



Y21011 – New Waltham S278 - CD123 Design Compliance Document

Design Parameter (CD123 DMRB Reference)	Comment	Adherence
Minor arm Junction Visibility X Distance (3.8)	4.5m - 'Min. distance for all other priority junctions'	Yes
Minor arm Junction Visibility Y Distance (Table 2.10 - CD 109)	60mph - Desirable Min. 215m	Yes
Corner radii at ghost island junctions where diverge taper is provided (5.6.4)	1) 15m followed by a corner taper of 1:6 over 30m	Yes
Corner radii at ghost island junctions where diverge taper is provided (5.6.4)	2) Min. 40m at the end of the diverge taper where the major road design speed is greater than 85kph	22m radius applied - The auxiliary lane left turn in has been designed with Vehicle Swept Path Analysis for a Max Legal Length HGV (16.5m)
Carriageway widths -Minor road approach lanes (5.7)	Where a physical island is provided on the minor road, the minor road approach lanes shall be 4.0m wide at the tip of the associated hatching	Yes
Carriageway widths - Width of the minor road approach lane adjacent to the island at its furthest point from the major road (5.8)	3) 5.5m where the approach widens to two lanes at the give way line	N/A (Single lane is 5.5m however)
Carriageway widths - Exit lane width adjacent to the island at its furthest point from the major road (5.9)	2) 4.5m for ghost island junctions	Yes - Designed to vehicle tracking (5.03m)
Minor road traffic islands (5.13)	Physical traffic islands should have an area of at least 4.5 square meters	Yes - Island segregating the Auxiliary Lane has an area of 9.36 square meters. The physical island separating the minor arm has an area of 17.68 square meters.
Provision of a Diverge Taper or Auxiliary Lane (Table 5.18a & 5.18b)	Where the major road flow exceeds 7000 AADT, auxiliary lanes should be provided instead of tapers for diverging traffic.	Yes - Auxiliary lane provided due to level of major road flows (source DfT Manual Count Point Site Number 80863)

Auxiliary lane width (5.19)	Nearside diverging tapers shall be formed by an increase in width to 3.5 metres at the start of the corner radii into the minor road.	Yes
Auxiliary lane giveway (5.20)	Where right turns into the minor road are permitted, a give way line shall be provided at the end of the diverging taper or auxiliary lane.	Yes
Auxiliary lane traffic island (5.20.1)	Where a give way line is provided, a traffic island should be provided to segregate the give way from the major road.	Yes
Length of Auxiliary Lane (Table 5.22)	Measured from the beginning of the taper up to the giveaway line as shown in figure 5.21b	Yes – (91.2m)
Length of Auxiliary Lane direct taper (Table 5.22)	Measured from the start of the deceleration length	Yes - 25m
Ghost island through lane width (6.8)	At ghost island junctions on roads other than WS2+1 roads, the through lane widths in each direction shall be a minimum of 3.0 metres and a maximum of 3.65 metres wide, exclusive of hard strips.	Yes - 3.5m matching existing lane widths of Park Springs Road
Ghost island right turn lane width (6.10)	The width of the right turning lanes for new junctions, excluding WS2+1, shall be a minimum of 3.0m	Yes - 3.25m
Ghost island length/composition (Figure 6.3a)	A) Turning Length / B) Deceleration Length / E) Direct Taper Length	Yes - A = 10m / B = 80m / E = 25.825m
Central Hatching Taper (6.1 & Table 6.11)	1:30 Measured either side of the centreline	Yes