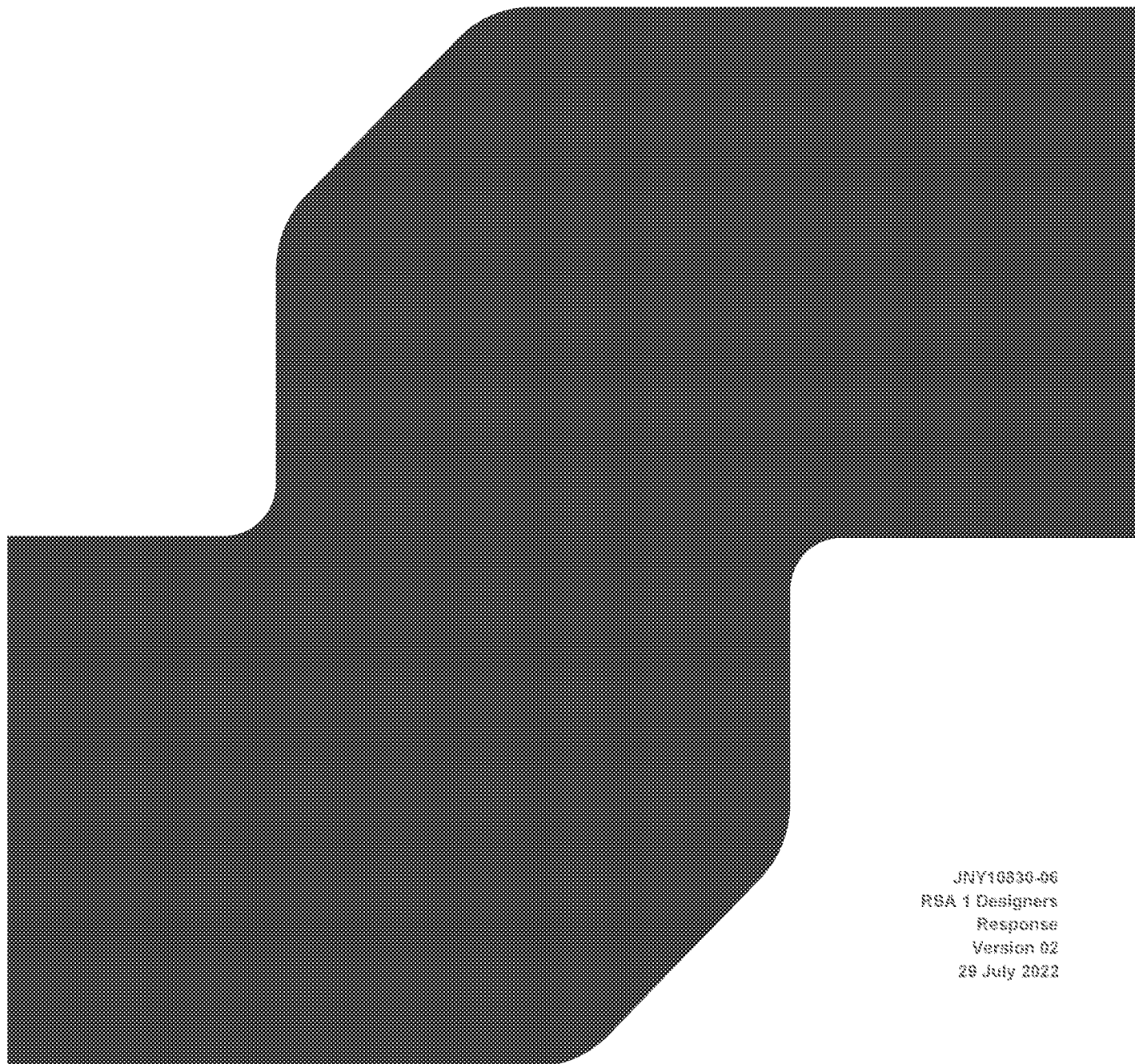


BOGNOR REGIS GOLF COURSE – PROPOSED NEW GOLF COURSE ACCESS – A259 GREVATTS LANE

Stage 1 Road Safety Audit – Designers Response



JNY10830-06
RSA 1 Designers
Response
Version 02
29 July 2022

Document Status					
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01	Designers Response to RSA	MA	BP	MA	07 December 2021
02	Additional column added 'Agreed RSA Action'	MA	BP	MA	09 June 2021

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AUDIT REF	Problem Summary and Recommendation	Designers Response	WSCC Comments	Agreed RSA Action
3.1 - 1	Summary: Risk of overtaking resulting in vehicle-to-vehicle head on type collisions. The introduction of a short section of carriageway widening to accommodate a ghost island right-turn facility in the development access junction may encourage vehicles to overtake within this area. This may result in an increased risk of vehicle-to-vehicle head on type collisions. Recommendation: The Audit Team recommend that the right turn facility is designed to prevent vehicles from carrying out overtaking movements within this section on the westbound approach.	The A259 has a number of existing ghost island right turn lanes and where movements in and out of developments such as Bairds Business Park are relatively low, no measures are provided. However, if WSCC consider it appropriate a traffic island on the eastern side of the access can be provided. This is included on the proposed access drawing. This is the type of measure provided at the B2132 junctions although there is a significantly higher volume of movements at this location.	Accept Auditor recommendation and Design Organisation response to it. The matter of both traffic island (on eastern-side of the junction) and refuge (on western-side) to provide a traffic island and crossing facility respectively has been considered through a Departure from Standard process and acceptance given by the Overseeing Organisation, subject to conditions. These features will assist with preventing vehicles from overtaking on the westbound approach.	That the scheme proceeds with both the refuge and traffic island as-per scheme drawings including the conditions of the accepted Departure from Standard.
3.2 - 2	Summary: Existing open drainage ditch, potential hazard to an errant road user. No drainage details have been provided for this stage of audit and it is not clear what methods will be used to deal with the drainage when the access junction and associated works are constructed. This could increase the severity of a collision involving a vehicle leaving the carriageway at this location.	The existing ditch is set back some distance from the road edge and whilst the road will be widened, it is not considered that there would be any greater risk to drivers. A review of drainage will be provided as part of the detailed design stage, where required the existing ditch will be culverted.	Accept Auditor recommendation and Design Organisation's response to it.	That an appropriate drainage design for the access and adjacent ditch be provided for review at detailed design (S38/278) stage.

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	Recommendation: The Audit Team recommends that appropriate drainage is included within the scheme proposals.			
3.4-3	Summary: Width of refuge island may not accommodate cyclists crossing the carriageway. Risk of vehicle to cyclist type collisions. The drawing indicated that a refuge crossing facility is proposed to the west of the proposed development access junction. Proposed widths are not indicated. The existing facility along the northern side of Gravatt's Lane is a shared facility. This island, if implemented, would act as a refuge for pedestrians and cyclists to cross the carriageway in two stages. A lack of sufficient refuge width may increase the risk of cyclists overhanging the approach traffic lanes. This may increase the risk of vehicle to cyclist type collisions. Recommendation: The Audit Team recommend that the proposed refuge island can safely accommodate both pedestrians and cyclists waiting to	The proposed traffic island has been increased to provide a depth of 3m, the width is 3m which is considered sufficient for the likely level of use and provides a suitable safe waiting area for cyclists and pedestrians.	Accept Auditor recommendation and Design Organisation's response to it.	That depending on the outcome of the Departure from Standard as mentioned alongside point 1 above, the refuge be provided as per the Design Organisation's proposal and in accordance with other WSCC requirements for kerb-to-kerb widths either-side of it at 4.0m (for both east and west running lanes).

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	cross between the northern and southern sides of Grevatt's Lane.			
4	Summary: Risk of pedestrians/ cyclists falling in drainage ditch The proposed footway/cycleway facility will span an existing wide ditch/ water channel. At this stage of the audit, cross section drawings have not been provided and it is therefore unclear what measures are proposed at this location. Pedestrians/cyclists may be at an increased risk of falling into the drainage ditch from the footway areas and sustaining injury. Recommendation: The Audit Team recommends that at the next stage of audit appropriate measures are provided to protect pedestrians /cyclists from falling from the footway into the adjacent ditch area.	The existing footway/cycleway on the northern side of the A259 runs alongside an existing ditch. Where the distance from the back of the footway and the edge of the ditch is 0.5m or less consideration will be given to appropriate measures subject to discussion with WSCC. This will be dealt with at the detail design stage.	Accept Auditor recommendation and Design Organisation's response to it.	That both the drainage design and measures to protect pedestrians and cyclists from falling into the ditch be provided at the detailed design (S38/278) stage.
5	Summary: Lack of pedestrian/cyclists' provision may result in pedestrian/cyclist to vehicle collisions. The drawing indicates that a refuge island is proposed on Grevatts Lane to the west of the development access junction. Dropped kerbs and tactile paving are not shown on either the	Recommendation accepted. Dropped Kerbs and tactile paving have been added to the access layout.	Accept Auditor recommendation and Design Organisation's response to it.	That dropped Kerbs and tactile paving be provided to the access layout in the locations highlighted in the Auditor's recommendation.

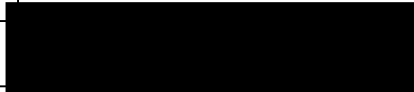
AUDIT REF	Problem Summary and Recommendation	Designers Response	WSCC Comments	Agreed RSA Action
	northern or southern side of Grevatts Lane. This may increase the risk of pedestrian/cyclist trip hazards and /or vehicle to pedestrian /cyclist type collisions. Recommendation: The Audit Team recommends that appropriate dropped kerbs and tactile paving are provided.			
6	Summary: Lack of signage and corduroy paving on the shared use facility may increase the risk of cyclists to pedestrian type collisions. As part of the scheme proposals a new section of shared provision is proposed between the refuge island and the development site access junction linking to a footway only provision on the western side of the development access road. The drawings provided for this stage of audit do not indicate any corduroy paving to warn blind/ Partially sighted users of the potential presence of cyclists. This may increase the risk of cyclists to pedestrian type collisions. Recommendation: The Audit Team recommend that the appropriate form	Recommendation Accepted: Corduroy tactile paving has been added to the layout.	Accept Auditor recommendation and Design Organisation's response to it.	That corduroy and tactile paving be provided as part of the finished scheme layout as-per the Auditor's recommendation.

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	of tactile paving is provided where required.			
7	Summary: Lack of guidance for cyclists to gain access to the off-road facility may increase the risk of cyclist to vehicle type collisions. The scheme proposals do not give an indication of what measures will be provided within the new layout to enable cyclists to leave the shared facility to join the carriageway into the development access road or vice versa. This may result in these users leaving/joining the carriageway over a full height kerb whereby they may lose control and fall off their bicycles into the carriageway. This may increase the risk of vehicles to cyclist's type collisions. Recommendation: The Audit Team recommends that sufficient guidance is provided to ensure cyclists can safely access the facility and also leave the carriageway.	Recommendation accepted. The access to the golf course will see low vehicle movements and therefore cyclists will be able to continue on road into the site. The layout has been amended to show a dropped kerb for cyclists to use at the access road.	Accept Auditor recommendation and Design Organisation's response to it.	That sufficient guidance is provided to ensure cyclists can safely access the facility and also leave the carriageway as part of the design of the route.
8	Summary: Lack of deflection 'kicker' arrows may increase the risk of vehicle to street furniture and/or pedestrians type collisions.	The Department of Transport's 'Chapter 5 Road markings' states in para 2.7.2 'Diagrams 1020, 1040.3 and 1040.4 may be preceded by	Accept Auditor recommendation and Design Organisation's response to it.	All road markings to be reviewed as part of detailed design (S38/278) and applied as appropriate in accordance with

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	The drawing does not show any deflection arrows for the tapered approaches to the right turn lane. This lack of guidance may increase the risk of vehicles striking the pedestrian refuge with the attendant risk of injury to pedestrians at the pedestrian refuge, particularly during the hours of darkness. Recommendation: The Audit Team recommend that deflection arrows are provided for the tapered approaches to the ghost island right turn lane facility.	<i>the deflection arrow diagram 1014. Arrows used with diagram 1040 are positioned in the centre line and not in the opposing carriageway as with double white lines.</i> Whilst it is not normal for deflection arrows to be provided on the approach to right turn lanes, it may be beneficial in this location due to limited lighting and vehicle speeds. Therefore, the deflection arrows have been added in both directions.		DMRB advice and Road Safety Audit recommendations.
9	Summary: Lack of signage /lighting may increase the risk of vehicles mounting the refuge island and colliding with non-motorised users. For this stage of the audit, no information has been provided with regard to street lighting or signage provision. The proposed pedestrian refuge island is to be located within a road that is not currently street lit to the west of the proposed development access junction. A lack of signage and street lighting may increase the risk of vehicles striking the island resulting in single vehicle loss of control type collisions or	Recommendation accepted: The location of the access is currently on an unlit rural road; therefore the proposed traffic islands will include reflective bollards and lighting on the islands, a typical example of this arrangement is provided on the access drawings. Details of signage will be dealt with at the detail design stage.	Accept Auditor recommendation and Design Organisation's response to it.	That the proposed traffic islands will include reflective bollards and lighting on the islands with final details being agreed at the detail design (S38/278) stage.

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	vehicle to pedestrian/ cyclist type collisions, particularly during the hours of darkness and /or poor daylight conditions. Recommendation: The Audit Team recommend that the refuge island is visible to approaching drivers during all lighting conditions.			

Design Organisation Statement

On behalf of the design organisation, I certify that:	
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	
Name	Melanie A'Lee
Signed	
Position	Associate Director
Organisation	RPS
Date	09/06/2022

Overseeing Organisation statement

On behalf of the Overseeing Organisation, I certify that:	
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; and	
2) The agreed RSA actions will be progressed	
Name	Timothy Stephen Townsend
Signed	T.S. Townsend
Position	Principal Transport Planner
Organisation	West Sussex County Council
Date	28 th July 2022

