

**Montana State University
School of Architecture**

Visiting Team Report

Master of Architecture (undergraduate degree plus 42 graduate credit hours)

The National Architectural Accrediting Board
9 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

The 2014 NAAB accreditation team wishes to thank the Montana State University administration, President Waded Cruzado, Dean Nancy Cornwell, Interim Director Steve Juroszek, and the entire faculty, staff, and students of the School of Architecture for their hospitality during this accreditation visit. Thank you for the many hours of preparation for the visit.

The School of Architecture at Montana State University occupies a particular role as the only accredited school of architecture in Montana. It has the respect of the university, the students, the alumni, and the profession. The architecture program captures the environmental and social context of Montana and surrounding western states.

The visiting team noted the following strengths of the School of Architecture:

a. Leadership

The team was highly impressed with the leadership and organizational skills of Interim Director Steven Juroszek. Director Juroszek has had to step into the role of interim director twice in the last seven years. The first time was in 2007 when the then-current director left to take another position. He served in the position until 2009 when a new director was appointed. In 2011, the new director stepped down to join the faculty, and Steve was again asked to step in as interim director. Each term of interim directorship has required that he steady the course of the program, prepare the APRs and successfully orchestrate the 2008 and 2014 re-accreditation process and visiting team visits.

Steve's administration, which also includes graduate coordinator Chris Livingston and undergraduate coordinator Chere LeClair, coupled with a strong school staff provide substantial support for faculty and students. Students clearly praised Rachel Ortego, director of student services for her performance and assistance.

The administration, faculty and staff handle the admissions process for both the undergraduate and graduate programs very well. The use of required portfolios to enter into second year and the graduate program are very strong in verifying objectives and assessing the various levels of the program.

b. Faculty/Students/Staff

The students show a tremendous amount of discipline, engagement, and dedication to the profession. They are bonded closely between the different years of studio, sharing and contributing to one another's growth. Students demonstrate strong leadership skills and a sense of community within the school, community, and profession. The relationship between faculty, staff, and students is supportive and respectful. The team observed a collegial and supportive learning environment. Comments from faculty, staff, and students reinforce this culture.

C. Connection to the profession

The School of Architecture has a very strong connection with the alumni of the school and with the professionals in Bozeman and surrounding areas. The Montana Board of Architects and Landscape Architects meets once a year in the School of Architecture and all students are invited to attend this public meeting. Similarly the AIA Montana meets at the school every two years, and students are also invited to participate. The Professional Practice class and the link of school professors to both the Montana regulatory board and the AIA have been an asset to the students who, through these models, adopt a professional attitude in their work. These professionals also help students prepare their résumés, mock-interviews and provide employment.

d. Professional practice preparation

The syllabus and the assignments of ARCH 313: Professional Practice merits recognition of the teaching faculty. The selection of readings for the class and the variety of projects selected to impart knowledge of the profession to students are broad in scope and deep in understanding.

e. Advisory Council

The school formed an outside Advisory Council in 1996 initially consisting of alumni architects. Currently the council includes nearly 40 members made up of alumni and non-alumni architects and industry representatives. The council is active in financial support to the school, including AIAS. It has been instrumental in establishing and funding a number of endowments. The council is active in advising students, conducting lectures and studio critiques, and providing internships.

f. Building Construction

ARCH 241 Building Construction I and ARCH 340 Building Construction II exhibits demonstrated thorough documentation of construction systems and assemblies through wall sections, sections of foundation/wall/roof intersections, systems perspectives and models of building envelope examples. Graphic and model exhibits were supplemented by booklets showing building products and product/materials assemblies, photographs of wall systems and research on BIM.

g. Community engagement

The School of Architecture demonstrates excellence in community engagement in a number of ways. Students are involved in community-engaged work through required courses, such as ARCH 313: Professional Practice, where they reach out to various communities in the region to address community needs. The Sourdough Rural Fire Station project, Ennis North 40 playground design, Eagle Mount master plan, and Khumbu Climbing Center exemplify the program's commitment to community engagement. Beyond these, students take advantage of optional studios and leadership opportunities through the Community Design Center, design-build studios, and the AIAS. The AIAS has been particularly engaged in the community through its mentorship program, "Expanding Horizons," Girl Scouts project, and homeless shelter design charrette led by Architecture for Humanity's Cameron Sinclair. The program clearly equips students with skills to make a substantial, positive impact in local and global communities.

2. Conditions Not Met

B.6 Comprehensive Design

3. Causes of Concern

a. Leadership and Faculty Stability

1. Interim Director: The team is very concerned that since the last visit there has been interim leadership and that this situation continues. The College of Arts and Architecture has a new dean in place and now movement should be made by the school, college and university to seek and name a permanent director of the school.

2. Faculty turnover: The school enjoys a cadre of 18 full-time faculty. The majority of the faculty has been here for many years and over time will be considering retiring. Three junior faculty are leaving at the end of this academic year to pursue other opportunities. The dean has authorized the hiring of three replacements, and two have already signed contracts. A third is in the negotiating process. The team encourages the administration of the college and the university to continue to support the influx of new junior faculty as senior faculty retire.

3. Succession planning: While the school enjoys long tenure from a number of key faculty, there is a concern the school may not be prepared for any departures. Importantly, these faculty members provide instruction in many of the core subjects and studios. Any departures, especially unforeseen or short term, could detract from

education quality until satisfactory replacements are made. The school is encouraged to create a succession plan complete with action steps and, if possible, identification of potential candidates.

b. Opportunity for additional digital instruction

Students have access to 12 computer laboratories housing over 379 computers within the university, but no computer laboratories within the School of Architecture. There is an understanding that students are required to purchase and bring their own computers with the necessary software. Students are introduced to a minimal amount of instruction on these computer programs, but students have expressed a concern for additional computer education.

c. Safety in the shop

The team notes that the program has reduced the number of student workers who assist in the operation of the woodshop, an integral component to the production of student work, ranging from full-scale furniture and architectural products to smaller-scaled architectural models. This reduction in student workers has resulted in reduced hours of operation for the woodshop and a reduction in supervision when the shop is open. This particular cause of concern carries with it implications for student health, safety, and welfare, as a reduction in staff could increase the potential for serious accidents and injury. The team notes, however, that the shop maintains policies and procedures for safety, shop safety training for students, safety equipment such as ear plugs and safety goggles, and shop equipment with safety features, such as Saw Stop table saws. This cause of concern is one of staffing capacity, not of policies, procedures, or equipment.

d. Accessibility

Accessibility, although met, is an area the school should strengthen. As part of the building codes, projects must be able to demonstrate that they can accommodate the needs of individuals with physical, sensory, and cognitive disabilities. While the work of ARCH 340 – Building Construction II showed evidence of this ability, the work in other courses showed a marginal development of accessible design.

e. Sustainability

The school and the students are very aware of the principles of sustainability. Environmental Controls classes show a good understanding of these principles, and the student projects show knowledge of the complex and innovative systems in use. Some of the students are actively involved in the USGBC school chapter along with the engineering students. Although there was evidence that this criterion was met, the visiting team would have expected this knowledge to be shown consistently in all work after the subject was introduced to the students, starting with the basic principles of sustainability such as building orientation and solar controls. The relationship between the architectural and engineering students through the USGBC chapter lends itself to interdisciplinary projects. There was no evidence that this relationship has been fully taken advantage of.

4. Progress Since the Previous Site Visit (2008)

2004 Condition 8, Physical Resources: *The accredited degree program must provide the physical resources appropriate for a professional degree program in architecture, including design studio space for the exclusive use of each student in a studio class; lecture and seminar space to accommodate both didactic and interactive learning; office space for the exclusive use of each full-time faculty member; and related instructional support space. The facilities must also be in compliance with the Americans with Disabilities Act (ADA) and applicable building codes.*

Previous Team Report (2008): The majority of lecture and studio courses are held in Cheever Hall, a 1970's building with a mix of classroom, studios spaces, and well-proportioned circulation and informal gathering spaces; some spaces in the building are shared or used by other Colleges at MSU. The building has recently moved to year-round use with the addition of the summer semester resulting in reduced available time for maintenance and an increased occupancy load making the lack of air conditioning an issue. Recent serious roof leaks in Cheever Hall appear to have been addressed and although needed interior maintenance resulting from the leaks is still outstanding, the school staff has developed a positive working relationship with the university's facilities maintenance department. The University Space Management Committee assigns colleges spaces in existing university buildings and space allocation within the colleges is negotiated among the dean and college directors. The provost indicated that no new state-funded university buildings were planned for the next 10 years. However capital projects could be planned and funded through development efforts within the individual colleges.

The first-year studio spaces are housed in the basement of Romney Gym, a circa 1920's building, that are not accessible nor did we find evidence of short or long term plans to make them accessible; this is the primary cause for this criterion being un met but there is a second cause for concern. Accessibility within Cheever Hall is minimally compliant with ADA requirements.

With the addition of a summer semester a positive spirit of space use resourcefulness has been adopted to absorb the increased enrollment; the strength of this approach will continue to be tested as the full implementation of the program expansion takes hold. Although options for addressing the spatial requirements of the planned increases to the student and faculty populations are being discussed between college and the provost, neither a plan for addressing these pressing spatial needs nor the required accessibility modifications to existing buildings to bring them into compliance are in place. Additional students and faculty are being added to a program that is already over using the space available to it.

The team is concerned that the absence of planning to address the anticipated shortfall of offices for full time faculty, studio spaces for upper level studios, or accessible first year studios and this could severely impact the school's ability to function.

2014 Visiting Team Assessment: This condition is now met. The university has made significant changes to address the physical resource deficiencies delineated in the 2008 VTR. A FEMA-supported seismic retrofit of Cheever Hall provided the program with additional daylight and upgraded finishes in some areas. All studios are now housed in the same building, assisted in large part by moving the Creative Arts Library into the Renne Library building and freeing up space for the graduate studio. The program's only space not in Cheever Hall now is the Integrated Design Lab, consisting of a faculty member and two student researchers; however, the program plans to bring the IDL into Cheever Hall following renovations to the Community Design Center's spaces. Accessibility has been addressed by the addition of a two-story, four-stop elevator with doors on two sides to accommodate the half levels integral to Cheever Hall.

2004 Criterion 13.22, Building Service Systems: *Understanding of the basic principles and appropriate application and performance of plumbing, electrical, vertical transportation, communication, security, and fire protection systems*

Previous Team Report (2008): The basic principles and appropriate application and performance of plumbing, electrical and fire protection systems were covered in core classes and demonstration of understanding of these was evident in exhibits from the graduate level studios. Although a couple of specification book projects from Arch 440 did include a section on alarm systems and communications, we could not find evidence of exploration or understanding of these systems in the exhibits or course work of classes intended to cover them (Arch 241, Arch 331, Arch 332).

2014 Visiting Team Assessment: This criterion is now met. The team found sufficient evidence for the program's meeting this criterion in ARCH 331 and 332: Environmental Controls I and II, respectively.

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

[X] The program has fulfilled this requirement for narrative and evidence

2014 Team Assessment: History: The School of Architecture is one of four schools in the College of Arts and Architecture; the other four being Music, Art, and Film and Photography. With recent changes in the university, the college and the School of Architecture, there has been much work developing a strategic plan that would reflect the mission and vision of the school, and how it can support that of the college and the university.

Mission: The school offers a Bachelor of Arts in Environmental Design, and a 168-credit professional degree, Master of Architecture. The school states that its mission is to “empower students to critically engage the complexities of society and the natural environment by instilling the fundamental principles of design and inspiring a spirit of exploration and creative experimentation in the build environment.” This mission is expressed in the strong design curriculum (11 design studios) that are required for the Master of Architecture degree, and the opportunities provided the students to explore courses such as “design-build,” CDCs,” internships, study abroad programs, etc. Work of all these courses was exhibited in the team room and illustrated a big involvement in the community.

Relationship between the program, the administrative units and the institution: During our visit we were able to observe some of the work the school is doing to identify the alignment between the vision of the school and that of the university. The students are engaged in this process by posting their comments on boards displayed in public spaces, where they suggest action goals for the school to meet the university’s vision and mission through six identified cores: Learning, Discovery, Engagement, Integration, Access and Stewardship.

Benefit of Program to the Institution: The School of Architecture is the only school that provides a professional degree in the state of Montana. Its course of study provides a good balance between the practical training required for licensure, general liberal arts studies, and community leadership and engagement.

1.1.2 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 program has demonstrated that it provides a positive and respectful learning environment.

[X] The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work.

2014 Team Assessment: The program has demonstrated that they provide a highly positive and respectful learning environment. Although the Studio Culture Policy is clearly made available, and its ideals are being implemented throughout the program, only about half of the students knew what it was when asked. The program has demonstrated that it provides a culturally rich environment in which each person is equitably able to learn, teach, and work. The MSU counseling center and psychological services were offered during the tragic event of a student’s suicide last year.

The AIAS student organization has a strong presence in the school, and a large level of commitment and engagement among the students. University policies and procedures on social equity are clearly stated and available to the public. Although there is little diversity within the state of Montana, the School of Architecture has identified a strategy in the school’s strategic plan to increase the number of international transfer articulation agreements. While the increase in student diversity has been modest, it is present. Gender diversity among students remains dominantly male. The school has noted that hiring more women faculty should increase the female student population.

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 program is responsive to this perspective.

2014 Team Assessment: The School of Architecture is one of four units in the College of Arts and Architecture. Through APR documentation and discussions with faculty, all full-time faculty is required to maintain a full service load that contributes to the overall mission of the university. Architecture faculty has played a prominent role on a number of important university and college committees. In addition to serving on college and university committees, the school has maintained an active presence in the President’s Fine Arts series, an annual series of events that showcases the unique creative and research accomplishments of the creative disciplines.

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

The school has also hosted a number of national and international conferences and will continue to do so. The 2015 Design Communication Association conference is scheduled to be held in the school in 2015.

The school offers four university core courses. Students take courses in business, photography, arts and humanities, and approximately 25% work on minors while pursuing their architecture degree. Faculty from other disciplines is invited to participate in studio reviews. The Community Design Center offers work that involves students from other disciplines. Many of the architecture students, approximately 10-15%, are enrolled in the university Honors Program, and many of the architecture faculty has co-taught courses in the program.

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 program is responsive to this perspective.

2014 Team Assessment: A wide range of student opportunities is available in the school and the university. Students can attend AIA Montana meetings. The Advisory Council helps support student participation in AIAS activities by providing financial support for scholarships, travel and meeting participation. Thirty-nine percent of students participate in university and nonuniversity organizations ranging from community not-for-profit organizations to university extracurricular activities. Foreign travel involving local project work is integral. Internship options include working abroad. Field trips are incorporated in each year. The school is one of the charter schools forming the AIAS Northwest and Pacific Region Student Leadership Institute. Communications with students are extensive including “All School Meeting,” being invited to attend faculty meetings, participating in curriculum development and use of “Degree Works” software for students to track their degree progress. Regular review weeks are conducted to allow open dialogue with faculty on project development, and the open studio culture offers open exchange with faculty and other students daily.

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 program is responsive to this perspective.

2014 Team Assessment: Through conversations with faculty, and subsequent visits to the team room, the visiting team was able to confirm that the architecture program provides the preparation required for the transition to internship and eventual licensure.

Students get the benefit of sessions where they are taught how to write their résumé, present their portfolios and have mock-up interviews with potential employers through the engagement of the school with the professional community. In addition, one faculty member is on the State Board for Architectural Registration and educates the students on the requirements for the practice of architecture in the state of Montana and reciprocity with other states and Canada.

An IPD educator coordinator introduces the program in the first year of school and follows up in the fourth year in the Professional Practice class. The school pays for students who register for IDP while enrolled in ARCH 498 Internship, and over half of the students are enrolled before graduation.

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 program is responsive to this perspective.

2014 Team Assessment: The program prepares students for diverse, global, and collaborative professional practice through a range of curricular and co-curricular strategies and tactics. The program benefits from being the only accredited architecture program in Montana, bringing to Bozeman the state AIA conference biannually; attracting local and regional practitioners as guest critics; calling on its Advisory Council of practitioners; and connecting students to practitioners through internships, portfolio reviews, and community-engaged studios. Students gain an understanding of the roles and responsibilities of related disciplines, needs of communities, and client-centric practices through ARCH 313: Professional Practice. Some faculty members maintain architectural licensure: they have served in leadership roles on the AIA Montana State Board of Directors and maintained connections to practice, thereby setting an example for students. The Community Design Studio and other upper-level options studios provide student opportunities to apply professional practice skills in studios.

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 program is responsive to this perspective.

2014 Team Assessment: Students are prepared for professional and public service and leadership for public good through ARCH 313: Professional Practice, including projects such as the Sourdough-Rae Fire Station project. In addition, a number of optional studio experiences and student service opportunities reinforce this preparation. In particular, students are engaged in projects addressing public good in Community Design Studio projects, the Hyalite Pavilion project, and the Khumbu Climbing School project, to name a few. The AIAS chapter, furthermore, is engaged in the community through a variety of service and service-learning projects that develop student leadership and public service commitments. Faculty set examples for students through their own leadership, such as that of Tom McNab, who was awarded the 2011 MSU President's Excellence in Service-Learning Award.

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 program's processes meet the standards as set by the NAAB.

2014 Team Assessment: The university has established a long-range strategic plan. The school has developed a strategic plan, with the assistance of an outside consultant, which is congruent with the university's plan, and specific to the school's continuing development. The school utilized a progressive

process, involving faculty, students, the profession and community, for input, review, updating and publishing. Incorporated in the process is ongoing feedback and updating. The entire process included the five perspective areas. Strategies are Logistical, Pedagogical and Cultural. The plan is publically available on the university's web site. A large-scale printed summary version of the plan is posted in a public meeting area. Included in the posting is a matrix showing the linkage of the overall university's plan to the specifics of the school's plan.

1.1.5 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 program's processes meet the standards as set by the NAAB.

2014 Team Assessment: In 2011, the Office of the Provost began a comprehensive strategy for updating and revising the unit assessment plans across campus. At the same time the university was a year into the process of establishing its new strategic plan and a parallel process of providing course-learning objectives as part of a statewide mandate to create common course numbering systems within the Montana University System. All of these new initiatives provided guidelines for developing the School of Architecture assessment process. The review of the assessment process has continued over the last 2+ years and is in the process of being reviewed as part of the university's on-going regional accreditation review in AY 2013-14. Part of this process has been the requirement for each department on campus to prepare an updated assessment plan, student learning outcomes and course objectives.

Assessment of the School of Architecture occurs on an ongoing basis and utilizes a range of methods. In addition to the formal assessment plan required by the university, the school utilizes a range of meetings, surveys, and evaluation forms, and involves a wide array of constituencies—students, faculty, staff, alumni, and employers. The school promotes and maintains an ongoing discussion between faculty, students, alumni and the profession, and the information received from all of these groups is used to help shape the direction of the program. They are at the beginning of a three-year cycle of assessment as outlined in an updated assessment plan dated May 2013, which can be found at <http://www.arch.montana.edu/pdf/ArchitectureAssessmentPlan2013.pdf>.

The director of the school maintains regular meetings with the AIAS, soliciting discussion and input from the student organization. At the beginning of each semester, the director holds a State of the School meeting to provide general information to all students and to receive comments and feedback from the entire student body. At approximately the midpoint of each semester, the director of the school holds an open forum for all interested students to attend. The purpose of the forum is to provide a venue for students to talk with the director in an informal setting and to provide student feedback on any and all aspects of the school.

Since 2004 a Studio Culture Committee (now called Learning Culture Committee) was formed that was comprised of undergraduate and graduate students along with a representative group of faculty members. In addition to reviewing the studio culture policy on a regular basis, this committee undertakes an annual Studio Culture survey that provides the school with a student assessment on a broad range of issues.

The school holds an annual retreat for faculty and staff at the beginning of each academic year. At the 2012 retreat, the initial steps of the strategic planning process were begun. This annual retreat allows opportunity for faculty and staff to provide assessment to the director.

In terms of course assessment, the school uses a faculty-course evaluation form that is much more specific than the standard university faculty-course KNAPP evaluation form. Because the university requires use of the KNAPP form, they utilize both forms in the faculty-course evaluation process.

Peer review of faculty happens annually. Coordinators are assigned to each of the five years of design. They provide continuity within each year and maintain communication between the director, graduate program coordinator, undergraduate program coordinator, Curriculum Committee and other faculty. Faculty members are assigned to sit on the final review during review week or each design studio. Typically 2-3 faculty in addition to the studio instructor are assigned to these reviews. This provides an objective assessment of the quality of the student work and the faculty member's instructional efforts on a regular basis each semester. The school has initiated a policy of inviting outside professionals to sit on these final reviews to provide additional perspective and feedback for the students and the school. An evaluation form is filled out at the design studio review for any tenure-track or tenured faculty member in the year before their retention, tenure or promotion review. This provides a formalized review process of the teaching effectiveness of the tenure-track/tenured faculty members.

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.*

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.

[X] Human Resources (Faculty & Staff) are adequate for the program

2014 Team Assessment: The school has 18 full-time faculty and three part-time faculty. There are 25-30 graduate teaching positions each semester. Summary position descriptions were shown for the leadership group and staff. An organization chart is documented. For tenure track faculty the university is in the process of developing a new set of faculty policies, procedures and criteria, largely based on a collective bargaining agreement (CBA). A CBA is being renegotiated for the nontenured faculty. Certain reference sections of both CBAs are published on the university web site.

The teaching load of most tenure track faculty is a total of three required courses and one elective course each academic year. Full-time adjunct faculty typically offer five courses over a twelve-month period. Design studio is the central component of the program. Through the studio approach, daily interaction between faculty and students can occur. Graduate teaching assistants support a high degree of contact. Faculty ratios are 13:1 for undergraduate studios and 12:1 for graduate studios.

Faculty members have been relieved of most student academic advising; however, several venues are conducted including signing up for individual advising with senior leadership. All full time faculty serve on a variety of school, college and university committees. Faculty fill out a preference list annually with assignments endeavoring to balance teaching and committee work.

The university is dedicated to ensuring an environment of nondiscrimination and equal opportunity. The office of Institutional Equity supports this work. The school regularly consults with the director on a wide range of issues. All policies are published on the university's web site.

The school has an internship coordinator actively working with students and architectural firms to qualify and secure meaningful internships. Internships are paid positions. The student is required to provide monthly reports and a final summary report. The architecture firms provide periodic reports on intern progress and activities.

The university provides tenured faculty multiple opportunities for development, including sabbaticals, release time, elective offerings, research and creativity grants, and attending conferences and training. The director has a \$15,000 budget for strategic innovation proposals, and the college has developed a \$50,000 innovation fund for faculty to submit applications. The college has established a \$20,000 fund for supplemental professional development. Faculty can participate in a Study Abroad Program where salary and expenses are paid. The faculty is encouraged to participate in outside consulting in the areas of research and creative activities. Since the last visit, 23 faculty members were provided funding for professional development, including conferences, workshops and memberships.

- **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 adequate for the program

2014 Team Assessment: The following is documented in the APR. The university has published criteria and processes for undergraduate and graduate admissions, university evaluation of progress, graduate program evaluation progress, academic advising, first-year mentoring and assistance, career guidance and internship placement.

Students have opportunities for a number of field trips in 2nd, 3rd, and 4th years, foreign study, and international internships, which reinforce and expand the students' classroom experience. In addition students can work in the Community Design Center and are required to take a graduate field trip. Exchange programs are available. Students have research opportunities, can participate in leadership through AIAS and study abroad. Finally, student workshops are conducted, seminars and conferences are offered and off-campus activities are organized to hear nationally known speakers or participate in relevant community events.

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 program

2014 Team Assessment: The APR describes an administrative structure and responsibilities for the College of Arts and Architecture, the School of Architecture, program directors, design year coordinators, school committees and faculty representatives. The school is headed by a director who oversees all aspects of the program and reports to the dean of the college. The graduate program coordinator oversees all aspects of the Master of Architecture program and the undergraduate program coordinator is responsible for coordination between various undergraduate courses. Both program coordinators report to the director. Each year has a faculty design coordinator who works with the program directors and the director to facilitate course interfaces and avoid conflicts. Committees are composed of faculty, staff, and students.

- **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 program

2014 Team Assessment: The program has a long history of bottom-up governance. It is evident that there exists multiple opportunities for faculty, staff and students to participate in governance at all levels.

I.2.3 Physical Resources:

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

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

[X] Physical Resources are adequate for the program

2014 Team Assessment: Existing Facilities: All courses in the curriculum of the School of Architecture are located in Cheever Hall, as are craft shops and printing rooms that students need for the preparation of their work. First and second semester students are each provided with a desk during the scheduled design classes and "hoteling" desks available at all other times on a first-come-first-served basis. They are also provided with permanent storage space.

Second through fifth level students are provided with permanent studio areas, properly delineated and separate from each other. While the physical space is adequate, the desks for all studios show much wear and tear and would benefit from proper maintenance and/or replacement. A few desktops have been replaced as an indication that the school is aware of this and has started to take action. Both floors of Cheever Hall have adequate gallery and review spaces as well as lounge areas for students' social interaction.

The Creative Arts Library of the School of Architecture was integrated into the university's Renne Library. This library is located across the road a short distance from the school along an accessible path. A visit to the library showed a spacious and well equipped library with many student services and resources, including a full time librarian, a resource center, an IT center with over 100 computers, carrels for quiet study, space for student collaboration, copy centers and testing facilities. The library uses the Library of Congress labeling system that places the architectural collection in a prominent location. The architectural collection consists of approximately 9,000 – 10,000 printed volumes and 160 journal subscriptions, both printed and electronic.

The craft shops, wood and metal, are spacious, well equipped and are shared with other departments. Students did not complain about the sharing of the spaces but did express a desire for more hours of operation. **The shop staff, however, felt that the recent reduction in staff poses a safety hazard for the students.** The school also offers laser cutting and 3-D modeling equipment as well as various printing formats for the use of the students.

All students are required to own their own computers and software. The school also has three stations with current software and large size scanners available to the students. In addition, students have access to the general pool of labs, computers and software available throughout campus. An IT staff is available at the school to assist the students when needed.

Access to all main doors of the building show no impediment to the physically impaired, and the installation of a new elevator provides access between floors. Bathrooms are also accessible to the physically impaired.

All tenured faculty reported having their own offices, and those observed had access to daylight. Students reported that the heating system was not adequate and required graduate students to wear heavy clothing in the winter months. However, it was observed that student desks were adjacent to large expanses of glass, and that a possible reorganization of the desks and other minor adjustments could ameliorate if not solve the condition.

I.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 program

2014 Team Assessment: The School of Architecture's budget of available finances to run the school is composed of primarily state appropriated base budget funds and income from student fees. The student fees are earmarked for field trips and enrichment activities.

Montana State University has not suffered as much as other state universities from the recession. Funding is based primarily on enrollment. Unfortunately the enrollment of the School of Architecture has decreased significantly, from a high of 550 students to 370 students. This reduction in the number of students is also similar in the other departments in the College of Arts and Architecture; all this while the enrollment is increasing throughout the university. Additional resources come from discretionary funds generated by members of the Advisory Council on an annual basis.

From the last visit, in 2008, enrollment increased until 2011 with an addition of 100 plus students with appropriate funding increases to fund 5 additional faculty, additional teaching assistants and base funding for expenditures. Beginning in 2011 with the student enrollment at about 550, enrollment began declining to the present number of students at 370. Even with the reduction in students, state appropriations increased until FY 2013 to a high of \$1.99 million. With the low number of students in the School of Architecture this year, state appropriations were reduced \$280,000. However the dean has picked up some expenditures that usually came from the school's budget: costs of searches and relocation for three new faculty, international travel, purchase of new faculty and staff computers and the costs associated with this re-accreditation visit. Student fees, once at a high of \$379K, fell to this year's amount of \$195K. These cuts, while seemingly significant, resulted in the nonrenewal of two contracts for full-time, non-tenure-track faculty, one in 2012-13 and one in 2013-14. Moreover, the reduced number of students has actually improved the faculty student ratio in classes and studios. The one negative cited is that professional development funds have been reduced. The dean and the director have the ability to help out faculty, if needed through the use of discretionary funds. In addition, the university does not utilize any of the student fees for university budgeting.

The school does not anticipate further decreases in its base budget for FY15 and FY16, as admission numbers into the second year are increasing. Being the only architecture program in the state, admission increases are expected, increasing base budget and student fees.

I.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 program

2014 Team Assessment: Renne Library, the main and only library on campus, is available to all students, faculty, and staff each semester 7 days a week, and online library resources are available 24 hours a day, 7 days a week. There is assistance and access to materials with help from expert librarians in finding information, as well as a library faculty liaison with the School of Architecture who recommends materials to add to the collection for research and curriculum in architecture. The library subscribes to a number of databases in the architecture subject area. It maintains a large physical collection of architecture materials, while balancing substantial offerings of electronic material that can be accessed anywhere with an Internet connection.

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: The requested information was provided in the APR and in the team room.

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.

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.

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

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

2014 Team Assessment: Annual Reports have been provided for 2008-2013. A letter has been provided by the director of institutional research verifying that all data is accurate and true.

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 curriculum vitae and the faculty exhibit demonstrate that this criterion is met.

⁴The 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: As per Appendix 3 of the 2009 Conditions for Accreditation, the documents required were available in a binder in the team room.

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.

[X] Met

2014 Team Assessment: Communication skills were evidenced in the student research papers for ARCH 552 – Architectural Research Methods, and the narrative and graphic descriptions of the projects exhibited for ARCH 456 – Architectural Design IV. Verbal skills were observed in the team's interview with the students where they were able to express their concerns for their education and follow logic discussions effectively.

A. 2. Design Thinking Skills: *Ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test alternative outcomes against relevant criteria and standards.*

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 152: Design Fundamentals II, particularly in Project 3, Tectonic Site, and in Project 4, Tectonic Wall / Order of the Site. Student ability is demonstrated in student portfolios with drawings and models from ARCH 152 and in student drawings and models from ARCH 551: Advanced Architectural Design.

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

[X] Met

2014 Team Assessment: Evidence of this criterion is found in courses ARCH 261 Architectural Graphics 1, and ARCH262 Architectural Graphics 2.

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

[X] Met

2014 Team Assessment: Evidence was demonstrated through sets of technical drawings, including 4 research/highly technical projects, which included site plans, floor plans, elevations and perspectives and other elements. Specifications were demonstrated by bound booklets that included outline specifications and catalogue cuts for various products and assemblies. A course notebook showed the course, ARCH 340 Building Construction II, syllabi, student Power Point presentations and included completed, graded exams.

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

[X] Met

2014 Team Assessment: Evidence was found in support of this criterion being met in ARCH 241, Building Construction I and ARCH 355, Architectural Design III.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion's being met in ARCH 253: Architectural Design I, particularly in the mixed-use infill projects. Student ability is demonstrated in the light box study models, mixed-use infill drawings and models, and in the precedent study booklets.

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

[X] Met

2014 Team Assessment: In addition to reviewing the material for ARCH 253, Architectural Design I, members of the visiting team were able to observe the four studios of this class and concluded that this requirement was well met.

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

[X] Met

2014 Team Assessment: Skills were demonstrated through photographs, models, 2-dimensional graphics, abstract graphics, portfolio books, abstract sculpture, abstract assemblies incorporating common tools and suggestive structures integrated into natural settings. Course notebooks (ARCH 151RA /152 Design Fundamentals I, II) included assignments, student Power Point presentations, readings, and student writing and illustrations.

- 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.**

[X] Met

2014 Team Assessment: Criterion is evident in ARCH 322IA World Architecture I and ARCH 323IA World Architecture II.

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

[X] Met

2014 Team Assessment: Criterion is evident in ARCH 322IA World Architecture I and ARCH 323IA World Architecture II

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

[X] Met

2014 Team Assessment: Notable evidence was found in the course binders and team room projects that confirm this criterion is addressed and met in ARCH 456, Architectural Design IV and ARCH 551 Advanced Architectural Design. The evidence justifies this criterion as Met with Distinction.

Realm A. General Team Commentary: In general, the team observed that the students develop the tools and skill sets necessary to perform and assess research, communicate effectively through a variety of hand and digital methods and design for diverse economies and cultures. Two criteria from this realm were met with distinction: A.4 Technical Documentation and A.11 Applied Research.

Realm B: Integrated Building Practices, Technical Skills and Knowledge:

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

- Creating building designs with well-integrated systems.
- Comprehending constructability.
- Incorporating life safety systems.
- Integrating accessibility.
- Applying principles of sustainable design.

- B.1. Pre-Design: *Ability* to prepare a comprehensive program for an architectural project, such as preparing an assessment of client and user needs, an inventory of space and equipment requirements, an analysis of site conditions (including existing buildings), a review of the relevant laws and standards and assessment of**

their implications for the project, and a definition of site selection and design assessment criteria.

[X] Met

2014 Team Assessment: Exhibits from ARCH 355 Architectural Design III included booklets showing detailed site analysis, research and a very summary list of program elements. Drawings incorporating site plans, floor plans, perspectives, system assembly perspectives, foundation/wall/roof intersection sections were shown. Models, reference books and student notebooks were displayed. A number of architectural programs were shown.

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

[X] Met

2014 Team Assessment: The visiting team reviewed the graphic representation of ARCH 340 – Building Construction II and found evidence of ability to design meeting the needs of individuals with physical impairments

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

[X] Met

2014 Team Assessment: Environmental Controls classes show a good understanding of sustainability. Some of the students are very involved in the USGBC school chapter, and others show an understanding of complex and/or innovative systems. Projects showed some sophisticated reasoning and solutions to environmental problems, particularly in the upper grades. The graphic representations of ARCH 558 demonstrated the ability to use the principles of sustainability.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion's being met in ARCH 253 and ARCH 355: Architectural Design I and III, respectively. Student ability is demonstrated in the manufacturing facility drawings and models from ARCH355 and from the mixed-use infill project drawings and models from ARCH 253; furthermore, student ability is demonstrated in student drawings and models from ARCH 551 Advanced Architectural Design.

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

[X] Met

2014 Team Assessment: Exhibits from ARCH 354 Architectural Design II showed drawings with floor plans where evidence of egress could be seen. A reference book, “Building Codes Illustrated,” was present along with models. Evidence of egress could be seen in floor plans from ARCH 355 Architectural Design III.

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

[X] Not Met

2014 Team Assessment: Students demonstrate abilities in the individual Student Performance Criteria related to comprehensive design; however, there is a lack of evidence demonstrating their ability to produce singular, comprehensive architectural projects that integrate all of these individual criteria across scales. In particular, the team noted a lack of integration of SPC A.4, B.2, B.4, and B.5.

While certain technical criteria are met, even with distinction, in work generated in support courses, these same criteria are not met or only partially met in the design studio intended to produce comprehensive design projects. The faculty members have indicated that they plan to reintroduce the graduate thesis in the next substantive change to the curriculum, which might offer the faculty a chance to address comprehensive design alongside this curricular change.

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

[X] Met

2014 Team Assessment: Evidence was from ARCH 313 Professional Practice and exhibits included display boards, notebooks, handouts and student Power Point presentations. The displays and notebooks demonstrated detailed evidence of project financing and construction cost budgets. A notebook displayed information on finance and life cycle costing and Power Point presentations. Reference books were displayed.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion's being met in ARCH 331 and ARCH 332: Environmental Controls I and II, respectively, in class lectures, handouts, and readings. Student understanding is demonstrated in the samples of student homework assignments, precedent studies, and examinations from these two courses. This criterion is met with distinction.

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

X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 243 and ARCH244: Architectural Structures I and II, respectively, particularly in lab assignments and student homework. Student understanding is demonstrated in student drawings and models and in the design and construction of a footbridge in Project #3.

B. 10. Building Envelope Systems: *Understanding* of the basic principles involved in the appropriate application of building envelope systems and associated assemblies relative to fundamental performance, aesthetics, moisture transfer, durability, and energy and material resources.

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 241 and ARCH 340: Building Construction I and II, particularly in class lectures and in student assignments from ARCH 241, like Project #3 – Existing Conditions Analysis, and Project #5. Student understanding is demonstrated in the existing conditions analysis reports and in the wall section models from ARCH 241 and in the Construction Documents from ARCH 340. This criterion is met with distinction.

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

[X] Met

2014 Team Assessment: Understanding of Building Service Systems was evident in the course work of ARCH 331 and ARCH 332. The student notebooks for fall 2011, fall 2012 and spring 2013 were in the team room and provided the basis for this assessment.

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

[X] Met

2014 Team Assessment: Evidence from ARCH340 Building Construction II shows plan sets and booklets. Plan sets included site plans, floor plans, perspectives and perspectives of conceptual systems assemblies. Booklets incorporated specifications and detailed catalog cuts of products and product/material assemblies.

Realm B. General Team Commentary: The team found that students were able to demonstrate the requisite ability or understanding for each performance criteria, with the exception of B.6 Comprehensive

Design. Four criteria in this realm—B.7 Financial Considerations, B.8 Environmental Systems, B.10 Building Envelope Systems, and B.11 Building Service Systems Integration—were deemed Met with Distinction. However, the evidence presented that the students had the ability to put elements together in a well-integrated comprehensive design was inconsistent.

Realm C: Leadership and Practice:

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

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

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 241: Building Construction I, particularly in the five different group projects assigned to students. Student ability is demonstrated in team reports, drawings, and wall section models. Student ability is also demonstrated in the footbridge project from ARCH 243 Architectural Structures 1.

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

[X] Met

2014 Team Assessment: Evidence of this criterion is found in ARCH 1211A Introduction to Design and ARCH 3231A World Architecture II.

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

[X] Met

2014 Team Assessment: Evidence was shown from ARCH 241 Building Construction I and ARCH 313 Professional Practice. Exhibits included written descriptions of client requirements, a relationship diagram showing client role in the design process and Power Point presentations. Written design proposals and a sample contract were shown. A detailed program was included. A number of handouts were shown including subjects such as client value, project leadership, project management, and AIA Client Education Checklist.

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

[X] Met

2014 Team Assessment: Students showed their understanding of the subject in the books for ARCH 313 in the team room where student reports documented their interviews with consultants and the assembling of their teams. The Ennis Playground book was an example of how the team learned to plan, estimate, and make presentations for approval to the Ennis Town Council. Once funds were identified, they made recommendations for the best delivery method and the best allocation of funds and materials to meet the budget.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 313: Professional Practice, particularly in the module titled “Delivering and Making.” Readings and handouts reinforce this evidence. Student understanding of this criterion is demonstrated in the Precedent Research Assignment, on Quiz 4, and in the Business Model Innovation assignment.

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

[X] Met

2014 Team Assessment: ARCH 241 Building Construction I demonstrated work in process leadership toward solutions, including documenting client requirements and student Power Point presentations. ARCH 313 Professional Practice raised the emphasis on the overall process of design and construction. There were Power Point presentations on leadership, project management, the client’s role and a number of design and construction aspects.

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

[X] Met

2014 Team Assessment: The student books for ARCH 313 presented evidence that this requirement was met. The students showed their understanding in the preparation of a contract agreement to build a 10,000 sq. ft. structure for the Sourdough Rural Fire District and the development of its 3.3-acre property.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 313: Professional Practice, particularly in the readings titled “Ethics and Professional Rules of Conduct: Distinction and Clarification” and “The Social Responsibility of Business is to Increase its Profits,” as well as the lecture titled “ethics.” Student understanding of this criterion is demonstrated on Quiz 9.

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

[X] Met

2014 Team Assessment: The team found evidence for this criterion being met in ARCH 313: Professional Practice, particularly in the readings and handouts as well as in the student projects such as the Sourdough Rural Fire District Fire Station, Eagle Mount Master Plan, and North 40 Playscape. The Khumba Climbing Center, Nepal, is offered in ARCH 450 Community Design Center and ARCH 551 Advanced Architectural Studio.

Realm C. General Team Commentary: In general the team observed that the students get engaged in a series of projects that have provided them with an opportunity to understand the various aspects of professional responsibility and practice. The professional practice course ARCH 313 provides the students with a broad and deep understanding of societal and professional responsibilities.

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: Montana State University is a regionally accredited institution through the Northwest Commission on Colleges and Universities (NWCCU). The most recent letter from NWCCU, dated 2009, reaffirming the university's regional accreditation was found in the APR.

II.2.2 Professional Degrees and Curriculum:

II.2.3 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 Montana State University School of Architecture currently offers two degrees: a four year Bachelor of Arts in Environmental Design (B.A.ED) and a three semester Master of Architecture Degree (M. Arch), which is completed in one calendar year (fall, spring and summer). The current B.A.ED program requires 120 credits to complete and the Master of Architecture program requires 42 credits. Beginning fall 2014, the B.A.ED program will require 126 credits and combined with the 42 credit hour Master's program, the program will be a combined 168 credits meeting NAAB requirements for a Master's degree. All students who graduate after January 1, 2015, will be required to have completed 168 combined undergraduate and graduate credits.

The current 162 credit program and the soon to be implemented 168 credit program require students to take at least 45 non-architecture credits as part of their undergraduate and graduate coursework.

The criterion is met as evidenced in the curriculum description of both the B.A.ED and Master of Architecture degree in the APR, pages 125–135.

II.2.4 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: This criterion is met. The program clearly describes the process by which the curriculum is evaluated. The program's Curriculum Committee includes licensed architects and meets once a week to develop both the undergraduate and graduate curricula. This committee ensures student exposure to current issues in practice by including licensed architects on the committee as well as by presenting the curriculum to the Advisory Council made up of practitioners.

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: As identified in the APR, the team found that the vast majority of students (85-90%) in the Master of Architecture program satisfy the preparatory/pre-professional education through the completion of the four-year Bachelor of Arts in Environmental Design at Montana State University. The remaining 10-15% of the M. Arch students have completed a preprofessional program from another institution.

The transcripts of those who have completed a preprofessional degree in architecture at another institution are carefully reviewed to verify that they have completed a required set of architectural pre-professional courses similar to those in the Montana State University Bachelor of Arts in Environmental Design Program and that they have met 45 hours of general education. These assessments are documented in the student's admission and advising files.

Upon completion of the MSU Bachelor of Arts in Environmental Design or thorough evaluation of the content of other pre-professional degree programs, students may apply to the Masters of Architecture program.

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 exact language found in the 2009 NAAB Conditions for Accreditation, Appendix 5 is available in the Graduate and Undergraduate Bulletin online and available for print; it is also available on the School of Architecture website, as well as in the v16 publication online.

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 2009 NAAB Conditions for Accreditation and the NAAB Procedures for Accreditation (2012 edition) are available for students, parents, and others to view on the school's website.

II.4.3 Access to Career Development Information

In order to assist students, parents, and others as they seek to develop an understanding of the larger context for architecture education and the career pathways available to graduates of 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.aiaa.org

www.acsa-arch.org

[X] Met

2014 Team Assessment: The referenced career and professional organization links are made available through the school's website.

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 Annual Reports, including the narrative, all NAAB responses to the Annual Report, and the most recent APR are located in paper form in the main office of the School of Architecture, and the final decision letter from the NAAB, and the final edition of the most recent VTR, including attachments and addenda are available through the school's website.

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 website of the National Council of Architectural Registration Boards shows a breakdown of the passing rates of the seven-part ARE exam by state and compares it to the national passing rate. There has been a consistent improvement in the passing rate of Montana students in comparison to the national passing rates, which NCARB documented as follows:

1. Programming, Planning and Practice: MSU 73% vs. 62% national rate
2. Site Planning and Design: MSU 77% vs. 73% national rate
3. Bldg. Design and Construction Services: MSU 74% vs. 62% national rate
4. Structural Systems: MSU 72% vs. 71% national rate
5. Building Systems: MSU 69% vs. 68% national rate
6. Construction Documents and Services: MSU 74% vs. 64% national rate
7. Schematic Design: MSU 92% vs. 77% national rate

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 Montana State University, APR, pp. 2-3

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

Reference Montana State University, APR, pp. 3-7

C. Long-Range Planning (I.1.4)

Reference Montana State University, APR, pp. 24-26

D. Self-Assessment (I.1.5)

Reference Montana State University, APR, pp. 27-37

2. Conditions Met with Distinction

I.1.3 D Architecture Education and the Profession

- A.4 Technical Documentation
- A.11 Applied Research
- B.7 Financial Considerations
- B.8 Environmental Systems
- B.10 Building Envelope Systems
- B.11 Building Service Systems Integration

3. The Visiting Team

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IV. Report Signatures Respectfully Submitted,

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