# **University of Pennsylvania**

# Interim Progress Report for Year Five

# Instructions and Template

November 30, 2021

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## **1. INSTRUCTIONS AND TEMPLATE GUIDELINES**

#### Purpose

Continuing accreditation is subject to the submission of interim progress reports at defined intervals of 2 years and 5 years after an eight-year term of continuing accreditation is approved.

This narrative report, supported by documentation, covers three areas:

- 1. The program's progress in addressing not-met Conditions and Student Performance Criteria (SPC) from the Interim Progress Report Year 2 review.
- 2. Changes or Planned Changes in the Program.
- 3. Summary of Preparations for Adapting to 2020 NAAB Conditions.

#### Supporting Documentation

- The narrative should describe in detail all changes in the program made in response to not-met Conditions and Student Performance Criteria, including detailed descriptions of changes to the curriculum that have been made in response to not-met SPC that were identified in the review of the Interim Progress Report Year 2. Identify any specific outcomes expected to student performance. Attach new or revised annotated syllabi identifying changes for required courses that address unmet SPC.
- 2. Evidence of student work is only required to address deficiencies in the following cases: (1) If there are any SPCs that have not been met for two consecutive visits; (2) If there are three not-met SPCs in the same realm in the last visit.
  - Provide three examples of minimum-pass work for each deficiency and submit student work evidence to the NAAB in electronic format. (Refer to the "Guidelines for Submitting Digital Content in IPRs" for the required format and file organization.)
  - All student work evidence must be labeled and clearly annotated so that each example crossreferences the specific SPC being evaluated and shows compliance with that SPC.
- 3. Provide additional information that may be of interest to the NAAB team at the next accreditation visit.

#### Outcomes

IPRs are reviewed by a panel of three: one current NAAB director, one former NAAB director, and one experienced team chair.<sup>1</sup> The panel may make one of two recommendations to the Board regarding the interim report:

- 1. Accept the 5 yr. Interim Progress Report as having corrected deficiencies identified in the Interim Progress Report Year 2. The annual statistical report (see Section 9 of the 2015 Procedures) is still required.
- 2. Reject the interim report as having not corrected deficiencies or demonstrated substantial progress toward addressing deficiencies and advance the next accreditation sequence by at least one calendar year, thereby shortening the term of accreditation. In such cases, the chief academic officer of the institution will be notified and a copy of the decision sent to the program administrator. A schedule will be determined so that the program has at least six months to prepare an Architecture Program Report. The annual statistical report (see Section 9 of the 2015 Procedures) is still required.

#### **Deadline and Contacts**

IPRs are due on November 30. They shall be submitted through the NAAB's Annual Report System (ARS). As described in Section 10 of the 2015 NAAB Procedures for Accreditation "...the program will be assessed a fine of \$100.00 per calendar day until the IPR is submitted." If the IPR is not received by

<sup>&</sup>lt;sup>1</sup> The team chair will not have participated in the visiting team during the year in which the previous decision on a term of accreditation was made.

January 15 the program will automatically receive Outcome 2 described above. Email questions to accreditation@naab.org.

#### Instructions

- 1. Reports shall be succinct and are limited to 40 pages/20 MBs, including supporting documentation.
- 2. Type all responses in the designated text areas.
- 3. Reports must be submitted as a single PDF following the template format. Pages should be numbered.
- 4. Supporting documentation should be included in the body of the report.
- 5. Remove the #4 "Requirements for the Use of Digital Content in Interim Progress Reports" pages before submitting the interim progress report.

# 2. EXECUTIVE SUMMARY OF THE TWO MOST RECENT NAAB VISITS: 2016 and 2010

#### **CONDITIONS NOT MET**

2016 VTR	2010 VTR
None	None

#### STUDENT PERFORMANCE CRITERIA NOT MET

2016 VTR	2010 VTR
A.7 History and Culture	13.9 Non-Western Traditions
A.8 Cultural Diversity and Social Equity	13.14 Accessibility
B.3 Codes and Regulations	13.20 Life-Safety
B.10 Financial Considerations	

### 3. TEMPLATE

# Interim Progress Report Year 5 University of Pennsylvania

Department of Architecture Master of Architecture

Baccalaureate degree (any discipline; and typically 124 undergraduate credit hours + 84 graduate semester credit hours) Year of the previous visit: 2016

Please update contact information as necessary since the last APR was submitted.

Chief administrator for the academic unit in which the program is located:

Name: Winka Dubbeldam; Scott Loeffler Title: Chair and Miller Professor; Director of Administration Email Address: <u>winka@design.upenn.edu</u>; <u>scotl@design.upenn.edu</u> Physical Address: 212 Meyerson Hall, 210 South 34<sup>th</sup> Street, Philadelphia, PA 19104

Any questions pertaining to this submission will be directed to the chief administrator for the academic unit in which the program is located.

Chief academic officer for the Institution:

Name: Frederick Steiner Title: Dean Email Address: fsteiner@design.upenn.edu Physical Address: 110 Meyerson Hall, 210 South 34th Street, Philadelphia, PA 19104 Text from the previous VTR and IPR Year 2 Review is in the gray text boxes. Type your response in the designated text boxes.

#### I. Progress in Addressing Not-Met Conditions and Student Performance Criteria

#### a. Progress in Addressing Not-Met Conditions

University of Pennsylvania, 2021 Response: N/A

#### b. Progress in Addressing Not-Met Student Performance Criteria

#### A.7 History and Culture

**2016 Team Assessment:** Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 611: History and Theory III. The Global Architectural Discourse Colloquium generally explores the place of architectural practices in the larger social and political discourse. Limited evidence was found for exposing students to cultural norms of a variety of indigenous and vernacular settings. The colloquium format of this course suggests that the content of the course varies.

**University of Pennsylvania, 2018 Response:** Since the NAAB Assessment, the required course ARCH 611 has been changed to better engage students in a critical discussion of global architecture. The course now operates as separate modules exploring critical aspects of architectural knowledge in Gender and Environment. The courses are intersectional, using examples from across the global and historical spectrum to discuss spatial and social relationships. Students are given details about architecture and its relationship to society as read through the vernacular cultures of design in Egypt, Brazil, and Mongolia.

**University of Pennsylvania, 2021 Response:** In the history theory sequence, 512 has been substantially revised to include black and indigenous perspectives on the built environment, as well as histories of gender in a global perspective. This has mainly been achieved by centering histories of migration and diasporic thinking as anti-colonial frameworks. For examples, the course starts out with a re-reading of Frank Lloyd Wright's work in the framework of settler colonialism and is presented opposite indigenous perspectives of the land that emerged at the same time. The course then proceeds to reading theories on pan-Africanism and decolonization and the exhibition culture that promoted it. Over the weeks, students are exposed to twelve sites and themes in the history and theory of twentieth century architecture. The course convers sites from Latin America, to Asia as well as Africa and the Soviet Union. In line with the framework of being attentive to histories of migration and because the course is taught in a global classroom, it encourages students in assignments to draw on multilingual experiences and to introduce multiple language worlds into their assignments.

The history and theory of architecture course 611 is a modular and topical course to expose students to different types of reading the built environment including vernacular architecture, black and indigenous perspectives, as well as questions of the built environment and gender. The modular structure of the course allows students to take two courses with different focal points a semester; the courses offered regularly focus on a) gender and queer theory, b) race and decolonization c) environment and d) literature and urbanism. In addition, an emphasis has been laid on teaching students how to develop critical writing practices from the subject matter. The course on architecture, gender, and queer theory, for example, encourages students to write from experience and from their own body.

#### A.8 Cultural Diversity and Social Equity

**2016 Team Assessment:** Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 601: Design Studio III and ARCH 511: History and Theory I. No evidence was found in these courses (limited evidence found in ARCH 511) for an

understanding of the diverse needs, values, behavioral norms, physical abilities, and social and spatial patterns that characterize different cultures.

**University of Pennsylvania, 2018 Response**: The ARCH 601 Urban Housing Studio builds on opportunities for social engagement first introduced in the ARCH 502 studios. ARCH 601 studio critics can recruit a project influencer as an outside voice who will help charge the studio content with applied knowledge. These include developers, government officials, NGO's or local entrepreneur who would provide social, political or economic context to the studio method. Opportunities include first-hand interaction with local community leaders, specific site based projects and hands-on engagement through fabrication and volunteerism. Recent studio examples include the design of Transitional Housing in conjunction with ProjectHOME of Philadelphia and a Drug Rehabilitation Housing for My Brother's Keeper in Camden, NJ, where students organized and worked alongside local residents in a "Clean the Streets Program" that included the construction of a Homeless Park serving the Homeless in the local community.

**University of Pennsylvania, 2021 Response:** The ARCH 601 Urban Housing Studio builds on opportunities for social engagement first introduced in the ARCH 502 studios. In a world of increasing demand on existing resources there is newly focused attention on adaptive reuse and the expansion of existing facilities. Each Urban Housing studio section will position the housing project relative to an existing structure. The student proposals will be required to engage with this existing building condition - with 1/3 of the proposed project interacting directly with the existing structure while the remaining 2/3 to be new construction. A goal is to encourage the production of hybrid forms, programs and architectural conditions that interrogate relationships between new and existing conditions.

How can architecture, in collaboration with other disciplines, probe the question of how designers can develop new solutions to address equity, inclusion and justice? Starting from the 2020-2021 academic year, the second year M. Arch studio's at the University of Pennsylvania Weitzman School are reaffirming these questions within both the ARCH 601 Urban Housing and ARCH 602 Integration Studios. All of the studio sections and students will include the design of Public Common Space. Public Commons has become a term used for shared, equitable access to resources such as air, oceans and wildlife as well as to social infrastructures such as libraries, public spaces, scientific research etc. Public Common Space for the architecture studios is relaunched as a catalyst to study the confluences of equity and inclusion through thoughtful inquiry. Each student will engage in architecture's agency to format spaces of equity and proactively develop new modes of ground, landscape, thresholds, and spaces that provide for safe assembly and freedom from harassment.

ARCH 601 studio critics can recruit a project influencer as an outside voice who will help charge the studio content with applied knowledge. These include developers, government officials, NGO's or local entrepreneurs who would provide social, political or economic context to the studio method. Starting in 2021 across all studios a Public Common Space Development week is scheduled culminating in a Public Common Space Fair. The 601 Urban Housing studios are committed to supporting students in their pursuit of strategic design frameworks that engage with the inequities built-in to the housing systems. Each studio's focus on the innovative repurposing of an existing structure commits the housing proposals to maximizing the latent value of existing and vernacular urban fabric – both in the sustainability of reuse, but also in the keeping of repositories of cultural heritage and urban life.

#### **B.3 Codes and Regulations**

**2016 Team Assessment:** It was recommended that the team look for evidence of student achievement at the prescribed level in student work prepared for ARCH 601: Design Studio III. The team found a consistent lack of understanding of, and the ability to apply, the principles of accessibility, including incorrect door swings, inadequate clearances, and exit routes that do not comply with life-safety codes.

**University of Pennsylvania, 2018 Response:** The ARCH 601 studio curricular goals are to explore hybrid forms of urban housing/dwelling with a commercial or cultural program that can coexist with housing. Included in the studio objectives is the exploration of the massing and the urban environment that the project contributes to and the physical impact it makes on the city with a highly detailed façade. Studio projects are approximately 50,000 sq ft and relationships between the building massing, plans, sections and façade, with an understanding of vertical and horizontal pedestrian circulation are the key objectives in the studio. Across all studio sections one week is scheduled for Plans Development and a second week for Facades and Section development. During Plan Week topics of Accessibility and Life Safety are introduced that allow the students to develop the following deliverables for the semester's final review: 1. 1/16" Building Floor Plans Showing Housing Unit Variation. Detailed to Include Building Services, Elevators, Emergency Stairs, and Door Swings. 2.1/8" Housing Unit Detail Plans. One unit detailed to include Accessibility Requirements. 3. Building Circulation Diagrams [Including Life Safety Routes].

**University of Pennsylvania, 2021 Response:** : ARCH 601 Urban Housing Studio projects are approximately 50,000 sq ft and relationships between the building massing, plans, sections and façade-with an understanding of vertical and horizontal pedestrian circulation are the key objectives in the studio. Across all studio sections one week is scheduled for Plans Development and a second week for Facades and Section development. During Plan Week topics of Accessibility and Life Safety are introduced that allow the students to develop the following deliverables for the semester's final review: 1. 1/16" Building Floor Plans Showing Housing Unit Variation. Detailed to Include Building Services, Elevators, Emergency Stairs, and Door Swings. 2.1/8" Housing Unit Detail Plans. One unit detailed to include Accessibility Requirements. 3. Building Circulation Diagrams [Including Life Safety Routes].

The following semester, ARCH 771- the second section of the Professional Practice Sequencebuilds on the ARCH 601 studio plans as a basis to comply with rules and regulations surrounding the International Building Code (as well as local adoption modifications, relationship to zoning, and affiliated codes) and the Americans with Disabilities Act / ICC A117.1. Case studies are reviewed in class for the calculation of occupant load, remoteness of stairs, travel distances, separations of spaces, clearances and other principles surrounding egress, design, and accessibility. In order to apply this knowledge to their studio work, the students are assigned to critique their ARCH 601 Urban Housing Studio projects and highlight areas of conformance and non-conformance with the applicable codes. The students produce diagrammatic overlays atop their studio projects along with accompanying text and dimensions describing adherence to standards or ways of correcting the work. Assignments are critiqued and grades are applied along with commentary on the student's interpretation of the codes

#### **B.10 Financial Considerations**

**2016 Team Assessment:** Evidence of student achievement at the prescribed level was not found in student work prepared for ARCH 531: Construction I; ARCH 671: Professional Practice I; or ARCH 672: Professional Practice II. While construction cost estimating was found, evidence for project financing methods and feasibility, operational costs, and life-cycle costs was not found.

University of Pennsylvania, 2018 Response: ARCH 672 Professional Practice I: The Project

The focus of this course is on the process of designing, documenting, and managing the creation of a building. In this context, the class examines how cost management and estimating are handled to insure conformance to a client's budget as well as the life and program of a building. Discussions include the nature of cost estimation at different phases of design and documentation and how the cost estimating and value engineering process work relative to the completion of construction documents.

The budget and estimating conversations also touch upon the different costs affiliated with the project and how the architect can influence and vet the client's project budget to insure they

accommodate known and unknown circumstances as well as affiliated enabling costs (hard, soft, land, and contingency reserve).

ARCH 771 Professional Practice II: The Practice (syllabus included beginning on page 12)This course enables a more thorough conversation about the many issues related to liability, the operation of a firm, managing resources, and the project financing methods and feasibility including operations costs and life cycle costs.

The discussions are divided among a few lectures and touch upon the following topics:

Project Financing Methods: This category discusses the stages of financing throughout the project development process as well options for funding different types of projects (single family, multi family, commercial, institutional or governmental).

•Financing terms and concepts

Stabilization

•Collateral and Risk

Project Value

•Loan to Value Ratio•Load to Cost Ratio

•Collateral and Guarantees

Debt Service

•Property Value

•Capitalization Rate

Amortization

The discussion of financing also includes a refresher from previous Building Code discussion about key zoning and building terms that overlap significantly with financing:

•Floor are Ratio (FAR)

•Lot Area vs. Building Area

•Gross vs. Net Site Areas

Types of Loans Available

•Bank Loans (early phase vs. permanent construction loans)

•Construction Bank Loans•Lending Exchanges

•SBA Loans•Tax Increment Financing

Historic and Sustainable Tax Credits

Industrial Revenue Bonds

•Local, State, Federal Funding opportunities (infrastructure bills, state incentives)

Development Schedule: The class also overlays the Design and Construction Schedule discussed during the "Project" phase of Professional Practice with the Development Schedule including the following phases:

Due Diligence

Land Acquisition

•Re-zoning (as necessary) or lot mergers

•Pre-development / Design / Enabling Project(s)

•Development including Fast Track Schedule

Sale or Stabilization (operation)

Pro Forma Template:

The class walks the students through the creation of a Pro Forma to contextualize the values and priorities developers and other real-estate value driven clients possess when hiring an architect. The evaluation will take the students through the basic components of the Pro Forma to establish the potential viability of the project:

•Calculating Project Revenue by type / region / date of expected completion

•Calculation Project Costs (land, design, amenities, Site work or enabling, management and overhead, soft costs)

Cash flow before financing

•Financing interest

•Cash Flow Table projected over multiple years and quarters

•Testing Pro Forma against real world changes (higher costs of construction, longer or shorter construction schedules, higher interest rates, different sale or lease pricing

Life Cycle Cost Analysis:

This discussion engages how the cost and quality of select products or the use of specific systems to accelerate construction can benefit the short- and long-term costs of the project. Using case study examples, the lecture investigates the following scenarios:

•Structural System comparisons in fast-track construction benefiting the construction schedule to reduce financing costs, temporary lease costs, as well as hard construction costs. A case study evaluation of steel vs. concrete in a real-world application is included in the discussion.

•The capital investment in sustainable systems relative to the amortization of savings in utility costs as well as potential maintenance costs or the cost of any system redundancy that may be required. A case study evaluation of geothermal wells for providing chilled water to the HVAC plant of a building is discussed. This case study discusses first costs, redundancy for critical systems based on program type, determination of reliability of wells, and long-term maintenance.

•Examination of the benefits of "better than code baseline" energy code wall and systems design relative to first cost, maintenance, and energy savings over the life of the building is assessed.

#### ARCH 531 Construction I

Throughout the course, there are assessments of materials and systems in relation to performance, longevity, and cost in the context of the client's project goals. This analysis looks at particular systems or materials in isolation, much like real world design assessments, to examine how architects develop a compelling argument for or against a particular decision that may impact cost, quality, and/or long-term performance.

**University of Pennsylvania, 2021 Response:** ARCH671 – Professional Practice I: The Project : addressing Life Cycle Cost AnalysisTo more fully integrate the analysis of financial as well as environmental considerations in the design and/or renovation of buildings, the first sequence of Professional Practice I: The Project (taught in the second semester of the second year of the M.Arch program) has been reformatted to focus one entire lecture on the nominal role of cost estimation in the design process and more specifically the goal of the design and construction industry to utilize Life Cycle Cost Analysis (LCCA) throughout the design process. This lecture discusses the goals of LCCA, the ideal timing and relevant issues to be considered in this analysis, tools and techniques used in LCCA, and the importance of benchmarking. A Case Study example is presented for evaluation and process. Students are tested using online quizzes on the concepts presented and broad principles are integrated into the final assignment. ARCH771 – Professional Practice II : The Practice : addressing pro-forma, development and financing methodsAs previously reported, a lecture within Professional Practice II: The Practice (taught in the first semester of the third year of the M.Arch program) introduces the students to the concepts and terms surrounding financial planning for the development of a building project. This

leads to a step-by-step review of a pro-forma template case study to help students understand the various participants in the development process as well as the variables that can have an impact on the viability of a project. An online quiz tests student's knowledge of this content.

ARCH531 – Construction 1: Materials and MethodsLectures continue to focus on developing a student's understanding of the materials and methods used in the execution of smaller and lighter scale buildings as well as the role of precedent and history in the formation of these methods. The course has been updated to reflect practices and examples that speak to a more sustainable future mindset for the profession including understanding historic structures for alteration and renovation, how to measure and use materials with lower embodied energy, and principles of upcycling, recycling, and re-use. Principles of cost-estimation, life-cycle cost analysis, and longevity are discussed throughout the course.

#### II. Changes or Planned Changes in the Program

Please report such changes as the following: faculty retirement/succession planning; administration changes (dean, department chair, provost); changes in enrollment (increases, decreases, new external pressures); new opportunities for collaboration; changes in financial resources (increases, decreases, external pressures); significant changes in educational approach or philosophy; changes in physical resources (e.g., deferred maintenance, new building planned, cancellation of plans for new building).

University of Pennsylvania, 2021 Response: Since the 2016 accreditation visit the school now has a new dean, Frederick Steiner, who has been appointed through June of 2025. Winka Dubbeldam was re-appointed in 2018 as the chair of the department por another period of 5 years. Our standing faculty has expanded with the hiring of new Assistant professor Laia Mogas-Soldivila and Associate Professors Ferda Kolatan and Rashida Ng. Rashida came to us through the provost's opportunity hire program, and as of next year will also function as our undergraduate chair, replacing Richard Wesley. Professor David Leatherbarrow has retired. Student enrollment in the program continues to grow with a three year average enrollment in the MArch program of approximately 221. Over the past two years the faculty have undertaken efforts to expand the role of diversity, equity, and inclusion into all courses and events, and in that light the Chair appointed a DEI committee to advise on all those aspects. Several new DEI faculty have been appointed as lecturers, full-time lecturers and we have a History-Theory opportunity hire in progress to also join the standing faculty. In May 2021 the faculty held a retreat to plan methods for including DEI topics into each and every course taught in the department, which was submitted to the provost Summer 2021. The physical resources remain the same for our students with a fabrication lab, dedicated studio space, and a fleet of 3-D printers. The school also finished the construction and outfitting of the robotics lab which houses several faculty research labs. We also incorporated classes in design and programming of robots and autonomous systems in our Core curriculum. The Robotioc Lab is becoming more available to students in the MArch and MSD programs over time and is extremely popular. The new MSD-RAS is expanding its student body fast and its first year of operation was successful.

#### III. Summary of Preparations for Adapting to 2020 NAAB Conditions

Please provide a brief description of actions taken or plans for adapting your curriculum/ classes to engage the 2020 Conditions.

**University of Pennsylvania, 2021 Response**: The department has three standing committees focused on the areas of 1) History and Theory; 2) Technology; and, 3) Diversity, Equity, and Inclusion. Each of these committees will be given a copy of the 2020 conditions and asked to prepare a report and collect student work focused in their topic area. The Department itself is also already constantly revising, updating and adapting to new requirements following the 3 committees annual advise and Dean & Chair initiatives, including the 2020 conditions: • Promote excellence and innovation in architecture education• Allow program flexibility that adapts to a dynamic context• Encourage distinctiveness among programs• Support equity, diversity, and inclusion in architecture

education and the profession Increase access to the profession of architecture Stimulate the generation of new knowledge Protect the public interest

- **IV. Appendix** (include revised curricula, syllabi, and one-page CVs or bios of new administrators and faculty members; syllabi should reference which NAAB SPC a course addresses. Provide three examples of low-pass student work for SPCs in the following cases--if there are any SPCs that have not been met for two consecutive visits, or If there are three not-met SPCs in the same realm in the last visit--as required in the Instructions.)
- **Appendix:** <u>Revised Syllabi</u> for 531, 601, 611, 671, 771 are all included via digital upload in a folder per the instructions for student work.

#### Appendix: New Standing Faculty Members

<u>Ferda Kolatan</u> has been for 17 years at Upenn and was promoted from his position as Associate Professor of Practice to Associate Professor of Architecture at the University of Pennsylvania Stuart Weitzman School of Design. Ferda is also the founding director of su11 in New York City. He received his Architectural Diploma with distinction from the RWTH Aachen in Germany and his Masters in Architecture from Columbia University, where he was awarded the LSL Memorial Prize and the Honor Award for Excellence in Design. Kolatan has lectured widely and taught design studios as well as theory and fabrication seminars at Columbia University, Cornell University, Rensselaer Polytechnic Institute, University of British Columbia, California College of the Arts, Washington University, Pratt Institute, and the RWTH Aachen. He is also a co-author of the book Meander: Variegating Architecture (Bentley Press, 2010) and was selected as a Young Society Leader by the American Turkish Society in 2011.

Laia Mogas-Soldevila was recently appointed an Assistant Professor of Architecture at the Stuart Weitzman School of Design. Laia's research focuses on new material practices bridging science, engineering and the arts, and her work is widely published. Her pedagogy supports theory and applied methods understanding cultural, industrial, economical, and ecological aspects of materials and materialization in architecture. She has built scholarship over the past ten years reconsidering matter as a fundamental design driver and scientifically redesigning it towards unprecedented capabilities. She holds an interdisciplinary doctorate bridging biomedical engineering, life sciences, and digital design from Tufts University School of Engineering, two master's degrees from MIT School of Architecture and Urban Planning, and is a licensed architect with a minor in Fine Arts by the Polytechnic University of Catalonia School of Architecture.

<u>Rashida Ng</u> is an Associate Professor of Architecture at the University of Pennsylvania Stuart Weitzman School of Design. From 2015 through 2021, Rashida was the department chair of Temple University's Tyler School of Art and Architecture. She holds a Master of Architecture from the University of Pennsylvania and a Bachelor of Science in Architecture and Certificate in City Planning from the Georgia Institute of Technology. A registered architect with the Commonwealth of Pennsylvania, Rashida has practiced with firms in Georgia, Connecticut and Pennsylvania, and is the principal of RNG Design. She served on the Boards of Directors of the Association of Collegiate Schools of Architecture (ACSA) for six years, presiding over the board as President in 2019-2020. Through her research, teaching, and service, she strives to enhand under-resourced communities and build more resilient cities by confronting the challenges of climate change, social inequities, and economic disparities.

University of Pennsylvania, 2021 Update: Must include student work evidence for A.8 and B.3: Folder of student work uploaded to NAAB portal as requested on the next page.

## 4. Requirements for the Use of Digital Content in Interim Progress Reports

#### File type

Files must be accessible on multiple operating systems and should not be in an editable form. All static documents, including text and images, must be presented as PDFs. If student work was presented in a video format, videos must be a file type that can be viewed on any machine and operating system.

#### File size

Individual PDF file size shall be limited to 5MB, per the 2015 *Procedures for Accreditation*. In limiting file size, programs should consider this simple concept: **speed of access is just as important as image quality**. Files and their embedded images should not be slow to load, and downsizing files and images should not be at the detriment of legibility.

#### Best practices for file size

- Photoshop files should be flattened.
- Vector line files should not be rasterized for legibility sake.

#### Legibility

Image legibility and file size go hand in hand. As evidence for accreditation, it is imperative that all images, and enlarged detail images, are legible. Original file format plays a part in this. If an original file is formatted for  $8 \frac{1}{2}$  x 11" paper, a reviewer won't need to zoom in and out as frequently as an original file formatted for 34" x 44". Viewing hardware is also important, as the same file on a small laptop screen will need to be zoomed in and out more often than if it is viewed on two large desktop monitors.

#### Best practices for legibility

- Can you see the parts and pieces of an image when its blown up on the screen?
- Are large drawings legible if zoomed to see the individual parts?



Vertigo wood plastic composite cladding section assembly details  $1/2^n = 1^t$ 

Vertigo wood plastic composite cladding section assembly details 1/2"= 1'

Figure 1. Examples of legible and illegible JPEG details

#### **Organizing Digital Content**

- 1. A "base folder" titled "Student Work" will contain all evidence in support of the Student Performance Criteria required for the IPR (figure 2).
- The base folder will contain one folder for each SPC, labeled "# Name" (e.g., C.3 Integrated Design)
- 3. Individual SPC folders will have three files inside, labeled as follows:
  - a. 1\_Course Number\_Course Title.pdf

- b. 2\_Course Number\_Course Title.pdf
- c. 3\_Course Number\_Course Title.pdf
- 4. Each individual PDF should be organized with bookmarks and a table of contents. All evidence required to demonstrate an example of the SPC shall be combined into a single PDF.



Figure 2. Digital folder structure for an accreditation visit

The program must provide all student work to the NAAB by zipping the base folder and submitting it through the NAAB's Annual Report System, along with all other required IPR documentation.