

Environment Department
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Bank Junction Improvements Project: All Change at Bank

Traffic mix and timing review plan.

May 2022

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Introduction

1. Following the decision of the Court of Common Council on 22 April 2022 to approve the Motion:

“That the Planning & Transportation Committee be requested immediately to begin a review of the nature and timing of current motor traffic timing restrictions at Bank Junction, to include all options. This review will include full engagement with Transport for London and other relevant stakeholders, data collection, analysis and traffic modelling. The Planning & Transportation Committee should then present its recommendation to this Honourable Court as soon as practicable.”

2. This document sets out the scope of this review namely:

- how that review is intended to be undertaken
- the options to be investigated
- the process and indicative programme
- the associated risks

Objective of the review

3. Work to improve the area around Bank Junction in the heart of the City has been ongoing for many years. It is a constrained site and has a history of serious and fatal collisions, leading to the Bank on Safety intervention in May 2017 when the junction was restricted to buses and cycles only, Monday to Friday 7am to 7pm.
4. Work to deliver wider improvements to the junction is progressing with the aim of delivering the four project objectives of the All Change at Bank project - further improving safety, pedestrian comfort, air quality and the sense of place.
5. This work has culminated in a proposal, which has Gateway 5 approval, to restrict part of Threadneedle Street and Queen Victoria Street on the approach to the junction to people cycling and walking only, and modify the operation of Princes Street to have a section of a single carriageway, two-way working, where it joins the junction (See Appendix A)
6. Subject to the outcome of the statutory traffic order process this work is programmed to start later in 2022.
7. The primary objective of the review is to assess whether for the arms of Poultry, Cornhill, and Lombard/King William Street there is:
 - a better balance of traffic mix than currently permitted in the current Monday to Friday 7am to 7pm restriction; and
 - whether those restriction times are the optimum operational hours
8. The review will be based on a mix of traffic modelling and other data collection to present to all Members to fully understand the benefits and disbenefits of any potential changes to allow additional traffic modes to use the junction during restricted hours and/or extensions to the timings of restrictions.
9. The review will consider how changes might contribute to better achieving the All Change at Bank project objectives and the balance of local access requirements.
10. Options could then proceed to public consultation subject to member approval.

What has previously been agreed

11. The broad objectives of the All Change at Bank Project are to:
 - Continue to reduce casualties
 - Reduce pedestrian crowding levels
 - Improve air quality
 - Improve the perception of place as a place to spend time in.

12. There has been an ongoing requirement to undertake the traffic and timing mix review as part of the All Change at Bank project. It was originally intended that this would be done at the same time as the development of the physical design changes which have now been approved at Gateway 5; However, due to the pandemic there was uncertainty of
- traffic flows and composition,
 - long term changes to travel and work patterns
 - temporary traffic orders as part of the emergency response to COVID-19. Some have subsequently rolled into experimental orders, including the restrictions on Bishopsgate, Gracechurch Street and London Bridge, implemented by TfL.
13. These factors have a significant impact on the outcomes of the review, and officers therefore had recommended that this work was delayed until we had more certainty over these elements to avoid abortive work.
14. In February 2021, prior to public consultation on the proposed design, the work that had been completed to date on the traffic and timing mix review was included in a report to the Streets and Walkways Sub Committee. In terms of the scope of the review it was agreed:
- that reducing the hours of operation was not recommended.
 - That reintroducing all traffic modes was not recommended.
 - To seek people's views in the public consultation on allowing additional traffic during restricted hours and extending the hours of operation.
15. The findings of the consultation including the questions around mix and timings are detailed in the issues report presented to the Streets and Walkways Sub Committee in September 2021. This report also approved the progress of the All Change at Bank project to Gateway 5, subject to the outcome of the statutory traffic order process. A timeframe for full review was debated and members agreed that the review would take place within 12 months of completion of the construction of the All Change at Bank project.
16. The subsequent motion at Court of Common Council in May 2022 requires this review to commence immediately.
17. The Bishopsgate Experimental Traffic Order (ETO) went live in mid- January 2022 and the London Bridge ETO in February 2022. These ETOs are in effect a continuation of the restrictions to vehicle movement along Bishopsgate/Gracechurch Street corridor which had originally been implemented as temporary traffic orders. On Bishopsgate this restricts traffic to buses and cycles only, other than for short sections of access Monday to Friday 7am to 7pm. The London Bridge ETO restricts movement to buses, taxis and cycles only. Officers will bring a draft response to the statutory consultation on the

Bishopsgate ETO to the July meeting of the Streets and Walkways Sub Committee.

Assumptions

18. The key assumptions for the review are:

1. The base restriction for alternatives to be compared against is buses and cycles only Monday to Friday 7am to 7pm, i.e., the current approved scheme with TfL and at Gateway 5.
2. The restrictions being reviewed would apply to Cornhill, Lombard/King William Street and Poultry which are currently proposed to remain buses and cycles only Monday to Friday 7am to 7pm. (See second plan of Appendix A (Dark Blue area))
3. Sensitivity testing on whether it would be possible to allow more than buses and cycles northbound on Princes Street at any time will be undertaken. If possible (from a traffic signal timing perspective and journey time implication) this route could also be considered in terms of a change in traffic mix, but not timing and the agreed changes mean it would need to remain an 'at any time' restriction.
4. We will revisit the potential to allow all traffic that was previously excluded to ensure that decision remains valid based on more recent data.
5. That the decision taken in February 2021 to not investigate reducing the hours of operation of the restrictions remains valid.
6. That the current experimental schemes on Bishopsgate and London Bridge remain in situ in the future.
7. That the City's experimental schemes as part of the pedestrian priority programme remain in situ in the future. This includes Old Broad St (one way) Threadneedle Street, King Street, King William Street and Cheapside (point closure)
8. That the approved scheme design will be delivered, and that only very minor modifications can be made if required.
9. That TfL have the resource at the appropriate times to undertake the traffic modelling audits and to write the scheme impact assessment at the required time outlined in the programme. TfL are currently suffering from a lack of resources so this is one of the biggest risks to indicative programme.

How will the review be undertaken?

19. The review will be undertaken in three stages:

Stage 1

20. Identify options for timing and traffic mix to be taken through to further detailed work. The outcome of this stage will be reported to Members for approval and is effectively a Gateway 3 report. It is expected that no more than three options for traffic mix will be taken forward for more detailed review.

Stage 2

21. The options will then be assessed in more detail. The outcome of this work will aim to recommend an option(s) for Members to agree that could proceed to public consultation. Effectively a Gateway 4 report. Following approval of this report public consultation would be undertaken.

22. The public consultation responses will then be reported, alongside more detailed traffic modelling outputs and more details of the impacts of the proposals on the All Change at Bank project objectives and the aspirations of the Transport Strategy and Climate Action Strategy. Members of the Court can then decide whether to proceed with the formal application for Traffic Management Approval with TfL and the advertising the associated Statutory Traffic Orders. Effectively a Gateway 5 report

Stage 3

23. Subject to the outcome of those statutory procedures, it would then be possible to make the changes to the traffic mix/and or timings at the appropriate time. As reported previously there are likely to only be limited physical works required to implement any changes to traffic mix and timings. However, implementation dates would need to coincide with or follow on from the end of the All change at Bank construction period.

Traffic mix options to be considered

24. There are essentially four classes of vehicle that can easily be distinguished within approved DfT signage when showing a blue roundel (permitted route) or a red roundel (restricted route). These four classes are buses, cycles, taxis and powered two wheelers (motorcycles and mopeds). These are also easily distinguishable within the traffic composition surveys which support the traffic modelling work. The outputs of the traffic modelling work will support this review and any subsequent recommendation.

25. The baseline that these options will be tested against will be the current restrictions of buses and cycles only on the approved revised layout. This is because Bank Junction is a key route for buses and the most recent approvals have been obtained on the basis that buses should remain on Poultry, Cornhill, Princes Street and King William/Lombard Street. It is unlikely that we would receive any support to amend or remove buses from Transport for London, and this would go against the outcomes of our Transport Strategy.

26. It is therefore suggested that we start by considering the following scenarios:

1. Buses and cycles +taxis

2. Buses and cycles + powered two wheelers
 3. Buses and cycles + taxis + powered two wheelers
 4. Buses and cycles + all traffic
27. These are the four modal scenarios that we are confident can be legally signed and enforced within existing DfT regulations.
28. The traffic modelling outputs for these scenarios will provide comparable journey time impacts/benefits for comparison against each other and compared to the base assumption (buses and cycle only).

Timing options to be investigated

29. As agreed, the timings of the restrictions will also be reviewed. The original Monday to Friday 7am to 7pm timings were installed because that was the time that 75% of the collisions at the junction were occurring. The restrictions to date have been successful in reducing the number of collisions and of people killed or injured. With the addition of significant physical change at the junction, this opens an opportunity to review whether the timings could be modified to help maximise the outcomes for the project. Previous work identified that there were some concerns in the casualty data regarding evening and weekend casualty trends. It was agreed at the February 2021 Streets and Walkways to continue to consider extending the hours of operation. Reducing the hours was discounted based on the increased risk to safety. It is assumed that this decision remains the starting point in this review.
30. For all scenarios except allowing all traffic there will still be a need for some form of timed restriction on the three streets being reviewed (Cornhill, Lombard Street and Poultry).
31. The recommendation on which (if any) extension in time could be considered will be based on a review of traffic volumes, pedestrian data and collision analysis. The previous work on timing options published in February 2021 is provided in Appendix D for information.

Workstreams:

Traffic modelling work – Journey time impacts

32. Traffic modelling testing will help to prioritise the alternative options for viability and potential impacts and benefits. However, the traffic modelling work is only available for the weekday peak am and pm hours. It will therefore not help to determine different timings of the restrictions
33. It is proposed to take the approved All Change at Bank traffic model, update traffic data with new classified traffic counts at the required junctions (circa 25 junctions) and add in the restrictions on the TfL network for Bishopsgate, Gracechurch Street and London Bridge into the model. In addition, to add the City's Pedestrian Priority Streets experimental schemes on Cheapside, Threadneedle Street, Old Broad Street, King William Street, and King Street.

This is because these will be in place when we undertake the traffic surveys. This is not prejudging the outcome of the experiments – but representing the traffic flow situation as it is now.

34. As set out in the assumptions above we will assume that these schemes will remain in place for purposes of feasibility testing.
35. Once the traffic model has been updated, we will be able to test the four traffic mix scenarios. It is proposed to just do this on the assumption that the most attractive option for route choice is to be able to travel on all of Cornhill, Poultry and King William Street (indicated in blue in Figure 1) in both directions. It is proposed that this is the starting point and other options investigated if required.

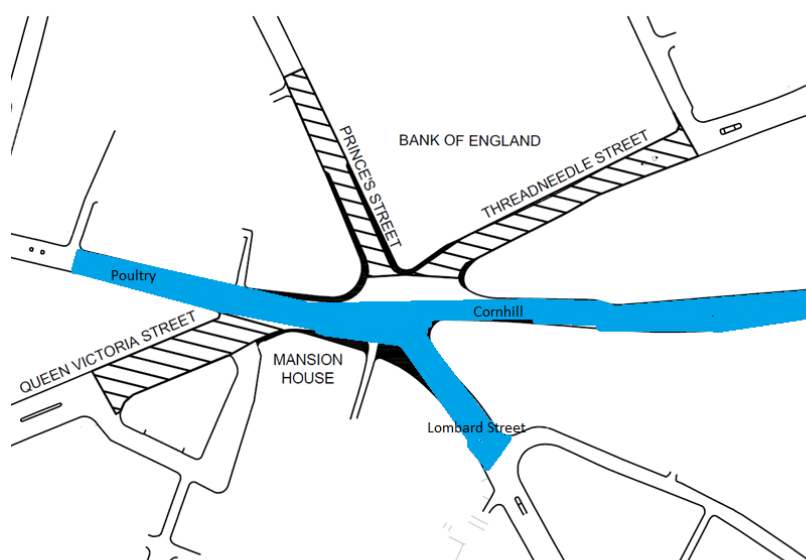


Figure 1 - blue solid colour indicating which arms are being reviewed for the traffic mix and timing review.

36. This information will give an indication of journey time impacts at Bank Junction to compare to the approved All change at Bank scheme. This will include the impact/benefit on average wait and crossing times for people crossing at traffic signals, as well as journey times for people cycling or travelling by bus.
37. This will form part of the first evidence review to exclude options that are considered not to have merit in being progressed to further evaluation. (Stage 1)
38. The second set of traffic modelling (Stage 2) will then focus on those scenarios that do have merit for further investigations. This work will look at the impact on the wider network and how this might be balanced through mitigation measures, such as signal time changes, possibly other banned turns etc. to make the schemes as 'efficient' as possible from a predominantly traffic journey time perspective. This will, include the key corridors of Bishopsgate, Cannon Street, St Martin Le Grand and London Wall.
39. It is at this stage that we might need to look at other alternative movements on the arms of Poultry, Cornhill and Lombard Street if the model outputs suggest that unrestricted access in both direction for the specific mix of traffic is unlikely to

be feasible in terms of journey time implications. There are 31 different combinations of movements along the main three arms that could be considered. These are outlined in Appendix C. However, to look at all these would be expensive and may provide little differentiation between some combination of movements.

40. If the routing of all three arms open in both directions does not appear to be viable for allowing a change in traffic mix, then we can assess the information and look to remove an arm, or a turning movement. For example, it could be that the demand for London Bridge generates a large queue at the approach to Monument junction. To relieve that impact, we could try banning the right turn from Poultry into King William Street to reduce the demand and see if that would work better in the traffic model. Alternatively, we could look at just the east/west route as an option and remove the King William Street link entirely. Which options to investigate will be informed by the traffic model outputs and the update and review of the other work streams.
41. This information will feed into the second evidence review taking into account the impacts on the rest of the project objectives (effectively a Gateway 4 report). It is anticipated that at this point Members would be asked to approve a recommendation for an option(s) to be consulted on as part of the public consultation exercise.
42. In parallel to the traffic scenario testing above, there would also be a technical process with TfL to audit the base and future base traffic models, ready for any final assessment of the impacts of a preferred scheme. This will provide us with a level of assurance that for whichever option is taken forward to public consultation TfL are comfortable that the technical work around the model is acceptable and the generated journey time impacts are within a reasonable tolerance.
43. If, following public consultation, member approval is granted to proceed with a preferred option (effectively Gateway 5), the final audits will be undertaken, and TfL will produce a scheme impact assessment report. This will respond to any proposed change to the traffic mix or timings of the junction which will be used as part of the internal TfL approval process for the schemes Traffic Management Approval (TMAN).
44. It should be noted that Cornhill and Poultry form part of the Strategic Road Network (SRN), created in 2004 as part of the Traffic Management Act. TfL have two main roles in this approval process – firstly in terms of auditing and approving the traffic models and outputs. They also need to approve any changes that impact the SRN routes through the TMAN process. For schemes proposing a change they undertake a Scheme Impact Assessment which determines the impact of the proposals across the range of transport modes. Depending on the scale of these impacts, the decision on whether to grant TMAN approval or not may be taken by the Road Space Performance Group.
45. A map of the streets that form the SRN can be found in Appendix B

46. It should be noted that without knowing the outcome of the first phase of traffic modelling and how many traffic mix options there might be going through to the second phase of traffic modelling, it is difficult at this stage to forecast the number of traffic model 'runs' that will be required. There will also be sensitivity tests that need to be undertaken to try and ensure any proposals taken forward for consultation or delivery are robust and withstand reasonable traffic flow changes in the future. The more 'runs' required the more expensive the cost of the traffic modelling and the longer the process is likely to take.

Sensitivity testing.

47. In addition, whilst not currently able to sign for Private hire vehicles (PHV) to be permitted it is suggested that a sensitivity test proportioning the composition of PHV is also undertaken should the position on signage change in the near future and the equalities analysis is indicating that this would be beneficial. This would be undertaken if there is a preferred option that includes Taxis.

48. Other sensitivity tests regarding the traffic modelling may also need to be undertaken to reassure that making any proposed change at Bank is likely to continue to work with other schemes that are in the pipeline to deliver the Transport and Climate Action Strategies.

Collision analysis

(Work to be undertaken externally)

49. A collisions analysis for the area will be updated to include the latest figures (including the latest provisional figures which have not yet been audit/validated as this process usually takes 18 months). This will look at the causation factors, vehicles involved and severity of injury. This will help to assess the risk and benefit implications of making any changes to the vehicle mix or the timings of the restrictions.

50. 'U turning' vehicles have been specifically raised by some Members as a concern of the current restrictions. This will be investigated as part of this work as to whether this is a perceived safety issue or has resulted in an increase in this type of collision.

51. The detail of this is largely going to contribute to the stage 2 assessment.

Air quality

52. We have an ongoing monitoring of NO₂ since 2016 and are able to track the global change of NO₂ at Bank and in the surrounding area. However, the diffusion tube method does not give granularity to assess the impact of individual changes or help to distinguish the impact on an hour-by-hour basis.

53. It is not proposed to undertake air quality modelling to support this review. However, working with the air quality team and/or consultants, an interpretation of the likely impacts and/or benefits of the options will be looked at and presented in the review for consideration

54. The detail of this is largely going to contribute to the stage 2 assessment

Place making

(Work to be undertaken externally)

55. It is proposed to issue a brief to a consultant to establish a baseline of existing streets and spaces using the Healthy Streets assessment tool. This analysis will then be redone for each of the shortlisted options. Healthy Streets assessments consider 10 criteria such as ease of crossing, noise, shade. This will help with the overall comparison pre and post scheme as well as subjective analysis of any timing or traffic mix change proposed as part of this review.

Signage – understanding

56. Consideration of any proposal must take into account what can be legally signed, how easy the signage is to understand and how large signage might have to be (which has its own constraints). This is a practical consideration for any proposed change. Officers understand that some members have ongoing concerns about the signage but what is currently on street is the most suitable compliant option.

57. A further review will be considered at the stage 2 assessment.

Equalities Analysis

(Work to be undertaken externally)

58. Review of the existing analysis highlighting any areas already covered that may support or oppose any change of timing or traffic mix on any particular arm.

59. This will contribute to the stage 1 assessment

60. Any proposals to be looked at in more detail during stage 2, a further analysis will be undertaken to assist design mitigation of any identified negative impacts and to inform public consultation.

61. A final Equality Analysis on any proposed option for change will be provided when presented to Members at Stage 3 (affectively gateway 5) and TfL for the TMAN application for final decisions.

Updated traffic and pedestrian count data

62. It is anticipated that new traffic data to verify flows and composition will be needed to undertake the traffic modelling exercise. The extent of this is to be determined with the consultants and TfL. However, it looks to be in the region of 25 junctions that require collecting.

63. It is also proposed to update pedestrian flows at Bank. This will help both with the planning of the proposed construction work and in understanding volume of people moving through the space currently that could be impacted by any proposed changes. It is a suitable time to undertake these now that the Bank Blockade has concluded.

64. Counts need to be undertaken outside of school holidays and bank holidays and require the consultant to have the capacity and enough equipment to undertake all of the counts at the same time. It is intended that this work will be undertaken alongside the data collection exercise for the wider Traffic Order review being undertaken by the Strategic Transport team.

Stakeholder engagement and public consultation

65. As the public consultation on the main All Change at Bank project in Summer 2021 showed, there are strong views held on the subject of access through Bank. Responses received showed no clear overall view, and the detailed analysis showed preferences for different options of mix and timing varied significantly depending on main mode of travel.

66. The public consultation exercise has the potential to be scrutinised. It is recommended that the public consultation planning, execution, and analysis is undertaken by a third party that can independently manage issues that may be contentious to ensure a representative response to the consultation.

67. This is going to be an important piece of work for the review and is likely to cost more than had originally been envisaged, however the additional cost is believed to be beneficial to ensure that the methodology and findings of the work are considered by all to be impartial and representative.

68. Wider engagement outside of the formal consultation process will largely be undertaken by Officers, particular with regards to local building occupiers, Ward Members and wider Member communication. However, the commissioned consultant will be asked to advise on wider stakeholder management during the review as part of their commission. Stakeholder engagement will be an ongoing process that runs throughout the programme.

Outline programme

Stage 1: Initial feasibility June to October 2022

(effectively leading to a G3)

- Commission various work streams
- Agree Traffic modelling expectations with TfL
- Undertake baseline review of data (including equalities) and collect new data where required
- Traffic model updated with new flows and composition for initial feasibility testing
- Independent review and matrix assessment

- Report back on progress to Streets and Walkways

Stage 2: Shortlisted options for further investigation – November 2022 -January 2023

(Effectively leading to a G4)

- Initiate base and future base model audit with TfL
- Options retested and mitigation investigated on TFL agreed base model
- Review impacts on wider network and update matrix review where more detail has been obtained (Including equalities)
- Report back to Streets and Walkways on options with recommendations of any options to be put to forward to public consultation Public consultation exercise February- April 2023
- To be externally run and analysed
- Report back on outcome of consultation and recommendations for taking (if any) a preferred option forward

Stage 3: Detailed design May 2023 -October 2023

(Effectively leading to a G5)

- Proposed scheme to TfL for Audit and scheme impact assessment
- Finalise Equalities Analysis, Road Safety Audit if required,
- Submission for TMAN approval
- Advertise statutory traffic management orders for consultation
- Report back on TfL approvals and any objections to the traffic orders and if appropriate seek approval to make the orders and implement the changes at the appropriate time.

69. The indicative time frames rely on external resource being available at TfL and that the proposed way forward in terms of traffic modelling as set out here is the approach that is agreed with TfL through the 'modelling expectations' document.

70. This programme is also based on the assumption that Committee approvals remain with either Streets and Walkways or Planning Committee. If additional committees, such as Policy and Resources or Court of Common Council are required to approve the various stages, then this will add some delay in to the indicative programme depending upon the timing of each committee etc. It is assumed that the reports would go to Operational Property and Projects Sub as required regarding the project management process of the review.

Risks

71. Undertaking this review at this time adds in additional risks to the accuracy of the modelling work given the key dependencies on TfL's Bishopsgate and London Bridge ETOs. At present taxi access is not included within TfL's proposal but it is possible that there will be changes made to the restrictions if made permanent. The restrictions could also be removed entirely. If a change is made to these restrictions, we may need to return and redo the traffic modelling to account for this.
72. As with all projects that are introducing traffic orders there is always a risk of Legal challenge. If this occurs, then there would be a significant delay to programme.

Appendix:

Appendix A – plans of approved design and restrictions

Appendix B – Strategic Road Network

Appendix C – Route options matrix

Appendix D – [a link to previous work undertaken on timing review](#) in February 2021.

Appendix A – plans of approved design and restrictions
















First plan – The All Change at Bank agreed design.

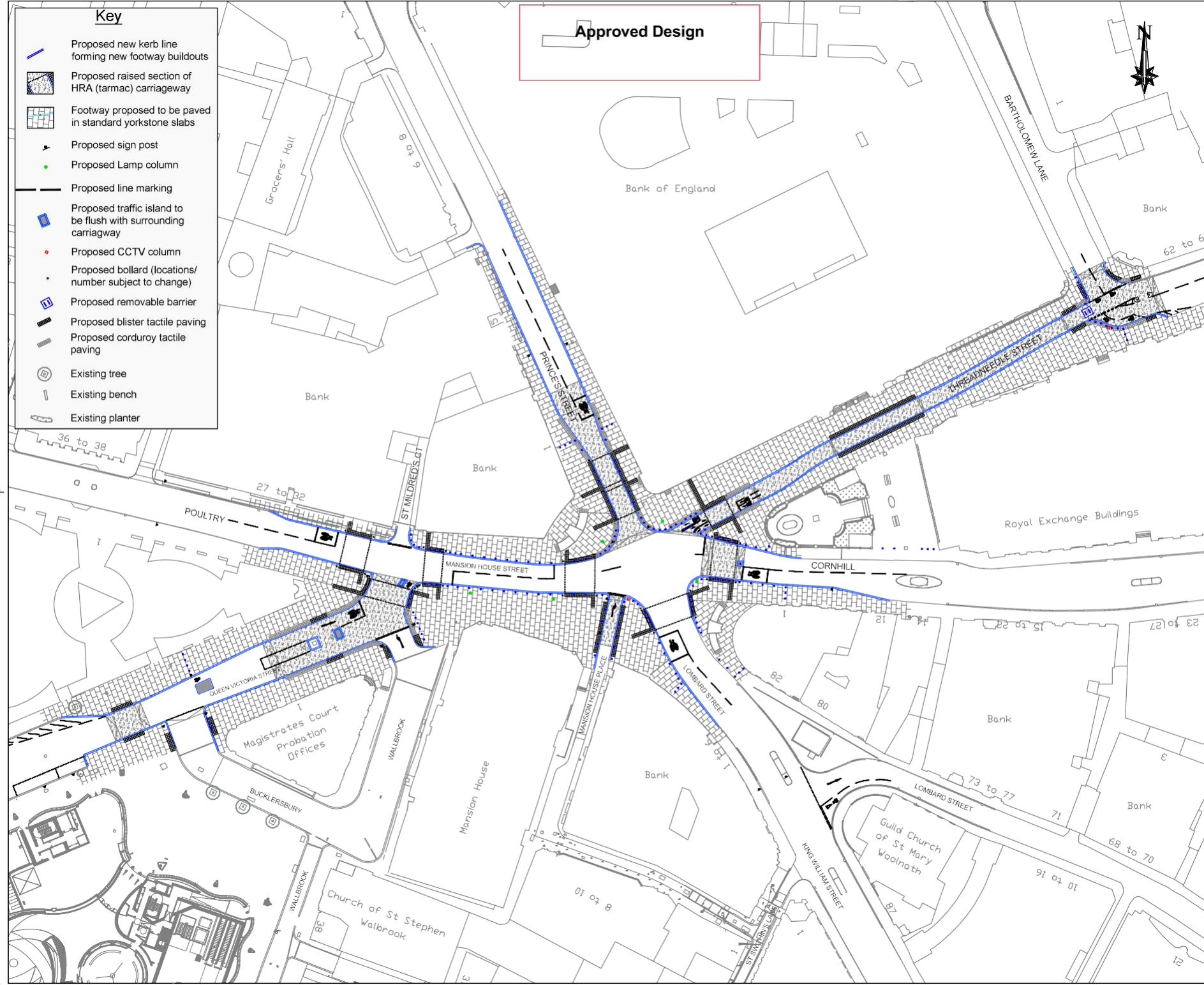
Second Plan – illustration of the different restrictions.

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Approved Design

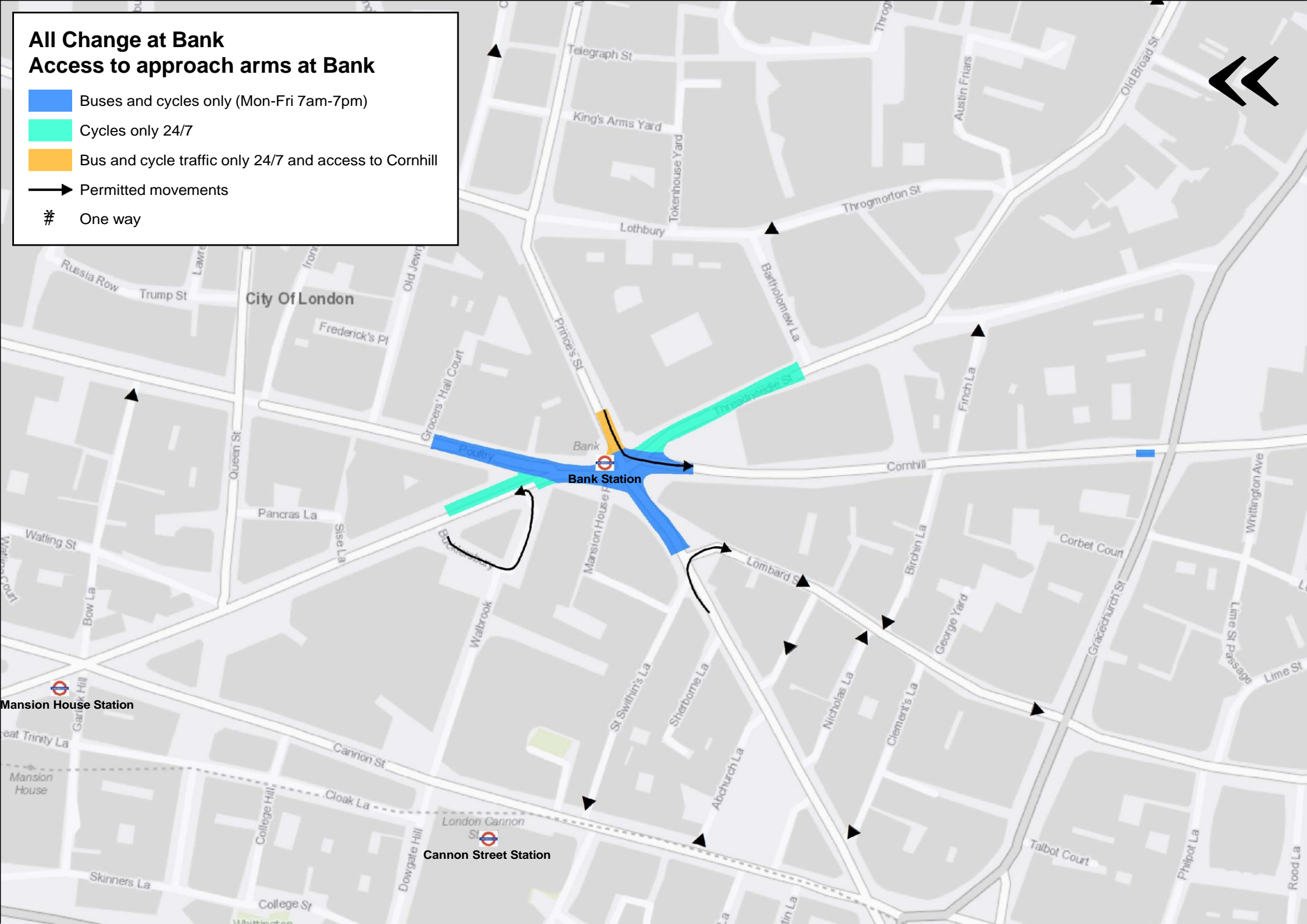
Key

-  Proposed new kerb line forming new footway buildouts
-  Proposed raised section of HRA (tarmac) carriageway
-  Footway proposed to be paved in standard yorkstone slabs
-  Proposed sign post
-  Proposed Lamp column
-  Proposed line marking
-  Proposed traffic island to be flush with surrounding carriageway
-  Proposed CCTV column
-  Proposed bollard (locations/number subject to change)
-  Proposed removable barrier
-  Proposed blister tactile paving
-  Proposed corduroy tactile paving
-  Existing tree
-  Existing bench
-  Existing planter



All Change at Bank Access to approach arms at Bank

-  Buses and cycles only (Mon-Fri 7am-7pm)
-  Cycles only 24/7
-  Bus and cycle traffic only 24/7 and access to Cornhill
-  Permitted movements
-  One way



Appendix B

