

Transport and Environment Committee

10.00am, Thursday, 14 October 2021

Short Term Improvements at Portobello High Street/Inchview Terrace/Sir Harry Lauder Road Junction

Executive/routine Wards	Executive 14 - Craigentinny/Duddingston 17 - Portobello/Craigmillar
Council Commitments	16,17

1. Recommendations

1. It is recommended that the Committee:
 - 1.1.1. Notes the work undertaken over the past year to develop and evaluate options for short term improvements to safety for vulnerable road users at the junction of Portobello High Street, Inchview Terrace and Sir Harry Lauder Road;
 - 1.1.2. Approves the implementation of Option 2a, as described within the report;
 - 1.1.3. Notes that work has commenced on developing more substantive, medium term improvements for implementation within 18 months of the short term changes, subject to the successful conclusion of the statutory process for any Traffic Orders required; and
 - 1.1.4. Notes that longer term improvements will be considered as part of the citywide review of vulnerable road user safety at major junctions that was instructed by Committee on 12 November 2020.

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Report

Short Term Improvements at Portobello High Street/Inchview Terrace/Sir Harry Lauder Road Junction

2. Executive Summary

- 2.1 This report updates Committee on work undertaken to develop short term improvements to safety for vulnerable road users at the junction of Portobello High Street and Sir Harry Lauder Road and seeks approval to proceed with the preferred option.
- 2.2 The report also provides a brief update on proposals for the medium and longer-term improvement of the junction.

3. Background

- 3.1 Two collisions occurred at the same location on the Portobello High Street approach to the major traffic signal controlled junction at Inchview Terrace/Sir Harry Lauder Road, in March 2019 and November 2020, both of which resulted in the fatality of a cyclist. Both collisions involved a conflict between a cyclist proceeding straight ahead towards Inchview Terrace and a Heavy Goods Vehicle (HGV) turning left onto Sir Harry Lauder Road, via a slip lane.
- 3.2 In an average year, there are eight to 10 fatal collisions on the city's transport network. To have two separate fatal collisions occur at the same location within a two-year period under similar circumstances is unprecedented.
- 3.3 In response, the Council committed to investigate short, medium and longer-term measures to improve safety for vulnerable road users at the junction. As part of this work, five potential options for short term changes to the road layout on the Portobello High Street approach to the junction have been developed and evaluated, in consultation with Police Scotland, representatives of stakeholder groups and local elected members.
- 3.4 Due to the need to implement improvements in a relatively short timescale, there are limitations on the type of changes that can be made, i.e. it is not possible to make substantive changes to the junction layout that would require the promotion of a permanent Traffic Order. However, initial design work has commenced on more

substantive, permanent changes to the junction and it is anticipated that these could be introduced within 18 months of the short-term changes being implemented, subject to the successful conclusion of the statutory process for any Traffic Orders required. Longer term improvements to the whole junction will also be considered as part of the citywide review of vulnerable road user safety at major junctions that was instructed by Committee on 12 November 2020.

- 3.5 For the short-term interim proposals, five options were considered and these are detailed in Appendix 1, along with a summary of the potential safety impacts of each. Of these options, three have now been discounted, as explained in Appendix 1, leaving Options 1 and 2a under consideration. It has not proved possible to reach a consensus amongst stakeholders on which of these options should be progressed for implementation and a decision is therefore now being sought from the Committee, which is the purpose of this report.
- 3.6 As an additional interim mitigation measure, proposals have been developed, and are in the process of being implemented, for improvements to alternative routes avoiding the junction, via Portobello Promenade and Fishwives Causeway.

4. Main report

Existing road layout

- 4.1 The existing road layout on the Portobello High Street approach to the junction has a kerbside lead-in cycle lane and two traffic lanes. Lane 1 is designated for traffic turning left onto Sir Harry Lauder Road and those proceeding straight ahead towards Inchview Terrace. Lane 2 is for traffic turning right towards Seafield Road East or King's Road.
- 4.2 Cyclists proceeding towards Inchview Terrace can use either the kerbside lead-in cycle lane or Lane 1. Those turning right towards Seafield Road East or King's Road have to merge across into Lane 2. The uphill gradient on the approach to the junction reduces the speed that cyclists can travel at while making these manoeuvres.
- 4.3 A plan showing the existing road layout is provided in Appendix 2.

Option 1

- 4.4 Under Option 1, the kerbside lead-in cycle lane is removed and the two existing traffic lanes replaced with a three lane layout. Lane 1 would be only for traffic turning left into Sir Harry Lauder Road, while Lane 2 would be for those proceeding straight ahead towards Inchview Terrace. Lane 3 would be for traffic turning right towards Seafield Road East or King's Road.
- 4.5 Under this layout, cyclists proceeding towards Inchview Terrace would be expected to use Lane 2, thus potentially eliminating any conflict at the slip lane with vehicles turning left from Lane 1.
- 4.6 However, cyclists would have to merge across into traffic in Lane 2 on the approach to the junction, while cyclists turning right towards Seafield Road East or King's

Road would have to merge across two traffic lanes, into Lane 3. These additional merge manoeuvres would increase the potential for conflict between vehicles and cyclists on the junction approach, especially given the impact of the uphill gradient on cyclists' speed.

- 4.7 A seven-day traffic survey, undertaken at the junction from 7 September 2021, recorded an average of six cyclists per day proceeding towards Inchview Terrace, whereas an average of 21 turned right towards Seafield Road East or King's Road.
- 4.8 Police Scotland support proceeding with delivery of Option 1. However, Spokes, Portobello Community Council and the majority of local ward Councillors are opposed. They consider that the increased potential for conflicts between vehicles and cyclists merging across lanes on the junction approach outweighs the potential benefit at the left turn slip lane.
- 4.9 A plan showing the proposed road layout for Option 1 is provided in Appendix 3.

Option 2a

- 4.10 Under Option 2a, the kerbside lead-in cycle lane and the two existing traffic lanes are retained. However, the left turn slip lane into Sir Harry Lauder Road is closed to all traffic and a temporary ban on HGVs turning left onto Sir Harry Lauder Road is introduced. Non-HGV traffic would still be permitted to turn left by going around the front of the existing traffic island.
- 4.11 Under this layout, the lanes used by cyclists to make the various possible manoeuvres are the same as under the existing road layout.
- 4.12 This proposal would eliminate any conflict at the junction between cyclists proceeding straight ahead and HGVs turning left from Lane 1. However, potential remains for conflict with non-HGV traffic turning left around the front of the existing traffic island.
- 4.13 The ban on left turns by HGVs would remain in place for up to 18 months, until more substantive, permanent changes to the junction layout can be introduced to mitigate the potential for conflict, at which time the left turn for HGVs at the junction would be reinstated.
- 4.14 HGV traffic would be temporarily displaced onto alternative routes during this period. The signed diversion route for HGVs would be via Inchview Terrace, Moira Terrace, Northfield Broadway, Willowbrae Road, Milton Road West and Duddingston Crescent, although some vehicles may instead choose to use other routes, such as Brighton Place, Southfield Place, Duddingston Park and Duddingston Crescent.

- 4.15 A seven-day traffic survey undertaken at the junction from 7 September 2021, recorded an average of 23 HGVs per day making this left turn. In the periods when children are generally travelling to and from school, (08:00-09:00 and 14:30 – 16:00 on Mondays to Thursdays and 12:00 -13:00 on Fridays) the average number of HGVs recorded was one in the morning period and two in the afternoon.
- 4.16 Seven-day traffic surveys were also undertaken in Northfield Broadway and Brighton Place from 11 September 2021. The average two-way daily traffic flow recorded in Northfield Broadway was 4,318 vehicles, including six HGVs. In Brighton Place, the average flow was 3,548 vehicles, including four HGVs. It should be noted that some traffic data is missing, due to vehicles being parked on the detection apparatus, however the data loss is minimal due to the times affected.
- 4.17 These surveys have provided context against which the potential impact of diverting traffic can be assessed, as well as base information against which actual numbers of displaced HGVs can be monitored.
- 4.18 Spokes, Portobello Community Council and the majority of Portobello/Craigmillar ward Councillors support proceeding with delivery of Option 2a.
- 4.19 However, the Police are opposed to option 2a for the following reasons:
- 4.19.1 The potential impact of displaced HGV traffic on vulnerable road users on alternative routes, including child pedestrians and cyclists travelling to and from school;
 - 4.19.2 Displaced HGVs will make more left turns by using alternative routes than they do at present;
 - 4.19.3 While this option removes the conflict between HGVs and cyclists that was involved in the two recent fatal collisions, potential remains for conflict with non-HGV traffic turning left at the junction; and
 - 4.19.4 The potential for non-compliance by some HGVs.
- 4.20 Craighentenny/Duddingston ward Councillors and Northfield and Willowbrae Community Council have been briefed on the potential for displacement of HGVs, should this option be progressed.
- 4.21 A plan showing the proposed road layout for Option 2a is provided in Appendix 4.

Proposed Way Forward

- 4.22 The valid concerns raised by stakeholders about both options have been carefully considered. Both options potentially address the circumstances of the two recent fatal collisions. However, within the limitations on what type of changes can be implemented in the short term, no solution has been identified that does not potentially either increase a different existing risk or give rise to new risks.
- 4.23 The aim was therefore to identify a solution that achieved the best balance to reduce the overall risk of a further serious or fatal collision involving a vulnerable road user and, importantly, how any new potential risks from the options, including those raised by stakeholders, could be mitigated. In this assessment, it is

considered that Option 2a achieves the best balance in the circumstances and should therefore proceed to implementation.

- 4.24 With regards to the concerns raised by Police Scotland (set out in paragraph 4.19):
- 4.24.1 Impacts of displaced HGVs – any displacement of traffic onto alternative routes could potentially increase risk on these routes. However, the numbers of HGVs that will be displaced is relatively low and these may be distributed across more than one alternative route. Measures will also be put in place to encourage lower traffic speeds on Northfield Broadway, which will form part of the signed diversion route, prior to the introduction of any banned turn. Periodic monitoring of traffic behaviour on the alternative routes will also be undertaken.
 - 4.24.2 Increased numbers of left turns by HGVs – HGVs would undertake three left turns while following the signed diversion route, compared to one at present. However, these turning manoeuvres will be at simpler, less busy junctions with fairly standard road layouts, whereas the conflict between HGVs and cyclists at the Portobello High Street/Inchview Terrace/Sir Harry Lauder Road junction is significantly exacerbated by the relatively uncommon left turn slip lane.
 - 4.24.3 Remaining risk of conflict with non-HGV traffic turning left – HGVs have a much larger blind spot than smaller vehicles. The zone where there would be potential for conflict to occur will also be much reduced, both due to the reduced length of the turning vehicles and the tighter turn required to manoeuvre around the front of the traffic island compared to using the slip lane. Should an incident occur, the risk of a serious injury or fatality occurring is also reduced if a smaller vehicle is involved.
 - 4.24.4 Potential for non-compliance – advanced signage will be put in place and a local communications campaign aimed at HGV users will be undertaken, prior to the banned turn being introduced, to minimise the risk of accidental non-compliance. Trade organisations such as the Freight Haulage Association will also be notified.
- 4.25 In recognition of existing concerns over traffic speeds and the presence of Royal High Primary School, additional mitigation measures including road humps and speed limit signs/road markings would be installed on Northfield Broadway, along with socketed foundations near the school to allow the use of Vehicle Activated Speed Signs, prior to use of the street as a temporary diversion route. There is also a school crossing patrol guide operating on Northfield Broadway, at the signalised pedestrian crossing directly outside the school.
- 4.26 An update on progress with developing the short term improvements was considered by the Committee on [22 April 2021](#), as part of a wider report on delivery of the Road Safety Improvements Programme. The Committee approved, in principle, the use of a Temporary Traffic Regulation Order (TTRO) to introduce this

banned turn for HGVs, should a decision subsequently be taken to proceed with this option. The TTRO cannot remain in force for more than 18 months.

- 4.27 While it is expected that more substantive, permanent changes to the junction could be introduced within 18 months of the short term changes, this would be subject to the successful conclusion of the statutory process for any Traffic Orders required.

5. Next Steps

- 5.1 The designs for both options have been subject to Stage 2 Road Safety Audit and are now ready for final construction drawings to be prepared. Further design work and a Road Safety Audit are still required for the mitigation measures on Northfield Broadway; however this is not expected to delay implementation.
- 5.2 Following the completion of the construction drawings for the preferred option, a contractor will be procured to undertake the work and the required pre-works statutory notifications and other processes undertaken.
- 5.3 It is expected that delivery would then take place in February 2022, subject to suitable weather conditions.
- 5.4 It is anticipated that the more substantive, permanent changes to the junction will be introduced within 18 months of the short-term changes being implemented, subject to the successful conclusion of the statutory process for any Traffic Orders required.
- 5.5 In the longer term, a review of the entire junction layout will be included within the scope of the city-wide review of safety for vulnerable road users at major junctions that was instructed by Committee on 12 November 2020. The timescale for this is likely to depend on the scope of the wider review and funding/resource availability.

6. Financial impact

- 6.1 The short and medium-term improvements will be funded from the block allocation for Road Safety within the Council's Transport Capital Investment Programme.
- 6.2 Longer term improvements will be considered as part of the wider citywide review of vulnerable road user safety at major junctions that was instructed by Committee on 12 November 2020. Further work is still required to establish the scope of the work programme that will arise from the review and how it will be funded and delivered.

7. Stakeholder/Community Impact

- 7.1 A stakeholder group, involving the Convener and Vice Convener of Transport and Environment, Portobello/Craighentenny ward members and representatives of the local MP and MSP, Portobello Community Council, Spokes and Spokes Party, has

met with officers from the Road Safety and Active Travel teams on four occasions during the development of the options.

- 7.2 There have also been three separate meetings with representatives of Spokes and/or Portobello Community Council.
- 7.3 Officers have also met with representatives of Police Scotland, who subsequently attended the most recent meeting of the stakeholder group on 2 September 2021.
- 7.4 A representative of the Brightons and Rosefield Residents' Association attended one of the meetings with Spokes and Portobello Community Council, in July 2021, at which Option 2a and its potential to displace HGV traffic onto other routes was discussed.
- 7.5 A briefing on the potential for displacement of HGVs, and measures proposed to mitigate this has also been provided to Craigentenny/Duddingston ward members and Northfield & Willowbrae Community Council.

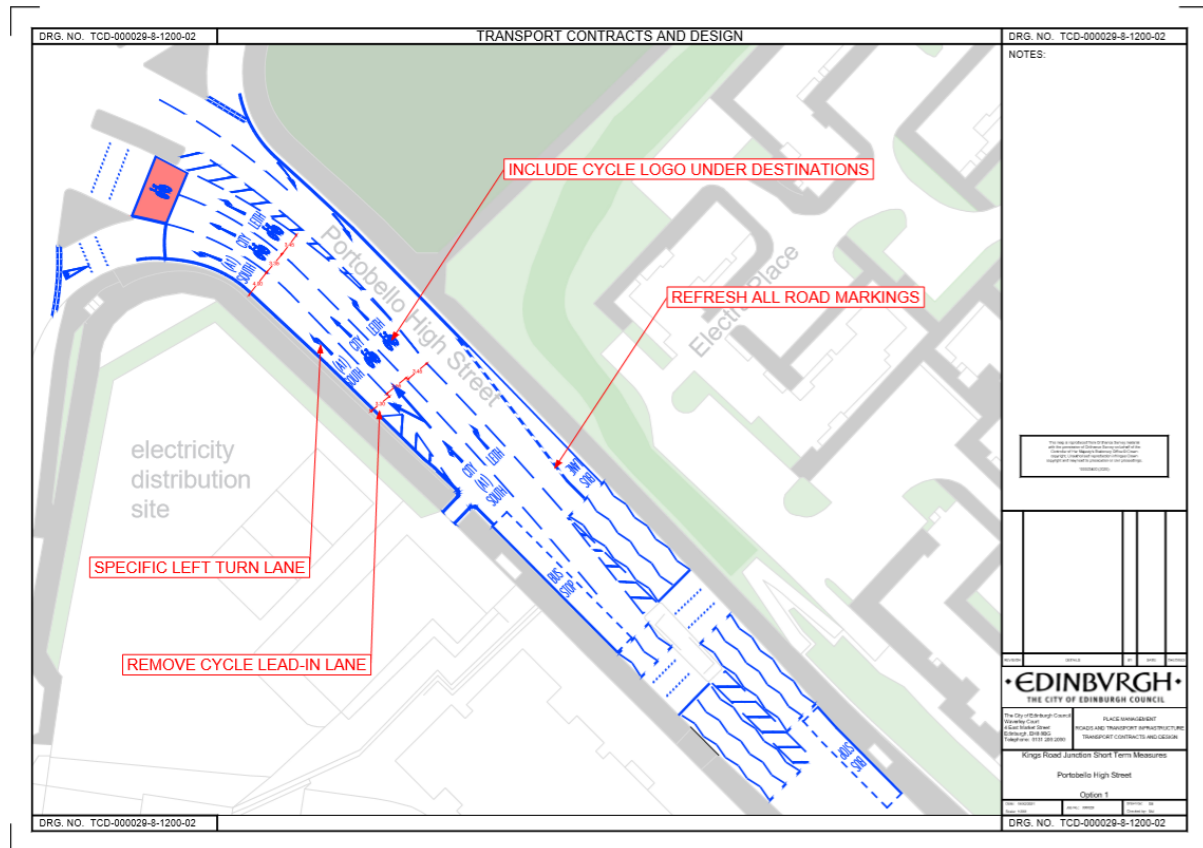
8. Background reading/external references

- 8.1 None.

9. Appendices

- 9.1 Appendix 1 – Options Considered and their Potential Safety Impacts
- 9.2 Appendix 2 – Plan showing Existing Road Layout
- 9.3 Appendix 2 – Plan showing Option 1
- 9.4 Appendix 3 - Plan showing Option 2a

Option 1

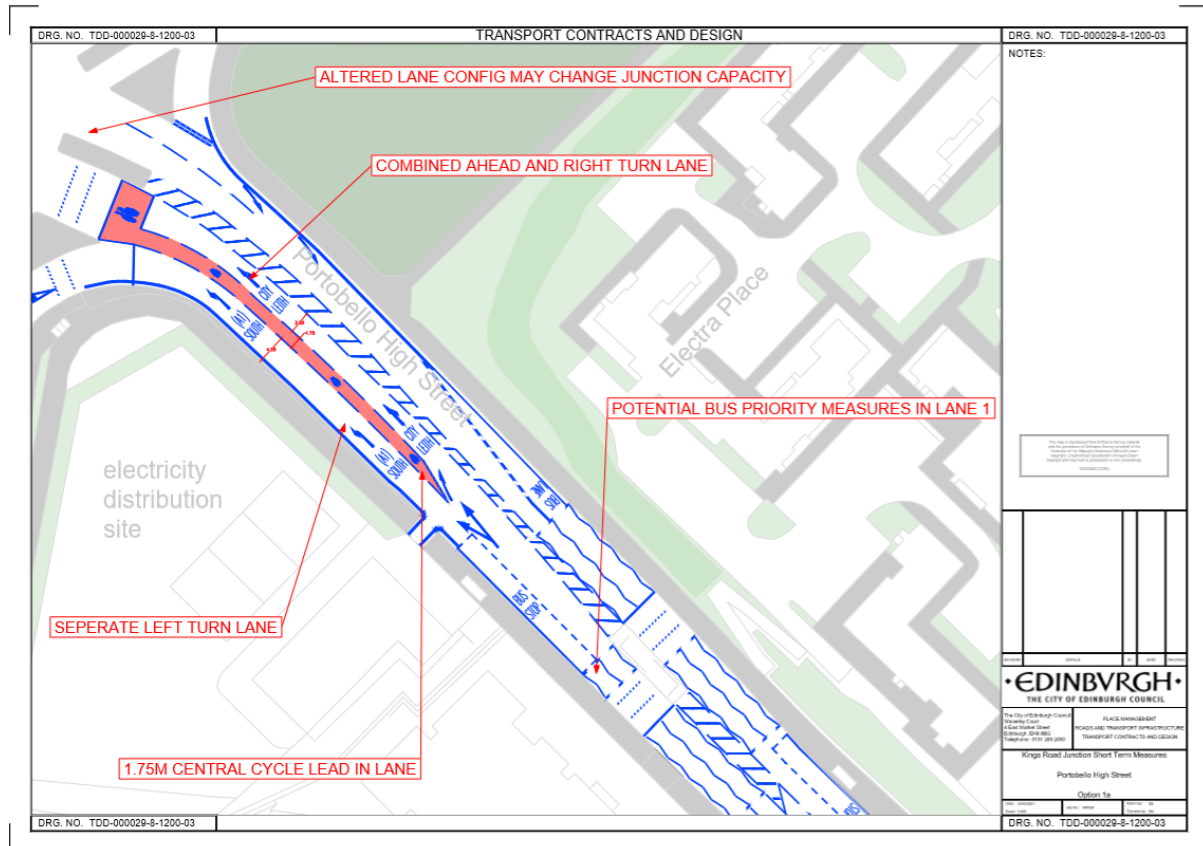


Expected safety impacts:

- Minimal risk of cyclists proceeding straight ahead positioning themselves inside left turning traffic, so should largely eliminate the risk of the type of conflict involved in the two recent fatal collisions.
- No diversion of traffic expected onto other routes.
- Involves removal of existing kerbside lead-in cycle lane
- Introduces additional traffic lane, with increased potential for conflicts between cyclists and vehicles in lanes 2 and 3.

This option is still under active consideration.

Option 1a

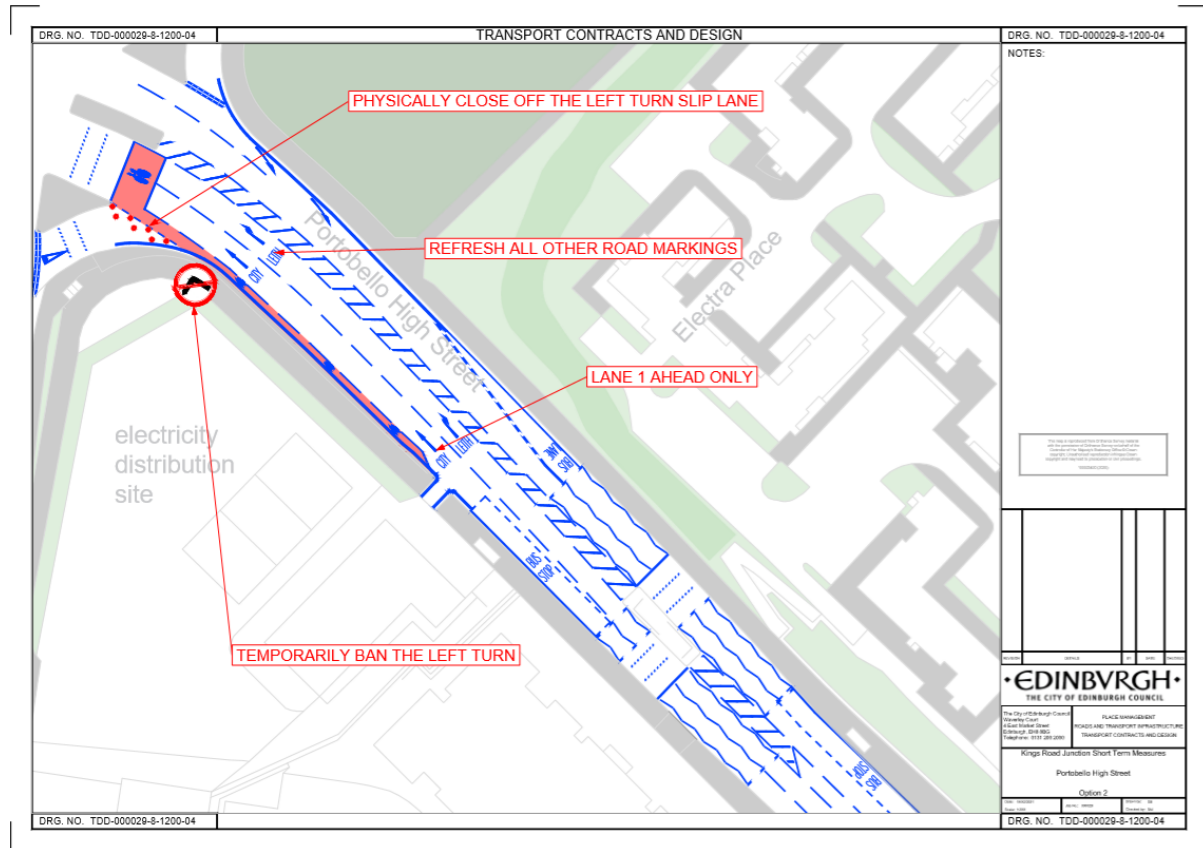


Expected safety impacts:

- Negligible risk of cyclists proceeding straight ahead positioning themselves inside left turning traffic, so should largely eliminate the risk of the type of conflict involved in the two recent fatal collisions.
- Retains a cycle lead-in lane, between lanes 1 and 2.
- A large increase in congestion at the junction would be expected, resulting in delays to public transport services passing through the junction and significant traffic displacement to other available routes, impacting negatively on residents, pedestrians and cyclists. The two most likely alternative routes (Northfield Broadway/A1 and Brighton Place/Duddingston Park/A1) both pass a primary school and a secondary school.

This option has now been discounted following detailed traffic modelling, which predicted that it would result in severe congestion throughout both peak traffic periods.

Option 2



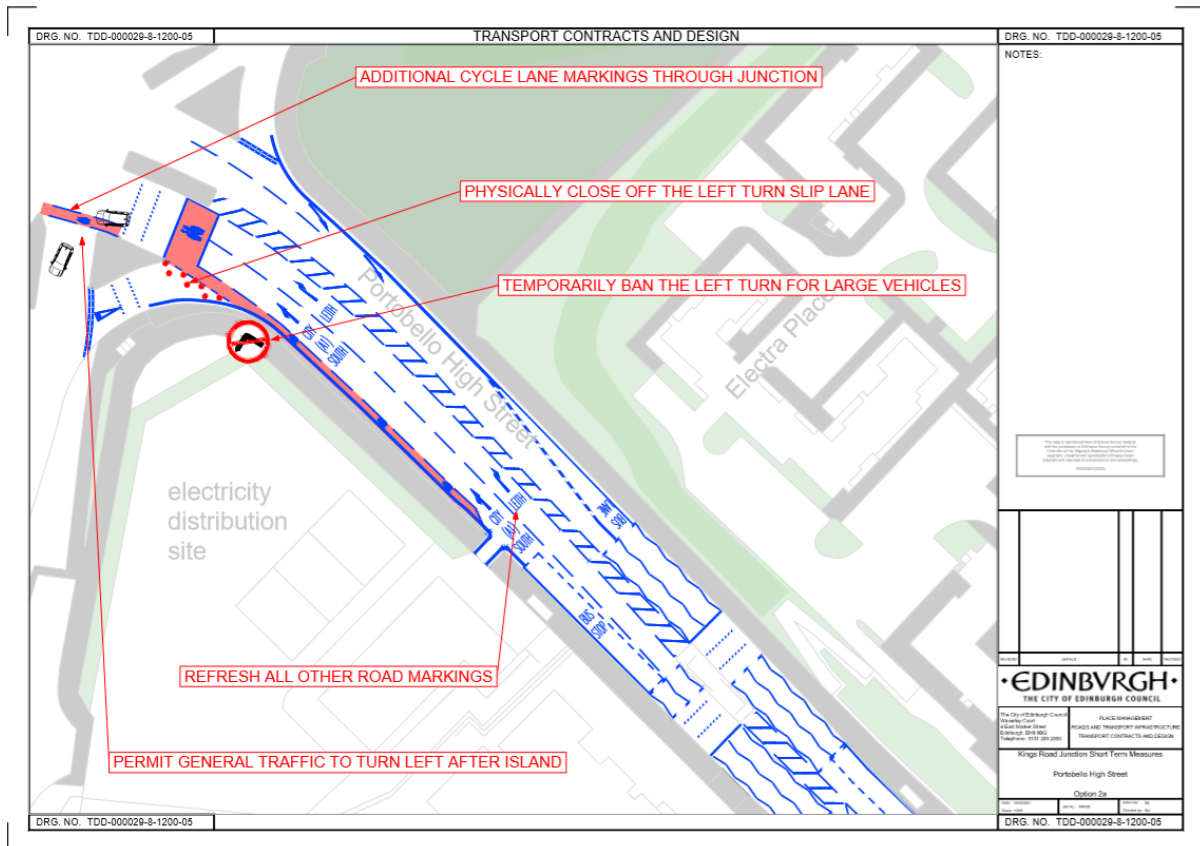
Expected safety impacts:

- Eliminates conflict between cyclists proceeding straight ahead and all left turning traffic.
- Retains an advisory cycle lead-in lane.
- Diversion of traffic expected onto other routes, impacting negatively on residents, pedestrians and cyclists. The two most likely alternative routes (Northfield Broadway/A1 and Brighton Place/Duddingston Park/A1) both pass a primary school and a secondary school.
- May be some non-compliance, with vehicles illegally turning left around the front of the existing traffic island.
- Potential for conflict between any traffic illegally turning left around the front of the existing traffic island and cyclists proceeding straight ahead.

Left turns banned for all vehicles (approx. 1,260 vehicles per day).

This option has now been discounted due to the scale of the potential adverse impact on other routes.

Option 2a



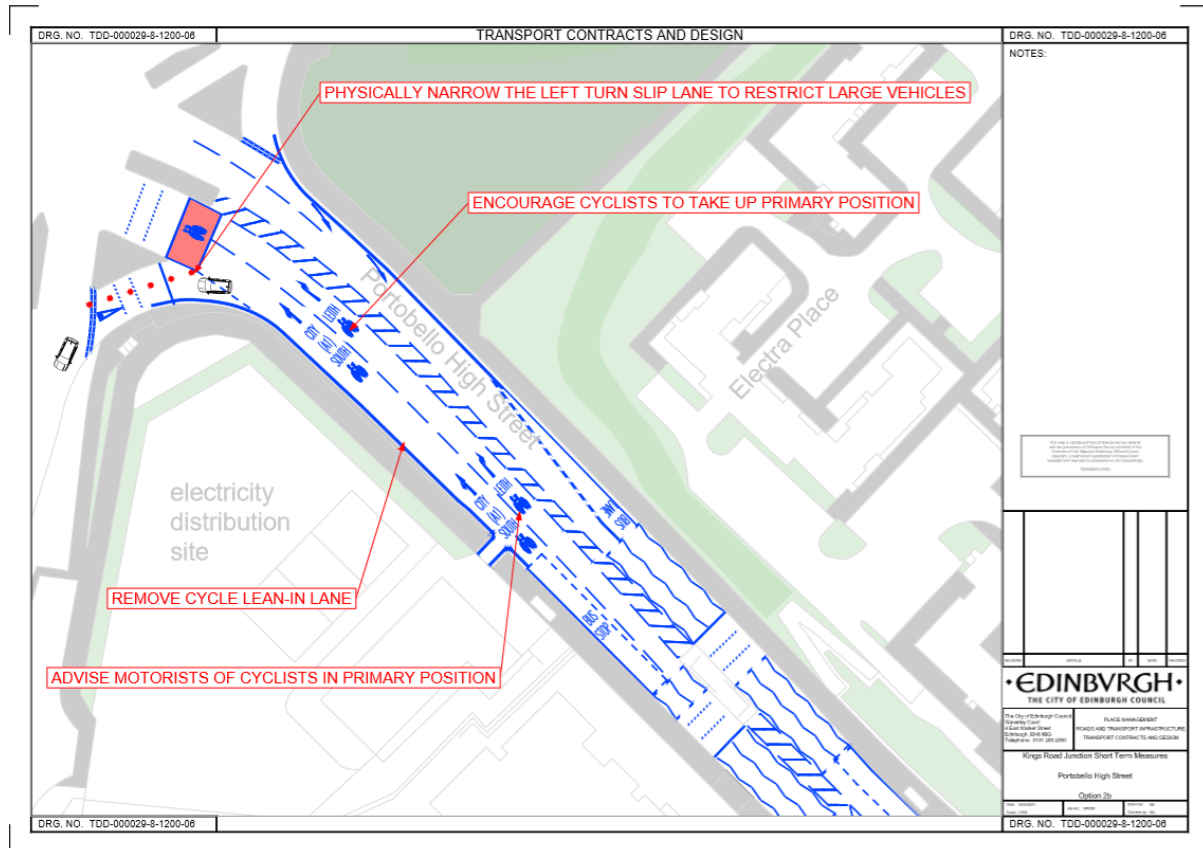
Expected safety impacts:

- Eliminates conflict between cyclists proceeding straight ahead and HGVs turning left.
- Potential remains for conflict between non-HGV traffic turning left around the front of the existing traffic island and cyclists proceeding straight ahead.
- Diversion of HGV traffic expected onto other routes, impacting negatively on residents, pedestrians and cyclists. The two most likely alternative routes (Northfield Broadway/A1 and Brighton Place/Duddingston Park/A1) both pass a primary school and a secondary school. However, the volume of displaced traffic is much less than under Option 2.

Left turns banned for HGVs only (average 23 vehicles per day). Other traffic permitted to turn left around front of current traffic island. TTRO necessary to implement banned turn can only remain in force for up to 18 months.

This option is still under active consideration.

Option 2b



Expected safety impacts:

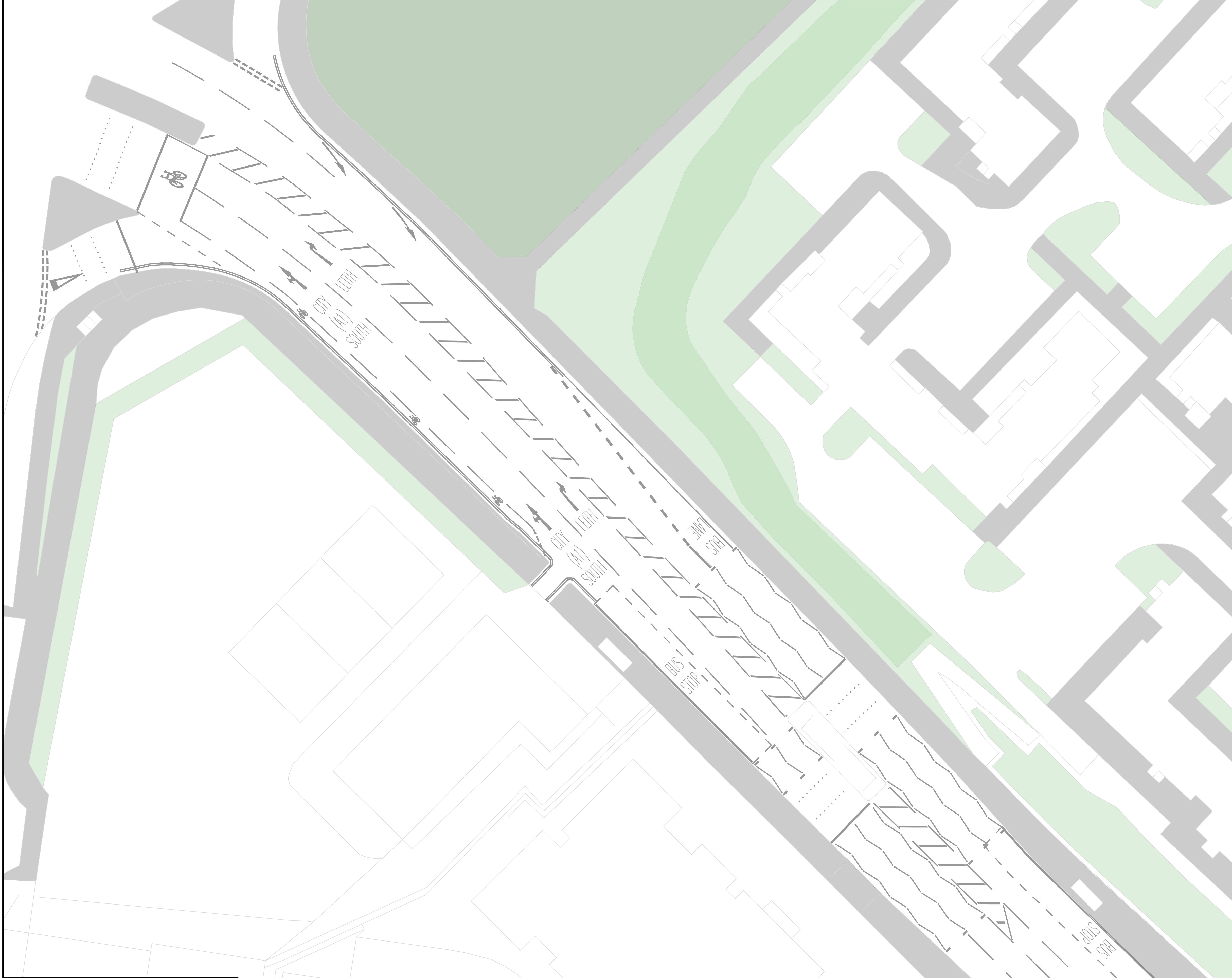
- Eliminates conflict between cyclists proceeding straight ahead and HGVs turning left.
- Potential remains for conflict between non-HGV traffic turning left using the slip lane and cyclists proceeding straight ahead.
- Diversion of HGV traffic expected onto other routes, impacting negatively on residents, pedestrians and cyclists. The two most likely alternative routes (Northfield Broadway/A1 and Brighton Place/Duddingston Park/A1) both pass a primary school and a secondary school. However, the volume of displaced traffic is much less than under Option 2.

Left turns banned for HGVs only (average 23 vehicles per day). Other traffic permitted to turn left using the slip lane. TTRO necessary to implement banned turn can only remain in force for up to 18 months.

This option has now been discounted as stakeholder groups considered that the risk of conflict between non-HGV traffic turning left and cyclists proceeding straight ahead would be significantly greater than under Option 2a.

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TRANSPORT CONTRACTS AND DESIGN

Kings Road Junction Short Term Measures

Portobello High Street

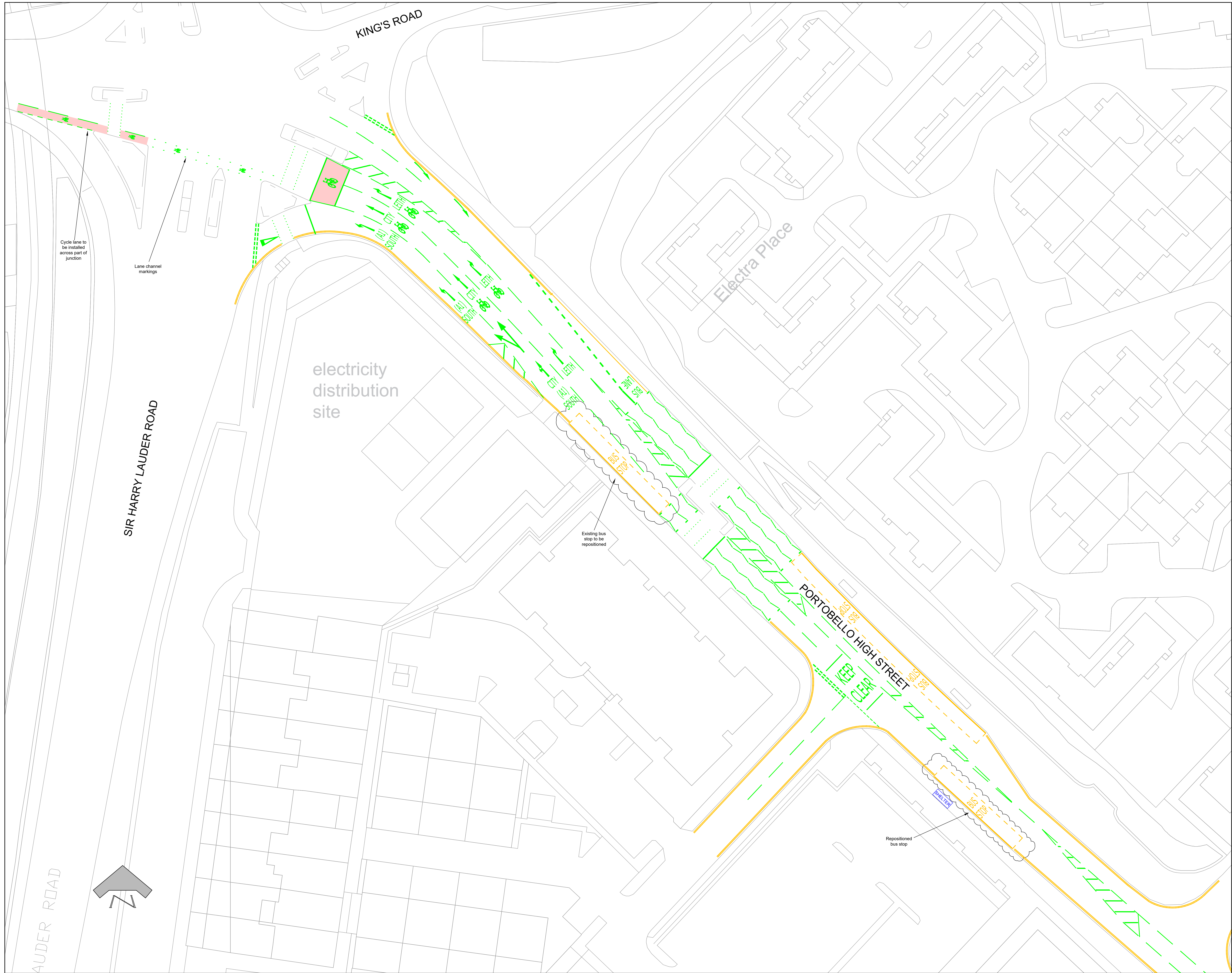
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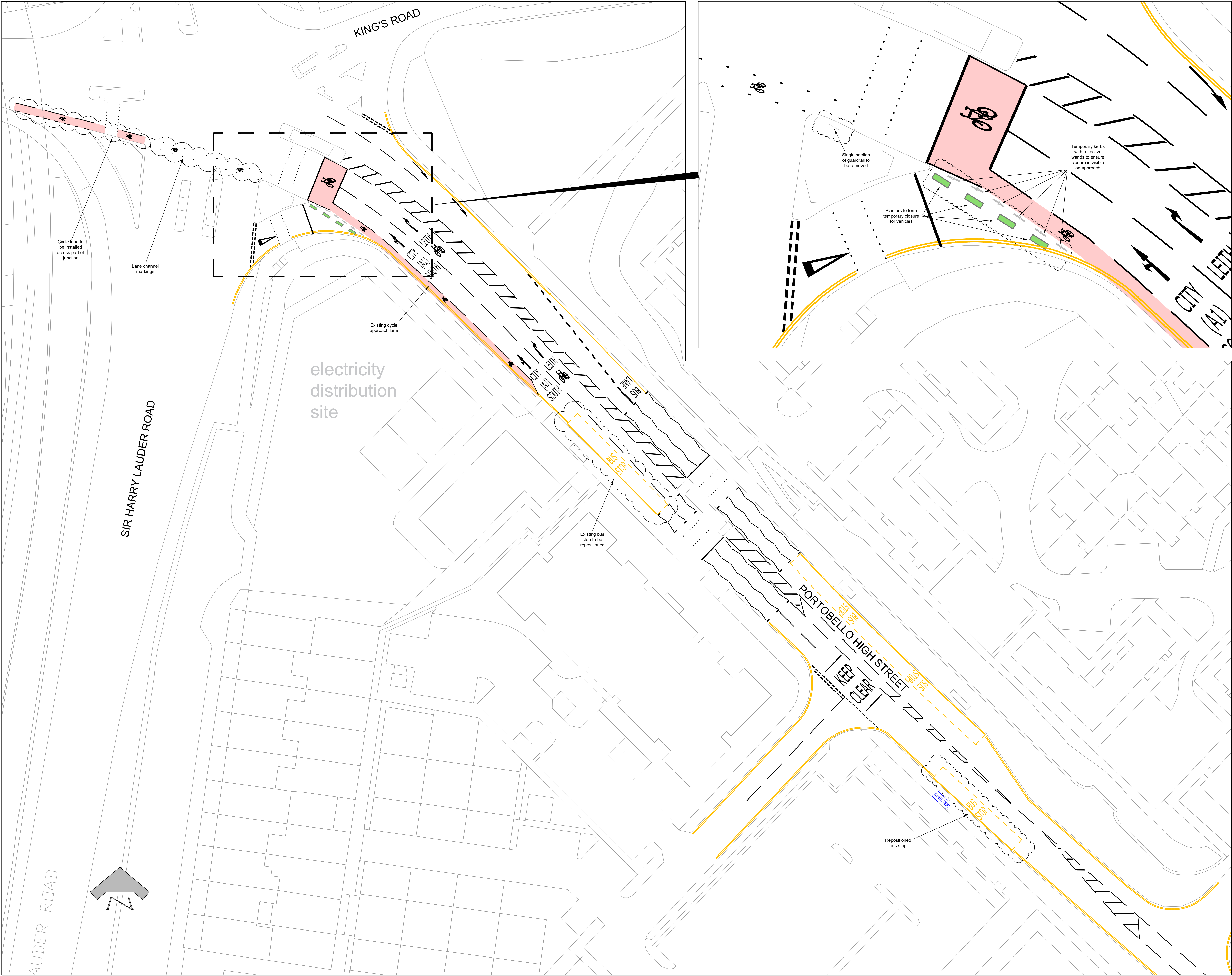
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Portobello High Street /
Sir Harry Lauder Road Junction
HGV Banned Left Turn
Option 1

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Portobello High Street /
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HGV Banned Left Turn

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