## **LORETO NORMANHURST**

## **ELECTRICITY SUPPLY - MASTER PLAN**

## 1 EXISTING SYSTEM

The electricity supply to the College is derived from two main Ausgrid services.

• The western half of the site is supplied from an Ausgrid kiosk substation located on the access slip road from Osborn Road. The substation is rated at 600kVA and serves the College via an external Main Switchboard. The switchboard was installed in 2016 and is in good condition.

Based on recent billing information, the load on the substation is approximately 400kVA which indicates that there is adequate capacity to serve the anticipated load increases in that area of the site.

• The eastern side of the site is served by an aerial service from the Ausgrid aerial network in Mount Pleasant Avenue. This service is rated at 200 amps per phase and is connected to a consumers pole installed at the entry to the Staff Carpark.

The incoming service is connected to a Main Switchboard located in the Pool Building which, in turn, serves the Primary School Building.

The existing supply does not have the capacity to serve the additional load of the proposed new Boarding House, Early Learning Centre or the future air conditioning proposed for the Primary School Building.

## 2 PROPOSED UPGRADE

Ausgrid have advised that it will be necessary to establish a new kiosk type substation on the Mount Pleasant Avenue frontage of the College in order to serve the estimated additional load on the eastern half of the site. This substation would be located adjacent to the existing Primary School Building and would be connected to an external Main Switchboard.

Submains would be installed from the external Main Switchboard to serve the existing Pool Building, the Primary School, Early Learning Centre and the new Boarding House.