

A6 MARR Clay Lane Junction Safety Report

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Sent: 15 October 2014 10:15**To:** Richardson, Adam [Adam.Richardson2@aecom.com]**Cc:** Naz Huda; Graham Martin; TRAYNOR, Paul [Paul.Traynor@cheshireeast.gov.uk]; ROSS, Andrew [Andrew.Ross@cheshireeast.gov.uk]; GRIFFITHS, Paul [Paul.Griffiths@cheshireeast.gov.uk]; Durman, Nick [Nick.Durman@jacobs.com]**Attachments:** A6MARR-O-S-52-001-RE-001 (~1.pdf (275 KB) ; A6MARR-2-W-01-300-SK-002.pdf (455 KB)

Adam

With reference to the Clay Lane Safety Statement (ref A6 MARR-O-S-52-001-RE-001) which relates to Design departures S4 002 and S4 004, I can confirm that Cheshire East Borough Council have reviewed the safety statement and note the suggestions raised to improve the safe operation of the Clay Lane junction.

The principles relating to moving the junction to the west to maximise the distance between the stop line and the roundabout and the associated visibility, radii, signing and surfacing are all accepted in principle. The associated measures to keep speeds down on the approach to the junction with the character of the link between the junction and the roundabout to be very different to that of the slip road are also accepted in principle. We would expect these matters to be addressed as part of the development of the detailed design.

Regards

Paul Davies

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Highway Services Contract

Cheshire East Council Highways

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Memo

Date
29 September 2014

To
Rosie Simon (CMS)

From
Andrew Russ MSoRSA

Subject
A6 MARR EI29 – CPO Objection Clay Lane Alternative Layout

Our Reference
A6MARR-0-S-52-001-RE-001

Project Number
P114172

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Safety Statement

This safety statement provides an initial assessment of an alternative layout of the Clay Lane link as provided by an Objector to the scheme and shown in drawing 'SK02' provided by CEC/Jacobs - this layout is designed to allow direct access to and from Clay Lane.

This statement follows on from the previous SEMMMS DF3 Stage 1 Safety Audit (ref. ES1/530 - 42120 Problem 20) which stated for a very similar layout *"incidents involving road users emerging from side road across entry slip and/or nose-to-tail type shunts. Sightlines and forward visibility for traffic exiting Clay Lane left onto the entry slip or across the westbound entry slip onto the eastbound slip for the roundabout maybe compromised due to the geometry of the roundabout. Additionally, road users entering the westbound entry slip for the Relief Road will be accelerating along the westbound entry slip road off the roundabout may not expect a junction on the slip road where traffic may intend to turn off the slip road onto Clay Lane and/or road users emerging from Clay Lane onto or across the slip road"*.

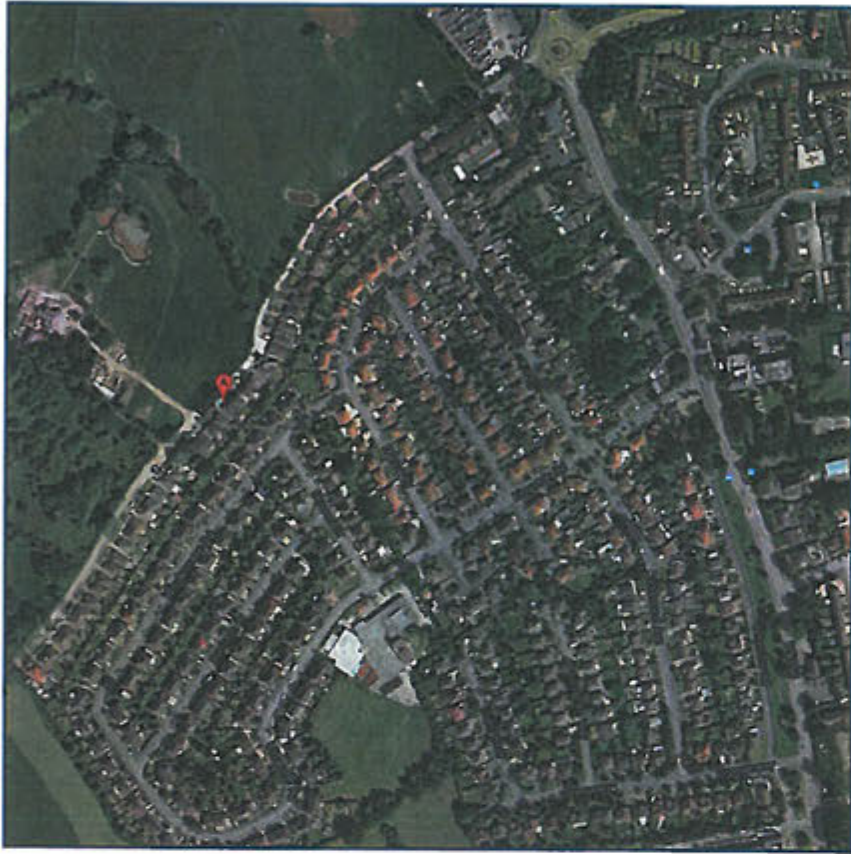
The Stage 1 RSA recommended *"ensure sightlines are maximised for both traffic egressing Clay Lane and traffic exiting the roundabout onto the slip road and/or reduce speeds of traffic entering the slip road"*.

Vehicles exiting the roundabout will be accelerating along the westbound on-slip ready to merge with the westbound mainline, they will not be expecting conflicting traffic in front of them. This traffic will comprise vehicles on the slip road slowing to turn left into Clay Lane - leading to shunts, as well as traffic exiting Clay Lane to access either the roundabout - leading to side-on collisions or turning left onto the slip road - again leading to shunts due to the probable speed differential.

This SK02 layout, which comprised a priority junction, was found to demonstrate similar problems to the above which would be difficult to remediate.

Therefore, SMBC have suggested that the SK02 layout be signalised and assessed to help satisfactorily control traffic movements. This statement details the safety implications of the SK02 junction layout with the addition of traffic signals as shown on the attached drawing: EI029 Clay Lane, Signal Controlled Junction Option, ref. A6MARR-2-W-01-300-SK-002.

The traffic signals will need to be set back a sufficient distance from the roundabout Inscribed Circle Diameter (ICD), such that any queues do not stretch back to the roundabout to ensure that drivers may stop in time, before colliding with the back of the queue, and adequate warning



The link from Clay Lane creates an alternative, direct access to the slip road and roundabout, and could be expected to become a favoured route for drivers from the estate rather than taking the B5358, particularly for those living to the north of Kingston Avenue. This behaviour may be exacerbated should the B5358 become blocked, or otherwise experience significant queues. It is recommended that significant traffic-calming works are undertaken along this length of Clay Lane to deter such undesired use. For example, raising the junctions/accesses would keep traffic speeds low and provide level crossings for pedestrians.

In addition, west of its junction with Wallingford Road, Clay Lane is a restricted bridleway. Together with the combined cycleway/footway which crosses Clay Lane at the roundabout, it is likely that pedestrians, cyclists and equestrians will continue to use this route, and therefore this junction as the shortest route between the bridleway and roundabout, bringing vulnerable road users into conflict with accelerating motor vehicles. Extending an NMU only link from the end of Clay Lane to the footway/cycleway on the southern roundabout, whilst refraining from providing such links at the signalised junction, should tend to remove this hazard.

Signing should be used to warn of the traffic signals, with triangular warning signs incorporated on map-type advance direction signs on the approaches to the southern roundabout. A 'gateway' on the exit from the roundabout, using traffic light warning signs, may also be beneficial.

Finally, the design of the exit from the slip road suggests two-way traffic is likely. The photo below, shows Clay Lane to be narrow, and unable to accommodate two-way traffic, potentially leading to head-on collisions on Clay Lane.

[illegible]

1. THE LAYOUT INDICATED IS A 20 PRELIMINARY DESIGN AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.
2. THE PROPOSED LAYOUT REQUIRES NO LAND TAKE BEYOND THE LMA, BUT WILL REDUCE THE EXTENTS OF THE PROPOSED BLIND TO THE WEST OF THE PROPOSED JUNCTION.
3. THIS DESIGN ASSUMES A 30 MPH SPEED LIMIT BETWEEN THE WILMSLOW ROAD ROUNDABOUT AND THE CLAY LANE JUNCTION.
4. THE JUNCTION INTO AND OUT OF CLAY LANE HAS BEEN TRACKED FOR A REFUSE VEHICLE. THE REFUSE VEHICLE CAN ACCESS CLAY LANE BUT CANNOT THEN MAKE THE IMMEDIATE LEFT TURN INTO BACMPTON WAY. AN APPROPRIATE WORKING ROUTE MUST BE DETERMINED BY THE REFUSE COLLECTOR.
5. THE DISTANCE BETWEEN THE WILMSLOW ROAD ROUNDABOUT STOP LINE AND THE SIGNALISED STOP LINE IS 20M, BASED ON 16/07, PARA 8.1.5 WHICH GIVES THE REQUIREMENT FOR CONTROLLED CROSSING POINTS ON ROUNDABOUT EXITS.
6. BASED ON PRELIMINARY TRAFFIC MODELLING SOME TRAFFIC IS LIKELY TO STACK ONTO THE WILMSLOW ROAD ROUNDABOUT.
7. DETAILED DESIGN OF TRAFFIC SIGNAL POSITIONS, SIGNALING AND LAYOUTS HAS NOT BEEN COMPLETED.
8. SIGNAL CONTROL TO BE INDICATED ON ADVANCE DIRECTION SIGN.

— LMA

— PROPOSED FOOTWAY

 <p>Cheshire East Council</p>	 <p>STOCKPORT MIDTOWN CENTRE SOUTH EAST OFFICE</p>	 <p>MANCHESTER CITY COUNCIL</p>
 <p>carillion</p>	 <p>MORGAN SINDALL</p>	<p>Project:</p> <p>A6 TO MANCHESTER AIRPORT RELIEF ROAD</p>
 <p>AECOM</p>	 <p>Grontmij</p>	

Title	EI 029 CLAY LANE SIGNAL CONTROLLED JUNCTION OPTION
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Drawn: PT	Checked: AR	Approved: MR	Scale: 1:500
Date: 29.09.14	Date: 29.09.14	Date: 29.09.14	Original drawing size: 841 x 594 - A1
Drawing No. A6MARR-2-W-01-300-SK-002			Rev: P0