

**New Jersey Institute of Technology
College of Architecture and Design**

Visiting Team Report

Bachelor of Architecture (164 undergraduate credit hours)

Master of Architecture (45 undergraduate credit hours plus up to 102 graduate credit hours)

The National Architectural Accrediting Board
11 April 2014

The National Architectural Accrediting Board (NAAB), established in 1940, is the sole agency authorized to accredit U.S. professional degree programs in architecture. Because most state registration boards in the United States require any applicant for licensure to have graduated from an NAAB-accredited program, obtaining such a degree is an essential aspect of preparing for the professional practice of architecture.

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I. Summary of Team Findings

1. Team Comments & Visit Summary

In its meeting with the leaders of AIAS and Alpha Rho Chi, team members asked students to share their impression of the New Jersey Institute of Technology (NJIT) School of Architecture's (SOA) single greatest strength. The majority cited the faculty—"great," "amazing," "intelligent," "communicative"; "superstars"; "the reason I want to be an architect." Next highest was the quality of the curriculum, next after that the strong sense of community. These same sentiments proved remarkably consistent among all constituencies, from support staff through the provost and university president.

The solidarity and coherence surrounding NJIT SOA registered in the undergraduate and graduate curricula and their fidelity to the college mission and strategic priorities; it registered in the clarity and organization of the visit, and especially the thoughtful and thorough documentation of student work; it registered in the cross-referential blending of physical and digital evidence gathered together in demonstration of response to the SPC—especially Kepler, which serves as both the college's digital archive and its principal framework for self-assessment; it registered in the unobtrusive and informative design and exhibition of faculty work on display in the team room; it registered in the level of participation and attendance at all NAAB scheduled meetings, especially the reception for the professional and alumni community, which the provost and president attended from start to finish; it registered in the pervasive spirit of citizenship, self-questioning, and service across the entire community—faculty, students, and staff; and it registered in the palpable dedication and passion of administrative personnel and program directors. All these qualities testify to the maturity and skill of the faculty and academic leaders. The newly restructured College of Architecture and Design has solidly taken root, and its programs are fully and productively engaged in the challenges of twenty-first century education and practice, perhaps nowhere more vividly and poignantly demonstrated than the college's call to action following Hurricane Sandy.

The provost and president of the university both extolled the college as one of the brightest jewels in NJIT's crown, a centrally significant and increasingly prized wellspring of creativity and leadership within and beyond the professions it serves. The college fully embodies the thematic priorities of the university—its culture of strategic thinking and assessment, its commitment to fairness and transparency, its orientation to student success from admission to employment, and its sustainable investment in the future. The university regards the college and its programs as vital to its long-range goals, which include the convergence of the life and healthcare sciences and engineering, sustainable systems, and "digital everywhere."

The undergraduate and graduate degree programs are a clinic in effective professional education, notably in their integration of the various technical filaments of architectural knowledge with principled design. The prevailing atmosphere across the school and college was one of collegiality, pride, and civic engagement; the community as a whole exhibited notable congeniality to difference: among themselves, in their discussion of internal academic and social priorities, in their robust appetite for alternative perspectives, and in their deep commitment to local, regional, and global responsibility.

The college enjoys the perspicacity of highly adept and dedicated administrative leadership—fearless in their aspirations, but cognizant of the challenges that surround them. The reorganization of the college exhibits the capacity of its leaders and faculty to skillfully optimize their resources and strategically multiply the value of shared assets—mindful of equity and access among adjacent programs—and to unflinchingly direct these resources and assets toward the benefit and enrichment of its students. In summary, the school effectively demonstrated how its core strategic priorities of "smart design, smart technology" drive integrative, engaged, and creative professional education, preparing students for equal success in practice and citizenship.

2. Conditions Not Met

1.2.1 Human Resources & Human Resource Development

3. Causes of Concern

A. Facilities

1. Despite four major renovations and additions since its opening in 1998, Weston Hall currently lacks a suitable auditorium for large lecture classes and related events. Room 160, the school's only available large-capacity auditorium, is in serious disrepair: worn and missing seats, inadequate ventilation, inadequate lighting, and significant material wear and tear. In overflow lectures such as ARCH 251 History I and ARCH 223 Construction I the seating shortage requires students to sit on the floor in the aisles, as they did during the all-student meeting for this visit. During all the meetings the team held in Weston Lecture Hall 1, several members suffered acute and unmistakable reaction to poor air quality, causing the team to suspect the presence of mold.
2. The traditional wood and metal fabrication shop is oddly located and disproportionately small and crowded, compared to adjacent digital fabrication labs. Workbenches and work areas appear to be too tightly packed, compromising both productivity and safety.
4. Other problems cited by students include poor air quality, bug and rodent infestation, leaks, non-functioning elevators, building disrepair, and inadequate custodial support. [NOTE: The program reports that the elevator repair is now completed.]
5. With their studio space consigned to a remote location, graduate students feel isolated from the rest of the school and college—one student described it as “Siberia.” Distance from the undergraduate studios and college facilities robs them of significant aspects of the life and culture of the college.
6. Human Resources and HR Development
Seven hundred B. Arch students must compete for the time and attention of a single professional advisor, which seriously compromises equitable access to academic and administrative guidance. This issue surfaced quickly during discussions with students and faculty throughout the visit. The combination of growing undergraduate program enrollment, inadequate auditorium facilities, and limited staffing has led to classes so large that single faculty members without teaching assistants find it difficult to deliver material and evaluate course assignments at the level and depth required to fulfill any curricular goals beyond minimal engagement. Large lecture classes such as Architectural History, Construction, and Professional Practice are especially affected by this confluence of factors.

4. Progress Since the Previous Site Visit (2008)

2004 Criterion 13.9, Non Western Traditions (M. Arch): Understanding of *parallel and divergent canons and traditions of architecture and urban design in the non-Western world*

Previous Team Report (2008): This criterion is met in the B. Arch program. In the M. Arch program, the Team found evidence that some non-western material was presented in the required History of Architecture courses (ARCH 528G and ARCH 529G), but did not find consistent evidence of understanding in the student work. The Team noted a limited number of examples of non-western precedents referenced in the studio work of either program.

2014 Visiting Team Assessment: This criterion is now met and exhibited in required studio coursework that engages multiple, diverse non-western traditions in the context of both scholarship and design inquiry, e.g. ARCH 528G,

2004 Criterion 13.14, Accessibility: *Ability to design both site and building to accommodate individuals with varying physical abilities*

Previous Team Report (2008): As in the previous visit, this criterion is not met by either the B. Arch or the M. Arch program. Both curricula state that accessibility is a criterion for evaluating the comprehensive studio. While it appears that most students may have an understanding of accessibility, most of the projects submitted for Team review did not provide sufficient evidence to consistently demonstrate the ability of students to incorporate the fundamentals of accessibility in their design work. Additionally, the Team found insufficient evidence that students can demonstrate the ability to design accessible sites, particularly in the immediate vicinity of a building and its points of entry/ egress.

2014 Visiting Team Assessment: This criterion is now met and exhibited in required studio coursework in both curricula, including ARCH 363, ARCH 564, and ARCH 506G, which include work incorporating appropriate dimensions, circulation systems, ramps, curb cuts, and other applications of the principles and requirements of ADA.

2004 Criterion 13.9, Non-Western Traditions (B. Arch): Understanding of *parallel and divergent canons and traditions of architecture and urban design in the non-Western world*

Previous Team Report (2008): Currently, the coverage of non-western traditions in ARCH 214 depends upon the faculty member teaching the course. A plan for a four-course directed elective sequence that will cover non-western traditions has not yet been implemented (and will not fulfill the NAAB requirement).

2014 Visiting Team Assessment: This criterion is now met following the team's review of current Student Performance Criteria A9 Historical Traditions and Global Culture and A10 Cultural Diversity, which looked closely at undergraduate ARCH 381 History III, ARCH 364 Studio IV, and ARCH 558 Professional Practice; and at graduate ARCH 662 History/Theory Selective and ARCH 579G Professional Practice. Studio projects include buildings that gave students the opportunity to compare and contrast cultural practices and conventions. Classes on European and non-western history inform the design process with historical precedents. A growing number of foreign study programs, including studios in India, create opportunities for significant immersion in non-Western traditions.

2004 Criterion 13.20, Life Safety: Understanding of *the basic principles of life-safety systems with an emphasis on egress*

Previous Team Report (2008): While the Team found that students were exposed to the basic principles of life-safety systems in the coursework of each program, there was insufficient evidence in the student work that they had gained an understanding of those principles. For both programs, the Team found too many examples of a failure to incorporate life safety principles into projects.

2014 Visiting Team Assessment: This criterion is now met. Two team members paid especially close attention to this criterion, and doubled efforts to identify the application of life safety fundamentals in studio work, within and beyond courses identified in the APR. Undergraduate ARCH 364 Studio IV and ARCH 564 Comprehensive Studio II satisfactorily included appropriate places of refuge, distance from fire stairs, fire stair location and design, and means of safe egress. This proved likewise the case in graduate ARCH 506G Comprehensive Design.

2009 Criterion 13.31, Professional Development: Understanding of *the role of internship in obtaining licensure and registration and the mutual rights and responsibilities of interns and employers*

Previous Team Report (2008): Although some students who choose to pursue employment in architectural offices appear to glean this information informally through the internship experience itself, the Team found insufficient evidence in either program that the role of internship in obtaining licensure and registration --especially for the local jurisdiction-- is being understood by each student either through the program coursework or through school-sponsored presentations as required by this criterion

2014 Visiting Team Assessment: This criterion is now met based on close evaluation of the entire professional practice sequence, in particular undergraduate ARCH 558 and the graduate course ARCH 579G, which provide students with sound preparation for the transition to internship and licensure within the context of international, national, and state regulatory environments. Coursework and mentoring include enriched and expanded student orientation to the IDP system and its requirements; increased and expanded professional practice content; and increased interactions with local practitioners participating in the professional practice coursework.

II. Compliance with the Conditions for Accreditation

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 accredited 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 programs have fulfilled this requirement for narrative and evidence

2014 Team Assessment: This condition is met in the APR; in the college's 2012–2017 strategic planning document, "SMART DESIGN, SMART TECHNOLOGY"; in the college's publication, *Initiatives*; on the school and college website; and in comprehensive presentations by the undergraduate, and graduate program directors and the dean during the course of the visit, with hard and digital copies of the slide decks from these presentations available among Team Room resources.

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 non-traditional.*

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 accredited degree program must provide faculty, students, and staff—irrespective of race, ethnicity, creed, national origin, gender, age, physical ability, or sexual orientation—with a culturally rich educational environment in which each person is equitably able to learn, teach, and work. This includes provisions for students with mobility or learning disabilities. The program must have a clear policy on diversity that is communicated to current and prospective faculty, students, and staff and that is reflected in the distribution of the program's human, physical, and financial resources. Finally, the program must demonstrate that it has a plan in place to maintain or increase the diversity of its faculty, staff, and students when compared with diversity of the institution during the term of the next two accreditation cycles.*

[X] The programs have demonstrated that they provide a positive and respectful learning environment.

[X] The programs have demonstrated that they provide a culturally rich environment in which in each person is equitably able to learn, teach, and work.

2014 Team Assessment: The APR clearly and carefully describes and documents college and university policies and resources that promote and ensure social equity and a positive learning culture. The school's and college's commitment to learning culture and social equity is manifestly evident in the school's faculty, staff, and student demographics, the diversity of which reflect the schools location in Newark, and its proximity to New York City, among the most culturally and intellectually diverse cities in the United States. Likewise a broad, synthesizing world view permeates the content of course syllabi and student projects.

1.1.3 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. Architectural Education and the Academic Community.** That the faculty, staff, and students in the accredited degree program make unique contributions to the institution in the areas of scholarship, community engagement, service, and teaching.¹ 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 programs are responsive to this perspective.

2014 Team Assessment: At all levels of the academic community, the School of Architecture plays a vital role in the identity of the university. When Hurricane Sandy hit, NJSOA immediately organized over 600 volunteers from across the campus and community to help those affected by the storm. This led to the formation of the new Center for Resilient Design, which provided over 3,500 hours of volunteer help. The college's curriculum management system—Kepler—stores all student work and provides a transparent method to monitor outcomes and assessments, and evaluates the positive or negative impact of changes; Kepler has been so successful, NJIT adopted it at the campus level based on the college's model. Faculty, staff, and students enjoy consistent and equitable representation on university committees. Faculty consistently earn university-wide recognition for teaching excellence.

- B. Architectural Education and Students.** That students enrolled in the accredited 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 programs are responsive to this perspective.

2014 Team Assessment: The students in both the undergraduate and graduate programs display strong enthusiasm and passion towards their university and the School of Architecture. The cultural diversity of the student body is apparent and is well recognized and admired by the student body. The student body not only represents themselves locally, but internationally as they participate in internships and study abroad opportunities. There is a solid consensus that the

¹ See Boyer, Ernest L. *Scholarship Reconsidered: Priorities of the Professoriate*. Carnegie Foundation for the Advancement of Teaching. 1990.

faculty members are the underlying drive that push students to explore opportunities in the academy and as emerging professionals.

The American Institute of Architecture Students and Alpha Rho Chi Architecture Fraternity are the two predominant student organizations within the School of Architecture that offer students academic, career, and social activities in which the student body can participate. The school also designates one student to serve on the university senate as a liaison between the university, dean, and students. These leaders also meet with university officials to voice student concerns at least once a semester or by request.

While many students personally seek faculty to offer advice pertaining to career choices, it is evident that the students do not have a fully capable career advisor on staff that can formally answer their questions. In lieu of those concerns, student organizations have taken it upon themselves to offer resume and portfolio workshops, firm tours, and career paths lectures. Academic and career advising seem to be the largest component of student concerns.

Due to the displacement of the graduate studios, the graduate students seem to be alienated from the School of Architecture by forms of representation amongst student leaders. This was apparent during the student body and student leadership meetings. The student leadership meeting had no graduate student representation.

Students voiced numerous concerns regarding the physical state of the studios and lecture halls. Both spaces have been prone to cause sickness due to ventilation and mold issues that have not been addressed. The Weston Auditorium does not accommodate the current number of students within the school, causing students to often stand or sit on the floor during lectures.

- C. Architectural Education and the Regulatory Environment.** That students enrolled in the accredited degree program are provided with: a sound preparation for the transition to internship and licensure within the context of international, national, and state regulatory environments; an understanding of the role of the registration board for the jurisdiction in which it is located, and; prior to the earliest point of eligibility, the information needed to enroll in the Intern Development Program (IDP).

[X] The programs are responsive to this perspective.

2014 Team Assessment: Power points and course material presented in both the undergraduate ARCH 558 and the graduate course ARCH 579G provide students with sound preparation for the transition to internship and licensure within the context of international, national, and state regulatory environments. Students develop an understanding of the role of the registration board for the jurisdiction in which the student desires to practice as an architect; and prior to the earliest point of eligibility, the student is provided information needed to enroll in the Intern Development Program (IDP), inclusive of instructor assisted emailed IDP registration forms. The instructor further provides assistance to each student desiring to submit his or her Intern Development Registration Form to NCARB.

- D. Architectural Education and the Profession.** That students enrolled in the accredited degree program are prepared: to practice in a global economy; to recognize the 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 a diversity of clients and diverse populations, as well as the needs of communities and; to contribute to the growth and development of the profession.

[X] The programs are responsive to this perspective.

2014 Team Assessment: Both the undergraduate and graduate programs produce sought after graduates. Their work is technically competent, carefully considered, thorough, and visually compelling. The teaching staff consist of full-time faculty that have interesting professional work outside of the school. A wide array of outside expertise in the form of Adjunct Faculty effectively integrates a practice focus within the curriculum. The annual construction project with the Masonry Contractors of New Jersey and unique materials research are some of the ways that the programs sustain tangible alliances with the professional community.

- E. Architectural Education and the Public Good.** That students enrolled in the accredited 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 programs are responsive to this perspective.

2014 Team Assessment: The school and college thoroughly documented sustained public engagement through its research centers and studio-based projects focusing on the needs of surrounding communities, the city of Newark, the state of New Jersey, and the entire metropolitan region. The Center for Building Knowledge embodies the integration of teaching, research, and service oriented expressly to public welfare. Uniquely affected by Hurricane Sandy, the school devoted more than half the Spring 2013 studios to the exploration of post-hurricane "prototypes," which it coordinated through the Center for Resilient Design, a clearinghouse for information and best practices related to disaster response and mitigation. The college led the entire university in the effort to provide immediate relief and resources to the victims of Hurricane Sandy, demonstrating the kind of palpable commitment and readiness to action only possible when orientation to public service and the public good is a core institutional value.

1.1.4 Long-Range Planning: *An accredited 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, where appropriate, 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 programs processes meet the standards as set by the NAAB.

2014 Team Assessment: The college has thoroughly documented, diagrammed, and elaborated the role and strategic priorities of the New Jersey School of Architecture and its professional degree program in a 57-page report entitled, "Smart Design, Smart Technology: Academic Plan 2012–2017."

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

- *How the program is progressing towards its mission.*
- *Progress against its defined multi-year objectives (see above) 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.*
 - *Review and assessment of the focus and pedagogy of the program.*
 - *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 programs processes meet the standards as set by the NAAB.

2014 Team Assessment: The school uses a blended approach to ensure productive and continuous self-assessment with both its professional degree programs. The heart of this approach is Kepler, a college-wide curriculum management and digital information storage and retrieval system that incorporates NAAB student performance criteria and therefore ensures continuous and transparent evaluation of teaching quality and program effectiveness. In addition, all college and school programs employ NJIT's standardized teaching evaluation procedures and NJIT Program review, which evaluates program performance in respect of five established university learning goals, including research-based inquiry, ethical conduct, economic literacy, collaboration, and engagement; other metric in the internal program review include assessment design, evidence of student learning, and the implementation and sustainability of assessment procedures.

PART ONE (I): SECTION 2 – RESOURCES**I.2.1 Human Resources & Human Resource Development:**

- *Faculty & Staff:*
 - *An accredited 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 descriptions².*
 - *Accredited programs must document the policies they have in place to further Equal Employment Opportunity/Affirmative Action (EEO/AA) and other diversity initiatives.*
 - *An accredited 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.*
 - *An accredited degree program must demonstrate that an IDP Education Coordinator has been appointed within each accredited degree program, trained in the issues of IDP, and has regular communication with students and is fulfilling the requirements as outlined in the IDP Education Coordinator position description and regularly attends IDP Coordinator training and development programs.*
 - *An accredited degree program must demonstrate it is able to provide opportunities for all faculty and staff to pursue professional development that contributes to program improvement.*
 - *Accredited 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 & Staff) are adequate for the programs

2014 Team Assessment: The School has appropriate faculty and staff in all areas for the B.Arch. and M. Arch programs, with B.Arch. student advisement a Cause of Concern. The process surrounding the award of sabbaticals to Architecture Faculty (4 since 2008) among a pool of 20 full time faculty appears to discourage eligible applicants from seeking these leaves which enrich faculty scholarly/creative work and teaching. Policies are in place for EEO/Affirmative Action. Lecturer Mark Bess, AIA is the IDP Coordinator for both the B.Arch. and M. Arch programs, and is trained and communicates regularly with students through emails and posters, and attends IDP Coordinator training since the last visit. The IDP Coordinator conducts a seminar every two years in the fall semester that addresses all issues of IDP and enrolling in the IDP program through NCARB. The seminar includes the IDP Coordinator, an IDP state representative, and an NCARB representative, who present their materials in conjunction with NJIT's Career Development Services Coordinator. This IDP Seminar will be presented annually beginning Fall 2014 due to IDP's rule changes in 2013. Opportunities for faculty to pursue professional development, rank, reappointment, tenure and promotion are included in the NJIT Faculty Handbook, which was available in the Team Room.

Advisement staff resources for the B.Arch. program are inadequate in terms of availability—700 students to 1 advisor—as well as the current knowledge level/experience of professional advisor, to support the program's numbers and student needs. Students expressed widespread concern across the year levels of the program. Some advisement related issues are forwarded on to the Head of Advising, whom students sometimes seek out on their own. M. Arch program students advising staff resources are less a source of alarm among, where the ratio is 100 to 1, and where the Manager of Graduate Programs, who also handles M. Arch admissions is more knowledgeable and experienced with graduate program requirements and opportunities.

² A list of the policies and other documents to be made available in the team room during an accreditation visit is in Appendix 3.

- **Students:**
 - *An accredited 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 first-time freshman, as well as transfers within and outside of the university.*
 - *An accredited 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 inadequate for the programs

2014 Team Assessment: Commitment to student achievement in design studio courses and engagement with studio faculty is strongly present in both the B.Arch. and M. Arch programs—students widely appreciate the faculty commitment to their achievement in these settings. However, the commitment to student achievement is challenged in lecture courses particularly in the B. Arch program, where course enrollments range from 120:1 to 160:1 student faculty ratios in required coursework in Arch 223-323 Construction I-II, ARCH 251-252 History I-II and ARCH 381 History III, ARCH 227-327 Environmental Controls I-II, ARCH 229-329-429 Structures I-II-III, and ARCH 558 Professional Practice. Lecture course enrollment levels that have increased through recent enrollment growth present challenges to student achievement when teaching modes, as well as room capacities are stretched.

I.2.2 Administrative Structure & Governance:

- **Administrative Structure:** An accredited 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 accreditation. Accredited 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 programs

2014 Team Assessment: The program has a strong central administration, which strictly delegates assignments to associate deans and program directors, and closely monitors the curricular integrity and performance of both undergraduate and graduate degree programs. Consultative and timely succession planning will ensure administrative continuity and effectiveness well into the future of the school and college.

- **Governance:** The program must demonstrate that all faculty, staff, and students have equitable opportunities to participate in program and institutional governance.

[X] Governance opportunities are adequate for the programs

2014 Team Assessment: The APR and on-site presentations clearly describe and document the administrative structure and governances of the school, college, and university, the effectiveness of which resonated in discussions at every level of the institution, from staff to the provost and president, both of whom substantively demonstrated working familiarity with and respect for NAAB accreditation procedures, and fully and generously engaged with the team in both formal and informal settings. Although the team observed high morale among students and pronounced satisfaction with school and college leadership, they also consistently communicated concerns about limited access to upper administration, despite two town-hall style meetings with the dean.

1.2.3 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 programs

2014 Team Assessment: Despite the team's concerns over deferred maintenance and two substandard assets within the college's facilities inventory—the shop and the Weston Lecture Hall 1—studio, instructional, administrative, office, meeting, and exhibition space adequately meet minimum criteria for professional education in all its dimensions. The team heard repeated concerns from graduate students about their isolation from school resources and community, since graduate studios reside in distant building—“Siberia,” as one student called it. The addition and growth of aligned design programs might eventually compromise the architecture program's allocation of space and resources.

In general, the architecture programs enjoy a large, daylight-filled building. The meeting and work spaces are on view from the exterior and interior public spaces, giving a sense of lively activity to the building. Most programs and spaces function adequately in the available space. The Library is a gem, both physically and functionally, and offers the programs a wealth of information and services. It is well used, well resourced, and equipped. Program administrators and students especially praised the efforts and resourcefulness of the college librarian, who they applauded for her uncommon dedication to the needs of faculty and students.

That said, growth in programs and student populations are beginning to stress space, challenging access to resources, such as plotters. Support spaces, including large classrooms and space for reviews, are at maximum capacity. Owing to a shortage of space for final reviews, scheduling of juries begins the week after Thanksgiving, shortening class time. As noted, the condition of both Weston 1 and 2 are a serious detriment to the programs, not only for their inadequate size, but also for their seriously deteriorating condition of finishes, seating and environmental factors, in particular, the presence of mold.

As mentioned, team members expressed concerns over the function and safety of the shop. It is challenging to bring construction materials to its location on the seventh floor. The room layout and size squeeze operations and activity, compromising safety during periods of heavy use.

1.2.4 Financial Resources: *An accredited 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 programs

2014 Team Assessment: The team bases its findings on meetings with the dean, provost, associate vice-president of university budgeting, with the university president, and with documentation in the APR. The architecture programs represent a relatively small population on campus and therefore must continuously and vocally vie for funds and resources in competition with much larger NJIT schools. State support, which is a substantial part of the university's revenue, has dropped over the years and is expected to continue to decline. Selling the idea that this program has high-level technical capabilities requires a high level of consistent funding. Declining budgets have had an impact on operations as seen in the decline of IT support (2 IT Techs for 1,000 students), deferred maintenance (See 1.2.3 Physical Resources) and the crowded class and studios. As the number of students has increased, the number of advisors has stayed the same (2).

Clearly, the school's finances are tight but the college has resourcefully managed to grow programs and degrees in a time of shrinking revenues. Within the college and campus-wide, administrators are looking for alternative sources of funding—e.g. from alumni, construction materials producers, and affiliated institutions. Students have been proactively soliciting outside funding sources for their special projects.

NJIT's senior leadership strongly supports the college and its programs owing in large part to their personal relationship with the dean, and to the success of the college's community outreach programs, especially its response to Hurricane Sandy. The college rapidly developed and initiated relief programs that inspired a university-wide community service project over the spring break. As mentioned earlier, the team shares its concerns for succession planning, not least to ensure the kind of candidates that can continue to forcefully advocate for the school and maintain the support of university administration.

The financial review was based upon documents produced with a university-wide view of revenue and expenses. Architecture school revenue and expenses are not isolated in the accounting practices, at least as we were shown, so it is difficult to verify the particular financial details of the program.

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

Further, the accredited 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 and evaluative skills, and critical thinking skills necessary for professional practice and lifelong learning.

[X] Information Resources are adequate for the programs

2014 Team Assessment: The centrally located Barbara & Leonard Littman Library—the only branch library in the NJIT library system—provides faculty and students in the school and college with an exemplary and up-to-date collection, including diverse media and research services assiduously tuned to the curricular missions of all programs, including and especially the undergraduate and graduate professional programs in architecture. The library is a case study in excellence, combining effective spatial organization with accessible resources supported by a knowledgeable and attentive library staff under the guidance of director Maya Gervits, who earned widespread tributes from students and faculty for her dedication and leadership.

PART I: SECTION 3 –REPORTS

1.3.1 Statistical Reports³. 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.
 - Demographics (race/ethnicity & gender) of all students enrolled in the accredited degree program(s).
 - Demographics compared to those recorded at the time of the previous visit.
 - Demographics compared to those of the student population for the institution overall.
 - Qualifications of students admitted in the fiscal year prior to the visit.
 - 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 accredited degree program within the “normal time to completion” for each academic year since the previous visit.
 - Percentage that complete the accredited degree program within 150% of the normal time to completion for each academic year since the previous visit.
- Program faculty characteristics
 - Demographics (race/ethnicity & gender) for all full-time instructional faculty.
 - Demographics compared to those recorded at the time of the previous visit.
 - Demographics compared to those of the full-time instructional faculty at the institution overall.
 - Number of faculty promoted each year since last visit.
 - Compare to number of faculty promoted each year across the institution during the same period.
 - Number of faculty receiving tenure each year since last visit.
 - Compare to number of faculty receiving tenure at the institution during the same period.
 - Number of faculty maintaining licenses from U.S. jurisdictions each year since the last visit, and where they are licensed.

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

2014 Team Assessment: Statistical reports were provided in the APR and Annual Reports from 2009–2013 including the following elements of relevant information including: program student characteristics; demographics; qualifications of students admitted in the fiscal year prior to the visit; and time to graduation. The APR also included program faculty characteristics: demographics; and the number of faculty promoted each year since last visit. However, statistical reports regarding the following Program Faculty Characteristics were not provided: number of faculty receiving tenure each year since last visit (2008–to date); number of faculty maintaining licenses from US jurisdictions each year since the last visit (2008–2012), and where they are licensed (2008–to date). However, all faculty CVs included information about licensure and jurisdictions within which faculty members carry registration.

1.3.2. Annual Reports: The program is required to submit annual reports in the format required by Section 10 of the 2009 NAAB Procedures. Beginning in 2008, these reports are submitted electronically to the NAAB. Beginning in the fall of 2010, the NAAB will provide to the visiting team all annual reports submitted since 2008. The NAAB will also provide the NAAB Responses to the annual reports.

³ In all cases, these statistics should be reported in the same format as they are reported in the Annual Report Submission system.

The program must certify that all statistical data it submits to NAAB has been verified by the institution and is consistent with institutional reports to national and regional agencies, including the Integrated Postsecondary Education Data System of the National Center for Education Statistics.

The program is required to provide all annual reports, including statistics and narratives that were submitted prior to 2008. The program is also required to provide all NAAB Responses to annual reports transmitted prior to 2008. In the event a program underwent a Focused Evaluation, the Focused Evaluation Program Report and Focused Evaluation Team Report, including appendices and addenda should also be included.

[X] Annual Reports and NAAB Responses were provided and provide the appropriate information

2014 Team Assessment: Annual Reports, and NAAB Responses to Annual Reports were provided in the Team Room for all years since the 2008 visit.

I.3.3 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 exhibit⁴ that the faculty, taken as a whole, 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 accreditation visit.

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

2014 Team Assessment: The faculty is a strength of this school. The school intelligently draws upon a depth of well-trained and highly accomplished professionals in the New York City region. Faculty resumes contain abundant evidence of premier academic credentials, maturity, and national professional and scholarly recognition, augmented by a coherent exhibition of recent faculty work designed expressly for the team room.

⁴ 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 be appended to the APR, they are to be provided in the team room during the visit. The list is available in Appendix 3.

[X] The policy documents in the team room met the requirements of Appendix 3

2014 Team Assessment: Required policy documents meeting the requirements in Appendix 3 were included in the Team Room.

FINAL DRAFT

PART TWO (II): EDUCATIONAL OUTCOMES AND CURRICULUM**PART TWO (II): SECTION 1 – STUDENT PERFORMANCE -- EDUCATIONAL REALMS & STUDENT PERFORMANCE CRITERIA**

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.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Exam essays, papers, and didactic narrative on studio presentation boards in the undergraduate history sequence, ARCH 251, History of Architecture I, and ARCH 382, History of Architecture IV; and the comparable evidence in graduate level in Arch 529G History of Architecture II and ARCH 506G Comprehensive Design, clearly demonstrate expository skill. Meetings with officers from AIAS and Alpha Rho Chi—likewise the all-student meeting, characterized by continuous and engaged student commentaries on the programs—demonstrate notable ease and effectiveness speaking publicly in both formal and informal settings.

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.*

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The work presented for both the undergraduate and graduate programs provided evidence that supports the requirements for this SPC. ARCH 363, Architecture Studio III and ARCH 564, Comprehensive Studio II presented evidence in written, graphic, mapping, case studies and projects formats for an in-depth demonstration of a students ability. ARCH 503G, Architectural Design III, and ARCH 504G, Architectural Design IV, accomplished this thru the use of physical models, diagrams, program assessments, analytical drawings and written reports.

- 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.***

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 263 Studio I and ARCH 264 Studio II exhibit students' ability to use multiple forms of graphic representation to convey project ideas during all phases of the design project—e.g. the Canopy Design Build Project, the Urban Nexus, and the Raptor Center. The graduate ARCH 555G Architectural Graphics and ARCH 502G Architectural Design courses exhibit the students' ability to produce two-dimensional and three-dimensional drawing and projection. Both courses go hand in hand as demonstrated by the students' progress from one course to the next, for example in the programming, analysis, and design of a single family home. Both degree programs display the ability to use traditional and digital technology skills as conveyed in the undergraduate ARCH 263 and ARCH 264 studios as well as the graduate ARCH 555G Graphics and ARCH 502G Design courses. These courses also demonstrate student ability to effectively represent the integration of formal, spatial, structural, and mechanical systems in a single composition.

- 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.***

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Based on the team's review of the undergraduate ARCH 323 Construction II and ARCH 564 Comprehensive Studio II, and the graduate ARCH 542G Construction II and ARCH 506G Comprehensive Studio, students exhibit technical ability in clear drawings and models, appropriately integrating and notating building systems and components. Work from ARCH 564 shows highly developed designs with clear diagrams. Projects from ARCH 506G show clear integration of structure, building materials, and components. Projects thoroughly explore a range of building materials and systems. The tests in the Construction II courses align with some of the of the Architecture Registration Exam (ARE) topics. Indication of the development of outline specifications is absent. The team's single concern is that references to outline specifications were not found in the referenced materials.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Both written and graphic documentation from undergraduate ARCH 472 Programming and Project Development, and graduate ARCH 506G Comprehensive Design consistently demonstrate the ability to investigate information related to the social, cultural, typological, and environmental context of design problems at multiple scales. Most presentations include substantive programmatic analysis based on both empirical data and interpretation.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The team's assessment for these criteria incorporate review and evaluation of the undergraduate ARCH 263 Studio I and ARCH 264 Studio II, and the graduate ARCH 501G Architectural Design I and ARCH 502G Architectural Design II. The courses' goals are to integrate design knowledge and communication skills, building on previous studio efforts; and to integrate building systems, as well as architectural history and theory. Students exhibited *exceptional* ability through research papers, graphic analysis of existing buildings, the production of models and study sketches, and in computer-generated design projects.

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.*

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Student projects from the undergraduate ARCH 363 and 364 Design Studios III and IV, likewise graduate ARCH 503G Studio II and 506G Comprehensive Studio, incorporate urban and architectural precedents in both their analysis and composition of design solutions.

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.*

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The team based its evaluation on work displayed in the team room and throughout the public spaces of the school, in particular undergraduate ARCH 263 Studio I and ARCH 564 Comprehensive Design II, and the graduate design studio ARCH 501G. Studio projects exhibit multi-faceted diagrams that indicate thorough emphasis on ordering systems in the design process.

Sketches, models, and formal diagrams clearly display the value placed on ordering systems at the levels of site, floor plans, massing and functional layering.

- 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.**

**B. Arch
[X] Met**

**M. Arch
[X] Met**

2014 Team Assessment: In the research papers, exam essays, and design projects flowing from undergraduate ARCH 252 History II and ARCH 564 Comprehensive Studio II, likewise graduate ARCH 528G and graduate non-Western history/theory “selectives,” adequately exhibit content that documents substantive engagement with diverse cultural and theoretical traditions, including the analysis of indigenous and vernacular formal and spatial systems, among other factors. Other courses in the required curriculum—in particular foreign study courses featuring work in India and other non-Western countries—enrich student understanding of the cultural and geographical context of space and form.

- 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.**

**B. Arch
[X] Met**

**M. Arch
[X] Met**

2014 Team Assessment: The team based its evaluation on undergraduate ARCH 381 History III, ARCH 364 Studio IV, and ARCH 558 Professional Practice; and on graduate ARCH 662 History/Theory Selective and ARCH 579G Professional Practice. Studio projects focused on public sector buildings located both in the NJIT region and abroad, gave students the opportunity to compare and contrast cultural practices and conventions. Classes on European and non-western history inform the design process with historical precedents. A growing number of foreign study programs, including studios in India and Italy, add rich cultural diversity to the course offerings. The professional practice courses present the architect’s responsibility under the Code of Ethics and requirements of building and zoning codes.

- A.11. Applied Research: *Understanding* the role of applied research in determining function, form, and systems and their impact on human conditions and behavior.**

**B. Arch
[X] Met**

**M. Arch
[X] Met**

2014 Team Assessment: Diverse coursework in both the undergraduate and graduate programs—Arch 229 Structures I, Arch 548G Structures I, Arch 548G Structures II, as well as the history and required design studio sequence—exhibited substantive understanding of applied research in the social, cultural, and technical domains of building design. In particular, comprehensive design studio projects included thorough documentation of the social, cultural, historical, and technical factors that influenced building composition.

Realm A: Critical Thinking and Representation. General Team Commentary: The intellectual and graphic content of student work in required courses at both the graduate and undergraduate level exhibits sustained engagement with defining vocabularies of architectural production and built environments, within both an empirical and analogical framework. There is virtually no trivial work in either the high or low pass spectrum. Throughout the curriculum, both introductory and advanced courses consistently produce outcomes that exhibit deep respect for the relationship between ideas, facts, information, and form.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Graphic analysis, succinct narrative, and quantitative analysis in undergraduate ARCH 364 Studio IV and ARCH 472 Programming and Project Development, and in graduate ARCH 502G and ARCH 569G Building & Development, sufficiently demonstrate the ability to thoroughly review programmatic needs, goals, constraints, and requirements, including space, equipment, zoning, codes, and other factors.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Student work on display indicates the students' understanding of site, facilities, and systems designs providing for independent and integrated use by individuals with physical, sensory, and cognitive disabilities. This understanding was prevalent in work on display produced by both B. ARCH and M. ARCH students.

- 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.**

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The evidence reviewed indicates that sustainability is a core principle of the undergraduate curriculum. ARCH 227, ARCH 364, ARCH 423 and ARCH 564 build upon each other to provide well thought out design projects. The projects demonstrate the complex decision making process a student uses in producing a project. The graduate curriculum provided evidence in ARCH 506G which meets the minimum standard.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Evidence of this criterion was found in ARCH 563 Comprehensive Design Studio I. Evidence was found in ARCH 506G Comprehensive Design

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Two team members paid especially close attention to this criterion, and doubled efforts to identify the application of life safety fundamentals in studio work, within and beyond courses identified in the APR. Undergraduate ARCH 354 Studio IV and ARCH 564 Comprehensive Studio II satisfactorily demonstrated life safety principles, including places of refuge, distance from fire

stairs, fire stair location and design, and appropriate means of safe egress. This was likewise the case in graduate ARCH 506G Comprehensive Design.

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.7. Environmental Systems

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

B.9. Structural Systems

B.5. Life Safety

**B. Arch
[X] Met**

**M. Arch
[X] Met**

2014 Team Assessment: The work exhibited in the team room, around the school, and within the Kepler system is comprehensive, thoughtfully prepared, and well exhibited. Student research in preparation for studio work is consistently and thoughtfully integrated into both final compositions and final presentations. Project after project exhibited extensive use of diagrammatic analysis to augment traditional representations of building and site conditions, with an emphasis on sections that clearly address the structural, thermal, environmental, and spatial organization of buildings. Evidence of other supportive course work, such as Construction, Environmental Control Systems, and History, also populates the work. Projects optimized rather than exploited digital graphics and imaging technology, which students clearly used to articulate rather than obscure the content and reasoning behind mature design solutions.

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.*

**B. Arch
[X] Met**

**M. Arch
[X] Met**

2014 Team Assessment: Test results in ARCH 423 for the B. Arch program, and in ARCH 569G for the M. Arch. program, indicate student's understanding of financial considerations for projects.

- 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.**

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The use of analytical drawings, design projects and testing, in the undergraduate ARCH 327, ARCH 563, and the graduate ARCH 506G and ARCH 543G provide a full range of evidence that the student's knowledge met the standards.

- 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.**

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: A well-crafted sequence of courses for both the undergraduate and graduate curricula demonstrate a high level of understanding by the students. ARCH 429, ARCH 564, ARCH 545G and ARCH 548G use term projects, assignments, quizzes, tests and final exams to demonstrate the desired learning outcomes. The graduate comprehensive course further demonstrates the student's knowledge with their TIMBER project.

- 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.**

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 323 and ARCH 423 use a variety of methods to communicate the learning objects and produce measurable outcomes by using building X-rays, systems integration, projects, and lecture feedback reports. The graduate ARCH 543 uses design problems, quizzes, and exams to provide the evidence.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: Student work from ARCH 323, Construction II, of the B. Arch. program, and in ARCH 544G of the M. Arch program exhibited understanding of 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.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: ARCH 423 Construction III contains evidence that students understand the integration of building systems and their impact on undergraduate curriculum; evidence in ARCH 502G Architectural Design II contains evidence that the undergraduate curriculum meets this criteria.

Realm B: Integrated Building Practices, Technical Skills and Knowledge. General Team

Commentary: The intellectual and graphic content of student work in required courses at both the graduate and undergraduate level exhibits sustained engagement with the defining vocabularies of architectural production and built environments, within both an empirical and analogical framework. There is virtually no trivial work in either the high or low pass spectrum. Throughout the curriculum, both introductory and advanced courses consistently produce outcomes that exhibit deep respect for the translation of diverse logics of composition into corresponding logics of construction, material assembly, and building performance, in a manner consistent with the principles and requirements of the ADA, energy conservation, ecological integrity, codes and zoning, and the health, safety, and well-being of the public.

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.*

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 264 Studio II and ARCH 364 Studio IV involve group projects and competitions, such as the India Educational Center and masonry competition. The masonry competition not only allows students to work in collaborative groups, but also encounter professionals such as contractors who are a part of the construction day. The graduate ARCH 506G Comprehensive Design Studio featuring the design of multi-unit housing requires student groups to collaborate in the research of appropriate materials, wall systems, and mechanical and environmental systems. Additional evidence of effective collaboration can be found in the design outcomes of the Solar Decathlon and Habitat for Humanity projects.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 364 Studio IV and ARCH 382 History of Architecture IV allows students to observe the traditions of other cultures in the context of design projects located in non-Western countries (e.g. India)—programming for these projects involves the study and analysis of family, social, and community customs and conduct. The graduate ARCH 529G History of Architecture II requires research and presentations that analyze human interactions with built and natural environment and the impact of these environments on human well-being, e.g. “Healing: The Hospital as a Machine for Healing.” ARCH 504G Arch Design IV researches civic architecture and the relationship between human behavior and the built environment. The undergraduate ARCH 364 Studio IV and the graduate M Arch 529G History course require students to observe and interpret how people interact with diverse built and natural environments.

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.*

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The responsibility of the architect to elicit, understand, and reconcile the needs of the client, owner, user groups, and the public and community domains is covered in ARCH 558, Professional Practice, for the B. Arch. and ARCH 579G, Professional Practice, for the M. Arch and evidenced by student tests.

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

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate criterion is met in ARCH 558 Professional Practice, through exams and quizzes. The graduate criterion is met in ARCH 579G Professional Practice, through exams and final project.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 559 Professional Practice and the graduate ARCH 579G Professional Practice cover with great detail the topics of contracts, codes, risk management, and current practice conditions. The classes cover a great deal of information in effective and efficient way. Additionally, ARCH 579G Professional Practice includes a unique project that requires students to produce a response to a Request for Qualifications. However, missing from the documentation is evidence that students sufficiently understand of financial management, business planning, and time management.

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.

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 558 Professional Practice introduces students to the way in which an architecture firm operates and many technical terms and processes encountered inside practice. Students exercised their command of the principles, nomenclature, and vocabulary of practice in exams. ARCH 472 Programming and Project Development calls for students to develop their group business plan for a firm focusing on architectural practice, which includes firm organization, hierarchy, and accountability. Graduate ARCH 569G Building and Development calls for the development of a business proposal for an architecture firm. 579G Professional Practice calls for the development of a project bid proposal. Both projects challenge the students to take on the mindsets of the leadership within a firm. Both programs contain well met criteria due to the Professional Practice and Building and Development coursework, allowing students to create their own architecture firms

and bid proposals for projects. Abundant evidence documents student involvement in the college's response to Hurricane Sandy, which included the formation of campus-wide teams that deployed to communities in need.

- 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.***

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The professional practice instructor presented power points, emailed IDP registration forms and course material presented in ARCH 558, Professional Practice, for the B. Arch., and in ARCH 579G, Professional Practice, for the M. Arch., providing students with an understanding of the architect's responsibility to the public and the client as determined by registration laws, building codes and regulations, professional service contracts, zoning and subdivision ordinances, environmental regulations, historic preservation and accessibility laws. Student test results exhibit evidence of that understanding.

- 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.***

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment Projects, writing assignments, in-class activities and exam questions and answers in undergraduate ARCH 472 Programming and Project Development ARCH 558 Professional practice, as well as graduate ARCH 579G Professional Practice, clearly demonstrate understanding of the full ethical compass of architectural design and practice.

- 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.***

B. Arch
[X] Met

M. Arch
[X] Met

2014 Team Assessment: The undergraduate ARCH 264 Architectural Studio II and ARCH 364 Architectural Studio IV challenge students to engage the community during the preliminary phases of the design process. Two projects in particular exhibit strength in the area: the Path Station project and

India Educational Center project. The graduate ARCH 504G Grad Design IV Civic Architecture project challenges students to consider the widest audience possible that must serve the individual while also serving a group. This project focused on public interest architecture and citizenship. In both programs, ample evidence demonstrated that students understand the public impact of design intervention. Community engagement factors significantly in the preliminary research and site analysis for projects in undergraduate ARCH 264 and 364 studios, and graduate 504G design course. The team again notes the skill with which students responded to relief efforts following Hurricane Sandy, and their work on projects in service to Habitat for Humanity.

Realm C: Leadership and Practice. General Team Commentary: For the most part required coursework and its outcomes demonstrate handily at all levels in both programs. Above and beyond these criteria, however, the team wishes to note that faculty and student participation in extra-curricular community service projects related to recovery from Hurricane Sandy demonstrate a commitment to ethics, social responsibility, and the public good that *well exceeds* minimum expectations and requirements for professional accreditation. Their service to the university and the State of New Jersey during this period, their work with Habitat for Humanity, and their choice of projects in required studios at other times within the time under review embody principles and requirements at the very heart of Realm C, lived and practiced as much as learned and taught.

PART TWO (II): SECTION 2 – CURRICULAR FRAMEWORK

II.2.1 Regional Accreditation: *The institution offering the accredited degree program must be or be part of, an institution accredited by one of the following regional institutional accrediting agencies for higher education: the Southern Association of Colleges and Schools (SACS); the Middle States Association of Colleges and Schools (MSACS); the New England Association of Schools and Colleges (NEASC); the North Central Association of Colleges and Schools (NCACS); the Northwest Commission on Colleges and Universities (NWCCU); and the Western Association of Schools and Colleges (WASC).*

[X] Met

2014 Team Assessment: The Middle States Commission on Higher Education accredits NJIT. The APR includes a letter from this regional accreditor to the university, dated June 29, 2012, reaffirming this accreditation, with the next Periodic Review Report due June 1, 2017.

II.2.2 Professional Degrees and Curriculum: *The NAAB accredits the following professional degree programs: the Bachelor of Architecture (B. Arch.), the Master of Architecture (M. Arch.), and the Doctor of Architecture (D. Arch.). The curricular requirements for awarding these degrees must include professional studies, general studies, and electives. Schools offering the degrees B. Arch., M. Arch., and/or D. Arch. are strongly encouraged to use these degree titles exclusively with NAAB-accredited professional degree programs.*

[X] Met

2014 Team Assessment: The undergraduate and graduate curricula for the professional B. Arch and M. Arch degrees meet the standards, expectations, and criteria established for degree nomenclature, content, and course distribution.

II.2.3 Curriculum Review and Development

The program must describe the process by which the curriculum for the NAAB-accredited 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 licensed architects are included in the curriculum review and development process.

[X] Met

2014 Team Assessment: Evidence in the APR confirms that the New Jersey School of Architecture (NJSOA) B.Arch. and M. Arch programs have a curricular review and development process in place that includes identification, development, approval, and implementation. The Curriculum Committee established in May 2012 is composed of 14 members, including coordinators of design studio years, B.Arch. and M. Arch degree programs, four elected faculty members, and the School Director (who serves ex-officio). Nine members of the committee are registered architects. The committee's composition and activities were confirmed through meeting with the Curriculum Committee during the visit.

The predecessor *ad hoc* Coordinator's Committee that met 2008–2012 developed the revised B.Arch. and M. Arch programs currently in place.

PART TWO (II): SECTION 3 – EVALUATION OF PREPARATORY/PRE-PROFESSIONAL EDUCATION

Because of the expectation that all graduates meet the SPC (see Section 1 above), the program must demonstrate that it is thorough in the evaluation of the preparatory or pre-professional education of individuals admitted to the NAAB-accredited degree program.

In the event a program relies on the preparatory/pre-professional 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 accredited degree program. This assessment should be documented in a student's admission and advising files.

[X] Met

2014 Team Assessment: School and college administrators provided files that permitted team members to assess and verify the appropriate evaluation of applications from students with preparatory and pre-professional academic experience and degrees.

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PART TWO (II): SECTION 4 – PUBLIC INFORMATION

II.4.1 Statement on NAAB-Accredited Degrees

In order to promote an understanding of the accredited professional degree by prospective students, parents, and the public, all schools offering an accredited degree program or any candidacy program must include in catalogs and promotional media the exact language found in the 2009 NAAB Conditions for Accreditation, Appendix 5.

[X] Met

2014 Team Assessment: The team verified the appropriate inclusion of NAAB-approved and required language in all program catalogs and promotional media.

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 2009 NAAB Conditions for Accreditation

The NAAB Procedures for Accreditation (edition currently in effect)

[X] Met

2014 Team Assessment: The school provides PDFs of the *2009 NAAB Conditions for Accreditation* and the current edition of *NAAB Procedures for Accreditation* on its website, which also includes links to additional helpful information and resources of value to students, parents, and the public.

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 accredited degree programs, the program must make the following resources available to all students, parents, staff, and faculty:

www.ARCHCareers.org

The NCARB Handbook for Interns and Architects

Toward an Evolution of Studio Culture

The Emerging Professional's Companion

www.NCARB.org

www.aia.org

www.aia.org

www.acsa-arch.org

[X] Met

2014 Team Assessment: The school provides all these links on the following page of the school website: <http://architecture.njit.edu/students/naab.php>

II.4.4 Public Access to APRs and VTRs

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

All Annual Reports, including the narrative

All NAAB responses to the Annual Report

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 websites.

[X] Met

2014 Team Assessment: The college library offers students and faculty a well-organized, dedicated, and easily accessible area set aside for the required documentation. The collection includes past Annual Reports, APR's, and VTR's, including past course documentation, dating back into the 1980's.

II.4.5 ARE Pass Rates

Annually, the National Council of Architectural Registration Boards publishes pass rates for each section of the Architect Registration Examination by institution. This information is considered to be useful to parents and prospective students as part of their planning for higher/post-secondary education.

Therefore, programs are required to make this information available to current and prospective students and their parents either by publishing the annual results or by linking their website to the results.

[X] Met

2014 Team Assessment: The school provides ARE Pass Rates on the following page of the school website: <http://architecture.njit.edu/students/naab.php>.

III. Appendices:

1. Program Information

[Taken from the *Architecture Program Report*, responses to Part One: Section 1 Identity and Self-Assessment]

A. History and Mission of the Institution (I.1.1)

Reference New Jersey Institute of Technology *APR*, pp. 1-3

B. History and Mission of the Program (I.1.1)

Reference New Jersey Institute of Technology, *APR*, pp. 3-10

C. Long-Range Planning (I.1.4)

Reference New Jersey Institute of Technology, *APR*, pp. 24-25

D. Self-Assessment (I.1.5)

Reference New Jersey Institute of Technology, *APR*, pp. 25-27

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2. Conditions Met with Distinction

I.1.3 Response to the Five Perspectives

E. Architecture and the Public Good

Team comment: Six hundred NJIT students gave up spring break to work with college programs to assist the New Jersey community in their recovery after Hurricane Sandy. In its academic and institutional response and in its readiness and capability to help, the college demonstrated extraordinary leadership and exemplary citizenship. The college skillfully leveraged its resources around the long-term needs of New Jersey through the establishment of the Center for Resilient Design, which multiplied the value of volunteer efforts, offering both the state and the nation a clearinghouse for research and best practices related to disaster response and mitigation. The exceptionally strong student participation in the visit underscored the full meaning of Dean Urs Gauchat's assertion that "we create citizens," a sentiment echoed by President Joel S. Bloom and Provost Fadi P. Deek in their assessment of the college's value to the university. Over and over again the team encountered palpable evidence that engaged citizenship and other-centered service are core values of professional education at in NJIT's College of Architecture and Design.

I.1.4 Long-Range Planning

For "Smart Design, Smart Technology: Academic Plan 2012–2017"

Team comment: This 57-page college report offers its readers and constituents a clinic in effective strategic planning discourse—clear, concise, convincing, well-documented, and well-illustrated, with visually effective data and information, refreshingly pragmatic and free from either pretense or conceit.

I.2.3 Physical Resources (partially met with distinction)

For the design and operation of the Barbara & Leonard Littman Library

Team comment: The college library (the only branch library in the university) is spacious, well lit, well furnished, superbly managed, and generously equipped. Diverse media resources and an inspiringly attentive staff provide faculty and students with exceptional support for twenty-first century design education, of immeasurable value to students in the undergraduate and graduate professional degree programs.

II.1.1 Student Performance Criteria met with distinction:

A.3. Visual Communication Skills

A.6 Fundamental Design Skills

A.8 Ordering Systems Skills

B.3. Sustainability

B.6 Comprehensive Design (B.Arch. only)

B.9 Structural Systems

3. The Visiting Team

Team Chair, Representing the ACSA
Daniel S. Friedman, Ph.D., FAIA
University of Washington
College of Built Environments
Department of Architecture
Seattle, WA 98195
(206) 902-7102 office
(708) 306-0255 mobile
dsfx@uw.edu

Representing the AIA
Susan Pruchnicki, FAIA, LEED®AP
Principal
Bond Wolfe Architects
222 S. Central Avenue
Suite 100
St. Louis, MO 63105
(314) 863-4994
(314) 869-4996 fax
spruchnicki@bondwolfe.com

Representing the AIAS
Jennifer L. Taylor, Assoc., AIA
Vice President 2013-2014
The American Institute of Architecture Students
1735 New York Avenue, NW
Washington, DC 20006
(202) 626-7473
jennifertaylor@aias.org

Representing the NCARB
James K. Zahn, Esq.
Sabo & Zahn
401 N. Michigan Avenue
Suite 2050
Chicago, IL 60611
(312) 655-8620
(312) 655-8622 fax
jzahn@sabozahn.com

Representing the ACA
David Biagi, Director
School of Architecture
College of Design
Univeristy of Kentucky
Lexington, KY 40506
(859) 257-7617
dbiagi@uky.edu

Non-voting team member
Stephen White, AIA, Dean
Roger Williams University
School of Architecture, Art & Historic
Preservation
One Old Ferry Road
Bristol, RI 02809
(401) 254-3681
(401) 251-3565 fax
swhite@rwu.edu

IV. Report Signatures

Respectfully Submitted,

Daniel S. Friedman, Ph.D., FAIA
Team Chair

Representing the ACSA

Susan Pruchnicki, FAIA, LEED® AP
Team member

Representing the AIA

Jennifer L. Taylor, Assoc., AIA
Team member

Representing the AIAS

David Biagi
Team Member

Representing the ACSA

Stephen White, AIA

Non-voting member