

**Report of the Project Planning Committee
for the University College Revitalization
(Revised Phase 1) and Croft Chapter House (Phase 2)**

University of Toronto Campus & Facilities Planning

August 24, 2015

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I. Executive Summary

On May 11, 2015, the Project Planning Report for the University College Revitalization dated March 10, 2015 outlining the proposed revitalization plan for University College, and project scope of Phase 1 totaling 712 net assignable square metres (nasm) (950 gross square metres (gsm)) were confirmed by the Executive Committee, to be funded by Capital Campaign Funds, Provost's Central Funds, University College Operating Funds, and Faculty of Arts and Science Capital Funds

The University College Revitalization plan arose from the recognition that the building was no longer effectively serving the needs of 21st-century students, with serious accessibility challenges, outdated infrastructure and classrooms, and underutilized and undervalued spaces. The plan was based on the 'Strategic Planning Analysis' document by Taylor Hazell Architects produced in 2012, highlighting the college's mission to serve its undergraduate students as a leading international public teaching and research institution as well as emphasizing University College's significant architectural heritage and increasing accessibility for students and staff. The Strategic Planning Analysis document outlined the proposed scope of work at University College in the following 4 phases:

1. Re-establish the library to its historic home with collections in the East Hall and a reading room in the West Hall; create a lounge space on the third floor of the central UC tower linking East and West Hall; and improve accessibility by installing a limited application elevator in the central tower and new ramp access into the building from the exterior.
2. Create a Conference Centre at Croft Chapter House and associated adjacent rooms, including the Senior Common room.
3. University College Quadrangle Renewal to encourage curricular and co-curricular usage.
4. Upgrade and refurbish UC classrooms to better reflect the historic role of the College and also provide the modern infrastructure required for 21st century teaching.

The Project Planning Report, dated March 10 2015, presented Phase 1, totalling 712 net assignable square metres (nasm) (950 gross square metres (gsm)), as the initial scope of work. This included:

Phase 1 – Re-establish the Library within East and West Hall & Improve Accessibility

Design Development Only

- Design for a café and lounge space on the third floor of the central University College tower, with links to the relocated library in East and West Halls.

Design & Implementation

- Creation of the new library reading room and support spaces to be located in the West Hall and adjacent central tower rooms;
- Creation of the new library collections room and mezzanine to be located in the East Hall.
- Installation of a limited use/limited application elevator in the central tower of the College's front (southern) wing, and additional accessible upgrades to improve access to the building;
- Addition of and upgrade to air-conditioning and ventilation to service the East and West Halls, including infrastructure for future service to additional areas of the College;
- Deferred maintenance addressed in the related areas of the College affected by the work.

University College has since secured additional capital campaign funding that has enabled Phase 2, the creation of a Conference Centre at Croft Chapter House, to move forward simultaneously with Phase 1 as a singular “Project”. At the February 27, 2015 CaPS Executive meeting, the expenditure of consulting fees was approved to hire design consultants to proceed with the design development of the Phase 1 project. At the May 25, 2015 CaPS Executive meeting, approval was granted to add the Phase 2 scope of work to the approved Phase 1 project and to proceed in a Request for Proposals (RFP) for Consultant Services as a joint capital project.

Approval is now being sought to include the design and implementation of Phase 2 of University College Revitalization, with an additional project scope of 273 nasm (316 gsm) to the Phase 1 project. The combined project scope of Phases 1 and 2 totals 985 net assignable square metres (nasm) (1266 gross square metres (gsm)). This second phase includes:

1. Establishing a conference facility at Croft Chapter House and the adjacent rooms including the Senior Common Room;
2. Additional scope items including additional steel reinforcing of the East Hall, a small half floor lift on the 3rd floor to provide access to the 3rd floor mezzanines from the proposed elevator core, and the relocation of the Writing Centre currently located in the Laidlaw Wing to UC279.

HIGHLIGHTS:

University College remains at the centre of the University of Toronto’s St. George campus, and its historical significance increases every day. Previous renovations and additions to the College demonstrate that it can be adapted to serve ever-changing university populations. But the emergence of the 21st-century campus has had the effect of making what were planning and design innovations in the 1970s into anachronisms that now detract from University College’s capacity to fulfill its leadership role as the historic and symbolic centre for the University of Toronto.

The projects and planning initiatives that have been described in this report address this problem. Each project presents an opportunity to renew the University College legacy.

These are imaginative, exciting projects that celebrate the building’s architectural identity and the College’s enduring values through restoration, recovery of deeply rooted planning principles, and 21st-century infrastructure.

The projects include the following:

1. Re-establish the Library within East and West Hall & Improve Accessibility

- Return the University College library to its historic home at the front of the College, with the collections located in East Hall (428 nasm) and a reading room located in West Hall (284 nasm).
- Create a loft café/lounge space on the third floor of the central University College tower (128 nasm), with links to the relocated library at East and West Hall;
- Install an elevating device in the central tower of the College’s front (southern) wing, and additional accessible upgrades throughout to improve access to the building.

2. Create a Conference Centre at Croft Chapter House

- Establish a conference facility at Croft Chapter House and its environs (273 nasm);

3. University College Quadrangle Renewal

- Update the University College quad to increase its curricular and co-curricular usage;

4. Upgrade Classrooms

- Refurbish University College classrooms for contemporary instructional needs and to better reflect the historic role of the College.

Approval is now being sought to include the design and implementation of Phase 2 of University College Revitalization, with an additional project scope of 273 nasm (316 gsm) to the Phase 1 project. The combined project scope of Phases 1 and 2 totals 985 net assignable square metres (nasm) (1266 gross square metres (gsm)). This second phase will include the comprehensive design and renewal of the Croft Chapter House and Senior Common Room, as well as their ancillary spaces, to create a new Conference Centre at the southwest corner of University College. Details of this phase include:

Phase 2 – Create a Conference Centre at Croft Chapter House and its environs

Design & Implementation

- Restoration of the interiors of the Croft Chapter House, including woodwork, plaster ceilings, windows, doors, limestone fireplace, and finishes, to be more in line with its 1859 appearance;
- Updated lighting and introduction of audio-visual technology into Croft Chapter House;
- Inclusion of flexible but historically appropriate furniture that can be reconfigured in room to accommodate variety of programs;
- Restoration of Senior Common Room and inclusion of kitchenette in Senior Common Room to support conference events;
- Creation of new direct linkages between Senior Common Room and Croft Chapter House and Senior Common Room and adjacent Entrance Vestibule directly to the east of the Senior Common Room;
- Creation of furniture storage room, universal washrooms, and other conference support facilities adjacent to Croft Chapter House;
- Deferred maintenance addressed in the related areas of the College affected by the work.
- HVAC improvements to the Phase 2 area have already been included in the Phase 1 scope.

Additional items related to the Phase 1 scope include:

- Relocation of the Writing Centre from the Laidlaw Wing to UC259; 45 nasm;

- Addition of a half floor lift in room 376K to create barrier-free access to the East Hall mezzanine;
- Additional steel reinforcing of the East Hall Library;

Procurement of a consultant team for the project is currently underway. The implementation of later phases will be dependent on fundraising occurring in a timely manner and making any surpluses available to carry forward with each phase. The schedule assumes all municipal approvals may be achieved within the timelines.

It is recommended that the University of Toronto proceed with as comprehensive as possible a removal of hazardous materials in advance of Phase 1 and Phase 2. Some hazardous materials removal will in all likelihood need to occur within the later phases of construction, but it is anticipated that this can be minimized to maintain as tight a construction schedule as possible.

The proposed schedule, updated to include both Phases One and Two, is as follows:

September 2015	Consultant Team Selection
Sept - March 2015	Consultant Team prepares schematic design, design development and contract documents
October 2015	Governing Council approval
April 2016	Tender contract
May – Dec 2016	Construction Phase 1 & 2
December 2016	Full operational occupancy

II. Project Background

a) Membership

Donald Ainslie, Principal, University College (Chair)
Jennifer Adams-Peffer, Campus and Facilities Planning
Dave Aqualina, Property Manager
Steve Bailey, Director, Academic and Campus Events (ACE)
Jesse Berlin, President, Cognitive Science and Artificial Intelligence Association (CASA)
Lucy Chung, Director of Infrastructure Planning, Faculty of Arts and Science
Bruce Dodds, Director Utilities and Building Operations, Facilities and Services
Margaret Fulford, Librarian, University College
Emily Gilbert, Associate Professor, Department of Geography and University College
Yvonne MacNeil, Chief Administrative Officer, University College
George Phelps, Director, Project Development, University Planning, Design, and Construction
Jay Pratt, Vice-Dean, Research and Infrastructure, Faculty of Arts and Science
Melinda Scott, Dean of Students, University College
Alexander Surgenor, First-year Representative, UC Literary and Athletic Society (the Lit)
Stan Szwagiel, Manager, Grounds Services
Lorne Tepperman, Professor, Department of Sociology
Melissa Vincent, Mid-year Representative, UC Literary and Athletic Society (the Lit)
Alan Webb, Campus and Facilities Planning

b) Terms of Reference

The Project Planning Committee for the University College Revitalization will:

1. Review the Taylor Hazell “Strategic Planning Analysis”
2. Make recommendations concerning:
 - a. The proposed move of the University College library to the front of the building and linked to a third floor lounge space;
 - i. The appropriate redevelopment strategy for the vacated second floor of the Laidlaw wing should the library be relocated;
 - b. The proposed accessibility strategy including the approach to wayfinding and lighting;
 - c. The proposed conference centre in Croft Chapter House;
 - d. The proposed revitalization of the University College Quad;
 - e. The proposed restoration and updating of University College classrooms.
3. Provide a detailed space and functional plan to accommodate University College activities in the areas to be renovated.

4. Demonstrate that the proposed space program is consistent with the Council of Ontario Universities (COU) space standards and the University of Toronto space standards.
5. Determine the secondary effects of the project and the impact on the delivery and staffing of programs and activities during construction.
6. Identify all equipment and moveable furnishings necessary to the project and their related costs.
7. Identify all data and communications requirements and their related costs.
8. Identify a communications strategy for the project.
9. Develop a phasing strategy for the different recommended projects, with “Total Project Costs” (TPCs) determined for each, including costs associated with secondary effects and sequencing of construction.
10. Identify sources of funding for the different phases and any reduced/increased operating costs once the project is complete.
11. Consult widely.
12. Prepare a Project Planning Report to be submitted through University governance in Fall 2015.

c) **Background Information**

University College, the founding College of the University of Toronto, was established in 1853 to offer a non-sectarian education to the young men of what was then Canada West (women were not admitted until 1884).

The main College building was constructed in 1856-59 in the forests to the north of the young city of Toronto, the population of which was then fewer than 40,000. The architects were Frederick Cumberland and William Storm. Since that time, it was rebuilt after a devastating fire in 1890; the Laidlaw wing was added to its north side in 1964 thus creating a proper quad within the building's four wings (it now houses the University of Toronto Art Centre, the UC Library, and classrooms for the School for Public Policy and Governance); and a major renovation in the 1970s restored its structural integrity. It was named a national historic site in 1968.

Concomitantly, University College added four other buildings: the University College Union, a grand house on St. George St., built in 1885 and acquired by the University in 1916 as the Women's Union, now housing the UC Dean of Student's residence, the Centre for Drama, Theatre, and Performance Studies, and the UC Commuter Student Centre; Whitney Hall in 1931 (historically the women's residence, now co-educational); Sir Daniel Wilson Hall in 1954 (historically the men's residence, now co-educational); and Morrison Hall in 2005 (UC's third co-educational residence).

University College is now a campus within the University of Toronto's larger St. George campus of almost 60,000 students; and the University itself has three campuses across a vibrant, multicultural urban region of more than six million people.

In 2012, after wide consultation, University College Council approved the following vision statement: We aim to be "a welcoming community built on a long history of non-sectarian education and research that challenges undergraduate students to excel intellectually and prepares them to engage in the wider world."

At the same time, the College's leadership team, in partnership with the Office of Campus and Facilities Planning, and the Office of Infrastructure Planning in the Faculty of Arts and Science, started reviewing the spaces within the main University College building in light of the vision being articulated by Council.

It became clear that the building was no longer effectively serving the needs of 21st-century students. In particular, architecturally significant spaces were being undervalued or underused (East and West Halls, Croft Chapter House); others were not living up to their potential (the UC Library, the UC Quad); and still others were tired or uninspiring in their designs and required updated infrastructure (many of the classrooms). In addition, the College, as one of the oldest buildings on campus, poses serious challenges for students, faculty, staff, and alumni who cannot easily navigate stairs.

In the spring of 2012, University College contracted Taylor Hazell Architects to review the main College building, with special attention to ensuring that it: best served its undergraduate students; embodied the University's mission as a leading international public teaching and research institution; highlighted its significant architectural heritage; and increased accessibility for disabled students.

Taylor Hazell submitted their “Strategic Planning Analysis” in October 2012. Among their recommendations were to:

1. Return the University College library to its historic home at the front of the College, with the collections located in East Hall and a reading room located in West Hall;
2. Create a lounge space on the third floor of the central University College tower, with links to the relocated library at East and West Hall;
3. Establish a conference facility at Croft Chapter House and its environs;
4. Update the University College quad to increase its curricular and co-curricular usage;
5. Install an elevator in the central tower of the College’s front (southern) wing, with new ramp access inserted in the southeast corner of the Sir Daniel Wilson Quadrangle.
6. Refurbish University College classrooms to better reflect the historic role of the College.

The Taylor Hazell recommendations have generated enormous enthusiasm among the University College and wider communities and have become the focus of the University College Boundless campaign.

A Project Planning Committee was struck and met between October 2014 and January 2015 to review those projects identified in the Taylor Hazell Analysis and make recommendations on the proposed renewal and to recommend the details of a first phase which will include the comprehensive design of Library functions within East and West Hall and their ancillary support functions as well as accessible upgrades that will include the installation of a new limited use/limited application elevator in the central tower of the south wing and other ramps and lifts to better provide access to the College’s main building overall. The first phase will include only the implementation of the East and West Halls, their ancillary support spaces and accessibility upgrades. The implementation of all other recommended upgrades will follow upon successful fundraising efforts and further approvals.

d) Statement of Academic Plan

There are currently 4,400 University College students, each of whom is enrolled in a program in the Faculty of Arts and Science (FAS). More than 70 faculty are affiliated with the College, primarily from various units within FAS, but also from the Faculties of Law, Architecture, Kinesiology and Physical Education, and OISE. More than 50 UC faculty have offices in the main College building. It also houses 25 staff members and is the main site of activity for the University College Literary and Athletic Society (“the Lit”), the UC student government, which has offices in the College’s H-wing, alongside the Junior Common Room.

The College also sponsors three interdisciplinary programs (Canadian Studies, Health Studies, and Cognitive Science) and is affiliated with the Centre for Drama, Theatre, and Performance Studies, and the Mark S. Bonham Centre for Sexual Diversity Studies. UC One, a foundation-year program for first-year Arts and Science students, was launched in 2011.

University College participated in the most recent academic planning exercise within FAS in 2009-10. The College identified the need to establish a stable faculty complement for what were then the four UC programs (Canadian Studies, Drama, Health Studies, and Sexual Diversity Studies). Second the College wanted to introduce more experiential and research-intensive experiences within the programs, especially by means of curricular innovations at the first- and fourth-year levels.

The Faculty’s Strategic Planning Committee responded by recommending that: the College seek funds to develop a ‘UC One’ initiative; continue building links to departments in order to increase faculty complement for the programs; leverage the connection between the graduate and undergraduate programs in Sexual Diversity Studies and clarify the relationship between the College and the Bonham Centre; build bridges between the undergraduate-only Drama Program at UC and the Graduate Centre for the Study of Drama; and increase the research activities within the undergraduate programs by connecting them with graduate education in the various fields.

Since that time, the College has launched UC One (2011), established (2013) and filled (2014) an endowed chair in Chinese Canadian Studies (tenured in the History Department); hired three teaching-stream faculty for the Sexual Diversity Studies and Cognitive Science programs (the latter returned to UC in 2013); established a Memorandum of Agreement with the Graduate Centre for the Study of Drama, whereby it would assume responsibility for the undergraduate drama program and re-name itself as the Centre for Drama, Theatre, and Performance Studies – an EDU:A that is “affiliated” with the College (2012); increased the autonomy of the Bonham Centre for Sexual Diversity Studies by establishing a Memorandum of Agreement between the Centre and the College that transferred responsibility for the undergraduate program to the Centre (2012); and established deeper links with a wide range of FAS units and other divisions by means of the endowed lectures series at UC and the Provostial Undergraduate Course Development Fund.

In 2010-11, the College was reviewed as Principal Sylvia Bashevkin reached the end of her term. The Review Committee recommended that, among other steps, the next Principal should:

- Seek resources to improve the College’s library;

- Continue to work in partnership with student government in enhancing the student experience;
- Seek funding to continue improving the experience of commuter students in the Commuter Student Centre and elsewhere;
- Find mechanisms to more fully engage the UC community in policy decisions through a stronger College Council;
- Give continued attention to the College’s physical maintenance;
- Actively dedicate her- or himself to advancement and alumni relations.

Donald Ainslie started as Principal Bashevkin’s successor on July 1, 2011. In his first year as Principal he worked closely with College Council to establish the new vision for the College (quoted above) and consulted widely with faculty, alumni, staff, and students about the steps needed to live up to the new vision.

He heard a clear message that reinvigorating the University College building – widely recognized as the College’s greatest asset – should be the focus of his term. The College’s library was reaching the 50th anniversary of its opening and desperately needed upgrades to make it useful for technologically savvy 21st-century students; commuter student numbers were increasing, with the Commuter Student Centre in the Union Building only able to serve a small number of that population; and far too many of the College’s historic spaces (East and West Halls, Croft Chapter House) were underutilized. Finally, the many changes of level with the UC building made it difficult to navigate for those with mobility-related disabilities, undermining the College’s historic commitment to accessibility and openness.

The proposed renovations described here will go far to meet the academic and co-curricular needs of the College and its students.

e) Space Requirements

Existing space

University College accommodates a wide range of program elements within its space within a total of 8,181 nasm of space. The College building includes classrooms, academic and staff offices, a Library, Art Gallery/Exhibition space, and a full time residence accommodating its Principal, among other spaces. The current space allocation by category is displayed below:

Cat ID	Category Name	Net Area(nasm)
01.1	Tiered Classrooms	259.58
01.2	Non-Tiered Classrooms	1,800.90
01.3	Classroom Service Space	581.99
02.2	Unscheduled Class Lab	81.75
04.1	Academic Offices	1,208.55
04.2	Research Office/Project Space	82.77
04.3	Graduate Student Office	7.45
04.4	Departmental Support Staff Office	587.51

04.5	Office Support Space	697
05.1	Library Collection Space	129.74
05.2	Library Office Space	18.35
05.3	Library Support Space	17.69
05.4	Study Space Under Library Jurisdiction	500.24
07.1	Food Facilities	12.32
09.1	Plant Maintenance	106.44
14.1	Student Office And Support Space	270.08
14.2	Recreational Facilities And Service	15.38
14.3	General Lounge Space	275.98
15.2	Exhibition Facilities	1,279.70
17.1	Residence Living Space	187.27
19.5	Inactive – Assignable	61.04
		8,181.73

Library:

The existing University College Library includes a permanent collection of books, study space and support spaces in 667 nasm of space currently accommodated within the 2nd level of the Laidlaw Wing. The library is in need of updating to best accommodate students' needs including better access to light, technology and a variety of study space options. This project recommends the relocation of library functions to its original location within the College in East and West Halls. These two large rooms are currently classified classroom service space used to accommodate exams as well as large one-off activities such as book sales and College gatherings.

Student Space:

Student office and support spaces accommodated within the College building include those for The Gargoyle and the UC Literary and Athletic Society among others. Space is also available for student lounge purposes in the Junior Common Room and casual food is offered at a student run café, Diabolos, adjacent to the JCR. In the renovation of space for the Art Centre in the early 1990s, a well-used lower level cafeteria was lost. The cafeteria had been popular, in particular, with commuter students who used the space to meet, study, and eat between classes - a need that remains under-accommodated in the current space allocation and is addressed through the proposed renovations.

Classrooms:

Classrooms include a wide range of flat floor (1,800 nasm) and tiered (259 nasm) spaces primarily falling within the ACE classroom inventory, but also include some recently renovated seminar rooms for the School of Public Policy and Governance. Many classrooms require updates to better match their heritage significance within the UC building and to bring them in-line with classroom standards of lighting, audio-visual equipment, seating, etc.

Support Spaces:

Support spaces within the College building include unique spaces such as the Senior Common Room and the Croft Chapter House. The Croft Chapter House, the original chemistry lab for the University, is used for meetings and gatherings but is not well-utilized because of its dated interior, bulky

furnishings and insufficient lighting and technology. This space is identified along with the Senior Common Room and its surrounding ancillary spaces for repurposing and renewal.

Quadrangle:

The four wings of the University College building form a much-loved interior quadrangle reminiscent of a traditional English College. Inappropriate or inconsistent renovations and additions over time have, however, left the quadrangle cluttered and in need of renewal. Redundant benches and unsightly air-conditioning equipment has been identified for removal. Ageing infrastructure, too, is in need of repair including the flagstone pavers that make accessible passage difficult.

Offices:

Academic offices are occupied by a range of faculty members from the Faculty of Arts & Science representing the departments of English, Religion, Drama, History, Art, Philosophy, Political Science and others. Faculty members from several other divisions are also housed here. Offices are, for the most part, not considered for renovation as part of this project except where new air-conditioning may be brought to better and more comprehensively serve the College building.

Art Centre:

The University of Toronto Art Centre occupies renovated spaces within the north (Laidlaw) wing on the ground and lower levels. No changes are currently contemplated to this space as part of this project.

Space Requirements

The purpose of this study was not to identify opportunities for new space creation within the University College building, but to recommend projects that would best utilize existing spaces and the most appropriate manner in which renovations might be contemplated within this significant heritage structure. For this reason, traditional COU analysis does not readily apply, except to guide particular program elements such as the proposed relocation of the Library collections to the East Hall.

Library Analysis – Collections:

The existing University College Library in the Laidlaw Wing currently houses a collection of approximately 35,000 volumes, including:

- General Stacks: ~ 31,000 books related to the 5 UC-affiliated academic programs
- Al Purdy Collection: ~3,000 books, non-circulating
- Writing, Research & Study Skills Collection: ~500 books
- Bestsellers Collection: ~500 books

The Library has a primarily undergraduate focus and encourages browsing with bookstore-style displays of its Bestsellers Collection and rotating feature displays related to topical and academic events.

The Library's special Al Purdy Collection, occupies approximately 50 m of shelf space, a portion of which (10 m) is secured in locked cabinets for theft prevention.

There is a significant amount of study space within the Library (approximately 465 nasm in open carrels, 35 nasm in enclosed rooms) but the space lacks appropriate technical infrastructure, seating, lighting and other amenities to adequately encourage student use.

An overview of existing Library space identifies a total net area of 666 nasm, as tabulated in the inventory below.

University College Library – Laidlaw Wing – Existing Space Inventory (Fall 2014)

Rm.	Cat.	Category Name	Description	Share	% Seats		Area (nasm)
215	05.1	Library Collection	Open Stacks	Space	17	0	126.07
220	05.1	Library Collection	Special Collection	Space	20	0	3.67
222	05.2	Library Office Space	Librarian	None	100	1	18.35
228	05.3	Library Support Space	Library Workroom/Storage	None	100	1	17.69
215	05.4	Study Space - Library	Library Carrels-Open	Space	63	246	467.21
220	05.4	Study Space - Library	Study Room	Space	80	0	14.68
226	05.4	Study Space - Library	Student Computer Lab	None	100	0	18.35
							666.02

While traditional COU analysis will not be directly applicable in this case, it may serve as a reference in understanding the areas needed to accommodate the existing library collections and support spaces.

The COU formula for Library Facilities and Campus Study Space (Category 5) calculates space entitlement for four functional areas in library and study facilities: collection space, study space, within the library system, study space outside of the library system and library office and support areas.

The formula for generating space for library collections (Category 5.1) recommends 0.005 nasm per equivalent volume for traditional static shelving. This assumes that 160 bound volumes can be shelved on a standard stack unit, leaving 15% of the shelf space for sorting books when they are returned to the shelves. A standard stack is 2.28 m high, 0.91 m wide, 0.25 m deep and has 6 or 7 shelves.

In practice, the shelves that are currently in use in the Laidlaw Wing and are of COU standard size actually hold an average of 32 books per shelf (allowing for 20% of the shelf to be empty, to accommodate growth / books on loan).

The Library's current collection of approximately 35,000 volumes is accommodated in 130 nasm of stacks area, or 0.004 nasm per volume. While it is understood that the spatial constraints inherent to moving the collection to the East Hall will require a reduction in the number of volumes that can be stored on-site, an opportunity exists to partner with the University of Toronto Libraries in sharing archival services for a portion of the University College collection.

In order to accommodate ongoing acquisitions to the Library's collection (an average 15% annually), a redistribution of the least circulating volumes of the existing collection must be practiced to allow space for these incoming volumes.

Library Analysis – Study Space:

There are approximately 4,400 University College students in a typical academic term (Fall 2014). Applying the COU formula of 0.6 nasm per FTE student, a total of 2,640 nasm of study space area is generated. In isolation, the campus-wide formula is not directly applicable to the case of University College, as the College's students have access to a wide range of study space options across the St. George campus. It would not be possible to accommodate the full area generated by COU guidelines within the College, however both in observation and consultation with College stakeholders, there remain a need for both increased quantity and quality study spaces within University College.

III. Project Description

a) Vision Statement

The genius of University College – what makes it truly original and relevant to every generation – has grown out of the convictions, tenacity, and vision of those who fought to create it in the 1840s. Out of their work came a building of such quality and purpose that it influenced all around it and became an enduring model of contemporary education across Canada and the Commonwealth.

Thousands of graduates, the leaders of which crowd the walls of what is now called the Junior Common Room, were first attracted to UC because of how it was framed architecturally and, crucially, for its philosophy of inclusion and emphasis on the individual. UC provided access to the highest standard of education and equipped its graduates to appreciate the need for inquiry unencumbered by religion or ideology. This vision of higher education continues to resonate with today's students.

Over the past two decades the St. George Master Plan has transformed the campus. It has restored and rehabilitated existing buildings and added magnificent new structures and landscapes that have created appealing new settings for the social and educational life of the university. It takes its inspiration from the campus that emerged out of the 1850s that has once again demonstrated its relevance and capacity to inspire.

University College remains at the centre of the U of T campus, and its historical significance increases every day. Previous renovations and additions to the College demonstrate that it can be adapted to serve ever-changing university populations. But the emergence of the 21st-century campus has had the effect of making what were planning and design innovations in the 1970s into anachronisms that now detract from University College's capacity to fulfill its leadership role as the historic and symbolic centre for the University of Toronto.

The projects and planning initiatives that have been described in this report address this problem. Each project presents an opportunity to renew the University College legacy.

These are imaginative, exciting projects that celebrate the building's architectural identity and the College's enduring values through restoration, recovery of deeply rooted planning principles, and 21st-century infrastructure.

b) Space Program and Functional Plan

The Project Planning Committee generally agrees with the renovations to the University College building recommended by the Taylor/Hazell report. The renovations are proposed to be undertaken in distinct phases, with the first phase funded and seeking approval for design and implementation. Each of the other phases will come forward for future approvals at such time that full funding is accomplished.

The projects include the following:

- **Re-establish Library & Improve Accessibility**
 - Return the University College library to its historic home at the front of the College, with the collections located in East Hall and a reading room located in West Hall;
 - Create a lounge space on the third floor of the central University College tower, with links to the relocated library at East and West Hall;
 - Install a limited use/limited application elevator in the central tower of the College's front (southern) wing, and additional accessible upgrades throughout to improve access to the building.

- **Create a Conference Centre at Croft Chapter House**
 - Establish a conference facility at Croft Chapter House and its environs;

- **University College Quadrangle Renewal**
 - Update the University College quad to increase its curricular and co-curricular usage;

- **Upgrade Classrooms**
 - Refurbish University College classrooms for contemporary instructional needs and to better reflect the historic role of the College.

Re-establish Library & Improve Accessibility

The original building design team of Cumberland and Storm boldly decided to draw all the major (original) programme areas, including the museum of natural science, the ethnographic and geological collections, a full library, scientific and research laboratories, teaching and lecture amphitheatres, and the President's office into a single elevation. The front of the building was thus emblematic of the ideals of the University and it has never ceased to speak to how University College and the University as a whole evolve and adapt to change.

The withdrawal of important program uses from these spaces over the past 50 years has weakened the College's identity and undermined its function as a generator of student engagement.

The relocation of the library to the Laidlaw addition on the north side of the quadrangle in 1964 and the development of vibrant alternative venues elsewhere contribute to the problem.

This project proposes returning the library to the second floor within the East and West Hall and reinterpreting the new programme to transform how faculty, students, staff, and visitors identify with the building.

Library: East Hall (Collections Room)

The Collections Room project in the Library has special significance to University College. By relocating the library collection from its current location at the back of the quadrangle to the south-facing front of the College overlooking King's College Circle, the proposed intervention both follows on the principles of conserving and giving prominence to the heritage value of the space and also addresses a serious deficiency in how UC functions for its own community and within the greater campus.

The new library will honour its historical setting while offering technologically sophisticated services, thus serving the needs of students, faculty and visitors to the University. In addition, the relocation of the library will open up the Laidlaw wing to new academic programming.

The Collection and the Building

Book collections continue to be at the centre of university education even as ongoing technological advances allow for new kinds of uses of information. The University College collection has undergone many such changes since the building of its first permanent home in 1856 when its original architects placed a library at the centre of their design. The library was designed to be the intellectual and spiritual heart of University College: a magnificent space and more importantly a repository for emerging science, philosophy, and arts research for the new, non-sectarian university.

The 1856 plan for the University College library combined stacked book cases supporting a mezzanine that thus created alcoves where books could be laid out and studied. The main library hall unified the space and directed light, while the mezzanine allowed for a collection of volumes on two levels and created space for up to 50 people in its alcoves. Cumberland and Storm had used a similar approach for Osgoode Hall (completed 1848).



East Hall, circa 1884

The 1884 photograph of the library provides an exceptional view and detail looking east. The library was an imposing space, though by today's standards it would have been dark because of the limited artificial light. Seven years later the library and most importantly the collection was destroyed in a fire that consumed half of University College.

The fire broke out early in the evening of February 14th, 1890. A tray of kerosene lamps from a science exhibit was being carried up the south east stairs – some lit to show the way – when the tray tilted, the glass lamps shattering on the wood stairs. Flames engulfed the stairs and, within two hours, the entire east wing, library, tower, and museum roof were afire.

The effect of this event on University College, the University, and the city of Toronto was profound. The fire was a spur to individual and collective ambition, as citizens of the young city shared a sense that there was something important to be accomplished in rebuilding the University that was recognized as the key to their future. The fire thus accelerated the building of new faculties, new libraries, and helped to create a modern campus.

Within little more than a year University College was rebuilt, though the library was not included in the reconstruction. Instead, a new university library, reflecting the needs of a much larger campus, was created on the east side of King's College Circle (what is now called the Gerstein Science Information Library in the Sigmund Samuel Building). The space that had housed the library in University College was re-designed and rebuilt as East Hall providing flexible space for a range of uses, including, in the mid-twentieth century, the home for a smaller library and student study space.

Over this period the UC collection was slowly built up and a new two-storey library was constructed in the Laidlaw wing, added to the north side of the College in 1963-4; stacks on the ground floor housed the collection, while the second floor reading room offered a space for students to study.

With the opening of Robarts Library in 1973, most of the College's books were moved into the new research library and the ground floor of the College library was repurposed (it now houses the University of Toronto Art Centre). Almost 50 years after its opening, the College library's proper place within the historic building remains unresolved; more than a century after the fire, the effect of the displacement of the library is still being felt.

The University College Library in the Laidlaw Wing

The library in the Laidlaw building contains approximately 35,000 volumes primarily linked to the interdisciplinary programmes sponsored by and affiliated with the College: Canadian Studies, Cognitive Science, Drama, Health Studies, and Sexual Diversity Studies.

The Laidlaw building is an exceptional structure both architecturally and in terms of the building services that it provides. The building introduced a contemporary setting into the historic quadrangle and enabled programming activities to be introduced to University College that would not have otherwise been possible, including an elevator and the sole access point to the building for students with restricted mobility.

However, the location of the library programme on the second floor, on the north side of the quadrangle away from student activities and without an identifiable address has caused confusion and distances the collection from the students and faculty. Attendance is poor and the library is technologically out of date, offering students few of the amenities they need for their wired existence.



Existing Library in Laidlaw Wing

The library collection was and continues to be the physical manifestation of a University College education but it is in the wrong location. Returning the library to its historic location at the front of the building, overlooking King's College Circle, and integrating it with a reading room and related new programming, will symbolically affirm the centrality of an undergraduate-focused educational experience to the identity of University College. This ambitious project addresses the unfinished business of creating a permanent home for the library's collections.

Some editing of collections is anticipated to allow for ample student study space to be incorporated and to maintain a light-filled and inspiring space. Little accessed reserve collections may, therefore, find their home within other locations of the College or within accessible storage offsite.

The East Hall: Current Conditions

Nothing in the library, save the masonry walls, survived the fire of 1890. The 1891 renovation and reconstruction work honoured the robust quality of detailing represented by the Cumberland and Storm library but refashioned the space to function as an open hall. It remained virtually unaltered until the 1974 renovation and restoration. At that time historic finishes were carefully conserved and new infrastructure such as hot water perimeter heating, ventilation, and improved lighting were introduced. Contemporary interventions include a raised stage and a steel balcony spanning the width of the room and with stepped seating. 80% of the floor structure was removed and replaced with a concrete pan and open web steel joist structure. The floor was carpeted, fire-rated doors were added, and the 1856 door from the third floor was reopened to act as second means of egress for the balcony.

The 1891 interior woodwork, windows and plaster are in very good condition. They have been well cared for and require only light conservation. The fine stained glass in the upper and lower windows will require conservation and all windows need upgrading of the weather seals and interior storm windows to achieve higher performance standards. The carpet covering the concrete floor appears to date from the 1970s. It is proposed to be removed and replaced with the more historically appropriate wood.



Existing East Hall

The sandstone masonry window surrounds in East Hall are the same as those in West Hall, the proposed site for the Library's Reading Room. But in East Hall these surrounds have been painted, likely as an attempt to address discoloration or damage from the fire. They are one of the primary character-defining architectural features in the space and thus their current, altered appearance detracts significantly from the historic interior and should be addressed within the renovation.

Perimeter heating appears to be functional however its wood enclosure detracts from the appearance of the wood paneling and much of it is damaged.

The current approach to artificial lighting is the same as that adopted for West Hall: concealed fixtures set into the historic ceiling and 1970s chandeliers mounted high into the space. The library space requires ambient light but most importantly light directed onto the stacks and working surfaces. Existing lighting will be removed and the ceiling will be restored.

Floor Loading Capacities

The 1856 floor and supporting structure of beams and load-bearing walls were built to support the significant weight of the two storey library book cases and mezzanine.

The fire destroyed the support structure for the library. When the floor was reconstructed in 1891 and replaced in 1974, it allowed for adequate floor loads but would not allow for concentrated loads from the book cases of the new Collections Room. The floor structure was analyzed and the project allows for reinforcing under the book shelves.

The Collections Room Project

The Collections Room for the new Library follows the compact planning principles that were at work in the 1856 Cumberland and Storm design. The stage, steel balcony, carpet, chandeliers, and baseboard heating will be removed and the sandstone window surrounds will be restored. Windows and stained glass will be conserved and improvements will be made to them to improve their performance. The 1891 interior by D. B. Dick will be conserved. The wood floor will be reintroduced.

The new mezzanine follows on the planning principles of the original design. Its purpose is to provide accessible storage for the University College collection and to create settings for study and casual reading and meeting space. The THA study suggests it be designed to stand away from important historic finishes and details of the existing Hall. Book cases are proposed to be located in the same location as in the 1856 design to accommodate enclosed and open study alcoves and seating areas.

A new stair is proposed that rises from the east end of the room, divides and connects to the north and south side of the mezzanine. The Project Committee suggests that two bookable study rooms to accommodate 4 persons be located at the western end of the mezzanine along with an accessible entrance leading to the third floor and proposed café space. Circulation takes place around the inside of the mezzanine.

Mezzanine Access

Existing circular stairs leading from the main level of East Hall to the mezzanine were maintained in the THA study, but are proposed for removal by the Project Committee to free up additional space for group study and collections at both levels. Fire exiting will require appropriate egress be maintained from all spaces. Careful consideration of fire exiting will, therefore, be necessary to confirm this direction during the early design stage.

In addition, preliminary reviews indicate that a lift will be required to negotiate the existing level change between the East Hall mezzanine and the adjacent central tower third floor level, with its access to a proposed new limited use/limited application elevator as well as the proposed 3rd floor Loft Café.

The spaces between the stacks on this level next to the stained glass windows are developed into reading alcoves offering soft-seating options. Views over and across the open reading hall will be exceptional.



Rendering of potential East Hall Collections Room configuration

The main floor of the Collections Room will include integrated library stacks and reading hall. It is an axial plan divided into a foyer with stand-up catalogue tables; a central open hall for the librarian's desk and study table; and the principal stairs to the mezzanine. Alcoves flank the centre hall, with the librarian's resource room located in the south east corner alcove. The ceilings and returns are proposed to be plaster to reflect light and the book cases to be stained white oak in keeping with the original mezzanine design.

The mezzanine is designed to allow for the maximum amount of light to penetrate the room. The proposed white oak colour will pick up on the lightest tonal range in the historic wood ceiling.

Task lights will be used on the reading tables while the alcove ceilings will provide light to the stacks and tables. Each study station will include access to a power receptacle and wifi coverage.

New light-fixtures (lanterns) are proposed as a connecting theme that extends across the entire 250-foot length of the Library's Collections and Reading Rooms. They unify the space and reaffirm the route of travel through it. The Taylor Hazell Analysis material details their design as a study on the kerosene light used in the building between 1856 and 1890 and thus has commemorative significance.

The mezzanine stack design is proposed to incorporate most of the electrical, mechanical, audio visual, sprinkler, heating, and ventilating needs for the alcoves and room. The floor structure is designed as a conduit and plenum for these systems. The heating system uses radiant heat for the alcove ceilings and compact radiators for the upper alcoves. Receptacles, IT, and AV connections run the entire length of the mezzanine.

Returning the collection and its program to its historic location within University College is a powerful and timely act of re-affirmation. The decision to adopt a design based on the original compact stacks and alcove planning principles further identifies the project with the historic context and addresses the practical need for storing a relatively small but educationally significant collection in the limited space.

Collections Room – Storage Capacity

While the Library's current collection of approximately 35,000 volumes is accommodated in generous space within the Laidlaw Wing, the connection of student study space to the circulating collection is tenuous. The new East Hall Reading Room presents an opportunity to closely integrate a variety of high quality study space with the College's circulating collection. However, given the area constraints of the East Hall, there will need to be a reduction in the number of volumes stored on-site, with a conservative preliminary estimate of 20,000 volumes of capacity anticipated in the new Library.

The Al Purdy Collection (approximately 3,000 volumes) has been identified as a candidate for locating in suitable dedicated space elsewhere in the College as it is a non-circulating collection. Room UC259, UC240 or the Principal's Office (UC165) have been discussed as potential locations to house this collection, given appropriate renovations.

An opportunity also exists to partner with the University of Toronto Libraries in order to take advantage of their archival services to store a portion of the University College collection.

Library Space Program

The following table provides a detailed tabular listing of the proposed space program for the Library, inclusive of the East and West Halls, Loft Café and related support spaces. See Room Data Sheets for additional details regarding type and quantity of furnishings.

			Area	Library
East Hall	Location	Seating	(nasm)	Volumes
Collections Room - Main	UC266	55	230	15,000
Collections Room - Mezzanine	UC266	40	150	5,000
Librarian's Workroom	UC266	2	12	
Seminar Room	UC266	4	9	
Seminar Room	UC266	4	9	
Librarian's Office	UC272	1	18	
Subtotal		106	428	20,000
West Hall				
Reading Room	UC273	70	250	
Furniture Storage	tbd		24	
Kitchen	tbd		10	
Subtotal		70	284	
Loft Café				
Reading Room	UC376	34	128	
Subtotal		34	128	
Total		210	840	

Library: Reading Room

The repurposing of the West Hall to accommodate a significant Reading Room allows for the reinterpretation of one of the most significant heritage spaces in University College and creates a new public space for the University. The shift of the library programme from the Laidlaw building to one of the most architecturally significant public spaces in University College will alter public expectations about the services that it offers in comparison to similar campus-library reading room spaces and how they are used. The conservation of the historic space, the selection of durable and quality furniture that complements the space, infrastructure, and lighting confirm that this space maintains its authenticity while serving this new purpose.

The open plan is designed to allow the space to be adapted to other uses including convocation marshalling, student social events, and College ceremonies; programming and space planning studies, however, have demonstrated that existing services and storage capacity are inadequate and the temporary storage of furniture in hallways is unsafe. In addition barrier-free washrooms are not available on the same floor level as required by the Ontario Building Code.



Rendering of potential Reading Room configuration

Finding a way whereby the Reading Room can adapt itself so that it can continue to be a part of established traditions such as convocation and other important events, is necessary because it contributes to the identity and programming of University College and the broader University of Toronto.

History

Between 1856 and 1890 the Library and Museum occupied what are now the East and West Halls in University College. These were “the show pieces of the main building” and they were amongst the finest spaces of their type in North America. The rooms were identical in size (11 metres by 22 metres), proportion (two cubes), exposed barrel roof structure, and Victorian Romanesque detailing. The materials were also identical: wood ceilings, wall treatments and floors (clear pine and oak), white plaster, sandstone windows surrounds, and stained glass windows. Both spaces used mezzanines for viewing their collections and window openings from the geological collections room on the third floor overlooked each room.

Their appearance differed with respect to how light entered the east and west elevations and enabled the appreciation of their collections: the display and reading of books as opposed to the display and viewing of artefacts. The window openings in the library included 12, lower, smaller windows to light the alcoves, as well as 12 windows above the mezzanine level, whereas the museum had only 16 higher window to provide down-lighting of its displays.

The fire of 1890 gutted the library and raced through the attic space above the museum, quickly burning through the purlins and plaster panels but sparing the exposed beams. The damage was extensive but enough original material remained to allow for reconstruction rather than demolition. The ceiling is an exact replica of the 1856 library ceiling destroyed in the fire. The rest of woodwork including the fine wood wall panels, with their carved roundels, was added in the 1890s.

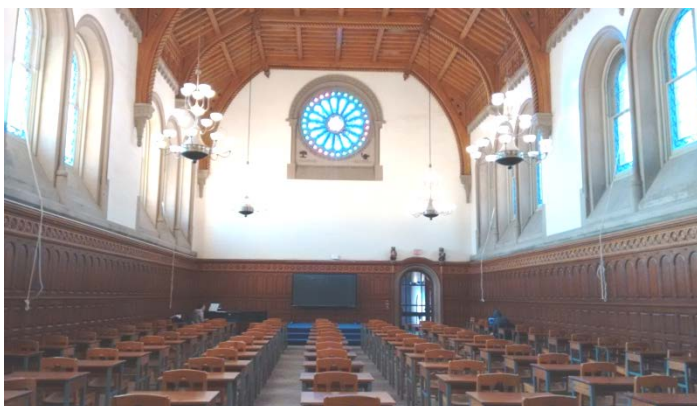
The transfer of the museum, ethnology, and geological collections to what would become the Royal Ontario Museum freed up the former museum to become the West Hall. Since that time West Hall has functioned as flexible space for academic activities, social events, a short cut, and, most importantly from a symbolic point of view, as a marshalling hall for convocation.

In 1972, during one of these assemblies the floor partially collapsed, triggering the restoration and renovation project that started in 1974.

At that time all interior finishes in West Hall were carefully conserved and restored. The wood floor was replaced with concrete and parquet flooring was applied to it. Continuous fin-type hot water heating replaced cast iron radiators, and supply and return ventilation was added. Cross ventilation from adjusting the upper sash on the windows has been the sole summertime cooling for over 160 years.

Existing Conditions

The sandstone, plaster, wood and stained glass windows in West Hall are in exceptional condition and require only light restoration. The wood enclosure for the perimeter heat is poorly made and damaged and the wood floor requires refinishing. Electrical and IT infrastructure is inadequate. Lighting for the room is from reproduction chandeliers mounted in the middle of the space. Secondary lights have been let into the historic ceiling but night time illumination remains inadequate.



Existing West Hall

Convocation ceremonies are the culminating events for students, parents, and visitors and, over the course of several weeks in June, thousands of students gather at University College before marching in their gowns across the front campus to Convocation Hall, thus symbolically re-enacting the growth of the University from UC. Every student looks forward to experiencing their graduation in the context of the historic building. But, during marshalling when up to 300 students are assembled in West Hall, temperature and humidity levels can far exceed comfort levels in spite of cross ventilation. Air conditioning is now the minimum standard of expectation for places of assembly and the enjoyment of important occasions.

Lighting

The Reading Room is a grand historic space with qualities of light, finishes, and detail that make it perfectly suited for students to study, read, and write. New light-fixtures are needed to mediate between the furniture and the academic activities that take place to either side of the centre aisle. The

lamps could form a path through the room to the west stair and offices in the west wing or to the entrance tower up to the café on the third floor or through to the Collections Room where the fixtures may be repeated.

As conceived in the Taylor Hazell study, these light fixtures will direct light to the ceiling, ambient light to the walls and indirect light over the carpet, furniture and activities at floor level. Proportionally, the bases of the lamps should be aligned with the windows so that light from the windows will reflect onto them. Finely crafted lamps are proposed to complement the precision of the stain glass windows.

Task lighting provides additional light at the study tables and throughout the casual seating area. The study tables, chairs and low tables have weight and are generous, but will be sufficiently flexible to allow for relocation and storage at certain occasions. They carry the use of wood and the finish of the walls into the room and should incorporate electrical receptacles at each study station. Area carpets are proposed to define furniture groups, offer acoustical buffering, and add colour and pattern to the room. The furniture must be chosen so it can be temporarily stored in the ancillary space west of the Reading Room. Wireless internet access is available across the room.

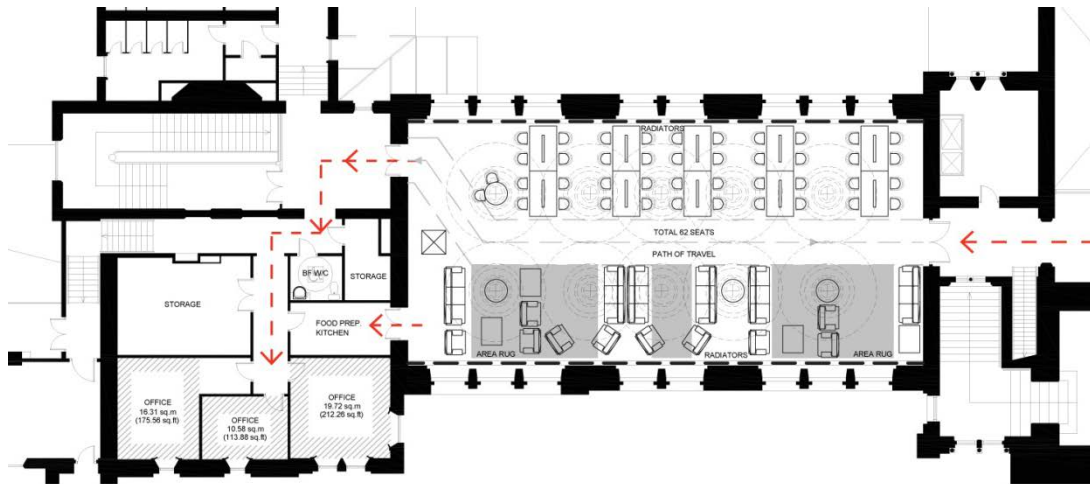
Interconnected Spaces

The arched opening over the entrance to the stair tower and Collections Room will be opened up to create views through to the third-floor lounge and café.

The spaces were designed to be interconnected. The progressive isolation of these spaces from each other and removal of specific programme uses from them has contributed to their decline in use. The Reading Room project returns strong programme uses to an important historic space, introduces infrastructure, and recovers the dynamic relationship between adjacent library spaces.

Ancillary Spaces Adjacent to Reading Room

Important traditions such as the marshalling of graduates during convocation and social events partial to University College will continue; the Reading Room has been designed to ensure that changes to the space can be made quickly and there are adequate support services. At the present time furniture is stored in hallways where it presents a safety hazard and in a small storage room west of the Reading Room. The existing preparation kitchen conflicts with paths of travel and there are no accessible washrooms. The Reading Room project includes service spaces for the storage of study tables, chairs and other furniture, a barrier free, gender neutral washroom and an efficient preparation kitchen.



Potential West Hall and Support Space configuration

The Reading Room project may require some revision to the areas immediately west of the Reading Room to accommodate all necessary storage and support spaces. The Taylor Hazell study proposed shortening the corridor and reducing the depth of the faculty offices to create a larger floor area, though they also recommended restoring an 1856 exit from the Reading Room into this ancillary space (sealed off in the 1891 reconstruction) that the Project Planning Committee thought was unnecessary. Nonetheless, the precinct west of the Reading Room, with its currently underutilized kitchen and storage spaces seem ideal for the introduction of a barrier-free gender-neutral washroom and well-designed storage rooms that would accommodate most of the furniture from the Reading Room.

Library Loft Café

The entrance tower was originally designed to connect three important collections: the museum and library to either side of the tower on the second floor and the geology collection to the north of the tower on the third floor. The reconstruction of these rooms following the fire of 1890 converted them into independent halls for a variety of academic and assembly purposes. In order to create fire separations between the two Halls, the arched openings that overlooked the former museum and library and across the tower were filled in.

The unique, loft-like, third-floor room retains all of its character-defining attributes from the 1891 reconstruction. These include the chamfered timber trusses and clerestory lights. The historic finishes were restored in 1974.

The library project includes a barrier-free limited use elevator that would service the ground, second and third floor levels of the central pavilion. Providing this important new service enables the third floor to be developed into a café and events room. Reopening the arched openings on its east and west side is proposed to connect it to the Collections and Reading Rooms, creating a site of social interaction, complementary to the more academic role of the Library. The third-floor space needs only minor restoration. New lighting fixtures, a coffee station, and a barrier-free washroom are included in the scope of work.



Rendering of potential Loft Café configuration

Improving Accessibility

The University of Toronto is committed to ensuring that its buildings and services are accessible to persons with disabilities. This is informed by the University’s institutional Statement of Commitment Regarding Persons with Disabilities, as well as the obligations that fall under the Accessibility for Ontarians with Disabilities Act (AODA).

The amendments made to the Ontario Building Code (Code) under Regulation 191/14 came into force January 1, 2015. These changes apply to new projects, major retrofits, common space and circulation areas, and change in use. The amended requirements are intended to substantially enhance accessibility in newly constructed buildings and existing buildings that are to be extensively renovated.

“Universal design” names the commitment to making buildings available to all users, regardless of disability. Principles of universal design have been transforming the way students, staff, and the visiting public experience the St. George campus since the 1970s, and it is now affirmed through legislation and the expectations of a diverse and informed public. The importance of this initiative, reconfirmed in the 2011 St. George Master Plan Framework, is underscored by the fact, that at any one time, 14% of the population requires some form of special accommodation to access services and opportunities that others take for granted.

The extent to which innovative ways are applied to accommodate these principles in public buildings increasingly becomes a measure of how inclusive an institution is. The most fundamental challenges that people with special needs confront are stairs, way-finding, and washrooms. Barrier-free design addresses these needs.

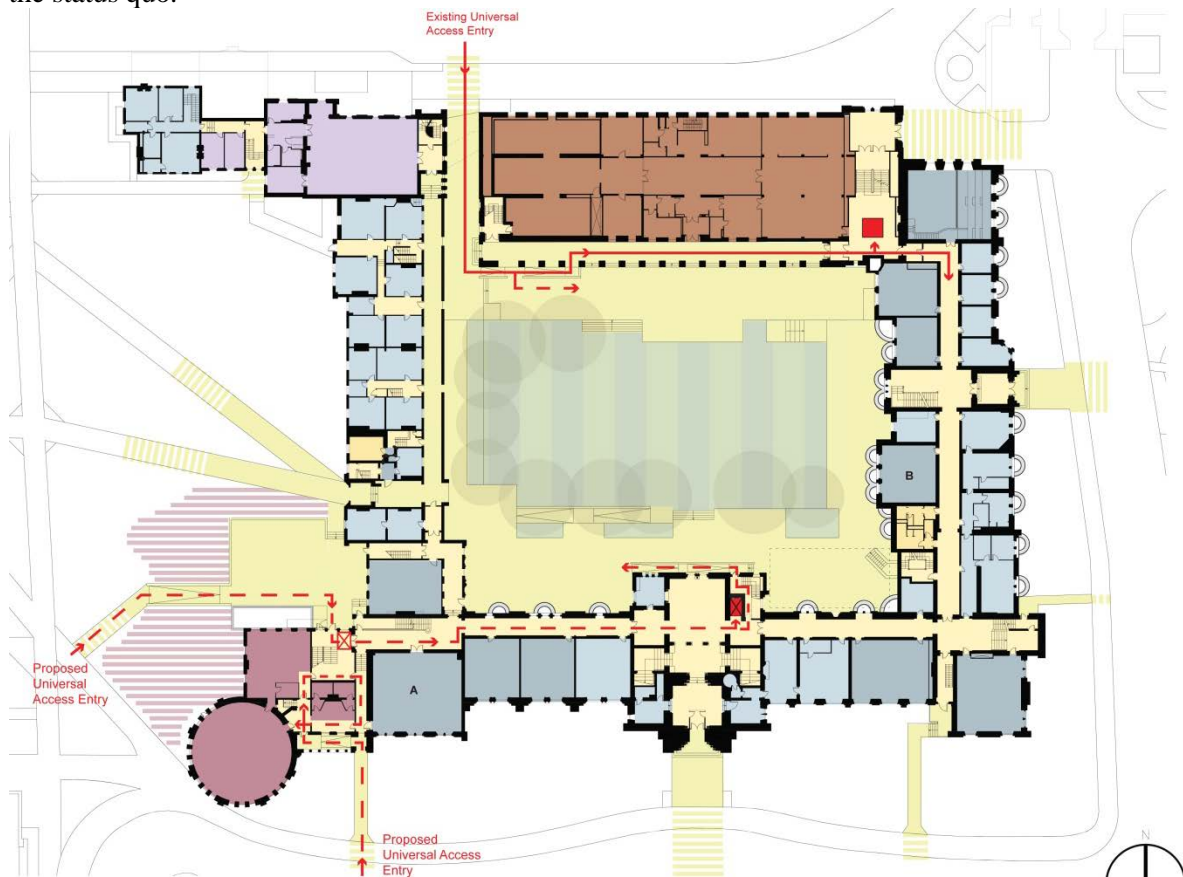
University College has previously attempted to increase access for those with restricted mobility. But it is a difficult task because its much-admired historical design includes an exceptional number of stairs. Complicating this further are four disconnected third-floor levels (the central tower, the southeast tower, the Laidlaw wing, and the Cloisters wing).

The development of the initial phase of revitalization projects, the East and West Halls and Loft Café, must be combined with addressing the challenge of making them accessible to all.

The project will incorporate visual fire alarms in any new barrier-free and universal washrooms.

Any new barrier-free washroom will comply with the minimum standards set by the Code addressing turning space, doorway width, grab bars, counter weights, signage, and power door operators, among others.

The following ground floor diagram identifies the existing primary barrier-free route of travel into the building. Its location at the back of the UC – near the service door, the garbage bins, and 200 metres away from the front door – is a significant deficiency further exacerbated by poor signage. A separate barrier-free route into the H-wing in the northwest zone of the building adds additional confusion to the status quo.



Ground floor plan indicating existing barrier-free route and potential added barrier-free route

Barrier-free paths of travel must also strive to provide the proper door width, hallway passing space and curb ramp dimensions, as well as properly considered signage within the heritage building constraints. Tactile walking surface indicators for stairs and platform edges will be provided as much as is feasible given existing building conditions.

One possible new barrier-free route could build on the infrastructure of the 1974 renovations by introducing a route of entry west of the main entrance with a drop off point at King's College Circle. In the above example, two new routes of barrier-free travel have been proposed:

- Access to the ground floor level is transformed by the introduction of a ramp onto the existing terrace and a lift from the existing foyer to the ground floor. The addition of a limited use/limited application elevator to the main entrance pavilion provides barrier-free access to the basement and to the new Library on the second floor, as well as to the third-floor café proposed for the central tower. Barrier-free washrooms have been added on the second floor.
- The Croft Chapter House and the rooms that are associated with it are modified by the introduction of a low stone ramp into the colonnade entrance and the creation of a clearly understood path of travel connecting all rooms and services. The existing barrier-free washrooms would be upgraded as part of a later phase in the creation of the Croft Chapter House Conference Centre.

The proposal as shown is not without its challenges to implementation. Alternative paths may prove to be more feasible. For example, there may be a possibility to create a barrier-free entry and path from the College's East Entrance off of Hart House Circle, however this route presents its own obstacles. Consultation with the project planning committee indicated that further investigation is desired to identify all potential barrier-free path strategies. Ultimately, the consultant team, once engaged, must research all applicable building code and structural parameters in greater detail to determine the most effective and economical solution.



East Entrance to University College from Hart House Circle: an opportunity for pick-up, drop-off

Seating

Where space in the project is assigned for public assembly, accessible and adaptable seating will be provided. Accessible seating will incorporate dimension specifics, as well as placement within any fixed seating provided. Both wheelchair and accessible seating provisions will adhere to the required proportions of around three and five per cent of fixed seating respectively.

Elevator Addition

The committee was in agreement that the addition of an elevating device to the College's central stair tower was the most effective means of providing access to the East and West Halls, East Hall mezzanine, and Loft Café levels. Given the constraints of the central stair tower, the project scope as presented allows for a limited use/limited application (LULA) elevator in place of a full size

conventional elevator. The LULA elevator has the advantage of requiring a minimal footprint and vertical clearances but is limited in its range to three floors, meaning service to the basement would be excluded.

An aspiration remains to investigate the feasibility of a full size elevator in the central stair tower as part of the design development of Phase 1, with the understanding that it may require substantial reconfiguration of the existing tower stairs in order to create the necessary clearances for the elevator addition.

The revitalization presents an opportunity to add a barrier-free access ramp into the College's quadrangle. While upgrades to the quad have been identified as part of a later phase of the overall UC revitalization, the addition of the access ramp could be included as part of the initial improvements to accessibility.

General Lighting and Way-finding

Meeting the minimum standards for lighting is fundamental to universal design. Light level readings in the class and lecture rooms confirmed that they meet University guidelines. But readings in the public corridors and principal rooms during the evening revealed that the lighting levels were several times lower than the minimum recommended.

Inadequate lighting reduces the functionality of rooms and public spaces, as well as the sense of security. It also contributes to problems with way-finding by obscuring room labels and undermining users' orientation particularly at transition points such as the east and west stair foyers.

At present, the College is undertaking a comprehensive way-finding study to develop an appropriate strategy for improving existing conditions. While the implementation of this strategy will likely take place in advance of the first phase of revitalization, way-finding elements must be integrated into any of the revitalization's contemplated renovations.

Design of Public Space

The Design of Public Spaces Standard, section 80 of the Integrated Accessibility Standards Regulation (191/11) of the AODA, comes into force for the broader public sector January 1, 2016. Projects that create new or redeveloped public spaces will adhere to the specifics set out in the Standard. This includes any ramps, outdoor public use eating areas and play spaces, exterior paths of travel (including stairs and depressed curbs), accessible parking (including requisite algorithms for type and amount of spaces), and service areas. Proper consultation must take place before new construction or redevelopment takes place.

Remaining Challenges

It is beyond the scope of this first phase of accessibility improvements to be able to address the challenges of barrier-free access to the Cloisters wing of University College. While the structural challenges associated with these parts of the College are significant, improving access to these areas should be studied further to determine if they could be included as part of a later phase of renovations to the College.

Creating a Conference Centre at Croft Chapter House

History

The Croft Chapter House commemorates Henry Croft, first Professor of Chemistry, first, at King's College, and then at the fledgling University College. The building's unforgettable architecture and the arrangement of ancillary buildings that gather about it and occupy the south west corner of the College are based entirely on scientific principles and strict functional programming.

When it was first built, the Chemistry School included a chemical store room, professor's laboratory, offices, lecture hall and student laboratory, the last of which is what is now called the "Croft Chapter House." The complex remains an example of architecture that was on the vanguard of 19th-century design. The Croft building follows a rigorous design geometry which is based on a sphere, under a cone, in a cylinder, capped by an octagon, and topped off by a wrought iron finial derived from a spherical astrolabe.

For a short period, physics replaced chemistry in the use of the space but, when that faculty moved to its own building, the former chemistry school, with its purposeful disposition of rooms and functional relationships, was incorporated into the arts and social science programme.

In 1892, and again in 1974, the former Chemistry School underwent significant renovations. Sandstone gables were added when a second floor was incorporated into the Chapter House and sealed up when the floor was later deleted; rooms were reconfigured, doorways removed, and the wood floor was entirely taken up and replaced with concrete.

The most recent renovation took advantage of the floor level being at grade to adapt this precinct to function as a meeting space and reception hall. A partially implemented restoration approach was adopted for the historic woodwork but the paneling that lined the Chapter House interior was destroyed. 1856 and 1892 finishes were retained above that point. Most prominent of these are the banks of windows set into the scalloped walls, the eight fluted wooden arches that gather into a compression ring at the top of the dome, and the lantern.

New building services were introduced including barrier-free washrooms, below slab air handling systems, extensive acoustic treatments, new fixtures, rolled carpeting, and terrazzo floors. A foyer and second exit were added to the north where it lets out onto a raised terrace.

The durability of most of these interventions did not equal that of the historic building. After four decades of continuous use, the novelty of these improvements has faded. The technology that was once sufficient to service meetings is antiquated. Lighting levels are a fraction of what are required and vines now grow through the upper window sash on the west elevation. Information technology necessary for contemporary activity is lacking and the acoustics are inadequate for larger meetings. The large table currently in the middle of the room – the University Senate Table designed originally for what is now Room 240 in the northeast corner of University College – precludes flexible use of the space.

It is time to restore the Croft Chapter House so that the glory of the space can be used by 21st-century students and faculty, as well as by the broader community.

The Taylor Hazell study illustrated several possible room and seating configurations for Croft. While flexibility of configuration is desired, the space will have the greatest success if it is designed to

perform first for a priority use. The Committee agreed that the ‘panel discussion’ arrangement would be the most common use for the space.

The typical size of most anticipated events would be in the 20 to 80 person range. Ideally the room would be able to accommodate up to 120 people.

Restoration and Rehabilitation Strategy

• *The Croft Chapter House Interior*

The interior will be restored to better reflect its 1859 appearance. This will include restoration and conservation of: the wood and plaster lantern; the cast iron, wood, and plaster dome; windows and doors; and limestone fireplace; as well as the introduction of period colours.

• *Interventions*

Repairs, additions, and alterations that complement the historic interior are proposed to include: carpet replacement patterned after geometries used in the design of the Chapter House; replacement of the acoustic screen with a historically sensitive paneled wall system; restoration of the passage to the adjacent Senior Common Room; improved suspended lighting and audiovisual infrastructure. THA proposed the introduction of a suspended light fixture that would integrate audiovisual and information technology infrastructure allowing it to function for a range of academic social and business functions. This is one option that should be explored by consultants, informed by the input of acousticians and audiovisual specialists. Other more traditional options should also be considered.

Inherent to the ambition for flexibility of configuration is the proper selection of flexible conference furnishings. Chairs and tables would be primary elements, along with the option for modular risers and a movable lectern. Storage of these elements, particularly the tables, will be a critical aspect of the design.

A stipulation for furniture selection is that it must complement the heritage interior, though the furnishings need not literally mimic period furniture.

Senior Common Room

The space now housing the Senior Common Room was created in 1974 by removing the second floor of what had been, in 1856, the janitor’s apartment, located over ground-floor chemistry laboratories. This intervention created a single volume of space with an assortment of windows on the north and west walls. Those on the north side, overlooking a terrace, are large and were intended to bring light into the laboratories; their glass dates from 1856.

The interior east and south walls are painted drywall and the floor is vinyl tile. A single door opens into the large room. The loss of so much early building fabric is problematic, but the large space presents an opportunity to create a suite of rooms and services that enhance the perception and use of the Chapter House.

With the exception of the window casing and sash, all finishes are from the 1974 renovations. Acoustic panels, have been applied to the ceiling and an inappropriately sized, small brass chandelier hangs from its centre. The lighting levels in the room were found to be a fraction of the minimum required for such spaces. The room is filled with remaindered furniture and carpets. Overall, the Senior Common Room is an isolated and underutilized space.

The Senior Common Room project begins with opening up the 1856 link to the Chapter House and creating a new opening and second means of egress under the stairs to the Foyer. The diagram on page 30 shows how these restored and new openings combine with existing paths of travel.

If, as the Taylor Hazell report suggests, a ramp to the main floor of the building is introduced in the southeast corner of the Sir Daniel Wilson (immediately to the north of the Senior Common Room), there will be an easily understood circulation route connecting all rooms and services.

The floor finishes will be carpet and the acoustic ceiling tiles will be removed. One of the large chandeliers from the upper halls could be relocated to provide light. The sloped wall over the north windows will be extended around the other sides of the room, a simple gesture that will reduce the scale of the walls, create visual interest, and unify the space.

A small preparation kitchen will be introduced next to the connecting link with the Chapter House. Its purpose will be to service conferences and meetings. Historically themed furniture for the space will support a variety of seating and lounge occupancies.

University College Quadrangle Renewal

The landscape setting for University College was designed to ensure that this first and summary building would be seen and experienced as the centre of a much larger campus. Placing UC on a rise of land at the centre of a field with a front and back commons has worked well. The St. George campus continues to evolve as new exceptional buildings and landscapes are added, but the identity of the University resides in this simple elegant and immensely public place. Whether we walk through it or celebrate Convocation we participate in its narrative and reconfirm its heritage value. This place stands for the greater campus regardless of how large or complex it will become.

Inside University College is a cloistered garden designed in reference to the archetype of the ideal garden. Fifty years after it was most recently landscaped, this walled garden has become one of the most important public spaces on the campus.

History

Quadrangles of various sorts are found throughout the older campus and are an important typology associated with university buildings. Though the quadrangle at University College was first imagined as a cloistered garden, it began as a service yard. The 1856 plan described an outward facing U-shaped quadrangle, a typology typical of large institutional buildings in North America at this time. The principal elevation faces south across King's College Circle with the library, tiered classrooms, and Chemistry School organized to either side of the symmetrically placed entrance tower. Classrooms, the convocation hall, senate chambers, and professors' offices occupied the east wing. The west wing, with its fine arcade, contained student dormitories, the Principal's residence, the dining hall, and the caretaker's residence and stables.

The inside of the courtyard was built of buff clay brick with sandstone enrichments in place of the sandstone that was used exclusively on the outside walls of the south elevation and east wing. The residence and service wing were also buff brick. The court included a well, boiler room with an imposing smoke stack, and latrines.

After the fire of 1890, modern services were introduced into the campus, a gymnasium was added, and the service court took on the character of a public park. Convocation ceremonies and special events spilled out onto it from the surrounding building and arcade. New traditions were formed such as shown in the charming 1923 oil painting, "Garden Party," by Mary Evelyn Wrinch.

The construction of the Laidlaw wing (1963-4) across the previously-open north side of the court transformed the quadrangle into a cloistered garden. The architects were Mathers and Haldenby and they chose to contrast the new building with the Victorian picturesque context. To do this they used a stripped down classicism stylized after Norman precedents. The workmanship is exceptional and its arcade complements the 1856 arcade on the west elevation. The University of Toronto Art Centre with its fine galleries and programming now occupies the ground floor and contributes significantly to the life and identity of the quad.

The landscape was reinterpreted and built at the same time. It is a modernist set piece designed by Michael Hough, a pioneering Toronto landscape architect. A raised terrace on three sides that frames a sunken lawn, the overall impression from the photographs taken just after construction is of restrained elegance with references to cloistered medieval gardens.

The cloistered garden is a place for spontaneity amidst the sometimes structured world of higher education. Reading, relaxing, juggling, trysts, sleeping, meetings, seminars, performance events, weddings, and of course Convocation ceremonies come and go from season to season. The quadrangle fulfills the role that such spaces evoke throughout the world and throughout time.

Fifty years have gone by since the quadrangle was reconstructed and it is full of life and significance. Everyone who enters this space or looks into it from the buildings that surround it immediately understands the value it gives to the experience of University College.

Existing Condition

The garden has grown older, flagstones have settled up to 4 inches, snow-melts and rainwater collect and wash out the dry stone walls and stairs. Benches are rotten and the small split leaf maple trees shown in the 1963 photograph have grown tall and rangy in the shadow of the south wall, completely blocking out a view of the south, east, and west building elevations. Most importantly movement around the quadrangle, already interrupted by the incomplete east side, is impaired by a patchwork of tripping hazards; barrier free ramps are noncompliant; and the height of the raised walls exceeds Ontario Building Code standards.

The south side of the raised walkway never receives direct sunlight. Fifty years of tree growth against the building have further reduced natural light so that now nothing grows successfully on this side of the quadrangle. A bank of mechanical chiller fans has been introduced into the south east corner. A partially excavated well from the 19th-century service courtyard was accidentally rediscovered in 2011, but was then concealed and covered due to possible hazard.

If the cloistered garden continues to be left unattended it will become unsafe, decline further, and cease to fulfill its promise of becoming a great public room of surprise and pleasure marking the centre of the University.

The Quadrangle projects described in this report restore the 1964 design as a matured garden so it gives pleasure in all seasons, provides greater levels of use and accessibility for everyone, and is fitted up with an infrastructure that will enable an even broader range of events to take place within it.

The quadrangle is a grand public space but it is also an ecology that thrives and reveals itself to us when it receives the right balance of light, water, nutrients and cultivation.

Restoration

The overgrowth of trees within the Quad darkens the corridors, classrooms, and East and West Halls and also damages the building's masonry, woodwork, and paint finishes. The restoration of the garden will let natural light and air into the building and extend the life cycle of materials on the outside. It will dramatically enhance the architectural appreciation of walls that define the enclosed space and interiors.

Trees and Raised Beds

Trees will be edited back from the south and east walls and pruned up to let the light in. New stock will be added where they are missing. The Taylor Hazell Report suggests the development of planters and raised beds planted with species that provide richer association with the traditional cloistered garden. A strategy for sustainability of care will need to be finalized if this recommendation is to be followed.

The Raised Terraces

The Taylor Hazell report proposes the introduction of a raised terrace on the east side of the quadrangle in order to complete a terraced path of travel around the entire quad. Flagstone finishes would be reset and reinterpreted across the east terrace as a walkway. While the Committee agrees that the east side of the quad should be activated with a walkway, the location of classrooms and offices in the east wing of the building means that the path should not be raised to interfere with views and access to natural light, but may be better provided at the current ground level. Further study is required before finalizing the appropriate choice.

Two existing ramps will be redesigned to be building code compliant and a new ramp will be added to the south elevation. It will enable direct connection to the quadrangle from the building's central pavilion. These changes will make the quadrangle function as an alternative way of moving through the site.

The Grass Lawn

The grass lawn or meadow in the middle of the quadrangle is referenced in the earliest description of cloistered gardens. The sunken lawn will be upgraded with improved drainage and leveled to make it more accessible and to bring it into compliance with safety standards.

Light

The editing and pruning of the trees that now block light will allow the garden to flourish. Activities that used to take place will come back and new uses for the space will occur. Light will now fall on a bench, against a garden wall, or on the lawn where it did not before and it will become a destination. Light and warmth will extend the use of the garden when the weather is cool.

Low lighting levels will be introduced into trees to feature the upper branches and canopy and architectural lighting will be applied to some of the elevations. Localized lighting will be used to identify stairs and ramps. Infrastructure will provide connections and simple controls to enable staging of evening curricular events such as performances linked to the Centre for Drama, Theatre, and Performance Studies, or co-curricular events, such the Lit's annual "UC All Day All Night" (UCADAN).

Water

Water is a deeply rooted and recurrent theme in ideal gardens. Wells and springs were focal points for social life and architectural expression. In 1963, the 19th-century well that serviced University College was covered over by the south terrace. The recent rediscovery of the bell-shaped cistern that marks where the well once stood presents the opportunity for commemoration and reintroduction of water into a corner of the cloistered garden.

Infrastructure

The raised condensing fans built on top of the south east corner of the terrace are necessary for the air conditioning but they have no place in the cloistered garden. The proposed scheme for producing chilled water for air conditioning will allow the removal of the unsightly condenser.

The functional attributes of the quadrangle (a service entrance from the northwest corner, large size and raised walls around a sunken lawn) make it a preferred destination for University and community events.

The success of the cloistered garden is measured by the vitality of what takes place within it and much of what can occur requires infrastructure support. The redevelopment of the quadrangle proposed in this report includes audiovisual, information, and electrical stations where theatrical, seminar, and public events set up and audiences gather. Lectures, seminars, Garden Theatre, medieval cycle plays, Nuit Blanche, and music performance are all made possible.

Upgrade University College Classrooms

University College was designed and built to be an ideal learning environment. And, as in all great buildings, the level of care in how it was made and sustained has a direct effect on the experience of the individuals within it and the confidence and sense of purpose of the institution as a whole.

Teaching and learning remain central to the University College mission; its classrooms and lecture halls serve as primary destinations for faculty and students, both those affiliated with UC and those in other colleges and faculties. Classrooms, as sites of formal learning, generate movement within and to the College. The environments within them continue to have as direct an effect on how faculty teach and students learn as they did when University College first opened.

Existing Classrooms

There are a total 33 classrooms that are centrally bookable through Academic and Campus Events (ACE): 15 classrooms are located along the 'central corridor' of the College; 20 rooms are in seminar format; 10 rooms are in lecture format; 3 are in lecture hall format (tiered seating). Currently UC has first priority for booking these rooms, followed by Arts & Science, and lastly campus-wide.

Historical Origins of Classrooms

The function of the classroom determines its form and this is nowhere more evident than in the original 1856 design. The model was the Roman amphitheatre, a form that focused all attention on the professor, the blackboard, and the lesson. This historical association evoked an ideal for higher education that resonated with the College's programmes, both scientific and humanistic.

Natural light poured in from large windows; wooden shutters complemented the wood paneling that lined the walls; the ceilings featured carved beams; and white plaster walls reflected light throughout.

While the tiered seating has gone from most classrooms and subsequent renovations have removed or obscured some of the detailing, this model for education, modified and enriched by technology, continues to resonate.

But the classrooms and lecture halls have lost much of their identity largely due to the cumulative effect of renovations and use. And the original teaching model needs to be supplemented by an increasing appreciation for group and seminar work, where faculty, graduate-student teaching assistants, and undergraduates meet to learn from one another through informed discussion. Finally, contemporary classrooms must be equipped with the latest information technology, allowing faculty and students to access the most advanced teaching tools.

The restoration and renovation work that are being contemplated recover and reaffirm the historic identity of a selected range of classrooms, while integrating modern teaching technologies. The goal is to highlight the heritage features in these classrooms so that, in their learning experiences, students can recognize the College's distinctive place in the history of Canadian higher-education even while using the latest electronic innovations.

While ACE has a certain budget allotted to classroom upgrades campus-wide, the budget does not normally include for the level of customization anticipated for heritage classrooms. Details of shared funding must be determined. The following classrooms have been identified as constituting a potential 'heritage corridor' and should be considered for refurbishment to this higher level of renovation as additional funding permits:

- Ground Floor: UC140, UC144, UC148, UC152, UC161, UC163, UC175, UC177, UC179
- Second Floor: UC244, UC248, UC255, UC256, UC257, UC261

Typicality

The 1856 and 1891 finishes and decorative treatments in the classrooms created consistency throughout the College. Woodwork for the doors, windows, shutters, and wainscots reappear from space to space and are durable and of excellent quality. Much of this original material remains or was carefully reproduced in the 1974 renovation. At the same time inappropriate renovations thereafter and other newer finishes and additions have introduced a range of materials that permanently detract from the historic interiors. The result is that the natural attributes of the spaces continue to be degraded and the rooms have in many cases lost their identity.

In the proposed restoration and in order to achieve a consistent, historically accurate appearance, typical finishes and new design elements have been identified that will be used in every classroom to reinforce the historic setting. Where new work is required, it will be designed to complement the finishes and formal qualities of the room. Contemporary information technology will be added discreetly, so as not to undermine the historic setting.

Principles for Upgrading Classrooms

Elements of the design that are common to all classrooms settings include the following:

- ***Heritage interiors: a conservation approach***

Classrooms have been renovated many times resulting in the loss of heritage material and finishes. A conservation approach will be used to identify and restore original finishes. Where heritage materials are missing they will be reproduced.

- ***Ceiling height and period lighting***

Drop ceilings and inappropriate lighting have been installed in all classrooms and they detract significantly from the heritage interior. These will be removed and the plaster ceiling restored. Period light fixtures will be adapted to provide the required 50 candles of lighting for all desk surfaces.

- ***Interior Shutters to control natural light***

Interior wood shutters were detailed to be used on all historic windows as a way to control natural light. They remain an effective and permanent way to darken the room during presentations. While many of the shutters were removed and poor reproductions were introduced, original shutters and hardware have been found. Restored and reproduction shutters will be introduced in all classrooms to control light.

- ***Blackboards and presentation surfaces***

The front wall of the classroom is the focal point in the classroom and the chalkboard remains an important working surface for instruction. Projection screens, bulkhead lighting, and surface wiring have been added to this wall, undermining the historic setting.

A screen wall intervention will be built against the wall above the blackboard that incorporates lighting, projection screens, projection finishes, and other contemporary AV and IT services. The screen wall will be finished with a cove moulding to the ceiling similar to the treatment of the ceilings in the 1891 renovations.

- ***Restoration of the furniture and finishes***

Many of the rooms include a late 19th-century professor's desk. It is a valued and useful artefact that will be restored and used as a model for all classrooms.

- ***Infrastructure: flexibility and integrated design***

The highest level of mechanical, electrical, AV and IT infrastructure will be provided for each classroom. These systems will be designed to allow for periodic updating to avoid future surface mounting of conduits and possible damage to historic finishes or harm to the overall historic setting.

Contemporary Pedagogy

A trend towards 'problem-based' or 'active learning' teaching models is growing. These methods require new types of room configurations and furnishings. In general, the active learning type of space needs more area per student, with a certain amount of free space provided for flexibility (i.e. a 100 person capacity space would be reduced to 72 person capacity). Existing classrooms in the basement of the College present an opportunity to test more contemporary strategies for refurbishment and reconfiguration. Such refurbishment could encourage greater utilization of these spaces that are currently less desirable.

c) Building Considerations

Authenticity is one of the most fundamental qualities in an historic building or cultural landscape and helps to define its character. Authenticity arises from the "materials, forms, location, spatial configurations, uses, and specific cultural associations or meanings" connected with a site. Our understanding of heritage value in an historic place comes from how open we are to appreciating these qualities. Our preserving and maintaining these qualities ensures that the heritage resource will be available for the benefit of future generations.

University College was identified as a listed heritage building by the City of Toronto in 1973 as well as being federally identified as a national historic site in 1968 (the only one in the University of Toronto proper, the other being Annesley Hall in the federated Victoria University). As the most important heritage structure on the St. George campus, the recommendations for upgrades and renovations to University College made in this report as the various phases of this project have all been framed to minimize impact on the heritage features of the building both within the College and at its exterior.

The designers, educators, builders, and craftsman who created University College understood the importance of authenticity in their work and that the building would project these values into the future. These qualities have been appreciated by every generation of faculty, staff, students, parents, and alumni that have participated in the life of University College.

While the building has undergone periods of change and its share of dramatic events including the 1890 fire and the addition of the Laidlaw building in 1964, by and large every addition or intervention has acknowledged the overriding responsibility to preserve authenticity.

But it is also true that in the course of this work University College has had its share of loss. The decline in the quality of some heritage interiors and the underutilization of important heritage spaces in the building are taking their toll. Every building, regardless of how architecturally significant, will go through periods of change and renewal. At these times, the building will be at risk unless the highest value is placed on the heritage resource, as framed by the University's overriding academic and co-curricular goals. By ensuring that conservation principles are understood and applied consistently to the work, the building's greatest asset – its authenticity – will be preserved and celebrated.

The projects that are described in this report are based on this approach. Conservation actions that are applied to each project include:

- Selective removal of finishes and interventions that no longer serve a function and undermine the appreciation and use of historic interiors.
- Conservation of the historic interiors and finishes to preserve their heritage value for future generations.
- Addition of interventions that complement and celebrate the historic place.
- Integration of infrastructure and services that add value to the historic place by enabling new occupancies and flexible programming.
- It is recommended, in particular, that a heritage sensitive approach to the integration of new mechanical and electrical systems be followed including using discrete spaces where possible to run horizontal services and the careful identification of historically less important rooms and discrete spaces to accommodate new vertical shafts.

Key Building Components and Systems

Heating, ventilation, plumbing, and lighting systems were important considerations in the 1856 design. Since then they have been modified and replaced many times; for example, kerosene lighting was replaced with gas and, since 1900, electricity has been used. In 1963-4, the Laidlaw Wing was built, later becoming the first zone in the building to provide air-conditioning when the Art Centre and archived collection were established, both of which require controlled temperatures and humidity. In 1974, the cast iron radiators were replaced with fin-type perimeter heating. Air conditioning systems have continued to be added on an incremental basis.

Air Conditioning

Approximately 70% of University College remains without air conditioning, instead relying on passive air movement. Unfortunately, the introduction of fire separations in the 1970s may have reduced the effectiveness of passive systems. Heat build-up in summer months conflicts with office activities and special events.

Two of the proposed interventions – the re-introduction of the library and reading room into the East and West Halls and the rehabilitation of the Croft Chapter House and its ancillary rooms into a meeting and conference facility – will require the introduction of new ventilation and air conditioning systems.

A proposal for a reasonably-priced source of cooling media for the building has been investigated and priced by a mechanical consultant. In this scenario, the existing 120 ton chiller housed in the basement of the Laidlaw wing would be replaced by a 250 ton chiller and similarly the cooling tower located at the roof level of the Laidlaw would be replaced by a unit of higher capacity. The interconnecting piping and pumps would be upgraded and enlarged to suit the increased capacity. This would provide sufficient cooling capacity to serve a number of areas of the College, including:

- AHU-11 (30 tons) serving the southwest corner of the College including Croft Chapter House;
- AHU-12 (60 tons) serving the west side of the south wing of the College plus the centre tower;
- AHU-14 (50 tons) serving the north end of the east wing of the College;
- AHU-13 (40 tons) serving the east side of the south wing plus the south end of the east wing; This will allow removal of the large condenser located in the quadrangle;
- Plus future capacity (40 tons) to serve the Cloister wing which is not currently centrally air conditioned, should such a project be initiated.

Piping to distribute chilled water to the various loads would be buried under the quadrangle.

Deferred Renewal Issues

In order that the newly air conditioned spaces can be operated optimally, the local controls should be upgraded for the four air handling units at the same time the cooling coils are added.

There are a number of other renewal items that affect various aspects of the building. None of them need to be incorporated in the first phase of this project; however, there may be economies for the University to initiate two of them – converting the domestic hot water storage tank arrangement to instantaneous heating and replacing the old heating water exchangers - to coincide with the work of this project as well as shortening the extent of noisy, disruptive construction activities.

Electrical, Information Technology (IT), and Audiovisual (AV) Systems

Many of the classrooms and the current library do not have sufficient electrical outlets for laptops and other contemporary electronics. When outlets have been added, they are surface mounted, often damaging original finishes.

Students and faculty need access to the latest technology for communication, learning, and research. The proposed Library and Conference Centre at the Croft Chapter House should be equipped with

infrastructure that puts them at the forefront of technology on campus. The Croft Chapter House will need to address its more demanding conference and meeting room program needs, perhaps by means of the suspended fixture incorporating lighting, sound, projectors, and screens that the Taylor Hazell report recommends.

Infrastructure will be extended into the quadrangle so that programming for the space can expand. This will include general lighting in the trees (similar to Massey College), appropriate wiring to allow for staging and installations to take place, and wireless internet services.

Personal Safety and Security

All spaces must meet University standards for safety and security. Where new programming spaces are contemplated as part of this project, careful considerations to these standards will be required during the detailed design phase.

The new Library, Reading Room, and Lounge will increase student presence after regular office hours. A strategy for ensuring the safety of student, staff, and faculty occupants in the Cloister Wing and East Wings of the College should be developed.

Servicing

Servicing of the College will not change as a result of this project. Coordination with construction trades access and delivery and garbage removal may be required during construction.

Building Code and Fire Protection

Certain existing non-conforming code related issues may need to be addressed if renovations are proposed within their area. In particular, further investigation of the code implications associated with the proposed renovations in the East Hall and West Halls will be required as part of the detailed design process.

Any changes to fire exiting routes and travel distances that occur in relation to this round of renovations may impact existing installations and will require careful review to remain compliant.

Acoustics

Careful consideration of acoustical properties will be necessary as part of the design phase of this project, in particular with respect to achieving the appropriate degree of acoustic absorption (quiet) in the East Hall Collections Room and achieving the desired acoustic performance properties in the West Hall Reading Room to suit a wide range of events and presentations. Acoustical issues must also be addressed in Croft Chapter House to allow for effective conference use. It is recommended that an acoustic consultant be retained as part of the consultant team.

Signage and Donor Recognition

Signage will be a required element of the detailed project design to appropriately integrate all new programmable areas into the existing signage program of the building. Donor recognition for the project will also need careful consideration to be appropriately integrated within this historic building.

Environmental Health and Safety

The designated substances report summary for University College confirms asbestos materials are found throughout the building in various locations on piping systems, mechanical equipment and duct insulation, within vinyl flooring and mastic, within windows caulking and glass putty, texture coat, glue under ceiling tiles and in drywall joint compound, as well as in the plaster finish in the southeast stairwell. Asbestos is also suspected to be contained within locations that are presently hidden or are inaccessible.

Lead contamination is presumed to be present within paint, solder and other coverings.

Asbestos is suspected to be contained in the form of glue under 1'x1' ceiling tiles, paper backing at various locations throughout the building, and all ceiling tiles present in areas with asbestos fireproofing above. Asbestos may also be found in: texture coats contain asbestos at various locations throughout the building; vibration isolation material on ductwork in attic mechanical room; vermiculite in exterior wall cavities; transite acoustic wall panels.

The building has not been used for any process or manufacturing and no above ground or below ground fuel storage tanks are present within the building.

d) Site Considerations

Landscape and Open Space

University College is located within the historic centre of campus and is surrounded by significant landscaped open spaces including the Front Campus to the south, the Back Campus to the north, the Sir Daniel Wilson Quadrangle to the west, and Hart House Circle to the east. Construction staging will need to be carefully planned to minimize disruption to these historic open spaces. Coordination of any exterior work with landscape and hardscape improvements are envisioned to be implemented as part of the Landmark Committee Project.

The College also includes a significant open space amenity within its centre, in the form of an open air quadrangle. This space is significant as a central gathering space and the focus of many adjacent spaces. The University College revitalization plans include a comprehensive upgrade to the Quad as part of a later phase of work.

Site Access

University College's primary frontage is onto King's College Circle, with secondary frontage onto Hart House Circle. The College has a number of tertiary entrances along its perimeter. Service access is achieved at the north end of the College, along Laidlaw Lane, accessible from Tower Road.

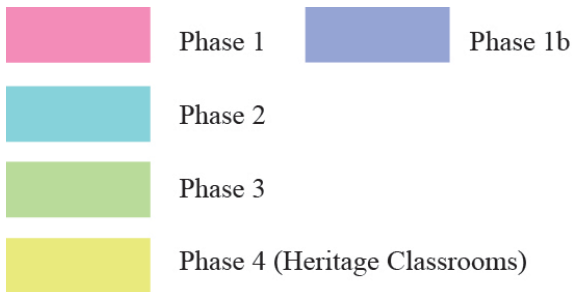
Barrier-free access is currently available from the Laidlaw Lane entry through to the existing elevator in the Laidlaw Wing. Construction activities must be coordinated so as to interrupt neither barrier-free access, nor service requirements.

Phasing Plans

The broad scope of the University College revitalization has been divided into phases of work that can be undertaken as funding becomes available. The diagrams below illustrate the general areas of the phases of work identified.



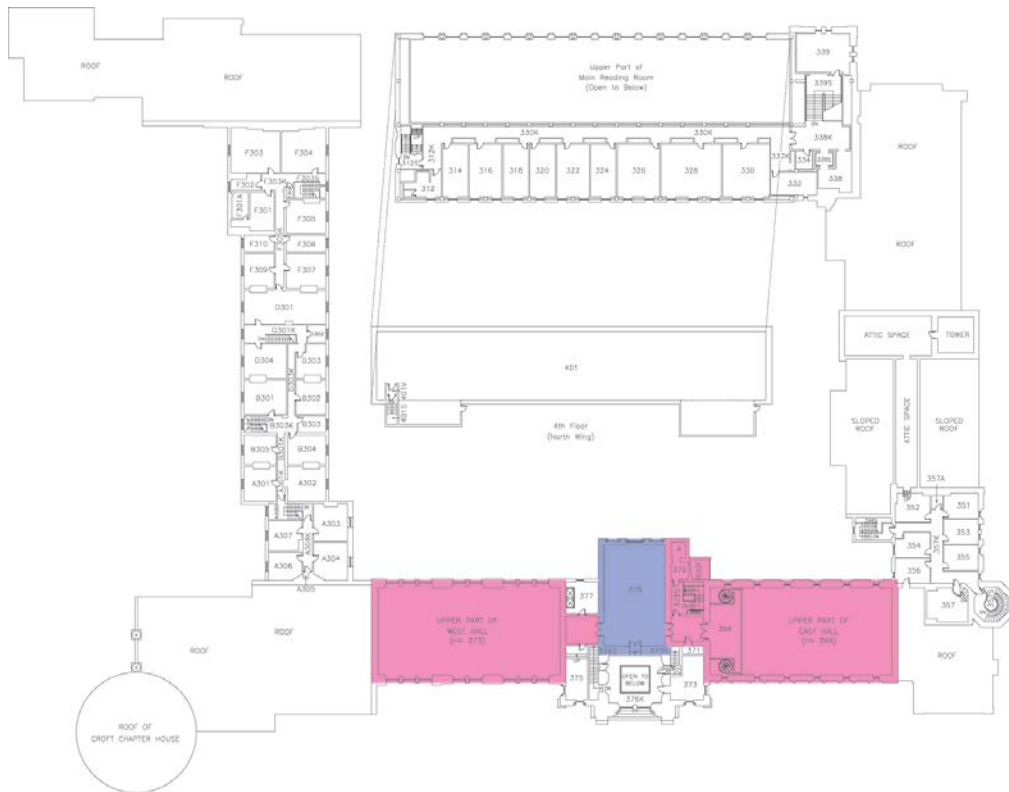
Ground Floor plan



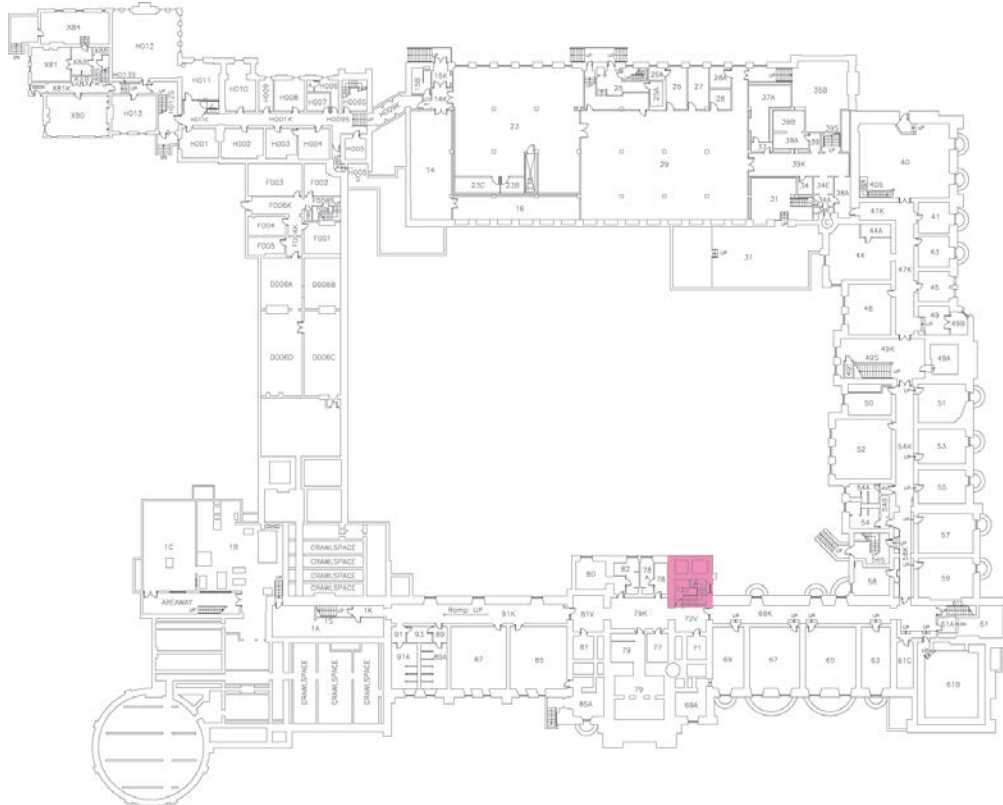
*Note that precise extent of heritage classroom renovations remains to be determined.



Second Floor plan



Third Floor plan



Basement plan

e) Campus Infrastructure Considerations

Impact on Other Projects in Sector

Despite the wealth of important spaces and buildings in the historic centre of campus, the overall physical design could be improved to provide greater functionality and a consistently memorable experience. During 2013/14, a Project Planning Committee was struck to discuss opportunities for the revitalization of this area, centred on four distinct and interrelated open spaces – Front Campus/King’s College Circle, Back Campus, Hart House Circle, Sir Daniel Wilson Quadrangle and framed by some of the institutions most iconic buildings and landscapes.

A report of this committee, the *Landmark Committee*, was completed in September of 2014 recommending the engagement of consultants to help the University envision a Century Plan for its historic campus. Planning for this precinct must be forward thinking in its approach to both the design and functionality while being robust enough to stand the test of time. The plan will consider the campus through the lens of important themes including: Symbolic Sense of Place, Events locations, University Sports and Recreational Use, Pedestrian, Vehicular and Bicycle Circulation and Parking and Accessibility, Service and Support Services.

While the Plan will approach the campus in a holistic manner, the Committee also considered local conditions that must be taken into account. Specific to University College, the Landmark Committee Report recommends:

Report of the Project Planning Committee for the University College Revitalization (Revised Phase 1) and Croft Chapter House (Phase 2)

- an additional accessible entrance should be considered to improve access to the building.
- the south, east and west lawns should be maintained and enhanced with heritage appropriate plantings and should accommodate updated architectural lighting.
- the existing service area located at the north side of the building should be improved in appearance while maintaining its utility.
- improved signage is proposed to assist users in identifying unique spaces within the University College building.

The hiring of consultants for this Landmark project is expected to commence in 2015 followed by a funding campaign period. It is difficult to determine a timeline for this work to commence, but it should be noted that coordination between the University College revitalization projects and the Landmark Project be considered.

It is understood that later phases of the revitalization will consider other details of the surrounding site infrastructure, including the provision of adequate bike parking, exterior lighting and other landscape improvements.

f) Secondary Effects

Secondary Effects associated with the inclusion of Phase 2 scope:

The Senior Common room (UC185) currently functions as a staff lounge and meeting area and will be unavailable for use during construction. Similarly the Croft Chapter House will be unavailable for meetings and events. Functions normally housed in these 2 rooms will have to be re-located elsewhere at University College.

Secondary Effects associated with Phase 1:

Following the relocation of the College's Library uses from Laidlaw Wing to the East and West Halls, the vacated space in Laidlaw (666 nasm) will be made available for re-assignment by the Faculty of Arts and Science. The Library relocation will also require a reduction in size of the on-site circulating collection as described previously in this report. The Al Purdy non-circulating collection could be relocated to UC240, UC165 or another suitable location. The Writing Centre, currently in the Laidlaw Wing, will be relocated to UC259 as part of the sUCcess Centre.

Prior uses of the East Hall (UC266) and West Hall (UC273) will need to be adjusted to fit the new Library configuration in the East and West Halls. It is anticipated that the West Hall may still be used as a staging and marshaling space for convocation related activities, however exam writing will likely not be one of the future activities of either space. The exam hosting capacities will need to be accommodated elsewhere across the campus space inventory.

Room UC272, currently a shared office for sessional lecturers, is to be repurposed as the new Librarian's Office. An office in the Cloister wing can be repurposed to support the relocated sessional lecturers.

The existing UPD&C ACE classroom UC376 is to be repurposed as the new Library Loft Café. This classroom's capacity will be accommodated across other ACE classrooms on site.

Disruptions to existing occupants are to be expected during the course of construction however every effort must be made by the general contractor team to minimize such disruptions through scheduling and considered access and implementation strategies.

g) Schedule

The overall University College revitalization as contemplated by the project planning committee includes four phases as described in this report. Phase 1 has already been approved, however has not commenced. The committee is seeking approval at this stage to proceed with the second phase of the revitalization, which includes an additional 273 nasm of program, to be carried out simultaneously with Phase 1:

Phase 2 – Create a Conference Centre at Croft Chapter House and its environs

Design & Implementation

- Restoration of the interiors of the Croft Chapter House, including woodwork, plaster ceilings, windows, doors, limestone fireplace, and finishes, to be more in line with its 1859 appearance;
- Updated lighting and introduction of audio-visual technology into Croft Chapter House;
- Inclusion of flexible but historically appropriate furniture that can be reconfigured in room to accommodate variety of programs;
- Restoration of Senior Common Room and inclusion of kitchenette in Senior Common Room to support conference events;
- Creation of new direct linkages between Senior Common Room and Croft Chapter House and Senior Common Room and adjacent Entrance Vestibule directly to the east of the Senior Common Room;
- Creation of furniture storage room, universal washrooms, and other conference support facilities adjacent to Croft Chapter House;
- Deferred maintenance addressed in the related areas of the College affected by the work.

Please refer to Phasing Plans included earlier in this document for additional details.

Further to the strategy for Phase 1 & 2 of the revitalization, it is assumed that based on current available funding, work on the third floor café will be limited to design development only, while all other aspects of Phase 1 & 2 will proceed to construction.

Procurement of a consultant team for Phase 1 & 2 is currently underway. The implementation of later phases will be dependent on fundraising occurring in a timely manner and making any surpluses available to carry forward with each phase. The schedule assumes all municipal approvals may be achieved within the timelines.

It is recommended that the University of Toronto proceed with as comprehensive as possible a removal of hazardous materials in advance of Phase 1 and Phase 2. Some hazardous materials removal will in all likelihood need to occur within the later phases of construction, but it is anticipated that this can be minimized to maintain as tight a construction schedule as possible.

The proposed schedule, updated to include both Phases One and Two, is as follows:

September 2015	Consultant Team Selection
October 2015	Governing Council approval
April 2016	Tender contract
May – Dec 2016	Construction Phase 1 & 2
December 2016	Full operational occupancy

IV. Resource Implications

a. Funding Sources

The funding source for the confirmed Phase 1 project, totalling 712 net assignable square metres (nasm) (950 gross square metres (gsm)), confirmed by the Executive Committee in May 2015, will be funded by Capital Campaign Funds, Provost's Central Funds, University College Operating Funds, and Faculty of Arts and Science Capital Funds.

The project increase associated with the Revised Phase 1 and Phase 2 Croft Chapter House project will be funded through University College Capital Campaign Funds.

The project will only proceed to construction once all advancement sums are in place.

APPENDICES:

1. Existing Space Inventory (on request)
2. Room Specification Sheets (on request)
3. Total Project Cost Estimate (on request to limited distribution)
4. Taylor Hazell University College Strategic Planning Analysis (2012) (on request)
5. Proposed Renovation Scope for UC259