

2018 Visiting Team Report Master of Architecture Program McGill University

The Canadian Architectural Certification Board

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I. Introduction • CACB Accreditation

The CACB is a national independent nonprofit corporation. The directors are elected from individuals nominated by the Canadian Architectural Licensing Authorities (CALA), the Canadian Council of University Schools of Architecture (CCUSA), and the Canadian Architecture Students Association (CASA). The CACB is a decision-making and policy-generating body. It is the sole organization recognized by the architectural profession in Canada to assess the educational qualifications of architecture graduates (Certification Program) and to accredit professional degree programs in architecture that are offered by Canadian universities (Accreditation Program).

The CACB head office is in Ottawa, Ontario. It adheres to the principles of fairness, transparency, clarity, and ethical business practices in all of its activities.

By agreement of the Licensing Authorities (the councils of nine provincial institutes and associations), the CACB was established in 1976 to assess and certify the academic qualifications of individuals holding a professional degree or diploma in architecture who intended to apply for registration. In 1991, the CACB mandate to certify degree credentials was reaffirmed, and its membership was revised to reflect its additional responsibility for accrediting professional degree programs in Canadian university Schools of Architecture.

Graduation from a CACB-accredited program is the first of three steps (education, experience, and examination) on the path to licensure.

The CACB only accredits *Programs* that are intended by their institution to be professional degrees in architecture that lead to licensure. Professional accreditation of a *Program* means that it has been evaluated by the CACB and substantially meets the educational standards that comprise, as a whole, an appropriate education for an architect.

The CACB only awards accreditation to professional degree *Programs* in architecture. A CACB-accredited professional *Program* in architecture is defined as the totality of a student's post-secondary education culminating in a designated professional university degree, which may be a bachelor of architecture (BArch) or a master of architecture (M. Arch) degree.

The Programs include:

- a minimum of five years of post-secondary study culminating in a master of architecture degree, which follows a *pre-professional* bachelor's degree, except in Quebec, where the minimum is four years of professional studies following two years of CEGEP;
- a minimum of six years of post-secondary study culminating in a master of architecture degree, which follows a bachelor's degree in any discipline and includes a minimum of three years of professional studies in architecture; or
- a minimum of five years of post-secondary study culminating in a bachelor of architecture degree.

In keeping with the principal of outcome-based *Accreditation*, the CACB does not restrict the structure of a professional *Program* and/or the distribution of its coursework.

The accreditation process requires a self-assessment by the institution or *Program*, an evaluation of the selfassessment by the CACB, and a site visit and review conducted by a team representing the CACB. The process begins at the school with the preparation of the <u>Architecture Program Report</u> (*APR*). The *APR* identifies and defines the program and its various contexts, responding to the *CACB Conditions and Procedures for Accreditation*. The *APR* is expected to be useful to the planning process of the school, as well as documentation for the purposes of accreditation. Upon acceptance of the *APR* by the CACB Board, an accreditation visit is scheduled. The CACB's decision on accreditation is based upon the capability of the program to satisfy the Conditions and Procedures for Accreditation, including the ability of its graduating students to meet the requirements for learning as defined in the Student Performance Criteria. During the visit, the team reviews student work and evaluates it against these requirements. The team also assesses the effectiveness and degree of support available to the architectural program through meetings with the institution's administrators at various levels, architecture and other faculty, students, alumni, and local practitioners.

At the conclusion of the visit, the Visiting Team makes observations and expresses compliments and concerns about the program and its components. It also offers suggestions for program enrichment and makes recommendations, which, in the judgment of the team, are necessary for the program's improvement and continuing re-accreditation. Following the visit, the team writes the following VTR, which is forwarded with a confidential recommendation to the CACB. The CACB then makes a final decision regarding the term of accreditation.

Terms of Accreditation

Term for Initial Accreditation

Programs seeking initial *accreditation* must first be granted candidacy status. The maximum period of candidacy status is six years.

Programs that achieve initial *accreditation* at any time during the six-year candidacy will receive an initial three-year term, indicating that all major program components and resources are in place. Some additional program development may be necessary and/or deficiencies may need to be corrected. Additionally, to be eligible for CACB certification, students cannot have graduated from the *Program* more than two years prior to the initial *accreditation*.

Terms for Continuing Accreditation

- a) Six-year term: Indicates that deficiencies, if any, are minor and that a process to correct these deficiencies is clearly defined and in place. The *Program* is accredited for the full six-year period.
- b) Six-year term with a "focused evaluation" at the end of three years: Indicates that significant deficiencies exist in meeting the requirements of the <u>CACB Conditions and Terms for Accreditation</u>; consideration of these deficiencies will form the basis of a focused evaluation. The *Program* is required to report on its particular deficiencies during the third year.
- c) Three-year term: Indicates that major deficiencies are affecting the quality of the *Program*, but the intent to correct these deficiencies is clear and attainable. The *Program* is accredited for a full three-year period. If the *Program* receives two consecutive three-year terms of *accreditation*, then the *Program* must achieve a six-year *accreditation* term at the next *accreditation* visit. If the *Program* fails, it will be placed on a two-year probationary term. If the *Program* fails to achieve a six-year term at its subsequent *accreditation* visit, then its *accreditation* shall be revoked.
- d) Two-year probationary term: Indicates that CACB deficiencies are severe enough to seriously question the quality of the *Program* and the intent or capability to correct these deficiencies is not evident. A *Program* on probation must show just cause for the continuation of its *accreditation*, and at its next scheduled review, the *Program* must receive at least a three-year term or *accreditation* will

be revoked. If the two-year probationary term is following the sequence described in "c," the *Program* must receive at least a six-year term or its *accreditation* shall be revoked.

e) Revocation of accreditation: Indicates that insufficient progress was made during a two-year probationary term to warrant a full three-year or six-year accreditation term. Notwithstanding, the foregoing accreditation of any Program can be revoked at any time if there is evidence of substantial and persistent non-compliance with the requirements of the <u>CACB Terms and Conditions for Accreditation</u>.

Term for Reinstated Accreditation

Should the accreditation of a *Program* lapse or be revoked, the procedures for reinstatement shall be the same as those applicable to initial candidacy. The term of reinstated *accreditation* is the same as the term of initial *accreditation*. If the *Program* is successful in achieving *accreditation* at any time during the six-year candidacy, the *Program* will receive a three-year term of *accreditation*.

II. Summary of Team Findings

1. Team's General Comments

2. Conditions for Accreditation "met" and "not met": a summary

		Met	Not Met
1.	Program Response to the CACB Perspectives		
	A. Architecture Education and the Academic Context	[X]	[]
	B. Architecture Education and the Students	[X]	[]
	C. Architecture Education and Registration	[X]	[]
	D. Architecture Education and the Profession	[X]	[]
	E. Architecture Education and Society	[x]	[]
2.	Program Self-Assessment	[x]	[]
3.	Public Information	[X]	[]
4.	Social Equity	[X]	[]
5.	Human Resources	[]	[X]
6.	Human Resource Development	[X]	[]
	Physical Resources	[]	[x]
	Information Resources and Information Technology	[X]	[]
9.	Financial Resources	[X]	[]
10.	Administrative Structure	[]	[x]
11.	Professional Degrees and Curriculum	[X]	[]
12.	Student Performance Criteria (SPC)		
	A1. Critical Thinking Skills	[X]	[]
	A2. Research Skills	[x]	[]
	A3. Graphic Skills	[x]	[]
	A4. Verbal and Writing Skills	[x]	[]
	A5. Collaborative Skills	[x]	[]
	A6. Human Behavior	[x]	[]
	A7. Cultural Diversity	[X]	[]
	A8. History and Theory	[x]	[]
	A9. Precedents	[]	[x]
	B1. Design Skills	[X]	[]
	B2. Program Preparation	[x]	[]
	B3. Site Design	[x]	[]
	B4. Sustainable Design	[X]	[]
	B5. Accessibility	[x]	[]
	B6. Life Safety Systems, Building Codes and Standards	[x]	[]
	B7. Structural Systems	[x]	[]
	B8. Environmental Systems	[x]	[]
	B9. Building Envelopes	[x]	[]
	B10. Building Service Systems	[x]	[]
	B11. Building Materials and Assemblies	[x]	[]
	B12. Building Economics and Cost Control	[x]	[]
	C1. Detailed Design Development	[X]	[]

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C2.	Building Systems Integration	[]	[X]
СЗ.	Technical Documentation	[X]	[]
C4.	Comprehensive Design	[]	[X]
D1.	Leadership and Advocacy	[X]	[]
D2.	Ethics and Professional Judgment	[X]	[]
D3.	Legal Responsibilities	[X]	[]
D4.	Project Delivery	[X]	[]
D5.	Practice Organization	[X]	[]
D6.	Professional Internship	[x]	[]

3. Program's Progress since the previous site visit (from previous VTR)

The following is a summary of the Causes of Concern identified at the time of the last accreditation visit in 2012 (texts in italics. In cases where there has been a longstanding concern, reference to earlier VTRs is included). The 2018 Visiting Team's evaluation of progress follows.

Causes of concern

1. The Team's concerns are framed by two key CACB Criteria for Accreditation, that

- is, professional programs in architecture should:
- a. Have a productive self-assessment process and be making reasonable progress toward achieving its mission, as measured by the benchmarks identified in its strategic plan.
- b. Be making reasonable progress toward eliminating the deficiencies identified during the previous accreditation site visit.

The team recognizes the significant work undertaken by the School to develop a clear and articulated program vision and mission, and the effective self-assessment exercises leading to extensive curricular development addressing deficiencies identified in previous Visiting Team Reports. In particular these developments addressed deficiencies pertaining to Comprehensive Building Design and associated courses focused on technological literacy and capacity.

Curriculum

The lack of opportunity for students to take Humanities courses (2006, 2012).

Recommendations calling for increased access to courses in the liberal arts have not been addressed.

Facilities

Although the School is housed in a distinctive and appropriate building that is deally located, the building and its fitments are in need of maintenance and upgrading.

The Macdonald-Harrington Building is currently undergoing a major renovation and restoration (\$15 million) of the building envelope and the professional M.Arch. studios on the fifth floor. However, interior spaces remain in need of renovation, with certain areas – including workshops, digital fabrication facilities, undergraduate studios (especially U2) and teaching spaces (Room 212) in urgent need of attention. Special attention needs to be paid to air quality in the wood shop and adjacent space housing laser cutters. The need for upgrades to the building and to IT infrastructure was cited in the 2012 VTR, the 2011 Cyclical Academic Review, the 2006 VTR and the 2006 External Review report.

Human resources

A number of items related to human resources are of long-standing concern to the School and have yet to be fully resolved, although some progress has been made.

The School places unusual reliance on adjunct faculty to teach in studio courses; unless these adjunct faculty become more engaged in the governance of the School and its long-term direction, there is a risk that the studios may, over time, drift away from the vision of the School.

Two recent appointments to the full-time faculty, with two more expected shortly, reduces reliance on adjunct faculty. Still, the reliance on adjunct faculty persists, but with additional hires this situation should be somewhat alleviated.

The relatively small number of tenured and tenure-track faculty could result in a high service load, posing a potential danger for tenure-track faculty seeking to initiate, and be recognized for, a research agenda (refer to Condition 5 Human Resources).

The high service load remains a concern. However, the most recent appointments of tenuretrack faculty have robust research agendas; two hold Teir Two Canada Research Chairs and a CFI grants. The research enterprise at the School appears robust.

Although the policies and procedures around hiring are clear, the occurrence of two failed faculty searches in recent years raises questions about the application of those policies and procedures to the School of Architecture.

Since the last visit, the School has completed four successful faculty searches (two subsequently left the School), and is currently engaged in additional searches. The quality of the recent hires is excellent.

In a similar vein, there is the need for a clear policy on the evaluation of the specific forms of peer review typical of the architectural discipline for tenure purposes.

The School has developed guidelines for evaluation of research within the School that identify acceptable research activities and outcomes distinct from those typical of Engineering disciplines, to assist Faculty of Engineering review committees in their evaluation of Architecture faculty.

The School raised once again the issue of Professors-in-Practice, and the Team supports its desire for one or more of these positions. The Team notes that Professors-in-Practice are included in the Regulation Relating to the Employment of Contract Academic Staff (effective September 1, 2010).

The School has established two Professors-in-Practice positions (one is very active in the day-today operations of the School; the other is more occasional in nature).

Finally, there is a pressing need for additional technical staff able to facilitate use of digital infrastructure and other services. The demand on this position will only grow.

This remains a significant concern requiring urgent attention.

Human Resources concerns of this type have been raised in the 2001 VTR, the 2006 VTR, the 2006 External Review report, and the 2011 Cyclical Academic Review, and were raised again by

faculty and students during the 2012 visit. Although some progress has been made in some areas, the substantive concern of deficiencies in Human Resources has not been resolved.

The shortage of technical support staff remains a significant concern requiring urgent attention.

4. Program Strengths

- The School of Architecture has made a concerted effort to address many of the deficiencies identified in previous accreditation visits. The Team commends the effort. In particular, the team was impressed with the steps taken to meet Student Performance Criterion C4 : Comprehensive Building Design. The scope, depth, resolution and level of detail achieved in student work produced studio ARCH 405 is exceptional.
- The School is fortunate to be part of McGill University, rich in history and well known for the quality of its research. The location in the City of Montreal provides an intense cultural environment and an urban laboratory that clearly contribute to the School's ability to attract outstanding students, professors, adjunct instructors and visiting critics.
- The School enjoys the support of the leadership of McGill University and the McGill Faculty of Engineering, who understand its place in the history of architecture in Montreal and Canada and its potential to contribute to the quality and reputation of the university.
- The Director of the School, Dr. Martin Bressani, provides strong leadership to the School of Architecture. He and his predecessor, Dr. Annmarie Adams, led the process of change and renewal referred to previously. Dr. Bressani has the respect and support of students and colleagues at McGill.
- The teaching faculty, both full and part-time, includes both youth and experience. The members of faculty are clearly dedicated to the community of the school. They are committed teachers. Among them are some of the most outstanding and productive researchers in architecture.
- The scale of the school fosters an intimate and congenial environment that promotes direct collaboration and mutual support among faculty, staff and students.
- The student body is particularly engaged and active. The student organized program of academic, professional and social events, recreational initiatives, student government and vigorous exchanges that take place in the Forum all contribute significantly to the overall quality and positive energy evident in the school.
- The School of Architecture has demonstrated an exceptional capacity to attract external funding for research, general development and the enrichment of the academic program.
- The Program benefits from library and archival resources of the highest quality. McGill
 University is to be commended for building and maintaining an excellent collection and for
 supporting the John Bland Canadian Architectural Collection. There is no other University in
 the country that has taken such a strong position in preserving and celebrating the work of
 its graduates and faculty members. The Team also commends the steps taken to enhance
 the accessibility of the material through staffing and the School's commitment to making the
 collection part of the academic experience of undergraduate and graduate students.

5. Causes of Concern and Team's recommendations

- The current Team restates and emphasizes the concern raised by previous CACB Visiting Teams regarding the facilities of the School of Architecture. The restoration of the building envelope from foundation to roof, while much needed and admirable, should be accompanied by a complete restoration and renovation of the interior of the building so that spaces and facilities share the glory of the facade. The various projects for renewal of individual spaces should be amalgamated in an overall renewal plan that includes building systems, ventilation, services, the studios, lecture halls and other teaching spaces. Of particular concern are the workshop, laser cutting area and media space, which appear to be far too small and are the source of serious concern expressed by students on matters of safety and air quality. The shops require an Assembly Space so that students are not using the Studios and other inappropriate locations for such work.
- The Team notes that there is a lack of clarity in administrative responsibility for the professional MArch program. This must be addressed.
- The School must take further steps to achieve greater diversity and gender equality in its complement of full-time faculty members
- There is a serious deficiency in technical support staff.
- The School should develop a clear and cohesive approach to relationships with Indigenous communities and culture

III. Compliance with the Conditions for Accreditation

1. Program Response to the CACB Perspectives

Programs must respond to the relevant interests of the constituencies that make up the CACB: educators (CCUSA) and regulators (CALA), as well as members of the practicing profession, students and interns, and the general public.

General Team comments:

A. Architecture Education and the Academic Context

The program must demonstrate that it both benefits from and contributes to its institutional context.

Met	Not Met
[X]	[]

Team comments:

The School of Architecture is valued as an important academic unit with a rich history within one of Canada's pre-eminent research universities. This was clearly expressed to the Visiting Team by Dr. Jim Nicell, Dean of the Faculty of Engineering, and Dr. Christopher Manfredi, Provost and Vice-Principal (Academic). The respect enjoyed by the School of Architecture within the University community is further underscored by the ongoing support of the John Bland Canadian Architecture Collection, a special archive within the university library documenting the work of selected faculty and alumni of the School of Architecture. Both the resource and the University's commitment to it are unique among Canadian Schools of Architecture.

The School of Architecture is a leader in architectural research, housing a robust postprofessional graduate program with both Masters and Doctoral programs. Some of this research informs courses in the professional program, linking the program to the university's larger tradition of research.

In the academic context, two cross-appointments of faculty members further connect the School to the larger university context: Dr. Nik Luka is appointed to School of Architecture and the School of Urban Planning, and Dr. Annmarie Adams has been appointed Chair of McGill's Department of Social Studies of Medicine in the Faculty of Medicine, but has retained a 50% appointment in the School of Architecture. In addition, core faculty members have participated in an initiative in the Faculty of Arts, the Institute for the Public Life of Art and Ideas (IPLAI), collaborating with faculty members from Art History and Communications, and English, among others. In the administrative context, faculty members of the School of Architecture participate on a variety of Faculty and University-wide committees and task forces.

B. Architecture Education and the Students

The program must demonstrate that it provides support and encouragement for students to achieve their full potential during their school years and later in the profession, and that it provides an interpersonal milieu that embraces cultural differences.

Met	Not Met
[x]	[]

Team comments:

The School of Architecture's relatively small enrolment contributes to a coherent and intimate social life among the students, despite the fact that the School's physical resources offer little opportunity for communal space. As a consequence, the life of the school revolves around the studio spaces and the exhibition room. All students enrolled in the B.Sc.(Arch) program automatically become members of the Architecture Students' Association (ASA), which serves as a governing body that represents the students within the School, liaising with faculty members and participating on the Curriculum Committee. The ASA maintains a Web site and circulates a newsletter with key events, deadlines and ASA activities. The students are also members of the Engineering Undergraduate Society (EUS), which provides funding opportunities for student-led initiatives. The ASA has provided funds to hire students to assist with certain services including staffing the School's Media Centre after hours to provide access to printing and plotting in advance of deadlines. Graduate students are represented by the Graduate Architecture Students Association (GASA).

Students are exposed to a variety of different teaching methods and approaches to the curriculum; by and large the students appear to adapt well to the various pedagogies and develop a wide range of skills. They also benefit from exposure to practicing architects serving as Adjunct Professors and course lecturers, establishing important links to the profession.

With few exceptions students expressed a high degree of satisfaction with the quality of the teaching faculty, the administrative support staff and technical support staff. They noted that the Director maintains an open door policy and is very approachable. In addition to direct contact with faculty and administrative personnel the primary mechanism for student feedback is the Academic Forum, an event held each semester through which students, through their student association representatives, can express concerns and criticisms to the Director. Despite this opportunity to air their concerns, there is no formal mechanism (i.e. School Council or other voting body) to include students in School governance. The Curriculum Committee and Faculty Search Committees include a minimum of two student representatives, one undergraduate, one graduate, but these are advisory as opposed to a governing bodies.

There are some concerns regarding the availability of services provided by the University for students in crisis; waiting times for student counsellors can be excessive and do not serve acute situations. Student representatives noted that students in crisis typically turn to administrative staff and faculty in moments of crisis and note that in general they are well accommodated by the School.

C. Architecture Education and Registration

The program must demonstrate that it provides students with a sound preparation for the transition to professional life, including internship and licensure.

Met	Not Met
[X]	[]

Team comments:

Most of the content pertaining to Professional Practice is contained in a single course, Arch 674. Although the content is comprehensive, concern was expressed regarding reliance on a single course to cover such a broad and significant aspect of professional education. In addition, the team considered it beneficial to include some course content in the undergraduate program. Further integration of practice knowledge into the curriculum - in both

the Undergraduate and Masters levels - can work to further instill the value of architectural registration and professionalism with the students.

The program provides opportunities for the students to interact with the OAQ and gain information on the Internship in Architecture Program as well as regulatory and licensing requirements following graduation. It is the Visiting Team's understanding that representatives of the OAQ regularly visit the school and provide further information in a lunch and learn format. The Visiting Team encourages this and further opportunities with the OAQ to ensure that students are well informed of the purpose and the duty of the regulator.

The School includes practitioners as instructors in part-time and full-time teaching positions as well as guest critics and lecturers who provide the students with access to professional applied knowledge. This practice is seen as beneficial and can provide additional insight to the profession.

The mandatory work term is also seen as an important opportunity for the development of the student. The school provides some assistance to the students in finding placements, but additional efforts are encouraged. It was indicated to the team verbally that students fill out experience summaries – the mandatory Work Experience Reports signed by the employer – that are reviewed and approved by the School of Architecture. The Visiting Team supports this process and encourages the School to develop a more comprehensive process for recording and evaluating student work experience.

While it does not provide students with a comprehensive understanding of practice, the ASA and GASA's firm crawl each semester provides students with an excellent opportunity to become aware of local practice by visiting a variety of architectural firms. We commend this initiative and the partnerships established with Montreal firms.

D. Architecture Education and the Profession

The program must demonstrate how it prepares students to practice and assume new roles within a context of increasing cultural diversity, changing client and regulatory demands, and an expanding knowledge base.

Met	Not Met
[x]	[]

Team comments:

The student association ASA is active in promoting connection to the profession by organized visits to local professional offices, organizing the Brown Bag Lunch Series and inviting representatives of the OAQ to visit the School. These initiatives are commendable and should continue to be supported by the School.

The students are given opportunities to interact with the profession through the professors, adjunct professors and sessional instructors. Addition of the Professor-in-Practice position since the last reporting period is a significant asset to the program.

The visiting lecture programs also provide additional exposure for the students to a diverse cross-section of the profession. The core courses that address the profession and its ethical and moral responsibilities are comprehensive. Course FACC 220 is very detailed for first year students. Further elaboration of legal requirements specifically for architects would be beneficial in the later years in the program. Comments have been made in other sections

about the benefits of distributing the contents of ARCH 674 over both the undergraduate and graduate programs.

E. Architecture Education and Society

The program must demonstrate that it equips students with an informed understanding of social and environmental problems and that it also develops their capacity to help address these problems with sound architecture and urban design decisions.

Met	Not Met
[x]	[]

Team comments:

The program continues to equip students with an understanding of and compassion for problems related to social and environmental issues and facilitates the students' capacity to address them through architectural and urban design strategies. This is primarily achieved through a comprehensive set of program-led and student-led initiatives, including:

- Design studio projects that involve issues of housing, community advocacy planning and other work that contemplates social questions, including a school for refugee children.
- Seminars on the issue of spatial justice, politics of public space, knowledge institutions and other social topics.
- Student involvement in community design workshops including the Solar Decathlon China Competition, Tongi University Construction Festival, a design-build workshop on Fogo Island, and others.
- Student involvement in and exposure to faculty service on a wide variety of committees and advisory groups involving local, regional and national issues, including participation on design juries, published articles, membership on a committee related to and promotion of Urban Agriculture and related initiatives, work with Innu communities of Nunavik related to culturally appropriate and sustainable habitat planning, and research on the challenges of housing in Canada and abroad.

The Team was particularly struck by Ipek Tureli's winter 2015 U2 studio for the school for Syrian refugees and the exhibition of the student work, as well as the class's interaction with the Al-Salam School. The series of projects and the exhibition align contemporary events and social justice with investigative and creative studio practice.

In meeting with the Provost, it was made clear to the team that the University has an initiative in place to encourage an understanding of and connection to Indigenous communities. The School of Architecture appears to have no identified strategy in place to promote an increased awareness by the students on issues regarding Indigenous communities in Canada. This gap in the curriculum should be addressed in the next reporting period.

2. Program Self-assessment

The program must provide an assessment of the degree to which it is fulfilling its mission and achieving its action plan.

Met	Not Met
[X]	[]

Team comments:

Since the last VTR (2012), the School has dedicated significant efforts toward self-assessment, including the development of updated vision and mission statements, and significant curricular development, particularly in response to deficiencies identified by the 2012 Visiting Team. The current APR identifies a clear Program Action Plan and Objectives, identifying specific critiques

and objectives regarding gender balance and diversity of faculty and staff, student recruitment, curriculum and improvements to facilities, among others.

The redesign of the curriculum surrounding the studio and courses offered in the Fall semester of U3 addressed previously identified deficiencies in Comprehensive Building Design. The realignment of the two options in the Master of Architecture program – DST and DSR – to reduce the discrepancy between the two in time-to-completion has harmonized the two streams to create a more coherent culture within the M.Arch. cohort.

These and other changes resulted from a rigorous process of self-assessment in response to issues raised in the 2012 VTR. This process is well documented in the series of Annual Reports and the 2015 Focused Evaluation Report provided in the appendices of the APR.

In addition to the self-assessment exercises resulting from the 2012 VTR, the School engages in a variety of activities contributing to an ongoing program of review, including monthly faculty meetings and the Academic Forum, a meeting held each semester, allowing students to raise concerns and issues.

A University mandated Cyclical Review was last completed in 2011, with another due to be completed in 2018-19; however, the format of this exercise is under review by the Dean of Engineering. The Visiting Team encourages the School to maintain the self-assessment processes adopted in response to the previous visit and to continue to monitor progress in relation to its mission and action plan.

3. Public Information

The program must provide clear, complete, and accurate information to the public by including in its academic calendar and promotional literature the exact language found in the CACB 2010 Conditions (Appendix A-1), which explains the parameters of an accredited professional degree program.

Met Not Met [x] []

Team comments:

The program provides direct links on its web site (www.mcgill.ca/architecture) to the 2012 versions of the Conditions and Terms of Accreditation and the Procedures for Accreditation that are hosted on the CACB web site. Those links, including additional information on the parameters of the accredited professional degree programs, are found on the webpage titled" Accreditation", under the main heading "Programs".

The current status of the program is not listed on its "Accreditation" webpage, but the status can be found on the CACB web site following the provided link "Accreditation webpage".

The APR indicates that the most up-to-date Guide to Student Performance Criteria is also provided on the "Accreditation" webpage, but the link was not there at the time of the visit. The APR also states that the same information is given, presumably in written form, to all first-year students of B.Arch. and M.Arch. levels in the context of ARCH 201, ARCH 202, ARCH 221 and ARCH 674 courses, but that information was not part of the submitted documents and could not be verified.

4. Social Equity

The accredited degree program must provide a summary of provincial and institutional policies that augment and clarify the provisions of the Charter of Rights and Freedoms as they apply to social equity.

Met	Not Met
[X]	[]

Team comments:

The APR clearly documents the social equity and integrity policies at the University level and the Faculty of Engineering's Code of Ethics, both of which govern the School of Architecture. Additional resources include the Students' Rights and Responsibilities Handbook, and references to provincial and federal policies on equity, including the Quebec Charter of Human Rights and Freedoms and the Canadian Charter of Rights and Freedoms.

The APR also addresses the School's efforts at improving gender equity among the full-time faculty. Currently, three of the School's 14 full-time faculty members are female, representing 21%. The document notes that "Special efforts are being made to address this imbalance", implying that this will become a priority for future searches. The School has also expanded its complement of female sessional instructors, visiting lecturers and speakers.

5. Human Resources

The program must demonstrate that it provides adequate human resources for a professional degree program in architecture, including a sufficient faculty complement, an administrative head devoting not less than fifty percent of his/her time to program administration, administrative and technical support staff, and faculty support staff.

Met	Not Met
[]	[X]

Team comments:

Students

The student body is well qualified; 48 undergraduate students are carefully selected each year from a group of approximately 600 applicants. Students from Quebec enter after two years of CEGEP and begin their studies in U1, while students coming from secondary schools outside Quebec must complete the U0 year. All students admitted have strong academic records. Retention and time to completion in the undergraduate program are entirely reasonable.

A second application is required for admission to the professional M.Arch. program; of the over 200 applicants approximately 35 are admitted. Roughly half completed their undergraduate degree at McGill. The admission process includes a rigorous assessment of each applicant's preprofessional program, including cross referencing against both the McGill undergraduate curriculum and the CACB Student Performance Criteria.

The Visiting Team believes that there is a problem in the admission to the graduate program of students who arrive from pre-professional programs that do not meet the requirement for Comprehensive Building Design.

Faculty

The full-time faculty complement is made up of well-qualified academics who are committed to teaching at the graduate and undergraduate levels, carrying on ambitious research programs, contributing to the administration of the School and serving the broader community. There has been a net increase in the number of full-time faculty members of 1.5 faculty members. Several

very promising young faculty members have been hired in this accreditation cycle. Several more senior faculty are likely to retire in the next few years. The School must be able to maintain its present complement, filling upcoming vacancies when they appear. In this way it will be possible to reduce reliance on sessional instructors, moderate the administrative loads placed on individual faculty members and improve the gender balance and cultural range in the Architecture faculty. Currently there are 3 females in a total faculty complement of 15. The student body is majority female. The overall health of the academic environment depends on achieving a balance between males and females on the architecture faculty.

The School uses sessional and adjunct faculty judiciously to teach both design and academic courses. These faculty members are considered full members of the School community. The ratio of regular to sessional and adjunct faculty is healthy and normal for an architecture school.

Student/Faculty ratios in Design Studio fall precisely within the range of 12:1 to 15:1 established by the CACB.

The Director has adequate time and support to carry out his administrative duties.

Academic and Technical Support Staff

The academic support staff consists of 5 members, some of whom have been connected to the School for decades. These are dedicated people who have the best interests of the students and faculty at heart. Students were appreciative of the work done on their behalf, especially, in recent times, in the area of mental health and well-being.

The Visiting Team heard from many in the school that the role of student advisor had become too onerous for one person to manage both undergraduate and graduate student populations in the professional program. The Team recommends that the School examine the overall administrative structure and consider a modification of the roles and responsibilities within the support staff, especially in light of the increasing need for student support and reference to health services and professionals available on campus.

Technical Support Staff

The Visiting Team admires the enthusiasm and competence of the technical support staff members in the Workshop and Media facility. The incumbents both have the greatest respect for the students and share their creative ambition. However the Team also considers the present complement of two technical support staff to be inadequate for the operation of a professional architecture program of this size. The employment of part-time student assistants has allowed the students greater access to facilities, but proper supervision is required as well as access. The level of service in the Workshop and Media facilities suffers. Students commented on the limitations of availability and service. It is the Team's view that the McGill School of Architecture is substantially behind most other Canadian Schools in the level of technical support provided to students.

6. Human Resource Development

Programs must have a clear policy outlining both individual and collective opportunities for faculty and student growth within and outside the program.

Met	Not Met
[X]	[]

Team comments:

In terms of faculty development and support, the School of Architecture operates within the policy framework of McGill University, which is consistent with the processes typical of a contemporary university context: searches and appointments, tenure, promotion, professional support and development, and so on.

Within this broader framework, there are certain practices specific to the culture of McGill. One example of this occurs in the search and appointment practices, in which a Search Committee is constituted to solicit and review applications in order establish a short list of candidates, which is then submitted to the Department Chair or School Director. Once the short list is established, the committee may be disbanded, with the final decision made by the Director. This differs from most contemporary university practices, where highly formalized procedures, including voting on a preferred candidate by all members of the Search Committee, are more typical. Although some faculty members have expressed concern with a system that places final responsibility for selection of candidates solely with the Director, the School has recently completed successful searches resulting in the appointment of new faculty.

Once appointed, new faculty members are provided with the opportunity for mentoring by experienced academics to provide advice on teaching, research, and the workings of the University. In the School of Architecture this also extends to pairing junior faculty with more experienced colleagues in team teaching situations in the design studios, a common practice in schools of architecture. Transfer to tenure and promotion to Professor follow procedures consistent with those of other universities.

The School also offers opportunities for student development in both curricular and extra-curricular contexts. The relatively small enrolment allows for a high degree of interaction between students and faculty, and students and staff, who provide advising services. Field trips, study abroad opportunities, student societies and activities all provide students with opportunities for growth both in an academic and non-academic context.

7. Physical Resources

The program must provide physical resources that are appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each full-time student; lecture and seminar spaces that accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space.

Met	Not Met
[]	[x]

Team comments:

The historic Macdonald-Harrington Building provides an extraordinary location for a school of architecture, central and prominent on the main square of the McGill Campus. Nevertheless, the Program continues to experience the same challenges that were identified in the previous VTR (2012).

The historic building contributes to the character to the Program and provides excellent exhibition space and a main lecture hall that both seem to facilitate student learning and development. Together with the main building entrance, the review and seminar rooms along the main corridor on the first floor create a communication and social space and establish strong connections to the campus as a whole, and the architecture community beyond. The use of the main lecture hall, with

entrances on both the first floor and the ground floor (one level below the first) is not controlled by the Program and therefore is not easily available to the faculty and the students for their events.

The current renovation of the building involves repairs to the building envelope and foundation, with the complete replacement of the roof structure (and the associated interior renovations) on the 5th floor. The \$15,000,000 project addresses deferred maintenance of the building exterior with some interior renovations and furniture upgrades to follow. As the result of the construction, the graduate Studios, normally located on the 5th floor, were temporarily relocated to another building that the Team did not visit. At the time of the visit it appeared unlikely that the 5th floor space and the roof renovation will be finished before the Fall, in time to allow the Graduate students to return to their spaces.

The APR noted the deficiencies in space and furniture dating back to the 2006 and 2012 visits, as pointed out in the following quote from the 2006 VTR: "All of the 250 studio workstations are planned to be replaced over the next few years. The process has started and the School will replace 50 each year."

U3 Studio space has been renovated, the graduate Studio is currently under renovation, and the renovation of the U2 spaces is expected soon – the whole process is, however, moving slower than it was initially anticipated in a consistent and comprehensive manner, as noted in the 2006 VTR. The Studio space renovations were planned with crit spaces incorporated, although there seem to be several review, seminar and lecture spaces available. Most, if not all of the lecture classes are scheduled in the Classroom 212 and the room itself is dated, with impractical lectern and uncomfortable seats. This room is in urgent need of refurbishment.

Studio spaces have improvised locations for food preparation and cleaning without proper access to cold and hot water. This issue is made more pressing due to the lack of any vending machines, food preparation and cleaning areas and facilities in the whole building, leaving the Studio spaces as the locations of choice for those activities. This is compounded by the fact that the only dedicated student social space – the former student lounge and café on the building's lower level – is not maintained at all and, therefore, not utilized as well as it could be.

As the Studio spaces are in different states of refurbishment, there is an appearance of imbalance between the spaces allocated to different years. Some are more than adequate (U3), while others are cramped (U2). It has been noted before that such situations create a student perception of imbalance in terms of the distribution of school resources between various years in the undergraduate program, and between undergraduate, graduate and post-professional spaces.

As the Program continues to realize the potential for digital design and fabrication, students must have a commensurate set of physical resources to complement this growth. As a complement to the existing world class CFI-funded facilities, additional manual and digital infrastructure must offer a seamless transition between design, documentation and fabrication in a studio environment.

In this context, the shortcomings of the present facility are even more evident. There seems to be inadequate access to printers and plotters for student use. The Media Centre, equipped with large format plotters and photo studio area, is housed in the space under the main auditorium that seems too small for the equipment it contains. The choice of Designjet ink jet-based plotters may cause bottlenecks in production when high-volume printing might be required. There are no layout tables or spaces around the plotters to handle prints as they are made. Having only one available technician creates restricted hours of access and inefficient use of resources.

The wood shop and the access to the adjacent metal shop in the Faculty of Engineering are important resources. They seem to be well equipped but, especially in case of the wood shop, the available space is insufficient for more than a few students to work safely in the shop at the same time. Space for maneuvering materials is limited and the horizontal work area is fairly small. As a result all the assembly is done either in the adjoining laser-cutting room, or in the Studio spaces.

Digital fabrication resources are available in a room adjoining the wood shop, with two current laser- cutting machines and a third coming soon. In addition, there are two large format 3D printers in the same room, along with an assembly space. This is presently the most problematic space in the whole building; the lack of maneuvering space, the small assembly area and the almost non-existing ventilation create near impossible working conditions. There are complaints of fumes that seem to be bordering on hazardous. The Visiting Team understands that the commissioning of an HVAC study of the whole building is underway, but this space warrants a separate and immediate investigation.

As pointed in the previous VTRs, access to the resources and instruction in their use is restricted by the shortage of technicians serving architecture students, discussed separately in the section on Human Resources. The additional technical support for workshop, digital production and printing services is required to facilitate access to the existing infrastructure and to provide better utilization of existing resources.

8. Information Resources and information technology

The architecture librarian and, if appropriate, the staff member in charge of visual resource or other non-book collections must prepare a self-assessment demonstrating the adequacy of the architecture library. For Information Technology Resources, the program must also provide the information technology infrastructure and corresponding staff support in order to effectively contribute to the delivery of the curriculum, as well as supporting activities of staff and faculty.

Met Not Met [x] []

Team comments:

Three outstanding collections in the McGill University Library serve the School of Architecture: the Blackader-Lauterman Collection of Architecture and Art, the Blackader-Lauterman Rare Book Collection and the John Bland Canadian Architecture Collection represent a uniquely strong set of resources that significantly enhance the student experience. Additional materials relevant to students in the School of Architecture are available in a range of other specialized libraries across the University: The Schulich Library of Physical Sciences, Life Sciences and Engineering; the Islamic Studies Library; the Religious Studies Library; the Osler Library of the History of Medicine; and others.

The Blackader-Lauterman Collection of Architecture and Art includes roughly 81,000 print titles, 27,000 ebooks and 3,300 journals (electronic and print). The budget available for the acquisition of architecture titles in the current academic year (2017-18) is approximately \$12,500.

The Blackader-Lauterman Rare Book Collection includes over 3,000 titles ranging in date from 1511 to 2014, including an important collection of Renaissance architectural treatises (eg. Palladio, Serlio) and prints (Piranesi). Students in the professional architecture program are introduced to some of these primary materials directly in the curriculum as early as U1.

The John Bland Canadian Architecture Collection contains approximately 100 archival holdings with over 160,000 drawings, 25,000 photographs, slides, models, maps and other documents related to the work of selected faculty and alumni of the McGill School of Architecture. The JBCAC

is also home to the School's Architecture Slide Collection of approximately 40,000 images. Material in the JBCAC is available for consultation by appointment.

These collections are supported by expert library staff available for consultation with students. The Visiting Team is very impressed with the quality of the collection and the library staff, and by the fact that students are encouraged by faculty to make good use of this outstanding resource, often in the context of curricular assignments.

9. Financial Resources

Programs must have access to sufficient institutional support and financial resources.

Met	Not Met
[X]	[]

Team comments:

The team has confirmed that from 2013-14 until the last fiscal cycle, the School has remained within its allocated budget and has experienced no deficits or over-runs, correcting concerns identified in the 2012 VTR. The team acknowledges the significant improvement since the last reporting period, and commends the administration for setting a financially sustainable course for the viability of the school into the future.

Further to the base operating budgets, special events and projects are supported by resources from endowment and development funding which has yielded on average \$93,086 annually over this period. The team recognizes that this special funding enhances the activities and culture of the school and commends the team responsible for securing this ongoing support for the program.

It is the team's understanding that the exceptional Peter Fu Endowment of \$12M to the McGill School of Architecture will result in approximately \$500,000 annually for initiatives outside of the base operating budget allocation. This donation represents a significant opportunity for the School, and the accreditation team supports the Director's plan to work closely with the faculty in preparing a coordinated strategy and direction for the allocation of these funds over the next reporting period.

10. Administrative Structure (Academic Unit & Institution)

The program must be part of, or be, an institution accredited by a recognized accrediting agency for higher education. The program must have a degree of autonomy that is both comparable to that afforded to the other relevant professional programs in the institution and sufficient to assure conformance with all the conditions for accreditation.

Met	Not Met
[]	[x]

Team comments:

McGill University is incorporated by royal charter, granted by the Crown of Great Britain on March 31, 1821 and amended by royal charter on July 6, 1852, under the name "The Governors, Principal and Fellows of McGill College". It is accredited as a university under the name The Royal institution for the Advancement of Learning (McGill University) by virtue of the Act Respecting Educational Institutions at the University Level S.Q. 1989 c.18.

The School of Architecture is one of eight academic units residing within the Faculty of Engineering, one of 11 faculties at McGill University. The Director of the School of Architecture reports to the Dean of Engineering, who in turn reports to the Provost and Vice-Principal (Academic). The School of Architecture enjoys a high degree of autonomy in the design and

delivery of its curriculum; all academic decisions are subject to approval by the Faculty's Academic Committee and the Faculty Council.

Within the School, the Director is assisted by a very capable Administrative Officer and associated staff responsible for coordinating budget, human resources, special events, alumni relations, student advising and recruitment. Academically, the Director is supported by two Associate Directors; it is at this level that considerable confusion exists within the School, as evidenced by contradictory information within the APR and what the Team encountered during the visit. The APR document describes the two positions as Associate Director (Postprofessional programs) and Associate Director (Professional program). Despite what is implied by these two titles, there is considerable confusion as to whether responsibility for administration of the professional Master of Architecture is the responsibility of the AD (Post-professional) or the AD (Professional). In part this stems from an alternative understanding that the AD (Postprofessional) is actually the Graduate Program Director, responsible for all graduate programs, both professional and post-professional, and the AD (Professional) is actually the Undergraduate Program Director. As a result of this confusion, for all intents and purposes the professional M.Arch. has been orphaned, and students enrolled in this program express profound frustration with the lack of clarity and academic leadership. The Visiting Team stresses that this situation requires immediate remedy, and that the academic leadership and administration of the professional M.Arch. program be made a priority of the School.

11. Professional Degrees and Curriculum

The CACB awards accreditation only to first-professional degree programs in architecture. These include:

- Master of Architecture degree with a related pre-professional bachelor's degree; requirement, typically amounting to five or six years of study;
- Master of Architecture degree without a pre-professional requirement, consisting of an undergraduate degree plus a minimum of three years of professional studies.
- Bachelor of Architecture degree requiring a minimum of five years of study, except in Quebec, where four years of professional studies follows two years of CEGEP studies;

The curricular requirements for awarding these degrees must include three components: general studies, professional studies, and electives that respond to the needs of the institution, the architecture profession, and the students respectively.

Met	Not Met
[x]	[]

Team comments:

The format of the School of Architecture's Master of Architecture degree with its related preprofessional bachelor's degree complies with CACB's requirements for a first-professional degree program in architecture.

The entrance requirements for the pre-professional program are based on two years of CEGEP studies in Sciences and Humanities with specific courses in Math, Physics and Chemistry, or the equivalent for out-of-province applicants. Exposure to Liberal Arts courses is limited and should be enhanced.

The Team supports the School's efforts to relax the requirements for Sciences pre-requisites, and specifically to abolish the requirement for two general chemistry courses for admission into the Architecture program. This would offer opportunities in terms of increased access to Liberal Arts courses.

There is concern that the curriculum does not adequately allow students to pursue special interests (electives), probably due to the compressed timeframe for the program. The team acknowledges that the favourable ratios expressed in the analysis of general vs professional studies contained in the APR are achieved through some creative assignment of architectural courses as electives, and encourages development of a curriculum that offers more electives.

12. Student Performance Criteria (SPC)

Each architecture program must ensure that all its graduates possess the skills and knowledge defined by the performance criteria set out below, which constitute the minimum requirements for meeting the demands of an internship leading to registration for practice. (See CACB 2010 Conditions for further detail regarding the SPC categories and criteria).

Met	Not Met
[X]	[]

General Team comments:

It has been stated previously in this report that the Visiting Team recognizes and congratulates the McGill Architecture Program on the curricular reforms developed and implemented since the last accreditation visit in 2012. Of particular note is the conception and creation of what appears to be an exemplary cluster of Design and related academic courses in U3 dedicated to Comprehensive Building Design. It is clear that students who complete the Undergraduate Preprofessional degree at McGill have fulfilled SPC's C2 and C4. Concerns remain that students entering the M.Arch stream from other programs may not have met these criteria and do not complete an equivalent to the McGill U3 term. Hence the evidence from the M.Arch program does not support the conclusion that all graduates have satisfied these criteria. This is the reason C2 and C4 are once again listed as NOT MET. Solutions must be found to the deficiencies indicated, but the Team views the professional program overall to have satisfied Condition 12. Student Performance Criteria.

A1. Critical Thinking Skills

Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards.

Met	Not Met
[X]	[]

Team comments:

This criterion is most clearly met in the sequence of history courses, most notably in the student work provided for ARCH251, 354 and 355 (papers and exams), which present well-reasoned conclusions drawn from research and analysis of primary and secondary sources. This is supported by clear and robust feedback from instructors. Critical thinking skills developed in these courses are evident throughout subsequent aspects of the curriculum.

A2. Research Skills

Ability to employ basic methods of data collection and analysis to inform all aspects of the programming and design process.

Met Not Met [x] []

Team comments:

Research skills are applied across a wide range of courses and studios. The most explicit evidence appears in research papers prepared for the sequence of history courses, which

demonstrate conclusions drawn from analysis of research sources, and citation of sources in standard academic format. Senior undergraduate and graduate studios also reveal a robust competency in research, analysis and synthesis.

A3. Graphic Skills

Ability to employ appropriate representational media to convey essential formal elements at each stage of the programming and design process.

Met	Not Met
[X]	[]

Team comments:

Student work demonstrates proficiency in both analog and digital graphic skills, across a range of drawing types and scales.

A4. Verbal and Writing Skills

Ability to speak and write effectively on subject matter contained in the professional curriculum.

Met	Not Met
[X]	[]

Team comments:

Writing skills are demonstrated in the sequence of history courses and in ARCH550 Urban Planning and Development. Each of these courses (with the exception of ARCH250, the first course in the history sequence) involve the preparation of research papers; in some cases, instructors provide students with detailed assessments including commentary on the quality of writing with suggestions for improvement.

A5. Collaborative Skills

Ability to identify and assume divergent roles that maximize individual talents, and to cooperate with others when working as members of a design team and in other settings.

Met	Not Met
[X]	[]

Team comments:

Evidence of collaborative work appears in a number of team projects, most notably in the ARCH406 and ARCH672 studios. While the evidence supports the successful application of collaborative skills to the completion of a particular project, no evidence is provided that strategies and methodologies of collaborative work are explicitly taught.

A6. Human Behavior

Understanding of the relationship between human behavior, the natural environment and the design of the built environment.

Met	Not Met
[x]	[]

Team comments:

The relationship between human behavior and the natural and built environments is addressed in the sequence of history courses. Although not identified in the program's SPC chart, additional evidence of this criterion appears in ARCH550 Urban Planning and Development, which provides opportunities for a discussion of human behavior in a contemporary rather than a historical context. The Professional Practice curriculum offers additional opportunities for addressing the impact of human behavior in the design of the built environment, especially in the context of Ethics and Professional Judgment.

A7. Cultural Diversity

Understanding of the diverse needs, values, behavioral norms, and social/spatial patterns that characterize different cultures and individuals, as well as the implications of this diversity on the societal roles and responsibilities of architects.

Met	Not Met
[X]	[]

Team comments:

This criterion is most clearly addressed in ARCH355 Global History of Architecture and Urbanism and ARCH550 Urban Planning and Development both of which address social and political implications and impacts of architecture and design across a range of cultures.

A8. History and Theory

Understanding of diverse global and local traditions in architecture, landscape, and urban design, as well as the factors that have shaped them.

Met	Not Met
[X]	[]

Team comments:

The four courses in the History of Architecture provide an overview of global and local traditions, with one course specifically dedicated to a critical analysis of global conditions from 1900 to the present, and another dedicated to North American architecture from 1950 to the present, with extensive discussion of the architecture of Montreal. These draw on the specific expertise of two full-time faculty members, bringing the School's substantial strengths in history/theory scholarship to the undergraduate classroom. Two other courses provide more traditional surveys of architecture from antiquity to the present, and from 1750 to 1950. Courses in landscape and urban design address the history and theory of these sub-disciplines. Several complementary courses afford opportunity for in-depth study of selected topics in architectural history.

The above courses also discuss theory in historical context; it is less clear how contemporary theory and its application to design is addressed in the program, other than in focused complementary courses that do not form part of the core curriculum.

A9. Precedents

Ability to make a comprehensive analysis and evaluation of a building, building complex, or urban space.

Met	Not Met
[]	[X]

Team comments:

Precedent is referred to in some studio projects, and in some history assignments. However, the evidence provided is sporadic and inconsistent, and does not support a conclusion that the students develop the ability to prepare comprehensive analyses and evaluations of buildings, building complexes or urban spaces.

B1. Design Skills

Ability to apply organizational, spatial, structural, and constructional principles to the conception and development of spaces, building elements, and tectonic components.

Met	Not Met
[X]	[]

Team comments:

The team found evidence that students are achieving 'Design Skills' to an acceptable level in undergraduate studio courses leading to ARCH 405 / ARCH 406 and continuing further to ARCH 672.

The sample projects provided demonstrated appropriate levels of design development through application of organizational, spatial, structural and constructional principles.

B2. Program Preparation

Ability to prepare a comprehensive program for an architectural project that accounts for client and user needs, appropriate precedents, space and equipment requirements, the relevant laws and standards, and site selection and design assessment criteria.

Met	Not Met
[X]	[]

Team comments:

The team found evidence that students are achieving 'Program Preparation' at the appropriate level of ability in undergraduate studio courses up to ARCH 405 / ARCH 406 and in the graduate program in ARCH 672.

B3. Site Design

Ability to analyze and respond to context and site conditions in the development of a program and in the design of a project.

Met	Not Met
[x]	[]

Team comments:

The team found evidence that students are achieving 'Site Design' at the appropriate level of ability in undergraduate studio courses up to ARCH 405 / ARCH 406 and in the graduate program in ARCH 672.

B4. Sustainable Design

Ability to apply the principles of sustainable design to produce projects that conserve natural and built resources, provide healthy environments for occupants/users, and reduce the impacts of building construction and operations on future generations.

Met	Not Met
[X]	[]

Team comments:

The team found evidence that students are achieving 'Sustainable Design' at ttM'IfSSr6 rfute2018 level of ability in undergraduate studio courses up to ARCH 377 I ARCH 405 I ARCH in the graduate program in ARCH 672.

B5. Accessibility

Ability to design both site and building to accommodate individuals with varying physical and cognitive abilities.

Team comments:

The team found evidence of ability to apply the principles of accessibility and accommodation in work produced in courses ARCH 451 and ARCH 672.

B6. Life Safety Systems, Building Codes and Standards

Understanding the principles that inform the design and selection of life-safety systems in buildings and their subsystems; the codes, regulations, and standards applicable to a given site and building design project, including occupancy classifications, allowable building heights and areas, allowable construction types, separation requirements, occupancy requirements, means of egress, fire protection, and structure.

Team comments: The team found evidence that students are achieving an understanding of 'Life Safety Systems, Building Codes and Standards' to the appropriate level in courses ARCH 451 and ARCH 672.

B7. Structural Systems

Team comments:

Understanding of the principles of structural behavior in withstanding gravity and lateral forces, and the evolution, range and appropriate applications of structural systems.

The team found evidence that students are understanding 'Structural Systems' to the appropriate
level in undergraduate courses CIVE 492 and ARCH 405 and in the graduate program in ARCH
672.

B8. Environmental Systems

Understanding of the basic principles that inform the design of environmental systems, including acoustics, illumination and climate modification systems, building envelopes, and energy use with awareness of the appropriate performance assessment tools.

Met	Not Met
[x]	[]

Met

[X]

Team comments:

The team found evidence that students are understanding 'Environmental Systems' to an appropriate level in undergraduate courses ARCH 377, ARCH 447 and ARCH 405; and in the graduate program in ARCH 672. However, deeper development of certain aspects, such as Lighting and Acoustics, seem not to be fully explored in ARCH 672.

B9. Building Envelopes

Understanding of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

Met	Not Met
[X]	[]
	Dogo 0

Met Not Met [x] []

Not Met Met [X] []

Not Met

[]

Met

[X]

Met

[X]

Not Met

[]

Not Met []

Team comments:

The team found evidence that students are understanding 'Building Envelopes' at the appropriate level in undergraduate courses ARCH 377 and ARCH 405; and in the graduate program in ARCH 672/678.

B10. Building Service Systems

Understanding of the basic principles that inform the design of building service systems, including plumbing, electrical, vertical transportation, communication, security, and fire protection systems.

Team comments:
The team found evidence that students are understanding 'Building Service Systems' at an
appropriate level in undergraduate courses ARCH 377, ARCH 447 and ARCH 405; and in the
graduate program in ARCH 672.

However, deeper development of certain Building Service Systems, such as communications and security seem not to be fully explored in ARCH 672.

B11. Building Materials and Assemblies

Understanding of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance.

	Met	Not Met
	[X]	[]
Team comments:		
The team found evidence that students are understanding 'Duilding Materi	ala and Aca	omblico' ot

The team found evidence that students are understanding 'Building Materials and Assemblies' at the appropriate level in undergraduate courses ARCH 377 and ARCH 405; and in the graduate program in ARCH 672 and ARCH 678.

B12. Building Economics and Cost Control

Understanding of the fundamentals of development financing, building economics, construction cost control, and life-cycle cost accounting.

Team comments:
The team found evidence that students are understanding 'Building Economics and Cost Control'
at the appropriate level in course ARCH 674.

C1. Detailed Design Development

Ability to assess and detail as an integral part of the design, appropriate combinations of building materials, components, and assemblies.

Met	Not Met
[X]	[]

Team comments:

Evidence of student achievement at the prescribed level was found in student work prepared for M.Arch (Prof) DST first year Comprehensive Lite courses ARCH 672 and ARCH 678.

C2. Building Systems Integration

Ability to assess, select, and integrate structural systems, environmental systems, life safety systems, building envelopes, and building service systems into building design.

Met Not Met
[] [x]

Team comments:

In reviewing student work, the team found solid evidence of student achievement at the appropriate level in student work prepared for the B.Sc.(Arch) third year course ARCH 405 Design & Construction 3 (within the Comprehensive Studio suite of courses). However, the team did not find the evidence presented in the student work prepared for the M.Arch (prof) "Comprehensive Lite" courses ARCH 672 and ARCH 678 to adequately demonstrate the integration of the required elements (structural and environmental systems, building envelopes, building assemblies, life safety provision and environmental stewardship). Students who enter the program at the Master's level, who have not completed Building Systems Integration in their undergraduate studies, are not able to satisfy that requirement through the M.Arch Comprehensive Lite courses. Evidence presented for those courses related to the integration of the required systems or elements was lacking or weak.

C3. Technical Documentation

Ability to make technically precise descriptions and documentation of a proposed design for purposes of review and construction.

Met	Not Met
[X]	[]

Team comments:

Evidence of student achievement at the prescribed level was found in student work prepared for M.Arch (Prof) DST first year Comprehensive Lite course ARCH 678

C4. Comprehensive Design

Ability to project a comprehensive design based on an architectural idea, a building program and a site. The design or designs should integrate structural and environmental systems, building envelopes, building assemblies, life-safety provisions, and environmental stewardship.

Met	Not Met
[]	[X]

Team comments:

The team found solid evidence of student achievement at the prescribed level in student work prepared for the B.Sc.(Arch) third year course ARCH 405 Design & Construction 3 (within the Comprehensive Studio suite of courses). However, the team did not find the evidence presented in the student work prepared for the M.Arch (prof) Comprehensive Lite courses ARCH 672 and ARCH 678, to adequately demonstrate the integration of the required elements (structural and environmental systems, building envelopes, building assemblies, life safety provision and environmental stewardship). Students who enter the program at the Master's level, who have not completed Comprehensive Design in their undergraduate studies, are not able to satisfy that requirement through the M.Arch Comprehensive Lite courses. Evidence presented for those courses related to the integration of the required systems or elements was lacking or weak.

D1. Leadership and Advocacy

Understanding of the techniques and skills for architects to work collaboratively with allied disciplines, clients, consultants, builders, and the public in the building design and construction process, and to advocate on environmental, social, and aesthetic issues in their communities.

Met	Not Met
[X]	[]

Team comments:

Evidence of understanding of leadership and advocacy was found in ARCH 550, where citybuilding in contemporary Canadian metropolitan regions was examined through the collaborative efforts of architects, civil engineers, and urban planners. Advocacy for environmental, social and aesthetic issues in their communities is the key for architectural practices and it is evident in the outline of ARCH 550 and further explored by students in Assignment No. 2.

D2. Ethics and Professional Judgment

Understanding of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues in architectural design and practice.

Met	Not Met
[X]	[]

Team comments:

Concepts of ethics and professional judgment were outlined in the ARCH 674 lectures and further explored by students in the Assignment No 3 dealing with issues of ethics and how they related to the internship and mentoring requirements of the revised OAQ's rules in comparison to the positions of other provincial regulators and the AIA.

D3. Legal Responsibilities

Understanding of the architect's responsibility to the client and the public under the laws, codes, regulations and contracts common to the practice of architecture in a given jurisdiction.

Met	Not Met
[X]	[]

Team comments:

Basic information and legal concepts were introduced in lectures of FACC 220. Students' understanding was tested in assignments, midterm and final exams. Legal responsibilities of architects were further explored in the ARCH 647 lectures and the students were asked to analyze them further in the case studies of the final exam.

D4. Project Delivery

Understanding of the different methods of project delivery, the corresponding forms of service contracts, and the types of documentation required to render competent and responsible professional service.

Met Not Met [x] []

Team comments:

Methods of project delivery, construction contracts, and documents required for architectural services were explained in the ARCH 674 lectures and the students were asked to analyze them further in the case studies of the final exam.

D5. Practice Organization

Understanding of the basic principles of practice organization, including financial management, business planning, marketing, negotiation, project management, risk mitigation and as well as an understanding of trends that affect practice.

Met	Not Met
[X]	[]

Team comments:

Basic principles of practice organization and recent trends affecting practice explored in several ARCH 674 lectures, initially as a general concepts and trends and then in a separate case study presentation by a practicing architect followed by a discussion period. Regulatory aspects were covered in a separate lecture by a representative of the OAQ.

D6. Professional Internship

Understanding of the role of internship in professional development, and the reciprocal rights and responsibilities of interns and employers.

Met	Not Met
[X]	[]

Team comments:

Professional Internship of architectural interns was explored in the ARCH 674 lecture. Further explorations were carried out in the Assignment No 3 dealing with the changes of internship and mentoring requirements of the OAQ's rules in comparison to the positions of other provincial regulators and the AIA. Regulatory aspects were covered a separate lecture by a representative of the OAQ.

The Visiting Team acknowledges that the Program has a work component as a requirement for graduation. While the students may have some exposure to internship knowledge within the practice environment, the lack of unified structure, varied nature of the experience, and the lack of the standardized assessment limits the inclusion of this experience as evidence for this criterion.

IV. Appendices

Appendix A: Program Information

The following is condensed from the Program's Architecture Program Report

1. Brief History of McGill University

In 1801, in response to exhortations for public schools spearheaded by James McGill, the Home Government of Great Britain created the Royal Institution for the Advancement of Learning to provide public education for the English-speaking population in Lower Canada. The Royal Institution, however, was essentially a powerless body, since it wasn't given effective trustees. But McGill was not discouraged, and in March 1811, he drafted a will bequeathing to the Royal Institution, 10,000 pounds, together with his 46-acre Burnside Place estate, for the purpose of erecting and endowing a university. He also stipulated that the bequest would revert to his other heirs should the university not be established by the tenth anniversary of his death. Two and a half years later, in 1813, James McGill was felled by a heart attack. Fearful that the bequest would be lost if it didn't proceed with dispatch, the Royal Institution secured its first Royal Charter from King George IV in 1821, and McGill College was founded. Medicine was the very first discipline taught at McGill, beginning in 1829, when the previously established Montreal Medical Institution became the Faculty of Medicine.

In 1852, the Royal Institution and McGill were merged, and in 1855 appointed John William Dawson as principal. It was during this Nova Scotian's 38-year tenure that McGill began to achieve national and international prominence. Its Faculty of Medicine attracted, for example, William Osler (1849-1919), who graduated in 1872, taught medicine at McGill for a decade and then went on to become one of the English-speaking world's most influential physicians. Today, McGill still owes much of its fame abroad to its Faculty of Medicine, recognized as one of the world's foremost medical schools.

At the national level, Principal Dawson, himself an acclaimed geologist, was keenly interested in public education. His commitment to its expansion led to the setting up of affiliated schools and colleges throughout Canada to teach the McGill curriculum – among which were three colleges which later became the University of British Columbia, the University of Victoria and the University of Alberta.

In 1898 Dawson was followed in the principal's office by William Peterson, who brought Ernest Rutherford to McGill from Cambridge University. Peterson also persuaded Sir William Macdonald, the tobacco magnate, to found a college bearing his name at Ste-Anne-de-Bellevue, 32 kilometres (20 miles) west of Montreal, as an offshoot of McGill dedicated to furthering the study of agriculture and food science, and to the training of teachers. Today, Macdonald College is the site of the Faculty of Agricultural and Environmental Sciences and the School of Dietetics and Human Nutrition.

During the principalship of Sir Arthur Currie (1920-1933), Peterson's successor, McGill became a leader in the development of postgraduate studies in Canada. Between the two world wars, with the arrival of scientists such as J.B. Collip and Wilder Penfield, medicine continued to occupy a preeminent place at McGill. Thanks to Otto Maass and J. S. Foster, chemistry and physics were also strongly encouraged. As well, the McGill Social Science Project, begun in 1930 under Leonard Marsh, profoundly influenced the development of the Canadian welfare state.

Taking up office in 1939, Principal Cyril James guided McGill through World War II and the postwar reconstruction period. In 1944, seizing the opportunity afforded by the second Quebec Conference, he arranged for the fall convocation to be held at the Citadel in Quebec City so that honorary degrees

could be conferred upon U.S. President Franklin Delano Roosevelt and British Prime Minister Winston Churchill. In the years immediately following the war, a flood of demobilized veterans swelled McGill's enrolment: from 3,400 in 1939, the student body grew to more than 8,000 in 1948. It was in the postwar period that McGill began allowing students to write exams, term papers and theses in either French or English. By the time James retired in 1962, McGill's teaching staff had more than doubled, and its student body had tripled. Like other major North American campuses, McGill experienced great change during the '60s and '70s. It became an active partner in Quebec's provincial network of universities, with which it has set up joint Master's and PhD programs in fields such as Aerospace Engineering, Meteorology, Management, Nursing and Social Work. In addition, McGill scholars are active with colleagues from other Quebec universities in all 13 of the Canadian Networks of Centres of Excellence, as well as in many Quebec inter-university research centres involving disciplines as diverse as sociolinguistics, computer science, mathematics, genetics and limnology.

2. Institutional Mission

The mission of McGill University is the advancement of learning through teaching, scholarship and service to society by offering to outstanding undergraduate and graduate students the best education available, by carrying out scholarly activities judged to be excellent when measured against the highest international standards, and by providing service to society in those ways for which we are well suited by virtue of our academic strengths.

3. Program History

The School of Architecture at McGill University was founded in 1896, when a chair in architecture was established in the Faculty of Applied Science (today, the Faculty of Engineering) by Sir William C. Macdonald. At that time, the program leading to the professional degree was four years in length and the School operated in the Macdonald Engineering Building under the leadership of its first Director, Stewart Henbest Capper.

The School of Architecture is one of eight administrative units reporting to the Dean of the Faculty of Engineering. The Faculty presently includes six engineering departments – Bioengineering, Chemical, Civil and Applied Mechanics, Electrical and Computer, Mechanical, and Mining and Materials –and two Schools – the School of Urban Planning (founded 1970) and the Peter Guo-hua Fu School of Architecture. Since 1987, the Schools of Architecture and Urban Planning have been housed in the Macdonald-Harrington Building, which was constructed to accommodate the Departments of Chemistry and Mining by architect Sir Andrew Taylor in 1896, and renovated for Architecture and Urban Planning by Architects Ray Affleck and Arcop Associates in 1987.

4. Program Mission

The School of Architecture educates professionals who contribute to the global community through the design, construction, and interpretation of the built environment. The School:

- provides a diverse environment for teaching, learning, and research, supported by both traditional and state-of-the-art resources.
- offers professional and post-professional research-based Master's and Ph.D. programs that enable graduates to contribute ethically to the profession, to research, and to careers in related fields.
- enriches multi-disciplinary teaching and research within the University and with other local and international universities.
- engages citizens' groups, local, provincial, and national governments, the private sector, and the profession toward the improvement of the built environment.

 presents undergraduate and graduate students with educational opportunities for global engagement by maintaining a large cohort of international students and through international exchanges.

5. Program Action Plan

FACULTY AND STAFF

- a. Renew our faculty in a way that promotes gender balance and diversity. Strengthen our teaching in core competencies, especially in design, construction, and sustainability.
- b. Add to our support staff two new positions: a coordinator of special activities and events and an industry liaison officer.

UNDERGRADUATE ADMISSIONS AND STUDENT RECRUITMENT

- a. Ease undergraduate admission requirements to the School of Architecture. Add significant architectural content to our U0 curriculum.
- b. Improve liaison with CEGEPs and admission officers at McGill

UNDERGRADUATE CURRICULUM

a- Renew the building construction course sequence of our undergraduate curriculum to integrate relevant digital software (such as Revit) and principles of sustainable construction from the beginning.

GRADUATE CURRICULUM

a- Enlarge the scope of our M.Arch. program by increasing graduate complementary course offerings; enhance the graduate student experience by offering new entrance fellowships; reinforce positive student participation by promoting opportunities for research and research creation in the curriculum.

RESEARCH

a- Increase research funding through collaboration within the School and the rest of the University

FACILITIES

a- Improve student accessibility to digital fabrication tools

OUTREACH TO SOCIETY

a- Continue building strong connections to local communities and maintain an active presence in society through design-build projects and community design workshops

INTERNATIONAL OPPORTUNITIES

a-Provide undergraduate and graduate students with enriched educational opportunities for global engagement through internships, field courses, and international exchanges.

Appendix B: The Visiting Team (names & contact information)

VOTING MEMBERS NON-VOTING MEMBERS : OBSERVERS CACB-CCCA Educator- Chair **Rick Haldenby** Professor Jeanna South Practitioner Waterloo Architecture Special Projects Manager 7 Melville St. S. City of Saskatoon /Major Projects & Preservation Cambridge, Ontario N1H 2S4 202 4th Avenue North Saskatoon, SK S7K 0K1 Tel.: (519) 888-4544 Tel.: (306) 657-8551 Cell :(519)-404-6551 Cell: (306) 280-3468. E-mail: erhalden@uwaterloo.ca Email: jeanna.south@saskatoon.ca Marco L. Polo Educator Scott Kemp Practitioner Associate Professor 4427 River Road West Department of Architectural Science Ladner, BC V4K 1R9 **Ryerson University** Tel.: (604) 786-8150 350 Victoria Street Email: scott@smkarchitect.com Toronto, Ontario M5B 2K3 Tel.: (416) 979-5000 x.6497 PROGRAM Cell : (416) 570-2808 Bruce Allan Practitioner Email: m2polo@ryerson.ca 3468 Hingston Ave Montreal QC H4A 2J4 Thérèse LeBlanc Practitioner Tel.: (514) 486-2875 William Nycum & Associates Limited. Cell: (514) 402-6655 5555 Young Street Email: bruce.allan@architecture49.com Halifax NS B3K 1Z7 Tel.: (902) 454-8617 Cell: (902) 225-1536 Email: tleblanc@nycum.com Practitioner Ivan Martinovic, Archdesign Architects 181 Cranbrooke Avenue Toronto, ON M5M 1M6 Cell: (416) 738-5491 Email: info@archdesign.com Halima Qureshi Intern Stantec

1100-111 Dunsmuir Street, Vancouver BC V6B 6A3 Tel.: (604) 696-8726 Cell: (604) 649-0704 Email: <u>Halima.Qureshi@stantec.com</u>

Appendix C: The Visit Agenda

Saturday, March 17, 20)18	
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	Team arrivals
	Sofitel Montréal Golden Mile http://www.sofitel.com/gb/hotel-3646-sofitel-montreal-golden- mile/index.shtml
6:00 pm	Team introduction + gathering – Sofitel Montréal Golden Mile
6:30 pm	Team –only– dinner – Renoir Restaurant. Sofitel Montreal Golden Mile
8:30 pm	Team meeting / Review of agenda

Sunday, March 18, 2018

7:30 am	Team breakfast – School of Architecture Director Martin Bressani – Sofitel Montréal Golden Mile
9:00 am	Tour facilities – School of Architecture Director Martin Bressani – School
10:30 am	Team orientation, review of APR & issues – Team Room (Macdonald-Harrington Building Room 207)
11:00 am	Preliminary review of exhibits – Team Room
12:00 pm	Lunch – Caterer Julien LeBlanc – Team Room
1:00 pm	Presentation of program by academic staff, by year – Team Room
3:00 pm	Review of exhibits – Team Room (Macdonald-Harrington Building Room 207)
4:00 pm	Tour of Library and John Bland Canadian Architecture Collection (Jennifer Garland)

7:00 pm	Team –only– dinner – Bouillon Bilk. 1595 St Laurent Blvd, Montreal, QC H2X 2S9
Monday, March 19,	2018
7:30 am	Team breakfast – School of Architecture Director Martin Bressani – Sofitel Montréal Golden Mile
8:30 am	Entry meeting – McGill University Provost Christopher Manfredi – Provost's Office – 30 minutes
9:00 am	Entry meeting – Faculty of Engineering Dean Jim Nicell – Dean's Office – 30 minutes
9:45 am	Review of exhibits – Team Room
11:30 pm	Lunch with B.Sc. and M.Arch student representatives – Caterer Julien LeBlanc – Room 206 (Macdonald-Harrington Building)
1:00 pm	Program wide meeting with students - Room 212
2:30 pm	Meeting with Faculty members, adjunct and sessional + civil engineering faculty – Room 212
4:00 pm	Review of exhibits – Team Room
5:00 pm	Reception for Faculty, alumni, and practitioners – Exhibition Room
6:30 pm	Team – only – dinner – Café Cherrier. 3635 St Denis St, Montreal, QC H2X 3L6
8:00 pm	Draft report – Team Room

Tuesday, March 20, 2018

7:30 am	Team breakfast – School of Architecture Director Martin Bressani – Sofitel Montréal Golden Mile
8:30 am	Continue with review of exhibits and records/draft report – Team Room

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11:00 am	Meeting with support staff – Room 206
11:30 am	Meeting with technical staff – Team Room
12:00 pm	Lunch with Faculty representatives, incl. Associate Directors (Robert Mellin + David Covo), Alberto Pérez-Gómez, Annmarie Adams, Michael Jemtrud –Caterer Julien LeBlanc – Room 206 (Macdonald-Harrington Building)
1:30 pm	Continue with review of exhibits and records/draft report – Team Room
6:30 pm	Team – only – dinner – Caterer Julien LeBlanc – Room 206 (Macdonald-Harrington Building)
8:00 pm	Draft report / list concerns and comments / strategy session / recommendation
Wednesday, March 21, 2018	

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7:30 am	Team breakfast – School of Architecture Director Martin Bressani – Sofitel Montréal Golden Mile
8:30 am	Exit meeting – McGill University Provost Christopher Manfredi – Provost's Office – 30 minutes
9:00 am	Exit meeting – Faculty of Engineering Dean Jim Nicell – Dean's Office – 30 minutes
10:00 am	Team departs (possible final meeting in team room first)

V. Report Signatures

Eric Haldenby, Team Chair representing the educators

Marco Louis Polo representing the educators

Thérèse LeBlanc

representing the practitioners

representing the practitioners

Halima Qureshi representing the Interns

Jeanna South CACB observer

Bruce Allan

School observer

Scott Kemp CACB observer

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