

## 9 Justification and conclusion

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### 9.1 Need for the modification

Approval for the construction and operation of the project was granted on 17 April 2018 by the former NSW Minister for Planning (application number SSI 7485). The approved project allows construction and operation of the M4-M5 Link in two stages. The proposed modification relates to Stage 2 of the project, the Rozelle Interchange and Iron Cove Link.

Since the Planning Approval was granted, a contractor has been appointed to construct Stage 2 of the approved project on behalf of NSW Roads and Maritime Services (Roads and Maritime). The contractor has reviewed the concept design for the approved project and together in discussions with Roads and Maritime has identified a number of potential design and constructability improvements.

The proposed modification would:

- Improve intersection performance on this congested section of the road network including at the City West Link/The Crescent and The Crescent/Johnston Street/Chapman Road intersections
- Adjust the alignment of active transport links to avoid conflict with The Crescent overpass while improving the overall connectivity proposed within the Environmental Impact Statement ('EIS') and Conditions of Approval (CoA) for the project by providing a direct connection between the suburbs of Rozelle and Annandale and public transport infrastructure including the Rozelle Bay light rail stop
- Improve the efficiency of construction and minimise the duration of construction impacts on nearby residents by reducing the need for further construction activities to accommodate the proposed Western Harbour Tunnel and Warringah Freeway Upgrade project ('Western Harbour Tunnel project') at City West Link and The Crescent, should that project proceed in the future
- Improve capacity at the intersections so that they can maintain performance with traffic generation from future development proposed in the vicinity of the project including the proposed Western Harbour Tunnel project if that future development proceeds.

### 9.2 Design options considered

Various design options were considered for the key elements of the proposed modification including:

- The layout/design of The Crescent/City West Link intersection
- The alignment/design of key pedestrian and cyclist infrastructure including the Pedestrian and Cycling Green Link ('green link') and shared user path bridge
- The layout/design of The Crescent/Johnston Street/Chapman Road intersection.

The options analysis focused on improving intersection performance, maintaining overall road network performance, maintaining the key active transport connections in the vicinity of the City West Link/The Crescent intersection (albeit in a different arrangement to the approved project) and reducing potential adverse impacts of the proposed modification.

As a result of this analysis it was determined that the proposed modification would include the following key elements:

- The construction of a new elevated overpass at The Crescent
- Realignment of the approved pedestrian and cycling links between the Rozelle Rail Yards and the Rozelle Bay light rail stop and the Rozelle Rail Yards and the park adjacent to Chapman Road (Bicentennial Park)
- Upgrades to the layout of The Crescent/Johnston Street/Chapman Road intersection.

## 9.3 Environmental assessment

**Chapter 6** (Environmental assessment) assessed the potential environmental impacts associated with the proposed modification and provides a comparison of the potential environmental impacts for the proposed modification and the approved project.

The proposed modification would result in the following:

### Traffic and transport

- Traffic and transport related construction impacts are expected to be minor with relevant levels of service comparable to that presented in the EIS and Submissions and Preferred Infrastructure Report ('SPIR'). The relevant management measures identified in the SPIR and in the CoA for the project would appropriately manage impacts associated with the proposed modification
- With the inclusion of the proposed modification, there is minimal change in the daily traffic forecast on the Sydney metropolitan road network. Some increase is forecast on Anzac Bridge eastbound and on Johnston Street northbound. A sensitivity test was undertaken which identified that this predicted traffic increase has a minimal impact
- During both the AM and PM peak hours the overall modelled network performance metrics are comparable or slightly better than those presented in the EIS
- Intersection performance is generally forecast to be comparable with or improved when compared with the EIS results with improvements forecast at the City West Link/The Crescent and The Crescent/Johnston Street/Chapman Road intersections
- Travel times from City West Link to Anzac Bridge are forecast to improve as a result of the proposed modification however, an increase in traffic able to enter the network is likely to impact parts of the network already forecast to be congested such as Victoria Road northbound in the AM peak
- Public transport travel time impacts are consistent with those of general traffic. Generally, travel time impacts are consistent with those reported in the EIS with some additional travel time impacts forecast on Victoria Road northbound in the AM peak as a result of existing constraints north of Iron Cove Bridge in Drummoyne
- Right turn movements from The Crescent overpass into James Craig Road (eastbound) and from Johnston Street into The Crescent (southbound) are not permitted as a result of the proposed modification. However, in both cases the number of movements impacted are limited and alternative traffic routes are available
- In relation to public transport, the bus bay on the west side of The Crescent would be relocated slightly further to the south to just north of the Johnston Street intersection. The realignment of the green link to the west would provide an improved connection to the Rozelle Bay light rail stop
- Operational traffic impacts would be managed via the existing environmental management measures and CoA

### Noise and vibration

- The construction of the proposed modification would generally be in similar locations to what was assessed for the approved project, meaning the impacts during construction are generally expected to be consistent with the EIS. The works around The Crescent, Chapman Road and Johnston Street may however impact a relatively small number of additional receivers given the need to complete construction work for the proposed modification further to the south and east than was assessed for the approved project
- Operational road traffic noise levels are expected to generally be comparable to the approved project, with noise levels for the proposed modification being within -0.5 dBA to +0.5 dBA of the EIS noise levels for the majority of receivers in the study area. This relatively small increase is however sufficient to result in additional exceedances on Johnston Street in both the Do Something and Do Something Plus scenarios

- The Crescent overpass is predicted to increase noise levels at a small number of receivers near to Bayview Crescent by between 0.5 dBA and 1.5 dBA. Noise levels in this area are however influenced by higher volumes of traffic on City West Link and The Crescent, in comparison to the relatively lower traffic volumes on the overpass. Whilst a noise barrier would potentially reduce road traffic noise levels from vehicles on the overpass, it would likely be ineffective in significantly reducing the overall road traffic noise levels at nearby receivers given the relatively low contribution from the overpass. A noise barrier would also potentially result in undesirable visual, urban design and wind loading impacts. At property treatments for the triggered receivers are considered to be the preferred noise mitigation measure

### **Air Quality**

- The proposed modification does not significantly alter the scope and nature of construction works proposed in the vicinity of City West Link, The Crescent and Johnston Street as outlined in the EIS. As a result, the comprehensive mitigation measures identified in the SPIR and CoA such as the Air Quality sub-plan and Dust Deposition Monitoring Program are considered appropriate to manage construction impacts associated with the proposed modification.
- The operational air quality assessment shows that some receptors are predicted to experience increases in emissions by comparison to the EIS. However, the predicted increases are small and do not change the outcomes of the EIS assessment. As a result, no additional mitigation is considered necessary.

### **Other impacts**

- The proposed shared user path bridge and green link would significantly improve pedestrian and cyclist connectivity between Rozelle / Lilyfield and Annandale and key open spaces. The green link would create a direct connection between the Rozelle Rail Yards and the Rozelle Bay light rail stop facilitating improved access to this mode of public transport, while the shared user path bridge would provide a direct connection between Rozelle Rail Yards and The Crescent/Chapman Road to Bicentennial Park meeting the intent of the relevant CoA.
- The visual impacts from the proposed modification is generally consistent with the approved project with exception for the residents located in the northern part of the apartments at 300 Johnston Street and Bayview Crescent. As a result of the additional elevated elements from the proposed modification design including the shared user path bridge and The Crescent overpass, the residents at this location would experience an increased visual impact by comparison to the infrastructure assessed in the EIS.
- The proposed modification has the potential to result in vibration and visual setting impacts to a number of heritage listed items in the vicinity of the proposed works including the Annandale (Railway Parade) Railway Bridge, Annandale (Johnston Street) Underbridge and The Crescent Mural (potential heritage item). These impacts can be managed via the relevant environmental management measures contained in the SPIR (as modified) and through the relevant CoAs.
- The proposed modification would not impact upon or alter the flooding characteristics of the study area, up to and including, a 100-year ARI flood event. The Crescent overpass, green link and shared user path bridge structures are all elevated above The Crescent and City West Link and above the 100 year ARI flood level. Adjustments to the local drainage design would mitigate any changes to overland flow paths caused by bridge piers or embankment changes required for The Crescent overpass
- The proposed modification would largely be located within the approved project footprint and as result would not result in a material increase in the impermeable surfaces from that previously assessed in the EIS. As such no material increase in run-off and flow rates are likely to be generated
- The proposed modification aims to reduce construction fatigue experienced by the community by reducing the need for further construction activities to accommodate the proposed Western Harbour Tunnel project at City West Link and The Crescent, should that project proceed in the future. This would minimise the duration of construction impacts on nearby residents resulting in a positive outcome for the local community.

## 9.4 Environmental management measures and Conditions of Approval

The potential impacts associated with proposed modification can generally be accommodated by the environmental management measures provided in the EIS and SPIR. One revised management measure (NAH03) is proposed to reduce potential impacts on The Crescent Mural, a potential heritage item.

Changes to the CoA have been proposed to accommodate the proposed modification. The proposed changes to the CoA primarily reflect:

- The revised alignment of the green link and the shared user path (Conditions E120, E121 & E134)
- Inclusion of a requirement for archival recording of The Crescent Mural (Condition E163) and
- Change to the receivers proposed for noise mitigation to address impacts from out of hours construction (Condition E87 and Appendix D).

All other CoA would continue to apply to the project.

## 9.5 Community and stakeholder consultation

Consultation has been carried out with the community, local councils, government agencies and other stakeholders during the preparation of the proposed modification as outlined in **Chapter 5** (Consultation). This Modification report will be exhibited for 28 days from 21 August to 18 September. Following exhibition of the Modification report, Roads and Maritime will review the submissions received and respond to the issues raised in a Response to Submissions Report.