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CONSULTANT ADVICE

Project Name	Novus on Victoria, Chatswood	Project #	240482
Subject	Mechanical Services	Revision	JHA-VT-MECH-001 [B] (30/07/2025)

The following consultant's advice is provided to confirm that the mechanical plant proposed on the roof is spatially sufficient to cater for the demands of the development.

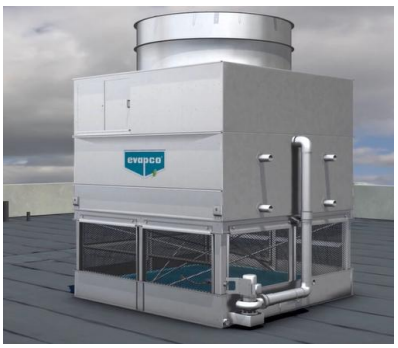
BTR APARTMENTS A/C STRATEGY

Water cooled VRV/VRF heat recovery is a type of HVAC system that uses condenser water as a heat exchange medium to remove heat from a building. Typically, a cooling tower is used to cool the condenser water with ambient air. Heating is typically provided via the use of heat pump hot water units, which inject heat into the condenser water loop to meet the heating demand of the building.

A condenser water loop is proposed to reticulate via a series of pumps to each floor and connect into water cooled VRV condensers which are proposed to be located within serviceable cupboards on every floor. Condenser water air conditioning systems are considered suitable for large-scale applications.

Water Cooled VRV Condenser

(located on ever floor)

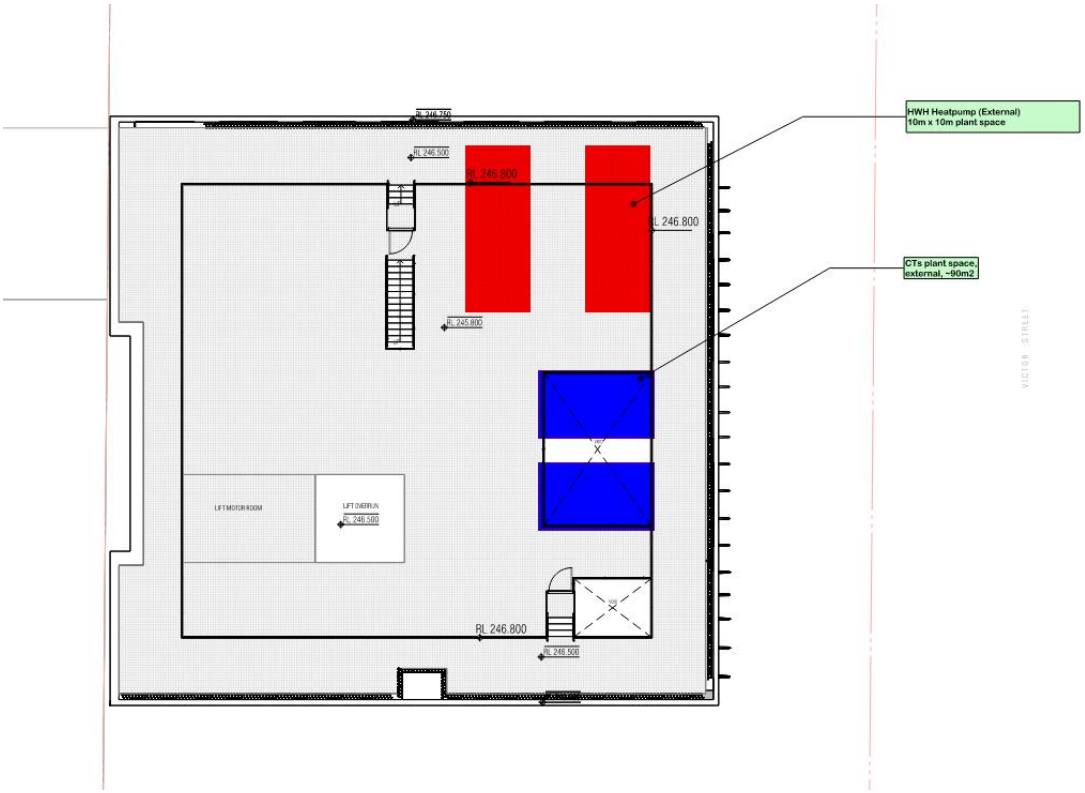


Cooling Tower

(located within roof plant)

Heat Pump Hot Water Unit

(located within roof plant)



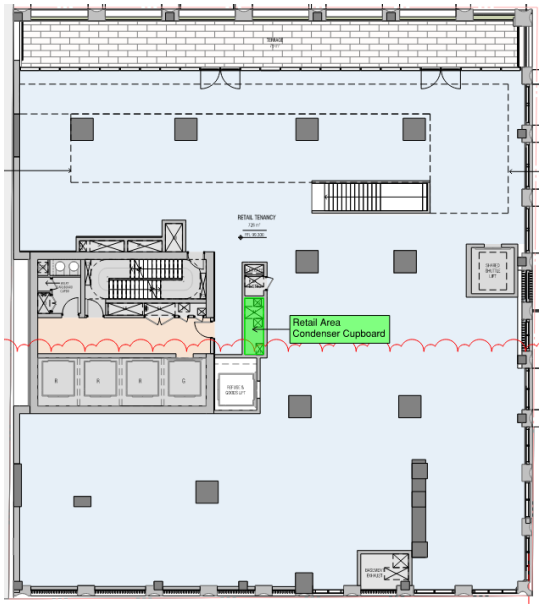
Rooftop A/C Plant Spatial – Plant Location on L46 Below

Typical Floor by Floor Condenser Cupboard

RETAIL/COMMON AREAS A/C STRATEGY

Spatial allowance in the rooftop cooling tower plant and heat pump hot water units has been made to serve all lobby, commercial and common areas. Condenser water loops are proposed to reticulate down a common riser from roof to first floor.

Water cooled VRV condensers have been allowed for spatially within a dedicated plant room on the first floor. The proposed condensers are proposed to serve each retail and communal space on the ground and first floors.



Retail Condenser Cupboard

Common Areas Condenser Cupboard

SUMMARY

In summary, the proposed mechanical plant at roof level has been planned to adequately meet the demands of the proposed development. Comprehensive analysis confirms that the system's capacity aligns with the anticipated needs, ensuring efficient operation and reliability. It is proposed that the plant will effectively support all mechanical services as described in the above memo, contributing to the overall functionality and comfort of the space.

Yours sincerely,

Nicholas Pegios
Senior Mechanical Engineer