Appendix D: DESIGNER'S RESPONSE V2 Audit date: 21 December 2023

Ellesmere Stage 1 Audit ATSS Ref: 231201 Response Date:

Para	Location/Problem	Recommendation	Designer's Response
2.1	All arms at Ellesmere Business Park roundabout The proposals include a two-lane entry on all approaches to the new roundabout however all exits are to be single lane. Without adequate provision to accommodate all manoeuvres, particularly along the A495 arms which are the busiest, the current design encourages conflict and may result in driver confusion and vehicle collisions at the exit points	Ensure that all approaches are well signed, and drivers are provided with sufficient information to assist them in making the correct lane decision when approaching and negotiating the new roundabout	Agreed. Road marking drawing attached (1203)
2.2	Ellesmere Business Park roundabout, south arm The new south arm is proposed to be installed by removing part of an existing hedgerow. No information has been submitted to the audit team showing that the hedgerow on either side will be removed/relocated so that sightlines are kept clear of obstruction. If sightlines are obstructed by the existing hedgerow or other features, they may result in side-swipe or junction overshoot type collisions	Arrange for significant sections of the existing hedgerow to be permanently removed and keep the verge to the east and west clear of any other obstructions to ensure that visibility for drivers approaching the roundabout from the new south arm is always clear	Visibility drawings attached (1210).
2.3	Proposed splitter islands on the south, east and west arms at Ellesmere Business Park roundabout Due to the location of the tactile paving slabs the new splitter islands appear to have insufficient room to incorporate reflective bollards or direction signs at their front end. Lack of reflective bollards may result in drivers striking the islands as they negotiate the roundabout in poor visibility conditions. The absence of direction signage may cause confusion to some drivers who may suddenly brake or change direction resulting in loss of control or rear-end shunt type collisions	Ensure that bollards and direction signage can be accommodated within the new roundabout layout	New splitter islands have been added to the GA. Increased islands and bollards are shown on all plans.

2.4	Splitter islands on all arms of Ellesmere Business Park roundabout The new and modified splitter islands do not include upright bollards or any other infrastructure to guide approaching traffic away from them and onto the correct path before entering the roundabout. Lack of such infrastructure may result in drivers striking the islands during periods of poor visibility and losing control of their vehicles or entering the roundabout on the incorrect side and colliding head-on with oncoming traffic	Ensure that suitable signing infrastructure is included in the proposed roundabout modifications to prevent collisions at the approaches to the roundabout	New splitter islands have been added to the GA. Increased islands and bollards are shown on all plans.
2.5	Scotland Street/Canal Way junction The current arrangement at this three-arm junction facilitates each approach to operate independently in three different stages. In order to allow the junction to operate within capacity once the new development site is complete, it is proposed to combine the eastbound and westbound A495 stages into one stage and to provide a 'holding area' within the centre of the junction for vehicles turning right from the westbound A495 onto Canal Way. The right turn holding area appears to be in the path of oncoming traffic and in the lack of any tracking information the auditors are concerned that this proposal will cause conflict between those turning right and those approaching from the east resulting in head-on or rear-end shunt type collisions	Undertake swept path analysis of the proposed layout to make sure that vehicles, particularly HGVs can access and ensure that the modifications to the existing junction layout do not result in vehicle conflicts	Swept path analysis, contained in drawing HTp/2314/TR03, confirms that a 10m rigid HGV or car waiting to turn right can be passed by a 10m rigid HGV travelling westbound. It also shows that large vans travelling eastbound and westbound can simultaneously pass a third large van waiting to turn right. The proposed junction arrangement has been updated to include for white lining demarcating the route for a westbound vehicle (HTp/2314/02A).

2.6	Scotland Street/Canal Way junction The proposed changes to the existing staging of the signalised junction as described in problem 2.6 above, will result in traffic turning right into Canal Way having to give way to traffic approaching from the east. Site observations suggest that the right turn manoeuvre at this junction is popular with drivers accessing the Tesco superstore and the adjacent housing development. No vehicle tracking information has been submitted to the audit team showing how eastbound vehicles heading towards the town centre can pass those waiting in the 'holding area' turning right. In the lack of such information the auditors are concerned that eastbound drivers along the A495 may mount the existing footway, which is very narrow at this point, to pass those waiting to turn right, resulting in pedestrian/vehicle collisions	Undertake swept path analysis to make sure that vehicles, particularly HGVs can pass those waiting to turn right. Ensure that the modifications to the existing junction layout do not result in pedestrian/vehicle conflicts	Swept path analysis, contained in drawing HTp/2314/TR03, confirms that a car waiting to turn right can be passed by a 10m rigid HGV travelling eastbound, and vice-versa, without the need to mount the footway. It also shows that large vans travelling eastbound and westbound can simultaneously pass a third large van waiting to turn right. The likelihood of an HGV travelling eastbound needing to pass an HGV waiting in the right turn holding area is very low, and therefore this would occur very infrequently. The consequence of such an unlikely occurrence would be minor congestion on the eastbound arm for a maximum of the remaining cycle time for that arm.
2.7	Canal Way access to the new development Road markings, incorporating a cycle symbol and turn right arrow, are proposed at the new access for cyclists approaching the new development from the northwest to transition onto a proposed shared-use footway on the south-eastern side. This transition creates conflict between road users as cyclists already in the carriageway may not look over their shoulder to turn right onto the shared-use footway and may collide with traffic approaching from behind them. Young, non-confident cyclists whose numbers may well increase following the completion of the new development site, are at a higher risk of conflict.	Re-assess the current proposal and ensure that a safer cycle transition is provided, either at this location or elsewhere in the vicinity, to allow cyclists to access, and leave, the proposed shared-use footway safely	The cycle transitions have been redesigned to incorporate an uncontrolled crossing with 3m x 3m refuge island and short sections of on-carriageway cycle lanes. The arrangement is shown in drawing HTp/2314/07A. South/westbound cyclists are now provided with a smooth transition onto a section of shared use footway/cycleway, followed by a shared crossing of the carriageway.

	Similarly, northbound cyclists are directed off the shared use path directly into the carriageway, with no physical protection from northbound vehicles approaching from behind them, whose drivers will not be expecting a cyclist to enter the carriageway at this point		North/eastbound cyclists will be clearly seen in the cycle lane by vehicles in the carriageway before cyclists transition to the carriageway. The presence of the cycle lane provides a clear indication that cycles may transition onto the carriageway in this location, and these movements will therefore be expected.