# James Taylor & Associates

## Civil & Structural Consulting Engineers

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10 June 2022

Lindsay Cane AM Royal Far West 14-22 Wentworth Street & 19-21 South Steyne Manly NSW 2095

Dear Ms Cane,

# CIVIL AND STRUCTURAL COMMENTS D.A. SUBMISSION FOR THE ROYAL FAR WEST (RFW) AT 14-22 WENTWORTH STREET & 19-21 SOUTH STEYNE MANLY DRUMMOND HOUSE

This letter accompanies the Development Application for the Royal Far West, Manly.

The project sees the implementation of Stages 3 and 4 of the Concept Approval as modified (Application # MP10\_0159 MOD 1) and involves the retention and alterations to the previously constructed Stage 1 and 2 (hospital facility 'Centre for Excellence' now known as the 'CCK' building) as well as alterations and additions to Drummond House and the construction of mixed use buildings which incorporate tourist and visitor accommodation, residential apartments and retail/commercial uses with basement parking and landscaping.

This office has been involved with the architects' design process throughout the initial design phase providing preliminary Civil and Structural engineering design and advice.

In carrying out our preliminary design, the principal documents we have relied upon are:

- Architectural drawings prepared by Murcutt Candalepas (DA issue 10 June 2022).
- Geotechnical Reports:
  - Douglas Partners, Project 72252.01 Revision 1 November 2014.
     This report was prepared for the Stage 1 and 2 of the development of the RFW site. The building for which it was prepared is situated on the western portion of the site; the building is now known as the CCK Building.
  - Douglas Partners, Project 72252.06 December 2020.
     Report on Geotechnical Desktop Assessment Royal Far West Stage 2.
  - Douglas Partners, Project 72252.08 10 June 2022.
     Preliminary Groundwater Assessment Royal Far West Development 14-22
     Wentworth Street & 19-21 South Steyne, Manly.



We have carried out calculations and design checks on proposed built elements including, but not limited to:

- Basement excavation, with particular reference to the Geotechnical Reports.
  - Suitable retaining wall system.
  - Basement slab designed for uplift below water table.
  - Final structure with a tanked basement.
- Structural framing assessment for the proposed basement construction in concrete.
- Structural framing preliminary design of upper floors for all proposed buildings.
- Assessment of adequacy of building loads to counter uplift from the water table being above the level of the lower basement.
- The Architectural design of the proposed buildings reflects a sound resolution in the allowances for structural floor depth and column spacing and positioning. The choice of exposed concrete elements for the building facades permits the use of high-grade concrete, a material well suited to the exposure conditions at Manly Beach.

#### Drummond House:

Close attention has been paid to the requirement for the retention of a portion of this building as a heritage item.

We have proposed the permeation of the sand surrounding the existing footings to provide a stiffened matrix ahead of the piling operation required for the basement retention system.

We propose the construction of a temporary steel frame to provide support for the remaining portion of the building.

The piling process itself is a low vibration operation.

We are satisfied that the integrity of Drummond House can be maintained throughout the excavation, construction and afterwards.

### CCK:

Modifications are required to this building for integration into the current proposal.

We have carried out preliminary design on:

- the effect of cutting portions of the east retaining wall for basement access purposes, and re-distribution of some loadings on the building.
- the structural modifications to accommodating the proposed location of substation kiosks at the northern boundary of CCK.
- the structural implications for the existing CCK building from the proposed demolition of the south-east rear outstand portion of Level 1.

We are satisfied that this work can be carried out without detriment to the remainder of the building structure and envelope.

We trust that this information is sufficient for your current requirements. Should you require any further information, please contact the undersigned.

Yours faithfully

JAMES TAYLOR & ASSOCIATES

**JAMES TAYLOR** B.E. MIEAust CPEng NER 23907

Director