

Transport and Environment Committee

10.00am, Thursday, 6 October 2022

Response to Motion by Councillor McVey – North Bridge

Executive/routine	Routine
Wards	11
Council Commitments	

1. Recommendations

- 1.1 It is recommended that Transport and Environment Committee:
 - 1.1.1 Notes this interim update on the North Bridge, as requested by the Council on 25 August 2022; and
 - 1.1.2 Notes that a further update will be provided in the next cycle of this Committee.

Paul Lawrence

Executive Director of Place

Contact: Stephen Knox, Transport Manager – Structures & Flood Prevention

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Response to Motion by Councillor McVey – North Bridge

2. Executive Summary

- 2.1 This report provides an interim update in respect of the motion by Councillor McVey which was agreed by the Council on 25 August 2022.
- 2.2 It has not been possible to provide all of the requested information in this report, therefore a further update will be submitted to the next Transport and Environment Committee once further details are available.

3. Background

- 3.1 The Category A designated North Bridge carries the A7 over Waverley Station, providing a vital transport link connecting the Old and New Towns of Edinburgh. The bridge comprises three spans, each of approximately 53m, and is of open spandrel construction. Each span has six steel main arch girders with a concrete deck, masonry piers and abutments, and a decorative cast iron façade.
- 3.2 From 2014 through 2015 there were incidences of cast iron, concrete and masonry materials falling from the North Bridge onto Market Street and Platforms 8 and 9 of Waverley Station, as well as onto the station's roof. Starting in 2014 up until 2018, emergency intervention works were undertaken to address serious Health and Safety concerns, which consisted of the installation of a temporary protective netting wrapped around large sections of the bridge.
- 3.3 Balfour Beatty Civil Engineering Limited were initially appointed using an Early Contractor Involvement (ECI) arrangement, prior to undertaking the assessment and design, and then later the construction works; all via the Scape Group Framework Agreement. At this stage, the budget estimate consisted of a scope derived from limited pre-construction investigations, totalling £22.290m.
- 3.4 The original works commenced in June 2018 and comprised structural steelwork repairs, preparation and painting of the structure and facades, repairs to cast iron façades, minor concrete repairs, restoration of the King's Own Scottish Borderers (KOSB) war memorial, and installation of permanent platforms to improve access for future inspections and maintenance.

- 3.5 On 25 August 2022, the City of Edinburgh Council approved a motion by Councillor McVey on North Bridge which requested a detailed project update in one cycle, setting out:
- 3.5.1 Revised projected budget position of the project;
 - 3.5.2 Revised projected completion date;
 - 3.5.3 A detailed breakdown of the reasons behind the revisions in 3.5.1 and 3.5.2 and a detailed timeline of the Council's project management arrangements and when the Council was aware of information that the project would be further delayed and would require further capital resource;
 - 3.5.4 Requests officers carry out additional and sustained communication with the affected north bridge businesses and local resident groups through the works and an update is included in the report. And that communications are carried out more widely with affected communities for example those on bus routes affected by the North Bridge works;
 - 3.5.5 Further requests additional work with contractors to restore a pedestrian crossing (where possible and safe to do so) to improve footfall at times of site closure -as happened in previous Christmas periods and an update is included in the report. Asks that the project update report details which business support measures have been used to date. And that officers are responsive to local residents and businesses when approaches are made for adjustments or support regarding the impact of works;
 - 3.5.6 In addition to 3.4, asks that Officers meet with local businesses and Ward Councillors within two weeks to consider additional support which has potential to reduce the impact on businesses, and agree a way forward;
 - 3.5.7 Requests that the report also include consideration of hostile vehicle mitigation during periods when both motorised vehicles and people walking, wheeling and cycling are able to use the bridge;
 - 3.5.8 Measures to improve road safety for people walking, wheeling and cycling noting that there is one running lane for all vehicles including bikes and extremely limited space for walking and wheeling; and
 - 3.5.9 Medium to long term consideration of the modes of travel to be provided on the bridge once works are completed and the street layout and design is under consideration.

4. Main report

- 4.1 This report addresses some of the actions arising from the motion by Councillor McVey on North Bridge, which was approved by the Council on 25 August 2022.

Current Projected Budget and Revised projected completion date

- 4.2 The current approved budget is £62.182m and is contained within the 10-year Sustainable Capital Budget Strategy 2022-32.

- 4.3 The current planned completion date is June 2025. The term 'planned completion date' is a contractual one which reflects the Contractor's latest programme and so is constantly under review in line with the contract mechanisms and project governance. The project team is working diligently to improve this date.
- 4.4 Details of the reasons for the change in anticipated planned completion date will be provided for the next cycle.

Communication with affected stakeholders

- 4.5 The changes in traffic management arrangements necessary to allow the concrete deck replacement works in the central bay of the bridge were notified to businesses and residents in early November 2021 (a copy of the notifications are included in Appendices 1 and 2). These notifications were issued via hand delivery to businesses/residents on North Bridge, South Bridge, Chambers Street, George IV Bridge, Market Street, East Market Street and Jeffrey Street (circa 140 locations).
- 4.6 An update was issued in early July 2022, notifying the same businesses/residents of the additional time anticipated to complete the concrete deck replacement works (a copy of this notification is included in Appendix 3).
- 4.7 In relation to updates at 4.5 and 4.6, detailed consultation was undertaken with Lothian Buses, Police Scotland, and others via the City-Wide Traffic Management Group. Briefings were issued to local Ward Councillors and Transport and Environment Committee, together with social media releases and statements issued to the local press.
- 4.8 Further meetings have recently been held with all the representatives from businesses to the southwest of the bridge (on North Bridge street). This included outlining the measures that are being explored, clarification of timescales and listening to concerns raised. These meetings have been very positive to date and will continue on a regular formal basis to provide updates on progress and act on any concerns where feasible.
- 4.9 Updates will continue to be issued widely as the works progress, particularly in Spring 2023 when there is certainty on the date of return to two-way traffic running on the bridge.
- 4.10 The availability of direct financial support to business was previously considered and there were no options available to the Council. Other forms of relief such as business rates relief have been considered however are unfortunately unlikely to be applicable to the businesses at this location due to their rateable value, as decided by the Lothian Joint Valuation Board.

Restoration of pedestrian crossing

- 4.11 The North Bridge project team have requested the Contractor provide options for a reintroduction of a temporary pedestrian crossing to the south, similar to that which was introduced during the site shutdown in the Christmas and New Year 2021/22 holiday period. This is being progressed as a priority and an update will be provided for the next update for Committee. Any such measures are likely to have programme and financial implications for the project.

Hostile Vehicle Mitigation (HVM)

- 4.12 The barriers that have been put in place on the eastern footpath will act as a deterrent to any attack but do not provide any “rated protection” which means they are not a tested product which is rated to show the level of protection afforded to pedestrians in the event of a collision. The barriers are however designed with a scooped lower edge which self-stabilises should an errant vehicle drive onto the base units of the system. Given the new low speed limit of 10mph, and that most vehicles appear to be adhering to it, this will offer pedestrians some protection.
- 4.13 Police Scotland security recommendations only cover event sites, and therefore officers do not have any recommendations to provide any HVM on North Bridge. However, the Scottish Government are asking local authorities to look at security for Publicly Accessible Locations (PALs), so in this wider context North Bridge will be considered in the future as part of the city wide HVM project.

Measures to improve road safety for people walking, wheeling, and cycling

- 4.14 Currently a barrier is in place on the edge of eastern footpath and that is being monitored and is working well, with no issues in respect of pedestrian flows since the end of the Edinburgh Festival.
- 4.15 The western footpath is closed, and this will continue for some time including to facilitate, in Summer 2023, the Contractor installing repaired and new cast iron facades to the west elevation which will require access to facilitate this work.
- 4.16 The project team have requested the Contractor provide options for a number of possible improvements to walking, wheeling and cycling arrangements across the bridge, but would note that any improvements will be unable to be implemented until after the completion of the central bay replacement works and reintroduction of two-way traffic running on the bridge in Spring 2023.
- 4.17 An update on these options for improvement will be provided in the next report. Any such measures are likely to have programme and financial implications for the project.

Medium to long term modes of travel on the bridge once works are completed

- 4.18 The project team is cognisant of the ongoing strategic city-centre transport projects such as Edinburgh City Centre Transformation and the Circulation Plan (which is included on the agenda for this Committee), and that North Bridge may be affected. However, the North Bridge Refurbishment project does not have any scope or approved budget for funding network enhancements.
- 4.19 To minimise disruption to the North Bridge Refurbishment project, it is preferable that any such improvements are undertaken following project completion.
- 4.20 The project team will work with colleagues to review and advise on accommodating any outcomes from strategic projects, including any opportunities for future proofing of a new road layout. The contract mechanisms allow change and any subsequent impacts of proposed changes (time and cost) to be understood prior to making any commitments. Any such changes would be reviewed in conjunction with the

Contractor as changes to the North Bridge Refurbishment scope will have time and cost implications for the Council.

- 4.21 The final east side footpath and surfacing is already completed so any changes would be disruptive to these permanent works. The west side footpath and surfacing is scheduled for Summer 2023, so any adjustments to the current plan by way of future proofing would need to be known by the very latest end of this year, 2022.

5. Next Steps

- 5.1 The North Bridge Project team will continue to progress the actions, including as noted, ongoing meetings with the various relevant stakeholders to provide updates on progress.
- 5.2 Due to the transient nature of construction activities and ongoing stakeholder engagement relevant to the actions within the motion, it has not been possible to address all of the agreed actions from the Council in this update. A further report will be provided to the next Transport and Environment Committee.

6. Financial impact

- 6.1 As noted above, the current approved budget is £62.182m. This is contained within the Council's 10-year Sustainable Capital Budget Strategy 2022-32.
- 6.2 The next update to Committee will include a detailed breakdown of the current approved budget and a financial update since the previous report to this Committee in November 2021 (B agenda).

7. Stakeholder/Community Impact

- 7.1 Details of the recent discussions with stakeholders is outlined in the Main Report section of this report.

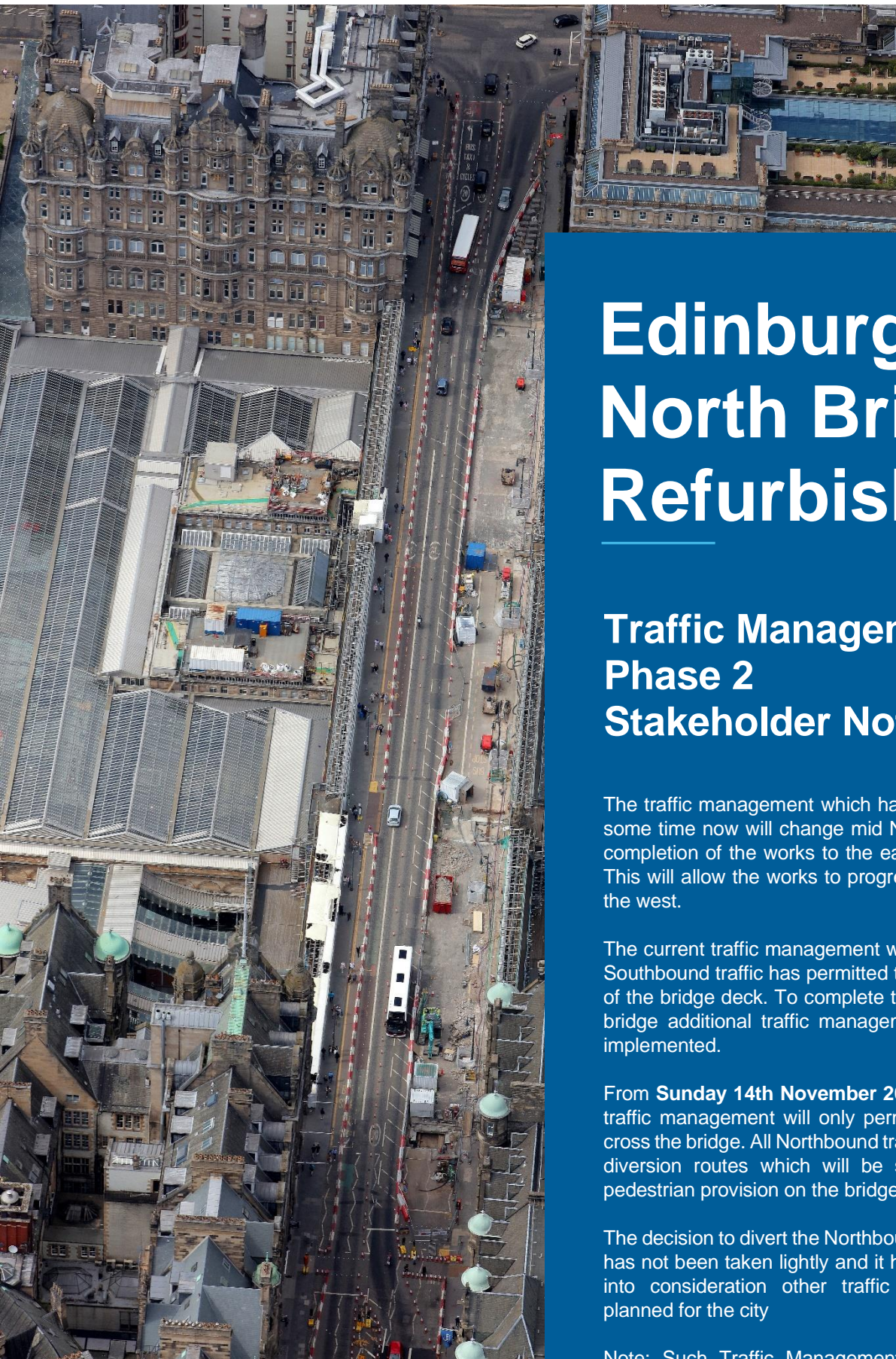
8. Background reading/external references

- 8.1 North Bridge Refurbishment Scope and Funding Update – Transport and Environment Committee, 11 November 2021 (B Agenda).
- 8.2 Sustainable Capital Budget Strategy 2022 – 2032 – Finance and Resources Committee, [7 October 2021](#).
- 8.3 Sustainable Capital Budget Strategy 2021 – 2031 – referral from the Finance and Resources Committee – The City of Edinburgh Council, [18 February 2021](#).
- 8.4 2020-30 Capital Budget Strategy – 2020/21 Period 3 Monitoring and Revised Budget Update – Finance and Resources Committee, [27 August 2020](#).

- 8.5 Capital Budget Update 2019/20 Provisional Outturn and 2020/21 COVID-19 Forecast – Policy and Sustainability Committee, [25 June 2020](#).
- 8.6 Capital Investment Programme 2018-19 – 2022-23 – The City of Edinburgh Council, [22 February 2018](#).
- 8.7 Capital Investment Programme-Plan 2017-18 to 2025-26 – The City of Edinburgh Council, [9 February 2017](#).
- 8.8 Members Briefing Notes are available to Committee on request.

9. Appendices

- 9.1 Appendix 1 – Phase 2 Traffic Management Stakeholder notifications dated 2nd November 2021
- 9.2 Appendix 2 - Phase 2 Traffic Management Stakeholder notifications (George IV Bridge) dated 2nd November 2021
- 9.3 Appendix 3 – Summer 2022 Traffic Management Update



Edinburgh North Bridge Refurbishment

Traffic Management Phase 2 Stakeholder Notification

The traffic management which has been on the bridge for some time now will change mid November 2021 following completion of the works to the eastern side of the bridge. This will allow the works to progress to the next phase on the west.

The current traffic management with both Northbound and Southbound traffic has permitted the refurbishment of 40% of the bridge deck. To complete the remaining 60% of the bridge additional traffic management measures must be implemented.

From **Sunday 14th November 2021 at 0600 hrs** the new traffic management will only permit Southbound traffic to cross the bridge. All Northbound traffic will follow alternative diversion routes which will be signposted. The current pedestrian provision on the bridge will be maintained.

The decision to divert the Northbound traffic from the bridge has not been taken lightly and it has been planned to take into consideration other traffic management schemes planned for the city

Note: Such Traffic Management alterations have been planned through close collaboration with the City of Edinburgh Council, Emergency Services and Lothian Buses. Dates for implementation have been planned for after the COP26 event, thus minimising traffic disruption to the wider city within this period.

Balfour Beatty

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02 November 2021

Re: North Bridge Refurbishment – Notification of Traffic Management

To whom it may concern,

I take pleasure in taking this opportunity to reintroduce myself, I am Rory McFadden; the Project Manager working for Balfour Beatty. My team is responsible for the ongoing delivery of the North Bridge Refurbishment Project on behalf of the City of Edinburgh Council.

We are well advanced in the refurbishment of this Category A Listed Structure to address health and safety concerns and safeguard the long-term use of this vital link to Edinburgh city centre.

We are writing to notify you that the Project is entering a new phase of Traffic Management (Phase 2) (As per appended plan Drawing) which will require modification of the existing Traffic Management currently in place (TM Phase 1). The current Traffic Management extent segregates the worksite across the eastern bridge footpath and extends to central reserve; the western footpath remains operational with two running lanes maintained, one for Northbound and one for Southbound directions.

The new phase of Traffic Management (Phase 2) is to facilitate both works to the top, and to the underside of the bridge deck on the western side. Works to the top of the deck include relaying of pavement slabs and kerbs, surfacing works, drainage upgrades, waterproofing repairs, reconstruction of secondary structures, and construction of maintenance access manholes through the bridge deck. Works to the underside involve the repairs to the reinforced concrete bridge deck.

Phase 2 of Traffic Management requires closure of the western footpath across North Bridge, with the eastern footpath re-opened to the public. One lane of Southbound traffic will be operational during this phase, situated adjacent to the eastern bridge kerb line. Such extents are required to conduct works to the Concrete Deck Structure within the central reserve section of road which has been revealed to be in a worse condition than expected.

This new phase of traffic management has been developed with due consideration of all road users. The planning of this new phase of traffic management involved the relevant consultees within City of Edinburgh Council, Lothian buses, Police Scotland and other Emergency Services.

As per the appended posters, the western walkway will be maintained between the High Street Junction to the Scotsman Steps and between the Pure Scottish shop/Balmoral Hotel and the Princess Street Junction. The adjacent road area will be segregated for construction activities during this period to progress works and maintain health and safety of the public domain. This encompasses closure of the pedestrian crossing outside Vince Scott Kiltmakers. Loading bay provisions are proposed to maintain delivery of goods to all relevant stakeholders.

One Southbound traffic lane within the Traffic management Phase 2 will be in operation from 14th November 2021 at 0600 hrs, and it will remain in place until works to repair the west deck are complete, with a period of up to 9 months being anticipated. Full road closures of North Bridge between the Princes Street and High Street junction have been confirmed for the evenings of 13th, 14th and 15th November 2021 between the hours of 2000-0600hrs. Such dates will allow set up of this Traffic Management Phase and takes due consideration of the COP26 event, ensuring traffic flow within the event period is not disrupted.

During the project we will endeavour to ensure that the Works are carried out with as much due regard to our neighbours as possible. Our project priorities include: keeping our neighbours regularly informed on project development; delivering the Project safely; and where possible, eliminating or minimising nuisances and disruption to our neighbours.

If you have any queries in relation to these Works please contact myself or Glen Henderson as noted below.

Yours faithfully,



Rory McFadden
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Glen Henderson
Site Agent
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Access over North Bridge

During the execution of the Traffic Management Phase 2 setup, pedestrians will have full access along the newly reinstated eastern footpath. One running lane of Southbound traffic will be operational adjacent to the eastern kerb line, maintaining traffic flow across the bridge structure.

Within the current Traffic Management Phase 1 setup, works are ongoing to erect and paint marine plywood hoarding on the eastern footpath, across all 3 spans of North Bridge.

The segregation of Southbound traffic from the works site across 60% of the structure will be facilitated through Temporary Vehicle Restraint Barriers (TVCB's) placed on the newly reinstated road lane and will continue across all 3 spans. Aesthetic hoarding will be placed on top to provide site security and protection of the public from the works site.

TVCB's will be strategically placed taking account of intrusive concrete breakouts within the site confines. This ensures the bridge structure can sustain the loadings of operational traffic as works progress. The TVCB's also offer vehicle impact resistance in the event of a crash, a surfacing buffer will be placed internally within the site behind such TVCB's to offer a deflection margin if required. This will safeguard both vehicle users and that of the site team.

Placement of such TVCB's will be conducted within the current TM setup during dayshift operations, reducing the scope of works required during nightshift works (13th, 14th, 15th November 2021) to formally switch into the TM phase 2 setup.



What can I do to help?

Due to the configuration of the existing structure and the repairs required there is no viable alternative to the proposed traffic management.

We encourage people to plan their routes to avoid the North Bridge where possible until both Northbound and Southbound carriageways are back in use.

Where travel to the city centre is required, we encourage people to consider the use of public transport, walking and cycling. This also aligns with our greater sustainability goal.



Road Level Works

How do you conduct intrusive concrete and surfacing removal, waterproofing, paving works, cast removal and concrete reinstatement... all within a partially closed bridged structure?

Rigorous activity and logistical planning has been undertaken to schedule key works activities within all 3 spans concurrently. This reduces the project duration and allows efficiency of working on site, whilst most importantly keeping the site team and members of the public safe.

Over the coming months a variety of plant and equipment will be brought onto the road level site confines. Nuisance to local stakeholders will be reduced as far as reasonably practicable through adoption of noise mitigation measures and dayshift working.

Access and egress of plant vehicles will be facilitated through specialist Traffic Management Contractors in addition to banking of vehicles through internally trained site workforce members.

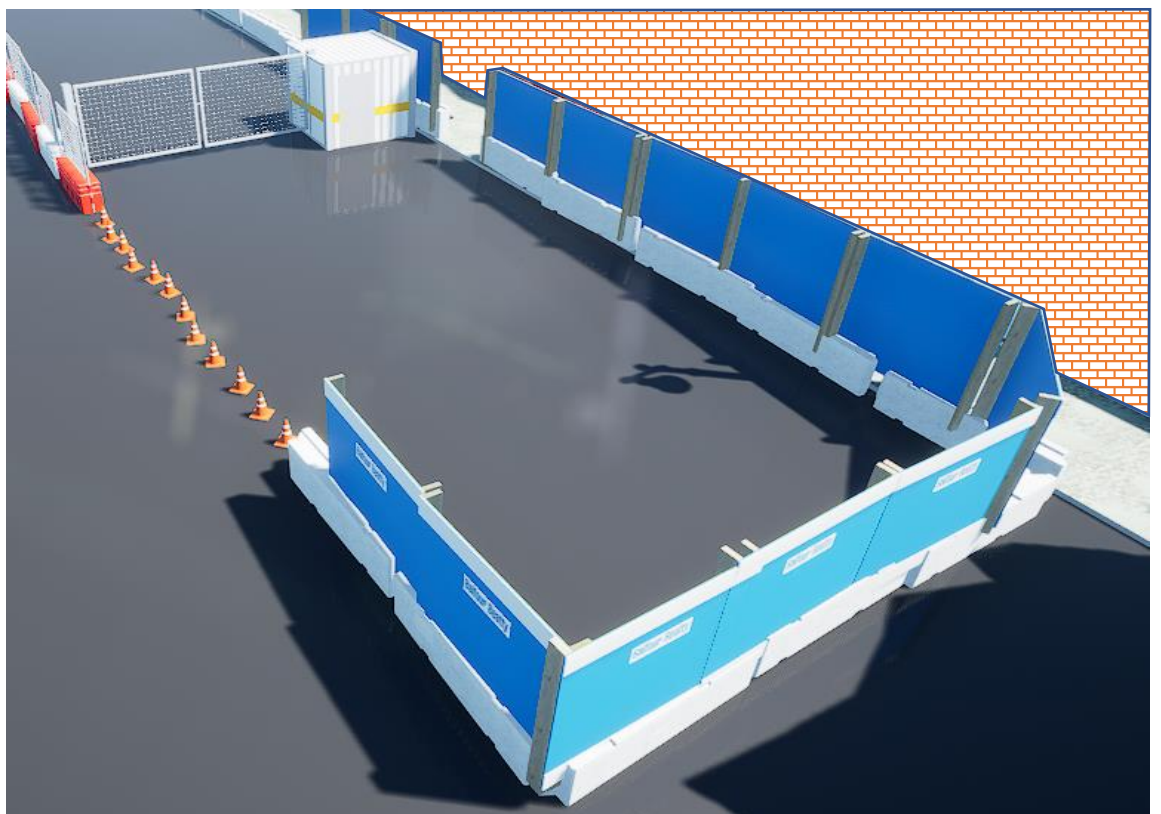


Western Footpath Pure Scottish shop to Princes Street Junction

The western footpath from the Pure Scottish Shop to the Princes Street junction will be maintained with construction site extents segregated via brand new hoarding (2.4m in height) This will be mounted upon new concrete lane guards situated on the footpath kerb line.

A designated loading bay for the Pure Scottish shop and Balmoral hotel will be facilitated (As per plan Drawing). The existing pedestrian crossing at the Princes Street junction will be maintained, providing full visibility of Southbound traffic approaching North bridge.

Clear signage will be erected at the Princes Street Junction to emphasise all stakeholder facilities are open for trade.



Western Footpath: High Street to Scotsman Steps

The western footpath from the High Street Junction to the Scotsman steps will be maintained with construction site extents segregated via brand new hoarding (2.4m in height) This will be mounted upon new concrete lane guards situated on the footpath kerb line

Through collaboration with City of Edinburgh Council we plan to create a photographic gallery upon such hoarding to display the rich history of Edinburgh and the vital transport links North Bridge has provided throughout the years between the Old and New Towns.

The existing crossing point outside Vince Scott Kiltmakers is proposed to be closed to maintain safe segregation between site works and that of public domain.

Clear signage will be erected at the High Street Junction to emphasise all stakeholder facilities are open for trade.



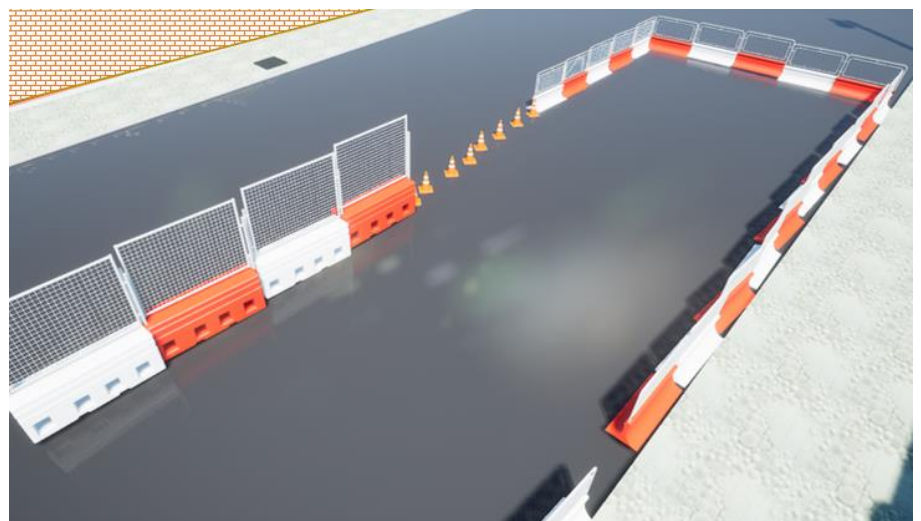
Western footpath on approach to Scotsman Steps

Stakeholder Operations

The central city centre location of the North Bridge structure provides allows proactive steps within the Traffic Management phase to minimise disruption to stakeholders.

A designated loading bay for western situated stakeholders is proposed This will be approached from the Southbound direction across North Bridge and contains segregation via MASS barriers allowing safe unloading and transport to required stakeholders.

At the High Street crossing, the use of MASS barriers allows unimpeded visibility of the Southbound traffic to pedestrians. Such measures were conducted in collaboration with a Stage 2 Road Safety Audit conducted by an external organisation.





North Bridge walkway Eastern Footpath

Access over North Bridge will be via the newly reinstated eastern footpath. Over the past months Contractors have been working at replacing previous damaged and uneven footpath paving, allow replacement with new paving materials.

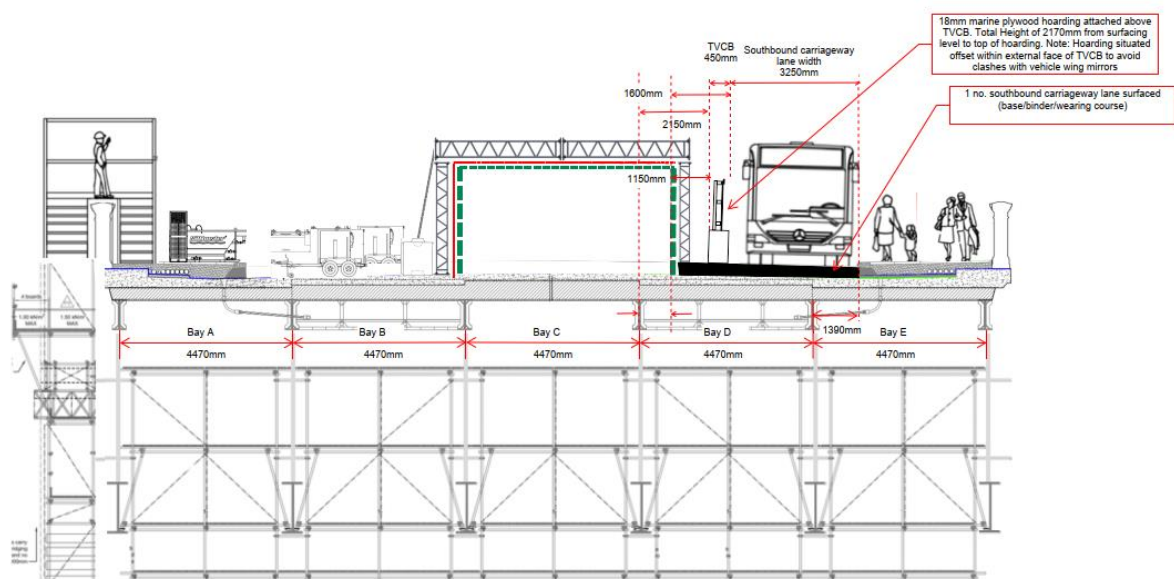
Such paving incorporates a mixture of previous and new paving, making use of the aesthetic stone appearance. Safe segregation from the works scaffolding will be maintained via erection of freshly painted marine plywood hoarding.

To improve pedestrian walkway widths, the previous bus stops have been removed and temporarily re-located outside the Hilton Hotel (Stop ND). This provides unimpeded access across the footpath, allowing clear routes for all members of the public including wheelchair and pram users.

The 1 lane of Southbound traffic will be located on a newly surfaced road structure using the latest materials. Such surfacing will improve the smoothness of journeys for vehicular and cyclist users across the bridge.

The site segregation from the western 60% of the bridge width is provided through concrete restraint systems and freshly painted hoarding. Such hoarding is offset from the vehicle lane to provide clear access for large vehicle wing mirrors.

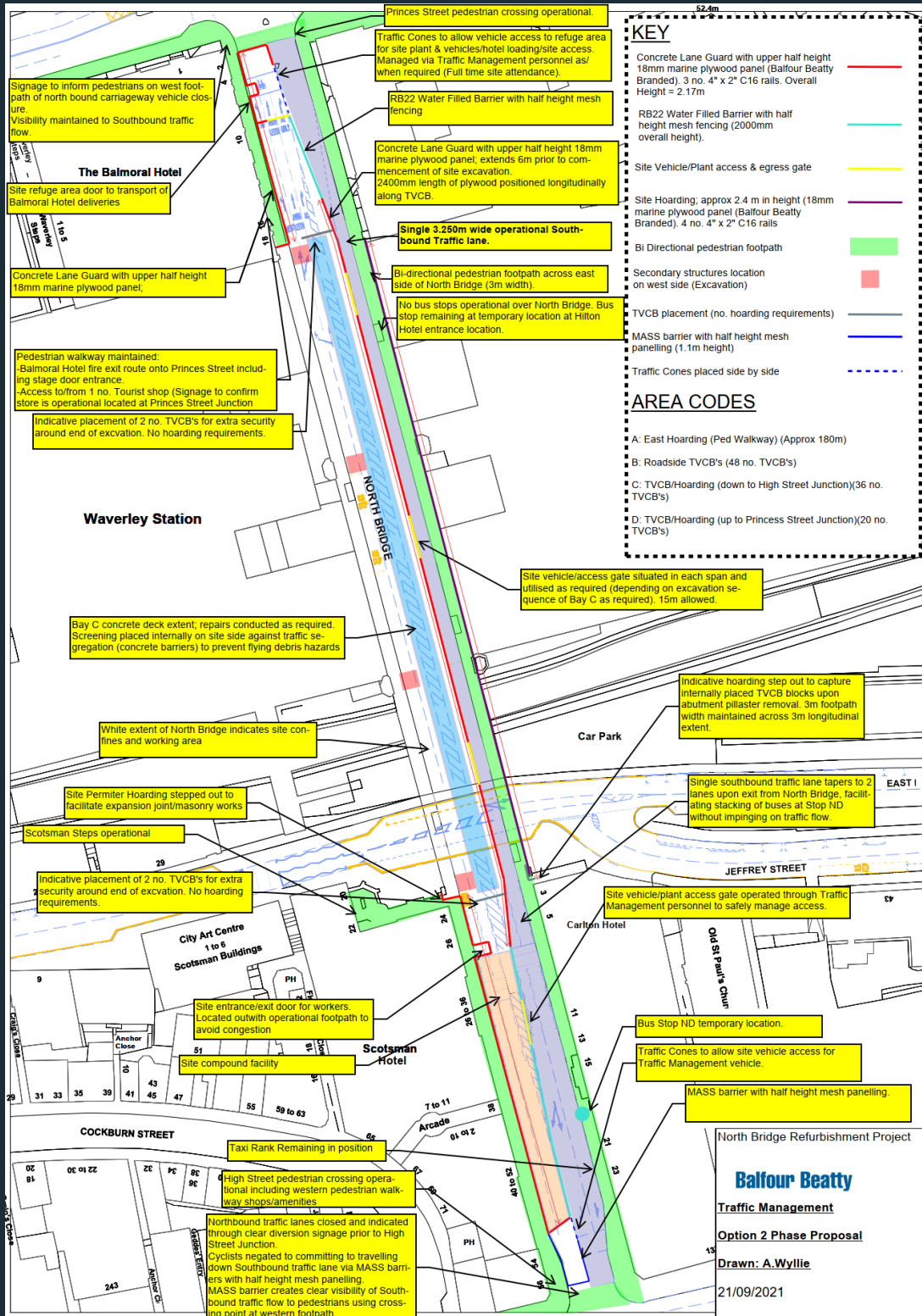
Cross Section of North Bridge carriageway/Public Footpath

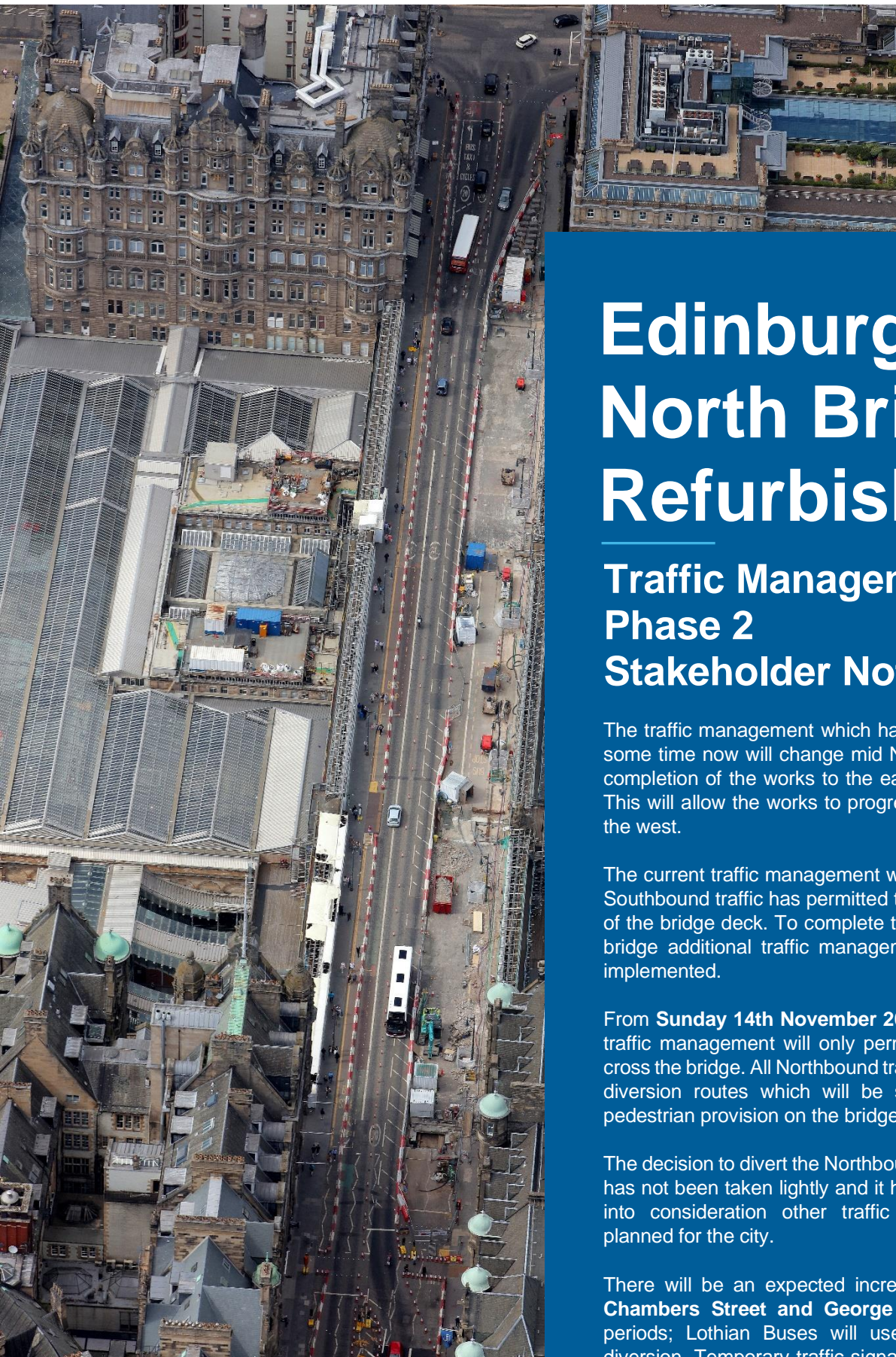


Traffic Management Phase 2 Overview

Through review by a Stage 2 Road Safety Auditor, the layout of new Traffic Management Phase has been generated. The site boundary encapsulates 60% of the bridge structure width from the west side to allow vital concrete repair, waterproofing, steelwork strengthening, paving and surfacing works to be undertaken. A 3250mm carriageway width for southbound traffic will be operational adjacent to the eastern kerb line with the road completely closed to Northbound Traffic. Through close communication with City of Edinburgh Council, diversion routes for Northbound Traffic have been generated which aim to reduce disruption.

Pedestrians will have access over North Bridge via the newly reinstated eastern footpath. The site extends up to the junctions of High Street and Princes Street respectively.





Edinburgh North Bridge Refurbishment

Traffic Management Phase 2 Stakeholder Notification

The traffic management which has been on the bridge for some time now will change mid November 2021 following completion of the works to the eastern side of the bridge. This will allow the works to progress to the next phase on the west.

The current traffic management with both Northbound and Southbound traffic has permitted the refurbishment of 40% of the bridge deck. To complete the remaining 60% of the bridge additional traffic management measures must be implemented.

From **Sunday 14th November 2021 at 0600 hrs** the new traffic management will only permit Southbound traffic to cross the bridge. All Northbound traffic will follow alternative diversion routes which will be signposted. The current pedestrian provision on the bridge will be maintained.

The decision to divert the Northbound traffic from the bridge has not been taken lightly and it has been planned to take into consideration other traffic management schemes planned for the city.

There will be an expected increase in traffic flow along **Chambers Street and George IV Bridge** during such periods; Lothian Buses will use this route as a main diversion. Temporary traffic signals will be incorporated at the junction of Chambers Street/George IV Bridge to regulate traffic flow. It is imperative all stakeholders along such streets keep bus lanes clear of unloading/loading vehicles at peak times to avoid traffic disruption.

Note: Such Traffic Management alterations have been planned through close collaboration with the City of Edinburgh Council, Emergency Services and Lothian Buses. Dates for implementation have been planned for after the COP26 event, thus minimising traffic disruption to the wider city within this period.

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The new phase of Traffic Management (Phase 2) is to facilitate both works to the top, and to the underside of the bridge deck on the western side. Works to the top of the deck include relaying of pavement slabs and kerbs, surfacing works, drainage upgrades, waterproofing repairs, reconstruction of secondary structures, and construction of maintenance access manholes through the bridge deck. Works to the underside involve the repairs to the reinforced concrete bridge deck.

Phase 2 of Traffic Management requires closure of the western footpath across North Bridge, with the eastern footpath re-opened to the public. One lane of Southbound traffic will be operational during this phase, situated adjacent to the eastern bridge kerb line. Such extents are required to conduct works to the Concrete Deck Structure within the central reserve section of road which has been revealed to be in a worse condition than expected.

This new phase of traffic management has been developed with due consideration of all road users. The planning of this new phase of traffic management involved the relevant consultees within City of Edinburgh Council, Lothian buses, Police Scotland and other Emergency Services.

There will be an expected increase in traffic flow along Chambers Street and George IV Bridge during the initiation of Traffic Management Phase 2. Temporary traffic lights will be in operation at the junction between both streets to regulate such traffic. To minimise disruption on the revised bus route, it is imperative all Stakeholders ensure bus lanes are kept clear of unloading/loading vehicles during peak times.

One Southbound traffic lane within Traffic management Phase 2 will be in operation from 14th November 2021 at 0600 hrs, and it will remain in place until works to repair the west deck are complete, with a period of up to 9 months being anticipated Full road closures of North Bridge between the Princes Street and High Street junction have been confirmed for the evenings of 13th, 14th and 15th November 2021 between the hours of 2000-0600hrs. Such dates will allow set up of this Traffic Management Phase and takes due consideration of the COP26 event, ensuring traffic flow within the event period is not disrupted.

During the project we will endeavour to ensure that the Works are carried out with as much due regard to our neighbours as possible. Our project priorities include: keeping our neighbours regularly informed on project development; delivering the Project safely; and where possible, eliminating or minimising nuisances and disruption to our neighbours.

If you have any queries in relation to these Works please contact myself or Glen Henderson as noted below.

Yours faithfully,



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What can I do to help?

All stakeholders situated within Chambers Street or George IV Bridge should keep bus lanes clear from unloading/loading operations at peak times.

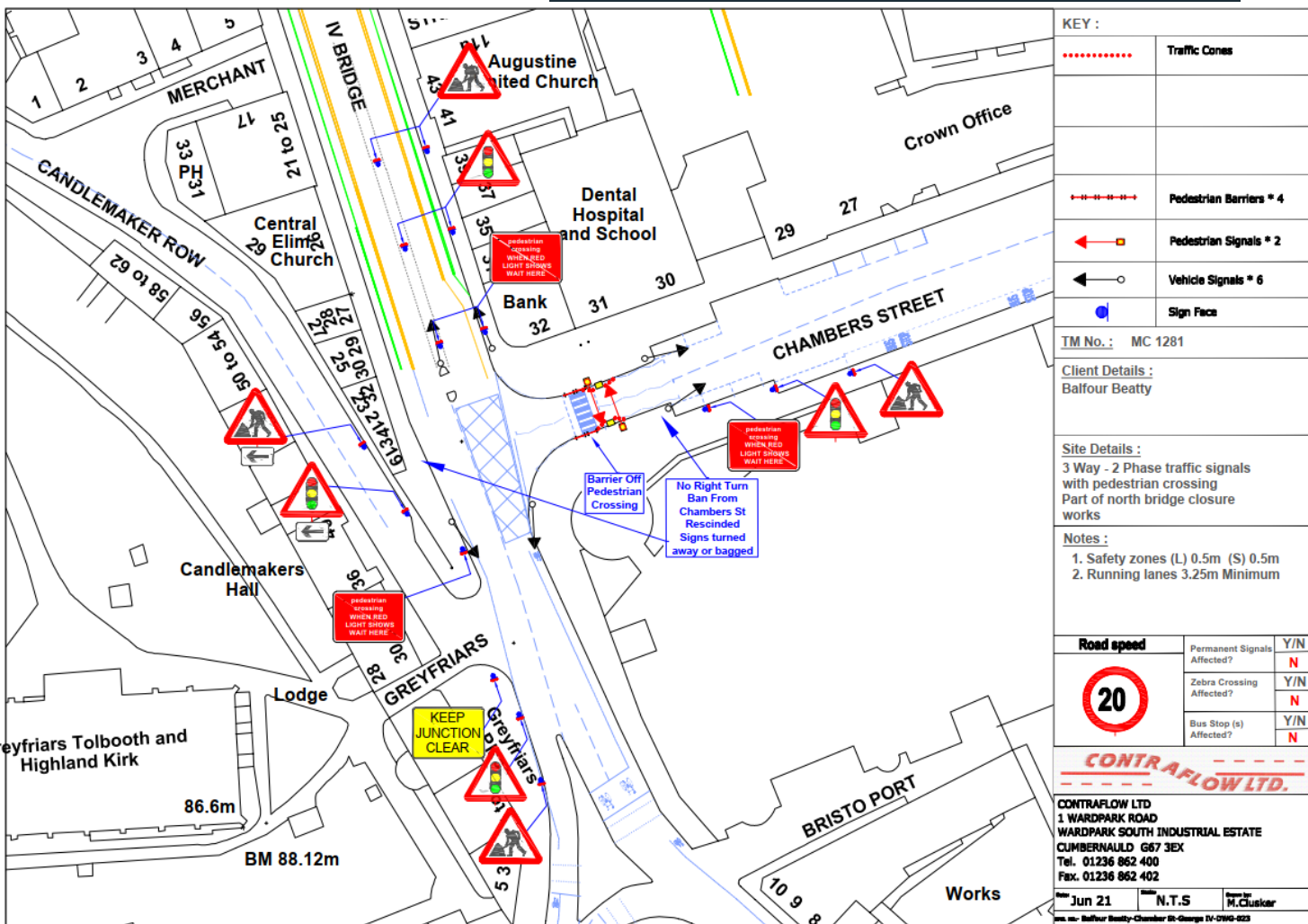
This will prevent unnecessary disruption to the operation of Lothian Buse routes.

Note: Chambers Street and George IV will facilitate an increased bus frequency, allowing compliance with traffic management schemes operational within the city.

Chambers St - George IV Bridge Traffic Flow

3-way, 2 phase traffic signals will be in operation to regulate increased traffic flow along the route upon commencement of Traffic Management Phase 2. The existing pelican crossing at Chambers Street prior to George IV Bridge will be barriered off and will be replaced via a designated pedestrian crossing. This will maintain safety of all pedestrians during the operation of the 3-way signals.

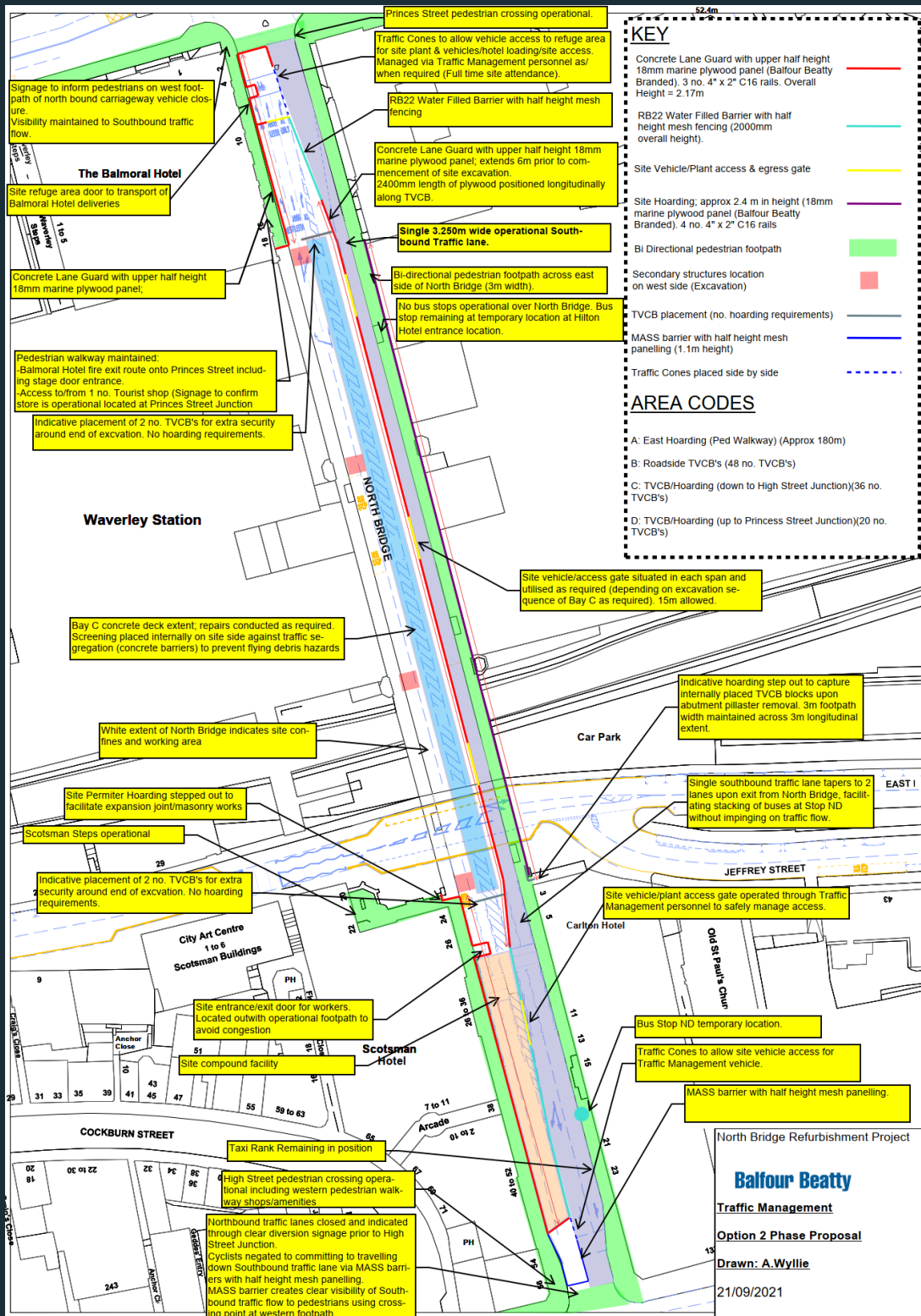
The existing no-right turn ban from Chambers Street will be rescinded, allowing all vehicular traffic to conduct this manoeuvre. This will facilitate increased traffic flow along George IV bridge, whilst removing unnecessary travel around Bristo Place, Teviot Place and Forrest Road.

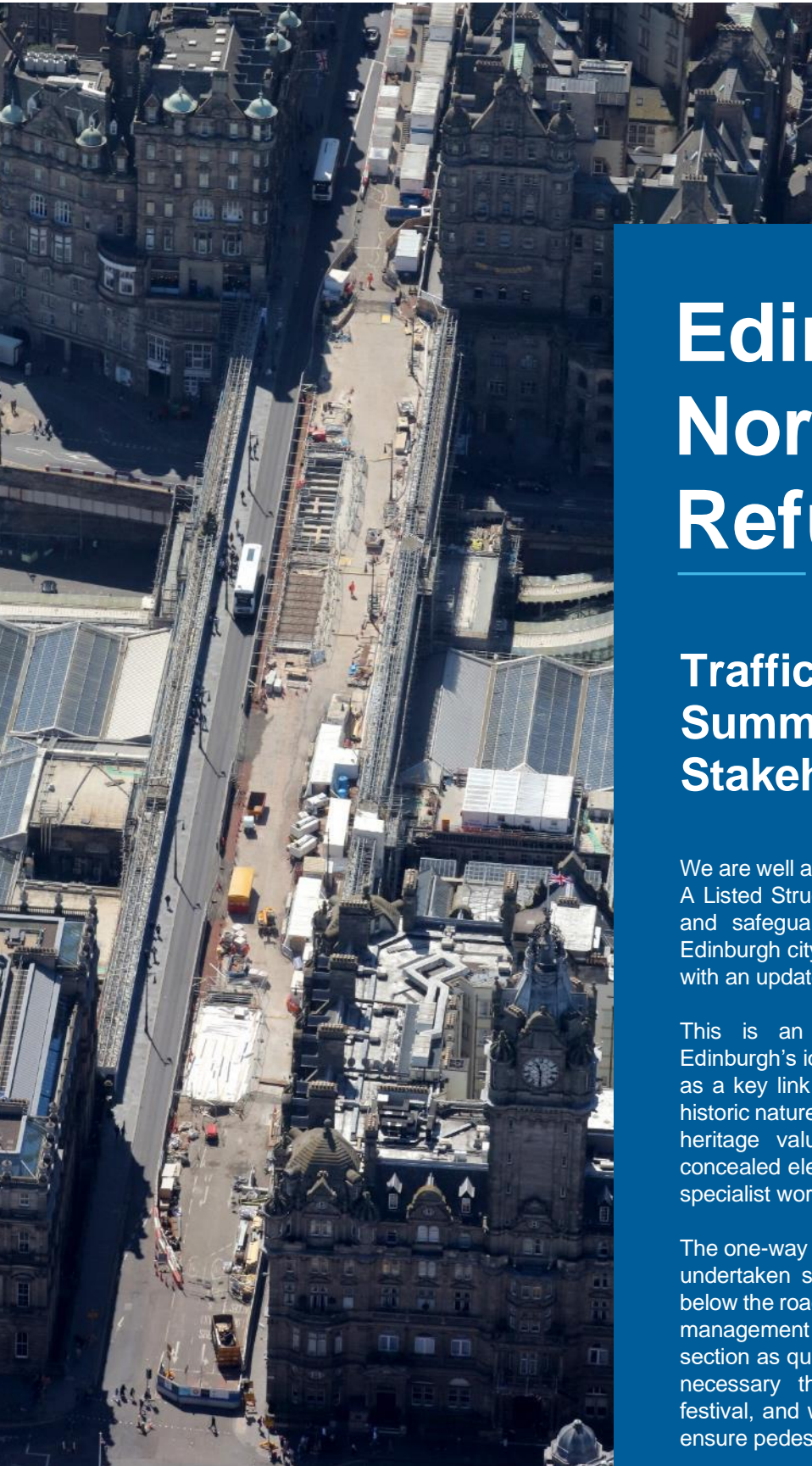


Traffic Management Phase 2 Overview

Through review by a Stage 2 Road Safety Auditor, the layout of new Traffic Management Phase has been generated. The site boundary encapsulates 60% of the bridge structure width from the west side to allow vital concrete repair, waterproofing, steelwork strengthening, paving and surfacing works to be undertaken. A 3250mm carriageway width for southbound traffic will be operational adjacent to the eastern kerb line with the road completely closed to Northbound Traffic. Through close communication with City of Edinburgh Council, diversion routes for Northbound Traffic have been generated which aim to reduce disruption.

Pedestrians will have access over North Bridge via the newly reinstated eastern footpath. The site extends up to the junctions of High Street and Princes Street respectively.





Edinburgh North Bridge Refurbishment

Traffic Management Summer 2022 Update & Stakeholder Notification

We are well advanced in the refurbishment of this Category A Listed Structure to address health and safety concerns and safeguard the long-term use of this vital link to Edinburgh city centre. Today we are writing to provide you with an update on the current traffic management.

This is an extremely complex project to refurbish Edinburgh's iconic North Bridge and to ensure its longevity as a key link from the north to the south of the city. The historic nature of the project, the age of the structure and its heritage value, finds the team uncovering previously concealed elements of the bridge which require significant specialist work.

The one-way system on the bridge means this work can be undertaken safely, both on top of the bridge deck, and below the road level. Extending the length of time this traffic management is in place will mean we can complete this section as quickly as possible. As per our original plan, it's necessary that these works continue throughout the festival, and we're putting additional measures in place to ensure pedestrian safety.

We're communicating with local residents, businesses and stakeholders, as well as Lothian Buses, to make sure they're up-to-date with the changes, and there are clearly signed diversions in place. We'd like to thank everyone for their patience at this time, and look forward to the completion of the project, which will return this Category A Designated structure to its former glory.

Balfour Beatty

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Concrete Deck Refurbishment

Traffic management is in place on the North Bridge to facilitate essential repair and replacement works to the concrete deck.

Upon opening up the carriageway, further inspections and investigations revealed the poor condition of the concrete within the central part of the deck – the ‘central bay’. This will necessitate the full replacement of this bay along the entire length of the bridge. Originally it was anticipated that only about 35% of this bay would require replacement. This central bay is not currently subject to motor traffic and is not considered a health and safety issue at present. However, it is essential that these works continue and are completed as soon as possible.

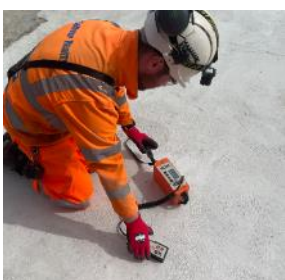
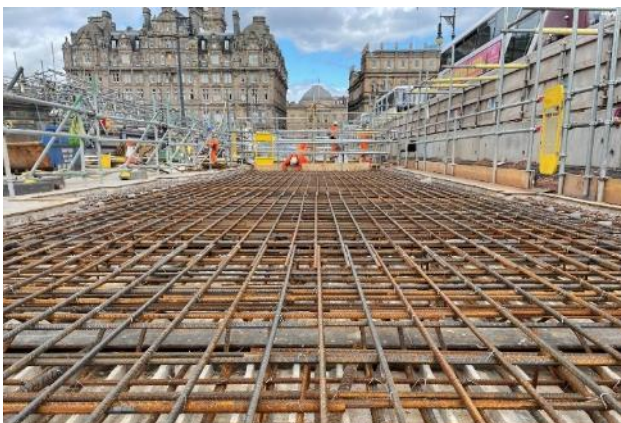
Demolition Methodology

We have developed a methodology based on cutting out large slabs of deck and using a combination of machine mounted and handheld hydraulic crushers to remove the remainder of the old defective concrete.

This demolition methodology has reduced vibration and noise on the project to almost zero which is having a positive effect on our adjacent stakeholders.

Using hydraulic machine mounted and handheld hydraulic concrete crushers also had the Health & Safety benefit of reduced HAVS (Hand and Arm Vibration) exposure to our operatives.

We were recently awarded ‘Best Practice’ points by the Considerate Constructors Scheme for our controlled demolition of the central bay. The Considerate Constructors Scheme (CCS) is the national initiative, set up by the construction industry, to improve its image. We scored an impressive score of 48 out of 50 following their latest audit.



Deck Reconstruction

The reconstruction of the deck follows traditional reinforced concrete techniques. Working to new standards we have taken the opportunity to produce a more efficient design than the historic deck minimising the use of concrete and in turn carbon emissions.

During these uncertain economic times and the associated impact on our ability to source materials we have been able to bulk buy and store materials onsite ensuring this is one less risk to the delivery of the works.

Despite uncovering some further unknowns in the central bay these works are progressing in line with current expectations.



Traffic & Pedestrian Management Look Ahead

Since November 2021 traffic has been restricted to one southbound lane only, with pedestrians restricted to the eastern footpath. Northbound bus traffic is being diverted via Chambers Street, George IV Bridge and the Mound.

Given the significant additional extent of replacement works, this diversion will need to be extended to Spring 2023. Work will continue through the festival (as was always planned).

Various communications, signage, diversions, and traffic control measures have been implemented to minimise disruption, with continuous review with key stakeholders and improvements made where possible.

This extension to plans has been shared via close communication with Lothian Buses and the City-Wide Traffic Management Group

Briefings have been issued to local councillors, local stakeholders and businesses

