

10 August 2018

Our Ref: MLTR- 20161102.01B

MECHANICAL SERVICES DESIGN STATEMENT

PROJECT: MODIFICATIONS TO EXISTING RESIDENTIAL - MECHANICAL SERVICES
CLIENT: CUSTANCE ASSOCIATES AUSTRALIA PTY LTD
LOCATION: 48A QUEENSCLIFF ROAD
QUEENSCLIFF NSW 2096

MECHANICAL SERVICES

DTS COMPLIANCE

Pursuant to the provisions of clause A2.2 of the Building Code of Australia, I hereby state that the above design is in accordance with normal engineering practice and meets the requirements of the Building Code of Australia, relevant Australian standards and relevant conditions of the development consent. In particular the design is in accordance with the following:

- Air Handling and Water Systems of Buildings – AS 3666.1 – 2002.
- The Use of Ventilation and Airconditioning in Buildings Part 1: Fire and Smoke Control in Multi-compartment Buildings – AS1668.1-2015.
- The Use of Ventilation and Airconditioning in Buildings Part 2: Mechanical Ventilation in Buildings – AS1668.2-2012. (departing from this standard is separation distance from the boundary of the adjacent allotment. Alternate solution is detailed below.)
- BCA 2016 Section E Services and Equipment Part E2.
- BCA 2016 Section F Health and Amenity Part F4.
- BCA 2016 Section J Energy Efficiency Parts J3, J5, J8.

FIRE ENGINEERED SOLUTION

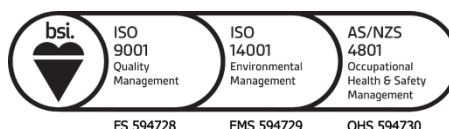
We confirm that the mechanical services design complies with the fire engineered report produced by BCA Logic. Fire Engineering Report (107347-FER-r3).

ALTERNATE SOLUTION

The carpark exhaust discharge is 4m from the boundary of the adjacent allotment as opposed to 6m as required by the general clause of AS 1668.2 for discharge flow rates exceeding 1,000 l/s. In accordance with AS 1668.2, clause 3.10.2 (note 3) the standard allows adjustment of this distance for large discharges that are deemed to not significantly pollute the outdoor air.

SUTHERLAND

ABN 51 003 316 032
Suite 45, 40-44 Belmont Street,
SUTHERLAND NSW 2232
Tel: 02 9521 3088
Email: nsw.mail@jonesnicholson.com.au
www.jonesnicholson.com.au



OFFICE LOCATIONS

BRISBANE
GOLD COAST
SINGLETON
SYDNEY-CBD
SUTHERLAND
WOLLONGONG
MOSS VALE
NOWRA
GOULBURN

The discharge flow rate for this project is 6,000 l/s, which allows for the code minimum of 2,000 l/s per carpark level.

For a single story residential carpark, 6,000l/s could typically serve in the order of 95 to 100 carparking spaces. The number of carparking spaces proposed over three floors for this project is 30, which is less than 1/3 of the equivalent cars for what a 6,000 l/s system might control. This implies that the concentration of pollutants for this project will be far less than an equivalent system that requires 6m of separation to the boundary. Further to this, through our experience in carpark ventilation we understand that the discharge air is a highly diluted mix of carbon monoxide and other gasses given off from internal combustion engines, which due to its high dilution, discharges as a relatively clean air.

The property on the adjacent allotment is set back from the boundary by approximately 6m, as such the 6m separation requirement for discharges to windows and the like is approximately 10m, which exceeds the code required 6m. Further to this, if the adjacent property were to be developed a 2m set back would be enforced for fire purposes which would result in a compliant 6m separation from the proposed discharge to windows of the adjacent property.

I am an appropriately qualified and competent person in this area and as such state that the design and performance of the design systems comply with the above.

For and on behalf of Jones Nicholson Pty Ltd



Scott McLaughlin
Mechanical Project Engineer