

THE SILO

Subject Silo Hotel The V&A Waterfront Sustainability Features

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No one involved in the build environment can ignore the pressing issues of design for living within the natural capacity of the planet. Within this truth and echoing the vision of the architect to retain and honour the historic fabric and soul of the building lies one of the key sustainability features of this project.

On many projects operational efficiency is a paramount sustainability consideration. Design teams pursue zero carbon design without looking at the embodied environmental impact of the materials being used. First prize must therefore be re-using an un-used structure while still maintain the same level of operational efficiency that a new building would have provided. Furthermore all structure taken out within the building will be crushed and as far as possible re-used on various other projects in the precinct.

The thick exposed concrete structure will also aid operational energy efficiency by allowing the atrium space to be naturally ventilated while still maintaining comfortable temperatures within the space during hot summer days. The atrium will bring natural daylight deep into the space enhancing the indoor environmental quality that patrons will experience.

Performance glazing was selected to control heat gain into the rooms while still allowing ample natural daylight. The faceted nature of the facade due to its geometry helps reduce incidental heat gain and radiant heat. Detailed energy and Computational Fluid Dynamic analysis was carried out to ensure an optimised façade for energy, comfort and daylight.

The air conditioning system will utilise the central sea water cooling plant. This plant will offer a substantial reduction in the precincts energy and water consumption.

The building will use low flow water fittings and fixtures that will further reduce the buildings potable water consumption.

The Silo Hotel The V&A Waterfront sustainability credentials will add to the precinct's already lofty achievements started by No1 Silo, the new Allan Gray's head office that achieved a 6 star Green Star rating.