Structured Parking
KITCHENER’S PARKING STRUCTURES

Structured parking—whether in stand-alone garages or as part of a larger development—is a significant part of Kitchener’s built form. Due in part to technical and financial constraints, underground parking structures do not often extend more than one to two levels below grade, resulting in multiple levels of above-grade structured parking on many high-density projects.

Once circumstances have pushed parking above grade, it becomes part of the city’s built form and urban fabric and assumes a responsibility for good, compatible design no different from any other use. This includes materials, articulation, massing, and public realm design.

Above grade structured parking also makes a significant contribution to the shape and form of its associated development; offices, residential and mixed-use complexes. Parking can occupy the majority of a building’s first few levels, is often visible from the public realm and has direct impacts on the streetscape.

Structured parking as a built form/use is unique, however, and appropriate design responses are sometimes different from those of other uses. Likewise, evolving standards and expectations for how (and how much) parking is provided mean that structured parking designs need to be sustainable, flexible and adaptable; from being positioned to add more amenity for bicycles, ride sharing options and electric vehicles, to allowing for adaptive reuse over time.

Photo: The Benton St. garage features contemporary design, materials and articulation without disguising that it is a parking structure. It also features active uses at grade along Benton St. and the art installation “Pedestrian.”
Wherever possible, place structured parking behind other uses (retail, office, residential) on all sides, for the full extent of all parking levels and the complete length of each facade. Where structured parking is exposed or otherwise visible, it is to be designed as a fully integrated component of the site and building design, including massing, materials, and articulation, while designing to high standards for safety, sustainability and accessibility.

Consider the greater multi-modal transit network when designing and orienting parking structures to create safe and convenient pedestrian connectivity between modes.

Facade Design

Avoid blank walls.

Avoid tinted or opaque glass.

Avoid facade design that mimics other uses, such as residential or office.

Openings

Provide visually permeable openings, either through glazing or open-air screening.

Provide openings with an architectural rhythm that is compatible with surrounding buildings.

Openings are to promote safety and natural surveillance for both users of the garage and the public.

Screen openings with high quality materials, used in creative ways. The nature of parking garages makes them excellent candidates for facade treatments that are sculptural and expressive. This should include public art.

Creatively use colour and lighting on internal parking decks to add interest to parking areas.

Adaptability

Consider ways to design parking structures so as not to frustrate their future adaptability to changing travel and usage conditions over time. This includes conceiving of structured parking areas as hybrid spaces capable of accommodating events/exhibitions/performances and preserving for future adaptive reuse to active uses, office space or residential units.

Where possible, design for adaptability by creating flat surfaces for parking levels with discreet ramps rather than continuously sloped ‘spiral’ parking structures.

Where possible, design for adaptability by sizing and proportioning the floor plates of structured parking areas such that they are translatable to efficient layouts for other uses.

Where possible, design the facade, openings, and pedestrian circulation for efficient adaptability to future potential uses. This does not, however, include facade design that attempts to visually replicate other uses while the structure is used for parking.
Provide sustainable strategies such as water collection and recycling, green or high-albedo roofs, sustainable landscaping and passive/energy efficient building systems such as providing solar panels as shade structures on the upper deck which also generate electricity for electric vehicles.

Resources such as Parksmart can act as a valuable guide for identifying and implementing sustainable approaches to structured parking design. Techniques include; priority parking spaces for electric vehicle charging stations, dedicated carshare and carpool parking spaces, complementary tire inflation stations, sensors and displays communicating where available spaces are located, and more.
When designing a standalone parking structure, provide appropriately located, programmed and sized shared spaces tailored to both users and the public.

Focus parking-related landscaping on sustainable design, particularly strategies which offset the impacts of vehicle usage and emissions associated with parking structures, such as CO₂ sinks, living walls, trees and low-impact stormwater planters/permeable surfaces.

Thoughtfully and creatively implement public art into the architecture and urban design of the building and site. Public art should not be used to compensate for or cover up blank walls or lower-quality architecture, as these are to be avoided in the first place.

Comprehensively integrate lighting design with parking structures. Creative lighting can add colour, warmth, visual variety and a human scale to enhance the quality of parking areas.

Design all parking structures to accommodate cyclists, including both class A and class B bicycle parking and enhanced circulation that ensures the safety, convenience and comfort of cyclists. Users who travel by bicycle should not be inconvenienced in favour of motorists.

Where possible, provide cyclists with separated interior and exterior pathways such that they are not placed in direct conflict with motorists.

Where cyclists are required to traverse vehicular drive aisles to reach bicycle parking locations, provide clear, frequent sharrow markings to indicate to both drivers and cyclists that cyclists will be riding in these areas.

Consider ways to provide enhanced access to bicycle parking, including: wall mounted racks at the ends of vehicular parking spaces; bicycle parking areas located immediately adjacent to building lobbies, exit stairwells, etc. and; eliminating any barriers that might discourage cyclists such as poor visibility, steeply sloped ramps, poor indoor air quality and other factors.

Wherever possible, locate waste & recycling rooms such that the roll out of bins on pickup days does not require movement across drive aisles, up or down ramped areas or otherwise creates conflict between motorists and maintenance persons.