

<b>Committees:</b> Streets and Walkways Sub Committee <i>[for decision]</i> Projects Sub <i>[for decision]</i>	<b>Dates:</b> 15 October 2020 21 October 2020
<b>Subject:</b> Bank Junction Improvements Project: All Change at Bank  <b>Unique Project Identifier:</b> 11401	<b>Gateway 4:</b> <b>Detailed Options Appraisal (Complex)</b>
<b>Report of:</b> Director of the Built Environment  <b>Report Author:</b> Gillian Howard – City Transportation	<b>For Decision</b>
<h1>PUBLIC</h1>	

<b>1. Status update</b>	<p><b>Project Description:</b> To improve the safety, air quality and pedestrian experience of the area around the Bank junction to reflect the historic and iconic surroundings with the appropriate sense of place.</p> <p><b>RAG Status:</b> Amber (Amber at last report to Committee)</p> <p><b>Risk Status:</b> Medium (Medium at last report to committee)</p> <p><b>Total Estimated Cost of Project (excluding risk):</b> £5-5.6 million</p> <p><b>Change in Total Estimated Cost of Project (excluding risk):</b> N/A</p> <p><b>Spend to Date:</b> £ 1,381,474</p> <p><b>Costed Risk Provision Utilised:</b> N/A</p> <p><b>Slippage:</b> <i>None</i></p>
<b>2. Next steps and requested decisions</b>	<p><b>Next Gateway: 4c</b> (approval of detail to be consulted on)</p> <p><b>Next Steps:</b></p> <ul style="list-style-type: none"> <li>Once the final option for which arms should be closed or further restricted has been taken, detailed design will be undertaken.</li> </ul>

- This will include the options for enhanced public realm to support the Healthy Streets approach at this location;
  - What vehicle mix may operate, if viable, on the open arms in addition to buses and cycles only (Monday to Friday 7am to 7pm);
  - Whether there should be any changes proposed to varying the existing Monday to Friday 7am to 7pm restrictions in terms of time of operation.
- These designs will then be finalised for Member approval at Gateway 4c planned for December 2020 /January 2021 before the public consultation exercise is undertaken in Q4 2020/21.
  - A progress report outlining the public consultation findings will be submitted to Committee. Feedback from the consultation will be incorporated into the designs.
  - The final design will then be submitted to Transport for London (TfL) for the relevant traffic modelling approval and subsequent Traffic Management (TMAN) scheme approvals.
  - A Gateway 5 report would then be submitted in September/October 2021 for final City Corporation approvals to start construction.

#### **Requested Decisions:**

1. Agree that the project continues at the outlined pace to submit a Gateway 5 in September/October 2021 (see paragraph 5-6).
2. That Design **Option 1** is taken forward to detailed design (the closure of Threadneedle Street and further restriction of Queen Victoria Street and Princes Street).
3. That further investigation into permitting general traffic on the 'open arms' during the current restricted hours is not carried forward for further investigation.
4. That a budget of **£541,935** is agreed to reach the next gateway, giving a cumulative budget of **£1,923,410** after allowing for the underspend to date of **£201,983**.
5. That funding for this budget be partially met from unspent S106 deposits arising from the underspend to date, with the balance of **£339,953** to be drawn down from the central funding agreed in principle via the 2020/21 annual capital bid process, subject to the approval of the Resource Allocation Sub Committee.
6. Note the total estimated cost of the project at **£5-5.6 million** (excluding risk)
7. That a Costed Risk Provision of **£95,000** is approved (to be drawn down via delegation to Chief Officer) subject to the Resource Allocation Sub Committee approval to draw this down from the capital funds if necessary.

8. That Gateway 4c Detailed Design is approved via Streets and Walkways and Projects Sub Committee

**3. Resource requirements to reach next Gateway**

*For recommended option 1:  
Table 1: Resource requirements to reach next Gateway*

<b>Item</b>	<b>Reason</b>	<b>Funds/ Source of Funding</b>	<b>Cost (£)</b>
Highways Staff cost	Highway engineer design	S106/Central funds	113,925
P&T Staff Costs	Project management, supervision and public realm input	S106/Central funds	115,101
Legal Staff Costs	Legal advice and consultation	S106/Central funds	5,000
DBE Structures Staff Costs	Structural advice	S106/Central funds	5,000
Fees and Surveys	TfL, Consultants, data collection, Topographical, radar, images, design etc.	S106/Central funds	300,000
<b>Total budget to reach next gateway</b>			<b>541,935</b>
Less underspend from previously approved budget		S106	<b>£201,983</b>

Net additional funding now requested		Central Funds	<b>£339,953</b>
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**Costed Risk Provision requested for this Gateway: £95,000**  
(as detailed in the Risk Register – Appendix 2)

It is anticipated that the stakeholder engagement side of this project will need to be a key area of focus over the next 12-month period due to the limited engagement so far. Given the uncertainties outlined in this report regarding TfL staffing and processes, and higher levels of coordination with surrounding schemes, it is likely to require significant time.

There are also two planned reports before the Gateway 5, a gateway 4c and a progress report, to be submitted to keep Members updated on the progress of the project.

The above costs translates to:

- a full time Project Manager (consultant) to run the day to day project planning, actions, liaison, consultant progress and reporting ensuring technical work is delivered on time to meet the milestones.
- approximately 25% of a full-time equivalent Principal Project Manager equating to approximately 440 hours over 12 months. This is to undertake liaison with stakeholders particularly around consultation time and to undertake the necessary reporting as well as to review the technical work being undertaken and direct the progression of the project to ensure it meets its milestones,
- 10% of an Assistant Project Manager equating to approximately 175 hours. This will be to assist with data management, consultation assistance and analysis and assistance in organising stakeholder meeting materials. and
- up to 15% of the Project Partner in City Public Realm (depending upon how much public realm opportunity is able to be utilised in the final design) which equates up to approximately 310 hours to procure and manage the landscape architect, stakeholder engagement and consultation assistance leading to finalisation of designs for the public realm and input into reports.

Also planned for is 50% leading to 75% (approximately 1,140 hours of a Senior Highways Engineer to complete detailed design and the construction package including the construction phasing and resilience plans.

	<p>As the project team have already shown, where it is possible to streamline work and share resources, these opportunities will be taken to minimise the cost to the project.</p> <p>Other resources included in the above are costs for continued use of the traffic model consultant, TfL costs, assistance from a landscape architect, design assistance (for public consultation), Equalities Analysis and road safety audits amongst other things.</p> <p><u>Funding</u></p> <p>There is an underspend of the Section 106 monies of approximately £201,983 in reaching Gateway 4. Since requesting funding to reach Gateway 4 in April 2019, there have been changes in:</p> <ul style="list-style-type: none"> <li>• the way this project is staffed</li> <li>• the approach to the way some of the work has been undertaken to keep to timescale</li> <li>• the sharing of some of the modelling and TfL costs with another programme of works</li> <li>• less stakeholder engagement has taken place in developing these Gateway 4 designs than previously planned due to the implications of COVID-19.</li> </ul> <p>The S106 funding from the underspend of £201,983 is requested to be reallocated towards the budget of £541,935 now requested to reach Gateway 5. The funding balance of £339,953 is proposed to be met from central funding from the On Street Parking Reserve which was approved in principle via the 2020/21 Capital Bids, with release subject to the further approval of the Resource Allocation Sub and Policy and Resources Committees.</p> <p>Approval will also be sought for central funding of the costed risk allowance of £95,000.</p>
<p><b>4. Overview of project options</b></p>	<p><b><u>Current situation: COVID-19 impacts</u></b></p> <ol style="list-style-type: none"> <li>1. At the time of presenting the Gateway 3 report in May 2020, it was early in the COVID-19 pandemic and a view was taken by Streets and Walkways Committee that given the uncertainty around what the longer term implications may be, that the project should continue to progress to Gateway 4 continuing to work on the existing assumptions.</li> <li>2. These assumptions were that the Bank Station Capacity Upgrade would be completed in late 2022 and that the forecast pedestrian growth within the City would continue making the need for this project to continue at pace to substantially deliver by the end of 2022. It is on this basis that the proposed designs contained within this report have been developed.</li> </ol>

3. Although six months have now passed since the pandemic started, there remains significant uncertainty around what this might mean long term for London, particularly regarding working practices, and traffic flows and travel choices. We do assume that numbers of people walking through Bank Junction will at least return to pre COVID-19 levels by 2022 in the work undertaken to date. Even if they are slightly lower there will continue to be issues with crowding at this location if there is no improvement in space for people walking.
4. The London Underground capacity enhancement work at Bank Station is still programmed to complete within the anticipated 2022 time frame. An unknown is whether the subsequent growth of patronage follows the previously expected pattern. Whether the anticipated growth of the City Cluster and its forecast population will be more muted with potential changes in working practices is also unknown at this time.
5. There have been discussions regarding whether the impacts of the pandemic may influence the urgency of requiring substantial completion of a scheme at Bank by the end of 2022.
6. This report assumes that work is to continue at pace and in order to be in a position to be capable of meeting the tight deadline of the end of 2022 for substantial completion. A requested decision to confirm this pace is included in section 2 .

COVID-19 recovery temporary schemes:

7. In addition to general questions around timeframes for delivery, there have also been a number of temporary schemes implemented as part of the City Transportation's and TfL's response to COVID-19.
8. These schemes have provided additional pedestrian space and cycling facilities to encourage and facilitate a more sustainable return to the work environment with greater social distancing. These schemes are being monitored to determine if they are necessary, or potentially whether they should be recommended to be made permanent, subject to due process being followed.
9. Some of these schemes would, if made permanent, influence the viability of the proposals presented in this Gateway 4 report for changes at Bank junction and some could enhance the proposals. Sensitivity testing has been undertaken to give confidence in the proposals being presented in this report and how they interact with the COVID-19 recovery measures.

10. The key scheme tested is the TfL Bishopsgate bus gate scheme. If this were considered in the future to be made permanent, this would impact one of the key traffic corridor routings for this project proposals. There are other City schemes for which further sensitivity testing would be required in advance of making a decision on either making permanent some of the City's COVID-19 recovery measures or deciding on this project to proceed. These will be reviewed in December 2020 which can inform the Gateway 4c report. The project team will continue to work with TfL on how best we can do this as more information becomes available.

**Project objectives:**

11. The agreed project objectives and how they link to the Corporate Strategy are in Table 2.

Table 2: Agreed project objectives

<b>Bank Junction Improvements Project Objectives</b>	<b>Corporate Plan Aim</b>	<b>Corporate Plan Outcome</b>	<b>Corporate Plan High-level activity</b>
<b>A</b> - To continue to reduce casualties	Contribute to a flourishing society	<b>1</b> – People are safe and feel safe	<b>C</b> – Protect consumers and users of building, streets and public spaces.
<b>B</b> - To reduce pedestrian crowding levels	Shape outstanding environments	<b>9</b> – We are digitally and physically well-connected and responsive	<b>D</b> – Improve the experience of arriving in and moving through our spaces.
<b>C</b> - To improve air quality	Shape outstanding environments	<b>11</b> – We have clean air, land and water and a thriving and sustainable natural environment	<b>A</b> – Provide a clean environment and drive down the negative effects of our own activities.
<b>D</b> - To improve the perception of place as a place to spend time in rather than to pass through.	Shape outstanding environments	<b>12</b> – Our spaces are secure, resilient and well maintained	<b>A</b> – Maintain our buildings, streets and public spaces to high standards.

The developing designs focus on providing the space to best achieve these objectives whilst balancing the pragmatic issues of time, funding and regulatory approvals. Planning and Transportation Committee agreed in January 2019 that the work to look at a 2-3 arm closure/further restriction would be designed so as to not preclude the ability to achieve the future aim of pedestrianisation. This has also been a consideration in the development of these designs.

**The Proposals:**

12. With these current uncertainties in mind, the proposals presented effectively offer a solution which remains within the total project budget of £5.6 million and which the project team believe would have reasonable success at gaining the necessary TfL approvals to proceed to implementation. It also has reasonable opportunity to be substantially complete by the end of 2022. This timeframe is still very challenging and could be impacted by other outside influencing factors.

13. It is recognised that with so many variables there may be opportunities or challenges that present themselves in the coming months which may influence the designs presented and the way in which these proposals operate. However, it is felt that the designs presented are relatively robust, and whilst operationally may require some tweaks as opportunities/challenges are taken, key changes are likely to be choice of material rather than significant redesign of kerb lines (which could be costly if more utilities were required to be redirected).

14. The designs to date have been developed with network resilience and maintenance in mind making the layouts presented robust. They are designed to be able to work under different operational models if needed for short periods of time to facilitate certain road closures for street works that may be required in the future. They have also been designed with the concept of further pedestrian priority or pedestrianisation coming in the future as circumstances allow.

15. This Gateway 4 report focuses on choosing one combination of arm closure/further restrictions from the three which were previously approved.

16. Work between May 2020 and now has focused on:

- Providing as much pedestrian space as possible (to include public realm enhancement) whilst considering the identified constraints.
- Reducing bus journey time impacts noted in the Gateway 3 report by investigating mitigation measures.
- Investigating options for public realm enhancements (depth constraints of certain measures have been considered).



- Testing varying the vehicle mix on the remaining 'open arms' of the junction to see what might be feasible.
- Assessing the emerging designs in terms of equalities impacts and benefits; and
- Identifying risks and opportunities of the COVID-19 response.

17. This has culminated in a design for each of the three options which essentially sets a kerb alignment around the junction, reduces bus journey time impacts (a key component of the later TfL approvals required) and defines space for pedestrians, cyclists and motor vehicles, as well as identifying opportunities for public realm enhancement.

**Background of the proposals:**

18. To recap briefly on the work undertaken to the Gateway 3 report, 20 options were considered and compared against each other by assessing how well they could perform against project objectives, known network performance constraints, and engineering difficulties. The options were then assessed on their probable impacts on bus and general traffic journey times and the potential of creating space that can be reprioritised to pedestrians and to enhance the public realm environment.

19. These performance criteria were ranked as follows:

- Impact on general journey times (15% weighting)**
- Impact on bus journey times (25%)**
- Pedestrian uplift – Part 1 (35%)** – reallocation of road space to provide a safer and more comfortable environment, **within** the limits of the Area 1 (see Appendix 3)
- Pedestrian uplift – Part 2 (25%)** – reallocation of road space to provide a safer and more comfortable environment, **outside** the limits of the Area 2 (see Appendix 3)

20. The five highest ranking options were explored in more detail within the Gateway 3 report. Three options were approved to be taken through for further development to Gateway 4 to ensure that there is a mixture of proposed closed arms, difficulty and ambition were being further investigated.

21. The three options taken forward for further design and consideration, now referred to as Option 1, 2 and 3 were the closure/further restrictions of:

- Option 1: Queen Victoria Street, Princes Street and Threadneedle Street.
- Option 2: Queen Victoria Street and Threadneedle Street.
- Option 3: Queen Victoria Street, Poultry and Cornhill.

22. The Gateway 3 report recommended these three options for further consideration recognising that:

- Option 1 (*previously option I*) would be challenging to achieve but offered good opportunities to provide significant reprioritisation of space to benefit the increasing pedestrian population in the area. Also, it was recognised that this option offered the opportunity to ensure that the space is captured and could be improved over time as funding became available given the current budget will constrain the scale of place making.
- Option 2 (*previously option IV*) offered significant opportunity to make a difference with potentially limited interventions around the wider network, and with what might be considered more palatable journey time impacts. Retaining this option provided a mixture of two and three arm options to Gateway 4, giving flexibility.
- Option 3 (*previously option V*) offered a different combination of closed/further restricted arms, giving flexibility for design if constraints required Threadneedle Street to remain open. It also provided a more natural east-west cycle and pedestrian route to the eastern cluster. However, it provided the least opportunity for reprioritised space of the three options.

#### **The designs.**

23. The three options have been investigated, looking at how to design around constraints at the junction to reduce potential costs. All options assume that for the moment the open arms remain buses and cycles only Monday to Friday 7am to 7pm, and then general traffic outside of these times. Changing this mix of traffic is discussed later in the report. Further work on whether the hours of the restriction should be amended can be further explored after this report.

24. The designs aim to deliver:

- significant reprioritised space which will assist with reducing conflict and improving safety;
- improved pedestrian comfort levels;
- the opportunity to improve the sense of place; and
- reduced vehicle numbers and/or greener vehicles which will help to improve air quality on particular arms and near to new public spaces where people may stop and rest.

25. However, at the lower end of the previous budget range (£4-18 million), there are limited opportunities to mitigate some of the issues, take bigger opportunities to maximise the potential space available, or to develop significant place making elements. The funding and time constraints have meant limited options to mitigate the impact on bus journey

times of rerouting services, and therefore requires them to continue to travel through Bank instead.

26. There are ongoing conversations with TfL regarding bus services, and what the future service may be. There may be other options that can be investigated in terms of paying for services to be rerouted elsewhere and the City paying a monetary value to cover the increase in journey times of these services or TfL's ongoing financial review may require the bus network to be changed. For the time being, the worst-case scenario is facilitating the services through Bank. However, the designs try to minimise this impact as much as possible.

27. Mitigation measures in this report refer largely to the facilitating of bus movements on arms that could have been fully closed to motor vehicles to reduce the journey time impact for buses and general traffic. This is a consideration for having a scheme to continue at pace that has a reasonable chance of gaining external approvals for our traffic management duties. There are strategic roads affected by the proposals and therefore we require TfL's approval to proceed. Other mitigation measures also include signal timing changes and facilitation of some turning movements not currently regularly used by bus services.

28. The information below is going to summarise the key points of each of the designs and then go through a series of comparators to show how the options compare to each other.

29. It is recommended that Option 1 proceeds to the next stage of design.

**Summary of the Options:**

30. Full sized plans for each option are in Appendix 4.

**Option 1 (3 arm closure/further restriction)**

*'Open' arms:*

- Poultry,
- Cornhill and
- King William/Lombard Street

*Closed (to motor vehicles) arms:*

- Threadneedle Street

*Further Restricted arms:*

- Queen Victoria Street
- Princes Street.

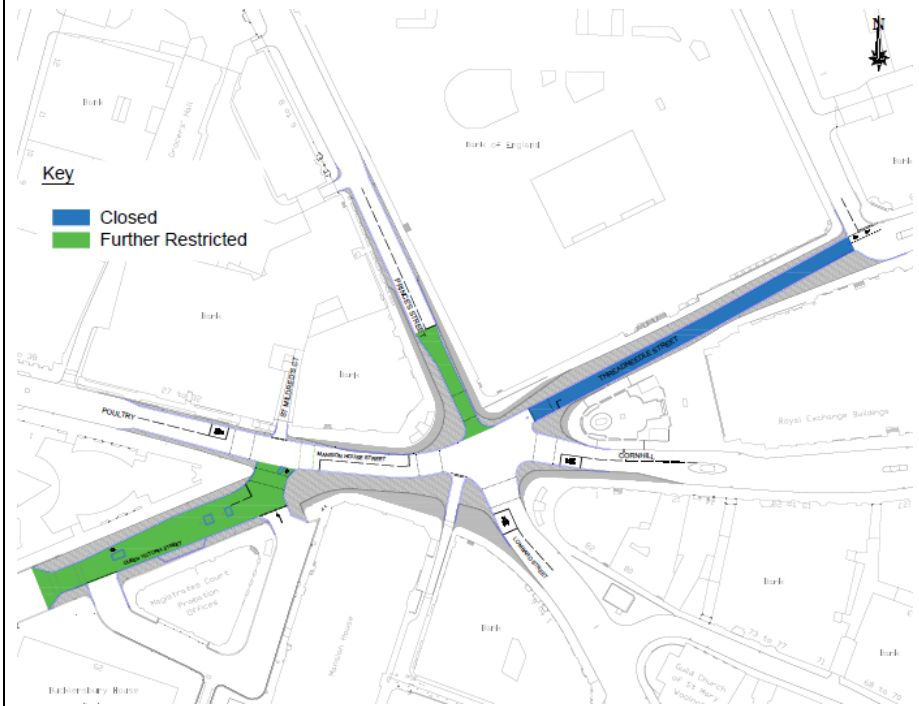


Figure 1: Option 1 outline design

***Constraint of 'further restricted' arms***

31. Queen Victoria Street, outside of the Magistrates' Court is assumed to continue to facilitate limited westbound traffic that has entered Bucklersbury/Walbrook for servicing and pick up and drop off. This arm would be further restricted to local access only, rather than closed.

32. There is also a utility access chamber which would be costly to divert, and so access remains available within the design.

33. Princes Street facilitates continued bus movement and limited southbound servicing vehicles for Cornhill requiring some motor vehicle movement. To achieve this, one lane of traffic is provided into the junction so that a bi-directional shuttle can operate, controlled by traffic signals.

***34. Benefits of 'further restricted arms'***

- The eastbound movement on Queen Victoria Street (other than access to Bucklersbury/Walbrook) would be for cyclists only.
- Some footway widening can be accommodated here which provides opportunity for public realm enhancements given that pedestrian numbers are generally lower.
- There would not be westbound traffic from the junction into Queen Victoria Street.
- There may be opportunity for trees, planting and seating in Queen Victoria Street as there are less depth and space constraints.

- Extended footway on the western side of Princes Street where pedestrian comfort levels are poor can be accommodated.

35. *The closed arm:*

- Threadneedle Street between the main junction and Bartholomew Lane would be a pedestrian priority street which facilitates cyclists in both directions.
- The vehicles requiring access to Cornhill (which is still assumed to be restricted at the eastern end of Cornhill to travel westbound) would need to access from an alternative arm in this option. It is currently planned for this to happen from Princes Street unless further timing restrictions for servicing in Cornhill is favoured. This would involve further camera enforcement to be incorporated.

36. Option 1 offers the largest opportunity for reprioritisation of space to pedestrians of the three options presented.

**Option 2** (two arm closure/further restriction)

*'Open' arms:*

- Poultry,
- Cornhill
- King William/Lombard Street; and
- Princes Street

*Further Restricted arms:*

- Queen Victoria Street
- Threadneedle Street

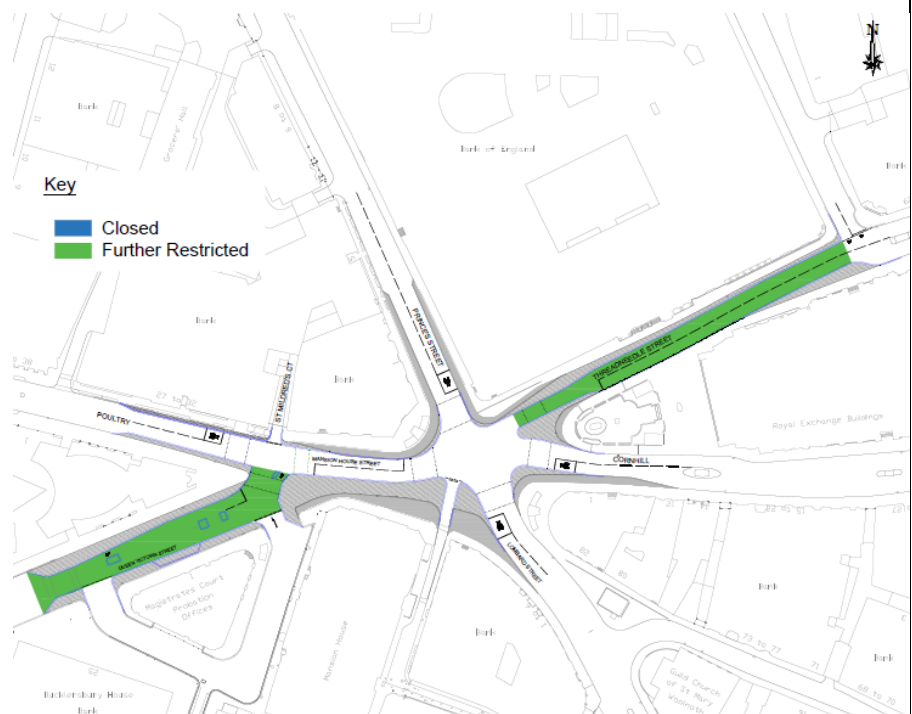


Figure 2: Option 2 outline design

*Constraint of 'further restricted' arms:*

37. As with Option 1, Queen Victoria Street has constraints which require a larger area of the carriageway to remain. This requires a route for motor vehicles to travel westbound (but not from the junction) and continued access to a substantial utility chamber.

38. Threadneedle Street in this option would facilitate a bidirectional bus shuttle area close to the junction controlled by traffic signals. This reduces the ability to provide significant footway widening along this section. As with option 1 access to Cornhill (during the 7am to 7pm restriction) is currently planned to be facilitated via Princes Street.

*39. Benefits of 'further restricted' arms:*

- The Eastbound movement on Queen Victoria Street (other than access to Bucklersbury/Walbrook) would be for cyclists only.
- Some footway widening can be accommodated here which provides opportunity for public realm enhancements given that pedestrian numbers are generally lower.
- There would not be westbound traffic coming from the junction into Queen Victoria Street.
- There may be opportunity for trees, planting and seating in Queen Victoria Street as there are less depth and space constraints.

The biggest pedestrian gains in Option 2 are outside of Mansion House with limited opportunity to provide substantial wide sections elsewhere.

**Option 3** (three arm closure/further restriction)

*Open arms:*

- King William/Lombard Street
- Princes Street
- Threadneedle Street

*Further Restricted arms:*

- Poultry
- Queen Victoria Street
- Cornhill

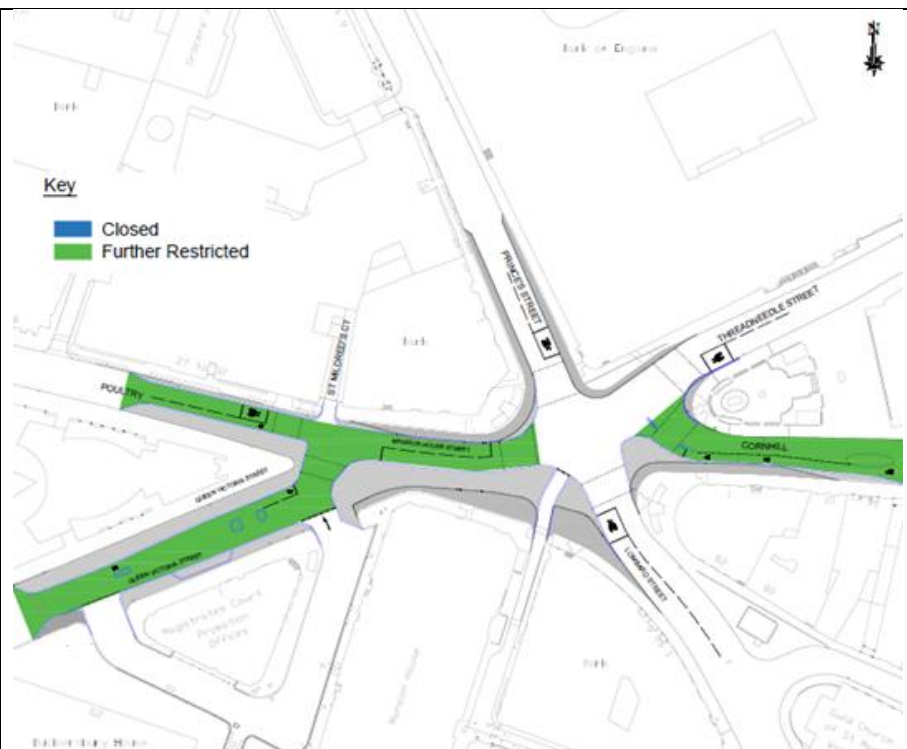


Figure 3: option 3 outline design

**Constraint of 'further restricted' arms:**

40. The bus mitigation measures incorporated in this option means that eastbound bus movement is facilitated on Poultry and in a westbound direction on Queen Victoria Street. This means that both of these arms retain bus movement in one direction effectively making a bus gyratory system.

41. It is assumed that Cornhill facilitates motor vehicles for servicing needs (from Threadneedle Street) in an eastbound direction.

**42. Benefits of 'further restricted' arms:**

- Westbound travel for cycles only on Cornhill
- Westbound travel for cycles only on Poultry
- Eastbound travel for cycle only on Queen Victoria Street
- There may be opportunity for trees, planting and seating in Queen Victoria Street as there are less depth and space constraints.

43. Option 3 provides the opportunity for reprioritised pedestrian space outside of Mansion House and also improvements on Poultry and Queen Victoria Street can be facilitated which may offer public realm opportunity. However, there is little pedestrian improvement for the rest of the approaches.

**Pedestrian prioritisation**

44. With the work that has now been undertaken to develop the designs and incorporate the bus journey time mitigation

measures within the junction, the available space for reprioritisation is shown in Table 3. The percentage change to that estimated in the Gateway 3 report is also shown.

*Table 3- summary of the area that could be prioritised to pedestrians at G4 and percentage difference to the G3 estimates (in addition to the 600m<sup>2</sup> provided in the recent Bank on Safety work).*

Option	Pedestrian area increases in M <sup>2</sup>					
	Area 1 M <sup>2</sup>	% change to G3	Area 2 M <sup>2</sup>	% change to G3	Combined Increase M <sup>2</sup>	% change to G3
1	619	-12	912	-14	1531	-13
2	479	-10	641	-27	1120	-21
3	402	-27	551	-19	953	-23

45. Prior to any changes at the junction, the pedestrian space that makes up area 1 (definition of areas are in Appendix 3) was approximately 1153m<sup>2</sup>. A further 600m<sup>2</sup> of pedestrian space has recently been added (in temporary material). This makes the current pedestrian space in area 1, 1753m<sup>2</sup> for comparison.

46. Option 1 offers the opportunity to provide an increase of 35% within area 1, but also a large improvement within Area 2 as we move away from the junction. The existing work undertaken for the interim footway widening scheme has not been able to focus further away from the junction.

47. Option 3 has suffered the largest reduction in available space that could be reprioritised to pedestrians now that mitigation measures have been incorporated and that more detailed work has been undertaken to design around constraints.

**Pedestrian comfort levels (PCL's):**

48. The project has been monitoring pedestrian comfort levels in areas 1 and 2 of Bank at 17 locations and using this measure as a way of assessing meaningful impacts of design changes.

49. The best PCL score is A+ to A- where the pedestrian environment is very comfortable with plenty of space for people to walk at the speed and the route that they choose. At a PCL of E, people have little personal space and speed and movement is restricted. F indicates very uncomfortable conditions.

50. The City's Transport Strategy aims for a minimum pedestrian comfort level of B+. This provides enough space for people to feel comfortable when walking at a typical pace and for



them to be able to choose where to walk. Below this level, conflicts between people walking become more frequent, walking is increasingly uncomfortable and frustrating and can lead to people stepping into the carriageway.

51. Across the 17 sites monitored, in 2018 prior to any footway widening, eight of the 17 locations registered a D, E or F comfort level. Only two location exceeded the B+ minimum which were both on Queen Victoria Street.

52. Figure 4 shows the number of the 17 locations compared to the Bank on Safety scheme PCL measurements, which meet or exceed the B+ target for each of the three design options.

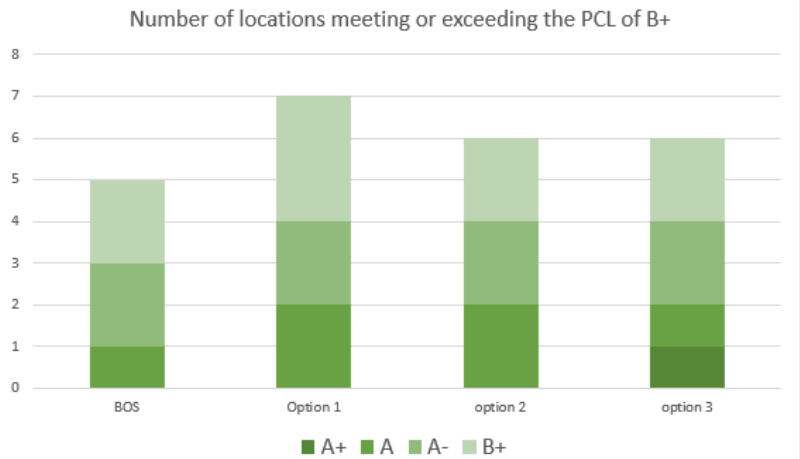


Figure 4: Distribution of PCL scores for each option meeting or exceeding the B+ target.

53. This valuation is based on the 2018 pedestrian count numbers.

54. Figure 5 looks at how the three options presented further improve the pedestrian comfort levels, but do not meet the target of a B+. Site specific information is detailed in Appendix 3.

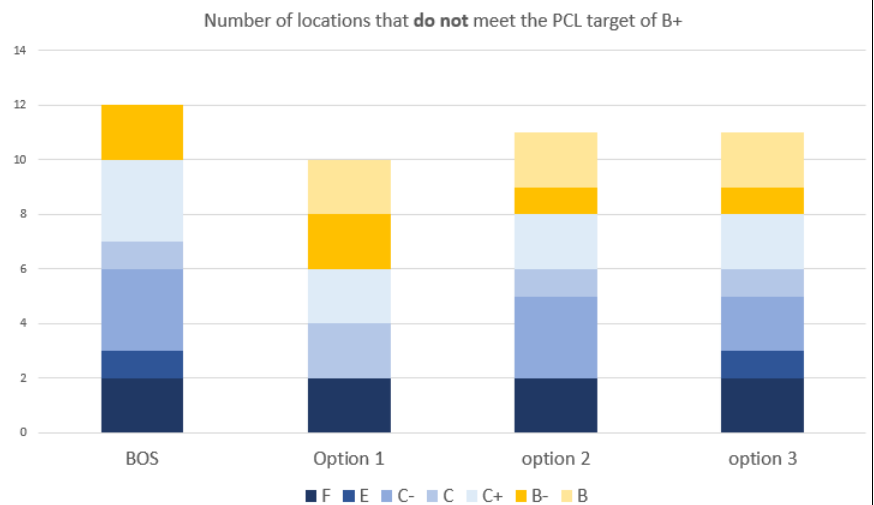


Figure 4: Distribution of PCL scores below the B+ minimum

55. All options at this time still leave Lombard Street, at a PCL of F. As part of the COVID-19 recovery measures, changes to Lombard Street in terms of it being made a pedestrian priority street with limited access to off street premises is being monitored. There may be opportunities at this location to offer more informal pedestrian improvements if timed servicing is more permanently introduced. Whether this can be tied in with this current All Change at Bank Project remains unclear, but it might be possible and will continued to be reviewed.

56. Option 1 offers the best opportunity to improve the PCL's with all locations above a PCL of C other than the two identified locations on Lombard Street. This would be a significant improvement to the situation experienced by people in 2018 prior to any physical work taking place at the junction.

57. It should be recognised that these PCL levels are based on 2018 observed footfall. If footfall does increase as previously expected, the comfort levels achieved would be less.

58. It should also be noted that the designs maximise the pedestrian crossing widths and crossing distances supporting formal pedestrian movement and comfort across the carriageway. This is contained within Appendix 3.

**Journey times:**

59. There are several layers to the journey time category:

- Bus Journey times;
- General traffic journey times; and
- Cycling journey times.

60. This first section looks at journey time comparisons and assume that the remaining open arms are bus and cycle only Monday to Friday 7am to 7pm.

**Bus Journey times:**

61. The significance of bus journey times in this analysis is that the impact to these times is a key consideration to TfL as part of the Traffic Management approval process. Additional delay can mean that in order to keep bus frequencies, an additional vehicle may have to be deployed which increases costs. Buses provide a vital mode of transport for many people and whilst patronage has been in decline in recent years, there are still more journeys made by bus across London than on the Overground or Underground/DLR network.

62. Whilst the average delays across the whole area indicated an increase of 1-2 minutes for each option at Gateway 3, it was acknowledged that it would be difficult to gain TfL approval with multiple routes forecast to be delayed by over 5 minutes. Appendix 5 contains the previous Gateway 3 data.

63. Since Gateway 3, the traffic modelling work has progressed. The model has been updated to include additional traffic schemes that have been introduced within the modelled area and updated signal time changes made. This has given us a refined 2019 Base model. The next stage of traffic modelling will be to compare this base model to the future year model which will include schemes that are committed but not yet built. This accumulation of change can then be assessed as to how these interventions interact with each other. It is the outputs of the future base model that TfL will form their decision for the TMAN approval.

64. Within the refined 2019 Base assumptions, the additions into the model now forecast that the bus journey time impacts will be improved in comparison to our Gateway 3 forecast. There are now no delays forecast over 10 minutes for any of our three options in this new refined 2019 Base.

65. Table 5 shows the forecast impact of the 3 options without looking at mitigation measures for buses (i.e. the arms that are 'further restricted' in the designs would be closed arms resulting in longer diversions for buses).

66. For clarity there are 42 bus directions examined for each option. There are still delays of between 5 and 10 minutes indicated in both the am and pm peak for each of the options. This is why the proposed mitigation of bus shuttle lanes and one-way lanes for buses are incorporated into the designs. The difference in journey time impacts can be seen in Table 6.

More detailed tables are provided in Appendix 5.

Table 5 Bus Journey Times: **without** mitigations 2019 Base.

Option	Avg of AM and PM peak periods journey time	Number of bus route directions (NB, SB, EB, WB) that:					
		in the AM Peak			In the PM peak		
		Improve	Delayed		improve	Delayed	
		Between 0-1 min	0-1 min	5-10 min	Between 0-1 min	0-1 min	5-10 min
I	+1-2 mins	4	20	4	8	24	4

2	+0-1 mins	12	16	3	11	19	2
3	+0-1 mins	11	19	1	16	18	0

Table 6: Bus Journey Times: **with** mitigation measures 2019 Base

Option	Avg of AM and PM peak periods journey time	Number of bus route directions (NB, SB, EB, WB) that:					
		in the <b>AM</b> Peak			In the <b>PM</b> peak		
		Improve	Delayed		improve	Delayed	
		Between 0-1 min	0-1 min	2-5 min	Between 0-1 min	0-1 min	2-5 min
1	+0-1	12	21	3	20	19	2
2	+0-1	16	22	0	24	17	0
3	+0-1	14	24	2	18	18	1

67. As can be seen there are no forecast delays of over 5 minutes with the mitigation measures on the now 'further restricted' arms, in each option.

68. By providing the mitigation measure of a bidirectional bus shuttle lane (controlled by traffic signals) on Princes Street in Option 1, there is a vast improvement on the number of bus route directions that are forecast to experience a small improvement in journey time in both the AM and PM peak periods.

69. The proposed mitigation measures move the average impact across all routes and both peaks, into the +0-1 minute band across the modelled area.

70. Option 2, with the proposed mitigation measures of a bidirectional bus shuttle lane accommodated on Threadneedle Street, offers the best forecast outcome in terms of bus journey times of all three options. It remains the option that would be the easier of the three options to obtain TfL traffic management approvals.

71. Option 3 offers bus mitigation measures on two of the further restricted arms, effectively making a one-way bus gyratory around Poultry and Queen Victoria Street. However, the journey time gains from the mitigation are relatively small in comparison to the loss of pedestrian space required to facilitate the bus mitigation.

72. There may be some opportunity for discussion with London Buses regarding the routes which remain with journey time impacts of over 2 minutes for all three options. There are

likely to be concerns regarding these impacts by London Buses. However, with several of the routes already on long term diversion there may be opportunities to explore other routing options which may minimise the impact of these proposals on those routes.

73. Conversations will continue to explore options for reducing frequencies of some services where the patronage level may indicate that it is suitable, but currently all options assume the 2019 frequency for bus routes.

General Traffic Journey Times

74. In the Gateway 3 report a provisional forecast of average general traffic journey time delays were provided across the four key corridors around Bank:

- Cannon Street,
- Bishopsgate/Gracechurch Street,
- London Wall and
- St Martin’s Le Grand/New Change.

The Gateway 3 data is contained within Appendix 5.

75. Table 7 shows the forecast average journey time impact to general traffic across each direction (north/south/east/west) of travel along the four corridors. Each of the options have their bus mitigation measures included. The AM peak sees some small journey time improvements on certain directions across each of the three options and overall, the indication suggests a relatively small average impact across the corridors.

*Table 7: forecast of General traffic journey time impacts over eight directions (north/south/East/West) of traffic across 4 corridors.*

Option	AM			PM		
	Improve	Delay		Improve	Delay	
	0-1 min	0-1 min	1-2 min	0-1 min	0-1 Min	1-2 min
1	2	6	0	4	4	0
2	3	4	1	2	6	0
3	3	5	0	3	5	0

76. The forecast delays are also encouraging with almost all of the delays forecast to be within the 0-1 minute band. This is not to say that there would not be problems. Queuing will still occur on some corridors. However, providing the bus

mitigation measures through Bank rather than adding all of the bus services on to the surrounding network, the implications for general traffic remain relatively limited in all three options.

Cycle journey times:

77. Given that a significant proportion of the movement through Bank on the carriageway is undertaken by people cycling, it was considered worthwhile reflecting the impact the proposed changes may have on cycling times. The following information only relates to cyclists travelling through Bank and not the further extents of the traffic model.

78. There is small forecast (+0-1 min) increases in cyclists journey times across the junction in Options 1 and 3. Option 2 offers some opportunity for improved cyclist journey times of between 0-1 minutes on four of the six directions modelled.

79. These journey time changes are forecast to be relatively small. Consideration to the improved experience a cyclist would have through the area would be a much larger benefit.

Varying the mix of traffic

80. One of the next steps in the Gateway 3 report was to investigate varying the vehicle mix through Bank and possible changes to traffic management restrictions for the operational arms of the junction.

81. To an extent this has been investigated, but with so many other uncertainties, the sensitivity testing to vary this vehicle mix is now intended at this Gateway 4 stage to assess any alternative operation that should be excluded from continuing further.

82. Once the final option for which arms are to be closed/further restricted is taken, more work will be undertaken to assess whether it is appropriate for all remaining open arms to continue to operate as bus and cycle only Monday to Friday 7am to 7pm. At this time the level of detail undertaken is enough to be able to exclude further investigation of one of these sensitivity tests.

83. It is recommended that the scenario to vary the traffic mix to include general traffic on the open arms is not taken forward for further investigation. The sensitivity tests undertaken so far show probable impacts on bus journey times which would be very difficult to further mitigate. This forecast delay occurs in all the three design options.

84. Consideration of varying the vehicle mix on the open arms involves more than journey time implications. Consideration moving forward also needs to be given to the continued safety, the expected increase in the numbers of pedestrians and cyclists over the coming years as well as consideration to the needs of those people with reduced mobility needs and as well as changing business requirements. These elements will be further considered as the proposals move into more detail and the look and feel of the space is also further developed.

**Other considerations**

**Bishopsgate Bus Gate temporary Streetspace scheme**

85. Before seeking a decision on taking a design option forward in to detailed design for Bank, it should be noted that there are several influencing factors on the potential success of the Bank proposals.

86. The Bishopsgate Bus Gate temporary Streetscape measure is currently in operation. This changes the way general traffic moves along the Bishopsgate/Gracechurch Street corridor. The Bank scheme proposals assume that Bishopsgate is available as a general traffic distribution route.

87. The Streetspace programme intends to either remove, amend or make permanent the various measures depending upon the monitoring of the impact and public feedback. It is therefore prudent that in choosing a design option for Bank now, there is some understanding of how the Bishopsgate scheme and the proposed Bank scheme interact if they were both to be operational.

88. A very crude assessment has been made using the traffic modelling tool and looking at Option 1 only as the recommended option. The modelled output does not address the required level of change to the surrounding junction traffic signal timings that would take place to help minimise the impact of both of these schemes operating, as this is a substantial piece of work. The indications are that there could be some difficult challenges, particularly coming eastbound along Cannon Street with the continued capacity constraints at Monument Junction with both schemes in operation.

89. It is important to note that this is an area of risk moving forward. However, the project team intends to work closely with TfL in developing the Bank design so that this risk can be minimised. The alternative would be to wait for a decision on Bishopsgate as to whether it will be removed, amended or made permanent before proceeding, however the timescale for this is not defined. However, this would impact

	<p>the programme for Bank and is not recommended at this stage.</p> <p><u>Public Realm opportunities:</u></p> <p>90. No specific design work has been undertaken, but a shortlist of opportunities has been identified for areas in each option. In Appendix 6 there is a sketch of ideas for Option 1 as the recommended option to provide a visual indication of the level of enhancement that may be able to be achieved. The next stage of the project will develop a public realm design for the junction that facilitates improved movement function, safety, security and other relevant uses (such as activities associated with the Lord Mayor’s Show) within a setting appropriate to the Bank Conservation Area and adjacent Grade I listed buildings. The degree of enhancement will be dependent upon the funding available once the functional aspect of the main scheme has been costed, such as trade-offs of material choice in some parts of the design. This will be further investigated as the detail design is developed.</p> <p><u>Equalities Analysis:</u></p> <p>91. It is recognised that a full Equalities Analysis is required for the proposed changes at Bank. An interim analysis on the proposed three closure/further restricted options has been undertaken to assist with decision making. Whilst more difficult with remote working, contact has also been made with the City’s Access Group and the Bank of England’s accessibility group to outline what the project is looking to do.</p> <p>92. Engagement with these groups and wider protected characteristic groups is intended to continue as we move into more detail and approach public consultation.</p> <p>93. The interim equalities analysis on the designs to date is outlined in the options appraisal matrix and the full report is in Appendix 7.</p> <p><b>Climate Action strategy</b></p> <p>94. The Climate Action Strategy is in the process of being adopted at the time of writing this report. Consideration of the strategy and how this project can help to contribute towards the actions, particularly those to improve pedestrian comfort and increase pedestrian priority, will be identified as well as any other actions the project should undertake to minimise its own impact.</p>
<p><b>5. Recommendation</b></p>	<p>95. Option 1, the closure of Threadneedle Street and Queen Victoria Street to motorised traffic and the restricted movement of traffic on Princes Street to accommodate a one</p>



	<p>lane bidirectional bus shuttle lane controlled by traffic signals is recommended.</p> <p>96. This option offers the greatest opportunity for improved pedestrian experience as well opportunities for improved public realm in terms of options for planting and seating. It also provides an improved cycling experience on a key route for cycling.</p> <p>97. In terms of journey times, Option 2 offers the best opportunity to have minimal impact on vehicle journey times but offers reduced benefit for the main mode of transport which is people who walk. Option 1 offers the maximum benefit, even with the bus mitigation measures on Princes Street. There may be opportunities in the future to completely close Princes Street that is not available to us at this time. The forecast journey time impacts are on average relatively small for both bus and general traffic considering the space that could be created for pedestrian use with the mitigation measures in place.</p> <p>98. There are still some challenges to overcome in terms of approvals, particularly with as many uncertainties as there are now. However, it is felt that the proposals in Option 1 are robust, balances needs and can be adapted with future design choices in terms of materials rather than wholesale redesign. There remain risks around the potential for other schemes which have been deployed as temporary measures for the recovery phase of COVID-19 to be made permanent which may impact the design choices at this stage. This is covered in Section 6. To remain on programme this has to be considered a risk and minimised where possible.</p> <p>99. Option 1 offers the greatest gains for pedestrians and possible place making, opportunity to improve local air quality pockets and continued safety benefits. It comes with challenges but the design to date minimises these as much as possible and it may be possible to negotiate better outcomes for the project as time goes on.</p>
<p>100. <b>Risk</b></p>	<p>Costed Risk Provision Utilised at Last Gateway: <b>N/A</b> Change in Costed Risk: <b>+ 95,000</b></p> <p>101. Further information is available in the Risk Register (Appendix 2) and Options Appraisal.</p> <p>102. The biggest risks to the progression of the project include:</p> <ul style="list-style-type: none"> <li>• If a decision to keep the temporary point closure in Cheapside is made permanent at a later date, this would prevent the assumed bus routing option of those services that usually use Cheapside. This could change the</li> </ul>

	<p>forecasted journey time comparisons and may lead to the scheme not able to get TMAN approval.</p> <ul style="list-style-type: none"> <li>• If a decision is taken at a later date (but before Gateway 5) to make the Bus Gate scheme on Bishopsgate permanent, this is likely to impact the forecast journey times for implementing the Bank scheme which will impact our TMAN application. There is a risk that this would impact on programme and probably cost.</li> <li>• Increase in overall costs of the project due to the level of uncertainties which may need to be accommodated to reach Gateway 5 which means the delivery of Option 1 would not be able to be achieved within the current budget allowance. Descoping may be required.</li> </ul> <p>103. These specific risks lead to some general mitigation options to assist the project in reducing the risk of these. These include requesting a Risk provision to cover:</p> <ul style="list-style-type: none"> <li>• further traffic modelling costs (consultant or TfL) to incorporate changes to the models regarding schemes that are currently temporary and assumed not to be made permanent in the Bank projects work to date.</li> <li>• Also, additional survey work may be required to accommodate relocation of traffic signals, enforcement cameras, signs or data surveys to support changes with post COVID-19 data.</li> </ul> <p>104. A further costed risk request covers a risk that relates to costs for TfL whereby the Eastern Cluster and the All Change at Bank scheme were sharing resources as the projects were working in the same traffic areas. Costs for TfL were planned to be shared, however TfL funding for the Cluster work is currently paused because of the COVID-19 impacts. To complete the Bank traffic modelling work the Bank project may need to cover additional cost that would have been shared if funding for the cluster is not forthcoming in 2021.</p>
105. <b>Procurement strategy</b>	For the engagement of a landscape architect in this next stage, officers will liaise with City Procurement and identify the most value for money approach. A new PT4 form is not required.

## Appendices

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Risk Register
<b>Appendix 3</b>	Pedestrian priority areas
<b>Appendix 4</b>	Outline design plans
<b>Appendix 5</b>	Journey time information
<b>Appendix 6</b>	Indicative Sketches for public realm
<b>Appendix 7</b>	Interim equalities analysis
<b>Appendix 8</b>	Finance Tables

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## Options Appraisal Matrix

<i>Option Summary</i>	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
<b>1. Brief description of option</b>	<p>- This three-arm closure option of the junction would see motorised vehicles removed from:</p> <ul style="list-style-type: none"> <li>• Queen Victoria Street</li> <li>• Princess Street and</li> <li>• Threadneedle Street.</li> </ul>	<p>- This two-arm closure option of the junction would see motorised vehicles removed from:</p> <ul style="list-style-type: none"> <li>• Queen Victoria Street and</li> <li>• Threadneedle Street.</li> </ul>	<p>- This three-arm closure option of the junction would see motorised vehicles removed from:</p> <ul style="list-style-type: none"> <li>• Queen Victoria Street</li> <li>• Poultry and</li> <li>• Cornhill.</li> </ul>
<b>2. Scope and exclusions</b>	<p><b>In the work done to date it is assumed that:</b></p> <ul style="list-style-type: none"> <li>- The current operating restrictions at Bank allowing buses and cyclists only, Mon-Fri, 7am-7pm, would apply on the remaining open arms of the junction.</li> <li>- Bus routes that may be displaced from a closed arm as part of the work would, where possible, continue to travel through Bank or as close to Bank on an alternative route.</li> <li>- The designs have been revised to mitigate the majority of the large bus journey time increases, whilst maintaining the required benefits provided to pedestrians from footway widening.</li> <li>- Redistribution of road space from motor vehicles to pedestrians to reduce pedestrian overcrowding is the priority.</li> <li>- Cyclists would continue to travel through Bank on all approaches rather than on alternative routes.</li> <li>- Investigating varying the vehicle mix (taxis, all traffic, etc.) has been considered.</li> <li>- The possibility of pedestrian priority areas has been assessed.</li> <li>- The operating scenario (times, days, etc.) on the remaining operational arms will be undertaken at the next stage, when more information on the outcomes of the Covid-19 measures and impacts is more fully understood.</li> </ul>		
<b>Project Planning</b>			

Option Summary	Option 1	Option 2	Option 3
<p><b>3. Programme and key dates</b></p>	<p><i>Overall project:</i> The timescales to meet substantial completion in time for the London Underground capacity upgrade at Bank to open in late 2022 is tight for all options. Given that there is unlikely to be significant public realm /place making elements in the forthcoming design, at this stage it is still felt that all 3 options could all be functionally substantially completed by the end of 2022 with minor works completing in 2023.</p> <p>An outline of the anticipated milestones dates are covered below but all rely on the ability to get the relevant approvals in a reasonable timeframe. <b>(NB – these time frames do not take into account the current COVID-19 impacts, particularly around the resources at TfL).</b></p>		
	<p>Gateway 4 Submission October 2020</p> <p>Public Consultation February/March 2021</p> <p>TfL approvals June/July 2021</p> <p>Gateway 5 submission September/October 2021</p> <p>Construction could start December 2021.</p>	<p>Gateway 4 Submission October 2020</p> <p>Public Consultation February/March 2021</p> <p>TfL approvals June/July 2021</p> <p>Gateway 5 submission September/October 2021</p> <p>Construction could start December 2021.</p>	<p>Gateway 4 Submission October 2020</p> <p>Public Consultation February/March 2021</p> <p>TfL approvals June/July 2021</p> <p>Gateway 5 submission September/October 2021</p> <p>Construction could start December 2021.</p>
<p><b>4. Risk implications</b></p>	<ul style="list-style-type: none"> <li>- High level strategic modelling needs to be undertaken with a future base traffic model to inform where traffic reassigns to. This traffic model is currently being updated to account for schemes that have been built after 2014 and for other future schemes that need to be taken into consideration to ensure that the scheme traffic reassignment modelling is fit for purpose.</li> <li>- There is likely to be some opposition from TfL Buses, due to likely increases in some bus journey times as buses are displaced from the proposed closed arms.</li> </ul>		

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<ul style="list-style-type: none"> <li>- Air quality pollution levels may increase away from Bank Junction due to an increase in traffic congestion, caused by buses being displaced from the closed arms.</li> <li>- Options one and two both include the closure of Threadneedle Street which will require more traffic to use Cornhill/ Bishopsgate Junction. As this junction is on the TfL road network there is a risk that these changes will be more difficult to be approved.</li> <li>- London Underground currently collect refuse from Mansion House Place underground entrance. This could cause conflict with pedestrians waiting on the newly created footway space outside Mansion House.</li> <li>- The pipe subway access point located in the carriageway outside the Magistrates Court on Queen Victoria Street needs to be kept clear for access at all times.</li> <li>- The route of the Lord Mayor's Show passes through Bank junction and the new kerb alignments will need to allow sufficient space for participants to pass through.</li> <li>- As a result of the closed arms and proposed mitigation measures, there is potential for more left hook turns between motorised vehicles and cyclists which needs to be addressed at the detail design stage.</li> <li>- City of London Police camera alternative locations are difficult to achieve and require either the CCTV pole to remain in the centre of the junction. Or further permissions not currently accounted for in the programme.</li> </ul>		
<p><b>5. Stakeholders and consultees</b></p>	<p>Other teams within DBE</p> <ul style="list-style-type: none"> <li>• Other departments within the City Corporation (Chamberlain's, City Police, Comptroller and City Solicitor's, Town Clerk's)</li> <li>• Transport for London</li> <li>• Greater London Authority</li> </ul>		

Option Summary	Option 1	Option 2	Option 3					
	<ul style="list-style-type: none"> <li>• Road user groups</li> <li>• Accessibility groups</li> <li>• Local residents and businesses and their workers.</li> </ul> <p>An updated Stakeholder plan is being developed to take into consideration the impacts COVID may have on the way communications is undertaken with the various groups, particularly at the public consultation exercise stage</p>							
<p><b>6. Benefits of option</b></p>	<p>The options allow for the reallocation of road space to pedestrians, to help reduce pedestrian overcrowding, a key objective of the All Change at Bank project. Table 8 in Appendix 3 shows the incremental changes to pedestrian comfort levels prior to, and after the Bank on Safety footway widening scheme, which is currently under construction. It also shows the proposed additional areas of newly created pedestrian spaces for each of the All Change at Bank options in this report.</p> <p>The locations where pedestrian congestion levels are predicted to be the highest around the main body of the Junction, are along Princess Street (W), Threadneedle Street (N) and Mansion House Street (S). The expected pedestrian comfort levels, based on 2018 pedestrian counts and following completion of the Bank on Safety work, are shown in Table 2 Appendix 5 for reference.</p> <p>The temporary measures that were introduced on Lombard Street as a result of the pandemic could be investigated to be made permanent as part of part of the All Change at Bank scheme to help reduce overcrowding (currently registering a PCL of F but outside the scope area of the project) in all three options at this location.</p> <table border="1" data-bbox="573 1094 2186 1348"> <tr> <td data-bbox="573 1094 1637 1241">Options 1 and 2 allow for maximum tightening of the junction geometry, helping to reduce casualties by simplifying the junction and slowing vehicle movements in the areas with the most pedestrians.</td> <td data-bbox="1637 1094 2186 1241">Option 3 does tighten the geometry of the junction, but to a lesser extent.</td> </tr> <tr> <td data-bbox="573 1241 1093 1348">Option 1 is the only option that potentially provides additional footway space at the three</td> <td data-bbox="1093 1241 1637 1348">Option 2 potentially provides additional footway space at two of</td> <td data-bbox="1637 1241 2186 1348">Option 3 potentially provides additional footway space at one of</td> </tr> </table>			Options 1 and 2 allow for maximum tightening of the junction geometry, helping to reduce casualties by simplifying the junction and slowing vehicle movements in the areas with the most pedestrians.	Option 3 does tighten the geometry of the junction, but to a lesser extent.	Option 1 is the only option that potentially provides additional footway space at the three	Option 2 potentially provides additional footway space at two of	Option 3 potentially provides additional footway space at one of
Options 1 and 2 allow for maximum tightening of the junction geometry, helping to reduce casualties by simplifying the junction and slowing vehicle movements in the areas with the most pedestrians.	Option 3 does tighten the geometry of the junction, but to a lesser extent.							
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<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>locations where pedestrian congestion levels are the highest:</p> <ul style="list-style-type: none"> <li><b>a) Princess Street (W)</b></li> <li><b>b) Mansion House Street (S)</b></li> <li><b>c) Threadneedle Street (N)</b></li> </ul> <p>It is the only option that provides for additional footway space on Princess Street.</p> <p>Option 1 is the only option that potentially provides pedestrian priority areas on two of the closed arms:</p> <ul style="list-style-type: none"> <li><b>a) Threadneedle Street</b></li> <li><b>b) Queen Victoria Street</b></li> </ul> <p>Option 1 provides shorter crossing distances than the Bank on Safety scheme, and more than the other two options.</p> <p>Option 1 is the most likely option to potentially allow a diagonal crossing at the junction to better facilitate pedestrian movements.</p>	<p>the locations where pedestrian congestion levels are the highest:</p> <ul style="list-style-type: none"> <li><b>a) Mansion House Street (S),</b></li> <li><b>b) Threadneedle Street (N)</b></li> </ul> <p>It is the only two arm closure option, making the potential to mitigate against increased journey times more likely for this option.</p> <p>Option 2 potentially provides pedestrian priority areas on one of the closed arms:</p> <ul style="list-style-type: none"> <li><b>a) Queen Victoria Street</b></li> </ul> <p>Option 2 provides shorter crossing distances than the Bank on Safety scheme, and more than Option 3 but less than Option 1.</p>	<p>the locations where pedestrian congestion levels are the highest:</p> <ul style="list-style-type: none"> <li><b>a) Mansion House Street (S)</b></li> </ul> <p>Option 3 is the only option that retains servicing to Cornhill, via Threadneedle Street, thus preventing the need for servicing vehicles to pass through the junction.</p> <p>Option 3 provides the maximum footway space of all the options, on the south side of Cornhill / Bank junction to help facilitate with pedestrian movements to the east which is expected to increase as the cluster grows.</p> <p>Option 3 provides shorter crossing distances than the Bank on Safety scheme, but less than the other options.</p>



<i>Option Summary</i>	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
<p><b>7. Disbenefits of option</b></p>	<p>Vehicles currently service local businesses in Cornhill via Threadneedle Street. The closure of Threadneedle Street in options 1 and 2 would require servicing vehicles to travel through Bank Junction via Princess Street, and possibly timed entry and exit cameras installed to ensure that vehicles are not using Cornhill as a cut through route.</p>		<p>Due to the servicing of business on Cornhill, via Threadneedle Street, this option retains the greatest amount of carriageway space at the junction to allow the required turning circles for large vehicles. This limits opportunities to improve the look and feel of the eastern side of the main junction.</p>
	<p>Options 1 and 3 are three arm closure options, making the potential to mitigate against increased journey times more difficult for these options.</p> <p>As a result of the closures a total of four bus services will need to be rerouted to allow buses to continue to travel through Bank junction or as close to the junction as possible, the same number as Option 3 and more than Option 2. Option 1 displaces more bus passengers than all the other options (pre-COVID-19 numbers).</p>	<p>As a result of the closures a total of two bus services will need to be rerouted to allow buses to continue to travel through Bank junction or as close to the junction as possible, the lowest number of all the options. Option 2 displaces the least amount of bus passengers than all the other options.</p>	<p>Options 1 and 3 are three arm closure options, making the potential to mitigate against increased journey times more difficult for these options.</p> <p>As a result of the closures a total of four bus services will need to be rerouted to allow buses to continue to travel through Bank junction or as close to the junction as possible, the same number as option 1 and more than Option 2. Option 3 displaces more bus passengers than option 3 but less than Option 1.</p>

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	(work to establish the distance of passenger displacement is still ongoing, but given diversion routes are still through the junction or as close as possible, passengers are still going to be in a similar area to their previous bus stops)		
<b>Resource Implications</b>			
<b>8. Total estimated cost</b>	<p>Total estimated cost (excluding risk):  <i>£5-5.6 million</i>  <i>We are designing to a ceiling limit of £5.58million, however this may mean that that the design is very functional with little enhancement of the public realm. If this is not acceptable, then some additional funding may need to be bid for (internal/external) to ensure that a more rounded scheme can be delivered.</i></p> <p>Total estimated cost: (including risk): <i>Estimated total including costed risk.</i>            £5.6 million (assumed Risk is within the total budget available and there will be a priority of elements delivered and as risk is mitigated and closed, more elements can be delivered within the total budget available)</p>		
<b>9. Funding strategy</b>	<p>To date the project has been funded by S106 contributions from developments in the local area as well as some TfL funding.</p> <p>Whichever option is taken forward at Gateway 4, the remaining S106 money and draw down from the £4m provisional allocation of Capital funding agreed through the annual bid process which started in December 2019. The £4m is to cover detailed design, consultation, construction package and build.</p> <p>There may be opportunities to bid for further funding from external sources, possibly internal sources; however the project team are working on the basis that the £5.6m is the ceiling limit and are working on the principle that the proposals at the Gateway 4 will be deliverable within the existing budget envelope. This is likely to mean that function dominates the design, whilst creating spaces that could alter be improved in terms of public realm and place making at a later opportunity.</p>		

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	It is expected that it may be difficult to deliver change using a continuous palette of high quality materials throughout the project area with the agreed budget limits, but that this does not mean that the functionality of what we are aiming to achieve is not possible.		
<b>10. Investment appraisal</b>	N/A		
<b>11. Estimated capital value/return</b>	At this stage it is not believed that there will be a physical capital return on the investment to the Corporation. The return is in improved safety and environment which contributes to the Corporate Plan outcomes 1, 9, 11 and 12		
<b>12. Ongoing revenue implications</b>	At this stage without looking at the way in which the junction will operate in the future it is not possible to quantify the revenue implications as the revised junction will not require the same level of enforcement measures in the future with a number of arms closed. There is likely to be a maintenance implication, but the scale of this will be dependent upon the choice of materials in the detailed design.		
<b>13. Affordability</b>	£5.6million is provisionally secured through a £4m Capital Bid and approximately 1.6m S106 and TfL allocations (which have already been spent and claimed) since the project was initiated.		
<b>14. Legal implications</b>	The project team have taken legal advice from the Comptroller and City Solicitor team regarding the City's powers as Traffic Authority to implement changes to traffic. The advice is that as traffic authority, the City Corporation has wide powers under the Road Traffic Regulation Act 1984 (" <b>RTRA</b> ") to prescribe routes to be followed by traffic (or by any class or classes of traffic), and to prescribe streets which are not to be used for traffic by vehicles (or by vehicles of any specified class or classes). Any restrictions can be implemented either generally or between any specified times, provided that the requirements of the RTRA are complied with.		

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>The powers under the RTRA must be exercised so as to secure the expeditious, convenient and safe movement of vehicular and other traffic and the provision of suitable and adequate parking facilities. Account must be taken of the desirability of securing and maintaining reasonable access to premises, the effect on local amenities and on air quality, the importance of facilitating the passage of buses and the convenience and safety of passengers.</p> <p>When making decisions, the City Corporation must have due regard to the need to eliminate unlawful conduct under the Equality Act 2010, the need to advance equality of opportunity and the need to foster good relations between persons who share a protected characteristic and those who do not (the public sector equality duty). It is the intention that an Equality Analysis will be carried out as work moves forward, and this will assist the City Corporation in discharging this duty.</p>		
<b>15. Corporate property implications</b>	<p>At Bank, the Corporation has some property interest. The options may require altered servicing in some cases but will not impact the integrity of the properties. The improved junction area should enhance the setting of the listed buildings.</p>		
<b>16. Traffic implications</b>	<p>Options 1, 2 and 3 have been reviewed and revised to develop designs that mitigate the majority of the large journey time increases, whilst maintaining the required benefits provided to pedestrians from footway widening and shorter crossing distances. Feasibility traffic modelling has been undertaken on the three options, and the probable impacts on journey times are shown in more detail in Appendix 5. In summary, Option 2 is predicted to have the least impact on journey times for buses and general traffic during peak hours. Both Options 1 and 3 had similar predicted impacts on journey times as each other, but were worse than option 2</p> <p>The proposed bus routes with the mitigation measures results in no routes diverted along London Wall or Canon Street, or around St Pauls gyratory. These are the links that are most likely to be affected by traffic reassignment from other schemes in the Future Base traffic model.</p> <p>All mitigation measures permit a single vehicle to use the carriageway at any one time, which minimises carriageway width and maximises footway width.</p>		

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>- For Option 1 the mitigation measures allows Princess Street to be open to buses and cyclists using a shuttle run, and for vehicles servicing local businesses in Cornhill. Threadneedle and Queen Victoria Street closed to motorised traffic.</p> <p>- The mitigation results show that all bus routes have a journey time increase of less than 2 minutes with the exception of bus services 11 and 26.</p> <p>- The scenario of allowing taxis and general traffic to use the open arms with the mitigation measures in place has been tested. For Option 1 vehicles can use:</p> <ul style="list-style-type: none"> <li>- <b>Poultry</b></li> <li>- <b>Cornhill</b></li> <li>- <b>King William Street</b></li> </ul> <p>The results show that permitting taxis and general traffic through Bank junction has a significant detrimental impact on bus journey times going through Bank junction.</p>	<p>- For Option 2 the mitigation measures allows Threadneedle Street to be open to buses and cyclists using a shuttle run, and Queen Victoria Street closed to motorised traffic</p> <p>- The mitigation results show that all bus routes have a journey time increase of less than 2 minutes.</p> <p>- The scenario of allowing taxis and general traffic to use the open arms with the mitigation measures in place has been tested. For Option 2 vehicles can use:</p> <ul style="list-style-type: none"> <li>- <b>Poultry</b></li> <li>- <b>Princess Street</b></li> <li>- <b>Cornhill</b></li> <li>- <b>King William Street</b></li> </ul> <p>The results show that permitting taxis and general traffic through Bank junction has a significant detrimental impact on journey times for buses going through Bank junction. This is because the junction would operate over capacity.</p>	<p>- For Option 3 the mitigation measures allows Queen Victoria Street to be open westbound only for buses and cyclists. Poultry eastbound only for buses and cyclists. Cornhill closed to motorised traffic.</p> <p>- The mitigation results show that all bus routes have a journey time increase of less than 2 minutes with the exception of bus service 25.</p> <p>- The scenario of allowing taxis and general traffic to use the open arms with the mitigation measures in place has been tested. For option 3 vehicles can use:</p> <ul style="list-style-type: none"> <li>- <b>Princess Street</b></li> <li>- <b>Threadneedle Street</b></li> <li>- <b>King William Street</b></li> </ul> <p>The results show that permitting taxis and general traffic through Bank junction has a significant detrimental impact on journey times for buses going through Bank junction. This is because the</p>

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>This is because the junction would operate over capacity.</p> <p>General journey times have been collected on four key routes within the study are:</p> <ul style="list-style-type: none"> <li>- Bishopsgate</li> <li>- Canon Street</li> <li>- London Wall</li> <li>- New Change/ Newgate gyratory</li> </ul> <p>On Option 1, the results show that permitting taxis and general traffic through Bank junction has a small disbenefit on journey times on the wider network for Options 1 and 3.</p>	<p>General journey times have been collected on four key routes within the study are:</p> <ul style="list-style-type: none"> <li>- Bishopsgate</li> <li>- Canon Street</li> <li>- London Wall</li> <li>- New Change/ Newgate gyratory</li> </ul> <p>On Option II, the results show that permitting taxis and general traffic through Bank junction has a greater disbenefit on journey times on the wider network in the PM peak than the other two options. This is due to queues forming on the approaches to Princess Street and King William Street which leads to congestion on London Wall (W) and Cannon Street (W).</p>	<p>junction would operate over capacity.</p> <p>General journey times have been collected on four key routes within the study are:</p> <ul style="list-style-type: none"> <li>- Bishopsgate</li> <li>- Canon Street</li> <li>- London Wall</li> <li>- New Change/ Newgate gyratory</li> </ul> <p>On Option III, the results show that permitting taxis and general traffic through Bank junction has a small disbenefit on journey times on the wider network for Options 3 and 1.</p> <p>Option 3 was the most likely option where cyclists can be potentially rerouted away from one of the closed arms (Poultry/ Queen Victoria Street), and the space reallocated for pedestrian use/ place making opportunities. Additional investigation has found that due to the high volume of cyclists that enter and exit via these streets and the need to allow buses to use Poultry</p>

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
			and Queen Victoria Street as part of the mitigation measures to reduce journey time delays, that this is no longer considered feasible.
<b>17. Sustainability and energy implications</b>	<i>N/A at this stage. Detailed design will address this.</i>		
<b>18. IS implications</b>	<i>N/A</i>		
<b>19. Equality Impact Assessment</b>	An Interim Equality Assessment has been undertaken on the three options in order to highlight impacts that may positively or negatively affect certain protected characteristic groups (PCGs), as set out in Appendix 7		
	Overall, the number of people who will benefit from the All Change at Bank scheme is likely to outweigh those under certain PCGs who may be negatively impacted by any changes that are implemented under the scheme. It is recommended that a collaborative approach be taken to the next steps in the scheme, working with stakeholders to ensure that the final design seeks to maximise benefits and minimise negative impacts on PCGs. The design should also be informed by the City of London Accessibility Standard which is currently under development.		
	<u>Age</u> Overall, options 1 and 2 are likely to have the most positive impact on reducing inequalities for this PCG. Option 1 benefits more pedestrians with the restrictions but displaces a	<u>Age</u> Overall, options 1 and 2 are likely to have the most positive impact on reducing inequalities for this PCG. Option 2 displaces a lower number	<u>Age</u> Overall, this option is likely to have the least positive impact on reducing inequalities for this PCG. This option benefits a lesser number of pedestrians and

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>higher number of bus users when compared to the other options.</p> <p><u>Disabilities</u> Overall, this option is likely to have the second most positive impact on reducing inequalities for this PCG, after option 2. This option provides pedestrian areas which will benefit those with disabilities, however it involves the relocation of a taxi rank on Princess Street which may disproportionately negatively impact those with disabilities who rely on taxis.</p> <p><u>Pregnancy/Maternity</u> Overall, this option is likely to have the second most positive impact on reducing inequalities for this PCG, after option 2. This option provides pedestrian areas which will benefit those travelling with prams and young children. Option 1 benefits more pedestrians but displaces a</p>	<p>of bus users when compared to the other options.</p> <p><u>Disabilities</u> Overall, this option is likely to have the most positive impact on reducing inequalities for this PCG. This option provides pedestrian areas which will benefit those with disabilities. No taxi ranks will be relocated with this option.</p> <p><u>Pregnancy/Maternity</u> Overall, this option is likely to have the most positive impact on reducing inequalities for this PCG. This option provides pedestrian areas which will benefit those travelling with prams and young children. Option 2 displaces a lower</p>	<p>displaces less bus users than option 1 but more than option 2. This option would not benefit cyclists as much as the other options.</p> <p><u>Disabilities</u> Overall, this is likely to have the least positive impact on reducing inequalities for this PCG. The eastbound and westbound bus movements on Poultry and Queen Victoria Street respectively, is more likely to negatively impact those with learning disabilities when compared to options 1 and 2. No taxi ranks will be relocated with this option</p> <p><u>Pregnancy/Maternity</u> Overall, this option is likely to have the least positive impact on reducing inequalities for this PCG. This option provides pedestrian areas which will benefit those travelling with prams and young children. Option 3 displaces a lower</p>



<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	<p>higher number of bus users when compared to the other options.</p> <p><u>Race</u> Overall, this option is expected to have the second most positive impact on reducing inequalities for this PCG, after option 2. This option provides pedestrian areas which will benefit those travelling by foot and cycle. Option 1 benefits more pedestrians but displaces a higher number of bus users when compared to the other options.</p>	<p>number of bus users when compared to the other options.</p> <p><u>Race</u> Overall, this option is likely to have the most positive impact on reducing inequalities for this PCG. This option provides pedestrian areas which will benefit those travelling by foot and cycle. Option 2 displaces a lower number of bus users when compared to the other options.</p>	<p>number of bus users than option 1 but more than option 2.</p> <p><u>Race</u> Overall, this option is expected to have the least positive impact on reducing inequalities for this PCG. This option provides pedestrian areas which will benefit those travelling by foot and cycle. This option benefits a lesser number of pedestrians and displaces less bus users than option 1 but more than option 2.</p>
<b>20. Data Protection Impact Assessment</b>	<i>N/A at this stage.</i>		
<b>21. Recommendation</b>	Recommended	Not recommended	Not recommended