Hydraulic Services

Stormwater Report

The Boathouse

Governer Phillip Park, Palm Beach NSW 2108

Client:

Blue Pacific Construction

PO Box 626

Mona Vale NSW 1660

Hydraulic Services Consultant:

ADCAR Consulting Pty Ltd

PO Box 4055

Pitt Town NSW 2756

Email: matt@adcar.com.au

PH: 0404881256

Revision D

16 April 2021

Review and Approval Record:

Rev	Date	Description of Release	Prepared By	Reviewed By	Approved By
A	19/02/2020	Client Issue	MA	MA	PC
B	02/03/2020	Client Issue	MA	MA	PC
C	10/02/2021	Client Issue	MA	MA	PC
D	16/04/2021	Client Issue	MA	MA	PC

Contents

1 Introduction

1.1 Background

Blue Pacific Constructions, have commissioned Adcar Consulting Pty Ltd (the Hydraulic Services Consultant) to prepare a Development Application Report for the existing commercial development at The Boathouse – Governor Phillip Park Palm Beach NSW.

1.2 Aims

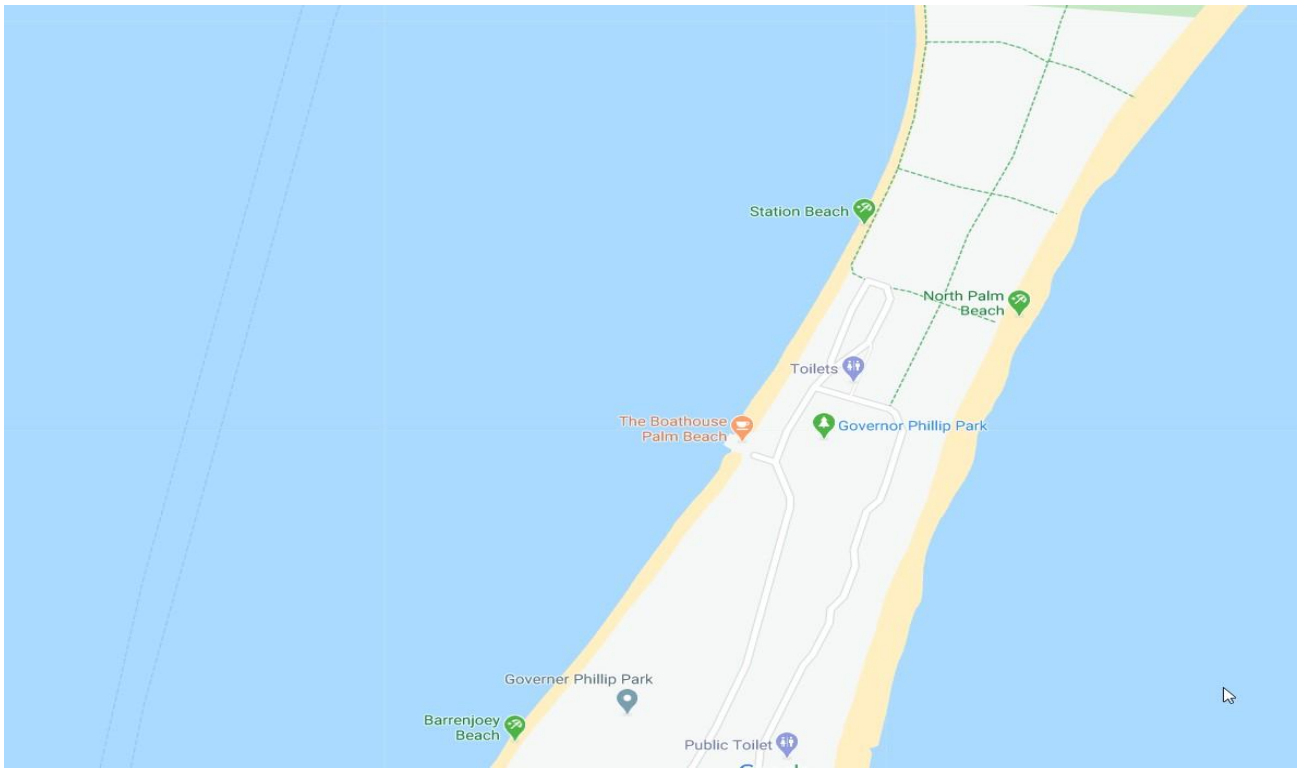
The aim of this report is to provide an outline of the proposed hydraulic services issues associated with the Development Application, specifically including the following;

- Site disposal of Stormwater Drainage
- Compliance with Northern Beaches Council DCP and Stormwater Drainage Guidelines

1.3 Location

The site is located on the western side of Palm Beach known as “The Boathouse” at Governor Phillip Park Palm Beach NSW with the vehicle access on South along the existing driveway and into a council owner carpark facility.

The site has an existing office /restaurant building, and has a total area of is 1887m^2.



1.4 Proposed Development

The proposed development incorporates the demolition and reconstruction of the existing building to suit the owners needs and create a building that suits the natural surroundings. The new construction is to be “eco-friendly” and be constructed so as not to affect any of the existing trees around the site. The site will be designed with new services and connections such as cold water, hot water, warm water and drainage services such as sanitary drainage, trade waste drainage.

1.5 Briefing Documents

The engineering elements considered in this report have based or taken into consideration the following documents:

- Northern Beaches Council Development Control Plan.
- Ecological Consultants Australia – Reports
- Arboriculturist reports
- Coastal engineering reports
- Development Application architectural drawings

2 Existing Site Stormwater Services

2.1 Stormwater Drainage

The existing site has the stormwater drainage system installed connected into the water way of Pittwater below the existing building. The roof and gutter system drain via a number of downpipes into the water way below.

2.2 Aerial Site Map

Location of proposed stormwater drainage discharge..

3 Proposed Site Stormwater Services

3.1 Stormwater Drainage

The proposed site has the stormwater drainage system design to be collected through a roof and gutter system that is connected to a number of downpipes that drop to low level. The stormwater drainage is then hung within the joists and run back to the inground drainage system. The new inground drainage system runs along the front of the existing building within the existing services trenching zone so as not to affect any existing landscaping.
The new amenities building is drained via a roof and gutter system and is connected to an inground drainage system along the rear of the new building.
These 2 x connection points link together via a junction pit. This pit is also utilized as a silt sediment pit complete with trash screen to collect any suspended solids before discharging into the open waterway of “Pitt water”. This is to comply with Clause B4.20 within councils Pre DA assessment.
The location of any new excavation for stormwater trenches have been coordinated with the ecological report and the arborist report to ensure any existing trees are clear of the proposed works.
At the discharge location through the sea wall we intend to provide a number of large rocks that will be consistence with the surrounding area and locate these on the beach area at the discharge location to prevent any scouring due to the stormwater run -off at the discharge point.
The stormwater drainage system has been designed in accordance with clause B5 of the Pittwater DCP 2014 and in accordance with clause B5.9 and B5.13 of the pre DA assessment.
During the construction process and silt and sediment fence will be provided around the perimeter of the building site to protect against any silt, sediment and erosion control.

4 Reference documents

4.1 Coordinated external services

The proposed new Boathouse design has taken into consideration the affects of the existing landscape and ecology in the area. Design and co-ordination have been discussed and altered to suit the requirements for other areas.
The consultant involved in the coordination are listed below:

Geraldene Dalby-Ball
Ecological Consultants Australia
TA Kingfisher Urban Ecology and Wetlands
0488 481 929
ecologicalca@outlook.com

Catriona Mackenzie
Principle Consulting Arboriculturist
Urban Forestry Australia Pty Ltd
T- (02) 4351 8640
M- 0414 997 417
cat@urbanforestryaustralia.com.au

Geoff Mckee
Structural Engineer
0419 733 366
geoff@mckeepl.com.au

Doug Treloar
Senior Principle Coastal Engineering
Cardno
T- (02) 9496 7823
M- 0407 069 590
Doug.treloar@cardno.com.au