University College Dublin School of Architecture, Planning, and Environmental Policy Richview Campus Belfield Dublin 4, Ireland

#### **Visiting Team Report**

Visit Three for Substantial Equivalency

**M. Arch.** (prerequisite 3-year BSc Arch + 2-year M. Arch.) [120 ECTS approx. 60 U.S. credits — M. Arch.] [180 ECTS approx. 90 U.S. credits — Bsc. Arch.]

The National Architectural Accrediting Board November 5-8, 2017 (Year of visit two: 2014)

**Vision:** The NAAB aspires to be the leader in establishing educational quality assurance standards to enhance the value, relevance, and effectiveness of the architecture profession.

**Mission:** The NAAB develops and maintains a system of accreditation in professional architecture education that is responsive to the needs of society and allows institutions with varying resources and circumstances to evolve according to their individual needs.

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#### I. Summary of Team Findings

#### 1. Team Comments and Visit Summary

University College Dublin, and the School of Architecture, is an open, friendly, nurturing environment for students and faculty. The program has a rich tradition as expressed in its mission and history and is well embraced by the university and the professional community at large. Everyone was well informed about the school's efforts to achieve Substantial Equivalency and the role of the NAAB in this process. It was clear that-the school is-committed to achieving this credential for the prestige of the program and the university as well as for the benefit of their students.

We wish to express our appreciation to the school team that prepared and aided the visit, which included full- and part-time faculty and especially the efforts of Associate Dean Daniel Sudhershan and Dean Hugh Campbell, who made every attempt to meet our needs and honor our requests.

Our team was particularly struck by the close-knit professional community. There is little if any barrier between academics and practice because of the high percentage of faculty who maintain robust practices. This bridge between practice and academics is evident in student passion for the pursuit of architecture and student work exhibiting sound technical knowledge. This is further supplemented with a structured program in which a vast majority of students work full time for 1-2 years between their undergraduate and graduate studies.

The commitment of the faculty, senior administration, staff, and students to a nurturing culture of respect, understanding, and open exploration is also to be commended. The part-time faculty takes pride in being accessible and is committed to the growth and development of each student in their charge. Students were exceptionally complimentary of this commitment and the knowledge they gain from the studio faculty. Work-life balance is encouraged, and all-nighters discouraged.

It is also worth noting that the School of Architecture has a number of exceptional programs. For example, nearly all students participate in he Erasmus exchange program that sends students to more than 30 universities for a semester of immersive learning abroad.

Lastly, the team would like to note the commitment of the university and program to continuous improvement. It is evident, as noted in the APR and in the conditions below, that the program welcomes and values opportunities to improve and respond to faculty and student needs.

UCD and the School of Architecture, Planning and Environmental Policy is a program that all involved in should be very proud of.

#### 2. Conditions Not Met

- II.1.1. Student Performance Criteria A.9 Historical Cultures and Traditions (not met) B.4 Site Design (not met)
- II.2.2 Professional Degrees and Curriculum (not met)
- 3. Causes of Concern None

#### 4. Progress Since the Previous Visit

#### **1.2.3 Physical Resources**

Visit Two Team Assessment (2014): Physical resources are inadequate for the program. The program is housed in four buildings in the Richview quadrangle on the Belfield Campus, which include:

The four-level, early 20<sup>th</sup>-century Richview building housing design studios The single-level Memorial Hall (1928) serving as ad hoc studios/presentation space The architecture library, early 20th century, with studio space above A 3,775 gsf fabrication/model-building shop The Urban Institute, constructed in 2005

Buildings are mostly wood-frame without automatic sprinkler systems. Student desks and work areas are dedicated; however, the area per student is tight. With the unavoidable clutter in these settings, there is an increased risk of fire; however, all buildings do not allow smoking. Existing buildings have detection systems tied to central reporting stations and fire extinguishers. The campus does not have a fire department, and the closest municipal fire station is several minutes away. This fact, coupled with the age and construction of the buildings, is a concern, particularly because some spaces are poorly heated and require supplemental heaters (flameless), which add significant loads to the electrical infrastructure.

Over the next four years (2014-2018) UCD's strategic objective is to increase the school's population from 355 to 610 (APR p. 21), possibly making a marginal space situation critical; a cause for concern.

Visit Three Team Assessment (2017): 1.2.3 Physical Resources is met.

#### A.4 Technical Documentation

**Visit Two Team Assessment (2014): Not Yet Met.** Detail drawings and models from the Masters Option indicate that students can make clear drawings that illustrate and identify materials assemblies. Evidence of technical drawing skills was seen in course ARCT 40040; Ballymun – Making Place project and technical drawings and models produced in courses 40010 and 40590; however, no evidence was found indicating the ability to prepare an outline specification.

Visit Three Team Assessment (2017): A.4 Technical Documentation is met.

#### A.9 Historical Traditions and Global Culture

Visit Two Team Assessment (2014): Not Yet Met. While seminar topic offerings in Research and Innovation in the Designed Environment I 40020 and Research and Innovation in the Designed Environment II 40080 utilize canons and traditions in architecture, landscape, and urban design and include examples of local, regional, and the national setting of Ireland, consistent examples from Eastern, Northern, and Southern canons and traditions in terms of climatic, ecological, technological, socioeconomic, public health, and cultural factors referencing global culture were not found.

**Visit Three Team Assessment (2017)**: A.9 Historical Traditions and Global Culture is still **not met**. Although the team appreciates the efforts underway to address this SPC, there is not sufficient evidence of student achievement available to demonstrate understanding of the non-Western traditions aspect of the SPC.

#### A.10 Cultural Diversity

**Visit Two Team Assessment (2014): Not Yet Met.** Architecture Design II ARCT 40040 and Architecture Design III 40040 show examples of how students engage a community to gather information regarding spatial and social patterns and values that characterize individuals and communities from the local region to inform and alert architects of responsible decisions and action. Work demonstrating an understanding derived from the diversity of physical abilities and the needs of differing cultures was not found.

Visit Three Team Assessment (2017): A.10 Cultural Diversity is met.

#### **B.1 Predesign**

**Visit Two Team Assessment (2014): Not Yet Met.** Evidence was not consistently seen of a student's ability to prepare an architectural program or assess relevant laws applicable to the assigned problem. This critical initial step in the design process is not readily identified or missing in projects reviewed.

Visit Three Team Assessment (2017): B.1 Predesign is met.

#### **B.2 Accessibility**

Visit Two Team Assessment (2014): Not Yet Met. Very little evidence was found to indicate a student's ability to design for accessibility in accordance with relevant universal accessibility standards.

Visit Three Team Assessment (2017): B.2 Accessibility is met.

#### **B.4 Site Design**

Visit Two Team Assessment (2014): Not Yet Met. Basic principles of site design, grading, water management and subsurface conditions were not seen in projects reviewed. Students were exposed to site design in Design Technologies I, yet their ability to respond to site characteristics including watershed conditions was not found.

**Visit Three Team Assessment (2017)**: B.4 Site Design is still **not met**. Although there are lectures on site considerations, and indications that the program has been adjusting its program to address this deficiency, there is not yet consistent evidence of student performance at the prescribed level of ability.

#### **B.5 Life Safety**

**Visit Two Team Assessment (2014): Not Yet Met.** Project designs reviewed did not represent an understanding of basic life safety design principles, particularly egress—a fundamental building design parameter. Students were exposed to life safety in Design Technologies I, yet their ability to provide for life safety with an emphasis on egress was not found.

Visit Three Team Assessment (2017): B.5 Life Safety is met.

#### **B.6 Comprehensive Design**

**Visit Two Team Assessment (2014): Not Yet Met.** Designs reviewed did not adequately address or integrate SPC falling under this criterion. Each SPC must be clear and readily apparent in the designs. See causes for concern. The students' ability to make design decisions across the eleven indicated SPCs was not evident in Masters Design Option ARCT 40590.

Visit Three Team Assessment (2017): B.6 Comprehensive Design is met.

#### **B.7 Financial Considerations**

**Visit Two Team Assessment (2014): Not Yet Met.** Course ARCT 40190 Professional Studies covers professional issues such as planning law, fees, management principles and career ethics; however specific project-related financial parameters required in this criterion are not apparent.

Visit Three Team Assessment (2017): B.7 Financial Considerations is met.

#### **B.8 Environmental Systems**

**Visit Two Team Assessment (2014): Not Yet Met.** Evidence of understanding principles environmental systems design was seen in student work found in Course ARCT 40060, project Re-skinning and Remodeling of a Laboratory. The capacity to classify, compare and/or explain environmental system design principles beyond the single building studied was not seen. Additionally, the understanding of environmental systems was limited to the laboratory building re-skinning project.

Visit Three Team Assessment (2017): B.8 Environmental Systems is met.

#### **B.9 Structural Systems**

**Visit Two Team Assessment (2014): Not Yet Met.** Evidence of an understanding of a single building's structural system was found in work found in Course ARCT 40060, project Re-skinning and Remodeling of a Laboratory. No evidence was seen of exploring evolution, range or application of multiple structural approaches and the appropriate selection and application to a specific design solution.

Visit Three Team Assessment (2017): B.9 Structural Systems is met.

#### **B.11 Building Service Systems Integration**

**Visit Two Team Assessment (2014): Not Yet Met.** Evidence was not seen regarding an understanding of basic principles and appropriate application of building service systems in building designs. Students investigated and observed building service systems integration for the ARCT40010, re-skinning and remodeling of a laboratory building. Actual selection of the building service systems was not made for the laboratory-building project and an analytical integration methodology was not apparent.

Visit Three Team Assessment (2017): B.11 Building Service Systems Integration is met.

#### II. Compliance with the Conditions for Substantial Equivalency

#### Part One (I): INSTITUTIONAL SUPPORT AND COMMITMENT TO CONTINUOUS IMPROVEMENT

#### Part One (I): Section 1. Identity and Self-Assessment

**I.1.1 History and Mission**: The program must describe its history, mission and culture and how that history, mission, and culture is expressed in contemporary context. Programs that exist within a larger educational institution must also describe the history and mission of the institution and how that history, mission, and culture is expressed in contemporary context.

The substantially equivalent degree program must describe and then provide evidence of the relationship between the program, the administrative unit that supports it (e.g., school or college) and the institution. This includes an explanation of the program's benefits to the institutional setting, how the institution benefits from the program, any unique synergies, events, or activities occurring as a result, etc.

Finally, the program must describe and then demonstrate how the course of study and learning experiences encourage the holistic, practical and liberal arts-based education of architects.

#### [X] The program has fulfilled this requirement for narrative and evidence. [] The program has not fulfilled this requirement for narrative and evidence.

**Visit Three Team Assessment**: The program has fulfilled this requirement as evidenced by information provided in the APR, as well as through meetings, observations, and interviews. Although the program does not have the traditional general studies course work associated with most liberal arts degrees, it does prepare students for the holistic, practical-based education of architects, which was evident in the professional work, cross-disciplinary course work, and in the *Horizon* program.

#### I.1.2 Learning Culture and Social Equity:

• Learning Culture: The program must demonstrate that it provides a positive and respectful learning environment that encourages the fundamental values of optimism, respect, sharing, engagement, and innovation between and among the members of its faculty, student body, administration, and staff in all learning environments both traditional and nontraditional.

Further, the program must demonstrate that it encourages students and faculty to appreciate these values as guiding principles of professional conduct throughout their careers, and it addresses health-related issues, such as time management.

Finally, the program must document, through narrative and artifacts, its efforts to ensure that all members of the learning community (faculty, staff, and students) are aware of these objectives and are advised as to the expectations for ensuring they are met in all elements of the learning culture.

Social Equity: The substantially equivalent degree program must first describe how social equity
is defined within the context of the institution or the country in which it is located and then
demonstrate how it provides faculty, students, and staff with a culturally rich educational
environment in which each person is equitably able to learn, teach, and work.

[X] The program has demonstrated that it provides a positive and respectful learning environment. [] The program has not demonstrated that it provides a positive and respectful learning environment. [X] The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

[] The program has not demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

**Visit Three Team Assessment**: A positive and respectful learning environment is demonstrated throughout the program, its policies, and through interviews and observations. This is true of administration, faculty, and students. There is evidence through interviews that faculty and students are aware of these policies and that the university, school and program have tools to measure their effectiveness through audits, committees, and student assessments.

The studio supports active learning, where the habits of the architect are formed. The culture of the studio, confirmed by interviews and observations, promotes time management, discourages all-nighters, and nurtures healthy discourse and learning. Although students were not aware of studio culture policy document, the way students are nurtured within a healthy studio culture is to be commended.

As a "global university," diversity is recognized as being important, and the program participates in policies and initiatives (e.g., the Disability Access Route to Education, or DARE, and the Higher Education Access Route, or HEAR, programs) related to promoting diversity within the university. Statistics vary slightly by year, but generally the architecture program is more diverse in both gender and ethnicity and has more DARE and HEAR students than the student body at large. This is also generally true at the faculty level. Diversity was particularly reinforced in the Universities Equality, Diversity and Inclusion Group, a standing group of faculty, students, and administrators responsible for leading equality of access and equality of opportunity at UCD as evidence in documents provided in the team room.

Evidence that the institution has established policies on academic integrity and policies and procedures for grievances related to harassment and discrimination were found in policy documents provided in the team room through the UCD student code, as well as through the UCD Dignity and Respect Policy and Equal Opportunity Policy.

**I.1.3 Response to the Five Perspectives**: Programs must demonstrate through narrative and artifacts, how they respond to the following perspectives on architecture education. Each program is expected to address these perspectives consistently within the context of its history, mission, and culture and to further identify as part of its long-range planning activities how these perspectives will continue to be addressed in the future.

A. Architecture Education and the Academic Community. That the faculty, staff, and students in the substantially equivalent degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.<sup>1</sup> In addition, the program must describe its commitment to the holistic, practical, and liberal arts–based education of architects and to providing opportunities for all members of the learning community to engage in the development of new knowledge.

#### [X] The program is responsive to this perspective. [] The program is not responsive to this perspective.

Visit Three Team Assessment: Evidence of faculty, staff, and students contributing to the institution across all areas of scholarship, community engagement, service, and teaching was found in the APR and in the work exhibited in the team room. That evidence was reinforced during meetings with faculty, students, and the university's upper administration. The university administration highlighted the program's leadership in developing cross-disciplinary engagements and joint ventures with a diverse range of schools and programs across the campus.

<sup>&</sup>lt;sup>1</sup> See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

In meetings, the team observed that the program faculty are uniquely devoted to the program and committed to the ongoing development of new pedagogies that unite teaching, scholarship, and community service in a dynamic learning environment.

The program's focus on faculty who combine teaching with critical practice and applied scholarship largely defines the character and culture of the school while also providing a direct link between the program, the university, and the broader discipline. New knowledge produced by faculty and students is regularly disseminated through publications, awards programs, and community-based projects.

The APR highlights the university's Horizons program established in 2005 as evidence of the institution's commitment to a liberal arts-based education. At present students are required to take two courses (10 units) of non-disciplinary elective course work through the Horizon program.

**B.** Architecture Education and Students. That students enrolled in the substantially equivalent degree program are prepared to live and work in a global world where diversity, distinctiveness, self-worth, and dignity are nurtured and respected; to emerge as leaders in the academic setting and the profession; to understand the breadth of professional opportunities; to make thoughtful, deliberate, informed choices and; to develop the habit of lifelong learning.

#### [X] The program is responsive to this perspective. [] The program is not responsive to this perspective.

**Visit Three Team Assessment**: Within the context of a predominantly Irish faculty and student body, students are exposed to a global world through study abroad opportunities, which most students engage in, and a diverse range of precedent studies that look beyond the borders of Ireland. In addition, international students studying at UCD contribute to a global exchange of perspectives. Students are well prepared to address issues of distinctiveness, self-worth, and dignity through the robust social lens that the studio projects take. Students have a broad understanding of professional opportunities available to them through an engaged cohort of parttime faculty who are active in practice. These faculty members serve as a great example of lifelong learning and demonstrate ways to engage both practice and academia as a leader.

Additionally, as the program recommends, most students who matriculate through UCD's undergraduate program report to work for a year or two before returning to obtain their master's degree. Students reported feeling equipped to practice both inside and outside of Ireland.

**C.** Architecture Education and the Regulatory Environment. That students enrolled in the substantially equivalent degree program are provided with a sound preparation for the transition to licensure or registration. The school may choose to explain in the APR the degree program's relationship with the process of becoming an architect in the country where the degree is offered, the exposure of students to possible internship requirements, the students' understanding of their responsibility for professional conduct, and the proportion of graduates who have sought and achieved licensure or registration since the previous visit.

#### [X] The program is responsive to this perspective. [] The program is not responsive to this perspective.

**Visit Three Team Assessment**: Students are afforded immense professional opportunity resulting from an insightful and well-directed administration and a wide variety of professional and well-trained faculty.

One of the primary goals of the Master of Architecture program is to equip students with the knowledge, understanding, and desire to continue growth toward professional licensure after graduation. This curriculum is structured to result in a professional architectural degree, one of the first milestones toward this significant step of becoming a licensed architect. The team enjoyed the energy of the students as they were very positive and encouraging toward their own success. Most, if not all, hands went up when the question was asked, "How many of you are planning to become a licensed architect?" The Professional Studies II, ARCT 40190 along with many of the other courses are designed to help students understand and meet licensing requirements in Ireland.

**D.** Architecture Education and the Profession. That students enrolled in the substantially equivalent degree program are prepared: to practice in a global economy; to recognize the positive impact of design on the environment; to understand the diverse and collaborative roles assumed by architects in practice; to understand the diverse and collaborative roles and responsibilities of related disciplines; to respect client expectations; to advocate for design-based solutions that respond to the multiple needs of diverse clients and populations, as well as the needs of communities; and to contribute to the growth and development of the profession.

### [X] The program is responsive to this perspective.[ ] The program is not responsive to this perspective.

**Visit Three Team Assessment**: One important characteristic of the UCD program is the direct linkage to licensed practitioners, jurors, and guest lecturers, many of whom are involved in global practices. Graduate students are encouraged to apply for the Erasmus study abroad program. UCD encourages and provides opportunities for student travel abroad. Many students expect to work in global practices.

Cultural and environmental sustainability is strongly represented in the curriculum, in faculty publications, electives, lectures, and off-campus programs. Student awareness of the multifaceted roles and responsibilities of an architect toward diverse communities is apparent particularly in an ongoing studio, *Rising Home*. This studio is designed to include collaborative meetings between students and a variety of community leaders and nonprofit organizations that develop and survey individuals ranging from the homeless to the disabled. The results of their surveys and subsequent designs are presented to community groups in an annual public exhibition.

Students are exposed to faculty members who are active in their professional communities, from developing model law for the RIAI to selection of several faculty members as curators for the 2018 Venice Biennale. Students are required to develop proficiencies in all aspects of professional development from practice to theory.

E. Architecture Education and the Public Good. That students enrolled in the substantially equivalent degree program are prepared: to be active, engaged citizens; to be responsive to the needs of a changing world; to acquire the knowledge needed to address pressing environmental, social, and economic challenges through design, conservation, and responsible professional practice; to understand the ethical implications of their decisions; to reconcile differences between the architect's obligation to his/her client and the public; and to nurture a climate of civic engagement, including a commitment to professional and public service and leadership.

[X] The program is responsive to this perspective. [] The program is not responsive to this perspective. **Visit Three Team Assessment**: The program embraces its role to prepare students to be active, engaged citizens. This was evidenced throughout the work presented in the team room and in interviews with students and faculty. This was particularly evident in ARCT 40040 Architectural Design VII + ARCT 40050 Architectural Design VIII, where students actively engaged communities in "live projects" that started with housing policy and progressed through design solutions, often including students from multiple disciplines. This is further incorporated at the building level as students are required to consider how architecture might tackle the demands of environmental performance, as was evident in several courses and studio projects, such as ARCT 40080: Research and Innovation in the Designed Environment.

**I.1.4 Long-Range Planning**: A substantially equivalent degree program must demonstrate that it has identified multi-year objectives for continuous improvement within the context of its mission and culture, the mission and culture of the institution, and the five perspectives. In addition, the program must demonstrate that data is collected routinely and from multiple sources to inform its future planning and strategic decision making.

#### [X] The program's processes meet the standards as set by the NAAB. [] The program's processes do not meet the standards as set by the NAAB.

**Visit Three Team Assessment**: The school produced a strategic plan in 2015 as a part of a reorganization into the School of Architecture, Planning, and Environmental Policy, as outlined in the APR on page 25. This plan is commendable and was provided as supplemental evidence in the team room. The plan includes multiyear objectives tied to ten strategic objectives set to compliment the broader university's five-year strategic plan. These objectives cover education, research and innovation, international, resources, finance, and performance against key performance indicators. Budget planning is further aligned with this strategic plan. The program has robust sources of data from multiple sources, including third-party examiners and a QA/QC process by the university that evaluates programs and provides feedback loop on their own seven-year cycle. The long-range planning is further informed by the five perspectives and the role they play in shaping the program, as was noted in the APR.

*I.1.5 Self-Assessment Procedures*: The program must demonstrate that it regularly assesses the following:

- How the program is progressing toward its mission.
- Progress against its defined multiyear objectives (see I.1.4 Long-Range Planning) since the
  objectives were identified and since the last visit.
- Strengths, challenges, and opportunities faced by the program while developing learning
  opportunities in support of its mission and culture, the mission and culture of the institution, and the
  five perspectives.
- Self-assessment procedures shall include, but are not limited to:
  - Solicitation of faculty, students', and graduates' views on the teaching, learning and achievement opportunities provided by the curriculum.
  - Individual course evaluations.
  - o Review and assessment of the focus and pedagogy of the program.
  - o Institutional self-assessment, as determined by the institution.

The program must also demonstrate that results of self-assessments are regularly used to advise and encourage changes and adjustments to promote student success as well as the continued maturation and development of the program.

#### [X] The program's processes meet the standards as set by the NAAB.

[] The program's processes do not meet the standards as set by the NAAB.

Visit Three Team Assessment: As noted in the visiting team two report, the school through its recent curriculum transformation from Bachelor's to Master's of Architecture, has undergone and continues to have robust self-assessment procedures. This is evident from university-led/required initiatives such as the UCD quality review process, which is a national standardized process; and continues to "Walkabouts," where all faculty take a daylong critical review of all studios twice a year. This is further supplemented by external examiners, who visit the school twice a year to review student work. This process is a university standard and is executed by representatives from RIBA and RIAI. Finally, external reviews are supplemented by staff-student feedback and institutional self-assessment. Examples of these assessments were provided in the team room.

#### PART ONE (I): SECTION 2-RESOURCES

#### I.2.1 Human Resources and Human Resource Development

- Faculty & Staff:
  - A substantially equivalent degree program must have appropriate human resources to support student learning and achievement. This includes full- and part-time instructional faculty, administrative leadership, and technical, administrative, and other support staff. Programs are required to document personnel policies which may include but are not limited to faculty and staff position descriptions<sup>2</sup>.
  - Substantially equivalent programs must document the policies they have in place to further social equity or diversity initiatives appropriate to the cultural context of the institution.
  - A substantially equivalent degree program must demonstrate that it balances the workloads of all faculty and staff to support a tutorial exchange between the student and teacher that promotes student achievement.
  - A substantially equivalent degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.
  - Substantially equivalent programs must document the criteria used for determining rank, reappointment, tenure, and promotion as well as eligibility requirements for professional development resources.

#### [X] Human resources (faculty and staff) are adequate for the program. [] Human resources (faculty and staff) are not adequate for the program.

**Visit Three Team Assessment**: **Faculty:** A full spectrum of university policies related to promotions, social equity, faculty conduct, diversity, and equal opportunity employment were found in the APR, the Appendix and website links provided in the APR.

Current staffing levels in the classroom enable ample time for student and faculty tutorial exchange. Faculty-to-student ratios in the design studios range between 1:2 and 1:7. Twenty-three of the thirty-one faculty in the program hold part-time appointments which enables them to maintain active, highly regarded professional practices. Students identified the faculty's real-world experience as a primary benefit. However, the relatively low percentage of full-time faculty concentrates responsibility for day-to-day overarching administrative operations and program management such that few individuals bear a disproportionately heavy burden.

Evidence of faculty professional development opportunities in the form of financial support, (1400 euros per two years) for conference travel, software training, and teaching strategies were identified in the APR. In addition, a university seed funding scheme offers support for conference going, for publication and for 'horizon scanning' in new areas.

The university is actively developing a new process for faculty promotions and recognition after having a moratorium on promotions across the system due to the global recession in 2008.

The university operates the *Centre for Teaching and Learning* which offers a Professional Certificate/Diploma to all UCD staff along with regular workshops covering general and specific topics related to teaching.

<sup>&</sup>lt;sup>2</sup> A list of the policies and other documents to be made available in the team room during a substantial equivalency visit is in Appendix 4 of the 2012 Conditions for Substantial Equivalency.

The University has revised and updated its policy on sabbaticals to increase the provision of sabbatical opportunities for both part-time and full-time staff. During meetings, the faculty expressed satisfaction with the current level of opportunities provided.

- Students:
  - A substantially equivalent program must document its student admissions policies and procedures. This documentation may include but is not limited to application forms and instructions, admissions requirements, admissions decisions procedures, financial aid and scholarships procedures, and student diversity initiatives. These procedures should include firsttime, first-year students as well as transfers within and outside of the university.
  - A substantially equivalent degree program must demonstrate its commitment to student achievement both inside and outside the classroom through individual and collective learning opportunities.

#### [X] Human resources (students) are adequate for the program. [] Human resources (students) are not adequate for the program.

Visit Three Team Assessment: The team validated the student admissions policies and process as outlined in the APR. Students reported a clear and transparent admissions process. While students reported that they were aware of university-wide initiatives available to them for academic and personal support, some students reported there was uncertainty as to how to go about resolving an issue at the program level.

#### I.2.2 Administrative Structure & Governance

Administrative Structure: A substantially equivalent degree program must demonstrate it has a measure of administrative autonomy that is sufficient to affirm the program's ability to conform to the conditions for substantial equivalency. Substantially equivalent programs are required to maintain an organizational chart describing the administrative structure of the program and position descriptions describing the responsibilities of the administrative staff.

#### [X] Administrative structure is adequate for the program. [] Administrative structure is not adequate for the program.

**Visit Three Team Assessment**: The organizational chart describing the administrative structure was included in the APR, and the position descriptions were provided in the Appendix.

 Governance: The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance as appropriate to the context and culture of the institution.

[X] Governance opportunities are adequate for the program. [] Governance opportunities are not adequate for the program.

**Visit Three Team Assessment**: Evidence demonstrating that all faculty and students have equitable opportunities to participate in program and institutional governance was found through meetings and interviews. The "Architecture, Landscape, Planning and Environmental Policy Programmes Board (ALPEPPB)" governs the M. Arch. program, is chaired by the associate dean of ALPEP and reports to the University Programmes Board and to the Academic Council.

The School Executive, chaired by the Head of School, manages school policies and procedures along with resources.

The Architecture Staff/Student Committee (SSC) includes two elected student representatives from each year of the M. Arch. degree along with the dean, associate dean, faculty, and staff representatives. The SSC meets monthly to discuss student issues including curriculum, course delivery, facilities, and student welfare. The chair and secretary of the Architecture SSC also attend the School SSC chaired by the ALPEP associate dean.

In meetings with the visiting team the program faculty consistently articulated that the program administrators welcomed and valued their contributions to ongoing program review, curricular development and assessment processes. The faculty's deep commitment to and participation in program governance was evident to the visiting team.

**I.2.3 Physical Resources**: The program must demonstrate that it provides physical resources that promote student learning and achievement in a professional degree program in architecture. This includes but is not limited to the following:

- Space to support and encourage studio-based learning
- Space to support and encourage didactic and interactive learning.
- Space to support and encourage the full range of faculty roles and responsibilities including preparation for teaching, research, mentoring, and student advising.

#### [X] Physical Resources are adequate for the program. [] Physical Resources are not adequate for the program.

Visit Three Team Assessment: The School of Architecture undergraduate students have studio space in the Richview building, while graduate students have studios in the Planning Building and above the library. Each student has a desk and dedicated workspace. The Richview building has several rooms for smaller lectures and open spaces for exhibitions and project reviews. Further, the Newstead building is close by and is used for larger group lectures. Adjacent to these buildings is the fabrication laboratory used for model making, demonstrations, and exhibitions. The lab has recently been updated with new equipment, laser cutters, a 3D printer, and tools.

The buildings housing the School of Architecture are old and do not have the amenities and comfort typical of new construction. Power outlets have been added but are still limited. The buildings have no fire sprinkling, but they are protected by a fire detection system and there are many fire extinguishers on every floor. Each room has at least two exits and multiple ways of egress. As is typical of older facilities, most areas of the buildings are not designed to regional accessibility standards. When asked about this issue, the administration said that they would adjust class locations when and if the need arises.

Faculty and students expressed concern about the age of the building, the lack of current safety equipment, and accessibility features. The buildings stand as historical features on the campus and generally serve the School of Architecture with adequate setting for the present. Students expressed a need for improved storage space for their work and models, which was confirmed by team observation.

**I.2.4 Financial Resources**: A substantially equivalent degree program must demonstrate that it has access to appropriate institutional and financial resources to support student learning and achievement.

[X] Financial Resources are adequate for the program.

[] Financial Resources are not adequate for the program.

Visit Three Team Assessment: As noted by the team from visit two, according to Irish national policy, no tuition is charged to undergraduate students. Graduate students pay approximately € 6,500 (\$8,100) / year directly to the university. The Higher Education Authority directly funds the university based on enrollment. Funds are allocated to each program based on FTEs. Fee and grant income are allocated to the schools based on the Resource Allocation Model (RAM), not fully implemented university-wide, allocating university-supplied facilities and services on a per-student FTE basis.

The 2016-17 school budget is € 2,132,372 (an increase of approximately €135,000 over the 2014-15 budget). Graduate-level enrollment increases have the effect of improving the income stream and available resources, primarily staffing. Annual reports are presented to the college finance manager along with regular updates during the academic year.

**I.2.5 Information Resources**: The substantially equivalent program must demonstrate that all students, faculty, and staff have convenient access to literature, information, and visual and digital resources that support professional education in the field of architecture.

Further, the substantially equivalent program must demonstrate that all students, faculty, and staff have access to architecture librarians and visual resources professionals who provide information services that teach and develop research, evaluative, and critical thinking skills necessary for professional practice and lifelong learning.

[X] Information Resources are adequate for the program. [] Information Resources are not adequate for the program.

Visit Three Team Assessment: The team found students, faculty, and staff have convenient access to the Richview Architecture Library, as well as access to the five other libraries on campus. The Richview Library is well supported with sufficient literature, information, and visual resources and is supported in the acquisition of new material. The Richview Library has both full- and part-time staff, including a full-time mapping/GIS librarian. A college-wide librarian serves the six schools within the college. A full-time architecture faculty member serves as a liaison to the library. Library workshops are offered to support student learning, and several copies of required texts are acquired to facilitate student access, as students do not purchase textbooks for each course.

The team was shown the room that serves as the computer lab for the program, although at the time of the visit there were no computers. Through interviews with the media team and administration, the team learned that there was a recent change in the university IT structure. As a result, the university removed lab computers as their warranties ran out, and the program is now responsible for purchasing hardware and software. The team was informed that ten new computers have been purchased for use in the spring 2018 semester, with a plan moving forward to install new, small computer labs as funding becomes available. Although laptops are not required, the program will be issuing recommended laptop specifications to incoming students who choose to purchase a laptop, to ensure it will meet the needs of their education. Students reported they frequently used the computer lab's workstations to access software and lamented the current loss of use.

#### PART I: SECTION 3-REPORTS

**I.3.1 Statistical Reports.** Programs are required to provide statistical data in support of activities and policies that support social equity in the professional degree and program as well as other data points that demonstrate student success and faculty development.

- Program student characteristics.
  - Number of students enrolled in the substantially equivalent degree program(s).
  - Qualifications of students admitted in the fiscal year prior to the upcoming visit compared to those admitted in the fiscal year prior to the last visit.
  - Time to graduation.
    - Percentage of matriculating students who complete the substantially equivalent degree program within the normal time to completion for each academic year since the previous visit.
    - Percentage who complete the substantially equivalent degree program within 150% of the normal time to completion for each academic year since the previous visit.
- Program faculty characteristics
  - Number of faculty by rank (e.g., assistant professor, associate professor)
  - Number of full-time faculty and part-time faculty
  - Number of faculty promoted each year since the last visit
  - Number of faculty maintaining licenses in the country of the program each year since the last visit, and where they are licensed

#### [X] Statistical reports were provided and provide the appropriate information.

[] Statistical reports do not provide the appropriate information.

[] Statistical reports were not provided.

Visit Three Team Assessment: Statistical Reports were provided as evidenced on page 84 of the APR.

**I.3.2 Faculty Credentials**: The program must demonstrate that the instructional faculty are adequately prepared to provide an architecture education within the mission, history, and context of the institution.

In addition, the program must provide evidence through a faculty exhibit<sup>3</sup> that the faculty, taken, reflects the range of knowledge and experience necessary to promote student achievement as described in Part Two. This exhibit should include highlights of faculty professional development and achievement since the last substantial equivalency visit.

[X] Faculty credentials were provided and demonstrate the range of knowledge and experience necessary to promote student achievement.

- [] Faculty credentials do not demonstrate the range of knowledge and experience necessary to promote student achievement.
- [] Faculty credentials were not provided.

**Visit Three Team Assessment**: Evidence of well-qualified faculty was demonstrated through résumés and a comprehensive exhibit of faculty design work, publications, and scholarship presented in the team room. The program and the students are well served by faculty who combine proven accomplishment in practice with a willingness to dedicate ample energy to student learning in the classroom.

<sup>&</sup>lt;sup>3</sup> The faculty exhibit should be set up near or in the team room. To the extent the exhibit is incorporated into the team room, it should not be presented in a manner that interferes with the team's ability to view and evaluate student work.

#### PART ONE (I): SECTION 4—POLICY REVIEW

The information required in the three sections described above is to be addressed in the APR. In addition, the program shall provide a number of documents for review by the visiting team. Rather than being appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 4 of the Conditions for Substantial Equivalency.

[X] The policy documents in the team room meet the requirements of Appendix 4. [] The policy documents in the team room do not meet the requirements of Appendix 4.

Visit Three Team Assessment: Policy documents were provided in a dedicated binder in the team room as required.

#### PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM

#### PART TWO (II): SECTION 1—STUDENT PERFORMANCE—EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA

The substantially equivalent degree program must demonstrate that each graduate possesses the knowledge and skills defined by the Student Performance Criteria set out below. The knowledge and skills are the minimum for meeting the demands of an internship leading to registration for practice.

The school must provide evidence that its graduates have satisfied each criterion through required coursework. If credits are granted for courses taken at other institutions or online, evidence must be provided that the courses are comparable to those offered in the substantially equivalent degree program.

The criteria encompass two levels of accomplishment<sup>4</sup>:

*Understanding*—The capacity to classify, compare, summarize, explain and/or interpret information.

**Ability**—Proficiency in using specific information to accomplish a task, correctly selecting the appropriate information, and accurately applying it to the solution of a specific problem, while also distinguishing the effects of its implementation.

The NAAB establishes student performance criteria to help substantially equivalent degree programs prepare students for the profession while encouraging educational practices suited to the individual degree program. In addition to assessing whether student performance meets the professional criteria, the visiting team will assess performance in relation to the school's stated curricular goals and content. While the NAAB stipulates the student performance criteria that must be met, it specifies neither the educational format nor the form of student work that may serve as evidence of having met these criteria. Programs are encouraged to develop unique learning and teaching strategies, methods, and materials to satisfy these criteria. The NAAB encourages innovative methods for satisfying the criteria, provided the school has a formal evaluation process for assessing student achievement of these criteria and documenting the results.

For the purpose of substantial equivalency, graduating students must demonstrate understanding or ability as defined below in the Student Performance Criteria (SPC):

**II.1.1 Student Performance Criteria:** The SPC are organized into realms to more easily understand the relationships between individual criteria.

#### **Realm A: Critical Thinking and Representation**

Architects must have the ability to build abstract relationships and understand the impact of ideas based on research and analysis of multiple theoretical, social, political, economic, cultural and environmental contexts. This ability includes facility with the wider range of media used to think about architecture including writing, investigative skills, speaking, drawing and model making. Students' learning aspirations include:

- Being broadly educated.
- Valuing lifelong inquisitiveness.
- Communicating graphically in a range of media.
- Recognizing the assessment of evidence.
- Comprehending people, place, and context.
- Recognizing the disparate needs of client, community, and society.

<sup>&</sup>lt;sup>4</sup> See also *Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives.* L. W. Anderson and D. R. Krathwold, eds. (New York: Longman, 2001).

#### A.1. Communication Skills: *Ability to* read, write, speak and listen effectively.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT40040 Architectural Design VII. Course readings, student writing, and the community engagement element of the studio all contributed to meeting this SPC.

## A.2. Design 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 alternative outcomes against relevant criteria and standards.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 41110, Thesis Design Seminar. Student work explored numerous questions, points of view, and alternative outcomes before arriving at a final design decision.

## A.3. Visual Communication Skills: *Ability to* use appropriate representational media, such as traditional graphic and digital technology skills, to convey essential formal elements at each stage of the programming and design process.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40050, Architectural Design VIII. A range of representational media was evident throughout the student work.

A.4. Technical Documentation: *Ability* to make technically clear drawings, write outline specifications, and prepare models illustrating and identifying the assembly of materials, systems, and components appropriate for a building design.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for Technical Documentation in ARCT 40010 Design Technologies I, including technical drawings showing assembly of materials, written documents describing selected systems, and an outline specification. Additional evidence is found in ARCT 40040 Architectural Design VII and ARCT 40050 Architectural Design VIII where models showing technical ability are further developed.

### A.5. Investigative Skills: *Ability to* gather, assess, record, apply, and comparatively evaluate relevant information within architectural coursework and design processes.

#### [X] Met [ ] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40020 Research and Innovation in the Designed Environment I, ARCT 40080 Research and Innovation in the Designed Environment II, and in ARCT 41110 Thesis Design Seminar.

### A.6. Fundamental Design Skills: *Ability to* effectively use basic architectural and environmental principles in design.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 41110, Thesis Design Seminar.

## A.7. Use of Precedents: *Ability* to examine and comprehend the fundamental principles present in relevant precedents and to make choices regarding the incorporation of such principles into architecture and urban design projects.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT40050, Architectural Design VIII (via group work) and ARCT 41120, Comprehensive Design Studio (via individual work).

A.8. Ordering Systems Skills: *Understanding* of the fundamentals of both natural and formal ordering systems and the capacity of each to inform two- and three-dimensional design.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 41120, Comprehensive Design. Student work showed ordering systems in both plan and section.

A.9. Historical Traditions and Global Culture: *Understanding* of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

[] Met

#### [X] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was not sufficiently and consistently found, although there are indications the program is working to comply. In response to the "Not Met" assessment for SPC A.9 during Visit Two, the school is developing a new lecture series to address non-Western canons and traditions. The lecture series was initiated with five presentations in Spring 2017 under the title "Silk Road Cities: Architecture and Urbanism from East to West." Beginning Spring 2018 the program intends to expand the series to ten lectures under the same title. Attendance at these lectures was required of all second year M. Arch. students and participation in the post-lecture discussion counted for 10% of the ARCT 40610 semester grade. While some of this content is being covered, attendance alone does not constitute evidence of "understanding."

Discussions with the associate dean confirm that efforts are underway to develop student learning assessment mechanisms that can be used to confirm student achievement at the required level of understanding.

The team did find limited evidence in the undergrad course ARCT 10070 History and Theory of Architecture 1, which covers some non-Western traditions/history. In addition, students who transfer into the program for M. Arch. do not take these courses and the admissions process is not currently set up to screen for any SPCs, since the program's current set up has all SPCs being covered/evidenced primarily at the graduate level.

A review of ARCT 40020 and 40080 along with ARCT 41130 did provide ample evidence that these courses cover the remaining canons and traditions in architecture, landscape, and urban design and include examples of local, regional, and the national setting of Ireland and Western cultures.

A.10. Cultural Diversity: Understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures and individuals and the implication of this diversity on the societal roles and responsibilities of architects.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for courses 40040 Architectural Design IV, ARCT 40050 Architectural Design VIII and ARCT 4110 Thesis Design Seminar. Student understanding of cultural and physical diversity was demonstrated in surveys, analysis, and drawings.

# A.11. Applied Research: Understanding the role of applied research in determining function, form, and systems and their impact on human conditions and behavior. [X] Met [] Not Met

**Visit Three Team Assessment**: Met with Distinction. Evidence of student achievement was found in ARCT 40610 MArch Dissertation and ARCT41110 Thesis Designs Seminar. These courses provided excellent examples of how applied research contributes to thoughtful decisions with respect to form, function, and systems, indicating sources, reasoning, and evidence collected where conditions led to various benefits and positive consequences. Outcomes evidence applied research ability beyond the

level of understanding inclusive of literature review, case studies, and site analysis that inform design decisions.

**Realm A. General Team Commentary**: The team found that all SPC in Realm A, except for A.9 Historical Traditions and Global Culture, were met. Student evidence showed a broad range of analysis, investigation, representation techniques, and use of precedent. Through reviewing the team room exhibit, as well as touring the facilities, the team observed a strong culture of making and a clear emphasis on process. Research is a strength of the program. The student performance criteria for Realm A were well synthesized through ARCT 41130, Reflective Portfolio.

**Realm B: Integrated Building Practices, Technical Skills and Knowledge:** Architects are called upon to comprehend the technical aspects of design, systems and materials, and be able to apply that comprehension to their services. Additionally, they must appreciate their role in the implementation of design decisions, and their impact of such decisions on the environment. Students learning aspirations include:

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.
- B.1. Pre-Design: *Ability* to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of their implications for the project, and a definition of site selection and design assessment criteria.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40040 Architectural Design VII, and ARCT40050 Architectural Design VII. Both studios dealt heavily with assessing client and user needs and design assessment criteria.

B.2. Accessibility: *Ability* to design sites, facilities, and systems to provide independent and integrated use by individuals with physical (including mobility), sensory, and cognitive disabilities.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40010 Design Technologies I. Evidence of student understanding of universal design principles were found in surveys, community outreach and resultant projects in 40040 Architectural Design IV, ARCT 40050 Architectural Design VIII, and 40850 Architecture or Society. In ARCT 40190 Professional Studies II, understanding of all principles of universal design, physical, sensory, and cognitive disabilities is evident in exams.

B.3. Sustainability: *Ability* to design projects that optimize, conserve, or reuse natural and built resources, provide healthful environments for occupants/users, and reduce the environmental impacts of building construction and operations on future generations through means such as carbon-neutral design, bioclimatic design, and energy efficiency.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level for sustainability was found in ARCT 40010 Design Technology 1. The course project focused on the adaptive use of an existing warehouse through the application of net-zero footprint sustainable strategies with a specific focus on energy efficiency, occupant comfort, and carbon neutral design.

### B.4. Site Design: *Ability* to respond to site characteristics such as soil, topography, vegetation, and watershed in the development of a project design.

#### [] Met [X] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level for basic principles of site design, grading, water management, and subsurface conditions was not seen in projects reviewed. Students were exposed to site design in ARCT 40010 Design Technologies I, as well as in some of the BSc course work, yet their ability to respond to site characteristics including watershed conditions in the development of a project design was not consistently found.

Many projects were located on flat, tight, urban infill sites where little to no site consideration was required. Although a few projects in ARCT 41110 Thesis Design Seminar had more dynamic sites and some sketches indicated occasional ability, this was not consistent enough or robust enough to satisfy that all students are meeting this SPC at the prescribed level.

### B.5. Life Safety: *Ability* to apply the basic principles of life-safety systems with an emphasis on egress.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40010 Design Technologies I. Drawings showed fire exits, number of exits, and direction of egress. Further evidence was found in ARCT 41120 Comprehensive Design Studio projects showing fire exits and means of egress.

B.6. Comprehensive Design: *Ability* to produce a comprehensive architectural project that demonstrates each student's capacity to make design decisions across scales while integrating the following SPC:

A.2. Design Thinking Skills	B.2. Accessibility
A.4. Technical Documentation	B.3. Sustainability
A.5. Investigative Skills	B.4. Site Design
A.8. Ordering Systems	B.8. Environmental Systems
A.9. Historical Traditions and Global Culture	B.9.Structural Systems
B.5. Life Safety	

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found. Students apply technical knowledge developed in ARCT Design Technologies I to the ARCT Comprehensive Design Studio to develop a well-organized architectural project that integrates content from the SPCs listed above. There is clear evidence the overall combination of knowledge gained by the students has given them the capacity to make design decisions across scales. Evidence of integration of environmental systems and site design is demonstrated but could be strengthened.

B.7 Financial Considerations: *Understanding* of the fundamentals of building costs, such as acquisition costs, project financing and funding, financial feasibility, operational costs, and construction estimating with an emphasis on life-cycle cost accounting.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in ARCT 40190 in the form of good lecture material and quizzes. Additional evidence is present in ARCT 40010 Design Technologies I where students prepare building cost comparisons, operational costs, and project estimating.

B.8. Environmental Systems: *Understanding* the principles of environmental systems' design such as embodied energy, active and passive heating and cooling, indoor air quality, solar orientation, daylighting and artificial illumination, and acoustics; including the use of appropriate performance assessment tools.

#### [X] Met

#### [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in drawings and specifications prepared for ARCT 40010 Design Technologies I.

## B.9. Structural Systems: *Understanding* of the basic principles of structural behavior in withstanding gravity and lateral forces and the evolution, range, and appropriate application of contemporary structural systems.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared in course ARCT 40010 Design Technologies I. Lectures reviewing correct and historical structural components and understanding of these principles were evident in subsequent student work.

B.10. Building Envelope Systems: *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.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40010 Design Technologies I, as well as in ARCT 41120 Comprehensive Design Studio.

B.11. Building Service Systems Integration: *Understanding* of the basic principles and appropriate application and performance of building service systems such as plumbing, electrical, vertical transportation, security, and fire protection systems

#### [X] Met [] Not Met

**Visit Three Team Assessment:** Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40010 Design Technologies I in drawings and specifications. Evidence of vertical transportation and plumbing and fire protection systems was found in ARCT 41120 Comprehensive Design Studio and ARCT 41110 Thesis Design Seminar.

B.12. Building Materials and Assemblies Integration: *Understanding* of the basic principles utilized in the appropriate selection of construction materials, products, components, and assemblies, based on their inherent characteristics and performance, including their environmental impact and reuse.

#### [x] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in the lecture material and assignments for ARCT 40010 Design Technology 1. Students completed projects that involved the preparation of outline specifications and the selection of mechanical systems, structural systems, and building envelopes as part of the design for adaptive use of an existing warehouse.

**Realm B: General Team Commentary**: Evidence found in student sketches, notebooks, and drawings demonstrates a high level of comprehension of building practices and technical skills heavily influenced by the strong ties to practice that exist in the program through the faculty. Most studios focused on urban environments, and the team observed examples of siting these projects with regard to comprehensive planning approaches and daylight orientation. However, not evident were examples of the ability to manipulate topography and vegetation, and the impact of buildings on watersheds. In general, students apply their understanding of Realm B criteria (universal design, sustainability, environmental technology and structure) through an integrative approach to design in studio projects.

#### Realm C: Leadership and Practice:

Architects need to manage, advocate, and act legally, ethically and critically for the good of the client, society and the public. This includes collaboration, business, and leadership skills. Student learning aspirations include:

- Knowing societal and professional responsibilities
- Comprehending the business of building.
- Collaborating and negotiating with clients and consultants in the design process.
- Discerning the diverse roles of architects and those in related disciplines.
- Integrating community service into the practice of architecture.

### C.1. Collaboration: *Ability* to work in collaboration with others and in multi-disciplinary teams to successfully complete design projects.

#### [X] Met [] Not Met

**Visit Three Team Assessment:** Met with distinction. Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40040 Architectural Design VII and ARCT 40050 Architectural Design VIII, the *Rising Home* studios, as well as supported in ARCT 40850 Architecture or Society. The *Rising Home* studio is well constructed to engage students in collaboration in research, community engagement, and studio project development.

### C.2. Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40040 Architectural Design VII. Course readings and interviews with the public contributed to understanding of human behavior.

C.3 Client Role in Architecture: *Understanding* of the responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains.

[X] Met [] Not Met **Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in ARCT 40190 Professional Studies II in well-presented lectures with response material given by students in mid-term and final exams.

## C.4. Project Management: *Understanding* of the methods for competing for commissions, selecting consultants and assembling teams, and recommending project delivery methods

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in ARCT 40190 Professional Studies II in lecture and discussion material along with written responses from students on mid-term and final exams.

C.5. Practice Management: *Understanding* of the basic principles of architectural practice management such as financial management and business planning, time management, risk management, mediation and arbitration, and recognizing trends that affect practice.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in ARCT 40190 Professional Studies II, as well as in supplemental student work provided to the team.

C.6. Leadership: Understanding of the techniques and skills architects use to work collaboratively in the building design and construction process and on environmental, social, and aesthetic issues in their communities.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40190 Professional Studies II and ARCT 40040 Architectural Design VII. Students were exposed to leadership in the building design and construction process through ACTR 40190 and to leadership in their communities through ARCT 40040.

C.7. Legal Responsibilities: *Understanding* of the architect's responsibility to the public and the client as determined by registration law, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulation, and historic preservation and accessibility laws.

[X] Met [] Not Met **Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in the ARCT 40190 Professional Studies II lecture content and questions on mid-term and final exams.

C.8. Ethics and Professional Judgment: *Understanding* of the ethical issues involved in the formation of professional judgment regarding social, political and cultural issues, and responsibility in architectural design and practice.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40190 Professional Studies II. Additional evidence of student understanding was found in ARCT 40020 Research and Innovation in the Designed Environment I and ARCT 40080 Research and Innovation in the Designed Environment.

## C.9. Community and Social Responsibility: *Understanding* of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life for local and global neighbors.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: Met with Distinction. Evidence of student achievement at the prescribed level was found in student work prepared for ARCT 40040 Architectural Design VII and ARCT 40050 Architectural Design VIII, which reflected the student's understanding of the architect's responsibility to work in the public interest, to respect historic resources, and to improve the quality of life locally and globally. Students collaborated with community partners, citizens, and local experts from outside the discipline to address the current housing crisis in Ireland. The work presented is part of a multiyear project titled *Rising Home*.

**Realm C. General Team Commentary**: Each of the components of Realm C has been met, with much of the lecture material and student work presented in ARCT 40190 Professional Studies II. The material presented and the subsequent response by the students via midterm and final exam showed a good understanding of architects and their related responsibilities.

#### PART TWO (II): SECTION 2-CURRICULAR FRAMEWORK

**II.2.1 National Authorization**: The institution offering the substantially equivalent degree program must be or be part of an institution that has been duly authorized to offer higher education in the country in which it is located. Such authorization may come from a federal ministry or other type of agency.

[X] Met [] Not Met

**Visit Three Team Assessment**: The institution is accredited under Irish Law to award degrees at European Qualifications Framework levels 6-8, as permitted by the Universities Act of 1997.

**II.2.2 Professional Degrees and Curriculum**: For substantial equivalency, the NAAB requires degree programs in architecture to demonstrate that the program is comparable in all significant aspects to a program offered by a U.S. institution. This includes a curricular requirement that substantially equivalent degree programs must include general studies, professional studies, and electives.

Curricular requirements are defined as follows:

• **General Studies**. A professional degree program must include general studies in the arts, humanities, and sciences, either as an admission requirement or as part of the curriculum. It must ensure that students have the prerequisite general studies to undertake professional studies. The curriculum leading to the architecture degree must include a course of study comparable to 1.5 years of study or 30% of the total number of credits for an undergraduate degree. These courses must be outside architectural studies either as general studies or as electives with content other than architecture.

This requirement must be met at the university or tertiary school level. Post-secondary education cannot be used to meet this requirement. At least 20% of the credits in the professional architecture degree must be outside architectural studies either as general studies or as electives with other than architectural content.

- **Professional Studies**. The core of a professional degree program consists of the required courses that satisfy the NAAB Student Performance Criteria (SPC). The professional degree program has the discretion to require additional courses including electives to address its mission or institutional context.
- **Electives.** A professional degree program must allow students to pursue their special interests. The curriculum must be flexible enough to allow students to complete minors or develop areas of concentration, inside or outside the program.

#### [] Met [X] Not Met

**Visit Three Team Assessment**: As is standard with many European universities, the school structure follows the Bologna structure: a three-year Bachelor's with a two-year Masters. The focus is almost entirely on professional studies. This structure is set by the university so that the EU follows a common regulated compatible credit system to promote mobility of its students, faculty, and researchers and to ensure quality across the many countries within the EU. For the school program, this 3+2 structure totals 300 ETCS (150 U.S. credits).

However, the current curricular framework as established by the university, does not include a general studies program at any level (graduate or undergraduate). We understand that this is somewhat typical of European universities, with focus centered on professional studies. Further, electives are limited to mostly professional-related content. Therefore, the 30% requirement is not met, with only 10 ETCS (5 U.S. credits) of a required 54 ETCS (27 U.S. credits) provided through the Horizon's program, which does

allow students to take courses in other disciplines based on their interests. As such, the requirement for at least 20% of the credits in the professional architecture degree to be met outside architectural studies is also not met.

The program does include professional electives allowing students to develop some level of concentration within the program. Minors do not exist anywhere in the university as a matter of university structure.

The program does meet the professional studies requirement.

#### **II.2.3 Curriculum Review and Development**

The program must describe the process by which the curriculum for the substantially equivalent degree program is evaluated and how modifications (e.g., changes or additions) are identified, developed, approved, and implemented. Further, the NAAB expects that programs are evaluating curricula with a view toward the advancement of the discipline and toward ensuring that students are exposed to current issues in practice. Therefore, the program must demonstrate that architects authorized to practice in the country where the program is located are included in the curriculum review and development process.

[X] Met [] Not Met

**Visit Three Team Assessment**: Evidence provided in the APR combined with information gathered during meetings with the dean, associate dean, and faculty confirm a robust process by which the curriculum is evaluated and modifications are identified, developed, approved, and implemented.

At the end of each semester all faculty participate in a daylong critical review of the studio outcomes. Issues identified during this "walkabout" are discussed with the school leadership through the "Programme Board" and by the Module Coordinators. Resulting adjustments are implemented by the Module Coordinators and reevaluated in the subsequent "walkabout." In discussions with the visiting team, faculty confirm that these faculty reviews are fundamental to the culture of the school and instrumental to ongoing curriculum development.

In addition, external examiners visit annually and their reports are reviewed by the program administration and the university registrar (chief academic officer).

Along with these annual processes the program is subject to accreditation by both the Royal Institute of the Architects of Ireland and the Royal Institute of British Architects. Both accrediting bodies review the program on a five-year cycle.

The high percentage of practitioners on the program faculty ensures that architects authorized to practice in Ireland are included in the curriculum review and development process.

#### PART TWO (II): SECTION 3-EVALUATION OF PREPARATORY/PREPROFESSIONAL EDUCATION

Because of the expectation that all graduates meet the SPC (see Part Two, Section 1, above), the program must demonstrate that it is thorough in the evaluation of the preparatory education of individuals admitted to the NAAB substantially equivalent degree program.

In the event a program relies on the preparatory educational experience to ensure that students have met certain SPC, the program must demonstrate it has established standards for ensuring these SPC are met and for determining whether any gaps exist. Likewise, the program must demonstrate it has determined how any gaps will be addressed during each student's progress through the substantially equivalent degree program. This assessment should be documented in a student's admission and advising files.

#### [X] Met [] Not Met

Visit Three Team Assessment: Evidence of the process for evaluating the preparatory/preprofessional education was outlined and sample documentation was provided in the Appendix of the APR. Admissions decisions to the M. Arch. program rely on academic transcripts, a personal statement, letters of reference, and review of a digital portfolio. Shortlisted candidates undergo an interview with the program's admission committee, which occasionally results in some students having to take additional courses to make up for any deficiencies.

The program is currently structured to meet all SPC requirements in the M. Arch. program, and so the admissions process does not include any SPC-related evaluations. If this were to change, then the admissions process would not be adequate as is and would need to adapt to evaluate for any SPCs taught at the BSc level.

#### PART TWO (II): SECTION 4—PUBLIC INFORMATION

#### **II.4.1 Statement on Substantially Equivalent Degrees**

In order to promote an understanding of the substantially equivalent professional degree by prospective students, parents, and the public, all schools offering a substantially equivalent degree program or any candidacy program must include in catalogs and promotional media the exact language found in the NAAB Conditions for Substantial Equivalency, Appendix 6.

#### [X] Met [] Not Met

**Visit Three Team Assessment**: The statement was provided as required, and found through public access to website.

#### **II.4.2 Access to NAAB Conditions and Procedures**

In order to assist parents, students, and others as they seek to develop an understanding of the body of knowledge and skills that constitute a professional education in architecture, the school must make the following documents available to all students, parents, and faculty:

The 2012 NAAB Conditions for Substantial Equivalency

The NAAB Procedures for Substantial Equivalency (edition currently in effect)

#### [X] Met [] Not Met

Visit Three Team Assessment: Access to the documents was found and accessible through public access to the website.

#### II.4.3 Access to Career Development Information

In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of substantially equivalent degree programs, the program must make appropriate resources related to a career in architecture available to all students, parents, staff, and faculty.

[X] Met [] Not Met

**Visit Three Team Assessment:** Met with Distinction. Access was provided and evidenced as indicated in APR page 112. The program has numerous programs, both online as well as in career fairs and lectures. Of note is the portfolio preparation as a part of ARCT 41130, Reflect Portfolio Module, that each student must do as they take a step back to assess the overall arch of their education. Further career information was evidenced on the following websites:

https://myucd.ucd.ie/program.do?programID=70 https://myucd.ucd.ie/events/index.do

#### II.4.4 Public Access to APRs and VTRs

In order to promote transparency in the process of substantial equivalency in architecture education, the program is required to make the following documents available to the public:

The final decision letter from the NAAB The most recent APR The final edition of the most recent Visiting Team Report, including attachments and addenda

These documents must be housed together and accessible to all. Programs are encouraged to make these documents available electronically from their web sites.

[X] Met [] Not Met

Visit Three Team Assessment: APRs and VTRs were found accessible through public website.

#### III. Appendices

#### Appendix 1. Program Information

A. History and Mission of the Institution and the Program

UC Dublin, APR, page 5

B. Long-Range Planning

UC Dublin, APR, page 22

C. Self-Assessment

UC Dublin, APR, page 27

#### Appendix 2. Conditions Met with Distinction

- II.1.1. Student Performance Criteria
  - A.11 Applied Research
    - C.1 Collaboration
    - C.9 Community and Social Responsibility
- II.4.3 Access to Career Development Information

#### Appendix 3. Visiting Team

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#### IV. Report Signatures

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