C. DESIGN BRIEF

Design Foreword:

The Parking Garage development as proposed in this application is an integral part of the 1Door4Care Integrated Treatment Centre project. This project component has been named Phase 1A Parking Garage since it is intended to be developed and handed over prior to the development of 1Door4Care facility. The reason for this sequential arrangement is the necessity to provide required parking capacity during construction of the new facility which will decommission considerable number of existing parking spaces on Lot 'B' (286 spaces), but also to provide much needed additional parking for the future expansion of CHEO beyond the 1Door4Care project.

The Proposed garage is designed as a 7-storey structure that will provide a total of 1050 spaces. The structure will occupy a portion of what is currently parking lot 'E' on the current site and will adhere to all municipal zoning requirements.

The B+H Team, acting as a PDC Consultant (Planning, Design and Conformance), has provided requirements and guidelines in the form of Output Specifications included in the RFP document being procured by Infrastructure Ontario on behalf of the Children's Hospital of Eastern Ontario (CHEO). The massing of the proposed structure reflects its function and specifically the required capacity of the Parking Garage of 1050 cars. It also reflects the concept of an open-air Parking Garage under the OBC requirements, which sets a particular elevation based on the required proportion of solid to open area on the perimeter. The design includes a sloped ramp design with parking spaces provided on the ramps which are restricted to a 5% slope. The length of the ramps are determined based on the 5% slope restriction and a 3.6m floor to floor height at lower levels and 3.2m at upper levels assuming a precast double tee structure.

The design includes the accessibility requirements for the parking structure as included in the Output Specifications and also includes the requirements related to the restrictions imposed by the helicopter traffic, location of the helipad and the helicopter flight path.

Finally, the design, in particular the size of the floor plate and the height reflects the overall site planning including space economies for the future potential expansion projects that may be expected on the CHEO site such as future expansion of the parking garage and future research building.

Under the Output Specification requirements, the Proponents bidding on this project can adopt a structural system of their choosing, based on supply conditions, construction schedule, or labour conditions etc.

In thinking about the visual impact of this structure on the CHEO lands, PDC is proposing that the successful Proponent consider that the structure be clad on the North, East, South and West elevations with an architectural screen. The West elevation is the direction of future expansion. This screen will be designed as the project progresses.

There are plenty of opportunities to maximize the positive appeal of the parking structure through its architectural treatment. Material accents on the parking garage can tie into the materiality of the1Door4Care Integrated Treatment Centre project, which will make them feel more like one cohesive project. Additionally, the screens can be differentiated in a deliberate way to reflect the contextual differences of the Ring Road to the South and the green space to the North. The future concepts to be developed by Project Co can also include some theming ideas that come from proximity to the Memorial Garden (Butterfly Garden) which remains a very meaningful space for CHEO and the families whose lives have been positively affected by CHEO.

Ultimately, the detail design of the Parking Garage will be developed by the successful Proponent.

We have included in this submission a number of precedent images which will give a fairly good idea of the type of architectural screening products PDC were considering in the approach to this design.

Massing & Scale| Building Massing:

All four sides set within it current context (showing the entire height and width of the building)

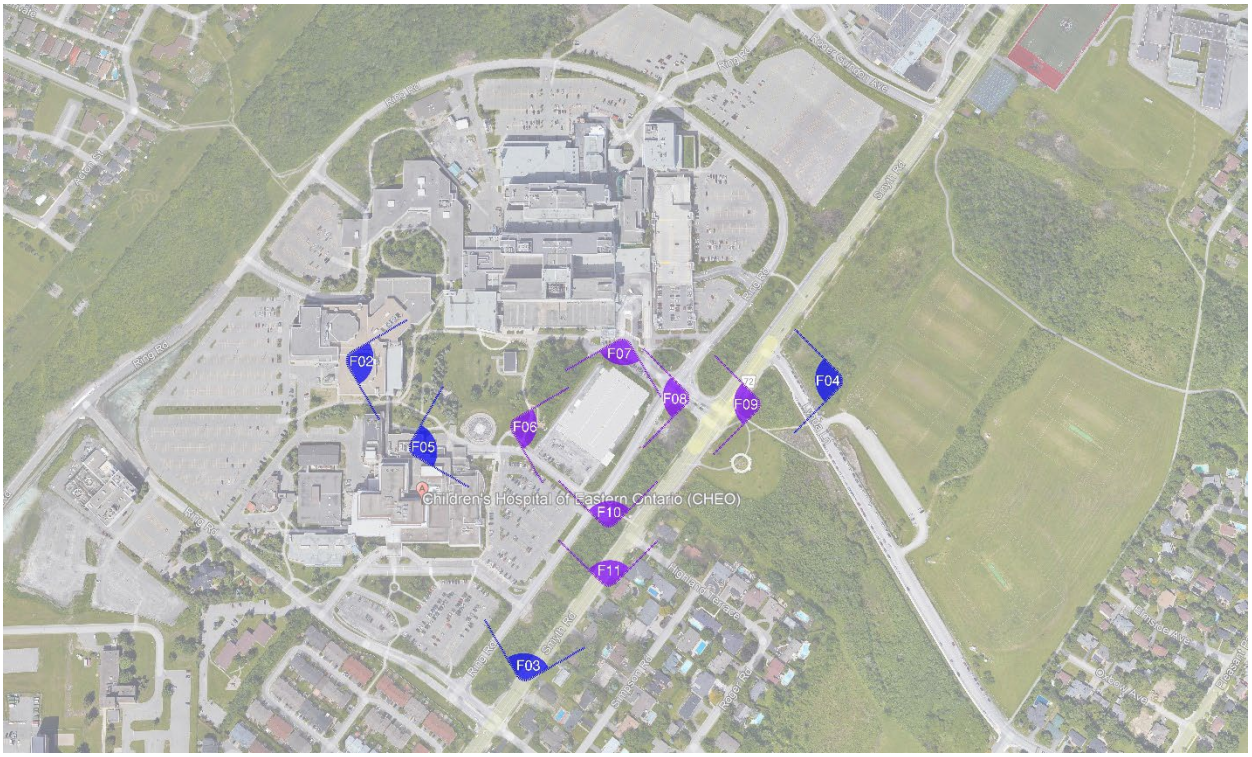

Figure 01 – Key plan

F02 Figure 02 - Aerial Massing, view from northwest

F03 Figure 03 - Aerial Massing, view from southwest

F04 Figure 04 - Aerial Massing View, from southeast - Google Earth context

F05 Figure 05 - Aerial Massing, view from northwest – Google Earth context

F06 Figure 06 - Perspective, view from northwest

F07 Figure 07 - Perspective, view from northeast

F08 Figure 08 - Pedestrian Perspective, view from southeast (south side of Ring Rd) – Google Earth context

F09 Figure 09 - Pedestrian Perspective, view from southeast (south side of Smyth Rd) - Google Earth context

F10 Figure 10 - Pedestrian Perspective, view from southwest (south side of Ring Rd) – Google Earth context

F11 Figure 11 - Pedestrian Perspective, view from southwest (south side of Smyth Rd) – Google Earth context

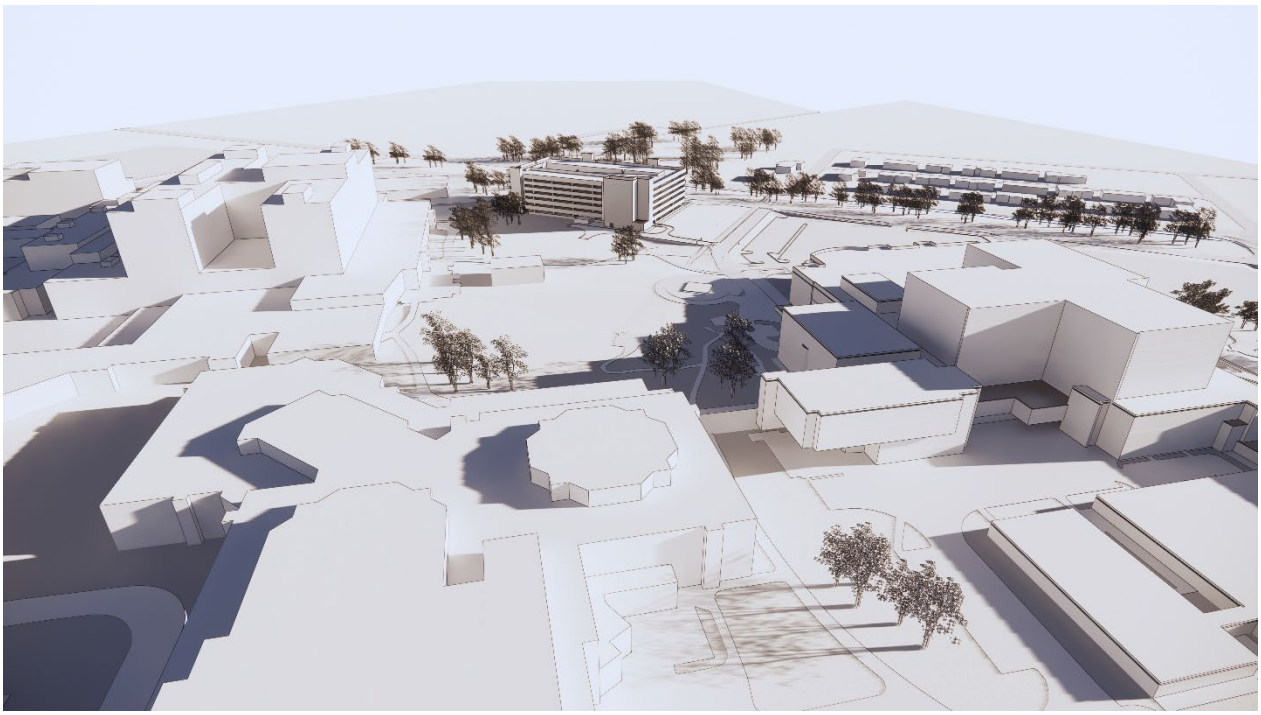

Figure 02 - Aerial Massing, view from northwest

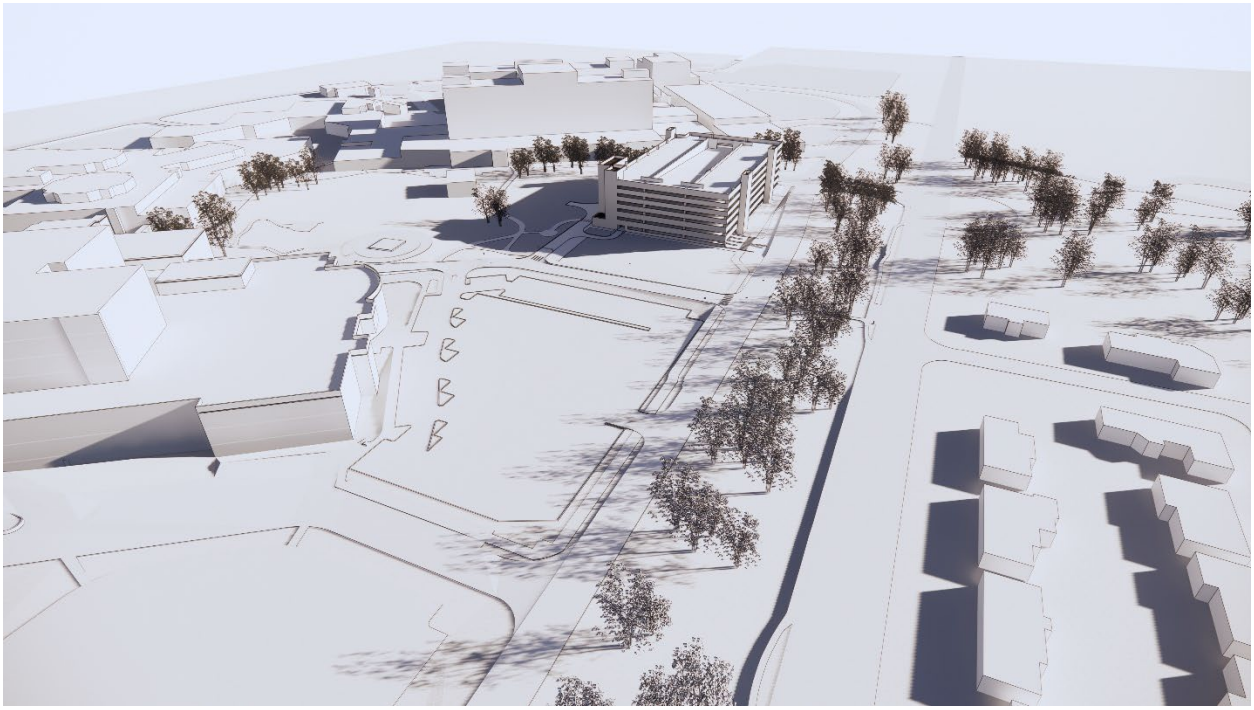

Figure 03 - Aerial Massing, view from southwest

Figure 04 - Aerial Massing View, from southeast - Google Earth context

Figure 05 - Aerial Massing, view from northwest – Google Earth context

Massing & Scale | Views:

all four perspectives to show how the proposed building is set within its current context.

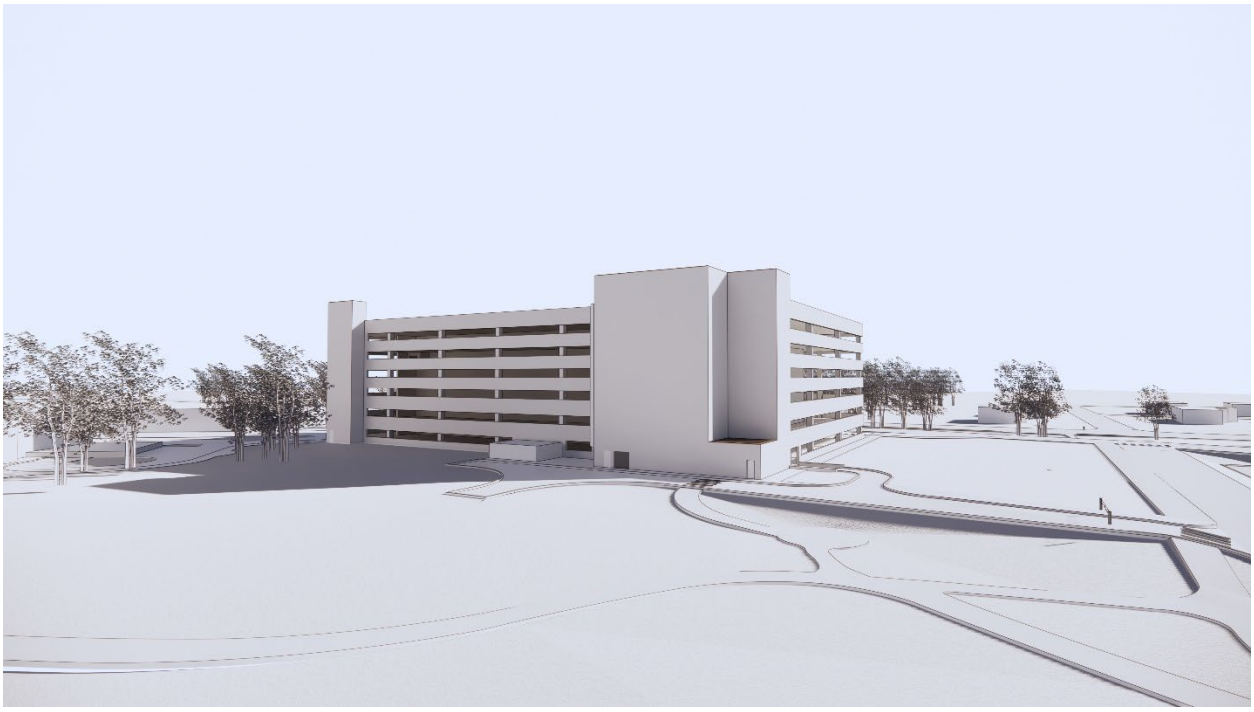

Figure 06 - Perspective, view from northwest

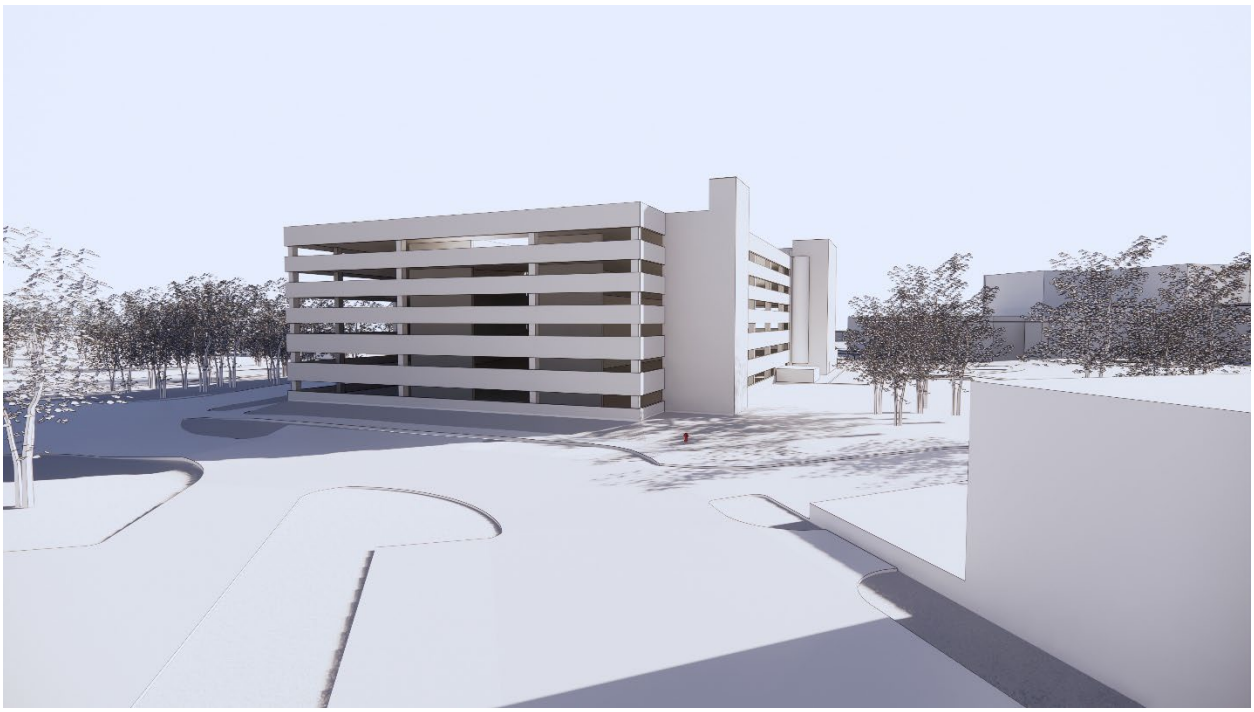

Figure 07 - Perspective, view from northeast

Figure 08 - Pedestrian Perspective, view from southeast (south side of Ring Rd) – Google Earth context

Figure 09 - Pedestrian Perspective, view from southeast (south side of Smyth Rd) - Google Earth context

Figure 10 - Pedestrian Perspective, view from southwest (south side of Ring Rd) – Google Earth context

Figure 11 - Pedestrian Perspective, view from southwest (south side of Smyth Rd) – Google Earth context

Massing & Scale | Alternative Building Massing:

additional imagery and site layouts considered and provide justification for the ultimate proposal sought

Previous schematic design studies of the Parking Garage layered several constraints which ultimately defined the solution presented in this SPC Application:

The heliport's approach and takeoff path, and its associated transitional surfaces limit the extent and height of the Parking Garage. It is an important constraint during the construction limiting the height and potentially size of the construction crane(s) as well as limiting the acceptable locations for these devices during construction.

In CHEO's masterplan, future developments to the west of the Parking Garage also limited its horizontal extent and position.

Various permutations of the Parking Garage layout and vehicular supply were conducted by Stantec in a feasibility study for CHEO during the master planning phase for CHEO's growth and expansion. The current design as proposed by PDC Team is based on the sloped ramps with maximum 5% slope, the mandate to provide 1050 spaces, a taller floor to floor for visitors for levels 1 & 2, and distributing the remaining spaces among the upper storeys.

Public Realm | Streetscape:

Cross sections which illustrate the street design and right of way (referencing the City's design manuals)

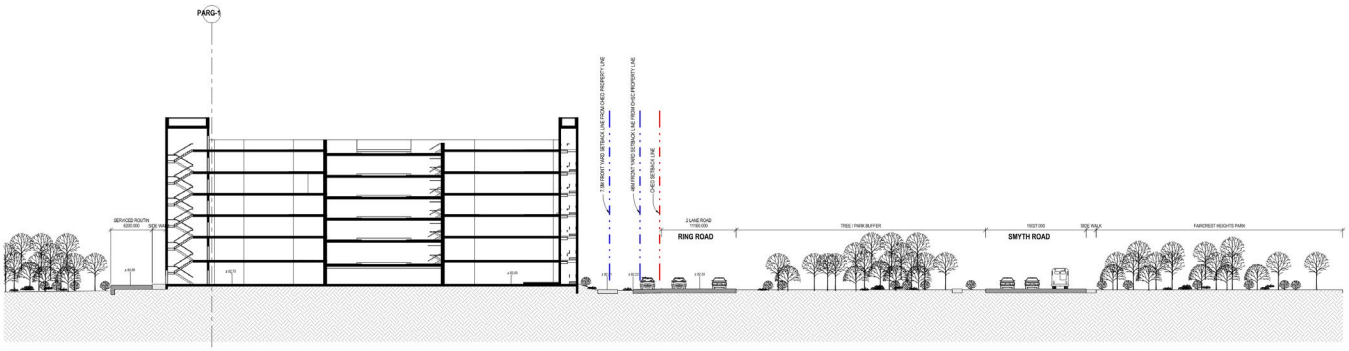

Figure 12 - Section through Parking Garage & Smith Road

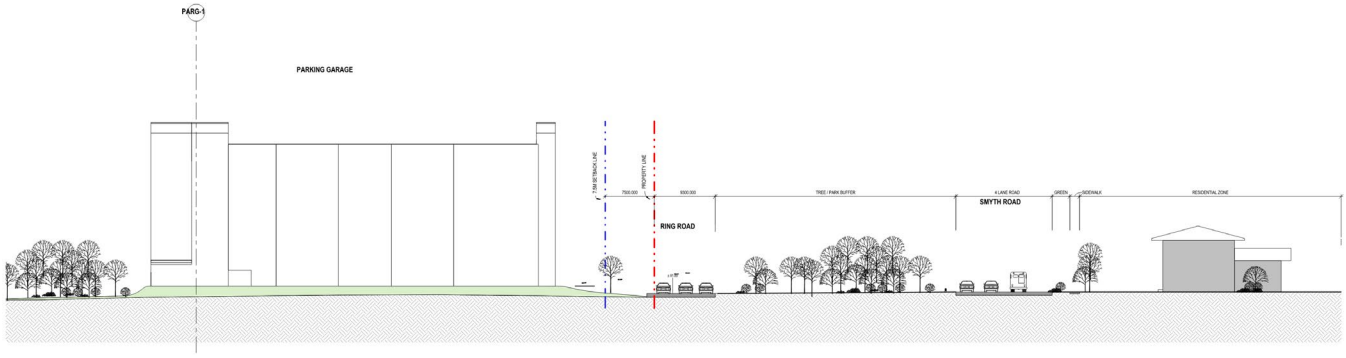

Figure 13 - Section at 7.50M Setback & Property Line

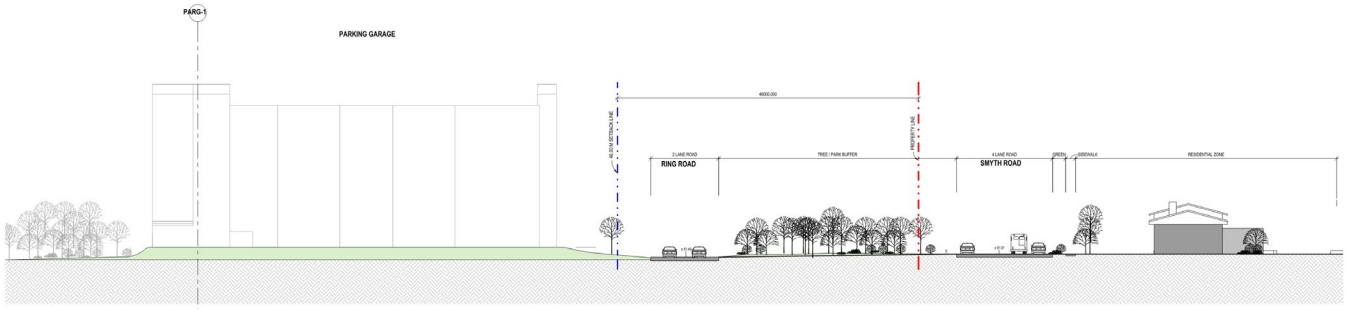

Figure 14 - Section at 46.0M Setback & Property Line

Public Realm | Relationship to the Public Realm:

Illustrating how the first few storeys of the proposed development responds to and relates to the existing context (e.g. through a podium plan and first floor plan). This is to include detailed explanation on:

- *Architectural responses*
- *Landscaping details*
- *Public art features (in accordance with Official Plan, Section 4.11)*
- *For developments in Design Priority Areas, detail the building and site features, (in accordance with Official Plan, Section 4.11) which will enhance the public realm. Provide explanation for features which are not provided.*

In developing this project, several considerations were made regarding the public realm and the contextual relationship of the project to its surroundings. Maintaining open green space was a primary consideration. The location was chosen such that it did not reduce the available green space on CHEO lands. Additionally, the pedestrian circulation and bike path along the Ring Rd. was not to be affected. We are retaining the sidewalk and bike path and are proposing that the bike path leads to a covered bike parking area internal to the site, more closely related to the hospital proper. The bus stop along the Ring Rd. will be retained in the same location and its service will not be affected by the construction of this project. In terms of green space, all green setback requirements are being met and will be landscaped with trees and shrubs as dictated by the zoning and required for appropriate visual screening. Finally, the visual impact of the project was an important factor when considering how we approach the design and how this structure will respond to the public realm. We have addressed this through the requirements for an architectural screen that will create architectural interest and help to generate a sense of place through appealing street facing façade treatments.

This project is being implemented as part of Infrastructure Ontario's Public-Private Partnership procurement model. B+H Planning, Design and Conformance (PDC) Team including multidisciplinary consulting teams developed a framework, also referred to as Output Specifications (OS). This document sets up the performance requirements for the 1Door4Care Integrated Treatment Centre project including the Parking Garage.

The detailed solutions addressing the ***Architectural response*** are expected to be included in the Project Co design development. At this point the first story of the Parking Garage includes the public lobby with the elevators and stairs connected to the pedestrian walkway system leading to bike storage and the hospital facilities. The ***Landscape details*** are expected to provide the required buffer between the building and sidewalks and facilitate the transition towards the green space at north.

Public Art remains the option that will be explored by CHEO along with the larger concept of wayfinding and branding that is part of the RFP and will become a part of the Project CO deliverable under the CHEO direction for the entire 1Door4Care Integrated Treatment Centre project. The details of this development are expected to be available during design development by Project Co.

The building and site features that may be subject to **Design Priority Area** enhancements including outdoor green spaces, terraces and play areas are included in the 1Door4Care Integrated Treatment Centre project. The enhancements adjacent to the Parking Garage site are intended to be completed by CHEO outside the current RFP, and will focus on the green space north of the Parking Garage.

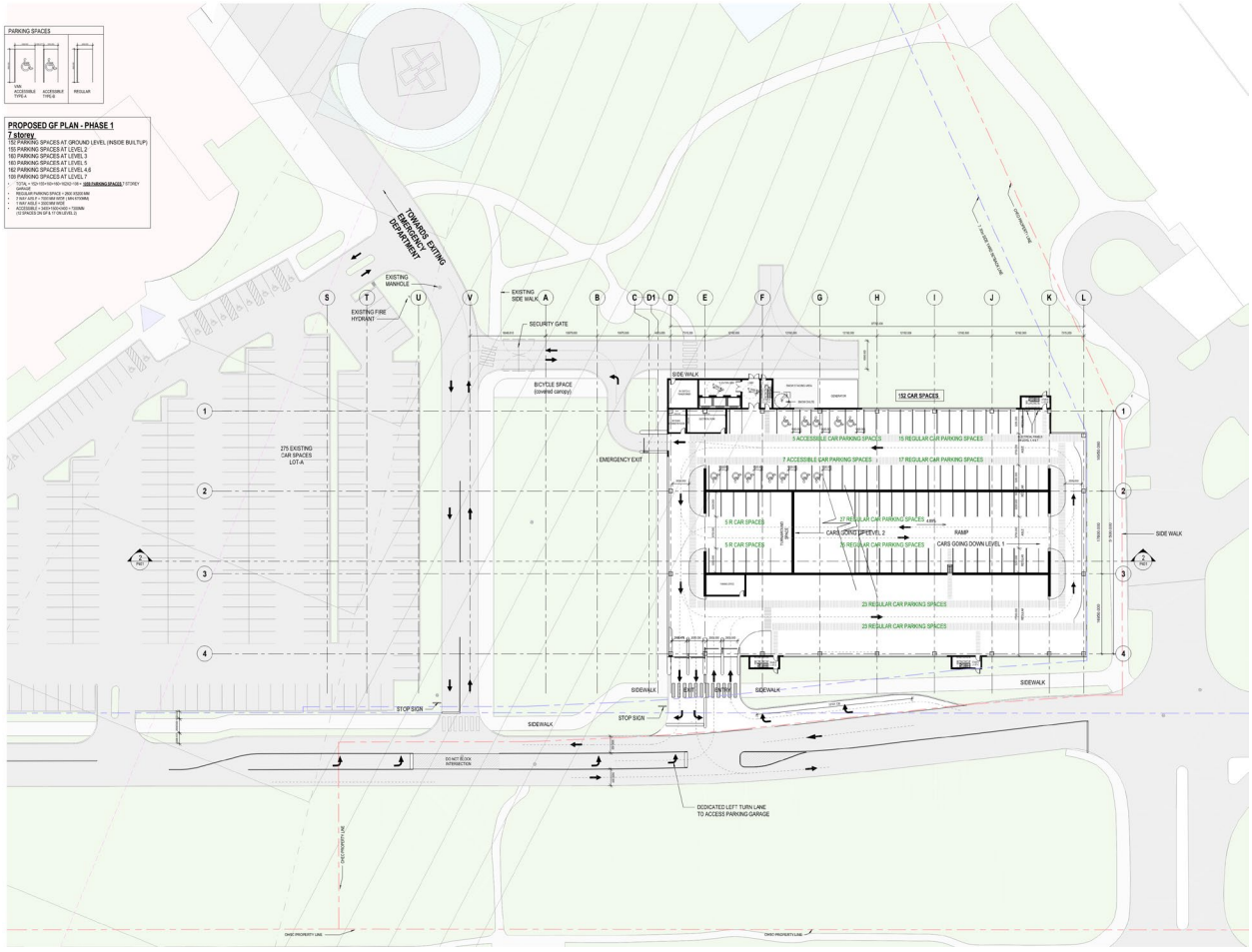

Figure 15 - Floor plan level 1 - Phase 1A

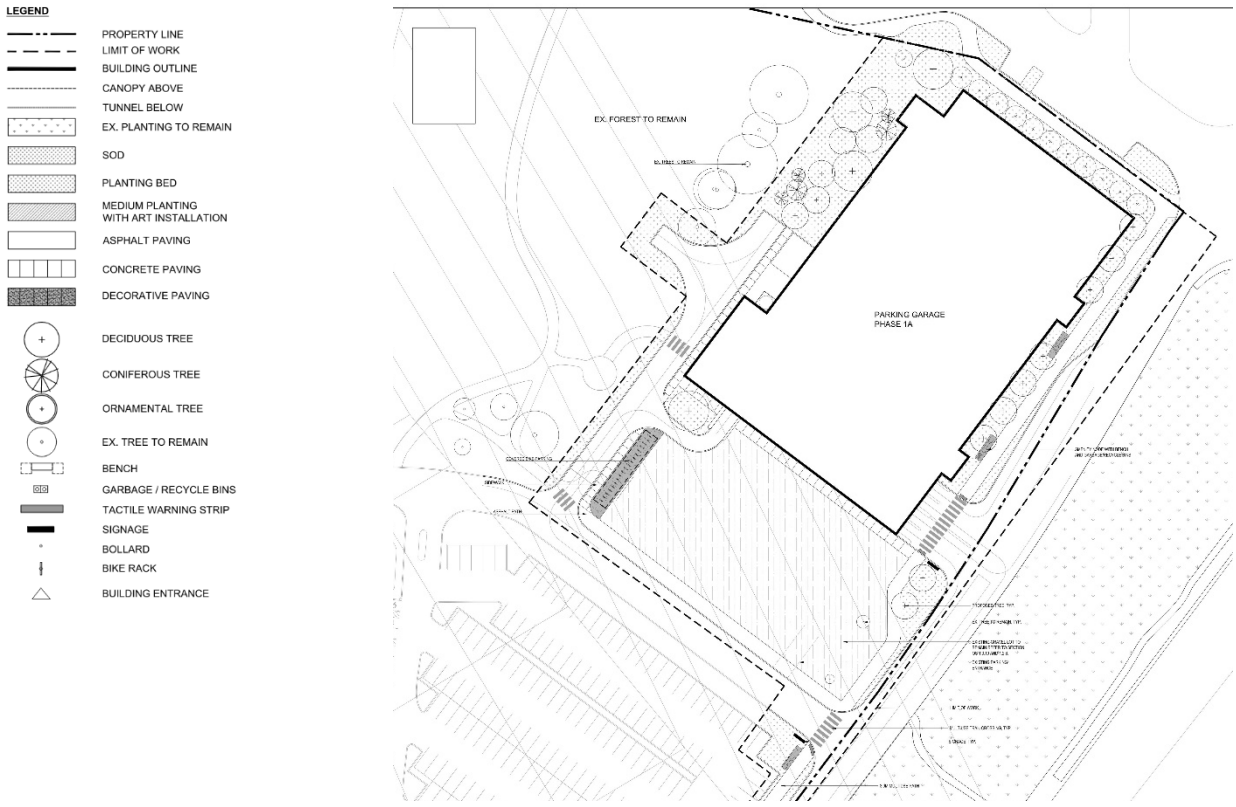

Figure 16 - Landscape Plan

Sample Imagery of Screening (Proponents to determine final solution):

Building Design |Building Elevations & Floor Plans:

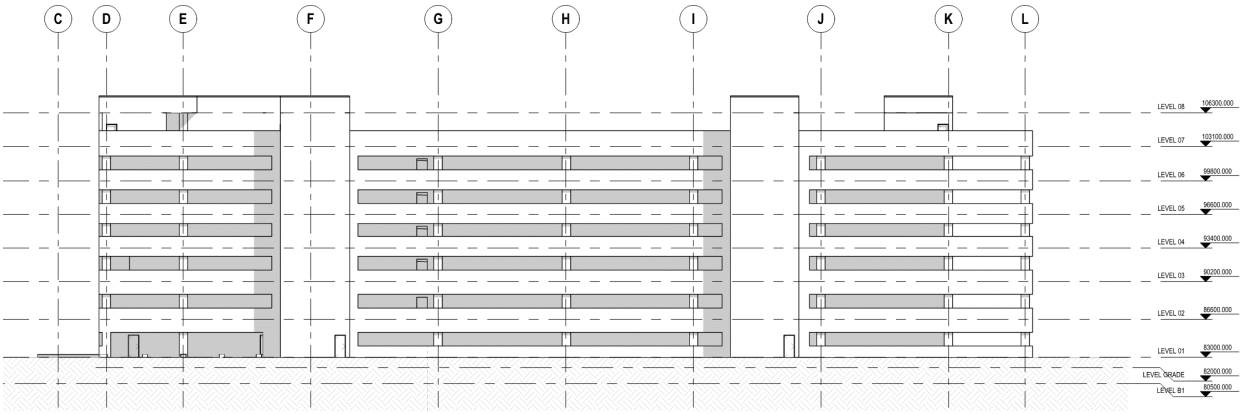

Figure 17 - Parking Garage South Elevation

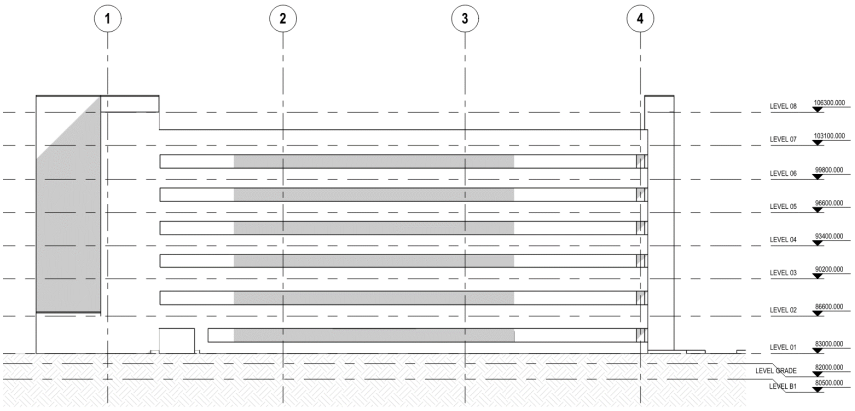

Figure 18 - Parking Garage West Elevation

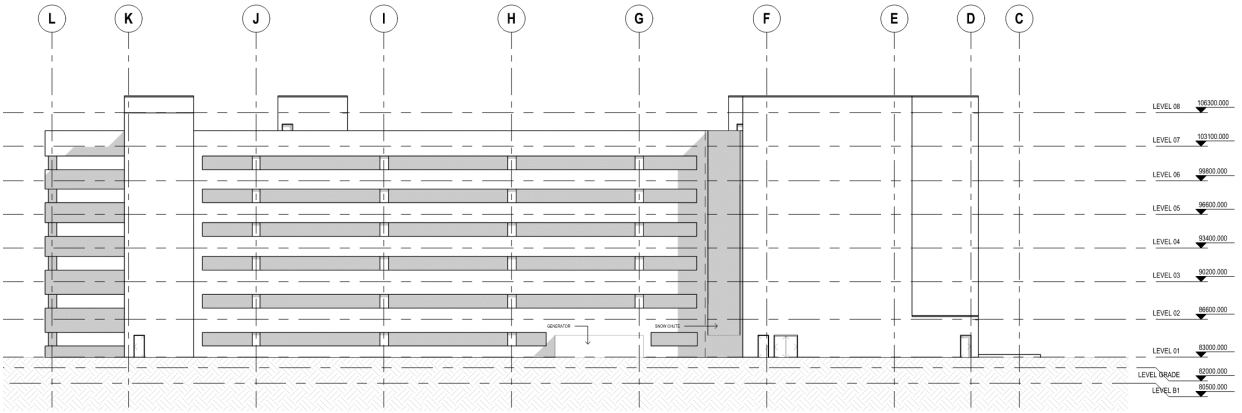

Figure 19 - Parking Garage North Elevation

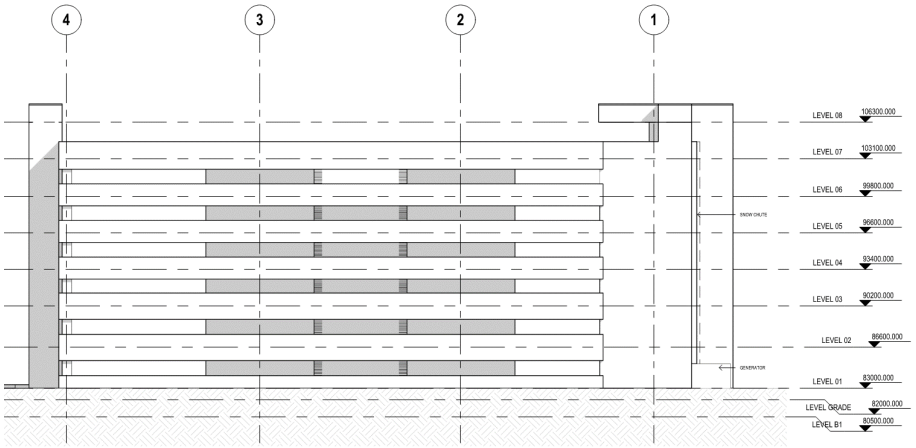

Figure 20 - Parking Garage East Elevation

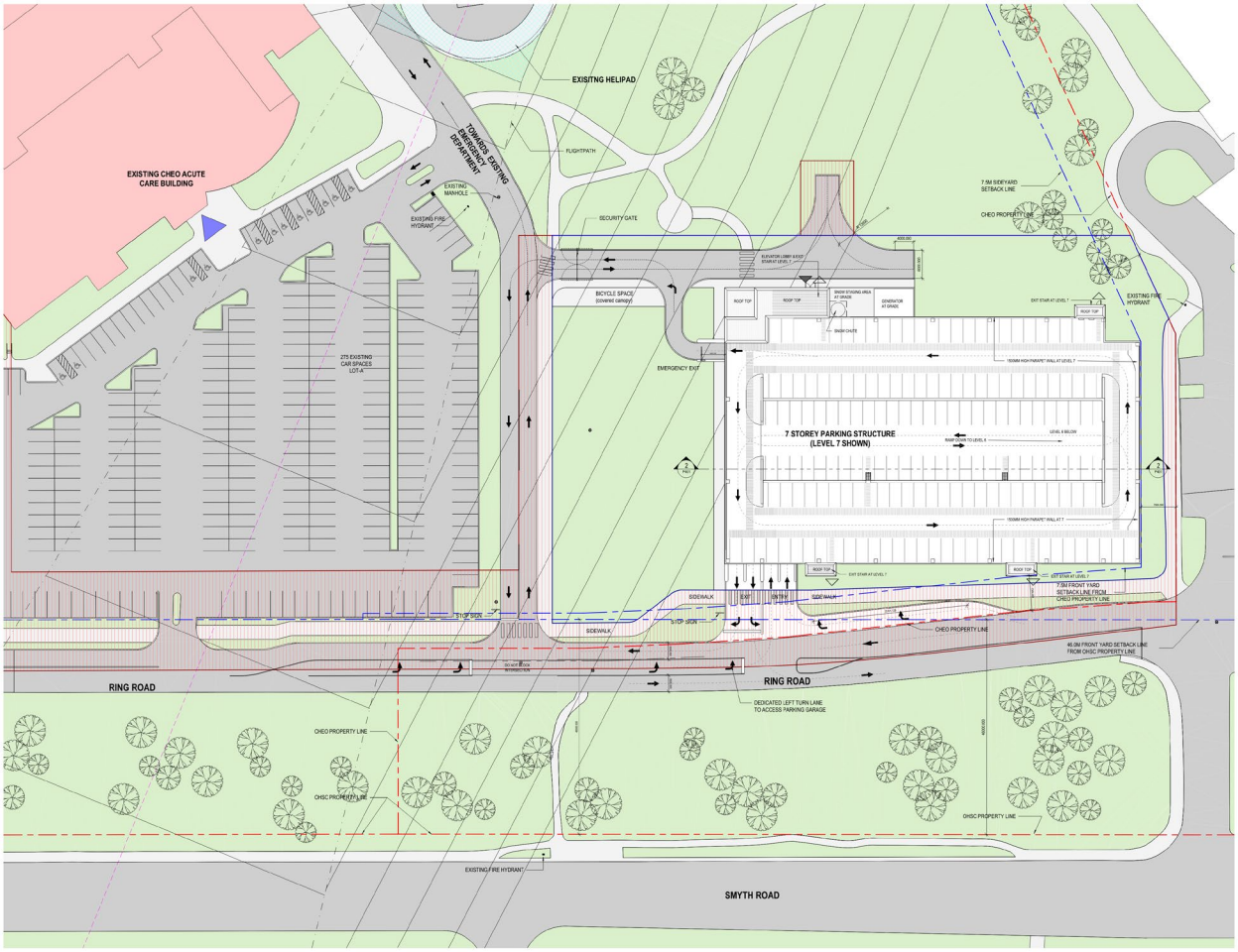

Figure 21 - Site Plan - Phase 1A

Sustainability

CHEO is implementing its own measures and targets called 'Kick the Carbon' initiative, to address the global crisis on climate change. It aims to create a greener CHEO, using the organization's total emissions in 2019 as its baseline. The targets will see CHEO reduce its carbon emissions by 5% each year, totaling 30% by 2025. CHEO also has targets set for 2047 (which would its 75th year anniversary), to achieve a net zero carbon emission milestone.

The Parking Garage is included in the overall LEED boundary for the entire project under Phase 1A and Phase 1B as illustrated on site plan drawings.

Along with the 1Door4Care Integrated Treatment Centre project, the Parking Garage will aim to reduce its energy use and associated greenhouse gas emissions by optimizing energy efficiency associated with heating, ventilating, air-conditioning, and lighting systems where applicable.

The Proponent's design for the Parking Garage shall consider the relative environmental impacts of building materials by evaluating the extraction, processing, transportation, use and disposal of a material by conducting a life-cycle analysis. Also, this facility will facilitate EV charging, bicycle storage and potential PV systems that can be installed in the future on the supporting structure of the roof. The design shall have resiliency in mind and will be designed for future preparedness.