

Ms Belinda Scott
Planning and Assessment
Department of Planning, Industry and Environment
GPO Box 39
Sydney NSW 2001

Dear Ms Scott

Botany Rail Duplication (SSI-9714)

Thank you for your correspondence dated 14 October 2019, requesting Transport for NSW (TfNSW) to review and comment on the above. Roads and Maritime Services will provide a separate response.

TfNSW appreciates the opportunity to provide comments on the above State Significant Infrastructure (SSI) application.

This letter includes the following items that covers construction and operational issues associated with the Botany Rail Duplication:

- Construction Traffic Management;
- Operational Noise Impact Assessment;
- Noise Impacts from Braking Freight Trains;
- Modern Track Lubrication Systems;
- Noise Monitoring; and
- Noise Mitigation Commitments.

Detailed comments and suggested Conditions of Consent are included in **TAB A**.

If you require clarification on the above, please don't hesitate to contact Mark Ozinga, Principal Manager, Land Use Planning and Development on 0439 489 298.

Yours sincerely



13/11/2019

Mark Ozinga

Principal Manager, Land Use Planning and Development
Customer Strategy and Technology

Objective Reference CD19/08253

TAB A – Detailed Comments on the SSI

Construction Traffic Management

Works that have the potential to impact on the operations of the road network require a Construction Traffic Management Plan (CTMP) with a traffic assessment and be approved by Transport Management Centre prior to the commencement of works.

It is advised that:

- The standard procedure for assessing the traffic impacts of 'stages' throughout the construction, including weekend works and traffic switches is with the development and approval of a formal CTMP. The EIS contains a traffic assessment of the construction impacts. However, it should be noted that this will not form part of the approval documentation for the CTMP. The process for developing and approving the CTMP would also involve advice from stakeholders and agencies, such as impacts to bus routes, detour routes etc.
- Pedestrian/ Cycle Traffic detours need to be approved by or agreed to by Transport Management Centre prior to implementation. Alternative routes need to be of a similar standard and meet all DDA requirements including safety and lighting.
- All staff parking should be accommodated on-site to minimise the impact to the local residential and business community.
- Airport East Works have already closed the Railway level crossing to traffic.
- There are a number of key projects likely to occur at the same time as the subject proposal. Sydney Coordination Office (SCO) will manage and coordinate various construction related matters that impact on the nearby road network.
- Any proposed weekend closures would be determined after consultation with SCO and other TfNSW agencies as well as key stakeholders such as Sydney Airport to determine suitable weekends. Regular meetings need to be held with all interested parties to discuss how the works will be managed. These discussions should include the need for any Transport agency dedicated operational resources.

The CTMP needs to consider the following:

- Where practical, all gate access should be from the side street and not from the state road network to minimise disruption and congestion on the network. If not practical, access should be designed so that the largest vehicle anticipated to use the access does not need to straddle lanes to enter or exit the site and without the use of manual traffic control. Gate F6 appears to be across Robey St, which is undesirable and not likely to be approved. High impact gates will be subject to access restrictions, medium impact gates will be reviewed in more detail to determine if restrictions are required.
- It is noted that the additional travel time assessed as part of the detour routes are lower than expected for a detour of this magnitude. As such, the CTMP must provide further details of the modelling, how it was set up (base model assumptions etc). The modelling files will need to be provided to TMC for review. Robey St (East) appears to be a viable alternative for detours. However, Robey Street is a local road and it is not desirable to promote local roads for traffic diverted from state roads. Alternatives will need to be investigated during the development of the CTMP including a strategic detour route and associated communications strategies.

- It will be the responsibility of the applicant to manage Business As Usual (BAU) or regular night work activities to coincide with other nearby road works. The Road Occupancy Licence (ROL) process will list all conflict checks to ensure that there are no overlapping works on the same section of road. It is also deemed necessary that regular meetings or phone conversations be held with neighbouring projects, such as Sydney Gateway, to coordinate night works and ensure that there are no cumulative impacts. An example of this might be that a neighbouring project is closing a road for night works and detours traffic along a road that the proponent will have stop/slow on. These activities will need to be coordinated for separate nights to ensure that cumulative impacts are managed.
- Hale Street should not be considered as an option for construction vehicle movements as it has movement restrictions into and from Botany Road that would impact the movement of light and heavy vehicles.
- In general the project should consider avoiding the use of local roads for construction vehicles unless it provides a direct access to a work site. The use of local roads will require an approval from the relevant local council.
- It is noted that a microsimulation model developed in AIMSUN was used to quantitatively assess the intersections affected by the proposed Southern Cross Drive closure. However, SIDRA model has been used for the O'Riordan Street and Robey Street detours. Consideration should be given to use Aimsun model. Based on the previous experience of an O'Riordan Street closure between Gardeners Road and Qantas Drive presented delays in excess of 20 minutes just on O'Riordan Street.
- Consideration needs to be given to access Gate F3 via Joyce Drive as well as O'Riordan Street and to access Gate F1 via Botany Road as well as Southern Cross Drive.
- There is no existing direct vehicle link between King Street and Qantas Drive. The introduction of this temporary (construction phase related) link is not supported.

Recommendation

It is requested that the applicant be conditioned to the following:

Prior to the commencements of works on site, the Applicant shall:

- *Prepare a Construction Traffic Management Plan (CTMP) in consultation with the Transport Management Centre (TMC), Sydney Coordination Office and Roads and Maritime Services. The CTMP needs to specify, but not limited to, the following:*
 - *A description of the project;*
 - *Construction program;*
 - *Proposed construction hours.*
 - *Construction vehicle access arrangements;*
 - *Location of any proposed work zone(s), work site(s) and work compound(s);*
 - *Short and long term lane and road closures and proposed diversion routes;*
 - *Bus stop and associated facilities relocation and any changes to service rerouting;*
 - *Parking management;*
 - *Haulage routes;*
 - *Traffic management measures to manage the road network performance;*
 - *Estimated number of construction vehicle movements, including measures to reduce the number of movements during the AM and PM peak periods;*

- *Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site from the construction of the development;*
- *Cumulative construction impacts of the development. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network;*
- *Proposed mitigation measures. Should any impacts be identified, the duration of the impacts and measures proposed to mitigate any associated general traffic, public transport, pedestrian and cyclist impacts should be clearly identified and included in the CPTMP; and*
- *Consultation strategy for liaison with surrounding stakeholders, including other developments.*
- *Submit a copy of the final plan to the Coordinator General, Transport Coordination for endorsement.*

It is also requested to the applicant be conditioned to the following:

The Applicant shall submit a Road Occupancy Licence (ROL) application to the Transport Management Centre (TMC) for its approval for any works on classified roads, a local road within 100m of traffic signals and when the Applicant is planning on occupying space on an existing road that affects traffic flow along the classified road network. An ROL will need to be applied for all proposed works at least 10 working days prior to proposed implementation.

Operational Noise Impact Assessment

Comment

An assessment of operational noise impacts on the broader community has not been included in the Environmental Impact Assessment (EIS), including existing residences surrounding the Port Botany line, Metropolitan Freight Network (MFN) and Southern Sydney Freight Line. It is advised that ARTC should consider noise impacts across their broader rail network, resulting from the proposed capacity upgrades on the Port Botany line.

Recommendation

It is requested that the applicant be conditioned to the following:

The applicant shall implement a program to manage high levels of noise impacts at existing residences near the ARTC's Port Botany rail line including:

- *Quantifying rail noise levels at residences on an ongoing basis;*
- *Investigating treatments to rollingstock and track to reduce rail noise at source;*
- *Working with planning authorities and local councils to ensure rail noise is properly addressed in the design of future developments near ARTC's Port Botany rail line; and*
- *Treatments (either at premises or at lineside) to existing residences exposed to high levels of freight rail noise.*

Noise Impacts from Braking Freight Trains

Comment

An assessment of noise impacts from braking freight trains associated with the proposed line duplication is not included in the Noise Report.

Recommendation

It is recommended that the Noise Report be updated to assess brake noise impacts. Figure 8 from the Noise and Vibration Report suggests brake noise / wagon bunching may occur around chainage 10.000 kms to 11.000 kms where speed changes from 45 km/h to 30 km/h.

Modern Track Lubrication Systems

Comment

Section 8.1.1 states that modern track lubrication systems are recognised as a cost-effective means of minimising curve noise. Section 8.3.1.1 states that studies undertaken in NSW have shown that curve noise from freight operation can be reduced by 1 dB and 8 dB for LAeq and LAmax respectively.

It is advised that:

- TfNSW has identified a greater noise reduction than that stated in section 8.3.1.1 (see 2011 paper by Jiang et al 'Field trials of gauge face lubrication and top-of-rail friction modification for curve noise mitigation'); and
- Track lubrication is most effective when it is used in combination with other at-source treatments such as improved wagon steering and should not be seen as a standalone treatment.

Recommendation

It is requested that the applicant be conditioned to the following:

The applicant shall carry out track lubrication in combination with other at-source treatments such as improved wagon steering to reduce the noise levels.

Noise Monitoring

Comment

A noise monitoring program needs to be in place prior to the commencement of the operation.

Recommendation

It is requested that the applicant be conditioned to the following:

Prior to the commencement of operation, the Applicant shall submit for the approval of the Secretary, justification supporting the appropriateness of the location for rail noise monitoring, including details of any alternative options considered and reasons for these being dismissed. The rail noise monitoring system shall not operate until the Secretary has approved the proposed monitoring location. Certificates of calibration in accordance with the relevant standards shall be publicly accessible from a website maintained by the Applicant.

At the commencement of operation, the Applicant shall install and maintain a rail noise monitoring system on a tight radius curve near sensitive receivers to continuously monitor the noise from rail operations on the Port Botany line including performance of track lubrication over time. The system shall capture the noise from each individual train passby noise generation event, and include information to identify:

- *Time and date of freight train passbys;*
- *Imagery or a train ID reader to enable identification of the rolling stock during day and night;*
- *L_{Aeq}(15hour) and L_{Aeq}(9hour) from rail operations; and*
- *L_{AF}(max) and SEL of individual train passbys, measured in accordance with ISO3095; or*
- *Other alternative information as agreed with, or required by, the Secretary.*

The monitoring system shall operate indefinitely unless the Secretary approves otherwise. The results from the noise monitoring system, shall be publicly accessible from a website maintained by the Applicant. The noise results from each train shall be available on the website within 24 hours of it passing the monitor, unless unforeseen circumstances (i.e a system malfunction) have occurred. The L_{Aeq}(15hour) and L_{Aeq}(9hr) results from each day shall be available on the website within 24 hours of the period ending.

The Applicant shall provide an annual report to the Secretary with the results of monitoring for a period of 10 years, or as otherwise agreed with the Secretary, from the commencement of operation of upgraded Port Botany line. The Secretary shall consider the need for further reporting following a review of the results at year 5 and at year 10.

Noise Mitigation Commitments

Comment

Section 6.4.2 of the EIS is not consistent with section 8.3.1.1 of the EIS Technical Report 2, which discusses noise barriers and states that the feasibility and reasonableness of noise barriers would be considered further as the project progresses.

Recommendation

It is requested that Section 6.4.2 of the EIS be updated to be consistent with the noise mitigation commitments in the EIS Technical Report 2.