



Stantec

GRCC

GRAND RAPIDS COMMUNITY COLLEGE

INTEGRATING SECURITY WITH WELLNESS AND BIOPHILIC DESIGN

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Stantec Architecture

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October 28, 2019

LEARNING OUTCOMES

- Engage with campus stakeholders to lead safety discussions from a perspective of CPTED and Biophilic Design principles.
- Evaluate existing campus facilities to identify opportunities to improve user experiences related to safety, security and wellness.
- Use biophilic design to make security measures more user-centered.
- Look outside typical campus buildings for ideas in aligning wellness and safety.

Timely
Frustrating



CLICK ON
LIVE

NATIONAL SCHOOL WALKOUT



K12 Campus
Medical Campus
Corporate Campus
Government Campus



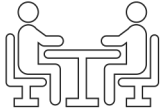
College Campus

free and **ordered** space
open to surrounding community
massive movement at regular intervals

FREE AND OPEN TO



ADMINISTRATION



COUNSELORS



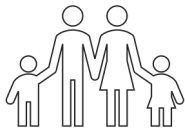
PUBLIC SAFETY



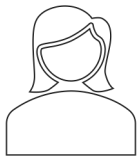
NEIGHBORS



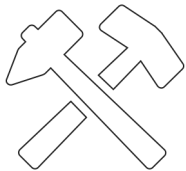
FACULTY



FAMILIES



STAFF



FACILITIES

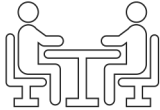


STUDENTS

SAFE AND SECURE FOR



ADMINISTRATION



COUNSELORS



PUBLIC SAFETY



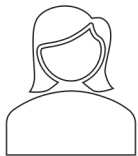
NEIGHBORS



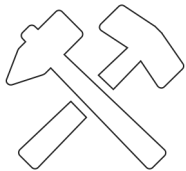
FACULTY



FAMILIES



STAFF



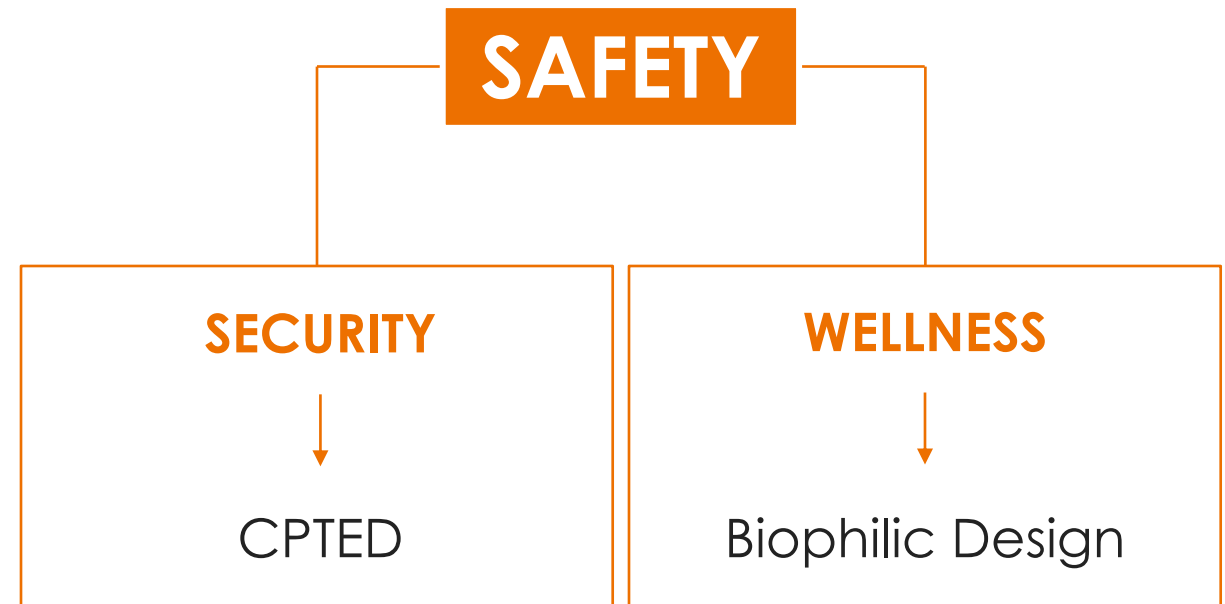
FACILITIES



STUDENTS

**Collaboration and design
must lead the conversation**

Design influences the social and psychological interactions among users and the community.





SECURITY

real and/or perceived

Visual control of space
Physical control of space
Hardness/Durability
Response





Handwritten: Bailey April 18th Recess
1:00 PM - 3:00 PM
* Volleyball * Basketball * Football * Capture the Flag * Frisbee * Chalk * Soccer
* Red Rover

HALL GOV MEETINGS

Small white sticker: Meeting date: April 7th









GRAND RAPIDS COMMUNITY COLLEGE
**Phyllis Fratzke Early Childhood
Learning Laboratory**
Grand Rapids, Michigan





CPTED

crime prevention through environmental design

Principles of CPTED | first generation



NATURAL SURVEILLANCE

visibility of illegitimate activities



NATURAL ACCESS CONTROL

differentiation of public and private space



TERRITORIAL REINFORCEMENT

clearly delineated ownership of space



MAINTENANCE

broken windows theory

Principles of CPTED | + second generation



NATURAL SURVEILLANCE

visibility of illegitimate activities

NATURAL ACCESS CONTROL

differentiation of public and private space

TERRITORIAL REINFORCEMENT

clearly delineated ownership of space

MAINTENANCE

broken windows theory

SOCIAL

culture
cohesion
community
capacity



not quite CPTED





Photo: Jonathan Weiss







biophilia + biophilic design

our innate tendency to focus on life and lifelike processes

Biophilic Design Framework

Stephen Kellert

DIRECT EXPERIENCE OF NATURE

CONNECTION WITH LIGHT

VARIABILITY OF AIR

PRESENCE OF WATER

PRESENCE OF VEGETATION

WEATHER / NATURAL CYCLES

NATURAL LANDSCAPES



Biophilic Design Framework

Stephen Kellert

INDIRECT EXPERIENCE OF NATURE

NATURAL MATERIALS, COLORS,
SHAPES, GEOMETRIES

IMAGES OF NATURE

SIMULATIONS OF NATURAL LIGHT
AND AIR

ENVIRONMENT COMPLEXITY

CHANGE AND THE PATINA OF
TIME

BIOMIMICRY



Biophilic Design Framework

Stephen Kellert

EXPERIENCE OF SPACE AND PLACE

PROSPECT AND REFUGE

TRANSITIONAL SPACES

MOBILITY

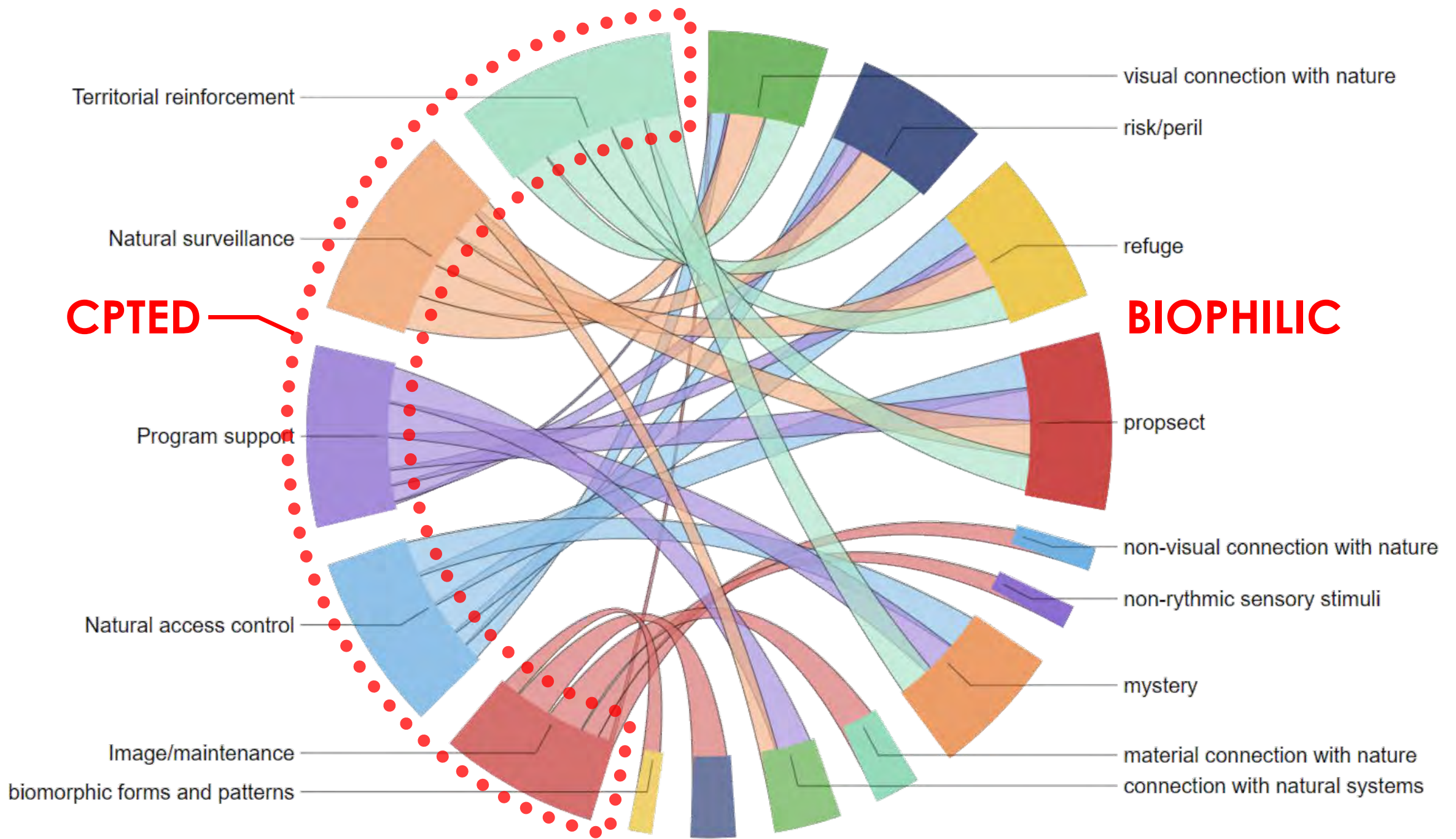
CULTURAL ATTACHMENT TO
PLACE

MANAGED RISK





use biophilic design
to drive good
CPTED approaches



GRAND RAPIDS COMMUNITY COLLEGE
**Phyllis Fratzke Early Childhood
Learning Laboratory**
Grand Rapids, Michigan





Unique campus building

Secure and nurturing

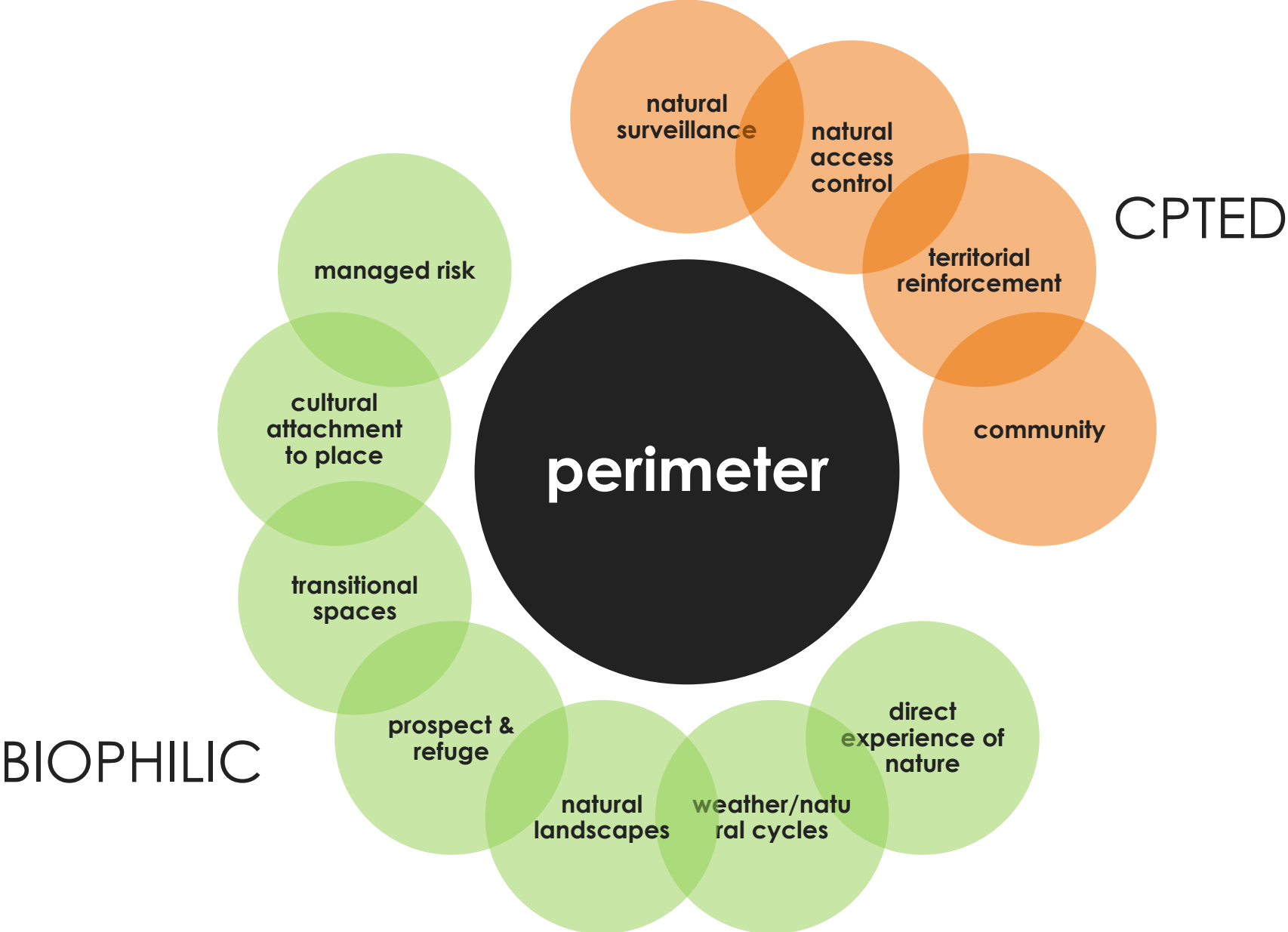
Support very different user groups

Connected to nature

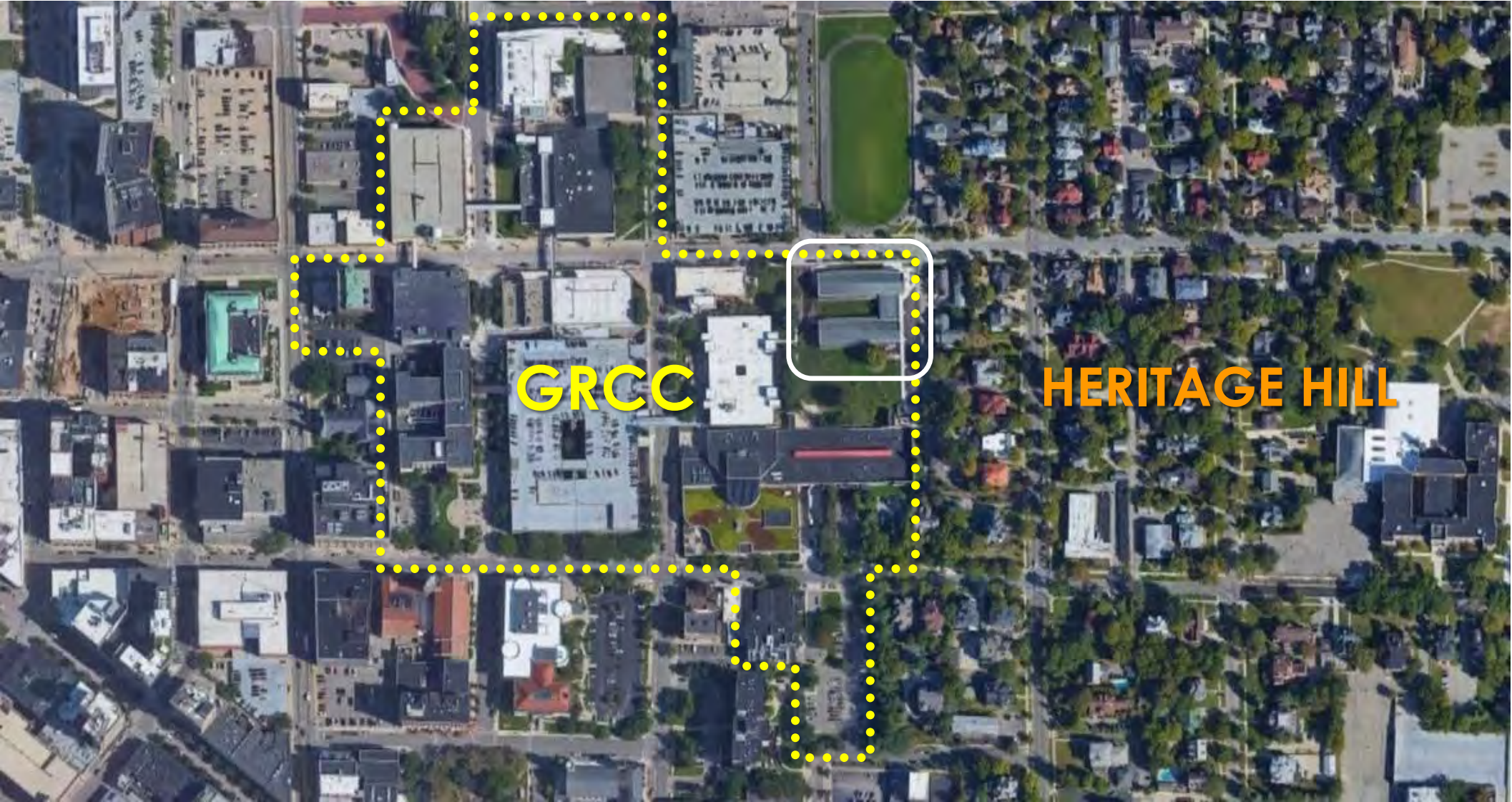
Connected to community

Part of the pedagogy

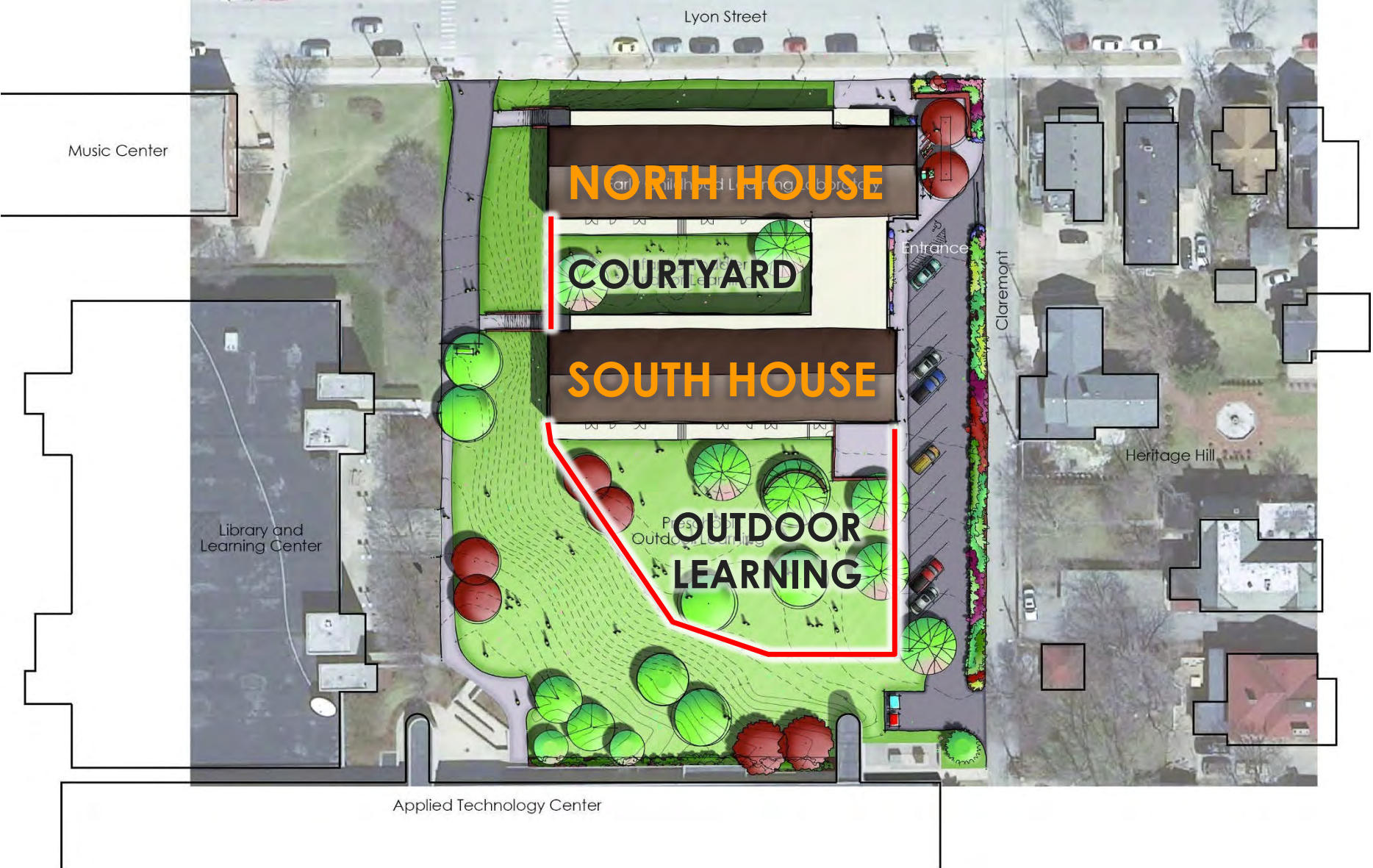
Perimeter + Surveillance



Perimeter + Surveillance



Perimeter + Surveillance



Perimeter + Surveillance



Perimeter + Surveillance

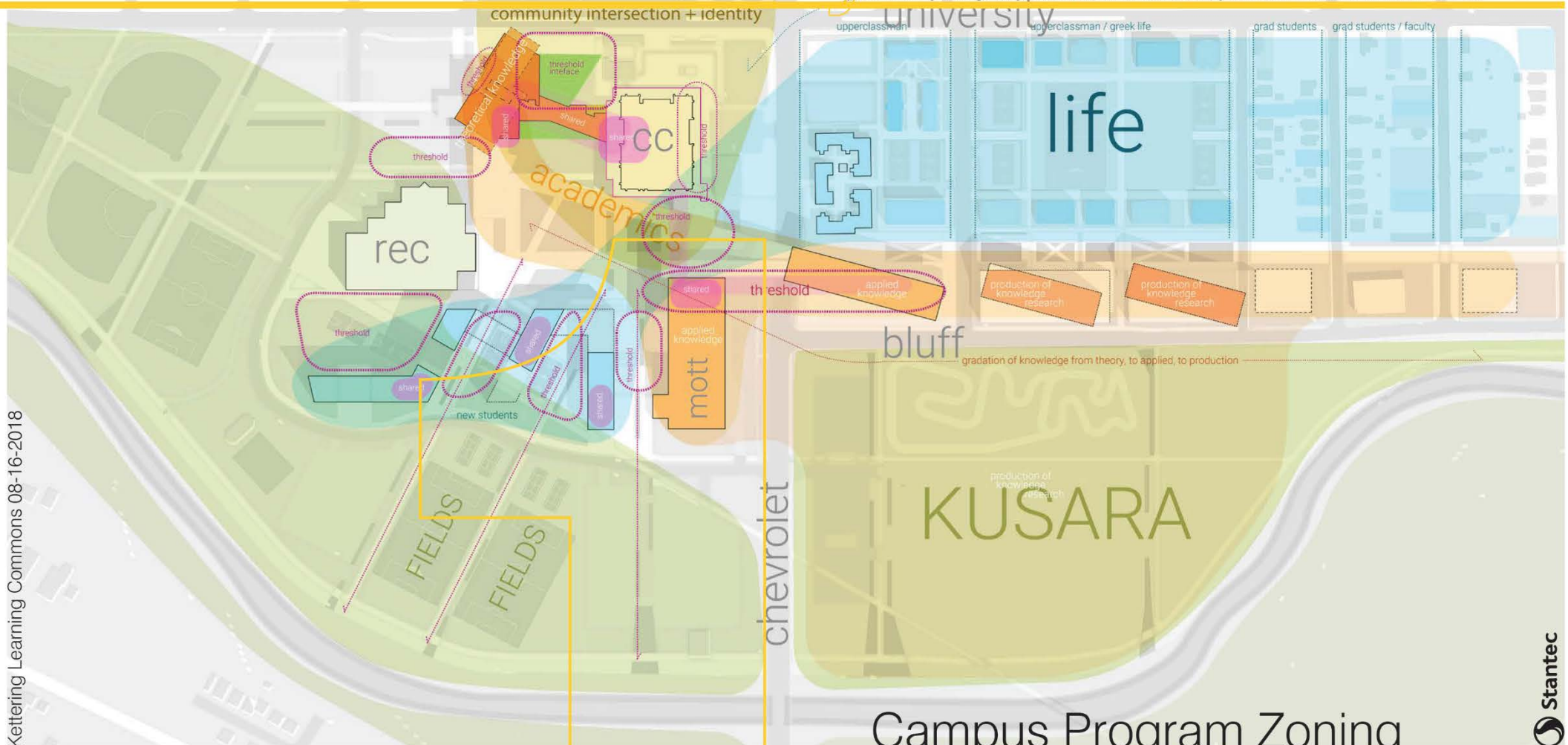


Perimeter + Surveillance





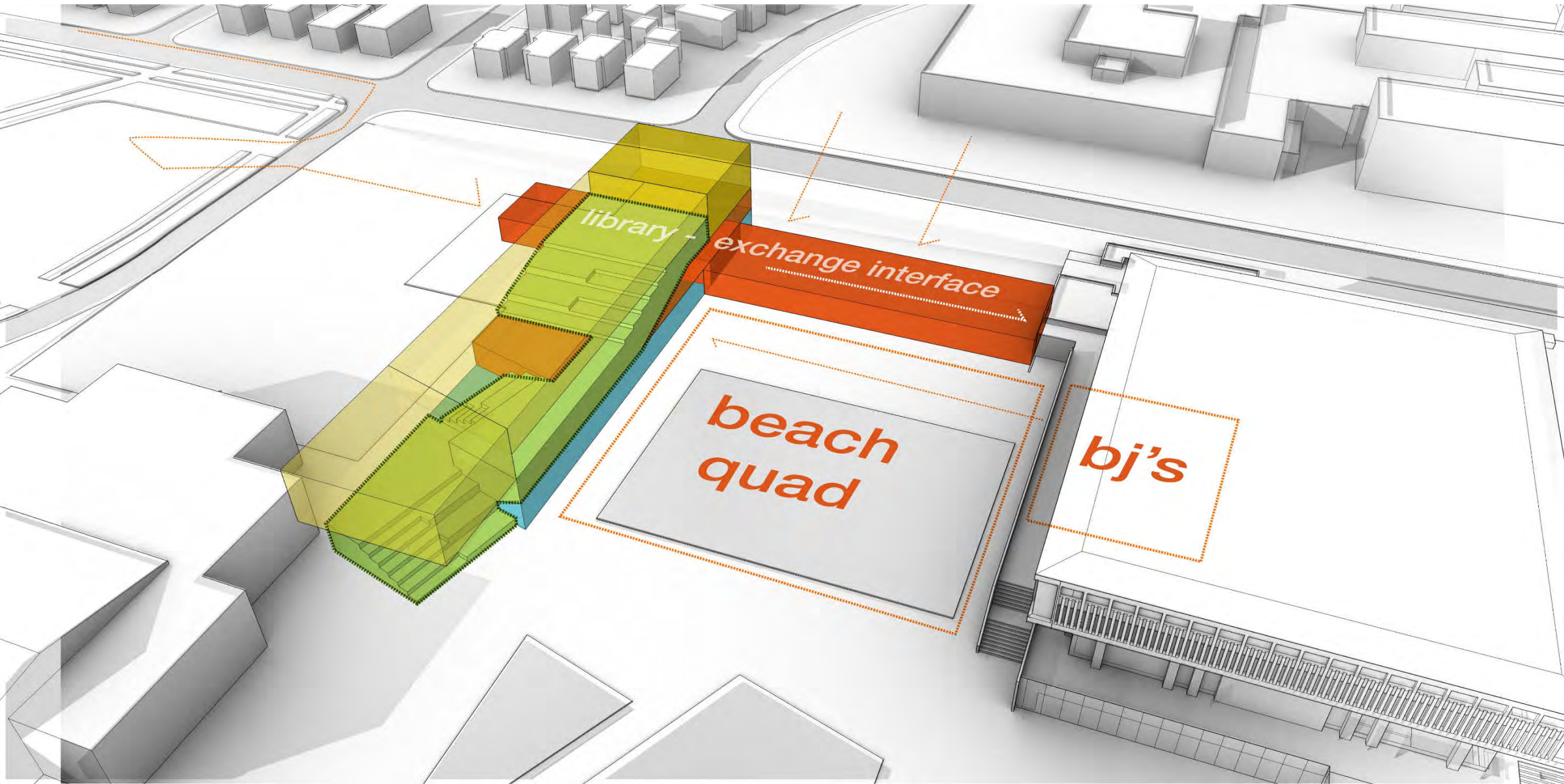
SITE analysis



Keettering Learning Commons 08-16-2018

Campus Program Zoning





library

exchange interface

beach quad

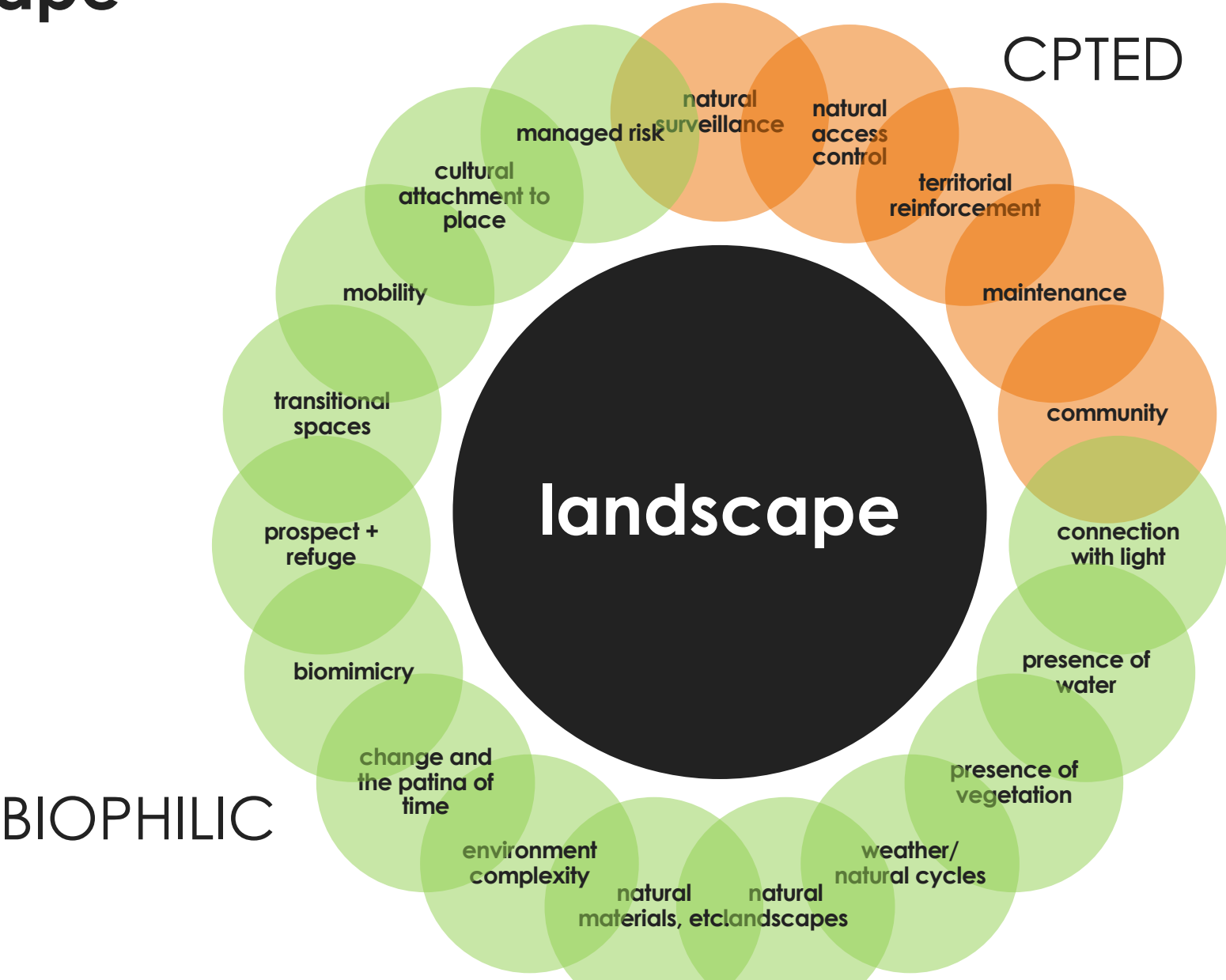
bj's



Kettering Learning Commons 08-16-2018



Landscape



Landscape

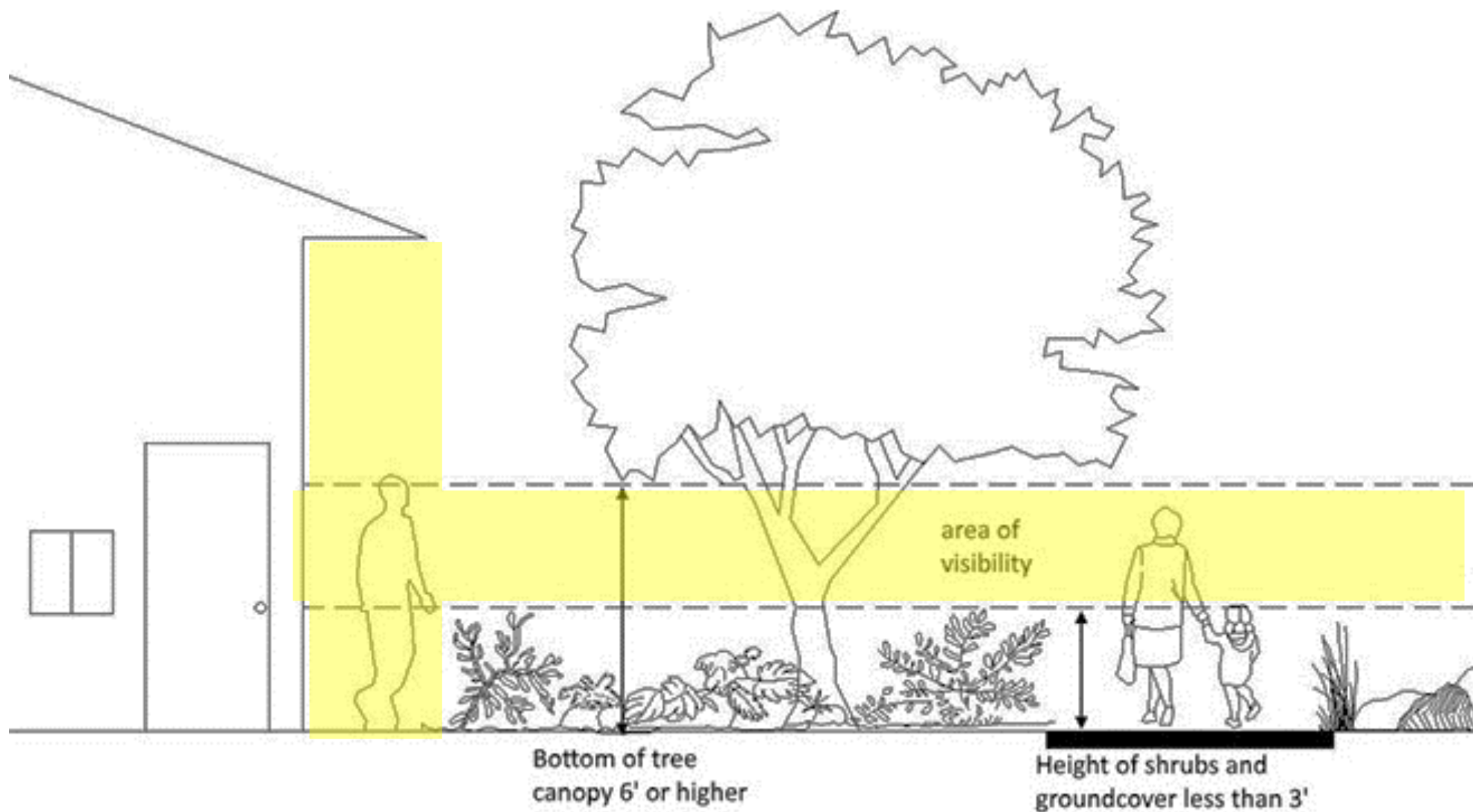


Landscape



Landscape







MICHIGAN STATE UNIVERSITY

BRODY NEIGHBORHOOD

East Lansing, Michigan





Liberty Hyde Bailey
GREENhouse



Building Zoning



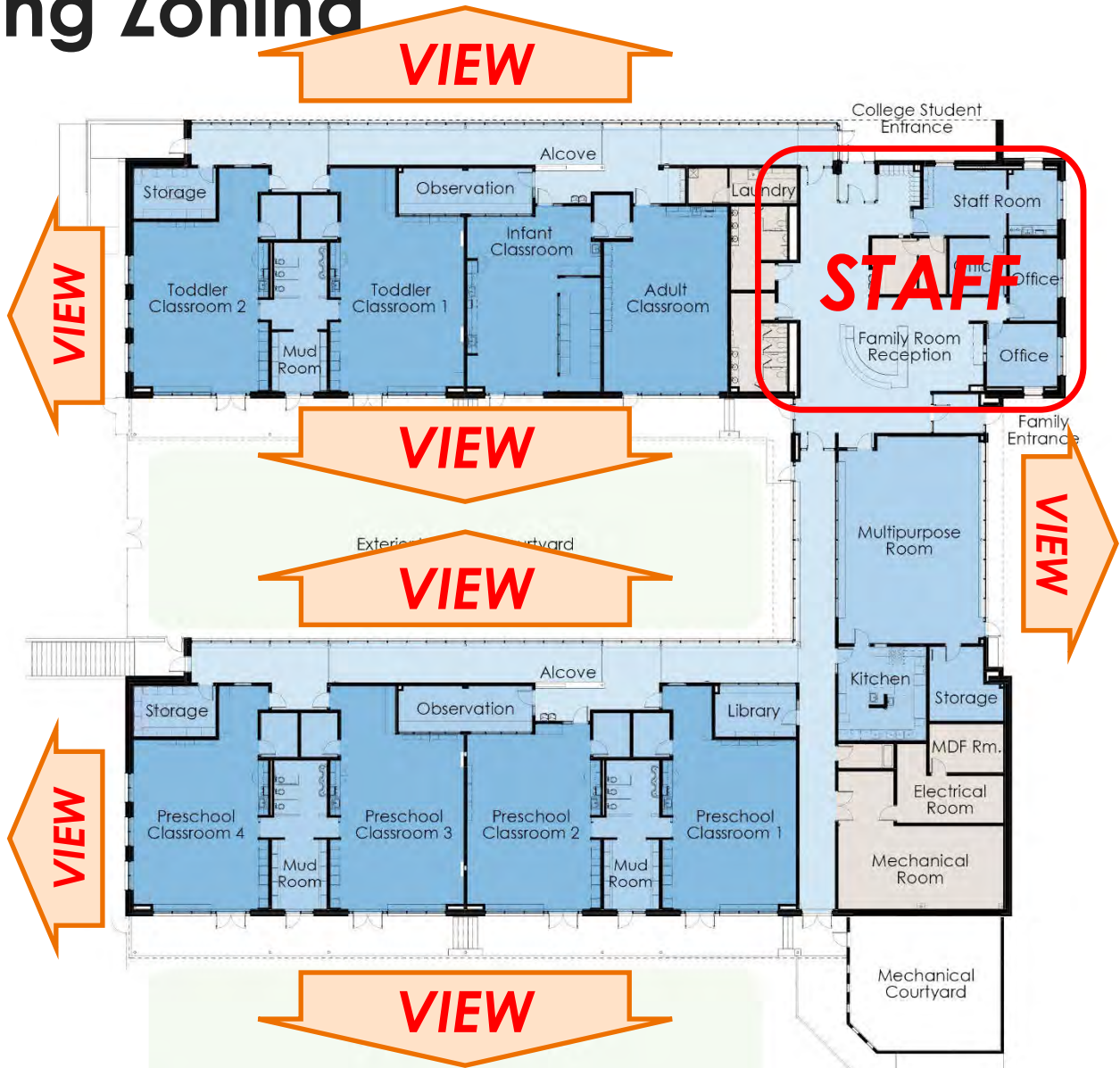
Building Zoning



SITE

Applied Technology Center

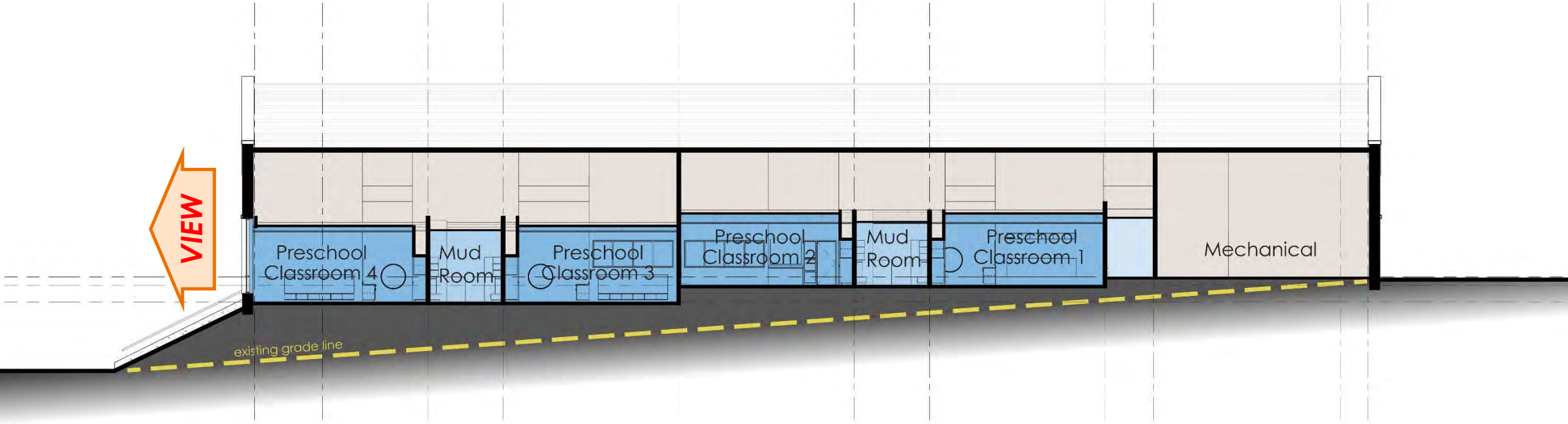
Building Zonina



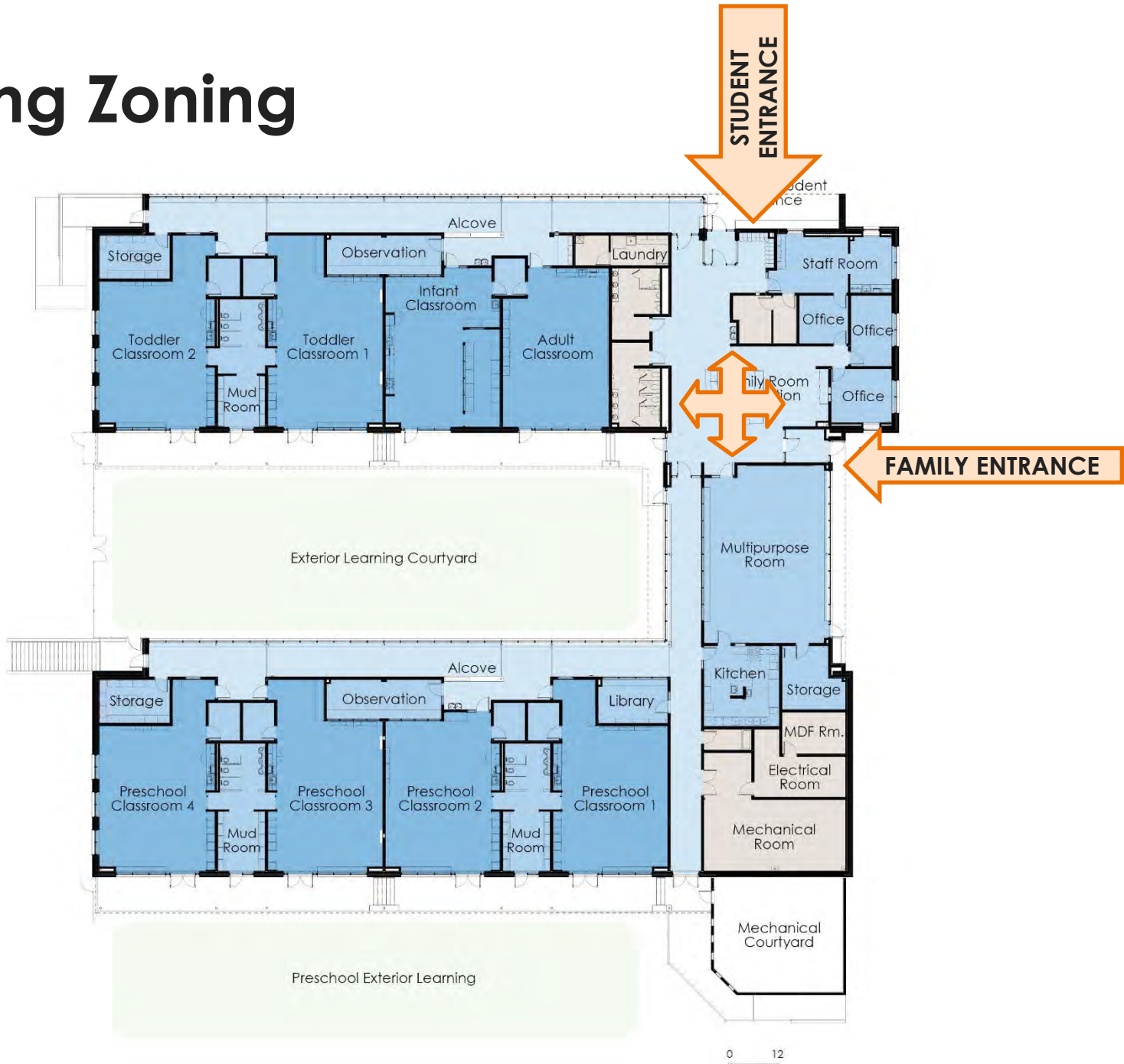
SITE
BUILDING

Building Zoning

SITE
BUILDING

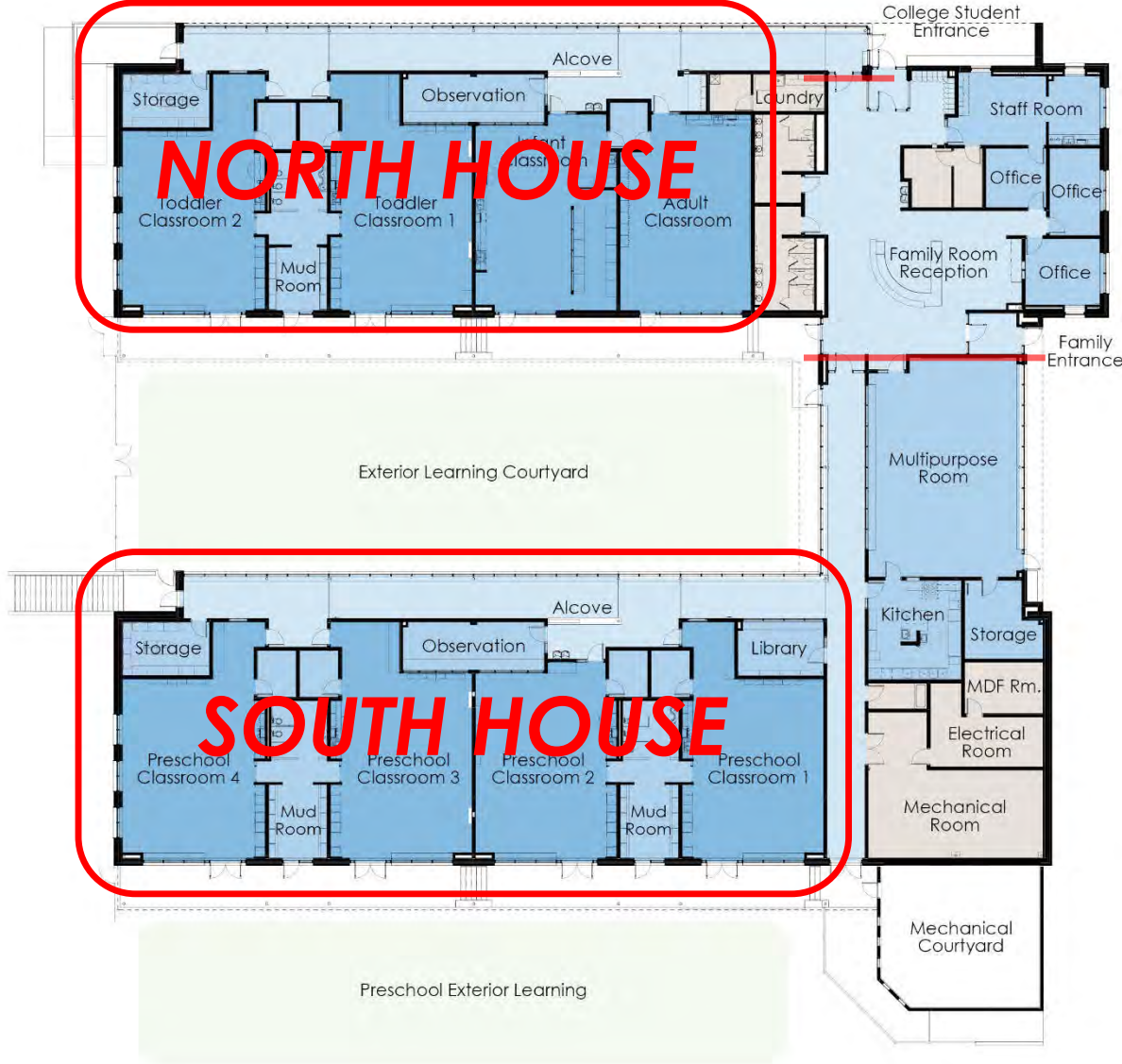


Building Zoning



SITE
BUILDING
BUILDING ENTRY

Building Zoning



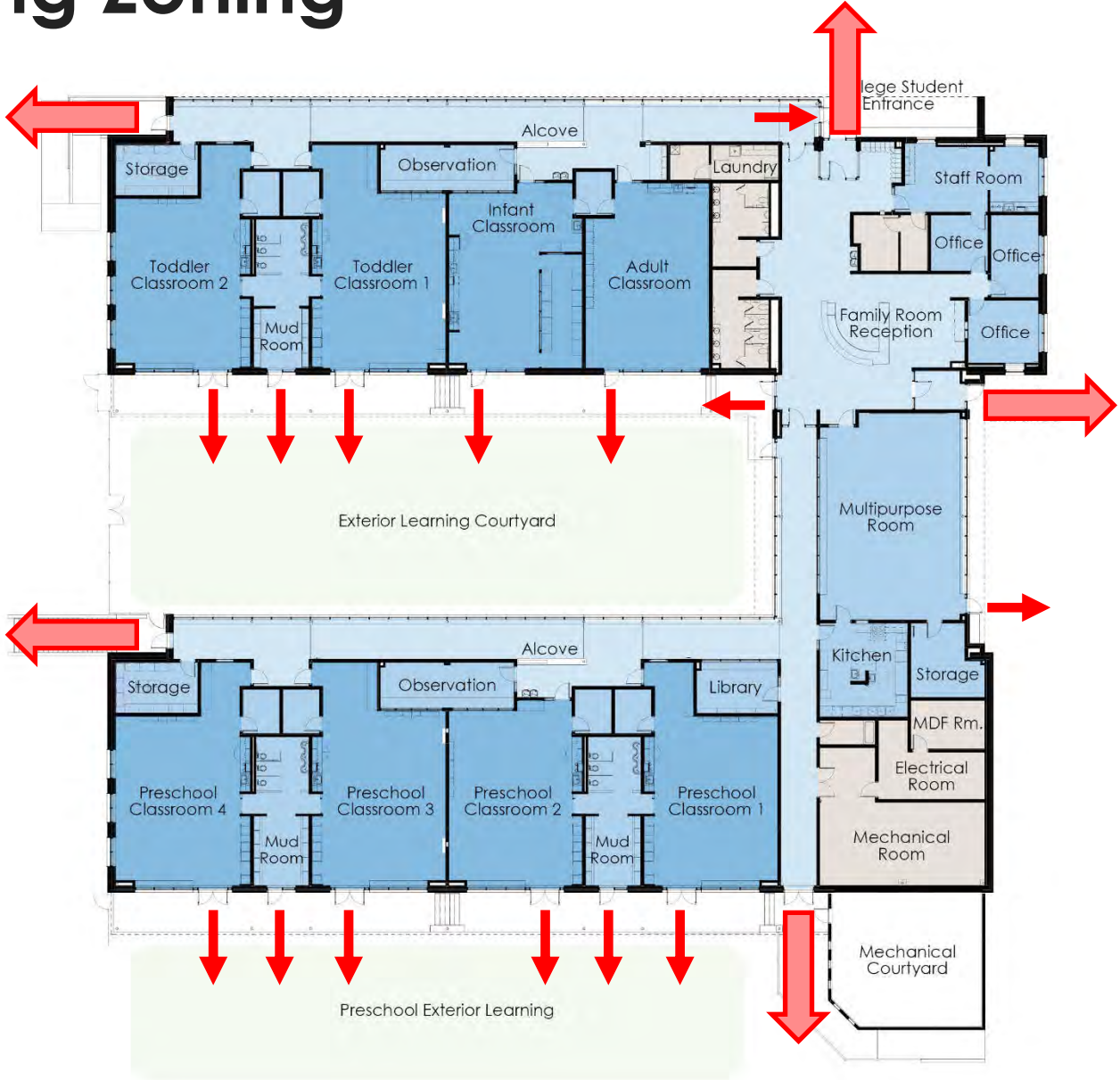
- SITE
- BUILDING
- BUILDING ENTRY
- LOCK-DOWN ZONES

Building Zoning



- SITE
- BUILDING
- BUILDING ENTRY
- LOCK-DOWN ZONES
- STORM PROTECTION**

Building Zoning



- SITE
- BUILDING
- BUILDING ENTRY
- LOCK-DOWN ZONES
- STORM PROTECTION
- DUAL EGRESS



MICHIGAN STATE UNIVERSITY

BAILEY HALL

East Lansing, Michigan



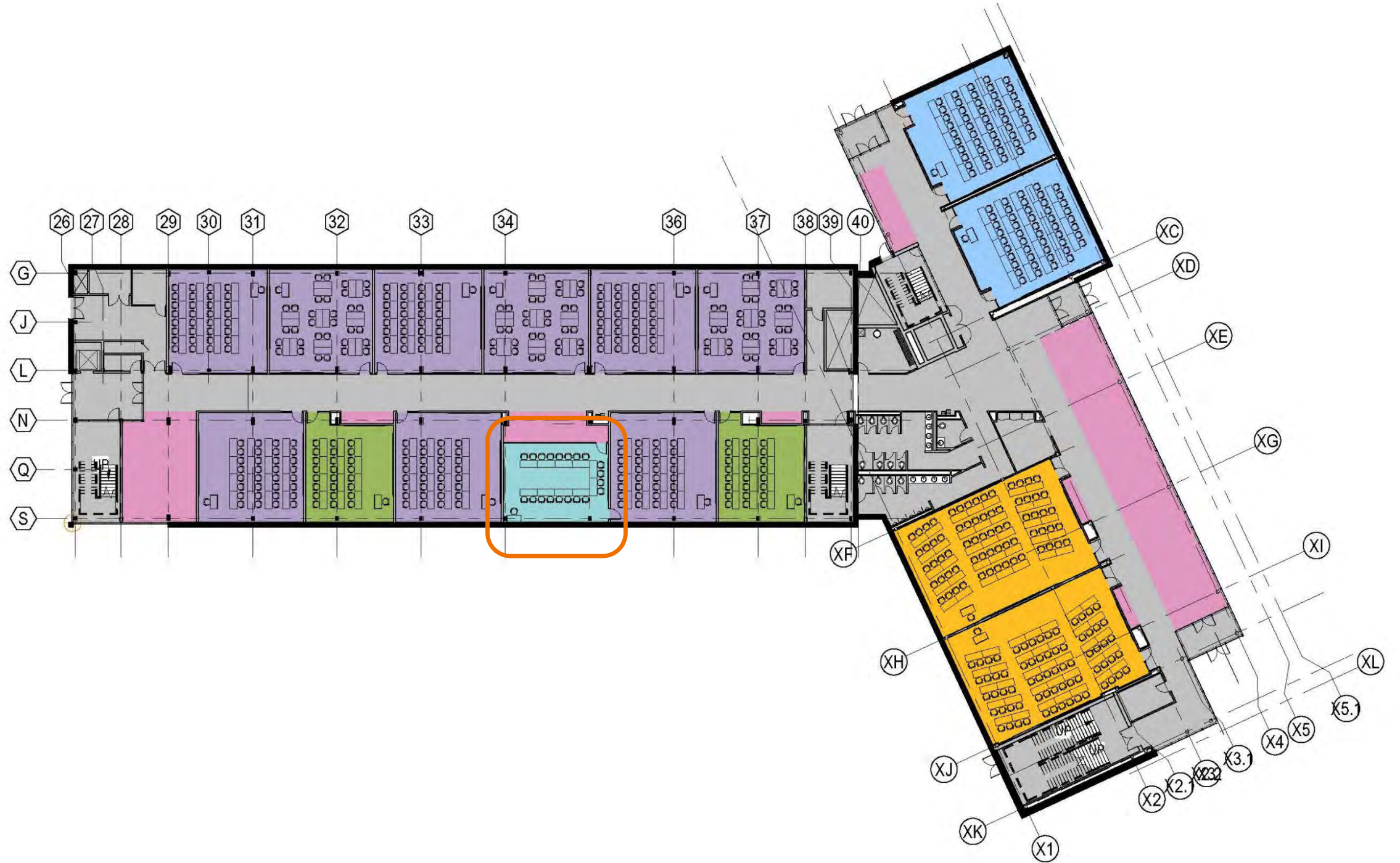




OAKLAND UNIVERSITY
SOUTH FOUNDATION HALL
Rochester Hills, Michigan

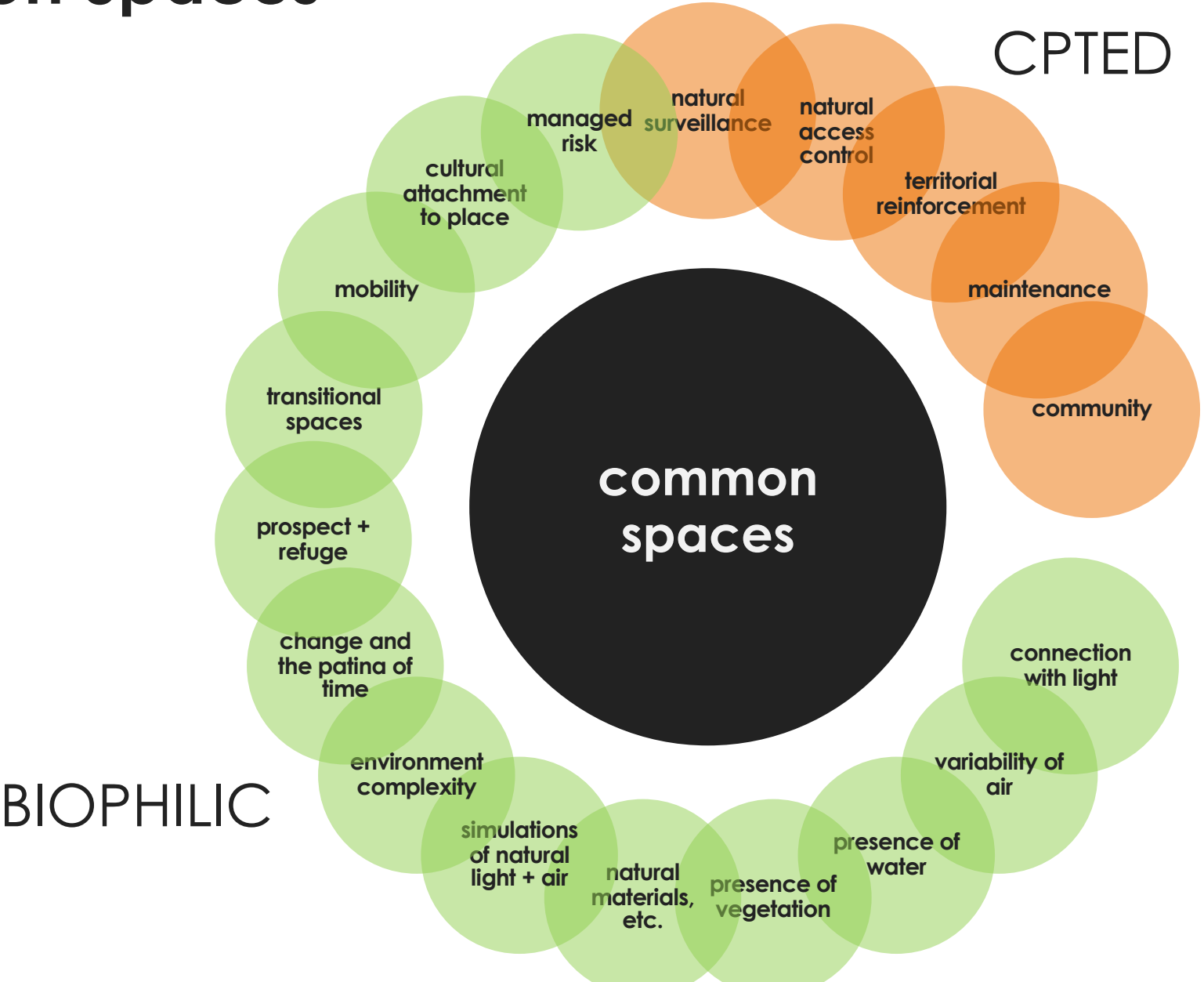








Common Spaces




Common Spaces





Common Spaces





ARTS & SCIENCES

LANSING COMMUNITY COLLEGE

ARTS + SCIENCES

BUILDING RENOVATION

Lansing, Michigan









301
Office and Conference

Room 301 is available for use by all employees of the University of North Carolina at Chapel Hill.

Room 301 is located on the 3rd floor of the building.



understanding the connection

SITE + CAMPUS



perimeter



access control



pedestrian routes



vehicular routes



open space



landscape



lighting



support/service



surveillance

BUILDING



perimeter



entry



building zoning



corridors



common spaces



small group spaces



learning environments



office environments



views/connection - interior



views/connection - exterior



building materials



lighting



daylighting



surveillance







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THANK YOU

REFERENCES

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- FEMA. *FEMA 430: Site and Urban Design for Security*. 2007. www.fema.org
- Browning, W., Ryan, C., Clancy, J. *14 Patterns of Biophilic Design*. 2014. Terrapin Bright Green LLC.
- International CPTED Association. www.cpted.net
- National Crime Prevention Council. www.ncpc.org
- International Well Building Institute. www.wellcertified.com