

Civic Conservatory - Building Condition Assessment - Summary

Introduction:

The facility assessment was conducted by Kindrachuk Agrey Architecture, Robb Kullman Engineering (Structural), and WSP (Mechanical & Electrical). Opened in 1964, and without having any significant physical upgrades since, the Conservatory is expectedly showing significant signs of wear. Sprinklering of the entire building will be done in 2018 as part of the City/CDM joint design & construction project.

Building Envelope:

The existing glazing wall envelope and fibreglass skylights have exceeded their life cycle. It is not clear if the existing single layer glazing system is adequately reinforced to withstand current design wind-loads. Catastrophic failure is a possibility with no way of forecasting the event. A new glazing system envelope would require added column support and cross-member reinforcing.

The building code now requires roof design to account for snow-loads and live-loads cumulatively. The risk associated with the existing roof system is not quantifiable in relation to this new requirement. Catastrophic failure is a possibility with no way of forecasting when it will happen. The skylights show UV damage and are leaking. No documentation exists of gel-coat preventative maintenance, which is recommended every five years. A complete review of the assembly condition has not been undertaken for some time due to concern over the weight-bearing capacity of the system.

Saskatchewan Occupational Health and Safety define the requirements for proper tie-offs and/or guard-rails when accessing high places. The roof does not satisfy these requirements, making servicing hazardous.

The existing concrete column and beam structure has been reviewed and is adequately built to withstand the current minimum load requirements. In this regard, it is feasible to upgrade or expand the building envelope using the existing structure.

Accessibility:

The building does not meet minimum National Building Code or FADS requirements for accessible washrooms nor accessibility of the display area. Current access to the floor level of the Conservatory from the Lobby is only by stair.

Sustainability:

Upgrading the building envelope (glazing walls and roof/skylight system) and mechanical systems to current standards could result in up to a 70% reduction in fuel consumption.