	ROAD SAFETY AUDIT BRIEF
1. PROJECT SUMMARY	
Job Number	05425
Date	14/07/2022
Document reference	05425-0-TN0001
Prepared by	PJA Civil Engineering Ltd, working on behalf of Brookgate Property Ltd
On behalf of	Cambridgeshire County Council
AUTHORISATION SHEET	
Project	Land North Of Cambridge, Milton Avenue Cambridge
Report Title	Road Safety Audit Stage 1 – Highway Improvements
PREPARED BY	·
Name	Abbie Smart
Signed	A Smart
Organisation	PJA
Date	14/07/2022
I APPROVE THE RSA BRIE ORGANISATION	AND INSTRUCT THE RSA TO TAKE PLACE ON BEHALF OF THE OVERSEEING
Name	Jon Finney
Signed	
Organisation	ccc
Date	
2. GENERAL DETAILS	
Highway scheme name and road number	Cowley Road/Milton Avenue
Type of scheme	Improvements to an existing simple priority junction to add road to development areas. Incorporating active travel routes across new highway.
RSA Stage	Stage 1 ⊠ Stage 2 ☐ Stage 1/2 ☐ Stage 3 ☐ Stage 4a ☐ Stage 4b ☐
(mark as appropriate)	Stage 1(interim) ☐ Stage 2(interim) ☐ Stage 1/2(interim) ☐ Stage 3(interim) ☐
Overseeing Organisation Details	Jon Finney Cambridgeshire County Council
	E. Jon.Finney@cambridgeshire.gov.uk
Design Organisation Details	Greg Dobbins
	PJA Civil Engineering Ltd Park Point,
	High Street,
	Longbridge, Birmingham
	B31 2UQ
Police Contact details	greg.dobbins@pja.co.uk N/A

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Maintaining Agent Contact Details	N/A
RSA Team Membership	
Terms of Reference	CCC Highway Standards

3. SCHEME DETAILS

General

The extent of the highways works are outlined on the layout drawing (05425-C-2113 P3). The junction is referred to as 'Cowley Circus' within planning documentation.

Scheme Description & Objectives

The site is situated on the north-eastern edge of Cambridge, please refer to site location plan 239-ACME-PLA-0010 attached. The highway improvements are to support the proposal for new commercial buildings, whilst providing access to a Network Rail (NR) compound and access to an existing Tarmac Cambridge Asphalt works. A one-way arm is also proposed to support future residential development as per the attached masterplan drawing 239-ACME-PLA-S00-0012 Illustrative Masterplan – Roof.

Cowley Road is an existing private 7.3m wide carriageway, which will become Milton Avenue at the boundary of the site. Two proposed simple priority junctions are to be put in place to serve the proposed development. One new highway link to the west of the junction is a one-way road and the other a two-way road to the east. There are updates to the existing give-way junction to industrial premises in the north to facilitate highway improvements.

The alignment of the highway is considerate of a number of factors;

- (Max length) low loader access required to the proposed NR compound
- Access for tipper trucks to the north, to service the existing aggregate works. The tracking movements of which have been considered within the layout
- The egress from the existing concrete plant works is to be blocked off as part of the works.

Highway updates include new footway and cycleway connections.

Design Standards applied to the scheme design	CCC Highway Standards - Highway Development Management General Principles for Development - May 2021.	
Design Speeds	32kph on Cowley Road (20mph)	
Speed limits	20mph	
Existing traffic flows/queues	Refer to appended Technical Note	
Forecast traffic flows	Refer to appended Technical Note	
Pedestrian, cyclist and equestrian desire lines	Not available	
Environmental constraints	Not Applicable	
4. LOCALITY		
Description of Locality	Located in the north-eastern side of Cambridge, and to the north of the existing Cambridge North Station. (See Location Plan)	
General Description	The site is located north of the north Cambridge Railway Station, where-by the extents of Cowley Road (To be renamed to Milton Avenue) terminates at the station carpark. The development proposals lie to the south of the highway improvement works.	

Relevant factors which may affect road safety	Not applicable				
5. ANALYSIS					
Collision data analysis	N/A				
Departures from standard	No departures from s	standard	necessary.		
Previous road safety audit reports, road safety audit response reports and evidence of agreed actions	No previous Road Sa	afety Au	dits undertaken		
Strategic decisions	N/A				
List of included documents and	d drawings				
Documents	05425-0-TN-0002-P0) Traffic	Flows		
Drawings	Drawing No.	Rev	Title		
	05425-C-2113	P3	Cowley Road / Cowley Circus Highway Improvement		
	239-ACME-PLA- S00-0010	-	Site Location		
	239-ACME-PLA- S00-0012 ILLUSTRATIVE MASTERPLAN - ROOF	-	Site Masterplan		
6. CHECKLIST	-	•			
Tick all that are included and provide reasons for those that are not included	☑ Site Location Plan☑ Scale layout plans				
	☐ Construction/typical details				
	☐ Departures and re	elaxatior	ns from standards		
☐ Previous RSA reports					
	☐ Previous RSA response reports and evidence of agreed actions				
	Collision and collision data analysis				
☐ Road traffic collision plot					
	☐ Traffic signal staging				

☐ Traffic counts
☐ Speed Surveys
☐ Pedestrian, cyclist and horse riding desire lines and volumes
☐ Walking, cycling and horse riding assessment and reviews
☐ Items outside the scope of the RSA / strategic decisions
☐ Other factors that may impact on road safety
□ Design speeds/speed limits
□ Design standards used







Technical Note

Project: Land North of Cambridge, Milton Avenue

Subject: Cowley Circus - Traffic Flows

Client:	Brookgate Property Ltd	Version:	V1
Project No:	05425	Author:	Eliot King
Date:	08/09/2022	Approved:	Greg Dobbins

1.1 Traffic Flows for Cowley Circus

This note has been compiled to illustrate background and proposed traffic flows for the purpose of the Stage 1 Road Safety Audit for the proposed amendments to the junction named 'Cowley Circus' as illustrated on PJA drawing 05425-C-2113, part of the wider 'Cambridge North' planning application.

Site specific traffic surveys have not been undertaken to support all of these figures; some are based on existing information as noted below;

The Background Traffic flows include an allowance for:

- Rail car parking trips
- An assumed 10% on top for rail drop-off/pick-up trips
- Consented One Cambridge Square office trips (taken from planning application docs)
- Hotel trips (taken from planning application docs, not surveyed)

The proposed development trips have been split according to the proportion of commercial parking spaces accessed off each arm, with the residential assigned with all arrivals heading south, and departures leaving via Bramblefields Way (Arm D).

The development trips also make some allowance for the additional rail-related car parking proposed.

The flows for the existing Tarmac batching operations to the north of the junction are not known at this stage and as such have not been included.

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Arms in the diagrams below are:

- a Cowley Road
- b Cowley Road North leading to Network Rail compound and eventually S7
- c Milton Ave towards station
- d Bramblefields Way along the northern edge of the residential

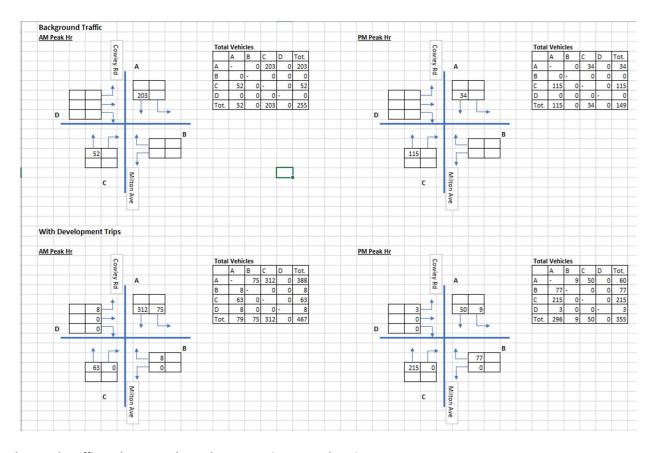
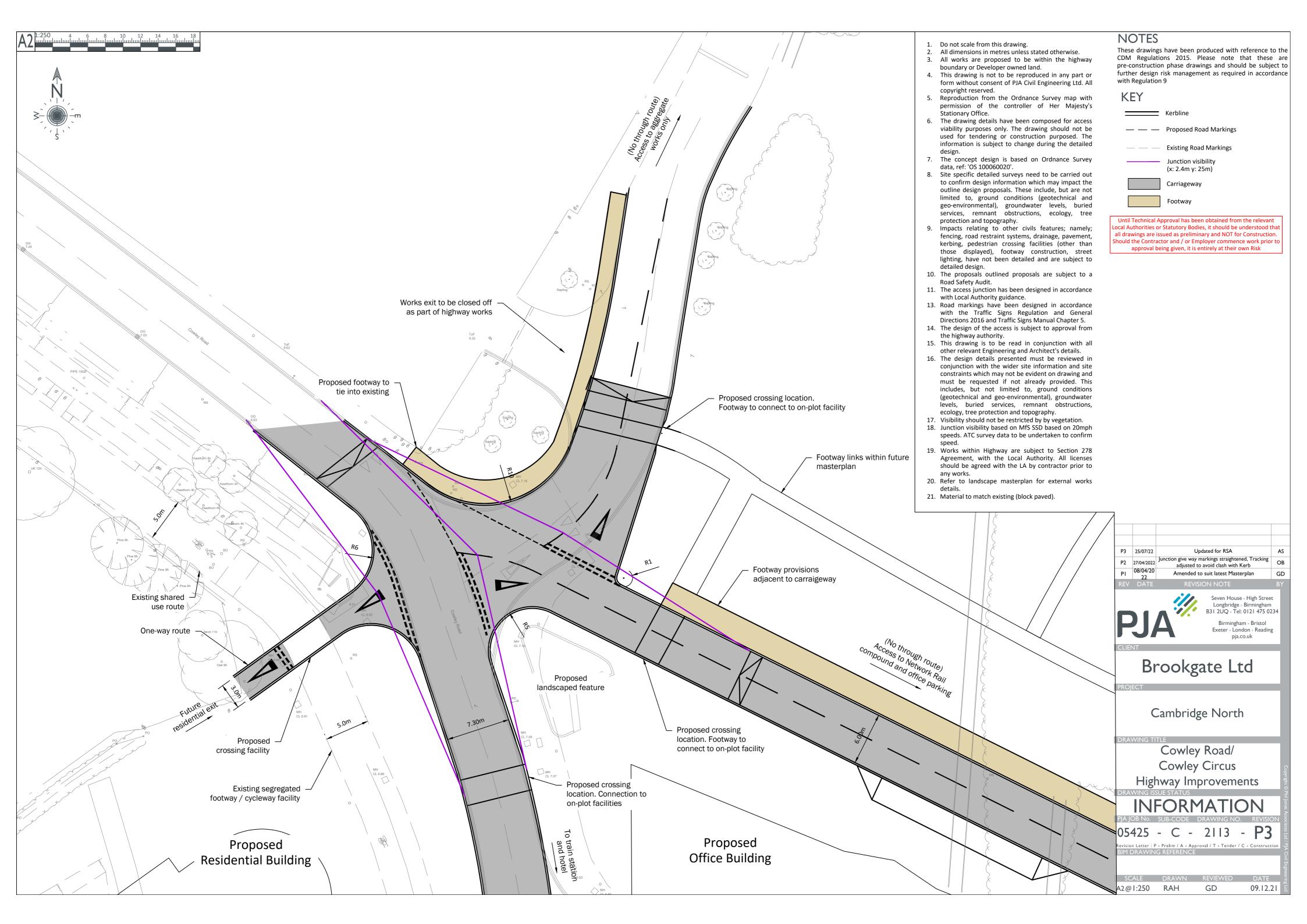
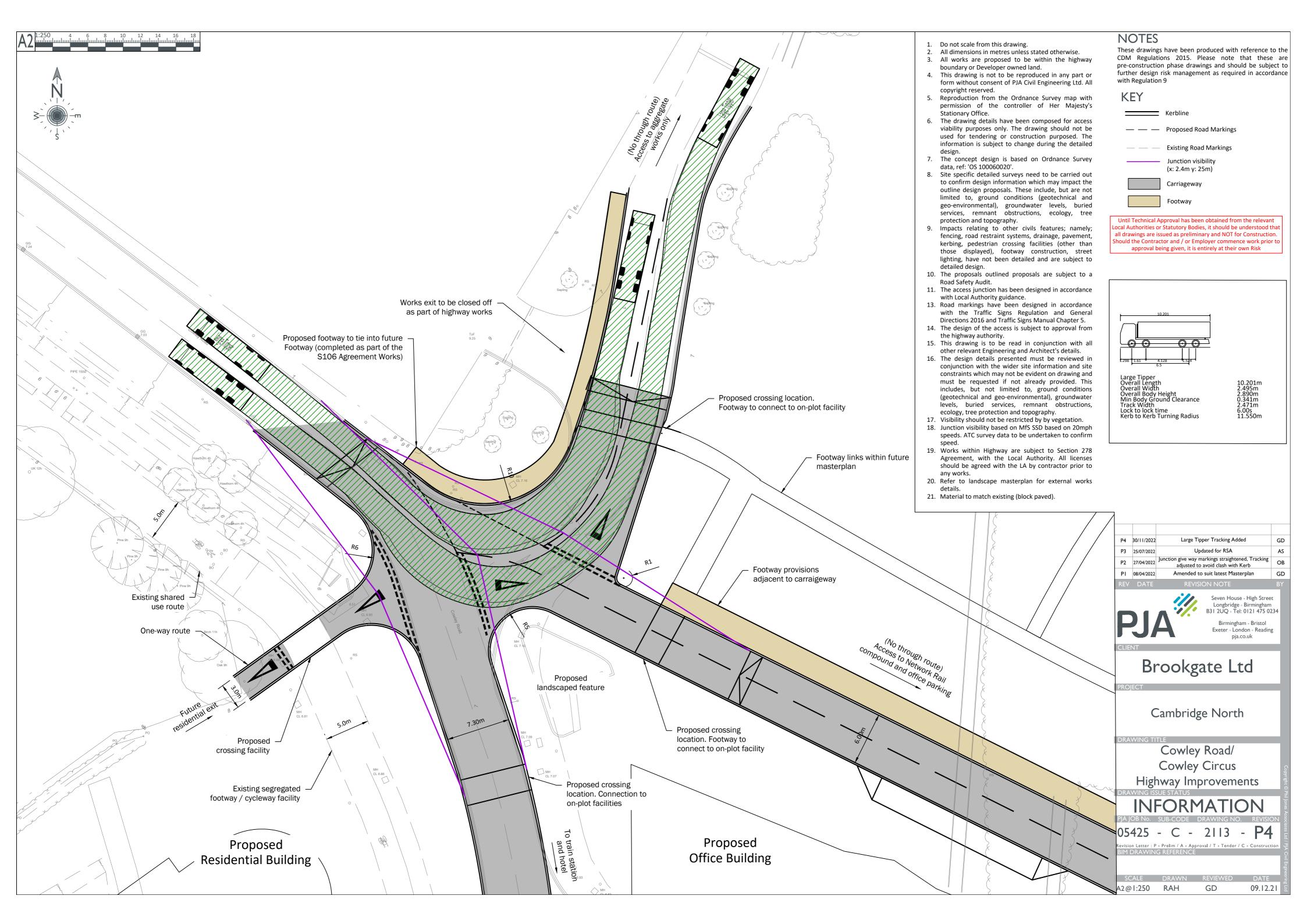


Figure 1: Background Traffic and Proposed Development Trips at Cowley Circus







Cambridgeshire County Council Road Safety Audit Response Sheet

Project name	Cambridge North Development (Cowley Circus)	
Audit Number & Stage	SA2277 - Stage 1	
Date:	30.11.22	
Prepared by:	Greg Dobbins (PJA Civil Engineering Ltd)	
On behalf of:	Brookgate Property Ltd	

Road safety audit decision log

RSA Problem	Recommendation	Designer Organisation Response	Overseeing Organisation Response	Agreed Action(s)
2.1 - Absence of tactile paving could lead to vehicle/pedestrian collisions or pedestrian trips and falls	It is recommended that the types of crossings proposed should be provided and associated dropped kerbs and tactile paving should be included within the design to suit.	Whilst not specifically shown on the drawings all crossings will uncontrolled and will include drop kerbs and tactile paving in line with DfT document <i>Guidance on the Use of Tactile Paving Surfaces</i> and inclusive mobility standards.	Response	
2.2 - Tight junction radii could lead to vehicle overrunning of the footway or head on collisions	It is recommended that vehicle tracking should be undertaken to ensure that all expected vehicle types can safely manoeuvre the junction without any overrunning	Vehicle Tracking demonstrating large tipper trucks using the junction leading up to the aggregate works has been added back onto the drawing 05425-C-2113-P4 Cowley Circus, having been removed for clarity. This shows that in the main, the size of the junction has been increased and that the manoeuvres can be undertaken without overrunning. PJA drawing 5425-C-2208 Refuse Vehicle Tracking has been included which shows the		

			,	
		council approved refuse vehicle		
		using the junction. Tracking shows		
		that the refuse vehicle can make the		
		manoeuvre without overrun, whilst		
		using all the carriageway. This was		
		deemed acceptable due to the		
		limited number of trips that the		
		vehicle would make (1 per week).		
2.3 - Fence within visibility	It is recommended that	The fence line will be amended as		
splay could lead to vehicle	visibility splays should be	part of the works and the crossing		
collisions	checked and kept free	will be finalised as part of the		
with pedestrians or	from obstructions.	Reserved Matters application for the		
cyclists		residential element of the scheme.		
.,		Visibility as required by LTN1/20 of		
		4.5m x 17m will be achieved in both		
		directions.		
Additional Comments		Development Descriptions below,		
		as illustrated on the masterplan		
No details of planning		included in the brief;		
application provided with		,		
this Audit request e.g.		An outline application (all matters		
numbers of residential		reserved apart from access and		
		landscaping) for the construction of		
units, commercial units,		three new residential blocks,		
etc. This will clearly have		providing flexible class e and class f		
a bearing on movement		uses on the ground floor (excluding		
levels and details provided		class e (g) (iii)), and two commercial		
-		buildings for use classes e(g) i		
for these are particularly		(offices), ii (research and		
sketchy		development) providing flexible		
		class e and class f uses on the		
		ground floor (excluding class e (g)		
		(iii)), construction of basements for		
		parking and building services, car		

	and cycle parking and infrastructure works. A full application for the
	construction of three commercial
	buildings for use classes e(g) i
	(offices) ii (research and
	development), providing flexible
	class e and class f uses on the
	ground floor (excluding class e (g)
	(iii)), with associated car and cycle
	parking, a multi storey car and cycle
	park, construction of basements for
	parking and building services, car and cycle parking and associated
	landscaping, infrastructure works
	and demolition of existing
	structures.
Additional Comments	Tracking details have been provided
Vehicle tracking details	on the amended layout drawing
have not been provided	05425-C-2113-P4 Cowley Circus.
for the proposed layout.	
A vehicle exiting the	The layout provides adequate
aggregates access road	visibility to allow the driver of a
onto the Network Rail	vehicle turning out from the
compound access road	aggregate works to view along
may block the path of an	Cowley Road and identify any
oncoming vehicle	oncoming vehicles travelling
turning left from Cowley	southwards. Should a larger vehicle
Road	be waiting to turn, it would
	temporarily block access to the NR compound road, however there is
	adequate space off carriageway for
	said vehicle to wait out of the
	alignment of vehicles using Cowley
	Road.

Additional Comments	The comment has been amended	
The drawings provided	on drawing <i>05425-C-2113-P4</i>	
detail an existing footway	Cowley Circus.	
to the northern side of		
Cowley Road which was	It is intended that a footway be	
observed on site not to be	provided on this section of Cowley	
there. Tie-in details	Road as part of S106 works, at	
for the proposed footway	which point the footway will tie in.	
termination at this point		
should be		
reconsidered		

Design organisation statement:

On behalf of the design organisation I certify that the actions identified in response to the road safety audit problems in this safety audit have been discussed and agreed with the Overseeing Organisation.

Name: Greg Dobbins
Signed: Greg Dobbins
Position: Associate Director
Organisation: PJA Civil Engineering Ltd
Date: 30.11.22

Overseeing organisation statement

On behalf of the overseeing organisation I certify that:

- the actions identified in response to the road safety audit problems in this safety audit have been discussed and agreed with the design organisation; and
- (2) the agreed actions will be progressed.

Name:		
Signed:	 	
Position:	 	
Organisation: _	 	
Date:		

ROAD SAFETY ENGINEERING

AUDIT REPORT COVER SHEET

To: Jon Finney

Position: Principal Development Management Engineer

Organisation: Cambridgeshire County Council

Scheme: Cambridge North Development & Cowley Circus

Date 22nd November 2022

File Ref: SA2277

The following comments should be read in conjunction with the associated safety audit:

- 1. No details of planning application provided with this Audit request e.g. numbers of residential units, commercial units, etc. This will clearly have a bearing on movement levels and details provided for these are particularly sketchy.
- Vehicle tracking details have not been provided for the proposed layout.
 A vehicle exiting the aggregates access road onto the Network Rail compound access road may block the path of an oncoming vehicle turning left from Cowley Road.
- The drawings provided detail an existing footway to the northern side of Cowley Road which was observed on site not to be there. Tie-in details for the proposed footway termination at this point should be reconsidered.



Cambridgeshire County Council Road Safety Engineering Team

SAFETY AUDIT REPORT

Project Name:	Cambridge North Development (Cowley Circus)		
Audit Stage:			
Date of Report:	22 nd November 2022		
Auditors:	Peter Taylor Gill Wharton		
Information	Request dated 29 th September 2022		
Supplied:	and brief dated 27 th September 2022		
	Drawings		
-	239-ACMA-PLA-S00-0010 Location Plan		
-	239-ACME-PLA-S00-0012 Illustrative Masterplan - Roof		
-	00525-0-TN-0002-P0 Traffic Flows		
-	00525-C-2113-P3 Cowley Circus		
			

Introduction

The Audit was carried out at the request of:

Name Dr Jon Finney

Job Title Principal Development Management Engineer
Organisation Cambridgeshire County Council

The terms of reference of the audit are as described in GG119. The audit has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria or design standards. Design standards are quoted only where those standards have road safety implications.

Notified Departures and/or Relaxations from Standard:

None notified at this time.

Scheme Description:

Improvements to an existing simple priority junction to add road to development areas. Incorporating active travel routes across new highway.

Date/Time of site visit:	Wednesday 2 nd November at 10:00.
Attending:	Peter Taylor

	Gill Wharton	
Conditions at Visit:		
Weather:	Dry and bright	
Traffic:	Low level and low speeds	
Other	Information not provided to the Audit Team included;	
	Signage	
	Visibility Splays	
	Drainage	
	Vehicle Tracking	

Collision record:

No current PIA collisions have been recorded within the scheme extents since before 2017.

1 Items raised at previous road safety audits and still outstanding

A. Stage 1 Safety Audit

The audit team is unaware of any previous Stage 1 safety audit for this proposal.

2 Items raised at this road safety audit

2.1 Problem:

Location: Scheme wide

Summary: Absence of tactile paving could lead to vehicle/pedestrian collisions or pedestrian trips and falls

The drawings provided detail several proposed crossing locations whereby the type of crossing to be provided has not been shown. No dropped kerbs or tactile paving have been shown associated with the proposed crossings which could leave blind or partially sighted pedestrians vulnerable of being unable to find a safe place to cross resulting in collisions with vehicles. Furthermore, the absence of dropped kerbs could lead to pedestrian trips and falls as a result of crossing where there is a full height kerb.

Recommendation

It is recommended that the types of crossings proposed should be provided and associated dropped kerbs and tactile paving should be included within the design to suit.

2.2 Problem:

Location: Cowley Road junction with Network Rail Compound access

Summary: Tight junction radii could lead to vehicle overrunning of the footway or head on collisions

No vehicle tracking has been provided to the Audit Team for assessment. It is Unclear to the Audit Team whether larger vehicles, such as the tarmac trucks which were observed during the site visit, are able to turn left from Cowley Road into both the Network Rail compound access and the aggregates access road without overrunning the footway or opposing carriageway lanes. This could lead to head on collisions or collisions with pedestrians using the footway.

Recommendation

It is recommended that vehicle tracking should be undertaken to ensure that all expected vehicle types can safely manoeuvre the junction without any overrunning.

2.3 Problem:

Location: Future Residential Exit

Summary: Fence within visibility splay could lead to vehicle collisions with pedestrians or cyclists

The drawings provided show a proposed future residential exit road onto Cowley Road. During the site visit a fence was observed to the north of the proposed road which, if left *in situ* could restrict drivers' visibility of pedestrians and cyclists using the shared route facility crossing over the access road at this location. This could lead to vehicle collisions with pedestrians or cyclists.

Recommendation

It is recommended that visibility splays should be checked and kept free from obstructions.

Audit Team Statement

We certify that this road safety audit has been carried out in accordance with GG119.

Peter Taylor Road Safety Audit Team Leader Road Safety Engineering Team Cambridgeshire County Council	Signed Pastylos	
	Date 23 rd November 2022	
Gill Wharton Road Safety Audit Team Member Road Safety Engineering Team Cambridgeshire County Council	Signed Gilletaton	
	Date 22/11/2022	

SA 2277 – Cambridge North Development (Cowley Circus) Stage 1 RSA

Problem Location Plan (NTS)

