

## Stage 1 Road Safety Audit Response Report


Project No: ITM10127  
Project Title: Capitol Park, Leeds  
Title: Stage 1 Road Safety Audit – Response Report (Proposed M62 Junction 28 Improvements: Phase 1)  
Ref: ITM10127-016B TN  
Date: 17 October 2022

### SECTION 1 Project Details and Authorisation Sheet

**Table 1: Project Details**

<b>Report Title:</b>	Stage 1 Road Safety Audit Response Report – Proposed M62 Junction 28 Improvements: Phase 1
<b>Date:</b>	17 October 2022
<b>Document Reference and Revision:</b>	ITM10127-016B TN
<b>Prepared by:</b>	i-Transport LLP & Pell Frischmann
<b>On behalf of:</b>	Leeds City Council as the Overseeing Organisation

**Table 2: Authorisation Sheet**

<b>Report Title:</b>	Phase 1 Stage 1 Road Safety Audit Response Report
<b>Prepared by:</b>	i-Transport LLP & Pell Frischmann
Name(s):	Greg Jones & Stephen Evans
Position:	Associate Partner & Technical Director
Signed:	
Date:	17 October 2022
<b>Approved by:</b>	Leeds City Council
Name:	Christopher Way
Position:	Principal Traffic Engineer
Signed:	Chris Way
Date:	17 October 2022

## SECTION 2 Introduction

- 2.1 This RSA response report has been prepared by i-Transport LLP and Pell Frischmann as the Design Organisations.
- 2.2 It responds to the Stage 1 Road Safety Audit (*report ref: NS22/752A/RSA1*) prepared by Nicholson Sloan Consultancy (dated 05 August 2022), pursuant to the Stage 1 RSA Brief (*report ref: ITM10127-015B TN*) that was signed by the Overseeing Organisation (being Leeds City Council in its role as the Local Highway Authority) in June 2022.
- 2.3 The project summary – consistent with the agreed Brief – is as follows:

***The safety audit relates to highway works at the M62 J28 proposed by Capitol Sterling and CC Projects as part of two separate planning applications, detailed in the Stage 1 RSA Brief. The works have been agreed in principle with Leeds City Council and National Highways. The proposed works have been split into two phases, with this response report dealing with the Phase 1 works. Phase 1 includes works to the A563 Dewsbury Road and associated downstream circulatory, road marking amendments on the M62 eastbound off-slip, widening of the northern circulatory to provide an additional lane and provision of two lanes at the M62 eastbound on-slip. This phase also includes upgrading existing footway/cycleway provision in the south western corner of the junction and new pedestrian and cycle provision around the western, northern and eastern sides of the junction with additional crossings provided at the A653 Dewsbury Road (northern arm) at the approach and circulatory and on the circulatory at the M62 westbound off-slip.***

## SECTION 3 Key Personnel

**Table 3: Key Personnel**

<b>Overseeing Organisation:</b>	Christopher Way, Leeds City Council – Road Safety Audit Team Member Gillian MacLeod, Leeds City Council – Client Representative
<b>RSA Team:</b>	Kevin Nicholson, Nicholson Sloan Consultancy – Audit Team Leader Nancy Sloan, Nicholson Sloan Consultancy – Audit Team Member Christopher Way, Leeds City Council – Audit Team Member Lee Liutkevicius, National Highways – Audit Team Member
<b>Design Organisation:</b>	Greg Jones, i-Transport Jonathan Orton, i-Transport Stephen Evans, Pell Frischmann Dr Chris Osowski, Pell Frischmann

## SECTION 4 Road Safety Audit Decision Log

**Table 4: Road Safety Audit Decision Log**

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.1	<p>Location: The Dewsbury Road northbound approach to the roundabout.</p> <p>Summary: The nearside lane marking could confuse motorists and increase the risk of collisions.</p> <p>The nearside lane worded destinations are correct (A650 and M62), but the arrow shows the lane as left-turn only. Motorists, particularly those unfamiliar with the area and intending to access the M62 west, could be led to believe that they should stay in the nearside lane, then brake and manoeuvre suddenly at the A650 exit to regain the correct lane on the circulatory on their offside. This could increase the risk of tail-end or side-swipe collisions with following motorists in that lane.</p>	<p>It is recommended that the left-turn arrow is replaced with a double-headed straight-ahead and left-turn marking.</p>	<p>The recommendation is accepted. The nearside lane marking has been amended in Revision H of the scheme drawings, enclosed at <b>Appendix A</b>.</p>	<p>The recommendation is accepted.</p>	<p>Nearside land marking amended</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.2	<p>Location: The proposed footway/cycleway on the roundabout central island.</p> <p>Summary: The level difference between the footway/cycleway and the circulatory carriageway could increase the risk of collisions with vehicles.</p> <p>The existing roundabout is raised above the carriageway level. If this level is retained for the footway cycleway, users could slip down the embankment with the collateral risk of being struck by circulating vehicles.</p>	<p>If the footway/cycleway is to be installed at the existing level on the central island, it is recommended that barrier restraints are provided.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>Address at detailed design stage.</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.3	<p>Location: The new Toucan crossings of the circulatory carriageway opposite A653 Dewsbury Road (north) and the M62 westbound off-slip.</p> <p>Summary: The level difference between the footway/cycleway and the circulatory carriageway could increase the risk of slips and falls and of collisions with vehicles.</p> <p>If the footway/cycleway is to be installed at the existing level on the central island, the ramps down to the crossing points should cater for physically impaired pedestrians, including wheelchair and mobility scooter users. This will reduce the risks of slips, overturns and potentially, collisions with vehicles if users enter the carriageway unintentionally.</p>	<p>If the footway/cycleway is to be installed at the existing level on the central island, it is recommended that appropriate ramps to the crossing points are provided.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>Address at detailed design stage.</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.4	<p>Location: The amended northern section of the circulatory carriageway.</p> <p>Summary: Reduced visibility of the offside traffic signals could increase the risk of collisions.</p> <p>A fourth lane is shown to be developed on the offside approach to the traffic signals and proposed Toucan crossing opposite Dewsbury Road. Notwithstanding that some site clearance will be required on the central island to provide the lane and the footway/cycleway, there is heavy foliage present which could compromise forward visibility to the offside signal head. In turn, this could increase the risk of last minute braking and tail end collisions.</p>	<p>It is recommended that the foliage is removed or cut back sufficiently to provide adequate forward visibility to the offside signal head, bearing in mind the potential for re-growth.</p>	<p>The recommendation is accepted. Foliage will be cut back as part of implementing the proposed works.</p> <p>However on-going maintenance of the foliage will remain the responsibility of the Local Highway Authority (as is presently the case).</p> <p>Annotation to the above is included in Revision H of the scheme drawings, enclosed at <b>Appendix A</b>.</p>	<p>The recommendation is accepted. Foliage will be cut back as part of implementing the proposed works and maintained thereafter by LCC.</p>	<p>Foliage will be cut back as part of implementing the proposed works and maintained thereafter by LCC</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.5	<p>Location: The junction of Station Lane with Dewsbury Road.</p> <p>Summary: The proximity of the junction to the traffic signals could increase the risk of collisions.</p> <p>The traffic signals are to be moved closer to Station Lane. While it is appreciated that Station Lane is a cul-de-sac and exiting drivers should be aware of the signals, it is possible that some might not see the signal heads clearly, depending on their orientation and the potential presence of high vehicles which could mask the heads. In turn, this could increase the risk of a number of collision types, including stop line overshoots with the collateral risk of striking crossing pedestrians.</p>	<p>It is recommended that, as far as possible, the signal heads are aligned to be visible to drivers approaching the give way point on Station Lane. In addition, it is recommended that a traffic signals warning sign (Diagram 543), together with an arrow and distance plate are erected on the Station Lane approach.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p> <p>Any signage which is provided will need to be located within the public highway.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>Address at detailed design stage.</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.6	<p>Location: The existing and new Toucan Crossings throughout the scheme.</p> <p>Summary: Providing sufficient width at the crossings could reduce the risk of collisions.</p> <p>The existing crossings vary in width, but all are less than the current recommended width of 3m. Providing this minimum width can help to reduce the risk of collisions involving cyclists and pedestrians, particularly when crossing volumes are high.</p>	<p>It is recommended that the proposed crossings are specified with a minimum width of 3m between the crossing studs. In addition, the opportunity could be taken to widen the existing retained crossings as part of the improvement works.</p>	<p>The proposed crossings are all specified as being 4m in width and therefore exceed the minimum width requirement. Amendments are not needed.</p> <p>Widening of the existing crossings, which are unaffected by the proposed works, is considered to fall beyond the scope of the audit process. The proposed works already provide significant betterment to the pedestrian and cycle environment at the Junction. The proposed works also already represent a very significant obligation to the two developers. In this context it is not considered reasonable to require the developers to widen existing crossings.</p>	<p>The recommendation and design organisation response is accepted.</p> <p>This audit does not restrict the scope of safety matters addressed at detailed design stage.</p>	<p>N/A</p> <p>Consider any residual safety matters relating to crossing widths at detailed design stage.</p>


Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.7	<p>Location: The approaches to the existing and new Toucan crossings throughout the scheme.</p> <p>Summary: The proximity of the vehicle stop lines to the crossings could lead to vehicles striking pedestrians.</p> <p>The distances between the pedestrian crossing studs and the vehicle stop lines at the existing crossings vary, but some are less than the recommended minimum. Additionally, those distances are not specified at this stage for the proposed crossings, but they appear to be closer than recommended on the drawings. Accidents can occur at signal controlled crossings because drivers of high fronted vehicles can pull away unaware of the presence of pedestrians, particularly those who are slow moving and who cross close to their vehicles. This problem can be mitigated by ensuring that adequate visibility of pedestrians is available to drivers and given effect by providing sufficient distance from the stop line to the crossing studs.</p>	<p>It is recommended that, for the proposed crossings, the stop lines are specified as a minimum distance of 3m from the crossing studs (2.5m from the primary signal post) and shown as such on the drawings. In addition, the opportunity could be taken to provide this minimum spacing at the existing retained crossings as part of the improvement works.</p>	<p>The recommendation is accepted in respect of proposed crossings. The stoplines have been amended to provide a minimum distance of 3m between stop lines and crossing studs as shown in Revision H of the scheme drawings, enclosed at <b>Appendix A</b>.</p> <p>Providing minimum spacing between the stop lines and crossing studs at existing crossings not affected by the proposed works is again considered to fall outside the scope of works agreed through extensive discussions with the Overseeing Organisation and National Highways. The proposed works also already represent a very significant obligation to the two developers. In this context it is not considered reasonable to require the developers to amend spacing at the existing retained crossings.</p>	<p>The recommendation and design organisation response is accepted.</p> <p>This audit does not restrict the scope of safety matters addressed at detailed design stage.</p>	<p>Stoplines amended.</p> <p>Consider any residual safety matters relating to spacing between stop lines and crossing studs at existing crossings at detailed design stage.</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.8	<p>Location: The removed lengths of footway/cycleway throughout the scheme.</p> <p>Summary: Making the removed routes unattractive to users could reduce the risk of trips and falls.</p> <p>At this stage, it is not clear how the removed sections of footway/cycleway are to be reinstated. If the treatment is unattractive or difficult to use for pedestrians and cyclists, they will be discouraged from attempting to follow the previous desire lines and a reduced risk of trips and falls.</p>	<p>It is recommended that the reinstatements are designed to deter use by pedestrian and cyclists and/or the removed lengths are fenced off.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>The recommendation is accepted and will be addressed at the detailed design stage.</p>	<p>Address at detailed design stage.</p>

Ref:	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
3.9	<p>Locations: Throughout the scheme.</p> <p>Summary: Worn road markings could increase the risk of a number of collision types.</p> <p>While primarily a maintenance issue, many of the road markings within the scheme extents are worn and their conspicuity for motorists is reduced. This could increase the potential for last minute lane changes or of sudden braking, with the attendant risk of tail-end or side-swipe collisions.</p>	<p>It is recommended that, as part of the scheme, the opportunity is taken to refresh the road markings that are to remain in place.</p>	<p>The recommendation is not accepted. The Stage 1 RSA report explains that this is primarily a maintenance issue requiring upkeep by the Local Highway Authority. Therefore, this is considered to fall outside the scope of works agreed through extensive discussions with the Overseeing Organisation and National Highways and would, if included represent a material cost uplift for the developers to bear which is not considered reasonable.</p>	<p>The recommendation should be reviewed at detailed design stage.</p> <p>This audit does not restrict the scope of safety matters addressed at detailed design stage.</p>	<p>Review any residual safety concerns relating to road markings at detailed design stage.</p>

## SECTION 5 Design Organisation and Overseeing Organisation Statements

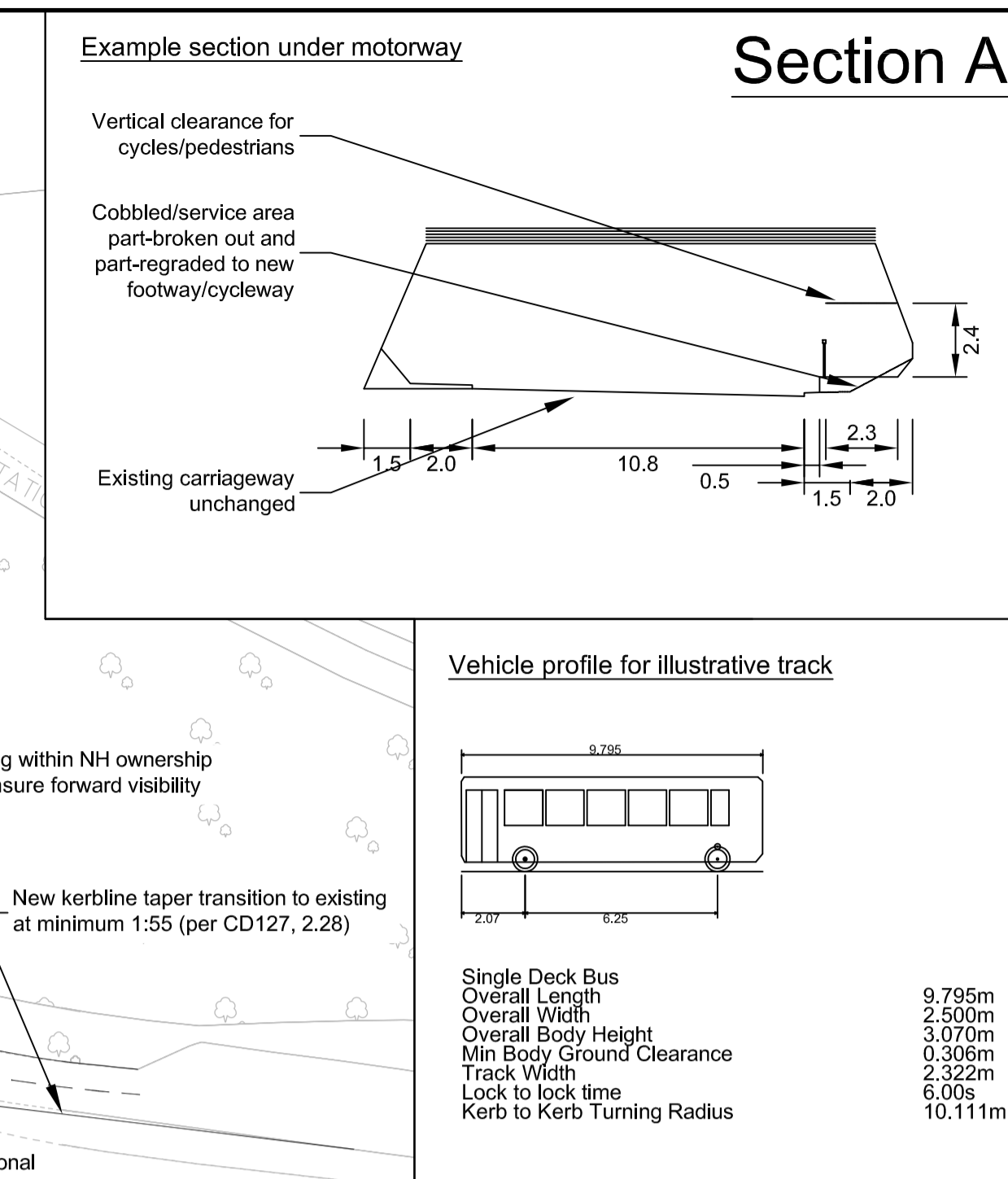
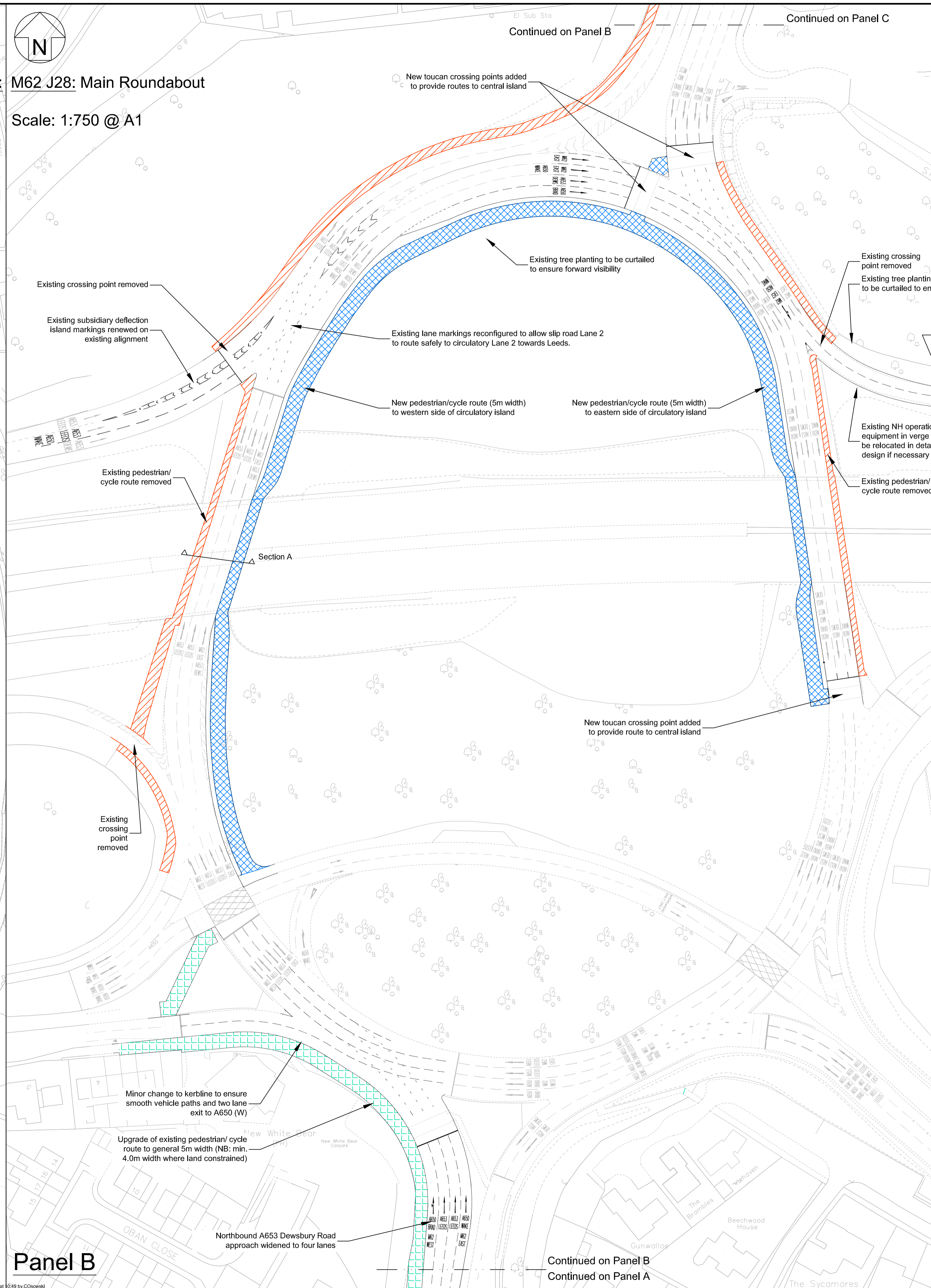
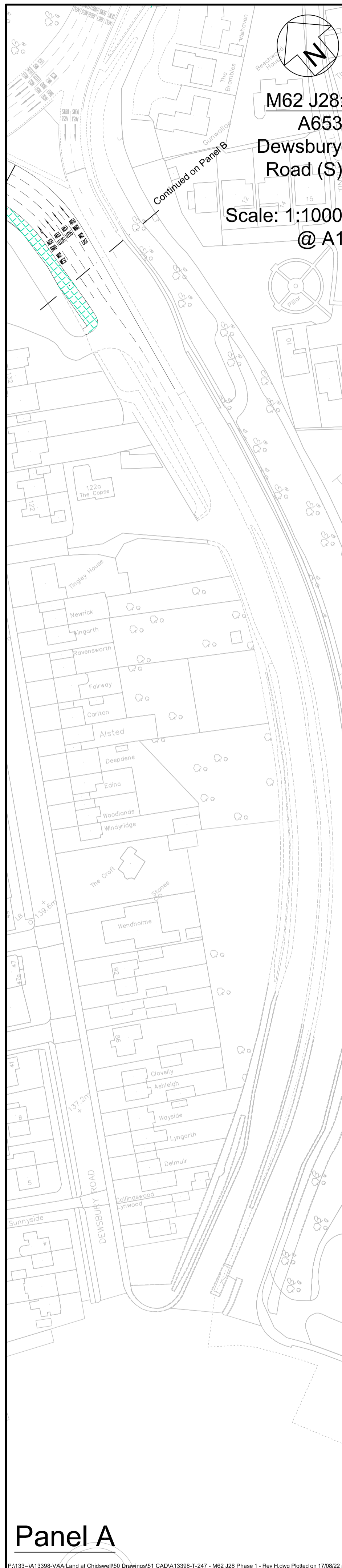
**Table 5: Design Organisation Statement**

<b>On behalf of the Design Organisation I certify that:</b>	
<b>1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the Overseeing Organisation.</b>	
Name:	Greg Jones & Stephen Evans
Signed:	
Position:	Associate Partner & Technical Director
Organisation:	i-Transport LLP & Pell Frischmann
Date:	17 October 2022

**Table 6: Overseeing Organisation Statement**

<b>On behalf of the Overseeing Organisation I certify that:</b>	
<b>1) The RSA actions identified in response to the road safety audit problems in this road safety audit have been discussed and agreed with the design organisation.</b>	
<b>2) The agreed RSA actions will be progressed.</b>	
Name:	Gillian MacLeod BEng Hons CEng MICE
Signed:	Gillian MacLeod
Position:	Transport Development Services Manager
Organisation:	Leeds City Council
Date:	17/10/22

**APPENDIX A.** UPDATED SCHEME DRAWINGS –  
REVISION H



### Notes

- The information contained in this drawing is based on a combination of Ordnance Survey (OS) mapping and survey data provided by others. Pell Frischmann and i-Transport shall not be liable for any inaccuracies or deficiencies.
- OS Data: © Crown copyright and database rights 2022. Ordnance Survey Licence number 100040148.
- Proposed highway layout subject to further investigations and detailed design.

### Layout

- Existing layout (post-2019 per WSP Drawing: 70038464-WSP-HGN-J28-DR-CH-01\_01.AB01)
- Capitol Park improved access (per i-Transport Drawing: ITM10127-GA-007-B)
- LCC M2D2L bus scheme (north arrangement per discussion with LCC at meeting of 15 September 2021 and i-Transport Drawing ITM10127-GA-019A)
- New crossings and pedestrian routes to central island.
- Removal of pedestrian routes from peripheral routes under M62.
- Lane reconfiguration to M62 EB offslip to provide safer access to A653 Dewsbury Road (N)
- Additional lane capacity to northern circulatory area
- Additional lane capacity to M62 EB onslip exit
- Additional lane capacity to A653 Dewsbury Road (S)

### Key

- New pedestrian/cycle route
- Upgraded pedestrian/cycle route
- Existing pedestrian/cycle route removed

REV	DESCRIPTION	DRN	CHK	APP	DATE
H	Update following Stg1 Road Safety Audit	CJO	SME/GJ	PDS/GJ	16.08.2022
G	Updated to actions of meeting 09.06.2022	CJO	SME/GJ	PDS/GJ	14.06.2022
F	-	-	-	-	-
E	Incorporation of Phase 1+ part to Ph 1	CJO	SME	PDS	25.01.2021
D	Extract of Phase 1 from A13398-T-147-D	CJO	SME	PDS	16.12.2021

**i-Transport**  
**Pell Frischmann**

Project: **M62 J28 TINGLEY INTERCHANGE PHASE 1**

Drawing Title: **MITIGATION SCHEME FEASIBILITY DESIGN GENERAL ARRANGEMENT**

Name	Date	Scale
CJO	16.12.2021	1:750/1:1000 @ A1

Drawn	Designed	Checked	Approved	Name	Date	File No.	Drawing Status
CJO	SME	PDS	PDS	CJO	16.12.2021	A13398-T-247 - M62 J28 Phase 1 - Rev H.dwg	FEASIBILITY DESIGN

Drawing No. **A13398-T-247** Revision **H**

Panel A

Panel B

Panel C