LIBRARIES MASTER PLAN

PURDUE UNIVERSITY

VOLUME III - APPENDIX

SEPTEMBER 2023

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PHASING PLANS
Pricing Diagrams

The following diagrams for HSSE Library indicate an intensity of work, rated on existing conditions and proposed new program, intended to clarify the cost estimating process.
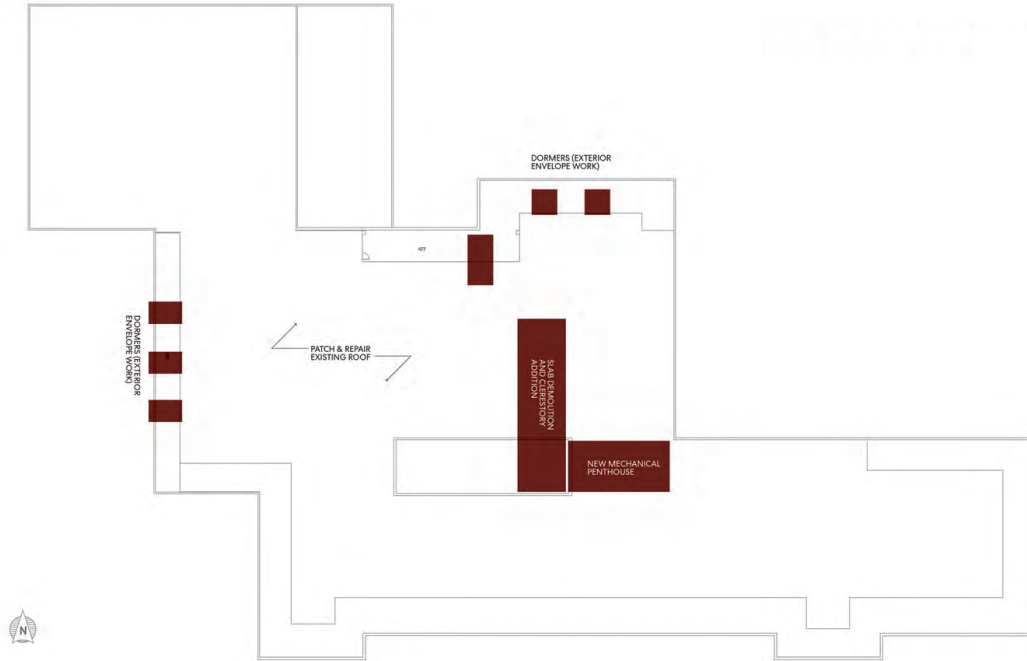
STEW - FIRST FLOOR

STEW - FIRST FLOOR

STEW - THIRD FLOOR

STEW - FOURTH FLOOR

STEW - ROOF

DORMERS (EXTERIOR
ENVELOPE WORK)

477

DORMERS (EXTERIOR
ENVELOPE WORK)

PATCH & REPAIR
EXISTING ROOF
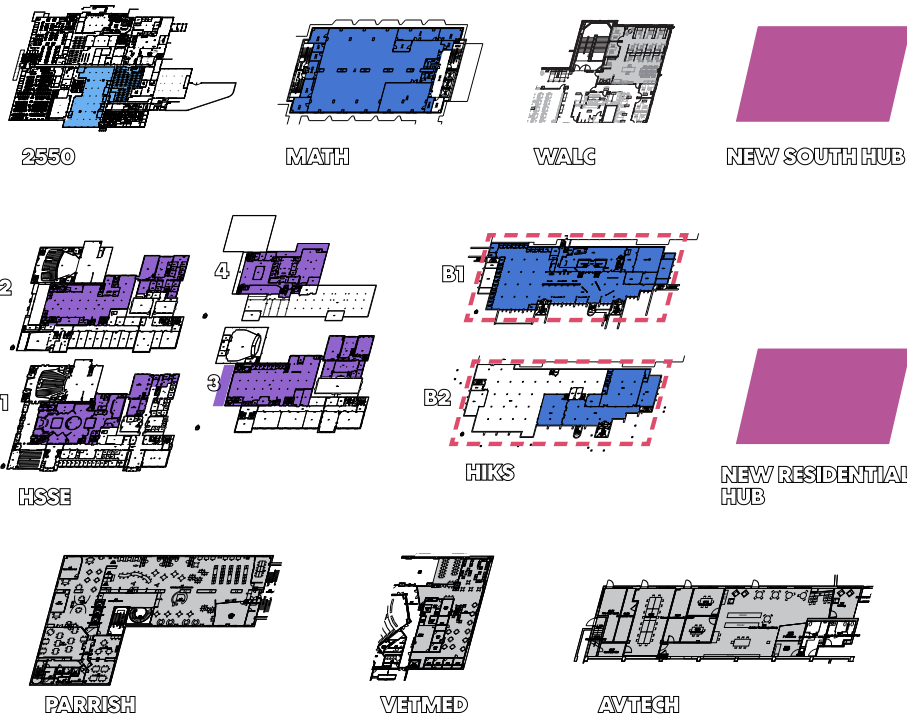
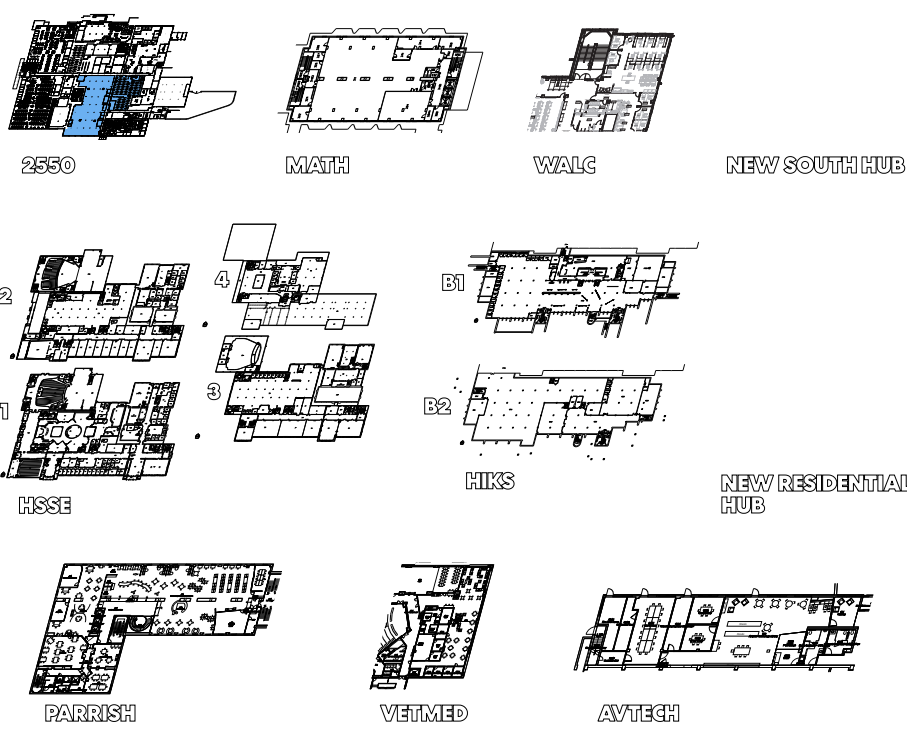SLAB DEMOLITION
AND CLERESTORY
ADDITION

NEW MECHANICAL
PENTHOUSE

N

LEVEL 1 Finishes (wall/ceiling paint, lighting)

LEVEL 2 Finishes+ (wall paint, new ceilings, lighting, new floor finish, add power)

LEVEL 3 New enclosed rooms (new walls, glass-facing public areas, ceilings, lighting, finishes, power, HVAC rework)

LEVEL 4 Toilet room upfit (new fixtures, tile walls, tile floors, ceilings, lighting, partitions, ADA upgrades)

LEVEL 5 New specialty architectural feature (stair, cafe, ramp, roof deck, specialty ceiling) or structural modification / slab removal
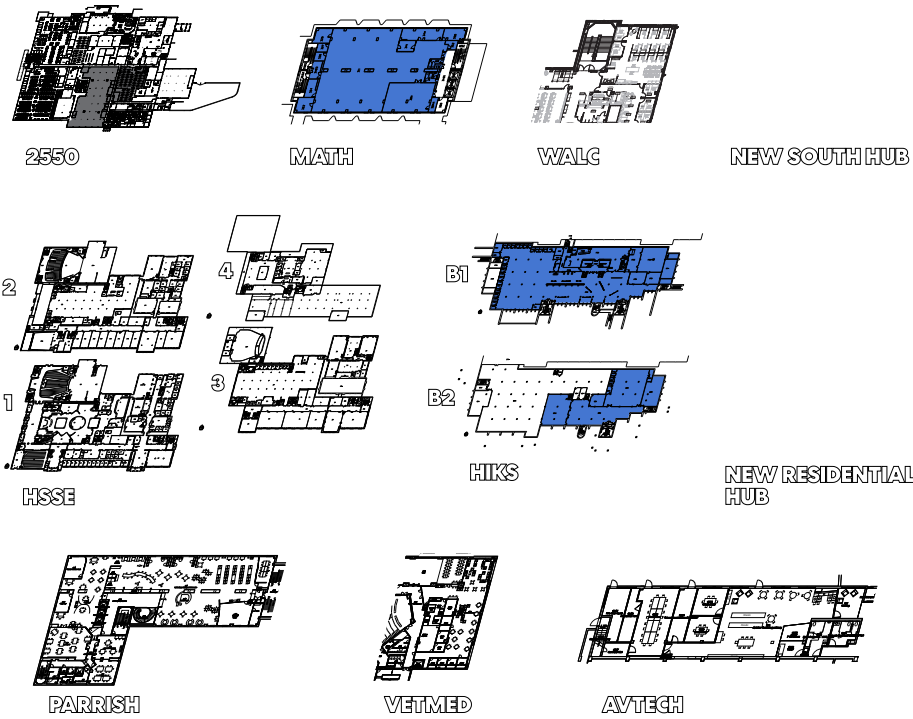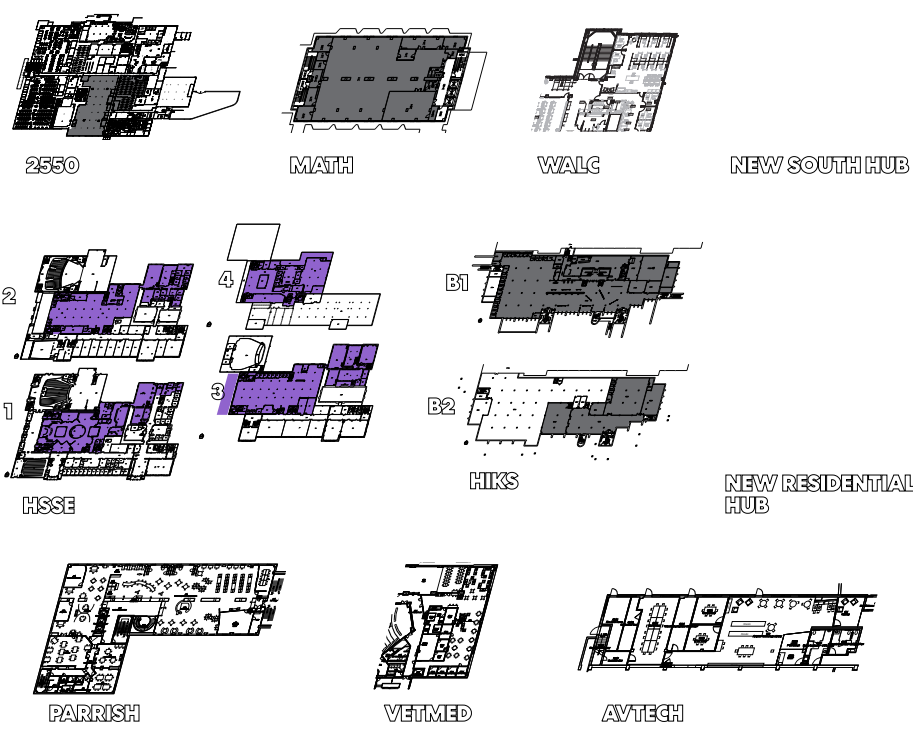
Phasing

2550   MATH   WALC   NEW SOUTH HUB

HSSE   HIKS   NEW RESIDENTIAL HUB

PARRISH   VETMED   AVTECH

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
     Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
     Reno HSSE Floor 4
     Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

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2   4   B1

1   3   B2

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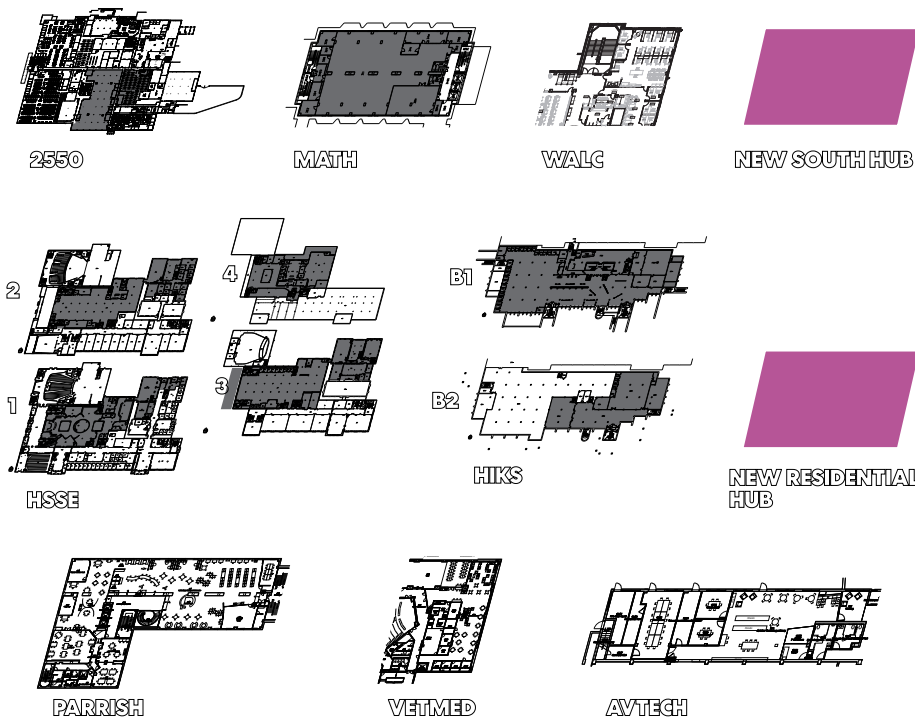Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

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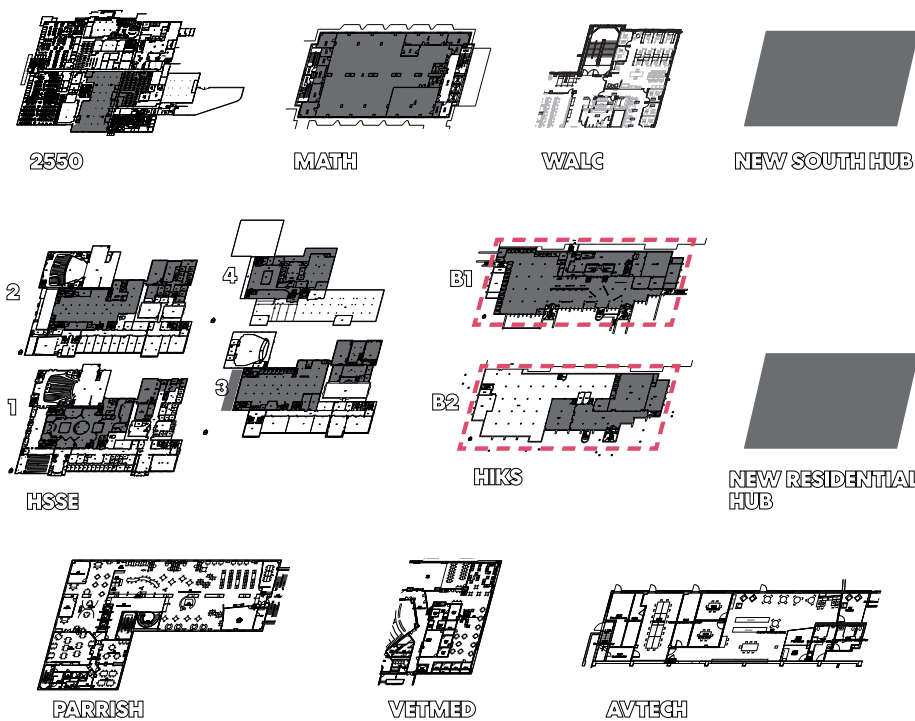Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

2550

MATH

WALC

NEW SOUTH HUB

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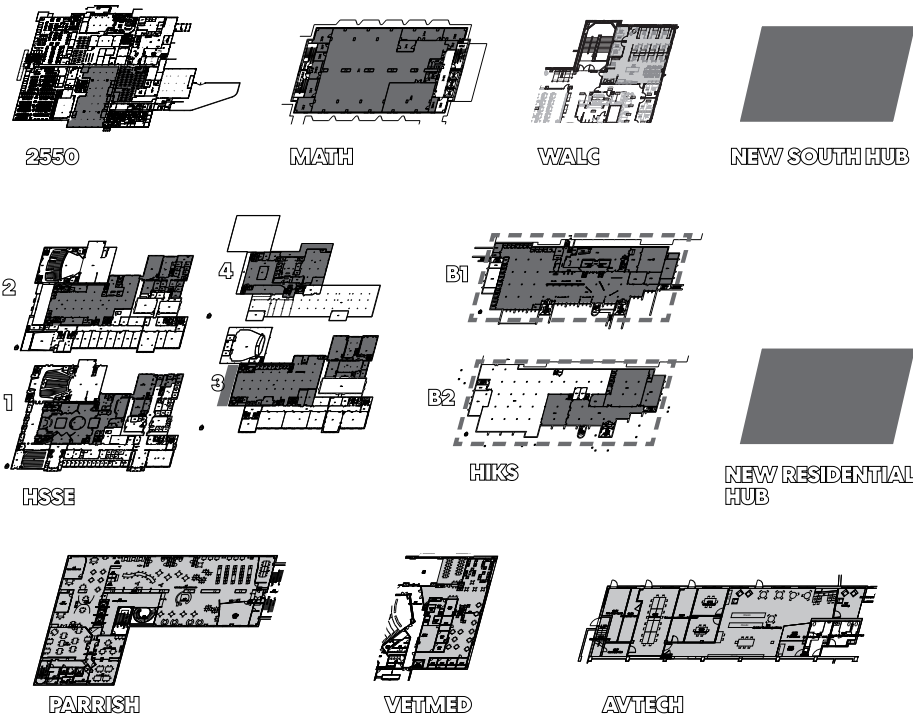Refresh PARRISH
Upfit Maker Lab in WALC

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Perkins&Will

SPACE PROGRAM
HSSE Library (not including Special Collections)

Legend
- Access Services
- Learning Commons
- Library Collections
- Special Collections
- Seating + Collaboration
- Operations
- Partners + Special Programs

1.0 ACCESS SERVICES

	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty	N.S.F.	LF	Staff	Seats	FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
	SITE 1 ACCESS SERVICES											
1.1.1	Circulation Lib / Access Service Desk			250	1	250		3		310	Includes ILL Services	
1.1.2	Reserve Shelving			10	3	30	54			420		6-high shelving; 8-high for medial shelving
1.1.3	Holds			10	3	30	54			420		6-high shelving
1.1.4	Textbook Shelving			10	3	30	54			420		6-high shelving
1.1.5	Loanable Equipment Storage			10	5	50				420		Lockable cabinets / carts
1.1.6	Lost & Found			10	1	10				455		(1) 4-high lateral file or cabinet
1.1.7	Reference Kiosk			64	1	64		1		455	Touchdown style kiosk near or part of circ desk.	
1.1.8	IT Support Kiosk			64	1	64		1		455	Touchdown style kiosk near or part of circ desk.	Size for one or two staff
1.1.9	Main Entry Security Desk			64	1	64		1		310		Staffed security desk near entry/exit point
1.1.10	Ready Reference Collections			10	1	10	18			420		3-high shelving for ready reference materials
1.1.11	Secure Display | Showcase			500	1	500				620		Security + Climate Control for A/SC
1.1.12	Marketplace Extension			100	1	100				620		spine out mixed with face-out display; loanable technology, etc
1.1.13	Marketplace Seating			35	8	280			8	630		Short term lounge seating
1.1.14	Consultation Room			80	1	80				350		2-3 persons
1.1.15	Drop in Services			80	1	80				310		Activities that may come in and out such as academic advising; career consultation, health services, etc
1.1.16	Consultation Waiting Area			100	1	100			2	315	Adjacent to consult room & circ desk	
1.1.17	Express Computers			20	20	400				455		Stand-up stations
1.1.18	Express Printers			15	2	30				455	Adjacent to express computers	
1.1.19	Express Copy/Scan			25	2	50				455	Adjacent to express computers	
1.1.20	Digital Signage			20	1	20				455		
1.1.21	Self-Check Stations			25	2	50				455		At main entry
2.1	Pop Up Consultation Kiosk			40	2	80				455		1 per fl; Can double as a stand up OPAC station(s)
2.2	Public Computers			35	0	0			0	220	Captured in "other seating"	Sized for 2 to share dual monitor
2.4	Computer Stations	4,900		30	30	900			30	220		Mix of wired, mobile seating & tables
2.5	"Idea Box" Display			150	1	150			6	620		Participatory display area with active change
2.8	Popular / Leisure Collection / Journals			10	10	100	90			420		3-high shelving;
2.9	Group Study Room - Small			100	6	600			24	410		4-person group rooms;
2.10	Group Study Room - Medium			150	2	300			12	410		6-person group rooms;
2.11	Group Study Room - Large			200	1	200			10	410		10-person group rooms;
2.12	Collaborative Group Seating	2,492		30	25	750			25	410		groups of 4-6 seating arrangements with technology media
2.13	Collaborative High Table Seating			25	20	500			20	410		
2.16	Print Lab			250	1	250				455		color copy/print/scan; 2 kickstart copiers; scanners; layout
2.17	Satellite Copy / Print	102		80	2	160				455		
2.20	Learning Commons Storage			100	3	300				455		1 per floor
2.21	Student Lockers			4	80	320				455		18" X 24" X 1.18" 3-high lockers; power for recharging
2.22	Digital Signage			20	3	60				455		1 per floor
	LEARNING COMMONS SUBTOTAL	7,494	0			4,670	90	0	127			

3.0 LIBRARY COLLECTION

	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty	N.S.F.	LF	Staff	Seats	FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
	Collections										Use collections to define and thematize study spaces	Visible, browsing collection
3.1	Existing Structural Stacks	17,720		14,721	1	14,721	28,656			420	"Tiers"	6-high shelving in HD system; gen. coll. downsized by 30%
3.2	Existing Stack Carrel Seating	3,400		2,622	1	2,622			66	420		6-high shelving in HD system (includes gov't docs)
3.3	Themed Collection 1	507		10	40	400	720			420		6-high shelving
3.4	Themed Collection 2			10	40	400	360			420		3-high shelving
3.5	Themed Collection 3			10	0	0	0			420	In South Hub facility	6-high shelving
3.6	Themed Collection 4			10	0	0	0			420	In South Hub facility	3-high shelving
3.7	Periodicals			10	0	0	0			420	Into tiers	Mix of 3-high & 6-high face-out shelving; 270 titles
3.8	Media (DVD / CD)			10	0	0	0			420	Into tiers	8-high shelving
3.9	PU Authors	100		10	5	50	9			420		3-high face out
	LIBRARY COLLECTION SUBTOTAL	21,727	0			18,193	29,745	0	66			

4.0 SPECIAL COLLECTIONS

	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty	N.S.F.	LF	Staff	Seats	FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
	SPECIAL COLLECTIONS										In Separate Tab	
4.1	Note Included Here	194										
	SPECIAL COLLECTIONS SUBTOTAL	194	0			0	0	0	0			

5.0 SEATING + COLLABORATION

	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty	N.S.F.	LF	Staff	Seats	FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
	Quiet Seating											
5.1	Carrel Seating	8,075		30	200	6,000			200	410		
5.2	Table Seating			25	306	7,650			306	410		
5.3	Periodical Area Seating			30	20	600			20	410		
5.4	Medium Quiet Reading Room			2,000	1	2,000			67	410		Include fireplace / hearth
5.5	Small Study Rooms			100	8	800			32	410		Can be used for quiet or active; 4-person
5.6	Quiet Lounge Seating	2,850		35	10	350			10	410		
	Subtotal	10,925	0			17,400	0	0	635			
	Collaborative Seating											
5.7	Closed Group Rooms (small)	2834		100	5	500			25	410		
5.8	Closed Group Rooms (Medium)	1490		150	1	150			8	410		
5.9	Presentation Room			200	1	200			12	350		12-person room; technology enhanced with recording
5.10	Group / Interview Room			120	1	120			5	350		5-person rooms; some with media viewing/recording capability
5.11	Open Flex Group Areas (small)			100	8	800			32	410		4-person areas
5.12	Open Flex Group Areas (medium)			140	1	140			6	410		6-person areas
5.13	Café Seating (low)	1860		25	30	750			30	630	Adjacent to Café	
5.14	Café Seating (high)	957		25	20	500			20	630	Adjacent to Café	
5.15	Table seating	6860		25	50	1,250			50	410	Adjacent to Café	
5.16	Open Moveable Table Seating			30	70	2,100			70	410	Adjacent to Café	
5.17	Mobile White Boards			6	25	150				410		
	Subtotal	14,001	0			6,660	0	0	258			

Code	Item	Existing		Area	Qty	Total			Seats	Code#	Comment	Comment
	Learning Labs											
5.18	Seminar			400	1	400			16	350	Cluster with some sm. Group rooms	Smart classroom capable; doubles as group room
5.19	Computer Lab			700	1	700			25	210		
5.20	Computer Lab Storage			40	1	40				215		
	Subtotal	0	0			1,140	0	0	41			
	Other Seating											
5.21	Computer Stations (clustered)	316		30	30	900			30	410		20 stations per floor (not including 1F)
5.22	Computer Stations (1F)	2757		30	15	450			15	410		30 station cluster
5.23	Special Projects Room			180	2	360			16	350	Long term project rooms	Double as group study rooms
5.24	Terrace Seating			25	75				75	–	Outdoor seating on 3F Terrace	
	Subtotal	3,073	0			1,710	0	0	136			
	SEATING+COLLABORATION **SUBTOTAL**	27,999	0			26,910	0	0	1,070			

Code	Item	EXISTING		Area	Qty	Total		FTE		Code#	Comment	
6.0	**LIBRARY OPERATIONS**			**2022 PROGRAM**								
6.1	**Administration**	16,782										
6.1.1	Library Dean's Office			200	1	200		1		310		
6.1.2	Assoc. Dean			150	1	150		1		310		
6.1.3	Associate Dean			150	1	150		1		310		
6.1.4	Offices			120	1	120		1		310		
6.1.5	Admin/Reception			100	1	100		1		310		
6.1.6	Workstations			56	4	224		4		310		
6.1.7	Remote Staff			0	1	0		1		310		
6.1.8	Future Workstations			56	2	112				310		
6.1.9	Reception waiting/seating			180	1	180				310		
6.1.10	Filing Storage Room			100	1	100				315		
6.1.11	Kitchenette			80	1	80				315		
6.1.12	Copy / Print			80	1	80				315		
6.1.13	Meeting (Medium)			400	1	400				350	Shared / Publicly Accessible	
6.1.14	Meeting (Small)			120	1	120				350		
	Subtotal	0	0			2,016	0	10	0			
6.2	**Access Services**											
6.2.1	Office			120	1	120		1		310		
6.2.2	Workstations			56	5	280		5		310		
	Subtotal	0	0			400	0	6	0			
6.3	**Acquisitions & E-Resources**											
6.3.1	Office			120	0	0		1		310		
6.3.2	Workstations			56	7	392		7		310		
6.3.3	Lockable Cabinets			10	4	40				315		
	Subtotal	0	0			432	0	8	0			
6.4	**Advancement**											
6.4.1	Office			120	1	120		1		310		
6.4.2	Workstations			56	1	56		1		310		
	Subtotal	0	0			176	0	2	0			
6.5	**Business Office**											
6.5.1	Office			120	1	120		1		310		
6.5.2	Workstations			56	1	56		1		310		
	Subtotal	0	0			176	0	2	0			
6.6	**Collections & Access/Tech Services**											
6.6.1	Office			120	0	0		1		310		
6.6.2	Workstations			56	8	448		8		310	8 stations shared by 12 persons	
	Subtotal	0	0			448	0	9	0			
6.7	**Communications**											
6.7.1	Office			120	1	120		1		310		
6.7.2	Workstations			56	1	56		1		310		
6.7.3	Remote Staff			0	1	0		1		310		
	Subtotal	0	0			176	0	3	0			
6.8	**University Copyright**											
6.8.1	Office			120	1	120		1		310		
6.8.2	Workstations			56	1	56		1		310	Half time person	
	Subtotal	0	0			176	0	2	0			
6.9	**Digital Programs**											
6.9.1	Office			120	0	0		1		310		
6.9.2	Workstations			56	4	224		4		310		
6.9.3	Remote Staff			0	1	0		1		310		
	Subtotal	0	0			224	0	6	0			
6.10	**Library Facilities**										STEW by dock	
6.10.1	Office			120	1	120		1		310		
6.10.2	Workstations			56	5	280		5		310		
6.10.3	Future Workstations			56	1	56		1		310		
	Subtotal	0	0			456	0	7	0			
6.11	**Libraries IT**											
6.11.1	Office			120	1	120		1		310		
6.11.2	Workstations			56	7	392		7		310		
6.11.3	Remote Staff			0	1	0		1		310		
6.11.4	Computer Repair/Imaging Bench			50	4	200		4		315		
	Subtotal	0	0			712	0	13	0			
6.12	**Purdue University Press**											
6.12.1	Office			120	1	120		1		310		
6.12.2	Workstations			56	8	448		8		310		
	Subtotal	0	0			568	0	9	0			
6.13	**Scholarly Publishing Services**											
6.13.1	Workstations			56	2	112		2		310		
	Subtotal	0	0			112	0	2	0			
6.14	**Future Growth**											
6.14.1	Office			120	2	240		1		310		
6.14.2	Workstations			56	4	224		4		310		
6.14.3	Remote Staff			0	0	0		0		310		
6.14.4	Touchdown / Student Workstation			40	4	160		4		310		
	Subtotal	0	0			624	0	9	0			

6.15	Shared Resources										
6.15.1	Staff Kitchenette			100	1	100				315	
6.15.2	Staff Break Room	633		200	1	200				315	
6.15.3	Distributed Copy/Print			40	3	120				315	
6.15.4	General Storage			200	1	200				730	
6.15.5	Supply Storage			150	1	150				730	
6.15.6	Supply Storage			150	0	0				730	
6.15.7	Small Meeting Room			120	1	120				350	
6.15.8	Medium Meeting Room	469		200	1	200				350	
6.15.9	Wellness/Lactation Room			60	1	60				315	
	Subtotal	**1,102**	**0**			**1,150**	**0**	**0**	**0**		
6.16	Misc. B.O.H.										
6.16.1	General Library Storage	301		250	1	250				455	
6.16.2	General Stockroom	634		500	1	500				730	
6.16.3	Book Recycling Storeroom			150	1	150				730	
6.16.4	Dock			0	0	0				W04	Not counted as interior space
6.16.5	Shipping & Receiving	424		300	1	300				750	
6.16.6	Outgoing Holding	104		150	1	150				750	
6.16.7	Mailroom			100	1	100				750	
6.16.8	Housekeeping Central Storage	221		200	1	200				730	
6.16.9	Housekeeping Floor Closets & Storage	335		80	4	320				730	
	Subtotal	**2,019**	**0**			**1,970**	**0**	**0**	**0**		
	STAFF + SUPPORT AREAS **SUBTOTAL**	**3,121**	**0**			**9,816**	**0**	**88**	**0**		

7.0	PARTNERS + SPECIAL PROGRAMS	EXISTING		2022 PROGRAM								
7.1	Virtual Learning Hub										Easy access, away from quiet zones	
7.1.1	Arrival / Checking			100	1	100				W05	1 in South Campus Hub	
7.1.2	Single Pods			35	50	1,750			50	410	50 in South Campus Hub	
7.1.3	Double Pods			45	6	270			12	410	6 in South Campus Hub	
7.1.4	2-Person Rooms			60	6	360			12	410	6 in South Campus Hub	Acoustically enclosed furniture pods
7.1.5	3-Person Rooms			90	3	270			12	410	3 in South Campus Hub	Acoustically enclosed furniture pods
7.1.6	Mobile Whiteboards			6	18	108				410	18 in South Campus Hub	
	Subtotal	**0**	**0**			**1,858**	**0**	**0**	**86**			
7.2	Expanded Market Place (HSSE)										Near CDS	
7.2.1	Market Place Display			400	1	400				620	Retail Display	
7.2.2	New and Noteworthy			10	4	40				620	Book / Scholarship Display	
7.2.3	Digital Signage			80	1	80				455	Includes AV equipment / rack	
7.2.4	High Top Table Seating			25	20	500			20	630	Hightops adjacent to main circulation corridors	
7.2.5	Café Table Seating			25	20	500			20	630	Light, moveable	
7.2.6	Acoustical Seating			40	4	160			4	410	Light, moveable	
7.2.7	Lounge Seating			35	10	350			10	650		
7.2.8	Large Media Wall			350	1	350			8	620	Movile lounge seating around Media Wall	
7.2.9	Pop-Up Presentation/Gathering			500	1	500			14	610	Adjacen to Media Wall	
7.2.10	Art Gallery			1,200	1	1,200				-		
7.2.11	Art Gallery Storage			100	1	100				-		
	Subtotal	**0**	**0**			**4,180**	**0**	**0**	**76**			
7.3	Café										Interior / Exterior Visibility; Part of 24/7 Accessible Zone	Themed "local" and/or to library "brand"
7.3.1	Servery Area / POS			400	1	400		4		630		
7.3.2	Queuing Space			200	1	200				630		
7.3.3	Food Prep / Storage Wash			200	1	200				635	Access to dock	
7.3.4	Refrigerated Storage			100	1	100				635	Remote to service point	
7.3.5	Dry Storage			100	1	100				635	Remote to service point	
7.3.6	Incoming/outgoing holding			100	1	100				635	Remote to service point	
7.3.7	Café Accounting Rm			80	1	80		1		635	Remote to service point	
	8-10 person (shared with others)	**0**	**0**			**1,180**	**0**	**5**	**0**			
7.4	Non-Traditional Students Study											
7.4.1	Open Table Seating			30	4	120			4	410		
7.4.2	Open Lounge Seating			35	2	70			2	650		
7.4.3	Children's Area			100	1	100				410		
7.4.4	Lactation Room			80	1	80				315	Lactation, baby changing, refrigerator, water	
	Subtotal	**0**	**0**			**370**	**0**	**0**	**6**			
7.5	Inter Library Loan											
7.5.1	Total Area	1,719		1,500	1	1,500				310	Based on HSSE Plan, service counter moved to blended services	
	Subtotal	**1,719**	**0**			**1,500**	**0**	**0**	**0**			
7.6	Experimental Teaching Learning										Near CDS (Jenna Rickus)	
7.6.1	Experimental Classroom			1,200	1	1,200			30	110	"black box" classroom;	Doubles as CDS event space
7.6.2	Experimental Classroom Storage			200	1	200				115	Includes AV equipment / rack	
	Subtotal	**0**	**0**			**1,400**	**0**	**0**	**30**			
7.8	Center for Digital Scholarship (CDS)										Near A/SC and Maker Space	
7.8.1	Reception Station			150	1	150				W05		
7.8.2	Digital Display Wall			100	1	100			2	620		
7.8.3	Meeting / Consult			150	1	150				310		6'-persons (Shared with others)
7.8.4	CDS Office			120	1	120		1		310	Head of CDS	
7.8.5	CDS Workstation			56	2	112		2		310	Administrative Support	
7.8.6	Student Worker TD Workstations			40	2	80				310		
7.8.7	Student Lockers			40	2	80				455		
	DIGITIZATION											
7.8.8	Office			120	0	0		0		310	See Digital Programming above	
7.8.9	Workstations	200		56	0	0		0		310	See Digital Programming above	
7.8.10	Digitization Lab	860		900	1	900				530		
7.8.11	Lab Storage			80	1	80				535		
	DIGITAL HUMANITIES											
7.8.12	Office	232		120	2	240		2		310	Grow by 1	
7.8.13	Digital Humanities Lab	586		300	1	300			6	250	Supplement with Maker Space	
7.8.14	Lab Storage	42		80	1	80				255		
	RESEARCH DATA REPOSITORY (PURR)										Currently in WALC	
7.8.15	Office			120	1	120		1		310		
7.8.16	GIS Lab/Workspace	0		0	0	0				250	See Data Visualization Lab below	
7.8.17	PURR Lab/Workspace			40	4	160				310	Graduage Assistants	
	OTHER											
7.8.18	Digital Visualization Lab (open)			800	1	800			10	530	Currently in WALC but moves with CDS	Workspace / Lab with Center Seminar Table 10-12 persons
7.8.19	Digital Audio/Video/Media Editing Room			200	1	200				530	Higher quality than One-Button	
7.8.20	Specialty Equipment Lab			300	1	300				250		
7.8.21	Long Term Project Room			180	1	180			6	410		6-8 persons; shared room with secure storage
7.8.22	General Storage			120	1	120				730		
	Subtotal	**1,920**	**0**			**4,272**	**0**	**6**	**24**			
7.9	Knowledge Gallery										Proximity to Special Collections / Archives	
7.9.1	Gallery all in			1,200	1	1,200				620		Flexible display
7.9.2	Large Digital Display Wall			100	1	100				620	For digital content display	
7.9.3	Reception			80	1	80				W05		
7.9.4	Gallery Storage			120	1	120				625		
	Subtotal	**0**	**0**			**1,500**	**0**	**0**	**0**			
	NEW PROGRAM **SUBTOTAL**	**3,639**	**0**			**16,260**	**0**	**11**	**222**			

8.0	PROGRAMMED SERVICES	EXISTING		2022 PROGRAM							
	1.0 Access Services	3,891		2,292	180	6	10				
	2.0 Learning Commons	7,494		4,670	90	0	127				
	3.0 Library Collection	21,727		18,193	29,745	0	66				
	4.0 Special Collections	194		0	0	0	0				
	5.0 Seating + Collaboration	27,999		26,910	0	0	1,070				
	6.0 Library Operations	3,121		9,816	0	88	0				
	7.0 Partners + Special Programs	3,639		16,260	0	11	222				
	PROGRAMMED SERVICES SUBTOTAL	68,065		78,141	30,015	105	1,495				

9.0	GROSSING	Factor	G.S.F.	N.S.F.	Factor		G.S.F.				
	Program Multiplier	1.88			1.52						
9.1	Fit Factor		0	78,141	0.050		3,907				
9.1	Building Services/Toilets		0	78,141	0.100		7,814				
9.2	Circulation		0	89,862	0.200		17,972				
9.3	Construction		0	107,835	0.100		10,783				
	ADDITIONAL GROSSING SUBTOTAL						40,477				

10.0	TOTAL BUILDING AREA										
	8.0 Programmed Services		68,065				78,141				
	9.0 Additional Grossing		59,731				40,477				
	BUILDING TOTAL		127,796				118,618				

Existing HSSE		127,796
Programmed HSSE		118,618
Delta	-7.2%	-9,178
New Program		13,492 SF
Additional Seats		2,164 Seats

South Hub (not including Special Collections)

	Access Services
	Learning Commons
	Library Collections
	Special Collections
	Seating + Collaboration
	Operations
	Partners + Special Programs

	Space Type	EXISTING		2022 FULL PROGRAM						FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
		N.S.F.	Seats	Unit/ Area	Qty.	N.S.F.	LF	Staff	Seats			
1.0	**ACCESS SERVICES**					**2022 PROGRAM**						
	SITE 2 ACCESS SERVICES											
1.2.1	Circulation Lib / Access Service Desk			150	1	150		2		310		
1.2.2	Reserve Shelving			10	3	30	54			420		6-high shelving; 8-high for medial shelving
1.2.3	Holds			10	3	30	54			420		6-high shelving
1.2.4	Textbook Shelving			10	3	30	54			420		6-high shelving
1.2.5	Loanable Equipment Storage			10	5	50				420		Lockable cabinets / carts
1.2.6	Lost & Found			10	1	10				455		(1) 4-high lateral file or cabinet
1.2.7	Reference Kiosk			64	1	64		1		455	Touchdown style kiosk near or part of circ desk.	
1.2.8	Research / Learning Support Kiosk			64	1	64		1		455	Touchdown style kiosk near or part of circ desk.	
1.2.9	Main Entry / Security Desk			64	1	64		1		310		Staffed security desk near entry/exit point
1.2.10	Ready Reference Collections			10	1	10	18			420		(2) 3-high shelving for ready reference materials
1.2.11	Gallery	Display	Showcase			200	1	200				620		
1.2.12	Marketplace			300	1	300				620		New and noteworthy:spine out mixed with face-out display
1.2.13	Marketplace Seating			35	4	140			4	625		Short term lounge seating
1.2.14	Consultation Room			80	1	80				350		2-3 persons
1.2.15	Drop in Services			80	1	80				310		Activities that may come in and out such as academic advising, career consultation, health services, etc.
1.2.16	Consultation Waiting Area			100	1	100			2	315	Adjacent to consult room & circ desk	
1.2.17	Express Computers			20	10	200				455		Stand-up stations
1.2.18	Express Printers			15	2	30				455	Adjacent to express computers	
1.2.19	Express Copy/Scan			25	2	50				455	Adjacent to express computers	
1.2.20	Digital Signage			20	1	20				455		spine out mixed with face-out display
1.2.21	Self-Check Stations			25	2	50				455		At main entry
	ACCESS SERVICES SUBTOTAL	0	0			1,752	180	5	6			

		EXISTING				2022 PROGRAM						
2.0	**LEARNING COMMONS**											
	SITE 2 LEARNING COMMONS											
2.1	Pop Up Consultation Kiosk			40	3	120				455		1 per fl; Can double as a stand up OPAC station(s)
2.2	Public Computers			30	0	0			0	220	Captured in "other seating"	Sized for 2 to share dual monitor
2.3	Popular Reading Area			35	10	350			10	410	seats at 2-person or 3-person tables.	Shelving captured under "collections"
2.4	Learning Commons Moveable Seating			30	30	900			30	410		Mix of wired, mobile seating & tables
2.5	"Idea Box" Display			150	1	150			6	620		Participatory display area with active change
2.6	Large Media Wall			350	1	350			6	620		Multi-panel display with moveable lounge seating
2.7	Pop-Up Presentation/Gathering			500	1	500			17	610	Supported by large media wall	Semi-Enclosed area for impromptu presentations for +/- 25
2.8	Popular / Leisure Collection / Journals			10	10	100	90			420		3-high shelving;
2.9	Group Study Room - Small			100	12	1,200			48	410		4-person group rooms;
2.10	Group Study Room - Medium			150	2	300			12	410		6-person group rooms;
2.11	Collaborative Group Seating			30	30	900			30	410		groups of 4-6 seating arrangements with technology media
2.12	Collaborative High Table Seating			25	20	500			20	410		
2.13	Lounge w/ Tablet Arm			35	20	700			20	410		
2.14	Print Lab			500	1	500		1		455	Touchdown for staff or student worker	color copy/print/scan; 2 kickstart copiers; scanners; plotter; layout
2.15	"One-Button" Production			150	1	150				530		
2.16	Light Board Presentation Production			150	1	150				530		
2.17	Sound Recording/Podcast Capture			100	1	100				530		
2.18	Learning Commons Storage			100	3	300				455		1 per floor
2.19	Student Lockers			4	80	320				455		18" X 24" X 1.18" 3-high lockers; power for recharging
2.20	Orientation Kiosk/ Digital Wayfinding			20	5	100				455		1 per floor; 2 on entry floor level
	LEARNING COMMONS SUBTOTAL	0	0			7,690	90	1	199			

		EXISTING				2022 PROGRAM						
3.0	**LIBRARY COLLECTION**											
	Collections										Use collections to define and thematize study spaces	Visible, browsing collection
3.1	Themed Collection 3			10	40	400	720			420		6-high shelving
3.2	Themed Collection 4			10	40	400	360			420		3-high shelving
	LIBRARY COLLECTION SUBTOTAL	0	0			800	1,080	0	0			

		EXISTING				2022 PROGRAM						
4.0	**SPECIAL COLLECTIONS**											
	SPECIAL COLLECTIONS											
4.1	No Special Collections			0	0	0				420		2 person counter for registration and circulation/reference
	SPECIAL COLLECTIONS SUBTOTAL	0	0			0	0	0	0			

		EXISTING				2022 PROGRAM						
5.0	**SEATING + COLLABORATION**											
	Quiet Seating											
5.1	Carrel Seating			30	140	4,200			140	410		
5.2	Table Seating			25	175	4,375			175	410		
5.3	Quiet Reading Room			2,000	1	2,000			67	410		Include fireplace / hearth
5.4	Small Study Rooms			100	10	1,000			40	410		Can be used for quiet or active; 4-person
5.5	Quiet Lounge Seating			35	15	525			15	410		
	Subtotal	0	0			12,100	0	0	437			
	Collaborative Seating											
5.6	Closed Group Rooms (small)			100	4	400			20	410		
5.7	Closed Group Rooms (Medium)			150	1	150			8	410		
5.8	Open Flex Group Areas (small)			100	3	300			12	410		4-person areas
5.9	Open Moveable Table Seating			30	40	1,200			40	630	Adjacent to Café	
5.10	Mobile White Boards			12	25	300				410		
	Subtotal	0	0			2,350	0	0	80			
	Learning Labs											
5.11	Seminar			400	1	400			16	350	Cluster with some sm. Group rooms	Smart classroom capable; doubles as group room
5.12	Computer Lab			700	1	700			25	210		
5.13	Computer Lab Storage			40	1	40				215		
5.14	Active Learning Classroom (divisible)			1,500	1	1,500			60	110	Cluster with some sm. Group rooms; config TBD based on classroom MP	Divisible room; active learning capable; 60-70 persons clsrm.
5.15	Active Learning Classroom Storage			80	1	80				115		
	Subtotal	0	0			2,640	0	0	101			

		Existing			2022 Program					Code		
	Other Seating											
5.16	Computer Stations (clustered)			30	30	900			30	410		20 stations per floor (not including 1F)
5.17	Computer Stations (1F)			30	15	450			15	410		30 station cluster
5.18	Special Projects Room			180	2	360			16	350	Long term project rooms	Double as group study rooms
	Subtotal	0	0			1,710	0	0	61			
	SEATING+COLLABORATION **SUBTOTAL**	0	0			18,800	0	0	679			

6.0	**LIBRARY OPERATIONS**	EXISTING			2022 PROGRAM							
6.1	**Access Services**											
6.1.1	Office			120	2	240		1		310		
6.1.2	Workstations			56	4	224		4		310		
	Subtotal	0	0			464	0	5	0			
6.2	**Shared Resources**											
6.2.1	Staff Kitchenette			80	1	80				315		
6.2.2	Staff Break Room			120	1	120				315		
6.2.3	Distributed Copy/Print			40	1	40				315		
6.2.4	General Storage			100	1	100				730		
6.2.5	Small Meeting Room			120	1	120				v		
6.2.6	Wellness/Lactation Room			60	1	60				315		
	Subtotal	0	0			520	0	0	0			
6.3	**Misc. B.O.H.**											
6.3.1	General Library Storage			200	1	200				455		
6.3.2	General Stockroom			200	1	200				730		
6.3.3	Dock			0	0	0				W04	Shared with Partner	
6.3.4	Shipping & Receiving			300	0	0				750	Shared with Partner	
6.3.5	Outgoing Holding			100	1	100				750	Shared with Partner	
6.3.6	Mailroom			100	0	0				750	Shared with Partner	
6.3.7	Housekeeping Central Storage			120	1	120				730	Shared with Partner	
6.3.8	Housekeeping Floor Closets & Storage			80	2	160				730	Shared with Partner	
	Subtotal	0	0			780	0	0	0			
	STAFF + SUPPORT AREAS **SUBTOTAL**	0	0			1,764	0	5	0			

7.0	**PARTNERS + SPECIAL PROGRAMS**	EXISTING			2022 PROGRAM							
7.1	**Virtual Learning Hub**										Easy access, away from quiet zones	
7.1.1	Arrival / Checking			100	1	100				W05		
7.1.2	Single Pods			35	50	1,750			50	410		
7.1.3	Double Pods			45	6	270			12	410		
7.1.4	2-Person Rooms			60	6	360			12	410		Acoustically enclosed furniture pods
7.1.5	3-Person Rooms			90	3	270			12	410		Acoustically enclosed furniture pods
7.1.6	Mobile Whiteboards			6	18	108				410		
	Subtotal	0	0			1,858	0	0	86			
7.2	**Café**										Interior / Exterior Visibility; Part of 24/7 Accessible Zone	Themed "local" and/or to library "brand"
7.2.1	Servery Area / POS	400		400	1	400		4		630		
7.2.2	Queuing Space	526		200	1	200				630		
7.2.3	Food Prep / Storage Wash			200	1	200				635	Access to dock	
7.2.4	Refrigerated Storage			100	1	100				635	Remote to service point	
7.2.5	Dry Storage			100	1	100				635	Remote to service point	
7.2.6	Incoming/outgoing holding	150		100	1	100				635	Remote to service point	
7.2.7	Café Accounting Rm			80	1	80		1		635	Remote to service point	
	8-10 person (shared with others)	1,076	0			1,180	0	5	0			
7.3	**Graduate Commons**											
7.3.1	Carrel Seating			30	8	240			8	410		
7.3.2	Open Table Seating			30	20	600			20	410		
7.3.3	Open Lounge Seating			35	6	210			6	650		
7.3.4	Group Study Room			120	1	120			5	410		
7.3.5	Student "Puppies"			3.25	100	325				455	Individual lockers on rollers	
	Subtotal	0	0			1,255	0	0	31			
	NEW PROGRAM **SUBTOTAL**	0	0			4,293	0	5	117			

8.0	**PROGRAMMED SERVICES**	EXISTING			2022 PROGRAM							
	1.0 Access Services	0				1,752	180	5	6			
	2.0 Learning Commons	0				7,690	90	1	199			
	3.0 Library Collection	0				800	1,080	0	0			
	4.0 Special Collections	0				0	0	0	0			
	5.0 Seating + Collaboration	0				18,800	0	0	679			
	6.0 Library Operations	0				1,764	0	5	0			
	7.0 Partners + Special Programs	0				4,293	0	5	117			
	PROGRAMMED SERVICES **SUBTOTAL**	0				35,099	1,350	16	1,000			

9.0	**GROSSING**	Factor	G.S.F.		N.S.F.	Factor		G.S.F.				
	Program Multiplier					1.45						
9.1	Fit Factor		0		35,099	0.000		0				
9.1	Building Services/Toilets		0		35,099	0.100		3,510				
9.2	Circulation		0		38,609	0.200		7,722				
9.3	Construction		0		46,331	0.100		4,633				
	ADDITIONAL GROSSING **SUBTOTAL**							15,865				

10.0	**TOTAL BUILDING AREA**											
	8.0 Programmed Services							35,099				
	9.0 Additional Grossing							15,865				
	BUILDING TOTAL		0					50,964				

Residential Hub

Legend:
- Access Services
- Learning Commons
- Library Collections
- Special Collections
- Seating + Collaboration
- Operations
- Partners + Special Programs

	Space Type	EXISTING N.S.F.	Seats	Unit/Area	Qty.	2022 FULL PROGRAM N.S.F.	LF	Staff	Seats	FICM	Critical Adjacency	Functional Description / Special F.F. & E	A/V / Technology	Finishes (subject to change)
1.0	**ACCESS SERVICES**													
	RES HUB ACCESS SERVICES													
1.2.1	Circulation Lib / Access Service Desk			150	1	150		2		310				
1.2.2	Reserve Shelving			10	3	30	54			420		6-high shelving; 8-high for medial shelving		
1.2.3	Holds			10	3	30	54			420		6-high shelving		
1.2.4	Textbook Shelving			10	2	20	36			420		6-high shelving		
1.2.5	Loanable Equipment Storage			10	2	20				420		Lockable cabinets / carts		
1.2.6	Lost & Found			10	1	10				455		(1) 4-high lateral file or cabinet		
1.2.7	Reference Kiosk			64	1	64		1		455	Touchdown style kiosk near or part of circ desk.			
1.2.8	Main Entry Security Desk			64	1	64		1		455		Staffed security desk near entry/exit point		
1.2.9	Ready Reference Collections			10	1	10	18			420		(2) 3-high shelving for ready reference materials		
1.2.10	Gallery | Display | Showcase			100	1	100				620		New and noteworthy spine out mixed with face-out display		
1.2.11	Marketplace			200	1	200				620				
1.2.12	Consultation Room			80	1	80				350		2-3 persons		
1.2.13	Drop in Services			80	1	80				310		Activities that may come in and out such as academic advising, career counseling, health services, etc.		
1.2.14	Express Computers			20	2	40				455		Stand-up stations		
1.2.15	Express Printers			15	1	15				455	Adjacent to express computers			
1.2.16	Digital Signage			20	1	20				455		spine out mixed with face-out display		
1.2.17	Self-Check Stations			25	0	0				455		At main entry		
	ACCESS SERVICES **SUBTOTAL**	0	0			933	162	4	0					
2.0	**LEARNING COMMONS**													
	SITE 2 LEARNING COMMONS													
2.1	Learning Commons Moveable Seating			30	20	600			20	410		Mix of wired, mobile seating & tables		
2.2	Large Media Wall			200	1	200			6	620		Multi-panel display with moveable lounge seating		
2.3	Pop-Up Presentation/Gathering			500	1	500			17	610	Supported by large media wall	Semi-Enclosed area for impromptu presentations for +/- 25		
2.4	Group Study Room – Small			100	6	600			24	410		4-person group rooms;		
2.5	Group Study Room – Medium			150	2	300			12	410		6-person group rooms;		
2.6	Collaborative Group Seating			30	8	240			8	410		groups of 4-6 seating arrangements with technology media		
2.7	Collaborative High Table Seating			25	4	100			4	410				
2.8	Lounge w/ Tablet Arm			35	10	350			10	410				
2.9	Print Lab			250	1	250				455	Touchdown for staff or student worker	color copy/print/scan; 2 kickstart copiers; scanners; plotter; layout		
2.10	Learning Commons Storage			100	1	100				455		1 per floor		
2.11	Orientation Kiosk/ Digital Wayfinding			20	3	60				455		1 per floor; 2 on entry floor level		
	LEARNING COMMONS **SUBTOTAL**	0	0			3,300	0	0	101					
3.0	**LIBRARY COLLECTION**													
	Collections													
3.1	No Collections			10	0	0	0							
	LIBRARY COLLECTION **SUBTOTAL**	0	0			0	0	0	0					
4.0	**SPECIAL COLLECTIONS**													
	SPECIAL COLLECTIONS													
4.1	No Special Collections			0	0	0								
	SPECIAL COLLECTIONS **SUBTOTAL**	0	0			0	0	0	0					
5.0	**SEATING + COLLABORATION**													
	Quiet Seating													
5.1	Carrel Seating			30	80	2,400			80	410				
5.2	Table Seating			25	50	1,250			50	410				
5.3	Quiet Reading Room			2,000	1	2,000			67	410		Include fireplace / hearth		
5.4	Small Study Rooms			100	6	600			24	410		Can be used for quiet or active; 4-person		
5.5	Quiet Lounge Seating			35	5	175			5	410				
	Subtotal	0	0			6,425	0	0	226					
	Collaborative Seating													
5.6	Closed Group Rooms (small)			100	4	400			20	410				
5.7	Closed Group Rooms (Medium)			150	1	150			8	410				
5.8	Open Flex Group Areas (small)			100	2	200			8	410	Adjacent to Café	4-person areas		
5.9	Open Moveable Table Seating			30	40	1,200			40	630				
5.10	Mobile White Boards			6	25	150				410				
	Subtotal	0	0			2,100	0	0	76					
	Other Seating													
5.11	Computer Stations (clustered)			30	30	900			30	410		20 stations per floor (not including 1F)		
5.12	Special Projects Room			180	1	180			8	350	Long term project rooms	Double as group study rooms		
	Subtotal	0	0			1,080	0	0	38					
	SEATING+COLLABORATION **SUBTOTAL**	0	0			9,605	0	0	340					
6.0	**LIBRARY OPERATIONS**													
6.2	**Access Services**													
6.2.1	Office			120	2	240		1		310				
6.2.2	Workstations			56	4	224		4		310				
	Subtotal	0	0			464	0	5	0					
6.18	**Shared Resources**													
6.18.1	Staff Kitchenette			80	1	80				315				
6.18.2	Staff Break Room			120	1	120				315				
6.18.3	Distributed Copy/Print			40	1	40				315				
6.18.4	General Storage			100	1	100				730				
6.18.7	Small Meeting Room			120	1	120				350				
6.18.10	Wellness/Lactation Room			60	1	60				315				
	Subtotal	0	0			520	0	0	0					
6.19	**Misc. B.O.H.**													
6.19.1	General Library Storage			150	1	150				455				
6.19.2	General Stockroom			100	1	100				730				
6.19.4	Dock			0	0	0				W04	Shared with Partner			
6.19.5	Shipping & Receiving			100	0	0				750	Shared with Partner			
6.19.6	Outgoing Holding			100	1	100				750				
6.19.7	Mailroom			100	0	0				750	Shared with Partner			
6.19.10	Housekeeping Central Storage			120	1	120				730	Shared with Partner			
6.19.11	Housekeeping Floor Closets & Storage			80	1	80				730	Shared with Partner			
	Subtotal	0	0			550	0	0	0					
	STAFF + SUPPORT AREAS **SUBTOTAL**	0	0			1,534	0	5	0					
7.0	**PARTNERS + SPECIAL PROGRAMS**													
7.1	**Virtual Learning Hub**										Easy access, away from quiet zones			
7.1.1	Arrival / Checking			100	1	100				W05				
7.1.2	Single Pods			35	40	1,400			40	410				
7.1.3	Double Pods			45	4	180			8	410				
7.1.4	2-Person Rooms			60	4	240			8	410		Acoustically enclosed furniture pods		
7.1.5	3-Person Rooms			90	1	90			4	410		Acoustically enclosed furniture pods		
7.1.6	Mobile Whiteboards			6	18	108				410				
	Subtotal	0	0			1,118	0	0	60					
	NEW PROGRAM **SUBTOTAL**	0	0			1,118	0	0	60					

8.0	PROGRAMMED SERVICES		EXISTING		2022 PROGRAM			
	1.0 Access Services	0		933	162	4	0	
	2.0 Learning Commons	0		3,300	0	0	101	
	3.0 Library Collection	0		0	0	0	0	
	4.0 Special Collections	0		0	0	0	0	
	5.0 Seating + Collaboration	0		9,605	0	0	340	
	6.0 Library Operations	0		1,534	0	5	0	
	7.0 Partners + Special Programs	0		1,118	0	0	60	
	PROGRAMMED SERVICES **SUBTOTAL**	0		16,490	162	9	500	

9.0	GROSSING	Factor	G.S.F.		N.S.F.	Factor	G.S.F.
	Program Multiplier					1.45	
9.1	Fit Factor		0		16,490	0.000	0
9.1	Building Services/Toilets		0		16,490	0.100	1,649
9.2	Circulation		0		18,139	0.200	3,628
9.3	Construction		0		21,767	0.100	2,177
	ADDITIONAL GROSSING **SUBTOTAL**						7,453

10.0	TOTAL BUILDING AREA		
	8.0 Programmed Services		16,490
	9.0 Additional Grossing		7,453
	BUILDING TOTAL	0	23,943

Existing HSSE	127,796
Existing HIKS	71,606
	199,402
Delta	**-175,459**
2nd Hub With A/SC	**23,943 SF**
2nd Hub Without A/SC	**53,259 Seats**

Special Collections (within HSSE Library)

Access Services
Learning Commons
Library Collections
Special Collections
Seating + Collaboration
Operations
Partners + Special Programs

	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty.	N.S.F.	LF	Staff	Seats	FICM Code	Critical Adjacency	Functional Description / Special F.F. & E
4.0	SPECIAL COLLECTIONS	EXISTING				2022 PROGRAM						
	SPECIAL COLLECTIONS										Secure; Gallery Visibility	40% +/-3% RH; 60 +/- 5 F (collection storage areas); 70 +/- 5 F (occupied areas); dry pipe
4.1	Check-In/Supervision Desk	194		200	1	200		2		310		2 person counter for registration and circulation/reference
4.2	Arrival/Registration	150		150	1	150				440		
4.3	Patron Lockers	85		80	1	80				455		(20) 3-high lockers for Reading Rm visitors + open shelf
4.4	Offices	1,087		120	7	840		7		310		
4.5	Future Archivist			120	3	360		3		310		
4.6	Future Digital Archivist			120	1	120		1		310		
4.7	Workstation (Student Workers)			40	4	160		4		310	Locate inside Processing Workroom	
4.8	Student worker lockers			6	5	30				315		(10) 2-high lockers for 6 persons to store belongings
4.9	Processing / Cataloguing Workroom	486		400	1	400				310		(3) 4'X8' tables with seating/student workers
4.10	Book Cart Storage	50		10	5	50				315		
4.11	Scanning and Photography	244		250	1	250				315	Does not duplicate 'digitization'	
4.12	Shared Lateral Files			8	30	240				420		5-high lateral files
4.13	Holding Shelves for Processing			8	4	32				420		7-high shelves
4.14	Material/Supply Shelves for Processing			8	4	32				420		7-high shelves
4.15	Copy Area			40	1	40				315		Copy / Print / Scan Station
4.16	Main Collection Storage (Archival Boxes)	5,200		10	80	800	1,200			420		Existing+4,400cu.ft. growth; 10% Standard Shelving; 40% +/-3% RH; 60 +/- 5 F; dry pipe
4.17	Main Collection Storage (Archival Boxes)			6	760	4,560	11,400			420		Existing+4,400cu.ft. growth; 90% HD Shelving; 40% +/-3% RH; 60 +/- 5 F; dry pipe
4.18	Main Collection Storage (Maps & 'Other')			300	1	300				420		
4.19	Secure Vault	100		200	1	200	840			315		Separate secure storage; added HVAC; high value items
4.20	Cold Storage			400	1	400	330			440	Includes acclimation zone	
4.21	File Cabinet Collection			10	10	100				420		Same as existing; 40% +/-3% RH; 60 +/- 5 F; dry pipe
4.22	Special Collections Reading Room	1,404		125	12	1,500			12	410		12 front facing researcher tables
4.23	Group Room			200	1	200			8	410	Adjacent to Reading Room; sound attenuated	6-8 persons; sightline to supervision desk; doubles as seminar/staff meeting
4.24	Patron Holds Shelving			10	4	40	72			420		For active/requested materials
4.25	Reading Room Storage			40	1	40				455		Book cradle/weights/magnifiers/light box/etc.
4.26	Special Collections Instruction Room	818		30	35	1,050			35	110	Up to 30 instructional seats	Seats +/- 30; can be shared; feel contiguous w/ reading rm.
4.27	Classroom Storage Closet			80	1	80				455		Book cradle/weights/magnifiers/light box/etc.
4.28	Local Display	350		200	0	0				620	Not needed with adjacent Knowledge Gallery	Secure and climate controlled
4.29	To-Be-Processed Holding	608		500	1	500				315	Can be remote	Secure; Climate controlled
4.30	Quarantine			200	1	200				315	Can be remote	Secure; Climate controlled
	CONSERVATION LAB											
4.32	Workstation			56	1	56		1		310	In lab	
4.33	Future Conservator's Office			120	1	120		1		310	Adjacent to lab	
4.34	Storage Cabinets			10	3	30				315		
4.35	Preservation/Conservation Lab	364		400	1	400				250		Elephant trunk extractors; freezer; freeze dry chamber; light table; ultrasonic welder
4.36	Fume Hood			35	1	35				250		
4.37	Deionized Water + Sink			35	1	35				250		
4.38	Photo documentation area			35	1	35				250		
4.39	Dry Mount Press			20	1	20				250		
4.40	Vacuum Suction Table			20	1	20				250	See "Knowledge Gallery" in Partner + Special Programs	
	DIGITIZATION											
4.41	Digitization Lab	900		350	1	350				530	In lab	
	SPECIAL COLLECTIONS SUBTOTAL	11,140	0			14,055	13,842	19	55			
7.9	Knowledge Gallery										Proximity to Special Collections / Archives	
7.9.1	Gallery all in			1,200	1	1,200				620		Flexible display
7.9.2	Large Digital Display Wall			100	1	100				620	For digital content display	
7.9.3	Reception			80	1	80				W05		
7.9.4	Gallery Storage			120	1	120				625		
	Subtotal	0	0			1,500	0	0	0			
	NEW PROGRAM SUBTOTAL	11,534	0			16,025	13,842	19	55			

	PROGRAMMED SERVICES	EXISTING				2022 PROGRAM						
8.0												
	1.0 Access Services											
	2.0 Learning Commons											
	3.0 Library Collection											
	4.0 Special Collections	11,140				14,055	13,842	19	55			
	5.0 Seating + Collaboration											
	6.0 Library Operations											
	7.0 Partners + Special Programs											
	PROGRAMMED SERVICES SUBTOTAL	11,140	0			14,055	13,842	19	55			

9.0	GROSSING	Factor	G.S.F.			N.S.F.	Factor		G.S.F.			
	Program Multiplier	1.57					1.54					
9.1	Fit Factor		0			14,055	0.050		703			
9.1	Building Services/Toilets		0			14,055	0.120		1,687			
9.2	Circulation		0			16,444	0.200		3,289			
9.3	Construction		0			19,733	0.100		1,973			
	ADDITIONAL GROSSING SUBTOTAL		6,350						7,652			

10.0	TOTAL BUILDING AREA											
	8.0 Programmed Services		11,140						14,055			
	9.0 Additional Grossing		6,350						7,652			
	BUILDING TOTAL		17,490						21,707			

MEETING MINUTES
Workshop 1: November 11, 2021

Meeting Details

Meeting Date:	11.10.2021	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	All Day	**Project Number:**	021661.000
Meeting Location:	HSSE, Third Floor Conference Room 353	**Attendees:**	10 Students, Jessica Figenholtz, Drew Furry, Beth McNeil, Derek Jones, Allison Leavitt, Phil Kolb, Dean Lingley, Rebecca Richardson, Mark Puente, Candace Scott, Katey Watson, Robin Meher

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	**Student Visioning Session**	Perkins + Will
	1. More space to gather and work in groups, open space that requires no reservations. Its to closed and quiet for discussions at the moment.	
	2. Like multiple zones for different types of work. Want spaces to share ideas. Do not like the current lighting.	
	3. Too much info flooding the campus, need a better more interactive way to search for different services.	
	4. Like high ceilings and sense of volume. Don't like interior finishes and uncomfortable hard chairs.	
	5. Create: Curated books, make spines visual; Conference style rooms with technology; Sharing spaces; more natural light; Conversation pits; Better ergonomics; More outlets and power sources.	
002	**Workshop Prep**	Perkins + Will
	1. Confirm enrollment target numbers in alignment with classroom MP; Review floorplans of what is library space (WALC); Follow up with Drew for space needed for all buildings; update spreadsheet; Beth to provide list of stakeholders that did not fit in workshop #1.	
003	**Archives & Special Collections**	Perkins + Will
	1. Strategic Plan: Increase use of collections and visibility of archives; Division going through rapid growth area collections, staff, collaborations with departments; Need capacity to bring in more public exhibits; Have mixed audiences; Need to balance food/beverage needs with archive materials.	
	2. Growth: Can't accept collections because of the lack of space; Need climatized transitional spaces; Need personal to do exhibits and allow for growth; Process, collections and reading rooms should be in proximity.	
	3. Staff Growth: Working on adding staff member; Need processing space; Still want staff offices for private meetings and instruction; Flex space is good.	
	4. Meeting Space: Weekly staff meetings are remote; SWAIN is not good for small meetings, needs to be more intimate.	
	5. Make people place materials in lockers if they have any	
	6. Special Equipment: Have loans to museums but should increase use and gain exposure; Bring materials in skid palette, need access to freight elevators and loading docks; Donors of collections want more visibility and expect distinct identity; Should be 'gravatas' around high-profile collections.	
	Action Items: Purdue to send quantities (i.e. couple of freezers, tec.)	

004	Digital Scholarship User Group	Perkins + Will

1. Purdue is invested in STEM; Most resources are not physically available.
2. Need a good network; No clear website pointing people in right direction; Researchers don't like going into different offices, they should be more integrated/
3. No digital scholarship program on campus; initiatives come from faculty.
4. Digital scholarship and digital humanities should be together and belong to HSSE library space.

005	External Faculty Partners	Perkins + Will

1. David, history professor, expressed how Purdue has no access to books; Students prefer e-books.
2. In STEM, books are outdated quickly; Care more about digital copies; Don't know everything the library offers.
3. Faculty doesn't go to the library because all spaces are always taken up by students; Faculty wants private space, for writing, away from students and noise.

006	CIE and Innovative Learning & Envision Center	Perkins + Will

1. Think about hybrid situations with classes and adapt spaced to that, studios; Think about VR spaces; Bleeding off library spaces idea.

007	Core Visioning Session	Perkins + Will

1. Keep: Individual study spaces; Costumer service; Books; Digital reference help desk; Makerspace; Multi-purpose spaces like computer labs, study rooms, etc.
2. Toss: Big service desk; single use spaces; Idea of quietness; security systems; all print collections on campus; Uncomfortable seating; Not friendly 'staff only' signs; Physical books that are online.
3. Create: Consistent signs and branding; Data/GIS walk in services; Recording studios; Sanctuary spaces; Collaborative spaces; Wayfinding interfaces; better maker space; Dynamic welcome space; Interactive noisy space; Gallery space; Permanent exhibit space.

008	Partners in Library Space	Perkins + Will

1. There are good resources on campus, people don't know where they are
2. Need spaces that encourage dialog
3. Create opportunities by taking away the stigma and barriers of library, give people tools to be successful

009	Communications and Advance	Perkins + Will

1. Want to make libraries more visible, raise awareness; Get survey from Phil
2. 3D printing services are tucked into a windowless corridor; Technology needs to be placed somewhere more accessible; Library is being used as a transiting space from class to class.

Action Items: Get survey from Phil

010	Library Faculty User Group	Perkins + Will

1. Need space to meet for private conversations; need small group meeting rooms.
2. Need to get scholars more connected; Spaces need to be more conductive to multicultural students; Leverage spaces for more collaboration for under-served students; More physical and virtual spaces for partnership and collaboration.
3. Need to send questions ahead of time.

011	Administration User Group	Perkins + Will

1. Look at JLL space study from Michael as we plan space; Meetings space for 4-6 conf rooms; Soo how often we have large meetings in Outlook calendar for covid times; Need video possibility in the rooms.
2. Make admin space more accessible to staff; Also want it open and welcoming; Could benefit from having a hub; Some office space feels removed/isolated (maybe due to pandemic).

Action Items: Beth to send spring report and projected numbers

012	Library Services, Access Services & Print Repositories	Perkins + Will

    1. Front Desk: HSSE doesn't have enough room (1-2 people); WALC 1 person; HSSE desk too wide.
    2. Would like to have ITAP nearby; Have it at WALC now, signage doesn't work.
    3. Theresa: Like ITAP ideal for Parrish Library desk; Currently have 4 different wats to approach.
    4. Equipment in HSSE needs work, WALC is set up already; Security is not a big issue; Technology in WALC will be receiving maker tools back.
    5. ILL loan area, need to look at processing from shipping/receiving.
    6. Accessibility is a big issue in all spaces.

013	UCO, PUP and OUR User Group	Perkins + Will

    1. PUP: In the process of moving; There is only 1 enclosed office, need more for senior leadership team; Had some restructuring; Fear there might be disruptive without own closed space; Want mini conference room; New space might limit future growth; As publishers they do a lot of printing.
    2. UCO: Copyright does all the legal work for PUP; Adjacency is not beneficial; Copyright attorney for all Purdue campuses; Work with archives; Work closely with Dean, senior advisor to Beth. Lots of legal issues in libraries; Workshops range from 5-20 students; Do not touch printer in desk; Need quiet space for office.
    3. OUR: Want it to be in front and center; Main entry is off study space: 4 cubicles for grad students, and 3 workstations for undergrads; There is not enough storage in suite.

014	Acquisitions and Discovery	Perkins + Will

    1. Discovery: When you look at library catalog that is discovery; Unit makes sure searching things are working correctly; Metadata is data standing behind materials in library.
    2. Acquisitions: Everything in library goes through acquisitions; Want lunchroom near them; Hoteling station + undesignated workstation; Elevator is only in stack area, not in work area; No ADA access on 3rd floor; Need for quiet spaces, acoustic separation.
    3. Made cubicles the same size, moving virtually.

-15	Fabricators and Maker Spaces User Group	Perkins + Will

    1. Ann, Robin, Victoria Thomas, Sarah -run maker space; Don't host events because it's too small; WALC maker space is not accessible to students.
    2. Annette and Sarah have podcast part of maker programming; 2 offices, want to dedicate one to podcast booth; possibility of making one at HSSE.
    3. Maker Space: CNC machine; Cricket maker and Cricket press; 3D scanner.
    4. Been asked to print with materials they don't have; Want a good 3D scanner; Want a display case to show student work to get people interested.

Please note: *The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.*

Purdue University Library Master Plan Working Group Meeting

November 11, 2021   **Perkins&Will**

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Master Plan Process

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... an undeniable impact on ~~business~~ *learning* and culture ...

Success will mean . . .

- **Compelling, future forward vision: "more than books"**
- A vision/project that is ready for funding
- **Collections are protected and safe**
- **The library is visible and welcoming: stronger identity**
- Friendly staff are foregrounded
- **Support innovative instruction/learning/pedagogy**
- Flexible/adaptable
- **Embrace the metaverse—merging physical and virtual space**
- Consolidated and accommodate growth for A/SC

collections
visibility
innovation
technology

Challenges will be . . .

- Ability to fundraise to a budget
- Will the aspirations be sustainable (physically and institutionally)
- How will staffing align with increased demand (student FTE's have already hit 2028 projections)
- **Don't overdo the "digital" – maintain balance**
- **Demonstrate (make visible) purpose and relevance**
- **Do not lose sight of student needs**

collections
visibility
technology
student focus

Core Group

Compelling Vision: "more than books"

Collections are protected

Library is visible & welcoming

Support innovation

Embrace the "metaverse"

Don't overdo the tech

Don't lose sight of student needs

Core Group | Exec. Committee

Core Group	Exec. Committee
Compelling Vision: "more than books"	Doubling down on the "experiential"
Collections are protected	Maintain: 1-in / 1-out
Library is visible & welcoming	Accessible; extension of classroom
Support Innovative Learning	Co-educators of transformative ed
Embrace the "metaverse"	Center of mass: online experience
Don't overdo the tech	Belonging; access; connected; inclusive
Don't lose sight of student needs	Student success

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In a word . . .

Core Group | Exec. Committee

Core Group	Exec. Committee
Bold	Experiential
Flexible	Ownership
Visionary	Pride
Practical	Supportive
Enabling	Success

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PURDUE UNIVERSITY LIBRARIES
STEW – FIRST FLOOR
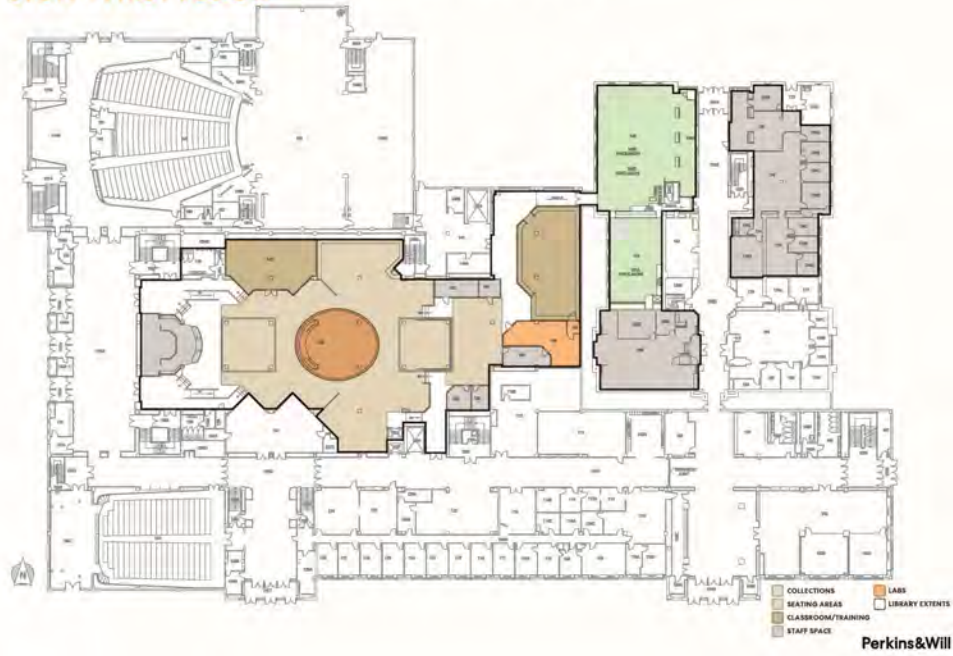
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PURDUE UNIVERSITY LIBRARIES
STEW – SECOND FLOOR

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PURDUE UNIVERSITY LIBRARIES
STEW - THIRD FLOOR
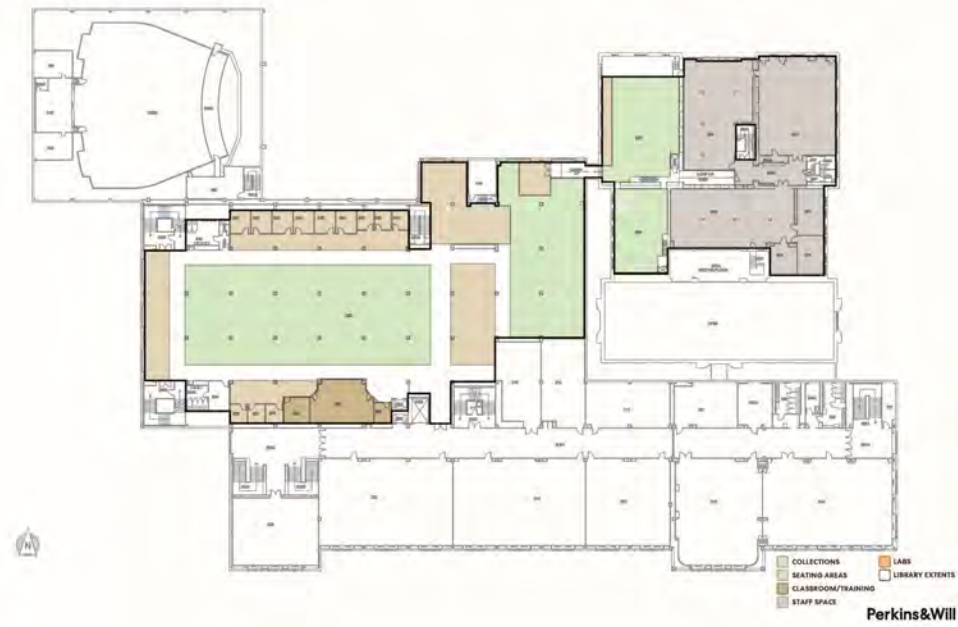
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PURDUE UNIVERSITY LIBRARIES
STEW - FOURTH FLOOR
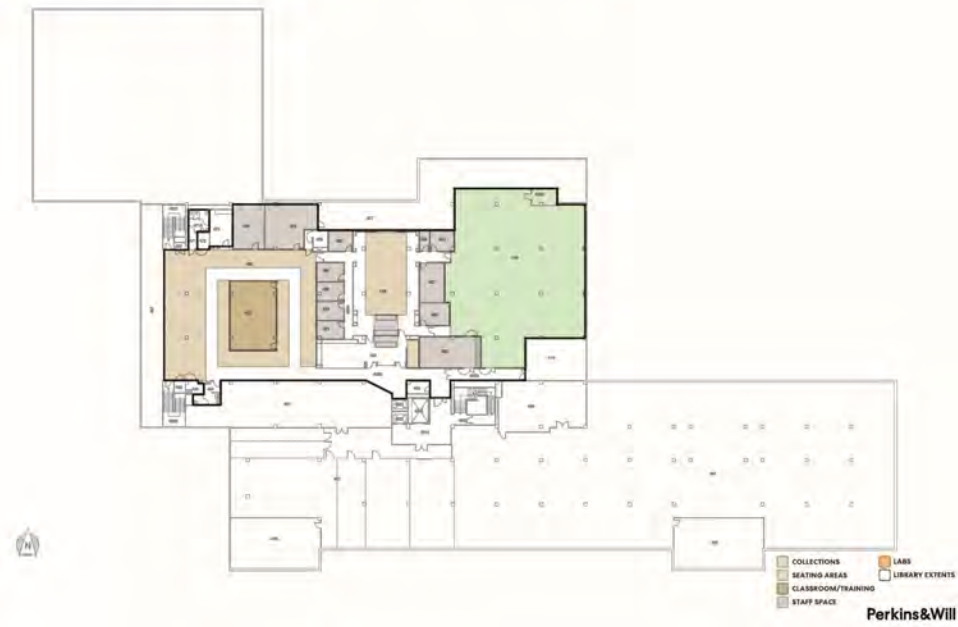
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PURDUE UNIVERSITY LIBRARIES
HIKS – BASEMENT FLOOR

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PURDUE UNIVERSITY LIBRARIES
HIKS – GROUND FLOOR
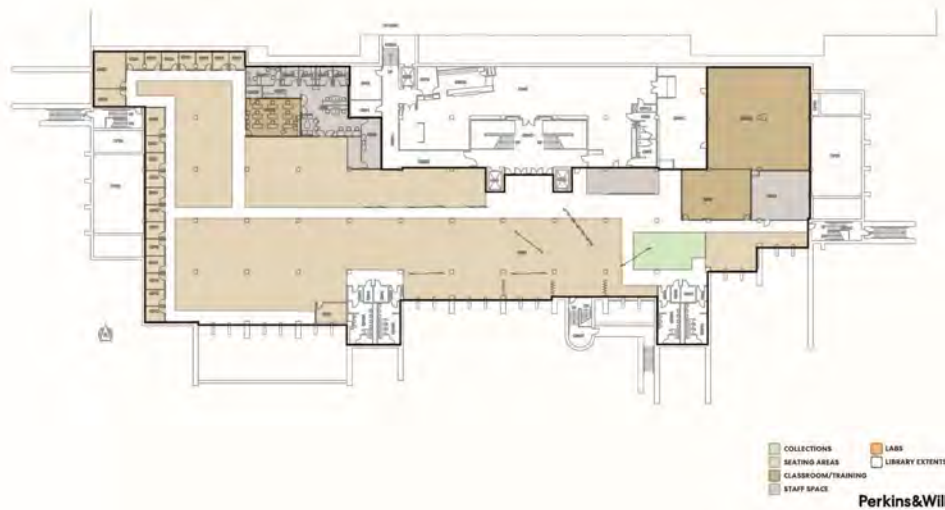
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PURDUE UNIVERSITY LIBRARIES
HIKS – FIRST FLOOR
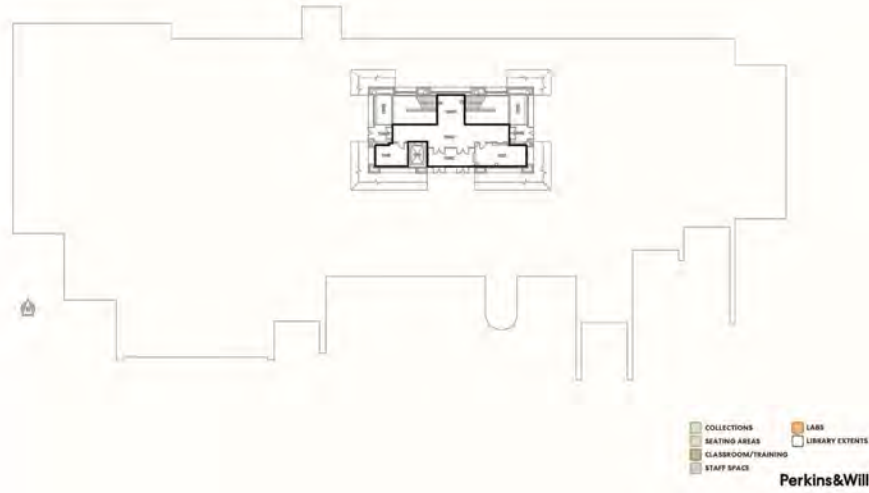
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PURDUE UNIVERSITY LIBRARIES
KRAN – SECOND FLOOR

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PURDUE UNIVERSITY LIBRARIES
MATH - THIRD FLOOR

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PURDUE UNIVERSITY LIBRARIES
LYNN - BASEMENT FLOOR
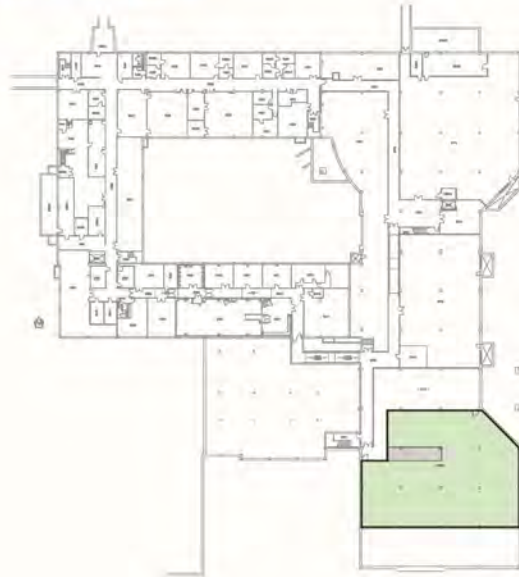
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PURDUE UNIVERSITY LIBRARIES
LYNN – FIRST FLOOR

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PURDUE UNIVERSITY LIBRARIES
TERM – FIRST FLOOR

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PURDUE UNIVERSITY LIBRARIES
RAWL – BASEMENT

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Potential Library Storage Site (Exec 2550)

42,554 Total ASF

13,638 ASF

28,916 ASF

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Potential Library Storage Site (Preliminary Test Fit)

42,554 Total ASF

Existing Print Repositories:
- 4-6 high open shelving (72")
- 7-high HD shelving (88")
- 95+% filled
- **981,529** volumes + add'l uncataloged items

Low: 177,447 LF
- 7-high shelving (88")
- 85% filled
- **2.13M** volumes

High: 215,100 LF
- 8-high shelving (100")
- 90% filled
- **2.58M** volumes

61,260 lf – 70,000lf

147,500lf – 169,000lf

Area Discrepancies

		Purdue	PW Measure	Variance
Vet Med	LYNN	17,913	18,275	2.0%
Rawls Hall	RAWL	3,617	3,705	2.4%
Hicks Undergrad	HIKS	71,607	69,975	-2.3%
Bus/Mgt	KRAN	14,127	14,120	0.0%
Mathematics	MATH	7,774	7,920	1.9%
HSSE	STEW	127,796	125,505	-1.8%
Aviation	TERM	2,196	2,295	4.5%
Wilmeth	WALC	33,954	22,805	-32.8%

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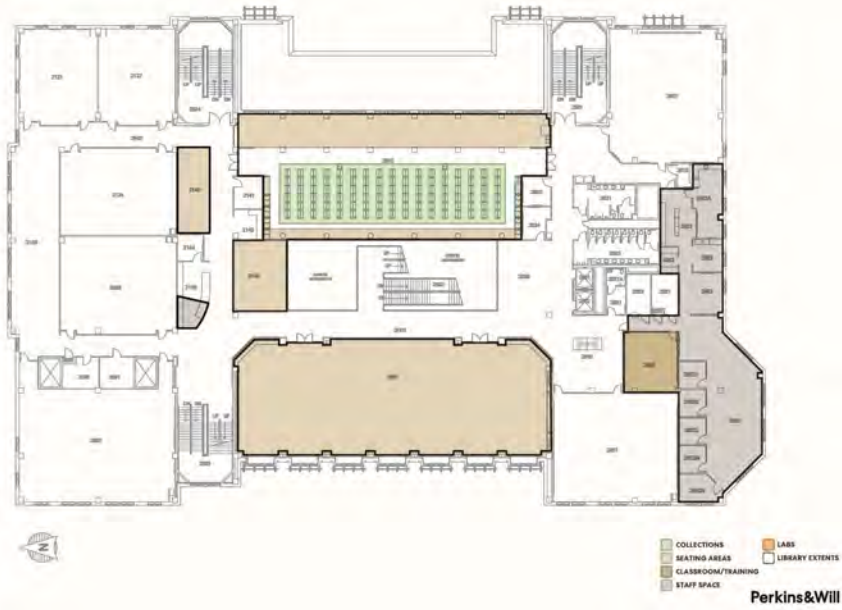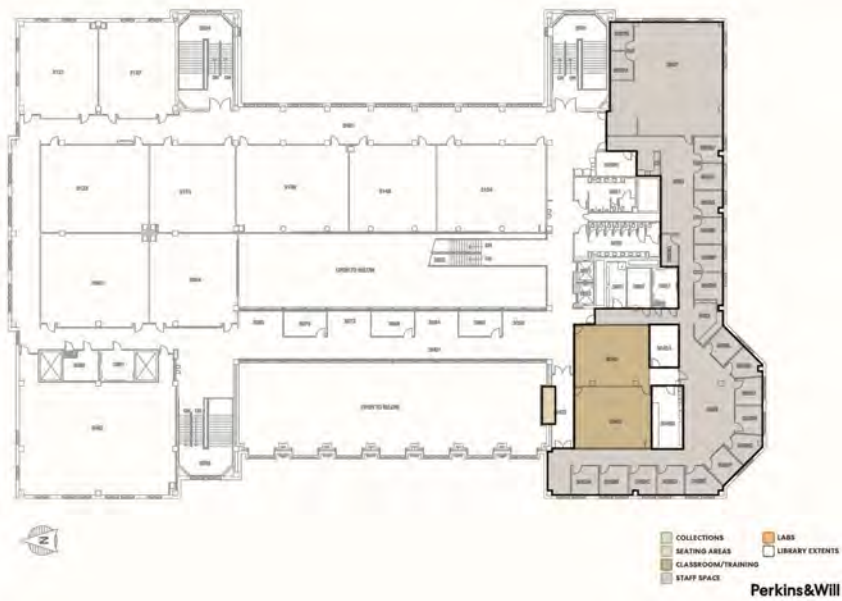
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Area Allocations

LIBRARY	BUILDING	LEVEL	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL	CIRC/INFRA	TOTAL
Humanities, Social Sciences, and Education (HSSE)	STEW	1	7,385	8,560	7,430	2,765	1,850	27,990	5,565	33,555
		2	11,345	8,250	11,920			31,515	6,015	37,530
		3	12,135	2,300	7,130	920		22,485	11,245	33,730
	Archives/Spec. Coll.	4	0	3,090	0	0		3,090	0	3,090
		Total	30,865	22,200	26,480	3,685	1,850	85,080	22,825	107,905
		%	36%	26%	31%	4%	2%	100%	21%	100%
Undergraduate Library	HIKS	B						0	1,130	1,130
		G	650	17,540	2,965	4,115		25,270	7,750	33,020
		1							1,515	1,515
		Total	650	17,540	2,965	4,115	0	25,270	10,395	35,665
		%	3%	69%	12%	16%	0%	100%	29%	100%
Library of Engineering Sciences (LOES)	WALC	2	1,950	8,035	3,220	470		13,675	1,220	14,895
		3		80	6,400	1,350		7,830	80	7,910
		Total	1,950	8,115	9,620	1,820	0	21,505	1,300	22,805
		%	9%	38%	45%	8%	0%	100%	6%	100%
Parish Library	KRAN	2	755	7,720	1,020	1,620	255	11,370	2,750	14,120
		%	7%	68%	9%	14%	2% #	100%	19%	100%
Mathematical Sciences Library	MATH	3	1,415	3,410	1,045			5,870	2,050	7,920
		%	24%	58%	18%	0%	0%	100%	26%	100%
Veterinary Medicine Library	LYNN	B						0		0
		1	1,580	3,890	1,705			7,175	1,610	8,785
		Total	1,580	3,890	1,705	0	0	7,175	1,610	8,785
		%	22%	54%	24%	0%	0%	100%	18%	100%
Aviation and Transportation Technology Library	TERM	3	95	735	215	895		1,940	355	2,295
		%	5%	38%	11%	46%	0%	100%	15%	100%
PURDUE LIBRARIES										
TOTAL (w/o Repository or A/SC)			37,310	63,610	43,050	12,135	2,105	158,210	41,285	199,495
PERCENTAGE			23.6%	40.2%	27.2%	7.7%	1.3%	100.0%	20.7%	100.0%
Additional Repository	HIKS	B	33,700		610			34,310		34,310
	LYNN	B	9,065		425			9,490		9,490
	RAWL	B	3,705					3,705		3,705
		Total	46,470		1,035			47,505		47,505

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Area Allocations

LIBRARY	BUILDING	LEVEL	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL
TOTAL (w/o Repository or A/SC)			37,310	63,610	43,050	12,135	2,105	158,210
PERCENTAGE			23.6%	40.2%	27.2%	7.7%	1.3%	100.0%

General Benchmark								
PERCENTAGE - BENCHMARK			35%	45%	15%	5%		100%
PERCENTAGE VARIANCE			-11%	-5%	12%	3%		

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Enrollment Projections

Confirm Assumptions:
- FTE vs Total Enrollment?
- Growth Rate?
- 10-yr horizon?

YEARS OUT		UG: FTE	PROF UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE	3-yr Avg.	4-yr Avg.
	Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6		2.24%	2.63%
	Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%		
	Fall 2018	31,957.4	1,433.8	7,467.0	40,858.1	4.60%		
	Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%		
	Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%		

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Enrollment Projections

Confirm Assumptions:
- FTE vs Total Enrollment?
- Growth Rate?
- 10-yr horizon?
- Are assumptions consistent with classroom study?

YEARS OUT		UG: FTE	PROF UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE	3-yr Avg.	4-yr Avg.
	Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6		2.24%	2.63%
	Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%		
	Fall 2018	31,957.4	1,433.8	7,467.0	40,858.1	4.60%		
	Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%		
	Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%		
					2.24%	2.00%	1.50%	1.00%
	Fall 2020				42,633	42,633	42,633	42,633
1	Fall 2021				43,586	43,485	43,272	43,059
2	Fall 2022				44,561	44,355	43,921	43,490
3	Fall 2023				45,557	45,242	44,580	43,925
4	Fall 2024				46,575	46,147	45,249	44,364
5	Fall 2025				47,617	47,070	45,928	44,808
6	Fall 2026				48,681	48,011	46,617	45,256
7	Fall 2027				49,770	48,972	47,316	45,708
8	Fall 2028				50,883	49,951	48,026	46,165
9	Fall 2029				52,020	50,950	48,746	46,627
10	Fall 2030				53,184	51,969	49,477	47,093
11	Fall 2031				54,373	53,009	50,219	47,564
12	Fall 2032				55,588	54,069	50,973	48,040
13	Fall 2033				56,831	55,150	51,737	48,520
14	Fall 2034				58,102	56,253	52,513	49,005
15	Fall 2035				59,401	57,378	53,301	49,495
16	Fall 2036				60,729	58,526	54,100	49,990
17	Fall 2037				62,087	59,696	54,912	50,490
18	Fall 2038				63,475	60,890	55,736	50,995
19	Fall 2039				64,894	62,108	56,572	51,505
20	Fall 2040				66,345	63,350	57,420	52,020
21	Fall 2041				67,829	64,617	58,282	52,540
22	Fall 2042				69,345	65,909	59,156	53,066
23	Fall 2043				70,896	67,228	60,043	53,596
24	Fall 2044				72,481	68,572	60,944	54,132
25	Fall 2045				74,102	69,944	61,858	54,674

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Overview

291 total classrooms = 329,330 NASF across 47 buildings

- NASF range: 340 to 6,944
  - Average = 1,000 – 1,200 sf
  - Most frequent = 400 – 600 sf
- 5,699 student stations
  - Room capacity range = 16 – 480 stations
  - Average = 65 stations
  - Most frequent = 40 stations
- NASF/station: 10 – 30
  - Average NASF/seat = 19
  - Most frequent NASF/seat = 15
  - 192 classrooms have less than 25 sf/seat
- 88 designated as "active learning"
  - 20 – 180 stations @ 15 – 30 NASF/station

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Library Seating Distribution

Seating Delta
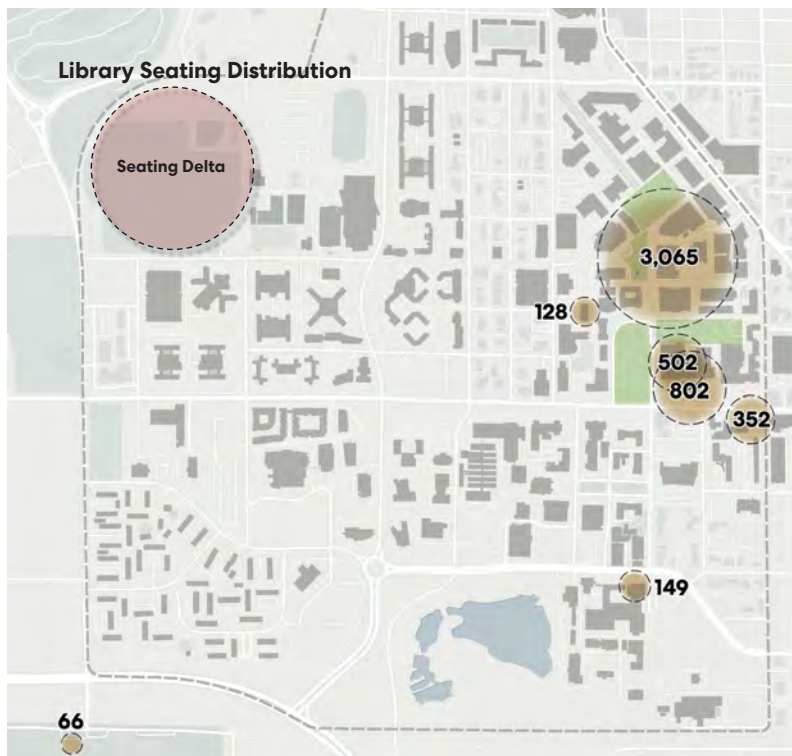
From ASG Presentation

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Sensor Technology

Baylor University
McGill University Library
NCSU Libraries
Rice University
UC San Diego
UC Santa Barbara
UC Irvine
University of Denver
University of Oklahoma
University of Rochester

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Cost & Implementation

Initial Spaces to measure:
• HSSE Level 1
• HSSE Level 2
• HSSE Level 3
• HIKS Level G
• WALC Level 2

Cost Structure for 3 months:
• $29/month per sensor
• $300/year per sensor
• Assuming 5-10 sensors to cover a floor:
    - Low: $ 2,175
    - High: $ 4,400

Implementation Timeline:
• Clear with Univ. IT: 2-weeks
• Order lead time: 4-weeks
• Install by: winter break
• Calibration: 2-weeks
• Begin data collection: mid to late-Jan

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WIFI DATA

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WIFI Usage Data - Student Headcount for each Library by Semester
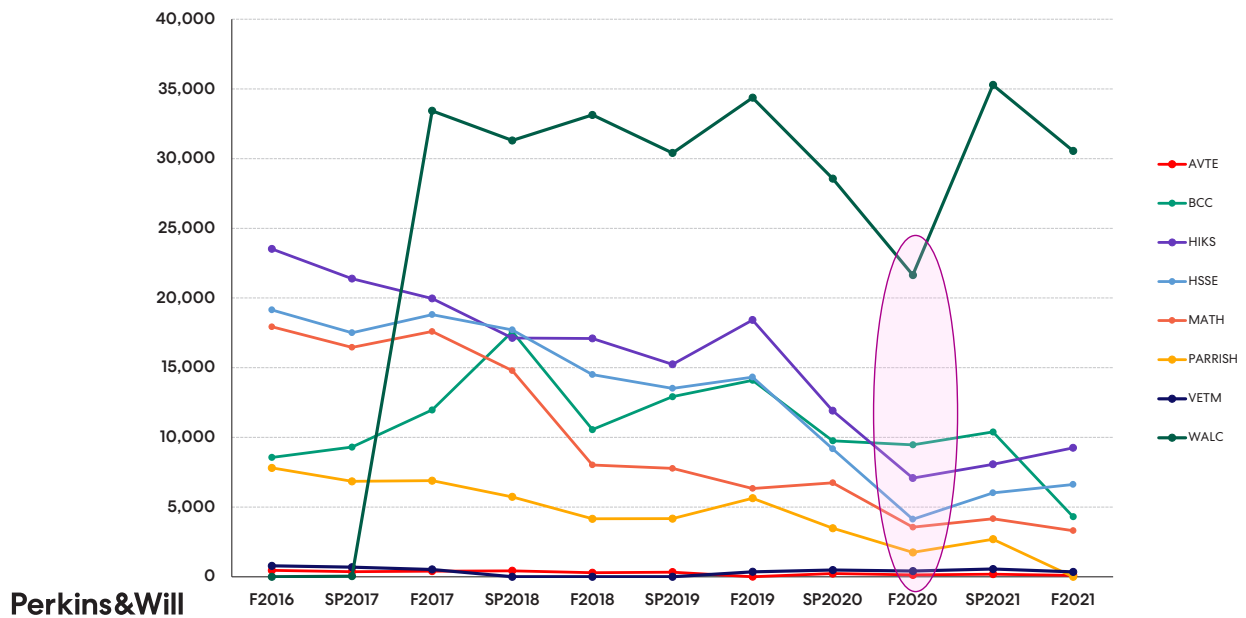
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WIFI Usage Data – Average Weekly Student Headcount for each Library (SP2019*)
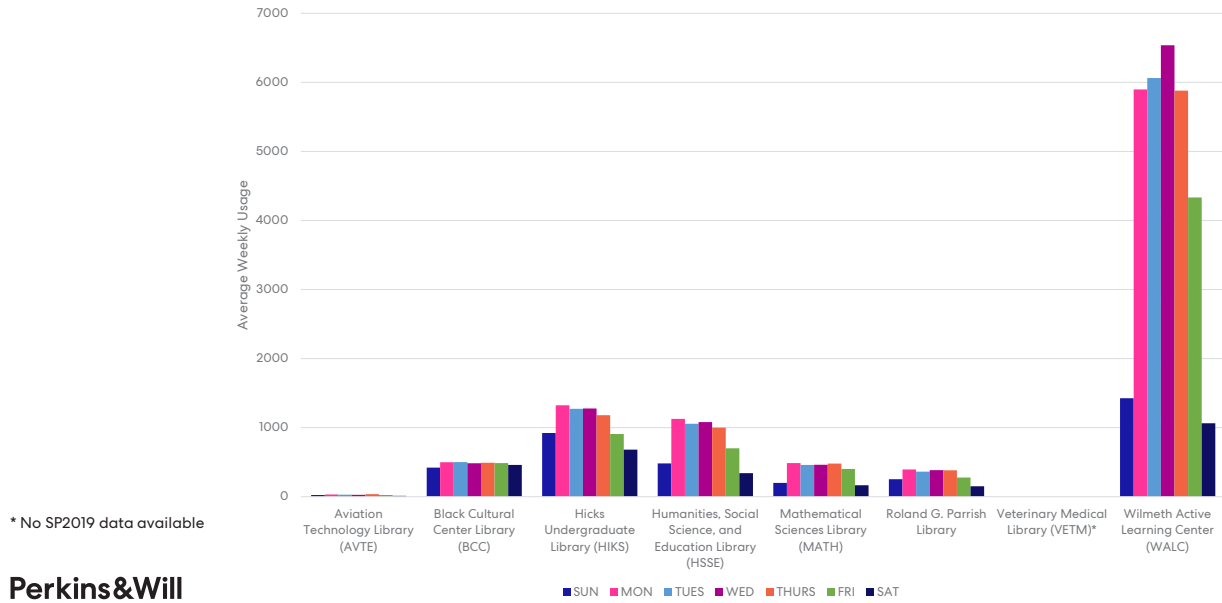
* No SP2019 data available

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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Aviation Technology Library (AVTE)

Observations:

66 seats

- Small average number of users
- Specialized space
- Off Central Campus
- 12% avg. utilization during primary hours 8am-6pm
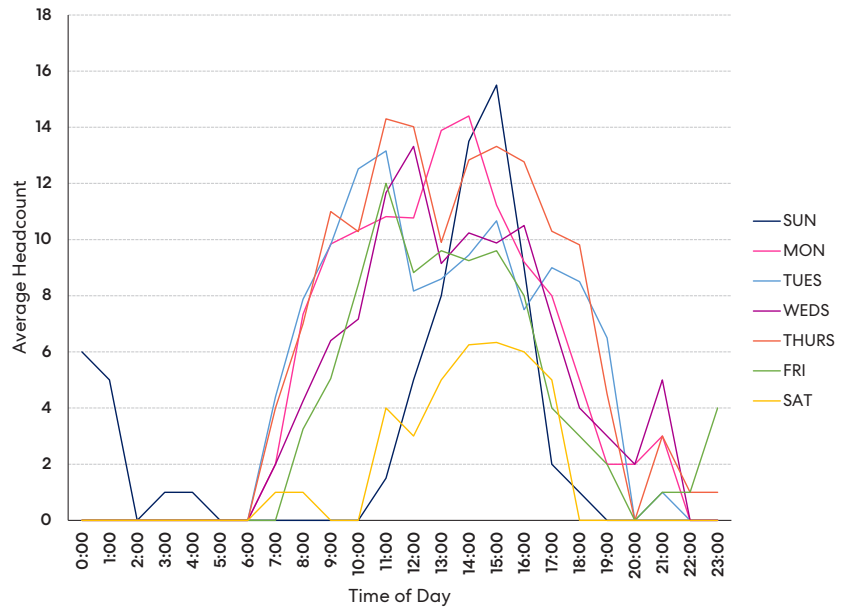
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Black Cultural Center Library (BCC)

Observations:

2 Classrooms / capacity?

- All days follow roughly the same trend: consistent utilization from 11am-6pm and highest numbers weekday Mon-Thurs evenings (8-9pm)

- Consider classroom occupancy affecting counts

Average Headcount vs Time of Day — SUN, MON, TUES, WEDS, THURS, FRI, SAT
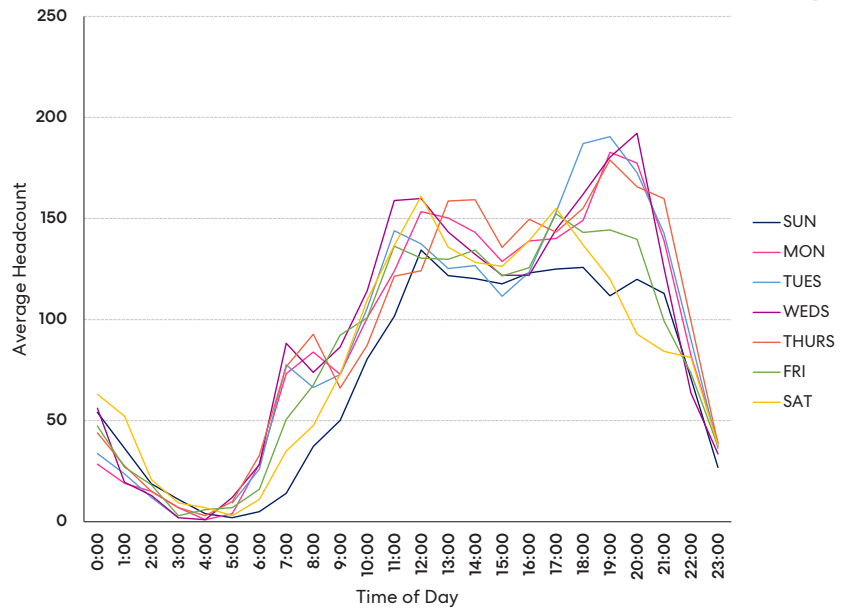
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Hicks Undergraduate Library (HIKS)

Observations:

802 seats – 1 Classroom

- Highest use between noon and 9pm on M, T, W, TR, SUN

- 60% avg. utilization during peak use 2-4pm Mon-Thurs

- Consider classroom occupancy affecting counts

Average Headcount vs Time of Day — SUN, MON, TUES, WEDS, THURS, FRI, SAT
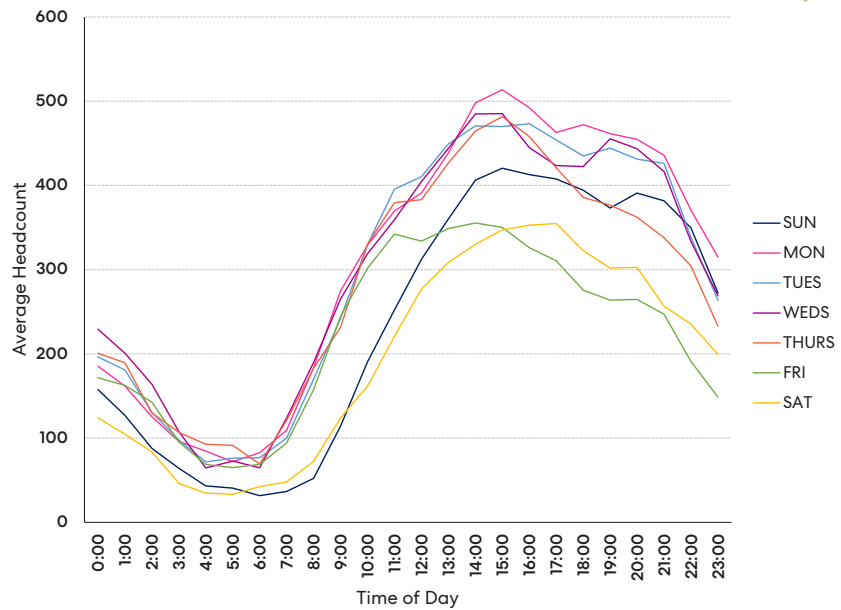
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Observations:

502 seats – 2 Classrooms

- Peak use between 10am and 6pm Mon-Thurs (~83% utilization)

- 95% avg. utilization between 2-4pm Mon-Thurs

- Consider classroom occupancy affecting counts
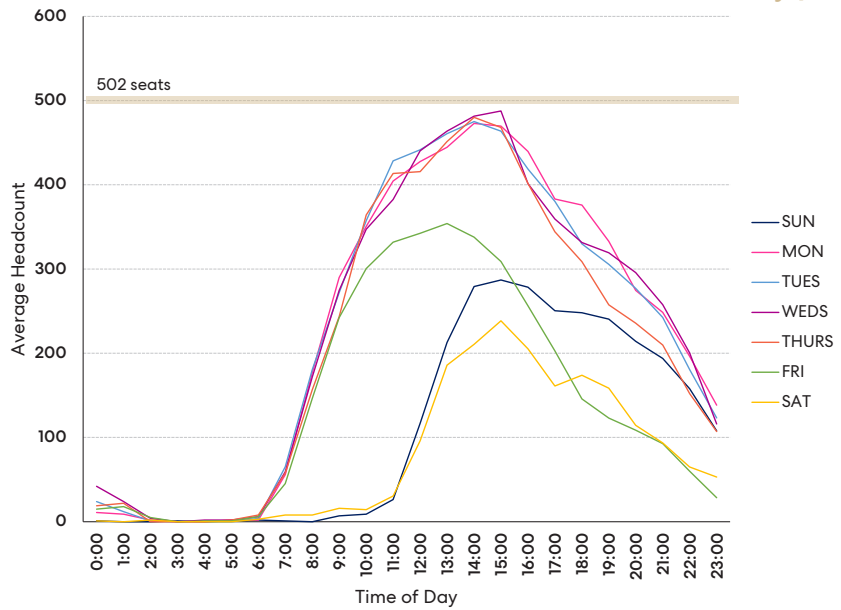
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Observations:

128 seats

- Highest use between 10am and 5pm on Mon-Thurs with avg. seat demand of 175
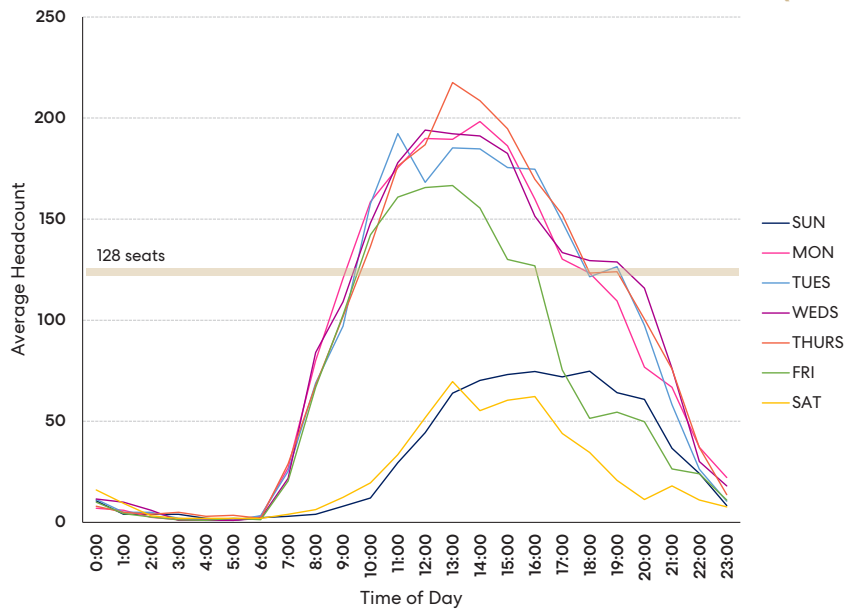
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Observations:

352 seats – 11 Classrooms

- Highest use between noon and 10pm on Mon-Thurs with 44% avg. utilization between 1-5pm
- SUN has a large usage in the mid-afternoon
- Consider classroom occupancy affecting counts
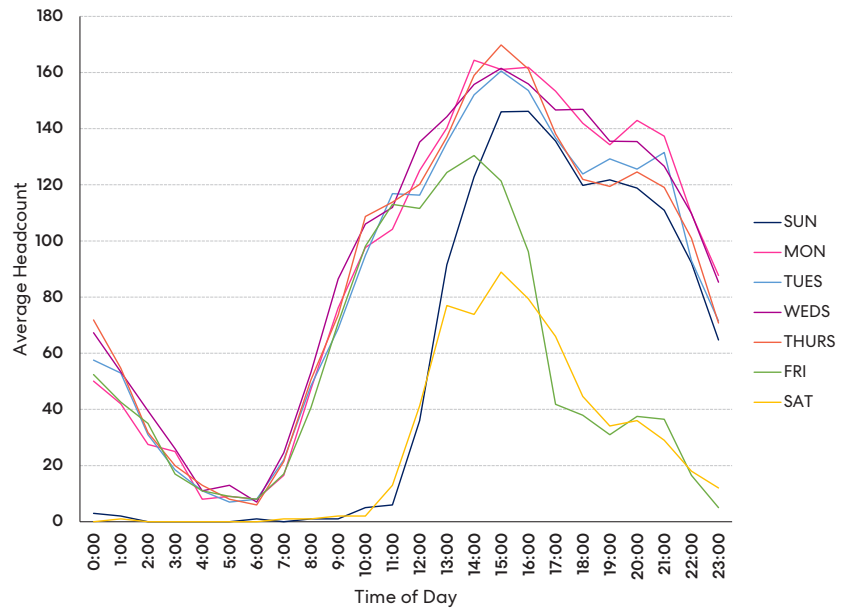
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WIFI Usage Data – Average Headcounts by Hour & Day (SP2017*)

Observations:

149 seats – 3 Classrooms

- Highest use in the weekday mornings with 32% avg. utilization between 9am-1pm
- Consider classroom occupancy affecting counts
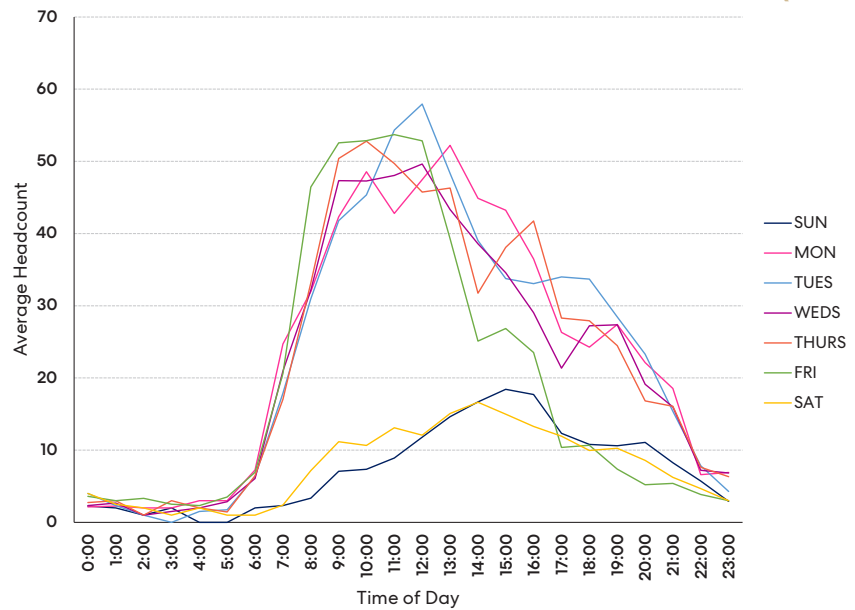
* No SP2019 data available

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WIFI Usage Data – Average Headcounts by Hour & Day (SP2019)

Observations:

3,065 seats – 27 Classrooms

- Highest use between 8am-4pm weekdays
- Low use Fridays and weekends
- Consider classroom occupancy affecting counts

Legend: SUN, MON, TUES, WEDS, THURS, FRI, SAT
Y-axis: Average Headcount (0 – 2,500)
X-axis: Time of Day (0:00 – 23:00)
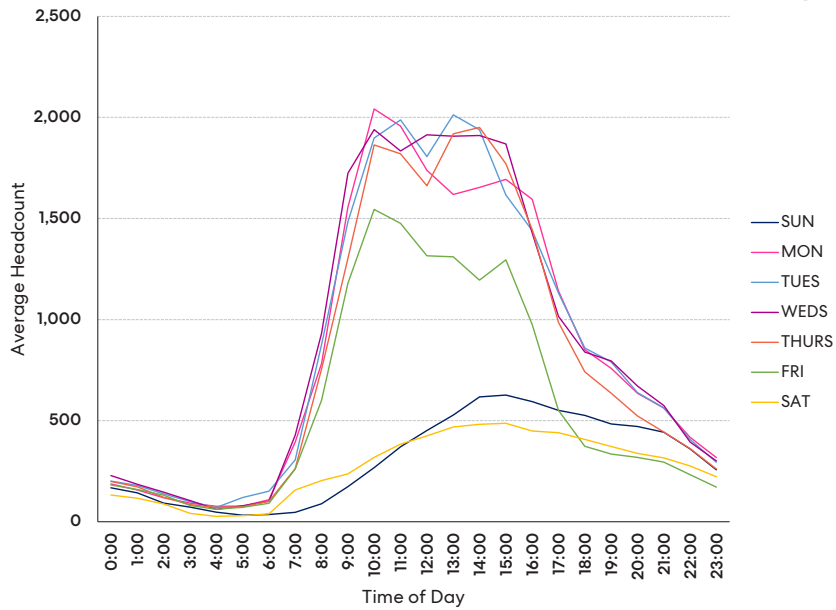
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Understanding the WIFI Usage Data

Our understanding is that the data represents single headcounts even if student is logged in on multiple devices.

The challenge:

Understanding which WIFI users are in classrooms vs. those who are in the library spaces.

Finding out when these classrooms are used (classroom utilization study might have answers).

Separating out students in classrooms will help compare the number of library users with the seating capacity throughout the day.

Defining seat types in the library to understand capacity and confirm if they're the right type of seat to accommodate tasks.

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Understanding the WIFI Usage Data

Other data questions:

Do you have circulation data (ie. gate counts / swipe ins)?

Does mean_users_dow_hr represent dwelling time of a certain student?

student_level	college	college_desc	major	major_desc	faculty_staff	org_unit	department	dow	day_of_week	hour	mean_users_dow_hr
UG	PI	Polytechnic Inst	CSEC	Cybersecurity				0	Sunday	13	1
UG	AB	School of Agr an	BIEN	Biological Engineering				0	Sunday	13	1
UG	M	School of Manag	FINC	Finance				0	Sunday	13	1
UG	M	School of Manag	PFNC	Pre-Finance				0	Sunday	13	1
UG	HH	College of Healt	SELL	Selling & Sales Management				0	Sunday	13	1
UG	AE	School of Aero a	AAE	Aero & Astro Engineering				0	Sunday	13	1.625
UG	M	School of Manag	SOMT	Strategy & Organiz Mgmt				0	Sunday	13	1
UG	S	College of Scien	BIBI	Biochemistry (Biology)				0	Sunday	13	1
UG	CN	Construction En	CNEB	Construction Engineering				0	Sunday	13	1
UG	PC	College of Pharr	PHAR	Pharmaceutical Sciences				0	Sunday	13	1.8
UG	S	College of Scien	GEOP	Geology & Geophysics				0	Sunday	13	1
GR	GR	Graduate School	ABE	Agricultural & Biological Engr				0	Sunday	13	1
UG	PI	Polytechnic Inst	CNIT	Computer & Information Tech				0	Sunday	13	1
UG	S	College of Scien	CHMA	Chemistry (ACS)				0	Sunday	13	1
GR	GR	Graduate School	BMEP	Biomedical Engr Program				0	Sunday	13	1
UG	PI	Polytechnic Inst	UXDS	UX Design				0	Sunday	13	1

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Workshop 2: December 06, 2021

Meeting Details

Meeting Date:	12.6.2021	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	All Day	**Project Number:**	021661.000
Meeting Location:	HSSE, Third Floor Conference Room 353	**Attendees:**	Renee Thomas, Bill Caise, Lowell Kane, Allison, Pam Sari, Dorothy, Rebecca Richards, Mark Fuentes, Katey Watson, Annette, Amanda Gill, Natasha Johnson, Ayn Reineke, JJ Sadler, Dorothy Smatt, Stephen Lenz, Laura Grauerholtz-fisher, Phil Kolbe, Mathew Reihle, Scott Hefner,

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	**Call With Karen Hum** 1. Data counts as per headcount, independent of number of devices. 2. Students study in classroom when library is closed. **Action Items: Karen to send study they did at WALC; Get head count for classrooms in WALC; end classroom data (2019)**	Perkins + Will
002	**Call With ASG** 1. Julie and Keith: Enrolment numbers should be synchronized; Nor firmed approved enrollment numbers; Articulate what we think we need to properly support these different enrollments; Pick a growth scenario and shrinking scenario. 2. Spaces: Podcast rooms, One button studio, VR space. **Action Items: Pick a growth scenario and shrinking scenario; Set up meeting with Shannon/ASG to set up touch point meeting every 3 - 4 weeks to swap lessons learned**	Perkins + Will
003	**LGBTQ & Cultural Centers** 1. Lowell: 1 in 5 students associate on LGBTA spectrum; Students that go to one center, go to multiple centers. On track to have more than 15,400 visits; Need more shared space and staff. 2. Pam/ARC: Be aware of own identity; support what is happening nationally; Talked about expanding library collection. 3. Bill: Empower students and educate community on African American tapestry; NP1 used for dance studio, lecture hall, and movie theater; NP2 used for gallery space, lecture hall, and ad hoc classroom. 4. Renee: Centers have taken advantage of archives; Sanctuary space in the library? 5. Lowell: Expansion of LGBTQ center; Other cultural centers are house in houses; Rely heavily in external partnerships.	Perkins + Will
004	**Council on Equity & Belonging** 1. Thinking of accessibility and related things; Headed to growing collections outwards; Develop collaborations and expending portfolio for DEI. 2. Nontraditional students need support; Parenting students, create family study room in HSSE, SPAM plan, students don't know how to navigate libraries. 3. Building community: Need more physical and digital space; Easy to ignore Native American population, their group is too small; Need more collections; Make people aware of services. **Action Item: Meet with learning council**	Perkins + Will

Perkins&Will

005	Call with Keith Gehres	Perkins + Will

1. Both master plans should have similar numbers; Enrollment growth is unexpected and could become a problem, need to add facilities.
2. Goal forward - want to be 8300 - 8700 new beginners - all dependent on what leadership decides.
3. PW projections: 2030 enrollment of 45,500; Keep in alignment with Purdue SP and Classroom MP.

Action Item: ASG to take the lead on creating first stab at enrollment and bounce off Keith/PW for review

006	Working Group Meeting – Website Experience	Perkins + Will

1. Missing important stuff; Can't get everything done; Focus on front page; Real state in front page should be right size; Not user friendly; Not set up for students.
2. Have physical and virtual exhibits for archives; Library doors to be adapted with information; students are afraid to talk inside.

007	Physical and Virtual Branding	Perkins + Will

1. Weaknesses: Lack of awareness of brand and serv ices; Each library has own identity; Physically scattered; Names of libraries and their relation.
2. There is no student success center: Can encompass research, diversity, inclusion; Have students to guide and faculty with general public.

008	New Emerging Programs and Services	Perkins + Will

1. Derek, lead the team through insights received from memorable library experience, culture discussion and visual listening summary.
2. Consistent interface/brand (creates the framework)
3. "online" class seats (space to do virtual class for in between in-person courses)
4. Knowledge gallery; Center for digital scholarship
5. More/Better/Enhance: Interactive noisy spaces; Expanded archives display need more engagement; More study rooms; Virtual reference with screen sharing; More embedded collaboration classrooms; Articulate the value of library, "best spaces for students to learn".

009	Purdue THINK	Perkins + Will

1. Implementation: Locker space; Redesign the pilot HSSE Family Room; General awareness of library resources; Microwaves in library spaces.
2. Questions: From conversation with students, private spaces are in high demand. For 1 - 2 students, different disabilities - how do you design in existing buildings?

Action Item: Engage with Purdue THINK in March/April to review scenarios

010	Purdue For Life Foundation	Perkins + Will

1. How can library support development: Lifetime learning; Want to connect 600,000 living alumni, 45% of alumni live in the state, retirement trend back to university; Special collections/archives; Human Library; Alumni connection; WALC.
2. Foundations: Purdue associated with archives; Fundraising goal will come from master plan; Students are looking for mixed use spaces.

011	Dean's Advisory Council & Finance	Perkins + Will

1. Operations: Meet twice a year; Monthly zoom during the pandemic; Worked with libraries with mental health and what role they play.
2. Usually talk about changing the role of the library; Collaborative study; High end tech and instant tech; Maker sessions, 3D printing.
3. A part of any collaborative space is access to the electronic resources; So, libraries are involved in all collaboration spaces.

Action Item: Need to understand student's journey on campus and what resources they can access

012	LCSSAC & LAPSAC	Perkins + Will

LCSSAC & LAPSAC

1. Meet once a month; Discuss issues staff may have, HR questions, questions for the dean, Rich is the chair.
2. Each library has different constrains, resources, etc. Staffing is too low and stretched very thin.
3. Design front desk to have option with students to come up and address accessible needs; Archives don't feel like part of the library.
4. As burned out as people are on zoom, will remain component - hungry for connection.
5. Ensure hybrid will work with technology.

Action Item: If we redesign spaces, check in with staff who are in that space

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013   Wrap Up with Working Committee   Perkins + Will

1. Separate public facing exhibits from curriculum exhibits
2. Remote Working: 10% - 100% remote; 50%-60%-hybrid workers (4:1 or 3:2 days on campus); Rest is 100%.

Action Item: PW to draft agenda of precedent tours; Get copy of STEW design work from Drew (HICKS vertical expansion study, STEW connector, STEW renovation, EDI, data science moves); Set up meeting with Allison/Michael to review campus master plan (follow up to previous discussion); Res life/housing master plan - get from Allison

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014   Campus Planning with Michael Gulich   Perkins + Will

1. Projects related to Stewart: Feb 2020, saw precedent examples with Payette; Building west of new STEM building; Can we renovate Schleman hall for data science, instead of building new?
2. Board authorization to renovate Schleman Hall: 300 staff, need to be relocated; moving 800 staff to make the project a reality.
3. STEW/PMU/HICKS: Both combined as one construction project; one relies on the other; scenarios with temp space; Building STEW space first, PMU, HICKS, Then Schleman.

Please note: *The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.*

Purdue University Library Master Plan Working Group Meeting

December 6, 2021

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Master Plan Process

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PURDUE UNIVERSITY LIBRARIES
STEW - FIRST FLOOR

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PURDUE UNIVERSITY LIBRARIES
STEW - SECOND FLOOR

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PURDUE UNIVERSITY LIBRARIES
STEW - THIRD FLOOR

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PURDUE UNIVERSITY LIBRARIES
STEW - FOURTH FLOOR
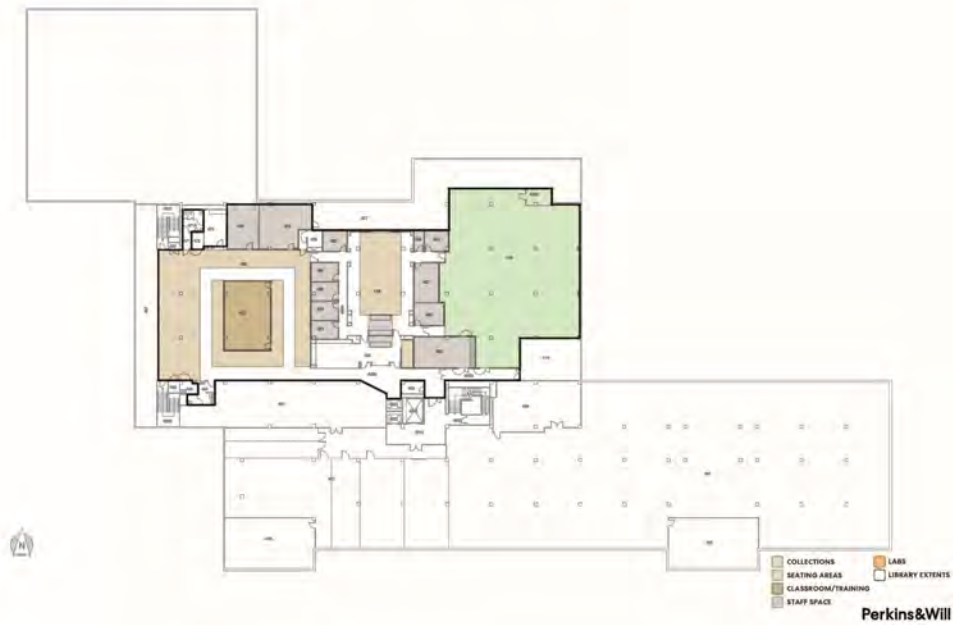
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PURDUE UNIVERSITY LIBRARIES
HIKS – BASEMENT FLOOR

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PURDUE UNIVERSITY LIBRARIES
HIKS– GROUND FLOOR
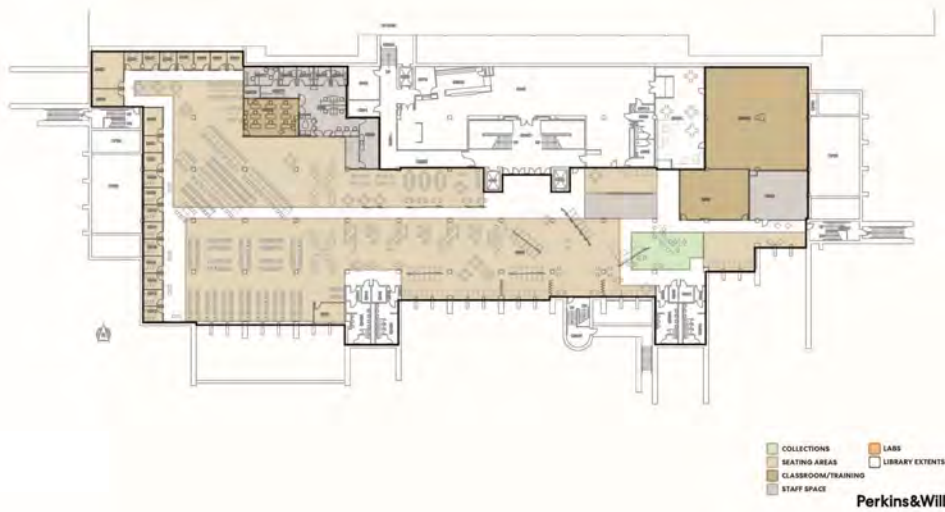
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PURDUE UNIVERSITY LIBRARIES
HIKS – FIRST FLOOR
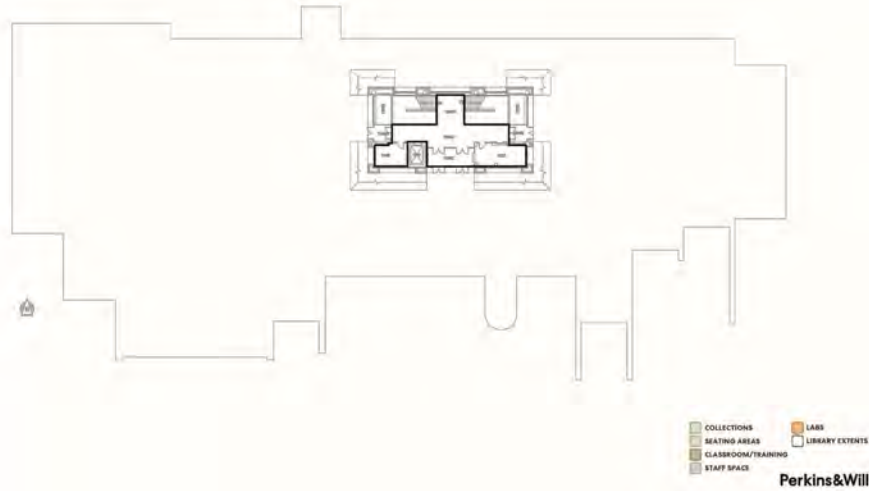
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PURDUE UNIVERSITY LIBRARIES
WALC – BASEMENT FLOOR
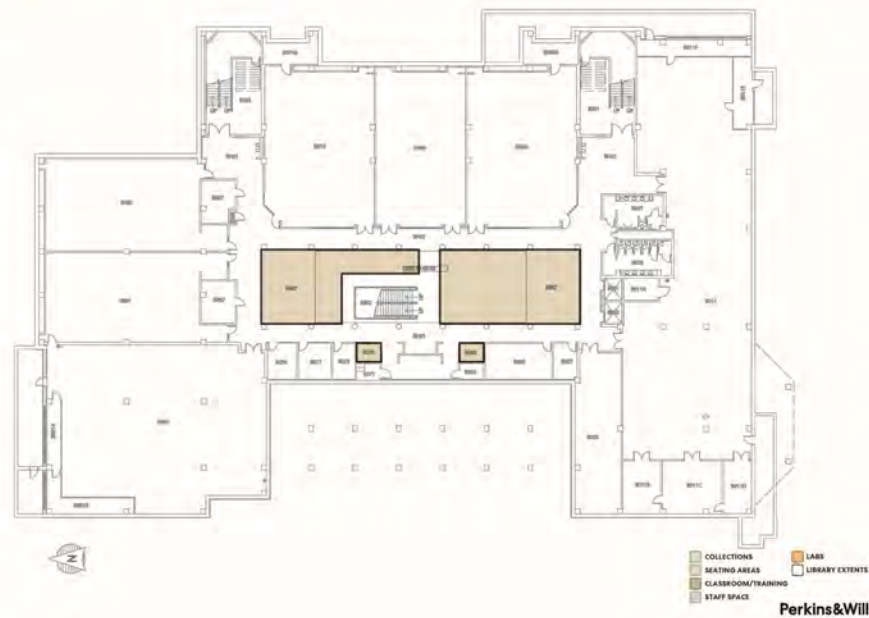
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PURDUE UNIVERSITY LIBRARIES
WALC – FIRST FLOOR
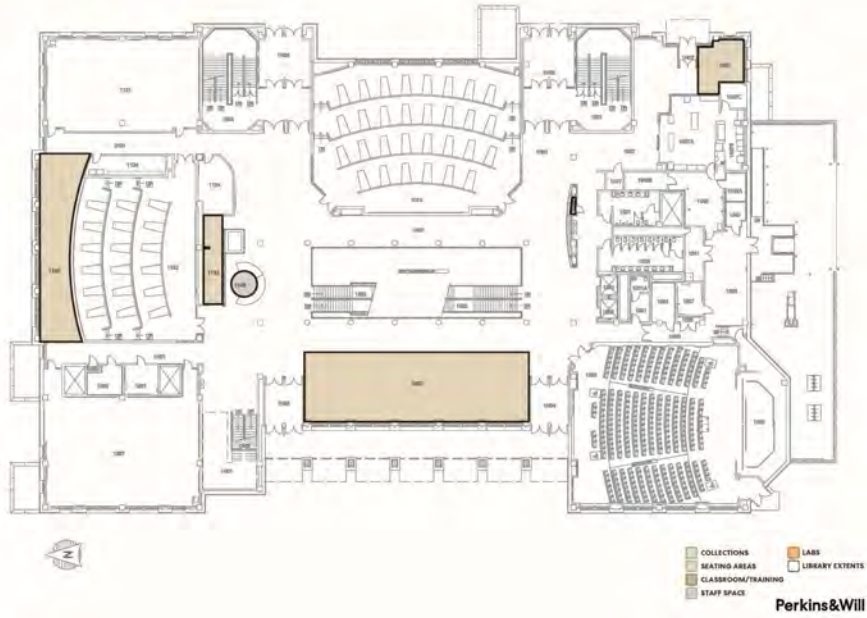
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PURDUE UNIVERSITY LIBRARIES
WALC – SECOND FLOOR

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Slide 14 of 65

PURDUE UNIVERSITY LIBRARIES
MATH - THIRD FLOOR

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PURDUE UNIVERSITY LIBRARIES
LYNN - BASEMENT FLOOR
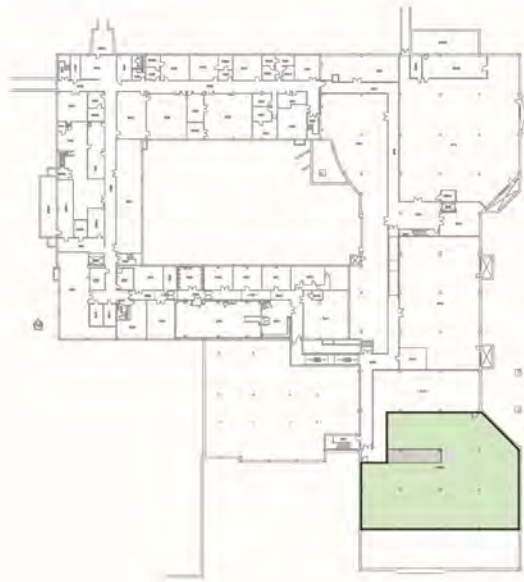
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PURDUE UNIVERSITY LIBRARIES
LYNN - FIRST FLOOR

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PURDUE UNIVERSITY LIBRARIES
TERM - FIRST FLOOR

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PURDUE UNIVERSITY LIBRARIES
RAWL - BASEMENT

Area Discrepancies

		Purdue	PW Measure	Variance
Vet Med	LYNN	17913	18,275	2.0%
Rawls Hall	RAWL	3617	3,705	2.4%
Hicks Undergrad	HIKS	71607	69,975	-2.3%
Bus/Mgt	KRAN	14127	14,120	0.0%
Mathematics	MATH	7774	7,920	1.9%
HSSE	STEW	127796	125,505	-1.8%
Aviation	TERM	2196	2,295	4.5%
Wilmeth	WALC	33954	35,470	4.5%
		278,984 sf	**277,265 sf**	**-0.6%**

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Area Allocations

LIBRARY	BUILDING	LEVEL	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL	CIRC/INFRA	TOTAL
Humanities, Social Sciences, and Education (HSSE)	STEW	1	7,385	8,560	7,430	2,765	1,850	27,990	5,565	33,555
		2	11,345	5,250	11,920	920		31,515	6,015	37,530
		3	12,135	2,200	7,130			22,485	11,245	33,730
	Archives/Spec. Coll.	4	0	3,090	0	0		3,090	0	3,090
		Total	30,865	22,200	26,480	3,685	1,850	85,080	22,825	107,905
		%	36%	26%	31%	4%	2%	100%	21%	100%
Undergraduate Library	HIKS	B						0	1,130	1,130
		G	650	17,540	2,965	4,115		25,270	7,750	33,020
		1							1,515	1,515
		Total	650	17,540	2,965	4,115	0	25,270	10,395	35,665
		%	3%	69%	12%	16%	0%	100%	29%	100%
Library of Engineering Sciences (LOES)	WALC	B		2,750				2,750		2,750
		1		3,765	85			3,850		3,850
		2	1,955	10,555	3,500	470		16,480	1,775	17,755
		3		2,635	6,545		1,900	11,080	35	11,115
		Total	1,955	19,705	10,130	470	1,900	34,160	1,310	35,470
		%	6%	58%	30%	1%	6%	100%	4%	100%
Parrish Library	KRAN	2	755	7,720	1,020	1,620	255	11,370	2,750	14,120
		%	7%	68%	9%	14%	2%	100%	19%	100%
Mathematical Sciences Library	MATH	3	1,415	3,410	1,045			5,870	2,050	7,920
		%	24%	58%	18%	0%	0%	100%	26%	100%
Veterinary Medicine Library	LYNN	B						0	1,610	1,610
		1	1,580	3,890	1,705			7,175		8,785
		Total	1,580	3,890	1,705	0	0	7,175	1,610	8,785
		%	22%	54%	24%	0%	0%	100%	18%	100%
Aviation and Transportation Technology Library	TERM	3	95	735	215	895		1,940	355	2,295
		%	5%	38%	11%	46%	0%	100%	15%	100%
PURDUE LIBRARIES										
TOTAL (w/o Repository or A/SC)			37,315	75,200	43,560	10,785	4,005	170,865	41,295	212,160
PERCENTAGE			21.8%	44.0%	25.5%	6.3%	2.3%	100.0%	19.5%	100.0%
Additional Repository	HIKS	B	33,700	610				34,310		34,310
	LYNN	B	9,065	425				9,490		9,490
	RAWL	B	3,705					3,705		3,705
		Total	46,470	1,035				47,505		47,505

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Area Allocations

LIBRARY	BUILDING	LEVEL	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL
PURDUE LIBRARIES								
TOTAL (w/o Repository or A/SC)			37,315	75,200	43,560	10,785	4,005	170,865
PERCENTAGE			21.8%	44.0%	25.5%	6.3%	2.3%	100.0%
General Benchmark								
PERCENTAGE - BENCHMARK			25%	45%	15%	5%	10%	100%
PERCENTAGE VARIANCE			3%	1%	-10%	-1%	8%	

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Potential Library Storage Site (Exec 2550)

42,554 Total ASF

13,638 ASF

28,916 ASF
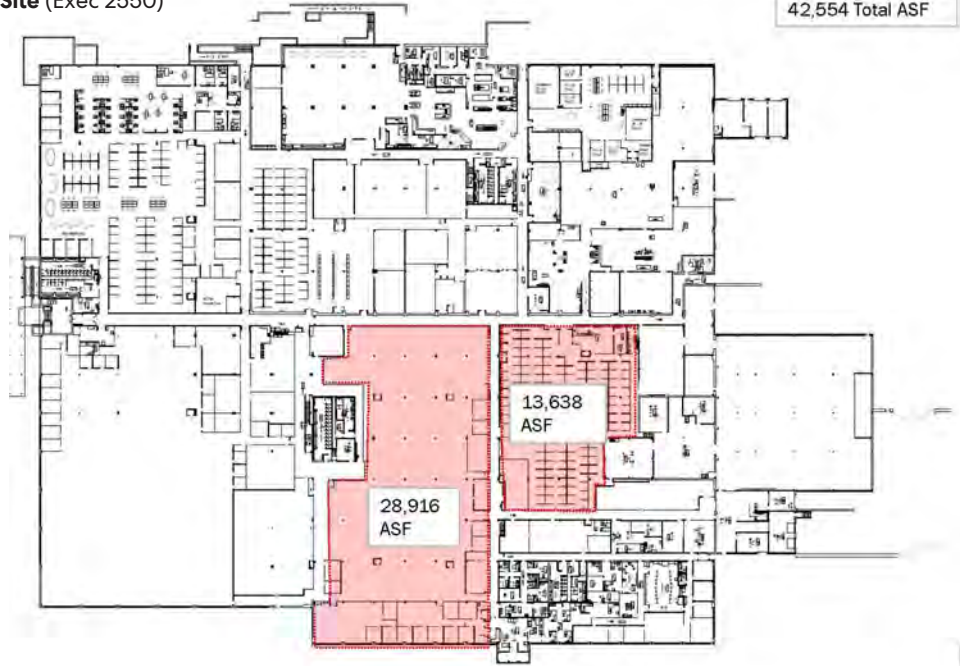
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Potential Library Storage Site (Exec 2550)

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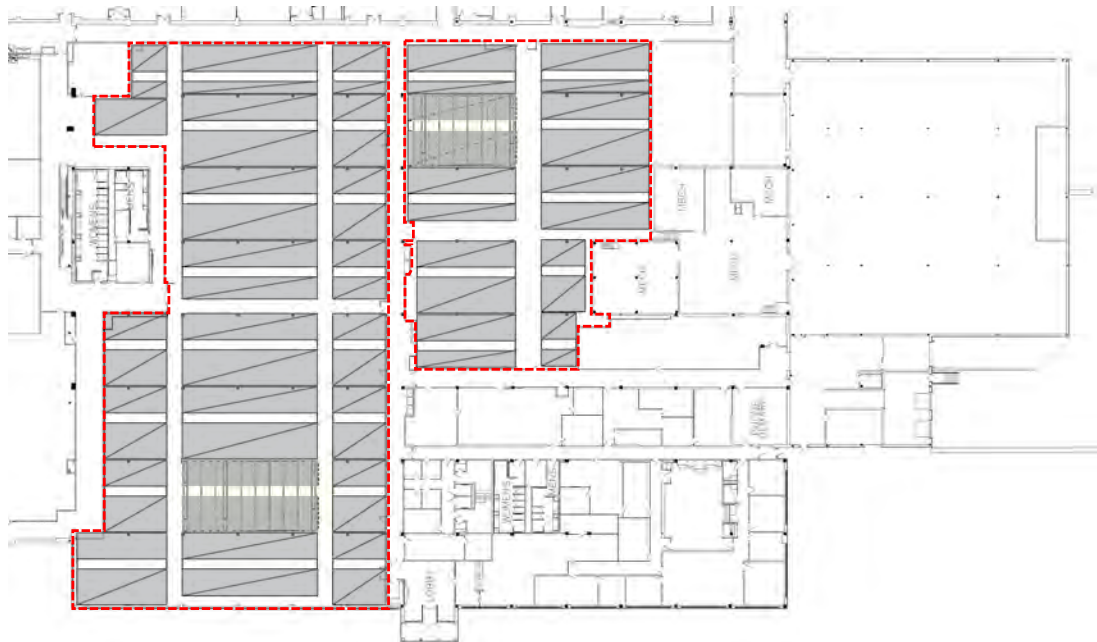
Potential Library Storage Site (Preliminary Test Fit)

42,554 Total ASF

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included?

Low: 200,648 LF
- 7-high shelving (84")
- 85% filled
- 2.0M volumes
- 27% increased capacity

High: 229,312 LF
- 8-high shelving (96")
- 90% filled
- 2.4M volumes
- 45% increased capacity

59,472 lf

141,176lf
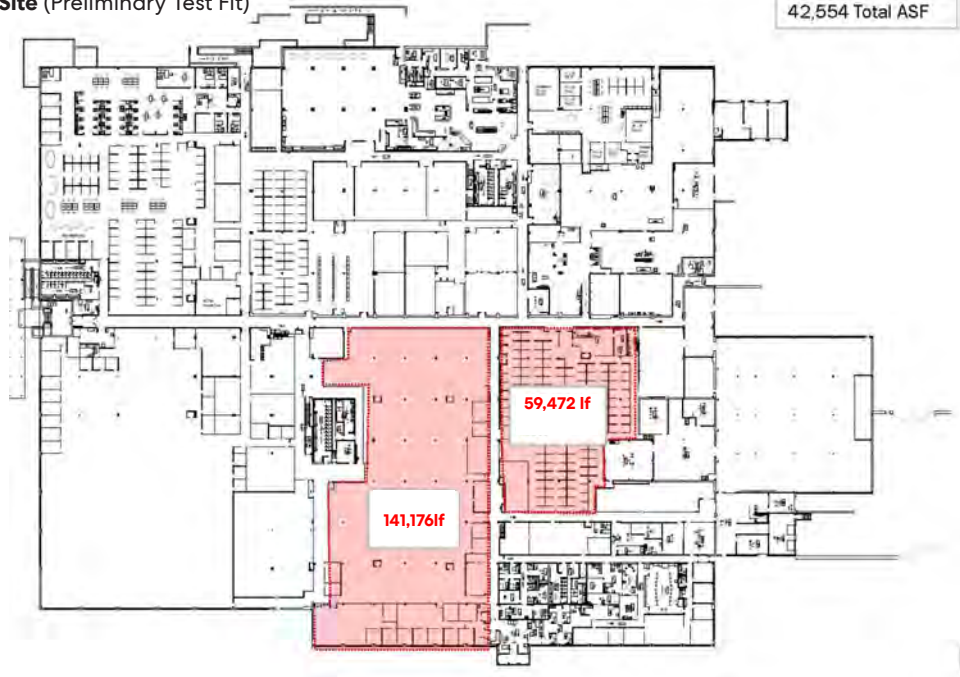
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Enrollment Projections

Confirm Assumptions:
- 2030 UG FTE = 38,000
- 2030 Grad FTE = 7,500
- 2030 Total = 45,500
- 10-yr horizon= 2032?

		PROF					
	UG: FTE	UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE	3-yr Avg.	4-yr Avg.
Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6			
Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%	2.24%	2.63%
Fall 2018	31,957.4	1,433.8	7,467.0	40,858.1	4.60%		
Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%		
Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%		

2020 UG = 35,435

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Enrollment Projections

Confirm Assumptions:
- 2030 UG FTE = 38,000
- 2030 Grad FTE = 7,500
- 2030 Total = 45,500
- 10-yr horizon= 2032?

		UG: FTE	PROF UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE	3-yr Avg.	4-yr Avg.
	Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6			
	Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%	2.24%	2.83%
	Fall 2018	31,957.4	1,433.8	7,467.0	40,858.1	4.60%		
	Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%		
	Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%		
					2.24%	1.15%	1.087%	1.00%
	Fall 2020				42,633	42,633	42,633	42,633
1	Fall 2021				43,586	43,123	43,096	43,059
2	Fall 2022				44,561	43,619	43,565	43,490
3	Fall 2023				45,557	44,121	44,038	43,925
4	Fall 2024				46,575	44,628	44,517	44,364
5	Fall 2025				47,617	45,141	45,001	44,808
6	Fall 2026				48,681	45,660	45,490	45,256
7	Fall 2027				49,770	46,185	45,984	45,708
8	Fall 2028				50,883	46,717	46,484	46,165
9	Fall 2029				52,020	47,254	46,990	46,627
10	Fall 2030				53,184	47,797	47,500	47,093
11	Fall 2031				54,373	48,347	48,017	47,564
12	Fall 2032				55,588	48,903	48,539	48,040
13	Fall 2033				56,831	49,465	49,066	48,520
14	Fall 2034				58,102	50,034	49,600	49,005
15	Fall 2035				59,401	50,610	50,139	49,495
16	Fall 2036				60,729	51,192	50,684	49,990
17	Fall 2037				62,087	51,780	51,235	50,490
18	Fall 2038				63,475	52,376	51,792	50,995
19	Fall 2039				64,894	52,978	52,355	51,505
20	Fall 2040				66,345	53,587	52,924	52,020
21	Fall 2041				67,829	54,204	53,499	52,540
22	Fall 2042				69,345	54,827	54,080	53,066
23	Fall 2043				70,896	55,457	54,668	53,596
24	Fall 2044				72,481	56,095	55,263	54,132
25	Fall 2045				74,102	56,740	55,863	54,674

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Enrollment Based Seating Projections

Existing Library Seats:	% FTE	Seats	
Per 2020 ACRL Survey	10%	5,177	Includes 2,294 Wilmeth Classroom Seats
Per 2020 ACRL Survey	5%	2,883	Without 2,294 Wilmeth Classroom Seats

Target Enrollment 2030		47,500				

Target 2030 Seats:	% FTE	Seats	Delta w/ clrm			
Commuter Campus	10%	4,750	427	@30sf/seat	12,809	sf
Low Residential	15%	7,125	(1,948)	@30sf/seat	(58,442)	sf
PURDUE	**17.5%**	**8,313**	**(3,136)**	**@30sf/seat**	**(94,067)**	**sf**
High Residential	20%	9,500	(4,323)	@30sf/seat	(129,692)	sf
			Delta w/o clrm			
Commuter Campus	10%	4,750	(1,867)	@30sf/seat	(56,011)	sf
Low Residential	15%	7,125	(4,242)	@30sf/seat	(127,262)	sf
PURDUE	**17.5%**	**8,313**	**(5,430)**	**@30sf/seat**	**(162,887)**	**sf**
High Residential	20%	9,500	(6,617)	@30sf/seat	(198,512)	sf

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Overview

291 total classrooms = 329,330 NASF across 47 buildings

- NASF range: 340 to 6,944
  - Average = 1,000 – 1,200 sf
  - Most frequent = 400 – 600 sf
- 5,699 student stations
  - Room capacity range = 16 – 480 stations
  - Average = 65 stations
  - Most frequent = 40 stations
- NASF/station: 10 – 30
  - Average NASF/seat = 19
  - Most frequent NASF/seat = 15
  - 192 classrooms have less than 25 sf/seat
- 88 designated as "active learning"
  - 20 – 180 stations @ 15 – 30 NASF/station

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Library Seating Distribution

From ASG Presentation

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Sensor Technology

Baylor University
McGill University Library
NCSU Libraries
Rice University
UC San Diego
UC Santa Barbara
UC Irvine
University of Denver
University of Oklahoma
University of Rochester

Cost & Implementation

Initial Spaces to measure:
- HSSE Level 1
- HSSE Level 2
- HSSE Level 3
- HIKS Level G
- WALC Level 2

Cost Structure:
- 36 Sensors
- $59/month per sensor
- **$ 8,372** for 3-month deployment
- **$ 12,620** for 5-month deployment

Implementation Timeline:
- Clear with Univ. IT: 2-weeks
- Order lead time: 4-weeks
- Install by: January 10, 2022
- Calibration: 2-weeks
- Begin data collection: late-January
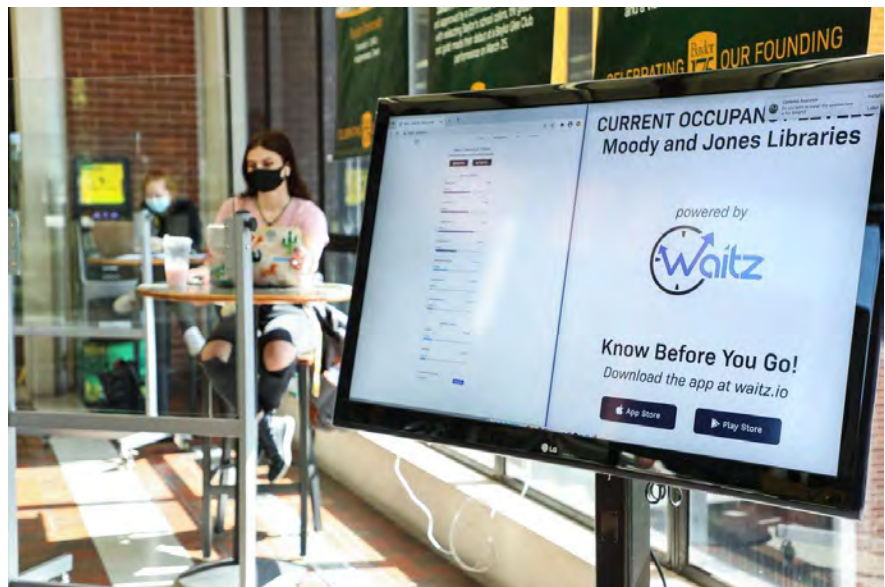
Student Intercept Interviews
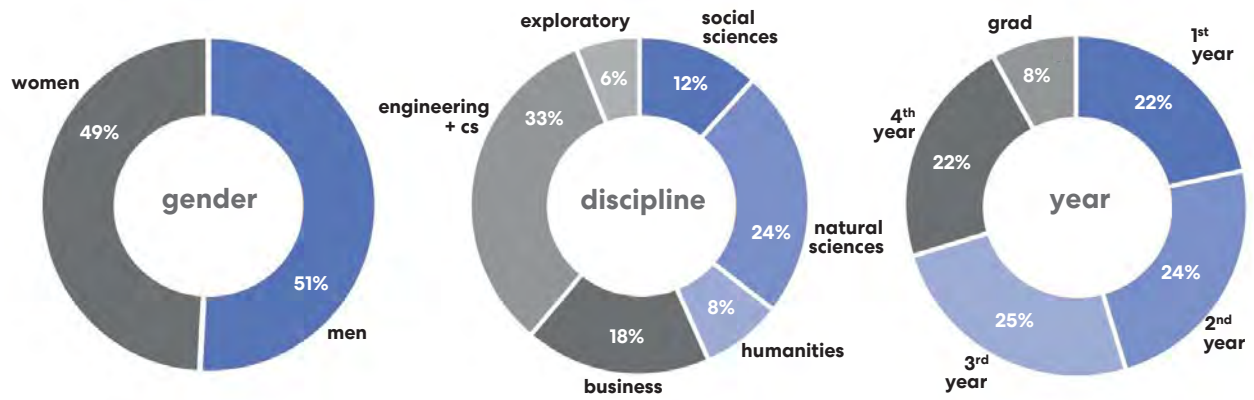
gender
- women 49%
- men 51%

discipline
- exploratory 6%
- social sciences 12%
- natural sciences 24%
- humanities 8%
- business 18%
- engineering + cs 33%

year
- grad 8%
- 1st year 22%
- 2nd year 24%
- 3rd year 25%
- 4th year 22%

Student Intercept Interviews

Utilization

- 5+ / Week 42%
- 4 / Week 17%
- 3 / Week 11%
- 2 / Week 11%
- 1 / Week 19%

Primary Use Drivers

- Geographic Proximity 35%
- Quiet Study 27%
- Active/group 22%
- Computing/Printing 16%

Student Intercept Interviews

Browse Stacks

occasionally (2%)   rarely

6%

92%

never

Keep

Variety of Spaces	45%
Convenient Location	43%
Quiet Spaces	31%
Active/ Group Spaces	31%
Technology+Power	20%
Food	8%
No Comment	8%

0   10   20   30   40   50
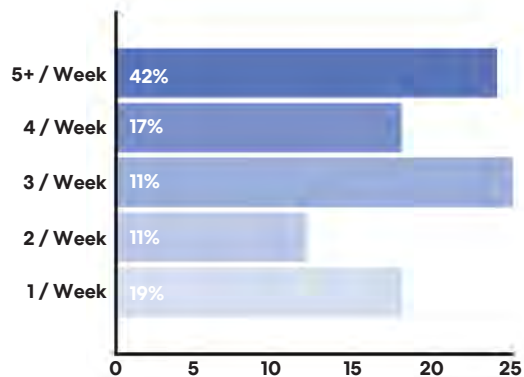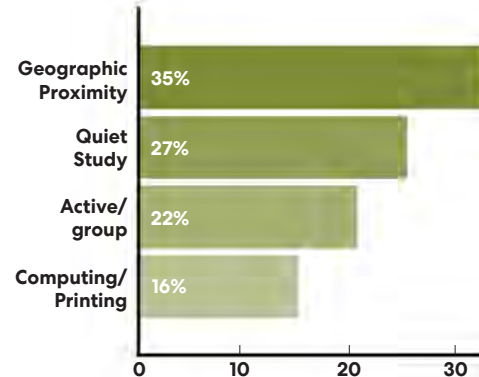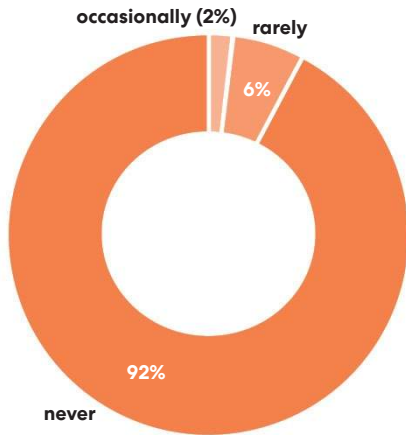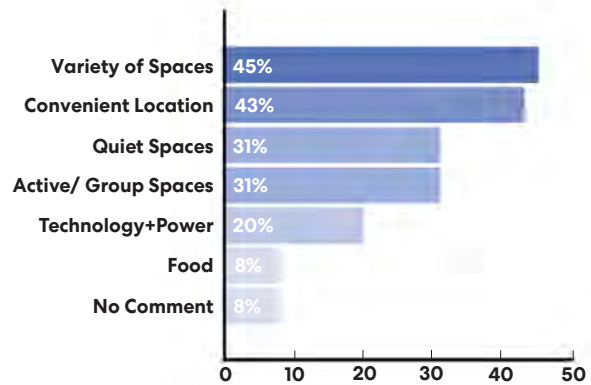
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Student Intercept Interviews

Change

More Seating	39%
Technology+Power	33%
Recording/Zoom/Wifi	14%
Food	8%
Design Character	8%
Nap Rooms	6%
Windows/Daylight	6%

0   10   20   30   40

Use Other Libraries

no

29%

71%
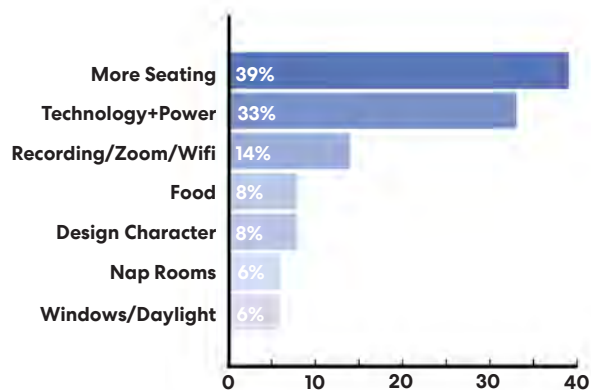
yes
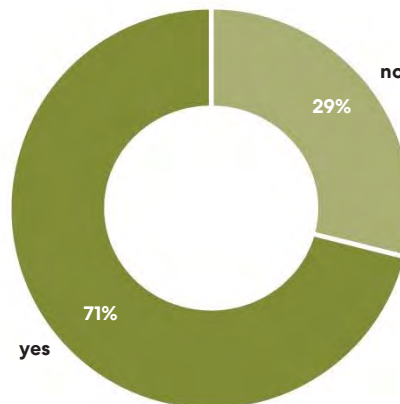
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Student Intercept Interviews

Primary Library

KRAN 4%
HIKS 33%
HSSE 31%
WALC 31%

Secondary Library

Other 3%
KRAN 14%
HIKS 25%
HSSE 17%
WALC 42%
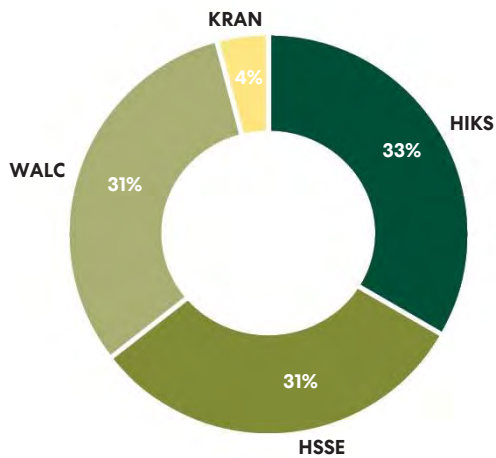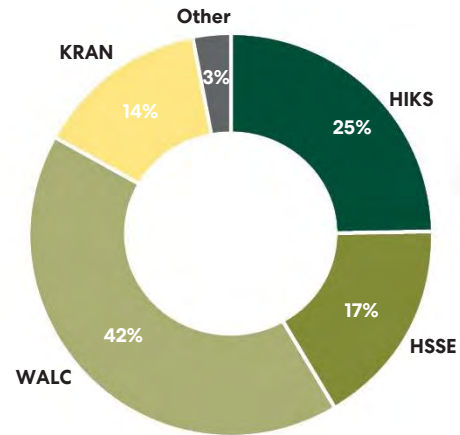
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Student Intercept Interviews

In their own words . . .

"I have my specific carrell that I study at. Nowhere else."

"I take a lot of long walks around HSSE trying to find a seat."

"A nap room would be great — I lose too much time going home after class."

"I don't care about natural light or furniture. I just need power."

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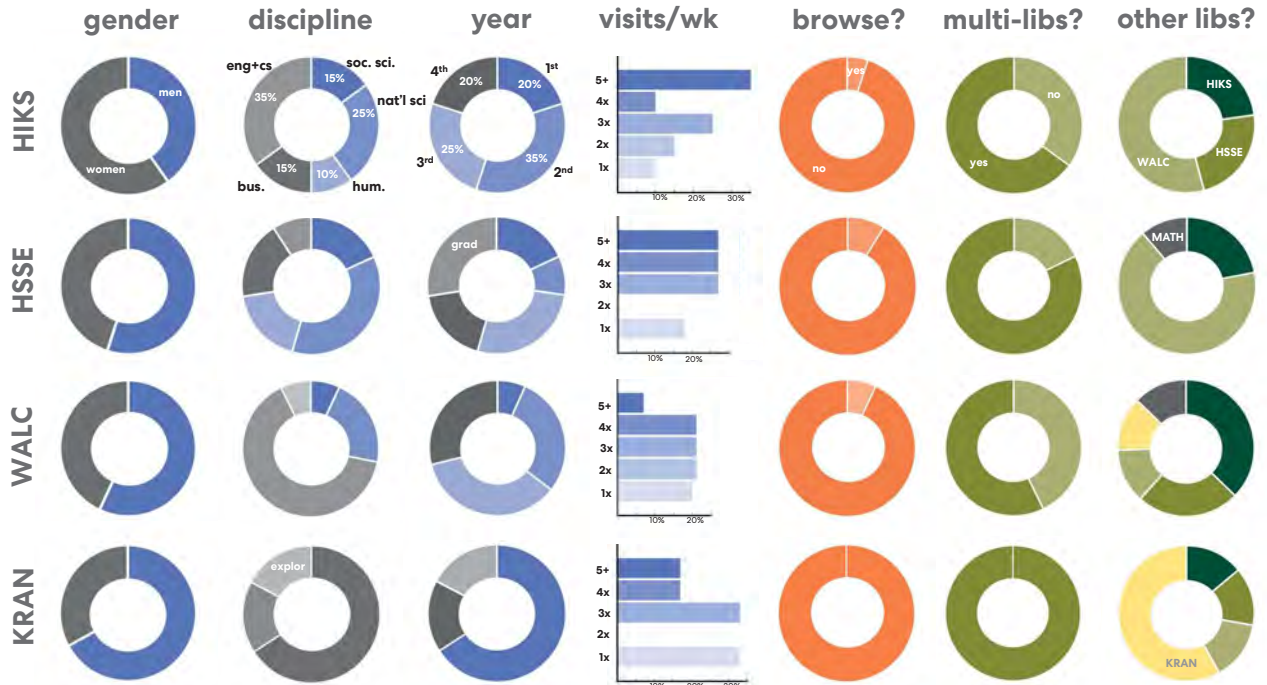
Student Workshop

Student Workshop: Preferred Experience

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Student Workshop: Preferred Experience

OFFERS THIS EXPERIENCE	O
OFFERS IT A LITTLE	X/O
DOES NOT OFFER EXPERIENCE	X

**CONCENTRATION
PEACE
PRIVACY
FOCUS
DIFFERENTIATED**

**COZY
INDIVIDUALIZED
SERENE**

**SUPPORT
PROGRESS
RESOURCE
HELPFUL**

**TEAMWORK
LIGHTING
FUN**

**COLLABORATION
TEAM WORK
PASSION
WARMTH**
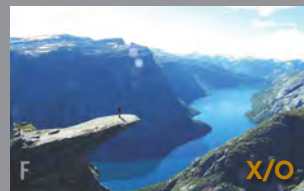
**SERENITY
VISIBILITY
EXPLORATION
GROWTH**

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KEEP:
SOME BOOKS
SPACES WITH "VOLUME"

TOSS:
POOR INTERIOR FINISHES
HARD, STODGY CHAIRS
IMPERSONAL LAYOUT
LIBRARY=ALWAYS QUIET
FORMALITY
FACED WITH LIBRARIAN AT ENTRY
UNIVERSITY DINING IS TOO FAR

CREATE:
CURATED BOOKS
NATURAL LIGHT
CLEAR & OPEN WAYFINDING
CONFERENCE STYLE STUDY
TIERED SEATING
PRIVATE & ERGONOMIC
IDEA SPACE
WRITABLE SURFACES
MOVEABLE WHITEBOARDS
ADJUSTABLE FURNITURE
FURNITURE THAT MAKES YOU MOVE
COWORKING
ADEQUATE POWER
INTERDISCIPLINARY COLLABORATION

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Student Workshop: VISUAL LISTENING

● **LIKE**
◯ **DON'T LIKE**

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Core Group	Exec. Committee
Compelling Vision: "more than books"	Doubling down on the "experiential"
Collections are protected	Maintain: 1-in / 1-out
Library is visible & welcoming	Accessible; extension of classroom
Support Innovative Learning	Co-educators of transformative ed
Embrace the "metaverse"	Center of mass: online experience
Don't overdo the tech	Belonging; access; connected; inclusive
Don't lose sight of student needs	Student success

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MEMORABLE EXPERIENCE

Discover   Connect   Inspire   Create
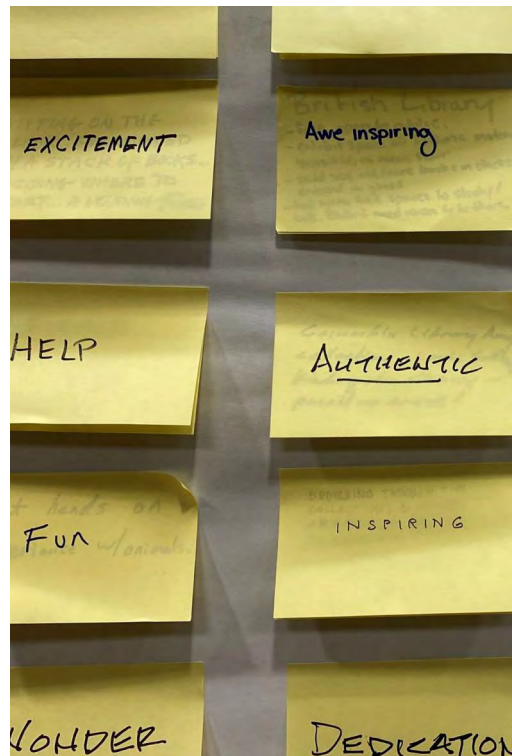
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MEMORABLE EXPERIENCE

Discover
Knowledge
Journey
Authentic
Serendipity

Connect
Emotional
Belonging
Community
Help

Inspire
Energizing
Exciting
Awe Inspiring
Fun
Inspiring
Peaceful
Dedication
Wonder

Create
(?)

Purdue Library Culture: Past & Future

Past Culture	Future Culture
Welcoming	Inclusive Co-Creation
Siloed	Interconnected
Alone	Together
Hidden	Campus Gateway
Temporarily Connected	Permanently Bonded
Tennuous Patchwork	Streamlined Interoperability
Reactive	Proactive
Juggling	Anticipate
Tool User	Tool Maker

Overview

291 total classrooms = 329,330 NASF across 47 buildings

- NASF range: 340 to 6,944
    - Average = 1,000 – 1,200 sf
    - Most frequent = 400 – 600 sf
- 5,699 student stations
    - Room capacity range = 16 – 480 stations
    - Average = 65 stations
    - Most frequent = 40 stations
- NASF/station: 10 – 30
    - Average NASF/seat = 19
    - Most frequent NASF/seat = 15
    - 192 classrooms have less than 25 sf/seat
- 88 designated as "active learning"
    - 20 – 180 stations @ 15 – 30 NASF/station

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Visual Listening: Universal "Likes"

Shared "Dislikes"

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Visual Listening:

Mixed Reviews

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Visual Listening:

Divergence With Students

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Visual Listening Recap: Common Themes

Formal	Casual
Daylight	Open & Airy
Interconnected	"Stairitorium"
Collaborative	Choice
Natural Materials	Outdoor Connection
Presence of Books	More Than Books

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Visual Listening Common Themes Recap:

Formal
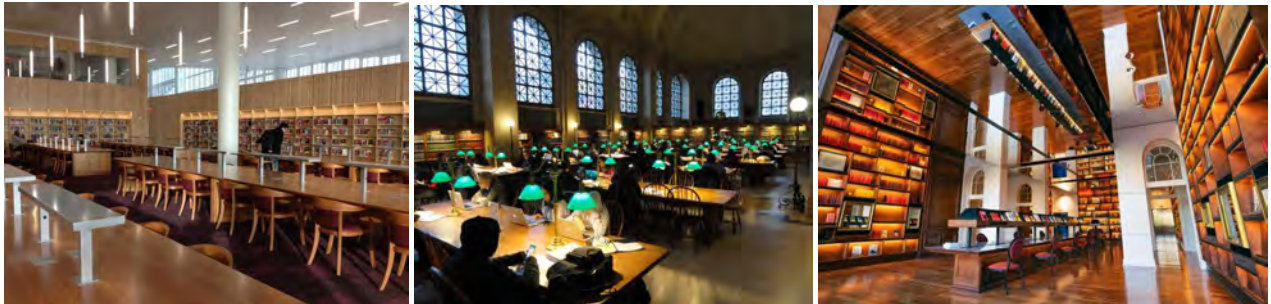
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Visual Listening Common Themes Recap:

Casual

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Visual Listening Common Themes Recap:

Daylight

Perkins&Will

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Visual Listening Common Themes Recap:

Open & Airy

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Visual Listening Common Themes Recap:

Interconnected

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Visual Listening Common Themes Recap:

"Stairatorium"

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Visual Listening Common Themes Recap:

Collaborative

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Visual Listening Common Themes Recap:

Choice

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Visual Listening Common Themes Recap:

Natural Materials

Perkins&Will

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Visual Listening Common Themes Recap:

Outdoor Connection

Perkins&Will

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Visual Listening Common Themes Recap:

Presence of Books

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Perkins&Will

Visual Listening Common Themes Recap:

More Than Books

Perkins&Will

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Workshop 3: January 14, 2022

Meeting Details

Meeting Date:	1.14.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	1:30 PM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Beth, Rebecca, Drew, Allison, Michael, Dorothy, Scott, Flo, Stephen

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	**Workshop #3**	Perkins + Will
	1. Groupings of Parking: Knowledge gallery; Virtual learning hub; Center for digital scholarships.	
	2. Concerns: Struggle on campus with online learning; Most classes are daytime, shift to study spaces when non class time, change policy or behavior.	
	3. Jessica: On draft vision to team: Is use of 'scholars' too specific? Research is not mentioned; Like the use of "bridge"	
	4. Analysis on physical and online observations: Does each library need a page; "Study spaces in library: over breakdown by type, what's right mix? Use better photos.	
	5. Non-library study spaces: Need more seats; is 35sf the right metric?	
	6. Area Allocation: Add a column to accommodate shelving; HIKS in not a long-term facility; Looking for more space in HSSE.	
	7. Library Locations: HSSE, hub for current location? What about dual hub? HIKS bubble size in diagram does not include repository.	
	Action Item: PW to send draft vision to team with service drivers for comment and review. PW to review data with Gina's team to ensure spaces are coded correctly. Allison to take the lead. Drew – What's the power of a HUB? Value?	

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan Workshop #3

January 6, 2022 - Working Group

Perkins&Will

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Agenda

Introduction & Overview

Summary of Workshop #2
– Brand Workshop Summary
– Priority Programs

Work In Progress
– Library Brand Presence Analysis
– Draft Project Vision Statement
– Offsite Repository and Seating Assessment
– Geographic Distribution of Library Facilities

Wrap Up & Next Steps

➔
Workshop #2 User Group Session

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Master Plan Process
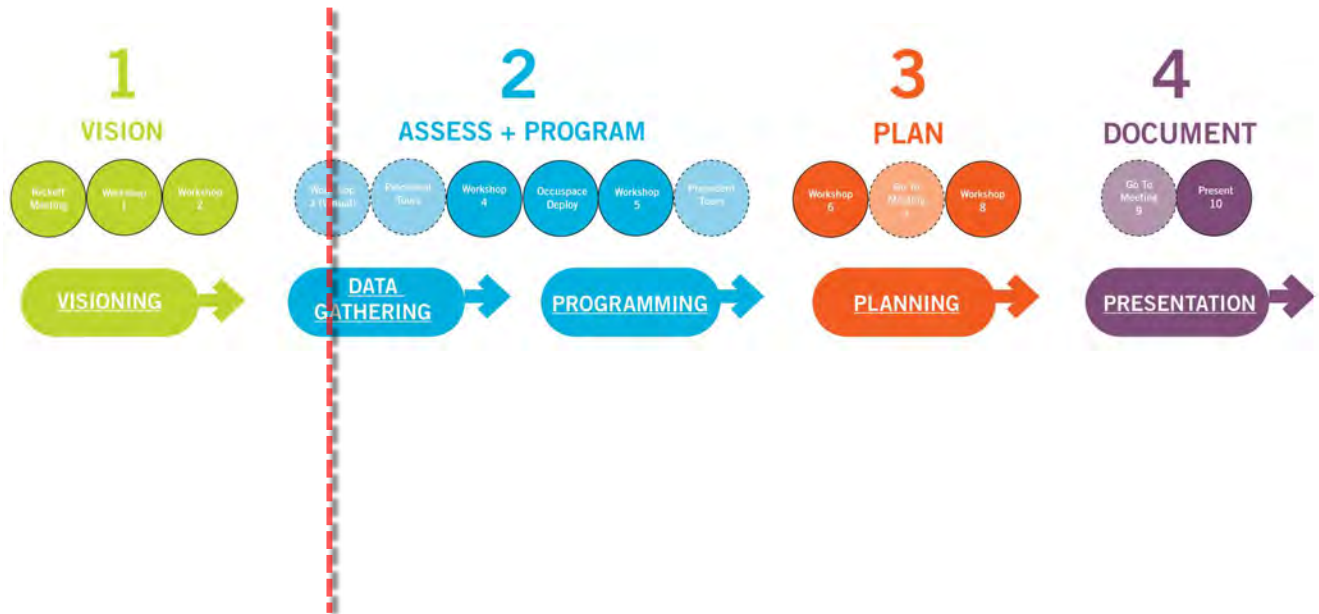
Outstanding Data Collection

Drew & Allison

        JLL Workplace Space Needs Study
        Construction Drawings (on hold)
        Copy of Press Release (issue in January)
        Copy of STEW design work

Beth

        Enrollment Assumptions

Sensor Technology

Initial Spaces to measure:
- HSSE Level 1, 2, 3
- HIKS Level G
- WALC Level B, 1, 2, 3
- MATH Level 3
- KRAN Level 2
- LYNN Level 1
- TERM Level 1

Implementation Timeline:
- <u>Clear with Univ. IT</u>: Complete
- <u>Ship Test Sensors</u>: Jan. 10, 2022
- <u>Install+Callibration</u>: Jan. 24-31, 2022
- <u>Begin data collection</u>: February

Cost Structure:
- 73 Sensors
- **$ 12,585** for 5-month trial
- **$ 11,315** for 7-month extension
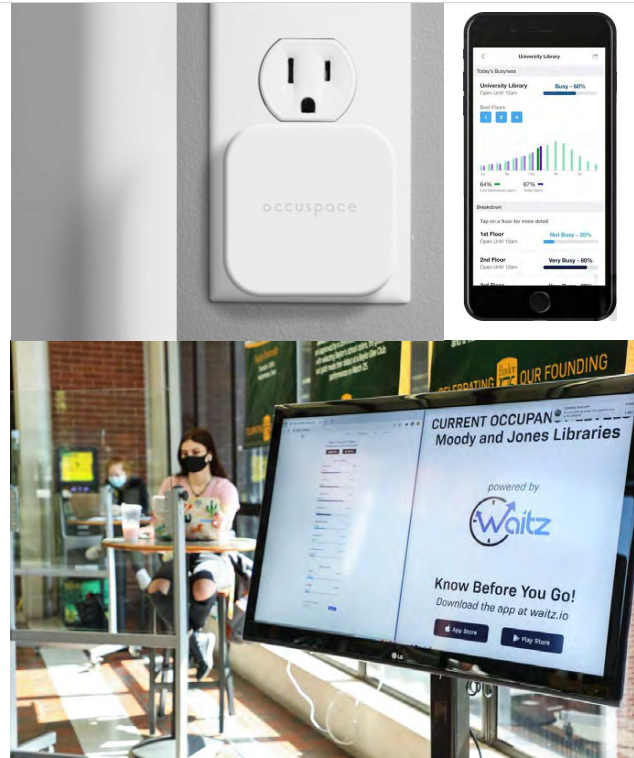
Visioning Workshop #2 Summary

Mission, Vision, Values

Purdue Libraries

Libraries and School of Information Studies

Mission

We lead in research, teaching, and learning, and create and provide equitable access to diverse resources, outstanding services, and innovative spaces, for Purdue's local, national, and international communities.

Libraries and School of Information Studies

Vision

Purdue University Libraries and School of Information Services will be a proven leader and impactful partner in the pursuit of transformational teaching and learning, research excellence, and meaningful engagement and outreach.

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Libraries and School of Information Studies

Values

Innovation   *Equity*

Collaboration   *Stewardship*

Agility   *Service*

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Audiences

Slide 11 of 95

Audience Types – Purdue University

Our Brand is built around
five (5) key stakeholder groups
that shape the experience we
create.
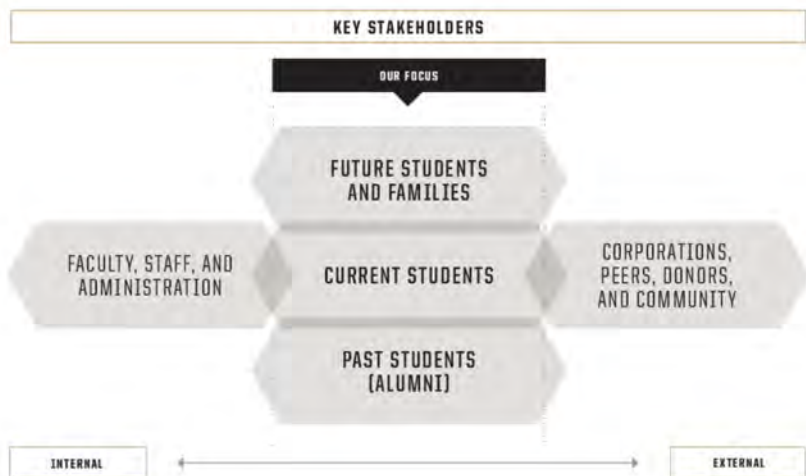
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Audience Types

All Students	Visitors & Visiting Scholars
All Faculty	Prospective Students
Staff	Academic Community
Public Community Members	Researchers
Alumni	Student Families
Donors	EDI	BIPOC	LGBTQ
Retirees	Creative Thinkers
Global "Citizens" & Students	Needs-Based Users
On-Line Participants	Users of Study Spaces
Event Attendees	All Abilities, Ages, Cultures, Languages

Current & Future Brand

Current Brand

*"We are a **welcoming service organization** that struggles to define itself and strives to be better understood by students, faculty, staff & administration."*

*"We are **more** than books."*

Current Brand

Today	Future
Welcoming service organization.	
Equitable access to information & resources.	
Teach crucial information skills.	
Furthering the field of Information Science through research.	
Distributed "hodge-podge" of resources & services.	
We have study spaces; WE ARE MORE THAN BOOKS.	
Striving to be better understood by all.	
Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.	
Open to new ideas.	
Serve the information needs of the Purdue community.	

Current Brand

	Today

Future

Welcoming service organization.

Equitable access to information & resources.

Teach crucial information skills.

Furthering the field of Information Science through research.

Distributed "hodge-podge" of resources & services.

We have study spaces; WE ARE MORE THAN BOOKS.

Striving to be better understood by all.

Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.

Students don't know how many libraries there are on campus.

Students don't know what we have to offer.

Open to new ideas.

Lack structure & forethought to support new ideas in long run.

Serve the information needs of the Purdue community.

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Future Brand

*"Cohesive, complementary and inclusive portfolio of **resources and experiences** that allow for growth, experimentation, and full engagement by all."*

"Discover, create, innovate. Let us inspire you!"

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Future Brand

Today

Future

An Information Service Hub for Purdue...so much more than books!

Cohesive. Complementary. Inclusive.

Discover. Create. Grow. Innovate. Let us inspire you.

Advancing leadership and the profession through critical research.

Portfolio of resources, experiences and experimentation for all.

Dynamic multi-space environment with great resources.

Responsive services and staff at the academic forefront.

Expert level instruction and personalized guidance.

Connected within our organization, the university, the community, and the world.

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Brand Recap

Today

Welcoming service organization.

Equitable access to information & resources.

Teach crucial information skills.

Furthering the field of Information Science through research.

Distributed "hodge-podge" of resources & services.

We have study spaces; WE ARE MORE THAN BOOKS.

Striving to be better understood by all.

Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.

Open to new ideas.

Serve the information needs of the Purdue community.

Future

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Expert level instruction and personalized guidance.

Connected within our organization, the university, the community, and the world.

Slide 20 of 95

Story-Telling

Stories

Our History | Our Archives | Our Collections

A Place for Knowledge Creation

Authentic Source of Information

Patents, Firsts, Innovations at Purdue

Your Experience Begins at Purdue Libraries

Research & Explore

Study, Learn, Collaborate, Innovate, Celebrate

Physical Places & Spaces

Information Literacy

Library Locations & Specializations

Our Services, Resources & Tools...More than Books!

Personal-Touch Assistance...Let Us Help You!

At Purdue, it's Cool to be Smart

The Digital Experience

We are ONE Library System
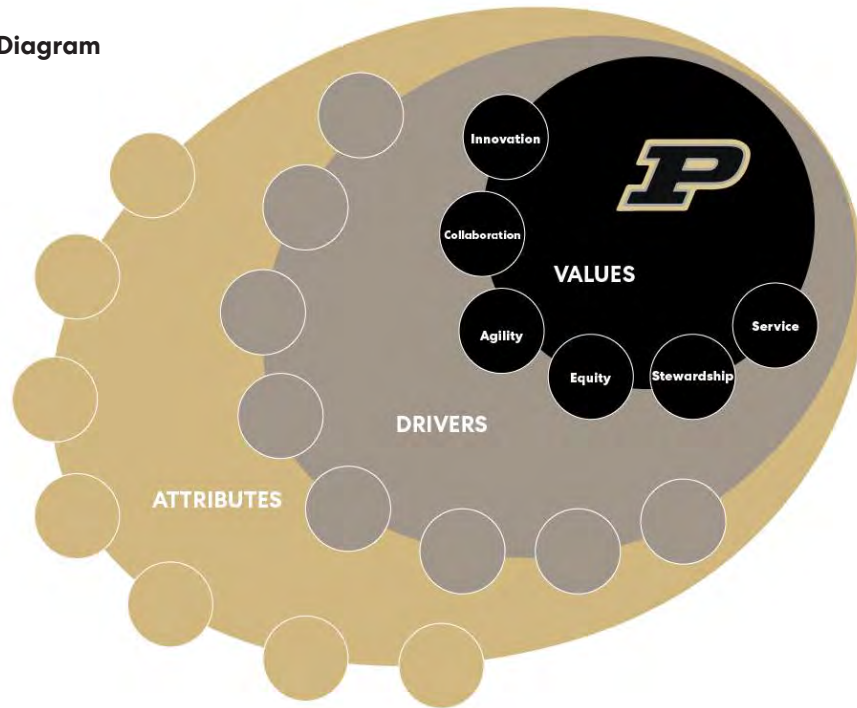
Our Expanded Network

Our Rich Database

Vital Partnerships

Prioritization Tools

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Brand Drivers Diagram
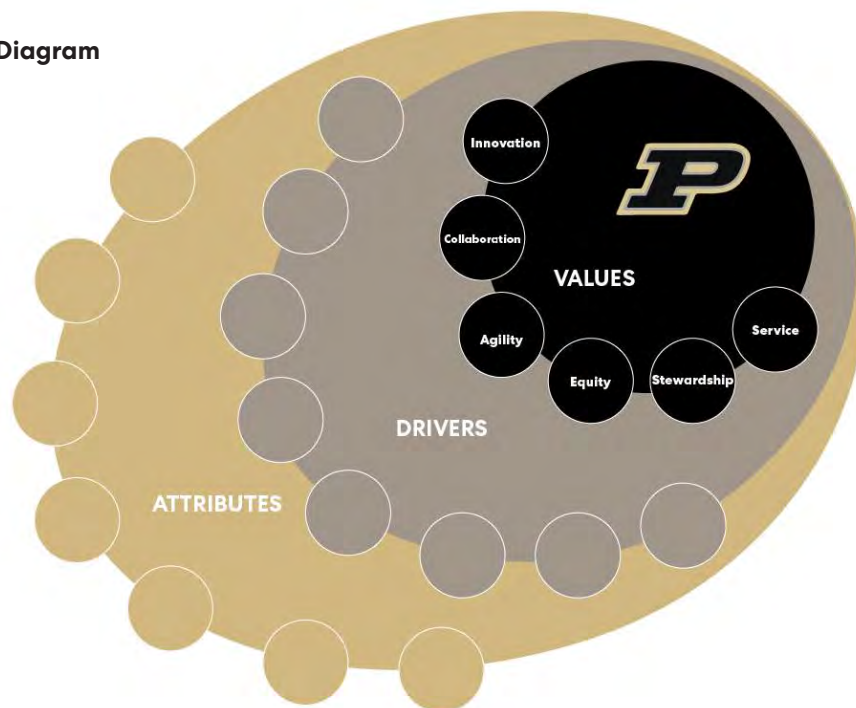
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Strategic Opportunities Matrix

	1 Hicks Undergraduate	2 Humanities, Social Sciences and Education	3 Management and Economics	4 Engineering and Science	5 Veterinary Medical	6 Mathematical Sciences	7 Aviation and Transportation Technology	8 Archives and Special Collections
Exterior Identity								
Interior Identity								
Exhibits/Gallery								
Signage								
Web Presence								
Digital/"Smart" Presence								

PRIMARY FOCUS   SECONDARY FOCUS   TERTIARY FOCUS
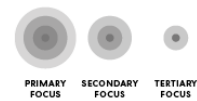
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Priority Programs

Slide 26 of 95

Priority Programs

THE BEST PLACE FOR . . .

KNOWLEDGE GALLERY
Showcase what others are doing
Exhibit new scholarship
SC/A display
New & noteworthy collections

VIRTUAL LEARNING HUB
Individual seating for online learning
Group seating for online learning
Tools & resources for virtual learning

CENTER FOR DIGITAL SCHOLARSHIP
Digital Humanities/Scholarship
E-Archives / E-Pub
Digitization
One Button/Lightboard/Recording
Data/GIS Walk-In Services

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Priority Programs

THE BEST PLACE FOR . . .

KNOWLEDGE GALLERY
Showcase what others are doing
Exhibit new scholarship
SC/A display
New & noteworthy collections

VIRTUAL LEARNING HUB
Individual seating for online learning
Group seating for online learning
Tools & resources for virtual learning

CENTER FOR DIGITAL SCHOLARSHIP
Digital Humanities/Scholarship
E-Archives / E-Pub
Digitization
One Button/Lightboard/Recording
Data/GIS Walk-In Services

COLLECTION BASED PROGRAMS	SC/A ENGAGEMENT	SANCTUARY SPACE OUTDOOR AREA	EXPERIMENTAL TEACHING & LEARNING CTR	ROBUST MAKERSPACE	AR/VR RESEARCH
	NON-TRADITIONAL STUDENT LOUNGE	CAFÉ/FOOD SERVICE	STUDENT REST/NAP ROOM	STAFF/FACULTY LOUNGE	GRADUATE STUDY ROOM
		INTERACTIVE LEARNING ZONE	MORE EMBEDDED COLLAB. CLASSROOMS	QUIET STUDY ZONE	MORE STUDY ROOMS

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Project Vision

PURDUE UNIVERSITY

UNIVERSITY MISSION STATEMENT

Our mission is to help Purdue University students **maximize the value of their life experiences**. As we **develop collaborative relationships** in a safe and respectful environment, the **unique value of dignity of each individual** and group is held paramount.

LIBRARY MISSION STATEMENT

We lead in research, teaching, and learning, and create and provide **equitable access** to diverse resources, outstanding services, and **innovative spaces**, for Purdue's **local, national, and international communities**

PURDUE UNIVERSITY BRAND

Purdue University is about the **persistent pursuit of innovation** where people bring their best and learn to build a better world together.

Or more simply:

Persistent Innovation.
Together.

DRAFT PROJECT VISION STATEMENT

The future Purdue Library will be the bridge between individual scholars and the academic community, the campus and the world. It will connect disciplines and integrate resources across the university so students can engage in the richness of the Purdue experience. Bridging disciplinary resources, the library will be a consistently recognized partner for the persistent pursuit of innovation through experimentation, collaboration, and virtual learning. It will be the preferred pathway between knowledge acquisition and its application in the service of society.

DRAFT PROJECT VISION STATEMENT

SERVICE DRIVERS

1. Welcoming to all
2. THE HUB for knowledge and scholarship sharing
3. THE integrated Center for Digital Scholarship
4. Host virtual and experimental learning
5. Seamlessly part of the "total" Purdue student experience
6. Resource-rich place to connect and collaborate
7. Promote trans-disciplinary research and learning
8. Unified alignment of purpose
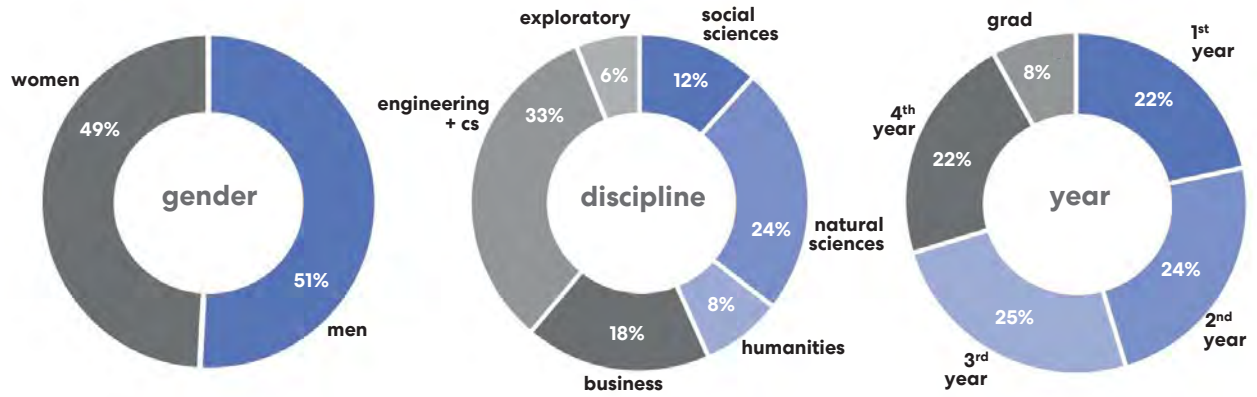9. Be more visible

SPATIAL ATTRIBUTES

1. Visible, intuitive, accessible, inclusive: validate lived experiences
2. Showcase creation, scholarship, institutional legacy, and special collections
3. Make technology and resources seamlessly present
4. Integrate virtual learning seats and experimental teaching lab
5. Integrate brand across physical and digital spaces
6. Blur boundaries between formal learning and social learning
7. Support learning across academic and co-curricular spaces
8. Co-locate staff with serendipitous collaboration spaces
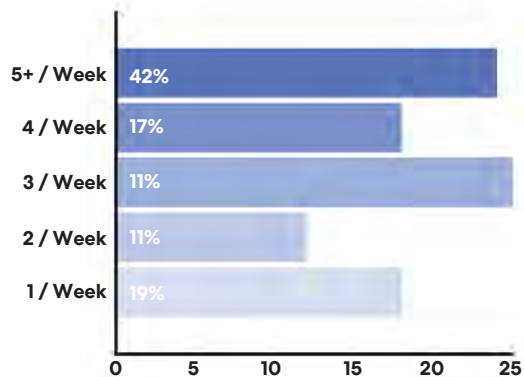9. Consistent brand expression and physical transparency

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Purdue Brand Personality

How We Want People To *Think* About Purdue

INTENTIONAL
Focused | Deliberate | Serious | Dedicated to Process

RESPECTED
Proven | Valuable | Credible | Reliable | Rigorous | A Brand You Can Trust

INNOVATIVE
Intelligent | Smart | Insightful | A Dot Connector

How We Want People To *Feel* About Purdue

INCLUSIVE
Collaborative Community | Inviting | Friendly | Supportive | Open-Minded | A Family

BALANCED
Confident But Never Arrogant | Well-Rounded | Level-Headed | Smart But Also Human

DRIVEN
Relentless | Persistent | Always Leaning In

DECEPTIVELY HARD PROUD EXCITING INSPIRING
WELCOME HARD SUPPORTIVE
POSITIVE WORKING TEAMWORK
SPIRITED PASSIONATE
DETERMINED UNIQUE DRIVEN DEDICATED
CREATIVE INCLUSIVE FOCUSED
INTEGRITY

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Physical | Virtual Observations

Areas of Observation

Hicks Undergraduate Library

Humanities, Social Sciences and Education Library

Parrish Library of Management and Economics

Library of Engineering and Science

Veterinary Medical Library

Mathematical Sciences Library

Aviation and Transportation Technology Library

Archives and Special Collections

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Brand Observation Summary

Physical Space

Inconsistent Library name identification across the system.

Each Library is unique in its design and features.

Not all Libraries appear welcoming.

Minimal inclusion of story-telling within the Libraries.

Missing display space for Special Collections or other features.

Design feature at desks integrated in many libraries.

Inconsistent wayfinding and signage.

Ad hoc postings cause visual clutter.

Digital Space

Purdue brand leads for Libraries.

Navigation to individual libraries is sometimes difficult/confusing.

Landing pages are text heavy.

Physical Library imagery is small and often of poor quality.

Inconsistent categories across various libraries.

Archives & Special Collections has strongest visual "personality".

"Real-time readership" feature engaging and dynamic.

Most libraries highlight availability of study & specialty spaces.

Perkins&Will

Hicks Undergraduate Library

Purdue University Library Masterplan

On-site Observations
Hicks Undergraduate Library

← Reception

↑
Reception

→
Office of Undergraduate Research

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On-site Observations
Hicks Undergraduate Library

← Reception

↑
Reception

→
Office of Undergraduate Research

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Perkins&Will

HSSE Library

Humanities, Social Sciences and Education Library

Purdue University Library Masterplan

On-site Observations
HSSE Library

↑
Entry

→
Information Desk (left)

←
Information Desk (right)

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On-Site Observations
HSSE Library

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Online Observations
HSSE Library

"The Humanities, Social Sciences and Education Library (HSSE), located in Stewart Center, houses a large print collection that supports scholarly research and includes nonfiction, classic literature, children's literature, government documents and periodicals. The main floor features over 70 workstations, as well as printers, photocopier/scanners, and collaborative or individual study areas. Quiet study areas are also available on the remaining two floors. Research assistance is available at the service desk and by appointment. For more information about the Stewart Mural located outside the library entrance, visit **The Spirit of the Land Grant College webpage**."

https://www.lib.purdue.edu/libraries/hsse

→

Screen capture of site

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Parrish Library of Management & Economics

Purdue University Library Masterplan

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On-site Observations
Parrish Library of Management & Economics

← **Donor Signage**

→ **iDesk – Reception**

→ **Entry Signage**

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On-site Observations
Parrish Library of Management & Economics

Contributors

Room Signage

Donor Signage

Room Signage

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Online Observations
Parrish Library of Management & Economics

"The Roland G. Parrish Library of Management & Economics supports the mission of Purdue University by providing business resources and collaborative spaces for both students and faculty. In addition to an extensive collection of books and journals, Parrish Library provides access both on and off-campus to a wide array of databases and other research tools."

https://www.lib.purdue.edu/libraries/mgmt
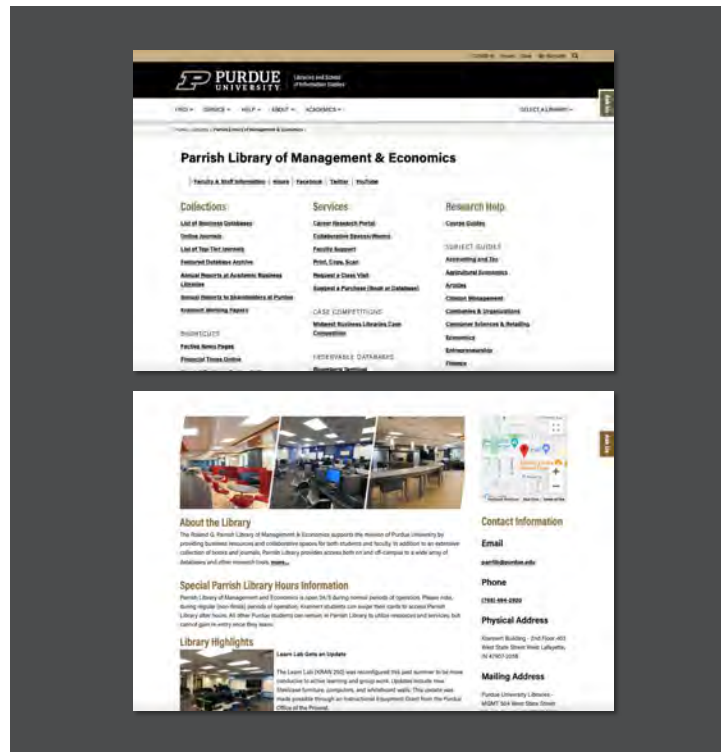
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Perkins&Will

Archives and Special Collections

Purdue University Library Masterplan

On-site Observations
Archives and Special Collections

← Workspace

→ Collections Storage

→ Archives Entry

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On-site Observations
Archives and Special Collections

Signage

Collections Storage

Signage

Specialty Equipment

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Online Observations
Archives and Special Collections
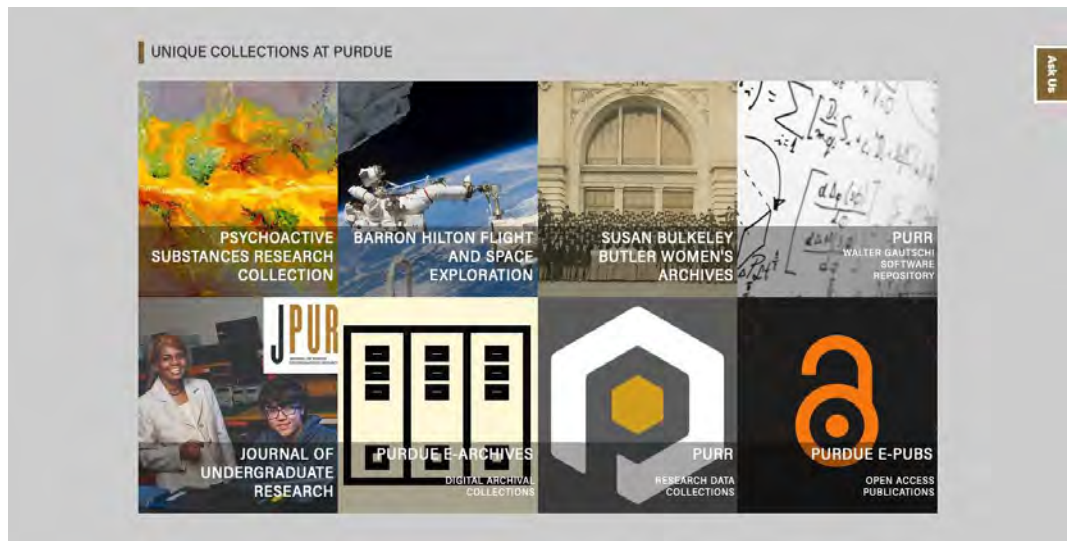
Screen capture of site

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Library of Engineering and Science

Perkins&Will

Purdue University Library Masterplan

On-site Observations
Library of Engineering and Science
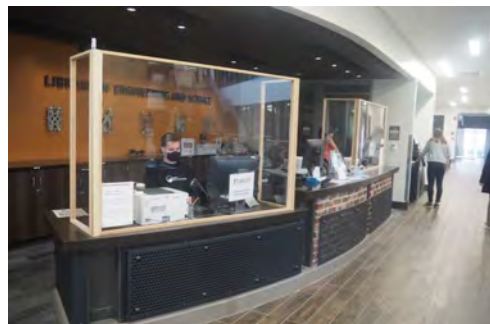
← Wayfinding Signage

→ Information Desk

→ Central Staircase

54
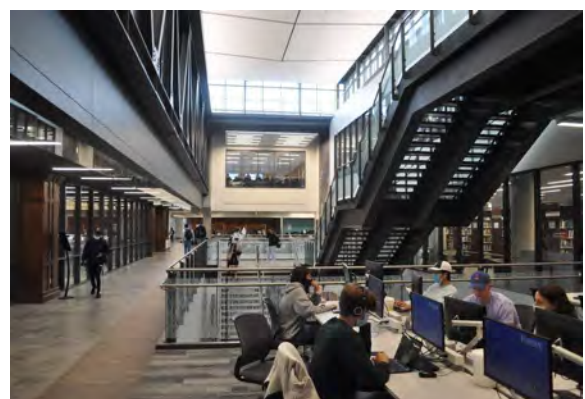
Online Observations
Library of Engineering and Science

"The Library of Engineering and Science (LOES) in the Wilmeth Active Learning Center (WALC) holds approximately 30,000 print volumes, emphasizes the focus on provision of digital resources, and consolidates the holdings and services of six formerly separate libraries (Chemistry; Earth, Atmospheric and Planetary Sciences; Engineering; Life Sciences; Pharmacy, Nursing, and Health Sciences; and Physics) into one easily accessible location. The materials selected for the physical collection of the Library of Engineering and Science have been evaluated by Libraries faculty with input from departmental faculty. The books, reference collection, and standards have been identified as high-use, high-demand materials that best support the teaching and learning goals of the curricula within the schools and departments. LOES also houses Libraries faculty and staff members, who specialize in access to information resources in engineering and science, as well as in instructing students on how to identify, locate, critique, and retrieve scholarly information. In collaboration with their faculty colleagues in the colleges and schools, the Libraries faculty teach specialized courses and/or participate as team faculty members. Although the focus of LOES is to provide access to information in engineering and science, the use of resources and space is open to all Purdue students and faculty."

https://www.lib.purdue.edu/libraries/engsci

→
Screen capture of site

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Online Observations
Library of Engineering and Science

Active Learning
Purdue University Libraries faculty and staff drew from their own expertise and consulted other leaders in learning design to create state-of-the-art active learning classrooms.

Unique Places
The Mullins Reading Room features a spectacular view of Purdue University's iconic Bell Tower. On the first floor, Au Bon Pain Café and Bakery provides expertly crafted baked goods and breads, along with coffee, tea, soups, and salads.

Library of Engineering and Science
Alongside its focus on providing unparalleled access to digital resources, the Library of Engineering and Science holds approximately 30,000 thoughtfully curated print volumes, consolidating the holdings and services of six formerly separate libraries all into one easily accessible location.

Versatile Spaces
The WALC is a student-centered facility with a variety of resources, study areas, and versatile spaces open to all students on campus. The LoES includes the Data Visualization Experience Lab of Purdue (D-VELoP). In D-VELoP, students can use the visualization lab, "Viz" Wall, 3-D printers, and/or receive assistance to help them turn their data into knowledge through visualization technologies.

Showcasing History
The walls of the WALC are rich with reproductions of historic photographs of the Purdue University campus. Artifacts and photographs from the working 1924 Power and Heating Plant can be found throughout the building, memorializing the rich legacy of this central site on the Purdue campus. A smartphone tour enhances the exhibits, by providing information and interactive activities designed to make a visitor's experience an extension of the WALC active-learning philosophy.

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Perkins&Will

Veterinary Medical Library

Purdue University Library Masterplan

On-site Observations
Veterinary Medical Library

← **Entry Signage**

→ **Information Desk**

→ **Entry**

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On-site Observations
Veterinary Medical Library
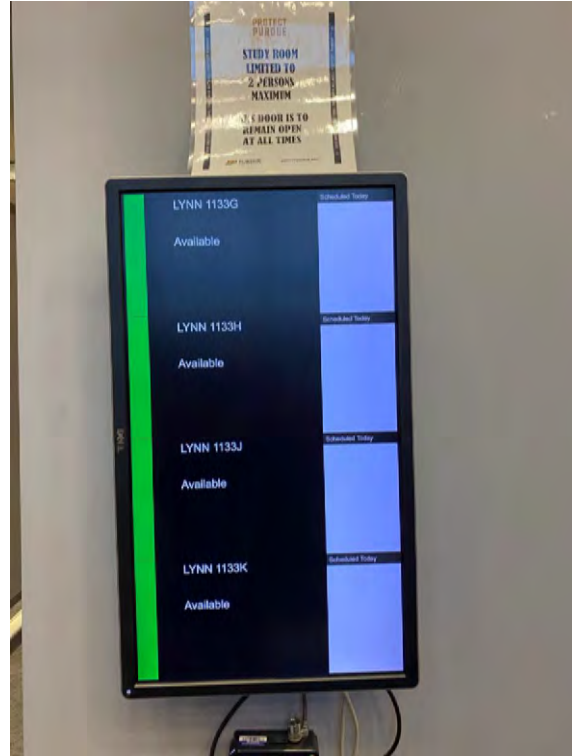
→
Digital Signage/Reservation

Online Observations
Veterinary Medical Library

"Designated quiet study space and increased group study is now available in the Veterinary Medical Library located in Lynn Hall (LYNN). Three ITaP computers in the library and wireless connectivity provide access to the Libraries resources. Veterinary- and health-related materials are located on compact shelving located in the stacks room."

https://www.lib.purdue.edu/libraries/vetmed

→
Screen capture of site
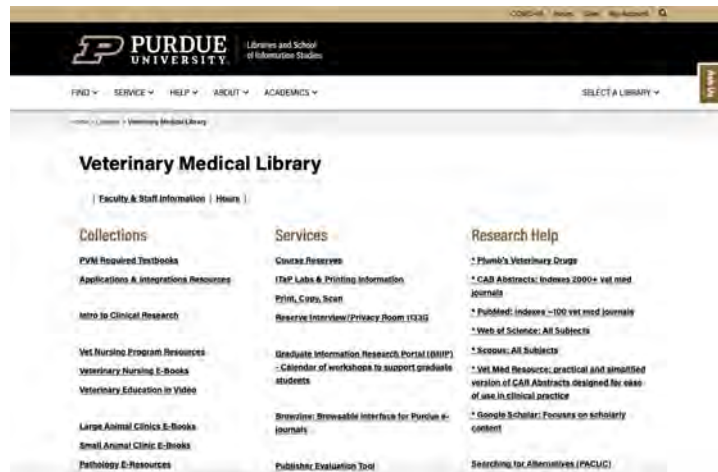
Mathematical Sciences Library

Purdue University Library Masterplan

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On-site Observations
Mathematical Sciences Library

← Entry

→ Information Desk

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On-site Observations
Mathematical Sciences Library

"The Math Library provides collections and services related to Mathematics, Computer Science, and Statistics with space for students and faculty to study, perform research, and collaborate."

https://www.lib.purdue.edu/libraries/math
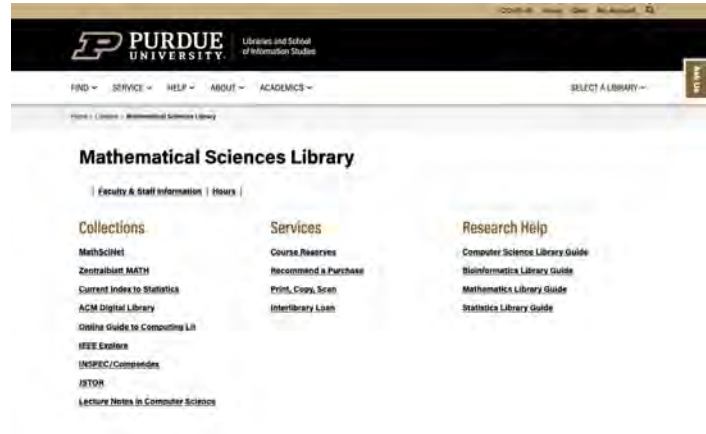
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Perkins&Will

Aviation and Transportation Technology Library

Purdue University Library Masterplan

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On-site Observations

Aviation and Transportation Technology Library

← Reception

→ Entry

→ Entry Signage

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Online Observations

Aviation and Transportation Technology Library

"The Aviation Technology Library is located in the Purdue University Airport Terminal. The library serves as Purdue's resource for aviation information and supports the teaching and research activities of the Department of Aviation Technology. The Library contains many aviation repair and maintenance manuals, government documents, and instructional videos and software programs. The collection includes over 4,000 book and journal volumes to support the department's programs: Aeronautical Engineering Technology, Aviation Management Technology, and Professional Flight Technology. Subject areas covered by these programs include aircraft design, maintenance, manufacturing, air traffic control, airport management, airline operations, and flight training."

https://www.lib.purdue.edu/libraries/avtech
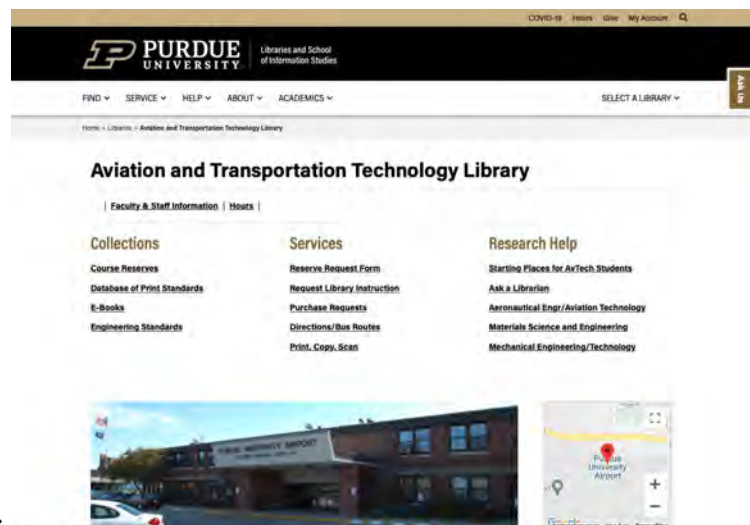
→ Screen capture of site

66

Offsite Repository

Potential Library Storage Site (Exec 2550)

42,554 Total ASF

13,638 ASF

28,916 ASF
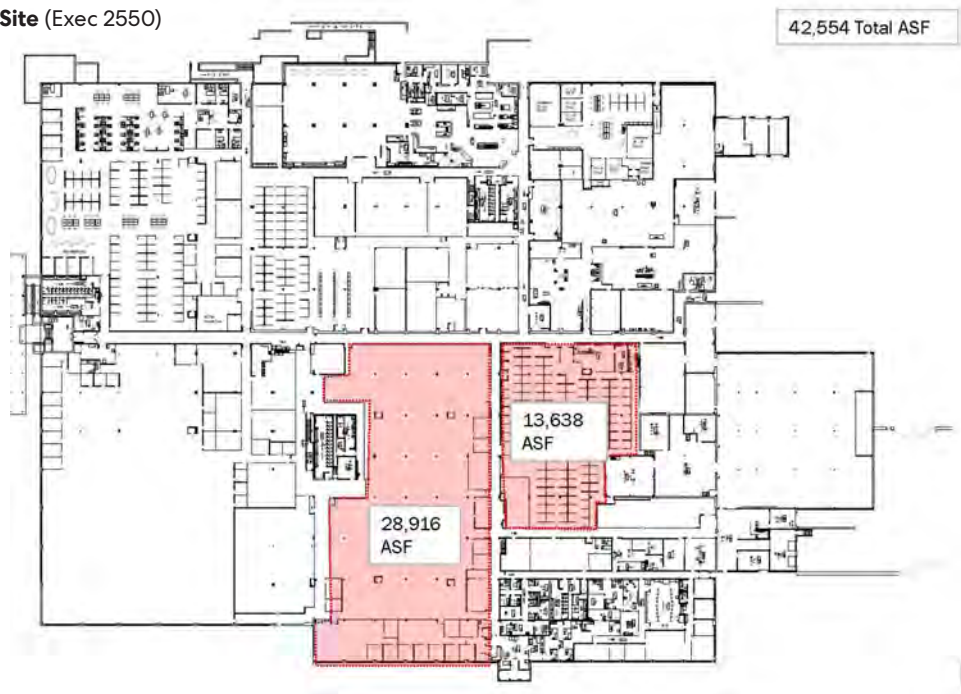
Potential Library Storage Site (Preliminary Test Fit)

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included

Test Fit: 173,222 LF
- 7-high shelving (84")
- 85% filled
- 1.732M volumes
- 10% increased capacity
- $5.96M (new, motorized)
- $5.44M - $5.59M (manual)
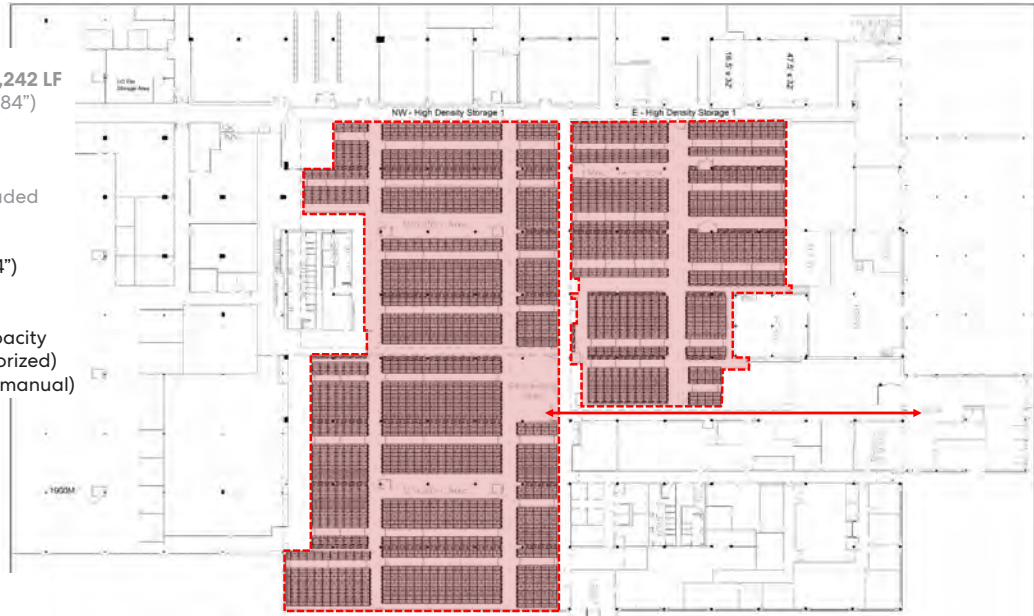
Library Seating Assessment

Existing Seating Summary

BUILDING	LEVEL	CARRELL	BENCH	2-TABLE	4-TABLE	6+ TABLE	LOUNGE	HIGH TOP	COMPUTER	4-GRP RM	6+ GRP RM	POTENTIAL 35 SF/SEAT	TOTAL
STEW	Total	221	0	21	168	136	34	0	90	48	8	223	726
	%	30.44%	0.00%	2.89%	23.14%	18.73%	4.68%	0.00%	12.40%	6.61%	1.10%		
HIKS	G	98		84	100	268	46	40	69	52			757
	%	12.95%	0.00%	11.10%	13.21%	35.40%	6.08%	5.28%	9.11%	6.87%	0.00%		
WALC	Total	24	9	26	156	170	194	0	95	4	48		726
	%	3.31%	1.24%	3.58%	21.49%	23.42%	26.72%	0.00%	13.09%	0.55%	6.61%		
KRAN	2	18	7	4	116		23	39	65		24		296
	%	6.08%	2.36%	1.35%	39.19%	0.00%	7.77%	13.18%	21.96%	0.00%	8.11%		
MATH	3	23			39	12	18		4	12	14		122
	%	18.85%	0.00%	0.00%	31.97%	9.84%	14.75%	0.00%	3.28%	9.84%	11.48%		
LYNN	1	28			64		35		3	16			146
	%	19.18%	0.00%	0.00%	43.84%	0.00%	23.97%	0.00%	2.05%	10.96%	0.00%		
TERM	1			2	24		12	9	4		12		63
	%	0.00%	0.00%	3.17%	38.10%	0.00%	19.05%	14.29%	6.35%	0.00%	19.05%		

		CARRELL	BENCH	2-TABLE	4-TABLE	6+ TABLE	LOUNGE	HIGH TOP	COMPUTER	4-GRP RM	6+ GRP RM		TOTAL
TOTAL SEATS		412.0	16.0	137.0	667.0	586.0	362.0	88.0	330.0	132.0	106.0		2,836
		14.53%	0.56%	4.83%	23.52%	20.66%	12.76%	3.10%	11.64%	4.65%	3.74%		
TOTAL "GOOD" SEATS		412.0	12.0	102.8	500.3	410.2	362.0	66.0	330.0	99.0	70.6		2,365
		17.42%	0.51%	4.34%	21.15%	17.35%	15.31%	2.79%	13.95%	4.19%	2.99%		

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Current Enrollment and Current Library Seats:	% FTE	Seats	
2021 Perkins&Will Seating Survey	11%	5,130	With 2,294 Wilmeth Classroom Seats
2021 Perkins&Will Seating Survey	7%	3,106	With two (2) group study groups per Wilmeth Classroom (10-seats each)
2021 Perkins&Will Seating Survey	6%	2,836	Without 2,294 Wilmeth Classroom Seats

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Enrollment Projections

Assumptions:
- 2031 UG FTE = 38,000
- 2031 Grad FTE = 8,000
- 2031 Total = 46,000

		UG: FTE	PROF UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE	3-yr Avg.	4-yr Avg.	5-yr Avg.
	Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6				
	Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%	2.24%	2.83%	3.84%
	Fall 2018	31,957.4	1,433.8	7,467.0	40,658.1	4.60%			
	Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%			
	Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%			
	Fall 2021	36,270.9	1,477.5	8,241.9	45,990.3	7.88%			
					2.24%	0.50%	0.0022%	0.00%	
	Fall 2020				42,633	42,633	42,633	42,633	
	Fall 2021				45,990	45,990	45,990	45,990	
1	Fall 2022				47,018	46,220	45,991	45,990	
2	Fall 2023				48,070	46,451	45,992	45,990	
3	Fall 2024				49,144	46,683	45,993	45,990	
4	Fall 2025				50,243	46,917	45,994	45,990	
5	Fall 2026				51,367	47,151	45,995	45,990	
6	Fall 2027				52,515	47,387	45,996	45,990	
7	Fall 2028				53,689	47,624	45,997	45,990	
8	Fall 2029				54,890	47,862	45,998	45,990	
9	Fall 2030				56,117	48,101	45,999	45,990	
10	Fall 2031				57,372	48,342	46,000	45,990	
11	Fall 2032				58,654	48,584	46,001	45,990	
12	Fall 2033				59,966	48,827	46,002	45,990	
13	Fall 2034				61,307	49,071	46,003	45,990	
14	Fall 2035				62,677	49,316	46,004	45,990	
15	Fall 2036				64,079	49,563	46,005	45,990	
16	Fall 2037				65,511	49,810	46,006	45,990	
17	Fall 2038				66,976	50,059	46,007	45,990	
18	Fall 2039				68,474	50,310	46,008	45,990	
19	Fall 2040				70,005	50,561	46,009	45,990	
20	Fall 2041				71,570	50,814	46,010	45,990	
21	Fall 2042				73,170	51,068	46,011	45,990	
22	Fall 2043				74,806	51,324	46,012	45,990	
23	Fall 2044				76,479	51,580	46,013	45,990	
24	Fall 2045				78,189	51,838	46,014	45,990	
25	Fall 2046				79,937	52,097	46,015	45,990	

Seating Projection: ACRL Method

Max Enrollment 2031   46,000

ASSOCIATION OF COLLEGE RESEARCH LIBRARIES METHOD (ACRL 1995)

Target 2031 Seats:	% FTE	Seats	Delta w/o clrm		
Commuter Campus	10%	4,600	(1,764) @35sf/seat	(61,740)	sf
Low Residential	15%	6,900	(4,064) @35sf/seat	(142,241)	sf
PURDUE	17.5%	8,050	(5,214) @35sf/seat	(182,491)	sf
High Residential	20%	9,200	(6,364) @35sf/seat	(222,741)	sf

Seating Projection: A4LE Method

| Max Enrollment 2031 | | | | | 46,000 | | |

ASSOCIATION OF COLLEGE RESEARCH LIBRARIES METHOD (ACRL 1995)

Target 2031 Seats:	% FTE	Seats	Delta w/o clrm			
Commuter Campus	10%	4,600	(1,764)	@35sf/seat	(61,740)	sf
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PURDUE	17.5%	8,050	(5,214)	@35sf/seat	(182,491)	sf
High Residential	20%	9,200	(6,364)	@35sf/seat	(222,741)	sf

ASSOCIATION FOR LEARNING ENVIRONMENTS METHOD (A4LE 2006)

User Categories:	%FTE	FTE (2031)	# of Seats
Undergraduate Students	12%	38,000	4,560
Graduate Students	30%	8,000	2,400
Faculty	5%	2,201	110
			7,070

Delta w/o clrm

(4,234) @35sf/seat	(148,192) sf

Seating Projection: Visitation Based Method

| Max Enrollment 2031 | | | | | 46,000 | |

VISITATION BASED BENCHMARKING METHOD (NEW)

Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
Ohio State University	61,391	4,333	7.1%	4,103,455	947	67
North Carolina State University	34,767	5,027	14.5%	2,464,590	490	71
Iowa State University	33,391	3,330	10.0%	1,916,666	576	57
University of NC, Chapel Hill	29,877	5,705	19.1%	2,667,100	468	89
Western Michigan State University	21,470	2,551	11.9%	597,958	234	28
Georgia Tech University	19,432	2,360	12.1%	318,614	135	16
Miami University	17,697	1,640	9.3%	382,474	233	22
Average	31,146	3,564	12.0%	1,778,694	440	50
Purdue Library (2018-19)	33,676	2,975	8.8%	1,473,867	420	19
Purdue Library (2031)	46,000	5,226	11.4%	2,301,712	440	50

Delta w/o clrm

(2,390) @35sf/seat	(83,683) sf

VISITATION BASED BENCHMARKING METHOD (NEW)

Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
Ohio State University	61,391	4,333	7.1%	4,103,455	947	67
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Iowa State University	33,391	3,330	10.0%	1,916,666	576	57
University of NC, Chapel Hill	29,877	5,705	19.1%	2,667,100	468	89
Average	39,857	4,599	12.6%	2,787,953	620	71
Purdue Library (current)	33,676	2,850	8.7%	1,473,867	570	19
Purdue Library (2031)	46,000	5,274	11.5%	3,270,601	620	71

Delta w/o clrm

(2,438) @35sf/seat	(85,343) sf

Average

(2,414) @35sf/seat	(84,490) sf

Study Spaces Across Campus—Space Code 410

610 Study Spaces
238,177 ASF
6,805 Seats at 35sf/seat

410 study seats on plan
ASF_410

Less than 700 ASF
700 - 1400 ASF
1400 - 2800 ASF
2800 - 5800 ASF
Over 5500 ASG
Other Purdue Buildings

Seating Projection: Visitation Based Method

Max Enrollment 2031   46,000

VISITATION BASED BENCHMARKING METHOD (NEW)						
Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
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Purdue Library (2018-19)	11,678	2,656	7.6%	1,473,867	520	39
Purdue Library (2031)	46,000	5,226	11.4%	2,301,712	440	50
			Delta w/o clrm	(2,390) @35sf/seat	(83,653) sf	

VISITATION BASED BENCHMARKING METHOD (NEW)						
Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
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Purdue Library (2031)	46,000	5,274	11.5%	3,270,601	620	71
			Delta w/o clrm	(2,438) @35sf/seat	(85,343) sf	
			Average			
				(2,414) @35sf/seat	(84,498) sf	

VISITATION BASED BENCHMARKING METHOD (NEW)						
Method	Exist. Seats	Seat Add	SF Add	Non-Library Study Seats	Total Seats	% FTE
ACRL	2,836	5,214	182,491			
A4LE	2,836	4,234	148,192			
Visitation Benchmark	2,836	2,414	84,498	1,965	5,219	20.0%

Area Allocations

Area Allocations

	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL
AVERAGE	25%	50%	15%	5%	5%	100%
PURDUE	26.8%	39.1%	25.6%	6.1%	2.4%	100%
DELTA	-1.8%	10.9%	-10.6%	-1.1%	2.6%	

Area Allocations

	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL
AVERAGE	25%	50%	15%	5%	5%	100%
PURDUE	26.8%	39.1%	25.6%	6.1%	2.4%	100%
DELTA	-1.8%	10.9%	-10.6%	-1.1%	2.6%	

WITH AREA ADJUSTMENTS	COLLECTIONS	SEATING	STAFF	CLASSROOM	SPEC. PROG.	SUBTOTAL
EXISTING PURDUE LIBRARY BY GENERAL USE ZONE	44,820	65,445	42,800	10,270	4,005	167,340
IMPROVED EFFICIENCIES		15,000				
ADDITIONAL AREAS		55,000		5,000	9,498	84,498
SUBTOTAL	44,820	135,445	42,800	15,270	13,503	251,838
PURDUE	17.8%	53.8%	17.0%	6.1%	5.4%	

Library Footprint

Library Locations

MATH
WALC
HSSE
HIKS
KRAN
North Campus
South Campus
LYNN
TERM

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Library 10-Minute Catchment

10 MINUTE

HSSE
LIBRARY

North Campus
South Campus
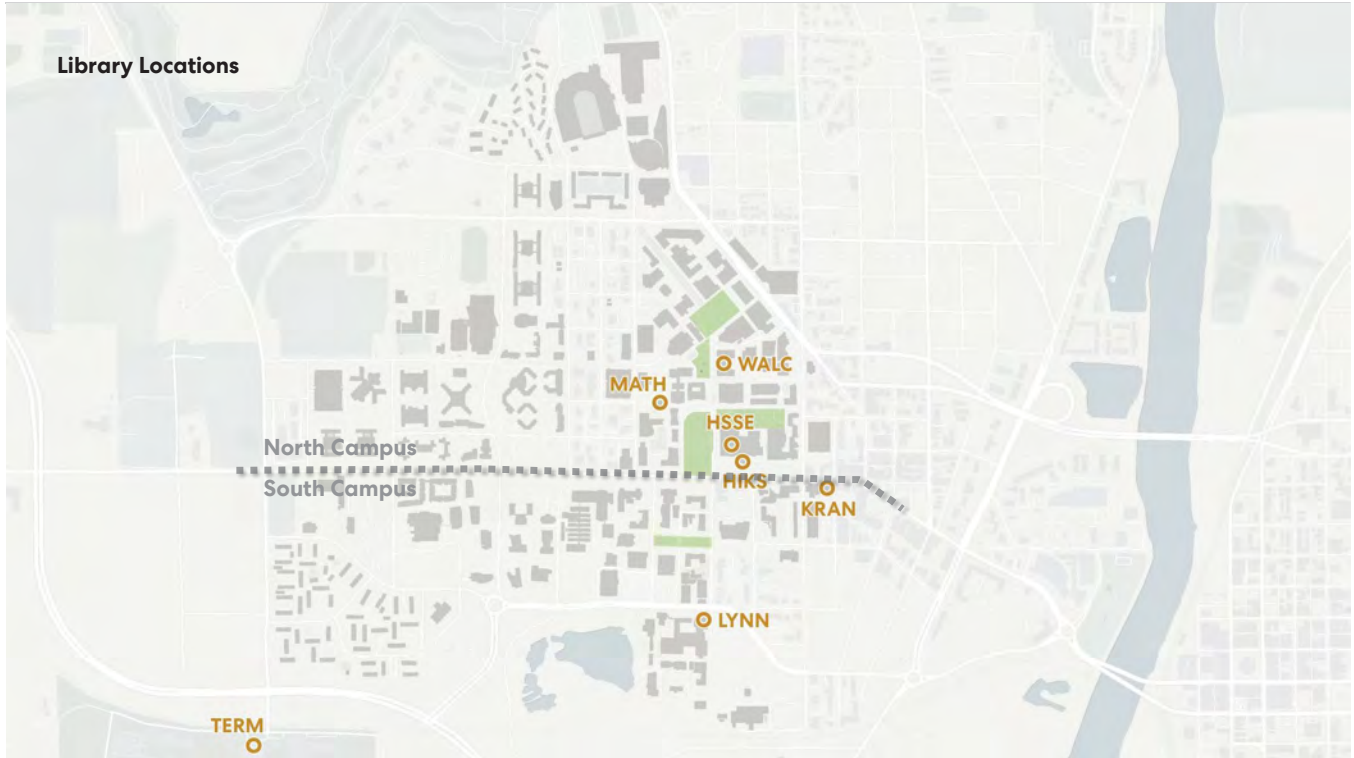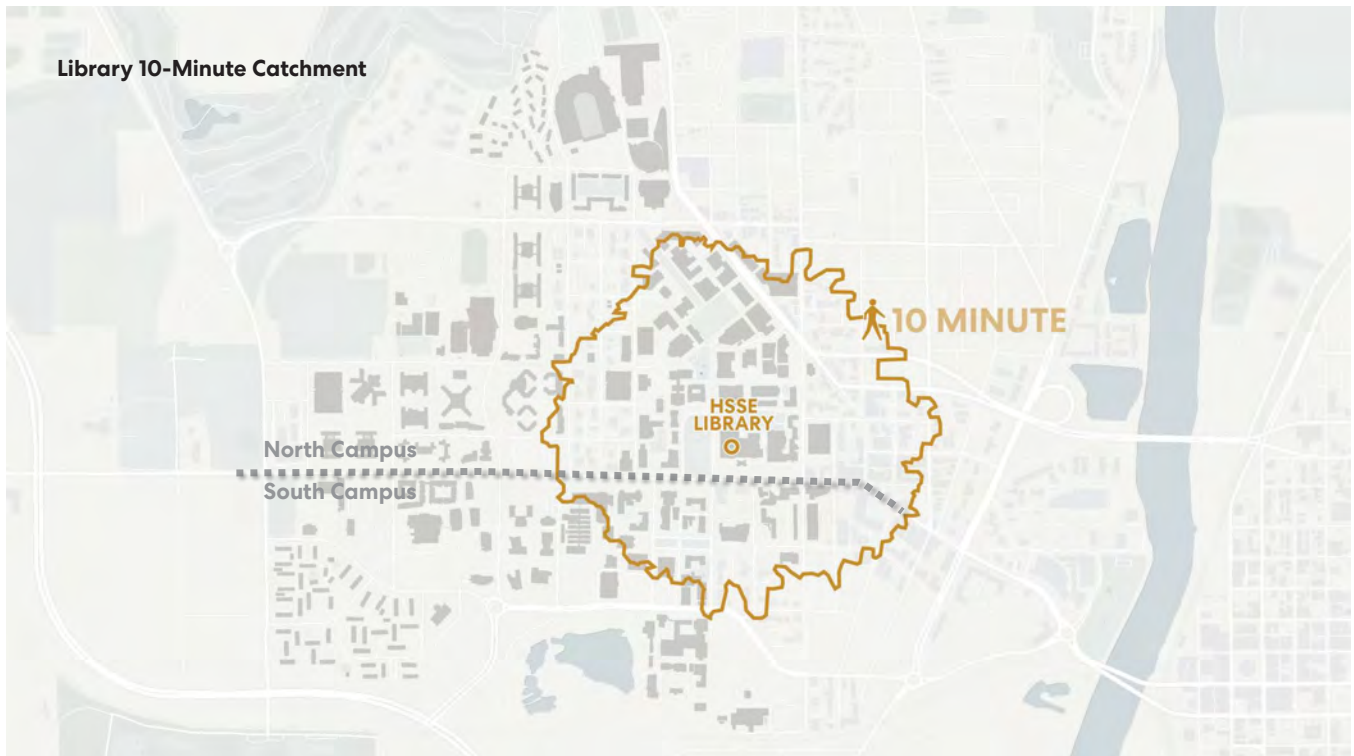
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Library System: Existing

MATH

CLASS ROOM

SPECIAL PROGRAMS

STUDY

WALC

STAFF

HSSE

STACKS

FOOD

TERM

LYNN

HIKS

KRAN
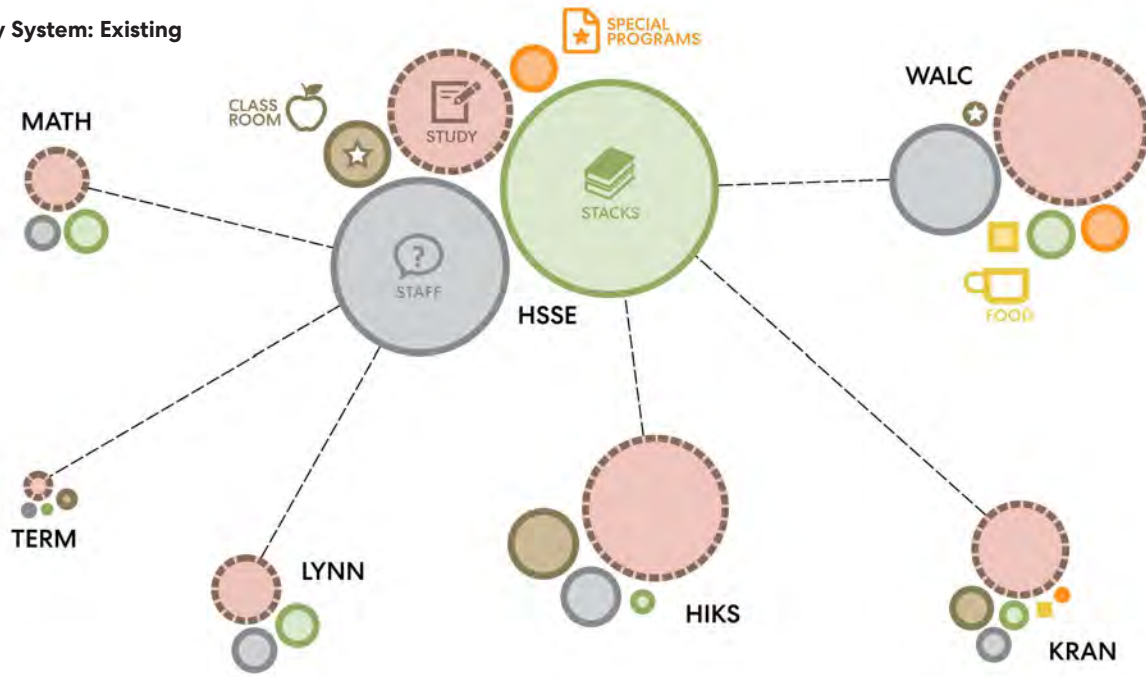
Library System: Enhanced Central Hub

SPECIAL PROGRAMS

CLASS ROOM

STUDY

SPECIAL PROGRAMS

Center For Digital Scholarship
Virtual Learning Hub
Knowledge Gallery
Archives/Special Collections
Experimental Teaching & Learning
Maker Space/Co-Lab
VR/AR Research Lab
Graduate Reading Room
Sanctuary Space
Non-Traditional Student Lounge

STAFF

STACKS

MAIN HUB

FOOD

LARGE ADJACENCY OF
CLASSROOMS NOT INCLUDED
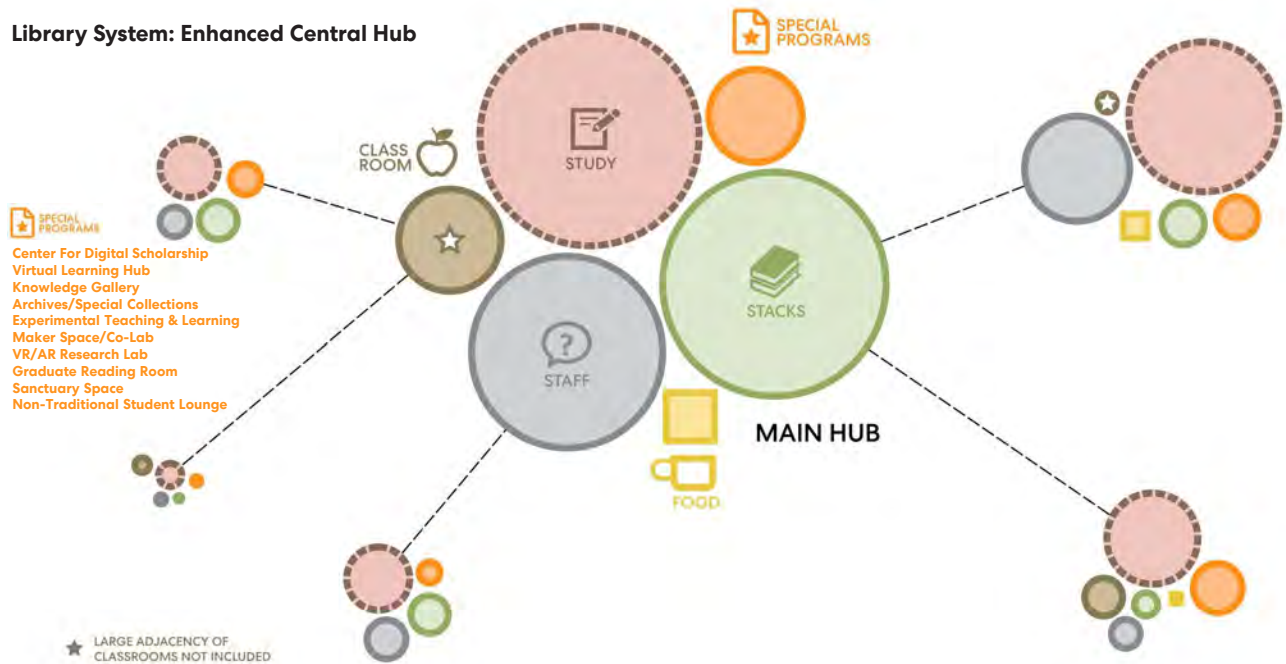
**Library System: Dual Hub
With Distributed Special Programs**
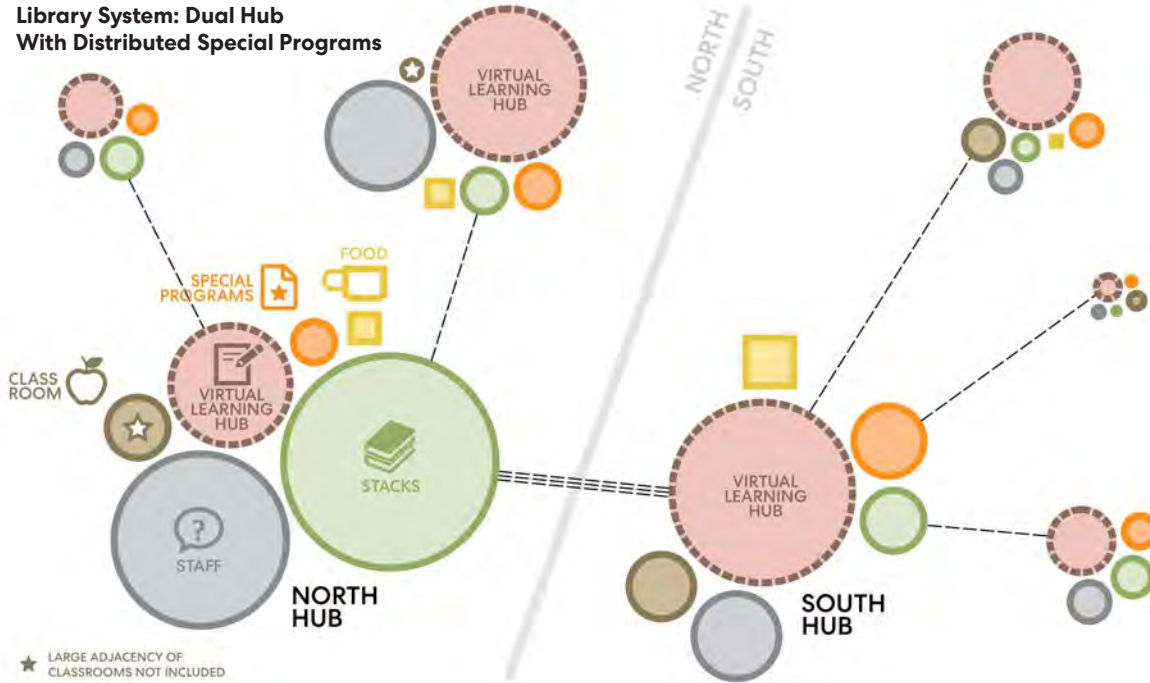
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**Library System: Dual Hub With
Centralized Special Programs**

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Perkins&Will
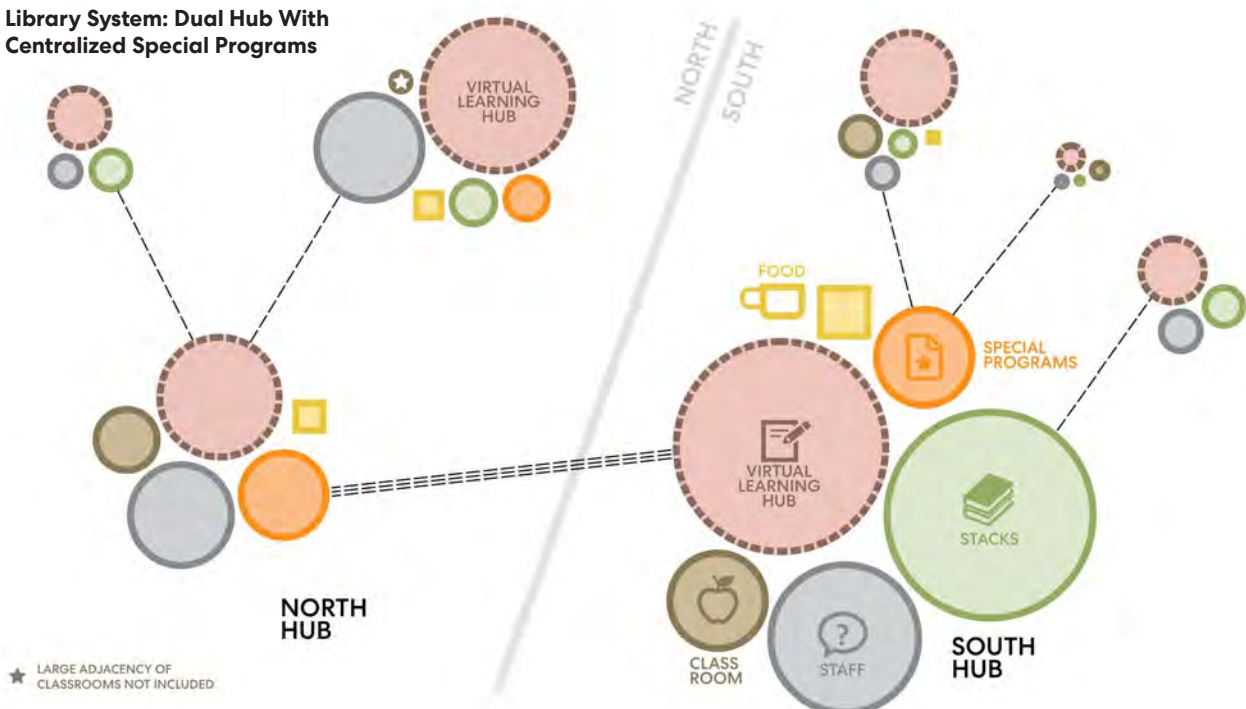
EXISTING LIBRARY BUILDING CONDITIONS SUMMARY

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Library Existing Building Assessments

These libraries are a 'tenant' in an academic building, thus have less agency over the state of existing conditions and future repairs.

WALC

ALL IN GOOD CONDITION

STEW - $$

- 🟡 STRUCTURE
- 🟢 ARCHITECTURE
- 🔴 MECHANICAL
- 🟡 ELECTRICAL
- 🔴 LIFE SAFETY

Aging AHU's & ductwork may require full replacement to VAV's.
Major electrical repairs
Major sprinkler system upgrades, especially if occupancy changes
Poor elevator operation
Significant accessibility challenges

HEAVY: A full renovation of the space could encompass all of these upgrades simultaneously and solve major accessibility challenges.
LIGHT: At the very least, significant disturbance to the existing space would be required due to mechanical ductwork replacement. Accessibility challenges would remain.

HIKS - $$$

- 🟡 STRUCTURE
- 🔴 ARCHITECTURE
- 🔴 MECHANICAL
- 🟡 ELECTRICAL
- ⚪ LIFE SAFETY

Major waterproofing repairs required at basement roof
Full replacement of 40-yr-old AHU's & ductwork
Significant electrical upgrades requires
Space use and flexibility is inherently limited

HEAVY: A full renovation of the space would require all of these upgrades. Due to long-term maintenance concerns, demolition and replacement is a viable option.
LIGHT: At the very least, mechanical systems need to be upgraded and leaks mitigated (soil removal and waterproofing replacement)

TERM

- 🟡 STRUCTURE
- 🟢 ARCHITECTURE
- 🔴 MECHANICAL
- 🔴 ELECTRICAL
- 🟡 LIFE SAFETY

MATH

- 🟢 STRUCTURE
- ⚪ ARCHITECTURE
- 🔴 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

LYNN

- 🟡 STRUCTURE
- 🟢 ARCHITECTURE
- 🟡 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

KRAN

- 🟢 STRUCTURE
- 🟢 ARCHITECTURE
- 🟢 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

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NEXT STEPS

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Schedule

January	February	March	April	May	June	July	August	Sept.

Workshop #3
- Virtual
- Working Committee

Workshop #4
- In-person Core Group
- Precedent Tours #1 (Chicago)

Workshop #5
- In-person Core Group
- Precedent Tours #2 (NC)

Workshop #6
- Virtual
- Working Committee

Workshop #7
- In-person Core Group
- Student Engagement at WALC with rolling boards

Workshop #8
- Virtual

Workshop #9
- In-person

Workshop #10
- Virtual
- Draft Report Issued
- Comments Returned

Workshop #11
- Virtual
- Issue Draft Deliverable
- Issue Draft Pitch Kit

- Final Pitch Kit & Deliverable issued in August

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Workshop #4 Agenda

Monday, 1/24 - evening, arrive in Chicago

Tuesday, 1/25
  Tours:
         University of Chicago
         21C Hotel
         Virgin Hotel
         Corporate HQ or Museum

Wednesday, 1/26
  Tours:
         Shirley Ryan Agility Lab
         Northwestern University RWAC
         Northwestern University "Garage"

  Workshop #4
         Recap of Precedent Tours
         Summary:
                  Student Findings
                  Visioning and Brand Findings
                  Revision Vision Statement
         Space Utilization Preliminary Insights
         Technology Trends Presentation – NV5

                                                    →

         Purdue Library Core Group Culture Activity Homework Example

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Library Seating Distribution

From ASG Presentation

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Workshop 4: February 22, 2022

Meeting Details

Meeting Date:	2.22.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	2:00 PM	**Project Number:**	021661.000
Meeting Location:	PW Chicago Studio and Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Stephen Lenz, Joe Bocchiaro, Gill, Amanda S, Katy, Robin, Dean, Mark, Rebecca, Beth.

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #4 1. Program Priorities: Knowledge gallery; Virtual learning hub; Center for digital scholarship. 2. Team 1: Keep north as workhorse, south as a destination; More than 150 unites in north hub; If students are north, are going to need support and max out capacity. 3. Team 2: Want LGBTQ more central to campus; Want virtual learning hubs in both spaces, split into two; Keep A/SC with knowledge gallery without impacting archives. 4. Team 3: Maker space and digital scholarship could be built in WALC; Want new A/SC room for storage, knowledge gallery, study spaces. 5. Technology: AV is everywhere; Know where tolerance is for change; what is data input/throughput; Lighting for cameras is key; 6 C's. 6. Gaming is growing; Esports, sandbox spaces; pods are good examples of touchdown pods; Metaverse, crave community as humans. 7. Virtual reality research, studio where we can create that environment.	Perkins + Will

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan Core Group Workshop#4
2/22/2022

Perkins&Will

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Agenda

Introductions & Overview

Summary of Workshop #3
Brand Workshop Summary
Audience Hierarchy
Priority Programs

Other Updates
Summarize Student Intercepts
Draft Project Vision
Occuspace Status and Preliminary Findings

Program Allocation
Geographic Distribution of Library Services
Space Program Mapping – Virtual Activity

Break

Technology Workshop

Wrap Up & Next Steps

→
Photo from Workshop #2

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Project Status Updates

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Master Plan Process

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Engagement Summary

Visual Listening

Current & Future Culture

Student Visioning

23+ Focus Group Discussions

Program Prioritization

Brand Aspiration

Visioning Workshop#1 Summary

Purdue Library Culture: Past & Future

Past Culture	Future Culture
Welcoming	Inclusive Co-Creation
Siloed	Interconnected
Alone	Together
Hidden	Campus Gateway
Temporarily Connected	Permanently Bonded
Tenuous Patchwork	Streamlined Interoperability
Reactive	Proactive
Juggling	Anticipate
Tool User	Tool Maker

Formal	Casual
Daylight	Open & Airy
Interconnected	"Stairitorium"
Collaborative	Choice
Natural Materials	Outdoor Connection
Presence of Books	More Than Books

Visioning Workshop#2 Summary

Audiences

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Audience Types – Purdue University

Our Brand is built around five (5) key stakeholder groups that shape the experience we create.

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Audience Types

All Students	Visitors & Visiting Scholars
All Faculty	Prospective Students
Staff	Academic Community
Public Community Members	Researchers
Alumni	Student Families
Donors	EDI	BIPOC	LGBTQ
Retirees	Creative Thinkers
Global "Citizens" & Students	Needs-Based Users
On-Line Participants	Users of Study Spaces
Event Attendees	All Abilities, Ages, Cultures, Languages

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Current & Future Brand

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Brand Recap

	Today	Future

Today

Welcoming service organization.

Equitable access to information & resources.

Teach crucial information skills.

Furthering the field of Information Science through research.

Distributed "hodge-podge" of resources & services.

We have study spaces; WE ARE MORE THAN BOOKS.

Striving to be better understood by all.

Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.

Open to new ideas.

Serve the information needs of the Purdue community.

Future

An Information Service Hub for Purdue...so much more than books!

Cohesive. Complementary. Inclusive.

Discover. Create. Grow. Innovate. Let us inspire you.

Advancing leadership and the profession through critical research.

Portfolio of resources, experiences and experimentation for all.

Dynamic multi-space environment with great resources.

Responsive services and staff at the academic forefront.

Expert level instruction and personalized guidance.

Connected within our organization, the university, the community, and the world.

Story-Telling

Stories

Our History | Our Archives | Our Collections	Library Locations & Specializations
A Place for Knowledge Creation	Our Services, Resources & Tools...More than Books!
Authentic Source of Information	Personal-Touch Assistance...Let Us Help You!
Patents, Firsts, Innovations at Purdue	At Purdue, it's Cool to be Smart
Your Experience Begins at Purdue Libraries	The Digital Experience
Research & Explore	We are ONE Library System
Study, Learn, Collaborate, Innovate, Celebrate	Our Expanded Network
Physical Places & Spaces	Our Rich Database
Information Literacy	Vital Partnerships

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Prioritization Tools

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Brand Drivers Diagram

Area Discrepancies

		Purdue	PW Measure	Variance
Vet Med	LYNN	17913	18,275	2.0%
Rawls Hall	RAWL	3617	3,705	2.4%
Hicks Undergrad	HIKS	71607	69,975	-2.3%
Bus/Mgt	KRAN	14127	14,120	0.0%
Mathematics	MATH	7774	7,920	1.9%
HSSE	STEW	127796	125,505	-1.8%
Aviation	TERM	2196	2,295	4.5%
Wilmeth	WALC	33954	35,470	4.5%
		278,984 sf	**277,265 sf**	**-0.6%**

Perkins&Will

Priority Programs

Priority Programs

THE BEST PLACE FOR . . .

KNOWLEDGE GALLERY

Showcase what others are doing
Exhibit new scholarship
SC/A display
New & noteworthy collections

VIRTUAL LEARNING HUB

Individual seating for online learning
Group seating for online learning
Tools & resources for virtual learning

CENTER FOR DIGITAL SCHOLARSHIP

Digital Humanities/Scholarship
E-Archives / E-Pub
Digitization
One Button/Lightboard/Recording
Data/GIS Walk-In Services

Priority Programs

THE BEST PLACE FOR . . .

KNOWLEDGE GALLERY	VIRTUAL LEARNING HUB	CENTER FOR DIGITAL SCHOLARSHIP
Showcase what others are doing Exhibit new scholarship SC/A display New & noteworthy collections	Individual seating for online learning Group seating for online learning Tools & resources for virtual learning	Digital Humanities/Scholarship E-Archives / E-Pub Digitization One Button/Lightboard/Recording Data/GIS Walk-In Services

COLLECTION BASED PROGRAMS	SC/A ENGAGEMENT	SANCTUARY SPACE OUTDOOR AREA	EXPERIMENTAL TEACHING & LEARNING CTR	ROBUST MAKERSPACE	AR/VR RESEARCH
	NON-TRADITIONAL STUDENT LOUNGE	CAFÉ/FOOD SERVICE	STUDENT REST/NAP ROOM	STAFF/FACULTY LOUNGE	GRADUATE STUDY ROOM
		INTERACTIVE LEARNING ZONE	MORE EMBEDDED COLLAB. CLASSROOMS	QUIET STUDY ZONE	MORE STUDY ROOMS

Project Vision

PURDUE UNIVERSITY BRAND

Purdue University is about the **persistent pursuit of innovation** where people bring their best and learn to build a better world together.

Or more simply:

Persistent Innovation.
Together.

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DRAFT PROJECT VISION STATEMENT

The future Purdue Libraries will be the bridge between individual scholars and the academic community, the campus and the world. It will connect disciplines and integrate resources across the university so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized partner for experimentation, collaboration, and digital learning. It will be a pathway between knowledge acquisition and its application in the service of society.

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DRAFT PROJECT VISION STATEMENT

SERVICE DRIVERS

1. Welcoming to all
2. THE HUB for knowledge and scholarship sharing
3. THE integrated Center for Digital Scholarship
4. Host spaces for virtual and experimental learning
5. Seamlessly part of the "total" Purdue student experience
6. Resource-rich place to connect and collaborate
7. Promote trans-disciplinary research and learning
8. Unified alignment of purpose
9. Be more visible

SPATIAL ATTRIBUTES

1. Visible, intuitive, accessible, inclusive: validate lived experiences
2. Showcase creation, scholarship, institutional legacy, and special collections
3. Make technology and resources seamlessly present
4. Integrate virtual learning seats and experimental teaching lab
5. Integrate brand across physical and digital spaces
6. Blur boundaries between formal learning and social learning
7. Support learning across academic and co-curricular spaces
8. Co-locate staff with serendipitous collaboration spaces
9. Consistent brand expression and physical transparency

Other Updates

Student Intercept Interviews

gender
- women 49%
- men 51%

discipline
- exploratory 6%
- social sciences 12%
- engineering + cs 33%
- natural sciences 24%
- humanities 8%
- business 18%

year
- grad 8%
- 1st year 22%
- 4th year 22%
- 2nd year 24%
- 3rd year 25%

Student Intercept Interviews

Utilization

- 5+ / Week 42%
- 4 / Week 17%
- 3 / Week 11%
- 2 / Week 11%
- 1 / Week 19%

Primary Use Drivers

- Geographic Proximity 35%
- Quiet Study 27%
- Active/ group 22%
- Computing/ Printing 16%

Student Intercept Interviews

Browse Stacks

occasionally (2%)
rarely 6%
never 92%

Change

More Seating	39%
Technology+Power	33%
Recording/Zoom/Wifi	14%
Food	8%
Design Character	8%
Nap Rooms	6%
Windows/Daylight	6%

Student Intercept Interviews

Use Other Libraries

no 29%
yes 71%

Primary Library

KRAN 4%
HIKS 33%
WALC 31%
HSSE 31%

Secondary Library

Other 3%
KRAN 14%
HIKS 25%
HSSE 17%
WALC 42%

Student Workshop

Slide 33 of 64

Student Workshop: Preferred Experience

OFFERS THIS EXPERIENCE   O
OFFERS IT A LITTLE   X/O
DOES NOT OFFER EXPERIENCE   X

CONCENTRATION
PEACE
PRIVACY
FOCUS
DIFFERENTIATED

X/O

COZY
INDIVIDUALIZED
SERENE

X/O

SUPPORT
PROGRESS
RESOURCE
HELPFUL

X/O

TEAMWORK
LIGHTING
FUN

X/O

COLLABORATION
TEAM WORK
PASSION
WARMTH

X/O

SERENITY
VISIBILITY
EXPLORATION
GROWTH

X/O

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Student Workshop: KEEP | TOSS | CREATE

KEEP:
SOME BOOKS
SPACES WITH "VOLUME"

TOSS:
POOR INTERIOR FINISHES
HARD, STODGY CHAIRS
IMPERSONAL LAYOUT
LIBRARY=ALWAYS QUIET
FORMALITY
FACED WITH LIBRARIAN AT ENTRY
UNIVERSITY DINING IS TOO FAR

CREATE:
CURATED BOOKS
NATURAL LIGHT
CLEAR & OPEN WAYFINDING
CONFERENCE STYLE STUDY
TIERED SEATING
PRIVATE & ERGONOMIC
IDEA SPACE
WRITABLE SURFACES
MOVEABLE WHITEBOARDS
ADJUSTABLE FURNITURE
FURNITURE THAT MAKES YOU MOVE
COWORKING
ADEQUATE POWER
INTERDISCIPLINARY COLLABORATION

Sensor Technology

Spaces measured (24 zones):
- HSSE Level 1, 2, 3
- HIKS Level G
- WALC Level B, 1, 2, 3
- MATH Level 3
- KRAN Level 2
- LYNN Level 1
- TERM Level 1

Feb 06-13
first full week
of collection

3,055 data points
8:00–23:00 daily by
zone & building

128 collections
16 times a day for 8 days

Installation & calibration between Jan 24 – 31. Sensors not fully online between Feb 02-05.
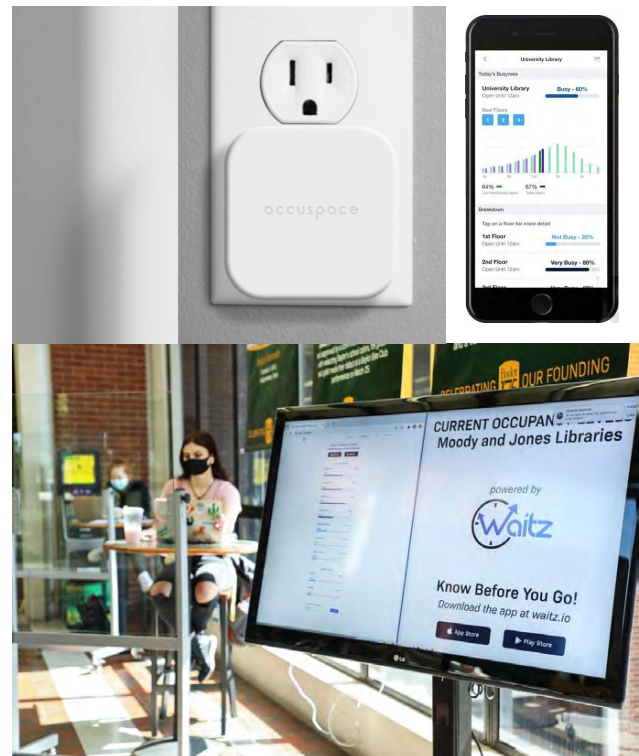
Occuspace Calibration Process

HICKS
Furniture Layout
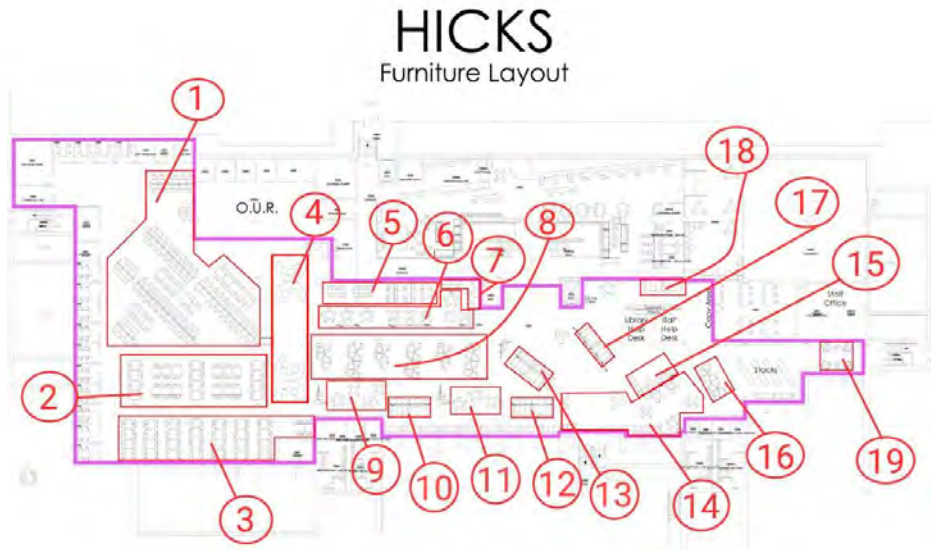
Data Received – usage over time

15-min increments
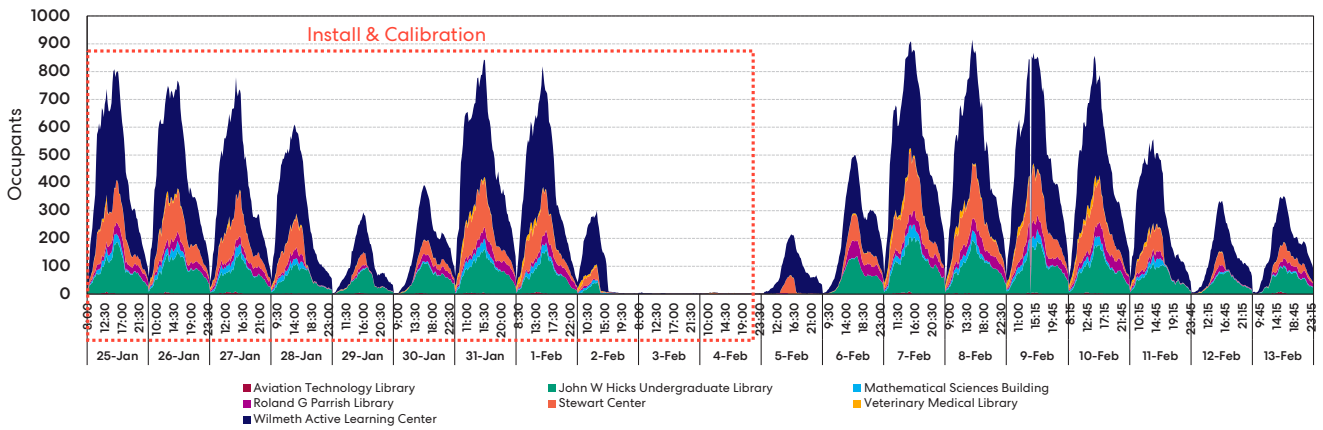
Data Received – average daily fill

Discarding Feb 2-5

Legend: Aviation Technology Library · John W Hicks Undergraduate Library · Mathematical Sciences Building · Roland G Parrish Library · Stewart Center · Veterinary Medical Library · Wilmeth Active Learning Center
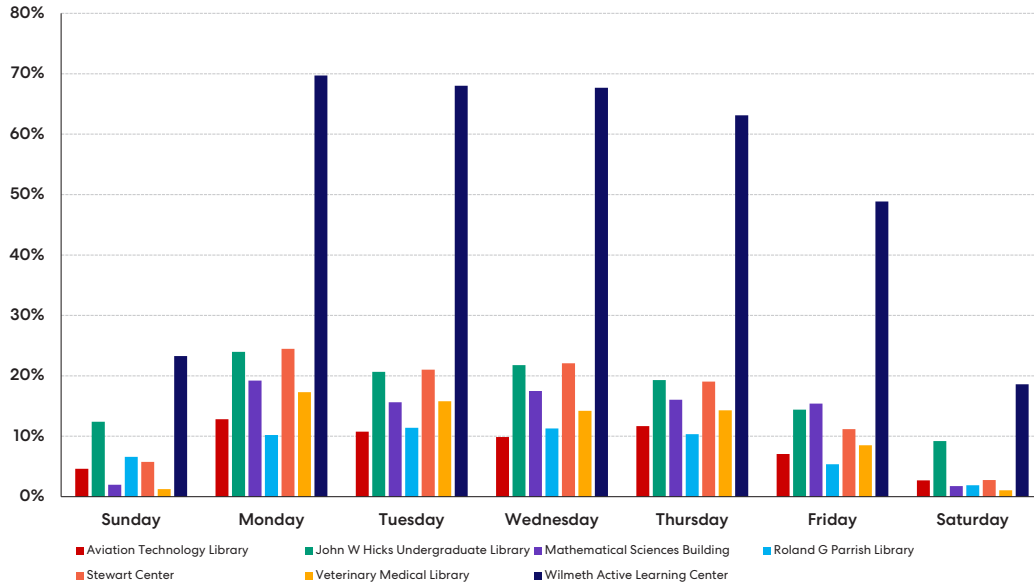
Data Received – average hourly fill (8am-8pm)

Monday-Friday, discarding Feb. 2-5

Legend: Aviation Technology Library · John W Hicks Undergraduate Library · Mathematical Sciences Building · Roland G Parrish Library · Stewart Center · Veterinary Medical Library · Wilmeth Active Learning Center
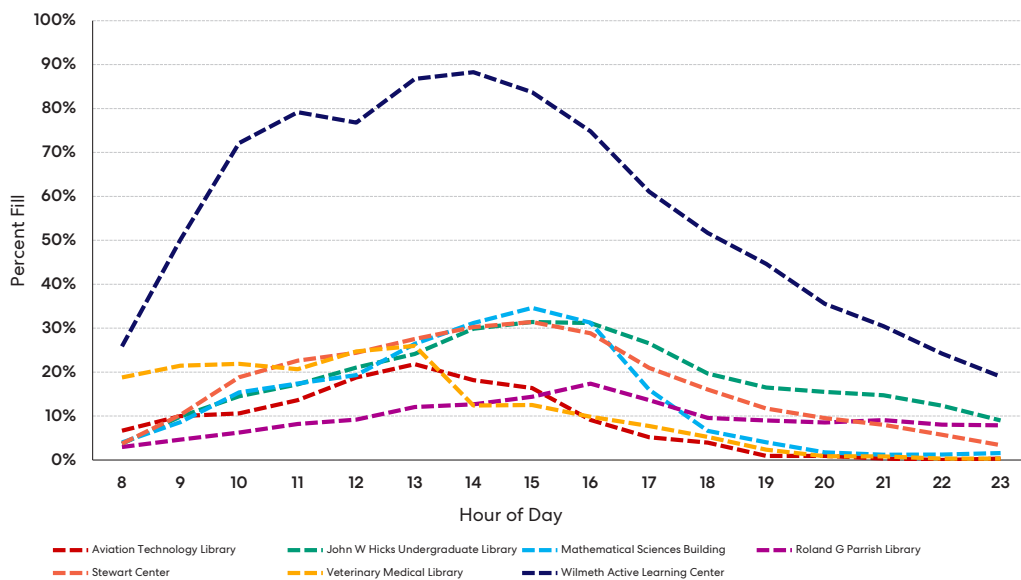
Library Overview

Wilmeth Active Learning Center

Actual & Experienced Capacity	668		576
Busiest Day of Week		T	72%
Busiest Morning (8:00-12:00)		M	65%
Busiest Afternoon (13:00-19:00)		T	83%
Busiest Evening (20:00-24:00)		M	41%
Average Daily Occupancy (M-F)		65%	

Aviation Technology Library

Actual & Experienced Capacity	34		30
Busiest Day of Week		M	16%
Busiest Morning (8:00-12:00)		M,T	13%
Busiest Afternoon (13:00-19:00)		M	19%
Busiest Evening (20:00-24:00)		M	2%
Average Daily Occupancy (M-F)		10%	

Utilization reflects data collected during 02.06.2022 – 02.13.2022 (first full week of collection)

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Library Overview

John W Hicks Undergraduate Library

Actual & Experienced Capacity	707		525
Busiest Day of Week		M	27%
Busiest Morning (8:00-12:00)		M	18%
Busiest Afternoon (13:00-19:00)		M	34%
Busiest Evening (20:00-24:00)		M,W	18%
Average Daily Occupancy (M-F)		22%	

Mathematical Sciences Building

Actual & Experienced Capacity	141		120
Busiest Day of Week		M	21%
Busiest Morning (8:00-12:00)		T	14%
Busiest Afternoon (13:00-19:00)		M	30%
Busiest Evening (20:00-24:00)		T,R	2%
Average Daily Occupancy (M-F)		18%	

Utilization reflects data collected during 02.06.2022 – 02.13.2022 (first full week of collection)

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Library Overview

Roland G Parrish Library

Actual & Experienced Capacity	303	259
Busiest Day of Week	T	17%
Busiest Morning (8:00-12:00)	T	12%
Busiest Afternoon (13:00-19:00)	T	22%
Busiest Evening (20:00-24:00)	M	19%
Average Daily Occupancy (M-F)		13%

Stewart Center

Actual & Experienced Capacity	562	499
Busiest Day of Week	M	27%
Busiest Morning (8:00-12:00)	M	20%
Busiest Afternoon (13:00-19:00)	M	33%
Busiest Evening (20:00-24:00)	T	11%
Average Daily Occupancy (M-F)		21%

Utilization reflects data collected during 02.06.2022 – 02.13.2022 (first full week of collection)

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Library Overview

Veterinary Medical Library

Actual & Experienced Capacity	138	122
Busiest Day of Week	R	20%
Busiest Morning (8:00-12:00)	T	32%
Busiest Afternoon (13:00-19:00)	R	20%
Busiest Evening (20:00-24:00)	T	3%
Average Daily Occupancy (M-F)		17%

All Libraries

Actual & Experienced Capacity	2,131	2,553
Busiest Day of Week	M	44%
Busiest Morning (8:00-12:00)	M	40%
Busiest Afternoon (13:00-19:00)	M,T	50%
Busiest Evening (20:00-24:00)	M	24%
Average Daily Occupancy (M-F)		39%

Utilization reflects data collected during 02.06.2022 – 02.13.2022 (first full week of collection)

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Next Steps

Associate Qualitative Data

Seating type, proximity to features, quiet vs. active

Explore Classroom Utilization

Effects on library utilization, study rooms / seats

Compare High / Low Utilization

Space attributes, location, and services

DEEP DIVE INTO SPECIFIC LIBRARIES AND SUBSPACES

Program Allocation

Library 10-Minute Catchment

10 MINUTE

HSSE
LIBRARY

North Campus
South Campus

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Library Locations

10 MINUTE

HSSE
LIBRARY

North Campus
South Campus
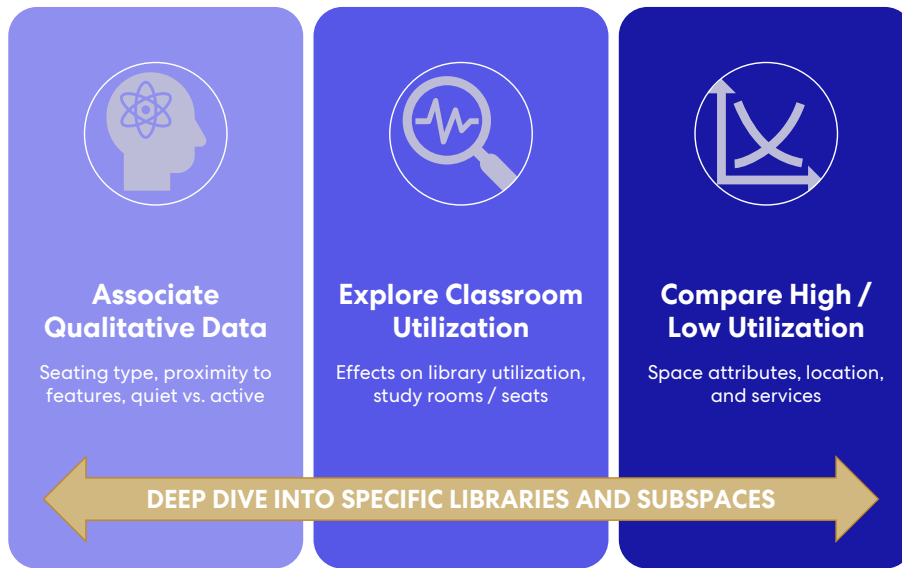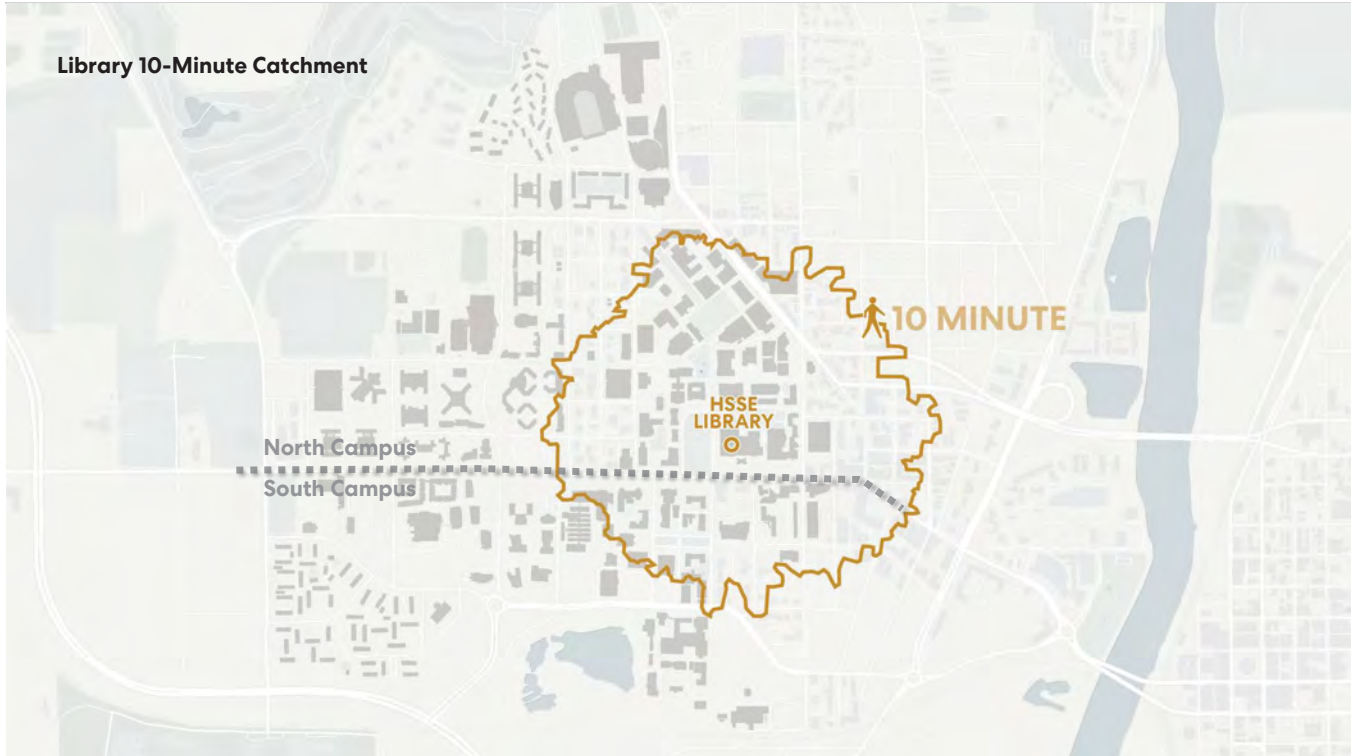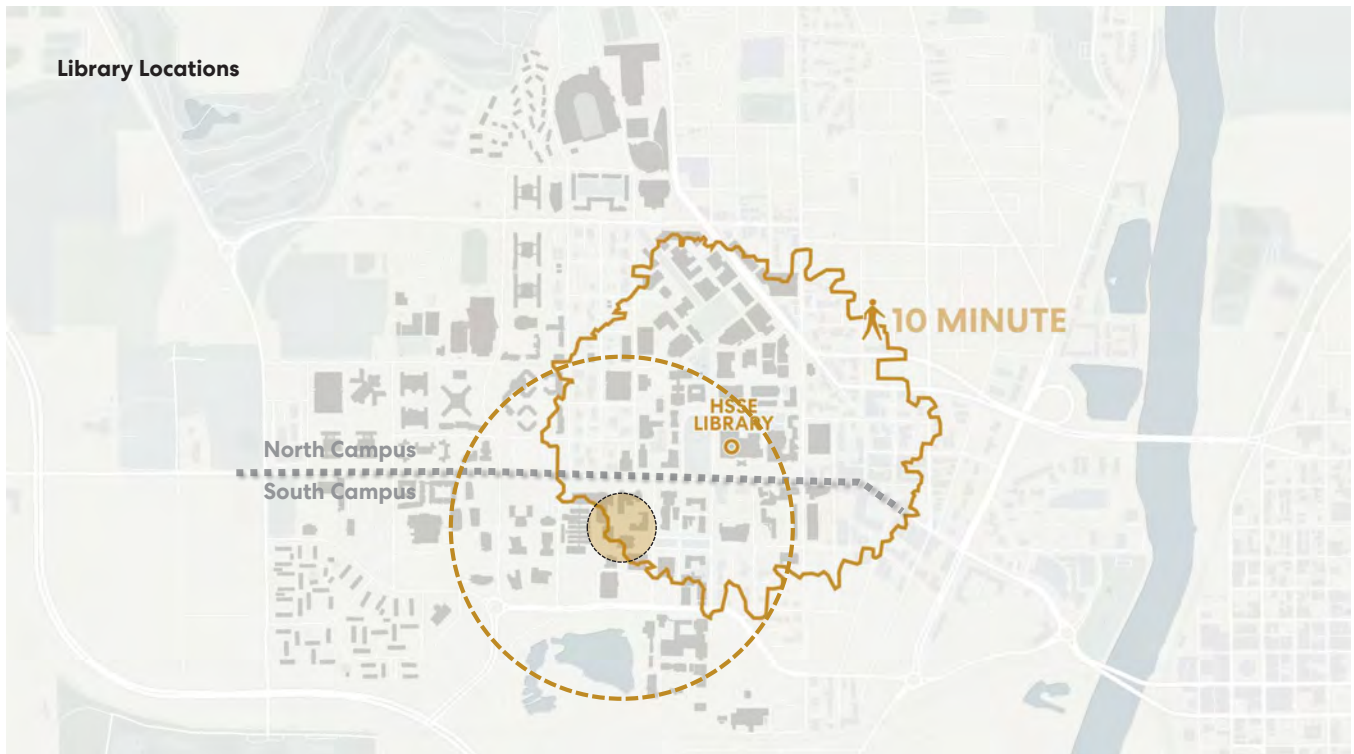
Slide 48 of 64

**Library System: Dual Hub
With Distributed Special Programs**
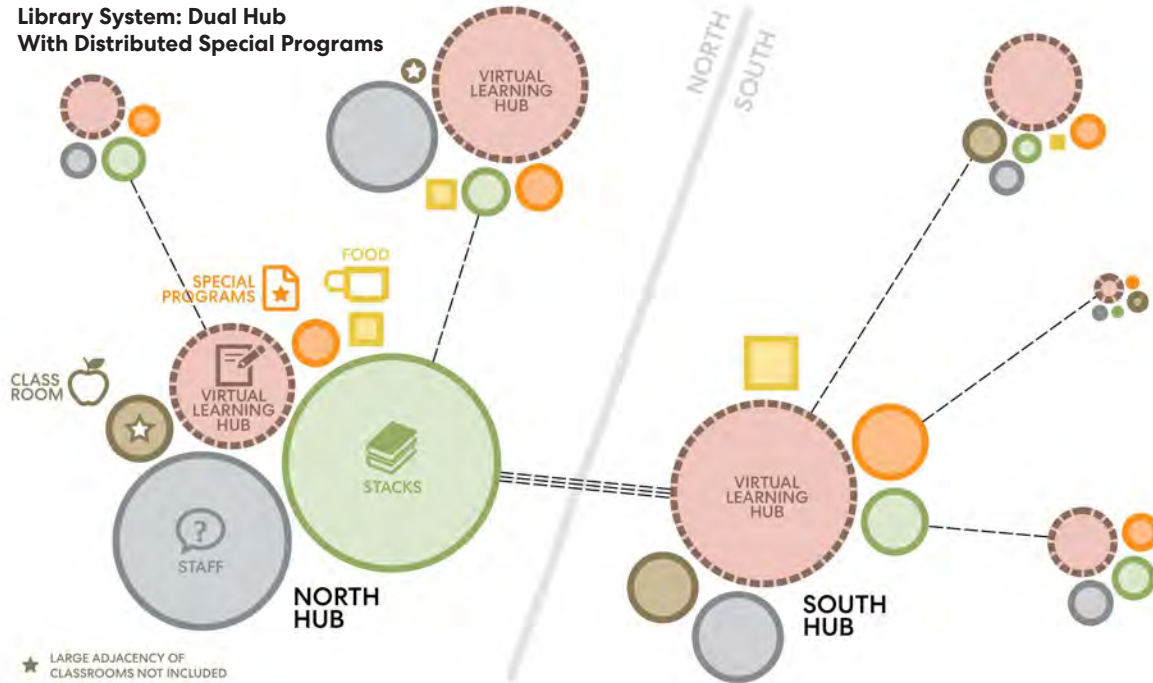
Program Elements – Access Services

Program Elements – Learning Commons

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Program Elements – Collections

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Program Elements – Special Collections

Program Elements –Seating + Collaboration
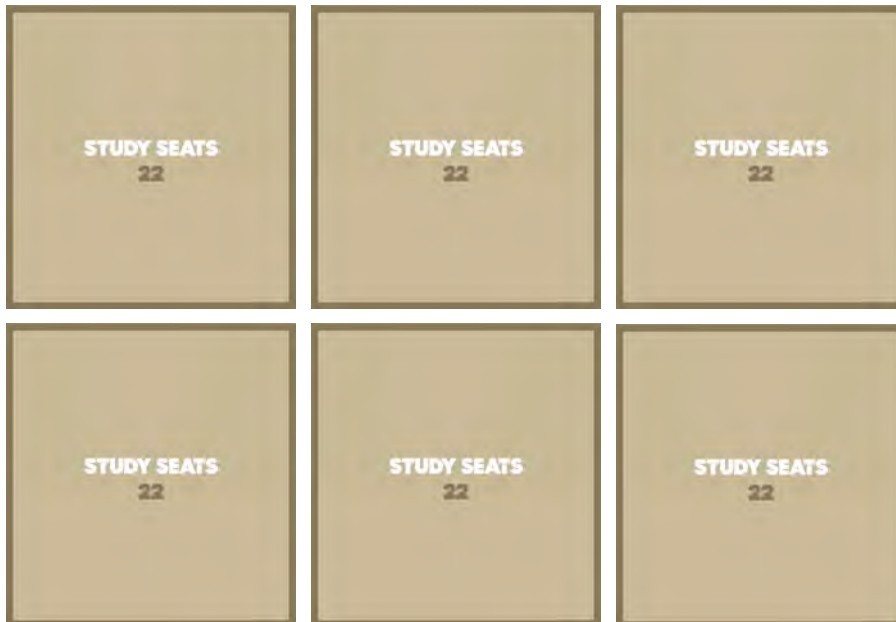
Program Elements – Operations
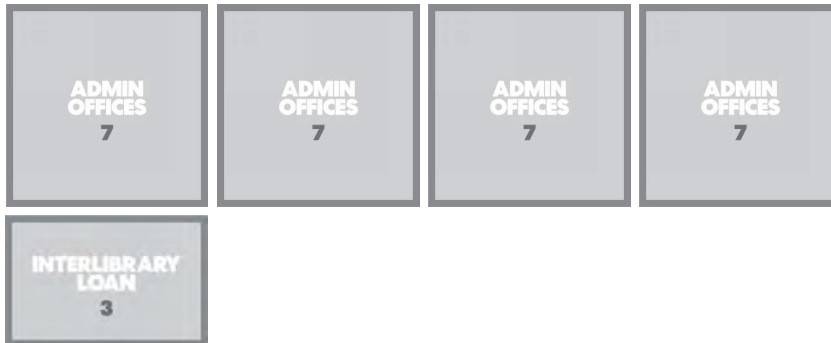
Program Elements – Special Programs
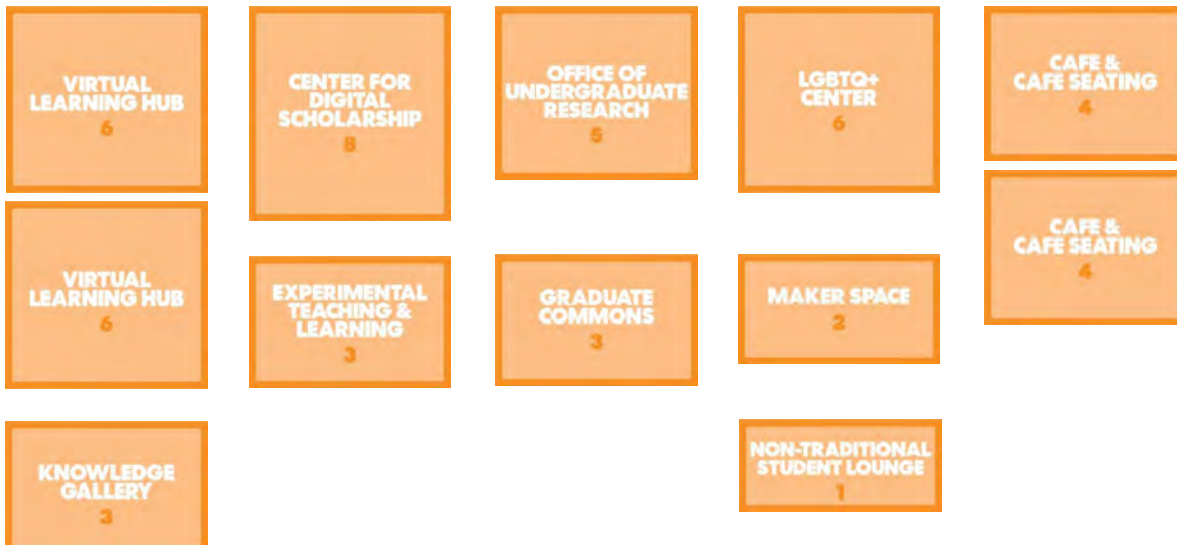
Miro Board Tutorial

https://miro.com/app/board/uXjVOLgAnj4=/

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Miro Board Tutorial

https://miro.com/app/board/uXjVOLgAnj4=/

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Breakout Session

Housekeeping:
TIMEKEEPER
SPOKESPERSON

10 Minute Brainstorm:
ALLOCATE PROGRAM TO N–S HUBS
NORTH HUB: 150 UNITS MAX
SOUTH HUB: 190 UNITS MAX

Report Out:
WHAT WENT WHERE
WHY
CRITICAL RELATIONSHIPS

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BREAK!

Slide 60 of 64

Technology Visioning

Technology Visioning

SEE TECHNOLOGY VISION SUMMARY IN APPENDIX

Wrap-Up

Schedule

February	March	April	May	June	July	August	Sept.
Workshop #4 (in person)	Workshop #5 (virtual)	Workshop #7 (in person)	Workshop #8 (in person)	Workshop #9 (virtual)	Workshop #10 (virtual)	Revised Report Issued	Issue Final Report and Final Pitch Kit
Precedent Tours	Workshop #6 (virtual)	University Library Committee Mtng		Occuspace – finish data collection	Draft Report Issued	Draft Pitch Kit Issued	
		Executive Committee Mtng			Executive Committee Mtng		
		Student Engagement Session					

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Workshop 5: March 11, 2022

Meeting Details

Meeting Date:	3.11.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	9:00 AM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Beth, Rebecca, Eileen, Mark, Flo, Scott, Drew Furry, Allison

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #5	Perkins + Will

Workshop #5

1. Precedent Tours: UC – Beth liked lower level, renovating to be flexible; Virgin – Purdue specific art throughout, think of individual's experience; EY Wavespace–Do we have too many wrong chairs, Classroom intercepts; Garage – Classroom flexible and small, high-tech maker space, nice to have framery visible.
2. Have we PW made a case? The future of HIKS is a critical thing; Big footprint needed.
3. Scenarios: Stay & Renovate: Could be phase 1 scenario, not very visionary;
   Reduce & Stay: This is a 'Sad' scenario to lose seating overall;
   Reduce & Grow New: Concern about staff moving to 4th (Dark and undesirable), PW can make it a better space in renovation.
4. HSSE Transformation: Looks great, want to include Michael in future discussions as we get into spatial use
5. Next Steps: Get to Flo's slides, get to precedent tours; Get feedback on scenarios and evaluation matrix on next call; Get to virtual hub study.

Action Item: share HSSE slides so we can review offline; Alison - compare existing SF to proposed SF by FICM code/group, Send example of Purdue Facilities Standards.

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan Workshop #5
3/11/2022

Perkins&Will

Slide 1 of 75

Agenda

Introductions & Overview

Summary of Workshop #4
    Precedent Tour Recap
    Program Activity Results

Scenario Options & Evaluation Criteria
    High Level Look at HSSE
    Library Footprint Scenarios
    Evaluation Criteria Matrix

Draft Tabulated Program

Next Steps
    Office Storage Systems
    Virtual Learning Hub Prototype
    Additional Precedent Tours

Wrap Up

→ Photo from Workshop #4

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Project Status Updates
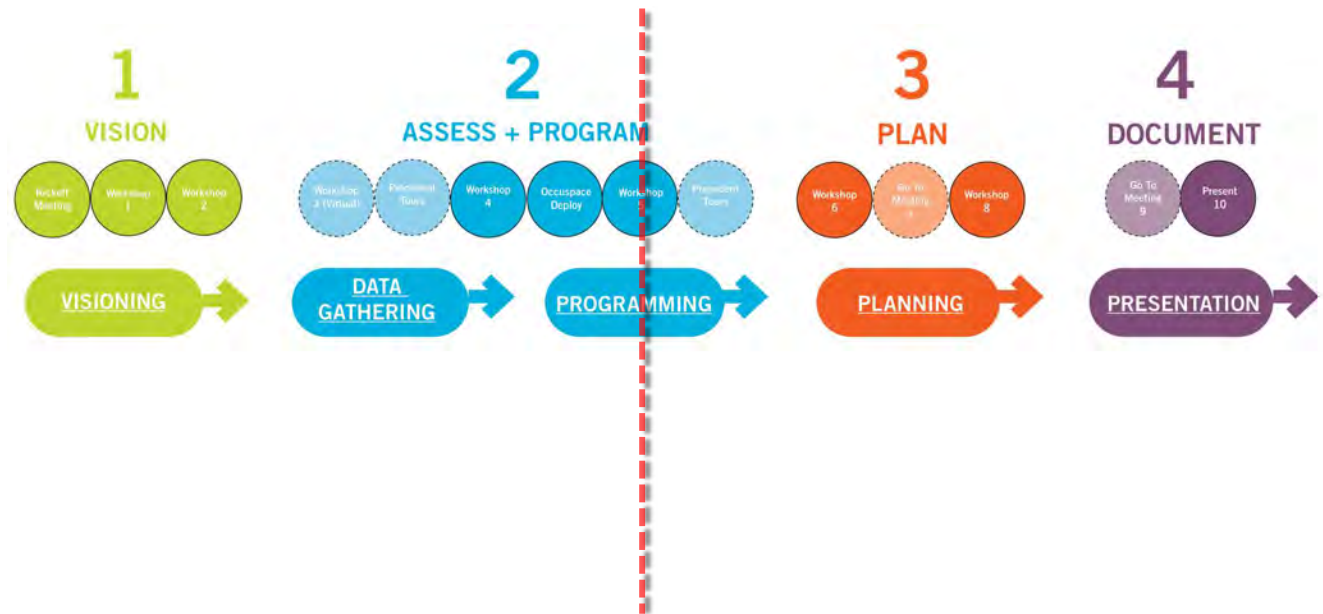
Master Plan Process

Workshop #4 Recap

Precedent Tour Recap

University of Chicago
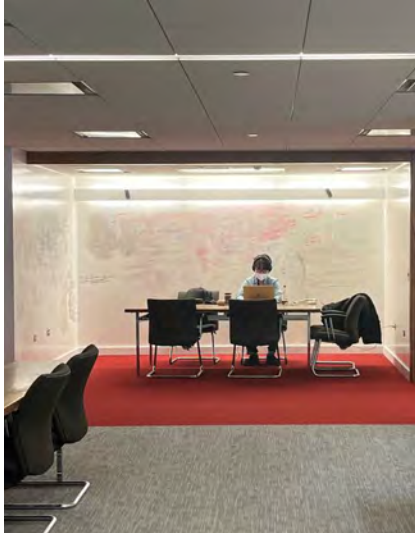
← Regenstein Library,
Lower Level
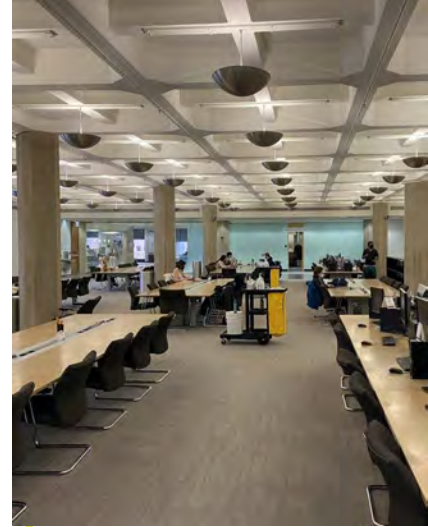
→ Regenstein Library,
First Floor

First Floor Café Space
Tech Bar Studio
Writable Surfaces
Team Rooms
One Button Studio
Ample Power & WiFi
Pop-Up Exhibits to showcase artifacts
Self-checkout modifies staffing need

Slide 7 of 75

University of Chicago

Partnership with arts, humanities and library
Provide spaces for no tech to high tech engagement
Brand and signage part of Crerar experience
Library owned space
Café at entry
Variety of spaces and seating choices

Slide 8 of 75

Virgin Hotel

"read-easy"

→
Virgin Hotel
Mural Created by Local Artist

←
Virgin Hotel
Restroom Signage

Frivolity and fun, cater to female business traveler
Uses technology to support service and experience – everything is high tech
"don't nickel and dime customers"
Think creatively about every inch of space and how it is used and could be used differently
Consistent message of brand throughout
Use of art to enhance story

→
Virgin Hotel
Conference Room

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Space divided by behavior
Hospitality focus (from food, coat rooms to break out spaces)
Interactive white boards throughout, moveable
Camera can recognize emotion
Tech support high
Furniture with high backs is desired
Unassigned seating, check in at front desk or on app
Desks are height adjustable
Maker space – meant to be messy
Reservation system for all conference rooms
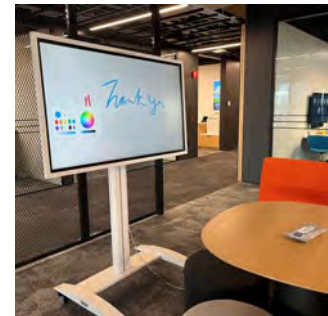
EY Wavespace

10

Slide 10 of 75

EY Wavespace

← Use of furniture to create stacked viewed
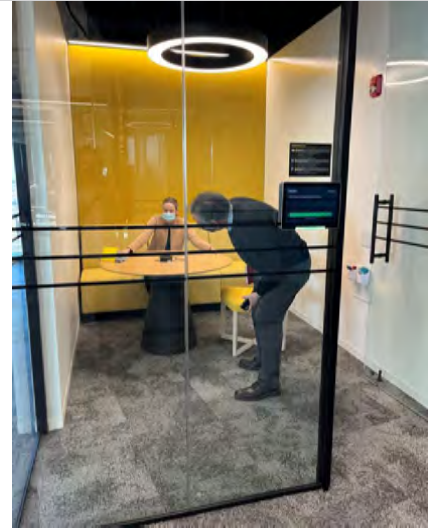
→ Small group room

Slide 11 of 75
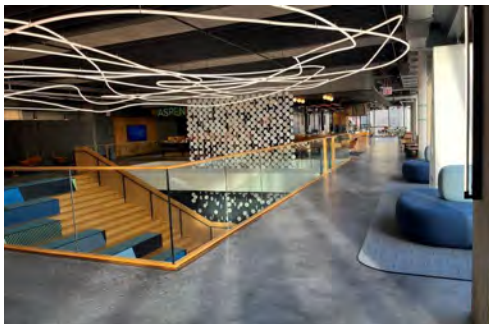
Brand reinforced through design and sponsorship
Strong beverage and food component
Central hub
Zoom Suite
Phone Rooms

Aspen Dental
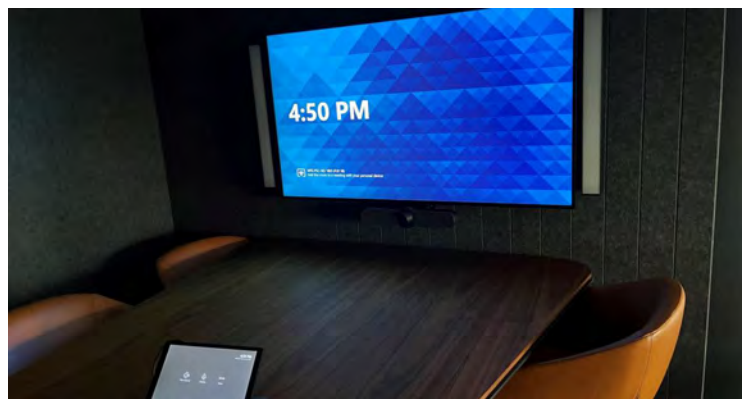
Slide 12 of 75

Maximize utilization of space with divider walls
Transformation of open circulation space for events
Intentionality with adjacencies of spaces
Where program spaces are located, on student path to give them time back in their day
Consistent brand and story throughout, "keep things clean to allow for growth"
Interactive (low and high tech) engagement for student athletes and alumni
"mental" food and beverage hubs throughout
Think big, long term

Northwestern University

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Northwestern University The Garage
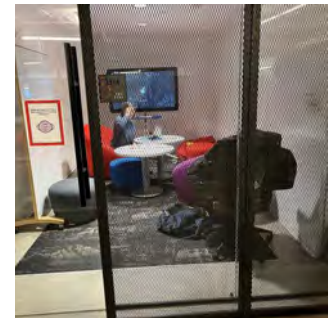
Entrepreneurial space, interdisciplinary
Not associated with any schools
Dry erase on tables and walls
Modular furniture to create a 'zone'
Students like backs to walls
Soften up the space
AR/VR media
Left brain / right brain conf rooms
Self-guided space
Pods with mix of furniture creates safe zone
Peer to peer is most effective

Slide 14 of 75

Northwestern University Library

Balance need of students and public
Reservable study spaces and quiet space
Renovating portions when possible
Could be better about advertising spaces and
programming

→
Computer Stations

←
Renovated Study Space

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Slide 15 of 75

Program Allocation Exercise

Slide 16 of 75

PURDUE UNIVERSITY

UNIVERSITY MISSION STATEMENT

Our mission is to help Purdue University students **maximize the value of their life experiences**. As we **develop collaborative relationships** in a safe and respectful environment, the **unique value of dignity of each individual** and group is held paramount.

LIBRARY MISSION STATEMENT

We lead in research, teaching, and learning, and create and provide **equitable access** to diverse resources, outstanding services, and **innovative spaces**, for Purdue's **local, national, and international communities**

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PURDUE UNIVERSITY BRAND

Purdue University is about the **persistent pursuit of innovation** where people bring their best and learn to build a better world together.

Or more simply:

Persistent Innovation.
Together.

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PROJECT VISION STATEMENT

*The future Purdue Libraries will be the **bridge between individual scholars and the academic community**, the campus and the world. It will **connect disciplines** and **integrate resources across the university** so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized **partner for experimentation, collaboration, and digital learning.** It will be a **pathway between knowledge acquisition and its application** in the service of society.*

PROGRAM DRIVERS

Support the Persistent Pursuit of Innovation

Virtual Learning Hub

Center for Digital Scholarship

Knowledge Gallery

Expanded Archives & Special Collections

Improved Seating Quantity & Quality

Collaboration / Collocated Staff

Support South Campus Development

Visible. Accessible. Welcoming To All.

Library System: Dual Hub
With Distributed Special Programs

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Scenario Options & Evaluation Criteria

Stay & Renovate

+
Low initial cost
Adds priority programs
Modest increase in study seats

-
Suboptimal location of A/SC
Siloed staff
Impacts WALC & MATH
Longterm maintenance of HIKS
Disruptive phasing

Stay & Renovate

+
Low initial cost
Adds priority programs
Modest increase in study seats

-
Suboptimal location of A/SC
Siloed staff
Impacts WALC & MATH
Longterm maintenance of HIKS
Disruptive phasing

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Reduce & Stay

+
Low initial cost
Adds priority programs (reduced)
No liability of HIKS facility

-
Suboptimal location of A/SC
Siloed staff
Loss of study space
Impacts WALC & MATH
Disruptive phasing

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Reduce & Stay

+
Low initial cost
Adds priority programs (reduced)
No liability of HIKS facility

-
Suboptimal location of A/SC
Siloed staff
Loss of study space
Impacts WALC & MATH
Disruptive phasing

Reduce & Grow New

+
No liability of HIKS & MATH
Optimal location for A/SC
Adds priority programs
New study seating
Streamlined phasing

-
High initial cost

Reduce & Grow New

+
No liability of HIKS & MATH
Optimal location for A/SC
Adds priority programs
New study seating
Streamlined phasing

-
High initial cost

2550

HSSE

NEW FACILITY

WALC
NO EFFECT

MATH
CLOSE

EAST

HIKS
CLOSE

Stay & Renovate

Reduce & Stay

Reduce & Grow New

Weighted Evaluation Matrix

(1) PROGRAMS / SERVICES

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Digital Scholarship	Collocated Digital Scholarship accessible to staff & faculty – synergistic adjacencies	0	0	0		0		0		0
Knowledge Gallery	High visibility with environmental controls/security that is near A / SC			0		0		0		0
Virtual Learning Hub	Good distribution of 100-150 seats accessible from all parts of campus			0		0		0		0
Archives / Special Collection	Collocated + growth potential in visible/accessible/secure location near Knowledge Gallery			0		0		0		0
Staff Collaboration	Collocation of staff for collaboration, gathering, and team/community building			0		0		0		0
Student Experience	Reinforce Purdue culture; make scholarship visible; seating choice			0		0		0		0
Accessibility	Physically / culturally welcoming with distribution and access to all students			0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0		0		0		0		0

(2) IMPLEMENTATION LOGISTICS

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Phasing Disruption	Minimize operating disruption for students, staff, and services	0	0	0		0		0		0
Future Growth	Clear pathway for growth			0		0		0		0
Initial Cost	Relative Cost from least expensive (4) to most expensive (1)			0		0		0		0
Operating Costs	Long term maintenance / management of facilities			0		0		0		0
Schedule	Tangible impact in least amount of time			0		0		0		0
Donor Potential	Results in a project that captures the interest/imagination of potential donors			0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0		0		0		0		0

(3) ALIGNMENT WITH PURDUE MISSION / VISION

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Access & Inclusivity	Welcoming and accessible to all	0	0	0		0		0		0
Collaborative Relationships	Encourage cross-disciplinary / team based problem solving and scholarship			0		0		0		0
Innovation Spaces	Promote / Support the persistent pursuit of innovation			0		0		0		0
Local, National, Global	Make visible that connect regionally, nationally and internationally			0		0		0		0
Transformational Learning	Showcase tools and programs supporting new modes of learning			0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0		0		0		0		0

Weighted Evaluation Matrix

(1) PROGRAMS / SERVICES

ISSUES	IDEAL CRITERIA	INDEX
Digital Scholarship	Collocated Digital Scholarship accessible to staff & faculty + synergistic adjacencies	0
Knowledge Gallery	High visibility with environmental controls/security that is near A / SC	
Virtual Learning Hub	Good distribution of 100-150 seats accessible from all parts of campus	
Archives / Special Collection	Collocated + growth potential in visible/accessible/secure location near Knowledge Gallery	
Staff Collaboration	Collocation of staff for collaboration, gathering, and team/community building	
Student Experience	Reinforce Purdue culture; make scholarship visible; seating choice	
Accessibility	Physically / culturally welcoming with distribution and access to all students	
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0

INDEX LEGEND
0= Irrrelevant
1= Helpful
2 = Desirable
3 = Important
4 = Essential

Weighted Evaluation Matrix

(2) IMPLEMENTATION LOGISTICS

ISSUES	IDEAL CRITERIA	INDEX
Phasing Disruption	Minimize operating disruption for students, staff, and services	0
Future Growth	Clear pathway for growth	
Initial Cost	Relative Cost from least expensive (4) to most expensive (1)	
Operating Costs	Long term maintenance / management of facilities	
Schedule	Tangible impact in least amount of time	
Donor Potential	Results in a project that captures the interest/imagination of potential donors	
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0

INDEX LEGEND
0= Irrrelevant
1= Helpful
2 = Desirable
3 = Important
4 = Essential

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Weighted Evaluation Matrix

(3) ALIGNMENT WITH PURDUE MISSION / VISION

ISSUES	IDEAL CRITERIA	INDEX
Access & Inclusivity	Welcoming and accessible to all	0
Collaborative Relationships	Encourage cross-disciplinary / team based problem solving and scholarship	
Innovation Spaces	Promote / Support the persistent pursuit of innovation	
Local, National, Global	Make visible that connect regionally, nationally and internationally	
Transformational Learning	Showcase tools and programs supporting new modes of learning	
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	0

INDEX LEGEND
0= Irrrelevant
1= Helpful
2 = Desirable
3 = Important
4 = Essential

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High Level Look At HSSE

MEMORIAL MALL DR

HSSE

STEWART

W STATE ST
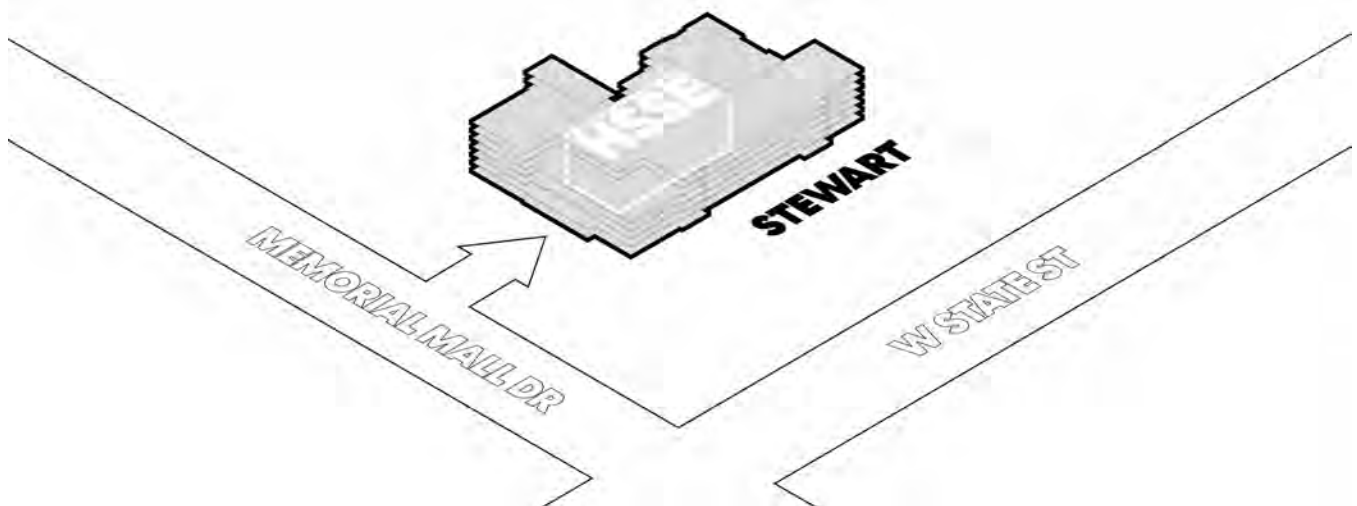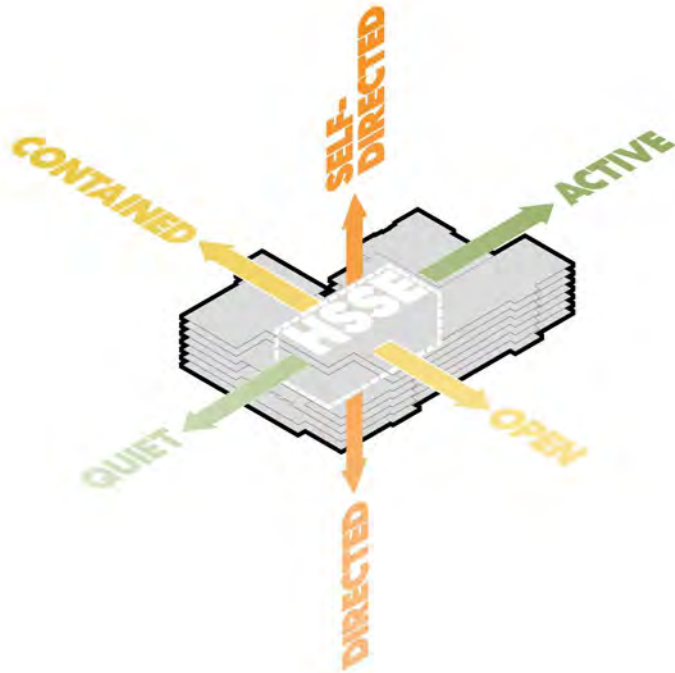
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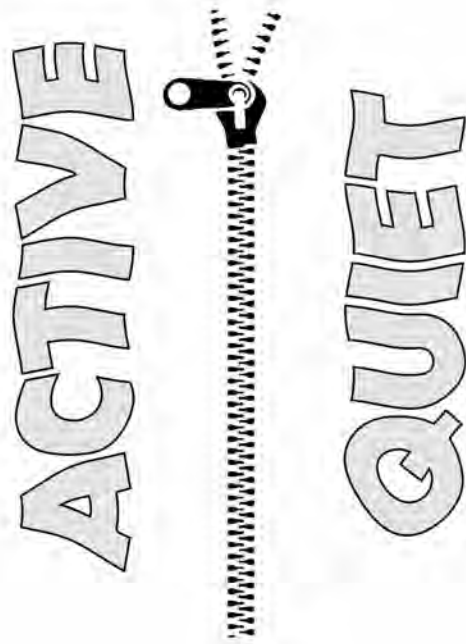
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Slide 41 of 75
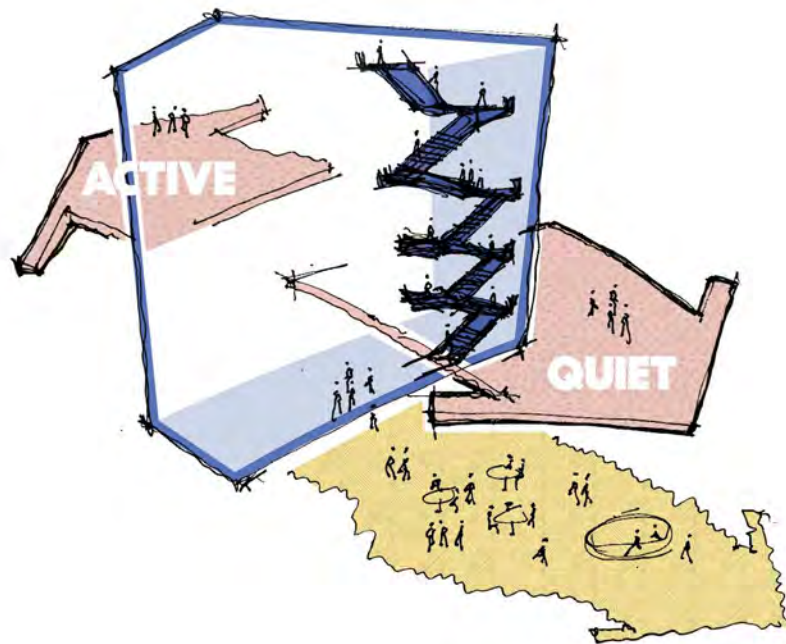
Slide 42 of 75

STAY & RENOVATE
REDUCE & STAY

1
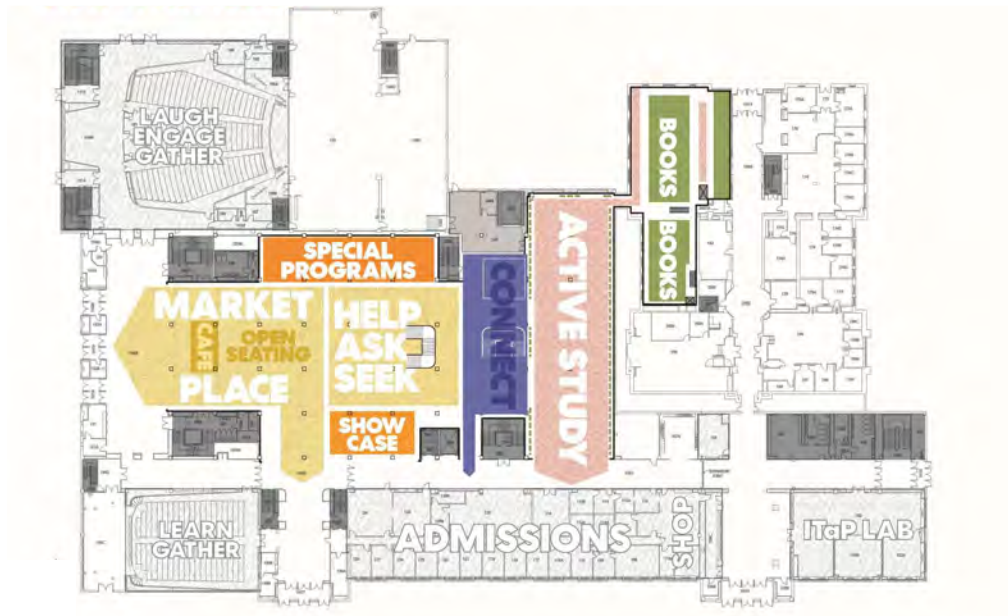
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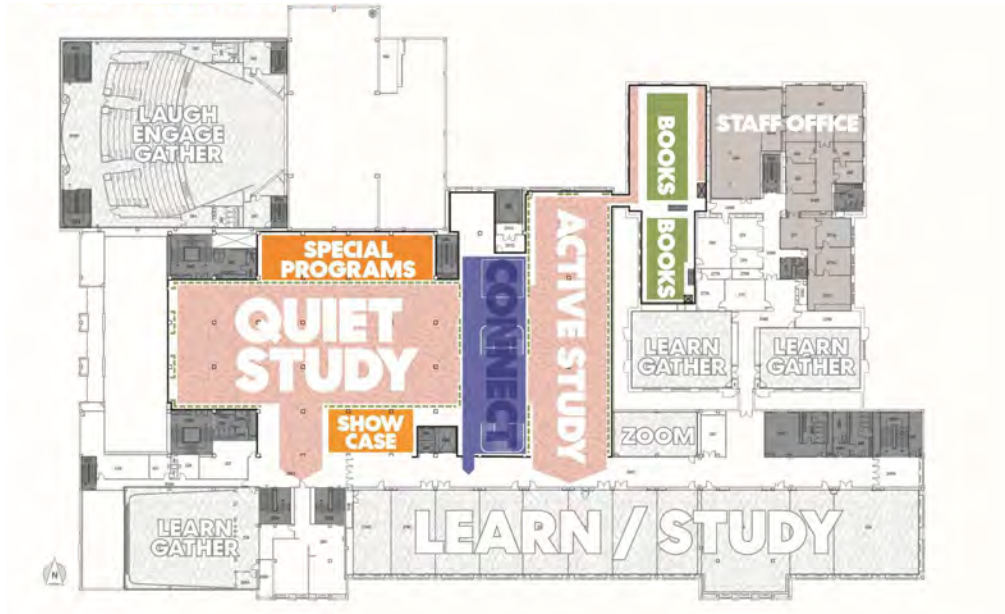
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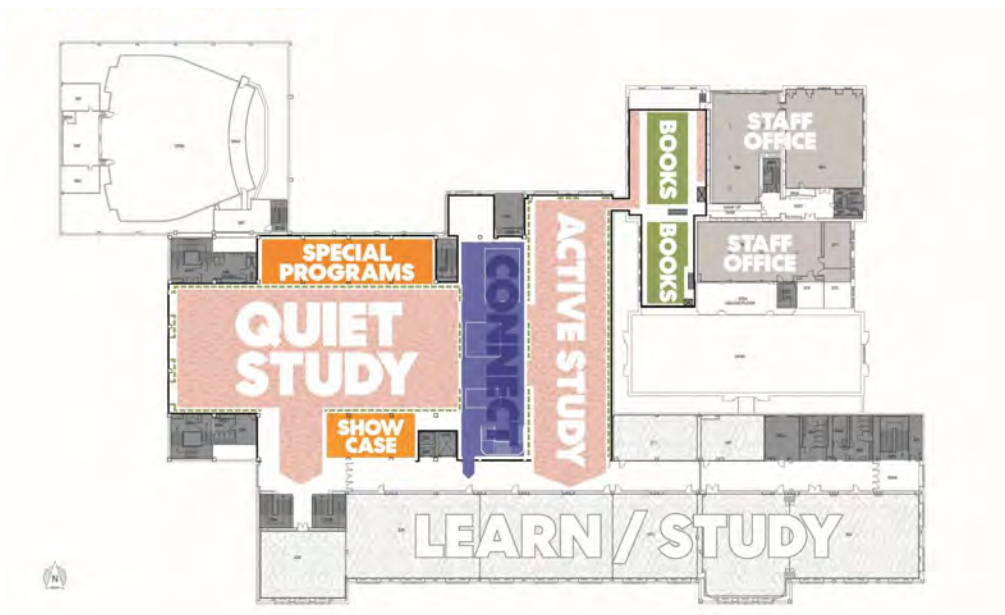
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4

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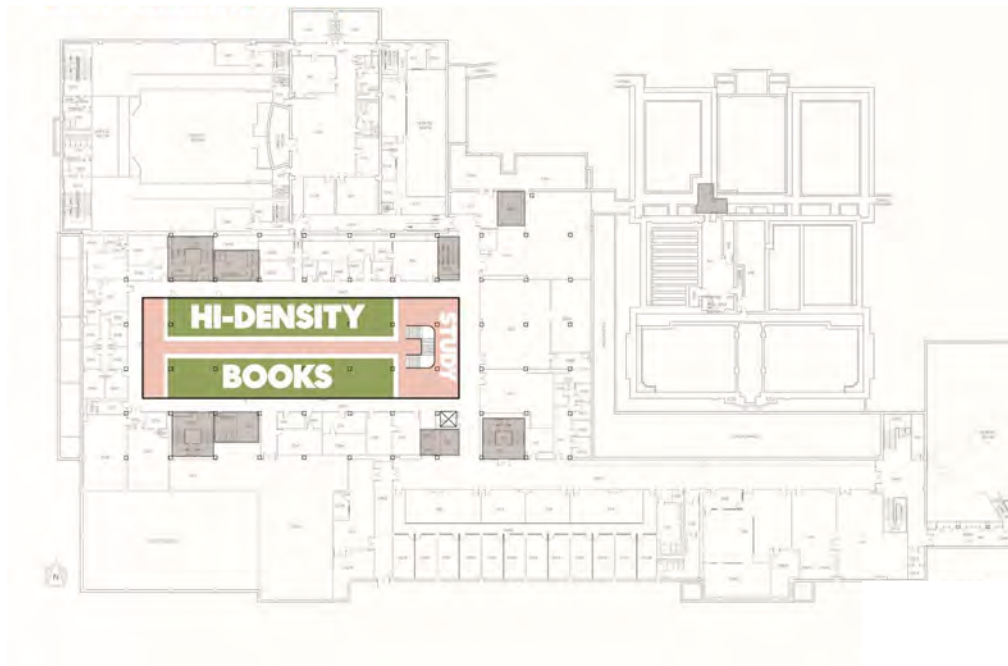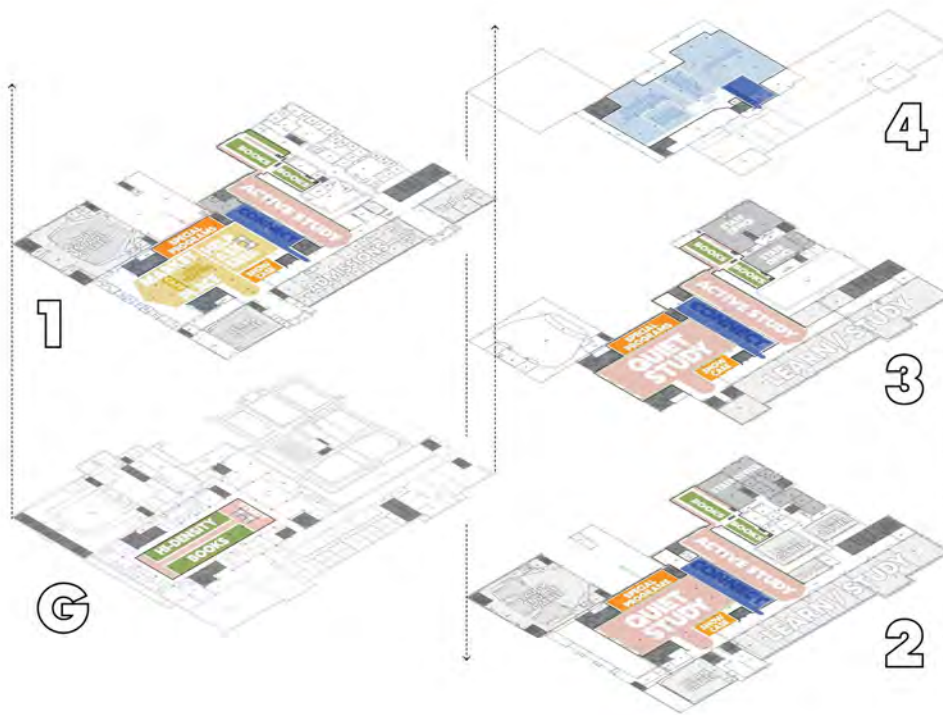
Slide 48 of 75

REDUCE & GROW NEW
ALL NEW

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Perkins&Will
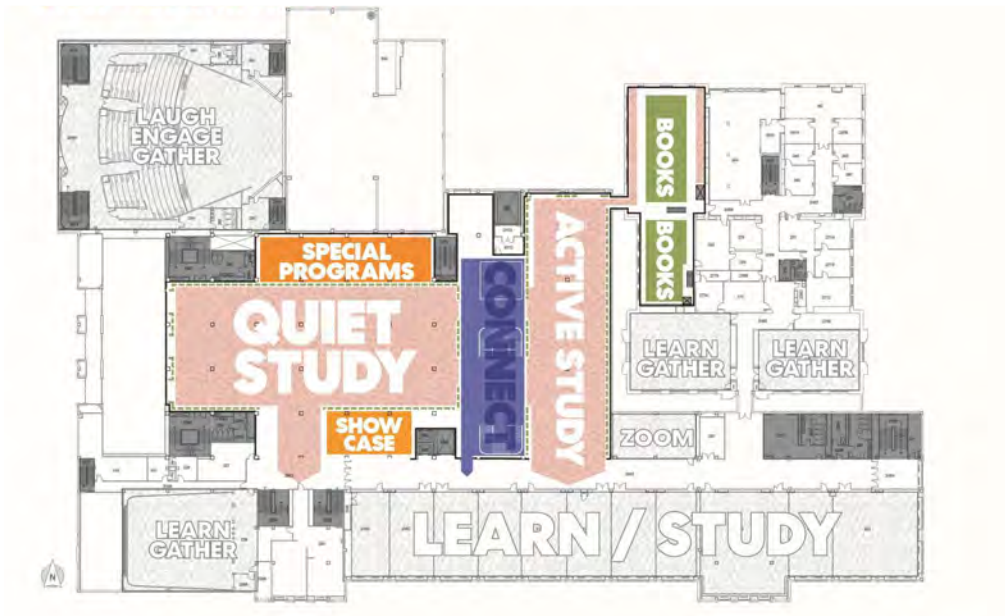
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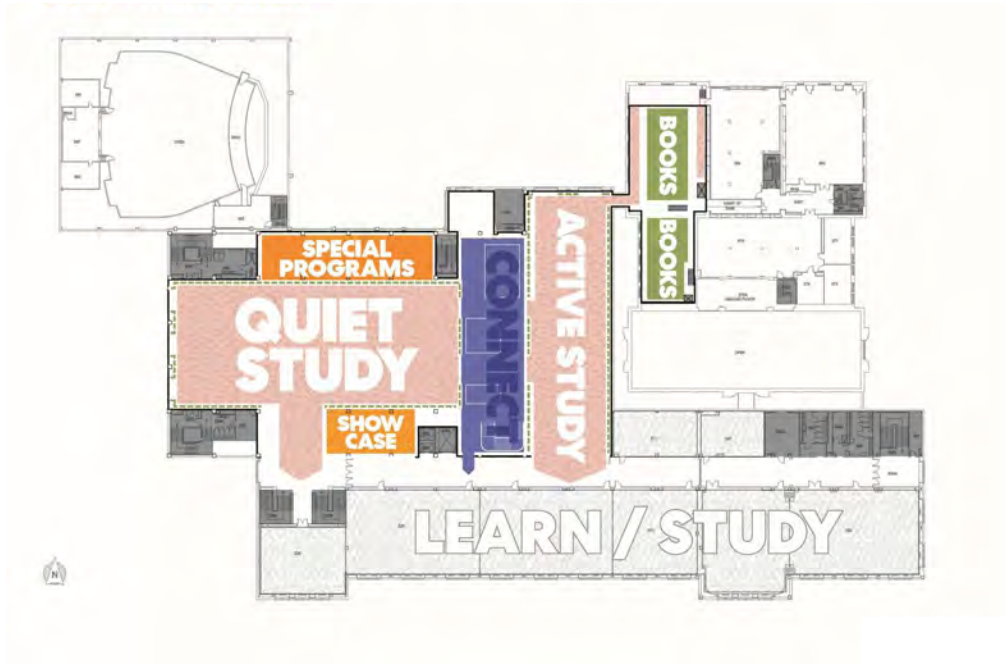
Slide 53 of 75

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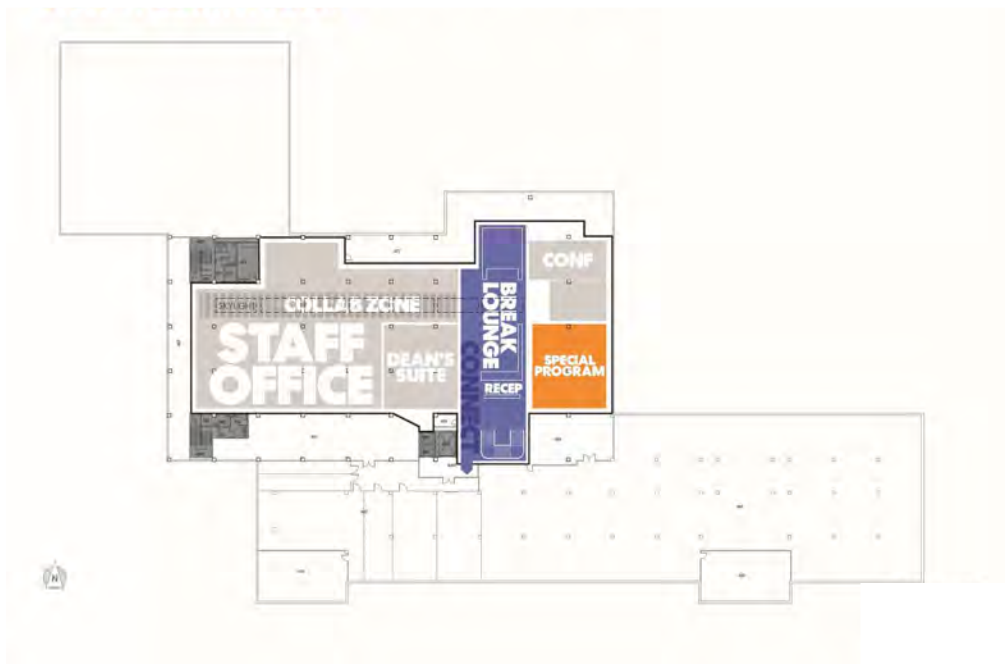
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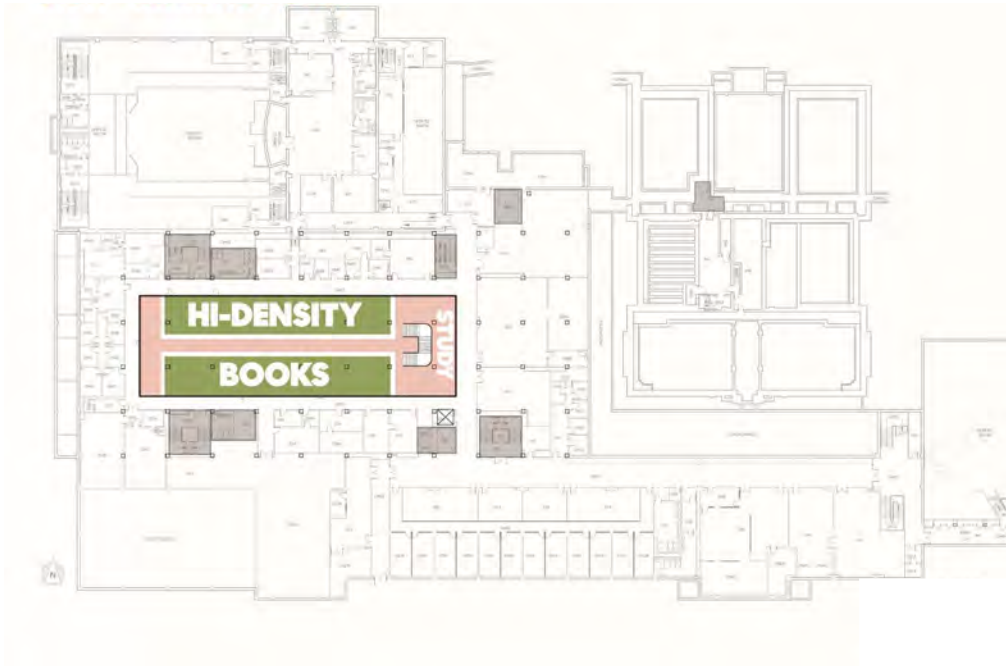
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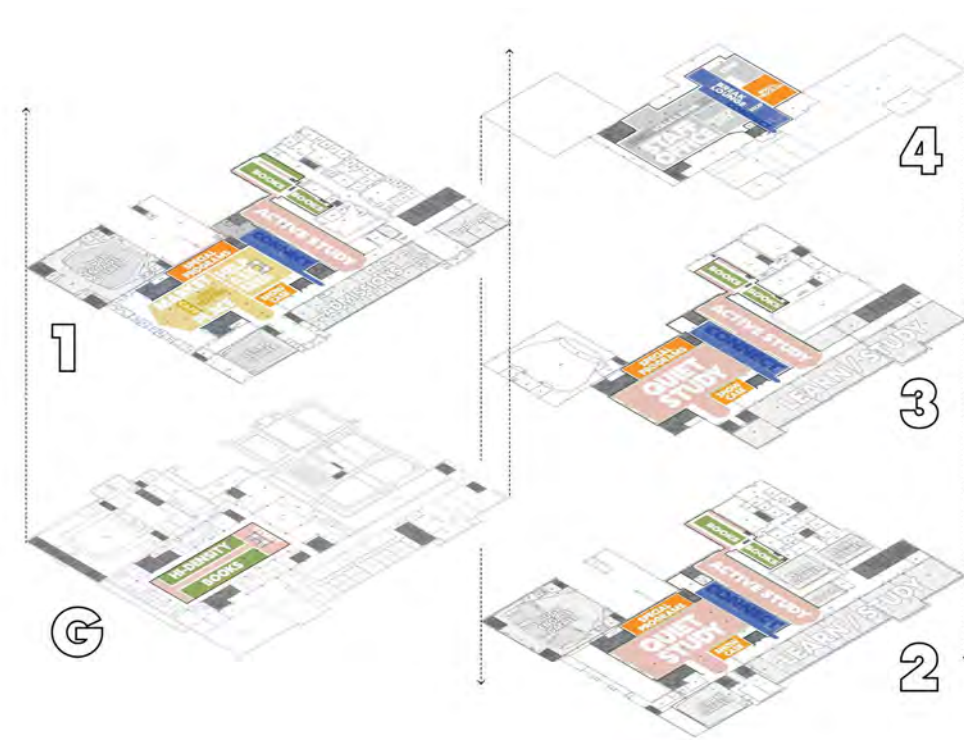
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Preliminary Programming

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Library Central Services Program

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Program Organizational Structure

		EXISTING		2022 FULL PROGRAM						
	Space Type	N.S.F.	Seats	Unit/ Area	Qty.	N.S.F.	LF	Staff	Seats	Critical Adjacency	Functional Description / Special F.F. & E
1.0	ACCESS SERVICES					2022 PROGRAM					
	SITE 1 ACCESS SERVICES										
1.1.1	Circulation Lib / Access Service Desk			150	1	150			2		
1.1.2	Reserve Shelving			10	3	30	54				6-high shelving; 8-high for media shelving
1.1.3	Holds			10	3	30	54				6-high shelving
1.1.4	Textbook Shelving			10	3	30	54				6-high shelving
1.1.5	Loanable Equipment Storage			10	5	50					Lockable cabinets / carts
1.1.6	Lost & Found			10	1	10					(1) 4-high lateral file or cabinet
1.1.7	Reference Kiosk			54	1	54		1		Touchdown style kiosk near or part of circ desk	
1.1.8	IT Support Kiosk			54	1	54		1		Touchdown style kiosk near or part of circ desk	Size for one or two staff
1.1.9	Main Entry Security Desk			54	1	54		1			Staffed security desk near entry/exit point
1.1.10	Ready Reference Collections			10	1	10	18				3-high shelving for ready reference materials
1.1.11	Secure Display	Showcase			500	1	500					Security + Climate Control for A/SC
1.1.12	Marketplace Extension			100	1	100					spine out moved with face-out display; loanable technology; etc.
1.1.13	Marketplace Seating			35	8	280			8		Short term lounge seating
1.1.14	Consultation Room			80	1	80					2-3 persons
1.1.15	Drop In Services			80	1	80					Activities that may come in and out such as academic advising; career consultation; health services; etc.
1.1.16	Consultation Waiting Area			100	1	100			2	Adjacent to consult room & circ desk	
1.1.17	Express Computers			20	20	400					Stand-up stations
1.1.18	Express Printers			15	2	30				Adjacent to express computers	
1.1.19	Express Copy/Scan			25	2	50				Adjacent to express computers	
1.1.20	Digital Signage			20	1	20					
1.1.21	Self-Check Stations			25	2	50					At main entry
	Subtotal	3,891	0			2,192	180	5	10		

Program Organizational Structure

8.0	PROGRAMMED SERVICES	EXISTING			2022 PROGRAM					
	1.0 Access Services	3,891				4,154	612	18	42	
	2.0 Learning Commons	15,004				20,510	180	1	611	
	3.0 Library Collection	21,727				19,443	31,545	0	66	
	4.0 Special Collections	11,140				13,895	13,842	17	55	
	5.0 Seating + Collaboration	30,100				65,920	0	0	2,473	
	6.0 Library Operations	21,785				12,194	0	100	0	
	7.0 Partners + Special Programs	6,894				27,518	0	25	402	
	PROGRAMMED SERVICES SUBTOTAL	110,779				162,805	46,179	161	3,659	

9.0	GROSSING	Factor	G.S.F.	N.S.F.	Factor	G.S.F.				
	Program Multiplier	1.80			1.46					
9.1	Fit Factor		0	162,805	0.050	8,140				
9.1	Building Services/Toilets		0	162,805	0.100	18,281				
9.2	Circulation		0	187,226	0.200	37,445				
9.3	Construction		0	224,671	0.080	17,974				
	ADDITIONAL GROSSING SUBTOTAL		0			79,840				

10.0	TOTAL BUILDING AREA									
	8.0 Programmed Services		110,779			162,805					
	9.0 Additional Grossing		88,623			79,840					
	BUILDING TOTAL		199,402			242,645					

Existing HSSE 127,766
Existing HIKS 71,636
199,402

Delta 43,243

New Program
Additional Seats 19,804
2,164

Data Collection Update

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Monday/ Tuesday March 7th & 8th
OBSERVATIONS & COUNTS

Qualitative & Observational Data Collection

power / seating / privacy

setting / atmosphere / support
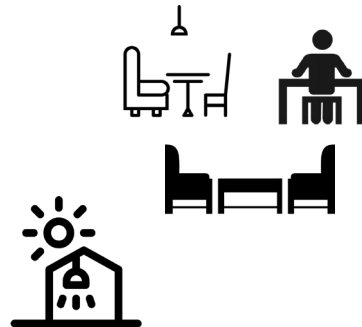
adjacencies / amenities

62
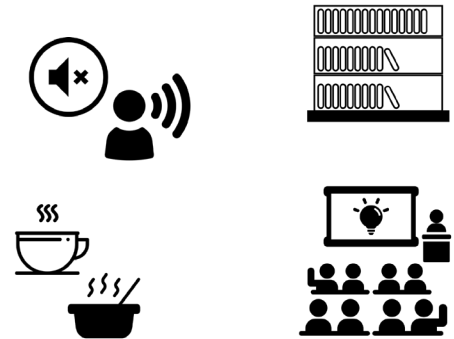
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24
Occuspace Zones

10 Rounds
of HSSE / HICKS / PARRISH / WALC / MATH

175
MicroZones
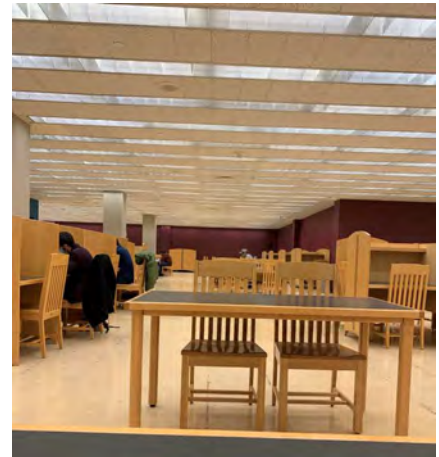
Monday/ Tuesday March 7th & 8th
OBSERVATIONS & COUNTS

Data Processing Goals

Establish physical characteristics and utilization relationship

Revision of "experienced capacity" with regards to types of seats

Creating profiles for best and worst used zones:

Furniture types   Peak times
Atmosphere   Relationship to classes
Amenities
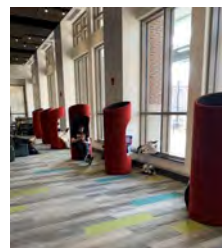
Next Steps:
Offsite Storage Systems
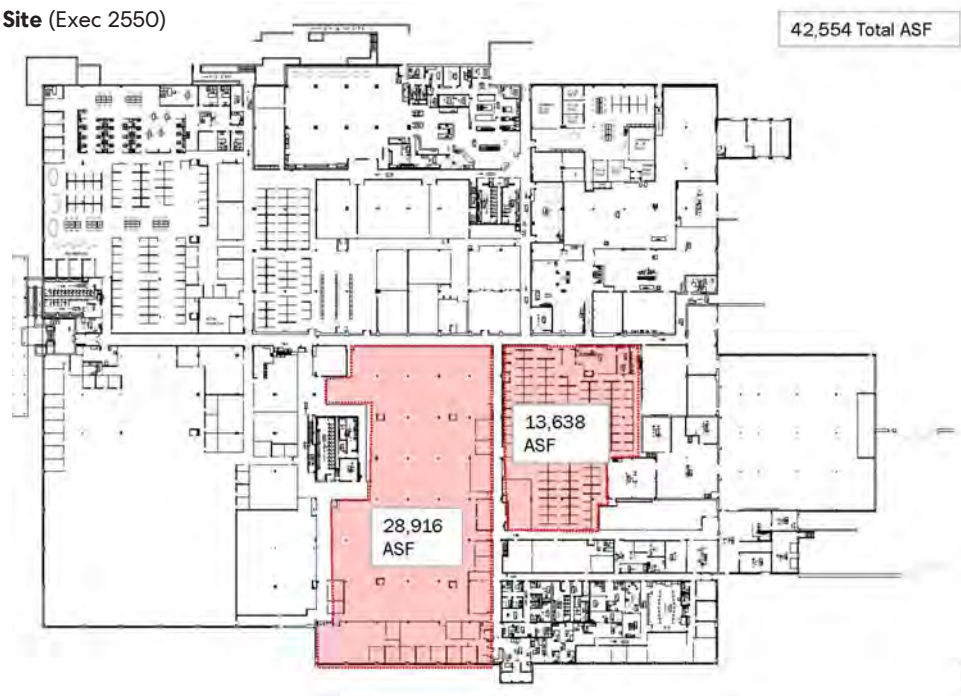
Potential Library Storage Site (Exec 2550)


42,554 Total ASF

13,638 ASF

28,916 ASF

Potential Library Storage Site (Preliminary Test Fit)

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included

Test Fit: 157,675 LF
- 7-high shelving (84")
- 85% filled
- 1.576M volumes
- Possible to increase 10% (170,000 LF)
- $5.96M (new, motorized)
- $4.54M (new w/ reuse shelving, manual)
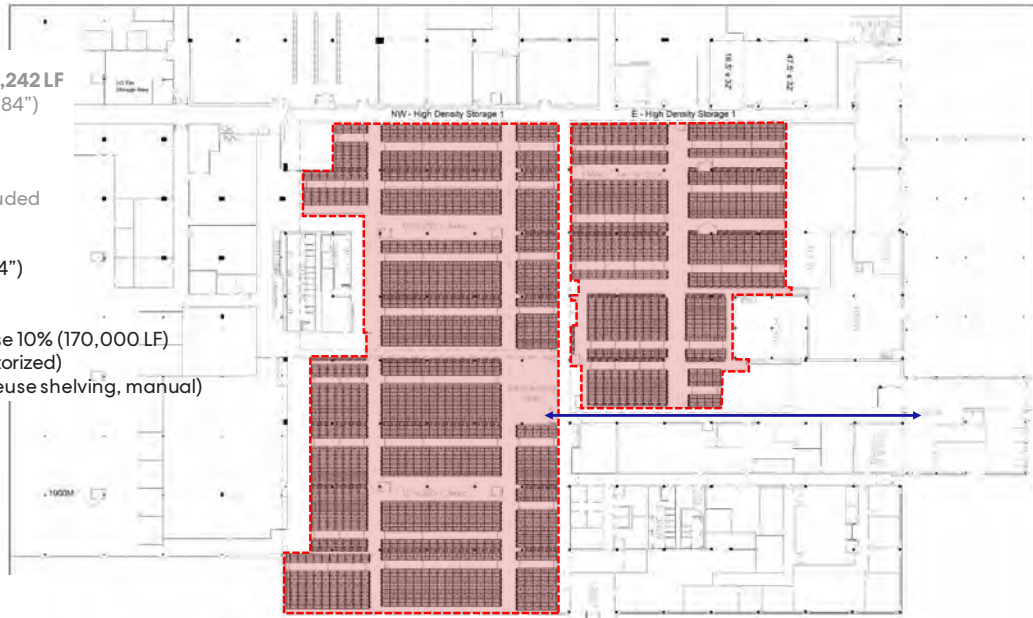
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Potential Library Storage Site (Preliminary Test Fit)

Additional HSSE Collections: 40,600 LF
- Need 11,000 SF HD Storage

Additional MATH Collections: ??LF
- Need ??SF HD Storage

A / SC Storage:
- Need +/- 5,000 SF HD Storage
- Cold Storage Area
- Security Improvements
- Fire Protection Improvements
- Environmental Control Improvements

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Next Steps:
Virtual Learning Hub Prototyping

Virtual Learning Hub

Privacy pods

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Neighborhood 1 (24 seats)

1 Neighborhood = 2 HSSE column bays

1 **Front Porch /
Landing Zone**
(4 seats)

2 **Semi-private
Acoustic Pods**
(16 seats)

3 **Fully Enclosed
Acoustic Buffers**
(8 seats)

4 **Existing Stacks &
Library Tables**
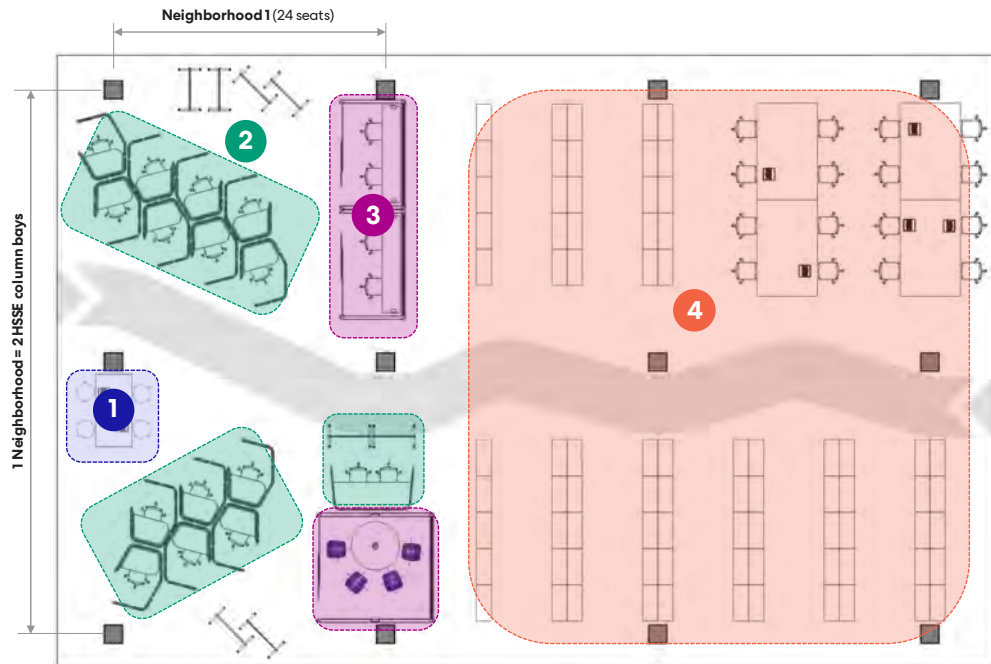
Neighborhood Pilot

Slide 72 of 75

Front Porch /
Landing Zone
(4 seats)

Semi-private
Acoustic Pods
(16 seats)

Fully Enclosed
Acoustic Buffers
(8 seats)

Existing Stacks &
Library Tables
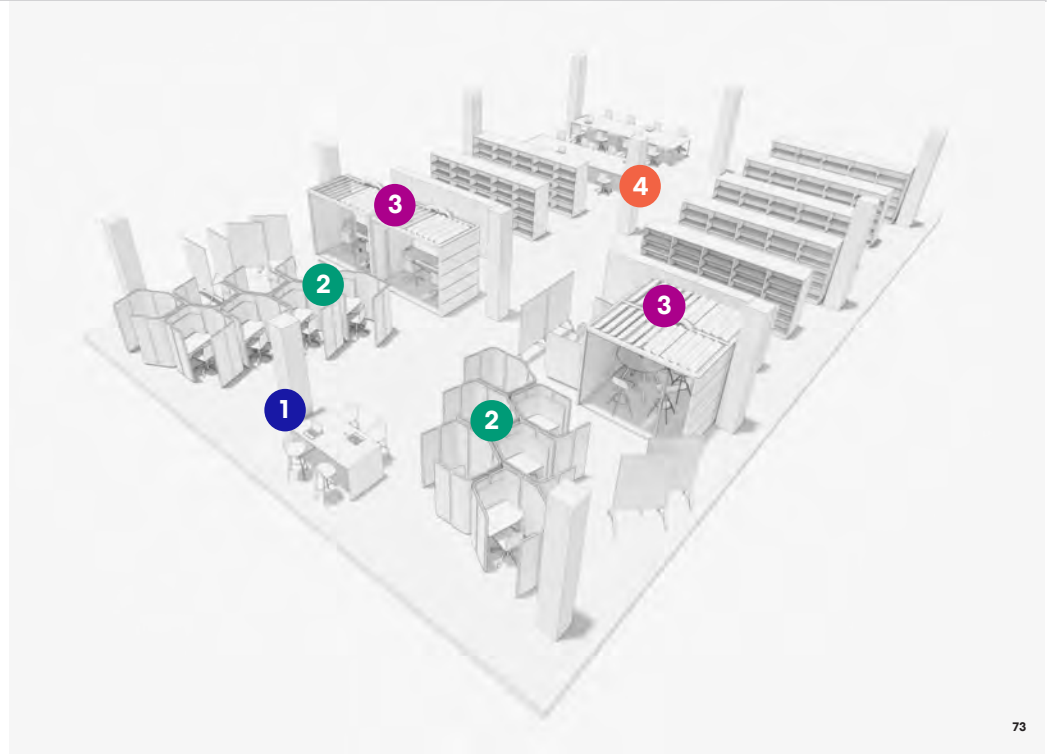
Neighborhood Pilot

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Next Steps:
Additional Precedent Tours?

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Next Steps

Workshop #6

Virtual, April 1

Dean's Advisory Committee

Virtual, April 8

Workshop #7

In-person, April 12 – 14

University Library Committee

Executive Committee Meeting

Student Engagement?

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Workshop 6: April 01, 2022

Meeting Details

Meeting Date:	4.1.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	9:00 AM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Flo Mettetal, Stephen Lenz, Mark, Drew, Allison, Beth, Rebecca, Scott, Dorothy, Gulich

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #6	Perkins + Will

1. Beth: Floor 1 – Current support iTAP is new welcome center, Gateway to rethinking east/west corridor.
   Colocation – Is a low driver, staff located in a way that works.
   Moving Library Leadership – Like ideas that don't place too many people in 4th, could be more a digital humanities space, student driven if archives are relocated.
2. Stephen: Recorded spaced attributes 7 libraries.
3. Allison: Will need to determine optimum mix for utilization.
4. Michael: Issue designing lower level of union. Had a lot of 4 tops, 1-2 people at them and students are less likely to come up and sit. "Join, I won't be alone".
5. Derek: your 5 or 6 top can break up to smaller groups.

Please note: *The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.*

Purdue University Library Master Plan Workshop #6
4/01/2022

Perkins&Will

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Agenda

Introductions & Overview

Brand Experience Discussion
    Brand Drivers Diagram
    Strategic Opportunity Matrix
    Experience Diagram

Occuspace Update
    Site Observation Process
    Occuspace Data Analysis

Evaluation Criteria Matrix Feedback

Program Review & Discussion

Wrap Up
    Agendas for Additional Meetings
    Workshop #7 Agenda

→
Good effort Boilermakers!

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Project Status Updates

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Master Plan Process
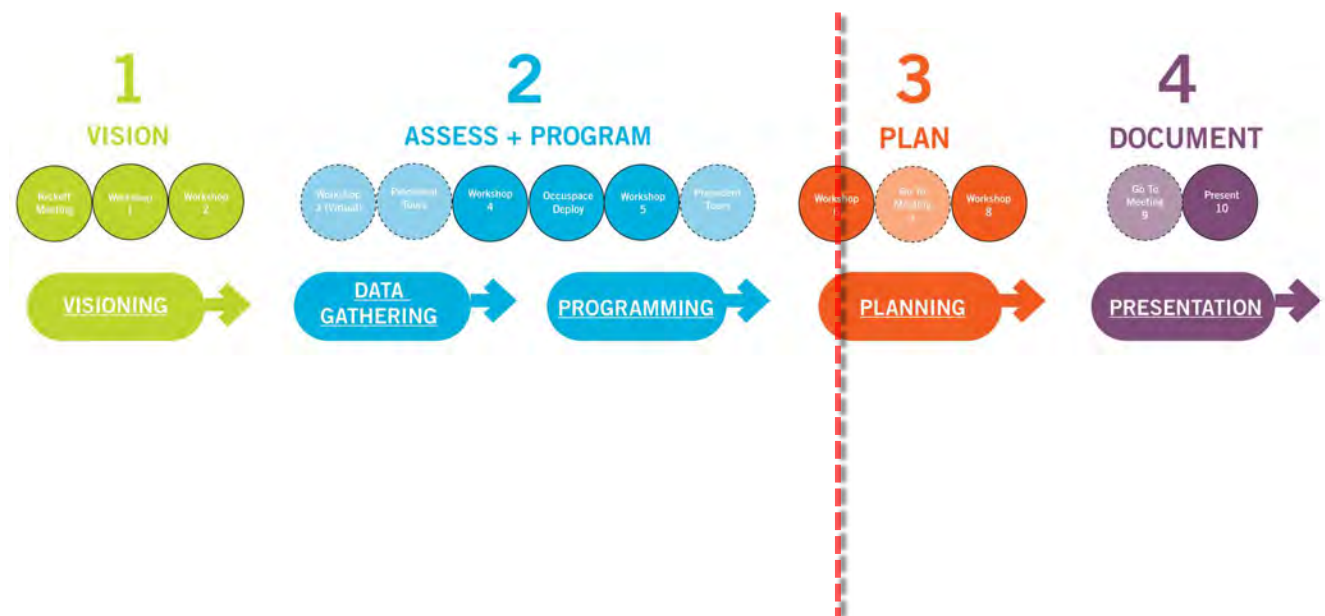
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Brand Experience Discussion

PURDUE UNIVERSITY

UNIVERSITY MISSION STATEMENT

Our mission is to help Purdue University students **maximize the value of their life experiences**. As we **develop collaborative relationships** in a safe and respectful environment, the **unique value of dignity of each individual** and group is held paramount.

LIBRARY MISSION STATEMENT

We lead in research, teaching, and learning, and create and provide **equitable access** to diverse resources, outstanding services, and **innovative spaces**, for Purdue's **local, national, and international communities**

PURDUE UNIVERSITY BRAND

Purdue University is about the **persistent pursuit of innovation** where people bring their best and learn to build a better world together.

Or more simply:

Persistent Innovation.
Together.

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PROJECT VISION STATEMENT

The future Purdue Libraries will be the **bridge between individual scholars and the academic community***, the campus and the world. It will* **connect disciplines** *and* **integrate resources across the university** *so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized* **partner for experimentation, collaboration, and digital learning.** *It will be a* **pathway between knowledge acquisition and its application** *in the service of society.*

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PROGRAM DRIVERS

Support the Persistent Pursuit of Innovation

Virtual Learning Hub

Center for Digital Scholarship

Knowledge Gallery

Expanded Archives & Special Collections

Improved Seating Quantity & Quality

Collaboration / Collocated Staff

Support South Campus Development

Visible. Accessible. Welcoming To All.

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Purdue Libraries

Values

Innovation   *Equity*

Collaboration   *Stewardship*

Agility   *Service*

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Audiences

Audience Types – Purdue University

Our Brand is built around
five (5) key stakeholder groups
that shape the experience we
create.

Audience Types – Purdue Libraries

All Students	Visitors & Visiting Scholars
All Faculty	Prospective Students
Staff	Academic Community
Public Community Members	Researchers
Alumni	Student Families
Donors	EDI	BIPOC	LGBTQ
Retirees	Creative Thinkers
Global "Citizens" & Students	Needs-Based Users
On-Line Participants	Users of Study Spaces
Event Attendees	All Abilities, Ages, Cultures, Languages

Audience Types – Purdue Libraries

CREATIVE THINKERS

FUTURE STUDENTS AND FAMILIES

ALL ABILITIES, AGES, CULTURES, LANGUAGES EDI | BIPOC | LGBTQ

VISITING SCHOLARS, BROADER ACADEMIC COMMUNITY AND RESEARCHERS

FACULTY, STAFF, AND ADMINISTRATION

CURRENT STUDENTS AND FAMILIES

CORPORATIONS, PEERS, DONORS, AND COMMUNITY

VISITORS, PUBLIC COMMUNITY, AND EVENT ATTENDEES

GLOBAL "CITIZENS" & STUDENTS AND ON-LINE PARTICIPANTS

PAST STUDENTS (ALUMNI)

RETIREES, NEEDS-BASED USERS, AND USERS OF STUDY SPACES

Current & Future Brand

Current Brand

*"We are a **welcoming service organization** that struggles to define itself and strives to be better understood by students, faculty, staff & administration."*

*"We are **more** than books."*

Future Brand

*"Cohesive, complementary and inclusive portfolio of **resources and experiences** that allow for growth, experimentation, and full engagement by all."*

"Discover, create, innovate. Let us inspire you!"

Brand Recap – Purdue Libraries

Today	Future
Welcoming service organization.	An Information Service Hub for Purdue…so much more than books!
Equitable access to information & resources.	Cohesive. Complementary. Inclusive.
Teach crucial information skills.	Discover. Create. Grow. Innovate. Let us inspire you.
Furthering the field of Information Science through research.	Advancing leadership and the profession through critical research.
Distributed "hodge-podge" of resources & services.	Portfolio of resources, experiences and experimentation for all.
We have study spaces; WE ARE MORE THAN BOOKS.	Dynamic multi-space environment with great resources.
Striving to be better understood by all.	Responsive services and staff at the academic forefront.
Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.	Expert level instruction and personalized guidance.
Open to new ideas.	
Serve the information needs of the Purdue community.	Connected within our organization, the university, the community, and the world.

Brand Drivers Diagram

High Level Experience Mapping at HSSE

MEMORABLE EXPERIENCE

Discover	Connect	Inspire	Create
Knowledge	Emotional	Energizing	(?)
Journey	Belonging	Exciting	
Authentic	Community	Awe Inspiring	
Serendipity	Help	Fun	
	Sense of Place	Inspiring	
		Peaceful	
		Dedication	
		Wonder	

Library Experience

Inspire	Study	Discover
Show	Learn	Explore
Demonstrate	Concentrate	Learn
Excite	Seek	Authenticate
Energize		

Engage	Innovate	Support
Collaborate	Collaborate	Help
Connect	Experiment	Information
Community	Ideate	Print
Partner	Make	Technology
Share		

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Experience Mapping

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Experience Mapping

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Experience Mapping

3

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Experience Mapping

4

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Experience Mapping

HI-DENSITY
DISCOVER
BOOKS
STUDY

G

LIBRARY EXTENTS
INFRASTRUCTURE

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Story-Telling

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Stories

Our History	Our Archives	Our Collections	Library Locations & Specializations
A Place for Knowledge Creation	Our Services, Resources & Tools...More than Books!
Authentic Source of Information	Personal-Touch Assistance...Let Us Help You!
Patents, Firsts, Innovations at Purdue	At Purdue, it's Cool to be Smart
Your Experience Begins at Purdue Libraries	The Digital Experience
Research & Explore	We are ONE Library System
Study, Learn, Collaborate, Innovate, Celebrate	Our Expanded Network
Physical Places & Spaces	Our Rich Database
Information Literacy	Vital Partnerships

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Story-Telling

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Prioritization Tool

Strategic Opportunities Matrix

		1 Humanities, Social Sciences and Information	2 Undergraduate	3 Engineering Sciences	4 PARRISH Management and Economics	5 Veterinary Medicine	6 Mathematical Sciences	7 Aviation and Transportation Technology	8 Archives and Special Collections
		STEWART	HICKS	WALC	KRANNERT	LYNN	MATH	TERMINAL	STEWART
Exterior Identity	●	✓	✓	✓	✓	✓	✓	✓	✓
Interior Identity	●	✓	✓	✓	✓	✓	✓	✓	✓
Virtual Learning Hub		●					●		
Center for Digital Scholarship				●					
Knowledge Gallery		●							
Storytelling		●	●	●	●	●	●	●	●
Exhibitions		●	●	●	●	·	·	●	●
Wayfinding & Signage	●	✓	✓	✓	✓	✓	✓	✓	✓
Web Presence	●	✓	✓	✓	✓	✓	✓	✓	✓

★ This library will likely be closed.
Relocation of materials to be considered.

PRIMARY FOCUS   SECONDARY FOCUS   TERTIARY FOCUS

Occuspace Update

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Site Observations

Purdue University

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Site Observations Overview

Site Observations were conducted to evaluate existing space conditions, human/environment interactions, function and utilization of space, and work/study patterns.

2 days
March 7–8, 2022

7 libraries
HSSE / HICKS / PARRISH / WALC / MATH / VETM / AVTE
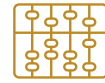
24 Zones
175 micro zones

Site Observations focused on the following characteristics:

power / seating / privacy

setting / atmosphere / support

adjacencies / amenities
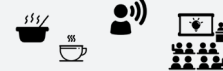
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Site Observations Summary

Greater utilization in libraries with many features (classrooms, food/beverage).

Students often observed working individually or in pairs of two, even when in a conference room.

Conference rooms do not have consistent technology or reservation protocols.

Vacant classrooms used as study space for one person/group.

Mobile whiteboards used to write and create semi-enclosed boundary.

Space Types and Activities
- Agile spaces equipped with whiteboards and technology/power were well used.
- Individual spaces (carrels) were most sought after, followed by tables with dividers.
- Transient/short-term use of areas outside classrooms
- Inefficient use of large study rooms.

Adaptions and Adjustments
- Mobile whiteboards used to define space.
- Desktop computers were often used in conjunction with student laptops.
- Storage modes are inconsistent across floors.

Light and Views
- Views into other spaces, especially if allowed natural light to filter, were highly desirable/greatest utilization.
- Students tend to sit near access to daylight (light well, clerestory window).
- Lounge chairs turned to face windows – sill used to prop feet up.

Acoustics
- Headphones commonly observed in use for noise mitigation
- Areas around amenities and restrooms were loud and primarily used for socialization
- General understanding of appropriate areas to collaborated vs. focus

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Site Observations
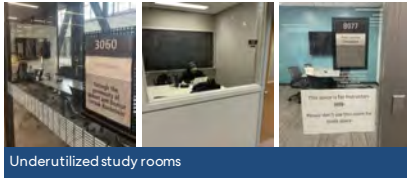
Underutilized study rooms
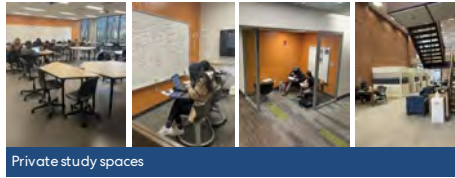
Private study spaces
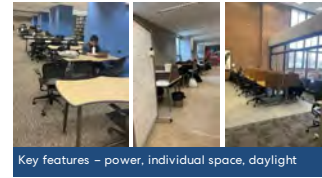
Key features – power, individual space, daylight
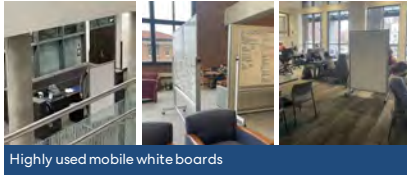
Highly used mobile white boards
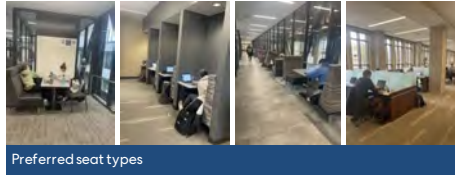
Preferred seat types
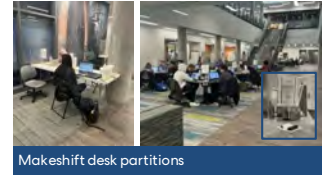
Makeshift desk partitions
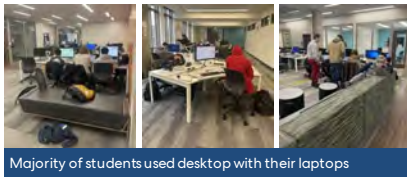
Majority of students used desktop with their laptops
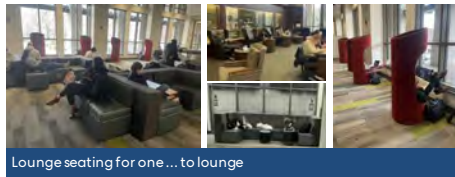
Lounge seating for one ... to lounge

Security entrance

37

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Site Observations
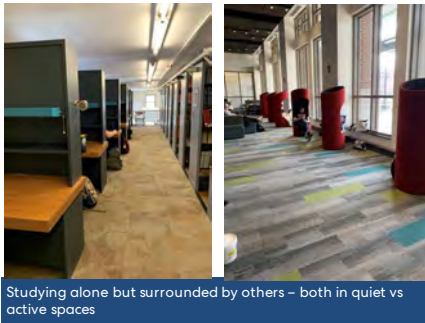
Studying alone but surrounded by others – both in quiet vs active spaces
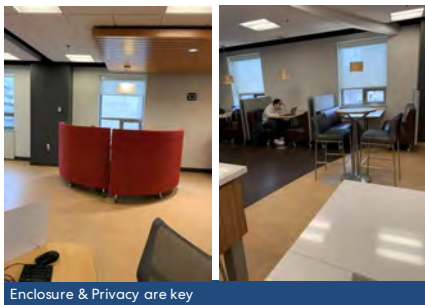
Enclosure & Privacy are key

Carrels

Low 6+ tables
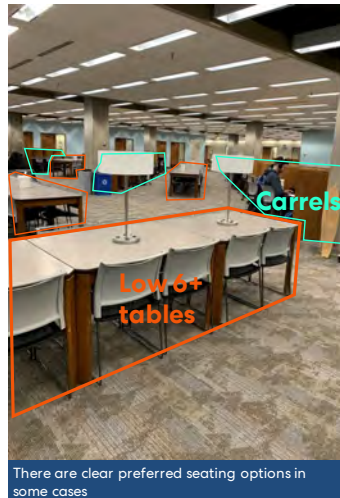
There are clear preferred seating options in some cases
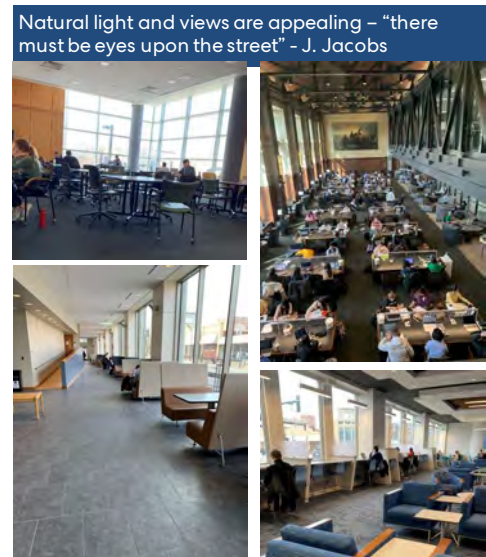
Natural light and views are appealing – "there must be eyes upon the street" - J. Jacobs

38

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Data Insights |

When does each library 'feel' at capacity ?

Slide 39 of 66

Data Insights |

When does each library 'feel' at capacity ?

Determine peak for each MicroZone

Purdue University
Active Learning Center (WALC)

PEAK

observation counts

(1)

Slide 40 of 66

Data Insights |

When does each library 'feel' at capacity ?

Each MicroZone has a predominant seat type.
This is the average* utilization by seat type at peak observed usage:

single	carrell	2-table	3-table	4-table	5+ table	booths	lounge	bench	computer
100%	**78%**	**88%**	**84%**	**59%**	**47%**	**59%**	**70%**	**44%**	**84%**

PEAK observation counts >>> **MAX CAPACITY BY SEAT TYPE** (utilization)

*disregards ATVE, VETM due to low volumes & locations

1   2

41
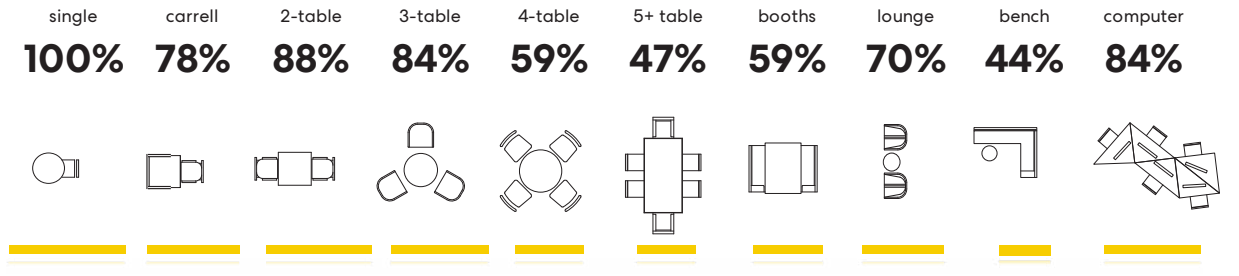
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Data Insights |

Example – HSSE 2nd Floor | 178 seats

44 **4-tables**

66 **carrels**

66 **5+ tables**

2 **2-tables**

HSSE SECOND FLOOR

973

PEAK observation counts >>> **MAX CAPACITY BY SEAT TYPE** (utilization) >>> **MAX CAPACITY BY ZONE** (aggregate of seat type)

1   2   3

43
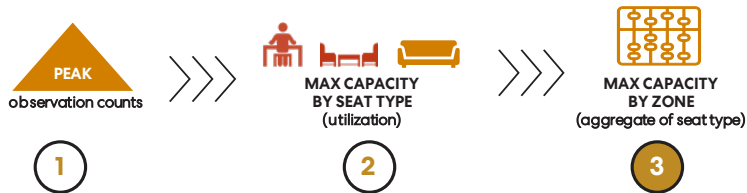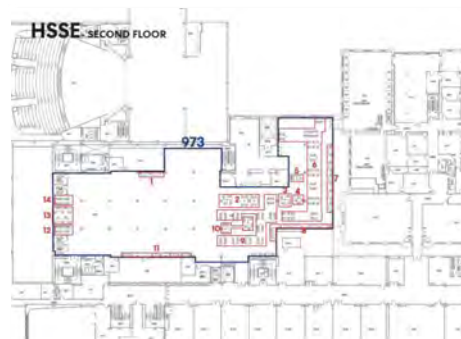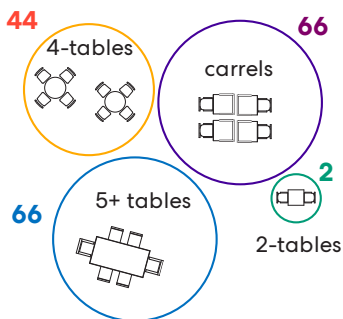
Slide 42 of 66

Data Insights |

When does each library 'feel' at capacity ?

Example – HSSE 2ⁿᵈ Floor | 178 seats

44 4-tables
66 carrels
66 5+ tables
2 2-tables

AVG PEAK UTILIZATION BY
SEAT TYPE & MICROZONE

PEAK
observation counts
1

MAX CAPACITY
BY SEAT TYPE
(utilization)
2

MAX CAPACITY
BY ZONE
(aggregate of seat type)
3

44

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Data Insights | Questions to Answer

When does each library 'feel' at capacity ?

Example – HSSE 2ⁿᵈ Floor | 178 seats

44 4-tables
66 carrels
66 5+ tables
2 2-tables

AVG PEAK UTILIZATION BY
SEAT TYPE & MICROZONE

31 5+ tables
2 2-tables
51 carrels
26 4-tables

62% OF EXISTING SEATS

110 seats

PEAK
observation counts
1

MAX CAPACITY
BY SEAT TYPE
(utilization)
2

MAX CAPACITY
BY ZONE
(aggregate of seat type)
3

NEW
EXPERIENCED
CAPACITY %
4

45
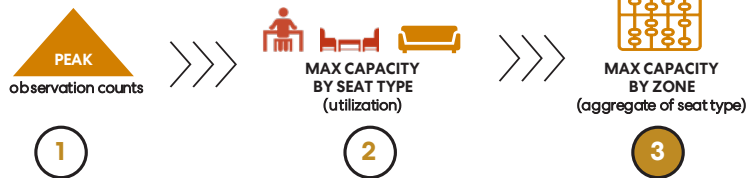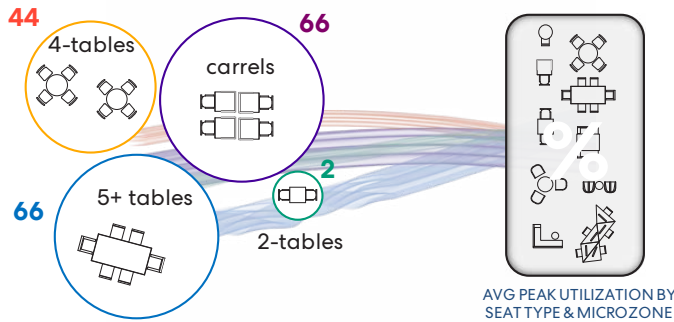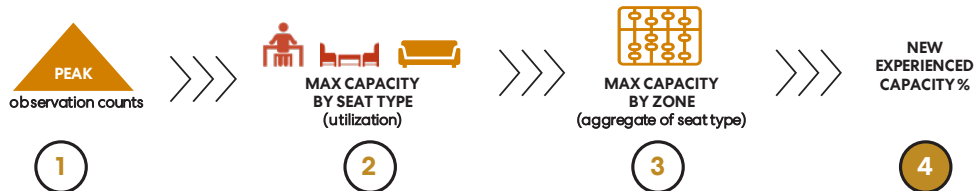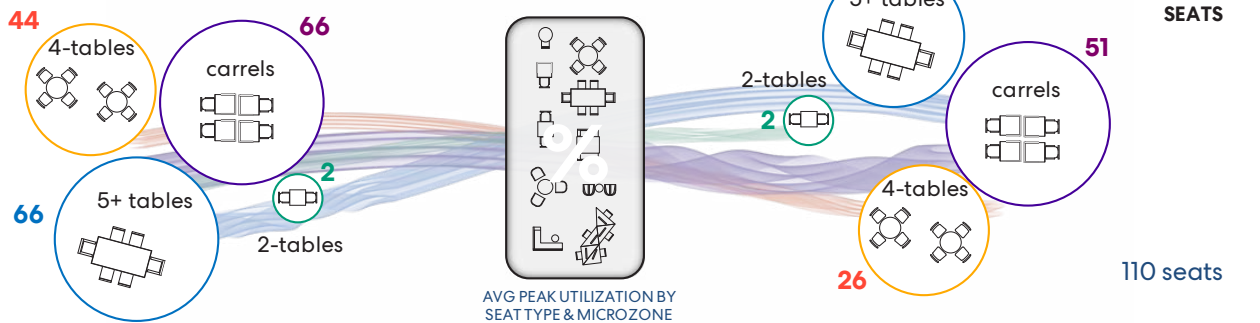
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Data Insights | Questions to Answer

When does each library 'feel' at capacity ?

Comparison between experienced capacity based on seat types vs. currently used numbers

		OS ZONE	EXISTING SEATS	SEATTYPE CAPACITY	PERCENT OF SEATS	OCCUSPACE CAPACITY	DIFFERENCE IN CAPACITY OS & SEATTYPE
WALC	Lower Level Main	961	98	85	86%	90%	-3%
WALC	First Floor Main	962	100	67	67%	80%	-13%
WALC	First Floor North	963	18	11	61%	89%	-28%
WALC	Second Floor North	964	23	18	79%	96%	-16%
WALC	Open Computers North	966	33	30	91%	100%	-9%
WALC	Second Floor Reading Room	967	146	130	89%	86%	4%
WALC	Third Floor North	968	25	17	68%	88%	-20%
WALC	Third Floor East	969	58	48	83%	83%	0%
WALC	Third Floor West	970	78	58	74%	77%	-2%
WALC	Open Computers South	999	24	21	85%	83%	2%
HSSE	First Floor Main	971	210	136	65%	93%	-28%
HSSE	First Floor Classroom	972	28	13	47%	86%	-39%
HSSE	Second Floor Main	973	178	110	62%	84%	-22%
HSSE	Third Floor Main	974	146	93	64%	89%	-25%
PRSH	Second Floor Main	975	225	133	59%	84%	-25%
PRSH	Second Floor Learning Lab	976	40	33	84%	90%	-6%
PRSH	Second Floor Corporate Study	977	38	23	61%	87%	-26%
WALC	Second Floor LOES	978	65	50	77%	95%	-18%
MATH	Third Floor Main	979	107	65	60%	89%	-28%
MATH	Third Floor Graduate Study	980	34	23	68%	74%	-5%
HICKS	Ground Floor Main	981	707	456	64%	74%	-10%
VETM	First Floor Main	982	112	72	64%	88%	-24%
VETM	First Floor Carrels	983	26	20	78%	92%	-14%
AVTE	First Floor Main	984	34	23	69%	88%	-19%

1		2		3		4		5
PEAK observation counts	>>>	**MAX CAPACITY BY SEAT TYPE** (utilization)	>>>	**MAX CAPACITY BY ZONE** (aggregate of seat type)	>>>	**NEW EXPERIENCED CAPACITY %**	>>>	**COMPARE EXPERIENCED CAPACITY %**
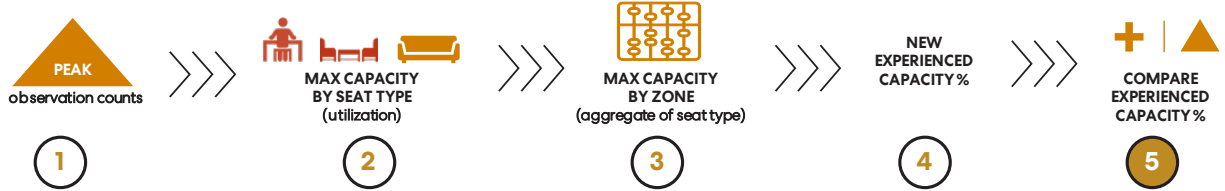
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Next Steps

Questions we want to explore for next meeting:

- Conversation with Occuspace to revise "experienced capacity" based on seat types.

- Explore additional attributes recorded (table shape, proximity to window, food etc..).

- Where do students sit when they have a choice ? – exploration of nonpeak hours data.

- Quantify classroom impact on certain libraries – Spring 2021 schedule received last Tuesday.

Deliverable

Create profiles for the most and least used zones:
- Furniture types
- Atmosphere
- Amenities
- Peak Times
- Classroom Relationship

ANYTHING MISSING?

LIBRARY READING ROOMS

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Evaluation Criteria Matrix

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Weighted Evaluation Matrix

(1) PROGRAMS / SERVICES

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Digital Scholarship	Collocated Digital Scholarship accessible to staff & faculty + synergistic adjacencies	3	2	6	2	6	4	12	4	12
Knowledge Gallery	High visibility with environmental controls/security that is near A / SC	4	3	12	3	12	4	16	4	16
Virtual Learning Hub	Good distribution of 100-150 seats accessible from all parts of campus	4	2	8	2	8	4	16	3	12
Archives / Special Collection	Collocated + growth potential in visible/accessible/secure location near Knowledge Gallery	4	1	4	1	4	4	16	4	16
Staff Collaboration	Collocation of staff for collaboration, gathering, and team/community building	2	2	4	2	4	3	6	3	6
Student Experience	Reinforce Purdue culture, make scholarship visible, seating choice	4	3	8	2	4	4	8	4	8
Accessibility	Physically / culturally welcoming with distribution and access to all students	4	3	12	1	4	3	12	4	16
Protection of Collections	Ability to secure collections on or off site	4	3	12	3	12	3	12	3	12
				0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	116		64		54		98		98
				55%		47%		84%		84%

(2) IMPLEMENTATION LOGISTICS

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Phasing Disruption	Minimize operating disruption for students, staff, and services	3	1	3	1	3	3	9	4	12
Future Growth	Clear pathway for growth	4	1	4	1	4	4	16	4	16
Initial Cost	Relative Cost from least expensive (4) to most expensive (1)	4	3	12	4	16	2	8	1	4
Operating Costs/SF	Long term maintenance / management of facilities	4	1	4	2	8	3	12	4	16
Schedule	Tangible impact in least amount of time	4	3	12	3	12	2	8	1	4
Donor Potential	Results in a project that captures the interest/imagination of potential donors	3	2	6	2	6	3	9	3	9
				0		0		0		0
				0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	88		41		49		62		61
				47%		56%		70%		69%

(3) ALIGNMENT WITH PURDUE MISSION / VISION

ISSUES	IDEAL CRITERIA	INDEX	STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
			RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
Access & Inclusivity	Welcoming and accessible to all	4	1	4	1	4	3	12	4	16
Collaborative Relationships	Encourage cross-disciplinary / team based problem solving and scholarship	3	1	3	1	3	4	12	3	9
Innovation Spaces	Promote / Support the persistent pursuit of innovation	4	2	8	2	8	3	12	4	16
Local, National, Global	Make visible the connections regionally, nationally and internationally	2	4	8	4	8	4	8	4	8
Transformational Learning	Showcase tools and programs supporting new modes of learning	4	2	8	2	8	4	16	4	16
				0		0		0		0
				0		0		0		0
				0		0		0		0
TOTALS	IDEAL SCORE (Sum of the Indexes multiplied by Ideal Rating of 4)	68		31		31		60		65
				46%		46%		88%		96%

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Weighted Evaluation Matrix

(1) ALIGNMENT WITH PURDUE MISSION / VISION			STAY & RENOVATE		REDUCE & STAY		REDUCE & GROW NEW		ALL NEW	
ISSUES	IDEAL CRITERIA	INDEX	RATING	SCORE	RATING	SCORE	RATING	SCORE	RATING	SCORE
		272		136		134		220		224
				50%		49%		81%		82%
				3		4		2		1

INDEX LEGEND
0= Irrrelevant
1= Helpful
2 = Desirable
3 = Important
4 = Essential

RATING LEGEND
0= Not Applicable
1 = Poor
2 = Fair
3 = Good
4 = Excellent

Preliminary Programming

Program Content Summary

SF Comparison

Existing HSSE & HIKS nsf: 161,170 sf

Draft Program nsf: 208,390 sf

Seating

Existing Seat Count: 2,836 seats

Seating Projections:
- 1995 ACRL method suggests need for: **5,214** additional seats
- 2006 A4LE method suggests need for: **4,234** additional seats
- Current Benchmark method suggests need for: **2,390** additional seats

- Draft Program adds **1,937** seats (80% of benchmark method)
  - 40% Active | 60% Quiet
  - Adds 41 group study rooms to existing (4 X increase)

Program Content Summary

Enhanced Programs
- Study Seats (quantity and variety)
- Quiet (silent?) Reading Room
- Themed Browsing Collections
- A / SC:
  - doubling storage capacity
  - cold storage
  - group room
  - conservation lab
- Maker Space

New Programs
- IT Support Desk
- Drop-In Services
- Express Computing
- Self-Check
- Print Lab
- Digital Signage
- Seminar Rooms (2)
- Active Learning Classroom
- Special Projects Rooms (5)
- Virtual Learning Hubs
- Café
- Non-Traditional Students Lounge
- Experimental Classroom
- Center for Digital Scholarship
- Knowledge Gallery
- Graduate Commons

Library Central Services Program

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Program Organizational Structure

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Program Organizational Structure

Offsite Storage Systems

Potential Library Storage Site (Exec 2550)

42,554 Total ASF

13,638
ASF

28,916
ASF

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Potential Library Storage Site (Preliminary Test Fit)

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included

Test Fit: 157,675 LF
- 7-high shelving (84")
- 85% filled
- 1.576M volumes
- Possible to increase 10% (170,000 LF)
- $5.96M (new, motorized)
- $4.54M (new w/ reuse shelving, manual)
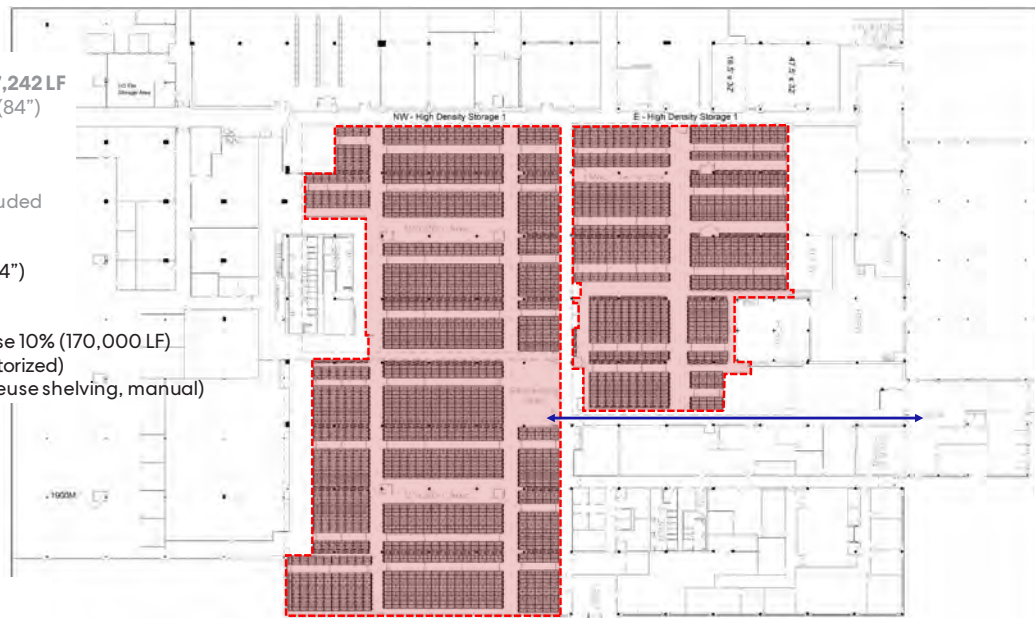
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Potential Library Storage Site (Preliminary Test Fit)

Additional HSSE Collections: 40,600 LF
- Need 11,000 SF HD Storage

Additional MATH Collections: ??LF
- Need **??**SF HD Storage

A / SC Storage:
- Need +/- 5,000 SF HD Storage
- Cold Storage Area
- Security Improvements
- Fire Protection Improvements
- Environmental Control Improvements

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Virtual Learning Hub Prototyping

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Virtual Learning Hub

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Privacy pods

Slide 62 of 66

Neighborhood 1 (24 seats)

1 Neighborhood = 2 HSSE column bays

	1	Front Porch / Landing Zone (4 seats)
	2	Semi-private Acoustic Pods (16 seats)
	3	Fully Enclosed Acoustic Buffers (8 seats)
	4	Existing Stacks & Library Tables
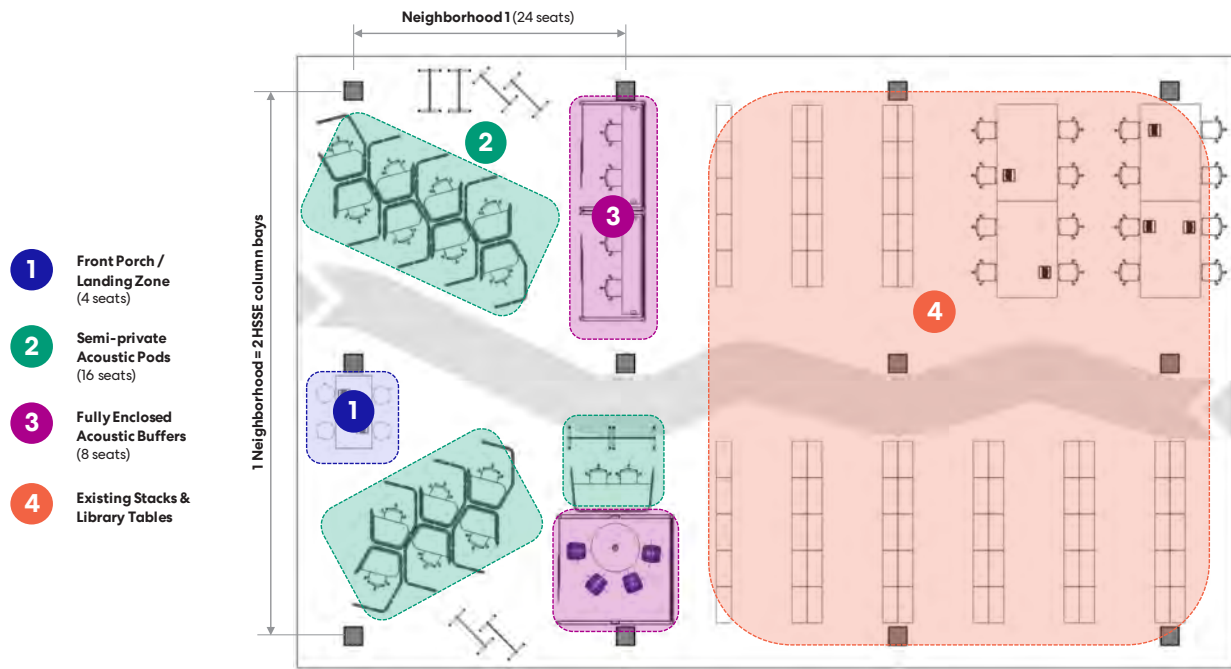
Neighborhood Pilot

64

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	1	Front Porch / Landing Zone (4 seats)
	2	Semi-private Acoustic Pods (16 seats)
	3	Fully Enclosed Acoustic Buffers (8 seats)
	4	Existing Stacks & Library Tables

Neighborhood Pilot

65

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Wrap Up

Next Steps

April 8	April 13	April 14
9:30am - Dean's Advisory Committee Presentation	11am – Campus Planning Meeting	9:30am – Executive Committee Meeting
	2pm – University Library Committee Meeting	1:00pm – Workshop #7
	3pm – Future of Learning Symposium	Collect Student Input Boards

Workshop 7: April 14, 2022

Meeting Details

Meeting Date:	4.14.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	1:00 PM	**Project Number:**	021661.000
Meeting Location:	Swaim Conference Room, 4th Floor	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Florent Mettetal, Stephen Lenz, Mark, Drew, Allison, Beth, Rebecca, Scott, Dorothy, Gulich

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #7	Perkins + Will

Workshop #7

1. Program Summary: Experiential vs experimental; Experiential everywhere, experimental is in the program.
2. HIKS: medium term plan; If books moved to 2550, would want a specialized space to help with environmental control. Majority of rare books are in HIKS, need to figure out delivery between buildings.
3. SC/A will still be visible for site line; if there is a larger gallery or pocket gallery, security is an issue as well as humidity control; South campus is a growth are for campus, so make it more destination focused.
4. Need think through access to third floor, there is elevator access to all floors.
5. Need to develop attributes for brand.
6. Open Discussion:
    1. Offsite, if archival goes there, needs to be a clear logistics plan.
    2. Digital programs, if in separate buildings, need to have digitization facility.
    3. HSSE scenarios have security concerns
    4. PW will propose organizational system for website
7. Debrief: PW to send Purdue graphic template of site, note on their recent projects/investments and on separate one, possible future investments.

    Show past and future momentum; Define site criteria and partner criteria; Bubble these ideas up to provost.

Action Item: Send service drivers & spatial attributes around for comment; Determine the draw to get people to come to A/SC;

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan: Workshop #7
4/14/2022

Perkins&Will

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Agenda

Master Plan Status & Schedule Update

Data Collection Update

Last Workshop Recap
  Precedent Tour Takeaways
  Project Vision Statement

Planning Scenarios

Experiential Mapping

Program

Open Discussion & Wrap Up

→
WALC

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Project Status Updates
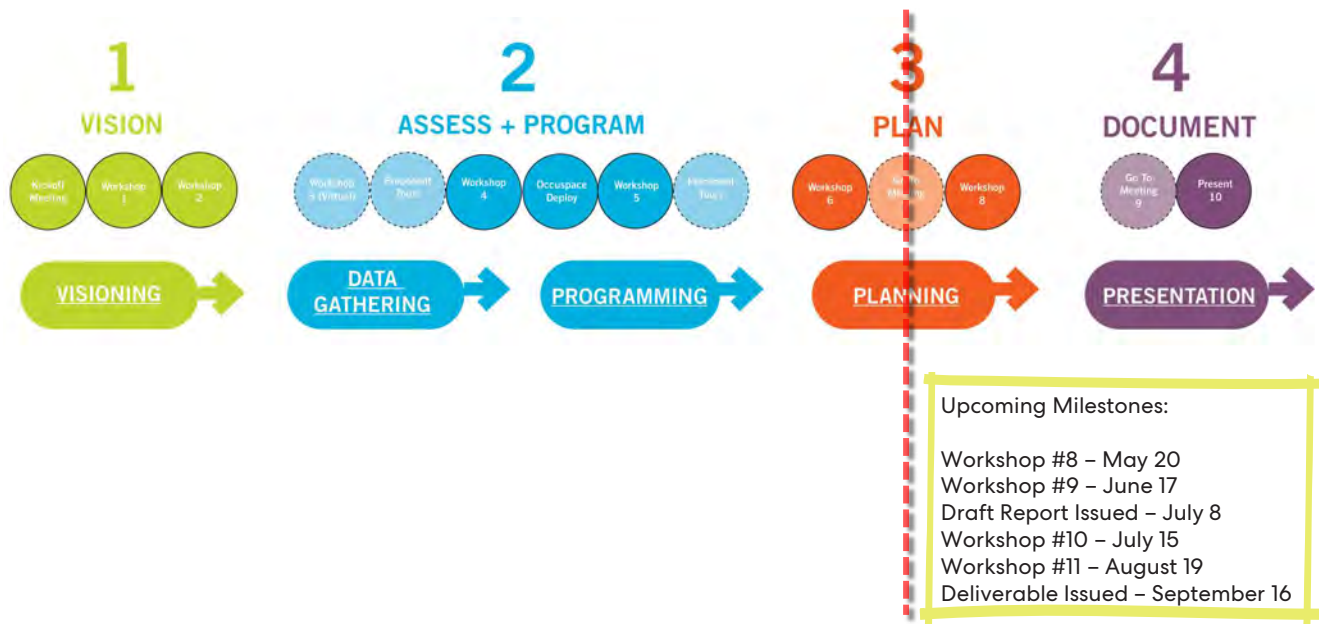
Master Plan Process

Upcoming Milestones:

Workshop #8 – May 20
Workshop #9 – June 17
Draft Report Issued – July 8
Workshop #10 – July 15
Workshop #11 – August 19
Deliverable Issued – September 16

Visual Listening

Current & Future Culture

Student Visioning

23+ Focus Group Discussions

Program Prioritization

Brand Aspiration

Data Collection

Sensor Technology

Spaces measured (24 zones):
- HSSE Level 1, 2, 3
- HIKS Level G
- WALC Level B, 1, 2, 3
- MATH Level 3
- KRAN Level 2
- LYNN Level 1
- TERM Level 1

Feb 06-Present
first full week of
collection

>100k+ data points
8:00-23:00 daily by zone
& building

Installation & calibration between Jan 24 – 31. Sensors not fully online between Feb 02-05.

Data Received To Date – average occupants by day

Legend:
- ■ Aviation Technology Library
- ■ John W Hicks Undergraduate Library
- ■ Mathematical Sciences Building
- ■ Roland G Parrish Library
- ■ Stewart Center - HSSE
- ■ Veterinary Medical Library
- ■ Wilmeth Active Learning Center

CALIBRATION   SPRING BREAK

SITE VISIT
VISUAL SURVEY

Data Insights
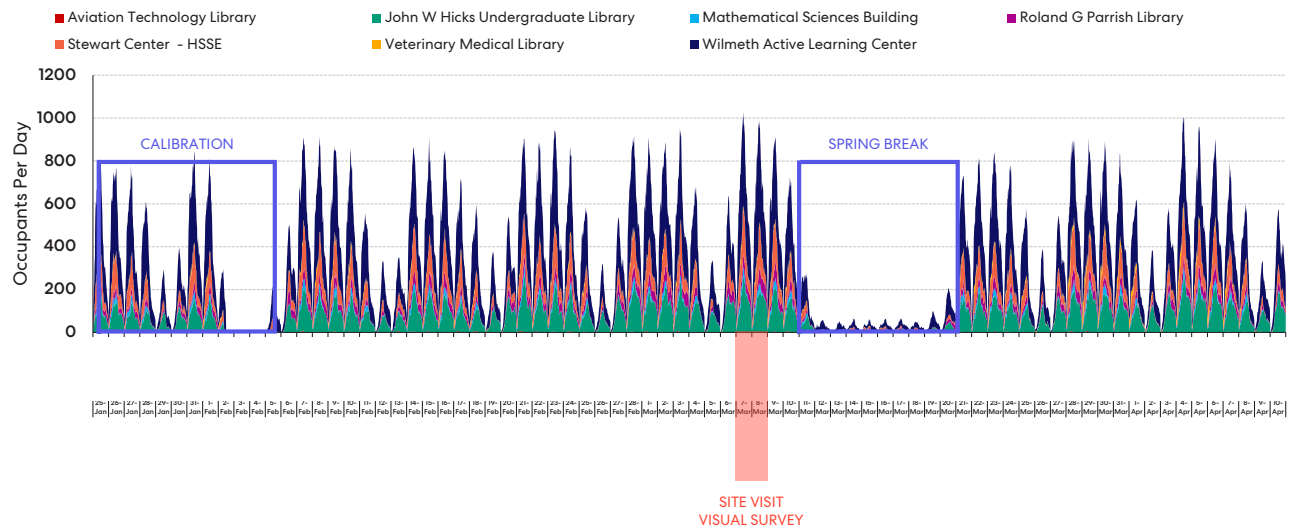
When does each library 'feel' at capacity ?

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Site Observations Overview

Site Observations were conducted to evaluate existing space conditions, human/environment interactions, function and utilization of space, and work/study patterns.

2 days
March 7-8, 2022

7 libraries
HSSE / HICKS / PARRISH / WALC / MATH / VETM / AVTE
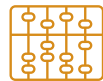
24 Zones
175 micro zones

Site Observations focused on the following characteristics:

power / seating / privacy

setting / atmosphere / support

adjacencies / amenities
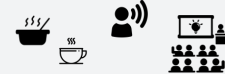
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Site Observations Summary

Greater utilization in libraries with many features (classrooms, food/beverage).

Students often observed working individually or in pairs of two, even when in a conference room.

Conference rooms do not have consistent technology or reservation protocols.

Vacant classrooms used as study space for one person/group.

Mobile whiteboards used to write and create semi-enclosed "rooms on the go."

Space Types and Activities

- Agile spaces equipped with whiteboards and technology/power were well used.
- Individual spaces (carrels) were most sought after, followed by tables with dividers.
- Transient/short-term use of areas outside classrooms
- Inefficient use of large study rooms.

Adaptions and Adjustments

- Mobile whiteboards used to define space.
- Desktop computers were often used in conjunction with student laptops.
- Storage modes are inconsistent across floors.

Light and Views

- Views into other spaces, especially if allowed natural light to filter, were highly desirable/greatest utilization.
- Students tend to sit near access to daylight (light well, clerestory window).
- Lounge chairs turned to face windows – sill used to prop feet up.

Acoustics

- Headphones commonly observed in use for noise mitigation
- Areas around amenities and restrooms were loud and primarily used for socialization
- General understanding of appropriate areas to collaborated vs. focus

---

Data Insights

When does each library 'feel' at capacity?

Each MicroZone has a predominant seat type.
This is the average* utilization by seat type at peak observed usage:

single	carrell	2-table	3-table	4-table	5+ table	booths	lounge	bench	computer
100%	**78%**	**88%**	**84%**	**59%**	**47%**	**59%**	**70%**	**44%**	**84%**

PEAK observation counts >>> **MAX CAPACITY BY SEAT TYPE** (utilization)

1   2

*disregards ATVE, VETM due to low volumes & locations

Data Insights - Questions to Answer

When does each library 'feel' at capacity?

62% OF EXISTING SEATS

Example – HSSE 2ⁿᵈ Floor | 178 seats

AVG PEAK UTILIZATION BY SEAT TYPE & MICROZONE

110 seats

- **PEAK** observation counts — 1
- **MAX CAPACITY BY SEAT TYPE** (utilization) — 2
- **MAX CAPACITY BY ZONE** (aggregate of seat type) — 3

Data Insights - Questions to Answer

When does each library 'feel' at capacity?

Comparison between experienced capacity based on seat types vs. currently used numbers

OS ZONE			EXISTING SEATS	SEAT TYPE CAPACITY	EXPERIENCED CAPACITY
WALC	Lower Level Main	961	98	85	86%
WALC	First Floor Main	962	100	67	67%
WALC	First Floor North	963	18	11	61%
WALC	Second Floor North	964	23	18	79%
WALC	Open Computers North	966	33	30	91%
WALC	Second Floor Reading Room	967	146	130	89%
WALC	Third Floor North	968	25	17	68%
WALC	Third Floor East	969	58	48	83%
WALC	Third Floor West	970	78	58	74%
WALC	Open Computers South	999	24	21	85%
HSSE	First Floor Main	971	210	136	65%
HSSE	First Floor Classroom	972	28	13	47%
HSSE	Second Floor Main	973	178	110	62%
HSSE	Third Floor Main	974	146	93	64%
PRSH	Second Floor Main	975	225	133	59%
PRSH	Second Floor Learning Lab	976	40	33	84%
PRSH	Second Floor Corporate Study	977	38	23	61%
WALC	Second Floor LOES	978	65	50	77%
MATH	Third Floor Main	979	107	65	60%
MATH	Third Floor Graduate Study	980	34	23	68%
HICKS	Ground Floor Main	981	707	456	64%
VETM	First Floor Main	982	112	72	64%
VETM	First Floor Carrels	983	26	20	78%
AVTE	First Floor Main	984	34	23	69%

- **PEAK** observation counts — 1
- **MAX CAPACITY BY SEAT TYPE** (utilization) — 2
- **MAX CAPACITY BY ZONE** (aggregate of seat type) — 3
- **NEW EXPERIENCED CAPACITY %** — 4
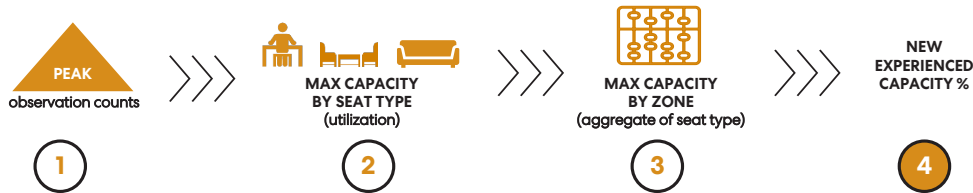
Data Insights – Working with Occuspace

1	2	3	4	5
PEAK observation counts	**MAX CAPACITY BY SEAT TYPE** (utilization)	**MAX CAPACITY BY ZONE** (aggregate of seat type)	**NEW EXPERIENCED CAPACITY %**	**ADJUST EXPERIENCED CAPACITY IN APP**
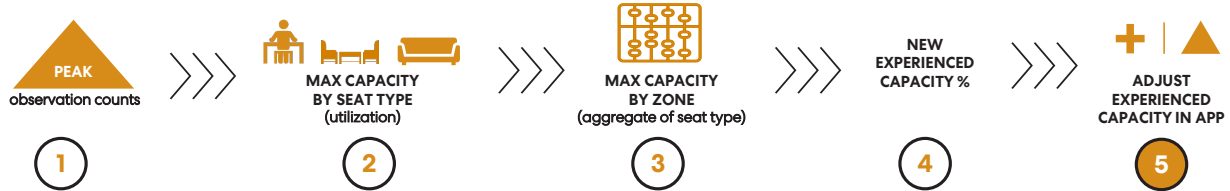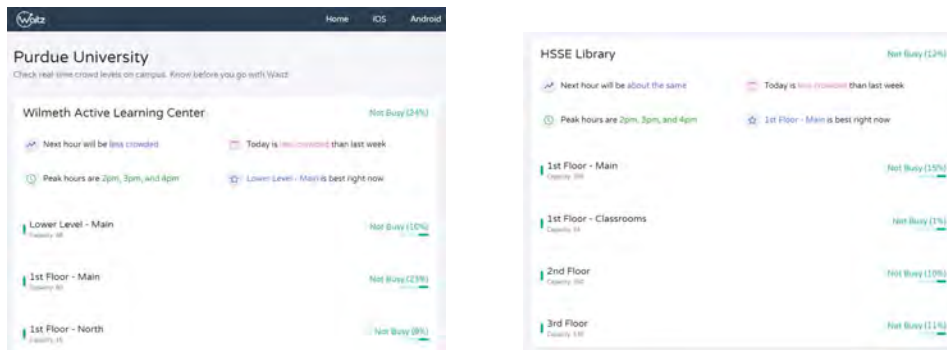
Slide 15 of 92

Preferred Seating – High vs Low Peaks

Seating fill at PEAK observed utilization by library and seat type:

Maximum observed utilization – less choice

	AVTE	HICKS	MATH	PARRISH	HSSE	VETM	WALC	
single							100%	100%
carrell	13%	77%	77%	83%	66%	43%	100%	66%
2-table	25%			25%	113%	20%	100%	57%
3-table				83%			81%	82%
4-table	21%	38%	100%	29%	41%	22%	79%	47%
5+ table		55%	49%	56%	27%		76%	53%
bench		38%		51%				44%
booths		54%		58%			60%	57%
computer		51%	120%	45%	91%		94%	80%
lounge	33%	31%	33%		22%	29%	92%	40%
Average	23%	49%	76%	54%	60%	28%	87%	

Seating fill at OFF PEAK observed utilization by library and seat type:

When there was an abundance of choice
(usually, past 6pm)

	AVTE	HICKS	MATH	PARRISH	HSSE	VETM	WALC	
single							100%	100%
carrell	6%	28%	44%	44%	24%	14%	33%	28%
2-table	6%				44%	20%	52%	31%
3-table				33%			18%	26%
4-table	13%	18%	4%	15%	11%	16%	24%	14%
5+ table		33%	11%	20%	11%		21%	19%
bench		13%		28%				20%
booths		29%		33%			38%	33%
computer		44%	32%	23%	26%		33%	32%
lounge	8%	1%			4%	3%	21%	8%
Average	8%	23%	23%	28%	20%	13%	38%	

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Utilization by Library– average hourly fill*

Monday-Friday, discarding calibration and spring break *(Feb 06 – April 10)*

*based on revised experienced capacities
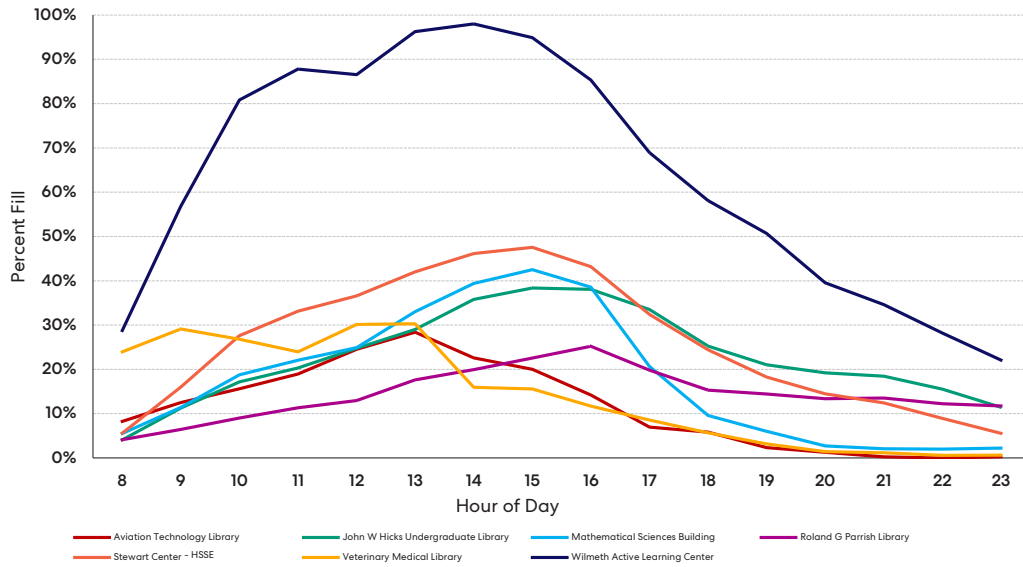
Workshop # 5 and #6 Recap

Precedent Tour Takeaways

University of Chicago

Partnership with arts, humanities and library
Provide spaces for no tech to high tech engagement
Brand and signage part of Crerar experience
Library owned space
Café at entry
Variety of spaces and seating choices

First Floor Café Space
Tech Bar Studio
Writable Surfaces
Team Rooms
One Button Studio
Ample Power & WiFi
Pop-Up Exhibits to showcase artifacts
Self-checkout modifies staffing need

Space divided by behavior
Hospitality focus (from food, coat rooms to break out spaces)
Interactive white boards throughout, moveable
Camera can recognize emotion
Tech support high
Furniture with high backs is desired
Unassigned seating, check in at front desk or on app
Desks are height adjustable
Maker space – meant to be messy
Reservation system for all conference rooms

EY Wavespace

23

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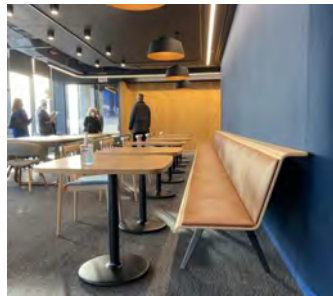
Brand reinforced through design and sponsorship
Strong beverage and food component
Central hub
Zoom Suite
Phone Rooms

Aspen Dental
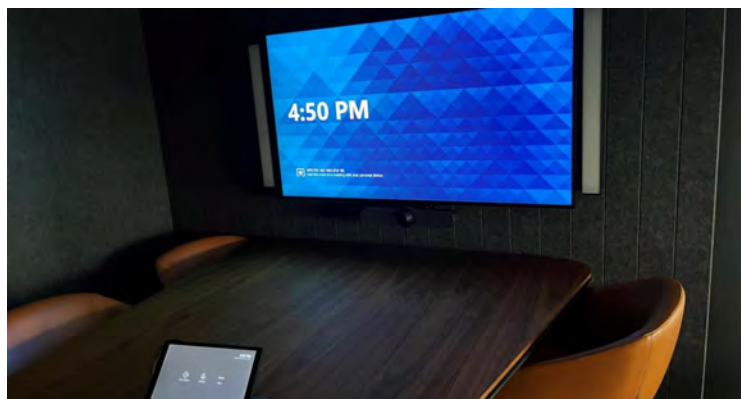
24

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Northwestern University The Garage
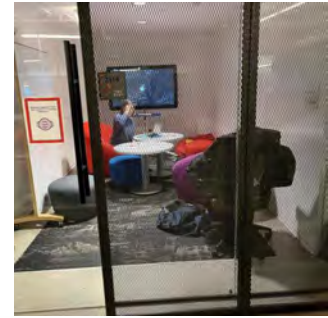
Entrepreneurial space, interdisciplinary
Not associated with any schools
Dry erase on tables and walls
Modular furniture to create a 'zone'
Students like backs to walls
Soften up the space
AR/VR media
Left brain / right brain conf rooms
Self-guided space
Pods with mix of furniture creates safe zone
Peer to peer is most effective

Project Vision

DRAFT PROJECT VISION STATEMENT

*The future Purdue Libraries will be the **bridge** between individual scholars and the academic community, the campus and the world. It will **connect** disciplines and **integrate resources** across the university so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized **partner for experimentation, collaboration, and digital learning**. It will be a **pathway between knowledge acquisition and its application in the service of society***.

DRAFT PROJECT VISION STATEMENT

SERVICE DRIVERS

1. Welcoming to all

2. THE HUB for knowledge and scholarship sharing

3. THE integrated Center for Digital Scholarship
4. Host spaces for virtual and experimental learning

5. Seamlessly part of the "total" Purdue student experience
6. Resource-rich place to connect and collaborate
7. Promote trans-disciplinary research and learning
8. Unified alignment of purpose
9. Be more visible

SPATIAL ATTRIBUTES

1. Visible, intuitive, accessible, inclusive: validate lived experiences
2. Showcase creation, scholarship, institutional legacy, and special collections
3. Make technology and resources seamlessly present
4. Integrate virtual learning seats and experimental teaching lab
5. Integrate brand across physical and digital spaces

6. Blur boundaries between formal learning and social learning
7. Support learning across academic and co-curricular spaces
8. Co-locate staff with serendipitous collaboration spaces
9. Consistent brand expression and physical transparency

Programming

Library Central Services Program

Program Content Summary

SF Comparison

Existing HSSE & HIKS nsf: 161,170 sf

Draft Program nsf: 208,390 sf

Seating

Existing Seat Count: 2,836 seats

Seating Projections: Current Benchmark method suggests need for: **2,414** additional seats

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Program Content Summary

Enhanced Programs
- Study Seats (quantity and variety)
- Quiet/Silent Reading Room
- Themed Browsing Collections
- Archives / Special Collections:
  - 2X storage capacity
  - cold storage
  - group room
  - conservation lab
- Maker Space

New Programs
- Virtual Learning Hubs
- Center for Digital Scholarship
- Knowledge Gallery
- Drop-In Services
- Express Computing
- Self-Check
- Print Lab
- Digital Signage
- Seminar Rooms (2)
- Experimental Classroom
- Special Projects Rooms (5)
- Café
- Non-Traditional Students Lounge
- Graduate Commons

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Physical Building Conditions Assessment

Library Existing Building Assessments

These libraries are a 'tenant' in an academic building, thus have less agency over the state of existing conditions and future repairs.

WALC

ALL IN GOOD CONDITION

STEW - $$

- 🟠 STRUCTURE
- 🟠 ENVELOPE
- 🔴 INTERIORS
- 🔴 MECHANICAL
- 🔴 ELECTRICAL
- 🔴 LIFE SAFETY

Aging AHU's & ductwork may require full replacement to VAV's.
Major electrical repairs
Major sprinkler system upgrades, especially if occupancy changes
Poor elevator operation
Significant accessibility challenges

HEAVY: A full renovation of the space could encompass all of these upgrades simultaneously and solve major accessibility challenges.
LIGHT: At the very least, significant disturbance to the existing space would be required due to mechanical ductwork replacement. Accessibility challenges would remain.

HIKS - $$$

- 🔴 STRUCTURE
- 🔴 ENVELOPE
- 🟠 INTERIORS
- 🔴 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

Major waterproofing repairs required at basement roof
Full replacement of 40-yr-old AHU's & ductwork
Significant electrical upgrades requires
Space use and flexibility is inherently limited

HEAVY: A full renovation of the space would require all of these upgrades. Due to long-term maintenance concerns, demolition and replacement is a viable option.
LIGHT: At the very least, mechanical systems need to be upgraded and leaks mitigated (soil removal and waterproofing replacement)

TERM

- 🟠 STRUCTURE & ENVELOPE
- 🔴 INTERIORS
- 🔴 MECHANICAL
- 🔴 ELECTRICAL
- 🟠 LIFE SAFETY

MATH

- 🟢 STRUCTURE & ENVELOPE
- 🔴 INTERIORS
- 🔴 MECHANICAL
- 🟠 ELECTRICAL
- ⚪ LIFE SAFETY

LYNN

- 🟠 STRUCTURE & ENVELOPE
- 🔴 INTERIORS
- 🟠 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

KRAN

- 🟢 STRUCTURE & ENVELOPE
- 🟢 INTERIORS
- 🟢 MECHANICAL
- 🔴 ELECTRICAL
- ⚪ LIFE SAFETY

Potential Library Storage Site (Exec 2550)

42,554 Total ASF

13,638 ASF

28,916 ASF

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Potential Library Storage Site (Preliminary Test Fit)

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included

Test Fit: 157,675 LF
- 7-high shelving (84")
- 85% filled
- 1.576M volumes
- Potential increase of 10% (170,000 LF)
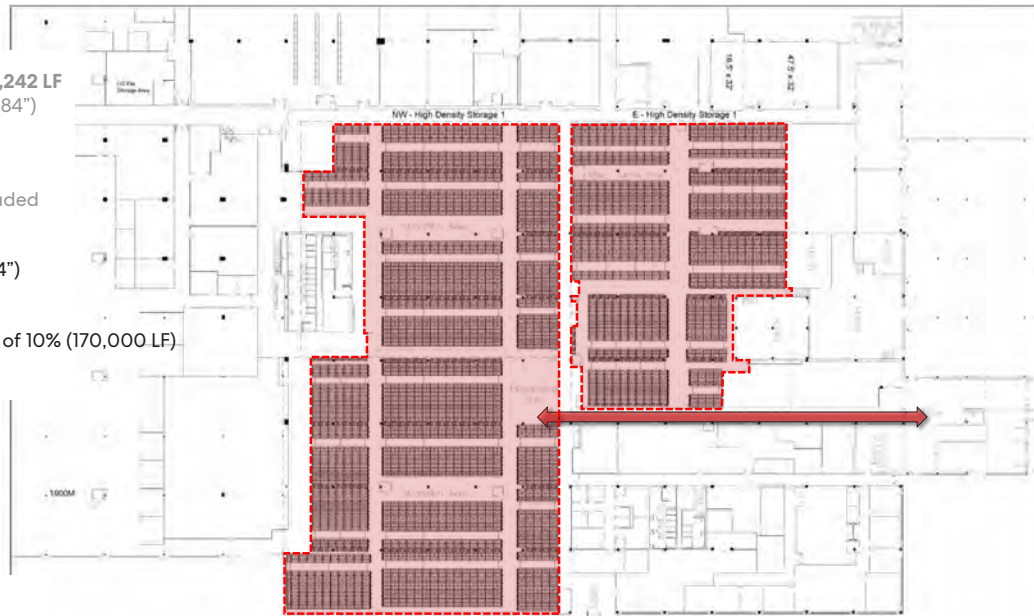
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Scenario Options & Evaluation Criteria

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System Scale

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Library 10-Minute Catchment

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Library Locations
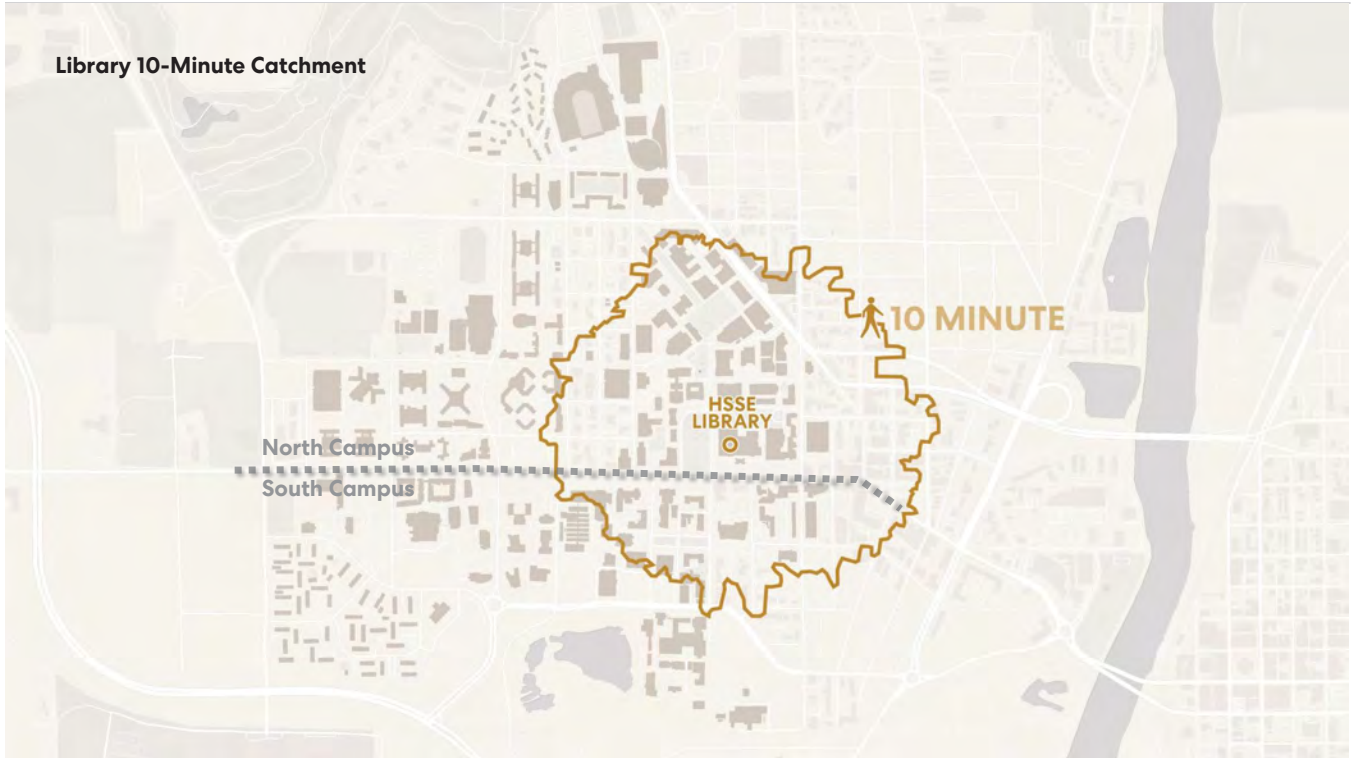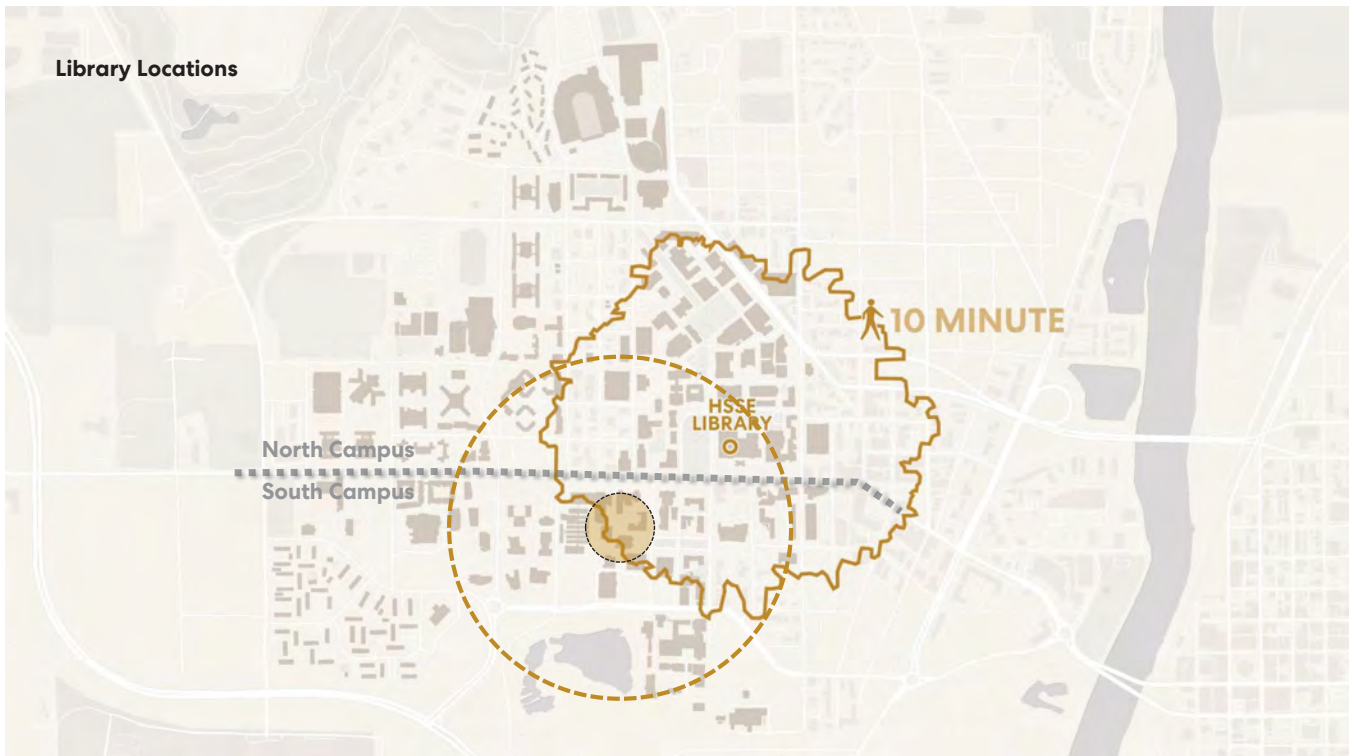
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Library System: Dual Hub
With Distributed Special Programs
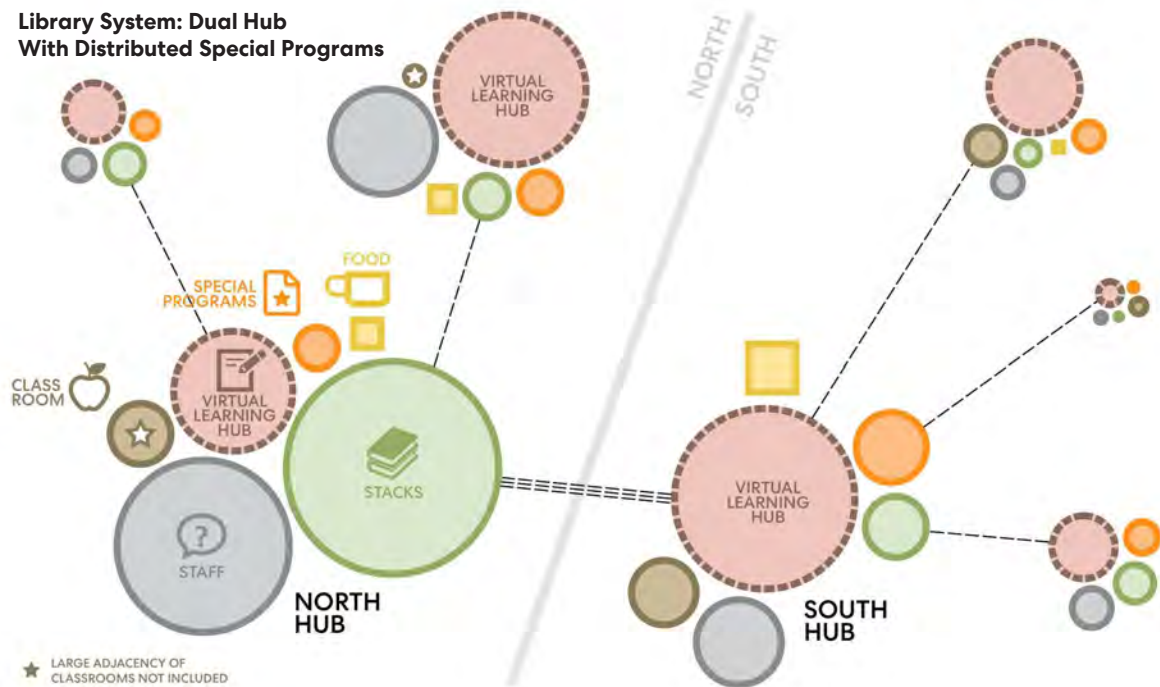
TEAM BOILERS - FINAL PROGRAM DISTRIBUTION

SOUTH HUB (NEW)

NORTH HUB (HSSE)
150 UNITS MAXIMUM

- A / SC + Knowledge Gallery
- Split Virtual Learning Hubs
- Cluster Admin
- Graduate Commons on South Campus
- UG Facing Programs Split
- Faculty Facing Program on **North**
- Majority Study Seats on **North**
- **Maker Space Connected To A / SC**

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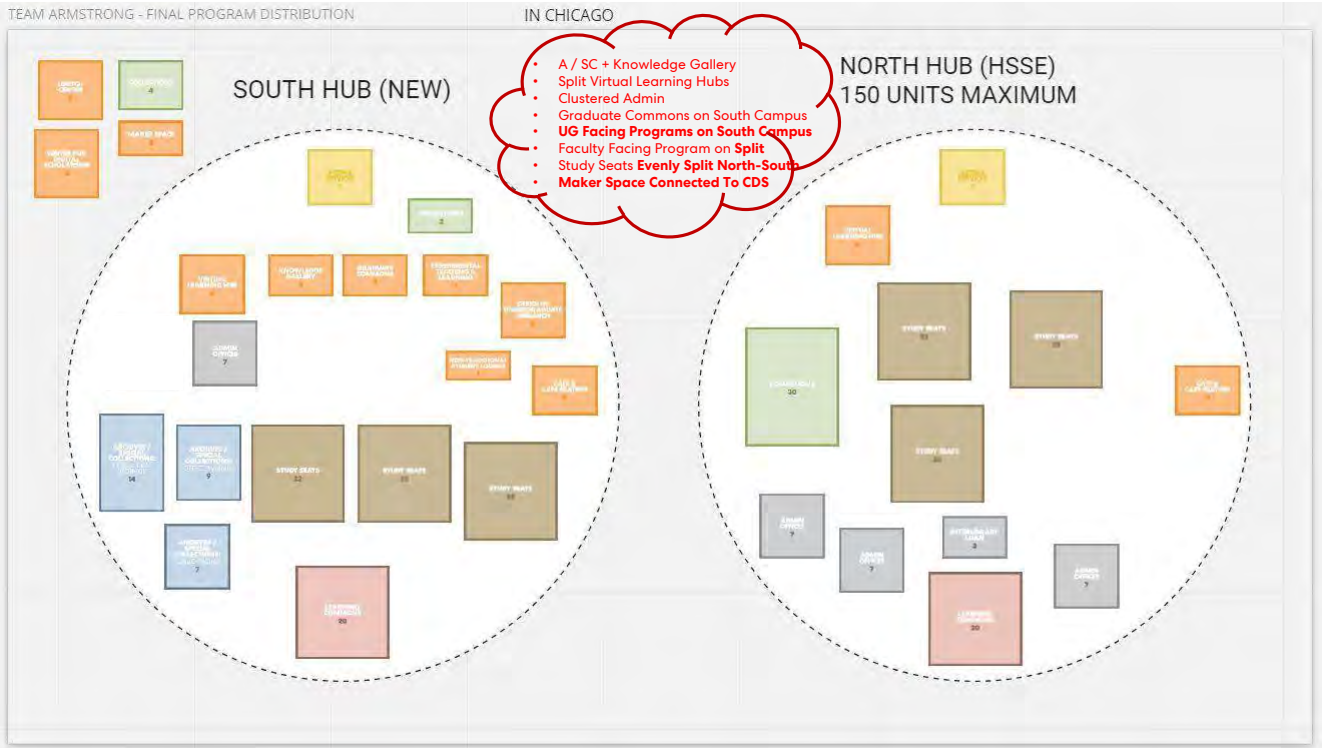
Slide 42 of 92

Renovate Existing

+
Low initial cost
Adds priority programs
Modest increase in study seats

-
Suboptimal location of A/SC
Siloed staff
Impacts WALC & MATH
Longterm maintenance of HIKS
Disruptive phasing
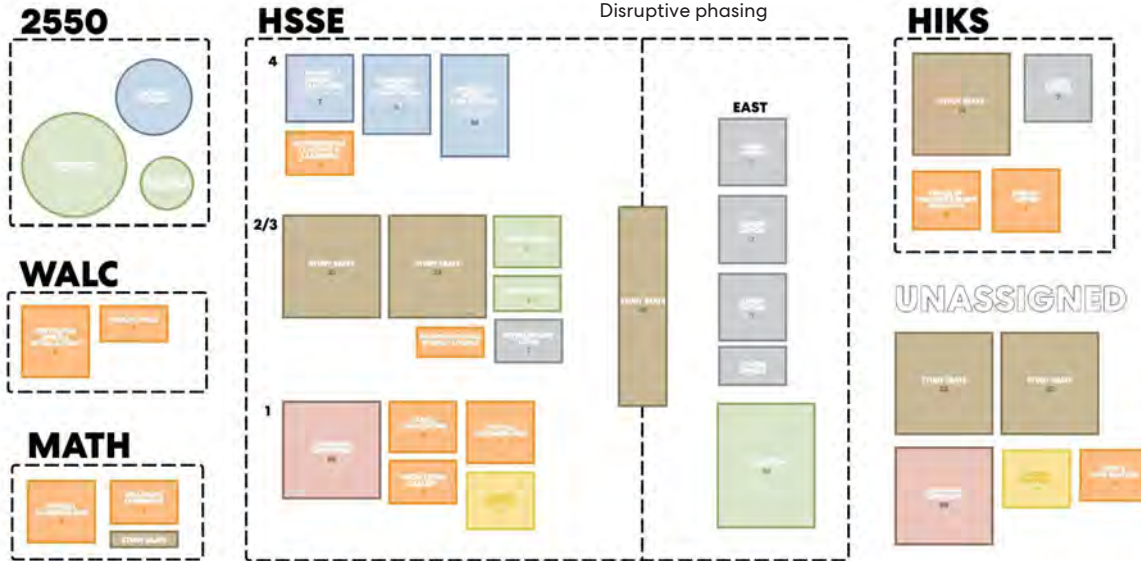
Slide 43 of 92

**Renovate Existing/
Close HIKS**

+
Low initial cost
Adds priority programs (reduced)
No liability of HIKS facility

-
Suboptimal location of A/SC
Siloed staff
Loss of study space
Impacts WALC & MATH
Disruptive phasing
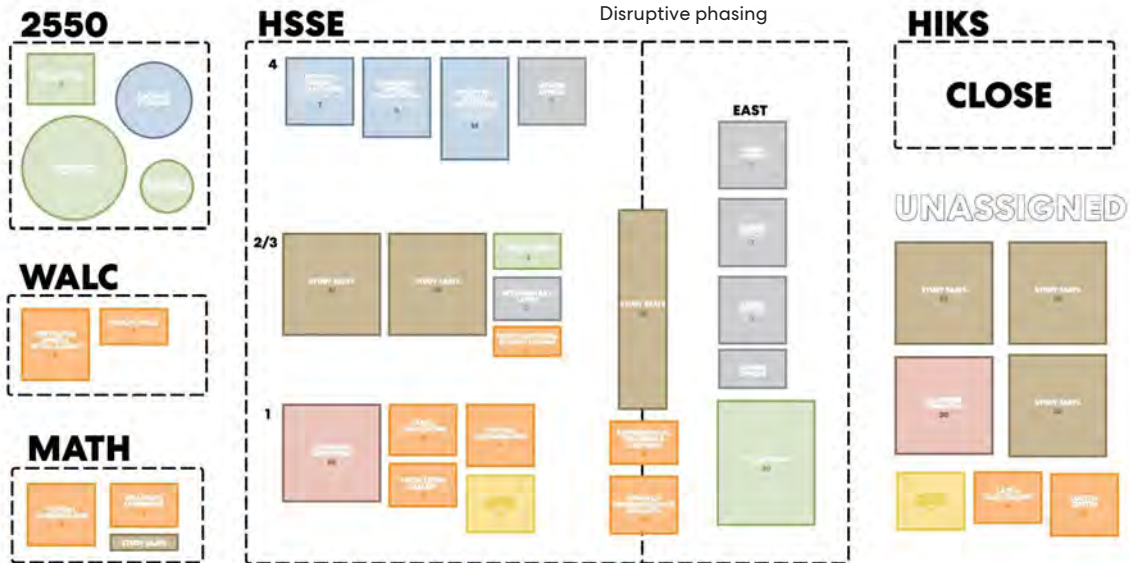
Slide 44 of 92

**Renovate/
Close HIKS/
New South Hub**

+
No liability of HIKS & MATH
Optimal location for A/SC
Adds priority programs
New study seating
Streamlined phasing

-
High initial cost

NEW FACILITY

2550

HSSE

4

2/3

EAST

1

WALC

NO EFFECT

MATH
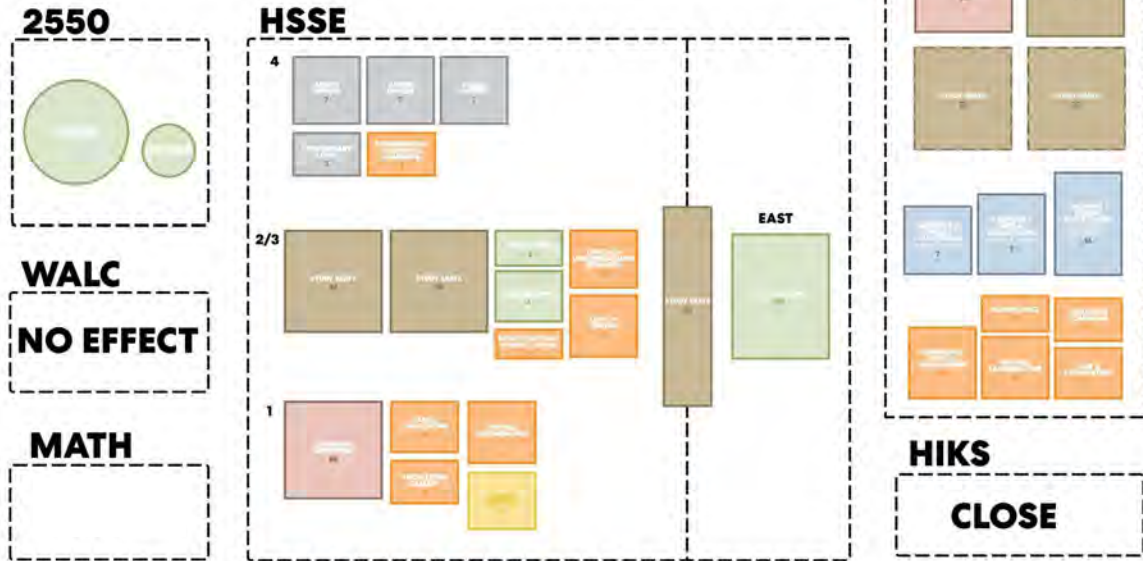
HIKS

CLOSE

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Renovate Existing
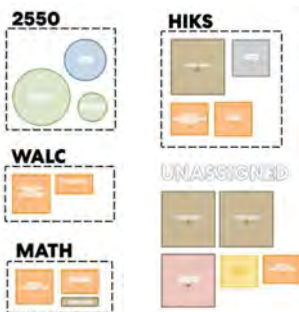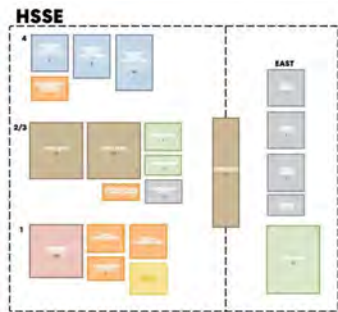
HSSE

4

2/3

EAST

1

2550

HIKS

WALC

UNASSIGNED

MATH

**Renovate Existing/
Close HIKS**

HSSE

4

2/3

EAST

1

2550

HIKS

CLOSE

UNASSIGNED

WALC

MATH

**Renovate Existing/Close HIKS/New
South Hub**

HSSE

4

2/3

EAST

1

2550

NEW FACILITY

HIKS

CLOSE

WALC

NO EFFECT

MATH
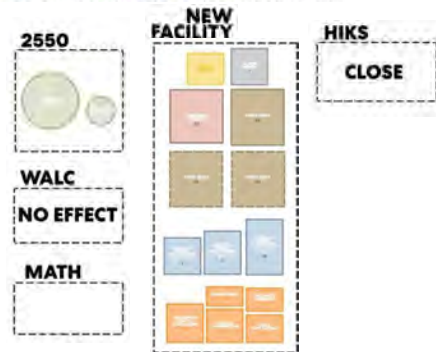
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Renovate Existing

Renovate Existing/ Close HIKS

Renovate Existing/Close HIKS/New South Hub
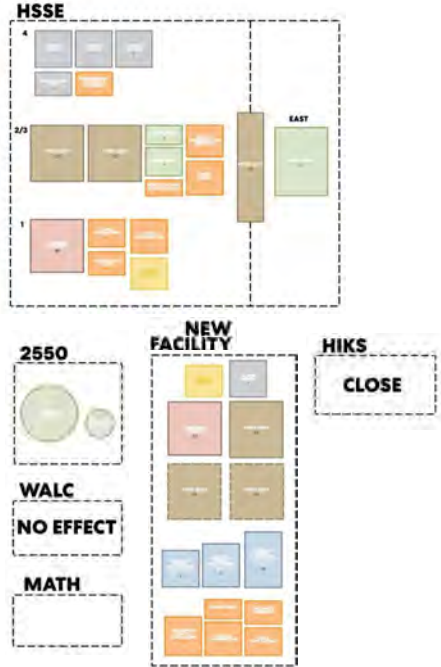
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Renovate Existing

Renovate Existing & Close HIKS
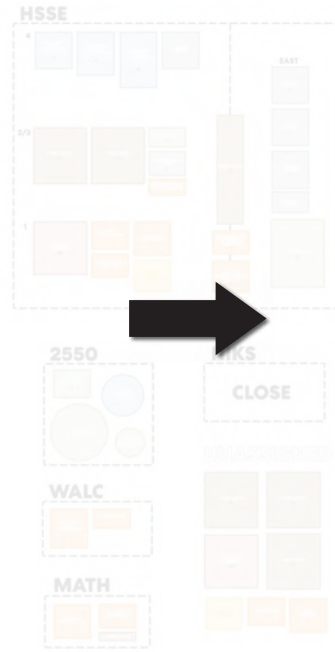
Renovate Existing/Close HIKS/ New South Hub
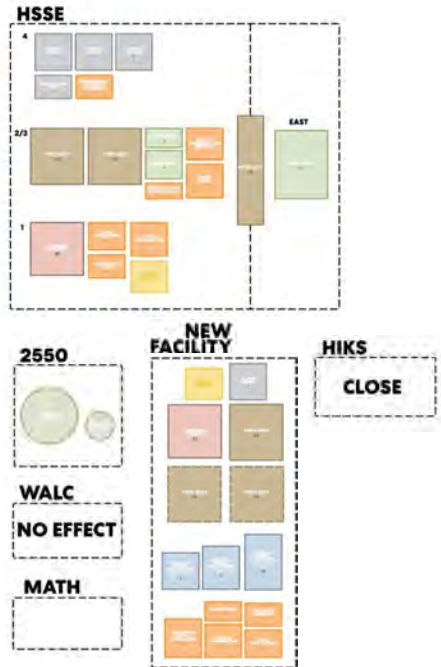
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Renovate Existing

Renovate Existing/ New A/SC

Renovate Existing/Close HIKS/ New South Hub
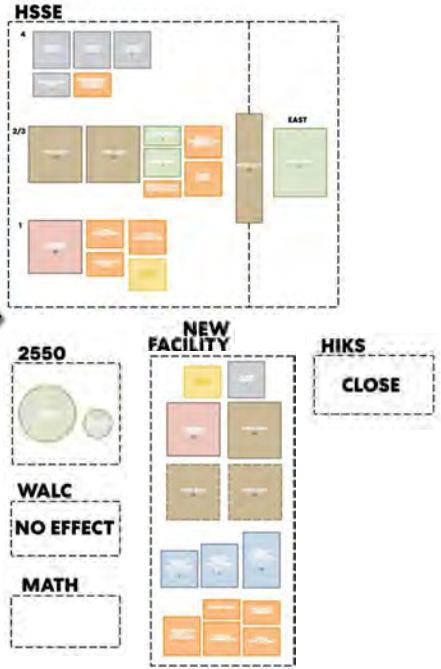
Slide 49 of 92

Renovate Existing/ New A/SC

+
No liability of HIKS
Optimal location for A/SC
Adds priority programs
Net new study seating
More impact quickly

-
Medium initial cost
Siloed staff
Impacts WALC & MATH
Disruptive phasing
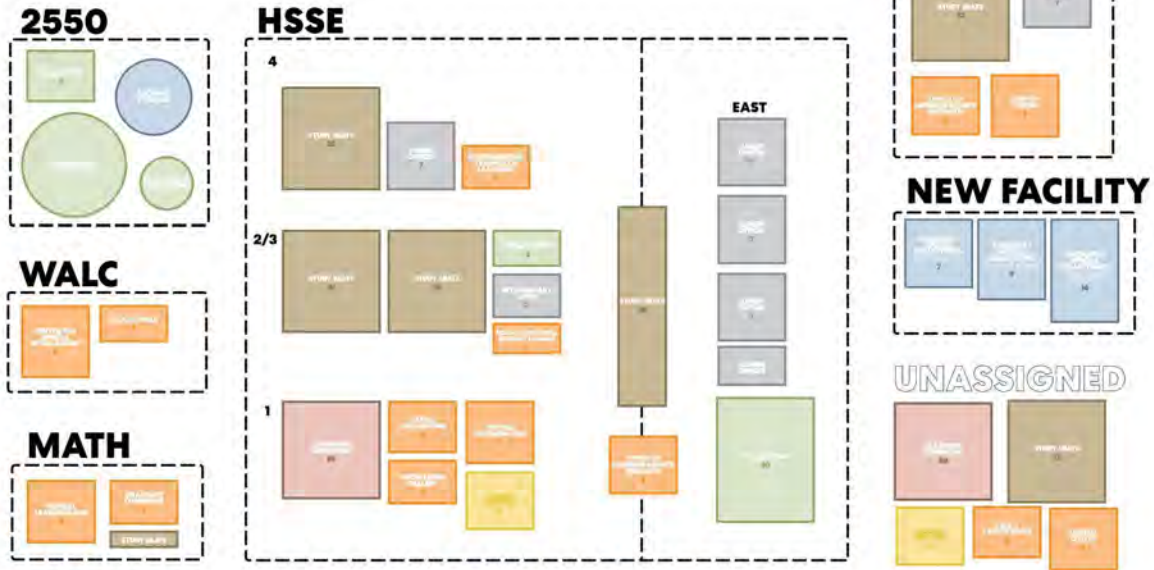
Slide 50 of 92

Renovate Existing & New A/SC

+
No liability of HIKS
Optimal location for A/SC
Adds priority programs
Net new study seating
More impact quickly

-
Medium initial cost
Siloed staff
Impacts WALC & MATH
Disruptive phasing
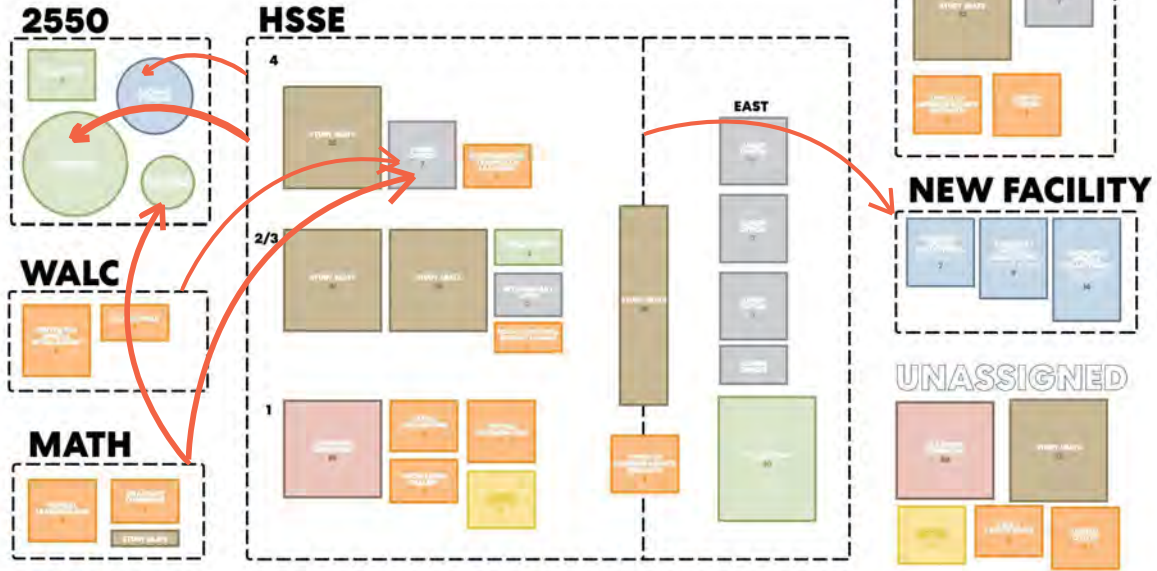
Building Scale: HSSE
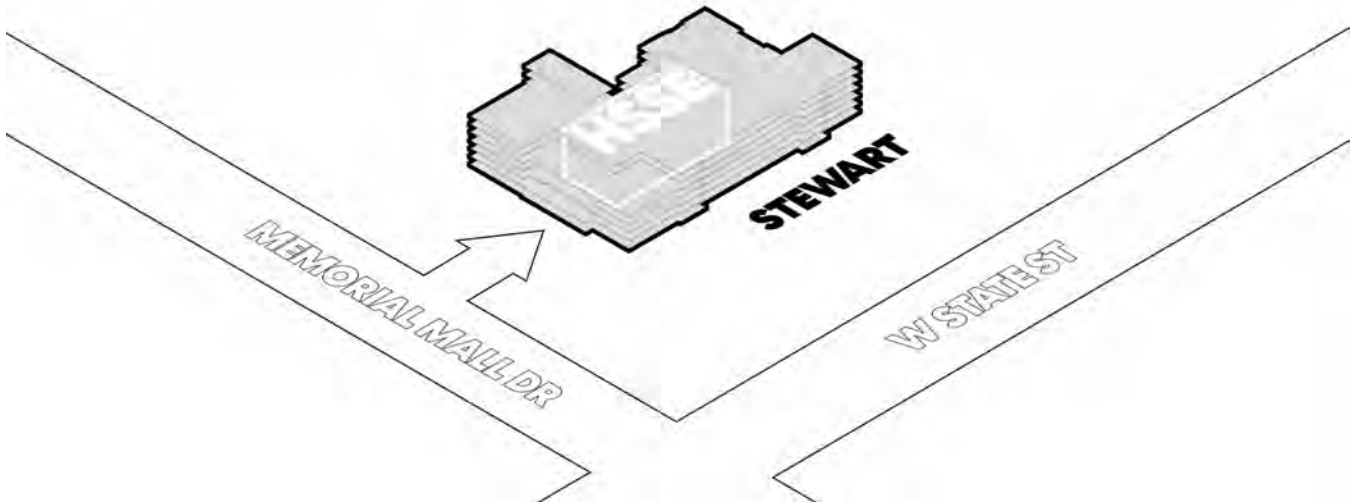
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Perkins&Will
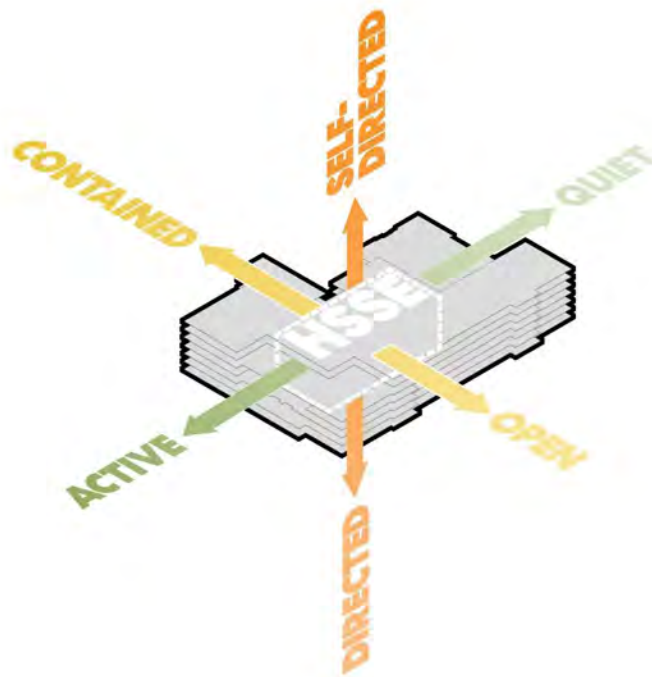
Slide 55 of 92
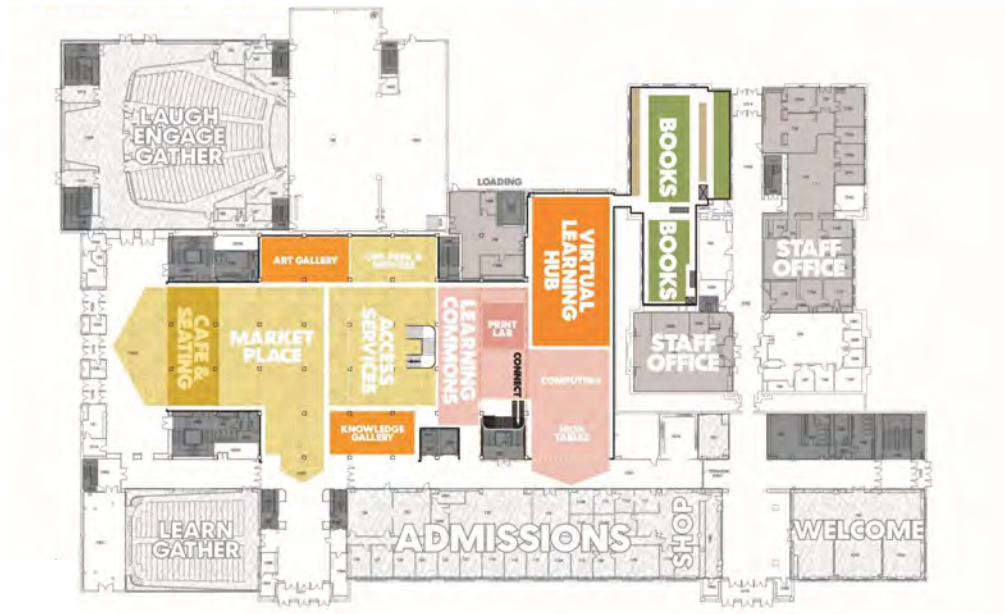
1a

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2a

Slide 57 of 92

3a
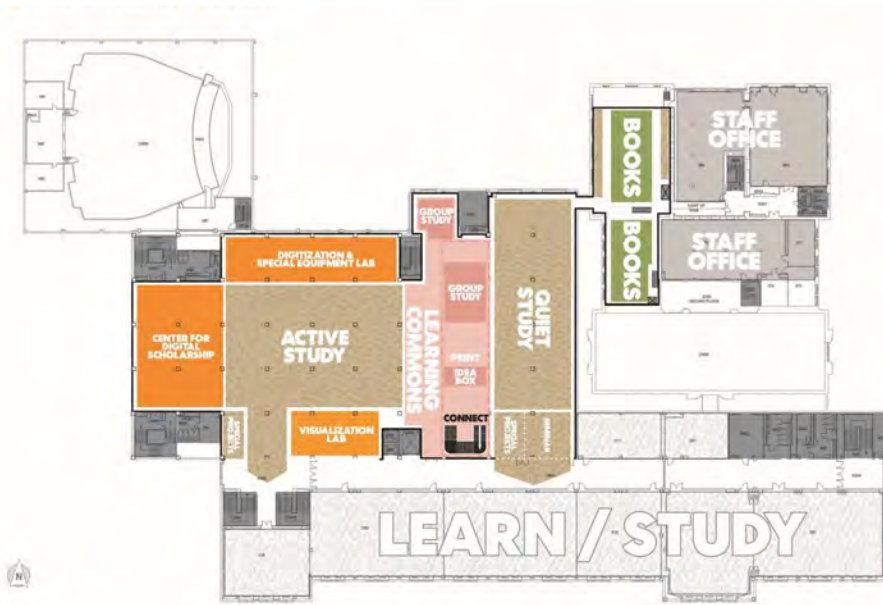
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4a

Slide 59 of 92

4b
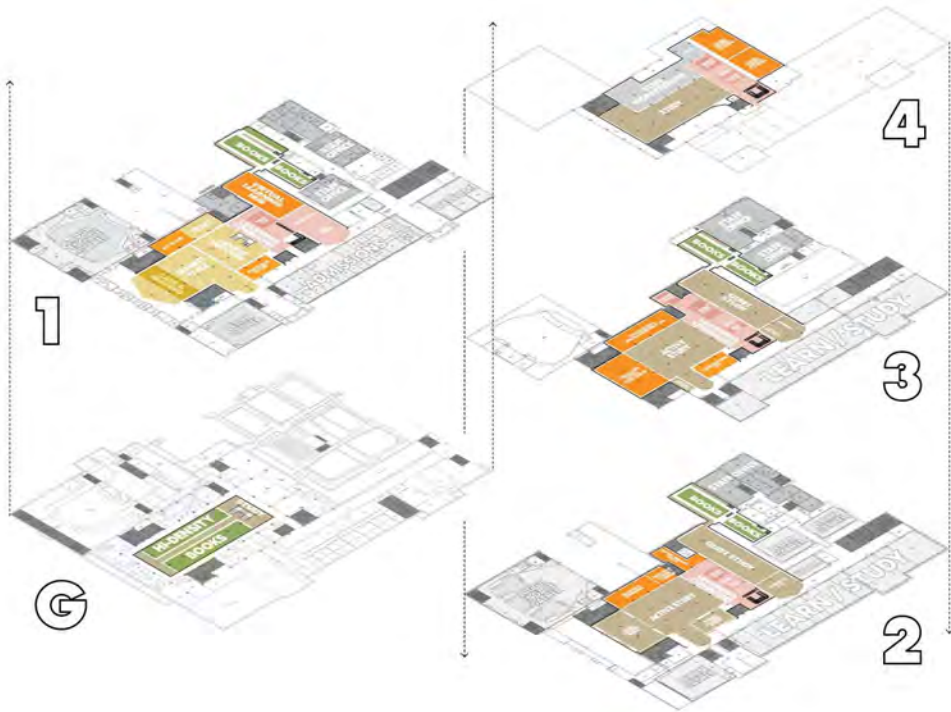
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Experiential Conditions Assessment

Purdue University Library Masterplan

Perkins&Will

Areas of Observation

Hicks Undergraduate Library

Humanities, Social Sciences and Education Library

Parrish Library of Management and Economics

Library of Engineering and Science

Veterinary Medical Library

Mathematical Sciences Library

Aviation and Transportation Technology Library

Archives and Special Collections

65

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Brand Observation Summary

Physical Space

Inconsistent Library name identification across the system.

Each Library is unique in its design and features.

Not all Libraries appear welcoming.

Minimal inclusion of story-telling within the Libraries.

Missing display space for Special Collections or other features.

Design feature at desks integrated in many libraries.

Inconsistent wayfinding and signage.

Ad hoc postings cause visual clutter.

Digital Space

Purdue brand leads for Libraries.

Navigation to individual libraries is sometimes difficult/confusing.

Landing pages are text heavy.

Physical Library imagery is small and often of poor quality.

Inconsistent categories across various libraries.

Archives & Special Collections has strongest visual "personality".

"Real-time readership" feature engaging and dynamic.

Most libraries highlight availability of study & specialty spaces.

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On-site Observations

Purdue University Libraries
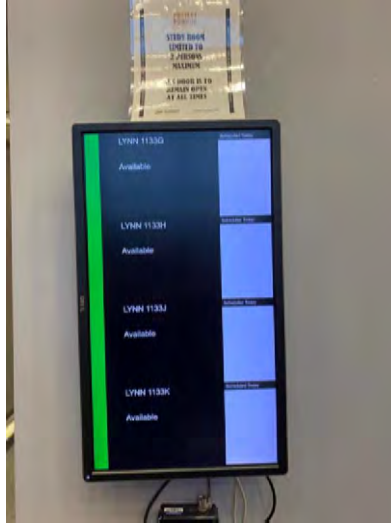
67

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Online Observations

Purdue University Libraries
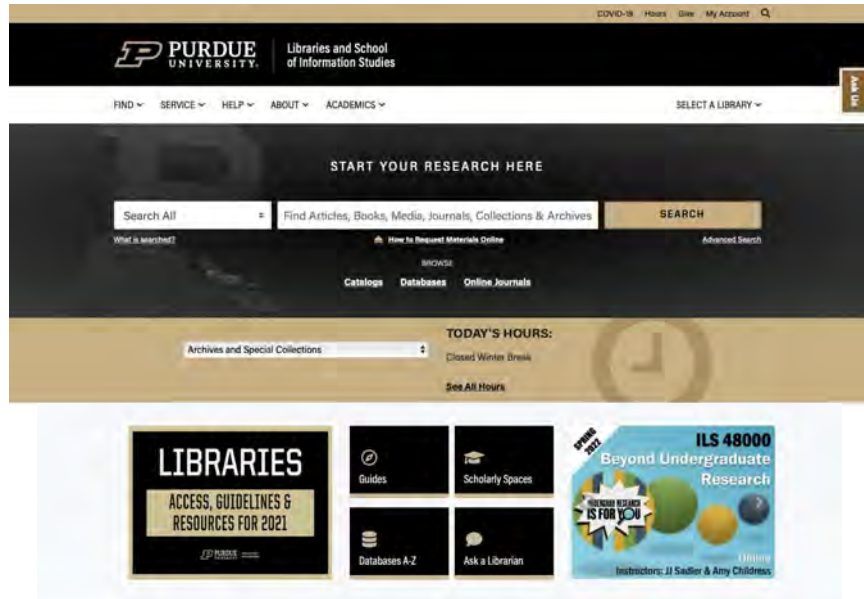
Screen capture of site

68

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Online Observations

Purdue University Libraries
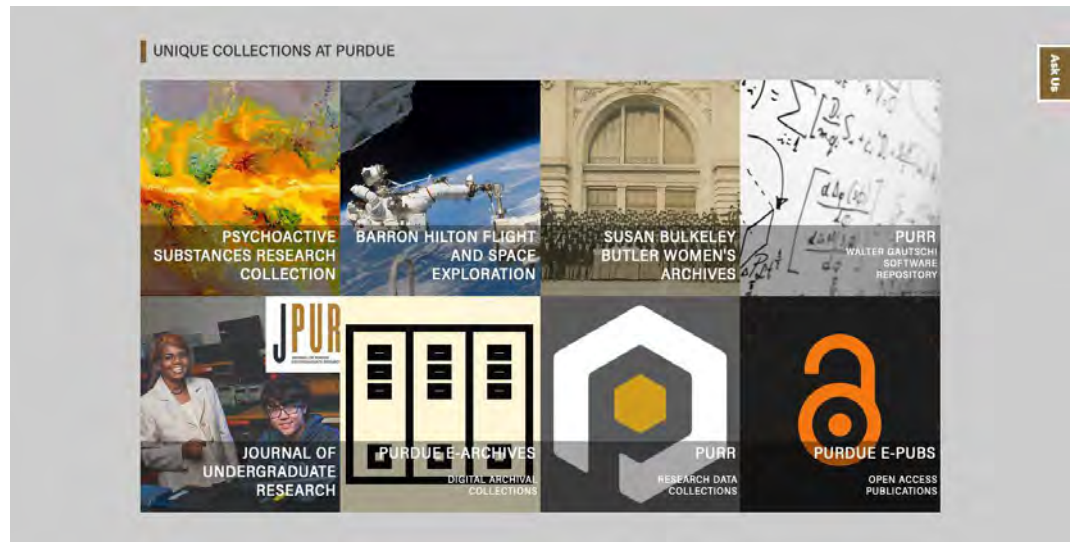
Screen capture of site

69

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On-site Observations

HSSE Library

← Information Desk (right)

↑ Entry

→ Information Desk (left)

70

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On-Site Observations
HSSE Library

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Online Observations
HSSE Library

"The Humanities, Social Sciences and Education Library (HSSE), located in Stewart Center, houses a large print collection that supports scholarly research and includes nonfiction, classic literature, children's literature, government documents and periodicals. The main floor features over 70 workstations, as well as printers, photocopier/scanners, and collaborative or individual study areas. Quiet study areas are also available on the remaining two floors. Research assistance is available at the service desk and by appointment. For more information about the Stewart Mural located outside the library entrance, visit **The Spirit of the Land Grant College webpage**."

https://www.lib.purdue.edu/libraries/hsse

→

Screen capture of site

72

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On-site Observations
Hicks Undergraduate Library

Reception

← Reception

→ Office of Undergraduate Research

73

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On-site Observations
Parrish Library of Management & Economics

→ iDesk – Reception

← Donor Signage

→ Entry Signage

74

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On-site Observations
Parrish Library of Management & Economics

Contributors

Room Signage

Donor Signage

Room Signage

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Online Observations
Library of Engineering and Science

Active Learning

Purdue University Libraries faculty and staff drew from their own expertise and consulted other leaders in learning design to create state-of-the-art active learning classrooms.

Unique Places

The Mullins Reading Room features a spectacular view of Purdue University's iconic Bell Tower. On the first floor, Au Bon Pain Café and Bakery provides expertly crafted baked goods and breads, along with coffee, tea, soups, and salads.

Library of Engineering and Science

Alongside its focus on providing unparalleled access to digital resources, the Library of Engineering and Science holds approximately 30,000 thoughtfully curated print volumes, consolidating the holdings and services of six formerly separate libraries all into one easily accessible location.

Versatile Spaces

The WALC is a student-centered facility with a variety of resources, study areas, and versatile spaces open to all students on campus. The LoES includes the Data Visualization Experience Lab of Purdue (D-VELoP). In D-VELoP, students can use the visualization lab, "Viz" Wall, 3-D printers, and/or receive assistance to help them turn their data into knowledge through visualization technologies.

Showcasing History

The walls of the WALC are rich with reproductions of historic photographs of the Purdue University campus. Artifacts and photographs from the working 1924 Power and Heating Plant can be found throughout the building, memorializing the rich legacy of this central site on the Purdue campus. A smartphone tour enhances the exhibits, by providing information and interactive activities designed to make a visitor's experience an extension of the WALC active-learning philosophy.

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On-site Observations
Archives and Special Collections

← Workspace

→
Collections Storage

→
Archives Entry

77

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On-site Observations
Archives and Special Collections
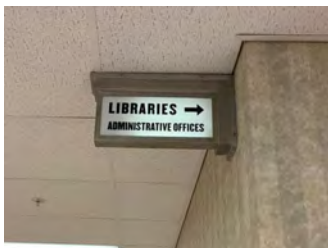
Signage

Collections Storage

Signage

Specialty Equipment

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Audiences

Audience Types – Purdue Libraries

All Students	Visitors & Visiting Scholars
All Faculty	Prospective Students
Staff	Academic Community
Public Community Members	Researchers
Alumni	Student Families
Donors	EDI | BIPOC | LGBTQ
Retirees	Creative Thinkers
Global "Citizens" & Students	Needs-Based Users
On-Line Participants	Users of Study Spaces
Event Attendees	All Abilities, Ages, Cultures, Languages

Audience Types – Purdue Libraries

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Current & Future Brand

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Brand Recap – Purdue Librariess

	Today	Future
		An Information Service Hub for Purdue...so much more than books!

Today

Welcoming service organization.

Equitable access to information & resources.

Teach crucial information skills.

Furthering the field of Information Science through research.

Distributed "hodge-podge" of resources & services.

We have study spaces; WE ARE MORE THAN BOOKS.

Striving to be better understood by all.

Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.

Open to new ideas.

Serve the information needs of the Purdue community.

Future

An Information Service Hub for Purdue...so much more than books!

Cohesive. Complementary. Inclusive.

Discover. Create. Grow. Innovate. Let us inspire you.

Advancing leadership and the profession through critical research.

Portfolio of resources, experiences and experimentation for all.

Dynamic multi-space environment with great resources.

Responsive services and staff at the academic forefront.

Expert level instruction and personalized guidance.

Connected within our organization, the university, the community, and the world.

Brand Drivers Diagram

Perkins&W

High Level
Experience Definition

Library Experience

Inspire
Show
Demonstrate
Excite
Energize

Study
Learn
Concentrate
Seek

Discover
Explore
Learn
Authenticate

Engage
Collaborate
Connect
Community
Partner
Share

Innovate
Collaborate
Experiment
Ideate
Make

Support
Help
Information
Print
Technology

F

Perkins&Will

Story-Telling

Stories

Our History	Our Archives	Our Collections	Library Locations & Specializations
A Place for Knowledge Creation	Our Services, Resources & Tools...More than Books!
Authentic Source of Information	Personal-Touch Assistance...Let Us Help You!
Patents, Firsts, Innovations at Purdue	At Purdue, it's Cool to be Smart
Your Experience Begins at Purdue Libraries	The Digital Experience
Research & Explore	We are ONE Library System
Study, Learn, Collaborate, Innovate, Celebrate	Our Expanded Network
Physical Places & Spaces	Our Rich Database
Information Literacy	Vital Partnerships

Story-Telling

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Story-Telling

DEEP DIVE: "RECOGNITION"

PATENTS

FIRSTS

INNOVATIONS

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Prioritization Tool

Strategic Opportunities Matrix

Open Discussion

Q+A

Workshop 8: May 10, 2022

Meeting Details

Meeting Date:	5.10.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	8:00 AM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Florent Mettetal, Dorothy, Beth, Rebecca, Drew, Allison, Mark, Scott

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	**Workshop #8**	Perkins + Will

1. Few students showed interest in south campus for hub location; 'distributed model' is catching all.
2. Beth wants to see beyond top 5 of library usage, follow up; A/SC are important; Can't be compact shelving in HSSE; CDS should stay in HSSE; SF needs to be clear in the document (ASF vs GSF).
3. R-HUB – focus on study seats, not as much as academic support.
4. Need more info from Allison/Drew for south campus investment.
   - Nursing/pharmacy - hard to get dollar figure from them. Best to identify locations. Airport is another one, and forestry.
5. WALC – Need compelling argument to validate scope, is this the right move and why invest capital fund into the building.
6. Critical for PW - What is disposition of 4th floor. Do we look at it as classroom/conf space, or keep as is?
7. Occupancy has shown relationship with classrooms to libraries

Action Item: PW to share PPT/agenda afterwards and on Teams; Need direction on graduate FTE; Share with Turner; PW to share notes with Shannon on the potential classroom spaces in STEW, also HSSE classroom study/analysis to push classrooms vs. conferences conversation; BE – review renderings; PW, ASG, Jenna and others - talk about intersection of classrooms and library; Study relationship of conferences, classrooms, and these spaces with library; Invite Cherise (speak to the provost office), then report to provosts; BE meeting - Monday afternoon before 2pm - 4pm EST.

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan: Workshop #8
5/10/2022

Perkins&Will

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Agenda

Master Plan Status & Schedule Update

Workshop #7 Recap

Data Collection Update

Programming Summary

Planning Scenario Refinement

Experiential Mapping Assessment

Wrap Up & Next Steps

→
WALC

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Project Status Updates

Master Plan Process

Upcoming Milestones:

Workshop #8 – May 10
Workshop #9 – June 21 or 22
Draft Report Issued – July 8
Workshop #10 – July 15
Workshop #11 – August 19
Deliverable Issued – September 16

Workshop # 7 Recap

PROJECT VISION STATEMENT

*The future Purdue Libraries will be the **bridge** between individual scholars and the academic community, the campus and the world. It will **connect** disciplines and **integrate resources** across the university so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized **partner for experimentation, collaboration, and digital learning**. It will be a **pathway between knowledge acquisition and its application in the service of society**.*

Sense of Belonging at Purdue

"Belonging is a construct that has long been a focus for many units on Purdue's campus—this interest is not new."

Synopsis of measuring sense of belonging among undergraduate students at Purdue University- West Lafayette (as of October 2021).	
Study	**When**
Orientations- Student Success Programs	Every entering student is measured before and after orientation [(V)STAR] and after Boiler Gold Rush (BGR).
First Year Engineering (FYE)- Dr. Kerri Douglas (ENGR)	Beginning of every term every FYE students are surveyed on this and other constructs.
Student Experiences at Research Universities (SERU)- IDA+A	A census activity; in the even numbered spring terms undergraduates are surveyed and in the odd numbered spring terms graduate students are surveyed.
Organizational Leadership- Dr. Stephen Elliot (PPI)	Once per academic year, typically in the fall term, all students enrolled in this program of study are surveyed.
Student Life- Kevin Maurer	Approximately six weeks after the start of each term, first year and second year students are measured on this construct.
Steps to Leaps (S2L) – Dr. Louis Tay	Students that attend S2L programming are surveyed on this topic.

- **Explore** changes in sense of belonging over time;
- **Design** interventions to improve students' sense of belonging;
- **Identify** if or how a certain intervention relates to self-reported changes in sense of belonging;
- **Describe** how sense of belonging relates to academic success at Purdue University.

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Open comments, questions, and considerations

Campus Planning	University Library Committee	Executive Committee	Core Group
• Articulate site criteria for possible HUB locations	• Did this process poll the right students? Not sure within the library	• Student space – sense of belonging	• How can the Occuspace data be used to inform future changes within the library?
• Include pro/con statements for site options	• WALC acoustics are not ideal, hard to conduct group work	• Is inclusive co-creation appropriate?	• Program: experiential vs experimental
• Need to give leadership a visual of what the vision could look like	• Libraries need to have the appropriate acoustics, privacy and safety	• Libraries connect people with people	• Discussion around 2550 and off-site storage, advantages
• Make a declaration on HIKS	• Role of library for international students	• Sharing the story and allow students to be a part of the story	• Physical and digital exhibit opportunities connected to A/SC and general connections
• Focus on entire library portfolio	• How to keep character of each library, but be unified as a system	• Value of place and value of campus – strengthen	• If HSSE stays, how do we make it transformational?
• Update zipper diagram with all recent investments on campus – correlation to support student success		• Could the library be an extension to the virtual learning component, "a partner of experiential learning"	• Elevator access to all floors within HSSE
• How to best position Archives and Special Collections		• Push the library brand forward with alignment of Purdue brand, tie to artifacts	• Amplify dynamic quality of storytelling on web presence
• Diagram how HSSE can be compelling and transformative			

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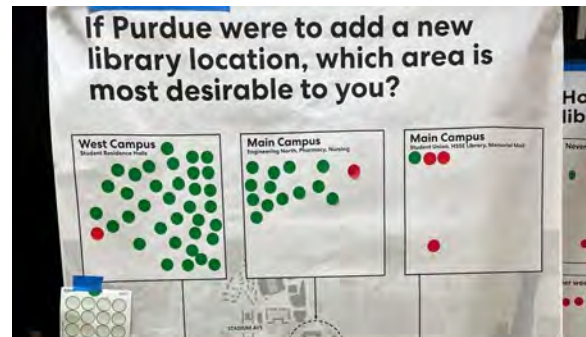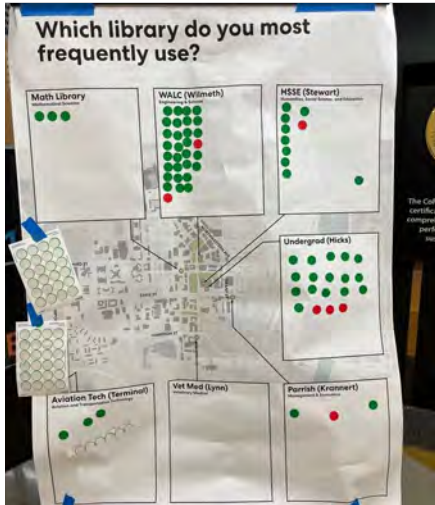
Student Intercept Feedback

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Summary of Feedback

1. Which library do you most frequently use?								
	Math	**WALC**	**HSSE**	**Hicks**	**AvTec**	**Vet Med**	**Parrish**	**Total**
STEW	7	58	74	49	4	1	21	214
WALC	3	102	40	44	1	1	8	199
LILY	5	27	21	24			2	79
Co-Rec	3	31	10	19	4		3	70
Total	18	218	145	136	9	2	34	562

2. What determines which library you visit?									
	Location & Convenience	**Quiet Study Space**	**Comfy Seating**	**Hang with friends**	**Technology & Printing**	**Collaborative space**	**Availability of Seating**	**Other**	**Total**
STEW	88	63	27	2	17	11	51	2	261
WALC	66	50	14	4	15	16	44	10	219
LILY	36	17	3		11	8	16	6	97
Co-Rec									0
Total	190	130	44	6	43	35	111	18	577

Location & Quiet Study Space

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Summary of Feedback

3. If Purdue were to add a new library location, which area is most desirable to you?							
	West Campus (Res. Halls)	Main Campus (Eng/Pharm/Nursing)	Main Campus (PMU/STEW/ Mem. Mall)	Discovery Park	South Campus (Ag)	South Campus (Alumni Center & Theater)	Total
STEW	111	54	30	22	22	37	276
WALC	72	72	28	12	15	15	214
LILY	13	16	3	14	30	6	82
Co-Rec	36	14	4	9	5	11	79
Total	232	156	65	57	72	69	651

36% desire Hub in West Campus (near res halls)

4. How often do you visit a library?							
	Never/Rarely	1x per month	1x per week	2x per week	3x per week	4-5x per week	Total
STEW	13	26	27	16	49	101	232
WALC	28	18	22	25	33	58	184
LILY	9	12	11	10	13	18	73
Co-Rec	16	5	9	13	13	13	69
Total	66	61	69	64	108	190	558

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Data Collection Update

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Layers of Analysis

1 **OCCUPANCY METRICS**

Is the use regular throughout the day ?

Are there high volumes at specific times?

Are high volumes a regular occurrence?

STEADINESS
AVERAGE

STRESS POINTS
PEAKS

REPETITION
FREQUENCY

2 **CLASSROOM IMPACT ON LIBRARIES**

How are scheduled classes impacting the use of the library?

3 **LIBRARY USERS**

Who are the libraries catering to?

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Overall Trends

MONDAY-FRIDAY

Average by Hour

- - - Aviation Technology Library
- - - Roland G Parrish Library
- - - Wilmeth Active Learning Center
- - - John W Hicks Undergraduate Library
- - - HSSE /Steward Center
- - - Mathematical Sciences Building
- - - Veterinary Medical Library
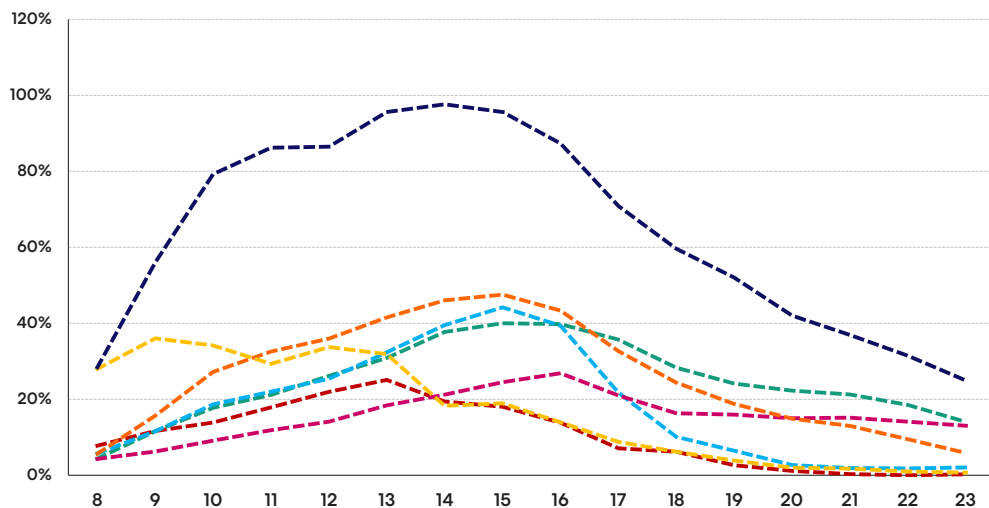
LOW USE LIBRARIES

AVTECH
VETMED
PARRISH

Trends depict "experienced capacity"

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Focused Trends

Average by Hour

- Aviation Technology Library
- Roland G Parrish Library
- John W Hicks Undergraduate Library
- HSSE /Steward Center
- Mathematical Sciences Building
- Veterinary Medical Library

STRESS EVENTS

Early morning at VETMED

Mid-day for most libraries

Highest Peak by Hour

M-T-W

Trends depict "experienced capacity"

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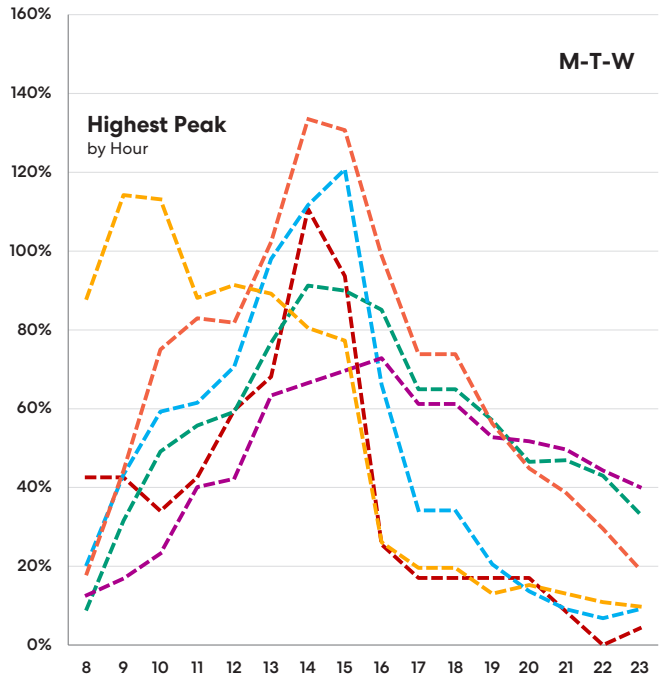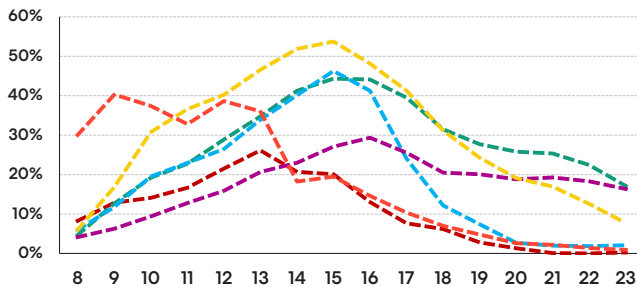
Peak vs. Average

Average by Hour   **Peak** by Hour   M-T-W

AVTECH

HICKS
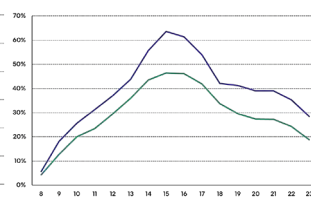
HSSE

MATH
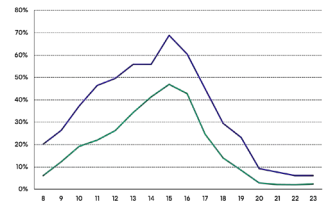
PARRISH

VETM
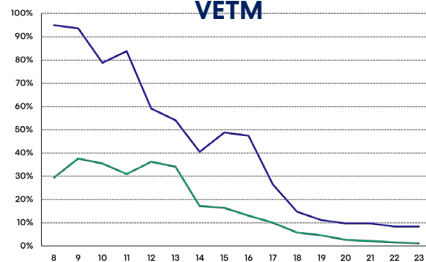
WALC
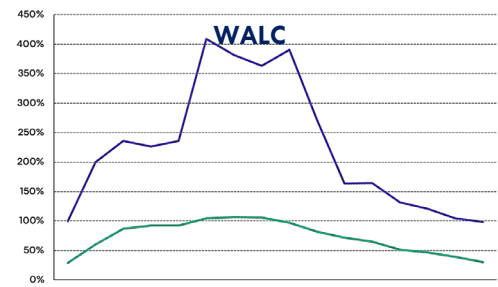
Trends depict "experienced capacity"

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MOST AVERAGE TRENDS ARE REFLECTIVE OF THE MAIN PEAK TRENDS

ONLY WALC EXPERIENCES EXTREME STRESSES THAT MAY TURN STUDENTS AWAY DUE TO LACK OF SEATING

SOME FLUCTUATION POINTS ARE RELATED TO INFLUX AND OUTFLUX OF STUDENTS BETWEEN CLASSES

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CLASSROOM IMPACT ON LIBRARIES

STUDY DAY
TUESDAY

STRONG INVERSE CORRELATION

KRAN ■ Course enrollment — Library Fill (PARRISH)
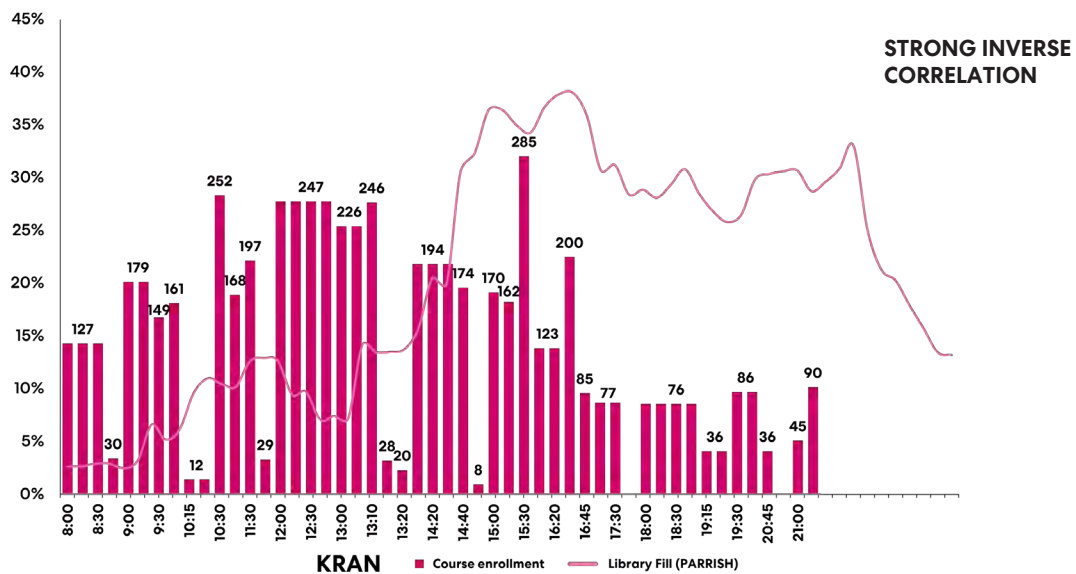
Library fill depict "experienced capacity"

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CLASSROOM IMPACT ON LIBRARIES

STUDY DAY
TUESDAY

STRONG INVERSE CORRELATION

LYNN — Course enrollment — Library Fill (VETMED)
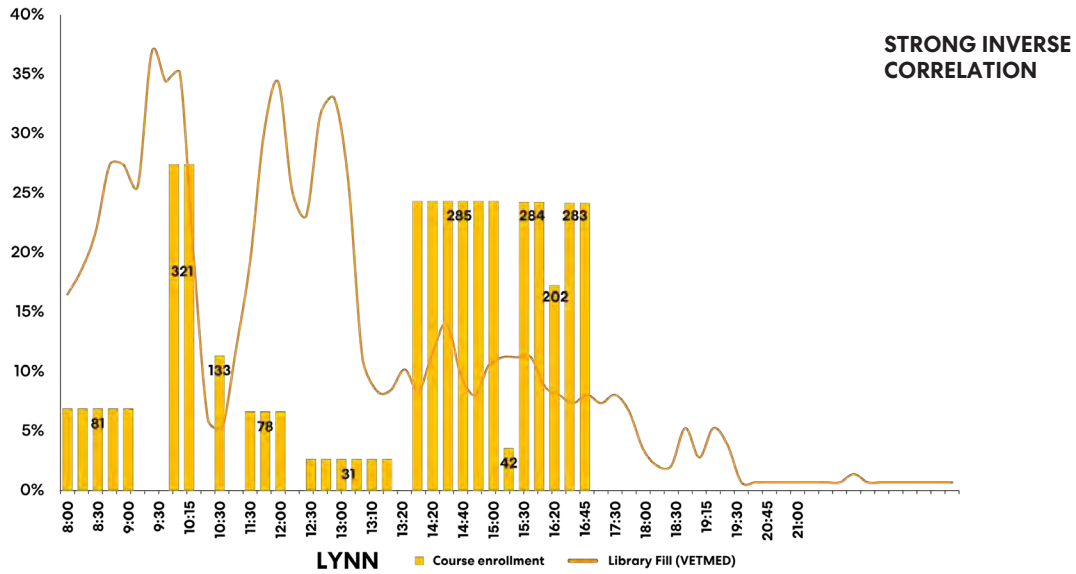
Library fill depict "experienced capacity"

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CLASSROOM IMPACT ON LIBRARIES

STUDY DAY
TUESDAY

STRONG DIRECT CORRELATION

MATH — Course enrollment — Library Fill
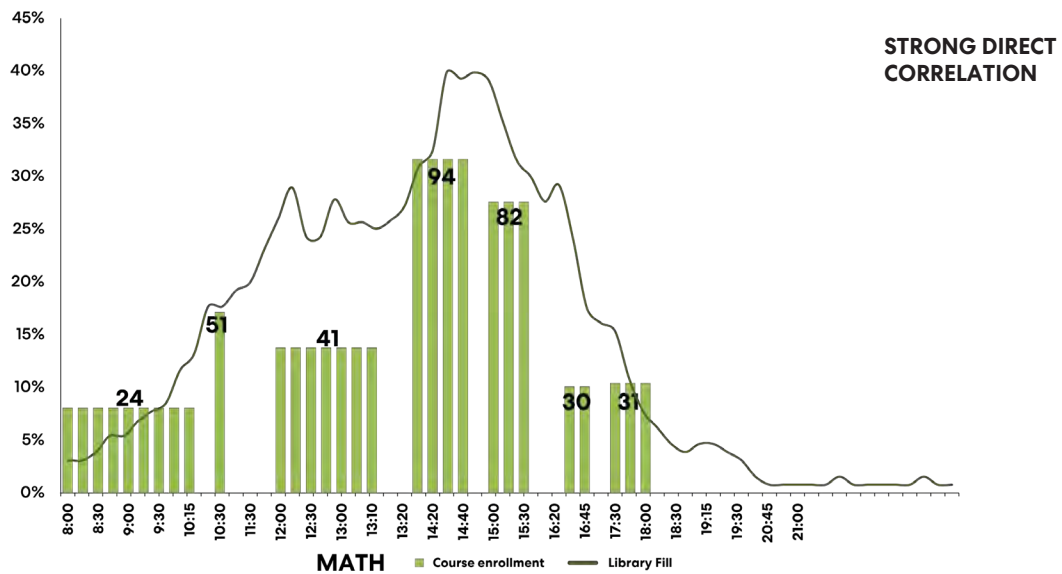
Library fill depict "experienced capacity"

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CLASSROOM IMPACT ON LIBRARIES

**MEDIUM INVERSE
CORRELATION**
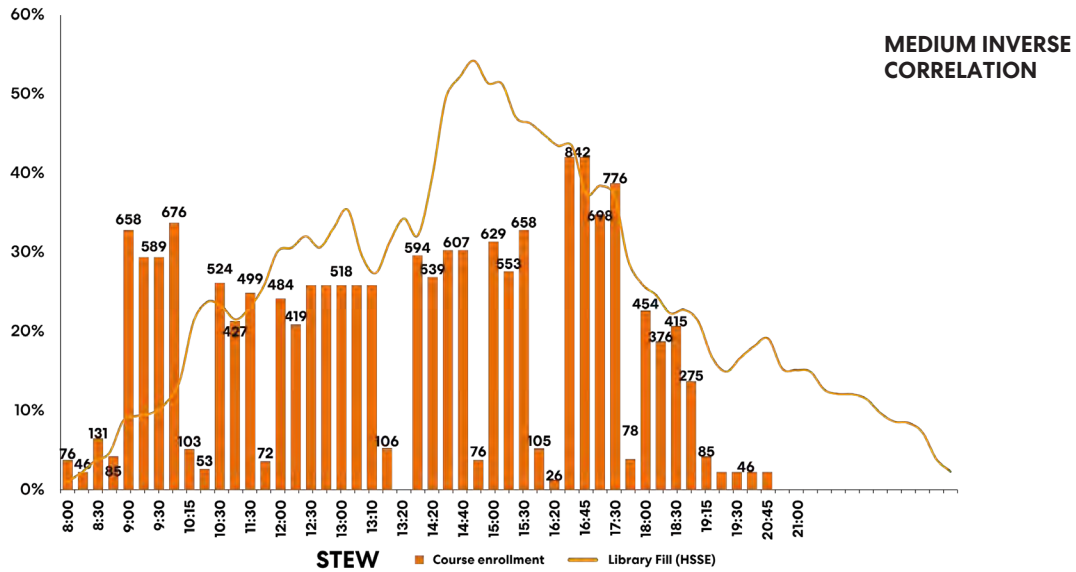
Library fill depict "experienced capacity"

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OCCUPANCY FREQUENCY

Which spaces are frequently over half capacity?

Percent of time zone is over 50% of experienced capacity
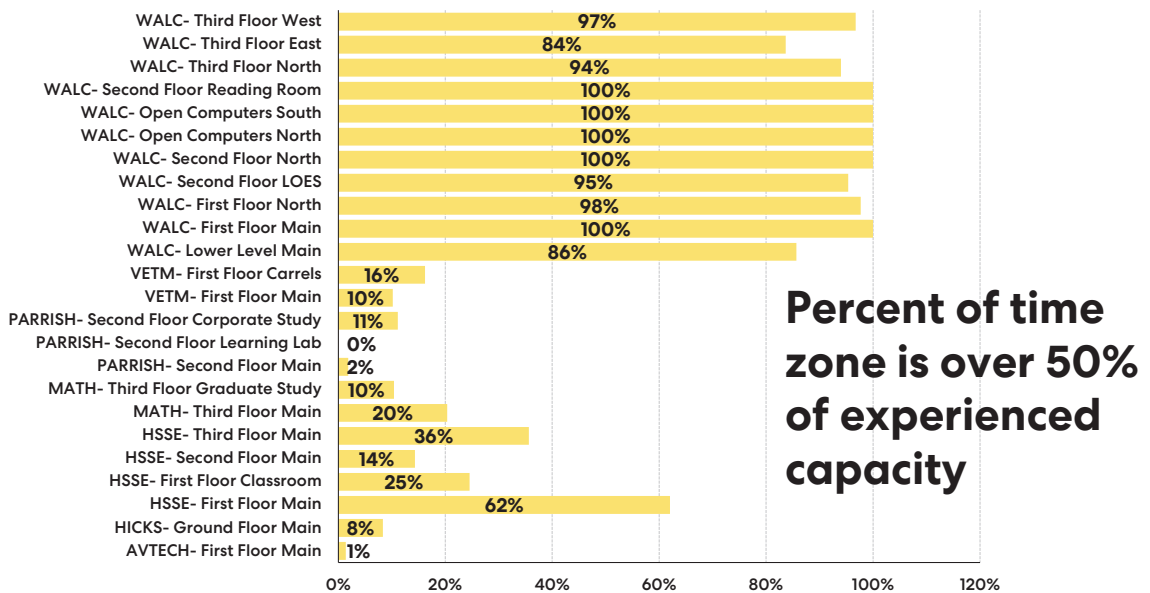
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WHO USES THE LIBRARIES ?

Top Colleges by Library

	AVTE	HIKS	HSSE	MATH	PARRISH	VETMED	WALC
College of Agriculture	1.9%	8.9%	9.3%	7.0%	7.6%	10.0%	8.4%
College of Education		1.4%	1.4%	2.3%	0.5%		1.8%
College of Health & Human Sci	2.5%	11.1%	11.4%	10.3%	9.7%	5.5%	10.6%
College of Liberal Arts	0.5%	12.6%	13.4%	10.2%	7.9%	2.5%	11.9%
College of Pharmacy	0.5%	0.6%	0.6%	1.1%	0.9%	0.3%	0.5%
College of Science	1.4%	13.5%	13.6%	19.5%	10.8%	4.5%	13.3%
Construction Engineering Mgmt		0.5%	0.4%	0.4%	0.2%		0.4%
Div of Environ & Ecol Engr		0.5%	0.5%	0.3%	0.7%		0.4%
Doctor of Pharmacy	0.2%	0.6%	0.6%	0.7%	1.0%		0.5%
Exploratory Studies	0.2%	0.6%	0.6%	1.0%	1.0%	0.7%	0.5%
First Year Engineering	0.9%	0.6%	0.6%	1.3%	1.0%	1.6%	0.5%
Graduate Professional		0.0%	0.0%	0.0%		0.2%	0.0%
Graduate School	31.3%	18.8%	19.6%	16.8%	18.2%	38.4%	21.5%
Polytechnic Institute	42.8%	12.3%	10.8%	10.5%	9.5%	3.1%	12.6%
Pre-Pharmacy		0.1%	0.0%	0.0%	0.0%	0.5%	0.1%
School of Aero and Astro Engr	1.9%	0.6%	0.6%	1.1%	0.8%		0.5%
School of Agr and Bio Engr		1.2%	1.2%	1.0%	0.9%	1.2%	1.3%
School of Biomedical Engr		0.5%	0.5%	0.8%	0.8%	0.7%	0.5%
School of Chemical Engineering	0.7%	0.6%	0.5%	0.9%	0.9%	0.8%	0.5%
School of Civil Engineering	0.4%	0.6%	0.6%	0.8%	0.9%	0.3%	0.5%
School of Elec & Computer Engr	1.2%	1.2%	1.1%	2.0%	2.4%	0.5%	1.0%
School of Industrial Engr	0.4%	0.6%	0.6%	1.1%	1.2%	0.8%	0.5%
School of Interdisciplnry Engr		0.5%	0.6%	0.5%	0.2%		0.7%
School of Management	10.6%	9.6%	9.2%	8.1%	20.3%	3.1%	8.9%
School of Materials Engr		0.5%	0.5%	0.6%	0.7%		0.4%
School of Mechanical Engr	0.4%	0.6%	0.6%	1.0%	1.2%	0.6%	0.5%
School of Nuclear Engineering		0.4%	0.3%	0.4%	0.0%	0.1%	0.4%
Temporary	2.3%	0.3%	0.4%	0.4%	0.2%	0.3%	0.6%
Veterinary Medicine		0.4%	0.3%	0.0%	0.4%	10.6%	0.3%
Veterinary Technology		0.3%	0.1%	0.0%		12.7%	0.2%

Based on 2017-2019 WIFI Data

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WHO USES THE LIBRARIES ?

Top 5 Majors

WALC

EVERYONE - NO MAJOR OVER 1% of TOTAL

1. Computer Science
2. Economics
3. Civil Engineering
4. Mechanical Engineering
5. Industrial Engineering

HIKS

EVERYONE - NO MAJOR OVER 1.5% of TOTAL

1. Economics
2. Industrial Engineering
3. Mechanical Engineering
4. Computer Science
5. Civil Engineering

HSSE

EVERYONE - NO MAJOR OVER 1.5% of TOTAL

1. Mechanical Engineering
2. Computer Science
3. Industrial Engineering
4. Economics
5. Civil Engineering

AVTE

"SPECIALIZED" LIBRARY

1. Prof Flight Technology
2. Aeronautic Engr Technology
3. Aviation Technology
4. Technology
5. Aviation Management

MATH

PRETTY EVENLY SPLIT

1. Mathematics
2. Computer Science
3. Mechanical Engineering
4. Industrial Engineering
5. Statistics

PARRISH

NOT ONLY MANAGEMENT

1. Economics
2. Management
3. Mechanical Engineering
4. Industrial Engineering
5. Finance

VETM

"SPECIALIZED" LIBRARY

1. Veterinary Medicine
2. Veterinary Clinical Sci
3. Medical Education
4. Veterinary Technology
5. Veterinary Technician

Based on 2017-2019 WIFI Data

24

TAKEAWAYS

CLASSROOM ADJACENCIES HAVE A MEASURABLE IMPACT ON LIBRARY USES

MOST LIBRAIRIES EXHIBIT REACTIONS TO THEIR ENVIRONMENT/ECOSYSTEM
(PEDESTRIAN TRAFFIC, CLASSES, FOOD)

INCREASED CONNECTION BETWEEN LIBRARIES AND TEACHING SPACES (VISUAL & PHYSICAL) WILL LIKELY LEAD TO INCREASED USAGE OF LIBRARY SPACES

MOST LIBRARIES CATER TO MANY/ALL STUDENTS – ONLY VETMED & AVTE ONLY SEE A DEFINED SUBSET OF THE STUDENTS POPULATION

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Programming Summary

NV5 Technology Vision – Areas for Further Study

IT/AV Infrastructure, Interconnectivity, AV

- Minimize 'hops' between switches
- Employ pervasive wireless connectivity
- Develop intelligent buildings/IoT strategy
- Continue Occuspace analysis
- Develop room scheduling system and signage

Conference Rooms, Study Rooms

- Scale technology for study modes (alone, along or together)
- Strategically equip rooms with web conferencing capabilities, install future-proof infrastructure
- Allow for analog, non-tech areas such as whiteboards

Learning Commons

- Plan for shared workstations to supplement BYOD (bring your own device)
- Provide acoustically isolated "meeting/class" pods for virtual and hybrid courses
- Create quiet zones

Specialized Spaces

- Makerspaces
- Digital Media Spaces
- Video & Audio Studios
- Virtual/AR/Metaverse Spaces
- Esports/Gaming Areas
- "One Touch" and Lightboard Studios
- Higher fit/finish "Zoom Rooms"

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NV5 Technology Vision – Areas for Further Study

Communications & Branding

- Develop a digital signage strategy for equipment and content creation Allow for interfaces between social media and physical domain, "Tweet Boards" to allow for ownership of space
- Expand Library app to enable wayfinding, discovery, events, etc.

Staff Development

- Provide staff training and consider new hires for support of technology
- Provide 'black box classroom' for faculty to experiment with technology
- Provide tech support areas

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Library Central Services Program
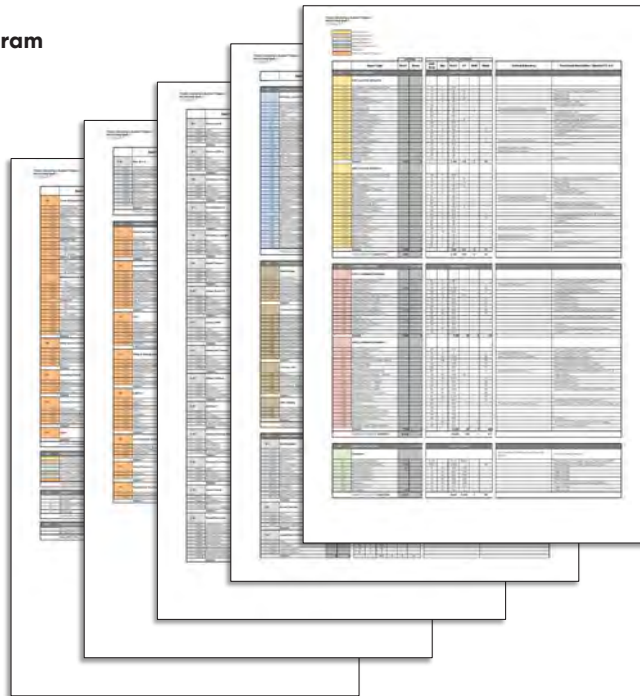
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Enrollment

	UG: FTE	UG FTE	GRAD FTE	TOTAL FTE	GROWTH RATE
Fall 2016	29,434.4	1,439.7	7,269.5	38,143.6	
Fall 2017	30,330.7	1,412.5	7,319.3	39,062.5	2.41%
Fall 2018	31,957.4	1,433.8	7,467.0	40,858.1	4.60%
Fall 2019	32,854.2	1,455.6	7,568.7	41,878.5	2.50%
Fall 2020	33,959.1	1,476.0	7,197.7	42,632.8	1.80%
Fall 2021	36,270.9	1,477.5	8,241.9	45,990.3	7.88%

Projection (Purdue Provided)

2031-Steady	37,101		9,445	46,546
2031-Growth	40,159		9,445	49,604
2031-Hig Growth	42,543		9,445	51,988

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Seat Count Projections

VISITATION BASED BENCHMARKING METHOD (NEW)						
Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
Ohio State University	61,391	4,333	7.1%	4,103,455	947	67
North Carolina State University	34,767	5,027	14.5%	2,464,590	490	71
Iowa State University	33,391	3,330	10.0%	1,916,666	576	57
Universtiy of NC, Chapel Hill	29,877	5,705	19.1%	2,667,100	468	89
Western Michigan State University	21,470	2,551	11.9%	597,958	234	28
Georgia Tech University	19,432	2,360	12.1%	318,614	135	16
Miami University	17,697	1,640	9.3%	382,474	233	22
Average	31,146	3,564	12.0%	1,778,694	440	50
Purdue Library (2018-19)	6.8% 41,873	2,836				
PURDUE- Steady	11.4% 46,546	5,288	2,452	2,329,022	440	50
PURDUE- Steady - Growth	11.4% 49,604	5,636	2,800	2,482,036	440	50
PURDUE- High Growth	11.4% 51,988	5,906	3,070	2,601,324	440	50

For every 100 FTE increase, add: 11.4 seats

Program Content Summary

HSSE
Increase of harvested 6,000 sf
Possible loss of 17,300 sf
927 new seats
 Virtual learning hub
 15 group study
 Interview room
 Presentation room
 2 special projects rooms
 Quiet/silent reading room
Single service point
Experimental Classroom
Center for Digital Scholarship*
Knowledge Gallery
Cafe

HIKS
No change in area
58 new seats
Higher utilization seat type (adds 122 'perceived' seats)

WALC
No change in area
No change in study seats
High visibility makerspace

MATH
No change in area
70 new seats
More seating variety/choice

KRAN
No change in area
No change in study seats

LYNN
No change in area
No change in study seats

TERM
Loss of 2,295sf (close library)
Loss of 63 seats

S-HUB (South Hub)
Increase of new 77,000sf
1,149 new seats
 Virtual learning hub
 32 group study
 2 special project rooms
 Quiet/silent reading room
Single service point
Center for Digital Scholarship*
Expanded A/SC**
Knowledge Gallery**
Cafe

R-HUB (Residential Hub)
Increase of new 12,500sf – 35,000sf
300-900 new seats (based on enrollment scenario)
 Virtual learning hub
 Seating variety/choice
 Quiet/silent reading room
Single service point

Planning Scenario Refinement

System Scale

Residential Bed Clusters

2021-2022 Bed Counts based on 2019 Housing Master Plan

7%

-729

766
449

728

33%

728

768

313

830   841

53%   624   706 857

775

709 771   539

WALC

MATH

HSSE

HICKS

PARRISH

428   4%

3%   432

VETMED

35

Classroom Activity
M-T-W

Classroom Activity (enrollment)

Dense

Sparse

Principal Use

Residential

Administrative

Academic

Non-Institutional

Athletics

Student Life

Other

WALC

MATH

HSSE

HICKS

PARRISH

VETMED

AVTECH

36

Study Seat Density

Student Engagement Preferences

South Campus Investment (last 10 years)

1.	Convergence	$ 25.0M
2.	Aspire	$ 25.0M
3.	Flex Lab	$ 38.0M
4.	DLR Reno	$ 7.3M
5.	Jischke Addition	$ 14.0M
6.	Creighton/Land o Lakes	$ 60.0M
7.	Drug Discovery	$ 28.7M
8.	ABE Reno/Addition	$ 80.0M
9.	Lyles Porter	$ 38.0M
10.	Brunner Vet Med	$108.0M
11.	State St. Improvements	$ 60.0M
		$ 484.0M

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South Campus Investment (last 10 years)

1.	Convergence	$ 25.0M
2.	Aspire	$ 25.0M
3.	Flex Lab	$ 38.0M
4.	DLR Reno	$ 7.3M
5.	Jischke Addition	$ 14.0M
6.	Creighton/Land o Lakes	$ 60.0M
7.	Drug Discovery	$ 28.7M
8.	ABE Reno/Addition	$ 80.0M
9.	Lyles Porter	$ 38.0M
10.	Brunner Vet Med	$108.0M
11.	State St. Improvements	$ 60.0M
		$ 484.0M

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South Campus Investment (last 10 years)

1.	Convergence	$ 25.0M
2.	Aspire	$ 25.0M
3.	Flex Lab	$ 38.0M
4.	DLR Reno	$ 7.3M
5.	Jischke Addition	$ 14.0M
6.	Creighton/Land o Lakes	$ 60.0M
7.	Drug Discovery	$ 28.7M
8.	ABE Reno/Addition	$ 80.0M
9.	Lyles Porter	$ 38.0M
10.	Brunner Vet Med	$ 108.0M
11.	State St. Improvements	$ 60.0M
		$ 484.0M

North Campus Preference
Near student residences
Beyond 10-min walk radius
Strong student preference

South Campus Preference
Near academic resources
Central to south campus development
Potential for academic partner
Public facing – especially for A/SC

2ⁿᵈ Library Hub Site Criteria

CRITERIA	SITES					
	1	2	3	4	5	6
Ground Level Student & Public Visibility And Identity						
Proximity To Some Public Parking For A/SC						
Centrally Situated To Academic / Research Buildings and Students						
Location With Potential For Strong Academic Partner Or Classroom Cluster						
8 - 10 Minute Walk To South Campus Investment Zones						
Size: +/- 75,200 GSF Building With A 24,000 GSF Library Building Footprint (+ Partner)						
Donor Appeal Potential						
Site Availability Aligns With Construction Horizon						

Building Scale

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Renovate Existing, No New   **Renovate Existing/ New A/SC**   **Renovate Existing/Close HIKS/ New South Hub**
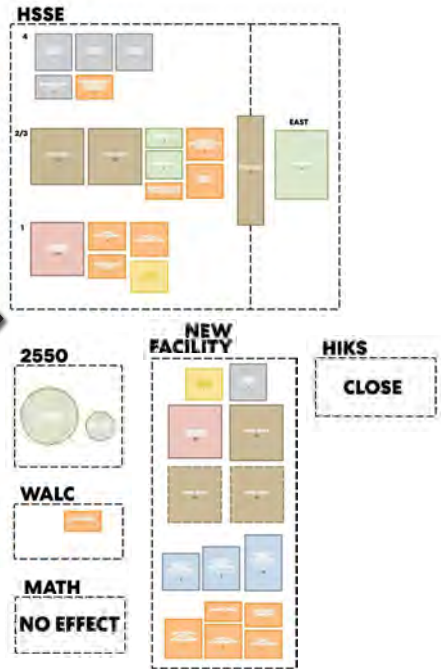
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Improvement Scope By Library

	1 A / SC	2 TBD	3 2550	4 STEWART	5 HICKS	6 WILMETH	7 KRANNERT	8 LYNN	9 MATH	10 TERMINAL
New Construction	●	●								
Renovation			◉							
Interior Refresh				●						
Selective Refresh						◉			◉	
FFE Only				·	·					
Brand Update	·	·	·	·	·	·	·	·	·	·
Vacate / Close					✓					✓

SIGNIFICANT SCOPE   LIMITED SCOPE   MINOR SCOPE

Building Scale: 2550

Potential Library Storage Site (Preliminary Test Fit)

Additional HSSE Collections: 32,500 LF
• Need 10,850 SF HD Storage

Additional MATH Collections: ??LF
• Need ??SF HD Storage

A / SC Storage:
• +/- 5,000 SF HD Storage
• 500 SF To-Be-Processed Holding
• 400 SF Cold Storage Area
• Security Improvements
• Fire Protection Improvements
• Environmental Control Improvements

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2550 Repository (Preliminary Test Fit)

Exist. Repository: 157,242 LF
• 6-7 high shelving (84")
• 90+% filled
• Lynn: 18,810 LF
• HKRP: 138,432 LF
• Microfilm not included

Test Fit: 157,675 LF
• 7-high shelving (84")
• 85% filled
• 1.576M volumes
• Possible to increase 11% (177,131 LF)
• $4.54M (new 157K w/ reuse shelving, manual)
    - $28.80/LF
• $5.26M (new 177K w/ reuse shelving, mixed auto)
    - $29.70/LF

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Building Scale: A/SC & 2ND HUB

ND

Archives & Special Collections

8.0	Space Type	EXISTING N.S.F.	EXISTING Seats	Unit/Area	Qty.	2022 FULL PROGRAM N.S.F.	LF	Staff	Seats
	PROGRAMMED SERVICES	EXISTING				PROGRAM			
1.0	Access Services								
2.0	Learning Commons								
3.0	Library Collection								
4.0	Special Collections	11,140				14,605	13,842	19	55
5.0	Seating + Collaboration								
6.0	Library Operations	224				1,968	0	5	0
7.0	Partners + Special Programs	0	0			1,500	0	0	0
	PROGRAMMED SERVICES SUBTOTAL	11,364	0			18,073	13,842	25	55

9.0	GROSSING	Factor	G.S.F.			N.S.F.	Factor		G.S.F.
	Program Multiplier	1.57					1.48		
9.1	Fit Factor		0			18,073	0.000		0
9.1	Building Services/Toilets		0			18,073	0.120		2,169
9.2	Circulation		0			20,241	0.200		4,048
9.3	Construction		0			24,290	0.100		2,429
	ADDITIONAL GROSSING SUBTOTAL		6,477						8,646

10.0	TOTAL BUILDING AREA								
	8.0 Programmed Services		11,364						18,073
	9.0 Additional Grossing		6,477						8,646
	BUILDING TOTAL		17,841						26,719

Site Criteria:
- Ground Level Student & Public Visibility And Identity
- Proximity To Some Public Parking For A/SC
- Size: +/- 27,000 GSF Building With A 6,000 GSF Library Building Footprint (+ Synergistic Partner)
- Donor Appeal Potential
- Site Availability Aligns With Construction Horizon

2nd Library Hub

	Space Type	EXISTING		2022 FULL PROGRAM					
		N.S.F.	Seats	Unit/Area	Qty.	N.S.F.	LF	Staff	Seats
	PROGRAMMED SERVICES	EXISTING		2022 PROGRAM					
	1.0 Access Services	0				1,752	180	5	8
	2.0 Learning Commons	0				8,190	90	1	221
	3.0 Library Collection	0				800	1,080	0	0
	4.0 Special Collections	12,040				14,605	13,842	19	55
	5.0 Seating + Collaboration	0				19,925	0	0	774
	6.0 Library Operations	224				3,188	0	11	0
	7.0 Partners + Special Programs	0				4,613	0	0	117
	PROGRAMMED SERVICES SUBTOTAL	12,264				53,073	15,192	36	1,173

	GROSSING	Factor	G.S.F.			N.S.F.	Factor		G.S.F.
	Program Multiplier						1.45		
9.1	Fit Factor		0			53,073	0.000		0
9.1	Building Services/Toilets		0			53,073	0.100		5,307
9.2	Circulation		0			58,380	0.200		11,676
9.3	Construction		0			70,056	0.100		7,006
	ADDITIONAL GROSSING SUBTOTAL								23,989

10.0	TOTAL BUILDING AREA								
	8.0 Programmed Services								53,073
	9.0 Additional Grossing								23,989
	BUILDING TOTAL		0						77,062

Site Criteria:
- Ground Level Student & Public Visibility And Identity
- Proximity To Some Public Parking For A/SC
- Centrally Situated To Academic / Research Buildings and Students
- Location With Potential For Strong Academic Partner Or Classroom Cluster
- 8 – 10 Minute Walk To South Campus Investment Zones
- Size: +/- 75,200 GSF Building With A 24,000 GSF Library Building Footprint (+ Partner)
- Donor Appeal Potential
- Site Availability Aligns With Construction Horizon

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Second Hub Program Map
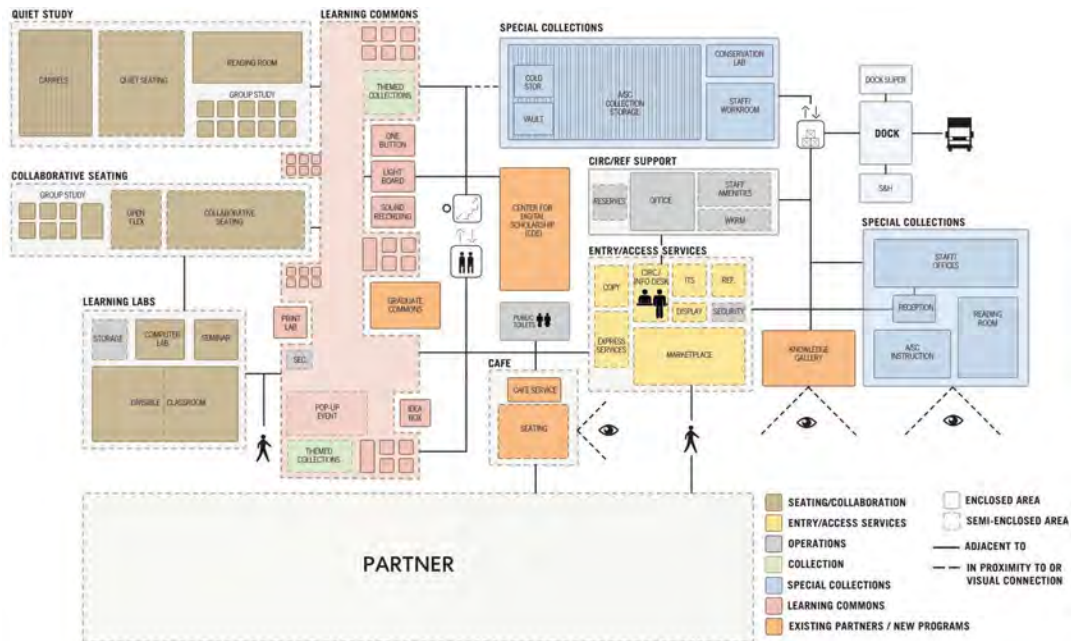
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Building Scale: WALC

WALC Makerspace

WALC 3F Existing

WALC 3F Maker Lab

Building Scale: HSSE

HSSE Program Summary

Notes:
Increase of harvested 6,000 sf
Possible loss of 17,300 sf
927 new seats
    Virtual learning hub
    15 group study
    Interview room
    Presentation room
    2 special projects rooms
    Quiet/silent reading room
Single service point
Experimental Classroom
Center for Digital Scholarship*
Knowledge Gallery
Cafe
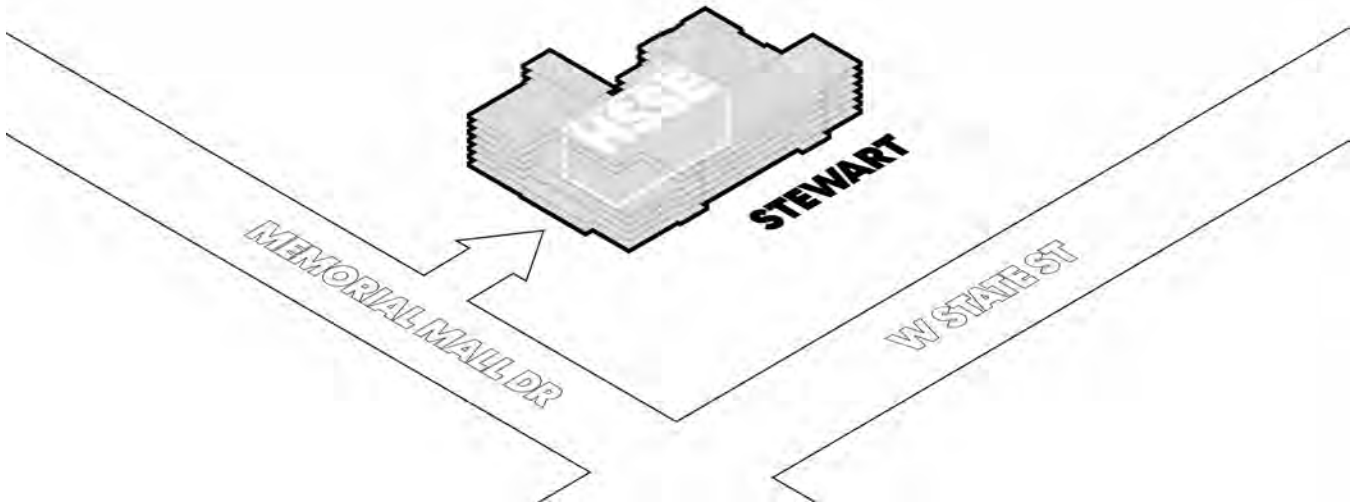
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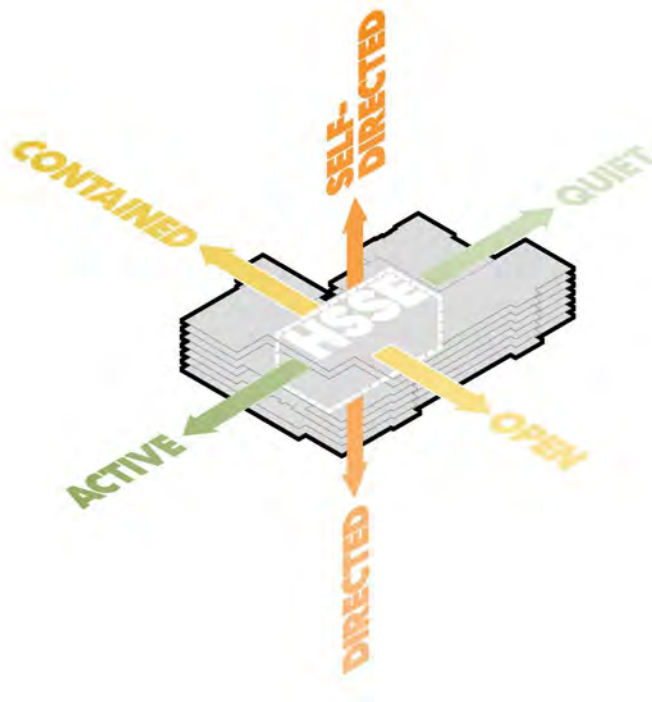
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Interconnecting Stair & 4th Floor Daylight
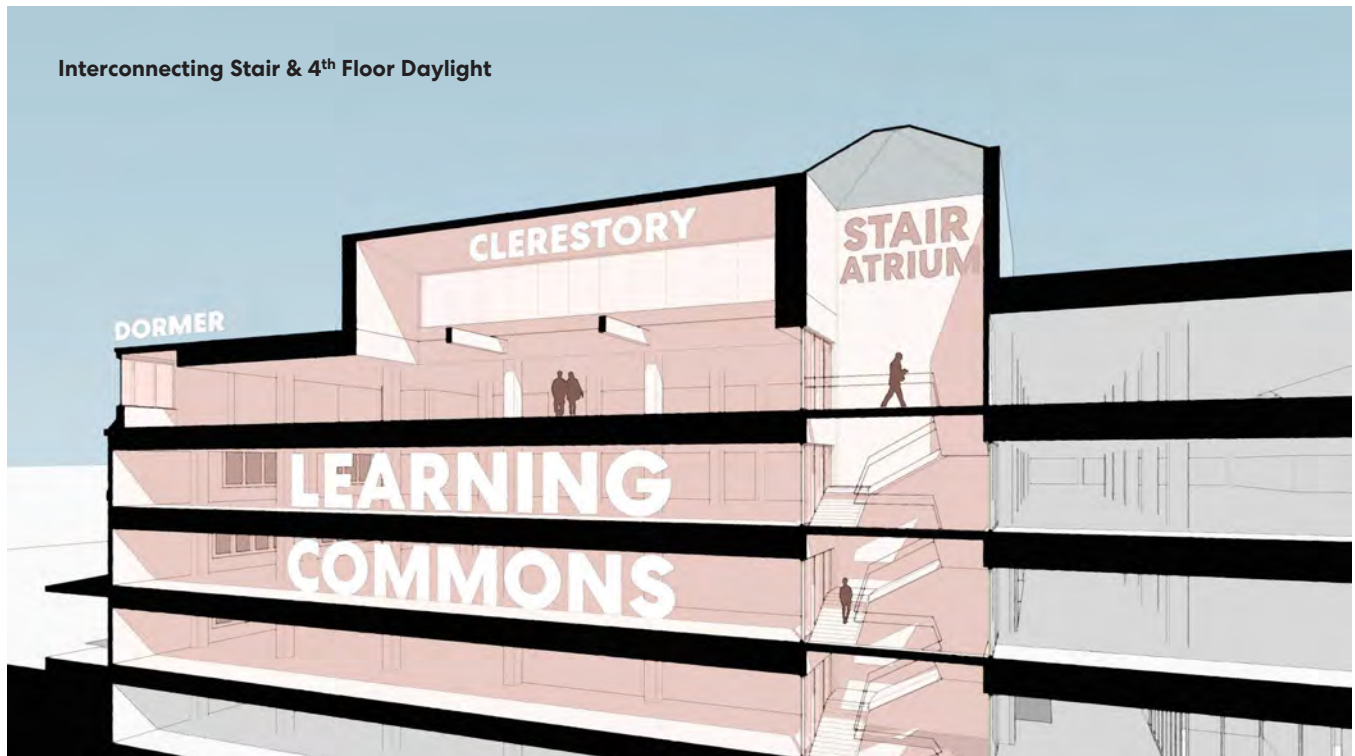
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Dormer Study - North
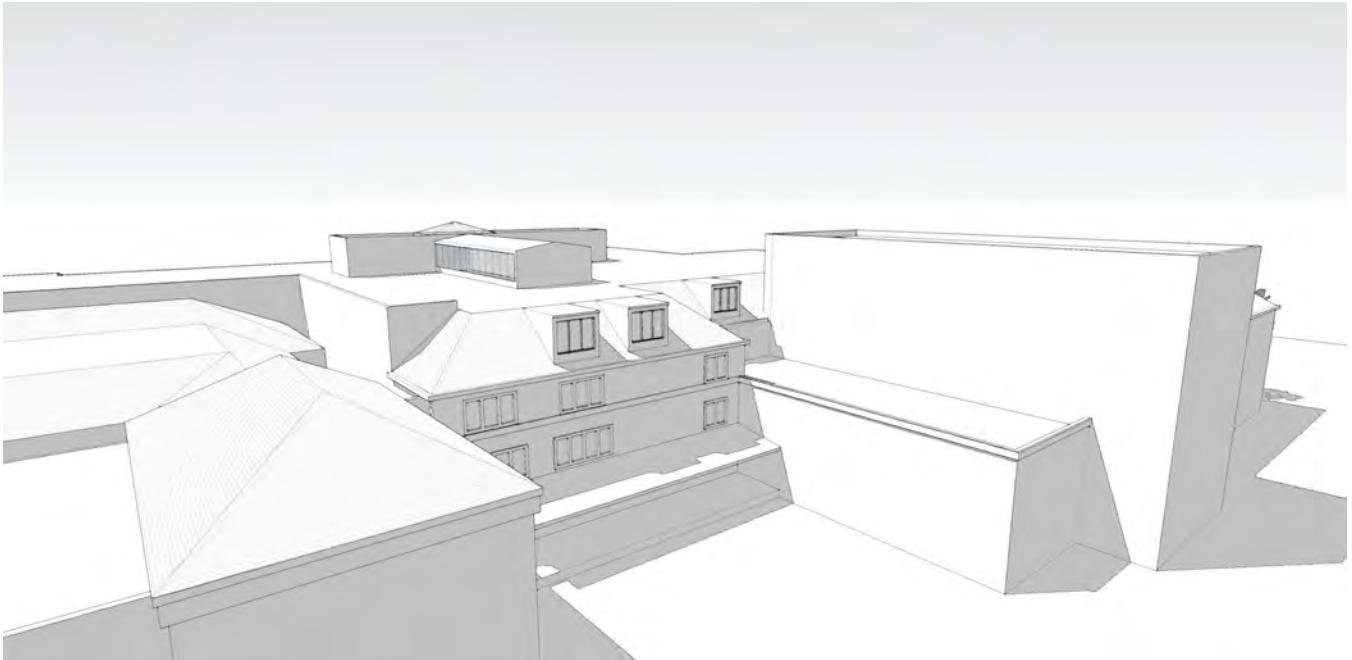
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Dormer Study - North

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Dormer Study - West

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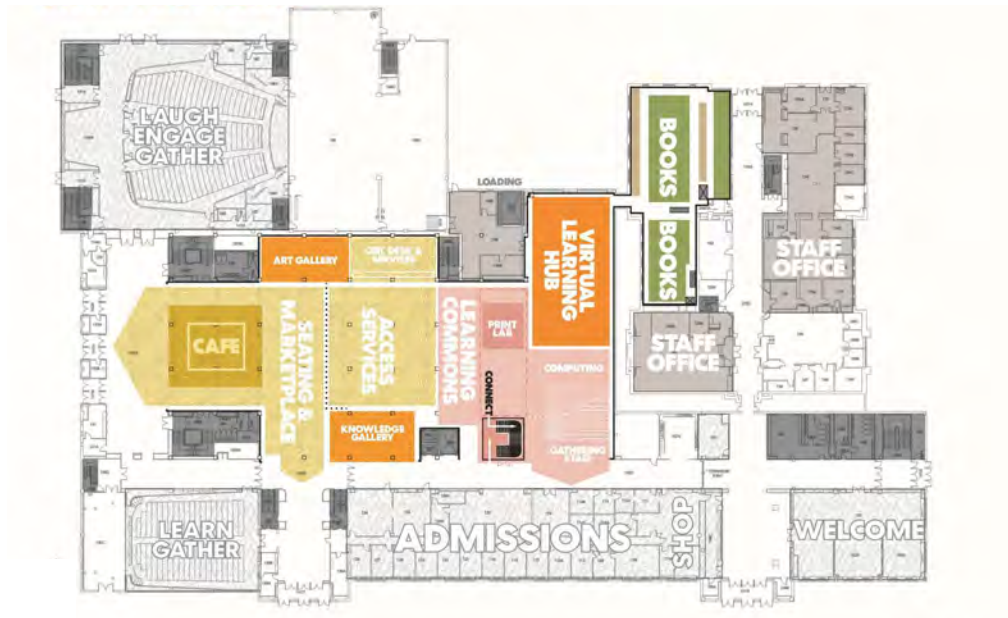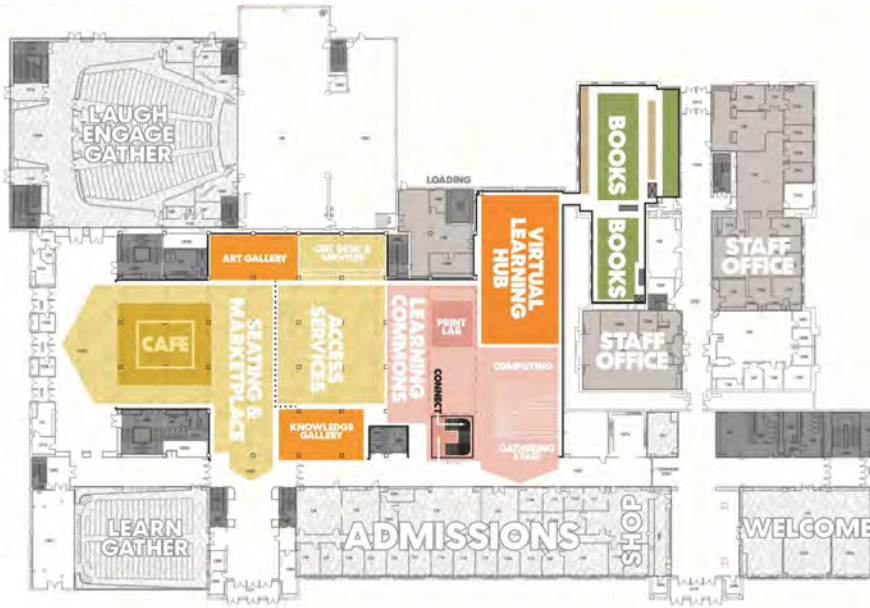
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2

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3

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4a

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4b
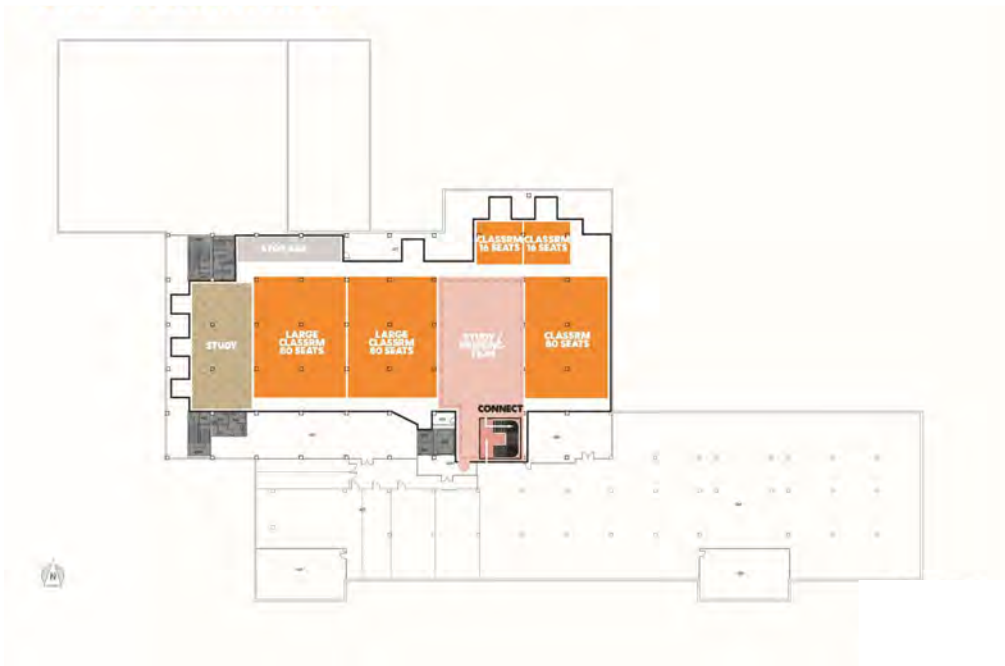
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Classroom Study

4b

476 Classroom/Seminar Seats
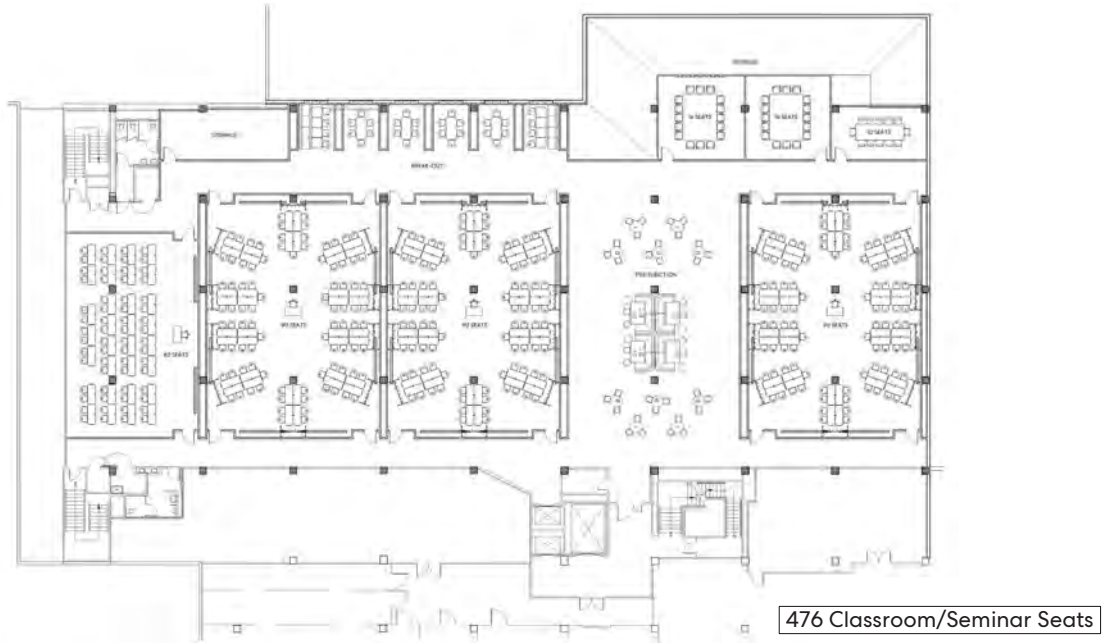
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4c

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Conference Study

4c
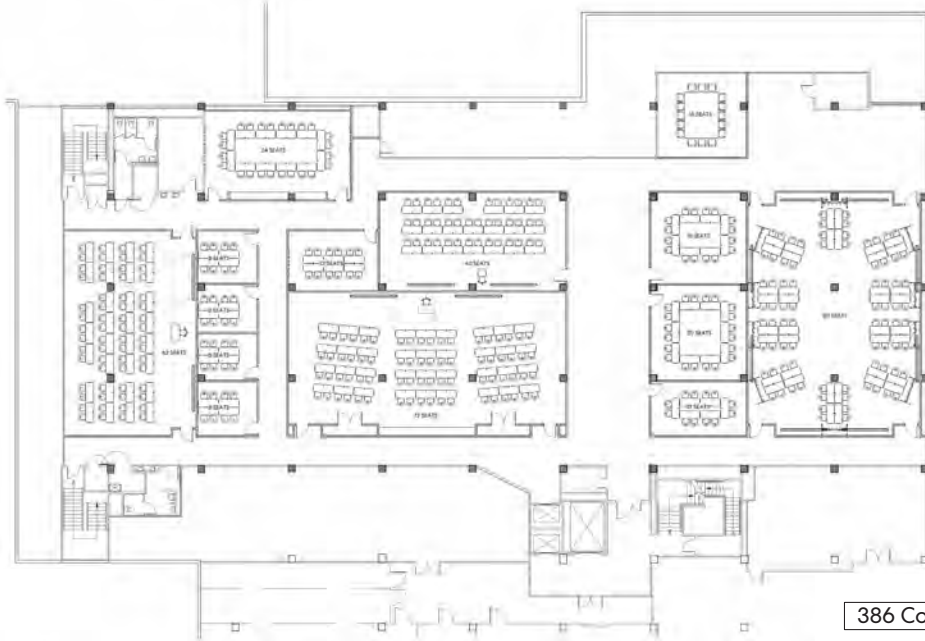
386 Conference Seats

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Conference-Classroom Exchange

2a

222 Classroom Seats

LARGE CLASSROOM
152 SEATS A-A PROJECTION

SMALL CLASSROOM
66 SEATS A-B PROJECTION
70 SEATS A-A PROJECTION
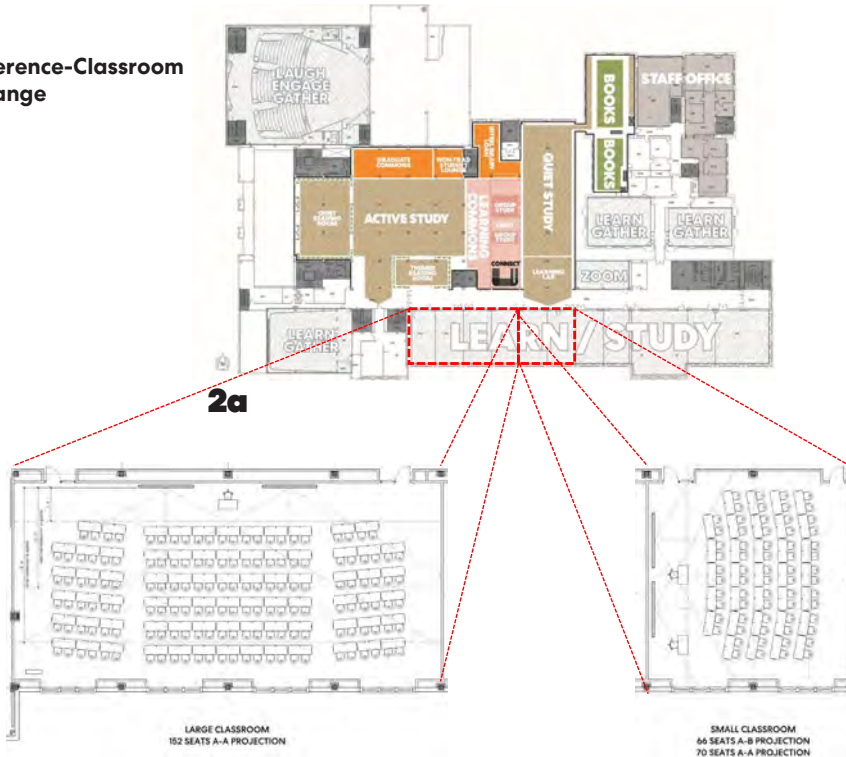
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Conference-Classroom Exchange
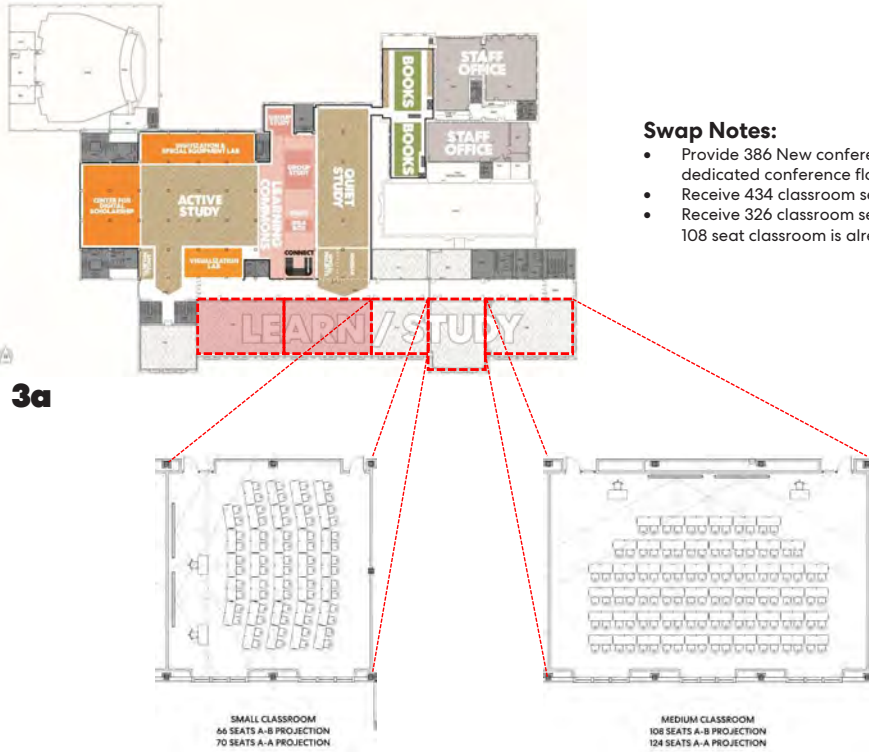
Swap Notes:
- Provide 386 New conference seats on dedicated conference floor
- Receive 434 classroom seats
- Receive 326 classroom seats (assumes one 108 seat classroom is already classroom)

3a

264 Classroom Seats

SMALL CLASSROOM
66 SEATS A-B PROJECTION
70 SEATS A-A PROJECTION

MEDIUM CLASSROOM
108 SEATS A-B PROJECTION
124 SEATS A-A PROJECTION

Building Scale: HIKS

HIKS Rezoned by Seat Type

Conceptual Plan

- **Prioritized high performing seat types**, zoned from active/collaborative to quiet/independent workstyle.

- **Active spaces support agile working**, equipped with whiteboards and mobile furniture or communal tables. Positioned along high traffic corridors and near resources (staff, restrooms, and café).

- **Quiet, individual spaces were most popular** followed by tables with dividers. Positioned in remote portion of floor using architecture to semi-enclose the space while keeping window lines open.

- **Lounge spaces used as transient/short-term use**. Positioned along high traffic spaces and outside of classrooms.

- **Study rooms for group work and virtual learning** supporting 2- and 4-people.
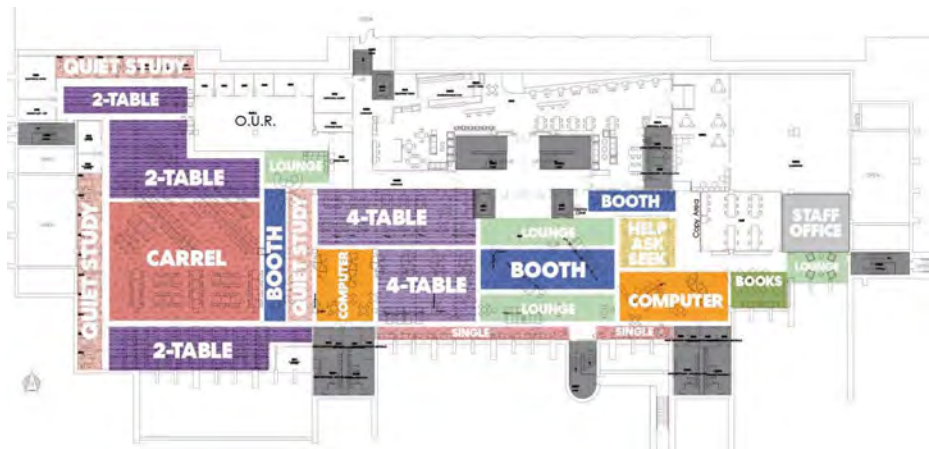
122 Perceived additional seats

76% Max experienced capacity

80

Active Example Seat Type

Lounge

Semi-Enclosed Study

4/6 person tables

Computer
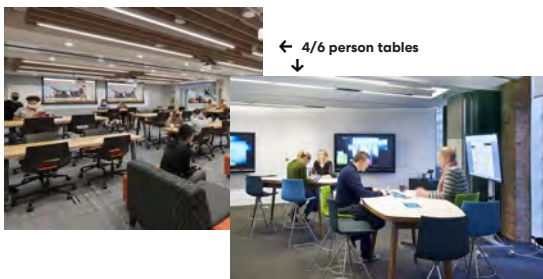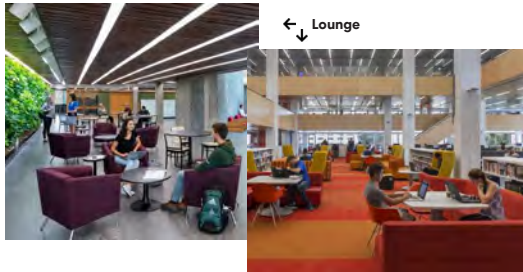
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Quiet Example Seat Type

Booths

Single

Carrels

Study / Focus Rooms
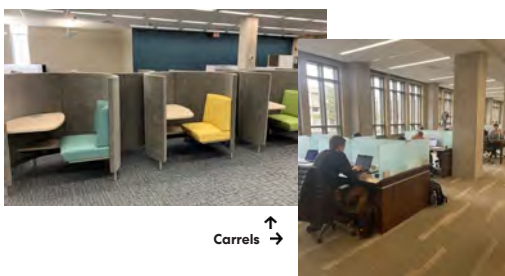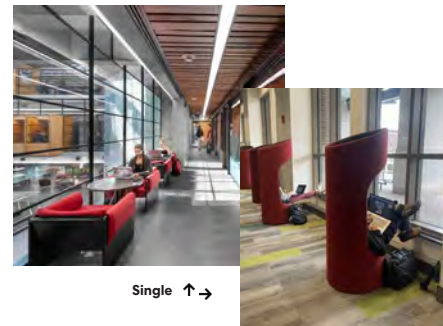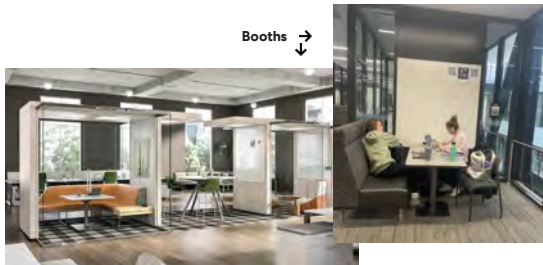
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Building Scale: MATH

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MATH Reconfiguration
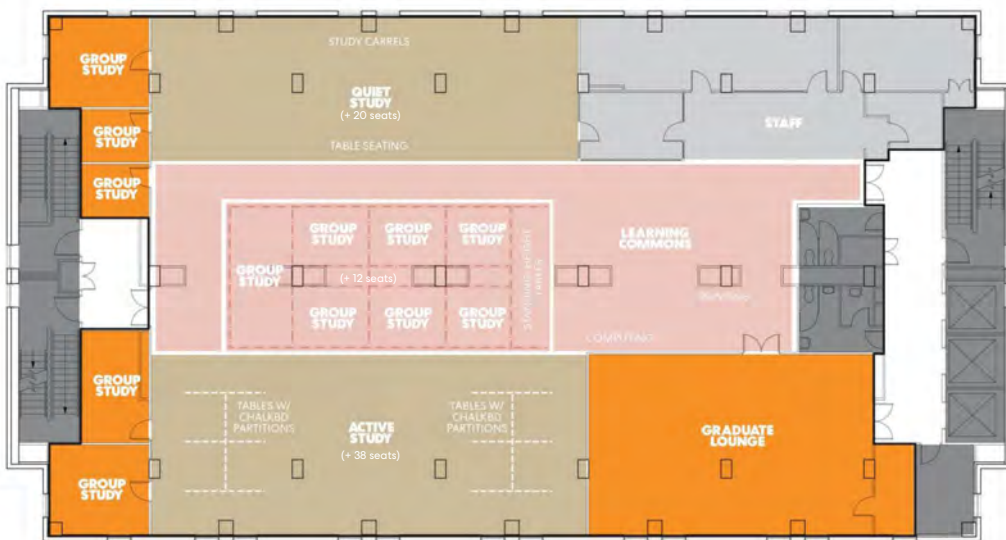
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Improvement Scope By Library

	PHASE 2		PHASE 1	PHASE 3		PHASE INDEPENDENT				
	1 Kindred and Special Collections	**2** Annual Library Hub	**3** 2550 Repository	**4** Humanities, Social Sciences and Education	**5** Undergraduate	**6** Engineering Sciences	**7** PARRISH Management and Economics	**8** Veterinary Medicine	**9** Mathematical Sciences	**10** Intuitive and Transportation Technology
	A / SC	TBD	2550	STEWART	HICKS	WILMETH	KRANNERT	LYNN	MATH	TERMINAL
New Construction	●	●								
Renovation			◉							
Interior Refresh				●						
Selective Refresh						◉			◉	
FFE Only				·	·					
Brand Update	·	·	·	·	·	·	·	·	·	·
Vacate / Close					✓					✓

● SIGNIFICANT SCOPE   ◉ LIMITED SCOPE   · MINOR SCOPE

Virtual Learning Hub & Experiential Learning

Experimental learning
- Black box theatre
- Teaching in the round is of interest
- Distributed classrooms are of interest
- Classroom of the future - connected to AR, VR, AI, and other technology
- If unscheduled - could turn into classroom
- Purdue Online has reached out in regards to technology drivers
- Think of it differently so it does not get commandeered as a classroom
    - Merger of experimenting and taking your class there for two weeks
    - Tie to pedagogy and practice teaching
    - Designed for observation/research and assessing

Perkins&Will

Experiential Alignment

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Brand & Experience

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Brand Recap – Purdue Libraries

Today

Welcoming service organization.

Equitable access to information & resources.

Teach crucial information skills.

Furthering the field of Information Science through research.

Distributed "hodge-podge" of resources & services.

We have study spaces; WE ARE MORE THAN BOOKS.

Striving to be better understood by all.

Nice. Helpful. Friendly. Welcoming. Willing and Ready to Assist.

Open to new ideas.

Serve the information needs of the Purdue community.

Future

An Information Service Hub for Purdue...so much more than books!

Cohesive. Complementary. Inclusive.

Discover. Create. Grow. Innovate. Let us inspire you.

Advancing leadership and the profession through critical research.

Portfolio of resources, experiences and experimentation for all.

Dynamic multi-space environment with great resources.

Responsive services and staff at the academic forefront.

Expert level instruction and personalized guidance.

Still open to new ideas.

Connected within our organization, the university, the community, and the world.

Brand Drivers Diagram

Library Experience

Inspire
Show
Demonstrate
Excite
Energize

Study
Learn
Concentrate
Seek

Discover
Explore
Learn
Authenticate

Engage
Collaborate
Connect
Community
Partner
Share

Innovate
Collaborate
Experiment
Ideate
Make

Support
Help
Information
Print
Technology

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Prioritization Tool & Strategies

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Strategic Opportunities Matrix

Top 10+ Brand Strategies

WHAT

1. Develop exterior sign solution to promote Library presence in each building location, while respecting the Purdue brand.

2. Develop consistent interior sign system that clearly announces the individual Library and points of entry.

3. Develop consistent interior sign system that identifies functions, space types, and intended use.

4. Create between-class study zones and virtual class participation spaces in Virtual Learning Hubs.

WHY

1. Make libraries easier to find.
   Build greater brand awareness for Libraries on campus.

2. Overcome difficult-to-find interior locations.
   Bring equity of treatment to each library.
   Build brand consistency.

3. Enhance user experience through clarity of purpose.

4. Communicate purpose; inform "reserve ahead".
   Modify behavior and provide alternative class participation.

Top 10+ Brand Strategies

WHAT

5. Integrate digital tools to support student research and learning at the Center for Digital Scholarship.

6. Develop flexible Knowledge Gallery display platforms to better showcase Archives and Special Collections, and other Purdue stories.

7. Develop flexible Story-Telling methodologies that celebrate Purdue and the Library system; leverage across the network of Libraries.

8. Provide flexible display methods for special feature exhibitions and events.

WHY

5. Promote innovation.
    Put learning and innovation on display.
    Support Purdue and Library culture.

6. Showcase depth of resources and knowledge.
    Build excitement for the Library brand.
    Enhance experience through discovery.

7. Create equal experiences for each Library.
    Inspire all who use the Libraries.
    Celebrate the stories that make Purdue, Purdue.

8. Engage the broader Purdue Community.
    Position the Library system as a source of engagement, collaboration and partnership.

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Top 10+ Brand Strategies

WHAT

9. Provide opportunities for student, faculty and administration postings, in an organized manner.

10. Develop a series of Website templates and icons that can be leveraged across various communication methods, digital cataloguing, and information sharing platforms.

11. Create a system of branded distraction graphics for glass-fronted spaces.

12. Create "brand" destinations within the Libraries that support collegiality and collaboration.

WHY

9. Minimize the clutter and visual confusion!

10. Create visual consistency and bring clarity to navigation.
    Create visual excitement for the Library brand.
    Align the physical experience and the on-line experience.

11. Safety.
    Consistency.
    Extend the brand experience.

12. Build community.
    Support Purdue culture.
    Drive preference of place.

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Brand Potential

Kit-of-Parts Tool Kit

Brand Potential – Exterior Identity
HOW

Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity, Wayfinding & Signage
HOW

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Brand Potential – Wayfinding&Signage
HOW
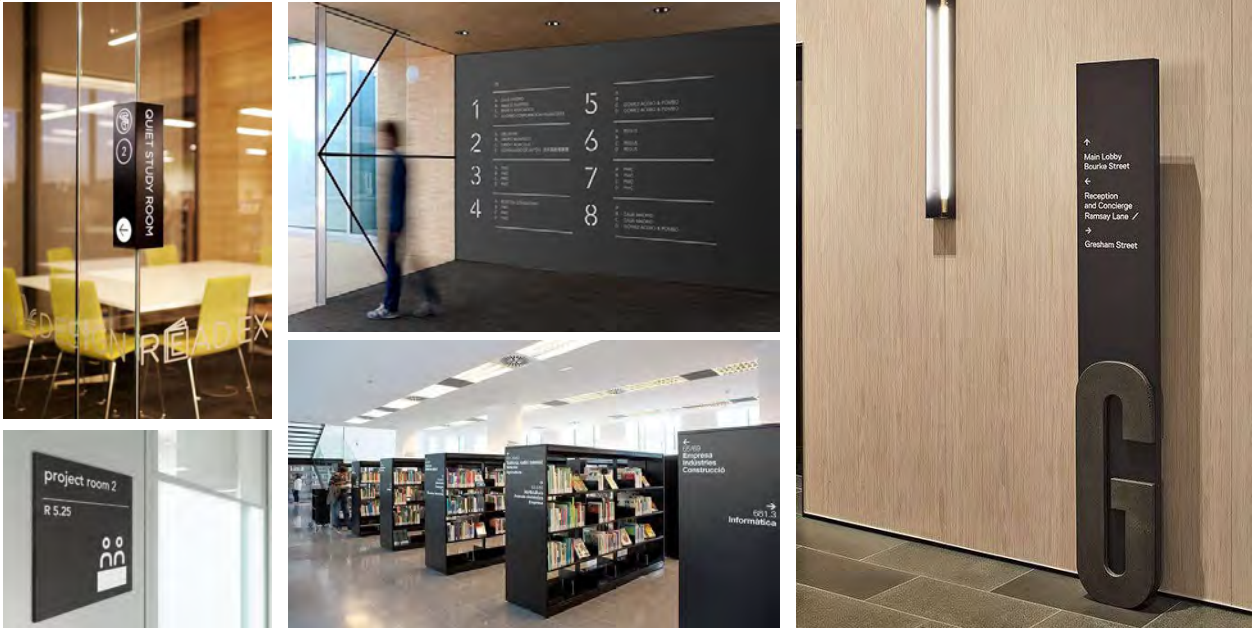
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Brand Potential – Virtual Learning Hub
HOW
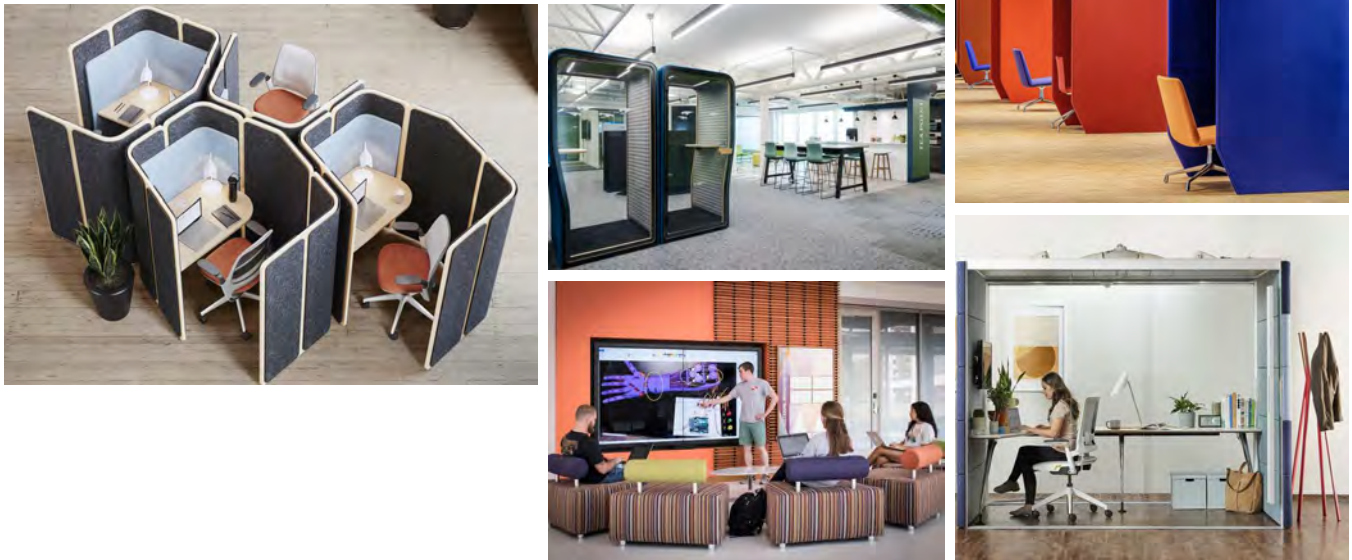
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Brand Potential – Center for Digital Scholarship
HOW
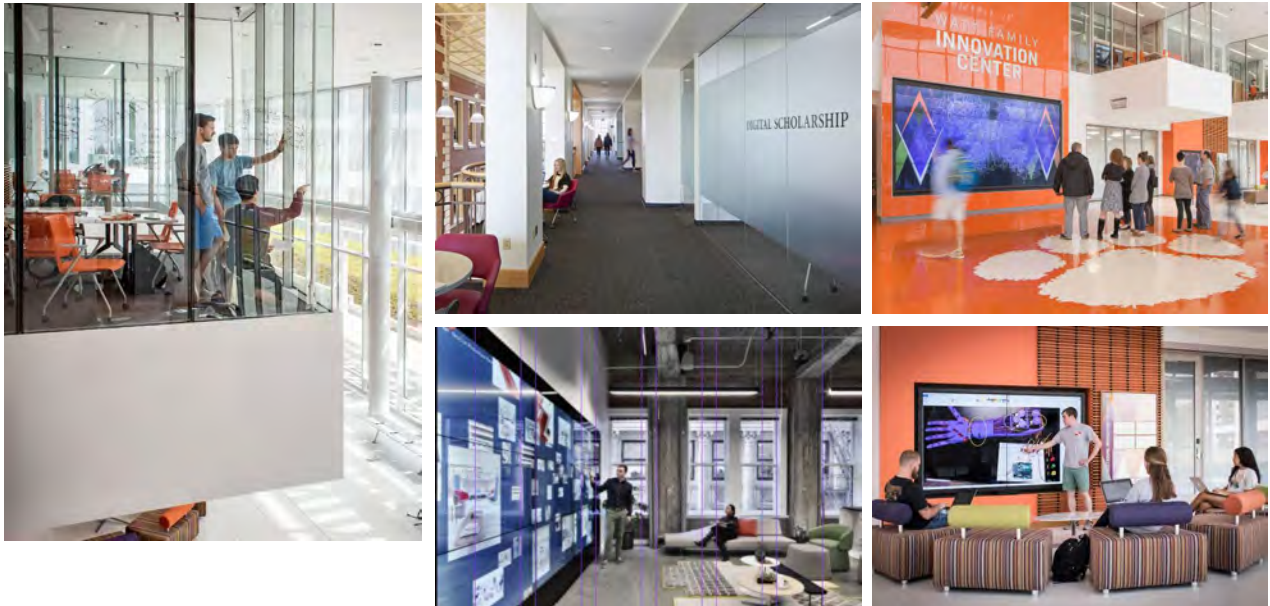
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Brand Potential– Knowledge Gallery
HOW

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Brand Potential – Story-Telling
HOW
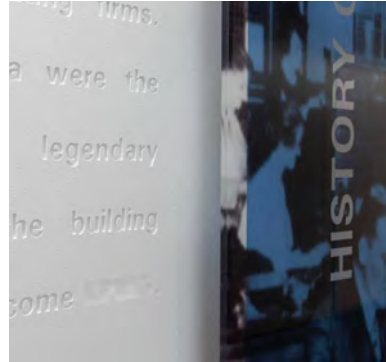
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Brand Potential – Story-Telling
HOW

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Brand Potential – Exhibitions
HOW

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Brand Potential – Postings
HOW

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Brand Potential – Glass Distraction Graphics
HOW

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Brand Potential – Branded Destinations
HOW
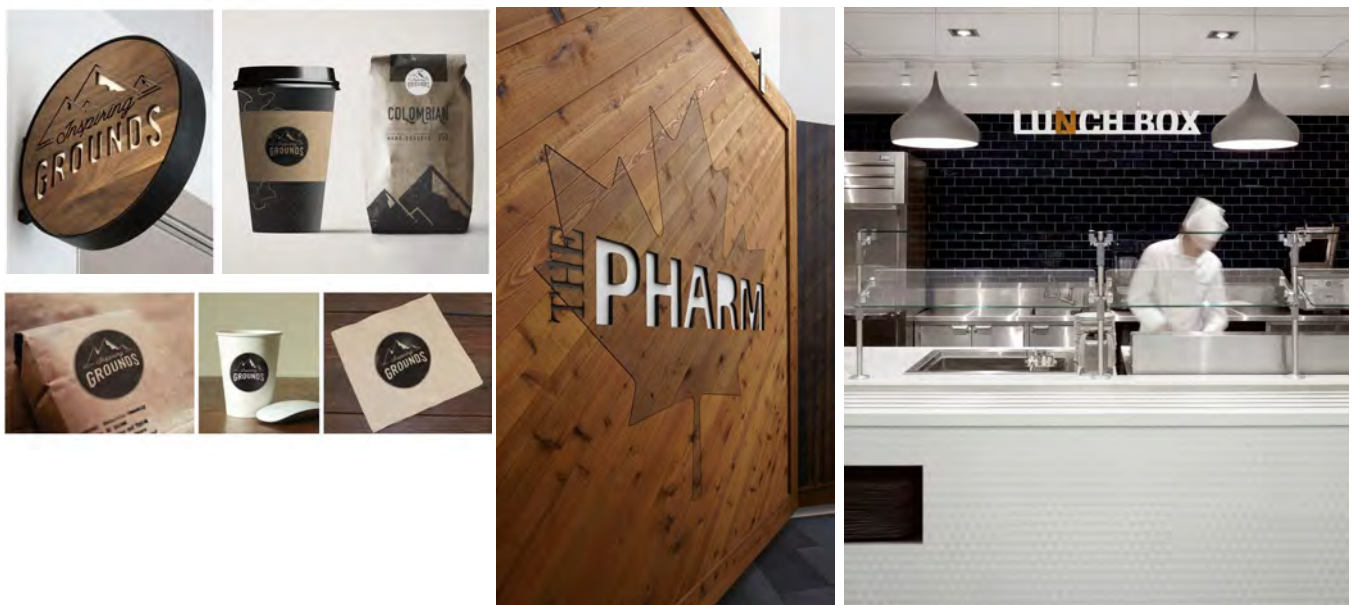
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Brand Potential – Web Presence
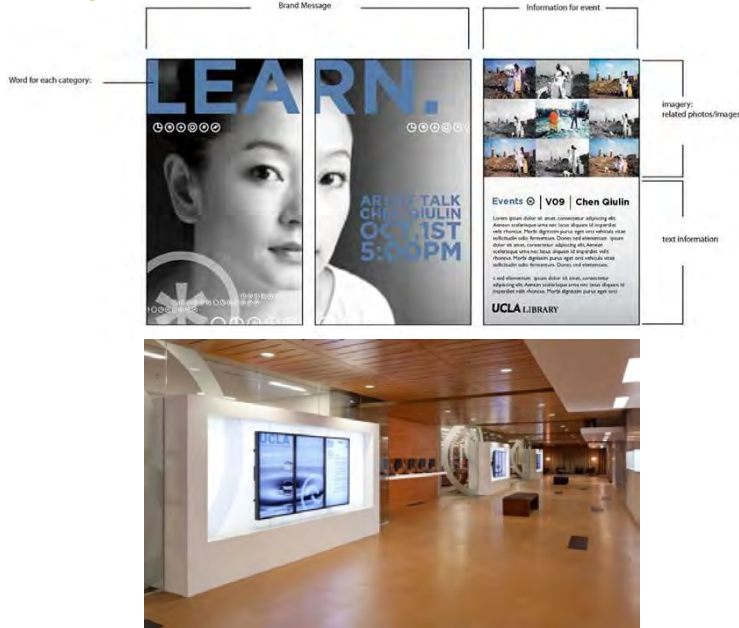
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Brand Potential – Web Presence

HOW   CREATING EQUAL EXPERIENCES
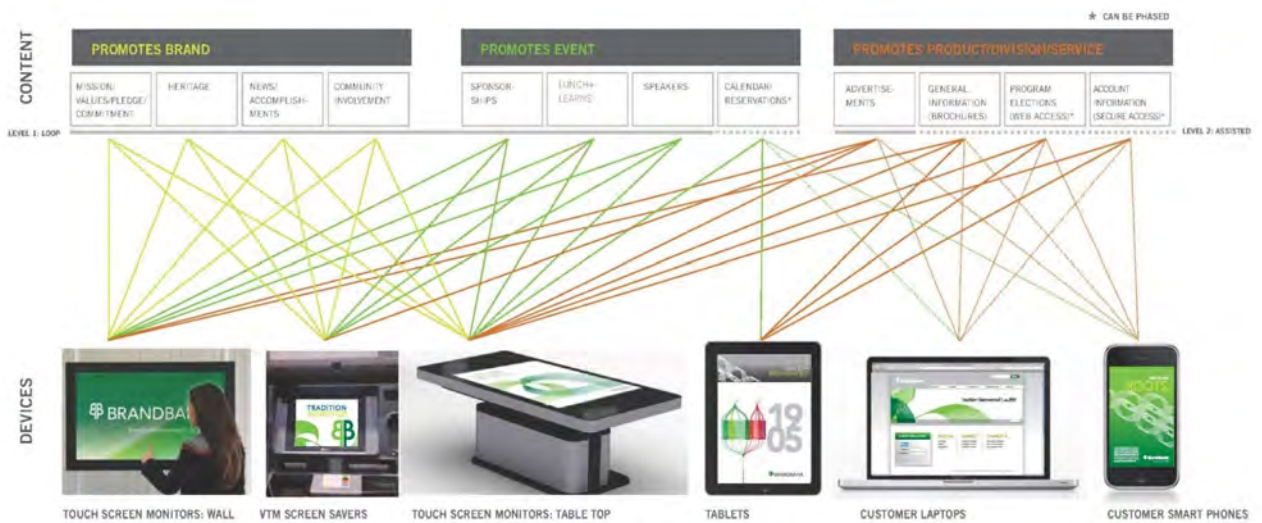
Slide 112 of 117

Wrap Up & Next Steps

Next Steps

June 2:

Conversation and Updates with Provosts

June 17:

Workshop #9 (propose to change the date to June 21)

June 30:

Occuspace complete data collection

Schedule Third and Final Executive Committee Meeting

Q+A

 Program Content Summary

SF Comparison

Existing HSSE & HIKS nsf: 161,170 sf

Draft Program nsf: 208,390 sf

Seating

Existing Seat Count: 2,836 seats

Seating Projections:
* 1995 ACRL method suggests need for: **5,214** additional seats
* 2006 A4LE method suggests need for: **4,234** additional seats
* Current Benchmark method suggests need for: **2,390** additional seats

* Draft Program adds **1,937** seats (80% of benchmark method)
    * 40% Active | 60% Quiet
    * Adds 41 group study rooms to existing (4 X increase)

Program Content Summary

Enhanced Programs

- Study Seats (quantity and variety)
- Quiet (silent?) Reading Room
- Themed Browsing Collections
- A / SC:
  - doubling storage capacity
  - cold storage
  - group room
  - conservation lab
- Maker Space

New Programs

- IT Support Desk
- Drop-In Services
- Express Computing
- Self-Check
- Print Lab
- Digital Signage
- Seminar Rooms (2)
- Active Learning Classroom
- Special Projects Rooms (5)
- Virtual Learning Hubs
- Café
- Non-Traditional Students Lounge
- Experimental Classroom
- Center for Digital Scholarship
- Knowledge Gallery
- Graduate Commons

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Workshop 9: June 21, 2022

Meeting Details

Meeting Date:	6.21.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	2:00 PM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Florent Mettetal, Rebecca, Drew, Mark, Scott

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #9	Perkins + Will

Workshop #9
1. Beth – Can we have a terrace? Check two means of egress; Investigate roof structure; Michael likes the terrace idea.
2. Library Arrival from South – Beth likes archives on first floor; Staircase would drive people up.
3. Michael – How can we think about art and make a statement for HSSE?
4. Experiential Planning: Use icon system as a marker to find library within buildings; "Book display" open shelf box.
5. Allison – People love the mural; Modify canopy to not come out as far; Want welcome open space.
6. Varsity is not ideal.
7. Phasing:
   1. Get books off floor of HSSE; Remove books so they aren't an obstacle.
   2. A - A/SC get on first floor of HSSE/Varsity/another HUB
      B - connected to 2A; Moving S/AC off 4th floor, enables restack; Solves HSSE
   3. Any others bigger lift and may take longer. Don't want it to stop improvements to HSSE and other libraries

Action Item: Get date of board meeting in July - material for that meeting; HSSE restack; Beth - talk with gallery people and give heads up; Beth and Allison – Meet with TERM team on how to move collections and reallocate space.

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan: Workshop #9
6/21/2022

Perkins&Will

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Agenda

Master Plan Status & Schedule Update

Occuspace Update

Experiential Alignment

Planning Scenario Refinement

-System Scale

-Building Scale

— HSSE Restack

   Varsity Study for A/SC

Phasing

Wrap Up & Next Steps

→
WALC

Slide 2 of 66

Project Status Updates

Slide 3 of 66

Master Plan Process

Upcoming Milestones:

Workshop #9 – June 21
Workshop #10 – July 15 (with larger committee)
Draft Issued for Comment – August 12
Workshop #11 – August 19
Comments Received – August 26
Deliverable Issued – September 16

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Data Update

Stress Instances for Libraries – over 70% 'experienced capacity

Location	Value
WALC- Open Computers South	660
AVTECH- First Floor Main	0
VETM- First Floor Carrels	5
VETM- First Floor Main	15
HICKS- Ground Floor Main	0
MATH- Third Floor Graduate Study	0
MATH- Third Floor Main	0
WALC- Second Floor LOES	189
PARRISH- Second Floor Corporate Study	0
PARRISH- Second Floor Learning Lab	0
PARRISH- Second Floor Main	0
HSSE- Third Floor Main	0
HSSE- Second Floor Main	0
HSSE- First Floor Classroom	18
HSSE- First Floor Main	36
WALC- Third Floor West	274
WALC- Third Floor East	74
WALC- Third Floor North	261
WALC- Second Floor Reading Room	390
WALC- Open Computers North	635
WALC- Second Floor North	594
WALC- First Floor North	555
WALC- First Floor Main	293
WALC- Lower Level Main	24

**M-T-W
9:00-17:00
Feb 6- April 10
(w/o spring break)**

Stress Instances for Libraries

HSSE

Stress Instances for Libraries

HIKS

HSSE Restack

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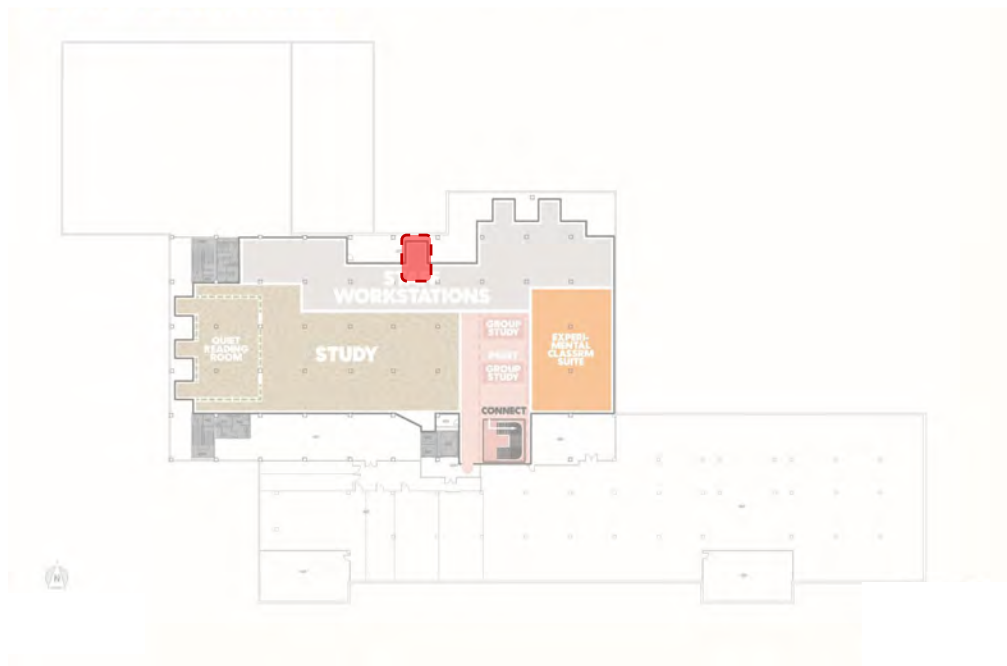
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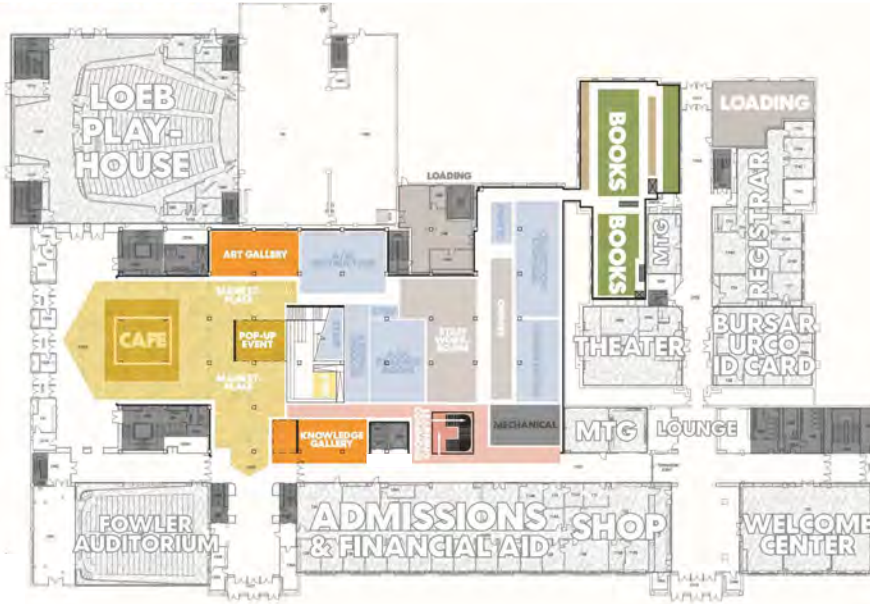
Slide 11 of 66

2a

Slide 12 of 66

3a

Slide 13 of 66

4a
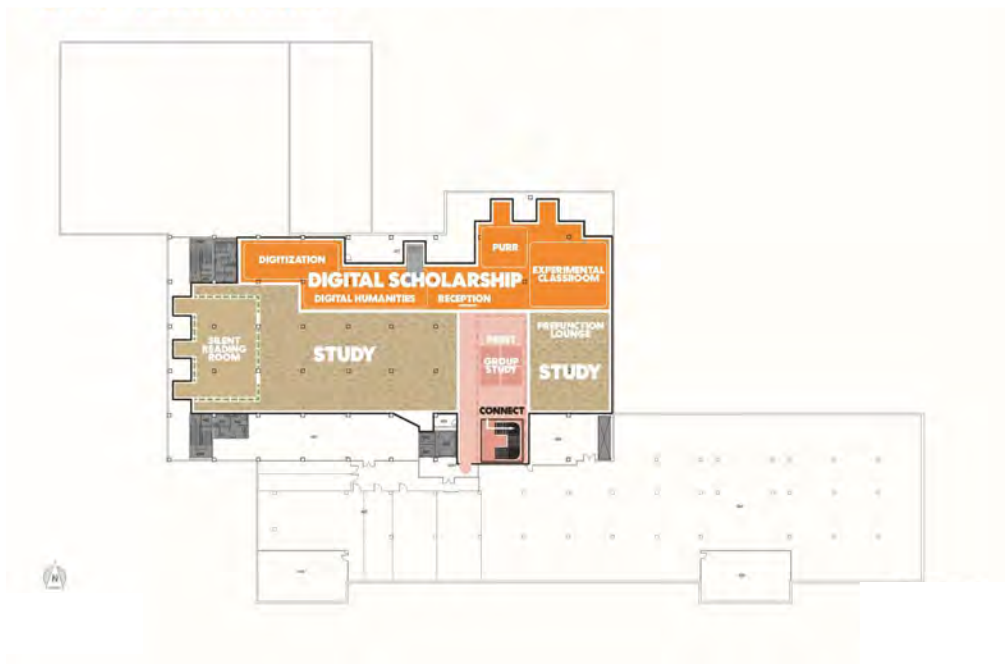
Slide 14 of 66

Interconnecting Stair & 4th Floor Daylight

Slide 15 of 66

Dormer Study - North
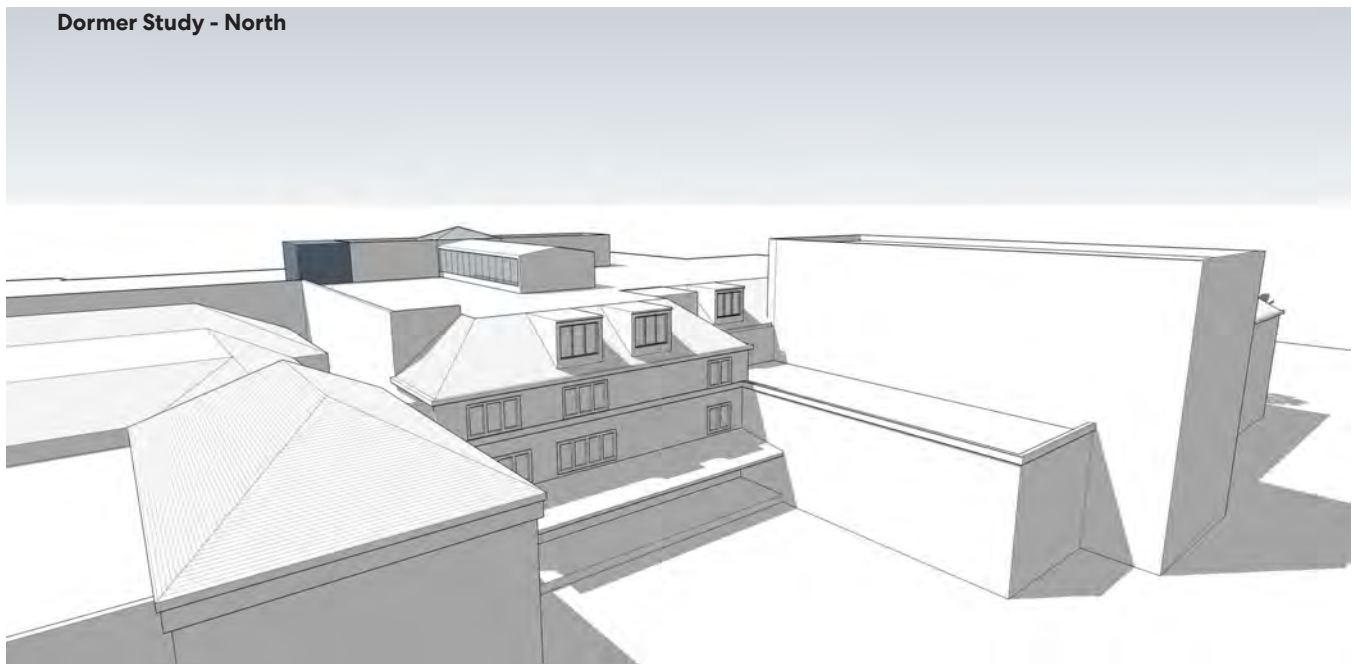
Slide 16 of 66

Dormer Study - West
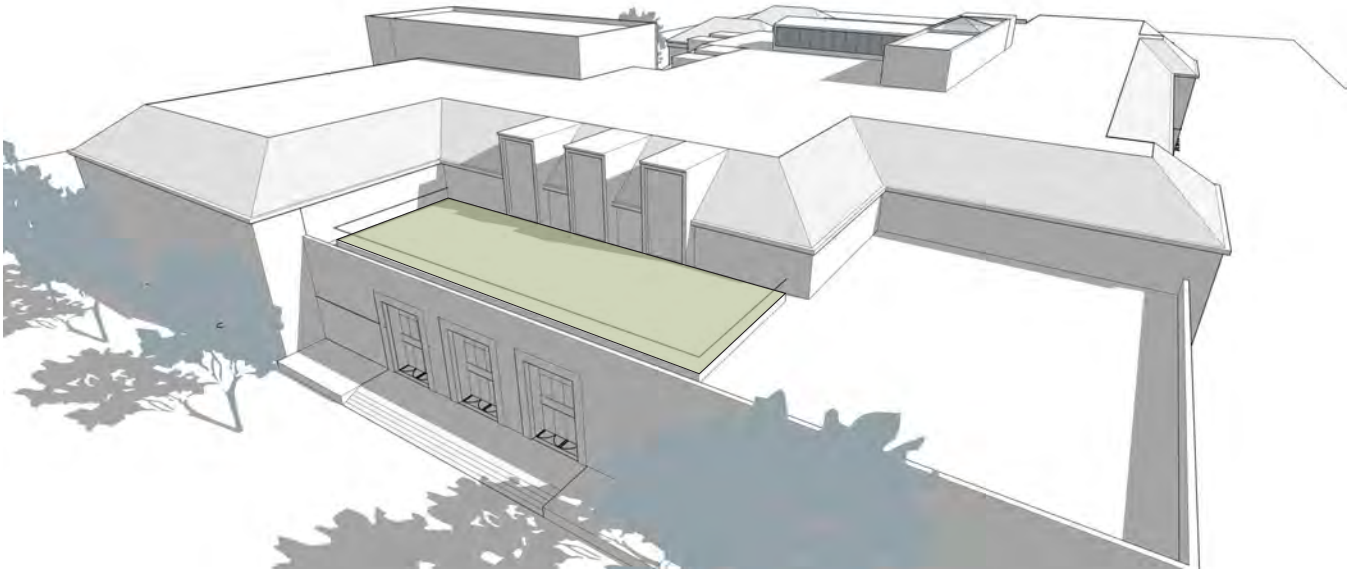
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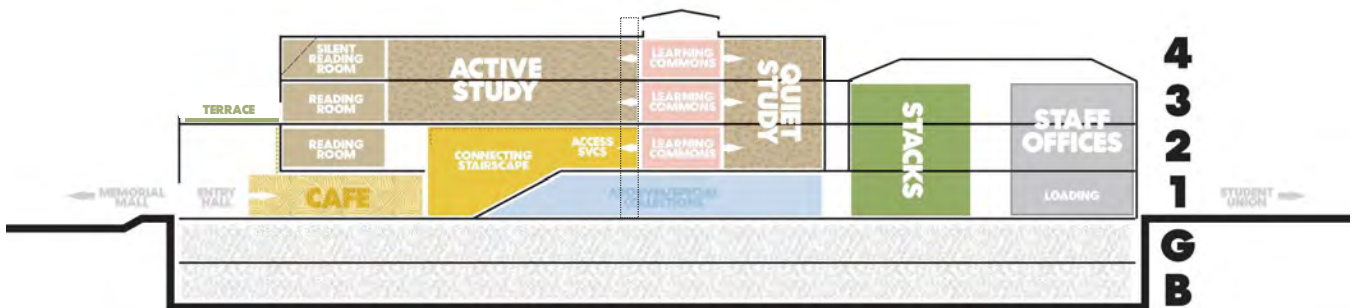
Section

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Composite Floor Plans

Experiential Planning Update

Brand Potential – Icon System
HOW

Library Inside!

Database   Research   Events Calendar   Discovery

Locations   Hours of Operation   Café   Collaboration

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Brand Potential – Icon System
HOW

Library Inside!

Database   Research   Events Calendar   Discovery

Locations   Hours of Operation   Café   Collaboration

Perkins&Will

Brand Potential – Icon System
HOW
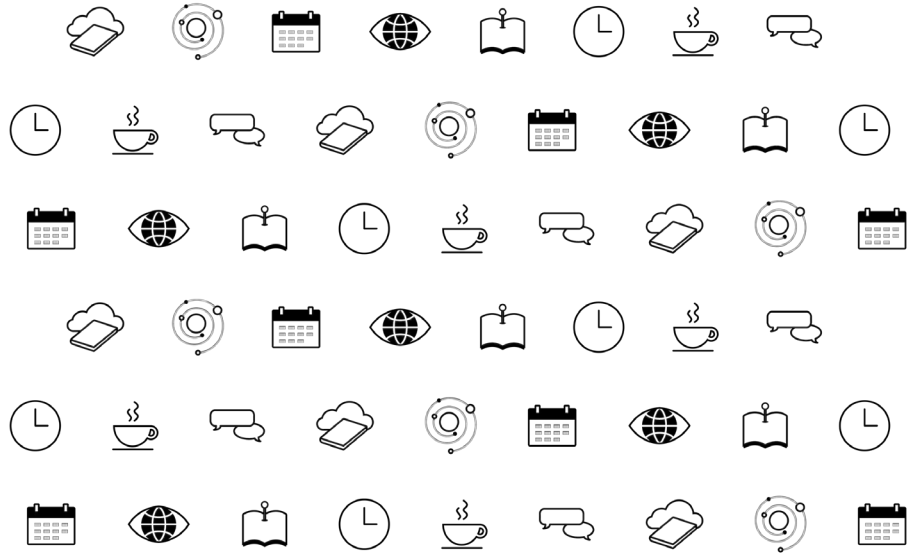
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Brand Potential – Exterior Identity
HOW
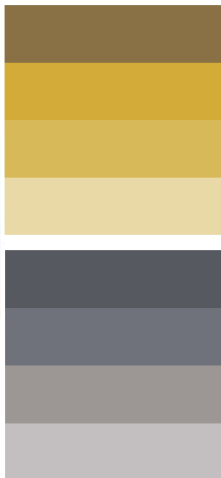
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Brand Potential – Exterior Identity
HOW

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Brand Potential – Exterior Identity
HOW

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Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity
HOW
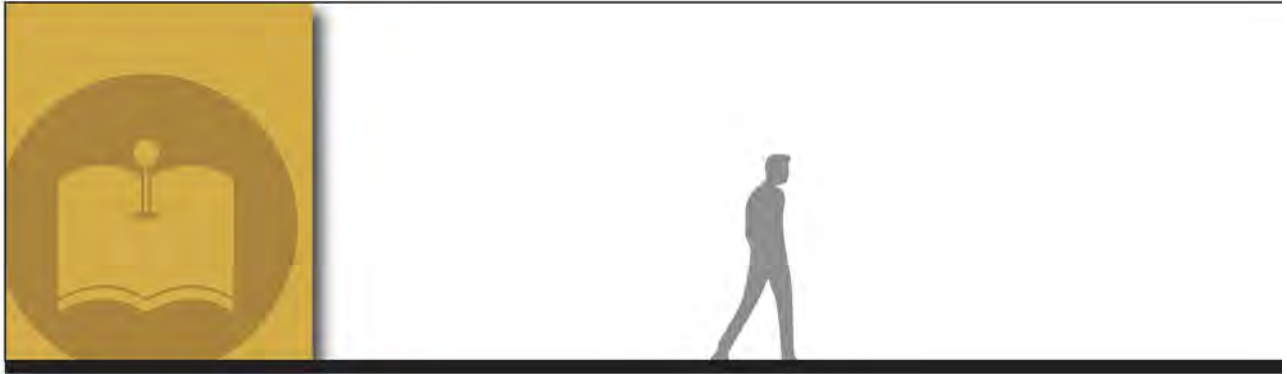
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Brand Potential – Interior Identity
HOW
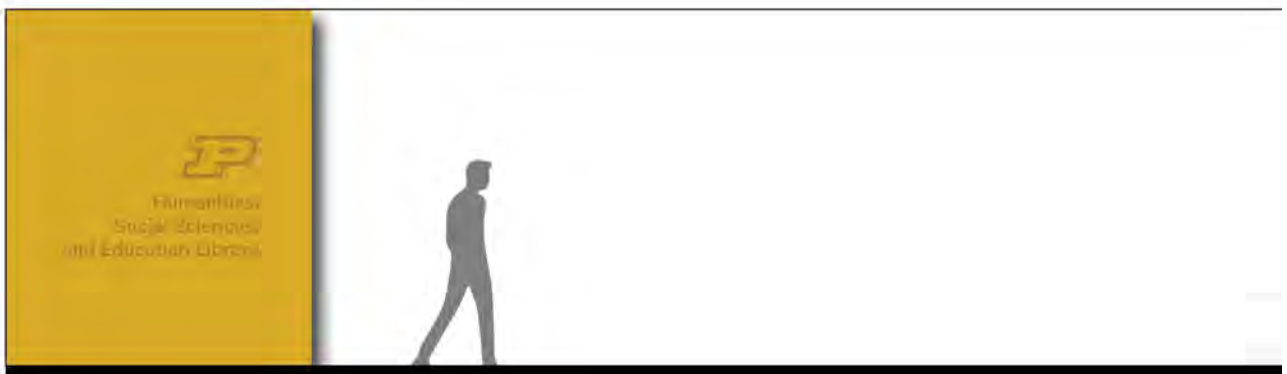
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Brand Potential – "Book Display"
HOW
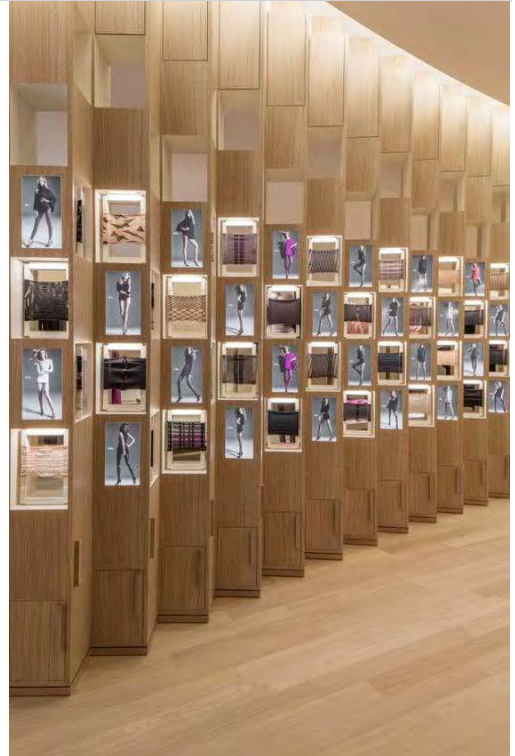
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Brand Potential – "Book Display"
HOW

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Brand Potential – "Book Display"
HOW
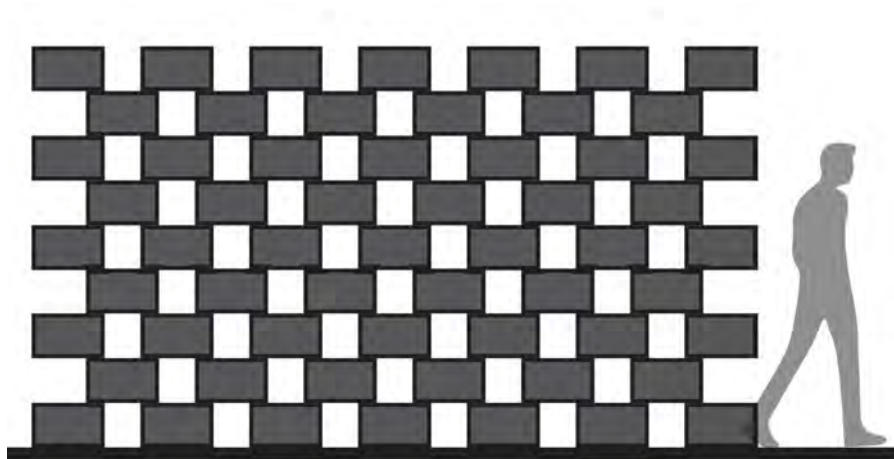
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Brand Potential– Knowledge Gallery
HOW

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Brand Potential– Knowledge Gallery
HOW
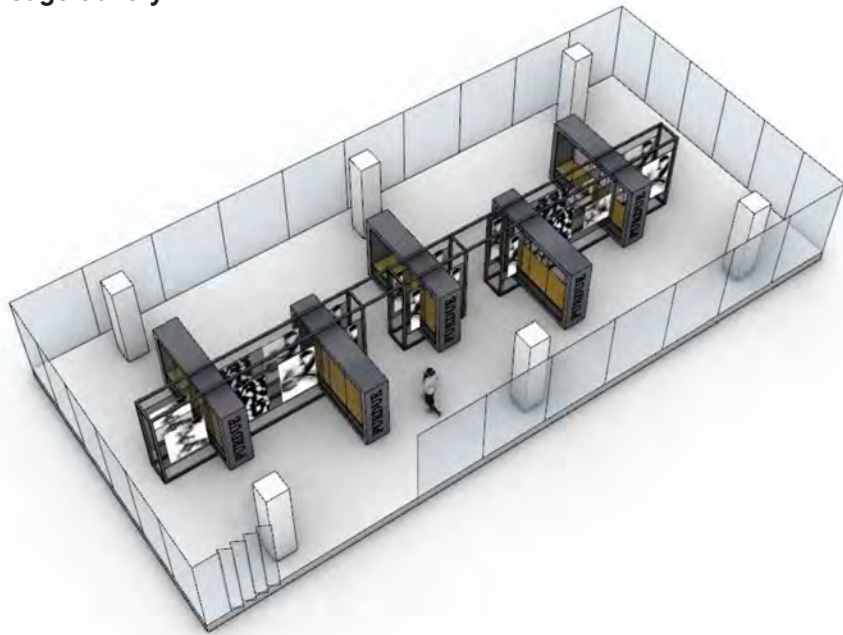
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Brand Potential– Knowledge Gallery
HOW

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Brand Potential – Art Gallery
HOW

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Brand Potential – Art Gallery
HOW
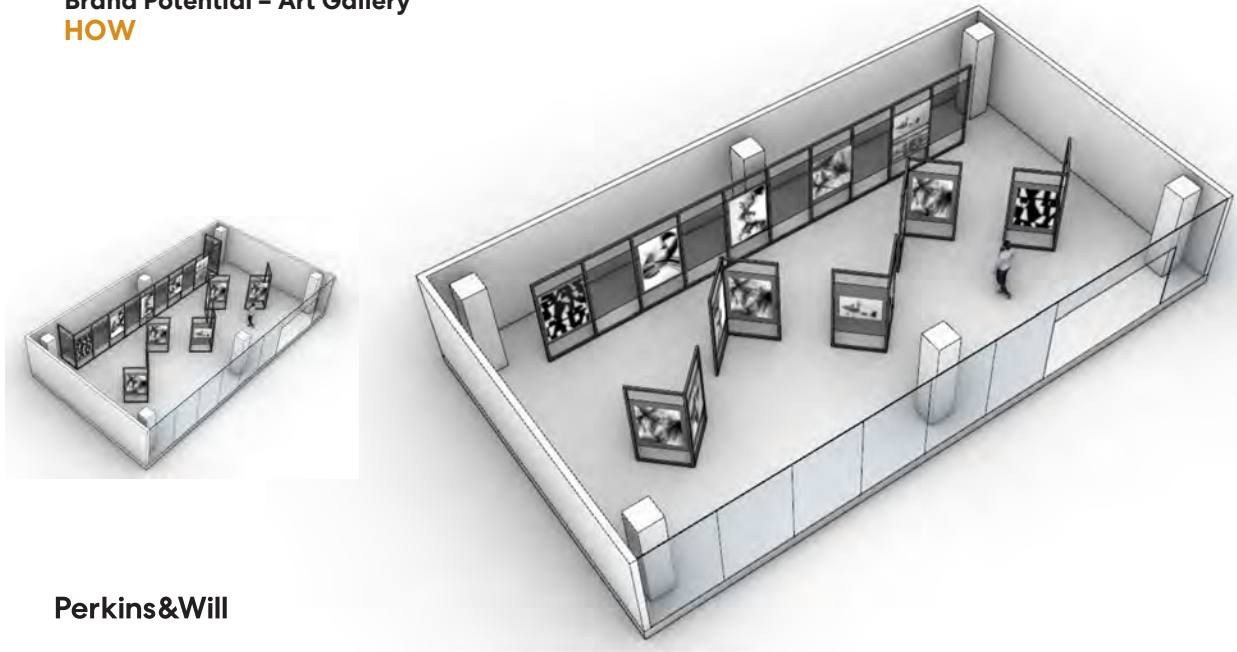
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Brand Potential – Story-Telling
HOW
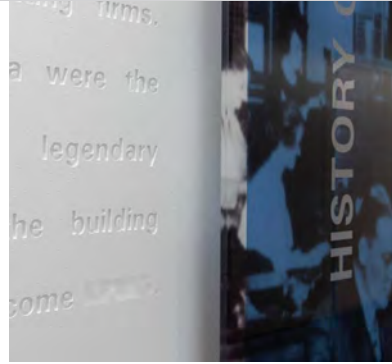
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Brand Potential – Story-Telling
HOW

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Brand Potential – Story-Telling
HOW
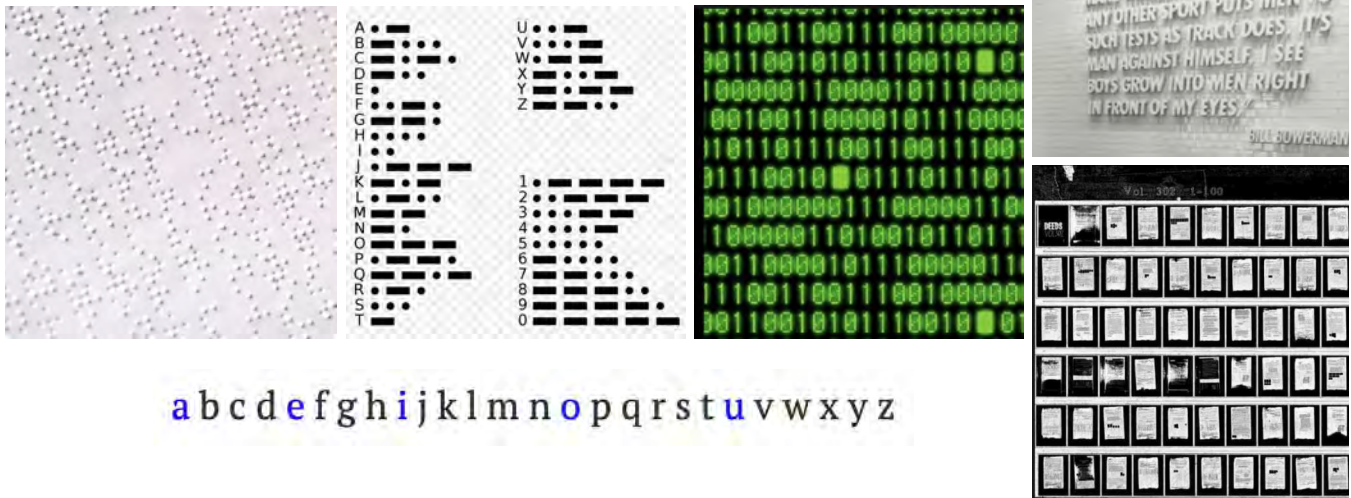
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Brand Potential – Story-Telling
HOW

Slide 42 of 66

Brand Potential – Glass Distraction Graphics
HOW
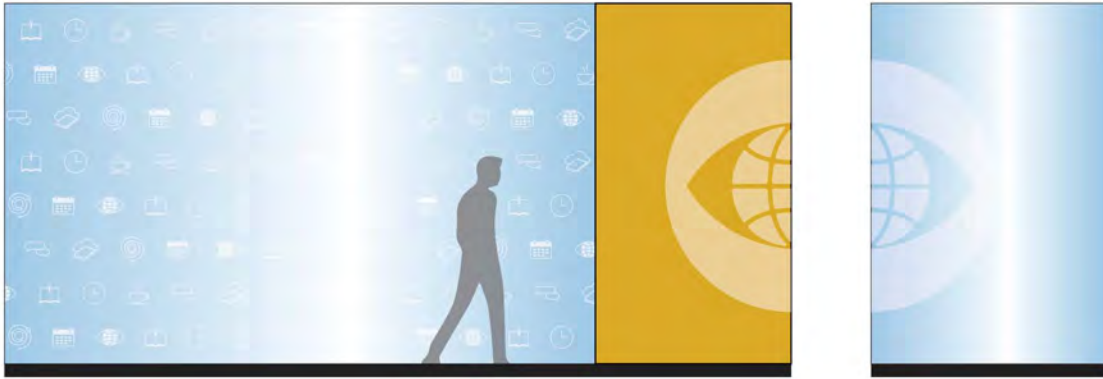
Slide 43 of 66

Brand Potential – Story-Telling
HOW

Literature is my Utopia.

Literature is my Utopia. Here I am not disenfranchised. No barrier of the senses shuts me out from the sweet, gracious discourse of my book-friends. They talk to me without embarrassment or awkwardness.
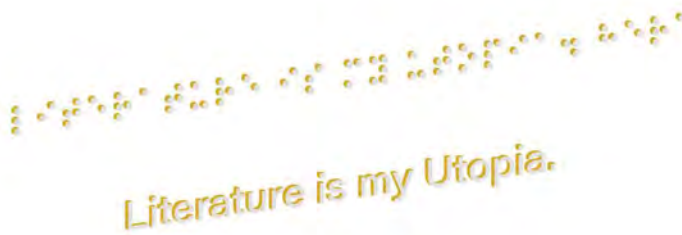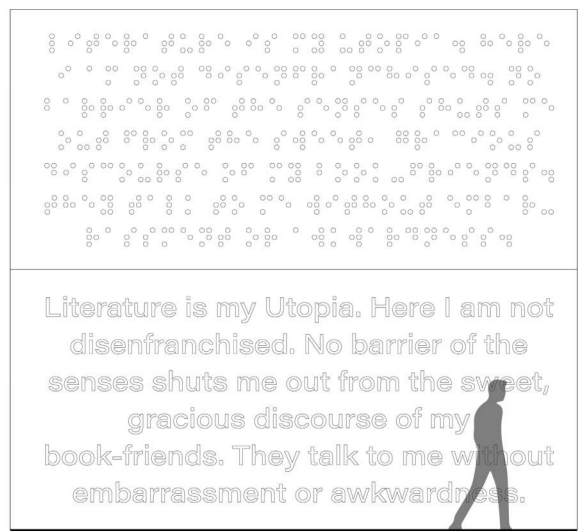
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Brand Potential – Glass Distraction Graphics
HOW

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Experiential Planning Update
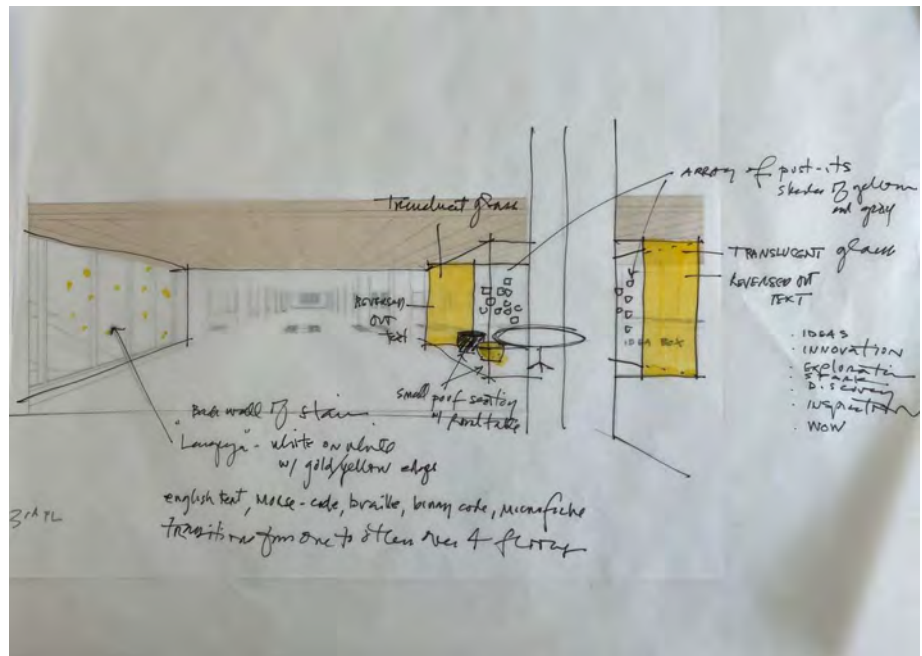
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Experiential Planning Update

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Brand Potential – Exhibitions
HOW

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES
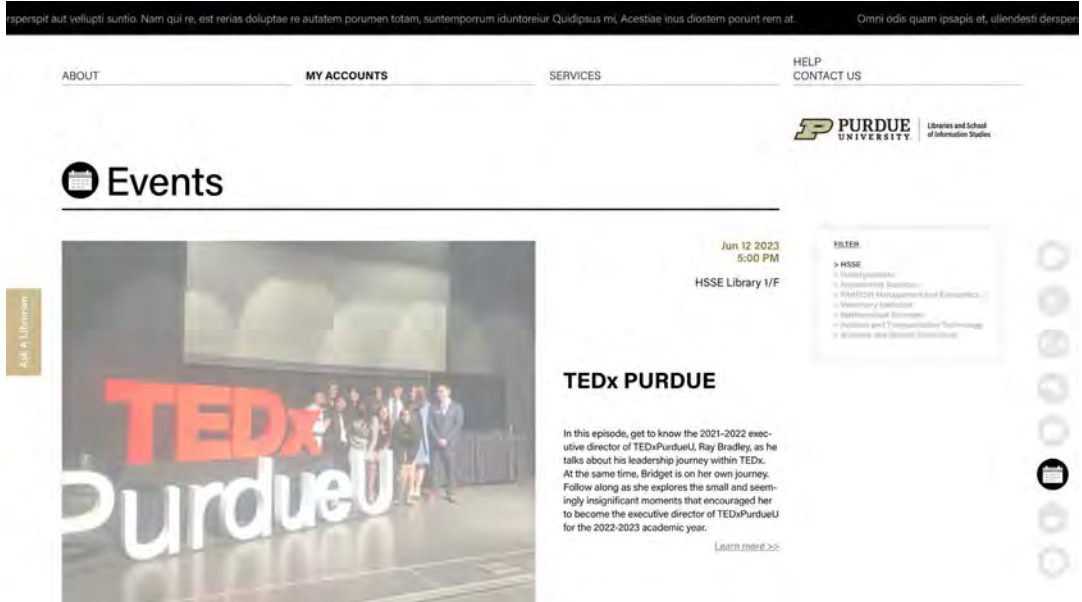
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Brand Potential – Interior Identity, Wayfinding & Signage
HOW

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Brand Potential – Wayfinding & Signage
HOW

Slide 53 of 66

Brand Potential – Center for Digital Scholarship
HOW
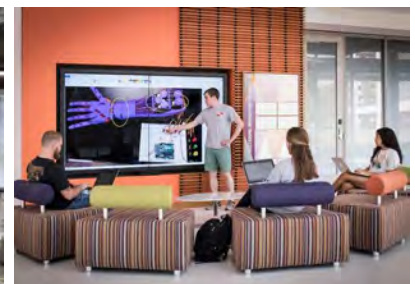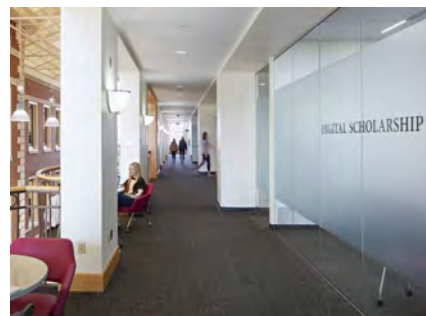
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Brand Potential – Virtual Learning Hub
HOW

Perkins&Will

Brand Potential – Postings
HOW

Perkins&Will

Brand Potential – Postings
HOW
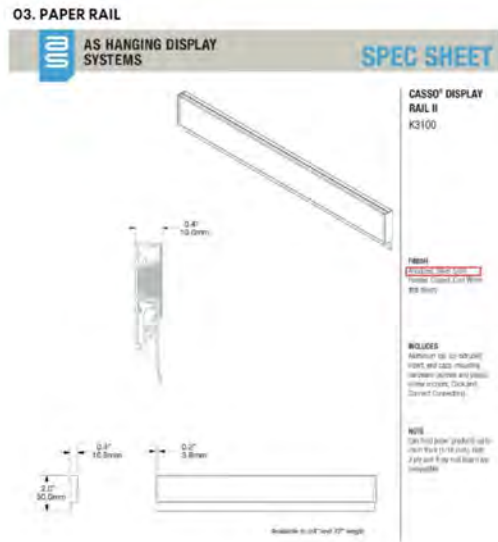
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Brand Potential – Branded Destinations
HOW
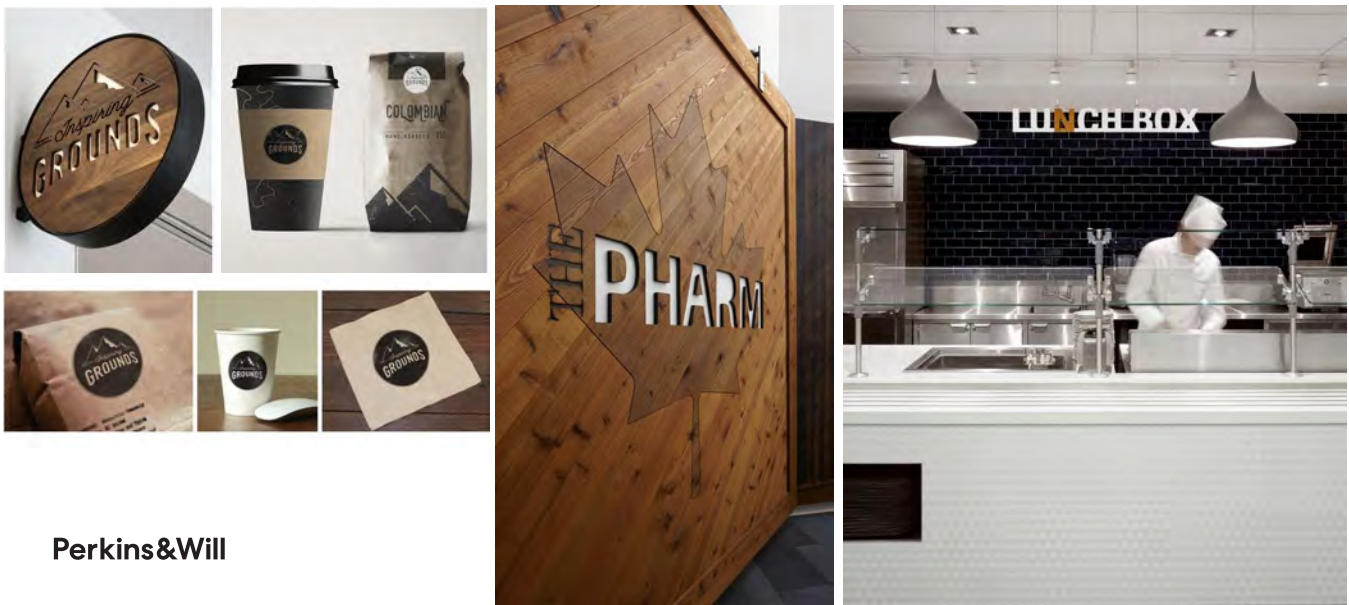
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Brand Potential – Branded Destinations
HOW

Café

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Varsity A/SC Test Fit

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Varsity Study: 3 Floor Addition
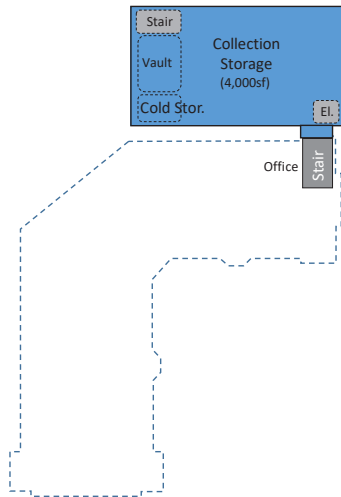
Basement
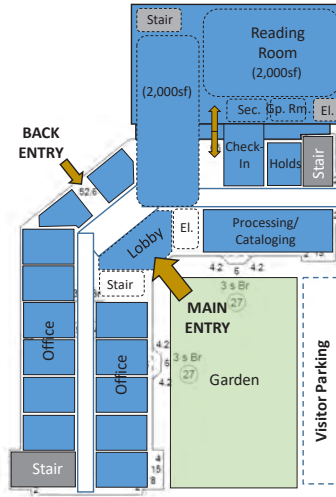
Level 1
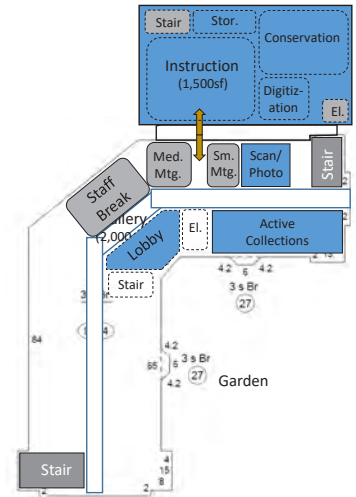
Level 2

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Varsity Study: 1 Floor Addition (back)
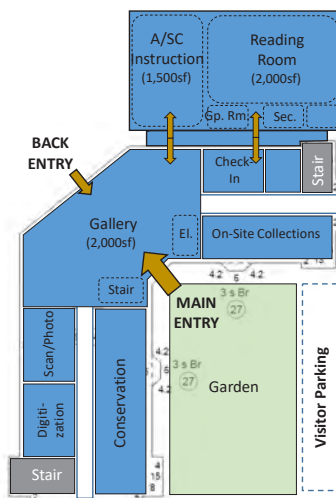
Level 1
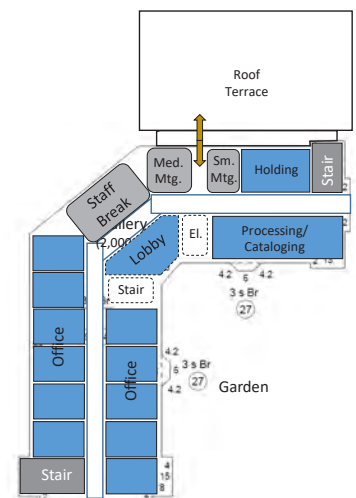
Level 2

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Varsity Study: 1 Floor Addition (front & back)

Level 1

Level 2
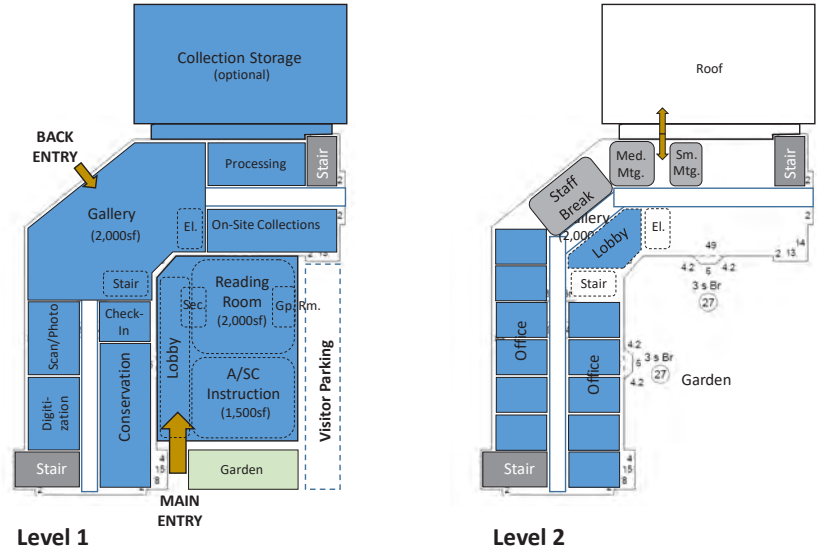
Phasing Scenarios

Improvement Scope By Library

	PHASE 2A	PHASE 3	PHASE 1	PHASE 2B	PHASE INDEPENDENT					
	1 Wiedmad and Social Collections	2 South Campus Hub + Residential Hub	3 2550 Repository	4 Humanities, Social Sciences and Education	5 Undergraduate	6 Engineering Sciences	7 PARRISH Management and Economics	8 Veterinary Medicine	9 Mathematical Sciences	10 Intuitive and Transportation Technology
	A / SC	TBD	2550	STEWART	HICKS	WILMETH	KRANNERT	LYNN	MATH	TERMINAL
New Construction	●	●								
Renovation			●							
Interior Refresh				●						
Selective Refresh						●			●	
FFE Only				●	●					
Brand Update	●	●	●	●	●	●	●	●	●	●
Vacate / Close					✓					✓

SIGNIFICANT SCOPE   LIMITED SCOPE   MINOR SCOPE

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Q+A

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Workshop 10: July 15, 2022

Meeting Details

Meeting Date:	7.15.2022	**Project Name:**	Purdue University Libraries Master Plan
Meeting Time:	2:30 PM	**Project Number:**	021661.000
Meeting Location:	Via Teams	**Attendees:**	Jessica Figenholtz, Derek Jones, Eileen Jones, Florent Mettetal, Drew, Michael, Allison Leavitt, Amanda Gill, Tracy Grimm, Dean Lingley, Beth McNeil ,Robin Meher, Mark Puente, Rebecca Richardson, Candance Scott

Discussion

ITEM NO.	DESCRIPTION	RESPONSIBILITY
001	Workshop #10	Perkins + Will

1. Where to grow? Math, South Campus, Res Hub; Could be 2 future library hubs, one in south of state street (academic hub); One near res zone (residential hub).
2. Unlock HSSE: Library functions staring on second floor, where are restrooms and gender neutral?
3. Experiential Planning Update: Notion of icon system, way to bridge was people access information (Physical or virtual); "Golden portal" with repeating icons; Film on exterior of building to pull in awareness of library; Two story identity; Study areas anchored by small intimate setting of books; A/SC - knowledge gallery, graphic information that carries the story; Align experiences on-line and in the physical environment.
4. Implementation:
   - Math: Keep 250 LF in library; Build out additional study rooms
   - HIKS: All static shelving to be moved out; Could pick up another 100 seats if there is capacity
   - Phase 4 - new south hub/new residential hub.
5. MG - Directed to assume that Purdue will get to the middle enrollment scenario at 40,000 undergrads. He expects they will be there by fall of 2025
6. Questions:
   - Stack related in HSSE, must include environmental conditions/upgrades.
   - Like idea of moving A/SC to first floor and issue with open spaces on first floor. Near flex areas, security concerns.
   - Correct aviation - NOT coming offline
   - Issues with accessibility - Where are designated spaces for people with physical and visual impairments.
   - Terrace idea - look at WALC area that can be activated

Action Item: HSSE Renderings need more color/light/texture (before and after).

Please note: The foregoing constitutes our understanding of matters discussed and conclusions reached. Other participants are requested to review these items and advise the originator in writing of any errors or omissions.

Purdue University Library Master Plan: Workshop #10
7/15/2022

Perkins&Will

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Agenda

Schedule Update

Workshop Recap

Data Collection Update

Planning Scenario Recommendations
    System Scale
    Building Scale
    Brand Experience

Phasing

Next Steps

→
WALC

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Schedule Update

Master Plan Process

Upcoming Milestones:

Workshop #9 – June 21
Workshop #10 – July 15 (with larger committee)
Draft Issued for Comment – August 12
Workshop #11 – August 19
Comments Received – August 26
Deliverable Issued – September 16

Workshop Recap

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PROJECT VISION STATEMENT

*The future Purdue Libraries will be the **bridge** between individual scholars and the academic community, the campus and the world. It will **connect** disciplines and **integrate resources** across the university so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized **partner for experimentation, collaboration, and digital learning**. It will be a **pathway between knowledge acquisition and its application in the service of society***.

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THE BEST PLACE FOR . . .

KNOWLEDGE GALLERY
Showcase what others are doing
Exhibit new scholarship
SC/A display
New & noteworthy collections

VIRTUAL LEARNING HUB
Individual seating for online learning
Group seating for online learning
Tools & resources for virtual learning

CENTER FOR DIGITAL SCHOLARSHIP
Digital Humanities/Scholarship
E-Archives / E-Pub
Digitization
One Button/Lightboard/Recording
Data/GIS Walk-In Services

COLLECTION BASED PROGRAMS	SC/A ENGAGEMENT	SANCTUARY SPACE	EXPERIMENTAL TEACHING & LEARNING CTR	ROBUST MAKERSPACE	AR/VR RESEARCH
		OUTDOOR AREA			

| | NON-TRADITIONAL STUDENT LOUNGE | CAFÉ/FOOD SERVICE | STUDENT REST/NAP ROOM | STAFF/FACULTY LOUNGE | GRADUATE STUDY ROOM |
| | | INTERACTIVE LEARNING ZONE | MORE EMBEDDED COLLAB. CLASSROOMS | QUIET STUDY ZONE | MORE STUDY ROOMS |

Metrics
ENROLLMENT GROWTH | UNDERSEATED | PROGRAM BALANCE

GROWTH: Enrollment Scenarios

2021 Enrollment:	37,101	11,613
FTE %:	**97.8%**	**71.0%**
2031 Enrollment	37,326	20,925
2031 Steady FTE:	**36,491**	**14,851**
	40,129	20,925
2031 Growth FTE:	**39,231**	**14,851**
	42,543	20,925
2031 Hi-Growth FTE:	**41,591**	**14,851**

Projection (Purdue Provided)

2031-Steady	36,491	14,851	51,342	**[2021 enrollment = 45,990; 2031 = +12%]**
2031-Growth	39,231	14,851	54,082	
2031-High Growth	41,591	14,851	56,442	

UNDERSEATED: Seat Count Projections

VISITATION BASED BENCHMARKING METHOD (NEW)

Institution		Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
Ohio State University		61,391	4,333	7.1%	4,103,455	947	67
North Carolina State University		34,767	5,027	14.5%	2,464,590	490	71
Iowa State University		33,391	3,330	10.0%	1,916,666	576	57
Universtiy of NC, Chapel Hill		29,877	5,705	19.1%	2,667,100	468	89
Western Michigan State University		21,470	2,551	11.9%	597,958	234	28
Georgia Tech University		19,432	2,360	12.1%	318,614	135	16
Miami University		17,697	1,640	9.3%	382,474	233	22
	Average	31,146	3,564	12.0%	1,778,694	440	50
Purdue Library (2018-19)	6.8%	41,878	2,838				
PURDUE- Steady	11.4%	51,342	5,833	2,997	2,568,985	440	50
PURDUE- Growth	11.4%	54,082	6,144	3,308	2,706,101	440	50
PURDUE- High Growth	11.4%	56,442	6,412	3,576	2,824,188	440	50

For every 100 FTE increase, add: 11.4 seats

PROGRAM BALANCE: Space Use Allocation Studies

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PROGRAM BALANCE: Space Use Allocation Studies
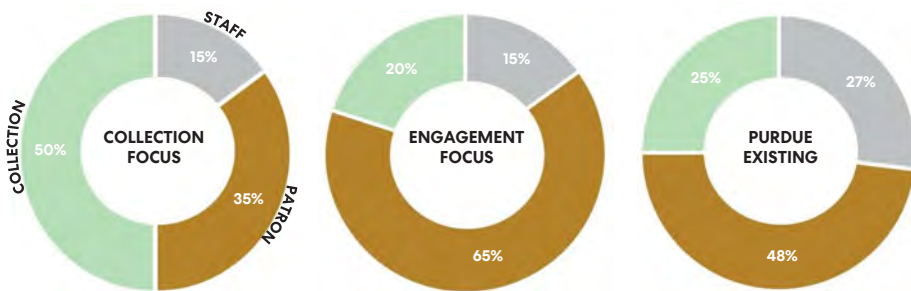
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PROGRAM BALANCE: Space Use Allocation Studies
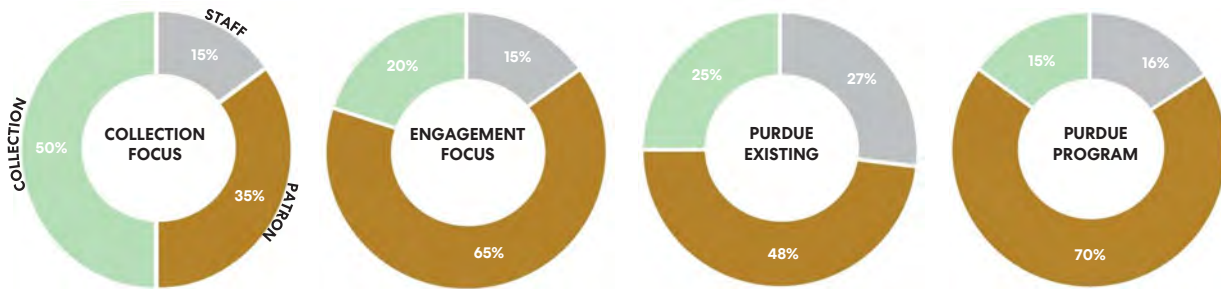
Behavior Analysis
WHO? | HOW MUCH? | WHY?

14

WHO USES THE LIBRARIES ?

Top Colleges & Schools by Library

Largest splits but include a wide majority of majors

Based on 2017-2019 WIFI Data

	AVTE	HIKS	HSSE	MATH	PARRISH	VETMED	WALC
College of Agriculture	1.9%	8.9%	9.3%	7.0%	7.6%	10.0%	8.4%
College of Education		1.4%	1.4%	2.3%	0.5%		1.8%
College of Health & Human Sci	2.5%	11.1%	11.4%	10.3%	9.7%	5.5%	10.6%
College of Liberal Arts	0.5%	12.6%	13.4%	10.2%	7.9%	2.5%	11.9%
College of Pharmacy	0.5%	0.6%	0.6%	1.1%	0.9%	0.3%	0.5%
College of Science	1.4%	13.5%	13.6%	19.5%	10.8%	4.5%	13.3%
Construction Engineering Mgmt		0.5%	0.4%	0.4%	0.2%		0.4%
Div of Environ & Ecol Engr		0.5%	0.5%	0.3%	0.7%		0.4%
Doctor of Pharmacy	0.2%	0.6%	0.6%	0.7%	1.0%		0.5%
Exploratory Studies	0.2%	0.6%	0.6%	1.0%	1.0%	0.7%	0.5%
First Year Engineering	0.9%	0.6%	0.6%	1.3%	1.0%	1.6%	0.5%
Graduate Professional		0.0%	0.0%	0.0%		0.2%	0.0%
Graduate School	31.3%	18.8%	19.6%	16.8%	18.2%	38.4%	21.5%
Polytechnic Institute	42.8%	12.3%	10.8%	10.5%	9.5%	3.1%	12.6%
Pre-Pharmacy		0.1%	0.0%	0.0%	0.0%	0.5%	0.1%
School of Aero and Astro Engr	1.9%	0.6%	0.6%	1.1%	0.8%		0.5%
School of Agr and Bio Engr		1.2%	1.2%	1.0%	0.9%	1.2%	1.3%
School of Biomedical Engr		0.5%	0.5%	0.8%	0.8%	0.7%	0.5%
School of Chemical Engineering	0.7%	0.6%	0.5%	0.9%	0.9%	0.8%	0.5%
School of Civil Engineering	0.4%	0.6%	0.6%	0.8%	0.9%	0.3%	0.5%
School of Elec & Computer Engr	1.2%	1.2%	1.1%	2.0%	2.4%	0.5%	1.0%
School of Industrial Engr	0.4%	0.6%	0.6%	1.1%	1.2%	0.8%	0.7%
School of Interdisciplnry Engr		0.5%	0.6%	0.5%	0.2%		0.7%
School of Management	10.6%	9.6%	9.2%	8.1%	20.3%	3.1%	8.9%
School of Materials Engr		0.5%	0.5%	0.6%	0.7%		0.4%
School of Mechanical Engr	0.4%	0.6%	0.6%	1.0%	1.2%	0.6%	0.5%
School of Nuclear Engineering		0.4%	0.3%	0.4%	0.0%	0.1%	0.4%
Temporary	2.3%	0.3%	0.4%	0.4%	0.2%	0.3%	0.6%
Veterinary Medicine		0.4%	0.3%	0.0%	0.4%	10.6%	0.3%
Veterinary Technology		0.3%	0.1%	0.0%		12.7%	0.2%

The Classroom & Library Relationship

MEDIUM INVERSE CORRELATION — STEW (Course enrollment, Library Fill (HSSE))

STRONG DIRECT CORRELATION — MATH (Course enrollment, Library Fill)

STUDY DAY TUESDAY

STRONG INVERSE CORRELATION — KRAN (Course enrollment, Library Fill (PARRISH))

STRONG INVERSE CORRELATION — LYNN (Course enrollment, Library Fill (VETMED))
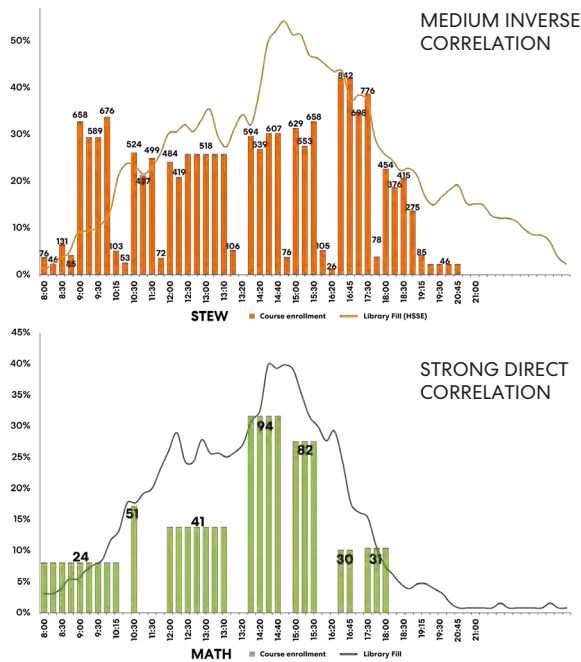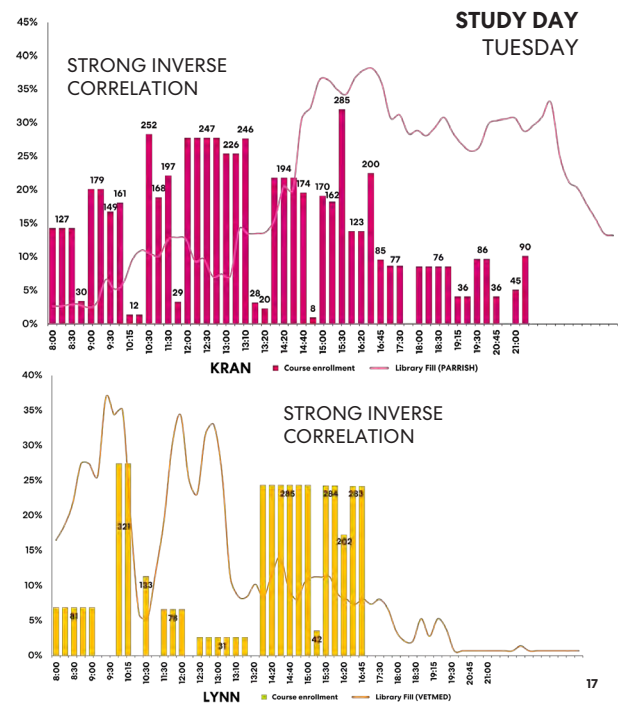
Understanding Stress Peaks

Legend:
- Aviation Technology Library
- Roland G Parrish Library
- John W Hicks Undergraduate Library
- HSSE /Steward Center
- Mathematical Sciences Building
- Veterinary Medical Library

STRESS EVENTS

Early morning at VETMED

Mid-day for most libraries

Highest Peak by Hour — **M-T-W**
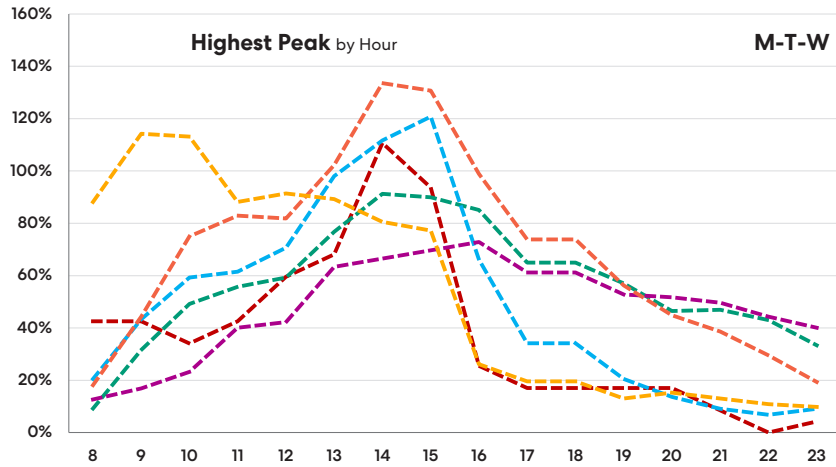
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High Stress Instances for Libraries – over 70% 'experienced capacity

Location	Value
WALC- Open Computers South	660
AVTECH- First Floor Main	0
VETM- First Floor Carrels	5
VETM- First Floor Main	15
HICKS- Ground Floor Main	0
MATH- Third Floor Graduate Study	0
MATH- Third Floor Main	0
WALC- Second Floor LOES	189
PARRISH- Second Floor Corporate Study	0
PARRISH- Second Floor Learning Lab	0
PARRISH- Second Floor Main	0
HSSE- Third Floor Main	0
HSSE- Second Floor Main	0
HSSE- First Floor Classroom	18
HSSE- First Floor Main	36
WALC- Third Floor West	274
WALC- Third Floor East	74
WALC- Third Floor North	261
WALC- Second Floor Reading Room	390
WALC- Open Computers North	635
WALC- Second Floor North	594
WALC- First Floor North	555
WALC- First Floor Main	293
WALC- Lower Level Main	24

M-T-W
9:00-17:00
Feb 6- April 10
(w/o spring break)

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Stress Instances for Libraries

HSSE -

1st floor zones are the ones experiencing stress events

Stress Instances for HSSE

Legend: First Floor Classroom · First Floor Main · Second Floor Main · Third Floor Main
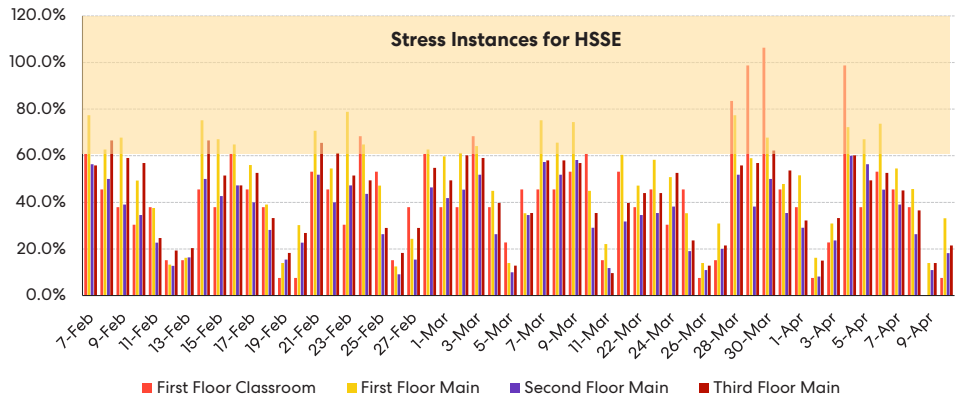
HIKS -

Capacity is rarely experiencing stress but remains consistent overall

Stress Instances for HIKS

Legend: Ground Floor Main
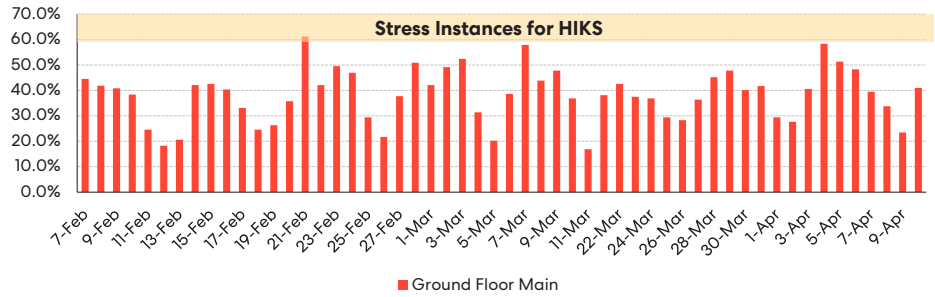
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WALC – Which Zones Fill Up First?
M-T-W

3rd level & lower level zones experience the least average fills

Legend:
- Lower Level Main
- 1st Level Main
- 1st Level North
- 2nd Level Reading Room
- 2nd Level Floor North
- 2nd Level Open Computers North
- 2nd Level LOES
- 2nd Level Open Computers South
- 3rd Level West
- 3rd Level East
- 3rd Level North

21

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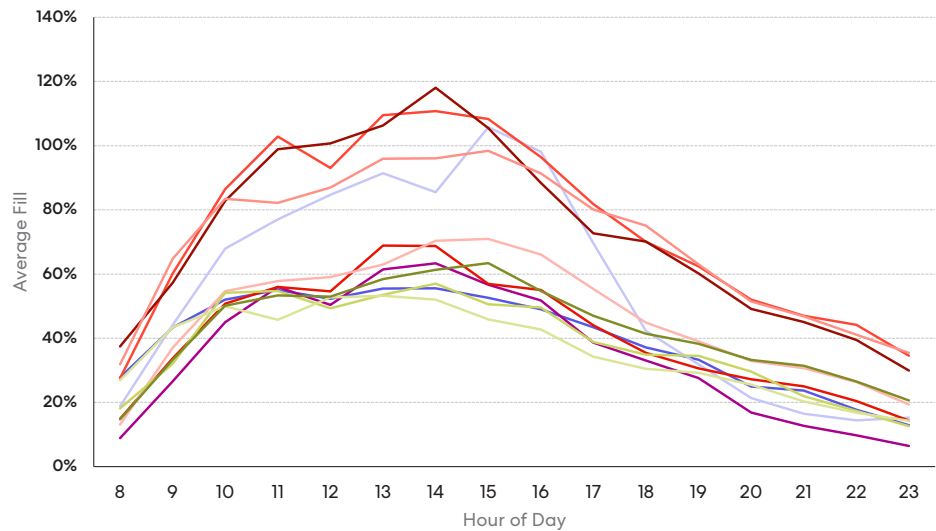
Student Intercept Interviews

Utilization
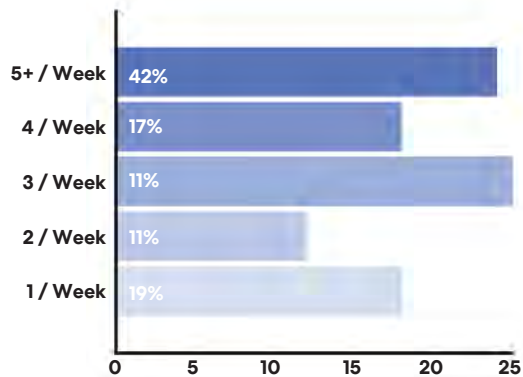
Primary Use Drivers
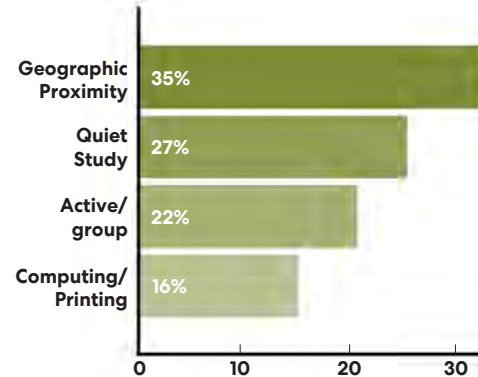
Student Intercept Interviews
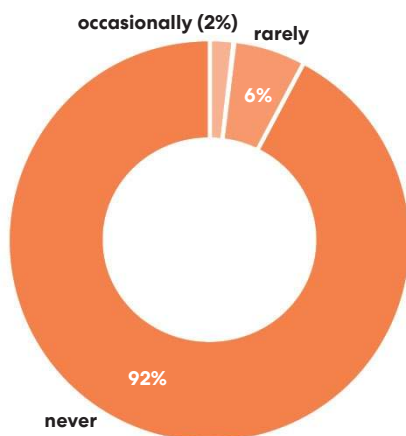
Browse Stacks

Keep
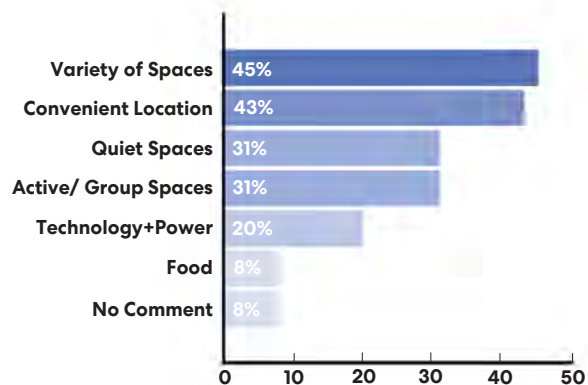
Student Intercept Interviews

Change

More Seating	39%
Technology+Power	33%
Recording/Zoom/Wifi	14%
Food	8%
Design Character	8%
Nap Rooms	6%
Windows/Daylight	6%

Use Other Libraries

no 29%

yes 71%
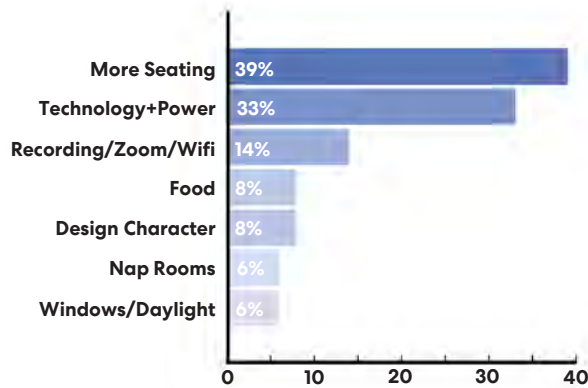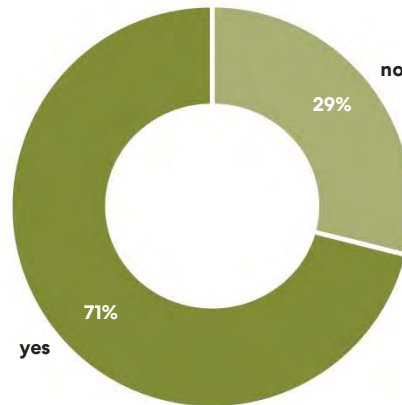
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UNDERSEATED: Seat Count Projections

VISITATION BASED BENCHMARKING METHOD (NEW)

Institution	Student FTE	Library Seats	% of students	Gate Counts	Visit/ Seat	Visit/ Student
Ohio State University	61,391	4,333	7.1%	4,103,455	947	67
North Carolina State University	34,767	5,027	14.5%	2,464,590	490	71
Iowa State University	33,391	3,330	10.0%	1,916,666	576	57
Universtiy of NC, Chapel Hill	29,877	5,705	19.1%	2,667,100	468	89
Western Michigan State University	21,470	2,551	11.9%	597,958	234	28
Georgia Tech University	19,432	2,360	12.1%	318,614	135	16
Miami University	17,697	1,640	9.3%	382,474	233	22
Average	31,146	3,564	12.0%	1,778,694	440	50
Purdue Library (2018-19) 6.8%	41,878	2,836				
PURDUE- Steady 11.4%	51,342	5,833	2,997	2,568,985	440	50
PURDUE- Growth 11.4%	54,082	6,144	3,308	2,706,101	440	50
PURDUE- High Growth 11.4%	56,442	6,412	3,576	2,824,188	440	50

For every 100 FTE increase, add: 11.4 seats

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TAKEAWAYS

MOST LIBRARIES CATER TO MANY/ALL STUDENTS
VETMED & AVTE SEE A DEFINED SUBSET OF THE STUDENT POPULATION

WALC & 1F HSSE EXPERIENCE EXTREME CAPACITY STRESS
THAT MAY TURN STUDENTS AWAY DUE TO LACK OF SEATING

ENHANCE AWARENESS OF LIBRARY NETWORK
TO DRIVE VISITORS TURNED AWAY FROM WALC/HSSIE TO ALTERNATE STUDY OPTIONS

CLASSROOM ADJACENCIES & GEOGRAPHIC PROXIMITY
HAVE A MEASURABLE IMPACT ON LIBRARY USE

INCREASED CONNECTION BETWEEN LIBRARIES AND TEACHING SPACES
WILL LIKELY LEAD TO INCREASED USAGE OF LIBRARY SPACES

SPACE PREFERENCES WITHIN LIBRARIES
DRIVEN BY PROXIMITY TO HUMAN AND TECHNOLOGICAL RESOURCES

Where to Grow?
Future Library Hub Location(s)

Mapping Student Patterns
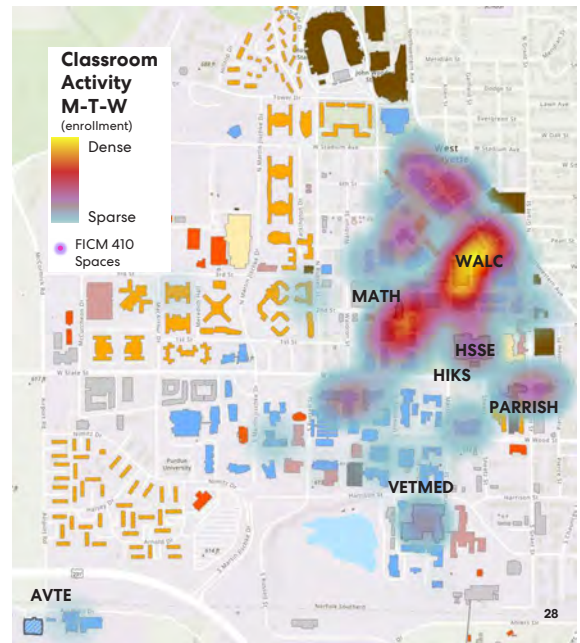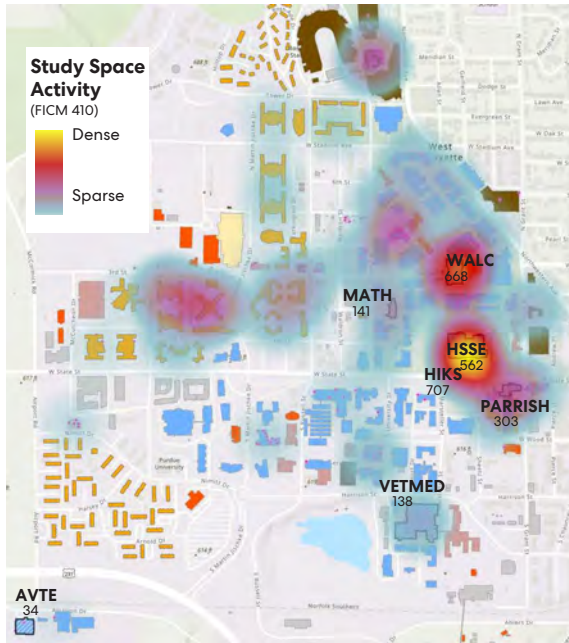
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South Campus Investment (last 10 years)

North Campus Preference
Near student residences
Beyond 10-min walk radius
Strong student preference

South Campus Preference
Near academic resources
Central to south campus development
Potential for academic partner
Public facing – especially for A/SC

1.	Convergence	$ 32.0M
2.	Aspire	$ 85.0M
3.	Flex Lab	$ 38.0M
4.	DLR Reno	$ 7.3M
5.	Jischke Addition	$ 14.0M
6.	Creighton/Land o Lakes	$ 60.0M
7.	Drug Discovery	$ 28.7M
8.	ABE Reno/Addition	$ 80.0M
9.	Lyles Porter	$ 54.0M
10.	Brunner Vet Med	$108.0M
11.	State St. Improvements	$ 60.0M
12.	Nursing/Pharmacy Ed	$160.0M
		$ 727.0M

Space List Programs

Program Content Summary

HSSE
- Increase of harvested 6,000 sf
- **900+ new seats**
    - **Virtual learning hub**
    - 15 group study
    - Interview room
    - Presentation room
    - 2 special projects rooms
    - Quiet/silent reading room
- **Single service point**
- **Experimental Classroom**
- **Center for Digital Scholarship**
- **More Visible A/SC**
- **Knowledge Gallery**
- **Cafe**

HIKS
- Reduced repository to 2250
- **360+ new seats**
- Higher utilization seat type

WALC
- No change in area
- **35+ new seats**
- **Visible Makerspace**

MATH
- No change in area
- **115+ new seats**
- More seating variety/choice

KRAN
- No change in area
- No change in study seats

LYNN
- Reduced 9,490 sf (to 2550 or reuse for A/SC storage)
- Reduced 1,500 sf (floor collections)
- No change in study seats

TERM
- Reconsider library services with new Terminal Building
- *Seat gain/loss to be determined*

S-HUB (South Hub)
- Increase of new 48,000sf
- **1,000+ new seats** (integrated into partner academic building)
    - Virtual learning hub
    - 32 group study
    - 2 special project rooms
    - Quiet/silent reading room
- **Single service point**
- **Virtual Learning Hub**
- **Graduate Commons**
- **Cafe**

R-HUB (Residential Hub)
- Increase of new 28,500sf
- **600+ new seats** (integrated into res hall developments)
    - **Virtual learning hub**
    - Seating variety/choice
    - Quiet/silent reading room
- **Single service point**

2550 (Off-Site Repository)
- Taking 42,500sf high-density storage
- Accommodate Repository, HSSE floor collections, MATH floor collections

Unlocking HSSE

CASE STUDY | UNIQUE ASSET | CLASSROOM SYNERGY | A/SC

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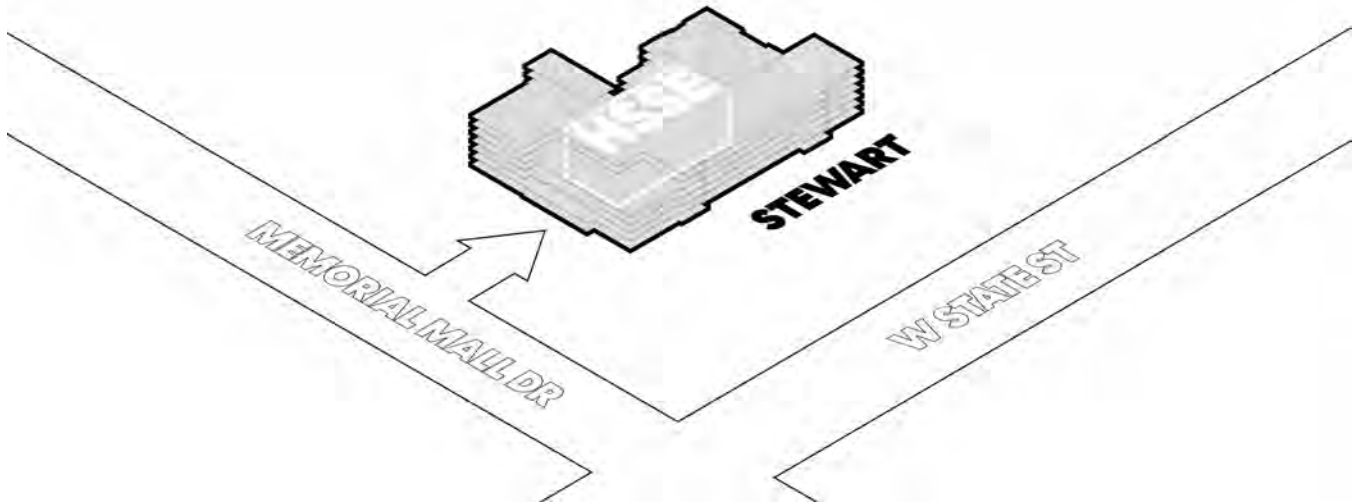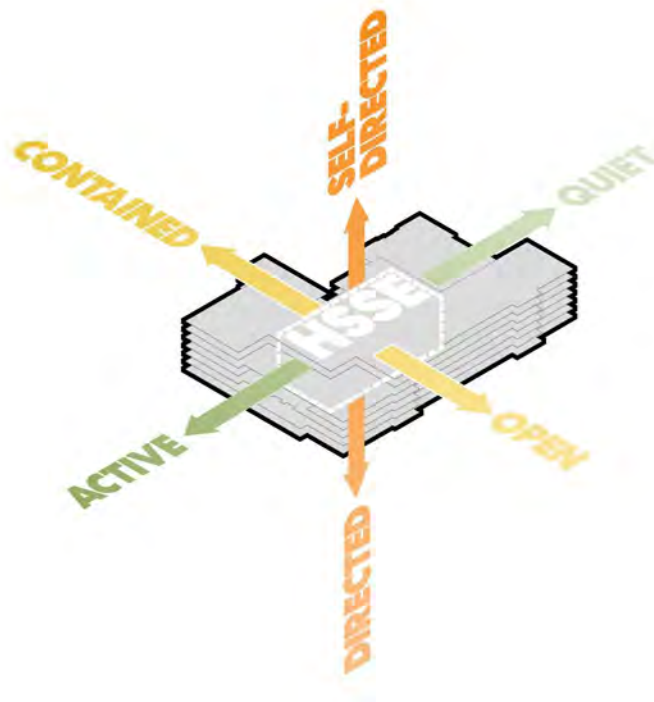
Interconnecting Stair & 4th Floor Daylight

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Stewart Lobby   Proposed
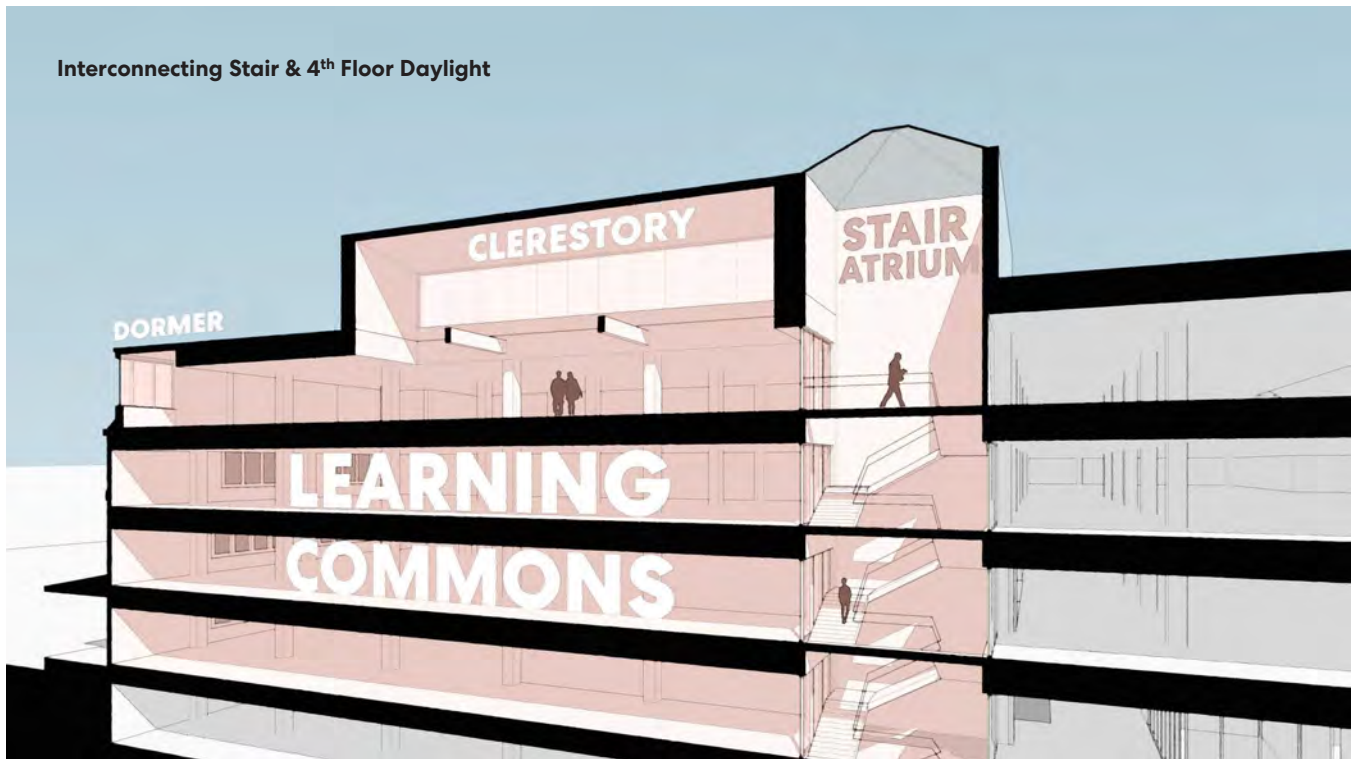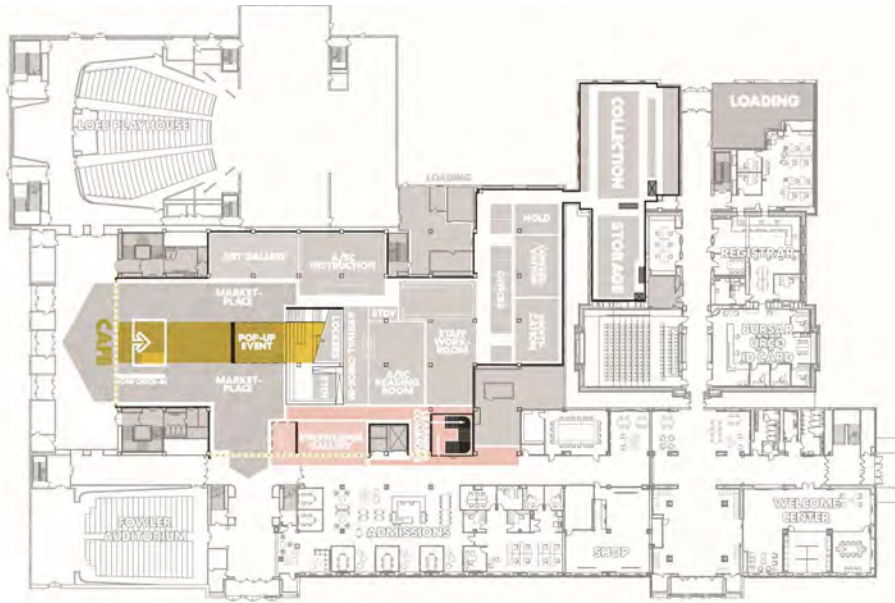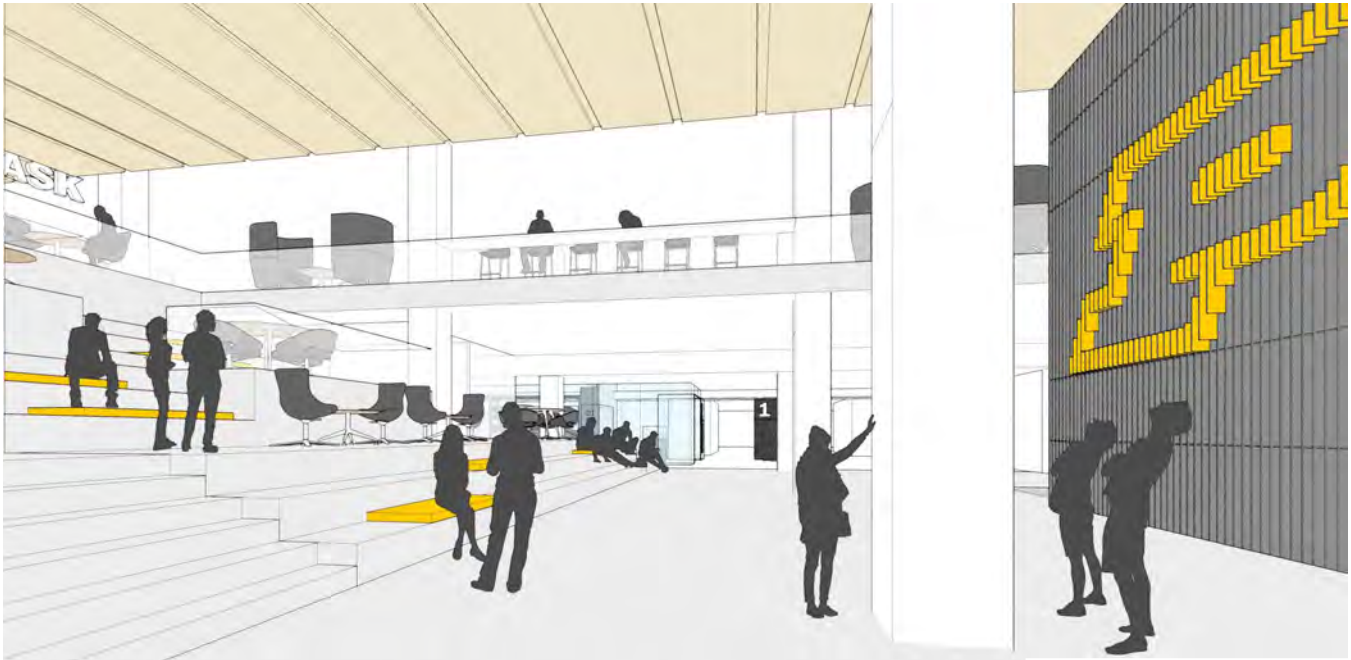
Library Arrival From North   Proposed

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1
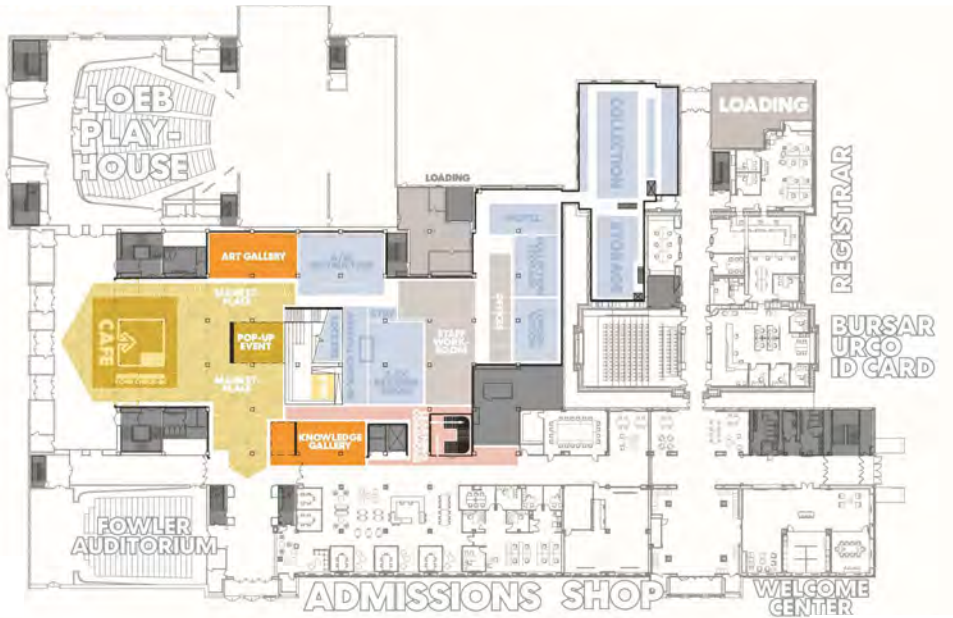
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2
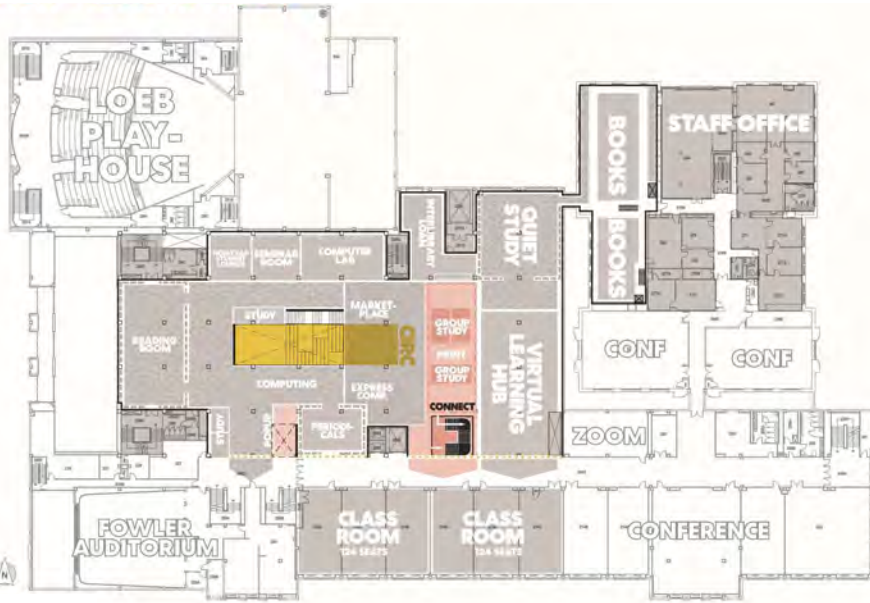
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Active Corridor at Stair & Classrooms   Proposed

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2
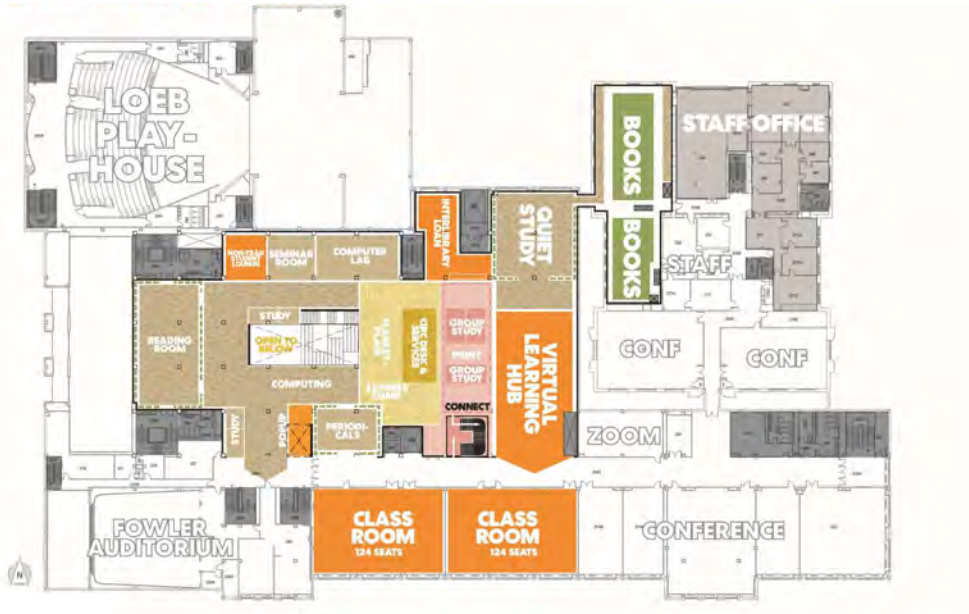
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Library-Classroom Synergy

2a

224 Classroom Seats

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3
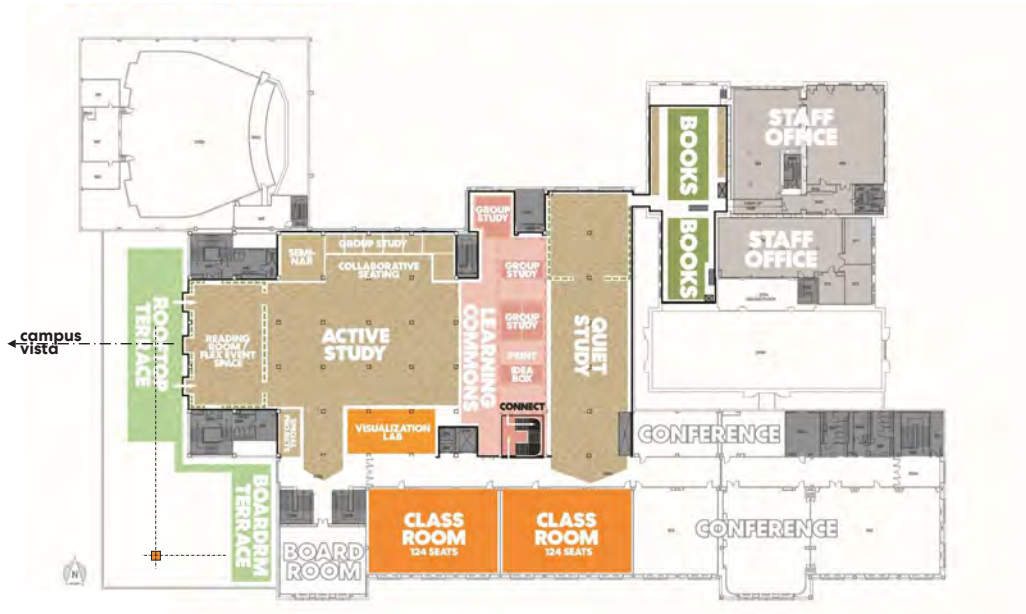
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Library-Classroom Synergy

3a

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Dormer Study / Library Roof Terrace

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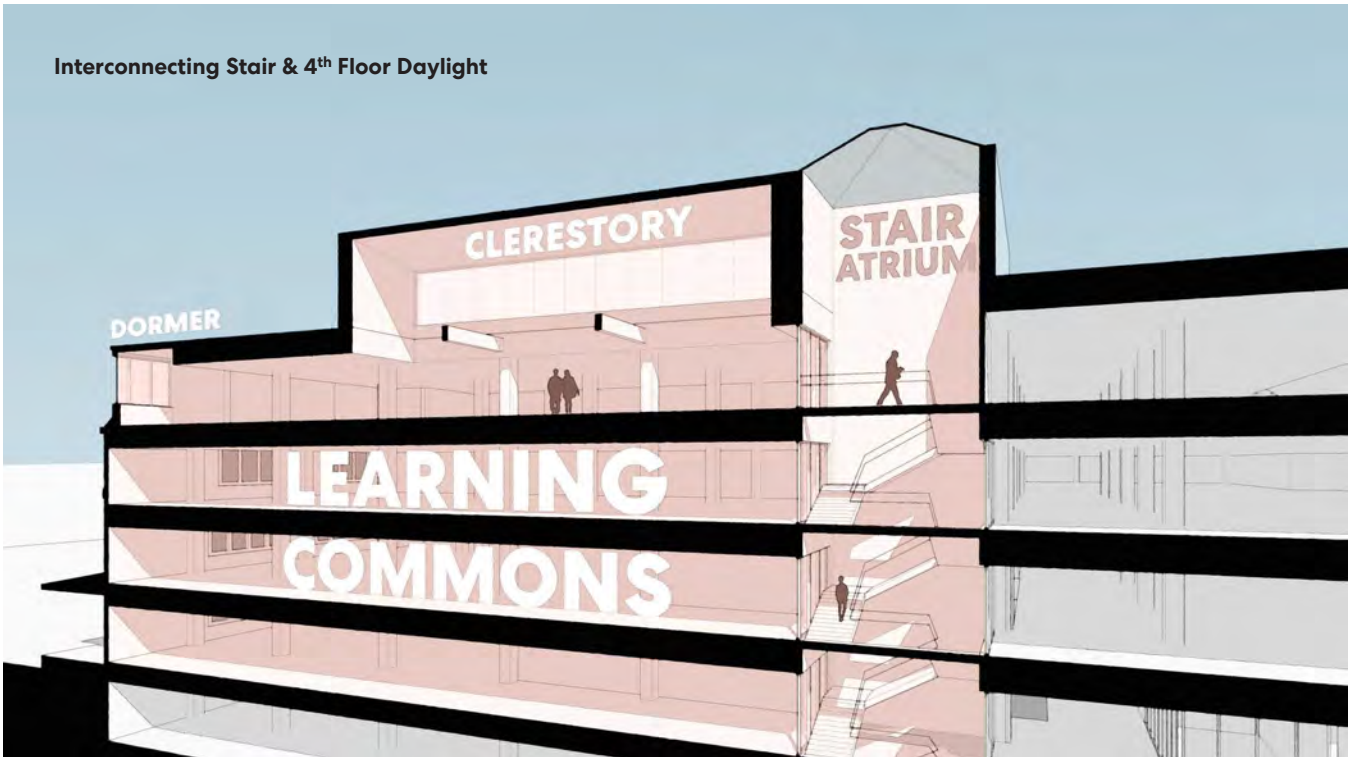
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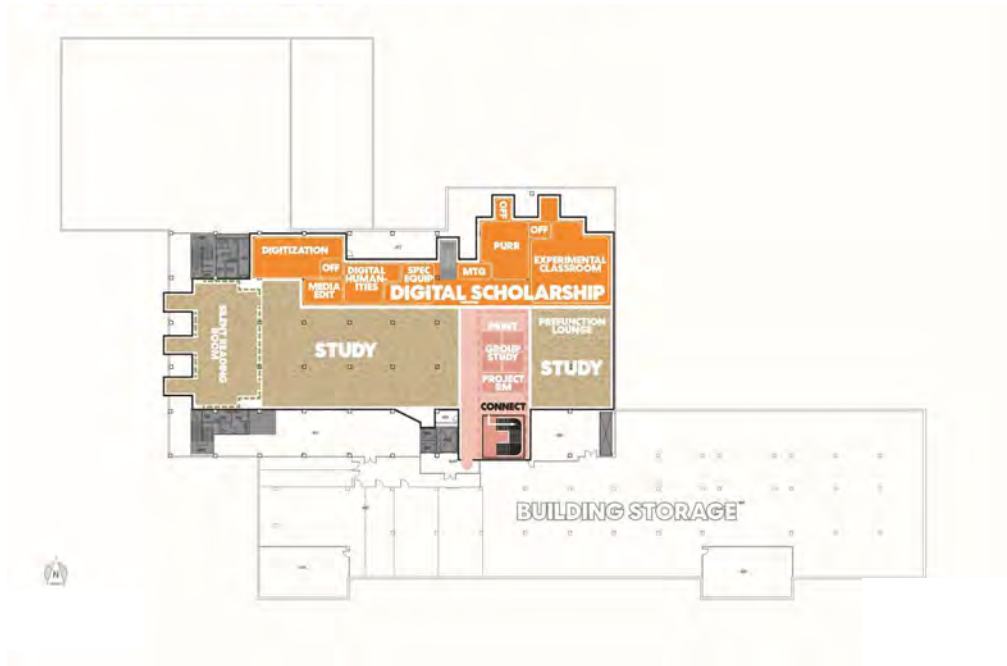
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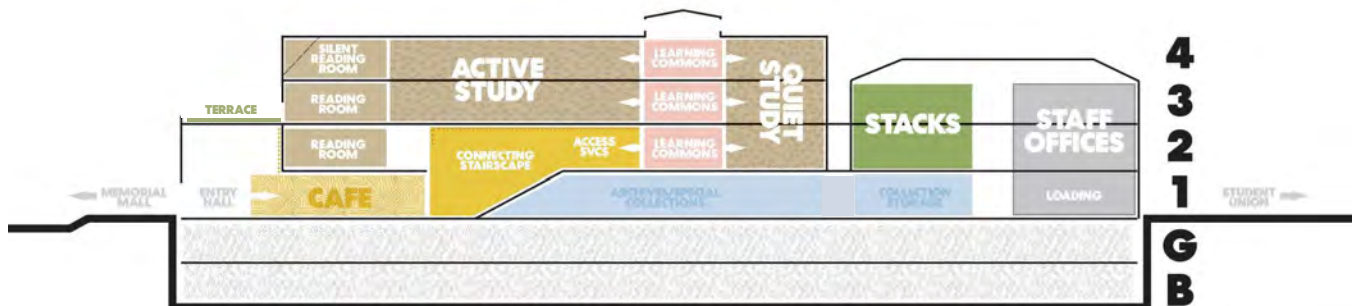
Section

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Experiential Planning Update

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Brand Potential – Icon System
HOW

Database   Research   Events Calendar   Discovery

Library Inside!

Locations   Hours of Operation   Café   Collaboration

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Brand Potential – Icon System
HOW

Library Inside!

Database

Research

Events Calendar

Discovery

Locations

Hours of Operation

Café

Collaboration

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Brand Potential – Icon System
HOW
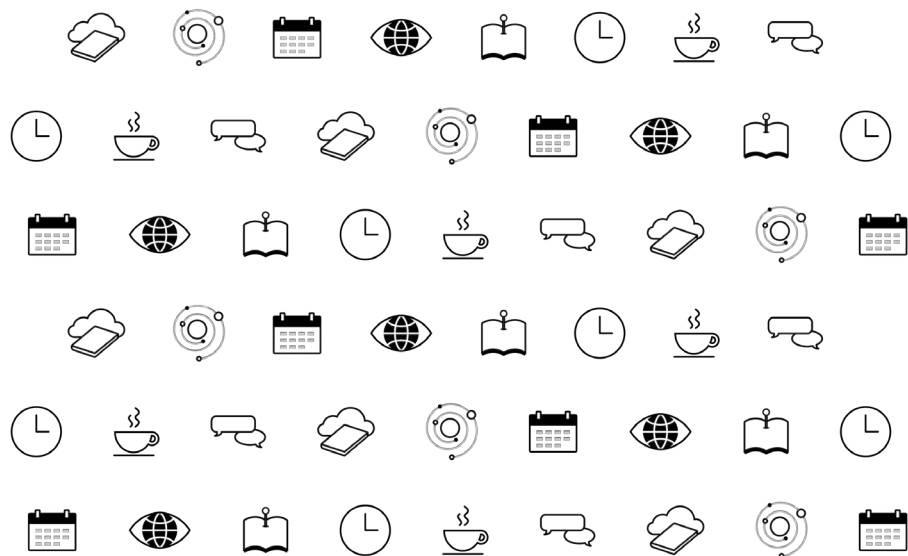
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Brand Potential – Exterior Identity
HOW

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Brand Potential – Exterior Identity
HOW

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Brand Potential – Exterior Identity
HOW

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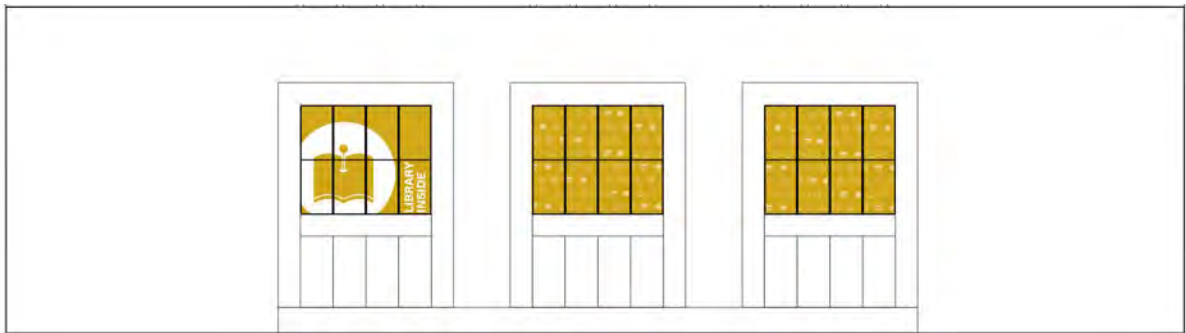
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Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity
HOW
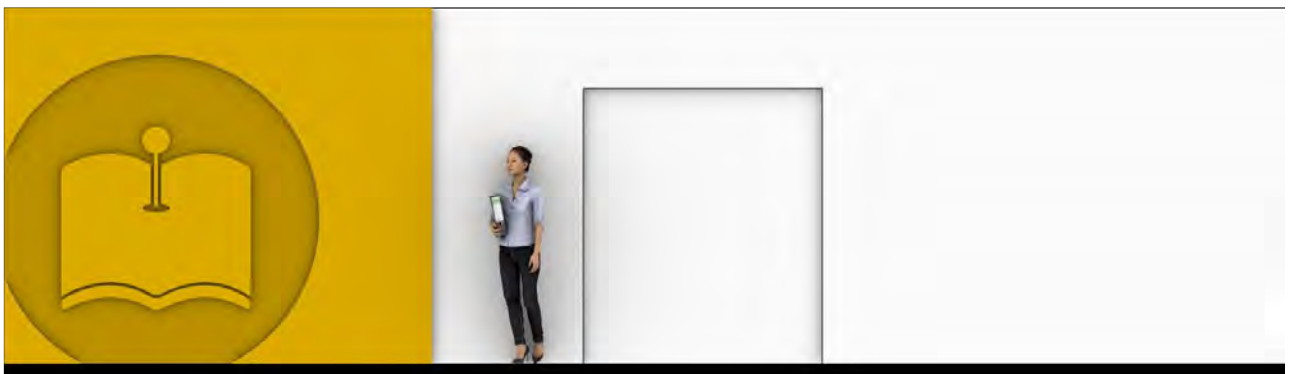
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Brand Potential – Interior Identity
HOW
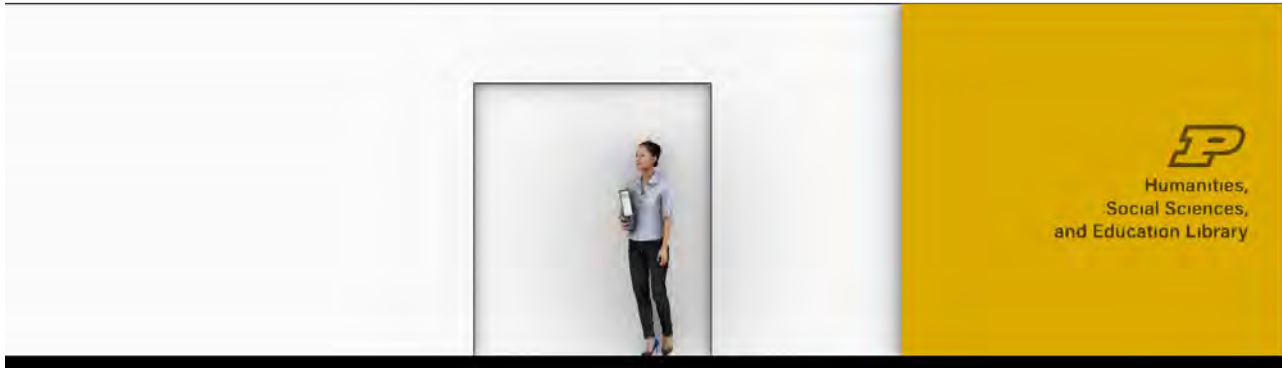
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Brand Potential – Interior Identity
HOW
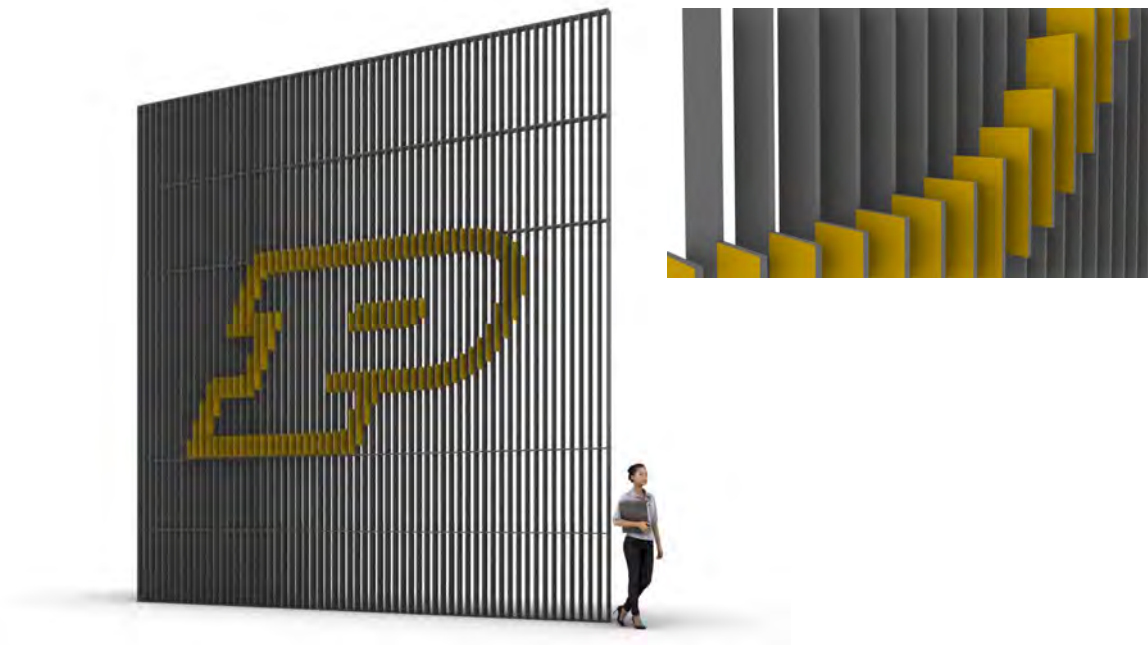
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Brand Potential – Interior Identity
HOW

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Brand Potential – Interior Identity
HOW
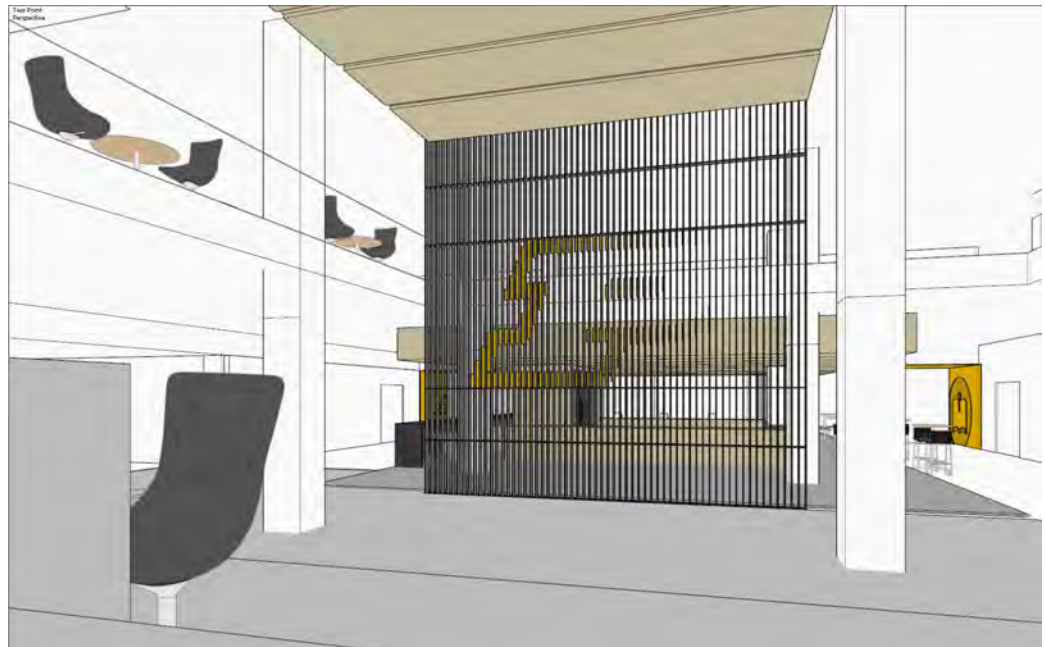
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Brand Potential – "Book Display"
HOW
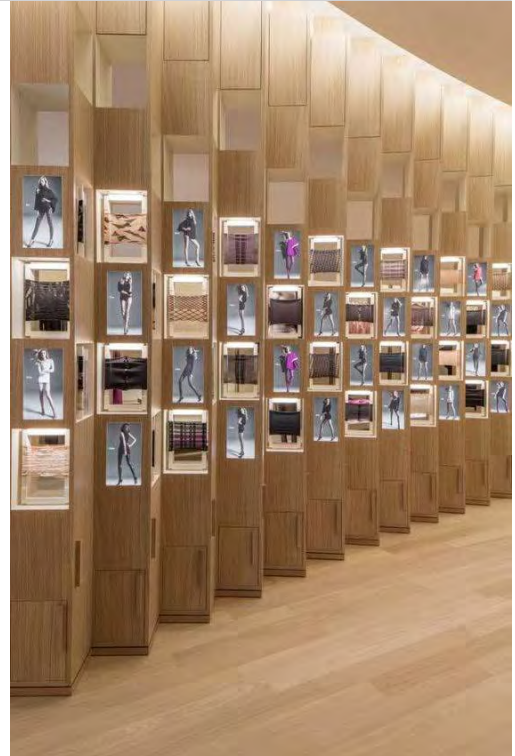
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Brand Potential – "Book Display"
HOW
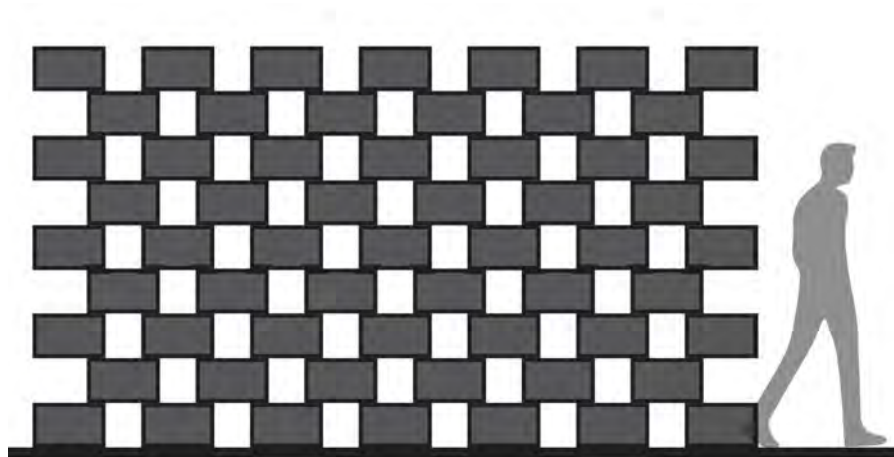
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Brand Potential – "Book Display"
HOW

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Brand Potential– Knowledge Gallery
HOW

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Brand Potential– Knowledge Gallery
HOW
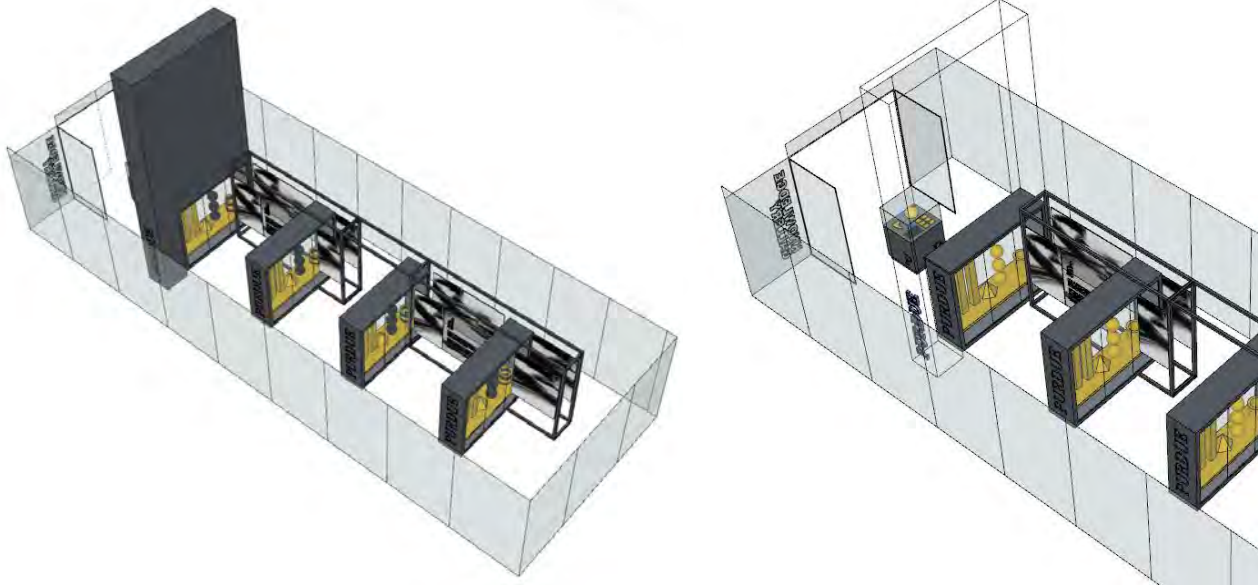
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Brand Potential– Knowledge Gallery
HOW

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Brand Potential – Art Gallery
HOW

Perkins&

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Brand Potential – Art Gallery
HOW
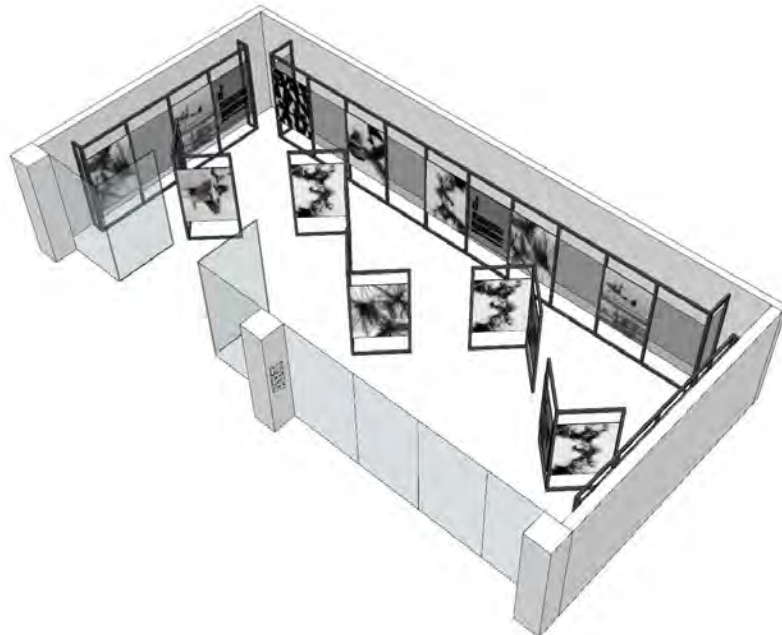
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Brand Potential – Art Gallery
HOW

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Brand Potential – Story-Telling
HOW

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Brand Potential – Story-Telling
HOW
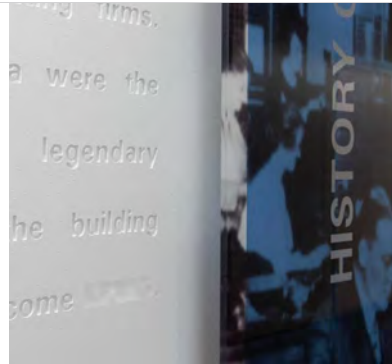
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Brand Potential – Story-Telling
HOW
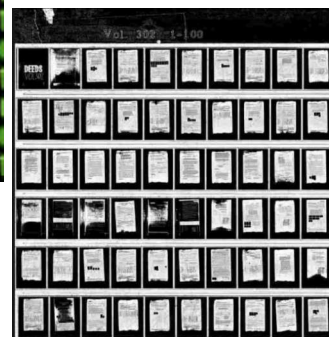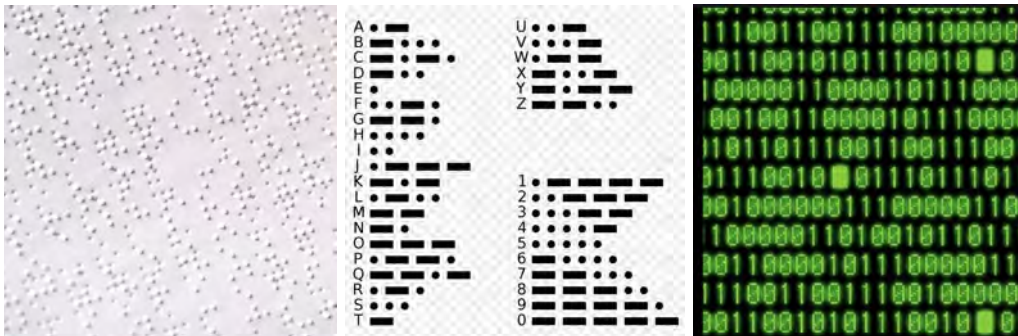
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Brand Potential – Story-Telling
HOW

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Brand Potential – Glass Distraction Graphics
HOW
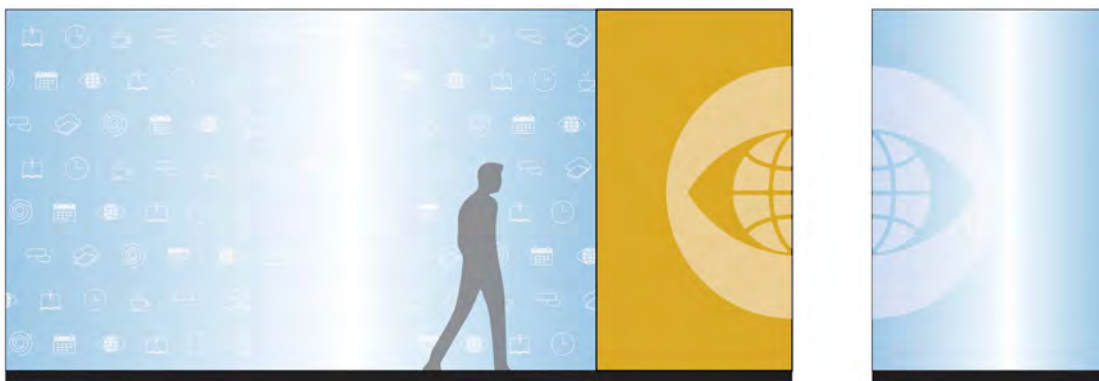
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Brand Potential – Story-Telling
HOW
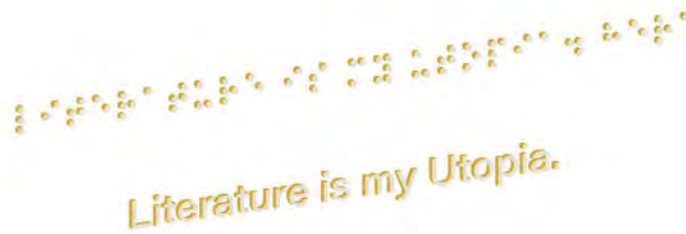
Literature is my Utopia.

Literature is my Utopia. Here I am not disenfranchised. No barrier of the senses shuts me out from the sweet, gracious discourse of my book-friends. They talk to me without embarrassment or awkwardness.

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Brand Potential – Story-Telling
HOW

The Scientific world is now a unit, and for an easy interchange of opinions and the results of scientific investigations, a knowledge of the modern European languages, particularly French and German, is indispensable.

A selection from the 1898 'Debris' yearbook.

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Brand Potential – Story-Telling
HOW

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Brand Potential – Glass Distraction Graphics
HOW
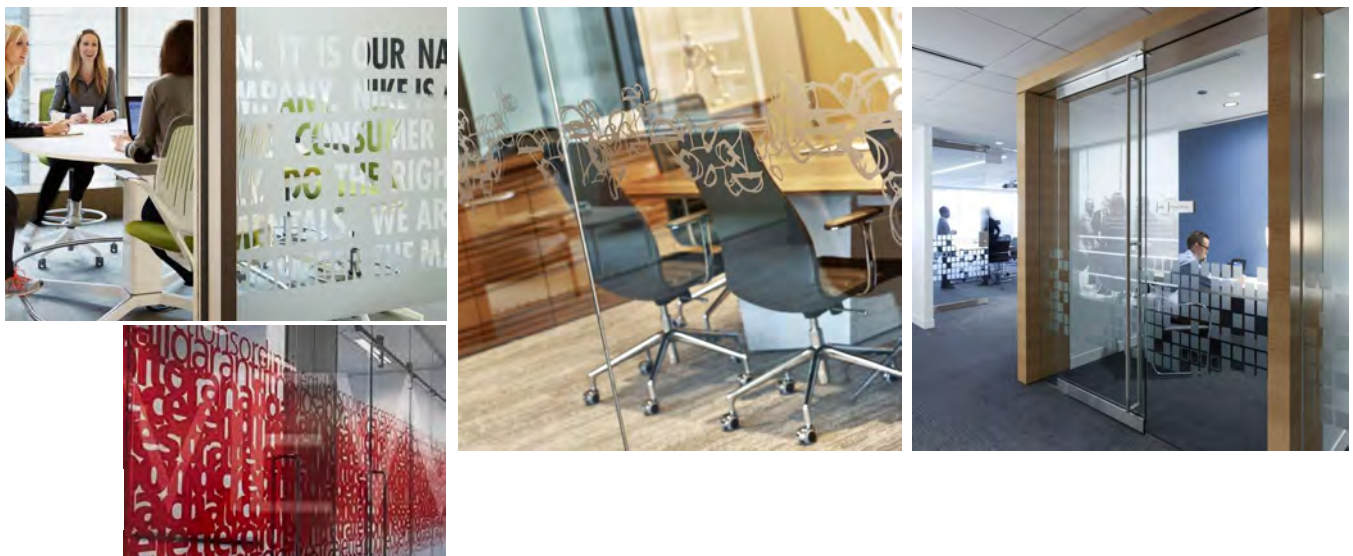
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Brand Potential – Glass Distraction Graphics
HOW

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Brand Potential – Glass Distraction Graphics
HOW

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Brand Potential – Exhibitions
HOW

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Brand Potential – Exhibitions
HOW

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES
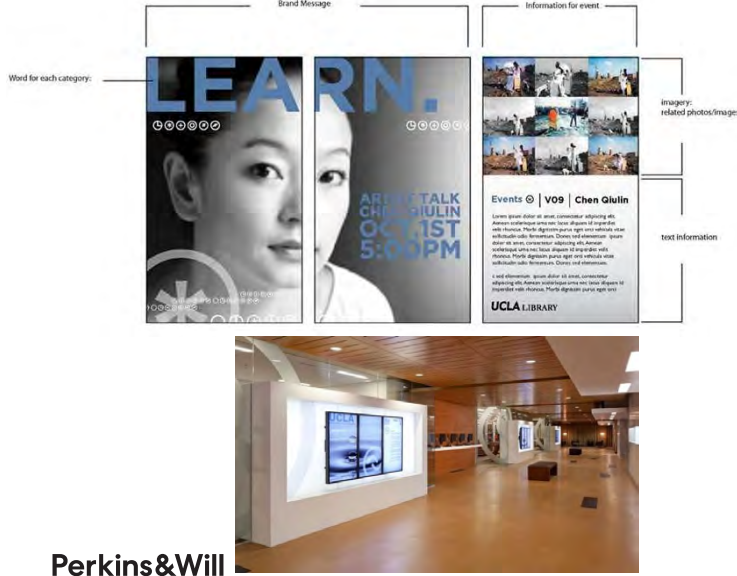
Perkins&Will

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES
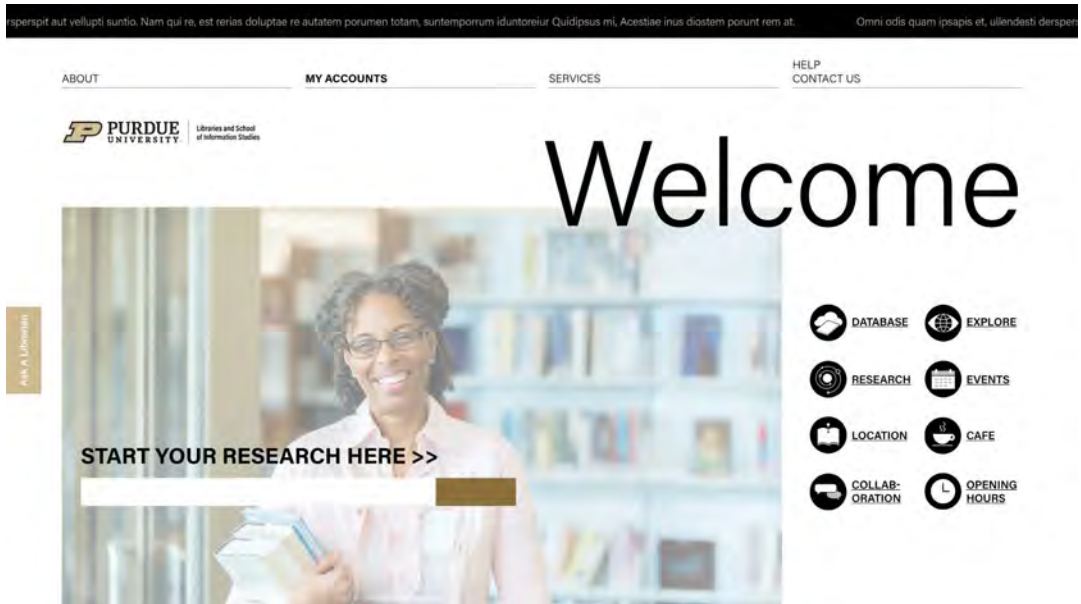
Perkins&Will

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Brand Potential – Web Presence
HOW   CREATING EQUAL EXPERIENCES
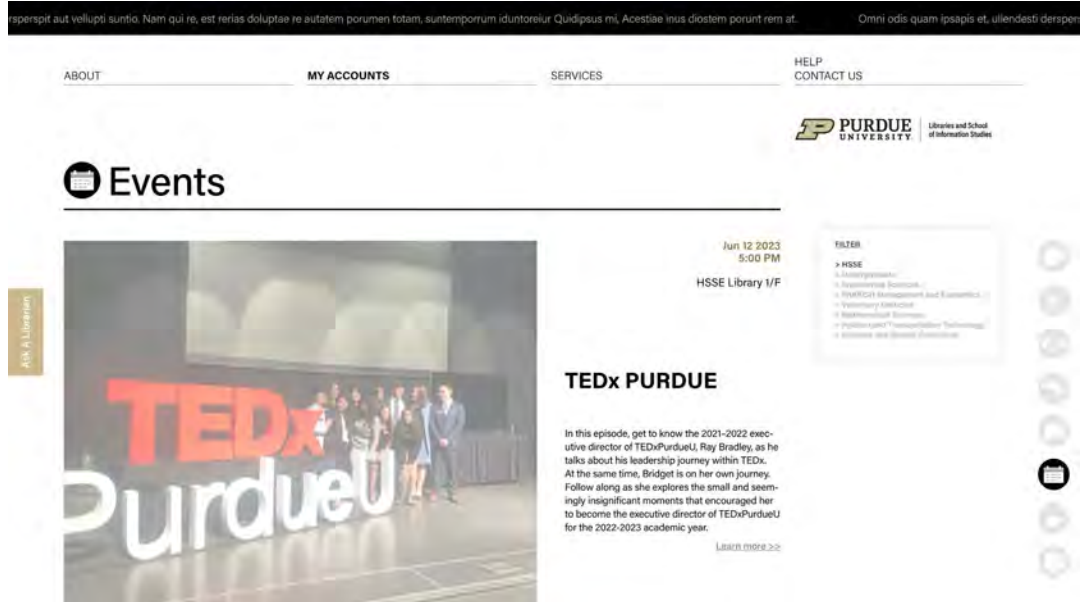
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Brand Potential – Interior Identity, Wayfinding & Signage
HOW

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Brand Potential – Wayfinding & Signage
HOW
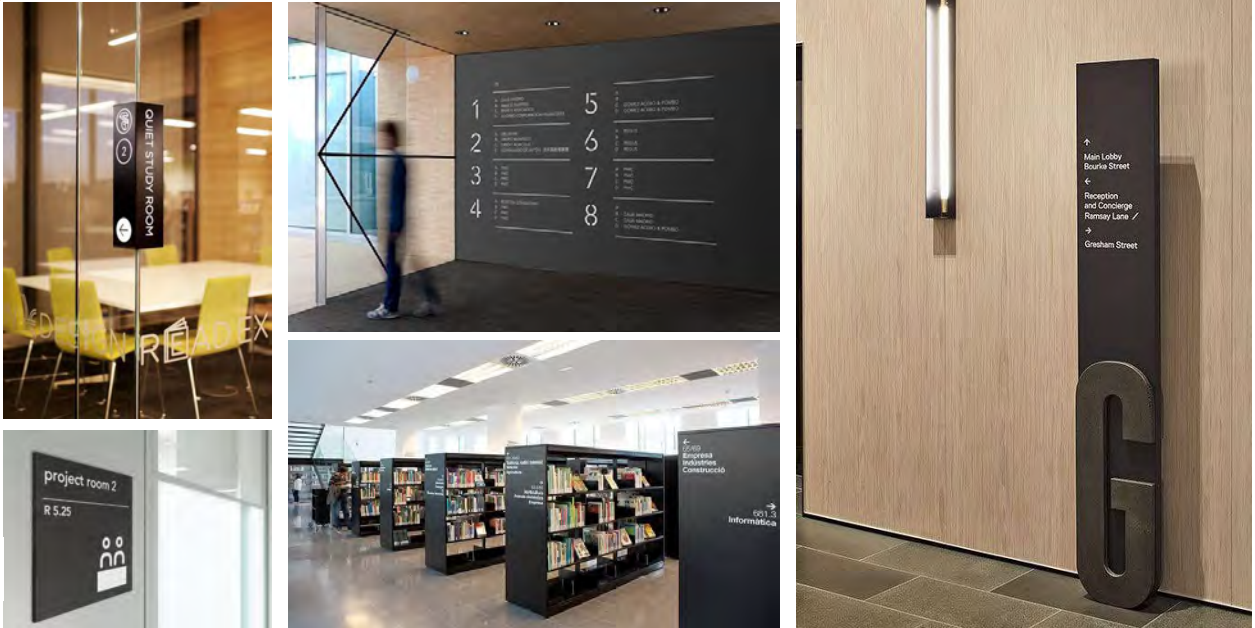
Brand Potential – Wayfinding & Signage
HOW

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Brand Potential – Branded Destinations
HOW

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Brand Potential – Branded Destinations
HOW

Café

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Brand Potential – Postings
HOW

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Brand Potential – Postings
HOW

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Brand Potential – Center for Digital Scholarship
HOW

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Brand Potential – Virtual Learning Hub
HOW
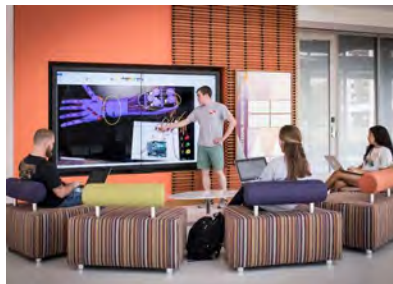
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HSSE Transformation

Brand Potential – Exterior Identity
HOW

Brand Potential – Exterior Identity
HOW

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Brand Potential – Branded Destinations
HOW

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Brand Potential – Branded Destinations
HOW

Café

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Brand Potential – "Book Display"
HOW
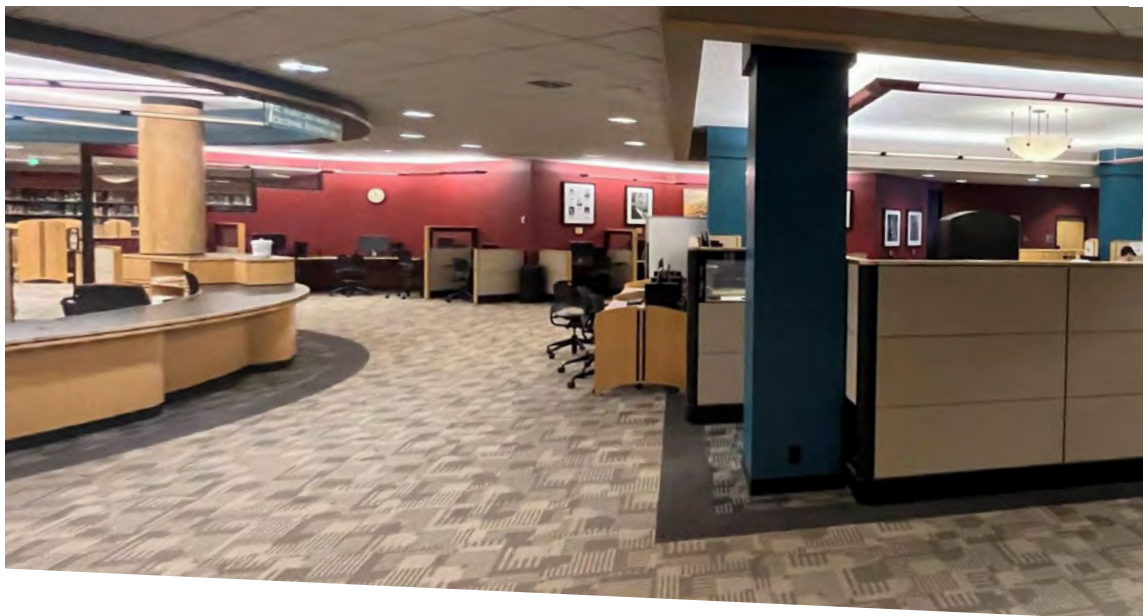
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Brand Potential – "Book Display"
HOW

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Brand Potential– Knowledge Gallery
HOW

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Brand Potential– Knowledge Gallery
HOW

Slide 107 of 138

Brand Potential – Story-Telling
HOW

Slide 108 of 138

Brand Potential – Story-Telling
HOW

Slide 109 of 138

Brand Potential– Knowledge Gallery
HOW

Credit: Rebecca Richardson

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Brand Potential– Knowledge Gallery
HOW

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Brand Potential
HOW
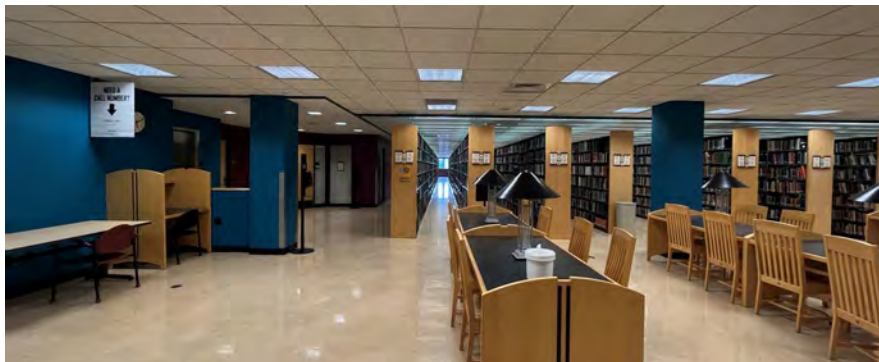
Slide 112 of 138

Brand Potential
HOW

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Phasing Strategy

Slide 114 of 138

2550

MATH

WALC

NEW SOUTH HUB

2

4

B1

1

3

B2

HSSE

HIKS

NEW RESIDENTIAL HUB

PARRISH

VETMED

AVTECH

PHASE 1

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
      Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
      Reno HSSE Floor 4
      Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

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2550 Test Fit

Slide 116 of 138

2550 Repository (Test Fit)

Exist. Repository: 157,242 LF
- 6-7 high shelving (84")
- 90+% filled
- Lynn: 18,810 LF
- HKRP: 138,432 LF
- Microfilm not included

Test Fit: 177,131 LF
- 7-high shelving (84")
- 85% filled
- 1.75M volumes

DOCK

2550

MATH   + 115

WALC

NEW SOUTH HUB

2

4

1

3

B1   + 47

B2   + 321

HIKS

NEW RESIDENTIAL HUB

HSSE

PARRISH

VETMED

AVTECH

PHASE 2   **+ 483 Seats**

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
    Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
    Reno HSSE Floor 4
    Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

MATH Test Fit

MATH Test Fit

+ 115 seats

Quiet Seating

Administrative

Collaborative Seating

Math Lounge

HIKS Test Fit

HIKS G-Level Test Fit

Adds 47 seats

Administrative

Quiet Seating

Collaborative Seating

HIKS B-Level Test Fit

+321 seats

[340 max allowable
per egress capacity]

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2550

MATH

WALC

NEW SOUTH HUB

2

4

B1

1

3

B2

- 649; then + 1,550

HSSE

HIKS

NEW RESIDENTIAL
HUB

PARRISH

VETMED

AVTECH

PHASE 3   **- 167 Seats during construction; then + 1,383**

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
      Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
      Reno HSSE Floor 4
      Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

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PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
     Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
     Reno HSSE Floor 4
     Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

2550   MATH   WALC   NEW SOUTH HUB   48,200gsf   + 1,000

2   4   B1
1   3   B2   27,800gsf   + 600

HSSE   HIKS   NEW RESIDENTIAL HUB

PARRISH   VETMED   AVTECH

PHASE 4   **+ 2,983 Seats**

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PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
     Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
     Reno HSSE Floor 4
     Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

2550   MATH   WALC   NEW SOUTH HUB

2   4   B1   - 684
1   3   B2   - 321

HSSE   HIKS   NEW RESIDENTIAL HUB

PARRISH   VETMED   AVTECH

PHASE 5   **+ 1,978 Seats**

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2550   MATH   WALC **+ 37**   NEW SOUTH HUB

2   4   B1   1   3   B2   NEW RESIDENTIAL HUB

HSSE   HIKS

PARRISH   VETMED **+ 26**   AVTECH **- 63**

INDEPENDENT PHASES   **+ 1,978 Seats**

Maintain Library presence on aviation campus; maintain study space

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
     Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
     Reno HSSE Floor 4
     Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

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WALC Makerspace Test Fit

Slide 128 of 138

WALC Makerspace Test Fit

DN DN

+ 33 seats

3F East

2550

MATH

WALC

NEW SOUTH HUB

2

4

B1

1

3

B2

HSSE

HIKS

NEW RESIDENTIAL HUB

PARRISH

VETMED

AVTECH

PHASE 1
HSSE Collections to 2550
MATH Collections to 2550
HIKS (30%) Collections to 2550

PHASE 2
Upfit MATH
Upfit HIKS

PHASE 3
A: Reno HSSE Floors 1-3
    Reno Upgrade Base Infrastructure

B: Relocated A/SC to Level 1
    Reno HSSE Floor 4
    Reno HSSE Floor 3 Terrace

PHASE 4
Build South Hub
Build Residential Hub

PHASE 5
Demolish HIKS

PHASE INDEPENDENT
Take AVTECH offline
Refresh VETMED
Refresh PARRISH
Upfit Maker Lab in WALC

COMPOSITE PHASING

Q+A

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4a

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4b

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Classroom Study

4b

476 Classroom/Seminar Seats
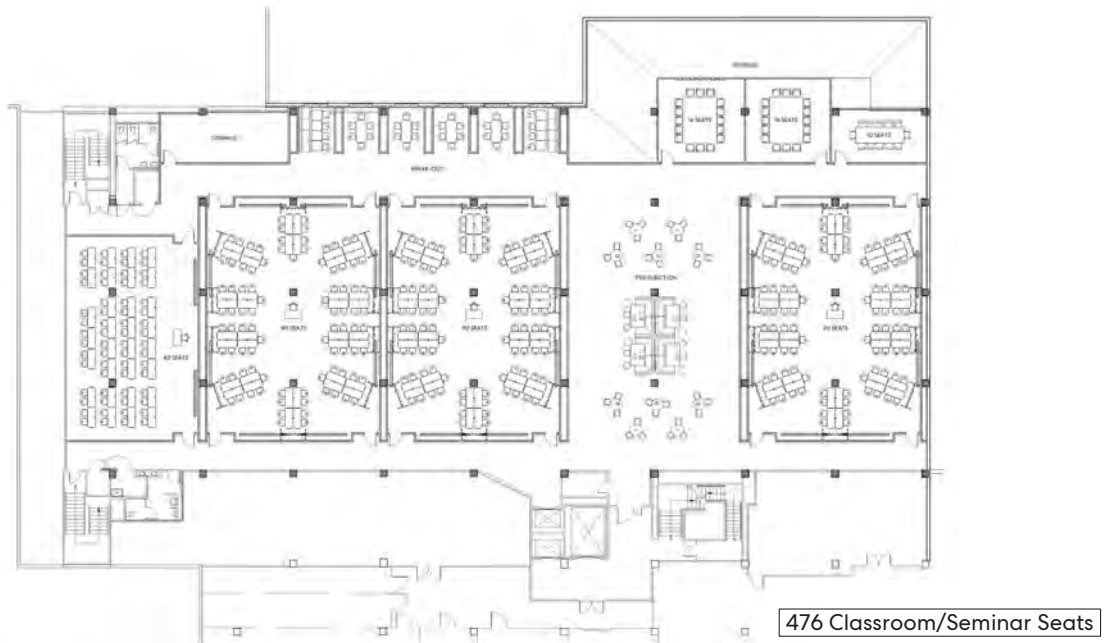
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4c

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Conference Study

4c

386 Conference Seats
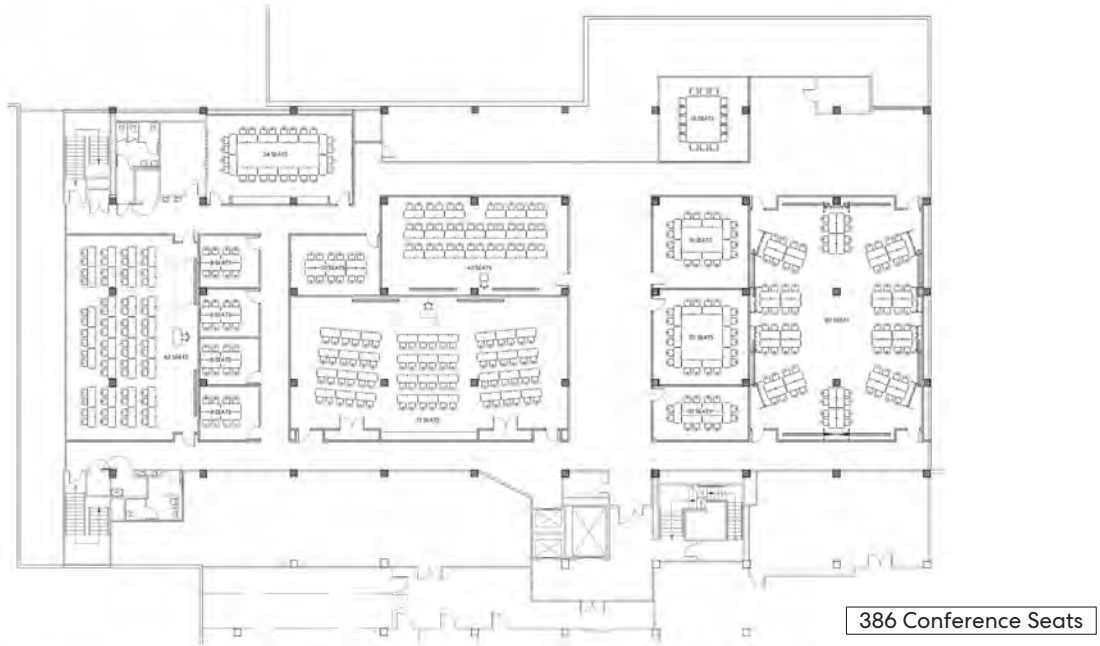
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Circulation / SF by Library Total & Pre-2020
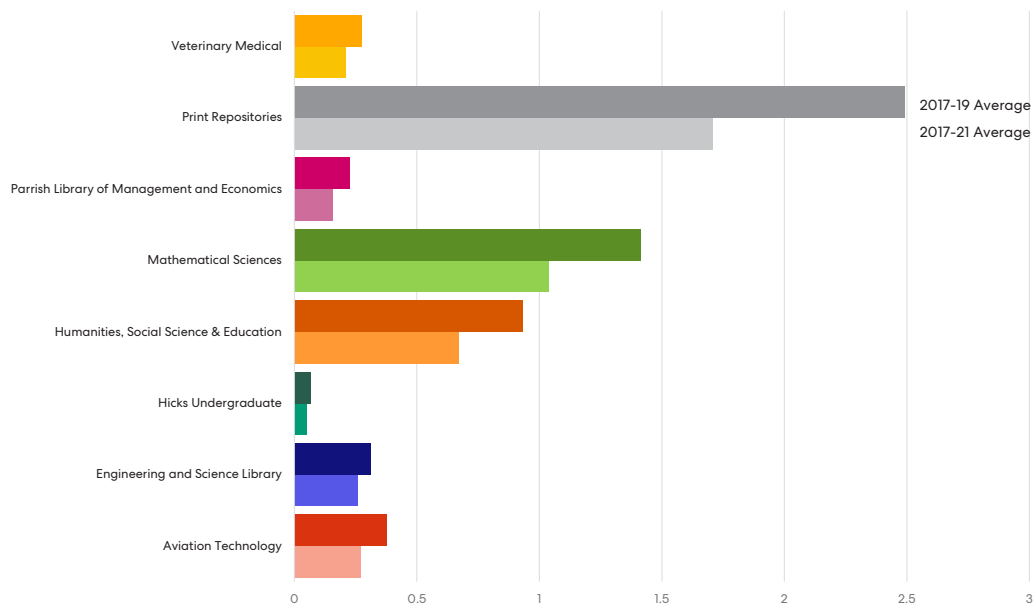
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Reference Engagements / SF by Library Total & Pre-2020
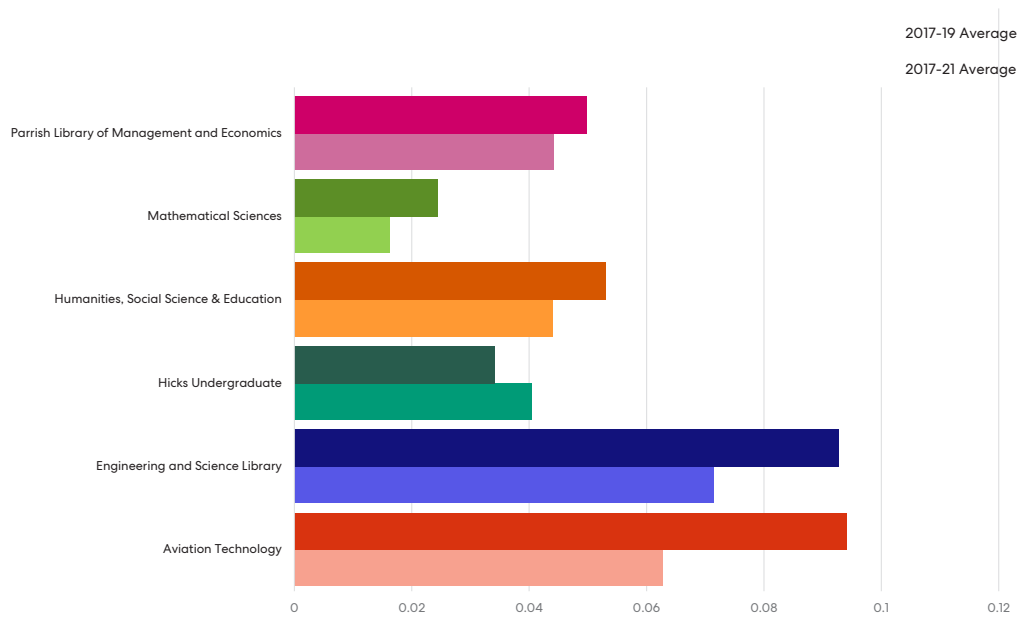
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PRECEDENT TOUR SUMMARY
21C Hotel

As part of Workshop #4 on 2/21/2022 and 2/22/2022, the working group team met in Chicago for the following tours of precedent projects to help frame the new proposed work at Purdue.

Figure 5.1 - Plucky restroom signage

Figure 5.2 - Politically provocative art. Using the typically dead spaces of a hotel as a gallery space. Main gallery invites public events into the hotel.

Aspen Dental

Figure 5.3 - Social stair / double height space as gateway element to office. The space was intended for all staff meetings, but is not conducive acoustically for that. Additionally, it doesn't lead anywhere, but simply ends in a group of lounge seating.

Figure 5.4 - Branding wall -- custom millwork

Figure 5.5 - Call booth room for private conversations. Good size for personal space.

Figure 5.6 - Creative acoustic ceiling solution for conference room.

Figure 5.7 - Simple foodservice, using economical materials yet announcing prescence and brand.

Figure 5.8 - Building lobby green wall sculpture.

Figure 5.9 - Simple foodservice, using economical materials yet announcing prescence and brand. Note also the hanging discs -- each represent a partner dentist office location and can be updated over time. Creates an interactive art element.
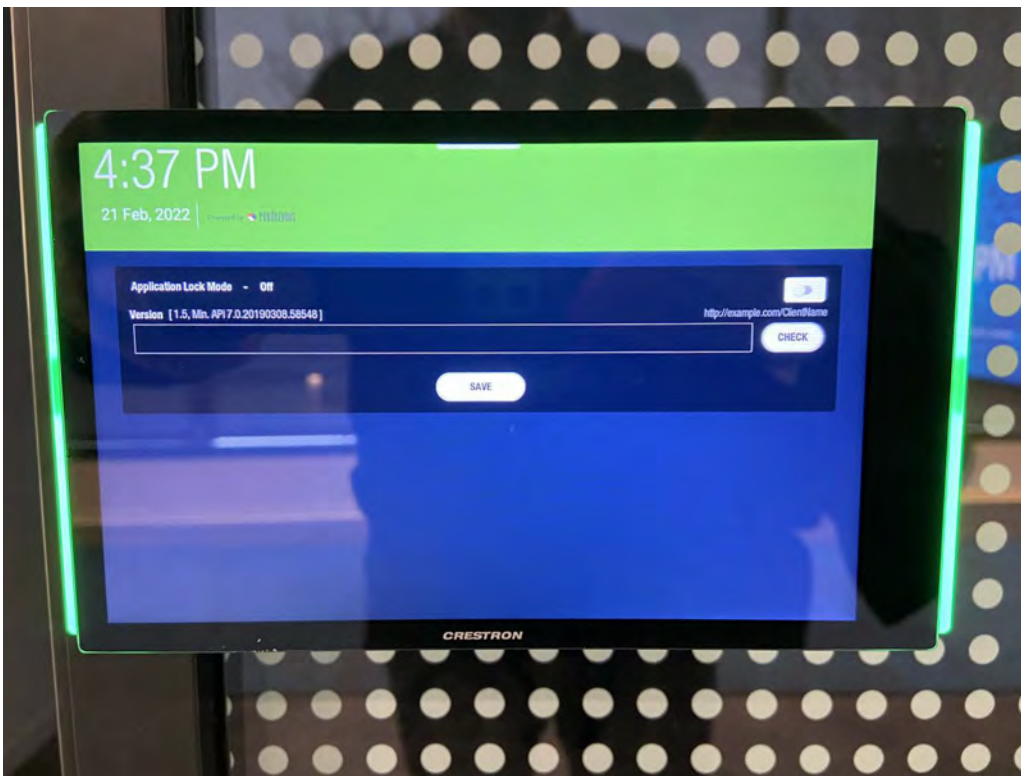
Figure 5.10 - Room reservation platform.

Figure 5.11 - Furniture solution along bench seating rather than built-in elements.

Figure 5.12 - Low-tech interactive branding wall.

EY Wavespace

Figure 5.13 - Hotdesking setup at EY Wavespace's office for internal employees

Figure 5.14 - Smart Board technology

Figure 5.15 - Main orientation gallery at EY's client-centered workshop space. Integrated tech has face-recognition.
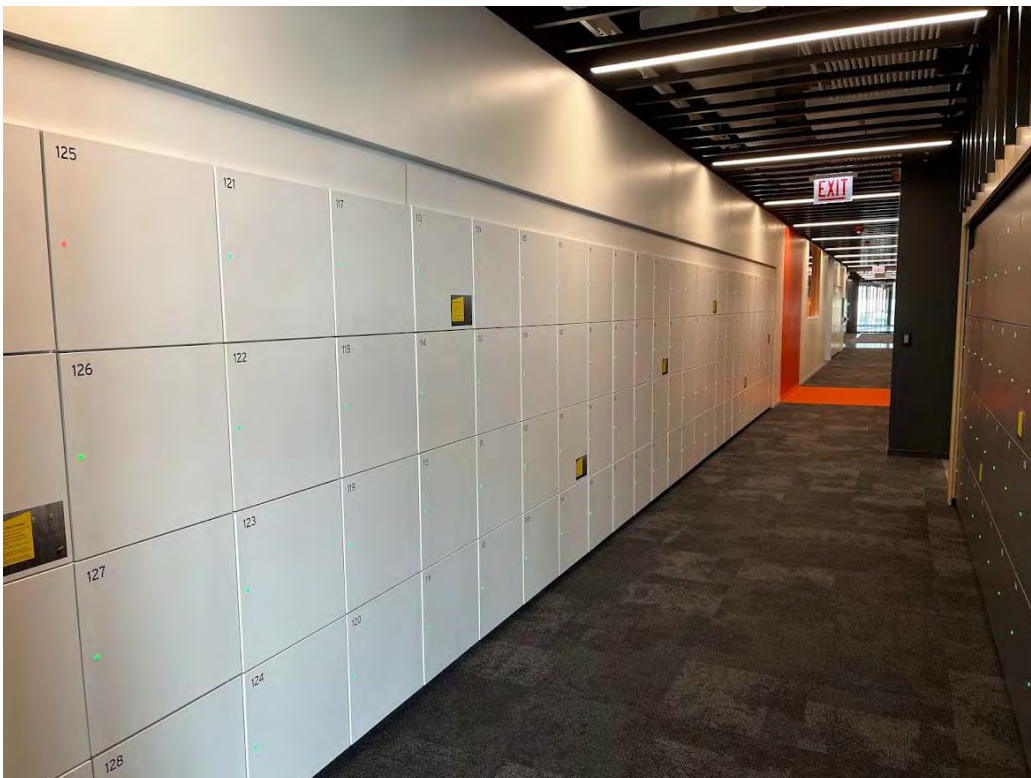
Figure 5.16 - Day locker storage for client workshops

Figure 5.17 - Mobile soft seating furniture. Note the large operable wall beyond leading into the orientiation gallery.

Figure 5.18 - Smart board collaboration / brainstorming zones for breakouts during client conferences

Figure 5.19 - Curated local art as visual focus.
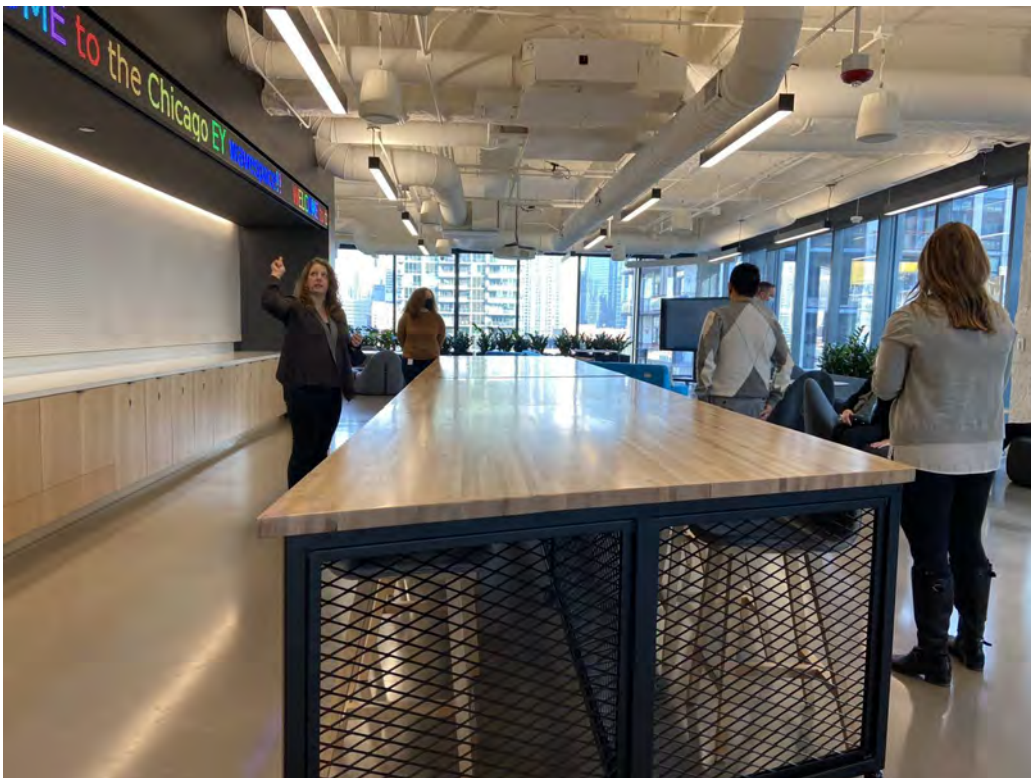
Figure 5.20 - Harvest table at breakroom transition zone

Figure 5.21 - Furniture is all on rollers for ultimate flexibility. 4-person touchdown setup.

Figure 5.22 - Between orientation gallery and break room

Figure 5.23 - Mobile furniture to help separate spaces.

Figure 5.24 - Private call room

Northwestern - Libraries

Figure 5.25 - Furniture solutions make the space much more usable. Seating with integrated privacy screens/markerboards were preferred by students.

Figure 5.26 - Simple signage / threshold wall

Figure 5.27 - Archives / Special Collections on display
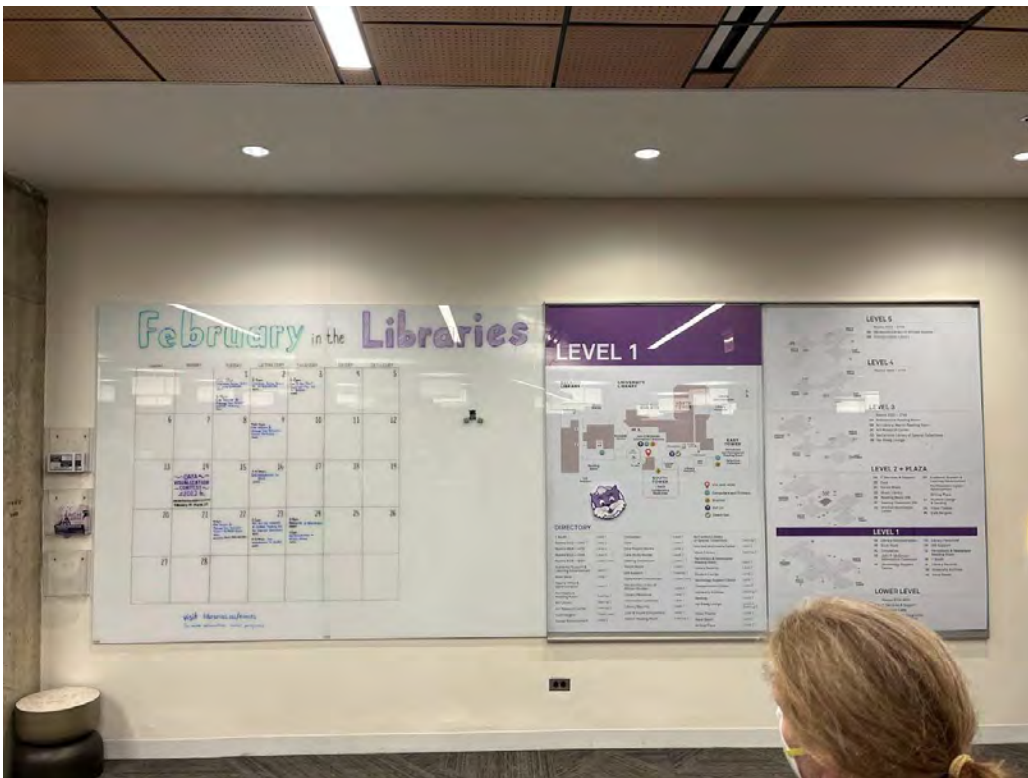
Figure 5.28 - At entry, markerboard calendar as low-tech interactive posting for Library staff. Liked by Purdue staff.

Figure 5.29 - Computing zone was well-utilized.

Figure 5.30 - Historic reading room. Poorly utilized with collections
and desk rather than student study space.

Figure 5.31 - Connection between historical collections and modern art.

Northwestern - Ryan Field House
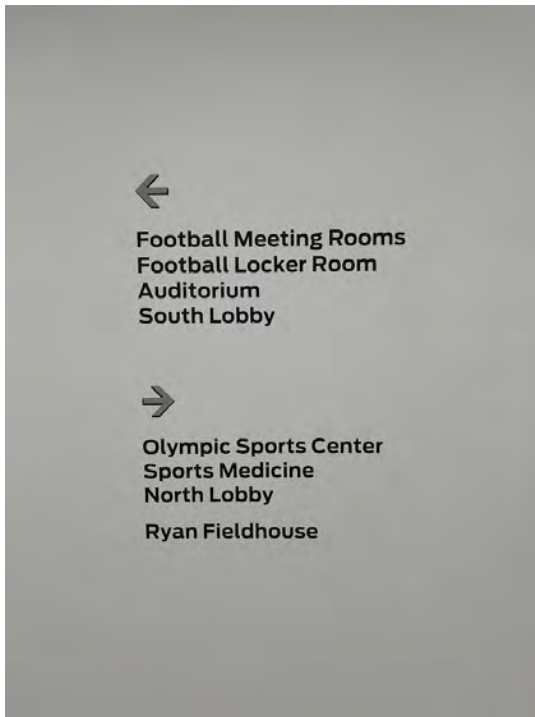
Figure 5.32 - Simple vinyl graphic, wall applied.

Figure 5.33 - 'Wow' moment for Field House lobby. Custom video clips edited for vertical format.

Figure 5.34 - Divisible auditorium to allow full team meetings and split between offense/defense

Figure 5.35 - Full-wall graphic branding.

Figure 5.36 - Full-wall graphic branding, aligning with key program goals and mission.

Figure 5.37 - Branding portraitures help add cadence to corridor and highlight different sports.

Perkins&Will

Figure 5.38 - Open area that can be used for large team meetings and study hall type events. Acoustics could be better. More power is needed to provide space more conducive for studying.
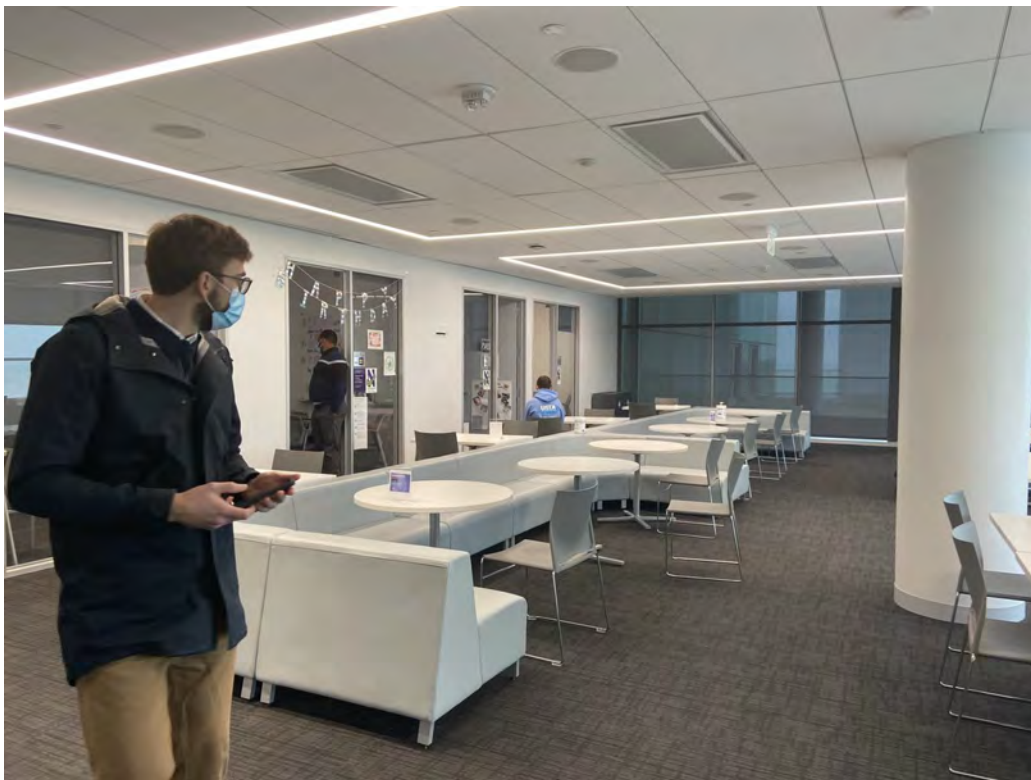
Figure 5.39 - Study hall / tutoring zone

Figure 5.40 - Entry lobby interactive screens. Each are touch-enabled to allow visitors to access content for each NCAA sport.

Figure 5.41 - Entry lobby interactive screens. Each are touch-enabled to allow visitors to access content for the Football program.
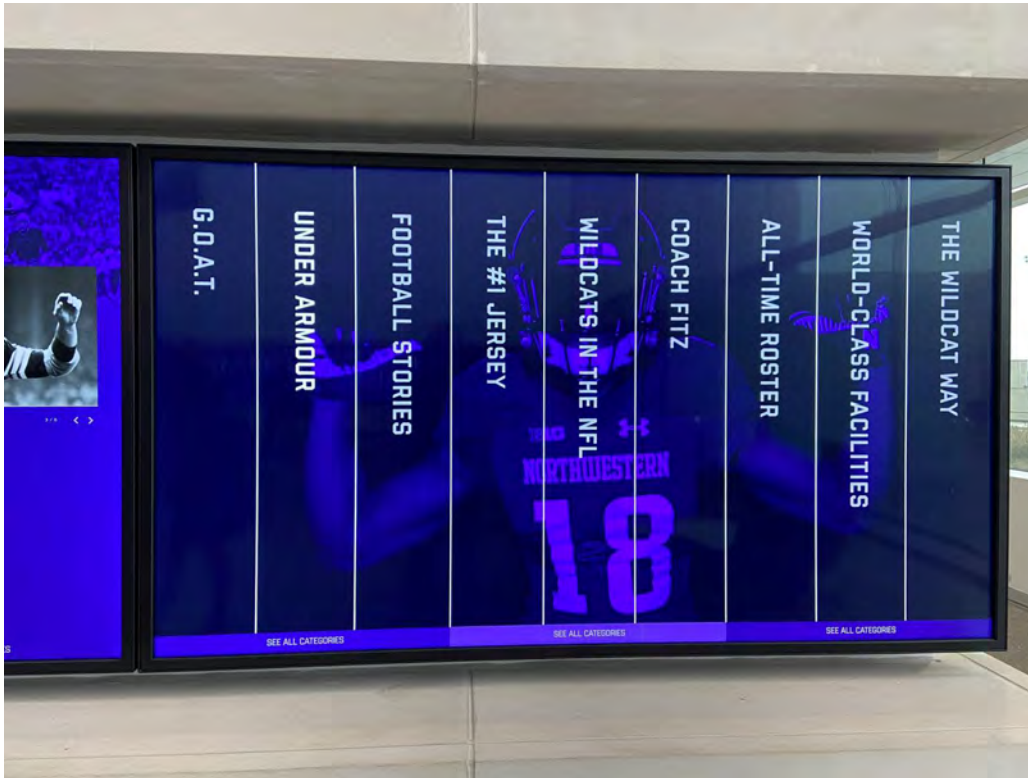
Figure 5.42 - Entry lobby interactive screens. Each are touch-enabled to allow visitors to access content for each NCAA sport.

Figure 5.43 - Uniforms as display.

Figure 5.44 - NFL helmets from each team that has a Northwestern grad.

Northwestern - The Garage

Figure 5.45 - Prototyping shop in the Garage. Ventilation is lacking.
Spray booth would be preferred.

Figure 5.46 - Cafe coworkng zone. Garage doors open up from seminar space.

Figure 5.47 - Break room / cafe space

Figure 5.48 - Mobile sound-isolating call booth
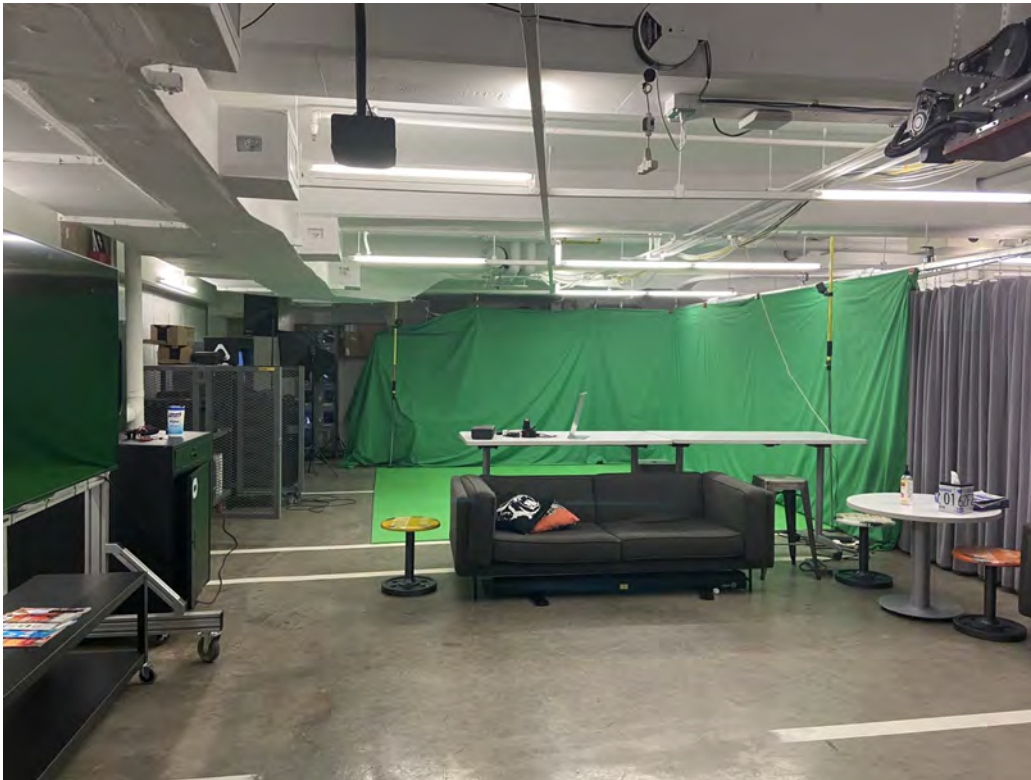
Figure 5.49 - Greenscreen and video production zone

Figure 5.50 - Coworking for students / staff who are working on entrepreneurial ventures and projects

Figure 5.51 - Entry to the Garage space -- down a utilitarian stair. Good use of branding along a well-trafficked corridor to increase visibility.

Figure 5.52 - Disclosures.

U Chicago - MADD Makerspace

Figure 5.53 - Open atrium of Computer Science hall, prior to entering Makerspace. Shared foodservice zone spills into double height space.

Figure 5.54 - Wayfinding
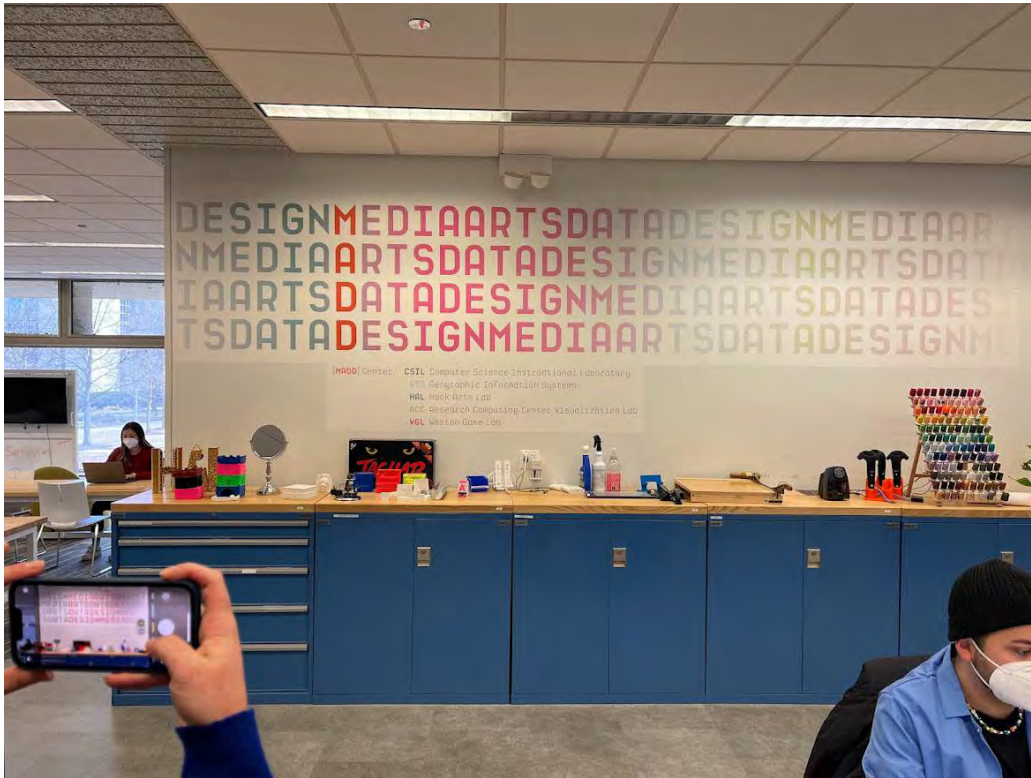
Figure 5.55 - Entry / student-staffed desk for MADD

Figure 5.56 - 3D printing (clean maker) and flexible video production

Figure 5.57 - Lasercutting (dirty maker), enclosed with glass to control dust

Figure 5.58 - Lasercutting (dirty maker), enclosed with glass to control dust.
Note snorkels on the back wall for exhaust.
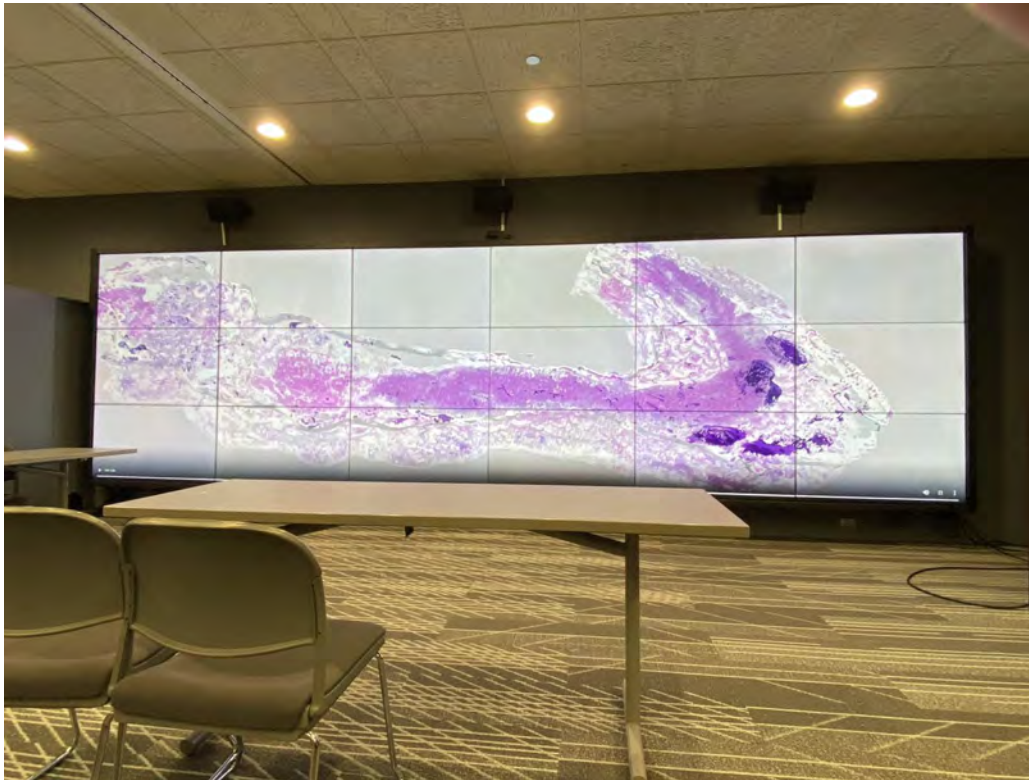
Figure 5.59 - Viz lab for large-scale research visualizations. Partnerships with student and faculty research organizations.

Figure 5.60 - Viz lab for large-scale research visualizations. Partnerships with student and faculty research organizations.

Figure 5.61 - Huddle spaces

Figure 5.62 - Open Cafe

U Chicago - Manseuto Library

Figure 5.63 - Main reading room with arched glass ceiling.

Figure 5.64 - View from circulation desk.

Figure 5.65 - Gateway to main reading room.
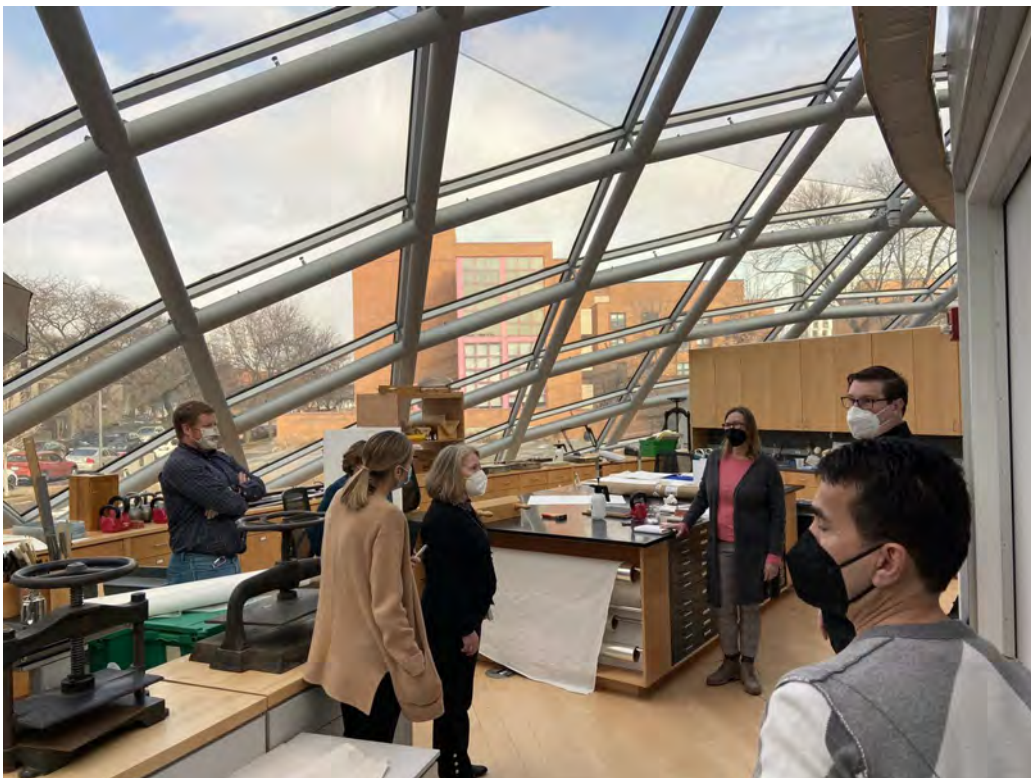
Figure 5.66 - Conservation lab space within library. Unfortunate use of prime student-focused real estate for back of house library function that would prefer less lighting.

Figure 5.67 - Group study rooms

Figure 5.68 - Underground automatic storage and retreival system (ASRS)

Figure 5.69 - Integrated power, data, laptop lock and lighting.

U Chicago - Regenstein Library

Figure 5.70 - Lower level collaboration space. Much liked by students.

Figure 5.71 - Main level reading and computing space.

Figure 5.72 - Self-check kiosks

Figure 5.73 - Opposite the Special Collections gallery, certain artifacts are displayed in the wall.

Figure 5.74 - One button studio - creation technology.

Figure 5.75 - Special collections group reading room for class setups.
Virtual / hybrid options as well with book scanner.
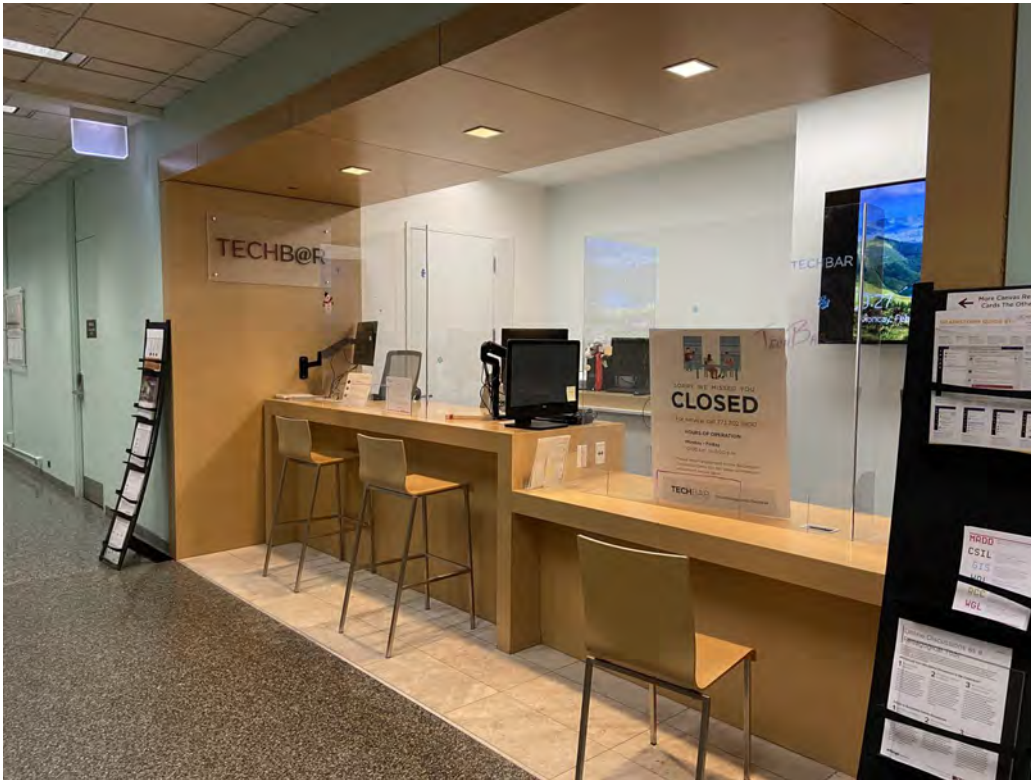
Figure 5.77 - IT Techbar for help and repair, just off the main level reading room

Figure 5.79 - Looking into special collections gallery -- good location between main
Regenstein reading room and Mansueto Library

Figure 5.78 - Looking into special collections gallery -- good location between main Regenstein reading room and Mansueto Library

Virgin Hotel

Figure 5.79 - Ballroom. Use of curtains at perimeter helps to hide storage and provide acoustic help.

Figure 5.80 - Eclectic room interior.

Figure 5.82 - Choice of seating: 'the library' lounge

Figure 5.83 - Choice of seating: banquette

Figure 5.84 - Branded signage. This is the path to the speakeasy bar.

Figure 5.85 - Funky signage.

Figure 5.86 - Branding and statement piece.

Figure 5.87 - High-top seating adjacent to bar area.
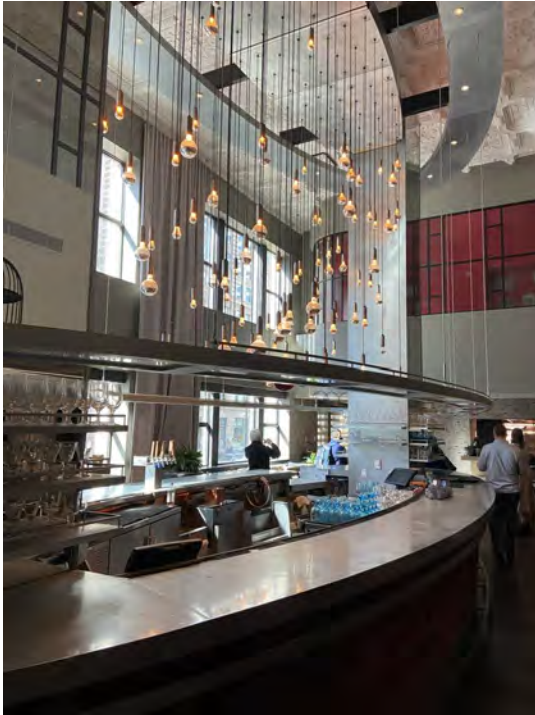
Figure 5.88 - Custom bar with chandelier centerpiece. Virgin Hotels puts guest connections at the center of the experience.

TECHNOLOGY VISION SUMMARY

The Library Masterplan contemplates opportunities to leverage technology to assist Purdue Libraries' future vision to impact students and negotiate a new hybrid learning world. The following presentation sets the groundwork for these conversations by bringing the deep experience of NV5 to the masterplanning effort.

PRESENTATION SLIDES

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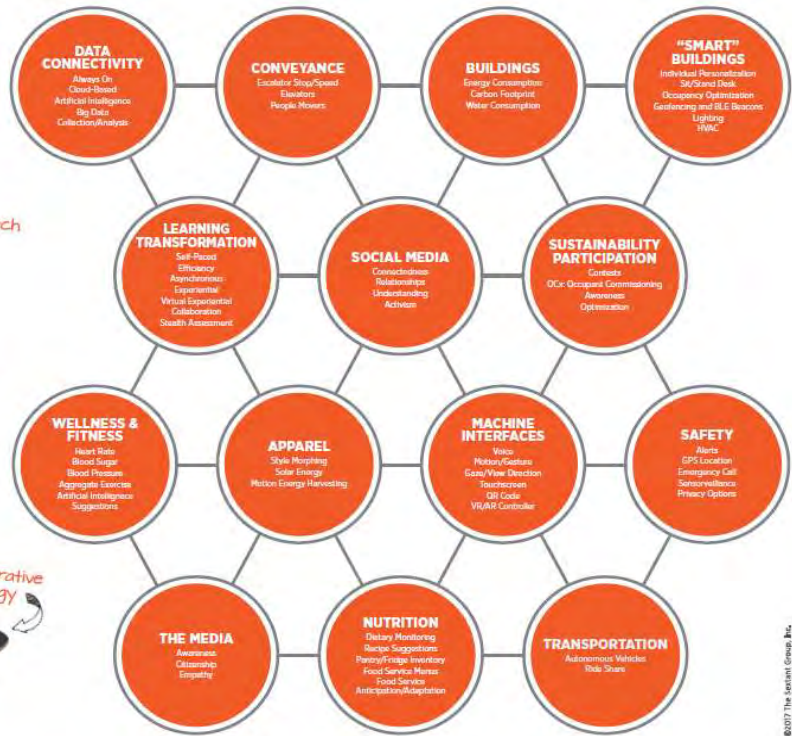
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Outcomes

1. Purdue's Values Realization
   - Innovation
   - Collaboration
   - Agility
   - Equity
   - Stewardship
   - Service

2. Apply technology solutions that respond to the "6 ½ C's" of library activities

3. Explore new technology types that may be implemented

4. Incorporate emerging Internet of Things (IoT) and Intelligent Building (IBT) technologies that will impact the programming of architecture

5. Foster student experiences and student success!!

Slide 3 of 42

IoT:
Internet of
Things
Everywhere

Augmented Reality Glasses

Smart Watch

Personalized Dashboards

Wearable Solar Panel

E-Sneakers

Regenerative Energy

DATA CONNECTIVITY
Always On
Cloud-Based
Artificial Intelligence
Big Data
Collection/Analysis

CONVEYANCE
Escalator Stop/Speed
Elevators
People Movers

BUILDINGS
Energy Consumption
Carbon Footprint
Water Consumption

"SMART" BUILDINGS
Individual Personalization
Sit/Stand Desk
Occupancy Optimization
Geofencing and BLE Beacons
Lighting
HVAC

LEARNING TRANSFORMATION
Self-Paced
Efficiency
Asynchronous
Experiential
Virtual Experiential
Collaboration
Stealth Assessment

SOCIAL MEDIA
Connectedness
Relationships
Understanding
Activism

SUSTAINABILITY PARTICIPATION
Contests
OCx: Occupant Commissioning
Awareness
Optimization

WELLNESS & FITNESS
Heart Rate
Blood Sugar
Blood Pressure
Aggregate Exercise
Artificial Intelligence
Suggestions

APPAREL
Style Morphing
Solar Energy
Motion Energy Harvesting

MACHINE INTERFACES
Voice
Motion/Gesture
Gaze/View Direction
Touchscreen
QR Code
VR/AR Controller

SAFETY
Alerts
GPS Location
Emergency Call
Sensorveillance
Privacy Options

THE MEDIA
Awareness
Citizenship
Empathy

NUTRITION
Dietary Monitoring
Recipe Suggestions
Pantry/Fridge Inventory
Food Service Menus
Food Service
Anticipation/Adaptation

TRANSPORTATION
Autonomous Vehicles
Ride Share

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Ubiquitous Audiovisual

- Leverage AV assets across age groups
  - Presentation Rooms
  - Visualization
  - Performance Spaces
  - Maker Spaces / Specialized Equipment
  - Faculty Sandboxes and Production (Academic)
- Analog Sunset
- Ease-of-use, low maintenance, supportable
- Create library system-wide standards
- Converged AV/IT (AVoIP)
- AVAS: AV as a Service

Slide 5 of 42

Foundational IT

- Minimize "hops"
- Plan for 6G and beyond
- Pervasive wireless connectivity
- Assume omnipresent 8k streaming video
- Intelligent Buildings / IoT strategy
- PoE: Power over Ethernet
- "Heat Map" Modelling
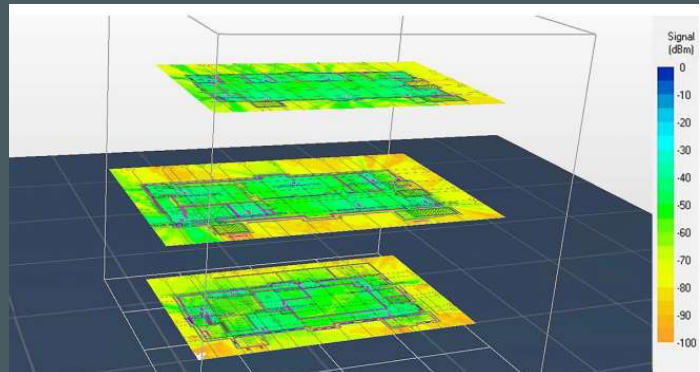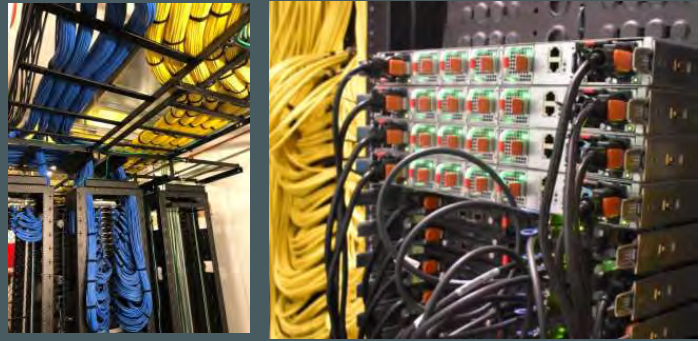
Trustworthy Security

- Lessons from the pandemic
- Lessons from the protests / riots
- Lessons from active shooter events
- Balance CPTED with confidence, privacy, dignity, inclusion
- Occupancy Control
- Emergency Responders
- Attention to Lighting for Cameras

Robust Tech Infrastructure

- Smart Buildings / Smart City: Internet of Things
- Distributed Antenna Systems
- Outside Plant Duct Banks
- IoT and SDG's: Sustainable Development Goals
- Power over Ethernet (PoE) potential
- Visible / celebrated tech
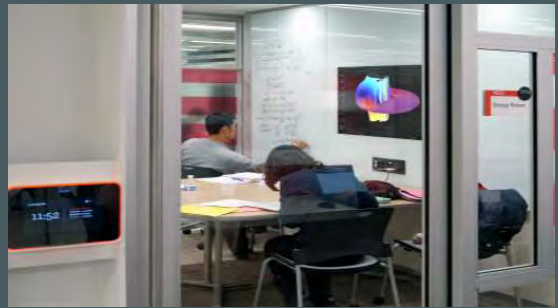
The "6 "C's" of Library Tech

CONSUME

CREATE

COMMUNE

CONFERENCE

COLLABORATE

CURATE
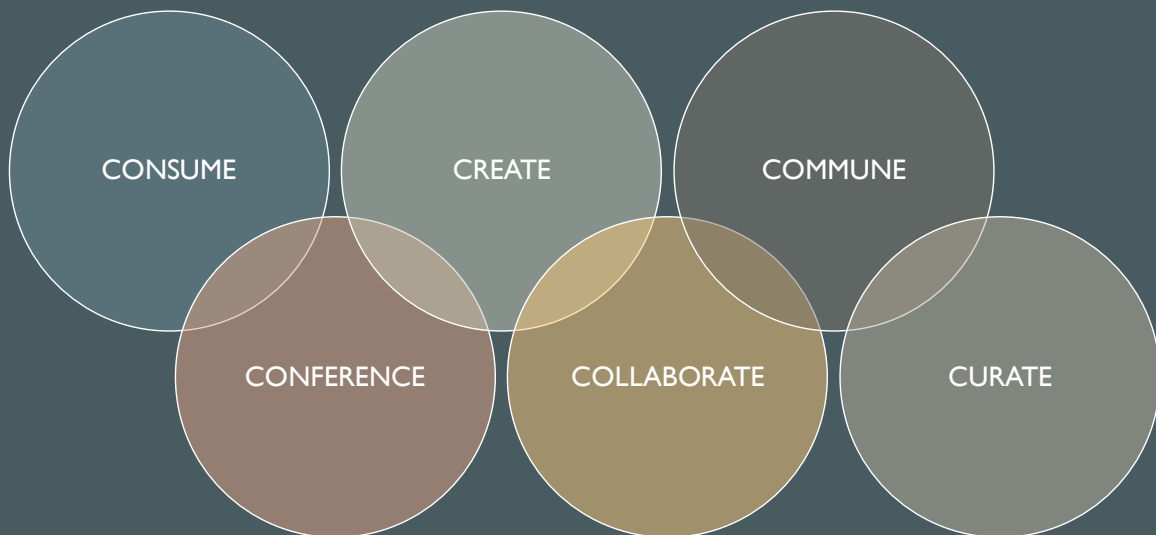
Consume

Consumption!!

TODAY

- Beyond Shhhh!
- Auditioning and screening spaces: individual (carrels)
  - Audio books
  - Videos
  - Music
- Auditioning and screening spaces: group
- Computer Stations
- Endcap Digital Signage

TOMORROW

- HIGH QUALITY Auditioning and screening spaces
- Virtual Reality Experience Rooms
- App-based collection catalog
- Digital Scholarship

Conference

Conferencing!!

TODAY	TOMORROW
• Conference Rooms	• UCC: Unified Communications and Collaboration
• Videoconferencing Rooms	
• Webconferencing	• Telepresence
• Room Scheduling/Signage	• Walls
• Public Access / Security	• VR Groups
• Hybrid Conferences: In-Person, Remote Participants	
• Capture and Streaming	
• Auditory Assistance Systems	

Create

Harvard University
Cabot Science Library

Creations!!

TODAY

- Audio and Video Studios
- Oral History Studios
- One-Touch Studios
- Maker/hackerspaces
- Teaching Kitchens
- Community Gardens
- Theaters, Black-Boxes

TOMORROW

- Tinker Labs?
- VR / XR Studios?

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Collaborate
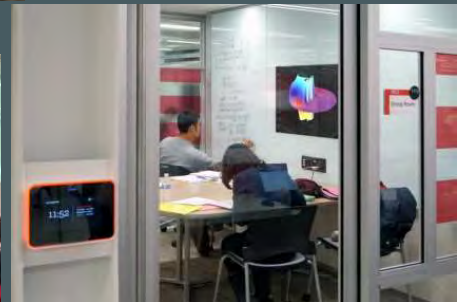
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Collaborations!!

TODAY

- Gaming Areas
- Technology-Enhanced Collaboration
  - Huddle Rooms
  - Ideation Spaces
  - Visualization
- Tutoring
- Couselling
- Mentoring
- Entrepreneurship Support

TOMORROW

- Esports
- VR Gaming
- Social Media
  - Meetups
  - Activism
- Slams? Hackfests?
- Incubation / Entrepreneurship

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Commune

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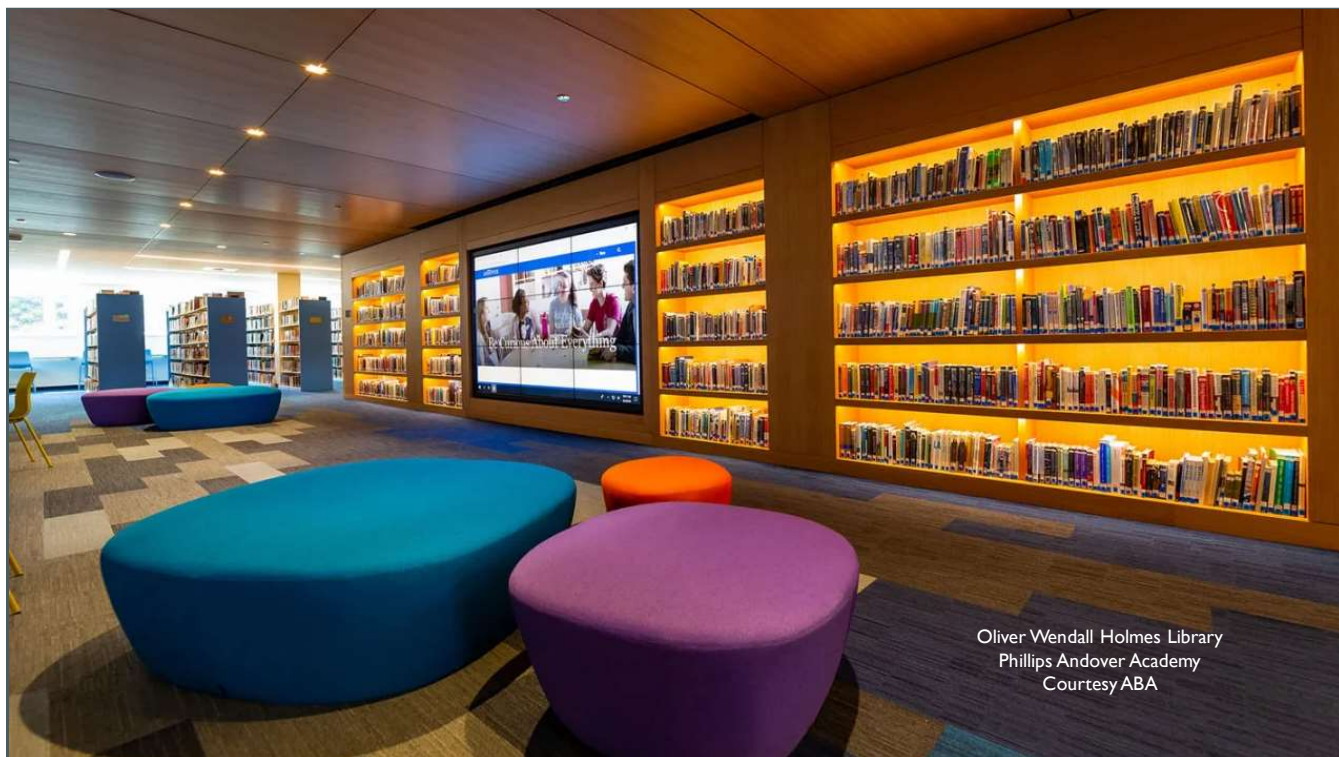
Oliver Wendall Holmes Library
Phillips Andover Academy
Courtesy ABA

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Community!!

TODAY

- Meet Me at the Library!
- Local History / Placemaking
- Government, Organizations
- Wayfinding / Digital Signage
- Meet-Ups
- Book Clubs
- Screenings, TED Talks, Slams
- Art Shows, Book Signings
- FOOD and coffee!
- *Celebrate*- the "7th C?"

TOMORROW

- Smartphone data transfer
- Movie Clubs
- Artistic Building Illumination: synchronized music/light
- Autonomous Vehicles / Robots / Drones
- Telemedicine Stations
- Expedition Outfitting
- More FOOD and coffee!*

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Community!!

TODAY

- Meet Me at the Library!
- Local History / Placemaking
- Government, Organizations
- Wayfinding / Digital Signage
- Meet-Ups
- Book Clubs
- Screenings, TED Talks, Slams
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TOMORROW

- Smartphone data transfer
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- More FOOD and coffee!*

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Community – The Metaverse?

- Social Infrastructure
  - Physical interaction
- Virtual Social Infrastructure:
  - What's missing with Facebook/Instagram/Twitter etc.?
  - Virtual social interaction

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Curate

Curating!!

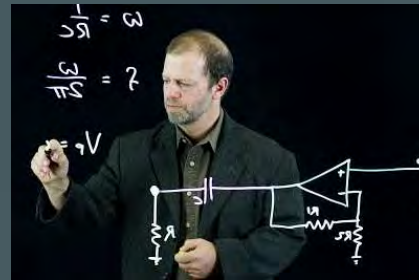| TODAY	TOMORROW
• RFID Tagging	• Social Media Archiving
• ASRS: Automated Storage and Retrieval System	• Virtual Reality Archiving
• 2-D Digitization	• Extended Curation Networks
• 3-D Digitization	• Artificial Intelligence: Machine Learning
• Cloud Strategies	
• Patron Access	

Academic "Sandboxes"

6 ½: COLLIDE!

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Important Developments in Technology for Libraries (Horizon Report)

Consumer Technologies
> Drones
> Real-Time Communication Tools
> Robotics
> Wearable Technology

Digital Strategies
> Location Intelligence
> Makerspaces
> Preservation & Conservation Technologies

Internet Technologies
> Blockchain
> Digital Scholarship Technologies
> The Internet of Things
> Library Services Platforms
> Syndication Tools

Learning Technologies
> Adaptive Learning Technologies
> Microlearning Technologies
> Mobile Learning
> Next-Generation LMS
> Virtual & Remote Labs

Social Media Technologies
> Crowdsourcing
> Online Identity
> Social Networks
> Virtual Worlds

Visualization Technologies
> 3D Printing
> Information Visualization
> Mixed Reality
> Virtual Reality

Enabling Technologies
> Affective Computing
> Artificial Intelligence
> Big Data
> Electrovibration
> Flexible Displays
> Mesh Networks
> Mobile Broadband
> Natural User Interfaces
> Near Field Communication
> Next-Generation Batteries
> Open Hardware
> Speech-to-Speech Translation
> Virtual Assistants
> Wireless Power

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Access to Quality

- Digital Natives are HERE!
- Libraries applauded for alleviating "Digital Inequality"
- Continued "Media Inequality?"
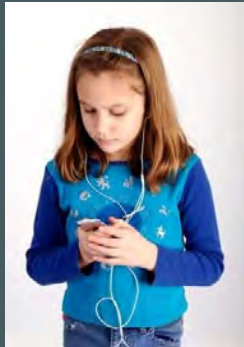
Packard Theater Library of Congress

Outdoor Spaces

- New bright displays!
  - LCD
  - LED
- Wi-Fi coverage
  - Green Spaces
  - Parking Lots
- Power, Loudspeaker, Projector Connections
- Digital Signage
- Autonomous Vehicle Management

Videoconferencing / Continuous Presence

- Video Conferencing
  - Web Conferencing
  - Virtual / Continuous Presence
  - Distance Learning

HyFlex Classrooms, Version 1.0

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Big Data Visualization, Digital Media Labs

North Carolina State University – James B. Hunt Library

New Tufts Library, Weymouth, MA

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Experiences, Experiential Learning

- Get Outside! Expedition Rooms
  - Provision Equipment: VR Cameras, GoPros, etc.
  - Special Equipment: Safety / PPE, Clothing, etc.
  - Charging Stations
  - Autonomous Vehicles
- Virtual Reality Rooms
  - Tourism Docents
  - Instructional
  - Games

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Physical Security and Beyond

- Traditional 4 Sub-Systems
  - Access Control
  - Intrusion Control
  - Video / Audio Surveillance
  - Asset Control
- Pandemic Issues
  - Contactless
  - Frictionless
  - Occupancy Control / Management
    - People Counting, Density
  - Temperature, Biometric Measurement
- Credentialling
  - Multi-Factor Authentication
    - Health Status

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New, More Better Tech

- Wi-Fi "Heat Mapping"
- PoE Lighting, Circadian Rhythm
- Projection Mapping
- Sound Masking
- Interactive Displays
- Edge Blending
- Facial Recognition
- Blockchain Transactions / Ledgers
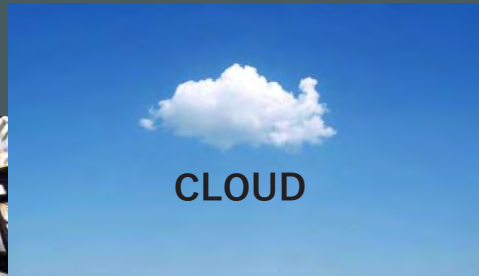- Li-Fi: Visible Light Communications
- Shared Studios

Portals are gold spaces equipped with immersive audiovisual technology. When you enter a Portal, you come face-to-face with someone in a distant Portal live and full-body, as if in the same room.

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Information Domains


MOBILE

CLOUD

BIG DATA

SOCIAL MEDIA

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Intelligent Building Readiness

- Accommodate current converged technologies: AV over IP, SE over IP, BMS/BAS, etc.
- Acknowledge inevitable future technologies
- Centralize technology in data rooms
- PoE: Power over Ethernet
- Distribute active network switches throughout building
- Standards-Based (BICSI, TIA, AVIXA)
- IT Personnel in Facilities Department
- Integration of building, technology and energy systems, including building automation, telecommunications and facilities management systems
- Leverage BIM Metadata
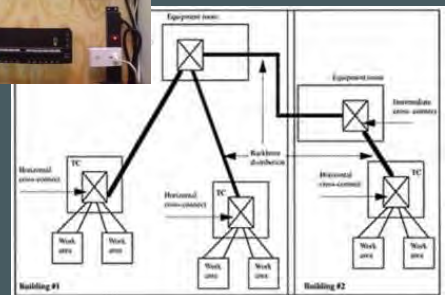
Apps for Buildings

- NFC: Near Field Communications
- Air Quality, Cleaning Status
- Augmented Reality Wayfinding
- Digital Concierge
- Collection Searching
- Virtual Docents
- Demand side response and control, Energy use reporting
- Collect data points using current and advanced sensor networks
- Be capable of learning about and adapting to user's preferences
- Provide data on occupancy that can also inform space utilization approach
- *Cybersecurity, Personal Privacy*

Things People are Talking About

- The User Experience (UX): exceptional experiences

- How do we "future-proof" our building?

- Occupant Commissioning (OCx)

- Local vs. Cloud Storage

- Network Capacity

- Adobe Flash →? HTML5

- Smart Buildings

- IA: Artificial Intelligence

- Future Librarian Skills

- Automaxpectations

- Is Society undergoing disruption?

The Big Picture

Depreciation
Capital Expenses
Staff Training
Recurring Expenses
Obsolescence
Operating Expenses
Expendables
Maintenance

"The future, according to some scientists, will be exactly like the past, only far more expensive."

John Sladek

DISCUSSION!
Questions!
Attempts at Answers!

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