2 October 2018

Lisa Mitchell,
Team Leader, Transport Assessments
Department of Planning and Environment
320 Pitt Street
Sydney NSW 2000

Dear Lisa

Response to submissions: Sydney Metro City & Southwest – Chatswood to Sydenham: MOD 5 – Blues Point acoustic shed (SSI 7400)

The exhibition of the Modification Report for the Blues Point acoustic shed ended on Wednesday 19 September 2018. Three submissions were received: one from the Environment Protection Authority, one from North Sydney Council and one from a local community member.

Sydney Metro has prepared responses to the issues raised in the three submissions in accordance with section 5.17(6)(a) of the *Environmental Planning and Assessment Act 1979*. Please see Table 1 attached.

As identified in Table 1, the design of the proposed acoustic shed has been revised in response to the submissions received. The louvres are now proposed to be located on the eastern side of the acoustic shed, further away from residential receivers.

If you have any questions, please contact Yvette Buchli, Planning Approvals Manager, on 0403 886 560 or yvette.buchli2@transport.nsw.gov.au.

Yours sincerely

Fil Cerone
Director,
Sustainability Environment & Planning
City & Southwest

Table 1: Response to issues raised in the submissions

Submission issue	Response
Environment Protection Authority (EPA)	
Environment Protection Licence No. 20971, issued to John Holland (the licensee) applies to the Blues Point worksite which is subject to the modification. The licensee would need to consider whether a variation to the licence is needed before executing works approved by the modification.	The TSE contractor would review the need for a variation to the existing licence before commencing works that form part of the scope of the modification.
The EPA considers that the project approval conditions are appropriate for the proposed modification, but recommends that the matters outlined in Attachment 1 are considered as part of the determination.	It is noted that the conditions of approval are considered appropriate. Responses to the matters outlined in Attachment 1 are provided below.
Attachment 1 – Item 1: The construction of the acoustic shed will have associated construction noise impacts. Construction of the shed should be limited to standard construction hours outlined in Condition E36.	The proposed works would be undertaken in accordance with the Conditions of Approval, including but not limited to Conditions E36 and E44.
Attachment 1 – Item 2: Condition E48 permits 24/7 operation for excavation within an acoustic enclosure. Construction of the acoustic shed will therefore permit 24/7 excavation at the Blues Point worksite. While the application highlights the benefits (noise attenuation) provided by the acoustic shed, it does not fully consider the fundamental impacts associated with out of standard hours excavation. The Modification Report states that bulk shaft excavation within the acoustic shed has the potential to exceed the noise management level (NML) by approximately 10dBA. It is clear that out of standard hours excavation will have noise impacts. Therefore the need and justification for 24/7 excavation should be considered before determination of the application.	The retrieval of tunnel boring machine components by barge from the Blues Point temporary site would be dependent on safety procedures, tides, weather conditions and the requirements of the Harbour Master, and therefore may involve works outside standard daytime hours. To minimise the impacts of these works, the proposed acoustic shed would be installed at the site. In accordance with Condition E48, the provision of an acoustic enclosure at Blues Point would enable shaft excavation works to the undertaken 24 hours per day, seven days per week. The Environmental Impact Statement for the approved project identified that shaft excavation works during the day time would result in high exceedances of more than 20dB at residential receivers to the north of the site and exceedances of more than 10dB at residential receivers to the west and north-west of the site. The noise assessment provided in the Modification Report identifies that the installation of the proposed acoustic shed would provide a reduction in the noise level experienced by residential receivers by approximately 15dB. The contractor does not currently propose to undertake shaft excavation works outside of standard working hours. Only tunnel boring machine disassembly and retrieval works would be undertaken outside of standard working hours. Therefore there is no need to assess excavation works outside of standard working hours as part of the Modification Report.

Submission issue	Response
Attachment 1 – Item 3: The NMLs presented in the Modification Report adopt night time values based on external equivalent noise levels derived from Condition E42. It is EPA's position that Condition E42 does not replace the NMLs in the Interim Construction Noise Guideline (ICNG) for the purposes of determination potential impacts from a proposal. The purpose of Condition E42 is to mandate a level above which mitigation measures in the Sydney Metro City and Southwest Noise and Vibration Strategy are to apply. The EPA's position is that the ICNG should be used to determine potential impacts from the proposal.	Table 8-1 of the Modification Report presents both the night-time noise management level based on the ICNG as well as the applicable noise level detailed in Condition E41/E42. The assessment of night-time activities provides the potential exceedances against both noise levels. Therefore the assessment of potential impacts has been undertaken in accordance with the ICNG. Furthermore, reference is made to the *Secretary's Environmental Assessment Report – Sydney Metro Chatswood to Sydenham* which supported the project approval. In Section 5.1, DPE recommended an innovative approach to managing noise that provides the flexibility required to enable the project to be built as quickly as possible without unacceptable impacts on amenity. A number of different measures, including but not limited to '*the application of internal noise levels rather than external noise levels to calculate receiver impacts during construction'* was recommended through the inclusion of Conditions E41/E42 to provide the Noise Management Levels (NMLs). The application of both the ICNG and Condition E41/42 NMLs is appropriate, with mitigation measures implemented based on the Condition E41/E42 NMLs in line with DPE's assessment.
Attachment 1 – Item 4: The Modification Report identifies the potential for significant noise impacts associated with out of standard hours TBM retrieval operations. However the Modification Report does not clearly and succinctly provided a comparison of project timeframes with and without the modification; and more importantly, with and without out of standard hours works. The benefits of reduced project time frames and associated impacts on the community, need to be carefully weighed against the shorter term impacts that will arise from approval of the modification.	The retrieval of tunnel boring machine components by barge from the Blues Point temporary site would be dependent on safety procedures, tides, weather conditions and the requirements of the Harbour Master, and therefore may involve works outside standard daytime hours. Section 2.2 of the Modification Report states that not being able to undertake the tunnel boring machine retrieval works outside of standard working hours would extend the overall construction program by about eight months. Section 8.3 of the Modification Report states that the high noise levels associated with the tunnel boring machine disassembly and retrieval activities would occur for a maximum of 16 nights across the entire construction program. Without the installation of the proposed acoustic shed, the high noise levels associated with these activities would occur for about a 3-4 month duration.
North Sydney Council	
Council seeks to minimise the adverse impacts on surrounding properties arising from the construction of metro. It is noted that Council supports the substantial long term community benefit arising from the metro project.	The support for the metro project is noted. The proposed modification has been developed with the aim of minimising the adverse impacts of the works at the Blues Point temporary site on surrounding properties.
It is considered that the erection of the shed as described is a technical and engineering requirement arising from the detailed design of the facility. Council does not have the technical expertise to recommend alternate designs or methodologies. Therefore no recommendations to amend the proposal are made.	The proposed acoustic shed has been designed to meet the requirements of the site and minimise impacts on nearby receivers.

Submission issue	Response
It is important that Sydney Metro and the TSE contractor continue their excellent standard of community consultation in regards to impacts arising from the project.	Sydney Metro and the TSE contractor would continue to consult with stakeholders and community throughout the duration of the project.
Community submission	
I support the construction and use of an acoustic shed to minimise noise and dust impacts on residents.	The support for the proposed acoustic shed is noted.
Design of shed: This indicates ventilation louvres will be on the north wall of the shed. If the ventilation louvres will allow more noise egression from machinery and ventilation fans then walls without louvres, the louvres should be moved and located on the south face - which faces the construction site and park area (100m distant) and harbour rather than the north face which faces nearby apartment buildings and houses and will concentrate the noise between the shed and the adjacent Henry Lawson Drive Sandstone cutting, almost certainly creating a higher noise impact than planned. Additionally, noise directed south will be partially reflected away from the Blues Point Tower and other buildings by the high sandstone cutting to the west of the shed.	Following the exhibition of the Modification Report, the design of the acoustic shed has developed further, which addresses the concern raised. The louvres are now located on the eastern side of the acoustic shed, facing towards the rest of the construction site which is further away from residents. The shed has been designed to have the main door located on the southern side (facing the water), so that the tunnel boring machine components can be transported to the jetty for barging. This also minimises the noise impacts on the nearest residents, as the door provides a possible noise escape route. As the door is on the south side, the louvres can only be on the eastern side. In addition, the louvres are designed to bring air into the acoustic shed and shaft, meaning that external noise impacts are minimal and are substantially reduced with the installation of the acoustic shed.
Mitigation Measures - Noise and Vibration: states that plant will be kept as far from 'receivers' (presumably people) as possible. Again, if ventilation plant is on the northern wall of the shed, it will be very close to 'receivers'. Locating it on the southern face of the shed maximises the separation distance of the plant from 'receivers'.	As per the above, the design of the acoustic shed has been revised to address this concern. The proposed louvres are now located on the eastern side of the shed, increasing the distance from the residential receivers.