Dear Sir,

RE: ST IGNATIUS COLLEGE – MASTERPLAN
WATER MANAGEMENT STATEMENT

INTRODUCTION
The St Ignatius College Riverview is proposing a masterplan to re-develop their senior school campus to establish clear communal, boarding, cultural, learning and recreation precincts. The masterplan has been prepared by PMDL Architects (Figure 1 shows an overview of the masterplan).

Figure 1 Proposed Masterplan

An overview of the senior campus is shown in Figure 2 below.
NATURAL & BUILT ENVIRONMENT

The St Ignatius College Riverview is an existing school with a senior and a primary campus. The proposed masterplan is for the senior campus only. The site covers a large area and is bounded by Riverview Street to the north, Lane Cover River to the south, Tambourine Bay Road to the East and Burns Bay to the west.

The site is currently developed with existing educational facilities and sports grounds. The natural gradient of the land slopes in two separate directions, which splits the site into two catchments. The internal road within the school is the ridgeline which separates the catchments.

Catchment 1 is the smaller catchment of the two and is located on the western side of the site. It falls into Burns Bay. This catchment is outside the proposed masterplan.

Catchment 2 is a large catchment with multiple outlets into the Lane Cove River. The proposed masterplan falls within catchment 2. Refer to Figure 3 for catchment delineation.

Catchment 2 includes a stormwater drainage catchment area external to the school. The residential area north of Riverview Street drains through the stormwater trunk main (1200mm DIA.) that traverses the site and discharges into the outlet off Tambourine Bay Road (outlet 3 in Figure 3). This stormwater pipe is the main drain that collects and conveys most of the college’s runoff into the receiving water body. The other two drains (outlet 1 & 2 in Figure 3) are quite smaller in comparison and appear to drain localised areas within the school grounds.

AUTHORITIES REQUIREMENTS

The site falls within the Local Government Area of Lane Cove Council. We have been in contact with council’s engineers to ascertain their requirements, which are summarised below.

- On-Site Detention is not required;
• Site is not flood affected;
• Sustainable engineering is recommended such as water quality, Water Sensitive Urban Design, etc…;
• Water harvesting is encouraged; and
• Adherence to council’s stormwater policy.

FLOODING
The proposed masterplan area is not affected by flooding as it is located on an area of the site which is quite high in comparison to the Lane Cove River (approximately 35.00m AHD).

STORMWATER DRAINAGE
A site visit was carried out on the 10th of September to investigate the location of the existing stormwater infrastructure and to familiarise with the site’s catchments.

The site is currently serviced with an existing stormwater infrastructure which conveys the flows from the buildings and the facilities to the receiving water bodies which are the Lane Cove River or Burns Bay depending on the catchment and the location of the discharge outlet.

The masterplan area falls within the catchment that drains into the Lane Cove River. More specifically, the areas where the new additions are proposed are drained through the stormwater trunk main that drains external catchment and traverses the site before it discharges into the Tambourine Bay Road outlet.

The new stormwater drainage network will be designed to cater for 20-yr ARI storm event. The roof drainage could be sized for larger storm events up to the 100-yr ARI event if required.

It is proposed to collect and reuse roof runoff from the new buildings in individual rainwater tanks to be located in proximity of these buildings. It is proposed to re-use the rainwater for toilet flushing and localised irrigation around the buildings.

The rainwater capacity will be calculated on a demand/supply basis to ensure the optimal volume of rainwater reuse storage is provided.

The implementation of WSUD measures was investigated for stage 1 & The Wallace Stage. Because of the nature of proposed work, WSUD will not be incorporated for stage 1 & The Wallace Stage and is considered impractical due to site constraints.

The above stormwater management strategy will ensure that the proposed masterplan meets the requirements of the local authority while addressing the long term requirements of the college to provide a sustainable infrastructure and to reduce the water demand on the potable water supply network.

A concept plan showing the proposed stormwater concept design is enclosed. Should you have any queries, please contact the undersigned.

Yours faithfully

For and on behalf of GNFP

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Figure 3  Catchment Plan