Transport for NSW

Chapter 7
Response to key organisation submissions

NSW GOVERNMENT

7. Response to key organisation submissions

7.1 Overview

This section provides responses to issues raised by the following submitters, classified as organisations during the submission registration process, who are considered to be key organisations for the project:

- Australian Turf Club
- Royal Agricultural Society of NSW
- utility owners.

The above stakeholders are considered to be key organisations given their level of ongoing interface with the project and the design and construction planning process.

As described in section 3.2.3 of this report, the issues raised in each of the above submissions have been summarised broadly according to the order and headings provided in the submissions. In some instances, related issues have been grouped under a single heading.

Responses to the issues raised by other organisations are provided in Chapter 8 (Response to community submissions).

Further detail on issues raised in each submission, including background, contextual information and full submissions, is provided in the detailed submissions available via the Department of Planning and Environment's Major Projects website: Parramatta Light Rail Stage 2.

7.2 Australian Turf Club

7.2.1 Parramatta Light Rail Stage 2 alignment

Staging of project works

Issue description

Australian Turf Club requests that further consideration be given to the staging of the works in accordance with the proposed infrastructure required to enable the outcomes of the *Camellia-Rosehill Place Strategy*. Staging of the project should not delay any of the required infrastructure to enable the Camellia-Rosehill precinct.

Australian Turf Club would like to understand the coordination and cooperation Transport has established with the various planning authorities and Sydney Metro.

Response

As outlined in section 4.1 of this report, Transport is proposing to amend the project for which approval is sought. As described in section 2.1.2 of the updated project description (see Appendix A of the Amendment Report), Transport is proposing to stage delivery of the project by building the bridge between Melrose Park and Wentworth Point first.

By staging delivery of the project, Transport would be able to align construction of the project with market capacity. Staging the project would not delay any of the required infrastructure to enable development of the Camellia-Rosehill precinct.

Transport and the Department of Planning and Environment team working on the *Camellia-Rosehill Place Strategy* (DPE, 2022b) have collaborated closely during the planning and early design phases for both projects. This collaboration, including engagement with Sydney Metro West, the Department of Planning and Environment, City of Parramatta Council and other agencies, will continue into the next stages of design development, construction and operation of the project. Ongoing engagement will ensure that design development considers integration with surrounding developments in accordance with mitigation measure LP2.

Further information on the consultation and engagement undertaken for the project is provided in Chapter 8 (Community and stakeholder engagement) and Appendix F (Community and Stakeholder Engagement Report) of the EIS. Section 3.2.8 of Appendix F includes a tabular summary of the stakeholders and groups consulted, which includes local councils and NSW Government agencies.

Construction within the Camellia area would be planned taking into consideration other construction activities, including any related to the *Camellia-Rosehill Place Strategy* that are underway. This would include managing the potential for cumulative traffic impacts in accordance with mitigation measure TT18 and noise impacts in accordance with mitigation measure NV10.

Residual land management plan

Issue description

Australian Turf Club notes that a residual land management plan is required early in the design phase, and consultation with neighbouring business and landowners is key.

Australian Turf Club would like to understand what/if any residual land surrounding Australian Turf Club's landholders would exist post design. Australian Turf Club would be interested to discuss these landholdings in the interests of purchasing residual land or ownership transfers for consideration where relevant.

Response

No potential residual land has been identified at this stage in the vicinity of Rosehill Gardens Racecourse.

Section 1.9.2 of the updated project description (see Appendix A of the Amendment Report) updates the information originally provided in section 6.9.2 of the EIS in relation to residual land. It is estimated that about 4,000 square metres of the land acquired by Transport to construct the project would be available for other uses following construction. This land is located in Melrose Park.

As described in sections 6.9.2 and 13.7 of the EIS, and in accordance with mitigation measure LP4, a residual land management plan will be prepared in consultation with key stakeholders to define the approach to managing residual land, including the future use of the land. The plan will include identification of, and consultation with, key internal and external stakeholders, including local councils and relevant government agencies as appropriate.

7.2.2 Consultation – design, construction and pre/post operation

Consultation with Australian Turf Club and need for an engagement plan

Issue description

Australian Turf Club requests that a regular, minuted forum be established between Transport and major businesses, including Australian Turf Club, to enable Australian Turf Club to have its say during design, construction and operation.

As a baseline, it is required that an engagement plan with businesses be established and executed as part of the broader Parramatta Light Rail works.

Response

Transport is committed to collaborating and coordinating design development and delivery of the project in consultation with relevant key stakeholders to ensure that potential impacts are minimised and managed in accordance with the mitigation measures and conditions of approval for the project (see Appendix B (Updated mitigation measures) of this report)). This includes a commitment to continue to liaise with organisations, landowners/landholders and businesses on relevant aspects of the proposal, including potential impacts and measures to address these impacts. Further information is provided in Chapter 8 (Community and stakeholder engagement) of the EIS and Chapter 2 (Stakeholder and community engagement) of this report.

The approach to engaging with key stakeholders (including Australian Turf Club) would be defined by the Community Communication Strategy (provided in Appendix D of this report), which will be implemented in accordance with mitigation measure SE1. Mitigation measure SE1 has been amended to confirm Transport's commitment to ongoing consultation with key stakeholders during design development.

In addition, and in accordance with mitigation measure SE9, a business management and activation plan will be prepared and implemented for businesses with the potential to be affected by the project, including those located on roads impacted by construction. The plan will identify businesses with the potential to be impacted by the project and will detail feasible and reasonable measures, developed in consultation with affected business owners/operators, to manage the impacts identified.

Other mitigation measures commit to ongoing consultation in relation to specific issues, design development, construction planning, and the development of the proposed management plans, including (but not limited to) measures TT14, TT17, NV12, LP1, LP2, SE5, SE6, SE10 and LV1 (see Appendix B for the full list of mitigation measures).

7.2.3 Urban design

Engagement regarding urban design initiatives and requirements

Issue description

Australian Turf Club is currently developing a Master Plan and urban design principles for its site at Rosehill Gardens Racecourse and requests early engagement and ongoing workshop opportunities with the Transport urban design team, including in relation to:

- visual and pedestrian connectivity from key Australian Turf Club vantage points (i.e. site entries etc) to the proposed Sandown Boulevard are to be duly considered and established as a key principle
- curation of the Sandown Boulevard to have a greater racing architectural design and detailing to establish a greater arrival experience, destination and relationship with the Racecourse site
- minimise visual impacts in the precinct both during construction and operation.

Response

Design development would be conducted with the aim of achieving a well-designed project that meets the needs of customers and communities and delivers high-quality place outcomes. The urban design requirements would provide detailed urban design guidelines and key requirements for the project to guide future design, procurement and delivery.

Transport is committed to engaging with key stakeholders during design development and delivery of the project to ensure potential impacts are minimised and managed in accordance with the mitigation measures for the project. Mitigation measure LP2 has been amended to confirm the commitment for ongoing consultation with key stakeholders to ensure that the project is integrated with adjoining developments, proposed developments and urban renewal areas (including those subject to the *Camellia-Rosehill Place Strategy* (DPE, 2022b)). In accordance with mitigation measure LP2, this will include identifying measures and design responses to manage the interface between the project and adjoining land uses and properties as far as reasonably practicable.

The Landscape and Visual Impact Assessment undertaken as part of the EIS (provided in Appendix A to Technical Paper 1 (Design, Place and Movement) and summarised in Chapter 15 (Landscape and visual impacts) of the EIS) concluded that low and negligible visual impacts were predicted during construction and operation for the Camellia Grand Avenue landscape character zone and viewpoint 2 – Grand Avenue respectively (where viewpoint 2 is representative of views from the racecourse). Negligible impacts at this viewpoint are predicted for the amended project (see section 6.8 of the Amendment Report).

Mitigation measure LV1 provides that the urban design requirements will be finalised in accordance with the vision, principles and outcomes in Technical Paper 1 (Design, Place and Movement), and in consultation with key stakeholders, the operator, the rail regulator, and the Design Review Panel. This would include requirements for wayfinding and signage to ensure safe and efficient travel to destinations, and the development of a 'whole of line' light rail stop canopy strategy where the stops are designed to integrate with the stops on Parramatta Light Rail Stage 1.

In accordance with mitigation measure LV2, design development will be undertaken in accordance with the urban design requirements and with advice from the Design Review Panel.

7.2.4 Sandown Boulevard

Naming of light rail stop

Issue description

Australian Turf Club would like to engage with Transport to reconsider the naming of the Sandown Boulevard stop. In racing terms, the Sandown reference is synonymous with a Victorian based racetrack. Australian Turf Club's preference would be for this platform to have a greater racing focus and a naming convention reflective of the proximity to Rosehill Gardens Racecourse.

Response

As described in section 6.3.1 of the EIS, the names of stops are indicative and would be finalised during design development. The EIS has adopted 'project names' for proposed stop locations, with general reference to a prominent landmark such as street name or destination, to help the community geographically place the proposed stop location for the purpose of the assessment and approval process.

The final stop names would be determined based on stakeholder and community feedback, and approval by the Geographical Names Board of NSW.

7.2.5 Traffic and transport

Ongoing liaison and key issues

Issue description

Australian Turf Club would like to work more closely with Transport on the traffic and transport initiatives, issues, opportunities and constraints to ensure seamless transition from alignment design, construction and through to operations. Australian Turf Club considers that the minimisation of transport, traffic and access/egress issues is the key to the ongoing operation of Rosehill Gardens Racecourse into perpetuity.

Issues raised include:

- support for 24 hour light rail operation for certain special events including on New Years Eve
- further consideration of additional shelters and feature lighting to be provided at the Sandown Boulevard stop
- consideration of a larger platform at Sandown Boulevard to support the racecourse
- further consideration given to the inclusion of embedded tracks and additional finishes (i.e. pavers) to the Sandown Boulevard to ensure a premium platform outcome is achieved
- support for the inclusion of a platform at Sandown Boulevard and the Camellia East stops.

Response

As described in the response in section 7.2.2 above, Transport is committed to collaborative engagement and liaison with key stakeholders, including on matters related to traffic, transport and access issues with the potential to affect properties and surrounding landholders, and the development of the urban design requirements.

Transport acknowledges the support from Australian Turf Club in relation to special event services beyond the standard hours of operations (described in section 6.10.2 of the EIS) and for the proposed stop and future stop at Sandown Boulevard and Camellia East, respectively. As described in section 6.3.1 of the EIS, the project has futureproofed space for a possible future stop at Camellia East. This stop may be constructed after the project commences operation based on demand and surrounding development. No stop infrastructure is currently proposed to be constructed at this location.

The proposed stop infrastructure, including platforms, furniture, facilities and stop access arrangements, would be designed in accordance with the urban design requirements, informed by evaluating future demand and pedestrian modelling. Stop furniture (including canopies) would be designed in a modular arrangement to provide flexibility to extend the stop as required. As part of design development, the project team would assess the appropriate requirements for this location (see section 14.3 of Technical Paper 1 (Design, Place and Movement)). As described in section 6.3.2 of the EIS, the Sandown Boulevard stop is considered an 'event stop' and as such, additional shelters and feature lighting may be provided.

Stop platforms are designed to cater for the length of the light rail vehicles, not the forecast patronage at the stop. During special events, the provision of more frequent light rail services would be considered.

Transport is committed to working with stakeholders and asset owners to develop a comprehensive paving and material pallet that is suitable for the vision for this precinct.

Road realignment

Issue description

Australian Turf Club requests that:

- any planned realignment of Grand Avenue or any other road(s) that may impact Australian Turf Club be done in consultation with Rosehill Gardens Racecourse
- access to traffic modelling results be provided for review and consideration by Australian Turf Club's traffic engineers to make comment for Transport consideration during design development.

Response

As described in section 4.1 of this report, the project for which approval is sought incorporates an amended alignment between Camellia and Rydalmere. The alignment is now proposed to remain in the Sandown Line corridor and extend along the Parramatta River foreshore at the rear of the properties that front Grand Avenue. This will remove the interaction with traffic along Grand Avenue and avoid duplication of a section of carriageway along Grand Avenue east of Durham Street. The works to Grand Avenue would now be limited to those associated with the crossing of the active transport link connections to the Parramatta Light Rail stabling and maintenance facility.

Further information about the potential traffic, transport and access impacts of the project as amended is provided in section 6.2 of the Amendment Report.

The approach to traffic modelling undertaken for the EIS is described in section 2.3 of Technical Paper 2 (Transport and Traffic) and summarised in section 9.1 of the EIS. Forecast intersection performance with and without the project are described in section 6.2.2 of Technical Paper 2 and summarised in section 9.4.1 of the EIS. As a result of the proposed amendments to the alignment between Camellia and Rydalmere (see section 4.1 of this report), no new intersections with Grand Avenue are proposed as part of the project. Predicted intersection performance for those intersections in Camellia closest to the Rosehill Gardens Racecourse (i.e. west of the stabling and maintenance facility) are described in the EIS for Parramatta Light Rail Stage 1.

Active transport link

Issue description

Australian Turf Club notes that it has minimal clarity from the NSW Government on the specific details of the proposed active transport link running south from the Parramatta Light Rail Stage 1 network into Rosehill Gardens, and through Parramatta Light Rail Stage 2 via Sandown Station.

Australian Turf Club would like to engage further with Transport to determine the use, design and delivery of the active transport link with a view to working collaboratively with all levels of government as we develop our precinct master plan.

Response

The active transport link being delivered as part of Parramatta Light Rail Stage 1 is outside the scope of the project. Further information is provided in the urban design requirements for Parramatta Light Rail Stage 1, which is available via: Parramatta Light Rail Stage 1 Urban Design Requirements Report.

The Parramatta Light Rail Stage 2 project includes an active transport link located along the light rail alignment within the Sandown Line corridor extending over the proposed bridge between Camellia and Rydalmere to connect with the Parramatta Valley Cycleway (see Figure 1.1 and 1.2 in Appendix A of the Amendment Report). The active transport link delivered as part of Parramatta Light Rail Stage 2 would connect to the Parramatta Light Rail Stage 1 active transport link at Camellia junction and to the Stage 1 Rosehill Gardens stop (part of Parramatta Light Rail Stage 1).

A response to issues raised about ongoing consultation with Australian Turf Club is provided in section 7.2.2 above.

7.2.6 Flood management

Confirmation of flooding impacts

Issue description

Australian Turf Club requests confirmation that:

- flood levels across to the Camellia will not change as a result of the light rail
- construction and operation of the project will not impact existing flood levels on Australian Turf Club land
- the most current and up to date survey data has been utilised to inform the flood assessment.

Australian Turf Club also requests that Transport make its flood models available to major landowners.

Response

The results of the assessment of potential flooding impacts associated with the exhibited project are described in Technical Paper 10 (Hydrology, Flooding and Water Quality) and summarised in Chapter 17 (Water) of the EIS. The potential impacts of the amended project are considered in the Supplementary Flooding Report (see section 4.2.2 of this report) and are summarised in section 6.10 of the Amendment Report.

The modelling of existing flooding conditions (see Appendix C of Technical Paper 10) shows that parts of the Australian Turf Club land are subject to flooding in the existing one per cent AEP event. Modelling undertaken for the amended project (see Appendix A of the Supplementary Flooding Report) shows that for flood events up to and including the one per cent AEP event, the flooded extent of the Parramatta River floodplain is largely limited to the river and adjacent open spaces. There would be no change in flooding extents or depths (afflux) to Australian Turf Club land in events up to and including the one per cent AEP.

As described in section 3.1.1 of Technical Paper 10, a quantitative flooding assessment was undertaken across the study area based on validated flood models updated using detailed survey, where available. Additionally, certain geometry changes and water level assumptions were made to better represent existing surface conditions based on a review of the latest available survey data, and boundary conditions to appropriately interface the flood flows to the receiving watercourse conditions in Parramatta River. As described in section 5.2.2 of Technical Paper 10, a preliminary assessment of the key locations experiencing overland flows was undertaken for the EIS. Technical Paper 10 acknowledges that detailed survey, drainage system analysis and design grading of interface works with the existing topography would be undertaken during design development.

In accordance with mitigation measure W1 (see Appendix B (Updated mitigation measures) of this report), Transport commits to undertaking further design refinement and modelling to achieve the flood management objectives (defined in section 17.1.3 of the EIS) and the flood immunity standards (defined in section 5 of Technical Paper 10). The justification and process for developing the flood management objectives is provided as a clarification in section 4.3.5 of this report.

Mitigation measure W1 has been amended to confirm that the flood management strategy will be based on revised flood modelling, taking into account further design development and construction planning, and that design responses and management measures will be developed in consultation with affected landowners/landholders.

Transport is not proposing to provide flood models to landowners/landholders.

7.2.7 Property and access

Access impacts

Issue description

Australian Turf Club requests:

- confirmation of whether Transport proposes any temporary or permanent impacts to access and egress from Australian Turf Club land during construction and operation
- that free and unobstructed access into Australian Turf Club land with a clear line of sight into the racecourse be established early in the design process
- that Australian Turf Club should be consulted to consider the opportunities for safe property, cyclist and pedestrian access during all stages of the project.

Response

As described in the responses in section 7.2.5 above, the works to Grand Avenue would now be limited to those associated with the crossing of the active transport link connections to the Parramatta Light Rail stabling and maintenance facility.

No direct changes or impacts on access arrangements to Australian Turf Club land are proposed during construction and operation. Should the need for temporary disruption to access be identified, access to Australian Turf Club land will be maintained in accordance with mitigation measure TT14. Where temporary disruption to access cannot be avoided, consultation will be undertaken with the Australian Turf Club to confirm their access requirements and determine alternative arrangements.

Measures to manage the potential impacts of traffic delays and disruptions and changes to road access in Camellia would be detailed in the traffic and access management plan, developed in accordance with mitigation measure TT8.

The alignment in Camellia is designed to generally follow the existing ground surface along the Sandown Line corridor. Existing buildings between the Sandown Line corridor and Grand Avenue or other development and/or transport infrastructure are likely to restrict views to Rosehill Gardens Racecourse. Negligible visual impacts at the viewpoint representing Rosehill Gardens Racecourse are predicted as described in the response in section 7.2.3 of this report.

Transport acknowledges the importance of maintaining local and regional connectivity as key design principles that would shape the design of the project. Key connectivity design principles for Camellia defined by Technical Paper 1 (Design, Place and Movement) include 'Provide direct, safe, well lit, and legible connections and crossings within Camellia, responsive to the *Draft Camellia-Rosehill Place Strategy* and any future planning proposals'.

A response to issues raised about ongoing consultation with Australian Turf Club is provided in section 7.2.2.

7.2.8 Special events management

Impacts to special events

Issue description

Australian Turf Club requests that Transport engages frequently with landowners to identify any special events that are likely to be disrupted by light rail construction works or operations. Australian Turf Club requires minimum notice periods to be agreed and a replacement services plan established to ensure continuity of operations and patron safety.

Response

Transport acknowledges the importance of considering special events during construction planning and design development. In accordance with mitigation measure TT17, traffic and pedestrian management during special events at Rosehill Gardens Racecourse will be considered during construction. Where special events require specific traffic and pedestrian management, measures will be developed and implemented in consultation with relevant stakeholders (including Australian Turf Club). Mitigation measure TT17 has been amended to confirm Australian Turf Club's role as a key stakeholder for the development of location-specific construction traffic and pedestrian management measures (where required) during special events.

The nature and frequency of ongoing consultation with key stakeholders is described in the Community Communication Strategy, which has been developed and would be implemented in accordance with mitigation measures SE1 and SE6. The Community Communication Strategy is provided in Appendix D of this report.

It is anticipated that special events would be supported, and not disrupted by, light rail operations. It is noted that Rosehill Gardens Racecourse is predicted to benefit from the commencement of Parramatta Light Rail Stage 1 services and improved pedestrian connections between the racecourse and the Rosehill Gardens stop at Camellia. Light rail services provided by Parramatta Light Rail Stage 2 would connect suburbs along the alignment to the racecourse and provide additional service frequency to and from Parramatta. The approach to managing operations during special events, including how light rail services operate during events at major venues along the alignment, will be confirmed by the light rail operations during special events management plan, which will be prepared in accordance with new mitigation measure TT21 in consultation with key stakeholders (including Australian Turf Club).

7.2.9 Operational noise and vibration

Operational impacts

Issue description

Australian Turf Club requests engagement to discuss impacts from works on the Australian Turf Club site. An established process for noise exceedances is required, in consultation with Australian Turf Club, given the sensitivity of its operations to noise and vibration.

Response

The potential for operational noise and vibration impacts on Rosehill Gardens Racecourse were assessed by the operational noise and vibration assessment (Technical Paper 3 (Noise and Vibration)). Potential operational noise impacts on the outdoor racecourse areas (receiver IDs OA04 and OA05 in Technical Paper 3) were considered. The racecourse stables were outside of the assessed study area, which means that they would not experience any impacts.

The assessment found that noise levels during operation would be $L_{Aeq(15hour)}$ 30 dBA and $L_{Aeq(15hour)}$ 39 dBA at receiver IDs OA04 and OA05 respectively, which is well below the *Rail Infrastructure Noise Guideline* (NSW EPA, 2013) trigger level of $L_{Aeq(15hour)}$ 65 dBA for recreational areas.

Additionally, the results of the noise assessment undertaken for Parramatta Light Rail Stage 1 determined that noise levels at the façade of the main buildings at Rosehill Gardens Racecourse (receiver IDs B043, B0444 and B055) would be at least 20 dBA below the *Noise Policy for Industry* (NSW EPA, 2017) $L_{Aeq(period)}$ project noise trigger level of 65 dBA for commercial receivers. This is as a result of the operation of the stabling and maintenance facility. While the operation noise levels generated by the stabling and maintenance facility would increase marginally due to the project, noise levels experienced at the Rosehill Gardens Racecourse would remain below the noise trigger levels.

During further design development, and in accordance with mitigation measure NV1, an operational noise and vibration review of the developed design will be undertaken to review the potential for operational impacts and confirm the mitigation measures that would be incorporated in the design. The review will include:

- reviewing compliance monitoring for Parramatta Light Rail Stage 1
- surveying relevant buildings to determine appropriate façade noise reduction performances
- consideration of feedback from, and preferences of, directly affected landowners/landholders.

7.2.10 Impacts to businesses

Issue description

Australian Turf Club requests meaningful consultation with Transport prior to finalisation of the business management and activation plan to ensure minimal disruption to Australian Turf Club operations.

Response

As described in the response in section 7.2.2, Transport is committed to ongoing engagement with key stakeholders (including potentially affected businesses) on relevant aspects of the project and the development of measures to address identified impacts.

Mitigation measure SE9 confirms Transport's commitment to developing measures in consultation with affected business owners/operators to:

- minimise disruption for customers and deliveries as far as possible
- maintain vehicular and pedestrian access during business hours, including alternative arrangements for times when access cannot be maintained
- maintain visibility of the business to potential customers during construction, including alternative arrangements for times when visibility cannot be maintained
- respond to other identified impacts as far as possible, including specific measures to assist small businesses with the potential to be adversely affected during construction.

These measures will be defined in the business management and activation plan prepared in accordance with mitigation measure SE9.

7.2.11 Soils and site contamination

Issues noted by Australian Turf Club in relation to soils and contamination include:

- works should minimise any disruption to contaminated soils and any existing remediation systems currently installed throughout the precinct
- adequate and ongoing groundwater monitoring (including establishing baselines) should be implemented
- any groundwater tests need to be continually assessed to ensure soil disturbances and groundwater contamination/leakage as a result of the works can be identified and rectified immediately.

Response

Disruption to contaminated soils and existing remediation systems

Transport is committed to managing the potential surface water, groundwater and land impacts of its activities in accordance with relevant legislation, policies and strategies. Transport's commitments in relation to potential contamination impacts, including damage to existing remediation systems, are defined by the updated mitigation measures provided in Appendix B of this report. In particular:

- Mitigation measures CS2 to CS4 commit to managing the project's interactions with existing remediation systems and minimising the potential for impacts.
- Mitigation measure W9 provides that a soil and water management plan will be prepared as part of the CEMP and implemented during construction in accordance with mitigation measure CS7. The plan will detail processes, responsibilities and measures to manage potential soil and water quality impacts during construction, including measures to minimise the potential for pollutants to enter surface water and groundwater, and potential impacts associated with the presence of existing contamination.

Groundwater monitoring and testing

As described in section 17.2.3 of the EIS, there is limited publicly available data on groundwater quality. Historical contamination investigations have identified a number of potential contaminants of concern within parts of the study area associated with former and current land uses. Further groundwater assessment has been undertaken since exhibition of the EIS, as described in section 4.2.2 of this report.

As described in section 17.3.2 of the EIS, most construction work is unlikely to intercept groundwater, except potentially during periods of high rainfall. In accordance with mitigation measure W16, groundwater dewatering will be managed in accordance with a dewatering management strategy prepared as part of the soil and water management plan. The dewatering management strategy will define measures to appropriately manage extracted groundwater. Based on the estimated volumes of groundwater that may require dewatering, any potential impacts on groundwater levels, flow and connectivity are expected to be localised and temporary.

Given that most construction work would be unlikely to intercept groundwater, potential risks to groundwater quality would be limited to:

- contamination by hydrocarbons from accidental fuel and chemical spills
- disturbance of acid sulfate soils and contaminated land and groundwater
- contaminants contained in turbid runoff from impervious surfaces.

The mitigation measures noted above would be implemented to minimise the potential for groundwater quality impacts due to contamination from leaks, spills and runoff. In addition, mitigation measure W15 provides that impacts on groundwater during construction will be minimised as far as practicable by avoiding the need to extract groundwater, and minimising groundwater inflows and volumes into excavations.

Given the existing contaminant presence in groundwater, the low potential to encounter groundwater and the mitigation measures which have been proposed and would be implemented to minimise any potential risks to groundwater, further groundwater monitoring and testing is not considered required.

7.3 Royal Agricultural Society of NSW

To formalise a number of important interfaces between Transport and the Royal Agricultural Society of NSW (Royal Agricultural Society) in relation to ongoing events at Sydney Showground, Transport has prepared a position paper (see Appendix H). The position paper outlines a number of constraints to constructing and operating the project within Sydney Olympic Park and confirms provisions and assumptions within the project design and delivery plans to ensure key aspects of the Sydney Showground precinct and the integrity of the Royal Agricultural Society's operations are protected.

7.3.1 EIS comments

EIS consultation

Issue description

Royal Agricultural Society notes that they are not nominated as a relevant stakeholder for the future design and pre-construction activities despite being a significant leaseholder of government and venue operator for approximately 240 events annually for circa 1.8 million patrons.

Royal Agricultural Society also notes they have had a collaborative relationship with Transport for the Parramatta Light Rail Stage 2 project since 2016. The Royal Agricultural Society notes in their submission that no consultation has occurred resulting in a document (the EIS) that, from their perspective, is less than satisfactory.

Response

Transport acknowledges the importance of Royal Agricultural Society as a key stakeholder during design development, pre-construction activities, construction and operation of the project. Consultation with Royal Agricultural Society has been undertaken during initial design work and preparation of the EIS to inform Royal Agricultural Society of the status of the EIS and the project as a whole, and to understand Royal Agricultural Society's operations, requirements, and existing and future needs. This engagement occurred through ongoing meetings directly with the Royal Agricultural Society as well as via the bi-monthly meetings of the existing stakeholder engagement group, the Greater Parramatta Group, which includes the Royal Agricultural Society.

Transport is committed to collaborating with, and coordinating design development and delivery of the project in consultation with, Royal Agricultural Society and Sydney Olympic Park Authority as key stakeholders for works in Sydney Showground and Sydney Olympic Park. Transport is working to confirm that the provisions and assumptions within the project design and delivery plans are current and accurate, and to ensure that key aspects of the precinct and the integrity of Royal Agricultural Society's operations are protected, including operation of the Sydney Royal Easter Show. Further details and responses to specific issues outlined in the submission are provided in the following sections. In addition, responses to issues raised in the submission from Sydney Olympic Park Authority are provided in section 5.9 of this report.

A range of mitigation measures have been developed to confirm this commitment, which has been strengthened by amendments to a number of the measures (see Appendix B (Updated mitigation measures) of this report). The approach to engaging with key stakeholders (including Royal Agricultural Society) is defined in the Community Communication Strategy provided in Appendix D, which will be implemented in accordance with mitigation measure SE1. Mitigation measure SE1 has been amended to confirm Transport's commitment to ongoing consultation with key stakeholders during design development.

Mitigation measure LP2 has also been amended to confirm the commitment to ongoing consultation with Royal Agricultural Society as one of the key stakeholders to ensure that the project is integrated with adjoining and proposed developments. In accordance with mitigation measure LP2, this will include identifying measures and design responses to manage the interface between the project and adjoining land uses and properties as far as reasonably practicable.

Other mitigation measures commit to ongoing consultation with relevant stakeholders (including Royal Agricultural Society as appropriate) in relation to specific issues, design development, construction planning, and the development of the proposed management plans, including (but not limited to) measures TT2, TT12, TT14, TT17, TT18, NV6, NV12, LP1, LP8, SE5, SE6, SE9, SE10 and LV1 (see Appendix B (Updated mitigation measures) of this report).

Ongoing meetings of the existing stakeholder group, the Greater Parramatta Group, which includes the Royal Agricultural Society, would continue bi-monthly. The group would continue to meet and be briefed throughout design development, construction and operation of the project. Transport would continue its role in managing this group, which is focused on engagement with key stakeholders across the Greater Parramatta area, including, but not limited to Parramatta Light Rail Stage 2.

Transport continues to work with Royal Agricultural Society to address issues raised during consultation, including:

- special event management and interfaces during construction and operation of the project
- ensuring access for Gates 10, 11 and 13, as well as the Grand Parade / Australia Avenue intersection, during construction and operation
- revision of construction staging, traffic circulation and detour plans
- road connections
- maintaining access for horses to cross Australia Avenue from New England Avenue at Gate 10
- the use of the P5a, P5c and P6 car parks for construction during the Sydney Royal Easter Show
- light rail operation through the Sydney Royal Easter Show Carnival rides area
- the project's interfaces with the Sydney Royal Easter Show.

Event management at Sydney Showground and Sydney Olympic Park venues

Issue description

Royal Agricultural Society states that the EIS appears to imply that events at the Sydney Showground and Sydney Olympic Park venues need to respond to the construction and operation of the light rail project rather than the opposite situation. In addition, there seems to be little reference to day-to-day events in the precinct.

Royal Agricultural Society emphasises that Sydney Olympic Park is first and foremost an events precinct, and that all events have significant value as they provide economic and social benefits to the area, and add to the visitor economy.

Royal Agricultural Society states that combining the scale of the event activity at Sydney Showground with Sydney Olympic Park as a whole understates the level of impact on their venue. The Sydney Showground footprint and its influence on the project alignment and operations are different to that of an event at Accor Stadium or Qudos Bank Arena.

Response

The EIS includes numerous references to Sydney Olympic Park, including Sydney Showground, and the events that are undertaken within this precinct. These references are principally contained within, but not limited to, the assessments of potential transport and traffic impacts, and the social and business impact assessments. Consideration of special events within the Sydney Olympic Park precinct is a heading used in the EIS that generally acknowledges the multitude of events that frequently take place within the precinct. Three categories of special events are outlined in the Technical Paper 2 (Transport and Traffic) to facilitate a discussion of how project operations would be adjusted to complement these events.

The information and assessments presented in the EIS are based on a reference design, an indicative construction methodology, and a standard operations plan with three special events modes. These are sufficient to assess the potential environmental impacts in accordance with the SEARs and relevant assessment guidelines, and inform the risks and issues potentially associated with the next stage of design development and construction planning. The EIS communicates the types and significance of potential impacts that might result from constructing and operating the project along the alignment. Further development of the design and measures to respond to identified issues and risks would continue during design development and construction planning in accordance with the mitigation measures (see Appendix B (Updated mitigation measures) of this report) and the conditions of approval. This is consistent with current practice for major project assessments in NSW.

As detailed construction planning has not yet been undertaken, it is not practical for the EIS to consider specific events at individual facilities on a day-to-day basis.

Transport has significant experience constructing major transport infrastructure projects, including light rail, in complex urban environments that are influenced by a diverse range of activities, land uses and stakeholders. Locally, this includes constructing Parramatta Light Rail Stage 1 through Eat Street in Parramatta and the Westmead Health Precinct.

Section 7.7.6 of the EIS acknowledges that the construction program would be required to consider special events and make appropriate arrangements to manage the impacts of construction during these events, including traffic management and contingency arrangements. Transport understands that during special events periods, detours and adjustments to road and footpath capacity and construction work sites would be required to facilitate safe and efficient access, staging and storage for vehicles, equipment, animals and pedestrians.

The construction program would be developed to take into account the need to not inhibit the Royal Agricultural Society's ability to ensure the success of the Sydney Royal Easter Show. This commitment is confirmed by mitigation measure TT17, which is focussed on managing impacts during special events. In accordance with mitigation measure TT17, traffic and pedestrian management during special events at Sydney Showground will be considered during construction. Where special events require specific traffic and pedestrian management, these measures will be developed and implemented in consultation with relevant stakeholders. Mitigation measure TT17 has been amended to confirm Royal Agricultural Society's role as a key stakeholder for the development of location-specific construction traffic and pedestrian management measures (where required) during special events at Sydney Showground and surrounds.

During detailed construction planning the construction contractor(s) will prepare a traffic and access management plan in accordance with mitigation measure TT8. The plan will define the detailed processes and responsibilities to minimise traffic delays, access disruptions, and identify and respond to changes to road access and on-street parking arrangements. In accordance with mitigation measure TT9, the plan will include measures to manage staging of construction works to ensure that satisfactory capacity and minimum levels of service are maintained for all users. Best practice for construction management during

special events will be incorporated into the traffic and access management plan, including the management approaches applied in the Moore Park event precinct by Sydney Light Rail.

The approach to managing operations during special events, including how light rail services operate during events at major venues along the alignment, will be confirmed in the light rail operations during special events management plan, which will be prepared in accordance with new mitigation measure TT21. The plan will be prepared in consultation with key stakeholders (including Royal Agricultural Society and Sydney Olympic Park Authority).

Use of roads for detours or construction routes

Issue description

Royal Agricultural Society notes that streets such as Showground Road, Grand Parade and Orana Parade regularly operate as internal venue roads (as opposed to public roads), are subject to regular road closures within the Sydney Showground site at the venues' discretion, and cannot be relied upon for use as detours or construction routes whilst maintaining safe, consistent and effective venue operations.

Response

Transport acknowledges this feedback from Royal Agricultural Society and confirms that it is aware of how these roads operate. As noted in the above responses, the EIS provides indicative detour routes and a construction methodology that has been used as the basis for the assessment and the development of mitigation and management approaches. A detailed construction methodology, program and activity sequencing would be developed by the construction contractor(s) once they are appointed.

Transport agrees that improved traffic management outcomes would be achieved by avoiding traffic movements through Orana Parade, New England Avenue and Grand Parade (between Showground Road and Australia Avenue). The detour would be confirmed by the traffic and access management plan, which would be prepared and implemented in accordance with mitigation measure TT8, and would be developed in consultation with Sydney Olympic Park Authority and Royal Agricultural Society.

The CEMP and associated management plans require a level of detail that cannot be finalised until a construction contractor is appointed, as they will be confirming day-to-day activities on site to comply with the conditions of approval and the updated mitigation measures in Appendix B of this report.

Mitigation measure TT12 commits to undertaking regular consultation with relevant stakeholders to facilitate the efficient delivery of the project and to minimise impacts on road transport infrastructure customers and users. Additional reasonable and feasible measures identified as an outcome of this consultation will be implemented during construction. This will include modifying work areas, activities and construction access arrangements to address traffic flow and access issues identified by key stakeholders, where practicable

Further information on management approaches during special events is provided in section 7.3.11 below.

Inaccuracies in technical paper

Issue description

Royal Agricultural Society notes that the EIS incorrectly describes New England Avenue as a road connecting people with places of employment. New England Avenue is an internal venue access road within the Showground. The submission also states that the Technical Paper 2 (Transport and traffic) incorrectly describes the closure of Showground Road between Grand Parade and Murray Rose Avenue to facilitate the integration of Sydney Metro West. This should be correctly described as a closure between Dawn Fraser Avenue and Murray Rose Avenue.

Response

Transport acknowledges the feedback regarding the context of New England Avenue. The status, suitability and access requirements for all roads proposed to be used would be considered by the construction contractor(s) as part of detailed traffic management planning, in consultation with relevant stakeholders, including Royal Agricultural Society, and in accordance with mitigation measures TT2, TT8, TT9, TT12, TT13 and TT17.

Transport acknowledges that there is a typographical error in Table 4.4 of Technical Paper 2 (Transport and Traffic). Showground Road is only proposed to be closed between Dawn Fraser Avenue and Murray Rose Avenue. It is noted that the assessment described in sections 5.2.7 and 6.2.7 of Technical Paper 2 refers to the correct section of Showground Road that is proposed to be closed, with no effect on the assessment conclusions.

Construction program

Issue description

Royal Agricultural Society notes that Technical Paper 2 (Transport and Traffic) outlines a potential six year construction timeframe from 2025 to 2030/31. It is unclear why there is an extended period between peak construction in 2026/2027 and opening in 2031. Royal Agricultural Society requests that the construction timeframe be reduced in line with other light rail projects and that the project operates before Sydney Metro West in 2030. This would reduce unnecessary additional bus movements and concentrate construction activities and cumulative disruption from Transport's projects. Royal Agricultural Society also requests that Transport prioritise construction in the Sydney Olympic Park events precinct to minimise disruption and economic impacts.

Response

The construction program has been developed based on Transport's experience constructing major infrastructure projects. It has considered the complexity of the project, including that it would be constructed along or adjacent to road corridors for most of its length with a significant number of interfaces with surrounding land uses, utilities and landholders. The project also involves constructing two major bridges over the Parramatta River.

As a result, the estimated construction program provided in section 7.1.2 of the EIS (and the updated construction program in section 2.1.3 of Appendix A (Updated project description) of the Amendment Report) is considered reasonable. The estimated program provides flexibility to schedule works considering existing and future constraints, including events in the Sydney Olympic Park precinct and Sydney Showground (as noted in the above response under the heading 'Event management at Sydney Showground and Sydney Olympic Park venues').

The construction program would continue to be refined during design development and construction planning in consultation with key stakeholders, including Royal Agricultural Society. This would include considering construction staging to further minimise disruptions, and the potential to further accelerate work.

Need for EIS documentation to reflect lessons learned from past projects

Issue description

Royal Agricultural Society expects that lessons learned from previous light rail projects in NSW will inform Transport's approach to constructing and operating the project for the benefit of all stakeholders and customers.

Response

Transport has drawn from its experience delivering other light rail and transport projects in Parramatta, Sydney and Newcastle to inform design development to date and preparation of the EIS. Transport will continue to draw from this experience to inform future design development, construction planning, construction and operation. Various workshops have taken place since the project's inception to capture lessons learned, including those from delivering Parramatta Light Rail Stage 1.

Examples of how the EIS was prepared, and supporting technical assessments were undertaken, to reflect lessons learned include:

- Technical Paper 3 (Noise and Vibration) – to support the justification for the proposed project primary working hours, section 3.3.3.3 of the project provides an extended hours case study from Parramatta Light Rail Stage 1 and reflects on consultation outcomes with respect to noise for Stage 1 in section 3.8.7.1.
- Technical Paper 6 (Historical Archaeological Assessment) – sections 3.1.2 and 3.5 of the report consider how the approach to assigning and assessing historical archaeological management units (HAMUs) and assigning management ratings was based on the approach adopted for Parramatta Light Rail Stage 1, which allowed for a practical way to assess and manage potential archaeological resources.
- Technical Paper 7 (Social Impact Assessment) – the assessment was undertaken in accordance with the SEARs, which included a requirement to include management measures that 'must be informed by learnings and successful actions from other projects including Parramatta Light Rail Stage 1'. In response to this, the assessment included reviewing comparable transport projects (see section 6). The mitigation measures were informed by Transport's experience on these projects.
- Technical Paper 8 (Business Impact Assessment) – the assessment adopted a similar approach to the social impact assessment and included a comparative analysis of transport infrastructure projects (see section 6 of the report). Section 10.1 of the report discusses the learnings and successful actions, including the business activation plan, business reference group, and business advisory support services that were used for Stage 1. This experience informed the development of the business impact mitigation measures.
- The mitigation measures for the project have been developed in response to the issues and impacts identified in the assessments, and included a number of measures similar to those that have been successfully implemented for Parramatta Light Rail Stage 1:
  - preparation of a residual land management plan (mitigation measure LP4)
  - appointment of Personal Relationship Manager(s) (mitigation measure LP7)
  - preparation of a social procurement and workforce development strategy building on the learnings from Parramatta Light Rail Stage 1 (mitigation measure SE8)
  - preparation of the tree offset strategy, with the contents of the strategy informed by Transport's experience on Parramatta Light Rail Stage 1 (mitigation measure LV6).

7.3.2 Royal Agricultural Society rights over Australia Avenue and P6a car park

Royal Agricultural Society rights under terms of lease

Issue description

Royal Agricultural Society is concerned that information about their rights under the terms of their Lease to Government to occupy part of Australia Avenue and P6a for a period of up to 40 days annually is not included in the EIS. Royal Agricultural Society has articulated this information to, and discussed it with, Transport on a number of occasions.

In accordance with the lease, everything associated with construction would need to be removed from the site and the site would need to be made good so it can be used in accordance with the terms of the lease. This would include removing or covering any potential trip hazards, including partially or fully constructed light rail track. Additionally, the project would not be able to operate along the route within the Sydney Royal Easter Show Carnival (the Carnival) site for an annual period of approximately 40 days.

Response

Transport is aware of the lease conditions under which Royal Agricultural Society operates the annual Sydney Royal Easter Show and Carnival. This includes the areas of Australia Avenue and P5a / P5c / P6a car parks that are used for this event and are also proposed to be used during construction and operation of the project. Transport is also aware of the proposal by Royal Agricultural Society to relocate the Carnival from its current location that has been submitted to the NSW Government but is currently undetermined.

As described in the responses in section 7.3.1 above, Transport is committed to collaborating and coordinating design development and delivery of the project in consultation with Royal Agricultural Society. It is noted that the approach to be adopted needs to consider the uncertainty of the timing of the Carnival relocation. The EIS was prepared on the basis that the relocation would occur prior to construction commencing. It is acknowledged that should this not be the case, the ongoing presence of the Carnival and the terms of the lease would need to be considered during design development and construction planning to allow for activities under the terms of the lease to continue.

Transport acknowledges the potential competing requirements for parking and storage on the P5a, P5c and P6a sites during the Sydney Royal Easter Show. Transport commits to continue working collaboratively with Royal Agricultural Society to determine the duration, shape, size, and location of light rail construction compounds to facilitate the continued operation of the Sydney Royal Easter Show and Carnival. Transport acknowledges that, as described in the response in section 7.3.1 of this report, the construction program would incorporate the need to demobilise these compounds and related equipment, and cease construction activities for the duration of the Sydney Royal Easter Show.

Transport is also aware of the potential conflict should operation of the light rail commence prior to relocation of the Carnival from Australia Avenue. If the Carnival is not relocated by the time the project commences operating, Transport would review the special event operational model to terminate services on or before Australia Avenue.

Transport acknowledges the importance of ongoing consultation and engagement with Royal Agricultural Society in relation to further joint detailed planning of the construction and operation of the project. As described in the response to issues raised about ongoing collaboration in section 7.3.1 above, mitigation measure LP2 has been amended to confirm the commitment for ongoing consultation with Royal Agricultural Society to ensure that the project is integrated with adjoining and proposed developments.

7.3.3 Royal Agricultural Society master plan

Relocation of carnival site and acknowledgement of Stage 1 of the Sydney Showground Master Plan

Issue description

Royal Agricultural Society notes that it completed a Final Business Case in 2019, in partnership with Sydney Olympic Park Authority, for the proposed upgrade of the Sydney Showground, which includes relocating the Carnival to remove any constraints associated with the Carnival and Parramatta Light Rail Stage 2.

Royal Agricultural Society has analysed the impact of relocating the Carnival and advises that there are detrimental outcomes associated with all relocation scenarios tested in comparison to the base case (i.e. no change). It would be irresponsible for Royal Agricultural Society to accept relocation of the Carnival without seeking commensurate development on the site to offset this risk.

Royal Agricultural Society's rights to the Carnival site and Australia Avenue should be acknowledged by Transport in conjunction with Stage 1 of the Sydney Showground Master Plan as part of the approval and delivery of the project.

Royal Agricultural Society requests that the opportunities for the NSW Agricultural Centre of Excellence and convention/auditorium be acknowledged and progressed by Transport as Stage 1 of the Sydney Showground Master Plan, in coordination with other parts of government, and in line with the Infrastructure NSW Investor Assurance Framework as part of the approval and delivery of the project.

Response

A response to issues raised about the implications of the proposed relocation of the Carnival to constructing and operating the project is provided in section 7.3.2 above.

Transport acknowledges and respects the rights of the Royal Agricultural Society to the Carnival site and Australia Avenue as outlined in their lease agreement, and to the extent possible this would be supported by Transport. It is noted that the matters contained in the Sydney Showground Master Plan are separate to the funding and approvals currently being sought for the project. Transport is committed to minimising potential impacts of constructing and operating the project to the operation of the Carnival site and Australia Avenue.

Relocation of Plaza Event Bus Terminal

Issue description

Royal Agricultural Society notes that an associated issue of relocating the Carnival is the potential impact on the Plaza Event Bus Terminal on Olympic Boulevard. This facility is activated for events at Sydney Olympic Park venues with crowds of more than 50,000 spectators. It operates every day during the Sydney Royal Easter Show. The facility's location on Olympic Boulevard is the preferred site for the Carnival's relocation from Australia Avenue / P6. This ties the future of this important public transport facility, which has been successfully operating for 24 years, to the project. The relocation of the Plaza Event Bus Terminal to accommodate the Carnival site is currently not scoped or funded by the NSW Government but remains an important element of the precinct event transport plan.

Response

The project would not directly impact the Plaza Event Bus Terminal on Olympic Boulevard during construction or operation. During special events, including the Sydney Royal Easter Show, construction activities would cease or be adjusted to facilitate crowd movements to and from various public transport, parking and venue locations, as required, in accordance with mitigation measure TT17. As there are no direct impacts on the Plaza Event Bus Terminal, there is no proposal to modify or relocate it as part of the project.

While direct impacts are not expected, the location of the bus terminal and the ongoing performance and maintenance of special event services would be evaluated during design development and construction planning, in consultation with Royal Agricultural Society and Sydney Olympic Park Authority, to identify appropriate measures and design responses to minimise potential impacts. This would include considering proposed changes and the impacts of other significant infrastructure and development projects within the precinct.

Future development site

Issue description

Royal Agricultural Society notes that if they agree to relocate the Carnival from Australia Avenue / P6, the value of the site could be used to forward fund the developments proposed by Royal Agricultural Society. This would mean that the real cost to Government of developing its own assets could be minimised.

Response

Any future development of sites within Sydney Showground and Sydney Olympic Park, including the P6 car park or other venues under the control of the Royal Agricultural Society, is beyond the scope of the project.

While acknowledging that relocating the Carnival from Australia Avenue and the P6 carpark would improve the efficiency of Parramatta Light Rail operations within Sydney Olympic Park, the value assessment of the future development site referred to by the master plan is subject to a NSW Government investment decision separate from the project.

7.3.4 Horse exercise access

Issue description

Royal Agricultural Society notes that they hold annual rights to the Horse Exercise Trail. Whilst these rights do not appear to be compromised by the project, access to the trail through Sydney Showground Gate 10 must be maintained for an annual duration of seven days prior to the Sydney Royal Easter Show up to and including two days after the event.

Provision of a horse crossing across the light rail tracks on Australia Avenue needs to be incorporated into the design of the project.

Response

Transport acknowledges Royal Agricultural Society's rights to the Horse Exercise Trail. Transport has considered provisions within the design to allow the Horse Exercise Trail to continue to be used, via investigation of flange gap infills or other means to ensure safe crossings of the light rail track. During construction, there may be a need to modify the location of the crossing and the surface used. Any modifications required would be managed in consultation with Royal Agricultural Society to ensure the functionality and safety of the crossing is maintained.

7.3.5 Proposed potential future stop at Grand Parade

Issue description

Royal Agricultural Society requests that Transport deliver the proposed future stop at Grand Parade as part of the project. There is no clear explanation of the development trigger for this proposed stop, so its future remains unclear. The stop would benefit patrons leaving other venues and prevent a large proportion of an event crowd from adding to potential congestion in and around Olympic Park Station and the future Sydney Metro West station.

Royal Agricultural Society also requests that wire-free operations be incorporated.

Response

Future stop

An extensive options consideration process to identify the preferred route alignment, including stop locations, was undertaken as part of the project's economic appraisal and business case processes in 2018 and 2019/2021 respectively, and during design development. Stop locations were considered based on a range of inputs, including demand, urban design, access and project operability.

The proposed future stop at Grand Parade would be constructed to integrate with surrounding development. As described in section 6.3.1 of the EIS, the project has futureproofed space for a possible future stop at Grand Parade. This stop may be constructed after the project commences operation based on demand and surrounding development. No stop infrastructure is currently proposed to be constructed at this location.

Wire-free operations

The project would incorporate sections of wire-free power supply. The EIS confirms a commitment to provide wire-free power supply along Dawn Fraser Avenue in Sydney Olympic Park (between the Jacaranda Square and Carter Street stops) and to investigate the feasibility of wire-free across other sections of the alignment.

The clarification in section 4.3.2 of this report provides further information about the options to power light rail vehicles (including wire-free power), constraints that influence how power is supplied to vehicles, and how the location of wire-free areas would be confirmed during design development, including the required studies. During design development, and once the necessary studies have been carried out, key stakeholders (including City of Parramatta Council and Sydney Olympic Park Authority) would be consulted regarding the proposed location of additional wire-free sections.

7.3.6 Closure of Showground Road and extension of Murray Rose Avenue

Issue description

Royal Agricultural Society notes that the EIS incorrectly describes the closure of Showground Road from Herb Elliott Avenue to Grand Parade. For events including the Sydney Royal Easter Show, the proposed extension of Murray Rose Avenue from Showground Road to Olympic Boulevard will need to be closed to traffic.

When Olympic Boulevard is closed to traffic to create the event pedestrian priority precinct for the stadium and arena it is likely that this proposed extension will be automatically closed as there would be no access available at the intersection of Murray Rose Avenue and Olympic Boulevard. Further to this, the area in and around this extension is a heavily populated area for pedestrian traffic.

It is recommended that the extension of Murray Rose Avenue from Showground Road to Olympic Boulevard be included as part of the project. This would also allow Sydney Showground to operate independently as an event venue from other parts of Sydney Olympic Park as is currently the case.

Response

Closure of Showground Road

Transport confirms that it is not proposed to permanently close Showground Road between Herb Elliot Avenue and Grand Parade. The permanent closure of Showground Road would be limited to the section of Showground Road between Murray Rose Avenue and Dawn Fraser Avenue. A response to the issue raised about the error in referring to the closure in Technical Paper 2 (Transport and Traffic) is provided in section 7.3.1 above under the heading ‘Inaccuracies in technical paper’.

The closure described in Table 5.3 and section 5.2.7.3 of Technical Paper 2 is a temporary closure to facilitate construction works. It is noted that property access to land uses along this part of Showground Road would be maintained during construction in accordance with mitigation measure TT14. It is also noted that Showground Road would be reopened following completion of the works in this area as a cul-de-sac connecting to Herb Elliot Drive and terminating prior to Dawn Fraser Avenue.

Extension of Murray Rose Avenue

The project for which approval is sought includes extending Murray Rose Avenue from Showground Road to Olympic Boulevard as shown in Figure 1.6 of Appendix A of the Amendment Report. Subject to detailed construction planning and activity sequencing, it is likely that the Murray Rose Avenue extension would be constructed prior to the pedestrianisation of Dawn Fraser Avenue.

In accordance with mitigation measure TT1, the design will continue to be refined to avoid or minimise impacts on the surrounding road and transport network and property accesses as far as reasonably practicable. Input will be sought from relevant stakeholders prior to finalising the design of those aspects of the project that affect the operation of road and other transport infrastructure under the management of these stakeholders in accordance with mitigation measure TT2.

7.3.7 Right turn into and out of Sydney Showground to and from Australia Avenue

Issue description

Royal Agricultural Society states that the EIS does not confirm that a right hand turn in and out of all existing accesses will be maintained, and notes that this is critical to the operations of Sydney Showground. Technical Paper 2 does not acknowledge the freight movements by large articulated heavy vehicles into the loading docks at venues in Sydney Olympic Park and Sydney Showground.

Royal Agricultural Society requests that all existing access into the Sydney Showground site, including all right turns in and out, are maintained and incorporated into project documentation.

Response

Section 6.2.7.4 of Technical Paper 2 (Transport and Traffic) states that all property accesses would be maintained along Australia Avenue. Additionally, mitigation measure TT2 commits to seek input from relevant stakeholders prior to finalising the design of those aspects of the project that affect the operation of road and other transport infrastructure under the management of these stakeholders. This includes confirming ongoing operation and maintenance arrangements, such as vehicular access requirements. Where changes as a result of the project permanently affect access to and from a public road, mitigation measure TT3 requires that input be sought from property owners and occupants regarding alternative arrangements prior to finalising the design.

Transport is committed to maintaining access to Gates 10, 11 and 13 during operation. Any changes to access arrangements identified during design development would be confirmed in consultation with Royal Agricultural Society.

7.3.8 Proposed overhead wiring

Issue description

Royal Agricultural Society expresses concern that overhead wiring along Australia Avenue could be an issue for some larger vehicles that access Sydney Showground. As Australia Avenue is the key access into Gates 10 to 13, the opportunity exists to introduce catenary-free operation from the proposed potential light rail stop at Grand Parade.

Royal Agricultural Society also notes that the operation of light rail with overhead wiring will create an eyesore at the intersection of Australia Avenue and Dawn Fraser Avenue where a significant number of poles and overhead wiring would be required adjacent to an open space (Jacaranda Square).

Response

A response to issues raised about the location of wire-free operations is provided in section 7.3.5 above. As noted in that response, during design development, and once the necessary studies have been carried out, key stakeholders would be consulted regarding the proposed location of additional wire-free sections. This would include balancing the potential for visual, biodiversity and operational impacts, guided by the urban design requirements.

The urban design requirements would provide detailed urban design guidelines and key requirements for the project in Sydney Olympic Park to guide future design, procurement and delivery. Mitigation measure LV1 provides that the urban design requirements will be finalised in accordance with the vision, principles and outcomes in Technical Paper 1 (Design, Place and Movement) and the Supplementary Design Place and Movement Report, and in consultation with key stakeholders.

Transport confirms that the height of power infrastructure (including poles and wires) for those sections of the alignment powered using overhead wiring would be sufficient to ensure that access by freight vehicles is not impacted.

7.3.9 Proposed construction compounds 12 and 13

Issue description

Royal Agricultural Society notes that construction compound 12 would occupy approximately half the current P5a car park (200 spaces). This car park is fully occupied during the Sydney Royal Easter Show for a period of 15 days and will need to be vacated annually for this requirement during construction.

In addition, construction compound 13 would occupy a section of the P6a car park and would need to be vacated for a period of approximately 40 days annually to enable occupation of the site for the Carnival in compliance with the Royal Agricultural Society lease rights.

Royal Agricultural Society requests that alternative locations for these construction compounds be found or that they are removed for the duration of the Sydney Royal Easter Show unless the relocation requirements are agreed in full.

Response

A response to issues raised about integrating the use of the proposed construction compounds with the operation of the Sydney Royal Easter Show and Carnival is provided in section 7.3.2 above.

7.3.10 Cumulative impact of construction projects

Issue description

Royal Agricultural Society considers that the traffic assessment (Technical Paper 2) does not consider the cumulative impacts of several Transport projects planned for Sydney Olympic Park.

Response

The potential cumulative impacts of constructing the project together with Sydney Metro West is considered in section 7.1.2.2 of Technical Paper 2 (Transport and Traffic). The proposed construction sites and haulage routes for Sydney Metro West do not overlap with the heavy vehicle routes and project site proposed for Parramatta Light Rail Stage 2. The proposed extension of Murray Rose Avenue to Olympic Boulevard would be constructed to provide east–west capacity prior to the closure of Dawn Fraser Avenue.

The list of other development projects in Table 7.1 of Technical Paper 2 is not exhaustive, and there may be additional projects proposed by others during the construction period.

It is noted that mitigation measure TT18 requires the potential for cumulative construction transport impacts to be reviewed and coordinated in consultation with relevant stakeholders, including Sydney Olympic Park Authority, Royal Agricultural Society and relevant divisions of Transport. This will include a more comprehensive review of potential interactions, traffic management, works staging, and coordination of detour routes to maintain traffic capacity.

The following information is provided regarding the potential for cumulative impacts with the projects identified in the submission.

Hill Road upgrade

The Hill Road upgrade project site is located between Parramatta Road and John Ian Wing Parade, south of the Parramatta Light Rail Stage 2 project site. It is acknowledged that Hill Road is identified as a primary access route for construction works. Construction of the Hill Road upgrade is anticipated to commence in 2023 and take about 18 months to complete. The main construction works for Parramatta Light Rail Stage 2 are scheduled between 2025 and 2031, subject to future funding commitment. It is unlikely that there would be significant overlap between the construction periods for these projects.

Australia Avenue / Homebush Bay Drive upgrade

This project is located at Homebush Bay Drive and includes upgrading the existing roundabout at Australia Avenue to traffic signals. Construction is expected to commence in 2025 and take around 18 months to complete. Homebush Bay Drive is not identified as a primary construction traffic access route for Parramatta Light Rail Stage 2 works within Sydney Olympic Park (see sections 4.9.4 and 4.9.5 of Technical Paper 2). Traffic management arrangements for the Homebush Bay Drive upgrade project should have regard to maintaining adequate capacity along this route.

Silverwater Road / Holker Street upgrade

The intersection of Silverwater Road and Holker Street is located about 1.6 kilometres west of the project site. In late 2022, Transport determined to proceed with the design of the intersection including preparing a Review of Environmental Factors. The construction period for this project is not yet known. It is noted that Silverwater Road is not identified as a primary construction traffic access route for project works within Sydney Olympic Park (see sections 4.9.4 and 4.9.5 of Technical Paper 2). Traffic management arrangements for the Silverwater Road project should have regard to maintaining adequate capacity along this route.

7.3.11 Management of impacts during special events

Consultation with Sydney Olympic Park Authority

Issue description

Royal Agricultural Society notes that the EIS advises that the construction contractor(s) would be responsible for considering known special events in the construction program. Understanding and pricing this element by contractors will be complicated and expensive. Royal Agricultural Society requests that Transport engage the services of Sydney Olympic Park Authority to assist with this requirement. Royal Agricultural Society also notes that the EIS does not consider events that are unknown at the time of tendering and contracting.

Response

Transport is committed to collaborating with and coordinating future project development and delivery activities with Royal Agricultural Society as a key stakeholder in the Sydney Olympic Park precinct.

Transport would also ensure that the appointed contractor(s) understand the operational requirements of special events in Sydney Olympic Park and Sydney Showground, including but not limited to the Sydney Royal Easter Show. Transport is committed to maintaining the integrity of these operations, including short lead time events, throughout the construction process.

Further information about Transport's commitments to ongoing collaboration with Royal Agricultural Society, and the approach to managing construction during special events, is provided in the responses in sections 7.3.1 and 7.3.2 above.

Adjustment of works sites, methodologies, diversion routes, etc to accommodate special events

Issue description

Royal Agricultural Society states that a number of the proposed construction sites, work locations or route diversions outlined in the EIS are either not feasible or will need to be adjusted to accommodate the requirements of special events and to avoid the impacts noted in the submission. This includes the proposed redirection of bus routes and proposed full closure of intersections at Holker Busway / Kevin Coombs Avenue, Australia Avenue / Grand Parade, and Australia Avenue / Murray Rose Avenue. Prolonged closure of these intersections during construction will not be compatible with events at Sydney Showground and its associated venues, including GIANTS Stadium, and will need to be managed as partial closures.

Royal Agricultural Society expects that Transport would follow procedures put in place to construct the light rail through the Moore Park events precinct.

Response

Transport appreciates the feedback from Royal Agricultural Society regarding the constraints on works in these locations and of potential impacts that would need to be considered during subsequent project development stages.

As described in section 7.3.1 of the EIS, an indicative construction methodology was used as the basis for impact assessment purposes. A detailed construction methodology, program and activity sequencing would be developed by the construction contractor(s) once they are appointed, based on the conditions of approval and the mitigation and management measures provided in the EIS.

The project team is aware of the location of the buses and special event buses in relation to the proposed construction zones. The ongoing performance and maintenance of services would be evaluated during the construction and operation phases of the project to minimise potential impacts. Mitigation measure TT16 provides that modifications to existing bus stops, implementation of new stops and services, and alterations to service patterns, will be undertaken in consultation with relevant key stakeholders. Any proposed changes would consider the timing and impacts of other significant infrastructure and development projects within the precinct in conjunction with Royal Agricultural Society, Sydney Olympic Park Authority and other Transport stakeholders.

The requirement to conduct regular consultation with key stakeholders (including Royal Agricultural Society) is embedded within mitigation measure TT12. This mitigation measure also requires the construction contractor(s) to modify work areas, activities and construction access arrangements to address traffic flow and access issues identified by stakeholders, where practicable.

Further information in relation to Transport's commitments to ongoing collaboration with Royal Agricultural Society, and the approach to managing construction during special events, is provided in sections 7.3.1 and 7.3.2 above.

7.3.12 Detailed advice on transport and traffic matters

Issue description

Royal Agricultural Society obtained advice from a third party on the transport and traffic assessment presented in the EIS, which was provided as a separate submission. Key issues raised in this review, that were not addressed in the above responses, are summarised below.

Assessment methodology

The reviewer notes that it is unclear if the Sydney Showground Master Plan has been included in the base land use / demographics included in the traffic model.

The use of 2016 event patronage data is questioned when base information for other studies for the project used the 2017 and 2018 event data.

It is not clear if the reported intersection performance includes existing bus priority at signalised intersections, for example at Holker Busway.

Traffic network performance

The reviewer notes that it appears that the traffic model is overestimating the use of Dawn Fraser Avenue as a through traffic movement corridor in the 'without project' scenario. The reviewer also notes there is no explanation for the significant degradation in traffic performance between 2019 and 2031 of the modelled intersections. It is also not validated against existing traffic operations, which are more like level of service A or B.

To have certainty that all options for local road network changes have been explored with the Royal Agricultural Society and Sydney Olympic Park Authority before relying on this for definitive traffic modelling and design, the reviewer states that further consultation and workshopping of options is required.

Response

Assessment methodology

The traffic model contained information regarding all known major developments at the time of modelling commencement. It included the *Sydney Olympic Park Master Plan 2030*, City of Parramatta Council's Local Strategic Planning Statement, the Wentworth Point Development Control Plan and other major private developments. The strategic model also included future development associated with the implementation of Sydney Metro West within the boundaries of Sydney Olympic Park.

Traffic modelling was carried out for the weekday AM and PM Peak periods. Generally, larger special events are organised during weekends or public holidays or after peak hours. Additionally, bus services differ for each special event. Special event patronage estimated in the EIS will be further investigated with future operational scenario assessments in consultation with Sydney Olympic Park Authority and Royal Agricultural Society, and in accordance with the mitigation measures (see responses in section 7.3.2 above). Future investigations can evaluate specific special events and weekend traffic data to identify the current operational performance of intersections as well as forecast the number of users Holker Busway can service.

The forecast intersection performance documented in section 9.4 of the EIS included future signal phasing and bus priority at relevant intersections. The bus priority intersection at Hill Road / Holker Street was modelled as an upgraded signalised intersection in 2031.

Traffic modelling and assessment

As part of development of the traffic model, a comparison between empirically observed and modelled travel times was undertaken to validate model performance. The section of Dawn Fraser Avenue between Park Street and Olympic Boulevard was selected for the comparison and the results indicated good consistency, indicating that existing operating conditions along Dawn Fraser Avenue were well reflected by the model results.

The 2019 model results show that the Australia Avenue / Dawn Fraser Avenue intersection operates at a level of service A in both AM and PM peaks. The degradation in predicted traffic performance at the Dawn Fraser Avenue / Australia Avenue intersection in the 2031 'without project' scenario is due to further development in Sydney Olympic Park, resulting in higher levels of background traffic growth by 2031.

In 2031 'with project', the results show that the intersection would provide a level of service A in the PM peak. However, the performance is predicted to deteriorate substantially in the AM peak with a forecast level of service D. The observed deterioration in AM peak is attributed to congestion at the Murray Rose Avenue / Australia Avenue intersection. The right turning vehicles on the Murray Rose Avenue (west) intersection approach would find it difficult to access suitable gaps in traffic on Australia Avenue, with the potential for long queues on this approach, impacting its performance.

Future planning of road network changes during construction and operation, including temporary road closures, traffic detour routes and potential contraflow arrangements, would be investigated and implemented in consultation with Royal Agricultural Society and Sydney Olympic Park Authority to provide improved traffic management outcomes.

7.4 Utility owners

7.4.1 Ampol Australia Petroleum

Pipeline location in Lidcombe not shown

Issue description

Ampol notes that it has a licensed oil pipeline in the vicinity of the project. The pipeline is shown along Grand Avenue within the project documents; however, it also runs along Carter Street in Lidcombe, which is not shown.

Response

It is acknowledged that section 7.8 of the EIS did not note the location of the high pressure fuel pipeline along Carter Street, Lidcombe. As described in section 4.1 of this report, the project description chapters of the EIS (Chapter 6 (Project description – infrastructure and operation) and Chapter 7 (Project description – construction)) have been updated to consider the amended project and are provided in Appendix A (Updated project description) of the Amendment Report. Section 2.8 of the updated project description notes the location of Ampol's fuel pipeline along Carter Street, Lidcombe. However, it is noted that although the pipeline is located within the project site at this location, it should not be impacted by the project.

In accordance with mitigation measure LP9, the location of all utilities and services, and requirements for access to, diversion, protection and/or support, will be confirmed prior to construction.

Operational impacts

Issue description

Ampol raises concerns about the potential effects of stray current electrolysis from the project. Any additional loading onto the pipeline will need to be considered. Continued access to the pipeline corridor for ongoing maintenance activities is also required.

Response

Transport is committed to ensuring that the potential for any impacts on critical utilities during construction and operation are effectively mitigated and managed in accordance with relevant design standards (including the Australian Standard (AS) 2885 series of standards for gas and liquid petroleum pipelines) and the requirements of relevant utility providers.

As described in section 19.4.2 of the EIS, no direct impacts on utilities, including high pressure pipelines, are anticipated during operation. During design development, potential operation risks would be identified, and management measures developed, as part of the safety management study undertaken in accordance with mitigation measure HR7. Mitigation measure HR7 has been amended to confirm that the study, which will be undertaken in accordance with Australian and New Zealand Standard *AS/NZS 2885.6:2018 Pipelines – Gas and liquid petroleum, Part 6: Pipeline safety management*, will identify potential risks, including those associated with proposed alterations during construction. The outcomes of the safety management study will be incorporated in construction planning and design development.

Ongoing design development, and implementation of the mitigation measures provided in Appendix B (Updated mitigation measures) of this report, would ensure that operation would not lead to non-compliance of the high pressure pipelines with AS 2885.

Construction impacts

Issue description

Ampol notes that there are requirements for work around the pipeline, and that potential impacts to the pipeline would need to be considered/managed, including vibration, size of machinery used around the pipeline, services parallel and crossing the pipeline, loading on the pipeline etc. Third party supervision is required for all works within the vicinity of the pipeline.

Response

The preliminary hazard analysis undertaken as part of the EIS (see Chapter 19 (Hazards and risks) and Appendix G (Preliminary hazard analysis) of the EIS) informed the development of the mitigation measures to avoid and minimise the potential for impacts on or from utilities during construction and operation.

Section 19.3.2 of the EIS and the preliminary hazard analysis consider potential risks to utilities (including fuel pipelines) during construction, including potential rupture during excavation (either through direct contact or working near aged, unstable utilities) or the collision of plant and equipment with above ground services. Ongoing consultation with utility providers (including Ampol) and implementation of construction management measures identified by the incident and emergency response plan (undertaken in accordance with mitigation measure HR6) and the safety management study (undertaken in accordance with mitigation measure HR7) would ensure that potential risks during construction are effectively managed. The management measures would include, as appropriate, supervision of works within the vicinity of the fuel pipelines.

The potential for vibration impacts on pipelines was considered in section 10.4.4 of Chapter 10 (Noise and vibration) of the EIS. The assessment found that, based on worst-case construction activities and adopted construction goals, it is anticipated the vibration goals could be exceeded within five metres of construction works.

In accordance with mitigation measure NV14, a survey will be undertaken to identify vibration sensitive receivers (including utilities and equipment) within 200 metres of the project site. Vibration criteria will be identified based on relevant standards or manufacturer's data. Where vibration criteria are not available, conservative criteria will be used. Appropriate measures will be developed and implemented where potential exceedances of the criteria are identified.

Transport notes the requirement for third party supervision for all works within the vicinity of the pipelines. Mitigation measure LP9 provides that the location of all utilities and services, and requirements for access to, diversion, protection and/or support, will be confirmed prior to construction. This will include (as required) undertaking utilities investigations, including intrusive investigations, and consultation and agreement with service providers regarding any specific requirements for works.

7.4.2 Ausgrid

Compatibility with existing Ausgrid infrastructure

Issue description

Ausgrid requests that due consideration be given to the compatibility of the project with existing Ausgrid infrastructure, particularly in relation to risks of electrocution, fire risks, electric and magnetic fields (EMFs), noise, visual amenity, and other matters that may impact on Ausgrid's infrastructure or the project.

Ausgrid also requests that, prior to any construction, plans be submitted to Ausgrid for approval to determine whether the project will affect Ausgrid's network or easements. Transport must identify the potential impacts of construction and operation on the existing utility infrastructure and service provider assets, and demonstrate how these will be protected or impacts mitigated.

Response

Transport is committed to ensuring that the potential for any impacts on critical utilities during both construction and operation are effectively mitigated and managed in accordance with relevant design standards and the requirements of utility providers.

Responses to issues raised about mitigating and managing the potential for risks to utilities during construction and operation are provided in section 7.4.1 of this report.

As part of design development, investigations are underway to further understand the exact location of utilities within the project site and required works to utilities. These investigations will be informed by ongoing consultation with utility providers. The nature and extent of adjustments required and potential for impacts on existing utility infrastructure would be confirmed during design development and in consultation with the utility providers. This would include the provision of plans where works with the potential to affect utilities are proposed. This commitment is confirmed by mitigation measure LP9, which provides that the location of all utilities and services, and requirements for access to, diversion, protection and/or support, will be confirmed prior to construction.

In addition to the mitigation measures noted above, mitigation measure HR1 provides that the project will be designed in accordance with *Non-Ionising Radiation Protection Guidelines for Limiting Exposure to Time Varying Electric and Magnetic Fields* (ICNIRP, 2010) and Australian Standard *AS 2067:2016 Substations and high voltage installations exceeding 1 kV* to minimise the risk associated with electro-magnetic field exposure. Wiring, tracks and other infrastructure will be designed to mitigate risks associated with high voltage cabling and potential earth leakage.

Consultation

Issue description

Transport is encouraged to continue to discuss their requirements, including any new supply connections to the Ausgrid electricity network, directly with Ausgrid as needed.

Response

As described in section 19.1.4 of the EIS, consultation with the owners and operators of utilities with the potential to be affected would be ongoing throughout the design development and construction planning process. Transport would continue to engage with Ausgrid regarding the servicing requirements for the project, including details of any new supply connections.

7.4.3 Endeavour Energy

Continue working together during Stage 2

Issue description

Endeavor Energy requests that Transport continue to work closely with Endeavour Energy in relation to all aspects of the project, including asset relocations and the required power supply.

Response

Transport is committed to collaborating with and coordinating design development and delivery of the project in consultation with key stakeholders. Transport would continue to work closely with Endeavour Energy regarding those aspects of the project that may affect Endeavour Energy's assets or regarding potential power supply, building on the successful collaboration that was undertaken for Parramatta Light Rail Stage 1.

Protection of certain electricity works

Issue description

Endeavor Energy notes that existing electricity infrastructure over which there is no easement but may be regarded as protected works under Section 53 'Protection of certain electricity works' of the *Electricity Supply Act 1995* (NSW) may be managed as if an easement is in place, as detailed in Endeavour Energy's Mains Design Instruction MDI 0044 'Easements and Property Tenure Rights'. Where works are to be retained as part of the project, appropriate easements may need to be created over the electricity infrastructure.

Response

Transport acknowledges the need for certain electricity works to be managed as if an easement was in place or to require the creation of an appropriate easement.

Transport commits to following all applicable Endeavour Energy processes. Situations relating to retained assets would be managed on a case-by-case basis, in consultation with Endeavour Energy, to ensure an optimal outcome for all parties.

Referral needed

Issue description

Endeavor Energy requests that all encroachments and/or activities within or affecting an easement, restriction or protected works (other than those approved/certified by Endeavour Energy's Customer Network Solutions Branch) be referred to Endeavour Energy's Easement Officer for assessment and possible approval to confirm they meet the minimum safety requirements and controls.

Response

As noted in the above response, Transport commits to following all applicable Endeavour Energy processes. Transport would continue to consult with Endeavour Energy as the design progresses. A response to similar issues raised by Ausgrid is provided in section 7.4.2 of this report.

Minimum required safety clearances and controls and planting of large/deep rooted trees near electricity infrastructure

Issue description

Endeavor Energy requests that the minimum required safety clearances and controls for building and structures (whether temporary or permanent) and working near overhead power lines be maintained at all times. Even if there is no issue with the safety clearances, consideration must be given to WorkCover (now SafeWork NSW) 'Work Near Overhead Power Lines Code of Practice 2006'.

Endeavour Energy opposes the planting of large/deep rooted trees near electricity infrastructure. Existing trees of low ecological significance close to electricity infrastructure should be removed and if necessary replaced by an alternative smaller planting. Transport is requested to ensure that any planting near electricity infrastructure achieves Endeavour Energy's requirements in relation to vegetation management.

Response

Transport confirms that all applicable Endeavour Energy standards and Safework NSW codes of practices relating to safety clearances and controls would be followed.

With regard to the removal of trees, section 15.3.3 of the EIS assesses the potential impacts on trees. The assessment assumed, as a worse case, that all trees within the project site may need to be removed to enable the project to be constructed and operated safely. However, Transport is committed to retaining trees wherever possible. In accordance with mitigation measure LV5, the design will continue to be refined to avoid or minimise impacts on trees. Further information on the approach to managing impacts on trees is provided in the clarification in section 4.3.3.

Consistent with the process undertaken for Parramatta Light Rail Stage 1, Transport would prepare a Basis of Design Manual in consultation with Endeavour Energy during design development. The manual would describe the technical approach planned for the project in accordance with relevant design standards, as it relates to Endeavour Energy's assets. The manual would capture any light rail-specific clearances and controls, as well as any planting requirements and constraints.

Adequate connections

Issue description

Endeavor Energy requests that Transport engage an Accredited Service Provider of an appropriate level and class of accreditation to assess the electricity load and the proposed method of supply for the projects.

Response

Transport confirms that an Accredited Service Provider would be engaged, as required.

Undergrounding of electricity

Issue description

Endeavour Energy's network asset design policy is generally to progressively underground all new urban developments. All new cabling/reticulation infrastructure must be of an underground construction type.

Endeavor Energy notes that where existing overhead construction is present close to the site, it may require undergrounding as the project proceeds.

Response

Transport would continue to collaborate with Endeavour Energy on their policy to progressively underground all new urban developments in relation to assets impacted by the project. Mitigation measures LP9 provides that the requirements for access to, diversion, protection and/or support of utilities, will be confirmed prior to construction. This will include consideration of the potential need for undergrounding in consultation with Endeavour Energy.

7.4.4 Viva Energy Australia

Impacts to Viva Energy assets

Issue description

Viva Energy raised concerns about potential impacts on their assets in a number of locations, and requested early and in-depth consultation about these particular locations to achieve an optimal and safe outcome for the integrity of the pipeline and the project.

Response

Transport is committed to ensuring that the potential for any impacts on critical utilities during both construction and operation are effectively mitigated and managed in accordance with relevant design standards (including the Australian Standard (AS) 2885 series of standards for gas and liquid petroleum pipelines) and the requirements of utility providers. This would include ongoing consultation with all utility providers (including Viva Energy) to ensure that the integrity of Viva Energy's assets is protected during construction and operation of the project. Further information in response to similar issues raised by Ampol is provided in section 7.4.1 of this report.

In addition, Transport has commenced engagement with Viva Energy Australia regarding the proposed impacts and treatments to their Gore Hill pipeline asset and would continue to consult with Viva Energy Australia as the design progresses.