td colspan="2">Highway scheme name and road number:</td><td colspan="4">Site Accesses for residential development on Blackmoorfoot Road and Felks Stile Road.</td></tr>
<tr><td>Type of scheme:</td><td colspan="5">Residential</td></tr>
<tr><td rowspan="2">RSA stage tick as appropriate.</td><td>1✓</td><td>~~2~~</td><td>~~3~~</td><td rowspan="2">~~1/2~~</td></tr>
<tr><td colspan="3">~~Interim~~</td></tr>
<tr><td colspan="3">Overseeing Organisation details</td><td colspan="3">Design organisation details</td></tr>
<tr><td colspan="3">Kirklees Council
Civic Centre 1
High Street,
Huddersfield
HD1 2NE

Kirklees Scheme Manager
Adam Darwin
Adam.Darwin@kirklees.gov.uk</td><td colspan="3">AMA
15 St Paul’s Street
Second Floor
Leeds
LS1 2JG

Design Lead
Alex McGarrell
alex@amatp.co.uk</td></tr>
<tr><td colspan="3">Police contact details</td><td colspan="3">Maintaining agent contact details</td></tr>
<tr><td colspan="3">Police are not required at RSA 1</td><td colspan="3">Kirklees Council
Civic Centre
Huddersfield
HD1 1BY</td></tr>
<tr><td colspan="6">RSA team membership</td></tr>
<tr><td colspan="6">Optima
Martin Whittaker (Team Leader TL)
James Stackhouse (Team Member TM)</td></tr>
<tr><td colspan="6">Terms of reference</td></tr>
<tr><td colspan="6">Scheme Designed in Accordance with DMRB documents CD 123, CD 109 and Kirklees Highway Design Guide SPD.
GG119 is the term of reference for the road safety audit.</td></tr>
</table>

Table C.3 Scheme Details

Scheme description/objective
General
It is proposed to construct a new ghost island priority junction access onto Blackmoorfoot Road and simple priority junction on to Felks Stile Road. The site access on Blackmoorfoot Road will be in the form of a ghost island right-turn T-junction. The site access on Felks Stile Road will be in the form of a simple priority T-junction. These two access points will provide the primary routes into a major new housing development (700 dwellings, 70 bed care home and local centre). These accesses will be connected by an internal spine road (not subject to this RSA1), which will accommodate a new bus route. *The site access proposals incorporate combined cycle/footways to enable pedestrians and cyclists to safely enter and exit the site, and facilitate key turning movements (including outbound right turners) for cyclists away from general traffic, in accordance with LTN 1/20 principles. This includes shared cycle/footways along the full extent of the development sites Blackmoorfoot Road site frontage, which have been designed to enable these to be extended further north in future (e.g. associated with an adjacent Kirklees Local Plan development site). A shared cycle/footway is proposed on the northwest side of the Felk Stile road access to facilitate left in and right out cycle movements to/from the site. A footway only is proposed on the southwest side of the Felk Stile Road access, to ensure that there is a footway running along the sites main spine road, where pedestrians (including those from the adjacent care home) are free from cycle traffic. Further information showing the internal movement strategy is shown on the Movement Framework Plan (n2114_420I).* *To accommodate the site access proposals, it is proposed to relocate the existing speed limit terminal points on Blackmoorfoot Road and Felk Stile Road, as indicated on the site access drawings. A package of signing and lining improvements are also proposed on Blackmoorfoot Road and Felk Stile Road to encourage better speed compliance and address existing speeding issues (see attached speed data). These signing and lining proposals are shown indicatively in the document entitled 'Highways Note on Speed Limit Measures on Blackmoorfoot Road and Felks Stile Road' (and the plan at Appendix A) produced by AMA and dated 03/04/25. These signing and lining proposals also need to be reviewed as part of this RSA1, alongside the site access S278 works proposals.* *Some of the key design issues relating to the proposed access arrangements are as follows:*

Blackmoorfoot Road Site Access

- *The site access works have been designed based on 60B kph design speed and SSD parameters taken from CD109 of DMRB (e.g. 70-90m SSD).*
- *To discourage high traffic speeds though the junction, narrower 3.25m running lanes have been provided, which are the minimum width that would be accepted by the Kirklees S278 Team. The narrower through lanes also enable a min. 0.5m wide kerbed hard margin to be provided on the south side of Blackmoorfoot Road, without requiring additional land take from the site, and also helps to maximise the tapers at either end of the ghost islands markings.*
- *Whilst the ghost island tapers have been maximised, they are still below the recommended minimum of 1:20 (1:15 – 1:16 are achieved) identified in CD123 of DMRB (Section 6.1) and TSM Chapter 5. However, this is mitigated by the introduction of the required speed limit gateway improvements and staggered junction ahead warning signage (2 no. signs including secondary VAS) mentioned in the separate note relating to the speed limit changes.*
- *It is a requirement of the planning permission to close off all redundant site accesses, which includes the Standard Drive access (to the northeast of the proposed access). As part of these works, a 3m wide section of footway is to be provided across the redundant access, to enable the shared cycle / footway that is proposed along the site frontage to be extended north in future (e.g. in relation to the adjacent Local Plan site). To enable the exit taper from the site access's ghost island to be maximised (but still below standard, as mentioned above), the sketch shows a minimum 1m footway being achieved within the existing highway boundary. The remaining 2m footway width will then need to be provided within the land at the back of highway, which is unregistered, but is within the development sites redline boundary. These additional works will need to be delivered in conjunction with the S278 works (and to highways specification); and once complete would seek to be adopted via the S228 process. In the unlikely event that the S228 adoption was unsuccessful for any reason, the design still enables a footway with a minimum width at the 'pinch-point' of 1m within the existing highway boundary, which would comply with the minimum footway width (for short lengths) set out in DfT guidance document 'Inclusive mobility'.*
- *A fully compliant right turn lane (RTL) is shown for the site access. The PICADY modelling from the TA for the original outline planning consent shows that the maximum right-turn queue from Blackmoorfoot Road to the site access is 1.5 pcus, and can therefore be accommodated.*

- *The radii and corner tapers on the minor arm of the site access are not in full accordance with the recommendations in CD123 (See paragraph 5.6.3). However, they have been informed by DMRB and local design guidance contained in the Kirklees Highway Design Guide SPD (e.g. with 10m junction radii). Based on the Swept Path Analysis (SPA) checks, the radii and corner tapers are adequate to allow the design vehicles to turn to/from the access 'in-lane' in all directions.*
- *Refuge islands are provided on Blackmoorfoot Road (1.5m wide) and the site access minor arm (2.0m wide). The island on the site access arm is below the recommended min. with of 3m in LTN 1/20 for cyclist use. However, this is considered to be adequate given it will be very lightly used, and as it can still accommodate the majority of cycle types. Whilst a wider island may be possible, this has not been shown, as it would further impact on tree loss, and is not considered necessary.*
- *Pedestrian visibility of 1m x 70m is achievable at the crossing point on the south side of the Blackmoorfoot, at the pedestrian refuge island. This should be adequate based on the '1 step below desirable minimum' SSD value in DMRB.*
- *A 1.2m wide splitter island is also proposed on Blackmoorfoot Road in advance of the cycle right turn pocket, to provide protection to waiting cyclists and discourage overtaking through the ghost island markings. The physical gaps between kerbs at the island is 3.7m, which is below the recommend min. width of 4m in LTN 1/20. However, the island is an important safety feature for cyclists waiting in the right turn pocket, and a wider gap (or narrower island) is not possible without compromising other design parameters. Deflection arrows are proposed on the southwest bound approach to the island, to discourage drivers overtaking cyclists on approach to the island.*
- *Measures to improve safety for pedestrians accessing and waiting at the unmarked southwest bound bus stop on Blackmoorfoot Road, to the northeast of the site access and located in the carriageway, have been considered by the scheme designers and Kirklees Council (HDM in consultation with the Highway Safety Team). However, adequate improvements to the bus stop are not achievable, with the only viable option that has currently been identified being the provision of a 0.85m wide margin adjacent to the bus stop. Whilst this may provide some improvement over the current situation, this would still not comply fully with design guidance (e.g. it would be below the recommended minimum width of a footway of 1m). Therefore, Kirklees HDM have consulted with WYCA to determine whether the southwest bound bus stop can be removed. Given that there are existing stops within 300m of this bus stop in either direction, and new high quality facilities are to be provided within the development site, WYCA have accepted that this bus stop (but with marked northeastbound stop*

remaining) can be removed when the proposed site access is being implemented. The only physical change that would be necessary to accommodate the bus stop removal will be to amend the bus stop flag (the single flag located on the northeastbound stop side) to confirm that it ceases to be a 'both directions' stop.

Felks Stile Road Site Access

- *Swept path analysis (SPA) includes all vehicle types / movements (as per Blackmoorfoot site access).*
- *Corner tapers have been provided at the access to ensure buses (and refuse vehicle) can turn to/from the access without encroachment on oncoming traffic lanes, and with adequate clearances.*
- *Visibility at the site access and cycle / footway (proposed on northwest side of junction only) transition demonstrated based on the design speed (e.g. 70A kph based on CD109 of DMRB).*
- *Pedestrian visibility splays at the uncontrolled pedestrian crossing across the Felks Stile Road site access demonstrated at 1.5m x 22m.*

Felks Stile Road Site / Blackmoorfoot Road junction

Improvements are also proposed at the Felks Stile Road Site / Blackmoorfoot Road junction, which include:

- Increased junction radius on north side to 10m.
- Widening 2m footway on Felk Stile Road and Blackmoorfoot Road site frontage, which provides a continuous 2m wide footway from the Felk Stile Road access, and provides consequential improvements to the Felks Stile Road Site / Blackmoorfoot Road junction visibility (to the northeast).
- Improved dropped crossing and tactile paving at the Felks Stile Road Site / Blackmoorfoot Road, which also provides access to the northwestbound bus stop on Felk Stile Road
- Changes to the non-standard solid line hatch markings on Blackmoorfoot Road at the Felks Stile Road Site / Blackmoorfoot Road Road junction, and replacement with standard 1040 hatching (at min. 0.8m width recommended in TSRGD/TSM).

Blackmoorfoot Road
Miller Homes are undertaking a sewer diversion on Blackmoorfoot Road as part of their works which involves installing four new manholes in Kirklees highway. There is one manhole being removed which is existing. The plan showing the proposed sewer diversion is appended to this audit brief. Whilst these works will not form part of the S278 works, the Stage1 RSA should take these drainage works into account (e.g. relating to any potential safety issues relating to manhole locations etc).
Design standards applied to the scheme design
DMRB *KC Local Guidance* *LTN 1/20* *Traffic Signs Manual* *TSRGD*
Design Speeds
CD 109 Design Speed of 60B and 70A for Blackmoorfoot Road and Felk Stile Road site accesses respectively.
Speed Limits
30mph at Blackmoorfoot Road site access, transitioning to 40mph at the relocated gateway terminal point to the southwest. *40mph at the Felk Stile Road site access, transitioning to NSL (60mph) at relocated gateway terminal point to the northwest.*
Existing traffic flows/queues
Existing traffic flows are available from the Transport Assessment which will be provided to the Audit Team as part of the supporting information associated with this brief.
Forecast traffic flows
Forecast traffic flows are available from the Transport Assessment which will be provided to the Audit Team as part of the supporting information associated with this brief.
Pedestrian, cyclist and equestrian desire lines
Cyclists and pedestrians have been considered as part of the design and associated housing development. See movement framework diagram.
Environmental constraints
The are numerous TPO and other trees within the vicinity of the site accesses. Therefore, the works have been designed to minimise impact on these trees.

Table C.4 Locality

Description of locality
Edge of urban area
General description
The site is to the southwest of Huddersfield.
Relevant factors which may affect road safety
Increased numbers of pedestrians and cyclists at the Blackmoorfoot Road and Felks Stile Road junctions. *Increased turning movements to and from the site accesses on Blackmoorfoot Road and Felks Stile Road.*

Table C.5 Analysis

Collision data analysis
A review of the existing road safety record on the surrounding roads has been undertaken, with the most recent five-years of data and incident plot diagram included with the RS Brief. *In total, three incidents were recorded on Blackmoorfoot Road within the vicinity of the works (including speed limit alterations). One of the collisions was a fatal, one severe and one slight in severity. These incidents occurred on Blackmoorfoot Road to the southwest of the development site, which included the severe incident within the vicinity of the Blackmoorfoot Road/Felk Stile Road junction.*
Departures from standards
Blackmoorfoot Road Site Access: • *The ghost island right-turn tapers are below the recommended minimum of 1:20 (1:15 – 1:16 are achieved) identified in CD123 of DMRB (Section 6.1) and TSM Chapter 5. However, this is mitigated by the introduction of the required speed limit gateway improvements and staggered junction ahead warning signage (2 no. signs including secondary VAS) mentioned in the separate note relating to the speed limit changes.* • *The radii and corner tapers on the minor arm of the site access are not in full accordance with the recommendations in CD123 (See paragraph 5.6.3). However, they have been informed by DMRB and local design guidance contained in the Kirklees Highway Design Guide SPD (e.g. with 10m junction radii). Based on the Swept Path Analysis (SPA) checks, the radii and corner tapers are adequate to allow the design vehicles to turn to/from the access 'in-lane' in all directions.* • *Refuge islands are provided on Blackmoorfoot Road (1.5m wide) and the site access minor arm (2.0m wide). The island on the site access arm is below the recommended min. width of 3m in LTN 1/20 for cyclist use. However, this is considered to be adequate*

given it will be very lightly used, and as it can still accommodate the majority of cycle types. Whilst a wider island may be possible, this has not been shown, as it would further impact on tree loss, and is not considered necessary.

- *Pedestrian visibility of 1m x 70m is achievable at the crossing point on the south side of the Blackmoorfoot, at the pedestrian refuge island. This should be adequate based on the '1 step below desirable minimum' SSD value in DMRB.*
- *A 1.2m wide splitter island is also proposed on Blackmoorfoot Road in advance of the cycle right turn pocket, to provide protection to waiting cyclists and discourage overtaking through the ghost island markings. The physical gaps between kerbs at the island is 3.7m, which is below the recommend min. width of 4m in LTN 1/20. However, the island is an important safety feature for cyclists waiting in the right turn pocket, and a wider gap (or narrower island) is not possible without compromising other design parameters. Deflection arrows are proposed on the southwest bound approach to the island, to discourage drivers overtaking cyclists on approach.*

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

None

Strategic decisions

3.25m running lanes have been provided at the Blackmoorfoot Ghost Island junction, at the specific request of the Kirklees S278 Team, which is the minimum width they will accept in this situation.

List of included documents and drawings

- *Croft Transport Assessment*
- *<u>Blackmoorfoot Road access drawings:</u>*
  Drawing AMA-22224-SK060 P03 - Proposed Site Access on Blackmoorfoot Road
  Drawing AMA-22224-SK063-1.1 P01 - SPA of a Bus (11.3m), Blackmoorfoot Road
  Drawing AMA-22224-SK063-1.2-P01 - SPA of a KC Refuse Vehicle, BMF Rd
  Drawing AMA-22224-SK064-1.1-P01 - SPA of a KC Refuse Vehicle, Sands House Lane
  Drawing AMA-22224-SK064-1.2-P01 - SPA of a LWB Panel Van, Sands House Lane
  Drawing AMA-22224-SK065-1.1-P01 - SPA of a KC Refuse Vehicle, Sands House PH
  Drawing AMA-22224-SK065-1.2-P01 - SPA of a LWB Panel Van, Sands House PH
  Drawing AMA-22224-SK067-P01 – SPA of a LWB Panel Van, Matlock House
- *<u>Felks Stile Road Junction Designs:</u>*
  Drawing 425-92-103.01-P - General Arrangement of S278 Works for Outline Agreement
  Drawing 425-92-103.08-F - Section 278 Works Signing & Lining Layout
  Drawing 425-92-SK17-E -Swept Path Analysis Refuse Vehicle and Bus
- *Speed Limit change measures – AMA HTN Dated 03.04.25*
- *Blackmoorfoot Road Sewer Diversion Plan (425-92-101 Rev D S185 layout)*
- *Movement Framework Plan (n2114_420 Rev I)*

Table C.6 Checklist

Tick all that are included and provide reasons for those that are not included			
Site Location Plan	✓	Scale layout plans	✓
Departures and relaxations from standards	✓	Construction / typical details	x
Previous RSA reports	x	Previous RSA response reports and evidence of agreed actions	x
Collision data and collision data analysis	✓	Road traffic collision plot	✓
Traffic signal staging	(N/A)	Traffic counts	x
Speed surveys	✓	Pedestrian, cyclist and horse-riding desire lines and volumes	x
Walking, cycling and horse riding assessment and reviews	(N/A)	Items outside the scope of the RSA/ strategic decisions	(N/A)
Other factors that may impact on road safety	(N/A)	Design speeds / speed limits	70a / 40mph 60b / 30mph
Design standards used	✓	Adjacent land uses	(N/A)

Supporting Documents

Appendix B Problem Location Plan


All Works:
Problem 13 - Visibility to signage
Problem 14 - Street lighting
5
5
5
1
2
4
3
12
12
11
GATEWAY FEATURE DRAGONS TEETH AND ROUNDEL AND RELOCATED SPEED SIGNS
ADDITIONAL 1.5m x 120m VISIBILITY LINE FROM 3m WIDE FOOTWAY TAPER
1.5m x 33m visibility splay from cycle transition point
Extent of proposed cycleway / footway determined by existing tree constraint
Cycle "Hop On" onto cycle / footway
BUS STOP
Shared Drive
1.5m x 22m Pedestrian visibility splay from pedestrian crossing
Cycle "Hop On / Hop Off" onto cycleway / footway
Corner Taper
Extent of S38 Works
Extent of S278 Works
8.66
4.94
4.96
3.0m
28.0m
R10.00
2.4m x 120m Visibility Splay
Note: Minor road gradient should not exceed 1:25 for the initial 15m length of road
Indicative Centreline
Localised dry stone wall reconstruction to suit back of proposed 3m footway. To be agreed under separate application.
Footway reduced to 2m width
Localised dry stone wall re-construction to suit back of proposed 2m footway. To be agreed under separate application.
Street lighting relocated to
Existing bus shelter to be moved to back of proposed footway and approximately 8.3m to the west to avoid existing tree constraint. Existing dry stone wall to be reconstructed to suit. To be agreed at detailed design stage.
Existing trees to remain
Visibility splay improvement Existing 2.4 x 20.8m Proposed 2.4 x 120m
New 10m Radius
Existing gullies to be relocated to suit pedestrian crossing. Positions to be agreed as part of detailed design stage
NOTES
ATTENTION IS DRAWN TO THE REQUIREMENTS OF THE CONSTRUCTION DESIGN AND MANAGEMENT REGULATIONS 2015 AND THE DUTIES AND RESPONSIBILITIES CONTAINED THEREIN
KEY
Tactile paving
2.4m x 120m (40mph) visibility sight line
1.5 x 120m visibility sight line from 3m footway taper
Existing ditch-line
Minimum 2.4m x 120m Visibility Splay from Blackmoorfoot Road bellmouth.
DRAWING NOTES
S278 DRAWINGS TO SHOW FULL DETAILS OF SIGNING AND LINING TO SHARED CYCLEWAY / FOOTWAYS
EXACT EXTENT OF S278 WORKS SURFACING TO BE AGREED AT TIME OF S278 DETAILED DESIGN
EXISTING HIGHWAY FEATURES TO BE RELOCATED AS PART OF DETAILED S278 DESIGN
SUBJECT TO THE APPROVAL OF ALL RELEVANT AUTHORITIES
ARP ASSOCIATES Chartered Consulting Engineers
TITLE GENERAL ARRANGEMENT OF S278 WORKS FOR OUTLINE AGREEMENT
PROJECT BLACKMOORFOOT RD/FELKS STILE RD. HUDDERSFIELD
CLIENT MILLER HOMES (YORKSHIRE Ltd.)
DRAWING STATUS PLANNING
Scale 1:200 @ A0
Date APR 25
Drawn PW
Chk. MI
Drg. No. 425-92-103.01
Rev. P

All Works:
Problem 13 - Visibility to signage
Problem 14 - Street lighting

9

8

6

7

10

The highway works in the purple lane will need to be designed and delivered with the wider S278 works, but adopted via S228 process following satisfactory completion of the works.

4 No. dropped kerbs and tactile paving at cycle/footway transition. 1.5m x 90m visibility splays

Indicative bus lay-by / stop layout.

S278 / S38 Cut off point

A maximum gradient of 1:25 for the initial 15m section of the site access minor arm

4.5m x 90m visibility splays

1m x 70m Pedestrian visibility splay to northeast, and 1m x 90m pedestrian visibility splay to southwest.

Deflection arrows relocated north-east of the Blackmoorfoot Road site access

Unmarked southwestbound bus stop (Stop ID 45019288) located in the carriageway to the north of the site access to be removed, as now provisionally agreed between Kirklees HDM and WYCA; and the marked stop opposite is to be retained, but with flag amended to confirm the change to a single direction stop (to be arranged with WYCA at S278 implementation stage).

208.5m

Existing 30/40mph speed limit terminal point.

Site boundary

4 No. dropped kerbs, tactile paving and cycle lane markings at cycle/footway transition. 1.5x90m visibility splays.

'Staggered Junction Ahead' warning sign (dia. 507.1 TSRGD), provided as Vehicle Actuated Sign (VAS) with 'SLOW DOWN' message text, located circa 60m northeast of new speed limit terminal point. Sign & pole located 450mm from kerb edge with offset bracket, to maximise clear footway width.

'Staggered Junction Ahead' warning sign (dia. 507.1 TSRGD) and distance plate on yellow backing board, located circa 30m northeast of new speed limit terminal point. Sign & pole located 450mm from kerb edge with offset bracket, to maximise clear footway width.

New 30mph/40mph speed limit terminal signage (non-illuminated to be proposed in first instance), with yellow/grey backing boards provided respectively. Signs & pole on north side located 450mm from kerb edge with offset bracket, to maximise clear footway width. Signs & pole on south side located adjacent to wall, with offset bracket to maximise clearance from running carriageway.

Visibility to speed limit terminal signage (40m CVD required - see table 8.3 of TSM Chapter 3).

224.3m

Approximate extent of Gateway road markings, in accordance with Kirklees Council standard detail HD/SD/12/14B.

Approximate located of tree to south-east of Blackmoorfoot Road. Lower sections of tree to be trimmed back.

Existing double white line system to be replaced with 0.8m wide (0.7m centre to centre) hatch markings (dia. 1040 TSRGD), with gap in hatching at Felks Stile Road junction.

219.5m

Existing Drain Diverted 1m

Shared Drive

Play Area (LAP)

Matlock House

The Sands House (PH)

Track

Path (um)

El Sub Sta

SANDS HOUSE

Home

P03	Amended to address LHA comments	15.04.25	RID
P02	Amended to address LHA comments	04.04.25	RID
P01	Preliminary Issue	21.03.25	RID

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ANDREW MOSELEY ASSOCIATES

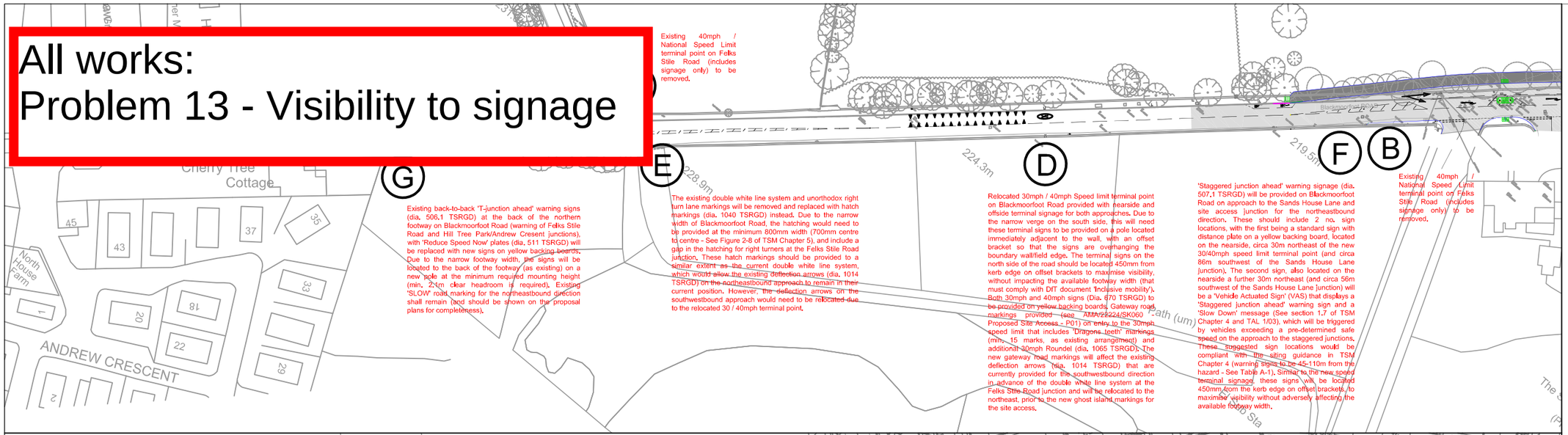
Project:
BLACKMOORFOOT ROAD
HUDDERSFIELD

Client:
VISTRY YORKSHIRE

Drawing:
PROPOSED SITE ACCESS
ON BLACKMOORFOOT ROAD

Drawn By: RID	Date: 18.03.2025	
Checked: AMM	Scale: 1:500	Paper: A1
Drawing No.: AMA-22224-SK-060		Rev.: P02

All works:
Problem 13 - Visibility to signage



Existing 40mph / National Speed Limit terminal point on Felks Stile Road (includes signage only) to be removed.

G

Existing back-to-back 'T-junction ahead' warning signs (dia. 506.1 TSRGD) at the back of the northern footway on Blackmoorfoot Road (warning of Felks Stile Road and Hill Tree Park/Andrew Cresent junctions), with 'Reduce Speed Now' plates (dia. 511 TSRGD) will be replaced with new signs on yellow backing boards. Due to the narrow footway width, the signs will be located to the back of the footway (as existing) on a new pole at the minimum required mounting height (min. 2.1m clear headroom if required). Existing 'SLOW' road marking for the northeastbound direction shall remain (and should be shown on the proposal plans for completeness).

E

The existing double white line system and unorthodox right turn lane markings will be removed and replaced with hatch markings (dia. 1040 TSRGD) instead. Due to the narrow width of Blackmoorfoot Road, the hatching would need to be provided at the minimum 800mm width (700mm centre to centre - See Figure 2-8 of TSM Chapter 5), and include a gap in the hatching for right turners at the Felks Stile Road junction. These hatch markings should be provided to a similar extent as the current double white line system, which would allow the existing deflection arrows (dia. 1014 TSRGD) on the northeastbound approach to remain in their current position. However, the deflection arrows on the southwestbound approach would need to be relocated due to the relocated 30 / 40mph terminal point.

D

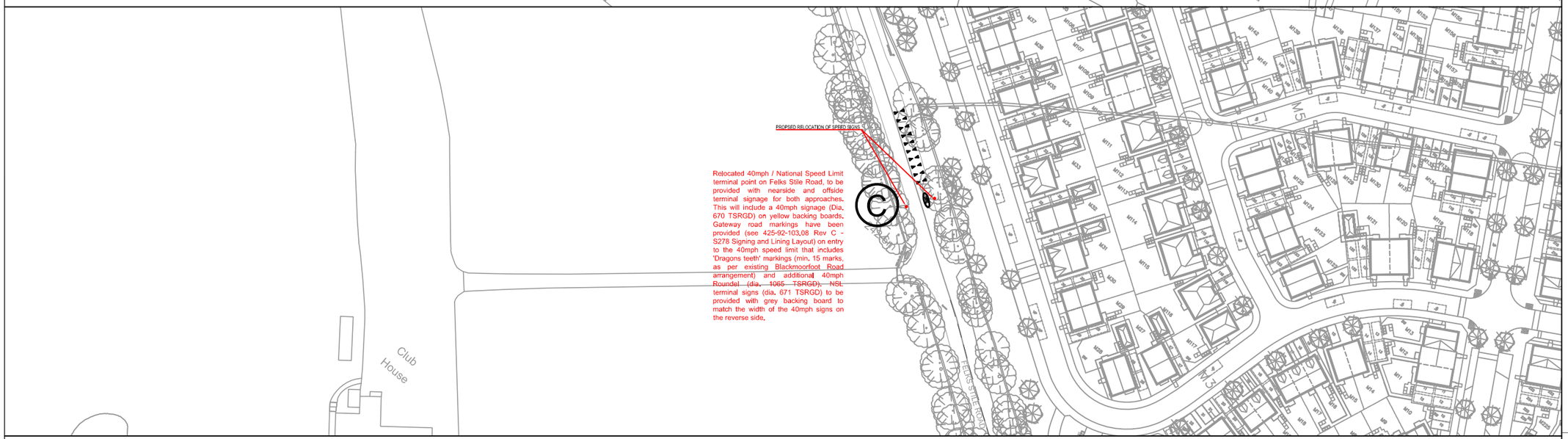
Relocated 30mph / 40mph Speed limit terminal point on Blackmoorfoot Road provided with nearside and offside terminal signage for both approaches. Due to the narrow verge on the south side, this will need these terminal signs to be provided on a pole located immediately adjacent to the wall, with an offset bracket so that the signs are overhanging the boundary wall/field edge. The terminal signs on the north side of the road should be located 450mm from kerb edge on offset brackets to maximise visibility, without impacting the available footway width (that must comply with DfT document 'Inclusive mobility'). Both 30mph and 40mph signs (Dia. 670 TSRGD) to be provided on yellow backing boards. Gateway road markings provided (see AMA/22224/SK060 Proposed Site Access - P01) on entry to the 30mph speed limit that includes 'Dragons teeth' markings (min. 15 marks, as existing arrangement) and additional 30mph Roundel (dia. 1065 TSRGD). The new gateway road markings will affect the existing deflection arrows (dia. 1014 TSRGD) that are currently provided for the southwestbound direction in advance of the double white line system at the Felks Stile Road junction and will be relocated to the northeast, prior to the new ghost island markings for the site access.

F

'Staggered junction ahead' warning signage (dia. 507.1 TSRGD) will be provided on Blackmoorfoot Road on approach to the Sands House Lane and site access junction for the northeastbound direction. These should include 2 no. sign locations, with the first being a standard sign with distance plate on a yellow backing board, located on the nearside, circa 30m northeast of the new 30/40mph speed limit terminal point (and circa 86m southwest of the Sands House Lane junction). The second sign, also located on the nearside a further 30m northeast (and circa 56m southwest of the Sands House Lane junction) will be a 'Vehicle Actuated Sign' (VAS) that displays a 'Staggered junction ahead' warning sign and a 'Slow Down' message (See section 1.7 of TSM Chapter 4 and TAL 1/03), which will be triggered by vehicles exceeding a pre-determined safe speed on the approach to the staggered junctions. These suggested sign locations would be compliant with the siting guidance in TSM Chapter 4 (warning signs to be 45-110m from the hazard - See Table A-1). Similar to the new speed terminal signage, these signs will be located 450mm from the kerb edge on offset brackets, to maximise visibility without adversely affecting the available footway width.

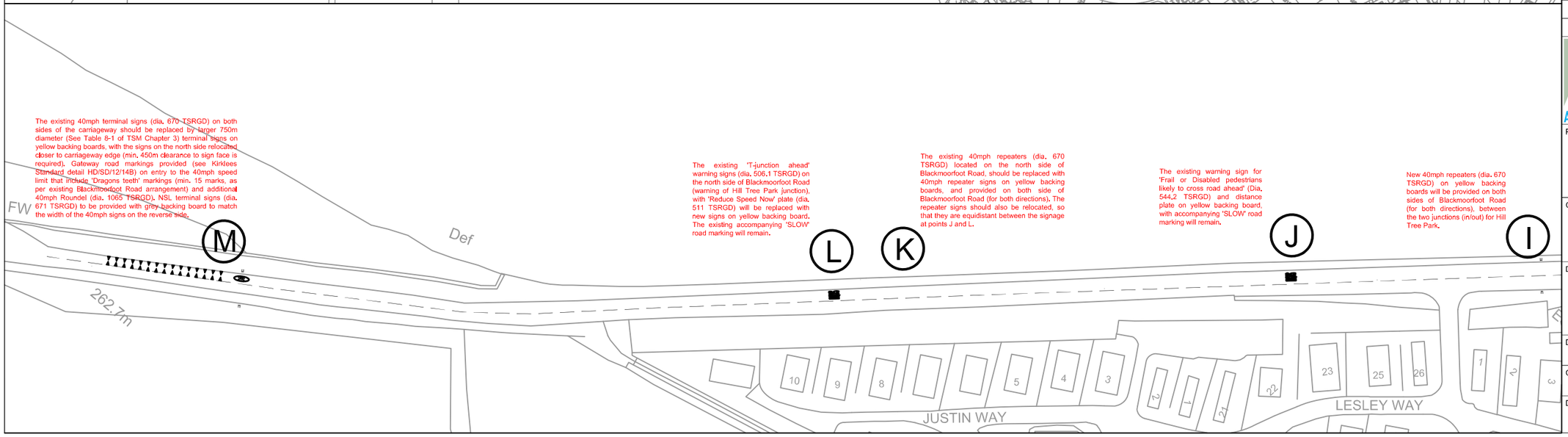
B

Existing 40mph / National Speed Limit terminal point on Felks Stile Road (includes signage only) to be removed.



C

Relocated 40mph / National Speed Limit terminal point on Felks Stile Road, to be provided with nearside and offside terminal signage for both approaches. This will include a 40mph signage (Dia. 670 TSRGD) on yellow backing boards. Gateway road markings have been provided (see 425-92-103.08 Rev C - S278 Signing and Lining Layout) on entry to the 40mph speed limit that includes 'Dragons teeth' markings (min. 15 marks, as per existing Blackmoorfoot Road arrangement) and additional 40mph Roundel (dia. 1065 TSRGD). NSL terminal signs (dia. 671 TSRGD) to be provided with grey backing board to match the width of the 40mph signs on the reverse side.



M

The existing 40mph terminal signs (dia. 670 TSRGD) on both sides of the carriageway should be replaced by larger 750m diameter (See Table 8-1 of TSM Chapter 3) terminal signs on yellow backing boards, with the signs on the north side relocated closer to carriageway edge (min. 450m clearance to sign face is required). Gateway road markings provided (see Kirklees Standard detail HD/SD/12/14B) on entry to the 40mph speed limit that include 'Dragons teeth' markings (min. 15 marks, as per existing Blackmoorfoot Road arrangement) and additional 40mph Roundel (dia. 1065 TSRGD). NSL terminal signs (dia. 671 TSRGD) to be provided with grey backing board to match the width of the 40mph signs on the reverse side.

L

The existing 'T-junction ahead' warning signs (dia. 506.1 TSRGD) on the north side of Blackmoorfoot Road (warning of Hill Tree Park junction), with 'Reduce Speed Now' plate (dia. 511 TSRGD) will be replaced with new signs on yellow backing board. The existing accompanying 'SLOW' road marking will remain.

K

The existing 40mph repeaters (dia. 670 TSRGD) located on the north side of Blackmoorfoot Road, should be replaced with 40mph repeater signs on yellow backing boards, and provided on both side of Blackmoorfoot Road (for both directions). The repeater signs should also be relocated, so that they are equidistant between the signage at points J and L.

J

The existing warning sign for 'Frail or Disabled pedestrians likely to cross road ahead' (Dia. 544.2 TSRGD) and distance plate on yellow backing board, with accompanying 'SLOW' road marking will remain.

I

New 40mph repeaters (dia. 670 TSRGD) on yellow backing boards will be provided on both sides of Blackmoorfoot Road (for both directions), between the two junctions (in/out) for Hill Tree Park.

P02	Amended to address LHA comments	03.04.25	RID
P01	Preliminary Issue	21.03.25	RID

ANDREW MOSELEY ASSOCIATES

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BLACKMOORFOOT ROAD, HUDDERSFIELD

Client:

VISTRY YORKSHIRE

Drawing:

PROPOSED SPEED LIMIT MEASURES

Drawn By: RID	Date: 18.03.2025	
Checked: AMM	Scale: 1:500	Paper: A3
Drawing No. AMA-22224-SK066		Rev. P02