

Our Reference: SY190118

20 Oct 2020

Ascot Project Management
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Attention: Ms Joanna Karamihas,

Dear Joanna,

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Re: GenesisCare Cancer Centre, Project Maui - Fire Services Design Approach

Fire systems in buildings are required to be able to run for a set amount of time at a certain flow rate. This is 60 minutes for a fire sprinkler system and 4 hours for a fire hydrant system. In the case of the subject building, the required flow rates are 12L/s for sprinklers and 20L/s for fire hydrants and we are required to consider these flows simultaneously for a total of 32L/s. In some instances the town main will be capable of supplying this amount of water, however, through on-site testing, the connection at the subject site was only capable of 13.5L/s. This is a shortfall of 18.5L/s which needs to be accounted for in on-site water storage.

Several locations for the tank were explored, including underground adjacent the existing OSD tank, several varying layouts within the basement carpark and the roof top. Due to the required size of the water storage tank, the operational requirements of FRNSW and the site constraints, the only positioning that met all criteria was the roof top. The roof top location is the only option that provides the fire brigade with a flooded booster assembly connection. This allows different hose connections to be used which dramatically reduces the on-site set-up time for the fire brigade, and as such makes this location the only viable location.

Yours faithfully,
ACOR Consultants Pty Ltd



Reece Liddy
Fire Engineer/Designer