



Core Engineering Group • Fire • Risk • Emergency Management

Our Ref: F201636_DA_01

15 December 2021

Taronga Zoo Conservation Society Australia
Bradleys Head Road
Mosman NSW 2088

Attention: Kristine Marshall

Dear Kristine,

RE: Taronga Wildlife Hospital - Nutrition Centre | Development Application Letter

The purpose of this statement is to provide information to the Consent Authority that prior to the issue of any development consent for the above project the building design shall fully comply with the Performance Requirements of the Building Code of Australia (BCA), as applicable within New South Wales.

The new works will include the construction of a two-storey nutrition centre at Taronga Zoo, which incorporates design elements that do not fully meet the prescriptive Deemed to Satisfy (DtS) provisions of the BCA. As a result of the design not conforming to the DtS provisions of the BCA, the building solution applied shall be performance rather than wholly prescriptively based. As a result CORE Engineering Group has been engaged to develop a fire safety strategy that will satisfy the Performance Requirements.

We trust that the above information is sufficient for Consent Authority's needs with respect to fire safety design and compliance with the relevant building regulations in this regard.

Should any further information be required for a determination to be made please contact the undersigned on 02 9299 6605.

Yours faithfully

Christie Tran
Fire Safety Engineer

FIRE ENGINEERING STATEMENT FOR DEVELOPMENT APPLICATION

CERTIFICATE NO. :	F201636_DA_01
PROPERTY DETAILS:	Taronga Wildlife Hospital - Nutrition Centre
CLIENT :	Taronga Zoo Conservation Society Australia
DATE :	17 December 2021

BUILDING DESCRIPTION

DESCRIPTION OF WORKS:	Construction of a new 2-storey Nutrition Centre.
CLASSIFICATION(S):	Class 5 (Office), Class 7b (Loading Dock/Storage), Class 8 (Processing)
RISE IN STOREYS:	Two (2)
CONSTRUCTION:	Type C
EFFECTIVE HEIGHT:	Less than 12 m

BASIS OF STATEMENT

This statement is to the best of our knowledge and belief, true and accurate and is based upon: –

- BCA Capability Statement Ref GDL 210224.01 dated 15/12/2021 prepared by Group DLA.
- DA Drawings prepared by Design Worldwide Partnerships dwp revision dated 24 November 2021 to 14 December 2021.
- The Environmental Planning & Assessment Regulation 2000.
- Core Engineering's previous experience on similar projects.

PROPOSED FIRE ENGINEERING ALTERNATIVE SOLUTIONS

Specifically amongst other matters which may be established in the design development the fire strategy needs to address:-

- Single exit from the underground tunnel of the Nutrition Centre, via non-fire-isolated stairway connecting 3 levels.
 - 60 min FRL construction around the stair on Level 1, with --/60/30 FRL self-closing fire door.
 - Smoke detection provided throughout (which is not prescriptively required) thereby providing an early detection and alarm to expediate evacuation.
 - The tunnel is a transient space, with minimal occupant presence, if any.
 - The tunnel connection to the Hospital building will have compliant fire separation.
 - Negligible fuel load and ignition sources, thereby mitigating the risk of the exit being blocked.
- Discharge past unprotected openings from the northern fire-isolated stair in the Nutrition Centre.
 - Detailed calculations shall be undertaken to determine the radiative heat flux and potential exposure to evacuating occupants.
 - The wall is to achieve the requisite 60min FRL.

CONCLUSION

The design which has been proposed in the development application is not considered to compromise the proposed fire safety strategy, nor compromise conformance with the building regulations. In other words, the fire safety strategy will have immaterial impact on the design of the built form presented in the architectural drawings.

We trust that the above information is sufficient for Consent Authority's needs with respect to fire safety design and compliance with the relevant building regulations in this regard. Should any further information be required for a determination to be made please contact the undersigned on 02 9299 6605.

For and on behalf of CORE Engineering Group Pty Ltd,

Author:



Christie Tran

Fire Safety Engineer

MEng (Fire Protection)

Verified:



Graham Morris

Registered Certifier – Fire Safety (3200)

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