

Appendix B – Road Safety Audit Comments and Feedback

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
Section 1B: ULE90130-01-REP-00108	B6.1.4 (pg20) Location: Iona Street/Pilrig Street Junction 20	The pedestrian crossing of the main part of Pilrig Street is slightly off the desire line and could tempt pedestrians not to use the crossings.	Either the Pilrig Street main crossing or just its northern end could be moved towards the junction and enable the stop lines to be correspondingly moved forward. If the staggered crossing is to remain then a pedestrian cage should be installed on the triangular island.	Little can be done to improve the layout however the right hand turn will be moved forward and the size of the advanced cycle lane removed . This will allow a minimal stagger to the pedestrian crossing.		Does this mean the ASL will be removed, or the size reduced?
	B6.3.3 (pg23) Location: Great Junction Street/Duke Street, Junction 15 drawing TMG-00027	The Leith Walk approach does not have an Advance Stop Line (ASL) for cyclists . The waiting time at this junction will be quite long giving the opportunity for cyclists to reach the front of the traffic queue.	Install an ASL.	An ASL at this location would encroach on the Kirk Street access. This would be bad practice as vehicles entering from Kirk Street would be entering into the cyclist ASL area.		Disagree. The ASL box could be a depth of 4m instead of 5m.
	B7.2.1 (pg30) Various locations & B8.3.3 (pg35)	In parts of Leith Walk, the available road width is allocated as 1.8m parking; 1m cycle lane and 2.45m traffic lane (ref: cross section HRL-00075). The cyclists are being squeezed tight between the narrow through lane and parking; a car door would open fully into the path of an oncoming cyclist, who may either swerve into the path of an adjacent vehicle or be knocked off their cycle.	There should be a min. 0.5m margin (preferably 1.0m) between the edge of parking and the adjacent cycle lane. If space is not available for this there should be no separate cycle lane marked. Rather than split the 3.45m width into cycle and traffic lanes, combine them as a single all-purpose lane.	The introduction of the 1m non designated cycle lane was prompted by pressure from the cycling lobby group SPOKES. Whilst we take cognisance of the Auditors concerns the provision of a lane gives the cyclists projection from moving traffic which is consider as a primary to possible injury caused by collision with a flung open door . This item will be raised with the Overseeing Organisation. B8.3.3: The 2.45 relates only to the lane out with the 1m non dedicated cycle lane. The cycle lane can be used by wider vehicles assuming there are no cyclists in the lane. This is exactly what would happen in the case of a 3.45m lane which is considered standard.	A cycle lane should only be provided where standards can be met. This is not possible at the Foot of the Walk, so the 3.45 m lane should be an all-purpose lane, as the Auditor notes. It may be possible to provide a cycle lane at the Top of the Walk, on the approaches to London Road for example. SDS Response (TA:1B, 02Sep08): This is contrary to the agreed way forward as per the RDWG minutes for 7/09/2007 and 21/09/07. Update from meeting CEC/TIE/SDS 16/07/08 - accept the need for the change to be made, but record time. CW Cycle lanes have been removed from Leith Walk, changes have been shown on road markings drawings and typical cross-sections. NJA	Confirm no cycle lanes at all on Leith Walk (full length)?
	B7.2.2 (pg31) Location: Great Junction Street/Duke Street, Junction 15	The southbound tram track (Ch. 110040) passes close to the nearside kerb at the south east pedestrian crossing of Leith Walk such that the DKE/tramway path is immediately adjacent to the channel. The tram tracks are therefore located where cyclist will be turning when accessing Leith Walk from Duke Street. Cyclists will be crossing	There must be adequate space for cyclists to turn without interacting with the tram tracks at such a shallow angle. The tram tracks should be located further west at this location by about 1m; this could be accommodated by reducing the adjacent track radius (tightening the reverse curve closer to Constitution Street). The pedestrian island could	The recommendation is geometrically not possible. There are constraints between the footway widths, the lane widths and the deflection of the tram into the stop. The kerb to rail dimension is 1.09m which is sufficient for this cyclist movement to avoid		Cycle use of left turn is likely to be relatively high due to cycle exemption from southern section of Constitution Street. Provide appropriate advisory cycle lane markings to guide

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		the tracks at a very shallow angle (and back again), while turning and will be banked over; this is the worst combination of all scenarios; a wheel (for example) could easily slide away from under a cyclist.	be located further west (it being noted that the northbound stop line is some 8m wide); a slacker track radius would also reduce the DKE corridor width (further improving available width).	the rails.		cyclists through this corner.
	B7.2.3 (pg32)	Some cyclists may find interaction with the tram route intimidating and hazardous.	Alternative cycle routes avoiding tram ways should be provided and appropriately signed.	During consultation with Cyclist Groups the desire to maintain Leith Walk as a cycle route has been expressed. Alternative route have been identified however they are not intended to be signed.		Alternative “off-line” routes to be developed, and signed.
	B7.2.4 (pg32) Location: various	On Leith Walk outside Croall Place it is proposed to remove some existing bike racks . There are a number of other locations where existing and recently installed racks may be removed in the proposals. This could lead to bicycles being chained to unsuitable road furniture and causing a hazard to pedestrians.	Provide alternative bike parking facilities.	CEC have subsequently identified alternative location for this cycle facility.		RESOLVED
	B7.2.5 (pg32) Location: various	Much of the bus lanes are located in the offside of the road combined with the tramway. As such it would be unsuitable for cyclists due to the need to merge back at frequent intervals and the slower speed of cyclists who could also be intimidated by approaching trams.	Whilst it is routine for cyclists to use bus lanes, their use here should not be encouraged; the signing should not include for cycles (also see item B6.2.3 – signing).	The Tram space is identified only as TRAM, BUS and TAXI only . See updated drawings.		“On-line” route audit to pick up these issues.
Section 1C: ULE90130-01-REP-00110	B5.1.10 (pg20) Location: York Place	The detail of the tramway in the central reserve is not clear, the section drawings indicate that it is in a raised reserve and the coloured tramway surface terminates at the tramway reserve however the kerb drawings detail flush K11 kerbing. A flush arrangement could be subject to abuse by drivers and particularly those exiting York Lane (legally – cyclists or otherwise).	The tramway should be in a raised reserve as is the case west of Elder Street.	Accepted, the tram is raised and the drawing is wrong detail K13 should be used with K11 only used where the tram exits the tram bahn.	Agree with auditor and designer. SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED
	B5.4.24 (pg38) Location: North St Andrew Street / St Andrew Square	The taxi bays in North St Andrew Street extend beyond the stop line and into the ASL for cyclists increasing risk to cyclist and pedestrians at the adjacent crossing.	The taxi bays terminate at the initial stop line and the footway build out be extended accordingly.	Accepted.	Agree with auditor. No designer's response, but recommended change has been undertaken. SDS Response (TA:1C, 07Nov08): Designers response is 'accpeted'. Change has been made.	RESOLVED
	B5.5.1 (pg39) Location: Thistle St./North St. David Street	The exit from Thistle Street is currently left turn only by virtue of the fact that North St. David Street is one way; however with opening up to	It should be ensured that this exit remains left turn only. This should be reinforced by extending the central island north and tightening the radius	CEC have requested the removal of all other markings as these are unsuitable for the cobbled	Agree with auditor that the radius of the south corner should be tightened (quadrant). (Don't	RESOLVED

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	junction.	two way traffic, vehicles exiting from Thistle Street may be tempted to turn right. This they could do by either passing to the north of the central island directly into the cyclists Advance Stop Line (ASL) area or bypassing the signals to the right.	at the south corner of the junction.	surface. The island opposite the access has previously been lengthened to make it difficult for drivers to turn right. Sign Diagram 612 has been added adjacent to the junction.	understand designer's comment regarding cobbled surface.) SDS Response (TA:1C, 07Nov08): Comment regarding cobbles was a CEC comment to SDS that we have repeated. The issue here is that vehicles may attempt to manoeuvre around the island. The island has been extended to make this more difficult. No further action proposed.	
	B6.1.27 (pg52) Location: North St Andrew Street	The segregated cycleway / footway along the west side of North St Andrew Street is narrow , restricted by a building to the west with wall buttresses and service cabinets protruding into the footway, and confined by the Tramway to the east side. The available width of footway is only about 1.5m between the projected line of these buttresses and service cabinets, and the cycleway side. This is inadequate for the pedestrian demand; the presence of the St Andrew Sq tram stop is likely to increase potential pedestrian usage. It is noted that the existing footway is 3.5m wide with a clear space adjacent to the existing cycle racks in excess of 2m to the existing cycleway. This is likely to lead to an increased risk of pedestrian/cycle conflict resulting in injuries to pedestrians. See also item B6.2.10 in respect of risks to cyclists at this location.	Provide adequate width for the footway side of the segregated route with due allowance for pedestrian demand. It is considered that at least the existing available 2m width of footway should be maintained and given the likely increase in pedestrian activity a footway width of 2.5m to the cycleway would be preferred. The tramway will need to be relocated further east to accommodate this width.	Pedestrians will be directed to the eastern footpath and the western side will be maintained as cycleway.	Agree with auditor's comments in principle but note constraints described by designer. Pedestrians will use the west footway regardless so suggest that the footway should be an unsegregated cycleway/footway, albeit below the desirable minimum width of 4m but greater than the absolute minimum 2.5m. See also B6.2.10. SDS Response (TA:1C, 07Nov08): Detail for this cycleway has been agreed with CEC and shown on the drawings.	Agree – unsegregated will be better. (Not shown on the TRO drawings?)
	B6.2.1 (pg57) Location: General	Some cyclists may prefer to avoid Princes Street due to the presence of the trams (as well as the large number of buses and their associated stops).	Alternative signed (eg. "...destination avoiding trams") routes be provided.	Cycle provision has taken into account detailed consultation with Spokes, a local cycling pressure group. This consultation has noted the groups desire that Princes St be retained as a cycle route hence alternative routes would not be required. This, and the requirement to reduce on-street clutter leads us to decline the signing of alternative routes.	Agree with designer. SDS Response (TA:1C, 07Nov08): Noted.	Why not have alternative signed route as per the extensive alternatives signed in Nottingham? NCN routes are signed already and use could be made of these without additional extensive sign clutter.
	B6.2.2 (pg58) Location: George Street/St	A cyclist ASL is provided in George Street with a simple nearside access stub. Where vehicles are waiting at the stop line too close to the	The carriageway width at this location is some 7.3m and would be wide enough to accommodate an approach cycle lane, which it is	Accepted, where large queue lengths are anticipated and road widths	Agree with auditor and designer. SDS Response (TA:1C,	Ensure final drawings include approach cycle lane. TRO drawings do not

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	Andrew Square, junction, and other locations	nearside channel cyclist would not be able to pass and gain access to the ASL.	recommended be installed to a preferred width of 1.5m (or a minimum width of 1.2m). Approach lanes should be installed at other locations where lane widths permit.	allow, this will be instigated.	07Nov08): Noted.	show approach lane. May be possible to put approach lane down centre between left turn and right turn lanes and allow right turn into St Andrew Square for cyclists. This is an NCN route.
	B6.2.3 (pg58) Location: St Andrew Square.	Cycle parking racks are currently available at various locations around St Andrew Square and along the adjacent St Andrew Street, some of which will be lost due to the changes in the layout. Uncontrolled cycle parking may occur as a result which could be a hazard to pedestrians and particularly the visually impaired.	Replacement and additional cycle parking should be installed with suitable access provided to each area.	St Andrew Square is currently being restored to reflect its original historic character and as part of this refurbishment the uncoordinated clutter of street furniture is being rationalised. SDS are currently carrying out a site clearance survey in conjunction with CEC Roads to identify where existing street furniture can be retained. We will highlight your concerns to the survey team.	Agree with auditor and designer. CEC have still to see details. SDS Response (TA:1C, 07Nov08): Noted.	Where are cycle racks? Check they have been included in final drawings.
	B6.2.4 (pg59) Location: South St. David Street/Princes Street Junction.	The South St. David Street right turn is designated as bus and taxi only, however cyclists are also permitted along Princes Street; this may cause confusion and hesitation for cyclists.	Include a cycle symbol for the right turn lane and provide an additional entry stub to the ASL at the nearside corner of this lane.	Not accepted. WHY?	Agree with designer but response should note that this is a bus lane which will be coloured green (though not shown on drawing) so cyclists will treat it as any other bus lane. "Bus, taxi and cycle only" signs will also be incorporated. SDS Response (TA:1C, 07Nov08): Noted.	Check final design has the cycle symbol on the sign. Additional approach stub would be of benefit to cyclists.
	B6.2.5 (pg59) Location: St Andrew Square (N).	A cycle lane is provided adjacent to longitudinally parked vehicles; cyclists are at risk from the opening of doors. An offset has been provided between the cycle lane and the edge of bay markings; this should be regarded as a restricted zone only accessed when seen to be clear.	The addition of diagonal ghost marking between the cycle lane and edge of parking bays would reinforce this separation.	St Andrew Square is currently being restored to reflect its original historic character and as part of this refurbishment only required road markings are to be used. Introduction of a ghost island is not accepted as there is 1m gap protecting the 2m wide cycleway from the parking bay and the excess of white lining would not be in keeping with the streetscape.	Agree with designer. SDS Response (TA:1C, 07Nov08): Noted.	Accepted, if there is a 1m gap with a 2m cycle lane. RESOLVED
	B6.2.6 (pg60) Location: North St. David Street/ St Andrew Square junction	A national cycle network passes from George Street, left into St Andrew Square then immediately right. The current layout of the ASL at this latter junction is such that the access point to the ASL is to the	Provide an additional entry stub to the ASL at the nearside corner of this offside lane.	Accepted.	Agree with auditor and designer. SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED

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		nearside of lane 1, however right turn cyclist are likely to be in lane 2.				
	B6.2.7 (pg60) Location: North St Andrew St. / St Andrew Square junction	Cyclists traveling from St Andrew Square (north) have no defined route through onto the St Andrew St. northbound cycleway. Cyclists would therefore either turn onto the tramway or cross into the footway at the pedestrian crossing, conflicting with either the trams/rails or pedestrians waiting to cross. In addition the start of the cycle lane is coincident with the pedestrian crossing of North St Andrew St and confined by the building line. Cyclists will be in conflict with pedestrians waiting to cross.	Provide a drop kerb access in St Andrew Square (north) prior to the pedestrian crossing into a signed shared space providing access to the cycleway to the north. Relocate the North St Andrew St pedestrian crossing further south by about 2m – 3m away from the building line and start of the cycle lane; it would also be helpful to reposition the St Andrew Square north kerb line further south by about 1m – 2m (reducing that pedestrian crossing length) immediately downstream of the new cycle access.	Accepted in principle; for details of reworked cycle lane see comment B7.2.26.	Agree with auditor and designer. See also B6.1.27. (Designer's cross-reference to B7.2.26 is wrong.) SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED
	B6.2.8 (pg61) Location: North St David St / St Andrew Sq. junction	The right turn into St Andrew Sq. (north) is part of the National Cycle Network (NCN75); the north bound and opposing traffic flows are in the same stage, cyclists waiting to turn right are vulnerable , not only from opposing ahead vehicles but also from ahead vehicles in their same lane.	Additional 'D' islands at the pedestrian crossings would improve the protection to waiting cyclist. It is not clear what the likely traffic flows; if feasible lane 2 should be right only with all ahead traffic in lane 1 and a suitable refuge island created.	Not Accepted. Introduction of an island would make the right turn into St Andrew Sq North more difficult and the south bound island would need to be excessively long and not in keeping with the historic layout of the square.	Agree with designer. SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED
	B6.2.9 (pg61) Location: North St Andrew Street / Queen Street	The route through for cyclists into and from Dublin Street is not clear , the existing facilities and desire lines are not catered for. Similarly, it is not clear how cyclists gain access into North St Andrew Street, from Queen Street/York Place; from the east cyclist would appear to have to turn immediately adjacent to the tram track with little room between it and the adjacent kerb for cyclists who could slip on the track while turning. They would then appear to be in conflict with pedestrians on what appears to be a tramway/pedestrian shared surface. Furthermore there appears to be no cycle facilities indicated between North St Andrew Lane and Queen Street linking from the south bound cycleway of route NCN75.	Provide adequate cycle facilities; the tramway may need to be relocated to allow cyclists sufficient clearance from the tram tracks while turning.	Not Accepted. The cyclists following the NCR1 will use the crossing at the foot of North St Andrew St. The turn from York Pl into North St Andrew St is prohibited for all vehicles except Trams and is signed and lined as such. Due to the constraints imposed by the vertical geometry there could be no separate facility for cyclists.	Agree with designer. SDS Response (TA:1C, 07Nov08): Noted.	Check final scheme plans. Provide advisory cycle lane marking around the corner of Queen Street and North St Andrew Street to guide cyclists around corner without conflicting with tram tracks. Can cyclists access Dublin Street from North St Andrew Street? Are they able to use the signalled crossing?
	B6.2.10 (pg62) Location: North St Andrew Street	The segregated cycleway / footway along the west side of North St Andrew Street is narrow , restricted by a building to the west with wall buttresses and service cabinets protruding into the footway, and confined by the Tramway to the east side. The available width between the projected line of these buttresses and service cabinets, and the kerbline is about 3m. There is no	Provide adequate width for the cycleway/footway with due allowance for the cycle and pedestrian demand, there should be a minimum 0.5m margin strip between the cycleway and the kerbline; it is considered that the minimum clear width should be 4m and preferably 4.5m (where the footway is 2.5m see item B6.1.27) to accommodate the segregated	Not Accepted. Due to the vertical and horizontal constraints the tram is in the optimal position for all road users. The area between the tram and the building will be cycle only.	Agree with auditor's comments in principle. See B6.1.27. SDS Response (TA:1C, 07Nov08): Cycleway arrangement discussed and agreed with CEC	What is the final proposed arrangement? Is it shared pedestrian / cycle use, and what is the final width to be provided?

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		shyness margin strip provided between the cycleway and Tramway. The effective width is therefore about 2.5m which is inadequate for the cycle and pedestrian demand. See also item B6.1.27 in respect of pedestrians. This is likely to lead to an increased risk of pedestrian/cycle conflict with the additional risk of cyclists passing into the tramway, who may not be aware of approaching trams travelling in the same direction.	cycle/footway with the 0.5m safety strip. The tramway would therefore need to be relocated further east by about 1m to 1.5m.			
	B6.2.11 (pg63) Location: Various	There are a number of locations where Advance Stop Lines (ASL) have not been provided increasing risks to cyclists.	Advance Stop Lines should generally be provided and particularly wherever the signal cycle time is relatively long.	ASLs have only been omitted where it cannot be provided due to spatial constraints.	Agree with designer. SDS Response (TA:1C, 07Nov08): Noted.	If the principle of using entry stubs rather than full approach cycle lanes has been accepted, ASLs should be included at most junctions.
	B6.2.12 (pg63) Location: Various	Similarly to item B6.2.3, cycle parking racks are currently available (including some recent installations) at various locations along Leith Walk and Picardy Place, some of which will be lost due to the changes in the layout. Uncontrolled cycle parking may occur as a result which could be a hazard to pedestrians and particularly the visually impaired. This is particularly noted at Picardy Place where a significant number of racks would be lost adjacent to the cinema complex – it is also noted that these were observed to be well used.	Replacement and additional cycle parking should be installed with suitable access provided to each area.	See Response to B7.3.3.	Agree with auditor and designer(?) ... designer's cross-reference is wrong, but assume it should be to B6.2.3. SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED
	B6.2.13 (pg63) Location: York Lane junction with York Place	York Lane is a cul-de-sac with no motor vehicle access into York Place; however drop kerb cycle access is currently provided across the footway. This may encourage crossing of the tramway by cyclists (right-in or right-out) where there is no safe facility provided , though cyclists may still be able to turn left-in and left-out without. It is also noted that there is some abuse of the access, evidenced from the motorcycle tyre marks.	The level of usage should be checked and either the access be closed off or if remaining the situation be monitored and closed if subsequently necessary.	This has been closed off due to vertical geometry constraints.	Agree with auditor and designer but drawings do not show any change to footway/kerblane. SDS Response (TA:1C, 07Nov08): Noted.	RESOLVED
Section 1D: ULE90130-01-REP-00111	B6.6.3 (pg25) Location: Haymarket Junction	The east bound tram track crosses the opposing vehicle lane of Haymarket Terrace at a shallow angle under signal control. The stop line of the opposing flow from Morrison Street is some 130m away	The layout and staging be amended such there is no section where tram and vehicle alignments are in opposing conflict; additional signalling in close	Notwithstanding the Linsig/phasing errors the layout proposed is the best arrangement in terms of safety, junction		Need to see latest plans – has this been resolved satisfactorily?

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		<p>in this large and complex junction. The tram (phase Q) stage is immediately after the Morrison Street (Phase B) stage; as such any slow moving vehicles are unlikely to have cleared the junction area by the start of the tram stage. It should be noted that at that distance a cyclist for example would take between 20 seconds and 1 minute (the latter for say an elderly cyclist) to clear the junction (the best observed time for a fit cyclist on the existing layout was 17 seconds). This would result in a serious risk of a head on collision with a tram.</p> <p><i>Update:</i> It is noted in the updated (Linsig) signal settings that the start of Phase Q tram stage is separated from the end of vehicle Phase B stage by the Dalry Street stage, some 40 secs in the fixed time illustration. However if the signals operated on demand then this may reduce to some 18 secs.</p> <p>It is also noted that Phase Q appears to remain green for some 60 secs overlapping with the start of Phase B – it is presumed this is in error.</p>	<p>proximity to the tram crossing point should also be included. This would require some significant changes, not only to the road layout but also the tram track layout.</p>	<p>capacity and planning aspirations. The movement of the tracks to</p> <p>completely prevent the remote possibility of conflict is not practicable. However to further enhance the operation of the junction vehicle detection will be installed to prevent the trams calling the junction should vehicles be present with in or approaching the conflict area.</p>		
	B6.6.9 (pg28) Location: Haymarket Junction	<p>There is a very large number of parked cycles (presumably using the train network) outside the pub and station. Cyclists tend to join the road, on their return, in this vicinity within the junction area and would therefore be entering the contra-flow tram zone not under any signal control; they would therefore be at significant risk of conflict with approaching trams departing from the tram stop.</p>	<p>Amend the layout as detailed above and include more closely associated stop lines to the tram crossing point, which should be at a greater angle.</p>	<p>The layout proposed is the best arrangement in terms of safety, junction capacity and planning aspirations. The movement of the tracks to completely prevent the remote possibility of conflict is not practicable.</p>		<p>Relocate cycle parking to ensure conflict doesn't occur.</p>
	B6.6.10 (pg28) Location: Haymarket Junction	<p>Motorcyclists, as well as cyclists, are expected to cross the tram tracks at a shallow angle some 10° whilst making about a 60m radius turn. As such they will also be banked over increasing the risk of their wheel slipping out from under resulting in a fall accident, which could be significantly worse should an opposing tram be approaching.</p>	<p>Amend the layout as detailed above and include more closely associated stop lines to the tram crossing point, which should be at a greater angle.</p>	<p>To prevent traffic stopping on the tram tracks any associated stop lines would be with in 4 car lengths of the Dalry Road corner. This is considered impractical as is the alteration of the geometry as to alter the angle of approach would necessitate pushing the carriageway into the pavement outside Ryries Pub. This footway is very heavily trafficked and has level problems caused by the tram geometry. Movement of the</p>		<p>Still likely to be a cycle (and motorcycle) safety issue.</p>

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				carriageway is therefore considered to create greater potential risks than it solves. Recommendation not accepted.		
	B7.2.1 (pg39) Location: Queensferry Street / Princes Street Junction.	Cyclists cycling westbound towards Shandwick Place from the Lothian Road junction would be between the tram track and kerb edge without adequate width for a tram to pass for a distance of some 80m. Although tram drivers should not pass in such circumstances, this could be intimidating with a tram approaching from behind.	The road area in this locality is particularly wide, the tram way should be located sufficiently over to allow for a cycle lane.	Moving the tram track north bound introduces clearance problems to the signal head island at Shandwick Pl/Lothian Road. It also places the tram DKE into the right turn lane for Queensferry St. No action proposed.	Agree with Audit: At Rutland Place narrow the footway on the south side to allow space for cyclists to ride between the kerb and tram rails (Install side entry gullies)	RESOLVED
	B7.2.2 (pg40) Location: Lothian Road / Princes Street Junction	Cyclists travelling along the Princes Street bus lane could , if keeping clear of the tram tracks, be sandwiched between a passing bus or tram and other vehicles in the adjacent lanes.	The tram tracks should be offset within the lane to allow for the passage of cyclists.	Not accepted on grounds of geometric constraints. Cyclists should use between the tram tracks.	Agree with Designer: Refer to B7.2.1 - Providing this section of cycleway will half the conflict.	Accepted, but still hazardous / uncomfortable for cyclists. Clear signing of alternative routes to avoid Shadwick Place is needed and also specific cycle / slippery rail warning signs at all locations where this is likely to be a problem, as done in Nottingham.
	B7.2.3 (pg40) Location: Various	There are a number of locations where Advance Stop Lines (ASL) have not been provided increasing risks to cyclists. There are locations where cyclists are at greater risk for example westbound at the South Charlotte Street junction where cyclists are expected to manoeuvre into lane 3 for the ahead towards Shandwick Place.	Advance Stop Lines should generally be provided particularly wherever the signal cycle time is relatively long and lane changes are likely.	ASL are only omitted where they have a negative impact on stacking capacity. Not Accepted	Agree with Audit and Designer: However there are locations where they can go i.e. west end of Princes Street at South Charlotte Street Not shown on TRO drawings.	Ensure they are in place wherever possible. See B.6.2.11.
	B7.2.4 (pg40) Location: Various	There is a general lack of cycle parking racks . Uncontrolled cycle parking may occur as a result which could be a hazard to pedestrians and particularly the visually impaired.	Adequate cycle parking should be provided, particularly in the Haymarket area, with suitable access provided to each area.	Accepted		Is there a drawing showing proposed locations?
	B7.2.5 (pg41) Location: Shandwick Place	Cyclists travelling west along Shandwick Place towards the crescent and Tram Stop area are likely to be confused by the signing . Sign TS123/77 start of bus/taxi lane does not display cycles, as such this sign guides cycles into the offside lane which is tram only. If it was the intention to divert cycles around the crescent then road marking and signing should reflect	Amend the signing to include for cycles.	We don't think cyclists are that thick sorry!	Disagree with Audit and Designer: Signs not required. Allow cyclists through	Outcome unclear. If cyclists are permitted, the signing should indicate this.

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		this, however as the crescent has end on residential parking this route may be no safer than travelling directly through Shandwick Place. (see also B8.1.8)				
	B7.2.6 (pg41) Location: Haymarket	The route for cycles west along West Maitland Street is not clear , Signing TS124/03&04 east of Palmerston Place permits cycles, however immediately downstream the TS124/85& 86 no entry except signs exclude cycles. The alternative route via Torphichem Place and Morrison Street involves 3 additional junctions which would be busy with all traffic and would be less safe than the direct route.	Cycles be permitted access along West Maitland Street.	Not accepted.		Why can't cyclist use the direct link? The width between tram track and edge of kerb appears greater than that proposed through the Queensbury junction, where cyclists ARE permitted. Accepted that angle of rails further west may be an issue, but could erect suitable cycle / slippery rail warning signs.
	B7.2.7 (pg42) Location: General	Some cyclists may prefer to avoid the route due to the presence of the trams.	Alternative signed (eg. "...destination avoiding trams") routes be provided on a strategic level.	<u>Not Accepted.</u>	Agree with Audit: CEC and Tie to discuss	Agree – key point to address.
	B8.1.5 (pg44) Location: South Charlotte Street junction	The 'tram bus taxi' sign TS121/36 would not be visible to drivers approaching from South Charlotte Street. This sign (as is sign TS122/59 at Lothian Street junction) is missing the cycle symbol present in the preceding sign.	Relocate further downstream and include the cycle symbols as appropriate.	Not Accepted	Agree with Designer: A sign variant of Dia.962 is shown on South Charlotte Street, which is the appropriate sign for this layout. Agree with Audit: There are inconsistencies between signs with some showing cycle symbols and others not. This should be rectified as appropriate	Need to ensure that the final signing layout is consistent for cyclists (and all other road users).
	B8.1.8 (pg45) Location: Shandwick Place	The signing (TS123/78 & 123/77) for the westbound bus/taxi lane on the approach to the Shandwick Place tram stop indicates the nearside lane for bus/taxi and offside lane for all others, conflicting with the tram stop tram only lane. It would appear that the intention is that all other traffic is meant to go around the crescent, however this 'other traffic' should only be cycles and off-peak loading HGVs, it may be more appropriate for the night-time loading HGVs to travel directly through rather than round the residential area of the crescent.	The signing be amended to incorporate cycles and allow for the off-peak loading traffic.	Not Accepted as cyclists are prohibited from this area.	Agree with problem raised by Audit: Signs to be amended for tram lane	To allow cycles or not? Not Clear.
Section 1A (1A1 & 1A2):	B4.7.2 (pg6)	The proposed widening of Tower Place Bridge has a parapet adjacent to the road and a second parapet on	Ideally, if the inner parapet could be removed and the outer parapet made strong enough to restrain	There is no proposed cycleway or shared footway and cycleway along this	Agree with auditor. Designer's response is wrong as this is a	Has this been resolved?

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ULE90130-01-REP-00121		the outside of the widened deck. It is assumed that the inner parapet is designed to restrain vehicles and the outer parapet is designed for pedestrian/cyclists only. At the eastern end, there is insufficient clearance between the road and the old Victoria swing bridge. At the pinch point by Victoria bridge, the foot/cycleway width (between wall/parapet) reduces to 1675 mm. There is a risk of cycling into either the Victoria Bridge stanchion or the parapet terminal which are coincident.	vehicles then more space would be available for the foot/cycleway. However, it is acknowledged that the deck extension may not be able to provide a strong enough footing for a vehicular edge parapet. The inner parapet and upstand could be locally moved towards the tram tracks reducing the set back thereby improving the clearance for the cycle footway; if the parapet could be terminated about 1m - 2m earlier then this would facilitate more space. If the parapet is required to this point then extending it a further 2m – 3m would reduce the risk of end impact for cyclists to the Victoria Bridge stanchion only. The Victoria bridge obstruction could be clearly highlighted with retro-reflective material either directly on the structure or on hazard posts before and after.	section. Cyclists are not encouraged to use the footways by means of markings or signs.	cycleway/footway and as such a 1.4m high outer parapet has been identified on the structures drawing. The roads drawings and structures drawings do not tie up, as the structures drawing shows the inner parapet extending beyond the old Victoria Bridge, where the roads drawing shows an un tensioned corrugated barrier. Which is right? The pinch-point is exacerbated by the upstand on the reinforced concrete trough detail (Section D-D on ULE90130-01-BRG-00105). Can this be reduced to be flush with the cycleway/footway surfacing to increase the effective width at this point?	Is this referring to the impact on the existing advisory cycle route via the old swing bridge and Rennie's Isle, or a proposed new off road facility adjacent to Ocean Drive?
	B7.2.1 (pg19)	Ch 101,970m (Drg -HRL-00033) An ASL has been provided for the east arm of Tower Street but not the west arm.	Provide an ASL on the west arm of Tower Street.	Agreed.	Agree with auditor and designer.	ASL is not shown on TRO drawing.
	B7.2.2 (pg20) Ocean Drive	The provision of cycle facilities along Ocean Drive is not clear . An existing segregated cycle/footway is present immediately west of this 1A(2) Section which extends along the south west side of Ocean Drive at Ocean Terminal. However there is no provision integrating into this existing facility. The Tower Place and Victoria Dock bridge drawings indicate that the footway is shared use (either specifically or by inference in the provision of a cycle height parapet at Tower Place). Connection to these facilities have not be provided for, cyclists are therefore at risk from the ambiguous provision, the lack of safe access on between carriageway and cycle facilities and of being 'trapped' proceeding over Tower Place bridge in the road with a tram approaching.	Cycle facilities be provided particularly where the tramway/carriageway width does not allow passing of cycles for substantial lengths; where cycle routes rejoin the road then safe access be provided between the road and cycleway with adequate visibilities. The cycle facilities of Victoria Dock and Tower Place bridges should have contiguous provision and be connected into the adjacent network.	Due to the tram footprint, existing bridges and structures along this section, a connection to the adjacent cycle network cannot be provided as this would result in substandard widths and provisions. The design, though, takes into account usage by cyclists but not as a separate entity (i.e. cycle facilities cannot be safely fitted).	Agree with auditor.	Check final cycle provision proposed in this area. Cycle route continuity?
	B7.2.3 (pg20) Ocean Drive – Victoria Dock	The Victoria Dock parapet to the footway/cycleway is 1.1m high over which cyclists could topple into the dock.	Parapets at against a cycleway should be 1.4m high.	As with comment B7.2.2, cycleways will not be provided for this section. But design can take into account their needs and comment will be passed to structures designers and CEC for review.	Note auditor's comment but this is the existing situation and Tram does not alter the structure.	Are cycles permitted?

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	B7.2.4 (pg21) Constitution Street	There is a general lack of cycle provision along Constitution Street which is narrow for substantial lengths with little opportunity for trams to pass cyclists who may become intimidated.	Tram driver training should prevent passing of cyclists where inappropriate; it may be beneficial to locate cycle refuges at strategic intervals. Signing should be incorporated indicating alternative routes avoiding the tramway.	The provision of cycle facilities outside the LOD and tram driver training is not part of the SDS scope.	Agree with auditor.	Key part of TPI / LTP work is to identify alternative route / routes. Possibilities include John's Place / Wellington Place / Academy Street and Henderson Street / routes to west.
	B7.2.5 (pg20) Ocean Drive	Toucan crossings have been provided at the Port of Leith tramstop however the provision of cycleways is not clear and this may encourage cyclists onto routes that are footways only.	Toucans should be used in conjunction with cycleways or shared routes.	As with comments above, no cycleways are provided along this section.	Disagree with auditor and designer. These are not Toucan crossings, but see also B7.1.1.	RESOLVED
Section 1A4: ULE90130-01-REP-00137	B7.2.1 (pg24)	There is a number of existing cycle facilities , below, in the vicinity that has only partially been provided for . <ul style="list-style-type: none"> • The new Western Harbour development has a shared cycle footway network which connects through to the Lindsay Road at the recently constructed junction immediately west of Newhaven • The existing cycle network in Ocean drive which is being extended as part of the tram design • Traffic free cycle network linking with NCN75 & NCN1 is present along Hawthornvale Path which connects with Lindsay Road opposite and slightly east of the new Ocean Drive West junction • Cycleway to carriageway and toucan crossing facility of Lindsay Road 		Accepted. Provision to be checked to ensure equivalence provision of facilities to existing, within revised layout, refer also to response ref 7.2.4.	Agree with Audit - The crossing although tied into the main Haymarket intersection is still a pedestrian crossing not a junction and hence zig zag markings should be provided. Also the cycle reservoir should be removed from the west bound approach SDS Response (17Sep08): Agreed, to revise design. SDS Response (TA:2A, 04Oct08): Zig Zags to be provided	RESOLVED
	B7.2.2 (pg25)	The cycle route from the new junction down to coach drop off bay, and beyond, along the north side of the Old Port Road is only 1.5m wide (part of the 3m wide segregated footway/cycleway) which is insufficient for two-way cycle traffic . The markings imply that it is intended for E/B cyclists only. There is no apparent provision shown for W/B cyclists.	W/B cyclists should also be provided for and if the route is to be used as 2-way (which is considered most likely) the cross section should be at least 1.75m +1.75m (and preferably 2m +2m) footway/cycleway with 0.5m shyness strips against carriageway and/or any vertical barrier/embankment slope.	Provision reflects limited extent of current cycle traffic.	Agree with Auditor and Designer SDS Response (TA:2A, 04Oct08): Noted	RESOLVED
	B7.2.3 (pg25)	There is a significant new development known as Western Harbour present immediately west of Newhaven tramstop consisting of a	A link be provided for cyclists from the Newhaven Tramstop/development junction to the segregated footway/cycleway in	Provision reflects limited extent of current cycle traffic.		Yes but significant cycle trip generation in future?

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		residential and commercial mix. This is likely to generate a level of cycle use which has been provided for within that development by means of shared footway/cycleways . A footway linking the tramstop and the development with Ocean Drive West is proposed adjacent to the tramway; this is likely to become a desire line for cyclists, however no such cycle facility is detailed. The width of the footway at 3m is not adequate given the presence of the tramway and parapet/pedestrian guard rail for which 0.5m shyness strips would need to be allowed for. The width of the proposed footway bypassing the tramstop, at 2m, would not be acceptable for use by cyclists. Furthermore the height of the parapet would be insufficient for cyclists.	Ocean Drive West. The parapet guard rail should be 1.4m high where against a retaining wall. It is noted that the existing remaining section of Old Port Road has a new section of shared footway cycleway (from the Western Harbour development as far as Chancelot Mill), it may be feasible to extend this through to the new Ocean Drive West.			
	B7.2.4 (pg26)	A traffic free cycle network is present along Hawthornvale Path (which links to NCN75 & NCN1) connecting to the south side of Lindsay Road opposite and slightly east of the new Ocean Drive West junction. There will be a desire line from this to the proposed cycle network on the north side of Ocean Drive West; whilst a Toucan crossing is proposed there is no cycleway link to the Hawthornvale Path cyclepath some 80m east. Cyclists would therefore cycle on the footway with inadequate width or would have to cycle across the road junction waiting between 4 lanes of traffic to turn into the Lindsay Road side road.	A footway/cycleway link be provided from the toucan to Hawthornvale Path.	Accepted.		Not seen details.
	B7.2.5 (pg26)	Lindsay Road will be reduced from 4 to 3 lanes in between Ch 100060 and 100260m with only one lane in the E/B direction. Pedestrian guardrail is detailed throughout this length immediately adjacent to the running carriageway, there being no footway. This will be intimidating and possibly unsafe for some cyclists trapped in between the traffic and the pedestrian guard rail. The close proximity of the guard rail also reduces the forward visibility (see item B5.2.1) further increasing risk to cyclists who would be in the nearside portion of the e/b lane.	The pedestrian guard rail should be set back from the channel line to improve the safe route for through cyclists. An alternative route should also be available for cyclists, for example to the route north of the tramway which would provide access to Ocean Drive West.	Pedestrian guardrail to be set back, see also response to B4.6.1.		Is the alternative route to be provided?
	B7.2.6 (pg27)	Retaining wall W1A The segregated cycle route along	The parapet height should be 1.4m min. where adjacent to a cycleway in	Accepted.		Is the parapet to be raised?

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		the north side of Ocean Drive West crosses the tramway at approx. Ch.100370 proceeding along the W1A retaining wall for a length of about 35m where the drop is about 3.5m. The parapet height along this section at 1.0m is not high enough to protect an errant cyclist . (see also item B7.1.6)	accordance with TD19 and BS7818.			
	B7.2.7 (pg26)	Although some off carriageway cycle routes are provided, many through route cyclist will continue along Lindsay Road; however Advance Stop Lines (ASLs) have not been provided .	Provide Advance Stop Lines for cyclists at junctions.	ASL's to be provided where appropriate.		RESOLVED
Section 2A: ULE90130-01-REP-00017	B6.2.1 (pg15)	The Sustrans national cycle network route no.1 within this section extends along Balbirnie Place into Haymarket Yards, west along Haymarket Terrace and into Coates Gardens. There are a number of existing Sustrans cycle route direction signs which will be lost causing confusion for cyclists.	The cycle route signing should be incorporated.	The cycle route signing should be incorporated	Agree with Auditor and Designer SDS Response (TA:2A, 04Oct08): Noted	RESOLVED
	B6.2.2 (pg15)	Cyclists must cycle along the tram route for a distance of about 150m in Haymarket Yards, the available road widths are such that there is not sufficient road width for a tram to pass a cyclist (300mm DKE to kerb). Cyclists on the up hill length are likely to be slower and could be intimidated by the presence of a tram behind. They would be at risk should a tram try to 'squeeze past'.	This section is particularly constrained by buildings either side, however to the west at approx. tram ch.200200 the route is less constrained by existing landscape areas. It would be preferred to widen the road in this locality to allow for an up hill section of cycle lane wholly outside of the DKE. Investigate whether the cycle route NCN1 could be re-routed to avoid Haymarket Yards, or sign as an alternative route avoiding tram tracks. Aerial photographs and the previous site visit indicate that there may be a feasible route from the western end of Haymarket Yards up to Devon Place accessed to the rear of the recently constructed Interpoint office development. Driver training will undoubtedly allow for such eventualities; trams should 'hang back' where cyclist are ahead and can not be passed.	The possibilities noted above – widening Haymarket Yards, or re-routing of NCN 1 – have been investigated and concluded not to be feasible. In order to mitigate the risk, the footways will be widened as far as is possible within the LOD and driver training will include coverage regarding the interaction with cyclists.	Agree with Designer SDS Response (TA:2A, 04Oct08): Noted	Is this alternative NCN1 route viable? Re-routing and possible improvement of NCN1 investigated as part of TPI / LTP work.
	B6.2.3 (pg16)	A cycle path (Sustrans route no. 1) passes in front of CA House, between it and the Tram route. The route rejoins the Haymarket Yards road immediately east of CA House adjacent to the tram turn back siding. The edge of the cycle path is immediately against the tramway	The cycle path be locally widened and relocated slightly further away from the DKE or protection be provided between the path and tramway.	The cycle path is to be locally widened.	Agree with Auditor and Designer SDS Response (TA:2A, 04Oct08): Noted	RESOLVED

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		path line (300mm off the DKE). It is considered that there is insufficient clearance from the DKE to the cycle path given that cyclists are passing each other, turning and manoeuvring onto and off the road, and that the path is only 2m wide at the radius; this is also where the tram is on a bend close to points (the DKE will therefore be wider).				
	B6.2.4 (pg16) Location: Haymarket Yards/car park signal junction	A cycle guidance route has been provided to better guide cyclists across the tram rails at a safer angle and less banked over (off-radius); however it has been routed to the nearside some distance and then back again across the vehicle flow creating a potential conflict hazard with left turn traffic as they pass then cut across the cyclist.	The cycle route should not be disassociated from the traffic flow, this could be achieved by sweeping the vehicle channel to the left and round in a smooth flowing curve with the coloured cycle lane adjacent then curving away in a manner as indicated below; ie left turn traffic would always be following a cyclist rather than being guided around it to a conflict point.	Accepted	Agree with Auditor and Designer - (Make sure that the cycle lane and vehicle lane are separate) SDS Response (17Sep08): Design changed to remove cycle lane. SDS Response (TA:2A, 04Oct08): This arrangement has been revised	What Is latest design?
Section 3A: ULE90130-01-REP-00200	B6.2.1 (pg15) Roseburn Delta	The Roseburn Path shared cycle/footway emerges into Russell Road at an acute angle and immediately adjacent to a boundary wall. Cyclists could suddenly emerge at speed without seeing or being seen by pedestrians. The locations of the landing areas is not clear.	The path should emerge into Russell Road away from the adjacent wall such that adequate forward visibility is achieved and turn to interface closer to a normal with the Russell Road path. There should be a landing area at the start of the path where cyclists will be turning. It is noted that the path in the north side of Russell Road is shared cycle/footway and that the 'end of cycle route' signing is misleading.	Accepted, the cycleway junction with Russell Road will be reviewed. However it is suggested that the proposed design is better than the existing arrangement, whereby cyclists emerge from behind very large advertising hoardings with little visibility of Russell Road. It should also be noted that the Russell Road footway onto which the cycleway enters is very wide, at around 6m. Consequentially a major re-alignment of the cycleway exit, involving significant earthworks retaining measures is not considered justifiable.		RESOLVED
	B6.2.2 (pg15) Tram stops general	It is not clear if there is any cycle parking facilities at the tram stops.	It is considered that such facilities will be provided and sufficient space should be allowed for cyclist to stop and dismount away from the shared route.	It is understood that the cycle racks are to be provided at the tramstops. This recommendation will be relayed to the Tramstops design team.		RESOLVED
	B6.2.3 (pg16) Tramway/shared cycle/footway demarcation	The proposed demarcation between the tramway and the shared cycle/footway is to be a timber kick rail 450mm high and set 500mm (footway side) from the DKE. There remains concerns regarding this arrangement where placed for such a significant length. The	A higher fence rail be provided at such a height that a cyclist could hold onto. For locations where emergency escape routes are required the fence could have intermittent gaps wide enough to step through. Where it is feasible to locate the shared cycle/footway	The ORR has ruled-out the use of fencing at the height suggested by the RSA auditors, whether gaps were to be provided or not. Where possible an increased separation width of at least 1.5m has been		What is the agreed design?

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		<p>existing route is quite busy and it is quite common for a pair of cyclist to pass pedestrian(s) at the same time with cyclists frequently passing close to the edge of path (and sometimes onto the adjacent verge).</p> <p>Whilst for most bikes the peddles should not be above the rail; it is still considered that should a cyclist come into contact with the rail or post then a wobble towards the footway could be followed by an overcorrection into the rail causing the cyclist to topple over the rail.</p> <p>Wind draft from a tram, particularly at higher tram speeds could induce a sudden sideways force on a cyclist from such a close proximity causing them to fall towards the passing tram.</p> <p>Whilst a demarcation rail simulation test was carried out with a cyclist and 'pedestrians'; it is considered, given the static nature of the bus (simulating the tram) and the slow (single) cycle speeds, that this did not accurately represent the dynamic nature of the moving tram and the speeds of cycles.</p> <p>It is considered that the low rail does not provide safe protection and is a significant risk for cyclists.</p>	<p>further away from the tramway this should be done.</p> <p>It is considered that such facilities will be provided and sufficient space should be allowed for cyclist to stop and dismount away from the shared route.</p>	<p>provided, eg Access Ramp B to Balbirnie Place, and to the south of Crewe Toll tramstop. Furthermore several maintenance and emergency vehicle passing / parking places have been provided along the corridor and sufficient space is also provided at the tramstops to facilitate cyclists wishing to demount their cycles away from the main shared route. Unfortunately the very constrained nature of Roseburn Corridor, coupled with the desire not to introduced large retaining measures, results in a narrow separation width for the majority of the corridor. This separation arrangement has been presented to the ORR and they have give SDS a nonobjection</p> <p>to the proposal. Subject to CEC agreement, which they have previously intimated at Roads Design Working Group meetings, an Exception Report will be raised for this Problem.</p>		
	B6.2.4 (pg16) Sheet 1 – Roseburn Tram stop	There is a shared crossing at the north end of the tram stop platform; when cyclists are waiting to cross here, their bike will block across the access to/from the tram top platform, forcing pedestrians to squeeze past. This is particularly the case at the east platform where the area is restricted by the presence of the steps.	Locate the crossing point such that waiting cyclists do not block other users.	The design of the crossing will be reviewed, in association with the Tramstops design team.		As above
	B6.2.5 (pg17) Sheet 3 – Ravelston Dykes Tram stop	Similarly to item "Error! Reference source not found". above, cyclists waiting to cross the tramway east to west may block pedestrians accessing the platform.	Locate the crossing point such that waiting cyclists do not block other users.	The design of the crossing will be reviewed, in association with the Tramstops design team.		As above
	B6.2.6 (pg17) Sheet 1 – Roseburn Terrace	The shared access ramp 'DD' exits onto the footpath about 5m from the proposed pedestrian crossing of Roseburn Terrace. It is not clear how cyclists are expected to cross onto the road network.	The kerbing arrangements should be made clear.	Accepted. The design will be reviewed.		RESOLVED
	B6.2.8 (pg18) Sheet 3 – cycle	At approximately tram ch.301150, ramp access 'I' joins the shared	Irrespective of the final decision on the segregation rail/fence, a full	Accepted, subject to CEC and ORR agreement.		RESOLVED

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	junction	route on a downhill approach. Cyclists may be approaching at increased speed and, together with the restricted space available, could cause others to swerve as they join the route increasing their risk of falling over the kick rail.	height fence should be provided opposite the egress of the access ramp.	However, it should be noted that the grade of this existing ramp is currently around 11.6% and thus too steep for cycle use. The proposed replacement ramp is assumed to be for pedestrian use only.		
	B6.2.9 (pg18) Sheet 8 – cycle junction	At approximately tram ch.302320, ramp access 'R' joins the shared route on an approach normal to the shared route. Cyclists that overrun, and together with the restricted space available, could cause others to swerve as they join the route increasing their risk of falling over the kick rail.	Irrespective of the final decision on the segregation rail/fence, a full height fence should be provided opposite the egress of the access ramp.	Accepted, subject to CEC and ORR agreement.		RESOLVED
Section 3B: ULE90130-01-REP-00201	B4.2.7 (pg11) Waterfront Avenue/West Granton Access	Cyclists proceeding ahead from West Granton Access are required to cycle over the tram lines at a very shallow angle . It is preferable that cyclists cross tram lines on an angle as close to perpendicular as possible, other wise there is a risk of skidding, particularly in the wet and whilst braking.	A cycle lane should be continued through the junction with a localised change in direction where the lines are crossed to encourage cyclists to cross at a safer angle.	Accepted, cycle provision at this location will be reviewed.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
	B5.2.1 (pg14)	The existing access into the housing area west of West Granton Access is to be closed off, however there will be a footway access serving the adjacent tram stop. This would also likely be used by cyclists between the cycle route to the east of the road and the housing areas, however the road crossing is only a pedestrian crossing .	The likely crossing cycle demand should be considered and it would be preferred for this crossing to be a Toucan.	The signalised crossing of West Granton Access is primarily for tramstop users. The designated cycleway does not cross West Granton Access at this location. Any cyclists will need to dismount and push their bicycles across the crossing. The provision of a TOUCAN crossing would only encourage cyclists to ride on the footways and pavements on the west side on the crossing.		RESOLVED
	B5.2.2 (pg14)	A cycle lane is present in Waterfront Broadway, with advance stop lines (ASLs) for the supermarket junction, however there is insufficient width for the continuation of the cycle lane immediately downstream of the junction.	The junction be redesigned to accommodate the cycle lane, see also item 4.2.10.	Road layout design shown is for information only and has not been designed by the SDS Roads team. Design coordination with Morrisons developers (3D Architects) is ongoing.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
	B5.2.3 (pg14)	About 15m east of the footway/cycleway bridge over Ferry Road, a drop kerb is present providing access to the westbound shared cycle/footway; this is frequently used as an access to the Roseburn Corridor and does not appear to be integrated into the	The cycle access route to the Roseburn Corridor should be confirmed and intergrated into the design.	Accepted, the existing dropped kerbs will be maintained.		RESOLVED

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		design.				
	B5.2.4 (pg15)	Toucan crossings are present on all arms of the West Granton Road junction. The footway width to the south west quadrant, west of the tramway is only 1.8m wide to a boundary fence; this is inadequate for a cycle to safely turn onto from the crossing and to pass an opposing cycle. The path is similarly narrow to the north of the junction.	To the south the area outside the boundary is currently grass and landscape areas, it would appear that these areas could be available for a widened footway/cycleway and this should be pursued. It may also be feasible to consider a reduction of the offset from the DKE to the tramway path line/kerb line. It is also noted that the tramway traction poles are located centrally through this location with a DKE to DKE clearance of 600mm; if the poles were mounted outside the tram lines then an additional 500mm could be gained for the provision of a safe footway/cycleway route, this option should be pursued.	Accepted, a departure has been raised for the sub-standard footway width. In addition to this an RFI has also been submitted to tie to clarify if the area outside the LOD can be used for additional footway width. The problem will also be relayed to the OLE design team.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
	B5.2.5 (pg15)	It is not clear whether the footways along Waterfront Broadway are also shared cycleways; the existing crossings at the adjacent junction are Toucans and there are no signs to indicate an end of cycleway .	The extent of shared route should be confirmed and appropriate signing installed; safe access between the ends of off-road cycleways and the carriageway is required.	Accepted, cycling provision will be reviewed.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
Section 3C: ULE90130-01-REP-00202	B6.2.1 (pg12)	In the Caroline Park area, cycle routes still appear to be under development. There is a National Cycle Network (Sustrans) route which traverses the site and appears to pass along the existing shared foot/cycle path north from the Waterfront Avenue road crossing (Ch.320020) towards Caroline Park estate and connecting with West Shore Road. This existing shared path is severed by the tram route, southbound cyclists may be directed towards the plaza area which may not be intended for cyclist and without appropriate facilities .	The intended route for cyclist to and from West Shore Road/Caroline Park estate to the north should be established. The current shared cycle footpath should either be maintained with an appropriate crossing of the tram, in which case the existing drop kerb to Waterfront Avenue should be retained; or the route be connected to the plaza area of Caroline Park tramstop in which case it may be appropriate to designate this section as footway only (however cycle desire lines should be taken into account).	Accepted, cycle routes will be confirmed in this area and the design amended to suit. Recommendation will be relayed to CEC.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
	B6.2.3 (pg13)	Cyclists travelling west along Waterfront Avenue with the intention of continuing west along West Harbour Road should cross the tram track (Ch.320730) and then onto Waterfront Avenue carriageway nearby. The turn into the tram crossing point is tight and there is insufficient space for a cycle to wait at right angles without partially blocking the through route ; cyclists may be encouraged to just 'look over their shoulder' to check for an approaching tram an 'take a racing line', risking misjudging the presence of a tram. The route could also be confused by	There would appear to be more room about 30m to the west. The access to the short length of path and the tram crossing should be protected by use of 'tramline' ribbed tactile surfacing at the edge of the through route to indicate to the partially sighted that this is cycle only. The path should then cross the tram route at or close to 90°.	Crossing location to be reviewed. It may be better to relocate the proposed crossing slightly to the east, where additional space is also available, and importantly also within the LOD. Moving the crossing westwards, as recommended by the auditors, would place the crossing out of sight of the junction and may lead to cyclists by-passing the entry point onto Waterfront Avenue.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		the partially sighted as an available path.				
	B6.2.4 (pg14)	There is an existing segregated footway/cycleway running along the west side of Chestnut Street that has not been catered for in the design.	It is noted that the boundary north of the western leg of West Harbour Road has a double line of fencing with BT services located in between them. This implies that the highway reserve is about to be widened which would enable the Chestnut Street footway/cycleway to continue around the corner along West Harbour Road. The pedestrian crossing of the western leg could be upgraded to a Toucan and the footway upgraded to shared footway/cycleway to rejoin the existing at tram chainage 320720m.	This issue will need to be clarified by CEC to establish whether the inclusion of a Toucan crossing is compatible with any proposed future works.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
	B6.2.5 (pg14)	Junction 108 at Chainage 320740m It is intended that westbound cyclists from the north side of Waterfront Avenue destined for West Harbour Road, will cross the tramway at chainage 320740 and join the road. Cyclists may be vulnerable from vehicular traffic when joining the road.	Ideally, the hatched area of roadway should be a kerbed build-out to protect the area where cyclists join the road.	Accepted, subject to CEC agreement.		Outcome? (Haven't seen plan of proposals in this area – part of later Phase 1b?)
Section 5A: ULE90130-01-REP-00214	B5.2.1 (pg24) Balgreen Road	There are currently staggered barriers preventing cyclists pass directly onto the road from the recreational footpath/cyclepath; these are not present in the design and cyclists could pass directly onto the road unchecked. This is shared with a maintenance access route and apart from the drop kerb the detailed arrangements are not clear. The visually impaired could mistake this for a pedestrian crossing.	A safe cycle access route be provided on and off the road network. Any upstand for a vehicle access drop kerb should be at least 25mm.	In discussion elsewhere with CEC, it has been made clear that an upstand of 6mm or less should be provided at drop crossings. Given that there are no tactiles it is not expected that visually impaired persons will mistake this crossing for the adjacent signalled crossing.	Agree with auditor and designer. However, the designer's response ignores the auditor's point about the provision of a safe cycle route. The response should explain that staggered barriers cannot be provided because of the need to provide occasional vehicular access. The response should explain that this is achieved by using demountable bollards which have to be set back from the road to allow vehicles to clear the footway while drivers drop the bollards. The response should note that these bollards will serve to slow cyclists up.	Still doesn't address issue over possible alternative route.
Section 5B: ULE90130-01-REP-00215	B6.2.1 (pg11) <i>Ch 523,700 – 523,770</i>	The existing shared footway cycleway has a 3.5m min. width at the bus stops. The proposed shared cycle footway to the north of the carriageway at Edinburgh Park Station is 2.5m wide . This is insufficient in the vicinity of a transport hub where the interaction of bus, tram and train passengers with cyclists would create significant	As space is available either side of the platform the cycle footway should be 3m wide (with additional width at the taxi layby. Signing to direct cyclists either across the tramway or road crossing and indicating no cycles/end of cycle route along the footway section be added.	Space is not available for widening at either side of the tram due to the level difference between the tracks and the road. Signage for cyclists will be added as recommended.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED

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		<p>conflict.</p> <p>However, the footway is going to be reduced to only 2m wide between the bus stop and tram stop platform further exacerbating the situation.</p> <p>The Designers have advised that cyclists will not be permitted to use the footway south of the tram stop immediately adjacent to the tram platform but instead will be directed to cross the tramway at either end.</p>				
	B6.2.2 (pg11) <i>Ch 523,700 & 523,770</i>	At Edinburgh Park Station Tramstop the cycle route is either across the tramway or the carriageway via the toucan crossing. At the signals the through path is restricted in width (see tramstop details) by the end of the retaining wall to the north and the signal poles reducing the available width to less than 2m increasing the risk of conflict between pedestrians and cyclists.	The through route should be widened; if the end retaining wall was splayed then this would improve the available space.	The retaining wall cannot be splayed as it would have an impacts on the width of the footpath, the width of the ramp, the levels of the road and the track and the general operation of the crossing. We believe the design is the best balance between all of these elements. See response below (B6.2.3) for comment regarding cycleway widths.	<p>Agree with Auditor. Extent of wall should be moved to remove conflict with with traffic signal poles.</p> <p>SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately</p> <p>SDS Response (TA:5B, 04Oct08): Arrangement around Edinburgh Park Tramstop has been altered - Comment 6365 refers</p>	RESOLVED
	B6.2.3 (pg12) <i>Ch 523,680</i>	<p>The width of the south footway at the eastern pedestrian/toucan crossing (it is noted that the drawings are not consistent - though it is assumed that those showing toucans are correct) at Edinburgh Park Station locally reduces to about 2m. This could cause conflict between pedestrians waiting to cross and cyclists passing (see also item B6.2.4). The available space is further reduced by the signal poles.</p> <p>The shared route is only 2.5m wide at the bus stops where passengers will be milling increasing the risk of conflict locally.</p>	<p>The footway should preferably be 3m wide (particularly at such locations). If the path can not be widened then it would be necessary to relocate the crossing approximately 4m to the east to be clear of the local pinch point.</p> <p>Where the path generally is at a reduced width of 2.5m measures should be taken to locally increase the width of the path at critical points (eg at the bus stops and crossing). It is noted that the carriageway is 7.3m wide and it is considered that this could be reduced given the low speed (20mph) of this section; the available width could then be given over to the shared path.</p>	The footway / cycleway is combined in this area and as such cyclist will be conscious of pedestrian movements. Should cyclists wish to avoid this pinch point they have the option of using the segregated cycleway to the north of the stop. However, the comment and recommendation will be passed to the stops design team for consideration.	<p>Agree with designers response, however the drawing are inconsistent with regard to the carrigeway width. Drg STP-00048 has the width being 6.8m.</p> <p>SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately</p> <p>SDS Response (TA:5B, 04Oct08): Stop drawing to be amended in line with Roads design.</p>	RESOLVED
	B6.2.4 (pg13) <i>Ch 523,650</i>	An existing segregated cycle footway is present on the west side of Cultins Road. This continues westwards into the Edinburgh Park Station road as a shared footway/cycleway facility. Ladder/tramline tactiles markings are required at the change point between shared and segregated use. .		Tactiles will be provided.	<p>Agree with designers response.</p> <p>SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately</p> <p>SDS Response (TA:5B, 04Oct08): Noted</p>	RESOLVED
	B6.2.5 (pg13) <i>Ch 523,650</i>	Between Bankhead Drive and Cultins Road there are existing segregated footway/cycleway facilities on both sides of the bus link		An unsignalised crossing will be provided.	<p>Agree with designers response.</p> <p>SDS Response (TA:2A,</p>	RESOLVED

Report	Issue Reference	Safety Audit Issue	Safety Audit Recommendation	Designers Comment	Subsequent CEC / SDS Comments	LTP Response to Issue
		road. The Designer confirms that shared foot/cycleways will be provided on both sides of this link road. However, the southern foot/cycleway terminates at Bankhead Drive and so a crossing facility will be needed at this location (either of the bus link road or Bankhead Drive or both). See also B6.1.3.			04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	
	B6.2.6 (pg13) <i>General</i>	Lengths of cycle track are proposed, some of which are shared and some are segregated, whilst signing is generally indicated at the start and changes of routes there are generally no intermediate repeater signs along longer lengths.	Shared route or segregated repeater cycle/pedestrian signs with cycle marking symbols should be incorporated at regular intervals. .	Repeaters will be provided where appropriate.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
	B6.2.7 (pg13) <i>Ch 523,550</i>	The footway/cycleway crosses the tram route, at an angle of about 60°; given the width of the path cyclists would be able to cut across (and probably would) at an angle of 45° . Cyclists would have to look back slightly behind themselves increasing the risk that they may not see, or check for, an approaching tram; crossing the rails at a shallow angle. This is less safe than crossing at, or close to, right angles.	The crossing should be at, or close to, 90°.	Agreed. Crossing will be revised.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
	B6.2.8 (pg14) <i>Ch 522,850 – South Gyle Access</i>	Westbound cyclists turning right into South Gyle Access and eastbound cyclists turning left out of South Gyle Access will have their forward visibility impaired by the proposed bridge abutment.	Locally narrow the cycleway and create a 0.5m wide margin (possible painted) on the inside of the bend. It would be beneficial to extend the tangent point of the carriageway channel line south by about 1m – 2m with a tighter radius and trailing taper (this may also track better in respect of buses etc); this would allow a slightly wider path at the critical point. .	The kerblines are aligned to best suit vehicle movements from South Gyle Access Road to eastbound Bankhead Drive. Cyclists at this corner are in a combined footpath/cycleway and are negotiating a 90degree turn. Therefore they should be travelling at low speeds. The area between the abutment and the back of footpath will be paved and can be used for manoeuvring if required.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
	B6.2.9 (pg14) <i>Ch 521,170</i>	On the typical cross-section on drawing #HRL-00236, the guard rail adjacent to the foot/cycleway is drawn less than 1m high.	As the guard rail is intended to protect cyclists . It should be 1.4m high	Agreed. Guardrail to be 1.4m high.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
	B6.2.10 (pg15)	The shared cycle route along Stenhouse Drive passes north	A safe access point back onto the road be provided preferably in the	Agreed. Facilities will be	Agree with designers	RESOLVED

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	<i>Stenhouse Drive</i>	across the tramway and railway near the Saughton Main Street junction. It is not clear how cyclists travelling east along Stenhouse Drive rejoin the road network , where the shared route does not continue, at the junction with Saughton Main Street.	form of a buildout and short length of on road cycle lane. A route onto the shared cycleway should also be provided for west bound cyclists along Stenhouse Drive.	provided.	response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	
	B6.2.11 (pg15) <i>Ch.520950</i>	A shared cycle footway links to Carrick Knowle Avenue from the main cycle route. Tall landscaping and the embankment slope may restrict forward visibility on the inside of the bend, particularly on the initial down hill section.	Ensure visibility splays are provided for.	Agreed. This comment will be passed to the landscaping design team.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
	B6.2.12 (pg15)	The existing pedestrian crossing of South Gyle Access is signed as 'cyclists dismount'; this is due to the narrow width of the central staggered island. These will be lost with the new bridge and realigned path. The new arrangement may encourage cyclist to continue where width is not available.	It would be preferred to increase the width of the central staggered island; if this is not feasible the 'cyclists dismount' signs should be replaced. If the crossing is to become a toucan crossing then additional push button poles should be incorporated.	Cyclist dismount sign will be relocated so as it is not 'lost'.	Agree with designers response. SDS Response (TA:2A, 04Oct08): Not Section 2A - will be dealt with separately SDS Response (TA:5B, 04Oct08): Noted	RESOLVED
Section 5C: ULE90130-01-REP-00216	B7.2.1 (pg14) Location: South Gyle Broadway	The extent of the shared cycle/footways within Edinburgh Park is not clear ; route destination signs on the east side of South Gyle Broadway indicate that the footway there is shared use; signing in the footway to the west side of South Gyle Broadway stating no access to the bypass for cyclists ahead appears to indicate that that footway is shared too.	The extent of the shared cycle/footways should be verified and appropriate provision be made for all users.	Agreed.	Agree with designer's response however this was raised in the interim road safety audit and was raised by Ian Astbury in an email of 24 May 07. Cycle provision in this area should be maintained or improved, inline with the Tram Design Manual. Details of cycle provision to be included in the design and be discussed with CEC.	Outcome? (Haven't seen plan of proposals in this area)
	B7.2.2 (pg14) Location: South Gyle Broadway	The Roads Technical Design Statement incorrectly states that no cycle routes exist and that the crossings are currently to be pedestrian but upgradeable to Toucans. Whilst the road layout drawings show pedestrian crossings the signal drawings detail Toucans. The existing footpath on the east side of South Gyle Broadway is clearly signed as a shared cycle route. At the exit from the Gyle Centre direction signing is present with pedestrian and cycle symbols for both directions; further signing is present indicating the route continues on the footpath (east side of South Gyle Broadway) around Gyle roundabout and into Edinburgh Park. This particular route does not	The existing cycle facility along the east footpath of South Gyle Broadway should be incorporated into the design; additional space will be required to allow cycles to manoeuvre (taking into account pedestrian density) in the vicinity of the crossings.	The existing cycleway will be incorporated into the design by reerecting the existing cycleway signage. Road Scheme Layout drawings will be revised to match the signal drawings. Space will be increased where possible.	Agree with designer's response. Cycle provision in this area should be maintained or improved, inline with the Tram Design Manual. Details of cycle provision to be included in the design and be discussed with CEC. Where cycleway widths are below standard a departure will be required.	RESOLVED

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		appear to have been extinguished and has not been incorporated into the design.				
	B7.2.3 (pg15) Location: South Gyle Broadway	A knee rail is detailed along the footpath south east of Gyle Centre tramstop; south of the crossing point this should be shared use with cyclists forming a contiguous route with existing shared route into Edinburgh Park. The knee rail is a potential hazard to cyclists which they could catch with a rotating pedal.	There should be an adequate margin strip between the path and the knee rail; as the space appears to be available it would be preferred to route the path further away from the tramway which could then be demarked by landscaping or other means.	Agreed.	Agree with designer's response. Details of this knee rail to be coordinated with that proposed for the Roseburn Corridor. Details to be revised and provided.	RESOLVED
	B7.2.4 (pg16) Location: Gogarburn tramstop	The existing path along the north edge of the A8 Glasgow Road is shared use between pedestrians and cyclists, however it is detailed as an existing footpath and there is no indication of its use.	Incorporate shared pedestrian/cycle signing.	Existing signage will be retained.	Agree with designer's response, however additional signs/markings will be required where changes are proposed to footways. New design must be to current standards. Design to be revised. This area of the design has not been submitted for CEC approval and will need to be approved at a later date	Outcome? (Haven't seen plan of proposals in this area)
	B7.2.5 (pg16) Location: South Gyle Broadway	As the indications are that the path along the east side of South Gyle Broadway is also shared use with cycles (see item B7.2.2) the 'pedestrian' parapet to the retaining wall along Gyle Centre tramstop is not sufficiently high .	The parapet should be 1.4m high.	This recommendation will be passed to the structures team for action.	Agree with auditor. Note footway widths in these locations must also be suitable for shared footway/cycleway use. Where cycleway is bound (eg by parapet/retaining wall) 250mm additional space is required (500mm if bound on both sides) as per Movement and Development Guide. Design to be updated.	RESOLVED
	B7.2.6 (pg16) Location: A8 Glasgow Road	The path along the north side of the A8 Glasgow Road is a shared facility with cyclists (signed and detailed on SUSTRANS mapping). This extends from west of Gogarburn tramstop along the A8, the slip roads and roundabout continuing to the A8 junction with Turnhouse Road. The height of the parapets at the tram underpass of the A8 is not clear and may not be appropriate to protect cyclists . The path to the south side of the A8 slip road at the tram underpass may also be a shared cycle use though it is not clear; the path further round in South Gyle Broadway is shared (see item B7.2.2) and there is no obvious start/end of the shared section.	The parapet height should be a min. of 1.4m where routes include cyclists.	This recommendation will be passed to the structures team for action.	Agree with auditor. Note footway widths in these locations must also be suitable for shared footway/cycleway use. Where cycleway is bound (eg by parapet/retaining wall) 250mm additional space is required (500mm if bound on both sides) as per Movement and Development Guide. Design to be updated.	RESOLVED

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Section 1D: ULE90130-01-REP-00125	B7.2.4 (pg8) Cyclists	Inadequate cycle parking provision in Haymarket area. (from previous Stage 2 Safety Audit)		The inadequacy is noted. There is, under the proposed layout, increased potential for cycle parking, in comparison to existing. Provision of racks, etc will be considered and included.		RESOLVED
	B7.2.6 (pg8) Cyclists	Whilst the signing inconsistency (permitted then excluded cyclists) has been resolved the recommendation of allowing cyclists along West Maitland Street has not been adopted; cyclists are only given the option of cycling around Torphichen Place and Morrison Street which can be quite intimidating particularly when busy. Whilst the 1.5m wide cycle lane has been reinstated along Morrison Street (in this latest design) the cycle lane (present on the existing layout) is removed from Torphichen Place, this is likely to increase the risk to cyclists. If this route is to be used by cyclists then the cycle lane in Torphichen Place should be retained. It would be preferred to permit cyclists along West Maitland Street but the alternative route via Torphichen Place could be signed as an alternative route avoiding the tramway giving cyclists the choice in which case the cycle lane should be retained as above.(from previous Stage 2 Safety Audit)		Cycles have been omitted from West Maitland Street for three distinct reasons. Firstly the Traffic Road Orders prevent left or right turns along West Maitland St which limits the practicality of such a route. Secondly were cycles to be allowed they would then have to make a very shallow crossing of the tram tracks outside Ryries Public House, which is considered unsafe especially when the volume of traffic is considered. Lastly, cyclists would feel intimidated by the need to cycle up a tram track hemmed in by a tram track on the offside as well having buses pursuing them. There is, however, insufficient space in Torphichen Place for the safe inclusion of a cycle lane so no provision is proposed.		Need to ensure the alternative route is safe and convenient for cyclists to use.
	sB5.2.1 (pg13) Location: Haymarket Terrace	The gap between the westbound tramway path and the nearside road channel tapers to a pinch point at approximately ch.131175. Cyclists (particularly slow cyclists departing at the end of Morrison Street Stage) could find themselves trapped in a tapering gap between an approaching tram (from West Maitland Street) and the nearside kerb just before entering the cycle/taxi bypass outside Haymarket station.	The carriageway be locally widened to allow at least 1m (and preferably 1.5m) between the tramway path and the road channel.	The width available for cyclists complies with minimum requirements. With respect to the tram, the risk arises not from an approaching tram but one catching up with a cyclist from behind. Such an occurrence is likely to be rare and the danger can be addressed by the tram driver, who will have full vision and is trained to drive 'on sight'.		What is the minimum acceptable width? /S it available – check?
	sB5.2.2 (pg13) Location: Clifton Terrace	There is no Advance Stop Line (ASL) for cyclists at the Clifton Terrace pedestrian crossing stop line.	As the pedestrian crossing is skewed it would appear that an ASL could be incorporated at least into lane 1.	Accepted.		RESOLVED

