071496

14 August 2009

Architectus Level 3, 341 George Street SYDNEY NSW 2000

Attention: Colin Odbert

## 33 CROSS STREET DOUBLE BAY

# **Construction Methodology**

The project involves demolition of the existing building including the ground floor slab. The site is surrounded by three adjoining properties and Cross Street. It does not involve any major excavation apart from three residential lift pits. There are a small number of piles that will need to be drilled and the material removed from the site. This will be done by placing a drilling rig on the upper basement slab and drilling through the basement slabs.

Although there is a cut off wall around the site boundary, over the years the water inside the site has risen just below the existing lowest basement slab. The water table outside the wall is about two meters below Cross Street and inside the site is below the lowest basement. In the short term during construction, the boundary wall will be acting as an effective cut off wall. By lowering the water table inside the cut off wall, the new lift pits can be built.

The building will be built using a construction zone in Cross Street and using a crane on the site. Initially, the site sheds and shades will be on a hoarding on Cross Street. Later some of them will be moved to the basement.

The proposed ground floor slab will also act as a construction platform in the future civic area. It is anticipated that the building will be a conventional prestressing/reinforcement concrete structure. The construction will be carried out within the normal stationary requirements.

## **Stormwater Methodology**

Since the building partially replaces an existing building, the stormwater methodology will be same as the existing. existing connection to the grounds stormwater will be used.



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# **Effects of Climate Change**

Since the building is away from the harbour foreshore and is approximately about 3 metres above sea level, it is not anticipated the building will be affected by an increase in the sea level. The existing retaining wall can take the increased water pressure. With respect to the rainfall, it is understood that at most, the rainfall for 1 day will increase by 10 percent as results show. To date, the study on shorter time frames is not completed. We will design the stormwater system for the increased rainfall (refer to the attached calculations).

# Effect on adjoining overall water table

Since the basement is not changing, the development will have no effect on water flows or the water table in the vicinity of the development. The existing perimeter wall acts as a cut off wall, isolating the site from the surrounding areas. Drilling the piers will not change the water table within the site as the water table is below the existing basement slab.

# **Acid Sulphate Soils**

There is no excavation other than some material from the drilled piers. The effect of any acid sulphate soil is not anticipated to be great. Any spoil from the piers as required by authorities will be tested and will be treated appropriately.

Yours faithfully,

TAYLOR THOMSON WHITTING (NSW) PTY LTD

**RICHARD GREEN** 

**Director** 

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