

COUNCIL SUBMISSION - Environmental Impact Statement (EIS) for Sydney Metro West Stage 3 – Rail infrastructure, stations, precincts, and operations

EXECUTIVE SUMMARY

City of Parramatta Council (Council) thanks the NSW Department of Planning and Environment (DPE) for the opportunity to provide a submission to this public exhibition of the EIS for the Sydney Metro West Stage 3 – Rail infrastructure, stations, precincts and operations (the Project). Council looks forward to continuing to work closely and proactively with DPE and Sydney Metro on this critical Project.

Council strongly supports the delivery of the Sydney Metro West, an important part of the city-shaping infrastructure required to support the anticipated growth across the greater Parramatta to Olympic Precinct corridor.

Council notes however that there is still work to be done on some aspects of the EIS, particularly with regard to updated traffic modelling, consideration of Parramatta Light Rail traffic management impacts, holistic kiss and ride analysis and strategy for the Stations, and updating the EIS to recognise the draft Camellia-Rosehill Place Strategy (DPE) and draft Westmead Place Strategy (DPE). These matters will be discussed in this submission.

Within Council's review of the EIS there are particular matters where quality public domain, social and environmental outcomes require direction via conditions of planning approval to be realised. These matters are as follows.

- The design and implementation of an effective Civic Link in the Parramatta CBD, in conjunction with City of Parramatta Council, will require establishing minimum dimensions for the link, laneways and public space, along with drop downs for provision of deep soil tree planting and service provision. If these are not provided Civic Link will be compromised and a key Sydney Metro West public domain outcome in the Parramatta CBD will not be achieved;
- The EIS should also be amended to reference the provisions of the Civic Link Special Area in the Draft City Centre DCP (to be developed by Sydney Metro in consultation with City of Parramatta post consent and before the construction of the station and structures for non-station use), and the design guidelines should be more robust in providing building footprints and three dimensional envelopes (again developed in conjunction with City of Parramatta);
- A'Becketts and Duck Creek Riparian Corridors should meet the minimum 30m (Duck Creek) and 20m (A'Becketts Creek) vegetated riparian zones as per NSW Department of Industry Guidelines for controlled activities on waterfront land - Riparian Corridors (2018);
- Overlaps in analysis and information caused by the staged EIS process must be resolved in this latest EIS, including critical information within the current flood hydraulic concept modelling within Planning Approval SSI-10038 and the creation of recreation offset land within the flood storage area of the Clyde Stabling and Maintenance Facility (CSMF) in that concept model. There are current analyses taking place which must be reflected in this EIS, as the appropriate document to provide that detail;
- The indicative layout plan for the CSMF should be updated to reflect the full scope of active transport connections consistent with the draft Camellia-Rosehill Place Strategy, specifically the active transport route along Duck Creek connecting the precinct to the M4 cycleway and connections from the recreation offset land to Duck Creek and Sydney Metro staff facilities, and
- The traffic modelling should be updated to reflect current conditions outside of the pandemic lock-down, should further consider traffic management around the Station precincts and should consider specific local conditions described in this submission.

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The submission provides a detailed assessment of key issues arising from review of the exhibited documents and is organised into five sections that cover the Civic Link & Public Domain Layout, Land Use Planning, Place Making & Recreation, Traffic Management, Contamination and Flooding respectively. In addition Council notes that the Sydney Metro West Project should include (or as a minimum, provision for future addition) a Metro Station at Camellia.

Council requests that the DPE ensures the above issues are considered before an approval is issued. Council welcomes further opportunities to meet with DPE and Sydney Metro to discuss this submission.

KEY ISSUES

Section 1. Parramatta Metro Station, Civic Link, road/lane & public domain layout, above station and adjacent station development

1.1 Civic Link design and layout

Section 8.2.1 of the EIS provides:- *Key features or changes to the design to avoid or minimise impacts, and respond to feedback from stakeholders and the Design Advisory Panel include:*

- *provision of enhanced civic-scaled public domain in the centre of the Parramatta CBD (based on feedback from the Design Advisory Panel), which also opens up space around and views to the heritage-listed Kia Ora*
- *delivery of part of the Civic Link and safeguarding an east-west connection between Smith Street and Church Street, consistent with the Draft Civic Link Precinct Development Control Plan and feedback from the City of Parramatta Council.*

This statement is well-received. Civic Link is critical urban infrastructure that provides easy and legible modal interchange between the train station, light rail and the proposed Metro and bus interchange on Smith Street integral to the function of the CBD.

Council's 2021 publicly exhibited Draft City Centre DCP describes an updated layout from the Framework Plan and was prepared in consultation with Sydney Metro, important to realising both Council and Metro's aims. The Draft DCP defines a new street and laneway network serving existing and future buildings and some through traffic.

The EIS acknowledges the importance of the Civic Link and broader public domain outcomes, however has not adopted the key dimensions and alignments required to set out in the new streets, laneways and squares within the block to ensure consistent outcomes for the Civic Link and the block.

The EIS diagrams are largely illustrative and scaleless and lack certainty about the proposed built form and public domain outcomes within the Metro land. The Metro proposal is staged across an SSI and SSD approval process. There is no consistent documentation (drawings) across the two pathways that describe the extent of work and collective physical outcomes for the whole Metro site and how it will be staged.

The SSI does not include sufficient description and dimensions for the proposed open spaces, streets, laneways and connections. The accompanying EIS Appendix E Design Guidelines require that Civic Link be of a "generous minimum dimension" - this is vague and inconsistent with the draft Civic Link DCP, raising significant concern for Council.

This EIS must take the next step to ensure that this agreed intent for Civic Link and the public domain, per the referenced Civic Link Special Area in the Draft City Centre DCP is safeguarded. The intent and descriptions alone will not provide the desired framework. The next step is to condition a reference diagram and requirements to ensure the efficacy of intended use of the road and lane layout, connections to Church and Smith Streets, Civic Link and squares, and ability to landscape the public domain with adequate soil depth.

Hence, Council proposes the conditioning of Figure 1 – Public Domain, Street and Deep Soil provision, Table 1 – Deep Soil Beds on Grade (City of Parramatta Public Domain Guidelines), Table 2 - Requirements for Soil Beds on Underground Structure (2015 Apartment Design Guide – DPE) and Figure 3 – Soil Bed Depth on Underground Structure – all contained within **Attachment 1**.

Providing these conditions within the Planning Approval will be consistent with advice from the Design Advisory Panel and EIS provisions and referenced documents, and will enable the detailed design of the Station Box and public domain fit to incorporate these requirements. The Civic Link is one of Council's most important public spaces, which Council is in partnership with Sydney Metro to deliver.

Council respects the role of Sydney Metro in delivering this game changing infrastructure and will further collaborate with Sydney Metro on the detailed design of the precinct. It is recommended that:

- The SSI Planning Approval incorporate Figure 1 – Public Domain, Street and Deep Soil provision, Table 1 – Deep Soil Volume on Grade (City of Parramatta Public Domain Guidelines), Figure 2 – Deep Soil Depth on Grade, Table 2 - Soil Bed Volume on Underground Structure (2015 Apartment Design Guide – DPE), and Figure 3 – Soil Bed Depth on Underground Structure, as Conditions of Approval.
- That the SSI Planning Approval condition all vehicle access, service access, and parking for the proposed buildings to be wholly contained within the building footprints and not under public domain, as shown in Figure 1. Detailed access and servicing arrangements to adjacent properties to be the subject of a design to be developed by Sydney Metro in consultation with City of Parramatta (post consent and before the construction of the station and structures for non-station use).

1.2 Civic Link planting and services in provisioning for over station and adjacent station development

Section 8.2.4 provides that as part of this proposal, basement structures would be provided to support the future over and adjacent station developments, including provision of space for future car parking. The construction of the basement structures is included as part of this proposal as this work could not be readily undertaken following the construction of the station and provision of the aboveground station infrastructure (including the services building).

Section 8.4.1 provides that this proposal would include additional excavation for the construction of basement structures for future over station and adjacent station development that would require the removal of about 145,000 cubic metres of spoil (in Figure 8-2 of the EIS).

The basement structures to support future over and adjacent station development, along with the Station Box fit out, must be designed to provide the slab drop down to allow deep soil planting, per Figures and Tables in **Attachment 1**. It will be too late to leave this critical element to a 'future' approval, when the basement structures for future commercial development are part of this EIS and Planning Approval. It is recommended that:

- Provision for minimum 1800mm slab drop down or other mechanism for providing deep soil provision (Tables 1-2, Figures 1-3 in Attachment 1), must be conditioned within the Planning Approval for over station and adjacent station development within the Civic Link.
- Provision for minimum 3000mm slab drop down or other mechanism for provision of services, with service access provided from surface and no suspended services in underground structures for over station and adjacent station development within the Civic Link.

1.3 Retention of on-grade parking in Parramatta Station precinct

The EIS in Figures 8.6 – 8.8 proposes to retain the on-grade car park east of the Roxy Theatre. The car park will conflict with the significant pedestrian movements along Macquarie Lane between the proposed bus interchange on Smith Street and the Metro station at Civic Link. The retention of on grade car parking or service space is not a desirable outcome in the future high density, high pedestrian city where amenable urban space is highly valued. Council's strong preference, shown in the Draft City Centre DCP, is for

amalgamation of the carpark with adjoining properties to facilitate a commercial tower, for a new laneway along the eastern edge of the Roxy to provide vehicle access away from the Smith Street bus interchange and to enable a safe pedestrian path along Macquarie Lane to the Metro Station. Any parking requirements for Metro operational use should be located within the building envelope. It is recommended that:

- The EIS figures and text indicate non-permanency of the on-grade car park east of the Roxy.

1.4 Horwood Place share zone treatment

Parramatta Light Rail has limited movement to Macquarie Street eastbound and one way. This means that vehicles will travel from the south and west along Horwood Place to George Street. The amount of traffic has not been identified and the implications for the design of Horwood Place are unknown. Some of the Metro diagrams show Horwood Place as a shared zone and others as a street. It is Council's preference that Horwood Place be designed with a straight alignment reflecting the urban street grid in Parramatta. The amended alignment of Horwood Place to the east will impact public domain works completed by Parramatta Light Rail. The traffic circulation at the intersection and the access to the Leigh Memorial Church needs to be assessed and confirmed for the amended street alignment location. It is recommended that:

- The EIS indicate that Horwood Place be designed with a straight alignment reflecting the urban street grid in Parramatta.

1.5 Parramatta Metro Station, flood affectation

The EIS identifies the Probable Maximum Flood (PMF) as the applicable flood protection levels for the metro station. Current proposed station entry levels at Church Street are 1.91m below the PMF at Church Street and 0.97m below the PMF at Civic Link (8.11.2, pg 8-73). In the event that these entry floor levels are amended to meet the PMF, then station entries will sit higher than the surrounding public domain, which may result in considerable ramping, stairs or other poor-quality access and visual amenity outcomes in the public domain interface. EIS Section 8.1.1 notes that potential flooding impacts at the station as the proposed station entry surface levels are below the flood protection level and would require active protection measures. **Council strongly supports active protection measures (for example flood gates) rather than steps and ramps within or adjoining the public domain to transition from street level to a PMF based concourse height.**

1.6 Design Guidelines, building envelope definition and heritage in the Parramatta Station precinct

The proposed Design Guidelines are limited and too general to meaningfully guide the public domain and built form outcomes for the Parramatta Station Precinct (Section 5.2) and greater certainty is required. Council's DCP should either be referenced in the Design Guidelines or alternative guidelines with a comparable level of detail to the DCP are required to provide certainty across the development stages and approval pathways of the Metro station, associated and adjacent development. The EIS states that Guidelines can evolve as approved by Metro's design review panel. **Council is a major stakeholder in the outcomes of the broader precinct and the delivery of Civic Link and should have a role in defining the Guidelines before development approval stages commence.**

The definition of the proposed building envelopes, like the public domain, is illustrative in diagrams and inconsistent between text and diagrams. Building envelopes in Chapter 8 lack definition and are not sufficient to facilitate future development assessment. The EIS is also inconsistent in describing podium envelopes, for example: drawings show building podiums ranging from 3 to 5 storeys, while the text describes podium heights ranging from 5-7 storeys at stations.

The EIS does not accurately locate towers and include upper-level setbacks. The illustrations included in the recent request for SEARS for the SSD application also did not adequately describe the proposed towers. In contrast, Council's Draft City Centre DCP describes street walls and upper setbacks to towers within the block and reinforces the broader built form objectives within the whole City Centre.

The Draft DCP aims for buildings within the urban block to reinforce the public realm both within and outside the block in a coordinated manner, for example by defining streets in response to their role and character in the city centre and by defining podium heights in response to heritage settings (i.e. the Roxy Theatre). **A coordinated outcome across the SSI and SSD is required for the built form.**

Heritage items within the Metro site (Kia Ora, George Street Shops) and immediately adjacent (The Roxy) are not adequately addressed in relation to future built form and curtilage. The Roxy Theatre is a state significant heritage item and views to it along the Civic Link are critical. The proposed station entry building on the Civic Link encroaches into the Civic Link alignment (established in the 2017 Civic Link Framework Plan) and impacts on views north to the Roxy.

Further information and work is required to assess permanent indirect (visual) impacts to the Roxy Theatre, including a viewpoint north from the Civic Link showing the visual impacts of the station entry building on the Roxy Theatre. Council's DCP, written in consultation with a heritage expert, establishes a 6-storey street wall as a backdrop to the Roxy and to distinguish between the architectural expression of podiums and towers. Station buildings envelopes at all design stages should protect the Civic Link alignment.

It is recommended that:

- The EIS Design Guidelines to form part of the conditions of Planning Approval and be amended to reference the provisions of the Civic Link Special Area in the Draft City Centre DCP (to be developed by Sydney Metro in consultation with City of Parramatta post consent and before the construction of the station and structures for non-station use).
- The EIS Design Guidelines provide dimensions and detailed information on building footprints and three dimensional built form, and that building envelopes reflect the objectives of Council's draft City Centre DCP (to be developed by Sydney Metro in consultation with City of Parramatta post consent and before the construction of the station and structures for non-station use), and
- Within the SSI Planning Approval Summary of Reporting Requirements (Reports and Notifications that must be submitted to the Planning Secretary), the EIS Design Guidelines be the subject of Approval of the Secretary. 8 City of Parramatta Council Submission – EIS-3 Metro West.

Section 2. Land Use Planning, Place Making and Recreation

Clyde and Camellia

2.1 Inclusion of a Metro station at Camellia

Council has previously identified the need for the inclusion (or as a minimum, provision for future addition) of a Metro Station in Camellia. This is critical to providing much needed regional access to important recreational and employment uses in the precinct, and to support its future growth and capacity of up to 10,000 additional dwellings and 14,500 jobs by 2041 as envisioned in the draft Camellia-Rosehill Place Strategy. It is recommended that:

- The EIS provide for the inclusion (or as a minimum, provision for future addition) of a Metro Station in Camellia.

2.2 Recreation land offset at Clyde Stabling and Maintenance Facility site

The first EIS and Planning Approval condition C B-2 required a recreation land offset for the loss of the Parramatta Speedway. The siting and design of the Rosehill services facility will need to consider the future land uses identified in the Draft Camellia-Rosehill Place Strategy. Essential community open space infrastructure has been earmarked to be located on residual land as marked in red in Figure 4 (extract from the draft Camellia-Rosehill Place Strategy) and Figure 5 (Indicative Layout Plan, EIS pg.17-4) in **Attachment 1**.

In this respect, the GRC Hydro hydraulic flood concept Report forming part of the first Planning Approval has superseded aspects of this EIS in providing a combined flood detention basin and recreation space in this residual area. There is sufficient room on the site for the Metro Rosehill Services facility and the provision of sporting fields on the residual land and flood detention basin. Refer Figure 6 and 7 within **Attachment 1**.

It is recommended that:

- The Clyde Stabling and Maintenance Facility Indicative Layout Plan should be updated to reflect the location of community sport and recreational infrastructure on residual Sydney Metro land consistent with the draft Camellia–Rosehill Place Strategy, per Figure 7 in Attachment 1 of this submission.

2.3 Active transport links

The indicative layout plan in the EIS should be amended to reflect the full scope of active transport connections identified in the draft Camellia-Rosehill Place Strategy. Additional active transport connections have been identified along and across Duck Creek within the vicinity of the Clyde stabling and maintenance facility. Active transport links along Duck Creek should form strategic loops to avoid creating dead ends. It is acknowledged that the footprint of these links will need to be minimised to protect any existing significant vegetation in the riparian corridor.

These Wilderline connections are shown in an annotated version of the EIS images, refer to Figure 8 in **Attachment 1**.

It is recommended that:

- The indicative layout plan should be updated to reflect the full scope of active transport connections consistent with the draft Camellia-Rosehill Place Strategy, specifically the active transport route along Duck Creek connecting the precinct to the M4 cycleway.
- The Wilderline in the concept plans show a connection to its northern and southern extents.
- The Wilderline should be a minimum of 5.5m wide to allow for visual or physical separation of pedestrians and cyclists, and meaningfully connect at the ground plane to the M4 Cycleway and Central City Parkway at the M4 (at either A'Beckett's Creek or Hamilton Street), to the PLR ATL in the north, and to Unwin Street on the east. (Required links shown in green as per annotated Figure 8 in Attachment 1).
- The new Unwin Street should have paths both sides of the street, a footpath on the west and a minimum 3m shared path on the east.
- The shared path on the east should have a respite point and small shelter on the bridge over Duck Creek.
- The Sydney Harbour Regional Environmental Plan (SHREP) 2005 also encompasses the foreshore of Duck River and Duck Creek where they are tidal at the Project area, therefore foreshore access should be addressed within the SHREP framework. Similarly, the draft Camellia-Rosehill Place Strategy identifies foreshore access on both sides of Duck Creek at the project site, however the project only identifies a potential link to the north.
- The project should provide at a minimum walking and cycling access on the northern foreshore as well as separated walking and cycling access north-south aligned with Shirley Street.
- The east-west connection will form an important 'edge' between the naturally restored creek bed and the proposed open space to the north, and ensure the two opens spaces are meaningfully connected and have an active southern edge.
- This north-south link aligned with Shirley Street must connect to the M4 Cycleway at either Deneihy Street or the Duck River confluence (the latter is preferred). [The nature of earthworks, fencing and re-vegetation will likely preclude the delivery of these links in the future].

2.4 A'Becketts and Duck Creek Riparian Corridors

The stabling and maintenance facility adjoins A'Becketts and Duck Creeks that are permanently flowing estuarine waterways and function as movement corridors for highly mobile fauna species, and provide fish habitat (mangroves) and potential foraging resources. Whilst they are highly modified watercourses with degraded narrow riparian zones, impacts from both construction activities and ongoing operations will potentially impact fish habitat, wildlife movement and reduce water quality.

A wider vegetated riparian zone (VRZ) is required to minimise impacts on natural sections of A'Becketts and Duck Creeks during both construction and ongoing operation of the stabling and maintenance facility.

This VRZ should be in accordance with NSW Department of Industry *Guidelines for controlled activities on waterfront land - Riparian Corridors* (2018), being a minimum of 30m (Duck Creek where it is tidal) and minimum of 20m (A'Becketts Creek), to provide an adequate buffer zone between the proposed stabling and maintenance facility and waterways.

The proposed active transport link should be consolidated along the northern side of Duck Creek and form the boundary between the VRZ and adjoining future potential recreational and infrastructure land uses to maximise VRZ integrity and functionality, being:

- bed and bank stability
- water quality protection
- diversity of habitat for terrestrial and aquatic flora and fauna
- connectivity between wildlife habitats

It is recommended that:

- The Planning Approval require a minimum 30m (Duck Creek) and 20m (A'Becketts Creek) vegetated riparian zone as per NSW Department of Industry *Guidelines for controlled activities on waterfront land - Riparian Corridors* (2018).
- The Planning Approval require a consolidated active transport link within the northern Duck Creek corridor to form the boundary between the vegetated riparian zone and adjoining recreational and infrastructure land uses.

Sydney Olympic Park

2.5 Community centre

The EIS and Indicative Layout Plan (ILP, EIS pg.9-4) (**Figure 8**) for the Sydney Olympic Park metro station should respond to and be consistent with the Sydney Olympic Park Master Plan 2030 (**Figure 9**). The Indicative Layout Plan does not identify the community centre space that is earmarked to be in the Sydney Metro West building fronting Herb Elliot Avenue, consistent with the Master Plan and Interim Metro Review, specifically:

- a) The gross floor area for the community centre would need to be greater than 3500m², commensurate with the additional demand generated by a proposed 35% increase in residential gross floor area
- b) The community centre must have a defined street address, have high visibility, be fully accessible, operate independently of the Metro station and should adjoin proposed open spaces. Site selection and delivery of the community centre space should also be consistent with the relevant principles set out in [Council's Community Infrastructure Strategy](#) (pg. 63 – 65) for delivery of community infrastructure.

It is recommended that:

- The Indicative Layout Plan should be updated to reflect the location of the community centre space in the building fronting Herb Elliot Avenue and ensure that it is sufficiently sized to meet community needs. Future development proposals will need to meet Council's requirements for the community centre space.

2.6 Central urban park

The Indicative Layout Plan in the (EIS Figure 9.1) should identify the location of the central urban park which was previously identified in the Sydney Olympic Park Masterplan – 2030. Reduction in the size of the urban park by approximately 50% from 5780m² to 3500m² is not supported.

It is recommended that:

- The EIS Indicative Location Plan should be updated to reflect the location of the central urban park.

2.7 Operational matters and land use

Interchange facilities

The proposal should ensure that interchange facilities are sufficiently sized to accommodate increased bus feeder services from surrounding suburbs including Newington and Silverwater. This will be key to realising Sydney Olympic Park's function as a critical transport interchange in the Central River City.

Pre-loading spaces

The proposal should ensure that pre-loading spaces are sufficiently sized to accommodate the high volume of passengers using the Metro during major events.

Non-residential uses

Figure 9-5 of the EIS indicates that non-station and above-station uses will comprise of commercial uses and mixed uses. Council's supports the location of commercial uses however not the residential use in the vicinity of the Metro station. This would undermine the principle to "locate commercial and retail land uses around Olympic Park Station and close to local bus service corridors" as identified in the draft Master Plan.

Active transport links

The Indicative Location Plan (EIS- Figure 9.1) shows existing and proposed active transport routes to a certain extent. Strengthened active transport connections between the Metro station to the train station and future Light Rail stop should be prioritised.

It is recommended that:

- The Indicative Location Plan should be amended to reflect the full scope of active transport links as reflected in the Interim Metro Review, specifically active transport connections to the train station along Dawn Fraser Avenue and connections to Sarah Durack Avenue to the south.

2.8 Westmead Metro Station

A Metro station for Westmead will provide critical transport infrastructure to support the current and future growth of the Westmead Health and Education Precinct and will connect the precinct with the wider metropolitan area.

Broadly, the land uses described in the EIS, reflect the approach under Draft Westmead Place Strategy released by the Department of Planning and Environment in December 2020 (Figure 7-4 in EIS). The EIS

recognises the land south of the railway line (in the Cumberland LGA) as mixed use (retail, commercial and residential land uses) and identifies a 'key place opportunity' in this location.

Multiple station entrances should be included

The EIS (Figure 7-1 of EIS) indicates only one entrance to the underground metro station is proposed along Hawkesbury Road, but that Sydney Metro are continuing to investigate the inclusion of an additional southern station entrance. Council previously supported the notion of multiple station entrances on the basis that a single station entry to Hawkesbury Road would limit opportunities for effective integration between transport modes particularly from the northern and southern areas of the railway line.

The current Stage 3 EIS aims to facilitate a single connection between north and south Westmead by upgrading the Hawkesbury Road overbridge with shared paths designed to operate as a key connecting spine between north and enhance north-south pedestrian and cyclist movements. This should be supported by additional north- south connections which will significantly improve pedestrian mobility to the north and south of the transit catchment and create a seamless interchange between the different transport modes (light rail, rail, metro and bus interchange) (Figure 7-5 of EIS).

Further design details on Hawkesbury overbridge upgrade and Hawkesbury Road activation are required. Council's previous comments on the Concept Plan EIS were that the principle to activate Hawkesbury Road required detailed investigation with respect to traffic movements and the design response to prioritise pedestrian movement. The proposal should address the work the Greater Cities Commission is undertaking to produce a Westmead Public Domain Plan, in relation to Hawkesbury Road and the station's integration the surrounding public domain and street network. In particular, any additional land required to increase the public domain. The current Stage 3 EIS has omitted this important design detail.

It is recommended that:

- The EIS considers the outcomes of the Westmead Transport Strategy, even if in final draft form, to ensure that any recommended improvements to active transport, road network and/or public transport interchange are considered by the Metro West for inclusion, and at a minimum that the proposed Sydney Metro works not preclude potential future improvements.

Section 3. Traffic Management

3.1 Westmead – (Technical Paper 1)

The EIS is incomplete with respect to analysis and in some cases required modelling.

The modelling undertaken does not adequately assess the existing and future road conditions and traffic impacts, for example Hawkesbury Road/Darcy Rd is not modelled and traffic counts undertaken were in June 2021 during the pandemic, which will skew the work and analysis.

Council observed that the intersection of Hawkesbury/Alexandra in 2019 (pre-covid) showed extensive northbound delays and queues in the AM peak that were well in excess of the 195m that the report indicates as being modelled for 2021. As there are no substantial changes, it is likely that these conditions will continue into the future. This needs to be addressed in the EIS.

Sydney Metro is considering to restrict Alexandra Ave between Hawkesbury and Hassall to buses and taxis only. Council expects this will have a significant impact on the surrounding road network as general traffic will be required to detour. The modelling undertaken does not take into consideration the impacts of this proposal. This needs to be rectified.

The pedestrian crossing located on Railway Pde will have an adverse impact on Railway Pde and on the operation of the signals at the intersection of Hawkesbury/Railway. This pedestrian crossing is forecasted to have almost 2000 pedestrians utilising this crossing in both AM & PM peaks and it is anticipated that vehicles

entering/exiting Railway Pde will have difficulty doing so as pedestrians have priority at this location. Modelling undertaken does not appear to take this into consideration and the traffic conditions on Hawkesbury Rd/Railway Pde intersection appears to improve which is not considered likely. The EIS should provide the required modelling and options analysis.

Strong consideration must be given to ban the southbound right turn from Hawkesbury Rd into Alexandra Ave to improve traffic flows through this intersection. Future upgrades to this intersection are anticipated to include pedestrian protection on all approaches, including the SB RT into Alexandra. As this is a two lane approach, should both vehicles at the stop line be waiting to turn left or right into Alexandra, vehicles wishing to continue straight through the intersection will be blocked.

The proposed right turn ban out of Railway Pde into Hawkesbury Rd will also have an impact on the surrounding road network. It is unclear from the EIS how many vehicles currently undertake this right turn movement and whether the impacts of this proposal has been considered in the model. This should be detailed.

It is recommended that:

- Sydney Metro must produce a supplementary Traffic analysis which includes updated traffic counts in normalised (outside core Covid period) conditions. This includes complete modelling for Hawkesbury Road/Darcy Rd, detouring traffic around Alexandra Ave between Hawkesbury Road and Hassall Street, pedestrian conditions at intersection of Hawkesbury Rd/Railway Pde and southbound right turn from Hawkesbury Rd into Alexandra Ave, for provision to key stakeholders for review.

3.2 Pedestrian and cycling connections

Strong consideration should be given to a grade separated pedestrian access west of Hawkesbury Road, particularly to the north. If this is not feasible, consideration should be for an entrance on the south. The identified bike path along Bailey Street terminates at Hassall Street, this should be continued east to meaningfully connect to the regional network.

The Technical Paper notes that a number of intersections across the local network are expected to perform at level of service 'F' in the AM peak without the proposed station and are forecast to decline further with the proposed station in both AM and PM peaks. Council notes that due to the unique nature of the street network and location trip attractors at Westmead there is a significant number of pedestrians moving to the north and west, as opposed to Parramatta that has a relatively even distribution to all quadrants that can be easily accommodated on the path network.

There is opportunity to improve the safety of pedestrians crossing Railway Parade and traffic conditions on Hawkesbury Road by providing a northbound right turn bay on Hawkesbury Road at Railway Parade intersection. The nominated upgrade is also vague and should be clearly described, i.e. "shared path of width 5m".

Council is of the strong view that an integrated kiss and ride strategy is required for this very busy precinct around the station and Railway Pde. Consideration should be given provide kiss and ride facilities on the northern side of Railway Parade near the station entrance to accommodate vehicles that are accessing Railway Pde via Hawkesbury Road.

It is recommended that:

- Sydney Metro give strong consideration to a holistic kiss and ride strategy for the Westmead station area, management and safety of pedestrians and cyclists through best practice share paths and cycling through connections to regional networks.

3.3 Traffic Impacts during Metro construction (Technical Paper 2)

Modelling is incomplete.

The intersections of Hawkesbury Rd/Railway Pde and Hawkesbury Rd/Darcy Rd (north of the railway line) will have an impact on the performance of the intersections south of the railway line (particularly Hawkesbury Rd/Alexandra Ave intersection). The intersections of Great Western Hwy/Pitt St and Pitt St/Argyle St/Park Pde are also considered to be impacted by construction traffic as this is the primary route into the Westmead construction site and Parramatta construction site.

The above-mentioned intersections are to be included in the modelling to more accurately assess the impacts of construction traffic in Westmead and Parramatta. Note that construction volumes from both Westmead and Parramatta metro construction sites are to be included in the modelling for the intersections of Great Western Hwy/Pitt St and Pitt St/Argyle St/Park Pde.

3.4 Disabled parking during operation

Consideration required to replace and provide the two disabled parking spaces proposed to be removed. They should be located near the station entrance with appropriate footpaths provided for people with disability to access Westmead Station.

It is recommended in relation to 3.3 and 3.4 above:

- Sydney Metro complete modelling of Great Western Hwy/Pitt St and Pitt St/Argyle St/Park Pde with construction volumes from Westmead and Parramatta Sydney Metro sites, and Hawkesbury Rd/Railway Pde and Hawkesbury Rd/Darcy Rd north of the railway line to more accurately assess the impacts of construction traffic in Westmead and Parramatta.

Parramatta Metro Station

Council notes that the modelled results for 2036 traffic movements seem unrealistic. Modelling inputs and outputs should be provided to Council for further review and assessment.

3.5 Traffic impacts during Metro operation – (Technical Paper 1)

Council is of the view that a strategy for the 1% of forecasted kiss and ride trips identified in Section 4.4.6 of the report has not been detailed. It is unclear how the disabled kiss and ride facilities will operate and what regulatory signage will be provided to limit the kiss and ride facility to disabled persons only. It is unclear whether the modelling has taken into consideration of all the changes proposed and noted in Figure 78 of the report (e.g. additional signalised midblock crossings on Smith Street and George Street, proposed bicycle route on George Street, etc). This should be rectified. It is recommended that:

- Sydney Metro provide a holistic strategy for kiss and ride facilities in the CBD around the Metro precinct and complete modelling and analysis for additional signalised midblock crossings on Smith Street and George Street, proposed bicycle route on George Street and the like.

3.6 Traffic impacts during Metro construction (Technical Paper 2)

Figure 3-15 appears to show construction vehicles turning right out of Macquarie Lane onto Smith Street as part of the secondary outbound route however, there is currently a concrete median installed on Smith Street and left turn pavement arrow installed on Macquarie Lane which restricts right turn movements out of Macquarie Lane. Proposed changes to allow movements at certain intersections as listed in Section 3.8.2(a) of the report do not appear to include this intersection.

Modelling shows that the intersection of Pitt St/Park Pde/Argyle St will increase in delays and queues due to additional construction traffic travelling on Pitt St in the northbound direction. However, the report does not propose any improvements to be made at this intersection. Consideration is to be made for Metro to provide some upgrades at this intersection to mitigate construction traffic impacts.

The modelling undertaken does not appear to reflect post PLR intersection arrangements. Modelling should be reviewed and amended to ensure it reflects future intersection arrangements post PLR 1 construction. This will more accurately assess the construction traffic impacts in the Parramatta CBD. Some examples are provided below.

- a) For the Macquarie St/Church St intersection, Council's understanding is that post PLR construction, the only vehicle movement at this intersection will be in the EB direction. It is unclear why queue lengths are shown for the SB and WB direction given that there will be no vehicles travelling in this direction (unless these movements refer to PLR, then it is missing NB direction).
- b) For Macquarie St/Horwood PI and Macquarie St/Harris St intersections, model shows queues for WB traffic however, Macquarie St is converted to one way EB between Marsden St and Horwood PI and between Smith St and Harris St.
- c) For George St/Horwood PI intersection, it appears it has been modelled as priority controlled although this intersection will be signalised to facilitate Metro's construction works.

Modelling should take into consideration of the traffic impacts of the additional construction traffic utilising secondary inbound/outbound routes (e.g. Parkes Street/Station St East, Smith St/Macquarie St, O'Connell St/Victoria Rd).

The Crossing on George St needs to include cyclist lanterns due to Horwood being a cycling route and the temporary pedestrian route needs to be of adequate width to include cyclists.

It is recommended that:

- The EIS Traffic analysis is updated to include traffic management facilities and strategy (medians, post PLR works, one way traffic conversions) and traffic impacts of the additional construction traffic utilising secondary inbound/outbound routes (e.g. Parkes Street/Station St East, Smith St/Macquarie St, O'Connell St/Victoria Rd) and provide to key stakeholders including City of Parramatta Council for review.

Sydney Olympic Park Station

3.7 Traffic impacts during Metro construction (Technical Paper 2)

Modelling undertaken must take into consideration the additional traffic generated by future developments within the Carter Street precinct. This should be rectified.

Table 3-17 of Technical Paper 2 shows that the NB queues at the intersection of Edwin Flack Ave/Shane Gould Ave/Birnie Ave will increase by 110m (i.e. 395m long). This will result in traffic queuing back to Parramatta Road which can have flow on effects onto Hill Road. This should be further analysed and options presented.

It is recommended that:

- Traffic modelling is to be updated to include additional traffic generated by future developments within the Carter Street precinct across the life of the Sydney Metro construction to ascertain likely future conditions.

- Excessive traffic queuing back to Parramatta Road from the intersections of the intersection of Edwin Flack Ave/Shane Gould Ave/Birnie Ave should be further analysed and options presented to mitigate and improve level of service.

3.8 Traffic – overall summary

The above review indicates that the modelling and impacts analysis for the stations and surrounding precincts is incomplete, particularly for Westmead and the Parramatta CBD, based on the EIS material and Council's detailed local knowledge.

This, in Council's view, casts some doubt on the forecast outcomes and impacts and it is necessary that the above matters be addressed within the EIS and a supplementary EIS statement be produced and referred to the City of Parramatta. Council's Traffic and Transport staff will be happy to collaborate with Sydney Metro in the review and preparation of this work.

Section 4. Contamination

4.1 Technical Paper 7: Contamination - Preliminary Site

In general terms the lack of a detailed site investigation (DSI) for the construction sites, makes it difficult to review the EIS.

It is not helpful to the reviewer for the EIS to refer back to a previous Planning Approval for demolition, tunnel cut and station box cut, excavation and earth works for construction sites, when those processes and studies under the previous approval are proceeding without being recorded in this EIS. The tunnel and station box cut works have not yet fully commenced, with the contract only being recently let.

As this EIS is for the fit-out stage of the stations and the Clyde Stabling and Maintenance Facility, a lot of investigation detail is missing from this proposal. The report is unclear if a Detailed Site Investigation will be conducted for all or any construction sites, particularly sites with high to very high risk.

With only a risk assessment and desktop review, and a lack of detailed site investigation, this EIS builds on the previous EIS in making some educated assumptions but leaving investigations to later.

The report also does not provide Council with information on the areas that were not assessed as part of the preceding Sydney Metro planning applications.

It is inadequate for the Conclusion of the Technical Paper in section 17 to note that site inspections could not be completed to verify the condition of the construction sites and surrounding study area at the time of this report, and access to the sites was a constraint due to current ownership and existing infrastructure on the sites - and then note that consideration (only) should be given to conducting a proposal-wide site inspection as part of the next phase of work to confirm site conditions have not significantly changed in the intervening timeframe.

It is also inadequate to note that additional investigations recommended as part of the previous Sydney Metro West planning applications have not yet been conducted.

Section 17 notes, as an understatement, that uncertainty associated with this proposal includes the actual nature and extent of residual contamination following completion of the works associated with the previous Sydney Metro West planning applications, and, Council notes, the actual earthworks associated with the previous EIS.

Over the last several months the Sydney Metro alignment has had significantly high precipitation levels which may have changed the distribution and movement of groundwater in the soil of the assessment area.

The Department may or may not be aware of the matter reported under Section 148 of the POEO Act (REF-NO-10194) relating to a pollution event at Clyde, notified to Sydney Metro by contractor Delta at 8:30am on 25 February 2022. In this incident unknown contaminated liquid was seeping out of the ground inside the site and was thought to be associated with rainfall and rising groundwater table - the liquid was suspected to contain pre-existing hydrocarbons. This liquid made its way to Duck Creek in the afternoon of the incident.

This incident demonstrates the risk of desktop reviews and assumptions about existing contamination.

Given the nature of the contaminated environments in which the Sydney Metro works will be carried out, particularly the Clyde Stabling and Maintenance Facility, this EIS should provide solid actions, including detailed site investigation, to provide certainty to the Project. This would be consistent with the precautionary principle, and arguably essential for a Project of this magnitude and importance. There are other local examples of costly contaminated land clean up exercises.

It is recommended that:

- Sydney Metro provide certainty to construction works and stakeholders by carrying out detailed site investigations for construction sites with high to very high contamination risks, and that these results, analysis and subsequent management recommendations be incorporated into a supplementary report for review by key stakeholders, including City of Parramatta Council.

Section 5. Flooding

The EIS does not provide much new information in relation to flooding, and refers consistently to the previous State Significant Infrastructure Planning Approval.

It is incongruous that most of the information within this EIS, in relation to the most flood impacted sites, has been superseded by the ongoing work associated with the Stage 1 Planning Approval of March 2021 - in particular the detailed report from GRC Hydro on the concept hydraulic model for the Clyde Stabling and Maintenance Facility (CSMF).

As this EIS includes the fitout of the CSMF it should provide the most up to date information available to inform this important document.

It is recommended that:

- This EIS be updated via a supplementary report with respect to flood impact and recent studies, including the GRC Hydro concept hydraulic model work for the Clyde Stabling and Maintenance Facility (completed at a similar time to this EIS) and be issued to key stakeholders, including City of Parramatta Council, for review.

ATTACHMENT 1 – FIGURES AND TABLES

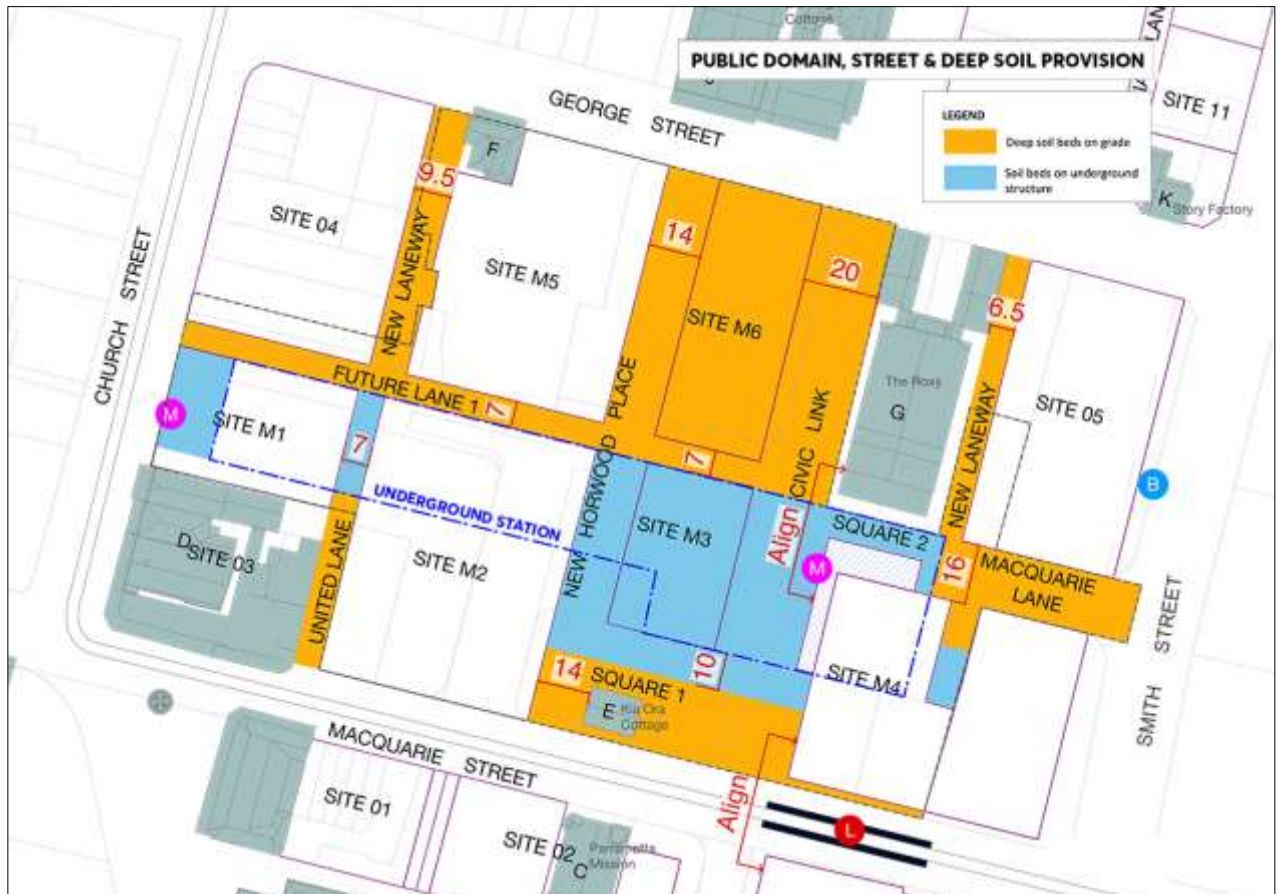


Figure 1: Public Domain, Street & Deep Soil provision

Minimum soil volume requirements for small, medium and large sized street trees in Parramatta are as follows:

Table 5.1 Soil Volume Requirements for Street Trees

Tree Size	Average Crown Spread	Crown Protection	Min. Soil Volume Required (per tree)
Small (5-10m high)	5m	19.5m ²	9.3m ³
Medium (10-15m high)	8m	50.0m ²	23.8m ³
Large (15-20m high)	16m	200m ²	95.3m ³

Where possible root zone areas for trees in the public domain should be coordinated to develop large contiguous root zone areas as opposed to small separated planter boxes or tree pits.

Table 1: Requirements for Deep Soil Beds on Grade (2017 Public Domain Guidelines Chapter 5, City of Parramatta)

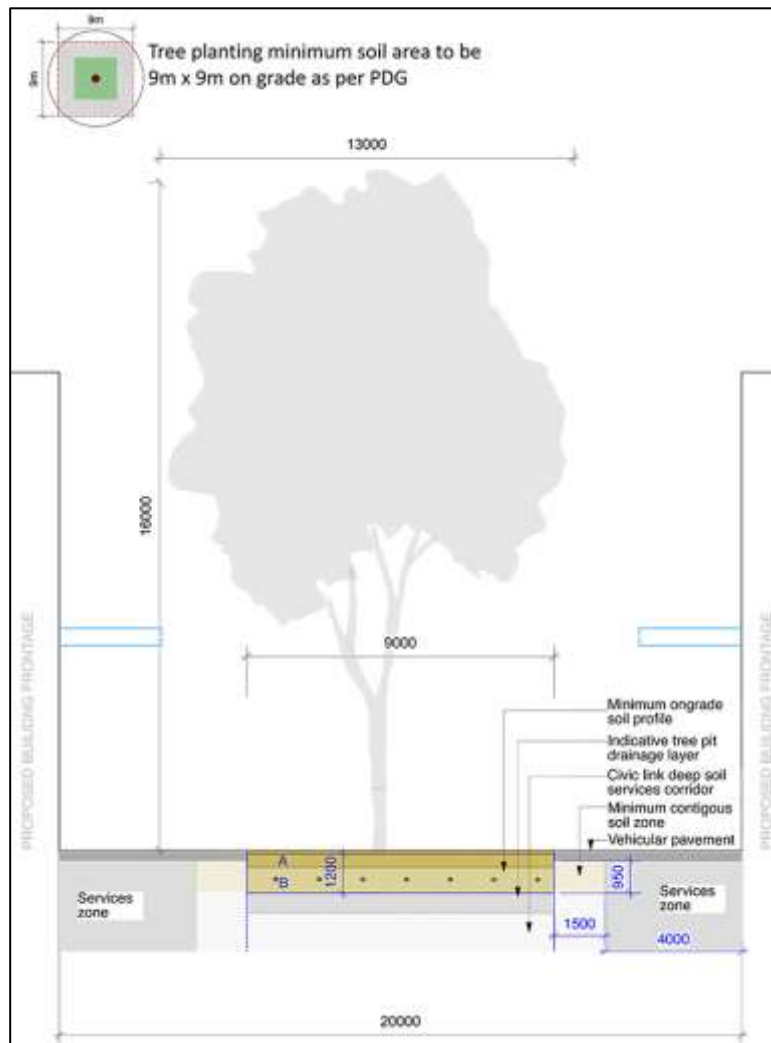


Figure 2 – Deep Soil Depth on Grade

Table 5 Minimum soil standards for plant types and sizes

Plant type	Definition	Soil volume	Soil depth	Soil area
Large trees	12-18m high, up to 16m crown spread at maturity	150m ³	1,200mm	10m x 10m or equivalent
Medium trees	8-12m high, up to 8m crown spread at maturity	35m ³	1,000mm	6m x 6m or equivalent
Small trees	6-8m high, up to 4m crown spread at maturity	9m ³	800mm	3.5m x 3.5m or equivalent
Shrubs			500-600mm	
Ground cover			300-450mm	
Turf			200mm	

Note: The above has been calculated assuming fortnightly irrigation. Any sub-surface drainage requirements are in addition to the above minimum soil depths

Table 2: Requirements for Soil Beds on Underground Structure (2015 Apartment Design Guide Part 4, Department of Planning & Environment)

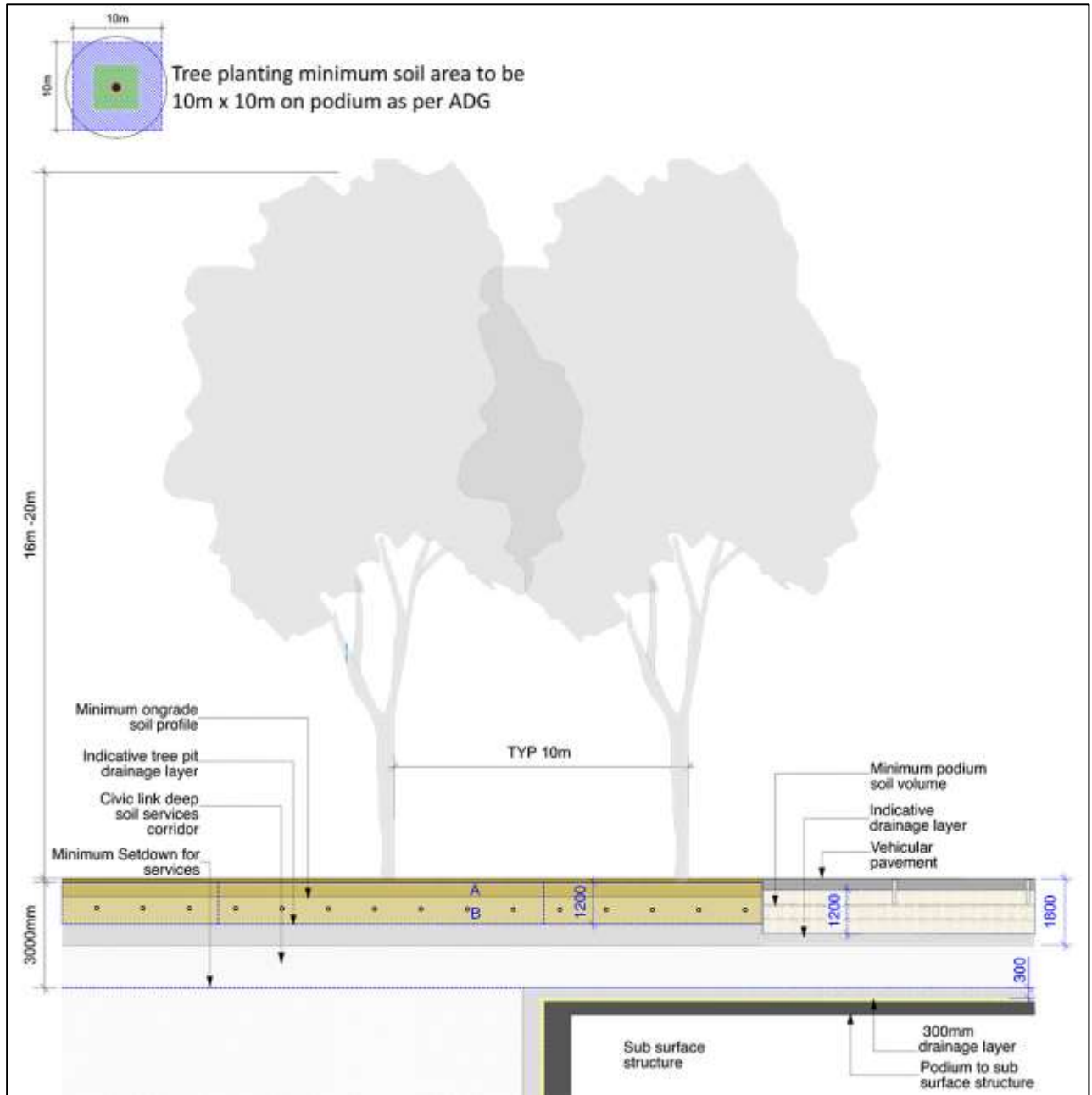
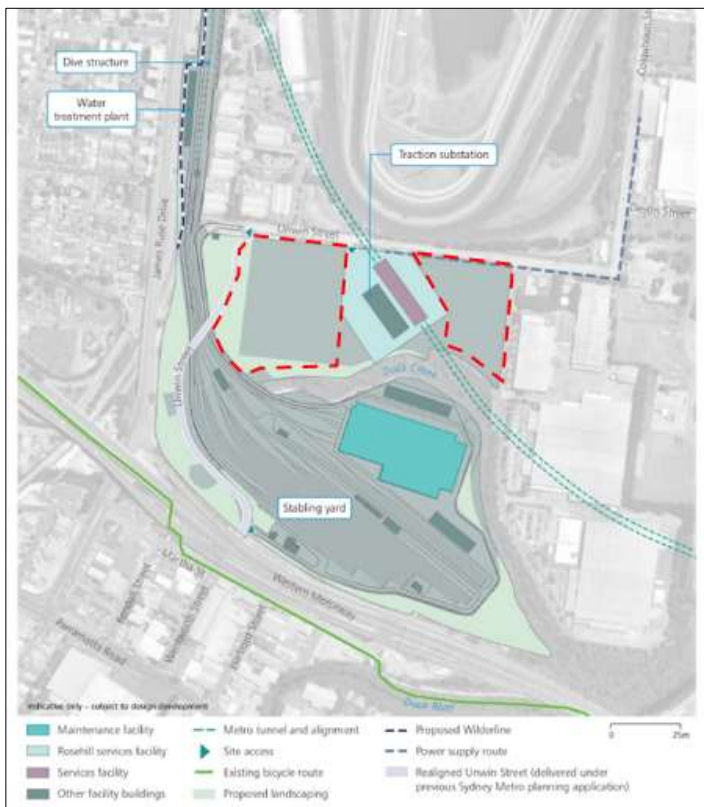


Figure 3: Soil Bed Depth on Underground Structure



[illegible]

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Figure 8 – Annotated EIS image showing Wilderline connections