APPENDIX C

A556 Knutsford to Bowdon Improvement
Departures from standards report

This report considers the proposed changes to the local road network as a result of the A556 Knutsford to Bowdon improvement scheme. The report identifies departures from standard and whether these are acceptable to CEC officers.

The report has been completed with reference to the DfT publication the Design Manual for Roads and Bridges (various sections), and recommends that the Authority be granted to approve and authorise for departures from standards on the lengths of roads summarised in the table below (and as shown for illustrative purposes on Plan CEH/NM/A556/01 dated June 2013 attached):-

Departure	✓	X	Comments
DfS/DTW/01 A556 Chester Rd (Tabley Link) Vertical Crest fig 2	✓		
DfS/DTW/02 A556 Chester Rd (Southern Link) SSD fig 3	✓		Possible speed management issues – Rumble strips?
DfS/DTW/03 A556 Chester Rd (Southern Link) SSD fig 4	✓		
DfS/DTW/04 A556 Chester Rd (Southern Link) Vertical crest fig 5	✓		
DfS/DTW/05 De trunked A556 (Southern Link) sub standard horizontal curve fig 6	✓		Concern of restricted SSD to NS signal head
DfS/DTW/06 De trunked A556 Cross Section fig 7A-D	✓		Increase carriageway width to 7.0m
DfS/DTW/07 Sub standard horizontal curve on approach to Millington Lane fig 8	✓		
DfS/DTW/08 Sub standard SSD through Mere junction fig 9	✓		
DfS/DTW/09 Mere junction ghost islands layout fig 10	✓		Revised junction design under development
DfS/OHLW/01 Old Hall Lane West Link horizontal alignment fig 11	✓		
DfS/OHLW/02 Old Hall Lane West Link cross section fig 12	✓		Generally accepted however widening on bend to DMRB req'd
DfS/OHLE/01 Old Hall East cross section fig 13	✓		
DfS/BHL/01 Bentleyhurst Lane cross section fig 14	✓		
DfS/BHL/02 Bentleyhurst Lane horizontal alignment fig 15	✓		
DfS/CTL/01 Cherry Tree Lane cross section fig 16	✓		Initial concerns have been addressed in revised design

DfS/CTL/02 Cherry Tree Lane link horizontal alignment fig 17	✓		Initial concerns have been addressed in revised design
DfS/CTL/03 Cherry Tree Lane link SSD reduction fig 18	✓		
DfS/MLD/01 Millington Lane Diversion horizontal transitions fig 19	✓		
DfS/MLD/02 Millington Lane Diversion vertical crest fig 20	✓		
DfS/MLD/03 Millington Lane Diversion cross section fig 21	✓		
DfS/MCL/01 Chapel Lane Diversion Cross Section fig 22	✓		

REASONS FOR THE DECISION

DfS/DTW/01 – A556 Chester Road (Tabley Link) - ACCEPTED - This departure relates to the sub-standard vertical crest curve on the De-trunked A556 (Tabley Link) on the immediate approach to Chester Road Roundabout – This is an existing problem and Officers feel that in consideration of the reduction in flow and anticipated speeds, this should not be an issue.

DfS/DTW/02 – A556 Chester Road (Southern Link) - ACCEPTED - This departure relates to the sub-standard SSD (Stopping Sight Distance) on the De-trunked A556 (Southern Link) northbound carriageway on the immediate approach to Mere Junction. This is an existing problem and Officers feel that in consideration of the reduction in flow and anticipated speeds, this should not be an issue.

DfS/DTW/03 – A556 Chester Road (Southern Link) - ACCEPTED - This departure relates to the sub-standard SSD on the De-trunked A556 (Southern Link) northbound carriageway on approach to Mere Junction. This is an existing problem and Officers feel that in consideration of the reduction in flow and anticipated speeds, this should not be an issue.

DfS/DTW/04 – A556 Chester Road (Southern Link) - ACCEPTED - This departure relates to the sub-standard vertical alignment on the De-trunked A556 (Southern Link) on approach to Chester Road Roundabout. This is an existing problem and Officers feel that in consideration of the reduction in flow and anticipated speeds, this should not be an issue.

DfS/DTW/05 – A556 Chester Road (Southern Link) - ACCEPTED - This departure relates to the sub-standard horizontal radius on the De-trunked A556 (Southern Link) on approach to Mere Junction. This is an existing problem and Officers feel that in consideration of the reduction in flow and anticipated speeds, this should not be an issue.

DfS/DTW/06 – A556 Chester Road (Southern Link) - ACCEPTED - This departure relates to the reductions in cross-section of the De-trunked A556. The links included within this departure are as follows:

- Tabley Link
- Southern Link
- Central Link
- Northern Link.

This was initially questioned by Officers as a 6.0 metre wide carriageway width was specified but thought to be inadequate in consideration of possible rear end shunts involving right turning vehicles into private driveways. Furthermore, a narrow carriageway is more likely to result in head on conflict should overtaking errors occur. With this in mind, at the request of Officers, the carriageway cross section has been widened to 7.0 metres which is still considered sub-standard, however thought to offer the best compromise between controlling speeds and providing safe refuge for right turning traffic. Whilst this has been agreed in principal by the HA and Designer, the cross sections will only be amended at the Detailed Design stage.

DfS/DTW/07 – Millington Junction approach - ACCEPTED - This departure relates to reductions in desired minimum horizontal radii on the approach to the proposed Millington junction from the De-trunked A556 Northern Link. Officers initially questioned this as it is a new-build section of carriageway and should be designed to standard. However, it has been deemed necessary to provide an offline roundabout for build-ability and to minimise environmental impacts. Given that vehicular approach speeds approaching and exiting the roundabout should be relatively low, this departure has been accepted.

DfS/DTW/08 – Mere Junction - ACCEPTED - This departure relates to the sub-standard SSD on the A50 (eastbound) approach to Mere Junction brought about by constraints due to existing boundaries. As this Departure is only a single step below when assessed against a design speed of 85kph, and reflects a stopping sight distance consistent with a 40mph approach speed, this is deemed to be acceptable.

DfS/DTW/09 – Mere Junction ghost island – ACCEPTED - This departure relates to the sub-standard deceleration and direct taper lengths associated with the originally proposed ghost island right turn lanes at Mere Junction for a design speed of 85kph, which has been necessitated by the requirement to access the Mere Golf Club. Officers were originally concerned that this substandard length may result in vehicle overshoots as drivers failed to slow down sufficiently within the ghost island. Officers requested further turning flow data from the designer before an assessment could be undertaken to determine whether this layout is the most appropriate given the anticipated traffic flows. The revised layout is the subject of a safety audit by the designers which will be agreed between the HA and CEC prior to the closure of the examination of the scheme so that it can be included in the inspectors report.

DfS/OHLW/01 – Old Hall Lane West Link - ACCEPTED - This departure relates to the sub-standard horizontal radius on Old Hall Lane West Link brought about by the tie-in alignments at either side. Mitigation measures proposed include full SSD around the sub standard bends, suitable signage, appropriate lining in advance and implementing a sub-standard cross-section to match the existing road and encourage lower vehicular speeds.

DfS/OHLW/02 – Old Hall Lane West Link - ACCEPTED - This departure relates to the sub-standard cross-section for Old Hall Lane West. Whilst this is accepted in principal due to the anticipated low traffic flows (AADT of 210 vehicles during 2032) and speeds, Officers would comment that additional widening around the bend will be required which the HA and The Designer have agreed to in principal.

DfS/OHLE/01 – Old Hall Lane East - ACCEPTED - This departure relates to the sub-standard cross-section for Old Hall Lane East and reflects the cross section that

is currently provided. Furthermore all the surrounding network in this area is of a similar standard so may be considered inappropriate in this instance to provide a full standard cross section.

DfS/BHL/01 – Bentleyhurst Lane - ACCEPTED - This departure relates to the sub-standard cross-section for Bentleyhurst Lane. It is proposed that a 4 metre wide carriageway is provided in this location. It is noted that the lane is not a through route and provides access to only 2 private dwellings. As such this is deemed to be acceptable in this instance.

DfS/BHL/02 – Bentleyhurst Lane - ACCEPTED - This departure relates to the sub-standard radius curve for Bentleyhurst Lane. In mitigation, full SSD for a 50kph design speed is proposed and a wider than needed 4 metre carriageway cross-section. It is noted that the lane is not a through route and provides access to only 2 private dwellings. As such Officers deem this to be acceptable in this instance.

DfS/CTL/01 – Cherry Tree Lane Link - ACCEPTED - This departure relates to the reduction in cross-section from the proposed Cherry Tree Lane Link which it is proposed to match the existing cross section. This is acceptable however, it may be noted that this departure relates to DfS/CTL/02 below with reference to the tie-ins and curve alignment.

DfS/CTL/02 – Cherry Tree Lane Link – ACCEPTED - This departure relates to the sub-standard horizontal radii, non provision of horizontal transitions and the non-application of super-elevation on certain sections of the proposed Cherry Tree Lane Link although Officers concerns relate specifically to the sharp deviation in horizontal alignment at the northern end of Cherry Lane which could lead to loss of control collisions as a result of the severity of the bend following on from a long straight section of carriageway. However, it is appreciated that the available land take is constrained due to the SSSI site to the east of the proposed alignment, and the A556 mainline to the west, and that all alternative options have been investigated. Officers will require the approval a comprehensive signing and lining strategy before the works are delivered and a Stage 2 Safety Audit on these proposals undertaken..

DfS/CTL/03 – Cherry Tree Lane Link – ACCEPTED - This departure relates to the sub-standard stopping sight distance around the sharp bend at the northern end of Cherry Tree Lane. Officers express the same concerns and recommendation as DfS/CTL/02 above.

DfS/MLD/01 – Millington Lane - ACCEPTED - This departure relates to the sub-standard geometry of the proposed Millington Lane diversion, in particular the sub standard length transitions between different horizontal alignments. Whilst the departure is thought to represent a significant cost saving (approximately £1 million), the alignment proposed will match the existing alignment to encourage lower vehicular speeds. Furthermore, mitigation measures in the way of full SSD provision to the structure and junction, appropriate warning signs, widened verges for visibility and a similar sub-standard cross section as mentioned in DfS/MLD/02 below.

DfS/MLD/02 – Millington Lane - ACCEPTED - This departure relates to the sub-standard vertical geometry of the proposed Millington Lane diversion. The alignment proposed will match the existing alignment to encourage lower vehicular speeds. Furthermore, mitigation measures in the way of full SSD provision to the structure

and junction, appropriate warning signs, together with widened verges for visibility.

DfS/MLD/03 – Millington Lane - ACCEPTED - This departure relates to the sub-standard carriageway cross-section of the proposed Millington Lane diversion. The alignment proposed will match the existing alignment to encourage lower vehicular speeds. Furthermore, mitigation measures in the way of full SSD provision to the structure and junction, appropriate warning signs, together with widened verges for visibility.

DfS/MCL/01 – Chapel Lane - ACCEPTED - This departure relates to the sub-standard carriageway cross-section of the proposed Chapel Lane diversion. The alignment proposed will match the existing alignment to encourage lower vehicular speeds.