

## Memorandum

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Subject	Partial Enclosure to Roof Deck Adjoining the Sovereign Room - Outdoor Ventillation Statement		
From	Andrea Giuffrida		
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This memo is a statement of the proposed ventilation systems and design philosophy for the new partially enclosed roof deck area adjoining the Sovereign Room at the Star City Casino.

### 1.0 Code Compliance

The fresh air ventilation as required by the BCA Section F for this space will be provided by the fixed openings in the glazed screen that surrounds the space. There are no other code requirements for ventilation for this area.

### 2.0 Supplementary Ventilation

Further to the above provision of ventilation a supplementary ventilation system will also be provided. This system utilises the relief air from the existing air handling system that serves the adjacent enclosed Sovereign Room. The salient features of the proposed ventilation system are described below;

- The Sovereign Room air handling system has a very high amount of fresh air due to the high population load in that space. Therefore that system requires a large amount of the conditioned air to be relieved to the atmosphere. That relief air is tempered and has a high level of residual "freshness".
- The design philosophy is to utilize this relief air to provide supplementary ventilation to the adjacent outdoor space.
- Rather than exhausting this relief air directly to the atmosphere as is the current case, the intention is to draw this air into the underfloor space of the partially enclosed roof deck area.
- This relief air is then injected into the space at low velocity at floor level and travels generally upwards by natural buoyancy.
- This upward relief air movement has the benefit of providing comfort conditions to the patrons and staff in that space.
- Another important benefit is that the upward relief air movement also moves contaminants up and away from the patrons and staff to a higher level where it is then dispersed outwards through the natural ventilation openings in the glazed screen.

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