PREVIEW
OVERVIEW

Planning for Research & Education Visioning Information Explorer WebApp

Strategic Facilities Visioning
UNIVERSITY OF COLORADO **BOULDER**

TABLE OF CONTENTS

PRE**VIEW** is a dynamic tool integrated with the university mission to inform capital planning discussions and decisions

PRE**VIEW** IS...

... an asset to make informed decisions and facilitate conversations
… a place for testing ideas
… designed to help align facilities initiatives w/ other campus goals

PRE**VIEW** IS **NOT**…

... a crystal ball
... intended to provide specific space solutions
… designed to remove the need for strategic discussion

PRE**VIEW** was developed after a year of SFV engagements

PHASE ONE

DEEP DIVE

MISSON

Understanding the goals and mission of the university and departments

PROCESS

The Deep Dive phase consisted of three on site exploratory workshops with more than two dozen units to better understand the strategic direction of each department

FINAL DECK

PHASE TWO

SCENARIO PLANNING

MISSON

Defining spaces that realize the future vision of CU Boulder

PROCESS

Visionaries were divided into six multi-disciplinary teams that met over three workshops to address six key themes derived from the Deep Dive process

FINAL DECK

PHASE THREE

TOOL DEVELOPMENT

MISSON

Creating the methodology and framework of an interactive tool

PROCESS

Worked with CU Boulder experts to centralize data and create a digital frame- work which visualizes facility investment options based off recommendations from Scenario Planning teams

PHASE FOUR

TOOL IMPLEMENTATION

MISSON

Producing a dynamic tool

PROCESS

Applied tool framework to visual GIS database and refine calculations based on visionary feedback

OUTCOMES

In the Deep Dive phase, eight themes derived from the Chancellor's Strategic Imperatives were used to sort and filter stakeholder feedback. Using this framework, 29 topics were discovered, then compressed into 12 key focus areas, laying the foundation for six Scenario Planning teams.

The Scenario Planning phase culminated in the development of building templates for eight unique building typologies across CU Boulder's campus. Each building template applied a mixed-use approach to campus programming to facilitate an enhanced experience for all students, faculty, and staff.

DEEP DIVE

DEEP DIVE 1
Chancellor's Strategic Imperatives

DEEP DIVE 2
Strategic Facilities Visioning Themes

DEEP DIVE 3
29 Topics Distilled to 12 Key Focus Areas

SCENARIO PLANNING

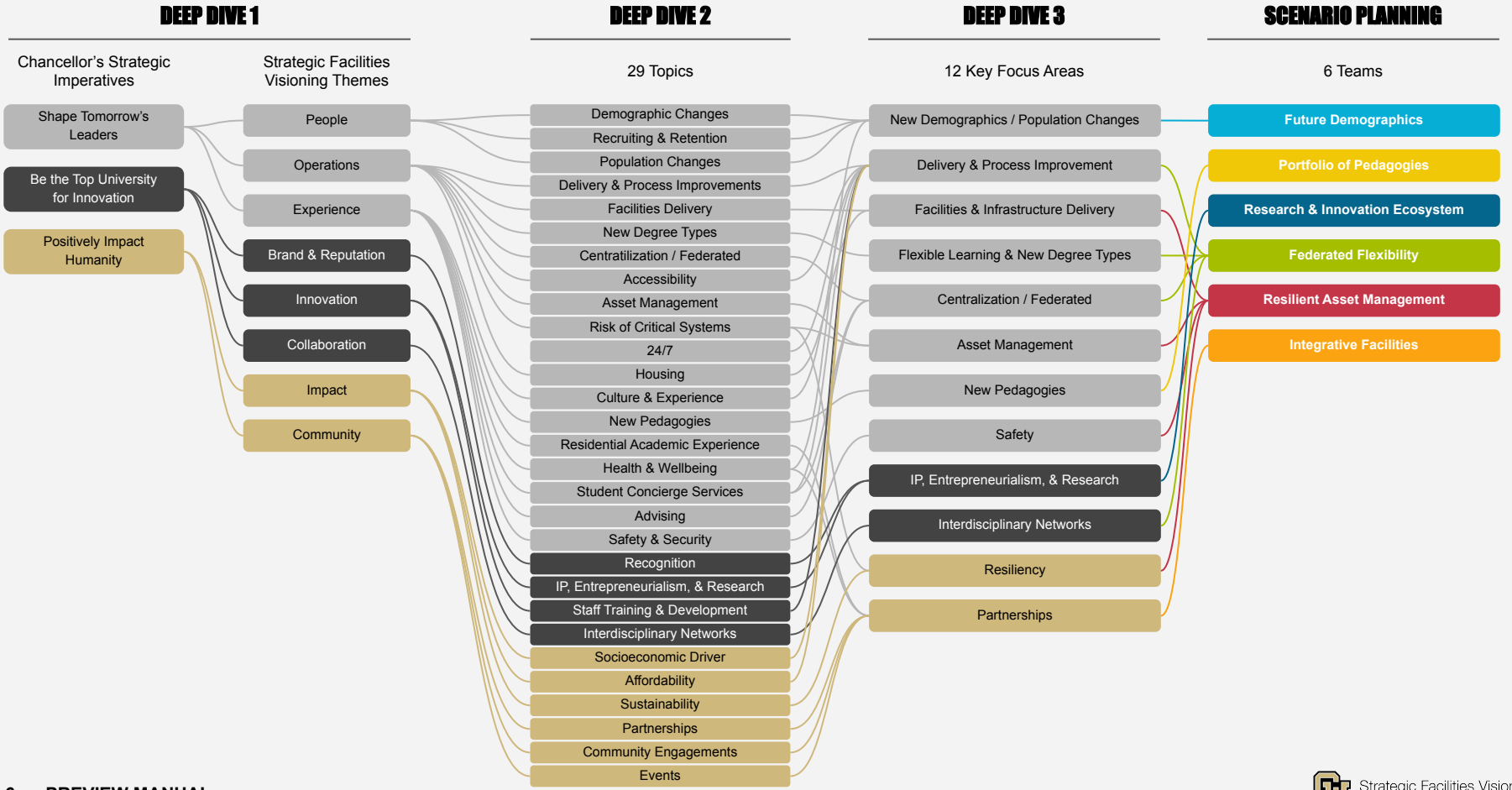
WHAT INFRASTRUCTURE DO WE NEED TO ACHIEVE OUR VISION?
6 Teams

HOW DO WE APPLY THIS TO THE CAMPUS SYSTEM?
6 Teams

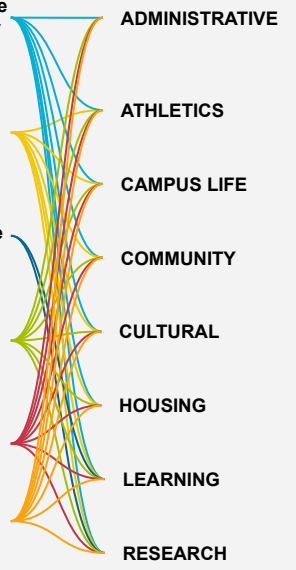
HOW IT WILL BE APPLIED IN THE PLANNING TOOL?
6 Teams

BUILDING TEMPLATES

- ADMINISTRATIVE
- ATHLETICS
- CAMPUS LIFE
- COMMUNITY
- CULTURAL
- HOUSING
- LEARNING
- RESEARCH


DEEP DIVE 1
DEEP DIVE 2
DEEP DIVE 3
SCENARIO PLANNING
Chancellor's Strategic Imperatives
Strategic Facilities Visioning Themes
29 Topics
12 Key Focus Areas
6 Teams
Shape Tomorrow's Leaders
Be the Top University for Innovation
Positively Impact Humanity
People
Operations
Experience
Brand & Reputation
Innovation
Collaboration
Impact
Community
Demographic Changes
Recruiting & Retention
Population Changes
Delivery & Process Improvements
Facilities Delivery
New Degree Types
Centratilization / Federated
Accessibility
Asset Management
Risk of Critical Systems
24/7
Housing
Culture & Experience
New Pedagogies
Residential Academic Experience
Health & Wellbeing
Student Concierge Services
Advising
Safety & Security
Recognition
IP, Entrepreneurialism, & Research
Staff Training & Development
Interdisciplinary Networks
Socioeconomic Driver
Affordability
Sustainability
Partnerships
Community Engagements
Events
New Demographics / Population Changes
Delivery & Process Improvement
Facilities & Infrastructure Delivery
Flexible Learning & New Degree Types
Centralization / Federated
Asset Management
New Pedagogies
Safety
IP, Entrepreneurialism, & Research
Interdisciplinary Networks
Resiliency
Partnerships
Future Demographics
Portfolio of Pedagogies
Research & Innovation Ecosystem
Federated Flexibility
Resilient Asset Management
Integrative Facilities

	WHAT INFRASTRUCTURE DO WE NEED TO ACHIEVE OUR VISION?	HOW DO WE APPLY THIS TO THE CAMPUS SYSTEM?	HOW IT WILL BE APPLIED IN THE PLANNING TOOL?
Population			
Future Demographics	Spaces that support our **growing diverse population**	Student groups and shared/dedicated and time spent	Ratio of **student support space types by building typology by demographics**
Modifiers			
Portfolio of Pedagogies	Spaces that support our **student educational journey**	Types of learners and learning / time spent by space types	Ratio of **learning space types by building typology**
Research & Innovation Ecosystem	Spaces that enable a **flourishing research enterprise**	Activities and space types / general profile by types	Ratio of **research space types by building typology and core facility clusters**
Federated Flexibility	Services that create a world class **efficient campus**	Service types / optimization solutions and clusters of services	Space **utilization targets and optimization strategies** mix support services by building typologies
Application			
Resilient Asset Management	Services that create a world class **campus experience**	Themes / mixed use types and space makeup	**Programmatic needs by campus neighborhoods**
Integrative Facilities	Infrastructure that **protects our people and places**	Scale framework / needs by typology	**Resiliency initiatives and policy recommendations** by facility type

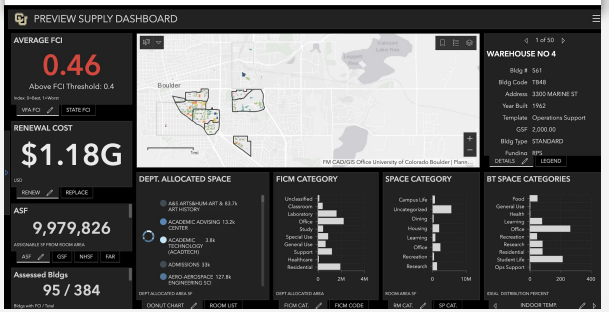


MODULE DETAILS - OVERVIEW

SUPPLY DASHBOARD

Understand the true capacity and condition of campus

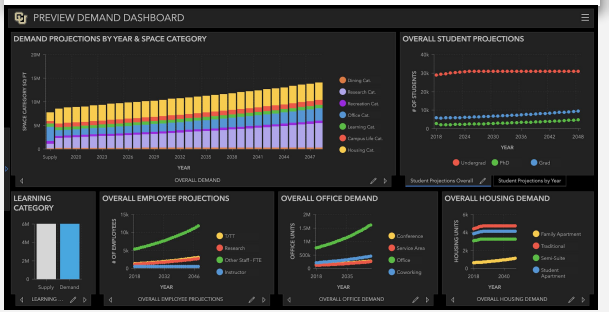
"What does our campus have today?"



DEMAND DASHBOARD

Forecast facilities needs based on population and Scenario Planning process

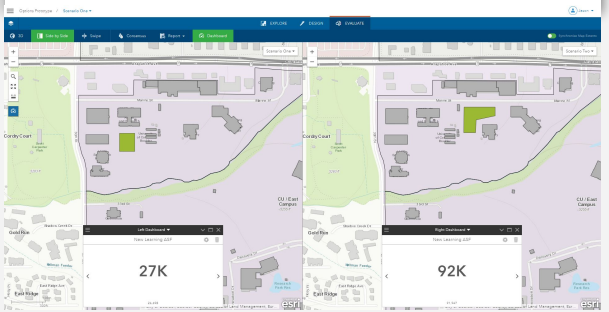
"What are our requirements and opportunities?"



OPTIONS TOOL

Anticipate and respond to a variety of future facilities requests

"How can we test priorities and assess initiatives?"



MODULE DETAILS - DATA SOURCES

PRE**VIEW** combines and visualizes university data to show how people, goals, and operations affect current and future campus environments. The data used is native to the university, publicly available, and updated annually.[1]

SUPPLY DASHBOARD

Reference data is maintained by individual “data providers” and updated once a year by CU Boulder’s GIS team.[1]

DEMAND DASHBOARD

The seven space categories are visualized in addition to employee and staff projections. All components are driven by current and future student enrollment projections.

OPTIONS TOOL

Demand calculations drive the process for developing properly sized space requirements, which enables planners to test requests on different parts of campus to find the best fit based on department location and adjacency and total ASF by FICM code.

[1] *Original PRE**VIEW** uses 2019 data*

MIXED-USE BUILDING TEMPLATES

All campus buildings were assigned a mixed-use building template based on their primary function. The following templates promote an understanding of how to best facilitate an enhanced experience for all students, faculty, and staff.

ADMINISTRATIVE
Administrative department workplaces and home bases

ATHLETICS
Athletic, student-athlete support and external partnership facilities

CAMPUS LIFE
Facilities that focus on dining, support, social, recreation and the overall aspect of being a student in the campus community

COMMUNITY
On and off-campus locations which invite the community in for clinics, classes, work-place, health, and other functions

CULTURAL
Exhibit, event and auditorium spaces that span from performance to conference to community buildings

HOUSING
On-campus housing and dining solutions for students, faculty, and staff

LEARNING
Shared flexible classrooms, class labs, immersive and practice spaces, study space and workplace environments

RESEARCH
Generic, flexible labs, classrooms and workplaces that enable collaborative research and learning in research

02

01 THE BASICS

02 SUPPLY DASHBOARD

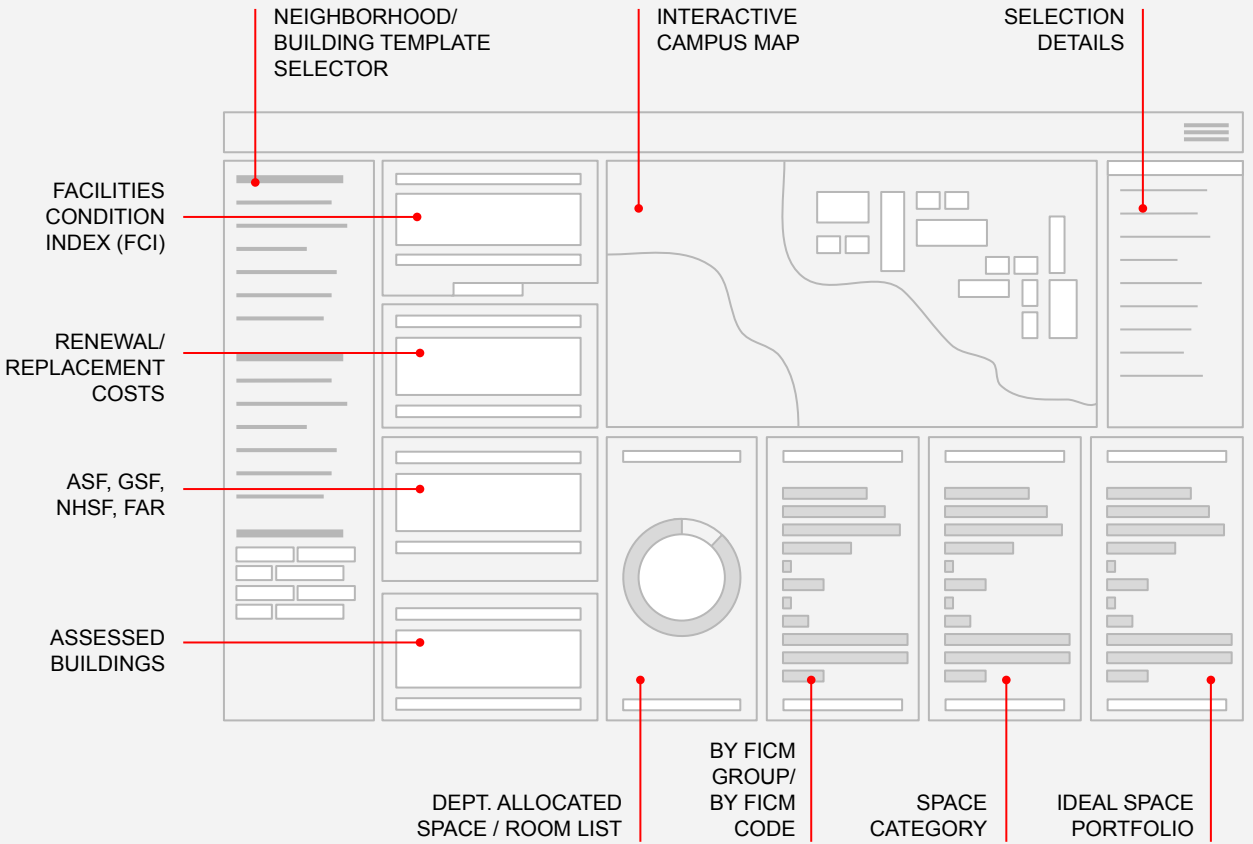
03 DEMAND DASHBOARD

04 OPTIONS TOOL

OVERVIEW

Explore the current state of CU Boulder by campus(s), neighborhood(s), or building(s).

Department Allocated Space / Room List, FICM Category / Code, Space / Room Category, Building Template Space Categories use room data. Card's content is filtered or adjusted based on a selection(s).



SPECS
Module built using Operations Dashboards, and hosted in ESRI Enterprise GIS Portal Administered by CU Boulder GIS team

03

01 THE BASICS

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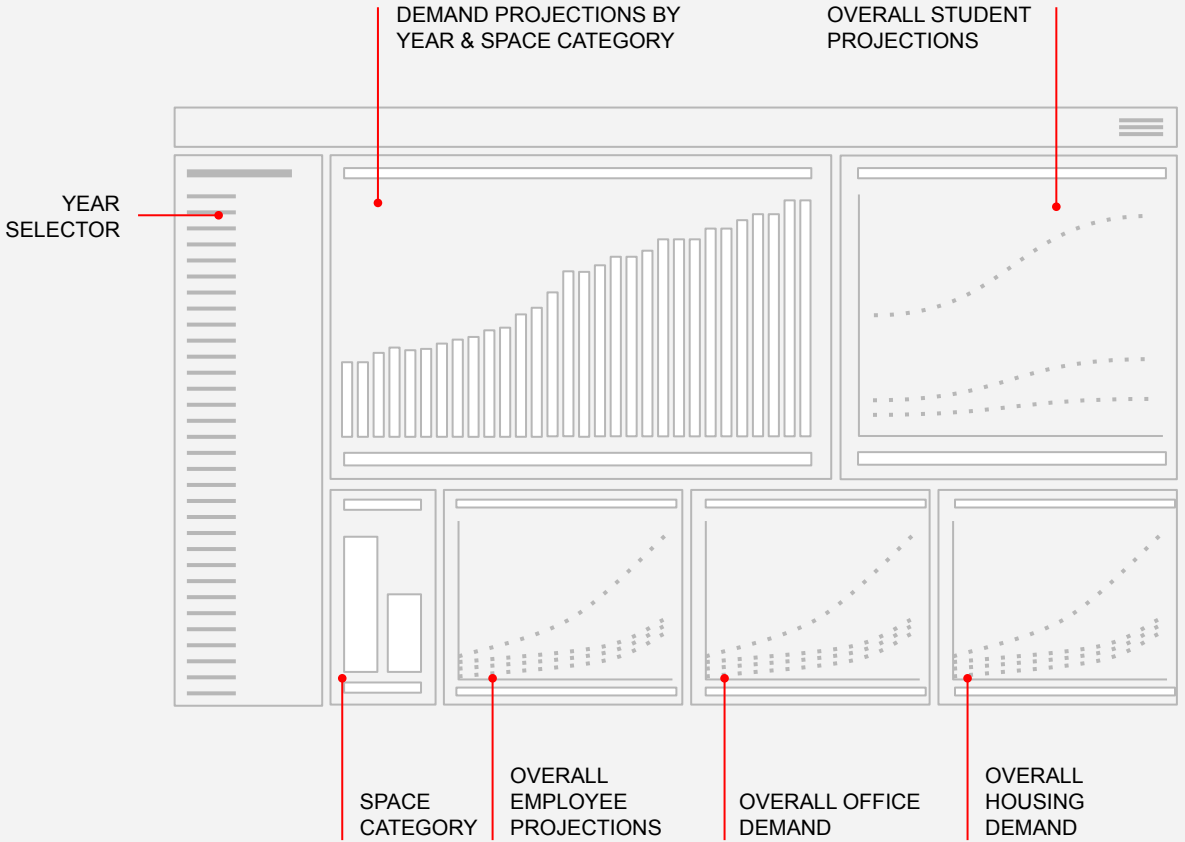
04 OPTIONS TOOL

DEMAND OVERVIEW

Uncover current deficits and future forecast of facilities needs based on population and scenario planning process.



04

01 THE BASICS
02 SUPPLY DASHBOARD
03 DEMAND DASHBOARD
04 OPTIONS TOOL

OPTIONS TOOL

The Options Tool is designed to build and compare multiple scenarios. Whether investigating scale, mixed-use make-up, or location, the tool is designed to help planners make informed decisions by comparing numerous variations.

POPULATION INPUTS

Population is the key input of all scenarios, collecting multiple data sources allows for a full picture when running the Options Tool calculator

Actual Inputs

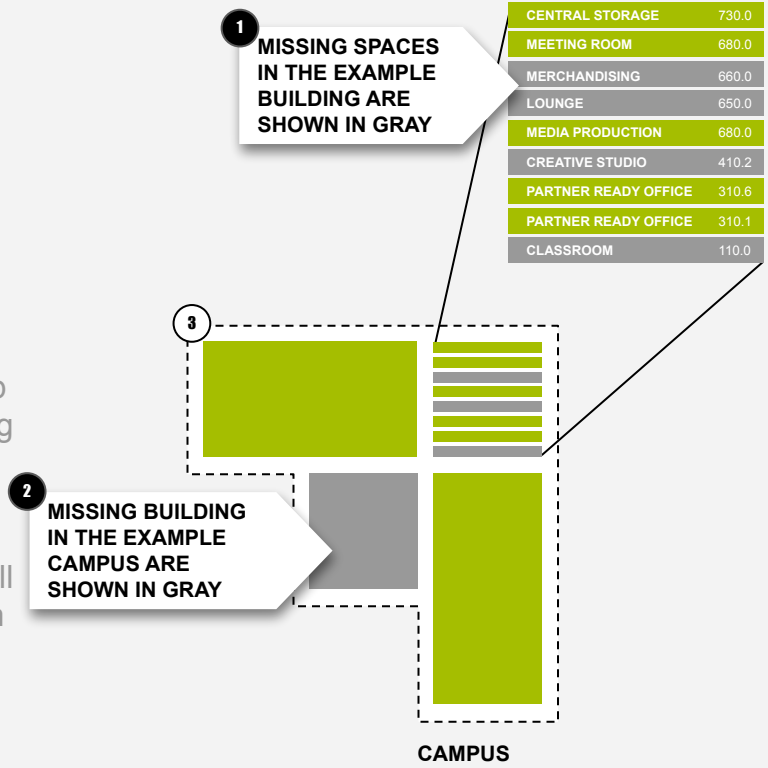
- Office of Data Analytics (ODA) provides yearly population data

Aspirational Inputs

- Provided by individual department or unit, these reflect target headcounts

NEIGHBORHOOD GAP ANALYSIS

The SFV process produced the ideal composition of neighborhoods to create the best experience for all students, faculty, staff, and visitors. The options tool employs a neighborhood gap analysis to determine missing space types in each neighborhood inquiry. Using this tool allows planners to determine if a new project will be meeting a need in a given neighborhood.



1

BUILDING LEVEL

We know the types of spaces that belong in each building from Scenario Planning. Now, we can look at each building on campus and point out what spaces are not included that should be considered during a renovation or new construction.

2

NEIGHBORHOOD LEVEL

We also know what building types should be included in each neighborhood to be a fully built out system.

3

PLANNING DECISION

Combined, we know all the missing space types in a neighborhood and missing building templates. Planners can see fit of new building types on a campus and combine with other building templates to meet all neighborhood needs.