



# WORK SESSION NO. 1

December 10, 2020

# Pleased to see you again

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**Val Schute, AIA**  
Principal-in-Charge  
River Architects



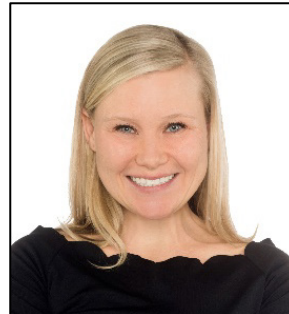
**Mike Adler, AIA**  
Project Architect/Project Manager  
River Architects



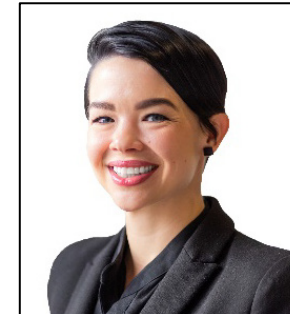
**David Johnson, AIA,**  
**LEED AP BD+C**  
Design Strategist + Programming  
SmithGroup



**Emma Cuciurean-Zapan, AIA,**  
**LEED AP BD+C**  
Architect  
SmithGroup



**Coty Sandberg, AIA,**  
**LEED AP BD+C**  
Architectural Design  
SmithGroup



**Lana Zoet, AIA,**  
**LEED AP BD+C,**  
**Well AP**  
Sustainability  
SmithGroup



**Gregg Calpino, PLA,**  
**ALSA, LEED AP BD+C**  
Landscape Architect  
SmithGroup

# Agenda

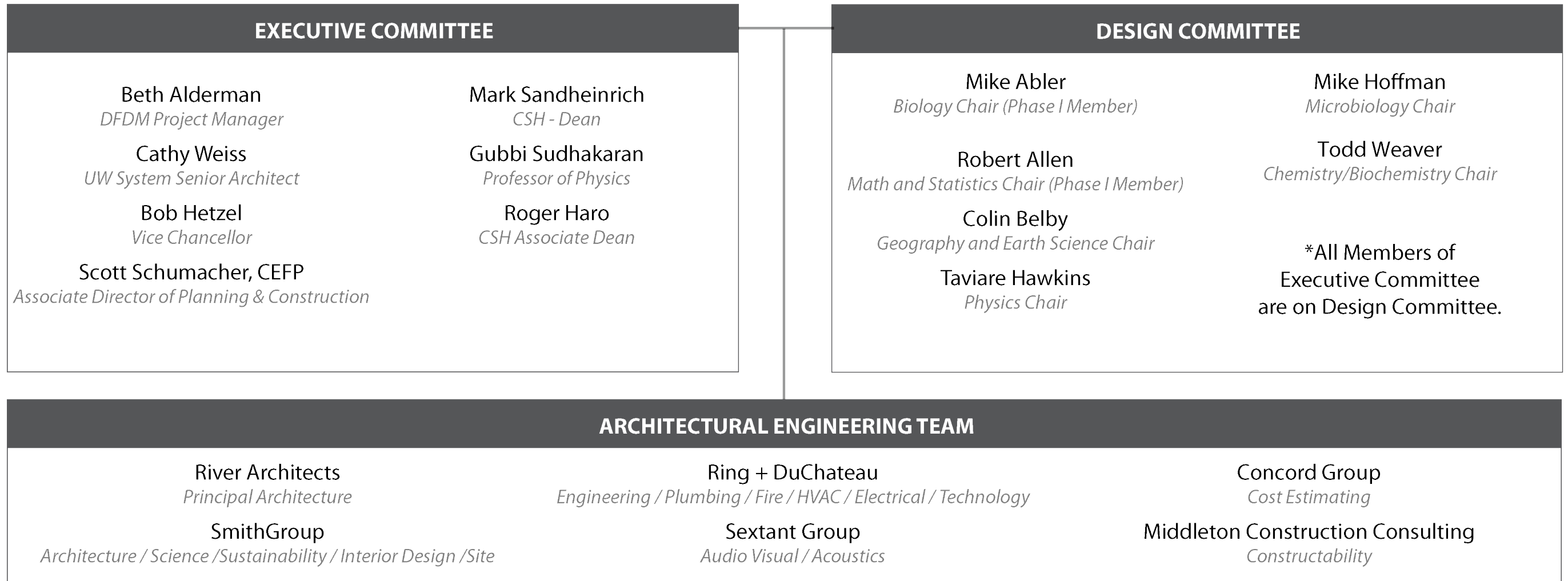
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- **Introductions**
- **Committee Structure**
- **Project Overview**
- **Sustainability**
- **Program Review**
- **Design Opportunities**
- **Workplan**
- **Next Meeting Agenda**

## Goals for Today:

- **Understand priorities/vision for Phase II**
- **High level review and confirmation of program**
- **Consensus on changes since 10% report issuance**

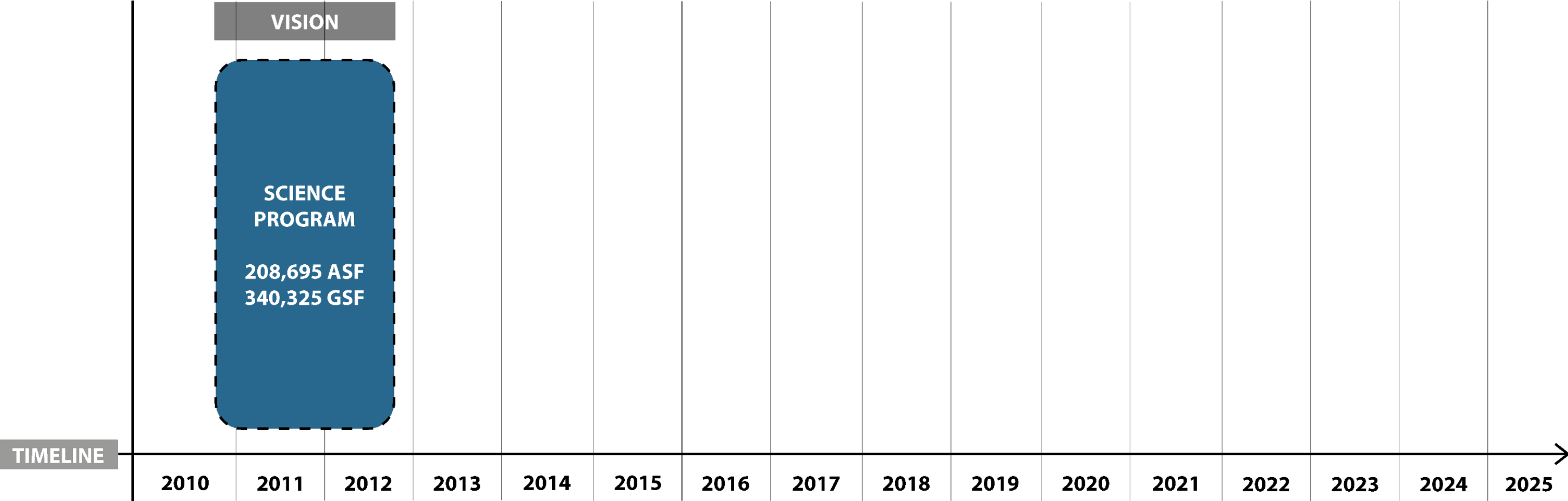
# Committee Structure



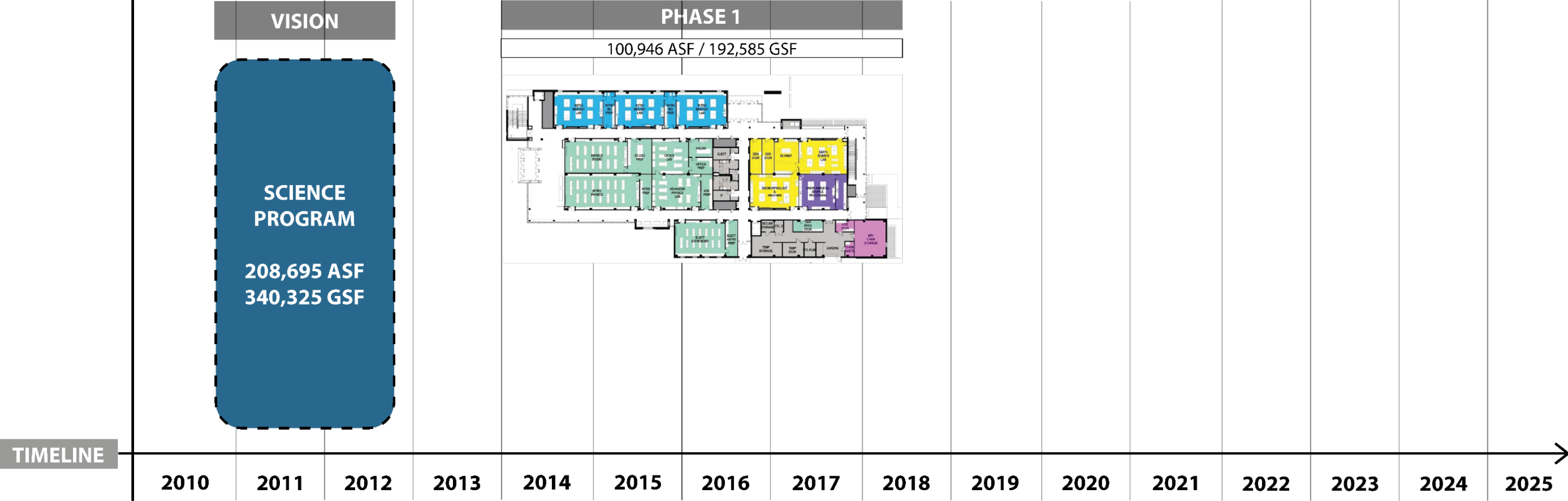
# Team behind the Team

ARCHITECTURE	<b>Principal-in-Charge</b> Valentine J. Schute, Jr., AIA <i>River Architects</i>	<b>Design Strategist + Science Programming</b> David Johnson, AIA, LEED AP BD+C <i>SmithGroup</i>	<b>Design Architect</b> Coty Sandberg, AIA, LEED AP BD+C <i>SmithGroup</i>	<b>Sustainable Design</b> Lana Zoet, AIA, LEED AP BD+C, Well AP <i>SmithGroup</i>	<b>Campus Strategy + Analytics</b> Steve Schonberger, AIA <i>SmithGroup</i>	<b>Quality Assurance + Quality Control Construction Administration</b> Andrew Hudzinski <i>River Architects</i>
	<b>Principal-in-Charge</b> Tim Tracey, AIA <i>SmithGroup</i>	<b>Project Manager</b> Carolina Lopez, AIA <i>SmithGroup</i>	<b>Lab Planning</b> Nicolle Taylor, RA, LEED AP <i>SmithGroup</i>	<b>Architectural Design</b> Clint Rasmussen, Assoc. AIA <i>River Architects</i>	<b>Interior Design</b> Deborah Nemeth, RID, LEED AP BD+C <i>SmithGroup</i>	<b>Architect</b> Emma Cuciurean-Zapan, AIA, LEED AP BD+C <i>SmithGroup</i>
	<b>Project Architect/Project Manager</b> Michael Adler, AIA <i>River Architects</i>					
ENGINEERING	<b>Principal-in-Charge Project Manager/Electrical Electrical Engineer</b> Christopher Ulm, PE, LEED BD+C <i>Ring &amp; DuChateau</i>	<b>Mechanical Engineer</b> Ryan McNally, PE <i>Ring &amp; DuChateau</i>	<b>Plumbing/Fire Protection</b> Greg Froh, RD <i>Ring &amp; DuChateau</i>	<b>Electrical Designer (Lighting)</b> Holly Blomquist, LC <i>Ring &amp; DuChateau</i>	<b>MEP Quality Control</b> Michael Hoadley, PE <i>Ring &amp; DuChateau</i>	<b>Structural Engineer</b> Paul Karow, PE <i>OTIE</i>
	<b>Project Manager/Mechanical</b> Jeff Saunders, PE, LEED BD+C <i>Ring &amp; DuChateau</i>	<b>Mechanical Engineer (Utility)</b> Josh Nichols, PE <i>Ring &amp; DuChateau</i>	<b>Electrical Designer</b> Christopher Endicott <i>Ring &amp; DuChateau</i>	<b>Technology Designer (Telecom)</b> Patrick Stiemke, RCDD <i>Ring &amp; DuChateau</i>	<b>Structural Engineer Project Manager/QC</b> James Hall, PE, SE <i>OTIE</i>	<b>Structural Engineer</b> Ben Cashin, PE <i>OTIE</i>
		<b>Project Manager/P + FP</b> Bob Novak, RD <i>Ring &amp; DuChateau</i>				
AV / ESTIMATING / SITE	<b>Audiovisual + Acoustics Principal-in-Charge</b> Gregory Clark, CTS, INCE <i>The Sextant Group</i>	<b>Audiovisual Designer</b> Jesse Fishman, CTS-D <i>The Sextant Group</i>	<b>Cost Estimators</b> Eamon Ryan, CPE <i>The Concord Group</i>	<b>Constructability</b> Tom Middleton, CPE <i>Middleton Construction Consulting</i>	<b>Civil Engineer</b> Andrew Luehmann, PE <i>SmithGroup</i>	
	<b>Audiovisual + Acoustics Project Manager</b> James Viviano, CTS <i>The Sextant Group</i>	<b>Acoustics Designer</b> Rachel Parlock, INCE Board Certified <i>The Sextant Group</i>	Maurizio Magalli <i>The Concord Group</i>	<b>Landscape Architect</b> Gregg Calpino, PLA, ALSA, LEED AP BD+C <i>SmithGroup</i>	<b>Site Principal-In-Charge</b> John Kretschman, PE <i>SmithGroup</i>	

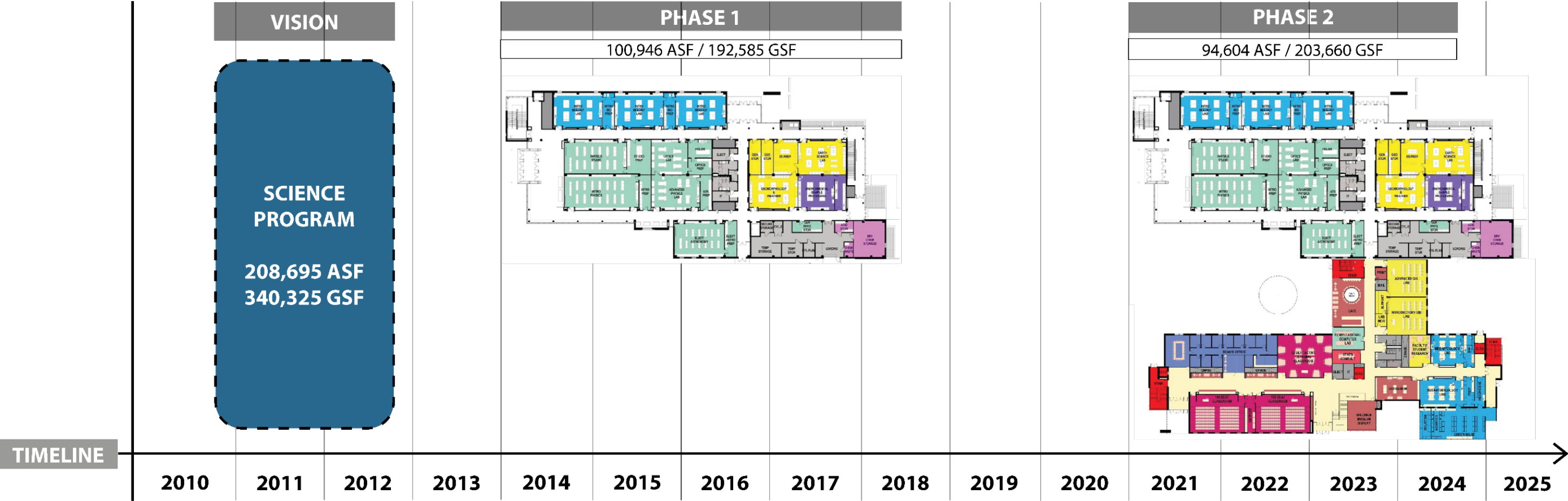
# Project Overview



# Project Overview



# Project Overview





# Design Guidelines / Assumptions

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- **Phase I and II should link seamlessly with no evidence of phased implementation delivery**
- **Formal main entrances near the Clock Tower at southwest corner and at south-central off campus main walk**
- **Position vertical circulation near entry points**
- **5 Level design scheme to align with Phase I**
- **Simple wayfinding layout for interior halls**
- **Maintain modular laboratory 10'-6" grid for functional efficiency, accessibility and future flexibility**
- **Incorporate DFDM Sustainability Standards**
  - **Maximize natural (especially north and south) light into all habitable rooms and spaces with appropriate sun-control strategies**
  - **Integrate comprehensive environmental strategies seamlessly into facility for energy conservation**
- **Exterior design follows UW-L Campus Master Plan Architectural Guidelines**

# Goals for Cowley Hall/Science Building Project

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**UW La Crosse science and mathematics faculty are committed to offering educational experiences that are:**

- **Inquiry-based**
- **Collaborative**
- **Integrative and serve societal goals**

**The new facility should be a signature academic building, capably housing programs in biology, chemistry, geography and earth science, mathematics, microbiology, and physics that supports:**

- **Investigative Science and Mathematics Programs**
- **Teaching Scholars**
- **Innovative Science and Mathematics Pedagogy**
- **Student/Faculty Interaction**
- **Faculty Collaboration**
- **Interdepartmental/Interdisciplinary Studies**
- **Faculty Research**
- **Student Research**
- **Science and Mathematics on Display**

# SUSTAINABILITY

10% REPORT (2017)

**DFDM Sustainable Facilities  
Standards 2.0  
(based on LEED v2.0)**



NOW (2020)

**DFDM Sustainability Guidelines  
V2.0 September 2020  
(based on AIA Framework for  
Design Excellence)**

# DFDM SUSTAINABILITY

GUIDELINES V2.0 SEPTEMBER 2020

## SUSTAINABLE, RESILIENT, INCLUSIVE DESIGN:

*“The intent of these guidelines is to provide a holistic approach to sustainability by evaluating multiple measures for applicability to capital projects as they are relevant to our customer’s varying project needs and missions. These guidelines are part of a larger effort towards a more sustainable environment today and for future generations.”*



Measure 1  
**DESIGN FOR INTEGRATION**



Measure 6  
**DESIGN FOR ENERGY**



Measure 2  
**DESIGN FOR COMMUNITY**



Measure 7  
**DESIGN FOR WELLNESS**



Measure 3  
**DESIGN FOR ECOLOGY**



Measure 8  
**DESIGN FOR RESOURCES**



Measure 4  
**DESIGN FOR WATER**



Measure 9  
**DESIGN FOR CHANGE**



Measure 5  
**DESIGN FOR ECONOMY**



Measure 10  
**DESIGN FOR DISCOVERY**

# INTEGRATING SUSTAINABILITY

## FOR PRAIRIE SPRINGS SCIENCE CENTER PHASE II

### NEXT STEP

#### **Measure 1: Designing for Integration: Sustainability Charrette (Mandatory)**

- Includes all key disciplines from the AE team (architecture and engineering at a minimum)
- Includes key project stakeholders
  - DFDM Project Manager
  - UW-La Crosse Agency Representative
  - UW-La Crosse User Group Representatives

# VIRTUAL ENGAGEMENT

## GATHERING USER INPUT

The image shows a Miro virtual collaboration board titled 'Yale Board'. The board is organized into several panels:

- Final Frame:** The top header area with the Miro logo, 'Yale Board' title, and navigation icons.
- YALE:** A central panel with a 'Yale' logo and a grid of 'PROGRAM SPACES' (classrooms, labs, etc.) with a 'SPACE NEED MODEL' bar chart showing 30%, 20%, and 10% allocations.
- Overall Floor Plans:** Two panels showing 'LEVEL 12' and 'LEVEL 14' floor plans.
- Floor Plan Studies 1:** A panel showing 'OPTION 1' floor plan study.
- Floor Plan Studies 2:** A panel showing 'OPTION 2' floor plan study.
- Context:** A panel showing an aerial map of the site with highlighted areas.
- Drawing Board:** A panel showing 'Program Studies' and 'FACULTY PARADISE' diagrams.
- Adjacencies:** A panel showing a network diagram of spaces and a 3D model of 'SOCIAL CORE' adjacencies.

A group of four students (three women and one man) are smiling and taking a selfie together outdoors. They are wearing maroon and white striped jackets. In the background, there is a large, multi-story brick building with many windows. The scene is set on a paved area next to a grassy field.

# WHERE HAVE WE BEEN?

- PSSC PHASE 1 REVIEW
- PSSC PHASE 2 PROGRAM ASSUMPTIONS
- PSSC 10% CONCEPT REPORT



PHASE I  
PLATFORM

PROMISE

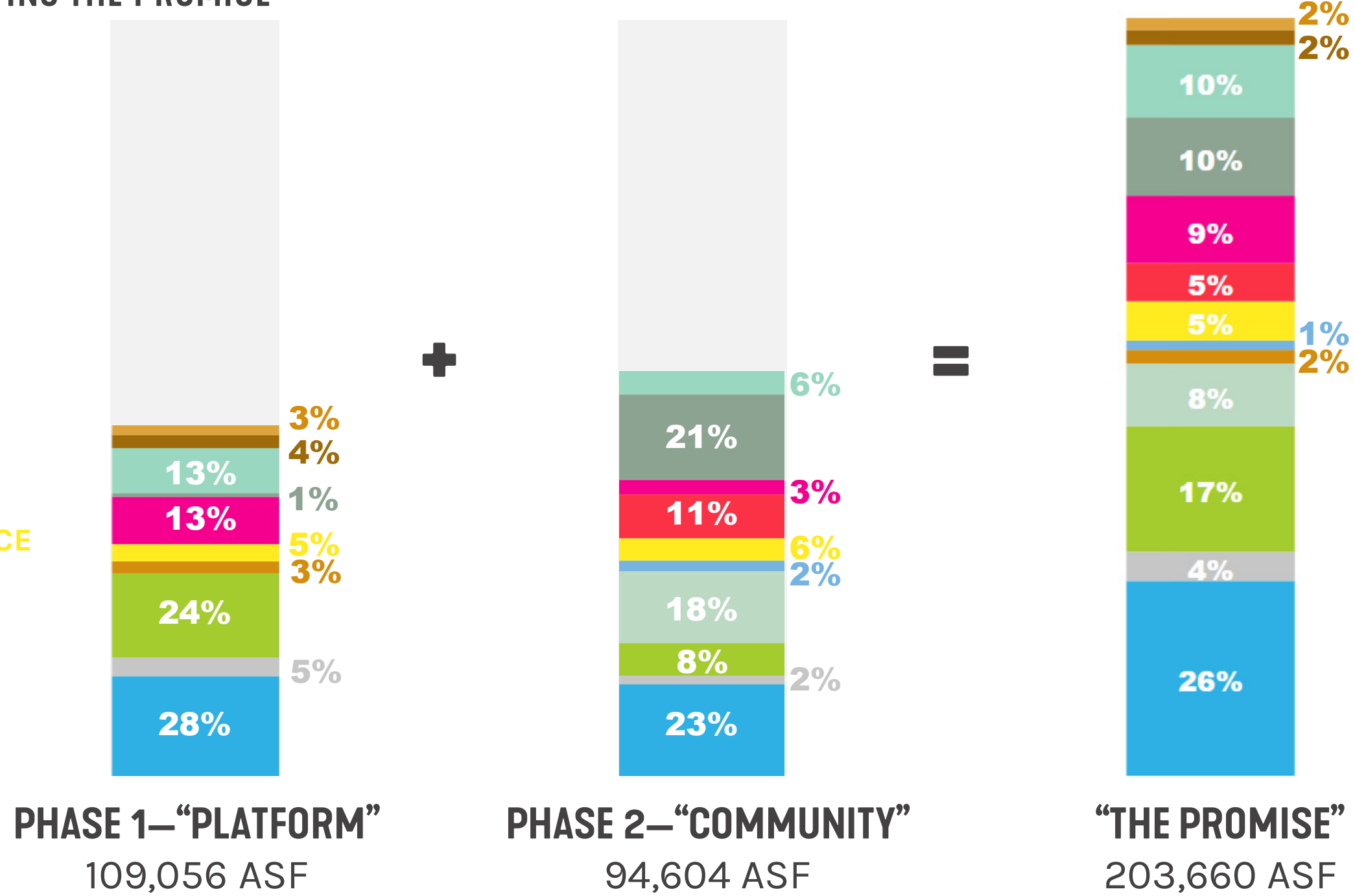
PHASE II  
COMMUNITY



# PRAIRIE SPRING SCIENCE CENTER IN PHASES - UNITS

SEEING THE WHOLE, COMPLETING THE PROMISE

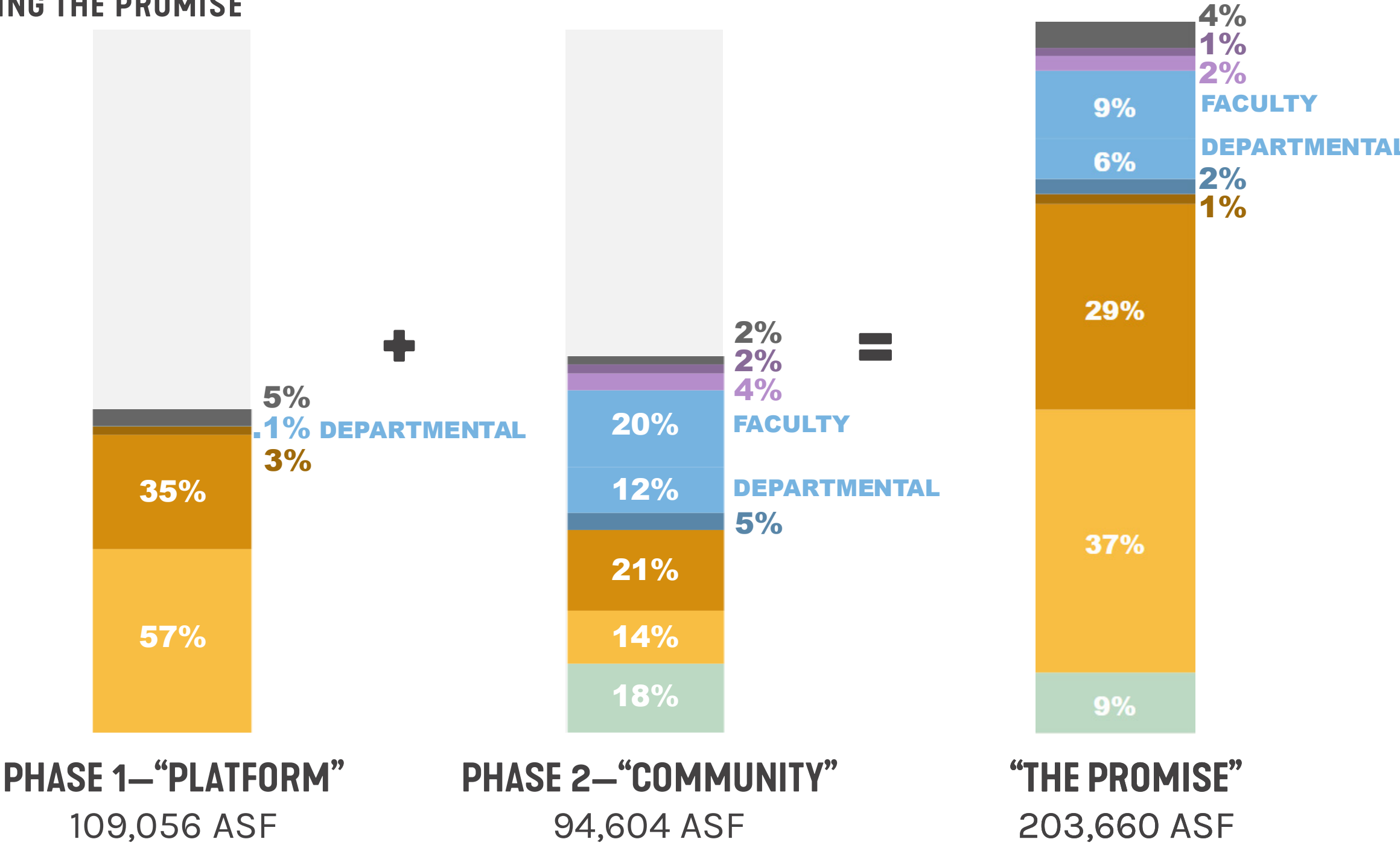
- RIVER STUDIES CENTER
- RADIATION CENTER
- PHYSICS
- MISC. INSTR. / SUPPORT
- MICROBIOLOGY
- MATHEMATICS
- GEOGRAPHY & EARTH SCIENCE
- DEAN'S OFFICE
- CORE LABS
- CLASSROOMS
- CHEMISTRY
- BUILDING SUPPORT
- BIOLOGY



# PRAIRIE SPRING SCIENCE CENTER IN PHASES – SPACE TYPES

SEEING THE WHOLE, COMPLETING THE PROMISE

- BUILDING SUPPORT
- SHARED – COLLABORATION
- STUDENT – COLLABORATION
- OFFICE – FACULTY
- OFFICE – DEPARTMENTAL
- OFFICE – COLLABORATION
- CORE LAB
- RESEARCH LABS
- CLASS LABS
- CLASSROOMS



# PSSC PHASE 1



# PHASE 1

## THEMATIC ORGANIZATION

SUPERCLUSTER	CLUSTER	DEPARTMENT						
		Biology	Chemistry & Biochemistry	Geography & Earth Science	Mathematics	Microbiology	Physics	Unaffiliated
Cell / Molecular	Biochemistry & Biophysics	●	●				●	
	Cellular	●						
	Microbiology					●		
	Molecular Genetics	●				●		
Environmental	Atmospheric		●					
	BioMath	●			●			
	River Studies	●	●					
	Soils & Sediments			●		●		
	Terrestrial	●						
Null	Computational	●	●	●				●
	Imaging / Materials		●				●	
	Physiology / Nutrition	●						●
	Radiation		●				●	
	STEP	●	●	●	●		●	
	Synthesis		●	●				
	Theorists						●	
	Unassigned			●			●	

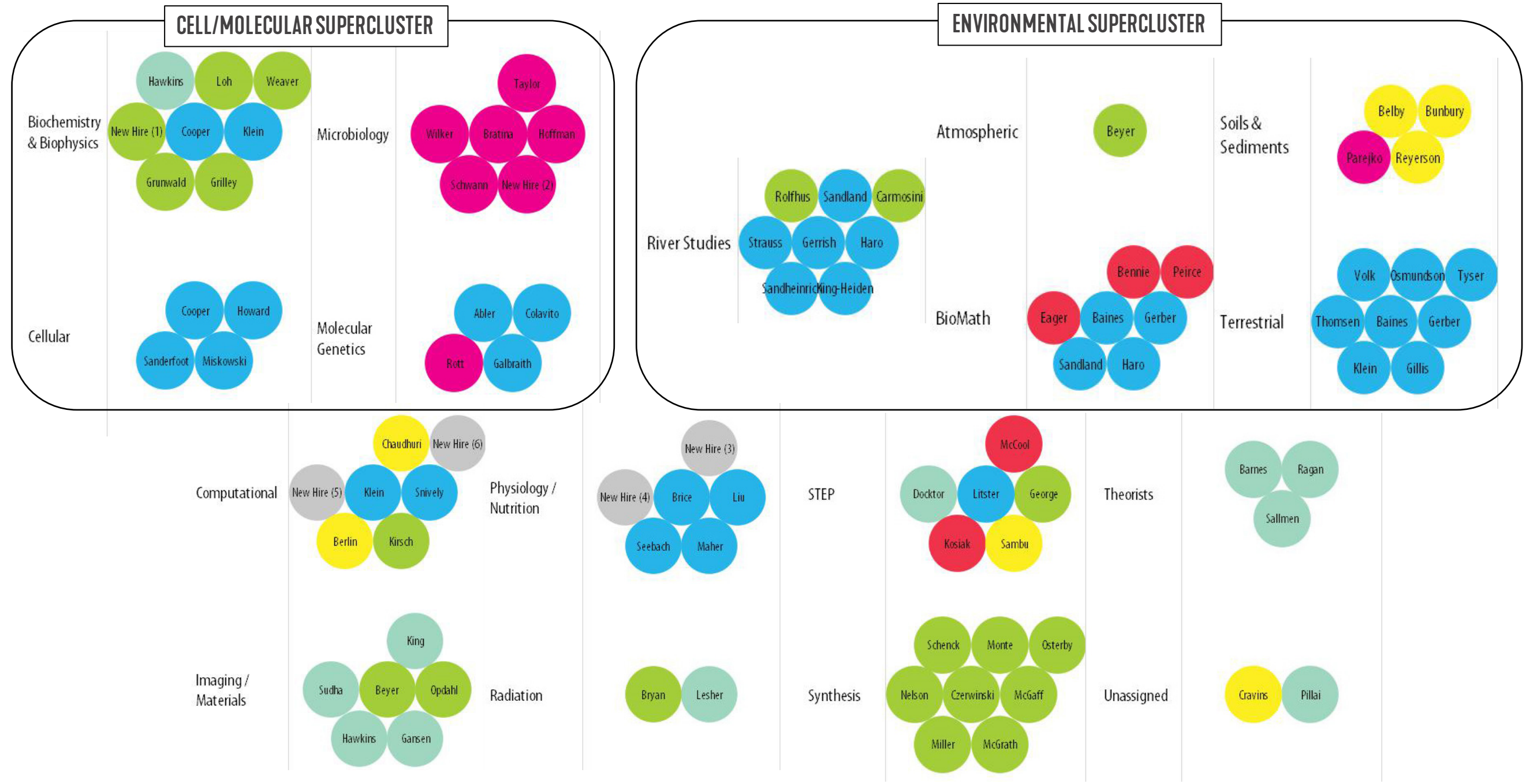
Atmospheric	●	Radiation	● ●
Biochemistry & Biophysics	● ● ● ●	River Studies	● ● ● ●
BioMath	● ● ● ●	Soils & Sediments	● ● ● ●
Cellular	● ● ● ● ● ●	STEP	● ● ● ● ● ●
Computational	● ● ● ● ● ●	Synthesis	● ● ● ● ● ●
Imaging / Materials	● ● ● ● ● ●	Terrestrial	● ● ● ● ● ●
Microbiology	● ● ● ● ● ●	Theorists	● ● ● ● ● ●
Molecular Genetics	● ● ● ● ● ●	Unassigned	● ● ● ● ● ●
Physiology / Nutrition	● ● ● ● ● ●		

### DEPARTMENT

- Biology
- Chemistry & Biochemistry
- Geography & Earth Science
- Mathematics
- Microbiology
- Physics
- Unaffiliated

# PHASE 1

## THEMATIC ORGANIZATION

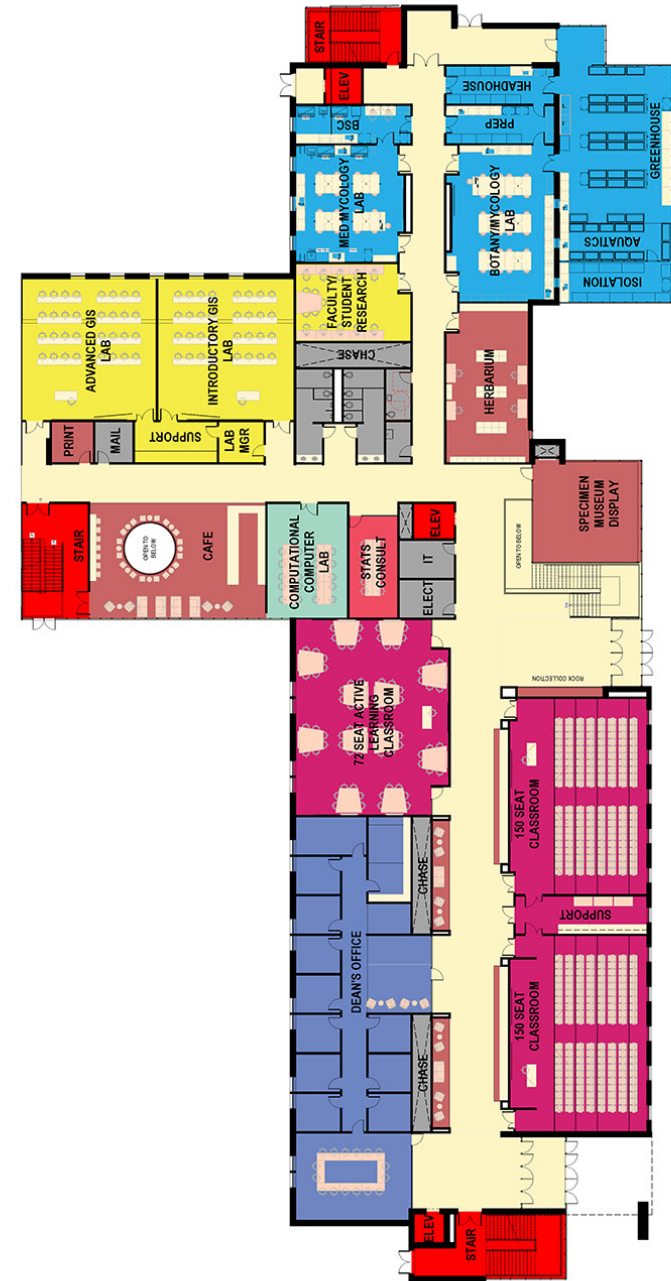


# 1 + 1 > 2

SYNERGY



## PHASE I



## PHASE II

# PHASE 2



# WHERE ARE WE HEADED?

- WHAT'S CHANGED?
- CRITERIA FOR SUCCESS

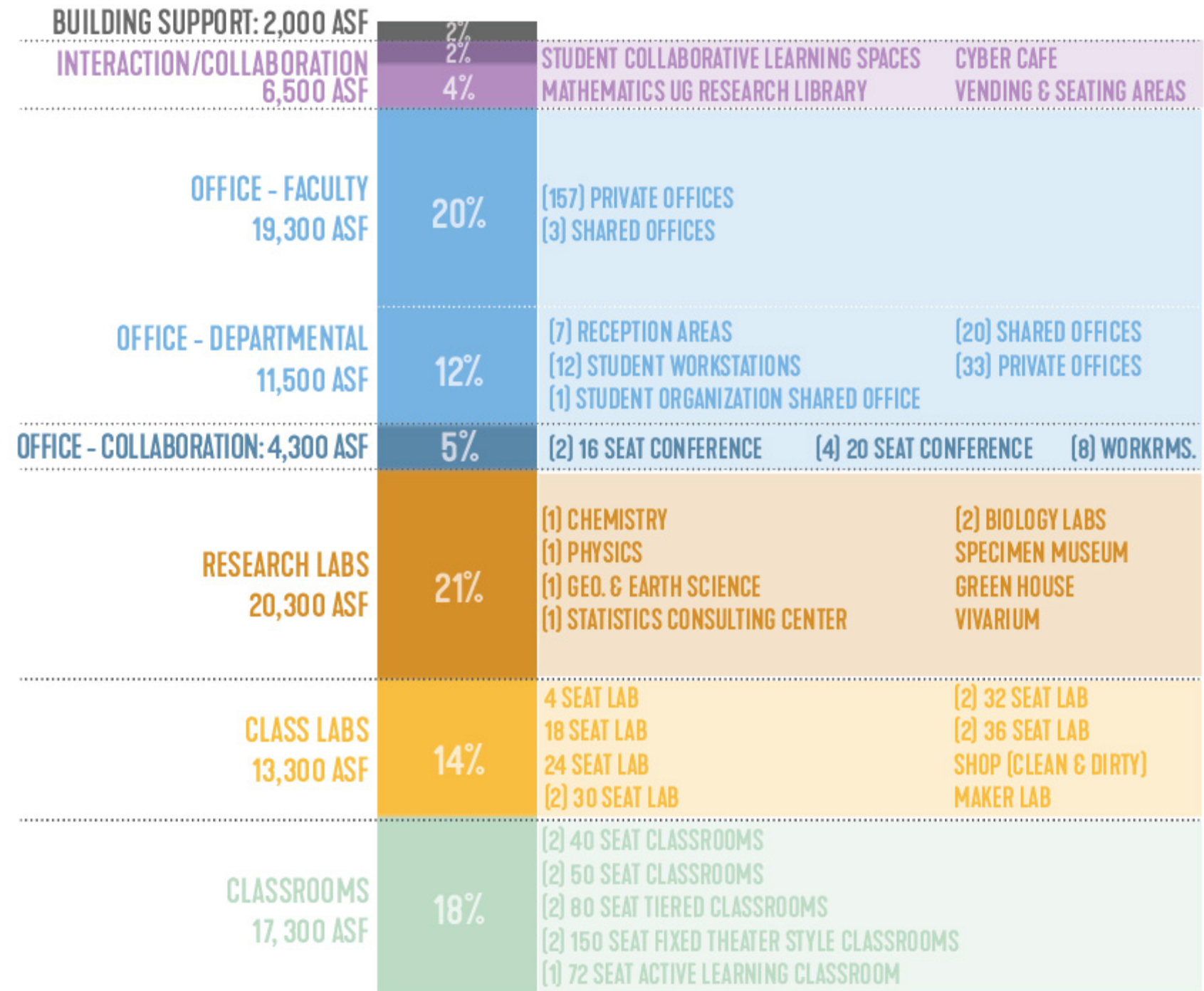


# PRAIRIE SPRING SCIENCE CENTER IN PHASES – PHASE 2 DETAIL

SEEING THE WHOLE, COMPLETING THE PROMISE

## PHASE 2—“COMMUNITY”

94,604 ASF



# SUPPORTING STEM SUCCESS

## CALIFORNIA STATE UNIVERSITY, CHICO—SCIENCE REPLACEMENT BUILDING

- Highly diverse enrollment
  - More than 50% first-time college students
- Ranked #2 on CollegeNet Social Mobility Index
  - 46% Pell Grant Recipients
  - 23% of these students move into the top half of income earners in the US
- How could a new STEM facility support and expand these successes?



# STEM PERSISTENCE FRAMEWORK

FROM PEDAGOGY TO SPACE



**Increasing Persistence of College Students in STEM**  
Mark J. Graham, Jennifer Frederick, Angela Byars-Winston, Anne-Barrie Hunter, Jo Handelsman, *Science*, Vol. 341, September 27, 2013

**Increasing Persistence in Undergraduate Majors: A Model of Support for Underrepresented Students**  
Brit Toven-Lindsey, Marc Lewis-Fitzgerald, Paul H. Barber, Tama Hasson, *Life Sciences Education*, American Society for Cell Biology, 2015

**Engaging in science practices in classrooms predicts increases in undergraduates' STEM motivation, identity, and achievement: A short-term longitudinal study**  
Christine R. Starr, Lisa Hunter, Robin Dunkin, Susanna Honig, Rafael Palomino, Campbell Leaper  
*Journal of Research in Science Teaching*, February 2020

# LEARNING COMMUNITIES

ENCOURAGING PEER-TO-PEER LEARNING AND SUPPORT



CSU CHICO



MICHIGAN STATE



CSU LONG BEACH

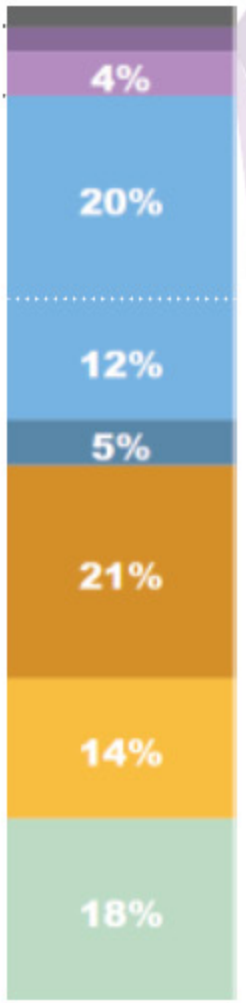


AUBURN UNIVERSITY

# SUPPORTING STEM SUCCESS

## PRAIRIE SPRINGS SCIENCE CENTER, PHASE II

INTERACTION/COLLABORATION: 6,500 ASF



### SHARED - STAFF + STUDENT

VENDING & SEATING AREA: (4) 320 ASF EACH  
CYBER CAFE: (1) 1,000 ASF

### STUDENT FOCUSED

#### MATHEMATICS UNDERGRAD RESEARCH LIBRARY

- COMPUTERS: 175 ASF
- SEATING: 160 ASF
- TABLES & CHAIRS: 450 SF

STUDENT COLLABORATIVE LEARNING SPACES: (4) 841 ASF EACH

PHASE 2 - "COMMUNITY"  
94,604 ASF

# THE UWL COMMITMENT

ACKNOWLEDGING THE DEMANDS PLACED ON FACULTY



**TEACHER**



**SCHOLAR**



**COLLEAGUE**



**ACTIVIST**



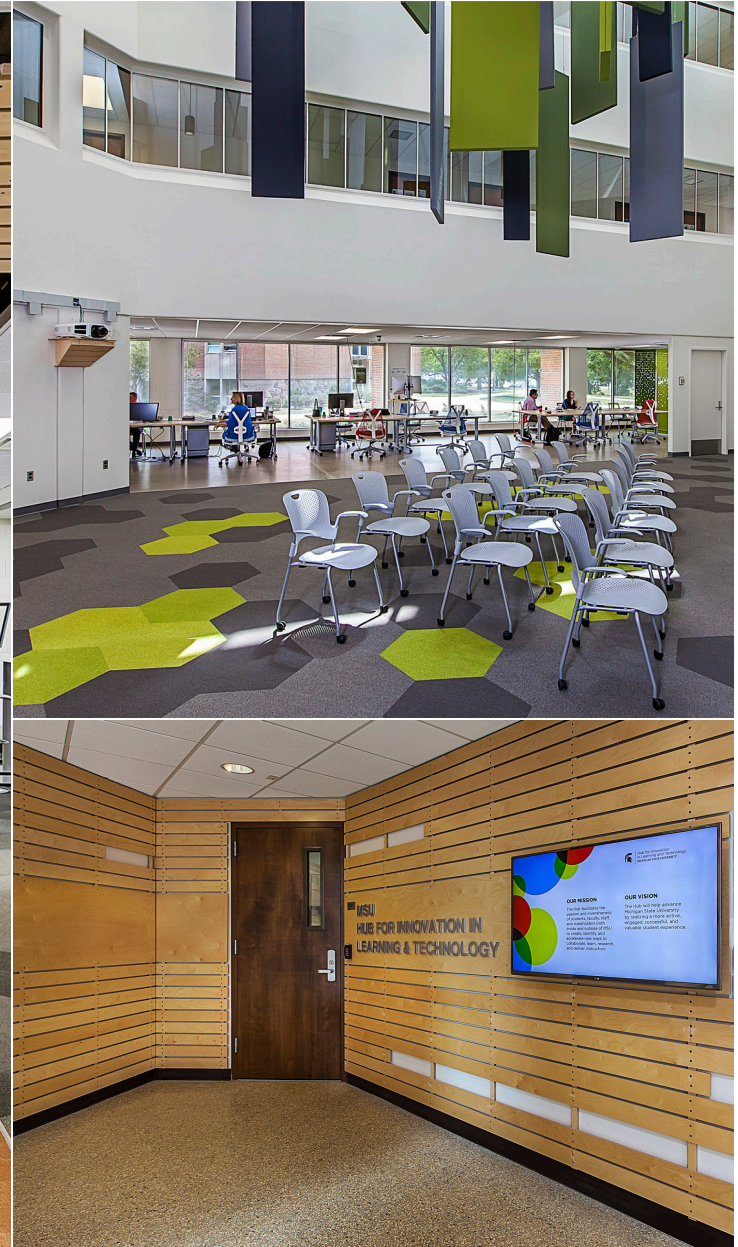
**FRONTLINE**

# FACULTY ECOSYSTEM



# HOW CAN WE SUPPORT FACULTY INNOVATION?

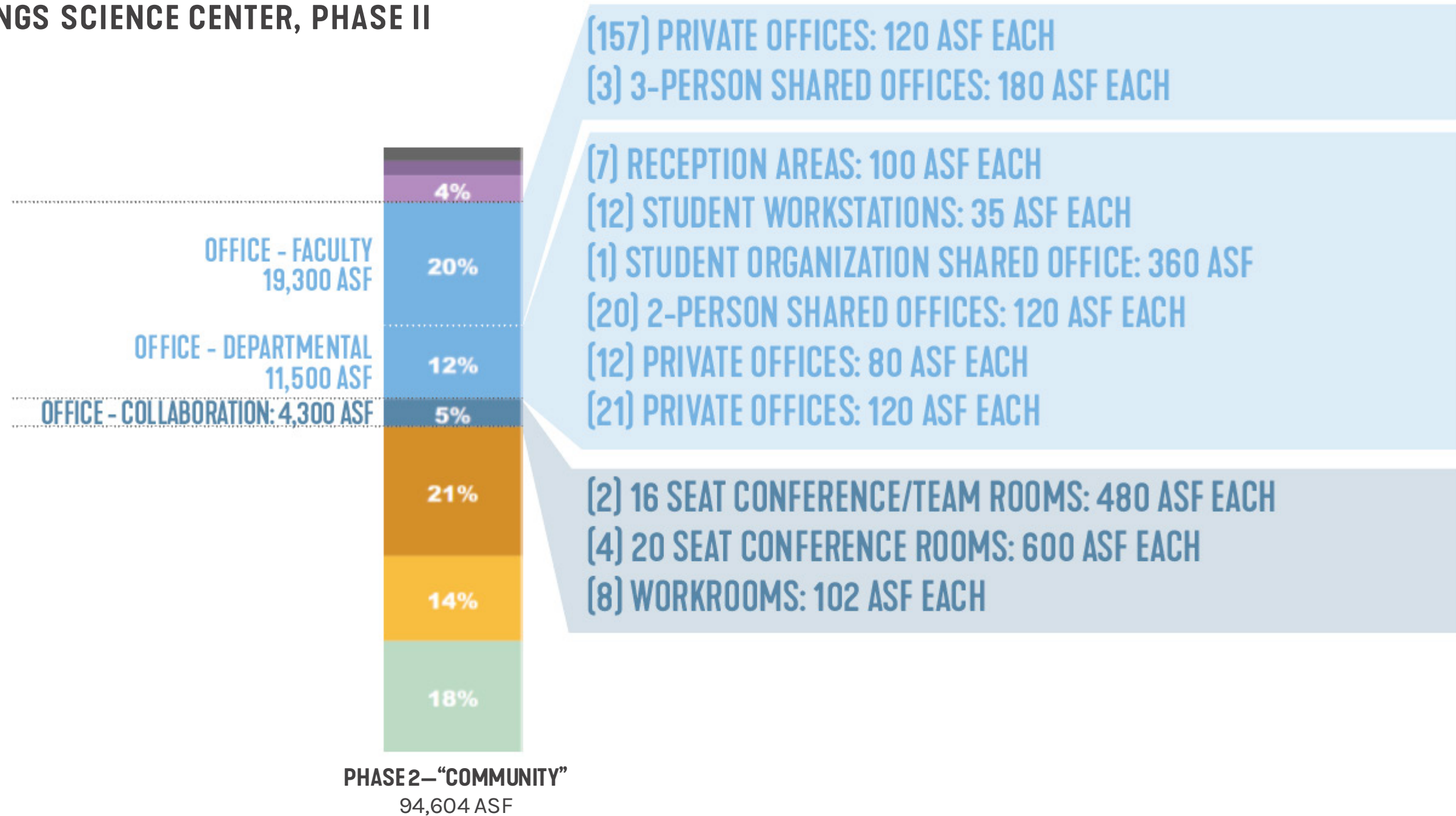
## MICHIGAN STATE UNIVERSITY HUB FOR INNOVATION IN LEARNING AND TECHNOLOGY





# SUPPORTING FACULTY

## PRAIRIE SPRINGS SCIENCE CENTER, PHASE II

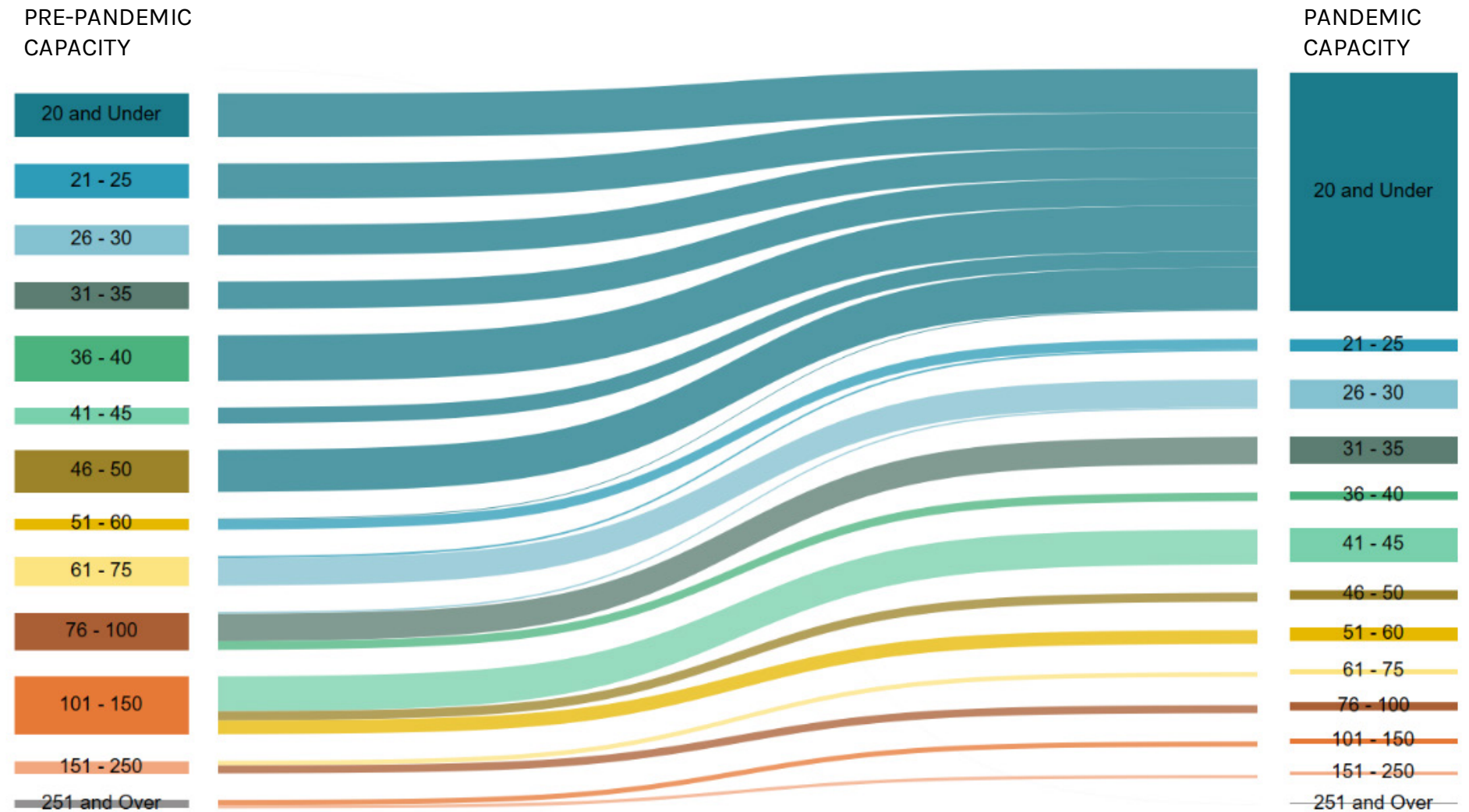




# MORE ADAPTABLE = LESS VULNERABLE

## UNIVERSITY OF TEXAS AT AUSTIN—CAMPUS REOPENING STUDY

- Small format and highly-specialized spaces have demonstrated vulnerabilities
  - Reduced seat count can't accommodate class schedule
  - limited ability to accommodate other uses
- Faculty labor/availability is limiting factor in hours of weekly instruction



# ANTICIPATING CHANGE

## AND DURABLE OUTCOMES

- Didactic content delivered through technology platforms
- Expanded, and enhanced, hybrid learning
- Ongoing challenges to deliver experiential learning
  - Class lab pedagogies and settings
- System-wide collaboration on course content
- Broadcasting, recording, streaming

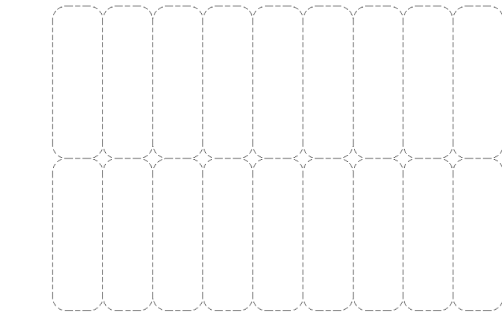


# ADAPTABLE LEARNING SPACES

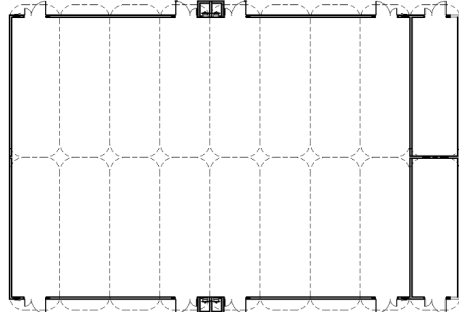
VIRGINIA TECH & JOHNS HOPKINS

## PROTOTYPE A

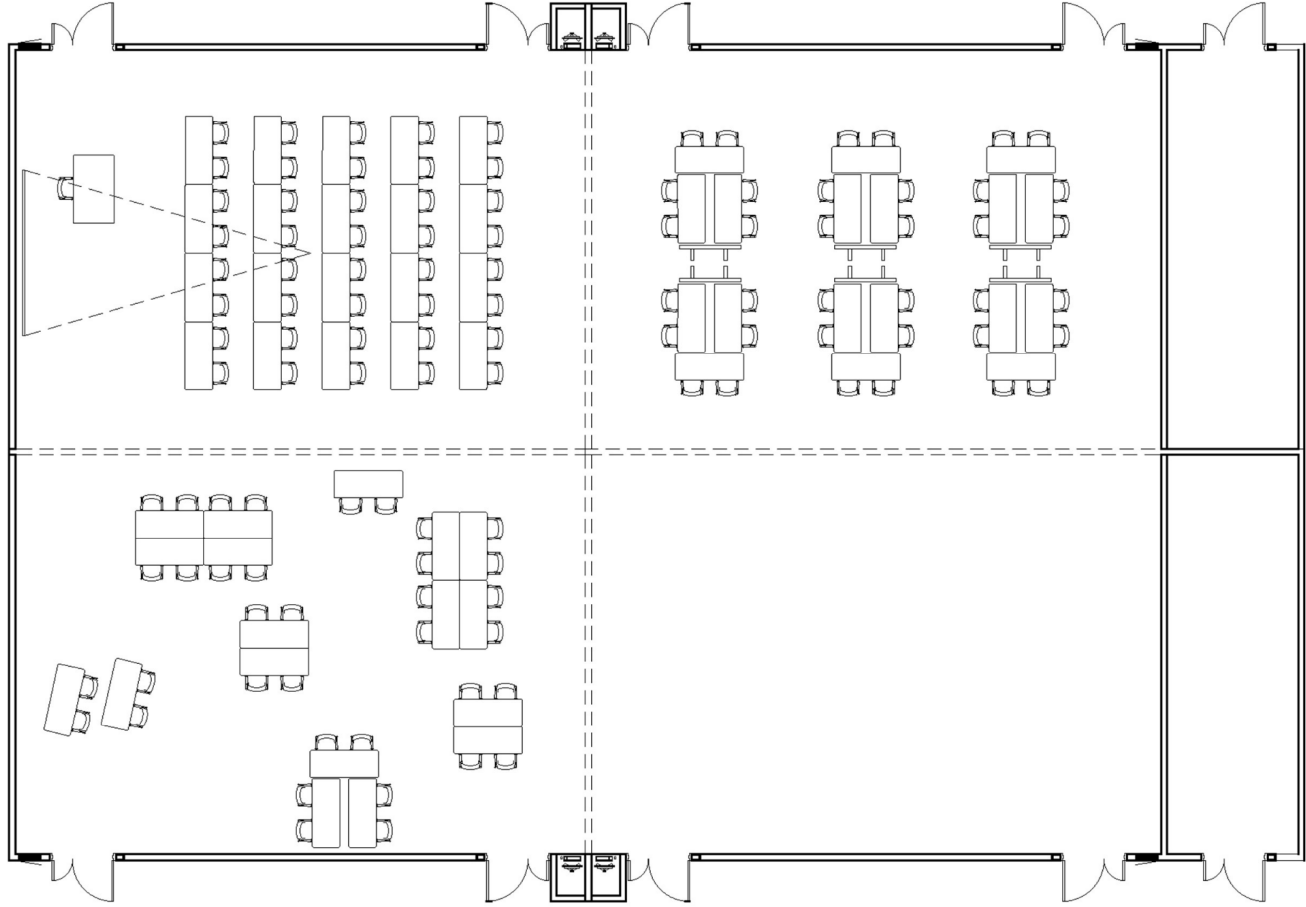
WHITE BOX HYPER-FLEX



MODULES

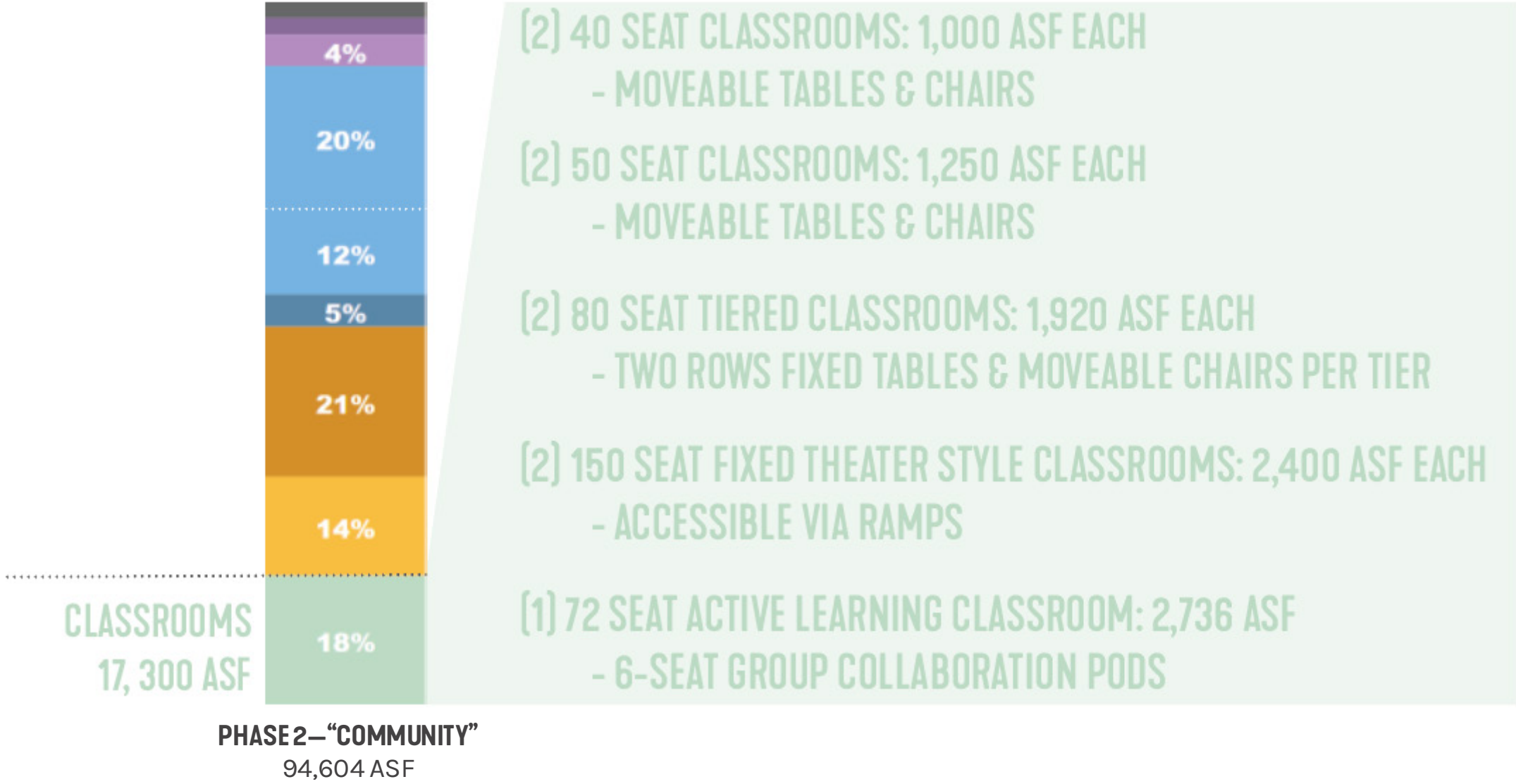


MODULAR FRAMEWORK



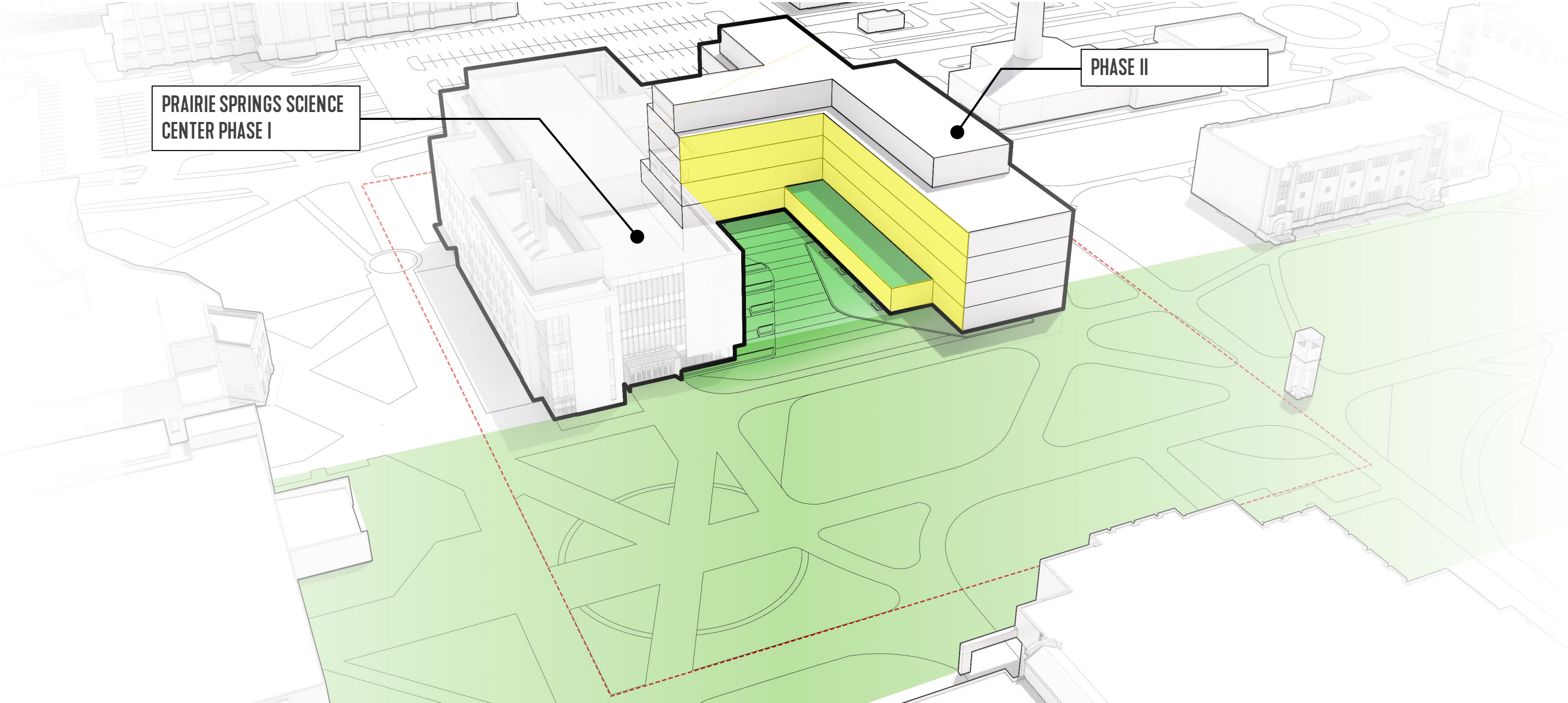
# SUPPORTING FACULTY

## PRAIRIE SPRINGS SCIENCE CENTER, PHASE II



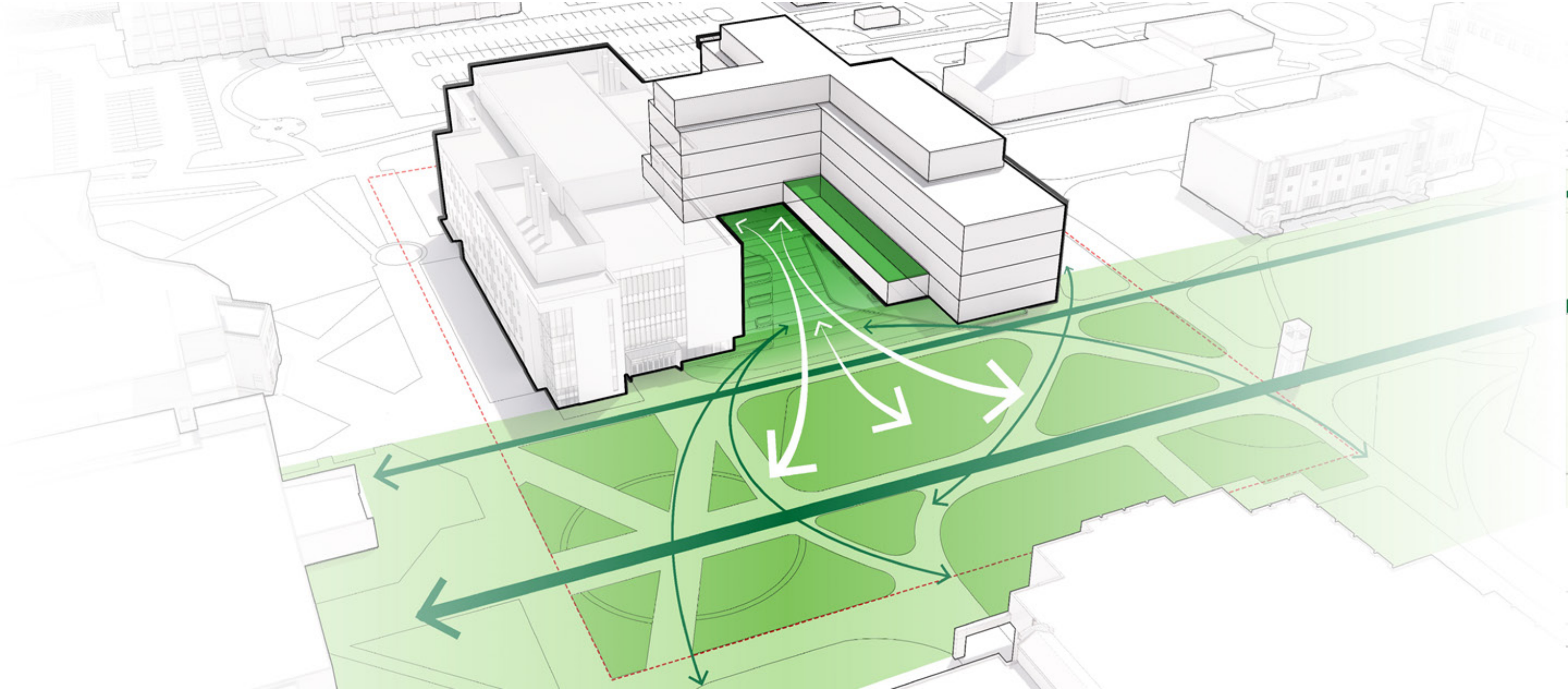
# SITE PROGRAMMING

## ACTIVATING THE COURTYARD



# SITE PROGRAMMING

## ENGAGING THE CAMPUS MALL





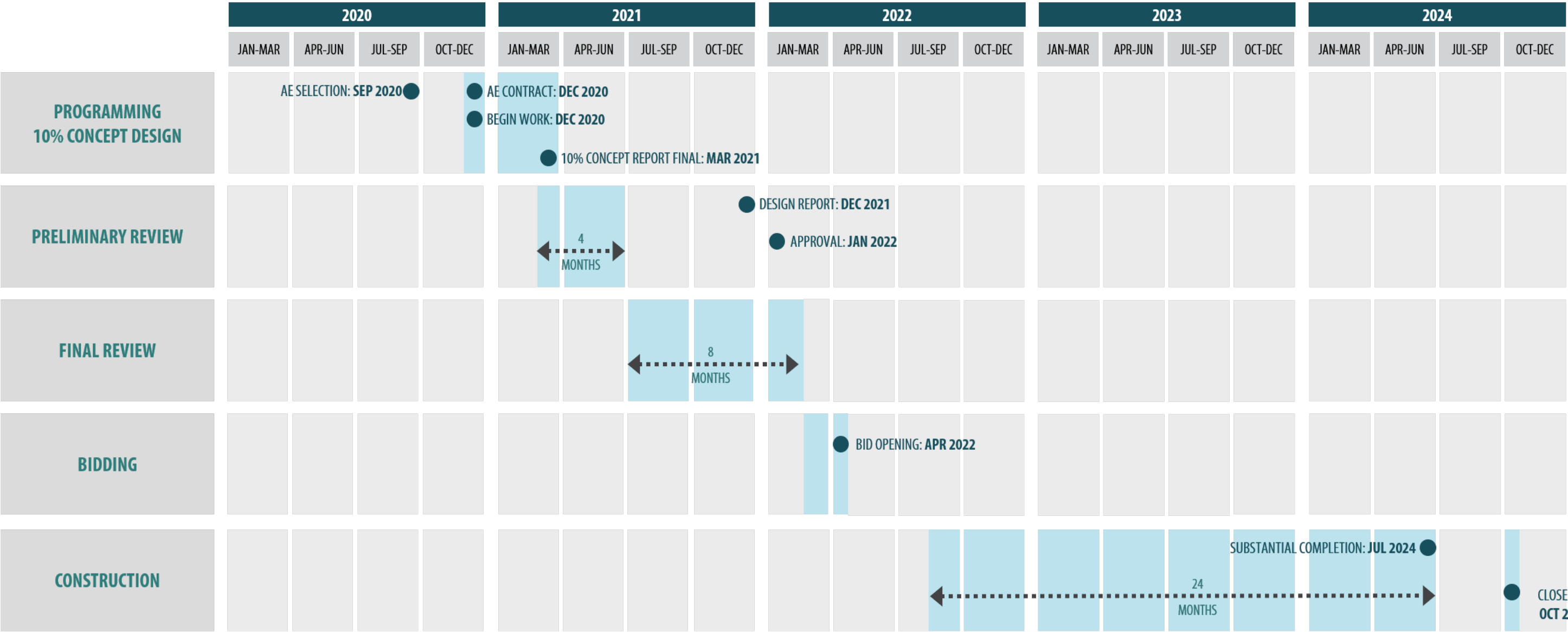
A winter scene on a university campus. The ground is covered in a thick layer of snow. In the background, there is a large, multi-story brick building with a prominent tower. Several people are walking across the snow-covered area. Bare trees are scattered throughout the scene, and a few evergreen trees are visible on the left. The sky is overcast and grey.

## NEXT STEPS

- WORK PLAN REVIEW
- JANUARY MEETING AGENDA

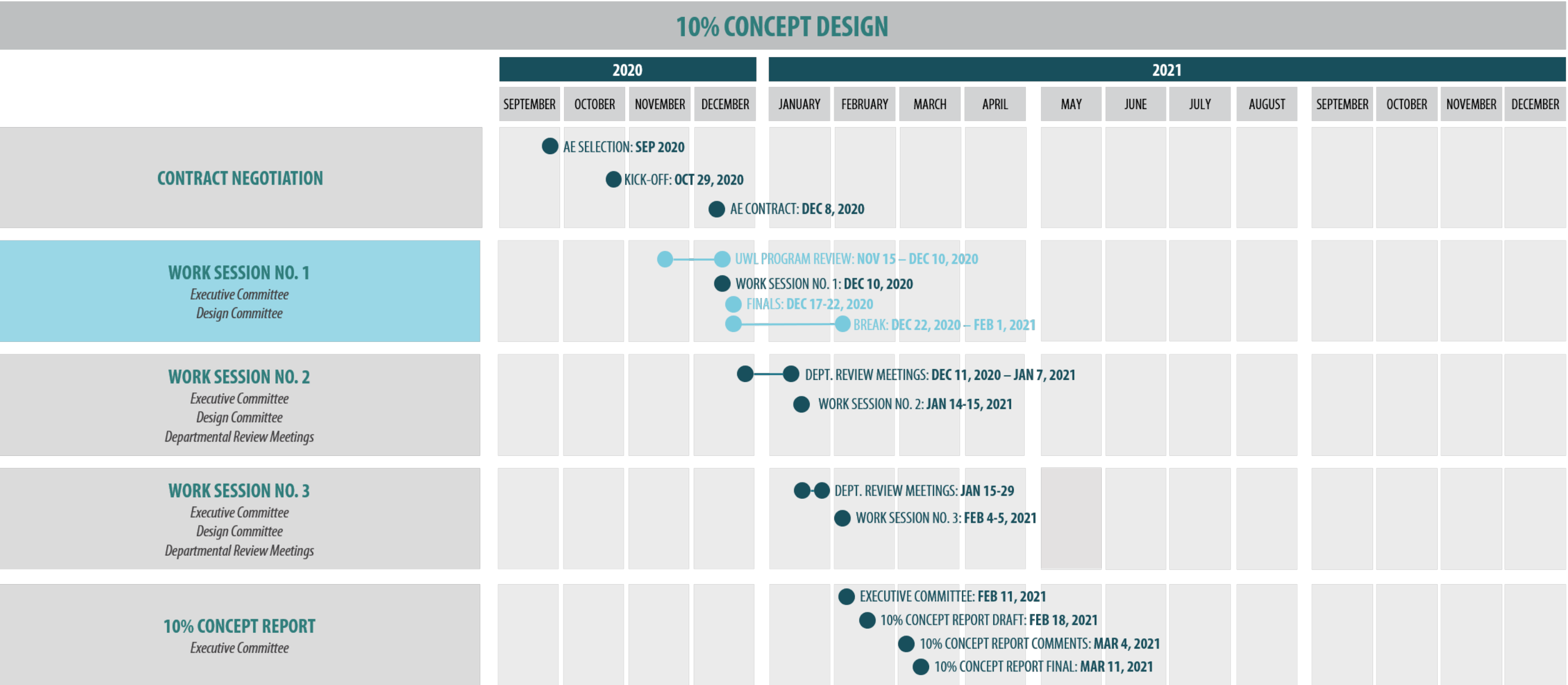
# Work Plan

## OVERALL PROJECT SCHEDULE – PRAIRIE SPRINGS PHASE II



# Work Plan

## 10% CONCEPT DESIGN



# Work Plan

PRELIMINARY REVIEW																
	2021												2022			
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
<b>WORK SESSION NO. 4</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>			● WORK SESSION NO. 4: MAR 18-19, 2021													
<b>WORK SESSION NO. 5</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>				● WORK SESSION NO. 5: APR 1-2, 2021												
<b>WORK SESSION NO. 6</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>				● WORK SESSION NO. 6: APR 15-16, 2021												
<b>WORK SESSION NO. 7</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>				● WORK SESSION NO. 7: APR 29-30, 2021												
<b>PRELIMINARY REVIEW</b>																
								● PR DOCUMENTS TO DFDM + UWL: JUN 4, 2021								
								● PR REVIEW COMMENTS TO AE: JUL 2, 2021								
								● AE REVIEW COMMENT RESPONSES: JUL 9, 2021								



# Work Plan

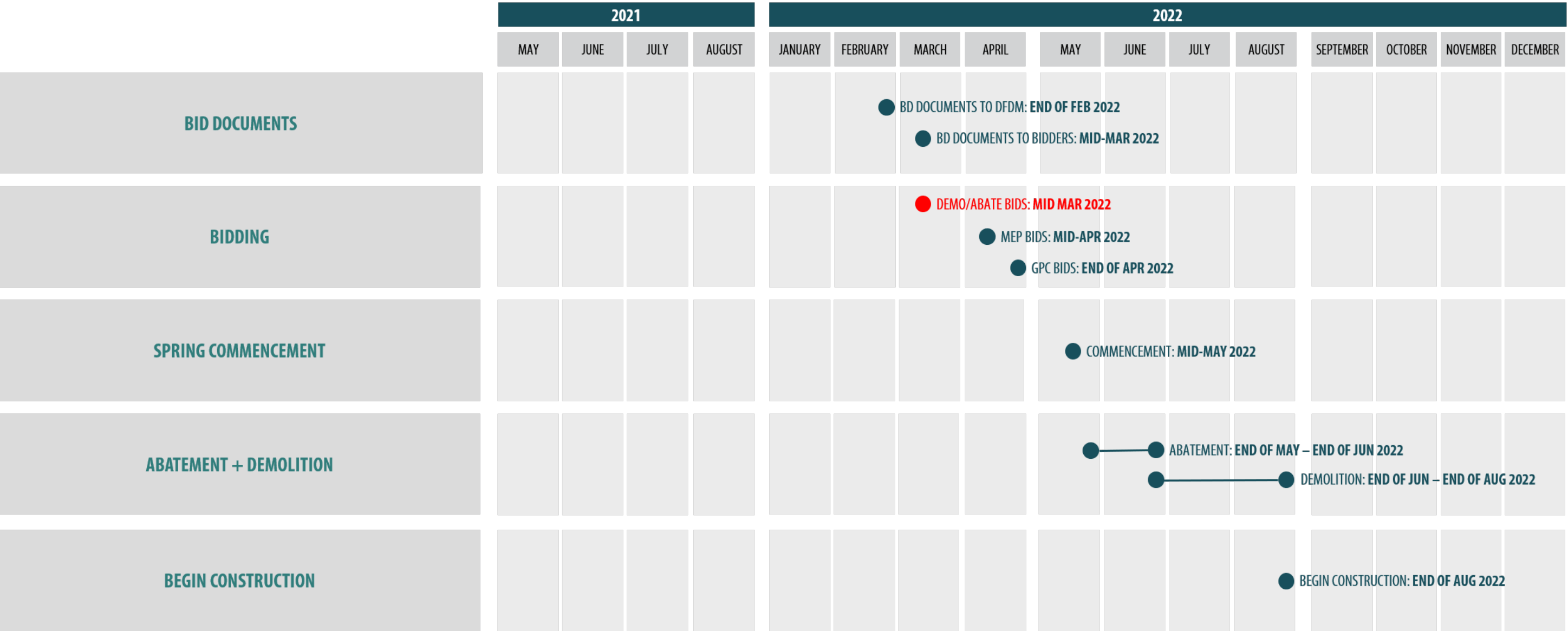
## FINAL REVIEW

	2021								2022							
	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST
<b>WORK SESSION NO. 8</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>					● WORK SESSION NO. 8: SEP 16-17, 2021											
<b>WORK SESSION NO. 9</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>						● WORK SESSION NO. 9: OCT 7-8, 2021										
<b>WORK SESSION NO. 10</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>							● WORK SESSION NO. 10: OCT 28-29, 2021									
<b>WORK SESSION NO. 11</b> <i>Executive Committee</i> <i>Design Committee</i> <i>Departmental Review Meetings</i>								● WORK SESSION NO. 11: NOV 18-19, 2021								
<b>FINAL REVIEW</b>									● FR DOCUMENTS TO DFDM + UWL: X							
										● FR REVIEW COMMENTS TO AE: X						
											● AE REVIEW COMMENT RESPONSES: X					

FINAL REVIEW  
8 MONTHS

# Work Plan

## BIDDING + CONSTRUCTION



# Next Meeting Agenda

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- **Verify each Departments' Programs**
- **Sustainability Options**
- **Review Design Opportunities**
- **Meeting Dates:**
  - **Departmental Program Sessions**                      **December 11, 2020 – January 7, 2021**
  - **Executive Committee**                                      **January 14 or 15, 2021**
  - **Design Committee**    **January 14 or 15, 2021**