Parking Structures are unique. They are exposed to many severe influences such as de-icing salts, freeze-thaw cycles, temperature changes, wear and snow removal. And even though they are subjected to these influences, they are quite often the most neglected part of a complex from both a design and maintenance point of view. In many cases, immediate savings are pursued in design and/or construction, which is then followed by minimal maintenance, resulting in potentially significant short and long-term consequences.

Design of parking structures is regulated by the Building Code (4.4.2) which requires design in conformance to CSA-S413. In this presentation, the design requirements in CSA-S413 Parking Structures will be reviewed. The importance of the requirements will be discussed with examples on what can happen if they are ignored both at the design phase and long-term occupancy phase.

Learning Objectives:

Attendees will acquire an understanding of architectural and structural design requirements of concrete parking structures under CSA-S413.

Attendees will understand what can happen if these requirements are ignored both at the design phase and long-term occupancy phase.

Sylvie Mercier specializes in the evaluation and repair of concrete structures, prime consulting and the functional planning, Design and restoration of parking facilities. Her wealth of experience includes facility condition assessments, project management and design of parking structures, institutional, research and commercial buildings, as well as seismic upgrades and renovations. After completing her education at the University of Waterloo and working at an engineering firm in Montreal,

Sylvie joined RJC Vancouver in 1992. Sylvie is an active member of the Canadian Parking Association, and keeps abreast of current trends in parking design throughout North America.

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