

[REDACTED]

From: [REDACTED]

Sent: 18 February 2020 14:32

To: Planning.Responses <Planning.Responses@arun.gov.uk>

Cc: Simon Davis <Simon.Davis@arun.gov.uk>

Subject: BE/109/19 - Signed Designers Response to the RSA and DfS Engineer Comments

Hi Simon

I am shortly going to send further comments – these should be read in conjunction with the attached.

Miss Katie Kurek | BA (Hons) MCIHT | Assistant Planner

County Highways Team – Planning Services - Economy, Planning and Place Directorate
West Sussex County Council

Pronouns: She/Her

Location: Ground Floor Northleigh, County Hall, Chichester, PO19 1RH

[REDACTED]

BE IN YOUR COLLEAGUE'S CORNER

1 in 4 of us will experience mental health problems this year.
If a team mate is acting differently, step in.



time to c
let's end mental health

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SUBMISSION TO WEST SUSSEX COUNTY COUNCIL FOR DEPARTURES FROM STANDARD

Project Name	BE/109/19/OUT Shripney Road, Shripney
Applicant Organisation	Highgate Transportation
Applicant Ref	1845/DfS/01
Highway Authority Ref	
Applicant Contact Details	Highgate Transportation Limited, First Floor, 43-45 Park Street, Bristol, BS1 5NL Contact name: Brad Loxley Phone: 01779 349 121 Email: brad.s.loxley@gmail.com
Date Submitted	11/02/2020

1) PROJECT DETAILS

A Description	Creation of new ghost island site access with A29 Shripney Road to serve new development of 46 dwellings along with pedestrian crossing improvements.			
B Location	Shripney Road, Shripney			
C Road Category	TA 79/99 UAP2			
D Road Type	S2 and D2			
E Design Speed	44.8 mph (71.7 kph) northbound from surveys / 40.0 mph (64.0 kph) should this be 38.3mph ? southbound as surveyed design speed is lower than the speed restriction. Confirm that ATC locations and 85 th percentile speeds have been established			
F Speed Limit	40mph signposted			
G Traffic Flows	Existing Peak Hour Flows			
		07:00-08:00	16:00-17:00	Daily
	A29 Shripney Road – Northbound	588	466	6,707
	A29 Shripney Road – Southbound	523	725	6,899
H NMU Flows	Not surveyed but observed to be light.			

2) DEPARTURE DETAILS

A Discipline	Road Geometry
Type	Visibility Splay to the south
B Relevant Standard(s)	The designer should simply mention the standard that deals with the situation, e.g. CD 123. A visibility splay of 2.4 x 124.2 metres should be provided to the south. This y distance is based on a design speed of 44.8 mph (85th percentile surveyed speed during January 2020 survey) and the equation $SSD = vt + v^2/2(d+0.1a)$ with a reaction time of 2 seconds and deceleration rate of 0.375g as set out in DMRB TD 42/95). This should be drawn to the nearside kerb, or to the centre line if a road feature prevents overtaking.
Clause	DMRB CD 109 Table 2.10, DMRB CD 123 Chapter 3 Visibility, DMRB TD 42/95. The applicable clause needs to be stated here. TD 42/95 has been superseded.

C	Difference Between Standard(s) and proposed design	The visibility splay to the south is shown to a point 0.5 metres from the central reservation kerblane. The x and y distances are in accordance with the standards at 2B. The designer should state that: The design proposes a y-distance of 120 m to the kerblane because of the need to preserve trees. CD 123 requires a y-distance of 124.2 m for a design speed of 44.7 mph.
D	Reason for Departure (overview)	This offset negates the need to remove approximately five highway trees from the central reservation. Isn't the reason for departing from standard related to the preservation of trees?
E	Associated Project Departures	Providing visibility offsets of up to 1.0 metre is acceptable practice on the road network.. In any case this row seeks associated project departures -- the designer should refer to associated departures.
F	Other Options Considered	Removal of highway trees in discussions with highway officer.

3) JUSTIFICATION (POTENTIAL POSITIVE AND NEGATIVE IMPACTS)

A	Safety	No implication expected? – Although the full visibility is not achievable to the kerblane as required by standards, it is achievable to a 0.5m offset into the carriageway. This is therefore not considered a significant safety concern for both motorists and cyclists. Motorcycles are wider than 0.5m. Cyclists will generally be travelling in lane one rather than the extreme offside of lane 2 and therefore well within the visibility splay; they will also be travelling at a lower speed. Drivers are also located at more than 0.5m from the kerblane. Full inter-visibility with motorists at the access road is achievable
B	Congestion/ Delay	No impact
C	Environmental / sustainability	Preservation of around 5 highway trees. Expand
D	Capital and whole life cost/value	Small cost saving in not removing trees. Expand
E	Accessibility	No impact
F	Integration	No impact
G	Structural	No impact
H	Network resilience & Maintenance	As existing

4) COMPENSATORY MEASURES

A	Included Measures	None
B	Rejected Options	Providing full visibility to the kerblane..

5) DESIGN ORGANISATIONS CONCLUDING REMARKS

The departure is not expected to have a detrimental impact on highway safety or capacity and will instead allow highway trees to be retained.

6) ATTACHMENTS AND OTHER INFORMATION

A	List of Attachments	Drawing HTP/1845/09/B Email correspondence with Katie Kurek – Assistant Planner – County Highways Team
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B	Consultations	Email discussions with Katie Kurek
C	Other Information	

7) DECISION – (HIGHWAY AUTHORITY USE ONLY)

NAME 1						
ROLE						
SIGNED		DATE				
NAME 2						
ROLE						
SIGNED		DATE				
MARK ONE BOX:	1- APPROVED	☐	2-APPROVED WITH COMMENTS	☐	3- REJECTED	☐
COMMENTS						

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Date Submitted	11/02/2020

1) PROJECT DETAILS

A	Description	Creation of new ghost island site access with A29 Shripney Road to serve new development of 46 dwellings along with pedestrian crossing improvements.		
B	Location	Shripney Road, Shripney		
C	Road Category	TA 79/99 UAP2		
D	Road Type	S2 and D2		
E	Design Speed	44.8 mph (71.7 kph) northbound from surveys / 40.0 mph (64.0 kph) southbound as surveyed design speed is lower than the speed restriction		
F	Speed Limit	40mph signposted		
G	Traffic Flows	Existing Peak Hour Flows		
			07:00-08:00	16:00-17:00
			Daily	
		A29 Shripney Road – Northbound	588	466
		A29 Shripney Road – Southbound	523	725
H	NMU Flows	Not surveyed but observed to be light.		

2) DEPARTURE DETAILS

A	Discipline	Road Geometry
	Type	Stagger Distance
B	Relevant Standard(s)	The surveyed 85th percentile speeds of the Shripney Road in the vicinity of the proposed access junction and the existing Shripney Lane junction is around 35-45 mph (56-72 kph) depending on location and direction. Relevant standard is CD 123 – Geometric design of at-grade priority and signal-controlled junctions The minimum stagger distance for a road with central treatments with a design speed of 70-85 kph is 75 metres. For roads with a design speed of 60-70 kph the minimum stagger distance is 60 metres.
	Clause	DMRB CD 123 Chapter 2 Table 2.25
C	Difference Between Standard(s) and proposed design	A stagger distance of around 65 metres is provided. Which is 10 metres less than standard. By interpolation on table 2.25, the stagger distance for a road with a design speed of 71.7kph is 61.7m. 65m stagger is achieved, so there is no departure from standard
D	Reason for Departure (overview)	The vehicle speeds are spread across the two bands with a majority of vehicles travelling within the 60-70 kph band. The reason for the departure isn't given here

E	Associated Project Departures	None.
F	Other Options Considered	Traffic calming features including visual road narrowing.

3) JUSTIFICATION (POTENTIAL POSITIVE AND NEGATIVE IMPACTS)

A	Safety	No implication expected – The western minor arm is the existing Shripney Lane which is a cul-de-sac to motor vehicles and the western minor arm serving the proposal site is also a cul-de-sac. Given both roads are cul-de-sacs and residential in nature with some agricultural use from Shripney Lane then the across movement between the staggered arms will be very light.
B	Congestion/ Delay	No impact – The existing Shripney Lane junction has been observed to operate well within capacity and the proposed site access junction has been modelled using PICADY and will also operate well within capacity.
C	Environmental / sustainability	No impact
D	Capital and whole life cost/value	Small cost saving in lesser scope of work
E	Accessibility	No impact
F	Integration	No impact
G	Structural	No impact
H	Network resilience & Maintenance	No impact

4) COMPENSATORY MEASURES

A	Included Measures	None
B	Rejected Options	Traffic calming features including visual road narrowing.

5) DESIGN ORGANISATIONS CONCLUDING REMARKS

The departure is not expected to have a detrimental impact on highway safety or capacity, especially given the very light movement through the stagger between the cul-de-sacs of Shripney Lane and the site.

6) ATTACHMENTS AND OTHER INFORMATION

A	List of Attachments	Site access drawing HTP/1845/09/B PICADY modelling of the proposed site access junction
B	Consultations	None
C	Other Information	

7) DECISION – (HIGHWAY AUTHORITY USE ONLY)

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2) DEPARTURE DETAILS

A	Discipline	Road Geometry
	Type	Corner radii and tapers
B	Relevant Standard(s)	At ghost island junctions where no diverge or merge tapers are provided the corner radii should be 15 metres followed by a corner taper of 1:6 over a distance of 30 metres. CD 123 – Geometric design of at-grade priority and signal-controlled junctions
	Clause	DMRB CD 123 Chapter 5 cl. 5.6.3
C	Difference Between Standard(s) and proposed design	Corner radii of 10 metres have been provided with no tapers. The standard requires that at ghost island junctions where no diverge or merge tapers are provided the corner radii should be 15 metres followed by a corner taper of 1:6 over a distance of 30 metres.
D	Reason for Departure (overview)	The 15 metres corner radii and tapers are mostly for the benefit of large vehicles, especially articulated delivery vehicles. The development of 46 dwellings will generate a very small number of movements by large rigid vehicles (including refuse collection, larger delivery vehicles for items such as white goods and emergency services). A residential development is not expected to generate any trips by articulated vehicles.

E	Associated Project Departures	None. Visibility splay has been shown as a departure – refer to other associated DfS
F	Other Options Considered	None. Providing the taper as recommended but it was not taken forward because it was ...

3) JUSTIFICATION (POTENTIAL POSITIVE AND NEGATIVE IMPACTS)

A	Safety	No implication expected??? – The site is expected to generate very few movements by large rigid vehicles and none by articulated vehicles which benefit most from large radius junction and tapers. Swept path analysis is provided on drawing HTP/1845/TR04/A which demonstrates that the site access is suitable for a 11.2m refuse collection vehicle, which is the largest vehicle expected to access the site. Articulated vehicles will be very infrequent and so the risk is considered small. Generous radii allows for articulated vehicles to use the junction safely??? (if this has also been demonstrated through swept path tracking)
B	Congestion/ Delay	No impact
C	Environmental / sustainability	Retention of existing verge - expand
D	Capital and whole life cost/value	Cost saving in reduced scope of work including potential relocation of street furniture including lighting.
E	Accessibility	No impact
F	Integration	No impact
G	Structural	No impact
H	Network resilience & Maintenance	No impact

4) COMPENSATORY MEASURES

A	Included Measures	None.
B	Rejected Options	Compound kerbs including a small taper on the southern side but rejected in discussions with the highway officer. For what reason was it rejected?

5) DESIGN ORGANISATIONS CONCLUDING REMARKS

The departure is not expected to have a detrimental impact on highway safety or capacity, especially given the low use by large rigid vehicles and very little use by articulated delivery vehicles.

6) ATTACHMENTS AND OTHER INFORMATION

A	List of Attachments	Site access drawing HTP/1845/09/B Swept path analysis drawing HTP/1845/TR04/A Highways consultation response dated 21/11/19 which includes a request to increase the kerb radii to 9m (at this time 6m kerbs were proposed)
B	Consultations	None
C	Other	

	Information	
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