UNIVERSITY OF TORONTO

OFFICE OF THE GOVERNING COUNCIL

FOR RECOMMENDATION **PUBLIC** **OPEN SESSION**

TO: Academic Board

SPONSOR: Scott Mabury, Vice President, Operations and Real Estate Partnerships
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DATE: September 17, 2019 for October 3, 2019

AGENDA ITEM: 4(a)

ITEM IDENTIFICATION:

Capital Project: *Report of the Project Planning Committee for the Landscape of Landmark Quality*

JURISDICTIONAL INFORMATION:

Pursuant to section 4.2.3. of the Terms of Reference of the Planning and Budget Committee, "…the Committee considers reports of project planning committees and recommends to the Academic Board approval in principle of projects (i.e. space plan, site, overall cost and sources of funds)."

Under the *Policy on Capital Planning and Capital Projects*, "…proposals for capital projects exceeding $20 million must be considered by the appropriate Boards and Committees of Governing Council on the joint recommendation of the Vice-President and Provost and the Vice-President, University Operations. Normally, they will require approval of the Governing Council. Execution of such projects is approved by the Business Board. […] If the project will require financing as part of the funding, the project proposal must be considered by the Business Board."

GOVERNANCE PATH:

A. Project Planning Report

1. Planning and Budget [for recommendation] (September 17, 2019)
2. **Academic Board [for recommendation] (October 3, 2019)**
3. Business Board [for approval, financing] (October 7, 2019)
4. Executive Committee [for endorsement and forwarding] (October 15, 2019)

5. Governing Council [for approval] (October 24, 2019)

B. Execution of the Project:

1. Business Board [for approval] (October 7, 2019)

PREVIOUS ACTION TAKEN:

The Landmark project was initiated out of a recognition that gradual changes to the campus's historic core over many decades have resulted in a landscape that falls short of its potential as a vibrant and significant series of public spaces, commensurate with the established institutional status of the University. A Project Planning Committee, established in 2013, prepared a Project Planning Report establishing principles and recommendations to ensure comprehensive planning and integrated design for this precinct. The Committee recommended the removal of surface parking from King's College Circle, Hart House Circle and Tower Road, with replacement within close proximity of the precinct. Other urban campuses have struggled with this same issue; the University of Pittsburgh, for example, has located a central parking facility below several central green spaces, thereby reducing vehicular impact on the pedestrian environment while maintaining parking close to the centre, and Queen's University has also placed its parking underground, beneath campus open space. Essential to the proposal, the Committee recommended removal of parking from King's College Circle, Hart House Circle and Tower Road, similar to the approach that other Universities have taken.

The University launched a process to engage the appropriate team for a landscape revitalization of this magnitude. In Summer 2015, five teams were shortlisted for an 8-week ideas competition. KPMB Architects and MVVA Landscape Architects were awarded the project. Through the Schematic design (Phase 1) which was completed in Fall 2016, it was determined that surface parking would be replaced by a single-storey parking structure below the Front Campus green. In this first phase of design, Medical Sciences Building (MSB) plaza was added to the project scope, as was University College (UC) courtyard. MSB plaza will be implemented as part of the Landmark project, whereas UC courtyard is now on a separate track with respect to design, approvals and timeline. A new Indigenous landscape in the area of the Hart House Green originated in the Landmark design scope but, in consultation with Indigenous stakeholders, has been established as a separate but related design project, with consultants recently hired. This landscape will be constructed as part of the Landmark Project. Facilities & Services below-grade central utilities infrastructure, and recently added geothermal scope are integral to the project but will be funded separately.

On December 18th, 2014 the CaPS Executive Committee approved funding requested to proceed with hiring consultants for the first phase of design and fundraising materials.

On August 28th, 2017 the CaPS Executive Committee approved an increase toward additional consultant fees required to carry the project through Design Development (excluding design of the UC Courtyard scope) including submission of Site Plan Control (SPA) and Minor Variance applications to the city.

On March 8th, 2019 the CaPS Executive Committee approved a second increase toward additional consultant fees required to carry the project through Construction Documents.

HIGHLIGHTS:

The historic core of the University of Toronto Campus is centred on four distinct and interrelated open spaces: Front Campus including King's College Circle, Hart House Circle, Sir Daniel Wilson Quadrangle and the Back Campus. Framed by heritage buildings, monuments and pathways, these spaces constitute the heart of the campus and provide important spaces of connection, gathering, and ceremony, and allow for a variety of active and passive uses.

The University of Toronto St. George Campus Open Space Master Plan (1999), Investing in the Landscape, recognized each of these spaces as significant in the overall campus landscape and, using them as "demonstration" sites, made recommendations for their enhancement. Following the conclusion of the Open Space Master Plan, The Users' Committee for the Demonstration Project of King's College Circle Precinct (2000) was struck, resulting in a two-part design plan for the Front Campus area and the implementation of the first phase of King's College Circle Precinct. Although schematic plans were prepared for a reconfigured King's College Circle and Convocation Plaza, these plans were not achievable within the funding available at that time.

More recently, the 2011 St. George Campus Master Plan has reiterated the importance of moving forward with improvements to the historic core and its open spaces. Within this context, the Landmark Committee was formed to make recommendations for the revitalization of the historic core to ensure comprehensive planning and integrated design for the precinct.

Initiated through an invitation for public feedback during the competition phase in 2015, consultation of the Landmark project has been the most extensive of any University of Toronto project, and has included meetings and presentations, online communication, and public open houses and events such as UTSU Street Festival, Spring Reunion, Convocation and exhibits on all three campuses.
https://landmark.utoronto.ca/public-consultation.html

In November 2018, concerns were raised by OISE's Dean's Advisory Council on Indigenous Education regarding what was perceived to be a lack of consultation with the Indigenous community on the Landmark project. Fortunately, fears were allayed with the provision of the extensive list of individual and group meetings involving Indigenous faculty, staff, and students, as well as the Elders' Circle, undertaken by both Donald Ainslie, Principal of University College and Co-chair of the Landmark Project and Jonathan Hamilton-Diabo, then Director of Indigenous Initiatives, from the fall of 2017 to the winter of 2018. The themes which emerged from these consultations included the creation of a new Indigenous landscape in Hart House Green (subject to the removal of the current cannons and flag pole); the significance of land-based teaching and research; and the need for Indigenous plantings. This input led to the hiring of a landscape architect to develop an Indigenous landscape in the southeastern portion of Hart House Green. This area would also serve as a teaching and research space. An Advisory Committee *was established, with strong representation from Indigenous community members, and in March 2019, a letter was received from DACIE declining the offer of a meeting and confirming a greater understanding of the project and confidence in the Advisory Committee membership to steward DACIE"s concerns through the on-going consultations and planning.*

Fundraising commenced in Spring 2017. To date, the project has attracted more than 2,400 donors from alumni and friends all around the world, including a gift of $250K from the U of T Students' Union (UTSU),

representing 50,000 undergraduate students on two campuses, and $1M gift from the U of T Alumni Association (UTAA).

In August 2017, the CaPS Executive Committee approved funding through Design Development, including municipal approvals. The project is currently in the Construction Documents phase as CaPS Executive approval was received in March 2019 for funding to the end of Construction Documents. A Site Plan Control (SPA) application was submitted at the end of March 2019, and Minor Variance application will be submitted in August once city comments have been received. Construction is anticipated to start in Spring 2020.

The project area is **86, 340 sm** and includes:

A. Front Campus/King's College Circle

B. MSB Plaza/Courtyard and Ramp to Queen's Park

C. Convocation Hall Plaza

D. Hart House Circle/Soldiers' Tower

E. Sir Daniel Wilson Quadrangle/Whitney Walk

F. Back Campus/Tower Road/Laidlaw Lane

In addition to signature tree groupings that form design elements of the new landscape, the tree planting locations have been designed to provide shaded areas for relaxing and studying, and to improve the area's biodiversity by attracting a greater variety of birds, insects, and animals. The proposed plantings exceed Toronto Green Standard requirements for drought-tolerant and native/pollinator supportive species. Proposed planting plans and species lists included identification of the University's preferred native and indigenous, non-invasive, and low-maintenance plantings. The species under consideration include varieties of canopy and flowering trees, resilient grasses, and other plants that will thrive in the environmental conditions in each specific area, as well as those that will retain foliage well into the Fall.

The project will add more than 250 canopy and flowering trees to the precinct trees (~ 200 net new trees or a sixty-five (65) % increase). There are 315 existing trees within the project area (excluding Galbraith Road, and UC Quad). Forty-five (45) trees will be removed to accommodate construction, of which thirty (30) must be replaced at a ratio of 1:3 to meet the City By-law.

The plan also includes the addition of 7,000 square meters of shrubs and plants, 35,000 square metres of natural lawn, and 8,000 square metres of groundcover.

To facilitate removal of surface parking, a 9,075 gsm single-story garage is proposed below the Front Campus and will include:

a. 263 vehicle spaces

b. Capacity for 88 bicycle parking racks

c. Vehicle access ramp off Wellesley Street
d. 3 discrete open-cut stair exits at the NE, NW and SW corners of the Front Campus lawn
e. 2 discrete air intake/exhaust locations
f. Below-grade mechanical space for Central Utilities – funded separately under separate Governance approval
g. Geothermal (borehole installation below the parking structure) to provide snow melt for KCC and heat for adjacent buildings – funded separately under separate Governance approval. The total area including space related to Facilities and Services (F&S) utilities and geothermal infrastructure is 10,872 gsm.

In addition, the South Pavilion, a single-story structure (100 gsm) in proximity to the Medical Sciences Building, will provide elevator and stair access.

The project removes surface parking spaces from King's College Circle, Hart House Circle and Tower Road. Garage construction is anticipated as a first phase, prior to removal of surface spaces.

Construction of the garage and landscape improvements will impact all groups and uses within the sector. As such, the construction schedule will be carefully coordinated with the University's academic calendar and events for the full project area. During excavation of the garage and landscaping above, the Front Campus will not be available for recreation or events. The project team will continue to coordinate with Academic + Campus Events (ACE), the Faculty of Kinesiology and Physical Education (FKPE), the Office of Convocation, Alumni and others on alternate accommodation for programming and events such as Convocation and Spring Reunion. Given the complexity of the project, the method of project delivery will be Construction Management (CM). Construction logistics will be confirmed once a construction management firm is on board.

Some tree removal is required to construct the garage and vehicle entry ramp and for road re-alignment particularly in the case of King's College Road and the new Observatory Loop replacing Hart House Circle. In total 45 trees will be removed of the more than 300 trees within the project area; replacement is anticipated far beyond the City 1:3 requirement for trees greater than 30 cm diameter.

As a result of demolishing a section of the utilities tunnel at intersection of vehicle ramp, IT and Fire Prevention cabling must be rerouted prior to construction in order not to interrupt the operation of the University. Steam piping, as well as emergency power lines, will also be affected. Temporary solutions such as backup generator, temporary steam pipe or temporary boilers will be provided for a period of time during demolition of the utilities tunnel until a reconnection is completed.

Temporary access such as redirecting existing pathways or installing temporary pathways or ramps will be implemented in order to accommodate sequential phasing of the project.

All noise and vibration control will meet the City of Toronto Bylaw requirement. For any other specific coordination, such as MSB vibration requirement, additional testing and monitoring will be provided to ensure that the construction does not exceed the acceptable value of delicate equipment.

The Indigenous landscape project in the area of the Hart House Green will be constructed as part of Landmark. The UC courtyard revitalization project's construction is expected to overlap with Landmark construction; schedule of construction in the area of Back Campus, Tower Road and Laidlaw Lane must be carefully coordinated.

Schedule

The proposed schedule for the project is as follows:

- CaPS Executive approval (Consultant fees) — Dec 18, 2014
- Consultant Selection (Competition) — June – September 2015
- Letter of Award — December 2015
- Schematic Design — January – December 2016
- CaPS Executive approval (Consultant fee increase) — August 28, 2017
- Design Development — June 2017 – March 2019

• CaPS Executive approval (Consultant fee increase)	March 8, 2019
• Municipal Approvals (SPA submission)	March 21, 2019
• Cycle 1 Governance (CaPS Executive)	August 23, 2019
• Cycle 1 Governing Council approval	October 24, 2019
• Construction Documents	May – December 2020
• Tender and award	January 2020
• Mobilization and Construction start	Spring 2020
• Full operational occupancy	2023*

*Proposed construction completion date based on preliminary logistics consultation during Design Development phase. Given the complexity of the project, the method of project delivery will be Construction Management (CM). The CM will be engaged early 2020 for pre-construction planning, establishing a construction sequence that takes into account year-round University operations. Construction of the parking structure is anticipated as the first phase of construction.

FINANCIAL AND PLANNING IMPLICATIONS:

Discussion of overall costs and sources of funds can be found in the *in camera* document for this project.

RECOMMENDATIONS:

Be It Recommended:

THAT the *Report of the Project Planning Committee for the Landscape of Landmark Quality*, dated August 23, 2019, be approved in principle; and,

THAT the project totaling 86,340 square metres (sm), including a below-grade parking structure area totalling 9,075 gross square metres (gsm), and an entrance pavilion totalling 100 gross square metres (gsm) above grade, be approved in principle, to be funded by fundraising, Future Major Capital Project Reserves and financing.

DOCUMENTATION PROVIDED:

- *Report of the Project Planning Committee for the Landscape of Landmark Quality*, dated August 23, 2019

Report of the Project Planning Committee for

University of Toronto
Landscape of Landmark Quality

August 23, 2019

Office of Campus and Facilities Planning - University Planning, Design and Construction

I.Executive Summary

The historic core of the University of Toronto Campus is centred on four distinct and interrelated open spaces: Front Campus including King's College Circle, Hart House Circle, Sir Daniel Wilson Quadrangle and the Back Campus. Framed by heritage buildings, monuments and pathways, these spaces constitute the heart of the campus and provide important spaces of connection, gathering, and ceremony, and allow for a variety of active and passive uses.

The University of Toronto St. George Campus Open Space Master Plan (1999), Investing in the Landscape, recognized each of these spaces as significant in the overall campus landscape and, using them as "demonstration" sites, made recommendations for their enhancement. Following the conclusion of the Open Space Master Plan, The Users' Committee for the Demonstration Project of King's College Circle Precinct (2000) was struck, resulting in a two-part design plan for the Front Campus area and the implementation of the first phase of King's College Circle Precinct. Although schematic plans were prepared for a reconfigured King's College Circle and Convocation Plaza, these plans were not achievable within the funding available at that time.

More recently, the 2011 St. George Campus Master Plan has reiterated the importance of moving forward with improvements to the historic campus and its open spaces. Within this context, the Landmark Committee was formed to make recommendations for the revitalization of the historic core to ensure comprehensive planning and integrated design for the precinct. A Project Planning Committee was established in 2013, and on December 18th, 2014, the CaPS Executive Committee approved funding requested to proceed with hiring consultants for design and fundraising materials.

The project area encompasses a totla of 86,340 sm within the historic core. The landscape proposal hinges on the removal of surface parking to prioritise pedestrians within this series of iconic open spaces. To facilitate removal of surface parking, a 9,075 gsm* single-story garage is proposed below the Front Campus. The garage will accommodate 263 vehicles and parking for 88 bicycles with vehicle and primary bike access from Wellesley Street. The South Pavilion is a 100 gsm single story structure in proximity to the Medical Sciences Building, which provides elevator and stair access to the garage, with an open stair located at the other three corners of the underground facility.

In total Landmark will add more than 250 canopy and flowering trees to the historic core, or ~ 200 net new trees, representing approximately sixty-five (65) % increase. In addition to signature tree groupings that form design elements of the new landscape, the tree planting locations have been designed to provide shaded areas for relaxing and studying, and to improve the area's biodiversity by attracting a greater variety of birds, insects, and animals. There are 315 existing trees within the project area (excluding UC Quad). Forty-five (45) trees will be removed to accommodate construction of the parking structure, entry ramp, and access pavilion.

The Landmark project includes the addition of 7,000 square meters of shrubs and plants, 35,000 square metres of natural lawn (including the Front Campus), and 8,000 square metres of groundcover. Proposed planting plans and species lists included identification of the University's preferred native and indigenous, non-invasive, and low-maintenance plantings. The proposed plantings exceed Toronto Green Standard requirements for drought-tolerant and native/pollinator supportive species. The species under consideration include varieties of canopy and flowering trees, resilient grasses, and other plants that will thrive in the environmental conditions in each specific area, as well as those that will retain foliage well into the Fall.

The University launched a process to engage the appropriate team for a landscape revitalization of this magnitude. In Summer 2015, five teams were shortlisted for an 8-week ideas competition. KPMB Architects and MVVA Landscape Architects were awarded the project. Schematic design (Phase 1) was complete in Fall 2016. In this first phase of design, Medical Sciences Building (MSB) plaza was added to the project scope, as was University College (UC) courtyard. MSB plaza will be implemented as part of the Landmark project, whereas UC courtyard is on a separate track with respect to design, approvals and timeline. A new Indigenous landscape in the area of the Hart House Green originated in the Landmark design scope but, in consultation with Indigenous stakeholders, has been established as a separate but related design project, with consultants recently hired. This landscape will be constructed as part of the Landmark Project.

Facilities & Services below-grade central utilities infrastructure, and recently added geothermal scope are integral to the project but will funded separately.

Initiated through an invitation for public feedback during the competition phase in 2015, consultation of the Landmark project has been the most extensive of any University of Toronto project, and has included meetings and presentations, online communication, and public open houses and events such as UTSU Street Festival, Spring Reunion, Convocation and exhibits on all three campuses.
https://landmark.utoronto.ca/public-consultation.html

Fundraising commenced in Spring 2017. To date, the project has attracted more than 2,100 donors from alumni and friends all around the world, including a gift of $250K from the U of T Students' Union (UTSU), representing 50,000 undergraduate students on two campuses, and $1M gift from the U of T Alumni Association (UTAA).

In August 2017, the CaPS Executive Committee approved funding through Design Development, including municipal approvals. The project is currently in the Construction Documents phase as CaPS Executive approval was received in March 2019 for funding to the end of Construction Documents. A Site Plan Control (SPA) application was submitted at the end of March 2019, and Minor Variance application will be submitted in August once City comments have been received. Construction is anticipated to start in Spring 2020.

*The area associated with the Landmark project is 9,175 gsm (9,075 gsm below grade + 100 gsm above grade). The total area including space related to Facilities and Services (F&S) utilities and geothermal infrastructure is 10,872 gsm.

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II.Project Background

a) Membership

Donald Ainslie, Principal, University College (Co-Chair)
Scott Mabury, Vice-President, Operations and Real Estate Partnerships (Co-Chair)
*John Monahan, Warden, Hart House
Suzanne Akbari, Faculty Member
J. Dorcas Gordon, Principal, Knox College
Sandra Langlands, Acting Director, Science Libraries, UTL
Rob Wright, Professor, Daniel's Faculty of Architecture, Landscape and Design
Anita Comella, Assistant Dean, Faculty of Kinesiology and Physical Education
David Platt, Representative, Soldier's Tower
George Sumner, Principal, Wycliffe College
Barbara Fischer, University of Toronto Public Art Committee
Natalie Elisha, Undergraduate student representative from Hart House
Sarah Qidwai, Undergraduate student representative from University College
Chirag Variawa, Graduate student representative
Munib Sajjad, President, UTSU
David Palmer, Vice President, Division of University Advancement
David Newman, Interim Director, Office of the Vice Provost, Students and First Entry Divisions
Ron Soskolne, University of Toronto Design Review Committee
Anna Luengo, College Administrator, Massey College,
Michael J.H. Ratcliffe, Provost, Trinity College
Heather Taylor, Director, Facilities Management and Space Planning, Faculty of Medicine
Archana Sridhar, Assistant Provost
*Ron Saporta, Assistant Vice-President, Facilities and Services
Anne Macdonald, Director, Ancillary Services
Steve Bailey, Director, Office of Space Management
*Costas Catsaros, Director, Project Development
*Christine Burke, Director, Campus and Facilities Planning
Stan Szwagiel, Manager, Grounds Services, Facilities and Services
*Sarah Hinves, Senior Planner, Campus and Facilities Planning

* new members since Project Planning Committee approval

b) Terms of Reference

Specifically, incorporating principles and guidelines for campus planning as outlined in the 2011 St. George Campus Master Plan and in keeping with the goals of Investing in the Landscape, the Committee will make recommendations for the revitalization of King's College Circle/Front Campus, Sir Daniel Wilson Quadrangle, Hart House Circle and the Back Campus/Tower Road to ensure comprehensive planning and integrated design. All recommendations should be mindful of the heritage buildings, significant open spaces and important views (e.g. University College from the south). Though other issues might emerge in the course of its deliberations, the Committee is expected to:

1. Consider how to ensure that King's College Circle/Front Campus, Hart House Circle, Sir Daniel Wilson Quadrangle and the Back Campus/Tower Road best serve UofT students, faculty, staff, and alumni and make recommendations.
2. Make recommendations for the accommodation of visitors to the campus, tour buses, and the broader neighbourhood and City of Toronto community.
3. Identify areas of significance that should require particular design focus including opportunities for donors (i.e. in front of Convocation Hall/Simcoe Hall) and make recommendations that address both day-to-day access and provision for special events, ceremony, celebration and student gathering.
4. Make recommendations for priority access, traffic flow and accommodation for pedestrians, bicycles and vehicles (passenger, emergency, service, and accessibility); with specific recommendations regarding through-traffic across the University's Front campus area.
5. Consider the establishment of a pedestrian priority zone and its limits including the introduction of vehicular traffic calming or minimization and the reduction of surface parking, ensuring coherent and integrated circulation for pedestrians, and making reference to the University's parking By-law.
6. Identify opportunities to improve pedestrian connections to Back Campus, St. George Street, College Street, Queen's Park Crescent and Hart House Green addressing lighting, seating, green space, signage, planting and paving.
7. Make recommendations for the provision of bicycle parking with regard to location and compliance with the University's parking By-law and the Toronto Green Standard.
8. Consider the continuing use of the front campus as a playing field (limiting or expanding) and make recommendations, with specific reference to the planned expansion of usage on the new Back Campus fields of play. The Front Campus is to remain as natural turf.
9. Make recommendations, where appropriate, for the introduction of public art.
10. Address sustainable design and durability of materials and street furnishings. Materials must be environmentally sensitive and chosen by a life-cycle approach that includes consideration of their durability and environmentally appropriate maintenance.
11. Address daylight seasonality and lighting to maintain enhanced and safe landscape year round.

c) Background Information

The St. George Campus historic campus resides on what was the original land grant for King's College. The area consisted of 150 acres of land beyond which lay what was then the town of York. Framed by heritage buildings, monuments and pathways, open spaces within the historic core of campus (Front Campus including King's College Circle, Hart House Circle, Sir Daniel Wilson Quadrangle and the Back Campus) constitute the heart of the campus and provide important spaces of connection, gathering, and ceremony, and allow for a variety of active and passive uses.

While the campus's historic core includes some of the institution's most iconic buildings and landscapes, its overall physical design could be improved to provide a consistently memorable experience. In doing so this public space can play a significant role in attracting the best faculty and students, providing opportunities for planned and serendipitous learning, and facilitating interaction between all constituencies in the U of T community as part of their everyday activities.

The University of Toronto St. George Campus Open Space Master Plan (1999) entitled 'Investing in the Landscape' recognized these spaces within the historic core of campus as significant in the overall campus landscape and, using them as "demonstration" sites, made recommendations for their enhancement. These plans and recommendations were conceptual in nature, and were meant as "first steps to illustrate the potential of the campus open spaces to achieve the vision and Primary Objectives outlined in the Plan," and to some extent, were intended to provide potential donors with examples of the difference their gifts could make to the campus. While these plans were conceptual, many of the primary goals remain relevant today including the following:

- To revitalize the historic core of the University
- To create a significant and special space in front of Convocation Hall
- To reconnect the historic campus open spaces, and
- To improve connections to Back Campus, St. George Street, College Street and Hart House Green

Following the conclusion of the Open Space Master Plan, The Users' Committee for the Demonstration Project of King's College Circle Precinct (2000) was struck, resulting in a two-part design plan for the Front Campus area and the implementation of the first phase of King's College Circle Precinct. Phase 1 included the addition of a new gateway at College Street and significant upgrades to King's College Road, and pedestrian connections between the Front Campus and St. George Street. Pedestrian walkways connecting King's College Circle with St. George Street at Knox College and Sir Daniel Wilson Hall were redesigned to incorporate sustainable, native drought-tolerant plants to provide a green amenity appropriate to the Toronto climate. Although schematic plans were prepared for a reconfigured King's College Circle and Convocation Plaza, these plans were not achievable within the funding available at that time. They were reviewed by the Committee to establish a point of departure for future work.

More recently, the 2011 St. George Campus Master Plan has reiterated the importance of moving forward with improvements to the historic core and its open spaces. Quoting from 'Investing in the Landscape', the Master Plan notes the continued relevance of the Primary Objectives such as the following relevant to this project:

1. Working toward: "… the common goal of achieving the highest quality design for the campus open spaces."

2. The establishment of "…a Pedestrian Priority Zone… which places a high priority on the quality of the pedestrian environment on campus. This zone should include the reduction of surface parking in the primary open spaces of the campus.", and,
3. An increased "investment in open space improvements… (over time) to achieve a consistent palette of material use on campus and promote long-term life-cycle design and construction methods."

The Landmark project was initiated out of a recognition that gradual changes to the campus over many decades have resulted in a landscape that falls short of its potential as a vibrant and significant series of public spaces, commensurate with the established institutional status of the University. A Project Planning Committee, established in 2013, prepared a Project Planning Report establishing principles and recommendations that will support the production of a Century Plan for the historic core of campus, ensure comprehensive planning and integrated design for the precinct. The Plan must satisfy its functional requirements, while enhancing the campus through the consideration of the surrounding historic buildings, views and gateways, landscaping and planting, lighting, seating, and other design elements.

Consultation during planning and design has been the most extensive of any University of Toronto project through meetings and presentations, online communication, and public open houses and events such as UTSU Street Festival, Spring Reunion, Convocation and exhibits on all three campuses. https://landmark.utoronto.ca/public-consultation.html

Further, Advancement's outreach activities have included hosting a number presentations and open houses to which we have welcomed hundreds of people, including members of the local downtown community. To date, the project has attracted more than 2,100 donors from alumni and friends all around the world, including a gift of $250K from the U of T Students' Union (UTSU), representing 50,000 undergraduate students on two campuses, and $1M gift from the U of T Alumni Association (UTAA).

On December 18th, 2014, the CaPS Executive Committee approved funding requested to proceed with hiring consultants for design and fundraising materials. The University launched a process to engage the appropriate team for a campus redesign of this magnitude. In Summer 2015, five teams were shortlisted for an 8-week ideas competition (which was publicized broadly throughout the Toronto community and to the University's alumni population) based on key qualifications:

- demonstrated experience executing projects of a comparable nature, scale and complexity using innovative yet contextually sensitive solutions; and,
- demonstrated ability to engage in broad public consultation with, and outreach to, a diverse range of stakeholders from within the University of Toronto, as well as neighbouring resident groups and the city at large.

KPMB Architects and MVVA Landscape Architects were awarded the project at the end of 2015.

Schematic design (Phase 1) was complete in Fall 2016. Fundraising commenced in Spring 2017 and in August 2017, the CaPS Executive Committee approved funding through Design Development, including municipal approvals. The project is currently in the Construction Documents phase as CaPS Exec approval was received in March 2019 for funding to the end of CDs. A Site Plan Control (SPA) application was submitted at the end of March 2019, and Minor Variance application will be submitted in August once City comments have been received. Construction is anticipated to start in Spring 2020.

In this first phase of design, MSB plaza was added to the project scope, as was UC courtyard. MSB plaza will be implemented as part of the Landmark project, whereas UC courtyard is on a separate track with

respect to design, approvals and timeline. A new Indigenous landscape in the area of the Hart House Green originated in the Landmark design scope but, in consultation with Indigenous stakeholders, has been established as a separate but related design project, with consultants recently hired. This landscape will be constructed as part of the Landmark Project. Facilities & Services below-grade central utilities infrastructure, and recently added geothermal scope are integral to the project but will be funded separately.

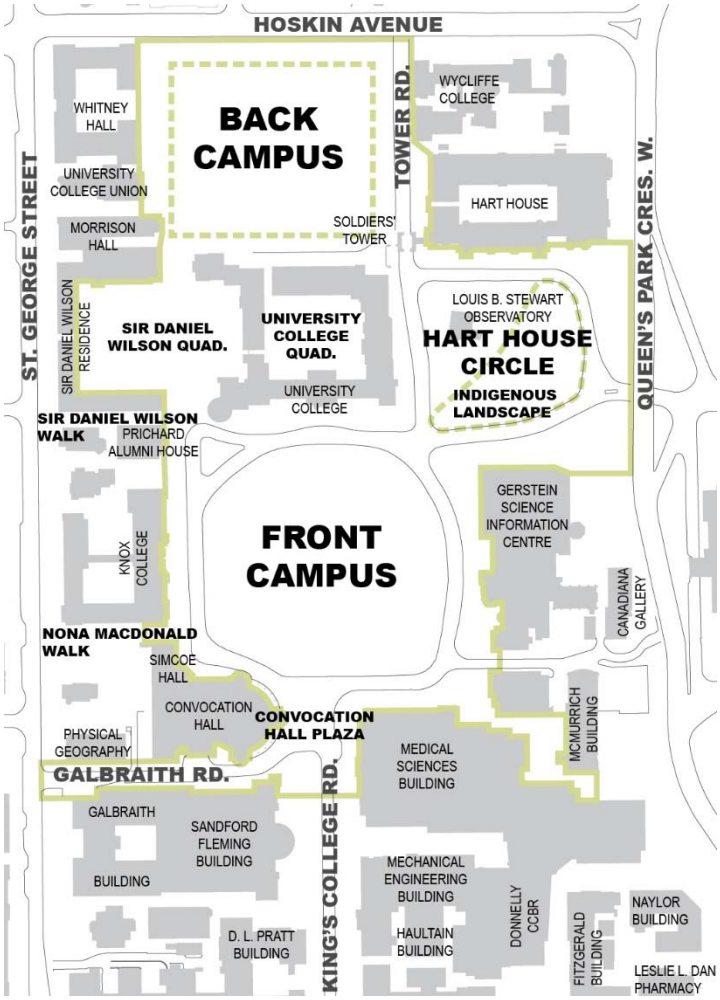
d) Existing Space

<u>Existing space</u>

The project area is **86, 340 sm** and includes:

1. Front Campus/King's College Circle
2. MSB Plaza/Courtyard and Ramp to Queen's Park
3. Convocation Hall Plaza
4. Hart House Green/Soldiers' Tower*
5. Sir Daniel Wilson Quadrangle/Whitney Walk
6. Back Campus/Tower Road/Laidlaw Lane

*The future Indigenous Landscape within the Hart House Green accounts for 4,500 sm. This area is additional to the 86,340 sm total above; this landscape will be planned and designed separately, but constructed as part of Landmark.



There are 315 existing trees within the project area, which will be largely preserved (UC Quad excluded from count).

The existing context is described under the following five themes, developed to consider the historic campus in a holistic manner: **Symbolic Sense of Place, Events, Sports and Recreation, Circulation, Access and Servicing**. Each 'theme' is explored in greater detail on the following pages.

1. Symbolic Sense of Place

The historic core of the University of Toronto St. George Campus occupies the very same lands originally granted in 1827. Many of the University's first buildings and open spaces remain in place today. Although the campus has grown and changed significantly, the historic core contains significant heritage attributes valuable for their quality and history within the University, but more importantly for the symbolic role they play in representing Canada's largest and most esteemed University. These spaces are steeped in the memory of those who have passed through them and are treasured by many. They are also inextricably connected with the City of Toronto that has grown up around the campus.

Understanding the importance of civic gestures to frame and support the University campus where it intersects with the larger city, the University has worked over time to reimagine some of its most important links to the city. For example, in the late 1990's the University worked with the City of Toronto to reimagine St. George Street from Bloor to College Streets. The resulting streetscape is one that reduced vehicular traffic, added bicycle lanes and introduced pedestrian friendly paving, lighting and landscaping. Similarly, the King's College Road Revitalization project introduced a new gateway framing the views north to the iconic University College building, and a supporting framework of paving, lighting, benches and landscaping in keeping with the historic nature of this campus precinct.

Landscaping and gateway elements were recently introduced to Philosopher's Walk running between Bloor Street and Hoskin Avenue; these also knit the campus together with the city and support the recognition of the University within the city. The continuation of this pedestrian spine has been contemplated for extension along the axis of Tower Road, winding its way south through the campus and beyond, and will be included as part of an 'art walk' that ties unique cultural institutions together.

Within this context, the campus must continue to evolve in order to ensure that it best expresses the values and vision of the University, and also to highlight its significance as a landscape within the city. Functionally, the University's historic core must provide opportunities to:

1. Support pride of place
2. Attract and retain students, faculty and staff
3. Welcome visitors
4. Engage the greater community, and
5. Express its role as a cultural destination

2. Events location

Most University traditions and events are tied to a place. By making inviting spaces to accommodate them, it is possible to deepen participants' experience and consequently build a strong sense of pride and connection with the institution.

Events that require consideration for functional support within the historic campus include:

1. Convocation
2. Spring Reunion
3. Orientation
4. Community/City wide events

5. Cultural events and exhibitions (i.e. Nuit Blanche, gallery exhibitions)
6. Official athletic competitions (i.e. annual sporting events as well as one-time only events, such field hockey), and
7. Filming on campus

Convocation, orientation, Spring Reunion and other important campus events have been long-accommodated within the historic core of the St. George Campus. As the student body has grown and its interests and needs have diversified, events have had to evolve. For example, the tradition of graduates parading from University College to Convocation Hall each spring has deep roots and is a memorable experience for those who take part. Parading still occurs today and Convocation Hall accommodates graduation ceremonies. Further, the greater numbers of students and the family members attending the ceremony has resulted in the erection of a large tent over a portion of the Front Campus to accommodate overflow along with supporting services. The tent is erected ahead of June Convocation for Spring Reunion, which takes place over 4 days at the end of May. Current challenges are two-fold: damage of lawn due to lack of sunlight exposure and compaction, and also at weight/anchor points. As such, tent infrastructure and location is considered as part of the project.

3. University Sports and Recreational Use

The open spaces of the historic core provide space for a variety of recreational activities. In particular, sports have long been played on both the Front and Back Campuses. Community-organized flag football, recreational rugby, Varsity field hockey and impromptu skating are among the various sports played within these areas. The quality of the fields varies, depending on the time of year. Extensive use of the Front Campus natural turf field often results in a muddy playing surface; this was previously the case on Back Campus. The Back Campus was recently reconstructed with an artificial turf playing surface to allow for the hosting of the Pan Am Games field hockey events in 2015. The resulting two legacy fields allow the University and its Faculty of Kinesiology and Physical Education far greater post-Games usage of the Back Campus for sporting use. The improvements extend the seasonality of the fields, while ensuring a playable surface throughout most of the year. As part of the Pan-Am work, new circulation pathways were added on the north and south sides of the field. The Front Campus will continue to provide a natural turf field for casual use by the University, Camp UofT and the greater University community.

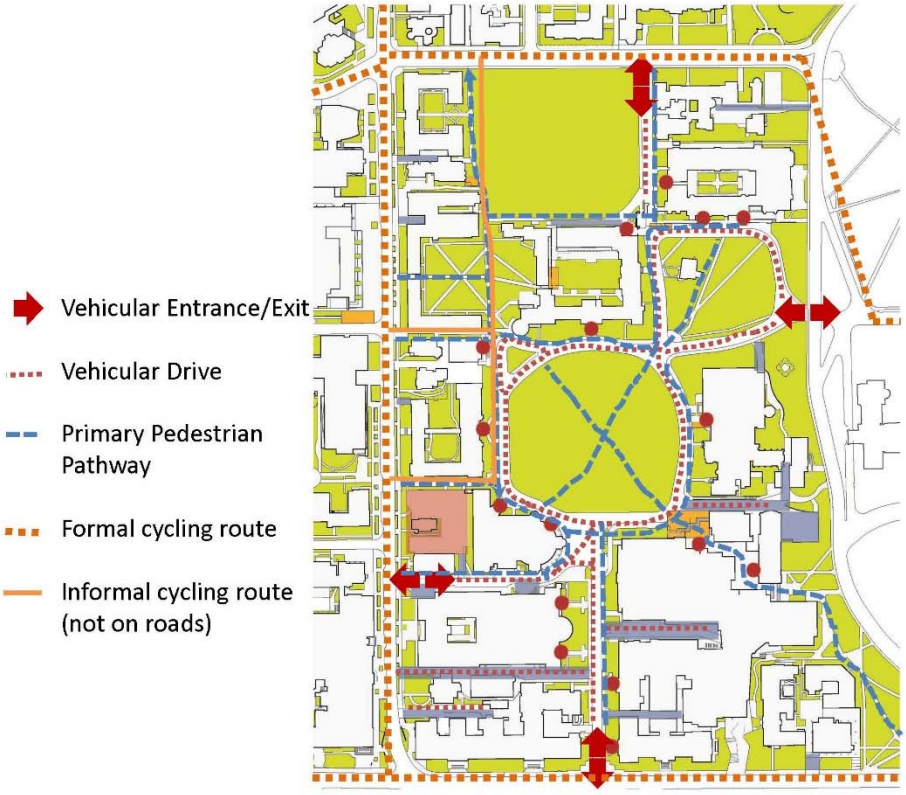
Sir Daniel Wilson Quadrangle, Hart House Circle and the Front Campus also serve more casual recreational activities, particularly in warmer weather when benches and grassy areas become spaces for tossing a Frisbee, quiet conversation or reading, sun bathing, barbeques and more.

Recreational Activities are considered and supported in the overall Landmark Project, and include:

1. Competitive and recreational sports booked for students
2. Pick-up sports for students
3. Booked sports activities for the UofT community and neighbouring community
4. Sporting activities for Camp UofT, and
5. Other passive recreational uses

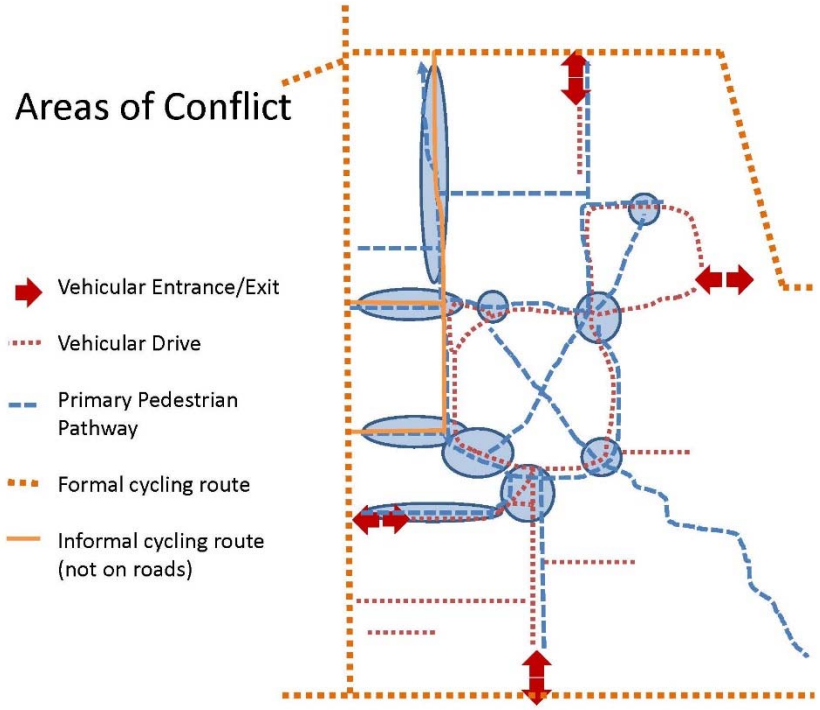
4. Pedestrian, Vehicular and Bicycle Circulation and Parking

A study of the St. George Campus found a resoundingly pedestrian orientation to the circulation patterns on campus. Even those who enter campus by vehicle or bicycle become pedestrians for some part of their journey. It is important, then, that movement systems through campus preserve and enhance the pedestrian orientation, particularly in the historic core, while also establishing a hierarchy of gateways and circulation patterns to best accommodate the multi-modal network that serves the University population.



Existing Movement Systems

Pedestrian walkways provide connectivity between buildings and landscapes. Where they mix with vehicular and/or bicycle traffic they can become dangerous and congested. While the Grounds department has admirably been working to set a standard of paving that places primacy on the pedestrian experience, there remain sidewalks that lack continuity and that are too narrow to accommodate the pedestrian population, or conflict with vehicular movement.



Existing Areas of Conflict

Circulation around each of King's College Circle (KCC) and Hart House Circle (HHC), for example, includes a pedestrian sidewalk next to a lane of parking, a vehicular lane and a second interior parking lane (i.e. approximately ¾ of the paved width in these locations is devoted to vehicles – either moving or parked). Where no sidewalk is provided, the campus' pedestrian population is forced to intermingle with vehicular traffic – traffic that is often travelling well above the 20km/hr speed limit. The intersection of KCC and HHC, which will be removed as part of the project, currently allows vehicles to cut-through campus, accounting for more than one third of traffic at peak hours. Both the practical and symbolic nature of giving primacy to vehicles in these most historic areas is in direct opposition to the University's ambition through the Landmark Project, to support the pedestrian experience.

This said, vehicular and bicycle circulation and parking areas must still be accommodated on campus within the historic core. Both vehicles and bicycles will continue to need access to the Front Campus, Hart House Circle and Tower Road/Laidlaw Lane, as well as Anatomy Lane. Vehicles must be able to drop-off and pick-up passengers at accessible building entrances, service buildings and spaces, and provide emergency services. Bicycles will continue to need ease of movement across campus, will continue to intermingle with pedestrians, and have been considered in planning for overall circulation patterns.

According to the Parking & Transportation Study prepared in support of municipal approval applications, project transportation consultants note that:

- *parking activity accounts for 50% of the site traffic;*
- *36% of the traffic in the AM entering King's College Road and exiting HHC at Wellesley Street West are motorists who use the site to "cut-through";*
- *approximately 30% of the site traffic is related to passenger pick-up/ drop-off; and,*
- *parkers in KCC are largely daily and hourly parkers.*

Parking

Today, there are 360 parking spaces within the historic centre of campus and 288 within the project area. Overall, including current development applications, there are 1,935 spaces campus-wide as compared to minimum 1,930 required by City of Toronto By-law 438-86.

Location	**Existing #**
King's College Circle	154
Hart House	66
Tower Road	40
Laidlaw Lane	8
Anatomy Lane	10
King's College Road	5
Galbraith Road (at Con Hall Plaza)	5
Subtotal (project area)	**288**
HH East at OP (Lot U)	7
Galbraith Road	15
MCEIE Building*	50
Total Existing	**360**

* There were 96 spaces on the Simcoe Lot prior to construction of the MCEIE Building. The new building replaces 50 of these spaces in a below-grade structure. i.e. overall since 2014, parking has been reduced in this precinct by 46 spaces.

5. Accessibility, Service and Support Access

While the historic core of campus plays both a symbolic and functional role for the University community, the operational issues of garbage and recycling removal, deliveries, accessible access for persons with physical disabilities and others have been considered in the overall plan. Some servicing can be managed through the scheduling of access as is already done for garbage and recycling pick-up across campus. Other access must, however, be maintained at all times in order that the precinct remains accessible and inclusive for all visitors and meets city requirements for emergency services.

III.Project Description

a) Vision Statement

As the centerpiece of the St. George campus's outstanding collection of buildings and open spaces, the revitalized historic core should play a significant role in attracting the best faculty and students, providing opportunities for planned and serendipitous learning, and facilitating interaction between all constituencies in the U of T community as part of their everyday activities.

Every aspect of the campus should be considered a learning environment, while serving the academic and research mission of the University. To achieve this goal, the University campus environment, and in particular its historic core, should reflect the vision and values of the institution. The St. George Campus historic core includes some of the institution's most iconic buildings and landscapes. The Landmark project design will elevate the public realm to provide a consistently memorable experience.

Our stakeholders are many and the memory of our spaces is long. Therefore it is important that consideration around the design and functionality of our campus be forward thinking, while conserving what is important. To do so, several practical things need to happen. The cars parked around the most iconic landscapes on campus must be relocated, vehicular circulation minimized, and the pedestrian environment and amenity support strengthened.

b) Space Requirements, Program and Functional Plan

<u>Space Requirements</u>

When the Committee began the process of evaluating the historic campus, it was clear that many aspects of the precinct were not just treasured for their beauty and history, but also for their use, especially Convocation and organized sport. Other spaces, however, function inadequately or detract from the experience of the campus. Some need to better address their contextual and heritage references, while others need to improve connections and provide a safer and more inviting environment.

The Committee gave detailed consideration to the most important aspects of the central campus and concluded that student-oriented uses and those that enliven the space should be given highest priority. To address these needs and to develop a strategy for planning, five 'themes' were discussed by the Committee, each considering the historic campus in a holistic manner: Symbolic Sense of Place, Events, Sports and Recreation, Circulation, Access and Servicing.

The Plan for the historic core should provide a framework that strengthens the identity of the campus and provides a unique and identifiable sense of place to those who experience it. Incorporating the themes described above, and being mindful of the historic nature of campus and the needs of its users, the following eight principles were developed to guide the Plan:

1. Improve the Pedestrian Experience
    - Ensure continuity of all sidewalks and make clear connections throughout the landscape
    - Improve safety

- Where appropriate, widen sidewalks to improve pedestrian passage
- Provide a cohesive pedestrian experience through the integration of coordinated lighting, seating, signage and paving
- Address accessibility

2. Create Public Spaces that Animate the Campus
    - Create a significant pedestrian-oriented plaza outside Convocation Hall
    - Seek opportunities to create and improve seating areas adjacent to open spaces
    - Provide or enhance seating areas adjacent to food services
    - Create an event space in front of J. Robert S. Prichard Alumni House
    - Consider placement and on-going maintenance of outdoor art
3. Support Events
    - Identify locations most suited to accommodate the range of events that are currently, and expected in the future, to be held on campus
    - Provide support infrastructure to allow for events at Tower Road, Soldier's Tower, Convocation Hall and elsewhere
    - Provide functional infrastructure in a discreet and appropriate manner (i.e. for the convocation tent)
4. Enhance Green Space
    - Maintain and add to the significant green landscape features within the historic core
    - Conserve and enhance the natural lawn within King's College Circle
    - Maintain existing tree canopy and add new trees wherever possible
    - Consider appropriate and coordinated planting
5. Remove Surface Parking from King's College Circle, Hart House Circle and Tower Road
    - Consider options to relocate parking including underground spaces and plan to incorporate infrastructure in a discreet manner respectful of the heritage campus
    - Consider appropriate locations for bicycle parking and provision of covered bicycle spaces
    - Consider providing discreet facilities for campus services including below grade options
6. Limit Traffic on King's College Circle and Hart House Circle to Drop-offs and Servicing Only
    - Consider limiting through-campus traffic by changing traffic patterns
    - Incorporate strategies for controlling speed and flow of vehicular and bicycle traffic
7. Wayfinding

- Consider the addition of gateway elements at key locations to signify entry to the campus
- Signage and wayfinding should be considered within the historic core in a coordinated and comprehensive manner

8. Allow for Discreet Servicing and Access to all Buildings and Landscapes
    - Address activities such as deliveries, waste removal, food services, city services, fire and ambulance access, accessibility access, UTM shuttle, snow melting
    - Where appropriate, make recommendations for the screening or relocation of service elements to best support the public realm while meeting practical needs

Space Program

The project area is **86, 340 sm** and includes:

A. Front Campus/King's College Circle

B. Plaza/Courtyard at MSB and Ramp to Queen's Park

C. Plaza at Con Hall

D. Hart House Circle/Soldiers' Tower*

E. Sir Daniel Wilson Quadrangle/Whitney Walk

F. Back Campus/Tower Road/Laidlaw Lane

In addition to signature tree groupings that form design elements of the new landscape, the tree planting locations have been designed to provide shaded areas for relaxing and studying, and to improve the area's biodiversity by attracting a greater variety of birds, insects, and animals. The proposed plantings exceed Toronto Green Standard requirements for drought-tolerant and native/pollinator supportive species.

The project will add more than 250 canopy and flowering trees to the historic core, or ~ 200 net new trees, representing a sixty-five (65) % increase.

There are 315 existing trees within the project area (excluding Galbraith Road, and UC Quad). Forty-five (45) trees will be removed to accommodate construction, of which thirty (30) are 30 cm in diameter or larger and must be replaced at a ratio of 1:3 to meet the City By-law.

Shade Tree Species

- Freeman Maple
- Sugar Maple
- American Hop Hornbeam
- American Beech
- Sassafras
- Autumn Gold Ginkgo
- Espresso Kentucky Coffeetree
- White Pine
- Black Tupelo
- Chinkapin Oak
- Regal Prince Oak

Flowering Tree Species

- Redbud
- Flowering Dogwood
- Kousa Dogwood
- American Hornbeam
- Witchhazel
- Accolade Cherry

The plan also includes the addition of 7,000 square meters of shrubs and plants, 35,000 square metres of natural lawn, and 8,000 square metres of groundcover.

Proposed planting plans and species lists included identification of the University's preferred native and indigenous, non-invasive, and low-maintenance plantings. The species under consideration include varieties of canopy and flowering trees, resilient grasses, and other plants that will thrive in the environmental conditions in each specific area, as well as those that will retain foliage well into the Fall.

A. Front Campus/King's College Circle

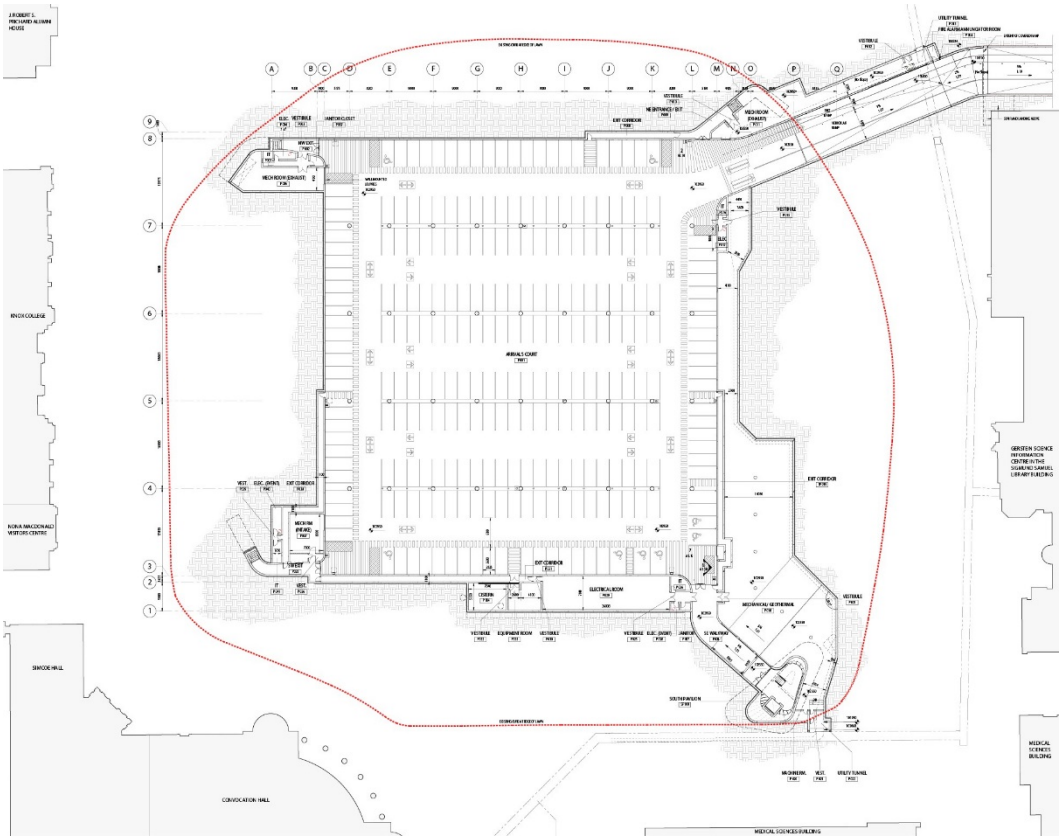
- 24 new 'necklace gardens' around the KCC
- A natural turf Playing Field c ~ 15,000 sm.
- Tent Infrastructure

Front Campus green and necklace gardens

To facilitate removal of surface parking, a 9,075 gsm single-story garage is proposed below the Front Campus. The South Pavilion is a single-story structure 100 gsm in proximity to the Medical Sciences Building.

- Parking Structure below the Front Campus open space including:
    a. 263 vehicle spaces
    b. Capacity for 88 bicycle parking racks
    c. Vehicle access ramp off Wellesley Street
    d. 3 discrete open-cut stair exits at the NE, NW and SW corners of the Front Campus lawn
    e. A South Pavilion exit stair/elevator at the SE corner (near MSB)
    f. 2 discrete air intake/exhaust locations
    g. Below-grade mechanical space for Central Utilities – funded separately under separate Governance approval

h. Geothermal (borehole installation below the parking structure) to provide snow melt for KCC and heat for adjacent buildings – funded separately under separate Governance approval. The total area including space related to Facilities and Services (F&S) utilities and geothermal infrastructure is 10,872 gsm. See table below.



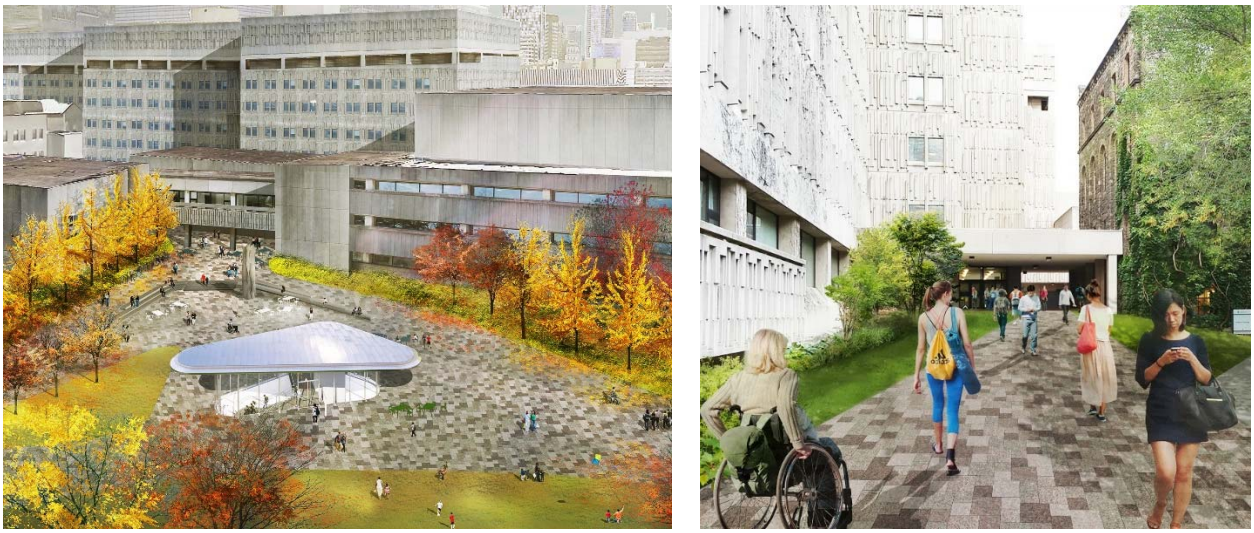
263 space below-grade proposed garage with space capacity for 88 bicycle parking racks
(dotted red line indicates existing inside curb of KCC)

Parking Structure	**Space Program**	**GSM**	**Main Project GSM**
Main project	Parking and Exit Corridors	7,502	
	Garage Electrical & IT Rooms	210	7,712
F&S - Utilities	Snow Melting Equipment	133	
	Utility Rerouting	341	474
F&S - Geothermal	Geothermal	992	992
	Subtotal (Garage)	**9,178**	
Shared	Access to Garage and Service Spaces	1,009	848
Shared	Mechanical Intake/Exhaust Rooms	337	283
Shared	Cistern & Groundwater Treatment	99	83
Main project	pavilion lower level (elevator/stair)	149	149
	Total Area (below grade)	**10,772**	**9,075**
Main project	pavilion upper level (elevator/stair)	100	100
	Total Area (above + below grade)	**10,872**	**9,175**

- ~1,000 sm gathering space Plaza at J. Robert S. Prichard Alumni House
- 'Arrivals Plaza' at intersection of King's College Circle and Hart House Circle replacing the former vehicular intersection.

B. Plaza/Courtyard at MSB and Ramp to Queen's Park

- 2,300 sm plaza (combined upper and lower) and 1,200 sm courtyard
- 100 sm South Pavilion containing a stair and elevator access to the parking garage
- Seatwalls surrounding a plaza with the Helix DNA sculpture to remain in place
- Loose café tables and chairs
- The steps at MSB to Queen's Park will be replaced with a gradual slope (no greater than 5%). U of T Student's Union (UTSU) has demonstrated support of the project through a donation towards this key accessibility improvement at a prominent intersection where the University meets the city.
- The existing ramp from MSB to KCC will be replaced by gradual slopes in the landscape on either side of the seat walls.



Plaza at MSB and South Pavilion (left), Accessible Ramp (walkway) to Queen's Park (right)

Courtyard at MSB

View west from KCC toward Con Hall

C. Plaza at Convocation Hall

- ~2,600 sm gathering space
- Large Granite Benches
- ~ 3,000 Granite Pavers engraved with donor names
- Accessible drop-off access to Simcoe Hall

D. Hart House Circle/Soldiers' Tower*

- ~1,200 sm gathering space in front of Hart House
  - Loose café tables and chairs
  - Sculptures in front of Hart House to remain in place
  - 8 columnar oaks along the plaza will separate the drivable surface from the plaza area in front of Hart House
- ~850 sm gathering space in front of Soldiers' Tower with seatwalls
- ~300 sm gathering space in front of the Observatory building and additional tree planting
- A loop road around the Observatory will allow for drop-off, pick-up, UTM shuttle and accessible parking access.

Plaza at Soldiers' Tower

- A 4,500 sm Indigenous landscape in the area of the Hart House Green space is in process as a separate but related planning and design project including extensive consultation. This landscape will be constructed as part of the Landmark Project. This project area is additional to the 86,340 sm total above.

E. Sir Daniel Wilson Quadrangle/Whitney Walk

Changes will be modest in these locations, primarily including the addition of new gardens, benches and replacement existing paving.

F. Back Campus/Tower Road/Laidlaw Lane

Tower Road asphalt will be replaced with pavers. Permanent continuous seating, a planted berm and 15 columnar oaks will be added along the east edge of the Back Campus field. Along Hoskin Avenue, the existing wrought iron fence will be removed and a garden installed along the length of the city sidewalk. Benches will be added throughout the area.

Plans for Laidlaw Lane include screening of waste receptacles to better separate servicing and pedestrian activity and campus enjoyment.

Seatwall along Back Campus at Tower Road

c) Building Considerations

<u>Standards of construction</u>

A below-grade parking garage is proposed below the Front Campus lawn with vehicle access from Wellesley Street. The garage will be a single level with a floor-to-floor height of 2.5 m to 3.4 m (below

beam) and 3.8 to 4.9 m (to underside of slab). A higher than normal clearance will allow for repurposing the garage for other uses, such as storage, if parking demand is reduced in future.

The garage constructed of poured concrete slab and columns. Spans have been maximized to improve parking efficiency, line of sight, safety, as well as orient visitors to their destination above ground. The interior of the garage will be highly graphic to assist in wayfinding.

Garage Interior (graphics and wayfinding)

A curvilinear form and minimalist aesthetic is proposed for the South Pavilion to provide access to the garage, with a higher level of finish, architectural concrete, as compared to the garage. It will be a fully glazed structure above grade to minimize impact on existing heritage views. The canopy roof will be light-gauge aluminum clad with a pre-patinated bronze soffit, supported by stainless steel columns located on the interior of the glass.

South Pavilion

Elevators

The South Pavilion includes an elevator for access to the garage.

Sustainability design and energy conservation

Integration of environmentally sustainable principles into buildings, landscapes and transportation options, has been a high priority in discussions with both campus and neighbouring communities. Broadly, this project recognizes the importance of pedestrians and cycling on campus, prioritising both within the public realm.

The re-engineered lawn will be designed for proper drainage and function as a "green roof" for the below-grade structure. Water that percolates through the green roof system will be collected and channelled to a large cistern at the south end of the garage to be be utilized for drip irrigation of all plantings and gardens around King's College Circle.

A large-scale geothermal field will provide heating to the surrounding buildings as well as primary heat for snow melting embedded within the hardscape surrounding King's College Circle and related primary entrances. The 263 stall garage will be equipped with 53 electric vehicle charging stations.

In summary, the project includes:

- EV charging stations (53, or 20% of parking spaces)
- Bike storage above and below grade (230 + 88), as well as bike ramps into garage and repair stations
- Increased tree canopy (by 200)
- Indigenous and Native Plant Species (exceeding Toronto Green Standard)
- Durable materials (i.e. granite)
- Waste Warrior (update recycling receptacles)
- LED lighting (interior and exterior); fixtures will be dark-sky compliant
- Water capture for irrigation; new cisterns installed to add to UofT's existing collection of cisterns (13 currently on campus)
- Green roofs (MSB plaza and the Front Campus over garage)
- Under separate approval - Geothermal Energy (boreholes below the parking garage slab) and Heat Trace for snow melting embedded within the hardscape surrounding King's College Circle and primary building entrances.

Accessibility

New or redeveloped exterior, and some interior (i.e. service counters, fixed queuing guides, and waiting areas) public space, must comply with Part IV.1, Design of Public Spaces Standards (Accessibility Standards for the Built Environment, Integrated Accessibility Standards of the Integrated Accessibility Standards, O.Reg. 191/11, http://aoda.hrandequity.utoronto.ca/buildings/). This would include approaches to new buildings.

Public space projects affecting exterior paths of travel, recreational trails, outdoor play spaces, or accessible on-street parking must include consultation with the public and persons with disabilities pursuant to aforementioned standards.

For reference, at a minimum the project is required to meet the *Accessibility for Ontarians with Disabilities Act*'s Design of Public Spaces Standard and the amended Ontario Building Code (OBC). The Design of Public Spaces Standard applies to public spaces, such as outdoor eating areas and accessible parking, whereas the OBC covers building elements.

For additional information contact the University of Toronto's AODA Office.
http://aoda.hrandequity.utoronto.ca/

Consultation related to accessibility began in the early stages of project planning, and has continued through Design Development. Integration of accessibility principles including standards required by code are incorporated throughout the project.

A continuous granite surface will replace the current combination of concrete, asphalt, and slate that fragment the site. Visual impairment markers will be integrated where pedestrian paths intersect with vehicles, and curbs will line either side of King's College Circle, proposed as a 'shared street'* condition. Current stepped conditions and existing ramps will be replaced with gradual slopes (no greater than 5%) at the Medical Sciences Plaza, (both Queen's Park and KCC approach), and in front of J. Robert S. Prichard Alumni House. Further, the Landmark project:

- Prioritizes pedestrians and cyclists by removing at grade parking spaces; replaces existing parking with below grade spaces
- Maintains accessible parking spaces on the surface at accessible entrances, as well as drop-off for each building
- Delineates the Convocation Hall plaza area with benches, preserving the existing car-free zone
- Integrates a heat trace system to de-ice the granite, ensuring safe walking surfaces during winter months for accessible building entrances and ramps on King's College Circle
- Increases lighting throughout the precinct for safety after dark
- Increases seating throughout the precinct, including a waiting area for the UTM shuttle
- Increases activity or 'eyes on the street' through the addition of benches, seat walls and loose furniture
- Enhances campus wayfinding with a new signage plan
- Eliminates trip hazards and ensures structural stability over the long term for both pedestrian and vehicular traffic with installation method used for the granite pavers.
- Improves surface condition with new soil and turf on the Front Campus, providing better drainage, and allowing for greater use year round for circulation, sporting activities, and leisure activities.

At-grade accessible parking will be provided in the Knox parking lot and the below-grade garage includes 5 accessible parking spaces at the elevator access point. In addition, the garage provides the following features:

- High ceilings and wide column spacing maximize visibility from one side of the parking garage to the other. The single level design eliminates the need for ramps and other visual obstructions. Clear sightlines improve personal safety and reduce the risk of collisions.
- Feature wayfinding walls with 'super graphics' are visible from anywhere within the garage serving as an aid to orient oneself to where they are in relation to the buildings and pathways above.
- Elevator access is provided within the south pavilion located at the southeast corner ensuring convenient universal access.

* shared streets provide for equitable access to all users (pedestrians, cyclists, and drivers)

Personal safety and security

Reduced vehicular traffic and increased lighting will greatly improve the pedestrian environment in the historic core. The interface between pedestrian-only and 'shared street' zones such as King's College Circle is described further under 'Accessibility' above.

Safety and comfort is at the core of the parking structure's design, which is to include high quality lighting, high ceilings with clear sightlines, 'super graphics' for wayfinding.

Sight lines below tree canopy will be typically maintained through the area.

Signage, donor recognition

There are multiple donor opportunities throughout the landscape. Signage has been developed for benches, trees, gardens, and plazas.

Approximately 3,000 engraved granite pavers in the vicinity of Convocation Hall are also part of the fundraising strategy.

Wayfinding signage will be developed as part of Construction Documents.

Non-assignable space

All of the spaces proposed by this project will be non-assignable. In addition to the parking garage and entry pavilion, non-assignable spaces include the following uses:

- Mechanical Rooms for Intake and Exhaust to the garage, Geothermal and Heat Trace equipment.
- Electrical Rooms including EV Charging capacity
- Air intakes and exhausts will be located at all four corners of the garage. Two of these will be integrated into the below grade walls that are exposed to the exterior, while the remaining two at grade will be sensitively positioned within the landscape to minimize their visibility and further screened with plantings.
- Cistern and Sump Pits (to collect groundwater from weeping tile and perimeter drain prior to treatment)
- Janitor's Closet (including bench and locker)

Environmental Health and Safety

See: III Project Description f) Secondary Effects

d) Site Considerations

Site context

Through the core principles that were identified in the visioning process, the design will significantly enhance open space, increase the tree canopy and planted area, significantly improve the pedestrian experience, and increase the amount of accessible public spaces within the natural landscape.

Tree preservation guided the design including placement and size of the parking structure below the Front Campus, and width and location of pathways. The position and grading of the entry ramp was studied to create minimal impact on the surrounding context and existing views. Grading of the entry ramp takes advantage of the natural topography along the north edge of Gerstein Science Information Centre (Gerstein). Tucking the entry ramp lower into the landscape also allows views to landscape from Gerstein to be maintained. Plantings along the north edge of the entry further serve to minimize impact to views while looking south from Hart House Green.

The University has worked diligently with the project's design team, Facilities and Services Grounds Department, the former Faculty of Forestry and others to review the planting plan within the project area. This has included:

- a survey and inventory of existing tree species
- an assessment of the long-term viability of existing trees
- identification of potential transplant candidates
- a review of the new planting plan including species selection, and
- meetings and site walks with the University of Toronto's Committee Liaison Committee

Recognized as an invaluable public amenity within the urban core, Landmark received a grant from the Toronto Parks and Trees Foundation for its alignment with the City's tree planting target of 40% canopy cover.

https://www.toronto.ca/business-economy/partnerships-sponsorships-donations/partner-2/parks-environment/tree-planting-strategy

The location of the South Pavilion in front of MSB was selected due to its minimized impact of views to other historic buildings. The location was also based on the high concentration of student, faculty and staff in this location. The existing steps at MSB are a popular hangout space. A new plaza area, integration of seatwalls, and addition of loose tables and chairs will maintain and expand upon this area, as a social space in proximity to food services at MSB and close to Gerstein.

Further, the garage, pavilion and ramp placement were determined to minimise interference with the extensive network of below grade utilities within the Front Campus.

See also II Project Background d) Existing Space

Master Plan

The 2011 St. George Campus Master Plan embeds the primary objectives of the Investing in the Landscape Open Space Master Plan (1999).

Concept plans for the Front Campus and Hart House Circle included as demonstration sites in the Open Space Master Plan, and in work prepared by Andropogon Landscape Architects (2003), have provided guidance in identifying opportunities for the historic core. Each concept plan proposed a major pedestrian plaza at the head of King's College Road and eliminated surface parking, limiting vehicular traffic to one-way north on King's College Road and out Galbraith Road, or one-way around King's College Circle with access from the Wellesley Street underpass only. These plans strengthen pedestrian circulation and add landscaping and tree canopy in a clear and considered manner.

The principles identified in Investing in the Landscape were approved by Governing Council. These plans however, should be understood as a set of ideas that may be useful for consideration in future plans; some goals, however, may no longer prove to be appropriate – such as the suggestion to re-introduce a water feature in Hart House Circle.

Demonstration Site 1 (Hart House Green – Queen's Park – Wellesley Street) of the 'Investing in the Landscape' document included the following goals:

- To reconnect the historic open spaces of the University district;
- To re-imagine Hart House Green by revitalizing the landscape and restoring a water feature with possible storm water management functions; and,
- To reconfigure the Queen's Park Crescent and Wellesley Street intersections and the Wellesley Street corridor to create a pedestrian-oriented entry to the campus, Queen's Park and the Ontario Legislature.

Demonstration Site 2 (Front Campus) included the following goals:

- To revitalize the historic core of the University;
- To establish a landscape of significant deciduous trees in the Central Campus;
- To improve connections to Back Campus, St. George Street and College Street; and,
- To create a significant and special space in front of Convocation Hall

Investing in the Landscape: Demonstration Site 2 – Front Campus

The Andropogon-prepared design for the Front Campus further investigated those goals identified in Investing in the Landscape, introducing a significant plaza at Convocation Hall, perfecting the geometry of the Front Campus, and introducing paving, lighting and other design features to enhance the quality of the space. Each of these design schemes starts with the assumption that parking can be managed elsewhere.

The Planning Committee recommended the removal of surface parking from King's College Circle, Hart House Circle and Tower Road, with replacement within close proximity of the precinct. Other urban campuses have struggled with this same issue and may offer solutions that could be considered here. The University of Pittsburgh, for example, has located a central parking facility below several central green spaces, thereby reducing vehicular impact on the pedestrian environment while maintaining parking close to the centre. Queen's University has also placed its parking underground, beneath campus open space.

Zoning regulations

The University of Toronto Area is defined by a boundary set out in the City of Toronto Secondary Plan. Under the existing Secondary Plan, the entire east portion of campus, from St. George eastward, is considered an Area of Special Identity. University Open Space (UOS) lands within the area include the Front Campus, Back Campus, Sir Daniel Wilson Quadrangle and Hart House Circle. The zoning for these areas includes the following description: "These open spaces are endowed with a special character and value and will be protected as open spaces with continued public access. The UOS zone allows for open space for university purposes, parks and playing fields above ground".

The existing Secondary Plan supports the suggestions outlined in this report. In particular, the Plan recommends the protection, extension and enhancements of the campus open spaces to provide a landscaped setting (3.1.1), while promoting pedestrian access and amenity, particularly through physical and visual linkages to open space (3.1.5). Section 6.6.6a specifically references the removal of surface parking and upgrading of pavements as a means to ensure a distinctive character to the Area's open spaces and heritage buildings.

A minor variance is required to allow for construction of the parking garage below Front Campus (UOS).

Site Plan Control (SPA) is triggered by the South Pavilion, the 100 sm enclosed stair and elevator to access to the parking garage.

Heritage status

The majority of the buildings surrounding King's College Circle, Hart House Circle, and the Back Campus are either designated or listed on the City's inventory of heritage buildings. Wycliffe College, Hart House, Soldiers' Tower and Knox College are all designated buildings, while University College, Gerstein Science Information Centre, Simcoe Hall, Convocation Hall, Sir Daniel Wilson Residence, Whitney Hall and the University College Union are listed buildings. In addition, University College is designated a National Historic Site of Canada.

Both the Front Campus and the Back Campus are considered significant open spaces that lie within the Institutional Area of Special Identity. The 1997 Secondary Plan encourages "…the preservation, maintenance and where possible, extension and enhancement of the role and function" of these spaces.

The location of the South Pavilion was carefully selected due to its reduced impact of views to Convocation Hall and other historic buildings, as well as being supportive of high student and faculty population in this location.

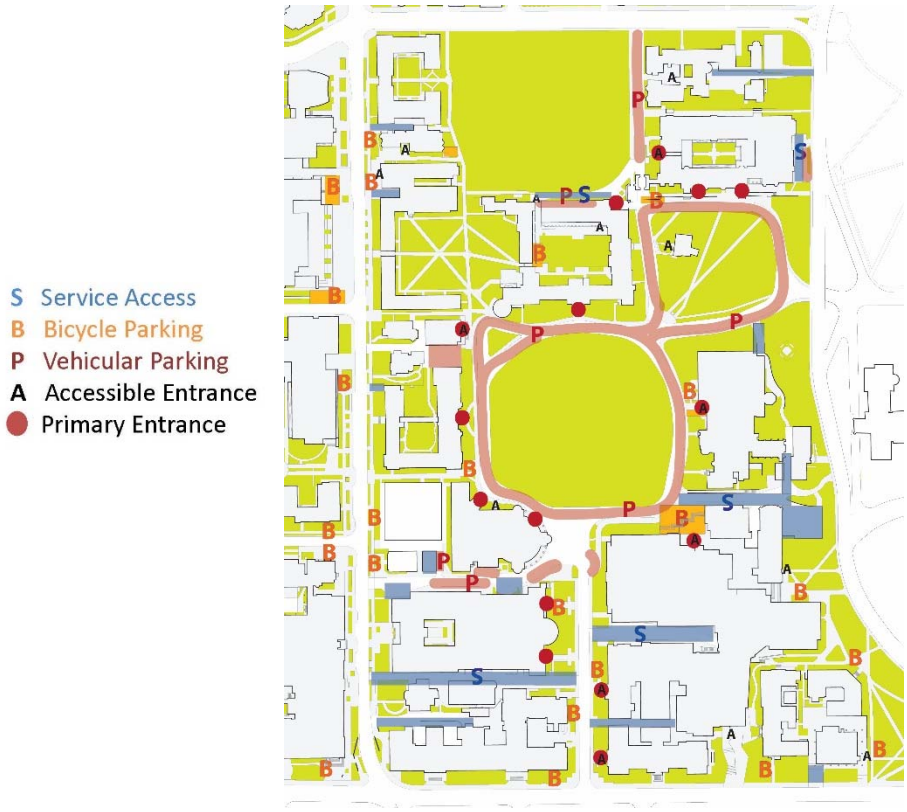
An Heritage Impact Assessment prepared by ERA Architects for the project is supportive of the proposed landscape improvements as a "contextually responsive design" sensitive to adjacent heritage buildings and the ceremonial nature of the site.

Site access and servicing

While the historic core of campus plays both a symbolic and functional role for the University community, the operational issues of garbage and recycling removal, deliveries, accessible access for persons with physical disabilities and others must be considered in the overall plan, including during construction. Some servicing can be managed through the scheduling of access as is already done for garbage and recycling pick-up across campus. Other access must, however, be maintained at all times in order that the precinct remains accessible and inclusive for all visitors and meets city needs for emergency services.

Accessibility to the various buildings and landscapes within the historic core has been maintained with respect to the following:

1. Deliveries, campus operations and maintenance – ACE, Grounds & Trades, Facilities & Services, office supplies + furniture, catering etc.
2. Barrier-free access to all buildings
3. City services access – including fire, ambulance, etc.
4. UTM Shuttle bus – will continue to stop in front of Hart House
5. Pick-up/drop-off for Wheel-Trans
6. Pick-up/drop-off for visiting dignitaries, etc.



Existing access and Servicing Locations

Anatomy Lane will be reconfigured where it meets King's College Circle, but maintained to continue providing access to McMurrich, Canadiana and Medical Sciences Buildings (Anatomy) and the Recycling Depot.

Cut-through traffic will be removed from the precinct. King's College Circle will be accessed from King's College Road with no access from Wellesley, and Hart House Circle will be rerouted around the Observatory with no access from King's College Circle. A path will be maintained for emergency vehicles only between King's College Circle and Hart House Circle.

Vehicular access to the garage will be provided at a single entrance ramp including a dedicated bicycle ramp along the north façade of Gerstein that connects directly to Wellesley Street W to minimize non-essential vehicular traffic within the new landscape.

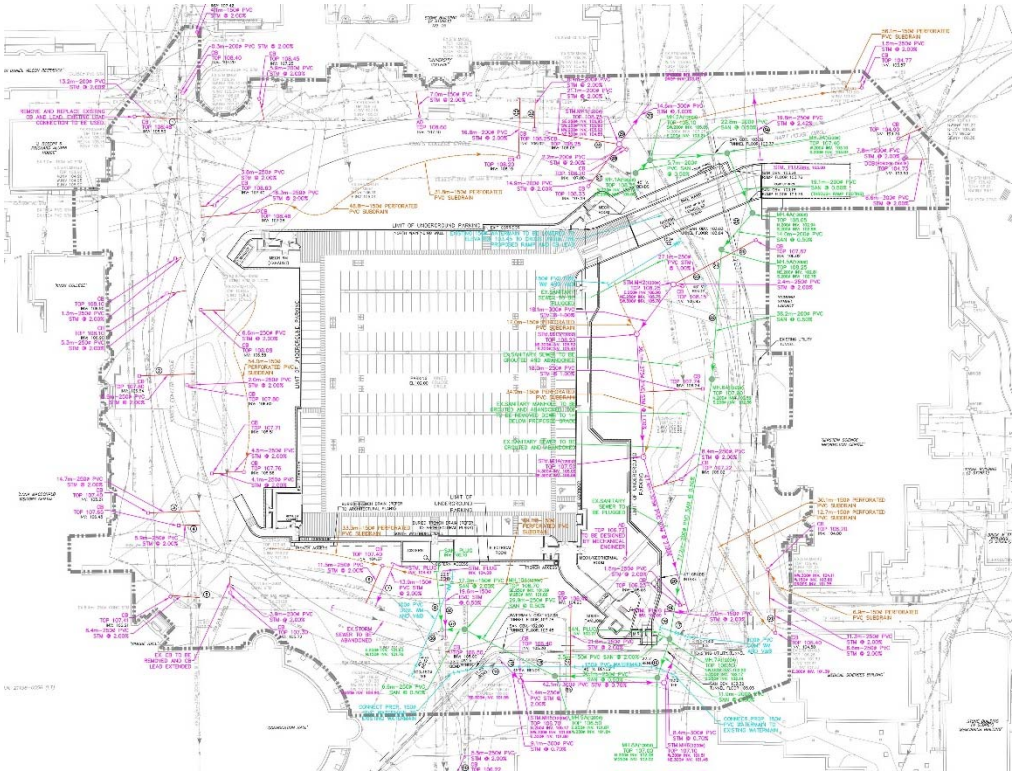
Due to limited height clearance of the Wellesley street overpass, primary construction access will be from the south off King's College Road.

Transportation analysis by external consultants confirms that the project's traffic impact to the city's street network is negligible.

e) Campus Infrastructure Considerations

Utilities (electrical capacity, water, gas, steam lines)

The location of the parking structure and entry ramp, South Pavilion and proposed new trees was carefully coordinated with the existing utilities infrastructure.



King's College Circle: Below grade utilities infrastructure

The Landscape of Landmark Quality project presented a unique opportunity to develop a geoexchange (geothermal) system underneath the Front Campus. As a result, the University engaged a consulting group to study the feasibility of installing a geothermal system of this size and scale. The feasibility study described a project that would allow the university to simultaneously offset a significant amount of the carbon produced and address deferred maintenance in several existing buildings.

Specifically, the proposed system will incorporate deep boreholes underneath the parking structure of the Landmark project, anticipated to provide heated water for heating buildings in and around King's College Circle, and snow melting for pedestrian walkways around King's College Circle.

The geothermal project will be constructed as part of Landmark but on a separate parallel approvals track through Governance.

Electrical outlets will be provided within the Front Campus for events in four locations, and WiFi technology will be integrated into new light poles around King's College Circle.

Soil conditions

New soil and turf on the Front Campus will improve surface condition with better drainage, allowing for greater use year round for circulation, sporting activities, and leisure activities.

See also: Sewer and storm water management

Sewer and storm water management

A trench drain at the south end of the green space will capture run off from the garage roof in a cistern for irrigation. Stormwater and ground water will be captured, treated and released to the City's stormwater system. The University engaged Terraprobe Inc.consulting engineers for a hydrogeological site study. According to Terraprobe's testing, the water sample "exceeded the Limits for Storm Sewer Discharge and met the Limits for Sanitary and Combined Sewer Discharge. As such additional treatment will be required before the water can be discharge to the Storm Sewer and additional treatment will be required before the water can be discharge to the Sanitary and Combined Sewer, in order to avoid impacts to the City's sewage works cause by ground water quality." (Hydrogeological Review King's College Circle – page 10)

Hazardous waste disposal

Allowances have been included in the project cost for removal of contaminated soils and removal of asbestos insulated piping.

Bicycle and Vehicular parking

Vehicular parking on the St. George Campus is governed by an area-specific exemption to the City of Toronto By-law 438-86 12.310(b)(1), enacted in 1997. Rather than based on gross square metres of built facilities, as would be applied for conventional site-by-site development, the parking By-law for the St. George Campus requires that between 1,930 and 2,130 parking spaces be located within a defined area of the Campus. The By-law standard was developed based on the recognition of the pedestrian orientation of the campus and the excellent nearby public transportation options for students, faculty, staff, and visitors.

Transportation analysis by external consultants identifies the proposed number of spaces as appropriate to maintain within the South East sector of campus based on daily and peak demand.

The proposal is slightly below the existing parking count at 278 within the project area. Overall there will be 1,925 (compared to 1,935 existing), which temporarily dips below the minimum required by the By-law.

Vehicular parking Location	Existing #	Surface Existing # to Remain or New	Garage #	
King's College Circle	154	**0**	**263**	including 5 accessible and 53 EV spaces
Hart House	66	**2**		
Tower Road	40	**1**		
Laidlaw Lane	8	**4**		
Anatomy Lane	10	**2**		
King's College Road	5	**2**		at Discovery Lane
Galbraith Road (at Con Hall Plaza)	5	**0**		replaced with pick up/drop off (PUDO)
Knox College Lot (New)	-	**4**		accessible spaces on portion of lot
Subtotal		**15**	**263**	
Project Total	**288**		**278**	
Outside Project Area			**1,647**	
Campus Total			**1,925**	

A combination of above- and below-grade spaces satisfy the code requirement for accessible spaces.

Bicycle Parking is also governed by City By-laws particular to the University Area. The University is currently required to maintain 850 spaces within defined boundaries of St. George Campus. The recently adopted Toronto Green Standard further regulates the need for Type 1 (long term – interior and/or covered) spaces and Type 2 (short term - exterior) spaces. According to a recent transportation study for the campus, approximately 650 Type 1 spaces and 3,150 Type 2 spaces are currently located across campus. These numbers far exceed the required By-law. However, the spaces serve a rapidly increasing number of cyclists within the University community and are considered important provisions within our campus landscape. In terms of relative distribution, there are roughly 1,000 at-grade spaces within the southeast quadrant of which the historic core is a part, and 236 within the project area.

Through the landscape project, above ground bicycle parking will be maintained within the project area at ~230 spaces. Although the number of spaces is considered appropriate for UofT's population, bicycle parking in some cases will be better located so as not to interfere with pedestrian circulation, and to provide maximum utility to users. Bicycle parking has also been carefully coordinated with bench placement to discourage cyclists from locking bikes to benches.

Below-grade parking will provide for 88 racks, located at each of 4 entrances to (corners of) the parking garage. The three open stair exits will include a bicycle rail that will help bring bicycles in and out of the

garage for users coming to campus from all directions. A bike ramp parallel to the vehicle ramp will be the main access to garage, connecting to the Wellesley Street cycling infrastructure.

Interior views of the vehicle parking entrance with dedicated bike ramp

f) Secondary Effects

The project removes surface parking spaces from King's College Circle, Hart House Circle and Tower Road. Garage construction is anticipated as a first phase, prior to removal of all surface spaces.

Construction will impact all groups and uses within the sector. Phasing will be carefully coordinated with the University's academic calendar and events schedule. During excavation of the garage and landscaping above, the Front Campus will not be available for recreation or events. The project team will continue to coordinate with Academic + Campus Events, the Faculty of Kinesiology and Physical Education, the Office of Convocation, Alumni and others on alternate accommodation for programming and events such as Convocation and Spring Reunion. Given the complexity of the project, the method of project delivery will be Construction Management (CM). Construction logistics will be confirmed once a construction management firm is on board.

Some tree removal is required to construct the garage and vehicle entry ramp and for road re-alignment particularly in the case of King's College Road and the new Observatory Loop replacing Hart House

Circle. In total ~ 40 trees will be removed; replacement is anticipated beyond the City 1:3 requirement for trees greater than 30 cm diameter.

As a result of demolishing a section of the utilities tunnel at intersection of vehicle ramp, IT and Fire Prevention cabling must be rerouted prior to construction in order not to interrupt the operation of the University. Steam piping, as well as emergency power lines, will also be affected. Temporary solutions such as backup generator, temporary steam pipe or temporary boilers will be provided for a period of time during demolition of the utilities tunnel until a reconnection is completed.

Temporary access such as redirecting existing pathways or installing temporary pathways or ramps will be implemented in order to accommodate sequential phasing of the project.

All noise and vibration control will meet the City of Toronto Bylaw requirement. For any other specific coordination, such as MSB vibration requirement, additional testing and monitoring will be provided to ensure that the construction does not exceed the acceptable value of delicate equipment.

The Indigenous landscape project in the area of the Hart House Green will be constructed as part of Landmark. The UC courtyard revitalisation project's construction is expected to overlap with Landmark construction; schedule of construction in the area of Back Campus, Tower Road and Laidlaw Lane must be carefully coordinated.

g) Schedule

Project Approval (Interim)	December 2014
Consultant Selection	June – Mid-September 2015
Award	December 2015
Schematic Design	January – December 2016
Design Development	June 2017 – March 2019
Municipal Approval start	March 2019 (SPA submission)
Governance Cycle 1 2019-20	August – November 2019
Construction Documents	May – December 2020
Tender and Award	January 2020
Construction Start	Spring 2020
Occupancy	2023*

*Proposed construction completion date based on preliminary logistics consultation during Design Development phase. Given the complexity of the project, the method of project delivery will be Construction Management (CM). The CM will be engaged early 2020 for pre-construction planning, establishing a construction sequence that takes into account year-round University operations. Construction of the parking structure on the Front Campus is anticipated as the first phase of construction.

IV.Resource Implications

a) Total Project Cost Estimate

The total estimated cost for the project includes estimates or allowances for:

- construction costs (including landscape)
- site furniture
- contingencies
- taxes
- site service relocates
- infrastructure upgrades
- secondary effects
- demolition
- hazardous waste removal
- permits and insurance
- Professional fees, architect, engineer, misc. consultants, project management
- miscellaneous costs [signage, security, other]
- commissioning
- donor recognition and ceremony
- escalation
- construction management

b) Operating Costs

Determination of operating costs related to the garage and pavilion is in progress. Operating costs will be paid for by Ancillary Services, and refined estimates will be developed through the remainder of the design process.

c) Funding Sources

The project will be funded through a combination of Financing, Institutional Reserves, Donations Received and continued Fundraising.

APPENDICES:

1. Landmark Project - Interim Project Planning Report, December 2014 (on request)

2. Total Project Cost Estimate (on request, limited distribution)