Date: 31 July 2020
Ref: 32837A2let

Health Infrastructure
C/- Johnstaff Projects Pty Ltd
Level 5, 9 Castlereagh Street
Sydney NSW 2000

Attention: Shamma Hasan
Email: shamma.hasan@johnstaff.com.au

ADDITIONAL GEOTECHNICAL ADVICE
PROPOSED MAIN WORKS BUILDING
LIVERPOOL HEALTH + ACADEMIC PRECINCT, ELIZABETH STREET, LIVERPOOL, NSW

This letter presents additional geotechnical advice in relation to groundwater drainage during basement excavation, and must be read in conjunction with our geotechnical investigation report, Ref. 32837Arpt dated 17 February 2020 [JKG 2020].

Based on the supplied Fitzpatrick + Partners Drawing Nos. LHAP-AR-FPA-DRG-MW-30B101, 30B102 and 30B103 (Issue 6, dated 3 July 2020), we understand that the proposed basement level will generally be constructed at either RL7.0m or RL7.9m. However, the loading dock at the north-eastern corner of the basement will be constructed at RL5.9m. We have been advised that the proposed main works building is a State Significant Development (SSD).

From JKG 2020, groundwater was measured in the MW1, MW2 and MW3 monitoring wells on 11 December 2019 at depths of 5.3m (RL6.4m), 7.3m (RL3.3m) and 4.0m (RL7.9m), respectively. No long-term groundwater level monitoring has been carried out.

Groundwater inflows into the proposed basement excavation are expected to occur as local seepage flows at the base of the fill, through gravel bands or relic joints/fissures within the alluvial and residual clays, and at the soil/rock interface, particularly after heavy rain. During excavation, the groundwater will need to be progressively pumped out as levels deepen.

Based on the available information from JKG 2020, seepage volumes into the proposed basement excavation are expected to be localised, of limited volume and controllable by conventional sump and pump discharge systems. Approval to discharge pumped groundwater into the stormwater system will need to be obtained from the relevant authorities [ie. Council and/or Natural Resources Access Regulator (NRAR)].

Should you require any further information regarding the above, please do not hesitate to contact the undersigned.

Yours faithfully
For and on behalf of
JK GEOTECHNICS

Andrew Jackaman
Principal Geotechnical Engineer