



University of Missouri
Ellis Library Master Plan

11/16/2019

Contents

REPORT

4	Vision & Overview
	Introduction
	Process
	Benchmarking Analysis
13	Ellis Library Space Allocation
	Existing Space Allocation
	Proposed Space Allocation
21	Preferred Planning Scenario
37	Phasing Recommendations

APPENDIX

A	Detail Space Program
B	Scenario Planning Alternates
C	Mapping Ellis Library
D	Health Science Library Recommendations

Vision & Overview

Introduction

In 2016, the MU campus celebrated the Centennial of Ellis Library, a building funded by the state of Missouri to house the library collections at MU. As the university grew, major additions were added in 1935, 1958 and 1987. No major renovations have been made to the library since 2004, when 25,000 square feet on the south side of the main floor became the James B. Nutter Family Information Commons.

Ellis Library plays a major role in the life of the university. There are over 1.2 million visitors to the University Libraries each year. In order to integrate use of library resources into the educational experience, librarians offer over 500 instruction sessions with over 11,000 participants yearly. In addition, students make reservations for group study rooms 18,000 times a year.

At our heart, we are about discovery and access. We are foundational to the inspiration, creation and dissemination of knowledge. Students value the library – we are a place where they can accomplish a variety of academic needs in one spot – gathering information, quiet study, use of technology (computers, printing, recording, video), meeting with peers, and grabbing a snack or coffee.

There are a variety of reasons that Ellis Library needs a major renovation, but the primary concern is to improve the student experience for the next generation of MU students. In order to modernize the library, we need the following components:

- A single service desk;
- Key services on a single floor;
- Increased seating capacity;
- Digital media support;
- Enhanced instructional spaces;
- Upgraded technology;
- Both quiet and group study spaces;
- Event and exhibit space for community engagement;
- Appropriate spaces for our University Archives and distinctive collections;
- Climate control; and
- Improved spaces for digitization and digital scholarship.

In order to create a plan for new library space, the Libraries have sought the input of library staff, the University Libraries Student Advocacy Council, the

Campus Library Committee, and the architectural firm Shepley-Bulfinch. The attached document was created by Shepley-Bulfinch and incorporates much of the information we have gathered. The plan focuses on retrofitting Ellis to make the best possible use of our existing spaces. However, an expansion to the south end of Ellis Library would add incredible capacity for community engagement and support for digital scholarship (visualization, GIS, digital humanities, etc.), with the potential to extend our partnerships with academic units to provide additional high-impact spaces and services. In addition, renovations to existing space may not allow for the environmental conditions needed for special collections and archival material. In which case, the opportunity to create purpose-built space for these materials in an expansion of Ellis Library would become an even higher priority.

We want to thank former Vice Provost Ann Campion Riley for conceptualizing and spearheading this space planning process. If you have any questions about this document, please contact Interim Vice Provost Deb Ward at 573-882-4701 or warddh@missouri.edu.

Vision & Overview

The focus of the library master plan is to re-envision Ellis Library into a 21st century library within the overall context of the library system. Ellis Library is at the heart of campus and is the intellectual crossroad between academia, residential and social experiences that meet the needs of students, both today and in the future. Libraries have moved away from being a repository for books to a technology rich environment that supports scholarship, and connects ideas, information and experiences.

Ellis Library is a content rich environment that includes a large collection, staff expertise, and academic and scholarship support resources. We are rethinking the library spaces to reflect the diverse community at the University of Missouri,

by connecting students and faculty to research interests, special collections, and innovation through the entrepreneurship and media commons.

Our goal is to create inspiring environments within Ellis Library that advance and connect the University's vision with the library's mission, strategic goals, and values.

University Vision

"Advance the opportunities for success and well-being for Missouri, our nation and the world through transformative teaching, research, innovation, engagement and inclusion."

Libraries' Mission Statement

The University Libraries advance the teaching, research, and services programs of the University, and the economic development of the State of Missouri, by providing innovative services and acquiring, preserving, and making accessible scholarly resources.

Libraries' Vision

The University Libraries are leaders, partners and colleagues engaged in the pursuit and discovery of knowledge and the advancement of education. The Libraries are an open active and accessible learning environment, a hub for global information, and a secure repository for scholarship.



Exhibits and displays



Innovation and making



Collaboration and Entrepreneurship

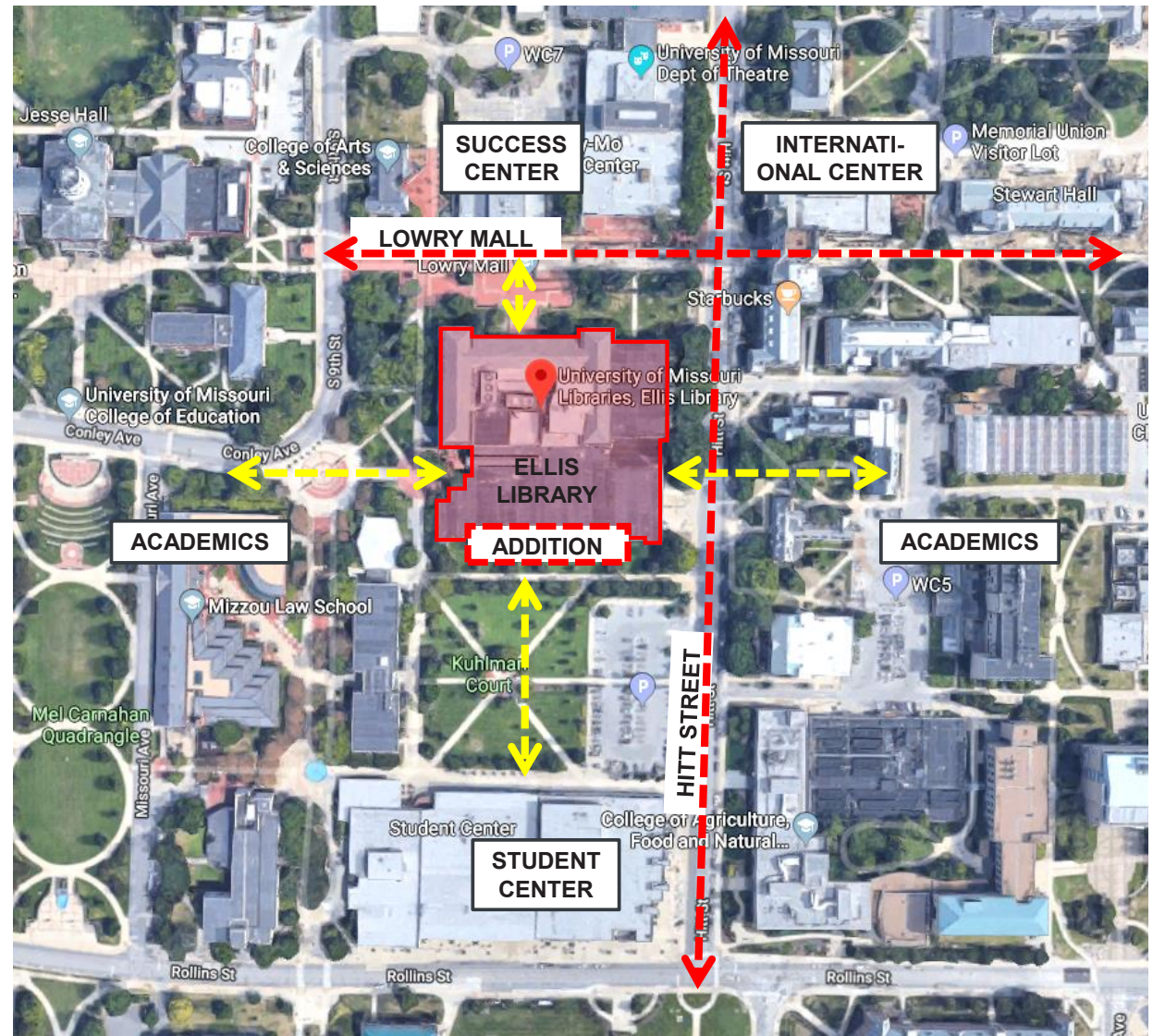
Libraries' Values

Access: Freedom of access to information in all forms and for all persons is our most cherished principle. We treasure the library ideals of free speech, open inquiry, accessibility, and equality – all upheld by our collections, our services, our policies, and our procedures.

People: We value our users, regardless of their level of expertise or affiliation, as the foundation of our mission. We esteem our fellow employees, regardless of their job assignment, as our most valuable asset. We treat all people with respect and courtesy. We celebrate the diversity of our staff as one of our greatest strengths.

Service: Our principal goal is to provide the best quality service possible, at all times, to all our users. We recognize and celebrate excellence whenever and wherever we encounter it. We work together as a team for the greater good of the Libraries and the University.

Stewardship: We maintain our collections and facilities for future generations of scholars. We make the most efficient use of scarce resources. We plan for the challenges which will confront us in the future.



Vision & Overview

Process

The master plan will evaluate the best use of existing spaces, assess them in terms of current library trends and best practices, identify constraints and opportunities, re-envision how the library can best serve the University of Missouri, and make recommendations that align with the broader mission of the University.

Shepley Bulfinch was engaged in April 2019 over a six-month period to lead a two day workshop on campus to meet with Library Management Team and stakeholders including library staff, faculty and students. Three additional video conference calls were included to meet with Library Leadership to establish the vision and roadmap for a renovated Ellis Library.

The sessions were organized as follows:

Workshop 1: Two-Day Campus Engagement

- Library System Tour including Ellis Library, Health Science Library, Engineering Library and University Archives
- Library Management Team to establish project goals, present benchmarking/ library trends, and identify constraints and opportunities
- Acquisitions, Collections and Technical Services
- Research, Access and Instructional Services
- Special Collections and Digital Services and Archives
- Staff Advisory Group
- University Library Student Advisory Committee
- Mapping how students use the library today

Video Conference Call: Program Development

- Report out on mapping and engagement sessions
- Review existing program analysis
- Review preliminary space program scenarios
- Identify pressure points
- Review planning goals and design strategy

Video Conference Call: Planning Scenarios

- Review updated program analysis
- Review planning scenarios
- Identify preferred direction

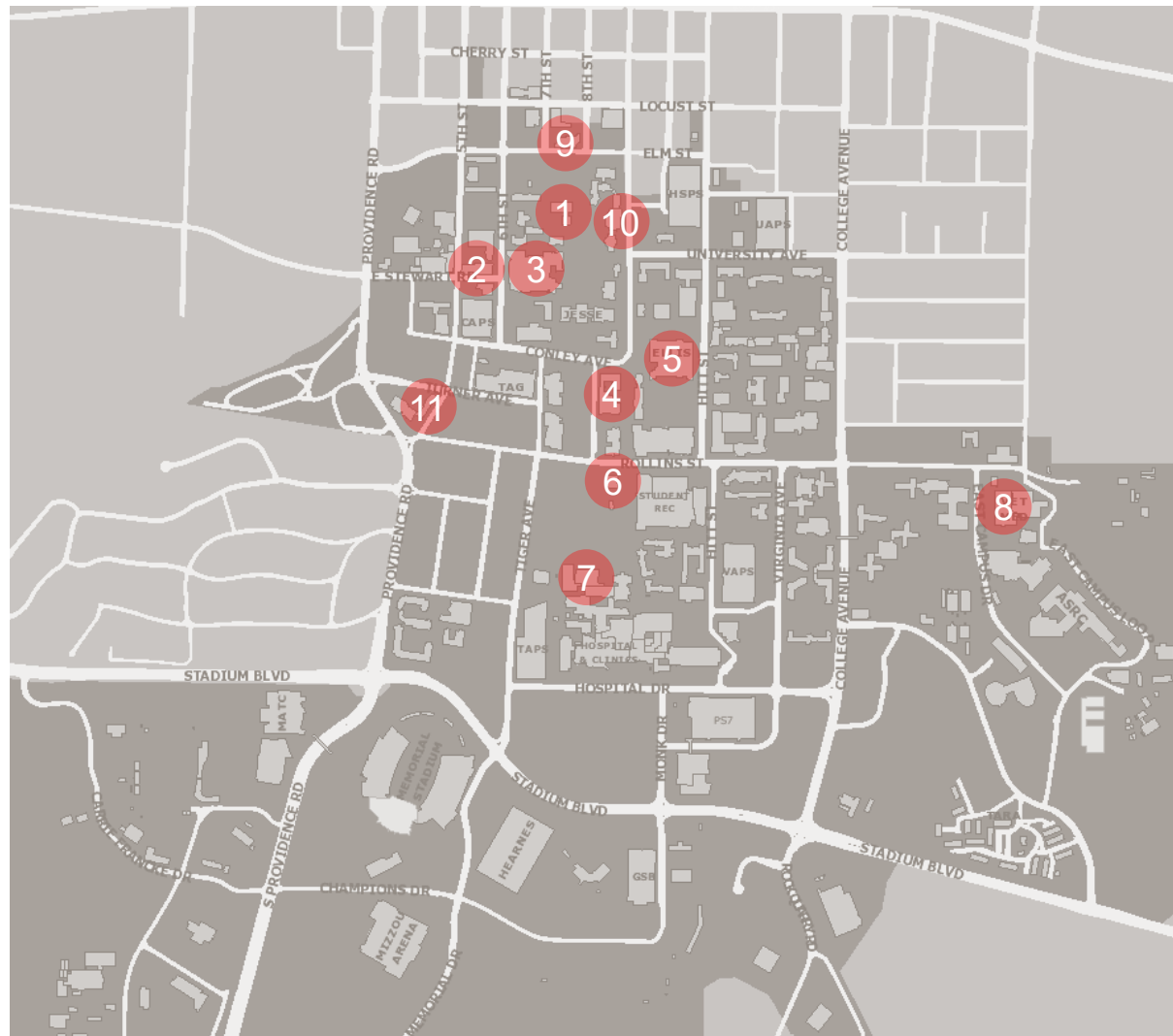
Video Conference Call: Implementation Strategy

- Review updated preferred planning scenario
- Review phasing options
- Identify preferred direction

Libraries' Strategic Goals

1. To position the University Libraries as active partners in student-centered learning
2. To assure the quality, diversity and preservation of our library collections for the campus and wider academic community
3. To position the University Libraries as active partners in support of research and practice
4. To transform library spaces to enable changing models of learning and scholarship

- 1: Geology Library
- 2: Media Library
- 3: Engineering Library
- 4: Law Library
- 5: Ellis Library
- 6: Math Library
- 7: Lottes Health Science Library
- 8: Veterinary Medical Library
- 9: Missourian Newspaper
- 10: Journalism Library
- 11: Lewis/ Archives



University of Missouri Library System

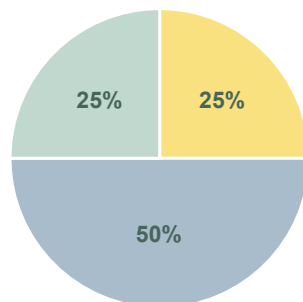
Benchmarking Analysis

The distribution of space for higher education academic libraries is measured as three designated types of spaces including collections, staff/ services and patron space.

Mid-20th Century Library

In the past, the storage of books was the primary function of libraries, in terms of dedicated space. This is changing as libraries focus on hosting and serving patrons, enabling the creation of knowledge.

Mid-20th Century



Patron Space

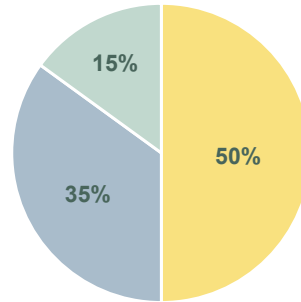
Contemporary 21st Century Library

With the evolving digitization of print collections, much of the contemporary library's physical print collections are moving off-site or into high density shelving storage, reducing the footprint of space dedicated to collections.

The demand to provide more patron space has shifted the model to increasing space for study, research, technology and support services, all contributing to 50% of the space being allocated to patron space.

Through cross-training of staff and open collaborative environments, staff spaces have become more efficient in use of space.

Contemporary 21st Century



Staff/Services

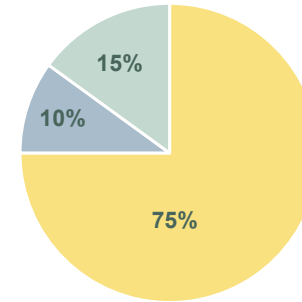
Progressive 21st Century Library

Progressive libraries are further reducing their collection through the means of Inter-library consortiums, increasing the amount of compact shelving and/ or robotic storage. Each institution is unique and will need to evaluate what collection needs to remain in the physical library space and what is able to shift to off-site storage.

The library's role has shifted its focus by serving patrons through the creation of knowledge and fostering research. The types of spaces include entrepreneurship centers, data-visualization labs and innovation spaces for teaching and learning.

Expanded partnerships place a demand for more showcase exhibits, and hold presentations and workshops.

Progressive 21st Century



Collections

Library Seating Benchmark Comparison

Patron Seating

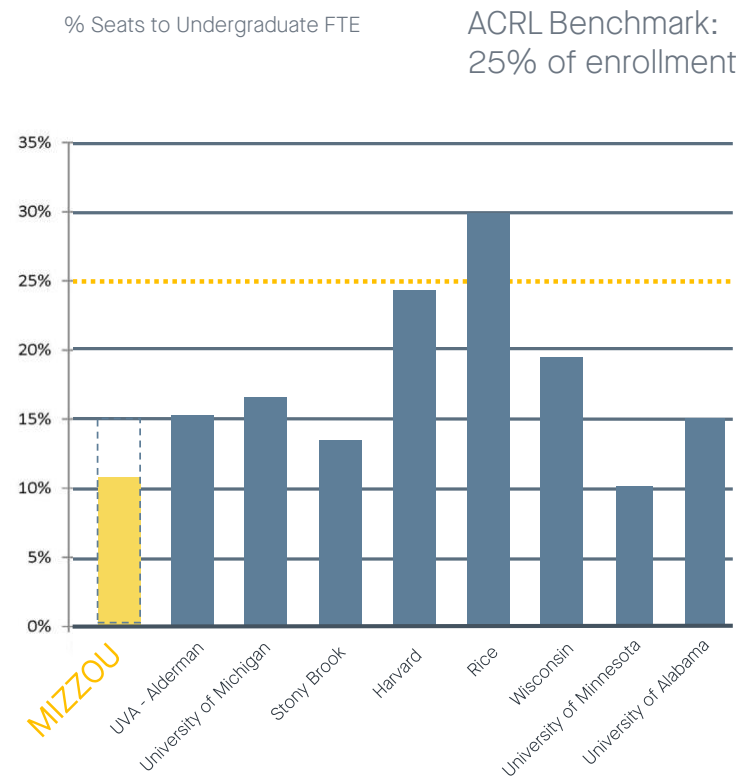
The benchmarking analysis of both current and aspirational peers looks at the percentage of FTE (Full-Time Equivalent) students compared to the number of seats located in the library. In the chart provided below, Mizzou currently

accommodates around 11% of their student body. ACRL, Academic and College Research Libraries, goal is to accommodate 25% of student enrollment. Often large Universities have a difficult time accommodating 25% of FTE within their library system and often make up the difference

by providing a mix of study spaces outside of the library proper, often located in classroom buildings, shared space in housing, student centers, etc. Our goal for this study was to accommodate 15% of Mizzou's FTE student body to be more aligned with the average of large state institutions.

How does Mizzou compare?

University Library	Student Enrollment	% Seats per Student
UVA Alderman	~23,900	16%
University of Michigan	~43,400	16%
Stony Brook	~21,277	13%
Harvard University	~28,100	24%
Rice University	~4,000	30%
Wisconsin	~41,500	19%
University of Minnesota	~39,303	10%
University of Alabama	~32,488	15%



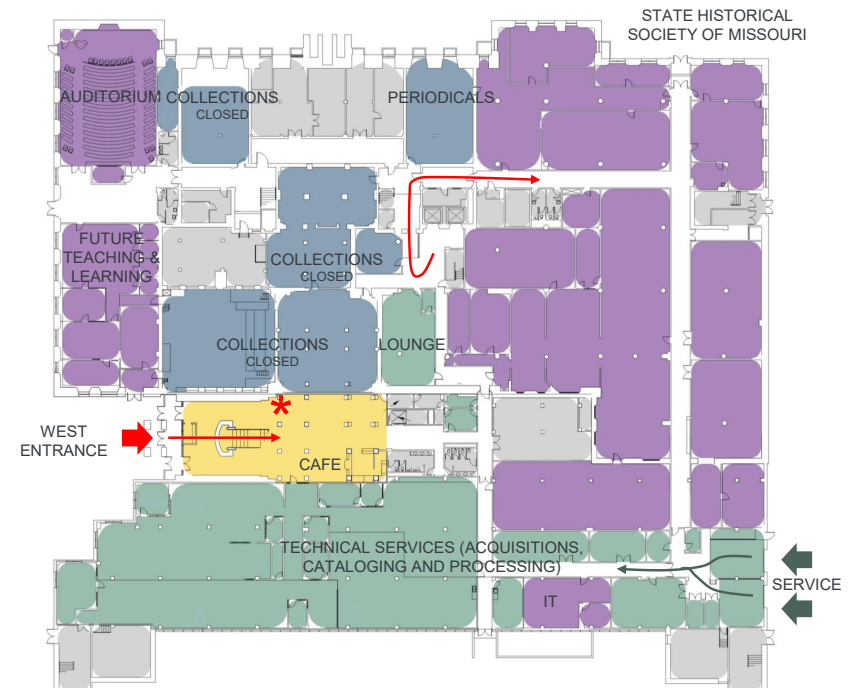
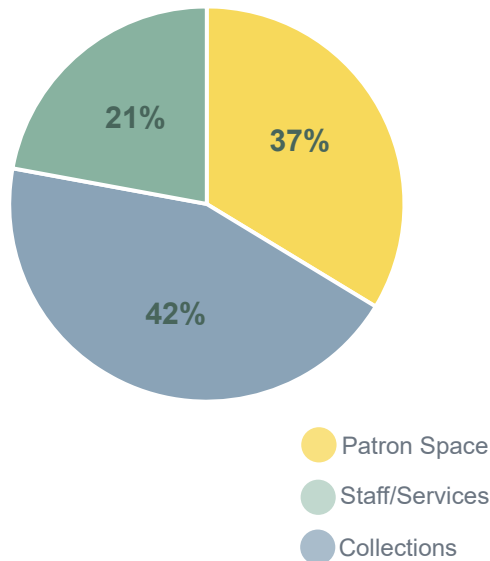
Ellis Library Space Allocation

Existing Space Allocation

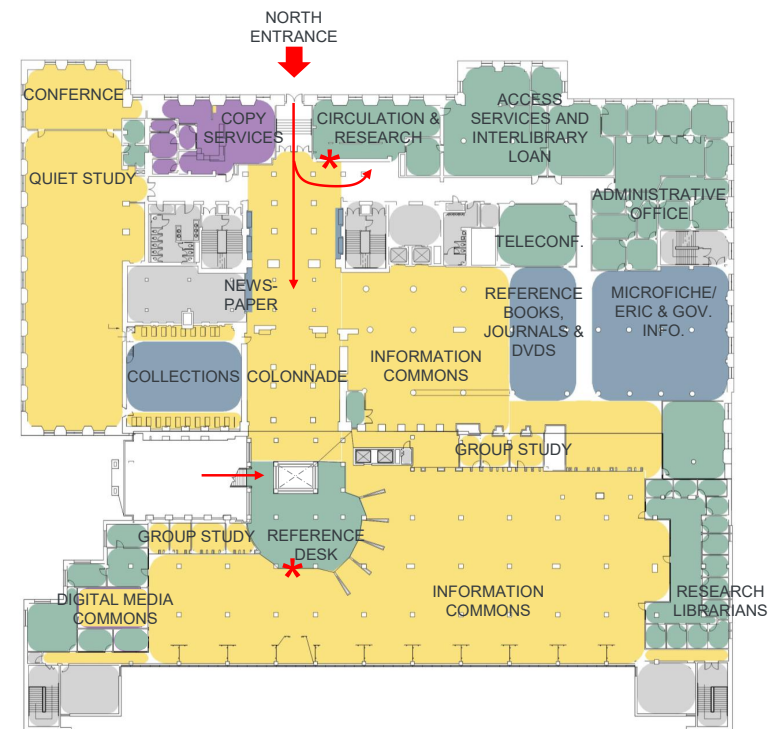
Existing Space Allocation

The Ellis Library falls short of a contemporary 21st century library space allocation and functions as a more traditional 20th century model. For this reason the master plan for Ellis Library space program concentrates on right sizing existing space and evaluating the types of services and spaces currently available. We have worked to understand the experience and activities that the library needs to accommodate.

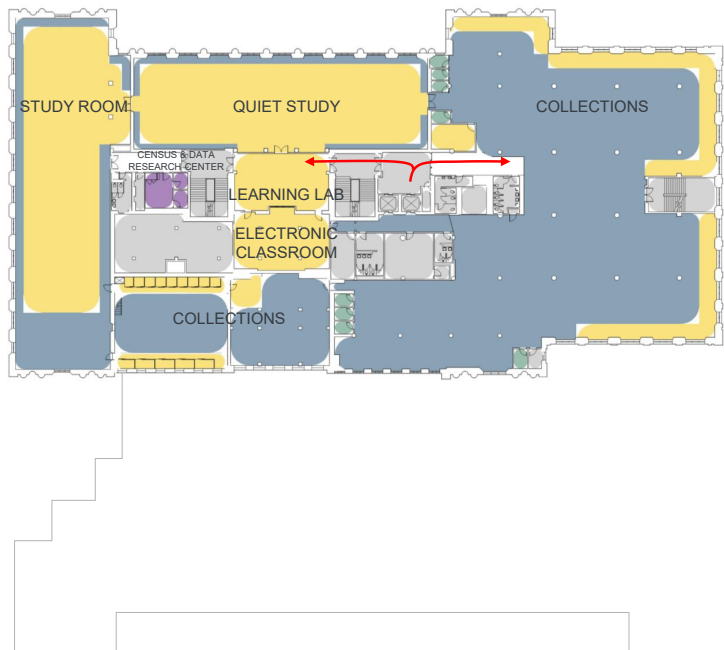
Existing Ellis Library program distribution:



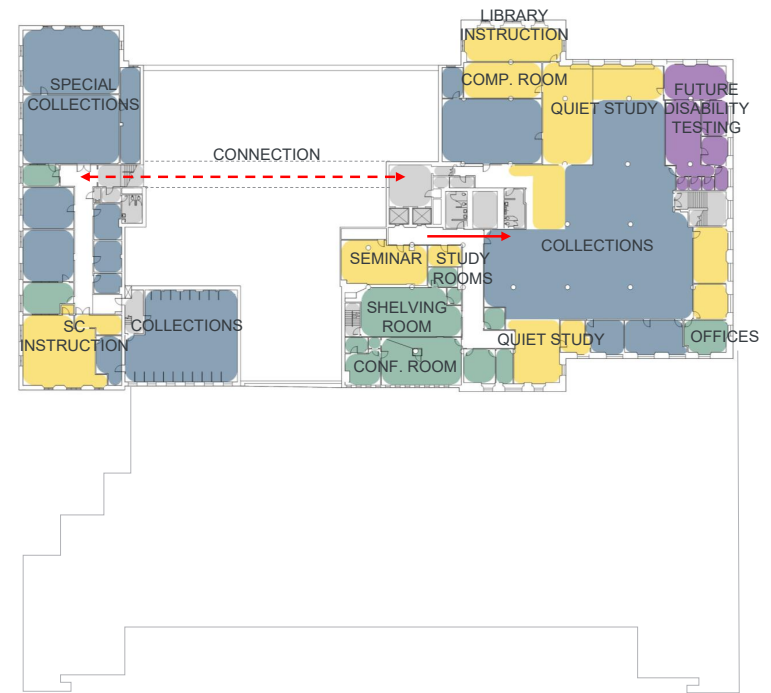
Ground Level



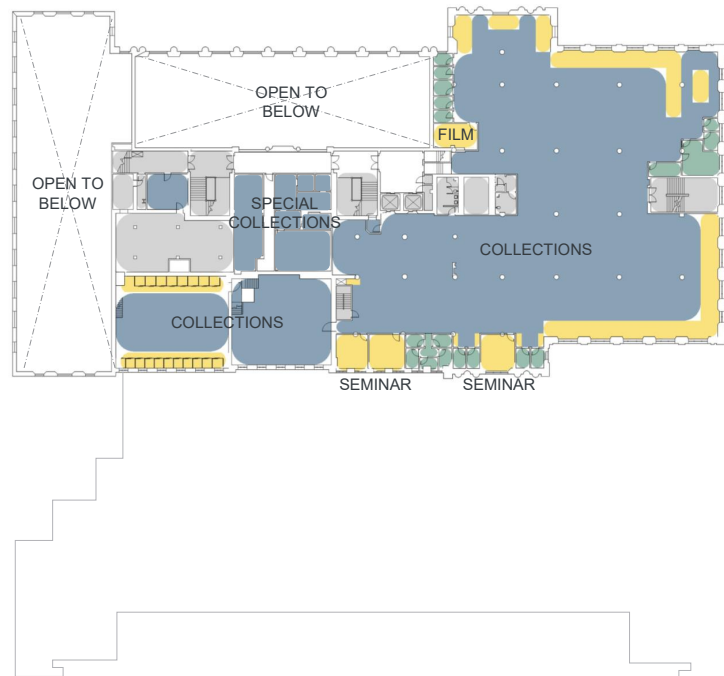
Level One



Level Two



Level Four



Level Three

- Patron Space
- Collections
- Staff/ Services
- Non Library Space:

Existing Space Allocation

Collections:

Collections currently make up 42% of the floor area in Ellis Library and are predominately located on the second and third floor. A portion of the collection is held within structural stacks with lockable graduate carrels at the perimeter at mezzanine 1, 2 and 3. Special Collections is located on the fourth floor and has additional storage closets on the third floor. The closed storage spaces that hold special collection material have inadequate environmental conditions and need to be addressed to provide the recommended temperature and humidity control to preserve the collection. The collection has reached capacity and need additional space to accommodate future growth.

Patron Space:

Ellis Library is zoned with the most active floors being on the lower floors and the quieter spaces on the upper floors 2 through 4. The most active patron space is located on the first floor in the learning commons and on the ground floor near the west entrance at the cafe. The cafe entrance is a social space where students come to meet other students and faculty for one on one or group collaboration in the evenings. The recent renovated quiet study space on the first floor is

one of the most sought out spaces. Patrons commented that they like the variety of seating types and it is often their first choice of spaces to study. The two grand reading room on the second floor are quiet study spaces and will double as event space when needed. The individual lockable study carrels on the mezzanine floor levels are underutilized as well as the carrels that line the upper floors. The Seminar and instructional spaces are tucked away on the upper floors and are difficult to find and do not double as open patron space when not in use for instruction.

Staff Space:

The majority of staff space is located on the ground floor and level 1 of the library. Although the adjacencies are ideal for Tech Services to be located near the loading dock, they will need to be re-located when the Student Success Center comes into the library at that level. It will be important to maintain elevator access for Technical Services.

Staff space on level 1 occupies the perimeter at the north and east of the building blocking much of the natural light. The staff space located on the upper floor levels are not located in preferred locations.

Existing Program Summary

Patron Space

Public/Social Space	37,008 sqft
Collaboration — Group Study	2,396 sqft
Specialized Services	25,593 sqft

Collections

Browsable Collections	58,824 sqft
Closed Collections	9,447 sqft
Special Collections Department	8,045 sqft

Staff/Services

Departments	31,306 sqft
Service Points	2,160 sqft

Non-Library Program

Variety of Programs	30,831 sqft
---------------------	-------------

Total DGSF	205,610 sqft
-------------------	---------------------



Second floor grand reading room



Learning commons study nooks



First floor reference desk and consultation



First floor quiet reading area

Proposed Space Allocation

Program Recommendation

Shepley Bulfinch worked closely with the Library Management Team to create a program that positions Ellis Library at the forefront of academic research libraries. As libraries prioritize patron space and services to support their academic development, a large portion of the collection will need to be relocated to the off-site storage facility expansion that is currently in design. This allows for the overall patron space to increase and accommodate 66% of the library building square footage. A detailed program is located in Appendix A.

Key program elements are identified as follows:

- Increase number of patron seats by 1000, a 43% increase of total seats in Ellis Library.
- Teaching and Learning spaces are reconfigured to allow spaces to double as study seats when classes are not in session and adaptable to expand into an event space.
- Relocation of collection to the off-site storage facility.
- Consolidate Special Collections, Preservation and Conservation, and Archives by bringing in the archives staff and prominent collections into Ellis Library. A portion of Special Collections and Archives items will be relocated to off-site storage.
- Create an entrepreneurship nexus adjacent to the Media Commons to promote collaboration and experimentation.
- Create themed reading rooms that will rotate based on faculty courses and / or current events.
- Provide staff and faculty department with working environment that meet functional space requirements and appropriate adjacencies on the ground level, level 1 and level 4.
- Create a graduate and faculty research hub to foster interdisciplinary research in individual suites with a mixing box to display and showcase research.
- Expansion at the south to expand patron seating and have a connection to the Student Center.
- New east entrance on the ground level.
- Enlarged non-library program of One-Stop shop for student services to be on the ground level.

Preferred Program Summary *(includes future expansion)*

Patron Space

Public/Social Space	110,359 sqft
Collaboration — Group Study	4,740 sqft
Specialized Services	36,460 sqft

Collections

Browsable Collections	135,716 sqft
Closed Collections	2,837 sqft
Special Collections Department	14,098 sqft

Staff/Services

Departments	20,023 sqft
Service Points	500 sqft

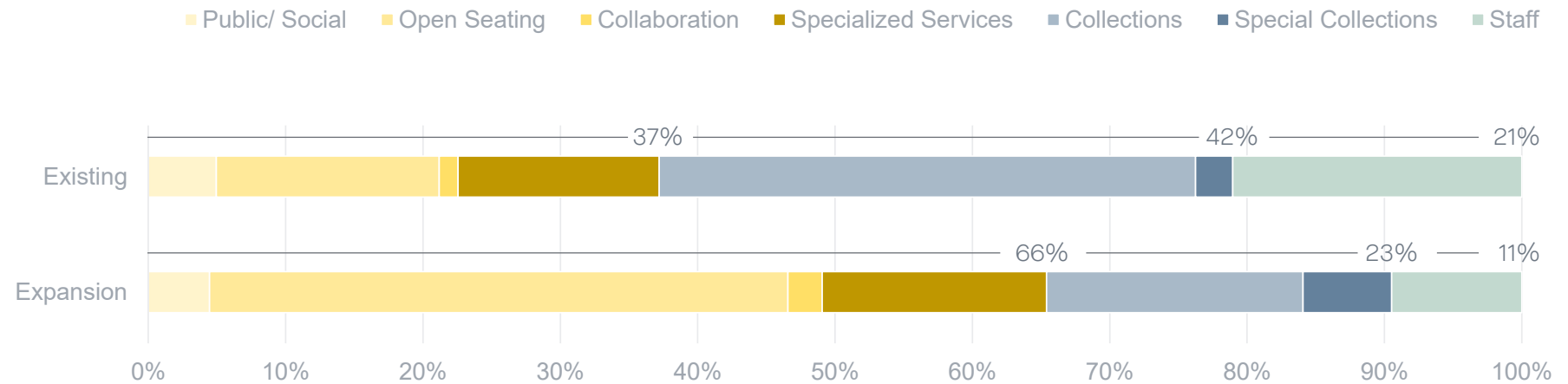
Non-Library Program

Variety of Programs	46,588 sqft
---------------------	-------------

Total DGSF 271,320 sqft

Total GSF 341,364 sqft

Program Evolution



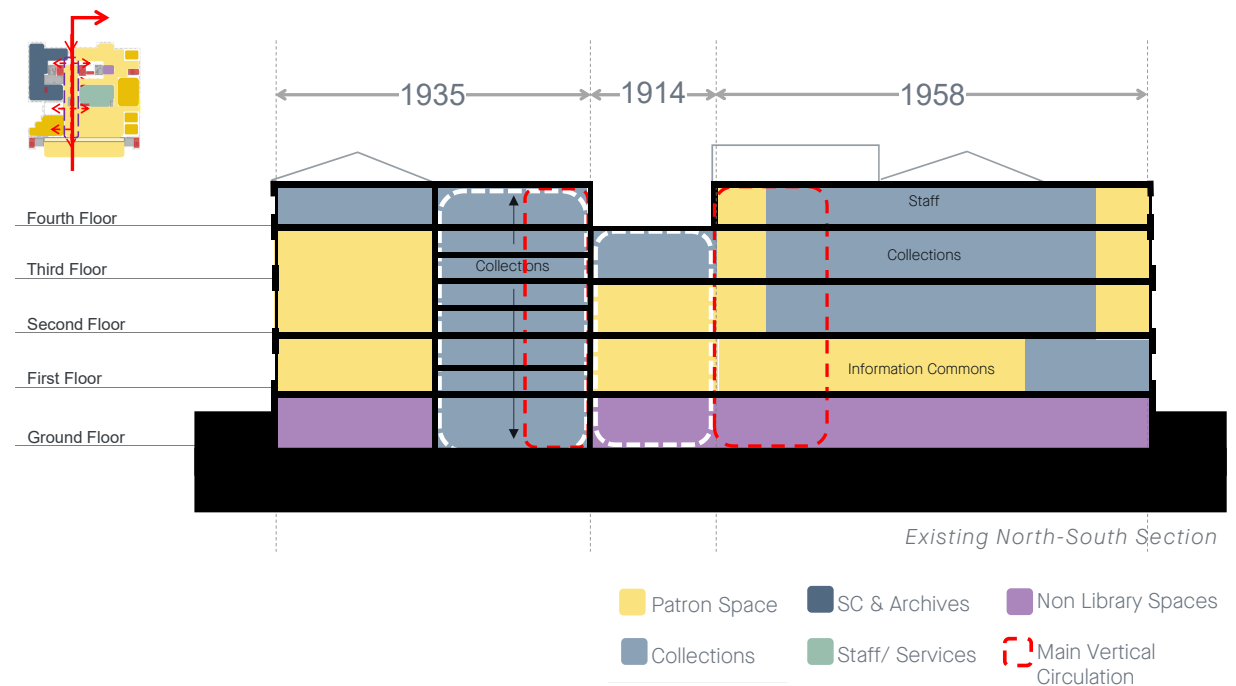
	Existing	Preferred
Total Assignable Square Feet (sqft)	205,610 sqft	271,320 sqft
Total Available Gross Square Feet (GSF)	318,364 sqft	341,364 sqft
Efficiency	65%	66%
TOTAL SEATS	2326 seats	3325 seats

Preferred Planning Scenario

Preferred Planning Scenario — Nexus

Existing Stacking Diagram

The existing library is organized vertically by collections located in the structural stacks in the 1935 building and on the upper floors 2-4 of the 1958 addition. The library is zoned with the majority of patron space on the first floor. The active zone being in the learning commons and the quiet spaces stacked on the first and second floor.



Nexus Overview

Stacking Diagram

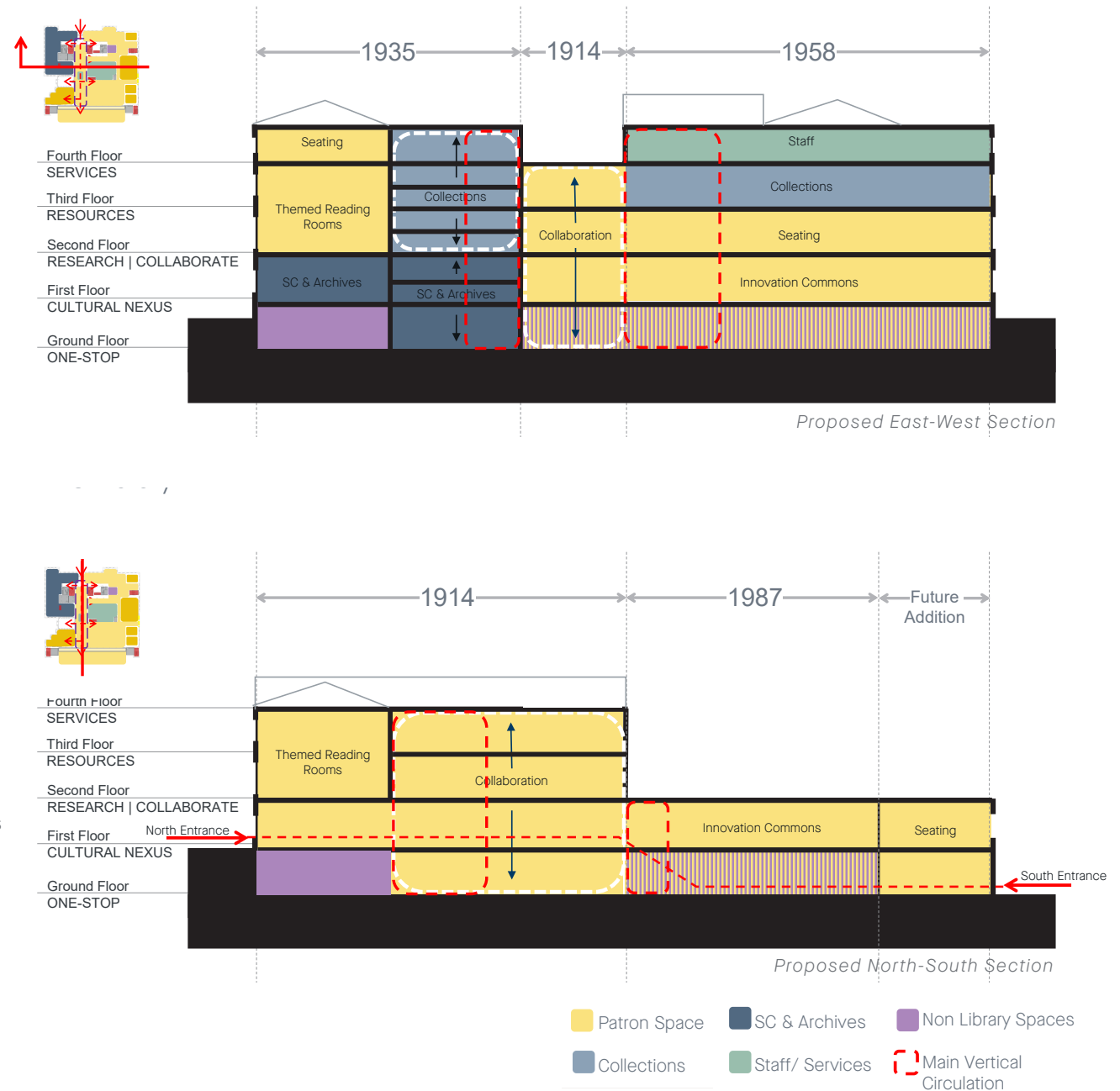
The overall organization strategy prioritizes increased patron space and support services creating a research destination for students, staff and faculty.

East-West Section

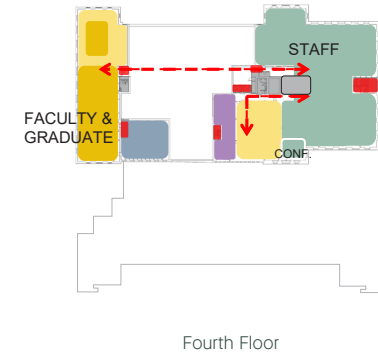
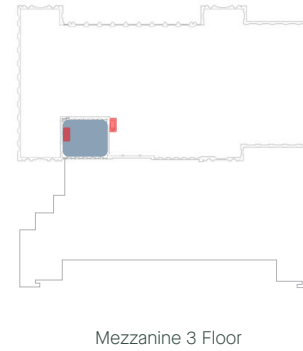
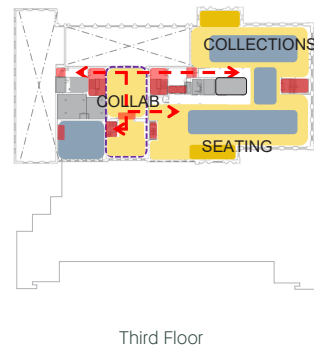
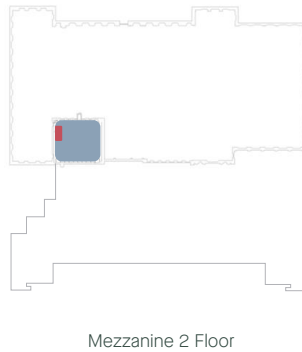
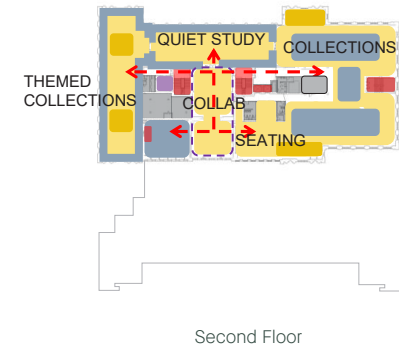
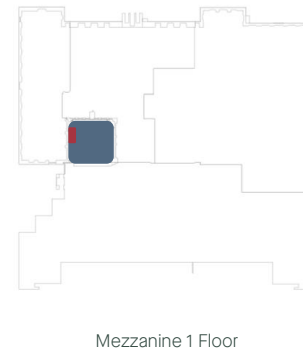
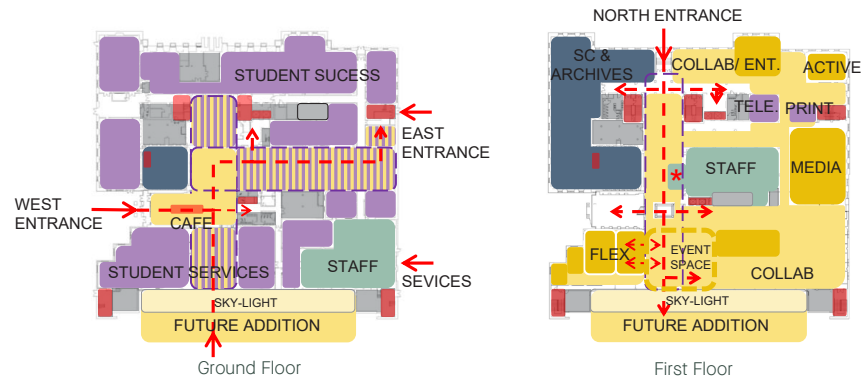
- Structural stacks accommodate Special Collections and Archives from ground floor up to second floor, with general collections on upper floors
- Collaboration zone on all floors connecting the 1935 building to the 1958 addition.
- Gradient from active on first floor to focused study on upper floors.

North-South Section

- Patron space centralized through all floor levels
- Connection from north entrance to proposed south entrance at expansion to encourage movement through the library to reach destinations.



Nexus Overview



- Patron Space
- Collections
- SC & Archives
- Staff/ Services
- Non Library Spaces

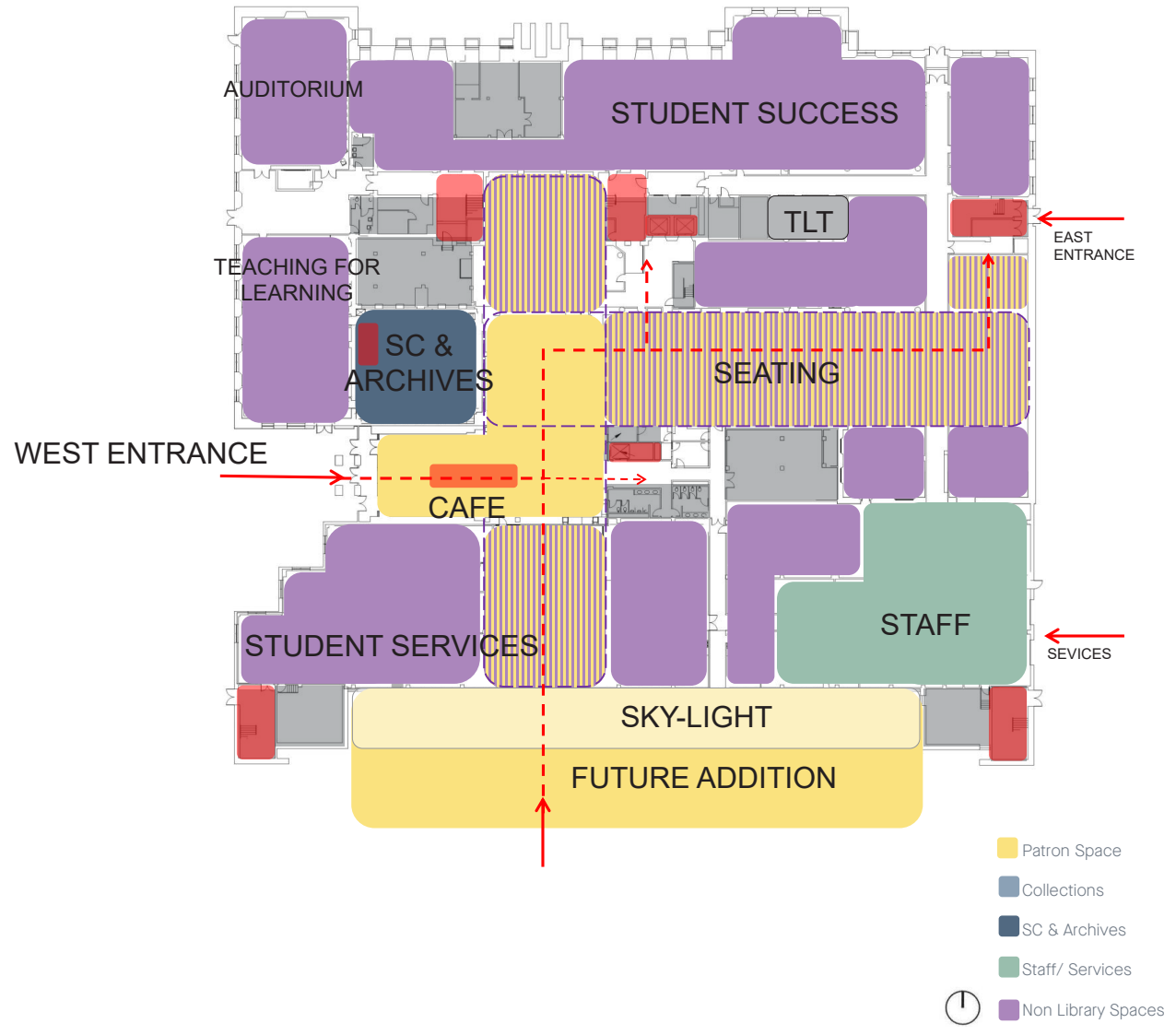


Long-term proposed expansion to south of Ellis Library

Preferred Planning Scenario — Nexus

Ground Floor — One Stop Shop

- The hatched area references shared seating between the library and One-Stop-Shop student success and services. They link public spaces between the existing west entrance and the new the new south and east entrances.
- Future addition with skylight above on first floor. Creates a new south entrance that connects to the student center across the lawn.
- Expanded cafe to meet increased demand.
- Closed Special Collections & Archives storage.
- Create a one-stop-shop for student success and student service linked with shared spaces adjacent to the expanded cafe.





Expanded cafe

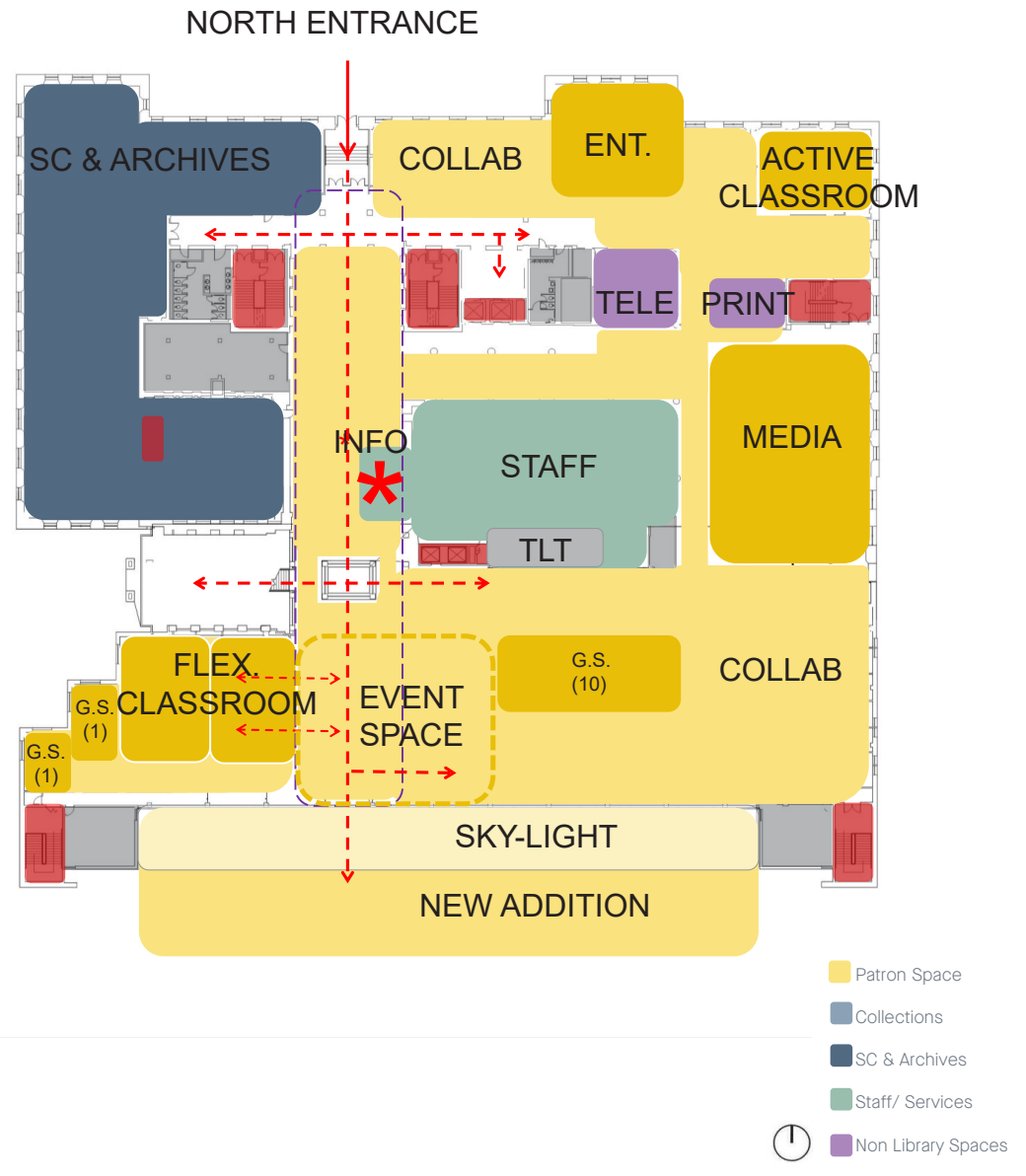


Shared student collaboration space

Preferred Planning Scenario — Nexus

First Floor — Cultural Nexus

- Create a central nexus along the main circulation core that connects the range of programmatic activities.
- Greater visibility and accessibility into Special Collection and Archives. The gallery space immediately adjacent to the north entrance and provide visibility into the structural closed stack area and reading room from central circulation core.
- Centrally locate staff to support both the information desk and consultation for subject specialists.
- Two flexible classrooms that can be opened up to one large classroom. The flexible classroom walls will open up to the adjacent collaboration space to hold large events.
- Sight lines from the ground floor up through the double height space to the event space.
- Active collaboration space integrated with entrepreneurship and media commons.
- New toilet rooms centrally located.





Central service point



Collaboration



Media commons



Visibility and accessibility to Special Collections & Archives

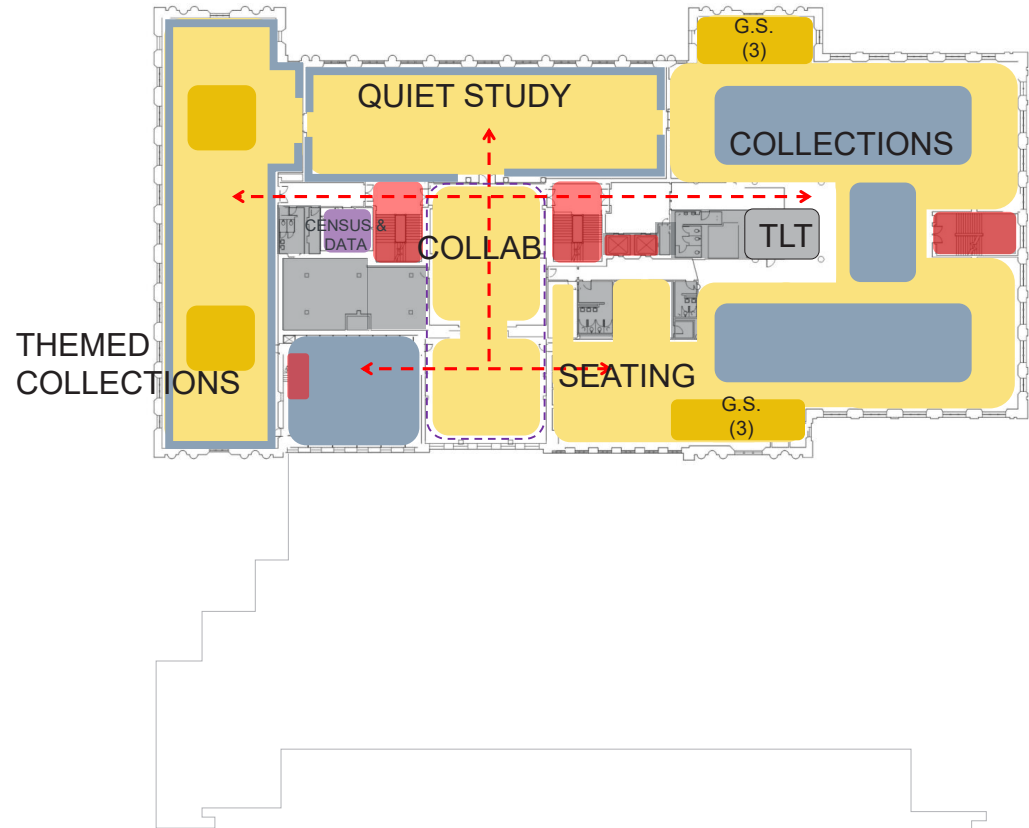


Entrepreneurship

Preferred Planning Scenario — Nexus

Second Floor — Research & Collaborate

- Collaborative circulation core. Noise levels to permeate to quieter space along the perimeter for more focused research.
- Return the grand historical reading room to it's original aesthetic.
- Themed collection rooms to encourage faculty teaching and collaboration in the library. Collection to rotate based on faculty courses and / or current events.
- Collections dispersed throughout upper floor levels.
- Group study rooms dispersed throughout upper floor levels for quieter focused study (alone together) and interdisciplinary research projects.
- Expanded toilet rooms.





Historical reading room

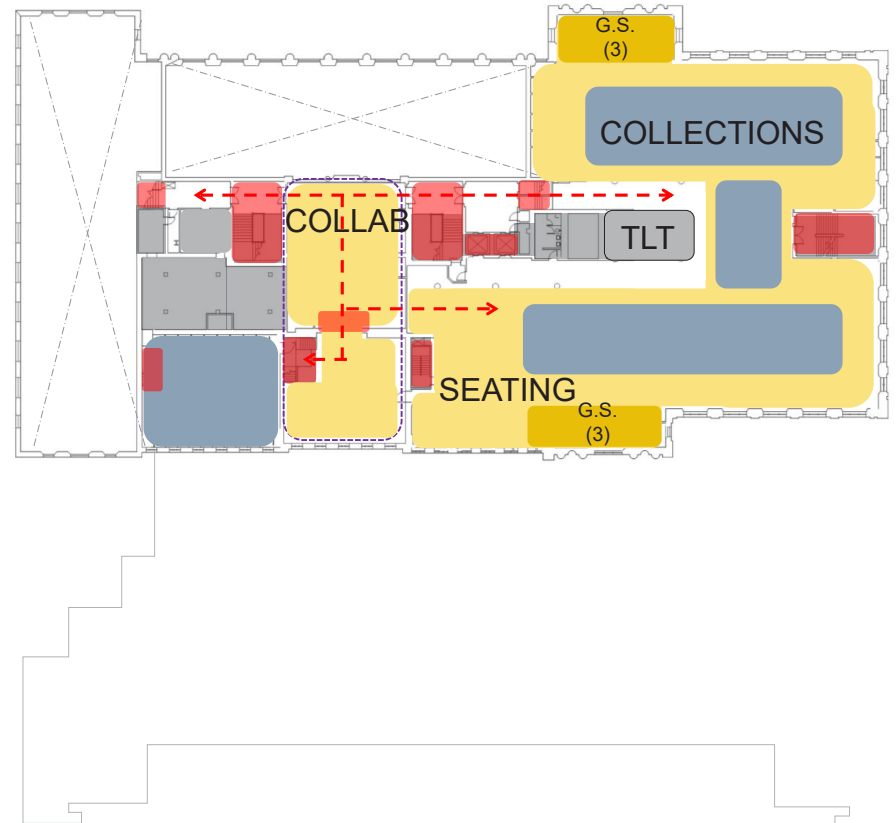


Themed reading room

Preferred Planning Scenario — Nexus

Third Floor — Resources

- Collaborative circulation core. Noise levels to permeate to quieter space along the perimeter for more focused research.
- Collection dispersed throughout upper floor levels.
- Group study rooms dispersed throughout upper floor levels for quieter focused study (alone together) and interdisciplinary research projects.
- Expanded toilet rooms.





Reader seating

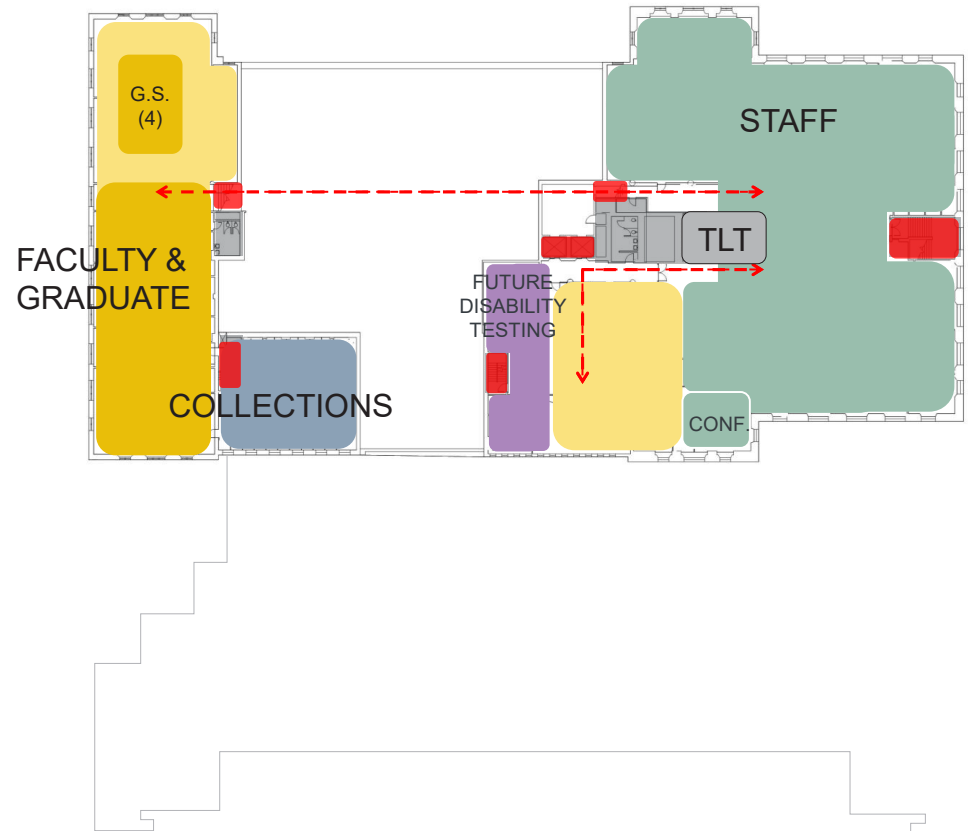


Collaboration space

Preferred Planning Scenario — Nexus

Fourth Floor — Service Focused

- Faculty and Graduate Centers by key card access only to foster collaboration and interdisciplinary work with a place to share and showcase research.
- Consolidated staff space.
- Expanded toilet rooms.





Faculty and graduate Centers



Collaborative staff space

Phasing Recommendations

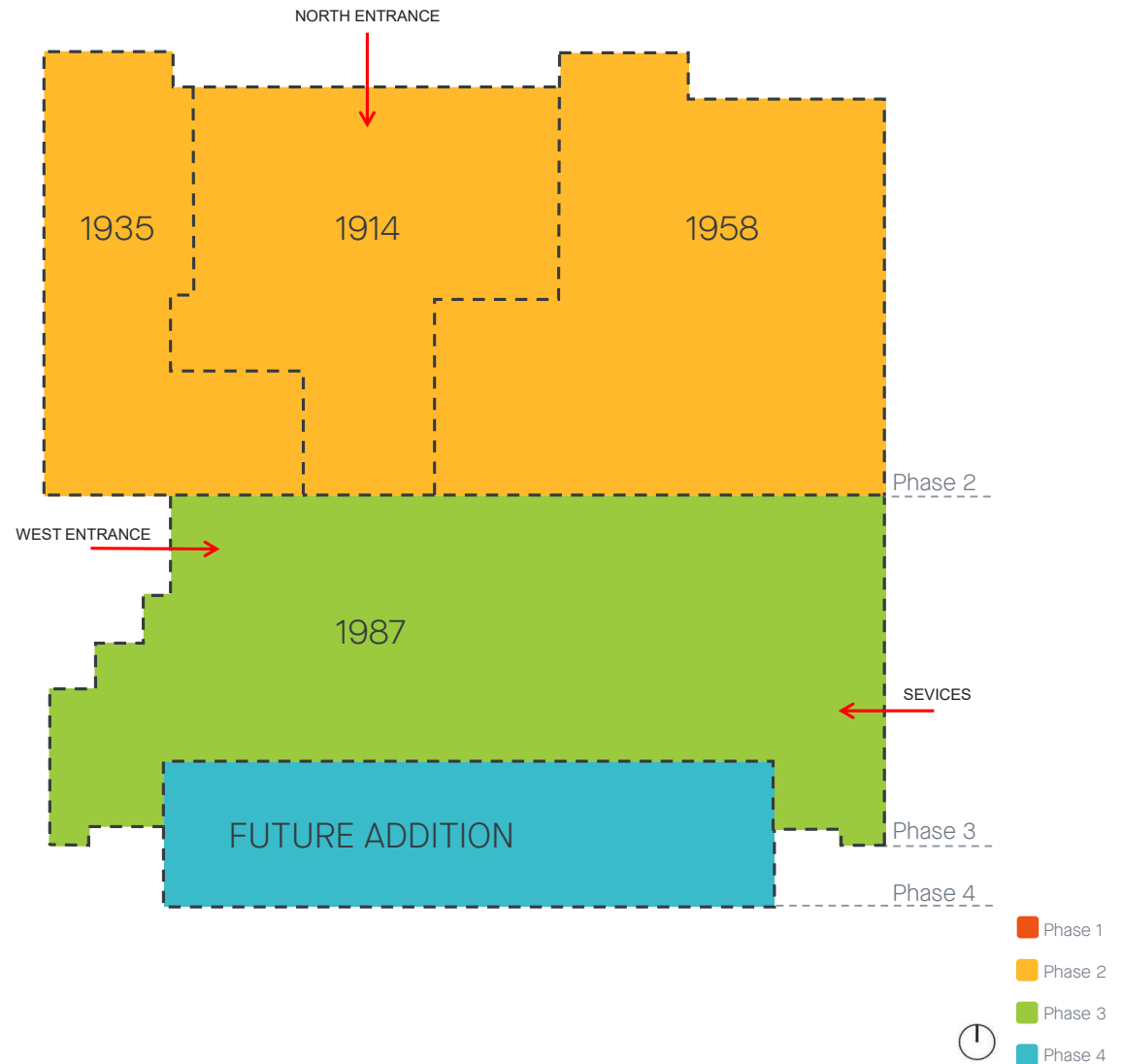
Phasing Recommendations

Phasing

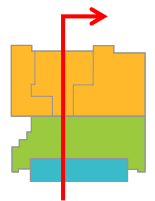
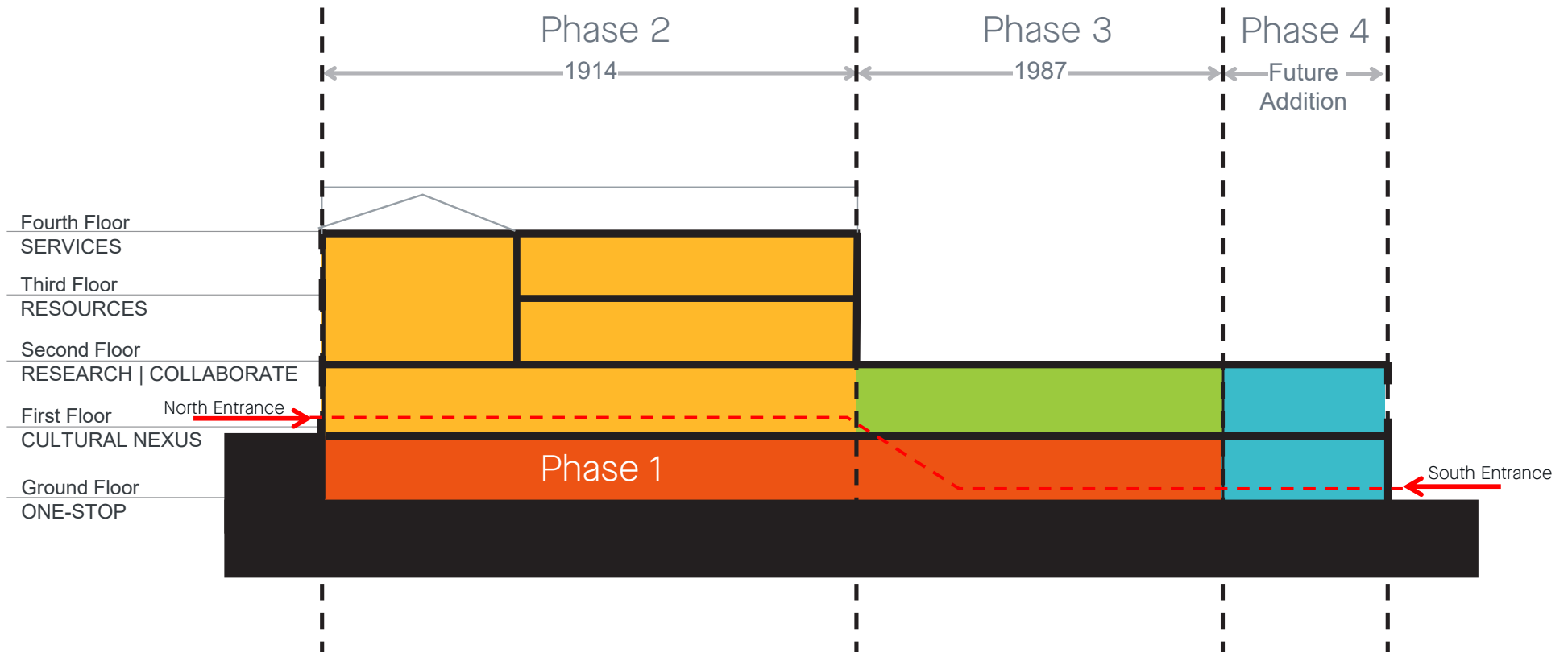
While it is the most efficient to renovate the entire Ellis Library at once, it is imperative that the library remain open to serve the University community. The renovation moves through the building in a phased, logical way creating a roadmap for implementation. A balance must be struck between the number of phases and limited impact to the library.

Renovation phases were developed with the understanding of how the original Ellis Library was constructed over time. The north portion of the library was constructed over a number of years, 1914, 1935 and 1958, all of which will be included in Phase 2. The third phase consists of the 1987 portion of the first floor with a future addition as a final phase.

There will be a number of phases within each larger phase to provide adequate temporary spaces as needed and to confirm that an appropriate amount of study space will continue to be available to meet student needs.



Phasing Recommendations



Phasing Recommendations

Campus Impact

Ellis Library renovation, along with the new addition will create patron spaces that will support its surrounding buildings to create a cultural hub in the center of campus. Once renovations are complete, there will be 4 different entrances on each side of the building to connect the cultural hub to its surrounding academic and residential neighborhoods. The new entrance on the south will connect to the Student Center and the east entrance to other academic buildings.

Phasing Summary

The phasing recommendations are based on renovating the north and south portions of the library separately with respect to the structural and mechanical systems for each. The library can sustain having at least one of the main entrances open during renovation in order to sustain its function (north entrance at the North Section or west entrance at the South Section of the building).

The phasing will start with the North section of the building, including the original building built on 1914 along with the 1935 and 1985 additions. Along this Phase the west entrance will allow access to the rest of the building. Followed by the South

Section renovation where the north entrance will be accessible. The phasing then terminates with the new expansion, where the south entrance will be added.

Phase 1

- 1.1: Relocate Historical Society.
- 1.2: Shift and relocate a portion of collection to off-site storage and within Ellis Library.
- 1.3: Renovate the ground floor. The library staff currently located on the ground floor will need to be relocated if they have not already been moved to their permanent location for this phase to be implemented.

Phase 2

Renovate Ellis Library's existing North Section (1914, 1934 and 1958)

- 2.1: Renovate First and the Fourth Floor
- 2.2: Renovate Third Floor
- 2.3: Renovate Second Floor

By renovating the first and fourth floor at the same time, it is easier to relocate the staff, special collections and archives between the two floors.

After the third floor renovation, the recommendation is to provide more patron space while the second floor is being renovated.

Phase 3

Renovate first floor of Ellis Library's existing South Section (1987)

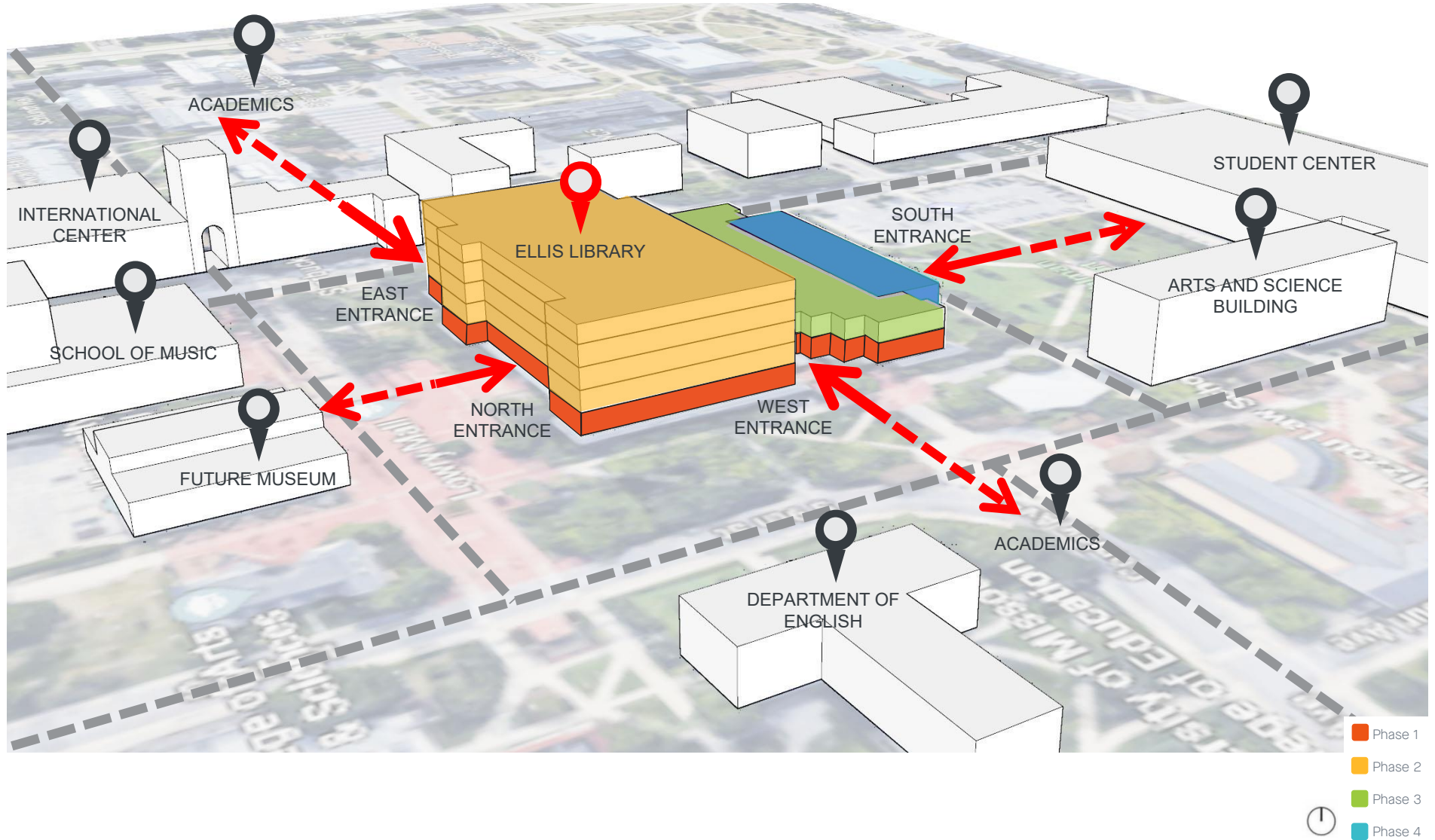
In this phase most of the library will be functioning, providing enough available patron space while the first floor of the South Section is being renovated.

Phase 4

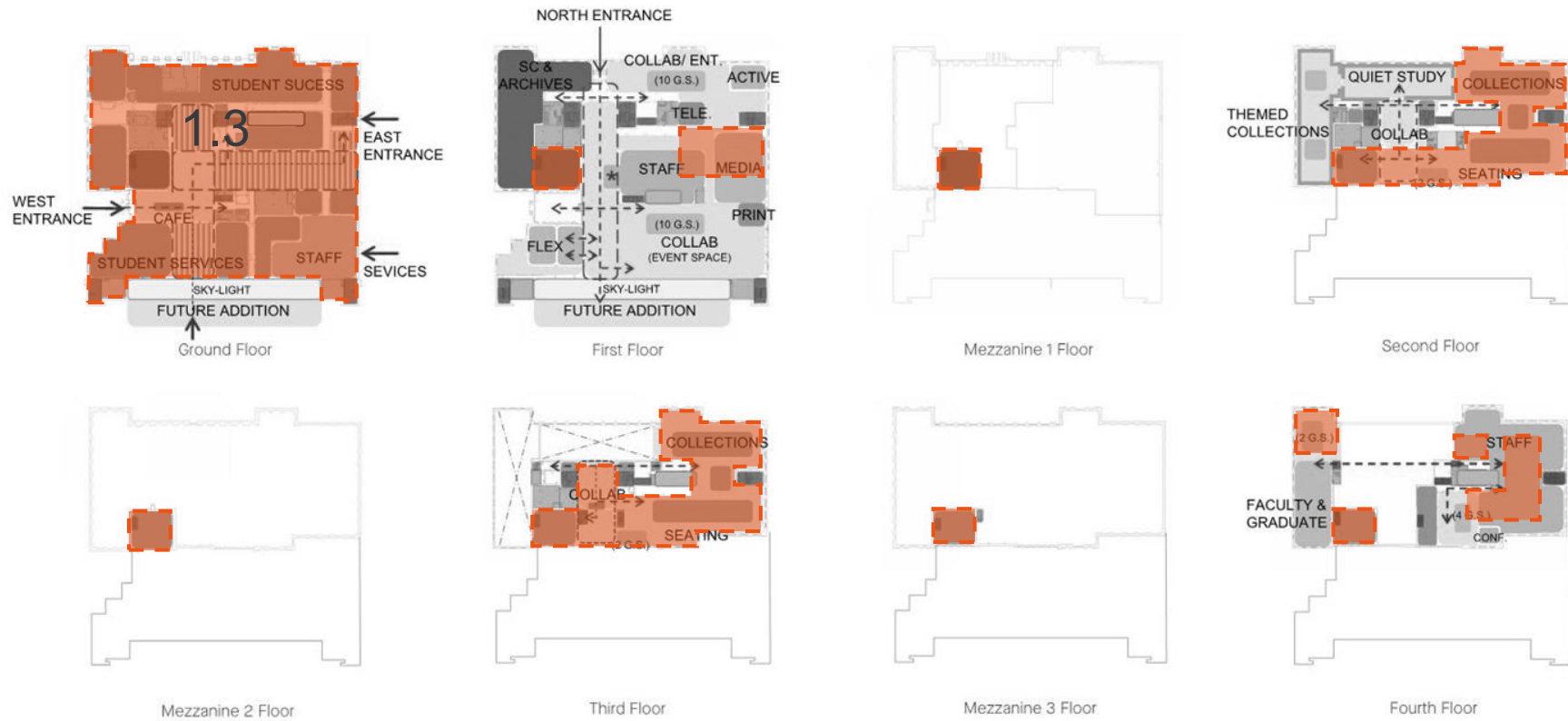
Build New Expansion

A new addition will be built extending from the ground to the first Floor. A new South Entrance will be added to Ellis Library in this phase connecting to the Student Center that is located south of Ellis Library.

Phasing Recommendations



Phase 1



Phase 1:

1.1: Relocate Historical Society

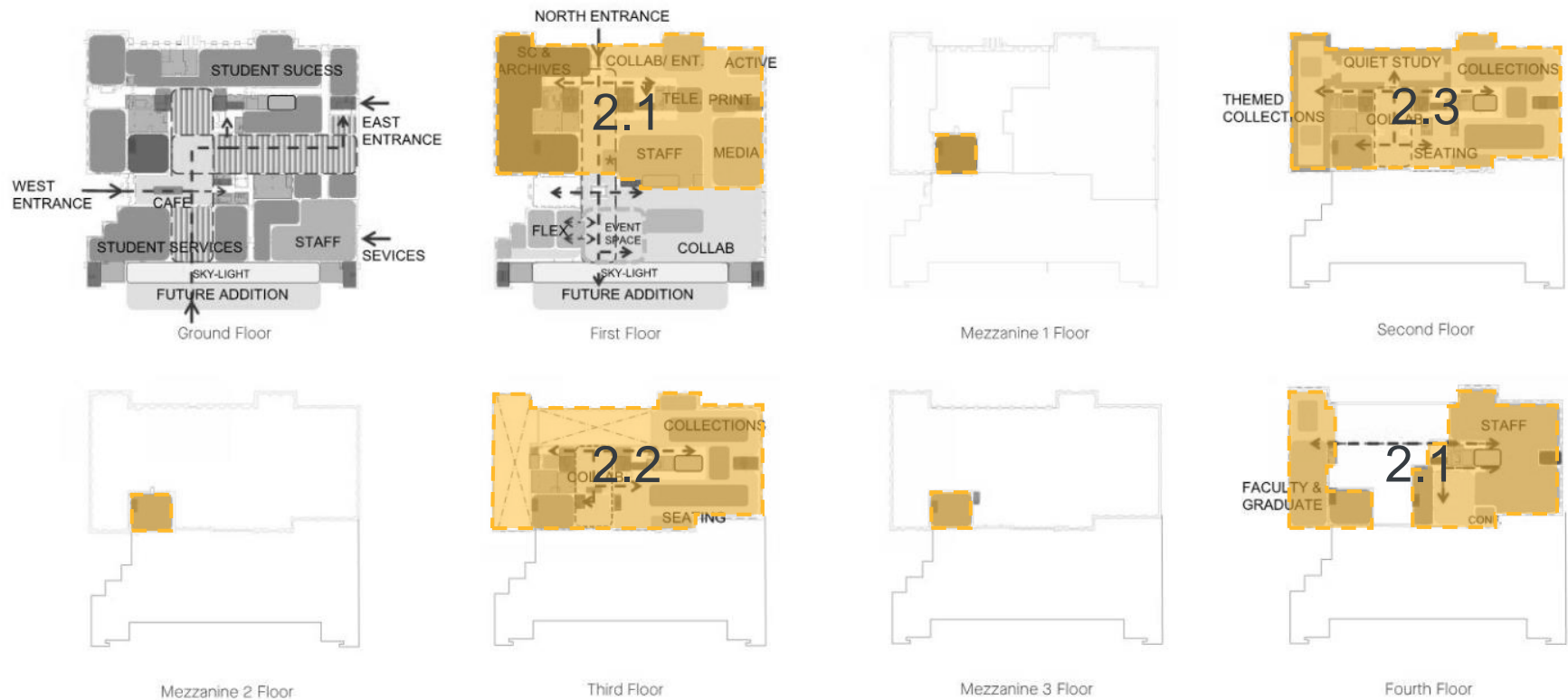
1.2: Shift and relocate a portion of collection to off-site storage and within Ellis Library

1.3: Renovate the ground floor.

- Phase 1
- Phase 2
- Phase 3
- Phase 4



Phase 2



Phase 2:

Renovate Ellis Library's existing North Section (1914, 1934 and 1958)

2.1: Renovate First and the Fourth Floor

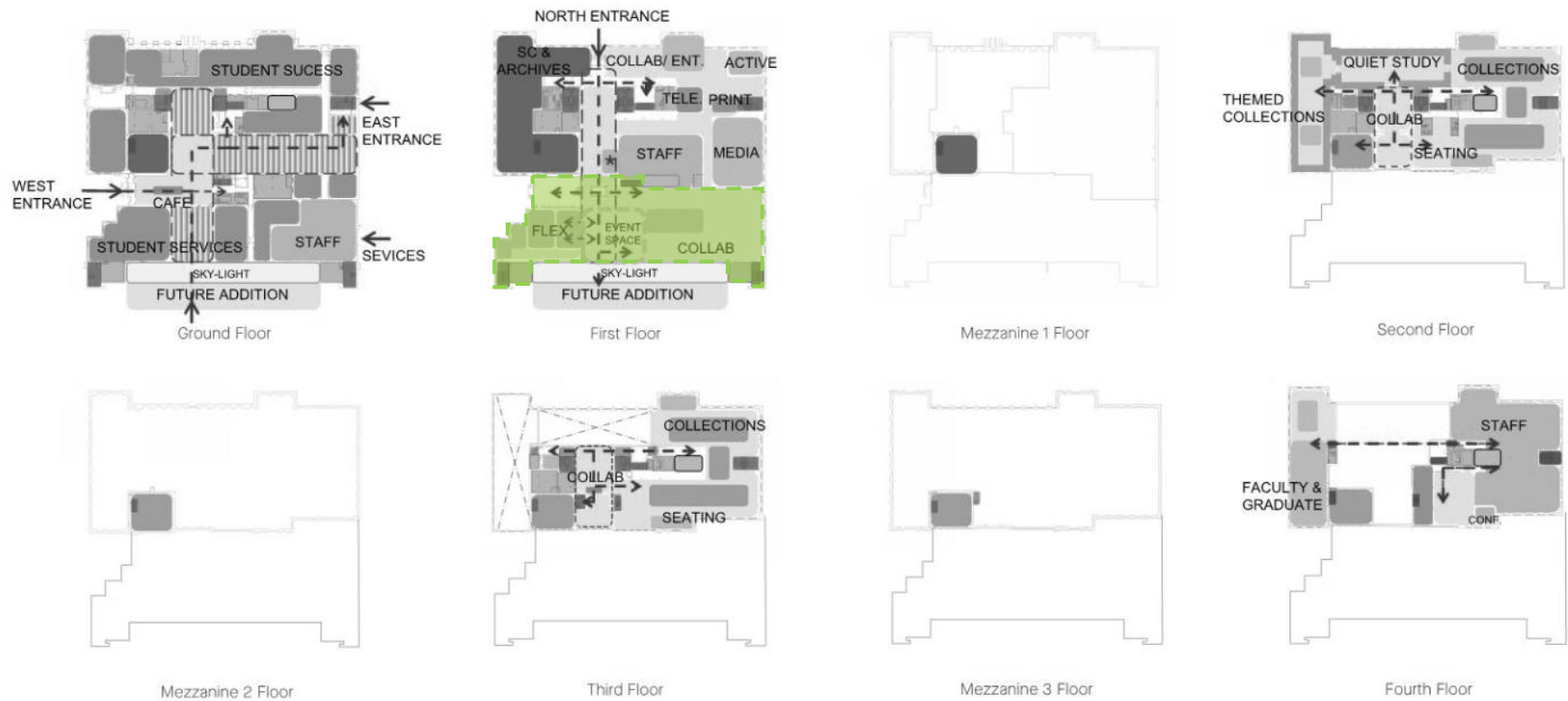
2.2: Renovate Third Floor

2.3: Renovate Second Floor

- Phase 1
- Phase 2
- Phase 3
- Phase 4



Phase 3



Phase 3:

Renovate First Floor of Ellis Library's existing South Section (1987)

Phase 1

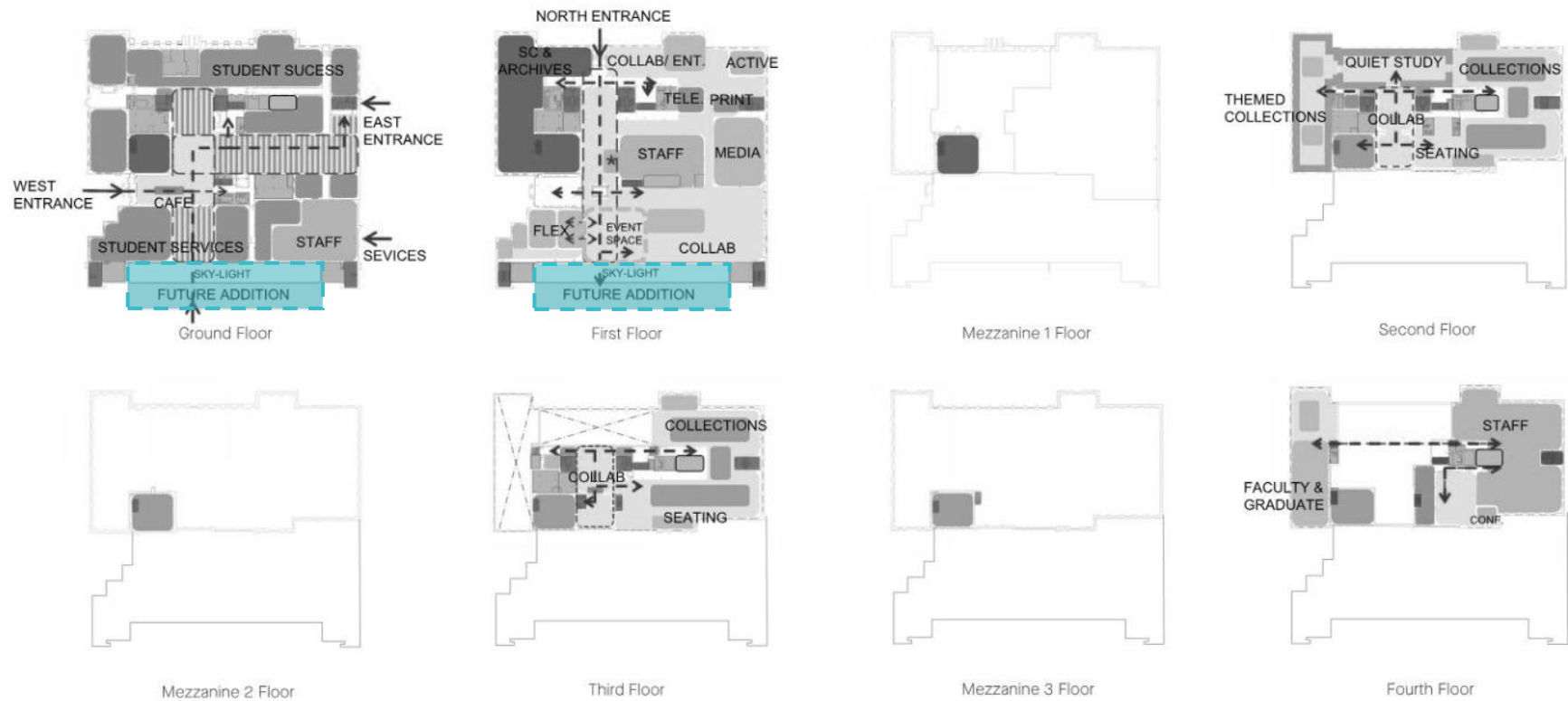
Phase 2

Phase 3

Phase 4



Phase 4



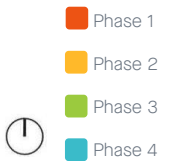
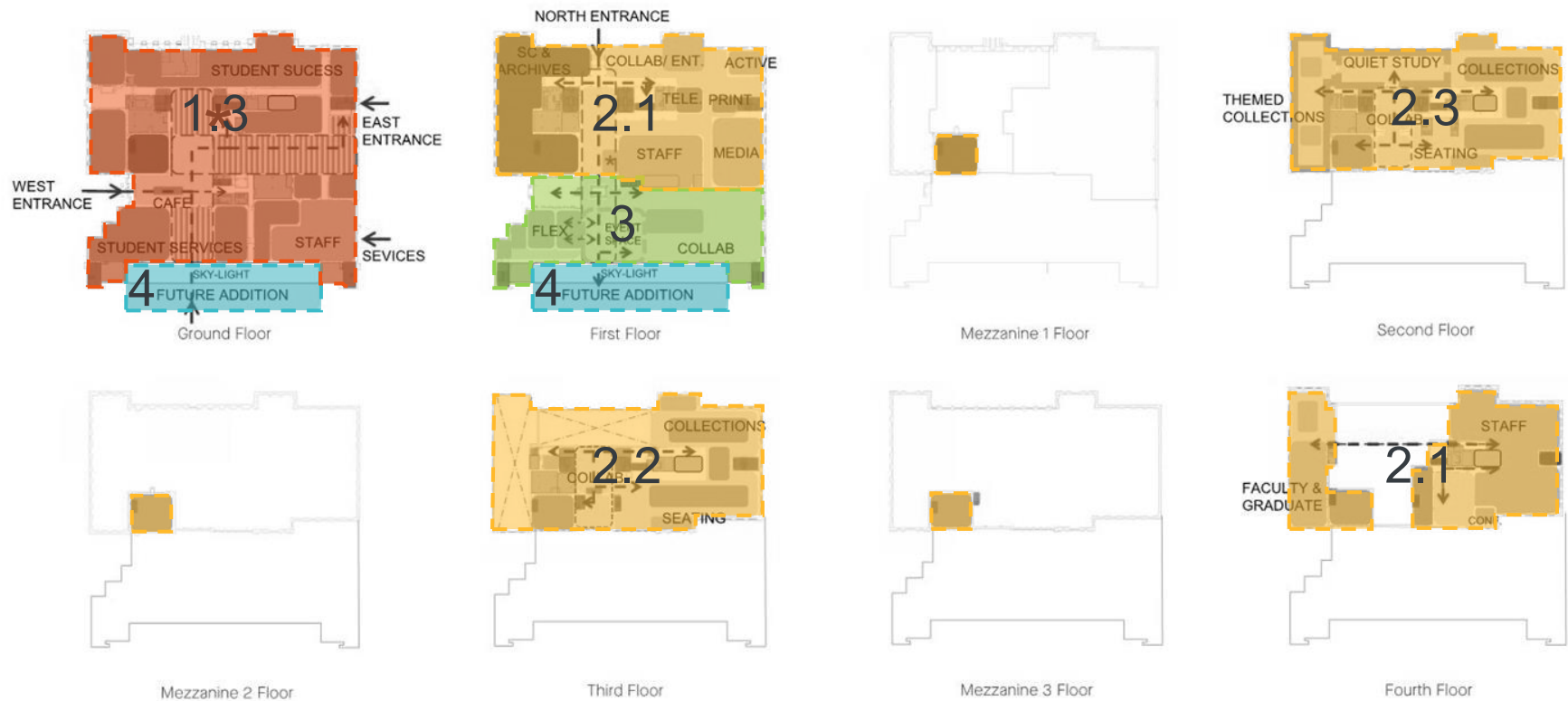
Phase 4:

Build New Addition

- Phase 1
- Phase 2
- Phase 3
- Phase 4



Phasing Overview





APPENDIX
University of Missouri
Ellis Library Master Plan

11/16/2019

Contents

APPENDIX

- A Detail Space Program
- B Scenario Planning
Alternates
- C Mapping Ellis Library
- D Health Science Library
Recommendations

A: Detail Space Program

Detailed Space Program: Existing & Preferred

Program Space	Level	Dept Gross
PATRON SPACE		
Public / Social Spaces		37,008
Café Seating / Servery	G	3,184
Exhibit (Colonnade)	1	5,465
Seating	G, 2, 3, 4	4,874
Lockers		
Information Commons	1	23,485
Collaboration - Group Study		2,396
Small (4-6 seats, 100-200 sf) - 7 rooms	1, 4	1,226
Medium (8-10 seats, 200-350 sf) - 5 rooms	2, 3, 4	1,170
Specialized Services		
Quiet Study Room	1, 2, 4	15,910
Conference Room	1	1,272
Graduate Carrels - 85 Carrels	1, M2, 2, 3	3,250
Electronic Classroom	2	1,088
Learning Lab	2	1,045
Presentation Practice Room - Video	3	208
Seminar Rooms - 2 rooms	4	1,080
Library Instruction	4	630
Computer Room	4	550
Digital Media Commons (public)	1	560

Program Space	Staff	Seats	Quantity	NSF	NSF Total	Dept Gross	Comments
PATRON SPACE							
Public / Social Spaces		2381			88,287	110,359	
Café Seating / Servery		100			4,080	5,100	
Exhibit					4,372	5,465	Showcase Student and Faculty research
Seating		2281		35	79,835	99,794	
Lockers							
Information Commons							Seat counts included in seating
Collaboration - Group Study		196			4,740	4,740	
Individual (1-2 seats, 60-100 sf)		8	4	60	240	240	Can be used for interviews (skype)
Small (4-6 seats, 100-200 sf)		120	20	150	3,000	3,000	
Medium (8-10 seats, 200-350 sf)		40	4	200	800	800	
Large (12-14 seats, 350 sf)		28	2	350	700	700	Double as Seminar Rooms
Specialized Services		749			30,980	36,460	
Quiet Study Room		364		35	12,740	15,910	Existing Space to Remain - change type of seating
Conference Room							
Graduate Carrels - 85 Carrels							Not Applicable
Electronic Classroom							Not Applicable
Learning Lab							Not Applicable
Presentation Practice Room - Video							Relocated to Media Commons
Library Instruction							Relocated under Instructional Rooms
Computer Room							Relocated under Instructional Rooms
Instructional Rooms		120			4,600	4,600	Convertible spaces to double as student space
<i>Computer Instruction</i>							
<i>Flexible Instructional (40 seats)</i>		80	2	1600	3,200	3,200	Moveable partition. Include Mobile tables/chairs; wall space for multiple large monitors; mobile teacher's station. Power options in floor that would allow for us of laptops. Space for a laptop cart for each rm
<i>Active Learning Classroom</i>		40	1	35	1,400	1,400	Seating set up with pods - to be used as GS space when in in use for instruction.
<i>Experimental Classroom</i>							
<i>GIS Spatial Analysis</i>							
<i>Multi-Purpose/ Event Space</i>							
Faculty and Graduate Research Center		95			3,300	4,125	
Faculty Center		40		35	1,400	1,750	
Graduate Center		40		35	1,400	1,750	Includes Writing Room for students to write alone together
Mixing/Display Zone		15	1	500	500	625	
3-Season Room							
Themed Collection Reading Rooms		24	2	600	1,200	1,200	Discuss Global Issues
Text Book Reserve Room							
Collaboration Studio		60		30	1,800	2,250	
Entrepreneurship Nexus		50		40	1,870	2,308	Innovation Center
Student Co-Working Spaces		20		35	700	875	
Student Venture Offices							
Shared Workshop Space		30		35	1,050	1,313	
Meeting Spaces							GS ROOMS ADJACENT TO SPACE
Mentor Office			1	120	120	120	USE AS CONSULTATION SPACE
Faculty and Staff Offices							UTILIZE GRAD AND FACULTY RESEARCH CENTER
TA Space							UTILIZE GRAD AND FACULTY RESEARCH CENTER
Kitchenette/Catering							
Media Commons		36			3,600	3,760	

Program Summary: Existing & Preferred Summary

Program Space	Level	Dept Gross	Program Space	Staff	Seats	Quantity	NSF	NSF Total	Dept Gross	Comments
			Media Services Enclosed Help Desk		4	1	500	500	500	2 staff prod storage, one work table for students
			Technology Enhanced Seating		16		40	640	800	2 group editing stations
			Digital Maker Space			1	500	500	500	Include 3D Printers and 3D scanners
			Center for Digital Scholarship		16		40	640	640	CONFIRM SIZE NEEDED - REDUCED BY 8 SEATS
			Visualization Lab/ AR/VR			1	500	500	500	One large or two small - continue discussion
			Gaming Room							REMOVED
			Consultation Room							
			Sound Booth Rooms			2	varies	300	300	Group Recording 180 sf, interview booth 120 sf
			Video Production Rooms			2	varies	520	520	Large at 400 sf and small at 120 sf. Large room to be flexible enough to use cameras, lighting, and green screen options and include storage for equipment. One-button setup is an option. Small room to include a one-button studio and flexible enough to accommodate filming.
			Partnerships		0			0	0	
			Flex Space							
Total		64,997	Total		3326			124,007	151,559	
COLLECTIONS			COLLECTIONS							
Open Collections		58,824	Open Collections					32,576	35,716	653,310 Volumes (357 volumes / DFS) Assumes 85% capacity at 7 shelves high (Open and Closed Collections)
Collections	1	6,880	Collections (DFS)			1480	20	29,600	32,560	
Collections	M1	2,044	Collections							
Collections	2	20,775	Collections							
Collections	M2	1,600	Collections							
Collections	3	17,975	Collections							
Collections	M3	1,600	Collections							
Collections	4	7,950	Collections							
			Microform/ Microfiche			94	24	2,256	2,256	
Closed Collections		9,447	Map Room		8	10	40	720	900	Adjacent to GIS
Collections	G	9,160	Closed Collections					2,837	2,837	
			Collections					2,200	2,200	
Collections	2	287	Reserves and HOLDS					350	350	Confirm number of DFS
Total		68,271	Collections					287	287	
SPECIAL COLLECTIONS/ARCHIVES			Total	10				35,413	38,553	
Special Collections	4	8,045	SPECIAL COLLECTIONS/ARCHIVES/PRESERVATION AND CONSERVATION							
Offices		445	Special Collections and Archives	7				12,230	12,860	Cultural Portal and Heritage Collection and need to be adjacent to Digitization
Collections		4,726	Exhibit Space			1	500	500	625	Throughout the library
			Closed Collections					7,000	7,000	Library to confirm
Vault		375	Vault			1	750	750	750	Double size of existing vault
Classroom		1,175	Staff Space - Full Time	7			200	1,400	1,750	3 - Archives 4 - Special Collections - Note that 200 SF per staff includes processing area
Reading Room		1,324	PT Staff/ Student Workers	4			40	160	200	
			Consultation Room			2	150	300	300	Share with Preservation and Conservation
			Reading Room		24		40	960	1,200	
			Instructional Room		24		40	960	960	
			Viewing Room							
			Staging Space			1	200	200	200	Located adjacent to Loading Dock
			Entry/Lobby			1	500	500	500	

Program Space	Level	Dept Gross
Total 8,045		
STAFF/SERVICES		
Departments 31,306		
Loading Dock/ Mail Room	G	1,223
Technical Services/ Digitization	G	12,800
Lounge	G	975
Circulation and Research	1	930
Access Services and Library Loan	1	2,995
Administrative Office	1	3,395
Research Librarians	1	2,245
Conference Room	1, 4	1,246
Offices/ Storage/ Faculty	G, 1, 2, 3, 4	4,397
Shelving Room	4	1,100
Service Points 2,160		
Circulation Desk		325
Reference Desk	1	1,835
Total 33,466		
NON LIBRARY PROGRAM		
State Historical Society of Missouri	G	20,868
Ellis Auditorium	G	2,745
Future Teaching and Learning	G	3,008
IT	G	845
Copy Services	1	1,615
Census and Data Research Center	2	290
Future Disability Center	4	1,460
Teleconference	1	950
Total 30,831		
Total DGSF 205,610		
Total GSF	2326	318,364

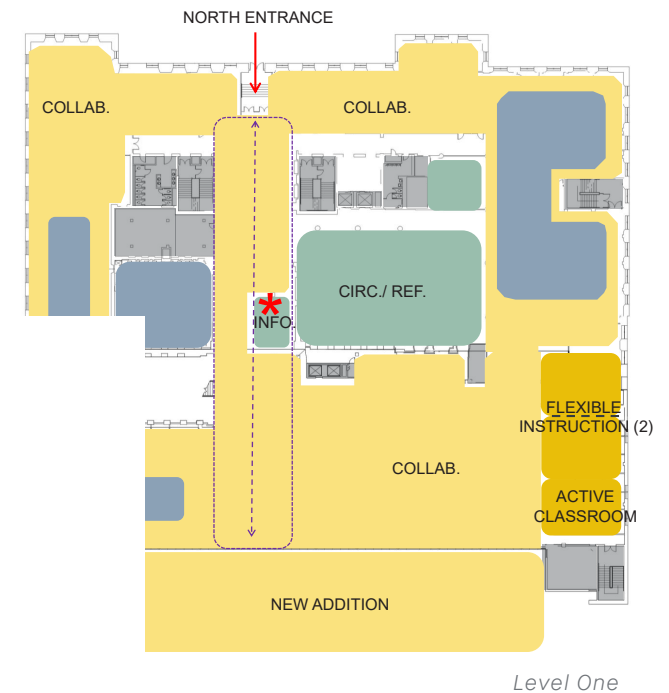
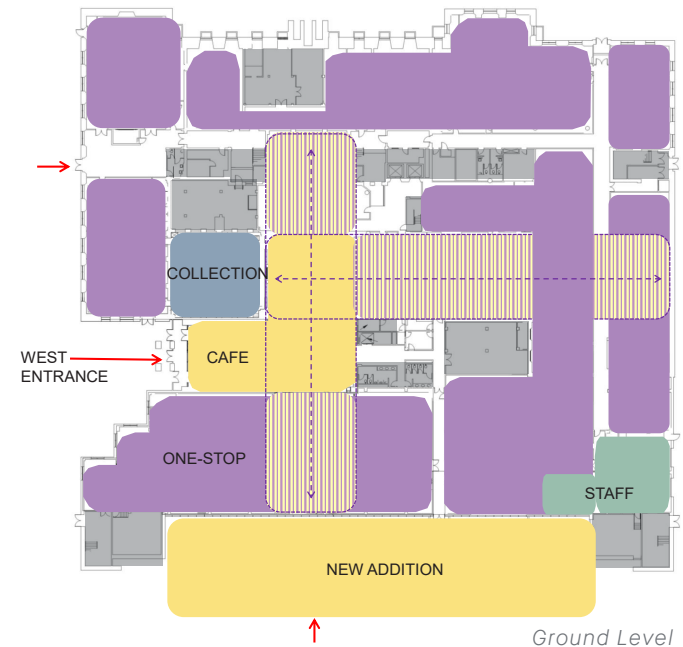
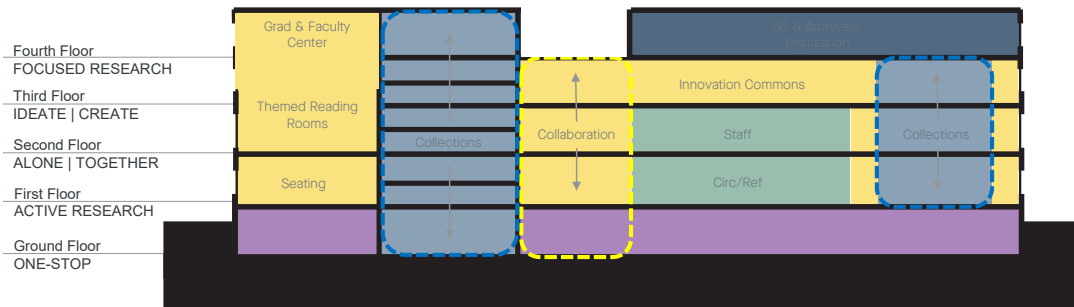
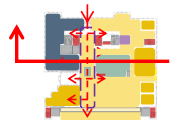
Program Space	Staff	Seats	Quantity	NSF	NSF Total	Dept Gross	Comments
Preservation and Conservation	2				990	1,238	
Aqueous /Solvent Room			1	200	200	250	
Main Lab Staff - Full Time	2			180	360	450	
Main Lab Staff - Student/ PT	2			40	80	100	
Main Lab - Processing and Equipment			1	350	350	438	
Storage Room							Share with SC and Archives
Photography							Share with Digitization
Total	10				13,220	14,098	
STAFF/SERVICES							
Departments	72				16,483	20,023	
Loading Dock/ Mail Room					1,223	1,223	Existing to remain
Technical Services	21			180	3,780	4,725	19 FT and 3 PT
Lounge					780	975	Shared with Student Experience (ETR)
Access and Circulation	17				2,600	3,250	Circ Staff needs to be located near single service desk. For staff breakdown per department see email from 5.31.19 JEP
FT Staff/ equip/ processing	12			180	2,160		
PT Staff/ Student Workers	5			72	360		
Student Workers	2			40	80		Additional 30 student workers - no dedicated workstation
Administrative Office	12			200	2,400	3,000	
Research Services	6			180	1,200	1,500	1 Head, 5 Librarians and 3 GA's
Instructional Services	5			180	900	1,125	1 - Head, 4 - Librarians - Located near classroom spaces
E-Learning Librarian	2				500	625	1 - Head, 2 GA's, 1 FT, 5-7 students (lab staffing) adjacent to media lab
Repository Outreach	2			180	360	450	1 - Head, 1 - FT - adjacent to Digital scholarship
Government Information Services	2				440	550	1- Head, 1 -FT and 2 Student
Shared Staff Conference Room			2	200	400	400	Sizes will vary of each room
Digitization	5				1,400	1,700	Adjacent to Media Commons and/or SC
FT Staff/ equip/ processing	3			200	600	750	
Graduate and Undergraduate	5			40	200	250	Confirm number of workstations needed for Student Workers - 10 workers (5 workstations)
Future Staff Growth	2			200	400	500	
Secured Storage			1	200	200	200	
Shelving Room					500	500	
Staff Flex Work Room							To utilize group study room/ conference room that is adjacent to staff space to meet this need.
Service Points					500	500	
Consolidated Service Point			1	500	500	500	Includes 4 workstations at 72 sf and processing
Reference Desk							
Total	72				16,983	20,523	
NON LIBRARY PROGRAM							
ONE-STOP Shop						35,675	Future Space
Ellis Auditorium						2,745	
Future Teaching and Learning						3,008	
IT						845	
Copy Services						1,615	
Census and Data Research Center						290	
Future Disability Center						1,460	
Teleconference						950	
Total					37,270	46,588	
Total DGsf					226,893	271,320	
Total GSF		3326				341,364	

B: Scenario Planning Alternates

Planning Scenario 1 — Destinations

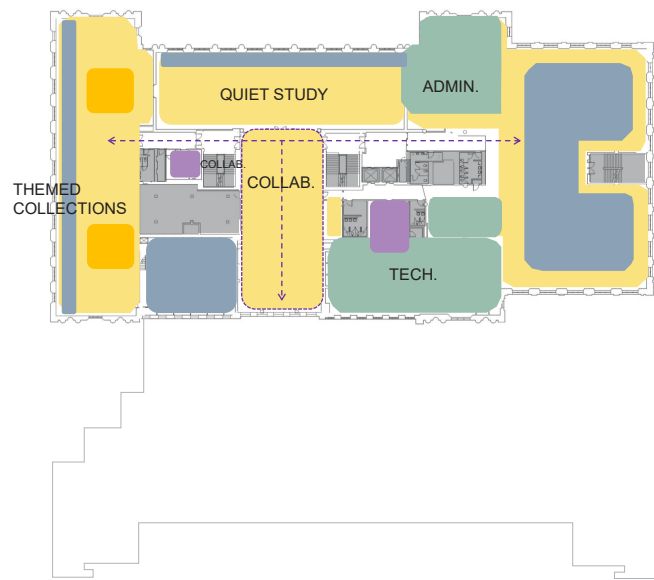
Space Allocation

- Collaboration space is the connector between the east and west side of the library.
- Collections distributed among all floors.
- Staff distributed across floors one and two.
- Entrepreneurship and Media Commons is a destination on the third floor.
- Special Collections and Archives is a destination on the fourth floor.

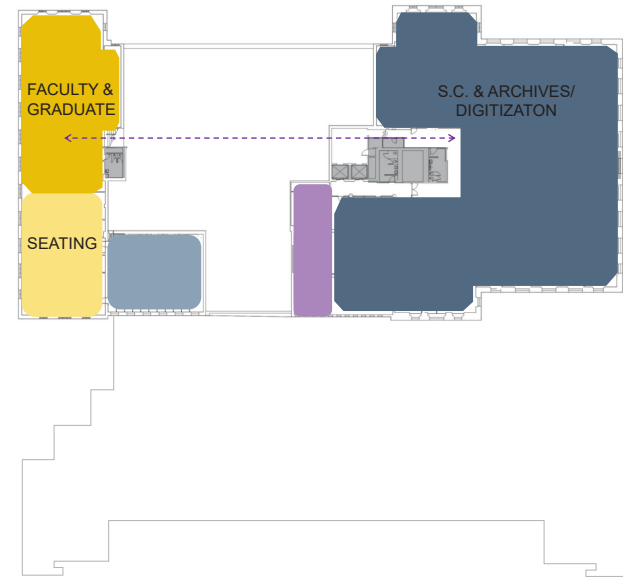


- Patron Space
- Staff/ Services
- Collections
- Non Library Space:

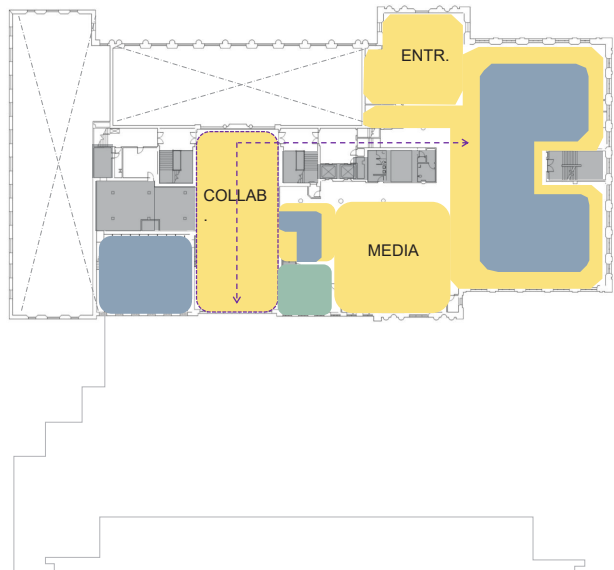




Level Two



Level Four

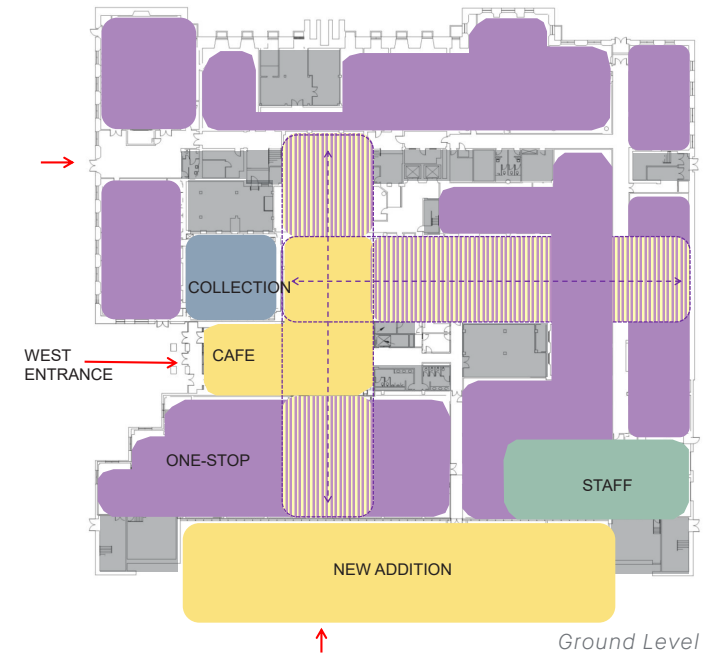
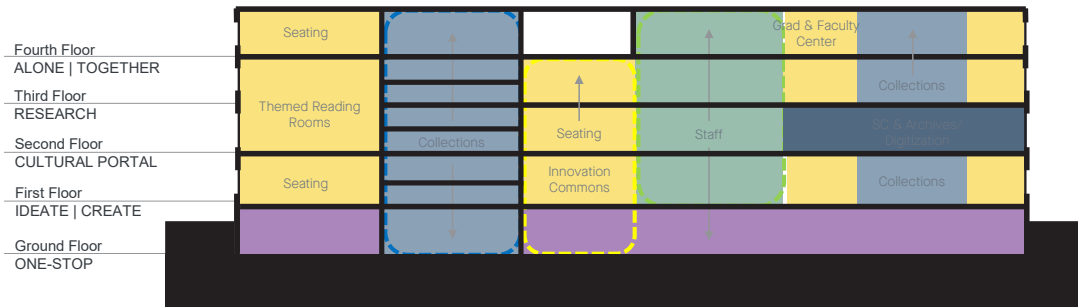
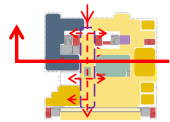


Level Three

Planning Scenario 2 — Showcase

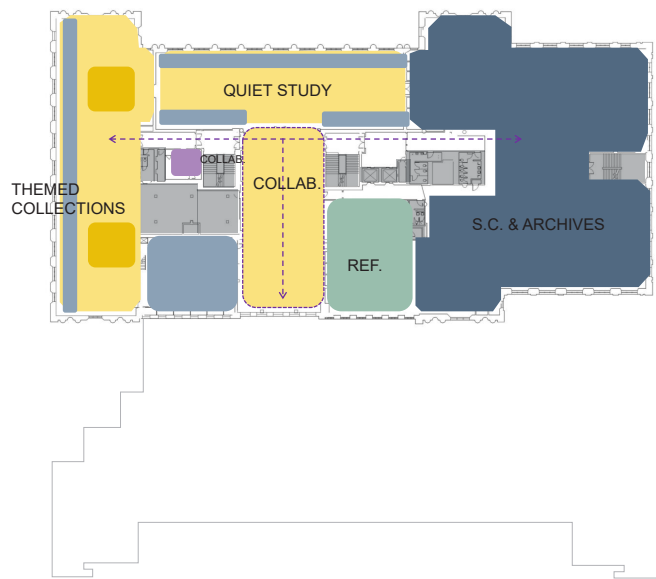
Space Allocation

- Collaboration space is the connector between the east and west side of the library.
- Entrepreneurship and Media Commons adjacent to one another and visible on the first floor.
- Flexible and active classrooms adjacent to collaboration space.
- Collections and staff have a visible presence on all floors.
- Special Collections and Archives is a destination on the second floor.



- Patron Space
- Staff/ Services
- Collections
- Non Library Space:

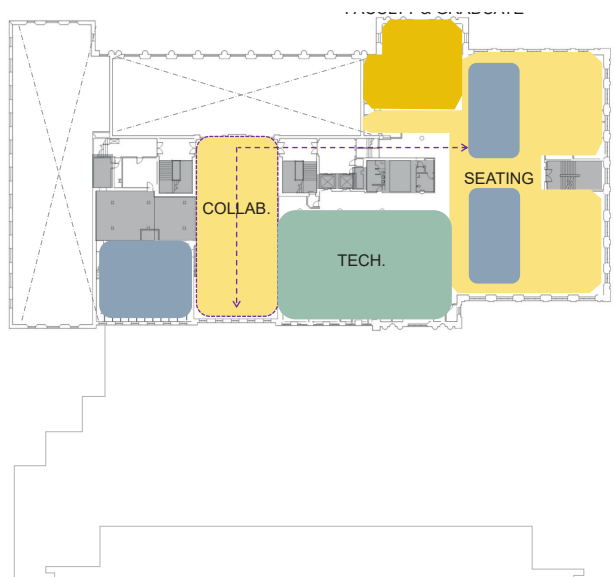




Level Two



Level Four



Level Three

C: Mapping Ellis Library

Mapping Ellis Library

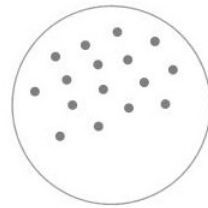
Patron Space Use

To assess how students are using the current space, we need to understand where patrons prefer to sit, if they are studying alone or working corroboratively and whether or not they are using their own technology devices.

The abstract diagrams looked at what percentage of each floor was being occupied on April 3, 2019 at 9:00p. The first floor was the most active floor with 75% of the seats being occupied. The assigned carrels on the mezzanine levels were not being utilized at all.

On average, 75% of students were focused and studying independently, while 25% of the students were studying in groups corroboratively.

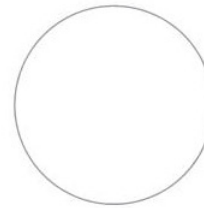
As technology has become second nature to students, 90% of the students were using some form of technology and on average had 3 different types of devices. Note that the 90% did not include the students using the desktop computers in the learning commons.



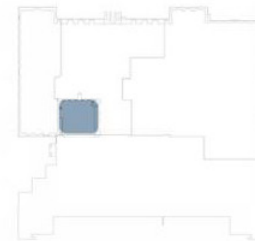
30% Occupied
04.03.19 – 9:00pm



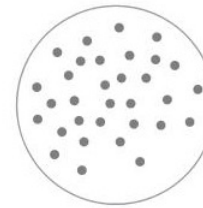
Sub Basement Floor



00% Occupied
04.03.19 – 9:00pm



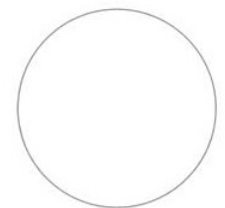
Mezzanine 1 Floor



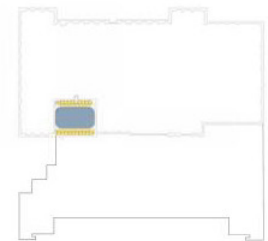
75% Occupied
04.03.19 – 9:00pm



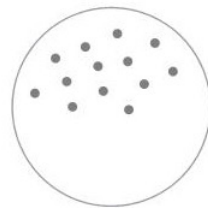
First Floor



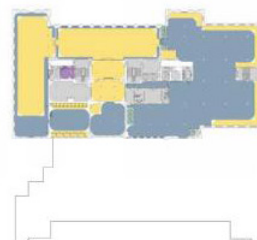
00% Occupied
04.03.19 – 9:00pm



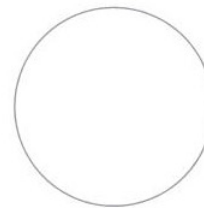
Mezzanine 2 Floor



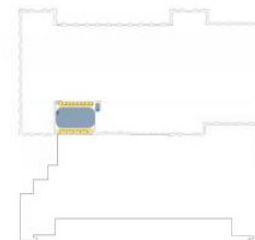
25% Occupied
04.03.19 – 9:00pm



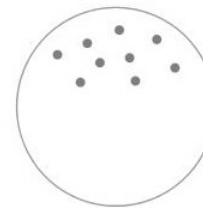
Second Floor



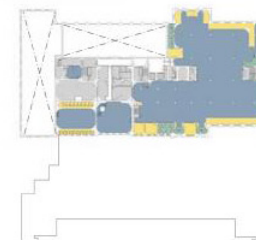
00% Occupied
04.03.19 – 9:00pm



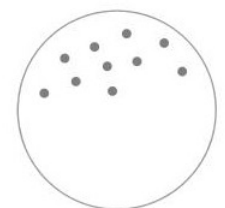
Mezzanine 3 Floor



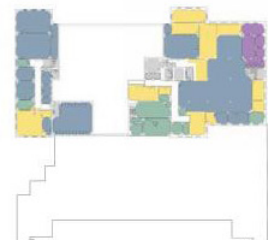
18% Occupied
04.03.19 – 9:00pm



Third Floor

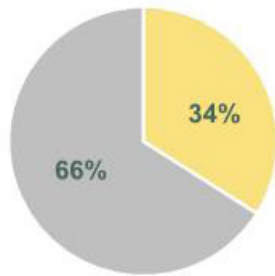


20% Occupied
04.03.19 – 9:00pm



Fourth Floor

Mapping Ellis Library



04.03.19 - 9:00pm

34% Seats Occupied

75% Focused Study

25% Collaborative Study

90% Technology



D: Health Science Library Recommendations

Health and Science Library Recommendations

Overview

Health Sciences Libraries are going through transitions and focusing on the patron experience is most important. The following are program components recommendations for the health and science library:

- Study spaces suitable for long stretches of study with table space, ergonomically appropriate furniture, quiet and individual focused work
- Fully enclosed spaces for group work and/ or silent study alone
- Places to take a break/ study with food, i.e. coffee area, dog petting space
- Places to exchange ideas and promote interdisciplinary
- Seats for 30-40% of the student body (2,978 students)
- Minimal use of print materials for research
- Digital/ Reserve resources



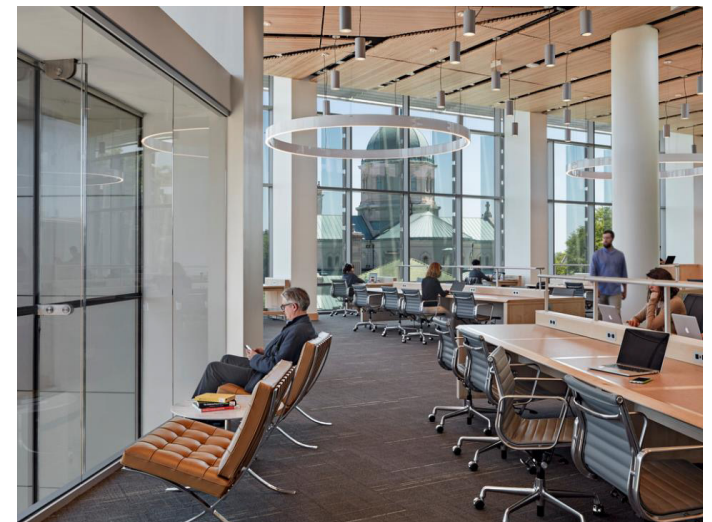
Interdisciplinary collaboration



Health and wellness



Technology enhanced resources

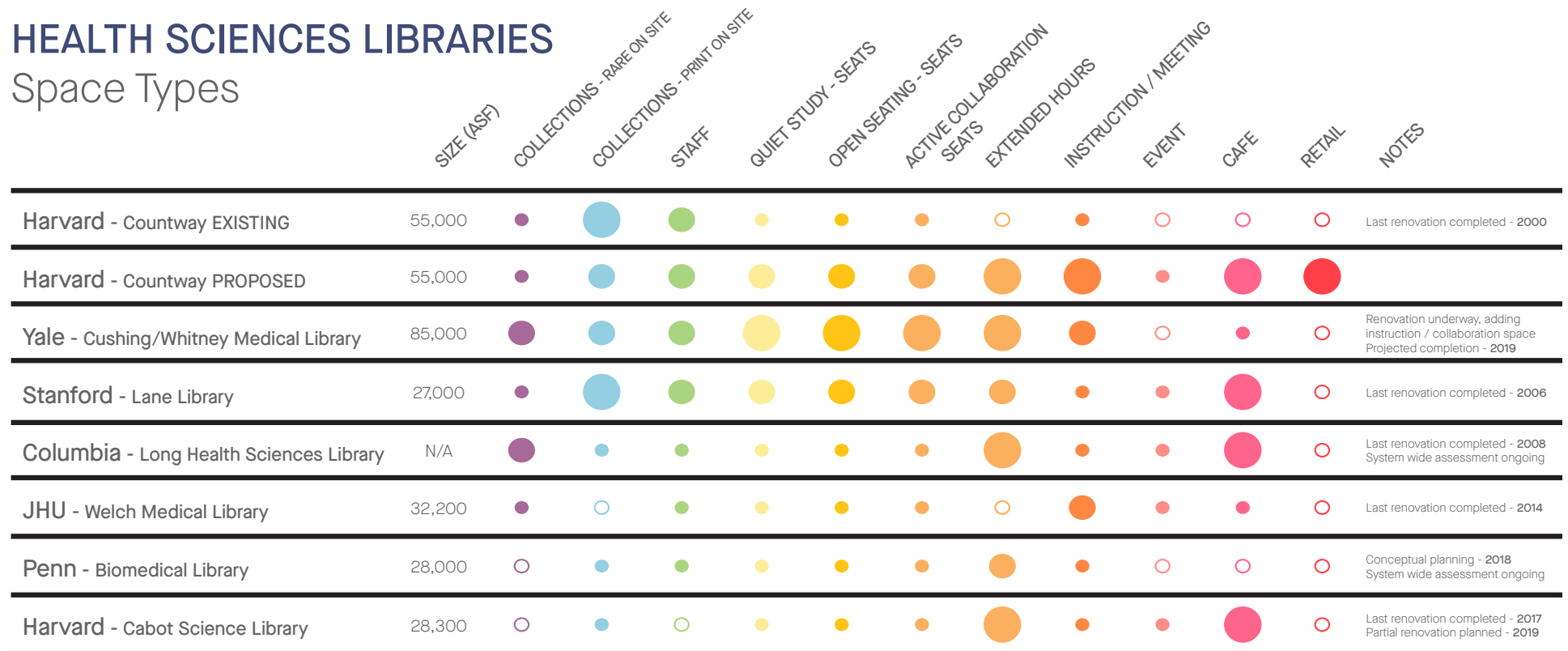


Alone together focused study

Health and Science Library Benchmarking

HEALTH SCIENCES LIBRARIES

Space Types



KEY

COLLECTIONS RARE ON SITE	COLLECTIONS PRINT ON SITE	STAFF	SEATS RANGE OF TYPES	EXTENDED HOURS	INSTRUCTIONAL / MEETING INCLUDES EVENT SPACE	CAFE/RETAIL ACCESS
● 125,000+ Items	● 350,000+ Vol.	● 50 +	● 25% + of Enrolled	● 24/7 Space	● 100+ Seats	● Within Complex
● 50,000 - 125,000 Items	● 100,000 - 350,000 Vol.	● 30 - 50	● 15 - 25% of Enrolled	● Late Night (~12 am)	● 50 - 100 Seats	● Nearby (~2 min walk)
● 2,000 - 50,000 Items	● 10,000 - 100,000 Vol.	● 20 - 30	● 15% or Less of Enrolled	● Evening (~10 pm)	● 10 - 50 Seats	● None
○ Under 2,000 Items	○ Under 10,000 Vol.	○ Under 20		○ Business Hours (~5 pm)	○ None	

