



PROJECT DETAILS	
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Prepared by:	Sands Consultants
On behalf of:	Devon County Council

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Date:	10/12/24

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Proposed Section 184 & 278 Works at Brickfields Academy
 Combined Stage 1/2 Road Safety Audit – Designers Exception Response

RSA Prob. No.	RSA Problem	RSA Recommendation	Design Organisation Response	Overseeing Organisation Response	Agreed RSA Action
1.	<p>Location: Raglan Road at the proposed one-way access to the site</p> <p>Summary: The swept path of the bus turning left into the site traverses the opposite carriageway lane of Raglan Road on a blind bend which could lead to head-on type collisions</p> <p>The drawing shows the swept path of a bus turning left into the proposed one-way access into the site from Raglan Road. In so doing, the bus will need to traverse the opposite carriageway lane of Raglan Road on a blind bend. This could lead to the potential for head-on type collisions to occur between the turning bus and northbound drivers and riders on Raglan Road. Additionally, the drawing does not show the swept path of a bus turning right into the new one-way access from Raglan Road. As such, the Audit team are concerned that this could allow the potential for collision with site infrastructure which in turn could lead to injury to bus occupants.</p>	<p>The geometry of the proposed junction should be revisited to reduce the likelihood of a left turning bus from having to significantly traverse the opposite carriageway lane of Raglan Road on a blind bend. Additionally, all potential manoeuvres of the largest vehicle likely to need to enter the site should be demonstrated with a detailed swept path analysis.</p>	<p>Tracking and highway amended. Please refer to "2101P02".</p>		

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2.	<p>Location: Raglan Road at the proposed one-way access to the site</p> <p>Summary: It appears that a 12mm upstand is proposed at the type BN kerb interface with Raglan Road. This could be a hazard to turning riders of two-wheeled vehicles leading to them being unseated</p> <p>The drawing insert detail appears to show a kerb upstand at the proposed type BN kerb interface with Raglan Road of 12mm. An inappropriate kerb upstand at the interface of the new junction could be a hazard to riders of two-wheeled vehicles who could be unseated when turning into the new access road. This in turn could result in injury to riders.</p>	<p><i>The proposed upstand for the interface of the type BN kerbs for the new access road with the carriageway of Raglan Road should be appropriate for the passage of riders of two-wheeled vehicles.</i></p>	<p>Kerb upstand reduced to 6mm. An upstand is required to channel highway water away from the entrance. Please refer to "2101P01".</p>		

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3.	<p>Location: Kings Road at location of proposed northern zebra crossing</p> <p>Summary: Location of existing tree could compromise intervisibility between crossing westbound pedestrians and passing drivers and riders at the new northern zebra crossing on Kings Road leading to potential collisions</p> <p>The Audit team note the location of an existing tree in close proximity to the site of the proposed Zebra crossing on the northern section of Kings Road (see pic right). As such they are concerned that the tree could compromise intervisibility between passing drivers and riders and crossing westbound pedestrians, particularly in the growing season. This in turn could lead to heavy braking, shunt type collisions and the potential for collisions with crossing pedestrians. Additionally, the tree could compromise conspicuity of the proposed Belisha beacon at night which in turn could increase the potential for collisions at the crossing during the hours of darkness.</p>	<p><i>The potential for the existing tree to compromise intervisibility at the proposed new zebra crossing should be assessed and if found appropriate the tree should be adequately cut back or removed altogether.</i></p>	<p>Design team to assess location of existing tree in conjunction with Client.</p>		

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4.	<p>Location: Kings Road at location of proposed northern zebra crossing</p> <p>Summary: The distance between the stop line and stud line on the drawing at the proposed zebra crossing could be too short allowing large vehicles such as buses and coaches to overhang the crossing area where they potentially intimidate or strike crossing pedestrians</p> <p><i>The Audit team are concerned that the distance between the stop line and the stud line on the drawing at the proposed zebra crossing could be too short. This could allow large vehicles such as buses and coaches travelling to and from PAFC to overhang the crossing area where they could potentially intimidate or strike crossing pedestrians.</i></p>	<p><i>Adequate distance should be provided between the stop line and the stud line at the proposed new northern zebra crossing on Kings Road in accordance with the appropriate standards.</i></p>	<p>Traffic Signs Manual – Chapter 6 – Traffic Control – Figure 16-2, states that the minimum distance from the edge of the crossing to the white lining must be 1100mm. Our design complies with this. Design to remain as proposed.</p>		

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5.	<p>Location: Kings Road at location of proposed northern zebra crossing</p> <p>Summary: An existing gulley frame at the location of the proposed zebra crossing could be a heel trap to crossing pedestrians leading them to trip and fall into the path of oncoming vehicles</p> <p>The Audit team are concerned that an existing gulley frame could be in the crossing area of the new zebra crossing (see pic right). This could be a heel trap to crossing pedestrians leading them</p>	<p>If found appropriate the existing gulley frame on Kings Road should be relocated to the upstream side of the proposed new zebra crossing.</p>	<p>As the gully grating is already within a crossing and has a pedestrian friendly grating, it is proposed to retain this in its current location.</p>		

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6.	<p>Location: Kings Road at location of proposed southern zebra crossing</p> <p>Summary: The distance between the stop line and stud line on the drawing at the proposed zebra crossing could be too short allowing large vehicles such as buses and coaches to overhang the crossing area where they potentially intimidate or strike crossing pedestrians</p> <p><i>The Audit team are concerned that the distance between the stop line and the stud line on the drawing at the proposed zebra crossing could be too short. This could allow large vehicles such as buses and coaches travelling to and from PAFC to overhang the crossing area where they could potentially intimidate or strike crossing pedestrians.</i></p>	<p><i>Adequate distance should be provided between the stop line and the stud line at the proposed southern zebra crossing on Kings Road in accordance with the appropriate standards.</i></p>	<p>Traffic Signs Manual – Chapter 6 – Traffic Control – Figure 16-2, states that the minimum distance from the edge of the crossing to the white lining must be 1100mm. Our design complies with this. Design to remain as proposed.</p>		

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7.	<p>Location: Kings Road at location of proposed southern zebra crossing</p> <p>Summary: Location of existing tree could compromise intervisibility between crossing westbound pedestrians and passing drivers and riders at the new northern zebra crossing on Kings Road leading to potential collisions</p> <p>The Audit team note the location of an existing tree in close proximity to the site of the proposed zebra crossing on the southern section of Kings Road (see pic right). As such they are concerned that the tree could compromise intervisibility between passing drivers and riders and crossing westbound pedestrians, particularly in the growing season. This in turn could lead to heavy braking, shunt type collisions and the potential for collisions with crossing pedestrians. Additionally, the tree could compromise conspicuity of the proposed Belisha beacon at night which in turn could increase the potential for collisions at the crossing during the hours of darkness.</p>	<p>The potential for the existing tree to compromise intervisibility at the proposed new zebra crossing should be assessed and if found appropriate, the tree should be adequately cut back or removed altogether.</p>	<p>Design team to assess location of existing tree in conjunction with Client.</p>		

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8.	<p>Location: Kings Road at location of proposed southern zebra crossing</p> <p>Summary: The proposed length of high friction surfacing (HFS) on the northern approach to the proposed southern zebra crossing could be too short leading to heavy braking, shunts and collisions with crossing pedestrians</p> <p>The Audit team are concerned that the proposed length of HFS on the northern approach to the proposed southern zebra crossing could be too short in the prevailing 30mph speed limit for drivers and riders accelerating downhill away from the roundabout. This could lead to heavy braking, shunts and collisions with crossing pedestrians.</p>	<p>The length of HFS provided on the northern approach to the proposed southern crossing on Kings Road should be appropriate for the prevailing 30mph speed limit and if found necessary, the crossing should be relocated to achieve this.</p>	<p>CD 116 – Geometric design of roundabouts 8.2.4 states “Non-staggered controlled crossings should be sited either at 20 metres or more than 60 metres from the roundabout entry give way line. “. Meaning to fit the full 50m of High Friction Surfacing we would need to move the crossing a further 40m along Kings Road. This would result in people not using the crossing due to it being away from the desire line.</p>		

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9.	<p>Location: Proposed Madden Road exit from site</p> <p>Summary: The swept path analysis provided for an exiting bus and articulated HGV both overrun the footway. This could lead to the potential for collisions with passing pedestrians and damage to the footway</p> <p>The Audit team are concerned that the swept path analysis provided for an exiting bus and articulated HGV both overrun the western footway of Madden Road. This could lead to the potential for collisions with passing pedestrians 9 Combined Stage 1/2 Road Safety Audit – Proposed Sections 184 and 278 Works for Brickfields Academy on Kings Road, Raglan Road & Madden Road Plymouth DEVON prepared by David A Graham Associates (3rd November 2024) Rev-Final and damage to the footway which in turn could create a trip hazard for passing pedestrians.</p>	<p>The geometry of the proposed junction should be revisited to reduce the likelihood of exiting buses and articulated HGVs from overrunning the western footway of Madden Road.</p>	<p>Please see attached "2105P02" where the tracking has been amended.</p>		

DESIGN ORGANISATION STATEMENT	
<p>On behalf of the design organisation I certify that;</p> <ul style="list-style-type: none"> ■ 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:	David Rowe
Position:	Associate Director
Signed:	D.Rowe
Organisation:	Sands Consultants
Date:	10/12/24

OVERSEEING ORGANISATION STATEMENT	
<p>On behalf of the Overseeing Organisation I certify that;</p> <ul style="list-style-type: none"> ■ 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 ■ The agreed RSA actions will be progressed 	
Name:	HIGHWAY OFFICER NAME
Position:	HIGHWAY OFFICER JOB TITLE
Signed:	HIGHWAY OFFICER SIGNATURE (LEAVE BLANK)
Organisation:	HIGHWAY AUTHORITY
Date:	LEAVE BLANK