1. INTRODUCTION

As noted in the previous Report to the Senate Undergraduate Council of November 21, 2011, since the architectural accreditation process overlaps greatly with the undergraduate program review process, UW uses the accreditation program report together with an addendum to satisfy the requirements of the undergraduate program review process for the School of Architecture.

The program’s self-study—the Architecture Program Report (APR)—was submitted in January 2011, the last accreditation visit to the University of Waterloo School of Architecture took place in March 2011 and the visiting team report was received in June 2011. This accreditation process resulted in a six-year accreditation term with a focused review in 2013. This review was completed in May 2013.

The previous UW undergraduate report from Architecture noted two Areas of Concern and Opportunities for Improvement as defined below. These were two of the 46 conditions for accreditation that were considered to be “Not-Met”:

**Human Resource Development:** Although the nature and intensity of scholarly and creative activity has increased significantly since the previous accreditation visit, the general faculty profile in Architecture with respect to the university’s expectations and measure of scholarship has, however, changed little over this period. It would appear that most faculty members, by choice or circumstance, do not seek advancement.

**Accessibility:** Although accessibility is discussed and analysed in the Acts and Codes course, application of this criterion appears inconsistent in the comprehensive design projects suggesting that the principles of accessibility, which are essential aspects of any design regardless of the particular focus of the studio, are not fully integrated into the design work, particularly in early years.

2. PROGRESS SINCE THE 2011 UNDERGRADUATE REPORT

The following is an outline of progress made in relation to the areas of concern defined above:

2.1 Human Resource Development

This concern was fully addressed in the Focused Evaluation of 2013, with specific reference to
research productivity, research funding, performance evaluation and progress through rank. In all of these areas substantial progress has been made.

The Focused Evaluation of 2013 concentrated on the issues of volume and quality of research, recognition of faculty accomplishments and progress through ranks. The School of Architecture recognizes a wide range of research and creative activity as legitimate in fulfilling the responsibilities of a regular faculty member. In the past three years, since the accreditation visit, the achievements of faculty members have been extraordinary. A listing of the highpoints in research, design and other forms of creative and professional was submitted in the Focused Evaluation review of 2013. It must be emphasized that the school does not measure its performance or its profile solely on the forms of research production that are common in other academic areas. Architecture is a professional school. It is a creative institution and must foster a culture in which the outputs are diverse and provocative. Waterloo Architecture—its ranking in 2012 as the top architecture school in Canada and one of the top architecture schools in North America—has been successful precisely because of the diversity and quality of scholarly, creative and critical work. The connection to practice is crucial for its success and in order to inspire graduate students in their work. It is recognized that it would be a huge detriment to the culture and energy of the School to limit the activity of faculty members to conventional forms of university research.

Faculty Promotion: At the time of the APR submission in 2011 only one faculty member held Full Professor Rank, considered a cause of concern by the accreditation team given the significance of research at the School and University, in particular, in relation to the importance of internationally respected research and graduate studies. By the time of the Focused Evaluation of 2013 two additional faculty members had been promoted to Full Professorship, one in 2011 and one in 2013. Since this time, one supplementary faculty member (the new Director) has been hired as a Full Professor, and in 2014 two additional faculty members were promoted to Full Professorship. There are currently six faculty holding the rank of Full Professor at the School of Architecture, an increase of five faculty since the initial accreditation visit of 2011.

In the report for the Focused Review the School provided a full account of the accomplishments of Architecture faculty members since March 2011. The list is substantial: national and international awards, design work, scholarly papers and articles and books from major international publishers. It should also be noted that research income almost doubled from $199,000 in 2011/12 to $391,087 in 2012/13. More faculty members are applying for grants. More are successful in attracting research support. As of January 2014 The School of Architecture was administering $725,244 in grant funding, which is augmented by funds not administered by the University’s Office of Research. These include Canada Council and Ontario Arts Council grants as well as other forms of governmental, institutional and organizational funding in addition to industry sponsorship for research. Faculty research and production as well as and the scale and recognition of awards have increased. In the past year, national and international awards of the faculty have included a Special Mention Award for Artic Adaptations, Canada’s national exhibition at the 14th
International Architecture Venice Biennale, a Lifetime Achievement Award from CCUSA (Canadian Council of University Schools of Architecture) and a Creative Achievement Award for Architectural Education from ACSA (Association of Collegiate Schools of Architecture).

Leadership: The previous Director, Rick Haldenby, stepped down in December 2013 after a term of 26 years. The new Director is Dr. Ila Berman who previously held appointments as a Full Professor and Director of the School of Architecture at the California College of the Arts in San Francisco for six years, and before that was a Favrot Professor and the Associate Dean of Tulane University’s School of Architecture. Professor Berman is an experienced and dynamic leader who is Canadian, but has a range of experience leading and teaching at schools of architecture in the United States. In addition to the above, these include the Illinois Institute of Technology (IIT) in Chicago, the Cooper Union in New York and Harvard University Graduate School of Design where she not only taught, but also completed her Masters and Doctorate degrees in Architecture. At Tulane University, Dr. Berman was a co-initiator of the Tulane City Center and was the founder and director of the URBNANbuild program—a research and design program on the redevelopment of New Orleans post-Katrina that was published in her book URBNANbuild local global. In 2013 she co-chaired the ACSA 101st National Conference: New Constellations New Ecologies that was focused on the future of architectural education. She is an active researcher and designer, has an excellent publication record and deep experience in academic leadership. The new Director has embarked on a number of initiatives for the renewal, expansion and development of the School moving forward.

Faculty: In 2013, Dr. Mona El Khafif also joined the full-time faculty as an Associate Professor. Professor El Khafif holds a professional architecture degree from the Faculty of Architecture RWTH in Aachen, Germany and a doctorate in Urban Design from the Technical University of Vienna. Professor El Khafif comes to the University of Waterloo with 14 years of teaching experience at prestigious academic institutions within Europe and North America and brings to the School of wealth of design knowledge and research in the area of urban design.

2.1 Accessibility

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

Every Design Studio promotes awareness of issues of universal access. The Building Construction courses and Acts and Codes course provide specific information about the architect’s responsibility in the area of accessibility.

When the last Visiting Team Report indicated the program did not meet Criterion B5 on accessibility the faculty teaching the Comprehensive Building Design Studio in the 4B term made a concerted effort to increase awareness and indeed to focus directly on issues of universal access and integrate these into the development of the studio. At that time, the program for the 4B CBD Studio substantially changed where universal access was not only addressed within the context of
the studio, but was also the driver for the program—a center for the development, testing and fitting of wheel chairs—intended to increase awareness of the issues surrounding mobility and how support for differentially abled users needs to be integrated as a critical component of comprehensive design. Students themselves each spent several hours in a wheelchair navigating the School of Architecture. The final designs each not only accommodated individuals with various physical and cognitive abilities, but made the issue of accessibility the center of the entire design from concept to detail.

3. CURRICULAR PLANNING

Although there have been no major changes to the core program in Architecture during the last two academic years, the new Director of Architecture, set up a visioning and strategic planning process for the School to take place during the 2014-15 year. As part of this planning process, the first of a series of faculty retreats was held in the spring of 2014 and a curriculum committee was developed that has undertaken an environmental scan of aspirant peer programs has moved forward with a full internal assessment of the School’s curriculum, policies, resources and culture. This process is intended to not only develop long term initiatives for the School of Architecture and its programs, but also to ensure that any future program modifications respond both to the CACB Accreditation Focus Visit and the MArch External Reviewers Report of 2013 and are consistent with the University of Waterloo’s Draft Strategic Plan, 2013-17 and the Vision 2015 Strategic Plan of the Faculty of Engineering.

3.1 Program Modifications Phase I

The planning and review process over the past year has lead to a series of proposed modifications to the BAS program to strengthen the structure of, and integration of coursework within the program, and to better prepare students for graduate study (MArch) to improve graduate retention and completion rates given that the MArch is the first professional degree to which the BAS leads. These modifications are consistent with three elements of the University’s strategic plan 2013-17, namely: research excellence and impact, educational quality, and student opportunities.

The following are the objectives of the program modifications in the first phase:

- To maintain the strength of the undergraduate core curriculum, yet eliminate redundancies or disconnects within the curriculum, while enabling more flexibility and more opportunities for advanced research at the upper levels both to better prepare our undergraduate students for thesis, and enable a smoother transition into the grad program, while also expanding
opportunities for faculty development by bringing faculty work and research into the curriculum. The expansion of upper level electives will also enable faculty to cover a broader range of topics that address critical issues in relation to the discipline of architecture and the future of architectural education.

- To supplement the existing curriculum in areas that have been less developed within the core curriculum, and to expand our capacity in areas such as digital design technologies, architectural analysis and research methodologies (in support of thesis), and urbanism, landscape and ecology

- To provide expanded opportunities for global study abroad in addition to the Rome program both for undergraduate and graduate students.

- To ensure that the undergraduate program is geared toward retaining our students and encouraging them to continue to the graduate program so that they are completing their first professional degree (MArch) at Waterloo.

3.1.1 Core curricular consolidation, alignment and the introduction of upper level advanced coursework in Design Studio, Cultural/Architectural History and Theory, and Building Technology

The curricular sequences within design studio, cultural history and theory, and building technology and environmental systems represent core disciplinary streams within the BAS curriculum. The proposed modifications maintain the number of overall credits and courses within these streams yet adjusts the timing of their content delivery to enable better integration across coursework given within a single semester and to facilitate the introduction of a required elective (500 level) in each of these streams (cultural history/theory and building technology/environmental systems) in the fifth year of the program in preparation for thesis research. These modifications for example, would allow the cultural history course in Modern Architecture to be taught one semester earlier, to enable it to align both with the design studio focused on large urban buildings and the technology course focused on the design of steel and concrete structures.

3.1.2 Expansion of coursework in underdeveloped curricular streams and the development of strategic focus areas within the curriculum in Digital Design Technologies and Urbanism, Landscape, and Ecology

The proposed modifications are focused on expanding and building the Visual/Digital Media sequence to recognize the significance of digital media in current and future practice, not simply as representational tools, but as important technologies that are changing the ways in which we research, analyze, design, fabricate and produce architecture. Two core courses are
being proposed—one to introduce all students to digital fabrication so that they have both the knowledge and skills to work with CAD/CAM technologies and rapid prototyping equipment, and the second to introduce students to expanded methods of advanced visualization in support of architectural and urban analysis. In addition, the proposed sequence introduces a required upper level elective selected from a range of course offerings within areas such as parametric design and scripting/coding, fabrication, GIS, Building Information Modeling, advanced visualization, robotics, and interaction design. These courses would not only expand the curriculum in relation to technologies that are significantly impacting architectural practice but will also provide the groundwork for crossover courses between architecture and engineering and plan for the development of the proposed program in Integrated Design.

There are currently three existing courses in urbanism and landscape for architecture students. These courses would remain yet would be repositioned within the curriculum to better align this coursework within each semester and allow it to be rethought as a coherent curricular sequence. The expansion of the proposed Urban/Landscape sequence would primarily take place through a series of Global Cities electives that enable opportunities for the study of architecture and urbanism around the world in addition to a series of upper level elective courses specifically focused on urbanism, landscape and ecology that represent strategic areas of growth and development for the school both for advanced research and recruitment of graduate students.

3.2 Program Modifications Phase II: Integrated Design program

As a final phase to the strategic planning efforts, in the coming year the School of Architecture will be further developing its proposal for a new Integrated Design program with both undergraduate and graduate degrees that focuses on the need for design in the contemporary digital industry. The new design program will operate at the nexus of industrial design, communication design and interaction design as well as emerging fields in new digital design technologies. These degree programs will be grounded in coursework in relation to five parallel academic streams in: design, culture, technology, communication and entrepreneurship.