



SERVICES SPATIAL COMPLIANCE STATEMENT

230131-1

6th April 2023

**RE: 129 DOVER, ROSE BAY, NSW 2029
SERVICES SPATIAL COMPLIANCE STATEMENT**

We confirm that the services spatial layouts have been reviewed by JR Engineering Group within the basement area. JR Engineering Group have reviewed all locations and have assisted the design team to minimize services plant equipment to the absolute minimum requirements. The minimum spatial requirements sized on the architectural plans are governed by a number of factors such as, Australian Standard, Authority, Manufacture, Access and Clearance, Maintenance, Safety in Design, OHS/WHs and Services coordination requirements.

We note, Waverly Council's Development Control Plan 2022, Clause B13 (c) states the following:

(c) The maximum volume of excavation permitted for a plant room is the minimum required to meet Australian Standards, accommodate typical dimensions of equipment required and the associated circulation space to access the equipment for maintenance. DA plans should show the approximate location and size of equipment within the plant room.

With the above been stipulated, we confirm this has been adhered to, hence why the services spatial allocations have driven the basement size as proposed.

Please note that it may appear the spatial layouts exceed Councils expectation, however this is not a standard residential house, and the services required are at a commercial scale due to the size and footprint. Our original spatial requirements had exceeded the current proposed layout submitted to Council; however, we reduced this by minimising the areas to an absolute minimum.

See detailed summary below on why this development requires the minimum services spatial requirements as follows:

AC Plant Room

The mechanical plant room indicated has mechanical plant for the nominated AC units, that require minimum separation. This separation is required to ensure cold and hot air in and out the AC units do not interfere with the adjacent AC units. If the minimum separations are not achieved the AC units will not only malfunction and cause a nuisance to the property owner,



but they will also not be warranted by the manufacturers. Consideration is also required for access to the AC units for future and ongoing servicing.

Rainwater Tank & Non-Potable Water Pump Room

The Rainwater Tank & Non-Potable water Pump Room indicated has an above ground nominated 5,000L rainwater tank, and dual variable speed pump set. The spatial allowance and room size allows for the plant size and sufficient access clearance around the proximity of these plant items for future maintenance. If the rainwater tank ever cracks or splits or the pumps set breakdown, future access will be required for rectification works. The dual doors and access to the room are nominated for future removal and replacement of the plant in an event that the tank is no longer repairable and needs to be replaced.

Electrical & Communications Room

The electrical and communications room indicated has the main electrical and communications cupboards to the property. The nominated size of the equipment is above general standard house requirements, due the power consumption required for not only the property general house electrical, but it also requires supplying the large power demands for all plant and equipment, including communicating interface and monitoring systems. This also allows for future upgrades and additions within each cupboard with the advancement of technology. The cupboards also have minimum clearance requirements for access during maintenance to allow for cupboard doors to open. These requirements are mandatory under the governing Australian Standards and manufacture warranty requirements.

Pool Plant & Equipment Room

The pool plant & equipment room indicated has all the pool plant and equipment to supply the nominated pool. This pool plant and equipment varies from backwash and balance tanks, filters (in stages), heating elements, gas step down regulator and components, pumps and all associated valves including pipework and fittings. This plant and equipment require access and clearances for regular general repairs and cleaning maintenance. The dual doors and access to the room are nominated for future removal and replacement of the backwash and balance tanks if ongoing maintenance cannot be achieved.

Photovoltaic Plant Room

The photovoltaic plant room indicated has all Photovoltaic equipment to assist in lieu of main electrical supply, electrical usage and consumption. This equipment varies from inverters and power equipment and back up generator in case of mains power failure. There is also future dedicated zone for photovoltaic battery storage. This plant and equipment require access and clearances for regular general repairs.

The spatial and constraints are governed by and must be adhered to with the following Standards of Performance as follows:

SERVICE	ITEM	STANDARD(S) OF PERFORMANCE
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Hydraulics	Australian Standards	AS 3500.1-2018, AS 3500.2-2018, AS 3500.3-2018, AS 3500.4-2018, AS 2441-2005
	BCA/NCC	BCA/NCC 2019 Amendment 1, Part E1.3 & E1.4
Mechanical	Australian Standards	AS 1668.1-2015, AS 1668.2-2012, AS 4254
	BCA/NCC	BCA/NCC 2019 Amendment 1, Part E2, NSW F4.5(b), F4.9, F4.11, F4.12 & J5
Electrical	Australian Standards	AS 3000-2018, AS1680
	BCA/NCC	BCA/NCC 2019 Amendment 1, Section J6

The schedule below outlines the services plant/equipment and location as follows:

SERVICE	PLANT/EQUIPMENT	LOCATION	STANDARD(S)/REQUIREMENTS
Hydraulic	Rainwater Tank & Non-Potable Pump Set	Basement (Internal)	AS 3500.1-2018, AS 3500.2-2018, AS 3500.3-2018, AS 3500.4-2018 requirements. Clearance & Access Requirements Safety In Design Requirements Services Coordination Requirements
Hydraulic	Pool Plant & Equipment	Basement (Internal)	AS 3500.1-2018, AS 3500.2-2018, AS 3500.3-2018, AS 3500.4-2018 requirements. Clearance & Access Requirements Safety In Design Requirements Services Coordination Requirements
Mechanical	Mechanical AC & Plant	Basement (Internal)	AS 1668.1-2015, AS 1668.2-2012, AS 4254 BCA/NCC 2019 Amendment 1, Part E2, NSW F4.5(b), F4.9, F4.11, F4.12 & J5 Manufacture Maintenance, Clearance & Access Requirements Safety In Design Requirements Services Coordination Requirements
Electrical		Basement (Internal)	AS 3000-2018, AS1680 BCA/NCC 2019 Amendment 1, Section J6 requirements. Manufacture Maintenance, Clearance & Access Requirements Safety In Design Requirements



			Services Coordination Requirements
Electrical		Basement (Internal)	Manufacture Maintenance, Clearance & Access Requirements Safety In Design Requirements Services Coordination Requirements

We hope the above mentioned satisfies any concerns with Council.

Yours Faithfully,
JR ENGINEERING GROUP

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