UNIVERSITY OF TORONTO

OFFICE OF THE GOVERNING COUNCIL

FOR APPROVAL **PUBLIC** **OPEN SESSION**

TO: Governing Council

SPONSOR: Professor Scott Mabury, Vice President, Operations and Real Estate Partnerships

CONTACT INFO: 416-978-2031, scott.mabury@utoronto.ca

PRESENTER:
CONTACT INFO: See Sponsor

DATE: March 24, 2022 for March 31, 2022

AGENDA ITEM: 4

ITEM IDENTIFICATION:

Capital Project: *Report of the Project Planning Committee for Harbord Residence, A New Graduate Residence on Harbord Street* – Project Scope and Sources of Funding

JURISDICTIONAL INFORMATION:

Pursuant to section 4.2.3. of the Committee's terms of Reference, "…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) with a capital cost as specified in the *Policy on Capital Planning and Capital Projects*."

The *Policy on Capital Planning and Capital Projects* provides that capital projects with costs in excess of $50 million (Approval Level 3) on the St. George campus, will first be considered by the Planning & Budget Committee, which shall recommend approval to Academic Board. The *Policy* further states that "any financing will be approved by the Business Board".Following consideration and approval by the Academic Board and Business Board, such proposals are then brought forward to the Executive Committee, and then forwarded to the Governing Council.

GOVERNANCE PATH:

A. Updates to the Project Planning Report, Total Project Cost, and Sources of Funding

1. Planning & Budget [for recommendation] (February 28, 2022)
2. University Affairs Board [for concurrence with the recommendation of the Academic Board] (March 3, 2022)
3. Academic Board [for recommendation] (March 10, 2022)
4. Business Board [for approval, for financing] (March 15, 2022)

5. Executive Committee [for endorsement and forwarding] (March 22, 2022)
6. **Governing Council [for approval] (March 31, 2022)**

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B. Execution of the Project:

1. Business Board [for approval] (March 15, 2022)

PREVIOUS ACTION TAKEN:

In June 2014 the Terms of Reference for the Harbord Residence was approved.

On August 24, 2018 CaPS Executive Committee approval to engage consultants to prepare schematic design plans, fundraising materials and design development materials for the design of the Harbord Residence was obtained. Through a proposal call, architects Alliance (aA) a local architecture firm, teamed with Michael Maltzan Architects (Los Angeles) were selected as the project architectural team.

On August 20, 2020 a further CaPS Executive application was approved to increase consultant fees to engage consultants to prepare design materials from 75% design materials through to 100% construction documents, to fund project development and approvals cost, and to fund demolition of existing structures on the project site.

HIGHLIGHTS:

There is demand for all types of housing at the University. Since 2020 there is an estimated need for 2,300 new beds with demand only growing. The project is envisioned as an operational extension of Graduate House and as such, has been planned for graduate students and second-entry student accommodation. Graduate demand alone is more than double the current number of available spaces, and the ratio of graduate to undergraduate students is expected to rise. The proposed project will increase St. George campus' residential capacity by 188 beds, offering a total of 184 beds including four Residence Advisor suites.

Located within the Huron-Sussex Neighborhood, the site was part of the Huron Sussex Neighborhood Planning Study completed in Spring 2014. The Study was undertaken by the University in partnership with the Huron-Sussex Residents' Association and with input from the Ward 20 Councillor's Office. The Huron-Sussex neighbourhood provides housing accommodation to staff, faculty and students along with other homeowners and tenants. A key objective of the Planning Study was to 'identify opportunities for addressing residential needs of the University and the community and the site on Harbord was identified as an opportunity for mid-rise development and to add density at the edge of the Huron Sussex area, while conserving the residential lower-scale 'houseform' character of the core areas of the neighborhood. The Harbord Street site was also determined by all stakeholders to be an appropriate location for redevelopment to begin.

Harbord Residence is planned as an extension to Graduate House, and vice versa, with the ambition of addressing a key project objective: to create a single student community with shared amenities. This was approached by analyzing the existing programme of Graduate House so that the combined

programme of both residences are complementary by 1) providing programme that is currently unavailable to Graduate House, and 2) looking for opportunities to share Graduate House spaces with Harbord Residence. Harbord Residence for example will add key programme elements such as common rooms / study rooms and a dining facility, while gaining access to the Graduate House facilities like lounges, the games room, laundry facilities, and access to Residence Life amenities such as common rooms. Physical access between the residences is planned to occur at two locations: an above ground bridge (for residents only) connecting the third floor of Graduate House with the second floor of Harbord Residence; and a sub-grade tunnel connecting the basement of Harbord Residence to the Courtyard level of Graduate House providing access to Residential Amenity and Service Spaces.

The Harbord Residence in conjunction with the existing Graduate House has been identified as a 4 Corners development and will fulfill the primary goals of the 4 Corners Strategy in (1) building more than 4,000 units of University housing over the next 10-15 years and by providing quality amenity spaces (ie. portfolio of quality, attainable institutional housing and food services retail) to support the mission of the University, quality of life for the University population and engagement in civic goals, and (2) generating a sustainable source of risk appropriate financial returns.

The development of the Harbord Residence is being delivered by University Planning, Design and Construction (UPDC), with the mandate to integrate and coordinate across the areas of planning, project development and project management to deliver value and consistent levels of service for the University. UPDC has been engaged in delivering the Harbord Residence project from the early visioning stage, through planning, municipal approvals and entitlements, consultation with internal and external stakeholders, consultant team management, with project management services to carry forward through to the end of construction to building occupancy and project close-out.

The new Harbord Residence is to add complementary programme for both residents and non-residents primarily on the ground floor and second level including a Food Market and event space and consolidated second and third level roof terraces, lounges, study, and meeting spaces for both residences and the Residence Life programme. The top six levels of the residence are proposed to function as private residential space for students and Resident Advisors with smaller common / lounge spaces for the exclusive use of Harbord Residence and Graduate House residents.

The total project area is 5,106.34 nasm, or 9,415.77gsm, generating a gross–up factor of 1.84 gsm per nasm. This factor is slightly higher than other University residences, where 1.72 is the average and 1.8 is the gsm per nasm ratio for Graduate House. The difference in the gross-up factor to the campus average can be largely attributed to the inclusion of the Food Market, Kitchen and associated service space in the space program as well as the non-standard unit mix between shared, Nomad and AODA units. Residential floor plates were designed as efficiently as possible, employing double loaded corridors. This was not only done to increase bed count and efficiency of the residential floors but to minimize the massing of the upper floors within the urban context.

The residence is proposed to be nine stories composed of a three-storey podium with a six storey mid-rise residential element above. The total building height is 26.69 m to top of main residential parapet and 30.19 m to top of mechanical penthouse. The Building Height was subject to discussion with the community through one public open house and three Councilor's Working Group meetings with the City of Toronto and the Huron Sussex Residents Organization (HSRO) between March 2020 and August

2021. Floor-to-floor heights were minimized to provide the maximum number of residential units and program area while keeping as close as possible to the 26m - 8 storey building height included in the Huron Sussex Neighbourhood Planning Study. A fourth working group meeting focused on public realm and exterior building materiality.

In response to recent demands for student accommodations the approach to residential suites in Harbord Residence will provide a mix of unit types including: dormitory-style single rooms (typically 13.5 nasm per dormitory room with a 3.7 nasm shared washroom between two rooms) as typically found in newer residences at UofT; and, a single occupancy (22.5 nasm) all-inclusive residence "Nomad" suite including a private kitchenette and private washroom. This "Nomad Suite" is to provide a private self-contained housing option for mature students by designing efficient floor areas. In addition to these two primary modules, the residence will provide all-inclusive Residence Advisor Suites (single occupancy - 41 nasm). Each unit type will be configured to provide 18% of all residence beds and 22% of all suites as accessible suites as per the Ontario Building Code equating to 34 accessible units from the overall unit count distributed throughout the unit type mix.

The design of the residence is specifically calibrated to the context of the site and the requirements of the program. Building massing and materiality references the Huron-Sussex neighbourhood while presenting a modern form and campus-based amenities towards Harbord Street, with the intersection of Spadina Ave and Harbord Street being a key western entrance to the St. George Campus. A transparent ground floor, large expressive upper level windows and landscaped roof terraces animate the building facades and provide interaction with the surroundings including the future Living Lane connection through the North-West Campus, that will prioritize pedestrian and bicycles while maintainting vehicular movement.

The design of the Harbord Residence was reviewed at the UofT Design Review Committee four times between March 2019 and February 2021. Formal and informal student consultations have been held throughout the design phase, students participated in the project planning committee as well as the working group meetings chaired by the local Councillor.

An official plan amendment (OPA) and rezoning (ZBA) are required for the development of the Harbord Residence. Applications for OPA, ZBA and Site Plan Approval were issued to the City of Toronto in December of 2019. OPA and ZBA was presented to and adopted by City of Toronto Community Council on April 21, 2021. Enactment of OPA and ZBA is anticipated in April of 2022. Notice of Approved Conditions (NOAC) is anticipated to be finalized in April of 2022.

Project costing was completed at each stage of the design process. As the project design phase occurred during COVID-19, with resulting supply chain issues and volatile construction market pricing, a value engineering phase was completed to reduce project costs.

During October and November of 2021 a peer review of the Class 'A' costing estimate (15% CD) was coordinated by UofT Capital Projects resulting in the Total Project Cost (TPC) included with this application.

The project is scheduled to start construction via a Stipulated Sum delivery methodology in April of 2022 with a preliminary, conditionally permitted, demolition phase. The Harbord Residence is targeting Occupancy and Substantial performance in April / May 2024 with project close-out in July 2024.

Schedule

The proposed schedule for the project is as follows:

- Costing & Value Engineering (Updated TPC) September-November 2021
- Expected Site Plan Approval (NOAC) April 2022
- Building Permitting (Demolition) February 2022
- Demolition Tender & Award February –March 2022
- Building Permitting Late February 2022
- Construction Tender & Award March- August 2022
- Site Mobilization (Demolition) April 2022
- Site Mobilization August 2022
- Substantial Performance / Occupancy April - May 2024
- Project Completion July 2024

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 Resolved

THAT the project scope of the Harbord Residence, as identified in the *Report of the Project Planning Committee for Harbord Residence, A New Graduate Residence on Harbord Street,* dated January 14, 2022, be approved in principle; and,

THAT the project totaling 9,415.77 gross square metres (gsm), be approved in principle, to be funded by financing.

DOCUMENTATION PROVIDED:

- *Report of the Project Planning Committee for the New Harbord Residence, A New Graduate Residence on Harbord Street,* dated January 14, 2022

Project Planning Report for
Harbord Residence
A New Graduate Residence on Harbord Street

January 14, 2022

Image Courtesy of Michael Maltzan Architects /architectsAlliance

University Planning - University Planning, Design and Construction

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I. Executive Summary

There is demand for all types of housing at the University. Since 202 there is an estimated need for 2,300 new beds with demand only growing. The project is envisioned as an operational extension of Graduate House and as such, has been planned for graduate students and second-entry student accommodation. Graduate demand alone is more than double the current number of available spaces, and the ratio of graduate to undergraduate students is expected to rise. The proposed project will increase St. George campus' residential capacity by 188 beds.
(offering a total of 184 beds including four Residence Advisor suites).

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The development of the Harbord Residence is being delivered by University Planning, Design and Construction (UPDC), with the mandate to integrate and coordinate across the areas of planning, project development and project management to deliver value and consistent levels of service for the University. UPDC has been engaged in delivering the Harbord Residence project from the early visioning stage, through planning, municipal approvals and entitlements, consultation with internal and external stakeholders, consultant team management, with project management services to carry forward through to the end of construction to building occupancy and project close-out.

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The residence is proposed to be nine stories composed of a three-storey podium with a six storey mid-rise residential 'tower' element above. The total building height is 26.69 m to top of main residential parapet and 30.19 m to top of mechanical penthouse. The Building Height was subject to discussion with the neighbouring community through one public open house and three Councilor's Working Group meetings with the City of Toronto and the Huron Sussex Residents Organization (HSRO) between March 2020 and August 2021. Floor-to-floor heights were minimized to provide the maximum number of residential units and program area while keeping as close as possible to the 26m - 8 storey building height included in the Huron Sussex Neighbourhood Planning Study. A fourth working group meeting focused on public realm and exterior building materiality.

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The Harbord Residence is targeting Occupancy and Substantial performance in April / May 2024 with project close-out in July 2024.

II. Project Background

a) Membership

Anne Macdonald (Co-Chair)	AVP, Ancillary Services
Christine Burke (Co-Chair)	AVP, University Planning
David Kim	Dean of Residence, Director Student Life
Kevin Dancy	Dean of Residence, Graduate House
Brian Cunha	Assistant to the Dean, Residence Life & Communication
Elizabeth Urbanowski	Assistant to the Dean, Administration and Operations
Michael Jeronimo	Director, Retail and Residential Dining
Jaco Lokker	Director of Culinary Operations
Jason Brennan	RA / Graduate Student
Francesca Dobbin	Director, Family Programs & Services
Josie Lalonde	Director, Student Academic Services
Ron Saporta	Chief Operations Officer, Property Services & Sustainability
Costas Catsaros	Director, Project Development
Adam Trotter	Senior Planner, University Planning
Michal Kuzniar	Senior Planning Associate, University Planning

Previous Members

Jason MacIntyre	Dean of Residence, Graduate House
Don MacMillan	Director, Student Services, School of Graduate Studies
Natasha Jamal	Graduate Student
Ron Swail	AVP, Facilities and Services
George Phelps	Director, Project Development
David Sasaki	Managing Director, University Planning

b) Terms of Reference

1. Make recommendations about the type and form of accommodation for the proposed residence, to be located at 40-56 Harbord Street. Ensure that the type of residence proposed is suitable for the site, and will optimize the number of student places available in the facility.
2. Develop a detailed Space Program for the proposed residence, and identify how it is related to graduate enrolment and projected housing demand.
3. Identify the services and amenities that will be required by the residence and identify the cost of those services and amenities.

4. Identify the amount of space which can be made available for additional ancillary use. Identify the costs separately for any additional services and amenities proposed beyond those typically provided within a residence structure.
5. Determine a functional layout of the space required within the proposed building envelope.
6. Identify campus-wide planning issues with reference to the design guidelines included in the St. George Campus Master Plan and the Huron Sussex Neighborhood Planning Study.
7. Address landscaping requirements on the site and consider its relationship to the proposed "Living Lane".
8. Determine a total project cost (TPC) estimate for the capital project, including costs associated with secondary effects and infrastructure (potentially district energy).
9. Identify all equipment and moveable furnishings necessary to the project and their related costs.
10. Identify a funding plan for capital and operating costs.
11. Report by August 2018.

c) Background Information

The proposed project is a nine storey residence located on the north side of Harbord Street, between Spadina Avenue and Huron Street. This area of the campus is identified in the 2011 St. George Campus Master Plan as the Northwest sector, and presents a desirable location for graduate and second-entry students, with the potential to connect to Graduate House.

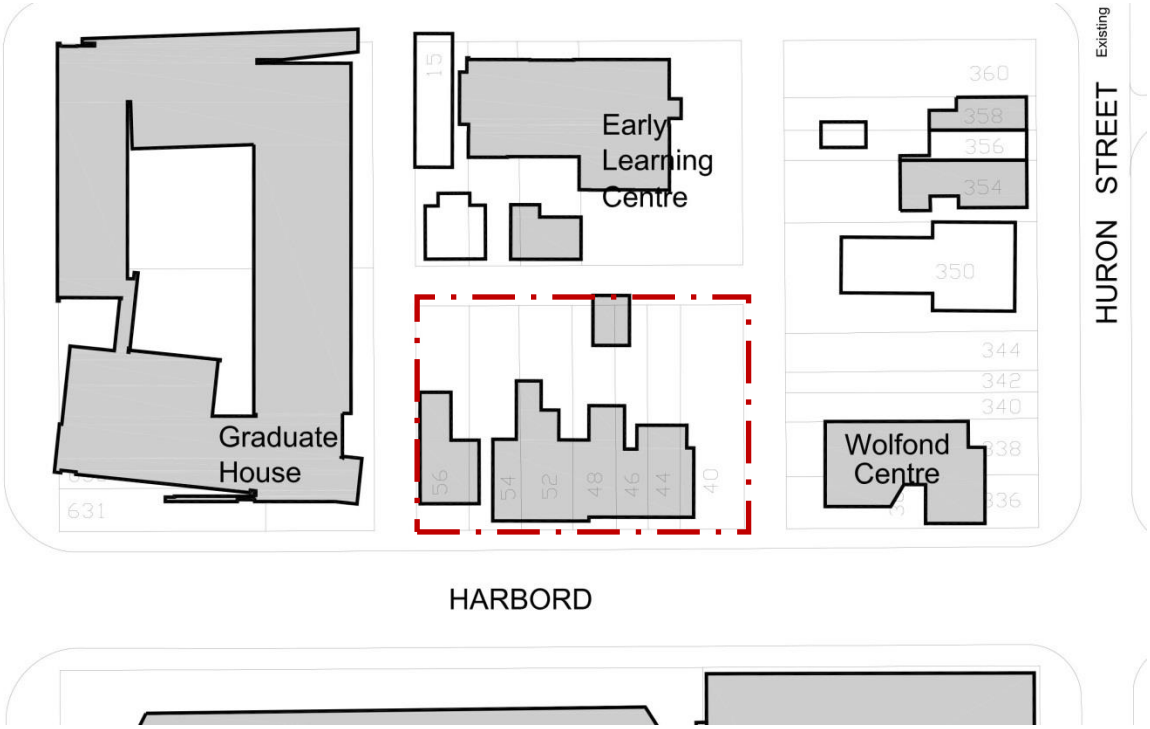

Figure 1 – Existing Site Plan showing houses to be demolished and U of T owned property in grey

Located within the Huron-Sussex Neighborhood, the site is part of the Huron-Sussex Neighborhood Planning Study completed in Spring 2014. The Study was developed in partnership with the Huron-Sussex Residents' Organization and local Councillor's Office. This neighbourhood area provides housing accommodation to staff, faculty, and students along with other homeowners and tenants. A key objective of the study was to 'identify opportunities for addressing residential needs of the University and the community' and this site is identified as an opportunity for mid-rise development. The Harbord site presents an opportunity to add density at the edge, while conserving the residential 'houseform' character of the neighborhood in the core of the neighbourhood. A desire to redevelop this site in the shorter-term was identified in the Study.

The project is envisioned as an operational extension of Graduate House which is located West of the site across a public lane; operation of a stand-alone residence with the proposed number of beds (188) would not be financially viable. Common amenity elements such as study space, lounges and laundry facilities in the new building will be shared by students housed in both residences.

There are six houses (44,46,48,50,54,56 Harbord Street) on the site owned by the University, and operated by Ancillary Services. At this time, all have been vacated and they are in poor repair. Construction of the proposed residence building will require demolition of these houses, as well as the loss of 20 parking spots. The properties were assessed by Heritage Preservation Services at the City and

were not deemed to have heritage value. Tenant Relocation was required for one of the properties. This was implemented through the office of University Family Housing concluding with relocation of the residents of 54 Harbord Street to a University-owned property in the Huron Sussex Neighbourhood, in November of 2021. Refer to section d) Site Considerations: Demolition of Existing Structures and Heritage Status, of this report for further information.

Construction will also require demolition of the garage structures used by the Grounds Department for equipment storage. Grounds storage has been relocated elsewhere on campus.

d) Statement of Academic Plan

> The University's purpose in relation to student housing is to encourage the development of high-quality communities on and off-campus that support the academic and educational aims of the University community. To this end, student housing shall be administered in a manner that promotes safe, secure and stimulating environments that are conducive to students' academic success and personal growth, and foster a sense of community, civic responsibility, and an appreciation of the diversity of the University community.
>
> Policy on Student Housing, Preamble

There is demand for all types of housing at the University. Since 2020 there is an estimated need for 2,300 new beds with demand only growing. The project is envisioned as an operational extension of Graduate House and as such, has been planned for graduate students and second-entry student accommodation. Graduate demand alone is more than double the current number of available spaces, and the ratio of graduate to undergraduate students is expected to rise. The proposed project will increase St. George campus' residential capacity by 188 beds.

The Huron Sussex Neighborhood Planning Study has taken the University's need for additional university housing capacity into consideration and has recommended several areas in the neighbourhood where intensification could occur in order to begin to address this demand. Harbord Street was determined by all stakeholders to be an appropriate location for this redevelopment to begin.

As an extension to Graduate House, the creation of one community is a key objective. This can be achieved through programming to some degree, and supported by encouraging use of shared amenity and communal space within both buildings. For example, group study rooms included in the new residence provide a new amenity not currently available at Graduate House.

e) The Four Corners Strategy

The Four Corners Strategy is a double-bottom line real estate strategy that looks to advance the academic mission by providing high-quality innovation space, student and faculty housing, and ancillary retail near our three campuses while generating risk-appropriate returns to the University. Managed by the University's Real Estate department, the strategy offers exclusive development and leasing access to unique University-owned properties in some of the GTA's most desirable locations while providing the University with needed facilities and unprecedented new and sustainable revenue. The developments are design-forward and respect neighbourhood context with community consultation. The strategy, approved in November 2018, incorporates commercially viable projects and will see financial returns for the institution that will be used toward future academic investments

The primary goals of the Four Corners Strategy are to (1) facilitate amenity uses that support the academic mission and (2) grow other revenue while maintaining long-term real estate interests. The strategy applies to sites predominantly located at the campus edges where the campus meets the city. There is a recognition that this connection to a vibrant environment with desirable amenities, community and environmental infrastructure creates a sense of place for students, faculty and staff that is an invaluable part of their university experience. The intent is to create a hub that focuses on activating the street at grade level and allows for a seamless and dynamic interface between the City and University.

The Harbord Residence site is identified as part of this long-term vision as the location presents a unique opportunity for the University of Toronto to develop its existing property as both a gateway from the Historic and West Campus into the Northwest Quadrant of the St. George Campus and as a critical operational expansion to the existing Graduate House. The Harbord Residence development will fulfill the primary goals of the Four Corners Strategy in building more than 4,000 units of University housing over the next 10-15 years and by providing quality amenity spaces (ie. portfolio of quality, attainable institutional housing and food services retail) to support the mission of the University, quality of life for the University population and engagement in civic goals, and (2) generating a sustainable source of risk appropriate financial returns.

An overview of the Four Corners Strategy and its various projects is provided on Real Estate's website at https://realestate.utoronto.ca/

The development of the Harbord Residence is being delivered by **University Planning, Design and Construction (UPDC)** (https://updc.utoronto.ca/), with the mandate to integrate and coordinate across the areas of planning, project development and project management to deliver value and consistent levels of service for the University. UPDC has been engaged in delivering the Harbord Residence project from the early visioning stage, through planning, municipal approvals and entitlements, consultation with internal and external stakeholders, consultant team management, with project management services to carry forward through to the end of construction to building occupancy and project close-out.

f) Space Requirements

Existing Space - Residence

Student Residence space currently accounts for 82,297 nasm on the St. George Campus with 5321 spaces for undergrad students and 1157 spaces for graduate and second entry students. There are 10 existing residences on the St. George campus, with 8 of them primarily undergraduate residences and 2 residences dedicated to primarily graduate and second entry students. Close to the proposed site, on the east side of Spadina is Graduate House, a suite-style residence with 435 beds; just east of the Graduate House is a site intended for a 188-bed graduate dormitory that would be an operational extension of the Graduate House.

The proposed Harbord Residence will add approximately 4,410 nasms of residential space (project is 5,106 nasms total) and 188 beds to this total. The Spadina-Sussex residence project which will add approximately12,850 nasms of residential space (project is 14,900 nasms total) and 537 beds to the St. George Campus is currently under construction.

There are 8 dining halls affiliated with the 10 residences; notably only 1 of these dining halls, at New College Residence near Spadina and Willcocks, is on the West Campus. The West Campus has been identified as being underserved with respect to Food Services, especially given some of the demand for food availability in the vicinity of Robarts Library. An additional dining hall in this area of campus should alleviate some of this pressure. The Harbord Residence project proposes to expand Food Service's inventory in the West Campus by including a 597 nasm Food Market and seating area to serve both the Harbord Residence and Campus communities.

The proposed Harbord Residence will work together with the existing Graduate House to serve the greater Graduate Student community.

University of Toronto St. George Campus Residence Summary Tables

Residences	Gross Floor Area	NASM	Gross/NASM Ratio	Reidential NASM	Gross /Residential NASM Ratio	NASM/Residential NASM Ratio
Chestnut Street Residence	61,150.20	31,146.23	1.96	26,530.67	2.30	1.17
Graduate House	23,277.23	23,277.23	1.00	9,467.02	2.46	2.46
Constituent Colleges						
Innis College	11,927.05	7,446.48	1.60	7,262.40	1.64	1.03
New College						
New College - Wetmore	13,252.64	6,991.12	1.90	4,150.94	3.19	1.68
New College- Wilson	17,524.24	9,220.91	1.90	5,802.03	3.02	1.59
New College III	11,251.54	5,736.57	1.96	5,113.64	2.20	1.12
University College						
UC - Sir Daniel Wilson	8,085.62	4,667.13	1.73	3,873.05	2.09	1.21
UC- Whitney Hall	9,077.16	5,699.96	1.59	5,656.80	1.60	1.01
UC- Morrison Hall	9,369.98	5,200.91	1.80	4,633.39	2.02	1.12
Woodsworth College	17,055.89	9,758.15	1.75	8,037.84	2.12	1.21
Total	181,971.55	109,144.69		80,527.78		
Average	18,197.16	10,914.47	1.72	8,052.78	2.27	1.36

Residences	Type	# of Beds	# of Single	# of Double	% Single Occupancy	# of Accessible Rms	WC Type	Dining Facilities
Chestnut Street Residence	Suite	687	242	445	35.23%	4	ensuite	Dining Hall
Graduate House	Suite	435	427	8	98.16%	2	ensuite	Kitchens
Constituent Colleges								
Innis College	Suite-APT	331	331	0	100.00%	16	ensuite	Kitchens
New College								
New College - Wetmore	Dorm	240	191	49	79.58%		common	Dining Hall
New College- Wilson	Dorm	275	120	155	43.64%		common	Dining Hall
New College III	Dorm	257	229	28	89.11%	2	common	
University College								
UC - Sir Daniel Wilson	Dorm	200	195	5	97.50%		common	
UC- Whitney Hall	Dorm	198	155	43	78.28%		common	
UC- Morrison Hall	Dorm	274	274	0	100.00%	14+	common	Dining Hall
Woodsworth College	Suite - APT	372	372	0	100.00%	3	ensuite	Kitchens
Total		3269	2536	733				
Average		326.7	253.9	72.8	82.26%			

Graduate House

Graduate House is the largest graduate student focused residence on the St. George Campus and contributes a total of 9,821 nasms of total space and includes 8,807 nasms of residential space and 646 nasms of residence support space (such as common spaces). Main features of the residence include a sunken gated courtyard which provides exterior amenity space, the Grad Room program space, the Second Cup located at the corner of Spadina and Harbord, a convenience store at the North-West corner of the building, and two levels of parking below grade with 151 spaces. A summary of space by category can be found in the table below.

Graduate House			
Category	**NASMs**	**Description**	**Notes**
7.0	94.31	Food Facilities	Grad Room / Second Cup
9.0	32.09	Maintenance Rooms	
10.0	15.38	Parking and Transportation	
11.0	156.71	Non-Library Study Space	Workshops
17.1	8,807.35	Residences	117 Suites: 435 beds (Inc.
			AODA and RA Suites);
			1 Guest Suite: 2 beds;
			1 ADRLC Suite: 1 bed
17.2	645.77	Residence support space	
19.0	69.40	Retail	Convenience Store
	9,821.01	**Total NASMs**	
16.0	10,337.12	**Total Non assignable**	Includes 151 parking spaces
	20,158.13	**Net Area**	
	23,236.84	**Gross Area net of voids**	

Graduate House is a suite-style residence that stands ten stories tall and accommodates 435 graduate student beds in 120 suites. Included in this total is a single occupancy suite for the Assistant to the Dean – Residence Life and Communication (ADRL) located on the ninth floor and one guest suite with two bedrooms located on the third floor. A typical suite in Graduate House contains four bedrooms clustered around a shared common space, kitchen facilities, and washroom facilities. There are some suite variations which might accommodate an extra bed, or have one less bed, and come in a variety of configurations including two storey suites which are accessed on either the first or second level. The stacking of suites allows for the reduction of circulation space on alternate floors as can be seen by the circulation patterns on the residential floors in the Figure 2 Graduate House programme summary diagrams. Floors two to ten are the primary residence floors, and a smaller number of suites are located at grade and below grade adjacent to the sunken courtyard.

Common spaces within Graduate House are mainly located in the basement (courtyard) level and include: one TV room/theatre and a large common room with a pool table, ping pong table, foosball table, and kitchen; a music room, lounge area, and laundry facilities. There is also a reading room on the ninth level of the building. Located at grade is the Graduate House Front Desk and Administrative Offices containing a conference room, kitchenette, washroom, mailroom with mailboxes, package storage room, photocopy area, and offices for the GH administrative staff. Further amenity space includes two bicycle storage rooms. Common spaces are summarized in the following table (note that this information does not include the recent office renovation).

Graduate House - Common Facilities			
Categorey	**NASMs**	**Description**	**Notes**
17.2	49.24	Secure Bicycle Storage	
17.2	11.53	Reception / Information Desk	2 staff
17.2	18.89	Mail Room	435 mailboxes
17.2	75.62	Adminstrative Office Suite	5 staff; conference room,
			kitchenette, parcel storage,
			copy room, private washroom
17.2	104.65	Recycling Facilities	
17.2	26.81	Garbage Facilities	
17.2	26.05	Residential Storage Rooms	
17.2	44.18	TV Room/Theatre	
17.2	134.54	Common Room	
17.2	73.76	Games Room	
17.2	20.02	Reading Room 9th Level	
17.2	8.29	Kitchenette	
17.2	13.43	Music Room	
17.2	52.66	Laundry Room	10 washers + 9 dryers
	659.67		

Primary mechanical and electrical rooms are located in the Courtyard level and the generator is located on the roof. Maintenance space in the building is also located in the Courtyard level and includes a staff room with direct access to mechanical spaces.

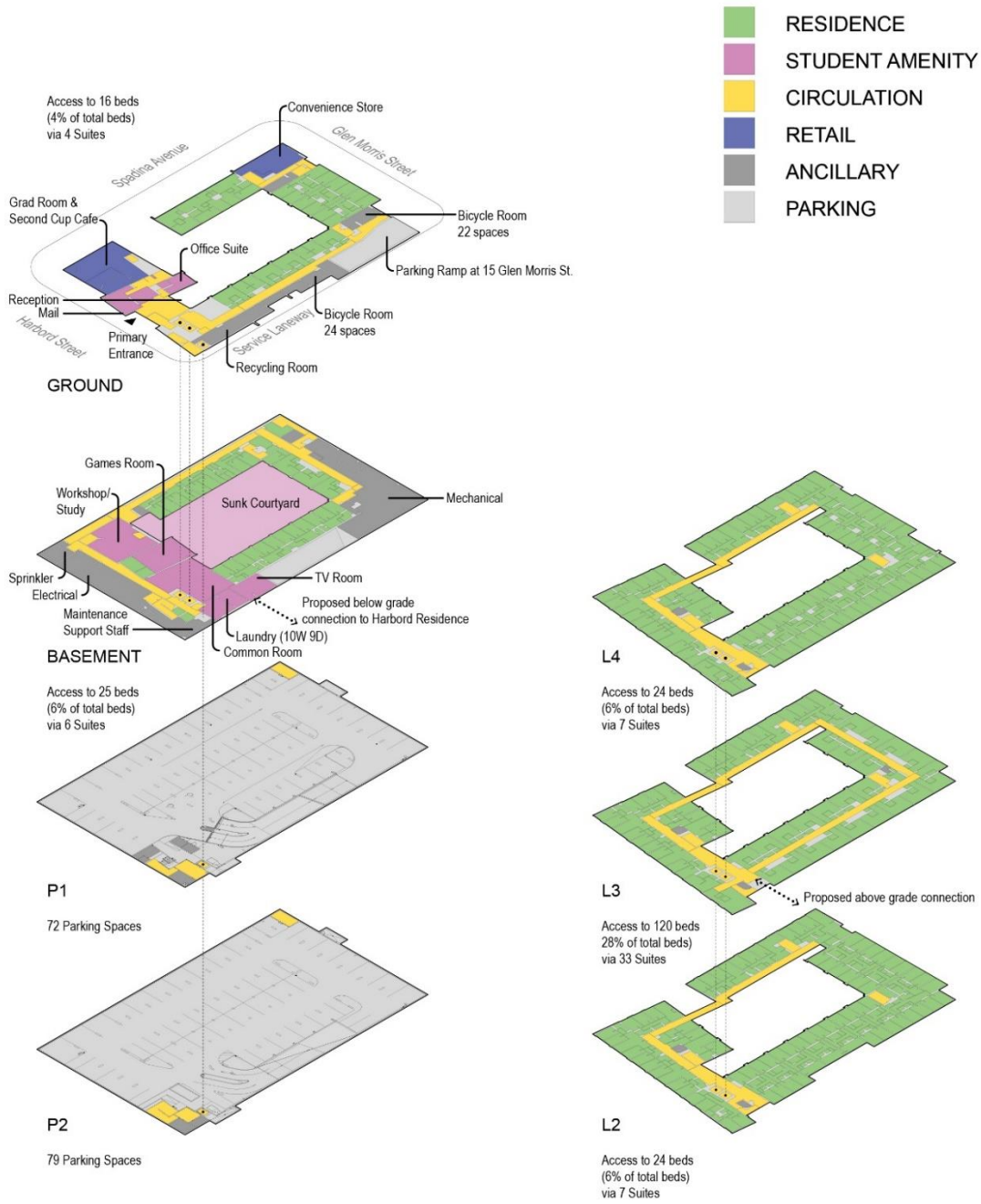

Figure 2 – Graduate House Programme

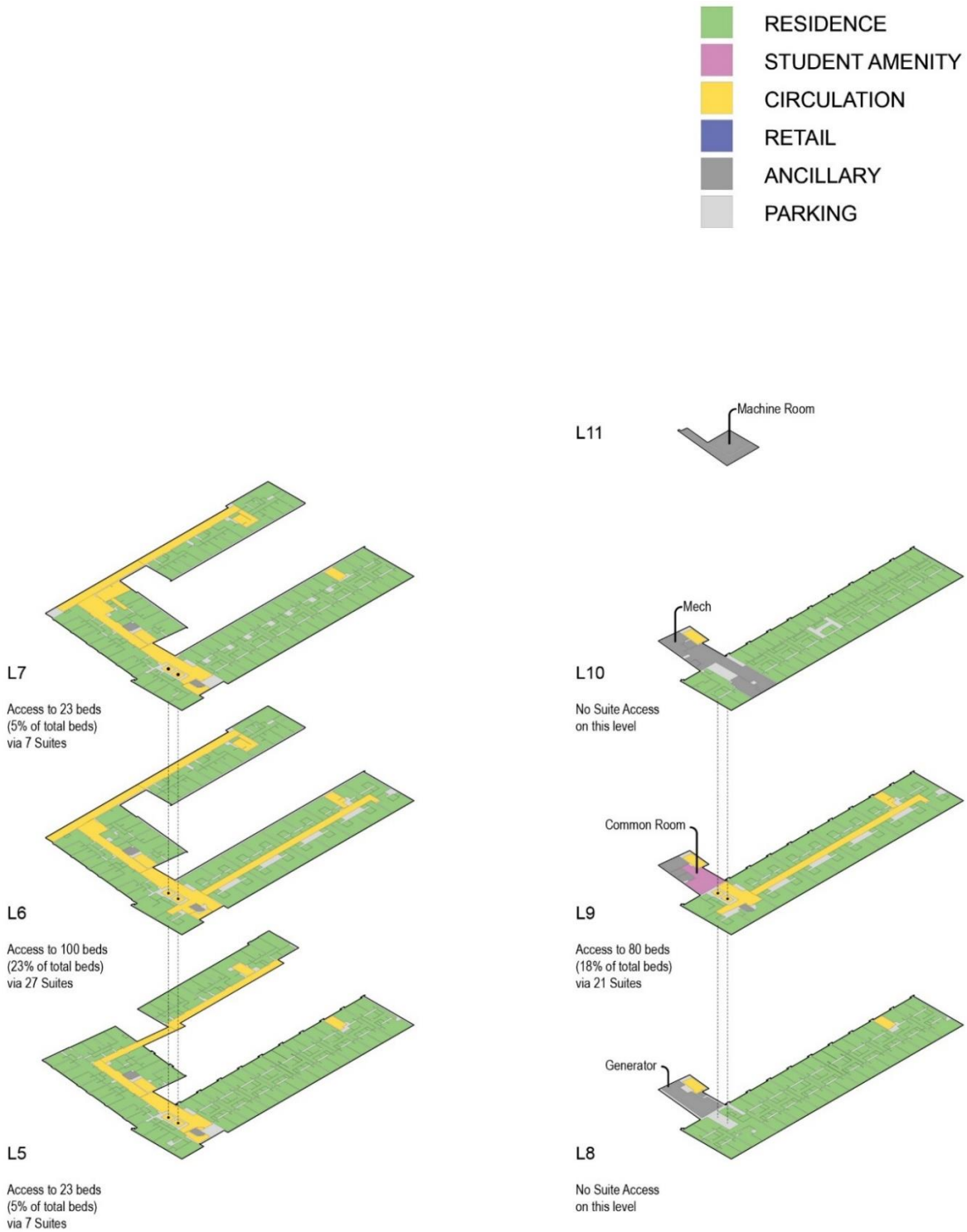

Figure 2 (cont'd) – Graduate House Programme

Occupant Profile

Residential space will include 184 beds for graduate and second-entry students. In addition, four additional beds will be included for four Residence Advisors.

Non-residential space will include amenity space programming to be shared with residents from Graduate House and at-grade programming such as the Food Market which will be opened to the student community and public as well.

Residence Life programs are intended to operate in both Harbord Residence and Graduate House. The offices and residence of the Dean of Residence and ADRL will remain in Graduate House with additional support space, such as a dedicated meeting room, added for the use of Residence Life in Harbord Residence.

Graduate Student Profile

As more mature students, possessing a strong academic and professional focus, graduate students often seek accommodation that supports more independent living, individual preferences, and allows them to put their academic and professional work first (while staying connected in various degrees with fellow students and a larger community). Furthermore, their diverse programs, disciplines and temperaments mean they often prefer to work in different environments at different times, from very social (like common rooms), to very quiet (like reading rooms and their own bedrooms). Other spatial considerations supporting Graduate work may be collaborative or singular and requires larger work surfaces, access to natural light and fresh air, fast data, power, and dimmable lighting. Those students who have lived in traditional undergraduate dorms are often seeking a different residence experience, but some graduate students remain appreciative of the convenience of dorms, especially in respect of their amenities and communal dining options. To meet these needs, graduate student private spaces must offer something new and be adaptable to the needs of the individual, while common spaces must support the diverse ways they study and socialize.

Space Requirements

With an anticipated graduate and second entry population of 21,094 by 2020, or a 2,300 student increase, construction of this residence will increase the number of graduate residence beds on campus to provide housing for the over 1,000 rejected applications every year to Graduate House. The planning module for this project is a mix of single occupancy rooms with a private washroom and kitchenette and typical dormitory style rooms with shared washrooms. The single all-inclusive room is a departure from other UofT residences that are a mix of dormitory and suite styles.

There is minimal meeting and study space at Graduate House for students and student groups who require space for group work and discussion. As such, students from both residences will rely heavily on study and meeting space in this new facility. Meeting space will also be used by the Residence Life program.

The event space on the main floor will serve as a hub for events with a particular appeal to graduate students, such as a lecture series. These events would be open to non-residents as well.

Food Services

Food services, seating, and event space will create active spaces along Harbord Street and the future Living Lane. The organization of this space will be flexible to maximize efficiency of food service delivery and promote traffic through this space from university and non-university patrons. General principles include:

- Animating Harbord Street with retail or food services at grade;
- Animating the proposed Living Lane to help promote pedestrian activity in the Huron Sussex Neighbourhood with well-lit and transparent space;
- Provide additional entrances to the food market and seating spaces in addition to the main entrance to create a porous ground floor experience; and,
- Identify logistics of food service delivery from the basement level production kitchen to ground floor food market. A service elevator is proposed to keep food movement separate from other elevator uses.

Student Amenity Space

Considerations for amenity space include:

- Positioning amenity space along prominent street/laneway edges to help animate the site with study and lounge spaces above ground level;
- Providing ample study and lounge space on all floors; and,
- Locating study space within close proximity to Graduate House via a bridge connection.

Suites

The approach to residential suites in Harbord Residence will provide a mix of unit types. The majority of units will be the typical dormitory-style single rooms (typically 13.5 nasm per dormitory room with a 3.7 nasm shared washroom between two rooms) found in newer UofT residences. In response to recent demands for student accommodations, an alternate suite module will provide a single occupancy (22.5 nasm) self-contained "Nomad" suite including a private kitchenette and private washroom. This "Nomad Suite" is intended to provide a private housing option for mature students by keeping the suite to an efficient size. In addition to these two primary modules, the residence will provide self-contained Residence Advisor suites (single occupancy) (41 nasm). Each unit type will also be configured to provide 22% of all residence suites/dorms as accessible suites providing 18% of all beds as accessible, exceeding the minimum requirement of the Ontario Building Code. This equates to 34 accessible units from the overall unit count distributed throughout the unit type mix.

A current precedent for the proposed "Nomad Suite" is the University of British Columbia's proposed 14.7sm micro unit layout for residential development. A layout proposed in the initial test fits could

reduce the size of the suite from 19.2 nasm to 15.4 nasm in a micro style format (referred to as a "Nomad Suite") that would include a private washroom, kitchenette, double sized bed, and six foot desk. The UBC Gage Residence, which was completed in September 2016, had a unit mix which included 20% Micro suites (14.7 sm), 26% Studio (23.8 sm), 27% One Bedroom (37.3 sm), 5% Two Bedroom (57.3 sm), 23% Four Bedroom (99.8 sm), and 5% City Home (2 bed, 121.2 sm total). Design of these units in coordination with building massing and unit mix resulted in Nomad units having a living area of 18.3 nasm including bed/living and kitchen with a private washrooms of 4.2 nasm.

A logical suite layout needs to be considered when designing a minimal and functional room size. This includes consideration for sizes of washrooms, furniture, corridor space, closets, and kitchen (as required). Layouts may be explored using specific washroom fixtures, furniture, appliances, or built in furniture that could help reduce the overall size and improve the function of the suite. Examples are shown in the Precedents (see Appendix). Other considerations include:

- Maximizing natural lighting within suites and corridors;
- Uniformity of units to help simplify structural grid and mechanical requirements; and,

Through the design process of maximizing the number suites within the developable area, a reduced floor to floor height was employed. This necessitated that strategic positioning of mechanical equipment and elements within services spaces within suites was implemented to maximize ceiling height in living spaces. Each suite is positioned with either southern or northern views via large picture windows with operable vents.

III. Project Description

a) Vision Statement

A number of core principles guide and govern the design and space program of the residence expansion. These principles include:

- Design should support the development of student communities that reflect the Residence's values of openness, respect, inclusion, and engagement;
- Design should complement and enhance the existing programs, amenities, and accommodation options provided by Graduate House;
- The residence should be of a high-quality, and honour the University's commitment to principles of sustainable design to standards described in the sustainability section of this report;
- The residence should feature food service options to serve the needs of its student population, while simultaneously supporting the University's broader food services master plan.
- The residence should provide highly desirable individual accommodation options that meet the special needs of graduate students (refer to Graduate Student Profile);
- Common rooms and other shared spaces should be situated such that students can gather, interact with one another, and take vital steps towards community formation;

- Divisions between public and private space should balance the need for community development and interaction with the graduate population's crucial need for quiet personal study space. Soundproofing of student rooms and acoustic containment of lounge and study spaces are necessary considerations;
- Enhanced security should be provided for the residence floors balancing security with the desire for residents to be able to move freely between buildings and common areas in order to build community and interpersonal connections;
- Design should minimize, at every opportunity, operating costs and consequently, overall direct cost to student users;
- New construction should strive towards universal design, creating an inclusive community where students with disabilities have full and equal access to the building and all of its direct and associated amenities; and,
- The building and landscape should add neighborhood amenity, enliven the street and improve upon the public realm.

b) Space Program and Functional Plan

The summary below identifies the project space program.

Harbord Residence Space Program

Space Program	Quantity	Area Nasm	Total Area Nasm	Notes
Assignable				
Residential Unit Mix			**3,449.03**	
Standard Rooms (Shared)(Second)	14	13.40	187.60	
Standard Rooms (Shared)(Third)	14	13.48	188.72	
Standard Rooms (Shared)(4-9)	108	13.50	1,458.00	
Standard Room WC (Second)	7	3.74	26.18	
Standard Room WC (Third)	7	3.65	25.55	
Standard Room WC (4-9)	54	3.68	198.72	
Standard Rooms (Accessible)(Second)	3	16.68	50.04	
Standard Room Accessible WC (Second)	1.5	6.96	10.44	0.5 designation due to private WC
Standard Rooms (Accessible)(Fourth)	2	17.93	35.86	
Standard Room Accessible WC (Fourth)	1	5.62	5.62	
Standard Rooms (Accessible)(5-6,9)	15	17.60	264.00	
Standard Room Accessible WC (5-6,9)	7.5	6.41	48.08	0.5 designation due to private WC
Standard Rooms (Accessible)(7-8)	4	17.85	71.40	
Standard Room Accessible WC (7-9)	2	5.77	11.54	
Nomad Rooms (Private)(Fourth)	3	18.26	54.78	
Nomad Room WC (Fourth)	3	4.23	12.69	
Nomad Rooms (Accessible)(4-9)	6	24.12	144.72	
Nomad Room Accessible WC (4-9)	6	5.92	35.52	
Nomad Rooms (Private)(5-9)	15	18.27	274.05	

Nomad Room WC (5-9)	15	4.23	63.45	
Residence Advisor Living (Accessible)(Third)	1	10.56	10.56	
Residence Advisor Kitchen (Accessible)(Third)	1	9.43	9.43	
Residence Advisor Bedroom (Accessible)(Third)	1	14.80	14.80	
Residence Advisor WC (Third)	1	6.21	6.21	
Residence Advisor Living (Accessible)(4,7-8)	3	10.77	32.31	
Residence Advisor Kitchen (Accessible)(4,7-8)	3	9.66	28.98	
Residence Advisor Bedroom (Accessible)(4,7-8)	3	13.81	41.43	
Residence Advisor WC (4,7-8)	3	6.08	18.24	
Floor Lounge (Third)	1	27.26	27.26	
Floor Lounge (4,7-8)	3	25.91	77.73	
Dry Storage (4-9)	6	2.52	15.12	
Common Facilities			**960.45**	
Residential Common Rooms			0.00	
Common Lounge	1	246.85	246.85	
Common Kitchen	1	25.69	25.69	
Quiet Study Lounge 1	1	25.13	25.13	
Quiet Study Lounge 2	1	24.94	24.94	
Quiet Study Lounge 3	1	49.74	49.74	
Study/Meeting Room (8 persons)	1	24.90	24.90	
Lounge 1	1	17.62	17.62	
Lounge 2	1	34.89	34.89	
Meeting Room 1	1	23.01	23.01	
Meeting Room 2	1	24.89	24.89	
Bicycle Storage	1	108.57	108.57	
Bicycle Equip. Storage	1	12.25	12.25	
Event Space	1	115.74	115.74	
Storage Room (Furniture)	1	30.32	30.32	
Storage Room (Linen)	1	14.91	14.91	
Common Storage	1	9.38	9.38	
Common Room Storage (Furniture)	1	8.15	8.15	
Laundry	1	45.63	45.63	
Music Room 1	1	10.40	10.40	
Music Room 2	1	11.64	11.64	
Music Room 3	1	95.80	95.80	
Retail Space			**596.82**	
Food Market Raw Bar	1	18.12	18.12	
Food Market Pizza	1	18.77	18.77	
Food Market Grill	1	24.83	24.83	
Food Market Noodle Bar	1	19.19	19.19	
Food Market Seating	1	246.06	246.06	
Food Market Window Seating	1	24.59	24.59	
Waste Management	1	41.58	41.58	
Loading (Type B)	1	65.66	65.66	
Production Kitchen	1	37.45	37.45	
Dish Wash Room/Station	1	21.97	21.97	
Food Market Storage	1	15.59	15.59	
Food Market Refrigerator	1	7.65	7.65	
Café	1	10.19	10.19	
Café Barista Station	1	11.81	11.81	

Staff Change Room (W)	1	6.41	6.41	
Staff Change Room (M)	1	6.55	6.55	
Staff Washroom (W)	1	6.30	6.30	
Staff Washroom (M)	1	6.51	6.51	
Staff Washroom	1	7.59	7.59	
Residence Life Facilities			**100.04**	
Residence Advisor Office & Meeting			0.00	
Office for the Residence Council	1	9.70	9.70	
Admin Office	3	9.70	29.10	
Admin Office	1	10.82	10.82	
Residence Life Meeting Room (10 person)	1	21.88	21.88	
Residence Life Storage Area			0.00	
Maintenance Office	1	11.74	11.74	
Maintenance Workshop	1	11.76	11.76	
Copy Room	1	5.04	5.04	
Assignable Total			**5,106.34**	
Non-Assignable				
Washroom (Ground-W)	1	19.41	19.41	
Washroom (Ground-M)	1	20.04	20.04	
Washroom Vestibule (Ground)	1	17.27	17.27	
Washroom (Second-W)	1	16.52	16.52	
Washroom (Second-M)	1	7.74	7.74	
Washroom Vestibule (Second-W)	1	4.93	4.93	
Washroom (Third-W)	1	12.50	12.50	
Washroom (Third-M)	1	7.79	7.79	
Washroom Vestibule (Third)	1	6.20	6.20	
Universal WC (Basement)	1	9.56	9.56	
Universal WC (Ground)	1	7.27	7.27	
Universal WC (2-3)	2	11.17	22.34	
Janitor Room (Basement)	1	5.35	5.35	
Janitor Room (Ground)	1	3.93	3.93	
Janitor Room (Second)	1	1.26	1.26	
Janitor Room (3,5-9)	6	1.12	6.72	
Janitor Room (Fourth)	1	1.14	1.14	
Waste/Recycling (2-9)	8	1.31	10.48	
IDF (Ground)	1	2.21	2.21	
IDF (2-9)	8	5.76	46.08	
Tunnel	1	22.26	22.26	
Tunnel Vestibule 1	1	11.67	11.67	
Bridge	1	23.48	23.48	
Vestibule (East)	1	7.75	7.75	
Vestibule (West)	1	12.20	12.20	
Vestibule (PTH)	1	2.44	2.44	
CACF	1	5.90	5.90	
Mechanical Room (Basement)	1	113.47	113.47	
Mechanical Room (PTH)	1	77.93	77.93	
Generator Room (PTH)	1	207.53	207.53	
Electrical Room (Basement)	1	87.53	87.53	
Electrical Closet (Ground)	1	2.68	2.68	
Electrical Closet (2-9)	8	1.16	9.28	
Electrical Closet (2-3)	2	2.29	4.58	
Pump Room	1	36.72	36.72	
Pump Room Vestibule	1	3.40	3.40	
Building Entry Facility	1	11.57	11.57	
Elevator (Basement)	1	12.93	12.93	

Elevator Lobby (Basement)	1	13.83	13.83	
Elevator (Ground)	1	12.82	12.82	
Elevator Lobby (Ground)	1	33.39	33.39	
Elevator (2-PTH)	9	12.82	115.38	
Elevator Lobby (Second)	1	11.42	11.42	
Elevator Lobby (Third)	1	18.45	18.45	
Elevator Lobby (Fourth)	1	21.74	21.74	
Elevator Lobby (5-9)	5	21.28	106.40	
Elevator Lobby (PTH)	1	20.00	20.00	
Elevator Control (PTH)	1	5.60	5.60	
Kitchen Elevator (2 stop)	2	6.90	13.80	
Kitchen Elevator Machine Room	1	5.32	5.32	
Incoming Communications Room	1	11.38	11.38	
Plenum (Basement)	1	8.13	8.13	
Storm Water Retention Tank	1	41.70	41.70	
Air Intake Plenum	1	22.98	22.98	
Stair A (Basement)	1	7.55	7.55	
Stair A (Ground)	1	16.96	16.96	
Stair A (2-3)	2	12.13	24.26	
Stair A (Fourth)	1	16.93	16.93	
Stair A (5-PTH)	6	21.86	131.16	
Stair B (Basement)	1	10.57	10.57	
Stair B (Ground)	1	13.66	13.66	
Stair B (Second)	1	31.23	31.23	
Stair B (3-PTH)	8	11.82	94.56	
Stair C (Second)	1	9.17	9.17	
Stair C (Third)	1	4.62	4.62	
Stair D (Basement)	1	11.28	11.28	
Stair D (Ground)	1	12.28	12.28	
Non-Assignable Total			**1,728.63**	
Nasm Total			**5,106.34**	
GSM			**9,415.77**	SPA Submission 10.08.21 - Gross Construction Area
Gross-up Factor			**1.84**	

The total project area is 5,106.34 nasm, or 9,415.77gsm, generating a gross–up factor of 1.84 gsm per nasm. This factor is slightly higher than with University residences, where 1.72 is the average and 1.8 is the gross:nasm ratio for Graduate House. Preliminary test-fit plans prepared by University Planning indicated a gross-up factor of 1.73x. The difference can be largely attributed to the inclusion of the Food Market, Kitchen and associated service space in the space program as well as the non-standard unit mix between shared, Nomad and AODA units. Residential floor plates were designed as efficiently as possible, employing double loaded corridors. This was not only done to increase bed count and efficiency of the residential floors but to minimize the massing of the upper floors within the urban context. Note that this gross to nasm ratio does not account for above and below ground connections between Harbord Residence and Graduate House which are included above in the non-assignable tally. The non-assignable total does not include circulation space in the above summary.

Non-assignable space

Included in the building project are non-assignable elements that are not specifically described in the Space Program, but will be part of the consultant's responsibility for design.

Non-assignable spaces include: corridors, stairs, elevators, vestibules, mechanical / service spaces and so on. These aspects of the building program are not included as assigned space above; they are to be accommodated within the nasm to gross factor of 1.84. Specific requirements include:

- Data & communication closets: one on every other floor, possibly combined with electrical closets;
- Mechanical and Electrical rooms located in the basement and/or Mechanical Penthouse;
- Janitor's closets & Refuse Rooms: one per floor;
- Vestibules and lobbies;
- Washrooms: The provision of public washrooms should exceed minimum code requirements on non-residential floors and should each include the required number of universal washrooms to O.B.C. requirements;
- Elevators: two elevators are proposed to access all levels; an additional small freight elevator is required between at-grade and below-grade kitchen. A dumb waiter is proposed to connect the production kitchen with the Food Market Services; and,
- Connections to Graduate House including the proposed above-grade bridge, and the below-grade connection to Graduate House.

Refer to the Appendix for University of Toronto Cleaning / Caretaking Design Standards.

Functional Plan

Several factors begin to shape the building's layout and massing including the following:

- Efficiency of stacking and massing;
- Efficiencies of residential floor plate;
- Critical adjacencies to, and separation from, other program areas;
- Desire for natural light;
- Appropriately scaled ceiling heights and volumes;
- Direct access to the exterior;
- Clustering of space according to hours of operation; and,
- Need for security.

The design provides an open ground floor plan for public amenities with two levels of student amenity space above within the larger podium of the building massing. An efficient, repetitive residential floor plate extends from the podium to the ninth floor. This approach was predicated on maximizing the program within the limited size and proportions of the site, while responding to site conditions and

provide efficient layouts. Suites area arranged on either the south or north side of an east-west (double loaded) corridor. Careful attention to acoustic and visual screening between program elements is incorporated into the design. The form of the building considers adjacency, acoustic separation, overlook and daylighting of the Day Care playground to the North and Existing Graduate House Residential Suite windows to the West.

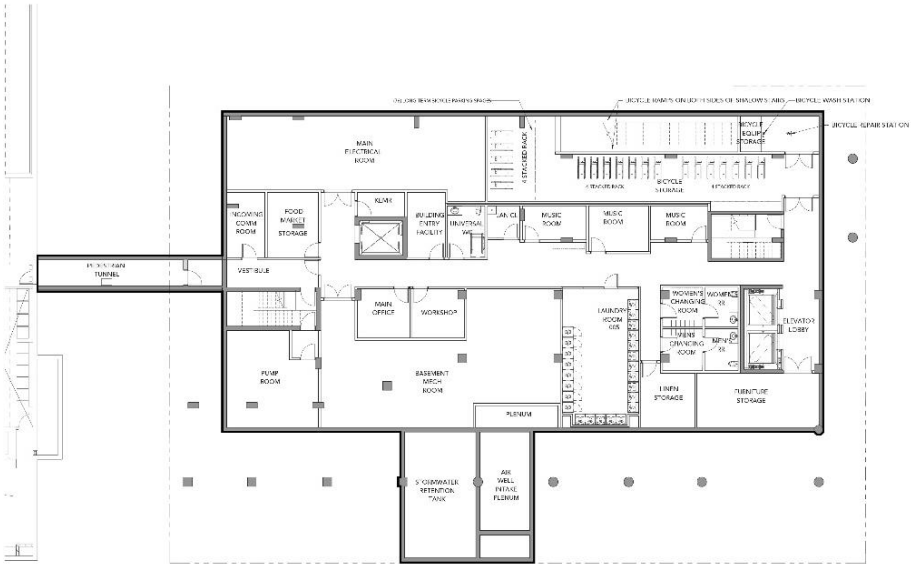

Figure 3 – Basement Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

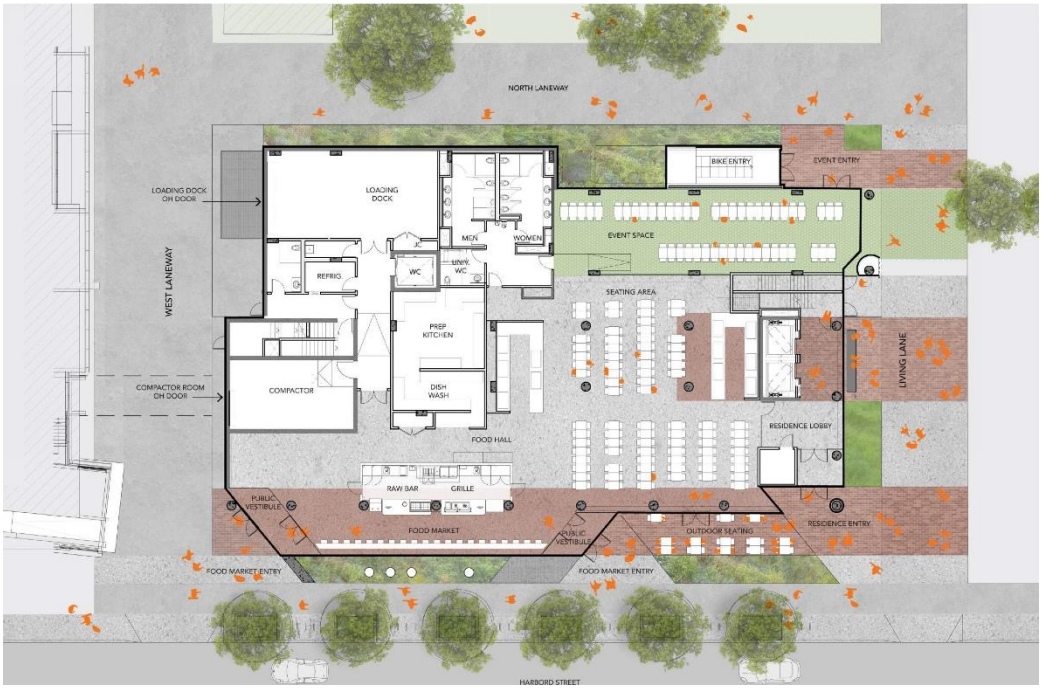

Figure 4 – Ground Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 5 – Second Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 6 – Third Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

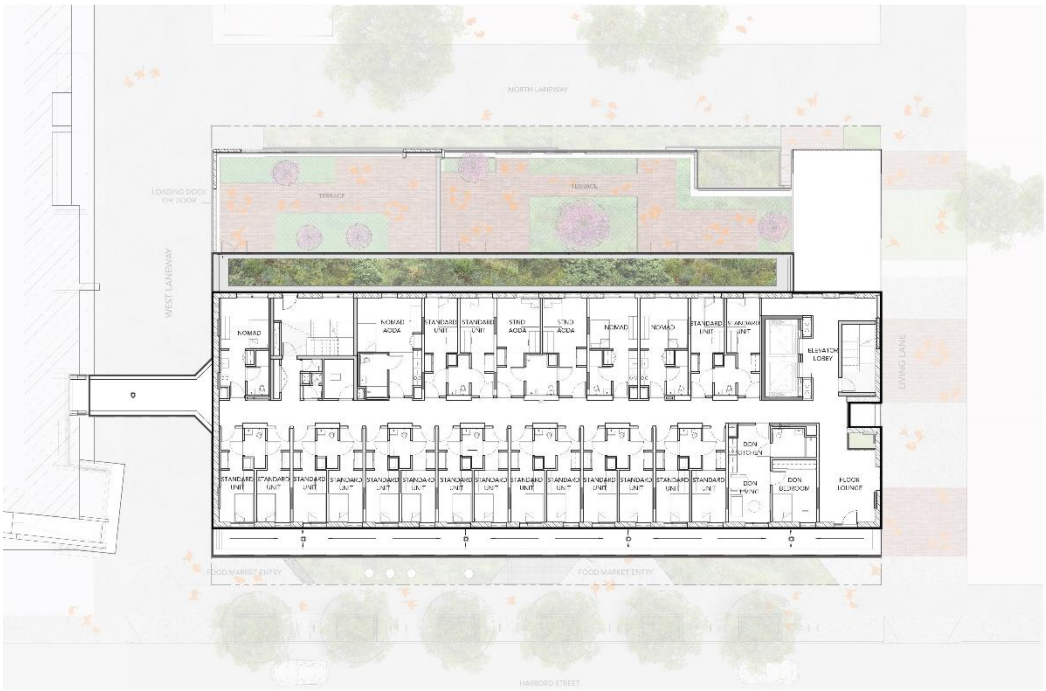

Figure 7 –Fourth Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 8 – Fifth Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 9 – Sixth Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 10 – Seventh Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

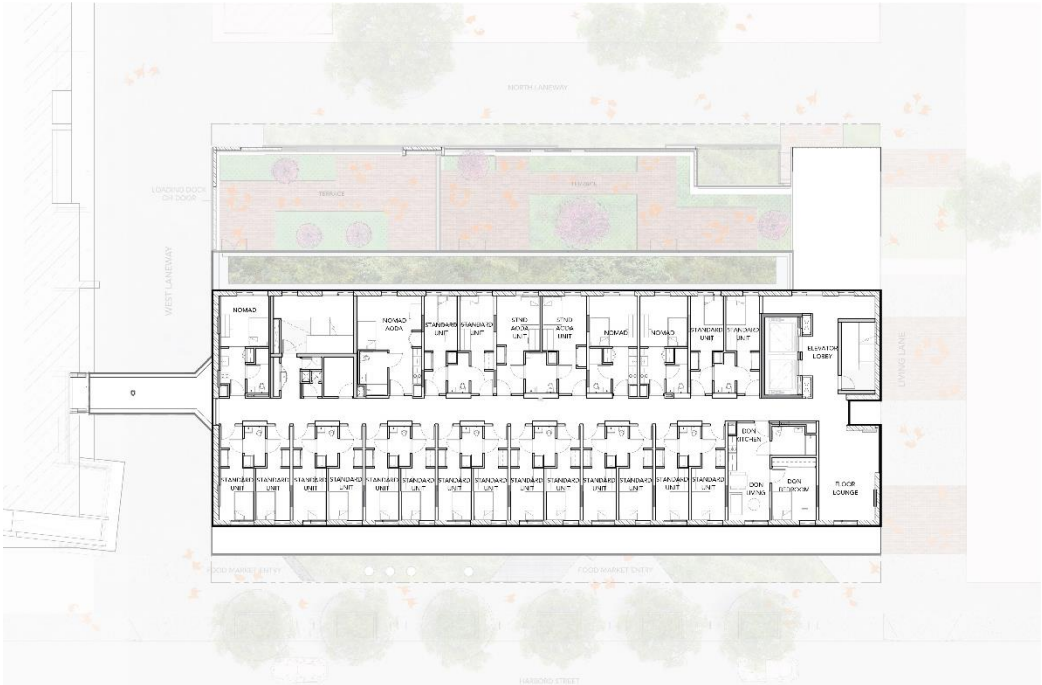

Figure 11 – Eigth Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 12 – Ninth Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

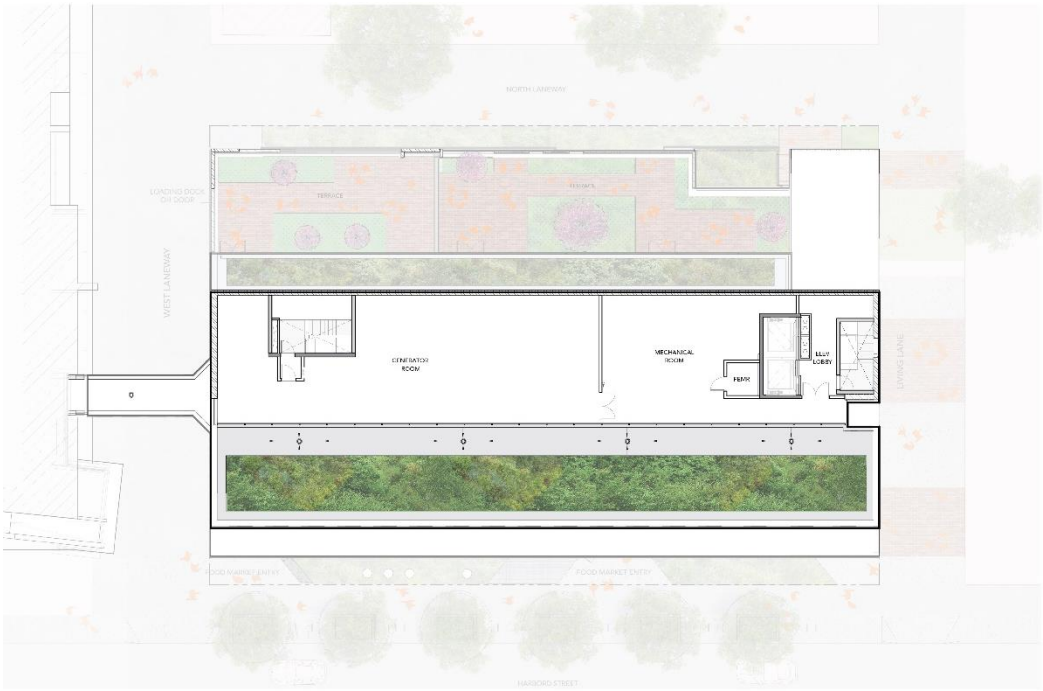

Figure 13 – Penthouse Floor Plan: Image Courtesy of Michael Maltzan Architects / architects Alliance

Unit Mix

The minimum 188 beds in the student residence will include 154 beds and 34 barrier-free accessible beds. Approximately 83% of Students will live in single rooms with a washroom shared with another unit. 17% of residents will have a private "Nomad Suite" unit with a private kitchenette and private washroom or a private standard bedroom and private washroom.

Included in the minimum 188 bed total are four residence advisor (RA) suites which are distributed one so that residents on each adjacent floor only need to travel a minimum of one floor to the RA suite. RA suites contain a private bedroom and ensuite washroom, kitchenette and meeting space with an entrance onto the main corridor. All four of the RA suites should be designed to be barrier-free accessible. RA suites are located adjacent to residential floor elevator lobbies to allow for private access by students requiring advice or support.

In summary, barrier-free accessible suites include: 20 barrier-free single rooms with shared washrooms; 4 barrier-free single rooms with private washrooms; 6 barrier-free all-inclusive suites; and 4 accessible Residence Advisor (RA) suites for a total of 34 barrier-free accommodations.

Space permitting, allowance should be made for a motorized chair room with a minimum 2500mm clear turning radius.

Residential Unit Summary

Space Type	Description	Quantity	Bed Quantity	Spaces by Floor							
				2	3	4	5	6	7	8	9
Standard - Shared	2 Bedrooms Shared Bathroom	68	136	7	7	9	9	9	9	9	9
Standard - Shared (Accessible)	2 Bedrooms Shared Bathroom Accessible	10	20	1		1	2	2	1	1	2
Standard - Private (Accessible)	Private Bedroom Private Bathroom Accessible	4	4	1			1	1		1	
Nomad - Private	Private Bedroom Private Kitchen Private Bathroom	18	18			3	3	3	3	3	3
Nomad - Private (Accessible)	Private Bedroom Private Kitchen Private Bathroom Accessible	6	6			1	1	1	1	1	1

Resident Advisor Suite (Accessible)	Private Bedroom Private Kitchen Private Living Room Private Bathroom Accessible	4	4		1	1			1	1	
Total		**110**	**188**	**9**	**8**	**15**	**16**	**16**	**15**	**16**	**15**

Typical Residential Unit Floor Plans

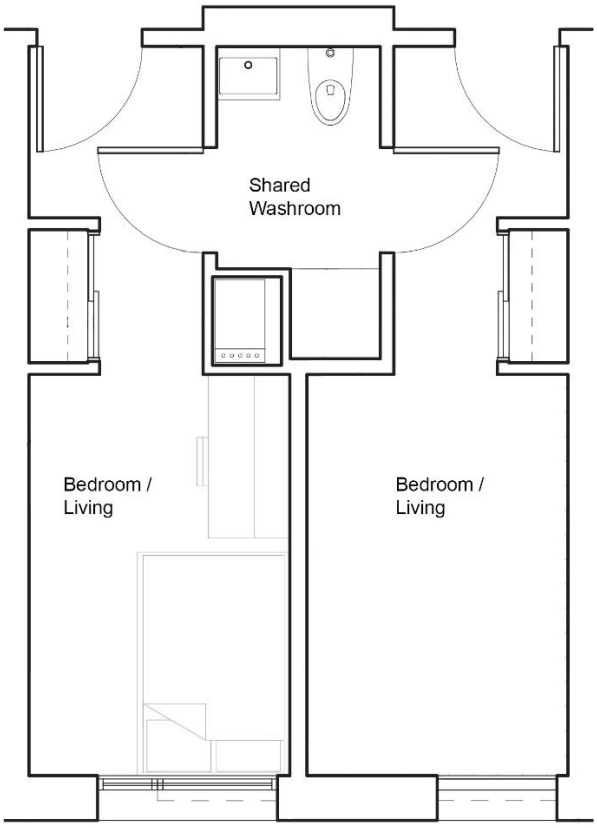

Figure 14– Typical Standard Unit
Images Courtesy of Michael Maltzan Architects / architects Alliance

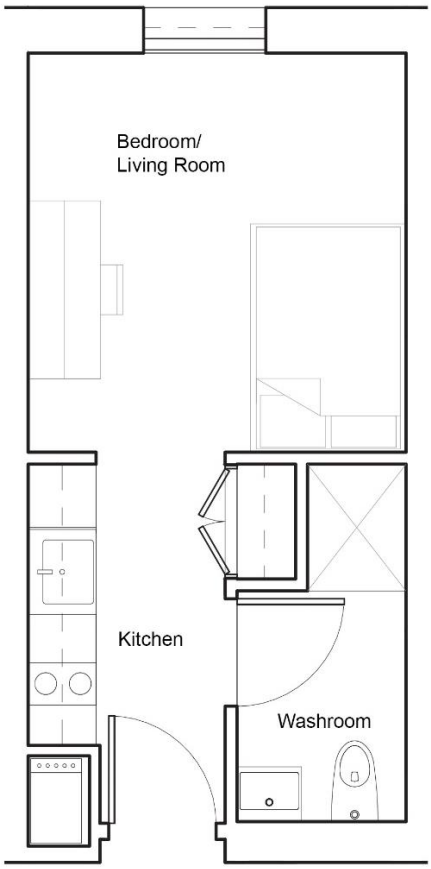

Figure 15–Typical Nomad Unit

Common Facilities

One of the primary considerations for Harbord Residence is to create a single student community with shared amenities. The establishment of Graduate Resident's Community boundaries will require carefully considered architectural and programmatic layouts to strike a balance between Resident's access to, and perception of, the two buildings' amenity spaces. The location of amenity space at, or readily accessed from, connection points between the two buildings and at elevators is a strategy that will allow for sharing of communal amenities while maintaining privacy to residential spaces. Two connections between Graduate House and the Harbord Residence are proposed. The first is a Basement level connection between Harbord Residence and the Graduate House's TV Room, Games Room and Courtyard as well as other residence amenities such as laundry, storage rooms and bicycle storage. Existing Graduate House spaces altered by a below grade connection to Harbord Residence will require reciprocal programming elsewhere, in either residence. The Theatre/TV Room is potentially one such space to be added to the basement level of Harbord Residence or included within the second floor Common Lounge.

The other proposed main connection point is from Level 3 of Graduate House to Level 3 of Harbord Residence above the interstitial public lane. The third floor of Graduate House is an ideal connection point, as it is the most utilized residence floor – servicing approximately 28% of the entire Graduate House population (as highlighted in Figure 2). This connection will allow residents access to the large common space/lounge and Residence Life Offices in Harbord Residence.

<u>Common Facilities</u>

A range of common spaces are envisaged including: localized common spaces at residence floors and centrally located common spaces shared with Graduate House on the lower levels of Harbord Residence..

Larger common lounges, music rooms, quiet study rooms and meeting spaces will be shared with Graduate House on the common basement, ground and second and third floors. Consolidating shared common space and meeting space on the lower floors is to provide a sense of privacy for Harbord Residence residents by limiting guest access to levels 3 and below, with public accessibility decreasing from the ground floor upwards.

Each residence floor will have access to a small common lounge for the exclusive use of residents, which should be located adjacent to the elevators for ease of access, avoid creating dead spaces at the end of hallways and to have them psychologically "central" to the. Centralising the spaces increases visibility/safety and encourages use. Resident-access common spaces will be provided on residential floors of Harbord Residence (levels 3 to 9) These Residential Floor Lounges will be located in coordination with Residence Advisor's Suites to provide access to student residents directly from the residential elevator lobby and arranged vertically so that all residential floors are a minimum of 1 floor

level away from either a lounge or an RA suite. The location of the Residential Floor Lounges allows for expansive exterior glazing providing expansive views east towards the Historic Campus.

Residential Floor Lounge Summary

Space Type	Description	Quantity	Spaces by Floor							
			2	3	4	5	6	7	8	9
Residential Floor Lounge	Floor Lounge Accessible	4		1	1			1	1	

Effective use of windows at the ends of corridors and along common passageways are emphasized to allow for as much natural light as possible to flow into the entire residence space (corridors, lounges, rooms, etc.).

Given the number of students living on each floor, significant consideration will be given to sound separation and location of circulation corridors.

Design will pay careful attention to corridor detailing and use of lighting and colour to diminish the 'institutional' feeling, while at the same time providing for a logical layout and room configuration that is conducive to wayfinding and casual meeting with fellow students on the same floor. As such, long corridors are avoided.

Common washrooms for public use are coordinated with security and access to limit non-resident washroom access to the ground floor only.

Common Facilities located on the ground floor include:

- Event space/lounge seating/Food Market Seating
- Café & Café Seating
- Exterior Patio Seating
- Entrance Vestibules and Lobby Area
- Long Term Bicycle Parking Access / Short Tem Bicycle Parking
- Residence Mail Room to and Mail Boxes / Parcel deliveries to be consolidated within renovated Graduate House Mail Room

Common Facilities located below-grade include:

- Residence storage for furniture;
- Residence storage for long-term bicycle parking; and
- Laundry Room (Combined Graduate House/Harbord Residence)
- Three Music Rooms

Facilities located in the basement are located adjacent to elevators / stairs / student traffic to promote a sense of safety. A central east-west corridor connects the residential elevator in Harbord Residence with the below grade tunnel connection to Graduate House. Amenities listed above front onto the east-west corridor.

Common Facilities located on the second floor include:

- Study/meeting Room (8-10 person);
- Meeting Space / Boardroom;
- Exterior terrace;
- Quiet study lounge;
- Large common residence lounge;
- Residence Lounge;
- Communal kitchen;
- Storage; and
- Washroom Facilities

Common Facilities located on the third floor include:

- Study/meeting Rooms (8-10 person);
- Residence Life Offices and Office Support Spaces
- Exterior terrace;
- Quiet study lounges;
- Informal Lounge;
- Storage; and
- Washroom Facilities

Retail Space

The food concept proposed for this residence will be unique to campus and will include space for:

- The Food Market;
- Seating;
- Café/Café Seating;
- Washrooms;
- Production Kitchen;
- Dish Room/Station;
- Storage; and,
- Receiving Area.

Unlike the model of a standard cafeteria, the declining balance meal plan allows students to come and go, resulting in the need for less or more flexible seating. The Food Market is designed in conjunction with the event space to create as a single space, able to accommodate the combined Graduate House/Harbord Residence community for special events, lectures and communal meals. The space includes a retractable divider curtain to allow the event space to be separated from the Food Market are required.

In addition to serving residents, the Food Market will be a vibrant space that serves the whole university, welcomes the neighbouring community, animates the building and provides an active and interesting starting point for the Huron-Sussex "Living Lane". It has been designed as a neighbourhood restaurant and meeting-place, rather than as an institutional dining hall.

Retail support space located below-grade include:

- Staff change rooms; and,
- Storage

Venting location of production kitchen is to be coordinated with resident rooms, common spaces and adjacent uses (Graduate House and Daycare) to minimize direct impact of odor and noise on occupants.

See Appendix: *Harbord Residence Food Services Plan*

Residence Life Facilities

To support the Residence Life program, dedicated office, meeting and storage space for Residence Assistants and Residence Council are provided on the third floor of the Harbord Residence, connected to the main common space and to other meeting and study rooms on the second and third floors. The residence life facilities include:

- One dedicated Residence Life meeting space and storage area;
- Residence Advisor Office/Meeting Room with Secure Storage (4-6);
- Office for Residence Council (2-4);
- Two administrative shared offices space for 2 peak season employees each;
- Copy and storage room; and,
- Workshop/Office Space for Maintenance Supervisor (Located in Receiving/Waste Management area on Ground Floor adjacent to service Elevator)

Exterior Amenity Space

The shifting of the residential tower massing to the south creates the opportunity for a large roof terrace at the second and third floors. The proposed roof terrace incorporates landscaping elements, walkways,

gathering spaces fronting the second and third floor common amenity spaces. The terrace is partially screened to/from the adjacent neighbourhood to the north via house form brick walls alternating with glazed guards. The second floor roof terrace/garden will only be accessible to residents and is designed to account for resident's privacy and access to natural light and ventilation. The third floor roof terrace is located at the west end of the second floor roof terrace. The 'lifting' of the roof terrace at the North-West corner accommodates the required ceiling height of the loading facility on the ground floor below. This terrace has a large brick screen wall at the North-West corner and overlooks the second floor roof terrace and the western laneway. Residence Life offices overlook the third floor roof terrace while other common program spaces on the third floor overlook the second floor roof terrace. Both the second and third floor roof terraces are accessible and meet green roof requirements in line with City of Toronto requirements and U of T policy as outlined in the Sustainability section of this report.

c) Building Considerations

Standards of Construction

The building must feel comfortable, welcoming, and occupant friendly. As a graduate student residence, the design is to meet the needs of an older, diverse, well-educated, sophisticated and professional student population. The residence design is to provide programmatic and architectural spaces well suited to the individual and corporate needs of a graduate community and its members. Recent residences constructed on campus are representative of the level of quality and finish desired for this project. Equally important, the building must be functional and robust with durable materials and details that can be easily maintained. It is not the intent to replicate Graduate House but to harmonize the proposed building with the existing aesthetic. Building design should minimize horizontal ledges and other external surfaces or attachments that encourage perching, nesting, etc. by pigeons and other pest animals; the continuous horizontal ledges (three per floor) at Graduate House are attractive roosting areas and the resulting expense of deterrent measures is significant and ongoing. The horizontal ledges also inhibit ease of exterior window cleaning.

Durable, low-maintenance, standardization and availability of fixtures and finishes are essential, for ease of cleaning, replacement and repair. The design should balance these needs with overall aesthetics and composition. Materials are to be chosen to limit the institutional feel of the interior spaces and promote a residential aesthetic.

The building is to be designed to maximize access to natural light, both within the residence suites and common areas. The interior spaces of the residence are to be perceived as airy and well lit while providing options for lighting control (shades, black-out blinds). Artificial lighting is to be designed to maintain the overall warmth and inviting feel of the residence.

The exterior design of the Harbord Residence employs brick masonry facades with strategic brick detailing, 'punched' windows and podium level 'house form' screening to reflect the traditional brick housing of the Huron Sussex Neighbourhood. A glazed ground floor and second and third floor common amenity spaces provide transparency and animation to the ground plane and roof terrace level. Large, expressive windows on the east façade provide further animation to the east and provide occupants with views of the historic St. George Campus.

Building characteristics and massing

Floor-to-floor heights

Nine levels above grade plus penthouse, with proposed floor-to-floor heights:

- Basement level is required with sufficient height for a production kitchen (3.9 m);
- Retail / dining / event space at grade (4.38 m);
- Second level common space and meeting space (2.85m);
- Third level common space and Residence Life Offices (3.24m);
- Typical residential floors levels 4-8 (2.65 m);
- Residential floor levels 9 (3.00 m); and,
- Mechanical Penthouse (3.5m)

Total building height is 26.69 m to top of main residential parapet and 30.19 m to top of mechanical penthouse. An elevator over-run is required to accommodate a single elevator to the mechanical penthouse. The top of the elevator over-run is anticipated to be 32.69 m from established grade.

The Building Height was subject to discussion with the community through one public open house and three Councillor's Working Group meetings with the City of Toronto and the Huron Sussex Residents Organization (HSRO). Floor-to-floor heights were minimized to provide the maximum number of residential units and program area while keeping as close as possible to the 26m - 8 storey building height identified in the Huron Sussex Neighbourhood Planning Study.

Figure 16 – Building Section: Image Courtesy of Michael Maltzan Architects / architects Alliance

Built form

A three storey podium with six storeys above is proposed for a total massing of 9 storeys + mechanical penthouse. The podium massing is shifted south to provide a wider laneway to the north and allow the upper floors to be positioned as far south as possible to increase transition in massing height to the neighbourhood and decrease the impact of shadowing on the Early Learning Centre to the north. This strategy allows for increased open amenity space, and a sensitive response to the low rise scale to the North of the site. The proposed height is appropriate to an arterial road 20m right-of-way and to existing and proposed building heights in context.

The ground floor (and basement level) are proposed to be full floor plates to support site servicing, the Food Market, and other amenities such as bicycle parking and laundry facilities. The Ground floor Food Market is to create an active street frontage on both Harbord Street, the Living Lane and the North Laneway and provide entrances which support the laneway in keeping with the proposed University of Toronto St. George Campus Secondary Plan. To achieve a wider laneway at the north of the site, a conveyance of 0.21m wide by the length of the North property line was conveyed to the City of Toronto through the Rezoning process, revising the actual laneway width to 6.04m with a right of way of 7.5m.

Levels two and three contain a mix of residential units to the south and common amenity space and roof terraces to the north to step back from the North edge of the site (adjacent to the Early Learning Centre). Levels four to nine are efficient residential floor plates within a mid-rise tower massing in keeping with that of Graduate House and are shifted as far south as possible with a setback at Harbord Street. The shifting of the taller massing increases the transition to the residential context to the North. This shifting also improves shadowing to the North and aligns with the primary Graduate House service core to the West, minimizing disruption to existing Graduate house East façade windows. A summary of floor plate sizes includes:

Ground Level:	1,146 gsm
Levels 2:	1,086 gsm
Levels 3:	1,000 gsm
Level 4:	788 gsm
Level 5:	788 gsm
Level 6:	788 gsm
Level 7:	788 gsm
Level 8:	788 gsm
Level 9:	788 gsm
Penthouse:	449 gsm

The impact of shadow and massing to the outdoor playground area of the Early Learning Centre were of particular importance in shaping the proposed building envelope. Shadow impact studies show that the Harbord Residence's narrow residential floor plate, shifted to the South does not have a significant impact on the Early Learning Centre.

Figure 17 - Shadow Study Showing Graduate House and Harbord Residence on September 21: Image Courtesy of Michael Maltzan Architects / architects Alliance

The design of the built form was carefully considered to align with the context of the site through the continuation of the 3rd floor datum and overall building height established by Graduate House. This Datum, coupled with the 3m setback at floors 4-9 contributes to a well transitioned corner from Spadina Avenue onto Harbord.

The South and East ground floor façades have been setback from the property second and third floor building faces to create a protective overhang along Harbord Street and the Living Lane. Below the overhang outdoor dining, seating, landscaping, the expansively glazed building façade and building entrances at the West, Centre and Eastern corners of the Harbord Residence are located. The residential building entrance and lobby is located on the South East corner, setback from Harbord Street to establish an entry 'plaza' contributing to the South 'Gateway' of the future Living Lane. The recessed & transparent ground floor creates a heightened and expanded public realm with clear views from the South-West corner to the North-East corner of the ground floor.

Massing of the North Façade at the Second and Third floors employs 'house form' perforated brick screening of the Roof Terraces to reflect and reference the materiality, form and scale of the Huron Sussex Neighbourhood to the north.

Figure 18 – View from the Southeast: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 19 – View from the Southwest: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 20– View from the Northeast: Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 21 – View of East Façade – Lower Floors: Image Courtesy of Michael Maltzan Architects / architects Alliance

Key building components and systems

Accessibility

Identified in the University's Student Housing Policy, 2006:

> Student housing at the University shall be administered in a manner that is conscious of the varied needs of our highly diverse student population...The University of Toronto, together with the Federated Universities and other housing partners, are committed to offering housing for all students with disabilities who desire on-campus accommodation and who have registered with the Accessibility Service on their campus, where it is appropriate and reasonable to do so.

The minimum criteria of the current Ontario Building Code requires that 15% of the provided suites be accessible which results in a basic unit mix of 154 beds and 34 accessible beds located as evenly as possible throughout the building. The unit mix provides 22% of units and 18% of beds as compliant with Accessibility standards and the AODA. Accessible units will include a diversity of unit types including Standard-Shared, Standard-Private, Nomad and Residence Advisor Suites. Rooms are to be designed to be large enough to accommodate students requiring a mobile chair with a clear turning radius of between 1.25m and 2.1m (Radius) should also be considered if space permits.

Residential Unit Mix

Space Type	Description	Quantity	Bed Quantity	Spaces by Floor							
				2	3	4	5	6	7	8	9
Standard	Standard Unit	68	136	7	7	9	9	9	9	9	9
Standard Accessible	Accessible Unit	14	24	2		1	3	3	1	2	2
Nomad	Standard Unit	18	18			3	3	3	3	3	3
Nomad Accessible	Accessible Unit	6	6			1	1	1	1	1	1
Resident Advisor Suite	Accessible Unit	4	4		1	1			1	1	
Total		**110**	**188**	**9**	**8**	**15**	**16**	**16**	**15**	**16**	**15**

Total Accessible Units	**24**
% Accessible Units	**22%**
Total Accessible Beds	**34**
% Accessible Beds	**18%**

The University is committed to students' equitable access to all of the building's facilities, including the second and third floor roof terraces, Residential Common Areas and Food Market.

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/).

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

Personal safety and security

Personal safety is of paramount consideration. Transparent common rooms and public areas, including stairwells, are specified glass where possible to allow for visual access.

Exterior lighting should be abundant and provide for ease of movement around the exterior of the complex at all times of the day.

The residence component will have secured access to the residential levels (floors two to nine). The design allows for maximum flow throughout the residence once a student has gained access into the building through the computerized card-entry system, while still making significant considerations for personal safety and security at every opportunity. Doors to individual bedrooms will be individually keyed, as will storage areas, and common & study lounges.

Consultation with Police Services and the Community Safety Office is essential.

The building will not have its own porter's desk. Instead, students will be served by the existing Graduate House Office next door, and a shared after-hours support system will be implemented for the two residences. Security cameras will be linked to the existing Graduate House camera system.

A wet pipe, hydraulically sized sprinkler system shall be installed for the building. Sprinkler design shall be to NFPA 13.

The Harbord Residence will include a building stand pipe system and fire hose cabinets.

The building will be provided with an addressable single stage fire alarm system with battery charger and standby batteries.

Servicing (including garbage and recycling, deliveries)

Servicing required for delivery (retail / restaurant) and waste management (garbage/recycling/compost pick up) will be located on the West Façade of the building as the West laneway, which also serves Graduate House will be maintained for service. Peak residence deliveries and drop offs on move-in/move-out days will need to be accommodated within the laneway and street network. The project will provide one Class 'B' and one Class 'G' loading area with the Class B loading internal to the building at the North-West corner and the Class 'G' located within the laneway further South along the west elevation. The waste facility will contain a compactor.

Attention is to be paid to limiting the impact of venting, odours, exhaust and noise on occupants and adjacent properties including the Early Learning Centre located on the north side of the site.

Accommodation for a staff washroom with sink, toilet within the servicing area is to be provided. Staff change rooms, will be located on the basement level.

Floor level refuse and recycling areas are to also provide for composting. In keeping with Food Service's Zero Waste initiative a 'Food Digester' will be included in the building services to process production kitchen waste.

Acoustics

Sound insulation is important in between rooms and corridors; the same is true for study and meeting rooms.

The design and detailing of the façade should incorporate measures to damper traffic noise on Harbord Street to the greatest degree possible.

Sustainability design and energy conservation

The University of Toronto is committed to reducing its scope 1 and 2 greenhouse gas (GHG) emissions by at least 37% below its 1990 level of 116,959 tonnes eCO2 by 2030, targeting a net-zero GHG institution by 2050. To accomplish this, the University has retired the previous Energy Performance and Modelling Standard (April 1, 2019) and introduced this now-governing Tri-Campus Energy Modelling & Utility Performances Standard. This new standard provides project-specific energy and water efficiency

targets, used to calculate energy and GHG project budgets, and necessary to achieve the 2030 goal, while also introducing a streamlined modelling and documentation submission approach Although the Harbord Residence design was initiated prior to the implementation of newer energy standards, the residence project will be designed to anticipate the future state of the St. George Campus as a leader in sustainable development. The Harbord Residence building systems have been designed to operate with current campus utility provisions and to connect to and operate with the updated carbon neutral campus energy system in the future.

The previous U of T Policy Statement of Energy Efficiency (Policy) requirements for new buildings, effective January 1, 2017, is that all new buildings shall have an energy use index at a minimum, 20% better than that calculated using ASHRAE 90.1 – 2013, Appendix G "Performance Rating Method". In addition, the Project Consultant Team shall present design options that could achieve 40% better energy performance compared to ASHRAE 90.1-2013 preferably with payback of 15 years or less for consideration by the U of T Implementation Committee.

ASHRAE provides Standards for all components within buildings – HVAC, windows, lighting, modeling, envelope, ventilation and reviewed by industry experts. It allows for prescriptive and performance based compliance paths to meet the minimum energy use. Toronto Green Development Standards (TGDS), OBC** and LEED use ASHRAE 90.1 to define energy efficiency targets.

Building energy performance modeling during the design of a new building shall serve several purposes. The primary objective is to inform design decisions in a way that guides the designs toward the University's goals of sustainable energy efficiency, reduced carbon footprint and optimal long-term building performance and comfort of its occupants. It is recognized that the detail and resolution of the performance assessment through modeling will refine as the design progresses from concept through design development to tendering and then on-going measurement and verification.

Energy modeling coupled with Life Cycle Cost Analyses (LCA) will serve as tools throughout design to evaluate design options and make appropriate choices that support the University of Toronto's pursuit of sustainable reduced energy use and lower carbon footprint with long term comfort.

At each design phase model submission, the consultant team will be expected to submit the energy model with EUI (Energy Use Intensity) metrics to test the energy performance for alignment with U of T Policy and standards. See Appendix 5 for UofT's Energy Modeling Guidelines.

As with recent building projects at the University this project will be designed and constructed to a minimum LEED® Silver level, however the project is not anticipated to be certified LEED. The building is designed to meet the Toronto Green Building Standard Tier 1.

Integration of environmentally sustainable principles into buildings, transportation options and landscapes, across all categories (materials, indoor air quality, water use and waste reduction) in addition to energy, is a high priority for the University. In accordance with City criteria, all new buildings shall be designed to meet the Toronto Green Development Standard, Tier 1, at a minimum. City of Toronto Green Roof Bylaw No. 583-2009, Chapter 492 provides green roof requirements. The Green Roof Bylaw green (vegetated) roof requirement estimated for this project is 30% coverage of the roof area. With an

approximate roof area of 1,372 sq.m. this equates to 412 sq.m. of required green roof which may be distributed on the second level (or third), sixth level, and eighth level roof areas.

Notable Sustainable Design Features include:

GENERAL

.1 The base mechanical design incorporates energy conservation and sustainable design measures in order reduce the building's operating costs, lower the impact it will have on the outdoor environment and improve the quality of the indoor environment. Some of the measures incorporated or to be considered are as follows,

WATER USAGE

.1 Cistern shall be used to reclaim water from the roof and reuse it to, irrigate, flush toilets and water closets. (Owner to confirm)

.2 Low flow fixtures shall be used throughout to minimize water usage. Refer to the plumbing section for performance values.

HEAT RECOVERY

.1 Make up air systems shall use heat recovery wheels to reclaim energy from general exhaust and sanitary systems.

.2 Grey water heat recovery considered for the shower drainage.

.3 The future use of the central Sofame system is being accommodated for a conversion project in the future.

EQUIPMENT IMPROVEMENTS

.1 All mechanical cooling equipment will be CFC and HCFC free.

.2 All new supply fans will be selected to operate at a static efficiency of 60% or greater.

.3 Ultra high efficiency motors shall be specified throughout.

.4 Variable frequency drives shall be used on pumping and fan systems to save considerable energy at part loads as described in the HVAC systems section.

INDOOR AIR QUALITY

.1 Ventilation systems shall meet the requirements of ASHRAE 62.1

.2 Indoor air quality shall meet ASHRAE 55

DEMAND CONTROL VENTILATION

.1 Demand control ventilation shall be applied to the kitchen system and the amenity ventilation system.

Further sustainable strategies considered include:

- Low flow and water efficient fixtures
- Durable, low VOC and renewable or recycled content materials
- Natural ventilation
- Super-insulated low albedo or green roofing

- LED lamps
- Energy Star or equivalently rated equipment (to UofT Standard)
- Solar shading
- High performance building envelope
- Equipment and systems must be put in place so that the long-term energy and water efficiency can be monitored and verified.

Please refer to the *Standards of Construction* section earlier in this report for further sustainability ideas as they relate to constructability.

Environmental Health and Safety

The loading area is proposed along the West edge of the building with servicing occurring from the laneway between Graduate House and Harbord Residence. Due to the narrow lane however, the ability for trucks to turn towards the building and into a receiving area may be challenging and will require more detailed consideration as noted in the consultant provided traffic study report. Safety design for receiving areas and loading docks will require input from University Environmental Health and Safety to discuss aspects such as having an elevated dock versus loading at grade. A dock leveler might be proposed for receiving purposes – to help negotiate the elevation difference and to avoid the need for a large internal ramp which will consume useful floor area – but the logistics of loading will have to be studied further and will most likely be similar to current loading practices used by Graduate House.

d) Site Considerations

Campus Planning

U of T Masterplan and Secondary Plan

In September 2016 the University submitted an application to the City to amend the Official Plan, to adopt a new Secondary Plan for the St George Campus Area. The Secondary Plan application, which includes numerous supporting documents and studies, including draft Urban Design Guidelines, was resubmitted in February 2018 in response to City feedback and consultation. City review is in process, anticipated to be at City Council in Q2 2022. The Plan will replace the existing 1997 University of Toronto Secondary Plan. The Secondary Plan and Urban Design Guidelines reflect the objectives and vision of the 2011 St George Campus Master Plan and the Huron Sussex Neighbourhood Planning Study.

Zoning Regulations

The site is a consolidation of seven University-owned parcels (40-56 Harbord Street). The properties are zoned Residential (R3 Z1.0) as per Zoning By-law 438-86. Current permissions allow for a residence building owned and operated by the University, a gross area equal to one times lot area, and a maximum

permissible height of 12 m. The 2018 resubmission of the St. George Campus Secondary Plan application included Draft urban design guidelines. These guidelines propose a building height of 26m (with additional allowance for a mechanical penthouse), and a setback of 3m from the Harbord frontage (it is assumed that the levels below grade can encroach into the setback as needed for the functional plan). These guidelines follow the recommendations within the Huron Sussex Neighbourhood Planning Study.

An Official Plan Amendment and a Zoning Bylaw Amendment application were presented and adopted at the April 21, 2021 Community Council Meeting. The amendment to the By-law included revisions to the property boundary, project specific maximum development area and height allowances; loading facility designation; removal of parking and stipulation of minimum bicycle parking provisions.

In conjunction with the OPA and Rezoning submission the Site Plan Approval application was submitted to the City of Toronto for the Harbord Residence. Notice of Approved Conditions is expected to be finalized in April of 2022.

The site area has been calculated to be 1,537 sq.m.

Community Consultations

As the Harbord Residence is located within the Huron-Sussex Neighbourhood and the site was considered in the 2014 Huron-Sussex Neighbourhood Planning Study, an initial community consultation and open house was conducted on October 17, 2019, prior to the University submitting development applications for the site. The open house was well attended by the local community including the Huron Sussex Residents Organization and The Harbord Village Residents Association and Ward 10 Councillor Layton. As a result of the discussion from the meeting, Councillor Layton requested that a Working Group be established, led by the Councillor's office. The Working Group Meetings included the City of Toronto Councilor's office, City Planning, members of the HSRO, representation from the University of Toronto Students' Union and Graduate Students, the University Planning, as well as members of the University of Toronto Harbord Residence Project Committee including Ancillary Services, Student Housing University Planning and design Consultants. Three Councillor's Working Group meetings were held on-line (due to COVID-19) on March 9, 2020, April 17, 2020 and on August 18, 2021 respectively. The presentations and discussions included in these meetings produced and agreement between the City, the HSRO and UofT on acceptable revisions to the Building Height and Massing.

A fourth Councilor's working Group meeting was requested by the HSRO and held on-line on January 10, 2022 to discuss public realm and landscaping aspects of the proposed design submitted for Site Plan Approval.

Further consultation included a community update meeting held on-line on September 17, 2020.

Design Review Committee

The Harbord Residence was presented and reviewed by the University of Toronto Design Review Committee (DRC) on March 7, 2019, May 22, 2019, October 2, 2019 and February 23, 2021. The gap between the third and fourth DRC meeting was primarily due to the Councillor's Working Group schedule and subsequent design revision coordination.

Site Context

The proposed residence will be located adjacent to the University's Graduate House to the West, the Early Learning Centre (ELC) to the North, and the Wolfond Centre for Jewish Campus Life to the East. In addition, there is a residence development approval directly North of the site for eight storeys at 15 Glen Morris, a sliver between Graduate House and ELC. The project will:

- Promote an animated pedestrian experience along the prominent street edges of Harbord Street and the proposed Living Lane;
- Help establish a prominent entrance to the Living Lane as a pedestrian gateway to the Huron-Sussex Neighbourhood Community by considering ground floor relationships; and,
- Provide a sensitive infill project that is in keeping with the Huron Sussex Neighbourhood Planning Study that directs development to Spadina Avenue and Harbord Street to conserve the lower-scale core of the neighbourhood.

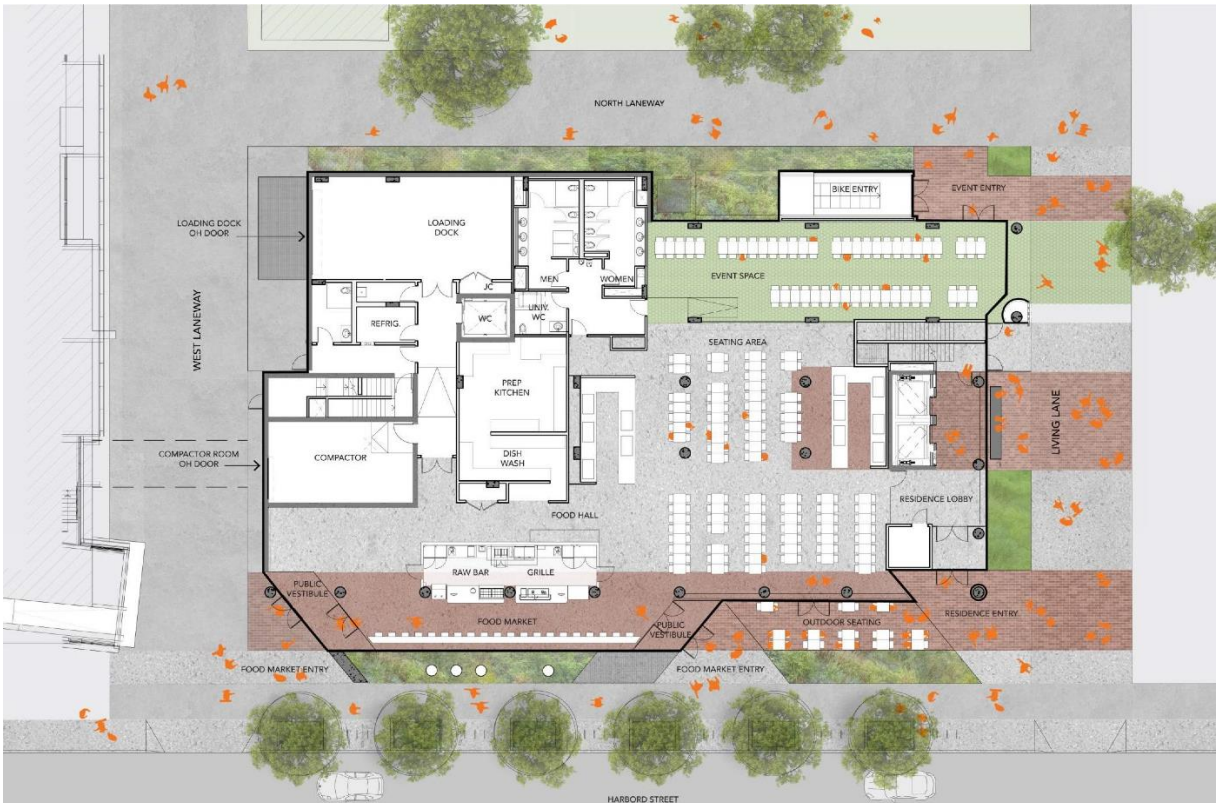

Figure 22–Site Plan; Image Courtesy of Michael Maltzan Architects / architects Alliance

The site, bound on three sides by municipal laneways and Harbord Street to the South, is located in the Northwest sector of campus as per the 2011 St. George Campus Master Plan. Graduate House at the corner of Harbord and Spadina marks the University's entry from the West, with University of Toronto signage extending over Harbord Street.

The Master Plan identified the campus West of St. George as the least defined and in most need of concentrated planning efforts. Unlike Harbord Village, a vibrant retail, restaurant, and residential district West of Spadina, buildings along Harbord Street at this location have little connection to the surrounding community; this is particularly true of the Athletics building located on the South side of Harbord. The Master Plan calls for new at-grade program with active uses such as cafes, gyms, and study space. This proposed residence and future buildings along Harbord (Site 4-Robarts Commons and Site D-Ramsay Wright) have the potential to enliven the street and engage pedestrians both in terms of function and scale.

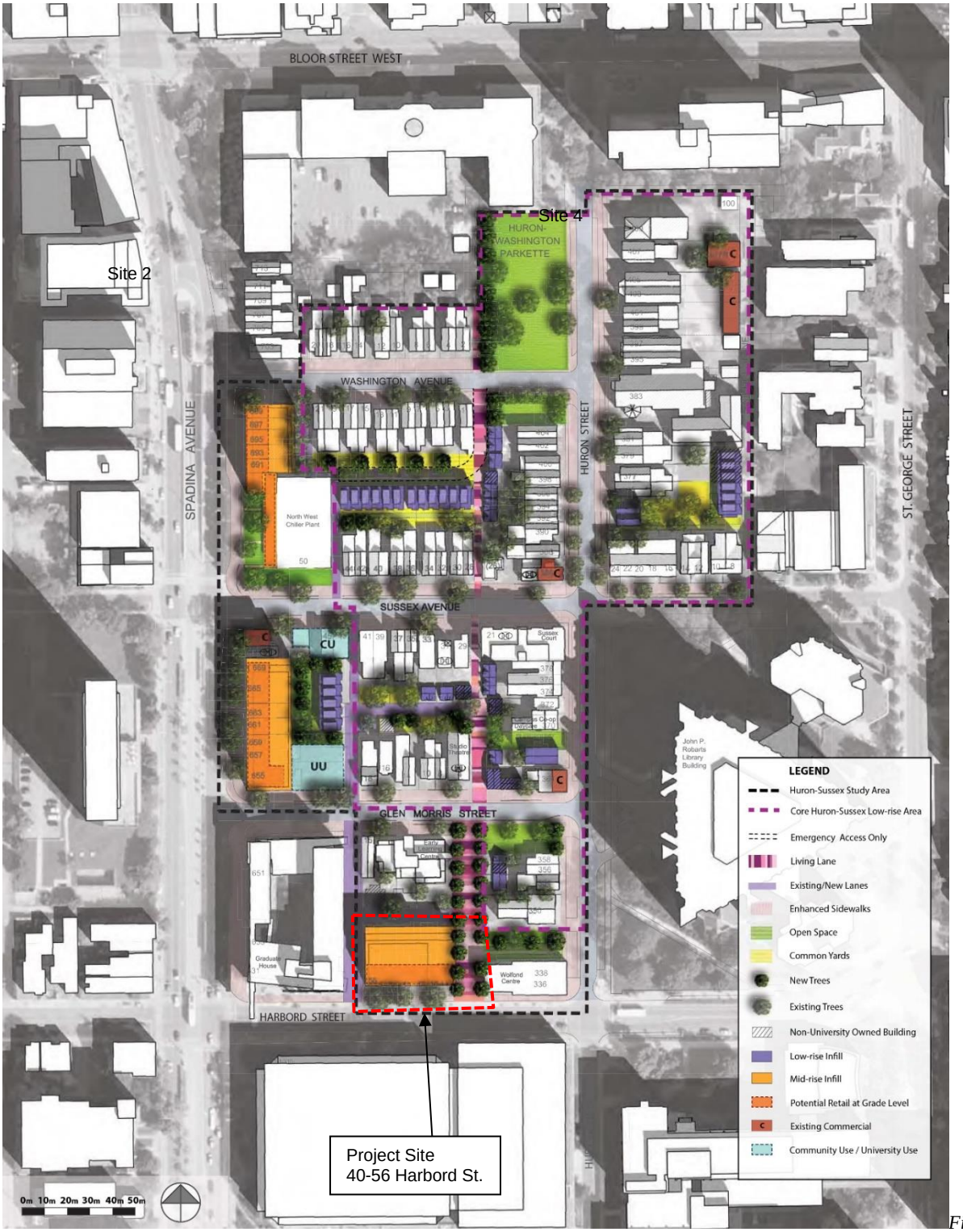

Figure 23 – 2014 Huron Sussex Neighbourhood Planning Study: Revised Draft Site Plan (April 2014)

While the proposed student residence site was not considered at the time the 2011 St. George Campus Master Plan was developed, it is included in the Huron Sussex Neighborhood Planning Study completed in 2014. One of the Study's objectives was to 'identify suitable areas and appropriate mix for intensification or redevelopment to support the university mission…' within the neighbourhood. This edge site is significantly different from the residential neighborhood characterized by Victorian homes in the core, and is identified as an opportunity for intensification (midrise development).

Site Access

Harbord Street is classified as minor arterial with bus, bike, pedestrian and vehicular traffic.

An existing service lane runs north-south between Harbord and Glen Morris Streets along the East side of Graduate House. The service entrance required for deliveries to the retail/restaurant component of the project and for waste management will be located on the West and/or Northwest corner of the building, adjacent to the Graduate House loading area. This will include a 'Class B' loading and a 'Class G' Waste facility provision. Potential congestion in the lane should be considered as anticipated servicing may double unless waste collection can be coordinated between the buildings. A traffic report was complete by BA Group as part of the Rezoning and Site Plan Approval application documentation.

The main residence entrance is proposed on the South East corner of the building to reinforce the Gateway condition of the Harbord Residence to the southern end of the future Living Lane. Locating the primary Residential Entrance at this corner will provide animation to the Living Lane through the comings and goings of the Harbord Residence residents. The residential entrance is recessed north of the main ground floor south elevation to increase the sense of an entry 'plaza' anticipating the future Living Lane.

Entrances to the publicly accessible Food Market will be located at the South-West Corner and centrally along the South Façade. An additional entrance to the Event Space will be located at the North-East corner of the building allowing the event space to expand into the laneways for special events and providing further public realm connections between the Harbord Residence and the surrounding laneway system.

All main building entrances are recessed from the second and third floor levels, providing a covered entrance. Heat tracing will be provided at all entrances to reduce operational maintenance requirements during winter weather.

Access to the long-term residents Bicycle Storage on the basement level is via a stair with bicycle rails located on the north side of the Harbord Residence. Entrance doors at grade provide direct access to the bicycle storage and maintenance facilities below.

Pedestrian Routes

Both the 2011 St. George Master Plan and Huron Sussex Neighbourhood Planning Study encourage revitalization of public streets, and lanes. The Master Plan recommends ground-floor programming of new construction to enliven the street level and the Planning Study calls for the 'Living Lane' described in Figure 11 below.

Figure 24:
Excerpt from the Huron Sussex Development Plan (P.ix):
The Living Lane will be the central 'spine' that connects streets, blocks and open spaces. Extending north south from Harbord Street to the Huron-Washington Parkette, the Living Lane will accommodate vehicles but will be designed to promote pedestrian-priority. The Living Lane will have flexible public parking spaces at Harbord Street and private parking within the laneway housing. It will be well landscaped, paved with high quality materials and well lit. Public art, signage and seating will enhance the lane.

The Living Lane is envisioned as a conversion from service lane to being predominantly pedestrian-oriented. While there is a desire to pedestrianize laneways, fire access and servicing must be maintained.

Landscape and open space

Hardscaping and soft landscaping is to be included at primary and secondary residence entrances along Harbord Street, the North laneway and at the Living Lane. Hardscaping and planting is to enliven the street and support and integrate with pedestrian access, bicycle parking and potential café seating associated with the Food Market.

The Living Lane project is currently in early stages of development including the coordination and feasibility of the new campus-wide servicing network as part of the Climate Positive Campus initiative. https://climatepositive.utoronto.ca/. As part of the Living Lane a masterplan for landscaping, paving and open space will be developed. Provision for landscaping and hardscaping along the Living Lane, but within the project site boundary is included in the current scope of work for the Harbord Residence project. Provision of at grade planting includes shrubs, flowers and grasses. Local plant species have been selected for resiliency and pollinator support.

An outdoor patio and dining area access from the Food Market will be screened from the Harbord Street sidewalk by a planted berm. Benches are provided at the East and West entrances.

New City of Toronto street trees, with soil cell infrastructure, will replace the existing trees along Harbord Street. Interspersed between the new street trees, short term City of Toronto compliant bicycle parking stations will be provided.

Surface paving will be a mix of concrete unit pavers, concrete and stamped concrete. The Surface paving will be coordinated with specific use (ie. Loading, entry, etc.) and will be designed to appear as an extension of the interior flooring surfaces through the glazed ground floor façade.

Planting will be provided at the expanded setback along the North property line and will include a planted roof at the sloped long-term bicycle parking entrance.

At the roof terrace spaces landscaping will include planting beds, berms and large flowering Dogwood shrubs to provide an attractive amenity space, support pollinators and contribute to the overall landscape and greening of the neighbourhood.

The ‘blank’ north façade of the loading facility at the North-West corner of the Harbord Residence has been identified as a place for public art. The implementation process of the artwork will be developed and will include community consultation.

Figure 25 –Landscaping: Planting; Image Courtesy of Michael Maltzan Architects / architects Alliance

Figure 26 – Landscaping: Pavingg; Image Courtesy of Michael Maltzan Architects / architects Alliance

Soil conditions

Existing houses have settlement issues; soil testing was provided as part of the design and entitlement process.

Demolition of Existing Structures and Heritage Status

Demolition of six houses and auxiliary buildings, as well as recently constructed garage structures used by the Grounds, is required. The University of Toronto St. George Campus Secondary Plan application

resubmitted in February 2018 included a Cultural Heritage Resource Assessment (CHRA) prepared by ERA Architects Inc. The CHRA included an assessment of the existing six houses to determine their cultural heritage value and contribution to the character area. At the request of the City of Toronto, the resubmission to the City contained a Memo drafted by ERA Architects Inc. describing a recommended Huron-Sussex Conservation Approach with further assessment of properties in the character area. The conservation approach states:

'By directing development away from the Core Huron Sussex Low-Rise Area and by ensuring an appropriate scale and built form, the Study and Development Plan may themselves be understood to constitute a heritage conservation strategy for Huron Sussex neighbourhood, as a whole.'
Heritage Preservation Services reviewed the heritage value of the existing 6 houses on the site and concluded that they did not merit heritage designation.
The Official Plan and Zoning Amendment Application – Final Report presented and carried by the Toronto and East York Community Council on March 30, 2021contained the following decisions on Hertitage and Rental Housing for the properties of 44-56 Harbord Street:

Heritage Impact and Conservation

As part of the update to the University of Toronto Secondary Plan, Heritage Planning staff evaluated all properties in the area for their value as potential heritage resources, including the subject site. In July 2018, 54 and 56 Harbord Street on the site were identified in the Status Report for the proposed Secondary Plan as having potential heritage value. Through the review of the properties for heritage potential, Heritage Planning staff determined that the properties would not merit inclusion on the City's Heritage Register. As such, a Heritage Impact Assessment was not required as part of the application submission.

Housing

The existing buildings on the site contain five rental dwelling units, four of which were vacant and one that was tenanted at the submission of the application. All units are currently vacant. As there are fewer than six residential dwelling units on the site, a Rental Housing Demolition and Conversion Application was not required.

Based on the Council-adopted Policy 3.2.1.12 in Official Plan Amendment 453, which states that new development that would have the effect of removing all or part of a private building or related group of buildings, and would result in the loss of one or more rental units or dwelling rooms will not be approved unless an acceptable tenant relocation and assistance plan is provided to lessen hardship for existing tenants, the applicant provided a tenant assistance plan for the tenanted unit. This was reviewed and accepted by City Planning Housing Policy staff.

Housing policies in Section 3.2.1 of the Official Plan outline that a full range of housing in terms of form, tenure and affordability across the City and within neighbourhoods, is to be provided and maintained to meet the current and future needs of residents. New housing supply will be encouraged

through intensification and infill that is consistent with the Official Plan, and the PPS and Growth Plan contain policies to support the development of a range of housing to accommodate the needs of all households. The proposed 188-bed student residence would be owned and operated by the University, would assist in meeting demand for additional purpose-built student housing in the area and achieve this through an appropriate built form and site layout. The site, on the campus with its mix of institutional uses and combined with on-site supportive uses, is an appropriate location for this type of housing.

As part of the Harbord Residence project the University of Toronto University Family Housing office (UFH) coordinated and implemented tenant relocation for the single occupied house at 54 Harbord Street. Tenant relocation was coordinated and implemented by UFH from July 2019 to November 202. Tenants moved in to another property within the Huron-Sussex neighbourhood on November 1, 2020 as agreed to by all parties. All existing houses are now vacant as of November 1, 2020.

e) Campus Infrastructure Considerations

Utilities (electrical, water, gas, steam lines)

Plans show the laneway between Graduate House and the site is relatively clear of utilities, allowing the potential to connect the two buildings below grade. Please refer to the Municipal Servicing Report by MMM included as an Appendix for an overview of utilities in the area. The University requires agreements with the City to both build below and bridge across the public lane at an upper level.

Currently all services on site are provided by others (Toronto Hydro, Enbridge, City water/sewage). Further details related to City services (water and sewers) are available under separate cover.

U of T supplies 13.8kV power and high temperature hot water from the south side of Harbord across to the Graduate House. Chilled water for Graduate House comes south down the alley adjacent to the residence.

Heating and Cooling

The heating plant shall consist of a connection to the campus utility plant services and the provision of two heat exchangers, pumps and ancillary equipment. A 75mm dia. (3") supply and return High Temperature Water Lines from the Central Steam Plant on Russell Street are available and fed through the existing Graduate House into the street and then into the subject development.

To accommodate a UofT request to coordinate the proposed construction with the future use of Sofame low temperature flue gas heat recovery hot water system and later carbon neutral heating systems Capped connections and space for a second set of heat exchangers compatible with the future system will be provided. All equipment will be sized to handle the load at low temperatures (140F) instead of the high temperature water lines.

The Energy Transfer Stations shall include a minimum of two flooded style heat exchangers sized at 100% capacity to generate low temperature hot water 60 deg. C (140 deg.F) for the building use. The low temperature hot water shall then be distributed throughout the building.

The heating plant shall be sized to serve:

1. Perimeter envelope losses & Entrance Heating
2. Building air handling unit heating coils
3. Snow melting
4. Domestic hot water

The cooling plant shall consist of a connection to the campus utility plant services and the provision of a heat exchanger, pumps and ancillary equipment within the new development. Water is supplied by a 200mm dia. (8") supply and return lines from the Northwest Chiller Plant at Sussex and Spadina. These services are fed through the existing Graduate House to the street and then into the new development.

The Energy Transfer Station shall include two plate and frame heat exchangers sized at 65% for the building use.

Humidification for shall be accomplished through the use of electric or adiabatic humidifiers.

Suites will be heated and cooled through two pipe vertical floor mounted fan coil units. All units to have thermostat or BAS sensors remote mounted one per bedroom. General spaces will be heated and cooled with horizontal ceiling mounted four pipe fan coil units. General spaces to have thermostat or BAS sensors remote mounted. Spaces are to be exhausted with Enthalpy Recovery Ventilators with Variable Air Volume return air units.

The loading dock will be provided with local overhead door heaters with additional unit heaters to provide the ambient level of heating. Heaters shall be supplied from a glycol heating loop connected to the main heating system through a glycol/hot water heat exchanger.

Kitchen Exhaust Systems is to be run to the roof without the need of an ecology unit. The kitchen exhaust shall be variable and controlled by the kitchen control system. Kitchen exhaust hoods shall be equipped with UV system to reduce grease buildup. Ductwork shall meet the requirements of NFPA-96. Kitchen exhaust system shall be variable air volume.

Domestic hot water shall be generated by a heat exchangers fed from the Campus Central Utilities located in the basement. A 400 gallon storage tank will be provided to reduce instantaneous demand and act as thermal storage for the heat recovery chiller.

The University is considering the use of grey water heat recovery from the shower drainage.

Grey Water System will collect rainwater from new roof drains in a concrete cistern where it is then strained, filtered, UV sterilized, and pumped throughout the building to serve water closets and urinals. The building potable domestic water system shall be connected into the grey water system complete with

a reduced backflow preventer downstream of the pump to allow operation of the building plumbing fixtures should the system lose the operation of the pump, or if there is insufficient water in the cistern.

Building control systems shall be connected to the UofT central system and shall comply to all UofT standards.

Electricity

The existing Graduate House is fed from the University's Central Electrical Distribution system. The Graduate House transformer does not have sufficient capacity to feed both buildings without an expensive upgrade of the transformer, the secondary switchboard and the primary fuses. Therefore, it is recommended that Harbord Residence be fed directly from Toronto Hydro.

The incoming power for this building will be from the University of Toronto's 13.8 kV high voltage campus loop. The primary feeders will come below ground in a concrete encased duct bank. Cables shall be 750 kcmil copper conductors, triplexed, rated 15kV, 133% insulation. The primary feeders will terminate in a loop feed arrangement and feed 1 high voltage transformer configured in a single-ended switchboard connection.

The Main Electrical Room will be located in the Basement level. The Penthouse Electrical Substation Room will be located in the Penthouse level. The Penthouse level will also contain the emergency Generator Room that will contain a standby rated natural gas generator.

In addition to the electrical rooms noted above, 2 electrical closets per floor will be located on Levels 2-3 and 1 electrical closet from Level 4-9. Each west electrical closet will contain circuit panel to feed the Suite loads. One Life Safety (E) panel will be provided in the level 5 electrical closet. Each east electrical closet contain panels serving the common lounge and office areas.

Emergency power will be provided by a natural gas generator with a main breaker on the generator supplying a splitter/main distribution panel, which will supply individual feeds to the life safety system, non-life safety system and the fire pump system.

The life safety automatic transfer switch and distribution system will supply the following systems:

1. Life safety lighting systems required by Building Code
2. Exit Lighting
3. Fire Alarm network panels
4. Stair pressurization fans
5. Active and passive smoke control dampers
6. All elevators
7. Corridor pressurization unit

The non-life safety automatic transfer switch and distribution system will supply the following systems:

1. Boiler forced draft fans for boilers to maintain building above freezing
2. Main electrical room ventilation/dehumidification/heat

3. Exhaust fans for comm rooms, critical rooms
4. Domestic cold water pumps
5. Heating water system
6. Building Automation control panels
7. Sanitary pumps
8. Storm water pumps
9. Sump pumps
10. Snow melting system
11. Security System
12. Telephone system
13. Enterphone/Intercom system
14. Uninterruptable power supply (UPS) systems

SYSTEMS ON EMERGENCY POWER
The following systems are anticipated to be on Life Safety Emergency Power: Fire Pump Package
The following systems are anticipated to be on Normal Emergency Power:

1. Ground Water Sumps
2. Sanitary sumps
3. Bas (ups)
4. Boiler controls
5. Boiler pumps
6. Domestic water pumps
7. Comfort cooling systems and pumps
8. Electric tracing

The fire pump will be supplied through a separate transfer switch and controller. The fire pump automatic transfer switch and controller are supplied by the sprinkler contractor.

Emergency power will meet the minimum operation requirements for a period of no less than 2 hours.

All lighting will include high efficiency luminaires with LED technology to OBC and per LEED requirements. A centralized networked low voltage lighting control system will be provided for the facility, including LV switches, occupancy sensors, photo sensors and time-clocks.

A networked digital based electric metering system with embedded webpage will be provided. Electrical power quality meters will be provided on the main breaker of the single-ended switchboards and each feeder breaker. The power metering system shall be Schneider's PowerLogic System. All the power meters will be IP based and networked together with independent data drops to each meter. All metering info will be local without the requirement of remote access.

An AC grounding system for the building will be provided connecting each typical electrical room to the main grounding system in the main electrical room in a radial connection. A ground bar will be provided in each electrical room. All transformer neutrals will be connected to the grounding bar and a common cable connected back to the system ground.

Communications (phone/data)

A new concrete encased duct bank shall be provided from the building property line to the Incoming Comm Room located in the Basement.

Main Telecommunications Room
The Main Telecommunications Room shall act as a termination point for all incoming service connections to the building. It shall serve as a transition point between outside plant service provider infrastructure and owner provided interior infrastructure.

Building Entrance Facility
This room shall also be the central location for the Owner's common integrated building systems network core equipment, data security intrusion detection and prevention, WAN connections and base building server equipment. The Entrance facility shall be connected to all other Telecom Rooms/Closets in the building via 2x4" conduits to each IDF Room.

IDF Room
IDF Rooms will be distributed in the building on each level.

The University supplies data cabling to Graduate House. Bell and non-University data services are unknown.

Reliable WiFi should be provided throughout the building with wireless points recommended to be placed at each floor lounge, common rooms, meeting rooms, outdoor recreational spaces and corridors. The rooms should have both WiFi and hard wire data lines. Phone lines will not be necessary in each room, but some rooms should have lines for them to provide the option for students that require them. The provision of VoIP is to be considered. There should be one phone line in the public space per floor for emergencies. Other dedicated phone lines to be provided as required by applicable regulations. (ie. Elevator)

Refer to the Appendix for individual room data sheets.

Bicycle parking

Bicycle parking on the St. George Campus is governed by By-law 438-86 which requires a minimum of 850 spaces to be provided on campus. Currently the University offers over 3,000 spaces and Harbord Residence will further contribute to the bicycle parking count.

Under the proposed By-law 438-86 amendments and Toronto Green Standard requirements the proposed building would generate the following need for bicycle parking:

Short-term spaces:	11 spaces
Long-term spaces:	99 spaces

The proposed Harbord Residence has included for the following bicycle parking spaces:

Short-term spaces: 36 spaces*
Long-term spaces: 76 spaces

(* An additional 8 spaces are within 250m of the building along both Harbord St. and Spadina Avenue to provide the total requirement of 32 short-term spaces within 250m of the building)

The proposed functional plan meets and surpasses the minimum number of short term bicycle parking spaces required under the proposed by-law amendments. Long term bicycle parking spaces are compliant with the overall campus by-law requirement.

Graduate House currently provides 49.24 nasms of secure bicycle storage for 22 long-term bicycle parking spaces.

Vehicular parking

The University is not required to provide parking on a site-by-site basis. By-law 438-86 requires between 1930 and 2130 parking spaces to be located within the designated boundaries of the St. George campus. The current parking space inventory on the St. George Campus is 1,617 spaces.

There are 20 existing parking spots on the Harbord Residence Site that are outside of the St. George Campus By-law area. The current St. George Campus inventory will remain at 1,617 with the removal of these 20 spaces. There is no proposed on-site vehicular parking proposed for the Harbord Residence.

Graduate House has 151 existing spaces located on two levels of below ground parking accessed from Glen Morris Street.

Servicing and fire access

A Central Alarm and Control Facilities room will be located at the South-East corner of the residence with access from the Residential Lobby.
A Fire Department Connection will be located on the East Façade adjacent to the Stair B egress.

Fire access and servicing is to be maintained at the adjacent laneways.

Sanitary control, Storm water tank access and overflow control will be located between the West and central Food Market entrances along Harbord Street.

f) Secondary Effects

The project requires demolition of six houses, which are all vacant. 54 Harbord was occupied by a long term tenant who has been relocated to another home in the Huron Sussex Neighbourhood through a Tenant Relocation process.

The proposal results in a loss of 20 parking spots not currently included in the Campus By-law total.

Rear yards are currently being used by Grounds for storage of vehicles, equipment and landscaping materials. This Grounds operation will require relocation elsewhere on campus, and a removal of a fence containing the storage area.

There will be disruption to existing occupants in adjacent buildings during construction, particularly the Early Learning Centre with outdoor play space to the north of the project site, and tie-in of structure to Graduate House.

Existing trees on site require removal and replacement to all City of Toronto standards. An Arborist Report and proposed landscaping has been included in the Rezoning and Site Plan Approval applications to the City of Toronto.

Creating physical links to Graduate House may have impacts. The above-ground bridge connection might impact usability of the existing stair during construction, and the overall feasibility of this connection point will have to be tested for any life safety impacts. The below-ground connection will impact the usability of the lane during the construction period and might render certain programme elements in Graduate House unusable for periods of time.

Staging is not anticipated for this project.

g) Schedule

A stipulated sum project delivery timeline is anticipated for the project, with a desired 2024 occupancy.

Milestone	Dates
CaPS Executive Committee – Terms of Reference Approval	June 23 2014
RFSQ	July 2018
CaPS Executive Committee –Consultant Fees	August 2018
RFP	September 2018
Consultant Selection	October - November 2018
Schematic Design	July 2019-Novmeber 2020
DRC Meeting No. 1	March 7 2019
DRC Meeting No. 2	May 22 2019
DRC Meeting No. 3	October 2, 2019
Community Presentation and Open House	October 17, 2019
Official Plan Amendment, Rezoning & Site Plan Approval Application	December 2019
Councilors Working Group No. 1	March 9, 2020
Councilors Working Group No. 2	April 17, 2020
CaPS Executive Committee – Increase in Consultant Fees	August 2020
Community Consultation Meeting	September 17, 2020
Design Development	December 2020 - October 2021
DRC Meeting No. 4	February 23, 2021
City of Toronto Community Council Meeting OPA/ZBA and Adoption of OPA & ZBA	April 21, 2021
Councilors Working Group No. 3	August 18, 2021
Councilors Working Group No. 4	January 10, 2022
CaPS Executive Committee	January 21, 2022
Planning & Budget Committee	February 16, 2022
University Affairs Board	March 3, 2022
Academic Board	March 10, 2022
Business Board	March 15, 2022
GC Executive Committee	March 22, 022
Governing Council	March 31, 2022
Construction Document Phase	October 2021-May 2022
Official Plan Amendment & Rezoning Approval (Anticipated)	April 2022
Site Plan Approval NOAC (Anticipated)	April 2022
Demolition Permit Approval (Anticipated) (Conditional Permit)	February 2022
Demolition Tender	February – March 2022
Demolition	April 2022
Building Permit Application	Late February 2022
Construction Tender	March – August 2022

Building Permit Approval (Anticipated)	July 2022
Construction	August 2022 – February 2024
Owner Fit-out	February 2024-April 2024
Occupancy	April 2024
Substantial Performance	May 2024
Project Close-Out	July 2024

IV. Resource Implications

a) Total Project Cost (TPC) Estimate

Poject costing was completed at each stage of the design process. As the project design development phase occurred during COVID-19, supply chain issues and resulting volatile construction market pricing a value engineering phase was completed to reduce project costs.

During October and November of 2021 a peer review of the Class 'A' costing estimate (100% CD) was coordinated by UofT Capital Projects resulting in the Total Project Cost (TPC) included with this application.

The Harbord Residence will pursue a Stipulated Sum project delivery methodology with an anticipated start of construction is targeted for August 2022 with building occupancy in April 2024.

b) Operating Costs

University Development and Campus Services (UDCS) will operate the residence in the same standards as its other residences, including a robust student life experience for graduate students. Projected operating expenses of $1,302,804 annually will be funded from revenues of the ancillary operation. The projected costs assume an escalation of approximately 3% for UofT Labour items (Facility Management and Student Life) and 2% for other operating expense items annually. The new residence will be treated as an extension to the Graduate House operation and ancillary budget, and will benefit from Graduate House supervision and overheads. Operating costs are therefore shown as incremental costs to the combined operation.

a. Yearly operating expenses $1,302,804

c) Other Related Costs

There are two unusual costs associated with the project that have to be considered:

- Relocation costs for the tenant of the occupied house at 54 Harbord (refer to Secondary Affects)
- The mortgage on 48 Harbord, is currently funded 1/3 by the Huron-Sussex Housing Ancillary. This debt service cost will be transferred to the new residence operation once it is established.

d) Funding Sources

The construction of the Project will be 100% funded by financing.

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V. Appendices

1. No Appendices attached to this Document.