# Report of the Project Committee for the Robarts Library Renewal and Expansion: Robarts Library Pavilion



March 19, 2010 for April 2010

Image from Robarts Library Revitalization Master Plan

# **EXECUTIVE SUMMARY**

The Robarts Library stands today as the premier humanities and social sciences collection of the University of Toronto. Scholars from all over the world have visited the library to make use of its wonderful and unique resources. Students have flocked to this intellectual "heart" of the University to learn, discuss, and meet their friends.

While it was originally designed as a research facility with limited access, it was made accessible to the undergraduate student population shortly after it first opened. It now provides a significant number of study spaces on the St. George Campus.

The library must continue to evolve in response to rapid changes in the way students learn and access materials. Thirty years of heavy use have taken their toll on this facility, and the limitations and critical needs to improve and enhance the student experience must be addressed.

The Robarts Library Renewal and Expansion Project Committee has been charged with addressing the immediate and longer-term space requirements of the Robarts Library, in public access areas and, in particular, to increase student study space. The lead donor, Mr. Russell Morrison, expressed his view on the value of support for study spaces at a recent event to celebrate the re-opening of the renewed 5<sup>th</sup> floor of Robarts Library:

"Now, giving to the university for study space is really in my view a very productive activity.. Why? Because we're causing a building to be productive, and it's productive because the people who are in it are being made productive, ...and that goes on for decades and decades".

Approval in principle was received in March 2008 by Goverining Council for the Robarts Library Renewal and Expansion Plan. Two projects were immediately implemented through Accommodations Facilities Directorate (AFD) approvals including the 9<sup>th</sup> Floor North Reading Room Apex (April 2008 through AFD) and the renewal of administrative, public service access and student spaces on the 5<sup>th</sup> floor. The Apex project was pursued as a test-case on which to model all other Apex spaces, both in terms of design and budget.

In February 2008 the Ontario Government provided \$15,000,000 in government funding and a matching \$10,000,000 donation and other funding commitments were made. These funds allowed the Robarts Renewal Project Committee to identify and prioritize the projects that would achieve the greatest net new study spaces and/or improvement to study spaces and delivery of services within the budget available.

Implementation of identified priority projects including the Apex reading rooms and core group study rooms on stacks floors (9-13) and the enclosure of the northeast and southeast patios has proceeded in a phased manner so as not to affect the operations of the library unduly, and as the available funding has permitted.

In February 2010 a private commitment of \$15,000,000 was identified to begin work on the Robarts Pavilion. The Pavilion is envisioned as a new five-storey structure located along Huron Street, built over the existing loading dock and connecting through to existing floors 2-5. The new pavilion will contain a mixture of formal and informal

workstations and study spaces for students in the spirit of the Gerstein Library Morrison Pavilion and newly renovated Apex reading rooms within Robarts Library. An accessible entrance including stair and elevator access to study space is proposed on the south west corner of the pavilion, and will provide an additional accessible entrance for the Robarts Library building from the west. A café seating 48 will be located at the ground level entrance to the Pavilion building, wired for internet use to facilitate casual study and noisier group work. The cafe will open onto a renewed landscaped area with seating, lighting, and wireless internet to extend the availability of space for impromptu meetings and study spaces in good weather and creating a vibrant street atmosphere. The café, and pavilion building may operate independently of the Robarts Library to allow for extended hours up to 24/7. The addition will complete the triangular configuration of this city block which houses Robarts Library, the Thomas Fisher Rare Book Library and the Faculty of Information.

In December 2009 the firm of Marshall & Murray, Quantity Surveyors, was commissioned to prepare a budget construction cost estimate, based on conceptual plans and renderings provided in the master plan stage, and with consultation with the architect and University staff. Assuming for a tender in mid 2011, the estimated total project cost for the complete addition as described here is \$38,590,000. Additional operating costs to be funded by the operation budget of the library are estimated at \$587,240 (March 2010) per year and will be adjusted as costs are reassessed upon completion of the project.

Active fundraising is underway for this project. A private commitment of \$15 million has been identified to date towards the completion of this project. This gift will allow for schematic architectural and structural design to proceed while a funding plan is determined to proceed with construction of the Pavilion.

For initial approval to proceed, and assuming full funding is received in a timely manner to allow for the project to proceed through all steps without delay, the project schedule will require approximately 37 months for completion.

**Recommendations:** 

That the Planning and Budget Committee recommend to the Academic Board:

- 1. THAT the Robarts Library Renewal and Expansion Plan: Robarts Pavilion Project be approved in principle.
- 2. THAT the project scope, comprising new construction of 3325nasm (5540gsm) at a total project cost of \$38,590,000 million be approved in principle.
- 3. THAT \$1,000,000 of the funding in hand be accessed to initiate schematic architectural and structural design work.
- 4. THAT implementation to proceed with construction of the Pavilion will occur when the remainder of the funding is confirmed.

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## I. MEMBERSHIP

Carole Moore, Chief Librarian, UofT Libraries Alfred Cheng, CAO, UofT Libraries Professor Linda Hutcheon, Department of English Professor John Scherk, Department of Mathematics, UTSC Peter Lawriw-Bahan, Undergraduate Student Representative Jasmina Djikic, Undergraduate Students Representative Jennifer Adams Peffer, Campus and Facilities Planning Ron Swail, Assistant Vice-President, Facilities and Services Julian Binks, Director Planning and Estimating, Capital Projects Gina Trubiani, Graduate Student Representative (no longer available in 2010) David Tremblay, Graduate Student Representative (new member in lieu of G. Trubiani)

## II. TERMS OF REFERENCE

This report responds to recommendations #2 and 3 of approved <u>Report of the Project</u> <u>Committee for the Robarts Library Renewal and Expansion</u> approved in March 2008.

2. THAT the components of the project for Robarts Library Renewal and Expansion, including approximately 15,750 net square metres of renovations and 7100 gross square metres of expansion space, be approved in principle at an estimated total project cost of \$74,297,000 to be funded by fundraising initiatives.

Refinement of space program and costs have occurred over the lifetime of this phased project. \$24.4 million has been committed to high priority renewal projects. The construction of the \$38,590,000 Robarts Pavilion would complete the identified high priority projects set out in the master plan.

3. THAT component parts of the project be brought forward for approvals to implement through Accommodations and Facilities Directorate for components valued at less than \$2 million, and those exceeding \$2 million in accordance with the Policy for Capital Projects.

With the approval of the Robarts Pavilion Project Report through the Planning and Budget Committee, the expenditure of \$1,000,000 of the \$15,000,000 committed will be used to initiate schematic architectural and structural design work. Implementation to proceed with construction of the Pavilion will occur when the remainder of the funding is confirmed.

## III. BACKGROUND INFORMATION

The Robarts Library stands today as the premier humanities and social sciences collection of the University of Toronto. Scholars from all over the world have visited the library to make use of its wonderful and unique resources. Students have flocked to this intellectual "heart" of the University to learn, discuss, and meet their friends.

While it was originally designed as a research facility with limited access, it was made accessible to the undergraduate student population shortly after it first opened. It now provides a significant number of study spaces on the St. George Campus.

The library must continue to evolve in response to rapid changes in the way students learn and access materials. Thirty years of heavy use have taken their toll on this facility, and the limitations and critical needs to improve and enhance the student experience must be addressed.

The Robarts Library Renewal and Expansion Project Committee has been charged with addressing the immediate and longer-term space requirements of the Robarts Library, in public access areas and, in particular, to increase student study space. The lead donor, Mr. Russell Morrison, expressed his view on the value of support for study spaces at a recent event to celebrate the re-opening of the renewed 5<sup>th</sup> floor of Robarts Library:

"Now, giving to the university for study space is really in my view a very productive activity.. Why? Because we're causing a building to be productive, and it's productive because the people who are in it are being made productive, ...and that goes on for decades and decades".

Approval in principle was received in January 2008 through the Planning and Budget Committee for the Robarts Library Renewal and Expansion Plan. Two projects were immediately implemented through AFD approvals including the 9<sup>th</sup> Floor North Reading Room Apex (April 2008 through AFD) and the renewal of administrative, public service access and student spaces on the 5<sup>th</sup> floor. The Apex project was pursued as a test-case on which to model all other Apex spaces, both in terms of design and budget.

In February 2008 the Ontario Government provided \$15,000,000 in government funding and a matching \$10,000,000 donation and other funding commitments were made. These funds have allowed the Robarts Renewal Project Committee to identify and prioritize the projects that would achieve the greatest net new study spaces and/or improvement to study spaces and delivery of services within the budget available. High priority projects that are being implemented in a phased manner include the following:

- 5<sup>th</sup> floor west renovation
- Apex Reading Rooms (9-13)
- Stack floor core group study rooms (9-13)
- Glazed entry porticos (northeast and southeast)
- South stair expansion
- 3<sup>rd</sup> floor west renovation

In February 2010 a private commitment of \$15,000,000 was identified to begin work on the Robarts Pavilion. This space will provide ample new study space, in the spirit of the Morrison Pavilion at the Gerstein Library, located to the west of the existing structure and attaching to levels 1-5 to allow for seamless access to the Library building. \$1,000,000 of the funding in hand will allow for the schematic architectural and structural design work to proceed while additional funding is sought to proceed with construction of the Robarts Pavilion.

# IV. STATEMENT OF ACADEMIC PLAN

Robarts Library, Canada's leading information resource centre for the humanities and social sciences, is among the top research libraries in North America. The research and special collections, together with the undergraduate libraries, comprise nearly 15 million print and microform volumes, enriched by materials such as maps, data, audiovisual materials, unpublished archival materials and manuscripts, and provide access to approximately 350,000 electronic resources. The Library system as a whole is currently ranked third among academic research libraries in North America behind Harvard and Yale (Association of Research Libraries Index, <u>http://fisher.lib.virginia.edu/cgi-local/arl.cgi</u>).

While the University has maintained a long-term strategy of support for the acquisitions budget there has been enormous growth in student enrolment requiring additional attention to student access and space within the Library system. At the time of completion in 1973, the University of Toronto student body was less than half of that currently served by the Library –18,000 per day during fall and spring terms - and demand for student spaces is forecast to rise further over the next two decades. Furthermore, the University and the Library's Academic Plan call for the need to improve and enhance the student experience. In response to these pressures and initiatives, the renewal and expansion of Robarts Library is paramount.

The upgrades and additions proposed by the Master Plan will almost double the student spaces currently available, and meet the needs of students, faculty members, visiting scholars and others well into the future.

The Robarts Pavilion, alone, will provide 1000 new study spaces with direct access to Robarts Library facilities and collections, 48 spaces within a ground level café allowing for noisier group activities and exterior seating with wireless connections expanding the opportunity for casual study space outdoors in good weather.

# V. SPACE PROGRAM

The addition of a new five-storey, 5540gsm, pavilion building located along Huron Street and attaching to levels 2-5 of the Robarts Library building will complete the centre portion of the Site 4 approved envelope (Appendix A). 1000 new study spaces will be arranged in both formal and informal workstations through the inclusion of study tables seating four persons, individual study carrels and soft seating, each with access to power and wireless internet connections. Tables and carrels will also include individual task lighting. The space will allow for the pursuit of quiet study, while on-going renovations to stack floors (9-13) will allow for the addition and renewal of 60 group study rooms (approximately 240 spaces) and additional group study spaces are located within renewal projects on floors 3 and 5.

An accessible entrance including stair and elevator access will improve accessibility for the Robarts Library building from the west. A café seating 48 at grade will open onto a renewed landscaped area with seating, lighting, and wireless internet to extend the availability of space for impromptu meetings and study spaces in good weather and creating a vibrant street atmosphere. The café, and pavilion building will be designed to permit operation independently of the Robarts Library, allowing for extended hours up to 24/7.

Room Data sheets indicating specific requirements of interior assignable spaces are included in Appendix D.

# VI. FUNCTIONAL PLAN

A new five-storey pavilion is proposed to be located along Huron Street, built over the existing loading dock and connecting through to existing floors 2-5. The new pavilion will contain a mixture of formal and informal workstations and study spaces for students. An accessible entrance including stair and elevator access to study space is proposed on the south west corner of the pavilion, and will improve accessibility for the Robarts Library building from the west. Security gates will be located to ensure access to study spaces is monitored following Robarts Library protocols.

The café will be located at the ground level entrance to the Pavilion building, wired for internet use to facilitate casual study and noisier group work. The café will not include cooking facilities, but the provision of refrigerated cases to allow for the sale of sandwiches and snacks should be included.

The pavilion will be designed to allow for direct access to the Robarts Library building and collections during operating hours. Access doors to the Library building may be locked to allow for extended hours, or even 24-hour access, to be provided within the pavilion during peak study periods.

Early schematic design envisions between 50 and 56 tables accommodating four study spaces to be located on each study floor (2-5) along with 40-50 spaces in soft seating and 5-10 private study carrels per floor for a total of approximately 250 study spaces per floor. Each study table and carrel will be equipped with power and individual task lighting similar to recent projects implemented in Robarts Library and the Gerstein Library Morrison Pavilion. Additional power outlets will be located around the perimeter of the building to allow for access from soft seating locations. Wireless internet access will be provided throughout the study space.

In addition to new elevator and stair access, additional washroom facilities will be located within the new structure in easily accessible areas. These washrooms will provide fully accessible facilities for the floors 2-5 of Robarts Library as well as serving the new pavilion.

As with the existing Robarts Library, it is expected that food and drink will be permitted within the study areas. To help maintain a clean environment, each floor will include adequate garbage and recycling bins and housekeeping staff spaces.

The area south and west of the pavilion will include new pathways and landscaping including seating, lighting and wireless connections to allow for study activities to spill out of the library in good weather. Attention to micro-climatic conditions will be particularly important when envisioning active outdoor open spaces adjacent to the library building and new pavilion.

# VII. ENVIRONMENTAL IMPACT

## ENVIRONMENTAL PROTECTION POLICY

The University of Toronto is strongly committed to the development and maintenance of exemplary strategies that are aimed at enhancing not only the campus but also the global environment. This commitment is set out in the University's *Environmental Protection Policy*, dated 7 March 1994 (Appendix A).

On campus, buildings represent the single most important element that affects the environment; they give it a recognisable form and are major consumers of natural resources in their construction and operation. Building design professionals have an inherent responsibility to foster good environmental practices as do building users and University administrators.

In order to encourage building designs that meet the University's environmental policy, an environmental section has been incorporated into the University's *Design Standards Manual*. This section obligates the design team to adhere to a set of environmental design principles which will be followed as each component part is completed.

# VIII. SPECIAL CONSIDERATIONS

## ACCESSIBILITY, ACCESS AND SECURITY

The University of Toronto is committed to ensure that its buildings and services are accessible to persons with disabilities. The University's Barrier Free Design Standards can be found at:

http://www.fs.utoronto.ca/userfiles/page\_attachments/library/10/8156\_1161423\_accessi bility\_8156\_1560105.pdf

The addition of a new wing will help alleviate difficulties in providing accessible washrooms on the main reading room levels. Elevators located within the pavilion will provide an additional accessible entrance and access to the main public floors through floor 5 in the Robarts Library.

Special attention to security will be required to ensure a safe environment within the pavilion, particularly during extended hours. Robarts Library protocols for extended hours access will be followed.

## CAMPUS PLANNING

Robarts Library at 130 St. George Street was completed in 1968-1973 to a design by Warner Burns Toan and Lunde, specialists in library planning, in association with Mathers and Haldenby Architects. The building is a good example of the Brutalist style of architecture popular on University campuses in the 1960s and 70s. In 1997, this building was listed on the Ontario Inventory of Heritage Properties for architectural reasons. Recent implementation of Renewal and Expansion projects has triggered a review of the Robarts Library building for designation under the Heritage Act. ERA Architects Inc. have prepared a draft Heritage Impact Assessment (January 2010) of the structure that will help facilitate designation following City approval to proceed with the implementation of the Robarts Library Pavilion (full report available upon request).

Robarts Library stands 14-storeys tall with two flanking 6-storey wings created by the Thomas Fisher Rare Book Library and the Faculty of Information Studies. Early design plans for the library indicate the intention of a third wing to be located off the west face of the building along Huron Street and completing the composition set up for the entire city block. The third wing was cut from the design for budgetary reasons at the time of the original construction leaving the loading dock uncovered and an eyesore to the primarily residential Huron Street. Approved University of Toronto Area Part II Plan envelope, Site 4 (see Appendix A).

As approved, an envelope 23m in height may be constructed directly above the existing service entrance and linking to the existing library. The Expansion and Renewal Plan for Robarts proposes to construct a 5-storey pavilion on Site 4 to accommodate additional Library functions. The schematic design for the pavilion, prepared as part of the Master Plan phase of work, maximizes the envelope potential on the site. Municipal approval to proceed will likely be sought through a Committee of Adjustment process to cover any minor adjustments to the envelope as designed.

Careful consideration of materiality and glazing will be required of the new Pavilion in order to provide an interior environment that is comfortable and light-filled, while providing a contemporary, but sympathetic architectural language sensitive to the brutalist Library building. The relatively low, 5 storey, structure and landscape improvements should not overwhelm, but complement the primarily residential nature of the northwest campus. The addition will complete the triangular configuration of the City block which houses the Robarts Library, Thomas Fisher Rare Book Library and the Faculty of Information.

Recent survey of pedestrian crossings at the nearby intersection of Harbord and St. George Street has indicated that, with 30-35,000 crossings per day a "pedestrian scramble" crossing would be appropriate. City staff has agreed to review the intersection to confirm such a crossing strategy might be implemented in this location. The addition of a scramble would serve to enhance the lively nature of the area south of Robarts Library and would directly feed into the landscaped area proposed as part of the Robarts Pavilion project.

# IX. RESOURCE IMPLICATIONS

For the purposes of cost estimation, poured concrete construction has been assumed, making use, if possible, of existing foundations installed at the time of the original construction of the building. It is also assumed that a cost effective structural solution will be found to address the issue of having to span over the existing loading dock at the west side of the building, and that this dock and driveway access will be incorporated into the design of the pavilion.

The exterior cladding is assumed to be a mixture of conventional curtain wall, with solid panels where appropriate. The original master plan renderings showed a complete glazed façade on the west, and concern has been raised with respect to the impact of solar heat load, both from the point of view of occupant comfort, and environmental considerations. It is anticipated that these issues will be addressed in developing this design.

The interior is almost completely open plan with no partitioning other than for stairs, washrooms, etc. The finishes would be of high quality, similar to those found elsewhere in adjacent space in the building. There would be direct connections to floors 2, 3, 4 and 5 of the library, with a connection to the penthouse from the 6th floor. It has been assumed that because the new addition will be fire-sprinklered, fire rated doors will be required at all connections to the existing building. No upgrades to the existing building are included in the estimates.

Heating for the addition will be from the existing steam service, and cooling from the existing chilled water service originating at the NW chiller plant. The existing electrical infrastructure will be upgraded as necessary to service the addition. A LEED silver standard of design & construction has been assumed.

Furnishings for 1000 study spaces will be provided, consistent with those recently provided to the current renovations.

## Capital Cost Estimate

In December 2009 the firm of Marshall & Murray, Quantity Surveyors, was commissioned to prepare a budget construction cost estimate, based on conceptual plans and renderings provided during the master plan phase, and with consultation with the architect and University staff.

Following this, and further discussions with the architects, the construction estimate was adjusted for revisions to the floor area. Added to this were allowances for taxes, contingencies permits & professional fees, utilities, furnishings, and miscellaneous other costs. Assuming for a tender in mid 2011, the estimated total project cost for the complete addition as described here is \$38,590,000. An allowance for escalation of 4% p.a. should be made for tenders past this date. Further details of the TPC can be found in Appendix B.

# **Operating Costs**

Operating costs estimated at \$106 per gross square meter, the addition of 5540gsm of space in the proposed new Huron Street study pavilion are estimated at \$587,240 per year in current dollars and will be funded by the operating budget of the library.

# X. FUNDING SOURCES

Active fundraising is underway for this project. A private commitment of \$15 million has been identified to date towards the completion of this project.

# XI. SCHEDULE

From initial approval to proceed, and assuming full funding is received in a timely manner to allow for the project to proceed through all steps without delay, the project schedule will require a total of 37 months for implementation as follows:

Schematic architectural and structural design	4 months
Design development including M&E	4 months
Construction drawings	4 months
Tender and award - initial	1 month
Construction	22 months
Commissioning and occupancy	2 months
Total	37 months

# XII. RECOMMENDATIONS

That the Planning and Budget Committee recommend to the Academic Board:

- 1. THAT the Robarts Library Renewal and Expansion Plan: Robarts Pavilion Project be approved in principle.
- 2. THAT the project scope, comprising new construction of 3325nasm (5540gsm) at a total project cost of \$38.59 million be approved in principle.
- 3. THAT \$1.0 million of the funding in hand be accessed to initiate schematic architectural and structural design work.
- 4. THAT implementation to proceed with construction of the Pavilion will occur when the remainder of the funding is confirmed.





# Appendix B: Total Project Cost Estimate

## CAPITAL COST ESTIMATE

**Project Title:** 

# **Robarts Library - West Pavilion**

	Pavilion Jan 2010	
total GFA, GSM	5,500	
construction estimate	23,845,000	
escalate to tender Q2 2011	953,800	
allow for CM OH & fee	2,479,880	
Subtotal estimated construction	27,278,680	
construction contingency @7%	1,735,916	I
HST at 3.41%	989,398	
Total construction budget.	\$30,003,994	
allow for Utilities - tbd	500,000	
computing hardware - allow	53,000	
Landscaping at SW - allow	517,000	
Permits & Insurance	350,000	
Professional fees - Architects, misc, PM	3,750,000	
furnishings for 1000 student positions	1,673,000	
Staging	0	
security, signage, trades, misc	260,000	
Project contingency'@ 3%	1,113,006	
finance costs allow at 1%	370,000	
Total Project Cost Estimate HST included.	\$38,590,000	

prepared jcb Mar 03 2010

#### Notes:

- 1 Assuming library space of 4,880 GSM on floors 1 5, plus M&E space of 620 GSM partly on 1st and partly as penthouse.
- 2 Marshall & Murray Dec 2009 estimate for 5,968 GSM adjusted for GFA revision.
- 3 This assumes an approval to proceed with design in mid 2010. An additional 4% per annum should be allowed for escalation past this date.
- 4 For the moment a Construction Management method is assumed with conversion to stipulated sum.
- 5 Allowance only for upgrades to central plant that will supply heating & cooling.
- 6 Based on actual costs for furnishings used in recent renovations.

# Appendix C: Proposed Plans Robarts Pavilion

Images taken from the Approved University of Toronto Robarts Library Revitalization Master Plan

prepared by Diamond and Schmitt Architects





## BUILDING PLANS 2.



 Benorated Beading Room
Expanded and Renorated Staff Ares / New Reading Room/ Group Study Areas
Is Relocated Shart Term Loars Office to be combined with existing Service Deals
Hator Street Pavilion Reading Room

ADDITION

FOURTH FLOOR - EXISTING





1. Beading Room 2. Staff Area 3. Service Desk

# Appendix D: Room Data Sheets

### **Pavilion Reading Room**

Rooms Required:

NASM Required: 1 per floor

SECTION B:

- A. Space purpose and type of activity: study space for individuals at carrels, tables and comfortable seating
- B. Number of occupants, resident: 0

4

- C. Number of occupants, transient: 250
- D. Space relationship, proximity to other rooms/facilities:
- E. Visual relationship, proximity to other rooms/facilities:

### F. Furniture and equipment, fixed:

- i. 5-10 refurbished (or new) individual study carrels, wired
- ii. 50-56 refurbished (OR NEW) study tables to seat 4, wired for power and task lighting

#### G. Furniture and equipment, moveable:

- 205-235 library chairs
- 40-50 comfortable seating
- garbage/recycling bins

NOTE: total study spaces combined to be 1000 across four floors with an average of 250 study spaces per floor.

#### SECTION C:

- H. Lighting:
  - overhead lighting
  - task lighting provided on carrels and tables at each individual space with individual switches

#### I. Power/Telecommunications/Audio-Visual requirements:

- Wireless capability
- duplex outlets available for all seated study spaces, plus additional on wall for housekeeping and to be accessed from individual soft seating
- J. Special systems:
- K. HVAC:
- L. Plumbing:
- M. Special finishes:
- N. Special Needs:

### **Robarts Pavilion Cafe**

Rooms Required:

NASM Required: within 260sm ground level entrance area

#### SECTION B:

- A. Space purpose and type of activity: café and seating for 48 at café tables
- B. Number of occupants, resident: 0

1

- C. Number of occupants, transient: 48+
- **D. Space relationship, proximity to other rooms/facilities:** to be contiguous with Pavilion entrance
- E. Visual relationship, proximity to other rooms/facilities: visible from street level
- F. Furniture and equipment, fixed:
  - café counter and bar with lower cabinets for storage

#### G. Furniture and equipment, moveable:

- café tables and chairs to seat 48
- garbage/recycling bins

#### **SECTION C:**

- H. Lighting:
  - overhead lighting

#### I. Power/Telecommunications/Audio-Visual requirements:

- Wireless capability
- duplex outlets provided at perimeter for laptop use
- outlets as necessary to serve small café operation
- J. Special systems:
- K. HVAC:

L.

as necessary for small café operation

- Plumbing: water as necessary for small café operation
- M. Special finishes:
- N. Special Needs: