Smith College
Learning Spaces Plan

JANUARY 2019

SASAKI

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Additional Acknowledgments

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Contents

Introduction

PURPOSE

Instructional spaces support themes identified within Smith College's strategic plan, *Lives of Distinction and Purpose: A Plan for Smith,* including Face-to-Face Education; Inclusion, Diversity and Equity; Experiential and Applied Opportunities; and Emerging Methods, Fields and Pedagogies. These themes reflect the recent evolution in technology and advances in learning sciences, and educational delivery, and it is critical that instructional spaces keep pace.

In 2017, Smith College engaged Sasaki to prepare a Learning Spaces Plan (LSP) to evaluate the quality of instructional spaces, assess the degree to which instructional spaces meet the college's needs and support desired pedagogy, and ensure that existing physical assets are used as effectively and efficiently as possible. The LSP serves as an extension of the 2016-2017 Space Utilization Analysis, which examined the utilization, occupancy, and right-sizing of existing instructional spaces.

PROCESS

The development of the LSP relied upon guidance by the Classroom Committee, Science Planning Committee, Young Library Committee, and Committee on Academic Priorities, and was organized around the following three phases:

Phase I: Analysis

The analysis phase included two key tasks: the physical assessment of instructional space and the MyCampus survey. During the physical assessment task, a consultant team walked through approximately 175 rooms, rating their performance across the following categories: location, environmental quality, layout and furnishings, tools and technology, safety, and accessibility. Please refer to the Appendix for the full physical assessment.

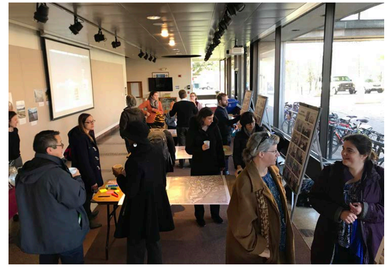
To understand community impressions of instructional spaces by faculty and students, Smith College launched the MyCampus survey, which was comprised of two parts. The first part of the survey included a graphic mapping tool that enabled students and faculty to identify favorite and least favorite instructional spaces and provide comments. The second half of the survey asked questions to understand desired teaching and learning practices. The analysis phase concluded with a gap analysis, which specified the shortfall or surplus of rooms across instructional space categories.

Phase II: Design Development

The design development phase focused on recommendations and the creation of prototypes for classrooms and teaching labs. These prototypes can be applied to instructional spaces as they are renovated or constructed to ensure that designs are consistent with identified needs and goals.

Phase III: Implementation

Phase three focused on the development of design recommendations for specific Smith College learning spaces, which were prioritized and assigned rough order of magnitude cost estimates.



November Open Forum with Visioning Boards:
What spaces would you like to see on campus?

Principles

The process was informed by two sets of principles: college-wide space principles and project principles.

COLLEGE-WIDE SPACE PRINCIPLES

The Learning Spaces Plan reinforces the following five college-wide space principles:

» One Smith: All space is Smith space. Move away from department and organization-controlled spaces

» Supporting Departmental Curricula: Departments will continue to have space appropriate to their needs, within the overall capacity of the college

» Responding to Change: Future departmental space changes due to growth and evolving teaching practices will be accommodated

» Allocating Space Strategically: Allocate space based on need and intensiveness of use, to be evaluated regularly (data-driven)

» Becoming Dynamic: Space allocation will become more dynamic in response to increased efficiency and department needs

PROJECT PRINCIPLES

The following principles, developed by the Classroom Committee, provide criteria to consider when developing and shaping physical recommendations:

» Faculty and students should interact easily and naturally before, during, and after class

» Faculty and students should be able to move easily throughout the entire classroom

» Learning spaces should support multiple learning activities, such as lecture, discussion, group work, and performance

» Learning spaces should have ample writing, projection, and other surfaces to allow for sharing of ideas and information.

» When possible, formal learning spaces should be adjacent to informal learning spaces for breakout sessions or for after-class discussion

» Technology should work seamlessly when used in learning activities and easy to set aside when not needed

Recommendations

Specific recommendations are organized into the following three sections:
Classroom Strategy, the Clark Science Center Strategy, and the Young Library Strategy

1 CLASSROOM STRATEGY

2 SCIENCE CENTER STRATEGY

3 YOUNG LIBRARY STRATEGY

1 CLASSROOM STRATEGY

ANALYSIS FINDINGS

Utilization

Individual room utilization (expressed as total hours of use during the busiest week of the term) varies widely by classroom. The typical industry target for classroom utilization is 30 hours per week per room. A utilization target of 23 hours per week recognizes the unique constraints imposed by block scheduling patterns at Smith. With an overall average of 19 hours per room, including event hours, a handful of rooms exceed the 23 hour-per-week target. However, more than half of the available room supply falls below the target.

Classrooms in the 16-25 and 26-50 seat ranges, which represent the majority of rooms available, achieve the highest individual room hours per week. The highest use rates in the classroom pool are associated with Registrar control.

Right-sizing

The classroom right-sizing analysis reveals the greatest current demand for smaller classrooms with between 8-15 seats per room, which is in alignment with Smith's desired section size. Most Smith classrooms fall below a benchmark of 25-30 assignable square feet (asf) per seat, and are thus overcrowded relative to the space requirements of many pedagogical approaches. Given the overcrowded nature of existing classrooms, simply removing desks and chairs can better align the room supply to meet room demand and achieve the target station size of roughly 30 asf per seat. In addition to smaller classrooms, there is also a need for larger flat-floor, active learning classrooms that can accommodate up to 75 students.

Condition

The physical assessment ranks classrooms on a scale of 1-100 points, with the majority of rooms scoring between 50-70 points. The highest-ranked classrooms include Bass Hall 102 and 103, the newly renovated Stoddard Hall, and the main lecture room in McConnell Hall. Highest-ranking rooms tend to have fewer seats and record higher levels of room use.

In general, classrooms are well located. From an environmental quality perspective, which considers access to daylight and fresh air, lighting, and views, rooms in Ford Hall and the Fine Arts Center have the highest scores, while rooms in McConnell Hall and Sabin-Reed Hall record the lowest scores. Related to layout and furnishings, roughly 50 percent of rooms are equipped with furniture to support larger than recommended section sizes, hampering movement throughout the room.

Classrooms include a variety of furniture styles, ranging from movable tables and stackable chairs that support active learning to heavy instructor podiums and fixed, antique tablet-arm chairs that are not consistent with contemporary forms of instruction. Approximately half of all rooms contain mismatched or missing furniture. Most rooms also lack adjacent breakout space.

In addition, not all rooms are outfitted with the same technology, creating scheduling limitations and hampering seamless integration of technology into classes. Seelye 106 and 201 record the highest scores in the tools and technology category. Smith has an opportunity to standardize the furniture and technology fit-out of rooms to support multiple means of educational delivery, allowing greater scheduling flexibility and limiting the number of conflicting room requests.

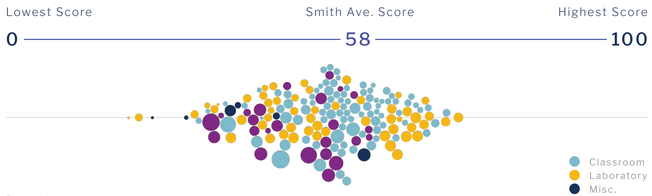
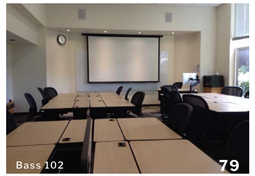


Figure 1.1
Total physical assessment room scores

Figure 1.2 - 1.4 (top to bottom)
Highest-scoring classrooms



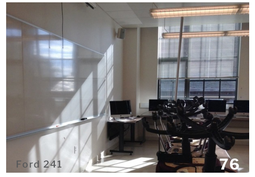
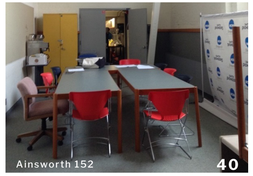
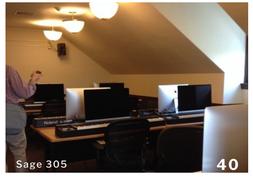


Figure 1.5 - 1.7 (top to bottom)
Lowest-scoring classrooms





Surveys

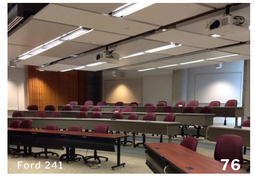
The following rooms are considered preferred classrooms according to the MyCampus survey and pedagogical survey: McConnell B05, McConnell 103, Stoddard G2, Ford 240, Sabin Reed 220.

Figure 1.8
MyCampus Survey: Favorite learning spaces

Figure 1.9
MyCampus Survey: Least favorite learning spaces

Figure 1.10 - 1.12
Preferred Rooms to Teach In

Figure 1.13 - 1.15
MyCampus Results: Favorite Learning Spaces



RECOMMENDATIONS

The classroom strategy for Smith College includes the development of classroom prototypes, near-term renovation priorities, and a flexible renovation strategy for Seelye Hall.

Classroom Prototypes

Prototypes for desired classroom typologies provide guidance on room configuration, layout and furnishings, materials, and technology as renovation opportunities arise. Prototypes include seminar / colloquium room (8-15 seats), active learning classroom (16-25 seats), active learning classroom (16-50 seats), active learning classroom (51-75 seats), and lecture hall/case study room (76+ seats).

Each classroom is assigned an ideal prototype based upon its configuration and capacity, along with a room renovation score, which indicates the level of investment needed to elevate the room to the quality and character associated with its assigned prototype. (Figures 1.17 - 1.20)

Near-Term Priorities

Near-term upgrades to select classrooms, such as Sage 216, Seelye 411, and Bass 209 help to improve the parity of instructional experiences. Bass 209 is de-densified by replacing traditional classroom furniture with seminar-style furniture.

A few options emerge to meet the college's need for a large flat-floor active learning classroom. Seelye 106 is a classroom that can better accommodate a range of pedagogies if converted to a flat-floor active-learning room. The Sage Recital Hall (Sage 00R) may also be a location where improvement of furniture could meet both the needs of the Music department, and provide greater Registrar flexibility. Combining Bass 203 and Bass 204, currently used by the Psychology department, provides another option to create a large flat-floor active learning classroom. Additional near-term priorities include active learning upgrades to Lyman 110 and Hillyer 319.

Implementing these near-term changes helps to address current space needs and support new teaching practices.

Staged renewal of remaining classrooms across campus, including those in Wright Hall, Hatfield Hall, Dewey Hall, Mendenhall Center for the Performing Arts, Sage Hall, and others, can occur as time and funding allow.

	ROOM TYPES	Figure 1.17 SEMINAR/ COLLOQUIUM ROOM (8-15 seats)	Figure 1.18 ACTIVE LEARNING ROOM (16-25 seats)	Figure 1.18 ACTIVE LEARNING ROOM (26-50 seats)	Figure 1.18 ACTIVE LEARNING ROOM (51-75 seats)	Figure 1.20 LECTURE HALL/ CASE STUDY ROOM (76+seats)	OTHER
RENOVATION SCORE	Fine as is	0	2	0	0	3	1
	Minor	29	8	5	1	0	0
	Moderate	10	18	1	0	2	0
	Major	2	0	3	0	0	0
	TOTAL	**41**	**28**	**9**	**1**	**5**	**1**
	Room size ranges (no. of seats)	8 - 15	16 - 25	26 - 50	51 - 75	76+	
	2017 Supply	11	33	25	4	7	
	2018 Right-sized Supply	48	11	13	4	4	

Figure 1.16
Classroom Strategy
Renovation &
Demand Matrix

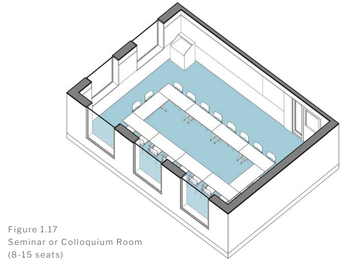


Figure 1.17
Seminar or Colloquium Room
(8-15 seats)

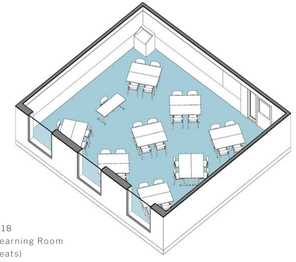


Figure 1.18
Active Learning Room
(16-75 seats)

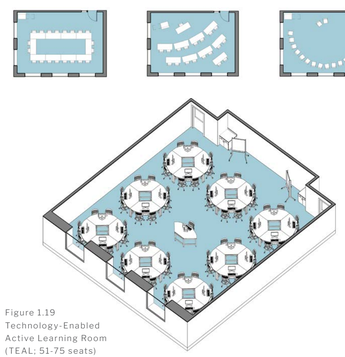


Figure 1.19
Technology-Enabled
Active Learning Room
(TEAL; 51-75 seats)

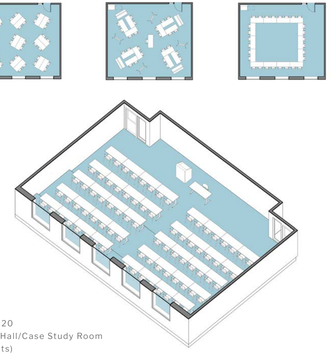


Figure 1.20
Lecture Hall/Case Study Room
(76+ seats)

Seelye Hall

Existing Conditions

Seelye Hall contains the greatest number of classrooms in one building at Smith. The classrooms are registrar-controlled and shared by multiple departments across undergraduate and graduate programs. Seelye Hall should be renovated comprehensively to address the need for both small classrooms and larger active flat-floor classrooms.

A renovation to Seelye Hall invites the opportunity to celebrate a historically significant structure in the heart of campus while modernizing learning environments and addressing deferred maintenance, notably HVAC and temperature regulation. The following renovation options were prepared as part of the plan, and are organized according to the level of intervention and investment.

Minor Renovation

The minor scheme for Seelye Hall includes renovations to existing classrooms, with a focus on updating finishes, furniture, and technology. The first floor lecture room (Seelye 106) can be converted into a large flat-floor active learning space. The central corridors of floors one through three are renovated to include informal learning spaces. All other classroom configurations remain as is.

Moderate Renovation

Building upon the minor renovation scheme, the moderate renovation scheme strategically adjusts walls and relocates offices to enlarge the size of seminar rooms on the top two floors of the building and increase space for informal learning. Other major infrastructure systems remain intact.

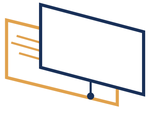
Major Renovation

The major renovation scheme relocates some building systems to maximize learning environment potential. Classrooms are reconfigured or merged with neighboring rooms to create larger rooms that seat more than 30 students. Classrooms at each end of the central corridor are removed and converted into vibrant collaboration hubs that serve all classrooms.

Figures 1.21
Seelye Hall
Jacobson Center

84%

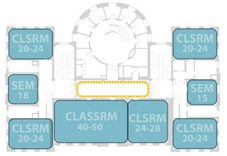
Seelye rooms with mis-matched or extraneous furniture



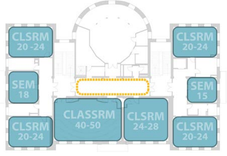
76%

Seelye rooms with writing surfaces blocked by projection screens

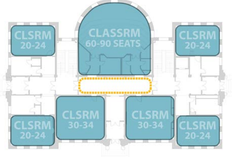
Minor Renovation



Figures 1.22 Seelye third floor - Minor Renovation

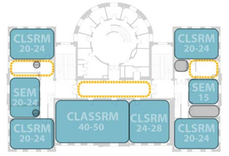


Figures 1.23 Seelye second floor - Minor Renovation

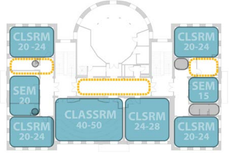


Figures 1.24 Seelye first floor - Minor Renovation

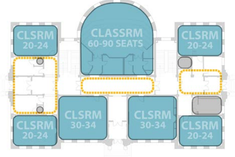
Moderate Renovation



Figures 1.25 Seelye third floor - Moderate Renovation

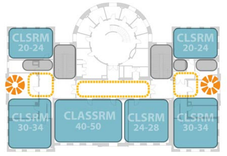


Figures 1.26 Seelye second floor - Moderate renovation

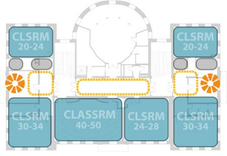


Figures 1.27 Seelye first floor - Moderate Renovation

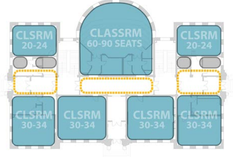
Major Renovation



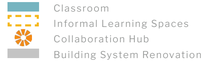
Figures 1.28 Seelye third floor - Major Renovation

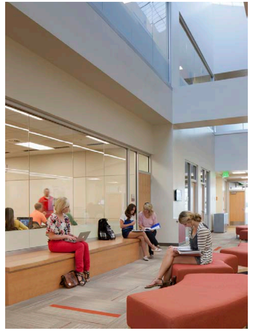


Seelye 1.29 Seelye second floor - Major renovation



Figures 1.30 Seelye first floor - Major renovation





CLASSROOM & INFORMAL LEARNING SPACE PRECEDENT IMAGES

Scheduling Practices and Policies

Many recommendations are contingent upon achieving a higher level of room use than achieved today. Prior to renovating instructional spaces, Smith should consider the following with regard to its space scheduling practices and policies:

- Develop a new class (time block) schedule that allows greater flexibility in class scheduling and better responds to a range of pedagogies (in progress beginning Fall 2019).
- Develop new scheduling expectations/guidelines to encourage use of the full academic day and week, and maximize student access to courses.
- More effectively balance demand for courses against classroom size, type, and availability (e.g., though reasonable enrollment caps; new, more nuanced course type descriptions; technology needs; etc.).

2 CLARK SCIENCE CENTER STRATEGY

The Clark Science Center (CSC) Strategy presents three critical opportunities for improved space use:

- Right size the quantity of labs on campus to better align with demand
- Improve the quality of labs; advocate for flexible lab design to promote sharing and higher rates of utilization
- Optimize and consolidate department locations

ANALYSIS FINDINGS

Utilization

Current teaching labs within the CSC are underutilized. The target utilization rate for teaching labs is lower than that of classrooms due to their specialized nature and set-up time requirements, Smith's current average of 9 hours per week of scheduled lab use falls below the target of 15 to 20 average weekly room hours (WRH). This target is based on peer institution utilization rates. The quantity of available labs exceeds demand, even after factoring in the qualitative limitations of individual rooms. In addition, the proliferation of highly specialized labs limits flexibility and shared use, thereby limiting overall utilization. With proper support space and equipment storage, labs can be designed more flexibly, allowing the college to prioritize resources toward improving lab quality.

Condition

The learning space assessment confirms that Ford Hall, the newest facility within the CSC, has the highest overall room scores whereas McConnell and Sabin-Reed have the lowest overall room scores. However, despite the qualitative issues with many of the Sabin-Reed labs, the building structure is well suited to lab use and presents opportunities to right-size labs, provide for additional support space, and increase flexibility. In contrast, McConnell Hall is ill suited to accommodate high-intensity laboratory use and should be considered for down-cycling to either classroom or office use. Like McConnell, Burton and Bass Halls are best suited to support dry uses such as classrooms and offices.

Pedagogy and Collaboration

Adapting the CSC to flexible learning spaces supports the faculty's desire to integrate lecture and lab components, which is currently limited by a proliferation of linear, fixed station benches.

9 HRS/WK
Current average schedule lab use

15-20 HRS/WK
Future target average schedule lab use

Figure 2.1
Physical assessment scores of CSC spaces, by building
Figure 2.2
Physical assessment scores of CSC spaces, by room type
Figure 2.3
Physical assessment scores of CSC spaces, by Weekly Room Hours

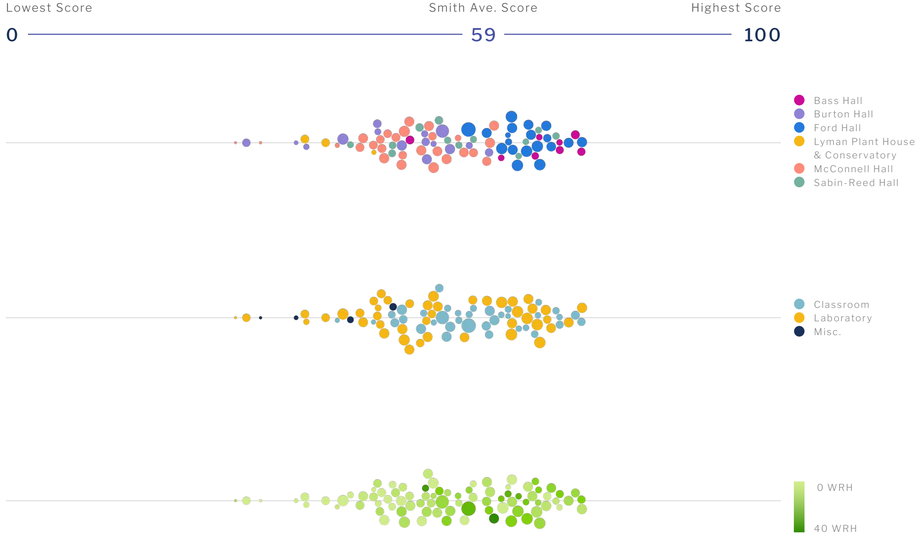
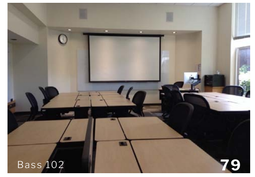
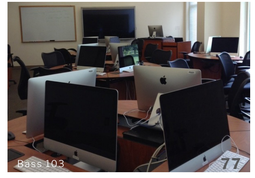
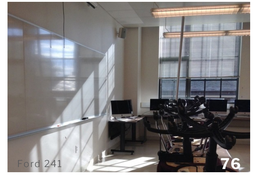


Figure 2.4 - 2.7
Highest scoring CSC learning spaces







RECOMMENDATIONS

The Clark Science Center should consider migrating certain departments and programs to maximize each building's potential for science teaching and research. Each Clark Science Center building is considered individually below, to account for building-specific opportunities and constraints.

Sabin-Reed & Burton Halls

Existing Conditions

Sabin-Reed Hall, constructed in 1966, attached to Burton Hall, built in 1914, is home to the Neuroscience department but also supports Biological Sciences and Geosciences. Geosciences, Mathematics and Statistics, occupy Burton Hall. The two buildings include teaching and research labs, and house the Center for Microscopy & Imaging, the Center for Aqueous Biogeochemical Research, and the Spatial Analysis Lab.

Research facilities are distributed in a fragmented manner throughout the buildings. The teaching labs, while plentiful, are outdated and do not support a range of pedagogical approaches. In addition, support space is lacking. Offices are generally adjacent to the teaching labs, offering easy access for faculty to move between their teaching, research, and administrative responsibilities. One exception is the cluster of offices on the third floor of Burton.

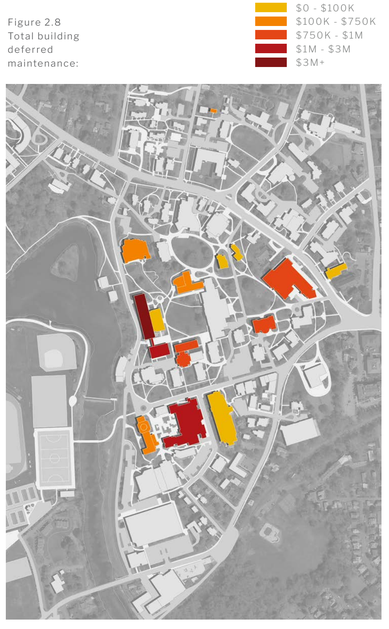
According to deferred maintenance costs determined in 2016, Sabin-Reed Hall records the greatest level of deferred maintenance, followed by Mendenhall Center for the Performing Arts and McConnell Hall. In addition, an average of 163 maintenance requests have been submitted for Sabin-Reed every year since 2009. Both data points suggest that Sabin-Reed requires a comprehensive renovation strategy to address all physical issues while updating the learning spaces to a level that accommodates desired pedagogies. Overall, the Sabin-Reed and Burton Hall location offers convenient service access, and frames the open space between Burton and the Neilson Library.

An essential asset of Sabin-Reed is that it has a regularly spaced structural grid that allows for more flexible use, including enlargement and reallocation of existing spaces.

163

Average annual maintenance requests in Sabin-Reed

Figure 2.8
Total building deferred maintenance:



Smith College 2016 RPT Assessment

Figure 2.9 Sabin-Reed 205 - Biology lab

Figure 2.10 Sabin-Reed 305 - Physics lab

Figure 2.11 Burton 10 - Geosciences Lab

Figure 2.12 Burton 101 - Classroom

Near-Term Recommendations

The recommended renovation strategy for Sabin-Reed Hall is to:

- » Maintain the facility for lab use
- » Allocate space for adjacent support storage or staging needs
- » Maximize the regularly spaced structural grid to provide larger teaching labs with increased flexibility to better accommodate a range of teaching methods, including lab+lecture sessions
- » Renovate teaching labs to allow for shared-use across all departments, particularly Biology and Chemistry
- » Incorporate additional research space for tenure-track Biology and Neuroscience faculty through more efficient-use of teaching labs
- » Support Biology teaching and learning by consolidating some Biology teaching functions from Ford Hall to Sabin-Reed
- » To foster collaboration and engagement, renovations should widen corridors, employ transparent materials, and increase the use of writing surfaces.

Figure 2.13-2.17 Regularly spaced structural grid in Sabin-Reed allows for a variety of flexible floor layouts to be considered.

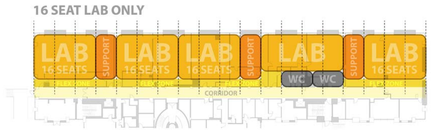


Figure 2.13 Second to fourth floor option 1

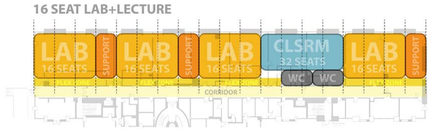


Figure 2.14 Second to fourth floor option 2

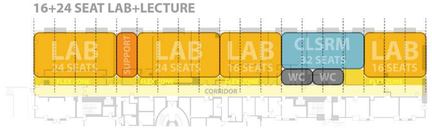


Figure 2.15 Second to fourth floor option 3

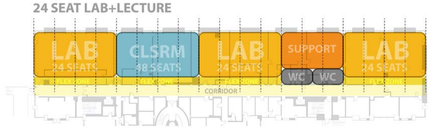


Figure 2.16 Second to fourth floor option 4

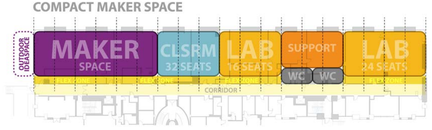


Figure 2.17 Potential first floor configuration

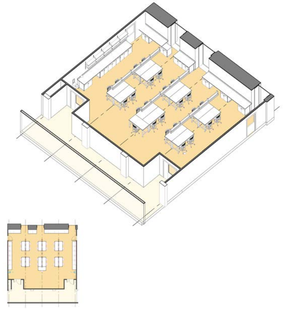


Figure 2.18 24-seat dry lab template

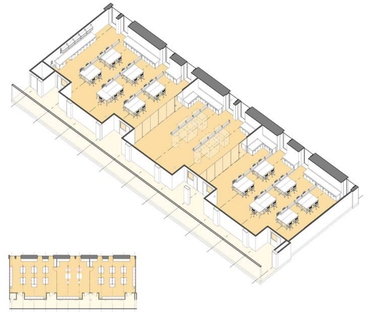


Figure 2.19 (2) 24-seat dry labs with a shared equipment zone

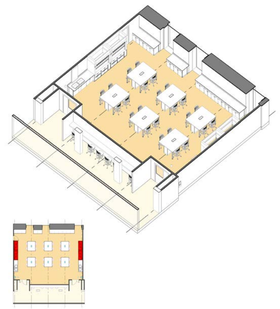


Figure 2.20 24-seat wet lab template

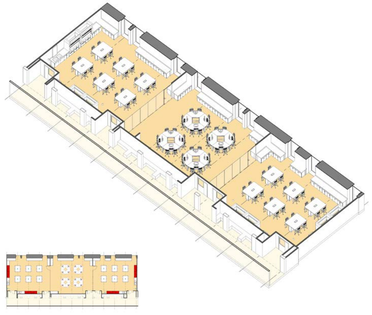


Figure 2.21 (2) 24-seat wet labs with shared 24-seat lecture zone

Long-Term Recommendations

The Burton Hall Geosciences spaces are appropriate, but require lab upgrades. Current Sabin-Reed Geosciences labs should also be consolidated in Burton. Office space upgrades to both Sabin-Reed and Burton Halls can improve the physical condition, while remaining proximate to labs. Infrastructural systems should be replaced with provision for energy efficiency upgrades.

Smith College should also consider the consolidation and accessibility of maker spaces on campus, including the Center for Design Fabrication and Center for Design Thinking. These and other similar spaces are in high-demand but synergies are currently limited by geographic separation. Within the CSC footprint, the first floor of Sabin-Reed offers a highly visible and easily accessible space for future high-intensity maker space programming, and could pair well with a lower-intensity, ideation-stage maker space in Young Library.

McConnell Hall

Existing Conditions

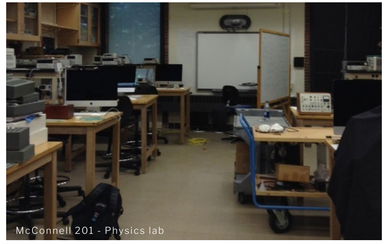
McConnell Hall is a monolithic building with learning spaces that are small for modern teaching labs. Furthermore, unlike Sabin-Reed, McConnell has limited structural flexibility that would allow for modernized space allocation. It is easily accessible from Sabin-Reed and Burton Halls through the third and fourth-floor sky bridges. McConnell houses research space, shared by the Physics and Astronomy departments, along with general teaching spaces. There is a lack of transparency between instructional rooms and corridors, and no windows in the first and basement-level classrooms. The offices, similar to the arrangement in Sabin-Reed and Burton Halls, are adjacent to research labs. McConnell Hall is also home to the Center for Design Fabrication at the basement level.

Near-Term Recommendations

Smith should consider down-cycling the facility for smaller dry lab functions with minimal lab service needs paired with classrooms and offices. Consideration should be given to improve visibility of the Center for Design Fabrication through glass walls and better signage from the first-floor, to showcase the investigation happening within, and to encourage others to use the space. Once Sabin-Reed labs have been renovated and converted into more flexible labs, some Physics teaching functions may be relocated to Sabin-Reed. Vacated labs in McConnell can be renovated into new faculty office or meeting spaces.

Long-Term Recommendations

Based on the current and expected deferred maintenance needs, Smith College should continue consideration of the cost-benefit analysis between a long-term building-wide renovation and demolition/replacement of McConnell Hall. The building suitability analysis recommends that any long-term reuse strategies should consider lower-intensity, smaller scale uses such as offices and seminar rooms.



McConnell 201 - Physics lab

McConnell 406 - Astronomy classroom and lounge

Bass Hall

Existing Conditions

Bass Hall is a classroom and research lab building used primarily by the Psychology department. Its research facilities occupy the majority of the building, and range from traditional lab spaces to interview rooms.

Many of the traditional interview rooms appear to be unused, and outdated. Given that the structural grid is fairly flexible, significant space could be made available by consolidating the myriad underused closets and interview rooms. The teaching spaces are reserved through the Registrar but typically used by Psychology. Bass Hall includes one Psychology statistics lab as well as two active learning classrooms on the first floor, renovated in 2014/5.

The active learning classrooms—each with flexible furniture and stow-away computer monitors—are preferred instructional spaces by students and faculty. Offices are proximate to research labs, similar to the arrangement in McConnell and Sabin-Reed Halls. Bass Hall is physically connected to the Young Library at one of four levels. The building frames the Clark Science Center open space to its north.

Recommendations

Given its proximity to Young Library, Bass Hall renovations can introduce connections to the renovated Young Library via a second-floor passageway. The Computer Science department can relocate from Ford to Bass Hall, renovating the first and second floors to accommodate labs and classrooms. This will permit the Computer Science department to increase its physical capacity, in line with their increasing class enrollments and major declarations, while making space available for additional lab needs in Ford. Bass 203 and 204 can be converted into an active learning room shared between Computer Science, Psychology, and other departments.

On the upper floors of Bass Hall, research spaces for Psychology require upgrades. Additionally, the Psychology department should be consolidated on the basement, third and fourth floors, providing sufficient space for teaching, including retaining the statistics lab, while maintaining privacy for lab interview rooms that are not directly accessible from.

Bass 209 - Psychology classroom

Bass 002 - Computer lab

Ford Hall

Existing Conditions

The newest building within the CSC, Ford Hall, was constructed in 2009 and offers spaces that are well-aligned with the college's STEM priorities. Ford includes Biochemistry, Chemistry, Computer Science, and Engineering. Teaching labs are distributed by department, with Computer Science and Engineering most-pressed for space to accommodate its current course loads and growing program interest.

The building is separated into a 'wet lab' zone to the south, and a 'dry lab' zone to the north. However, not all labs on the 'wet' side of Ford require wet lab functionality. Offices are located on both the wet and the dry side of the building. Of Ford's teaching spaces, the largest is the Engineering department's Playground, a flexible dry-lab space located in the basement, a wet zone.

Research labs are clustered by department, typically near teaching labs. Ford Hall houses the Center for Proteomics and the Center for Molecular Biology. Ford Hall is the largest CSC building but is also located furthest away from the other CSC buildings, south of Green Street.

Recommendations

To accommodate growing Engineering, Chemistry and Biochemistry departments, several space migration strategies for Ford Hall should be considered. Computer Science teaching and research labs can relocate to Bass Hall. In turn, any dry Engineering teaching and research lab space can shift from the wet side of Ford to the vacated Computer Science space on the dry side. This enables Engineering to grow, and ensures that they do so in a way that enables other wet lab functions to grow. The vacated Engineering space on the wet side of Ford can be converted into wet labs in support of faculty and research growth.

As Sabin-Reed is renovated into more flexible and shared teaching labs, consideration should be given to relocating some Biology and Chemistry teaching functions from Ford Hall. This would align with Sabin-Reed's future identity as a "science learning hub" near the campus core and accommodate demand for faculty and research growth in Ford Hall.

Ford 240 - Lecture classroom

Ford 323 - Chemistry lab

IMPLEMENTATION

The Learning Space Plan recommends the long-term use of Sabin-Reed; however, the building requires significant renovation. In many ways, the renovation of Sabin-Reed is an enabling project for the other improvements required for the CSC. The implementation options for Sabin-Reed include: wholesale, one-time renovation; incremental floor-by-floor renovation; and only moderate investment in the short-term paired with long-term replacement. Factors associated with each option are detailed in the appendix.

Recommended Sequence

The most efficient way to renovate Sabin-Reed is to complete a wholesale, one-time building renovation to comprehensively update the building and incorporate the flexibility necessary to support future growth, while addressing deferred maintenance. A wholesale renovation would require relocating all existing teaching lab functions to a new, different or temporary building. This would be an expensive and disruptive set of activities and a closer analysis of floor-by-floor versus wholesale renovation of Sabin-Reed should be undertaken.

Either wholesale or floor-by-floor renovation of Sabin-Reed could be accomplished using the vacated Young Library space to stage teaching and research space while S-R is renovated.

The renovation of Sabin-Reed and Burton Halls would accommodate shared, flexible lab typologies for both teaching and research. Efficiencies gained in these areas would allow for consolidation of some teaching functions from across the CSC as well as an expanded research footprint for Biology and Neuroscience.

3 YOUNG LIBRARY STRATEGY

CONTEXT

When the Young Library Science collection shifts to the future Neilson Library, it creates an opportunity to repurpose the existing Young Library for other functions. Centrally located, the existing Young Library can be repositioned as a memorable and thriving heart of the Science Center and a nexus for all disciplines.

RECOMMENDATIONS

At the basement level, a large, active learning classroom with adjacent breakout spaces helps to address the need for large flat-floor active learning classrooms.

Renovations to the ground floor reposition the building as a thoroughfare, reinforcing its identity as a campus connector. Entries to both Bass Hall on the north and Young Library on the south seamlessly integrate activity inside and outside and provide visibility to and from the surrounding landscape. Gardens and outdoor areas for large-scale prototyping provide additional space for reflection and collaboration. A flexible event space welcomes the entire Smith community and serves as a central hub for the sciences and a place to connect with other disciplines. Academic support space, informal collaboration space, exhibition space, and study rooms surround the event space, activating the building during all hours of the day. A new social staircase connects all floors, enhancing vertical connections and visibility.

A large ideation space anchors the second floor providing space for brainstorming and collaboration. A flexible 24-seat classroom adjacent to the ideation space can serve as an extension of the ideation space through retractable walls. Complementary spaces, such as a room for virtual reality and specialized equipment flank either side of the classroom. On the third and final floor, an inverted mezzanine creates a ring of faculty hoteling and tutoring spaces along the perimeter and enhances visual connections to the second floor below.

IMPLEMENTATION

Renovations to Young Library could occur concurrently with proposed renovations to Bass Hall, given the connected nature of spaces between the buildings. Renovations are also somewhat dependent on the strategy selected for Sabin-Reed, as Young Library could provide temporary staging areas while S-R is renovated. Initial cost estimates for renovations are provided in the appendix.

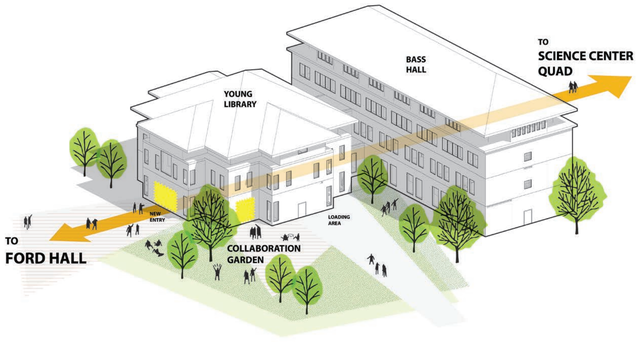


Figure 3.1 Young Library axon: proposed exterior spaces

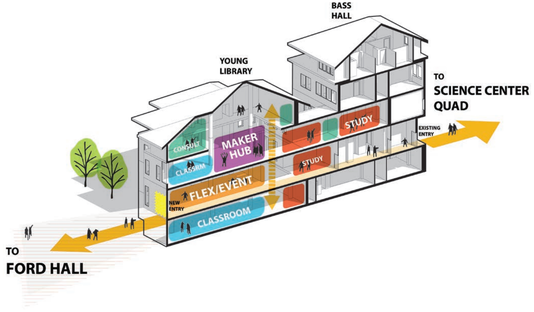


Figure 3.2 Young Library axonometric section: proposed interior spaces

Figure 3.3 Young Library proposed basement level

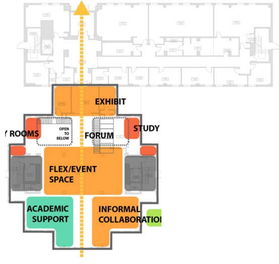


Figure 3.4 Young Library proposed first floor

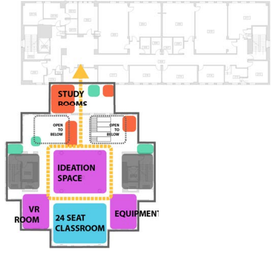


Figure 3.6 Young Library proposed second level

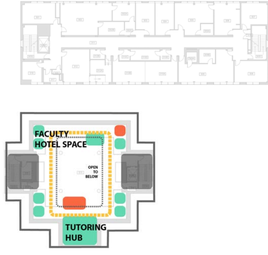


Figure 3.5 Young Library proposed third floor

Appendix

The following items will be made available via digital Appendix

- Key Findings & Recommendations Presentation
- MyCampus Survey Questions
- Pedagogical Survey Questions
- Physical Assessment Questions
- Physical Assessment Scores
- Classroom Renovation Matrix
- Implementation Budget Components

SASAKI