



UC San Diego's North Torrey Pines Living & Learning Neighborhood

Maintaining Life and Learning Continuity
Through a Pandemic

HKS

A Resilient Approach to Social Wellbeing on a Live-Learn Campus: Lessons from the Field

Program Summary/Description

Using UC San Diego's North Torrey Pines Living and Learning Neighborhood (a 2,000-bed mixed-use college) as a case study, we share design strategies, rooted in the fundamentals of creating a strong sense of community and wellness, that also provided resiliency in an unexpected health crisis. We will explore outcomes that are currently being studied in a unique research coalition between the design team and the University to learn how lessons can be applied to future living and learning communities.

Learning Objectives:

Learn about the UC San Diego College System and how it supports goals for student experience, diversity and access and community enrichment.

Gain an understanding of how design strategies for the North Torrey Pines Living and Learning Neighborhood focused on health and wellness and community.

Learn how design strategies that provide structural resilience in both normal and pandemic times, can also provide physical and emotional resilience of the student resident population.

Presentation Outline

The presentation outline is as follows:

Nathan Bulter, HKS Architects, Regional Design Director (4 minutes)

Presenter introductions

Interactive strategy – Polling and discussion of questions to be determined

Lakshmi Chilukuri, UC San Diego, Provost of Sixth College (8 minutes)

Lakshmi will provide a history and broad overview of UC San Diego system of Colleges, each with its own residential neighborhood, general education curriculum, support services and distinctive traditions.

She'll share how the College system vision to provide unique opportunities to live and study alongside people with diverse interests, backgrounds and educational paths informs and strengthens the University's first-ever Strategic Plan.

Thom Greving, HKS Architects, Regional Design Director (8 minutes)

Thom will share an illustrated discussion of the North Torrey Pines Living and Learning Neighborhood Design and its foundational focus on social and environmental health and wellness and alignment with the UC San Diego's Transformational Goals.

Thom will share the programmatic complexities as well as design strategies to address health and wellness as well as building community.

Dr. Upali Nanda – Director of Research, HKS Architects (8 minutes)

Dr. Nanda will explain how a required research deliverable as a part of the architectural design process led to the project becoming a "living lab" to study the effectiveness of design strategies aimed at increasing student wellbeing through creating community.

She will share how these strategies integrate with NTPLLN's founding design principles of health and wellness to translate into structural resilience in both normal and pandemic times, as well as physical and emotional resilience of the resident population.

Elinor Owen – UC San Diego Student and Research Fellow

Elinor will explain her role as resident research fellow working during the pandemic to support the research initiative.

Presenters



Nathan Butler

FAIA, LEED AP

HKS

Principal
Regional Director



Dr. Upali Nanda

PhD, Assoc. AIA, EDAC, ACHE

HKS; CADRE

Principal
Regional Director



Lakshmi Chilluri

LEED AP BD+C

UC San Diego

Provost, Sixth
College



Thom Greving

FAIA, LEED GA

HKS

Design
Director



Elinor Oren

UC San Diego

Live-Learn Lab
Fellow, CADRE

What does Social Resilience Mean to You?



What drives social connection

- Ability to make new friends
- Ability to hang out with my friends
- Feeling like I belong
- Ability to interact
- Finding my community
- Being healthy
- Doing well in academics

What were students most concerned about before the pandemic- around social connection



What were students most concerned about during the pandemic- around social connection



What were students
most concerned
about during the
pandemic



UC San Diego Campus

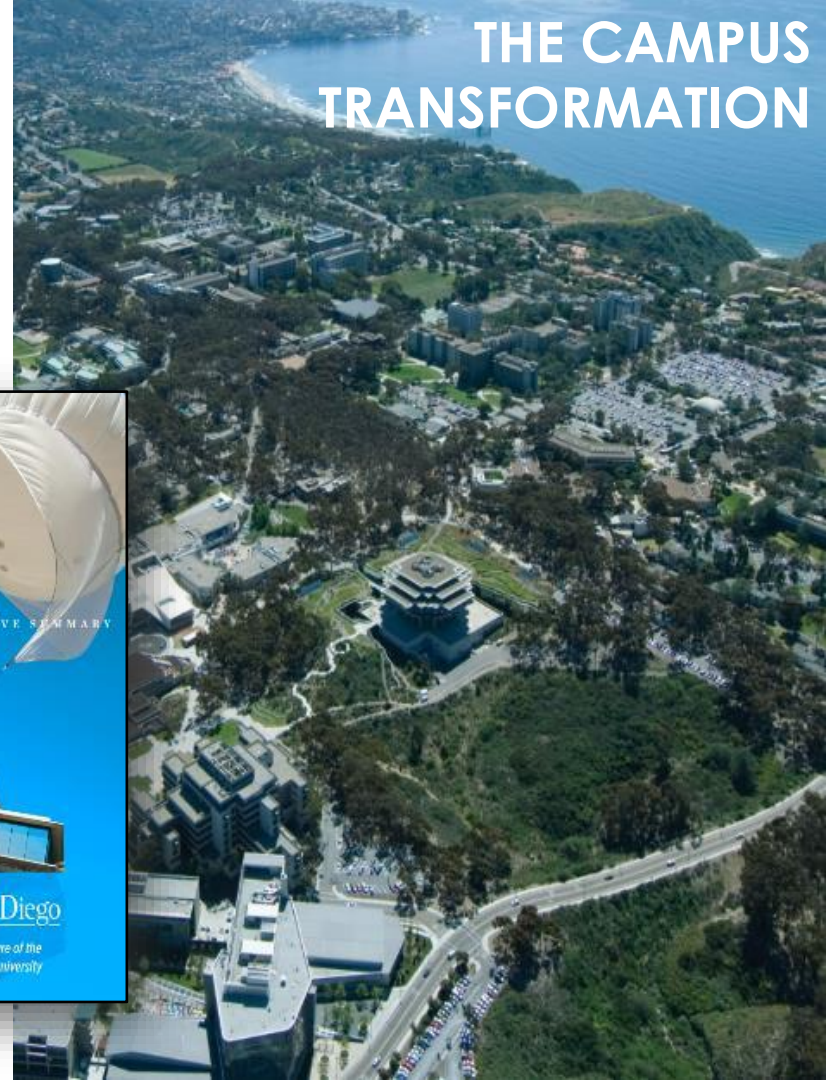
- 1,163 Acres
- Fall '20 Enrollment of 40,483 (31,842 undergraduate and 8,641 graduate/professional)
- 18 Million Square Feet of Space (600+ Buildings)
- Over 16,000 Beds
- 7 Colleges (with 8th in construction)



THE CAMPUS TRANSFORMATION

“The campus is on its way to becoming a true learning-living environment and a destination for art, culture, recreation and world-class patient care.”

- *Enhancing the Student Experience*
- *Sparking Research and Innovation*
- *Enriching the Campus Community*





Why We Need Neighborhoods

Mental Health

Rate of depression among college students has increased since the start of the pandemic.

63%

of students felt lonely in the past year

Source: National College Health Assessment, Fall 2018, Anxiety and Depression Association of America

Physical Health & Wellbeing

37%

of students are reported as overweight or obese

Source: National College Health Assessment, Fall 2018, Anxiety and Depression Association of America

Loneliness

Source: UCSD Student Life

Students with a documented anxiety disorder

**Appx
1 in 4**



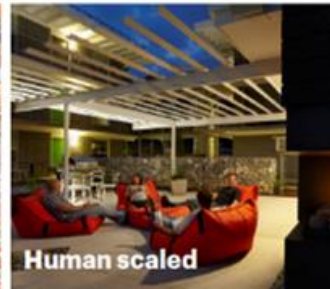
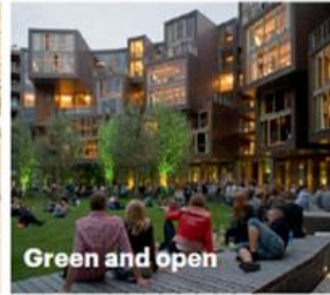
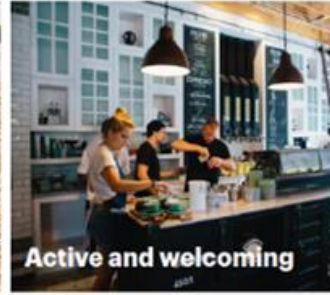
Our population is more socially isolated than ever before.

UC San Diego Sixth College Visioning Session Results

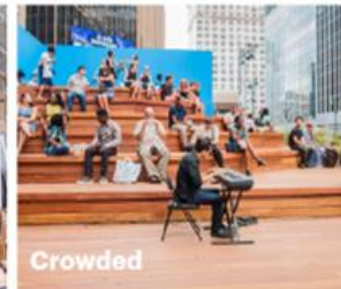


UC San Diego Sixth College Visioning Session Results

Qualities of places we **Do** like...



Qualities of places we **Don't** like...



UCSD North Torrey Pines Living and Learning Neighborhood Goals & Objectives

- Make a Neighborhood
- Leverage Context
- Activate the Public Life
- Create Sustainable Mobility
- Instill Resilience
- Promote the Strategic Vision
- Nurture Academic Excellence

The UC San Diego South Campus Master Plan, 2018

Highly Qualitative Detailed Project Program

- 01** Integrated Neighborhood
- 02** Environmental Responsibility
- 03** Student Wellness
- 04** Hospitality Approach
- 05** Advanced Learning Environments
- 06** Research Requirement

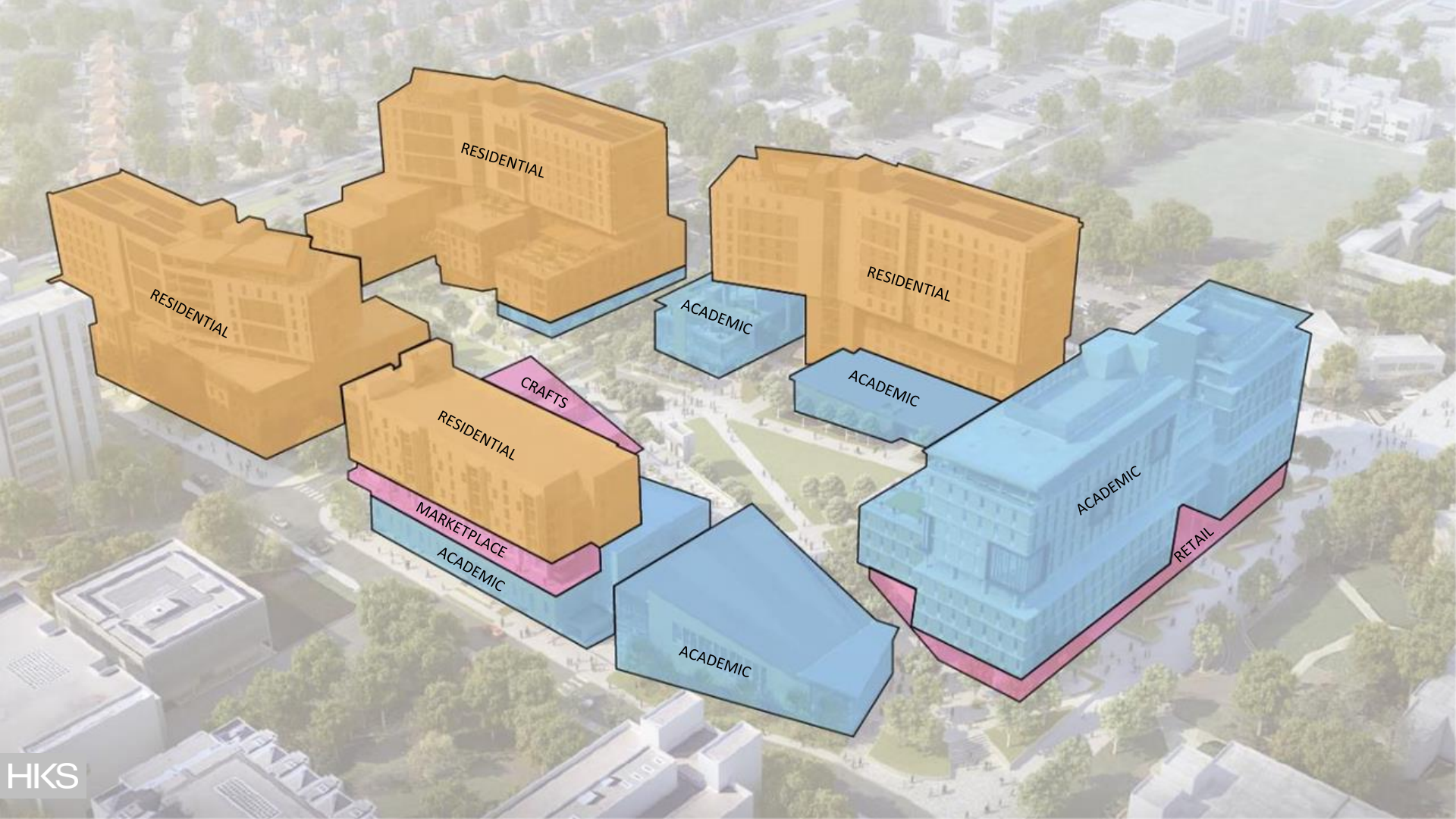
UC San Diego North Torrey Pines

- **Site Size:** 12 acres at UC San Diego
- **Building Area:** 1,500,000 total sf
- **Cost:** \$628 million
- **Residential Opening:** Fall 2020
- **Complete Occupancy:** Fall 2021

- **2,048-beds**, Student Residences
- **200,000 sf** Academic Building
(Arts & Humanities & Social Sciences)
- **64,000 sf** Community Program
(Dining, Craft Center, 650-Seat Auditorium, Classrooms, Market, Coffee Shop, Retail)
- **1,200-Vehicle** Underground Parking
- **20,000 sf** Administrative Building
(Provost, Student Affairs & Academic Advising)

A Living and Learning Neighborhood





RESIDENTIAL

RESIDENTIAL

RESIDENTIAL

ACADEMIC

ACADEMIC

CRAFTS

RESIDENTIAL

ACADEMIC

MARKETPLACE

RETAIL

ACADEMIC

ACADEMIC

Site Plan | North Torrey Pines Living & Learning Neighborhood



Design Hypothesis: Health and wellbeing will improve after moving to the new campus
COVID Hypothesis: Designing for health & wellbeing will provide pandemic resilience

We found that the design wasn't always used as intended
(Designing for health and well being allows for resilience)

Design is a Hypothesis
The Lived Experience is the Outcome

Design Drivers

Environmental
Health and Wellbeing

Social, Physical & Mental
Health and Wellbeing



Design for Environmental Health and Well-Being

- Take full advantage of the La Jolla climate
- Healthy Living
 - Exercise
 - Healthy Choice
 - "Point of Decision Design"
 - Access to Healthy Food
- Connection to Nature & Views
- Indoor-Outdoor Connectivity
- Programed Outdoor Spaces
- Natural Ventilation & Daylighting

Design for Social, Physical & Mental Health and Well-Being

- Welcoming Neighborhood
- Enable Social Connections
- Mixed-Use & Integrated Program
- Design to the Human Scale
- Address Every User Point-of-View
- Pedestrian Oriented, parking underground



Orientation &
Views to provide
connection to
nature

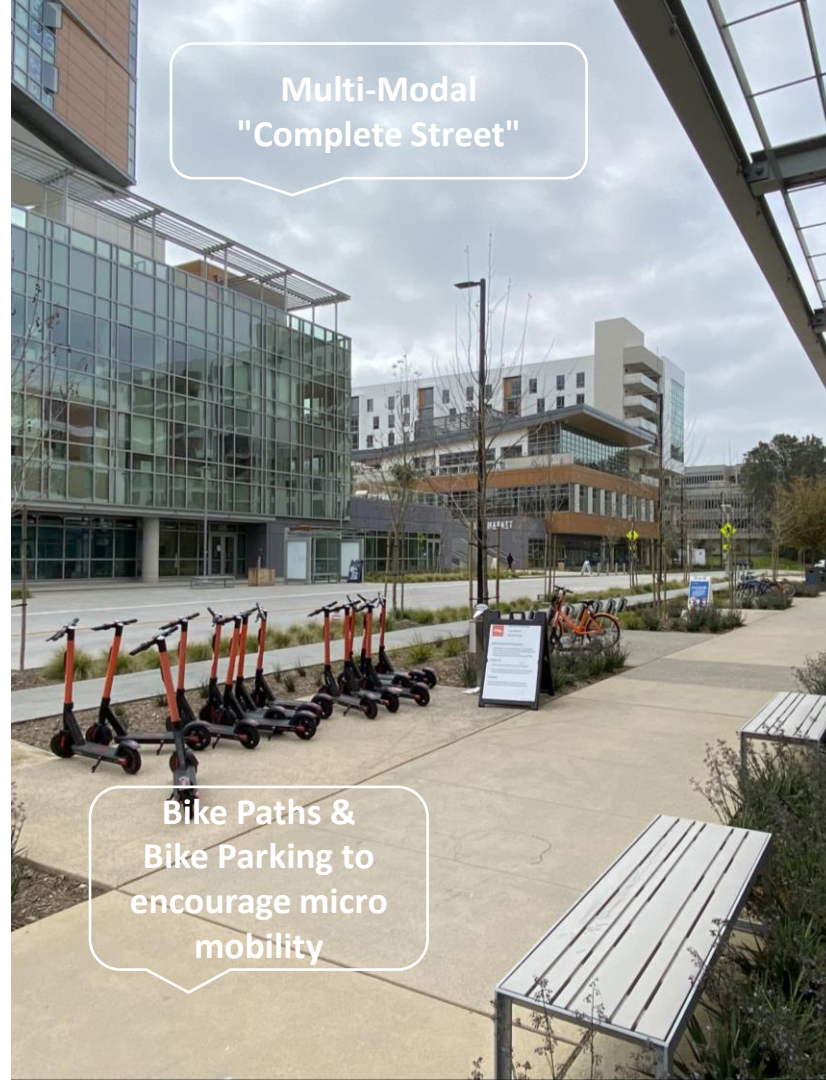
Integrated Mixed-
Use Community to
increase activation

Places to See and
Be Seen for
social connection

Activated Main Street
to enable 24/7
activity

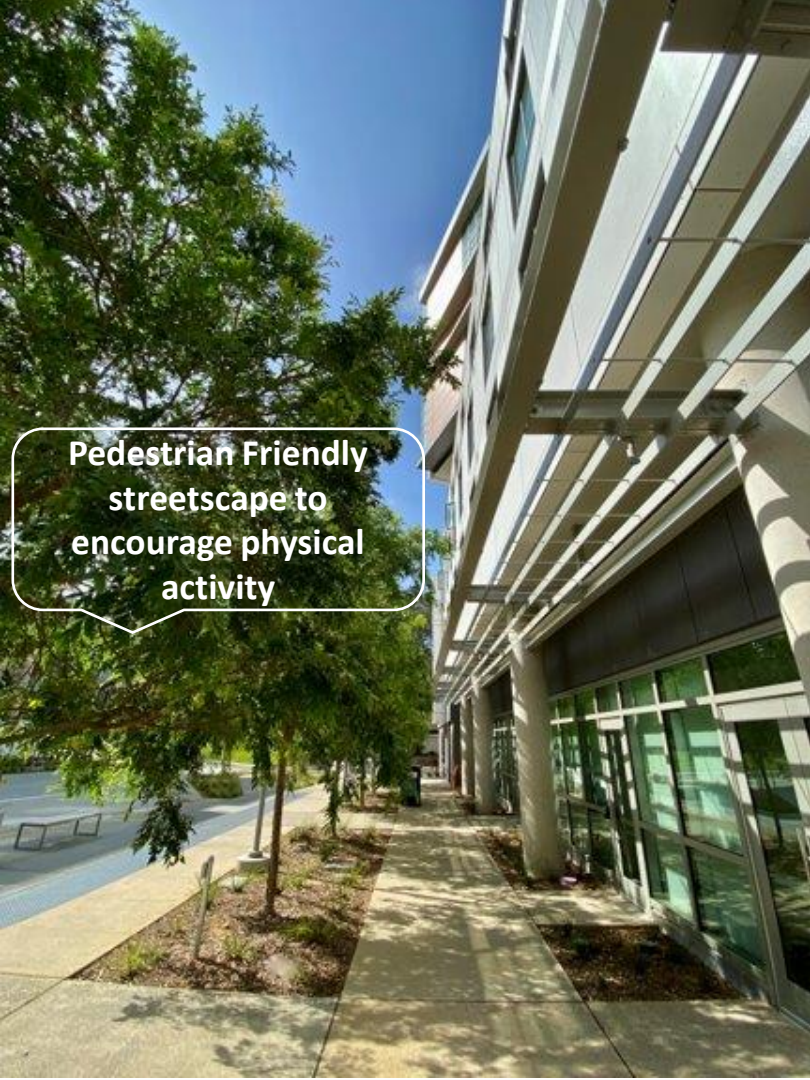


Access to Public
Transportation to
promote a car-free
culture



Multi-Modal
"Complete Street"

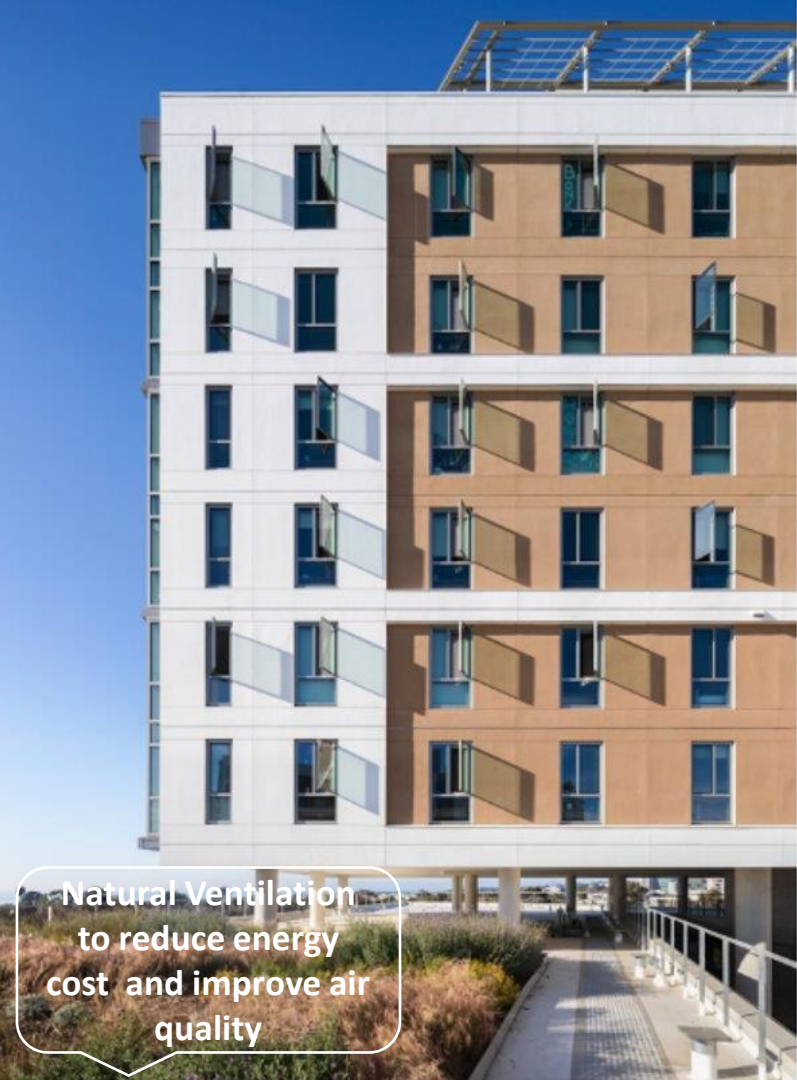
Bike Paths &
Bike Parking to
encourage micro
mobility



**Pedestrian Friendly
streetscape to
encourage physical
activity**



**Access to Nature to
improve mental
health**



Natural Ventilation
to reduce energy
cost and improve air
quality



Abundant Daylight in
large learning spaces
to improve focus &
promote wellbeing



Access to Views
that promotes
gathering and
safe social
interaction

The image shows a modern outdoor rooftop terrace. In the foreground, there are several pieces of furniture: a black armchair with a woven backrest, a white circular table on a black metal stand, and a white metal mesh chair. The terrace has a glass railing and overlooks a cityscape with buildings and a body of water under a clear blue sky. A wooden overhang is visible above the terrace.

HKS



Daylight & views
for mental health

The image shows an indoor lounge area with a large window. A bright yellow sofa is positioned in the foreground. Behind it, there are three patterned armchairs with wooden bases. The room has a light-colored floor and a patterned rug. Two pendant lights hang from the ceiling. The window provides a view of a city and a body of water.

Indoor gathering spaces
with shared views for
collaboration

Access to kitchen to promote cooking and healthy eating

Natural Ventilation for thermal comfort

Access to Outdoors for safe social gathering

Shared & flexible spaces & views to promote social interaction

Interconnected Floors to encourage interaction between sophomores and freshmen



A sense of Identity to
improve sense of
belonging

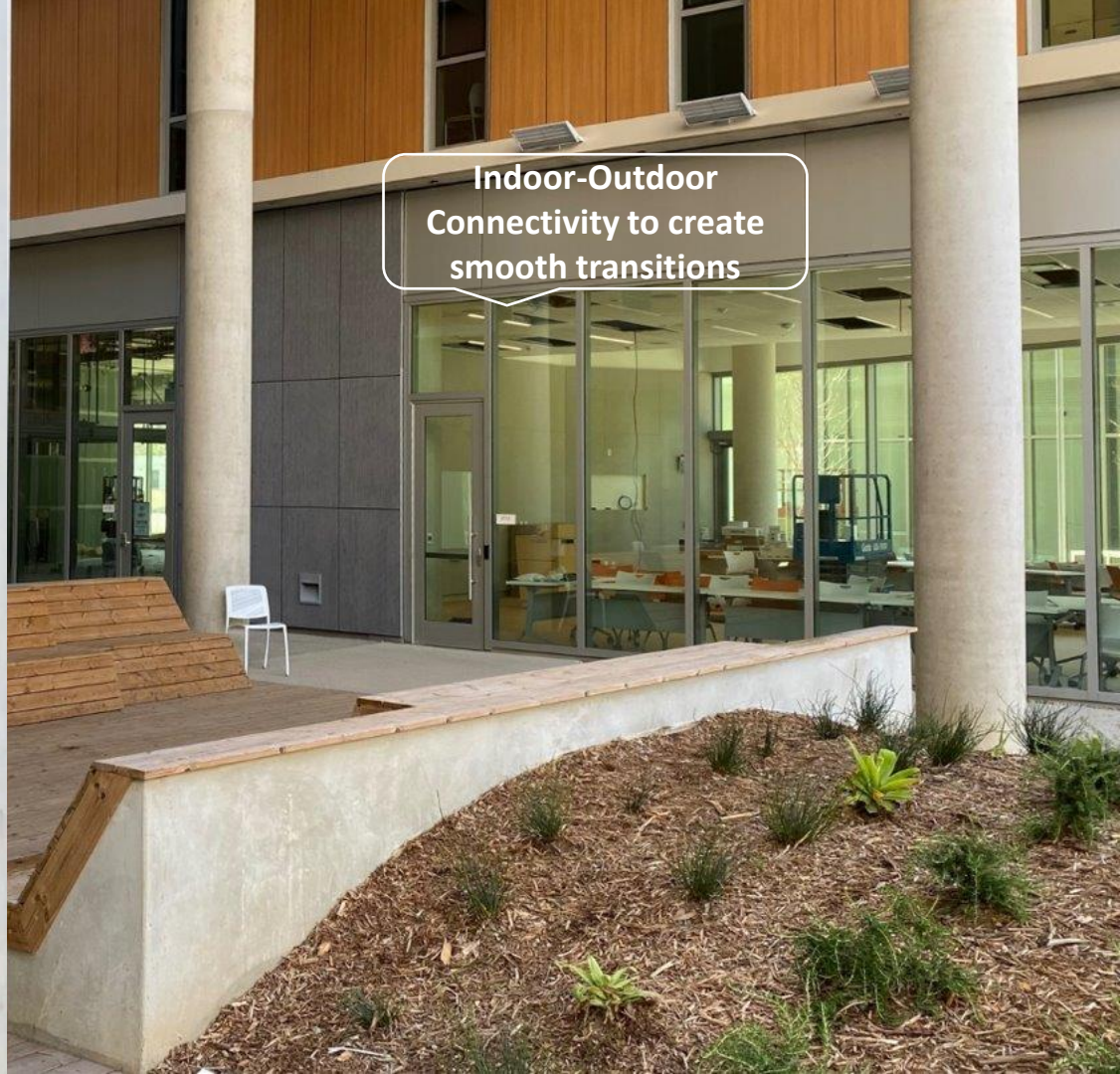
Pedestrian Friendly



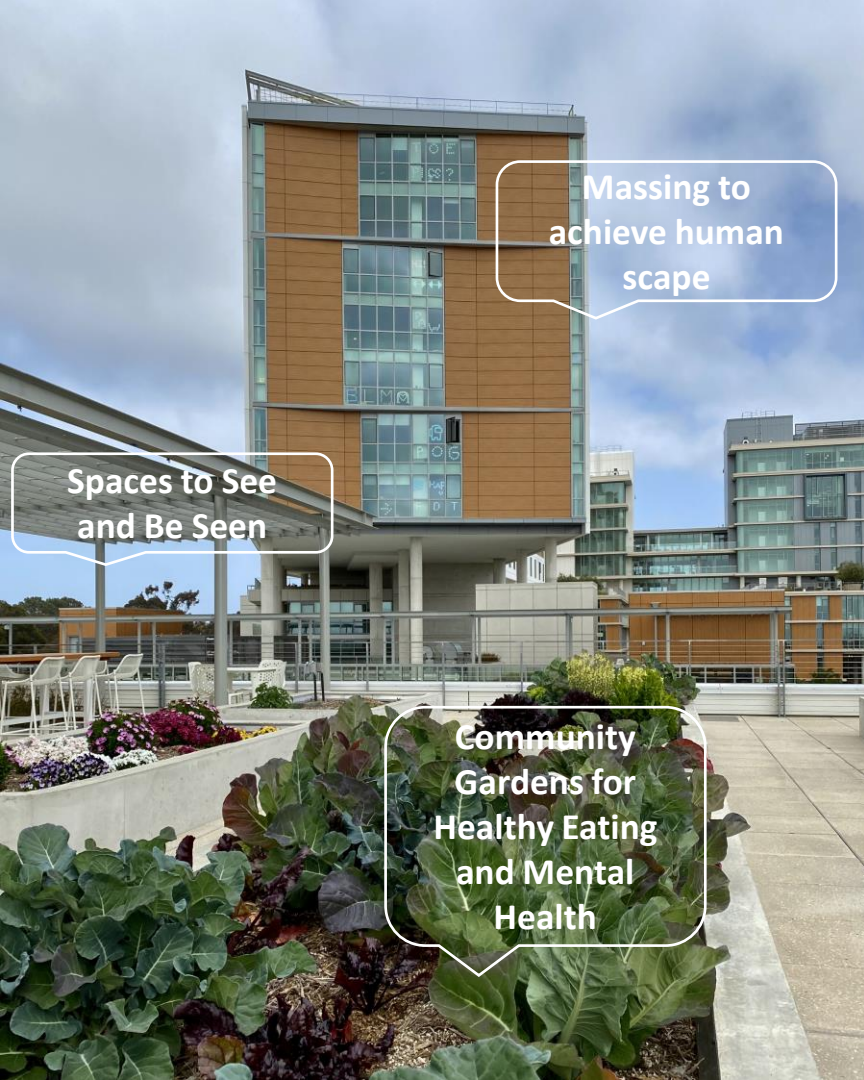
Indoor-Outdoor
Connectivity



Activated in-between spaces for outdoor learning



Indoor-Outdoor Connectivity to create smooth transitions



Massing to
achieve human
scale

Spaces to See
and Be Seen

Community
Gardens for
Healthy Eating
and Mental
Health



Large
stairways
placed at
points of
decision to
promote
physical
activity

Multi-Use Spaces
for 24/7 activation

Connecting corridors
between Sixth and the
larger campus serving
as a social connector



Make the Healthy Choice
the Easy Choice by
strategic staircase
placement



Daylit Underground
Parking with Electrical
outlets for better
experience and
demonstration of
sustainable goals

Slabs Designed for
Alternate Future Use/
Flexibility to convert to
learning spaces



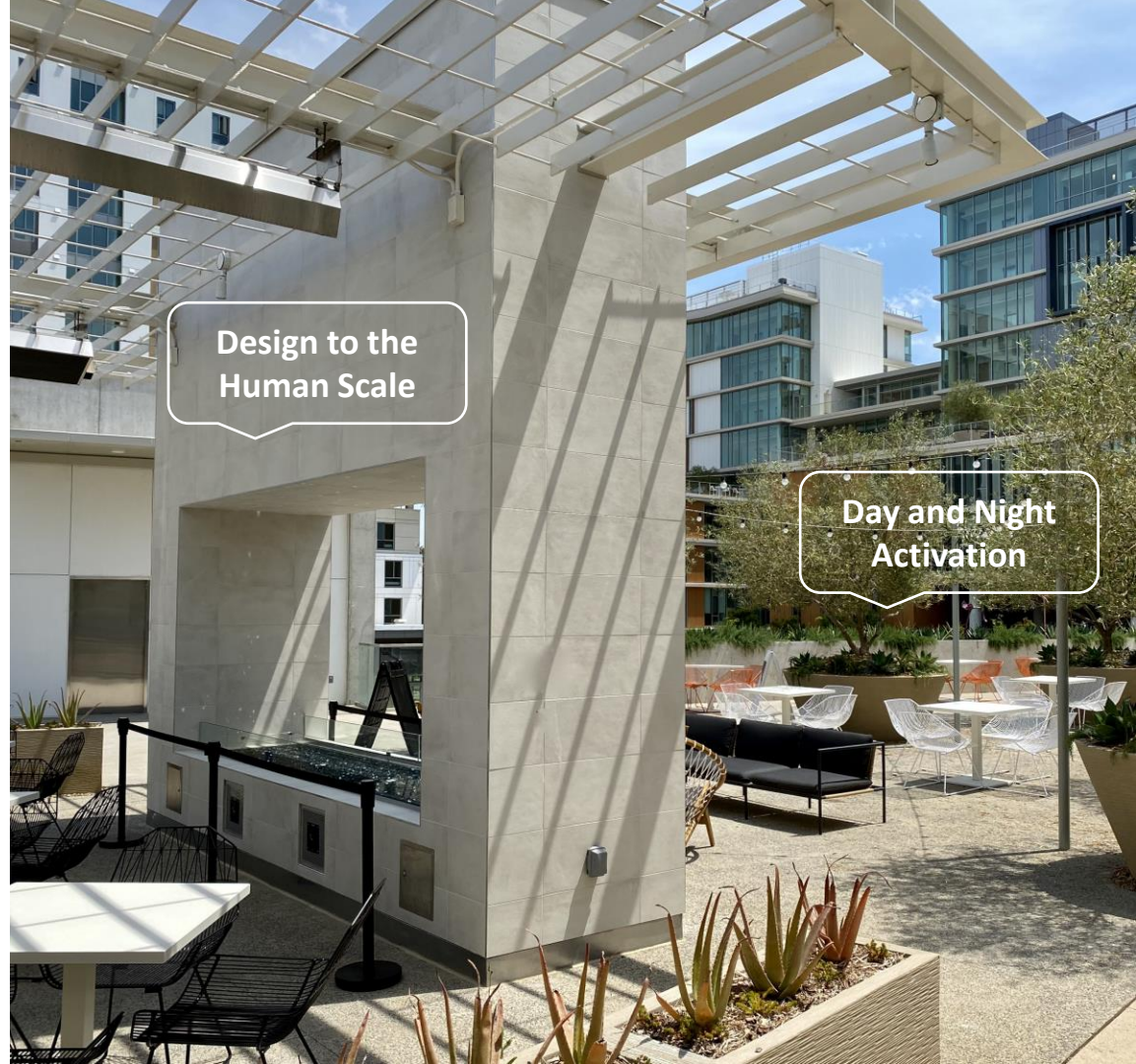
Access to Healthy
Food Choices



Healthy choices at
prominent location
[point of decision
design]*



Connection to Community



Design to the
Human Scale

Day and Night
Activation



Create Community

Daylighting &
Natural Ventilation

Connection to Place

Methodology

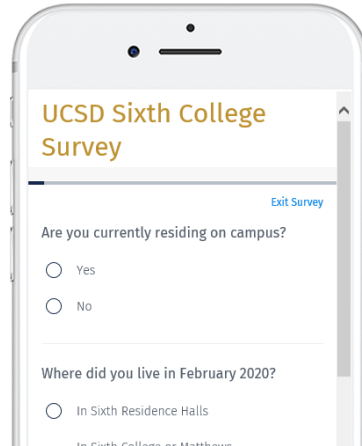
Phase 1: 2019-2020

Phase 2: 2020-2021



32 likes

emiveneziana Thank you UCSD @sixthcollege for the care package for @vvsmarco!



First Impressions Study

First reactions to residential halls and move in experience

Surveys

Campus design and space utilization, sense of belonging and inclusion, health and wellbeing, environmental stewardship, and time usage

Focus Groups

College experience, residential hall, transportation mode and diet options on campus, space usage, social connections, sustainable behavior, health and wellbeing

Behavior Mapping

Capturing of activity and location data of students in public spaces

Methodology + Timeline

● September 2020 - Campus Partially Opened

■ September 2021 - Campus Fully Open

Virtual

Focus Groups

Sessions with 2-4 first year students (20 total)

Surveys

Online survey for 300 first years

Focus Groups

Sessions with first years (20) and sophomores (20).

Surveys

Online survey for 300 first years and 100 sophomores.

Archival Data

2019 - 2020

Year 1 - Existing Residential Hall

2020 - 2021

Year 2 - New North Torrey Pines

2021 - 2022

Year 3 - New North Torrey Pines

In-Person

First Impressions Study

Spot interviews, photo essays and general observation

First Impressions Study

Photo essays & general observations (live learn fellow), social media analysis

Photo Essays + Observations

Behavior Mapping

Student activities and space utilization

First Impressions Study

Creating a Live-Learn Lab

CADRE
Center for Advanced
Design Research and
Evaluation

HKS

UC San Diego



Coalition for Live-Learn Labs: When Capital Projects Serve as Living Labs for Research & Innovation on Campus

A newly formed coalition of academic and industry researchers launch a prototype partnership in which capital projects serve as live-learn labs.

“

The New Sixth College is a living lab that uses architecture to augment positive behaviors and outcomes, and integrates that understanding into current academics and future capital planning.

— Lakshmi Chilukuri, Provost of Sixth College, UCSD

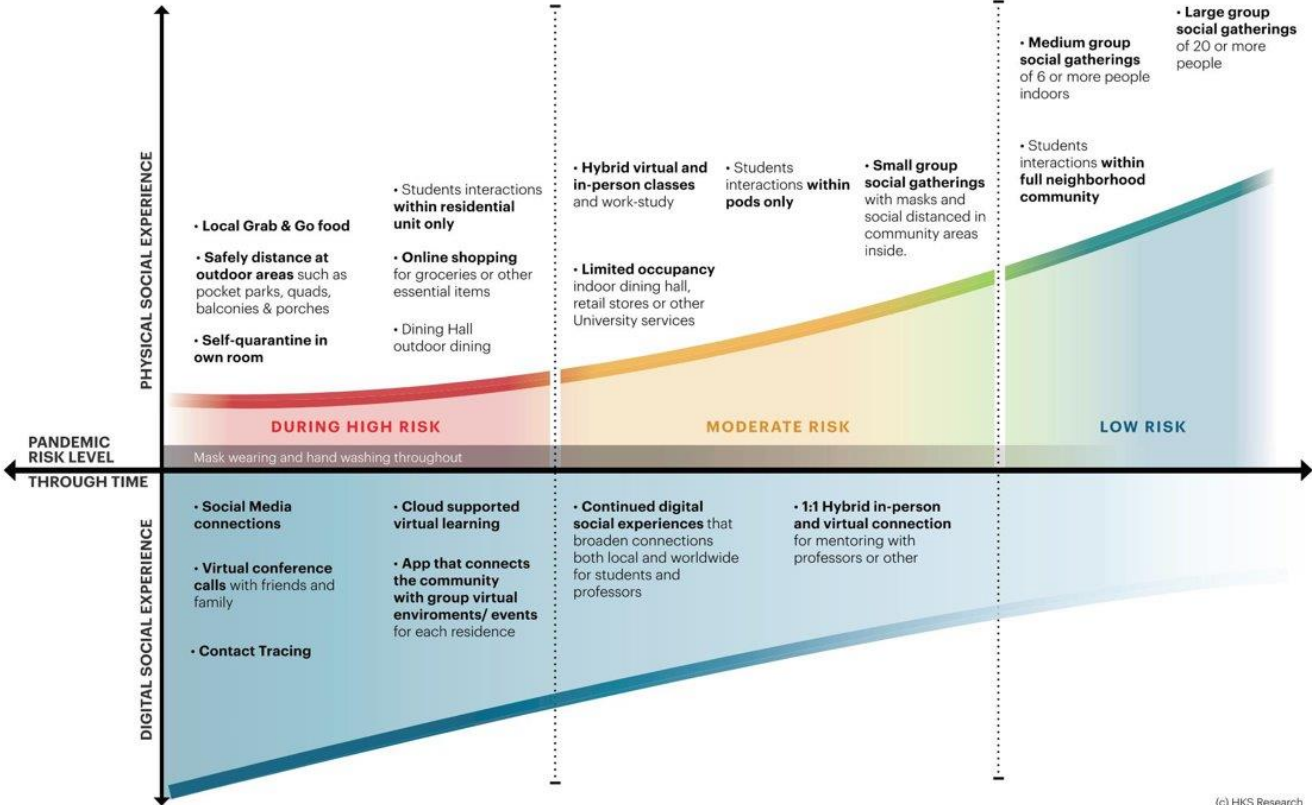
Neighborhood Study

Sustainability Course

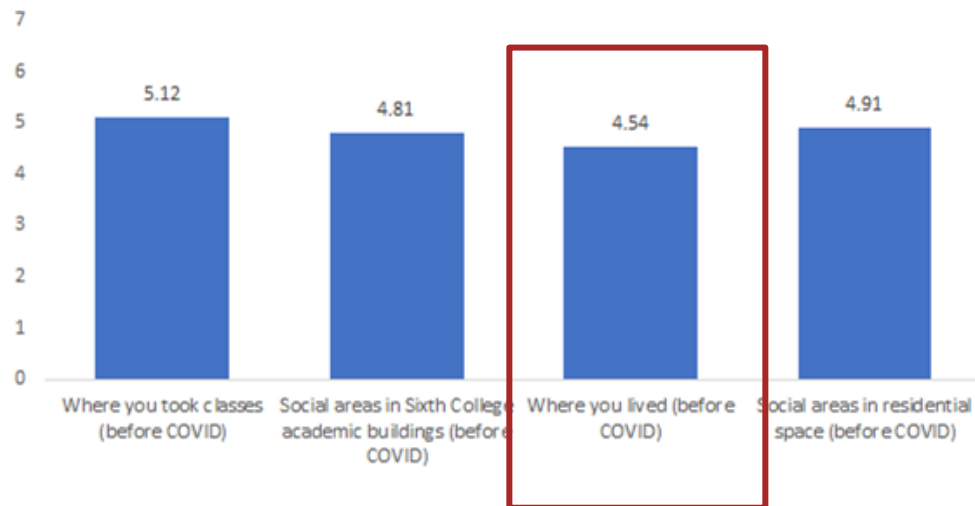
Neuro-Lab

Longitudinal
Pre-Post Study

Maintaining Social Connection : A Hybrid, Resilient Approach



Environmental Satisfaction (Where you lived (before COVID))



Mental Wellbeing

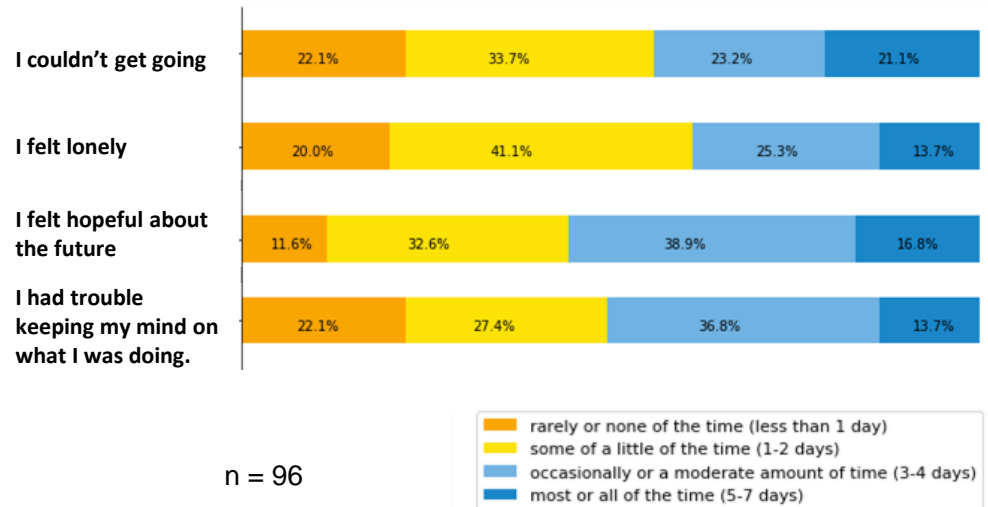
What will this look like in 2021? in 2022?

Overall Composite Scores from Surveys taken during COVID-19:

- **Depression** - 12.9 overall with 63% of respondents have a test score of 10 or higher (a test score of 10 or higher is indicative of some depressive symptoms)

In our focus groups, students indicated that they felt lonely when they spend too much time on social media. To combat this, they will directly reach out to friends (in person or virtual) or generally try to distract themselves.

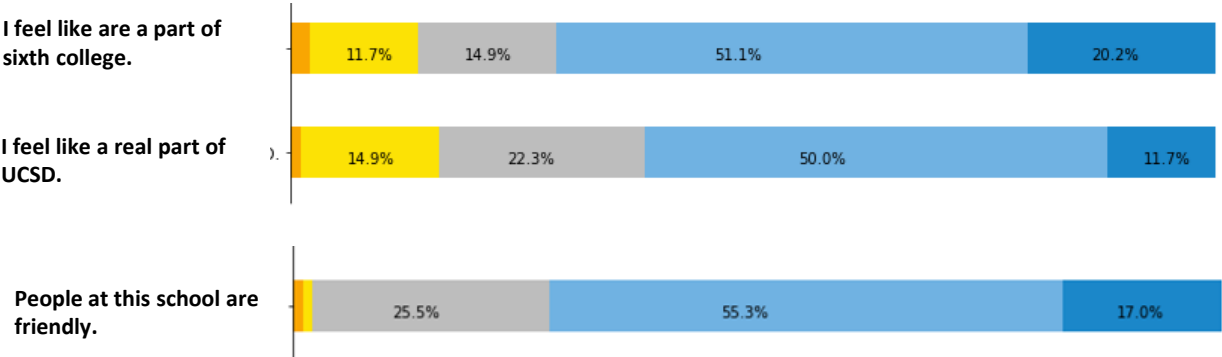
Depression



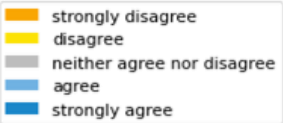
Surveys & Focus Groups

What will this look like in 2021? in 2022?

Sense of Belonging



n = 96

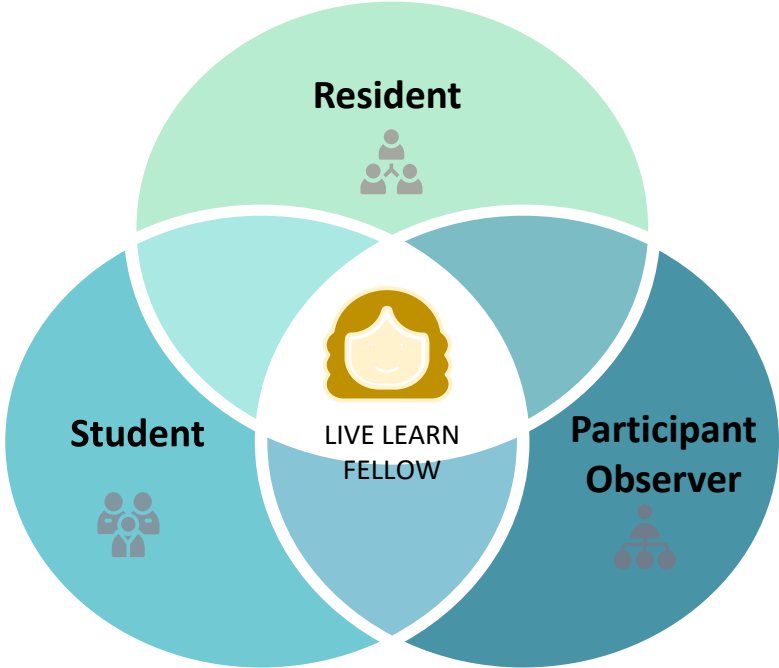


Live- Learn Fellowship

CADRE
Center for Advanced
Design Research and
Evaluation

HKS

 **ANFA**
The Academy of Neuroscience for Architecture



UC San Diego

Space Utilization Options → Resiliency

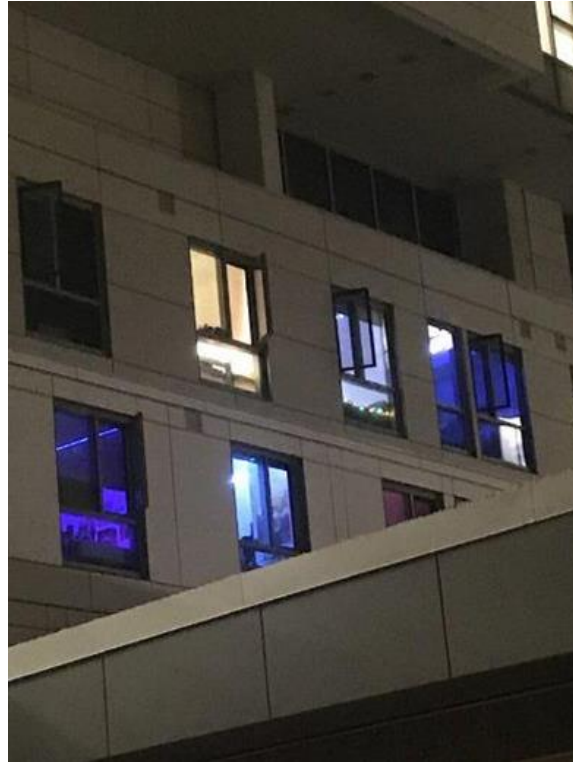
1. An **organic platform for social distancing** is created by the large staircase landings, which allows **COVID-safe socialization** and flexibly supports **groups of different sizes**
2. Students study “alone together,” choosing their comfortable level of proximity for both **social distancing** and/or **learning**



Social Signaling

Students have made use of window **visibility** and recognized its potential for interconnection, seen through **creative displays** of **self-expression**

Digital-physical



“Tik Tok Rooms”

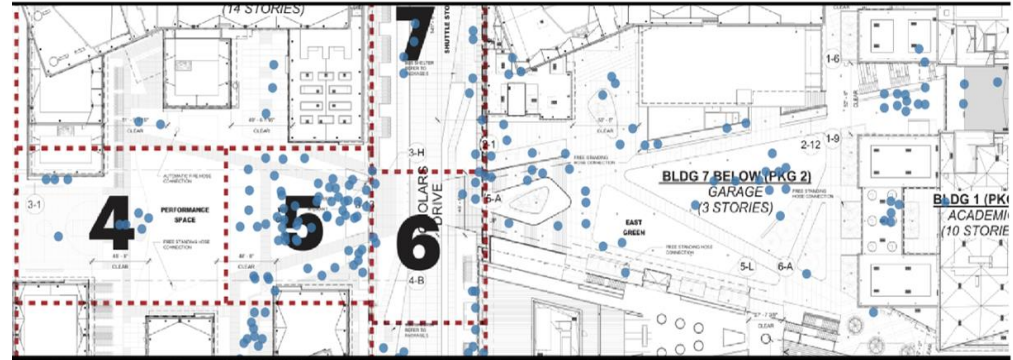


Post-it Note Messages + Conversations

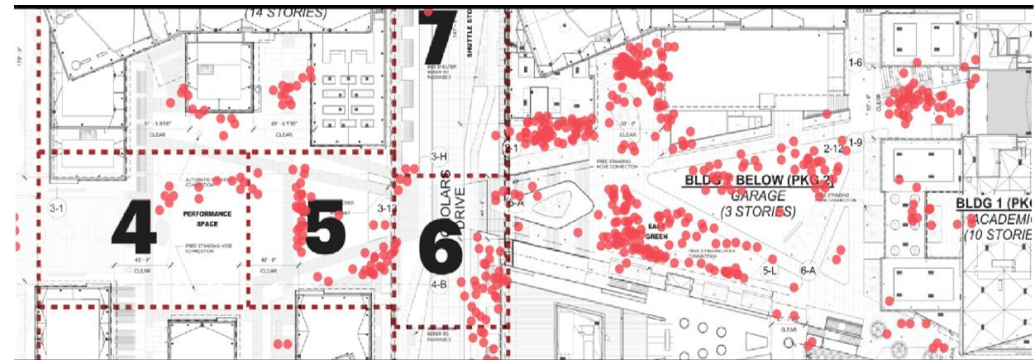
Pre-Dining Hall Open (89 days, 72 maps)

Food as Social Catalyst

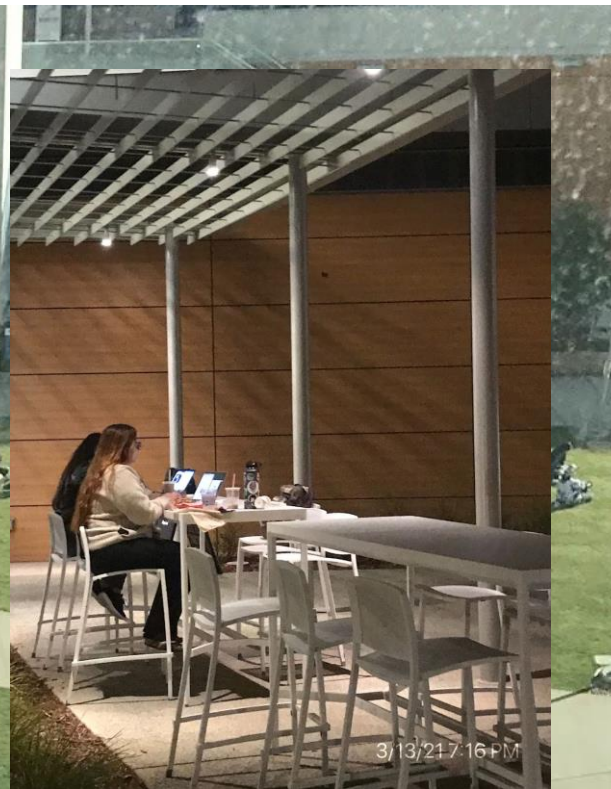
Groups of smaller students in Fall (pre dining hall open) vs Winter (post dining hall open) displays the **change in clustering pattern** and **increase of spontaneous interactions** centered around food



Post-Dining Hall Open (15 days, 33 maps)



Outdoor space adjacent to new dining hall



3/13/21 7:16 PM

3/4/21 3:34 PM

Simple Lessons

ACOUSTICS

BLINDS-
LIGHTING VS.
PRIVACY

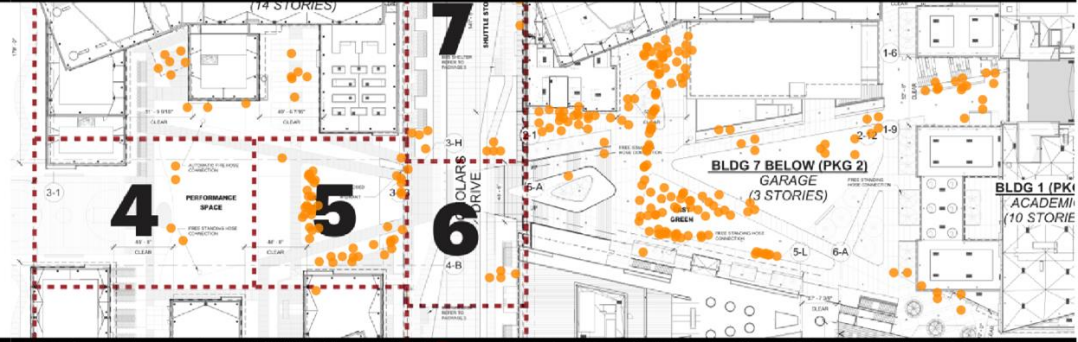
PUBLIC &
BUFFER
SPACES

HYBRID
STRATEGIES

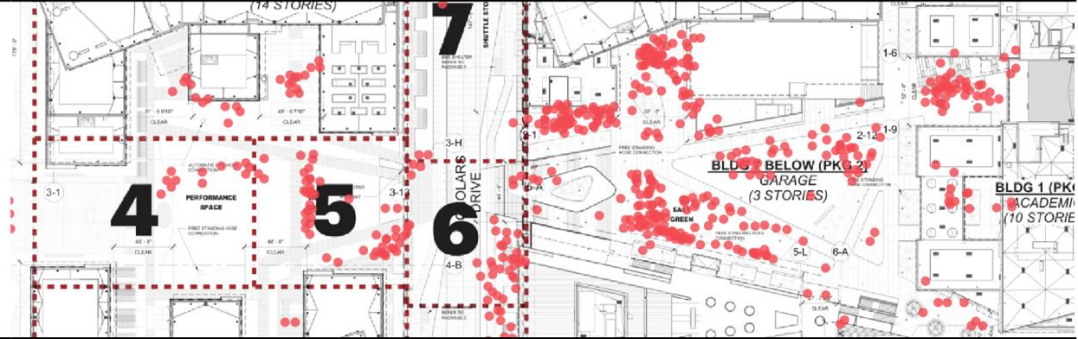
Pre-Dining Open
(89 days, 72 maps)



Soft-open
(5 days, 7 maps)



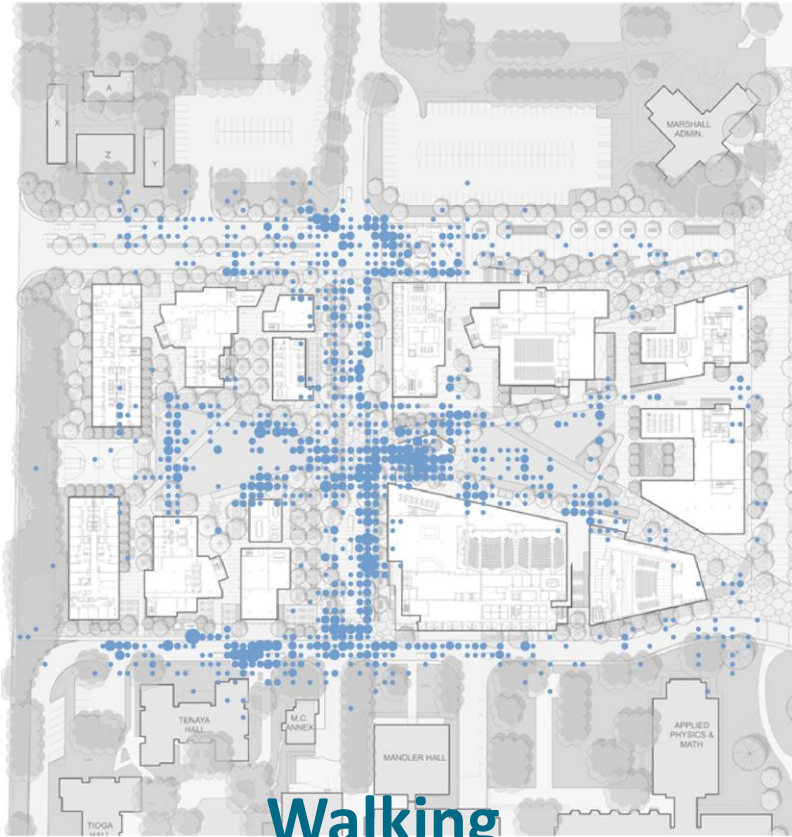
Post-Dining Open
(15 days, 33 maps)



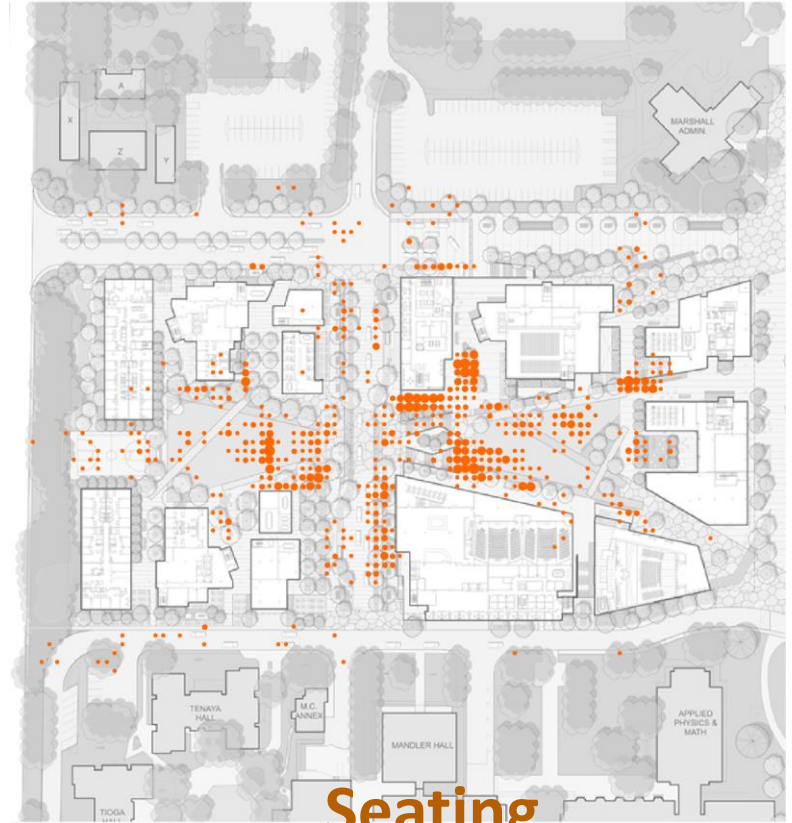
The data is filtered by Activity and maps Sitting (Alone, Eating, On Phone, Working, Socializing) and Standing (Alone, Socializing, Taking Photo). Color shows detail about Dining Hall Open status.

Dining Hall Open

Behavior Mapping



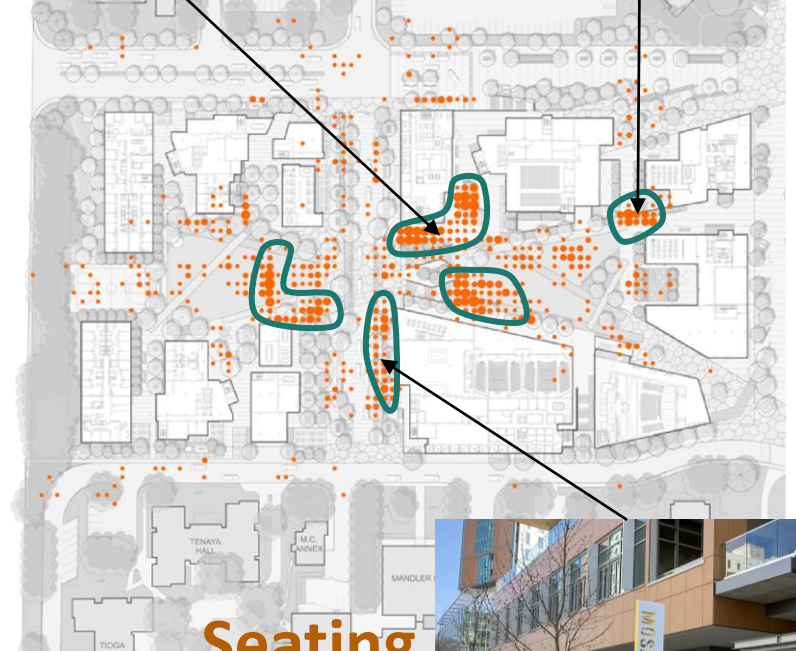
Walking



Seating

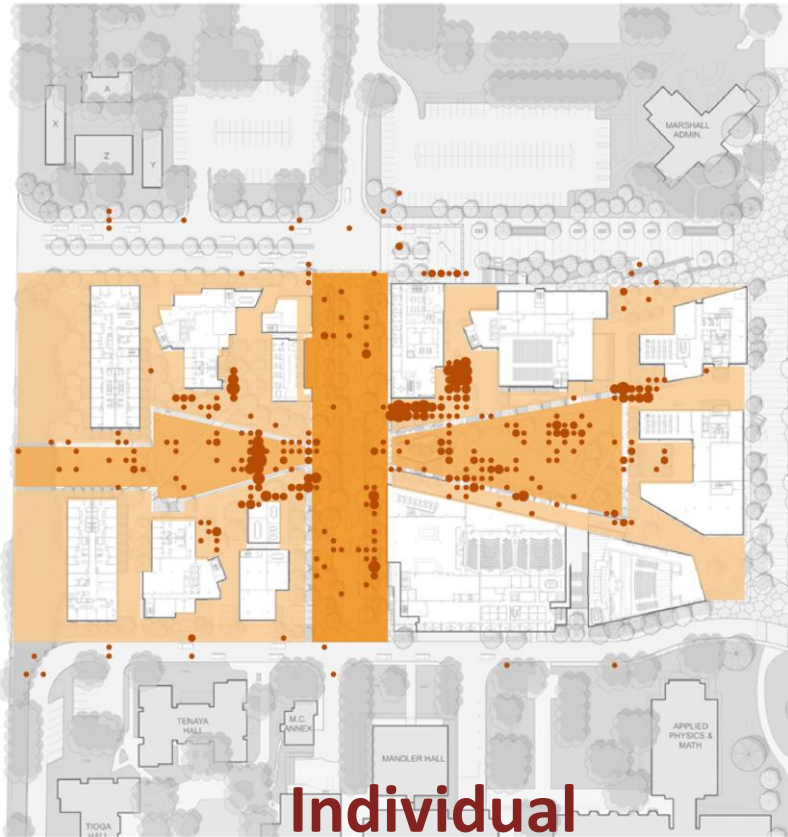


Walking

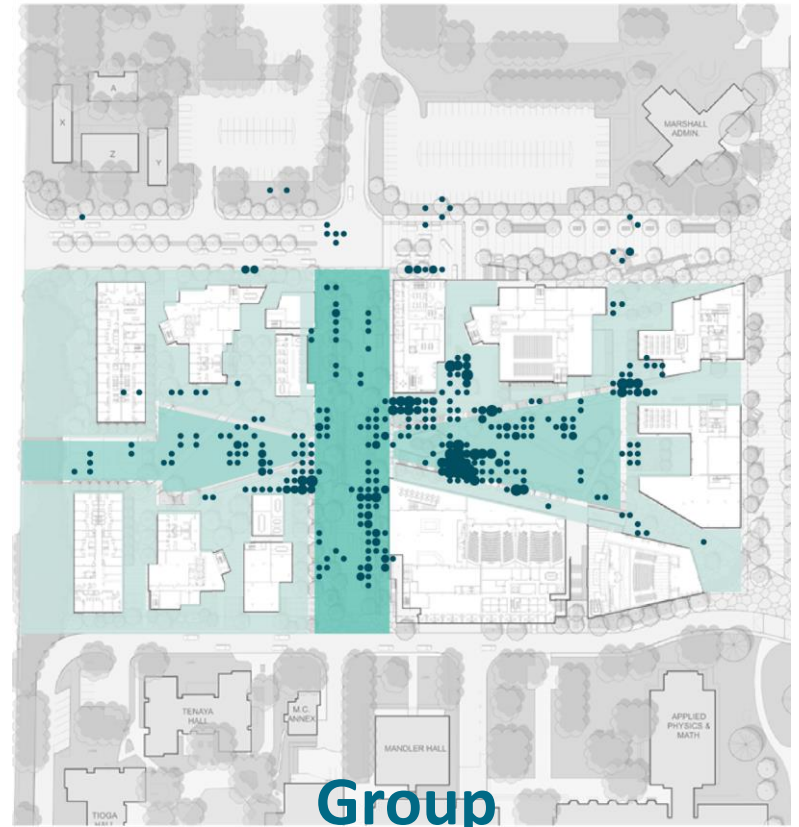


Seating

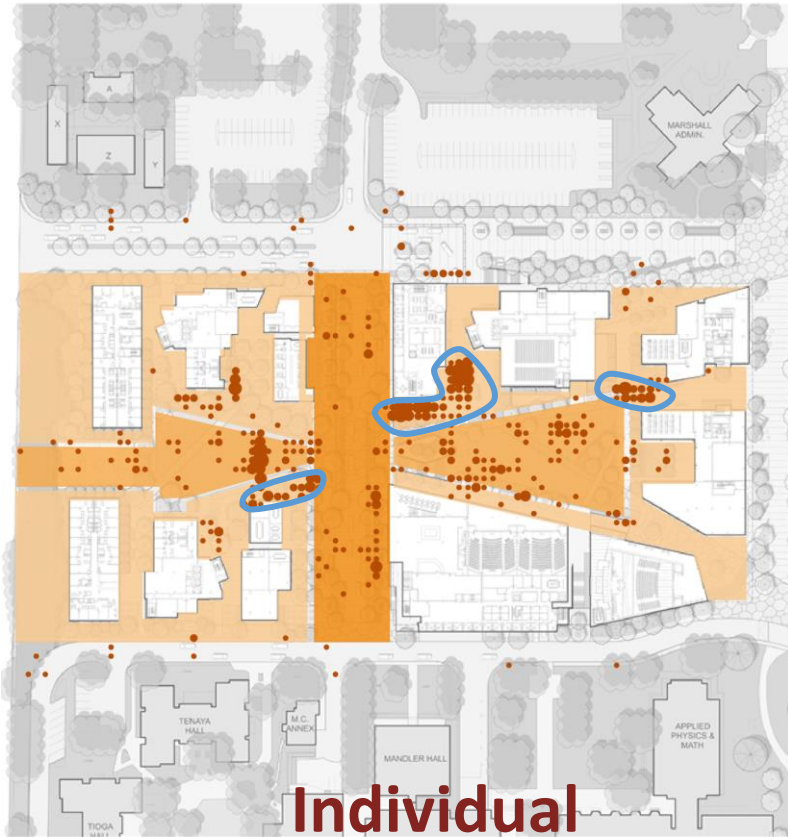




**Individual
Activities**

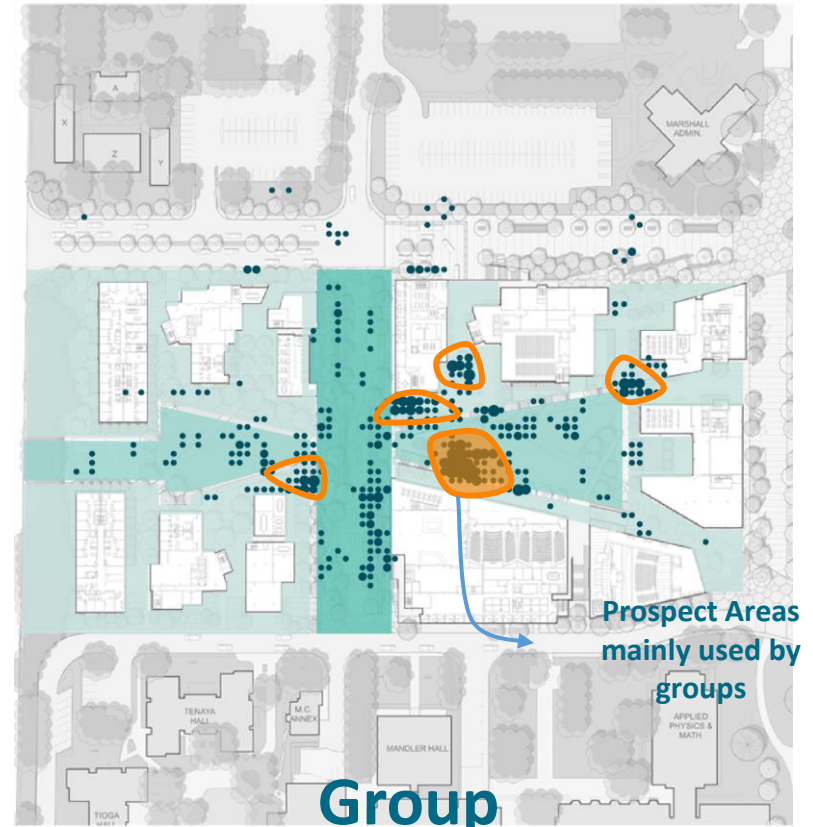


**Group
Activities**



Individual Activities

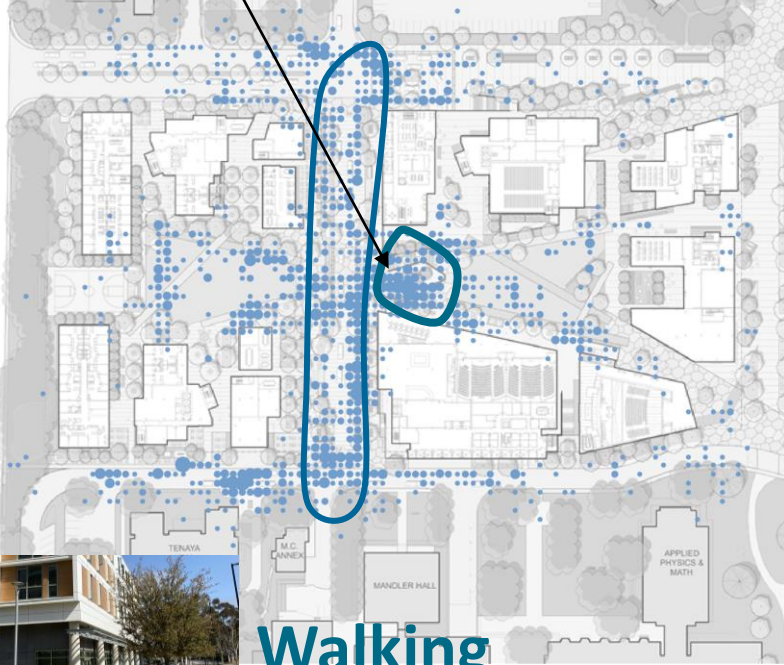
(studying, eating, sitting alone etc)



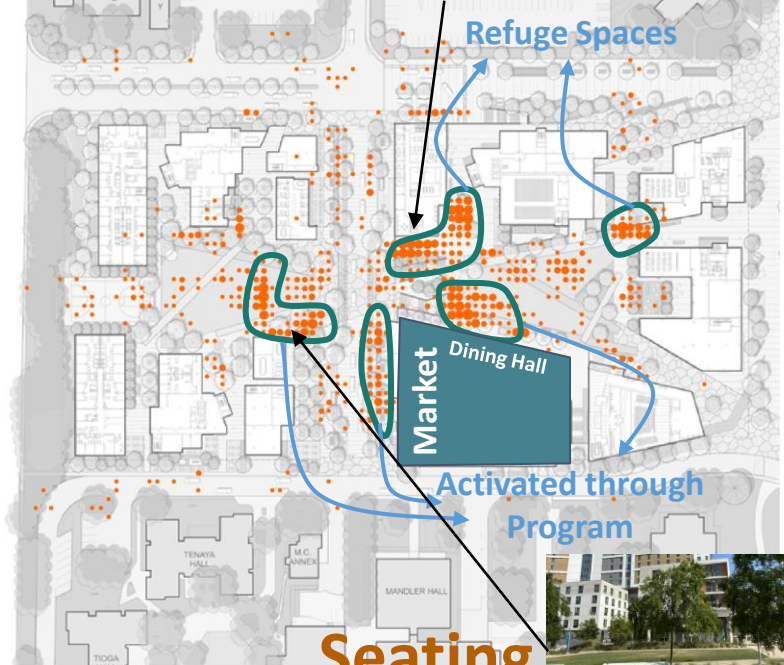
Group Activities

(socializing, talking etc)

Prospect Areas
mainly used by
groups



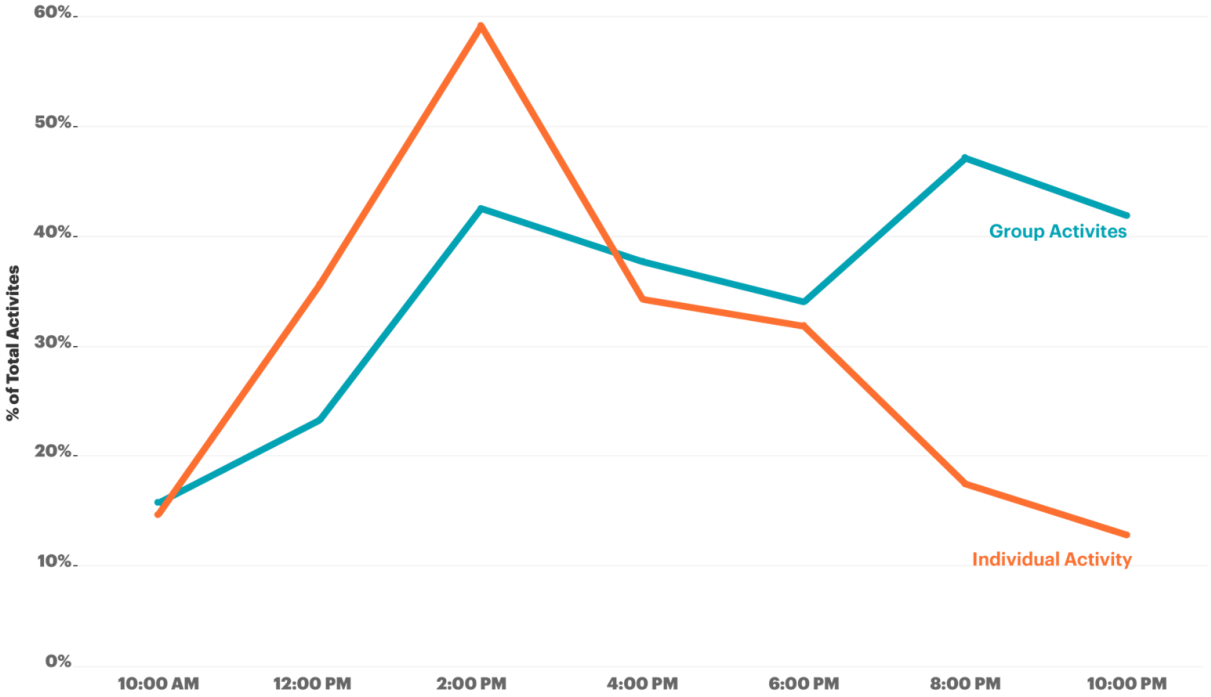
Walking



Seating



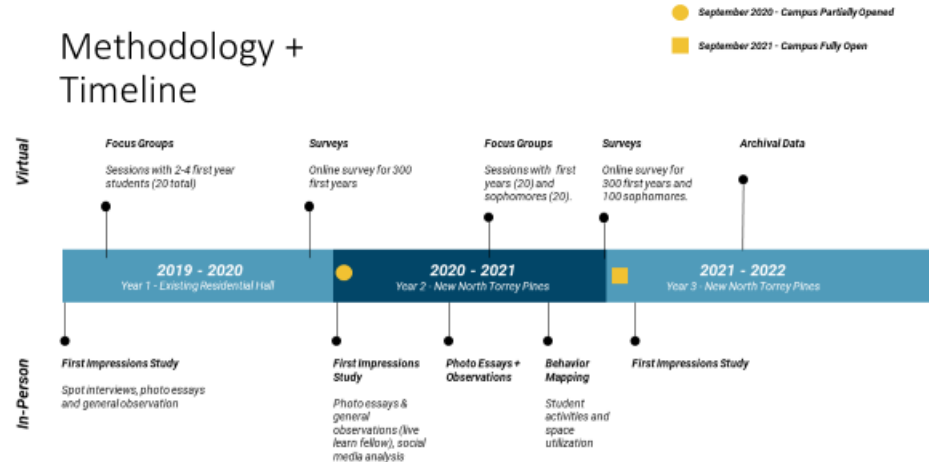
Behavior Mapping – Through a Day



Learning as we go....

1. Working with nature and maximizing our natural resources gives us resilience
2. Buffers are important
 - a) Build buffers in the construction process
 - b) Build buffers in the space so there are thresholds- to connect & protect
3. Flexibility + Adaptability are key
4. Consider both physical + digital strategies
5. Design in nested scales
6. Pay attention to Access and Acoustics

Methodology + Timeline



A Vehicle for Continued Learning

UC San Diego: the FIRST Living-Learning Lab



2020: North Torrey Pines Living & Learning Neighborhood



2023: Theatre District Living & Learning Neighborhood

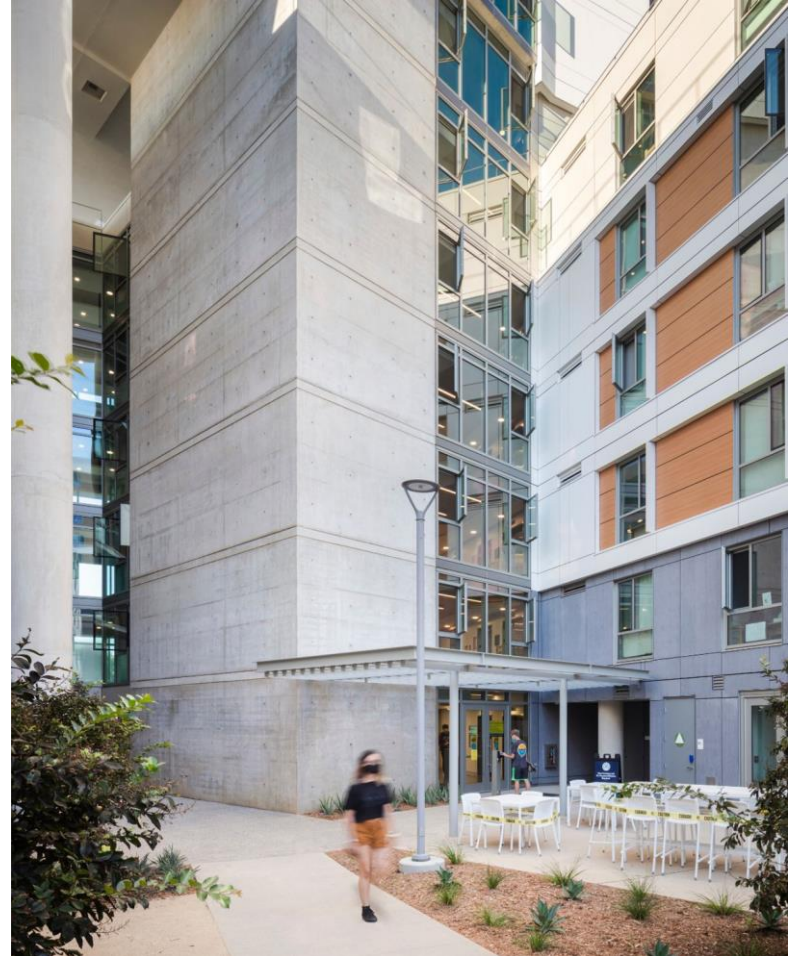
A rooftop terrace with a pergola structure. The terrace is furnished with white plastic tables and chairs. There are planters with greenery and a tree. The view shows a cityscape and a body of water in the distance under a blue sky with light clouds.

Questions?

Research Goals:

To investigate the impact of UC San Diego's new North Torrey Pines Living and Learning Neighborhood as compared to the original Sixth College residential facilities by:

1. Assessing student behaviors and habits related to social connection, learning, health and well-being, & environmental stewardship
2. Comparing space utilization & patterns of behavior changes to assess the efficacy of the new living & learning neighborhood
3. Compare overall student wellbeing & academic achievement
4. [Assess how the interior environment meets students' social needs & traverses the digital and physical to enhance/inhibit experiences & increase human resilience.](#)



A Different Day 1 Then Expected

