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Ms Karen Jones
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GPO Box 39
SYDNEY NSW 2001

By email: Mick Fallon [Mick.Fallon@planning.nsw.gov.au]

Dear Ms Jones

RE: SYDNEY METRO (CHATSWOOD TO SYDENHAM) (SSI 7400) – NOTICE OF EXHIBITION

Thank you for the invitation to the Heritage Council of NSW (Heritage Council) to comment on and provide recommended conditions of approval for the Sydney Metro (Chatswood to Sydenham) project. I am responding as the delegate of the Heritage Council.

The project involves construction and operation of an underground rail line between Chatswood and Sydenham which will form part of the Sydney Metro network. The project has potential to have a moderate to major impact on 20 listed heritage items (6 state heritage listed sites and 14 sites of local heritage significance).

The project will have direct physical impact on three state heritage register (SHR) listed properties, Millers Point & Dawes Point Village Precinct, Martin Place Railway Station and Sydney Terminal and Central Railway Station Group, and seven local heritage items, as well as numerous archaeological sites of local and State significance along its route.

Key components of the project include:

- 15.5 kilometres of twin rail tunnels between Mowbray Road, Chatswood and Bedwin Road, Marrickville.
- Metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street and Waterloo; and new underground platforms at Central Station.
- Traction supply substations at Artarmon and Marrickville.
- Underground pedestrian links connecting to other transport modes and surrounding land uses.
- Tunnel services facility at Marrickville.
- Temporary ancillary construction facilities and works associated with the construction of the project.

Transport NSW presented the project to the Heritage Council on both 4 May and 1 June 2016. The comments of the Heritage Council are included in this submission.

A review of the documentation associated with the Environmental Impact Statement (EIS) has been undertaken, in particular the:

- Technical Paper 4: Non-Aboriginal Heritage Impact Assessment, dated May 2016, prepared by Artefact.
- Technical Paper 6: Landscape and Visual Impact Assessment, dated May 2016, prepared by Artefact.

Based upon this review, the following comments and recommended conditions are provided:

Blues Point Temporary Site (Archaeological Site)

The Blues Point temporary site will require excavation of a shaft to retrieve the cutter heads and shield of the tunnel boring machines from the northern portal and from Barangaroo and will result in approximately 8000 cubic metres of spoil being removed.

This site was originally part of the land granted to William (Billy) Blue in 1817 and has been occupied (for both commercial and private use) since that time. This site has the potential to contain archaeology relating to the ownership of the site by Billy Blue, wharfage and seawalls associated with his early ferry service, mid to late 19th century shipbuilding evidence, a potential dwelling and early 20th century development. This archaeology has been assessed as being of local – state significance. The excavation of the open shaft to the tunnel and the construction of ground/slab excavations for site offices during construction will impact the archaeology, depending on its location.

Given the potential state significant archaeology present at this location the Heritage Council considers that an appropriately detailed site specific archaeological assessment, methodology and research design should be completed for the Blues Point Temporary Site prior to approval of the project. This report should be provided to the Heritage Council for comment and endorsement. This assessment should consider mitigation options to limit the impact to any archaeology present.

Millers Point and Dawes Point Village Precinct (SHR No. 01682)

The Millers Point and Dawes Point Precinct is partially within the construction area and the 25 metre buffer zone of the Barangaroo Station. Individually listed SHR items including terraces and shops along High Street and Argyle Place within the precinct will also be partially within the buffer zone.

The project would impact, directly or indirectly, on a number of listed heritage items and heritage conservation areas including 11 individually listed state heritage items.

Above ground impacts posed by the proposed Barangaroo Station are primarily associated with impacts to views and setting from the station entrance structures and service buildings. The proposed ventilation risers and skylights fronting the Hickson Road wall would be within the precinct and will have an adverse impact on the views to the precinct and the Hickson Road wall from the Barangaroo Development Area. The Heritage Council is concerned regarding these impacts and is of the view that *integration of station and rail facilities to the Barangaroo development can prevent or minimise impact to the Hickson Road wall that is the only remaining significant feature of the Hungry Mile.*

If approved, the following condition is therefore recommended:

- All station and rail facilities for Barangaroo Station must be integrated with the Barangaroo development to minimise impact to the Hickson Road wall, the only remaining significant feature of the *Hungry Mile* that forms part of the Millers Point and Dawes Point Village Precinct.

Barangaroo Station entrances are also proposed to be located in area of known State significant archaeological potential. Excavations for the Barangaroo development discovered multiple phases of archaeology related to various reclamation events which consisted of sea walls, building foundations, wharfs and other infrastructure, including under the north end of Hickson Road. This archaeology is often located under a large amount of fill and is considered to be of state significance.

Technical Paper 4 recognises this and notes that potential station works which have the potential to impact this archaeology related to the excavation of open shafts, foundation/ground slab for the establishment of station buildings and cut and cover excavation for the station box, which would result in the complete removal of any archaeology in this location.

Given the state significant archaeology likely to be present at this location the Heritage Council considers that an appropriately detailed site specific archaeological assessment, methodology and research design should be completed for Barangaroo Station prior to approval of the project. This report should be provided to the Heritage Council for comment and endorsement. This assessment should consider mitigation options to limit the impact to any archaeology present.

Martin Place Railway Station (SHR No. 01187)

The construction area for Martin Place Station is partially within the curtilage of the SHR listed item. There will be direct physical impacts to the item due to the proposed connections to the Station.

Impacts to Martin Place Railway Station include removal of a portion of its built fabric including the red ceramic tiling from the western end of the Eastern Suburbs Line platform cavern and altering the configuration and movement of the passengers. The EIS notes that the red ceramic tiling is a key component of the aesthetic significance of the item and its removal will result in a moderate impact. It is, therefore, recommended that the final design and location of the new connection and opening should aim to minimise removal of the significant red ceramic tiling.

If approved, the following condition is therefore recommended:

- The final design and location of the new connection and opening at Martin Place Railway Station should aim to minimise removal of the significant red ceramic tiling. Any tiles that are removed should be reused as part of Station interpretation.

The location of the two Martin Place station access sites have been assessed as having the potential to contain state significant archaeology relating to the use of the land for both residential and businesses from the early 19th century. In general, archaeological remains in this area of Sydney tend to be intact due to the methods of demolition and construction used over the centuries and other excavations in this area have located intact archaeological sites of State significance.

Excavation during demolition works and the excavation of open shafts to allow access to the mined tunnels would remove any archaeology located within the zone of impact. Given the state significant archaeology likely to be present at this location the Heritage Council considers that an appropriately detailed site specific archaeological assessment, methodology and research design for Martin Place Station should be completed prior to approval of the project. This report should be provided to the Heritage Council for comment and endorsement. This assessment should consider mitigation options to limit the impact to any archaeology present.

Commonwealth Bank of Australia including interior (SHR No. 01427)

The SHR item is located adjacent to the construction area for the Martin Place Station and is within its buffer zone.

Technical Paper 2 assesses and anticipates that the vibration levels resulting from the construction works will not exceed the appropriate limits for this site. The EIS further recommends, as a precautionary measure, that a dilapidation survey, vibration monitoring and a more detailed site vibration investigation be done for the SHR item. The Heritage Council reinforces this recommendation given potential impacts that may occur.

The Landscape and Visual Impact Assessment notes that although demolition of the existing high rise building opposite the SHR item and the construction of a new station entry and above station development will have very high adverse visual impact during construction; during operation the project will result in high beneficial visual impact. It is noted that this development will be the subject of a separate application. The design of the future station development should be sympathetic to the form, scale and character of the SHR building to reduce impacts on its setting and views from Martin Place and the surrounding streets.

It is recommended that this application be referred to the Heritage Council for comment prior to finalisation and approval.

Sydney Water Head Office (Former 1939 Building - SHR No. 01645)

The SHR item is located adjacent to the construction area for the Pitt Street Station and is partially within its buffer zone.

The Heritage Impact Assessment states that the proposed demolition of the existing early to mid 20th century high rise buildings on the Pitt Street southern site opposite the SHR listed site will have a moderate to major visual impact on the setting of the item. The station entry and future above station development will be located opposite the heritage item, and will also have a potential adverse impact. It is noted that this development will be subject of a separate application. The design of the future above station development should be sympathetic to the form, scale and character of the former Sydney Water Head Office building.

It is recommended that this application be referred to the Heritage Council for comment prior to finalisation and approval.

Pitt Street Station

Like Martin Place Station, the location for the Pitt Street Station entrances will require significant excavation during demolition works and excavation of open shafts to allow access to the mined tunnels. This excavation would result in the removal of any archaeological remains within the station box footprint. This archaeology is assessed as relating to early 19th century residential, business, is likely to be substantially intact due to previous construction techniques and would be of State significance.

Based on this information, the Heritage Council considers that an appropriately detailed site specific archaeological assessment, methodology and research design should be completed for Pitt Street Station prior to approval of the project. This report should be provided to the Heritage Council for comment and endorsement. This assessment should consider mitigation options to limit the impact to any archaeology present.

Sydney Terminal and Central Railway Stations Group (SHR No. 01255) and the Mortuary Railway Station and site (SHR No. 00157)

The construction area and buffer zone for Central Station as identified in the EIS lies within the curtilage of the Sydney Terminal and Central Railway Stations Group. The Mortuary Railway Station is partially within the buffer zone. The project will result in major direct and indirect, physical and visual impacts to the items.

Impacts to Central Station will occur as a result of removal of platforms 13 to 15 to enable cut and cover construction of the station box, construction of a temporary bridge to connect platforms, changes to the underground pedestrian tunnels including Devonshire Street Tunnel, changes with access and egress from Eddy Avenue, construction of a Sydney Yards Access Bridge and removal of former timetable office/Rolling Stock Officers Building, Cleaners Amenities Building and the remaining garden.

It is noted that the plans, locations and designs of the new structures and layout plan are provided in the EIS as indicative only. It is understood that further detailed design will be provided as part of the final design plan, however, this plan will be prepared following approval of the project, which means that any adverse impacts from the project will not be able to be completely mitigated.

It is considered that the information submitted as part of the EIS does not provide adequate details of the proposed works and therefore does not allow proper assessment of the impacts of the proposal on the heritage significance of the Central Station. It is considered that further detailed design for various components of the proposal should be submitted prior to a formal approval of the proposed works. These details should clearly identify likely impacts on significant

elements of the station due to their removal and replacement works. However, in the interim, the following comments are provided:

- The proposed mitigation and management measures outlined in Section 7 of the Technical Paper 4: Non-Aboriginal Heritage Impact Assessment, dated May 2016, prepared by Artefact must be implemented.
- The detailed design of the Station Box, temporary footbridge and associated works must minimise impacts on significant built fabric including the structure and fabric of the Bradfield Building.
- The Devonshire Street Tunnel must be reconstructed in its current alignment and position.
- Significant fabric of the platforms that are demolished must be carefully dismantled and stored safely on site for future reassembly and reuse.
- Adequate details of the proposed works, potential impacts and justification has not been provided for the removal of significant platform canopies to provide a temporary bridge connection at the location proposed. Options for locating the temporary bridge further to the south from the platform canopies should be explored to minimise its physical and visual impacts. The revised design and location of the temporary bridge should be provided to the Heritage Council for comment prior to approval being granted for this component of the proposal.
- Options for modifying the extents of the southern end of the station box excavation (as included in the proposed operational area of the project) should be further explored to prevent the removal of the former timetable office/Rolling Stock Officers Building, Cleaners Amenities Building and the remaining garden assessed as having high significance. The revised design should be provided to the Heritage Council for comment prior to approval being granted for this component of the proposal.
- The Sydney Yards Access Bridge is proposed to be a permanent structure. The Heritage Council considers the Mortuary Railway Station to be one of the most significant building on the Sydney Rail Network and has raised significant concerns regarding the adverse impacts posed by the new bridge on its views and setting, as well as on the views and setting of Sydney Terminal and Central Railway Stations group. The Heritage Council is concerned that design options have not been appropriately explored at this point, as quality design including consideration of heritage impacts should be a key consideration from an early phase of the project. It is, therefore, recommended that a more detailed options analysis be done for this component of the proposal.
- The design of the Sydney Yards Access Bridge must be of high quality and be sympathetic to the general character of the Sydney yards. The design must be as recessive as possible to minimise visual impacts to views from Mortuary Station and Central Station, and designed in accordance with the Central Station Conservation Management Plan. The detailed design must be undertaken in consultation with heritage specialists and the Heritage Council.
- Technical Paper 4 states that the vibration levels associated with excavation works for the cut and cover box would have minor impacts to the closest intercity and suburban platforms. Although the EIS estimates the vibration levels for the main central station building and the Bradfield Building to be below the levels that can cause cosmetic damage, as a precautionary measure, it is recommended that a dilapidation survey and vibration monitoring be done to ensure that vibration levels remain below appropriate limits for these components of the SHR item.

- All works to Central Station must be undertaken by skilled tradespeople with experience working on heritage sites, under the supervision of heritage specialists.
- Consideration must be given to careful sandstone extraction for reuse on other heritage buildings in Sydney. Contact should be made with the Minister's Stonework Program, NSW Government Public Works, for further advice on this matter.

Sydney Terminal and Central Railway Stations Group – Archaeology

- The Central Railway Station Precinct is identified as a site of high archaeological potential as it was constructed on the site of two previous railways, the former Devonshire Street Cemetery and a number of nineteenth century buildings including the Benevolent Society Asylum. The 2013 CMP for the site identified that the location of the new Sydney Metro station box, which will require cut and cover excavation, was previously part of the Devonshire Street Cemetery.
- Technical Paper 4 indicates that there is likely to be archaeological potential across the entire Central Station site relating to former site uses. Borehole tests in the location of the proposed station box indicate that historic fill still exists which means that the presence of subsurface remains relating to the cemetery is possible. Archaeology at this site is assessed as being of local-state significance.
- Excavation at Central station will be required for the construction of shafts, foundations for new buildings, cut and cover excavation for the station box and for the construction of the temporary footbridge and Regent Street Bridge. This excavation will remove all traces of any archaeology within its footprint.
- The Heritage Council considers that an appropriately detailed site specific archaeological assessment, methodology and research design should be completed for the Central Station Railway Station Precinct prior to approval of the project. This report should be provided to the Heritage Council for comment and endorsement. This assessment should consider mitigation options to limit the impact to any archaeology present and include a detailed Exhumation Plan in the event that burials related to the Cemetery are uncovered.

General comments

The Heritage Council would like to reiterate the importance and value of involving them at the conceptual design stage of the project to understand and ensure that design options considered will have the least heritage impact. The Heritage Council notes that there is a significant level of work required to mitigate heritage impacts posed by the project, and believes that there is scope for changes and improvements in the detailed design of the project to achieve this.

It is recommended that the Proponent further reduces the heritage impacts by seeking:

- Involvement and advice from an independent urban design team prior to approval to ensure there are sympathetic design and engineering solutions that will minimise heritage impacts and improve design outcomes.
- Better consideration of the integration of sympathetic urban design and engineering outcomes around places of heritage significance. More sympathetic and less intrusive designs are to be explored for proposed new structures that better consider urban design and heritage outcomes, in particular the Sydney Yards Access Bridge.
- Early collaboration with local councils on mitigating impacts to local heritage items and urban design, visual amenities and landscape treatment associated with the project.

Additionally, the following standard conditions are recommended:

- Detailed drawings showing the proposed design, including architectural and structural design details and materiality, stabilisation and conservation works, for Central Station, Barangaroo Station and Martin Place Station, must be provided to the Heritage Council for comment prior to finalisation of the project design.
- A Historical Archaeological Assessment, Methodology and Research Design must be prepared for all areas of potential impact to locally significant archaeology including Chatswood Dive Site, Artarmon Substation, Crowns Nest Station, Victoria Cross Station, Waterloo Station and the Marrickville Dive Site along the project route and provided to the Heritage Council for comment and endorsement prior to the beginning of any archaeological test or salvage excavation.
- The Archaeological investigation program is to be undertaken by an archaeological Excavation Director who can demonstrate an ability to comply with the Heritage Council's Criteria for the Assessment of Excavation Directors (July 2011) for salvage of State significant sites, and in particular must be able to demonstrate compliance with Criterion A.4 that: 'work under any approvals previously granted by the Heritage Council has been completed in accordance with the conditions of that consent and the final report has been submitted to the NSW Heritage Council.
- A final Archaeological report must be submitted to the Heritage Council within one year of the completion of archaeological works on site. This report must include information on the entire historical archaeological program relating to Stage 2 of the Sydney Metro Project.
- During construction works, vibration monitoring and structural assessments must be carried out to ensure vibration levels remain below appropriate limits for heritage listed buildings and structures located within the construction site and the buffer zone, including Bennelong Stormwater Channel No. 29. These limits must take into consideration the structural condition and heritage values of these buildings and structures.
- Interpretation should be implemented across all areas of construction where heritage has been removed or impacted assist the public in understanding the heritage impacted by this project.
- Relevant local councils should be invited to comment where local heritage items are affected.

As noted in their meeting dated 1 June 2016, the Heritage Council would like to be further involved in the design and is willing to nominate an individual to join the Design Review Panel at its July meeting to provide further guidance to reduce heritage impacts.

If you have any questions regarding the above matter please contact Ms Shikha Jhaldiyal, Heritage Officer, at the Heritage Division, Office of Environment and Heritage, on 9873 8545 or at shikha.jhaldiyal@environment.nsw.gov.au.

Yours sincerely



Pauline McKenzie
Acting Executive Director
Heritage Division, Office of Environment & Heritage
As Delegate of the NSW Heritage Council

27/06/2016