



SM-23-00895292

22 November 2023

The General Manager
City of Parramatta Council
Email: Via the ePlanning portal

Attention: Alex McDougall

Dear Sir/Madam

**State Environmental Planning Policy (Transport & Infrastructure) 2021
Development Application – DA/662/2022
87-91 George Street, Parramatta
Request for additional information**

Sydney Metro refers to Development Application DA/662/2022 (DA) submitted by The GPT Group (Applicant) that has been referred to Sydney Metro via the NSW Planning Portal on 25 August 2022 and 19 October 2023 in accordance with section 2.99(4) of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (T&I SEPP).

Sydney Metro - West is a Critical State Significant Infrastructure project which was approved on 11 March 2021. The site at 87-91 George Street, Parramatta is located in the Sydney Metro – West 'rail corridor' pursuant to the T&I SEPP.

Transport for NSW (TfNSW) has delegated its rail authority functions in relation to the Sydney Metro rail corridors to Sydney Metro. Therefore, Sydney Metro is the relevant rail authority for the Sydney Metro – West rail corridor for the purpose of the T&I SEPP.

Sydney Metro has reviewed the DA documents uploaded onto the NSW Planning Portal on 25 August 2022 and 19 October 2023. Following this review, Sydney Metro advises that it is not in a position to make a decision on the granting of concurrence until the additional information outlined below is provided for Sydney Metro's further review:

Section	Sydney Metro Comments
Sydney Metro Geotechnical Impact Assessment Proposed Mixed-Use Development 87-91 George Street, Parramatta (99541.03.R.002 Revisions 3) prepared by Douglas Partners dated 19 October 2023	
Sections 2 and 3	Section 3 states the BEL is at RL -0.5m equivalent to 8.4m below the current ground level. It implies the existing ground level is approximately RL7.9m. It is slightly different from the information provided in Section 2 which states the ground surface is approximately between RL7.5m and RL6.5m. Please clarify the discrepancy and confirm the ground model adopted in the FLAC analyses.
Section 4.1	Please provide DP Report 99541.03.R.005.Rev0, June 2022 referred in the impact assessment report for reference.

Sydney Metro

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Section	Sydney Metro Comments
Section 4.1	It appears that the analyses assumed the groundwater level at RL 1.4m and there is no consideration of possible variation of the groundwater level. Please clarify if various groundwater levels may have an adverse impact on Sydney Metro tunnels.
Section 4.2	Sydney Metro tunnels situate in geotechnical unit E (high strength sandstone). Properties of this layer used in the analyses are critical to the tunnel movements. Please provide the justification of varying the E_{rm} (elastic modulus) from 3600MPa in case 1 to 3000MPa in case 2.
Section 4.2 and 4.3	Case 2 represents the sensitivity analysis with combined effect of varying rock properties (Section 4.2) and in-situ stress (Section 4.3). Please provide the justification of combining both effects in a single analysis.
Section 4.4	There is no consideration of the long term condition of tunnel lining (with reduction in modulus). Please provide.
Section 4.4	There is no consideration of joint effects in the segmental lining (with reduction in I value). Please provide.
Section 6.1	There is no estimate of angular distortion along the longitudinal direction of the tunnel. Please demonstrate the tunnel lining along the tunnel alignment is also not adversely affected by the new development.
Section 5 and 6.1	Section 5 indicates the tunnel movement in case 2 is 6.8mm while section 6.1 states 6.5mm. Please present consistent values throughout the report.
Section 7	It is found that ground anchors are indicated for the shoring system of the new development. In addition, ground anchors are also proposed beneath the building core. Such anchors are within the Second Reserve and very close to the First Reserve. Please have commentary on installation methodology to ensure the anchors are not encroaching the First Reserve.
Section 5, Appendix	Please also discuss and provide outputs of deformation and changes in stresses for all key stages (stage 2 is currently missing) of all analyses (Case 1 is not included).
Sydney Metro Infrastructure Impact Study Structural Engineering Report Revision 1 prepared by Enstruct Group dated 18 October 2023	
Appendix D Section 2.0	What is the structural designer's interpretation of the ground stresses from the DP report regarding the varying groundwater levels? Is the groundwater pressure obtained from DP analysis, or is the groundwater pressure modelled separately in the structural analysis?
Appendix D Section 5.0	Please indicate the magnitude of vertical and horizontal ground loading applied on the tunnel lining.
Appendix D Section 6.0	Please include the shear capacity and crack width assessment of the tunnel lining in the report.

(together, Additional Information).

Subject to the outcome of Sydney Metro's review of the Additional Information, further additional information may be required before Sydney Metro can determine whether to grant concurrence to the DA.

As per the Sydney Metro Underground Guidelines the Applicant is required to request "No objection" from Sydney Metro prior to borehole drilling works being undertaken.

Sydney Metro thanks Council for its assistance.

Please contact Peter Bourke, Senior Manager Corridor Protection or Denise Thornton via email sydneymetrocorridorprotection@transport.nsw.gov.au should you wish to discuss this matter further.