

Appendix A – On-Route Audit Recommendations – ISSUE D

Item ref.	Dwg. Ref	Location	Issue	Recommendation
1	2	Lindsay Rd / Old Port Rd Junction southeast bound	No ASL for cycles. Left turn only lane for traffic makes straight ahead movement for cycles more difficult. Also, cyclists need to be able to access Old Port Road off road cycle facility.	Provide ASL with central approach lane. This may also enable cyclists to bypass the signals to access the off road facility. <i>Recently resolved. Latest 'Issue For Construction' drawings (eg ULE90130-01-HRL-00026) show full width ASLs on each of the three approaches including one referred to here. Cycle lane to Old Port Road now starts at drop kerb west of eastbound stopline on Lindsay Road.</i>
2	2	Old Port Road at bus shelter	How do cycles negotiate bus shelter area, particularly westbound? There is a section of off road cycle track on north eastern side – is this to remain?	TO CLARIFY <i>Recently resolved. Drop kerbs to be provided at either side of the pedestrian crossing at the access to the bus stopping area. Drop kerbs also to be provided at either side of the egress from the bus stopping area. Cyclists will use the cycle/pedestrian 'island' between the vehicle access and egress.</i>
3	3	Ocean Terminal junction with Old Port Road	Continuity of off road cycle track. Is it to be still provided along here? How far south does it run and how does it tie into the bus / tram terminal?	TO CLARIFY <i>Outstanding. Detail currently not available from designers however extensive cycle facilities are likely to be introduced.</i>
4	2	Lindsay Road right turn into off road cycle track, Old Port Road	ASL needed to help west bound on-road cyclists to turn right into Old Port Road and access the off road cycle track.	Provide ASL to enable cyclists to access off road facility east along Old Port Road and ensure flush kerb on Old Port Road to allow cycle access. <i>Outstanding. ASL to provided on westbound approach on Lindsay Road at Old Port Road junction. However, there is still no drop kerb or pavement markings once cyclists have made the right turn and need to reach the shared/pedestrian route.</i>
5	2	North eastern end of Almondvale cycle path	How does this tie into Lindsay Road and the signalled crossing? Is the crossing a Toucan?	TO CLARIFY Need cycle link to Old Port Road in order to ensure future residential development has access to key cycle route. <i>Outstanding. Designer still to be asked by tie to consider.</i>
6	3	Ocean Drive bus / tram terminal	Cycles appear to be permitted northeast bound. Do they follow the bus / taxi route? What is the arrangement for south west bound cyclists – there is currently an off road cycle track here with Toucan crossing. Will this remain?	TO CLARIFY <i>Outstanding. Same as comment 3.</i>
7	4	Ocean Drive / Ocean Drive – existing	Right turn for cyclists south east bound – what are proposed arrangements?	TO CLARIFY Possible road markings to guide cyclists. What is width to the left of the tram tracks here? Any scope for off road

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		roundabout		<p>facility on northern side?</p> <p><i>Outstanding. Same as comment 3 though recent draft drawings show continuous pedestrian/ cycle shared path around the southern side of Ocean Drive from the bus/tram Interchange to junction of Forth Ports Bypass/Ocean Drive junction.</i></p>
8	5	Ocean Drive past Victoria Dock	Long length of restricted width carriageway. Trams likely to be intimidating for cyclists.	<p>TO CLARIFY – IS AN OFF ROAD CYCLE TRACK PROPOSED ALONG THE NORTH SIDE AS PART OF THE SCHEME?</p> <p><i>Outstanding. CEC's aspiration is for cyclists to use a shared pedestrian/cycle path on the southern side of Ocean Drive between Forth Ports Bypass/Ocean Drive junction and a point about 50 metres west of Tower Place junction where the width available is restricted by the building line. Victoria Dock Bridge on this section is already planned to be widened to accommodate the new cycle/pedestrian path. Recent drawings still do not show the shared pedestrian/cycle facility and designers will be requested to incorporate this. East of the 50 metre pinchpoint a crossing could give access to more pedestrian/cyclist shared path on the northern side of Ocean Drive. This could continue east, cross the dock access road opposite Tower Place [drop kerbs required] and continue east as far as the crossing at the west end of Port of Leith tram stop where cyclist could rejoin the road.</i></p>
9	4	Ocean Drive past Victoria Dock	There is an existing off road cycle track along the southern side. Is this to remain?	<p>TO CLARIFY – NOT CLEAR ON DRAWINGS PROVIDED</p> <p><i>Outstanding. See comment 8.</i></p>
10	1	Old Port Road (western end)	There is an existing off road cycle track along Old Port Road to the north west. The drawings don't indicate how this ties in to the proposed off road facility along Old Port Road (heading NE).	<p>Provide details on drawings to show how the cycle track ties in.</p> <p><i>Outstanding. Old Port Road as realigned will rise up to meet Lindsay Road. The section of Old Port Road which will be disconnected from the realigned road will be a lower level. Designers are considering ways to connect the higher and lower levels. Steps are being considered. Cyclists will be able to use the realigned Old Port Road then Lindsay Road and then turn right west of the Newhaven tram stop to meet up with the west end of the disconnected section of Old Port Road. This route is slightly longer but there are no frontages to serve on the disconnected section of Old Port Road.</i></p>

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11	6	Ocean Drive / Constitution Street junction	No ASL for cyclists – there appears to be sufficient width to accommodate one for northbound cyclists wishing to turn left into Ocean Drive.	Provide ASL in nearside lane only for north bound cyclists. <i>Disagree. CEC would not normally introduce an ASL for straight ahead movements which is what the left turn into Ocean Drive effectively is. The road access off to the east is currently a dead end and in future there may be a requirement to implement an ASL to aid the right turners going south to north east.</i>
12	6	Constitution Street / Tower Street junction	No ASL is shown on the south east bound Tower Street approach to the junction.	Provide an ASL as per the north west bound approach. <i>Disagree. Wouldn't implement an ASL due to proximity of the loading bays in both directions.</i>
13	7	Baltic Street junction with Constitution Street	There appears to be a left turn ban from Baltic Street into Constitution Street – what is the reason for this?	TO CLARIFY Permit cycles to carry out this left turn? <i>Outstanding. CEC will raise the point with the designer. CEC policy would be to allow cyclists to make the manoeuvre, however the gap between the kerb and tram tracks is very tight.</i>
14	3	Old Port Road tie-in to proposed new link road	It is understood that a new link road is to be constructed between Old Port Road and Ocean Drive, bypassing the tram terminal. The tie in details of the proposed cycle facilities will be important if a cycle-friendly alternative route to cycling through the tram terminal is to be provided.	Ensure that an off road cycle track is included as part of the proposed link road, and that the tie-in of the cycle facilities at either end is considered carefully to ensure route continuity. <i>Outstanding. Same as comment 3.</i>
15	9	Duke Street / Leith Walk Junction	The number of cyclists performing a left turn from Duke Street into Leith Walk is likely to increase given the proposal to ban cycling on Constitution Street southbound between Laurie Street and Duke Street. The left turn is considered hazardous for cyclists due to the acute angle of the tram tracks and restricted width between the tracks and the kerb.	Assuming there is no possibility of the tram tracks being realigned, provide suitable road markings in order to better guide cyclists and ensure they approach the tracks at an appropriate angle to reduce the potential for loss of control. <i>Outstanding. Agree that Duke Street to Leith Walk will be a problem for cyclists. Cyclists will be required to use the general vehicle lane rather than the bus lane on Duke Street to give a better angle of approach into Leith Walk. There are too many markings already without introducing additional road markings for cyclists. The road safety auditor felt that the clearance which is less than 1 metre from tram track to kerb is not wide enough to mark as a cycleway.</i>
16	9	Leith Walk / Kirk Street junction	No Advanced Stop Line for northbound cyclists.	Provide 4m deep ASL, (this will not encroach across front of Kirk Street). <i>Resolved. This has now been introduced as Kirk Street is one way north westbound.</i>

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17	All	Full route	Very few of the proposed ASL boxes show approach lanes for cyclists. With only a short entry stub, the usefulness of ASLs for cyclists is limited.	<p>Whilst it is accepted that the available carriageway width determines whether or not approach lanes can be provided, it is considered that there may be an opportunity to provide them to at least some of the proposed ASLs. Proposed lane widths were not shown on the drawings provided, but it is recommended that this issue is revisited to add approach cycle lanes where width allows.</p> <p><i>Outstanding in places. Generally road widths preclude implementation of cycle lane lead-ins to ASLs, however there may be some places where this would be possible. Eg. Southern end of Leith Walk.</i></p>
18	10	Proposed pedestrian crossing – Jameson Place / Balfour Street	Balfour Street forms part of the proposed alternative cycle route to the west of Leith Walk, linking Leith to the City Centre. With the proposed arrangement, cyclists will not be able to turn right off Leith Walk in order to access Balfour Street in order to continue on the proposed quiet street route to destinations to the south west.	<p>Make the proposed pedestrian crossing a Toucan and provide an appropriate flush kerb arrangement to enable south west bound cyclists on Leith Walk to access the facility. On the northern corner of the Leith Walk / Balfour Street junction, provide a cycle track link between the Toucan crossing and Balfour Street to enable northeast bound cyclists to access Balfour Street.</p> <p><i>Disagree. Pavement spaces are very busy to consider shared pedestrian/cycle facility even over a short length. Can see logic in linking to proposed parallel cycle route at Balfour Street/Cambridge Avenue but suggest this is done via Pilrig Street.</i></p>
19	11	Dalmeny Street	Dalmeny Street is traffic calmed and, although it has a mainly cobbled surface, it offers a useful cycle route for north bound cyclists on Leith Walk who wish to access Easter Road and areas to the east. The ASL box on Leith Walk is show as only extending across the left / straight ahead lane. This offers no advantage to cyclists who want to make a right turn into Dalmeny Street.	<p>Extend the ASL box to facilitate right turns for cyclists into Dalmeny Street.</p> <p><i>Resolved. ASL now extends full width of Leith Walk.</i></p>
20	11	Pilrig Street – Iona Street junction	South west bound cyclists are permitted to turn right into Pilrig Street, but the two ASL boxes on the immediate approach to the pedestrian crossing and signal junction do not show ASLs extending across into the right turn lane.	<p>Extend the ASL boxes across the right turn lane on the southwest bound approach to the pedestrian crossing at Iona Street and the signal junction at Pilrig Street.</p> <p><i>Resolved. As comment 19</i></p>
21	11	Pilrig Street exit onto Leith Walk	An ASL box is show to facilitate right turning cyclists out of Pilrig Street onto Leith Walk (south bound). The safety audit refers to this box being removed, but it is considered that it offers an advantage for cyclists performing this right turn.	<p>Ensure ASL box for the right turn movement is retained.</p> <p><i>Disagree. CEC weren't sure whether or not to accept the auditor's comments and resolved to do so in the end.</i></p>

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22	12	Mc Donald Road junction	Mc Donald Road forms a useful cycle route, given that it is traffic calmed, has advisory cycle lanes and links up to the St Mary's Park off road cycle track and on to NCN Route 75 at its north western end. Brunswick Lane is also a useful cycle route which is traffic calmed and links to Easter Road. There is an existing ASL on Leith Walk for both north and south bound cyclists which extend the full width of the road, to facilitate right turns off Leith Walk. Only a half width ASL box is shown on the proposals drawing, in each direction.	Provide full width ASL boxes on both Leith Walk approaches to facilitate right turn movements for cyclists. <i>Resolved. As comment 19.</i>
23	13	Montgomery Street	Montgomery Street is traffic calmed with a 20mph speed limit, and offers a useful east-west link for cyclists between Leith Walk and Easter Road. However there is no ASL box shown out of Montgomery Street. There is also no ASL box shown for north east bound cyclists on Leith Walk either wishing to continue straight ahead on Leith Walk or to turn right into Montgomery Street. It is noted that the existing layout has a full width ASL box on the Leith Walk approach.	Provide ASL box on the Montgomery Street Approach to Leith Walk to offer an advantage to cyclists using the route in the south / west bound direction. Also provide a full width ASL on the Leith Walk north east bound approach. <i>Outstanding. Disagree with ASL across Montgomery Street access because this will be across the end of Elm Row access. However, agree with ASL northbound on Leith Walk and will take up with the designer.</i>
24	9	Manderston Street	Manderston Street currently has a one way system in operation north west bound. The TRO drawings provided do not indicate that this will remain one way post tram implementation. This being the case, there may be a desire for cyclists to turn right off Leith Walk in order to access Manderston Street and Leith Academy, and also the off road cycle track through Quarryhole Park and beyond.	Retain Manderstone Street as two-way, and provide an ASL box out of Manderstone Street to facilitate cycle use. Also, extend the proposed ASL box on Leith Walk (north bound) across into the right turn lane to facilitate right turn movements by cyclists into Manderston Street. <i>Resolved. As comment 19</i>

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25	14	Alternative route for cyclists avoiding Picardy Place for south west bound cyclists	<p>Between Annandale Street and Leith Street, the proposed layout is likely to be challenging for cyclists, especially those who are less experienced. The Picardy Place area in particular is likely to be difficult. An alternative route for cyclists heading south / west is therefore required, avoiding Picardy Place. Alternative quiet street routes or off road options to the east of Leith Walk are limited by the topography and existing street layout. There do not appear to be any viable, relatively direct links through for cyclists on the eastern side. However, a potential route exists to the north / west side as follows:</p> <p>At the Mc Donald Road / Leith Walk signal junction, convert the proposed signalled pedestrian crossing across the northern leg to a Toucan, to enable less confident cyclists to turn right safely into Annandale Street. Flush kerbs would be required to enable access by south bound cyclists on Leith Walk and careful design on the western side (Mc Donald Road), to minimise potential conflict with pedestrians. The footway on the south western side of Mc Donald Road is approximately 4m wide. This would be sufficient to provide an off road cycle track link between the Toucan crossing and Annandale Street Lane. Though this has a gradient north east to south west and some cobbled traffic calming features, it is narrow, lightly trafficked and is well suited as an alternative to Leith Walk for cyclists. At the southern end of Annandale Street Lane, cyclists would turn right onto Annandale Street for a short distance, before turning left onto East London Street (cobbled but traffic calmed). There are several options from here. The route could continue along East London</p>	<p>Provide Toucan facilities at the Leith Road / Mc Donald road signals to facilitate the right turn for cyclists into Mc Donald Road. Carry out further detailed design work in order to provide the route described between Mc Donald Road and Dublin Street, to tie into the NCN Route 75 and associated improvements to the alternative route recommended separately as part of this study.</p>

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			Street to the Broughton Street Roundabout, then turn left, southward uphill along Broughton Street then turn right into Albany Street using the right turn facility proposed as part of the alternative "off-line" route works. It would then continue westward to link into NCN Route 75 on Dublin Street. Alternatively, cyclists could turn left off East London Street onto Gayfield Square (cobbled with gradient) then right onto Gayfield Street. From here the route would take Broughton Place westward to Broughton Street. Much of this route is cobbled, though the gradient is generally favourable. This alternative avoids the left turn at the East London Street / Broughton Street roundabout.	<p><i>Agree in part. Agree with the concept of an alternative route to Picady Place for those who are less confident cyclists. Understand the need to turn right from Leith Walk (southbound) into McDonald Road as the last point to avoid Picady Place.</i></p> <p><i>Not happy with the suggestion to change the Leith Walk (northern arm) and McDonald Road-end crossings to Toucans because this would mean designating busy pedestrian space for cyclists in order to access the Toucans. However a suggested alternative which could be tried out on an experimental basis would be to provide road markings through the junction which show the most appropriate, safest line for cyclists to take to reducing the chances of falling off on the tram tracks.</i></p> <p><i>If the experiment works in this location (as part of the 'alternative' route as a whole) it could conceivably be introduced elsewhere. The route via Annandale Street Lane, Annandale Street and East London Street appears to be the most sensible.</i></p> <p><i>Tie/CEC are not sure about using Broughton Street [which can be very congested] and Albany Street when using London Street could take cyclists straight to Dublin Street. This then gives direct access to the north and south NCN route 75. Whilst it might be marginally hillier, Dublin Street is considerably quieter and less intimidating than Broughton Street.</i></p>
26	15	York Place / Broughton Street junction	The signal junction currently has ASLs on the York Place (north east bound) approach to the signals. No ASL is shown on the proposed layout.	<p>Provide an ASL on the York Place north east bound approach. Given the complex, multi-lane layout immediately to the north east on Picardy Place, and ASL box would enable cyclists to position at the head of the queue making them more visible, and enabling them to weave in advance of traffic when travelling north east bound rather than having to do so within the main traffic flow.</p> <p><i>Outstanding. Agree in principal and will be taken up with the designer.</i></p>

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27	14	Broughton Street southbound approach to York Place	The signal junction currently has ASLs on the York Place (south bound) approach to the signals. No ASL is shown on the proposed layout.	Provide an ASL on the York Place south bound approach. As above, the proposed multi-lane layout through Picardy Place makes the advantage gained by cyclists by positioning at the front of any queue, important. <i>Outstanding. As comment 26.</i>
28	15	York Place / York Lane junction	There is an existing cycle exemption from the road closure at the southern end of York Lane. Though cobbled and with a slight gradient, it is a useful cut through for cyclists to the proposed "off-line" alternative route avoiding Picardy Place.	It is not clear from the drawings what the proposed arrangements are with regards to the cycle slip remaining in place. It is recommended that the cycle exemption remains in place and is appropriately signed. <i>Agree. Access to York Lane will be maintained.</i>
29	15	Elder Street / York Place	No ASL is shown out of Elder Street.	Although there is no ASL at the existing signal junction, such a facility as part of the proposed works would provide additional benefit for cyclists and help improve access within the area around St James Centre. <i>Disagree. Can't see value in the ASL at the moment as this is an egress from the bus station for buses. However in future, when the St James Centre is redeveloped, there may be a requirement for an ASL.</i>
30	16	York Place / North St Andrew Street	Left turn into North St Andrew Street for cyclists could be hazardous due to proximity of tram rails. The safety audit also covered this point (see B6.2.9 (pg61)).	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. There appears to be just sufficient room to enable cyclists to perform this manoeuvre without conflicting with the tram tracks, though positive guidance in the form of road markings would help. Cycle-specific warning signs on the approach, indicating the likelihood of encountering slippery rails, are also recommended. <i>Resolved. Cyclists will be banned from making the left turn into North St Andrew Street at this point and will be required to go forward across the tracks to the opposite corner to join the precise route of NCN 75. Cyclists will then turn up North St Andrew Street to recross the tracks using the crossing.</i>
31	16	Dublin Street / Queen Street / North St Andrew Street junction	NCN Route 75 crosses York Place at this point, to continue northwards up Dublin Street. It is understood that the level of the carriageway on York Road is to be built up in order to facilitate the tight turn for the tram, into North St Andrew Street. This will result in a level difference between York Street and Dublin Street. From the	Provide a Toucan crossing and ensure a ramp is in place of adequate width and gradient to enable cyclists to cross from Dublin Street to North St Andrew Street (and back) in safety. A safe crossing facility here is important given that it forms part of the NCN and also comprises part of the proposed alternative "off-line" cycle route running parallel (and to the north of) Leith Walk.

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			drawings provided it is not clear a) if a signalled Toucan crossing will be retained to enable cyclists to cross safely between Dublin Street and North St Andrews Street; and b) if a ramp of suitable width and gradient will be provided to adequately cater for the level difference in terms of cyclists.	<i>Outstanding: Toucans and ramps have been designed in, however CEC are still in discussion with the designer about a number of issues including a concern that the ramp in what is currently the middle of Queen Street will only be 3 metres wide. This is felt to be insufficient given pedestrian volumes as well as cyclist needs.</i>
32	16	Dublin Street / Queen Street / North St Andrew Street junction	For southbound cyclists crossing from Dublin Street to continue southward on North St Andrew Street, this will entail having to cross from the west side of the street to the east. It is not apparent from the drawings how this will be achieved. If no facilities are provided there is a risk that cyclists will attempt to cross the road (and the tram tracks) at an inappropriate location.	Provide a facility at the North St Andrew Street / St Andrew Square junction as part of the signalling arrangements to enable southbound cyclists to safely cross from west to east in order to continue their journey southward. This may only require a suitable "jug-handle" arrangement to better tie the proposed cycle track along the western side of North St Andrew Street in to the St Andrew Square ASL box. Ensure the signal heads are clearly visible for southbound cyclists waiting to exit the junction eastbound out of St Andrew Square. <i>Disagree. Cyclists southbound on North St Andrew Street will be signed to use the road space rather than the off-road cycle lane running south-north adjacent to the building line. This removes the requirement for a jug handle arrangement.</i>
33	16 & 17	Alternative cycle route between George Street (eastern end) and Dublin Street	Item Refs 31 and 32 above, plus the safety audit, highlight a number of potential issues with the proposal to route cyclists (including NCN Route 75) from Dublin Street along North St Andrew Street in order to access George Street. An alternative solution may be possible utilising North St David Street and Queen Street, thus avoiding the northern section of North St Andrew Street and the problems highlighted above.	Investigate the feasibility of the following: <u>For northbound cyclists from George Street (eastbound):</u> Use the ASL at the George Street / St Andrews Square junction to turn left into St Andrews Square. Continue northward, along North St David Street to the ASL at the junction with Queen Street, (possible additional on-road cycle lanes). There are then 2 options. Either Option 1) use the ASL to turn right onto Queen Street and access the bus / cycle lane on Queen Street, then ride eastward using the bus / cycle lane to access dropped kerb to Dublin Street; or Option 2) ride along North St David Street as far as the signal junction with Queen Street, then provide a dropped kerb linking to a Toucan facility as part of the proposed signalled pedestrian crossing across the southern leg of the junction, to enable cyclists to cross North St David Street (west to east). From here, convert the footway on the southern side of Queen Street to shared use (segregated) eastward to join with the Toucan crossing at Dublin Street. Cyclists would then use the Toucan to cross from the south side of Queen Street into Dublin Street. There is a short section outside the portrait gallery where the available width narrows, but the majority of the footway on this section is 5m+ wide and could accommodate shared use. The section in front of the gallery could be designated as

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				<p>unsegregated. Potential conflict with pedestrians is likely to be much less than that associated with the existing proposals along the northern section of North St Andrew Street.</p> <p><u>For southbound cyclists:</u> From Dublin Street use the Toucan crossing to cross to the southern side of Queen Street. Convert the footway along the south side of Queen Street between North St Andrew Street and North St David Street (as Option 1 above). Cyclists could use this facility to also bypass the westbound signal on Queen Street in order to access North St David Street, and rejoin the carriageway on North St David Street via a dropped kerb and give way marking. This option completely removes cyclists from the tram corridor over this difficult length, resolving a number of issues highlighted in the safety audit in the North St Andrew Street area. It also makes the NCN route between the eastern end of George Street and Dublin Street more direct.</p>
				<i>Disagree. As part of the redevelopment of the National Portrait Gallery ramps will be built into the pavement space on Queen Street thereby taking up a considerable amount of the 5 metre width suggested here.</i>
34	14	London Road / Leith Walk junction, northbound approach	For north bound cyclists on Leith Walk wishing to turn right into London Road, there is little guidance to facilitate this movement, amongst 3 lanes of potentially heavy traffic. Cyclists also have to negotiate the tram tracks at this point.	<p>Provide a short length of advisory cycle lane in the nearside right turn lane with appropriate coloured surfacing, to guide cyclists turning right to approach the tram tracks at 90° and to highlight the potential presence of right turning cyclists to approaching northbound drivers.</p> <p><i>Agree. Will ask designer to incorporate. Will also look at a tail on approach to the ASL in the middle (right turn) lane.</i></p>
35	14	London Road / Leith Walk junction, London Road approach	No ASL boxes are shown on the London Road (westbound) approach to the junction, to facilitate cycle use.	<p>Provide an ASL box for the right turn movement, and also in the nearside lane for left turning cyclists.</p> <p><i>Resolved. Included in later versions of drawings.</i></p>
36	14	Leith Walk / Picardy Place	Right turn for cyclists travelling southwest bound along Leith Walk into York Place is likely to be difficult due to heavy traffic and the 3 lane layout. The drawings provided show an advisory cycle lane extending back (northward) from the ASL box for approximately 28m, (in the area in front of the Omni Centre). It is not clear whether it is proposed to retain this advisory cycle lane as part of the	The advisory cycle lane in this area gives cyclists a point to aim for when carrying out the right turn manoeuvre. Without such a cycle lane, cyclists have a distance of approximately 80m to travel amongst 3 lanes of weaving traffic, with no defined point to aim for and no positive indication to drivers of where they may be heading. It is recommended that the proposed cycle lane is retained and if possible extended northwestward.

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			final design, or not.	<i>Disagree. CEC have given considerable thought to this issue. The road safety auditor pointed out that traffic traveling southbound in the off-side lane from Leith Walk might still be in the off-side lane once it reaches this section of the gyratory. Whilst road markings ask drivers to be in the nearside lane, they may still end up crossing the cycle lane as they continue towards Leith Street. The risk is that drivers will collide with a cyclist, especially if they are distracted by trying to find a gap to move into in the nearside lane.</i>
37	14	Leith Street / Little King Street junction	The Little King Street / St James' Place link provides a potentially useful short cut for cyclists travelling southwest bound on Leith Walk who wish to access York Place. Despite the sharp gradient along part of the route, it avoids the western leg of the Picardy Place junction (northbound). However, the Little King Street / St James' Street route is currently one-way in the eastbound direction.	<p>Amend the TRO on the Little King Street / St James' Place route to either permit contra-flow cycling, or else reverse the direction of the one way to all traffic. The cycle contra-flow would require detailed consideration of the existing layout, particularly at either end of the route and in the vicinity of the sharp bend where St James' Place meets Little King Street. At the eastern end of Little King Street it may be possible to provide a cycle only slip around the bend in order to enable cyclists to access the Little King Street at the point where it widens out, thus reducing any potential conflict with vehicles travelling in the reverse direction out of Little King Street. The option to reverse the one-way for all traffic may require amendments to the signal junction and road geometry at the eastern end of the route and also amendments at the Elder street end, and would require detailed consultation with owners / tenants of the various commercial and retail premises which gain access using this corridor.</p> <p><i>Agree this would be a possible alternative, however latest thoughts are to reverse the one way so that general traffic would climb up Little King Street rather than travel down it. It might be possible to introduce a contraflow cycle lane in this opposite direction, however, much depends on plans for the area as a result of redevelopment of St James Centre, which are still unknown. CEC will bear this comment mind for the future though.</i></p>
38	17	Eastern end of George Street	The TRO drawing shows that only buses are permitted to turn right out of George street (eastern end). However, the ASL box on the TRO drawing extends across the full width of the carriageway, implying that cyclists are permitted to turn right. Given that South St David Street would form a useful way of accessing Princes Street for any cyclists from the north, (and that the southern end of South St	Amend the proposed TRO to permit cyclists to turn right out of George Street. From the drawing provided, it appears that there is sufficient carriageway width available to enable a 1.5m central cycle lane to be implemented on George Street eastbound approach to ASL at the signals. Given the left / right lane split at this junction, a central cycle lane is considered preferable to the nearside cycle lane shown on the drawings.

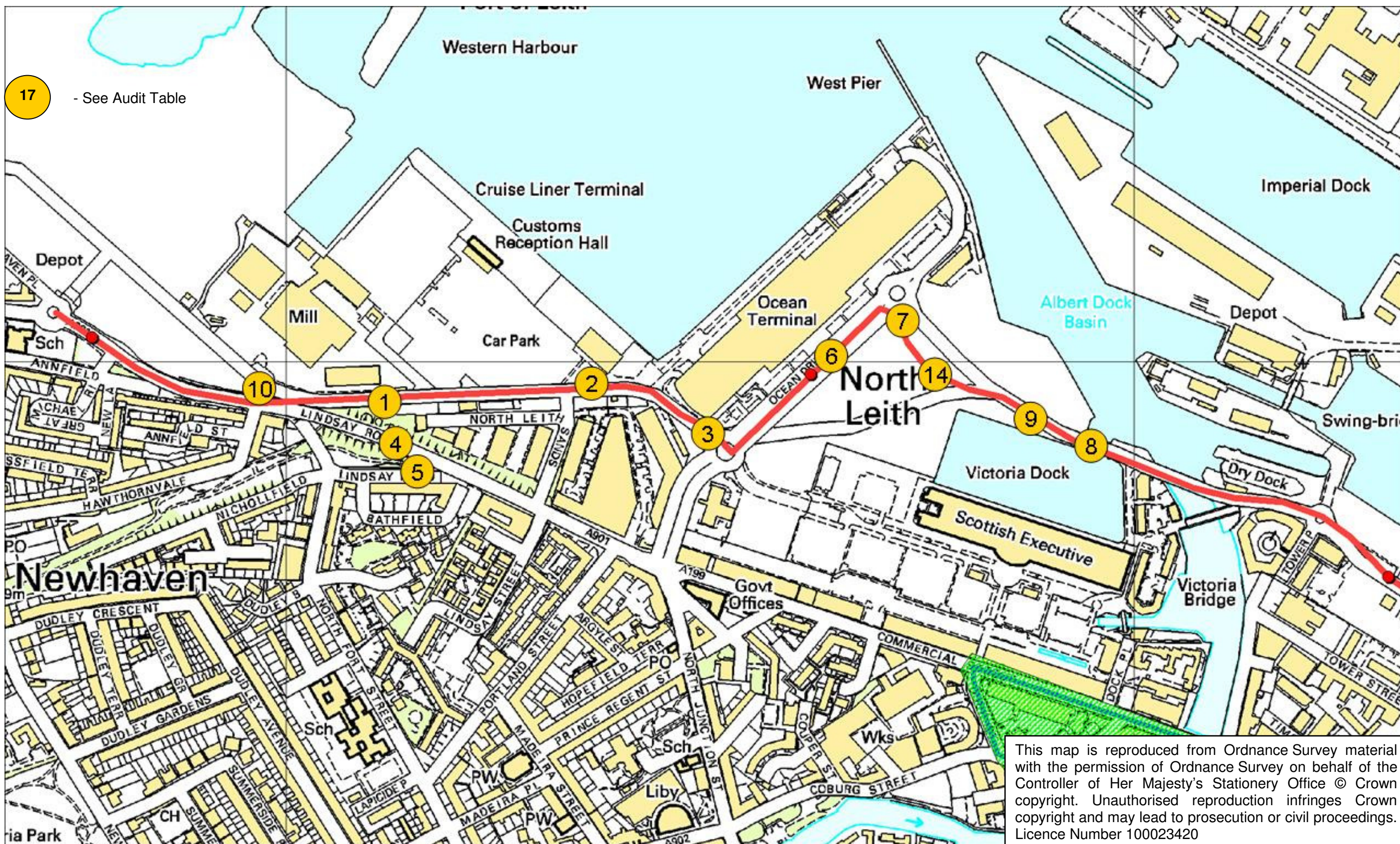
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			Andrew Street appears to be proposed as “tram only”), it is considered that the ability for cyclists to turn right out of George Street is important.	<i>Agree. This will be brought to tie's/designer's attention</i>
39	17	St Andrews Square southbound approach to George Street junction	The TRO drawings provided shown no right turn except for buses for the right turn from St Andrews Square into George Street (westbound), even though a full width ASL box is shown. The ability of cyclists to turn right at this junction is crucial to the proposed routing strategy for both the NCN routes 1 and 75 and for the proposed alternative route to the area north of Leith Walk, for cyclists.	Amend the proposed TRO to permit cyclists to turn right into George Street. <i>Agree. As the last comment, but note comment 33 re-National Cycle Network routing via Queen Street outside National Portrait Gallery</i>
40	18	Princes Street / Waverley Bridge junction	The ASL box on the Waverley Bridge approach is shown as having a short entry cycle lane spur to the nearside lane, for north bound cyclists on Waverley Bridge. Given that the traffic splits to the left and right, it is considered that a central cycle lane, extending back southward along Waverley Bridge as far as available carriageway width allows, would be more beneficial to cyclists. From the drawing provided, it appears that there is sufficient width to enable a central cycle lane to be provided of at least 1.5m width.	Provide a central approach cycle lane on Waverley bridge approach to the ASL. <i>Agree. Designer's design has now been closed out by CEC, however CEC will raise with tie to see if they wish to secure a change.</i>
41	19	South St David Street junction with Princes Street	The predominant flow of cyclists turning into Princes street from South St David Street is likely to be turning right. However, the proposed ASL on the southbound approach to the junction shows a small entry spur in the nearside lane only.	Either provide a central approach cycle lane to the ASL box on the South St David Street or, if there is insufficient carriageway width available, a central cycle spur in the right turn as well as left turn lane. <i>Agree. Same issue as comment 40. Not clear why “the predominant flow of cyclists.... Is likely to be turning right” though.</i>
42	19	Princes Street junction with the Mound	The road geometry and signing shown on the TRO drawing appears to indicate that cyclists are not permitted to turn left out of The Mound into Princes Street. Given the manoeuvrability of a cycle it is envisaged that many may chose to ignore the left turn ban and turn left into Princes Street anyway. Motorists may not be expecting this manoeuvre and it could lead to potential shunt type collisions, with motor vehicles hitting the rear of cyclists slowing to turn left at the sharp radius.	Amend the TRO to enable cyclists to turn left. Provide either a larger radius kerbline to facilitate this movement by cyclists, or else provide a cycle slip within the enlarged footway area, to enable cyclists to bypass the signals and access Princes Street in a westbound direction. This would require careful design in order to ensure cyclists could safely merge back into Princes Street westbound, (give way markings for cyclists may be required), and also to minimise potential conflict with pedestrians. <i>Resolved. Latest design includes for left turning cyclists.</i>
43	21	South Charlotte Street junction with Princes Street	No ASL boxes are shown on the southbound (South Charlotte Street and westbound (Princes Street) approaches, where it is considered they would provide benefit for cyclists.	Provide ASL boxes on the south and westbound approaches to the signal junction. <i>Agree. See comment against issue 40.</i>

Item ref.	Dwg. Ref	Location	Issue	Recommendation
44	22	Princes Street westbound approach to Lothian Road junction	Between South Charlotte Street and Lothian Road, westbound cyclists who wish to carry straight on to Shandwick Place are required to ride to the off side of two left turn traffic lanes, in a position where motorists may not be expecting them to ride, (given that there is a mandatory left turn for motorists at Lothian Road). An ASL box for the straight ahead lane would indicate to motorists that cyclists are permitted to carry out the straight ahead manoeuvre, and can be expected to be encountered. Also such an ASL would give cyclists a legitimate position to aim for over this 3 lane section of road, and allow them to access the front of the queue and hence set off in a more visible position.	<p>Install an ASL box for westbound cyclists. If sufficient carriageway width is available, install a section of lead-in cycle lane to the ASL, between the offside left turn lane and the straight ahead westbound bus / tram / cycle lane.</p> <p><i>Disagree. CEC have given considerable thought to this point. The length between Lothian Road and South Charlotte Street is just long enough for a tram stopped at the stopline and a bus behind. Introducing an ASL will mean the tail end of the bus could prevent traffic moving from South Charlotte Street to Lothian Road in the outer of the two lanes. Two lanes are required from South Charlotte Street to Lothian Road to reduce congestion.</i></p>
45	22	Lothian Road junction with Shandwick Place	The road geometry and signing shown on the TRO drawing appears to indicate that cyclists are not permitted to turn left out of Lothian Road into Shandwick Place. Given the manoeuvrability of a cycle it is envisaged that many may chose to ignore the left turn ban and turn left into Shandwick Place anyway. Motorists may not be expecting this manoeuvre and it could lead to potential shunt type collisions, with motor vehicles hitting the rear of cyclists slowing to turn left at the sharp radius.	<p>Amend the TRO to enable cyclists to turn left. Provide either a larger radius kerbline to facilitate this movement by cyclists, or else provide a cycle slip within the enlarged footway area, to enable cyclists to bypass the signals and access Shandwick Place in a westbound direction. This would require careful design in order to ensure cyclists could safely merge back into Shandwick Place westbound, (give way markings for cyclists may be required). An ASL on the Lothian Road approach is also recommended.</p> <p><i>Resolved. Latest design includes for left turning cyclists.</i></p>

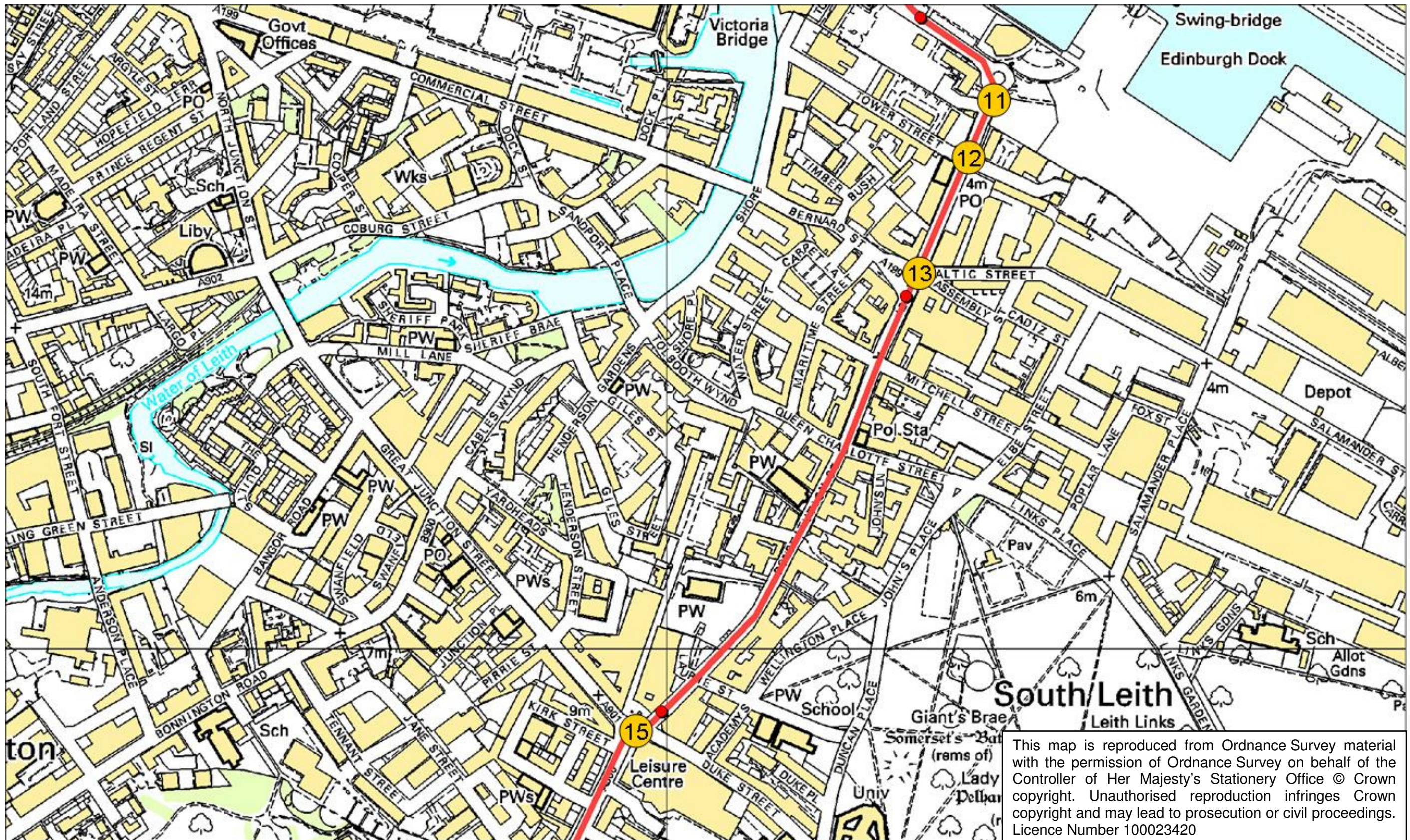
Item ref.	Dwg. Ref	Location	Issue	Recommendation
46	22-24	Alternative route westbound between Lothian Road and Morrison Street / Haymarket Station, avoiding Shandwick Place and West Maitland Street	The proposed TRO drawing indicates that cyclists will not be permitted to proceed westbound along West Maitland Street, between Torphichen Street and Morrison Street. It is assumed that this is because of the constrained width between the edge of the tram track and kerbline, (though the available width does look greater than in other locations where it is proposed to still permit cycling). Cyclists would also cross the tram tracks immediately to the west of Dalry Road at a very shallow angle, though the alternative route shown on the drawings via Torphichen Street / Torphichen Place / Morrison Street does not appear to help in this respect, as the main problem with the tram tracks is west of Morrison Street.	<p>It is recommended that the TRO proposal is amended to permit cyclists to use the section of West Maitland Street between Torphichen Street and Morrison Street, but that enhanced warning of the tram tracks hazard, specific to two wheeled vehicle riders, is provided.</p> <p>It may also be possible to provide a useful alternative route for cyclists travelling west, avoiding Shandwick Place and West Maitland Street as follows: Provide a suitable cycle link to facilitate the right turn movement for southbound cyclists from Lothian Road into Rutland Street, (note: cobbled). Follow south west down to Rutland Square then take northern side to Canning Street. Take Canning Street southwest bound to the end then turn right onto Torphichen Street. Travel south on Torphichen Place to the signals at Morrison Street. Turn right at signals then use Morrison Street to access Haymarket Station / Haymarket Terrace via signals. Though it is less direct than cycling on the main road, this route would enable cyclists to effectively bypass a 0.75km length of Shandwick Place / West Maitland Street. The majority of the route has a tarmac surface (rather than cobbles) and has a favourable gradient. Good signing would be required in order to provide route continuity for those cyclists not familiar with the area.</p> <p>Alternatively, southeast bound cyclists could remain on Shandwick Place / West Maitland Street as far as Torphichen Street then turn off and utilise Torphichen Place / Morrison Street to bypass the short section if cycle exemption on West Maitland Street is desired. It is noted that a cycle lane is proposed for the full length of Morrison Street between Torphichen Place and Dalry Road, which will facilitate this movement for cyclists.</p> <p><i>Agree. This would be a sensible 'alternative' to sign between Lothian Road and Haymarket</i></p>
47	22	Queensferry Street approach to Shandwick Place junction	There is no ASL proposed on the southbound (Queensferry Street) approach to this junction.	<p>Provide ASL. It may be necessary to provide a reduce depth ASL box due to the proximity of the Hope Street junction – it is not clear from the drawings provided if this is to remain one way in.</p> <p><i>Disagree. Won't be provided due to proximity of Hope Street junction</i></p>

Item ref.	Dwg. Ref	Location	Issue	Recommendation
48	24	Clifton Terrace	The acute angle at which westbound cyclists will encounter the tram tracks in the Clifton Terrace area is likely to cause problems for cyclists. Whilst it is noted that a local diversion is proposed via a cycle lane and ASL at signals outside Haymarket Station entrance, it is considered unlikely that many cyclists would use this diversion given that they will see the obvious dis-benefit of having to stop at a red light if using the diversion.	<p>Though the proposed localised diversion for cyclists does improve their angle of approach to the tram tracks immediately to the west of the Haymarket Station entrance, in view of the fact that many may not use it, it is considered that the provision of signs specific to two wheeled vehicle riders warning of slippery rails, should be erected in this area. It is also considered that the angle of the tracks in relation to the road may also cause a problem for westbound motorcyclists in this area, particularly in the wet.</p> <p><i>Resolved. Standard signs [not cycle specific] will be erected warning all vehicles of the potential for slippery conditions.</i></p>
49	02-TM G-001	Haymarket Yards	The TRO drawings do not indicate that cyclists are to be excluded from riding through Haymarket Yards, indeed ASLs are shown to facilitate this movement in the northeast bound direction. However, the angle at which cyclists will cross the tram tracks gives cause for concern, with a risk of cyclists in both directions falling off, particularly in the wet.	<p>Signs specific to two wheeled vehicle riders warning of slippery rails, should be erected on the immediate approaches to Haymarket Yards, including the exit from the rear / southern side of the station, (it is assumed motorcycles will be permitted access into Haymarket Yards).</p> <p><i>Agree. Even if specific signs for cyclists are not erected, a general warning to all road users – the standard sign for a slippery surface – is required.</i></p>
50	18	Princes Street / South St Andrew Street	For eastbound cyclists continuing straight ahead on Princes Street, the angle of the tram tracks as they sweep left into South St Andrew Street may contribute to loss of control, particularly when wet.	<p>Signs specific to cyclists warning of slippery rails, should be erected on the immediate eastbound approach to South St Andrew Street. Given the constrained width of the single east bound traffic lane in this area, any cyclist losing control may come into conflict with a bus / other motor vehicle. In order to help cyclists approach the tracks at a better angle, the proposed build out immediately west of South St Andrew Street should be reduced in size to enable an advisory cycle lane marking to be provided, encouraging cyclist to cross at a less severe angle.</p> <p><i>Agree though see comment against 40 above.</i></p>

N



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